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Date: 26-OCT-2006 9:12AM  
Fee: \$1,255.00 Check Filed By: MWC  
ELIZABETH PALMIER, Recorder  
WASATCH COUNTY CORPORATION  
For: RSPA

**DEVELOPMENT AGREEMENT FOR  
THE DEER VALLEY LAKESIDE RESORT SPECIALLY PLANNED AREA  
JORDANELLE BASIN, WASATCH COUNTY, UTAH**

This Development Agreement (this "Agreement") is made and entered into as of the 24<sup>th</sup> day of January, 2006, by and between HAMC WASATCH, LLC, a Delaware limited liability company ("HAMC"), WESTSIDE RESORT, LLC, a Utah limited liability company ("Westside"), JORDANELLE VIEW L.C., a Utah limited liability company ("View"), JAS REALTY ("JAS"), JORDANELLE SPECIAL SERVICE DISTRICT ("JSSD"), and WASATCH COUNTY, a political subdivision of the State of Utah ("County"). HAMC, Westside, View and JAS shall sometimes be referred to herein as "Owners" or, individually, as an "Owner".

**RECITALS**

A. The Owners are the owners of record of approximately 319 acres of real property situated in the Jordanelle Basin of the County (the "Properties" or, separately, each "Property"), and shown on Exhibits A and A-1 to the Book of Exhibits for this Agreement ("Development Agreement Book of Exhibits"). A legal description of each of the Properties, sufficient for recordation and identification, is attached as part of Exhibit A.

B. Certain of the Owners submitted a proposal to the County for the development of a master planned resort community within the Jordanelle Basin Overlay Zone commonly referred to as Deer Valley Lakeside (the "Project"). In order to provide for the necessary entitlements and to impose certain restrictions on the scope and manner of development of the Properties, such Owners proposed the establishment of the Deer Valley Lakeside Resort Specially Planned Area ("RSPA") for the Properties and certain other property owned by third parties.

C. Following the positive recommendation of the Wasatch County Planning Commission, approved at a lawfully advertised public meeting and hearing on August 15, 2002, the Wasatch County Board of County Commissioners (the "Board") held a lawfully advertised public hearing on September 23, 2002 to discuss and receive public comment regarding the Project. At a lawfully advertised public meeting on October 28, 2002 the Board, pursuant to Ordinance Number 02-15, amended the Wasatch County Planning, Zoning and Development Code (as amended, the "Code") to adopt the provisions necessary for the creation and implementation of the RSPA. The County then added the "Implementation Guidelines & Standards for the Deer Valley Lakeside Resort Specially Planned Area" ("Implementation Guidelines") to the Code as Appendix 6 thereto.

D. The Implementation Guidelines, among other things: (i) authorize the creation of Resort Specially Planned Areas within the Jordanelle Basin Overlay Zone; (ii) establish the RSPA, which includes within its boundaries all of the Properties; (iii) adopt certain clarifications and modifications to density determinations and other entitlements for the Properties, all in accordance with the authority granted by Utah Code Annotated Sections 17-27-101, *et seq.*, the Wasatch County General Plan ("General Plan") and the provisions of the Code; and (iv) set forth guidelines and standards for development within the RSPA. Prior to approving and codifying the Implementation Guidelines, the Board made such findings of fact and conclusions of law as are required as a condition to such approvals, as reflected in the staff recommendations, the minutes and transcripts of the above-referenced public meetings, and as otherwise set forth herein.

E. The Wasatch County Council ("County Council"), as successor to the Board, JSSD, and the Owners desire to enter into this Agreement, pursuant to the provisions of Utah Code Sections 17-27a-101 *et seq.*, to satisfy certain requirements in the Implementation Guidelines and to memorialize certain agreements reached by the parties subsequent to the adoption of the Implementation Guidelines.

### AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants made herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Submission to RSPA Implementation Guidelines and Standards. In accordance with the Code and other appropriate County procedures, the RSPA has been established for the Properties, and other property within the boundaries of the RSPA as shown on Exhibit A in the Development Agreement Book of Exhibits. The Implementation Guidelines, including the related exhibits and book of plans, have been formally adopted and approved by the County on October 28, 2002, and are currently included as Appendix 6 of the Code. Copies of the Implementation Guidelines, the Exhibits to the Implementation Guidelines and the RSPA Plan Book are attached hereto as Exhibits B, C and D, respectively, and incorporated herein by this reference (collectively, the "RSPA Documents"). The Owners hereby submit each of their properties to the terms and provisions of the RSPA Documents and all of the parties hereto agree to comply with the provisions set forth in the RSPA Documents. Additional properties within the boundaries of the RSPA may be added to the RSPA as set forth in Section 1.6 of the Implementation Guidelines.

2. Development Density. The development density for each Property, measured in Equivalent Residential Units as defined by the Code as currently in effect ("ERUs"), approved by the County is shown on Exhibit E of the Development Agreement Book of Exhibits. The Implementation Guidelines address the use and development of density within the RSPA including, without limitation, density transfers (see Sections 2.3.3 and 2.3.4 of the Implementation Guidelines) and bonus density for public amenities and benefits (see Section 2.3.7 of the Implementation Guidelines). The Implementation Guidelines also incorporate by reference the County's adoption of certain modifications and clarifications to the Density Determination Agreements previously approved for certain of the Properties. The Amended Density Determination for Deer Crest Village (formerly Deer Cove) is included as Exhibit F of

the Development Agreement Book of Exhibits (the "Amended Density Determination"). The Deer Crest Clarifications are included as Exhibit G of the Development Agreement Book of Exhibits, and the Mayflower South Clarifications are attached as Exhibit H of the Development Agreement Book of Exhibits, but shall not be considered part of this Agreement unless and until Deer Crest Associates I joins in the execution hereof (with respect to the Deer Crest Clarifications) and/or Stichting Mayflower Recreational Fonds and Stichting Mayflower Mountain Fonds (collectively, "Mayflower") joins in the execution hereof (with respect to the Mayflower South Clarifications). In the event that either or all of such entities join in this Agreement, as provided in Sections 3.8(c) or (d), then the Deer Crest Clarification and/or the Mayflower South Clarification, as applicable, shall be deemed incorporated herein, and such Density Determination(s) shall, together with the Amended Density Determination for Deer Crest Village, be referred to herein as the "Amended Density Determinations". The parties acknowledge that Westside has expressed its intention to submit an application to the County to increase the allowed development density on its Property. Any request for additional density shall be reviewed and processed by the County in accordance with applicable County ordinances and procedures then in effect.

3. Jordanelle Parkway and Portal. A crucial part of the "Closing the Loop" process described in the Implementation Guidelines was to reach agreement regarding the routing, timing and financing of the road commonly known as the "Jordanelle Parkway" which provides access to and through the Properties from U.S. Highway 40 (the "Parkway"), as well as a portal connecting the RSPA property east of U.S. Highway 40 to the properties, ski amenities and other developments on the west side of U.S. Highway 40 (the "Portal").

3.1 Routing of Parkway. Exhibit I of the Development Agreement Book of Exhibits is a drawing showing the agreed upon location and routing of Phase I of the Parkway. The Routing of the other Phases of the Parkway shall be determined by the County after receiving suggestions, recommendations and advice from the Road Committee established pursuant to Section 3.3 below. The parties acknowledge that it may be necessary for the County or JSSD to condemn certain portions of the property to be included in the Parkway, including, without limitation, certain lands owned by Stichting Mayflower Recreational Fonds, an association formed under the laws of the Netherlands, and Stichting Mayflower Mountain Fonds, an association formed under the laws of the Netherlands (individually or collectively, as appropriate, "Mayflower") and certain lands owned by Deer Crest Associates, or an affiliate.

3.2 Phasing. The Parkway and Portal shall be constructed in five (5) separate phases or categories of work ("Phases"). Exhibit I of the Development Agreement Book of Exhibits indicates the approximate boundaries of each Phase of construction. The numbering of the Phases is for convenience only, in order to divide the work into distinct construction components, but shall not control the timing or sequence of construction. Except as otherwise provided herein, the timing for the construction of each Phase shall be determined by the County after receiving suggestions, recommendations and advice from the Road Committee established pursuant to Section 3.3 below.

(a) Phase 1 shall be the design and construction of the Parkway from the Fire Station on the frontage road, north to the rail grade.

(b) Phase 2 shall be the design and construction of the Parkway from the rail grade (northern boundary of Phase 1) to the northern boundary of the property commonly referred to as the "Austin Property", where it will connect to that portion of the Parkway running from the northern boundary of the Austin Property to Highway 248. The parties recognize that the owner of the Austin Property is not a party to this Agreement, and the acquisition of the land needed for Phase 2 will be left to the judgment of the County and/or the JSSD.

(c) Phase 3 shall be the design and construction of the Portal.

(d) Phase 4 shall be the design and construction of the proposed roundabout and/or other improvements to the existing road that runs from the Mayflower Exit of U.S. Highway 40 to the fire station. The scope and timing of the Phase 4 improvements shall be determined by the County after receiving suggestions, recommendations and advice from the Road Committee established pursuant to Section 3.3 below.

(e) Phase 5 shall be the design and construction of the revised alignment of the Parkway, from the Fire Station on the frontage road to the general area of the Portal.

**3.3 Rights of the Road Committee.** A committee ("Road Committee") shall be organized for the purposes of (i) providing a working forum for the Owners to address issues regarding the construction, financing and ongoing operations of the Parkway and related improvements, and (ii) serving as an advisory committee to the County and the JSSD with respect to the Parkway. Although it is anticipated that Road Committee will work closely with the County and JSSD and have significant input into many aspects of the road, none of the suggestions, recommendation or advice given by the Road Committee shall be binding on the County or JSSD. The Road Committee is not intended to, and shall not, reduce or supplant the legislative authority of the Wasatch County Council or any of the duties, responsibilities or authority of the County or the JSSD.

The Road Committee shall include: (i) one representative from each of the Owners, (ii) the Chairman of the Wasatch County Council or his designee, (iii) the Managing Director of the JSSD, (iv) the County Engineer and (v) a member of the RSPA Design Review Committee ("DRC").

**3.4 Construction of Phase 1.** In the case of Phase 1 only, Wolper Construction, Inc., a Utah corporation, or its assignee so long as such assignee has similar experience and financial strength ("Wolper Construction") shall construct Phase 1 under a cost plus construction contract between Wolper Construction and the JSSD (the "Phase 1 Construction Contract"). The price to be paid for construction of Phase 1 shall be the total of all on-site overhead costs incurred by Wolper Construction, plus all direct costs

incurred by Wolper Construction, plus 15% of such total. The date of commencement of construction of Phase 1 shall be determined by Westside upon approval by the County. The County shall be entitled to approve the amount of unit costs charged under the Phase 1 Construction Contract ("P-1 Unit Costs") and any changes in the P-1 Unit Costs. The County shall only be entitled to disapprove any P-1 Unit Cost if the County Engineer is able, at the same time, to inform Wolper Construction of an alternative source of materials or services that results in a less expensive P-1 Unit Cost than proposed by Wolper Construction. Failure by the County Engineer to disapprove any proposed P-I Unit Cost as provided in this Section within five days after submission of the P-1 Unit Costs to the County Engineer for approval shall be deemed to be approval of the P-1 Unit Costs by the County.

The Phase 1 Construction Contract shall provide that Wolper Construction will not unnecessarily or improperly damage any Owner's land that is adjacent to the right of way for the Parkway.

3.5 Construction of Phases 3 and 5. The County and JSSD will determine the construction and timing details of Phase 3. However, because the success of the development of HAMC's Property is directly dependant upon the construction of the Portal, in the event HAMC provides for financing of Phase 3, HAMC shall have the right to significant input regarding the timing of the construction of the Portal. Further, if HAMC provides the financing for the construction of Phase 3, HAMC shall have the right to apply for necessary permits to construct Phase 3 at such time as HAMC determines, and such permits shall be promptly processed by the County in accordance with County ordinances and procedures then in effect. In the event HAMC arranges for the financing of Phase 3, Phase 3 shall be constructed under a construction contract between JSSD and a construction company selected by HAMC and approved by the County. Otherwise, the County or the JSSD shall select the contractor and enter into a construction contract on such terms as the County or JSSD, as appropriate determine to be reasonable under the circumstances, taking into account the comments and recommendations of the Road Committee. It is anticipated, but not required, that Phase 5 will be constructed in conjunction with the construction of Phase 3. Due to the significant impact of the Phase 5 improvements on HAMC's Property, the timing, financing and construction of Phase 5 shall be subject to the same rights and limitations as Phase 3, as set forth in this Section.

3.6 Construction of Phases 2 and 4. The County or the JSSD will determine the Construction timing and details of Phases 2 and 4 according to the County's and JSSD's policies, procedures, standards and ordinances. Unless the County determines otherwise, construction of Phase 2 shall not begin until the traffic study, prepared by an independent traffic consultant, determines that commencement of construction of Phase 2 is necessary and appropriate to further the development plans and timing of the Owners. Such traffic study shall take into account the Owners' plans and timing of anticipated development of the Properties, as well as the interests of the County. If either of these Phases are privately financed by one or more owners, the County will give due consideration to the input of such financing owners.

3.7 Construction. Construction of all Phases of the Parkway, including design, financing, construction, etc., will be in accordance to the County's and JSSD's policies, procedures, standards and ordinances. Nothing in this Agreement shall be deemed a waiver of any ordinance, regulation, policy or procedure the County or the JSSD.

3.8 Financing. Each of the Phases will have a separate financing plan as follows:

(a) Phase 1. Westside shall pay all of the costs to design and construct the Phase 1 improvements. Each Owner shall reimburse Westside for its proportionate share of such costs attributable to such Owner's Property ("Reimbursement Obligation") in accordance with a written agreement ("Reimbursement Agreement") to be entered into by such Owner as a condition to the County approving each plat for the development of such Property. A copy of the form of Reimbursement Agreement to be entered into by each of the Owners is attached hereto as Exhibit J of the Development Agreement Book of Exhibits. A schedule showing the allocation of the Reimbursement Obligations among the Owners, based on an assumed cost of construction for each Phase, is set forth on Exhibit K of the Development Agreement Book of Exhibits, and each Owner hereby agrees to pay its Reimbursement Obligation pursuant to the allocation set forth in Exhibit K. The Reimbursement Agreement provides that each Owner shall satisfy its Reimbursement Obligation based on a "per ERU" formula, as set forth in Exhibit K (with each ERU being allocated an equal share of the Reimbursement Obligation for each Phase), paid in the manner provided in the Reimbursement Agreement, as a condition to the County issuing a building permit with respect to the vertical construction of each unit to be constructed on such Owner's Property. All parties hereto agree that the County shall not issue a building permit to any Owner for vertical construction on a lot without proof of payment of the appropriate portion of the Reimbursement Obligation in accordance with the Reimbursement Agreement. In addition, in the event that some of the land for Phase 1 is acquired through condemnation, the cost of such land may be recovered from the Owners by adding such cost to the amounts to be paid pursuant to the Reimbursement Agreement or by adopting an impact fee applicable to all property owners benefited from the Parkway, in accordance with the procedures and requirements of the Utah Impact Fees Act (Utah Code § § 11-36-101, *et seq.*). In such event the cost to acquire land through condemnation shall be allocated in accordance with the same allocation formula used in the allocations set forth in Exhibit K.

(b) Phases 2-5. Phases 2-5 may, with the consent of the County, be financed by one or more of the Owners, if an Owner or Owners volunteer to arrange for such financing in a manner acceptable to the County. The costs of Phases 2-5 are intended to be allocated to the properties benefited, whether through lawful assessment by the County, the JSSD or other public entity, or, if constructed with private financing, with reimbursement agreements similar to the manner of financing the Phase 1 improvements. The Owners agree that regardless of whether Phases 2-5 are publicly or privately financed, the Owners

shall pay their allocation of the costs for such Phases pursuant to the allocation method set forth in Exhibit K. Furthermore, subject to the requirements of applicable laws, the County and JSSD agree that any assessments or impact fees assessed against the Owners and Non-Participants to finance the construction of Phases 2-5, shall, to the extent lawful, be done in accordance with the allocations set forth in Exhibit K.

(c) Non-Participants. Exhibit K allocates a portion of the costs of certain of the Phases to property owners who, notwithstanding the diligent efforts of the County and various Owners, have not executed this Agreement (“Non-Participants”). Although the County would prefer that all property owners listed on Exhibit K be parties to this Agreement, the County has determined that it is necessary, and in the best interests of the County, that the development of the Parkway and the Portal, together with the balance of the Project, be allowed to proceed, as set forth herein. The Non-Participants shall have the right until the date which is thirty (30) days following the date on which this Agreement is ratified by the County Council (the “Joinder Deadline”) to enter into this Agreement, by signing a Statement of Joinder, in the form attached as Exhibit L hereto, and a Reimbursement Agreement, in the form attached hereto as Exhibit J, and causing both such instruments to be recorded in the Office of the Wasatch County Recorder. Any Non-Participant (including, without limitation, Mayflower) desiring to enter into this Agreement following the Joinder Deadline may only do so with the prior consent and approval of the Wasatch County Council in accordance with the requirements of the Wasatch County Code. The County and/or the JSSD shall use only lawful means as may be necessary or appropriate, including without limitation the implementation of impact fees against the Non-Participants and the land owned by them, to help assure that the Non-Participants pay their equitable share of the costs (“Non-Participants’ Share”) to construct the Parkway, the Portal, the roundabout and the other improvements contemplated in the various Phases; however, the County and JSSD do not guaranty the collection of the entire Non-Participants’ Share. In adopting any impact fees for the recovery of costs from Non-Participants, the County and the JSSD shall, subject to the provisions of the Utah Impact Fees Act and other applicable laws, exercise reasonable efforts to establish any such impact fees consistent with the allocation of projected costs as set forth on Exhibit K. The density and other benefits set forth in the Implementation Guidelines shall not be vest or otherwise be applicable to Non-Participants.

(d) Participation by Mayflower. As of the date of this Agreement, Mayflower is a Non-Participant. The RSPA Implementation Guidelines provide that Mayflower is not to have a Reimbursement Obligation for any Phase of the Parkway or Portal improvements. However, such provision was conditioned upon Mayflower participating in the “Closing the Loop” process, as implemented, in part, by the execution of this Agreement. Such process also contemplated that Mayflower would sell for a nominal price portions of its land for development as a golf course, in consideration of the other property owners paying what would otherwise be Mayflower’s share of the Parkway costs. If, on or before the Joinder

Deadline, Mayflower becomes a party to this Agreement, by executing a Statement of Joinder in the form attached as Exhibit L, executes a Reimbursement Agreement in the form attached as Exhibit J, and enters into an agreement with an affiliate of HAMC to sell its golf course property, and such other related agreements as determined necessary and appropriate by HAMC and Mayflower for the construction, management and operation of such golf course, as set forth in Section 8.1, below, then (i) the Reimbursement Obligations shall be modified as set forth in Exhibit K-1 to eliminate Mayflower's obligation to share in the costs of the Parkway, and Mayflower shall be entitled to the other rights and benefits provided by the Implementation Guidelines, and (ii) Mayflower's development density and other rights granted pursuant to the Implementation Guidelines and the Mayflower South Clarifications shall vest, in accordance with Section 11 hereof. Notwithstanding the allocation of costs set forth in Exhibit K-1, in the event that an upgrade to the specifications of the Parkway or related improvements is required as the result of Mayflower obtaining approval for the development of ERUs in excess of what was approved for the Mayflower North property in the RSPA approvals (including any bonus density authorized by the Implementation Guidelines) Mayflower shall pay for the cost of such upgrades.

(e) Administering Reimbursement Agreement. JSSD shall be responsible for administering the Reimbursement Agreement or similar repayment methods contemplated by this section.

3.9 Modification of Phase 1 Plat. Prior to the execution of this Agreement, Mayflower, Westside, HAMC and JAS Realty, as the owners of all property included in the Phase 1 rights-of-way (the "Phase 1 Owners"), executed a plat ("Phase 1 Plat"), dedicating the land comprising Phase 1 of the Parkway to the County for the use and benefit of the public. If the County and all of the Phase 1 Owners execute this Agreement by the Joinder Deadline, the Phase 1 Plat may then be released from escrow and recorded in the Office of the Wasatch County Recorder. If Mayflower or any other Phase 1 Owner does not join in the execution of this Agreement, then the Phase 1 Plat shall not be recorded until it has been modified to eliminate the non-participating Phase 1 Owner(s) and to reflect any condemnation of property included in the Phase 1 Plat, as provided in Section 3.10, below. If, in connection with the further engineering and design of Phase 1, it becomes necessary to modify the Phase 1 Plat, the County and the Owners shall cooperate in effectuating such modifications through an appropriate amendment to the Phase 1 Plat. Concurrent with the execution hereof, the Owners signing this Agreement shall deliver to the JSSD executed Easement Agreements, in a form acceptable to the Owners and the JSSD, granting to the JSSD an easement for roads and utilities over that portion of the Phase 1 land owned by such Owners, to assure the JSSD that it has the necessary easements in the event there is any problem in finalizing the Phase 1 Plat, or in the event the County elects to waive the requirement for the Phase 1 Plat.

3.10 Condemnation. County and JSSD acknowledge that construction of the Parkway, the Portal and other roads necessary for the development of the RSPA are vital to development within the RSPA and provide significant public benefits.



Consistent with such acknowledgement, on November 16, 2005 the County adopted Resolution No. 05-19, authorizing the JSSD to initiate condemnation proceedings to the extent necessary to acquire the land necessary for the construction of road and utility improvements serving the RSPA and other property.

3.11 Financial Assurances. To assure Westside's performance of its financing and construction obligations with respect to Phase 1 and any other Phases of the Parkway that are constructed and financed by Westside or other Owners, Westside, or such other Owner(s) shall, prior to the commencement of construction of any improvements, provide the County with sufficient security to ensure completion of the required improvements, the payment of all contractors, subcontractor and material suppliers, and the satisfaction of all warranty obligations with respect to such improvements. The amount and form of such security shall comply with all County requirements and be consistent, in amount and form, as security required for other projects of similar size and scope within the County.

3.12 Additional Access to Highway 40. The Owners acknowledge that, as a result of the development of the property within the RSPA, it may become necessary at some point in the future to construct an additional offramp/onramp to U.S. Highway 40 at some location within the RSPA. In such event, the Owners agree to work in good faith and in a commercially reasonable manner to examine alternative locations and designs that will provide the optimum benefit to the Project.

3.13 Jordanelle Ridge Road and East Park Linkage. Pursuant to Wasatch County Resolution 05-19 adopted by the Wasatch County Council on November 16, 2005, the County has authorized the condemnation of land for roads and utilities throughout the RSPA, which would include the road commonly referred to as the Jordanelle Ridge Road, running from the Parkway to the southern boundary of the Jordanelle View subdivision, and the road connecting the large lots in East Park owned by Westside to the Gardner Addition to East Park. In connection with such condemnation, View, Westside and the County may enter into a reimbursement agreement, or the County or JSSD may adopt an impact fee or other method of financing the costs of land acquisition and the improvement of such roads, which shall be paid solely by Westside, View, Mayflower and owners of property in the East Park subdivision, based on an equitable allocation of costs among them. Westside and View shall advance the initial costs of acquiring the necessary land and constructing such roads, and the County or JSSD shall provide the enforcement mechanism for the payment or reimbursement by the other benefited landowners specified in this Section, similar to the methods provided herein for the Parkway. The County and/or JSSD agree to commence and diligently pursue any condemnation action necessary to acquire the land for such roads, regardless of whether other condemnation proceedings for roads within the RSPA are brought, completed or settled, unless easements have been voluntarily granted among the affected property owners to provide for the construction and dedication of such roads without the necessity of condemnation. Unless otherwise agreed by the parties thereto, any such agreement for the granting of private easements between property owners with respect to the roads described in this Section 3.13 shall include the provisions set forth in Exhibit O hereto.

4. Connecting to JSSD Systems. JSSD was organized for the express purpose of providing water (culinary and irrigation), sewer and other municipal services to the properties within its District boundaries. The RSPA properties are within the boundaries of JSSD. RSPA properties shall be required to connect to the JSSD water and sewer system according to the policies and procedures of JSSD. Private water companies for either culinary or irrigation water are not allowed in the District.

5. Water. Subject to the policies, procedures and standards of the JSSD, JSSD shall provide water to those properties that have reserved water rights through the JSSD. For those properties that have not reserved water, JSSD shall use its best efforts to acquire water rights and make them available to those properties at the time that a request for water service and appropriate financial arrangements have been made in accordance with state law and JSSD policy consistently applied. No development within the District (which has not reserved water rights through JSSD) shall be approved unless and until JSSD has sufficient water rights to service the property proposed to be developed. In the event a property owner has private water rights that might benefit the property and allow for development, those rights may be transferred to JSSD pursuant to the policies and procedures of JSSD.

6. Storm Water. The Parties shall work together, in good faith, to design and construct an effective and efficient comprehensive storm water system for the RSPA.

7. Sewer. Wastewater collection and treatment services will be provided by JSSD for all properties within the District boundaries, according to the policies, procedures and standards of the District.

8. Golf.

8.1 Purchase of Property for Golf Course. As set forth in Section 3.8(d), above, Mayflower has the right, on or before the Joinder Deadline to join in this Agreement, so long as it also enters into a Purchase and Sale Agreement (Mayflower Purchase Agreement) with DDRM Golf, LLC, a Utah limited liability company ("DDRM Golf"), which shall be subject to the review and approval of HAMC, whereby Mayflower, for a nominal sum, shall agree to sell a portion of its Mayflower North property to DDRM Golf for the development of a golf course ("Golf Course A"). DDRM Golf may also exercise reasonable efforts to enter into purchase agreements with Westside and View, on such terms as the parties shall agree, to acquire additional property that might be beneficial to the construction of Golf Course A. Any such agreements, together with the Mayflower Purchase Agreement, shall be referred to herein as the "Golf Purchase Agreements".

8.2 Development and Operation of Golf Course. If the Mayflower Purchase Agreement is entered into, DDRM Golf and Mayflower shall enter into such other agreements as they deem appropriate in order to establish the plan for development and operation of Golf Course A and, at their option, any other golf courses built in the future (together with the Golf Purchase Agreements, the "Golf Agreements").

8.3 Rights of Third Parties. Any Golf Agreements shall be made and entered into for the sole benefit of the parties thereto, and their respective successors and assigns. The Golf Agreements are not intended to, and shall not, create any rights or interests on behalf of any other party to this Agreement, any other property owners within the RSPA or other third parties, whether as third party beneficiaries or otherwise. Without limiting the generality of the foregoing, the Golf Agreements may be modified by the parties thereto without the consent, approval or joinder of any other party to this Agreement, or any other third parties.

9. Satisfaction of "Closing the Loop" Requirements. The parties agree that this Agreement shall constitute the initial "Amenities and Infrastructure Development Agreement" referred to in the Implementation Guidelines and shall satisfy the requirements in Section 4.2.1.5 of the Implementation Guidelines for those property owners that are parties to this Agreement. If Mayflower elects to join this Agreement, as set forth above, then the Golf Course Agreements shall also be considered to be part of the initial "Amenities and Infrastructure Development Agreement". No further action is required by Owners in order to preserve the ongoing existence of the RSPA and the continuing enforceability of the Implementation Guidelines. It is anticipated that other Development Agreements may be executed between the parties as the development of the RSPA proceeds.

10. Clarification to Sections 7 and 8 of Implementation Guidelines. Notwithstanding the fact that the captions to Sections 7 ("Other Guidelines and Regulations") and 8 ("Design Approval Process") of the Implementation Guidelines state that they are "Draft for Review" and that the caption to Section 9 ("Governance") of the Implementation Guidelines states that it is "To be completed pursuant to Section 4.9", the parties hereby acknowledge and reaffirm that Sections 7-9 of the Implementation Guidelines were adopted and are in full force and effect as adopted.

11. Vested Rights.

11.1 Vesting. This Agreement shall vest with respect to the Properties, all of the uses, densities, maximum building heights, the ability to transfer density and earn bonus density, design guidelines and design review procedures, as set forth in the Implementation Guidelines (Appendix 6 of Title 16 of the Wasatch County Code). Following the execution hereof, this Agreement shall be submitted to the Wasatch County Council for ratification.

11.2 Project Design Approvals. Vesting for all other matters including but not limited to configurations, massing, building codes, development standards not set forth in Section 11.1, approval processes, lot locations, size and configurations, road placements and designs, road grades, connections and other improvements, plans and procedures as reflected in the RSPA Documents will occur pursuant to Utah statutes and case law.

11.3 State and Federal Law. Notwithstanding any other provision of this Agreement, this Agreement shall not preclude the application of changes in laws, regulations, plans or policies, to the extent that such changes are specifically mandated

and required by changes in state or federal laws or regulations ("Changes in the Law") applicable to the Property. In the event the Changes in the Law prevent or preclude compliance with one or more provisions of this Agreement, such provisions of the Agreement shall be modified or suspended, or performance thereof delayed, as may be necessary, to comply with the Changes in the Law

12. Reserved Legislative Powers: Compelling Countervailing Public Interest. Nothing in this Agreement shall limit the future exercise of the police power of the County in enacting zoning, subdivision, development, growth management, platting, environmental, open space, transportation and other land use plans, policies, ordinances and regulations after the date of this Agreement. Notwithstanding the retained power of the County to enact such legislation under its police power, such legislation shall only be applied to modify the vested rights described in Section 11 and the other provisions of this Agreement, based upon policies, facts and circumstances meeting the compelling, countervailing public interest exception to the vested rights doctrine in the State of Utah, as set forth in *Western Land Equities, Inc., v. City of Logan*, 617 P.2d 388 (Utah 1980) or successor case and statutory law. Any such proposed change affecting the vested rights of the Owners and their Properties, or other provisions of this Agreement, shall be of general application to all development activity in the area included within the RSPA, unless the County declares an emergency. The Owners shall be entitled to prior written notice and an opportunity to be heard with respect to any proposed changes and its applicability to the Properties under the compelling, countervailing public policy exception to the vested rights doctrine. In the event that the County does not give prior written notice, the Owners shall retain the right to be heard before an open meeting of the County Council in the event any of the Owners alleges that its rights under this Agreement have been adversely affected.

13. Construction of Agreement. This Agreement and any future amendments thereto, shall be construed so as to effectuate the public purpose of resolving disputes, implementing long-range planning objectives, obtaining public benefits, and protecting any compelling, countervailing public interest; while providing reasonable assurances of continued vested development rights under this Agreement.

14. Binding Effect. This Agreement shall be binding on the successors and assigns of the Owners in the ownership or development of any portion of the Properties. Notwithstanding the foregoing, a purchaser of any portion of the Properties shall be responsible for performance of Owner's obligations hereunder as to the portion of the Properties so transferred. In the event of any such transfer of an Owner's interest in any portion of the Properties, the parties shall execute a written transfer agreement approved by the County. Once such an agreement is executed, the transferee shall be deemed to be the Owner for all purposes under this Agreement with respect to that portion of the Properties transferred, and the transferring Owner shall be released from any further obligations with respect to this Agreement as to the parcel so transferred.

15. Agreements to Run with the Land. This Agreement shall be recorded against the Properties. The agreements contained herein, including the Exhibits hereto, shall be deemed to run with the land constituting the Properties, and shall be binding on and shall inure to the benefit of all successors in ownership of the Properties. As used herein, Owner shall include the parties signing this Agreement and identified as "Owner", and all successor owners of any part of the Properties or Project. The term "Owner" shall also include any parties joining this Agreement by executing and recording a Statement of Joinder, their successors and assigns, and the property described in such Statement of Joinder shall be considered part of the Properties.

16. Duration. The term of this Agreement shall commence on, and the effective date of this Agreement shall be, the effective date of the Ordinance approving this Agreement. The term of this Agreement shall extend for a period of fifty (50) years following such effective date. Owners and the County may agree to extend this Agreement for additional five year terms as long as the terms of this Agreement have been substantially complied with, and this Agreement has not been earlier terminated, or its term otherwise modified by written amendment. The joinder of any additional parties following the initial effective date shall not extend or otherwise affect the term of this Agreement.

17. State and Federal Law. The parties agree, intend and understand that the obligations imposed by this Agreement are intended to be consistent with state and federal law. The parties further agree that if any provision of this Agreement becomes, in its performance, inconsistent with state or federal law or is declared invalid, this Agreement shall be deemed amended or modified to the extent necessary to make it consistent with state or federal law, as the case may be, and the balance of this Agreement shall remain in full force and effect.

18. Notices. Any notice delivered personally or by courier shall be deemed to have been given when delivered to the addresses set forth below. Any party may change its address by giving notice to the other party as provided below. Any and all notices and demands shall be in writing and shall be validly given or made only if personally delivered, sent by FedEx or other recognized international courier service that provides a receipt of delivery, or deposited, certified and registered return receipt requested in the United States mail or Dutch Postal Service (if mailed from the Netherlands) and addressed as follows:

If to HAMC:                   HAMC Wasatch, LLC  
P.O. Box 32467  
Long Beach, California 90832-2467

With a copy to:               DDRM GREATPLACE, LLC  
777 Convention Way, #100  
Anaheim, CA 92802  
Attn: Stanley R. Castleton

With a copy to:               Thomas G. Bennett  
Ballard Spahr Andrews & Ingersoll, LLP  
201 South Main St.  
Suite 600

Salt Lake City, Utah 84111-2215

If to Westside: Westside Resorts, LLC  
3750 West 500 South  
Salt Lake City, Utah 84104  
Telephone: (801) 908-0196  
Fax: (801) 908-0198

With a copy to: Mark E. Rinehart, Esq.  
Rinehart Simonsen & Fetzer, P.C.  
Suite 175  
3 Triad Center  
Salt Lake City, Utah 84180  
Telephone: (801) 328-0266  
Fax: (801) 328-0269

If to JAS: JAS Realty Limited Partnership  
42 Indian Head Road  
Riverside, Connecticut 06878  
Attn: Donald B. Gimbel

With a copy to: Tom Flinders  
P.O. Box 682666  
Park City, Utah 84068

If to View: Jordanelle View, LLC  
c/o Michael Ahlin  
64 East. Winchester #250  
SLC, Utah 84107

If to JSSD: Jordanelle Special Service District  
c/o Dan Matthews  
10420 North Jordanelle Boulevard  
Heber City, Utah 84032

If to County: Wasatch County  
25 No. Main St.  
Heber City, Utah 84032  
Attn: Planning Director

19. Exhibits and Recitals. The Recitals at the beginning of this Agreement and Development Agreement Book of Exhibits are hereby incorporated herein by this reference.

20. No Waiver. Failure of a party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such party to exercise such right at some future time said right or any other right it may have hereunder.

21. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the issues addressed herein and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except in writing mutually agreed to and accepted by the parties to this Agreement. Further, this Agreement may be amended with respect to terms and conditions solely affecting any particular portion of the Properties with the consent and agreement of the Owner(s) of such Property, and the County, but without the necessity of obtaining the consent or approval of any other Owners or third parties.

22. Attorneys' Fees. Should any party hereto employ attorneys (whether such attorney be in house or outside counsel) for the purpose of enforcing this Agreement, or any judgment based on this Agreement, including but not limited to bankruptcy, arbitration, declaratory relief or other litigation, including appeals or rehearings, and whether or not an action has actually commenced, the prevailing party shall be entitled to receive from the other party thereto reasonable attorneys' fees and reimbursements for all costs and expenses (including expert witnesses). Should any judgment or final order be issued in that proceeding, said reimbursement shall be specified therein. For purposes of calculating reasonable attorneys' fees, any in-house counsel shall be entitled to fees at the same rate as comparable outside counsel would charge for similar work.

23. Applicable Law. This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Utah.

24. Execution of Agreement. This Agreement may be executed in multiple counterparts or originals or by facsimile copies of executed originals; provided, however, if executed and evidence of execution is made by facsimile copy, then an original shall be provided to the other party within seven (7) days of receipt of said facsimile copy (but the failure to provide such original within such period shall not invalidate this Agreement or otherwise adversely affect its enforceability).

25. Relationship of Parties. The contractual relationship between the County, JSSD and Owners arising out of this Agreement is one of independent contractor and not agency. The parties do not intend, and this Agreement shall not create, any partnership, joint venture, or other business association between the County, JSSD and any of the Owners, or between an Owner and any other Owner. It is specifically understood by the parties that: (i) the Project is a private development, (ii) County has no interest in, responsibilities for, or duty to third parties concerning any improvements to the Properties unless the County accepts the improvements pursuant to the provisions of this Agreement or in connection with subdivision plat, site plan, deed, or map approval, and (iii) the Owners shall have the full power and exclusive control of that portion of the Properties owned by each of them subject to the obligations of each Owner set forth in this Agreement.

26. Rights of Third Parties. This Agreement is made and entered into for the sole protection and benefit of the parties hereto, and their successors and assigns with respect to the Properties. It is not intended to affect or create any additional rights or obligations on the part of third parties, whether as third party beneficiaries or otherwise.

27. Titles and Captions. All section titles or captions contained in this Agreement are for convenience only and shall not be deemed part of the context nor affect the interpretation hereof.

28. Authorization. The parties represent and warrant that they are duly authorized to enter into this Agreement, that this Agreement shall not violate their charter documents or any other agreement to which they are bound, and that the individual executing this Agreement on behalf of such party is duly authorized and empowered to bind such party to the terms and provisions of this Agreement.


29. Further Acts. In addition to the acts recited in this Agreement to be performed by the parties hereto, the parties agree to perform or cause to be performed any and all such further acts as may be reasonably necessary to consummate the transactions contemplated hereby and to carry out the terms and provisions, spirit and intent of this Agreement.

[Signatures on the following page.]




IN WITNESS WHEREOF, this Agreement has been executed as of the day and year first above written by a duly authorized representative of each of the parties hereto.

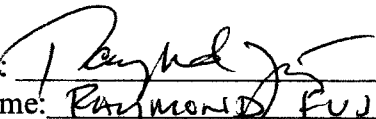
Wasatch County, a political subdivision of  
the State of Utah

By:   
Name: MICHAEL DAVIS  
Its: COUNTY MANAGER

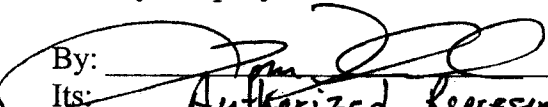
Jordanelle Special Service District

By:   
Name: Dan Matthews  
Its: Manager

HAMC Wasatch, LLC,  
a Delaware limited liability company

By:   
Name: RAYMOND FUJII  
Its: PRESIDENT

Westside Resort, LLC, a Utah limited  
liability company

By:   
Its: Authorized Representative

Jordanelle View L.C.,  
a Utah limited liability company

By: *M.A. Ahlji*  
Name: MICHAEL AHLEJI  
Its: MANAGING Member

JAS Realty

By: *Tom L. Flinders*  
Name: Tom L. Flinders  
Its: Authorized Representative

STATE OF UTAH )  
 ) ss.:  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2006 by Michael Davis, the Manager of the Wasatch County Council of Wasatch County, State of Utah.

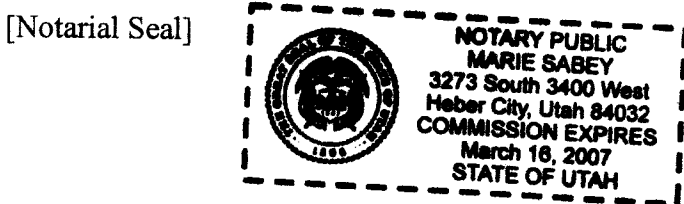
Marie Sabej  
Notary Public



STATE OF UTAH )  
 ) ss.:  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2006 by Don Matthews, the Manager of Jordanelle Special Service District.

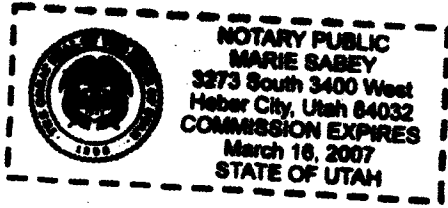
Marie Sabej  
Notary Public



STATE OF UTAH )  
 : ss.  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2007 by Raymond Fujii, the President of HAMC Wasatch, LLC.

Marie Sabey  
Notary Public

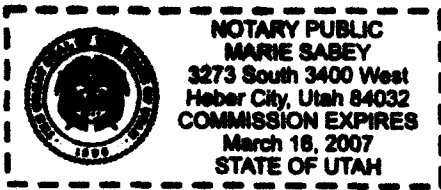


[Notarial Seal]

STATE OF UTAH )  
 : ss.  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2007 by Tom L. Andrews, the Authorized Representative of Westside Resort, LLC.

Marie Sabey  
Notary Public

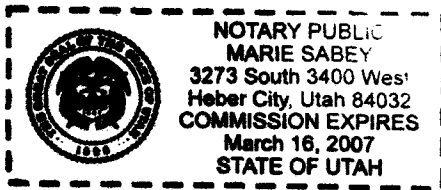


[Notarial Seal]

STATE OF UTAH )  
 : ss.  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2007 by Michael Ahlin, the Member of Jordanelle View L.C.

Marie Sabey  
Notary Public

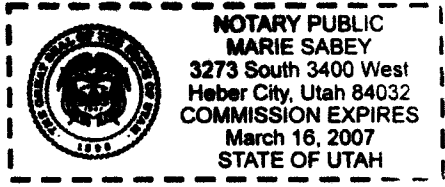


[Notarial Seal]

STATE OF UTAH )  
 : ss.  
COUNTY OF WASATCH )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of Jan, 2005 by Tom Hindman, the Authorized Representative of JAS Realty.

Marie Sabey  
Notary Public



[Notarial Seal]

**INDEX TO DEVELOPMENT AGREEMENT  
BOOK OF EXHIBITS**

- EXHIBIT A— Map of Resort Specially Planned Area
- EXHIBIT B—Implementation Guidelines
- EXHIBIT C—Exhibits to Implementation Guidelines
- EXHIBIT D—RSPA Plan Book
- EXHIBIT E—Approved ERUs
- EXHIBIT F—Deer Crest Village Amended Density Determination
- EXHIBIT G—Deer Crest Clarifications to Density Determination
- EXHIBIT H—Mayflower South Clarifications to Density Determination
- EXHIBIT I—Map Showing Approximate Routing and Phasing of Parkway and Portal
- EXHIBIT J—Form of Reimbursement Agreement
- EXHIBIT K—Allocation of Costs for Construction of Parkway and Portal, executed July 21, 2005
- EXHIBIT L—Statement of Joinder
- EXHIBIT M—Golf Course Purchase and Sale Agreement
- EXHIBIT N—Agreement Concerning Golf Courses
- EXHIBIT O—Provisions for Jordanelle Ridge Road Access Agreement

DEER VALLEY LAKESIDE RSPA



**DEER VALLEY LAKESIDE LAKESIDE RESORT  
SPECIALLY PLANNED AREA ("RSPA")**

This map shows the Master Plan Area. It consists of almost 4,700 acres and is bordered on the west side by the mountain and the on the east side by the Jordanville Lake.

The RSPA will serve visitors as a cohesive and well functioning resort community. The Resort will be comprised of several Mid Mountain and Lakeside development areas, including major Villages called Deer Crest Village and Mayflower Village. Each development area will serve its own distinct market segment.

The Resort will provide several significant expansions and enhancements to the Deer Valley Ski System.

Deer Crest Village will include a hotel cluster with a total of 100,000 square feet of state of the art meeting and exhibit space.

Mayflower Village will provide upscale hospitality, boutique retail and a European hot springs spa.

The resort will also offer 27-36 holes of golf designed by a name designer.

An additional day use beach and dock on the Jordanville Lake is proposed.

A comprehensive trail network has been planned that will provide access both paved family trails and mountain trails. This network will eventually allow trail users to go all the way from the Jordanville to Sundance and Provo Canyon.

8-4 DEER VALLEY LAKESIDE  
RESORT SPECIALLY  
PLANNED AREA



*LEGAL DESCRIPTION*  
(JORDANELLE VIEW)

Order Number 39244

THE FOLLOWING DESCRIBED REAL PROPERTY IS LOCATED IN SUMMIT AND WASATCH COUNTIES, UTAH:

PARCEL 1:

THE WEST ½ OF THE WEST ½ OF THE SOUTHEAST ¼ OF SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.

PARCEL 2:

THE EST ½ OF THE SOUTHWEST ¼ OF SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.

PARCEL 3:

THE WEST ½ OF THE WEST ½ OF THE EAST ½ OF THE WEST ½ OF THE SOUTHEAST ¼ OF SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.

EXCEPTING FROM THE ABOVE DESCRIBED TRACTS ANY PORTIONS LYING WITH THE FOLLOWING:

EXCEPTION 1:

ALL LOTS CONTAINED WITHIN GARDNER ADDITION TO EAST PARK, PLAT "A", ACCORDING TO THE OFFICIAL PLAT THEREOF, RECORDED APRIL 16, 1994 AS ENTRY NO. 122989 OF THE OFFICIAL RECORDS IN THE OFFICE OF THE SUMMIT COUNTY RECORDER.

EXCEPTION 2:

BEGINNING AT A POINT WHICH IS 1268.51 FEET NORTH AND 2235.39 FEET EAST FROM THE SOUTHWEST CORNER OF SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN: SAID POINT BEING THE SOUTHEAST CORNER OF LOT 29, GARDNER ADDITION TO EAST PARK PLAT "A", A SUBDIVISION LOCATED IN SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN: SUMMIT COUNTY, UTAH: AND RUNNING THENCE NORTH 34 DEGREES 30' EAST 267.18 FEET: THENCE NORTH 24 DEGREES 30' EAST 62.6 FEET: THENCE NORTH 75 DEGREES 19'50" EAST 129.9 FEET: THENCE SOUTH 24 DEGREES 30' WEST 158.8 FEET: THENCE SOUTH 34 DEGREES 30' WEST 267.18 FEET: THENCE NORTH 57 DEGREES 79'01" WEST 101.7 FEET TO THE POINT OF BEGINNING.

EXCEPTION 3:

BEGINNING AT A POINT WHICH IS SOUTH 88 DEGREES 51'36" EAST 1394.25 FEET FROM THE SOUTHWEST CORNER OF SECTION 12, TOWNSHIP 2 SOUTH, RANGE 4 EAST: AND RUNNING THENCE NORTH 1508.26 FEET: THENCE SOUTH 83 DEGREES 00'00" EAST 288.19 FEET: THENCE SOUTH 07 DEGREES 00'00" WEST 156.05 FEET: THENCE SOUTH 40 DEGREES 00'10" EAST 295.86 FEET: THENCE NORTH 88 DEGREES 51'36" WEST 185.36 FEET: THENCE SOUTH 0 DEGREES 26'28" EAST 400.15 FEET: THENCE SOUTH 14 DEGREES 48'00" EAST 416 FEET: THENCE SOUTH 33 DEGREES 55'13" WEST 356.70 FEET: THENCE NORTH 88 DEGREES 51'36" WEST 182.145 FEET TO THE POINT OF BEGINNING.

Parcel No. #: PP-28, 00-0007-1212, 00-0012-1108, 00-0007-1238

0 WC-0006-0-012-024  
0 WC-0008-1-012-024  
0 WC-0008-0-012-024



WHEN RECORDED MAIL TO:

Grantee  
64 East Winchester, Suite 205  
Murray, Utah 84107  
MTC File No. 111569

Ent 309761 Bk 0902 Pg 0472

**QUIT CLAIM DEED**  
(Correction)

JORDANELLE VIEW, L.C., a Utah Limited Liability Company GRANTORS for and in consideration of TEN DOLLARS (\$10.00) and other good and valuable consideration, hereby CONVEY(S) and QUIT CLAIM(S) to

JORDANELLE VIEW, L.C., a Utah limited liability company

as GRANTEE(S), the following described real property situated in SUMMIT/WASATCH County, State of Utah, to-wit:

Parcel 1:

The West Half of the West Half of the Southeast Quarter of Section 12, Township 2 South, Range 4 East, Salt Lake Base and Meridian.

Parcel 2:

The East Half of the Southwest Quarter of Section 12, Township 2 South, Range 4 East, Salt Lake Base and Meridian.

Parcel 3:

The West Half of the West Half of the East Half of the West Half of the Southeast Quarter of Section 12, Township 2 South, Range 4 East, Salt Lake Base and Meridian.

EXCEPTING from the above described tracts any portions lying with the following:

EXCEPTION 1:

All lots contained within GARDNER ADDITION TO EAST PARK, PLAT "A", according to the official plat thereof, recorded April 16, 1974 as Entry No. 122989 of the official records in the office of the Summit County Recorder.

**EXCEPTION 2:**

**BEGINNING** at a point which is 1268.51 feet North and 2235.39 feet East from the Southwest corner of Section 12, Township 2 South, Range 4 East, Salt Lake Base and Meridian; said point being the Southeast corner of Lot 29, GARDNER ADDITION TO EAST PARK PLAT "A", a Subdivision located in Section 12, Township 2 South, Range 4 East, Salt Lake Base and Meridian; Summit County, Utah; and running thence North 34° 30'00" East 267.18 feet; thence North 24°30'00" East 62.6 feet; thence North 75°30'00" West 267.18 feet; thence North 57°29'01" West 101.7 feet to the point of **BEGINNING**.

**EXCEPTION 3:**

**BEGINNING** at a point which is South 88°51'36" East 1394.25 feet from the Southwest corner of Section 12, Township 2 South, Range 4 East; and running thence North 1508.26 feet; thence South 83°00'00" East 288.19 feet; thence South 07°00'00" West 156.65 feet; thence South 40°00'10" East 295.86 feet; thence North 88°51'36" West 185.36 feet; thence South 0°26'28" East 400.15 feet; thence South 14°48'00" East 416 feet; thence South 33°55'13" West 356.70 feet; thence North 88°51'36" West 182.145 feet to the point of **BEGINNING**. Together with all water rights presently owned by the Grantors, whether appurtenant to said property or not. All minerals in or under said land including, but not limited to, metals, oil, gas, coal, stone and mineral rights, mining rights and easement rights or other matters relating thereto, whether expressed or implied.

Tax Parcel Nos. PP-28; <sup>[0wC-0006-0-012-024]</sup> 00-0007-1212; <sup>[00-0012-1108; 0wC-0008-1-012-024]</sup> 00-0007-1238

This deed is given to correct the legal description in the last line of "Exception 2"

Subject to general property taxes for the current year and thereafter.

Subject to easements, conditions, covenants and restrictions of record.

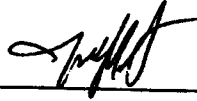
In witness whereof, the grantors have executed this instrument this 27 day of October, 2006.

JORDANELLE VIEW, L.C., a Utah Limited Liability Company

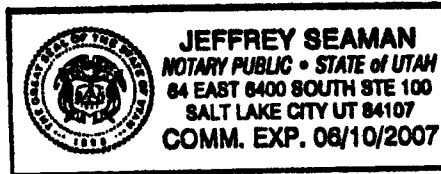
By: Michael L. Ahlin  
Michael L. Ahlin, Managing Member

STATE OF UTAH )  
 )  
 ) :ss  
 )  
COUNTY OF SALT LAKE )

The foregoing instrument was acknowledged before me this 20<sup>th</sup> day of October, 2006 by Michael L. Ahlin the Managing Member of JORDANELLE VIEW, L.C., a Utah Limited Liability Company, who duly acknowledged to me that it was executed by authority.



\_\_\_\_\_  
Notary Public



**EXHIBIT A**

**Order Number: 15942**

**LEGAL DESCRIPTION**

**(PARCEL 1)**

**LOT 11 OF SECTION 23 OF TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.**

**(Tax Serial No. OWC-0011-1)**

**(PARCEL 2)**

**THE SOUTHERLY REMAINDER OF LOT 25 OF SECTION 14, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.**

**(Tax Serial No. OWC-0011-8)**

**(PARCEL 3)**

**GOVERNMENT LOTS 7 AND 8, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN, LYING EASTERLY OF THE EAST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.**

**(Tax Serial No. OWC-0011-2)**

**(PARCEL 4)**

**GOVERNMENT LOT 2, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.**

**(Tax Serial No. OWC-0011-5)**

**LEGAL DESCRIPTION FOR THE DON GIMBEL PROPERTY**

JAS Reality Limited Partnership – Parcel 00-0007-1378 / OWC-0022-0-013-024

The property description is:

S1 / 2SW1 / 4E1 / 4 SEC 13, T2S, R4E, SLM, Area: 20 Acres

**LEGAL DESCRIPTION**

Order No. 7-004893

**Parcel 1:**

Beginning at the Northeast corner of Lot 256, EAST PARK, Plat 2, Sheet 2, a recorded subdivision, being a part of Section 13, Township 2 South, Range 4 East Salt Lake Base and Meridian; said point also being North 2163.47 feet and West 3690.05 feet from the Southeast corner of aforesaid Section 13; and running thence South 60 deg. 30'00" East 1855.54 feet; thence North 29 deg. 30'00" East 457.45 feet; thence North 60 deg. 30'00" West 2062.18 feet; thence South 20 deg. 57'00" East 225.00 feet; thence South 23 deg. 28'34" West 315.919 feet to the point of beginning.

**Parcel 2:**

Together with a non-exclusive right of way for ingress and egress over the following described land:

That portion of Lot 257 of said EAST PARK, Plat 2, Sheet 2, a recorded subdivision, which is shown by the plat thereof as being affected on its Southwest edge by a 25 foot right of way.

**Parcel 3:**

Beginning at a the Northeast corner of Lot 256, EAST PARK, Plat 2, Sheet 2, a recorded subdivision, being a part of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian; said point also being North 2163.47 feet and West 3690.05 feet from the Southeast corner of aforesaid Section 13; and running thence South 60 deg. 30'00" East 1856.21 feet; thence South 29 deg. 30'00" West 465.00 feet; thence North 60 deg. 30'00" West 938.21 feet; thence North 66 deg. 42'51" West 776.31 feet; thence North 11 deg. 58'25" East 269.934 feet; thence North 16 deg. 56'29" East 298.776 feet to the point of beginning.

Parcel No.: OWC-0018, OWC-0024

Stewart Title Guaranty Company  
COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File No: 22824

Ent 309761 Bk 0902 Pg 0478

1. **Effective Date:** May 12, 2005 08:00 am  
**Issue Date:** May 27, 2005 10:30 am

2. **Policy (or Policies) to be issued:** **POLICY AMOUNT**

(a) **ALTA OWNER'S POLICY** \$110,000.00  
\$695.00

**Proposed Insured:** Westside Resort, LLC

(b) **ALTA LOAN POLICY** \$0.00

**Proposed Insured:**

**Proposed Borrower:**

(c) **Endorsements:** \$

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Richard Banks and Laurie Banks, husband and wife as joint tenants

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

Parcel 1:

Beginning North 34° 04' 38" East 110 feet from the Northerly corner of Lot 253, East Park Subdivision, Plat 2, Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian, and running thence North 34° 04' 08" East 248 feet; thence South 45° East 511.87 feet; thence South 45° 15' West 145.39 feet; thence North 56° 56' West 474.5 feet to the place of beginning.

Parcel 2:

A right of way over the following described tract: Beginning at a point North 34° 04' 38" East 110.00 feet from the most Northerly corner of Lot 253, East Park Plat 2, a subdivision of part of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian and running thence North 40° 14' 19" West 190.35 feet; thence South 44° 29' West 16.00 feet; thence South 40° 14' 19" East 191.45 feet; thence South 56° 56' East 42.11 feet; thence North 33° 04' East 16.00 feet; thence North 56° 56' West 40.00 feet to the point of beginning.

Wasatch County Tax Serial No: OWC-0019

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COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File No: 22825

Ent 309761 Bk 0902 Pg 0479

1. Effective Date: May 12, 2005 08:00 am  
Issue Date: May 24, 2005 02:30 pm

2. Policy (or Policies) to be issued: POLICY AMOUNT

(a) ALTA OWNER'S POLICY \$550,000.00  
\$2,238.00

Proposed Insured: Westside Resort, LLC

(b) ALTA LOAN POLICY \$0.00

Proposed Insured:

Proposed Borrower:

(c) Endorsements: \$

3. The estate or interest in the land described or referred to in this Commitment and covered herein is:

Surface Rights and Surface Estate only

4. Title to the estate or interest in said land at the effective date hereof vested in:

Jordanelle Investors, a limited partnership

5. The land referred to in the Commitment is described as follows: Wasatch County, Utah

Beginning at a point South 88° 48' East 1570 feet and South 01° 00' West 80.00 feet, from the Northwest corner of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian. Running thence; South 67° 45' East 1043.55 feet, thence South 22° 15' West 417.42 feet. Thence North 67° 45' West 1043.55 feet, thence North 22° 15' East 417.42 feet to the point of beginning.

Wasatch County Tax Serial No: OWC-0025

+++



COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File No: 22801

Ent 309761 Bk 0902 Pg 0480

1. **Effective Date:** April 22, 2005 08:00 am  
**Issue Date:** May 11, 2005 03:00 pm

2. Policy (or Policies) to be issued:	POLICY AMOUNT
(a) ALTA OWNER'S POLICY	\$500,000.00
Proposed Insured: Westside Resort, LLC	\$2,150.00
(b) ALTA LOAN POLICY	\$0.00
Proposed Insured:	
Proposed Borrower:	
(c) Endorsements:	\$

3. The estate or interest in the land described or referred to in this Commitment and covered herein is:  
 Surface Rights and Surface Estate only

4. Title to the estate or interest in said land at the effective date hereof vested in:  
 Jordview Investments, L.L.C.

5. The land referred to in the Commitment is described as follows: Wasatch County, Utah

Beginning at the Northwest Corner of Lot 251, East Park, Plat II, said point also being South 88° 51' 36" East 1027.125 feet and South 35° 59' 19" East 647.868 feet from the Northwest Corner of Section 13, Township 2 South, Range 4 East, Salt Lake Base & Meridian; and running thence South 34° 42' 09" East 140.363 feet; thence South 15° 00' 00" West 363.00 feet; thence South 67° 45' East 878.87 feet; thence North 22° 30' 23" East 424.92 feet; thence North 20° 00' East 44.34 feet; thence North 67° 45' West 1098.55 feet; thence South 36° 59' 19" East 65.24 feet to the point of beginning.

Wasatch County Tax Serial No: OWC-0017

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**LEGAL DESCRIPTION**

Order No. 7-004892

**Parcel 1:**

Beginning at the Northeast corner of Lot 256, EAST PARK, Plat 2, Sheet 2, a recorded subdivision, being a part of Section 13, Township 2 South, Range 4 East Salt Lake Base and Meridian; said point also being North 2163.47 feet and West 3690.05 feet from the Southeast corner of aforesaid Section 13; and running thence South 60 deg. 30'00" East 1855.54 feet; thence North 29 deg. 30'00" East 457.45 feet; thence North 60 deg. 30'00" West 2062.18 feet; thence South 20 deg. 57'00" East 225.00 feet; thence South 23 deg. 28'34" West 315.919 feet to the point of beginning.

**Parcel 2:**

Together with a non-exclusive right of way for ingress and egress over the following described land:

That portion of Lot 257 of said EAST PARK, Plat 2, Sheet 2, a recorded subdivision, which is shown by the plat thereof as being affected on its Southwesterly edge by a 25 foot right of way.

**Parcel 3:**

Beginning at a the Northeast corner of Lot 256, EAST PARK, Plat 2, Sheet 2, a recorded subdivision, being a part of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian; said point also being North 2163.47 feet and West 3690.05 feet from the Southeast corner of aforesaid Section 13; and running thence South 60 deg. 30'00" East 1856.21 feet; thence South 29 deg. 30'00" West 465.00 feet; thence North 60 deg. 30'00" West 938.21 feet; thence North 66 deg. 42'51" West 776.31 feet; thence North 11 deg. 58'25" East 269.934 feet; thence North 16 deg. 56'29" East 298.776 feet to the point of beginning.

Parcel No.: OWC-0018, OWC-0024

**Stewart Title Guaranty Company**

**COMMITMENT FOR TITLE INSURANCE**

**SCHEDULE A**

File No: 22835

Ent 309761 Bk 0902 Pg 0482

1. **Effective Date:** May 12, 2005 8:00 am  
**Issue Date:** June 01, 2005 8:30 am

2. **Policy (or Policies) to be issued:**

**POLICY AMOUNT**

- (a) **ALTA OWNER'S POLICY**

**Proposed Insured:** Westside Resort, LLC

- (b) **ALTA LOAN POLICY**

**Proposed Insured:**

**Proposed Borrower:**

- (c) **Endorsements:**

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Richard A. Webber and Joe Ann A. Webber, husband and wife as joint tenants, as to an undivided 1/4 interest and Sherrie S. Adams, as to an undivided 3/8 interest and Michael E. Dasenbrock and Monica M. Dasenbrock, husband and wife as joint tenants, as to an undivided 3/8 interest.

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

Lot 259, EAST PARK Plat II, according to the official plat thereof, recorded November 2, 1966 as Entry No's. 89491 and 89492 in Book 56 at Pages 242 and 244 of the official records in the office of the Wasatch County Recorder.

Wasatch County Tax Serial No.: OEP-2259

+++

COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File No: 22842

Ent 309761 Bk 0902 Pg 0483

1. **Effective Date:** April 08, 2005 08:00 am  
**Issue Date:** June 06, 2005 12:15 pm

2. **Policy (or Policies) to be issued:** **POLICY AMOUNT**

(a) **ALTA OWNER'S POLICY**

**Proposed Insured:** Westside Resort, LLC

(b) **ALTA LOAN POLICY**

**Proposed Insured:**

**Proposed Borrower:**

(c) **Endorsements:**

\$

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Sherrie S. Adams

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

Lot 111, **EAST PARK Plat No. 1**, according to the official plat thereof, recorded July 28, 1966 as Entry No. 89132 in Book 55 at Page 336 of the official records in the office of the Wasatch County Recorder.

Wasatch County Tax Serial No.: OEP-1111

+++

# Subpart Title Guaranty Company

## COMMITMENT FOR TITLE INSURANCE

### SCHEDULE A

File No: 22836

Ent 309761 Bk 0902 Pg 0484

1. **Effective Date:** May 12, 2005 8:00 am  
**Issue Date:** June 01, 2005 10:00 am

2. **Policy (or Policies) to be issued:** **POLICY AMOUNT**

(a) **ALTA OWNER'S POLICY**

**Proposed Insured:** Westside Resort, LLC

(b) **ALTA LOAN POLICY**

**Proposed Insured:**  
**Proposed Borrower:**

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Lamar Coon and Shirley Coon, individually, and Lamar Walton Coon and Shirley Evans Coon, as Trustees for the Lamar and Shirley Coon Trust, as their interests appear

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

**Parcel 1**

BEGINNING at the most Northerly corner of Lot 253, **EAST PARK PLAT NO. 2**, according to the official plat thereof, recorded November 2, 1966 as Entry No. 89492 in Book 56 at Page No. 244 of the official records in the office of the Wasatch County Recorder; and running thence North 41° 13' 44" West 210.00 feet; thence North 44° 29' East 110.00 feet; thence South 40° 14' 19" East 190.35 feet; thence South 56° 56' East 474.50 feet; thence South 45° 15' West 235.29 feet; thence North 41° 13' 44" West 443.33 feet to the point of BEGINNING.

Wasatch County Tax Serial Number: OWC-0019-1

**Parcel 2**

An easement and right of way for ingress and egress, 25 feet in width, and lying Northerly at right angles from the following described line:

BEGINNING at the Westerlymost corner of Lot 248, **EAST PARK PLAT NO. 2**, according to the official plat thereof, recorded November 2, 1966 as Entry No. 89492 in Book 56 at Page 244 of the official records in the office of the Wasatch County Recorder; and running thence North 44°29' East 100 feet; thence North 37°41'35" East 245.58 feet; thence North 44°29' East 110 feet; thence South 42°28'10" East 182.08 feet.

as created by that certain Quit Claim Deed recorded August 15, 1991 as Entry No. 156968 in Book 232 at Page 308 of the official records.

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**Stewart Title Guaranty Company**  
**COMMITMENT FOR TITLE INSURANCE**

**SCHEDULE A**

File No: 22823

Ent 309761 Bk 0902 Pg 0485

1. **Effective Date:** April 21, 2005 08:00 am  
**Issue Date:** May 24, 2005 11:00 am

2. **Policy (or Policies) to be issued:**

**POLICY AMOUNT**

- (a) **ALTA OWNER'S POLICY**

\$325,000.00  
\$1,538.00

**Proposed Insured:** Westside Resort, LLC

- (b) **ALTA LOAN POLICY**

**Proposed Insured:**

**Proposed Borrower:**

- (c) **Endorsements:**

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Skelly Enterprises, L.C., a Utah limited liability company

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

**Parcel 1**

Lot 254, EAST PARK Plat II, according to the official plat thereof, recorded November 2, 1966 as Entry No's. 89491 and 89492 in Book 56 at Pages 242 and 244 of the official records in the office of the Wasatch County Recorder.

Wasatch County Tax Serial Number: OEP-2254

**Parcel 2**

Beginning at a point which is North 66° 14' 06" East 100 feet from the Northeast corner of Lot 249 East Park Plat #2; thence North 66° 14' 16" East 52.3; thence South 83° 20' East 60 feet; thence South 30° 32' East 220 feet more or less to the North line of Lot 254, East Park Plat #2, thence South 70° 39' 19" West along said North line 100 feet more or less to a point which is South 30° 32' East from the point of beginning; thence North 30° 32' West 230 feet more or less to the point of beginning.

Wasatch County Tax Serial Number: OWC-0014

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COMMITMENT FOR TITLE INSURANCE

SCHEDULE A

File No: 22826

Ent 309761 Bk 0902 Pg 0486

1. Effective Date: May 12, 2005 08:00 am  
 Issue Date: May 26, 2005 01:00 pm

2. Policy (or Policies) to be issued:	POLICY AMOUNT
(a) ALTA OWNER'S POLICY	\$495,000.00
Proposed Insured: Westside Resort, LLC	\$2,308.00
(b) ALTA LOAN POLICY	\$0.00
Proposed Insured:	
Proposed Borrower:	
(c) Endorsements:	\$

3. The estate or interest in the land described or referred to in this Commitment and covered herein is:  
 Surface Rights and Surface Estate only

4. Title to the estate or interest in said land at the effective date hereof vested in:  
 Theodore G. Nagata and Yeiko N. Negata, his wife, as joint tenants and not as tenants in common with full rights of survivorship

5. The land referred to in the Commitment is described as follows: Wasatch County, Utah  
 Beginning at the Northeast corner of Lot 246, East Park Plat II, a subdivision, a part of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian; and running thence South 25° 11' 51" West 204.88 feet; thence South 18° 23' 00" West 166.300 feet; thence South 51° 54' East 105.37 feet; thence South 2° 33' 16" East 164.184 feet; thence North 66° 14' 06" East 142.90 feet; thence South 83° 20' East 109.04 feet; thence North 44° 29' East 161.00 feet; thence North 37° 41' 35" East 245.58 feet; thence North 44° 29' East 110.00 feet; thence South 42° 28' 10" East 182.08 feet; thence North 34° 04' 38" East 248.00 feet; thence North 22° 30' 23" East 54.67 feet; thence North 67° 45' West 878.87 feet; thence South 15° 00' West 87.00 feet; thence South 51° 30' West 100.00 feet; thence South 31° 18' 05" East 196.345 feet to the point of beginning.

EXCEPTING THEREFROM the following portion thereof:  
Beginning at the Southeast corner of Lot 247, East Park Plat II, a subdivision, a part of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian; and running thence South 25° 11' 51" West 31.00 feet; thence South 18° 23' West 166.30 feet; thence South 51° 54' East 231.61 feet; thence North 19° 27' 15" East 196.82 feet; thence North 51° 54' West 225.00 feet to the point of beginning.

Wasatch County Tax Serial No: OWC-0015

Ent 309761 Bk 0902 Pg 0487

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*ALTA Commitment - Schedule B - Section II*

This commitment is invalid unless the insuring Provisions and Schedule A and E are attached.

Page 2

99-C-1

**stewart**  
title guaranty company



**Stewart Title Guaranty Company**  
**COMMITMENT FOR TITLE INSURANCE**

**SCHEDULE A**

File No: 22832 First Amended

Ent 309761 Bk 0902 Pg 0488

1. **Effective Date:** May 02, 2005 08:00 am  
**Issue Date:** June 17, 2005 3:15 pm

2. **Policy (or Policies) to be issued:** **POLICY AMOUNT**

(a) **ALTA OWNER'S POLICY** \$380,000.00  
\$1,730.00

**Proposed Insured:** Westside Resort, L.L.C., a Utah limited liability company

(b) **ALTA LOAN POLICY ADDITIONAL** \$370,384.21  
\$1,110.00

**Proposed Insured:** Daniels Capital Partners I LLC

**Proposed Borrower:** Westside Resort, L.L.C., a Utah limited liability company

(c) **Endorsements: 9 and 8.1** \$45.00

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**

Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**

Westside Resort, L.L.C., a Utah limited liability company

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

Lots 248 and 253, EAST PARK Plat II, according to the official plat thereof, recorded November 2, 1966 as Entry No's. 89491 and 89492 in Book 56 at Pages 242 and 244 of the official records in the office of the Wasatch County Recorder.

Wasatch County Tax Serial Numbers: OEP-2248 and OEP-2253

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**Stewart Title Guaranty Company**  
**COMMITMENT FOR TITLE INSURANCE**

**SCHEDULE A**

File No: 22832

Ent 309761 Bk 0902 Pg 0489

1. **Effective Date:** May 02, 2005 08:00 am  
**Issue Date:** May 24, 2005 11:00 am

2. <b>Policy (or Policies) to be issued:</b>	<b>POLICY AMOUNT</b>
(a) <b>ALTA OWNER'S POLICY</b>	\$380,000.00
<b>Proposed Insured:</b> Westside Resort, LLC	\$1,730.00
(b) <b>ALTA LOAN POLICY</b>	
<b>Proposed Insured:</b>	
<b>Proposed Borrower:</b>	
(c) <b>Endorsements:</b>	

3. **The estate or interest in the land described or referred to in this Commitment and covered herein is:**  
Surface Rights and Surface Estate only

4. **Title to the estate or interest in said land at the effective date hereof vested in:**  
Ted W. Reynolds and Helen B. Reynolds, Trustees of the Reynolds Trust dated November 11, 1992

5. **The land referred to in the Commitment is described as follows:** Wasatch County, Utah

Lots 248 and 253, **EAST PARK Plat II**, according to the official plat thereof, recorded November 2, 1966 as Entry No's. 89491 and 89492 in Book 56 at Pages 242 and 244 of the official records in the office of the Wasatch County Recorder.

Wasatch County Tax Serial Numbers: OEP-2248 and OEP-2253

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Policy Number 43 1689 05 000004  
Owner

Policy Number \_\_\_\_\_  
Lessor

EXHIBIT "A" - LEGAL DESCRIPTION

PARCEL 1:  
PARCEL NO. JDR-HY-40-19:17: (fee simple)

A parcel of land for a frontage road incident to the construction of an expressway known as Project No. NF-19, being part of an entire tract of property, situate in the Southwest Quarter of the Southwest Quarter of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian, Wasatch County, Utah, more particularly described as follows:

Beginning in the South line of said Section 13 at a point 49.58 feet perpendicularly distant Southeasterly from the centerline of said frontage road known as "K" Line for said project, which point is approximately 1044.05 feet North 88°49'38" East highway bearing along said South line from the Southwest corner of said Section 13; thence North 47°45'00" West 109.58 feet; thence South 42°15'00" West 103.71 feet to said South line; thence North 88°49'38" East 150.87 feet, more or less, along said South line to the point of beginning, as shown on the official map of said project on file in the office of the Utah Department of Transportation.

PARCEL 2:  
PARCEL NO. JDR-HY-40-19:17:A (fee simple)

A parcel of of land for an expressway known as Project No. NF-19, being part of an entire tract of property, situate in the Southwest quarter of the Southwest quarter of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian, Wasatch County, Utah, more particularly described as follows:

BEGINNING at the Southwest corner of said entire tract, which point is 328.20 feet North 89°10'25" East (which equals highway bearing North 88°49'38" East) from the Southwest corner of said Section 13; thence North 89°10'25" East (North 88°49'38" East highway bearing) 274.55 feet along the South line of said Section 13; thence North (North 00°20'47" West highway bearing) 197.17 feet along an East boundary line of said entire tract; thence East (North 89°39'13" East highway bearing) 14.52 feet along a South boundary line of said entire tract to a point 200.0 feet radially distant Easterly from the centerline of said project; thence Northerly 242.06 feet, more or less, along the arc of a 37,997.19 foot radius curve to the right to a Northerly boundary line of said entire tract (NOTE: Tangent to said curve at its point of beginning bears North 19°32'48" West); thence South 72°24' West (South 72°06'07" West highway bearing) 239.32 feet along said Northerly boundary line to the West boundary line of said entire tract; thence South 02°56'05" East (South 03°13'58" East highway bearing) 358.604 feet along said West boundary line to the point of beginning, as shown on the official map of said project on file in the office of the Utah Department of Transportation.

Continued.

Policy Number: 45 1689 05 00004  
Owner

Ent 309761 Bk 0902 Pg 0491

Policy Number: \_\_\_\_\_  
Lessor

EXHIBIT #A<sup>11</sup> - LEGAL DESCRIPTION (Continued)

An easement estate for purpose of constructing thereon a drainage facility and appurtenant parts thereof incident to the construction of an expressway.

PARCEL 3:

PARCEL NO. JDR-HY-40-19:17:EP (easement)

A parcel of land upon part of an entire tract of property in the Southwest quarter of the Southwest quarter of Section 13, Township 2 South, Range 4 East, Salt Lake Base and Meridian, Wasatch County, Utah, more particularly described as follows:

A strip of land 50.0 feet wide, 25.0 feet on each side of the following described centerline:

BEGINNING at a point 200.0 feet radially distant Easterly from the centerline of said project at Engineer Station 539+10.00, said point of beginning is approximately 594.0 feet East and 286.0 feet North from the Southwest corner of said Section 13; thence South 90°00' East 150.0 feet.

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**INDEX TO DEVELOPMENT AGREEMENT  
BOOK OF EXHIBITS**

- EXHIBIT A— Map of Resort Specially Planned Area
- EXHIBIT B—Implementation Guidelines
- EXHIBIT C—Exhibits to Implementation Guidelines
- EXHIBIT D—RSPA Plan Book
- EXHIBIT E—Approved ERUs
- EXHIBIT F—Deer Crest Village Amended Density Determination
- EXHIBIT G—Deer Crest Clarifications to Density Determination
- EXHIBIT H—Mayflower South Clarifications to Density Determination
- EXHIBIT I—Map Showing Approximate Routing and Phasing of Parkway and Portal
- EXHIBIT J—Form of Reimbursement Agreement
- EXHIBIT K—Allocation of Costs for Construction of Parkway and Portal, executed July 21, 2005
- EXHIBIT L—Statement of Joinder
- EXHIBIT M—Golf Course Purchase and Sale Agreement
- EXHIBIT N—Agreement Concerning Golf Courses
- EXHIBIT O—Provisions for Jordanelle Ridge Road Access Agreement

# **EXHIBIT - A**

Map of Resort Specially Planned Area



**DEER VALLEY LAKESIDE RESORT  
SPECIALLY PLANNED AREA ("RSPA")**

This map shows the Master Plan Area. It consists of almost 4,700 acres and is bordered on the west side by the mountain and the on the east side by the Jordanelle Lake.

The RSPA will serve visitors as a cohesive and well functioning resort community. The Resort will be comprised of several Mid Mountain and Lakeside development areas, including major Villages called Deer Crest Village and Mayflower Village. Each development area will serve its own distinct market segment.

The Resort will provide several significant expansions and enhancements to the Deer Valley Ski System.

Deer Crest Village will include a hotel cluster with a total of 100,000 square feet of state of the art meeting and exhibit space.

Mayflower Village will provide upscale hospitality, boutique retail and a European hot springs spa.

The resort will also offer 27-36 holes of golf designed by a name designer.

An additional day use beach and dock on the Jordanelle Lake is proposed.

A comprehensive trail network has been planned that will provide access both paved family trails and mountain trails. This network will eventually allow trail users to go all the way from the Jordanelle to Sundance and Provo Canyon.

8-4 DEER VALLEY LAKESIDE  
RESORT SPECIALLY  
PLANNED AREA



# **EXHIBIT - B**

## Implementation Guidelines



# APPENDIX 6

## RSPA (RESORT SPECIALLY PLANNED AREA)

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### IMPLEMENTATION GUIDELINES & STANDARDS

1. **PLANNING CONTEXT SUMMARY**
  - 1.1 VISION & PURPOSE
  - 1.2 DESIGN OBJECTIVES
  - 1.3 RESORT SPECIALLY PLANNED AREA
  - 1.4 OWNERSHIP
  - 1.5 DENSITY ANALYSIS
  - 1.6 MODIFICATION OF BOUNDARIES & Annexation
  - 1.7.1 ERU CALCULATIONS
  
2. **LAND USE PLAN**
  - 2.1 REGIONAL CONTEXT
  - 2.2 DEER VALLEY AREA
  - 2.3 DEER VALLEY LAKESIDE RESORT SPECIALLY PLANNED AREA
  
3. **RESORT VILLAGES IN THE RSPA**
  - 3.1 THE A2,400 FOOT RULE@
  - 3.2 BASED ON STUDIES
  - 3.3 RESORT VILLAGE ZONING CLASSIFICATIONS
  - 3.4 RESORT VILLAGE PARKING REQUIREMENTS
  - 3.5 DEER CREST VILLAGE OVERVIEW
  - 3.6 MAYFLOWER VILLAGE OVERVIEW
  
4. **LONG TERM INFRASTRUCTURE & AMENITIES PLAN**
  - 4.1 OVERVIEW
  - 4.2 AMENITIES AND INFRASTRUCTURE DEVELOPMENT AGREEMENT
  - 4.3 ROADS & TRANSIT SYSTEM
  - 4.4 LONG TERM WATER, WASTE WATER, SECONDARY WATER & SEWER SYSTEM
  - 4.5 COMPREHENSIVE TRAILS SYSTEM
  - 4.6 GOLF PLAN
  - 4.7 PROPOSED ENHANCEMENTS TO DEER VALLEY SKI SYSTEM
  - 4.8 LONG TERM DAY USE BEACH FACILITIES PLAN
  - 4.9 GOVERNANCE
  
5. **DESIGN PLAN**
  - 5.1 GUIDING DEVELOPMENT PRINCIPLES
  - 5.2 UNIFYING OBJECTIVES OF THE DESIGN PLAN
  - 5.3 RSPA LOGO
  - 5.4 SIGNAGE AND UNIFYING OBJECTIVES
  - 5.5 LANDSCAPE & HARDSCAPE ELEMENTS & UNIFYING OBJECTIVES
  - 5.6 LANDSCAPE STANDARD DESIGN ELEMENTS
  - 5.7 HARDSCAPE STANDARD DESIGN ELEMENTS
  - 5.8 LANDSCAPE LIGHTING GUIDELINES & PLAN
  - 5.9 TRAILS AND CART PATHS PLAN
  - 5.10 PARKING PLAN

**6. ARCHITECTURAL GUIDELINES**

- 6.1 ARCHITECTURAL OBJECTIVES & UNIFYING PURPOSES
- 6.2 NEIGHBORHOODS
- 6.3 ARCHITECTURAL THEME: DEER VALLEY ALOOK@
- 6.4 GUIDELINES FOR BOTH RESIDENTIAL & RESORT VILLAGE AREAS
- 6.5 RESORT VILLAGE GUIDELINES
- 6.6 RESIDENTIAL AREA GUIDELINES
- 6.7 ANTENNAS

**7. OTHER GUIDELINES & REGULATIONS**

- 7.1 BRIDGES
- 7.2 TRAIL BRIDGES
- 7.3 GOLF RELATED DESIGN ISSUES
- 7.4 WATER QUALITY GUIDELINES
- 7.5 EROSION CONTROL GUIDELINES
- 7.6 ANIMALS
- 7.7 FENCES
- 7.8 PROJECT ACCESS GUIDELINES
- 7.9 GATED COMMUNITIES
- 7.10 SNOWMOBILES
- 7.11 AFFORDABLE HOUSING
- 7.12 NOISE ABATEMENT

**8. DESIGN APPROVAL PROCESS**

- 8.1 TRANSITIONAL DESIGN REVIEW COMMITTEE
- 8.2 DESIGN REVIEW COMMITTEE
- 8.3 RESIGNATION FROM DRC (DESIGN REVIEW COMMITTEE)
- 8.4 MEETINGS
- 8.5 COMPENSATION
- 8.6 AMENDMENT OF DESIGN GUIDELINES
- 8.7 NON-LIABILITY OF DESIGN REVIEW COMMITTEE
- 8.8 RELATIONSHIP TO OTHER WASATCH COUNTY REQUIREMENTS
- 8.9 NOTICE TO AND FROM THE DESIGN REVIEW COMMITTEE
- 8.10 ENFORCEMENT
- 8.11 DELEGATION OF AUTHORITY

**9. GOVERNANCE**

- 9.1 ITEMS TO BE INCLUDED BY TDRC

## APPENDIX 6 RESORT SPECIALLY PLANNED AREA ("RSPA")

### Implementation Guidelines & Standards for the Deer Valley Lakeside Resort Specially Planned Area ("RSPA") Including Appendix, Plans & Exhibits

#### 1.0 PLANNING CONTEXT SUMMARY

- 1.1 Vision and Purpose.** The Vision and Purpose for the Deer Valley Lakeside Resort Specially Planned Area ("RSPA") is as follows:
- 1.1.1 To Create a Globally Recognized "Year Round" Resort.** The total RSPA will become a globally recognized year round resort leveraging Deer Valley's success as one of the premier ski resort areas in North America.
- 1.1.2 To Preserve and Enhance the Beauty and Environmental Integrity of the RSPA.** This will be accomplished through sound planning and by integrating each component of the RSPA in a cohesive master plan.
- 1.1.3 To Provide World Class Amenities Supporting the Year Round Activities.** In addition to providing enhancements to the Deer Valley ski system, the RSPA will provide world class amenities and activities year round for the guests and residents in a manner that makes it operationally sound year after year including:
- I. Density Pods, as defined below in Section 2.3.2.6, designed in a manner to support recreational activities of the area;
  - II. Five (5) star hotels;
  - III. Twenty seven to thirty six (27-36) holes of golf and a private golf club;
  - IV. Fitness and wellness centers, and a European style hot springs spa;
  - V. Four (4) star and four (4) diamond hotel cluster and large state-of-the-art meeting facilities;
  - VI. An amphitheatre;
  - VII.A comprehensive trail system which connects with the Wasatch County trail system;
  - VIII.The potential for enhanced lakeside facilities for boating, fishing and water skiing;
  - IX. High-end retail, dining and entertainment;
  - X. Transit and people-moving systems to access all major Density Pods and Resort Features and amenities;
  - XI. Adequate and accessible parking;
  - XII.A wide range of well segmented, upscale real estate products; and
  - XIII.Immediate access to local recreational activity that is unparalleled.
- 1.1.4 To Continue the Deer Valley Quality Design Precedents.** Deer Valley has established a design standard which is referred to simply as the "Deer Valley Look." Its high quality and harmonious relationship to the environment have set it apart from other resorts. The RSPA will continue this tradition.
- 1.1.5 To Maintain the Deer Valley Quality Operating Standards.** The RSPA will also maintain the high standards of service and food quality made famous by Deer Valley. It is anticipated that the use of Deer Valley's name by participants in the RSPA will be subject to a license agreement with the Deer Valley Resort. The effect of the license agreement will be to require high design and operating standards consistent with the Deer Valley "brand."
- 1.2 Design Objectives.** Implementation Guidelines and Standards have been created to guide the development of the RSPA, to achieve the "Vision," and to encourage a consistent and unified high-level quality of land planning, architecture and public spaces.
- 1.2.1 Long Development Periods.** These Implementation Guidelines and Standards contemplate that the development of the RSPA, because of its size, design, quality and consideration of market factors, will occur in multiple phases and will take several years to complete. Market circumstances are likely to change many times over the life of the development. Consequently, there are certain flexibilities built into the approval and

development process to allow developers to be responsive to the changing expectations and requirements of the buyers and visitors.

**1.2.2 Specific Objectives of the Implementation Guidelines and Standards.** The goals of the Implementation Guidelines and Standards and more specifically the "Design Guidelines" contained in Sections 5.0, and 6.0 and 7.0 therein, are to:

- I. Encourage responsible land use practices based on central and compact growth centers rather than scattered development.
- II. Respect the natural topography of the land and existing vegetation;
- III. Respect the architectural heritage of the region and the quality design precedents set by Deer Valley;
- IV. Create Utah-inspired themes, complete with pedestrian oriented streets and public spaces, humanly scaled buildings, appropriate landscaping, and rustic detailing;
- V. Create a long term operationally sound resort that encourages walking from component to component within the RSPA without having to drive;
- VI. Foster the development of year-round amenities and activities that are complementary of each other and consistent with the "Vision;"
- VII. Design the RSPA to meet the transportation and parking needs of the entire community, both public and private, properly address snow removal, and provide required services;
- VIII. Create a "green" community, where practical, that is designed to conserve energy and resources; and
- IX. Where possible, create a community that is "wired," where visitors and residents will have access to high bandwidth services to experience voice, data and video feeds to every room of every hotel, multi-unit and single family residence in the area. This means a simple click of a TV remote device will provide immediate interactive access to area retailers, restaurants, service providers and schools. It also provides immediate digital access to movies (automated video store) and the ability to automatically purchase ski lift tickets, order food to be delivered, buy tickets to transportation such as the Heber Creeper, make restaurant reservations, etc.

**1.2.3 Density Guidelines and Procedures.** The Implementation Guidelines and Standards create new RSPA Zone Classifications (as defined below) and allow for density transfers from one Zone to another Zone under strict circumstances, in order to allow developers to meet the long term needs of the visitors and buyers in the RSPA. The density determination process for Deer Crest and for Mayflower South preceded the Jordanelle Land Use Plan and the Jordanelle Basin Overlay Zone ("JBOZ"). In order for the existing density determinations to be consistent with these Implementation Guidelines and Standards, there must be a clarification of the Density Determinations for Deer Crest and Mayflower South ("Clarifications") attached hereto as Appendix 2 and Appendix 3 respectively, and an amendment to the Density Determination for Deer Crest Village (formerly Deer Cove) attached hereto as Appendix 1.

**1.2.4 Parking Guidelines.** The Design Guidelines and Standards create new RSPA parking standards, based on a shared use benchmark standard as described in Section 3.4 that will provide sufficient and well designed parking.

**1.2.5 Employee Housing.** Based on Chapter 16.30 of the Wasatch County Code and specifically Section 16.30.08, the Design Guidelines and Standards create flexible guidelines that will allow transfer of the requirements from Property (as defined below in Section 2.3.2.3) to Property within the RSPA.

**1.3 Resort Specially Planned Area.** As described in detail in Section 2.3 herein, these Implementation Guidelines and Standards have been prepared to provide the details for the practical implementation of the purposes and objectives of the RSPA. Capitalized terms not otherwise defined herein shall have the meanings set forth in the JBOZ and the Jordanelle Basin Land Use Plan.

- 1.3.1 Wasatch County Code.** Other than those items specified herein, these Implementation Guidelines and Standards do not modify the Wasatch County Code, Ordinances or Regulations (including any prior Density Determination adopted pursuant to the Wasatch County Code) or other provisions in the Jordanelle Basin Land Use Plan or the Jordanelle Basin Overlay Zone. In the event of any inconsistency between the terms of the Wasatch County Code, Ordinances and Regulations and these Implementation Guidelines, the terms and provisions of these Implementations Guidelines and Standards shall control.
- 1.3.2 Building Codes.** The Implementation Guidelines are to be interpreted in a manner which is consistent with the required building regulations of the Wasatch County Code, the International Building Code and applicable ADA standards.
- 1.3.3 Relationship to the Jordanelle Basin and Jordanelle Basin Overlay Zone.** See Plan B-5 in the Plan Book and in Exhibit E-9 in the Exhibit Book (located in the Wasatch County Planning Department).
- 1.3.4 Modification of Implementation Guidelines.** The Implementation Guidelines and Standards are intended to guide development within the RSPA throughout the long-term development of the property contained therein. It is crucial to the long-term success of the RSPA that modifications to the Implementation Guidelines and Standards be permitted in order to respond to changes in circumstances and market conditions that will inevitably occur over time. Accordingly, the Planning Director is authorized to review and approve modifications to the Implementation Guidelines and Standards; provided, however, if such modifications would, in the reasonable opinion of the Planning Director, substantially change the appearance, layout, density, use or quality of development within the RSPA the Planning Director shall refer such modifications to the Planning Commission for review and approval. Any proposed modification to the Implementation Guidelines and Standards which is denied by the Planning Director may be appealed by the applicant to the Planning Commission, and any proposed modification which is denied by the Planning Commission may be appealed by the applicant to the County Legislative Body for final disposition.
- 1.4 Ownership.** The land ownership in the RSPA is summarized in Plan B-6 in the Plan Book and in Exhibit E-1 in the Exhibit Book (located in the Wasatch County Planning Department).
- 1.4.1** It is anticipated that the RSPA area will expand to include the annexation of land owned by Mayflower that includes the area from Bald Mountain to the Bonanza Flats resort area. This property has no current entitlements for development, and the annexation to the JBOZ and the RSPA will be implemented only after approval of a master plan.
- 1.5 Density Analysis.** A summarized analysis of the total density in the RSPA is found at Exhibit E-2 in the Exhibit Book (located in the Wasatch County Planning Department). This analysis assumes approval of the Density Determination Clarifications and amendments described in Section 1.2.3 above.
- 1.6 RSPA Boundaries and Annexation.** The initial boundaries of the RSPA (the "RSPA Area") are shown on the map in Exhibit 9 of the Book of Exhibits submitted to Wasatch County in conjunction with the RSPA submission dated July 3, 2002 (located in the Wasatch County Planning Department). However, not all of the properties within the RSPA Area may be included within the RSPA and subject to the rights and duties described herein. Individual various parcels of property within the RSPA Area are only included within the RSPA and made subject to all the terms and conditions of the Implementation Guidelines and Standards by the owner(s) of such property taking the following action: either a) joining in the application to the County requesting creation of the RSPA; or b) notifying the County of their desire to be included in the RSPA and (i) agreeing to be subject to these Implementation Guidelines and Standards, (ii) agreeing to be included in the master owners' association to be created for the RSPA, including the obligation to pay assessments charged by such master association, (iii) entering into the appropriate agreements then in effect with respect to the "Closing the Loop" process described in Section 4, below, and agreeing to pay an equitable share of the costs and assessments attributable to such participation, and (iv) obtaining the approval of the Planning Director of Wasatch County. It is also anticipated that additional land may be added to the RSPA Area in the future. The boundaries of the RSPA Area may be modified from time to time by submission of a request for modification by the owner

of the property to be added or deleted, and with the approval of 1) a majority of the other owners of property within the RSPA (based on number of approved ERU's for each parcel) and 2) the Planning Director of Wasatch County. Notwithstanding the foregoing, there shall be no additional ERU's or other increase in density granted with respect to any property added to the RSPA without the approval of the Planning Commission and County Legislative Body in accordance with the Wasatch County Planning, Zoning and Development Code.

- 1.7 ERU Calculations.** Calculations of ERU's will be made pursuant to the procedures described and the chart in the Wasatch County Planning, Zoning and Development Code 16.33, Appendix 2, Figure 11 (this chart may also be found in Chapter IV.C.5 of the Jordanelle Land Use Plan [JLUP]).

## **2.0 LAND USE PLAN**

- 2.1 Regional Context.** The RSPA offers immediate access from Salt Lake International Airport and is uniquely and strategically located in the center of a myriad of recreational opportunities. See Plan B-1 in the Plan Book. (located in the Wasatch County Planning Department).

- 2.2 Deer Valley Area.** See Plan B-2 in the Plan Book. (located in the Wasatch County Planning Department).

- 2.2.1 Deer Valley Ski Areas.** A major component of the RSPA is to support and expand the Deer Valley ski system. A summary of the Ski Portals in relation to the density areas is shown in Plan B-3 in the Plan Book (located in the Wasatch County Planning Department).

- 2.3 Deer Valley Lakeside Resort Specially Planned Area ("RSPA").** The area covered by the RSPA is shown in Plan B-4 in the Plan Book (located in the Wasatch County Planning Department). The RSPA will be created pursuant to Section 16.15.07 of the Wasatch County Planning, Zoning and Development Code. The RSPA contains approximately four thousand two hundred sixty eight (4,268) acres of property and incorporates mixed uses including, without limitation, single-family homes, condominiums, hotels, time-shares, retail shops and recreational facilities. In connection with the implementation of the RSPA an Amenity and Infrastructure Development Agreement ("AIDA") will be entered into by Wasatch County and the landowners of Properties (as defined in Section 2.3.2.3) located within the RSPA. The AIDA and other related agreements will address the design timing and financing of infrastructure design standards, primary road patterns, public facilities and amenities required to meet the needs of future guests and residents of the RSPA and ensure the completion of these improvements, phasing, and other related matters. Because specific densities, height limitations, parking requirements, set backs and other requirements of the Wasatch County Planning, Zoning and Development Code may not accommodate the development details of the RSPA, certain provisions of the Wasatch County Planning, Zoning and Development Code are modified by these Implementation Guidelines and Standards to accommodate the development of the RSPA. In the event of any inconsistency between the Implementation Guidelines and Standards, the JBOZ and other zoning regulations currently affecting the Properties, the terms and provisions of the RSPA Implementation Guidelines and Standards shall control.

- 2.3.1 RSPA Zones.** The Zones, as defined below, within the RSPA are designed to meet the needs of the RSPA from an operational standpoint and to provide flexibility for developers over the long term development period contemplated by the RSPA, while still addressing sound planning and density management.

- 2.3.2 Definitions Pertaining to the RSPA.** For purposes of the RSPA, the following definitions shall apply:

**2.3.2.1 Equivalent Residential Unit (ERU)** shall have the meaning provided in Section 16.15.08 and in 16.33 Appendix 2, Figure 11 of the Wasatch County Planning, Zoning and Development Code, and the Jordanelle Basin Land Use Plan in Section IV.C.5.

**2.3.2.2 Unit** means a dwelling unit within the meaning of Section 16.04 of the Wasatch County Planning, Zoning and Development Code.

- 2.3.2.3 Property** means a parcel or parcels of real property within the RSPA owned by a single owner or entity as shown on Plan B-6 in the RSPA Plan Book (located in the Wasatch County Planning Department). It also includes all government agencies or utility companies that own property or easements within the RSPA (even though they may not be shown on Plan B-6 or listed in the Exhibits).
- “Properties”** means multiple parcels of Property within the RSPA.
- 2.3.2.4 Setbacks** means the distance from the right-of-way line or the property lines before any structure can be built. Chimneys or protrusions in a building may be located within the setback to the edge of the building eaves.
- 2.3.2.5 Story** is defined in the Wasatch County Planning, Zoning and Development Code Section 16.04. For purposes of the RSPA, unless otherwise approved by the Design Review Committee, typical residential floors should range from eight to twelve (8-12) feet, commercial use floors in Resort Villages should range from twelve to eighteen (12-18) feet, and in hotels where meeting space is found it can range up to thirty (30) feet.
- 2.3.2.6 Density Pods** means areas of development as shown in the Target Studies shown in plans B-8, B-11, and B-14. Each Density Pod has associated with it a specified number of target Equivalent Residential Units (ERU’s). Wasatch County, the participating landowners and the JSSD understand that these Density Pods are subject to change in size and location as the RSPA master plan actually develops from the concept stage to actual buildable site. The Planning Commission will approve these changes in the Zones, as contemplated in Section 2.3.2.13 below, as the process evolves and more specific planning is undertaken for each of the Properties.
- 2.3.2.7 FSR (Floor Space Ratio)** means the ratio or percentage computed by the floor surface area (or floor plate) of the main floor of a building, as the numerator, and the size of the building parcel, as the denominator.
- 2.3.2.8 Gross Density** means the total Units in a Property, Density Pod or Zone, divided by the acreage in that Density Pod or Zone.
- 2.3.2.9 Building Height** is defined in the Wasatch County Planning, Zoning and Development Code in Section 16.04.
- 2.3.2.10 Net Density** of a Property, Density Pod or Zone is a measure of density determined by computing the total number of Units of the Property, Density Pod or Zone and dividing it by the total acreage in that Property, Density Pod or Zone less the area of any public rights-of-ways, private roads, easements, trails, ski runs, parks or other public or recreational uses.
- 2.3.2.11 Resort Village** means a center or hub for the RSPA. Resort Villages, and the reason they are important to the success of the RSPA, are described further in Section 3.0. In order to qualify as a Resort Village, the area or Zone must have the attributes listed below. A Resort Village can be located in more than one (1) property:
- a. A minimum of four of the following planned uses:
    1. Condominiums;
    2. Hotels;
    3. Timeshares or other shared-ownership products;
    4. Private residence clubs;
    5. Town homes;
    6. Single-family homes;
    7. Seasonal Community Housing or other Affordable Housing meeting the Affordable Housing Requirements of Wasatch County; or
    8. Meeting facilities.

- b. Other required components;
1. Significant retail, dining and entertainment facilities;
  2. A minimum of six hundred fifty (650) Units (not ERU's) in the Resort Village Zone;
  3. Must be designed in such a fashion to accommodate the "2,400 Foot Rule"; and
  4. A pedestrian walk experience which links Resort Features (as defined in Section 2.3.2.23) and other elements in the Resort Village together and serves as a focal point for visitor foot traffic.

2.3.2.12 "2,400 Foot Rule" is described in Section 3.1 herein.

2.3.2.13 **Zones** means the areas comprised of Density Pods, as shown in the RSPA Density Zones for each Neighborhood in the RSPA as shown in plans B-9, B-12 and B-15 and summarized in Exhibits E-4, E-6, and E-8, each having its own height, use and density limitations ("Classifications") of each of the Zones. These Zones modify the Land Use Categories in the Jordanelle Basin Land Use Plan and the Wasatch County Planning, Zoning and Development Code. It is understood by Wasatch County, the participating landowners and the JSSD that these Zones, which are based on the Density Pods, are subject to change in size and location as the RSPA master plan actually develops from concept to actual buildable sites. The DRC (as defined in Section 2.3.2.26) and the Wasatch County Planning Staff will approve these changes as the process evolves and more specific planning is undertaken by each of the Properties.

2.3.2.14 **RSF -- Residential Single Family** is a Classification of a single family housing element in the land use plan and is generally located on the perimeter of the neighborhood areas. These areas are for larger lot development and shall contain detached housing. Housing in the RSF Zone should respond to the topography and the amenities located near the site. Larger lots are typically located on steeper slopes to allow any necessary grading to be integrated back into land form.

- a. **Permitted Uses.** Permitted uses within this RSF Zone include single family detached housing, recreational, trails, golf, ski runs, and parks.
- b. **Density per Acre.** Gross Density shall not exceed six (6) Units per acre.
- c. **Building Heights.** Building heights are limited to thirty two (32) feet or two and one half (2½) Stories, whichever is greater.
- d. **Setback.** Front setbacks shall be taken from the back of curb or edge of road asphalt (if there is no curb). All other setbacks shall be taken from property lines. Regulations under the Wasatch County Planning, Zoning and Development Code for the construction on hillside slopes shall apply. The side yard minimum setback shall be ten (10) feet, the rear yard minimum shall be twenty (20) feet and front yard minimum setback shall be twenty (20) feet. Larger houses should be located further from roads to avoid dominating the streetscape and to provide room for sensitive grading transitions into existing slopes. Small units should typically be set closer to the front setback line to provide a more urban pedestrian environment.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines. Roof slopes on the main roof shall range from 5/12 slopes to 7/12 slopes. Minor roofs may have a roof slope as low as 4/12.

2.3.2.15 **RMD -- Residential Medium Density.** The RMD Classification is provided to allow for greater density near recreational facilities such as the golf course, ski runs and near the Resort Villages.



- a. **Permitted Uses.** Permitted uses within this Zone include residential attached, town homes, timeshares and other shared ownership facilities, condominiums, apartments, flats, seasonal employee housing, recreational, trails, ski runs, parks and other Resort Features.
- b. **Density per Acre.** The maximum Gross Density for the RMD Zone is six (6) to twenty (20) Units per acre.
- c. **Building Height.** Building heights are limited to forty two (42) feet or three and one half (3½) Stories, whichever is greater.
- d. **Setback.** Front setbacks shall be taken from the back of curb or edge of road asphalt if there is no curb. All other setbacks shall be taken from property lines. Regulations under the Wasatch County Planning, Zoning and Development Code for the construction on hillside slopes shall apply. The side yard minimum setback shall be ten (10) feet; the rear yard minimum shall be twenty (20) feet and front yard minimum setback shall be twenty (20) feet. Larger houses should be located further from roads to avoid dominating the streetscape and to provide room of sensitive grading transitions into existing slopes. Multi-unit structures should be set at the setback line to provide a more urban pedestrian environment.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.

## 2.3.2.16

**HC – Hospitality Casita.** The HC Classification is provided to allow for small casitas or bungalows as an additional room type for a hotel, other lodging or timeshare or other shared use facility in the RSPA. The HC Classification is available only if it is designed as an additional product to such a facility.

- a. **Permitted Uses.** Permitted uses within the HC Classification include hospitality and short-term rental, timeshare or other shared use facilities, recreational, hospitality support and Resort Features.
- b. **Density per Acre.** The maximum Gross Density allowable for this Zone is twenty (20) to forty (40) Units per acre.
- c. **Building Height.** The maximum allowable building height is the greater of twenty five (25) feet or two (2) stories.
- d. **Setbacks.** Property line setbacks for the HC Classification are fifteen (15) feet for the rear yard and twelve (12) feet for the front yard. There are no side yard setback requirements.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines identified hereinafter. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.

## 2.3.2.17

**RVMD – Resort Village Medium Density.** The RVMD Classification contemplates a mixed use Resort Village, as described in Section 2.3.2.11 and in Section 3.0, with a maximum six (6) Story height limit.

- a. **Permitted Uses.** Permitted uses include convention facilities, hotels, condominium hotels, condominiums, town homes, timeshare and other shared ownership, office, retail, dining, service, community uses, affordable housing, single family residences, entertainment, kiosks and street vendors, equestrian facilities, service, storage, support and Resort Features as defined in Section 2.3.2.23.
- b. **Density Per Acre.** The maximum Net Density allowable for the RVMD Classification is a range from six (6) to seventy (70) Units per acre. Commercial uses will be limited to the amount of floor area on the street level Story and to a maximum of fifty (50) percent of the second Story.

Meeting or convention space shall not be deemed to be commercial space for purposes of this limitation.

- c. **Building Height.** The maximum allowable building height is six (6) Stories above ground.
- d. **Setbacks.** Not applicable.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.
- f. **Density Exclusions.** The following items will not be counted as a commercial use, within the meaning of the regulations of the Wasatch County Planning, Zoning and Development Code, for purposes of calculating ERU's for hotels, condominium hotels, other lodging facilities, timeshare, other shared ownership facilities, convention or entertainment facilities, ski and ski support facilities, golf and golf support facilities and restaurants:
  - 1. Back of house, support, storage, and service areas as a part of the above mentioned facilities;
  - 2. Public space, lobby, restrooms and circulation areas as a part of the above mentioned facilities;
  - 3. Stairwells and elevator shafts as a part of the above mentioned facilities;
  - 4. Pools, fitness centers, spas and exercise facilities as a part of the above mentioned facilities;
  - 5. Parking, porte-cochere and entry areas as a part of the above mentioned facilities;
  - 6. Meeting, conference, convention, function and pre-function areas as a part of or adjunct to the above mentioned facilities;
  - 7. Kitchens, warming kitchens, food storage and preparation areas as a part of the above mentioned facilities; and
  - 8. Outdoor seating areas for restaurants and banquet areas as the above mentioned facilities.

**2.3.2.18 RVHD – Resort Village High Density.** This Classification contemplates a mixed use Resort Village, as described in Section 2.3.2.11 and in Section 3.0, with a maximum eight (8) Story height limit.

- a. **Permitted Uses.** Permitted uses include convention facilities, hotels, condominium hotels, condominiums, town homes, timeshare and other shared ownership, office, retail, dining, service, community uses, affordable housing, single family residences, entertainment, kiosks and street vendors, equestrian facilities, service, storage, support and Resort Features as defined in Section 2.3.2.23.
- b. **Density per Acre.** Maximum Net Density allowable is six (6) to eighty (80) Units per acre. Commercial uses will be limited to the amount of floor area on the street level Story and to a maximum of fifty (50) percent of the second Story. Meeting or convention space shall not be deemed to be commercial space for purposes of this limitation.
- c. **Building Height.** The maximum allowable height shall be eight (8) Stories. Basement and below grade structures will not be counted as a Story.
- d. **Setbacks.** Not applicable.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines identified hereinafter. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.

- f. **Density Exclusions.** The following items will not be counted as a commercial use, within the meaning of the regulations of the Wasatch County Planning, Zoning and Development Code, for purposes of calculating ERU's for hotels, condominium hotels, other lodging facilities, timeshare, other shared ownership facilities, convention or entertainment facilities, ski and ski support facilities, golf and golf support facilities and restaurants:
1. Back of house, support, storage, and service areas as a part of the above mentioned facilities;
  2. Public space, lobby, restrooms and circulation areas as a part of the above mentioned facilities;
  3. Stairwells and elevator shafts as a part of the above mentioned facilities;
  4. Pools, fitness centers, spas and exercise facilities as a part of the above mentioned facilities;
  5. Parking, porte-cochere and entry areas as a part of the above mentioned facilities;
  6. Meeting, conference, convention, function and pre-function areas as a part of or adjunct to the above mentioned facilities;
  7. Kitchens, warming kitchens, food storage and preparation areas as a part of the above mentioned facilities; and
  8. Outdoor seating areas for restaurants and banquet areas as the above mentioned facilities.

**2.3.2.19 NC – Neighborhood Commercial.**

- a. **Permitted Uses.** Permitted uses include convenience stores, restaurants, neighborhood services, offices, parks and Resort Features (as defined in Section 2.3.2.23 herein).
- b. **Density.** The allowable density is a maximum FSR (as defined in Section 2.3.2.7) of forty (40).
- c. **Building Height.** The maximum allowable height is forty five (45) feet.
- d. **Setbacks.** Property line setbacks for the NC Classification are twenty (20) feet for the rear, eighteen (18) feet for the front and ten (10) feet for the side.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines identified hereinafter. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.

**2.3.2.20 SCH – School.** The SCH Classification is for schools and related educational support services. Like building in all other Zones, any buildings in the SCH Zone shall be subject to the Design Guidelines described hereinafter and subject to the Design Review Committee Process.

- a. **Permitted Uses.** Permitted uses within areas with the SCH Classification include public or private schools, ancillary educational uses, recreational and support and school maintenance facilities.
- b. **Density.** Not applicable.
- c. **School Height.** The SCH Classification has maximum allowable height of seven (7) stories.
- d. **Setbacks.** Shall be at the discretion of the DRC and the Wasatch County Planning Commission.
- e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the Design Guidelines. Roof slopes on the main roof shall range from 5/12 slopes to 7/12 slopes. Minor roofs may have a roof slope as low as 4/12.

- 2.3.2.21 CS -- Community Site.** The CS Classification contemplates areas and facilities that are gathering places for residents and visitors. Any buildings in the CS Zone shall be subject to the Design Guidelines described hereinafter and subject to the Design Review Committee Process.
- a. **Permitted Uses.** Permitted uses within areas of the CS Classification include convention/conference centers, equestrian centers, amphitheatres, community centers, parks, trails, overlooks, and other gathering places as determined suitable by the Design Review Committee.
  - b. **Density.** Not applicable.
  - c. **Height.** Not applicable.
  - d. **Setbacks.** Not applicable.
  - e. **Roof Slopes.** Roof slopes shall be varied and articulated as specified in the in Section 6.0 herein. Roof slopes on the main roof shall range from 5/12 slope to 7/12 slope. Minor roofs may have a roof slope as low as 4/12.
- 2.3.2.22 OS – Open Space.** The OS Classification has as objectives to preserve visual corridors, to provide recreational opportunities, and enhance the “open” feeling of the RSPA.
- a. **Permitted Uses.** Permitted uses include ski areas, golf courses and ancillary uses, trails including equestrian/pedestrian/bicycle/cross-country uses, parks, overlooks, amphitheaters, developed and natural parks, ancillary park facilities, and natural terrain.
  - b. **Density.** Not applicable.
  - c. **Height.** Not applicable.
  - d. **Setbacks.** Not applicable.
  - e. **Roof Slopes.** Not applicable.
- 2.3.2.23 Resort Feature.** A Resort Feature is a facility or area which serves as a major attraction. In other words, it provides activities or reasons for visitors to travel to the RSPA. Resort Features include, but are not limited to, ski access facilities, ski trails, golf, lake/water activities, tubing hills, convention facilities, amphitheatres, distinctive pedestrian walks or plazas, skating ponds or rinks, health or spa facilities, water sport areas, swimming pools, trail heads, rock climbing walls and hot springs.
- 2.3.2.24 Target Density** means the total of the ERU’s for all of the Density Pods within each Zone as shown in the Target Studies in E-3, E-5, and E-7.
- 2.3.2.25 Maximum Density** means the sum of the Target Densities of all of the Zones in a Property which is the Maximum Density or maximum ERU’s allowable for such Property.
- 2.3.2.26 Design Review Committee** means the committee as described hereinafter in Section 8.2, shall be referred to herein as the “DRC” and includes the meaning of the Transitional Design Review Committee as described in Section 8.1 herein.
- 2.3.2.27 Transition Design Review Committee** means the committee as described hereinafter in Section 8.1 and shall be referred to herein as the TDRC.
- 2.3.2.28 Unit Size** for purposes of computing the size of a residential dwelling unit within the meaning of an ERU (defined above), shall be measured from interior wall to interior wall; provided, however, that the area shall not include the items as specified in the definition of “Habitable Space” in the International Building Code (IBC). In defining “Habitable Space,” the IBC specifies that “Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.” This same concept of “Habitable Space” shall apply to the measurement of commercial uses in the RSPA as well.

- 2.3.2.29 Amenity and Infrastructure Development Agreement (“AIDA”)** means the agreement among the Property owners, Wasatch County and the JSSD more specifically described in Section 4.0 herein, to develop future infrastructure and amenity items within the RSPA. This process of negotiating the AIDA is also described as “Closing the Loop.” See Section 4.2.1 herein.
- 2.3.3 Transfer of ERU’s within Zones.** ERU’s can be transferred between any Density Pod within a Zone, so long as the total density for all of the Density Pods in such Zone does not exceed the Maximum Density allowed for such Zone. Such transfer shall be approved by the DRC and the Planning Commission.
- 2.3.4 Transfer of Density from Zone to Zone.** The owners of a Property located in the RSPA can transfer ERU’s from their Property to any other Property or Zone in the RSPA, so long as together, they don’t exceed the Maximum Density for both Properties as a result of the transfer, and so long as together they do not exceed the density per acre limits within either Zone. The Transfer will be made in accordance with an agreement between the owners of the affected Properties, including approval of the DRC and the Wasatch County Planning Commission.
- 2.3.5 Limited Use Changes as a Result of Density Increases for Public Use.** The use classification of a group of Density Pods or an RSPA Use Zone may be changed with the approval of the DRC and the Wasatch County Planning Commission if it meets the following conditions (“Limited Use Change”): a) the Limited Use Change does not significantly impair views to the Jordanelle Lake or the mountains, b) the Limited Use Change does not encumber any planned pedestrian or vehicular circulation as now shown, or in the future as plans evolve, on the RSPA master plans, c) a written agreement between the owners of the Properties subject to the Limited Use Change is in place, and the reason for the Change is a result of a Density Increase pursuant to 2.3.7.
- 2.3.6 Use Plans.** The overall use plan for the RSPA is shown as Plan B-7 in the Plan Book (located in the Wasatch County Planning Department). As part of the planning process for the RSPA, target use studies were prepared for Neighborhoods A, B and C as shown on Plan B-8, B-11 and Plan B-14 of the Plan Book (“Target Studies”)(located in the Wasatch County Planning Department). The Target Studies were prepared by qualified land planners to show optimal development densities on the various parcels comprising each of the Neighborhoods. The Zone designations for each Neighborhood were determined in reliance upon the Target Studies, but the Target Studies do not create Zones, grant densities or establish any other legal rights. The Target Studies are simply provided to show the detailed land use studies on which the Zones were based.
- 2.3.6.1 Neighborhood A Target Study.** The results of the Target Study for Neighborhood A are shown in Plan B-8 in the Plan Book and Exhibit E-3 of the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.6.2 Neighborhood A Zones.** The results of the Target Study yielded the land use Zones and related Maximum Densities for Neighborhood A. These Zones are shown and described in Plan B-9 in the Plan Book and Exhibit E-4 of the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.6.3 Neighborhood A Zones by Property.** The land use for each Property within Neighborhood A is shown in Plan B-10 in the Plan Book. (located in the Wasatch County Planning Department)
- 2.3.6.4 Neighborhood B Target Use Study.** The results of the Target Study for Neighborhood B are shown on Plan B-11 in the Plan Book and Exhibit E-5 of the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.6.5 Neighborhood B Zones.** The results of the Target Study yielded the land use Zones and related Maximum Densities for Neighborhood B. These Zones are shown and described in Plan B-12 in the Plan Book and Exhibit E-6 of the Exhibit Book. (located in the Wasatch County Planning Department)

- 2.3.6.6 Neighborhood B Zones by Property.** The land use for each Property within Neighborhood B is shown in Plan B-13 in the Plan Book. (located in the Wasatch County Planning Department)
- 2.3.6.7 Neighborhood C Target Use Study.** As described above, a detailed use and density study of all the individual Density Pods was completed as a step in the process of identifying the uses and densities for the northern parts of the RSPA. The results of the Target Study for Neighborhood C are shown on Plan B-14 in the Plan Book and Exhibit E-7 in the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.6.8 Neighborhood C Zones.** The results of the Target Study yielded the land use Zones and related Maximum Densities for Neighborhood C. These Zones are shown and described in Plan B-15 in the Plan Book and Exhibit E-8 of the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.6.9 Neighborhood C Zones by Property.** The land use for each Property within Neighborhood C is shown in Plan B-16 in the Plan Book. (located in the Wasatch County Planning Department)
- 2.3.7 Density Increase for Public Amenities.** Pursuant to Section 16.15.19 of the Wasatch County Planning, Zoning and Development Code, reasonable increases in density will be granted for landowners where dedication or contribution of approved school sites, affordable housing or increased open space above the required amount in made. This will apply within the RSPA. Specifically, increased density will be granted for contributions or development of parks, community centers, convention centers, affordable housing or other public amenities. However, instead of applying a blanket percentage of twenty five (25) percent for the entire Property as specified in the Code, the amount of the Density Increase within the RSPA for these Public Amenities shall be an amount determined by the Density of the surrounding or comparable uses or as stipulated in Section 3.6.2.1.3. In the case of a contribution or dedication of open space, the DRC shall use its discretion in approving and recommending such Density Increases to the Wasatch County Planning Commission. The DRC shall also use its discretion to recommend to the Wasatch County Planning Commission, Limited Use Changes pursuant to Section 2.3.5 herein in order to accommodate these Density Increases. Specifically, the DRC shall consider such Limited Zone Changes as specified in Section 3.6.2.1.3 where a large amount of Public Amenities have been planned in the RSPA Land Use Plan. All such Density Increases shall be approved by the Wasatch County Planning Commission and the Wasatch County Legislative Body.
- 2.3.8 Deer Crest Village (West) Clarifications.** Deer Crest Associates I, L.C. ("Deer Crest"), is the developer of the Deer Crest Project. The project is entitled to be developed by that certain First Amended Findings and Order on Density Determination, which is recorded in the office of the Wasatch County Recorder, on August 8, 1996, as Entry No. 188648 in Book 328, at Page 634 of the Official Records of the Wasatch County Recorder (the "Amended Density Determination"). Deer Crest's entitlements pre-dated the Jordanelle Basin Land Use Plan and the JBOZ. Deer Crest is a mature project. Except for the areas in Deer Crest Village (formerly Jordanelle Village), the project has been platted and construction is underway in many places. The Jordanelle Village area or Deer Crest Village (West), is a very important part of the Resort Village concept and to the economic success of the RSPA. In order to make the existing entitlements consistent with the RSPA, the following "Clarifications" are being made:
- 2.3.8.1 ERU Conversion.** The original entitlement contemplated one hundred ninety one (191) units, including twenty six (26) employee housing bonus units. It also included an additional sixty two thousand (62,000) square feet of commercial space, of which twenty thousand (20,000) square feet were to be a ski school or ski related facility. The units were specified as to size. The conversion to ERU's under the RSPA is summarized in the "Deer Crest ERU Conversion Table" as Exhibit 25 of the Book of Exhibits submitted to Wasatch

County in conjunction with the RSPA submission dated July 3, 2002 (located in the Wasatch County Planning Department)

- 2.3.8.1.1 **Use Zones.** The requirements of the Zones, as shown on Plan B-12 and B-13 shall apply.
- 2.3.8.1.2 **Density.** The Density shall be as shown on Exhibit E-6 shall apply.
- 2.3.8.1.3 **Ski Lodge.** The requirement for a ski related facility of twenty thousand (20,000) square feet shall remain. It will utilize approximately seven (7) ERU's.
- 2.3.8.2 **Parking.** The parking requirements will be governed Section 3.4 hereof. The specific requirements for parking are summarized in the Deer Crest (West) Parking Table as Exhibit E-16 in the Exhibit Book. (located in the Wasatch County Planning Department)
- 2.3.8.3 **Deer Crest Jordanelle Village Parking Plan.** The phased parking plan, which addresses all of the alternatives under the various development alternatives for this site, are found in Plan C-1 through Plan C-6.
- 2.3.8.4 **Affordable Housing.** In a separate development agreement, Deer Crest will agree to make payment in lieu of its remaining Affordable Housing requirements.
- 2.3.9 **Mayflower South Clarifications.** The original density determination for Mayflower is comprised of Second Revised Findings and Order (Revised August 2, 1985) in the Matter of the Application for Density Determination for Mayflower Mountain Resort (the "Findings and Order"); Density Determination Conditions for the Mayflower Mountain Resort (Revised August 2, 1985) (the "Density Conditions"); and Notice of Density Standards dated September 18, 1985 and recorded in the Office of the Wasatch County Recorder on January 27, 1987 as Entry No. 141141, in Book 187, Page 319 (the "Notice"). The Findings and Order, the Density Conditions, the Notice, and all subsequent amendments and supplements thereto are collectively referred to herein as the Original Density Documents ("ODD"). This was approved prior to the Jordanelle Reservoir, US Highway 40, the JSSD, the Jordanelle Basin Land Use Plan and the JBOZ. Much of this ODD is inconsistent with the RSPA and its Vision and Design Objectives. In order to be consistent with the RSPA and these Implementation Guidelines and Standards, and to accommodate the numerous changes in Wasatch County and the JSSD since 1985, several "Clarifications" to the ODD are required to be made. These Clarifications are summarized below, but are found in detail in Appendix 3 attached hereto:
  - 2.3.9.1 **ERU Conversion.** The original density contemplated by the ODD had two (2) alternatives.
    - 2.3.9.1.1 Alternative I was for two thousand seven hundred seventy five (2,775) units plus commercial space of twenty nine thousand four hundred fifty (29,450) square feet and did not anticipate the Jordanelle Reservoir or US Highway 40.
    - 2.3.9.1.2 Alternative II was for two thousand seventy four (2,074) residential units and twenty nine thousand four hundred fifty (29,450) square feet of commercial space. This Alternative II anticipated US Highway 40 and the Jordanelle Reservoir, and is the basis used for the RSPA. The conversion to ERU's under the RSPA is summarized in the "Mayflower South ERU Conversion Table" as Exhibit E-21 in the Exhibit Book attached hereto. (located in the Wasatch County Planning Department).
    - 2.3.9.7.3 The methodology used to do the analysis is described below.
      - a. The references available to identify specific unit sizes are notated in the analysis.
      - b. The remaining unit sizes, if they ever were specified, could not be found in the information available.

c. Assumptions for these unit sizes were based on what was deemed reasonable for the nature of the project.

d. Consultants were engaged to "prove up" the density by designing a Target Study (Plan B-14) and a new village plan (Plan B-20). (located in the Wasatch County Planning Department).

e. The conversion analysis was then adjusted for the highway noise restriction in the ODD (See Note 5 in Exhibit E-21). (located in the Wasatch County Planning Department).

f. A comparison of the target study and the conversion analysis is shown in the following table:

Method of Conversion	Total ERU's	Comments
Conversion Table	1,391	Exhibit E-21
Target Study	1,418	Plan B-14 and Exhibits E-7 and E-28
Difference	(29)	

For purposes of the RSPA, the amount used is 1,418 ERU's.

**2.3.9.1.3 Use Zones.** The Zones as shown on Plan B-12 and B-13 shall apply. (located in the Wasatch County Planning Department).

**2.3.9.1.4 Density.** The Density as shown on Exhibit E-8 shall apply.

**2.3.9.2 Impact Fees.** The developer of the Mayflower project shall pay impact fees as required by Wasatch County in the normal course of the development process, in accordance with Wasatch County procedures for fire control and jail facilities. This requirement includes the payment of any on-going fees or assessments generally applicable to comparable properties for the operation of such facilities in Wasatch County. Waste removal and fire and police protection shall be provided upon such payments or exactions as are generally imposed upon comparable properties.

**2.3.9.3 Big Dutch Pete Hollow.** An environmental and engineering analysis of the Big Dutch Hollow area is attached to and incorporated in this document by reference as Exhibit E-48. Pursuant to the conclusions reached in the analysis, the area no longer requires the "undisturbed" designation called for by the ODD. Only a small portion of the area meets the slope requirements of Wasatch County. A portion of that area shall be zoned as shown on Plans B-14 and B-15. The ODD contemplated a future ski or Mountain Plan for the Big Dutch Pete Hollow area. This plan has been incorporated into the ski concept plans shown in Plan B-28 and Plan B-29. The status of Big Dutch Pete Hollow is no longer "undisturbed," but the area is still subject to the physical constraints analysis required for preliminary approval.

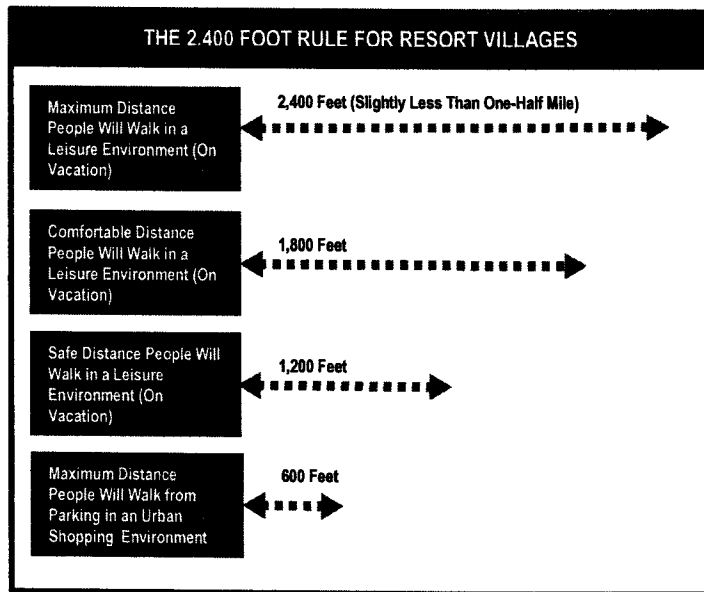
**2.3.9.4 Waste Plan.** Work in progress pursuant to a Waste Plan under Paragraph 9.h. of the Density Conditions of the ODD shall be completed as approved. Waste issues not resolved in this manner shall be resolved pursuant to applicable regulations. See the attached letter at Exhibit E-43 (located in the Wasatch County Planning Department) for an update on the remediation.



- 2.3.9.5 **Infrastructure.** Requirements and standards relating to the design and construction of storm water detention and filtration systems and related issues, the location and installation of sewer lines, and the payment of related connection fees and assessments shall meet the requirements of Wasatch County Ordinances and shall be governed by the RSPA Section 4.0.
- 2.3.9.6 **Soils in Disturbed Areas.** The protection and conservation of soils in "Disturbed Areas" shall be in accordance with Wasatch County Ordinances and management practices pursuant to applicable regulations.
- 2.3.9.7 **Prior Conditions.** Wasatch County acknowledges that it is not intended that the Clarifications should be construed to challenge, or to constitute a violation of, any provision of the ODD and that the ODD are to remain in effect, notwithstanding these Clarifications set forth herein. Consequently, in order to avoid any misunderstanding regarding the continuing validity of the ODD and the rights and obligations arising there under, certain conditions inconsistent with the RSPA are being suspended pursuant to the document entitled "Suspension of Density Determination Conditions, Mayflower Mountain Resort" attached hereto as Appendix B.
- 2.3.9.8 **Open Space.** Mayflower South has a significant amount of open space. Consistent with the RSPA Zone classifications, Mayflower agrees to Zone classification of Open Space for all of the property outside the Density Pods shown on Plan B-14.
- 2.3.9.9 **Affordable Housing.** Mayflower shall be subject to the normal Affordable Housing requirements of the County, pursuant to the modifications of the RSPA. This will include satisfying up to twenty five (25) percent of the requirements by providing Seasonal Employee Housing.
- 2.3.9.10 **Parking.** Parking shall be subject to the regulations, guidelines and standards of the RSPA.
- 2.3.9.11 **Water.** Mayflower has certain water rights and flowing water on the Property. As part of the "Closing the Loop" process as defined in Section 4.0 herein, these rights will be evaluated by the JSSD and an appropriate agreement between Mayflower and the JSSD will be executed. Mayflower will not be required to establish its source of water for development until the Final Approval stage of the development of each project within Mayflower.
- 2.3.9.12 **Golf.** The RSPA plan includes a golf course, which was not contemplated by the ODD. As part of "Closing the Loop" (AIDA), as defined in Section 4.0 herein, Mayflower may provide significant acreage for golf on both Mayflower South and on Mayflower North as an OS zone classification. A large portion of this land is developable, and will be subject to the provisions of Section 2.3.7 herein. In consideration for its participation in the AIDA, Mayflower North and South will not be required to pay infrastructure assessments until the Final Approval and recording of each plat in Mayflower South and Mayflower North.
- 2.3.9.13 **Mining Influence Zone.** The ODD restricted development in an area called the "mining influence zone" on the basis that mining may continue. Mayflower now has the power, by court order, to limit and restrict all mining development on the surface of the property to avoid interference with all recreational and residential uses in the Development Pods within this Mining Influence Zone. No density has been assigned to this area. The plan on B-14 provides for development on only a small portion of this area. Making all of this area available for development would have resulted in a significantly higher original density. An increase in density as a result of development within this Mining Influence Zone will be subject to a physical constraint analysis in the preliminary approval submission by the developer.

### 3.0 RESORT VILLAGES IN THE RSPA

- 3.1 The "2,400 Foot Rule."** The Resort Villages in the RSPA are designed based on what is referred to herein as the "2,400 Foot Rule." This design benchmark is based on distance thresholds that leisure visitors (people on vacation) and local day visitors (shoppers and dining patrons) will comfortably walk in a pedestrian environment.
- 3.2 Based on Studies.** This information is based on extensive studies of Mountain Resort Villages and other tourism based "Village" destinations. It is also based on a study of urban destinations containing retail, dining and entertainment uses. The accompanying Chart describes the "2,400 Foot Rule". The "2,400 Foot Rule" is especially important in dictating successful Resort Village design and the placement of parking areas in relationship to the retail, dining and entertainment locations within the Resort Village.



The two (2) Resort Villages in the RSPA are both pedestrian oriented. They are based on major pedestrian-only "walks." These pedestrian linkages are generally seamlessly lined with the retail, dining and entertainment uses. The placement of the parking then becomes key to the design, but in no case should the "walk" be more than twenty four hundred (2,400) feet long. This "2,400 Foot Rule" places a functional limitation on the size of a Village, requiring a concentration of density within a circle with a maximum diameter that approximates twenty four hundred (2,400) feet or less [radius of twelve hundred (1,200) feet]. If the Village becomes too spread out, it simply loses its ability to become a place that attracts large volumes of people and it will not be effective as a Resort Village. *The "2,400 Foot Rule" is a major reason for the concentrated density within the Resort Village Classifications in the RSPA.*

- 3.2.1 Deer Crest Village and the "2,400 Foot Rule".** The RSPA concept plan, in relationship to the "2,400 Foot Rule", is shown in Plan B-33 in the Plan Book. (located in the Wasatch County Planning Department) Note that there are three (3) activity zones, each with a radius of six hundred (600) feet. The entire walking zone is just slightly more than the twenty four hundred (2,400) feet limit, but this will be mitigated by the transit system (Deer Crest Trolley) when the project finally becomes mature.
- 3.2.2 Mayflower South and the "2,400 Foot Rule".** The Mayflower South concept plan, in relationship to the "2,400 Foot Rule", is shown in Plan B-36 in the Plan Book. (located in the Wasatch County Planning Department) This plan provides a comfortable walking environment and will maximize the pedestrian experience in the plaza area because of the convergence of the various Resort Features.
- 3.3 Resort Village Zoning Classifications.** These Zone Classifications, RVMD and RVHD, are defined in Sections 2.3.2.17 and 2.3.2.18 above.

- 3.4 Resort Village Parking Requirements.** The Benchmark Parking Plan, described below, is appropriate in Resort Villages in the RSPA because the current parking requirements under the Wasatch County Planning, Zoning and Development Code are not based on the actual parking needs of a mixed-use high density resort area. In the Jordanelle Basin Land Use Plan (JLUP) Section VII. B. 15. (a), shared use parking is encouraged. To illustrate, a hotel guest who is using a hotel parking space will likely walk to use the ski facilities, retail shops, dining or other entertainment facilities that are available because such facilities are within walking distance. Many similar mixed-use resorts use shared-use parking studies performed by qualified traffic and parking engineers, such as the study being proposed herein. It makes sense, therefore, to incorporate a similar type of process in the RSPA.
- 3.4.1 Shared Use Parking Study.** Consultants performed a shared use parking study for the Resort Villages in the RSPA. This study, defined as the "Benchmark Study", is found at Exhibit E-10 in the Appendix.
- 3.4.2 Benchmark Parking Plan.** The Benchmark Study establishes the initial parking requirements of the Benchmark Plan. Each year thereafter, on the anniversary of the opening of the first building, the Benchmark Plan will be updated based upon new information compiled by consultants specifically for the following year's study. That way, the Benchmark Plan will be modified every year to accommodate the actual parking needs of the Resort Villages as the RSPA develops.
- 3.5 Deer Crest Village Overview**
- 3.5.1 Deer Crest Village Properties.** The potential Properties participating in Deer Crest Village are DDRM, Deer Crest, Pioche, The Hollows, Deer Crest and Deer Valley Resort Company.
- 3.5.2 Concept Plan.**
- 3.5.2.1 Site Plan.** See Plan B-17 in the Plan Book. (located in the Wasatch County Planning Department).
- 3.5.2.2 Resort Features.** Deer Crest Village has numerous Resort Features in the design program. See Plan B-18 in the Plan Book. (located in the Wasatch County Planning Department).
- 3.5.3 Density Zones.** The Density Zones shown specifically in Plan B-12 and Plan B-13 in the Plan Book (located in the Wasatch County Planning Department)
- 3.5.3.1 Permitted Density Transfers. The following Density Transfers are anticipated:**
- 3.5.3.1.1 Deer Crest Village.** It is anticipated that the owners of Deer Crest Village (East) will eventually come to an arrangement with the owners of the Deer Valley Property, the Pointe Property and the Hollows Property, to transfer density pursuant to Section 2.3.4 herein. The Target Study for Neighborhood 'B' indicated densities of sixty (60) ERU's for Deer Valley, seventy six (76) ERU's for the Pointe and forty two (42) for the Hollows. This would equate to an eventual transfer from Deer Crest Village (East) of sixty (60) ERU's to Deer Valley, forty (40) ERU's to the Pointe and sixteen (16) ERU's to the Hollows, upon consummation of the transfer agreements with each of the landowners. If all or a portion of the transfer does not take place, the Deer Crest Village Option 2 plan as described in the Deer Crest Village Amended Density Determination application dated July 3, 2002, or slight variations thereof, will be implemented.
- 3.5.4 Open Space Analysis.** See Plan B-19 in the Plan Book. (located in the Wasatch County Planning Department).
- 3.6 Mayflower Village Overview**
- 3.6.1 Concept Plan.**
- 3.6.1.1 Site Plan.** See Plan B-20 in the Plan Book. (located in the Wasatch County Planning Department).

**3.6.1.2 Resort Features.** Mayflower Village has numerous Resort Features in the design program. The potential for hot springs on the site provides a tremendous asset that can be used in several Resort Features (spa, swimming pools, wading pools for children, and in some cases, in room pool experiences for high end hospitality uses). See Plan B-18 in the Plan Book. (located in the Wasatch County Planning Department).

**3.6.2 Density Zones.** See Plans B-10, B-13, B-16 in the Plan Book. (located in the Wasatch County Planning Department).

**3.6.2.1 Permitted Density Transfers and Use Changes.** The following density transfers are anticipated pursuant to Section 2.3.4 and Section 2.3.5 herein:

**3.6.2.1.1 Saddle Area.** It is anticipated that ERU's may be transferred from the Mayflower South Property to the "Saddle" areas above Big Dutch Pete Hollow (Plan B-7 and Plan B-14). This area is partially owned by Mayflower and partially owned by School Lands Trust. There has been no target study on the site and no current density recommendation. Until the feasibility of providing access and utilities is evaluated, this will not be pursued. These are sites that would be developed in conjunction with the ski system. Any such transfer shall be approved by the DRC and the Wasatch County Planning Commission.

**3.6.2.1.2 Mayflower North.** There are also several Density Pods in Mayflower North that will appropriately support more density (use change). These Density Pods include A-21, A-26, A-27, A-18, A-22, A-17, A-16, A-15 and A-28 as shown on Plan B-8 in the Plan Book. (located in the Wasatch County Planning Department) The DRC and the Wasatch County Planning Commission should anticipate such Limited Use Changes, pursuant to Section 2.3.5 herein.

**3.6.2.1.3 Public Amenity Density Increase.** Pursuant to Section 2.3.7 herein, Density Pods A-26 and A-27, as shown on Plan B-8 in the Plan Book (located in the Wasatch County Planning Department), shall generate bonus ERU's for Mayflower Properties commensurate with the RMD Zone if they are donated for a Public Amenity (as defined in Section 2.3.7).

**3.6.2.1.4 Mining Influence Zone.** Pursuant to Section 2.3.9.13 herein, additional density will be considered by the DRC and the Wasatch County Planning Commission, for the addition of the Mining Influence Zone to Mayflower South.

**3.6.3 Open Space Analysis.** See Plan B-22 in the Plan Book. (located in the Wasatch County Planning Department).

#### 4.0 LONG TERM INFRASTRUCTURE & AMENITIES PLAN

**4.1 Overview.** The infrastructure and amenities required by the RSPA are the foundation of the operating resort. The six (6) categories of infrastructure and amenities to be constructed in the RSPA are: (i) roads, (ii) trails, (iii) utility infrastructure; (iv) ski enhancements, (v) golf, and (vi) day use beach. The process by which the Property owners who are involved in the AIDA (defined in 4.2 below) or "Participants," and the JSSD agree to develop the infrastructure and amenities, is referred to as "Closing the Loop." This is a process that will have numerous steps and various options. "Closing the Loop" is the process that will determine the calculation, procedures, allocations and agreements created allocate the cost of shared improvements (roads, utilities, trails, infrastructure, etc.) to implement the transfer of the land needed for golf, roads, and similar improvements and to determine the contributions made and the obligations undertaken by each of the property owners. The process starts with the planning function, is followed by cost estimates, settlement of disputes, and structuring agreements (see Section 4.2.1).

- 4.2 Amenities and Infrastructure Development Agreement (“AIDA”).** This agreement, or agreements, will include the Participants, Wasatch County and the JSSD. It will memorialize the many steps, procedures, calculations, allocations and other arrangements that will be necessary to Close to Loop. The AIDA agreement will set forth specifically the process that will allow the Participants to go forward. The AIDA will identify which of the categories of improvements will be financed and constructed under the purview of the County and/or JSSD (presumably through the creation of a new Special Improvement District with power to levy assessments), and which improvements will be financed through assessments levied by a private master association made up of all of the Participants. It will include the settlement of a number of prior disagreements on property lines, access easements, utilities easements, utilities assessments and other issues. It will also specify the responsibilities of each of the Participants and of the County and the JSSD.
- 4.2.1 “Closing the Loop”.** This is a process. The results of each step of the process will dictate the next step in the process, or alternative steps. The objective is to allocate improvement costs fairly and equitable among the Participants, in light of the benefits received and the land or other value contributed. The following guidelines will apply to the process:
- 4.2.1.1** The golf course will be privately financed and owned.
  - 4.2.1.2** The ski enhancements will have agreed upon sharing arrangements and will be identified reasonably early in the “Closing the Loop”. The Mayflower South Ski Enhancements may be subject to some small allocations to the other property owners, but for the most part it is self contained.
  - 4.2.1.3** The roads will have several phases that will be identified as soon as possible. Each phase or tier of the road may be subject to different cost allocation among the benefited Property owners.
  - 4.2.1.4** The overall infrastructure plan, including water, waste water, secondary water and sewer is a long term design and planning exercise. It will be executed in conjunction with the JSSD and with the understanding that Mayflower South will have its own systems to a large extent.
  - 4.2.1.5** In order to participate in the RSPA, each property owner must enter into the AIDA process. It is anticipated that the first agreements to be entered into as part of the AIDA will be an agreement of an equitable allocation of the cost of constructing the Jordanelle Parkway (the “Road Agreement”) and an agreement for the sale, donation, dedication or other arrangement for the golf course land which will provide for the ultimate construction of at least eighteen (18) hole’s of golf (the “Golf Agreement”). In the event the Road Agreement and the Golf Agreement are not completed within eighteen (18) months following the approval by the County Legislative Body of these Implementation Guidelines and Standards, the RSPA shall automatically terminate unless the Mayflower and Deer Crest Village Properties ask for an extension or the Planning Commission determines otherwise. The Golf Agreement may not apply if it is determined too financially infeasible to construct a golf course. Any property owner in the proposed RSPA area who does not enter into the AIDA shall be excluded from the RSPA. Owners of property who elect not to participate in the RSPA shall not receive any of the entitlement benefits provided by the RSPA (such as modifications in density, height limitations, parking requirements, provisions for the transfer of density rights, etc.), but may continue to develop their property pursuant to existing entitlements and the provisions of the Wasatch County Planning, Zoning and Development Code. However, owners of property within the area benefited by the infrastructure and amenity improvements will, nevertheless, be subject to assessment by the JSSD or a Special Improvement District created there under, for their appropriate share of the cost of such improvements. Property owners who do not enter into the AIDA will also be excluded from the use and enjoyment of improvements and amenities financed by the master owners’ association assessments or other private financing and assessment mechanisms.

- 4.2.2 Assessment Tiers or Participation Factors.** As part of "Closing the Loop", separate tiers or participation factors will be agreed upon by the Participants for each phase of each of the different categories of amenities and infrastructure. For instance, the Jordanelle View would have a zero participation factor for certain of the ski enhancements phases. Another example would be Mayflower South would have a zero participation factor in the Jordanelle Parkway. If agreement cannot be reached by the Participants and the JSSD or County on such participation factors or proposed assessments, then a qualified assessment engineer will be engaged to propose such participation factors and assessments.
- 4.3 Roads & Transit System.** This category is comprised of the following general items:
- 4.3.1 Roads Master Plan.** See Plan B-23 in the Plan Book. (located in the Wasatch County Planning Department).
- 4.3.2 Transit System.** See Plan B-24 in the Plan Book. (located in the Wasatch County Planning Department) This system will most likely be a small fleet of clean air rubber tire buses specially designed for the RSPA. The buses would have racks for skis and bikes on the exterior. The transit system would be seasonally operated, and financed by a small assessment (similar to Whistler) and/or a fare system. This Transit System will not be required until approximately fifty (50) percent of the RSPA is developed and absorbed or as determined by Wasatch County.
- 4.3.3 Traffic Study Summary.** Consultants have done an initial analysis of the traffic impact as a result of the RSPA. The traffic analysis is found in Exhibit E-39 and E-40 in the Exhibit Book (located in the Wasatch County Planning Department). The RSPA has changed the use of a large percentage of the area to resort type usage from primary residential. The analysis shows that this will have a very positive influence on the traffic patterns. Even though the density is increasing slightly, the peak traffic flows are much lower because of the resort uses.
- 4.3.3.1 Long Term Traffic Mitigation.** Pursuant to the information in 4.3.3 above, it does not appear that there are any significant causes for traffic mitigation at the intersection of Mayflower and US Highway 40.
- 4.4 Long Term Water, Waste Water, Secondary Water and Sewer Systems.** As part of "Closing the Loop", a sound concept plan in conjunction with the JSSD's plans will need to be identified for each of these infrastructure items. Mayflower South in Neighborhood C is large enough to develop a lot of infrastructure that is independent of the rest of the RSPA. In the past, very detailed planning for infrastructure in Mayflower South has taken place. The overall plan will take into consideration the approach to Mayflower South, and develop an infrastructure master plan that will meet the needs of the Participants, the County and the JSSD. This will be a long process and will have to anticipate long term phasing. The challenge for "Closing the Loop" is to identify the major areas that will require land to contributed by the Participants.
- 4.4.1 Contributions by Landowners.** It is too early to be able to identify these contributions. This will be done in conjunction with "Closing the Loop".
- 4.5 Comprehensive Trails System.** The trails are an important part of the RSPA. Not only will they provide the linkages to Resort Features and activities within the RSPA, they become part of the experience. The different kinds of trails provided will engage the entire family in a resort setting.
- 4.5.1 Trails Master Plan.** See Plan B-25 in the Plan Book. (located in the Wasatch County Planning Department)
- 4.5.2 Contribution by Landowners.** A preliminary analysis of the potential contributions required for the trails is found in Exhibit E-13 of the Exhibit Book (located in the Wasatch County Planning Department). *This analysis is included primarily to provide a very preliminary groundwork for the relative positions of the landowners in the "Closing the Loop" process. It is not included to suggest an immediate approach to financing the trails.*
- 4.6 Golf Plan.** The golf experience within the RSPA shall be cohesive and is intended to include the entire twenty seven (27) holes shown on the various Plans for the RSPA. It is intended that the twenty seven (27) holes be operated and managed as a high quality resort course designed by a 'name' designer.

- 4.6.1 North Area Routing.** See Plan B- 26 in the Plan Book (located in the Wasatch County Planning Department). This planning is still preliminary and subject to change.
- 4.6.2 South Area Routing.** See Plan B-27 in the Plan Book (located in the Wasatch County Planning Department). This planning is still preliminary and subject to change.
- 4.6.3 Land Required for North Course.** A preliminary analysis of the potential contributions required for the North Golf Course trails is found in Exhibit E-14 of the Exhibit Book (located in the Wasatch County Planning Department). *This analysis is included primarily to provide a very preliminary groundwork for the relative positions of the landowners in the "Closing the Loop" process. It is not included to suggest an immediate approach to financing either golf course.*
- 4.7 Proposed Enhancements to Deer Valley Ski System.** There are number of ski enhancements contemplated in the RSPA. For the most part, these all relate to enhancing the Deer Valley ski system. A prerequisite to the Deer Valley license agreement for the RSPA is financial participation in certain of these ski enhancements. However, some of these enhancements are for transit purposes and are designed to accommodate moving people to or from specific high density areas or parking. These transit enhancements primarily benefit the real estate, not Deer Valley. These enhancements will be more clearly identified and more specific costs estimates will be obtained as the "Closing the Loop" process moves forward.
- 4.7.1 Long Term Deer Valley Ski Master Plan.** See Plan B-28 in the Plan Book (located in the Wasatch County Planning Department). This plan is very preliminary and subject to change as "Closing the Loop" progresses.
- 4.7.2 Ski Enhancement Plan.** See Plan B-29 in the Plan Book (located in the Wasatch County Planning Department). This plan is very preliminary and subject to change as "Closing the Loop" progresses.
- 4.8 Long Term Day Use Beach Facilities Plan.** This plan is subject to the approval of the Utah Department of Natural Resources (State Parks) and the Bureau of Reclamation. It is an approved access point on the Jordanelle. Consequently, it is subject to change and may take some time to develop.
- 4.8.1 Day Use Beach Area Plan.** See Plan B-30 in the Plan Book (located in the Wasatch County Planning Department). This plan is very preliminary and subject to change as "Closing the Loop" progresses.
- 4.9 Governance.** The TDRC will develop, as part of the "Closing the Loop" process, the governance system and documents for the Deer Valley Lakeside Resort Community Association and the appropriate covenants, conditions and restrictions and association dues and assessments. This includes, but is not limited to, dues and assessments levied from the Master Association to provide maintenance of roads, trails, and other common facilities. There will also be assessments for marketing. See Section 9.1.

## 5.0 DESIGN PLAN

- 5.1 Guiding Development Principles.** In support of the Vision and the Design Objectives of the RSPA, and their unifying purposes, the following Guiding Development Principles are to serve as a basis for the developers and their design teams:
- 5.1.1 Principle 1:** Provide the guest and resident a wide range of experiential choices by providing a critical mass of lodging, retail, dining, entertainment and recreational activities. This includes a high number of "warm" beds in the Resort Villages. This will help ensure foot traffic and energy on a year round basis.
- 5.1.2 Principle 2:** Provide seamless and experiential linkages everywhere possible. This means that pedestrian streets need to have seamless interactive retail, dining and entertainment on both sides. It means that the transit system or lifts need to be fun where possible. It also means that tall architectural forms should be found on both sides of the pedestrian streets to capture the energy.
- 5.1.3 Principle 3:** The RSPA should be designed such that the resident and guest will have a sense of excitement about discovering what is next within the project. This is achieved by curved walkways, an exciting mix of experiences, intriguing and exciting design features along the roads throughout the RSPA.

- 5.1.4 Principle 4:** The RSPA should provide Resort Features that provide changing experiences so the guest experience is different every time they come. These activities need not all be in the RSPA, but must be readily accessible and available to visitors. This could include events staged by the RSPA. Family oriented gatherings consistent with the design and diverse land uses should be emphasized.
- 5.1.5 Principle 5:** The RSPA should be very accessible and very easy for guests to find their way around. This means well planned signage and simple access for vehicles and pedestrians.
- 5.1.6 Principle 6:** Parking must be adequate, simple, convenient and *very easy* to find.
- 5.1.7 Principle 7:** The design concept must be based on "creating the story" which residents and guest alike will want to experience many times over. In this case, the "Deer Valley" story can be told and enhanced by the RSPA.
- 5.1.8 Principle 8:** The Resort Villages in the RSPA must be a gathering place providing many experiences, as well as providing the basic services.
- 5.1.9 Principle 9:** The Resort Villages in the RSPA must provide a unique environment providing common goods in an uncommon manner or providing uncommon goods and experiences.

**5.2 Unifying Objectives of the Design Plan.** Consistent with the "Vision" and the "Design Objectives" of the RSPA, one of the main purposes for the creation of the RSPA is to unify the various elements and functions within the area so the resort guests and local residents will have a consistent and memorable experience. This unification will also help to enhance and preserve real estate values. The design elements in the RSPA are the foundation of this unification process. Unified marketing activities for the RSPA are outlined in Section 9.1.2.

- 5.2.1 Unifying Standard Design Elements.** It is intended that a series of "image and logo" design elements be identified by the Transition Design Review Committee ("TDRC") described in Section 8.1 herein. These will include the following items:
- a. A logo that will be used consistently throughout the RSPA;
  - b. Signage, maps and related design elements that will be used consistently;
  - c. Landscape and hardscape design features including but not limited to:
    1. Street lighting;
    2. Street furniture and benches;
    3. Bike and ski racks;
    4. Specific consistent landscape plantings;
    5. Creative repetitive use of water features where possible as a design feature and as a sound attenuation technique;
    6. Walls and fences;
    7. Bridges;
    8. Kiosks and interpretive centers;
    9. Consistent use of color palettes and materials; and
    10. Boulder massing and monuments.
  - d. Trails and cart path design elements; and
  - e. Certain architectural features that are specified in Section 6.0 herein.

It is intended that after the TDRC has identified these items, that they become part of the Standard Design Elements of the RSPA.

**5.2.2 Additional Design Guidelines.** In addition to the Standard Design Elements, the other Guidelines and Standards in Section 5.0, 6.0 and 7.0 herein will serve as an ongoing guide to the Design Review Committee and the Wasatch County Staff, Planning Commission and County Legislative Body to assist them in the enforcement of sound and effective design principles as the various components in the RSPA are developed over time.

- 5.2.2.1 Deer Valley License Agreement.** The Deer Valley License Agreement established design requirement commensurate with the RSPA Design Guidelines and Standards. The DRC will also enforce these requirements and will be empowered to revoke the use of the Deer Valley name by any property



not meeting these standards, as determined by the DRC. Pursuant to the terms of the License Agreement, the Deer Valley Resort has the right to revoke the use of the name under similar circumstances.

- 5.2.3 Enforcement of Design Guidelines.** It will be the Design Review Committee's responsibility to see that the use of these Standard Design Elements and other Guidelines are consistently part of the future development of the RSPA. Modifications to these Standard Design Elements and the Guidelines herein, can only be made by the TDRC or the DRC.
- 5.3 RSPA Logo.** The logo should embody the colors and form of the natural elements of the area, the concept of a year round operating resort and the Deer Valley standards of excellence and quality. The logo should be designed with marketing purposes in mind. If Deer Valley allows the use of the Deer Valley Logo, it should be strongly considered by the TDRC. The name "Deer Valley Lakeside" may also be changed as a result of this process, but any change should use the Deer Valley name.
- 5.4 Signage and Unifying Objectives.** Probably the single most effective unifying function within the RSPA will be signage and the related design elements. It is the design of the common signage, (those signs that are common to the RSPA and not a specific real estate development project within the RSPA), the nature of the design of the other signage and how they relate together that will provide the most immediate and apparent visual stimulus to the visitor and those who reside locally. The signage must be consistently used throughout the RSPA in order to be effective in the unifying process.
- 5.4.1 Signage Standards & Regulations.** In order to recognize the importance of signage in this unifying objective, the purpose of this Section 5.4 is to recognize the function of signs in this RSPA, and to regulate and control all matters relating to such signs, except the construction thereof, within the RSPA. The TDRC shall establish Signage Standards & Regulations for the RSPA. All exterior signage must be approved on a case by case basis by the DRC. Any modifications to or variances from these Signage Standards and Regulations will be approved by the TDRC (if it is then operating), the DRC, and recommended to the Wasatch County Planning Department. If deemed necessary by the Planning Department, the variance shall be presented to the Wasatch County Board of Adjustment. The Board of Adjustment may grant variances only if 1) signs do not create a traffic hazard, and 2) signs do not impact major view corridors of the lake and mountains.
- 5.4.2 General Signage Design Guidelines.** The following are guidelines for the RSPA signage. The DRC may amend or supplement these guidelines from time to time.
- 5.4.2.1 Standard Resort Entrance Signs.** Each of these signs (or gateways) shall have consistent design and be constructed of consistent materials. The TDRC shall develop and approve (with the help of outside consultants), a standard RSPA entrance sign reflecting the image and logo elements.
- 5.4.2.2 Standard Map Signs.** Maps of the Resort will be provided at key nodal points, providing visitors with orientation and information. These signs should reflect the image and logo elements of the RSPA.
- 5.4.2.3 Standard Directional Signs.** These standard signs should also reflect the image and logo elements of the RSPA, but at the same time should provide very clear way-finding elements. Visitors should never feel lost or disoriented. The directional signage should be very clear and prominent in the entire RSPA.
- 5.4.2.4 Residential Neighborhood Signs.** These signs, which will identify various local areas or subdivision within the RSPA, will be standard signs. While respecting the design and marketing requirements of the various developments within the RSPA, these signs will also reflect the image and logo elements of the RSPA.
- 5.4.2.5 Free Standing & Monument Sign for Projects within the RSPA.** These signs, which will identify various local areas or subdivisions within the RSPA, will be standard signs. While respecting the design and marketing

requirements of the various developments within the RSPA, these signs will also reflect the image and logo elements of the RSPA.

#### 5.4.2.6 **Resort Village Signage**

**5.4.2.6.1 Tenant and User Signs.** These signs will be described in detail in the Tenant Handbook to be developed for the approval of the TDRC. National tenants (or users) will require signage that displays their image or logo. While accommodating the needs of the tenants (or users), the size and nature of building signage will be controlled by the RSPA Signage Standards & Regulations taking into consideration the image of the RSPA.

**5.4.2.6.2 Hotel/Lodging Signs.** National hotel chains will require building signage as a prerequisite to coming to the RSPA. While accommodating the needs of the hotels, the size and nature of building signage will be controlled by the RSPA Signage Standards & Regulations taking into consideration the image of the RSPA. These signs shall be sensitive to the materials and design of the buildings and surroundings.

**5.4.2.6.3 Signs on Large Buildings.** The size and nature of building signage will be controlled by the RSPA Signage Standards & Regulations, taking into consideration the image of the RSPA. These signs shall be sensitive to the materials and design of the buildings and surroundings.

**5.4.2.6.4 Resort Village Animated Signs and Internal Video Displays.** Each Resort Village will be entitled to one (1) animated sign and one (1) video display. This will not include any video screens in conjunction with the amphitheatre. Such signs shall be located within the Resort Village, at least one hundred fifty (150) feet within its boundary. These signs will be positioned to serve the Resort Village internally.

**5.4.2.6.5 Icons or Logo Signs.** One (1) major icon or icon type sign will be available to each Resort Village in the RSPA. This icon shall be no more than thirty five (35) feet high and shall be nationally recognized (such as Hard Rock's guitar).

**5.5 Landscape and Hardscape Elements and Unifying Objectives.** Landscape elements within the public and private areas are intended to enhance the mountain character that is important to the overall Resort design. Landscape elements include street furniture, signs, feature landscape elements, walls and planters. Hardscape elements include paving materials, plazas, streetscapes and sidewalks.

**5.6 Landscape Standard Design Elements.** All landscapes are designed to harmonize with the planting, paving, and street furniture.

**5.6.1 Street Furniture.** Within the public realm, the intent of the street furniture such as benches, trash receptacle and other landscape elements is to unify and define elements of the RSPA and its landscape character. Custom motifs consistent with the theme of the RSPA should be used in public spaces. Street furniture within the public realm must be high quality materials. Finishes should be durable, easily maintained and respond to the demands of heavy use. These materials must be from the recommended and acceptable palette of materials.

**5.6.2 Color Palette.** The color palette should reflect a similar range of hues as have been chosen for detailing architectural elements.

**5.6.3 Benches.** A standard bench design for public seating will be identified from a selection of materials that are durable. There can be more than one bench design, so long as they all capture the unifying logo design concept.

**5.6.4 Boulder Massing.** Individual boulders placed alone in the landscape are discouraged. Instead, boulders should be grouped in clusters to create edges, direct circulation, create

informal seating areas, retaining walls, or as physical elements for visually grounding buildings into the landscape. Man made boulders or molded stones will be considered on a case by case basis.

- 5.6.5 Walls.** Walls are to be utilized for grade change retainage, in building planting areas on slab and for decorative purposes. Walls should be built with a set of standardized materials established by the TDRC as Standard Design Elements. These materials should relate to the standard materials used in bridges and buildings. If stone is used, the stone should be split faced and randomly patterned. Walls exhibiting stone should be comprised of natural patterns. Natural stone caps are encouraged, however concrete caps or timber caps of substantial mass, sloped to drain, are acceptable.
- 5.6.6 Water Features.** Man-made, large scale water features should be designed as special feature elements only and should be located strategically for maximum visitor impact and for sound attenuation. They should be designed to provide visual interest and celebrate entrances and or special areas. Water should be re-circulated through the water feature to minimize water loss. Consideration should be given to water quality by incorporating filtration and/or purification systems where appropriate. The use of accent lighting in water features is encouraged; however lighting level intensities should be kept to a minimum. Light sources, electrical cables and mechanical hardware should be hidden from view whenever possible and consideration should be given to treatment of pool bottoms by using such things as natural stone or material to give a finished elegant look. Water features should be designed to create four (4) season interest.
- 5.6.7 Street Lighting, Banners, Clocks and Flags.** Street lighting illumination levels must be of sufficient intensity to provide security, but not overpower the nightscape. Streets lights should not be more than fourteen (14) feet in height. Bollards and other low-level lighting will be provided for pedestrian pathways. Bollards shall not exceed forty two (42) inches in height and shall have a light cut-off of no more than eighty (80) degrees. While banners, clocks, flags and other elements are strongly encouraged around buildings, they should not be dominated by commercial messages. The RSPA Design Review Committee will review proposed street furniture, lighting and commercial messages on a case-by-case basis, but the image and logo elements of the RSPA will be uniformly manifest in these items and should clearly communicate the unity of the area. Parking lot lights are permitted to be a maximum of twenty (20) feet tall and street lights outside of the villages shall conform the height regulations of the Wasatch County Planning, Zoning and Development Code. Street lights outside of Resort Villages shall be located primarily at street intersections and considered elsewhere by the DRC on a case by case basis.
- 5.6.8 Kiosks/Interpretive Centers.** Kiosks and interpretive centers are an important element to enhance the pedestrian experience for the RSPA and should embody the unifying image and logo design elements. Because the unique nature and history of the area, interpretive centers can be another item of interest in the RSPA while maintaining a seamless pedestrian experience. Kiosks are another way to insure a seamless shopping experience to visitors and guests of the RSPA. The kiosks and interpretive centers should be high quality and look permanent. Buildings should be colorful and vibrant, carrying a look of fun and excitement.
- 5.6.9 Bike, Ski and Snowboard Racks.** Ski/snowboard and bike storage will be provided near entries to commercial spaces for use by the public. These amenities should be designed to compliment the architectural style of adjacent buildings. Designs should reflect materials used on the nearby building bases. Ski/snowboard and bike racks must be highly visible and accommodate locking mechanisms to reduce the risk of theft. These items should also embody the image and logo design elements of the RSPA.
- 5.6.10 Other.** Garbage containers will be coordinated in design and detailing. These containers, if possible, should also embody the image and logo design elements of the RSPA.
- 5.7 Hardscape Standard Design Elements.** The hardscape in the Resort Villages are an important element in the pedestrian environment. The hardscape includes such things as paving materials, stone walls, and curbs. The hardscape allows for pedestrians to move about freely without

damaging landscaped areas. Materials in the hardscape should be durable and none skid. Pavers should be set with enough strength to prevent the pavers from slumping and cracking. The materials used to create these hardscape areas establish a thread of continuity and, combined with street furniture, landscaping and building architecture, reinforce a consistent and lively theme for guests of the RSPA.

**5.7.1 Paving Materials.** Paving materials and patterns are important ordering elements within the RSPA. Paving character should be inspired by natural elements within the Utah landscape. It is important that a hierarchy of paving within each landscape character area be established to delineate spaces, direct pedestrians and create interest at the ground plane level. Paving will vary in treatment throughout the open space of the Resort Villages adding a dimension of visual interest to the pedestrian streetscape. Acceptable paving materials must be durable, frost proof and should have a high coefficient of friction (in excess of .8).

**5.7.2 Plazas.** Plazas provide gathering spaces and activities for street festivals and programs. The plazas provide the street life and are interactive with the other elements of the public realm such as streetscape and walk-ways. Plazas should provide a variety of different size experiences and scaled spaces for the public. The other elements of resort design should be carefully integrated into the plaza space. Views to storefronts and the physical amenities should be preserved.

**5.7.3 Streets.** The streetscape is a strong component of the RSPA design. Streetscapes become the primary interface between the pedestrian and automobile. Streetscapes become vibrant activity areas that invite people to come and shop or discover the resorts. Streetscapes should provide interesting signs, banners, paving materials and other RSPA design elements. The streetscape should address the needs of both the pedestrian and automobile. Legibility for these two key users should be at the forefront of every signage design decision. Signs within streetscapes should not be overpowering from sign to sign, but should work in harmony with each other. In the Resort Villages, crosswalks should be designed to accommodate ADA requirements.

**5.7.4 Sidewalks.** Sidewalks become the lineal elements binding the plazas, and streetscapes together. Sidewalks should be hard surface and made of materials that are consistent with the overall design theme of the resort. Materials should be durable. Walkways should be designed to act as their own way-finding features by using textures, colors and materials that reinforce the travel direction and provide an exciting experience for the pedestrian. Sidewalks should have a coefficient of friction of at least .8.

**5.8 Landscape Lighting Guidelines and Plan.** Based in a mountain setting, it is key to the success of Deer Valley Lakeside RSPA to effectively fuse the vernacular landscape with the proposed built form. By weaving the inherent natural patterning of the landscape into the fabric of the development, a solution appearing to "grow out of the landscape" is born. These guidelines have been written specifically to help guide the RSPA and encourage a quality fit between development and land. As a basis for these guidelines it is essential to discuss the existing site conditions and natural site characteristics as well as criteria for the protection, enhancement or integration of these conditions and characteristics as it pertains to the RSPA.

**5.8.1 Pedestrians.** In order to meet the objectives of the RSPA, the needs of the pedestrian must be met. The public areas are designed to provide visual interest in all four (4) seasons and to provide a memorable pedestrian experience for the visitor. Open space must be integrated with pedestrian circulation throughout the RSPA and be unique to the area by embracing the native Utah landscape character in a mountain setting. Trails, pedestrian walkways, streets, people movers, and bridges respond to the need for a well-integrated open space plan. Spaces throughout the public areas need to be designed in a flexible manner so that they serve a number of potential purposes such as walkways, gathering spaces, resting areas, staging areas, and emergency access routes. The pedestrian should never feel lost or disoriented anywhere in the RSPA.

**5.8.2 Reserved.****5.8.3 RSPA Landscape Design Principles.** The basic landscape planning principles for the RSPA are:

- 5.8.3.1 Principle 1:** Landscaping is to be reminiscent of the natural landscape found in the Jordanelle Basin.
- 5.8.3.2 Principle 2:** Natural appearing land forms and flora must be maintained and predominate wherever possible. Planting will be integrated in fixed locations, both in-ground and in elevated planters. In natural open areas and private spaces, the landscape design should allow new vegetation to appear to be integrated with the existing mountain landscape, i.e. utilize indigenous species wherever possible.
- 5.8.3.3 Principle 3:** Planter walls are recommended adjacent to public spaces to encourage a sense of scale and intimacy. The walls should be faced with materials authorized as Standard Design Elements, but care should be taken to make these walls relate both to land form and building structures.
- 5.8.3.4 Principle 4:** Grade changes within the landscaped pedestrian areas should be made using retaining walls (maximum five (5) feet in height). Wall heights greater than five (5) feet may be used when necessary to minimize disturbance to land form and to preserve the natural character of the area. Higher walls should have more stone and should be visually integrated into the landscape in form and texture.
- 5.8.3.5 Principle 5:** Building and landscaping must be carefully integrated to assist in creation of streetscape, improving quality of private open space and providing color and diversity to RSPA.

**5.8.4 Planting.** Planting is an important part of the landscape character for the RSPA. Plant composition should help emphasize the sense that the mountain landscape extends through the RSPA and down to Jordanelle Lake. To mimic the natural landscape character, the use of native or native-like plant massing (or plant groupings) and compositions that combine deciduous and evergreen trees with under-story shrubs and groundcovers reminiscent of the surrounding mountain slopes and native Utah landscape is required. Plantings are to be incorporated into landscape design to create edges, frame views, soften building edges and extend the mountain landscape character into the resort core. Planting single shrubs and trees is discouraged. Mass planting of trees, shrubs and ground cover areas is necessary to create a stronger, more legible landscape character. A variety of plant sizes is recommended to ensure visual diversity. Planting should be strategically located to ensure views are framed, preserved and/or enhanced. See the Planting List at Exhibit E-18 (located in the Wasatch County Planning Department).

**5.8.5 Planting Beds.** All planting beds that abut roads, walkways and paved areas must be surrounded with a minimum four (4) inch high curb of concrete or finished stone. This is to ensure there is an edge to prevent snowplows from damaging the planter beds.

**5.8.6 Plant Materials.** Plant materials shall be tolerant to the Jordanelle Basin which is characterized by cold winters and hot summers with very little rain fall. The Basin is also subject to diurnal winds throughout the year making it difficult to plant large stock plant materials in unprotected lands. However, because of the hilly terrain in the Resort many areas with more hospitable microclimates are formed. Prior to site plan development each site should be analyzed to take advantage of these microclimates that will allow for greater variety in the landscape. Domestic landscaped areas are envisioned that reflect the native vernacular in color, texture and form. In residential areas domestic plants can add interest and provide elements of landscape design not available with the native plant pallet. When domestic plants are used a seamless transition from the domestic plants to the native environment should be considered. See Exhibit E-18 in the Exhibit Book (located in the Wasatch County Planning Department).

- 5.8.7 Native Plants/Native-Like Plants.** Native landscapes and vegetation areas that reflect the indigenous plant materials and landscape textures are envisioned. Native landscape species consist primarily of drought tolerant plants. Plants in wet areas shall be consistent with native species in these types of plant associations. The plant materials should thrive with very little or no irrigation, except during the period of initial establishment. All native landscape plants should be carefully planted due to the high mortality rate for these species. Plants that are "native-like" are species that may be indigenous but not endemic to the area. The use of the indigenous species or other more recent introduced species that mimic native plants is acceptable. Transplanting existing plants on the site is encouraged.
- 5.8.7.1 Gambel Oaks.** Protection of native Gambel Oaks on building sites is imperative, since they do not transplant well. Prior to transplanting native plants developers should consult an arborist to determine if native plants may be preserved. Stands of spruces, firs and junipers should also be protected as much as possible. All native plants should be obtained from a reputable local nursery specializing in native plants. Trees must have sufficient root growth to ensure proper plant health.
- 5.8.7.2 On Site Planting Farm.** All native plants should be nursery grown for a minimum of two (2) years. However, there is opportunity to create an on-site nursery where acquired bare root materials could be held in pots until weather enables there planting or they are properly acclimated. Bare root planting is only acceptable in early spring with fully dormant nursery stock. This could be implemented in whole or in part pursuant to Section 5.8.16.
- 5.8.8 Turf Meadow Grass and Wildflowers.** Where turf areas are necessary, a turf grass blend should be chosen that is durable to traffic and drought tolerant. It is required that irrigation accompany turf areas, and it is mandatory for irrigation systems to be installed with turf that is laid over slab.
- 5.8.9 Turf Use.** Grass lawn areas may be provided. However, despite their benefits, the economic and environmental costs associated with turf establishment and management are typically overlooked. Lawn areas should be kept to a minimum for the following reasons: operational costs associated with the machinery, labor for mowing and fuel; reduction or elimination of fertilizer and biocide use to reduce expenditures and environmental impacts; and to help foster a landscape character and natural habitat appropriate to the local rugged mountain setting. Given these considerations, the following guidelines are recommended:
- 5.8.10 Minimize Lawn Areas.** Lawn areas should be kept to a minimum within the RSPA. An appropriate use of turf is to scale the lawn to the surrounding area and use. Some common public spaces are intended as park-like settings. Maintenance considerations should be taken into account when locating lawn: simplify turf edges and areas, avoid difficult to mow situations like steep slopes and boulders, retain existing groundcovers wherever possible, and in wooded or vegetated areas reduce potential lawn areas by retaining as much existing or native material on site as possible. Use alternatives to turf where ever possible. Effective alternatives to turf, which will better maintain a natural setting include: wildflowers for season-long color and interest and shrub massing for season long color. All-season planting beds adjacent to paved areas will require adequate soil depth for plant materials. In certain settings, wildflower reseeding will be necessary to maintain the color vibrancy of the planted areas. Soil depth within the planting beds can be obtained by mounding soil or building walls and raising curb edges. Planting depth requirements are critical to the health and maintenance considerations of the plant material.
- 5.8.11 Maintenance.** Maintenance of trees and plant materials is critical to the overall success of planting character and health. All projects are required to have qualified and certified maintenance contractors monitoring the plants in order to maintain the high aesthetic standards demanded by the RSPA. The low maintenance/natural character planting strategy is important. However, this does not mean that maintenance is not required and should be ignored. Rather, it is key to the success of the Resort. A maintenance guarantee is recommended for two (2) years after installation to ensure that plants are healthy and

established and or replaced if dead. The TDRC shall formulate, with the help of consultants, a Planting Maintenance Guide for assistance of the developers and contractors within the RSPA.

**5.8.12 .Reserved.**

**5.8.13 Reserved.**

**5.8.14 Lighting Selection & Use Process.** Lighting is a very important aspect of the RSPA. Due to the nature of lights and how they will attract attention it is imperative that great care be taken in the selection of light stanchions and arms that enhance the theme of the RSPA. Lamps should use a minimum amount of lumens and still provide a safe environment for pedestrian and vehicular traffic. Gathering spaces in villages should be better lit to provide for night crowds. For the public areas, a series of RSPA Standard Lights, Poles and Bollards shall be established by the TDRC. These Standard Lights, Poles and Bollards shall become part of the Standard Design Elements of the RSPA, and should also embody the image and logo elements of the RSPA. The private realm lighting will need the approval of the DRC on a case by case basis.

**5.8.15 Reserved**

**5.8.16 Common Plant Material Farm Options.** As part of the RSPA, a common nursery should be established to allow plants to adapt to the environment prior to planting. The nursery can act as a means to experiment with different plants for the climate and allow for a broader plant selection. Many plants may have greater success adapting to the area if they have an opportunity to adapt to the environment prior to planting them in developments.

## **5.9 Trails and Cart Paths Plan**

**5.9.1 Design & Unifying Objectives.** The design objective for the sidewalks, paths, and trails is to provide a safe, pleasant and "experiential" pedestrian system to link Resort Features, residential areas, community facilities, public amenities as part of trail system within the RSPA, as well as to areas outside of the RSPA. Suggested Standard Design Elements for trail and cart paths, to be determined by the TDRC, are as follows:

- a. Wasatch County Trail Construction and Design Standards (Appendix 3),
- b. Lighting Standard Design Elements (Section 5.8.14),
- c. Bollards (Section 5.8.14),
- d. Paving Materials as described in Section 5.7.2,
- e. Railing (consistent styles and sizes),
- f. Materials and design for rest areas and view points (including restrooms where appropriate),
- g. Landscape planting and re-vegetation as described in Section 5.8,
- h. Trail signs (as contemplated in Section 5.4 and should be the same for the entire RSPA),
- i. Walls and wall treatments (as described in Section 5.6.5),
- j. Gate designs to exhibit the RSPA image and logo.

**5.9.2 Comprehensive Trail System.** The comprehensive trail system within the RSPA is also part of a comprehensive trail system in Wasatch County and the Regional Trail System. The RSPA system is designed as part of a much broader trail system that extends to communities within the County and also connects to the Summit County, the Snyderville Basin and Park City trail systems. Mountain trails connect to Deer Valley, Park City and The Canyons. The trail system is design to accommodate multiple user groups and to provide a series of recreational experiences in bicycle riding, equestrian, hiking, cross-country skiing, walking and running. Motorized use of trails is prohibited except for authorized emergency vehicles. As final trail alignments are set, careful coordination should take place between the Wasatch County Trails Planner and the TDRC and DRC.

**5.9.3 RSPA Trails Master Plan.** The RSPA has an extensive trail network to provide multiple types of trail users with different experience. Trails within the master planned area provide convenient connections to adjacent neighborhoods and to the Resort Villages. The trail system will also provide connections to neighborhood commercial areas and the perimeter

trail system at Jordanelle State Park. Final trail alignments should be established to take full advantage of the spectacular views available and to minimize any adverse impacts on neighborhood residents and property owners. In some sections of the trail system, multiple trails are necessary to provide access to specific activity areas. These trails are in sections where trails run under Highway 40 and where the old rail alignment crossed ravines and drainages. These multi-use trail areas should be designed in a manner to provide wider shoulders, where possible, for the different user types to pull out of the way and minimize conflicts. Bicycle users should avoid the intense pedestrian area in village centers. Bicycle racks should be located in convenient locations to allow bicyclists to lock their bicycles and participate in the pedestrian experiences in the Resort Village centers. In key locations, small pocket parks should be provided with picnic facilities, restrooms and drinking water.

**5.9.4 Phasing and Costs.** The TDRC will use its best judgment in recommending the phasing of the Trails System. It will also be flexible and creative when designing the trails so as to keep the costs as low as possible without compromising the intent of the design.

**5.9.5 Trail Types.** The trail system is made up of equestrian trails, hard surface pedestrian and bicycle trails, golf cart paths, compacted soft surface pedestrian trails, and mountain trails. Each type will be designed to meet the needs of targeted users to maximize the trail experience.

**5.9.5.1 Equestrian Trails (six to twelve (6-12) foot width).** An equestrian trail is being considered for horseback riders to ride from Mayflower and Deer Crest Villages. If deemed feasible, it is not yet determined where the equestrian center will be located (probably be in a secluded area on the west side of Highway 40), but the trail will link both sides of the Highway. It is also important that the horseback riders have access to the trail system in the Mayflower North Neighborhood and to the trails in the regional system in Northern Wasatch County, the State Parks and Southern Summit County. These trails should be a minimum of six (6) feet with a ten (10) foot wide trail preferred. In areas where the trail is multi-use, a six (6) foot wide soft shoulder is preferred. Equestrian trails will also provide watering stations for both the rider and the horses (and restrooms where appropriate) in key locations. These locations should be carefully selected to provide access to water lines and avoid negative impacts on residential areas such as odors from the horses. Equestrian parking areas should be provided for these users and should consider the requirements of horse trailers for parking (this trailer parking area may be separate from the equestrian center). Horse tie ups should also be provided in these locations. Horse facilities should be minimized near the Jordanelle Lake to preserve water quality. If a horse facility is located on the east side of Highway 40, forebays should be used to isolate drainage from reaching the reservoir without filtering through the soils.

**5.9.5.2 Hard Surface Pedestrian/Bicycle Trails (ten (10) foot width).** A hard surface pedestrian and bicycle trail extends to the North. This hard surface connects to the trail system in the Mayflower North Neighborhood and to the trails in the regional system in Northern Wasatch County, the Jordanelle State Park and Summit County system and also creates a loop around the Deer Crest Village Center. The hard surface trail connects to the Mayflower South Neighborhood. Hard surface pedestrian trails shall be ten (10) feet wide and conform to the Wasatch County Trail standards. These trails should provide a four (4) foot soft shoulder on each side for pull outs. Shoulders on the uphill side of the trail should slope back to capture sediment from the hill and keep it from running over the trail system. Drainage swells should be provided on up hill sides of the trail with culverts in key locations to allow water to pass under the trail. Pocket park rest areas with restrooms should also be provided with water and picnic tables in key locations. Bicycle racks should be provided to



allow bicycle riders to leave their bicycles and travel on foot if desired. View areas should also be considered in key locations.

- 5.9.5.3 Golf Cart Paths (six (6) foot width).** Golf cart paths are required between holes and will cross through different properties. Golf Course paths are six (6) feet wide, hard surfaced with minimal shoulders. Alignments for the golf paths will be finalized when the final golf course design is completed.
- 5.9.5.4 Compacted Soft Surface Pedestrian Trails (six to eight (6-8) foot widths).** Compacted surface trails are extensive throughout the Deer Valley Lakeside Resort. These trails link critical areas to more trafficked hard surface trails. The soft surface trails may run adjacent to the golf course. Great care should be taken to avoid golf spray zones in these areas to help prevent injury to trail users from errant golf balls. Compacted soft surface trails will require regular maintenance to keep the trail from overgrowing. The trail will also require compaction twice a year to maintain the trail surface. Soft surface trails shall be six to eight (6-8) feet wide and conform the Wasatch County Trail standards. These trails should provide a four (4) foot soft shoulder on each side for pull outs. Where necessary, shoulders on the uphill side of the trail should slope back to capture sediment from the hill and keep it from running over the trail system. Drainage swells should be provided on up hill sides of the trail with culverts in key locations to keep water off the trail.
- 5.9.5.5 Mountain Trails (four (4) foot).** Mountain trails are located in sensitive areas that require a minimal disturbance to land. These trails are primarily for hikers and some mountain bikes. Trails should conform to Wasatch County Trail Standards.
- 5.9.6 Trail Maintenance.** Trails will be maintained in a coordinated effort of the Master Association, State Parks, Wasatch County and each individual Property. It is anticipated that the Master Association will include the cost of its obligation to maintain the trails in its annual maintenance budget.
- 5.10 Parking Plan.** Except for those requirements specified in Section 3.4 for Resort Villages, the number of parking spaces required shall be governed by the Wasatch County Planning, Zoning and Development Code regulations. In a resort setting parking lots and parking structures may be critical to the success of the resort. However, because of aesthetic concerns, it is also just as important that these types of facilities be implemented in such a way as to not detract from the overall theme of RSPA.
- 5.10.1 Unifying Objectives of the Parking Plan.** The unifying objectives of the parking include: 1) consistent considerations in locating parking areas including ingress and egress, avoidance of pedestrian and vehicular conflicts, and conflicts with street traffic; 2) standard guidelines for the overall configuration and appearance of the parking area and 3) use of the Standard Signage Regulations and Guidelines to be consistent with the image and logo design for the RSPA. The underlying theme of these objectives is ease and simplicity of access consistent with Sections 5.1.5 and 5.1.6. This could include a computerized parking information signage system for those approaching and entering the RSPA.
- 5.10.2 Resort Village Street Parking Guidelines.** Activity on the streets of the Resort Villages is essential to create an atmosphere of vibrancy and interest. Automobiles parked on Resort Village streets can enhance this atmosphere by providing additional interest to the street and providing convenience to short term visitors and shoppers. In a snowy climate it is also important to provide locations along the street for snow storage while at the same time keeping pedestrian ways open and shops along streets easily accessible to shoppers and other visitors. On-street parking shall conform to the following standards: 1) parking areas shall provide bulb-outs at the end of parking areas along the street a minimum of thirty (30) feet from intersections; 2) bulb-outs shall be landscaped while not blocking the visual cone at intersections; 3) designated mid-block street crossings shall also provide bulb-outs to minimize street crossing distances for pedestrians; 4) parking curbs shall be a minimum of four (4) inches high and 5) landscaped areas shall be provided adjacent to

parking areas. During snow season, it may be necessary to require parking restrictions on one side of the street during late evening hours for snow removal. The restricted parking side will need to alternate daily allowing snow removal crews to keep street parking areas open all winter. Where necessary, a three (3) foot clear area should also be provided next to the street where parallel parking will occur, to allow passengers in automobiles the ability to exit. These areas should remain free of snow and ice where possible.

- 5.10.3 Visual Screening of Surface Parking and Structures.** Where practical, surface parking areas and parking structures, can be screened visually from the streets in Resort Villages and from Highway 40, or other major view corridors, by the use of plants and berms. This visual screening is contemplated to be partial, not a complete cover. Screen walls are not required. This will apply to the view from US Highway 40 as well. In cases where screen walls are used, wall faces must be treated with stone in a manner that is consistent with the retaining and free standing wall standards in the Resort Village areas. Parking should be designed to fit in the natural landscape and minimize disturbances to the native vegetation.
- 5.10.4 Parking Area Design.** Parking areas should be designed with the following in mind:
- 1) Parking areas should be located to the rear or side of buildings whenever possible;
  - 2) Parking facilities should be designed in a manner such that any vehicle on the property is able to maneuver to exit from the property traveling in a forward direction.
- 5.10.4.1** Design parking facilities so that a car within a parking area will not have to enter a street to move from one location to another within the same parking area.
- 5.10.4.2** Provide a four to six (4 to 6) inch continuous raised curb on all parking stalls (except parallel parking) heading into a sidewalk, planting area, or setback area. Care must be taken to ensure that the height of the curb does not damage the vehicle. Rolled curbs may also be appropriate in some areas.
- 5.10.4.3** Provide for a landscaped area, referred to as the Landscape Buffer, to help provide the visual screening. The width of the Landscape Buffer can vary but optimally should be approximately fifteen (15) feet in width. Use these Landscape Buffers, walkways, and plazas to reduce the visual impact of large surface parking areas. The design should employ the Landscape and Hardscape Guidelines of Section 5.6 and 5.7 herein for these areas.
- 5.10.4.4** Where applicable, design the parking areas so that drive aisles are perpendicular to the main building wherever feasible and provide for vehicular circulation through parking areas in the outer edge of the parking area where there is less pedestrian traffic. Minimize situations where pedestrians cross parking isles at right angles.
- 5.10.4.5** Direct vehicular circulation away from fire lanes.
- 5.10.4.6** Design the parking areas to provide seamless links to the pedestrian patterns in the Resort Villages. This can be implemented through the use of design elements such as painted or enhanced paving, architectural features, or landscape treatments.
- 5.10.4.7** Minimize the number of entrances and exits to reduce conflict at entries and lessen possible congestion at street intersections.
- 5.10.4.8** Where possible, provide vehicle queuing within surface parking lots and parking structures according to the following standards measured from the ultimate public right-of-way:
- 5.10.5 Surface Parking Lot Guidelines.** Surface parking may be found inside and outside of the Resort Villages. All primary surface-parking areas, including access areas, must be paved with asphalt, concrete or pavers. Changes in paving materials between parking areas and access areas are encouraged to promote legibility to users. Parking designs and maintenance must provide for the following:
- 5.10.5.1** Directional markings and striping must be maintained in good condition at all times;
  - 5.10.5.2** Parking lot pavement strength must be designed for the expected users of the lot;

- 5.10.5.3 Areas should be reserved for future expansion; and
- 5.10.5.4 Expansion and overflow areas should utilize turf-block, be fully landscaped or leave natural landscape undisturbed.
- 5.10.6 **Parking Structure Guidelines.** Parking structures will be found throughout the RSPA, and their design and appearance is a major consideration for the visual quality of the Resort. The design guidelines in this section are intended to assure that parking structures incorporated design features, which make them more attractive. The RSPA guidelines for parking structures are as follows:
  - 5.10.6.1 Partially conceal views of cars parked in parking structures through a combination of visual barriers, architectural design and plantings; open sided facilities, which allow complete views of parked vehicles, are not permitted.
  - 5.10.6.2 Where possible, parking structures must be sited and designed to minimize the view from US Highway 40 or other major view corridors. Screening, as described in Section 5.10.3, is recommended in the Landscape Buffer described in 5.10.6.3.
  - 5.10.6.3 Articulate the elevations of parking facilities visible from Resort Village streets and US Highway 40; such articulation may consist of indentations in the structure, changes in color, addition of applied elements to the surface of the facility, or other devices, including the provision of a Landscape Buffer.
  - 5.10.6.4 Construct parking structures of materials that are consistent with Standard Design Elements described herein and that blend into the mountain landscape.
  - 5.10.6.5 In the Landscape Buffers, utilize earth berms on walls of the parking structure at ground level to minimize visual impact and provide landscape areas. Berms shall not exceed 3:1 slopes.
  - 5.10.6.6 To implement screening in the Landscape Buffers, plant large trees adjacent to the structure to screen views from buildings, roads and pedestrian areas.
  - 5.10.6.7 Parking levels may be stepped or terraced to visually soften the overall mass of the structure. Strong consideration should be given to stepping back the parking structure on levels above the fourth level on elevations adjacent to public streets or visible from Highway 40.
  - 5.10.6.8 Parking structure façade articulation should:
    - 5.10.6.8.1 Create a sense of order through play of light, shadow, and texture.
    - 5.10.6.8.2 Minimize horizontal or vertical banding by balancing both of the horizontal and vertical elements.
    - 5.10.6.8.3 Use opening, columns and beams to visually segment exterior surface and provide scale.
    - 5.10.6.8.4 Spandrels are to be level and uniform when possible.
    - 5.10.6.8.5 Differentiate and identify clearly pedestrian and vehicular entrances to enhance ease of access. There should be no conflicts between pedestrians and vehicles.
    - 5.10.6.8.6 Finishes should employ materials consistent with RSPA Guidelines.

## 6.0 ARCHITECTURAL GUIDELINES

- 6.1 **Architectural Objectives & Unifying Purposes.** In keeping with the Vision and the Design Objectives of the RSPA (Sections 1.1 and 1.2), developers will be required and encouraged to design their projects in accordance with the appropriate Standard Design Elements and the other Guidelines described herein. Generally, the RSPA is divided into lower density "Residential" areas and the higher density "Resort Village" areas. For high density projects in and around the Resort Villages, developers will be encouraged to include additional urban design elements in their developments compliment and support the Resort Village theme and the RSPA Architectural

Principles, described in Section 6.1.2 below. The underlying architectural theme of the RSPA is understandably based on the distinctive appearance and image of the Deer Valley, referred to herein as the Deer Valley "Look." This is described more extensively in Section 6.3 below. The unifying strategy of architectural design is summarized by the following:

- 6.1.1 Linkages.** An overall design that links the Resort Features, Resort Villages and the Residential Neighborhoods in an efficient, functional way and in an experiential manner. At the same time minimizing the need for a guest or resident to use an automobile to drive anywhere within the RSPA to participate in the Resort Features.
- 6.1.2 RSPA Architectural Principles.** The Architectural Design Guidelines described in this Section 6.0, are based on the following general principles:
- 6.1.1.1 Principle 1:** The RSPA projects should invoke an image of Northern Utah, not a generic Rocky Mountain resort.
- 6.1.1.2 Principle 2:** Projects should use indigenous rock as a unifying element or design accent in the building bases, streetscape and pedestrian walk-way details;
- 6.1.1.3 Principle 3:** Distinctive rooflines should be created for buildings above two (2) floors, using a low slope with shed and hips vs. gable ends, which will also assist in snow management;
- 6.1.1.4 Principle 4:** As part of the Resort Villages, the 'commercial kiosk' buildings should be developed that are 'themed' and finely detailed, creating a unique architectural style in each of the Resort Villages;
- 6.1.1.5 Principle 5:** Where appropriate, use wood siding or smaller areas of stucco on the principal facades of buildings, and utilize large planes of colors drawn from the Northern Utah landscape;
- 6.1.1.6 Principle 6:** Particularly in the Resort Villages, balconies, window trims, lintels, and rafters should be detailed in a manner that is consistent with the Deer Valley "Look" as described in Section 6.3.1. Bold statements should be created that are not inconsistent with the Deer Valley "Look" yet show creativity in the use of building form and orientation. Buildings should be created that compliment and integrate a distinctive look that has been established for the urban design elements of the resort, especially in the banners, lighting and signs of the streetscape.
- 6.1.3 Unifying Standard Design Elements.** In addition to the Principles specified above, it is intended that a series of architectural design elements be identified by the TDRC consistent with the "Image and Logo" to be adopted by the TDRC. These Standard Design Elements will include the following items:
- a. Consistent use of a range of color palettes and materials;
  - b. Consistent range of roof treatments;
  - c. A series of standard mail boxes;
  - d. Consistent use of wall treatments (see Section 5.6.5);
  - e. Consistent use of paving materials (see Section 5.7.1);
  - f. Consistent use of building finishes and materials.
- It is intended that after the TDRC has identified these items, that they become part of the Standard Design Elements of the RSPA.

- 6.2 Neighborhoods.** The RSPA has three (3) different planning areas, each having its own characteristics:

- 6.2.1 Neighborhood A.** As shown in Plans B-8 and B-9, Neighborhood "A" is primarily residential in its land-use. All structures shall reflect the Deer Valley Look and conform to the design guidelines and standards of the RSPA. Mayflower North is characterized by rolling hills, with foothill Gambel Oak plant associations and will be linked together with a golf course. This neighborhood will have access by the Jordanelle Parkway, when it is completed. The neighborhood also contains neighborhood amenities and a potential school site.

- 6.2.2 Neighborhood B.** As shown in Plans B-11 and B-12, this area will support meeting and convention markets and will attract middle segment leisure travelers and business groups. This high density area will focus on attracting convention and business groups as well as middle segment leisure travelers. The transit system will be a vital component to this area. The technology being considered for the transit system is a trolley or rubber tired busses as shown in Plan B-24. In the heart of Deer Crest Village, a tracked system may eventually be used, although the cost of this may prove infeasible. The pedestrian only streets and plazas will provide an exciting experience and will be bordered by retail storefronts, restaurants and cafes. Retail storefronts will be subject to detailed design guidelines for tenants and users and the commercial kiosks will encourage thematic/distinctive building designs and create a unique pedestrian ambience.
- 6.2.3 Neighborhood C.** As shown in Plans B-14 and B-15, the Mayflower South neighborhood or Neighborhood "C" has a village center designated on the west side. This area is anticipated to be a very high quality resort. The west area is nestled in a cove of the mountain shoulders. Residential areas are characterized largely as ski in and ski out. The village core is the terminus for several ski lifts leading to the Deer Valley Resort ski system and Silver Lake Village. The west area has views looking east over Jordanelle Lake. Small canyons, McHenry and Big Dutch Pete, frame the views of the mountains. Adjacent to the west area of Mayflower South is Wasatch Mountain State Park. McHenry Canyon has a perennial stream that drains into Jordanelle State Park. The east side of the Mayflower South neighborhood is characterized by residential medium density uses. Both sides of the US Highway 40 share a golf course. The neighborhood also has a small neighborhood commercial area and service station to serve the residents and visitors. The Stillwater Resort is located on the north end of the east side of the Mayflower south neighborhood. Stillwater resort is a condominium hotel with some residential single family and town homes.
- 6.3 Architectural Theme: Deer Valley "Look"**
- 6.3.1 Design Elements of the Deer Valley Look.** For purposes of the RSPA, the TDRRC shall establish these elements pursuant to Section 8.1 herein. The TDRRC shall draw upon outside consultants and the local estate brokerage community for advice on these issues.
- 6.3.2 Materials and Design Handbook.** The TDRRC or the DRC will establish and update from time to time, a Materials and Design Handbook, that will contain images and plans illustrating the Standard Design Elements and the Design Principles described herein. This Material and Design Handbook will be organized according to the outline contained herein and will be maintained in the offices of the DRC. It will also contain all of the approved materials and finishes.
- 6.3.3 Green Building Design.** Environmentally friendly building design will, wherever reasonable, be embraced. This will apply to residential areas and to the Resort Village areas. The DRC will, in the Material and Design Handbook, keep updated information on Green Building Design technology and design concepts. An emphasis in the RSPA will be to conserve water and energy. Site selection is vital to the Green Building Design. The process of site development should be in accordance with green design principles involving three basic systems:
- a. Natural systems;
  - b. Habitat and vegetation, hydrological systems;
  - c. Sun/shade, wind/temperature;
- Other elements for consideration in green building design include:
- a. Infrastructure;
  - b. Utility service including geothermal, solar and co-generation;
  - c. Water conservation devices within buildings;
  - d. Road and parking design;
  - e. Pedestrian and site elements;
  - f. Building and Landscape Systems;

- g. Site development, and
- h. Building development.

**6.3.3.1 Green Design Building Techniques.** Designs should reflect energy efficiency by means of:

- a. Effective daylight penetration;
- b. Passive, seasonal heating and cooling;
- c. Sun shading;
- d. Natural ventilation, and
- e. Optimal solar orientation.

**6.3.3.2 Green Materials.** Designers should, wherever practical, build with 'green' materials and methods. This includes:

- a. Designing buildings to be flexible and easily adapted to changing needs, temperatures and the change in seasons;
- b. Using local building materials;
- c. Establishing and prioritizing criteria for selecting building materials including: place of origin, durability, embodied life energy, life cycle, toxicity, recycled content, and whether or not it can be recycled (both product and packaging), whether or not excess building products can be recycled;
- d. Use of non-solvent based primers, adhesive sealants, paints, etc.

#### 6.4 Guidelines For Both Residential and Resort Village Areas

**6.4.1 Building Siting and Orientation Guidelines.** Building site constraints and opportunities are based on the density Zone of the site. The following should be adhered to:

**6.4.1.1 Natural Features & Vegetation.** Preservation of major natural site features and existing vegetation is required. Developers shall define the area of disturbance on paper and in the field prior to construction. Areas of disturbance must be approved by the DRC.

**6.4.1.2 Encroachment.** Encroachment beyond the property lines is prohibited. Any such proposed encroachment must be noted on the drawings and submitted to the owner of affected adjacent property, the DRC and Wasatch County at the initial design stages for review and consideration. Without the approval of the affected adjacent property owner, the application will not be accepted by the DRC.

**6.4.1.3 Adjacent Development.** Building siting should be responsive to the overall site plan, adjacent development, and the natural environment. Building owners or developers shall consider any negative impacts to adjacent property owners and demonstrate to the satisfaction of the DRC mitigation measures implemented in resolving these impacts. The DRC shall have the power to approve or reject a development until mitigation measures are agreed to. In taking into consideration the impacts of view issues, the DRC shall assume that the property owners understood that adjacent buildings would be constructed when they purchased or developed each building site.

**6.4.1.4 Master Plan.** Proposed projects shall also be responsive to the overall master plan when designing buildings or residences. The long-term success of the RSPA is a function of each site being designed to reach its highest and best use.

**6.4.1.5 Topography.** Buildings and residences should be sited to take full advantage of the topography in creating view corridors, pathways, plazas, gathering places and building orientation. This includes using grade changes as vertical pedestrian links and using buildings or residences for retainage.

**6.4.1.6 Geology/Soils Conditions.** Buildings and residences should be located to take advantage of extraordinary features related to the site. Existing rock outcroppings, landforms and water sources should be considered in the siting and orientation of buildings.

**6.4.1.7 Hydrology and Drainage.** Whenever possible, buildings and residences shall respect drainages and avoid locating structures across drain swells and small canyons leading to the lake. Whenever possible developers and homeowners

should incorporate natural drainages into landscape features and utilize the natural flow of water to create annual stream beds or ponds with a wider variety of plants and plant associations.

- 6.4.1.8 Viewshed Guidelines.** Views are an important aspect of the RSPA. Views to the Jordanelle Lake and the Wasatch Mountains should be respected. Buildings should be sited to capture these views. Development should follow the guidelines in the Wasatch County Planning, Zoning and Development Code regarding viewshed analysis. Ridgelines should be protected. Views from the higher elevations can be captured without detracting from the overall beauty of the Jordanelle Basin. Great care should be taken when building in these locations to protect these sensitive viewsheds.
- 6.4.1.9 Solar and Micro-climactic conditions.** The high altitude of the Resort causes intense climatic changes through the year. However the hilly terrain creates opportunities to establish micro-climates where warmer conditions exist. In addition to the Guidelines in Section 6.4.2, developers and homeowners should utilize the solar angles to take advantage of the sun and create a micro-climate. In summer months the sun angle should be considered to create shade for guests and a longer seasonal outdoor experience.
- 6.4.1.10 Access and Circulation.** Clearly defined access to residences, hotels, other higher buildings and parking areas will improve the experience of visitors to the RSPA. The adage that "people like to discover but don't like to explore" is true in the resort setting. Providing clearly defined access and clear circulation is an opportunity to encourage people to walk and discover the resort on foot.
- 6.4.1.11 Access Grades.** Because of the snowy conditions in the winter months, access grades should be minimized for vehicles. Eight (8) percent grades are encouraged as a maximum to allow snowplows to clear roads easily and for standard passenger cars to use streets in storms and icy conditions. Some circumstances may require steeper grades. The DRC will review such circumstances on a case-by-case basis.
- 6.4.2 Solar Orientation.** Because of its importance, solar orientation deserves special mention. Taking into consideration micro-climactic conditions, as described in Section 6.4.1.9, building or residence siting should preserve sunlight on neighboring outdoor and indoor spaces. Late afternoon sun is most important for outdoor use/activities. A solar shading diagram must be provided by the DRC for all developments in the RSPA. For higher density buildings, the placement of buildings relative to public spaces should consider solar access for plazas, walkways, roadways and other outdoor use areas. Designers must minimize the degree of overshadowing of one building by another through such devices as plan form, wall heights, setbacks, and roof variation. Courtyards and at-grade patios are recommended to be adjacent to main living areas and should be located to collect maximum sunlight to allow year-round use.
- 6.4.3 Building Height and Massing Guidelines.** Building heights are identified for each Zone in the RSPA in Sections 2.3.2.13 to 2.3.2.21. Where possible, the use of roof space (in attics) as habitable space is encouraged to minimize base building mass:
- 6.4.3.1 Building Heights Defined.** Building height is defined herein at Section 2.3.2.9 and will be calculated in accordance with Section 16.04 of the Wasatch County Planning, Zoning and Development Code. Pursuant to the proposed Wasatch County Code, Grade is defined as finished grade and Building Height is defined as the height from the finished grade to "highest point of the building."
- 6.4.3.2 Varied Topography.** Due to the varied nature of the RSPA's topography, it is important that the height guidelines reflect the differences of the natural landscape. The guidelines, therefore, have been designed to regulate building scale while accommodating this varied terrain.

**6.4.3.3 Definition of Story.** Story is defined in the Wasatch County Planning, Zoning and Development Code Section 16.04. For purposes of the RSPA, unless otherwise approved by the DRC, typical residential stories should range from eight to twelve (8-12) feet, commercial use stories in Resort Villages should range from twelve to eighteen (12-18) feet, and in hotels where meeting space is found it can range up to thirty (30) feet. See Section 2.3.2.5 herein.

**6.4.3.4 Maximum Building Height Rule.** The maximum building height is applicable to all development in the RSPA. The maximum building height is defined as the maximum number of stories allowed above grade, measured from the grade at any building face or a specified maximum height above that grade, whichever is greater.

## **6.5 Resort Village Guidelines**

**6.5.1 Special Building Forms: "Commercial kiosk Buildings."** Commercial kiosk buildings provide a commercial space for small retail operations that range from stand alone buildings to kiosks. All of these buildings or kiosks need to be on wheels so they readily move. Commercial kiosk buildings represent an opportunity to develop a distinctive architectural style for buildings on areas located at the U.S. 40 underpass in Deer Crest Village. These buildings are considered a "special case" because they provide a seamless experience in passing from Deer Crest Village East to Deer Crest Village West. Due to the nature of these buildings they can 1) follow historical cues and re-create native Utah structures (e.g. Utah frontier commercial buildings or mining town commercial buildings); 2) they may represent literal translations of the local natural environment; or 3) be highly detailed- compatible yet standing apart from the village core architecture. These buildings should be fun looking, educational and freestanding. Designs must be in contrast with the surrounding buildings. They should also support heritage, way-finding, and/or public art functions.

**6.5.2 Resort Village Envelopes.** Within the Resort Villages building envelopes have been established to provide maximum heights to buildings while allowing flexibility for site plans and architecture to adapt to site conditions and market trends. These envelopes represent the total buildable area for buildings without violating the total permitted ERU's for a parcel. Although building envelopes are established as a maximum height, proposed buildings should be stepped in such a manner to allow sunlight to reach the village core pedestrian streets and to manage shade on the streets. Views of both the lake and the mountains should be optimized in the siting and massing of the buildings. The solar orientation of the resort is important in allowing sunlight to reach the pedestrian streets in the village cores.

**6.5.3 Resort Village Retail Storefronts.** Retail storefronts will be subject to detailed "Guidelines for Users and Tenants" or the "Tenant Handbook" to developed with for the approval of the TDRC. Retail storefronts should incorporate a wide variety of forms and designs compatible with the RSPA Standard Design Elements and the guidelines described herein. The use of local rock to allow structures to integrate into the natural landscape is encouraged. Design should create a sympathetic interaction (pedestrian-scaled 'podium' levels, high quality finishes, contextual retail facade treatment, "pedestrian-friendly" ground-level between buildings and the street, as all buildings with street frontage. Design all buildings to optimize views, privacy, sun, shade and other site opportunities, respecting the natural topography of the land and the form and texture of the existing vegetation. See Section 6.5.7.2 for more details.

**6.5.4 Public Restrooms.** Wherever possible, public restrooms should be provided in strategic locations in the Resort Villages.

**6.5.5 Resort Village Building Siting and Orientation Guidelines.** The Siting and Orientation Guidelines in Section 6.4.1 apply to Resort Villages. In addition, all improvements on a development parcel in a Resort Village must be designed within the designated Building Envelope (Section 6.5.2) in accordance with the Zones designated herein



- 6.5.6 Building and Streetscape Lighting.** Public area lighting is subject to the Standards discussed in Section 5.8.14. Private realm lighting will be approved on a case-by-case basis by the DRC. Exterior building lighting should be located in areas of pedestrian activity or at drop-off zones for vehicular traffic. Careful consideration regarding use of accent lighting for architectural and environmental features is expected. All exterior lighting fixtures are considered a design opportunity to further the building and resort theme. The selection and/or design of exterior light fixtures must be carefully considered and will be reviewed by the DRC as part of the final project approval process. Security lighting should be considered where necessary, but in no case will large wall pack flood security lighting be acceptable. Security lighting must be integrated within the design of the building and must not create glare or impede view lines of other developments.
- 6.5.7 Resort Village Building Design Guidelines.** Building design should be implemented in a manner consistent with the theme of RSPA. Buildings should use materials and be sited to take advantage to the views of the Wasatch Mountains and Jordanelle Lake while integrating forms and massing into the natural environment.
- 6.5.7.1 Materials.** The richness and character of the local natural environment must be recognized through the quality and variety of individual building materials. The use of a variety of wall materials is recommended in order to add visual interest to the building. However, using too many can overpower adjacent buildings and surroundings. In the Design and Material Handbook, the DRC will keep an up to date palette of approved materials as a guide to developers.
- 6.5.7.2 Ground Floor.** Stone and/or substantial timber construction is required on the building ground floor. The appearance of the stone, timber or other building materials must be in keeping in color and style to what is found in the local environment. Retail storefronts are described in Section 6.5.3. Shop fronts integrated into a ground floor stonework plinth should be varied in treatment, ranging from stonework variations to individualized 'Utah-themed' treatments. Ground floor building materials include: local stone, stonework stucco rendered surfaces, and/or distressed/stained concrete. Stone, timber, and metal or composite may be used in detailing. All stonework or other construction must have a capped finish at the parapet top. Storefront glazing systems shall be wood, recessed from the stonework (or outer) face, unless otherwise approved. Designers are encouraged to use heavy timber and/or logs on lintels and rafters (applied or integral to structure).
- 6.5.7.3 Floors 2-4.** Buildings three and one half (3 ½) stories or less should be clad primarily in wood, stone or stucco. Stucco, stonework, approved composite or metal may be used as highlights. Buildings should show a variety of detailing from building to building.
- 6.5.7.4 Wood.** Rough sawn sidings can be used with smooth and clear finishes for contrast. Wood may also be present as heavy timbered elements and for infill panels in non-wood frame buildings. Wood shingles and board and batten finishes are also acceptable. Plywood or particle board is not acceptable as exterior cladding.
- 6.5.7.5 Stucco.** Stucco must be acrylic based and not a paint finish. Stucco must incorporate heavy reveals and expansion joints. Designers are encouraged to protect stucco facades from weather exposure by deep overhanging eaves. Wood trim, stone and other additional detailing is required in combination with stucco.
- 6.5.7.6 Floors 5+.** Floors five (5) and up must employ materials that continue to convey a sense of human-scale, warmth, and well-crafted construction. A combination of two (2) or three (3) materials is recommended. This variation in cladding is important for buildings over four (4) floors in height to visually minimize the

building mass. Such buildings should incorporate heavy elements such as stonework onto the second floor in selected vertical elements to help the visual balance of the taller buildings.

- 6.5.7.7 Roofs.** Recommended roof materials include standing seam metal roof, 'Vail' metal tile, and environmentally sensitive composite shingles such as a substantial forty (40)-year approved wood-like shake profile. Other material that may be acceptable includes concrete, slate tiles and cedar-shake (as permitted by the Wasatch County Building Code):
- 6.5.7.7.1 Pitch and Style.** The roof must be treated as an integral part of the building design, completing the overall composition. Roofs must be designed to reduce visual bulk by means of smaller articulated forms as opposed to a single monolithic roof shapes and by stepping down at building ends and corners. Upper floors must be partially or wholly integrated into the roof shape to assist in this visual articulation. Flat roofs must not form the greater part of the building roof, but may be used to accompany pitched roofs if appropriate. All flat roof sections must have a parapet at the perimeter. The main roof form should be articulated with smaller hipped roof elements, related to building form or with shed dormers, or a combination of both. Full gable ends, as opposed to a hipped gable, can be used in combination with a hipped roof form. Gable ends should be grouped with smaller hipped roofs.
  - 6.5.7.7.2 Roof Articulation.** Cupolas, dormers, and skylights are recommended for roof articulation. Lightning rods are acceptable.
  - 6.5.7.7.3 Chimneys and Roof Stacks.** Chimneys, roof stacks and other penetrations should be consolidated into a few chimneystacks, as opposed to many. These stacks should be articulated as features on the roof with appropriate architectural detailing.
  - 6.5.7.7.4 Overhangs.** Timber or timber-like brackets are recommended for larger overhangs to add detail and visual appeal. Exposed rafters and eaves should be detailed with large timber sections or approved timber-like composite. Other material will be considered on a case by case basis by the DRC.
  - 6.5.7.7.5 Mechanical Equipment.** Mechanical equipment (including air-conditioning, fans, grease fans, etc.) and elevator rooms must be integrated into the roof form and/or screened from view corridors where possible. Solar collectors must lie flat on roofs, not angled against the roof pitch with supports. Large satellite dishes are not permitted. Small satellite dishes must be discreetly placed and screened from view where possible. See Section 6.7 for more information about satellite antennas.
- 6.5.7.8 Windows.** It is strongly recommended that window and doorframes should be constructed in wood or acceptable wood-like composite only. Standard white metal or vinyl window frames are not acceptable. Where mullions and or muntins are used they must be real and not applied. All windows and openings must have wood, stone, composite or stucco trim/articulation adjacent. Where possible in habitable spaces, windows should be operable.
- 6.5.7.8.1 Bay Windows.** Bay windows are encouraged as a means of creating building articulation, but not required.
  - 6.5.7.8.2 Vertical Proportion.** Window modules should be broken down into smaller proportions. Emphasis on vertical proportions is recommended.

- 6.5.7.8.3 Colors.** Custom colors integrated into the total palette of colors selected for the building are encouraged. White window frames that exhibit a mountain theme and are consistent with the Deer Valley "Look," may be approved by the DRC on a case by case basis.
- 6.5.7.8.4 Variation.** Variation in the opening proportion and fenestration styles from floor to floor is encouraged.
- 6.5.7.8.5 Shopfront Windows.** Shopfront windows should include large expanses of glazing broken up by real muntin bars. The recommended fenestration should provide interest and variety in pedestrian spaces as well as when viewed from a distance.
- 6.5.7.8.6 Glass Reflectivity.** Glass reflectivity "co-efficient" must not exceed ten (10) percent unless otherwise approved for a specific application by the DRC. Mirror glass is not permitted.
- 6.5.7.8.7 Individuality.** Generally, windows and doors should function as individual openings rather than continuous horizontal and vertical 'bands'. In buildings over four (4) floors, windows above four (4) floors should be grouped to promote 'overscaling'. (The massing of a set of elements together to make a building or a wall appears smaller than it actually is).
- 6.5.7.9 Doors and Entries.** The building entry should be strongly defined with roofs, walls, accent paving and entry features. Care should be taken to avoid similarities in entrance details from building to building. In particular retail openings and their window displays should avoid repetition. Doors at the ground floor should be expressed with broad timber, stone or approved composite architraves. Where applicable, door openings must be protected from wind and accumulating or drifting snow. A substantial lintel expression is desirable, especially at the ground level. Main entrances to buildings must have a clear identity and be accessible directly from the street. Ground floor entries should be designed to ensure a smooth street-to-dwelling transition.
- 6.5.7.10 Colors.** The Utah landscape presents a vibrant and comprehensive color environment. The color palette to be used in the RSPA is based on the colors of the local natural landscape including the muted tones of the native vegetation layered against the more saturated hues of the rock and ground. In the Design and Materials Handbook, the DRC will keep examples of the recommended and approved colors for the RSPA.
- 6.5.7.11 Balconies.** Balcony elements must be detailed using large timber sections, metal framing or other approved materials consistent with the Deer Valley "Look". A subtle variation in approach is expected from building to building. Where applicable, balconies must be protected from wind and accumulating or drifting snow. Generally, recessed balconies with roof overhangs are recommended, but not required.
- 6.5.7.12 Other Building Details.** Details such as weathervanes, external wall mounted lighting, and so on are highly recommended.
- 6.5.8 Servicing and Mechanical.** Any separate buildings for services must be constructed in materials and forms compatible with the main buildings and surroundings. Service bays are to be located within the building or parking structure.
- 6.5.8.1 Service Bays.** All maneuvering of service vehicles for a specific building must be within property boundaries wherever possible. If exterior service bays are necessary, locations visible to hotel entries or commercial businesses should be avoided. Permanent visual screening for exterior service bays must be provided. Service bay design must be durable and should be designed to prevent ice and snow build-up to provide ease of access for winter garbage pickup.

- 6.5.8.2 Air Conditioning and Heating.** Air conditioning units installed in windows are prohibited. Air conditioning cooling units or chillers are to be located within the building, concealed in a separate building or concealed in the roof space or design as part of the roof form.
- 6.5.8.3 Garbage Storage.** Enclosed garbage storage and recycling rooms or bays shall be provided in each building. All garbage containers shall be stored on-grade, within the building or in underground parking lots away from public view. Adequate ventilation must be provided (exhaust to roof). Containers must be easily accessible to garbage trucks.
- 6.5.8.4 Utilities.** Each project should include an area for utility tanks, transformers, and gas meters. The area shall be fully screened from the view of the public and adjacent property owners, and screens should be incorporated into the grade and landscape design. Meter should be accessible but screened and protected.
- 6.5.8.5 Fire/Life Safety.** Incorporate fire hose connections and utility meters in the building design. Such protrusions are frequently damaged during snow-removal. Fire hydrants will be featured as standpipes in accordance with the firefighting plan.
- 6.5.8.6 Transformer.** Confirm the transformer location at the early stages of design process in order to minimize its visual impact, especially with reference to adjacent properties.
- 6.5.9 Unloading and Porte-cocheres.** Porte-cocheres shall be consistent integrated into the overall design of the building. Clearance shall be provided for emergency vehicles. Drive through aisles shall be unobstructed at all times. Paving materials shall be consistent with Section 5.7.1. and should be used to delineate pedestrian and vehicular areas where possible. Signage and lighting shall provide for simple and easy access.
- 6.5.10 Underground Parking.** Underground parking associated with buildings shall be clearly marked and entries shall be established to minimize pedestrian/auto conflicts. Parking entries shall be high enough to provide for large sport utility vehicles with luggage or ski racks on top of the vehicles. The guidelines in Section 5.10.6 shall assist developers in the design of underground structures. Access shall be well marked, easy and simple.
- 6.5.11 Temporary Surface Parking.** Small surface parking areas are permitted in conjunction with porte-cocheres for hotel check-in and check-out. These parking lots are for short term parking of less than one hour to enable the check in process. Where possible, parking in these areas should be well screened and set to allow convenient access to front doors of the hotels or other buildings. Clearance shall be provided for emergency vehicles and drive through aisles shall be unobstructed at all times. Paving materials shall be consistent with Section 5.7.1.
- 6.6 Residential Area Guidelines.**
- 6.6.1 Approved Case-by-Case.** These residences should embody the Deer Valley "Look" and will be approved on a case-by-case basis by the DRC in accordance with Section 8.0 herein. The residential design guidelines focus on how the buildings meet the ground, work with the existing grades, and harmonize with the natural character of the specific area within the RSPA. The primary objective of the guidelines is to minimize off-site visual impacts through sensitive massing, color and materials selection. The design standards govern architectural elements such as building massing, roof form and the color and reflectivity of materials. These standards do not mandate an identifiable architectural style or theme beyond the Deer Valley "Look" as contemplated in Section 6.3. Owners and designers are required to design with materials and forms that reflect the mountain character of the site, and its climate in order to create places intimately connected with the natural surroundings. Imitation of non-indigenous styles that are closely identified with other geographic regions is discouraged. Within these parameters, these standards are to give owners and their designers as much flexibility as possible to design living environments that suit the owners' individual needs and tastes.

- 6.6.2 Site.** It is very important that buildings within the RSPA appear harmonious with their mountain environment and that they allow the natural landscape to dominate the distant views of the lake and mountains. Consistent with Section 6.4.1 herein, important natural features, such as stands of trees and rock outcroppings should be used as organizing elements for the site.
- 6.6.3 Roofs.** In a mountain setting where it is desirable to minimize the visual impacts of development, design decisions regarding roof form and color are crucial to blend a building back into the site. To achieve this goal roof design should reflect the steeper landform of the site. Roof materials must be non-reflective and should match the darkest values and hues of the background environment. From a distance roofs are often the most visible architectural element of a building. Roof design should reflect the forms of the adjacent landscape with the roof requirements of the RSPA roof slope guidelines.
- 6.6.3.1 Form.** Large unbroken expanses of roof area shall not be permitted. Long, uninterrupted ridgelines are discouraged and will not be permitted unless approved by the DRC, and the DRC determines that other building elements make the roof ridgeline less conspicuous. Each building will be reviewed on a case-by-case basis with visibility being the primary criteria.
- 6.6.3.2 Eaves.** Eaves should project beyond the building walls in order to minimize reflections from glazing, create shadow patterns on the building walls, and protect south-facing interior spaces from glare caused by the low angle of the winter sun.
- 6.6.3.3 Materials.** Roofs that hold snow make them less visible in the winter. Any wooden shingle must receive approval from the Fire Marshall. Barrel or glazed tiles are not permitted.
- 6.6.3.4 Fireplaces, Chimneys, Flues and Roof Vents.** Chimneys shall be clad in masonry, stone or another inflammable material. Flues and roof vents shall be non-reflective if exposed or enclosed with materials compatible with the building.
- 6.6.3.5 Equipment.** Roof top equipment and vents that project through the roof must be grouped and concealed. Vents should be located near the roof ridge or protected by a cricket so that snow-shedding from the roof cannot shear them off.
- 6.6.4 Buildings.** Architectural elements of buildings that express the structure should be stockier, and foundation wall should be heavier and more pronounced.
- 6.6.4.1 Massing.** Building massing should step with the natural variations in the topography to integrate the building into the natural landscape.
- 6.6.4.2 Articulation.** Shadow lines are encouraged to add richness to the building. Elements such as windows and doors should be recessed to give deeper relief to the buildings facades and suggest structural strength. Windows shall not be reflective, but should work to enhance the visual interest of the building.
- 6.6.4.3 Materials.** Building materials should incorporate proportionate material of rock and stone. Stucco is permitted as an accent material. Heavy timbers or stone should be used to help define the character of the site.
- 6.6.5 Exterior Walls and Windows.** Buildings shall avoid flat wall planes. Building elevations that are visible from off-site should be horizontally and vertically stepped to avoid large uninterrupted wall surfaces that can distract or look out of place from the natural landscape.
- 6.6.5.1 Materials.** Building materials should reflect the natural surroundings. Allowed exterior materials include stained or natural wood, stone, shingles, and logs. Stucco is also permitted, but only when used in combination with these other natural materials; large unbroken surfaces of stucco are not permitted. Additional materials may be approved by the DRC if the DRC deems the material appropriate to the overall character, goals and objectives of the Deer

Valley Lakeside Resort. Exterior walls shall match the medium color and values of the sites natural landscape. Color samples shall be submitted to the DRC at the concept and final plan review for approval.

- 6.6.5.2 **Detailing.** Careful detailing of window treatments is encouraged. Untreated aluminum or metal windows frames are not allowed.
- 6.6.5.3 **Foundation Walls.** Buildings must be carefully integrated into the natural landscape and should appear to grow out of the land. In a building that is well integrated with the site, the foundations become a platform that define the exterior perimeter of the interior and outdoor living spaces and sets the nature of the transition between the existing and built environment. Strong looking foundation materials and forms that express longevity in a harsh climate are key to successful mountain architecture. Exposed foundations at Deer Valley Lakeside Resort must be covered with materials such as masonry, stone, or heavy timbers. Colored or exposed concrete, split face concrete block, aluminum or vinyl siding and brick are not permitted. Wood paneling is prohibited because it deteriorates too quickly in high altitude climates. Because exposed posts and cross bracing appear disconnected from the ground they are not permitted. However knee bracing, large timbers and substantial stone columns that are consistent with the architectural vernacular are allowed as support structures for projecting elements from buildings.
- 6.6.6 **Fences.** Foundations for garden fences and walls shall employ the same materials as the buildings. By utilizing these like materials continuity for built elements is established and the connection the native environment is strengthened. See Section 7.7 for limitations and design of fences.
- 6.7 **Antennas.** Only small dish antennas will be permitted in the RSPA. The DRC shall consider, however, a maximum of two or three larger satellite dishes that may provide cluster programming for RSPA communication or entertainment service companies. These larger antennas will be carefully placed within the RSPA so that they have minimum exposure to views from residences and hotels and are covered by landscaping to the extent possible.

## 7.0 OTHER GUIDELINES & REGULATIONS (DRAFT FOR REVIEW)

- 7.1 **Bridges.** There will be various sizes and uses for bridges in the RSPA, as described below. Bridges will have a series of standard design and materials package that will embody the image and logo of the RSPA. These designs will be chosen by the TDRC and will become Standard Design Elements. These designs will have a design relationship to the bridges at Deer Crest.
- 7.2 **Bridges and Portals**
  - 7.2.1 **Trail Bridges.** Trail Bridges are an important element in the RSPA. The character of the bridges may vary, depending on the proximity to village centers, residential areas and other development. Bridges should be reflection of the environment where they are placed. There will be a series of standard designs with approved materials. The designs and materials will share some of the same elements as other bridges so as to make a clear statement to visitors that they are in the RSPA.
  - 7.2.2 **Ski Bridges.** Ski bridges may reflect country bridges or logging bridges. Materials may include rough-cut timber accented by stone or approved composite. For example bridges through established stands of trees may utilize large timber construction with stone elements. A bridge which is more exposed and near exposed rock outcroppings may use more stone on the façade. Bridges over ravines of watercourse may balance the use of façade materials to "fit" into the natural environment. Ski bridges will also have a series of standard design with standard materials. The design and materials will share some of the same design elements as other bridges so as to make a clear statement to visitors that they are in the RSPA.
  - 7.2.3 **Pedestrian Bridges.** Pedestrian bridges that are related closely to Resort Village centers should have a more finished look and are designed to "fit" within the image and style of the village center where they are placed. While these bridges must adhere to the Deer

Valley "Look," the design must carefully be integrated into the form and pedestrian circulation pattern where they are built. Designers of pedestrian bridges that cross over plazas and sidewalks should consider runoff, snow removal and melting snow in deciding the exact location of the bridge. Bridge designs should also incorporate drain and gutters to prevent dripping on pedestrian areas below. Bridges in these areas may have a sculptural effect and in many instances be used to frame views or add usual interest to the Village Center. View areas of plazas may be incorporated into the pedestrian bridge where some of the spectacular views of the landscape are available. Pedestrian bridges will also have a series of standard design guidelines with standard materials. The design and materials will share some of the same design elements as other bridges so as to make a clear statement to visitors that they are in the RSPA

**7.2.4 Portals.** These Portals are very large tunnels under Highway 40 in the RSPA. Portals are an active part of the Resort Villages in the RSPA and shall enhance the pedestrians' and vehicular drivers' experience as they discover the RSPA. Materials and form shall be utilized to integrate the two sides of the highway while also contemplating the individual character and uses of buildings near each Portal. Design of the Portals shall consider the size and nature of kiosks that may be used as a part of the pedestrian experience. The size, clearance and finish materials of the highway must integrate well with the Portal design and finish materials. The north portal at Deer Crest Village is a centerpiece to the entire RSPA. The Portals should make a strong design statement and clearly communicate the image and logo elements of the RSPA.

**7.2.5 Vehicular Bridges.** There will be at least two (2) of these vehicular bridges in the RSPA. If possible, these bridges should also communicate the logo and image concepts of the RSPA with a standard design and material package.

**7.3 Golf Related Design Issues.** An integral part of developing the golf course component of the RSPA is related directly to land form and ownership. Most holes are envisioned to follow the existing landforms, and where distinct features such as ravines cross fairways they will be preserved and will become natural hazards. The golf courses (twenty seven (27) holes) shown in Exhibit B-26 and B-27 of the RSPA Submittal in July 3 of 2002, represents a proposed golf alignment in Mayflower North and Mayflower South. It is contemplated that some changes to areas affected by the golf course will take place when these courses are refined during detailed golf design. Grading at the golf course should take place in a manner to preserve the natural landform wherever possible. Abrupt grade breaks should be avoided unless they are part of the natural landform; such as a rock outcropping. Slopes should be no more than 3:1 on fill slopes. Cut slopes should also strive to achieve 3:1 slopes unless soils may be reclaimed steeper. Grading easements may be required outside of the golf course. Land owners will provide these easements to the toe of the maximum achievable stable slope from or to the golf course. Golf design should preserve significant vegetation, drainage ways, and landform wherever possible. In cases where these features need to be changed or removed, the design will strive to reintegrate the golf course so it looks as if it belongs as part of the land. Golf design will strive to be as water efficient as possible and where possible use secondary water or untreated water for the design. The use of native plants is encouraged wherever possible to integrate the golf design into the local environment. Native plants that are endemic to the area will require less water once established and help integrate the golf into the native environment. Housing development, roads and recreation facilities have been set back from golf fairways at a distance recommended by the National Golf Foundation to avoid damage from errant golf balls. Buffer easements may be required on some abutting properties in order to maintain desired buffer zones along fairways.

**7.4 Water Quality Guidelines.** The RSPA Property owners shall work together with Wasatch County, the JSSD, the Utah Department of Natural Resources, the Bureau of Reclamation, and other member of JTAC, the RSPA to develop and adopt water quality guidelines for the specific area covered by the RSPA. This will include establishing its own baseline information for different areas within the RSPA.

- 7.5 Erosion Control Guidelines.** The RSPA Property owners shall work together with Wasatch County, the JSSD, the Utah Department of Natural Resources, the Bureau of Reclamation, and other member of JTAC, the RSPA to design a regional erosion control system as part of "Closing the Loop".
- 7.6 Animals.** Horses will be allowed only in equestrian approved areas. No dog runs shall be allowed. No barns, sheds, corrals (other than those in the approved equestrian center area), or other related animal management structure shall be allowed.
- 7.7 Fences.** Generally, fences shall be not allowed in the residential areas supporting an "open" feel to the RSPA. Where fences are allowed, for privacy elements in conjunction with a house or other structure, there shall be a series of unifying Standard Design Elements and will be designated by the TDRC or the DRC. Fence heights will be approved on a case-by-case basis but in no case shall be higher than six (6) feet. Solid fences should be lower than six (6) feet (unless it is a privacy fence). The placement of walls and fences should respect existing landforms, follow existing contours, and fit into existing land massing, rather than arbitrarily follow the property boundary lines. Fences and walls should harmonize with the site and buildings in scale, as well as appearance. Walls built adjacent to buildings should be designed as an element with the building and used to transition the built form back to the land. Fencing that is not attached to buildings should be low and unobtrusive. Careful consideration should be taken on fences unattached to residences should provide visibility into the property. Privacy fences attached to the house are permitted but great care should be taken to ensure that these privacy fences are consistent with the character of both the house and the environmental vernacular. Unacceptable fencing materials include: Chain link, plywood, painted materials, and picket fencing.
- 7.8 Project Access Guidelines.** Pursuant to Section VI. C. 1, in the Jordanelle Basin Land Use Plan, Property Landowners are expected to support road building through assessments and access easements. Cooperation with neighboring Properties on access issues will be a vital part of the success of the RSPA. All roads plans submitted will be compared with 1) existing roads of neighboring Properties or 2) planned roads on the RSPA Land Use Plan or approved Property plans to determine that they are compatible. Cross easements will be provided by Properties for all approved roads.
- 7.9 Gated Communities.** Gated Communities within the RSPA may be allowed provided that Section 7.8 herein has been considered and that no direct access disadvantage is created that would cause another Property to be land-locked by such gated Community.
- 7.10 Snowmobiles.** Snowmobile usage shall be prohibited, except as necessary in connection with ski operations and emergencies in or about the RSPA.
- 7.11 Affordable Housing.** The RSPA shall be subject to the housing requirements in Chapter 16.30 of the Wasatch County Planning, Zoning and Development Code and specifically Section 16.30.08 therein. This includes the right to satisfy up to twenty five (25) percent of the Affordable Housing requirement by providing Seasonal Employee Housing pursuant to Wasatch County Ordinance 02-02 (see Exhibit E-42, located in the Wasatch County Planning Department). Within the RSPA, Properties may satisfy their requirements by building Affordable Housing or Seasonal Housing on another Property within the RSPA pursuant to an agreement between the participated landowners.
- 7.12 Noise Abatement.** The Jordanelle Land Use Plan contains language regarding Noise Control that is modified as follows:
- 7.12.1 Development Next to Highway 40.** Residential development will be allowed next to Highway 40 pursuant to Land Use Plan shown on Plan B-12 in Deer Crest Village (Deer Crest already has a building in the Noise Control zone). Developers will be required by the DRC to provide for practical sound attenuation and increased acoustical requirements where the noise levels are in excess of 67 DBa, but shall not be required to reduce the noise to that level.
- 7.12.2 Amphitheatres and Special Events.** The DRC will establish maximum noise limitations for amphitheatres and areas where special events will occur in the RSPA. Such venues are Resort Features and are a significant reason why visitors and residents are attracted to a



resort. Therefore, the DRC will take into consideration that the noise levels will be significantly higher for such events. A permit from the appropriate governmental agency will be obtained for each event.

- 7.12.3 **Nightclubs.** Nightclubs will not be required to be isolated from residential areas in Resort Villages. Acoustical requirements will be increased for such establishments in hotels and other buildings in the Resort Villages to a level that will attenuate noise almost completely to neighboring buildings. Nightclubs will be prohibited for locations outside Resort Villages.
- 7.12.4 **Utility Lines.** All utility lines shall be buried within the RSPA. This shall include telephone and other communication lines and optical cable.
- 7.12.5 **Substations.** Electricity substations shall be located in areas that minimize visibility from US Highway 40 and other major view corridors. This is especially true of locations that are at or near the Mayflower off-ramp from US Highway 40 at the entrance to the RSPA. The existing location owned by Utah Power and Light is not an acceptable location. Wasatch County understands that this location will have a devastating impact on the area covered by the RSPA and has directed Utah Power & Light to find another location within the area that is acceptable to the TDRC. The TDRC will work with the company and Wasatch County to find an acceptable site to all parties. Any substation will be bermed and screened with landscaping or other means and which will be approved by the DRC as well as Wasatch County.
- 7.12.6 **Telephone Central Offices.** These buildings, and any other distribution facilities for telephone or optical cable, if required, will also be located in areas that minimize visibility from US Highway 40 and other major view corridors. These buildings will also be bermed and screened by landscaping to minimize visibility in a manner that will meet the approval of the TDRC as well as Wasatch County.
- 7.12.7 **Transit System.** In keeping with the design objective described in Section 1.2.2 (V), a recurring transportation system, referred to herein as the "Transit System," is planned within the RSPA. As shown on Plan B-24 (located in the Wasatch County Planning Department), the preliminary concept would provide trolleys and/or themed rubber tire busses to transport people from the Resort Villages and major density areas to the various Resort Features. This Transit System will be phased in over time as needed. The DRC would develop the phasing plan and the Master Association will approve and implement the phasing plan. The Transit System may be fare based, with a card swipe or smart card system. The Master Association may choose to subsidize this Transit System with assessments, but this will be decided when the phasing schedule and demand are determined. See also Section 9.1.4.

## 8.0 DESIGN APPROVAL PROCESS (DRAFT--TO BE COMPLETED)

- 8.1 **Transitional Design Review Committee.** The Transitional Design Review Committee ("TDRC") will be formed to provide guidance and assistance during the transition period between the establishment of the RSPA by Wasatch County and the execution of the AIDA, which will document the "Closing the Loop" process. The TDRC will be comprised of 1) a representative of the Wasatch County Planning & Zoning Staff, 2) a representative of the JSSD, 3) a representative of Mayflower, 4) a representative of DDRM, 5) a representative of Deer Valley, 6) representatives from two (2) other Properties (as selected by DDRM), 7) a representative of IBI Group, and 8) a landscape architect. This TDRC shall meet a minimum of twice each month until the "Closing the Loop" process is completed. The TDRC shall oversee the entire "Closing the Loop" process and the establishment of all Standard Design Elements, the RSPA Signage Standards and Regulations, the RSPA Tenant Handbook, the Landscape Maintenance Guide, and the governance documentation.
- 8.2 **Design Review Committee.** The Design Review Committee ("DRC") shall be formed following the execution of the AIDA agreement. It shall have the same makeup as the TDRC except that the Director of the JSSD and a representative of the IBI Group shall not be members of the DRC. Each member shall hold his office until such time as he or she has resigned and a successor has been appointed.

- 8.3 Resignation From DRC.** Any member of the DRC may, at any time, resign from the DRC upon written notice delivered to the office of the DRC. All vacancies on the DRC shall be filled by another person meeting the same constituency qualifications (e.g. a representative of Deer Valley shall be replaced with another representative of Deer Valley), and shall be selected by the resigning member. In the event that a resigning member fails to appoint a replacement to the DRC, the replacement member shall be selected by DDRM, or its successor or designee.
- 8.4 Meetings.** The DRC shall meet from time to time as necessary to properly perform its duties. The vote of a majority of the members shall constitute an act by the DRC. The DRC shall keep on file all submittals and copies of all written responses to property owners and developers to serve as record of all actions taken.
- 8.5 Compensation.** The members of the DRC shall not receive any compensation for services rendered. All members shall be entitled to reimbursement for reasonable expenses incurred by them in connection with the performance of their duties. Professional consultants and representatives of the DRC retained for assistance in the review process shall be paid such compensation as the DRC determines to be fair and reasonable.
- 8.6 Amendment of Design Guidelines.** The DRC may, from time to time, and at its sole discretion, amend or revise any portion of the Design Guidelines. All such amendments or revisions shall be appended to and made a part of the Design Guidelines. Administrative changes may be made in like manner by the DRC.
- 8.7 Non-Liability of Design Review Committee.** The purpose for the DRC is to review proposed improvements in the RSPA for compliance with the RSPA Design Guidelines. The DRC is not responsible for compliance with applicable building codes, for engineering and structural issues, or any other matter relating to the design and construction of improvements in the RSPA. Neither the DRC, nor any member thereof shall be liable to any Owner or third party for any construction defects, damage to persons or property, or other loss or damage resulting from any design and construction activities within the RSPA. In addition, neither the DRC, nor any member thereof, shall be liable to any owner of property within the RSPA, or any other person, for any loss or damage claimed on account of any of the following:
- a. The approval or disapproval of any plans, drawing and specifications, whether or not defective.
  - b. The construction or performance of any work, whether or not pursuant to approved plans, drawings, and specifications regardless of any inspections by the DRC during the course of construction.
  - c. The development or manner of development, of any property within the RSPA.
- Every property owner or other person, by submission of plans and specifications to the DRC for approval, agrees that he or she will not bring any action or suit against the DRC, or any of its members, relating to any action taken or not taken by the DRC. Approval by the DRC of any improvement to be constructed in the RSPA only refers to the compliance with the Design Guidelines, and in no way implies conformance with local government regulations. It shall be the sole responsibility of the property owner to comply with all applicable government codes or ordinances or regulations, including but not limited to zoning ordinances and local building codes.
- 8.8 Relationship to Other Wasatch County Requirements.** The architectural review process described herein is intended to operate concurrently with the plan review process required by Wasatch County for obtaining a building permit. The DRC's architectural review is independent of the Wasatch County technical plan review process, and is intended solely to assure compliance with the Design Guidelines set forth herein. Each Owner shall be responsible for the design and construction of improvements which meet both the design requirements of the RSPA and the requirements of Wasatch County Planning, Zoning and Development Codes. It is intended that submissions to the County for Preliminary and Final Approval shall be forwarded to the DRC at the same time. Although the submission process is contemplated to proceed within the same time period, the Wasatch County Planning Commission shall give a Final Approval of any submission that has not received an "approved status" recommendation to the Planning Commission by the DRC.

- 8.9 Notices to and from the Design Review Committee.** All notices sent to or from the DRC shall be in writing and shall be personally delivered, mailed by certified or registered mail, postage prepaid, or sent by overnight courier service. Notices shall be deemed to have been duly delivered upon personal delivery at the time of actual delivery if sent by overnight courier service, or three days after mailing if sent by certified or registered mail. Unless the DRC is provided with written notice of a different address, all notices to property owners within the RSPA shall be sent to the owner and address shown on the property tax records for Wasatch County at the time of mailing.
- 8.10 Enforcement.** The DRC may, at any time, inspect a property or improvement and, upon discovering a violation of the Design Guidelines or other condition of design approval, provide a written notice of non-compliance to the Owner, including a reasonable time limit within which to correct the violation. The DRC may also record in the office of the Wasatch County Recorder, a notice of violation after the expirations of the time limit. If an Owner fails to comply within this time period, the DRC or its authorized agents may enter the property and correct the violation at the expense of the Owner of such property. In the event the DRC deems it necessary to retain legal counsel in connection with the enforcement of the Design Guidelines or conditions of design approval, the Owner against whom such enforcement is sought shall be liable for all legal fees and other out-of-pocket expenses incurred by the DRC in connection with such enforcement.
- 8.11 Delegation of Authority.** The DRC may delegate any or all of its architectural review responsibilities to one or more of its members, acting as a subcommittee of the DRC, and/or a professional design consultant(s) retained by the DRC. Upon such delegation, the actions of such members or consultant(s) shall be equivalent to action by the DRC as a whole.
- 8.11.1 Design Review Procedures.** Site sensitive, site-specific design shall be fundamental in the RSPA. Owners of property within the RSPA should understand that drawings should evolve from the careful and thorough analysis of a site's specific setting and features pursuant to the Guidelines herein. Owners and/or their designers should refrain from approaching a site with a predetermined design expecting to "make it fit", with little regard to natural constraints. The RSPA has established this review procedure to assist the applicant through the design process in its appropriate sequence. For larger residential/hotel buildings and mixed use buildings in or around the Resort Villages, the same adherence to the appropriate Guidelines herein shall be followed. Subdivisions and other projects within the RSPA may adopt additional design guidelines, with the written approval of the DRC, but all buildings within the RSPA will be subject to the design review procedures set forth herein, regardless of whether they are also subject to additional or supplementary design guidelines. For purpose of this Chapter 8, developers and lot owners shall collectively be referred to as "Owners". The Owner's submission shall be the same for both the County and for the DRC, except that the DRC may ask for more detailed architectural design information
- 8.11.2 Preliminary Approval Submittal.** The Preliminary Approval submission material and plans should be the same to the DRC as to Wasatch County for processing. This submission will vary depending on the type of project or building submitted. Because the DRC is very concerned with the architectural design features and how they conform to the Standards and Guidelines herein, additional drawings, plans and material samples may be required in the submission
- 8.11.3 Preliminary Design Review.** The DRC will do a cursory review of the Preliminary Approval Submittal by an owner and send any comments to the Wasatch County Planning Staff. These comments shall be received in writing not later than thirty (30) days after receipt of a complete submission package.
- 8.11.4 Final Approval Design Submittal.** As the Owner submits its plans and materials for Final Approval with Wasatch County, an additional six (6) copies will be provided to the DRC. Because it is focused on the actual exterior design and materials of the building and how it conforms to the RSPA Standards and Guidelines herein, the DRC may ask for additional plans, drawings or material samples.

- 8.11.5 Final Approval Design Review.** When the submittal is complete, the DRC will have sixty (60) days to make a recommendation to the Wasatch County Planning Commission. The review will be complete and will focus on the design features and material proposed by the Owner and its conformance to the Standards and Guidelines herein. After the review, an approval or disapproval recommendation will be made to the Wasatch County Planning Commission. If the submission is not approved by the DRC, the Owner can re-submit immediately and start the process again.
- 8.11.6 Non-Waiver.** The approval by the DRC of any plans, drawings or specifications for any work done or proposed shall not be deemed to constitute a waiver of any right to withhold approval of any similar plan, drawing or specification subsequently or additionally submitted for approval. Failure to enforce any design provisions of these RSPA Implementation Guidelines shall not constitute a waiver of the same.
- 8.11.7 Right of Waiver.** The DRC specifically reserves the right to make subjective, as well as objective, determinations of whether the goals of the Design Guidelines have been met by a particular plan being submitted. The DRC reserves the right to waive or vary any of the procedures or guidelines set forth herein at its discretion, for good cause shown.
- 8.11.8 Design Review Fee.** An Architectural Review fee will be charged as an additional charge collected by Wasatch County on the behalf of the DRC. The professional members of the DRC (architect and landscape architect) shall submit bill at prevailing hourly rates for their time spent in the review process. The county shall collect the fee on behalf of the DRC.

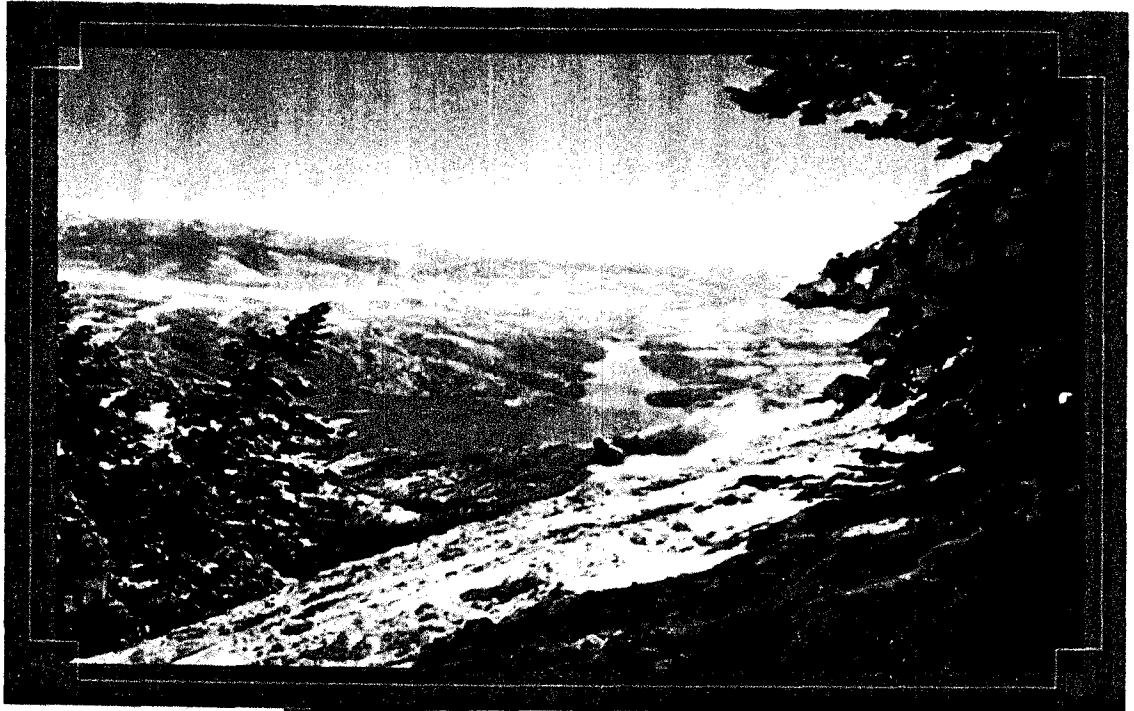
**9.00 GOVERNANCE (To be completed pursuant to Section 4.9 herein)**

**9.1 Items to be included by TDRC.** The following items shall be included in, but not limited to, the "Governance Documents" for the Master Association to be reviewed and approved by the TDRC.

- 9.1.1 Exclusive Providers.** The "Governance Documents" shall provide for an exclusive contract with communication or entertainment systems provider can be entered into by the RSPA. Privacy issues regarding such systems shall be considered and preserved.
- 9.1.2 Collective Marketing Efforts.** Collective marketing efforts shall be contemplated by the "Governance Documents". These efforts will be funded through assessments as considered appropriate by the Master Association Board from time to time but shall include, but not be limited to, the following:
- 9.1.2.1** RSPA Visitor or Preview Center strategically located within the RSPA with procedures for distribution of leads.
- 9.1.2.2** RSPA common website with procedures for distribution of leads. This website shall be controlled and maintained by the RSPA.
- 9.1.2.3** Offsite preview or marketing centers should be contemplated with procedures for distribution of leads.
- 9.1.2.4** RSPA events and attractions created to attract tourism and enhance the experience at the RSPA shall be contemplated by the "Governance Documents".
- 9.1.2.5** RSPA offsite signage and imagery shall be included in the "Governance Documents".
- 9.1.2.6** Other common channels of distribution should also be considered.
- 9.1.2.7** Advertising programs shall be contemplated by the "Governance Documents".
- 9.1.3 Transit System.** When it is appropriate, it is contemplated by the RSPA to provide a transit system. Although the systems may or may not be fare based, the "Governance Documents" should contemplate its development and manage its operations.
- 9.1.4** Master Covenants, Conditions and Restrictions covering all or portions of the RSPA shall be entered into, consistent with the terms and provisions of these Implementation Guidelines and Standards, including Assessments for maintenance of the public or common areas shall also be contemplated by the "Governance Documents"
- 9.1.5** Master Association Organizational Documents. Articles of Incorporation, Bylaws, and other "Governance Documents" will be entered into for the purpose of establishing a Master Owners Association which will operate and maintain the common areas of the RSPA.

# **EXHIBIT - C**

Exhibits to Implementation Guidelines



APPROVED  
 Date: 10 - 28 , 2002  
 Approved by: County Commission  
 Signature: *Michael*

## Deer Valley Lakeside Resort Specially Planned Area

Book of Exhibits

JULY 24, 2002

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# LIST OF EXHIBITS

Ent 309761 Bk 0902 Pg 0550

EXHIBIT NUMBER	EXHIBIT
E-1	RSPA -- Ownership & Existing Density Summary
E-2	Density Analysis in the RSPA
E-3	Summary of Neighborhood A Target ERU Study
E-4	Summary of Neighborhood A Use Zones
E-5	Summary of Neighborhood B Target ERU Study
E-6	Summary of Neighborhood B Land Use Zones
E-7	Summary of Neighborhood C Target ERU Study
E-8	Summary of Neighborhood C Use Zones
E-9	RSPA Map Within the JBOZ Area A
E-10	Shared Use Parking Study by IBI GROUP
E-11	Blank
E-12	RSPA -- Potential Contributions of Land for Roads
E-13	RSPA -- Potential Contributions for Land for Trails
E-14	RSPA -- Potential Land Contribution for Golf
E-15	RSPA -- Reconciliation of Land Areas for Purposes of Closing the Loop
E-16	Deer Crest Jordanelle Village Parking Analysis
E-17	Blank
E-18	RSPA Landscape Recommended Planting List
E-19	RSPA Economic Ongoing Economic Impact to Utah Economy
E-20	RSPA Economic Impact to Wasatch County
E-21	Mayflower ERU Conversion Analysis
E-22	Deer Crest Village Parking Analysis
E-23	Deer Crest Village Building & Target Density Summary Option 1
E-24	Deer Crest Village Building & Target Density Summary Option 2
E-25	Deer Crest Village (West) Jordanelle Village ERU Conversion Table
E-26	Fiscal Impact to County of Deer Crest Village
E-27	Blank
E-28	Mayflower Building & Target Density Study
E-29	Mayflower South Parking Analysis

# LIST OF EXHIBITS

Ent 309761 Bk 0902 Pg 0551

EXHIBIT NUMBER	EXHIBIT
E-30	"Report, Engineering Geology Reconnaissance and Geotechnical Study" (Deer Crest Village)
E-31	"Soils and Geology" Portion of EIS (Deer Crest Village)
E-32	Service Agreement with JSSD (Deer Crest Village)
E-33	"Natural Resources" Portion of EIS (Deer Crest Village)
E-34	"Fire Protection" Portion of EIS (Deer Crest Village)
E-35	Will-serve letter from the Fire Marshall / Law Enforcement / Refuse Collection
E-36	"Air Quality" Portion of EIS (Deer Crest Village)
E-37	Sound Quality Portion of EIS (Deer Crest Village)
E-38	Deer Crest Village -- Summary of the Engineering Costs, Onsite Development Costs and Amenities
E-39	Letter from IBI Group - July 6, 2002 Regarding Update of Traffic Study
E-40	IBI Traffic Analysis Summary
E-41	Title Report - Deer Crest Village
E-42	Employee Housing Credit Ordinance - Seasonal Employee Housing Ordinance
E-43	Letter from Singletrack Engineering re: Status of Environmental Remediation Mayflower Tailing Ponds Stabilization Project
E-44	Will Serve Letters for Utilities; i.e. Gas / Power / Telephone
E-45	Summary of Seasonal Employee Housing Guidelines - DDRM Study
E-46	Psomas Regional Detention Study
E-47	Deer Crest Village Open Space Calculations & Site Reconciliation
E-48	Preliminary Limited Environmental Assessment on Big Dutch Pete Canyon



## RSPA -- OWNERSHIP & EXISTING DENSITY SUMMARY

PROPERTIES	OWNERSHIP	CONTACT PERSON	TOTAL ACREAGE	EXISTING DENSITY	COMMENTS
Mayflower South-Lake View	Stichting Beheer Mayflower Project	Arie Bogerd	163	2074 Dwelling Units	The Original Density Determination was approved in 1984 prior to US Highway 40, the Jordanelle Reservoir, the Jordanelle Basin Land Use Plan, the JBOZ, and the JSSD
Mayflower South-West	Stichting Beheer Mayflower Project	Arie Bogerd	1,116		
Mayflower North	Stichting Beheer Mayflower Project	Arie Bogerd	657	503 ERUs	
Mayflower Mountain	Stichting Beheer Mayflower Project	Arie Bogerd	904		
Deer Crest Village (West)	Deer Crest Associates I, LLC	Lynda Fetter	35	191 Dwelling Units plus 62,000 SF Commercial	
Deer Crest Village (Deer Cove)	DDRMWasatch LLC	Brent Hall	87	330 ERUs	
Jordanelle View	Jordanelle View, L.C.	Mike Ahlin	64	72 ERUs	
Gimbel	JAS Realty	Tom Flinders	22	55 ERUs	
East Park	East Park Owners Association	Susie Burton	188	260 ERUs	
Sage Hen Hollows	Hollow Points, L.C.	Gary Howland	40	60 ERUs	
The Hollows	Western Surgical Association		11	26 ERUs	
The Pointe	(Chapter 7)	Stephen Rupp, Attorney	22	36 ERUs	
Pioche	United Park City Mines Corp	Hank Rothwell	767	182 ERUs	The total approved for the Property is 182 ERUs, but a lower amount will actually be used per the current application for Preliminary Approval to the County
Stillwater	Stillwater Lodge Development, LLC		60	181 ERUs	
SK Hart Engineering	SK Hart Engineering		31		Under the current JBOZ, there are is no density approved for this site
Blue Ledge Corporation	United Park City Mines Corp	Hank Rothwell	11	34 ERUs	This is a commercial site with 78,000 square feet
Deer Valley Triangle	Deer Valley Resort	Bob Wells	5		Will assume ownership from Stillwater
JSSD Water Treatment Site	Wasatch County	Dan Mathews	31		Under the current JBOZ, there are is no density approved for this site
Star Harbor			36	35 ERUs	
Fox Bay			10	66 ERUs	
South School Site	Wasatch County School District		10		Under the current JBOZ, there are is no density approved for this site
<b>TOTALS</b>			<b>4,268</b>	<b>4,105</b>	This is a number that is mixed with Dwelling Units and ERUs plus the Commercial Entitlements

# EXHIBIT E-2

Ent 309761 Bk 0902 Pg 0553

DENSITY ANALYSIS IN THE RSPA					
PROPERTIES	EXISTING DENSITY	CHANGES AS RESULT OF CLARIFICATIONS	DENSITY AMENDMENTS	RSPA "CLARIFIED" ERUs	COMMENTS
Mayflower South	2074	(656)		1,418	The Original Density Determination was approved in 1984 prior to US Highway 40, the Jordanelle Reservoir, the Jordanelle Basin Land Use Plan and the JBOZ, and the JSSD
Mayflower North	503			503	
Deer Crest Village (West)	191	7		198	The remaining density for the Jordanelle Village area is 191 units plus 62,000 square feet of retail
Deer Crest Village (Deer Cove)	330		535	865	
Jordanelle View	72			72	
Gimbel	55			55	
East Park	260			260	
Sage Hen Hollows	60			60	
The Hollows	26			26	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 16 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
The Pointe	36			36	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 40 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
Ploche	182			182	The total approved for the Property is 182 ERUs, but a lowers amount will actually be used per the current application for Preliminary Approval to the County
Stillwater	181			181	
Trans-Antlantic Financial (Mayflower)				0	It is anticipated that this site would receive a transfer of an yet to be identified amount of ERUs pursuant to Section 2.3 of the RSPA Amendment
SK Hart Engineering				0	Under the current JBOZ, there are no density approved for this site
LDN				0	
Blue Ledge Corporation	34			34	Under the current JBOZ, there are no density approved for this site
Star Harbor	35			35	
Fox Bay	66			66	
Deer Valley Triangle				0	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 60 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
JSSD Water Treatment Site				0	
South School Site				0	
<b>TOTALS</b>	<b>4,105</b>	<b>(649)</b>	<b>535</b>	<b>3,991</b>	

## EXHIBIT E-3

## Neighborhood "A" Target Use Summary

Density Pod	Study Categories		Net Acres	Dwelling Units	ERUs	Ownership
A-1	Estate Lots and Large Lots	Large lot	33.83	38	38	JORDANELLE VIEW
A-2	Estate Lots and Large Lots	Large lot	7.35	13	13	JORDANELLE VIEW
A-3	Estate Lots and Large Lots	Large lot	4.31	6	6	JORDANELLE VIEW
A-4	Estate Lots and Large Lots	Large lot	2.88	5	5	JORDANELLE VIEW
A-5	Estate Lots and Large Lots	Large lot	4.54	10	10	JORDANELLE VIEW
<b>Subtotal</b>			52.91	72	72	
A-6	Estate Lots and Large Lots	Large lot	7.7	14	14	MAYFLOWER NORTH
A-7	Estate Lots and Large Lots	Large lot	8.72	26	26	MAYFLOWER NORTH
A-8	Estate Lots and Large Lots	Large lot	8.35	21	21	MAYFLOWER NORTH
A-9	Estate Lots and Large Lots	Large lot	4.49	10	10	MAYFLOWER NORTH
A-10	Estate Lots and Large Lots	Large lot	3.84	13	13	MAYFLOWER NORTH
A-11	Estate Lots and Large Lots	Large lot	16.12	38	38	MAYFLOWER NORTH
A-12	Estate Lots and Large Lots	Large lot	6.73	24	24	MAYFLOWER NORTH
A-13	Estate Lots and Large Lots	Large lot	1.51	6	6	MAYFLOWER NORTH
A-14	Estate Lots and Large Lots	Large lot	1.8	8	8	MAYFLOWER NORTH
A-15	Estate Lots and Large Lots	Large lot	12.7	28	28	MAYFLOWER NORTH
A-16	Medium and Small Lots	Small lot	2.12	10	10	MAYFLOWER NORTH
A-17	Medium and Small Lots	Small lot	6.17	19	19	MAYFLOWER NORTH
A-18	Medium and Small Lots	Small lot	4.55	19	19	MAYFLOWER NORTH
A-19	Medium and Small Lots	Small lot	7.78	32	32	MAYFLOWER NORTH
A-20	Medium and Small Lots	Small lot	2	5	5	MAYFLOWER NORTH
A-21	Medium Density	Townhome	2.84	20	20	MAYFLOWER NORTH
A-22	Medium Density	Townhome	3.06	22	22	MAYFLOWER NORTH
A-23	Medium Density	Townhome	13.29	108	108	MAYFLOWER NORTH
A-24	Medium Density	Townhome	9.81	62	62	MAYFLOWER NORTH
A-25	Medium Density	Townhome	2.16	18	18	MAYFLOWER NORTH
A-26	School	School	11.52	0	0	MAYFLOWER NORTH
A-27	Community / Amenity	Park	7.6	0	0	MAYFLOWER NORTH
<b>Subtotal</b>			144.86	503	503	
A-28	Medium and Small Lots	Small lot	11.68	36	36	GIMBEL LANDS
A-29	Commercial	Retail	0.95	3	3	GIMBEL LANDS
A-30	Estate Lots and Large Lots	Large lot	4.14	16	16	GIMBEL LANDS
<b>Subtotal</b>			16.77	55	55	
A-31	Estate Lots and Large Lots	Large lot	271.00	260	260	EAST PARK
A-32	Medium and Small Lots	Small lot	10.01	60	60	SAGE HEN HOLLOWS
<b>TOTALS TARGETS</b>			<b>495.55</b>	<b>950</b>	<b>950</b>	

Statistics by Density Pod					RSF		RMD	
Density Pod	Net Acres	Dwelling Units	ERUs	Ownership	ACRES	ERUs	ACRES	ERUs
A-1	33.83	38	38	JORDANELLE VIEW	33.83	38		
A-2	7.35	13	13	JORDANELLE VIEW	7.35	13		
A-3	4.31	6	6	JORDANELLE VIEW	4.31	6		
A-4	2.88	5	5	JORDANELLE VIEW	2.88	5		
A-5	4.54	10	10	JORDANELLE VIEW	4.54	10		
Subtotal	52.91	72	72		52.91	72		
A-6	7.7	14	14	MAYFLOWER NORTH	7.7	14		
A-7	8.72	26	26	MAYFLOWER NORTH	8.72	26		
A-8	8.35	21	21	MAYFLOWER NORTH	8.35	21		
A-9	4.49	10	10	MAYFLOWER NORTH	4.49	10		
A-10	3.84	13	13	MAYFLOWER NORTH	3.84	13		
A-11	16.12	38	38	MAYFLOWER NORTH	16.12	38		
A-12	6.73	24	24	MAYFLOWER NORTH	6.73	24		
A-13	1.51	6	6	MAYFLOWER NORTH	1.51	6		
A-14	1.8	8	8	MAYFLOWER NORTH	1.8	8		
A-15	12.7	28	28	MAYFLOWER NORTH	12.7	28		
A-16	2.12	10	10	MAYFLOWER NORTH	2.12	10		
A-17	6.17	19	19	MAYFLOWER NORTH	6.17	19		
A-18	4.55	19	19	MAYFLOWER NORTH	4.55	19		
A-19	7.78	32	32	MAYFLOWER NORTH	7.78	32		
A-20	2	5	5	MAYFLOWER NORTH	2	5		
A-21	2.84	20	20	MAYFLOWER NORTH			2.84	20
A-22	3.06	22	22	MAYFLOWER NORTH			3.06	22
A-23	13.29	108	108	MAYFLOWER NORTH			13.29	108
A-24	9.81	62	62	MAYFLOWER NORTH			9.81	62
A-25	2.16	18	18	MAYFLOWER NORTH			2.16	18
A-26	11.52	0	0	MAYFLOWER NORTH				
A-27	7.6	0	0	MAYFLOWER NORTH				
Subtotal	144.86	503	503		94.58	273	31.16	230
A-28	11.68	36	36	GIMBEL LANDS			11.68	36
A-29	0.95	3	3	GIMBEL LANDS				
A-30	4.14	16	16	GIMBEL LANDS	4.14	16		
Subtotal	16.77	55	55		4.14	16	11.68	36
A-31	271.00	260	260	EAST PARK	271.00	260		
A-32	10.01	31	31	SAGE HEN HOLLOWES			10.01	31
<b>TOTALS TARGETS</b>	<b>495.55</b>	<b>921</b>	<b>921</b>		<b>422.63</b>	<b>621</b>	<b>52.85</b>	<b>297</b>



## EXHIBIT E-5

## Neighborhood "B" Target Use Summary

Village & Building Numbers	Pod	Category		Net Acres	Units	ERUs	Ownership
<b>East Side</b>							
1.1-1.2	B-1	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	2.08	155	64	DEER CREST VILLAGE
2.1	B-2	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	1.93	121	50	DEER CREST VILLAGE
3.1	B-3	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	1.38	126	54	DEER CREST VILLAGE
4.1	B-4	High Density/Hospitality/Mixed Use/Convention	Convention Center/Hotel	5.38	222	94	DEER CREST VILLAGE
5.1	B-5	High Density	Condo/Lodge	2.55	85	45	DEER CREST VILLAGE
6.1	B-6	High Density	Condo/Lodge	1.00	23	12	DEER CREST VILLAGE
7.1	B-7	High Density	Clubhouse/Condo	1.80	20	13	DEER CREST VILLAGE
8.1-8.5	B-8	Hospitality	Hotel	16.08	608	266	DEER CREST VILLAGE
9.1-9.3	B-9	Medium Density	Townhomes	1.20	12	12	DEER CREST VILLAGE
10.1	B-10	Parking	Parking Structure	1.37	0	0	DEER CREST VILLAGE
11.1-11.2	B-11	Commercial	Retail	0.73	0	4	DEER CREST VILLAGE
12.1-12.2	B-12	Commercial	Retail	0.34	0	3	DEER CREST VILLAGE
13.1-13.2	B-13	Parking	Parking/Community Housing	3.15	45	26	DEER CREST VILLAGE
14.1-14.2	B-14	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	3.91	250	106	DEER CREST VILLAGE
15.1	B-15	Community/Amenity	Amphitheatre	1.80	0	0	DEER CREST VILLAGE
18.1	B-18	High Density	Condo/Lodge	0.44	20	9	DEER CREST VILLAGE
20.1-20.2	B-20	Medium Density	Townhomes	1.23	8	8	DEER CREST VILLAGE
	B-22	Medium Lots and Small Lots	Single Family Dwellings	1.17	0	0	DEER CREST VILLAGE
<b>Subtotal</b>				<b>47.54</b>	<b>1695</b>	<b>766</b>	
16.1	B-16	High Density	Condo/Lodge	1.55	32	15	THE HOLLOWES
17.1	B-17	Commercial	Retail	0.62	0	3	THE HOLLOWES
18.1	B-18	High Density	Condo/Lodge	0.68	29	13	THE HOLLOWES
19.1	B-19	Commercial	Retail	0.37	0	2	THE HOLLOWES
20.3-20.4	B-20	Medium Density	Townhomes	0.67	6	6	THE HOLLOWES
21.1-21.5	B-21	Medium Density	Townhomes	1.66	14	14	THE HOLLOWES
<b>Subtotal</b>				<b>5.55</b>	<b>81</b>	<b>59</b>	
20.5-20.7	B-20	Medium Density	Townhomes	1.42	8	8	THE POINTE
21.6-21.12	B-21	Medium Density	Townhomes	3.29	18	18	THE POINTE
22.1-22.28	B-22	Medium Lots and Small Lots	Single Family Dwellings	7.46	22	22	THE POINTE
<b>Subtotal</b>				<b>12.17</b>	<b>48</b>	<b>48</b>	
<b>Subtotal East Side</b>				<b>65.26</b>	<b>1824</b>	<b>867</b>	
<b>West Side</b>							
23.1-23.6	B-23	Medium Density	Townhomes	1.32	0	0	DEER CREST VILLAGE
24.1-24.17	B-24	Medium Density	Townhomes	1.70	17	17	DEER CREST
25.1-25.2	B-25	Medium-High Density	Stacked Townhomes	1.04	16	24	DEER CREST
26.1	B-26	High Density/Mixed Use/Hospitality	Condo/Lodge/Retail	0.67	64	30	DEER CREST
27.1	B-27	Commercial	Daylodge/Skier Services	0.43	20	8	DEER CREST
28.1-28.3	B-28	High Density/Mixed Use/Hospitality	Daylodge/Retail/Community Housing	1.02	62	38	DEER CREST
<b>Subtotal</b>	<i>Note:</i>	<i>(80 ERUs currently committed; not in subtotal)</i>		<b>6.18</b>	<b>179</b>	<b>117</b>	
29.1-29.3	B-29	High Density/Mixed Use/Hospitality	Condo/Lodge/Retail	3.30	121	57	DEER VALLEY
30.1	B-30	Commercial	Retail	0.90	0	3	DEER VALLEY
<b>Subtotal</b>				<b>4.2</b>	<b>121</b>	<b>60</b>	
31.1-31.10	B-31	Medium Density	Townhomes	3.37	20	20	PIOCHE
32.1-32.2	B-32	Hospitality	Hotel	1.29	114	46	PIOCHE
33.1-33.59	B-33	Estate Lots and Large Lots	Single Family Dwellings	48.38	59	59	PIOCHE
34.1-34.7	B-34	Low Density Hospitality	Single Family Dwellings	4.00	7	7	PIOCHE
<b>Subtotal</b>				<b>57.05</b>	<b>200</b>	<b>132</b>	
<b>Total West Side</b>				<b>69</b>	<b>500</b>	<b>309</b>	
<b>TOTAL TARGETS</b>				<b>134.01</b>	<b>2324</b>	<b>1176</b>	

NEIGHBORHOOD							
Statistics					RSF	RM	
Village & Building Numbers	Pod	Net Acres	ERUs	Ownership	ACRES	ERUs	ACRES
<b>East Side</b>							
1.1-1.2	B-1	2.08	64	DEER CREST VILLAGE			
2.1	B-2	1.93	50	DEER CREST VILLAGE			
3.1	B-3	1.38	54	DEER CREST VILLAGE			
4.1	B-4	5.38	94	DEER CREST VILLAGE			
5.1	B-5	2.55	45	DEER CREST VILLAGE			
6.1	B-6	1.00	12	DEER CREST VILLAGE			
7.1	B-7	1.80	13	DEER CREST VILLAGE			
8.1-8.5	B-8	16.08	266	DEER CREST VILLAGE			
9.1-9.3	B-9	1.20	12	DEER CREST VILLAGE			1.20
10.1	B-10	1.37	0	DEER CREST VILLAGE			
11.1-11.2	B-11	0.73	4	DEER CREST VILLAGE			
12.1-12.2	B-12	0.34	3	DEER CREST VILLAGE			
13.1-13.2	B-13	3.15	26	DEER CREST VILLAGE			
14.1-14.2	B-14	3.91	106	DEER CREST VILLAGE			
15.1	B-15	1.80	0	DEER CREST VILLAGE			
18.1	B-18	0.44	9	DEER CREST VILLAGE			
20.1-20.2	B-20	1.23	8	DEER CREST VILLAGE			1.23
	B-22	1.17	0	DEER CREST VILLAGE	1.17	0	
<b>Subtotal</b>		<b>47.54</b>	<b>766</b>		<b>1.17</b>	<b>0</b>	<b>2.43</b>
16.1	B-16	1.55	15	THE HOLLOWES			
17.1	B-17	0.62	3	THE HOLLOWES			
18.1	B-18	0.68	13	THE HOLLOWES			
19.1	B-19	0.37	2	THE HOLLOWES			
20.3-20.4	B-20	0.67	6	THE HOLLOWES			0.67
21.1-21.5	B-21	1.66	14	THE HOLLOWES			1.66
<b>Subtotal</b>		<b>5.55</b>	<b>53</b>		<b>0</b>	<b>0</b>	<b>2.33</b>
20.5-20.7	B-20	1.42	8	THE POINTE			1.42
21.6-21.12	B-21	3.29	18	THE POINTE			3.29
22.1-22.28	B-22	7.46	22	THE POINTE	7.46	22	
<b>Subtotal</b>		<b>12.17</b>	<b>48</b>		<b>7.46</b>	<b>22</b>	<b>4.71</b>
<b>Subtotal East Side</b>		<b>65.26</b>	<b>867</b>		<b>8.63</b>	<b>22</b>	<b>9.47</b>
<b>West Side</b>							
23.1-23.6	B-23	1.32	0	DEER CREST VILLAGE			1.32
24.1-24.17	B-24	1.70	17	DEER CREST			1.70
25.1-25.2	B-25	1.04	24	DEER CREST			
26.1	B-26	0.67	30	DEER CREST			
27.1	B-27	0.43	8	DEER CREST			
28.1-28.3	B-28	1.02	38	DEER CREST			
<b>Subtotal</b>		<b>6.18</b>	<b>117</b>		<b>0.00</b>	<b>0</b>	<b>3.02</b>
29.1-29.3	B-29	3.30	57	DEER VALLEY			
30.1	B-30	0.90	3	DEER VALLEY			
<b>Subtotal</b>		<b>4.2</b>	<b>60</b>		<b>0.00</b>	<b>0</b>	<b>0.00</b>
31.1-31.10	B-31	3.37	20	PIOCHE			3.37
32.1-32.2	B-32	1.29	46	PIOCHE			
33.1-33.59	B-33	48.38	59	PIOCHE	48.38	59	
34.1-34.7	B-34	4.00	7	PIOCHE			
<b>Subtotal</b>		<b>57.05</b>	<b>132</b>		<b>48.38</b>	<b>59</b>	<b>3.37</b>
<b>Total West Side</b>		<b>68.75</b>	<b>309</b>		<b>48.38</b>	<b>59</b>	<b>6.39</b>
<b>TOTAL TARGETS</b>		<b>134.01</b>	<b>1176</b>		<b>57.01</b>	<b>81</b>	<b>15.86</b>

MOD "B" LAND USE ZONES

D	HC		RVMD		RVHD		NC		CS		SCH	
	ERUs	ACRES	ERUs	ACRES	ERUs	ACRES	ERUs	ACRES	ERUs	ACRES	ERUs	ACRES
			2.08	64								
			1.93	50								
			1.38	54								
			5.38	94								
			2.55	45								
					1.00	12						
					1.80	13						
12					16.08	266						
			1.37	0								
			0.73	4								
			0.34	3								
			3.15	26								
			3.91	106								
			0.44	9					1.80	0		
8												
20	0.00	0	23.26	455	18.88	291	0.00	0	1.80	0	0.00	0
			1.55	15								
			0.62	3								
			0.68	13								
6							0.37	2				
14												
20	0	0	2.85	31	0	0	0.37	2	0	0	0	0
8												
18												
26	0	0	0	0	0	0	0	0	0	0	0	0
66	0.00	0	26.11	486	18.88	291	0.37	2	1.80	0	0.00	0
0												
17												
			1.04	24								
			0.67	30								
			0.43	8								
			1.02	38								
17	0.00	0	3.16	100	0.00	0	0.00	0	0.00	0	0.00	0
			3.30	57								
			0.90	3								
0	0.00	0	4.20	60	0.00	0	0.00	0	0.00	0	0.00	0
							0.00	0				
20												
			1.29	46								
	4.00	7										
20	4.00	7	1.29	46	0.00	0	0.00	0	0.00	0	0.00	0
37	4.00	7	8.65	206	0.00	0	0.00	0	0.00	0	0.00	0
103	4.00	7	34.76	692	18.88	291	0.37	2	1.80	0	0.00	0

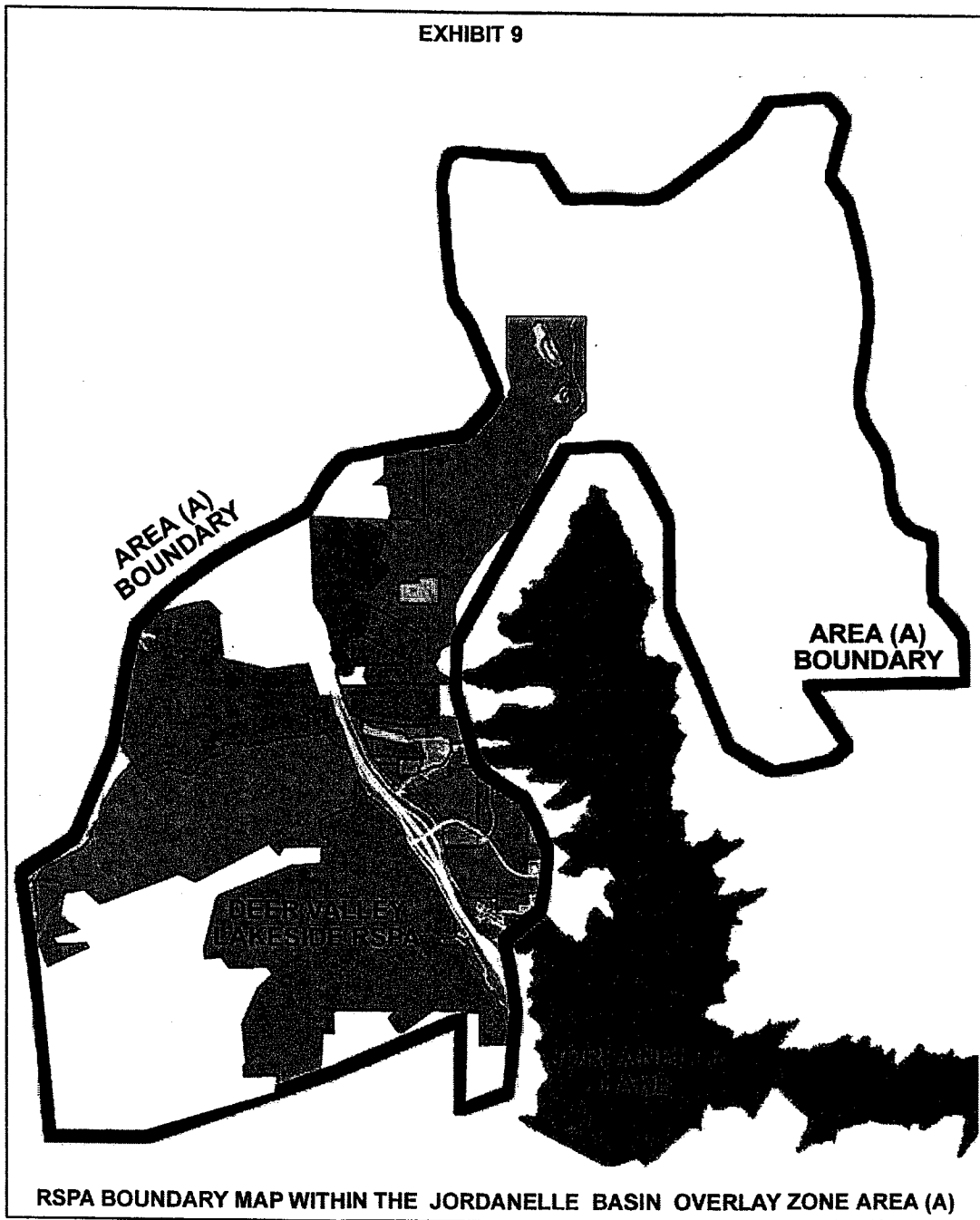


Neighborhood "C" Target Use Summary						
Density Pod	Study Categories		Net Acres	Dwelling Units	ERUs	Ownership
C-1	Medium Lots & Small Lots	Small lot	8.33	25	25	MAYFLOWER SOUTH (EAST)
C-2	Estate Lots & Large Lots	Large lot	11.81	24	24	MAYFLOWER SOUTH (EAST)
C-3	Estate Lots & Large Lots	Large lot	4.14	7	7	MAYFLOWER SOUTH (EAST)
C-4	Estate Lots & Large Lots	Large lot	13.64	27	27	MAYFLOWER SOUTH (EAST)
C-5	Estate Lots & Large Lots	Large lot	5.48	12	12	MAYFLOWER SOUTH (EAST)
C-6	School	School	10.36	0	0	MAYFLOWER SOUTH (EAST)
C-7	Medium Lots & Small Lots	Small lot	9.66	15	15	MAYFLOWER SOUTH (EAST)
C-8	High Density	Condominium	5.34	156	82	MAYFLOWER SOUTH (EAST)
C-9A	Commercial	Retail	1.25	0	5	MAYFLOWER SOUTH (EAST)
C9B	Commercial	Gas Station/Car wash	1.03		1	MAYFLOWER SOUTH (EAST)
C-10	Community / Amenity	Park	4.52	0	0	MAYFLOWER SOUTH (EAST)
C-11	Parking	Parking	7.87	0	0	MAYFLOWER SOUTH (EAST)
C-12	Medium Density	Townhome	5.38	42	42	MAYFLOWER SOUTH (EAST)
C-13	Medium Density	Townhome	2.16	16	24	MAYFLOWER SOUTH (EAST)
C-14	Medium Density	Townhome	8.17	62	62	MAYFLOWER SOUTH (EAST)
C-15	Medium Density	Townhome	8.75	66	66	MAYFLOWER SOUTH (EAST)
Subtotal			107.89	452	392	
C-16-C-26		Varies	91.81	264	181	STILLWATER
Subtotal			91.81	264	181	
C-27	Estate Lots & Large Lots	Large Lot	59.06	63	63	MAYFLOWER SOUTH (WEST)
C-28	Medium Density	Townhome	3.25	24	24	MAYFLOWER SOUTH (WEST)
C-29	Estate Lots & Large Lots	Large Lot	29.31	30	30	MAYFLOWER SOUTH (WEST)
C-30	Estate Lots & Large Lots	Large Lot	20.33	16	16	MAYFLOWER SOUTH (WEST)
C-31	Estate Lots & Large Lots	Large Lot	3.85	5	5	MAYFLOWER SOUTH (WEST)
C-32	Estate Lots & Large Lots	Large Lot	11.24	10	10	MAYFLOWER SOUTH (WEST)
C-33	Medium Density	Townhome	1.53	12	12	MAYFLOWER SOUTH (WEST)
C-34	Estate Lots & Large Lots	Large Lot	1.28	2	2	MAYFLOWER SOUTH (WEST)
C-35	Medium Density	Townhome	4.41	30	30	MAYFLOWER SOUTH (WEST)
C-36	Hospitality	Hotel	7.06	359	180	MAYFLOWER SOUTH (WEST)
C-37	Hospitality	Hotel	2.84	84	50	MAYFLOWER SOUTH (WEST)
C-38	Community / Amenity	Golf Facility	2.22	0	0	MAYFLOWER SOUTH (WEST)
C-39	Medium Density	Townhome	6.84	46	47	MAYFLOWER SOUTH (WEST)
C-40	Medium Density	Townhome	8.39	78	78	MAYFLOWER SOUTH (WEST)
C-41	Medium Density	Townhome	8.22	80	80	MAYFLOWER SOUTH (WEST)
C-42	Medium Density	Townhome	4.86	34	34	MAYFLOWER SOUTH (WEST)
C-43	High Density	Condo / Lodge	4.56	125	50	MAYFLOWER SOUTH (WEST)
C-44	High Density / Mixed Use / Hospitality	Hotel / Condominium	5.33	222	100	MAYFLOWER SOUTH (WEST)
C-45	Medium Density	Townhome	3.93	27	27	MAYFLOWER SOUTH (WEST)
C-46	Estate Lots & Large Lots	Large Lot	26.28	28	28	MAYFLOWER SOUTH (WEST)
C-47	Medium Density	Townhome	3.28	22	22	MAYFLOWER SOUTH (WEST)
C-48	Medium Density	Townhome	5.10	34	34	MAYFLOWER SOUTH (WEST)
C-49	Medium Density	Townhome	4.99	32	32	MAYFLOWER SOUTH (WEST)
C-50	Community / Amenity	Equestrian	3.00	0	0	MAYFLOWER SOUTH (WEST)
C-51	Medium Density	Townhome	2.26	16	16	MAYFLOWER SOUTH (WEST)
C-52	Estate Lots & Large Lots	Large Lot	31.10	25	25	MAYFLOWER SOUTH (WEST)
C-53	Estate Lots & Large Lots	Large Lot	36.20	30	30	MAYFLOWER SOUTH (WEST)
C-54	Potential Development Pod	n/a	11.40	0	0	MAYFLOWER SOUTH (WEST)
Subtotal			312.12	1434	1025	
C55	Potential Development Pod	n/a	3.84	0	0	SCHOOL TRUST LANDS
C56	Potential Development Pod	n/a	11.40	0	0	SCHOOL TRUST LANDS
Subtotal			15.24	0.00	0.00	
<b>TOTAL TARGETS</b>			<b>527.06</b>	<b>2150</b>	<b>1598.00</b>	

RSPA Amendment

NEIGHBORHOOD "C"								
Density Pod	Net Acres	ERUs	Ownership	RSF		RMD		ACRES
				ACRES	ERUs	ACRES	ERUs	
C-1	8.33	25	MAYFLOWER SOUTH (EAST)	8.33	25			
C-2	11.81	24	MAYFLOWER SOUTH (EAST)	11.81	24			
C-3	4.14	7	MAYFLOWER SOUTH (EAST)	4.14	7			
C-4	13.64	27	MAYFLOWER SOUTH (EAST)	13.64	27			
C-5	5.48	12	MAYFLOWER SOUTH (EAST)	5.48	12			
C-6	10.36	0	MAYFLOWER SOUTH (EAST)					
C-7	9.66	15	MAYFLOWER SOUTH (EAST)	9.66	15			
C-8	5.34	82	MAYFLOWER SOUTH (EAST)			5.34	82	
C-9A	1.25	5	MAYFLOWER SOUTH (EAST)					
C9B	1.03	1	MAYFLOWER SOUTH (EAST)					
C-10	4.52	0	MAYFLOWER SOUTH (EAST)					
C-11	7.87	0	MAYFLOWER SOUTH (EAST)					
C-12	5.38	42	MAYFLOWER SOUTH (EAST)			5.38	42	
C-13	2.16	24	MAYFLOWER SOUTH (EAST)			2.16	24	
C-14	8.17	62	MAYFLOWER SOUTH (EAST)			8.17	62	
C-15	8.75	66	MAYFLOWER SOUTH (EAST)			8.75	66	
Subtotal	107.89	392		53.06	110	29.80	276	0.00
C-16	4.15	12	STILLWATER			4.15	12	
C-17	3.61	14.25	STILLWATER			3.61	14	
C-18	4.40	13.1	STILLWATER			4.40	13	
C-19	3.64	15.5	STILLWATER			3.64	16	
C-20	26.28	11	STILLWATER			26.28	11	
C-21	3.28	10.5	STILLWATER			3.28	11	
C-22	5.10	8.25	STILLWATER			5.10	8	
C-23	4.99	21.92	STILLWATER			4.99	22	
C-24	3.00	4.28	STILLWATER			3.00	4	
C-25	2.26	62.73	STILLWATER			2.26	63	
C-26	31.10	7.7	STILLWATER			31.10	8	
Subtotal	91.81	181.23		0.00	0	91.81	181	0.00
C-27	59.06	63	MAYFLOWER SOUTH (WEST)	59.06	63			
C-28	3.25	24	MAYFLOWER SOUTH (WEST)			3.25	24	
C-29	29.31	30	MAYFLOWER SOUTH (WEST)	29.31	30			
C-30	20.33	16	MAYFLOWER SOUTH (WEST)	20.33	16			
C-31	3.85	5	MAYFLOWER SOUTH (WEST)	3.85	5			
C-32	11.24	10	MAYFLOWER SOUTH (WEST)	11.24	10			
C-33	1.53	12	MAYFLOWER SOUTH (WEST)			1.53	12	
C-34	1.28	2	MAYFLOWER SOUTH (WEST)	1.28	2			
C-35	4.41	30	MAYFLOWER SOUTH (WEST)			4.41	30	
C-36	7.06	180	MAYFLOWER SOUTH (WEST)					
C-37	2.84	50	MAYFLOWER SOUTH (WEST)					
C-38	2.22	0	MAYFLOWER SOUTH (WEST)					
C-39	6.84	46	MAYFLOWER SOUTH (WEST)			6.84	46	
C-40	8.39	78	MAYFLOWER SOUTH (WEST)			8.39	78	
C-41	8.22	80	MAYFLOWER SOUTH (WEST)			8.22	80	
C-42	4.86	34	MAYFLOWER SOUTH (WEST)					
C-43	4.56	50	MAYFLOWER SOUTH (WEST)					
C-44	5.33	100	MAYFLOWER SOUTH (WEST)					
C-45	3.93	27	MAYFLOWER SOUTH (WEST)					
C-46	26.28	28	MAYFLOWER SOUTH (WEST)	26.28	28			
C-47	3.28	22	MAYFLOWER SOUTH (WEST)			3.28	22	
C-48	5.10	34	MAYFLOWER SOUTH (WEST)			5.1	34	
C-49	4.99	32	MAYFLOWER SOUTH (WEST)			4.99	32	
C-50	3.00	0	MAYFLOWER SOUTH (WEST)					
C-51	2.26	16	MAYFLOWER SOUTH (WEST)			2.26	16	
C-52	31.10	25	MAYFLOWER SOUTH (WEST)	31.1	25			
C-53	36.20	30	MAYFLOWER SOUTH (WEST)	36.2	30			
C-54	11.40	0	MAYFLOWER SOUTH (WEST)			11.40	0	
Subtotal	312.12	1024		218.65	209	59.67	374	0.00
C55	3.84	0	SCHOOL TRUST LANDS			3.84	0	
C56	11.40	0	SCHOOL TRUST LANDS			11.40	0	
Subtotal	15.24	0.00		0.00	0	15.24	0	0.00
<b>TOTAL TARGETS</b>	<b>527.06</b>	<b>1597</b>		<b>271.71</b>	<b>319</b>	<b>196.52</b>	<b>831</b>	<b>0.00</b>





The JBOZ includes Areas A, B and C plus an additional 6,000 acres recently annexed to Area C. The JSSD area has the same boundaries as the JBOZ.

**JORDANELLE VILLAGE**

**AT DEER COVE**

**PARKING  
REQUIREMENTS  
STUDY**

**Based on Shared Use**

**IBI  
GROUP**

**JUNE 13, 2002**

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### EXHIBITS

EXHIBIT 2.1 JORDANELLE VILLAGE PARKING DEMAND SUMMARY

JORDANELLE VILLAGE AT DEER COVE  
PARKING DEMAND ESTIMATES

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## 1.0 INTRODUCTION

### 1.1 PURPOSE

The purpose of this analysis is to estimate the parking requirements associated with the proposed development at the Jordanelle Village, Utah.

### 1.2 SCOPE OF ANALYSIS

The parking study relates to the proposed residential, commercial and golf resort development in the Jordanelle Basin Area, adjacent to Deer Crest Gondola near the Mayflower interchange. The parking requirements presents herein are based on principle of shared use of parking spaces among different land uses and trip purposes.

The analysis is based upon observed travel patterns in the Park City resort area, supplement by travel characteristics from other major resorts similar to the proposed development, such as Whistler/Blackcomb, Vaid, Jackson Hole and Steamboat Springs. This report updates the parking estimates submitted in our January 2001 report, by incorporating the results obtained from the travel surveys that was undertaken in the Park City area during winter 2001.

### 1.3 BACKGROUND

Jordanelle Village at Deer Cove is proposed to be developed as a year-round multi-activity recreational / conference resort. The development will provide residential and commercial facilities to cater to year-round outdoor activities, including skiing and snowboarding in the area, golfing, horseback riding, hiking, biking, etc. Being less than an hour from Salt Lake City, the development will cater to families buying second, recreational homes, as well as tourists and outdoor recreationists from other cities and countries who wish to partake in the world-class outdoor activities to be offered in the area. It is anticipated that the 2002 Olympics will open Park City to the world, and significantly expand the region's share of the national and international recreational market.

The experiences of many of the other successful destination resorts in North America, such as Vale, Colorado and Whistler, BC, have shown that, if properly planned with a variety of outdoor activities, these resort communities are used year-round. Traditionally, these communities are thought to be skiing resorts, but many attract more tourists in the summer. Located across Highway U.S. 40 from Deer Crest ski area, and providing one and possibly two championship golf courses, Jordanelle Village will emulate many of these year-round destination resorts.

Despite the year-round nature of the resort, the Jordanelle Village parking requirements are expected to be greatest during the winter months. In view of the much greater recreational demand and capacity associated with ski areas, this analysis focuses on the winter period, being the period of highest estimated year-round demand.

### 1.4 MASTER DEVELOPMENT PLAN AND PROGRAM

The master plan for the Village identifies a variety of residential uses, commercial uses and outdoor activities, along with associated servicing systems. The master plan defines several parcels of lands and proposed land uses and building forms within each, and specifies maximum planned floor areas by land use type – residential, commercial, conference and clubhouse, as well as parking structures.

**JORDANELLE VILLAGE  
PARKING DEMAND ESTIMATES**

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The proposed development program, segmented by uses which demonstrate different parking requirements, including:

- ~~///~~ Full service hotel accommodations
- ~~///~~ Lodge accommodations which does not provide as many guest services
- ~~///~~ Townhouses which are expected to be full ownership or fractional ownership
- ~~///~~ Employee residential
- ~~///~~ Local commercial serving the needs of the Village
- ~~///~~ Regional commercial, serving the wider needs of the valley
- ~~///~~ Conference facilities which support the hotel and lodge facilities

### **1.5 PARKING DEMAND AND CODE COMPARISON**

This parking demand and analysis presents the estimated parking demand for each of these land uses, and compares the demand to the current Wasatch County code requirements. The analysis shows that the estimated demand is significantly lower than the current code requirements, and suggests that changes in the code requirements are justified. However, the master plan is designed such that if the actual parking demand differs from the estimates presented herein, the parking supply can be adjusted by phase.

### **2.0 FORECASTING ASSUMPTIONS**

Since the Village will grow and change dramatically over the next 10 - 15 years, traveler characteristics were derived from other similar resort communities throughout North America and supported by travel surveys carried out in 2001. These traveler characteristics are described below.

#### **2.1 HOTEL, TOWNHOUSES, AND LODGE VISITORS**

**Peak Room Occupancy:** 95% for all units.

**Average Length of Stay:** Four days.

**Persons Per Room:** Persons per room varies from 2.0 for hotel units to 3.6 for the larger lodge units and 3.6 persons for the townhouses.

**Percent Car Use:** 70% car use to and from hotels and lodges; 90% car use to and from townhouses, reflecting the higher proportion of Salt Lake residents using these units. For hotel and lodge employees, car usage is estimated to be 90%.

**Car Occupancy:** 2 persons per car for hotel units, 3.6 persons per car for lodge units, 3.0 persons per car for townhouses and 1.25 persons per car for employees.

**Shared Parking Usage:** Employees at the hotels and lodges have an opportunity to use guest parking spaces during the day, requiring parking only for night employees, estimated to be 25%.

#### **2.2 EMPLOYEE RESIDENTIAL**

**Peak Room Occupancy:** 100% for all employee residential units

**Percent Car Use:** It is estimated that car usage is 90% for employees working in the resort area.

**Car Occupancy:** 1.25 persons per car for employees.

**Parking Demand / Employee:** Parking demand among employees is estimated to be 0.70 space / employee.



**2.3 COMMERCIAL PARKING**

**Commercial Visitors:** 12.37 daily visitors per 1,000 sq. feet, based on market studies for similar retail/commercial developments.

**Percent Peak Parking:** 71% of the daily visitors and 75% of the commercial employees are assumed to require parking during the peak period.

**Commercial Prime Purpose:** Based on surveys, it is estimated that 12% of the visitors to the local commercial areas is for commercial purposes, while the other 88% are estimated to make the trip for other purposes and therefore their travel and parking accommodation is already accounted for. For regional commercial, it is assumed that 50% of the commercial visitors are for commercial purposes, and the other 50% are at the area for other reasons.

**Commercial Visitor Car Usage:** 75% car usage by commercial visitors and 55% car usage for employees.

**Commercial Visitor Per Car:** It is estimated that vehicle occupancy for visitors to the local commercial areas is 3.50 persons per car, while 1.30 persons per car is assumed for the regional commercial visitors. Vehicle occupancy among commercial employees is assumed to be 1.25 persons per car.

**2.4 GOLF AREA VISITORS**

**Golfers:** It is assumed that there would be 100 golfers per 18 holes on the site at one time.

**Transit / Shuttle:** 10% of golfers would use transit or shuttle facilities from adjacent hotels / lodges.

**Persons Per Car:** 2.0 persons per car.

**2.5 DEER CREST DAY SKIER PARKING**

It is expected that 300 parking spaces are to be developed in the Jordanelle Village for day skier parking. It is assumed that these spaces will be shared with employee parking.

The above forecasting assumptions were utilized in estimating the parking demand, as summarized in Exhibit 2.1.

**3.0 CONCLUSIONS AND RECOMMENDATIONS**

This analysis has indicated that the current parking bylaw requires parking to be provided well in excess of estimated demand based on the experiences in other major resort communities. As these resort communities develop and appeal to very broadly based community users, both nationally and internationally, there is an increasing opportunity to reduce parking requirements, reflecting the tendency for national and international travelers to use shuttle buses and limousines, and not have owned or rented cars at the Village. This reduced dependency on cars and parking and the shared use of parking spaces are key principles in the design of parking for resort villages, and should be reflected in the parking bylaw.

Accordingly, we suggest that the parking standards for the Jordanelle Village be as follows:

Land Use	Bylaw Standard	Jordanelle Village Standard
Hotel Unit	2.0 spaces per unit	0.8 spaces per unit
Lodge	2.0 spaces per unit	0.8 spaces per unit
Townhouses	2.0 spaces per unit	0.8 spaces per unit
Employee Residences	2.0 spaces per bedroom	1.5 spaces per unit
Local Commercial	5.5 spaces per 1,000 sq. feet	0.7 spaces per bedroom
Regional Commercial	5.5 spaces per 1,000 sq. feet	1.2 spaces per 1,000 sq. feet
		3.7 spaces per 1,000 sq. feet

## EXHIBIT 2.1

## JORDANELLE VILLAGE PARKING DEMAND SUMMARY

RESIDENTIAL ACCOMODATION			
1.0 Hotel	Parameters	2.0 Lodge	Parameters
<b>Guest</b>		<b>Guest</b>	
Peak Period Occupancy	95%	Peak Period Occupancy	95%
Persons / Unit	2.0	Persons / Unit	3.6
Persons	1.9	Persons	3.4
% Car Usage	70%	% Car Usage	70%
Persons / Car	2.0	Persons / Car	3.6
Guest Parking Demand / Unit	0.67	Guest Parking Demand / Unit	0.67
Recommended Spaces / Unit	0.67	Recommended Spaces / Unit	0.70
<b>Employee</b>		<b>Employee</b>	
Employees / Hotel Unit	0.70	Employees / Lodge Unit	0.34
% Car Usage	90%	% Car Usage	90%
Persons / Car	1.25	Persons / Car	1.25
Shared Spaces %	25%	Shared Spaces %	25%
Employee Parking Demand / Unit	0.13	Employee Parking Demand / Unit	0.06
Recommended Spaces / Unit	0.13	Recommended Spaces / Unit	0.10
<b>Total Parking Demand / Unit</b>	<b>0.80</b>	<b>Total Parking Demand</b>	<b>0.80</b>
3.0 Town Houses	Parameters	4.0 Employee Residential	Parameters
Peak Period Occupancy	95%	Peak Period Occupancy	100%
Persons / Unit	3.6	Persons / Bedroom	1.0
Persons	3.42	% Car Usage	90%
% Car Usage	90%	Persons / Car	1.25
Persons / Car	3.0	Parking Demand / Bedroom	0.72
Parking Demand / Unit	1.03	<b>Recommended Spaces / Bedroom</b>	<b>0.70</b>
<b>Recommended Spaces / Unit</b>	<b>1.50</b>		
COMMERCIAL PARKING			
5.0 Local Commercial	Parameters	6.0 Regional Commercial	Parameters
<b>Visitor</b>		<b>Visitor</b>	
Commercial (sq. ft.)	1000	Commercial (sq. ft.)	1000
Daily Visitors / 1000 sq. ft.	12.37	Daily Visitors / 1000 sq. ft.	12.37
% Peak Visitors	71%	% Peak Visitors	71%
% Prime Purpose	12%	% Prime Purpose	50%
% Car Usage	75%	% Car Usage	75%
Persons / Car	3.50	Persons / Car	1.30
Parking Spaces Visitors / 1000 sq. ft.	0.23	Parking Spaces Visitors / 1000 sq. ft.	2.53
Recommended Spaces / 1000 sq. ft.	0.30	Recommended Spaces / 1000 sq. ft.	2.80
<b>Employee</b>		<b>Employee</b>	
Employees / 1000 sq. ft. Retail	2.71	Employees / 1000 sq. ft. Retail	2.71
% Peak Parkers	75%	% Peak Parkers	75%
% Car Usage	55%	% Car Usage	55%
Persons / Car	1.25	Persons / Car	1.25
Parking Spaces Employees / 1000 sq. ft.	0.89	Parking Spaces Employees / 1000 sq. ft.	0.89
Recommended Spaces / 1000 sq. ft.	0.90	Recommended Spaces / 1000 sq. ft.	0.90
<b>Total Parking Demand / 1000 sq. ft. (+ 5% for circulation)</b>	<b>1.20</b>	<b>Total Parking Demand / 1000 sq. ft. (+ 5% for circulation)</b>	<b>3.70</b>

RSPA -- POTENTIAL CONTRIBUTION OF LAND FOR ROADS

Area Calculation in Acres

Parcel	Total Measured	Total ERUs Per RSPA	Road Area to be Contributed	Road Land Contributed by Total Road Land Contributed	Road Land Contributed by Acres Owned	Property ERUs Divided by Total ERUs
Deer Crest Village(Deer Cove)	87	865	4.76	11.67%	5.47%	38.34%
Deer Crest	35	197	0.00	0.00%	0.00%	8.73%
Mayflower North	657	503	24.46	59.97%	3.72%	22.30%
Mayflower South-Lakeview	163	-	0.00	0.00%	0.00%	0.00%
Mayflower South-West	1116	-	0.00	0.00%	0.00%	0.00%
Mayflower Mountain	904	-	0.00	0.00%	0.00%	0.00%
Jordanelle View	64	72	4.80	11.77%	7.48%	3.19%
Gimbel	22	55	2.03	4.98%	9.05%	2.44%
Sage Hen Hollows	40	60	0.53	1.30%	1.34%	2.66%
The Hollows	11	26	1.40	3.43%	12.77%	1.15%
The Pointe	22	36	0.00	0.00%	0.00%	1.60%
East Park	188	260	2.81	6.89%	1.49%	11.52%
Deer Valley triangle	5	-	0.00	0.00%	0.00%	0.00%
Stillwater	60	-	0.00	0.00%	0.00%	0.00%
Ploche	767	182	0.00	0.00%	0.00%	8.07%
JSSD	31	-	0.00	0.00%	0.00%	0.00%
Star Harbor	36	-	0.00	0.00%	0.00%	0.00%
Fox Bay Condominiums	10	-	0.00	0.00%	0.00%	0.00%
Blue Ledge Corp.	11	-	0.00	0.00%	0.00%	0.00%
SK Hart Eng	31	-	0.00	0.00%	0.00%	0.00%
School District.	10	-	0.00	0.00%	0.00%	0.00%
	4268	2,256	40.79	100%	0.96%	100.00%

EXHIBIT E-13

RSPA -- POTENTIAL LAND CONTRIBUTION FOR TRAILS

Area Calculation in Acres

Parcel	Total Acres Measured	Total ERUs Per RSPA	Acres Required to be Contributed for Trails	Acres Contributed Divided by Total Trails Contribution	Trails Acres Contributed Divided by Acres of Contributing Property	Property ERUs Divided by Total ERUs of all Contributing Properties
Deer Crest Village (Deer Cove)	87.1	865	3.68	12.39%	4.23%	22.24%
Deer Crest	34.6	197	0.05	0.17%	0.14%	5.07%
Mayflower North	657.0	503	5.36	18.02%	0.82%	12.93%
Mayflower South-Lakeview	162.8		4.88	16.41%	3.00%	0.00%
Mayflower South-West	1,115.5	1,418	9.31	31.30%	0.83%	36.46%
Mayflower Mountain	903.5					
Jordanelle View	64.1	72	0.85	2.86%	1.33%	1.85%
Gimbel	22.4	55	0.19	0.64%	0.85%	1.41%
Sage Hen Hollows	39.6	60	0.14	0.47%	0.35%	1.54%
The Hollows	11.0	26	0.48	1.61%	4.38%	0.67%
The Pointe	21.8	36	0.31	1.04%	1.43%	0.93%
East Park	188.0	260	2.29	7.70%	1.22%	6.69%
Deer Valley triangle	4.8	-	0.00	0.00%	0.00%	0.00%
Stillwater	60.2	181	0.42	1.41%	0.70%	4.65%
Ploche	767.0	182	0.40	1.34%	0.05%	4.68%
JSSD Water Plant	31.0	-	1.00	3.36%	3.22%	0.00%
Fox Bay Condominiums	9.6	-	0.19	0.63%	1.96%	0.00%
Blue Ledge Corp.	10.9	34	0.19	0.64%	1.75%	0.87%
Star Harbor	35.6					
SK Hart Eng	31.0	-	0.00	0.00%	0.00%	0.00%
Wasatch School District	10.4	-	0.00	0.00%	0.00%	0.00%
	4,267.9	3,889	29.74	100.00%	0.70%	100.00%

**RSPA -- POTENTIAL LAND CONTRIBUTION FOR GOLF****Area Calculation in Acres**

Parcel	Total Acres Measured	Total ERUs Per RSPA	Acres Required to be Contributed for Golf	Acres Contributed Divided by Total Golf Contribution	Golf Acres Contributed Divided by Acres of Contributing Property	Property ERUs Divided by Total ERUs of all Contributing Properties
Deer Crest Village (Deer Cove)	87.1	865	13.22	5.44%	15.18%	22.24%
Deer Crest	34.6	197	0.00	0.00%	0.00%	5.07%
Mayflower North	657.0	503	123.18	50.69%	18.75%	12.93%
Mayflower South-Lakeview	162.8		38.10	15.68%	23.40%	0.00%
Mayflower South-West	1,115.5	1,418	33.45	13.76%	3.00%	36.46%
Mayflower Mountain	903.5	-	0.00	0.00%	0.00%	0.00%
Jordanelle View	64.1	72	12.91	5.31%	20.13%	1.85%
Gimbel	22.4	55	1.91	0.79%	8.51%	1.41%
Sage Hen Hollows	39.6	60	14.03	5.77%	35.42%	1.54%
The Hollows	11.0	26	0.00	0.00%	0.00%	0.67%
The Pointe	21.8	36	6.21	2.56%	28.55%	0.93%
East Park	188.0	260	0.00	0.00%	0.00%	6.69%
Deer Valley triangle	4.8	-	0.00	0.00%	0.00%	0.00%
Stillwater	60.2	181	0.00	0.00%	0.00%	4.65%
Pioche	767.0	182	0.00	0.00%	0.00%	4.68%
JSSD Water Plant	31.0	-	0.00	0.00%	0.00%	0.00%
Fox Bay Condominiums	9.6	-	0.00	0.00%	0.00%	0.00%
Blue Ledge Corp.	10.9	34	0.00	0.00%	0.00%	0.87%
SK Hart Eng	31.0	-	0.00	0.00%	0.00%	0.00%
Star Harbor	35.6	-	0.00	0.00%	0.00%	0.00%
Wasatch School District	10.4	-	0.00	0.00%	0.00%	0.00%
	<b>4,267.9</b>	<b>3,889</b>	<b>243.01</b>	<b>100.00%</b>	<b>5.69%</b>	<b>100.00%</b>

EXI  
RSPA – Reconciliation of Land Acreage

Parcel	Listed Property Owner	Total Acres Measured	Total ERU's Per RSPA	Golf Developable	Golf Undevelopable	Total Golf	% of Golf by Parcel Owner	Development Pods *
Deer Crest Village (Deer Cove)	HAMC Wasatch	87.08		8.22	5.00	13.22	15%	51.03
Deer Crest Village (Deer Cove) **3	Deer Crest Associate	34.59		0.00	0.00	0.00	0%	4.80
Mayflower North	Stitching Mayflower	657.00		72.90	50.28	123.18	19%	144.86
Mayflower South-Lakeview	Stitching Mayflower	162.83		31.84	6.26	38.10	23%	90.59
Mayflower South-West **2	Stitching Mayflower	1115.50		20.19	13.26	33.45	3%	301.52
Mayflower South-Mtn Prop ** 15	Stitching Mayflower	903.50		N/A	N/A	N/A	N/A	N/A
Jordanelle View **5	Mike Ahlin Jordanelle View, LC	64.14		12.51	0.40	12.91	20%	50.13
Gimbel	Tom Flinders JAS Realty	22.44		2.04	0.00	2.04	9%	16.77
Sage Hen Hollows	Gary Howland Hollow Point, LC	39.60		1.10	12.93	14.03	35%	10.01
The Hollows	Western Surgical Association	10.96		0.00	0.00	0.00	0%	5.55
The Pointe	Stephen W. Rupp, ATTN	21.75		1.38	4.83	6.21	29%	12.17
East Park **8	East Park Owners Association	188.00		0.00	0.00	0.00	0%	161.00
Deer Valley triangle **4	Deer Valley Resort	4.80		0.00	0.00	0.00	0%	4.20
Stillwater **11	Stillwater Lodge Development, LLC	60.18		0.00	0.00	0.00	0%	46.83
Ploche	United Park City Mines	767.00		0.00	0.00	0.00	0%	57.04
JSSD Water Plant	JSSD	31.01		0.00	0.00	0.00	0%	0.00
Blue Ledge Corp. **9	United Park City Mines	10.94		0.00	0.00	0.00	0%	0.00
SK Hart Eng	United Park City Mines	31.01		0.00	0.00	0.00	0%	0.00
Wasatch School District	Wasatch School District	10.36		0.00	0.00	0.00	0%	10.36
Star Harbor **9	United Park City Mines	35.58		0.00	0.00	0.00	0%	0.00
Fox Bay**10	United Park City Mines	9.63		N/A	N/A	N/A	N/A	N/A
<b>TOTAL</b>		<b>4267.90</b>	<b>0.00</b>	<b>150.18</b>	<b>92.96</b>	<b>243.14</b>		<b>966.86</b>

\* Development Pods include schools, civic and community amenities

**General Notes\*\*:**

The following assumptions were made to construct this data:

1. All areas are based on measurements from exhibits B-8, B-11 & B-14. Exact areas for the owners will need to be determined by an ALTA survey, and/or tax records.
2. Mayflower South shows the area that is included within the RSPA only (as shown on B-6)
3. The upper area of Deer Crest is not part of the RSPA and are not included in these calculations.
4. Deer Valley will assume ownership of Parcels B-29 and B-30.
5. Jordanelle View acres only accounts for the acreage in Wasatch County. Acreage adjustment will need to be made to include acreage in Summit County which is serviced by the JSSD. This is also
6. All Community/Amenity or school sites are assumed to have development potential and are part of a development pod.
7. Development pods are as shown on plan sheets B-8, B-11, B-14
8. East Park acreage includes 17.18 acres which is owned by Stitching Mayflower
9. The Blue Ledge and The Star Harbor parcels are not included as part of the RSPA but have previous approvals for development.
10. The Fox Bay Parcel currently shows no development impacts or amenities and is not included in these calculations.
11. Stillwater land areas were measured as per the boundary shown on Plan Sheet B-14 Neighborhood C Target Study.
12. All development pods were measured in total and by specific owner, if more than one owner occurred in a specific development pod.
13. Trails were drawn schematically on Plan Sheet B-25 and measured according to this sheet. Where trails are shown within public property the linear feet within the public area was assigned to the nearest property owner. This assumption excludes the trails shown west of the Day use area on Bureau of Reclamation Property where these trails are not shown under private
14. Existing trails (Deer Crest Trails) are not a part of this summary.
15. Mayflower South-Mtn Property includes properties to the Wasatch County Line within the JSSD service area area only includes properties within the JSSD.

IT 15  
for Purposes of Closing the Loop

Devel. Pod by Parcel Owner	Roads	% Roads by Parcel Owner	Trails Developable	Trails Undevelopable	Trails	% of Trails by Parcel Owner	Detention Basin / Drainage Needs	% of Detention by Parcel Owner	Undisturbed Area (ac) Open space	% of Undisturbed Area by Parcel Owner	Total Acreage
59%	4.76	5%	2.60	0.34	2.94	3%	0.00	0%	15.14	17%	87.08
14%	0.00	0%	0.05	0.10	0.15	0%	0.00	0%	29.64	86%	34.59
22%	24.46	4%	3.92	3.53	7.45	1%	3.26	0%	353.78	54%	657.00
56%	0.00	0%	3.57	1.72	5.29	3%	4.48	3%	24.37	15%	162.83
27%	0.00	0%	4.16	6.26	10.42	1%	0.86	0%	769.45	89%	1115.50
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	903.50
78%	4.80	7%	0.55	0.62	1.17	2%	0.00	0%	-4.88	-8%	64.14
75%	2.03	9%	0.19	0.00	0.19	1%	0.00	0%	1.41	6%	22.44
25%	0.53	1%	0.03	0.00	0.03	0%	0.00	0%	15.01	38%	39.60
51%	1.40	13%	0.48	0.00	0.48	4%	0.00	0%	3.53	32%	10.96
56%	0.00	0%	0.31	0.00	0.31	1%	0.00	0%	3.06	14%	21.75
86%	2.81	1%	1.21	0.79	2.00	1%	0.00	0%	22.19	12%	188.00
88%	0.00	0%	0.03	0.18	0.21	4%	0.00	0%	0.39	8%	4.80
78%	0.00	0%	0.56	0.65	1.21	2%	0.00	0%	12.14	20%	60.18
7%	0.00	0%	0.57	0.12	0.69	0%	0.00	0%	709.27	92%	767.00
0%	0.00	0%	0.05	1.18	1.23	4%	0.00	0%	29.78	96%	31.01
0%	0.00	0%	0.36	0.00	0.36	3%	0.00	0%	10.58	97%	10.94
0%	0.00	0%	0.07	0.00	0.07	0%	0.00	0%	30.93	100%	31.01
100%	0.00	0%	0.00	0.00	0.00	0%	0.00	0%	0.00	0%	10.36
0%	0.00	0%	0.29	0.05	0.34	1%	0.00	0%	35.25	99%	35.58
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<b>40.79</b>		<b>19.00</b>	<b>15.57</b>	<b>34.57</b>		<b>8.40</b>		<b>2025.77</b>		<b>4258.27</b>

se for lots in East Park.

SUMMARY OF INFORMATION OF ENTITLEMENTS							PER SHARED USE PARKING STUDY WITH MODIFICATIONS (NOTE 2)		
	Source of Density (Note 3)		Number of Units	Average Square Footage	Total Square Footage	Unit of Measure for Parking Requirements	Standard	Total Spaces	Comments
Town home Cottage		Density Determination	35	2,400	84,000	Spaces per Unit	2.00	70	The original density amount of 41 units less 6 units allocated to the Belco parcels (Apart/Condo Category)
Lodge/Hotel Condo	Per Cent	Density Determination	38	2,000	76,000	Spaces per Unit	0.80	30	The original density amount of 41 units less 5 units allocated to the Belco parcels (Apart/Condo Category)
Apartment/Condo (Notes 6 - 8)		Density Determination as amended by Affordable Housing Agreement (size increase from 1,000 to 1,250 average square feet) is 82 Units plus 9 Affordable Units Plus 11 bonus Units	102	1,250	127,500	Spaces per Unit	2.00	204	The Shared Use Study shows 0.80 spaces per unit for this category, but the agreement between Deer Crest and Belco stipulates 2.0 spaces per unit. The purpose of this is to provide as many as 122 employee spaces for the commercial uses specified below.
Affordable Housing (Note 5)		Affordable Housing Agreement (reflects remaining units)	0	1,800	0	Spaces per Bed with Average Bed Counts per Unit	0.70	0	The number of units are computed based on the Affordable Housing Agreement, Deer Crest Project, dated December 16, 1998, assuming affordable housing fees in lieu of construction are paid for all 32 units within Wasatch County's continuing jurisdiction.
Affordable Housing Bonus		Affordable Housing Agreement (if payment in lieu takes place, then a bonus of 25 market rate residential units is available)	16	1,800	28,800		2.00	32	If the payment in lieu is made for all remaining units, a 25 unit bonus at market rates is allowed. Belco will be responsible for payments in lieu for 9 units, leaving 16 bonus units remaining to be developed.
<b>Total Residential</b>			<b>181</b>		<b>316,300</b>			<b>536</b>	
Ski School/Lodge		Density Determination			20,000	Spaces per 1,000 Sq Ft	0.30	6	The Shared Use Standard for this category is 2.50 spaces per 1,000 sq ft. It is reduced 1.30 spaces per 1,000 sq ft because of the 300 space recreational spaces and an additional reduction of .9 spaces per 1,000 sq ft because the employee spaces are b
Local Commercial	80%	Density Determination (no distinction between Local and Regional)			35,700	Spaces per 1,000 Sq Ft	0.30	11	The Shared Use Standard for this category is 2.50 spaces per 1,000 sq ft. It is reduced 1.30 spaces per 1,000 sq ft because of the 300 space recreational spaces and an additional reduction of .9 spaces per 1,000 sq ft because the employee spaces are b
Regional Commercial	20%	Density Determination (no distinction between Local and Regional)			6,300	Spaces per 1,000 Sq Ft	1.50	9	The Shared Use Standard for this category is 3.70 spaces per 1,000 sq ft. It is reduced 1.30 spaces per 1,000 sq ft because of the 300 space recreational spaces and an additional reduction of .9 spaces per 1,000 sq ft because the employee spaces are b
<b>Total Commercial</b>					<b>62,000</b>	<b>Spaces per 1,000 Sq Ft</b>		<b>26</b>	
Total Day Skier Requirement		Deer Valley Side Letter Agreement				Specified Amount by Deer Valley		300	
Shared Use Adjustment Per Existing Entitlements (Note 12 and Note 13)									
<b>Total Parking Spaces for Each Alternative</b>								<b>663</b>	



VILLAGE PARKING ANALYSIS TABLE

PER EXISTING ENTITLEMENTS  
(NOTE 1 & NOTE 4)

NOTES

Standard	Total Spaces	Comments
4.00	140	50% Covered 50% Uncovered
2.00	76	75% Covered 25% Uncovered
2.00	204	50% Covered 50% Uncovered
2.50	0	50% Covered 50% Uncovered
	420	
3.00	60	
3.00	107	
3.00	19	
	186	
	300	
	(136)	See Notes 12 & 13
	770	

NOTES TO DEER CREST JORDANELLE VILLAGE PARKING ANALYSIS TABLE

- The Deer Crest Village Shared Use Parking Study assumes that the 450 parking spaces identified in the letter to Bob Mathis from David Luber dated December 23, 1998 (attached hereto) are distributed into the various Categories on the Table.
- The Deer Crest Village Shared Use Study established Standards for the entire Deer Crest Village on both sides of Highway 40. This Table only describes the analysis, with its accompanying modifications, as it applies to the West side of Highway 40 (referred to as the Jordanelle Village area of Deer Crest).
- The current Amended Density Determination is too specific to be relevant in the current marketplace. Residential development was not contemplated at all on the on the Jordanelle Village 1 Parcel (immediately South of the Gondola House). The Deer Valley Lakeside Resort Specifically Planned Area Master Plan contemplates that this area will be included in the Resort Village classification which will allow total flexibility from phase to phase and parcel to parcel in both density and product mix, so long as the maximum density limitations for the entire "project" area are not exceeded. In the absence of the Portal and development on the east side of the Highway 40, aside from the Ski Lodge, it is very unlikely that free standing commercial uses will ever be feasible because of the physical constraints of the site. In order to increase the feasibility and likelihood of development occurring on this difficult site, the density flexibility should be employed to allow the "residential over retail" configuration. The analysis on this Table and the attached Deer Crest Jordanelle Village Parking Plan assumes that flexibility is in place.
- A review of the Shared Parking Study analysis indicates that the First Amended Findings and Order on Density Determination for Telemark Park Resort, dated 1998 (attached hereto), called for significant spaces in excess of what will actually be required.
- The number of Affordable Housing Units is computed based on the Affordable Housing Agreement, Deer Crest Project, dated December 16, 1998 (attached hereto). The number of units are computed based on the Affordable Housing Agreement, Deer Crest Project, dated December 16, 1998, and assumes affordable housing fees in lieu of construction are paid for all 32 remaining units within Wasatch County's continuing jurisdiction including 9 by Belco.
- The Parcel that contains the Apartment/Condo category in Deer Crest is currently under a contract of purchase by Belco.
- The Deer Crest Village Shared Use Parking Study shows 0.80 spaces per unit for the Apartment/Condo category, but the agreement between Deer Crest and Belco stipulates 2.0 spaces per unit. The purpose of this is to provide as many as 122 employee spaces for the commercial uses specified below.
- The number of units Belco has contracted for and has applied for to Wasatch County is 102 units. This assumes the original density of 82 units plus 9 Affordable Bonus Units by virtue of an obligation to make the payment in Lieu and an additional 11 units from other Parcels in Jordanelle Village.
- The Deer Crest Village Shared Use Parking Study assumes a Standard of .7 employees per bed for employee housing. The current County policy allows 25% of the Affordable Housing requirement to be met by "Seasonal Housing," which is smaller employee oriented units. The Deer Valley employee housing will be constructed with 4 beds in each of 10 units and 1 bed in the managers unit. These spaces will be absorbed by the remaining units under other categories in the Village per the agreement between Deer Valley and Deer Crest.
- The Shared Use Standard for the Ski Lodge and the Local Commercial categories is 2.50 spaces per 1,000 square feet. In the analysis for Jordanelle Village, it is reduced 1.30 spaces per 1,000 square feet because of the 300 recreational spaces for day skiers and an additional reduction of .9 spaces per 1,000 square feet because the employee spaces for the commercial and recreational uses are being provided by the Apartment/Condo category (see Note 7 and Comments for that category).
- The Shared Use Standard for the Ski Lodge and the Regional Commercial category is 3.70 spaces per 1,000 square feet. In the analysis for Jordanelle Village, it is reduced 1.30 spaces per 1,000 square feet because of the 300 recreational spaces for day skiers and an additional reduction of .9 spaces per 1,000 square feet because the employee spaces for the commercial and recreational uses are being provided by the Apartment/Condo category (See Note 7 and Comments for that category).
- The Amended Density Determination (page 43) in the discussion of parking for recreational uses contemplated a shared parking reduction. At that time, the recreational parking planned for the project was only 25, not the 300 day skier spaces. After the requirement is described, the document states: "Such spaces may double for the commercial parking requirement at Telemark Village, as the timing of use is anticipated to be reasonably complementary and often related to both commercial and trail facilities." To put the Amended Entitlement approach on an "apples to apples" basis with the Shared Use Approach, recreational spaces of 300 are added to the Existing Entitlement columns in the Table and the same total reduction that is applied in the Shared Use Standards for the total of all three commercial categories in the Shared Use Analysis is expressed a reduction of the recreational spaces.
- In the Agreement with Deer Valley that establishes the 300 space parking requirement, the following statement contemplates the shared use concept: "In the event that the permanent Parking Facilities are included within a structure, DVRC agrees that such facilities may be provided for use on a non-exclusive basis in common with other parking spaces in the structure, provided that the structure contains sufficient parking spaces (determined by Wasatch County standards applicable in shared use situations) for a minimum of 300 vehicles for

# EXHIBIT E 18

Ent 309761 Bk 0902 Pg 0577

## RSPA LANDSCAPE RECOMMENDED PLANTING LIST

Botanical Name	Common Name
<b>Ground Covers / Vines</b>	
Clematis Jackmanii	Jackman Clematis
Clematis tangutica	Golden Tiara
Gallimu odorata	Sweet Woodroof
Mahonia repens	Creeping Oregon Grape
Vinca minor "Mrs. Bowles"	Periwinkle
<b>Perennials</b>	
Achilla filipendula	Fern-Leaf Yarrow
Anemone pulsatilla	Basque Flower
Anemone Sylvestris	Snowdrop Anemone
Astilbe chinensis	Chinese Astilbe
Campanula carpatica	Carpathian Bellflower
Clematis x Pararieie Travelers Joy	Hardy Clematis
Coreopsos resea	Pink Lowered Coreopsis
Echinacea purpurea	Purple Cornflower
Euphorbia griffithii "Fireglow"	Fireglow Spurge
Gaillardia x graniflora	Blanketflower
Iris missouriensis	Rocky Mountain Iris
Iris siberica x "Papillon"	Siberian Iris
Iris versicolor	Blueflag Iris
Lupinus "Dwarf Miniarette Lupine"	Dwarf Miniarette Lupine
Lupinus "Russell Hybrids"	Russel Lupine
Monarda didyma	Beesbalm
Penstemon barbatus	Beard-Tongue
Rudbeckia fulgida "Goldstrum"	Goldstrum Coneflower
Sedum "Autumn Joy"	Autumn Joy Stone Crop

Information Per Original Density Determination				Estimated ERU Information Per "Clarifications"		
Unit Categories Approved in Original Density Determination	Number of Units in Alternative II (Note 1)	Estimate of Unit Size in Sq Ft (Note 2)	Reference Page in Original Density Determination for Size Estimate	ERU Conversion Factor (Note 3)	Number of Units Adjusted by ERU Conversion Factor (Rounded to Nearest ERU)	ERU Equivalent Per "Clarifications" (Rounded to Nearest ERU)
<b>Neighborhood One</b>						
Hotel	250	500	Page 31	0.3	(187.5)	
Condo-Hotel	250	500	Page 32	0.3	(187.5)	
Townhouses	99	1,500+	Assumption	1.0	0.0	
Multi-Family	639	1,200	Page 32	0.8	(159.8)	
Employee Housing	148	1,250	Assumption	0.8	(37.0)	
<b>Subtotal</b>	<b>1,386</b>				<b>(571.8)</b>	
<b>Neighborhood Two</b>						
Townhouses	110	1,500+	Assumption	1.0	0.0	
Multi-Family	213	1,200	Assumption	0.5	(106.5)	
Employee Housing	50	1,250	Assumption	0.8	(12.5)	
<b>Subtotal</b>	<b>373</b>				<b>(119.0)</b>	
<b>Neighborhood Three</b>						
Townhouses	131	1,500+	Assumption	1.0	0.0	
Duplex Units	86	1,400	Assumption	0.8	(21.5)	
<b>Subtotal</b>	<b>217</b>				<b>(21.5)</b>	
<b>Neighborhood Four</b>						
Townhouses	82	1,500+	Assumption	1.0	0.0	
Duplex Units	16	1,400	Assumption	0.8	(4.0)	
<b>Subtotal</b>	<b>98</b>				<b>(4.0)</b>	
<b>Neighborhood Five</b>						
SFD - <1/2 acre	0	1,500+	Not Applicable	1.0	0.0	
SFD - 1/2 - 1 acre	0	1,500+	Not Applicable	1.0	0.0	
<b>Subtotal</b>	<b>0</b>				<b>0.0</b>	
<b>Neighborhood Six</b>						
Duplex Units	0	1,400	Not Applicable	1.0	0.0	
SFD - <1/2 acre	0	1,500+	Not Applicable	1.0	0.0	
<b>Subtotal</b>	<b>0</b>				<b>0.0</b>	
<b>Neighborhood Seven</b>						
Duplex Units	0	1,400	Not Applicable	0.8	0.0	
SFD - 1/2 - 1 acre	0	1,500+	Not Applicable	1.0	0.0	
<b>Subtotal</b>	<b>0</b>				<b>(716.3)</b>	
<b>Total Before Adjustments</b>	<b>2,074</b>				<b>(4.5)</b>	
<b>Adjustment for Noise Impact</b>	<b>18</b>	<b>1,400</b>		<b>0.8</b>	<b>(720.8)</b>	
<b>TOTAL RESIDENTIAL</b>	<b>2,092</b>					
<b>Commercial</b>						
Comm I		36,000	Per 2000 Sq Ft	0.9		
Comm II		11,000	Per 2000 Sq Ft	0.9		
<b>Subtotal</b>						
<b>TOTAL</b>						

**MAYFLOWER ERU CONVERSION ANALYSIS**

Estimated ERU Information Per  
"Clarifications"

**NOTES TO METHOD 2 CONVERSION TABLE**

ERU Conversion Factor (Note 3)	Number of Units Adjusted by ERU Conversion Factor (Rounded to Nearest ERU)	ERU Equivalency Per "Clarifications" (Rounded to Nearest ERU)
0.3	(187.5)	62.5
0.3	(187.5)	62.5
1.0	0.0	99.0
0.8	(159.8)	479.3
0.8	(37.0)	111.0
	(571.8)	814.3
1.0	0.0	110.0
0.5	(106.5)	106.5
0.8	(12.5)	37.5
	(119.0)	254.0
1.0	0.0	131.0
0.8	(21.5)	64.5
	(21.5)	195.5
1.0	0.0	82.0
0.8	(4.0)	12.0
	(4.0)	94.0
1.0	0.0	0.0
1.0	0.0	0.0
	0.0	0.0
1.0	0.0	0.0
1.0	0.0	0.0
	0.0	0.0
0.8	0.0	0.0
1.0	0.0	0.0
	0.0	0.0
	(716.3)	1,357.8
0.8	(4.5)	13.5
	(720.8)	1,371.3
0.9		15.5
0.9		4.7
		20.2
		1,391.5

**Notes:**

1. In the Original Density Determination, two alternative densities were contemplated. Alternative I assumed that no Jordanelle Reservoir would exist and that no Highway 40 would ever exist. Alternative II assumed that both the Highway and the Reservoir would exist. The density allowed under Alternative I was 2,577 Units. The Alternative II density level is reflected in the Table.
2. The data in the Original Density Determination was incomplete with respect to exact unit sizes planned. The sizes that are revealed in the documents are shown in this column. The other unit sizes are estimates based on standard sizes for the type of unit. Although we may never know the exact sizes contemplated by the Density Determination, this analysis should be very close.
3. The ERU conversion factors are those in the JBOZ formula which is determined primarily by unit size.
4. This "converted" number of ERUs was compared to the Target Study done by IBI, which showed a comparable density level for the site, further justifying this level of density.
5. In the Original Density Determination, 18 units were eliminated because of noise for the Highway. Although the Highway noise is an issue for the entire RSPA, it is certainly no different for Mayflower South than any other Property in the RSPA. Therefore, these units were added back to the total density amount. It is assumed that they were duplexes.



DEER CREST VILLAGE (EAST) PARKING AND

PRELIMINARY BUILDING SIZES (SUBJECT TO CHANGE)

PARCEL	BLDG	LAND USE	RETAIL, DINING & ENT (R D & E) FRONTAGE	FOOT PRINT AREA	R, D & E AREA	RESIDENTIAL AREA	CONVENTION HOTEL CLUBHOUSE SKIER SERVICES	TOTAL
<b>DEER CREST VILLAGE EAST</b>								
<b>DEER COVE/DDRM PARCEL</b>								
B-1	1.1	High Density/Mixed Use/Hospitality	325	29,500	6,925	99,000	9,325	
B-1	1.2	High Density/Mixed Use/Hospitality	0	13,000	0	39,000	0	
B-2	2.1	High Density/Mixed Use/Hospitality	275	31,188	3,975	108,000	9,775	
B-3	3.1	High Density/Mixed Use/Hospitality	175	28,888	8,750	112,800	9,775	
B-4	4.1	High Density/Mixed Use/Hospitality	250	36,500	0	142,500	12,500	
B-4	4.2	High Density/Mixed Use/Hospitality	225	21,413	11,250	58,000	0	
B-4	4.3	High Density/Mixed Use/Hospitality	0	118,625	0	0	118,625	
B-5	5.1	High Density	0	24,375	0	97,500	0	
B-6	6.1	High Density	0	9,000	0	27,000	0	
B-7	7.1	High Density	0	22,500	5,000	22,750	28,750	
B-8	8.1	Hospitality	0	67,500	14,078	330,000	49,672	
B-8	8.2	Hospitality	0	24,000	0	100,800	4,125	
B-8	8.3	Hospitality	0	24,000	0	88,800	5,500	
B-8	8.4.1- 8.4.12	Hospitality	0	20,100	0	30,150	0	
B-8	8.5.1-8.5.9	Hospitality	0	15,000	0	22,500		
B-9	9.1-9.3	Medium Density	0	14,400	0	28,800	0	
B-10	10.1	Parking	0	41,400	0	0	0	
B-11	11.1	Commercial	125	6,250	6,250	0	0	
B-11	11.2	Commercial	75	2,625	2,625	0	0	
B-12	12.1	Commercial	50	2,250	2,250	0	0	
B-12	12.2	Commercial	100	3,500	3,500	0	0	
B-13	13.1	Parking	300	18,000	18,000	40,500	0	
B-13	13.2	Parking	0	60,000	0	0	0	
B-14	14.1	High Density/Mixed Use/Hospitality	450	45,150	8,350	119,000	14,150	
B-14	14.2	High Density/Mixed Use/Hospitality	350	39,250	5,250	105,000	12,250	
<b>SUBTOTAL DEER COVE/DDRM PARCEL</b>				<b>718,413</b>	<b>96,203</b>	<b>1,570,100</b>	<b>274,447</b>	
<b>THE HOLLOWS</b>								
B-16	16.1	High Density	0	13,000	0	32,500	0	
B-17	17.1	Commercial	125	7,500	7,500	0	0	
B-18	18.1	High Density	0	19,500	0	48,750	0	
B-19	19.1	Commercial	100	4,500	4,500	0	0	
<b>SUBTOTAL THE HOLLOWS</b>				<b>44,500</b>	<b>12,000</b>	<b>81,250</b>	<b>0</b>	
<b>THE POINT</b>								
B-20	18.1-18.7	Medium Density	0	26,400	0	52,800	0	
B-21	19.1-19.12	Medium Density	0	38,400	0	76,800	0	
B-22	20.1-20.22	Medium Density	-	-	-	-	-	
<b>SUBTOTAL THE HOLLOWS</b>				<b>64,800</b>	<b>0</b>	<b>129,600</b>	<b>0</b>	
<b>TOTAL DEER CREST VILLAGE EAST</b>				<b>827,713</b>	<b>108,203</b>	<b>1,780,950</b>	<b>274,447</b>	
<b>DEER CREST VILLAGE WEST</b>								
<b>DEER VALLEY PARCEL</b>								
DC8	DC8.1	Hotel - Commercial		32,000	9,425	78,000	6,825	
	DC8.2	Hotel - Commercial		21,000	19,800	27,000	5,200	
<b>SUBTOTAL DEER VALLEY PARCEL</b>				<b>53,000</b>	<b>29,225</b>	<b>105,000</b>	<b>12,025</b>	
<b>TOTAL DEER CREST VILLAGE WEST</b>				<b>53,000</b>	<b>29,225</b>	<b>105,000</b>	<b>12,025</b>	
<b>GRAND TOTAL</b>				<b>880,713</b>	<b>137,428</b>	<b>1,885,950</b>	<b>286,472</b>	

**ANALYSIS (WORST CASE UNDER SHARED USE STUDY)**

AREA	UNIT SIZE	NUMBER OF UNITS	ERU'S	PARKING STANDARD UNIT OF MEASURE	UNITS		PARKING PER SHARED USE STUDY	COMMENTS
					COMMERCIAL CONVERSION RATIO PER SHARED STUDY PER 1,000 SF	RESIDENTIAL CONVERSION RATIO PER SHARED USE STUDY		
1,250	760	111	47		2.50	0.80	106	
1,000	760	44	17		2.50	0.80	35	
1,750	760	121	50		2.50	0.80	107	
1,325	760	126	54		2.50	0.80	123	
1,000	760	159	64		2.50	0.80	128	
1,250	760	63	30		2.50	0.80	78	
1,625	760	0	0		2.50	0.80	0	
1,500	980	85	45		2.50	0.80	68	
1,000	980	23	12		2.50	0.80	19	
1,500	980	20	13		2.50	0.80	28	
1,750	760	369	154		2.50	0.80	330	
1,925	760	113	45		2.50	0.80	90	
1,300	760	99	40		2.50	0.80	79	
0,150		13	13				0	
2,500		14	14				0	
1,800		12	12			2.00	24	
0		0	0				680	PARKING STRUCTURE (SEE DEER CREST WEST PARKING)
1,250		0	3		2.50	0.80	16	
1,625		0	1		2.50	0.80	7	
1,250		0	1		2.50	0.80	6	
1,500		0	2		2.50	0.80	9	
1,500		45	26		2.50	0.80	81	
0		0	0				760	Not Applicable
1,500	760	133	57		2.50	0.80	127	
1,500	760	117	49		2.50	0.80	107	
1,750		1,667	748				3,007	
1,500	854	32	15		2.50	0.80	26	The Hollows
1,500		0	3		3.70	0.80	28	The Hollows
1,750	854	49	22		2.50	0.80	39	40% DDRM/60% The Hollows
1,500		0	2		3.70	0.80	17	The Hollows
1,250		81	42				109	
1,800		22	22			2.00	44	The Point/The Hollows/Deer Crest Village
1,800		32	32			2.00	64	The Point/The Hollows
1,800		22	22			2.00	44	The Point/Deer Crest Village
1,600		76	76				152	
1,600		1,824	867				3,268	
1,250		87	39		2.50	0.80	93	Deer Valley Triangle Property
1,000		30	21		2.50	0.80	74	Deer Valley Triangle Property
1,250		117	60				167	
1,250		117	60				167	
1,850		1,941	927				3,435	

DEER CREST VILLAGE BUILDING STATISTICS

PRELIMINARY BUILDING SIZES (SUBJECT TO)

PARCEL	BLDG	LAND USE	BLDG HEIGHT (STORIES)	RESIDENT STORIES	BLDG LENGTH	BLDG WIDTH	RES WIDTH	RES LENGTH	RETAIL, DINING & ENT (R D & E) FRONTAGE	FOOT PRINT AREA
<b>DEER CREST VILLAGE EAST</b>										
<b>DEER COVE/DDRM PARCEL</b>										
B-1	1.1	High Density/Mixed Use/Hospitality	5	5	275	93	80	275	325	29,500
B-1	1.2	High Density/Mixed Use/Hospitality	3	3	200	65	65	200	0	13,000
B-2	2.1	High Density/Mixed Use/Hospitality	5	5	300	93	80	300	275	31,188
B-3	3.1	High Density/Mixed Use/Hospitality	5	5	300	89	80	300	175	28,888
B-4	4.1	High Density/Mixed Use/Hospitality	5	5	375	89	80	375	250	36,500
B-4	4.2	High Density/Mixed Use/Hospitality	4	4	200	93	80	200	225	21,413
B-4	4.3	High Density/Mixed Use/Hospitality	1	0	550	200	0	0	0	118,625
B-5	5.1	High Density	4	4	375	65	65	375	0	24,375
B-6	6.1	High Density	3	3	200	45	45	200	0	9,000
B-7	7.1	High Density	4	2	225	100	65	175	0	22,500
B-8	8.1	Hospitality	6-8	7	625	108	80	625	0	67,500
B-8	8.2	Hospitality	3-5	4	300	80	80	300	0	24,000
B-8	8.3	Hospitality	3-5	4	300	80	80	300	0	24,000
B-8	8.4.1-8.4.12	Hospitality	1.5	2	670	30	30	670	0	20,100
B-8	8.5.1-8.5.9	Hospitality	1.5	2	500	30	30	500	0	15,000
B-9	9.1-9.3	Medium Density	2-2.5	2	360	40	40	360	0	14,400
B-10	10.1	Parking	5-7	0	230	180	0	0	0	41,400
B-11	11.1	Commercial	1	0	125	50	0	0	125	6,250
B-11	11.2	Commercial	1	0	75	35	0	0	75	2,625
B-12	12.1	Commercial	1	0	50	45	0	0	50	2,250
B-12	12.2	Commercial	1	0	100	35	0	0	100	3,500
B-13	13.1	Parking	4	3	300	60	45	300	300	18,000
B-13	13.2	Parking	4	0	250	240	0	0	0	60,000
B-14	14.1	High Density/Mixed Use/Hospitality	4	4	425	93	80	425	450	45,150
B-14	14.2	High Density/Mixed Use/Hospitality	4	4	375	93	80	375	350	39,250
<b>SUBTOTAL DEER COVE/DDRM PARCEL</b>										
<b>THE HOLLOWES</b>										
B-16	16.1	High Density	3	3	200	65	65	200	0	13,000
B-17	17.1	Commercial	1	0	125	60	0	0	125	7,500
B-18	18.1	High Density	3	3	300	65	65	300	0	19,500
B-19	19.1	Commercial	1	0	100	45	0	0	100	4,500
<b>SUBTOTAL THE HOLLOWES</b>										
<b>THE POINT</b>										
B-20	18.1-18.7	Medium Density	2-2.5	2	660	40	40	660	0	26,400
B-21	19.1-19.12	Medium Density	2-2.5	2	960	40	40	960	0	38,400
B-22	20.1-20.22	Medium Density	2-2.5	2	-	-	-	-	-	-
<b>SUBTOTAL THE HOLLOWES</b>										
<b>TOTAL DEER CREST VILLAGE EAST</b>										
<b>DEER CREST VILLAGE WEST</b>										
<b>DEER VALLEY PARCEL</b>										
DC8	DC8.1	Hotel - Commercial	4	3	400	80	65	400		32,000
	DC8.2	Hotel - Commercial	3	2	300	70	45	300		21,000
<b>SUBTOTAL DEER VALLEY PARCEL</b>										
<b>TOTAL DEER CREST VILLAGE WEST</b>										
<b>GRAND TOTAL</b>										

**STATISTICS & TARGET STUDY -- OPTION 1**

(SUBJECT TO CHANGE)

UNITS

DOT PRINT R, D & E AREA RESIDENTIAL AREA CONVENTION HOTEL CLUBHOUSE TOTAL AREA UNIT SIZE NUMBER OF ERU'S OWNERSHIP  
 AREA SKIER SERVICES UNITS

DOT PRINT AREA	R, D & E AREA	RESIDENTIAL AREA	CONVENTION HOTEL CLUBHOUSE SKIER SERVICES	TOTAL AREA	UNIT SIZE	NUMBER OF UNITS	ERU'S	OWNERSHIP
29,500	6,925	99,000	9,325	115,250	760	111	47	DDRM
13,000	0	39,000	0	39,000	760	44	17	DDRM
31,188	3,975	108,000	9,775	121,750	760	121	50	DDRM
28,888	8,750	112,800	9,775	131,325	760	126	54	DDRM
36,500	0	142,500	12,500	155,000	760	159	64	DDRM
21,413	11,250	56,000	0	67,250	760	63	30	DDRM
118,625	0	0	118,625	118,625	760	0	0	DDRM
24,375	0	97,500	0	97,500	980	85	45	DDRM
9,000	0	27,000	0	27,000	980	23	12	DDRM
22,500	5,000	22,750	28,750	56,500	980	20	13	DDRM
67,500	14,078	330,000	49,672	393,750	760	369	154	DDRM
24,000	0	100,800	4,125	104,925	760	113	45	DDRM
24,000	0	88,800	5,500	94,300	760	99	40	DDRM
20,100	0	30,150	0	30,150		13	13	DDRM
15,000	0	22,500		22,500		14	14	DDRM
14,400	0	28,800	0	28,800		12	12	DDRM
41,400	0	0	0	0		0	0	DDRM
6,250	6,250	0	0	6,250		0	3	DDRM
2,625	2,625	0	0	2,625		0	1	DDRM
2,250	2,250	0	0	2,250		0	1	DDRM
3,500	3,500	0	0	3,500		0	2	DDRM
18,000	18,000	40,500	0	58,500		45	26	DDRM
60,000	0	0	0	0		0	0	DDRM
45,150	8,350	119,000	14,150	141,500	760	133	57	DDRM
39,250	5,250	105,000	12,250	122,500	760	117	49	DDRM
718,413	96,203	1,570,100	274,447	1,940,750		1,667	748	
13,000	0	32,500	0	32,500	854	32	15	The Hollows
7,500	7,500	0	0	7,500		0	3	The Hollows
19,500	0	48,750	0	48,750	854	49	22	40% DDRM/60% The Hollows
4,500	4,500	0	0	4,500		0	2	The Hollows
44,500	12,000	81,250	0	93,250		81	42	
26,400	0	52,800	0	52,800		22	22	The Point/The Hollows/Deer Crest Village
38,400	0	76,800	0	76,800		32	32	The Point/The Hollows
64,800	0	129,600	0	129,600		76	76	The Point/Deer Crest Village
827,713	108,203	1,780,950	274,447	2,163,600		1,824	867	
32,000	9,425	78,000	6,825	94,250		87	39	Deer Valley Triangle Property
21,000	19,800	27,000	5,200	52,000		30	21	Deer Valley Triangle Property
53,000	29,225	105,000	12,025	146,250		117	60	
53,000	29,225	105,000	12,025	146,250		117	60	
880,713	137,428	1,885,950	286,472	2,309,850		1,941	927	
				<b>Total ERU</b>			<b>927</b>	
			<b>Less:</b>					
			<b>Current ERU #</b>					
			Deer Cove				(330)	
			The Hollows				(26)	
			The Pointe				(36)	
			Deer Valley				0	
			<b>Increase ERU</b>				<b>535</b>	



DEER CREST VILLAGE EAST BUILDING STAT

PRELIMINARY BUILDING SIZES (SUE

PARCEL	BLDG	LAND USE	BLDG HEIGHT (STORIES)	RESIDENT STORIES	BLDG LENGTH	BLDG WIDTH	RES WIDTH	RES LENGTH	RETAIL, DINING & ENT (R D & E) FRONTAGE	FOOT A
<b>DEER CREST VILLAGE EAST</b>										
<b>DEER COVE/DDRM PARCEL</b>										
B-1	1.1	High Density/Mixed Use/Hospitality	6	5.5	275	93	80	275		325
B-1	1.2	High Density/Mixed Use/Hospitality	4	4.0	200	65	65	200		0
B-2	2.1	High Density/Mixed Use/Hospitality	6	5.5	300	93	80	300		275
B-3	3.1	High Density/Mixed Use/Hospitality	6	5.8	300	89	80	300		175
B-4	4.1	High Density/Mixed Use/Hospitality	6	5.8	375	89	80	375		250
B-4	4.2	High Density/Mixed Use/Hospitality	5	4.0	200	93	80	200		225
B-4	4.3	High Density/Mixed Use/Hospitality	1	0	550	200	0	0		0
B-5	5.1	High Density	5	4	375	65	65	375		0
B-6	6.1	High Density	3	3	200	45	45	200		0
B-7	7.1	High Density	4	2	225	100	65	175		0
B-8	8.1	Hospitality	6-8	6.6	625	108	80	625		0
B-8	8.2	Hospitality	4-6	5.3	300	80	80	300		0
B-8	8.3	Hospitality	4-6	4.8	300	80	80	300		0
B-8	8.4.1- 8.4.12	Hospitality	1.5	1.5	670	30	30	670		0
B-8	8.5.1-8.5.9	Hospitality	1.5	1.5	500	30	30	500		0
B-9	9.1-9.3	Medium Density	2-2.5	2	360	40	40	360		0
B-10	10.1	Parking	5-7	0	230	180	0	0		0
B-11	11.1	Commercial	1	0	125	50	0	0		125
B-11	11.2	Commercial	1	0	75	35	0	0		75
B-12	12.1	Commercial	1	0	50	45	0	0		50
B-12	12.2	Commercial	1	0	100	35	0	0		100
B-13	13.1	Parking	4	3	300	60	45	300		300
B-13	13.2	Parking	4	0	250	240	0	0		0
B-14	14.1	High Density/Mixed Use/Hospitality	5	4.5	425	93	80	425		450
B-14	14.2	High Density/Mixed Use/Hospitality	5	4.5	375	93	80	375		350
B-15	15.1	High Density/Mixed Use/Hospitality	3	3	150	45	45	150		0
B-16	16.1	High Density/Mixed Use/Hospitality	3	3	250	65	65	250		0
<b>SUBTOTAL DEER COVE/DDRM PARCEL</b>										
<b>THE HOLLOWES</b>										
<b>SUBTOTAL THE HOLLOWES</b>										
<b>THE POINT</b>										
<b>SUBTOTAL THE HOLLOWES</b>										
<b>TOTAL DEER CREST VILLAGE EAST</b>										
<b>DEER VALLEY PARCEL</b>										
<b>SUBTOTAL DEER VALLEY PARCEL</b>										
<b>TOTAL DEER CREST VILLAGE WEST</b>										
<b>GRAND TOTAL</b>										

STATISTICS & TARGET STUDY -- OPTION 2

ES (SUBJECT TO CHANGE)

UNITS

FOOT PRINT AREA	R, D & E AREA	RESIDENTIAL AREA	CONVENTION HOTEL CLUBHOUSE SKIER SERVICES	TOTAL AREA	UNIT SIZE	NUMBER OF UNITS	ERU'S	OWNERSHIP	
5	29,500	6,925	121,000	9,325	137,250	760	135	57	DDRM
0	13,000	0	52,000	0	52,000	760	58	23	DDRM
5	31,188	3,975	132,000	9,775	145,750	760	148	61	DDRM
5	28,888	8,750	138,000	9,775	156,525	760	154	65	DDRM
0	36,500	0	172,500	12,500	185,000	760	193	77	DDRM
5	21,413	11,250	84,000	0	75,250	760	72	33	DDRM
0	118,625	0	0	118,625	118,625	760	0	0	DDRM
0	24,375	0	97,500	0	97,500	980	85	45	DDRM
0	9,000	0	27,000	0	27,000	980	23	12	DDRM
0	22,500	5,000	22,750	28,750	56,500	980	20	13	DDRM
0	67,500	14,078	330,000	49,672	393,750	760	369	154	DDRM
0	24,000	0	126,000	4,125	130,125	760	141	56	DDRM
0	24,000	0	114,000	5,500	119,500	760	128	51	DDRM
0	20,100	0	30,150	0	30,150		13	13	DDRM
0	15,000	0	22,500		22,500		14	14	DDRM
0	14,400	0	28,800	0	28,800		12	12	DDRM
0	41,400	0	0	0	0		0	0	DDRM
5	6,250	6,250	0	0	6,250		0	3	DDRM
5	2,625	2,625	0	0	2,625		0	1	DDRM
0	2,250	2,250	0	0	2,250		0	1	DDRM
0	3,500	3,500	0	0	3,500		0	2	DDRM
0	18,000	18,000	40,500	0	58,500		45	26	DDRM
0	60,000	0	0	0	0		0	0	DDRM
0	45,150	8,350	133,875	14,150	156,375	760	150	63	DDRM
0	39,250	5,250	118,125	12,250	135,625	760	132	55	DDRM
0	6,750	0	17,719	0	17,719	980	20	8	DDRM
0	16,250	0	42,656	0	42,656	980	48	19	DDRM
	<b>741,413</b>	<b>96,203</b>	<b>1,831,075</b>	<b>274,447</b>	<b>2,201,725</b>		<b>1,959</b>	<b>865</b>	
									The Hollows
									The Hollows
									40% DDRM/60% The Hollows
	0	0	0	0	0		0	0	The Hollows
									The Point/The Hollows/Deer Crest Village
									The Point/The Hollows
	0	0	0	0	0		0	0	The Point/Deer Crest Village
	<b>741,413</b>	<b>96,203</b>	<b>1,831,075</b>	<b>274,447</b>	<b>2,201,725</b>		<b>1,959</b>	<b>865</b>	
									Deer Valley Triangle Property
									Deer Valley Triangle Property
	0	0	0	0	0		0	0	
	0	0	0	0	0		0	0	
	<b>741,413</b>	<b>96,203</b>	<b>1,831,075</b>	<b>274,447</b>	<b>2,201,725</b>		<b>1,959</b>	<b>865</b>	
									Total ERU
									865
									Less:
									Current ERU #
									Deer Cove
									(330)
									Increase ERU
									535

RSPA Amendment

DEER CREST JORDANELLE VILLAGE E						
SUMMARY OF ENTITLEMENTS						
Category	Source of Density (Note 3)	Number of Units	Average Square Footage	Total Square Footage	Equivalency For Park City Settlement Purposes (2,000 Sq Ft per Unit)	ERUs (Conversion Ratio)
Townhome Cottage	Density Determination	41	2,400	98,400		1.00
Lodge/Hotel Condo	Density Determination	43	2,000	86,000		1.00
Apartment/Condo	Density Determination as amended by Affordable Housing Agreement (size increase from 1,000 to 1,250 average square feet) plus 9 Affordable Units Plus 11 bonus Units	82	1,250	102,500		0.75
Affordable Housing Bonus Units (Note 5)	Affordable Housing Agreement	25	1,800	45,000		1.00
<b>Total Residential</b>		<b>191</b>		<b>331,900</b>	<b>166</b>	
Ski School/Lodge	Density Determination			20,000		0.80
Commercial	Density Determination			42,000		0.80
<b>Total Before Adjustment for Affordable Housing Bonus</b>				<b>62,000</b>		

**RESORT VILLAGE ERU CONVERSION TABLE**

ERU ANALYSIS					Comments
Resort Village Density (Sq Ft per Unit)	ERUs Per Unit (Conversion Ratio)	Number of ERUs	Total Equivalency Sq Ft	Equivalency For Park City Settle-ment Purposes (2,000 Sq Ft per Unit)	
	1.00	41	98,400		These are split into 2 parcels. One for 18 units that are currently under construction and the others consisting of 23 units.
	1.00	43	86,000		
	0.75	62	102,500		
	1.00	25	45,000		
		171	331,900	166	
	0.86	8.60			This will be a specific requirement for 20,000 Sq Ft Ski Support Facility
	0.86	18.10	36,200		These ERUs will be utilized in the Resort Village Medium Density Zone classification
		198.0	368,100	184	

**RSPA Amendment**

MAYFLOWER SOUTH BUILDING STATIS

DENSITY POD	BUILDING #	HEIGHT (STORIES)	RESIDENTIAL HEIGHT	LENGTH	WIDTH	RESIDENTIAL WIDTH	RESIDENTIAL LENGTH	COMMERCIAL	FOOT PRINT	COMMERCIAL RESTAURANT ENTERTAINMENT
<b>MAYFLOWER SOUTH</b>										
C-1		2.5	2.5							
C-2		2.5	2.5							
C-3		2.5	2.5							
C-4		2.5	2.5							
C-5		2.5	2.5							
C-6		-	-							
C-7		2.5	2.5							
C-8	C8.1	3	3	350	65	350	65	0	22,750	0
	C8.2	3	3	325	65	325	65	0	21,125	0
	C8.3	3	3	250	65	250	65	0	16,250	0
C9-A		1	0	200	60	0	0	200	12,000	12,000
C9-B										
C-10		-	-							
C-11		-	-							
C-12		2.5	2.5							
C-13		2.5	2.5							
C-14		2.5	2.5							
C-15		2.5	2.5							
C-16:C-26		-	-							
C-27		2.5	2.5							
C-28	C28.1-28.10	2.5	3.5							
C-29		2.5	2.5							
C-30		2.5	2.5							
C-31		2.5	2.5							
C-32		2.5	2.5							
C-33		2.5	2.5							
C-34		2.5	2.5							
C-35		2.5	2.5							
C-36	C36.1	4-6	3.5	375	78	65	375	400	34,063	20,000
	C36.2	4-6	3.5	350	78	65	350	450	32,750	22,500
	C36.3	4-6	4	325	78	65	325	100	26,438	5,000
	C36.4	4-6	4	350	78	65	350	350	31,500	17,500
C-37	C37.1	3-4	3	250	78	65	250	250	22,500	12,500
	C37.2	3-4	3	250	78	65	250	0	19,375	0
C-38	C38.1	2.5	0			0	0	0	0	0
C-39	C39.1-39.17	2.5	2.5					0	0	0
C-40	C40.1-40.23	2.5	2.5					0	0	0
C-41	C41.1-41.23	2.5	2.5					0	0	0
C-42	C42.1-42.13	2.5	2.5					0	0	0
C-43	C43.1	3-4	3	300	65	65	300	0	19,500	0
	C43.2	3-4	3	275	65	65	275	0	17,875	0
C-44	C44.1	3-4	3	275	78	65	275	150	23,188	7,500
	C44.2	3-4	3	300	78	65	300	175	25,438	8,750
	C44.3	3-4	3	200	65	65	200	0	13,000	0
	C44.4	3-4	3	300	65	65	300	0	19,500	0
C-45	C45.1-45.9	2.5	2.5							
C-46	C46.1-46.42	2.5	2.5							
C-47		2.5	2.5							
C-48		2.5	2.5							
C-49		2.5	2.5							
C-50		-	-							
C-51		2.5	2.5							
C-52		2.5	2.5							
C-53		2.6	2.5							
C-54										
C-55:C56										
<b>TOTAL MAYFLOWER SOUTH</b>									357,250	105,750

**STATISTICS & TARGET DENSITY STUDY**

COMMERCIAL RETAIL RESTAURANT ENTERTAINMENT	RESIDENTIAL AREA	CONVENTION HOTEL CLUB HOUSE SKIERS SERVICES	TOTAL	# OF UNITS	ERU'S	NOTES	UNIT TOTAL	ERU'S TOTAL
	125,000		125,000	25	25	Single Family - max 5000 sqft/dwelling @ 1 eru		
	120,000		120,000	24	24	Single Family - max 5000 sqft/dwelling @ 1 eru		
	35,000		35,000	7	7	Single Family - max 5000 sqft/dwelling @ 1 eru		
	135,000		135,000	27	27	Single Family - max 5000 sqft/dwelling @ 1 eru		
	60,000		60,000	12	12	Single Family - max 5000 sqft/dwelling @ 1 eru		
	0		0	0	0	School Zone		
	75,000		75,000	15	15	Single Family - max 5000 sqft/dwelling @ 1 eru		
0	68,250	0	68,250	59	31	Multifamily Condos - 1.5 parking spaces /unit	156	83
0	63,375	0		55	29	Multifamily Condos - 1.5 parking spaces /unit		
0	48,750	0		42	22	Multifamily Condos - 1.5 parking spaces /unit		
12,000	0	0	12,000	0	5	Local convenience commercial		
	0		0	0	0	Community Amenity Park (Tailing Remediation Zone)		
	0		0	0	0	Day skier Parking (Tailing Remediation Zone)		
	69,300		69,300	42	42	Townhouses - Unit area = 1650sqft @ 1.0 eru		
	39,600		39,600	24	24	Townhouses - Unit area = 1650sqft @ 1.0 eru		
	102,300		102,300	62	62	Townhouses - Unit area = 1650sqft @ 1.0 eru		
	108,900		108,900	66	66	Townhouses - Unit area = 1650sqft @ 1.0 eru		
	-		-	-	-	n/a: Stillwater (not included)		
	315,000		315,000	63	63	Single Family - max 5000 sqft/dwelling @ 1 eru		
	57,600		57,600	24	24	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	150,000		150,000	30	30	Single Family - max 5000 sqft/dwelling @ 1 eru		
	80,000		80,000	16	16	Single Family - max 5000 sqft/dwelling @ 1 eru		
	25,000		25,000	5	5	Single Family - max 5000 sqft/dwelling @ 1 eru		
	50,000		50,000	10	10	Single Family - max 5000 sqft/dwelling @ 1 eru		
	28,800		28,800	12	12	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	10,000		10,000	2	2	Single Family - max 5000 sqft/dwelling @ 1 eru		
	72,000		72,000	30	30	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
20,000	85,313	0	105,313	95	47	Destination Hotel Resort #1 Phase 1		
22,500	79,625	0	102,125	89	45	Destination Hotel Resort #1 Phase 2	359	180
5,000	84,500	0	89,500	84	40	Destination Hotel Resort #1 Phase 3		
17,500	91,000	0	108,500	91	48	Destination Hotel Resort #1 Phase 4		
12,500	48,750	0	61,250	42	28	Hotel Condo /Lodge	85	50
0	48,750	0	48,750	42	22	Hotel Condo /Lodge		
0	0		0	0	0	Golf Club House		
0	110,400	0	110,400	46	46	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
0	128,700	0	128,700	78	78	Townhouses - Unit area = 1650sqft @ 1.0 eru		
0	132,000	0	132,000	80	80	Townhouses - Unit area = 1650sqft @ 1.0 eru		
0	81,600	0	81,600	34	34	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
0	58,500	0	58,500	65	26	Condo /Lodge	125	50
0	53,625	0	53,625	60	24	Condo /Lodge		
7,500	53,625	0	61,125	60	27	Destination Hotel Resort #2 Phase 1		
8,750	58,500	0	67,250	65	30	Destination Hotel Resort #2 Phase 2	222	101
0	39,000	0	39,000	39	17	Destination Hotel Resort #2 Phase 3		
0	58,500	0	58,500	58	26	Destination Hotel Resort #2 Phase 4		
	64,800	0	64,800	27	27	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	140,000	0	140,000	28	28	Single Family - max 5000 sqft/dwelling @ 1 eru		
	52,800	0	52,800	22	22	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	81,600	0	81,600	34	34	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	76,800	0	76,800	32	32	Townhouses - Unit area = 2400 sqft @ 1.0 eru		
	0		0	0	0	Equestrian Amenity		
	26,400		26,400	16	16	Townhouses - Unit area = 1650sqft @ 1.0 eru		
	125,000		125,000	25	25	Single Family - max 5000 sqft/dwelling @ 1 eru		
	150,000		150,000	30	30	Single Family - max 5000 sqft/dwelling @ 1 eru		
	0		0	0	0	MayFlower south "Saddle Area" potential development pod		
	0		0	0	0	n/a: SchoolTrust Lands "Saddle Area" potential development pods		
<b>105,750</b>	<b>3,768,663</b>	<b>0</b>	<b>3,762,288</b>	<b>1,896</b>	<b>1418</b>			

MAYFLOWER SOUTH PARKING ANALYSIS (

PARCEL #	BUILDING #	COMMERCIAL RETAIL RESTAURANT ENTERTAINMENT	Res AREA	CONVENTION HOTEL CLUB HOUSE SKIERS SERVICES	TOTAL	# OF UNITS	PARKING UNIT C
<b>MAYFLOWER SOUTH</b>							
C-1			125,000		125,000	25	F
C-2			120,000		120,000	24	F
C-3			35,000		35,000	7	F
C-4			135,000		135,000	27	F
C-5			60,000		60,000	12	F
C-6			0		0	0	
C-7			75,000		75,000	15	P
C-8	C8.1	0	68,250	0	68,250	59	P
	C8.2	0	63,375	0		55	P
	C8.3	0	48,750	0		42	P
C9-A		12000	0	0	12,000	0	
C9-B							
C-10			0		0	0	P
C-11			0		0	0	P
C-12			69,300		69,300	42	P
C-13			39,600		39,600	24	P
C-14			102,300		102,300	62	P
C-15			108,900		108,900	66	P
C-16:C-26							P
C-27			315,000		315,000	63	P
C-28	C28.1-28.10		57,600		57,600	24	P
C-29			150,000		150,000	30	P
C-30			80,000		80,000	16	P
C-31			25,000		25,000	5	P
C-32			50,000		50,000	10	P
C-33			28,800		28,800	12	P
C-34			10,000		10,000	2	P
C-35			72,000		72,000	30	P
C-36	C36.1	20000	85,313	0	105,313	95	M
	C36.2	22500	79,625	0	102,125	89	M
	C36.3	5000	84,500	0	89,500	84	M
	C36.4	17500	91,000	0	108,500	91	M
C-37	C37.1	12500	48,750	0	61,250	42	P
	C37.2	0	48,750	0	48,750	42	P
C-38	C38.1	0	0		0	0	
C-39	C39.1-39.17	0	110,400	0	110,400	46	P
C-40	C40.1-40.23	0	128,700	0	128,700	78	P
C-41	C41.1-41.23	0	132,000	0	132,000	80	P
C-42	C42.1-42.13	0	81,600	0	81,600	34	P
C-43	C43.1	0	58,500	0	58,500	65	P
	C43.2	0	53,625	0	53,625	60	P
C-44	C44.1	7500	53,625	0	61,125	60	M
	C44.2	8750	58,500	0	67,250	65	M
	C44.3	0	39,000	0	39,000	39	
	C44.4	0	58,500	0	58,500	58	
C-45	C45.1-45.9		64,800	0	64,800	27	
C-46	C46.1-46.42		140,000	0	140,000	28	
C-47			52,800	0	52,800	22	
C-48			81,600	0	81,600	34	
C-49			76,800	0	76,800	32	
C-50			0		0	0	
C-51			26,400		26,400	16	
C-52			125,000		125,000	25	
C-53			150,000		150,000	30	
C-54			0		0	0	
C-55:C56			0		0	0	
<b>TOTAL MAYFLOWER SOUTH</b>		<b>105,750</b>	<b>3,768,663</b>	<b>0</b>	<b>3,762,288</b>	<b>1,896</b>	

**S (ESTIMATE BASED ON TARGET STUDY)**

PARKING STANDARD UNIT OF MEASURE	COMMERCIAL CONVERSION RATIO PER SHARED STUDY PER 1,000 SF	RESIDENTIAL CONVERSION RATIO PER SHARED USE STUDY	PARKING PER SHARED USE STUDY	NOTES
			0	
Per Unit		2.00	50	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	48	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	14	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	54	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	24	Single Family - max 5000 sqft/dwelling @ 1 eru
			0	Not Applicable
Per Unit		2.00	30	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		1.50	89	Multifamily Condos - 1.5 parking spaces /unit
Per Unit		1.50	82	Multifamily Condos - 1.5 parking spaces /unit
Per Unit		1.50	63	Multifamily Condos - 1.5 parking spaces /unit
	2.50		30	Local convenience commercial
Per Unit			0	Community Ammerity Park (Tailing Remediation Zone)
Per Unit	Not Applicable	Not Applicable	500	Day skier Parking (Tailing Remediation Zone)
Per Unit		2.00	84	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit		2.00	48	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit		2.00	124	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit		2.00	132	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit			-	n/a: Stillwater (not included)
Per Unit		2.00	126	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	48	Townhouses - Unit area = 2400 sqft @ 1.0 eru
Per Unit		2.00	60	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	32	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	10	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	20	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	24	Townhouses - Unit area = 2400 sqft @ 1.0 eru
Per Unit		2.00	4	Single Family - max 5000 sqft/dwelling @ 1 eru
Per Unit		2.00	60	Townhouses - Unit area = 2400 sqft @ 1.0 eru
Mixed	2.50	0.80	126	Destination Hotel Resort #1 Phase 1
Mixed	2.50	0.80	127	Destination Hotel Resort #1 Phase 2
Mixed	2.50	0.80	80	Destination Hotel Resort #1 Phase 3
Mixed	2.50	0.80	116	Destination Hotel Resort #1 Phase 4
Mixed	2.50	0.80	65	Hotel Condo /Lodge
Per Unit	2.50	0.80	34	Hotel Condo /Lodge
			0	Golf Club House
Per Unit		2.00	92	Townhouses - Unit area = 2400 sqft @ 1.0 eru
Per Unit		2.00	156	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit		2.00	160	Townhouses - Unit area = 1650sqft @ 1.0 eru
Per Unit		2.00	68	Townhouses - Unit area = 2400 sqft @ 1.0 eru
Per Unit		0.80	52	Condo /Lodge
Per Unit		0.80	48	Condo /Lodge
Mixed	2.50	0.80	67	Destination Hotel Resort #2 Phase 1
Mixed	2.50	0.80	74	Destination Hotel Resort #2 Phase 2
		0.80	31	Destination Hotel Resort #2 Phase 3
		0.80	47	Destination Hotel Resort #2 Phase 4
		2.00	54	Townhouses - Unit area = 2400 sqft @ 1.0 eru
		2.00	56	Single Family - max 5000 sqft/dwelling @ 1 eru
		2.00	44	Townhouses - Unit area = 2400 sqft @ 1.0 eru
		2.00	68	Townhouses - Unit area = 2400 sqft @ 1.0 eru
		2.00	64	Townhouses - Unit area = 2400 sqft @ 1.0 eru
		Not Applicable	0	Equestrian Amenity
		2.00	32	Townhouses - Unit area = 1650sqft @ 1.0 eru
		2.00	50	Single Family - max 5000 sqft/dwelling @ 1 eru
		2.00	60	Single Family - max 5000 sqft/dwelling @ 1 eru
		2.00	0	Mayflower south "Saddle Area" potential development pod
		2.00	0	n/a: School Trust Lands "Saddle Area" potential development pods
			3,528	

RSPA Amendment



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# **Site Specific Soil Geology Report**

## **Dames & Moore**

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**VOLUME 3**

Ent 309761 Bk 0902 Pg 0593

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REPORT *FL*  
ENGINEERING GEOLOGY RECONNAISSANCE  
AND GEOTECHNICAL STUDY  
PROPOSED STAG HORN VILLAGE

for  
JOEL VAN LEEUWEN  
JOB NO. 31406-001-031

AUGUST 31, 1995

OCT 2 5 1995

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DAMES & MOORE

# DAMES & MOORE

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August 31, 1995

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Joel Van Leeuwen  
P.O. Box 350  
Midway, Utah 84049

Report  
Engineering Geology Reconnaissance  
and Geotechnical Study  
Proposed Stag Horn Village Development  
approximately 218 acres  
Wasatch County, Utah  
Job No. 31406-001-031

## INTRODUCTION

This report presents the results of our engineering geology reconnaissance and geotechnical study for the proposed Stag Horn Village Development near Jordanelle Reservoir in Wasatch County. The scope of our work was outlined in our proposal, dated July 6, 1995. During the course of study, preliminary results were verbally transmitted to Francis Smith Engineering, Inc.

The proposed development is a single parcel of land divided by US Highway 40 as indicated on Plate 1, Vicinity Map. The lower site contains approximately ~~40~~<sup>43</sup> acres and is located east of U.S. Highway 40, near Jordanelle Reservoir. Access is via the Mayflower Exit from U.S. Highway 40, then north along the frontage road. The upper site comprises about ~~178~~<sup>175</sup> acres and extends from immediately west of U.S. Highway 40 to the Summit/Wasatch County line. Access is via the east side frontage road from the Mayflower exit (Heber Avenue Road) or from the Deer Valley area. Detailed layouts of each site are presented in Plates 2 and 3, respectively.

## PURPOSE AND SCOPE

The purpose of the study was to evaluate subsurface conditions in each site, assess geologic hazards, describe the geologic setting, and provide preliminary recommendations for design and development. In accomplishing this purpose, the following services were performed:

- (1) A site evaluation and reconnaissance performed by a certified engineering geologist to assess geologic and engineering characteristics of each site. The evaluation included a review of available data, interpreting aerial photos of the site, and assessing geologic hazards.

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- (2) Excavating seven test pits in the lower site to characterize subsurface conditions and obtain samples for laboratory testing.
- (3) Performing laboratory tests on selected soil samples.
- (4) Initiating an office program that included the evaluation of available data, performing engineering analyses, and preparation of this report that presents the results of our study and provides preliminary recommendations for design and development.

### PROPOSED DEVELOPMENT

The lower site of the proposed development is expected to consist of residential housing. Details of the development are still in the planning stage, however, structures are expected to be two to three levels with partial or full basements. Woodframe construction is anticipated and induced loads are expected to be relatively light. In addition to housing, roads and infra-structure for the residential community will be developed.

The majority of the upper site, west of U.S. Highway 40, will be utilized as "common area". Development will be confined to relatively flat portions of the site, as indicated on Plate 3, and is expected to consist of exclusive homesites. As with the lower site, two to three level woodframe homes are expected. Homesite access will comprise the remainder of the development.

### FIELD AND LABORATORY INVESTIGATIONS

#### GENERAL

Subsurface soil and bedrock conditions at the lower site were explored by excavating seven test pits to a maximum depth of 12.0 feet. Without significant road work, the upper site is inaccessible to excavating equipment, thus, road cuts and exposures were observed to assess engineering characteristics.

Approximate test pit locations are indicated on Plate 2.

The field program was conducted and supervised by a geotechnical engineer from our staff who maintained a continuous log of subsurface conditions encountered. The soil was classified in the field according to the Unified Soil Classification System (Plate 4) and later select samples were re-examined in the laboratory to confirm field classifications. Graphical representations of subsurface conditions encountered are presented

on Plates 5A through 5B, Log of Test Pits.

### LABORATORY TESTING

#### General

A laboratory testing program was conducted on selected soil samples to provide data for our engineering analyses. The program included moisture and density tests, gradation analyses, Atterberg Limits tests, consolidation tests, compaction and CBR tests, collapse-swell tests, and sulfate tests. Test results are summarized in the following sections.

#### Moisture and Density Tests

Moisture and density tests were performed on relatively undisturbed soil samples to aid in determining the strength and volume change characteristics of site soils. The results of these tests are presented to the left of the graphical test pits logs on Plates 7A through 7B.

#### Gradation Analyses

To aid in classifying soils, determination of fines content (percent finer than No. 200 sieve) were performed on selected soil samples. Results of the gradation analyses are presented in Table 1.


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TABLE 1			
Test Pit Number	Sample Depth (ft)	Percent (by dry weight) Passing the No. 200 Sieve	USCS Classification
TP-1	2.0-3.5	50	SC
TP-1 (Bulk)	1.0-4.0	63	CL
TP-4	2.0-2.5	33	SC
TP-5	4.0-5.0	82	CL
TP-5	8.0-11.0	19	SC
TP-5 (Bulk)	1.0-2.0	82	CL
TP-6 (Bulk)	1.0-2.0	67	CL
TP-6	3.5-6.0	40	CL
TP-7 (Bulk)	1.0-2.0	5	GP-GC
TP-7	0.0-1.0	15	SC

**Atterberg Limits**

Atterberg limit tests were performed on selected cohesive samples to aid in soil classification and to provide index parameters for correlation. Test results are presented in Table 2.

TABLE 2				
Test Pit Number	Sample Depth (ft)	Liquid Limit	Plasticity Index	USCS Classification
TP-1	7.0-7.5	46	24	CL
TP-4	1.0-2.0	47	21	CL
TP-5	2.5-3.0	59	37	CH
TP-6	3.5-4.0	48	25	CL
TP-7	6.0-7.0	46	18	OL

**Consolidation Tests**

Consolidation tests were performed on a relatively undisturbed cohesive sample to provide data necessary

for consolidation settlement analysis. Test results are summarized in Table 3

Test Pit Number	Sample Depth (ft)	Virgin Compression Index (strain basis)	Recompression Index (strain basis)	Overconsolidation Ratio
TP-45	3.5-4.0	0.09	0.018	2.2

#### Compaction and CBR Tests

Three California Bearing Ratio (CBR) tests were performed on near-surface bulk samples to aid in obtaining pavement design parameters. The samples were compacted at their optimum moisture contents to 95% of the maximum dry density as determined from modified compaction tests (ASTM D-1557). Test results are presented in Table 4.

Test Pit Number	Sample Depth (ft)	Optimum Moisture Content	Maximum Dry Density (pcf)	Percent Swell	USCS Classification	CBR Value
TP-1	1.0-3.0	14.3	114.7	1.5	SC	8.3
TP-5	0.0-2.0	21.0	102.0	0.0	CL	4.8
TP-6	1.0-2.0	13.5	106	4.65	CL-OL	3.2

#### Collapse-Swell Tests

Collapse-Swell tests were performed on a relatively undisturbed sample from test pit TP-6 to evaluate the volume change upon sample saturation. Test results indicate that the sample collapsed 2.0 percent upon saturation at a confining pressure of 1500 psf.

#### Sulfate Tests

Sulfate tests were performed on near-surface samples to evaluate whether site soils will react with concrete. Test results are presented in Table 5.

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TABLE 5			
Test Pit Number	Sample Depth (ft)	pH Value	Sulfate Content (SO <sub>4</sub> ) (ppm)
TP-3	2.0-3.0	7.87	<100
TP-4	2.0-2.5	7.96	<100
TP-7	0.0-1.0	7.46	<100

### SITE CONDITIONS

#### SURFACE

The lower site east of U.S. Highway 40 generally slopes moderately downward to the east and southeast. The overall slope of the site is on the order of 10 to 20 percent except where dissected by intermittent drainages and near the extreme south side. Two intermittent drainages running east-west and north-south are located in the east and south portions of the site, respectively. Near the drainages slopes range from 15 to 25 percent. On the extreme south side, slopes higher than 25 percent are not uncommon. Elevations range from 6435 to 6635 feet.

The lower site is covered by moderate to heavy vegetation consisting of oak brush, sage brush, grass, and cactus. Heavy stands of oak brush are common. Occasional bedrock outcrops are exposed at higher elevations on the north side of the site and are generally devoid of vegetation. Several dirt roads traverse the site, as well as a buried gas pipeline.

The site west of U.S. Highway 40 generally slopes moderately steeply downward towards the north and east or steeply downward towards the south. North and east facing slope are on the order of 30 to 40 percent grade whereas grades on south facing slopes are on the order of 40 to 60 percent. These slopes will generally be utilized as "common areas" with minimal development. Several relatively flat areas, grades of 10 to 25 percent, are present as indicated on Plate I. Exclusive homesites are anticipated for these areas. Homesite locations will generally be confined to relatively flat areas on ridge tops.

Vegetation on the upper site ranges from moderate to heavy and consists primarily of oak brush, sage brush, aspen trees, and grasses. Heavy oak brush blankets much of the site. Elevations range from 6900 to 7685 feet. Abundant bedrock outcrops are present on ridge tops and on steep south facing slopes.



Several mine dumps, adits, and shafts are present on the upper site. The majority of these are confined to steep south dipping slopes on the south side of the site. However, abandoned shafts and adits were also located on the north-south trending ridge that has been targeted for development. The approximate location of mine workings are presented on Plate 3.

### GEOLOGIC SETTING

#### General

The proposed project area is located within the Wasatch Range section of the Middle Rocky Mountain physiographic province in north-central Utah. Geologic information for this project was based on review of several available publications and our field reconnaissance. The principal references regarding the geology of the site include Bromfield and Crittenden (1971), Stokes (1986), Beeson (1940) and stereoscopic aerial photographs dated September 24, 1989 obtained from Olympus Aerial Photos.

#### Stratigraphy

The bedrock stratigraphy in the project area is represented by three formations: the Woodside Shale, Thaynes Formation, and the intrusive Silver Creek Breccia of the Keetley Volcanics series (Plates 2 and 3). Most of the rocks on the upper site are covered by thin soil deposits. The lower site has areas of shallow bedrock although other areas soils exceed 10 feet in thickness.

The majority of the upper site planned for development is underlain by the Thaynes Formation. All of the lower site is underlain by the Silver Creek Breccia. Descriptions of these geologic units are presented in the following paragraphs. Lithologies are taken after Bromfield and Crittenden (1971).

**Woodside Shale** - The Woodside Shale is of Triassic age (approximately 195 to 225 million years old). The Woodside Shale is an interbedded sequence of dark- and purplish-red shale, siltstone, and very fine-grained sandstone. The Woodside Shale is typically a slope-forming unit and less resistant than the Thaynes Formation.

**Thaynes Formation** - Up section, and conformably above the Woodside Shale is the Thaynes Formation, also of Triassic age. Rock types assigned to the Thaynes Formation include fine-grained limey sandstone and siltstone, interbedded with shale and fine-grained fossiliferous limestone. The Thaynes Formation appears to have provided relatively stable cut slopes.



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**Silver Creek Breccia** - The Keetley Volcanics are of Tertiary (Oligocene) age (approximately 37.5 to 22.5 million years old). The Silver Creek Breccia is composed of light-gray volcanic breccia with a few interbedded tuffs. These volcanics generally do not appear in outcrop and generally occur within the project area under residual soils several feet in thickness.

**Recent Deposits** - Unconsolidated colluvium, alluvium and residual soils mantle much of the study area. Steeper slopes are covered with colluvium which is derived from the weathering of bedrock and is deposited close to the source rock by gravity and slope wash. It is typically a poorly graded mixture of silt to silty clay with varying amounts of angular gravel and sand. A minor amount of alluvial soils are present at the base of slopes. These materials consist of water-washed deposits derived from bedrock as well as colluvium and exist as layers of predominantly gravel and sand. Residual soils derived from volcanics are present in the northern portion of the upper site and covering the lower site, and are composed of clay with varying amounts of gravel, silt, and sand.

#### **Structure**

Geologic structure in the project area consists of bedding, fracturing and faulting. Bedding dips mainly to the northeast at roughly 20 to 35 degrees. Two large southwest-northeast trending normal faults have been mapped in the upper site (Plate 3). No evidence for Quaternary offset has been identified along these faults, and they are not considered active.

### **SUBSURFACE CONDITIONS**

#### **Lower Site**

Subsurface conditions at the lower site were explored by excavating seven test pits with a track mounted backhoe. Test pits ranged from three to twelve feet in depth. Test pit locations are indicated on Plate 2. Test pit logs are included as Plates 7A and 7B.

Subsurface conditions, as characterized by the test pits, are variable. Variability is generally related to the depth at which bedrock was encountered. Test pits TP-2, TP-3, and TP-7 encountered bedrock within 5 feet of the ground surface. In test pits TP-4 and TP-6 bedrock was overlain by 8.5 to 10.0 feet of surficial deposits. Test pits TP-1 and TP-5 extended to 11 and 12 feet respectively, without encountering bedrock.

Bedrock, as exposed near higher elevations on the north end of the site and as encountered in test pits TP-2, TP-3, and TP-7 consisted of gray volcanic breccia. The bedrock was generally weathered near-surface into

clayey gravel and cobbles. Depending on the weathering profile, bedrock was excavatable to depths of three to five feet.

Surficial deposits consist of topsoil, colluvium, and some alluvial deposits in the major drainages. Deeper surficial deposits are associated with drainages or are located in areas of thick oak brush. Topsoil is typified by dark brown sandy to clayey soils with abundant organics. The organics become less prevalent at depth, however, they can extend to depths up to seven feet as encountered in test pits TP-1, TP-5 and TP-6. With depth the surficial deposits consist of stiff sandy clay or loose to medium dense clayey sand. Clayey gravel was encountered in test pit TP-1 at depths of 10 to 12 feet. Organic silt and clay encountered in test pit TP-6 swelled up to 4.65 percent when saturated.

Groundwater was not encountered in any of the test pits, however, areas of vegetation in the site indicate that perched groundwater may be relatively shallow during the spring months. Perched groundwater may also be encountered in the drainage bottoms during the spring.

#### Upper Site

Due to the inaccessibility of the upper site with excavating equipment, soil types were determined from road cuts or similar exposures. Soils over much of the site are relatively thin, on the order of 1 to 3 feet, and consist of colluvium deposits. The steep grades prevent thick accumulations of soils, with the exception of occasional swales where aspen trees are located. Soils are expected to range up to 10 feet in depth in the major swales. In the areas anticipated for development, the maximum depth of soils is expected to be 7 feet with the majority less than 5 feet.

Soils generally consist of shallow topsoil underlain by silty to clayey gravel and cobbles. Abundant bedrock fragments are present. Deeper colluvium deposits are expected to consist of sandy clay and clayey sand.

Bedrock outcrops are exposed throughout the site, particularly on hill tops and ridge tops. Throughout the majority of the site and in all areas planned for development, bedrock consists of sandstone, siltstone, and occasional limestone deposits. These deposits are generally lightly to moderately weathered and form vertical outcrops.

The lower parts of the steeply dipping slopes of the south portion of the site will encounter purplish to red shale and siltstone. These deposits are less competent and are subject to moderate to intense weathering. Instability of these deposits may be anticipated, particularly if steep road cuts traverse this material.

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Proposed Stag Horn Village Development  
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## SITE DEVELOPMENT

### GENERAL

Supporting data upon which the following recommendations are based have been presented in the previous sections of this report. The recommendations presented herein are governed by the physical properties of soils/bedrock encountered in the exploratory investigations and the anticipated design data discussed in the PROPOSED CONSTRUCTION section. We recommend that site specific studies be performed to determine subsurface conditions prior to final design of individual structures and roads.

### DEVELOPMENT OVERVIEW

#### Lower Site

Factors that will influence overall development of the lower site east of U.S. Highway 40 include:

1. Shallow bedrock encountered over portions of the site.
2. Potentially expansive characteristics of organic clay deposits.
3. Preservation of existing drainages or appropriate modifications such that adequate drainage is maintained and erosion potential minimized.
4. Steep slopes in the extreme southern portion of the site.

Shallow bedrock composed of moderately weathered volcanic breccia is exposed on ridges and in other areas of the site. Bedrock encountered in test pits was excavatable to approximately three feet. We anticipate that due to near-surface weathering, the upper 2 to 3 feet of the bedrock may be rippable in open excavations provided ripping is performed in a downhill direction. Deeper excavations, if necessary in bedrock, may require blasting or special excavating equipment; particularly for confined areas with limited access.

Deep deposits of topsoil and organic rich clays were encountered in areas adjacent to drainages or where thick stands of oak brush are present. The organics become less prevalent at depth, however, they can extend to depths ranging from four to seven feet as encountered in test pits TP-1, TP-5 and TP-6. Based on laboratory testing these deposits could swell when saturated. Expansive soils often occur as the result of weathering of volcanic rock. We recommend once final layout is determined that site specific investigations be performed to better delineate areas that may be underlain by deep deposits of expansive soils. If identified, these soils should be removed from beneath structures to minimize potential problems.

Two intermittent drainages traverse the site. We anticipate that site development will eliminate these drainages. Although soils encountered in investigations are generally clayey in nature with a low erosion potential, we recommend that appropriate measures be incorporated to minimize erosion. Collected water from developed areas and streets should be properly channeled into drainage systems downgradient of structures. Proper water management will minimize potential erosion and problems associated with saturation of potentially expansive soils.

It is our understanding that the steep slopes, in excess of 30 percent grade, on the extreme southern edge of the property will not be developed and will be utilized as common area. To minimize potential problems with slope instability, we recommend that the vegetation be left intact during site development that the natural slopes be maintained as much as possible.

#### Upper Site

Factors that will influence development of the upper site west of U.S. Highway 40 include:

1. Stability of steep slopes uphill of access roads.
2. Shallow bedrock at areas planned for development.
3. Adequate setback from steep slopes.
4. The presence of old mine workings.

The majority of developable areas within the upper site will be confined to relatively flat topography. However, access roads will traverse steep terrain. Areas of significant slope instability were not noted during our site reconnaissance. Bedding within the bedrock generally dips to the northeast and is favorable for access roads that traverse south facing slopes in the southern portion of the site.

The majority of development will be confined to relatively flat areas. For the lower developable areas indicated on Plate 3, structures should be confined to slopes of 30 percent or less. Slopes in excess of 30 percent adjacent to developable areas should be left in a natural condition with minimal disturbance.

Depending on the final road layout, moderate road cuts are anticipated. Due to the steep terrain, raveling and minor slope instability of the uphill cuts should be anticipated, particularly for roads that are cut into the Woodside Shale Formation. If thick colluvium are encountered in road cuts, retaining structures may be required. Proper drainage of slopes and collection of water will be essential in maintaining slopes and in minimizing problems with instability. Drainage and collection will particularly be important during site development and construction.



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Due to relatively shallow bedrock expected to be encountered along steep slopes, blasting may be required, particularly in the cuts that traverse sandstone and limestone of the Thaynes Formation. Uphill cuts of 15 to 20 feet in height may be required assuming access road widths of 30 feet. Access roads traversing steep slopes should consist predominantly of cuts. The steep downhill slopes will limit the amount of fill that can be placed on the downhill slope. We recommend that placement of significant amounts of fill be avoided and that the majority of excavated material be removed for use elsewhere at the site. Development of relatively flat areas will encounter shallow bedrock and blasting should be anticipated for basements or utility corridors.

Old mine working consisting of shafts and collapsed adits were noted along the northern ridge as indicated on Plate 3. Although most of the shafts are deteriorated and partially caved, we recommend that the shafts be plugged with reinforced concrete. Following plugging the open portions should be infilled with properly compacted fill. We do not recommend that structures be established over reclaimed shaft or adit areas. Adits identified at the site are relatively shallow and appear to have partially collapsed. We anticipate that these adits can be accessed from the surface and should be excavated and properly in-filled with structural fill. Again, no structures should be established over reclaimed adits.

### ENGINEERING GEOLOGY AND GEOLOGIC HAZARDS

#### Earthquake Ground Shaking

Seismic ground acceleration is likely to effect the site during moderate to large earthquakes along the Wasatch Fault Zone and other nearby earthquake generating faults. The intensity of the shaking at the project area will vary with the size of the earthquake, the distance from the earthquake epicenter and the ground response of the soils at the site. This hazard is widespread and cannot be avoided by moving the proposed building pad. However, the risk from shaking can be reduced by adequate design and construction of the building to resist the ground motion. We recommend that all structures be designed and constructed to Uniform Building Code Seismic Zone 3 requirements as a minimum. The earthquake groundshaking hazard for a properly-designed and well-constructed home on the site is rated as low.

#### Surface Fault Rupture

No active faults have been mapped on the sites and no evidence of active faulting was observed during our field reconnaissance. Based on this information and our current understanding that surface fault rupture and deformation tend to follow past patterns it is believed that the proposed dwellings may be constructed without undo risk from surface fault rupture, and therefore the risk posed by surface fault rupture is rated as low.

### Landslides

No evidence of landslides, slumps or other slope failures were noted on either site. The majority of the lower site slopes at 20 degrees or less and is largely composed of soil and colluvium. These materials are typically stable at slopes of less than 30 to 35 degrees. The buildable portions of the steeper upper site are underlain by relatively stable Thaynes Formation bedrock with a surficial cover of soil. Given the general stability of the slopes and materials on the site the landslide hazard is rated as low.

### Rockfall

No evidence of fallen rock clasts were noted on the site. There are only a few prominent outcrops of bedrock on the hillside area above the buildable areas on the upper site. Inspection of these outcrops suggested that the joint patterns in the bedrock tend to produce weakly indurated, "pencil" shaped clasts. No large, loose boulders were observed perched above the planned buildable areas and there was no evidence of fallen rock accumulations. Given the exposure, strength, joint spacing and shape of the bedrock outcrops the rockfall hazard for the project area is rated as low.


### Debris Flows and Flooding

No major alluvial fans or large drainage channels are present on the site. No evidence of debris flow deposition was observed in the aerial photos or during the site reconnaissance. The nature of alluvial fan deposition is that very large storm events generate sufficient runoff to scour material stored in canyon channels and deposit the debris on the faces of alluvial fans. The active channels clog with debris, the levees are breached and the next flood event deposits sediment in a different area on the fan. This is how alluvial fans grow. Given the absence of large drainage channels, the hazard from debris flows in the project area is rated as low.

## GEOTECHNICAL CONSIDERATIONS

### FOUNDATION RECOMMENDATIONS

Preliminary analyses indicate that conventional shallow spread and continuous wall footings established upon suitable soils or bedrock may be used to support anticipated structures. For preliminary design and for budgetary purposes, shallow spread or continuous wall footings with a minimum dimension of 1.5 feet established upon suitable clayey soils may be proportioned utilizing a net bearing pressure of 1500 pounds per square foot. Footings established on suitable granular soils may be proportioned with a net bearing pressure of 2500 pounds per square foot and footings established on bedrock may be proportioned utilizing a conservative net bearing pressure of 4,000 pounds per square foot. We recommend that site specific

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investigations be performed to refine bearing values under significant structures.

The term "net bearing pressure" refers to the pressure imposed by the portion of the structure located above the lowest adjacent grade. Therefore, the weight of the footing and backfill above the lowest adjacent grade may be neglected. For total load conditions, i.e. the combination of all dead loads, infrequently applied live loads, wind, and seismic loads, the recommended bearing pressure may be increased by one third.

#### **Installation**

All foundations exposed to the full effects of frost should be established at a minimum depth of 3.0 feet below the lowest adjacent final grade. Interior footings, that are not subjected to the full effects of frost may be established at higher elevations, however, a minimum depth of embedment of 18 inches is recommended for confinement purposes. The minimum recommended footing width is 18 inches for continuous wall footings and 24 inches for isolated spread footings.

Under no circumstances should foundations be established upon non-engineered site fill, loose or disturbed natural site soils or bedrock, sod, rubbish, construction debris, frozen soil, moisture sensitive soils, or within standing water. If the soils upon which the footings or foundations are to be established become loose or disturbed, they must be recompacted before concrete placement.

If unsuitable materials are encountered at footing elevations, these materials should be totally removed and replaced with compacted granular structural fill.

### **EARTHWORK**

#### **Site Preparation**

Preparation of each site for construction should include the removal of all debris, rubble, existing non-engineered fill material, soft or loose soils, topsoil, and other deleterious material from areas that will ultimately be structurally loaded. Where deeper deposits of organic clay is encountered, these should also be removed. Topsoil should be stockpiled for landscaping purposes. Existing vegetation should be preserved as much as possible.

Subsequent to the removal of deleterious material and prior to placement of structural elements, pavement, or structural fill, the subgrade should be proof-rolled by passing moderately loaded, rubber tire-mounted, construction equipment over the surface at least twice. If soft or loose soils are identified, such soils should be removed and replaced with granular structural fill.



In those areas where suitable near-surface soils have been disturbed, they should be scarified and recompact to structural fill standards prior to the placement of pavements, foundations, or floor slabs. Compaction of suitable near-surface disturbed soils should be as recommended for structural fill in later sections of this report. Following the above operations, pavements, floor slabs, replacement fill, and/or structural fill may be placed.

#### Fill Material

Structural fill is defined as all soils placed that will be subjected to structural loads such as imposed by footings, floor slabs, or pavements. Granular structural fill is defined as fill material that is imported onto the site from an approved fill source or granular site soils that meet the requirements for granular structural fill. Based on our observations, it will be difficult to obtain adequate structural fill from on-site sources without significant processing. Bedrock that is excavated by ripping or blasting will require processing or crushing. Granular soils, particularly from the upper site, may selectively be utilized as structural fill. Soils encountered in the lower site contain high percentages of silt, clay, and organics and will be difficult to place and recompact, particularly in wet weather. Importing of structural fill, particularly for roadbase material should be anticipated.

Relatively "clean" granular soils should be utilized as granular structural fill. A fill source generally meeting the characteristics of Section 301 - Untreated Base Course of the State of Utah Standard Specifications for Road and Bridge Construction (1979 Edition), will meet the requirements for relatively "clean" granular soils. This gradation is summarized in Table 6.

Sieve Size	Gradation Percent Passing	Gradation Tolerance
1.0 inch	100	0
0.5 inch	85	±6
No. 4	55	±6
No. 16	31	±4
No. 200	9	±2

It is recommended that all granular structural fill and replacement structural fill be free of sod, rubbish, frozen soil, and other deleterious substances. The maximum particle size for granular structural fill and replacement



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structural fill should generally not exceed two inches. The maximum particle size for structural fill placed within confined areas should generally be restricted to one inches. It should be noted, however, that occasional larger particles not exceeding six to eight inches may be incorporated and placed randomly in a manner such that "honeycombing" does not occur, the required compaction can be achieved, and they are not contained in the upper one foot of material directly underlying a floor slab, foundation, or pavement element.

#### Fill Placement and Compaction

Subsequent to stripping and excavation and prior to the placement of structural fill, the subgrade should be prepared as discussed in the SITE PREPARATION section of this report. In confined areas subgrade preparation should consist of the removal of all loose and disturbed soils.

All granular structural fill and replacement structural fill should be placed in lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 95 percent of the maximum dry density as determined by the ASTM D-1557 (AASHTO T-180) method of compaction. Granular structural and replacement structural fill should extend at least six inches beyond the edges of slabs or pavement in all directions for each foot of fill below slabs or pavement.

#### EARTH PRESSURE AND LATERAL RESISTANCE

Lateral loads imposed upon foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footing and supporting soils. In determining the frictional resistance, a coefficient of friction of 0.30 for concrete against natural clayey soils and 0.45 for concrete against granular soils or structural fill may be used. Passive resistance generated by suitable site soils may be considered equivalent to a fluid having a density of 350 pounds per cubic foot. Passive resistance generated by suitable granular site soils or granular structural fill may be considered equivalent to a fluid having a density of 450 pounds per cubic foot. A combination of passive earth pressure and friction may be utilized provided the total is divided by 1.5.

#### EXCAVATIONS

##### Temporary Excavations

Temporary construction excavations up to 4 feet in depth may be constructed with near-vertical side-slopes. Deeper excavations in soils on the order of 8 feet in depth should be constructed with side-slopes no steeper

than one horizontal to one vertical (1H:1V). Deeper excavations in rock may be constructed with vertical side-slopes, however, scaling of loose material should be performed prior to entering the excavation. Soils near the top of excavations should be benched back to minimize raveling problems. All excavations should be frequently inspected by qualified personnel to evaluate stability. If near-surface soils become saturated by precipitation, flatter slopes may be required to maintain stability.

#### Permanent Excavations

We anticipate that permanent open cuts will only be required for access roads and will generally be confined to the upper site west of U.S. Highway 40. Stability of cuts will be dependent on the depth of soil and the degree of fracturing, weathering, and on discontinuity orientation in bedrock.

Based on our geologic reconnaissance, the majority of cuts for access roads will be within shallow soils and bedrock. Road cuts within the Park City Formation will encounter moderately competent limestone and sandstone. Permanent cuts in rock of one-half horizontal to one vertical (0.5H:1V) are recommended in the Park City Formation.

The Thaynes Formation will consist of sandstone, siltstone, limestone, and minor-shale. Due to the variable nature of rock that may be encountered, preliminary cuts ranging from one horizontal to one vertical (1H:1V) to one-half horizontal to one vertical (0.5H:1V) are recommended. Once alignments are finalized, we recommend that site-specific investigations be performed to minimize cut heights.

The Woodside Shale may be encountered in road cuts on the southern portion of the site. The Woodside Shale is expected to be intensely weathered and preliminary cuts of one horizontal to one vertical (1H:1V) are recommended.

If permanent road cuts are required on the lower site east of U.S. Highway 40 in the Keetley Volcanics, similar cut slopes are recommended. If areas of deep soil deposits are encountered, preliminary road cuts of two horizontal to one vertical (2H:1V) are recommended. Due to the anticipated variability in material encountered in road cuts, detailed investigations should be performed once final alignments are determined to minimize cut heights and slope angles.

#### PRELIMINARY PAVEMENT DESIGN

Based on soil classifications and CBR values, near surface soils particularly in the lower site are expected to provide poor to fair pavement support when properly compacted. Assuming medium-light traffic (a maximum of 1000 vehicles per day with less than 5% loaded two-axle trucks) and medium-heavy traffic

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(medium-heavy traffic includes up to 15% two-axle trucks and occasional three-axle trucks), preliminary pavement designs have been developed.

For medium-light traffic the following preliminary pavement design is recommended:

3.0 inches - asphalt concrete  
6.0 inches - granular base  
3.0 inches - granular subbase  
over - prepared subgrade

For medium-heavy traffic the following pavement design is recommended:

4.0 inches - asphalt concrete  
7.0 inches - granular base  
4.0 inches - granular subbase  
over - prepared subgrade

Subgrade preparation should be as discussed in the SITE PREPARATION section of this report. Suitable subgrade soil in areas to be paved should be compacted to a depth of 12 inches to 95 percent of the maximum dry density as determined by Modified Proctor (ASTM D-1557). Untreated base course should contain a maximum particle size of 1.0 inch with less than 9 percent non-plastic fines passing the No. 200 sieve. The recommended loose thickness for base course is 8 inches. Asphalt concrete and base course components should meet requirements of and be placed in accordance with Utah Department of Transportation specifications.

### CONSTRUCTION OBSERVATIONS AND APPROVAL

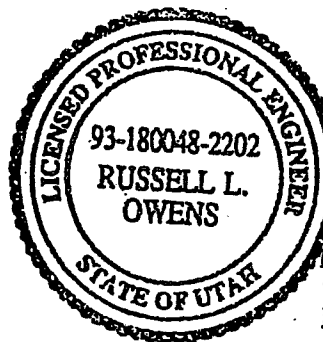
Geotechnical design recommendations used as the basis of design are based on limited exploratory excavations and tests. Depending on subsurface conditions encountered during construction, field adjustments may be required. We recommend that adequately trained personnel observe geotechnical construction of the project for compliance with design concepts, specifications, and recommendations, and to assist in development of design changes should subsurface conditions differ from those anticipated. All footings and slab foundation areas should be observed and approved prior to placement of structural fills and concrete.

The following Plates are attached and complete this report:

- Plate 1 - Vicinity Map
- Plate 2 - Geology Map Lower Site
- Plate 3 - Geology Map Upper Site
- Plate 4 - Geologic Cross-Section Upper Site
- Plate 5 - Geologic Cross-Section Lower Site
- Plate 6 - Unified Soil Classification System
- Plate 7 - Log of Test Pits

Respectfully Submitted,

DAMES & MOORE, INC.

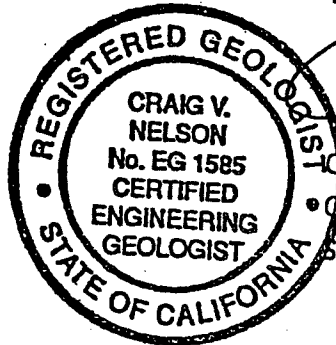


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Craig Nelson, C.E.G.

Certified Engineering Geologist No. 1585

State of California



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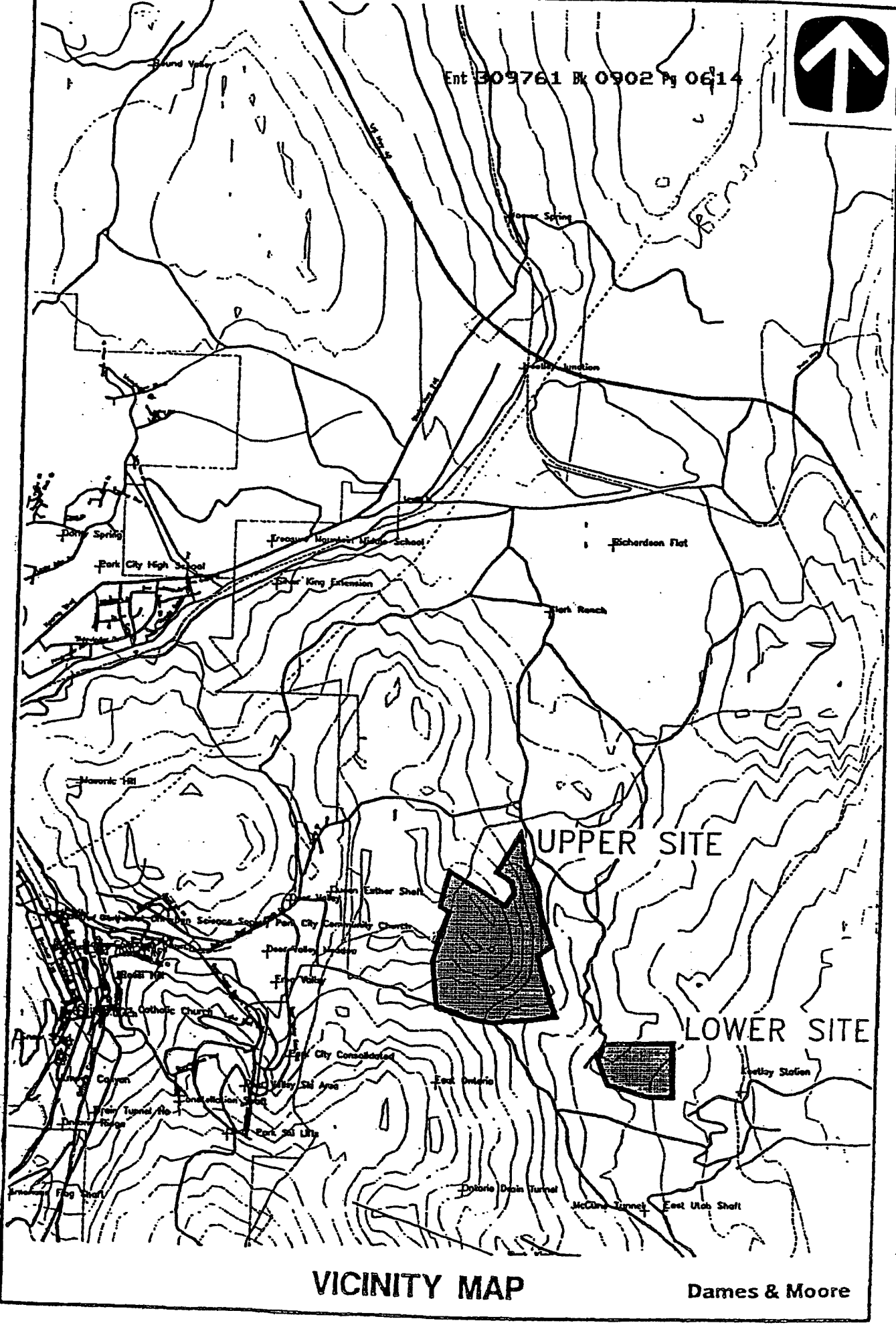
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#### REFERENCES

- Beeson, J.J., 1940, Park City Consolidated Mines Company Geological Map, 1"=400'.
- Bromfield, C.S., and Crittenden, M.D., Jr., 1971, Geologic map of the Park City East Quadrangle, Summit and Wasatch Counties, Utah: U.S. Geological Survey Geologic Quadrangle Map GQ-852, scale 1:24,000.
- Stokes, W.L., 1986, Geology of Utah, Utah Museum of Natural History, occasional paper no. 6.



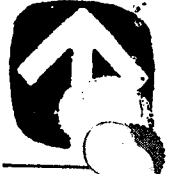
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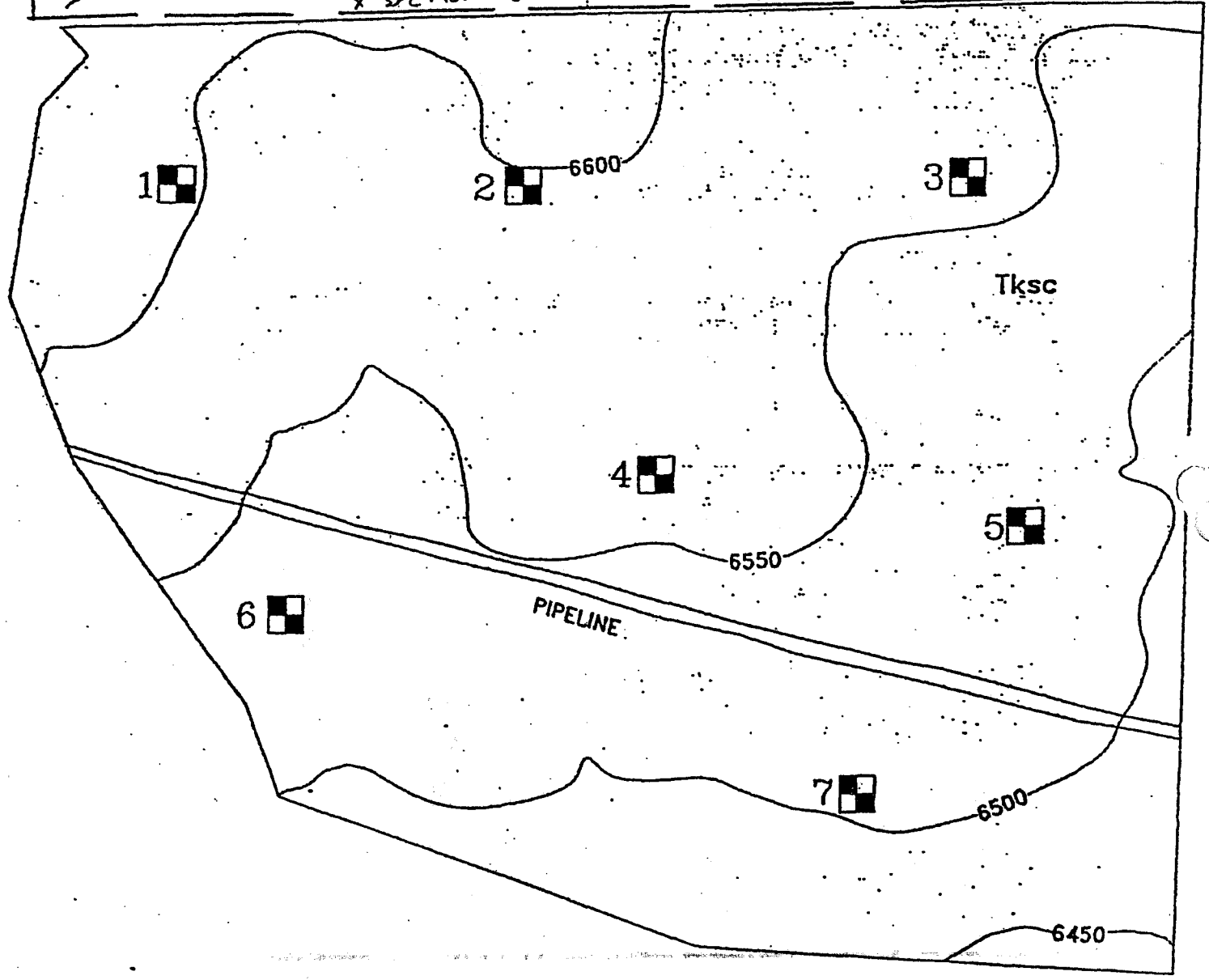
VICINITY MAP

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DATE CHECKED BY DATE



X Section along North Property Boundary



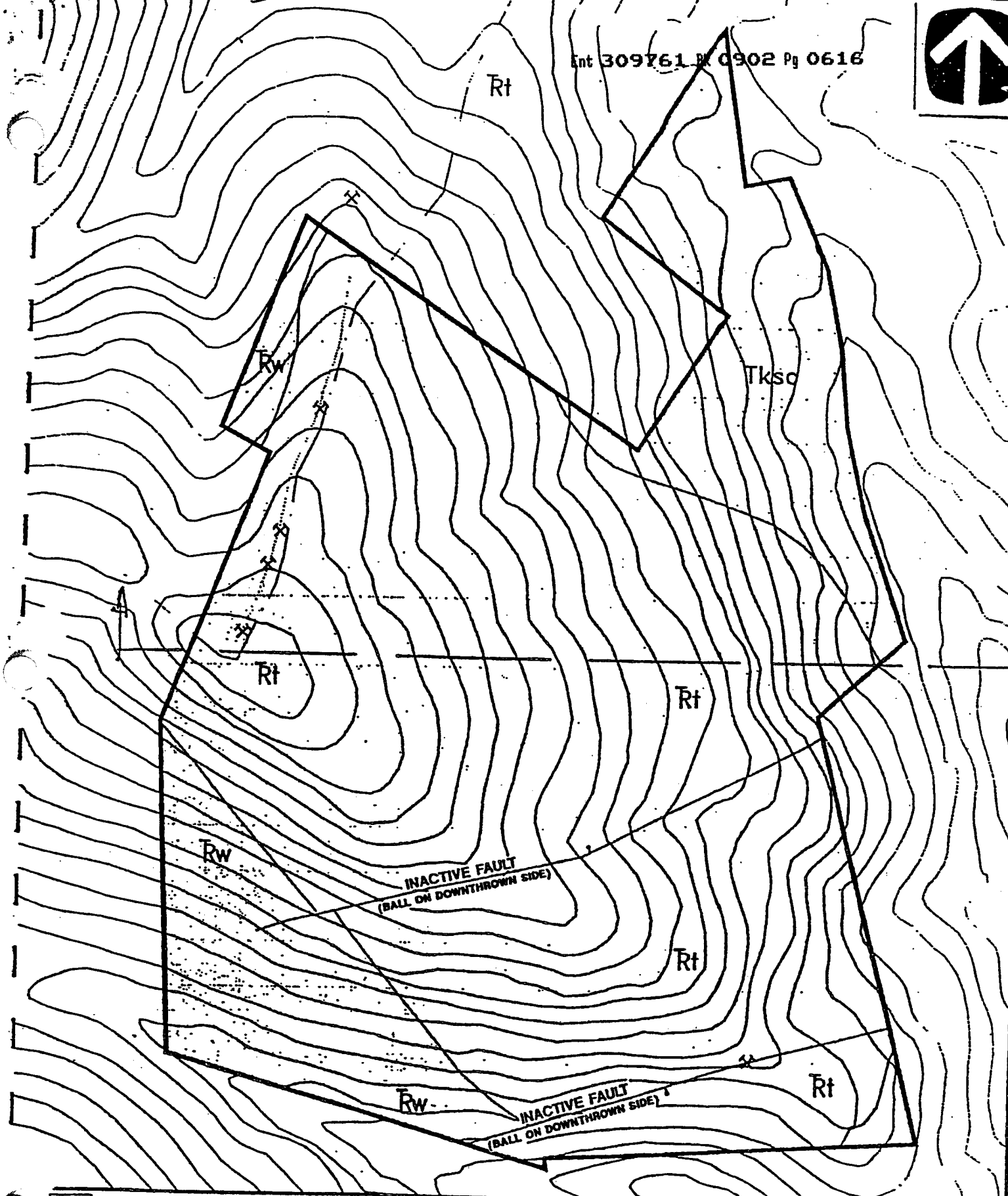
Tksc Keelley Volcanics  
Silver Creek Breccia

Test Pit Location

# GEOLOGY MAP

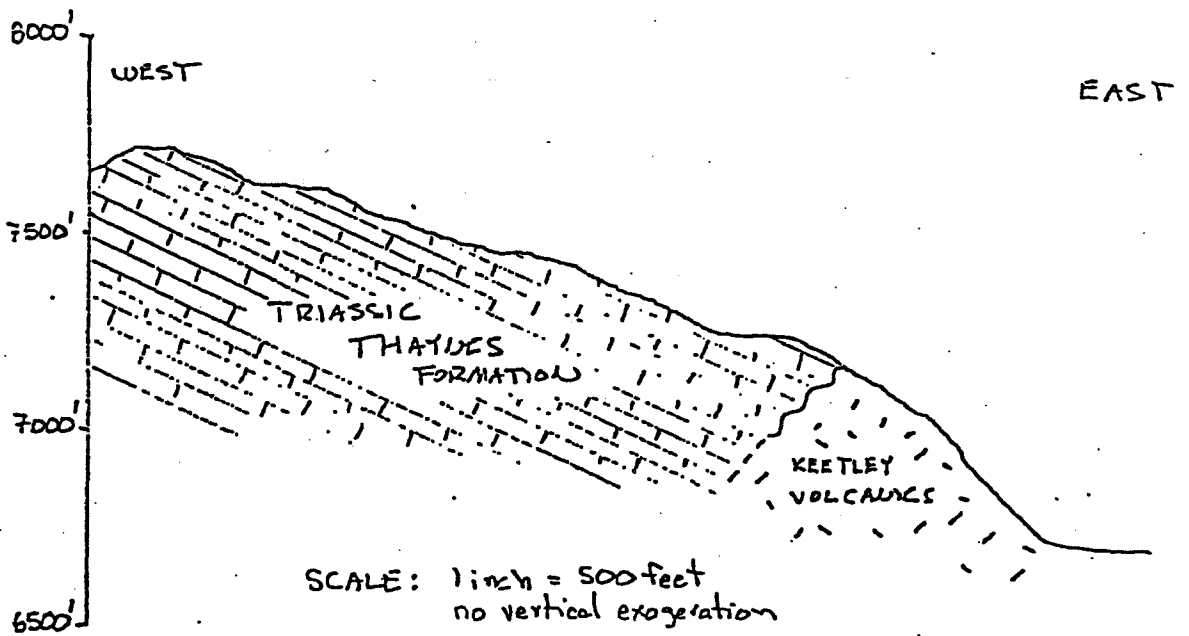
Lower Parcel





Tksc	Keetley Volcanics Silver Creek Breccia
Rt	Thaynes Formation
Rw	Woodside Shale
X	Mine Workings

**GEOLOGY MAP**  
Upper Parcel



# GEOLOGIC CROSS SECTION! Upper Site

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

EAST

WEST

6700'  
6600'  
6500'

KEEBLEY VOLCAUNICS

SCALE: 1 inch = 200 feet  
no vertical exaggeration

# GEOLOGIC CROSS SECTION Lower Site

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DI ATE 5

FILL \_\_\_\_\_ CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS		
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS  MORE THAN 50% OF COARSE FRACTION RETAINED ON No. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES		
				GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES		
		GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES		
		(APPRECIABLE AMOUNT OF FINES)		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES		
	SAND AND SANDY SOILS  MORE THAN 50% OF MATERIAL IS LARGER THAN No. 200 SIEVE SIZE	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND-SILT MIXTURES		
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES		
			FINE GRAINED SOILS	SILTS AND CLAYS  LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
						CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
SILTS AND CLAYS  LIQUID LIMIT GREATER THAN 50		OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY				
		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS				
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS				
HIGHLY ORGANIC SOILS			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS			
			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS			

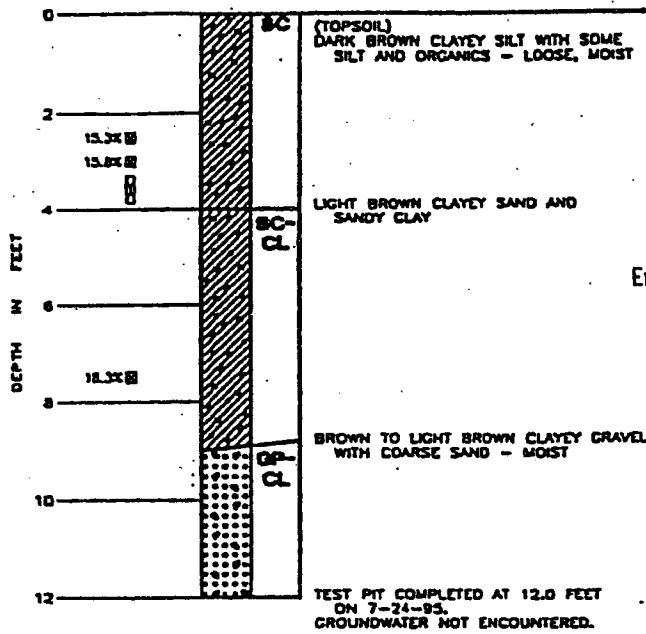
NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS.

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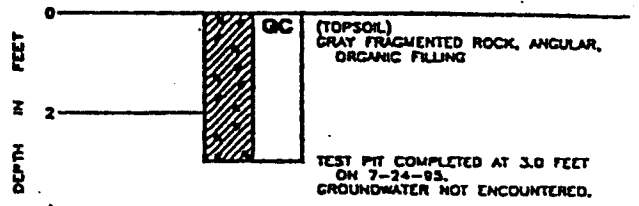
# UNIFIED SOIL CLASSIFICATION SYSTEM

FILE DAVIS & MOORE BY                      DATE                      CHECKED BY                      DATE                     

**TEST PIT TP-1**

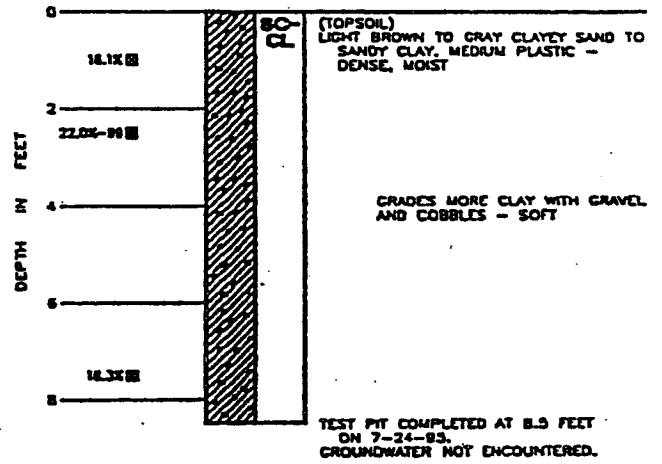


**TEST PIT TP-2**

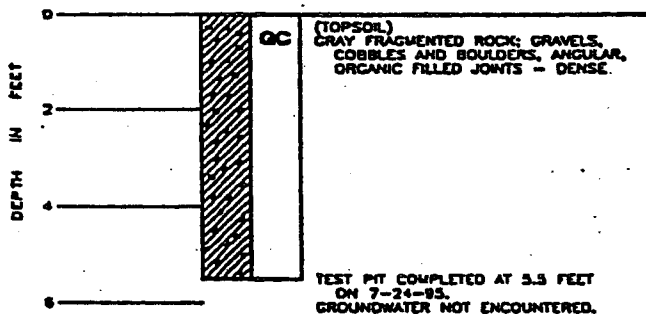


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**TEST PIT TP-4**



**TEST PIT TP-3**



**KEY**

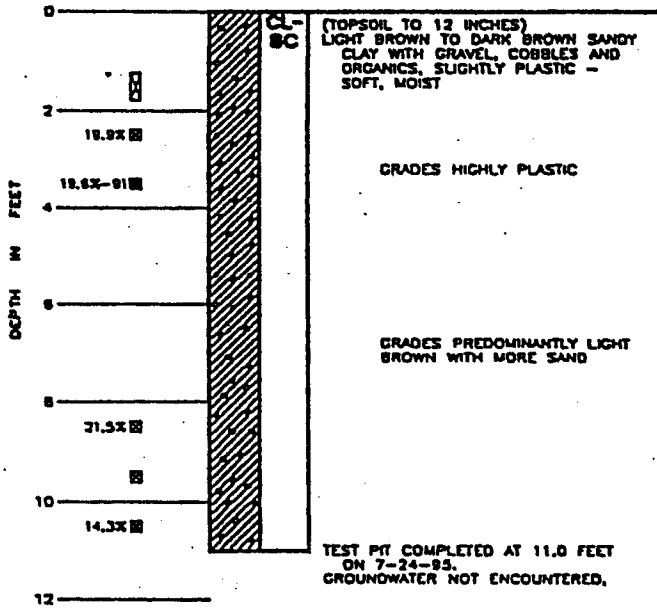
- A - B ■ FIELD MOISTURE EXPRESSED AS A PERCENTAGE OF THE DRY WEIGHT OF SOIL
- B ■ DRY DENSITY EXPRESSED IN LBS. PER CUBIC FOOT
- DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED
- DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED
- BULK SAMPLE

**LOG OF TEST PITS**

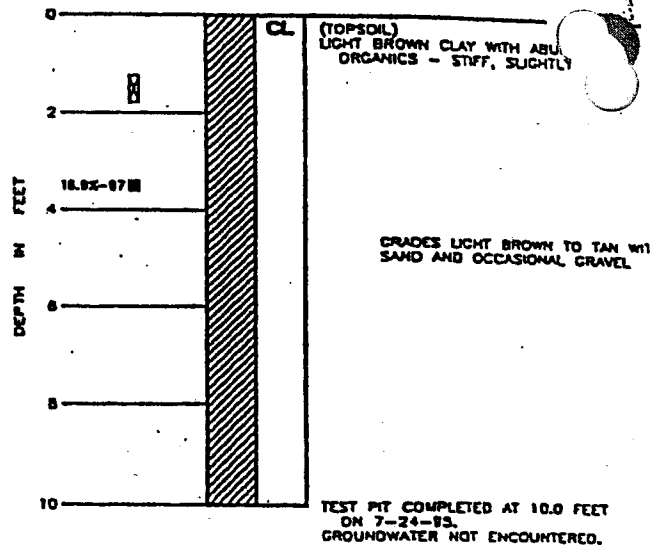
Dames & Moore

FILE DAMES & MOORE BY DATE CHECKED BY DATE

### TEST PIT TP-5

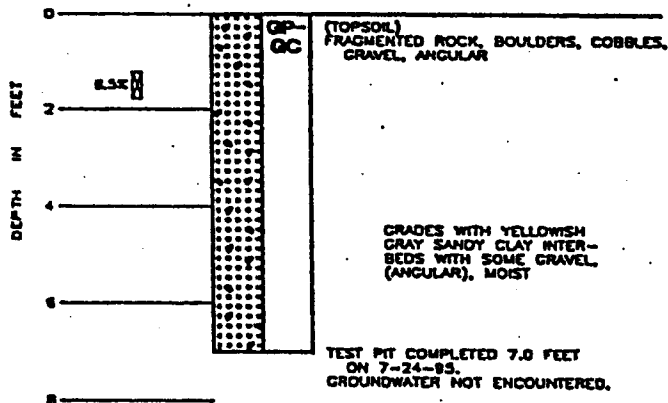


### TEST PIT TP-6



Ent 309761 Bk 0902 Pg 0621

### TEST PIT TP-7



- KEY**
- A - B ■ FIELD MOISTURE EXPRESSED AS A PERCENTAGE OF THE DRY WEIGHT OF SOIL
  - B ■ DRY DENSITY EXPRESSED IN LBS. PER CUBIC FOOT
  - DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED
  - DEPTH AT WHICH DISTURBED SAMPLE WAS EXTRACTED
  - BULK SAMPLE

## LOG OF TEST PITS

*Elkhorn Mountain*



*Staghorn Village*

## SOILS/GEOLOGY

This chapter of the Environmental Impact Statement is divided into two main sections:

- Soils, and
- Geology

The Soils section follows on page 2, and the Geology section begins on page 16.

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*Elkhorn Mountain*



*Staghorn Village*

# SOILS

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the Soils section of this Chapter.

## SOILS BACKGROUND INFORMATION

- SOILS - PARK CITY AREA
- SOIL SURVEY OF THE HEBER VALLEY
- GRADING ORDINANCES
  - Wasatch County
  - Park City
- PERCOLATION RATES
  - Wasatch County Health Department
  - State Health Department
- ADJACENT SITE CONDITIONS
- FLOOD HAZARDS, EARTHQUAKE HAZARDS, and PROBLEM SOILS

- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 9.

## SOILS SITE SPECIFIC INFORMATION

- SITE REPORT - ENGINEERING GEOLOGY RECONNAISSANCE
  - Surface and Subsurface Soil Hazards
  - Discussions and Recommendations
    - Spread and Continuous Wall Foundations
    - Installation
    - Earth Pressure and Lateral Resistance
    - Earthwork
      - Site Preparation
      - Soil Excavations
      - Fill Material
      - Fill Placement and Compaction
    - Pavements

## Soils Background Information

### SOILS - PARK CITY AREA

According to the reference: "Engineering Geology of Park City, Summit County, Utah, dated June 1984, prepared by Utah Geological and Mineral Survey, Special Studies 66":

*"Soils [in the area] are predominately gravelly, but fine-grained materials (silts and clays) are found in valley bottoms and along drainage channels. Expansive*



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clays occur locally in the alluvium-filled valleys. Rock materials are resistant quartzite and limestone in the south and less resistant shale, siltstone, and mudstone in the north."

## SOIL SURVEY OF THE HEBER VALLEY

The reference "Soil Survey of Heber Valley Area, Utah," dated April 1976, prepared by "United States Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with Utah Agricultural Experiment Station," provides general soils information for properties located in the Heber Valley and Wasatch County. Based on information contained in this report, the subject property contains the following types of soils with the general characteristics indicated:

The following are descriptions of these soils taken from the report:

### WESTSIDE PROPERTY

CNF.....	49.74 acres
HGF.....	1.27 acres
HJE.....	106.78 acres
HWE.....	3.11 acres

### EASTSIDE PROPERTY

BPF.....	1.59 acres
CNF.....	0.11 acres
HJE.....	7.98 acres
HWE.....	47.44 acres

### BROADHEAD SERIES

The broadhead series consists of well-drained soils. These soils formed on terminal moraines, mountainsides, and alluvial fans in alluvium and colluvium derived from andesite. Slopes range from 5 to 60 percent. The elevation ranges from 6,000 to 7,000 feet. The vegetation is mainly wheatgrass, native bluegrasses, oakbrush, snowberry, geranium, and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is ordinarily 50 to 70 days. Soils of the irrigated valleys have a frost-free period of about 80 days.

In a representative profile the surface layer is dark grayish-brown very cobbly loam and heavy loam about 12 inches thick. The subsoil is about 32 inches thick. It is brown clay in the upper 22 inches and light brown clay loam in the lower 10 inches. The substratum is pale-brown silt loam to a depth of 60 inches. The soil is mainly neutral but ranges to slightly acid to mildly alkaline in some layers.

Bradshaw soils are slowly permeable. The available water capacity is 9 to 10 inches. The water-supplying capacity is 15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used mainly as range for livestock and wildlife. They also serve as catchment areas for water and provide sites for recreation. Broadhead very cobbly loam, 40 to 60 percent slopes, is mapped only as part of the Broadhead-Little Pole association, very steep.

Representative profile of Broadhead very cobbly loam, 40 to 60 percent slopes, in an area of Broadhead-Little Pole association, very steep, 2.5 miles northeast of Heber, 2,640 feet west and 1,000 feet south of northeast corner of sec. 21, T. 3 S., R. 5 E. in area of range. Laboratory data available.

**BROADHEAD-LITTLE POLE association, very steep (BPF).** - This mapping unit is on mountainsides that are mantled with glacial drift. It is about 35 percent Broadhead very cobbly loam, 20 percent Broadhead cobbly loam, and 30 percent Little Pole very cobbly sandy clay loam, all of which have slopes of 40 to 60 percent, and 15 percent other soils and Rock land. The Broadhead soils are mainly on the concave slopes where the glacial drift is thicker. The Little Pole soil is on the ridges and convex rocky slopes that have little or no glacial drift deposited. Broadhead very cobbly loam has the profile described as representative of the series. Broadhead cobbly loam has a similar profile, but has 20 to 50 percent cobbles in the surface layer. The Little Pole soil has the profile described as representative of the Little Pole series. Runoff is rapid, and the hazard of erosion is high.

Included with this unit in mapping are small areas of Broadhead loam and about 5 percent Rock land associated mainly with Little Pole soils.

This mapping unit is used mainly as spring and fall range for livestock and as winter range for deer. It also serves as a catchment area for water and provides sites for recreation. Broadhead very cobbly loam in capability unit VII-sM nonirrigated and Broadhead loam and cobbly loam in capability unit VIIe-M nonirrigated, Mountain Loam range site, wildlife group 3141; Little

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Pole soil in capability unit VII-M nonirrigated, Mountain Shallow Loam range site, wildlife group 4343.

tion. Capability unit VII-M nonirrigated; Mountain Loam range site; wildlife group 3141.

### CLOUD RIM SERIES

The Cloud Rim Series consists of well drained soils. These soils formed on southerly mountainsides, alluvial fans, and colluvial cones in alluvium and colluvium derived from mixed sedimentary rocks. Slopes range from 10 to 60 percent. The elevation ranges from 6,300 to 7,000 feet. The vegetation is mainly oakbrush, big sagebrush, serviceberry, snowberry, mountain laurel, bearded wheatgrass, and Letterman needlegrass. The annual average precipitation is 20 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is about 50 to 70 days.

In a representative profile the surface layer is grayish brown loam about 14 inches thick. The subsoil is light brown heavy loam and loam that extends to a depth of 60 inches. The soil is neutral to slightly acid. Cloud Rim soils are moderately permeable. The available water capacity is 10 to 11 inches. The water supply capacity is 15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and winter range for wildlife. They also serve as catchment areas for water and provide sites for recreation.

Representative profiles for Cloud Rim loam, 40 to 60 percent slopes, about 4 miles northwest of Midway Post Office, 1,920 feet west and 1,280 feet south of northeast corner of sec. 20, T. 3S., R. 4 E. in an area of range. Laboratory data available.

CLOUD RIM soils, 40 to 60 percent slopes (CNF) - This mapping unit is on southerly mountainsides. It is about 60 percent cloud rim loam and 30 percent Cloud Rim cobbly loam, both of which have slopes of 40 to 60 percent, and about 10 percent other soils. These soils are intermingled and either soil can dominate in a given area. Cloud Rim, 40 to 60 percent slopes, has the profile described as representative of the series. Cloud Rim cobbly loam has a profile similar to the one described as representative of the series, but the surface layer is 20 to 50 percent cobbles. Runoff is rapid, and the hazard of erosion is high. Included in mapping are small areas of Wallsburg soil.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides sites for recrea-

### HENEFER SERIES

The Henefer series consists of well-drained soils. These soils formed on alluvial fans and mountainsides of alluvium and residuum derived from mixed sedimentary rocks. Slopes range from 1 to 50 percent. The elevation ranges from 5,500 to 7,000 feet. The vegetation is mainly native bluegrass, wheatgrass, oakbrush, snowberry, geranium and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 43° F, and the frost-free period is generally about 50-70 days. In irrigated valleys the frost-free period is about 80 days.

In a representative profile the surface layer is dark grayish-brown silt loam about 12 inches thick. The subsoil extends to a depth of 60 inches. It is about 8 inches of brown cobbly heavy silt loam, 28 inches of brown cobbly and very cobbly clay, and 12 inches of brown very cobbly clay loam. The soil is neutral and slightly acid in the surface layer and medium acid to neutral in the subsoil.

Henefer soils are slowly to moderately slowly permeable. The available water capacity is about 7 inches. The water-supplying capacity is 13 to 15 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and wildlife. They also serve as a catchment area for water and provide site for recreation. Some areas are irrigated and cropped.

Representative profile of Henefer silt loam, 6 to 10 percent slopes, about 2 miles southwest of Wallsburg, 1,740 feet north and 520 feet east of southwest corner of sec. 24 T. 5 S., R. 4 E. in an area of range. Laboratory data available.

HENEFER-GAPPMAYER association, very steep (HGF). - This mapping unit is on mountainsides that have numerous spur ridges. It is about 35 percent Henefer silt loam and 20 percent Henefer cobbly silt loam, both of which have slopes of 25 to 50 percent; 35 percent Gappmayer gravelly fine sandy loam, 40 to 65 percent slopes; and about 10 percent Rock outcrop. Henefer soils occur on all exposures. The Gappmayer soil is mainly on the brushy, steep, northerly exposures. Henefer soils have a profile similar to the one described as representative of the series, but the surface layer of Henefer

cobbly loam is 35 percent cobbles. Runoff is rapid, and the erosion hazard is high.

Included with this unit in mapping are small scattered areas of Rock outcrop.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides sites for some types of recreation. Henefer soils in capability unit VIIe-M nonirrigated, Mountain Loam range site, wildlife group 3141; Gappmayer soil in capability unit VIIe-M nonirrigated, Mountain Gravelly Loam (Oakbrush) range site, wildlife group 3242.

**HENEFER SOILS, 25 to 50 percent slopes (HJE).** - This mapping unit is on the lower mountainsides. It is about 60 percent Henefer silt loam and 30 percent Henefer cobbly silt loam, both of which have slopes of 25 to 50 percent, and about 10 percent other soils and Rock outcrop. The Henefer soils are intermingled; either can dominate in a given area. They have a profile similar to the one described as representative of the series, but the surface layer of Henefer cobbly silt loam is 35 percent cobbles. Runoff is rapid, and the erosion hazard is high.

Included with this unit in mapping are scattered areas of Rock outcrop and whitish limy soils on ridges having southerly exposures.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides sites for some recreation. Capability unit VIIe-M nonirrigated; Mountain Loam range site; wildlife group 3141.

**HORROCKS SERIES**

The Horrocks series consists of well-drained, very cobbly soils. These soils formed on mountainsides in glacial drift derived mainly from andesite rocks. Slopes range from 6 to 60 percent. The elevation ranges from 5,500 to 7,500 feet. The vegetation is mainly bluebunch wheatgrass, slender wheatgrass, native bluegrasses, balsamroot, big sagebrush, and oakbrush. The average annual precipitation is 18 to 25 inches., the mean annual air temperature is about 44°F, and the frost-free period is about 50 to 70 days. In a representative profile the surface layer is very dark grayish-brown very cobbly sandy clay loam about 5 inches thick. The subsoil is dark grayish-brown and brown very cobbly sandy clay loam about 22 inches thick. The substratum is pale-brown very cobbly sandy loam about 14 inches thick. Andesite bed-

rock is at a depth of 41 inches. The soil is neutral to slightly acid throughout.

Horrocks soils are moderately permeable. The available water capacity is 4 to 5 inches. The water supplying capacity is 9 to 12 inches. Roots can penetrate to a depth of 40 inches or more.

These soils are used as spring and fall range for livestock and wildlife. They also serve as catchment areas for water and some provide sites for recreation.

Representative profile of Horrocks very cobbly sandy clay loam in an area of Horrocks-Broadhead association, steep, about 15 miles southwest of Heber, 2,575 feet south and 940 feet east of the corner of sec. 32, T. 4 S., R. 4 E., in an area of range. Laboratory data available.

**HORROCKS-BROADHEAD association, steep (HWE).** - This mapping unit is on hilly to steep terminal moraines of the mountains. It is about 50 percent Horrocks very cobbly sandy clay loam, 15 to 40 percent slopes; 35 percent Broadhead loam, 25 to 40 percent slopes; and about 15 percent other soils and Rock outcrop. The Horrocks soil is mainly on southerly exposures, and it has the profile described as representative of the series. Broadhead loam has a profile similar to the one described as representative of the Broadhead series, but its surface layer is less than 20 percent cobbles. Runoff is rapid, and the hazard of erosion is high.

Included with this unit in mapping are small areas of Broadhead cobbly loam and scattered areas of Rock outcrop

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides some sites for recreation. Wildlife group 2141; Horrocks soil in capability unit VIIs-M nonirrigated, Mountain Stony Loam range site; Broadhead soil in capability unit VI-eM nonirrigated, Mountain Loam range site.

Based on the soils report, the following indicates the typical depth to ground water in inches:

Soil .....	depth to ground water
BPF .....	>60
CNF .....	>60
HGF .....	>60
HJE .....	>60
HWE .....	>40

Based on the soils report, the following indicates the typical depth to bedrock in inches.

Soil .....	depth to bedrock
BPF.....	12 - 24
CNF.....	>60
HGF.....	>60
HJE.....	>60
HWE.....	>40

Based on the soils report, the following indicates the degree and kind of limitation of each soil for septic tank absorption fields:

Soil .....	limitation
BPF.....	severe*
CNF.....	moderate < 15% slope < severe
HGF.....	severe**
HJE .....	slow permeability
HWE .....	moderate < 15% slope < severe, moderate permeability

- \* shallow over bedrock; steep.
- \*\* slow permeability; bedrock a problem in places.

These soils are typical of those found in Wasatch County and should not preclude development of the land in question.

## GRADING ORDINANCES

### WASATCH COUNTY

Grading construction within Wasatch County is governed by Chapter A33 Excavation and Grading, of the Uniform Building Code, 1994 edition. Pertinent sections taken from this code relating to cut and fill slopes follow:

#### CUTS

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**Slope:** The slopes of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than 2 horizontal to 1 vertical unless the owner furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property.

**Drainage and Terracing:** Drainage and terracing shall be provided as required by Section 7012.

#### FILLS

**Fill Location:** Fill slopes shall not be constructed on natural slopes steeper than two to one.

**Slope:** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than two horizontal to one vertical.

**Drainage and Terracing:** Drainage and terracing shall be provided and the area above fill slopes and the surfaces of terraces shall be graded and paved as required by Section 7012.

**Drainage and Terracing, Terrace:** Terraces at least 6 feet in width shall be established at not more than 30-foot vertical intervals on all cut and fill slopes to control surface drainage and debris except that where only one terrace is required, it shall be at midheight. For cut and fill slopes greater than 60 feet and up to 120 feet in vertical height, one terrace at approximately mid-height shall be 12 feet in width. Terrace widths and spacing for all cut and fill slopes greater than 120 feet in height shall be designed by the civil engineer and approved by the building official. Suitable access shall be provided to permit proper cleaning and maintenance.

**Swales or ditches on terraces** shall have a minimum gradient of 2 percent and must be paved with reinforced concrete not less than 3 inches in thickness or an approved equal paving. They shall have a minimum depth at the deepest point of 1 foot and a minimum paved width of 5 feet. A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a down drain.

**Interceptor Drains:** Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than 40 feet measured horizontally. Interceptor drains shall be paved with a minimum of 3 inches of concrete or gunite and reinforced. They shall have a minimum depth of 12 inches and a minimum paved width of 30 inches measured horizontally.

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across the drain. The slope of the drain shall be approved by the building official.

**PARK CITY**

Grading within Park City is governed by section 501 of the reference: "Park City Design Standards, Construction Specifications and Standard Drawings, April 1988, Park City Municipal Corporation." Pertinent sections taken from this code relating to cut and fill slopes follow:

*The maximum allowable slope on cuts or fill embankments shall be 2:1 unless justified by specific site tests conducted by a Soils Engineer and approved by the City Engineer. Any changes in slide slopes shall be smoothly graded to avoid abrupt transitions. UBC Chapter 70 and Park City Erosion Control Guidelines shall be strictly adhered to..... unless otherwise shown on the Approved Plans, the fill slopes resulting from the roadway or drainage channel construction shall be graded no steeper than two (2) horizontal to one (1) vertical (2:1).*

**PERCOLATION RATES**

The following are acceptable limits, percolation rates, minimum depth to bottom of pipe, minimum depths to ground water etc. for both Wasatch County and State Health Department standards:

**WASATCH COUNTY HEALTH DEPARTMENT**

**Percolation rates**

slowest allowable rate: 60 min/inch

fastest allowable rate: 4 min/inch

**Clearances**

minimum depth to bottom drain pipe: 1'

minimum clearance, pipe to ground water: 4'

minimum distance ground water below surface: 5'

**STATE HEALTH DEPARTMENT**

**Percolation rates**

slowest allowable rate: .....60 min/inch

fastest allowable rate: .....2 min/inch

**Clearances**

minimum depth to bottom drain pipe: 2'

minimum clearance, pipe to ground water: 2'

minimum distance ground water below surface: 4'

County standards may preempt State standards where they are more restrictive.

**ADJACENT SITE CONDITIONS**

The report "Engineering Geology Reconnaissance and Geotechnical Study, Telemark Park Proposed Development," dated December 1988, prepared by Dames & Moore, has been prepared to provide specific geotechnical design input for the adjacent properties.

The report describes soils on the subject properties as follows:

*"Slopes are generally covered with less than six feet of soil deposits over bedrock. Valley bottoms contain at least 10 feet of soils over bedrock.*

*In general, the subsurface soils consist of colluvial, alluvial, and/or residual deposits ranging from clay to gravel-sized soils which overlie bedrock. The soil deposits are generally dense or stiff in consistency. No extremely soft soils were encountered. The bedrock consists of limestone, chert, shale, sandstone and volcanics. Bedrock is generally moderately to severely weathered. Based on the results of geologic reconnaissance and field exploration, most of the project area soil cover appears to be fairly thin and the depth to bedrock is shallow. Soil cover on 30 to 40 percent slopes is roughly 0 to 6 feet in thickness. Soil cover in valleys and in lowland areas with shallower slopes range up to 12 feet in thickness in our test pits; however thicker soil deposits are likely.*

*The mountain sites are typically mantled by roughly 0 to 6 feet of colluvium. Thickness of colluvium generally increases downslope.*

*The valley bottoms or natural drainage courses are typically filled with at least 10 feet of colluvium and/or alluvium."*

The report concludes that the proposed projects are feasible from a geotechnical standpoint, and contains specific conclusions and recommendations relating to the following general subjects:

- ground water table,
- slope stability,
- spread and continuous wall foundations,
- installation,
- settlement,
- lateral resistance,
- floor slabs,
- site preparation,
- excavations and fill material,
- fill placement and compaction,
- cut and fill slope angles,
- collapsible soils,
- site layout,
- geoseismic setting,
- faulting, and
- liquefaction.

Selected specific soils conclusions in the report are as follows.

*The majority of construction is sensibly planned on southern exposures which typically have a lower accumulation of snow pack, and therefore lower infiltration of runoff into soils, making them drier and generally more stable than north facing slopes.*

*Based upon the results of this preliminary design study, it is our opinion that the majority of the development concepts are feasible from a geotechnical standpoint.*

*Even though severe slope instability has not been observed within the proposed development property, it must be considered in the layout and design of proposed roadways and structures.*

*The majority of excavations and roadcuts will be in bedrock with favorable bedding orientation, and therefore most development should not increase the risk of major slope stability hazards. Large cuts will be necessary for roads built on the very steep slopes.*

*There is no evidence of major rill or gully erosion in the present condition of the steep slopes.*

*Based on the results of our soils erosion assessment, it is our opinion that development of the site can be done in a manner that does not result in excessive erosion of site soils. The existing conditions at the site indicate that erosion is not a dominant active process.*

*The soils exhibiting pinhole texture do not appear extensive. The results of laboratory bulk density determinations are fairly low but not extremely low, indicating the collapse potential is probably low.*

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*It is our opinion that the presence of some potentially collapsible soils does not preclude construction.*

*The results of the expansive soil analysis indicates that swell potential over much of the planned development areas is low. On this basis expansive soils should not be considered a construction constraint over the site in general.*

*No severe signs of past or immanent slope instability were observed on the site in conjunction with this study. Local areas of soil creep or hummocky soils were encountered on some north-facing slopes.*

*Several shafts, adits, prospect pits and underground workings occur on the property.*

*Underground workings greater than 100 feet in depth are not anticipated to cause surface subsidence at the site.*

*More extensive underground workings lie northwest of Uintah Hill and Bald Eagle Ridge, and near Roosevelt Gap. These, however, are at considerable depth and do not appear to cause a surface subsidence problem.*

*Bedrock material excavated by blasting or ripping is likely to be too large to use as compacted backfill without processing to either remove oversize material or crush the over-size material to suitable sizes.*

*Settlement of properly installed foundations should be relatively small and should not adversely affect structures.*

*The presence of moisture sensitive soils, both expansive and collapsible, may affect the construction and layout of roadways but is not considered a major construction constraint.*

*Selected specific soils recommendations in the report are as follows.*

*Raveling and small-scale instability should be expected on such cuts. Where rock is highly fractured or thick soil deposits occur, retaining structures may be required.*

*Erosion control practices will need to be utilized during the development of the site.*

*We recommend that erosion control practices be utilized during site development. These practices include minimizing the amount of erodible bare ground exposed to the erosive process.*

*We recommend that no permanent structures be build directly over or within the angle of draw of any*

*underground working less than 100 feet in depth unless they have been backfilled*

*We recommend that the deep shafts (the East Ontario and the St. Louis-Ontario shafts) be capped with a properly-designed reinforced concrete plug then covered with soil. No permanent structures should be built within 100 feet of the shafts.*

*The adits are less of a problem since most are small. Adit openings should be sealed, covered and revegetated.*

*Prospect pits should be filled.*

*All areas where pavement or structures will be constructed should be stripped of topsoils. Stripped materials will be unsuitable for use as structural fill, but may be stockpiled for landscaping purposes.*

*For preliminary design and budgetary purposes we recommend that foundations supported on suitable natural soils be proportioned utilizing a net maximum soil bearing pressure of 2,500 pounds per square foot ..... Footings established upon bedrock may be proportioned utilizing a conservative maximum net bearing pressure of 4,000 pounds per square foot.*

*Due to the clayey nature of most on-site soils in the Phase I we recommend that all final fill/cut slopes in soil greater than six feet in height be planned no steeper than two to one (horizontal to vertical).*

*Cut slopes in clayey soils primarily for roadways, less than 6 feet in height, may be constructed no steeper than 1 to 1. Cut slopes in granular soils will require flatter slopes, roughly 1 1/2 to 1.*

The above information is included in this report since the Telemark Park project is directly adjacent to the subject property.

## **FLOOD HAZARDS, EARTHQUAKE HAZARDS, and PROBLEM SOILS**

The reference: "Flood Hazards, Earthquake Hazards, and Problem Soils, Western Wasatch County, Utah, Plate 2A," Utah Geological Survey, Michael D. Hylland and Mike Lowe, 1995, indicates the following for the subject property:

### **WESTSIDE PROPERTY**

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- Map Unit: none applicable,
- Relative Hazard: none,

### **EASTSIDE PROPERTY**

- Map Unit: none applicable,
- Relative Hazard: none,

# Soils Site Specific Information

## **SITE REPORT - ENGINEERING GEOLOGY RECONNAISSANCE**

A site specific engineering geology/geotechnical study for the subject property has been prepared and is included in Volume 2 of this report as the reference: Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Stag Horn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineering Geologist.

The following is soils engineering data taken from the report:

## **SITE CONDITIONS**

### **4.2 SURFACE AND SUBSURFACE SOIL HAZARDS**

#### **4.2.1 SURFACE**

#### **WESTSIDE**

*The site west of U.S. Highway 40 (westside portion of the property) generally slopes moderately steeply downward towards the north and east or steeply downward towards the south. North and east facing slope are on the order of 30 to 40 percent grade whereas grades*

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on south facing slopes are on the order of 40 to 60 percent. These slopes will generally be utilized as "common areas" with minimal development. Several relatively flat areas, grades of 10 to 25 percent, are present as indicated on Plate 1. Exclusive homesites are anticipated for these areas. Homesite locations will generally be confined to relatively flat areas on ridge tops.

Vegetation on the upper site (westside portion of the property) ranges from moderate to heavy and consists primarily of oak brush, sage brush, aspen trees, and grasses. Heavy oak brush blankets much of the site. Elevations range from 6900 to 7685 feet. Abundant bedrock outcrops are present on ridge tops and on steep south facing slopes.

Several mine dumps, adits, and shafts are present on the upper site (westside portion of the property). The majority of these are confined to steep south dipping slopes on the south side of the site. However, abandoned shafts and adits were also located on the north-south trending ridge that has been targeted for development. The approximate location of mine workings are presented on Plate 3.

#### EASTSIDE

The lower site (eastside portion of the property) east of U.S. Highway 40 generally slopes moderately downward to the east and southeast. The overall slope of the site is on the order of 10 to 20 percent except where dissected by intermittent drainages and near the extreme south side. Two intermittent drainages running east-west and north-south are located in the east and south portions of the site, respectively. Near the drainages slopes range from 15 to 25 percent. On the extreme south side, slopes higher than 25 percent are not uncommon. Elevations range from 6435 to 6635 feet.

The lower site (eastside portion of the property) is covered by moderate to heavy vegetation consisting of oak brush, sage brush, grass, and cactus. Heavy stands of oak brush are common. Occasional bedrock outcrops are exposed at higher elevations on the north side of the site and are generally devoid of vegetation. Several dirt roads traverse the site, as well as a buried gas pipeline.

#### 4.2.2 SUBSURFACE

#### WESTSIDE

##### Upper Site - (westside portion of the property)

Due to the inaccessibility of the upper site with excavating equipment, soil types were determined from road cuts or similar exposures. Soils over much of the site are relatively thin, on the order of 1 to 3 feet, and consist of colluvium deposits. The steep grades prevent thick accumulations of soils, with the exception of occasional swales where aspen trees are located. Soils are expected to range up to 10 feet in depth in the major swales. In the areas anticipated for development, the maximum depth of soils is expected to be 7 feet with the majority less than 5 feet.

Soils generally consist of shallow topsoil underlain by silty to clayey gravel and cobbles. Abundant bedrock fragments are present. Deeper colluvium deposits are expected to consist of sandy clay and clayey sand.

Bedrock outcrops are exposed throughout the site, particularly on hill tops and ridge tops. Throughout the majority of the site and in all areas planned for development, bedrock consists of sandstone, siltstone, and occasional limestone deposits. These deposits are generally lightly to moderately weathered and form vertical outcrops.

The lower parts of the steeply dipping slopes of the south portion of the site will encounter purplish to red shale and siltstone. These deposits are less competent and are subject to moderate to intense weathering. Instability of these deposits may be anticipated, particularly if steep road cuts traverse this material.

#### EASTSIDE

##### Lower Site - (eastside portion of the property)

Subsurface conditions at the lower site (eastside portion of the property) were explored by excavating seven test pits with a track mounted backhoe. Test pits ranged from three to twelve feet in depth. Test pit locations are indicated on Plate 2. Test pit logs are included as Plates 7A and 7B.

Subsurface conditions, as characterized by the test pits, are variable. Variability is generally related to the



depth at which bedrock was encountered. Test pits TP-2, TP-3, and TP-7 encountered bedrock within 5 feet of the ground surface. In test pits TP-4 and TP-6 bedrock was overlain by 8.5 to 10.0 feet of surficial deposits. Test pits TP-1 and TP-5 extended to 11 and 12 feet respectively, without encountering bedrock.

Bedrock, as exposed near higher elevations on the north end of the site and as encountered in test pits TP-2, TP-3, and TP-7 consisted of gray volcanic breccia. The bedrock was generally weathered near-surface into clayey gravel and cobbles. Depending on the weathering profile, bedrock was excavatable to depths of three to five feet.

Surficial deposits consist of topsoil, colluvium, and some alluvial deposits in the major drainages. Deeper surficial deposits are associated with drainages or are located in areas of thick oak brush. Topsoil is typified by dark brown sandy to clayey soils with abundant organics. The organics become less prevalent at depth, however, they can extend to depths up to seven feet as encountered in test pits TP-1, TP-5 and TP-6. With depth the surficial deposits consist of stiff sandy clay or loose to medium dense clayey sand. Clayey gravel was encountered in test pit TP-1 at depths of 10 to 12 feet. Organic silt and clay encountered in test pit TP-6 swelled up to 4.65 percent when saturated.

Groundwater was not encountered in any of the test pits, however, areas of vegetation in the site indicate that perched groundwater may be relatively shallow during the spring months. Perched groundwater may also be encountered in the drainage bottoms during the spring.

## 5. DISCUSSIONS AND RECOMMENDATIONS

### 5.1. SPREAD AND CONTINUOUS WALL FOUNDATIONS

#### WESTSIDE AND EASTSIDE

Preliminary analyses indicate that conventional shallow spread and continuous wall footings established upon suitable soils or bedrock may be used to support anticipated structures. For preliminary design and for budgetary purposes, shallow spread or continuous wall footings with a minimum dimension of 1.5 feet established upon suitable clayey soils may be proportioned utilizing a net bearing pressure of 1500 pounds per

square foot. Footings established on suitable granular soils may be proportioned with a net bearing pressure of 2500 pounds per square foot and footings established on bedrock may be proportioned utilizing a conservative net bearing pressure of 4,000 pounds per square foot. We recommend that site specific investigations be performed to refine bearing values under significant structures.

The term "net bearing pressure" refers to the pressure imposed by the portion of the structure located above the lowest adjacent grade. Therefore, the weight of the footing and backfill above the lowest adjacent grade may be neglected. For total load conditions, i.e. the combination of all dead loads, infrequently applied live loads, wind, and seismic loads, the recommended bearing pressure may be increased by one third.

## 5.2. INSTALLATION

### WESTSIDE AND EASTSIDE

All foundations exposed to the full effects of frost should be established at a minimum depth of 3.0 feet below the lowest adjacent final grade. Interior footings, that are not subjected to the full effects of frost may be established at higher elevations, however, a minimum depth of embedment of 18 inches is recommended for confinement purposes. The minimum recommended footing width is 18 inches for continuous wall footings and 24 inches for isolated spread footings.

Under no circumstances should foundations be established upon non-engineered site fill, loose or disturbed natural site soils or bedrock, sod, rubbish, construction debris, frozen soil, moisture sensitive soils, or within standing water. If the soils upon which the footings or foundations are to be established become loose or disturbed, they must be recompacted before concrete placement.

If unsuitable materials are encountered at footing elevations, these materials should be totally removed and replaced with compacted granular structural fill.

## 5.3. EARTH PRESSURE AND LATERAL RESISTANCE

### WESTSIDE AND EASTSIDE

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Lateral loads imposed upon foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footing and supporting soils. In determining the frictional resistance, a coefficient of friction of 0.30 for concrete against natural clayey soils and 0.45 for concrete against granular soils or structural fill may be used. Passive resistance generated by suitable site soils may be considered equivalent to a fluid having a density of 350 pounds per cubic foot. Passive resistance generated by suitable granular site soils or granular structural fill may be considered equivalent to a fluid having a density of 450 pounds per cubic foot. A combination of passive earth pressure and friction may be utilized provided the total is divided by 1.5.

## 5.4 EARTHWORK

### 5.4.1. SITE PREPARATION

#### WESTSIDE AND EASTSIDE

Preparation of each site for construction should include the removal of all debris, rubble, existing non-engineered fill material, soft or loose soils, topsoil, and other deleterious material from areas that will ultimately be structurally loaded. Where deeper deposits of organic clay is encountered, these should also be removed. Topsoil should be stockpiled for landscaping purposes. Existing vegetation should be preserved as much as possible.

Subsequent to the removal of deleterious material and prior to placement of structural elements, pavement, or structural fill, the subgrade should be proof-rolled by passing moderately loaded, rubber tire-mounted, construction equipment over the surface at least twice. If soft or loose soils are identified, such soils should be removed and replaced with granular structural fill.

In those areas where suitable near-surface soils have been disturbed, they should be scarified and recompacted to structural fill standards prior to the placement of pavements, foundations, or floor slabs. Compaction of suitable near-surface disturbed soils should be as recommended for structural fill in later sections of this report. Following the above operations, pavements, floor slabs, replacement fill, and/or structural fill may be placed.

### 5.4.2. SOIL EXCAVATIONS

#### WESTSIDE AND EASTSIDE

##### Temporary Excavations

Temporary construction excavations up to 4 feet in depth may be constructed with near-vertical side-slopes. Deeper excavations in soils on the order of 8 feet in depth should be constructed with side-slopes no steeper than one horizontal to one vertical (1H:1V). Deeper excavations in rock may be constructed with vertical side-slopes, however, scaling of loose material should be performed prior to entering the excavation. Soils near the top of excavations should be benched back to minimize raveling problems. All excavations should be frequently inspected by qualified personnel to evaluate stability. If near-surface soils become saturated by precipitation, flatter slopes may be required to maintain stability.

##### Permanent Excavations

We anticipate that permanent open cuts will only be required for access roads and will generally be confined to the upper site west of U.S. Highway 40. Stability of cuts will be dependent on the depth of soil and the degree of fracturing, weathering, and on discontinuity orientation in bedrock.

Based on our geologic reconnaissance, the majority of cuts for access roads will be within shallow soils and bedrock. Road cuts within the Park City Formation will encounter moderately competent limestone and sandstone. Permanent cuts in rock of one-half horizontal to one vertical (0.5H:1V) are recommended in the Park City Formation.

The Thaynes Formation will consist of sandstone, siltstone, limestone, and minor shale. Due to the variable nature of rock that may be encountered, preliminary cuts ranging from one horizontal to one vertical (1H:1V) to one-half horizontal to one vertical (0.5H:1V) are recommended. Once alignments are finalized, we recommend that site-specific investigations be performed to minimize cut heights.

The Woodside Shale may be encountered in road cuts on the southern portion of the site. The Woodside Shale is expected to be intensely weathered and prelimi-

nary cuts of one horizontal to one vertical (1H:1V) are recommended.

If permanent road cuts are required on the lower site (eastside portion of the property) east of U.S. Highway 40 in the Keetley Volcanics, similar cut slopes are recommended. If areas of deep soil deposits are encountered, preliminary road cuts of two horizontal to one vertical (2H:1V) are recommended. Due to the anticipated variability in material encountered in road cuts, detailed investigations should be performed once final alignments are determined to minimize cut heights and slope angles.

**5.4.3. FILL MATERIAL**

Structural fill is defined as all soils placed that will be subjected to structural loads such as imposed by footings, floor slabs, or pavements. Granular structural fill is defined as fill material that is imported onto the site from an approved fill source or granular site soils that meet the requirements for granular structural fill. Based on our observations, it will be difficult to obtain adequate structural fill from on-site sources without significant processing. Bedrock that is excavated by ripping or blasting will require processing or crushing. Granular soils, particularly from the upper site, may selectively be utilized as structural fill. Soils encountered in the lower site contain high percentages of silt, clay, and organics and will be difficult to place and recompact, particularly in wet weather. Importing of structural fill, particularly for roadbase material should be anticipated.

Relatively "clean" granular soils should be utilized as granular structural fill. A fill source generally meeting the characteristics of Section 301 - Untreated Base Course of the State of Utah Standard Specifications for Road and Bridge Construction (1979 Edition), will meet the requirements for relatively "clean" granular soils. This gradation is summarized in Table 6.

**TABLE 6**

Sieve Size	Gradation Percent Passing	Gradation Tolerance
1.0inch	100	0
0.5inch	85	±6

No. 4	55	±6
No. 16	31	±4
No. 200	9	±2

It is recommended that all granular structural fill and replacement structural fill be free of sod, rubbish, frozen soil, and other deleterious substances. The maximum particle size for granular structural fill and replacement structural fill should generally not exceed two inches. The maximum particle size for structural fill placed within confined areas should generally be restricted to one inches. It should be noted, however, that occasional larger particles not exceeding six to eight inches may be incorporated and placed randomly in a manner such that "honeycombing" does not occur, the required compaction can be achieved, and they are not contained in the upper one foot of material directly underlying a floor slab, foundation, or pavement element.

**5.4.4. FILL PLACEMENT AND COMPACTION**

Subsequent to stripping and excavation and prior to the placement of structural fill, the subgrade should be prepared as discussed in the SITE PREPARATION section of this report. In confined areas subgrade preparation should consist of the removal of all loose and disturbed soils.

All granular structural fill and replacement structural fill should be placed in lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 95 percent of the maximum dry density as determined by the ASTM D-1557 (AASHTO T-180) method of compaction. Granular structural and replacement structural fill should extend at least six inches beyond the edges of slabs or pavement in all directions for each foot of fill below slabs or pavement.

**5.5. PAVEMENTS**

**Preliminary Pavement Design**

Based on soil classifications and CBR values, near surface soils particularly in the lower site are expected to provide poor to fair pavement support when properly compacted. Assuming medium-light traffic (a maximum

of 1000 vehicles per day with less than 5% loaded two-axle trucks) and medium-heavy traffic (medium-heavy traffic includes up to 15% two-axle trucks and occasional three-axle trucks), preliminary pavement designs have been developed.

For medium-light traffic the following preliminary pavement design is recommended:

- 3.0 inches - asphalt concrete
- 6.0 inches - granular base
- 3.0 inches - granular subbase
- over - prepared subgrade

For medium-heavy traffic the following pavement design is recommended:

- 4.0 inches - asphalt concrete
- 7.0 inches - granular base
- 4.0 inches - granular subbase
- over - prepared subgrade

Subgrade preparation should be as discussed in the SITE PREPARATION section of this report. Suitable subgrade soil in areas to be paved should be compacted to a depth of 12 inches to 95 percent of the maximum dry density as determined by Modified Proctor (ASTM D-1557). Untreated base course should contain a maximum particle size of 1.0 inch with less than 9 percent non-plastic fines passing the No. 200 sieve. The recommended loose thickness for base course is 8 inches. Asphalt concrete and base course components should meet requirements of and be placed in accordance with Utah Department of Transportation specifications.

**POTENTIAL IMPACT**

The potential impact of any proposed project on site soil conditions is:

- unstable soil conditions,
- expansive soil conditions,
- collapsible soil conditions,
- loss of significant topsoils.

**ENVIRONMENTAL IMPACT**

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The proposed project facilities will have the following probable impact on the environment.

- Site grading within the development will result in short term disturbance but long term stability with respect to site soils.
- Topsoils will be removed in areas of project construction. This is considered to be a short term effect which is subject to mitigation.

**MITIGATING MEASURES**

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- All Soils engineering and geotechnical recommendations contained in the site soils report: "Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Staghorn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineering Geologist"; shall be incorporated into project planning, design, plans, specifications, and construction review, and into individual home construction plans by individual lot owners.
- All Soils engineering recommendations regarding collapsible soils contained in the site soils report: "Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Stag Horn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineering Geologist"; shall be incorporated into project planning, design, plans, specifications, and construction review, and into individual home construction plans by individual lot owners for the construction of all structures.
- All topsoils removed in construction areas shall be stockpiled for later use in disturbed areas of the site, or in other areas within the project.

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- Grading construction activities will be monitored by a competent geotechnical engineer to insure compliance with geotechnical reports and recommendations, and to provide for unexpected conditions which may be encountered in the field.
- Grading construction shall be designed and constructed in accordance with Chapter A33 Excavation and Grading, of the Uniform Building Code, 1994 Edition.



# GEOLOGY

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the Geology section of this Chapter.

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 23.

## GEOLOGY BACKGROUND INFORMATION

- GEOLOGY - GENERAL
- JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT
- GEOLOGIC SETTING
- ADJACENT SITE ENGINEERING GEOLOGY

## Geology Background Information

## GEOLOGY SITE SPECIFIC INFORMATION

- SITE REPORT - ENGINEERING GEOLOGY RECONNAISSANCE
  - Geologic Setting
    - Stratigraphy
    - Structure
  - Development Overview
  - Engineering Geology And Geologic Hazards
    - Earthquake Ground Shaking
    - Surface Fault Rupture
    - Landslides
    - Rockfall
    - Debris Flows and Flooding
- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

## GEOLOGY - GENERAL

Geologic Hazards or sources of danger to life and property may generally be considered to be one or more of the following:

- 1. landslides,
- 2. ground surface subsidence,
- 3. mud flows, debris flows,
- 4. rock falls,
- 5. underground openings,
- 6. unstable foundation materials,
- 7. erosion,
- 8. floods,
- 9. snow avalanches,

- 10. shallow ground water,
- 11. earthquakes,
- 12. radon gas.

The Utah Geological and Mineral Survey, Hazards Section, issues public information bulletins on various natural geologic hazards which may occur in Utah. Certain UGMS bulletins are included in Volume 2 to serve as an introduction to possible hazards which may generally occur on properties:

- Building or Buying a Home in Utah,
- Pertinent Questions Relating to Geologic Hazards in Utah,
- Earthquake Faulting in Utah,
- Earthquake Hazard Situation in Utah,
- Earthquake Safety in Utah.

The listed possible general geologic hazards are next discussed in relationship to the subject property.

1. Landslides occur in the mountainous areas composed of sedimentary rocks intermixed with bentonite or clay layers. Other terms used for land slips are rock-slides, debris-slides and earth-slides, the difference being chiefly the predominate size of the material involved. Slips are usually preceded by periods of rainfall which saturate the soil and are then triggered by intense additional rainfall or earthquakes. Often highway cuts or rivers remove the lateral support for weak soil sections and contribute to later slides. There are a large concentration of slides along the Wasatch fault line, a zone lying on the west side of the Wasatch Mountains which is considered to be young and seismically very active.

There have been some recent landslides in the northern area of Wasatch County immediately south of the Jordanelle Dam which do not affect the subject property.

2. Ground surface subsidence often occurs over tunnels or previous underground excavations.

The subject property is not located in an area of previously known excavations, therefore special care will not have to be exercised to avoid ground surface subsidence from underground excavations.

3. Mud flows and debris flows generally originate in the mountains and appear as devastating flows in the outwash of canyons in which they originate. Prior to the flow there is usually a severe saturation of the ground surface involved. Liquefaction and loss of shear strength are usually brought on by a more intense rainfall - the triggering mechanism, so to speak.

Dames & Moore (project geologists) have not reported any landslides or mud flow areas on the subject properties.

4. Rock falls are normally associated with land which is directly adjacent and under steep mountainous slopes which are considered to be unstable. The hazard of falling rocks to life and property in these instances is certainly real.

Although the subject property is located in hilly terrain, they are not located at the base of any steep escarpments, and hence should not be subject to rockfall.

5. Underground openings which pose a threat to life typically are mine shafts or large well casings either of which have not properly been closed or sealed.

The subject property does contain remnants of historic mine adits therefore special care will have to be exercised to identify existing mine shafts and adits and comply with any State of Utah mine closure regulations.

6. The subject property does contain some unstable foundation materials such as clay. See the section of this report on "soils" for a more complete discussion of this subject.

7. The subject property is not considered to be subject to severe soil erosion. Although soil erosion could occur on newly graded steep slopes, "best management practices" will be utilized for the onsite containment of any soil transport. See the section of this chapter on "soils" and Chapter 20 - Water Quality for a more complete discussion of this subject.

8. The proposed development areas of the subject property are not located in any major flood paths, therefore should not be subject to major flood hazard. Minor drainage courses do exist on the properties and hydrology calculations have been prepared for these drainage courses. See Chapter 28 - Storm Water for a more complete discussion of this subject.

9. Snow avalanches are possible in mountainous areas, however the owner of the subject property has no record of any avalanches ever occurring on the property. As a precaution against avalanches, proposed development will avoid the base of any steep snow chutes or slide paths.

10. Proposed and actual development areas of the subject property will be confined to areas which do not contain shallow ground water or standing surface waters.

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□ 11. Earthquakes are certainly a threat to properties located in Utah and this danger may vary from high to slight depending upon the location within the state. Approximately 41 percent of the state is located in Seismic Zone 3 where major destructive damage may occur. Approximately 90 % of the population of Utah lies within this active seismic belt. The state is traversed by several north-south fault zones comprising a portion of the Inter mountain Seismic Belt. This active seismic belt coincides with a branch of the great world-encircling rift system. These fault zones are given names - Wasatch, East Cache, Sevier, and Hurricane. Ground surface displacements along these fault traces has been extensive in recent geological time. Vertical displacements of two feet are common along the Wasatch fault extending along the west side of the Wasatch Mountains. Over three-quarters of a million people (approximately 75% of Utah's population) live within 10 miles of the Wasatch Fault. The large displacements which have been recorded along many portions of the Wasatch Fault were probably accompanied by earthquakes of disastrous proportions. Although these earthquakes occurred prior to our historic time, it is apparent to geologists that they have occurred in the past, that the Wasatch Fault is presently active, and that earthquakes equal to at least magnitude 6.6 on the Richter scale (San Fernando, California earthquake of February 9, 1971) can be expected in the future. Approximately 22 % of the state is located in Seismic Zone 2 where moderate damage may be expected.

The map which is included in this chapter taken from the reference "Guidebook to the Geology of Utah, Utah Geological Society publication No. 18, 1964," indicates the five active fault zones in Utah: Hansel Valley, Wasatch, Sevier, Elsinore, and Hurricane Faults.

Earthquakes are generated along active surface fault zones and originate at some depth below the surface. Virtually all destructive earthquakes are generated by a sudden rupturing of the earth's surface. This break is called a fault. A fault is considered active if there has been surface displacement along the fault zone within recent geologic time (last 11,000 years). As an example of this activity in Utah, a 2 foot vertical displacement of ground surface occurred in 1934 north of the Great Salt Lake. Most of Utah's active faults occur within a north-south band through the center of the state. Earthquakes from buried faults can occur, but only rarely.

Of note on the previous map is that there are no fault or faults considered active in the Heber Valley.

Earthquake damage to buildings and other structures can vary based on:

- 1. earthquake magnitude
- 2. location of the epicenter of the earthquake in relation to the building location
- 3. structural design of the building
- 4. site soils and geologic conditions.

Earthquake magnitude level of 4.5 to 5.0 on the Richter scale can be expected to produce damage in ordinary buildings without earthquake resistant design.

Earthquake magnitude levels greater than 6.0 on the Richter scale are very destructive and pose hazards to public safety.

Earthquake magnitude levels greater than 7.0 on the Richter scale can cause collapse of non-earthquake designed structures and can be damaging to even seismically designed structures. A magnitude of 7.5 is believed to be possible along the Wasatch Front.

Also included in this chapter, is a seismic risk map of the Western United States showing the area of Utah covered by Seismic Risk Zone 3 (which includes Wasatch County). Also of interest is the Table listing damaging earthquakes in north-central Utah for the period 1850-1970. This information was taken from the reference "Environmental Geology of the Wasatch Front, 1971, Utah Geological Association Publication 1." Based on this Table, the closest damaging earthquake to the Heber area is the February 13, 1958 earthquake in the Provo-Wallsburg area shown as magnitude 4.9 on the Richter Scale.

It is the professional opinion of geologists that structures may be prudently placed within a fault zone, but not within a zone of deformation, or on an active or potentially active fault trace.

Based on the above evidence, the subject property is not located within an active fault zone, nor is it astride any fault trace.

Construction in fault zones is regulated in Utah by local building ordinances which usually adopt the Uniform Building Code. The UBC contains design parameters to be incorporated into the structural design of buildings based on a community's location within certain Seismic Zones. The Heber Valley is located in Seismic Zone 3. However, due to the stringent design requirements in this zone, the County of Wasatch is utilizing less restrictive state standards for seismic building construction requirements in the County.



Seismic zone 3 is subject to earthquakes of at least magnitude 7.1 on the Richter scale.

A catalog of north-central Utah earthquakes, 1850 through 1970 is included in Volume 2 of this report taken from the reference: "Environmental Geology of the Wasatch Front, 1971, Utah Geological Association Publication 1." Selected quakes which occurred in the vicinity of the Wasatch County, Summit County are highlighted by arrows. From this data, it is seen that the earthquakes recorded during this time period were magnitudes 3.7, 3.7, 2.4, 4.1, 2.3, 3.7, unknown, 2.3, 2.1, 2.2, 1.5, 2.1, 2.3, 2.6, 2.0, and 2.2 -all of which are considered to be minor.

The preceding data is further added to by a consideration of earthquake information for the years 1978 through 1983 taken from the following references:

Earthquake Data for the Utah Region, July 1, 1978 to December 31, 1980, University of Utah, Department of Geology and Geophysics, October, 1981,

Earthquake Data for the Utah Region, January 1, 1981 to December 31, 1983, University of Utah, Department of Geology and Geophysics, August, 1984.

Maps from these references and are also included in Volume 2 of this report for each of the above years.

Again, it is seen that earthquake magnitudes in the area have been minor for the time period considered.

Also included in this chapter, is a map taken from the reference: "Engineering Geology of Park City, Summit County, Utah, dated June 1984, prepared by Utah Geological and Mineral Survey, Special Studies 66" showing earthquake epicenters in the Park City area. Following the map is a table from the report included on page 16-23 showing information for each epicenter shown on the map: date, magnitude and location of earthquakes of Richter magnitude 2.0 and greater in the Park City area. From this chart it is seen that magnitudes of 3.7, 4.3, 2.5, 2.0, 4.3, 2.2, 2.5, 2.1, 2.4, 2.0, 2.0, 2.0, 2.5, 2.6, 2.3, 2.7, and 2.3 have been recorded during the period 1850 to 1983.

12. Radon Gas: Radon is an odorless, colorless, tasteless radioactive gas recently found in many buildings throughout the county in higher concentrations than anticipated. The Environmental Protection Agency estimates that 5,000 to 20,000 Americans will die each year from lung cancer caused by long-term radon inhalation. There is therefore a growing concern for the health consequences of long term exposure to elevated indoor radon levels.

Terrestrial concentrations of low-level radiation naturally occurring in rocks, water, and the atmosphere do not normally pose a significant health threat to humans. Radon, however, is a chemically inert and very mobile gas which is able to move through small open spaces in rocks and soils, and also through small cracks in building foundations and sub floor areas. Thus entering a building, radon can accumulate and concentrate in building areas having poor air circulation. For this reason higher concentrations of radon are often found in basements or parts of homes in direct contact with the ground. The problem has become more acute since the 1973 oil embargo which resulted the design of energy-efficient buildings which severely limit the loss of indoor air to the outside through above-grade joints, cracks, windows, walls, etc. Without adequate ventilation systems, radon gas entering these home can accumulate and concentrate.

Four factors contribute to the possible accumulation of radon gas in buildings:

- 1. rocks and soils must contain radium,
- 2. rocks and soils must promote the movement of radon through cracks and fissures,
- 3. the house must use porous building materials and contain openings below grade, and
- 4. the air pressure inside the building is lower than that outside.

It has been found that certain rock types and their structural condition do contribute to elevated indoor levels and these rock types and locations have been identified in Utah by the Utah Geological Mineral Survey. A map showing source areas of radon in the State of Utah taken from the report "Survey Notes, Volume 22, Number 4, Winter 1988, Utah Geological and Mineral Survey" is included in this chapter. The source areas are areas identified as having a greater chance of radon production based on geologic data only. Other factors such as permeability and possible movement of the gas through soils is not considered. From the map it is seen that the Park City area is identified as a generalized source of radon gas. The EPA has identified both geologic (rock type, permeability and porosity of soil, water saturation of soil and rocks, ground water levels) and non-geologic factors which directly influence indoor radon levels.

Since little can be done about the geologic factors (Items 1 and 2 above) which contribute to radon levels, appropriate preventive measures may be taken in the non-geologic factors to reduce indoor radon levels.

Building construction design and construction standards (Item 3 above) should incorporate provisions to reduce the ability of radon gas to enter buildings. Since

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radon usually enters building in the lower areas of the building in direct contact with the ground through foundation cracks, loose fitting utility pipes, sump pumps, floor drain pipes, cracked mortar joints, etc., care should be exercised in building construction to eliminate these areas of potential radon gas entry.

Home heating and air conditioning systems can create localized low pressure (Item 4 above) conditions inside a dwelling thereby creating a pressure differential between the outside and inside which can promote the movement of radon gas into the home through porous foundation materials. Also the lack of adequate ventilation and air circulation within buildings can allow accumulation and concentration radon gas. Heating and air conditioning systems should incorporate provisions to reduce the risk of indoor radon buildup within dwellings and common area facilities. Ventilating systems should therefore be designed for complete air circulation within the building, and for a complete change of the air in a building over an appropriate time interval through the mechanisms of a percentage outside air return and percentage inside air discharge to the outside.

## JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT

The following information was obtained from the reference: Jordanelle Dam and Reservoir, Provo River, Utah, Water Control Manual, Draft Environmental Assessment, US Army Corps of Engineers, March, 1996.

**4.3 Geology.** *Jordanelle Dam and Reservoir is located in a complex geologic area. The project site is in the transitional zone between the Wasatch and Uintah Mountain ranges. The area is one of uplift and intrusion of large igneous rocks, followed by lava flows, blowouts of volcanic ash and agglomerate, faulting, introduction of hydrothermal solutions with associated mineralization, extensive erosion, and deposition of thick overburden materials.*

*The dam and major portion of the reservoir site are underlain by Tertiary volcanic rocks. They are composed of andesite flows, tufts, and ashy agglomerate outcrops of sedimentary rock found at various points above or near*

*high water elevation. The outcrops protrude through the volcanic rock and indicate the uneven surface upon which the volcanic rock was lain. Drill holes indicate the volcanic rock to be several hundred feet thick near the center of the reservoir area. Near Hailstone Junction, some of the volcanic features are severely weathered and altered. The weathering of the rock could cause minor slumping on steep slopes during reservoir operation. Small slumps are now present along the left side of the reservoir due to alteration and side-slope erosion. A large slump of slide, located downstream on the left abutment, formed as a result of failure of the soft, ashy agglomerate. The left abutment, about 400 feet upstream from the slide, consists of hard andesite rock.*

*Faulting is present in the Provo River Basin as a result of uplift and forces related to intrusion of the large igneous rocks. Fault zones mapped by mining companies cross the valley from the Mayflower mine on the west to the vicinity of the Park Premier shaft on the east of the valley. The Cottonwood fault is located above the right abutment site and cuts into the reservoir several hundred feet upstream from the damsite axis. Other faults of less magnitude are also present.*

## GEOLOGIC SETTING

The following general geology maps and reports were available for review in this preliminary site analysis:

1. Generalized Geologic Map of the Heber-Kamas-Park City area, North Central Utah taken from State of Utah, Department of Natural Resources Technical Publication No. 27, 1970.
2. Generalized Geologic Map of the Area of Major Tributary Inflow to Utah Lake, Utah taken from State of Utah, Department of Natural Resources Technical Publication No. 46, 1974.

In T.P. No. 27, the westside of the subject property is indicated as "Mz" Mesozoic Rocks, undivided, and "Pz" Paleozoic Rocks, undivided. The eastside of the subject property is indicated as "Tg" Granitoid Rocks. A fault is shown to be located south of the subject property; however the mapping is not detailed enough to give an accurate distance from the fault to the subject property.

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In T.P. No. 46, the westside of the subject property is indicated as "Trt" Thaynes Formation and "Tap" Igneous Rock -extrusive igneous rocks, chiefly andesite pyroclastics. The eastside of the subject property is indicated as "Tra" Ankareh, and "Tig" Igneous Rock -Granitic Intrusive Bodies. A fault is shown to be located south of the subject property; however the mapping is not detailed enough to give an accurate distance from the fault to the subject property.

The following general geologic map, "GEOLOGIC MAP of the PARK CITY EAST QUADRANGLE, Summit and Wasatch Counties, Utah," dated 1971; by Calvin S. Bromfield and Max D. Crittenden, Jr, published by the U.S. Geological Survey, Washington D.C., was used to further describe the general geologic conditions in the subject property area. The geologic types are as follows:

#### WESTSIDE PROPERTY

*Trt: Thaynes Formation; Brown-weathering fine-grained limy sandstone and siltstone, interbedded with olivegreen to dull-red shale and gray fine-grained fossiliferous limestone.*

*TrW: Woodside Shale; -Dark- and purplish-red shale, siltstone, and very fine grained sandstone.*

*Faults: East Crescent Fault running east-northeast near the southern most extremity of the property. Another unnamed fault lies slightly to the north of the East Crescent Fault and runs parallel to it but is much shorter in length.*

#### EASTSIDE PROPERTY

*Trt: Thaynes Formation; Brown-weathering fine-grained limy sandstone and siltstone, interbedded with olivegreen to dull-red shale and gray fine-grained fossiliferous limestone.*

*Qoa: Alluvium and Glacial Deposits; Generally forms terraces adjacent to larger drainages, and caps high surfaces near Weber River just northeast of the map area. Not necessarily all of the same age.*

*Faults: None.*

Based on a review of these reports and the maps, the following conclusions were reached:

- 1. land in the area of the subject property appears to be stable from a geotechnical standpoint,
- 2. there are no known active faults in the area of the subject property, and
- 3. roads may be graded and constructed in the area of the subject property, subject to site specific geotechnical recommendations.

The reference: Landslide Hazard, Western Wasatch County, Utah, Plate 1A, Utah Geological Survey, Michael D. Hylland and Mike Lowe, 1995, indicates the following for the subject property:

#### WESTSIDE PROPERTY

- Map Unit: Predominately M and L,
- Relative Hazard: Moderate and Low,
- Recommended site-specific Studies: (Moderate) Reconnaissance-level geotechnical hazard evaluation; quantitative slope-stability analysis may be necessary.

(Low) None (except for essential facilities, where recommendations for moderate hazard apply)

#### EASTSIDE PROPERTY

- Map Unit: L,
- Relative Hazard: Low,
- Recommended site-specific Studies: None (except for essential facilities, where recommendations for moderate hazard apply)

#### ADJACENT SITE ENGINEERING GEOLOGY

The report: "Engineering Geology Reconnaissance and Geotechnical Study, Telemark Park Proposed Development, dated December 1988, prepared by Dames & Moore," has been prepared to provide specific geologic design input for the adjacent properties.

The report generally concludes that the proposed projects are feasible from a geotechnical standpoint, and contains specific conclusions and recommendations relating to the following general subjects:

- ground water table,
- slope stability,
- spread and continuous wall foundations,

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- installation,
- settlement,
- lateral resistance,
- floor slabs,
- site preparation,
- excavations and fill material,
- fill placement and compaction,
- cut and fill slope angles,
- collapsible soils,
- site layout,
- geoseismic setting,
- faulting, and
- liquefaction.

Selected specific geologic conclusions in the report are as follows.

*The property appears to be relatively free of significant geologic hazards but does have a construction constraint in the form of steep slopes and shallow bedrock which will probably require blasting for excavation*

*Even though severe slope instability has not been observed within the proposed development property, it must be considered in the layout and design of proposed roadways and structures.*

*Although the Park City area has not experienced a large earthquake in historic time, an earthquake of Richter magnitude 6 is considered possible.*

*No surface faulting has been recorded during any earthquakes in the Park City area, and no faults with geologic evidence of offset during the Quaternary have been identified.*

*The site is located within the Intermountain Seismic Belt.*

*The Wasatch fault which has a history of recurrent displacements ..... is located approximately 20 miles to the west and is thought capable of generating an earthquake of Richter magnitude 7.5.*

*Natural slopes in the project appear to be stable under present conditions.*

*We feel that bedding orientation is favorable for most of the presently planned roadcuts.*

*Road design on steep slopes should consist predominantly of cuts and the excavated material removed and used elsewhere.*

*Based on the results of our study, it is our opinion that the development plans are feasible from a stability standpoint. The existing natural conditions at the site indicate that slope stability is not an active problem.*

*The most severe construction constraint affecting the site is the presence of firm bedrock materials at shallow depths over most of the Phase I development. It is our opinion that some excavations may be possible with heavy ripping equipment; however we anticipate that blasting will be required for the most part.*

*Selected specific geologic recommendations in the report are as follows.*

*Raveling and small-scale instability should be expected on such cuts. Where rock is highly fractured or thick soil deposits occur, retaining structures may be required.*

*It is recommended that peak accelerations of 0.20 g be utilized for preliminary design purposes.*

*Local areas may require retaining structures where bedding orientation is unfavorable or where rock is very weathered or fractured.*

*We recommend that retaining structures be utilized on steep slopes where cut material is not of competent will-oriented bedrock.*

*We recommend that cuts over 10 feet in height be inspected by a qualified engineering geologist or geotechnical engineer.*

*Most of the construction of foundations and rock will require rock excavation:*

- *Such excavation in the Park City Formation (Ppc) will require blasting ..... we estimate permanent rock cut slopes of approximately 1/2 to 1 (horizontal to vertical).*
- *Rock cuts in the Thaynes Formation (Trt) may require design slopes anywhere from 2 to 1 to 1/2 to 1 depending on the strength and nature of the rock locally and orientation of the cut. For planning purposes we recommend an average cut slope of 1/2 to 1.*
- *Rock/soil cut slopes within the Woodside Shale (Trw) depending upon the condition and percentage of the rock within the cut, can be designed at 1 to 1 to 2 to 1. Assume 1 to 1 on an average for planning purposes.*
- *Cut slopes in rocks of the Keetley Volcanics (Tp, Tv) can be designed at 1 to 1 to 2 to 1. Assume 1 1/2 to 1 as an average.*

*The above information is included in this report since the Telemark Park project is directly adjacent to the subject property.*

# Geology Site Specific Information

## SITE REPORT - ENGINEERING GEOLOGY RECONNAISSANCE

A site specific engineering geology/geotechnical study for the subject property has been prepared and is included in Volume 2 of this EIS as the reference: "Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Stag Horn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineering Geologist."

The following is geology information taken from the report:

### GEOLOGIC SETTING

#### WESTSIDE AND EASTSIDE

##### GENERAL

The proposed project area is located within the Wasatch Range section of the Middle Rocky Mountain physiographic province in north-central Utah. Geologic information for this project was based on review of several available publications and our field reconnaissance. The principal references regarding the geology of the site include Bromfield and Crittenden (1971), Stokes (1986), Beeson (1940) and stereoscopic aerial photographs dated September 24, 1989 obtained from Olympus Aerial Photos.

##### STRATIGRAPHY

The bedrock stratigraphy in the project area is represented by three formations: the Woodside Shale, Thaynes Formation, and the intrusive Silver Creek Breccia of the Keetley Volcanics series (Plates 2 and 3).

Most of the rocks on the upper site are covered by thin soil deposits. The lower site has areas of shallow bedrock although other areas soils exceed 10 feet in thickness.

The majority of the upper site planned for development is underlain by the Thaynes Formation. All of the lower site is underlain by the Silver Creek Breccia. Descriptions of these geologic units are presented in the following paragraphs. Lithologies are taken after Bromfield and Crittenden (1971).

**Woodside Shale** - The Woodside Shale is of Triassic age (approximately 195 to 225 million years old). The Woodside Shale is an interbedded sequence of dark- and purplish-red shale, siltstone, and very fine-grained sandstone. The Woodside Shale is typically a slope-forming unit and less resistant than the Thaynes Formation.

**Thaynes Formation** - Up section, and conformably above the Woodside Shale is the Thaynes Formation, also of Triassic age. Rock types assigned to the Thaynes Formation include fine-grained limey sandstone and siltstone, interbedded with shale and fine-grained fossiliferous limestone. The Thaynes Formation appears to have provided relatively stable cut slopes.

**Silver Creek Breccia** - The Keetley Volcanics are of Tertiary (Oligocene) age (approximately 37.5 to 22.5 million years old). The Silver Creek Breccia is composed of light-gray volcanic breccia with a few interbedded tuffs. These volcanics generally do not appear in outcrop and generally occur within the project area under residual soils several feet in thickness.

**Recent Deposits** - Unconsolidated colluvium, alluvium and residual soils mantle much of the study area. Steeper slopes are covered with colluvium which is derived from the weathering of bedrock and is deposited close to the source rock by gravity and slope wash. It is typically a poorly graded mixture of silt to silty clay with varying amounts of angular gravel and sand. A minor amount of alluvial soils are present at the base of slopes. These materials consist of water-washed deposits derived from bedrock as well as colluvium and exist as layers of predominantly gravel and sand. Residual soils derived from volcanics are present in the northern portion of the upper site and covering the lower site, and are composed of clay with varying amounts of gravel, silt, and sand.

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## STRUCTURE

Geologic structure in the project area consist of bedding, fracturing and faulting. Bedding dips mainly to the northeast at roughly 20 to 35 degrees. Two large southwest-northeast trending normal faults have been mapped in the upper site (Plate 3). No evidence for Quaternary offset has been identified along these faults, and they are not considered active.

## DEVELOPMENT OVERVIEW

### WESTSIDE

#### Upper Site - (westside portion of the property)

Factors that will influence development of the upper site (westside portion of the property) west of U.S. Highway 40 include:

- 1. Stability of steep slopes uphill of access roads.
- 2. Shallow bedrock at areas planned for development.
- 3. Adequate setback from steep slopes.
- 4. The presence of old mine workings.

The majority of developable areas within the upper site will be confined to relatively flat topography. However, access roads will traverse steep terrain. Areas of significant slope instability were not noted during our site reconnaissance. Bedding within the bedrock generally dips to the northeast and is favorable for access roads that traverse south facing slopes in the southern portion of the site.

The majority of development will be confined to relatively flat areas. For the lower developable areas indicated on Plate 3, structures should be confined to slopes of 30 percent or less. Slopes in excess of 30 percent adjacent to developable areas should be left in a natural condition with minimal disturbance.

Depending on the final road layout, moderate road cuts are anticipated. Due to the steep terrain, raveling and minor slope instability of the uphill cuts should be anticipated, particularly for roads that are cut into the Woodside Shale Formation. If thick of colluvium are encountered in road cuts, retaining structures may be required. Proper drainage of slopes and collection of

water will be essential in maintaining slopes and in minimizing problems with instability. Drainage and collection will particularly be important during site development and construction.

Due to relatively shallow bedrock expected to be encountered along steep slopes, blasting may be required, particularly in the cuts that traverse sandstone and limestone of the Thaynes Formation. Uphill cuts of 15 to 20 feet in height may be required assuming access road widths of 30 feet. Access roads traversing steep slopes should consist predominantly of cuts. The steep downhill slopes will limit the amount of fill that can be placed on the downhill slope. We recommend that placement of significant amounts of fill be avoided and that the majority of excavated material be removed for use elsewhere at the site. Development of relatively flat areas will encounter shallow bedrock and blasting should be anticipated for basements or utility corridors.

Old mine working consisting of shafts and collapsed adits were noted along the northern ridge as indicated on Plate 3. Although most of the shafts are deteriorated and partially caved, we recommend that the shafts be plugged with reinforced concrete. Following plugging the open portions should be infilled with properly compacted fill. We do not recommend that structures be established over reclaimed shaft or adit areas. Adits identified at the site are relatively shallow and appear to have partially collapsed. We anticipate that these adits can be accessed from the surface and should be excavated and properly in-filled with structural fill. Again, no structures should be established over reclaimed adits.

### EASTSIDE

#### Lower Site - (eastside portion of the property)

Factors that will influence overall development of the lower site (eastside portion of the property) east of U.S. Highway 40 include:

- 1. Shallow bedrock encountered over portions of the site.
- 2. Potentially expansive characteristics of organic clay deposits.
- 3. Preservation of existing drainages or appropriate modifications such that adequate drainage is maintained and erosion potential minimized.
- 4. Steep slopes in the extreme southern portion of the site.

Shallow bedrock composed of moderately weathered volcanic breccia is exposed on ridges and in other areas of the site. Bedrock encountered in test pits was excavatable to approximately three feet. We anticipate that due to near-surface weathering, the upper 2 to 3 feet of the bedrock may be rippable in open excavations provided ripping is performed in a downhill direction. Deeper excavations, if necessary in bedrock, may require blasting or special excavating equipment; particularly for confined areas with limited access.

Deep deposits of topsoil and organic rich clays were encountered in areas adjacent to drainages or where thick stands of oak brush are present. The organics become less prevalent at depth, however, they can extend to depths ranging from four to seven feet as encountered in test pits TP-1, TP-5 and TP-6. Based on laboratory testing these deposits could swell when saturated. Expansive soils often occur as the result of weathering of volcanic rock. We recommend once final layout is determined that site specific investigations be performed to better delineate areas that may be underlain by deep deposits of expansive soils. If identified, these soils should be removed from beneath structures to minimize potential problems.

Two intermittent drainages traverse the site. We anticipate that site development will eliminate these drainages. Although soils encountered in investigations are generally clayey in nature with a low erosion potential, we recommend that appropriate measures be incorporated to minimize erosion. Collected water from developed areas and streets should be properly channeled into drainage systems downgradient of structures. Proper water management will minimize potential erosion and problems associated with saturation of potentially expansive soils.

It is our understanding that the steep slopes, in excess of 30 percent grade, on the extreme southern edge of the property will not be developed and will be utilized as common area. To minimize potential problems with slope instability, we recommend that the vegetation be left intact during site development that the natural slopes be maintained as much as possible.

## 5.2. ENGINEERING GEOLOGY AND GEOLOGIC HAZARDS

### 5.2.1. EARTHQUAKE GROUND SHAKING WESTSIDE AND EASTSIDE

Seismic ground acceleration is likely to effect the site during moderate to large earthquakes along the Wasatch Fault Zone and other nearby earthquake generating faults. The intensity of the shaking at the project area will vary with the size of the earthquake, the distance from the earthquake epicenter and the ground response of the soils at the site. This hazard is widespread and cannot be avoided by moving the proposed building pad. However, the risk from shaking can be reduced by adequate design and construction of the building to resist the ground motion. We recommend that all structures be designed and constructed to Uniform Building Code Seismic Zone 3 requirements as a minimum. The earthquake ground-shaking hazard for a properly-designed and well-constructed home on the site is rated as low.

#### Surface Fault Rupture

No active faults have been mapped on the sites and no evidence of active faulting was observed during our field reconnaissance. Based on this information and our current understanding that surface fault rupture and deformation tend to follow past patterns it is believed that the proposed dwellings may be constructed without undo risk from surface fault rupture, and therefore the risk posed by surface fault rupture is rated as low.

### 5.2.3. LANDSLIDES

No evidence of landslides, slumps or other slope failures were noted on either site. The majority of the lower site slopes at 20 degrees or less and is largely composed of soil and colluvium. These materials are typically stable at slopes of less than 30 to 35 degrees. The buildable portions of the steeper upper site are underlain by relatively stable Thaynes Formation bedrock with a surficial cover of soil. Given the general stability of the slopes and materials on the site the landslide hazard is rated as low.

### 5.2.4. ROCKFALL

No evidence of fallen rock clasts were noted on the site. There are only a few prominent outcrops of bedrock

on the hillside area above the buildable areas on the upper site. Inspection of these outcrops suggested that the joint patterns in the bedrock tend to produce weakly indurated, "pencil" shaped clasts. No large, loose boulders were observed perched above the planned buildable areas and there was no evidence of fallen rock accumulations. Given the exposure, strength, joint spacing and shape of the bedrock outcrops the rockfall hazard for the project area is rated as low.

### 5.2.5. DEBRIS FLOWS AND FLOODING

No major alluvial fans or large drainage channels are present on the site. No evidence of debris flow deposition was observed in the aerial photos or during the site reconnaissance. The nature of alluvial fan deposition is that very large storm events generate sufficient runoff to scour material stored in canyon channels and deposit the debris on the faces of alluvial fans. The active channels clog with debris, the levees are breached and the next flood event deposits sediment in a different area on the fan. This is how alluvial fans grow. Given the absence of large drainage channels, the hazard from debris flows in the project area is rated as low.

Based on a review of these reports and the maps, the following conclusions were reached:

1. land in the area of the subject property appears to be stable from a geotechnical standpoint,
2. there are no known active faults in the area of the subject property, and

3. roads may be graded and constructed in the area of the subject property, subject to site specific geotechnical recommendations.

The reader of this environmental report should review the precise geologic conclusions and recommendations of the geology report, included in Volume 2 of this environmental impact statement, as they relate to the specific site geology for the subject property.

## POTENTIAL IMPACT

The potential impact of any proposed project on site geologic conditions is:

- landslides,
- ground surface subsidence,
- mud flows, debris flows,
- rock falls,

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- underground openings,
- unstable foundation materials,
- erosion,
- floods,
- snow avalanches
- shallow ground water,
- earthquakes,
- radon gas.

## ENVIRONMENTAL IMPACT

The proposed project facilities will have the following probable impact on the environment:

- Site grading within the development will result in short term disturbance but long term stability with respect to site geology.
- The project will increase the potential for erosion within the development. See Chapter 20 - Water Quality for a discussion of this subject.
- The project will increase the potential for storm water runoff within the development. See Chapter 28 - Storm Water for a discussion of this subject.
- The project will decrease the hazards associated with underground workings and openings within the project, due to closing procedures which will be performed.
- The project will avoid unstable foundation materials in the location of buildings.

## MITIGATING MEASURES

The potential impact of the Staghorn Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- All engineering geology recommendations contained in the site geology report: "Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Staghorn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineering Geologist"; shall be incorporated into project planning, design, plans, specifications, and construction



review, and into individual home construction plans by individual lot owners.

- All buildings will be structurally designed as specified in the Uniform Building Code for Seismic Risk Zone 3 and as may further be specified by the Wasatch County Building Department.
- Building placement shall not be allowed in areas of very shallow groundwater, nor in the path of seeps, sumps, and natural drainage courses.
- Building construction will not be allowed on steep slopes (slopes over 30%).
- Appropriate measures shall be taken in the construction of buildings to protect against intrusion of Radon Gas.
- Areas of the property containing unstable shale formations, at adverse strikes and dips, will be avoided where possible in order to avoid slippage of soils along the plane of the bedrock.
- Grading construction activities will be monitored by a competent engineering geologist to insure compliance with geotechnical reports and recommendations, and to provide for unexpected conditions which may be encountered in the field.
- Grading construction shall be designed and constructed in accordance with Chapter A33 Excavations and Grading, of the Uniform Building Code, 1994 Edition.

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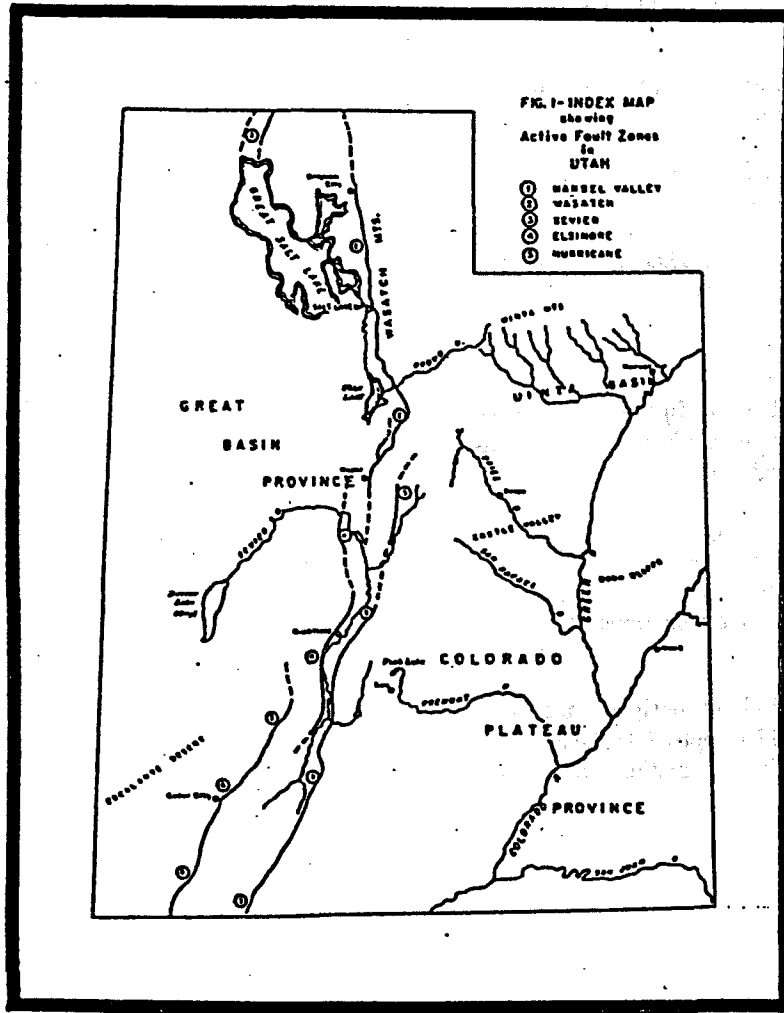


Table 8.—Damaging earthquakes in north-central Utah, 1850 through 1970

Date (GCT) <sup>1</sup>	Approximate Richter magnitude	Location and damage	Source of data
Nov. 10, 1884	6.1	Northern Utah-southeastern Idaho: severe damage.	(2).
July 18, 1894	4.3	Ordem	(2).
July 27, 1895	3.7	Mt. Pleasant	(2).
Aug. 1, 1900	5.5	Eureka-Goshen-Santaquin area	(2).
Oct. 6, 1909	6.7	Garland (Hansel Valley)	(2).
Nov. 17, 1909	4.3	do	(2).
May 22, 1910	3.5	Salt Lake City	(2).
May 12, 1916	3.5	Ordem	(2).
June 7, 1923	4.3	Logan	(2).
Mar. 12, 1934	6.1	Kesawe (Hansel Valley)	(2).
Mar. 6, 1938	4.3	Payson	(2).
Sept. 28, 1952	4.3	Lehi	(2).
Feb. 2, 1955	4.3	Salt Lake City	(2 4).
Feb. 12, 1958	4.3	Provo-Walksburg area	(2).
Dec. 1, 1958	4.3	St. John	(2).
Apr. 16, 1961	4.1	Ephraim	(2).
Aug. 26, 1962	3.7	Cache Valley (Logan): (1 million damaged).	(2 4).
Sept. 5, 1962	3.3	Magna	(2 4).
July 7, 1962	4.9	Levan	(2 4).

<sup>1</sup> Greenwich Civil Time is 7 hours later than Mountain Standard Time; some dates by local time will be 1 day earlier.  
<sup>2</sup> Williams and Tapper (1953).  
<sup>3</sup> U.S. Coast and Geodetic Survey Reports.  
<sup>4</sup> Smith and Cook (1967).

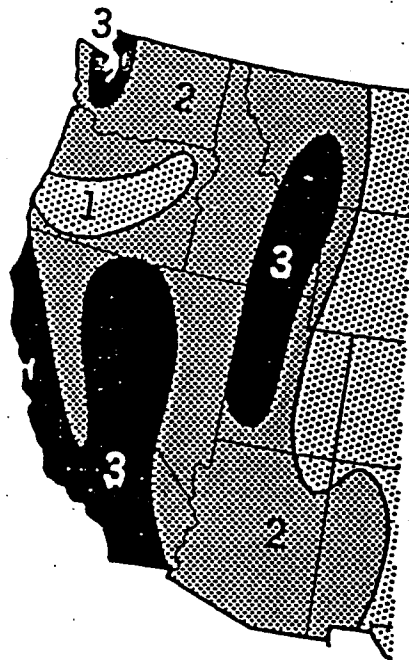


Figure 12.—Seismic risk map of Western United States (U.S. Coast and Geodetic Survey, ESSA). Zone 1: expected minor damage. Zone 2: expected moderate damage. Zone 3: expected major destructive damage. From Algermissen (1969).

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Utah Geological and Mineral Survey, Special Studies 66, 1984

TABLE 3.— Earthquakes of Richter magnitude 2.0 or greater in the Park City area, 1850 to September 1983.

Index to numbers in fig. 15	Date	Magnitude	Maximum intensity	Epicenter Location	
				Latitude (N)	Longitude (W)
1	11/11/32	3.7	IV	40°31'04"	111°28'27"
2	5/24/53	4.3	V	40°30'00"	111°30'00"
3	1/23/69	2.5	—	40°43'62"	111°37'92"
4	9/22/69	2.0	—	40°33'45"	111°34'54"
5	10/1/72	4.3	VI	40°30'36"	111°20'91"
6	10/1/72	2.2	—	40°37'09"	111°19'02"
7	10/1/72	2.5	—	40°36'35"	111°20'37"
8	10/1/72	2.1	—	40°32'56"	111°21'77"
9	10/3/72	2.4	—	40°26'35"	111°21'04"
10	12/24/72	2.0	—	40°26'10"	111°24'53"
11	12/19/74	2.0	—	40°26'27"	111°26'73"
12	1/19/75	2.0	—	40°50'35"	111°39'90"
13	7/7/75	2.5	—	40°47'98"	111°35'25"
14	10/22/75	2.6	—	40°45'42"	111°37'36"
15	12/10/78	2.3	—	40°48'40"	111°33'22"
16	12/10/78	2.7	—	40°48'72"	111°33'91"
17	2/3/80	2.3	—	40°53'33"	111°36'45"

Source: University of Utah Seismograph Stations (1983).

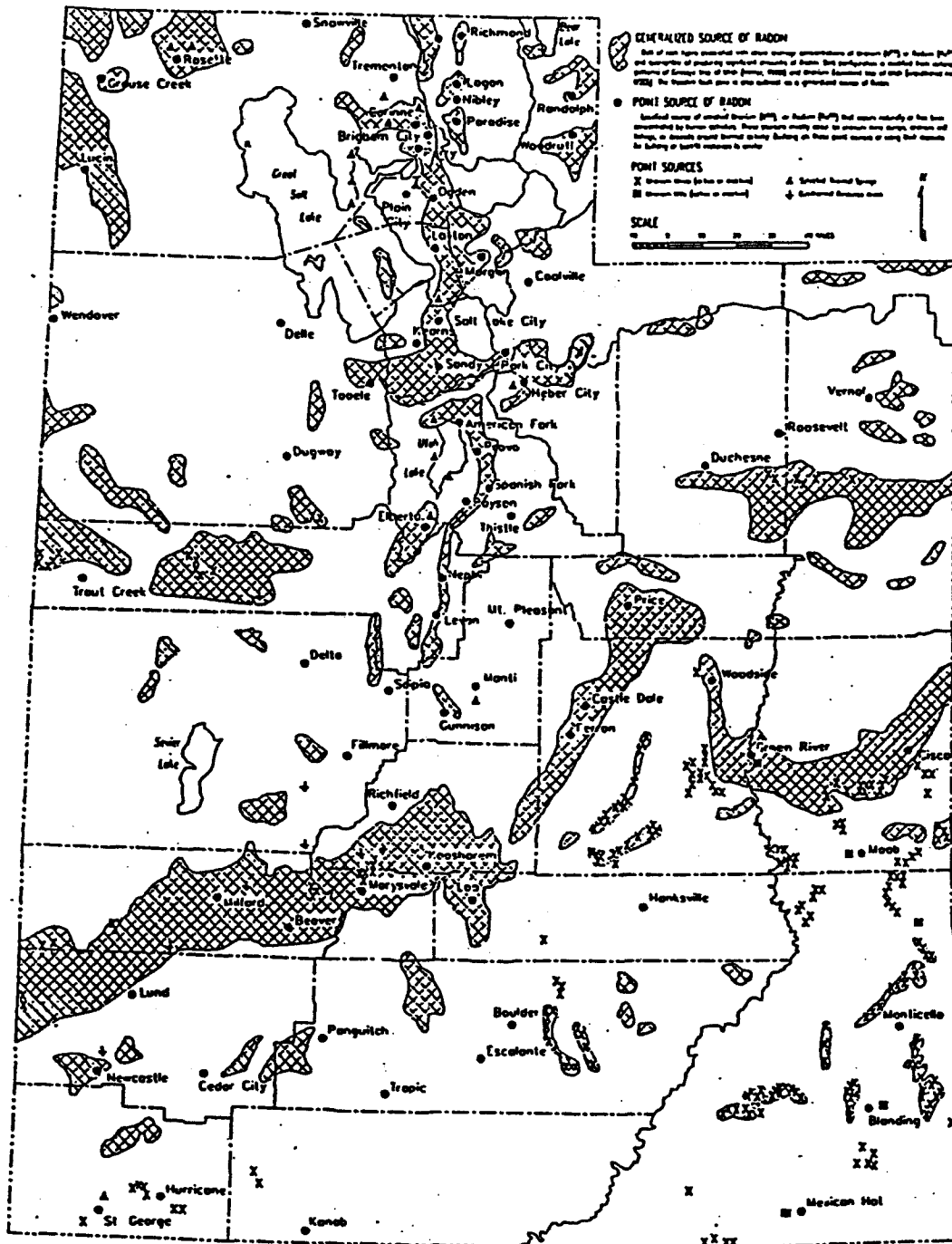


Figure 5. Generalized radon potential map of Utah (modified from Sprinkel, 1987).

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*Elkhorn Mountain*



*Staghorn Village*

# NATURAL RESOURCES

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter:

## BACKGROUND INFORMATION

- SCENIC
  - General
- FLORA
  - Soil Survey of the Heber Valley
    - Broadhead Series Soils
    - Cloudrim Series Soils
    - Henefer Series Soils
    - Horrocks Series Soils
  - Mayflower Data
  - Jordanelle Reservoir Water Control Environmental Assessment
- FAUNA
  - Soil Survey of the Heber Valley
    - Broadhead Series Soils
    - Cloudrim Series Soils
    - Henefer Series Soils
    - Horrocks Series Soils
  - CUP Data
  - Mayflower Data
  - Jordanelle Reservoir Water Control Environmental Assessment

- Site Specific Flora
  - Project clearing standards
  - Fire Protection Fuel Breaks
  - Individual Lot Construction
- FAUNA
  - Site Specific Fauna
  - Potential Impact
  - Environmental Impact
  - Mitigating Measures
    - General
    - Scenic
    - Flora
    - Fauna

Those wishing to skip the general Background Information should proceed directly to the Site Specific Portion of this chapter beginning on page 16.

## Background Information

## SITE SPECIFIC INFORMATION

- SCENIC
- FLORA

## SCENIC

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## SOIL SURVEY OF THE HEBER VALLEY

## GENERAL

Wasatch County is a relatively unspoiled area with great potential as a center for recreational activities. The Heber Valley can be considered the hub of this activity with the following attractions existing or proposed in relation to the valley:

- Mayflower and Telemark resorts, proposed to the north,
- Jordanelle reservoir, recently completed to the north,
- Wasatch Mountain State Park golf courses (27 holes existing + 9 holes under construction) to the west,
- Wasatch Mountain State Park to the west and north,
- Deer Creek Reservoir to the south,
- Sundance Ski Resort to the south,
- Strawberry Reservoir to the southeast,
- Current Creek Reservoir, to the southeast
- Lake Creek recreational developments to the east.

The Heber Valley itself is a picturesque natural setting with breath-taking views of high mountains which surround the valley. The subject property is located west of the Jordanelle Reservoir one mile north of the Mayflower interchange along US Highway 40 in the northerly portion of Wasatch County.

Sensitivity of views with respect to distance zones are as follows:

- Foreground views: most sensitive - these views are very sensitive due to the closeness of the observer to the object being viewed.
- Middle ground views: average sensitivity - these views are only moderately sensitive due to the greater distance involved between the project and observer.
- Background views: least sensitive - these views are of minimal sensitivity due to the large distances between object and observer.

## FLORA

Based on information taken from the reference "Soil Survey of Heber Valley Area, Utah dated April 1976 prepared by United States Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with Utah Agricultural Experiment Station," the following are types of vegetation that typically exist on the soil types indicated on the subject property taken from the following soil descriptions:

## BROADHEAD SERIES SOILS

*The broadhead series consists of well-drained soils. These soils formed on terminal moraines, mountainsides, and alluvial fans in alluvium and colluvium derived from andesite. Slopes range from 5 to 60 percent. The elevation ranges from 6,000 to 7,000 feet. The vegetation is mainly wheatgrass, native bluegrasses, oakbrush, snowberry, geranium, and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is ordinarily 50 to 70 days. Soils of the irrigated valleys have a frost-free period of about 80 days.*

*In a representative profile the surface layer is dark grayish-brown very cobbly loam and heavy loam about 12 inches thick. The subsoil is about 32 inches thick. It is brown clay in the upper 22 inches and light brown clay loam in the lower 10 inches. The substratum is pale-brown silt loam to a depth of 60 inches. The soil is mainly neutral but ranges to slightly acid to mildly alkaline in some layers.*

*Bradshaw soils are slowly permeable. The available water capacity is 9 to 10 inches. The water-supplying capacity is 15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.*

*These soils are used mainly as range for livestock and wildlife. They also serve as catchment areas for water and provide sites for recreation. Broadhead very cobbly loam, 40 to 60 percent slopes, is mapped only as part of the Broadhead-Little Pole association, very steep.*

*Representative profile of Broadhead very cobbly loam, 40 to 60 percent slopes, in an area of Broadhead-Little Pole association, very steep, 2.5 miles northeast of Heber, 2,640 feet west and 1,000 feet south of northeast corner of sec. 21, T. 3 S., R. 5 E. in area of range. Laboratory data available.*

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**BROADHEAD-LITTLE POLE** association, very steep (BPF). - This mapping unit is on mountainsides that are mantled with glacial drift. It is about 35 percent Broadhead very cobbly loam, 20 percent Broadhead cobbly loam, and 30 percent Little Pole very cobbly sandy clay loam, all of which have slopes of 40 to 60 percent, and 15 percent other soils and Rock land. The Broadhead soils are mainly on the concave slopes where the glacial drift is thicker. The Little Pole soil is on the ridges and convex rocky slopes that have little or no glacial drift deposited. Broadhead very cobbly loam has the profile described as representative of the series. Broadhead cobbly loam has a similar profile, but has 20 to 50 percent cobbles in the surface layer. The Little Pole soil has the profile described as representative of the Little Pole series. Runoff is rapid, and the hazard of erosion is high.

Included with this unit in mapping are small areas of Broadhead loam and about 5 percent Rock land associated mainly with Little Pole soils.

This mapping unit is used mainly as spring and fall range for livestock and as winter range for deer. It also serves as a catchment area for water and provides sites for recreation. Broadhead very cobbly loam in capability unit VII-sM nonirrigated and Broadhead loam and cobbly loam in capability unit VIIe-M nonirrigated, Mountain Loam range site, wildlife group 3141; Little Pole soil in capability unit VIIs-M nonirrigated, Mountain Shallow Loam range site, wildlife group 4343.

### CLOUDRIM SERIES SOILS

The Cloud Rim Series consists of well drained soils. These soils formed on southerly mountainsides, alluvial fans, and colluvial cones in alluvium and colluvium derived from mixed sedimentary rocks. Slopes range from 10 to 60 percent. The elevation ranges from 6,300 to 7,000 feet. The vegetation is mainly oakbrush, big sagebrush, serviceberry, snowberry, mountain laurel, bearded wheatergrass, and Letterman needlegrass. The annual average precipitation is 20 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is about 50 to 70 days.

In a representative profile the surface layer is grayish brown loam about 14 inches thick. The subsoil is light brown heavy loam and loam that extends to a depth of 60 inches. The soil is neutral to slightly acid. Cloud Rim soils are moderately permeable. The available water capacity is 10 to 11 inches. The water supply capacity is

15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and winter range for wildlife. They also serve as catchment areas for water and provide sites for recreation.

Representative profiles for Cloud Rim loam, 40 to 60 percent slopes, about 4 miles northwest of Midway Post Office, 1,920 feet west and 1,280 feet south of northeast corner of sec. 20, T. 3S., R. 4 E. in an area of range. Laboratory data available.

**CLOUD RIM** soils, 40 to 60 percent slopes (CNF) - This mapping unit is on southerly mountainsides. It is about 60 percent cloud rim loam and 30 percent Cloud Rim cobbly loam, both of which have slopes of 40 to 60 percent, and about 10 percent other soils. These soils are intermingled and either soil can dominate in a given area. Cloud Rim, 40 to 60 percent slopes, has the profile described as representative of the series. Cloud Rim cobbly loam has a profile similar to the one described as representative of the series, but the surface layer is 20 to 50 percent cobbles. Runoff is rapid, and the hazard of erosion is high. Included in mapping are small areas of Wallsburg soil.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides sites for recreation. Capability unit VIIe-M nonirrigated; Mountain Loam range site; wildlife group 3141.

### HENEFER SERIES SOILS

The Henefer series consists of well-drained soils. These soils formed on alluvial fans and mountainsides of alluvium and residuum derived from mixed sedimentary rocks. Slopes range from 1 to 50 percent. The elevation ranges from 5,500 to 7,000 feet. The vegetation is mainly native bluegrass, wheatergrass, oakbrush, snowberry, geranium and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 43 degrees F, and the frost-free period is generally about 50-70 days. In irrigated valleys the frost-free period is about 80 days.

In a representative profile the surface layer is dark grayish-brown silt loam about 12 inches thick. The subsoil extends to a depth of 60 inches. It is about 8 inches of brown cobbly heavy silt loam, 28 inches of brown cobbly and very cobbly clay, and 12 inches of brown very cobbly clay loam. The soil is neutral and slightly acid in



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the surface layer and medium acid to neutral in the subsoil.

Henefer soils are slowly to moderately slowly permeable. The available water capacity is about 7 inches. The water-supplying capacity is 13 to 15 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and wildlife. They also serve as a catchment area for water and provide site for recreation. Some areas are irrigated and cropped.

Representative profile of Henefer silt loam, 6 to 10 percent slopes, about 2 miles southwest of Wallsburg, 1,740 feet north and 520 feet east of southwest corner of sec. 24 T. 5 S., R. 4 E. in an area of range. Laboratory data available.

**HENEFER SOILS, 6 to 10 percent slopes (HJC).** - This mapping unit is on alluvial fans. It is about 60 percent Henefer silt loam and 30 percent Henefer cobbly silt loam, both of which have slopes of 6 to 10 percent, and about 10 percent other soils. The Henefer soils are intermingled; either can dominate in a given area. They have a profile similar to the one described as representative of the series, but the surface layer of Henefer cobbly silt loam is 35 percent cobbles. Runoff is slow. The erosion hazard is high if the soils are irrigated.

Included with this unit in mapping are small areas of Deer Creek and Manila soils.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It serves as a catchment area for water and also provides sites for recreation and summer homes. Capability unit VIe-M nonirrigated; Mountain Loam range site; wildlife group 2141.

## HORROCKS SERIES SOILS

The Horrocks series consists of well-drained, very cobbly soils. These soils formed on mountainsides in glacial drift derived mainly from andesite rocks. Slopes range from 6 to 60 percent. The elevation ranges from 5,500 to 7,500 feet. The vegetation is mainly bluebunch wheatgrass, slender wheatgrass, native bluegrasses, balsamroot, big sagebrush, and oakbrush. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 44°F, and the frost-free period is about 50 to 70 days. In a representative profile the surface layer is very dark grayish-brown very cobbly sandy clay loam about 5 inches thick. The subsoil is dark grayish-brown and brown very cobbly sandy clay loam about 22 inches thick. The substratum is pale-brown very

cobbly sandy loam about 14 inches thick. Andesite bedrock is at a depth of 41 inches. The soil is neutral to slightly acid throughout.

Horrocks soils are moderately permeable. The available water capacity is 4 to 5 inches. The water supplying capacity is 9 to 12 inches. Roots can penetrate to a depth of 40 inches or more.

These soils are used as spring and fall range for livestock and wildlife. They also serve as catchment areas for water and some provide sites for recreation.

Representative profile of Horrocks very cobbly sandy clay loam in an area of Horrocks-Broadhead association, steep, about 15 miles southwest of Heber, 2,575 feet south and 940 feet east of the corner of sec. 32, T. 4 S., R. 4 E., in an area of range. Laboratory data available.

**HORROCKS-BROADHEAD association, steep (HWE).** - This mapping unit is on hilly to steep terminal moraines of the mountains. It is about 50 percent Horrocks very cobbly sandy clay loam, 15 to 40 percent slopes; 35 percent Broadhead loam, 25 to 40 percent slopes; and about 15 percent other soils and Rock outcrop. The Horrocks soil is mainly on southerly exposures, and it has the profile described as representative of the series. Broadhead loam has a profile similar to the one described as representative of the Broadhead series, but its surface layer is less than 20 percent cobbles. Runoff is rapid, and the hazard of erosion is high.

Included with this unit in mapping are small areas of Broadhead cobbly loam and scattered areas of Rock outcrop

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides some sites for recreation. Wildlife group 2141; Horrocks soil in capability unit VIIs-M nonirrigated, Mountain Story Loam range site; Broadhead soil in capability unit VIeM nonirrigated, Mountain Loam range site.

## MAYFLOWER DATA

The following is a list of species normally found in the Oakbrush and Sagebrush Communities in the area, taken from the reference: "Density Data, Mayflower Mountain Resort, Volume I Environmental Study, Bingham Engineering -November, 1983." These are included for informational purposes only to include representative data for the general area.

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**Grasses**

Scientific Name	Common Name
<i>Agropyron smithii</i>	Western wheatgrass
<i>Agropyron spicatum</i>	Blue bunch wheatgrass
<i>Bromus tectorum</i>	Cheatgrass
<i>Poa pratensis</i>	Kentucky bluegrass

**Forbs**

<i>Achillia millifolium</i>	Yarrow
<i>Allium sp.</i>	Wild onion
<i>Carex sp.</i>	Dry land sedge
<i>Castillija chromosa</i>	Indian paintbrush
<i>Geranium sp.</i>	Geranium
<i>Melilotas officinalis</i>	Yellow sweetclover
<i>Potentilla sp.</i>	Cinquefoil
<i>Solidago sparsiflora</i>	Goldenrod
<i>Verbascum thapsis</i>	Flannel mullen
<i>Viguiera multiflora</i>	Showy goldeneye
<i>Wyethia amplexicaulis</i>	Mulesears

**Shrubs**

<i>Amelanchier utahensis</i>	Serviceberry
<i>Artemisia tridentata sp. vaseyana</i>	Mountain big sagebrush
<i>Eriogonum umbellatum</i>	Sulfur eriogonum
<i>Prunis virginiana</i>	Chokecherry
<i>Purshia tridentata</i>	Bitterbrush
<i>Symphoricarpos sp.</i>	Snowberry

The following is a list of species normally found in Riparian Zones in the area, taken from the reference: "Density Data, Mayflower Mountain Resort, Volume I Environmental Study, Bingham Engineering - November, 1983." These are included for informational purposes only to include representative data for the general area.

**Grasses**

Scientific Name	Common Name
<i>Agropyron smithii</i>	Western wheatgrass
<i>Agrostis alba</i>	Redtop
<i>Bromus carinatus</i>	Mountain brome
<i>Carex sp.</i>	Sedge
<i>Dactylis glomerata</i>	Orchardgrass
<i>Phleum pratense</i>	Timothy
<i>Poa pratensis</i>	Kentucky Bluegrass
<i>Poa reflexa</i>	Nodding bluegrass
<i>Sitanion histrix</i>	Squirrel tail
<i>Stipa columbiana</i>	Columbia needlegrass

**Forbs**

<i>Actaea rubra</i>	Baneberry
<i>Allium sp.</i>	Wild onion
<i>Artemisia ludoviciana</i>	Louisiana sagebrush
<i>Aster sp.</i>	Aster
<i>Circium sp.</i>	Thistle
<i>Geranium richardsonii</i>	Geranium
<i>Heraclium lanatum</i>	Cow parsnip
<i>Lonicera involucrata</i>	Honeysuckle
<i>Lathyrus sp.</i>	Wild pea
<i>Machaeranthera grindelioides</i>	Aster
<i>Melilotus officinalis</i>	Yellow sweet clover
<i>Polygonum sp.</i>	Knotweed
<i>Rudbeckia occidentalis</i>	Western coneflower
<i>Rumex sp.</i>	Dock
<i>Smilacina stellata</i>	False solomonssical
<i>Tragopogon porrifolius</i>	Goatsbeard
<i>Urtica dioica</i>	Stinging nettle
<i>Verbascum thapsus</i>	Flannel mullen

**Trees and shrubs**

<i>Acer grandidentatum</i>	Big tooth maple
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<i>Amelanchier utahensis</i> .....	Serviceberry
<i>Pachystima myrsinitus</i> .....	Mountain lover
<i>Populus angustifolia</i> .....	Cottonwood
<i>Populus tremuloides</i> .....	Aspen
<i>Prunus virginiana var. melanocarpa</i> .....	
.....	Chokecherry
<i>Rosa woodsii</i> .....	Woods rose
<i>Salix sp.</i> .....	Willow
<i>Symphoricarpos sp.</i> .....	Snowberry

<i>Mahonia repens</i> .....	Creeping Oregon grape
<i>Pachystima myrsinitis</i> .....	Mountain lover
<i>Physocarpus sp.</i> .....	Ninebark
<i>Populus tremuloides</i> .....	Aspen
<i>Prunus virginiana</i> .....	Chokecherry
<i>Pseudotsuga merziesii</i> .....	Douglas fir
<i>Rosa woodsii</i> .....	Woods rose
<i>Symphoricarpos sp.</i> .....	Snowberry

The following is a list of species normally found on north facing slopes in Aspen and Conifer Communities in the area, taken from the reference: "Density Data, Mayflower Mountain Resort, Volume I Environmental Study, Bingham Engineering -November, 1983." These are included for informational purposes only to include representative data for the general area.

Scientific Name ..... Common Name

**Grasses**

<i>Bromus anomalus</i> .....	Nodding brome
<i>Bromus carinatus</i> .....	Mountain brome
<i>Dactylus glomerata</i> .....	Orchard grass
<i>Phleum pratensis</i> .....	Timothy
<i>Poa pratensis</i> .....	Kentucky bluegrass
<i>Stipa columbiana</i> .....	Columbia needlegrass

**Forbs**

<i>Agastache urticifolia</i> .....	Giant Hyssop
<i>Aster sp.</i> .....	Aster
<i>Gilia aggregata</i> .....	Scarlet gilia
<i>Lathyrus sp.</i> .....	Wild pea
<i>Rudbeckia occidentalis</i> .....	Western coneflower
<i>Thalictrum fendleri</i> .....	Meadow rue

**Trees and Shrubs**

<i>Acer grandidentatum</i> .....	Big tooth maple
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**JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT**

The following information was obtained from the the reference: Jordanelle Dam and Reservoir, Provo River, Utah, Water Control Manual, Draft Environmental Assessment, US Army Corps of Engineers, March, 1996.

**5.1.1 Existing Environment.** *The vegetative cover in this area has undergone significant changes due to human activities. Heavy livestock grazing has caused the original grasses of the foothills to largely be replaced by sagebrush of relatively poor grazing quality. The wet meadow-streamside willow, the mountain brush, and the streamside forest communities have also been heavily grazed, resulting in the establishment of many exotic species. The streamside forest has been reduced by logging, road building, miscellaneous construction, and forest fire.*

*Submontane-foothill shrub and mountain valley shrub are the two prevalent vegetative types in the project area. The submontane-foothill shrub zone extends from mountain valleys at elevations between 5,000 and 6,000 feet to the montane conifer-aspen zone at about 8,000 feet. In addition to the foothill areas, most of the shrub communities in this zone also occur on the drier and more exposed slopes of the mountain ranges. The upper portion of the Jordanelle Reservoir would be in this zone. This zone consists largely of intermixtures of four communities: mountain brush, oakbrush, sagebrush-grass, and streamside riparian.*

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The mountain-brush community generally occurs on higher, moister sites than the other shrub communities. Its dominant species vary according to slope, exposure, and variable moisture and include mountain mahogany, bitterbrush, sagebrush, gambel oak, dwarf maple, juniper, snowberry, serviceberry, chokeberry, and other shrubs. The oak brush community generally occurs at medium elevations and is dominated by dense clumps of gambel oak, with grasses and forbs as understory. Other shrub species, usually sagebrush, occur only occasionally. The sagebrush-grass community, which generally occurs in the lower foothill areas next to the reservoir and downstream below the dam, is dominated by sagebrush with an understory of grasses and forbs. Utah serviceberry, Oregon grape, bitterbrush, currant, Wood's rose, elderberry, snowberry, rabbitbrush, horsebrush, wheat grass, Indian rice grass, Sandberg's bluegrass, rye grass, squirreltail, needlegrass, low sagebrush, Mariposa lily, thistle, tansy mustard, lupine, and phlox are some of the common species in the sagebrush-grass community. The streamside riparian communities of the lower Provo River Canyon exhibit the characteristics of the riparian communities located in both the montane conifer aspen and mountain valley zones. The more common riparian species that can be found near the reservoir, in draws that lead to the reservoir, or below the dam include cottonwood, willow, wild rose, Virginia plum, hawthorn, box elder, and honeysuckle. Intermixed with these riparian plants is an understory of grasses, sedges, and forbs. A complete list of plants that can be found in the project area is included in appendix B.

**5.2.3 Existing Environment.** According to the FWS, the Ute ladies'-tresses orchid occurs in the project area just below the dam (Jordan, pers. comm., 1995). The plant was first observed in 1993 by Robert Johnson, a botanist. In 1994, a survey conducted by Steve Ripple, a botanist for BioWest, confirmed the presence of Ute ladies'-tresses orchid in the USBR's wetland mitigation area. Also, a small number of plants are located on nearby private property. Possibly due to environmental condition, no plants were observed during surveys conducted by the FWS in 1995. The orchid was first listed as a threatened species on January 17, 1992. The orchid is a small to coarse terrestrial herb with tuberous or rarely fibrous roots and is endemic to moist soils along streams, bogs, and open seepage areas in cottonwood, tamarix, willow, and pinyon-juniper communities. "Reproduction appears to be sexual with bumble bees as the primary pollinators. Orchids generally have very small seeds requiring specific symbiotic associations with fungi

for germination. Nutrients derived from a fungal organism may allow some orchid species to remain underground without above ground growth for one year or longer" (FWS, 1995). Conducting surveys to find the plant in any given year might be unsuccessful because individuals rarely flower in consecutive years or under unfavorable condition. The plant blooms from late July through August, but depending on location and climatic condition, orchids may bloom in early July or may still be in flower as late as early October. Habitat modifications due to development are the most serious threat to the continued existence of the orchid.

"The elevation range of known orchid occurrences is 4,000 to 7,000 feet. Most of the occurrences are in alluvial substrates along riparian edges, gravel bars, old oxbows, and moist to wet meadows in the floodplain of perennial streams, but some locations in the eastern Great Basin are in similar situations near freshwater lakes or springs. The orchid appears to require moisture in the rooting zone, typically provided by a high ground water table, through the growing season and into late summer or early autumn. The orchid is well adapted to disturbances caused by stream movement through floodplain over time, and is tolerant of other disturbances, such as, grazing, that mimic natural disturbances in their effects on riparian habitat. Suitable potential habitat is typically found in early successional riparian habitats along streams that experience heavy spring runoff of sufficient magnitude to create movement and reshaping of the stream channel. Plants usually occur as small scattered groups and occupy relatively small areas within the riparian system. It is not known how, under what condition, and in what time frame, the orchid is dispersed and new viable colonies establish. The orchid is tolerant of a mix of wetland forbs and grasses. The orchid is generally intolerant of long-term standing water, deep shade and strongly alkaline or clay soils, and cannot compete with aggressive emergent plants such as reed canarygrass and cattails or exotic species such as Canada thistle" (FWS, 1995).

## FAUNA

## SOIL SURVEY OF THE HEBER VALLEY

Based on information taken from the reference "Soil Survey of Heber Valley Area, Utah dated April, 1976 prepared by United States Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with Utah Agricultural Experiment Station", the following are types of wildlife that typically exists on the soil types indicated on the subject property taken from the following soil descriptions:

### BROADHEAD SERIES SOILS

The broadhead series consists of well-drained soils. These soils formed on terminal moraines, mountainsides, and alluvial fans in alluvium and colluvium derived from andesite. Slopes range from 5 to 60 percent. The elevation ranges from 6,000 to 7,000 feet. The vegetation is mainly wheatgrass, native bluegrasses, oakbrush, snowberry, geranium, and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is ordinarily 50 to 70 days. Soils of the irrigated valleys have a frost-free period of about 80 days.

In a representative profile the surface layer is dark grayish-brown very cobbly loam and heavy loam about 12 inches thick. The subsoil is about 32 inches thick. It is brown clay in the upper 22 inches and light brown clay loam in the lower 10 inches. The substratum is pale-brown silt loam to a depth of 60 inches. The soil is mainly neutral but ranges to slightly acid to mildly alkaline in some layers.

Bradshaw soils are slowly permeable. The available water capacity is 9 to 10 inches. The water-supplying capacity is 15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used mainly as range for livestock and wildlife. They also serve as catchment areas for water and provide sites for recreation. Broadhead very cobbly loam, 40 to 60 percent slopes, is mapped only as part of the Broadhead-Little Pole association, very steep.

Representative profile of Broadhead very cobbly loam, 40 to 60 percent slopes, in an area of Broadhead-Little Pole association, very steep, 2.5 miles northeast of Heber, 2,640 feet west and 1,000 feet south of northeast corner of sec. 21, T. 3 S., R. 5 E. in area of range. Laboratory data available.

**BROADHEAD-LITTLE POLE** association, very steep (BPF). - This mapping unit is on mountainsides that are mantled with glacial drift. It is about 35 percent Broadhead very cobbly loam, 20 percent Broadhead

cobbly loam, and 30 percent Little Pole very cobbly sandy clay loam, all of which have slopes of 40 to 60 percent, and 15 percent other soils and Rock land. The Broadhead soils are mainly on the concave slopes where the glacial drift is thicker. The Little Pole soil is on the ridges and convex rocky slopes that have little or no glacial drift deposited. Broadhead very cobbly loam has the profile described as representative of the series. Broadhead cobbly loam has a similar profile, but has 20 to 50 percent cobbles in the surface layer. The Little Pole soil has the profile described as representative of the Little Pole series. Runoff is rapid, and the hazard of erosion is high.

Included with this unit in mapping are small areas of Broadhead loam and about 5 percent Rock land associated mainly with Little Pole soils.

This mapping unit is used mainly as spring and fall range for livestock and as winter range for deer. It also serves as a catchment area for water and provides sites for recreation. Broadhead very cobbly loam in capability unit VII-sM nonirrigated and Broadhead loam and cobbly loam in capability unit VIIe-M nonirrigated, Mountain Loam range site, wildlife group 3141; Little Pole soil in capability unit VIIs-M nonirrigated, Mountain Shallow Loam range site, wildlife group 4343.

### CLOUDRIM SERIES SOILS

The Cloud Rim Series consists of well drained soils. These soils formed on southerly mountainsides, alluvial fans, and colluvial cones in alluvium and colluvium derived from mixed sedimentary rocks. Slopes range from 10 to 60 percent. The elevation ranges from 6,300 to 7,000 feet. The vegetation is mainly oakbrush, big sagebrush, serviceberry, snowberry, mountain laurel, bearded wheatgrass, and Letterman needlegrass. The annual average precipitation is 20 to 25 inches, the mean annual air temperature is about 44° F, and the frost-free period is about 50 to 70 days.

In a representative profile the surface layer is grayish brown loam about 14 inches thick. The subsoil is light brown heavy loam and loam that extends to a depth of 60 inches. The soil is neutral to slightly acid. Cloud Rim soils are moderately permeable. The available water capacity is 10 to 11 inches. The water supply capacity is 15 to 18 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and winter range for wildlife. They also serve as catchment areas for water and provide sites for recreation.

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Representative profiles for Cloud Rim loam, 40 to 60 percent slopes, about 4 miles northwest of Midway Post Office, 1,920 feet west and 1,280 feet south of northeast corner of sec. 20, T. 3S., R. 4 E. in an area of range. Laboratory data available.

**CLOUD RIM** soils, 40 to 60 percent slopes (CNF) - This mapping unit is on southerly mountainsides. It is about 60 percent cloud rim loam and 30 percent Cloud Rim cobbly loam, both of which have slopes of 40 to 60 percent, and about 10 percent other soils. These soils are intermingled and either soil can dominate in a given area. Cloud Rim, 40 to 60 percent slopes, has the profile described as representative of the series. Cloud Rim cobbly loam has a profile similar to the one described as representative of the series, but the surface layer is 20 to 50 percent cobbles. Runoff is rapid, and the hazard of erosion is high. Included in mapping are small areas of Wallsburg soil.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides sites for recreation. Capability unit VIIe-M nonirrigated; Mountain Loam range site; wildlife group 3141.

## HENEFER SERIES SOILS

The Henefer series consists of well-drained soils. These soils formed on alluvial fans and mountainsides of alluvium and residuum derived from mixed sedimentary rocks. Slopes range from 1 to 50 percent. The elevation ranges from 5,500 to 7,000 feet. The vegetation is mainly native bluegrass, wheatgrass, oakbrush, snowberry, geranium and lupine. The average annual precipitation is 18 to 25 inches, the mean annual air temperature is about 43 degrees F, and the frost-free period is generally about 50-70 days. In irrigated valleys the frost-free period is about 80 days.

In a representative profile the surface layer is dark grayish-brown silt loam about 12 inches thick. The subsoil extends to a depth of 60 inches. It is about 8 inches of brown cobbly heavy silt loam, 28 inches of brown cobbly and very cobbly clay, and 12 inches of brown very cobbly clay loam. The soil is neutral and slightly acid in the surface layer and medium acid to neutral in the subsoil.

Henefer soils are slowly to moderately slowly permeable. The available water capacity is about 7 inches. The water-supplying capacity is 13 to 15 inches. Roots can penetrate to a depth of 60 inches or more.

These soils are used as spring and fall range for livestock and wildlife. They also serve as a catchment area for water and provide site for recreation. Some areas are irrigated and cropped.

Representative profile of Henefer silt loam, 6 to 10 percent slopes, about 2 miles southwest of Wallsburg, 1,740 feet north and 520 feet east of southwest corner of sec. 24 T. 5 S., R. 4 E. in an area of range. Laboratory data available.

**HENEFER SOILS**, 6 to 10 percent slopes (HJC).- This mapping unit is on alluvial fans. It is about 60 percent Henefer silt loam and 30 percent Henefer cobbly silt loam, both of which have slopes of 6 to 10 percent, and about 10 percent other soils. The Henefer soils are intermingled; either can dominate in a given area. They have a profile similar to the one described as representative of the series, but the surface layer of Henefer cobbly silt loam is 35 percent cobbles. Runoff is slow. The erosion hazard is high if the soils are irrigated.

Included with this unit in mapping are small areas of Deer Creek and Manila soils.

This mapping unit is used mainly as spring and fall range for livestock and wildlife. It serves as a catchment area for water and also provides sites for recreation and summer homes. Capability unit VIe-M nonirrigated; Mountain Loam range site; wildlife group 2141.

## HORROCKS SERIES SOILS

The Horrocks series consists of well-drained, very cobbly soils. These soils formed on mountainsides in glacial drift derived mainly from andesite rocks. Slopes range from 6 to 60 percent. The elevation ranges from 5,500 to 7,500 feet. The vegetation is mainly bluebunch wheatgrass, slender wheatgrass, native bluegrasses, balsamroot, big sagebrush, and oakbrush. The average annual precipitation is 18 to 25 inches., the mean annual air temperature is about 44°F, and the frost-free period is about 50 to 70 days. In a representative profile the surface layer is very dark grayish-brown very cobbly sandy clay loam about 5 inches thick. The subsoil is dark grayish-brown and brown very cobbly sandy clay loam about 22 inches thick. The substratum is pale-brown very cobbly sandy loam about 14 inches thick. Andesite bedrock is at a depth of 41 inches. The soil is neutral to slightly acid throughout.

Horrocks soils are moderately permeable. The available water capacity is 4 to 5 inches. The water

supplying capacity is 9 to 12 inches. Roots can penetrate to a depth of 40 inches or more.

*These soils are used as spring and fall range for livestock and wildlife. They also serve as catchment areas for water and some provide sites for recreation.*

*Representative profile of Horrocks very cobbly sandy clay loam in an area of Horrocks-Broadhead association, steep, about 15 miles southwest of Heber, 2,575 feet south and 940 feet east of the corner of sec. 32, T. 4 S., R. 4 E., in an area of range. Laboratory data available.*

**HORROCKS-BROADHEAD association, steep (HWE).** - This mapping unit is on hilly to steep terminal moraines of the mountains. It is about 50 percent Horrocks very cobbly sandy clay loam, 15 to 40 percent slopes; 35 percent Broadhead loam, 25 to 40 percent slopes; and about 15 percent other soils and Rock outcrop. The Horrocks soil is mainly on southerly exposures, and it has the profile described as representative of the series. Broadhead loam has a profile similar to the one described as representative of the Broadhead series, but its surface layer is less than 20 percent cobbles. Runoff is rapid, and the hazard of erosion is high.

*Included with this unit in mapping are small areas of Broadhead cobbly loam and scattered areas of Rock outcrop*

*This mapping unit is used mainly as spring and fall range for livestock and wildlife. It also serves as a catchment area for water and provides some sites for recreation. Wildlife group 2141; Horrocks soil in capability unit VII-S nonirrigated, Mountain Stony Loam range site; Broadhead soil in capability unit VI-eM nonirrigated, Mountain Loam range site.*

## CUP DATA

From the reference: "Central Utah Project, Final Environmental Statement, U.S. Department of Interior, Bureau of Reclamation, August 2, 1973," it is reported that:

*"Most of the vegetative cover of this area is non-native and has been heavily grazed by livestock. There is some deer habitat that would be lost and a migration route north from the Charcoal Canyon area interrupted. The overall impact of this reservoir on big game animals would not be significant."*

## MAYFLOWER DATA

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In addition to the above descriptions of wildlife in the general area, the following types of wildlife may be observed in the area of the property (information taken from the reference: "Density Data, Mayflower Mountain Resort, Volume I Environmental Study, Bingham Engineering -November, 1983," and from the reference; "Central Utah Project, Bonneville Unit, Municipal and Industrial System, Final Environmental Statement, U.S. Department of Interior, Bureau of Reclamation, October 25, 1979.")

## Wildlife

*General Description (Portions taken from: Central Utah Project Bonneville Unit Municipal Industrial System. Final Environmental Statement October, 1979, field observation and from Consultation with State of Utah Division of Wildlife Resources.)*

### a. Big Game

#### (1) Mule Deer

*Mule deer are the most populous and important big game animals. A small percentage of the deer are year-round residents of the lower elevations (below 8000 feet) and live in the shrub communities associated with the lower mountain slopes and canyons. Most of the deer are migratory and spend the late spring, summer, and early fall in the Wasatch and Uintah Mountains at elevations above 8000 feet in the conifer, aspen, and mountain-meadow vegetative communities. In the late fall, these deer migrate to shrub communities at lower elevations to feed during the winter months. Depending on the severity of the winter, mule deer winter at elevations of 4800-7000 feet along the Wasatch Front and at 6000-8000 feet in the higher mountain valleys and canyons. For the migratory herd, fawning occurs above 8000 foot elevations in late spring and early summer. During the summer the deer are dispersed because forbs and browse are relatively abundant, but during the winter they concentrate in areas which provide the essential browse species (woody shrubs) for winter survival. They tend to return to the same areas year after year if the migratory paths are not blocked and the winter areas are not unalterably disturbed by human activity.*

*Mule deer use the lower project site for winter range. This winter range and migration routes near the reservoir will be preserved under the development concept presented.*

*During the last several years prior to 1977, deer populations were generally declining. Hunter success was also declining, but this was attributed partially to a*

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widespread switch to a buck-only hunting season in 1975, as well as to the decline in deer populations (Bureau of Reclamation, 1977). Implementation of the buck-only hunting regulations since 1975 has resulted in increased deer numbers. As a result, there has been an upswing in deer populations and hunter success as evidenced by the 1977 trend counts and harvest data.

### (2) Elk

Although no population estimates are available, a few elk occur throughout the high mountain ranges west of the project boundary. The elk generally summer in the conifer, aspen, and mountain-meadow communities at elevations above 8000 feet, then winter in the submountain-foothill shrub zone at elevations as low as 5000 feet. Elk generally winter at higher elevations than most deer because elk are better able to tolerate deep snow and can use a greater variety of browse species for winter forage. There are no major elk concentration areas on the project.

### (3) Moose

Moose generally do not inhabit the project area.

#### b. Predators

The major large predators which occur in the area are cougars, coyotes, and bobcats. Cougars are infrequent inhabitants of the high conifer and aspen communities. Although coyotes are the most common predators in the area, they are only occasional inhabitants of the project site. Bobcats occasionally inhabit the mountainous and foothill communities of the project area.

#### c. Furbearers

The furbearers which inhabit the area include beaver and muskrats. Beaver are closely associated with riparian habitats, such as watercourses, lakes, and reservoirs. Muskrats occur along the river, irrigation canals, and ditches.

Beaver, perhaps the most important furbearer in the project area, and muskrat generally occur in small numbers along the upper Provo River although none are known to exist on the project site.

#### d. Upland Game

The project area supports five species of upland game: mourning dove, ruffed grouse, blue grouse, sage grouse, and cottontail rabbit.

Mourning doves occur from the conifer zone through the mountain-valley zone during the spring, summer, and

early fall, and are more abundant at the lower elevations. Project agricultural lands support a significant number of doves.

Ruffed and blue grouse generally inhabit the conifer, aspen, riparian, and shrub communities of the forested zones above 7000 foot elevation. These birds also occasionally inhabit the shrub communities near the Jordanelle Reservoir site. The blue grouse density in the sage-brush-grass community is one bird per 500 acres (Bureau of Reclamation, 1977).

Sage grouse generally inhabit sagebrush-grass communities and other similar shrub communities below 8000 feet in elevation. The foothill shrub zone at or near the Jordanelle Reservoir site has supported sage grouse densities of 1 to 3.3 birds per 500 acres and contains two breeding areas or "strutting grounds" (Bureau of Reclamation, 1977). One strutting ground, which supports 35 to 80 strutting cocks, is located in the West Hills area about 1.3 miles north of the eastern arm of the proposed reservoir; the other, which supports about seven cocks, is located near Sagehen Hollow on the northwestern edge of the north arm just above the high water line. The Sagehen Hollow area provides about 510 acres for breeding and nesting sage grouse. The potential grouse population associated with this area is about 182 birds. This area lies 1 mile north of the proposed Mayflower project.

Habitats for cottontail rabbits overlap in the foothill shrub and conifer-aspen zones. Cottontail rabbits are more abundant in the foothill shrub and mountain-valley zones. Cottontail rabbits are common residents of the upper Provo River area but are only occasional inhabitants of the Jordanelle Reservoir site (Bureau of Reclamation, 1977).

#### e. Other Wildlife

##### (1) Small Mammals

Other than the previously mentioned predators and furbearers, small mammals which occur in the area include badgers, porcupines, raccoons, jackrabbits, skunks, tree squirrels, ground squirrels, chipmunks, bats, pocket gophers, weasels, wood rats, mice, voles, and shrews (Bureau of Reclamation, 1975; and 1977).

##### (2) Raptors

At least 19 species of raptors, including hawks, eagles, owls, falcons, kestrels, and vultures, either inhabit the area or may inhabit it (Bureau of Reclamation,



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**5.4 WILDLIFE**

1977). The most common species are the turkey vulture, golden eagle, marsh hawk, American kestrel (sparrow hawk), red-tailed hawk, and great horned owl. All of these species are year-round residents except the turkey vulture which is a summer resident.

These raptors use a wide variety of habitat types. Most large raptors generally prefer open shrub communities or meadows for hunting, although a few species of hawks prefer woodland areas. Raptor densities and distribution during the reproduction season are usually limited by the availability of suitable nesting sites. Cliffs, riparian woodlands, and forested areas are preferred as nesting areas. Raptor densities in the Jordanelle Reservoir area range from four to eight birds per 500 acres, depending on the habitat type (Bureau of Reclamation, 1977). Golden eagles nest in an aerie located on a cliff about 0.2 miles above the east arm of the proposed reservoir (Bureau of Reclamation, 1978). Red-tailed hawks and great horned owls also use the same cliff area for nesting. Red-tailed hawks, kestrels, and owls use the riparian woodland within the reservoir basin for nesting.

**(3) Reptiles and Amphibians**

Reptiles and amphibians, cold-blooded animals which are sensitive to harsh environmental conditions, are found only in low densities throughout the area. At the Jordanelle Reservoir site the western chorus frog, clouded frog, clouded tiger salamander, boreal toad, leopard frog, and wandering garter snake were observed. The spotted frog, sagebrush lizard, Great Basin skunk, yellowbellied racer, Great Basin rattlesnake, rubber boa, and smooth green snake are also common at the Jordanelle Reservoir site. Several snake dens were found in the vicinity of the Jordanelle Reservoir site (Bureau of Reclamation, 1977). The identified snake dens lie north of the proposed project.

None of the above described wildlife in the area of the subject property are considered to be rare or endangered.

**JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT**

The following information was obtained from the reference: Jordanelle Dam and Reservoir, Provo River, Utah, Water Control Manual, Draft Environmental Assessment, US Army Corps of Engineers, March, 1996.

**5.4.1 Existing Environment.** The Project area supports many wildlife species, including a variety of birds that inhabit or use the area during migrations. Mammals, birds, amphibians, reptiles, and insects are closely associated with the streams or riparian habitat. Biological inventories in the Jordanelle project area identified more than 50 species of mammals, 160 species of birds, and over 20 species of reptiles and amphibians. A complete list of birds and mammals that can be found in the Jordanelle Reservoir area is shown in appendix F. The appendix also includes their abundance and occurrence.

Mule deer are the most important abundant big game animal in the project area. A small percentage of the deer are year-round residents of the lower elevations (below 8,000 feet) and live in the shrub communities associated with the lower mountain slopes and canyons. Most of the deer are migratory and spend the late spring, summer, and early fall in the Wasatch and Uintah Mountains. In the late fall, these deer migrate to shrub communities at lower elevations to feed during the winter months. Elk also winter in the submontane-foothill shrub zone at elevations as low as 5,000 feet. A small wintering herd of elk has been reported in the West Hills east of the reservoir. Mule deer are found mainly around the reservoir site and below the dam.

Cougars, coyotes, and bobcats are predators that inhabit the project area. Coyotes are the most common inhabitant. Cougars are rare winter inhabitants of lower elevation shrub communities, and bobcats inhabit the mountainous and foothill shrub communities. Other mammals that can be found around the reservoir or in the Provo River riparian areas below the dam include beaver, mink, river otter, muskrat, marmot, badger, porcupine, raccoon, jackrabbit, skunk, tree squirrel, ground squirrel, chipmunk, bat, pocket gopher, weasel, woodrat, mice, vole, and shrew. Marmots are found in rocky outcrops and talus slopes in the submontane-foothill shrub zone. Badgers are uncommon, but they inhabit desert shrub communities in the lower mountain valleys and shrub communities of the submontane-foothill zone. Porcupines are common in riparian areas of the submontane-foothill shrub zone.

Raccoons are occasionally found in the Provo River riparian community. Black-tailed jackrabbits are common in the desert shrub and sagebrush-grass communities of the lower and medium elevations (4,500 to 6,000

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feet), whereas white-tailed jackrabbits are rare to common in the shrub communities of the medium and higher elevations (6,000 to 8,000 feet). Striped skunks are a common resident of most shrub communities, and they are abundant in riparian and agricultural communities. Tree squirrels occur in riparian woodland communities at lower elevation. Ground squirrels and chipmunks are common throughout the shrub communities of the submontane-foothill zone. Bats are uncommon summer residents of many habitat types and are more abundant in association with riparian conditions. Pocket gophers are common residents of all shrub and open meadow areas at elevations below 9,000 feet. Wood rats, mice, and voles can be found in all of the vegetative types.

Upland game species in the project area include mourning dove, ruffed grouse, blue grouse, sage grouse, ring-necked pheasant, chukar, California quail, snowshoe hare, and cottontail rabbit. Mourning doves use the shrub communities in the mountain-valley zone and agricultural lands. Ruffed grouse use the riparian areas along the Provo River and draws that lead to the reservoir while blue grouse occasionally use the sagebrush-grass community. Sage grouse inhabit sagebrush-grass communities. About 510 acres of breeding and nesting area have been identified near Sagehen Hollow on the northwestern edge of the north arm just above the high water line. The potential grouse population in this area is about 182 birds. Ring-necked pheasants live on and adjacent to agricultural lands. California quail and chukar occur sporadically in submontane-foothill shrub communities and are uncommon in the Jordanelle Reservoir area. Snowshoe hares and cottontail rabbits live in the edge of the submontane-foothill shrub and montane conifer-aspen zones. Cottontails are more abundant in the submontane-foothill shrub and mountain-valley zones.

Waterfowl that frequent the project area are Canada goose, snow goose, mallard, pintail, green-winged teal, blue-winged teal, cinnamon teal, and common merganser. These species use the area primarily as a resting and feeding stopover during migratory flights, but some spring nesting and summer brood-raising also occur in the marsh or grassy areas near the reservoir, streams, ponds, and irrigation canals. Blue-winged teal, cinnamon teal, and common merganser have nested along the lower Provo River. Mallard, green-winged teal, and common merganser are the most common waterfowl during the spring and fall migrations.

Over 145 different species of nongame birds use the project area, with the greatest diversity found in the riparian area along the river bottoms. The more prevalent species in the river bottoms include snipe, sandpiper, killdeer, flycatcher, swallow, chickadee, American robin, warbler, blackbird, sparrow, and tree sparrow. The most prevalent species in the shrub communities are hummingbird, sparrow, green-tailed towhee, and vesper sparrow. Black-billed magpie, American robin, starling, and blackbird are more abundant in agricultural lands. Several raptors use different habitat types in the project area. The most common species are turkey vulture, golden eagle, northern harrier, American kestrel, red-tailed hawk, and great horned owl. Most large raptors prefer open shrub communities or meadows for foraging, although a few species of hawks prefer woodland areas. Cliffs, riparian woodlands, and forested areas are preferred nesting sites. Red-tailed hawks, kestrels, and owls use the riparian woodland in the reservoir basin for nesting.

Reptiles and amphibians inhabit a variety of habitats and are more abundant where water is nearby. Available habitats that attract these species include springs, reservoir, wetlands, seeps, river, and creeks. The western fence lizard, yellow-bellied racer, and short-horned lizard are considered to be uncommon. The western chorus frog, clouded frog, clouded tiger salamander, boreal toad, leopard frog, and wandering garter snake have been observed around the reservoir. The spotted frog, sagebrush lizard, Great Basin skink, yellow-bellied racer, Great Basin rattlesnake, rubber boa, and smooth green snake are also common around the reservoir and below the dam. Most snakes and lizards inhabit the drier edges of the flood plain as well as hillsides and plateaus next to the flood plain. Garter snakes live near water and seek small rodents and frogs. Cultivated areas also provide seasonal habitat that support amphibians, garter snakes, gopher snakes, and rattlesnakes.

### 5.3 FISHERIES

**5.3.1 Existing Environment.** The Utah Division of Wildlife has designated the Provo River above the reservoir as a Class II trout fishery. The reach between Jordanelle Dam and Deer Creek Reservoir has been designated as Class III. Classes I through III have been designated to three different areas of the Provo River below Deer Creek reservoir. Due to habitat conditions

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and fishing regulations imposed on the fishery. Classes I through III are significant fishery resources while Classes IV and V are less valuable. A cold water trout fishery does currently exist in the reservoir and downstream of the dam. The reservoir provides about 9,500 man-days of fishing annually. Emphasis is placed on managing the reservoir and downstream of the dam to provide recreational fishing for trout. Public fishing access is restricted below the mitigation area because the land is privately owned.

Currently, a trout fishery is found above Jordanelle Reservoir. Yellowstone cutthroat trout (*Onchorynchus clarki*) are most numerous in the north fork of the Provo River, whereas rainbow (*Onchorynchus mykiss*) are predominant in the main channel. In the 24-mile reach just above the reservoir, a thriving population of mountain whitefish and moderate self-sustaining populations of brown (*Onchorynchus trutta*) and cutthroat trout exist. Small numbers of brook trout are also in this area. All of these fish can be found in the reservoir as well. The reservoir is regularly stocked with rainbow trout (result of mitigation to compensate for fishery losses due to construction of Jordanelle Dam and Reservoir), and warmwater fish such as smallmouth bass and green sunfish have been introduced. The Provo River arm (north arm) has the best habitat for smallmouths because it is rocky and has more trees than other portions of the reservoir. Between Jordanelle Dam and Deer Creek Reservoir, mountain whitefish are the most dominant species followed by brown and rainbow trout and mottled sculpin.

Water quality, especially temperature and dissolved oxygen levels, is a limiting factor when evaluating potential effects to the cold water fishery. Minimum winter releases of 125 cfs were requested for the fishery. Below Jordanelle Dam, the relatively clean substrate supports a diverse community of benthic invertebrates. Mayflies, stoneflies, caddisflies, and midges are invertebrates indicative of good water quality conditions. These invertebrates are necessary to support a trout fishery in the Provo River and its tributaries. Trout prefer stream habitat conditions that include favorable water velocity, frequent and deep pools, a high percentage of gravel substrate suitable for spawning, and overhanging vegetation with stable undercut banks that provide excellent cover. Important spawning and rearing areas are located in the main tributaries and main river channel.

Yellow perch, mountain whitefish, Utah chub, Utah sucker, largemouth bass, green sunfish, carp, kokanee, and brown, rainbow, and lake trout inhabit Deer Creek Reservoir. Below Deer Creek Reservoir, the lower reach of the Provo River has predominately brown trout and small populations of walleye, white bass, and June sucker. Carp, Utah chub, speckled dace, longnose dace, fathead minnow, bullhead minnow, channel catfish, and black bullhead are other native and non-native fish found in the lower Provo River. Smallmouth bass and green sunfish (both centrarchids) typically spawn in the spring from mid-May to July in fairly shallow water (3 to 5 feet deep) over substrates of gravel, sand, mud, or roots. Nests are usually built near rocks or aquatic vegetation that provide cover. Eggs hatch in 7 to 10 days. Stable water levels are important for incubation and rearing centrarchids (Stuber, Gebhart, and Maughn, 1982). Lower water surface elevations generally decrease the availability of inundated woody debris that young and adult centrarchids use for cover and increase the likelihood of predation. Juvenile and adult centrarchids use a wide range of habitats during the summer, ranging from near shore feeding grounds to relatively deep areas during midday.

## 5.2 THREATENED, ENDANGERED, AND CANDIDATE SPECIES

5.2.1 Federally Listed Species. Coordination with the U.S. Fish and Wildlife Service (FWS) has been initiated to determine if there are any effects to Federally listed threatened, endangered, and proposed candidate species whether any of the listed species can be found inhabiting or seasonally using the project area. A complete list of species that could be present in Wasatch County is included in an October 17, 1995, letter from the FWS (see appendix C). These Federally listed threatened and endangered species include the bald eagle (endangered), peregrine falcon (endangered), June sucker (endangered), Utah valvata snail (proposed as endangered), and Ute ladies'-tresses orchid (threatened). In addition, the Federally proposed candidate species include the black tern, northern goshawk, ferruginous hawk, western snowy plover, western spotted frog, western least bittern, loggerhead shrike, long-billed curlew, white-faced ibis, Colorado River cutthroat trout, Spangler's hydroporus diving beetle, Utah hydroporus diving beetle, Utah minute moss beetle, North American lynx, North American wolverine, Wasatch pika, Garrett bladderpod, Coalville mountainsnail, Utah physa, and thickshell pondsnail. The possibility of these listed species inhabiting the project area and potential effects are

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discussed in section 5.2.3 and 5.2.4, respectively, which serve as the Corps' biological assessment.

**5.2.2 State-Listed Sensitive Species.** Coordination with the Utah Division of Wildlife Resources has been completed to determine which State-listed sensitive species could be found in the project area. Currently, the State has no "official" list of sensitive species, but it does have a draft list. The State defines sensitive as "any wildlife species which, although still occurring in numbers for survival, [but] whose population has been greatly depleted, is declining in numbers, distribution, and/or habitat (S1); or occurs in limited areas and/or numbers due to a restricted or specialized habitat (S2). A management program, including protection or enhancement, is needed" (Utah Division of Wildlife Resources, 1993). Non-game species on the State's draft sensitive species list are afforded legal protection, but the State does not require formal consultation similar to the Endangered Species Act's Section 7 consultation with the FWS (Robinette, pers. comm., 1995). Appendix D is a complete list of the State-listed species that may be present in Utah. After review of this list, the species that have the greatest potential to use the project area near the reservoir or downstream of the dam along the Provo River are the spotted bat, Townsend's big-eared bat, Caspian tern, black tern, American white pelican, northern river otter, northern pocket gopher, short-eared owl, osprey, long-billed curlew, yellow-breasted chat, purple martin, Swainson's hawk, Lewis' woodpecker, and western spotted frog. The possibility of Federally and State-listed species inhabiting the project area is discussed in section 5.2.3.

**5.2.3 Existing Environment.** As stated in the USBR's 1994 biological assessment, "The Utah valvata snail historically occurred in the Provo River, however, this species has been extirpated from the Provo River Basin." The bald eagle, peregrine falcon, and Ute ladies'-tresses are the only Federally listed threatened or endangered species that might seasonally use or inhabit the Jordanelle Dam and reservoir project area. According to the Utah Division of Wildlife Resources, there are no nesting bald eagles in the project area, but small numbers of the birds (not large enough to be considered communal) can be expected to winter near the reservoir (Fairchild, pers. comm., 1995). Peregrine falcons are known to nest primarily near marsh areas with nearby cliffs in Utah. The Division of Wildlife Resources indicates that the Jordanelle area has no marshes large enough to sustain a hunting pair. Therefore, peregrine

falcons probably would not nest successfully in the project area. According to Fairchild, spotted frogs can be found in the USBR's mitigation area below the dam and on private lands downstream to Deer Creek Reservoir.

June suckers (commonly known as lakesuckers) are candidate species that are not found in the project area delineated in this EA, but they are present in the lower 4.9 miles of the Provo River. Currently, the June sucker is listed because the population is largely composed of older individuals. Wild adult numbers are estimated to be less than 1,000. Larval suckers drifting to Utah Lake have been estimated to include 15,000 to 23,000 individuals. June suckers inhabit Utah Lake and are midwater planktivores of the genus *Chamistes*. Pre-spawning congregations occur at the mouth of Utah Lake. The sucker migrates during their spring spawning run into the lower Provo River. Various cues such as photoperiod (longer daylight hours), flow, and water temperature stimulate the spawning run. Spawning runs begin in late April, and peak spawning occurs in June as spring runoff decreases. The USBR's 1994 biological assessment states that the lower portion of the Provo River has been designated as critical habitat by the FWS. June sucker larvae hatch between 6 and 10 days at temperatures ranging from 21 degrees to 10.6 degrees Celsius, respectively. Larvae lie still on or within the substrate and drift (mostly during nocturnal hours) into low velocity habitats, especially backwaters, and into the almost no-velocity transition zone of the lower Provo River. A few individuals overwinter in the river. Larval June suckers grow rapidly with warmer water temperatures and abundant food resources. Larvae and post juveniles feed on zooplankton and switch to more available prey items.

Due to low June sucker population numbers, intensive life history studies began in 1978 and continue today. June suckers achieve reproductive maturity between ages 5 and 7 while average egg productivity per adult female has been estimated to be about 35,000. Average egg production ranges from 18,000 to 45,000 eggs per female. June sucker eggs sink and are deposited on the bottom substrate and remain there during incubation. The eggs weakly adhere to substrates composed of large gravels and cobbles. Spawning occurs in water temperatures between 11 and 15 degrees Celsius, and suckers spawn in water depths between 30 and 76 centimeters. Instream flow incremental methodology studies revealed that flows of 80 to 250 cfs were the most desirable to provide at least 75 percent of the highest weighted usable area spawning habitat. Spawning is restricted to the

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lower 7.8 kilometers of the Provo River. Suitable spawning habitat has been restricted because of fine sediments and organic materials. June suckers have been observed to more readily use suitable spawning substrate when it is concentrated in larger deposits. Sites where June suckers spawn were relatively clear of silt and algal organisms that live attached to underwater surfaces.

The proposed Federal candidate species including the black tern, ferruginous hawk, western least bittern, white-face ibis, long-billed curlew, and loggerhead shrike have not been observed in the project area, but these species could potentially use the project area because there is a marginal habitat available. According to the FWS, Garrett bladderpod is not found around the reservoir or below the dam because there is no suitable habitat. The plant is found in higher elevation, and it is usually associated with alpine communities. The candidate species including the mountain plover, North American lynx, North American wolverine, and northern goshawk are not likely to be found in the project area because they inhabit forested areas. After review of the FWS' letter describing habitats for listed species that could occur in Wasatch County, the other candidate species including the Colorado River cutthroat trout, Bonneville cutthroat trout, Spangler's hydroporus diving beetle, Utah hydroporus diving beetle, Utah minute moss beetle, Wasatch pika, Coalville mountain snail, Utah physa, thickshell pondsnail, and Utah valvata snail are not found in the project area. These species are not found in the project area because this geographic area does not have suitable habitat to support them.

Western spotted frogs are Category 2 candidate species and are present below the dam in the USBR's wetland mitigation area and farther downstream on the Provo River. The USBR's 1993 "Jordanelle Dam Wetlands Mitigation Operations Report" states that western spotted frogs have experienced rapid decline in populations during the past several decades, particularly with the elimination of habitat. The USBR has created new ponds in the wetland mitigation area to benefit and perpetuate spotted frogs, funded the relocation of frogs from the reservoir basin, coordinated construction activities to facilitate work associated with the spotted frog, and participated in a population survey of the area. Federal and State resource agencies have indicated that it is necessary to maintain some water in the upper ponds during the winter to ensure the frog's ability to overwinter without desiccating. The western spotted frog's breeding season begins in the spring when rain occurs and lasts through July.

The USBR's 1993 report also states: "Habitat requirements for the frog include cold, shallow water with little or no current. Preferable vegetation includes duckweed, algal mats, and shorter vegetation. Taller vegetation such as cattail is not desirable, although there seems to be some tolerance to cattail as reported in the literature. Frogs burrow into the soft soils in the bottom of the ponds to overwinter. The lack of unvegetated areas with shallow water would restrict the area available for overwintering of the frogs. Objectives to maintain habitat for the frog include: [(1)] Maintaining water flows into the spotted frog ponds created by Reclamation and existing wetland areas so that they may continue to serve as useful habitat for the spotted frog; [(2)] Encourage development of additional habitat for the spotted frog; and [(3)] Ensure all aspects of operation, maintenance, human, and wildlife use consider status of and effects on the population of western spotted frogs."

State-listed sensitive species including the osprey, Caspian tern, American white pelican, black tern, long-billed curlew, and Swainson's hawk could use either the reservoir or surrounding land for foraging, resting, or breeding. However, none of these species were mentioned in the project area in either the USBR's 1973 or 1979 final environmental statements. Currently, there are no indications that existing habitat conditions have significantly changed since 1973 so these species could potentially use the project area because there is marginal habitat available. Because there is marginal habitat, these State-listed species are more likely to use the project area seasonally rather than year-round. Purple martins have been observed in the project area. Other State-listed species that could be found in the project area include the northern river otter, short-eared owl, northern pocket gopher, yellow-breasted chat, Lewis' woodpecker, spotted bat, Townsend's big-eared bat, and spotted frog. These species are more likely to inhabit the riparian corridor along the Provo River below the dam.

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## Site Specific Information

### SCENIC

The visual effects of the subject property will be preserved to the extent possible by integrating buildings into site topography and by use of creative architecture blending building shapes, materials, and colors into the natural surroundings. The site and its improvements may be seen from three possible vantage points:

- 1. foreground views: approximately 0 to 0.5 miles from US Highway 40 and approximately 0 to 1.0 miles from properties to the south and east,
- 2. middle ground views: approximately 1 to 3 miles from the Jordanelle Reservoir and from the Telemark Park project,
- 3. Background views: approximately 3 plus miles to Highway 248 and properties to the east,
- 4. Air views.

• Foreground views of the project can, for a short length, be seen from US Highway 40 along a half mile stretch as well as from undeveloped properties to the south and east. The small area that can be seen will be mitigated by the following:

- a. siting of buildings such that they blend with site topography,
- b. creative architecture using building shapes, facades, materials, and colors that blend with the site surroundings, and
- c. planting of trees, shrubs, and grasses on the property.

• Middle ground views of the project can be seen from the Jordanelle reservoir. These areas that can be seen are mitigated by the following:

- a. the longer distances involved,
- b. the low angle of visibility of the Staghorn Village from the water surface of the reservoir,
- c. landscaping and building architecture design for the subject property will incorporate qualities that will promote an aesthetic blending of the development into the natural surroundings.

• Middle ground views of the project can be seen from the Telemark Park. These areas that can be seen are mitigated by the following:

- a. the longer distances involved,
- b. landscaping and architectural design for the subject property will incorporate qualities that will promote an aesthetic blending of the development into the natural surroundings.

• Background views of the project can be seen from Highway 40 as well as from Highway 248 and properties to the east of the Jordanelle reservoir. These areas that can be seen will be mitigated by the following:

- a. the very long distances involved,
- b. landscaping and architectural design for the subject property will incorporate qualities that will promote an aesthetic blending of the development into the natural surroundings.

• Air views of project facilities will of course be provided to both national and local air travelers. Due to the use of common open spaces, due to the architectural emphasis of integrating project buildings into natural settings of terrain and vegetation, and due to the project's emphasis on natural revegetation techniques, the project facilities should not provide objectionable views from the air.

The following is a list of visual classifications on the subject property:

- high mountain peaks - very few occurrences on the property; these are considered most visually sensitive,
- ridge skylines - minimal occurrences on the property - these are considered of moderate visual sensitivity,
- rolling hills - majority occurrence on the property - these are considered least visually sensitive,
- gentle fields - minimal occurrence on the property - these are considered least visually sensitive.

The majority of development on the property occurs under the rolling hills visual classification - classifications which have the least visual sensitivity on the land.

Additional components of the natural setting for any property are vegetation and wildlife (flora and fauna) which may exist on a particular property which are discussed below.

## SITE SPECIFIC FLORA

### Project Clearing Standards

Project clearing required for the construction of the village center, multiple family dwellings, and for single family homes will be accomplished in a sensitive manner as outlined in Mitigating Measures of this chapter.

### Fire Protection Fuel Breaks

Fire protection fuel breaks are described in detail in Chapter 16 - Fire Protection of this EIS and consist of selective clearing of native vegetation and specific replanting of fire resistant materials.

### Individual Lot Construction

Clearing of property on single family lots will be restricted to building sites and specified limits of disturbance. Removal of natural vegetation will be limited by project documents as described in the information brochure included in Chapter 2 - Project Data of this EIS.

## LANDSCAPE ARCHITECT REPORT

The following report relating to site specific flora has been prepared for the subject property: **LANDSCAPE ARCHITECTURAL GUIDELINES FOR THE LANDSCAPING AND PRESERVATION OF THE EXISTING VEGETATION AT THE ELKHORN MOUNTAIN - STAGHORN VILLAGE SITE. PREPARED BY: JOHN L MAAS & ASSOCIATES, LANDSCAPE ARCHITECTS, LAND MANAGEMENT CONSULTANTS, INC. 360 EAST 4380 NORTH, PROVO, UTAH 84604 TEL. 1-801-225-2050 FAX 11-801-224-1944, dated July 31, 1996. A copy of this report is included in Volume 2 of this EIS.**

## SITE SPECIFIC FAUNA

There have been numerous deer kills along highway 40 of the subject property since the completion of the new highway in 1989. Also, there are some reported elk and moose kills in the area. The major impact on wildlife in the area has already taken place by virtue of highway construction and continued flow of traffic through the highway corridor. It is not felt that the proposed project will impact wildlife any more significantly than that which is already occurring as a result of US Highway 40.

## POTENTIAL IMPACT

Potential impact of any proposed project with respect to scenic qualities, natural vegetation, and wildlife is:

- possible disturbance to the natural scenic beauty of the site itself,
- destruction of any significant vegetation especially rare and beautiful forms,
- disruption of wildlife especially rare and endangered species,
- removal of range land used by wildlife for feeding.

## ENVIRONMENTAL IMPACT

The proposed project facilities will have the following probable impact on the environment.

- The development of the Elkhorn Mountain - Staghorn Village Project will change the visual character of the subject property with the introduction of roads, and buildings.
- The project will remove vegetation in areas due to roadway construction.
- The project will remove vegetation in areas due to building construction.
- Project grading will in some areas bring about a change in landforms.
- The visual character of the property will change in some degree by the introduction of man-made objects such as buildings, roads, etc. onto the property.
- The project will disturb vegetation areas of common open space due to bike and pedestrian paths. The disturbance to the site for this type of construction will be minimal.

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## MITIGATING MEASURES

### General

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following General measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- Site grading will be limited to roadways and building areas.
- Care will be taken to avoid a massive scenic degradation of the project site.
- Care will be taken in the construction process to minimize the amount of disturbance to the landscape, and to utilize "best management" practices where practical to minimize the amount of erosion which might result from project grading. This in turn will protect the water quality of downstream areas.

It is one of the stated goals of the reference "Comprehensive Plan, Wasatch County - Utah, 1973-1993" to improve the quality of the living environment for citizens of Wasatch County. To this end the Comprehensive Plans recommends:

- 1. every dwelling should be landscaped,
- 2. roadsides and other public property shall be kept free of weeds and rubbish,
- 3. open space shall be provided throughout the project,
- 4. municipalities should encourage abutting property owners to plant and maintain street trees in residential areas.

It is felt that the proposed project meets this goal and its specific recommendations.

- The proposed project will not destroy any rare vegetation, and great care will be exercised to minimize the amount of vegetation cover that will be removed during construction. Landscaping consisting of trees, shrubs, and grasses will be added as the project develops.

### Scenic

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following Scenic measures designed to either mitigate the

- The project will disturb and remove some habitat of wildlife in the area by construction of roads, and homes.
- Wildlife displaced from their habitat by project construction may seek to replace lost food sources with project ornamental shrubs and trees.
- The development of the project may have a negative effect on the wildlife through increased recreational use of the land.
- Based on use of and experience with the land in question, the owner of the property reports that there are no known threatened or endangered animal species within the project area.
- Based on use of and experience with the land in question, the owner of the property reports that there are no known sensitive species of animals within the project area.
- The proposed development should not displace any rare or endangered species of wildlife.
- The proposed development should not alter the hunting opportunities in the area since the subject property is private, and has not been open to hunters.
- Based on use of and experience with the land in question, the owner of the property reports that there are no known threatened or endangered plant species within the project area.
- Based on use of and experience with the land in question, the owner of the property reports that there are no known sensitive species of plants within the project area.
- The proposed development should not eradicate any rare, endangered, or threatened species of plants, trees, or shrubs on the property.
- The proposed development should not unduly injure the natural beauty of the site itself.
- There is no fish habitat on the subject property since intermittent storm water paths through the subject property do not provide opportunity for habitat.
- Due to the project's slope, aspect, vegetative diversity, land form diversity, soil productivity, soil stability, and field of view, the land in question will incorporate grading and planting to accommodate the development proposed.
- Deer and elk wintering range in the area will be slightly affected.
- The development of the Elkhorn Mountain - Staghorn Village Project will cause a few species of wildlife to possibly relocate their habitat.
- The proposed development should not adversely affect any fishing opportunities in the area.



effects of development and/or enhance the existing environmental conditions.

- The project will include varied size open space areas throughout the property to soften the visual impact of development, and to enhance the living experience of residents and guests within the project.
- Project buildings shall be sited in such a manner as to preserve natural land form to the extent possible.
- Project buildings shall be sited in such a manner as to preserve significant vegetation to the extent possible.
- All graded slopes will be replanted with native species of trees, plants, and shrubs to return the disturbed areas to a natural visual character as much as possible.
- CC&Rs and Architectural Standards and Review Procedures will restrict building form, colors, placement, building heights, and amount of hard surfaces through sensitive design in order to soften the visual effect of development on the environment.
- The developer will exercise good architectural design practice in locating buildings and project facilities which may be seen by future adjacent residents, or from other areas in Wasatch County.
- Retaining walls required in site construction shall be designed with steps or benches, and/or constructed of natural looking materials so as to minimize their visual impact on the site.
- Retaining walls required in site construction shall be compatible in form, scale, and materials with the architectural features of adjacent or nearby buildings.
- Significant vegetation occurring on lots will be preserved through removal restrictions recommended in project CC&Rs.
- Detention basin and debris basin areas will be designed and planted to protect and enhance the visual appearance of the surroundings.
- Revegetation programs shall use native plants and materials as much as possible in order that construction areas blend back into the visual landscape as soon as possible.
- Site design shall include the visual screening of service, maintenance, and equipment areas relating to project buildings and facilities.

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- Site design shall minimize the visual impact of off-street parking through covered parking within residences, and through underground parking in the village center.
- Site design shall minimize the visual impact of off-street parking through introduction of landscaping pockets into pavement parking areas.
- The rounding of slopes and contour grading principles will be employed where possible to blend graded areas into natural landforms.
- Developers will limit architectural shape, form, and color of building and roofing materials through creative design to those which will effectively blend with the existing landscape.
- Architectural Standards will preclude reflective exterior building colors.
- Buildings constructed on steeper hillsides shall be stepped to follow and blend with the natural terrain.
- Project design and construction shall emphasize a unity of visual appearance through the predominance of materials, colors, and textures used in project buildings and facilities.
- Signs within the development shall be chosen so as to provide a visual unity and blend with building architecture.
- On steeper slopes, project buildings will be set into hillsides to also act as retaining walls, thus minimizing the visual disturbance caused by excessive site grading which is often required to create level building pads.
- Project facilities and structures will attempt to emulate the form, line, color, and texture of the visual character and strength of the existing landscape in order to blend into the existing natural surroundings.

**Flora**

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following Flora measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

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- Re-vegetation, replanting, and reseedling of areas disturbed by grading and development will be undertaken in order to:
  - minimize erosion,
  - reduce dust emissions,
  - replace and enhance vegetation lost to construction and,
  - improve water quality of down stream areas.
- Topsoil will be stockpiled and reused to aid in landscape restoration.
- Plant materials used in re-vegetation programs shall selectively be native materials, or native appearing materials, which will blend with the existing vegetation.
- Construction and development areas shall be replanted as soon as possible after disturbance:
  - to insure a successful re-vegetation program,
  - to restore the visual character of the land,
  - to restore wildlife habitat, and
  - to minimize erosion potential.
- Trails shall be constructed using non-destructive construction techniques where possible to minimize erosion potential and improve water quality of down stream areas. Non-destructive construction techniques will include removal of trees and shrubs on trails by hand and small equipment as opposed to massive earthwork grading by bulldozers.
- Construction of steeper angle cut slopes where geologically possible will be utilized to minimize the amount of vegetation removal and erosion potential.
- Construction of minimum road lengths possible to minimize effect of project grading and disturbance to landscape and existing vegetation.
- Adequate off-street parking will be provided throughout the development to minimize street widths and the grading necessary for the construction of roadways.
- Provision for open space preserves will be made to protect and enhance significant trees, plants, and shrubs on the land.
- The necessary removal of trees shall be accomplished in a manner which shall not harm other trees or vegetation to the extent possible.
- Site construction limits for buildings and facilities shall be minimized to the extent possible.
- Provision for pedestrian access ways will be provided where possible in lieu of automobile traffic, circulation, and parking.
- Provision for bike and pedestrian pathways will be made throughout the project to minimize automobile travel, traffic, and parking.
- Open space preserves will be set aside for recreational uses where possible to minimize the effect of development on existing natural vegetation and landscape.
- Development, utilization, and maintenance of open space areas will be conducted in compliance with project Conditions, Covenants, and Restrictions (CC&Rs) relating to the preservation and enhancement of common open space areas.
- Buyers of single family property sites within the development shall be encouraged through project CC&Rs and Architectural Standards and Review to utilize native plants of the low water use variety in their landscaping plans. These species will blend with the existing vegetation and will require a minimum of irrigation water to maintain.
- Care will be taken, where possible, in the construction of roadways, project facilities, buildings, and homes to preserve any trees of significance.
- In areas of large scale grading, topsoil removed from the site will be saved and stockpiled for later use in landscaping purposes within the development.
- Extreme caution shall be exercised in the use of herbicides within the development to avoid introduction of these chemicals into stream channels or drainage courses.
- Re-vegetation efforts within the project shall consider the use of fire retardant or fire resistant plant species.

**Fauna**

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following Fauna measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- Snowmobiles, motorcycles, and ATVs will be prohibited from using hillside and common areas.

- Large open space areas will be left within the development in order to mitigate disturbance to wildlife in other areas of the property.
- Disturbed common area facilities will be replanted with native species conducive to wildlife grazing.
- Storm water facilities (detention ponds) and water quality facilities (debris basins) shall be designed in a distributed fashion where possible throughout the development to increase the opportunities for wildlife.
- Riparian zone habitats such as canal corridors shall not be utilized for development except where absolutely necessary for road construction.
- Water quality debris basins will be constructed within the development to preserve water quality of down stream habitat areas.
- Areas disturbed by construction shall be restored to their original condition as nearly as possible and as soon as possible to minimize the disturbance to wildlife habitat.
- The significant recreation facilities and areas included within the development will help to offset the loss of wildlife opportunities caused by project development.
- Open space areas and corridors will be maintained within the development to allow for the migration of wildlife.

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*Elkhorn Mountain*



*Staghorn Village*

# CULTURAL RESOURCES

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter.

## BACKGROUND INFORMATION

- CULTURAL RESOURCES - GENERAL
- JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT
- DRAFT ENVIRONMENTAL IMPACT STATEMENTS, WASATCH COUNTY WATER EFFICIENCY PROJECT AND DANIEL REPLACEMENT PROJECT, PROVO RIVER RESTORATION PROJECT.
- JAIL
- COURT SYSTEM

## SITE SPECIFIC INFORMATION

- HISTORICAL SITES AND STRUCTURES
- PUBLIC SERVICES
- BUILDINGS AND COMMUNITY FACILITIES
- SCHOOLS
  - Wasatch County School District Information
  - Project's School Children Generation
- HEALTH CARE FACILITIES
- SOLID WASTE DISPOSAL
- LAW ENFORCEMENT
- PUBLIC WORKS

- EMERGENCY SERVICES
- CULTURAL SITES
- PUBLIC RECREATION SITES
- ARSHEOLOGICAL SITES
- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

Those wishing to skip to General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 3.

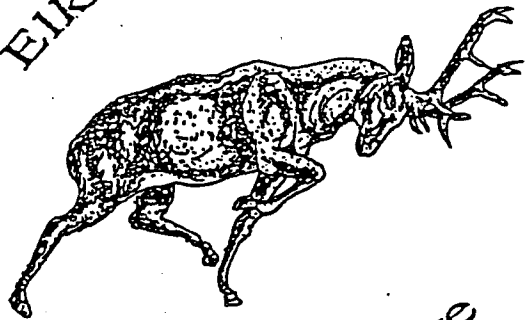
## Background Information

### CULTURAL RESOURCES - GENERAL

- Typical cultural resources include:
- historical sites and structures

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Staghorn Village

# FIRE PROTECTION

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter.

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 9.

## BACKGROUND INFORMATION

- DEVELOPMENT CODE OF WASATCH COUNTY
  - Summary of Fire Protection Specifications
- WILDFIRE HAZARDS AND RESIDENTIAL DEVELOPMENT
  - Wildland Subdivision standards
- WILDFIRE PLAN, WASATCH COUNTY
- PARK CITY
- PARK CITY FIRE DISTRICT
- WASATCH COUNTY FIRE WARDEN & AREA FORESTER -WILDFIRE HAZARD ANALYSIS, Adjacent Telemark Park Subdivision

## Background Information

## SITE SPECIFIC INFORMATION

- SITE SPECIFIC WILDFIRE HAZARD CLASSIFICATION
- SITE SPECIFIC FIRE PROTECTION SPECIFICATIONS
- PROJECT FIRE PROTECTION and PREVENTION FACILITIES
- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

## DEVELOPMENT CODE OF WASATCH COUNTY

The Development Code of Wasatch County as it has adopted Appendix III-A and III-B of the Uniform Fire Code, 1994 Edition, lists a fire flow requirement for residences of 1000 gpm for two hours. This represents a storage volume requirement of 120,000 gallons.

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General subdivision standards and requirements relate to:

The Uniform Fire Code varies fire flow requirements with use, therefore increased fire flow requirements are specified for higher density developments.

Also of importance in considering the installation of fire hydrants is Section 3-7 of the Code:

*"Purpose of Regulations: Such regulations shall be designed and enacted for the purpose of promoting the health, safety, morals, convenience, order, prosperity or welfare of the present and future inhabitants of the State of Utah, including amongst other things, the lessening of congestion in the streets or roads or reducing the waste of excessive amounts of roads, securing safety from fire and other dangers, providing adequate light, land development and utilization, protection of the tax base, securing economy in government expenditures, fostering the state's agricultural and other industries, and the protection of both urban and non-urban development."*

**SUMMARY OF FIRE PROTECTION SPECIFICATIONS**

- Minimum Fire Flow Rate: 1000 gpm,
- Required Duration of Fire Flow: 2 hours,
- Minimum Fire Flow Storage Volume: 120,000 gallons,
- Minimum Pressure of Fire Flow: 22 psi,
- Fire Hydrant Spacing: maximum 500\* feet,
- Maximum Distance from Fire Hydrant to Buildings: 250,\*\* feet
- Minimum Roadway Centerline Radius: not specified,
- Minimum county road width: 26 feet,
- Minimum fire access road width: 20 feet,
- Turnaround Specifications: Cul-de-sac pavement turning radius = 40 feet.

\* reduce by 100 feet for dead-end streets

\*\* reduce by 50 feet for dead-end streets

**WILDFIRE HAZARDS AND RESIDENTIAL DEVELOPMENT**

The reference "Wildfire Hazards and Residential Development, by State of Utah, Department of Natural Resources, Section of Forestry and Fire Control, 1978" contains State Standards concerning fire protection measures in residential subdivisions. Standards specified are both general and specific.

**WILDLAND SUBDIVISION STANDARDS (Class 2)**

**1. Vegetation manipulation:**

a. Fuel Breaks Hazardous fuels in the form of native vegetation will be cleared to not less than 50 feet around structures and to not less than 75 feet around the perimeter of the subdivision development. Fire resistant vegetation will be planted in the fuel breaks to prevent undue soil erosion. In steep terrain, cleared or level slopes will be stabilized immediately following construction. Developers and lot owners will be required to construct retaining walls, water bars, check dams, terraces, or other forms of physical means of soil erosion control as determined by the local governing authority. Fuel breaks around structures will be maintained by the land owners. Fuel breaks may contain individual tree specimens, ornamental plants, or other similar vegetation to be used as ground cover; provided they will not provide a means of transmitting wildfire from native vegetation to structures. Fuel breaks around the perimeter of the development will be dedicated to this specific purpose by recording the land as common to the development. The development or local governing authority will maintain these fuel breaks.

b. Lot size Lots will be at least 1/2 of an acre in size to permit adequate fuel breaks around structures. Structures will be placed within lots so adequate fuel breaks may be established on all sides. Minimum lot sizes and fuel break widths will increase as average slope increases (See Appendix B).

c. Chimneys, Stovepipes, and Outdoor Fireplaces Fuels will be removed to a minimum of 15 feet around all chimneys, stovepipes, and outdoor fireplaces.

d. Dead Vegetative Materials Structures will be kept free of dead vegetative materials. All trees left in fuel breaks for aesthetics will be kept free of dead or dying wood, and lower branches pruned to a height of 16 feet if the trees are over 35 feet. If the trees are less than 35 feet, the lower 1/2 of the trees will be pruned.

2. **Structural materials:** (only required in areas where native vegetation averages 3 feet in height or more)

a. **Roofs and exteriors** Roofs and exteriors of structures will be constructed of fire resistant materials such as asphalt rag felt roofing, gravel, tile, slate, asbestos cement shingle, sheet iron, brick, aluminum, or fire retardent-treated wood shingles or shakes.

b. **Structural projections** Structural projections such as balconies, decks, and roof gables will be constructed of fire resistant materials, or materials treated with fire-retardent chemicals.

3. **Disposal of flammable and solid wastes:**

a. **Vegetation** All vegetation such as trees, branches, limbs, stumps, exposed roots, and brush disturbed during construction will be disposed of by chipping, burial, or removal.

b. **Construction Materials** Excess flammable construction materials will be disposed of by burial, removal, or other means as specified by the local governing authority.

c. **Trash** Flammable trash or rubbish will be burned in incinerators with screened outlets. Screens will be constructed with non flammable material with openings of not more than 1/2 inch in size with wire no smaller than 16 gauge. All highly flammable vegetation around incinerators will be removed to 15 feet. Where practical, disposal will be by methods other than burning.

4. **Road specifications:**

a. **Access** A minimum of two dedicated access roads for separate ingress-egress will be provided.

b. **Right of Way** Major road right-of-ways will be a minimum width of 60 feet with minimum road widths of 30 feet; minor road right-of-ways will be a minimum of 40 feet with minimum road widths of 20 feet.

c. **Cul-de-sacs** Cul-de-sacs will be a maximum of 900 feet in length, have minimum right-of-ways of 40 feet with minimum road widths of 20 feet, and have turnaround areas of not less than 90 feet in diameter. Cul-de-sacs will be designated as such with a warning sign within 50 feet of the outlet. Dead end roads will not be permitted.

d. **Public Access** All lots within a wildland subdivision will be provided with public access. Public access will be provided to areas beyond

the development by means of at least one road to the edge of the development. Until such time that the road is extended into the adjacent property, a turnaround will be established at the property edge with a minimum diameter of 90 feet.

e. **Radius of Curvature** Roads will be constructed with a minimum radius of curvature of 80 feet. Where severe or extreme topographic conditions make this impractical as determined by the local governing authority, variances to 50 feet will be made.

f. **Identification** Roads will be uniquely named or numbered and visibly signed as such at each road intersection. Lots will be uniquely numbered on each road and visibly signed as such. A map of the development with road and lot designations will be furnished to all local fire authorities.

g. **Road Grades** Road grades will not exceed 10 percent except for short distances when topographic conditions make lesser grades impractical. Variances will be made to 12 percent as determined by the local governing authority.

h. **Bridges and Culverts** Bridges and culverts will be constructed to support a gross vehicle weight of 40,000 pounds. Permanent culverts will be installed at all intermittent and perennial stream crossings. Specifications for bridges, culverts, and other stream crossing devices will take into account at least the 50 year frequency storm and upstream debris hazards.

i. **Road Maintenance** Public roads not dedicated to the local governing authority will be maintained by the lot owners. Dedicated public roads will be maintained by the special service district (See 8) or by the local governing authority.

j. **Road Base Specifications** All major roads will have a base consisting of a gravel fill at least 6 inches thick. Other types of bases may be installed if they meet with the approval of the local governing authority.

k. **Locations** Roads will be located on geologically stable areas. Where practical alternatives exist, roads will not be permitted in steep, narrow canyons; slide areas; slumps; slopes in excess of 60 percent; marshes; meadows; or natural drainage channels.

l. **Right-of-Way Clearance** Public road right-of-ways will be cleared of natural vegetation including all over hanging branches, and stabi-

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lized by the planting of fire-resistant vegetation and by physical means in steep terrain.

**5. Water supplies (See Appendix D):**

**a. Water Distribution** A public water distribution system will be installed by the developer. The minimum size of main lines in this system will be 6 inches in diameter. Fire hydrants will be installed on this system as follows: developments with a proposed maximum population density of two single family dwellings per acre, hydrant spacing should not exceed 600 feet with a minimum 2 hour fire flow of 500 gallons per minute with 20 pounds per square inch static pressure. In developments with a proposed population density exceeding two single family dwellings per acre (multi-family dwellings), hydrant spacing will not exceed 330 feet with a minimum 2 hour fire flow of 750 gallons per minute. In cluster type developments, fire hydrants will be placed so that all lots are within 500 feet of a hydrant.

**b. Water Storage or Source** Water storage or source will be provided to support the required fire flow for a period of 2 hours in addition to maximum daily flow requirements for other consumptive uses. Public access will be provided to within 5 feet of stored water supplies.

**c. Water Supplies to Lots** Single family dwellings will be provided with water mains with a minimum diameter of one inch. A minimum of one exterior, freeze-proof tap will be provided far enough away from each structure to permit hose protection for all sides of the building and roof. Single family water systems will have a minimum flow of 15 gallons per minute at an operating pressure of 50 pounds per square inch. Multi-family dwellings will be equipped with automatic sprinkler systems and two inch mains.

**6. Fire Department Authority (See Appendix E):**

A proposed development that is located in an area where the average response time from the nearest responsible fire department is greater than one hour will be required to establish a responsible fire department within the development. This facility will include a minimum of one vehicle designed and equipped to suppress structural fires; an all-weather structure to house the vehicle; and chartered, trained volunteer personnel consisting of at least four members to respond to fire calls at one time.

**7. Structural designs:**

**a. Openings** Roof, attic, and under floor openings will be screened or closed off.

**b. Chimneys and Stovepipes** Chimneys and stovepipes burning solid or liquid fuels will be equipped with screens over the outlets. These screens will be made of 16 gauge wire and have 1/2 inch holes.

**c. Utilities** Telephone and power supply systems will be underground whenever possible. A fire alarm system will be considered in remote areas.

**d. Flat Top Structures** Structures with horizontal roofs will be prohibited in areas where vegetation is higher than the roof.

**8. Special Service Districts:**

In remote areas, the county will consider the establishment of a special service district, according to the Utah Special Service District Act of 1975, to carry out routine maintenance of common properties and to provide for public services.

**9. Assurance of Performance:**

The developer of a wildland subdivision will be required to post a performance bond with the county or municipality guaranteeing that the required improvements will be installed. The amount of the bond will be equal to the cost of providing the required improvements.

Below are the appendices where the above mentioned gave reference to see.

**APPENDIX B. - Lot size and fuel break widths in relation to ground slope.**

Minimum lot size and fuel break widths will proportionately increase as ground slope increases.

Slope (In Percent)	(Acres)			(Feet)		
	Minimum Lot Size	Fuel Break Widths		Fuel Break Widths		
(Fire Hazard Class)	(Fire Hazard Class)	(Fire Hazard Class)	(Fire Hazard Class)	(Fire Hazard Class)	(Fire Hazard Class)	(Fire Hazard Class)
0 to 10	1/2	1/2	1	30	50	75
11 to 20	1	2	2	30	50	75
21 to 30	3	4	5	50	75	100



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31 to 60	5	7	10	50	75	100
60 and Over	10	15	20	75	100	150

In steep terrain, alternate lot sizes in the form of cluster or planned unit development on relatively level ground, will be encouraged wherever possible.

#### APPENDIX D. - Water Supply Details

A network of water mains should be able to supply continuous and uninterrupted quantities of water for fire (fire flow) over and above the quantity needed for normal maximum domestic demands. System capacity required for fire protection will range from 500 gpm up to 12,000 gpm for periods of from two to ten hours. As an example, a small settlement of a few hundred people would require 500 gpm in residential sections (well spaced or scattered small single family dwellings). Quantities in the 12,000 gpm range normally are required in large cities.

Water mains supplying hydrants should be installed as to constitute a distribution system, frequently cross-connected in order to provide circulating flow and comprised of pipe not less than 6 inches in diameter. Smaller pipe may be of some use, but usually is deficient in carrying capacity even when system pressure is exceptionally high. Eight inch and larger pipe will be necessary where normal system demands and higher fire flows so dictate. Whenever practical, distribution pipe should be cross-connected at intervals of 600 to 800 feet so as to form a regular gridiron. Valves should be installed with sufficient frequency and spaced so that no large portion of the system will be out of service at one time during repair and new construction.

Fire hydrants should be designed and installed in accordance with the recommended practice of the American Water Works Association (see Reference Material, AWWA; M17). A valved 6 inch street connection to the hydrant is considered good practice. Hydrants should have 2-1/2" outlets for pumper use. Hydrant installation should form a good "pattern" with due recognition to road and block layout so the fire department will not encounter impractical hose lay distances. In general, good fire department tactics contemplate the availability of at least two hydrants for the protection of any structure.

A water distribution system should not be dependent upon a single supply line or connection and, in-so-far as possible, sources of supply should be multiple and reliable. Where supply is dependent upon pumps, there should be duplicate installations providing for continued service in the event of failure of any given unit. Where

supply is dependent upon pumps and the pumps are electrically driven, reliability is improved through the installation of a standby electric power unit or through some type of auxiliary prime-mover such as a gasoline, diesel, or natural gas engine.

Where elevated storage is utilized it is considered good practice to locate the storage on the opposite side of the system when compared with the source (such as a well pumping directly into the system). Such an arrangement usually results in an improved flow capability and some available flow when part of the system is valued out for repairs or additions.

System operating pressure should be such that required fire flow may be obtained at not less than 20 pounds per square inch system residual pressure. As general rule, the lower the normal operating pressure, the larger the water main size necessary to deliver the same quantity of water. Increasing system pressure at time of fire demand is not considered good practice.

Since engineering problems are encountered when designing a water distribution system and its related facilities, it is suggested that a community or developer utilize the services of competent consultants so that design and installation will be compatible with local needs and projected future demands.

#### APPENDIX E - Fire Department Details

Minimum criteria for a responsible fire department are as follows:

**Organization:** The department shall be organized on a sound, permanent basis under applicable state and/or local laws. The organization shall include one person (usually with the title of Chief) responsible for the operation of the department.

**Membership:** The department shall have an active membership which provides a response of at least four members to alarms.

**Training:** Training shall be conducted for all active members.

**Apparatus:** Response to any alarm of fire shall be with at least one piece of apparatus suitably designed and equipped for fire service. Provisions shall be made for the housing and maintenance of apparatus.

**Alarm Notification:** Means shall be provided for 24 hour receipt of alarms and immediate notification of members.

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To be effective, a fire department should be well organized, well supervised, and suitably equipped for service commensurate with the fire suppression needs of the community. Operations should be governed by comprehensive regulations. The chief officer should be qualified and appointed (preferably through competitive procedure) for an indefinite term with removal only for just cause after proper hearing. Although not recommended, some departments select a chief by membership election. If this procedure is followed, there should be confirmation of acceptance by the local governing body. The practice of installing a new chief each year in order to give all members an opportunity to so serve is considered detrimental to organized protection.

All personnel, including officers and firemen, should be responsible citizens and if in other than a full-paid status, their occupations should be such as to insure reasonable availability for fire service and training. Selection of personnel should be with due regard to age and physical condition.

Arrangements should be made whereby a single definite location is established for receipt of fire calls reported by the public. This location should be constantly attended 24 hours a day. If this arrangement is not possible, suitable extensions (such as telephone) should be provided as necessary so that one or more alternate locations may be utilized for interim periods. Any location upon which receipt of alarm is dependent should be equipped with means for activating the devices used to notify firemen of an alarm of fire. These devices may be sirens, air horns, radio receivers, or a special telephone network. Irrespective of the nature of the device, arrangements should be such that a sufficient number of firemen receive the notification in order to provide an immediate response of a good working crew.

## WILDFIRE PLAN, WASATCH COUNTY

The reference "Wildfire Plan, Wasatch County, by State of Utah, Division of State Lands, Forestry and Fire Control, 1978 outlines county concerns regarding fire planning within Wasatch County. Of particular note are discussions of the relationship of fuel types, topography, and weather on fire behavior.

For all of the above reasons, a full water system meeting the fire flow requirements of the Wasatch Development Code, will be constructed as part of this development.

The developers of the project are also specifying the use of fire retardant roofing materials on buildings and structures within the development to minimize risks due to fire hazards.

## PARK CITY

Park City Fire Marshall specifies required fire flow rates based on the Fire Area considered, type of construction, building area, together with adjustments for occupancy, fire sprinklers, exposures, risk assessment, and roof covering. The following fire flow rates and duration are based on estimates on the subject property having the following characteristics:

Frame construction type V - N with a C = 1.5, fire retardant roof materials, and required assumed building area of 5,000sqft used in the formula  $F = 18CA^{1/2}$ , i.e.  $F = (18)(1.5)(5,000)^{1/2} = 1909$  gpm, or approximately 2000 gpm.

Commercial construction type V, 1 hour, 10,500 sq ft x2x2 for storage, yards, etc. assume 42,000 sq ft with a C = 1.2 for use in the formula  $F = 18CA^{1/2}$ , i.e.  $F = (18)(1.2)(42,000)^{1/2} = 4400$  gpm, or approximately 4,500 gpm.

Park City requirements specify the following duration of water supply for the fire flow ranges shown:

Duration	Flow Rate Range
2 hrs	500 gpm - 2500 gpm
3 hrs	2500 gpm - 3500 gpm
4 hrs	3500 gpm - 4500 gpm

## SUMMARY OF FIRE PROTECTION SPECIFICATIONS

- Residential Fire Flow Rate: 2000 gpm
- Residential Fire Flow Duration: 2 hours
- Residential Fire Flow Storage Volume: 240,000 gallons

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- Commercial Fire Flow Rate: 4500 gpm
- Commercial Fire Flow Duration: 4 hours
- Commercial; Fire Flow Storage Volume: 1,080,000 gallons
- Minimum Pressure of Fire Flow: 20 psi
- Fire Hydrant Spacing: maximum 300 feet
- Maximum Distance from Fire Hydrant to Buildings: 150 feet
- Minimum Roadway Centerline Radius: 50 feet
- Turnaround Specifications: Cul-de-sac pavement turning radius = 50 feet

**WASATCH COUNTY FIRE WARDEN & AREA FORESTER - WILDFIRE HAZARD ANALYSIS, Adjacent Telemark Park Subdivision**

The following recommendations are from the reference, "WILDFIRE HAZARD Analysis developed for TELEMAR PARK SUBDIVISION", prepared by: Muri Rawlins, Wasatch County Fire Warden, approved by: Dale Jablonski, Area Forester, August, 1989, which is included in Volume 2 of this report. Objectives of this report were to:

1. Analyze and describe the wildfire hazard in the project.
2. Identify special fire hazards and recommend prevention measures.
3. Identify conditions which yield a high resistance to fire control.
4. Provide specific recommendations for the reduction of fire hazards and protection from fire.

The reports specifically address the following essential ingredients relating to the safety of homes constructed in the Urban Wildland Interface:

1. Access into the development for fire fighting equipment.
2. Egress from the development during emergency conditions.
3. Specification and capability of the project water system.
4. Specification and construction of fuel breaks around homes and within the development.
5. Building specifications for project building construction.
6. Fire fighting equipment and manpower staffing of facilities servicing the project.

The following are essential conclusions and recommendations summarized the report.

- Construction of fuel breaks of not less than 100 feet in width around the perimeter of the development will aid

**PARK CITY FIRE DISTRICT**

The park city fire district specifies fire flow rates, duration etc. relating to fire protection in unincorporated areas of summit county within its district. Their standards are included here for information purposes only. The fire district uses some standards contained in the 1994 Uniform Building Code (UBC) and in the 1994 Uniform Fire Code (UFC) for their requirements.

**SUMMARY OF FIRE PROTECTION SPECIFICATIONS**

- Residential Fire Flow Rate: 1500 gpm in most cases.
- Residential Fire Flow Duration: 2 hours
- Residential Fire Flow Storage Volume: 180,000 gallons minimum.
- Commercial Fire Flow Rate: varies with building type and area
- Commercial Fire Flow Duration: varies with fire flow rate
- Commercial; Fire Flow Storage Volume: varies with fire flow rate and duration
- Minimum Pressure of Fire Flow: 20 psi
- Residential Fire Hydrant Spacing: maximum 500 feet
- Residential Maximum Distance from Fire Hydrant to Buildings: 250 feet
- Commercial Fire Hydrant Spacing: varies with fire flow rate - see UFC
- Commercial Maximum Distance from Fire Hydrant to Buildings: varies with fire flow rate - see UFC
- Minimum Roadway Centerline Radius: 50 feet

Turnaround Specifications: Cul-de-sac pavement turning radius = 45 feet

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in preventing the spread of wildfire from adjacent wildlands.

- Fuel breaks should be constructed around buildings.
- Fuel breaks recommended consist of removing dead plant material around the lot, thinning of vegetation around the home and lot perimeter, and thinning of lower branches on remaining vegetation to a certain height.
- In the addition to the removal of flammable vegetation, the planting and establishment of fire resistant vegetation is also recommended.
- Lot size shall be at least 1/2 acre to permit adequate fuel breaks around structures.
- Fuels will be removed a minimum of 15 feet around all chimneys, stovepipes, and outdoor fireplaces. All will be equipped with spark arrester caps and equipped with screens made of 16 gauge wire and have 1/2 inch holes.
- Fuel breaks shall be kept free of dead vegetative materials.
- Roofs and exterior of structures will be constructed of fire resistant materials. Wood shingles or cedar shake shingles should not be used even if treated and supposedly fire retardant.
- Structural projections such as balconies, decks, and roof gables will be constructed of fire-resistant materials, or materials treated with fire retardant chemicals. Roof, attic and under floor openings will be screened or closed off.
- Telephone and power supply systems will be underground whenever possible.
- Structures with horizontal roofs will be prohibited in areas where vegetation is higher than the roof.
- All vegetation such as trees, branches, limbs, stumps, exposed roots and brush disturbed during construction, or building of fuel breaks shall be disposed of in an approved manner.
- Excess flammable construction materials will be disposed of in an approved manner.
- Flammable trash or rubbish will be disposed of in a timely manner and in a way that is approved by the local governing body.
- A minimum of two access roads for separate ingress-egress will be provided for each section of the project, and for the development as a whole. Roads will be planned to allow ease of access for large suppression vehicles and to allow for a smooth flow of traffic.
- Major road right of ways will be a minimum of 60 feet wide with a minimum road width of 30 feet.
- Minor road right of ways will be a minimum of 50 feet wide with a minimum road width of 25 feet.
- Cul-de-sacs will be a maximum of 900 feet in length, have a minimum right of way of 50 width, a minimum road width of 25 feet, and have turnaround areas of not less than 100 feet in diameter
- All lots in the Telemark Park will be provided with public access.
- Roads will be constructed with a minimum radius of 80 feet, except where extreme topographic conditions exist and variances to radius of 50 feet may be deemed necessary by the county commission.
- Road surfaces shall be maintained in good condition.
- Roads will be named and plainly and visually signed at each road intersection.
- Lots will be plainly numbered and maps of the development, streets and street names, and lot numbers shall be provided fire and emergency service agencies.
- Road grades shall not exceed 10% except in extreme topographic conditions where variances to 12% may be deemed necessary by the county planning commission.
- Bridges and culverts shall be designed and constructed to support a gross vehicle weight of 40,000 pounds. Bridges and culverts shall be designed for 50 year frequency storm water flows.
- Locked gates shall not be permitted on any public right of way. Locked gates on private drives will be allowed only when a fire department key box has been installed.
- A public water distribution system will be installed in the development with minimum main sizes of 6 inches.
- Fire hydrant spacing shall not exceed 300 feet and maximum distance between hydrant and structure shall be 150 feet.
- A minimum fire flow rate of 1000 gpm for a two hour duration with a minimum residual pressure of 20 psi shall be provided within the project.
- Water storage shall be provided for two hours fire flow together with the estimated maximum day flow requirement.
- Dwellings will be provided with minimum 1 inch service mains and at least one exterior freeze proof tap far enough away from each structure to permit hose protection on all sides of the building and roof. The family water systems will have a minimum flow of 15 gpm at an operating pressure of 50 psi.
- Multi-family dwellings, lodges, and commercial structures will be equipped with fire sprinkler systems and shall comply with standards set by the county planning commission, Utah State Fire Marshals' office, and shall conform to the Uniform Building Code.
- Basic responsibility for fire protection shall rest with individual property owners who should have the following items installed and functioning in their home:
  - smoke detectors,
  - an individual family escape plan,

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- dry chemical ABC fire extinguishers,
- a list of readily accessible emergency phone numbers, and
- a garden hose and nozzle which will reach around the perimeter of the building.

Sketches from these reports for selective clearing before and after are included in this chapter for fir sites and for pine & oak sites respectively. The relationship of clearing required for various steepness slopes is shown herein, also taken from the report.

The above information is being included in this report since the Telemark Park project is directly adjacent to the subject property.

Slope is in percent

Wea indicates weather factor

RT indicates response time in minutes

Table 2 WILDFIRE HAZARD CLASSIFICATION TABLE

Rating	Hazard	Classification
5 - 11	Moderate	1
12 - 18	High	2
19 - 25	Extreme	3

Based on specific characteristics for the site, a rating value is chosen for each of the categories in Table 1. With the summation of these ratings, Table 2 is used to determine if the hazard is moderate, high, or extreme.

## Site Specific Information

### SITE SPECIFIC WILDFIRE HAZARD CLASSIFICATION

For the above general categories, specific standards and requirements are included in reference "Wildfire Hazards and Residential Development, by State of Utah, Department of Natural Resources, Section of Forestry and Fire Control, 1978" based on three classifications of wildfire hazard: moderate, high, and extreme. These classifications are determined based on the following two tables.

Table 1 WILDFIRE HAZARD SEVERITY SCALE

Rating	Slope	Aspect	Wea	RT	Vegetation
1	<10	N	1	15	pinion-juniper
2	20	E	3	30	grass-sage
3	30	level	5	45	hardwoods
4	45	S	7	60	mtn. brush
5	>60	W	>9	>60	softwoods

#### WESTSIDE PROPERTY

Using Table 1 for the subject property:

- slope is an average of 30%, therefore the rating value is 3,
  - aspect is facing east, therefore the rating value is 2,
  - weather, 9 critical fire weather days per year (see chart included in this chapter, therefore the rating value is 5,
  - fire engine response time is approximately 30 minutes, therefore the rating value is 2,
  - vegetation is (grass-sage) and (mountain brush) , therefore the rating value is  $(2+4)/2 = 3$ .
- The summation of these rating values is therefore  $3 + 2 + 5 + 2 + 3 = 15$ .

Using Table 2, with a rating value of 15 for the westside of the property, the wildfire classification is seen to be in the middle of the HIGH Classification being the middle of the three classifications shown, i.e., MODERATE, HIGH, and EXTREME. The corresponding numbers for these classifications is either a one (1), two (2), or three (3). The westside of the subject property falls in a class two (2) zone.

#### EASTSIDE PROPERTY

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Using Table 1 for the subject property:

- slope is an average of 10%, therefore the rating value is 1,
  - aspect is facing south, therefore the rating value is 4,
  - weather, 9 critical fire weather days per year (see chart included in this chapter, therefore the rating value is 5,
  - fire engine response time is approximately 30 minutes, therefore the rating value is 2,
  - vegetation is (grass-sage) and (mountain brush), therefore the rating value is an average of the two types respectively  $(2+4)/2 = 3$ .
- The summation of these rating values is therefore  $1 + 4 + 5 + 2 + 3 = 15$ .

Using Table 2, with a rating value of 15 for the eastside of the property, the wildfire classification is seen to be in the middle of the HIGH Classification being the middle of the three classifications shown, i.e., MODERATE, HIGH, and EXTREME. The corresponding numbers for these classifications is either a one (1), two (2), or three (3). The eastside of the subject property falls in a class two (2) zone.

**SUMMARY OF PROJECT FIRE PROTECTION SPECIFICATIONS**

- Fire Flow rate is a function of building type and area.
  - Required Duration of Fire Flow: 2 hours,
  - Minimum Pressure of Fire Flow: 22 psi,
  - Fire Hydrant Spacing: maximum 500\* feet,
  - Maximum Distance from Fire Hydrant to Buildings: 250,\*\* feet
  - Minimum Roadway Centerline Radius: not specified,
  - Minimum county road width: 26 feet,
  - Minimum driveway width: 20 feet,
  - Turnaround Specifications: Cul-de-sac pavement turning radius = 40 feet.
- \* reduce by 100 feet for dead-end streets  
 \*\* reduce by 50 feet for dead-end streets

Residential	1,000
8-plex	1,500
Commercial Buildings	2,500
Westerly	2,000
Easterly	1,563
Southerly	1,813

Due to the size of the 8-plex and commercial buildings, the rates given are for buildings in which fire sprinklers have been installed. For a more detailed calculation of fire flow rate, for large buildings see Chapter 25, Water Systems of this Environmental Impact Statement..

**PROJECT FIRE PROTECTION and PREVENTION FACILITIES**

Responsibility for fire protection within the Staghorn Village Project is as follows:

- Structure fires: Wasatch County Fire Service District,
- Wildfires: State Lands & Forestry.

The fire chief of the Wasatch County Fire Service District has been contacted and he states that his agency is in a position to provide fire protection services to the Elkhorn Mountain - Staghorn Village project.

The following fire resistant plant material may be used in replanting programs within the development:

- Grasses such as: Orchard grass, Rye grass, Kentucky bluegrass, White clover, Alfalfa, Crested wheatgrass, Manzarita, and other perennial grasses,
- Shrubs such as: Salt brush, Bitter brush, Sand cherry, Lilac, Bladdersenna, etc.
- Broadleaf trees such as: Quaking aspen, Box elder, and Cottonwood, etc.

The Wasatch Fire Warden is specifying the following specific fire retardant plant materials to be used within hillside projects:

- Grasses and Forbs
  - Orchard grass

Building Type IV construction                      Rate gpm

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- Kentucky bluegrass
- Rye grass
- White clover
- Alfalfa
- Crested wheatgrass
- other perennial grasses

**Shrubs**

- 4 Wing Salt Brush
- Bitterbrush
- Sand Cherry
- Cottoneaster
- Lilac
- Bladdersenna
- Siberian Peashrub
- Multiflora Rose

**Trees**

- Aspen
- Maple
- Ash

- Project facilities will increase fire protection in the area by means of the improved access provided which facilitates the movement of men and equipment to fire sites.
- The project will provide increased fire protection facilities in the area due to the construction of water storage tank, water system, and fire hydrants.
- The project will not unduly expose the property or the surrounding areas to risk of fire danger.

**POTENTIAL IMPACT**

The potential impact on any development with respect to fire protection may be as follows:

- possibility of fires due to construction equipment in heavily vegetated areas,
- possibility of fires as a result of increased camping and picnicking,
- possibility of fires as a result of increased human activity,
- possibility of fires as a result of individual lot owner home construction and living activities.

**ENVIRONMENTAL IMPACT**

Fire risks will change with the development of the Elkhorn Mountain - Staghorn Village project. The proposed project facilities will have the following probable impact on the environment.

- The project will impact existing fire protection resources located in Wasatch County.
- The project may increase the possibility of fires due to the introduction of construction activities and higher density uses on the property.
- The construction of project fuel breaks will increase fire protection in the area.

**MITIGATING MEASURES**

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- The proposed water system will be constructed as necessary to provide fire service and domestic water service to the proposed projects. The water system construction will consist of the of the following facilities:
  - water storage tank,
  - supply and distribution mains, and
  - fire hydrants.
- All fire hydrants shall be maintained by the Elkhorn Mountain - Staghorn Village Water Company and/or the Jordanelle special services district.
- All construction equipment shall have properly installed and maintained spark arresters to minimize the danger of starting fires.
- A water truck should be present on the site of road grading and major building construction to provide immediate fire fighting capabilities for fires which might be associated with these activities.
- Project employees shall be trained in fire fighting and suppression techniques and shall act as a fire deterrent within the project.
- All access roads servicing homes shall be paved, or otherwise hard surfaced with materials such as paving bricks, or gravel.
- Public access roadways will be constructed to the project from at least two different locations at widths and grades sufficient to permit ingress and egress to

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and from the project and to permit the passage of emergency fire fighting equipment and vehicles.

- Roadway centerline radii shall be a minimum of 100 feet where possible, and an absolute minimum of 75 feet where dictated by extreme topographic, soils, or geologic conditions.
- Combustible materials associated with construction shall not be allowed to accumulate on the site and shall be disposed of in a timely fashion.
- Combustible plant materials shall not be allowed to accumulate on the site and shall be disposed of in a timely fashion.
- Combustible dead plant materials should be cleared from the vicinity of new home construction and replaced with various species of low water use native plants.
- Fire retardant roofing materials will be specified in project CC&Rs and Architectural Standards in order to minimize the risk to buildings as a result of possible fire. Treated fire resistant wood shingles and shakes meeting fire resistant specifications may be allowed within certain areas of the development deemed to be free of wildfire hazard.
- Fuel breaks consisting of fire resistant plant materials shall be provided around the perimeter of high density development areas.
- Fire protection sprinkler systems, both internal and external, may be considered in single family building design and construction.
- Cleared plant materials and construction materials debris shall only be burned during periods of low fire danger as defined by the local Forestry & Fire Warden having jurisdiction over the area of the subject property.
- A fire operations plan will be developed for construction activities outlining fire prevention and fire suppression measures to be employed.
- All building construction shall meet the requirements of the Uniform Building Code, 1994 edition.
- Building roofs shall be constructed of minimum fire resistant materials, and preferably maximum fire resistant materials such as tile or metal.
- Structural projections of buildings such as eaves, balconies, decks shall be constructed of fire resistant materials.
- Roof, attic, and underfloor openings of buildings shall be screened or closed off.
- No private incinerator burning will be allowed within the project.
- All chimneys shall be equipped with spark arrestor caps and have all plant material removed a minimum of 15 feet around the chimney.
- 100 foot fuel breaks will be constructed around homes consisting of thinning of fire prone natural vegetation and removal of all dead plant material. Vegetation so removed may be replaced with fire resistant trees, shrubs, and grasses.
- Bridge and culvert crossings of watercourses shall be designed for a minimum 40,000 pound (20 ton) GVW.
- Culvert crossings of watercourses shall be designed for minimum 50 year frequency storm water flows.
- Water system facilities shall be constructed with minimum 6" diameter mains and 5 inch C-502-64 AWWA fire hydrants at the following spacing throughout the development:
  - Fire Hydrant Spacing: maximum 500\* feet,
  - Maximum Distance from Fire Hydrant to Buildings: 250\*\*, feet.
- \* reduce by 100 feet for dead-end streets
- \*\* reduce by 50 feet for dead-end streets
- Required fire flows to be provided by the water system within the development shall be 2,000 gpm for a duration of 2 hours (for commercial buildings) and 1,000 gpm for a duration of 2 hours (for residential buildings).
- Individual lot fuel breaks shall be maintained by individual property owners.
- Prior to issuance of any construction permits, the Architectural Control Committee of the Staghorn Village Home Owners Association shall require the applicant to submit and have approved a fire break plan.
- Common area fuel breaks of approximately 100 feet in width will be constructed around the perimeter of








the development to aid in preventing the spread of wildfire from adjacent properties and lands.

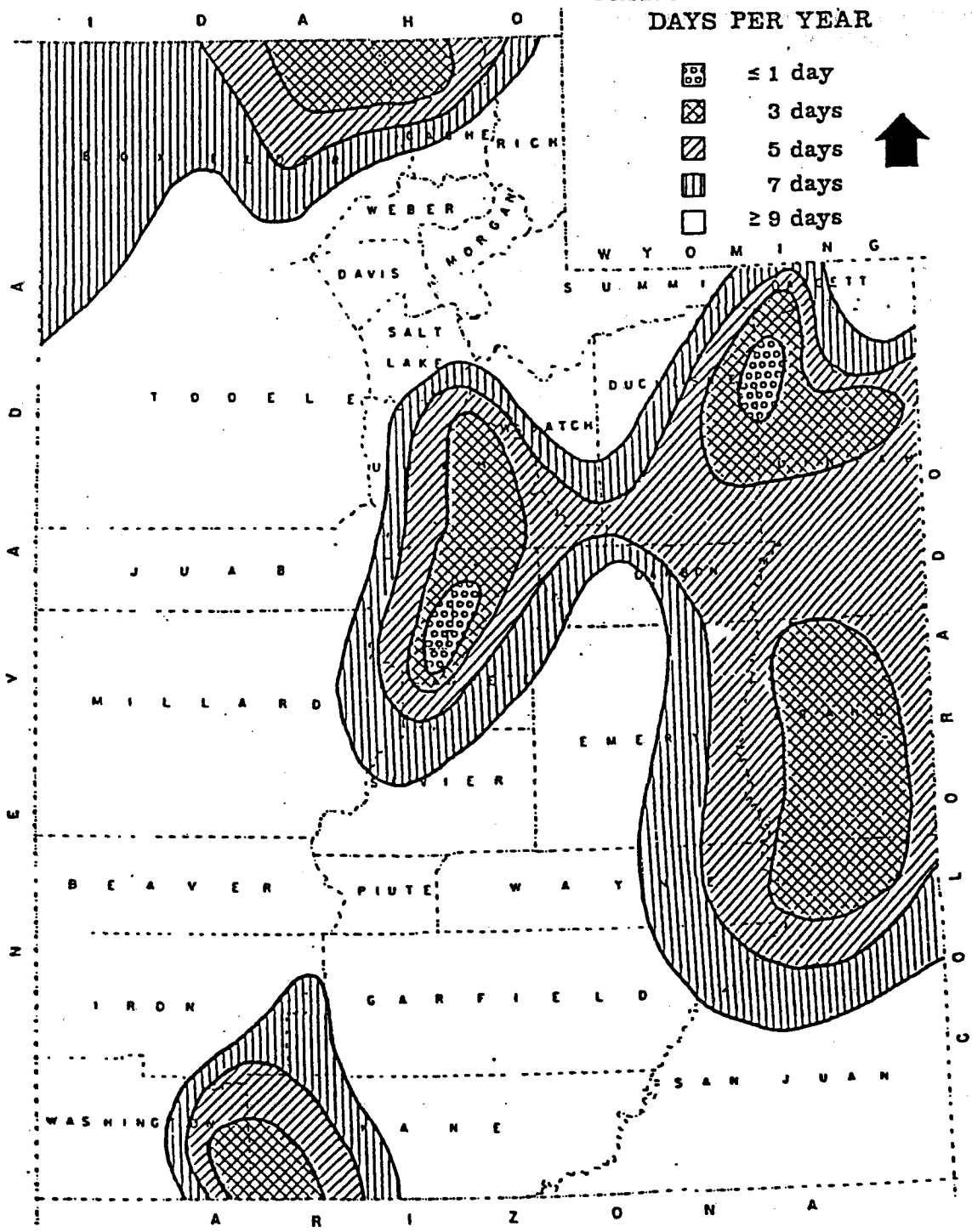
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- Common area fuel breaks shall be maintained by the Elkhorn Mountain - Staghorn Village Home Owners Association.

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CRITICAL FIRE WEATHER  
DAYS PER YEAR

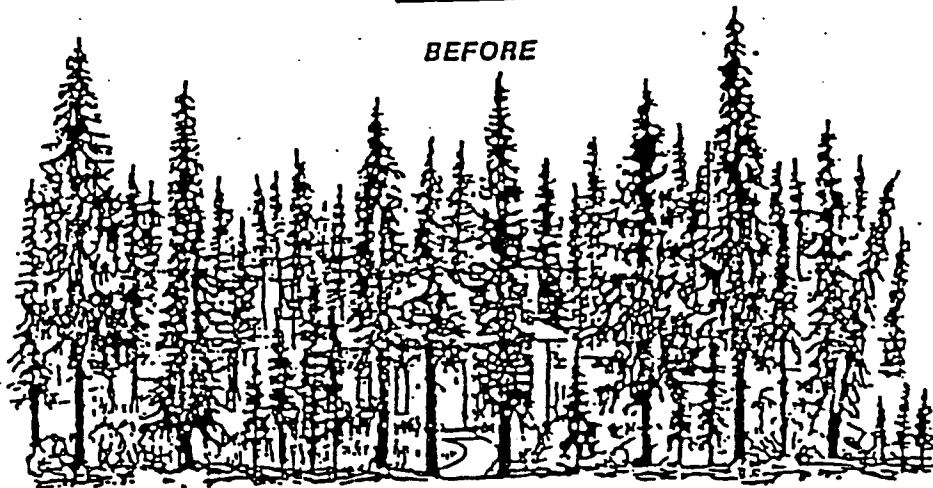
-  ≤ 1 day
-  3 days
-  5 days
-  7 days
-  ≥ 9 days



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MIXED FIR

BEFORE



TREATMENT

THINNED & PRUNED  
UNDERSTORY TREES REMOVED  
SHRUBS REDUCED

WOODY FUELS REMOVED  
DUFF REDUCED

AFTER

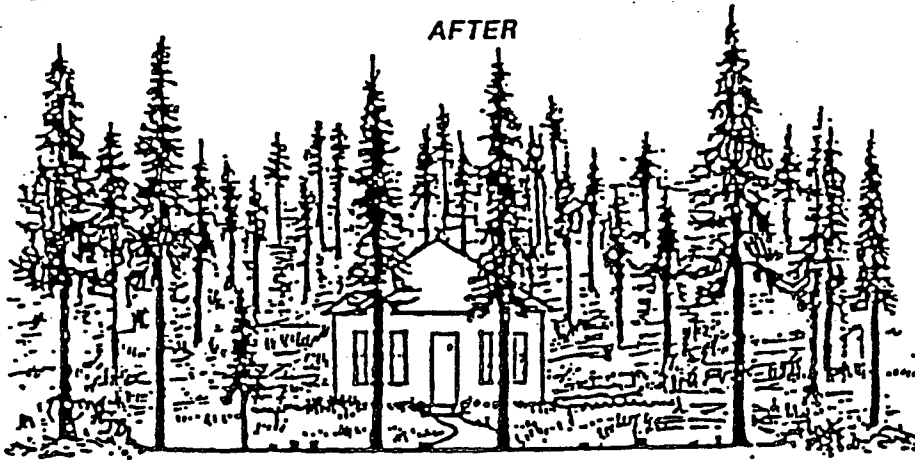
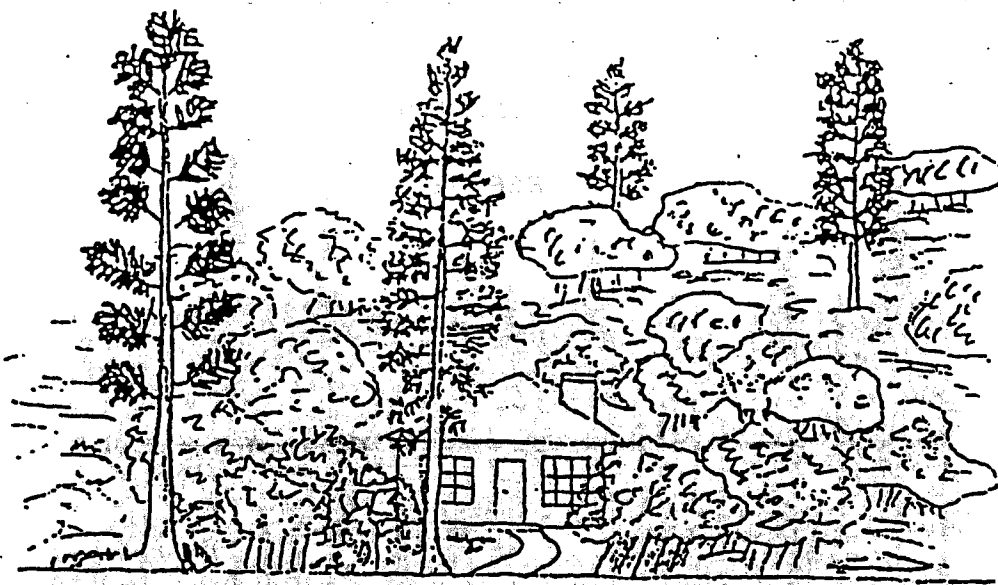


Figure 8--Reducing fire hazard in lodgepole pine forests will normally require a lot of thinning and removal of dead woody material but only a minor amount of pruning and understory tree removal.

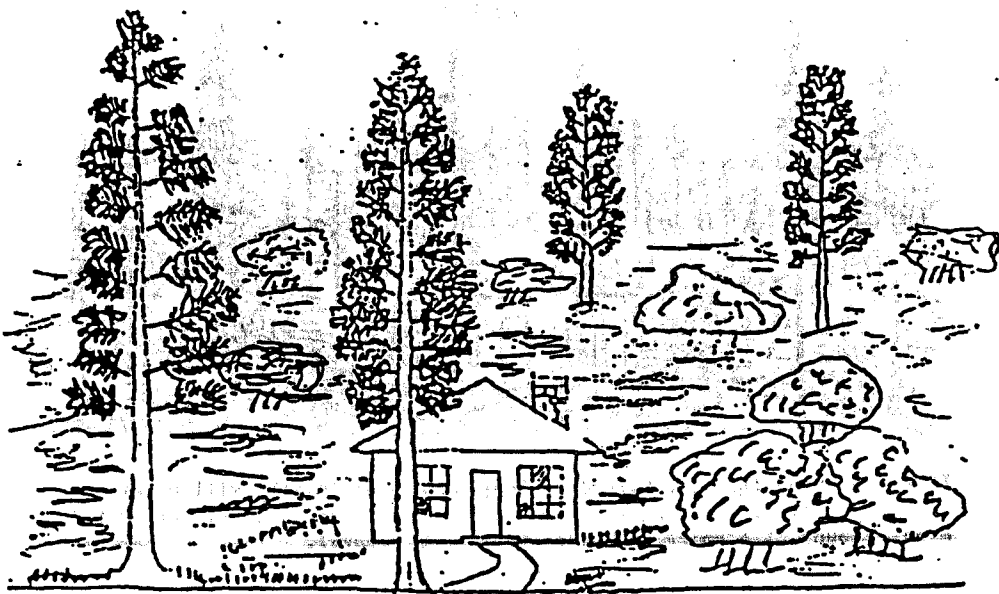
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PINE & OAK  
BEFORE

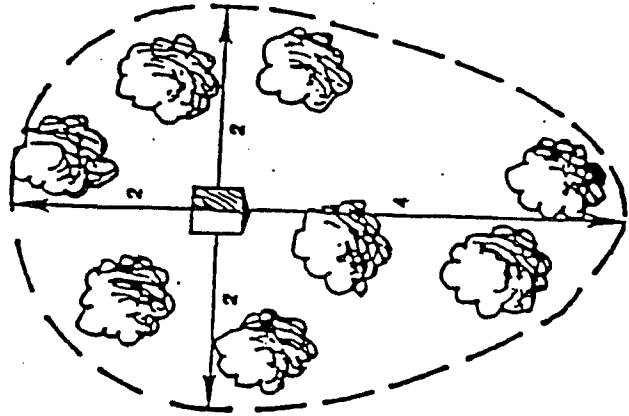


TREATMENT

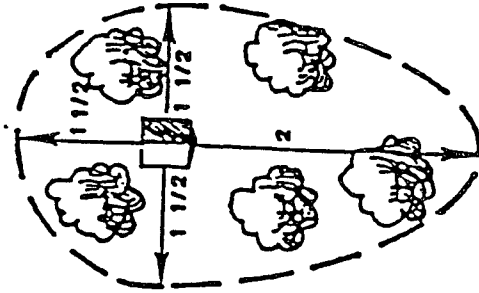
Shrubs reduced                      Dead woody fuels removed                      grasses cut  
Understory trees thinned                      shrubs reduced                      Overstory trees pruned



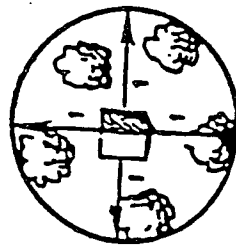
To reduce fire hazard, pine/oak forests will usually require a moderate amount of shrub removal, thinning and pruning. Grass will need to be mowed or replaced with bluegrass



55% SLOPE



30% SLOPE



LEVEL

Figure 4--Increasing slopes require increased treatment distances to be equally effective. Recommended distances for level terrain should be multiplied by the factor shown. For example, to be equally effective distances downslope from the home must be increased four-fold on 55 percent slopes when compared to the level.

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*Elkhorn Mountain*



*Staghorn Village*

# CLIMATE

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter.

## BACKGROUND INFORMATION

- GENERAL REGIONAL CLIMATOLOGICAL DATA
- AVERAGE AMBIENT TEMPERATURES
- AVERAGE AMBIENT HUMIDITY
- WINDS
- JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT
- US HIGHWAY 189 EIS

## SITE SPECIFIC INFORMATION

- GENERAL DESCRIPTION
- JOHN MAAS & ASSOCIATES
- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 5.

## Background Information

### GENERAL REGIONAL CLIMATOLOGICAL DATA

The following data are from four tables taken from the reference "Consumptive Use and Water Requirements for Utah, Technical Publication No. 75, Department of Natural Resources, 1982. The following two data points used are located to the north and south of the subject property.

*Table 2. Data for weather stations in Utah having continuous records of 15 years or more.*

	Station # 26	Station # 32
	Deer Creek Dam	Echo Dam
Elev. (ft)	5270	5500
Lat. (deg-min)	40-24	40-58
Lon. (deg-min)	111-32	111-26
Mean 28°F Freeze Dates		

06/13/02 THU 07:14 FAX

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**Wasatch County Fire District  
25 North Main Street  
Heber City, Utah 84032**

Phone: 435-940-9636  
Fax: 435-940-9635

June 13, 2002

Re: Deer Cove

Fax #714-740-4711

To Whom It May Concern:

I/we Deer Crest Village (Deer Cove), the undersigned, by my/our signature, agree that I/we will comply with all the codes and standards of the Wasatch County Fire District and the Wasatch County Code and ordinances which apply to the Deer Cove subdivision.

Brent H. Han  
BRENT H. HAN

The Wasatch County Fire District will furnish fire protection to this area only when the infrastructure of the subject subdivision has been completed in accordance with the Uniform Fire Code and all other Wasatch County ordinances adopted to date.

No construction of any structure will be permitted until all the requirements of the Uniform Fire Code have been met.

Dated this 2 day of July, 2002.

Wasatch County Fire District  
[Signature]

# WASATCH COUNTY SHERIFF'S OFFICE

Michael A. Spanos  
1361 South Hwy. 40  
Heber City, Utah 84032  
435-654-1098/435-654-9962 Fax

TO: Wasatch County Planning Office  
ATTN: Al Mickelsen

FROM: Sheriff Mike Spanos

REF: Will-Serve Letter

DATE: July 2, 2002

Please accept this correspondence as our official declaration that the Wasatch County Sheriff's Office WILL SERVE the Deer Crest Village Resort development. This development, as with any in Wasatch County, will receive all of the services we have to offer to all who are in Wasatch County. Deer Crest Village must understand that any law enforcement services they require or desire above and beyond the services received by the county as a standard, will need to be negotiated with the Sheriff of Wasatch County.



*Eikhorn Mountain*



*Staghorn Village*

# AIR QUALITY

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter.

## BACKGROUND INFORMATION

- GENERAL CONSIDERATIONS OF AIR QUALITY
- JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT
- DRAFT ENVIRONMENTAL IMPACT STATEMENTS, WASATCH COUNTY WATER EFFICIENCY PROJECT AND DANIEL REPLACEMENT PROJECT, PROVO RIVER RESTORATION PROJECT

- Air Quality Regulations - USEPA United States Environmental Protection Agency
- UACR Utah Air Conservation Regulations
- POTENTIAL IMPACT
  - Automobile Emissions
  - Fireplace Burning
  - Space and Water Heating
  - Construction
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 4.

## SITE SPECIFIC INFORMATION

- SITE SPECIFIC AIR QUALITY
- SITE SPECIFIC EMISSIONS
  - Automobile Emissions
  - Fireplace Burning
  - Space and Water Heating
  - Construction
  - Fugitive Dust
  - Emission Summaries
    - With Fireplace Burning
    - Without Fireplace Burning
- ENVIRONMENTAL CONSEQUENCES

## Background Information

## GENERAL CONSIDERATIONS OF AIR QUALITY

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The following information is taken from the reference "Density Data, Mayflower Mountain Resort, Volume II, Supplemental Environmental Study, Bingham Engineering - November, 1983"

**Dispersion Meteorology.** The ability of the atmosphere to disperse air pollutants depends on several factors. The most important factors are wind speed, atmospheric stability, solar insolation and mixing depth. When the dispersion potential is high, relatively low pollutant concentrations occur and the air quality is generally good. When dispersion potential is low, pollutant concentrations increase and the air quality deteriorates if there are pollutant sources nearby. When the wind speed is high, dispersion potential is good. Light or calm winds result in poor dispersion potential.

Atmospheric stability is related to the mixing capacity of the atmosphere. In a well mixed atmosphere, pollutants tend to disperse, while in a poorly mixed atmosphere, pollutants accumulate. As the atmosphere becomes more stable, the mixing capacity decreases and pollutants accumulate. As the atmosphere becomes more unstable, the mixing capacity increases and pollutants readily disperse.

When the incoming solar radiation (solar insolation) is high, air near the ground becomes warm and buoyant, causing the atmosphere to become unstable near the ground and dispersion potential is good. When solar insolation is low (or zero, as during the night), the atmosphere becomes more stable and dispersion potential is less. Because of this, dispersion is generally good during the afternoon and summer, when solar insolation is the strongest. It is poor at night, early mornings, and during the winter when solar insolation is low.

Mixing depth is the thickness of the air layer above the ground within which pollutants disperse. If the mixing depth is low, pollutants accumulate near the ground. When mixing depth is high, pollutants are dispersed upward into the air. When inversions are present, generally in morning hours, cold air underlies warmer air and mixing depth is low. Mixing depths are highest during the afternoon, especially summer afternoons, and dispersion potential is high.

**Air Quality Standards.** The National Ambient Air Quality Standards (NAAQS) are the limits on allowable ground-level pollutant concentrations and are designed to protect human health and public welfare. NAAQS have been established for total suspended particulates (TSP), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), and lead. They are shown in the following table. All areas in Utah are in

attainment of the NAAQS, except for non-attainment areas along the Wasatch Front which violate the NAAQS for one or more pollutants.

National Ambient Air Quality Standards

(maximum allowable concentrations in ug/m<sup>3</sup>)

Pollutant	Averaging Time	Primary Standard	Secondary Standard
-----------	----------------	------------------	--------------------

Total suspended particulates (TSP)

24 hour	260	150
annual	75	60

Sulfur dioxide (SO<sub>2</sub>)

3 hour	80	-
24 hour	365	-
annual	-	1300

Nitrogen dioxide (NO<sub>2</sub>)

annual	100	
--------	-----	--

Carbon monoxide (CO)

1 hour	40,000	-
8 hour	10,000	-

Lead

3 months	1.5	-
----------	-----	---

Ozone

1 hour	235	-
--------	-----	---

The Prevention of Significant Deterioration of Air Quality (PSD) regulations applies to areas within attainment of the NAAQS. The PSD regulations are intended to limit the amount of deterioration of the air quality over the baseline conditions. All attainment areas in Utah are designated as PSD Class II, except for the National Parks (Bryce Canyon, Zion, Capitol Reef, Arches, and Canyonlands) which are designated as Class I. Class I limitations are designed to protect special areas where almost

any deterioration in air quality would be considered significant. Class II limitations are designed so that the air quality deterioration caused from moderate, well controlled growth would be allowable. The PSD incremental limitations which have been promulgated for TSP (total suspended particulates) and SO<sub>2</sub> (sulfur dioxide) are shown in (the following table).

Federal or State air quality standards (Borgione, pers. comm., 1995).

### DRAFT ENVIRONMENTAL IMPACT STATEMENTS, WASATCH COUNTY WATER EFFICIENCY PROJECT AND DANIEL REPLACEMENT PROJECT, PROVO RIVER RESTORATION PROJECT.

Prevention of Significant Deterioration Increments  
(maximum allowable increased concentrations in ug/m<sup>3</sup>)

Pollutant Averaging Time		Class I	Class II	Class III
SO <sub>2</sub>	annual	2	20	40
	24 hour	5	91	182
	3 hour	25	512	700
TSP	annual	5	19	37
	24 hour	10	37	75

The following information was obtained from the reference: Draft Environmental Impact Statements, Wasatch County Water Efficiency Project and Daniel Replacement, Central Utah Water Conservancy District, and Provo River Restoration Project, Utah Reclamation Mitigation and Conservation Commission, June, 1996:

Although air quality data have not been collected in Heber Valley, the valley's air quality usually is excellent. This has led to the designation of Heber Valley as a Class II attainment area, subjecting it to National Prevention of Significant Deterioration of Air Quality standards. These standards are designed to prevent deterioration of air quality in attainment areas (areas where the federal government has chosen to prevent degradation of excellent air quality). The primary types of emissions in Heber Valley under baseline conditions are nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>) particulate matter (measured as PM<sub>10</sub> or particles less than 10 microns in diameter) from vehicles, smoke from fireplaces, wood stoves and agricultural burning; and dust from the tilling of agricultural fields. These emissions are considered pollutants and are by-products of combustion except for dust caused by wind erosion of soil. Inversion layers occasionally trap these pollutants in the valley when certain climatic conditions exist, usually in the winter.

Typical air emissions associated with construction equipment are included in this chapter, and are taken from the reference Draft Environmental Impact Statements, Wasatch County Water Efficiency Project and Daniel Replacement, Central Utah Water Conservancy District, and Provo River Restoration Project, Utah Reclamation Mitigation and Conservation Commission, June, 1996 as Table 1-9.

The Proposed Action and alternatives would violate the standards if they emit more than 250 tons of NO<sub>x</sub>, SO<sub>x</sub>, or particulates in any 12-month period of construction.

The emissions during construction, even under worst-case assumptions, would be well below the 250-ton threshold.

### JORDANELLE RESERVOIR WATER CONTROL ENVIRONMENTAL ASSESSMENT

The following information was obtained from the the reference: Jordanelle Dam and Reservoir, Provo River, Utah, Water Control Manual, Draft Environmental Assessment, US Army Corps of Engineers, March, 1996.

Air Quality. Wasatch County, including the Jordanelle Dam And Reservoir project area, has been classified as an attainment area as defined by the U.S. Environmental Protection Agency because it has not exceeded

## Site Specific Information

### SITE SPECIFIC AIR QUALITY

The proposed project is located in the northerly area of Wasatch County just outside of the Heber Valley in hilly and mountainous terrain.

Typically in the Heber Valley, during the nighttime and early morning hours, cold air drains down the mountain slopes into the low lying valleys. Because the mountains are high and the Heber Valley is broad, inversion layers can occur in the winter months resulting in a very stable atmosphere with poor dispersion conditions. By mid-morning, as solar insolation increases, the air near the ground warms, becomes buoyant, and the atmosphere becomes less stable resulting in generally favorable dispersion conditions.

During the winter months, during periods of snow cover and light winds, inversions and poor dispersion conditions may persist throughout the day. Extended periods of poor dispersion can occur during winter conditions when large high pressure systems persist over the inter-mountain region for a long period of time. These conditions may prevail until the atmosphere is cleansed by winter storms which move through the area. The inversion level normally occurs at or below the 6,000 foot elevation level which is below the subject project elevations.

The potential for significant pollutant concentrations is greatest in the late fall and early winter when slow moving high pressure systems frequent the area, and less in the late winter and early spring when low pressure storm systems are more prevalent. Late spring through early fall is very favorable for pollutant dispersion because of the relatively strong solar insolation and increased atmospheric mixing and winds.

The actual site of the subject property just outside the Heber Valley in the upper end of the County presents different air movements than the Heber Valley proper. The exact nature of wind conditions in this area of the county directly adjacent to the new Jordanelle Reservoir is not documented at this time, however boating experience on the new reservoir last summer has indicated that

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afternoon winds on the lake are substantial. Air quality conditions in the area should therefore be very good.

Although no monitoring has been performed in the Heber Valley, the existing air quality is known to be good. There are no known major pollutant sources in the valley outside of open burning of waste material from agriculture which sometimes occurs. Although the proposed project is close to non-attainment areas along the Wasatch Mountains, the Wasatch Mountains act as an effective barrier preventing pollutants from these areas in reaching the Heber Valley.

The existing air quality in Wasatch County is considered to be very good. There are no major point sources of pollution and the entire area is considered rural. The valley is not an urban or industrial setting. The air quality in the vicinity of the Jordanelle Reservoir is very good due to the movement of air currents through the

### SITE SPECIFIC EMISSIONS

Elkhorn Mountain - Staghorn Village project is a significant development, therefore the following emission calculations are included in order to estimate the amount of particulates which may be generated from the development of the project.

Air pollution emissions are normally associated with automobile emissions, fireplace burning, space and water heating, and construction. Each of these potential sources of air pollution is addressed below and estimated quantities of air pollutants are presented where

### AUTOMOBILE EMISSIONS

Automobile emissions from the Staghorn Village Elkhorn Mountain Project may be computed by determining the number and length of vehicle trips per day within the project using typical emission factors for the vehicles currently being driven on Utah roadways.

The following factors (grams per vehicle mile traveled [VMT]) for tail pipe emissions from automobiles were taken from the reference: "Memorandum, 1962, Joan Thalmann, Environmental Health Scientist for Marv Maxwell, Assistant Director, Support Services TAILPIPE EMISSIONS FROM HIGHWAY VEHICLES IN THE NON ATTAINMENT AREAS, AND FUGITIVE DUST EMISSIONS AND ROADWAY TRAINED DUST EMISSIONS, dated August 20,

1989, Utah Department of Health, Division of Environmental Health, Bureau of Air Quality." The emission factors utilize the current EPA "Mobile 3" computer modeling program. Various emission factors are included in this chapter taken from this reference for driving speeds of 50 mph, 30 mph, and 25 mph for areas with and without vehicle I&M (inspection and maintenance) programs. The following emission factors for 30 mph driving speed without an I&M program were felt to be typical of the the Elkhorn Mountain - Staghorn Village project and were used in emission calculations:

ing from the Elkhorn Mountain project vehicles [note: 453 grams = one pound]:

TSP .....	0.60
SO <sub>x</sub> .....	0.23
NO <sub>x</sub> .....	3.14
HC .....	3.55
CO .....	49.71

TSP .....	0.38
SO <sub>x</sub> .....	0.15
NO <sub>x</sub> .....	1.98
HC .....	2.23
CO .....	31.26

ELKHORN MOUNTAIN - STAGHORN VILLAGE  
COMBINED TOTALS

TSP .....	0.39
SO <sub>x</sub> .....	0.15
NO <sub>x</sub> .....	2.03
HC .....	2.29
CO .....	32.08

It is seen in the Traffic Section of Chapter 23 - Streets of this report, that a total of 3,204 one way vehicle trips per day (average daily traffic [ADT]) may be generated by the project assuming full development. The total estimated miles of vehicular traffic generated within the project is therefore seen to be:

Fugitive dust from automobiles traveling dirt or gravel roads is not attempted herein due to the uncertain nature of these roadways and the time that they will remain in existence. Typical emission factors from dirt or gravel roads are of course much greater than from paved roads and factors can range from 4.3 lb/VMT on dirt roads and 2.26 lb/VMT on gravel roads.

ELKHORN MOUNTAIN

With a count of 82 ADT x 0.5 mile average per one way trip = 41 vehicle miles/day. This total estimated West Side project vehicular mileage is used together with the emission factors in grams per mile shown above to calculate the total emissions (tons/year) resulting from the Elkhorn Mountain project vehicles [note: 453 grams = one pound]:

TSP .....	0.01
SO <sub>x</sub> .....	0.00
NO <sub>x</sub> .....	0.05
HC .....	0.06
CO .....	0.82

FIREPLACE BURNING

Included in this chapter is a table taken from EPA publication AP-42 Section 1.10 listing emission factors for combustion in wood stoves. The following emission factors (pounds/ton of wood burned) for fireplace burning were used for conventional units in emission calculations for residential units within the Elkhorn Mountain - Staghorn Village Project:

TSP .....	30.00
SO <sub>2</sub> .....	0.40
NO <sub>x</sub> .....	2.80
HC .....	92.00
CO .....	270.00

STAGHORN VILLAGE

With a count of 3,122 ADT x 0.5 mile average per one way trip = 1,561 vehicle miles/day. This total estimated East Side project vehicular mileage is used together with the emission factors in grams per mile shown above to calculate the total emissions (tons/year) result-

From the Reference: "Memorandum, from: Joan Thalman, Environmental Health Scientist to: Marv

Maxwell, Assistant Director, Support Services, AN ESTIMATION OF HOUSEHOLDS UTILIZING WOOD OR COAL AS THEIR PRIMARY AND AS THEIR SECONDARY SOURCE OF SPACE HEATING, WITH EMISSION CALCULATIONS FROM WOOD AND COAL BURNING, dated July 5, 1989, Utah Department of Health, Division of Environmental Health, Bureau of Air Quality," it is seen that a 1983 survey of households in Davis, Salt Lake, Utah, and Weber Counties indicates that the average woodburning use in these areas is 352 pounds per capita per year or 1,232 pounds per household per year. This figure is also used as being representative of Wasatch county.

Wood burning fireplaces are not planned within the project with the exception of the hotel lobby and community clubhouse lobby. However, to determine the effect of having wood burning fireplaces in larger residential units in the project such as individual single family homes and in the four plex units, the following wood burning emission calculations are included.

**ELKHORN MOUNTAIN**

Based on these figures, it is estimated that each home in the Elkhorn Mountain Project will burn an average of 0.6 tons of wood per year. The 14 residential units will therefore generate the following emissions (tons/year):

TSP .....	0.13
SO <sub>2</sub> .....	0.00
NO <sub>x</sub> .....	0.01
HC .....	0.39
CO .....	1.13

**STAGHORN VILLAGE**

Based on these figures, it is estimated that each home in the Elkhorn Mountain - Staghorn Village Project will burn an average of 0.6 tons of wood per year. The 120 residential units (excluding 8-plexes and lodging units) will therefore generate the following emissions (tons/year):

TSP .....	1.08
SO <sub>2</sub> .....	0.01
NO <sub>x</sub> .....	0.10
HC .....	3.31
CO .....	9.72

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**ELKHORN MOUNTAIN - STAGHORN VILLAGE COMBINED TOTALS**

Based on these figures, it is estimated that each home in the Elkhorn Mountain - Staghorn Village Project will burn an average of 0.6 tons of wood per year. The total count of 152 residential units (excluding 8-plexes and lodging units) will therefore generate the following emissions (tons/year):

TSP .....	1.21
SO <sub>2</sub> .....	0.01
NO <sub>x</sub> .....	0.11
HC .....	3.70
CO .....	10.85

**SPACE AND WATER HEATING**

Emission rates are calculated here for natural gas space heating units and natural gas water heaters. The following emission factors (pounds per million cubic feet) for space and water heating are used in emission calculations and were obtained from the Utah Department of Health, Division of Environmental Health, Bureau of Air Quality:

TSP .....	5.00
SO <sub>2</sub> .....	0.60
NO <sub>x</sub> .....	100.00
HC .....	5.30
CO .....	20.00

Based on discussions with customer service representatives of Mountain Fuel and Supply Company, a recent study of 40,000 services has indicated an average natural gas fuel use of 1,150 therms per year. Since each therm is approximately 100 cu ft, the average customer use is therefore 115,000 cu ft per year. Using this average natural gas usage per year, the Elkhorn Mountain - Staghorn Village project of 214 residential dwellings will generate the following emissions (tons/year):

**ELKHORN MOUNTAIN 14 Units**

TSP .....	0.00
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SO <sub>2</sub> .....	0.00
NO <sub>x</sub> .....	0.08
HC.....	0.00
CO.....	0.02

atmosphere over the construction project life. Assuming that the project construction will be evenly divided over a 5 year period (Phase I through Phase V, 1996 to the year 2000), it is seen that approximately 10.01 tons/phase of particulate matter will be generated for each of five construction years.

**STAGHORN VILLAGE  
200 Units**

TSP.....	0.06
SO <sub>2</sub> .....	0.01
NO <sub>x</sub> .....	1.15
HC.....	0.06
CO.....	0.23

**STAGHORN VILLAGE**

Based on a total disturbed construction area within the Staghorn Village project of 30.13 acres (5470 ft of streets x 50' wide = 6.28 acres + 231,734 sq ft of building footprints = 5.32 acres + 13.00 ac of landscaping + 240,700 sq ft = 5.53ac of parking and plazas) for an assumed period of three months, it is estimated that construction related activities will generate a total of approximately 103.95 tons of particulate matter into the atmosphere over the construction project life. Assuming that the project construction will be evenly divided over a 5 year period (Phase I through Phase V, 1996 to the year 2000), it is seen that approximately 20.79 tons/phase of particulate matter will be generated for each of five construction years.

**ELKHORN MOUNTAIN - STAGHORN VILLAGE  
COMBINED TOTALS 214 Units**

TSP.....	0.06
SO <sub>2</sub> .....	0.01
NO <sub>x</sub> .....	1.23
HC.....	0.06
CO.....	0.25

**ELKHORN MOUNTAIN - STAGHORN VILLAGE  
COMBINED TOTALS**

Construction Dust Particulate	153.98 tons
Construction Dust Particulate	30.80 tons/phase

**CONSTRUCTION**

Principal emissions associated with construction activities are dust. These emissions may be controlled with good construction practices such as watering traveled construction roadways, nevertheless an estimate of particulate matter emitted into the atmosphere as a result of the construction of the Elkhorn Mountain - Staghorn Village Project is attempted here. Emission factors resulting from construction activities have been assumed by others to be 1.15 tons per acre per month.

**ELKHORN MOUNTAIN**

Based on a total disturbed construction area within the Elkhorn Mountain project of 14.50 acres (8,666 ft of streets x 50' wide = 9.94 acres + 24,250 sq ft of building footprints = 0.56 acres + 4.00 ac of landscaping) for an assumed period of three months, it is estimated that construction related activities will generate a total of approximately 50.03 tons of particulate matter into the

**FUGITIVE DUST**

The following factor (pounds per vehicle mile traveled [VMT]) for fugitive dust from automobiles was taken from the reference: "Memorandum, from: Joan Thalman, Environmental Health Scientist to: Marv Maxwell, Assistant Director, Support Services TAILPIPE EMISSIONS FROM HIGHWAY VEHICLES IN THE NON ATTAINMENT AREAS, AND FUGITIVE DUST EMISSIONS AND REENTRAINED DUST EMISSIONS, dated August 25, 1989, Utah Department of Health, Division of Environmental Health, Bureau of Air Quality." Fugitive dust calculations from paved roads may be made using the factor contained in the above referenced report: 0.0121 pounds/VMT.

**ELKHORN MOUNTAIN**

Fugitive dust calculations for the Elkhorn Mountain project from automobiles traveling paved roads are made

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as follows: 82 ADT x 0.5 mile/trip = 41 vehicle miles/day x 365 = 14,965 VMT x (0.0121 lb/VMT)/(2,000lb/ton) = 0.09 tons/year.

HC	2.23	3.31	0.06	5.60
CO	31.26	9.72	0.23	41.21

**STAGHORN VILLAGE**

Fugitive dust calculations for the Staghorn Village project from automobiles traveling paved roads are also made as follows: 3,122 ADT x 0.5 mile/trip = 1,561 vehicle miles/day x 365 = 569,765 VMT x (0.0121 lb/VMT)/(2,000lb/ton) = 3.45 tons/year.

**ELKHORN MOUNTAIN - STAGHORN VILLAGE COMBINED TOTALS**

	V	F	H	TOTAL
TSP	0.39	1.21	0.06	1.66
SOx	0.15	0.01	0.01	0.17
NOx	2.03	0.11	1.23	3.37
HC	2.29	3.70	0.06	6.05
CO	32.08	10.85	0.25	43.18

**ELKHORN MOUNTAIN - STAGHORN VILLAGE COMBINED TOTALS**

Elkhorn Mountain	0.09 Tons/year
Staghorn Village	3.45 Tons/year
<b>TOTAL</b>	<b>3.54 Tons/year</b>

Total fugitive dust from automobiles traveling paved roadways will generate approximately 3.54 tons of particulate matter per year. Fugitive dust from automobiles traveling gravel or dirt roadways is not computed.

**EMISSION SUMMARIES**

**With Fireplace Burning**

The summaries given below of the above emissions includes wood burning fireplaces and includes automobile emissions - vehicles (V), fireplace burning (F), and space & water heating (H):

Note: Ox is used to denote oxides in general.

**ELKHORN MOUNTAIN**

	V	F	H	TOTAL
TSP	0.01	0.13	0.00	0.14
SOx	0.00	0.002	0.00	0.00
NOx	0.05	0.01	0.08	0.14
HC	0.06	0.39	0.00	0.45
CO	0.82	1.13	0.02	1.97

Also total construction activities will generate approximately 30.80 tons of particulate matter for each phase of construction years. These construction generated particulates are large and do not normally constitute a health hazard.

**Without Fireplace Burning**

The summaries given below of the above emissions do not include wood burning fireplaces and includes automobile emissions - vehicles (V), fireplace burning (F) set to zero, and space & water heating (H):

Note: Ox is used to denote oxides in general.

**ELKHORN MOUNTAIN**

	V	F	H	TOTAL
TSP	0.01	0.00	0.00	0.01
SOx	0.00	0.00	0.00	0.00
NOx	0.05	0.00	0.08	0.13
HC	0.06	0.00	0.00	0.06
CO	0.82	0.00	0.02	0.90

**STAGHORN VILLAGE**

	V	F	H	TOTAL
TSP	0.38	1.08	0.06	1.52
SOx	0.15	0.01	0.01	0.17
NOx	1.98	0.10	1.15	3.23

**STAGHORN VILLAGE**

	V	F	H	TOTAL
TSP	0.38	0.00	0.06	0.45



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SOx	0.15	0.00	0.01	0.16
NOx	1.98	0.00	1.15	3.13
HC	2.23	0.00	0.06	2.29
CO	31.26	0.00	0.23	31.49

they have a potential for emitting more than 100 tons per year of any one pollutant such as TSP, SOx, NOx, HC, or CO,

- sources not listed are considered major if they have a potential for emitting more than 250 tons per year of any one pollutant such as TSP, SOx, NOx, HC, or CO.

**ELKHORN MOUNTAIN - STAGHORN VILLAGE COMBINED TOTALS**

	V	F	H	TOTAL
TSP	0.39	0.00	0.06	0.45
SOx	0.15	0.00	0.01	0.16
NOx	2.03	0.00	1.23	3.26
HC	2.29	0.00	0.06	2.35
CO	32.08	0.00	0.25	32.33

In attainment areas, Reasonable Available Control Technology (RACT) or Best Available Control Technology (BACT) will have to be applied in controlling emission levels for major sources. RACT and BACT consider cost as a factor in applying the technology.

In nonattainment areas:

- a source is considered major if it has a potential for emitting more than 100 tons per year of any one pollutant such as TSP, SOx, NOx, HC, or CO.

In non attainment areas, Lowest Achievable Emission Rate (LAER) technology will have to be applied in controlling emission levels for major sources. LAER does not consider cost as a factor in applying the technology.

**ENVIRONMENTAL CONSEQUENCES**

**Air Quality Regulations - USEPA United States Environmental Protection Agency**

The first step towards federal government control of the quality of the atmosphere was taken by the United States Congress with the passage of the Clean Air Act (CAA) in 1970. Stationary sources of air pollution are controlled by local Air Pollution Control Districts (APCD) in accordance with a State Implementation Plan (SIP) which each state must file with and have approved by the Federal Environmental Protection Agency (EPA). The purpose of the SIP is to maintain National Ambient Air Quality Standards (NAAQS) for CO, NOx, HC, ozone, SO2, and particulates.

SIP's set requirements for New Source Performance Standards (NSPS) for major sources of pollution. Federal laws set minimum requirements, state regulations may be more stringent than federal requirements.

EPA definition of "major" sources vary whether the area in question is an attainment (clean) or nonattainment (dirty) area for any one of six NAAQS.

In attainment areas:

- certain sources listed by the EPA such as refineries, power plants, etc. are considered major if

The above pollutant rates are considered to be thresholds for Federal "major" source definition. State APCD's may adopt more stringent definitions for "major" sources of pollution.

The most significant aspect of the "major" source definition is that such a source of pollution will be allowed only after review of a Prevention of Significant Deterioration (PSD) report. The report can take two years to prepare and is very costly.

If expected emission rates are less than certain amounts specified by the EPA as "de minimis" the expected source of pollution is then considered to be "minor."

EPA "de minimis" Emission Rates(ton per year)

TSP	SO2	NOx	HC	CO
25	40	40	40	100

The "de minimis" rates are considered minimum emission rates below which, significant impacts can be ruled out.

**UACR Utah Air Conservation Regulations**

Utah State Department of Health Air Conservation Regulations require with the exception of exemptions listed below, that any person planning to construct a new

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"installation" which will or might reasonably be expected to be a source or an indirect source of air pollution, shall submit to the Executive Secretary a Notice of Intent prior to initiation of construction.

The Notice of Intent shall include plans, specifications, and other such information as is necessary to determine whether the proposed installation will be in accord with applicable requirements of the UACR. The Notice of Intent shall take a minimum of 90 days to process and shall include a 30 day public review period.

The following situations are exempt from the Notice of Intent requirement:

- 1. Fuel burning equipment with a rated capacity of less than five million BTU per hour using only natural gas,
- 2. Comfort heating equipment with a rated capacity of less than one million BTU per hour if fueled by oil,
- 3. Emergency heating equipment with a rated capacity of less than 50,000 BTU per hour using coal or wood as a fuel,
- 4. Exhaust system for controlling steam and heat that does not contain combustion products,
- 5. New parking areas of less than 600 vehicles, and
- 6. Specified minor chemical emissions.

Utah State law requires that all new sources control air pollutant emissions using the best available control technology (BACT).

New sources which emit or have a potential to emit over 100 tons per year of any air pollutant may be subject to "major" source requirements under the Federal Prevention of Significant Deterioration of Air Quality (PSD) and portions of the Utah Air Conservation Regulations (UACR). Adding equipment to an existing source of air pollution which will result in an additional 40 tons per year or more of any one air pollutant is subject to "major" source requirements under the Utah Air Conservation Regulations.

The proposed site for the construction of the Elkhorn Mountain - Staghorn Village project is considered a Class II attainment area for Federal PSD regulations. Although the project is considered to be a new source of air pollution at the site in question it should not be "major" sources of air pollution under either the state UACR or federal EPA regulations, since the air quality laws define "installation" as: *a discrete process with identifiable emissions which may be part of a larger industrial plant.* Based on this definition there are no air quality permit requirements for a subdivision develop-

ment regardless of size. Based on discussions with local air quality personnel, it was determined that subdivision developments have never been required to file air quality Notice of Intents or obtain permits under either the Federal or Utah State air quality laws, rules, or regulations.

The above estimated emissions may be compared to allowed standards of air pollutant emissions from "new installation sources of pollution" for informational purposes only to determine the environmental consequences of the development of the project with respect to air quality. It should be noted that the above information contains gross estimates only of the effect of the project on the basin involved. More accurate estimates of point and non-point sources of air pollution on the actual air quality of a particular basin may only be made using a dispersion model such as the Gaussian Model, however such a model requires the acquisition of two years worth of background information such as daily and seasonal temperature gradients, wind speed directions and velocities, and other significant meteorological data which is not available for the area in question. It is also not reasonable for a particular development to provide such a two year study as a required component of a request for development approval. Such a dispersion model study is regional in scope and would more appropriately be performed and funded by a combination of county, state, and possible federal agencies having an interest in the particular region.

It should be noted that the growth in recreation and residential uses in Provo Canyon and the Heber Valley in Wasatch County, and in Park City, and Summit County will occur regardless whether or not this particular project is developed or not developed. The Elkhorn Mountain - Staghorn Village project is being developed such that

- it is consistent with existing and planned recreational uses in the area,
- is consistent with existing and planned residential projects in the area, and
- utilizes latest technology equipment and vehicles where possible to reduce project emissions into the atmosphere.

Emissions will occur over a period of time from recreational, primary home, and second home residential sources whether within this project or some other project

Also the problem of air pollution is also regional in scope and involves the accumulated emissions from various general sources as well as point sources, such as industrial emissions. As growth continues in Provo Canyon, and the Heber Valley in Wasatch County, in Park City and Summit County, the day may be reached when

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air quality might degrade to the point where controls may be necessary. These controls may take the form of restrictions on the type of heating units and fireplace units, requirements for catalytic combustors on heating and fireplace units, together with possible auto emission inspections to insure compliance to air quality standards. This point has not been reached yet in the area and should not occur for many years. Air pollution is a regional community problem, and air quality for an entire area can not be solved in the consideration of any one particular development project. Of course mitigating measures concerning air quality are appropriate considerations for any particular project and they are wisely so included in the Elkhorn Mountain - Staghorn Village Project.

It is also apparent in comparing the above emission estimates with EPA "de minimis" standards that the greatest emphasis within the project in reducing air pollution should be directed at reducing carbon monoxide (CO) emissions from vehicles by encouraging pedestrian travel within the project. Also emphasis should be directed towards reducing carbon monoxide (CO) emissions from fireplace burning.

## POTENTIAL IMPACT

Potential sources of air pollution from the proposed project are the following:

- Automobile emissions,
- Fireplace burning,
- Space and water heating,
- Construction activities.

### AUTOMOBILE EMISSIONS

Automobile exhaust is a significant source of pollution to the atmosphere. This pollution problem is particularly severe with older model cars, and much less significant with new cars equipped with "state of the art" emission control devices. Although air pollution from automobiles may be expected to decrease as the proportion of existing cars becomes increasingly newer, this source of emissions can also increase air pollution as the numbers of automobiles and vehicle trips increase dramatically.

Automobile emissions directly related to the Elkhorn Mountain - Staghorn Village Project should be less than normal since some of the homes constructed within the project will be second home use, as opposed to full time occupancy.

### FIREPLACE BURNING

Woodburning fireplaces contribute a smoke to the atmosphere. This is a source of concern in the Heber Valley where the winters are very cold and the cultural habit of residents is to secure their fire wood through forest service permits and to heat their homes by burning the wood. The process of providing residential heating in this manner is a "way of life" in the Heber Valley and Round Valley, and provides not only mountain recreation in the gathering of fire wood, but also a substantial reduction in winter heating expenses. It is also the practice of winter recreational residential units to have ample supplies of firewood on hand for fireplace burning purposes.

There is considerable disagreement among air quality officials as to the relative contribution of wood burning fire places to air pollution. Reports in "WOOD-N-ENERGY Magazine, October, 1986," detail the experience of Missoula, Montana. This town has placed severe restrictions on wood burning fire places and declares mandatory "no-burn days." The effort has drastically reduced wood burning 40 percent, however, their air pollution problem remains just as bad. The experience of this town is leading officials to "re-think" the effect of wood burning on air pollution.

Of particular interest in specifying mitigating measures for wood burning fireplaces is the study performed by Omni-Environmental Services reported in "WOOD-N-ENERGY Magazine, October, 1986," showing the results in pollution reduction for various types of stoves. Based on this study, catalytic stoves reduced wood use by 25%, cut creosote in half, and reduced particulate emissions 25%. High-tech Low-emission Non-catalytic stoves also reduced wood use by 25% and cut creosote in half, however, reduced particulate emissions by 45%. These latter stoves also placed no burden of homeowner use and care to remain in an operable condition as is the case with catalytic stoves.

### SPACE AND WATER HEATING

Residential heating with natural gas and propane is also a possible source of pollution to the atmosphere, and as with automobiles, this can vary with the efficiency of the heating units and the age of the units. It is anticipated that the majority of the space heating within the development will be accomplished with natural gas which is considered to be a very low pollution heating fuel.

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 use and operation planned for the subject projects, and

**CONSTRUCTION**

Construction emissions occur mainly in the form of dust as a site is graded for roadways and building sites, and from debris burning of cleared trees, vegetation, and construction materials.

The particulate matter emitted from construction is temporary in nature and is not considered to be significant. These particles are large in size and do not constitute a health hazard. The soils within the proposed project are granular and rocky in nature and do not lend themselves to easy transport by wind. Also this source of air pollution can easily be controlled by watering during the construction process.

Particulates emitted from construction burning are also temporary, but are finer in nature and can be a source of air pollution. The burning of construction material will be discouraged in the project.

The proposed project construction will cause temporary increased emissions to the atmosphere in the form of dust and smoke. These emissions, however, will be small, and will be consistent with and below allowable emissions from normal construction activities.

The burning of cleared trees, vegetation, and construction materials will be confined to times of low fire danger and during anticipated atmospheric conditions which will not promote the accumulation of concentrated smoke. Also the following alternatives to burning will be utilized where possible:

- 1. cutting and stockpiling of larger trees for later use as fireplace fuel,
- 2. chipping of slash and removed vegetation where possible to be used as a mulch producing material in landscaping,
- 3. removal of the material in question from the site to be deposited in an approved landfill.

It is possible to compute in tons/per year or other units, the particulate matter emitted from each of the above sources of air pollution based on assumptions concerning the character and use of each emission source. These computed pollution amounts then can be compared to the ambient air quality of the area to determine the effect of the proposed project on existing air quality. On smaller projects these calculations are not necessary for the following reasons:

- 1. the ambient air quality of the surrounding area is very good,
- 2. possible emissions of pollutants from project facilities will be very small due to the nature of

3. mitigating measures will be employed to minimize any possible air pollution from the projects.

**ENVIRONMENTAL IMPACT**

The proposed project facilities will have the following probable impact on the environment.

- The project will increase pollutants released to the atmosphere,
- The project should have a minimal effect on the air quality of the Jordanelle Basin,
- The project's effect on the air quality of Wasatch County should be consistent with that of other new projects presently being planned and/or constructed.

**MITIGATING MEASURES**

The potential impact of the Elkhorn Mountain - Staghorn Village project will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- Dust possible from site grading construction will be controlled by watering during the construction process.
- Project space heating will be accomplished with natural gas which is considered to be a low pollution heating source.
- Space heating equipment installed in homes, shall be new equipment incorporating the latest in technology with respect to efficient combustion and emission control.
- Fireplace units installed in homes shall be clean burning "gas log" fireplaces. There may be a few wood burning fireplaces within the project in restaurants and lobbys. Where possible, these wood burning fireplaces shall have catalytic combustors or be Low-emission Non-Catalytic units in order to minimize pollutants.

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- Construction practices will comply with state and local laws and regulations pertaining to air quality with respect to the control of fugitive dust.
- Slash and shrubs resulting from cutting and clearing operations will be chipped for mulching purposes to minimize burning practices which result in possible air pollution.
- Construction material remains shall be removed from the site where possible to minimize burning practices which result in possible air pollution.

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VI. TAILPIPE EMISSIONS

1. 50 Miles Per Hour (MPH)

Emissions Factors With an I&M Program	TSP	SOX	NOX	HC	CO
In Grams per vehicle mile traveled	.60	.23	3.74	2.33	32.40
Emissions Factors Without an I&M Program	.60	.23	3.74	2.66	37.54

Emissions in Tons Per Year

Z VMT COUNTY	TSP	SOX	NOX	HC	CO
46.0Z Davis (With I&M)	353.20	135.40	2,201.30	1,371.40	19,070.1
27.0Z Salt Lake (With I&M)	879.10	336.98	5,479.70	3,413.82	47,471.2
30.0Z Utah (With I&M)	305.24	117.01	1,902.70	1,185.36	16,483.1
17.0Z Weber (Without I&M)	102.82	39.41	640.89	455.82	6,432.8

2. 30 Miles Per Hour (MPH)

Emissions Factors With an I&M Program	TSP	SOX	NOX	HC	CO
In Grams per vehicle mile traveled	.60	.23	3.14	3.04	42.57
Emissions Factors Without an I&M Program	.60	.23	3.14	3.55	49.71

Emissions in Tons Per Year

Z VMT COUNTY	TSP	SOX	NOX	HC	CO
40.0Z Davis (With I&M)	307.10	117.72	1,607.10	1,555.90	21,787.8
56.0Z Salt Lake (With I&M)	1,823.31	698.94	9,541.99	9,238.11	129,363.9
53.0Z Utah (With I&M)	539.26	206.72	2,822.13	2,732.25	38,260.5
65.0Z Weber (Without I&M)	393.12	150.70	2,057.33	2,325.96	32,569.9

3. 25 Miles Per Hour (MPH)

Emissions Factors With an I&M Program	TSP	SOX	NOX	HC	CO
In Grams per vehicle mile traveled	.6	.23	2.96	3.47	50.56
Emissions Factors Without an I&M Program	.6	.23	2.96	4.09	59.26

Emissions in Tons Per Year

Z VMT COUNTY	TSP	SOX	NOX	HC	CO
14.0Z Davis (With I&M)	107.50	41.20	530.24	621.60	9,057.0
17.0Z Salt Lake (With I&M)	553.51	212.18	2,730.62	3,201.10	46,642.0
17.0Z Utah (With I&M)	172.97	66.31	853.32	1,000.35	14,575.6
18.0Z Weber (Without I&M)	108.90	41.73	537.10	742.10	10,752.1

TABLE 1.10-1. EMISSION FACTORS FOR COMBUSTION IN RESIDENTIAL WOOD STOVES

Stove type	Particulate <sup>a,b,c</sup> ≤10 μm	Carbon monoxide <sup>b</sup>	Nitrogen oxides <sup>b</sup>	Sulfur oxides <sup>b</sup>	Volatile organics <sup>d</sup>		Efficiency <sup>e</sup> (%)
					Methane	Nonmethane	
Conventional units	15 (30)	140 (270)	1.4 (2.8) <sup>f</sup>	0.2 (0.4)	32 (64)	14 (28)	52
Phase II units <sup>g</sup>							
Catalytic	6.6 (13)	39 (78)	1.0 (2.0)	0.2 (0.4)	13 (26)	8.6 (17)	72
Noncatalytic	9.6 (19)	130 (260)	-	0.2 (0.4)	-	-	63
Pellet fired	1.6 (3.2)	16 (36)	6.9 <sup>h</sup> (14)	0.2 (0.4)	-	-	78

<sup>a</sup>Phase II units are subject to 10 to 30% degradation within the first 3 years of use. Units are 0/kg (lb/ton) of dry wood burned. Dash = no data.

<sup>b</sup>References 2-8. Emission Factor Rating for particulate, CO and SO<sub>2</sub>; C; for NO<sub>x</sub>; E. Based on field tests described in Reference 8.

<sup>c</sup>Reference 1. Defined as equivalent to total catch by EPA Method 5H (Oregon Method 7) train.

<sup>d</sup>References 6,9. Emission Factor Rating: E. Calculated by adding the estimated mass of simple hydrocarbon material C1 - C7 data to total chromatographable organics.

<sup>e</sup>Reference 1. Overall efficiency represents sum of combustion and transfer efficiencies, and values represent averages of laboratory test results.

<sup>f</sup>References 12,15. Emission Factor Rating: C.

<sup>g</sup>Reference 1. Expected from wood heaters meeting NSPS after July 1, 1990.

<sup>h</sup>Reference 6. Based on a single data point.

External Combustion Sources

1.10.3

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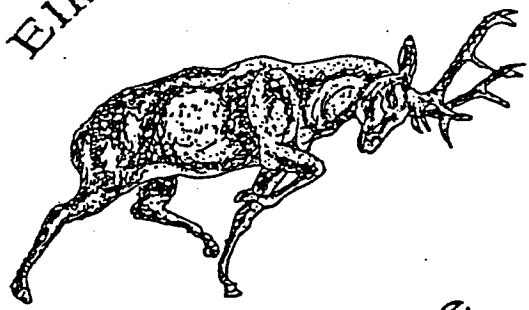
**Table 1-9  
Typical Air Emissions Associated With Construction Equipment  
Under the Proposed Action and DRP Alternatives**

Equipment Type	Typical Emissions Based on 8 Hours of Operation Per Day*		
	NOx (lb/month)	SOx (lb/month)	PM10 (lb/month)
Air Compressor	163.2	27.2	13.6
Backhoe - Cat 426	704.0	64.0	48.0
Compactor - Cat 816B	806.4	67.2	50.4
Compactor - Vibratory	384.0	32.0	24.0
Compactor - 14 in. Wacker	0.5	0.4	6.8
Concrete Vibrator	384.0	32.0	24.0
Crane - 25 ton	281.6	51.2	38.4
Crane - 60 Ton	352.0	64.0	48.0
Dozer - Cat D7	791.2	68.8	34.4
Excavator - Cat 235	421.1	68.8	51.6
Excavator - Cat 245	1248.0	110.2	78.0
Forklift	644.8	41.6	31.2
Generator	115.2	12.8	6.4
Loader - Cat 966C	704.0	64.0	48.0
Motor Grader - Cat 14G	672.0	64.0	64.0
Pickup	2.3	0.6	15.0
Scraper - Cat 621	1003.2	105.6	79.2
Scraper - Cat 623	1003.2	105.6	79.2
Trencher	1760.0	160.0	120.0
Truck - Concrete Mixer	960.0	80.0	40.0
Truck - Concrete Pump	768.0	64.0	48.0
Truck - Rear Dump	1344.0	112.0	84.0
Truck Flatbed	672.0	56.0	42.0
Truck - Mechanic's	672.0	56.0	42.0
Truck - Pipe	960.0	80.0	60.0
Truck - Water	960.0	80.0	60.0
Water Tanker	1728.0	144.0	108.0



# SOUND QUALITY

Elkhorn Mountain



Staghorn Village

The following is the order in which material is presented in this chapter - which can also be considered to be a table of contents for the chapter.

## BACKGROUND INFORMATION

- GENERAL
- CONSTRUCTION NOISE
- HEBER VALLEY

## SITE SPECIFIC INFORMATION

- CONSTRUCTION NOISE
- MAJOR HIGHWAY TRAFFIC NOISE
- TRAFFIC NOISE FROM PROJECT ROADWAYS
- NOISE FROM PROJECT FACILITIES
- POTENTIAL IMPACT
- ENVIRONMENTAL IMPACT
- MITIGATING MEASURES

Those wishing to skip General Background Information should proceed directly to the Site Specific portion of this chapter beginning on page 3.

## Background Information

### GENERAL

In order to form a prospective of sound levels and intensities discussed in this section of the report, the following are typical sound level values associated with commonplace activities taken from the reference: "Halliday, David, and Resnik, Robert, Fundamentals of Physics, John Wiley & Sons, New York, 1981:"

Threshold of hearing .....	0 dB
Rustle of leaves .....	10 dB
Average whisper (at 1 m) .....	20 dB
City Street, no traffic .....	30 dB
Office, classroom .....	50 dB
Normal conversation (at 1 m) .....	60 dB
City street, very busy traffic .....	70 dB
Noisiest spot at Niagara Falls .....	85 dB
Pneumatic drill (at 3 m) .....	90 dB
Hi-Fi phonograph, 10W (at 3 m) .....	110 dB
Threshold of pain .....	120 dB

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Jet engine (at 50 m).....	130 dB
Saturn rocket (at 50 m).....	200 dB

**CONSTRUCTION NOISE**

Some relative noise levels were also obtained from SMI (Snow Machines Incorporated), and are seen to be:

Rustle of leaves.....	10 dbA
Average house.....	45 dbA
Heavy traffic at 25 ft.....	75 dbA
10 HP outboard motor at 50 ft.....	87 dbA
Thunder.....	107 dbA
Loud music (rock).....	115 dbA
Threshold of pain.....	130 dbA
Turbojet engine.....	175 dbA

Typical construction activity noise results from the following:

- operation of earthmoving equipment in grading operations,
- detonation of explosives in grading operations and in utility trenching as required in areas of hard rock,
- truck traffic to and from construction sites,
- operation of equipment used in street construction,
- operation of equipment used in utility construction,
- operation of equipment used in building construction.

Also illustrating various sound levels is a chart included in this report taken from the reference: "US Highway 189, Utah Valley to Heber Valley, Utah and Wasatch Counties, Utah, Draft Supplemental Environmental Impact Statement, Utah Department of Transportation, Federal Highway Administration, June 6, 1988."

Construction noise may be specified by local agency ordinances, however if no local codes govern, construction noise on state highway projects is governed by UDOT Specification Section 107, Subsection 107.25 Noise and Vibration Control:

*Noise and Vibration Control*

*Section 107, Legal Relations and Responsibility to Public shall be modified by the addition of the following subsection:*

*107.25, Noise and Vibration Control:*

A few definitions are in order at this point:

- Leq - the equivalent steady state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same period.
- Leq(h) - the hourly value of Leq, commonly shortened to "Leq."
- dBA = decibel (after Alexander Graham Bell) = ten bels
- bel - a sound level being log to the base 10 of the sound intensity.

*1. Definitions and Standards: All terminology used in these provisions, and not defined below, shall be in conformance with applicable American National Standards Institute (ANSI) publications and commonly accepted practices of acoustical measurements.*

*a. Receptor - An occupied residential dwelling, church, hospital, school, outdoor stage, or structure confining other noise sensitive activities.*

*b. Noise Sensitive Zone - The land enclosed within a 1,500 ft. (460 m) radius circle of any receptor.*

*c. Sound Level - The total sound pressure level from all concurrent construction activities related to the subject project, as measured with a sound level meter using the A-weighting network (ANSI S1.4). The standard notation is dB(A) or dBA.*

*d. Percussive Noise - short burst(s) of banging or clattering noise including but not limited to blasting, pile driving, and jack-hammering.*

*2. Prohibitions: Construction work shall not be permitted under the following conditions:*

It should be noted that based on the above definitions, a decibel level 10 more than a previous level contains 10 times the acoustic intensity of the previous level.

Typical noise level associated with construction equipment taken from the reference Draft Environmental Impact Statements, Wasatch County Water Efficiency Project and Daniel Replacement, Central Utah Water Conservancy District, and Provo River Restoration Project, Utah Reclamation Mitigation and Conservation Commission, June, 1996 as Table 1-8 are included in this chapter.

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a. Wherever project related construction activity in a noise sensitive zone would cause the sound level within 10 ft. (3m) of the nearest receptor to exceed:

95 dBA in daytime (7 a.m. - 9 p.m.), or

55 dBA in nighttime 9 p.m. - 7 a.m.)

b. In a noise sensitive zone on Sundays and State Holidays.

c. Whenever the engineer notifies the contractor that project related construction noise or vibration is causing a serious problem, that portion of construction work responsible for the problem shall cease until the problem has been mitigated to the satisfaction of the engineer.

3. Compliance: The contractor shall comply not only with the requirements of the foregoing specifications, but also, with all local noise ordinances, except in the event where the contractor has obtained a variance in accordance with local regulations. However, a variance to local noise ordinances shall not exempt the contractor from complying with requirements of paragraph 2. A variance to the provisions of paragraph 2 can only be obtained in conformance with Department regulations (paragraph 4).

4. Variance: Applications requesting variance to prohibitions of paragraph 2 must be made in writing to the District Director. Applications should include the intended effective dates of the variance, time of day, location, probable sound level at the nearest receptor, and equipment limitation. After consultation with the Environmental Studies Office, the District Director may grant a variance, upon sufficient showing that there is no reasonable alternative to the deleterious activity.

5. Percussive Noise: The contractor shall notify the engineer at least two weeks in advance of any percussive noise activity that is expected to exceed the provisions of paragraph 2, so that the engineer has sufficient time to coordinate with the office of Community Relations.

The responsibility for not exceeding these standards is placed on the contractor of each construction project.

Typical noise generation factors ((L<sub>0</sub>)E dBA) for heavy trucks, medium trucks, and automobiles are shown below as a function of speed at a reference distance of 15 meters (information taken from Federal-Aid Highway Program Manual chart which is included in this report.

Speed	Autos	Medium Heavy
-------	-------	--------------

50 mph	63	74	80
55 mph	64	75	81
60 mph	65	77	82
65 mph	66	78	83
70 mph	68	79	84

### HEBER VALLEY

The following information comes from the reference: Draft Environmental Impact Statements, Wasatch County Water Efficiency Project and Daniel Replacement, Central Utah Water Conservancy District, and Provo River Restoration Project, Utah Reclamation Mitigation and Conservation Commission, June, 1996:

Heber Valley is generally a quiet valley, except for noise generated by traffic on roads, especially Highways 40 and 189. Highway traffic typically generates noise at about 70 dBA, with large trucks reaching 90 dBA. These ratings are at a distance of 50 feet, the standard reference distance used in noise studies. Noise from these sources is reduced as the distance from the source increases. For example, doubling the distance reduces dBA ratings by a factor of four, if there are no other mitigating factors such as trees, walls and other physical barriers.

### Site Specific Information

Potential noise sources within the development are:

- construction noise,
- traffic noise from US Highway 40,
- traffic noise from project roadways,
- noise from project facilities.

### CONSTRUCTION NOISE

Project construction noise will be confined to construction seasons during the build-out of the phased pro-

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ject - the majority of noise generated from this source will be confined to the immediate construction sites in question and will affect project sites only as opposed to any significant outside communities.

## MAJOR HIGHWAY TRAFFIC NOISE

### US HIGHWAY 40

The subject property lies adjacent to U.S. Highway 40, which will be a source of noise to the proposed commercial development, single and multiple family units. This sound source will be mitigated somewhat since the development lies below the highway.

Personnel from the Utah Department of Transportation were contacted regarding the potential noise which may be generated from the highways. Potential noise from Highway 40 may be estimated as described in this subsection of the report.

The first task in the sound engineering study is to identify possible receivers, determine a classification for the receiver, and the allowable weighted sound level which should not be exceeded. Based on the table taken from the reference: "Federal-Aid Highway Program Manual, Vol. 7 Right-of-way and Environment, Ch. 7 Environment, Sec. 3 Abatement of Highway Noise, Federal Highway Administration, August 9, 1982," included in this report, it is seen that a typical receptor within the project will be Activity Category B: "Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals." The allowable Leq(h) for this type of activity category is 67 dBA. The allowable L10(h) for this type of activity category is 70 dBA.

Design Year - is a year usually 10 to 20 years distant which is used for sound engineering design purposes. For this project we are using a design year 20 years distant.

- If the potential source of noise is:
- within 2 dBA of, or exceeds, the allowable Leq(h), and/or
  - the predicted traffic noise level substantially exceeds (10 dBA or more dBA) the existing noise level,

the potential source is considered to have a significant noise impact and noise abatement procedure should be incorporated into the project at the source location.

- If neither of the above noise increases is expected to occur in the design year, it is concluded that the project does not have a noise impact and no noise abatement procedures need be incorporated into the project.

Next a determination must be made as to whether the site is "hard" or "soft." A "hard site" is one which has a direct line of sight for the sound transmission to travel in the air and one which is surrounded by hard reflective surfaces, such as pavement, hard ground surface, bodies of water, etc. A "Soft site" is one in which there is a possibility for some sound dispersion between the source and the receptor such as by trees, buildings, foliage, indirect line of sight, etc, and/or one which is surrounded by soft reflective surfaces such as plowed ground, terrain containing significant foliage, etc. The majority of the subject property is considered to be a "hard site", however given the distance that the subject property lies from adjacent U.S. Highway 40, it will be shown that very little of the subject property will require typical noise abatement procedures such as sound berms, walls, or landscaping.

Next the design year bi-directional Average Daily Traffic volumes (ADT) must be estimated together with the percentage distribution of heavy trucks, medium trucks, and passenger type cars. Based on information prepared by Northern Engineering on the road relocation studies for the roads surrounding the Jordanelle Reservoir, it is seen that for U.S. Highway 40 in the area of the subject property:

- estimated year 2005 traffic volumes contain approximately 13% trucks. The same percentage will be applied to the projected year 2015.

Next the DHV (Design Hourly Volume) is calculated for each of the three categories: heavy trucks [over 6 wheels], medium trucks [under 6 wheels], and automobiles & pickup trucks. According to the reference: "Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985," the DHV is usually 15% of the ADT. Also the above 13% truck traffic is assumed to be divided evenly between heavy and medium trucks (6.5% -6.5%). This is compared to the 8% estimated heavy truck traffic on US 189 in Provo Canyon taken from the reference: "Utah Valley to Heber Valley, Final Environmental Impact Statement, U.S. Department of Transportation, Federal Highway Administration and Utah Department of Transportation, Report Number: FHWA - UT - EIS - 76 - 02 - F, October 20, 1978."

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The following are estimated values for the items indicated:

Year	1993	2,015
ADT	8,770	15,000
DHV	—	2,250
Heavy	—	146
Medium	—	146
Autos	—	1958
Total	—	2,250

The above projected ADT traffic was obtained from discussions with the U.D.O.T, Traffic Forecasting Section, and is based on:

- population projections,
- the economy,
- class of roads,
- and the specific area in question.

The ADT traffic for 1993 was obtained from "Traffic on Utah Highways," 1993, page 19 and from its accompanying map sheet 2.

Next, for the above year 2015 DHVs indicated, FHWA Highway Traffic Noise Prediction Nomographs are utilized to determine the Leq(h) dBA for heavy trucks, medium trucks, and autos at assumed design speeds of:

heavy trucks	80 km/h	50.0 mph
medium trucks	90 km/h	56.3 mph
autos	100 km/h	62.5 mph

at two assumed distances from the source (50 ft approximately equals 15 m, and 1,000' approximately equals 300 m).

Based on the nomograph for a "soft site" the following values were calculated:

	15m	300m
Heavy	73.2	53.3
Medium	70.1	50.2
Autos	72.2	52.5
Combined	76.8	57.0

Based on the nomograph for a "hard site" the following values were calculated:

	15m	300m
--	-----	------

Heavy	74.3	61.4
Medium	71.3	58.3
Autos	73.5	60.4
Combined	77.8	65.0

The above combined values are computed by taking ten times the log to the base ten of the summation of respective  $10^{(0.1x)}$  with the heavy, medium, and autos dBA ratings as the x variable. These "combined" values are then plotted on semi-log paper so that the Leq(h) dBA may be estimated at different distances from the two values calculated.

The plot of these values for both a "soft site" and a "hard site" is included in this chapter.

From these plots, it is seen that:

- for a "soft" site, sound levels are less than the 67 dBA allowable at distances greater than 216 feet from the source,
- for a "hard" site, sound levels are less than the 67 dBA allowable at distances greater than 623 feet from the source.

The entire proposed development lies outside the distance of 216 feet "soft site" minimum.

The following village features lie within the outer limit of the "hard site" minimum of 623 feet:

- Office building - this is shielded by a hill and would more properly be considered a "soft site."
- A portion of the west wing of the westerly commercial building - this will be mitigated by building design and landscaping.
- Two (2) four-plex condominiums fall within the "hard site" minimum of 623 feet. - this will be mitigated by building design and landscaping.

Even though, many areas within the project will be less than the above designated allowable 67 dBA level, there will nevertheless be highway traffic noises which may be heard within the project which may subjectively be found by some to be objectionable, especially in very quiet times of the day.

### TRAFFIC NOISE FROM PROJECT ROADWAYS

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Traffic noise from project roadways will be typical of that generated from relatively low volume residential streets.

barriers to make the indoor and outdoor environments tolerable would be prohibitive.

### NOISE FROM PROJECT FACILITIES

Noise will be generated from project operations as follows:

- maintenance operations of equipment and facilities,
- hiking and jogging on trails, bike riding, picnicking etc. within project facilities.

The above noise sources are considered to be infrequent in nature, or nominal in nature; hence they should not constitute an adverse environmental impact.

### ENVIRONMENTAL IMPACT

The proposed project facilities will have the following probable impacts on the environment.

- Homes and residential units constructed in initial phases of development will be subject to noise of subsequent construction activities which will consist of earthmoving equipment, and possible rock drilling & blasting which will be a temporary noise source and nuisance.
- Project areas will be subject to highway noise generated by US Highway 40.
- Homes and residential units within the development will be subject to possible noise from recreational facilities and activities within the development.
- Homes within the development will be subject to normally associated street noises.

### POTENTIAL IMPACT

The potential impact of any proposed project on sound quality is:

- noise generated by construction equipment,
- noise generated by drilling and blasting,
- noise generated by adjacent roads and highways,
- noise generated by recreational equipment operated within a development,
- noise generated by project roadways.

The following information is from the reference: Draft Environmental Impact Statements, Wasatch County Water Efficiency Project and Daniel Replacement, Central Utah Water Conservancy District, and Provo River Restoration Project, Utah Reclamation Mitigation and Conservation Commission, June, 1996:

Noise levels are considered significant if activities near sensitive receptors would likely generate noise exceeding levels considered "normally unacceptable" (74 to 88 dBA) in the EPA index. Noise at this level is annoying, and if people are exposed to it for long periods, barriers need to be constructed to make the indoor environment tolerable. Noise levels above 88 dBA are considered "clearly unacceptable" in the EPA index. They are very annoying, can cause hearing damage to people exposed for 8 hours or more, and the cost of construction

### MITIGATING MEASURES

The potential impact of the Elkhorn Mountain - Staghorn Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

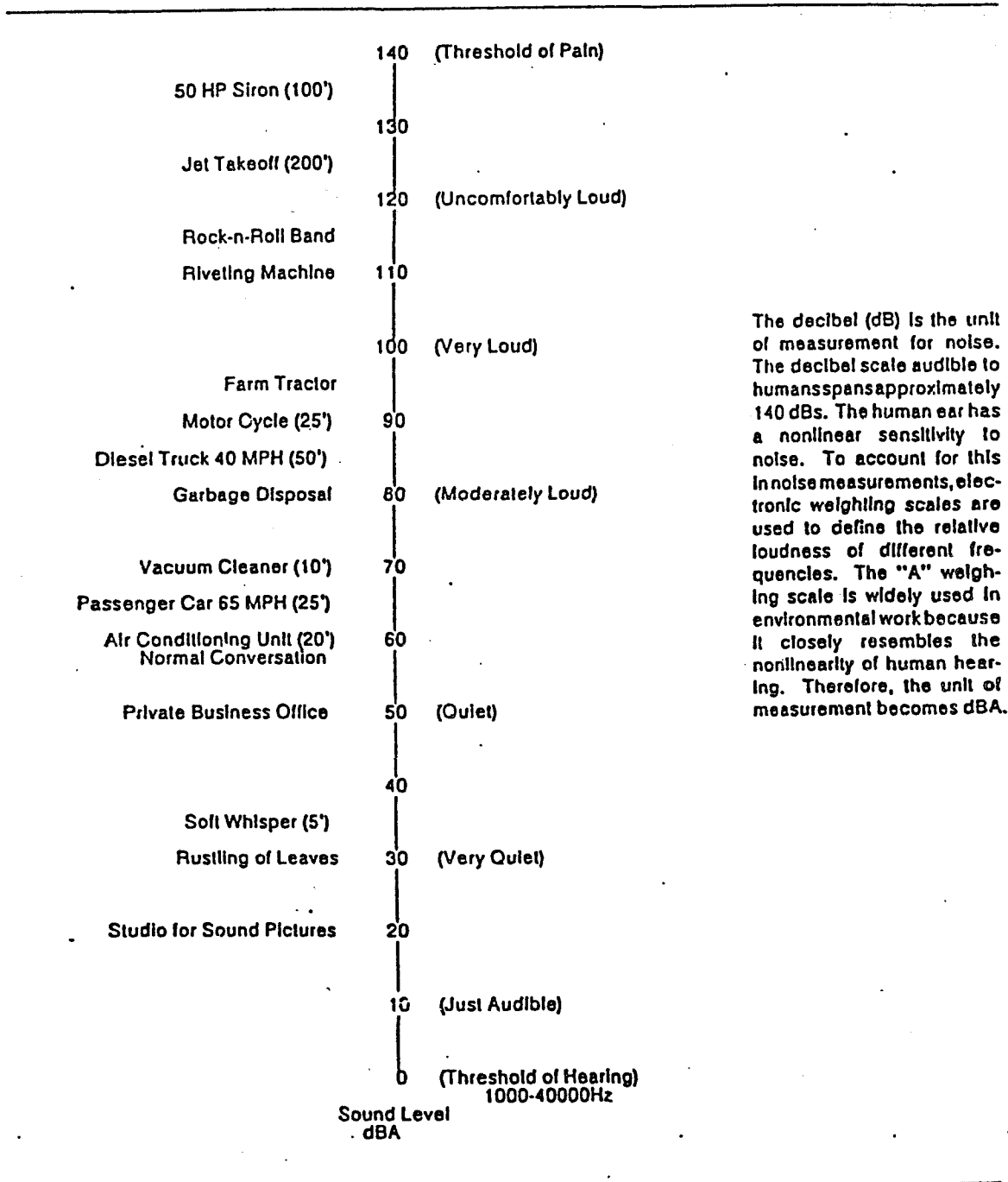
- Two (2) four-plex multi family units may be constructed within the "hard site" minimum distance of 623 feet and will need sound protection conditional of landscaping and or sound barriers.
- Construction practices will comply with state and local laws and regulations pertaining to noise control standards.
- High density activity areas will be screen planted with sound absorbing plant materials to the maximum extent possible to provide sound buffering.
- Snow mobiles will not be allowed within the development.
- The discharge of firearms will not be allowed within the development.

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- Off road & all-terrain motorcycles and vehicles will be prohibited within project open space and on project trails.
- Homeowners within the development will be encouraged to employ sound absorbing planting materials in areas which may be subject to noise generated from both onsite and offsite sources.

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TABLE 3.14-3  
TYPICAL A-WEIGHTED SOUND PRESSURE LEVELS

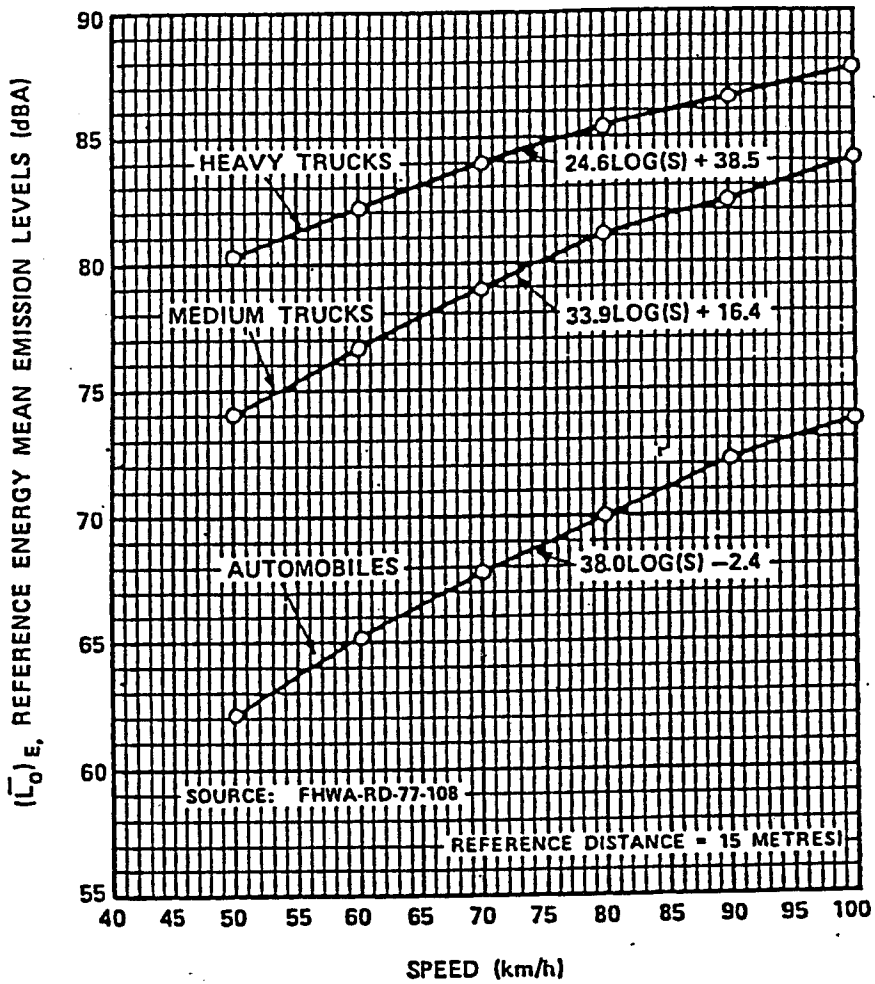




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Transmittal 348, August 9, 1982

Vol. 7, Ch. 7  
Sec. 3, Attachment  
Appendix A



LEGEND:

1. AUTOMOBILES: ALL VEHICLES WITH TWO AXLES AND FOUR WHEELS.
2. MEDIUM TRUCKS: ALL VEHICLES WITH TWO AXLES AND SIX WHEELS.
3. HEAVY TRUCKS: ALL VEHICLES WITH THREE OR MORE AXLES.

National Reference Energy Mean Emission Levels as a Function of Speed

Ent 309761 Bk 0902 Pg 0721

*Policy*

Federal-Aid Highway Program Manual  
Transmittal 346, August 9, 1982

Vol. 7, Ch. 7  
Sec. 3, Attachment

TABLE 1 - Noise Abatement Criteria  
Hourly A-Weighted Sound Level - decibels (dBA) 1/

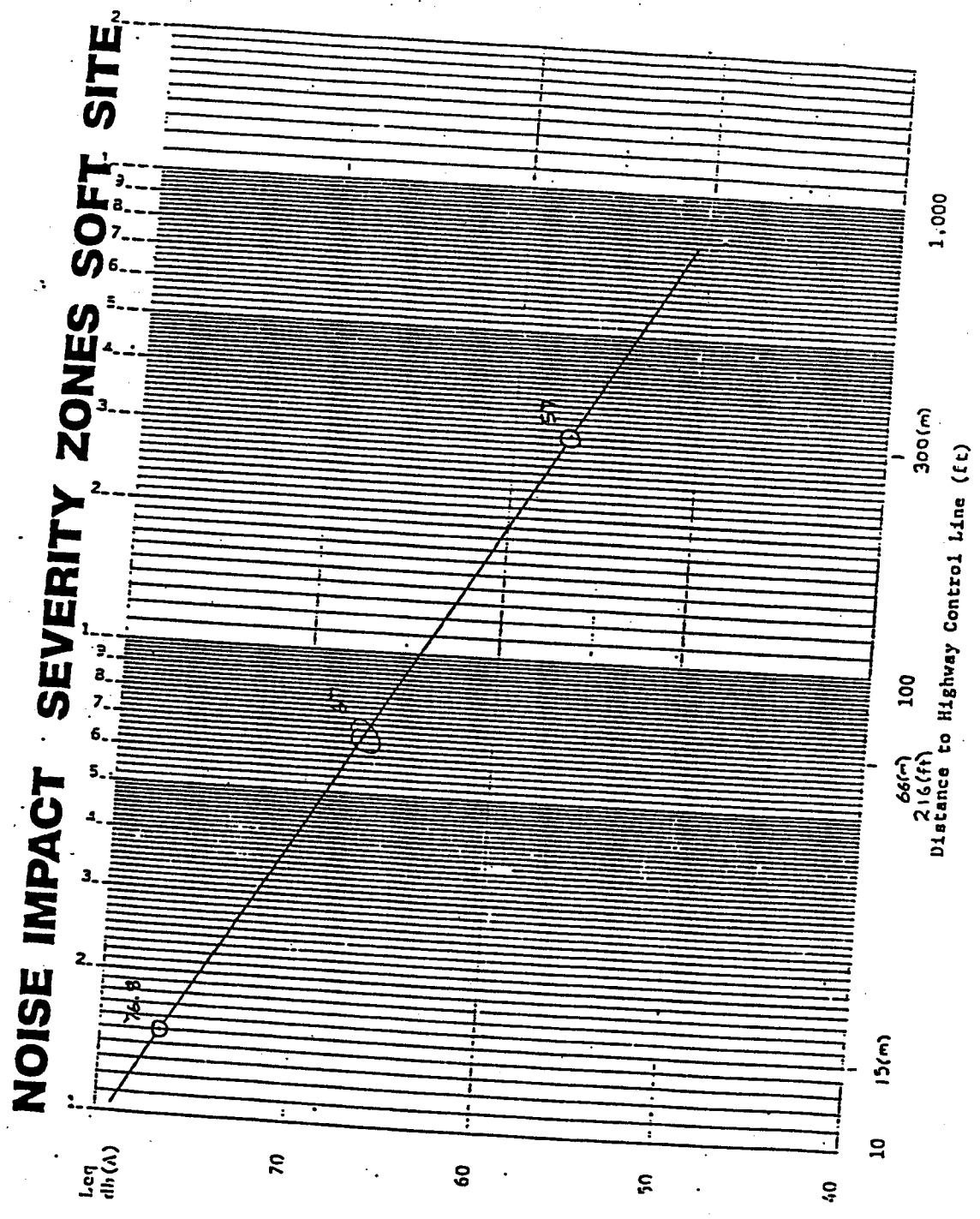
Activity Category	Leq(h)	L10(h)	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Piano areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	55 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

1/ Either L10(h) or Leq(h) (but not both) may be used on a project.

Revised: 9-16-88

NUMBER 08-111  
PAGE 5 of 5  
EFFECTIVE DATE 11-06-87

NOISE IMPACT SEVERITY ZONES



Ent 309761 Bk 0902 Pg 0723

NOISE IMPACT SEVERITY ZONES

**NOISE IMPACT SEVERITY ZONES HARD SITE**

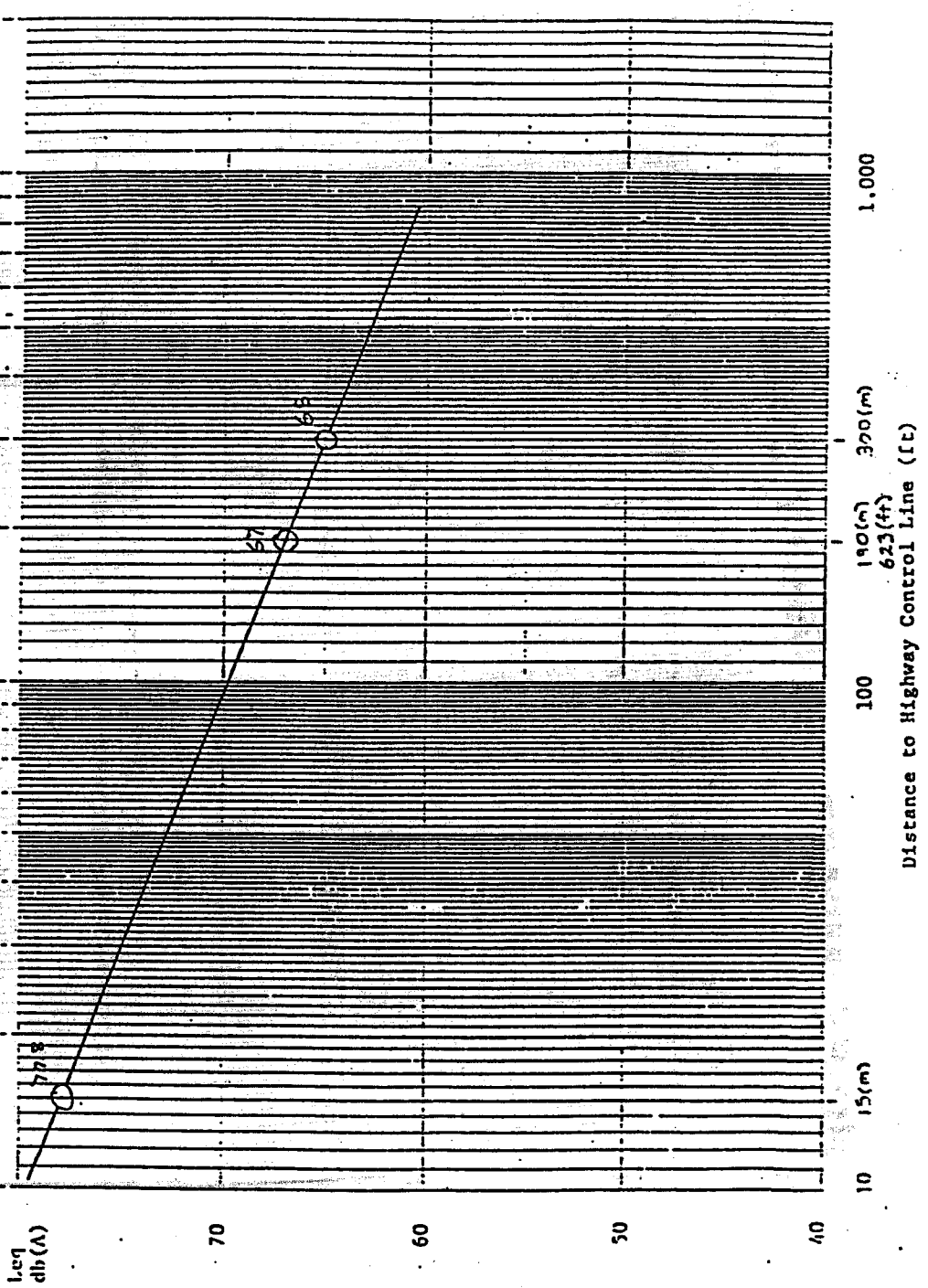


Table 1-8  
 Typical Noise Levels Associated with Construction Equipment and Pumping Stations  
 Under the Proposed Action and DRP Alternatives

Temporary Construction Equipment	Horsepower	Daily Usage	Noise Levels	
			Range of Noise Level @ 50 ft (in dBA)*	Nominal Noise Level, Leq @ 50 ft (in dBA)
Air Compressor	85	8 hours	68 to 87	81
Backhoe-Cat 426	70	8 hours	78 to 84	79
Compactor-Cat 816B	210	8 hours	72 to 96	84
Compactor-Vibratory	100	8 hours	78 to 84	79
Compactor-14 in. Whacker	5	8 hours	84 to 90	86
Crane-25 Ton	160	8 hours	75 to 95	80
Crane-60 Ton	200	8 hours	75 to 95	80
Dozer-Cat D7	215	8 hours	72 to 96	86
Excavator-Cat 235	215	8 hours	71 to 93	85
Excavator-Cat 245	325	8 hours	71 to 93	85
Forklift	130	8 hours	76 to 85	80
Generator	40	8 hours	69 to 81	74
Loader-Cat 966C	200	8 hours	71 to 96	82
Motor Grader-Cat 14G	200	8 hours	73 to 95	85
Pickup (on site use only)	130	50 mi/day	76 to 85	80
Scraper-Cat 621	330	8 hours	73 to 95	88
Scraper-Cat 623	330	8 hours	73 to 95	88
Trencher	500	8 hours	72 to 96	86
Truck - Concrete Mixer	250	50 mi/day	70 to 90	85
Truck - Concrete Pump	200	8 hours	74 to 84	82
Truck - Rear Dump	350	50 mi/day	70 to 92	85
Truck - Flatbed	175	50 mi/day	76 to 85	80
Truck - Mechanics	175	50 mi/day	76 to 85	80
Truck - Pipe	250	50 mi/day	70 to 92	85
Truck - Water	250	8 hours	70 to 92	85
Water Tanker	450	8 hours	79 to 88	84
<b>Permanent Facilities</b>				
Pumping Stations	15-685	24 hours	b	b

Notes:  
 \*dBA is A-weighted decibel, which is a scale measuring human response to loudness.  
 \*Pumping stations would be enclosed in pump buildings that would minimize noise levels.

**DEER CREST VILLAGE - VILLAGE MASTER PLAN  
ONSITE DEVELOPMENT COSTS & AMENITIES**

Ent 309761 Bk 0902 Pg 0725

			Ent 309761 Bk 0902 Pg 0725					Total Amount
Description	Resource	Quantity	Units of Measure	Price per Unit	Builder Amount	Developer Amount		
<b>DEER CREST VILLAGE EAST</b>								
<b>Excavation &amp; Grading</b>								
Testing & Inspection Services	Okland	1.00	Lpsum	125,000		125,000	125,000	
Cleaning and Grubbing	Okland	2,900,000	Sq.Ft.	0.10		290,000	290,000	
Rough Grading	Okland	1,010,873	Sq.Ft.	0.09		90,979	90,979	
Finish Grading	Okland	1,010,873	Sq.Ft.	0.06		60,652	60,652	
Mass Excavation -borrow and compact	Okland	214,815	Cuyd	5.60		1,202,964	1,202,964	
Building Mass Excavation and Backfill	Okland							
Erosion and Sedimentation Control	Okland	1.00	Lpsum	62,500		62,500	62,500	
<b>Sub-Total</b>						<b>1,832,095</b>	<b>1,832,095</b>	
<b>Water (JSSD)</b>								
10" DIP Fire Water Lateral - avg 5' depth	Okland	3,200	Lnft	53		168,000	168,000	
Butterfly Valves with Boxes	Okland	12	Each	1,450		17,400	17,400	
12" DIP Water Main - avg 6' depth	Okland	8,975	Lnft	73		657,419	657,419	
Butterfly Valves with Boxes	Okland	12	Each	1,900		22,800	22,800	
Fire Hydrants, Valves and Lateral @ 300' intervals	Okland	30	Each	3,125		93,750	93,750	
8" DIP Water Lateral - avg 4' depth	Okland	3,200	Lnft	45	144,000		144,000	
Butterfly Valves with Boxes	Okland	12	Each	1,150	13,800		13,800	
2" Copper Water Lateral - avg 4' depth	Okland	980	Lnft	30	29,400		29,400	
Butterfly Valves with Boxes	Okland	22	Each	250	5,500		5,500	
<b>Sub-Total</b>					<b>192,700</b>	<b>959,369</b>	<b>1,152,069</b>	
<b>Sewer (JSSD)</b>								
12" C900 PVC Sanitary Sewer Main - avg 12' depth	Okland	6,050	Lnft	83.70		506,385	506,385	
Sanitary Sewer Manholes - avg 12' depth	Okland	35	Each	5,905		206,675	206,675	
8" C900 Sanitary Sewer Main - avg 10' depth	Okland	4,660	Lnft	28.00	130,480	13	130,493	
Grease Interceptor	Okland	10	Each	3,050	30,500	2	30,502	
<b>Subtotal</b>					<b>160,980</b>	<b>713,075</b>	<b>874,055</b>	
<b>Storm Drainage (County)</b>								
24" RCP Storm Drain - avg 7' depth	Okland	8,120		76.20		618,744	618,744	
15" RCP Storm Drain Laterals - avg 5' depth	Okland	2,430		44.50		108,135	108,135	
Cathc Basins/Inlets, Grates and Frames	Okland	55		1535.00		84,425	84,425	
Sand Interceptors @ parking structures	Okland	4,660						
Retention Basin Excavation	Okland	14,138		5.60		79,173	79,173	
Retention Basin Outfall Headwell Structure	Okland	1		2250.00		2,250	2,250	
Retention Basin Riprap	Okland	50		25.00		1,250	1,250	
60 Mills EPDM Retention Basin Lining	Okland	31,810		2.50		79,525	79,525	
Retention Basin Standpipe structure & Screw Gate	Okland	1		500.00		500	500	
36" RCP Retention Basin Emergency Outlet	Okland	220		103.00		22,660	22,660	
15" RCP Retention Basin Outlet	Okland	265		45.00		11,925	11,925	
Chain Link Fences and Gates @ Retention Basin	Okland	1,000						
<b>Sub-Total</b>						<b>1,008,587</b>	<b>1,008,587</b>	

**DEER CREST VILLAGE - VILLAGE MASTER PLAN  
ONSITE DEVELOPMENT COSTS & AMENITIES**

Ent 309761 Bk 0902 Pt 0726

Description	Resource	Quantity	Units of Measure	Price per Unit	Builder Amount	Developer Amount	Total Amount
<b>Utilities, i.e. Data, Telephone, Cable Electrical, Gas (†)</b>							
Data, Phone, and CATV Ductbank - 4-4 Conduits	Wasatch Electric	7,080		31.26		221,321	221,321
Data, Phone, and CATV Vaults @ 300' intervals	Wasatch Electric	24		5988.96		143,735	143,735
Conduit Crossing	Wasatch Electric	500		17.11		8,555	8,555
Underground Power Distribution - REIMBURSABLE	Wasatch Electric	5,700		375.18		2,138,526	2,138,526
Ductbank - REIMBURSABLE	Wasatch Electric	5,700		172.75		984,675	984,675
Underground Vaults	Wasatch Electric	11		15892.27		174,815	174,815
Entertainment System Head Ends in Vaults	Cequent	11		0.00			
Lighting Poles and Standards	Wasatch Electric	85		3148.98		267,663	267,663
Snow Meltig Systems	Wasatch Electric	70,000		13.10		917,000	917,000
Landscape Lighting and Poles Bases	Wasatch Electric	200		1975.14		395,028	395,028
8" Natural Gas Distribution - By Questar	Okland	5,600		37.80	211,680		211,680
4" Natural Gas Laterals	Okland	4,180		22.30	93,214		93,214
<b>Sub-Total</b>					<b>304,894</b>	<b>5,251,318</b>	<b>5,556,212</b>
<b>Bridges</b>							
Overhead Links (Open and Covered)	Okland	1	Each	110,000	110,000		110,000
Overhead Links (Open and Covered)	Okland	1	Each	112,000	112,000		112,000
Overhead Links (Open and Covered)	Okland	1	Each	27,500	27,500		27,500
<b>Sub-Total</b>					<b>249,500</b>		<b>249,500</b>
<b>Vehicular &amp; Pedestrian Circulation</b>							
Bridges, Roadway - 70' by 40'	Okland	3		180,000		540,000	540,000
Bridges, Pathways - 60' by 10'	Okland	1		50,000		50,000	50,000
Traffic Signs	Okland	25		125		3,125	3,125
Roads - 4" Asphalt Pavement, 12, Bases	Okland	437,768		3		1,488,411	1,488,411
Paths - 1-1/2" Asphalt Pavement, 6" Base	Okland	86,250		2		138,000	138,000
Painted Traffic Lines and Markings	Okland	1		7,500		7,500	7,500
Curbs and Gutters	Okland	28,175		12		324,013	324,013
Valley Gutters	Okland	4,500		5		20,250	20,250
Sidewalks and Subbase	Okland	223,530		3		681,767	681,767
Precast Concrete Pavers on Sand and Subbase	Okland	160,710		8		1,205,325	1,205,325
<b>Sub-Total</b>						<b>4,458,390</b>	<b>4,458,390</b>
<b>Landscaping, Monuments &amp; Signage</b>							
Tennis Court Surfacing			None Shown				
Hydroseed	American LS	1	Lpsm	31,398	10,466	20,932	31,398
Sod	American LS	1	Lpsm	185,625	61,875	123,750	185,625
Mulch, Shredded Bark 3" depth	American LS	1	Lpsm	175,804	58,601	117,203	175,804
Fabric, weed barrier	American LS	1	Lpsm	80,625	26,875	53,750	80,625
Topsoil, On-Site soil	American LS	1	Lpsm	111,556	37,185	74,371	111,556
Irrigation	American LS	1	Lpsm	1,500,000	500,000	1,000,000	1,500,000
6-8" Evergreen Tree	American LS	1	Lpsm	64,125	21,375	42,750	64,125
16-24" Evergreen Tree	American LS	1	Lpsm	232,275	77,425	154,850	232,275

**DEER CREST VILLAGE - VILLAGE MASTER PLAN  
ONSITE DEVELOPMENT COSTS & AMENITIES**

Description	Resource	Quantity	Units of Measure	Price per Unit	Builder Amount	Developer Amount	Total Amount	
2" Tree	American LS	1	Lpsm	61,358	20,453	40,905	61,358	
3-4" Tree	American LS	1	Lpsm	105,450	35,150	70,300	105,450	
1-1/2" Tree	American LS	1	Lpsm	155,925	51,975	103,950	155,925	
5 Gallon Scrub	American LS	1	Lpsm	109,519	36,506	73,013	109,519	
1 Gal Shrub	American LS	1	Lpsm	50,119	16,706	33,413	50,119	
Megal Edging	American LS	1	Lpsm	68,000	22,667	45,333	68,000	
Prefabriated Planters	American LS	1	Lpsm	25,000	8,333	16,667	25,000	
Parking bumpers - conflict with snowplying	American LS							
Bicycle Racks	Okland	20		400.00		8,000	8,000	
Trash and Liter Receptors	Okland	30		250.00		7,500	7,500	
Bus Stop Shelter	Okland	1		10,000		10,000	10,000	
Trash Receptacles Footings	Okland	1		7,041.30		7,041	7,041	
Trash Receptacles Walls	Okland	1		6,854.40		6,854	6,854	
Trash Receptacles Slabs	Okland	1		3,335.85		3,336	3,336	
Trash Receptacles Enclosure - CMU & Rebar	Okland	900		14.00		12,600	12,600	
Parking Structure Waterproofing	Okland					-	-	
Monumental Clocks	Okland							
Trellsed Walkways - Timbers	Okland	5000		25.00		125,000	125,000	
Flagpoles (4-groupings of 3 each)	Okland	12		3,500		42,000	42,000	
Exterior Signage - Directional and Buildings	Okland	1		50,000		50,000	50,000	
Monument Signage	Okland	1		100,000		100,000	100,000	
<b>Sub-Total</b>						<b>985,592</b>	<b>2,343,519</b>	<b>3,329,111</b>



**DEER CREST VILLAGE - VILLAGE MASTER PLAN  
ONSITE DEVELOPMENT COSTS & AMENITIES**

Ent 309761 Bk 0902 Pg 0728

	Description	Resource	Quantity	Units of Measure	Price per Unit	Builder Amount	Developer Amount	Total Amount
<b>Common Amenities</b>								
	Parking Control Equipment	Okland						
	Gazebos	Okland	17,018		50.00		850,900	850,900
	<b>Pools</b>							
	Pool Fence Footings	Okland	1		142,335.90	142,336		142,336
	Pool Fences walls	Okland	1		247,698.15	247,698		247,698
	Cool Deck, Base Slab and Subbase	Okland	63,339		9.00	570,051		570,051
	Ornamental Metal Fences and Gates	Aquatech	2,750		175.00	481,250		481,250
	Whirlpools	Aquatech	10		25,000.00	250,000		250,000
	Swimming Pool 1.1	Aquatech	3,355		60.00	201,300		201,300
	Swimming Pool 4A.1	Aquatech	4,720		60.00	283,200		283,200
	Swimming Pool 5A	Aquatech	2,410		60.00	144,600		144,600
	Swimming Pool 5B	Aquatech	2,585		60.00	155,100		155,100
	Swimming Pool 6A.1	Aquatech	3,415		60.00	204,900		204,900
	<b>Water Features</b>							
	Stream (average 4' w to include pools \$20/sqft)	Aquatech	600		80.00		48,000	48,000
	1.1	Aquatech	1		20,000.00		20,000	20,000
	Plaza East	Aquatech	1		20,000.00		20,000	20,000
	Plaza Center	Aquatech	1		20,000.00		20,000	20,000
	Plaza West	Aquatech	1		20,000.00		20,000	20,000
	<b>Ice Rink</b>							
	Zamboni Building & Skating Pond Physical Plant	Okland	1,200		150.00		180,000	180,000
	Ice Rink Refirgeration System	Okland	1		235,000.00		235,000	235,000
	Ice Rink Dasher Boards	Okland	1		100,000.00		100,000	100,000
	Ice Rink Subsoil Insulation	Okland	10,700		1.85		19,795	19,795
	Ice Rink floor System - subslab, insulation, slab	Okland	10,700		6.40		68,480	68,480
	<b>Amphitheater</b>							
	Amphitheater Staired Slab	Okland	1		192,080.15		192,080	192,080
	Amphitheater Seating	Okland	2,000		35.00		70,000	70,000
	Amphitheater Sound System	Okland	1		5,000.00		5,000	5,000
	Amphitheater System Valut Equip & Satellite	Okland	1		800,000.00		800,000	800,000
	Outdoor Video Board	Okland	1		1,200,000.00		1,200,000	1,200,000
	<b>Sub-Total</b>					<b>2,680,435</b>	<b>3,849,255</b>	<b>6,529,690</b>
	<b>Total -</b>					<b>4,574,101</b>	<b>20,415,608</b>	<b>24,989,709</b>
	Site Work General Conditions	0.03				137,223	612,468	749,691
	Contractor's Bonds	0.0035				16,009	71,455	87,464
	Contingency	0.05				228,705	1,020,780	1,249,485
	Contractor's Fees	0.03				137,223	612,468	749,691
						<b>5,093,262</b>	<b>22,732,779</b>	<b>27,826,040</b>

July 6, 2002  
Mr. Brent Hall  
DDRM, Inc.  
777 Convention Way  
Suite 100  
Anaheim, CA 92802

Dear Brent:

*Deer Valley Lakeside Traffic Study Update*

In November 1997 Taber Engineering submitted a report to Wasatch County entitled, "Traffic Projections & Roadway Analysis Jordanelle Special Service District Wasatch County, Utah." The following tables attempt to update the traffic generation calculated in the report. No attempt has been made to analyze or model the traffic flows, just the amount of traffic that may be created by the study area.

This analysis suggest traffic volumes indicated by the Taber report will be higher than actually experienced. Two factors contribute to this opinion, (a) reduction in the density actually being developed in the Keetley and Stillwater parcels and (b) the creation of the Deer Valley Lakeside Resort instead of a traditional large scale residential development.

Both the Stillwater and Keetley projects have greatly reduced their densities since the report was prepared. Keetley, for example, originally planned 300,000 soft of commercial space, now has 78,000 soft planned. Stillwater has also reduced their commercial space more than 50%, but also reduced their overall density. The resulting traffic generation by the two facilities is about 15,000 trips per day less.

The Deer Valley Lakeside Resort has dramatically changed the traffic generation criteria of the area. Now most of the density is based on visitor or part time owner occupancy. The traffic generated by part time owners is about half of that generated by full time owners. This report predicted 20% to 80% owner occupied single-family homes and townhouses, depending on the location. For comparison, Deer Valley has experienced only about 5% owner occupied homes over the last twenty years or so.

The resulting calculations predict traffic will actually be reduced by the changes to the plan rather than increasing. A more complete analysis will follow in the next few weeks. If you have questions or comments, please call me.

Yours very truly,

IBI GROUP



Douglas C. Rosecrans, P.E.  
Senior Consultant

May 28, 2002

Brent Hall  
DDRM Great Places

Re: Our Order No. 12108  
HAMC Partners

Brent,

Enclosed please find copies of the title exceptions as requested.

Thanks

  
Rob

COMMITMENT FOR TITLE INSURANCE

ISSUED BY Ent 309761 Bk 0902 Pg 0731

COALITION TITLE AGENCY, INC.

2200 Park Avenue, G-100

Park City, Utah 84060

435-649-4008

Fax: 435-649-4026

STEWART TITLE®

GUARANTY COMPANY

STEWART TITLE GUARANTY COMPANY, A Texas Corporation, herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedules A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company.

Signed under seal for the Company, but this Commitment shall not be valid or binding until it bears an authorized Countersignature.

IN WITNESS WHEREOF, Stewart Title Guaranty Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.

*Sanctity of Contract*®

*Stewart Morris Jr.*  
Chairman of the Board

Countersigned by:

STEWART TITLE®  
GUARANTY COMPANY

*Malcolm S. Morris*  
President



*Robert C. [Signature]*  
Authorized Signatory

COALITION TITLE AGENCY, INC.

Company

PARK CITY, UTAH

City, State

SCHEDULE A

Ent 309761 Bk 0902 Pg 0732

Order Number: 00012108

1. Effective Date: April 02, 2002 at 8:00 A.M.

2. Policy or Policies to be issued:

A. ALTA Owner's Policy (10-17-92)  
Proposed Insured: TO BE DETERMINED

Amount of Insurance: \$1,000.00  
Insurance Premium: \$200.00 Rate: STANDARD

B. ALTA Loan Policy (10-17-92)  
Proposed Insured:

Amount of Insurance: \$  
Insurance Premium: \$ Rate:

C.

3. The Estate or interest in the land described or referred to in the Commitment and covered herein is:

Fee Simple


4. Title is at the effective date vested in:

HAMC PARTNERS, LTD., L.P., A CALIFORNIA LIMITED PARTNERSHIP

5. The land referred to in this commitment is described as follows:  
Situating in WASATCH County, Utah.

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

PROPERTY ADDRESS:

  
Authorized Countersignature

Coalition Title Agency, Inc.

Order Number: 00012108

Requirements

The following are the requirements to be complied with:

Item (a) Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

Item (b) Instrument(s) in insurable form which must be executed, delivered and duly filed for record.

Item (c) Release(s), reconveyance(s), or satisfaction(s), of items to be paid off.

Item (d) Any matter in dispute between you and the Company may be subject to arbitration as an alternative to court action pursuant to the Title Insurance Rules of the American Arbitration Association, a copy of which is available on request from the Company. Any decision reached by arbitration shall be binding upon both you and the Company. The arbitration award may include attorney's fees if allowed by state law and may be entered as a judgment in any court of proper jurisdiction.

Item (e) This Commitment will be subject to defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date of the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment if not cleared prior to recordation of the insured interest.

Item (f) Notice to Applicant: If the applicant desires copies of the documents underlying any exception to coverage shown herein the Company will furnish the same on request, if available, either with or without charge as appears appropriate.

Item (g) Notice to Applicant: The land covered herein may be serviced by districts, service companies and/or municipalities which assess charges for water, sewer, electricity and any other utilities, etc. which are not covered by this report or insured under a title insurance policy.

Item (h) Pay us the premiums, fees and charges for the policy. In the event the transaction for which this commitment is furnished cancels, the minimum cancellation fee will be \$200.00.

Item (i) The Title may be subject to further exceptions upon the disclosure of the identity of the buyer.

Coalition Title Agency, Inc.

SCHEDULE B - Section 2

Ent 309761 Bk 0902 Pg 0734

Order Number: 00012108

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, liens, or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage on area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in acts authorizing the issuance thereof; (c) water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
7. (AFFECTS PARCEL 1)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-1). Taxes for the year 2001 have been paid in the amount of \$383.35.

(AFFECTS PARCEL 2)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-8). Taxes for the year 2001 have been paid in the amount of \$174.44.

(AFFECTS PARCEL 3)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-2). Taxes for the year 2001 have been paid in the amount of \$6,416.72.

Continued on next page

Coalition Title Agency, Inc.

(AFFECTS PARCEL 4)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-5). Taxes for the year 2001 have been paid in the amount of \$6,257.66.

8. A Right of Way and Easement Grant, by and between FORD DAVID FISHER, ETAL, grantor, and MOUNTAIN FUEL SUPPLY COMPANY, A CORPORATION, grantee, recorded AUGUST 11, 1964, as Entry No. 86294, in Book 49, on Page 221, for the purpose of to lay, maintain, operate, repair, inspect, protect, remove and replace pipe lines, valves, valve boxes and other gas transmission and distribution facilities, through and across a portion of the subject property.
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A JORDANELLE SPECIAL SERVICE DISTRICT EASEMENT, dated DECEMBER 12, 1995, by and between GLADYS E. OLSON TRUST, BY RONALD D. OLSON, TRUSTEE, grantor, and JORDANELLE SPECIAL SERVICE DISTRICT, grantee, recorded OCTOBER 17, 1997, as Entry No. 197825, in Book 361, on Page 726, WASATCH County Recorder's Office.  
  
A JORDANELLE SPECIAL SERVICE DISTRICT EASEMENT, dated DECEMBER 12, 1995, by and between RUSSELL E. NEIHART, grantor, and JORDANELLE SPECIAL SERVICE DISTRICT, grantee, recorded OCTOBER 17, 1997, as Entry No. 197826, in Book 361, on Page 736, WASATCH County Recorder's Office.
10. Excepting and reserving, also to the United States all the coal and other minerals in the land so entered and patented, together with the right to prospect for, mine and remove the same pursuant to the provisions and limitations of the Act of December 29, 1916 (39 Stat. 862), recorded NOVEMBER 6, 1953, as Entry No. 74954, in Book 5PAT, at Page 241, WASATCH County Recorder's Office.
11. (AFFECTS PARCEL 4)

Recitals as found in Patent from UNITED STATES OF AMERICA to PAMELA K. STEWART, recorded DECEMBER 29, 1995, as Entry No. 183845, in Book 313, at Page 89, WASATCH County Recorder's Office, as follows:

1. Those rights for a 4 inch high pressure natural gas line granted to Mountain Fuel Supply Company, its successors or assigns, by right of way No. UTU-0141758, pursuant to the Act of February 25, 1920 as amended (30 U.S.C. 185).

Continued on next page



2. Those rights for an 8 inch high pressure natural gas line granted to Mountain Fuel Supply Company, its successors or assigns, by right of way No. UTU-54903, pursuant to the Act of February 25, 1920 as amended (30 U.S.C. 185).
  3. Those rights for a 46Kv power transmission line granted to Pacificorp, DBA Utah Power and Light, its successors or assigns, by right of way No. UTU-54900, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
  4. Those rights for a 12.5Kv power distribution line granted to Pacificorp, DBA Utah Power and Light, its successors or assigns, by right of way No. UTU-64219, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
12. (AFFECTS LAND ABUTTING HIGHWAY 40)
- Recital as found in the Declaration of Taking, recorded MARCH 29, 1988, as Entry No. 145250, in Book 198, at Page 631, WASATCH County Recorder's Office as follows:
- In order to construct and maintain a public highway as an expressway, as contemplated by Title 27, Chapter 12, Section 96, Utah Code Annotated, 1953, as amended, the Defendants shall be required to release and relinquish to the United States, or its assigns, any and all rights of ingress to or egress from their remaining property contiguous to Parcels Nos. JDR-HY-40-10:8:A.
13. Density Determination Documents for ELKHORN MOUNTAIN-STAGHORN VILLAGE, recorded JULY 15, 1997, as Entry No. 195645, in Book 353, at Page 17, WASATCH County Recorder's Office.  
  
Master Plan, Maps and Plats, recorded JULY 15, 1997, as Entry No. 195646, in Book 353, at Page 129, WASATCH County Recorder's Office.
  14. Excepting oil and gas, mining and mineral rights, together with the right of the proprietor of a vein or lode to extract their ore therefrom should the same be found to penetrate or intersect the premises and the rights of ingress and egress for the use of said rights.
  15. Said property is located within the boundaries of JORDANELLE SPECIAL SERVICE DISTRICT and is subject to charges and assessments levied thereunder.
  16. Said property is located within the boundaries of WASATCH COUNTY FIRE PROTECTION DISTRICT AND WASATCH COUNTY SPECIAL SERVICE AREA NO. 1 and is subject to charges and assessments levied thereunder.

NOTE: THE FOLLOWING NAMES HAVE BEEN CHECKED FOR JUDGMENTS:

Continued on next page

HAMC PARTNERS, LTD., L.P.

NO UNSATISFIED JUDGMENTS HAVE BEEN FILED IN THE PAST EIGHT YEARS.

EXHIBIT "A"

Ent 309761 Bk 0902 Pg 0738

Order Number: 00012108

(PARCEL 1)

LOT 11 OF SECTION 23 OF TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 2)

THE SOUTHERLY REMAINDER OF LOT 25 OF SECTION 14, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 3)

GOVERNMENT LOTS 7 AND 8, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN, LYING EASTERLY OF THE EAST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 4)

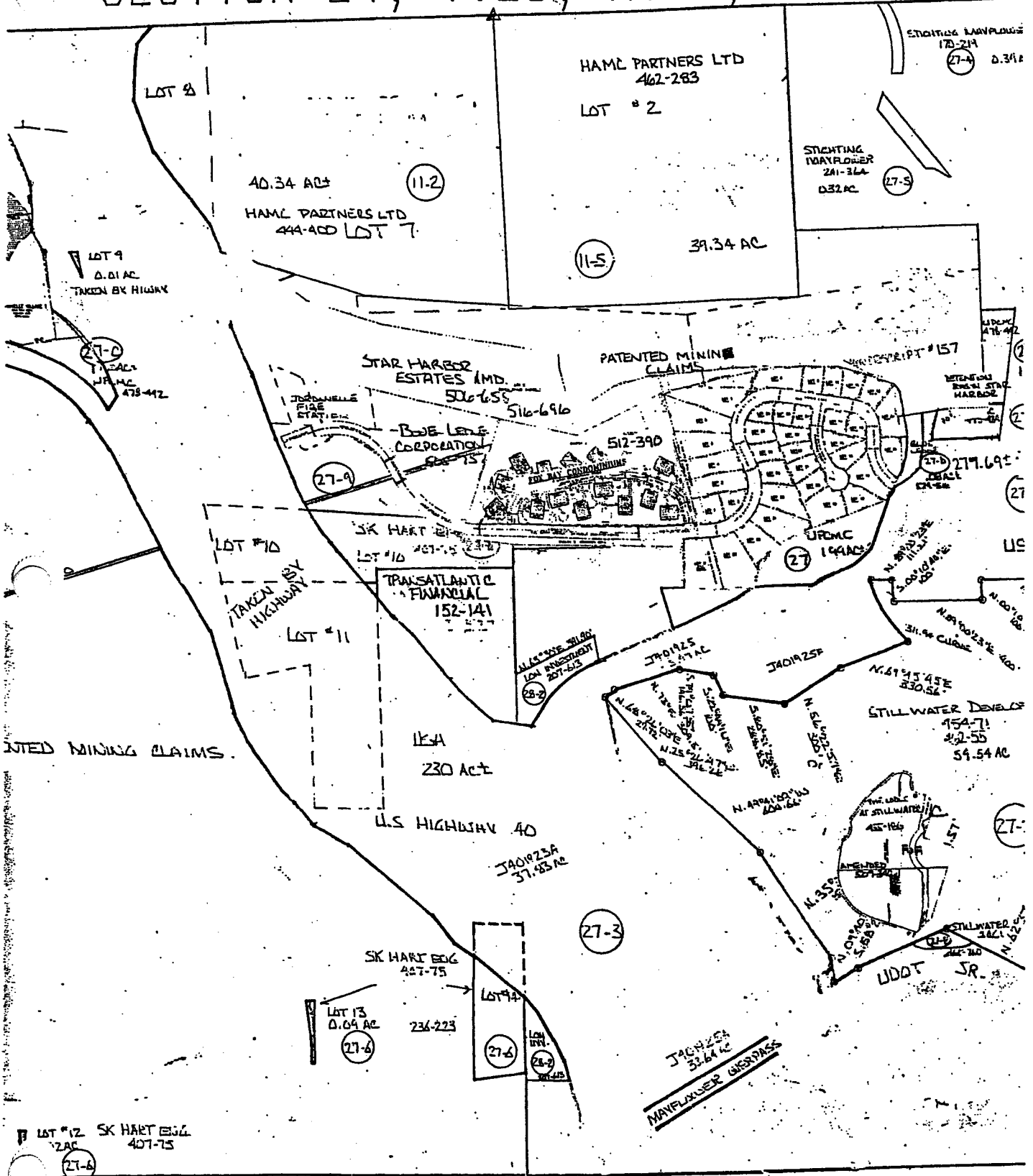
GOVERNMENT LOT 2, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.

- (TAX SERIAL NO. OWC-0011-1) - PARCEL 1
- (TAX SERIAL NO. OWC-0011-8) - PARCEL 2
- (TAX SERIAL NO. OWC-0011-2) - PARCEL 3
- (TAX SERIAL NO. OWC-0011-5) - PARCEL 4

Coalition Title Agency, Inc.

(For adjoining property see Section 13)

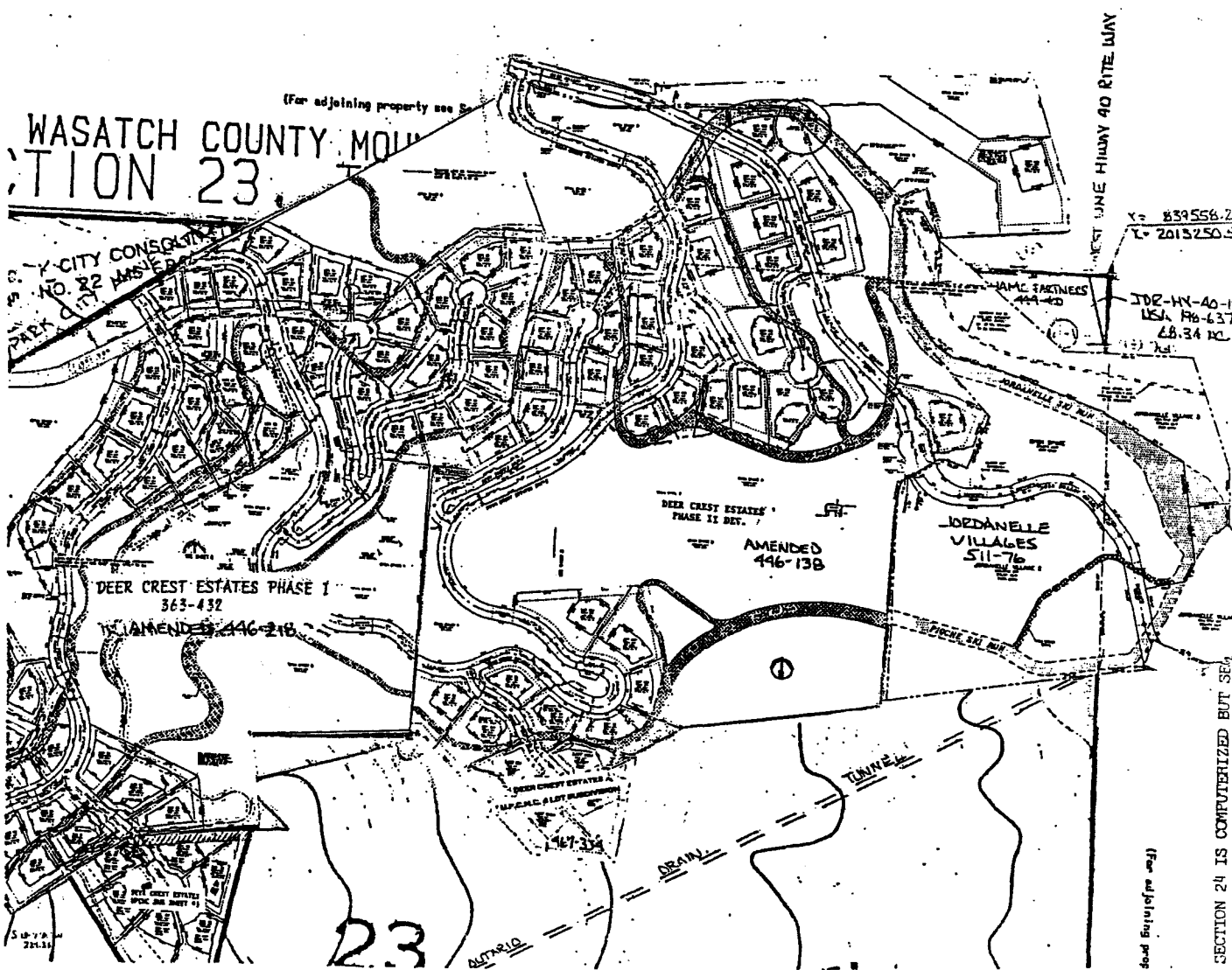
# WASATCH COUNTY MOUNTAINLAND OF UTAH SECTION 24, T.2S, R.4E, SLM:



(For adjoining property see Section 25)

SECTION 10

Y = 834,456.34  
Z = 2,015,875.89



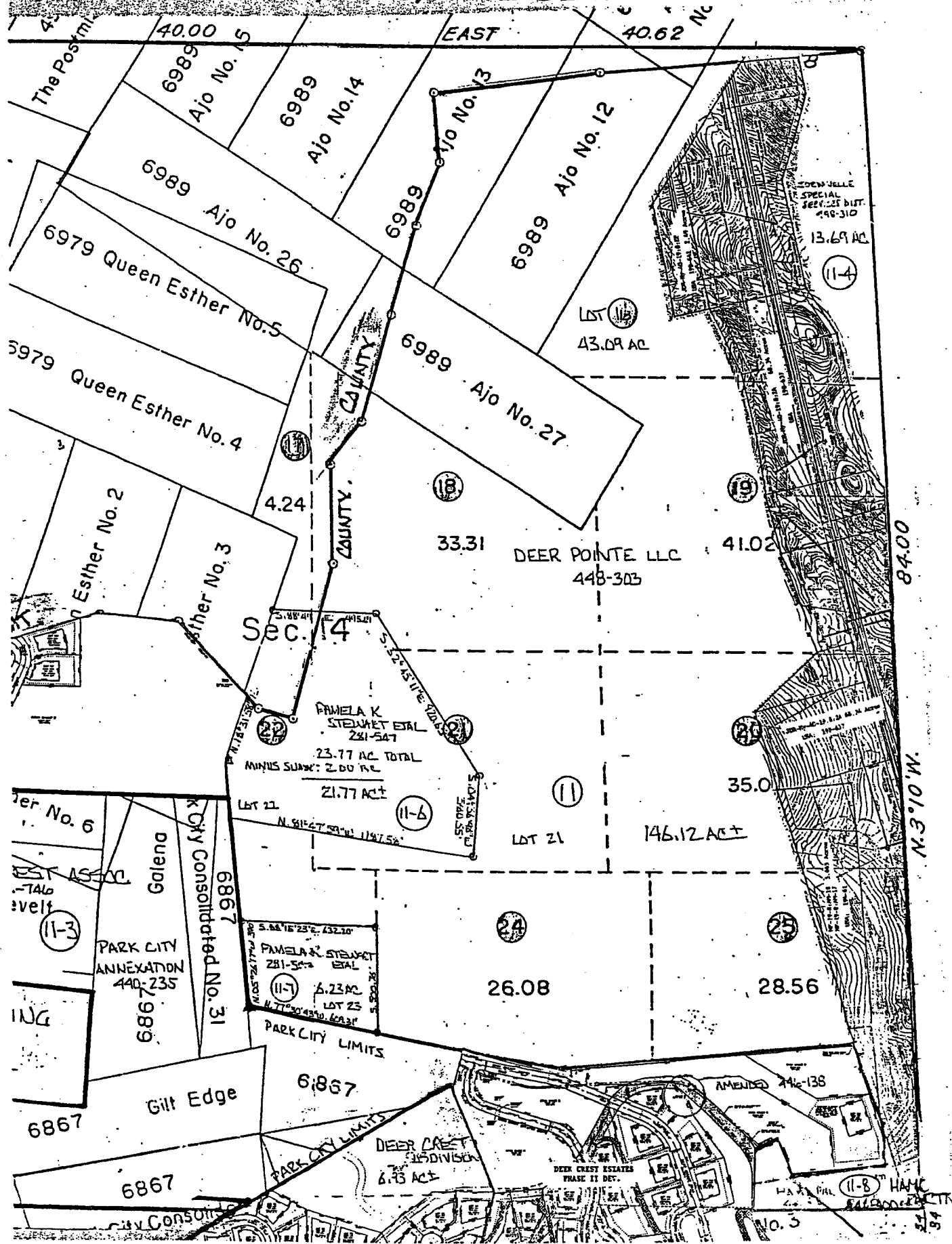
(For adjoining property see Section 11, T.2S, R.4E, SLM)

# WASATCH COUNTY MOUNTAINLAND OF UTAH

Ent 309761 Bk 0902 Pg 0741

SCALE: One inch = 400 Feet

## SECTION 14, T.2S, R.4E, SLM



# COALITION TITLE AGENCY

Ent 309761 Bk 0902 Pg 0742

## PRIVACY POLICY

### We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information, particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, we have adopted this Privacy Policy to govern the use and handling of your personal information.

### Applicability

This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity.

### Types of Information

Depending on which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or by any other means;
- Information about your transactions, with us or our affiliated companies; and
- Information we receive from a consumer reporting agency.

### Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies, and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies, or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

### Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

### Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Financial Services Modernization Act Notice 7-1-2001

May 28, 2002

Brent Hall  
DDRM Great Places

Re: Our Order No. 12108  
HAMC Partners

Brent,

Enclosed please find copies of the title exceptions as requested.

Thanks

  
Rob



COMMITMENT FOR TITLE INSURANCE  
ISSUED BY

COALITION TITLE AGENCY, INC.

2200 Park Avenue, C-100  
Park City, Utah 84060  
435-649-4008  
Fax: 435-649-4026

STEWART TITLE®  
GUARANTY COMPANY

STEWART TITLE GUARANTY COMPANY, A Texas Corporation, herein called the Company, for a valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedules A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company.

Signed under seal for the Company, but this Commitment shall not be valid or binding until it bears an authorized Countersignature.

IN WITNESS WHEREOF, Stewart Title Guaranty Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.

*Sanctity of Contract*®

*Stewart Morris Jr.*  
Chairman of the Board

Countersigned by:

*Robert C. [Signature]*  
Authorized Signatory

COALITION TITLE AGENCY, INC.

Company

PARK CITY, UTAH

City, State

STEWART TITLE®  
GUARANTY COMPANY

*Malcolm S. Morris*  
President



SCHEDULE A

Ent 309761 Bk 0902 Pg 0745

Order Number: 00012108

1. Effective Date: April 02, 2002 at 8:00 A.M.

2. Policy or Policies to be issued:

A. ALTA Owner's Policy (10-17-92)  
Proposed Insured: TO BE DETERMINED

Amount of Insurance: \$1,000.00  
Insurance Premium: \$200.00                      Rate: STANDARD

B. ALTA Loan Policy (10-17-92)  
Proposed Insured:

Amount of Insurance: \$  
Insurance Premium: \$                                      Rate:

C.

3. The Estate or interest in the land described or referred to in the Commitment and covered herein is:

Fee Simple

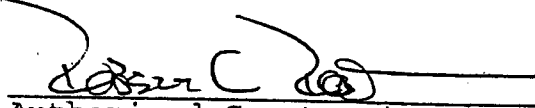
4. Title is at the effective date vested in:

HAMC PARTNERS, LTD., L.P., A CALIFORNIA LIMITED PARTNERSHIP

5. The land referred to in this commitment is described as follows:  
Situating in WASATCH County, Utah.

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

PROPERTY ADDRESS:

  
Authorized Countersignature

Coalition Title Agency, Inc.

Order Number: 00012108

Requirements

The following are the requirements to be complied with:

Item (a) Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

Item (b) Instrument(s) in insurable form which must be executed, delivered and duly filed for record.

Item (c) Release(s), reconveyance(s), or satisfaction(s), of items to be paid off.

Item (d) Any matter in dispute between you and the Company may be subject to arbitration as an alternative to court action pursuant to the Title Insurance Rules of the American Arbitration Association, a copy of which is available on request from the Company. Any decision reached by arbitration shall be binding upon both you and the Company. The arbitration award may include attorney's fees if allowed by state law and may be entered as a judgment in any court of proper jurisdiction.

Item (e) This Commitment will be subject to defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date of the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment if not cleared prior to recordation of the insured interest.

Item (f) Notice to Applicant: If the applicant desires copies of the documents underlying any exception to coverage shown herein the Company will furnish the same on request, if available, either with or without charge as appears appropriate.

Item (g) Notice to Applicant: The land covered herein may be serviced by districts, service companies and/or municipalities which assess charges for water, sewer, electricity and any other utilities, etc. which are not covered by this report or insured under a title insurance policy.

Item (h) Pay us the premiums, fees and charges for the policy. In the event the transaction for which this commitment is furnished cancels, the minimum cancellation fee will be \$200.00.

Item (i) The Title may be subject to further exceptions upon the disclosure of the identity of the buyer.

Coalition Title Agency, Inc.

SCHEDULE B - Section 2

Ent 309761 Bk 0902 Pg 0747

Order Number: 00012108

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or by making inquiry of persons in possession thereof.
3. Easements, liens, or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage on area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in acts authorizing the issuance thereof; (c) water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.
7. (AFFECTS PARCEL 1)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-1). Taxes for the year 2001 have been paid in the amount of \$383.35.

(AFFECTS PARCEL 2)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-8). Taxes for the year 2001 have been paid in the amount of \$174.44.

(AFFECTS PARCEL 3)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-2). Taxes for the year 2001 have been paid in the amount of \$6,416.72.

Continued on next page

Coalition Title Agency, Inc.

(AFFECTS PARCEL 4)

Taxes for the year 2002 are now accruing as a lien, but are not yet due and payable (Serial No. OWC-0011-5). Taxes for the year 2001 have been paid in the amount of \$6,257.66.

8. A Right of Way and Easement Grant, by and between FORD DAVID FISHER, ETAL, grantor, and MOUNTAIN FUEL SUPPLY COMPANY, A CORPORATION, grantee, recorded AUGUST 11, 1964, as Entry No. 86294, in Book 49, on Page 221, for the purpose of to lay, maintain, operate, repair, inspect, protect, remove and replace pipe lines, valves, valve boxes and other gas transmission and distribution facilities, through and across a portion of the subject property.
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11. (AFFECTS PARCEL 4)

Recitals as found in Patent from UNITED STATES OF AMERICA to PAMELA K. STEWART, recorded DECEMBER 29, 1995, as Entry No. 183845, in Book 313, at Page 89, WASATCH County Recorder's Office, as follows:

1. Those rights for a 4 inch high pressure natural gas line granted to Mountain Fuel Supply Company, its successors or assigns, by right of way No. UTU-0141758, pursuant to the Act of February 25, 1920 as amended (30 U.S.C. 185).

Continued on next page

2. Those rights for an 8 inch high pressure natural gas line granted to Mountain Fuel Supply Company, its successors or assigns, by right of way No. UTU-54903, pursuant to the Act of February 25, 1920 as amended (30 U.S.C. 185).
  3. Those rights for a 46Kv power transmission line granted to Pacificorp, DBA Utah Power and Light, its successors or assigns, by right of way No. UTU-54900, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
  4. Those rights for a 12.5Kv power distribution line granted to Pacificorp, DBA Utah Power and Light, its successors or assigns, by right of way No. UTU-64219, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).
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- Recital as found in the Declaration of Taking, recorded MARCH 29, 1988, as Entry No. 145250, in Book 198, at Page 631, WASATCH County Recorder's Office as follows:
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14. Excepting oil and gas, mining and mineral rights, together with the right of the proprietor of a vein or lode to extract their ore therefrom should the same be found to penetrate or intersect the premises and the rights of ingress and egress for the use of said rights.
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NOTE: THE FOLLOWING NAMES HAVE BEEN CHECKED FOR JUDGMENTS:

Continued on next page

HAMC PARTNERS, LTD., L.P.

NO UNSATISFIED JUDGMENTS HAVE BEEN FILED IN THE PAST EIGHT YEARS.

EXHIBIT "A"

Ent 309761 Bk 0902 Pg 0751

Order Number: 00012108

(PARCEL 1)

LOT 11 OF SECTION 23 OF TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 2)

THE SOUTHERLY REMAINDER OF LOT 25 OF SECTION 14, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 3)

GOVERNMENT LOTS 7 AND 8, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN, LYING EASTERLY OF THE EAST RIGHT OF WAY LINE OF STATE HIGHWAY PARCEL JDR-HY-40-19:8:2A, RECORDED MARCH 29, 1988, AS INSTRUMENT 145250, AT BOOK 198, PAGE 631, OFFICIAL RECORDS OF WASATCH COUNTY.

(PARCEL 4)

GOVERNMENT LOT 2, IN SECTION 24, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN.

(TAX SERIAL NO. OWC-0011-1) - PARCEL 1

(TAX SERIAL NO. OWC-0011-8) - PARCEL 2

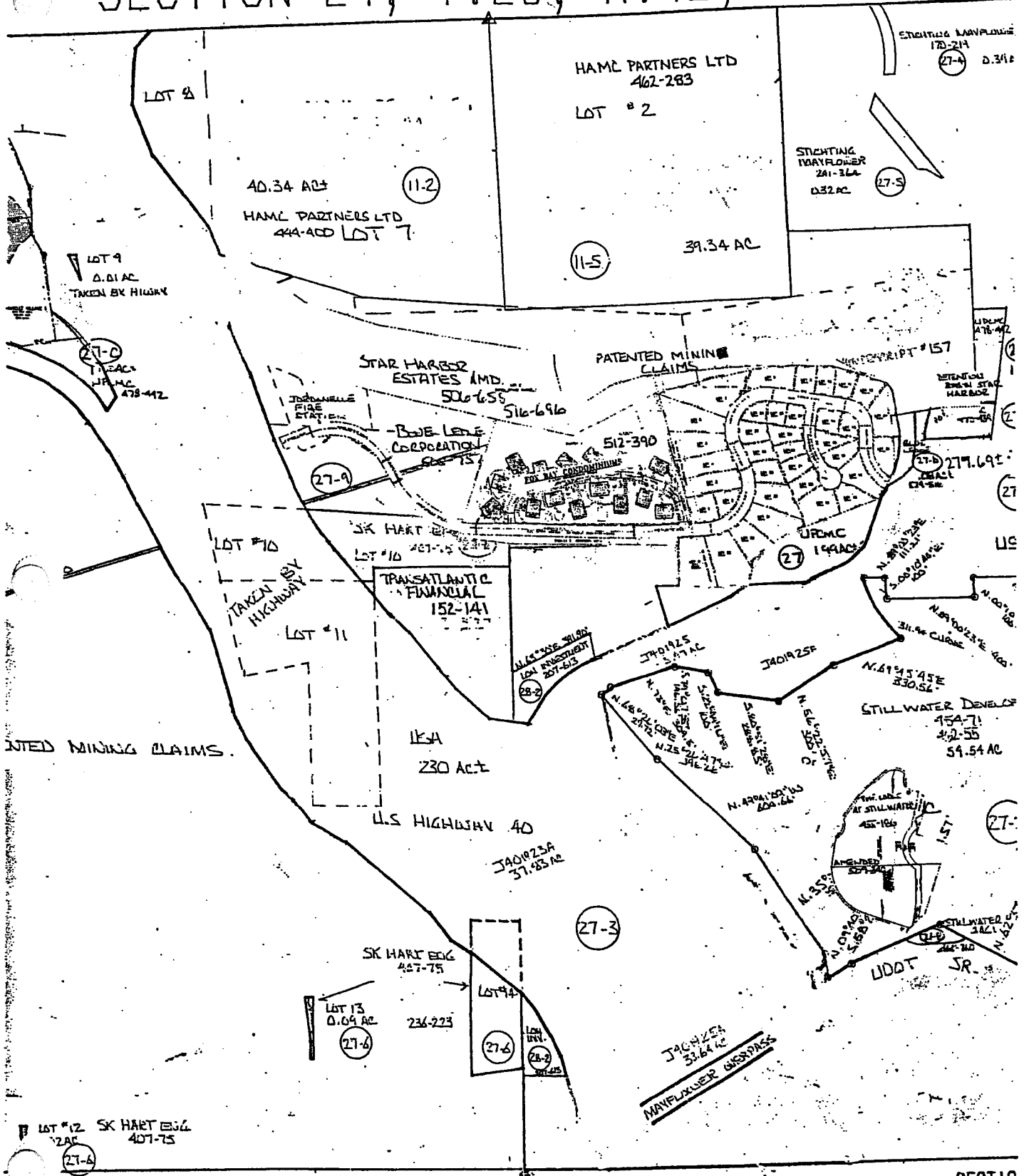
(TAX SERIAL NO. OWC-0011-2) - PARCEL 3

(TAX SERIAL NO. OWC-0011-5) - PARCEL 4

Coalition Title Agency, Inc.



# WASATCH COUNTY MOUNTAINLAND OF UTAH SECTION 24, T.2S, R.4E, SLM:

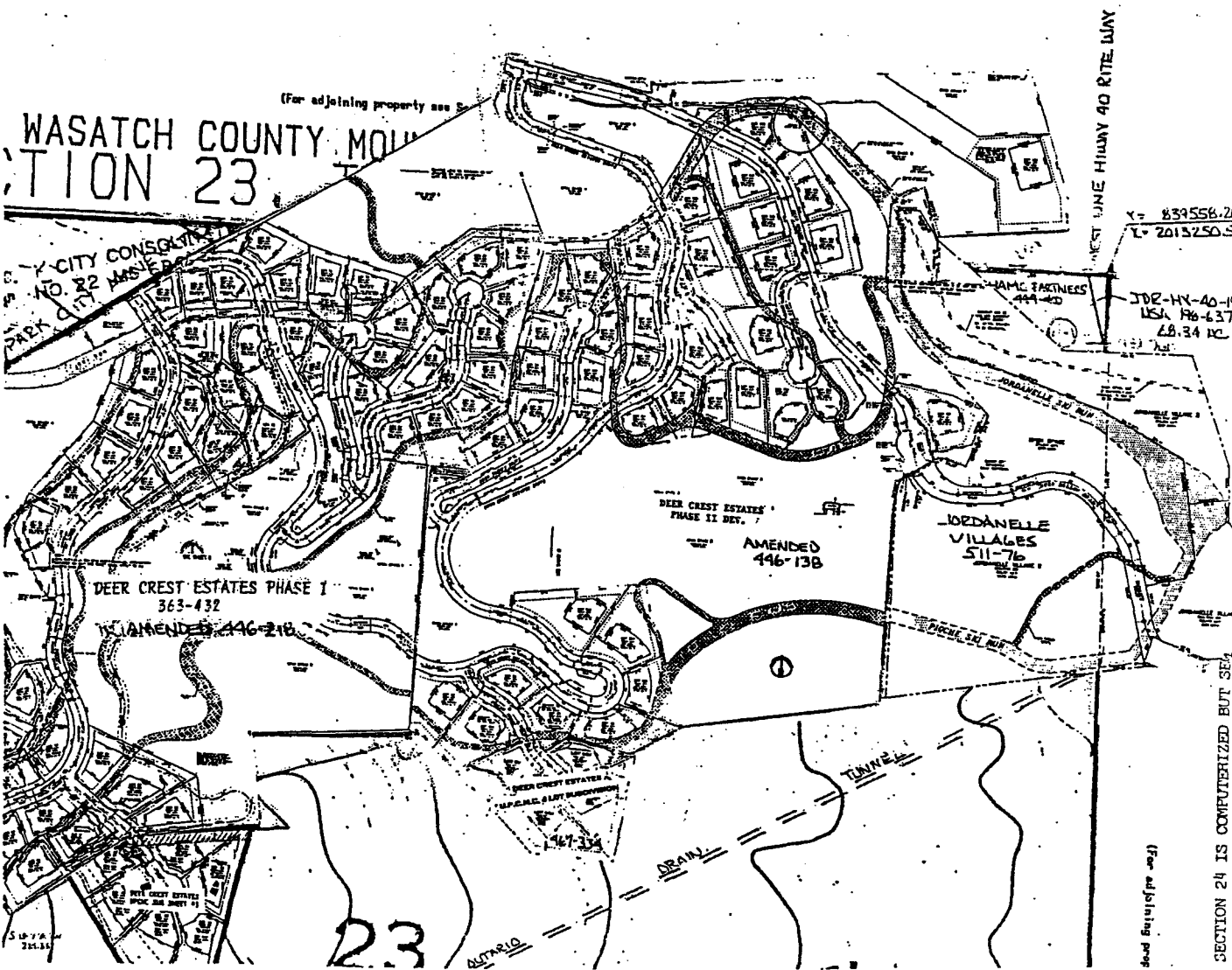


UNTER MINING CLAIMS.

(For adjoining property see Section 25)

SECTION

Y = 834,456.34  
X = 2,015,875.69

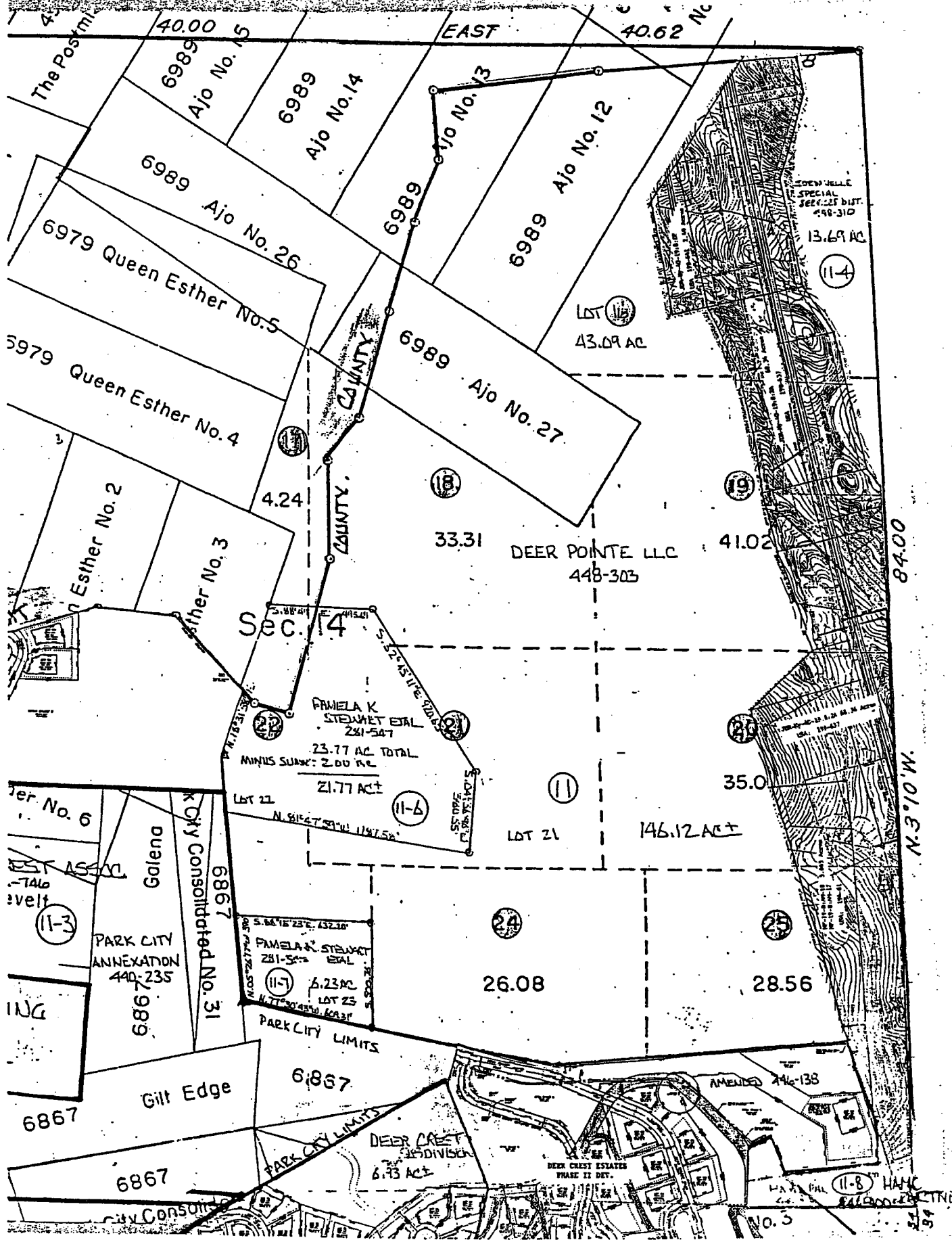


Wasatch County  
MOUNTAINLAND OF UTAH

Ent 309761 Bk 0902 Pg 0754

SCALE: One Inch = 400 Feet

SECTION 14, T. 2S, R. 4E. SLM



## PRIVACY POLICY

### We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information, particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, we have adopted this Privacy Policy to govern the use and handling of your personal information.

### Applicability

This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity.

### Types of Information

Depending on which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or by any other means;
- Information about your transactions, with us or our affiliated companies; and
- Information we receive from a consumer reporting agency.

### Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies, and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies, or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

### Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

### Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

### Financial Services Modernization Act Notice 7-1-2001

Jordanelle Special Service District  
Land Use by Traffic Zone

Taber Study- November 11, 1997  
Excerpts from the study

ZONE	DESCRIPTION	SF		SECOND		PROF		IND	RECR	RETAIL	RETAIL	HOTEL	SCH
		DU	DU	SF	MF	OFFICE	OFFICE						
1	Lewis	19	2	1		0	0		0	0	0	0	
2	Mayflower S(Westside)	801	198	534		0	-1		114	0	31	170	
3	Park City Hotels(Stillwater)	67	12	44		8	8		10	77	77	200	
4	PCM-Keetley	0	0	0		10	10		114		300	0	
5	PCM-Pioche	87	16	58		0	0		0		23	0	
6	Deer Crest (Lower Portal)	100	5	70		0	0		0		24	0	
7	Stag Horn	116	21	77		11	12		0		7.1	60	
8	Elk Horn	8	1	5		0	0		0		0	0	
9	Kimball Ridge	34	4	2		0	0		6		0	0	
10	Point-Madsen	18	2	4		0	0		6		17	0	
11	Hollows-Western Corp	4	1	1		0	0		0		43	0	
12	East Park -Small	117	14	8		0	0		0		0	0	
13	East Park-big	114	13	6		0	0		70		37	0	
14	Mayflower North	135	0	0		0	0		67		139	0	
15	Jordanelle View-Ahlin	59	7	3		0	0		0		0	0	
101	Mayflower S (East-a)	0	0	0		0	0		114		31	0	
102	Mayflower S (East-b)	0	0	0		0	0		114		31	0	
103	Jordanelle St Park	0	0	0		0	0		0		0	0	
106	Deer Crest Residential	100	5	70		0	0		0		0	0	
107	Deer Crest Upper Vig	100	5	70		0	0		0		48	0	
108	Mayflower North-Residential	200	39	18		0	0		0		0	0	

2002 Deer Valley Lakeside RSPA

DESCRIPTION	SF		SECOND		PROF		IND	RECR	RETAIL	RETAIL	HOTEL	SCH	
	DU	DU	SF	MF	OFFICE	OFFICE							KSF
1	Lewis, See below												
1,2	Mayflower S(Westside)*	307	0	307	0	0	0	0	0	0	94	790	
3	Stillwater*	22	0	94	0	0	0	0	0	0	67	148	
4	PCM-Keetley**	78	0	78	0	0	0	0	114		78		
5	PCM-Pioche*	17	0	69	0	0	0	0	0	0	2	114	
6,8	Deer Crest (Lower Portal);Elk Horn*	22	5	126	0	0	0	0	0	0	106		
7,9,10,11	Deer Crest Village East: Stag Horn, Kimball Ridge, The Pointe, The Hollows*	18	0	70	0	0	0	0	0	12	96	1736	
12	East Park -Small***	117	14	8	0	0	0	0	0	0	0	0	
13	East Park-big***	114	13	6	0	0	0	0	70	0	37	0	
14,108	Mayflower North, Gimbel, Sage Hen**	294	0	294	0	0	0	0	0	0	6	0	
15	Jordanelle View-Ahlin***	72	0	14	0	0	0	0	0	0	0	0	
101,102	Mayflower S (East-a),(East-b)**	163	63	163	63	0	0	0	0	0	4	0	
103	Jordanelle St Park	0	0	0	0	0	0	0	0	0	0	0	
106	Deer Crest Residential*	34	6	136	0	0	0	0	0	0	0	0	
107	Deer Crest Upper Vig*	34	5	136	0	0	0	0	0	0	48	0	

\* = 20% owner occupied  
\*\* = 50% owner occupied  
\*\*\* = 80% owner occupied

RETAIL VILLAGE KSF	HOTEL ROOMS	SCHOOL STUDENT	PARK & RIDE SPACES	PARK ACRE	Trip Generation Trips	Trip Generation Rates - from Taber Report		
					Land Use	Daily Trip Rate	% Bypass	
0	0	0	0	0	254			
31	170	0	0	0	20166			
77	200	0	0	2	11984			
300	0	0	0	0	15216			
23	0	0	0	0	2472			
24	0	0	400	0	4310			
7.1	60	0	0	0	5946			
0	0	0	0	0	136			
0	0	0	0	0	604			
17	0	0	0	0	1084			
43	0	0	0	0	1784			
0	0	0	0	5	1712			
37	0	0	0	3	4766			
139	0	500	0	30	10208			
0	0	0	0	0	796	Primary S/F Res	12.0 /Unit	
31	0	0	0	0	3976	Multi-Family	10.0 /Unit	
31	0	500	0	0	4678	Secondary S/F Res	6.0 /Unit	
0	0	0	1000	0	4200	Secondary M/F	5.0 /Unit	
0	0	0	0	0	1670	Senior Residential	4.0 /Unit	
48	0	0	0	0	3590	Office	14.0 /ksf	
0	0	0	0	0	2898	Professional Office	34.0 /ksf	
TOTAL TRIPS					102,448	Public/Recreation	24.0 /ksf	
						Retail-Drive In	632.0 /ksf	
						Retail-Convenience	846.0 /ksf	50
						Retail-Shop Cnt	70.7 /ksf	60
						Retail-Village	40.0 /ksf	35
						Hotel	8.0 /Rm	
						School	1.4 /Student	
						Park & Ride	4.2 /Space	
0	94	790			15606			
0	67	148			4692			
0	78				7260			
0	2	114			1610			
0	106				5310			
12	96	1736			19212			
0	0	0	0	0	1712			
0	37	0	0	0	4766			
6	0	0	500	0	6416			
0	0	0	0	0	948			
4	0	0	500	0	4862			
0	0	0	0	1000	4200			
0	0	0	0	0	1284			
0	48	0	0	0	3194			
TOTAL TRIPS					81,072			

ORDINANCE NO. 02-02

AN ORDINANCE AMENDING SECTION 16.01.10 AND ENACTING SECTION 16.02.950 OF THE WASATCH COUNTY CODE

WHEREAS, the Wasatch County Commission deems it advisable to grant partial credit to certain developments which meet the affordable housing requirements of the County; and

WHEREAS, the Wasatch County Commission deems it advisable to add three additional definitions to section 16.01.10 and to enact section 16.02.950 of the Wasatch County Code,

NOW THEREFORE, be it resolved that the Board of County Commissioners of Wasatch County, ordains as follows:

1. That the following definitions shall be added to section 16.01.10 of the Wasatch County Code as follows:

16.01.10 *Definitions*

(106) **Resort Development:** A mixed use development consisting of a group or groups of buildings containing more than five dwelling units and/or guest rooms and providing recreational activities that may include skiing, golf, horseback riding, swimming, tennis, spa, and similar activities. A resort may furnish services customarily furnished by a hotel, including a restaurant, cocktail lounge, and convention facilities.

(107) **Employee Housing Unit:** A dwelling unit which shall not be leased or rented for any period less than thirty (30) consecutive days, and shall be rented only to tenants who are full-time or seasonal employees and shall be employed by the resort. Housing provided on site for employees may include the following types: 1) Dormitory, 2) Efficiency Unit, 3) One, two, or three bedroom apartments, no larger than 1,000 square feet.

The compensation from the Resort Development employer of seasonal employees occupying Seasonal Employee Housing Units may not exceed 80% of the Wasatch County median income adjusted to a one person household for the period of occupancy and the rental rate charged full-time employees for Full Employee Housing Units by the Resort Development employer may not exceed the HUD established rental rate for a SRO/Studio adjusted to 80% of a one person household. The Resort Development employer operating Full Time Employee Housing Units shall report occupancy and qualification with the provisions of this ordinance annually to the Wasatch County Housing Authority.

(108) **Seasonal Employee Housing Unit:** A dwelling unit with the primary purpose of providing housing for seasonal employees of a Resort Development. Except for off-season incidental use, the unit shall not be leased or rented for any period less than thirty (30) consecutive days, and shall be rented only to tenants who are full-time or seasonal employees of the Resort Development shall be allowed provided that such rental does not exceed a total of 90 days per annum. Seasonal Employee Housing Units provided on site for employees may include the following types: 1) Dormitory, 2) Efficiency Unit, 3) One, two, or three bedroom apartments no larger than 1,000 square feet.

2. That section 16.02.950 of the Wasatch County Code is enacted as follows:

16.02.950 Employee Housing Credit

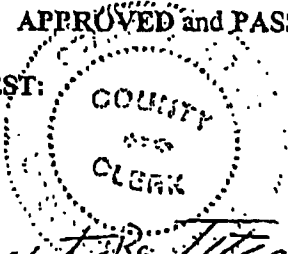
Any development that conforms to the definition of a "Resort Development" and "Employee Housing Unit" as stated in this Title may receive partial credit for meeting the affordable housing requirement of Wasatch County, except for affordable housing requirements requiring in-lieu payments by agreement between the developer and Wasatch County. Further, any development that conforms to the definition of a "Resort Development" and "Seasonal Employee Housing Unit" as stated in this Title may receive partial credit for meeting the affordable housing requirement of Wasatch County. However, the credit shall not exceed twenty-five (25) percent of the total affordable housing requirement for a development or project.

3. The Wasatch County Clerk, and ex officio Clerk of the Board of County Commissioners is hereby ordered, in accordance with the requirements of Section 17-53-208, Utah Code Annotated, 1953, as amended, to do as follows:

- 0.1 Enter at length this ordinance in the ordinance book;
- 0.2 Deposit a copy of this ordinance in the office of the County Clerk;
- 0.3 Publish a short summary of this ordinance, together with a statement that a complete copy of the ordinance is available at the County Clerk's office and with the name of the members voting for and against the ordinance, for at least one publication in a newspaper published in and having general circulation in the county; or
- 0.4 Post a complete copy of this ordinance in nine (9) public places within the County.

APPROVED and PASSED this 14 day of January, 2002.

ATTEST:



Brent R. Titcomb  
Brent R. Titcomb  
Wasatch County Clerk / Auditor

BOARD OF  
COUNTY COMMISSIONERS OF THE COUNTY  
OF WASATCH

T. LaRen Provost  
T. LaRen Provost, Chairman

T. LaRen Provost, Chairman  
Michael L. Kohler, Commissioner  
Ralph L. Duke, Commissioner

VOTE

[Signature]  
[Signature]

ADOPTION OF ORDINANCE AFFIDAVIT

STATE OF UTAH                                    )  
  : ss.  
COUNTY OF WASATCH                        )

02-02



I, the undersigned, the duly qualified and acting County Clerk of Wasatch County, Utah, and ex officio Clerk of the Board of County Commissioners do hereby further certify, according to the records of said Board in my official possession, and upon my own knowledge and belief, that I have fulfilled the requirements of Section 17-53-208, Utah Code Annotated, 1953, as amended, by:

- [X] (a) Causing this ordinance to be entered at length in the ordinance book;
- [X] (b) Causing three (3) copies of this ordinance to be deposited in the office of the County Clerk;
- [X] (c) Causing a short summary of this ordinance, together with a statement that a complete copy of the ordinance is available at the County Clerk's office and with the name of the members voting for and against the ordinance to be published for at least one publication in *The Wasatch Wave*, a newspaper of general circulation within the geographical jurisdiction of Wasatch County; and
- [X] (d) Causing to be posted a complete copy of this ordinance in nine (9) public places within Wasatch County.

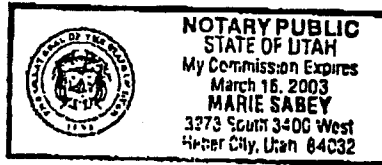
IN WITNESS WHEREOF, I have hereunto subscribed my official signature and impressed hereon the official seal of the Board of County Commissions of Wasatch County, Utah, this 14 day of January, 2001.

Brent R. Titcomb  
Brent R. Titcomb  
Wasatch County Clerk / Auditor

SUBSCRIBED AND SWORN to me, a Notary Public, this 14<sup>th</sup> day of January, 2001.

Marie Sabey  
Notary Public

Residing in: Nebel  
My commission expires: 3-16-03



07-07



**SINGLETRACK ENGINEERING LLC**

7942 N. Springshire Drive • Park City, Utah 84098  
☎ 435.655.0789 ☎ 800.784.6796

Ent 309761 Bk 0902 Pg 0761

July 10, 2002

Wasatch County Commissioners  
25 North Main Street  
Heber City, Utah 84032

RE: Status of Environmental Remediation  
Mayflower Tailing Ponds Stabilization Project

Dear Wasatch County Commissioners:

This letter summarizes the significant progress being made by Mayfinance C.V. to complete the remediation of the Mayflower Tailing Ponds located near the Jordanelle Reservoir in Wasatch County, Utah. Mayfinance C.V. entered into a Stipulation and Consent Order (SCO) with the Utah Department of Environmental Quality, Division of Water Quality (DWQ) to facilitate the approval of remediation plans and oversight of the construction activities. The stabilization project is divided into two phases: Phase 1 consists of the initial tailing stabilization and site grading, while Phase 2 consists of placing the final cover.

Phase 1 of the Mayflower Tailing Ponds Stabilization Project was performed by WW Clyde & Company between June 14 and November 30, 2001. Tailing deposits and contaminated soil around the perimeter of the three Mayflower Tailing Ponds were excavated and placed within the tailing ponds. Clean soil was then imported to the site and placed on the downstream side of the tailing pond berms and over the consolidated tailing materials. At the completion of the Phase 1 activities, all tailing deposits and contaminated soils were covered by at least one foot of clean soil. Thus the potential environmental health risk was essentially eliminated by November 30, 2001. Stormwater controls were also installed as part of the Phase 1 construction activities.

Mayfinance C.V. is in the process of having the Phase 2 construction activities performed during 2002, with the construction schedule projecting completion of the Mayflower Tailing Ponds Stabilization Project on or prior to December 20, 2002. Phase 2 will consist of placing the 4 foot thick final cover over the consolidated tailing material. The final cover includes a 2 foot thick clay layer, a flexible impermeable membrane liner, a 1 foot thick drainage layer and a 1 foot thick surface topsoil layer which will support vegetation. Mayfinance C.V. has hired Herm Hughes & Sons, Inc. to perform the Phase 2 construction activities and they are in the process of mobilizing equipment to the site. Bingham Environmental has been retained as the Project Engineer to provide daily oversight and certify the work, and the DWQ will again provide regulatory oversight and final approval.

Sincerely,

**SINGLETRACK ENGINEERING LLC**

Stanley L. Plaisier, P.E.  
Senior Engineer

**QUESTAR**

Questar Gas Company  
167 West Center Street  
P.O. Box 38  
Heber, UT 84703-0038  
Tel 435 864 3000

Ent 309761 Bk 0902 Pg 0762

July 2, 2002

Brent Hall  
777 Convention Way Suite 100  
Anaheim, California 92802

RE: Deer Crest Village

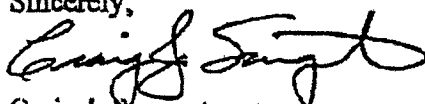
To Whom It May Concern:

Questar Gas Company is presently accepting applications for commercial and residential gas use renderable under the Company's firm rate schedule. Availability of gas and acceptance of applications are subject to the Questar Gas Tariff, on file with the Public Service Commission of the State of Utah, as the same may be amended from time to time.

Your application specifying the exact requirements for the above referenced project will be considered according to the applicable tariffs in the "Conditions of Service", a section of the Utah Natural Gas Tariff.

We are delighted that you are considering natural gas for your development and look forward to serving your energy needs. If I can be of further assistance or answer any questions you may have, please don't hesitate to call me.

Sincerely,



Craig J. Sargent  
Construction Specialist  
435-654-6187

Official Natural Gas Supplier to the  
2002 Olympic Winter Games



# SUMMARY OF SEASONAL EMPLOYEE HOUSING GUIDELINES

ITEM	ASPEN	MAMMOTH	WHISTLER	COMMENTS
<i>General</i>	Recognition that economic viability of the resort area depends upon employee housing...seasonal or otherwise	The continued development of Mammoth Lakes will result in an increase of service orientated employment opportunities	Providing reasonable housing options, in rental units or home ownership, for those who live and work in Whistler has been the most challenging issue facing the community for the past 15 years.	Whistler does a yearly survey to establish the real needs and adjusts accordingly.
<i>Stated Purpose of Ordinance of Guidelines</i>	"... To provide housing opportunities for persons that have been actively employed or self-employed in Pitkin County that provide services to individuals and businesses...in the County..."	The goal is the creation of affordable housing in Mammoth Lakes sufficient to mitigate the increased affordable housing demands created by new development.	Creating an inventory of price controlled units that are only available to resident employees is the best means of reducing the impact of market forces that are driving the price of housing out of reach for locals.	These resort communities have contemplated the need for employee housing. In fact, they do use the term affordable and employee housing interchangeably because the primary purpose is to provide housing for the resort employees.
<i>Obligation to Make "Affordable Housing" Comply with Federal Rules</i>	None. It is a county rule.	All are restricted to housing size and type for individuals, meeting guidelines approved for Mono County by HUD.	None - It is a community rule that is regulated and controlled by the Whistler Housing Authority.	It would appear that the dormitory housing in Mammoth does meet some of the HUD guidelines.
<i>Location</i>	<ol style="list-style-type: none"> <li>1. First preference is to build the affordable housing on site.</li> <li>2. Second is to build on contiguous land or close within the City of Aspen.</li> <li>3. Third preference is Cash/Land in Lieu (determined case-by-case)</li> </ol>	<ol style="list-style-type: none"> <li>1. On-site housing is preferred mitigation.</li> <li>2. 100% within town boundaries.</li> <li>3. Wherever possible, should be located within desirable areas in proximity to employment centers, transportation, and infrastructure.</li> <li>4. Cash in Lieu program</li> </ol>	<ol style="list-style-type: none"> <li>1. Housing needs to be in the township.</li> <li>2. Housing needs to be on transit routes.</li> <li>3. As close as possible to recreation and employment centers.</li> <li>4. The cash in lieu program has not been successful—they are considering doing away with it.</li> </ol>	

**SUMMARY OF SEASONAL EMPLOYEE HOUSING GUIDELINES**

ITEM	<u>ASPEN</u>	<u>MAMMOTH</u>	<u>WHISTLER</u>	COMMENTS												
<i>Who to be Housed In General?</i>	Employees at large in the community that have lived there for four years (seasonal rule are exception). Monitored by Aspen/Pitkin County Housing Authority (but owners administer).	Employees who are generated by new resort development. Who monitors is unclear.	Employees who live and work in Whistler. Monitored by the Whistler Housing Authority, but controlled by owners.	See note above regarding Whistler's yearly survey of resort employee needs.												
<i>Seasonal or Dormitory Facility Guidelines</i>	<ol style="list-style-type: none"> <li>1. No more than 8 persons per unit</li> <li>2. Minimum of 150 net sf per person</li> <li>3. One bathroom per 4 persons</li> <li>4. Kitchen sizes must be adequate (approved by Affordable Housing Authority)</li> </ol>	<ol style="list-style-type: none"> <li>1. Rental based upon a per-person or per-bedroom basis.</li> <li>2. Minimum of 200 net sf per person</li> </ol>	<ol style="list-style-type: none"> <li>1. No more than 2 people per 350 sf. (175 per person)</li> <li>2. No more than 4 persons per bathroom</li> <li>3. Minimal kitchen requirements beyond kitchen and stove</li> <li>4. Maximize storage space</li> </ol>	This seems to average about 20% and about 175 sq ft per person.												
<i>Calculation of Seasonal Credit</i>	Case by case.	No more than 15% of employee housing units provided can be dormitory style.	Evaluates each development on a case-by-case basis. However, will allow approximately 20%-25% of total credit. They have found that they needed to increase the requirements for seasonal over the years.	Each of these communities has recognized the need for seasonal housing and give a portion of the total credit.												
<i>Occupancy Standards</i>	<table border="0"> <tr> <td>Dorm (per 150 sf)</td> <td>1.00 emp</td> </tr> <tr> <td>Studio</td> <td>1.25 emp</td> </tr> <tr> <td>One Bedroom</td> <td>1.75 emp</td> </tr> <tr> <td>Two Bedroom</td> <td>2.25 emp</td> </tr> <tr> <td>Three Bedroom</td> <td>3.00 emp</td> </tr> <tr> <td>Add'l (Per room)</td> <td>.50 emp</td> </tr> </table>	Dorm (per 150 sf)	1.00 emp	Studio	1.25 emp	One Bedroom	1.75 emp	Two Bedroom	2.25 emp	Three Bedroom	3.00 emp	Add'l (Per room)	.50 emp	No standards that we could find.	Case by case.	
Dorm (per 150 sf)	1.00 emp															
Studio	1.25 emp															
One Bedroom	1.75 emp															
Two Bedroom	2.25 emp															
Three Bedroom	3.00 emp															
Add'l (Per room)	.50 emp															

SUMMARY OF SEASONAL EMPLOYEE HOUSING GUIDELINES

ITEM	<u>ASPEN</u>	<u>MAMMOTH</u>	<u>WHISTLER</u>	COMMENTS
Seasonal Housing Occupancy Requirements	Unspecified income level requirements. Very different than the other affordable housing requirements.	Undefined.	Case by Case.	

To: Brent Hall

From: PSOMAS CRG

Date: 4/18/01

Subj: Deer Cove Detention Alternatives

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As PSOMAS has investigated the hydrologic and water quality issues surrounding Deer Cove, it has been determined that the most critical issue at this time is the issue of storm water detention. Detention is necessary to reduce impacts to water bodies by reducing the increased flows to natural levels and remove pollutants associated with urban runoff. As Deer Cove begins negotiating with adjacent property owners and governmental agencies, Deer Cove should be aware of the alternatives.

This memo identifies the alternatives that should be pursued. PSOMAS has identified four alternative locations for regional detention basins to be shared with Deer Crest and other adjacent properties. Another two onsite detention basin locations have also been identified, which would be an alternative if regional detention were not possible. The attached map illustrates these locations. Each alternative is described in this memo to discuss the critical economic, site, and property issues involved.

#### Regional Detention

Regional detention is the preferred alternative over onsite detention. The primary reason being that Deer Cove, Deer Crest and potentially other adjacent developments could share the costs which would be reduced from economies of scale. Regional detention basins are less costly to maintain since they are larger and there are fewer of them. For water quality purposes and sediment removal, larger basins tend to function better as well. Finally, Jordanelle Special Service District (JSSD) has indicated that it would be inclined to maintain such a regional detention structure to reduce flooding risks associated with having multiple dams above the water treatment plant.

Deer Crest has planned a detention structure with approximately 6.7 acre-feet of detention located south of Deer Cove in the area of the planned Golf Course. This site poses safety concerns for the JSSD water treatment plant. Additionally, this may create an aesthetic problem since the detention basin would need to remain nearly empty. The costs of this basin would obviously be better served towards a regional detention facility. Time is of the essence, however, Deer Crest will build this structure as soon as Wasatch County is willing to approve it. Approvals

Preliminary hydrologic estimates show that Deer Cove would require a 3 to 4 acre-foot detention basin. If The Pointe and Hollows development were included this size may

Brent Hall  
4/19/01  
Page 2

increase by 0.5 to 1 acre-feet. Combining detention requirements for Deer Crest and Deer Cove would thus require 10 to 12 acre-foot structure.

Regional Detention would certainly be the most advantageous because of these factors. The following locations should be explored for regional detention:

**Alternative A – Mayflower Site:** This alternative is listed first because it is considered to be most advantageous from an engineering perspective. It would be located on the west side of the railroad grade in Sage Hen Hollow approximately 700 feet north of the Deer Cove property. The site could provide regional detention for UPCM, Deer Cove, Deer Crest, Mayflower, The Pointe and Hollows, and East Park. All of these developments are part of the Sage Hen Hollow drainage which passes through a large 72-inch RCP culvert underneath the railroad grade. The fill depth in this area is approximately 40 feet providing ample space to construct a very large detention pond. The difficulty with this site may be in coordinating with so many developers that are in varying stages of development. Past experience with Mayfinance indicates that Mayflower may be an especially difficult property to obtain the proper easements. Another challenge will be to route Deer Crest storm water past the JSSD treatment plant and sewer retention pond to the basin.

**Alternative B – Bureau of Reclamation Site:** This location would be below the sewer emergency overflow basin approximately 600 feet east of Deer Cove. This would be an excellent location that is below gradient and could serve as regional detention for UPCM, Deer Crest and Deer Cove. Since fewer developments would be involved, coordination of this facility would be much less likely to be impeded by uncooperative property owners. The Bureau of Reclamation (USBR) would be the key agency most likely to impede progress at this site. Because the site is on federally owned property there may be environmental regulations and/or permitting that would need to be addressed. This could increase the costs as well as the time. Costs would be increased from Alternative A since dike construction would be required.

**Alternative C – JSSD Option 1 Site:** This is the first of two options to place the regional basin on UPCM property. This site is currently leased by JSSD. This site would be similar to Alternative B except that USBR requirements would not be a factor. Some historical structures are located in this area and JSSD may not agree to any alternative that may infringe on these buildings. Also, they may desire to preserve the aesthetic viewpoint from the treatment plant to the reservoir. Costs would likely be similar to Alternative B unless additional aesthetic features are required.



Brent Hall

4/19/01

Page 3

**Alternative D – JSSD Option 2 Site:** This site would use the area of the settling pond east of the JSSD treatment plant as a dual purpose detention facility. The plant has effectively replaced the usefulness of the pond to treat the mine tunnel water. The JSSD lease agreement with UPCM, however, stipulates that the existing pond be maintained so that treatment of the mine tunnel water could continue if for some reason the plant were to be shut down. This pond would provide detention for Deer Cove, Deer Crest and UPCM.

#### On-Site Detention Alternatives

On-site detention would have to be considered if efforts for regional detention do not succeed. Two alternatives are presented and are described below. Both alternatives include a single detention facility that would provide water quality benefits and peak flow attenuation. This would require routing flow that would normally discharge into the creek above the treatment plant to be diverted to the north. This should be acceptable since this water eventually is routed to north in the current conditions

From preliminary hydrology calculations the pond will need to be approximately 3 to 4 acre-feet. If drainage from The Pointe and The Hollows is added, the basin would increase by 0.5 to 1 acre-feet. Actual sizing will not be possible until a rough-grading plan for the future site is prepared.

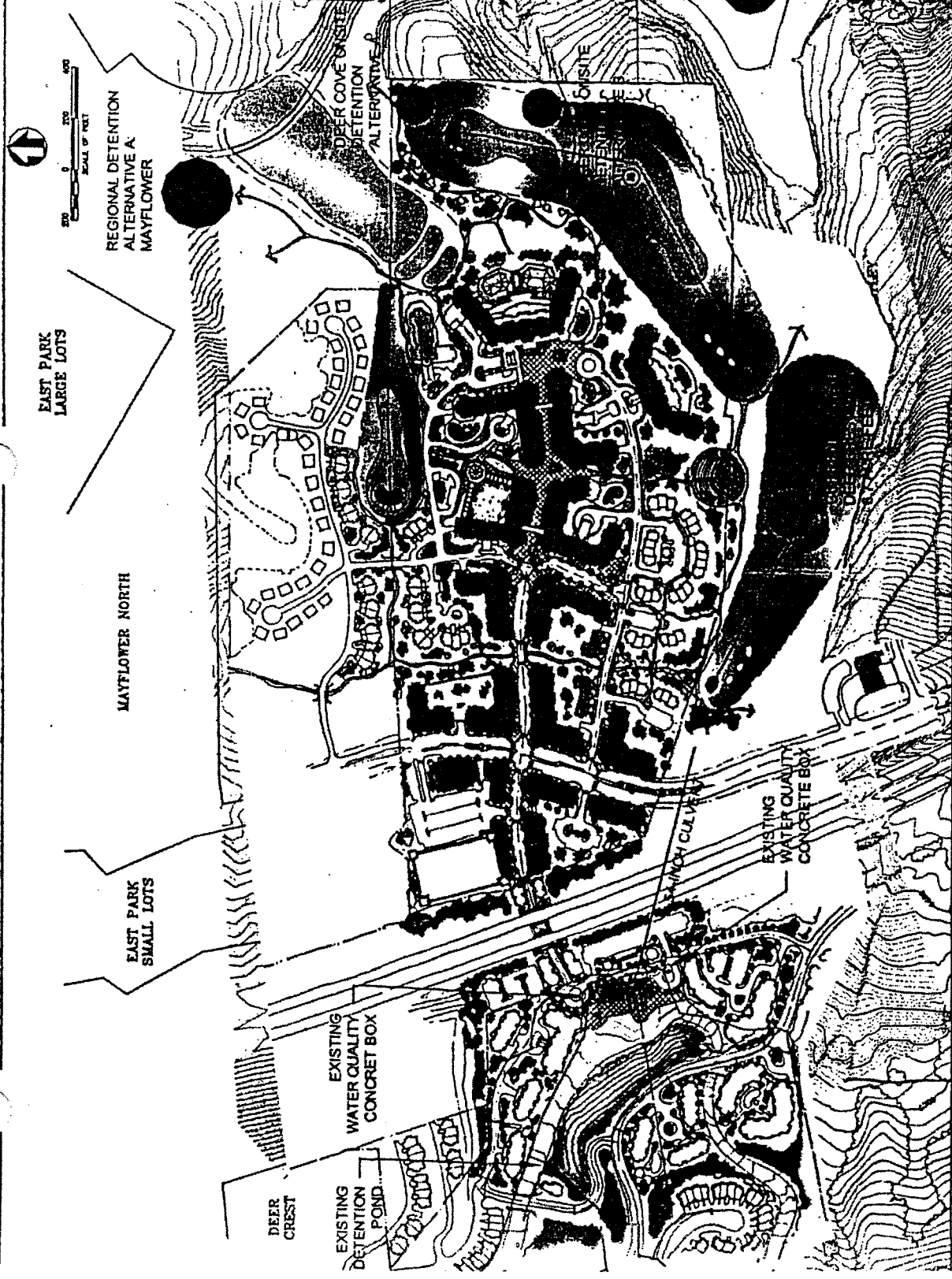
The two alternative locations are discussed below:

**Alternative A – Northeast Property Corner:** This location would be preferred since it would drain more directly into the natural drainage without having to pass by the sewer retention basin. Also, the site may aesthetically be a better alternative minimizing interference with the playing area of the golf course. Topographically, the location is satisfactory since all paved areas would gravity flow into the pond.

**Alternative B – East Property Line:** This location is also topographically satisfactory where all paved areas could be diverted into the basin. The discharge however would be more complicated because of the sewer retention pond and the canal that currently diverts around the sewer pond.

# LEGEND

- REGIONAL DETENTION BASIN FOR DEER COVE, DEER CREST, UPCM, EAST PARK, AND MAYFLOWER. > 25 ACRE-FEET
- REGIONAL DETENTION BASIN FOR DEER COVE, DEER CREST, THE POINTE, AND UPCM. 10 - 12 ACRE-FEET
- EXISTING DESIGN FOR DEER CREST DETENTION 6.7 ACRE-FEET
- DEER COVE AND THE POINTE ONSITE DETENTION ALTERNATIVE. 3 - 5 ACRE-FEET



# P S O M A S

## DEER COVE DEVELOPMENT REGIONAL & ONSITE DETENTION ALTERNATIVES

DATES  
4/18/01

## EXHIBIT 47

**DEER CREST VILLAGE  
OPEN SPACE CALCULATIONS & SITE RECONCILIATION  
NEIGHBORHOOD B - EAST SIDE**

PARCEL DESCRIPTION			BLDG PARCEL CALCULATIONS				PER CENT
PARCEL	LAND USE CATEGORY	DESCRIPTION	PARCEL BUILDING FOOTPRINTS	HARDSPACE	OPEN SPACE	NET ACRES	
<b><u>DEER CREST VILLAGE/ DDRM PROPERTY</u></b>							
B-1	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	0.98	0.20	1.34	2.52	
B-2	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	0.71	0.10	1.12	1.93	
B-3	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	0.66	0.09	0.63	1.38	
B-4	High Density/Mixed Use/Hospitality/Convention	Convention Center/Hotel	4.05	0.59	0.74	5.38	
B-5	High Density	Condo/Lodge	0.56	0.23	1.76	2.55	
B-6	High Density	Condo/Lodge	0.21	0.00	0.79	1.00	
B-7	High Density	Clubhouse/Condo	0.52	0.50	0.78	1.80	
B-8	Hospitality	Hotel	3.48	0.77	11.83	16.08	
B-9	Medium Density	Townhomes	0.33	0.15	0.72	1.20	
B-10	Parking	Parking Structure	0.95	0.01	0.41	1.37	
B-11	Commercial	Retail	0.20	0.16	0.37	0.73	
B-12	Commercial	Retail	0.13	0.21	0.00	0.34	
B-13	Parking	Parking/Community Housing	1.79	0.72	0.64	3.15	
B-14	High Density/Mixed Use/Hospitality	Hotel/Condo/Retail	1.93	0.17	1.81	3.91	
B-15	Community/Amenity	Amphitheatre	1.38	0.04	0.38	1.80	
portion B-18	High Density	Condo/Lodge	0.18	0.01	0.25	0.44	
portion B-20	Medium Density	Townhomes	0.22	0.04	0.97	1.23	
portion B-22	Medium Lots and Small Lots	Single Family Dwellings	0.00	0.00	1.17	1.17	
<b>Building Parcels</b>			<b>18.28</b>	<b>3.99</b>	<b>25.71</b>	<b>47.98</b>	<b>54.82%</b>
Pedestrian Streets (Common)						2.28	2.61%
Streets and Roads (Common)						7.02	8.02%
Open Space						30.24	34.55%
<b>Total</b>						<b>87.52</b>	<b>100.00%</b>
			<b>Net Open Space:</b>				<b>34.55%</b>
			<b>Gross Open Space:</b>				<b>63.93%</b>
<b><u>THE HOLLOWES</u></b>							
B-16	High Density	Condo/Lodge	0.30	0.13	1.12	1.55	
B-17	Commercial	Retail	0.17	0.18	0.27	0.62	
portion B-18	High Density	Condo/Lodge	0.27	0.00	0.41	0.68	
B-19	Commercial	Retail	0.10	0.00	0.27	0.37	
portion B-20	Medium Density	Townhomes	0.16	0.17	0.34	0.67	
portion B-21	Medium Density	Townhomes	0.28	0.29	1.09	1.66	
<b>Building Parcels</b>			<b>1.28</b>	<b>0.77</b>	<b>3.50</b>	<b>5.55</b>	<b>52.06%</b>
Pedestrian Streets (Common)						0	0.00%
Streets and Roads (Common)						1.15	10.79%
Open Space						3.96	37.15%
<b>Total</b>						<b>10.66</b>	<b>100.00%</b>
			<b>Net Open Space:</b>				<b>37.15%</b>
			<b>Gross Open Space:</b>				<b>69.98%</b>
<b><u>THE POINTE</u></b>							
portion B-20	Medium Density	Townhomes	0.22	0.21	0.99	1.42	
portion B-21	Medium Density	Townhomes	0.61	0.42	2.26	3.29	
portion B-22	Medium Lots and Small Lots	Single Family Dwellings	0.61	1.00	5.85	7.46	
<b>Building Parcels</b>			<b>1.44</b>	<b>1.63</b>	<b>9.1</b>	<b>12.17</b>	<b>55.04%</b>
Pedestrian Streets (Common)						0	0.00%
Streets and Roads (Common)						0.43	1.94%
Open Space						9.51	43.01%
<b>Total</b>						<b>22.11</b>	<b>100.00%</b>
			<b>Net Open Space:</b>				<b>43.01%</b>
			<b>Gross Open Space:</b>				<b>84.17%</b>
<b>Total Acreage Reconciliation</b>						<b>120.29</b>	<b>3.00</b>



RSPA Amendment

PRELIMINARY REPORT  
BIG DUTCH PETE CANYON  
LIMITED ENVIRONMENTAL ASSESSMENT

### WILDERNESS AREAS

In addressing the issue of officially designated wilderness areas, ATC reviewed information from the National Wilderness Preservation System (NWPS, <http://www.wilderness.net/nwps>). The NWPS is comprised of lands administered as wilderness areas by the United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS), United States Bureau of Land Management (BLM), and the National Park Service (NPS). There are currently 644 wilderness areas in the United States, 16 of which are located within the State of Utah. According to the NWPS, the site is not located in a designated wilderness area.

ATC has also consulted with the USFWS, Ecological Services, Utah Field Office. The USFWS has stated that designated wilderness areas are delineated on United States Geological Survey (USGS) 7.5-minute series topographic quadrangle maps. ATC reviewed the USGS Heber City, Utah topographic map (7.5-minute series), dated 1999, and determined that the site is not located within an officially designated wilderness area. Additionally, a review of the DeLorme, *Utah Atlas and Gazetteer*, 2000 edition, did not indicate the presence of a designated wilderness area in the site vicinity.

### WILDLIFE PRESERVES

ATC also consulted with the USFWS, Ecological Services, Utah Field Office. The USFWS has stated that designated wildlife preserves are delineated on USGS 7.5-minute series topographic quadrangle maps. ATC reviewed the USGS Heber City Quadrangle map and determined that the site is not located within an officially designated wildlife preserve. Additionally, a review of the DeLorme, *Utah Atlas and Gazetteer*, 2000 edition, did not indicate the presence of a designated wildlife preserve in the site vicinity.

### ECOLOGY – ENDANGERED PLANTS AND ANIMALS

The USFWS provided a list (Date of list, September 2001) of threatened, endangered, and candidate species and habitat in Utah by county. The five species included on that list for Wasatch County are:

Endangered Species: Whooping Crane (*Grus americanus*)

Threatened Species: Ute Ladies'-tresses (*Spiranthes diluvialis*), Canada Lynx (*Lynx Canadensis*), and the Bald Eagle (*Haliaeetus leucocephalus*).

Candidate Species: Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*).

It is unlikely that the proposed site development will adversely affect the above mentioned endangered, threatened or candidate species. A letter (dated May 24, 2002) from Mr. Henry Maddux, Field Supervisor – Ecological Services, United States Fish and

Wildlife, Service, Utah Field Office stated "No Adverse Affect" concurrence for the residential development in Big Dutch Pete Canyon area in Wasatch County, Utah.

In addition to the above-listed threatened and endangered species, Anne Axel with the Utah Division of Wildlife Resources (UDWR) has provided ATC (via e-mail) with a list of the Utah sensitive species that have occurrence records in the vicinity of the site. The UDWR does not have record of occurrence for any threatened, endangered, or sensitive species on the proposed site; however, there are recent records nearby for Townsends big-eared bat, blue grosbeak, osprey nest, greater sage grouse, common yellowthroat, and bobolink. In addition, the proposed site is located in area identified as a limited value elk winter use area, high value deer summer use area and a substantial value greater sage-grouse summer use area.

An evaluation by a biologist may be warranted to evaluate if the above mentioned threatened, endangered, or sensitive species listed by the UDWR will be affected by site development.

According to the USFWS, critical habitat "identifies specific areas that have the physical and biological features that are essential to the conservation of a listed species, and that may require special management considerations or protection." ATC reviewed 50 CFR, Wildlife and Fisheries, Parts 17.94 through 17.96 and Parts 226.101 through 226.213 (dated October 1, 2000), for designated critical habitats that may exist in the vicinity of the site. The review of this information did not reveal the presence of designated critical habitats within a one-mile radius of the site.

#### HISTORICAL AND ARCHEOLOGICAL

ATC sent a letter (dated May 9, 2002) to Mr. Jim Dykmann, Compliance Archaeologist, Utah State Historic Preservation Office, requesting an evaluation to determine if the proposed Big Dutch Pete Canyon area development will impact on historic places and/or archaeologically sensitive sites. We are requesting that the Utah State Historic Preservation Office review and comment on a finding of *no historic properties or cultural resources affected* for the project. Mr. Dykmann responded in a letter dated May 24, 2002 (received by ATC on May 28, 2002). The letter basically states that because of extensive mine development and the potential to effect important mining sites, the USHPO recommends that a cultural resource survey be completed of the area. So, a determination of *no historic properties or cultural resources affected* is premature without further data. The letter from USHPO is attached to this project memorandum.

North of the site the topographic map shows structures in the Mayflower Mine area. During the site inspection I found that only the foundations of these buildings exist. In addition, the site inspection found the site to be vacant, undeveloped with no structures or structures older than 50 years. Because there are no buildings/structure older than 50 years on the site there will likely be no historical places impacted on the site.

#### WATER POLLUTION

**Storm Water Controls and Design During Construction.** Construction projects that disturb five acres or more must be covered under the general construction permit (Permit No.: UTR100000). Coverage under this permit must be obtained and erosion

and sediment controls must be installed prior to any grading activities at the site, which will disturb 5 acres or more per common plan. The permit is attached to this project memorandum.

**Storm Water Controls and Design For Residential Development.** Wasatch County has guidelines for design for storm water controls for residential development. These guidelines can be found in a document called "A Guide for Erosion and Sediment Control". This document is attached to this project memorandum.

**Flood Zone.** According to the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, Community Panel Number 490164C 04 (dated October 1, 1986), the site parcel is located in Flood Zone C, which is defined by FEMA as "areas of minimal flooding." Wasatch County participates in the National Flood Insurance Program, according to a listing dated July 23, 2001 (Community ID # 490164). The flood map is attached to this project memorandum.

**Surface Water Contamination.** Disposal and spill prevention controls for hazardous materials and toxic waste is outlined in "A Guide for Erosion and Sediment Control" Section IV, Step Four – Design of Storm Water Pollution Prevention Plan.

#### **SANITATION**

Jordanalle Special Services Distract will provide sewer services for the site. In the event an individual septic system is allowed it must meet County Health Department requirements and cannot be located on any lots less than 5 acres in size and only be for the use of one resident (Wasatch County, Jordanelle Basin Overlay Zone, 16.03.170.9.B). Wasatch County, Jordanelle Basin Overlay Zone document is provided with this project memorandum.

#### **ZONING**

The Big Dutch Pete Canyon area is zoned as RF-1, Recreation Forestry. Development and uses of land shall be permitted in RF-1 upon compliance with requirements set forth in Wasatch County, Title 16, Land Use and Development Code (16.02.080). The Wasatch County, Title 16, Land Use and Development document is provided with this project memorandum.

#### **AIR POLLUTION**

**Fugitive Dust Emissions and Fugitive Dust.** Fugitive dust emissions and fugitive dust generated during construction activities will follow regulatory guidelines set forth by Utah Division of Air Quality a (DAQ) Dust Control Plans A copy of Utah Division of Air Quality Dust Control Plans is attached to this project memorandum.

**Traffic Generated Emissions.** The additional traffic emissions generated by vehicles used during construction activities and vehicles used by new residents should not significantly affect air quality. Currently there are not regulatory guidelines set forth by DAQ or Wasatch County for traffic air emissions.

## **NOISE POLLUTION**

No residential development will be allowed within a 67 dBA level of US Highway 40 and SR 248. All local ordinances shall be followed unless a contractor has obtained approval or a variance form Wasatch County officials (Land Use Plan Jordanelle Basin, December 1997).

## **SOLID WASTE**

Garbage collection will be provided by Wasatch County Solid Waste District. Construction debris shall be properly disposed of by the contractor prior to a Certificate of Occupancy being granted for any building.

## **HAZARDOUS WASTE**

It is anticipated that there will be no hazardous waste generated during construction and development activities for new residents.

## **COMMUNITY SERVICES**

The following services will service the Dig Dutch Pete Canyon development:

Sewer and water service: Jordanelle Special Services District

Natural gas service: Questar

Electrical power service: Utah Power and Light

Phone service: US West Communications.

Elementary and secondary schools: Wasatch School District (Elementary and secondary schools located in Heber Valley)

Hospital: Intermountain Care Hospital, with ambulance, located in Heber City

Emergency/law enforcement service: Wasatch County Sheriffs Office, located in Heber City

Fire Department: Jordanelle Fire Station

## **RCRA and CERCLA CONSIDERATIONS**

There are no RCRA or CERCLA facilities on the site or facility. There should be no significant generation of RCRA-regulated hazardous waste during construction activities or residents.

**Population.** Currently, there is no resident population at the site.

**Anticipated Public and Official Attitudes Toward the Project .** Master Plan – no information.

**Economic Impact Predictions and Economic Potential.** No information

## **SITE VISIT**

ATC conducted a site visit on May 1, 2002. Staff walked over the general area and took pictures. During the site visit, there was no evidence of USTs, stained soil, or stressed vegetation. Evidence of past mining activities was noted. On or near the southern end

of the site is a mine tunnel located within 50 feet of the creek that flows through Big Dutch Pete Canyon (see photo 4). Along and near this same creek, within the site, were found to be three areas of overburden or other mine waste that appears to have been generated from mining related activities (see photos 9, 17, & 29). Near the south end of the site and within 20 feet of the creek is what appears to be a dug well type structure (see photograph 7). This photograph (looking down stream) shows a two inch steel pipe rising out of the ground approximately five feet. At the base of the pipe is a five-by-five foot concrete structure covered with wood planks. Piping from this structure follows the creek down stream (see photograph 8). Near or on the northwest end of the site was found what appears to be a detention basin or small reservoir full of water (see photographs 6 & 12). The background in photograph 6 is Big Dutch Pete Canyon. Photographs 3, 19, & 25 shows different views of Bid Dutch Pete Canyon, its terrain and vegetation, chiefly sage brush, scrub oak, aspen, and pine trees. Photograph 3, looking south; photograph 19, looking southeast; photograph 25, looking northeast to Jordanelle Reservoir. Additional Photographs of the site can be seen and found on file.

### **GEOLOGIC HAZARDS**

Wasatch County has a Geologic Overlay Zone Ordinance. This ordinance includes an investigation on fault rupture, liquefaction, landslides, debris flow, avalanche, steep slopes and other geologic Hazards. A copy of this ordinance is attached to this memorandum.

### **SLOPES**

A slope analysis for the site must be prepared. The slope categories are:

0% - 10% Gentle slopes suitable for municipal facilities, schools and primary road corridors.

10%-20% Moderate slopes suitable for development with limited restrictions. Category also relates to Soil suitability categories. Soil Conservation Service (SCS) report.

20% - 25% Steeper slopes suitable for development. Category also relates to soil suitability categories, SCS report, and UGS's Landslide Potential.

Over 30% Prohibitive development (other than ski trail construction and other recreational uses, i.e. trails). Road construction regulations. Category also relates to UGS's potential landslide hazards.

These categories are listed in Land Use Plan Jordanelle Basin document, pages 17 and 18. Based on the Wasatch County - Slope (Percent) Map the site appears to be chiefly within 20% -30% slopes.

### **VIEW SHEDS**

No structure can be built on a ridge line. A Visual assessment by Wasatch County would be performed prior to development.

### **PRELIMINARY PLANS**

On pages 7, 8, & 9 of the Land Use Plan Jordanelle Basin document lists requirements



of preliminary plans for land development in the Jordanelle Basin area. Photo copies of pages are attached.

#### ENVIRONMENTAL ANALYSIS

Wasatch County will require Environmental Analysis. Much of this analysis information has already been gathered and presented in this memorandum. Wasatch County, however, will require more detailed information, study, and survey on slopes, soils, geologic hazards, aspect, view sheds, flood plain, 100 year and 24 hour storm, aquifer recharge areas, streams, seeps, springs and drainages, and physical constraints. The Environmental Analysis required by Wasatch County can be found in the Land Use Plan Jordanelle Basin document, pages 17-33.

#### REFERENCES:

National Wilderness Preservation System (NWPS, <http://www.wilderness.net/nwps>)

USGS Heber City, Utah topographic map (7.5-minute series), dated 1999

DeLorme, *Utah Atlas and Gazetteer*, 2000 edition

Threatened, Endangered, and Candidate Species and Habitat in Utah by County. (Date of list, September 2001)

50 CFR, Wildlife and Fisheries, Parts 17.94 through 17.96 and Parts 226.101 through 226.213 (dated October 1, 2000),

Utah Division of Wildlife Resources, Anne Axel, Information Manager

State of Utah Department of Environmental Quality Division of Water Quality, Authorization to Discharge Under the Utah Pollutant Discharge Elimination System, Storm Water General Permit for Construction Activities (Permit No.: UTR100000)

A Guide for Erosion and Sediment Control, Wasatch County, Utah, Final Report - January 1996

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, Community Panel Number 490164C 04 (dated October 1, 1986)

Wasatch County, Jordanell Basin Overlay Zone, 16.03.170.9.B

Wasatch County, Title 16, Land Use and Development Code

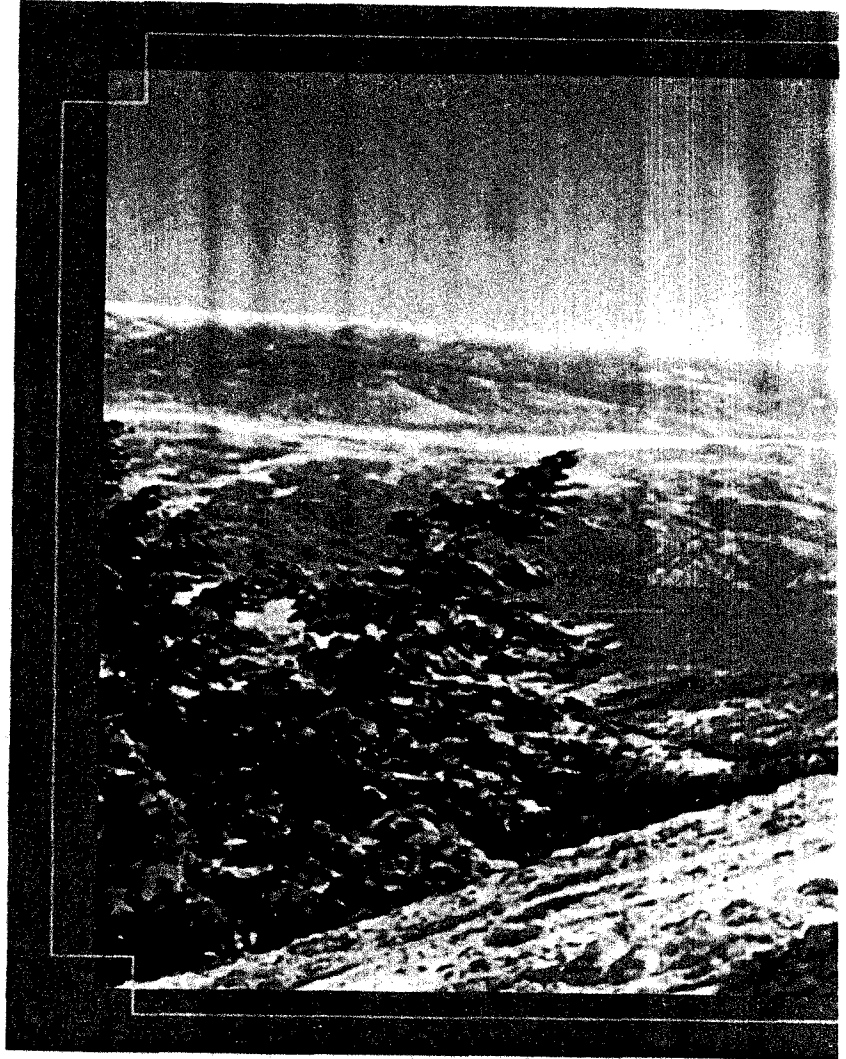
Utah Division of Air Quality Dust Control Plans

Land Use Plan Jordanelle Basin, December 1997

# **EXHIBIT - D**

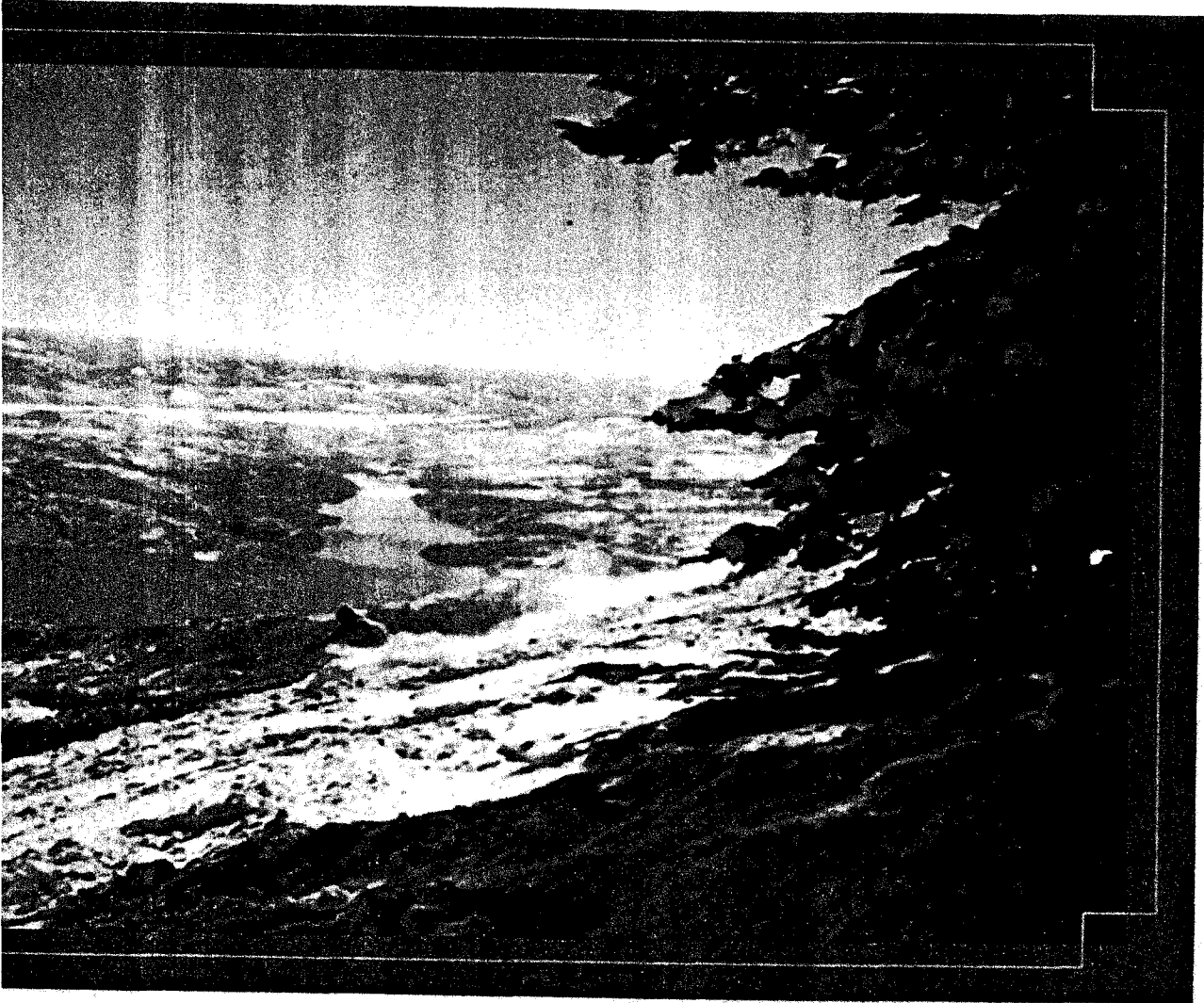
RSPA Plan Book

**DEER VALLEY LAKESIDE RSPA**





**DEER VA  
RESORT SPECIA**

2002

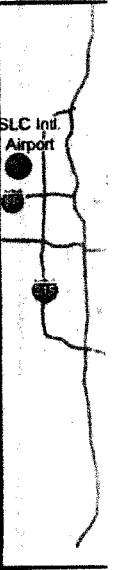
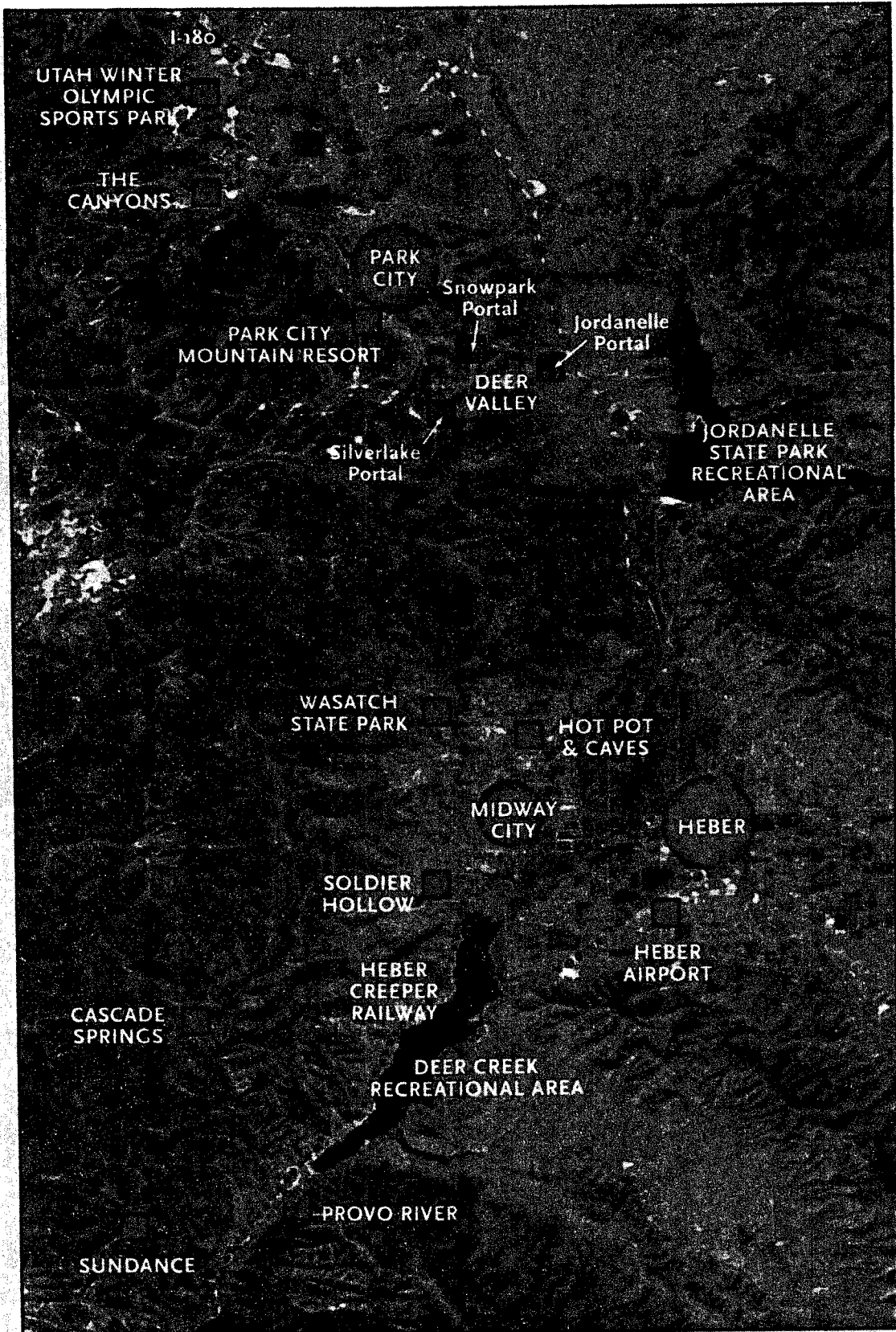


# R VALLEY LAKESIDE ECIALLY PLANNED ("RSPA")

**APPROVED**  
Date: 10-28, 2002  
Approved by: *[Signature]*  
Signature: *[Signature]*

 RSPA PLAN BOOK 

DEER VALLEY LAKESIDE RSPA



**A STORY**

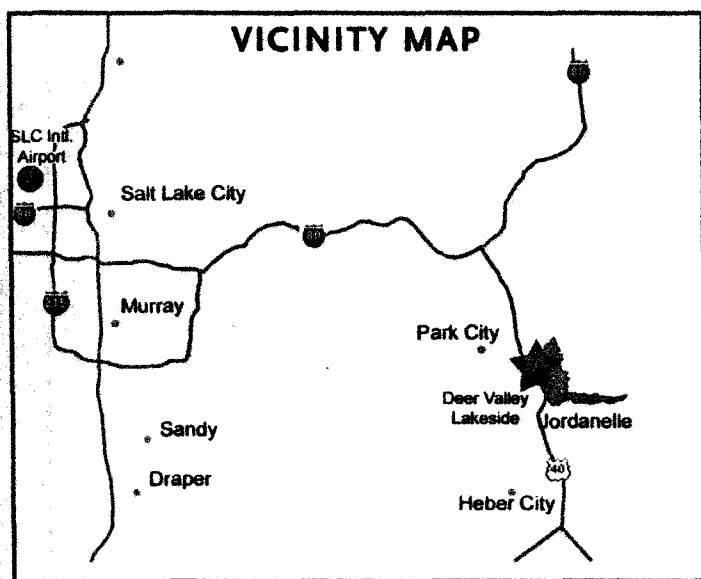
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### A STORY NO PLACE ELSE CAN TELL

The Park City/Deer Valley area is literally one-of-a-kind. It would be difficult to find any place else in the world where you find the number of Winter/Summer experiences with such easy access to an international airport. The fly fishing is some of the best in the entire world. Water skiing is terrific. Mountain bike and hiking trails are as beautiful as you will find anywhere. Local history and culture provide rich opportunities for guests and for themed events. The Park City/Deer Valley Area plays host to more than 50% of the total annual skiers in Utah.

**Olympic Winter Sport Park.** This was the site of the newly constructed state-of-the-art ski jumping facilities for the 2002 Olympics. The site also hosted the bobsled and luge events. Its presence makes a dramatic statement on the mountain.

**The Canyons.** This new ski community has an exciting mix of experiences, with 134 ski runs and 15 lifts. Its master plan includes a golf course and a village concept.

**Park City Mountain Resort.** This is the original ski mountain in Park City. It has 98 ski runs and 14 lifts. It was host to all of the snowboarding events and the giant slalom competition for the 2002 Winter Olympics.

**Deer Valley.** This elite resort has 19 lifts and 88 runs which are extremely well groomed. It was the host for the freestyle aerials, the moguls and slalom events in the 2002 Winter Olympics. It includes the following portals to its ski system:

Snowpark Lodge (Deer Valley), Jordanelle Run (Deer Valley), and Silverlake Lodge (Deer Valley).

**Jordanelle State Park Recreation Area.** This area offers the best in mountain fishing, boating, water skiing, hiking trails, snowshoe trails and a state-of-the-art boat launching facility.

**Wasatch State Park.** The most beautiful golf course in the Intermountain West is found here. The County recently received a grant and is working with the State Parks System to meet the requirement under the terms of the grant to connect trails all the way from Sundance to Soldier Hollow, and then to Heber City.

**Soldier Hollow.** This facility was the new site for the 2002 Winter Olympics Biathlon, Cross Country, and Nordic Combined events. There was an event there each of the 17 days of the Olympics. Approximately 35% of all Olympic spectators were at Soldier Hollow. It is also known for its fantastic snowboarding. There are two 18-hole golf courses under construction here.

**Deer Creek Recreation Area.** This is one of the best wind sailing and ice fishing areas in the Country.

**Provo River.** Exceptional tube floating and world class fly fishing take place on this famous river.

**Heber Creeper Railway.** This historic steam railway runs its scenic route several times a day.

**Midway Hot Pots & Caves.** Located in Midway, these natural warm springs offer revitalizing effects. You can scuba dive in a lava cave in the middle of the winter without a wetsuit.

**Heber City Airport.** Accommodates all private aircraft but it best known as the glider center of activity for the entire region.

**Cascade Springs State Park.** Incredibly beautiful multiple natural springs.

**Midway City.** Multiple hot air balloon launchings occur each day in a setting reminiscent of the alps.

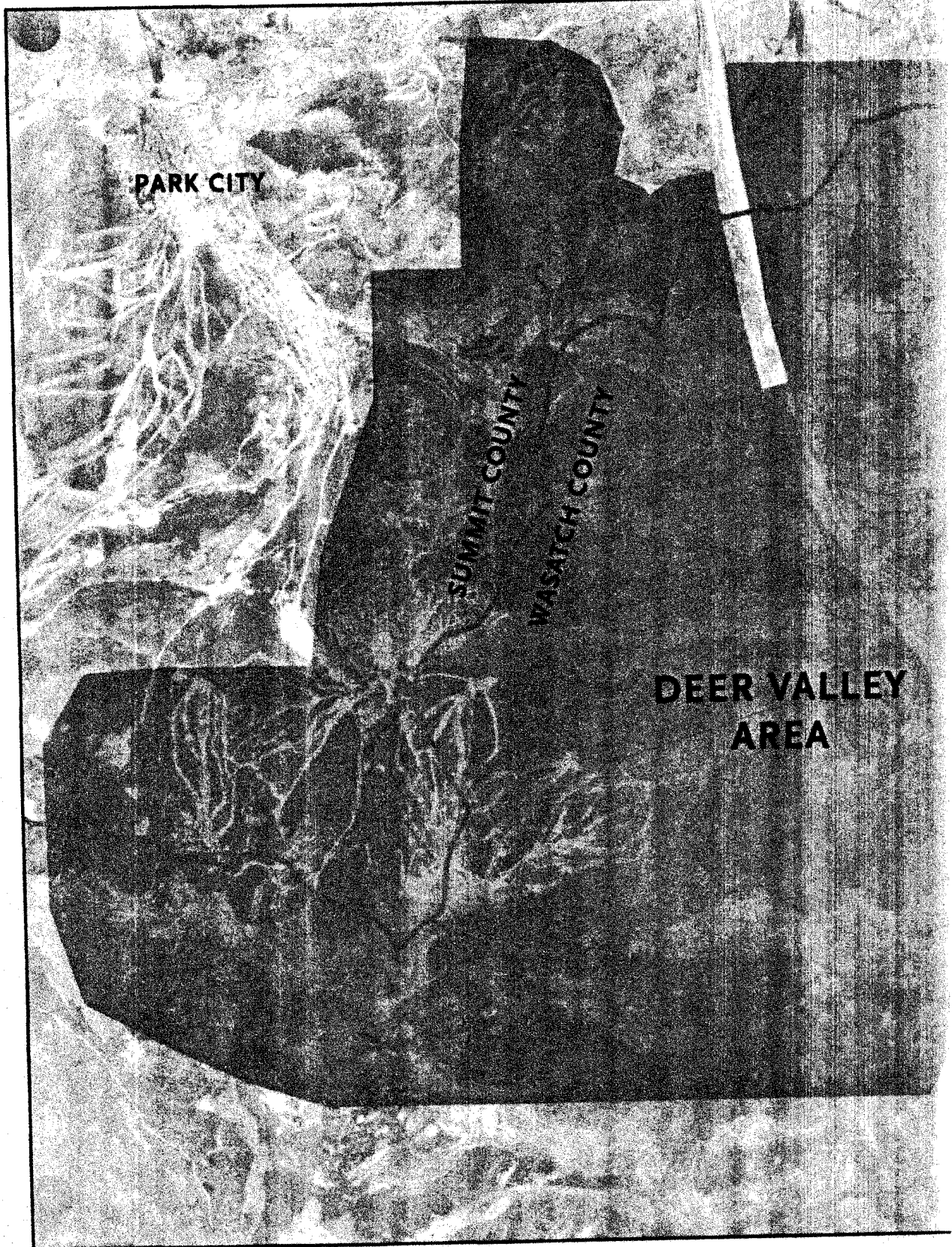
**Sundance Resort.** Exclusive small ski resort owned by Robert Redford and host (along with Park City) to the Sundance Film Festival.



B-1 MASTER PLAN  
CONTEXT

IBI  
GROUP

DEER VALLEY LAKESIDE RSPA

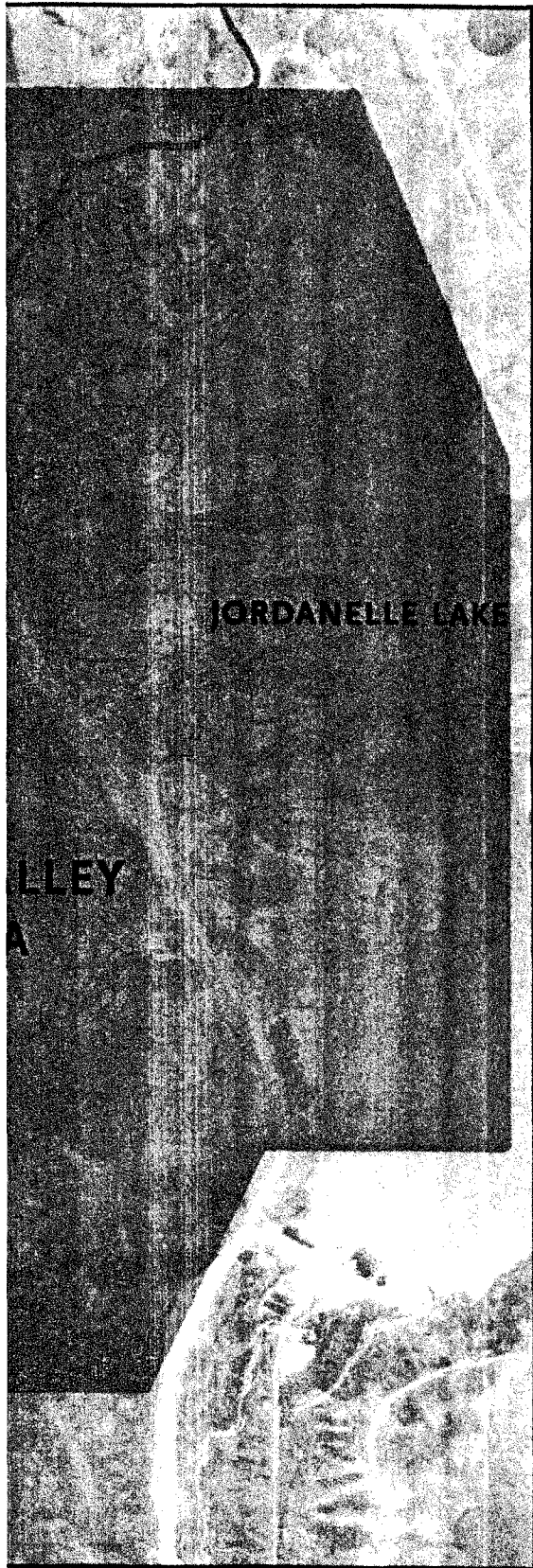


## DEER VALLEY AREA

This map shows the Deer Valley "area of influence." The area is clearly unique because of the close proximity of the mountains (and the resulting winter sports) to the water and shoreline of the Jordanelle (and the resulting water sports). Besides Lake Tahoe, this is the only resort area in the West that offers this combination.

Unlike Lake Tahoe, the Deer Valley Area also provides incredible access to other recreational activities within a 20 minute drive of the the site. It also offers access to an international airport less than 35 minutes away.

Notice the large portion of the Deer Valley Area located in Wasatch County.

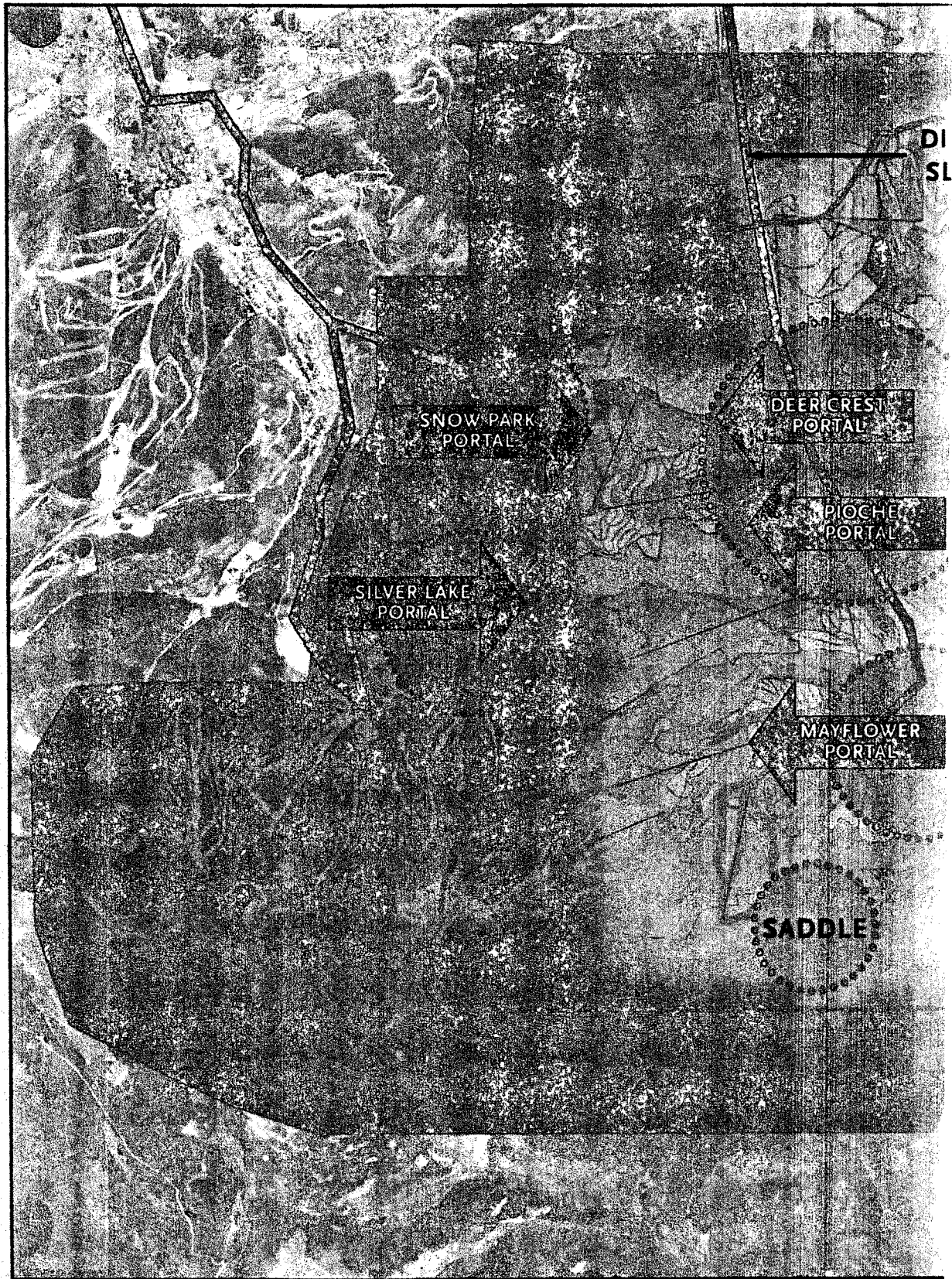


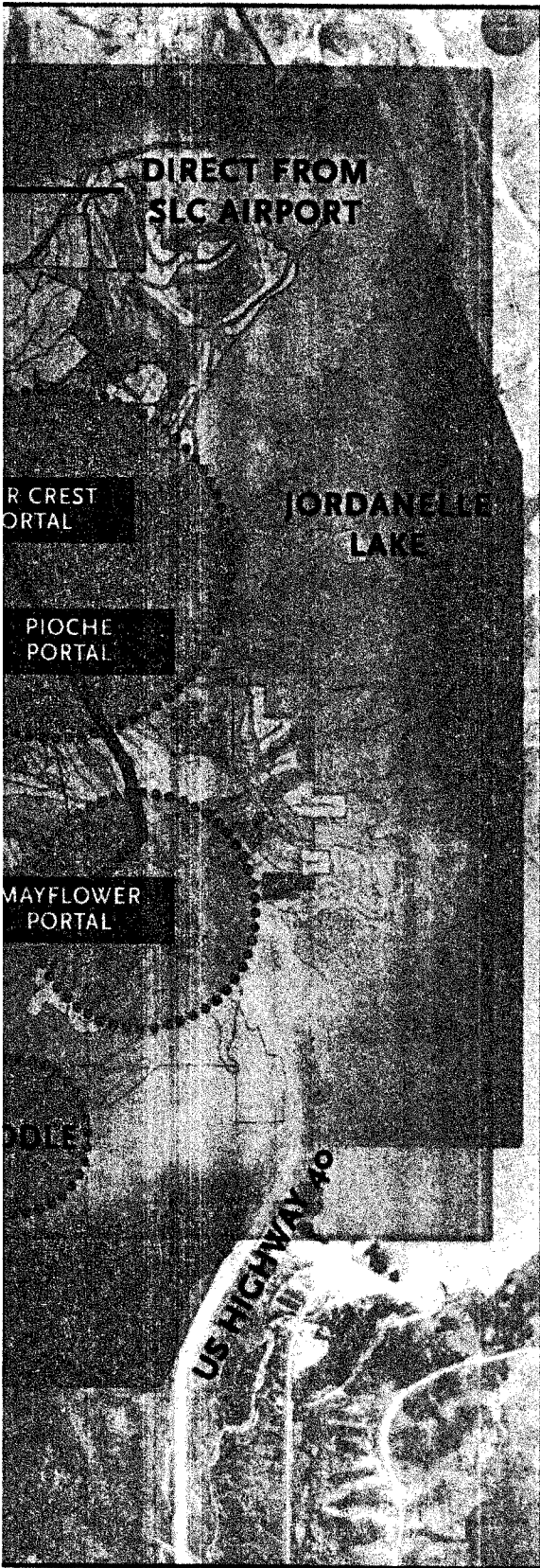
B-2 DEER VALLEY AREA




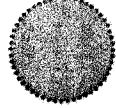
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DEER VALLEY LAKESIDE RSPA





LEGEND			
	FUTURE LIFT CORRIDORS		MAJOR DENSITY POD
	COUNTY LINE		FUTURE DENSITY POD

### DEER VALLEY SKI PORTALS

**Snow Park Lodge**

This is the original entrance to Deer Valley and still draws the largest number of skiers. The area has approximately 675 total dwelling units.

**Silver Lake Village**

Well established density pod. Has most used ski lifts and approximately 650 dwelling units.

**Deer Crest Portal**

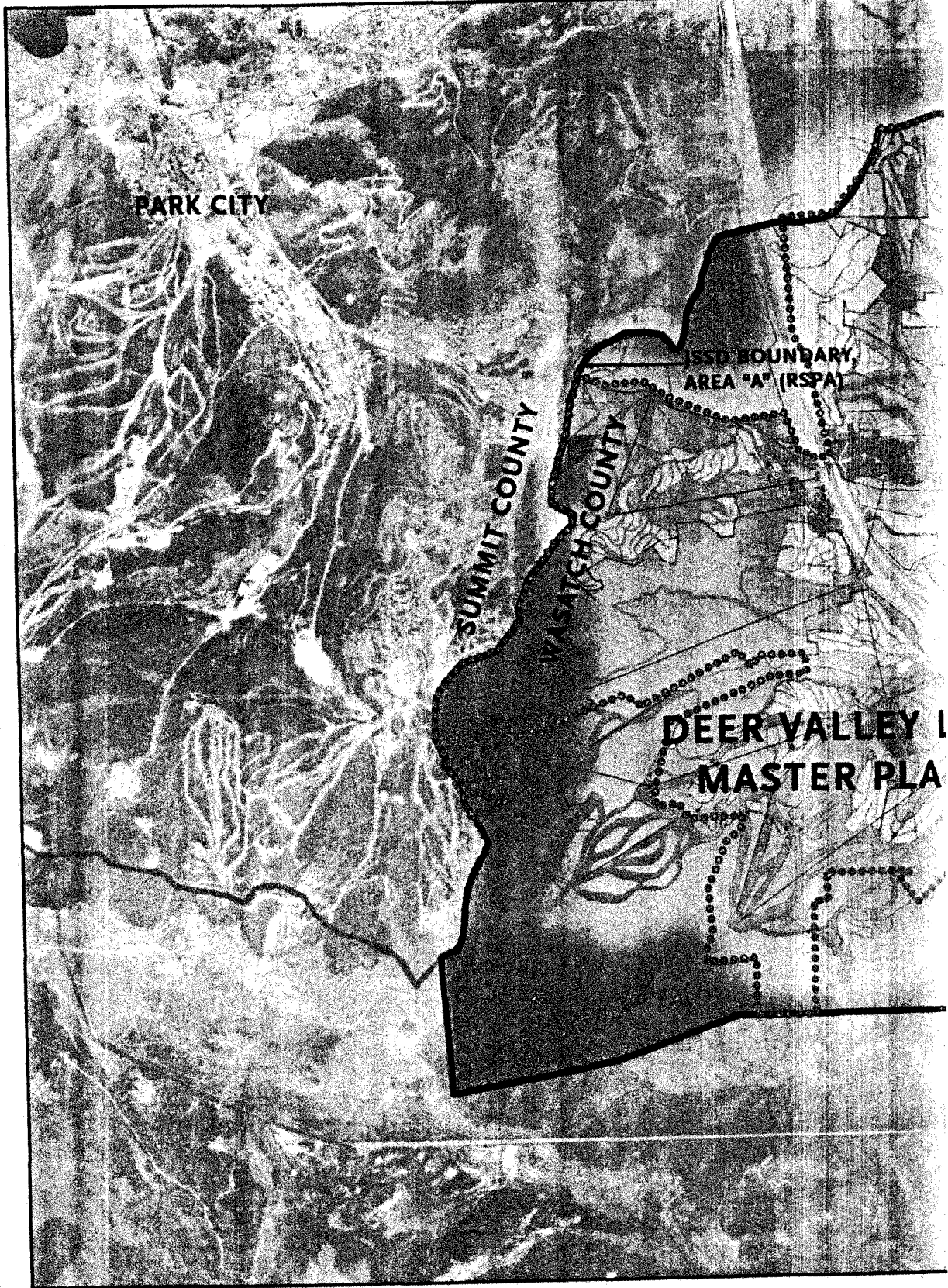
This 2001-2002 ski season will be the 3rd for this portal. Deer Valley has stated that approximately one-third of all its skiers will enter the system from this portal. The on-mountain density from this portal will include approximately 2,200 dwelling units. Obviously, this is significantly more than any of the other Deer Valley ski entrances.

**Mayflower Village**

This area will be a significant addition to the Deer Valley system. The area is very beautiful and the Mayflower Village area will support a approximately 2,000 dwelling units.

	B-3 DEER VALLEY SKI PORTALS	
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DEER VALLEY LAKESIDE RSPA



## DEER VALLEY LAKESIDE LAKESIDE RESORT SPECIALLY PLANNED AREA ("RSPA")

This map shows the Master Plan Area. It consists of almost 4,700 acres and is bordered on the west side by the mountain and the on the east side by the Jordanelle Lake.

The RSPA will serve visitors as a cohesive and well functioning resort community. The Resort will be comprised of several Mid Mountain and Lakeside development areas, including major Villages called Deer Crest Village and Mayflower Village. Each development area will serve its own distinct market segment.

The Resort will provide several significant expansions and enhancements to the Deer Valley Ski System.

Deer Crest Village will include a hotel cluster with a total of 100,000 square feet of state of the art meeting and exhibit space.



Mayflower Village will provide upscale hospitality, boutique retail and a European hot springs spa.

The resort will also offer 27-36 holes of golf designed by a name designer.

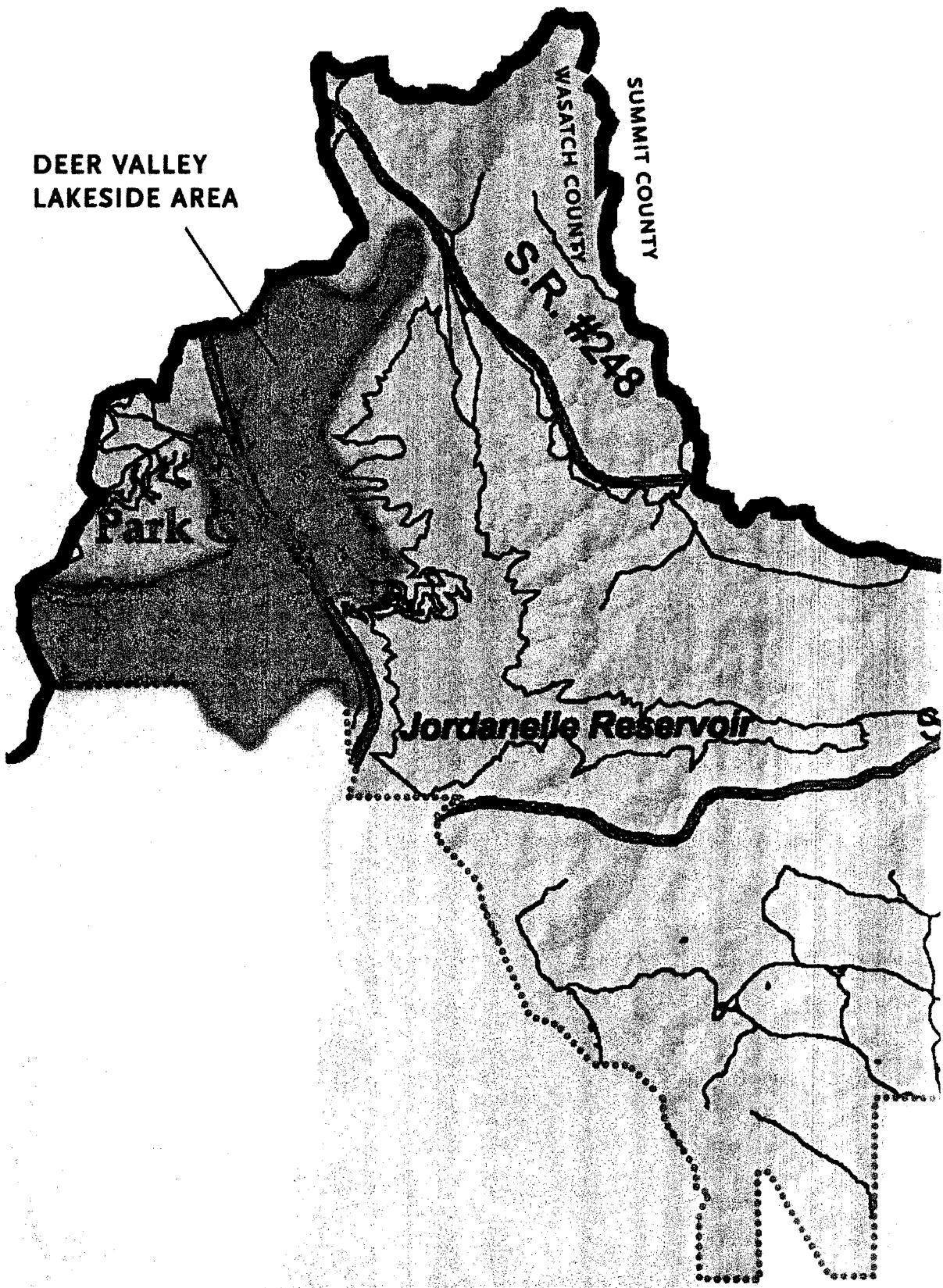
An additional day use beach and dock on the Jordanelle Lake is proposed.

A comprehensive trail network has been planned that will provide access both paved family trails and mountain trails. This network will eventually allow trail users to go all the way from the Jordanelle to Sundance and Provo Canyon.



 B-4 DEER VALLEY LAKESIDE  
RESORT SPECIALLY  
PLANNED AREA 

DEER VALLEY LAKESIDE RSPA



DEER VALLEY  
LAKESIDE AREA

WASATCH COUNTY

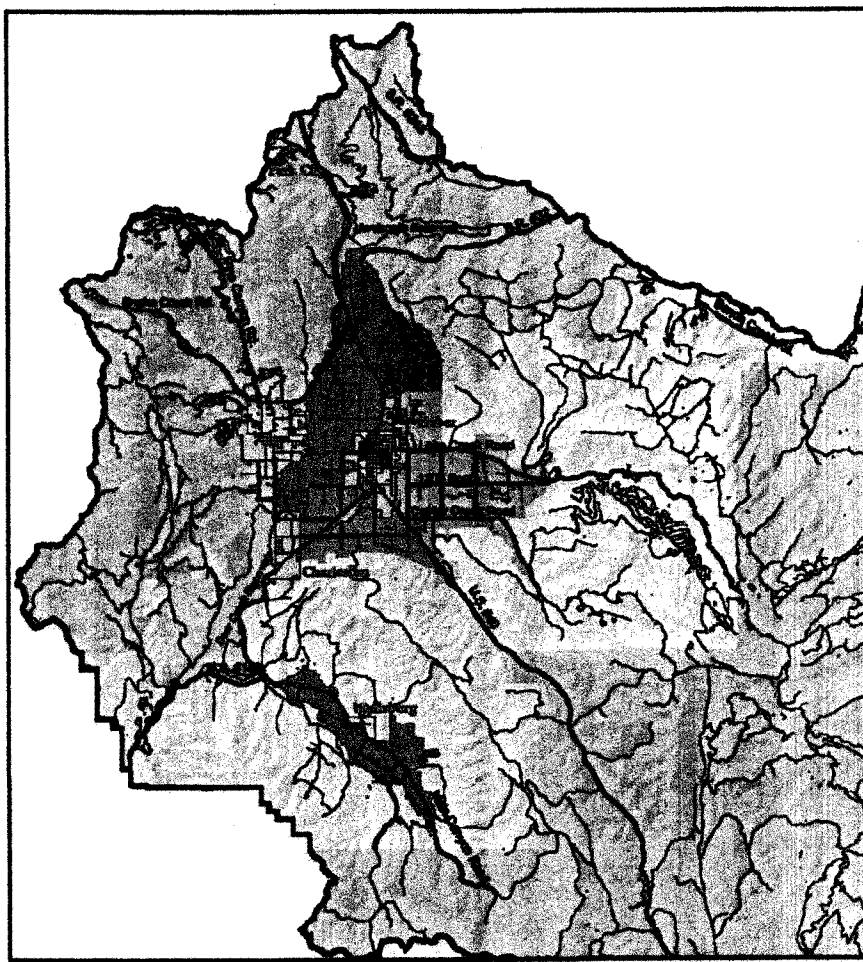
SUMMIT COUNTY

S.R. #148

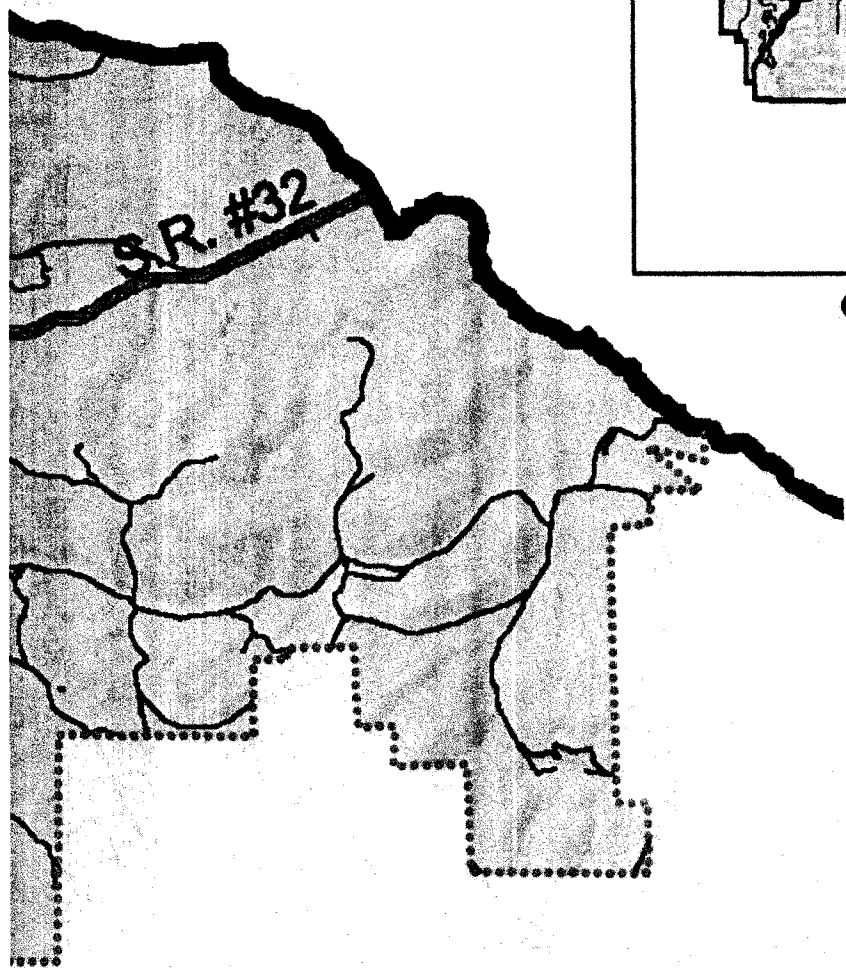
Park G

Jordanelle Reservoir

JORDANELLE BASIN PLANNING AREA



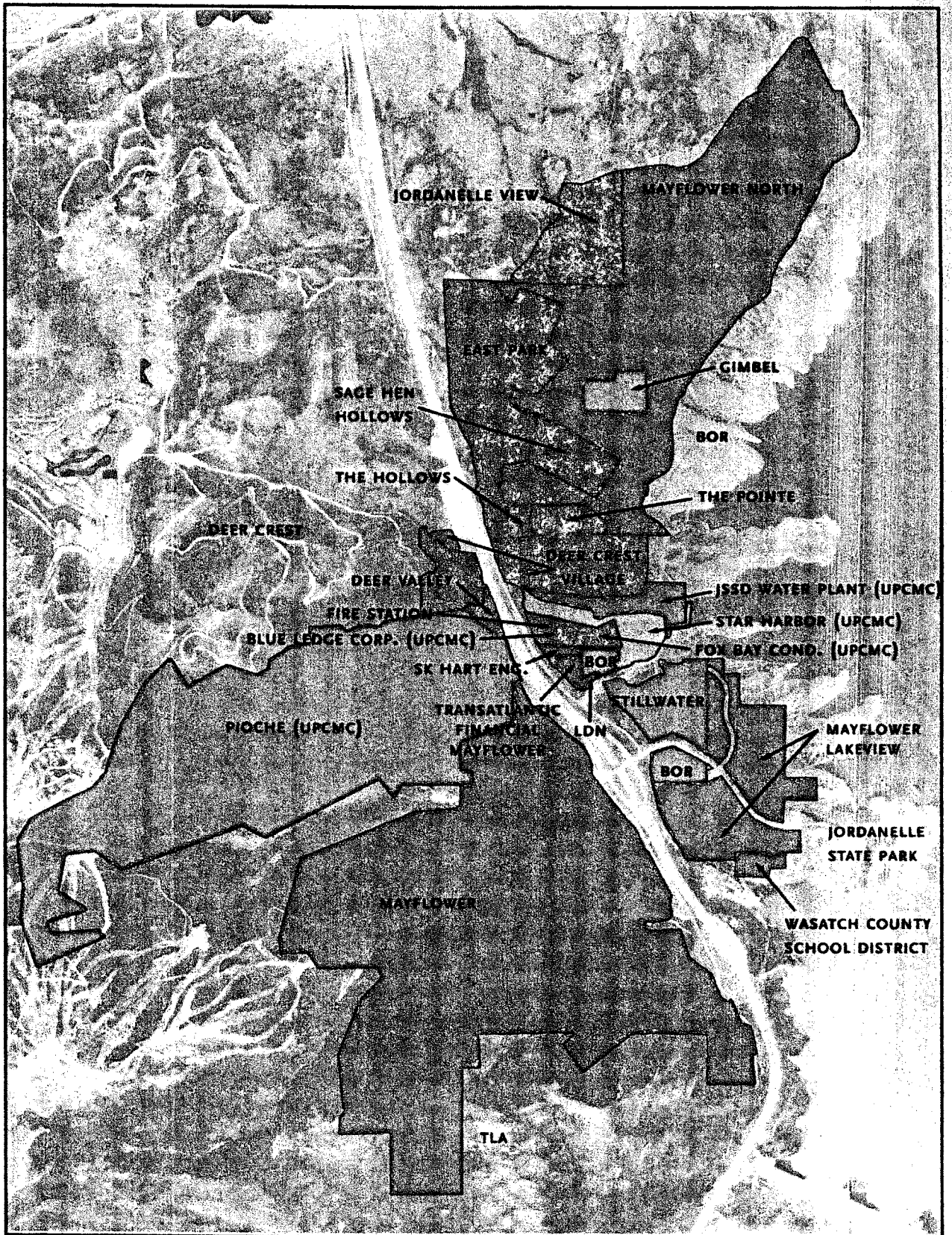
CONTEXT WITHIN WASATCH COUNTY



B-5 JORDANELLE  
BASIN CONTEXT

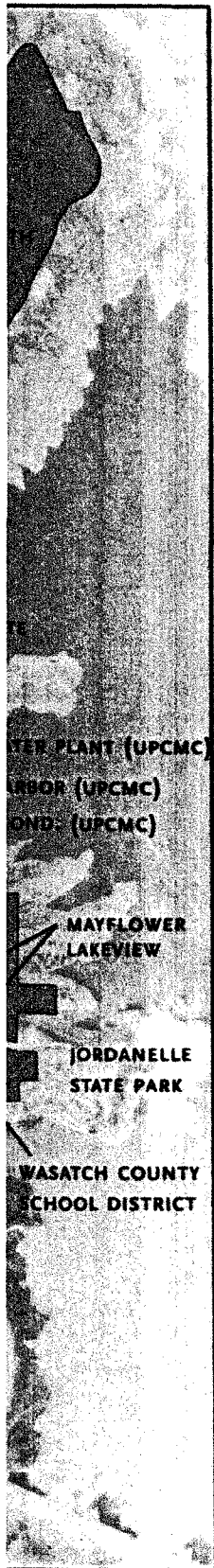
IBI  
GROUP

DEER VALLEY LAKESIDE RSPA



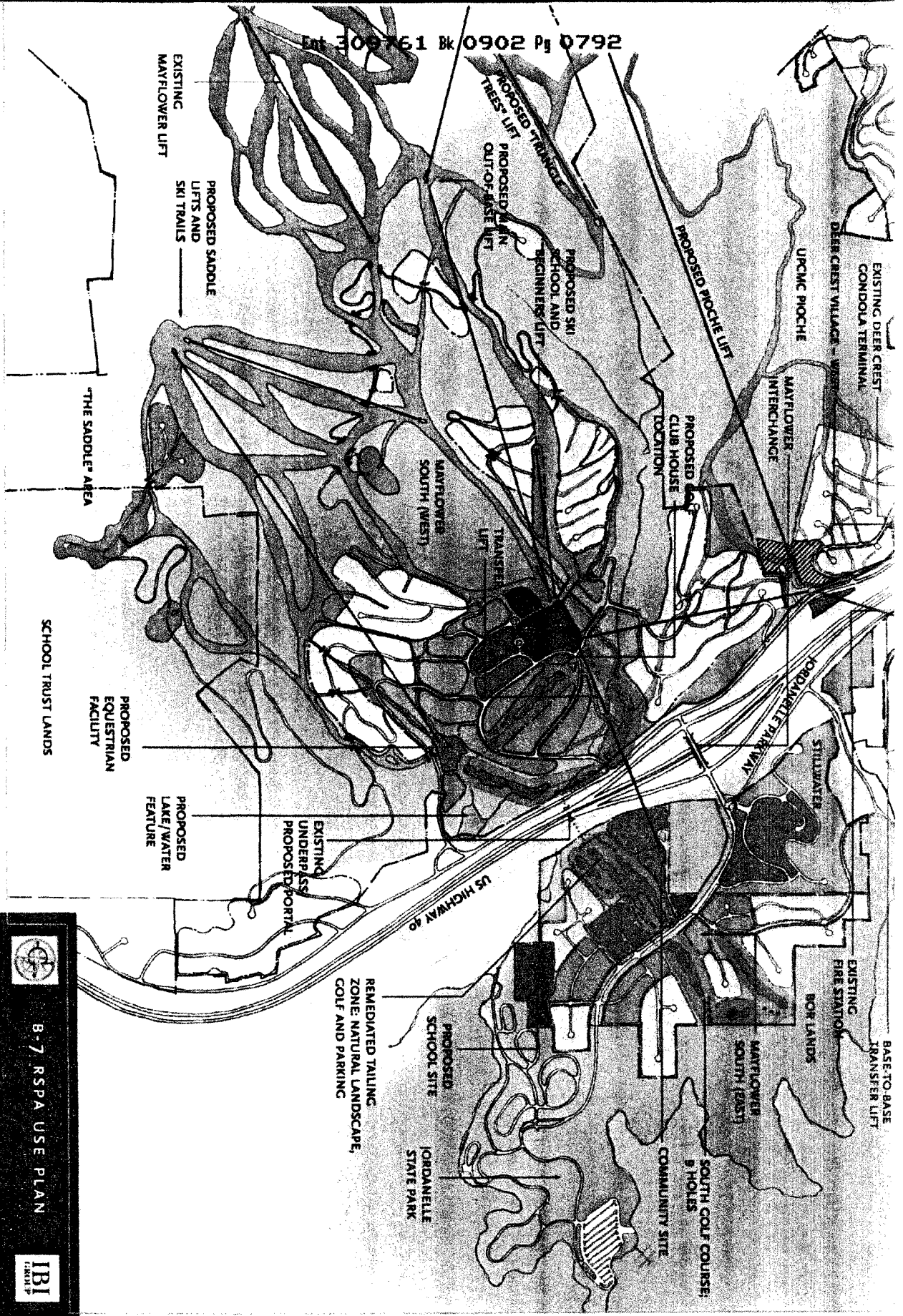
Participating Land Owners	Listed Property Owner
Deer Crest Village/ Deer Cove	HAMC Wasatch
Deer Crest	Deer Crest Associate
Mayflower North	Stiching Mayflower
Mayflower South	Stiching Mayflower
Jordanelle View	Mike Ahlin Jordanelle View, L.C.
Gimbel	Tom Flinders JAS Realty
Sage Hen Hollows	Gary Howland Hollow Pointe, L.C.*
The Hollows	Wester Surgical Association
The Pointe	Stephen W. Rupp, Attorney
East Park	East Park Owners Association
Stillwater	Stillwater Lodge Development, LLC
Pioche	United Park City Mines
Transatlantic Financial- Mayflower	Stiching Mayflower
SK Hart	SK Hart
LDN	Stiching Mayflower
Blue Ledge Corp.	United Park City Mines
Mayflower Lakeside	Stiching Mayflower
Wasatch County School Dist.	Wasatch County School Dist.
JSSD Water Plant	United Park City Mines
Deer Valley	Deer Valley

These landowners are covered by the RSPA. Based on the process referred to in the application and contemplated by the RSPA governance documents as "Closing the Loop," not all of the landowners will participate on the same basis, if at all. This will not be determined until after any Wasatch County approvals are obtained.





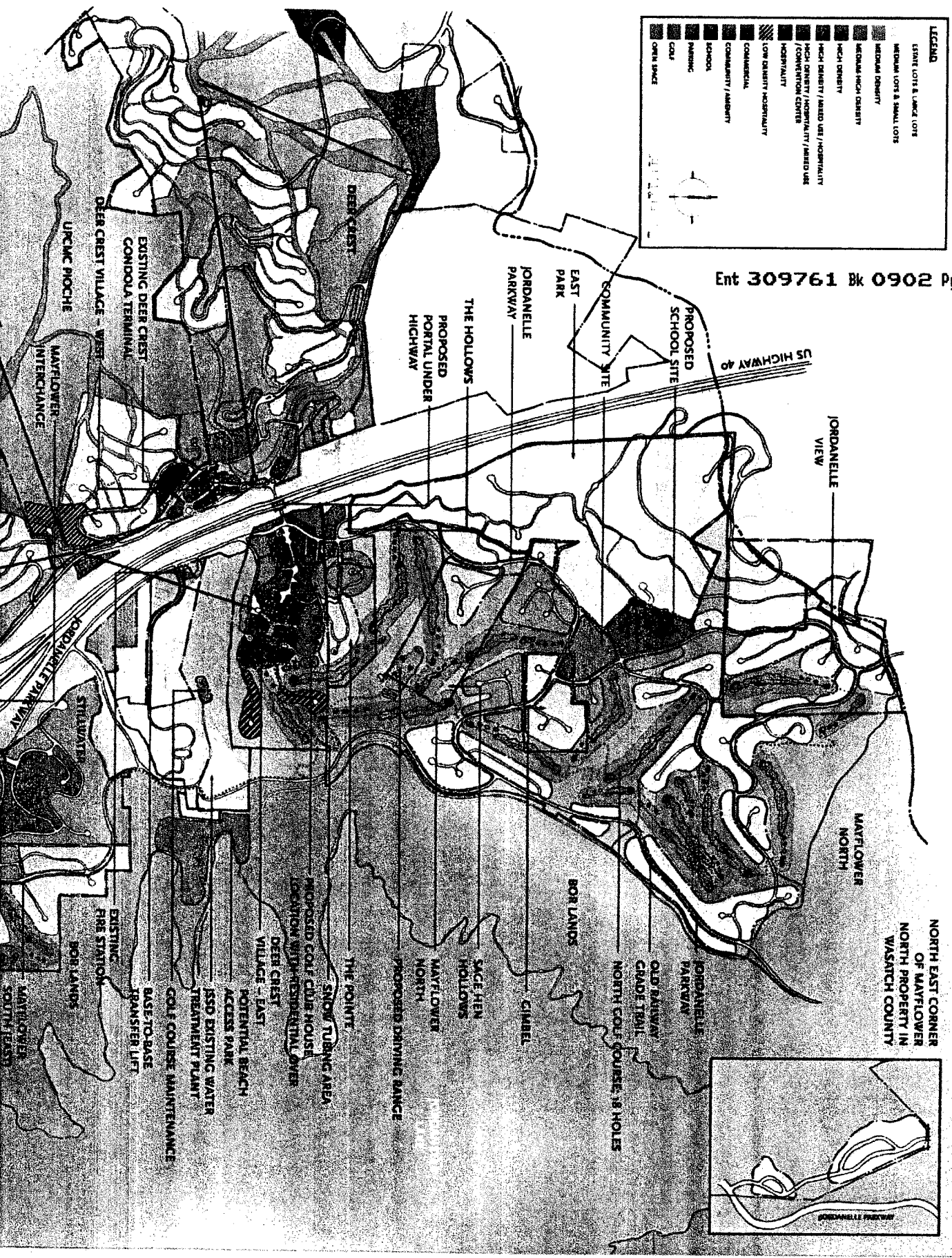
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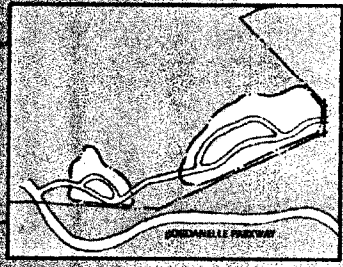

  
 B-7 RSPA USE PLAN
   


**LEGEND**

- EXISTING LOTS & LUMP LOTS
- MEDIUM LOTS & SMALL LOTS
- MEDIUM DENSITY
- MEDIUM-HIGH DENSITY
- HIGH DENSITY
- HIGH DENSITY / MIXED USE / HOUSING
- HIGH DENSITY / HOUSING / COMMERCIAL CENTERS
- HOUSING
- LOW DENSITY HOUSING
- COMMERCIAL
- COMMUNITY / HOUSING
- SCHOOL
- PARKING
- CON
- OPEN SPACE



NORTH EAST CORNER  
OF MAYFLOWER  
NORTH PROPERTY IN  
WASATCH COUNTY



DEER CREST  
EXISTING DEER CREST  
CONDOLA TERMINAL  
DEER CREST VILLAGE - WEST  
URKAC PROCHÉ  
MAYFLOWER  
INTERCHANGE  
JORDANEILLE PARKWAY  
STILLWATER  
BOB LANDS  
EXISTING  
FIRE STATION  
BOB LANDS  
MAYFLOWER  
SOUTH EAST

THE HOLLOWES  
PROPOSED  
PORTAL UNDER  
HIGHWAY

JORDANEILLE  
PARKWAY  
EAST  
PARK  
COMMUNITY  
SITE

US HIGHWAY 40

JORDANEILLE  
VIEW

MAYFLOWER  
NORTH

PROPOSED GOLF CLUB HOUSE  
LOCATION WITH RESIDENTIAL OVER  
DEER CREST  
VILLAGE - EAST  
POTENTIAL BEACH  
ACCESS PARK  
ISSD EXISTING WATER  
TREATMENT PLANT  
GOLF COURSE MAINTENANCE  
BASE TO BASE  
TRANSFER LIFT

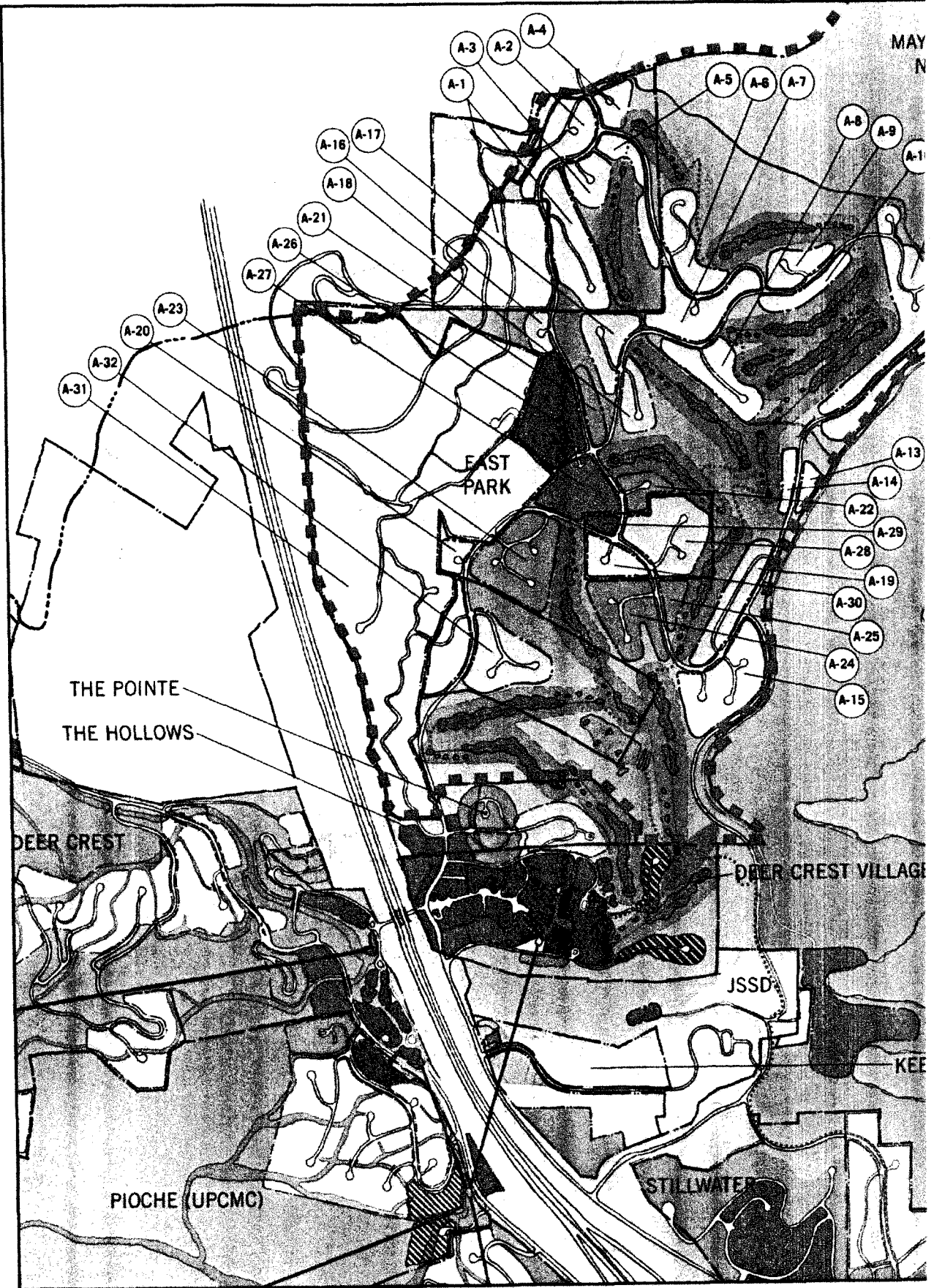
THE POINTE  
SNOW TUBING AREA  
PROPOSED GOLF CLUB HOUSE  
LOCATION WITH RESIDENTIAL OVER

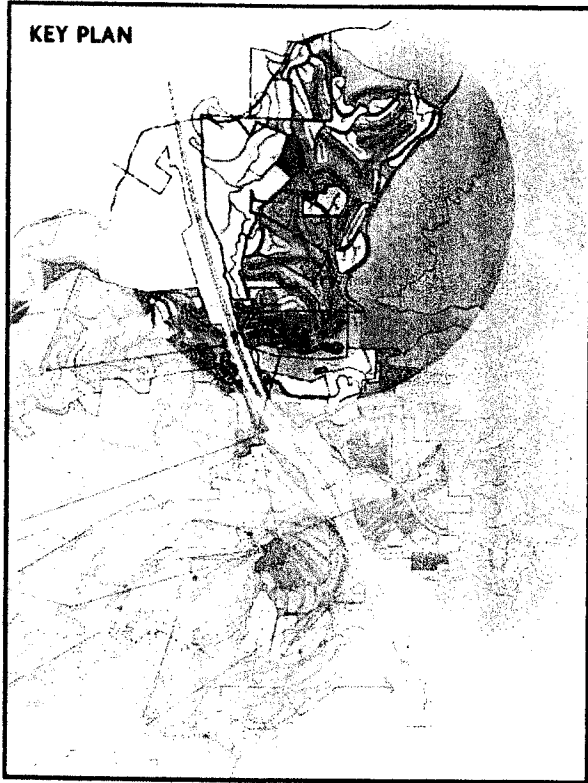
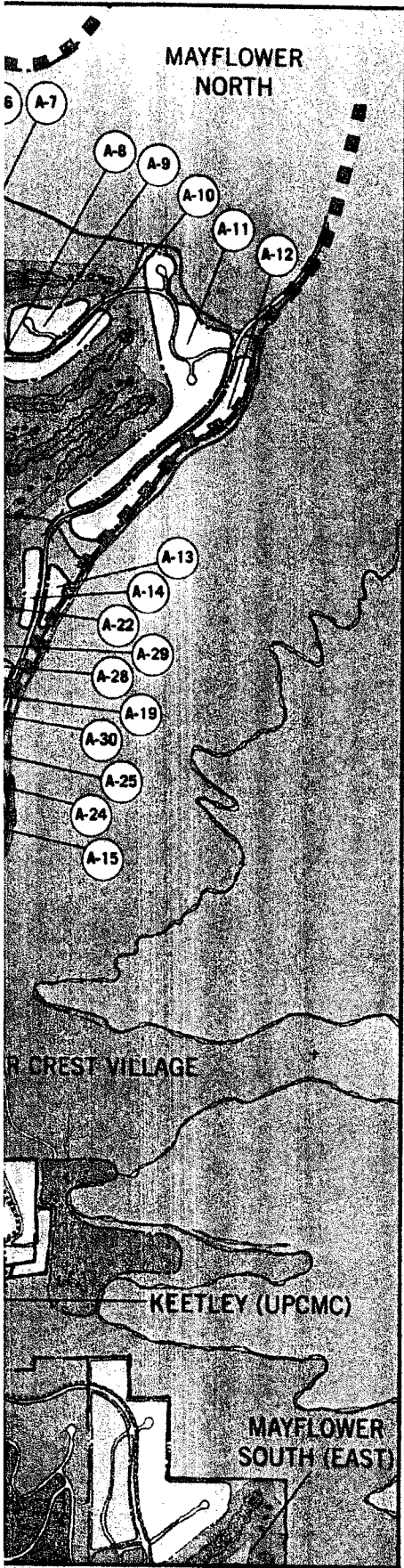
SAGE HEN  
HOLLOWES  
MAYFLOWER  
NORTH  
PROPOSED DRIVING RANGE

BOB LANDS  
CIMBEL

JORDANEILLE  
PARKWAY  
OLD RAILWAY  
GRADE TRAIL  
NORTH GOLF COURSE 18 HOLES

DEER VALLEY LAKESIDE RSPA





**STUDY LEGEND**

- ESTATE LOTS & LARGE LOTS
- MEDIUM LOTS & SMALL LOTS
- MEDIUM DENSITY
- MEDIUM-HIGH DENSITY
- HIGH DENSITY
- HIGH DENSITY / MIXED USE / HOSPITALITY
- HIGH DENSITY / HOSPITALITY / MIXED USE / CONVENTION CENTER
- HOSPITALITY
- LOW DENSITY HOSPITALITY
- COMMERCIAL
- COMMUNITY / AMENITY
- SCHOOL
- PARKING
- GOLF
- OPEN SPACE

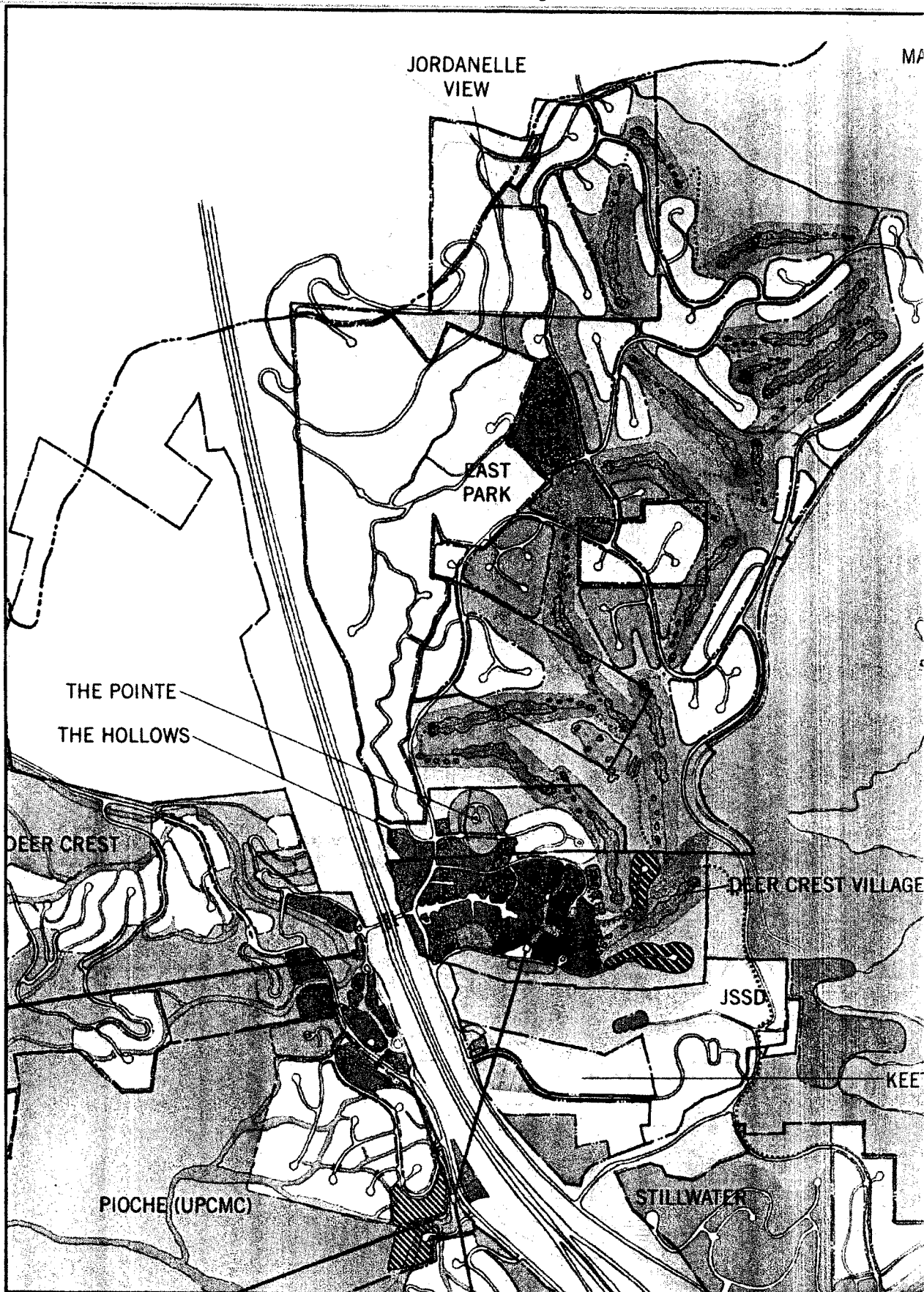
**Neighborhood A Target Study.**

As part of the planning process for the RSPA, A Target Use Study was prepared for Neighborhood A ("Target Study"). The Target Study was prepared by qualified land planners to show optimal development densities on the various parcels comprising the Neighborhood. The Zone designations for each Neighborhood were determined in reliance upon the Target Study, but the Target Study does not create Zones, grant densities or establish any other legal rights. The Target Study for this neighborhood is simply provided to show the detailed land use study on which the Zones were based.



**B-8 NEIGHBORHOOD A  
TARGET STUDY**










DEER VALLEY LAKESIDE RSPA



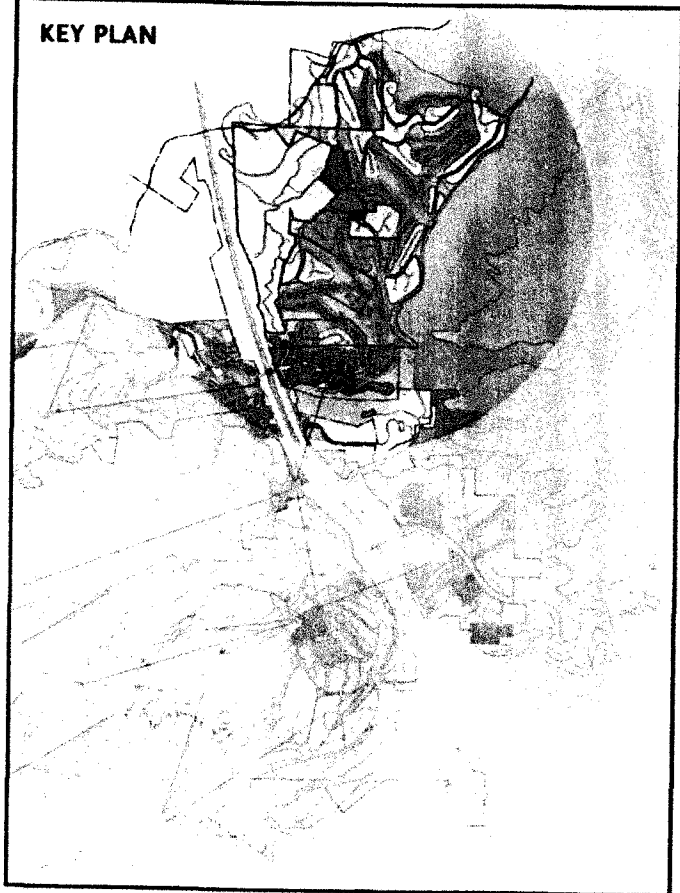
MA

MAYFLOWER NORTH

LAND USE LEGEND

NAME	DESCRIPTION	UNITS/ACRES	MAX. HEIGHT
	RSF RESIDENTIAL SINGLE FAMILY	(6 DU/AC)	2.5 FLOORS
	RMD RESIDENTIAL MEDIUM DENSITY	(6-20 DU/AC)	3.5 FLOORS
	HC HOSPITALITY CASITA	(21-40 DU/AC)	2 FLOORS
	RVMD RESORT VILLAGE MEDIUM DENSITY	(70 UPA)	4-6 FLOORS
	RVHD RESORT VILLAGE HIGH DENSITY	(80 UPA)	4-8 FLOORS
	NC NEIGHBORHOOD COMMERCIAL	(FSR)	2.5 FLOORS
	SCH SCHOOL	(NA)	NA
	CS COMMUNITY SITE	(NA)	2.5 FLOORS
	OS OPEN SPACE	(NA)	NA

KEY PLAN



NOTE: DENSITY PODS A-26 AND A-27 (AS SHOWN ON PLAN B-8) HAVE CLASSIFICATIONS OF SCH AND CS RESPECTIVELY. IF THESE ARE NOT USED AS PUBLIC AMENITIES, THEN A-26 WILL BE RSF AND A-27 WILL BE RMD.

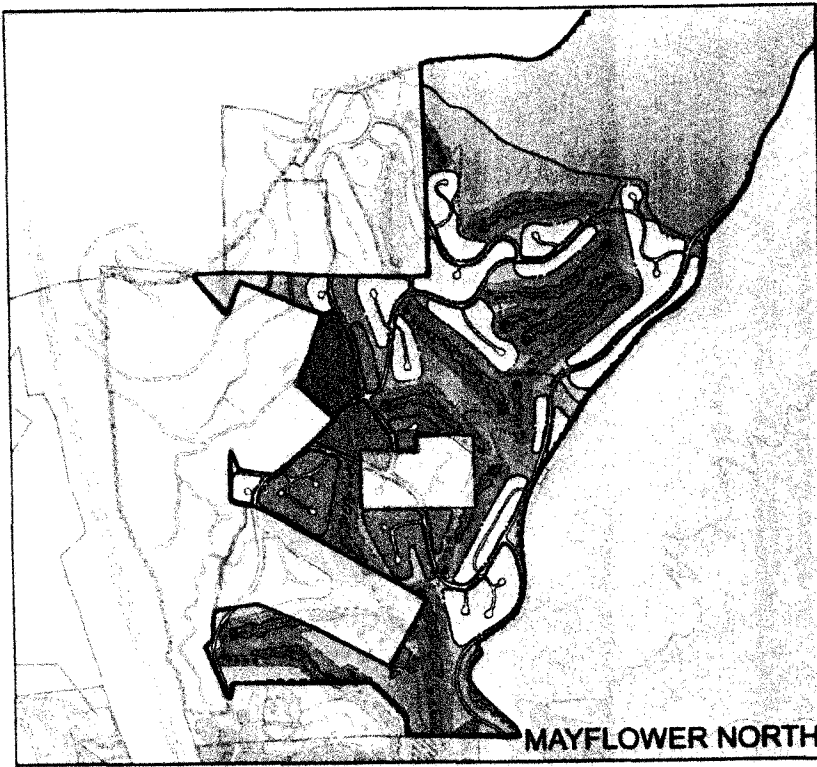
CREST VILLAGE

KEETLEY (UPCMC)

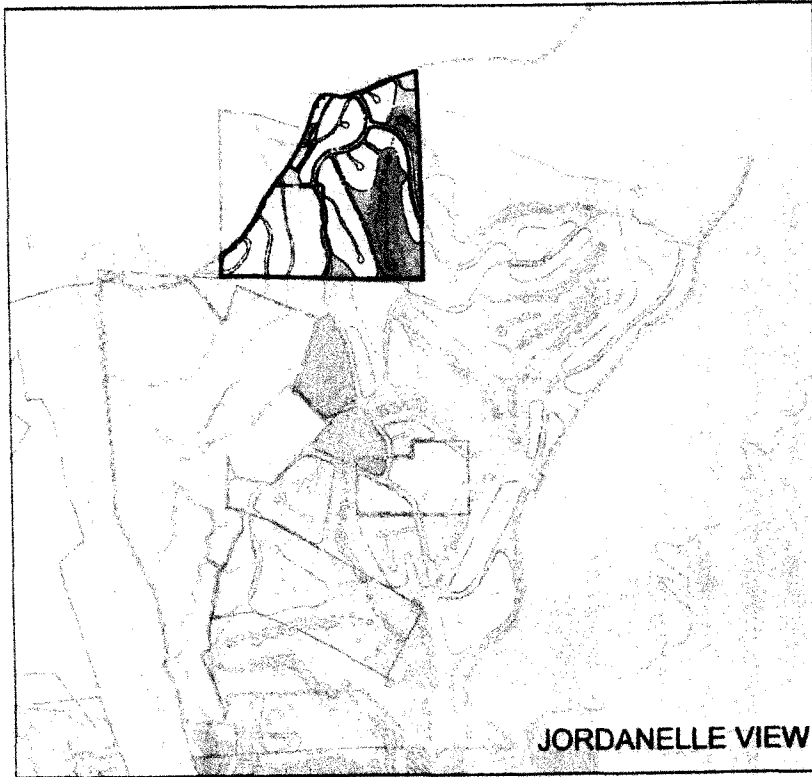
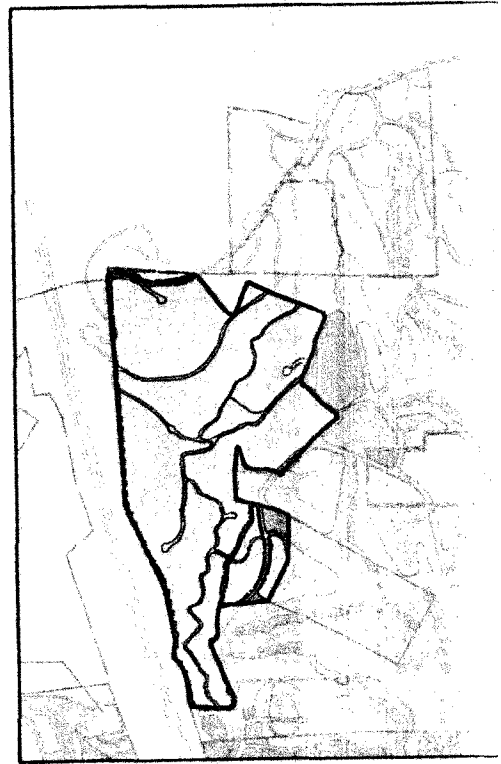
MAYFLOWER SOUTH (EAST)

B-9 NEIGHBORHOOD A LAND USE 

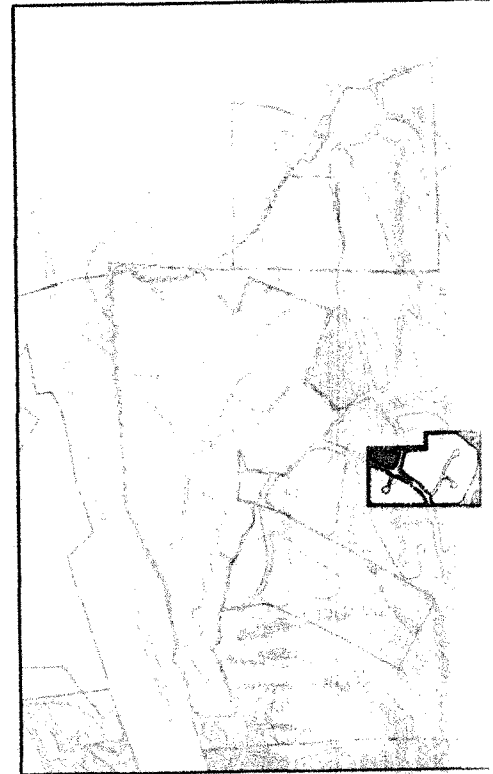
DEER VALLEY LAKESIDE RSPA












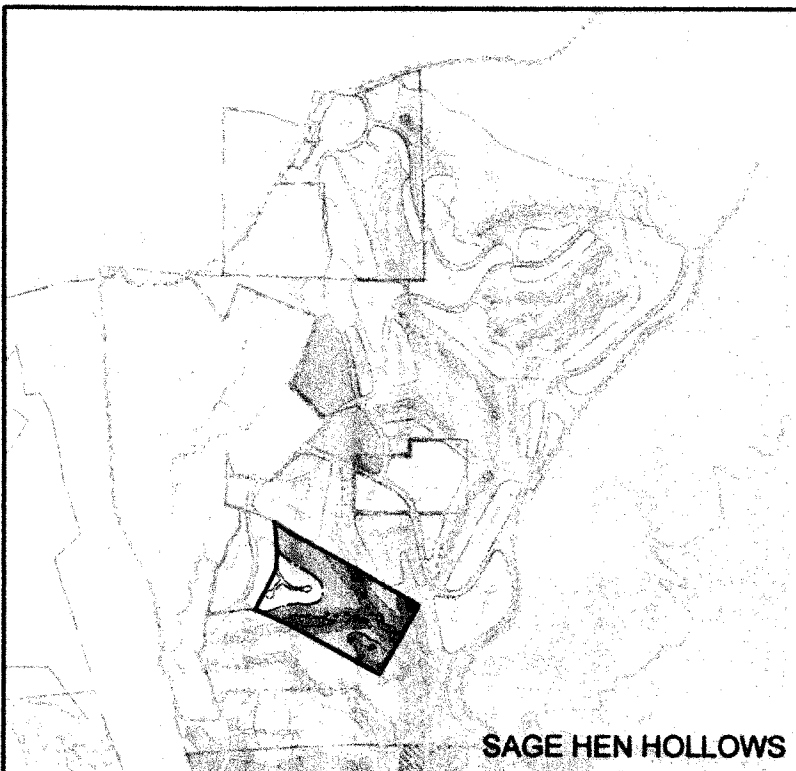
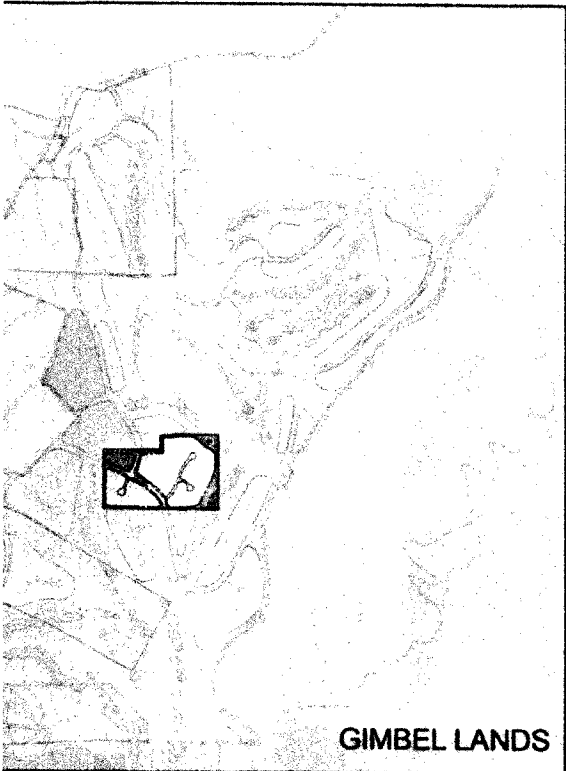
MAYFLOWER NORTH



JORDANELLE VIEW



KEY	DESCRIPTION	UNITS/ACRE	MAXIMUM HEIGHT
<b>MAYFLOWER NORTH</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
 RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
 SCH	SCHOOL	NA	NA
 CS	COMMUNITY SITE	NA	2.5 STORIES
<b>EAST PARK</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
<b>JORDANELLE VIEW</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
<b>GIMBEL LANDS</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
 NC	NEIGHBORHOOD COMMERCIAL	.4 FSR	2.5 STORIES
<b>SAGE HEN HOLLOWES</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES



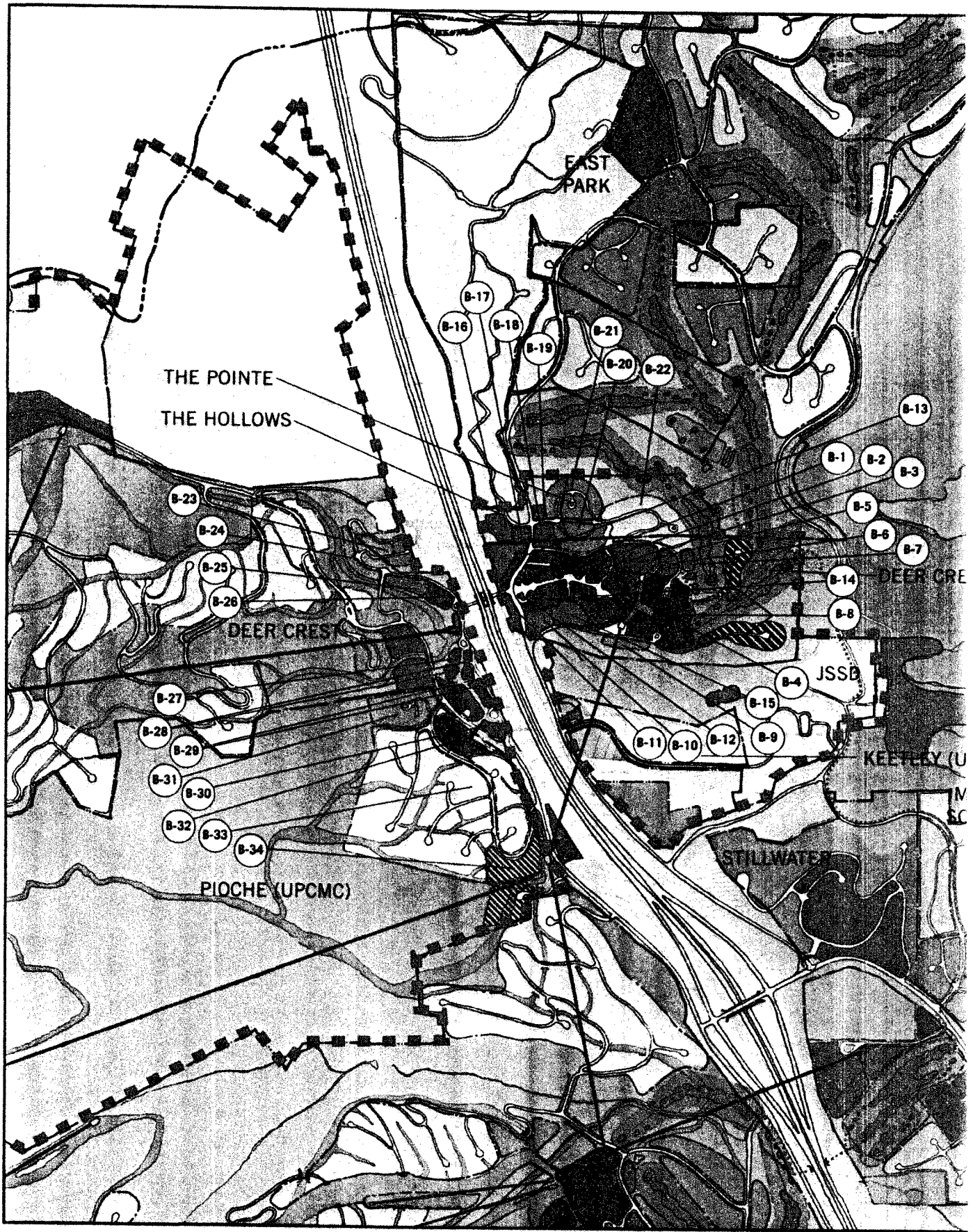


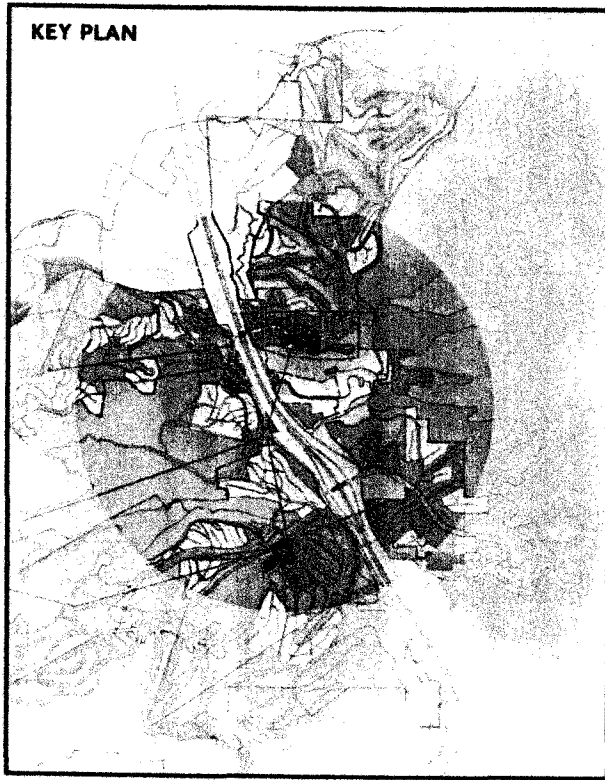
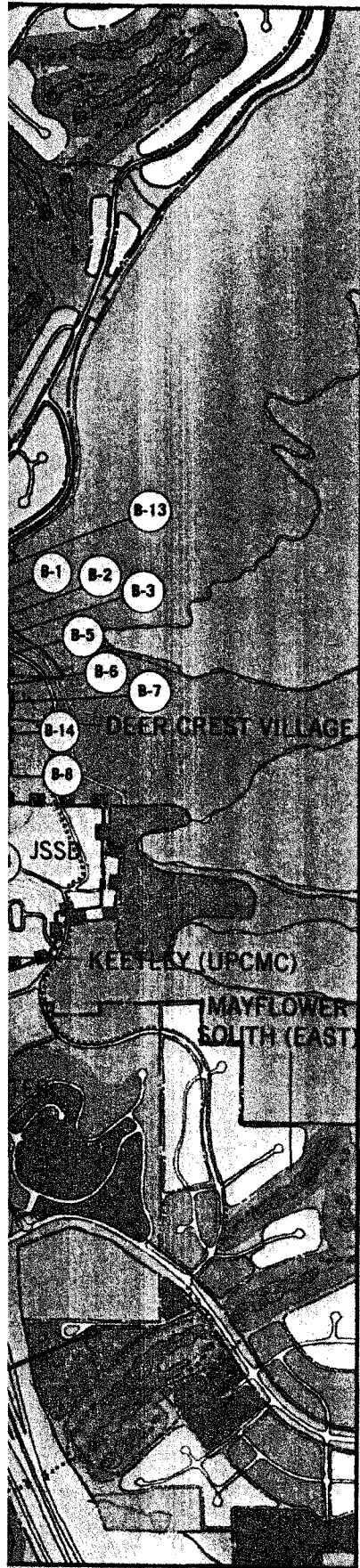
**B-10 NEIGHBORHOOD A  
LAND-USE BY PROPERTY**





DEER VALLEY LAKESIDE RSPA





STUDY LEGEND	
[Lightest shading]	ESTATE LOTS & LARGE LOTS
[Light shading]	MEDIUM LOTS & SMALL LOTS
[Medium-light shading]	MEDIUM DENSITY
[Medium shading]	MEDIUM-HIGH DENSITY
[Medium-dark shading]	HIGH DENSITY
[Dark shading]	HIGH DENSITY / MIXED USE / HOSPITALITY
[Darkest shading]	HIGH DENSITY / HOSPITALITY / MIXED USE / CONVENTION CENTER
[Diagonal lines /]	HOSPITALITY
[Diagonal lines \]	LOW DENSITY HOSPITALITY
[Cross-hatch]	COMMERCIAL
[Stippled]	COMMUNITY / AMENITY
[Dotted]	SCHOOL
[Horizontal lines]	PARKING
[Vertical lines]	GOLF
[White]	OPEN SPACE

**Neighborhood B Target Use Study.**

As part of the planning process for the RSPA, A Target Use Study was prepared for Neighborhood B ("Target Study"). The Target Study was prepared by qualified land planners to show optimal development densities on the various parcels comprising the Neighborhood. The Zone designations for each Neighborhood were determined in reliance upon the Target Study, but the Target Study does not create Zones, grant densities or establish any other legal rights. The Target Study for this neighborhood is simply provided to show the detailed land use study on which the Zones were based.

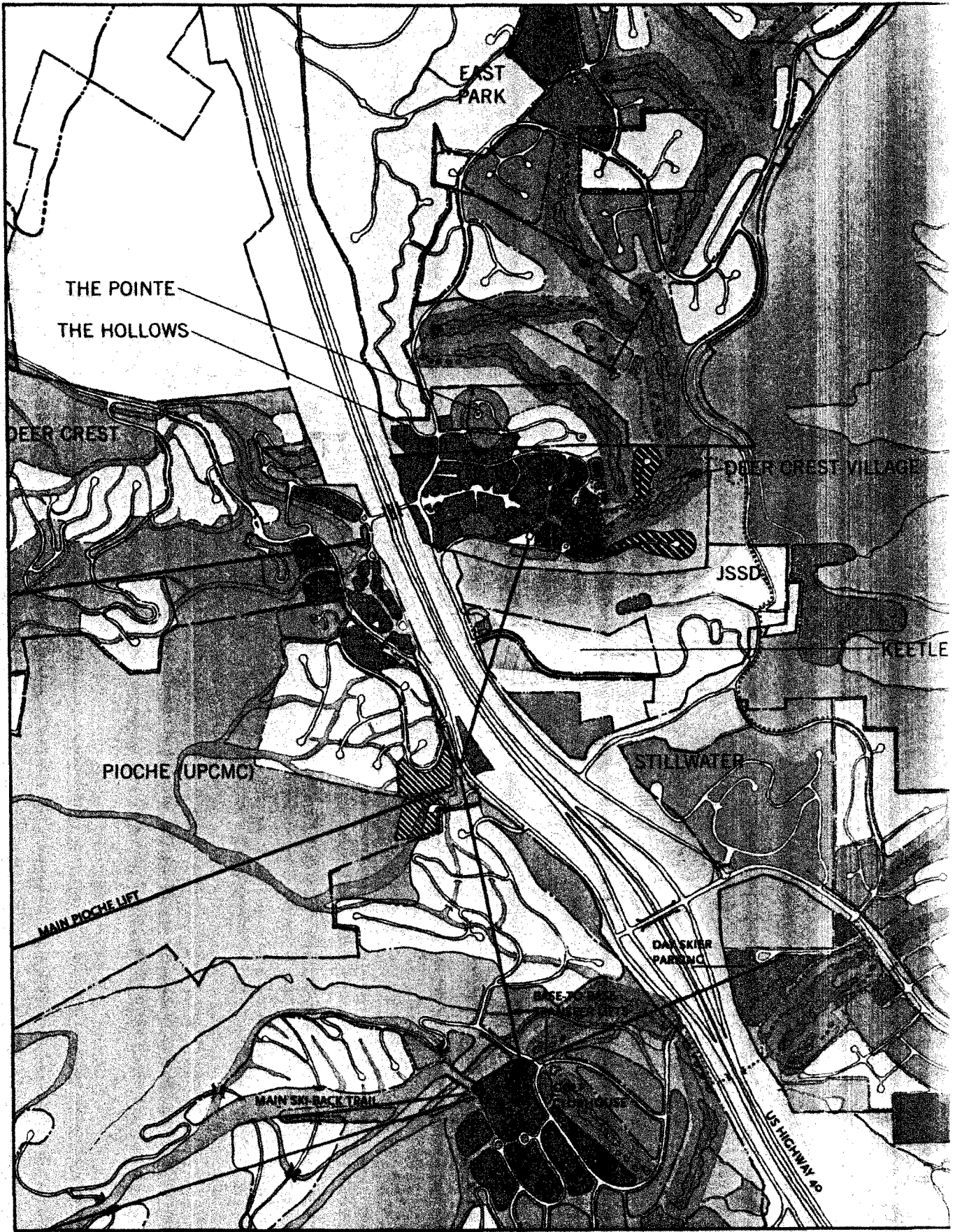




B-11 NEIGHBORHOOD B  
TARGET STUDY












DEER VALLEY LAKESIDE RSPA

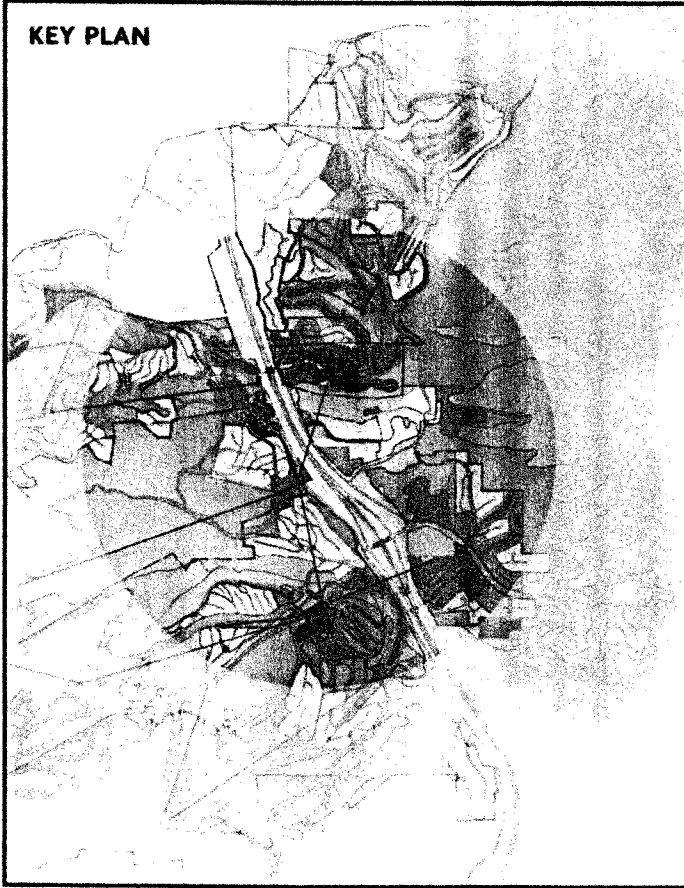




**LAND USE LEGEND**

NAME	DESCRIPTION	UNITS/ACRES	MAX. HEIGHT
	RSF RESIDENTIAL SINGLE FAMILY	(6 DU/AC)	2.5 FLOORS
	RMD RESIDENTIAL MEDIUM DENSITY	(6-20 DU/AC)	3.5 FLOORS
	HC HOSPITALITY CASITA	(21-40 DU/AC)	2 FLOORS
	RVMD RESORT VILLAGE MEDIUM DENSITY	(70 UPA)	4-6 FLOORS
	RVHD RESORT VILLAGE HIGH DENSITY	(80 UPA)	4-8 FLOORS
	NC NEIGHBORHOOD COMMERCIAL	(FSR)	2.5 FLOORS
	SCH SCHOOL	(NA)	NA
	CS COMMUNITY SITE	(NA)	2.5 FLOORS
	OS OPEN SPACE	(NA)	NA

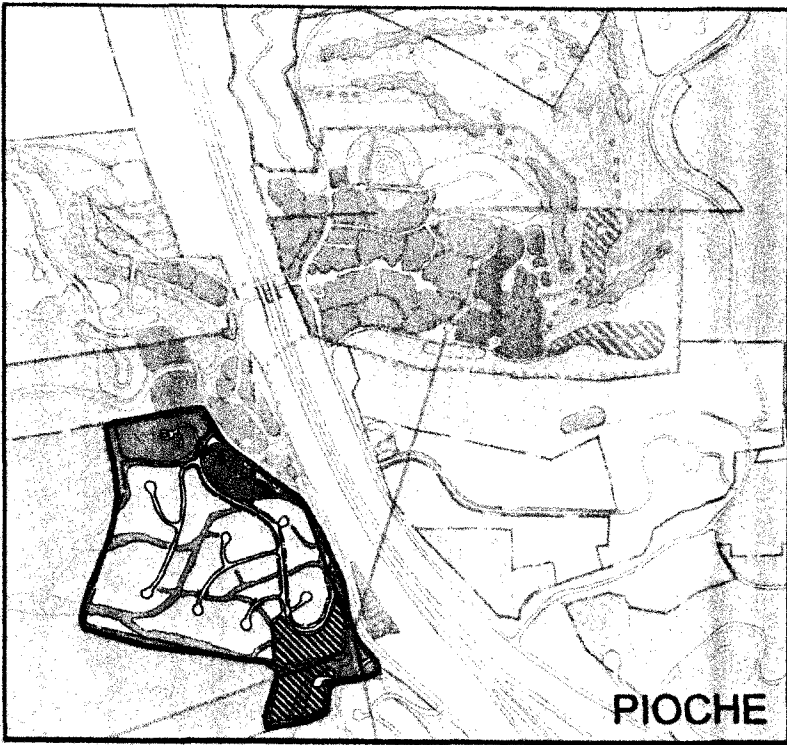
**KEY PLAN**



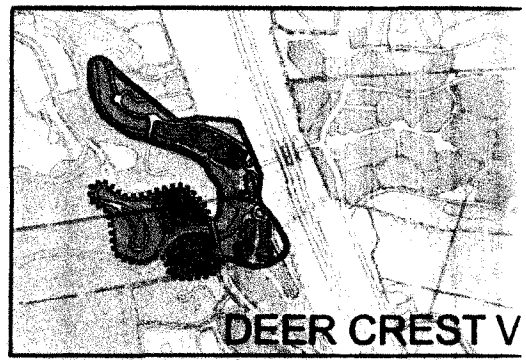


**B-12 NEIGHBORHOOD B**  
LAND USE

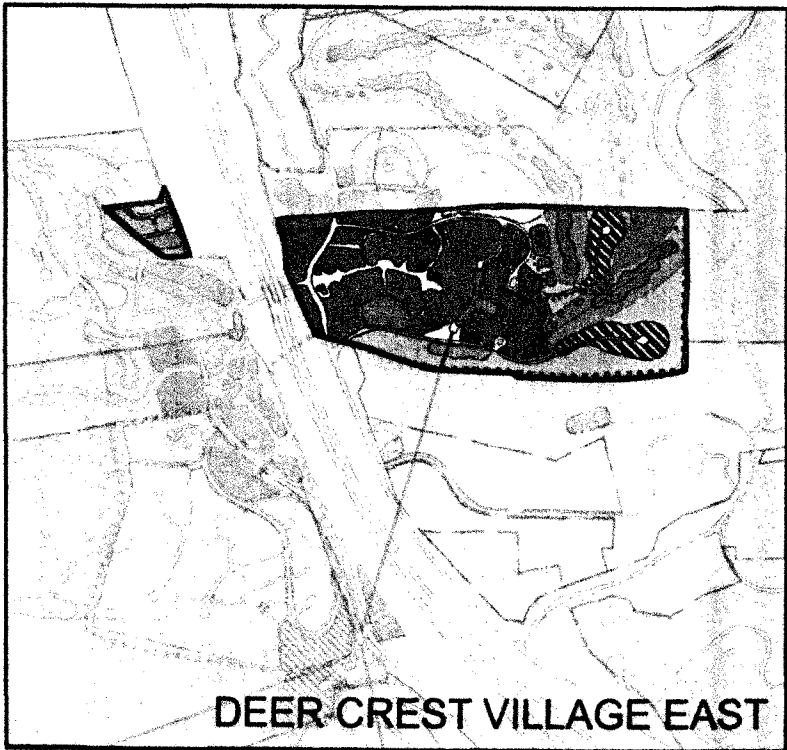
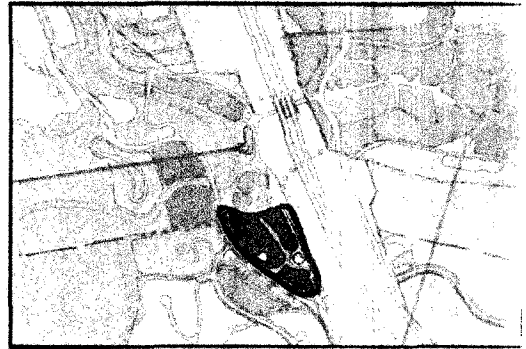




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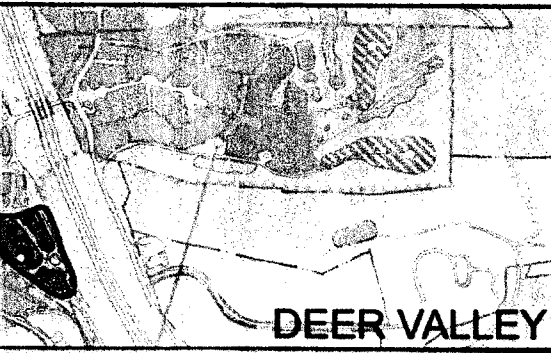


DEER CREST V

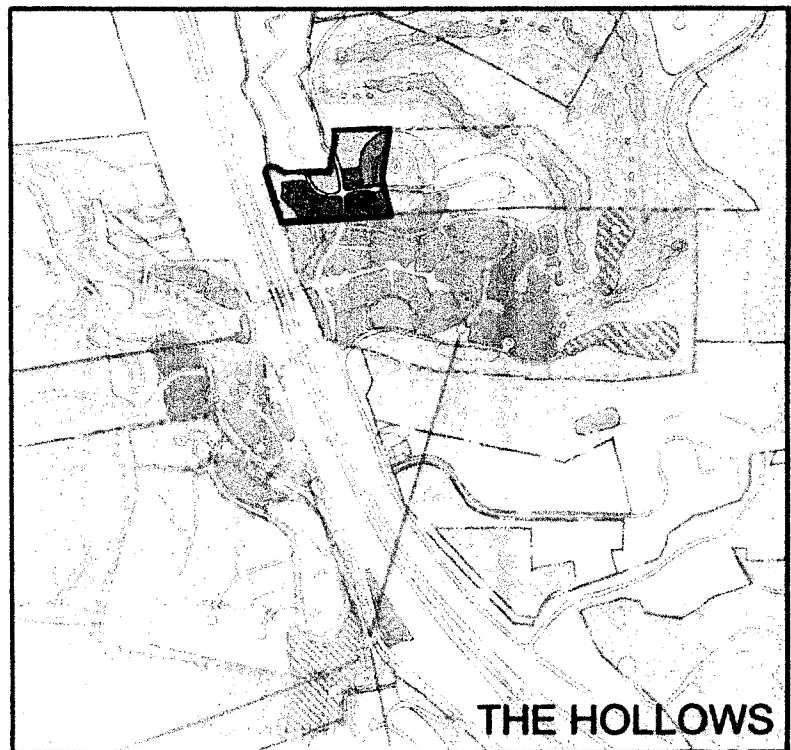


DEER CREST VILLAGE EAST

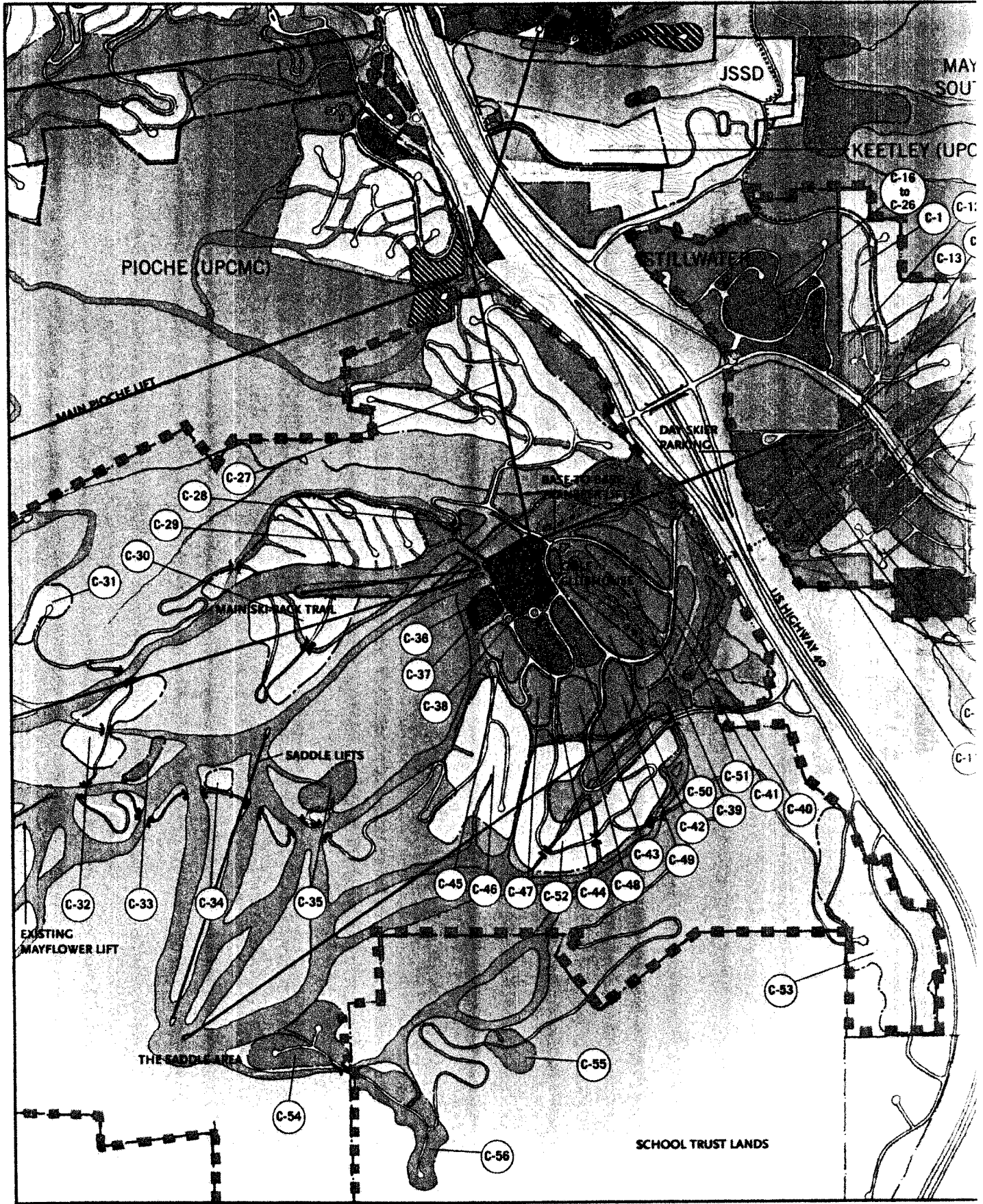


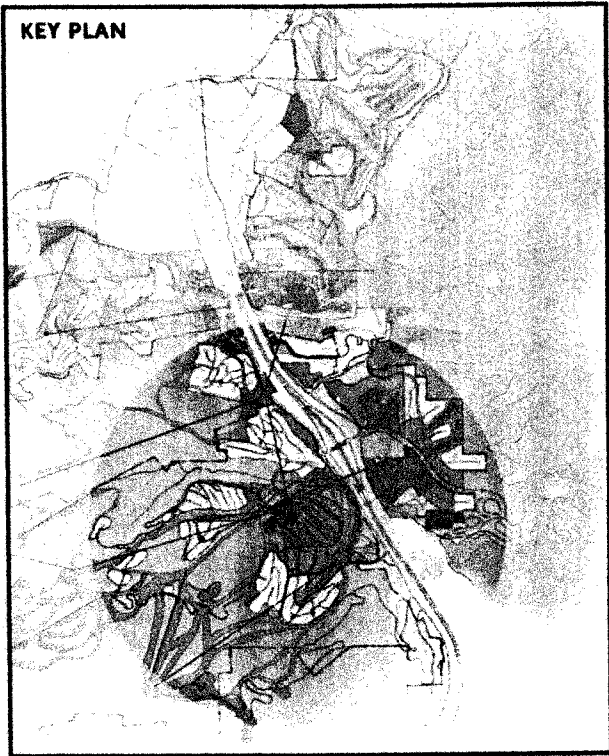
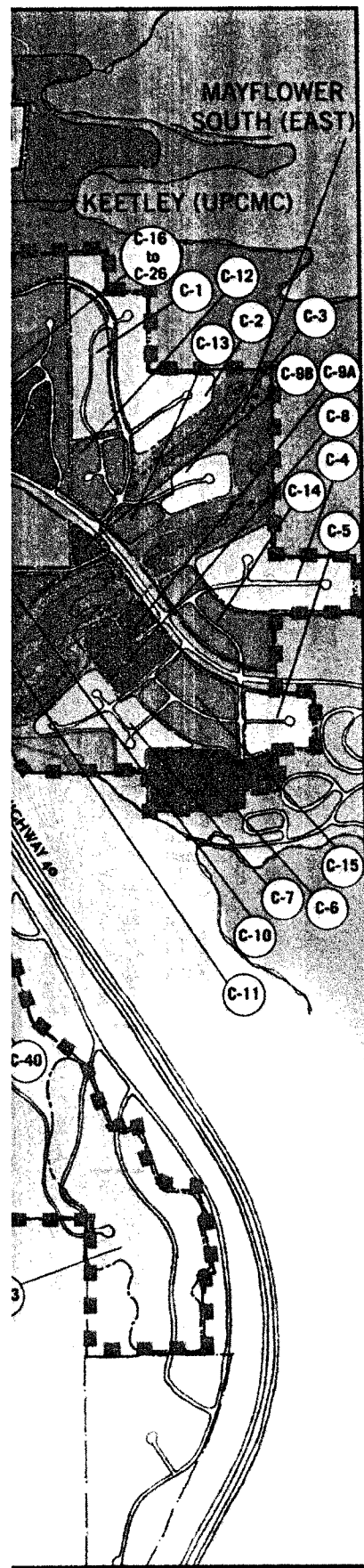


KEY		DESCRIPTION	UNITS/ACRE	MAXIMUM HEIGHT
<b>PROCHE</b>				
	RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
	RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
	HC	HOSPITALITY CASITA	21-40 DU/AC	2 STORIES
<b>DEER CREST VILLAGE WEST</b>				
	RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
	RVHD	RESORT VILLAGE HIGH DENSITY	80 UPA	4-8 STORIES
<b>DEER VALLEY</b>				
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
<b>DEER CREST VILLAGE EAST</b>				
	RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
	CS	COMMUNITY SITE	NA	NA
	RVHD	RESORT VILLAGE HIGH DENSITY	80 UPA	4-8 STORIES
	HC	HOSPITALITY CASITA	21-40 DU/AC	2 STORIES
<b>THE POINTE</b>				
	RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
	RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
<b>THE HOLLOWES</b>				
	RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
	RVMD	RESORT VILLAGE MEDIUM DENSITY	70 UPA	4-6 STORIES
	NC	NEIGHBORHOOD COMMERCIAL	.4 FSR	2.5 STORIES



DEER VALLEY LAKESIDE RSPA





**STUDY LEGEND**

ESTATE LOTS & LARGE LOTS	
[Symbol]	MEDIUM LOTS & SMALL LOTS
[Symbol]	MEDIUM DENSITY
[Symbol]	MEDIUM-HIGH DENSITY
[Symbol]	HIGH DENSITY
[Symbol]	HIGH DENSITY / MIXED USE / HOSPITALITY
[Symbol]	HIGH DENSITY / HOSPITALITY / MIXED USE / CONVENTION CENTER
[Symbol]	HOSPITALITY
[Symbol]	LOW DENSITY HOSPITALITY
[Symbol]	COMMERCIAL
[Symbol]	COMMUNITY / AMENITY
[Symbol]	SCHOOL
[Symbol]	PARKING
[Symbol]	GOLF
[Symbol]	OPEN SPACE

**Neighborhood C Target Use Study.**

As part of the planning process for the RSPA, A Target Use Study was prepared for Neighborhood C ("Target Study"). The Target Study was prepared by qualified land planners to show optimal development densities on the various parcels comprising the Neighborhood. The Zone designations for each Neighborhood were determined in reliance upon the Target Study, but the Target Study does not create Zones, grant densities or establish any other legal rights. The Target Study for this neighborhood is simply provided to show the detailed land use study on which the Zones were based.

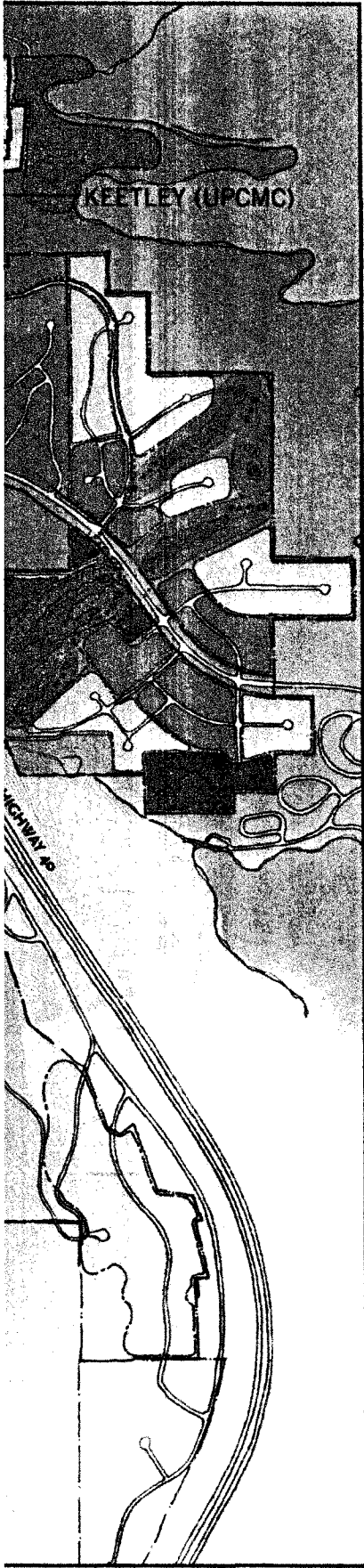


**B-14 NEIGHBORHOOD C  
TARGET STUDY**












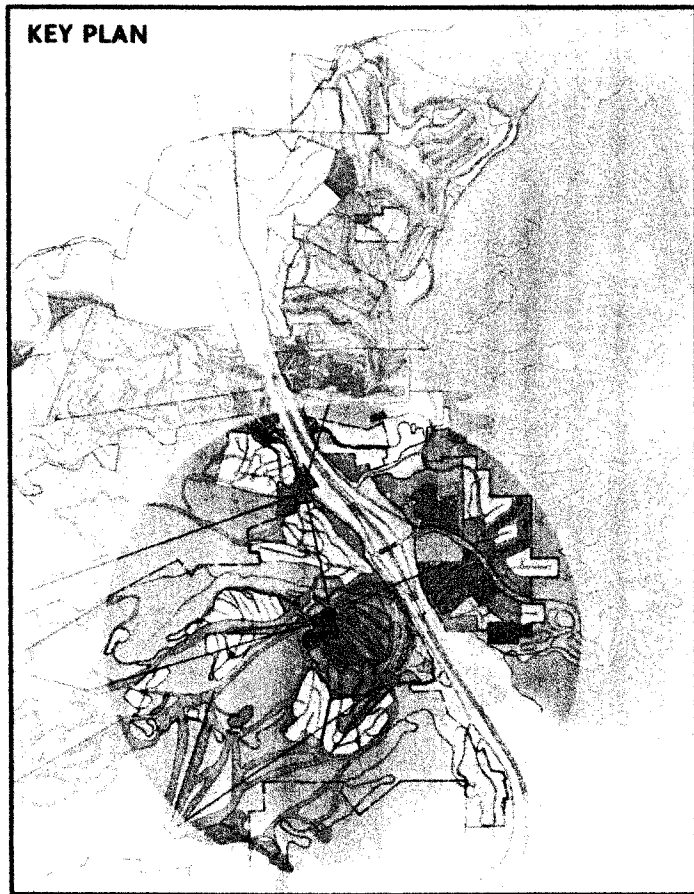
DEER VALLEY LAKESIDE RSPA





**LAND USE LEGEND**

NAME	DESCRIPTION	UNITS/ACRES	MAX. HEIGHT
	<b>RSF</b> RESIDENTIAL SINGLE FAMILY	(6 DU/AC)	2.5 FLOORS
	<b>RMD</b> RESIDENTIAL MEDIUM DENSITY	(6-20 DU/AC)	3.5 FLOORS
	<b>HC</b> HOSPITALITY CASITA	(21-40 DU/AC)	2 FLOORS
	<b>RVMD</b> RESORT VILLAGE MEDIUM DENSITY	(70 UPA)	4-8 FLOORS
	<b>RVHD</b> RESORT VILLAGE HIGH DENSITY	(80 UPA)	4-8 FLOORS
	<b>NC</b> NEIGHBORHOOD COMMERCIAL	(FSR)	2.5 FLOORS
	<b>SCH</b> SCHOOL	(NA)	NA
	<b>CS</b> COMMUNITY SITE	(NA)	2.5 FLOORS
	<b>OS</b> OPEN SPACE	(NA)	NA

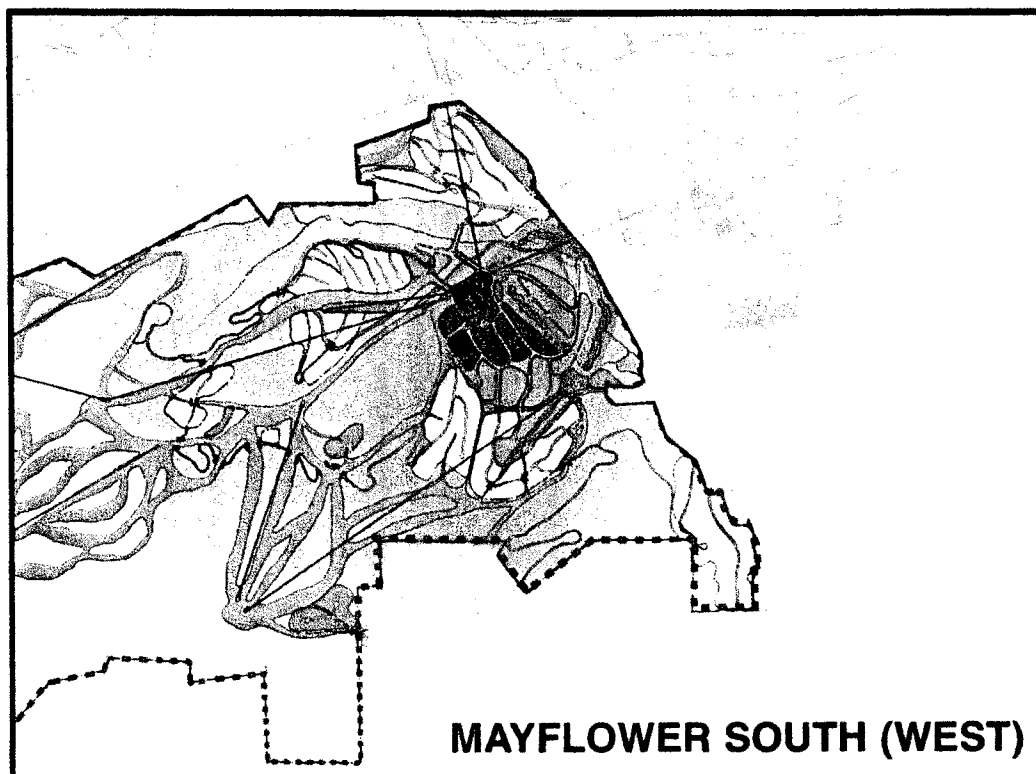
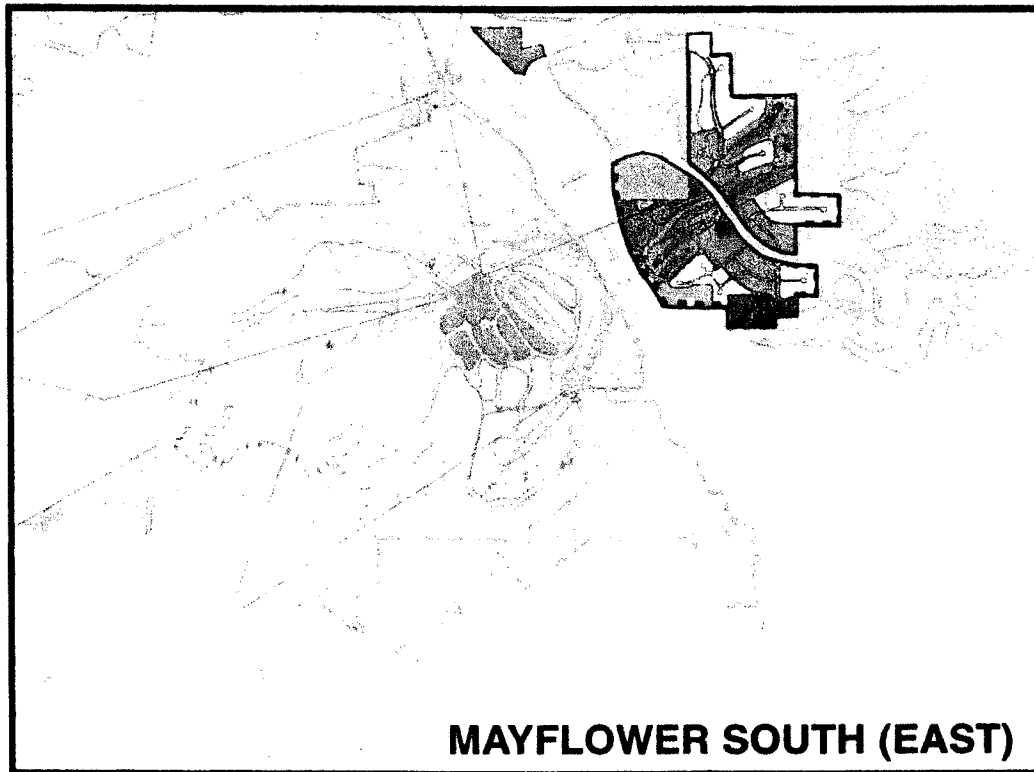




**B-15 NEIGHBORHOOD C**  
LAND USE



DEER VALLEY LAKESIDE RSPA



KEY

MAYFLO














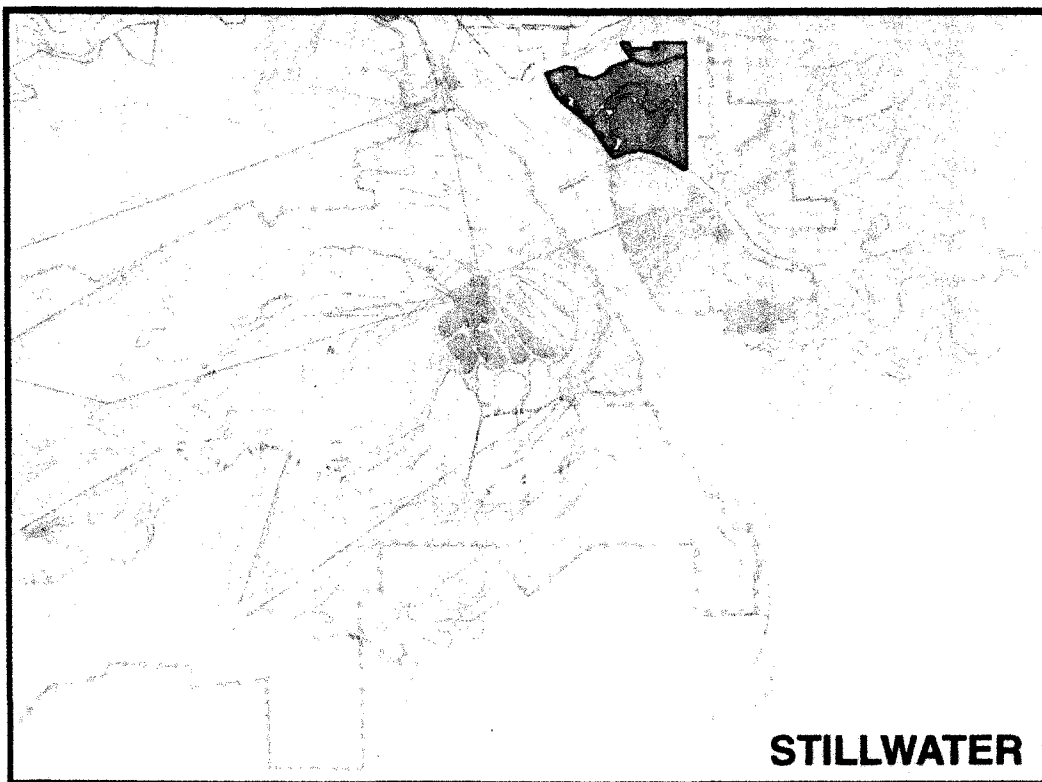
MAYFLO



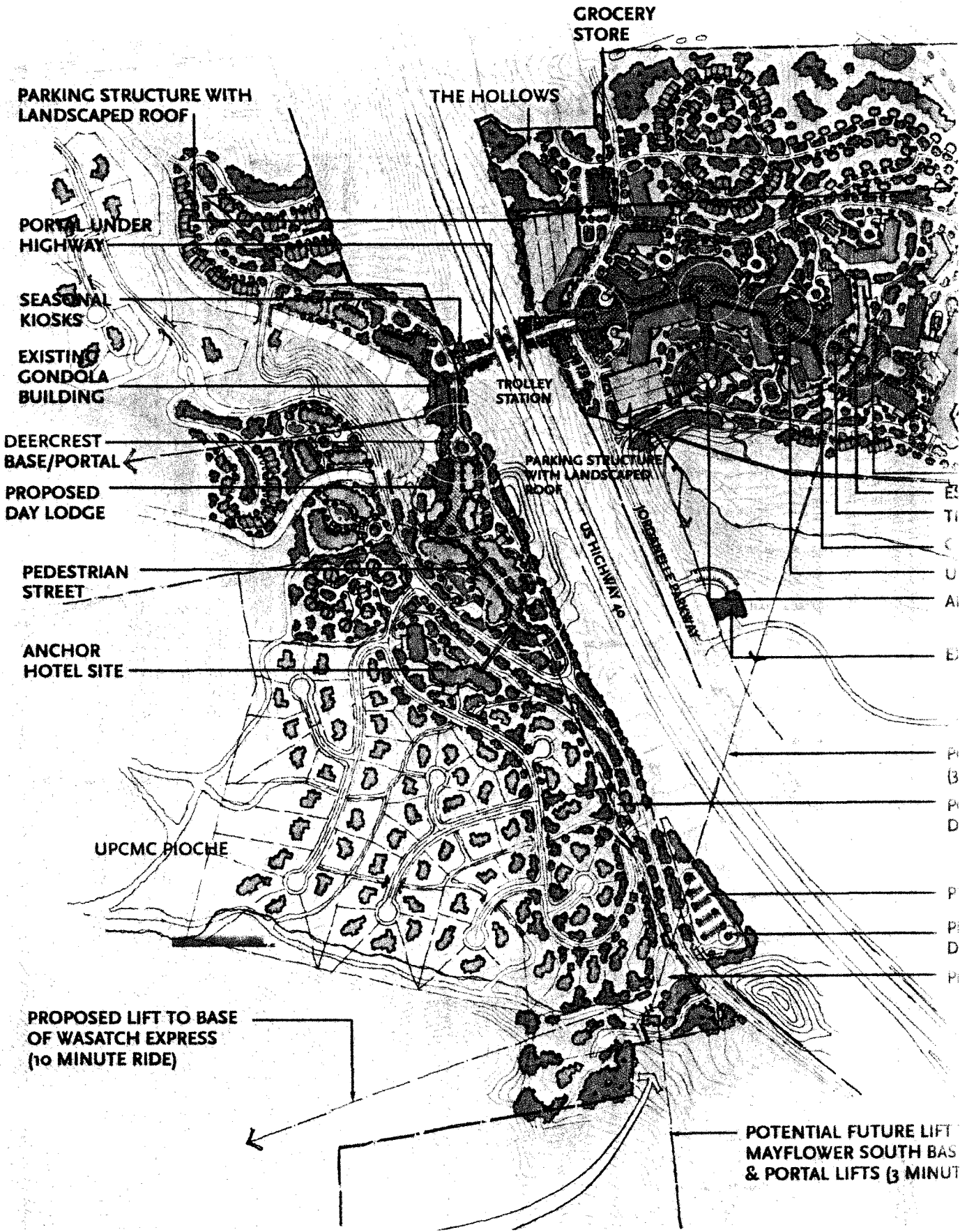
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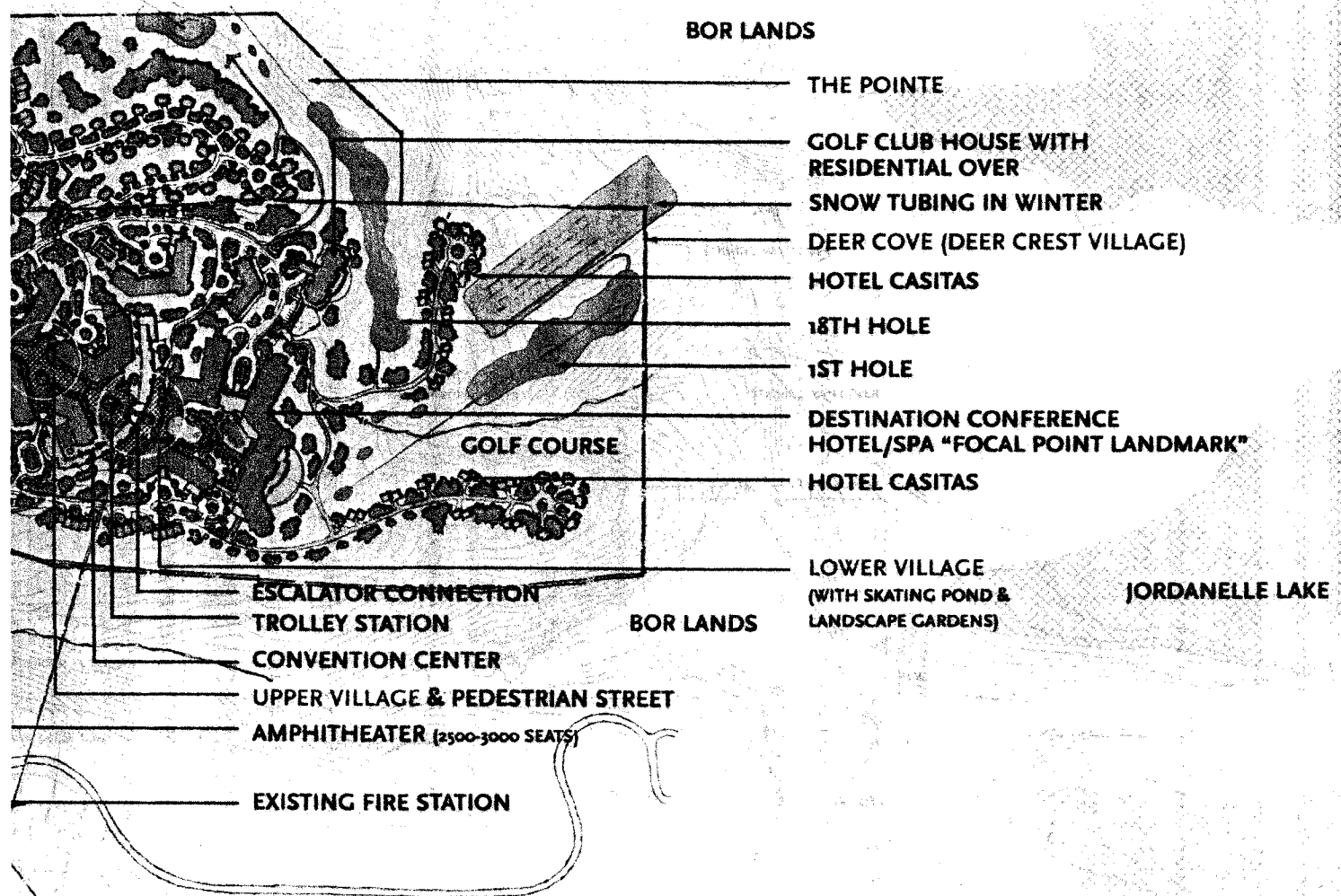


KEY	DESCRIPTION	UNITS/ACRE	MAXIMUM HEIGHT
<b>MAYFLOWER WEST</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
 RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
 RVHD	RESORT VILLAGE HIGH DENSITY	80 LPA	4-6 STORIES
 CS	COMMUNITY SITE	NA	2.5 STORIES
<b>MAYFLOWER EAST</b>			
 RSF	RESIDENTIAL SINGLE FAMILY	6 DU/AC	2.5 STORIES
 RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES
 NC	NEIGHBORHOOD COMMERCIAL	.4 FSR	2.5 STORIES
 CS	COMMUNITY SITE	NA	2.5 STORIES
 SCH	SCHOOL	NA	2.5 STORIES
 PC	PARKING	NA	NA
<b>STILLWATER</b>			
 RMD	RESIDENTIAL MEDIUM DENSITY	6-20 DU/AC	3.5 STORIES



DEER CREST VILLAGE





BOR LANDS

THE POINTE

GOLF CLUB HOUSE WITH RESIDENTIAL OVER

SNOW TUBING IN WINTER

DEER COVE (DEER CREST VILLAGE)

HOTEL CASITAS

18TH HOLE

1ST HOLE

DESTINATION CONFERENCE HOTEL/SPA "FOCAL POINT LANDMARK"

HOTEL CASITAS

LOWER VILLAGE (WITH SKATING POND & LANDSCAPE GARDENS)

JORDANELLE LAKE

BOR LANDS

ESCALATOR CONNECTION

TROLLEY STATION

CONVENTION CENTER

UPPER VILLAGE & PEDESTRIAN STREET

AMPHITHEATER (2500-3000 SEATS)

EXISTING FIRE STATION

POTENTIAL LIFT LOCATION TO PIOCHE BASE (3 MINUTE RIDE)

POTENTIAL FUTURE TRANSFER LIFT BETWEEN DEER CREST BASE & PIOCHE BASE

PIOCHE DAY SKIER PARKING

PEOPLE MOVER/SHUTTLE DROP OFF STATION

PIOCHE BASE/PORTAL

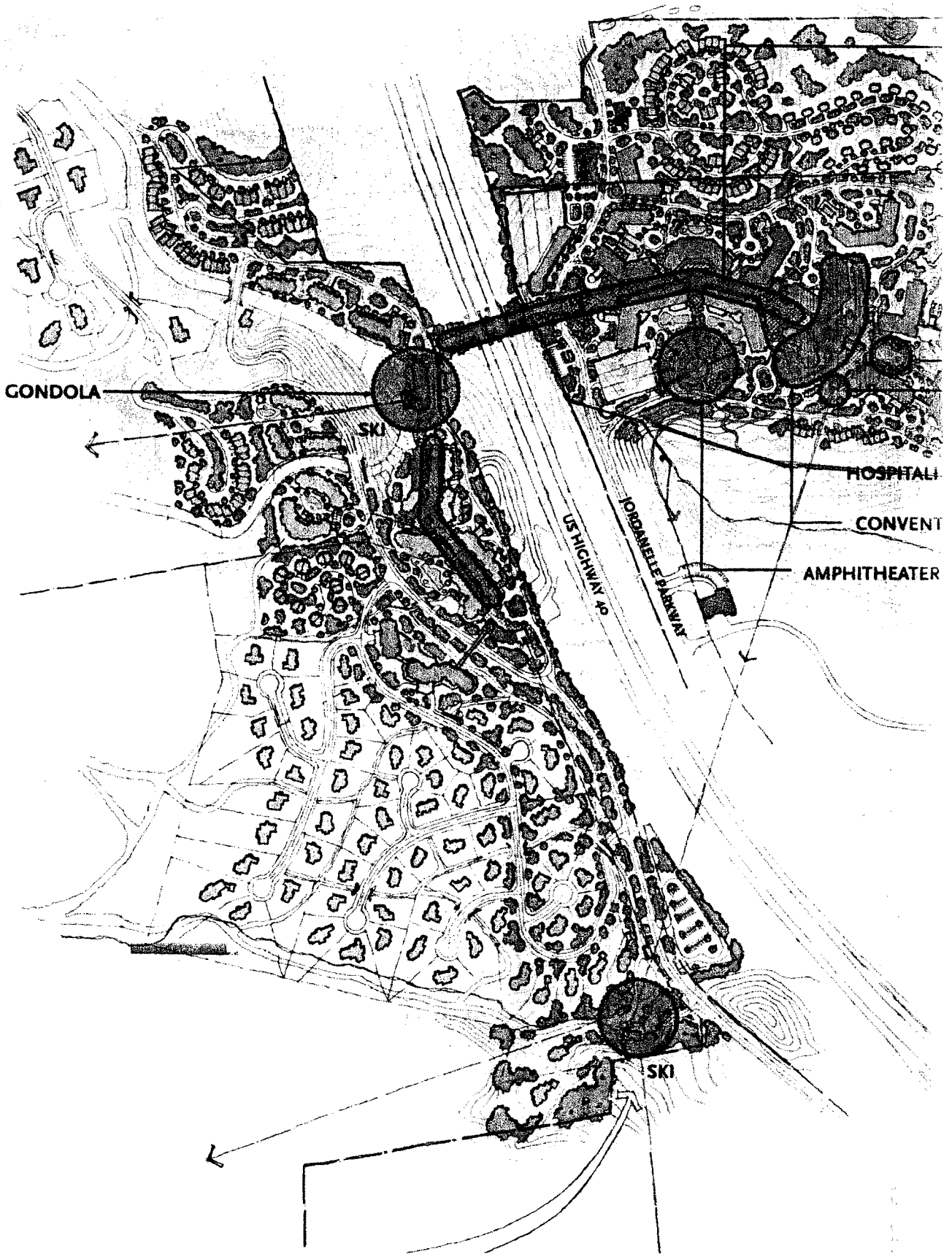
POTENTIAL FUTURE LIFT TO DAYFLOWER SOUTH BASE VILLAGE PORTAL LIFTS (3 MINUTE RIDE)

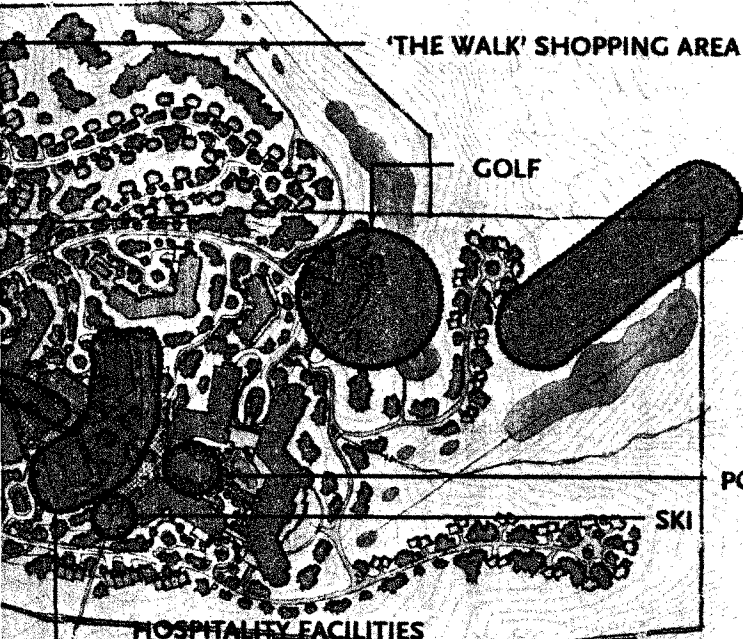
1	1-1.5 SKIER SERVICES
2	EXISTING
3	6-8 FLOORS
4	4-6 FLOORS
5	3-4 FLOORS
6	2-2.5 FLOORS
7	1-2 FLOORS/PODIUM
8	PARKING

PEDESTRIAN NODE

TROLLEY STATION TURN-AROUND

DEER CREST VILLAGE



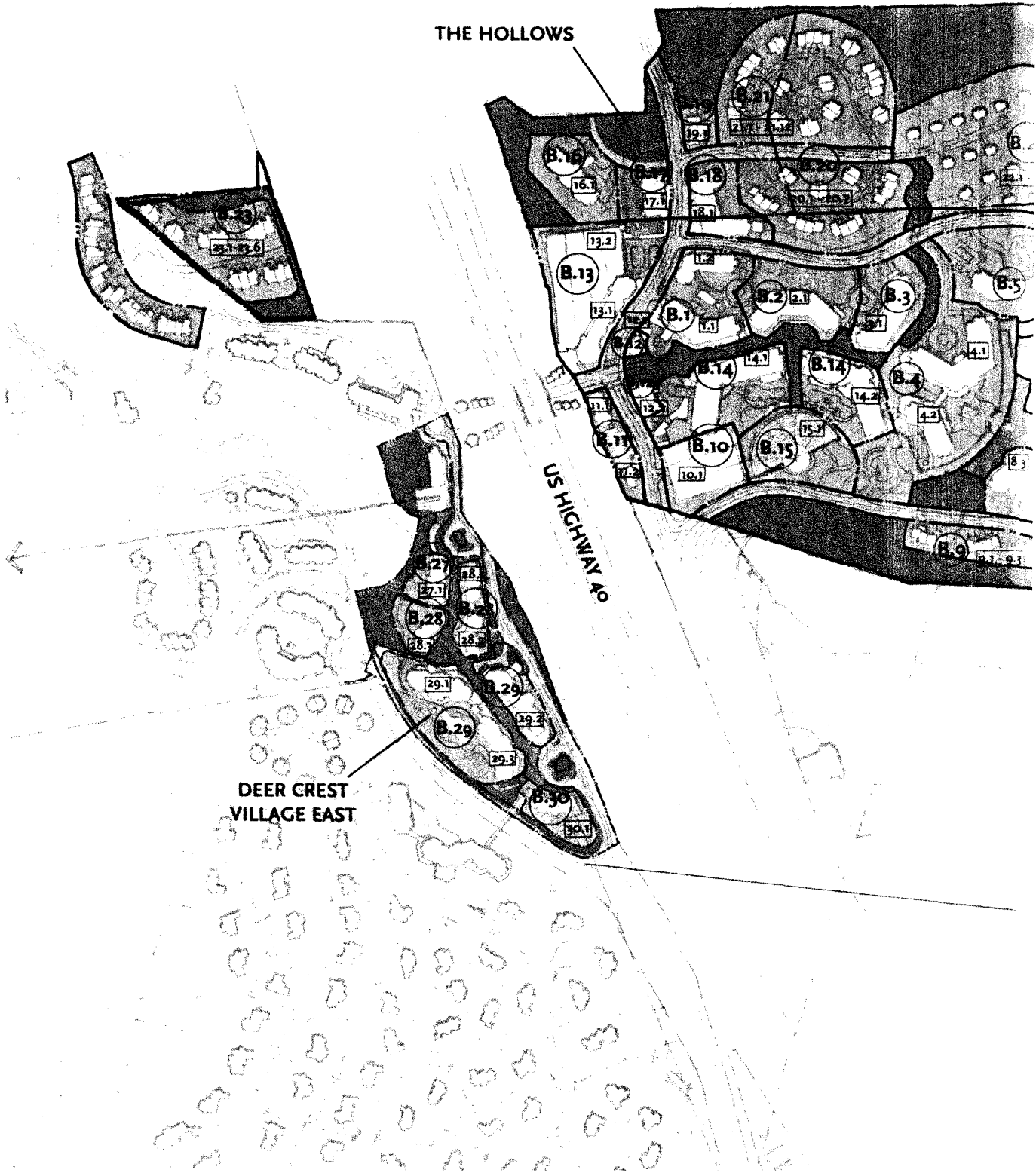


CONVENTION CENTER  
AMPHITHEATER

 B-18 DEER CREST VILLAGE  
RESORT FEATURES 











DEER CREST VILLAGE

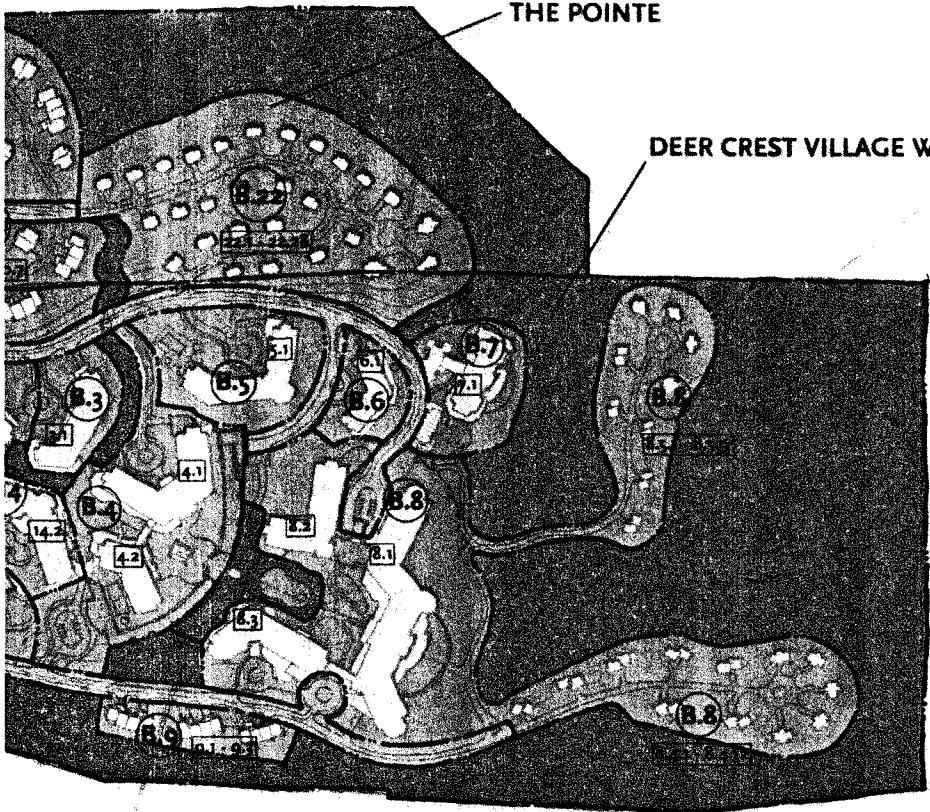


THE POINTE

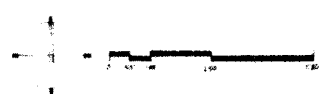
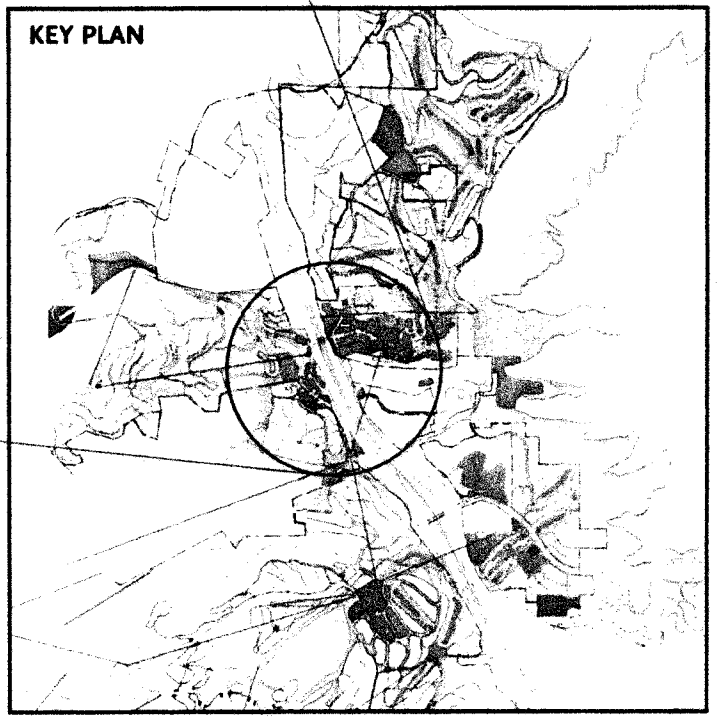
DEER CREST VILLAGE WEST

LEGEND

-  Parcel Buildings
-  Parcel Open Space
-  Parcel Hardscape
-  Pedestrian Streets
-  Streets and Roads
-  Village Open Space
-  Parcel Number
-  Building Number



KEY PLAN



B-19 DEER CREST VILLAGE OPEN SPACE



DEER VALLEY LAKESIDE RSPA

WATER FEATURE/  
SKATING POND &  
FIRE PIT

ANCHOR  
DESTINATION  
RESORT HOTEL  
COMPLEX

POTENTIAL TRANSFER  
LIFT FROM POCHE/  
DEERCREST BASE &  
DEERCREST VILLAGE

TRANSFER  
LIFT STATION

GOLF CLUB  
POTENTIAL  
RESIDENTIAL

FUTURE  
BEGINNER'S  
LIFT TO SKI  
SCHOOL

FUTURE  
SKI LIFT UP  
MOUNTAIN

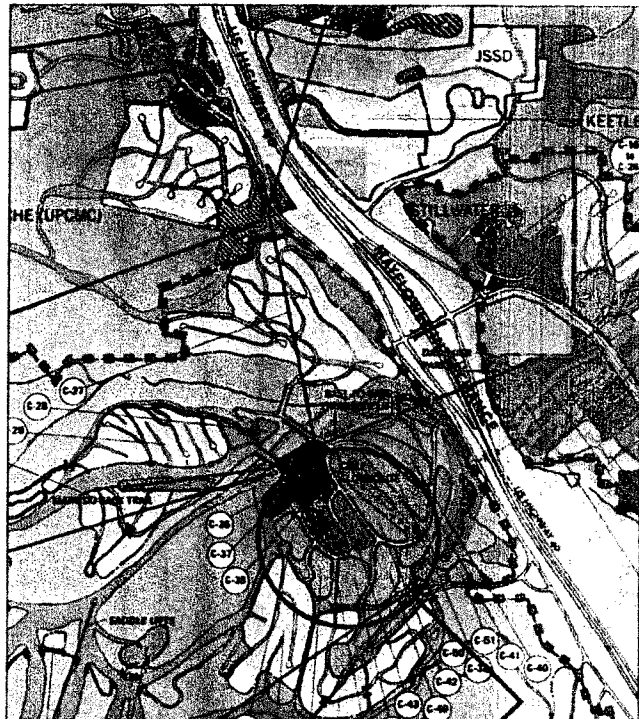
PEDESTRIAN  
STREET



ANCHOR  
HOTEL  
COMPLEX

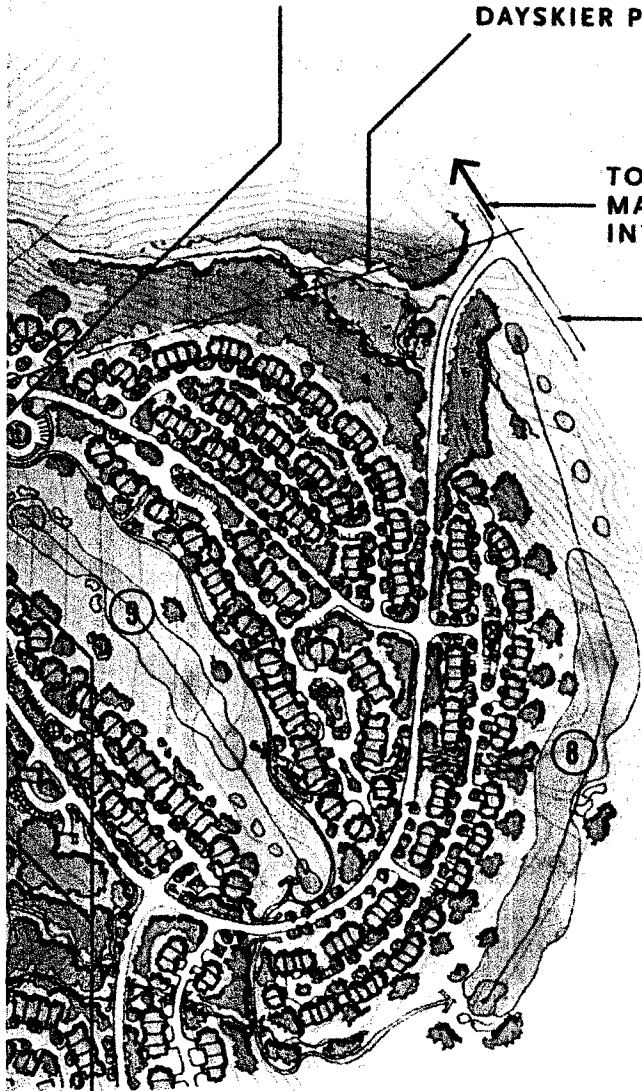
CAR/  
TRANSIT  
DROP-OFF/  
PICK-UP

KEY PLAN



MAYFLOWER SOUTH VILLAGE AREA

**FER TATION**  
**GOLF CLUB HOUSE POTENTIAL RESIDENTIAL OVER**  
**POTENTIAL TRANSFER LIFT FROM MAYFLOWER SOUTH EAST SIDE & DAYSKIER PARKING**  
**TO THE MAYFLOWER INTERCHANGE**  
**MAYFLOWER FRONTAGE ROAD**



**CAR/ TRANSIT DROP-OFF/ PICK-UP**

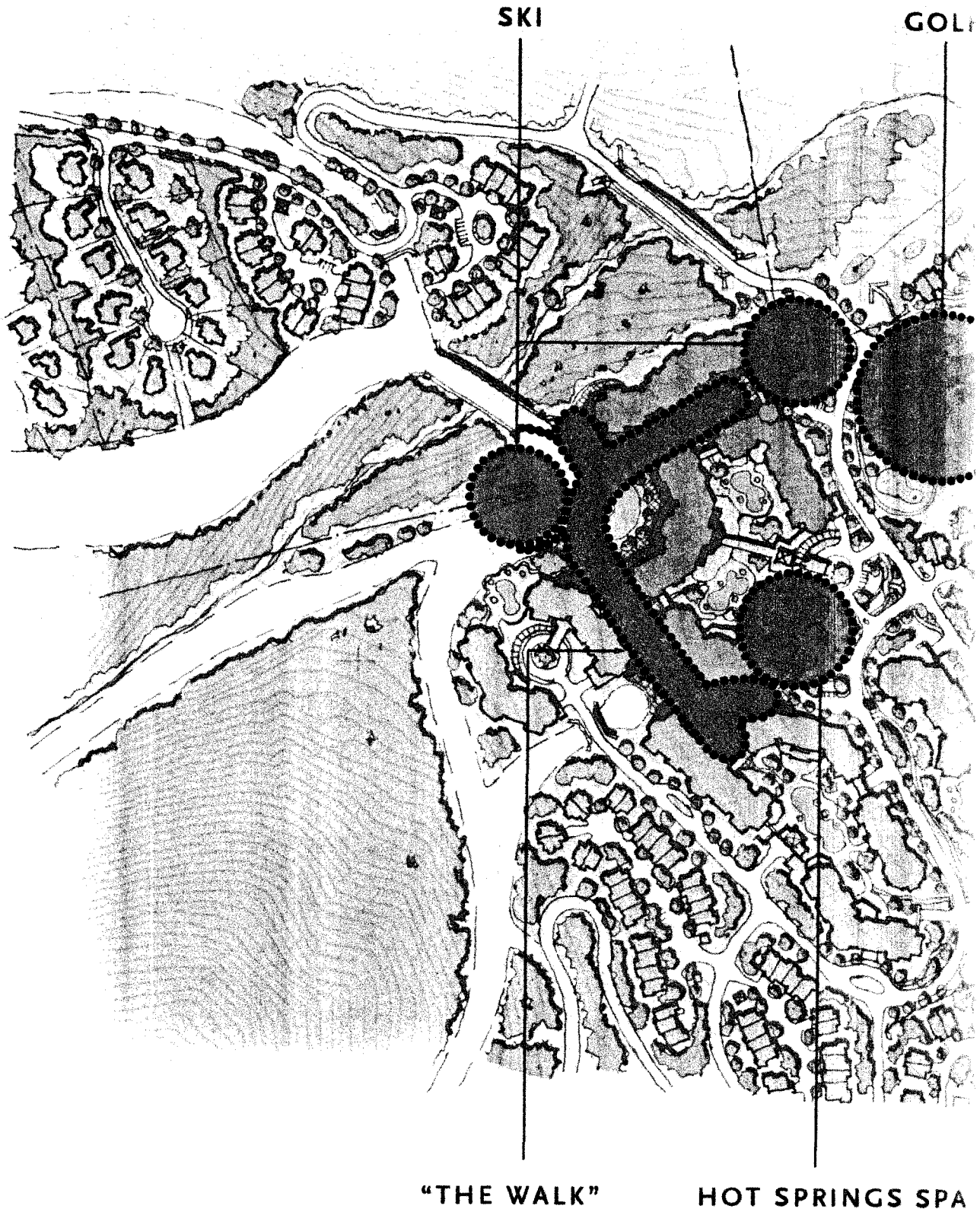
**LEGEND**

1	1-1.5 SKIER SERVICES
2	EXISTING
3	6-8 FLOORS
4	4-6 FLOORS
5	3-4 FLOORS
6	2-2.5 FLOORS
7	1-2 FLOORS/PODIUM
○	TRANSIT STATION TURN-AROUND

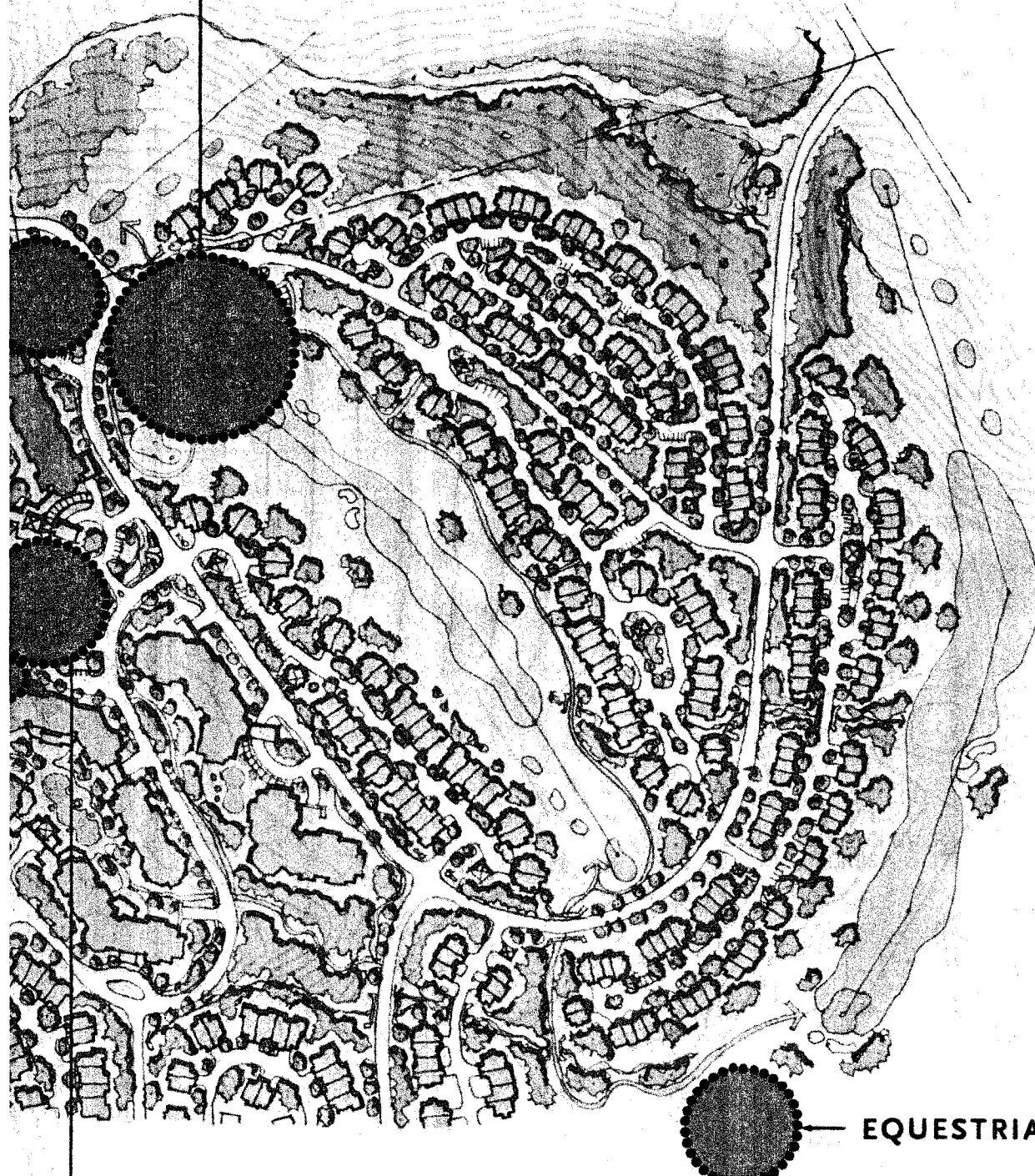
0 100 200 500


**B-20 MAYFLOWER SOUTH VILLAGE SITE PLAN**


DEER VALLEY LAKESIDE RSPA



GOLF



EQUESTRIAN

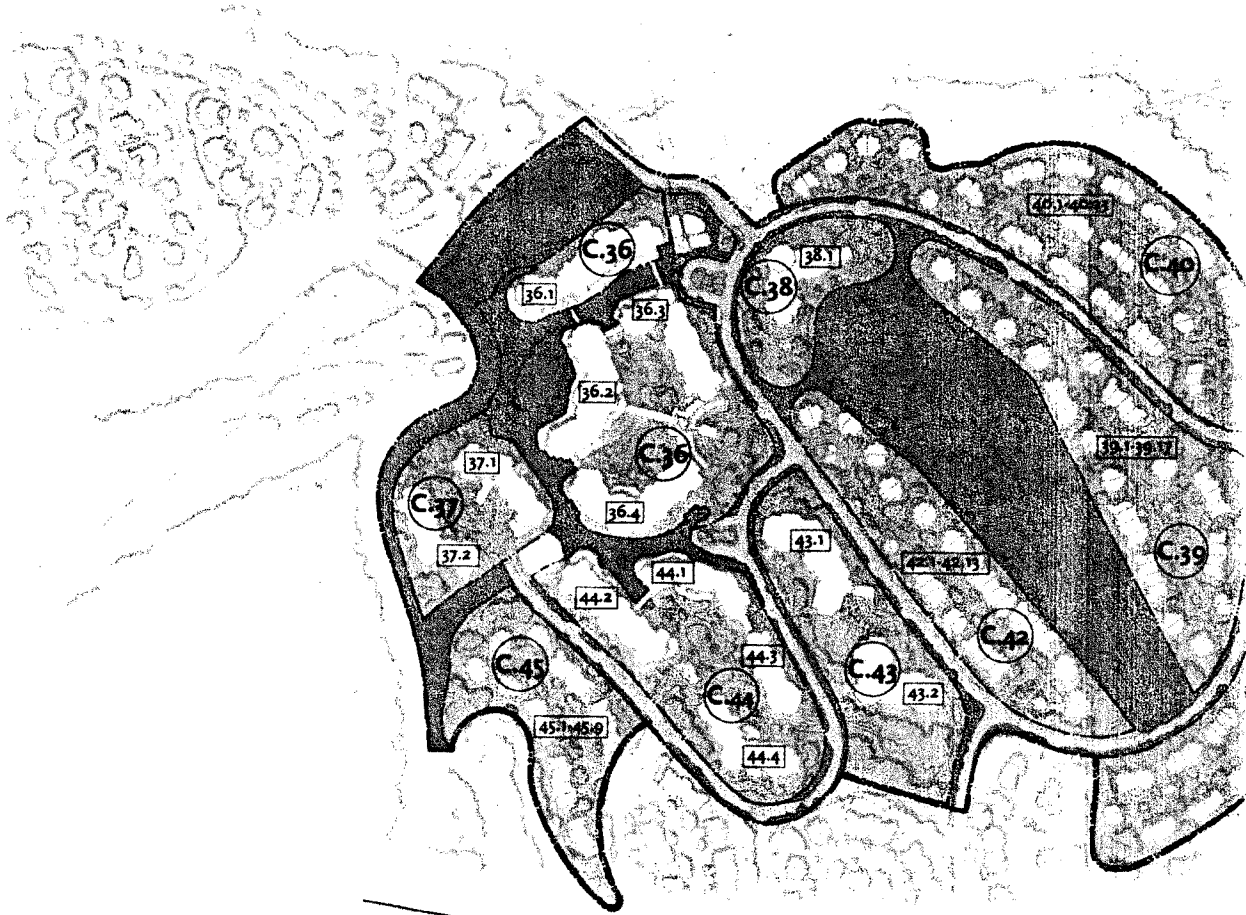
SPRINGS SPA

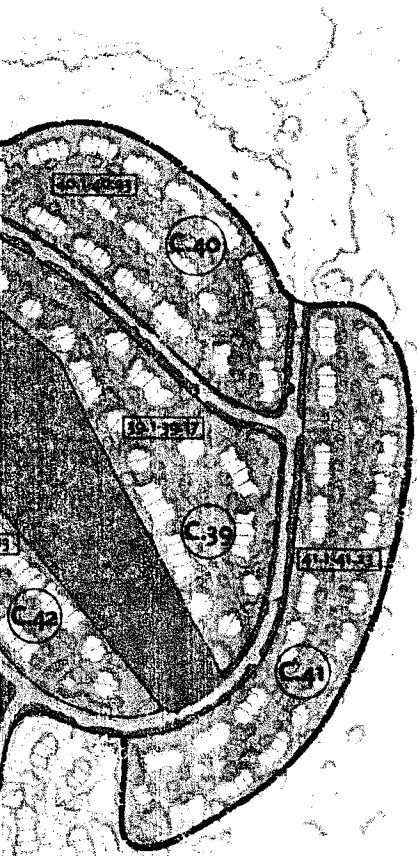


B-21 MAYFLOWER VILLAGE  
RESORT FEATURES











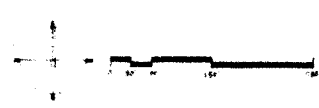
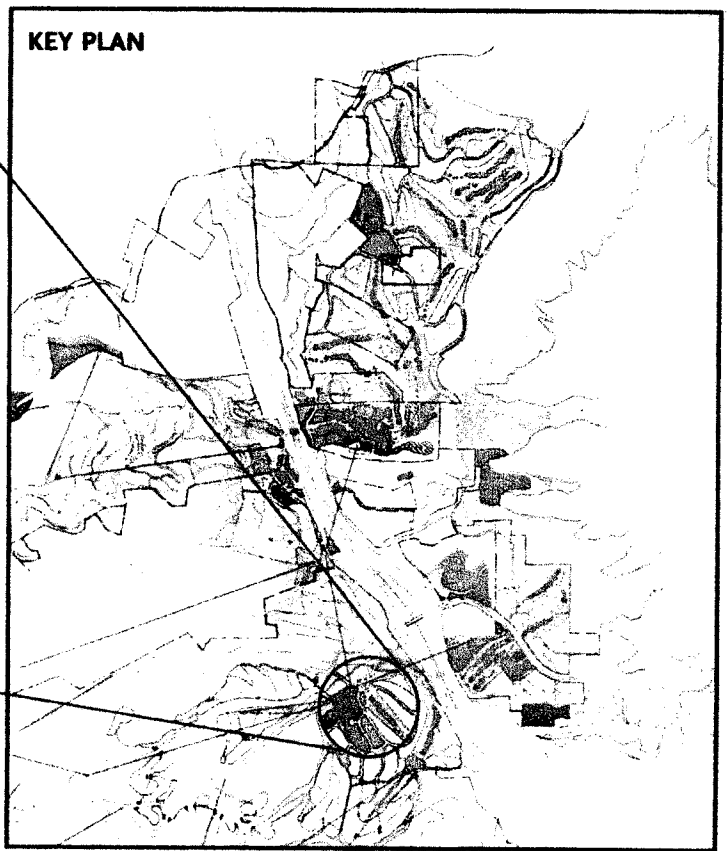
DEER VALLEY LAKESIDE RSPA





**LEGEND**

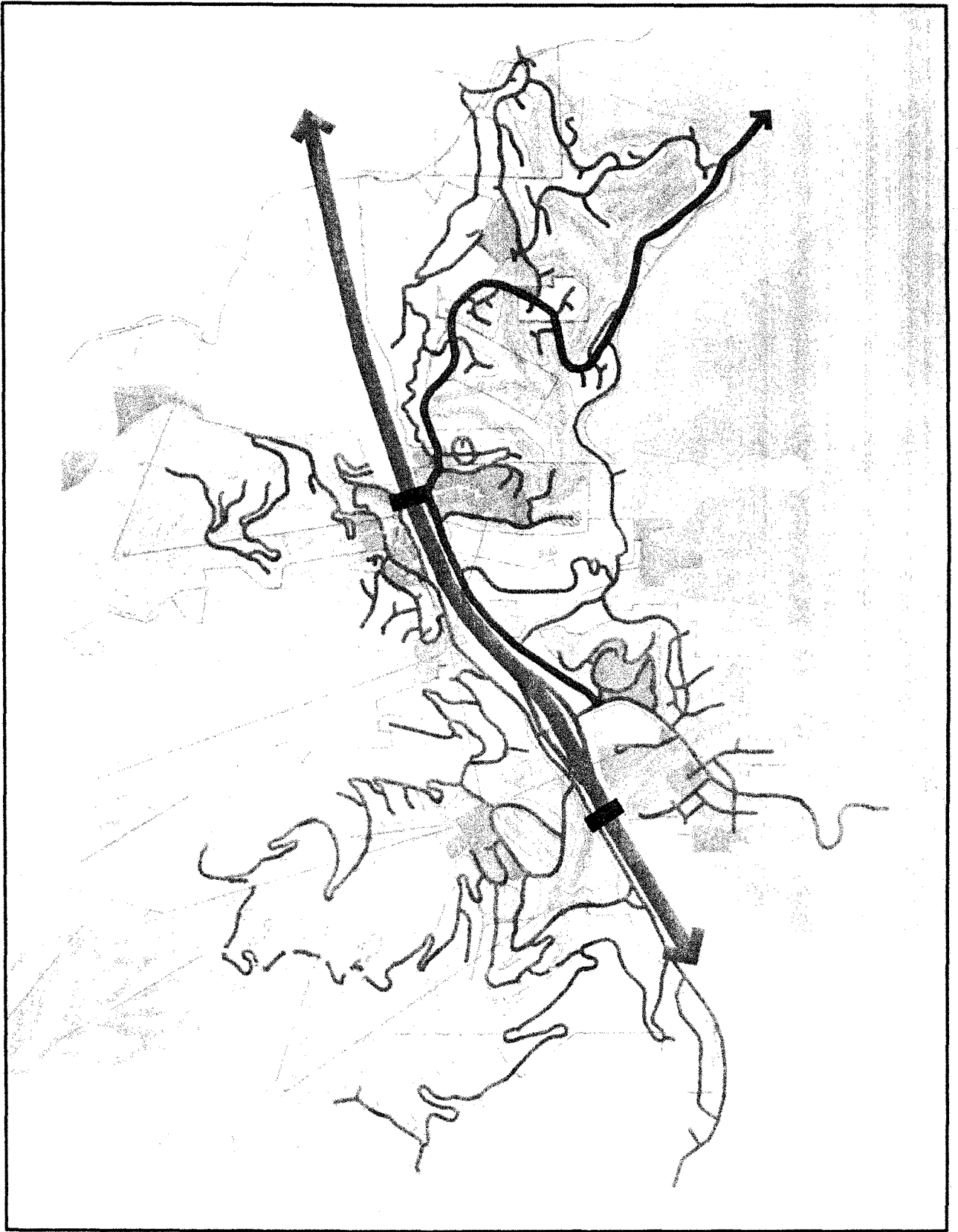
-  Parcel Buildings
-  Parcel Open Space
-  Parcel Hardscape
-  Pedestrian Streets
-  Streets and Roads
-  Village Open Space
-  Parcel Number
-  Building Number







 **B-22 MAYFLOWER SOUTH VILLAGE OPEN SPACE** 



DEER VALLEY LAKESIDE RSPA



**LEGEND**

	HWY 40
	PORTAL
	JORDANELLE PARKWAY
	CONNECTOR ROADS

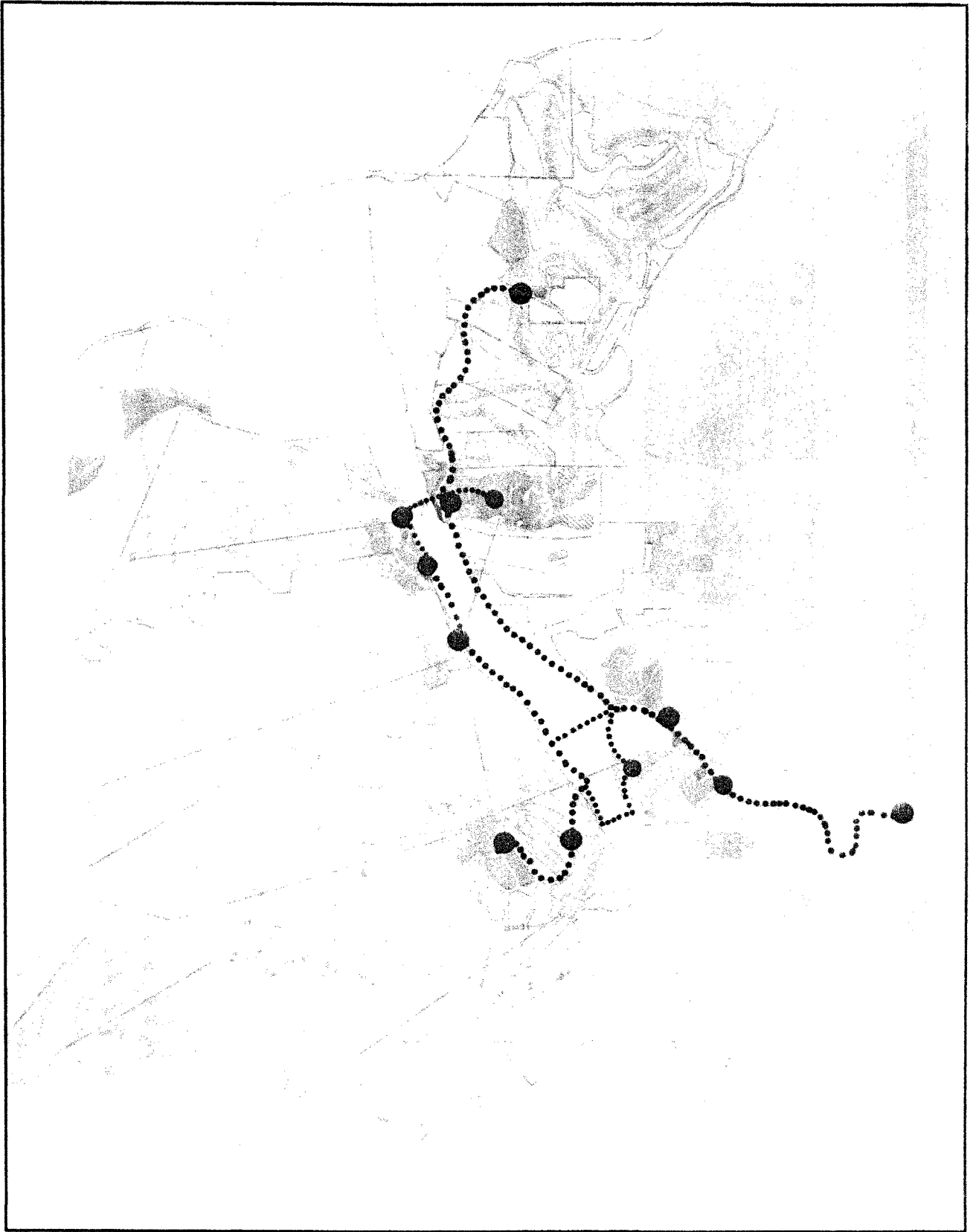
The proposed roads are shown in the drawing. The major road, the Jordanelle Parkway, and the Portal, are the only roads that span multiple landowners and will be shared costs on some basis.



B-23 ROADS  
MASTER PLAN

**IBI**  
GROUP

DEER VALLEY LAKESIDE RSPA

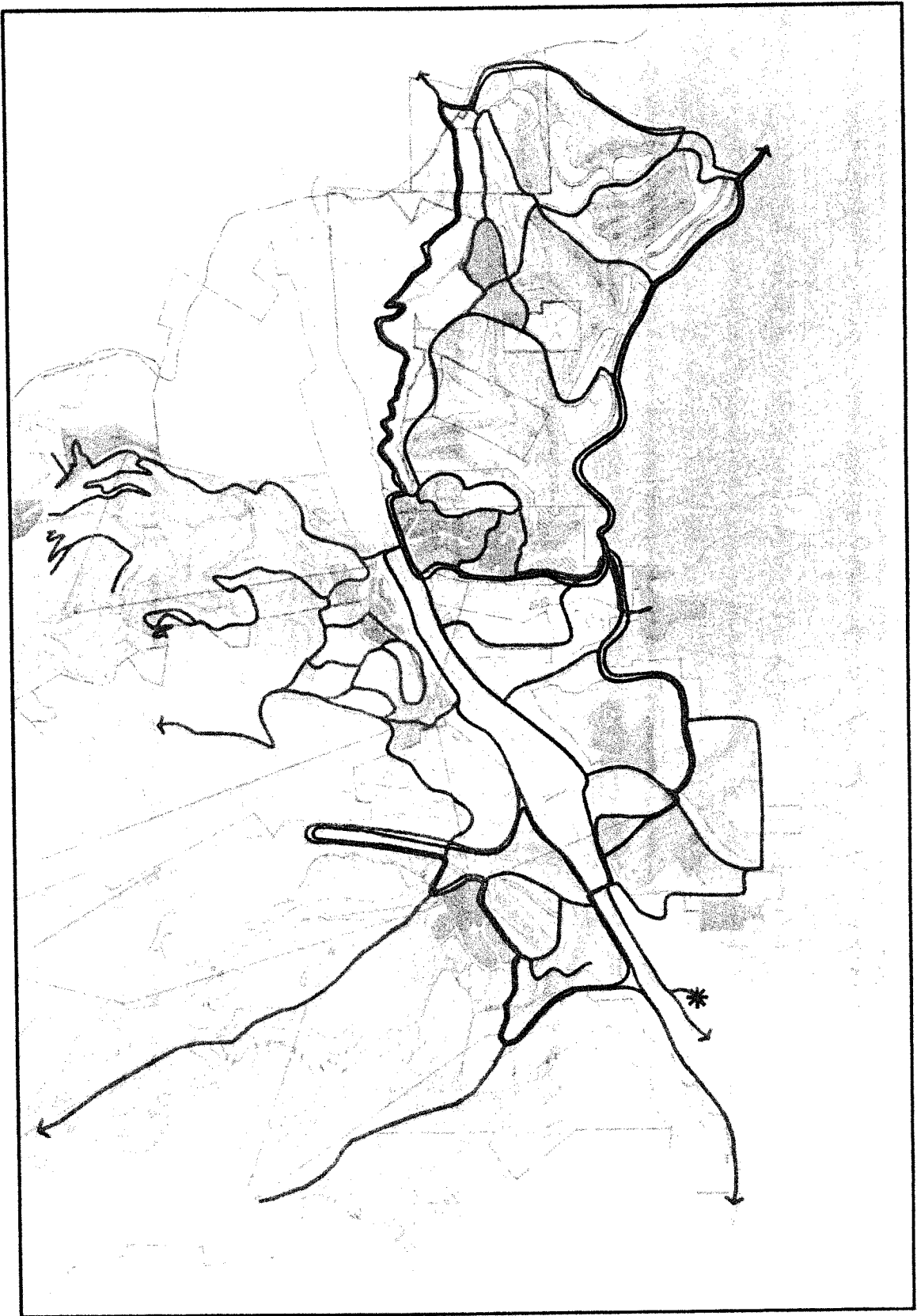


**LEGEND**








•••••	TRANSIT ROUTE
●	TRANSIT STOP

The transit system would likely be comprised of clean air buses. The trolleys themselves, would have a themed design and would be specially engineered to provide external ski racks and mountain bike racks for easy use. These buses could never reach speeds over about 35 miles per hour. The transit system would be phased as the density pods are developed.

DEER VALLEY LAKESIDE RSPA



**LEGEND**

	EQUESTRIAN TRAILS
	4' SOFT MOUNTAIN BIKE, PEDESTRIAN TRAILS
	6-8' SOFT PEDESTRIAN TRAILS
	6' HARD PEDESTRIAN, BICYCLE TRAILS
	EXISTING TRAILS
	PROPOSED PARK
	OVERLOOK

**Paved Trails**

As part of the master plan, the area will have a comprehensive and user friendly trail system. The paved trails, which will be easier trails suitable for family use, will accommodate cycling, hiking and equestrian use. They will also be usable for sleighs in the winter.

**Mountain Trails**

The more difficult Mountain trails will connect to the Park City, Deer Valley and Wasatch State Park trail system.

**Eventual Connection to Sundance and Provo Canyon**

When the entire system is completed in Wasatch County, trail users will be able to go all the way from the Jordanelle to Sundance and Provo Canyon.

**Trail Head Parking**

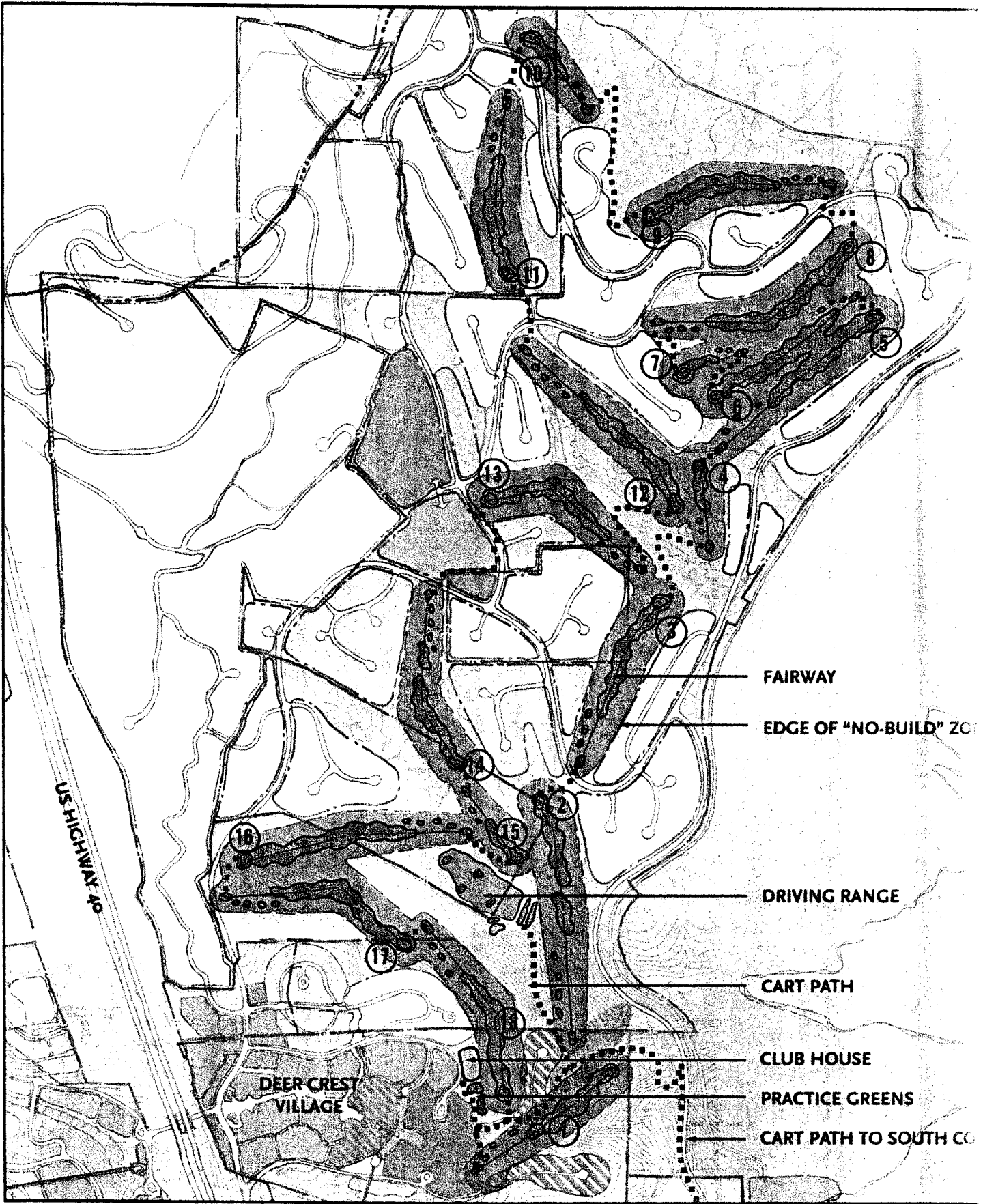
The parking next to Highway 40 in the Deer Crest Village area has approximately 450 parking spaces and will be available for parking by those who are using the trails.



B-25 TRAILS  
MASTER PLAN

IBI  
GROUP

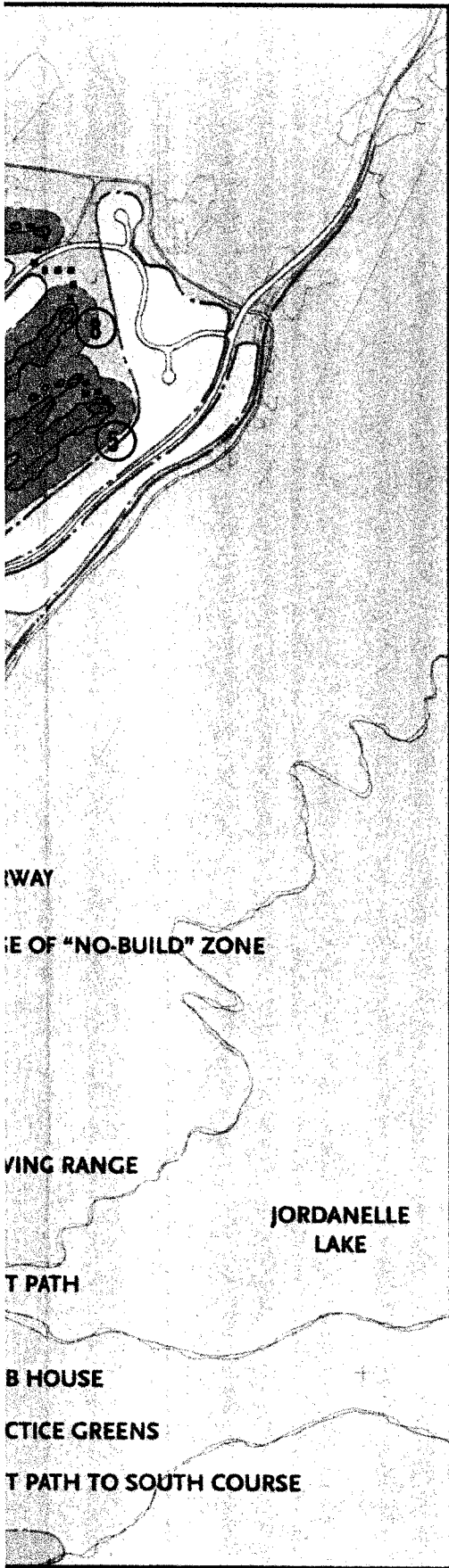
DEER VALLEY LAKESIDE RSPA



US HIGHWAY 90

DEER CREST VILLAGE

- FAIRWAY
- EDGE OF "NO-BUILD" ZONE
- DRIVING RANGE
- CART PATH
- CLUB HOUSE
- PRACTICE GREENS
- CART PATH TO SOUTH CO



**Course Routing Plan**

The initial routing plan of the North Golf Course takes advantage of the site's unique topography, mountain and lake views, and environmental features and sensitive areas. The beauty of the setting is stunning and the courses will provide an extraordinary golf experience. A scenic cart path will connect this course to the South Golf Course so that play may be enjoyed there as well. In the future a golf course architect will do final routing plan refinements and further detailed design.

**Signature Course**

The course will be 18-holes with a resort-style of play that will mirror the dramatic character of the site; yet offer a degree of forgiveness. It will measure approximately 7,300 yards with a 72 par. The preliminary strategy will be to engage a 'big name' golf course architect to enhance marketability of the course.

**Private Club**

It is intended that this will be a private club called the Deer Valley Country Club.

**Exclusivity**

The course and country club will be positioned as very exclusive.

**Finest Clubhouse**

The clubhouse and facilities will be located at the eastern edge of Deer Crest Village. They will be of the highest quality and will include a very high-end spa facility as well.

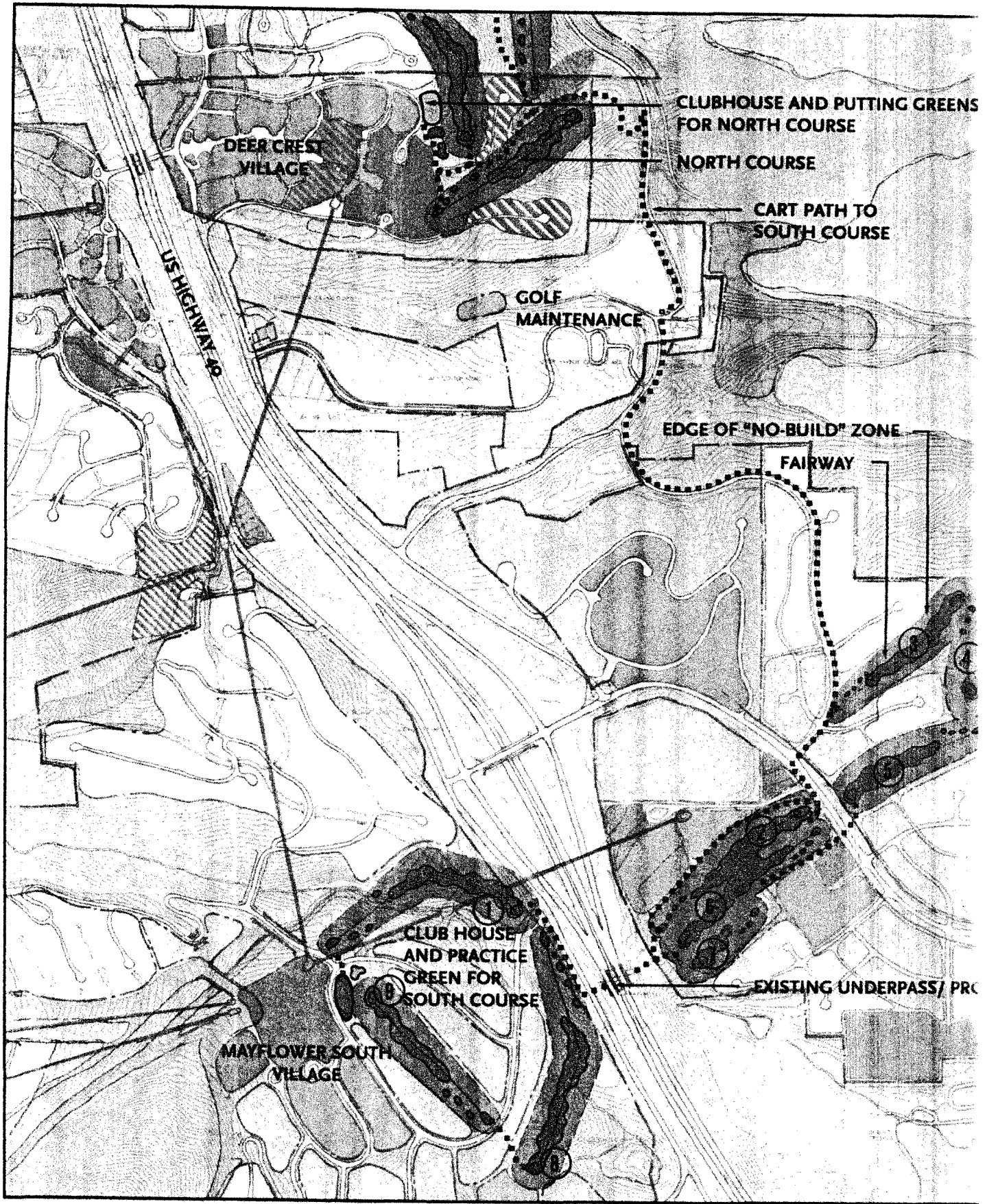
GOLF COURSE - NORTH		
Hole	Yards	Par
1	400	4
2	565	5
3	440	4
4	200	3
5	480	4
6	415	4
7	155	3
8	525	5
9	435	4
10	215	3
11	415	4
12	535	5
13	445	4
14	440	4
15	190	3
16	550	5
17	490	4
18	450	4
<b>Totals</b>	<b>7,345</b>	<b>72</b>

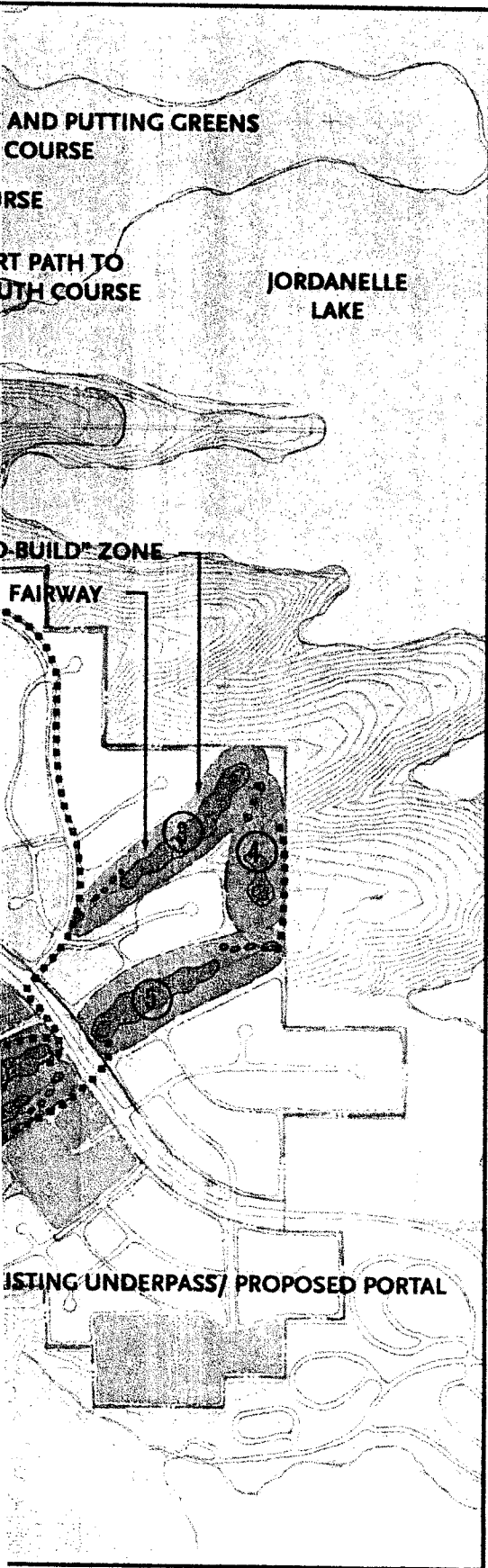


**B-26 GOLF ROUTING  
NORTH**









**Course Routing Plan**

The initial routing plan of the South Golf Course also takes advantage of the site's topography, views, and environmental features. Several holes of the course are set overtop of the mine tailings clean up site, providing an opportunity to add land-form features that will create a more pleasing landscape. In the future a golf course architect will do final routing plan refinements and further detailed design.

**9 Holes**

The course will be 9-holes and will also offer a resort-style of play that will mirror the dramatic character of the site yet offer a degree of forgiveness. It will measure approximately 3,500 yards with a 36 par. Holes will be located on both sides of Highway 40 and an existing underpass will be utilized to connect the two. The course will be connected to the North Golf Course via a scenic cart path so that play may be enjoyed there as well.

**Clubhouse**

A smaller-scale clubhouse will be located within the Mayflower South Village so that players may start from this area.

GOLF COURSE - SOUTH		
Hole	Yards	Par
1	525	5
2	385	4
3	385	4
4	250	3
5	370	4
6	350	4
7	220	3
8	585	5
9	400	4
<b>Totals</b>	<b>3,470</b>	<b>36</b>



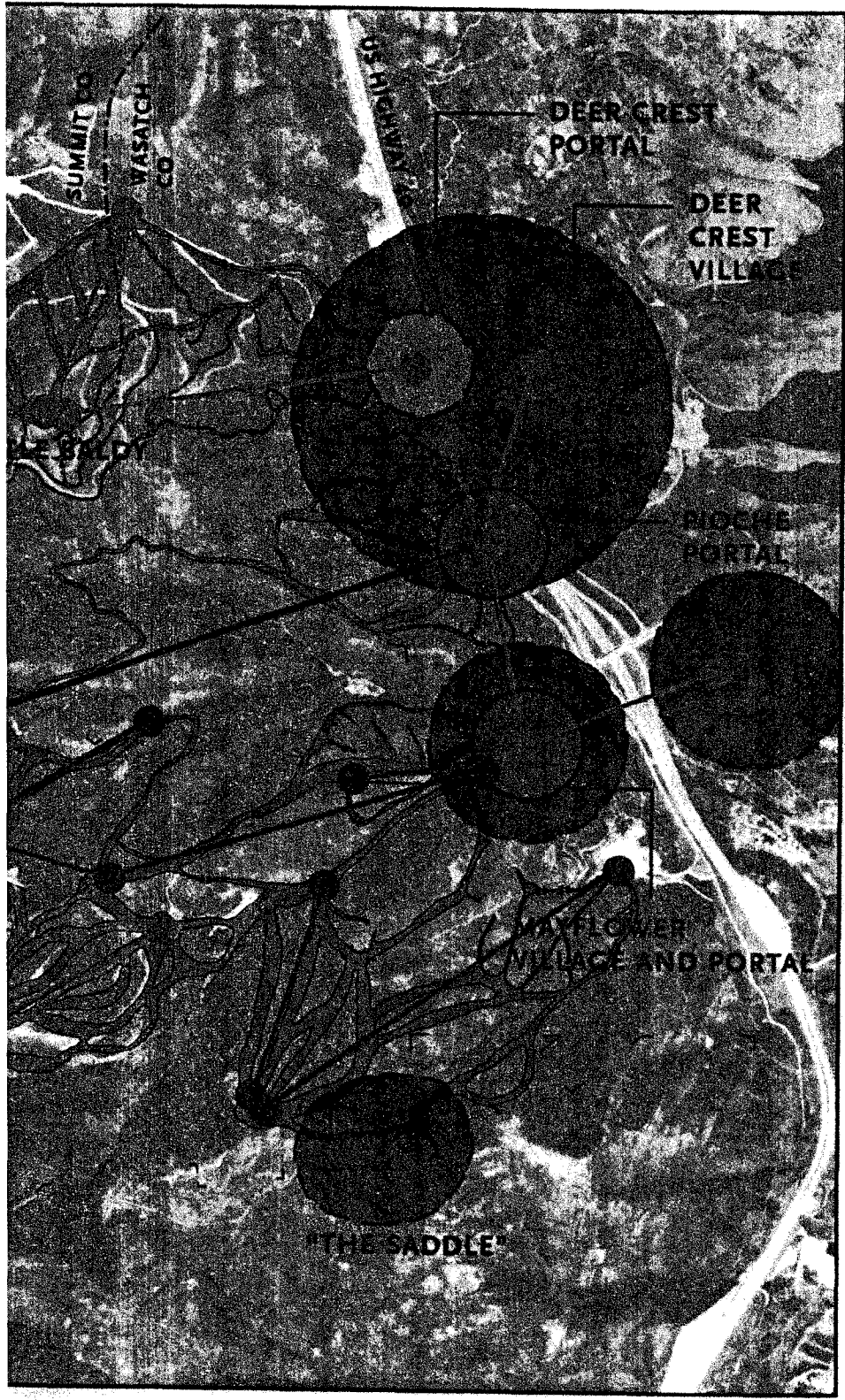
B-27 GOLF ROUTING  
SOUTH







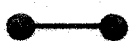

DEER VALLEY LAKE SIDE RSPA



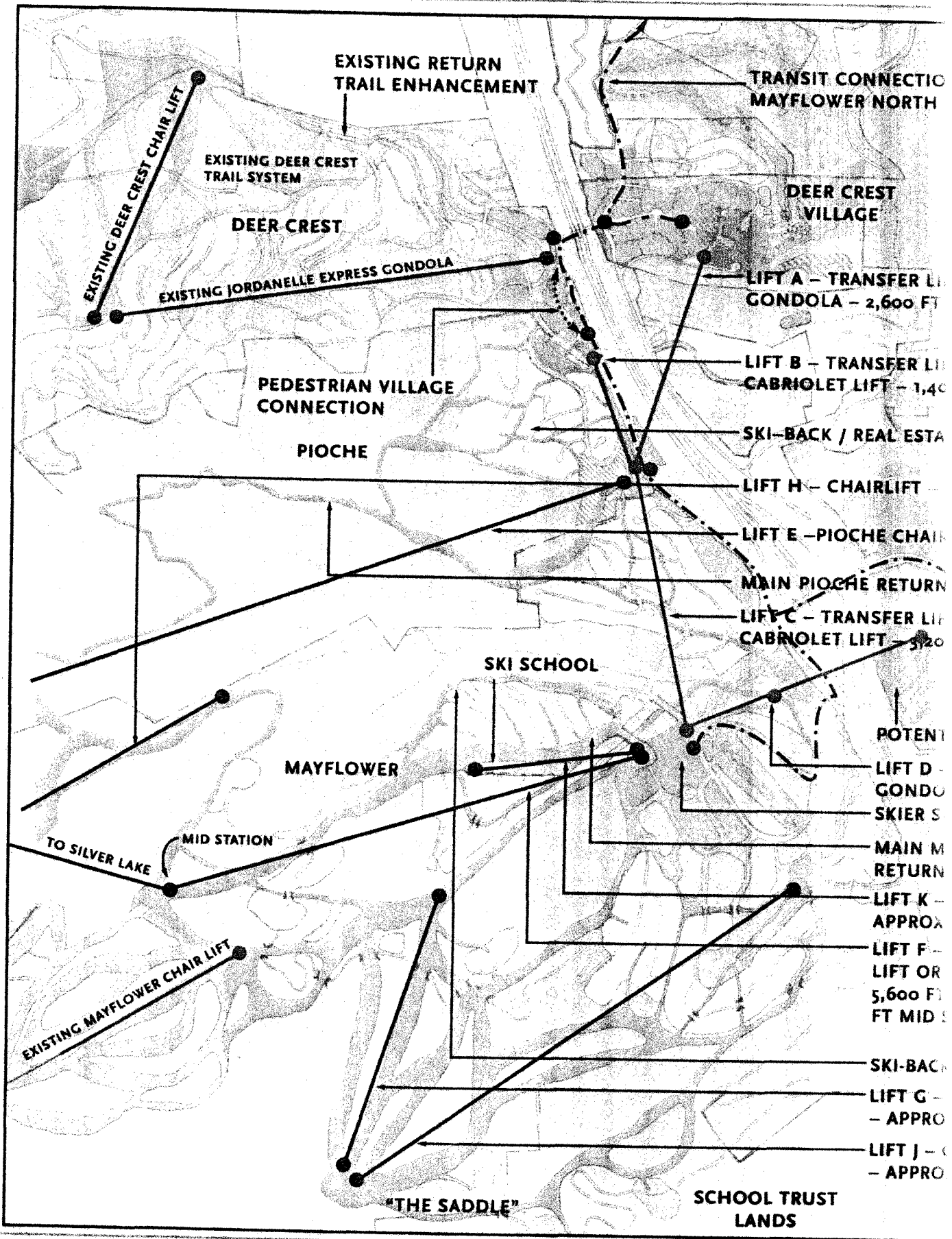
CONNECTION BETWEEN DENSITY PODS AND SKIING

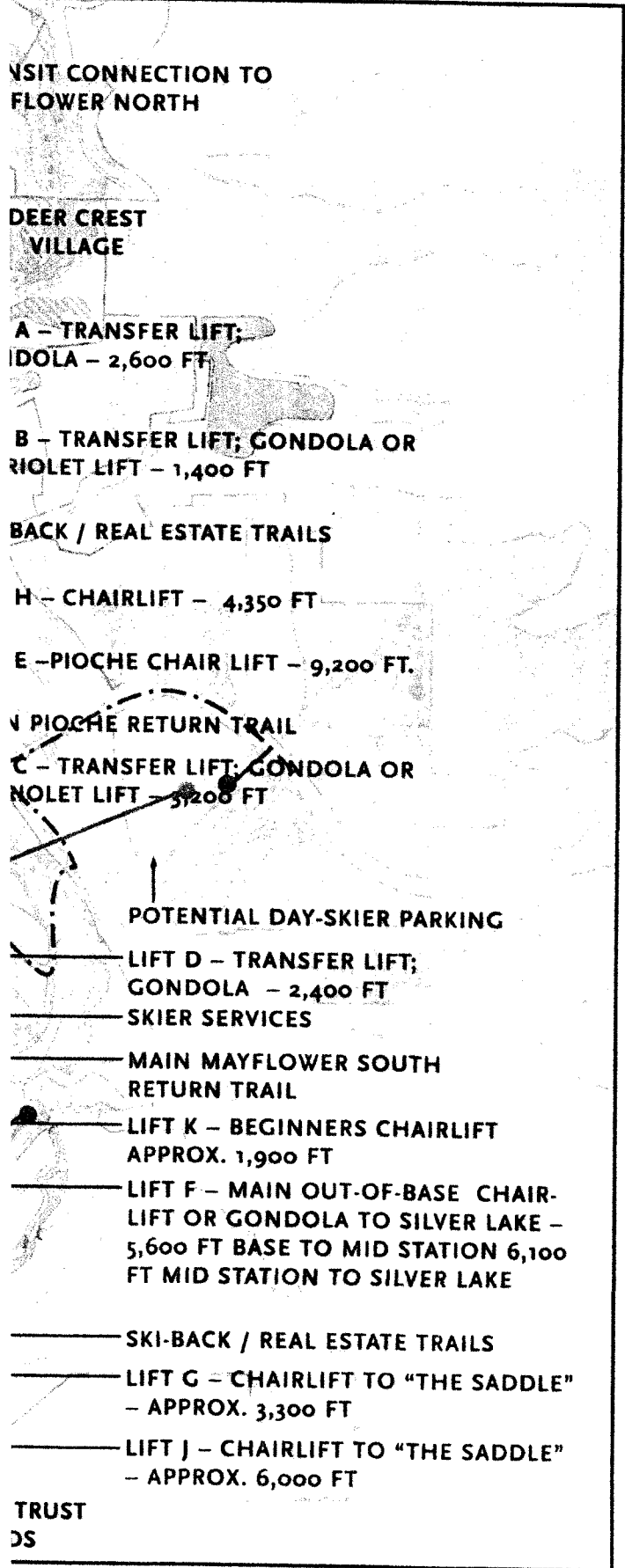


**LEGEND**



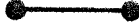



-  EXISTING SKI AREA PORTAL
-  FUTURE SKI AREA PORTAL
-  FUTURE DENSITY POD
-  EXISTING SKI LIFT
-  FUTURE SKI LIFT
-  FUTURE TRANSFER LIFT

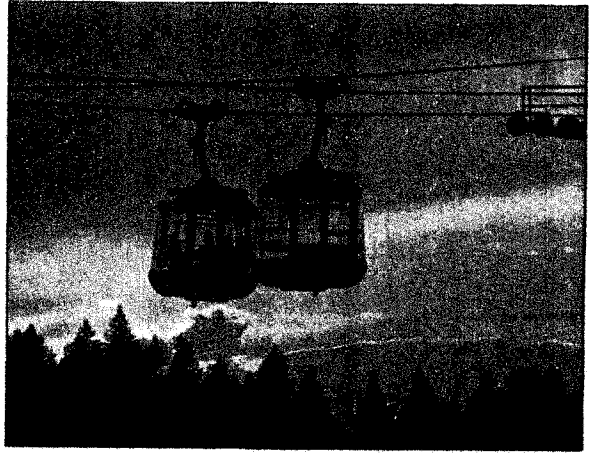
DEER VALLEY LAKESIDE RSPA





**LEGEND**


-  EXISTING SKI TRAIL
-  FUTURE SKI TRAIL
-  EXISTING SKI LIFT
-  FUTURE SKI LIFT
-  FUTURE TRANSFER LIFT
-  PROPOSED TROLLEY SYSTEM




**POTENTIAL SKI SYSTEM ENHANCEMENTS**

These potential new enhancements will be added over time as the individual density pods develop. Each of these corridors will be further engineered and actual lift sites or transit routes will be identified as the development occurs. Each enhancement will be reviewed for its financial feasibility.

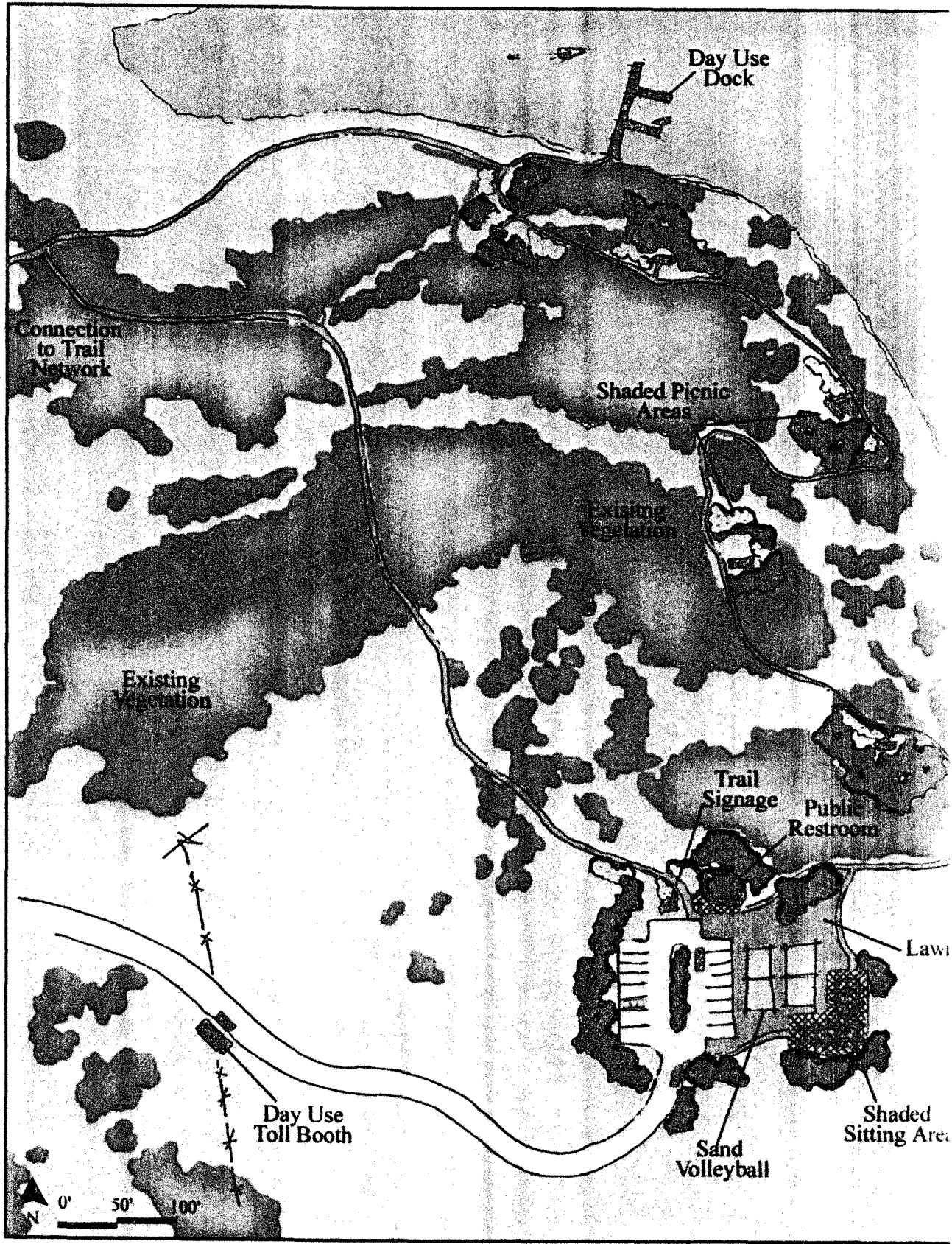
SE GROUP

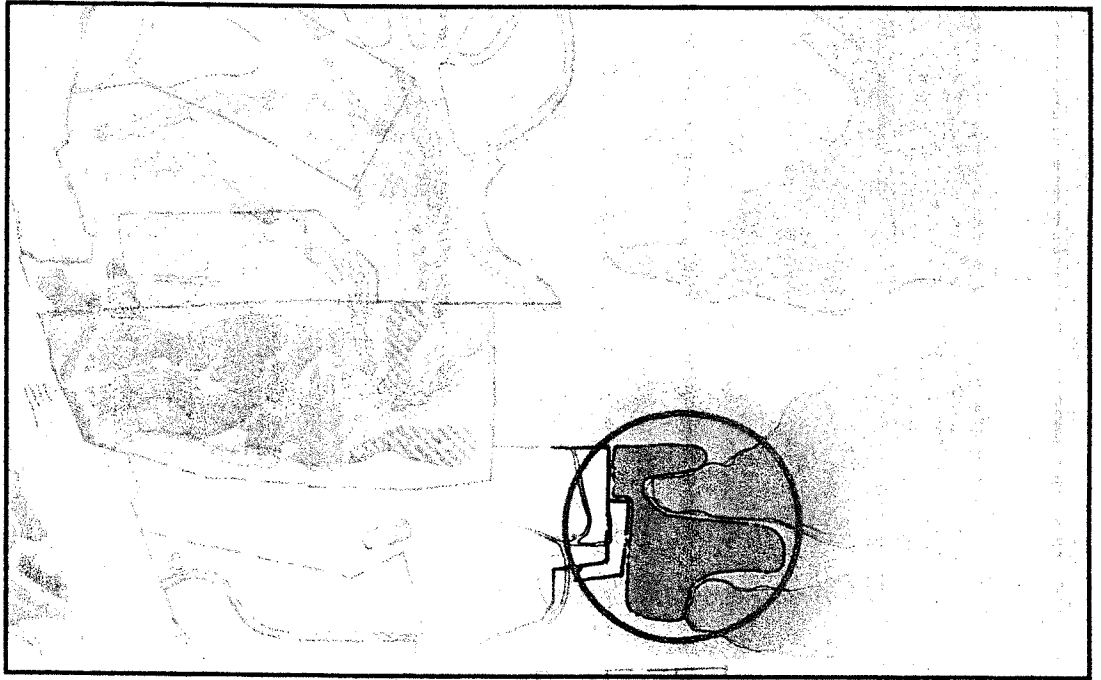
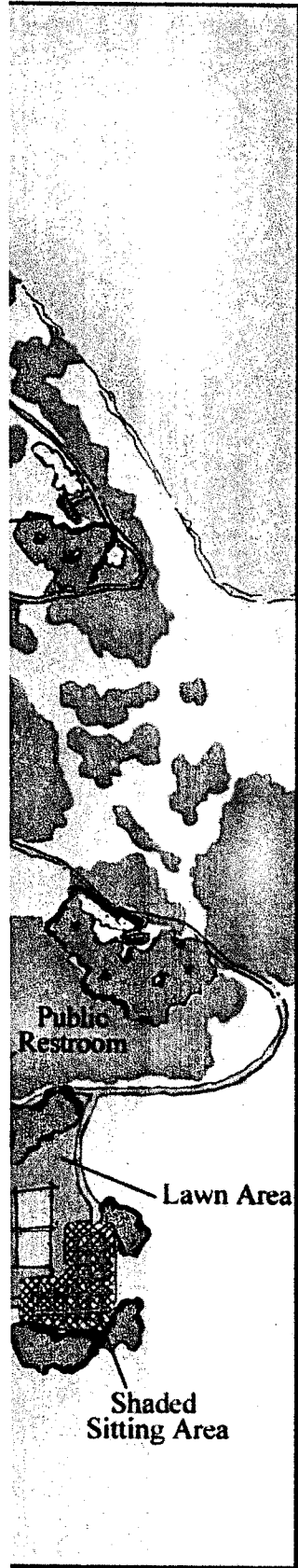


**B-29 SKI ENHANCEMENTS PLAN**



DEER VALLEY LAKESIDE RSPA





The day use beach facility will be constructed in collaboration with the Utah State Department of Natural Resources and the Bureau of Reclamation.

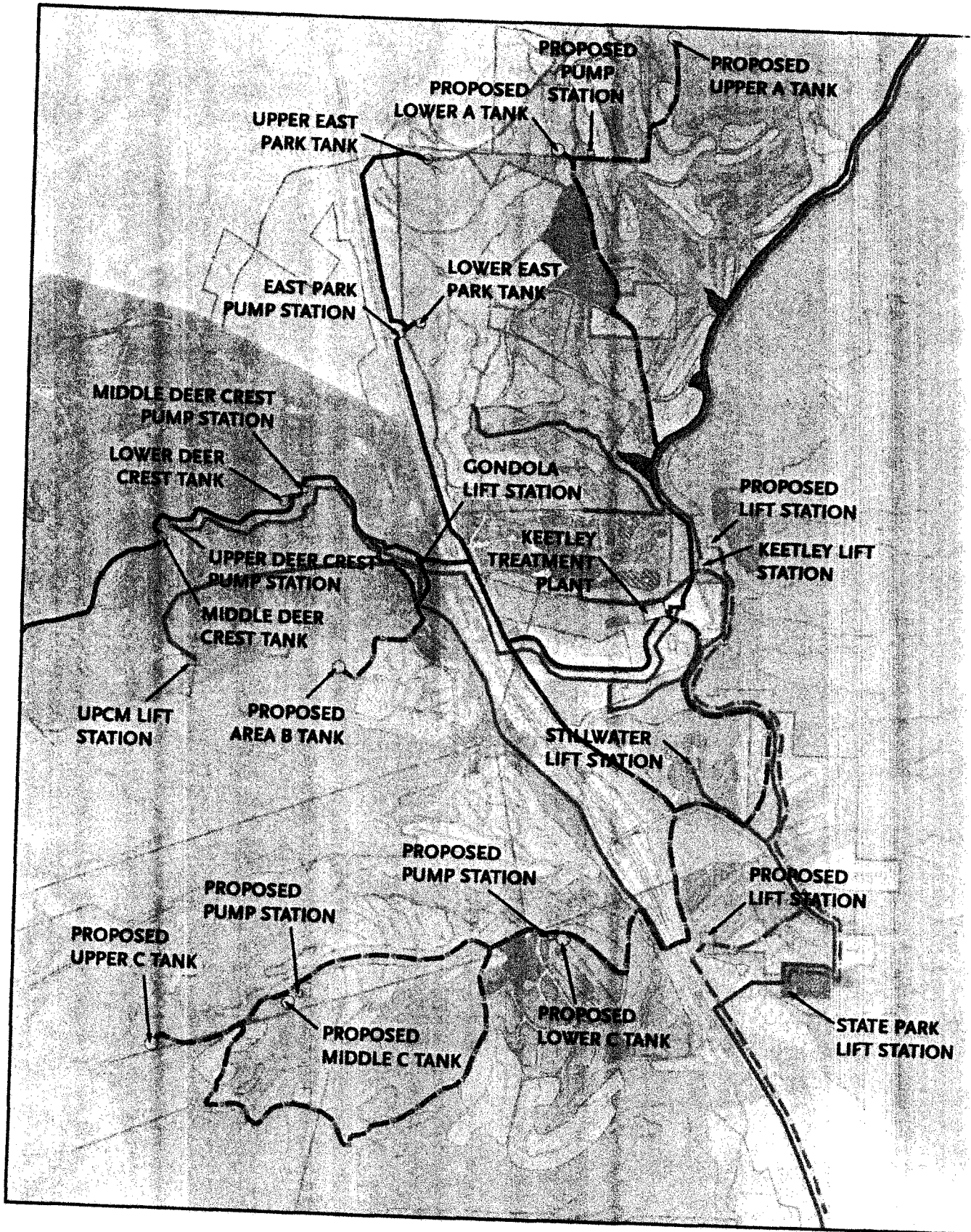


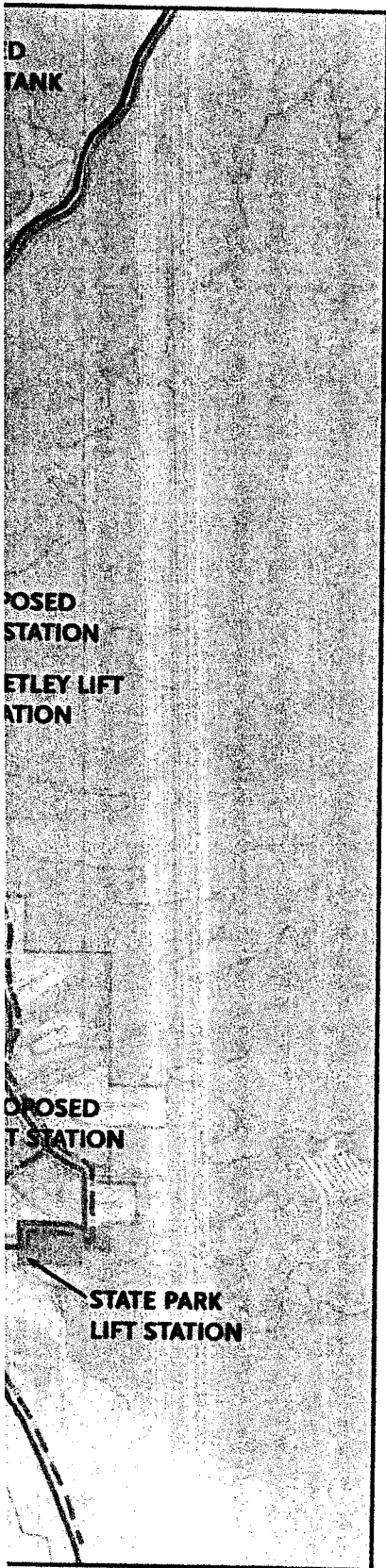
B-30 DAY-USE AREA

IBI  
GROUP



DEER VALLEY LAKESIDE RSPA





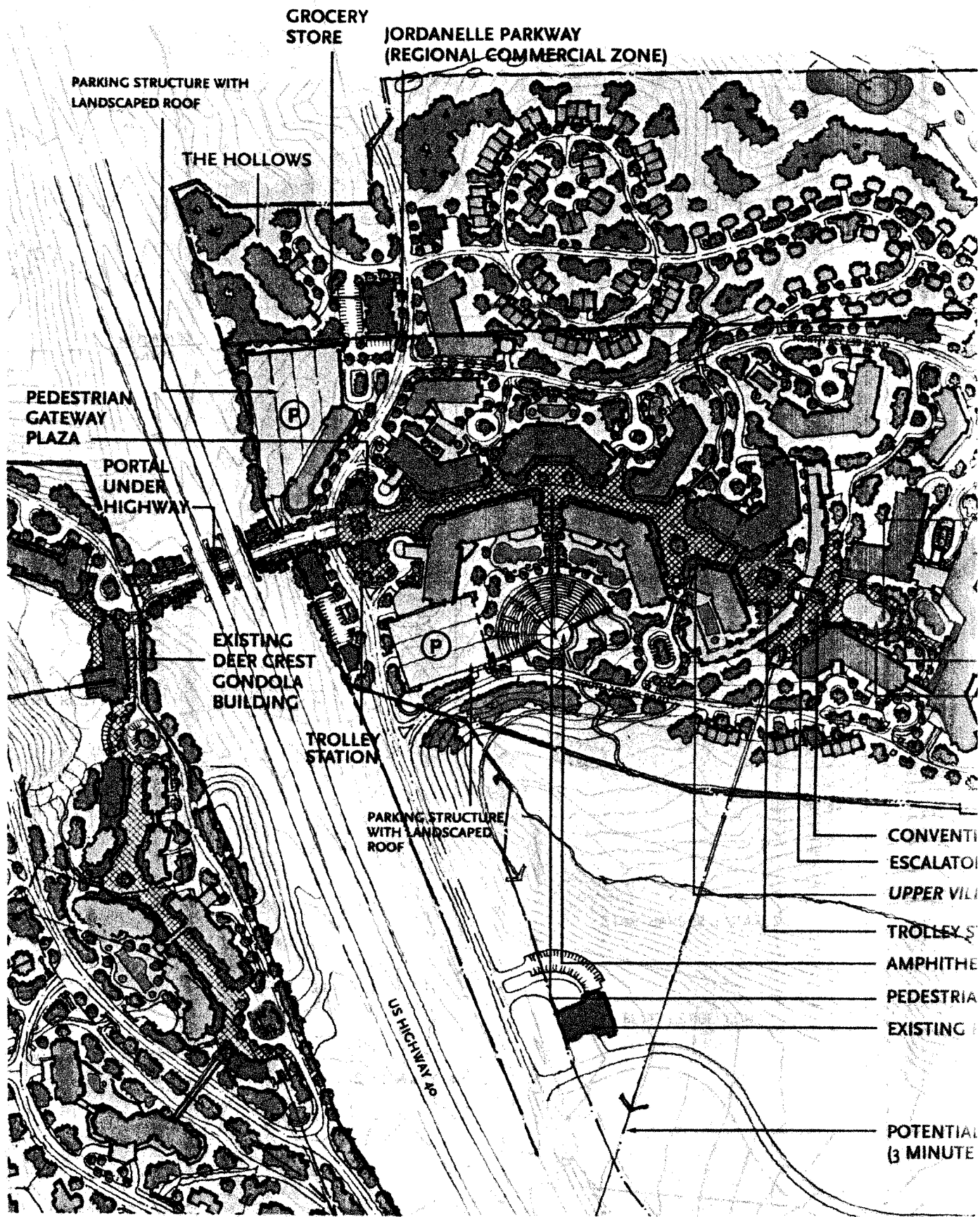
**Notes:**

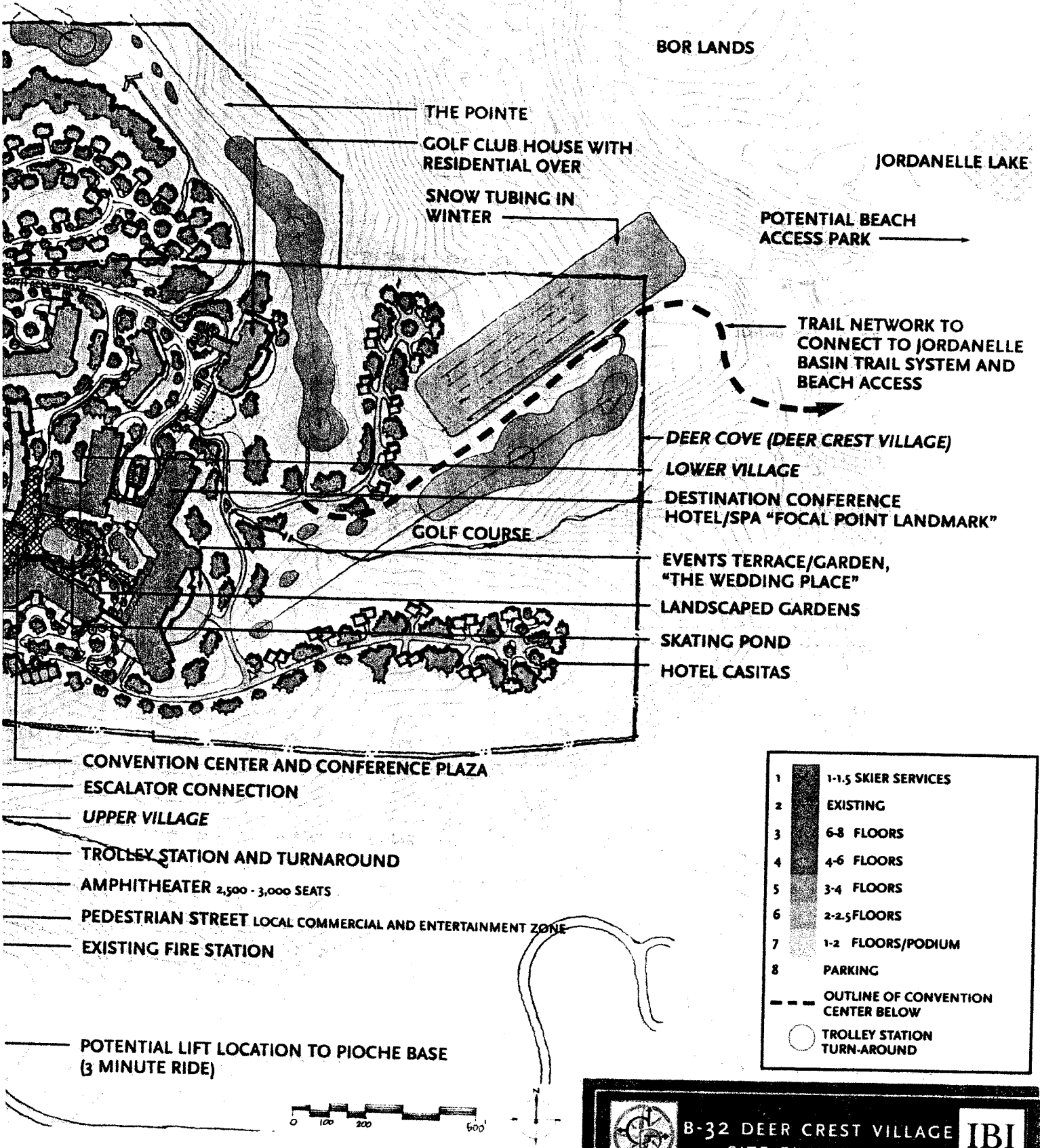
1. The Culinary water, Sewer plans and Secondary water system plan were produced by JSSD. Actual locations of infrastructure improvements are subject to final agreements and review by affected agencies and landowners.
2. Detention Basin locations are taken from earlier studies. Actual locations of infrastructure improvements are subject to final agreements and review by affected agencies and landowners.

**LEGEND**

	EXISTING WATER LINE
	PROPOSED WATER LINE
	PROPOSED SECONDARY WATER LINE
	EXISTING SEWER LINE
	PROPOSED SEWER LINE
	EXISTING PUMP STATION
	PROPOSED PUMP STATION
	EXISTING WATER TANK
	PROPOSED WATER TANK
	EXISTING SEWER LIFT STATION
	PROPOSED SEWER LIFT STATION
	DET BASINS

DEER CREST VILLAGE





1	1-1.5 SKIER SERVICES
2	EXISTING
3	6-8 FLOORS
4	4-6 FLOORS
5	3-4 FLOORS
6	2-2.5 FLOORS
7	1-2 FLOORS/PODIUM
8	PARKING
- - -	OUTLINE OF CONVENTION CENTER BELOW
○	TROLLEY STATION TURN-AROUND

**B-32 DEER CREST VILLAGE**  
**SITE PLAN DETAIL**

DEER VALLEY LAKESIDE—DEER CREST VILLAGE PLAN

PORTAL UNDER HIGHWAY TO DEER CREST  
 CONNECTION OF DEER VALLEY/DEER CREST TRAILS TO JORDANELLE BASIN TRAIL NETWORK & JORDANELLE LAKE

JORDANELLE PARKWAY  
 PARKING & REGIONAL  
 COMMERCIAL ZONE

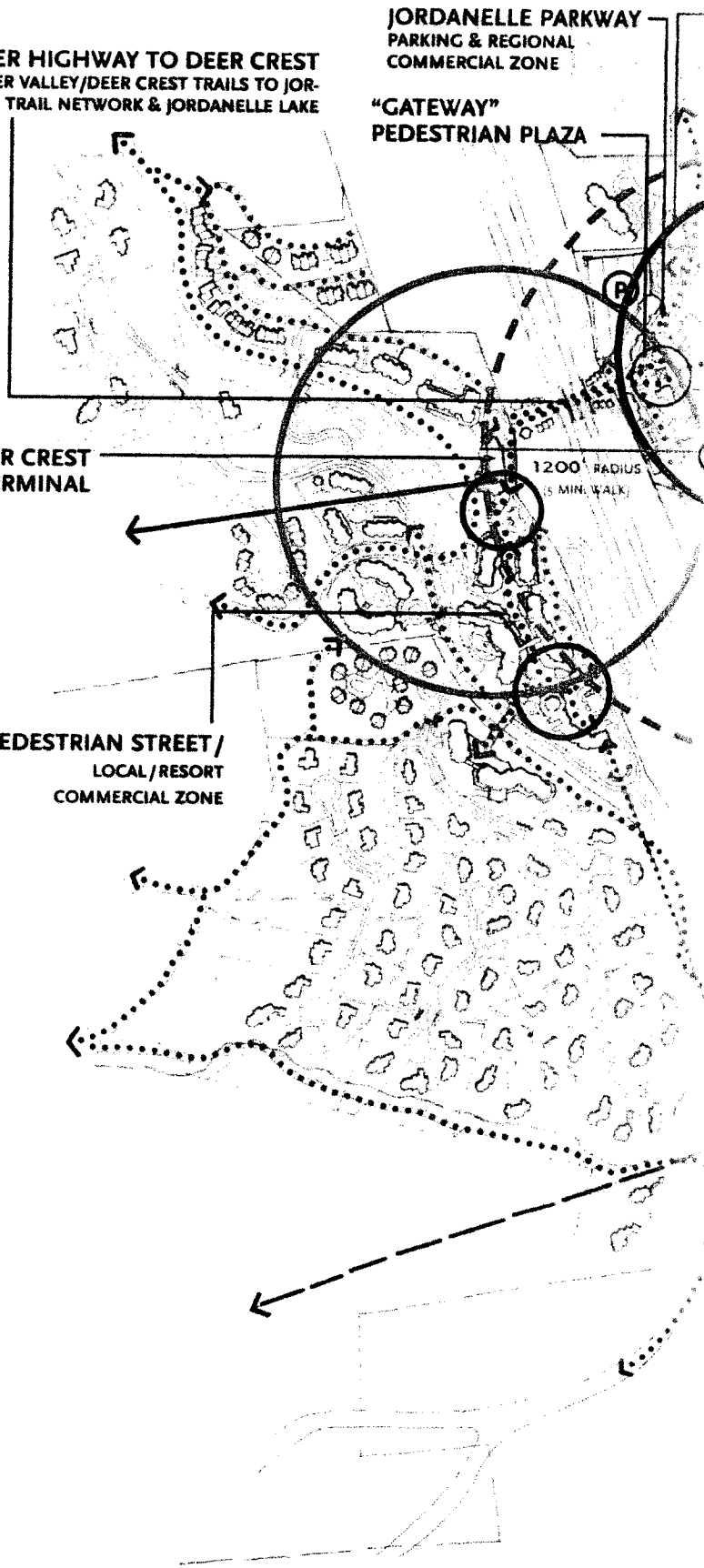
"GATEWAY"  
 PEDESTRIAN PLAZA

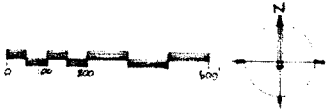
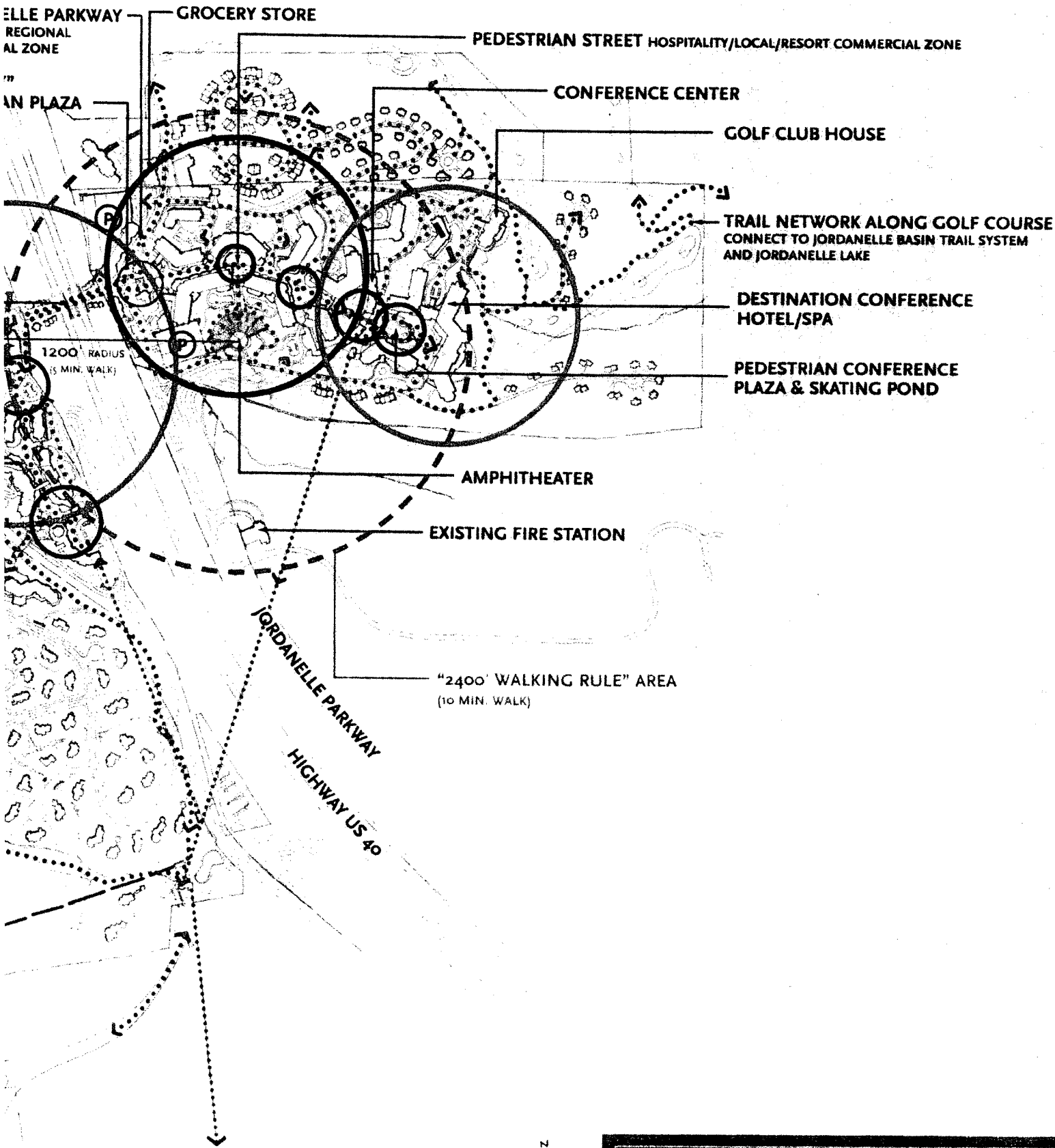
EXISTING DEER CREST  
 GONDOLA TERMINAL

1200' RADIUS  
 (5 MIN. WALK)

PEDESTRIAN STREET/  
 LOCAL/RESORT  
 COMMERCIAL ZONE

- ..... PRIMARY CIRCULATION
- ..... SECONDARY CIRCULATION
- ..... TERTIARY CIRCULATION (TRAILS)
- PEDESTRIAN NODES
- DEER VALLEY SKI & MOUNTAIN BIKING ACTIVITY ZONE
- PEDESTRIAN STREET RETAIL, DINING, ENTERTAINMENT ZONE
- CONFERENCE, FAMILY SKATE, GOLF & TRAILS ACTIVITY ZONE
- Ⓟ PUBLIC PARKING STRUCTURES
- EXISTING LIFTS
- - - PROPOSED LIFTS
- ..... POTENTIAL FUTURE LIFTS


















**B-33 DEER CREST VILLAGE**  
 PEDESTRIAN CIRCULATION


**IBI**  
 GROUP

DEER VALLEY LAKESIDE—DEER CREST VILLAGE PLAN

	US HIGHWAY 40
	PRIMARY ROADS
	SECONDARY ROADS
	TERTIARY SITE DEVELOPMENT/ PARKING ACCESS
	EMERGENCY VEHICLE ACCESS ONLY
	EMERGENCY VEHICLE / GOLF CART ACCESS
	GOLF CART TRAIL
	DEER CREST TROLLEY
	TROLLEY TURN-AROUND
	TRANSIT ROUTE
	TRANSIT STOP
	PUBLIC PARKING STRUCTURES

EXISTING DEER  
CREST GONDOLA

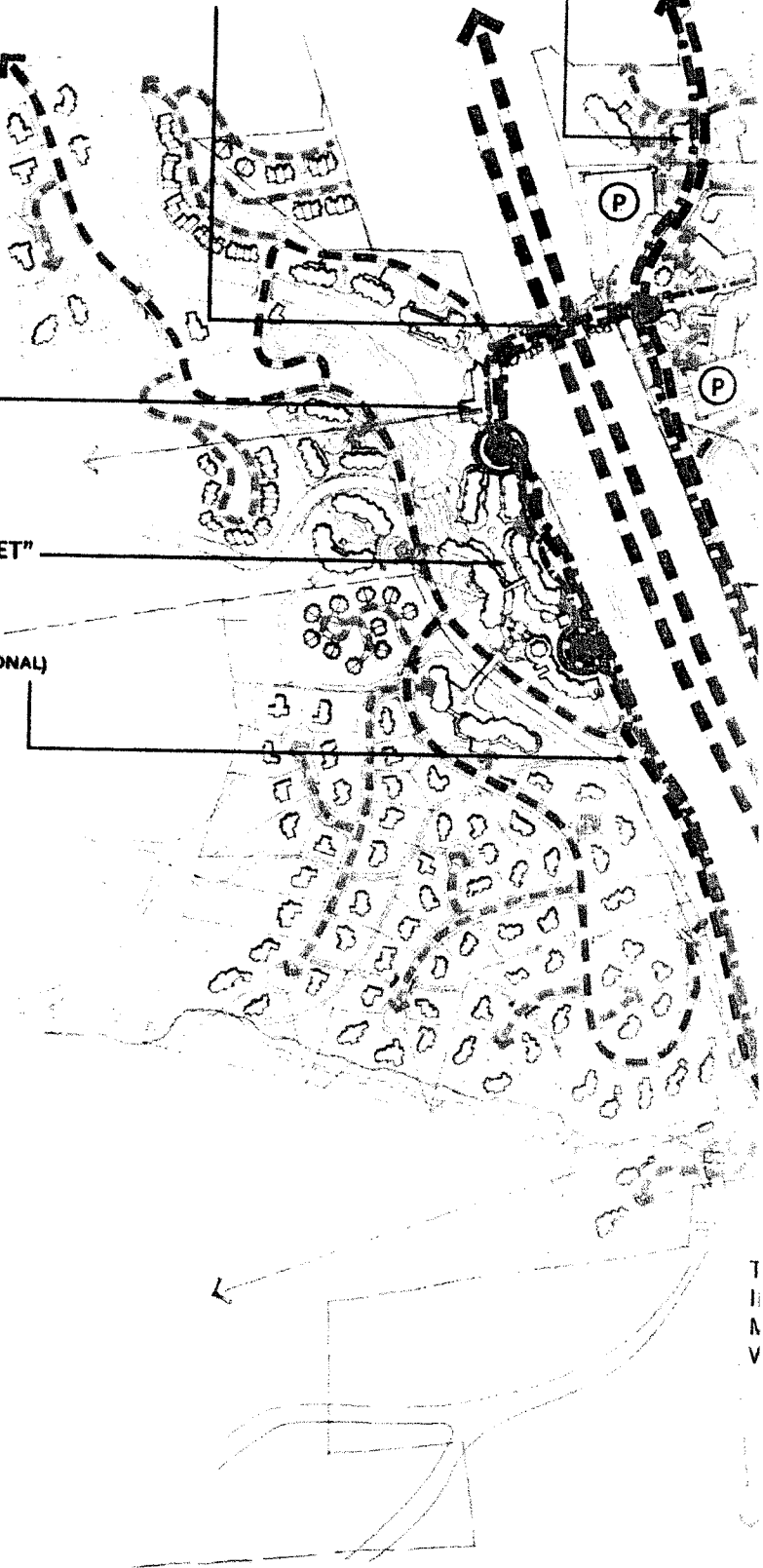
"PEDESTRIAN STREET"

DEER CREST  
ACCESS ROAD  
DAY SKIER TRAFFIC (SEASONAL)

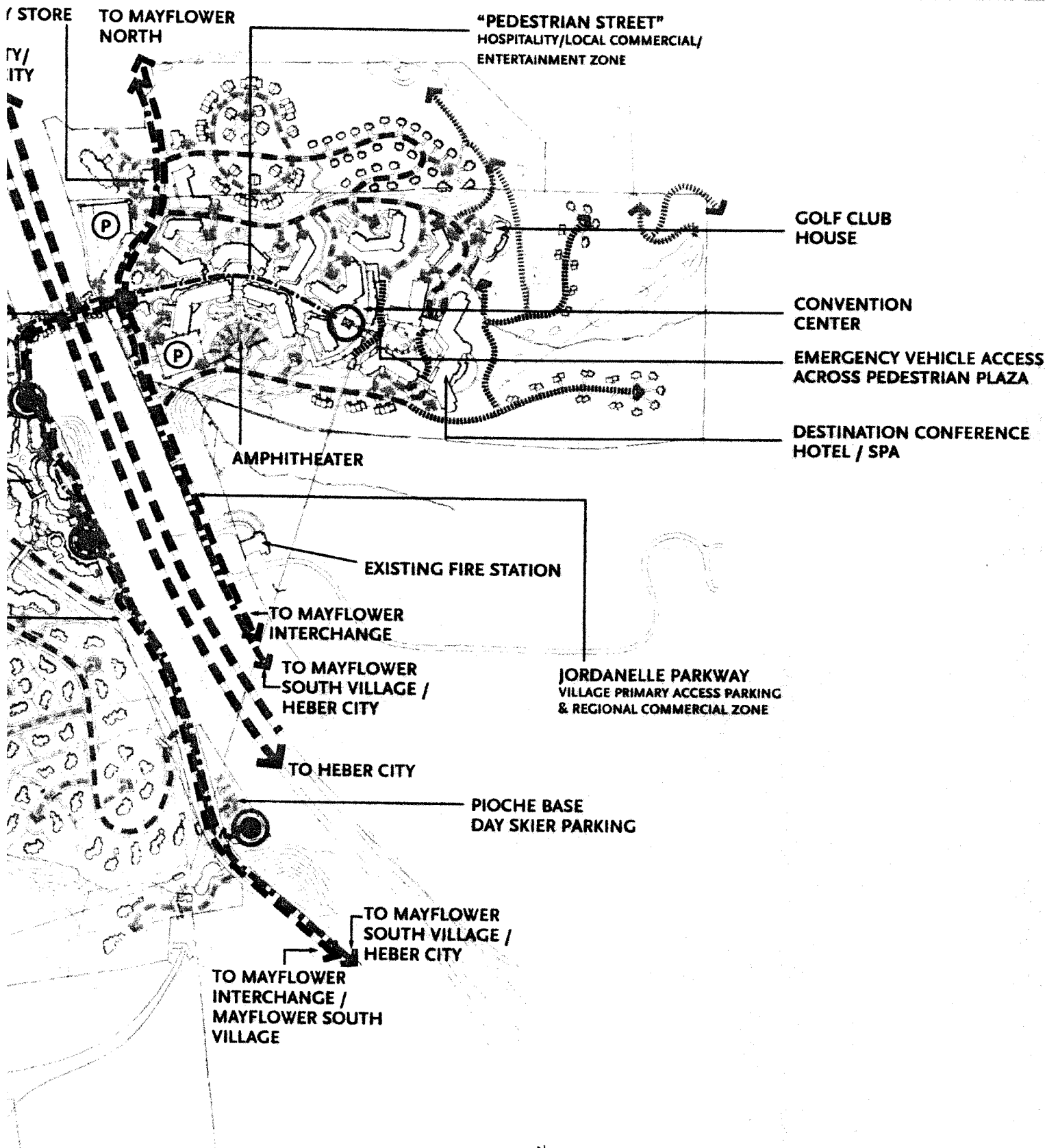
PORTAL UNDER HIGHWAY  
TO DEER CREST  
VILLAGE SECONDARY ACCESS

GROCERY STORE  
TO PARK CITY/  
SALT LAKE CITY

TO MAYFLO  
NORTH



T I N V

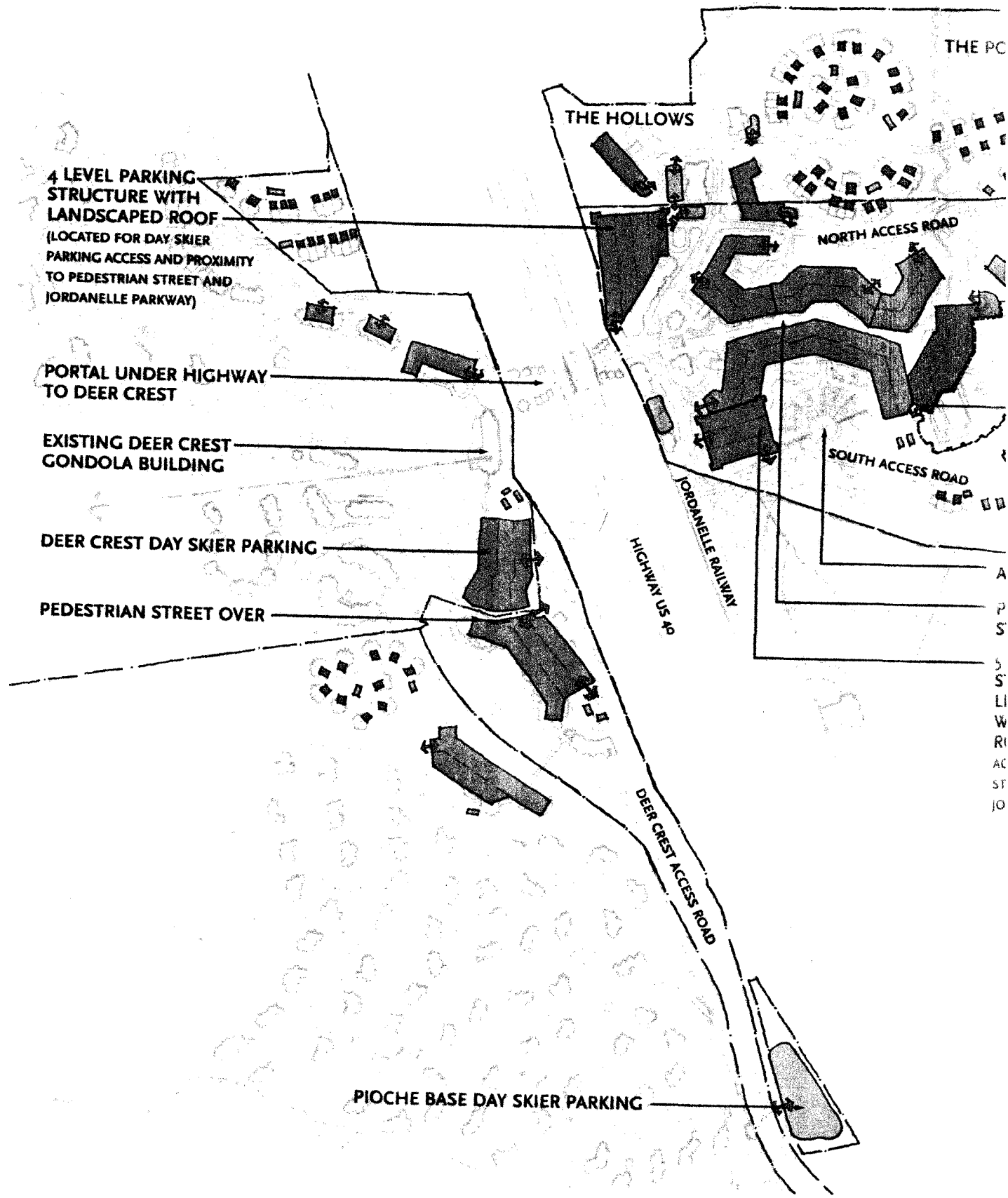


B-34 DEER CREST VILLAGE  
VEHICULAR CIRCULATION

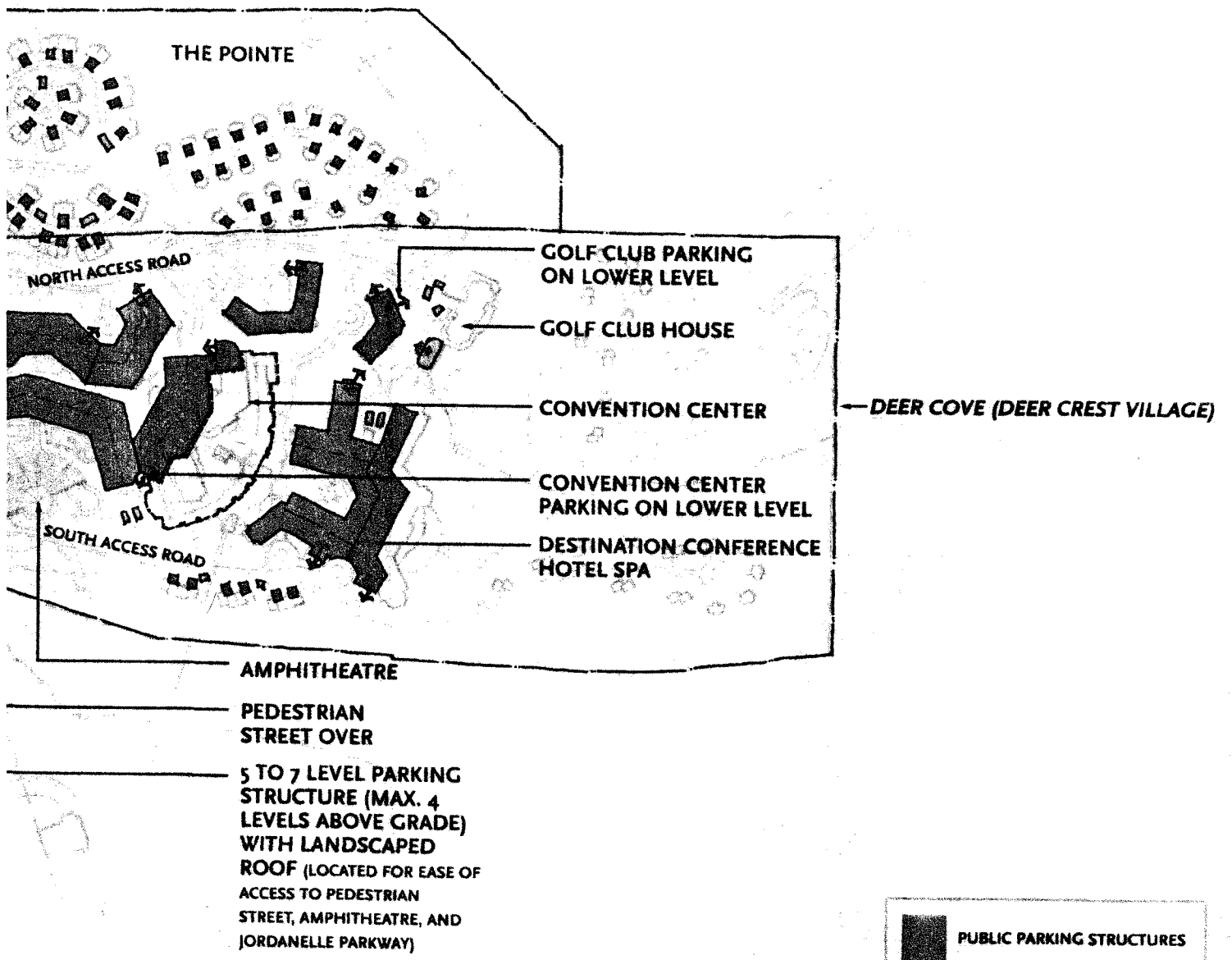




DEER CREST VILLAGE



A  
P  
S  
S  
L  
W  
R  
A  
C  
S  
J



**PUBLIC PARKING STRUCTURES**

- ONE LEVEL UNDERGROUND PUBLIC PARKING
- ONE LEVEL UNDERGROUND PRIVATE PARKING
- TWO LEVEL UNDERGROUND PRIVATE PARKING
- SINGLE FAMILY/TOWNHOUSE PARKING (GARAGE/DRIVEWAY)
- ON SITE SURFACE PARKING

↔ PARKING ACCESS

DEER VALLEY LAKESIDE—DEER CREST VILLAGE PLAN

WATER FEATURE/  
SKATING POND &  
FIRE PIT

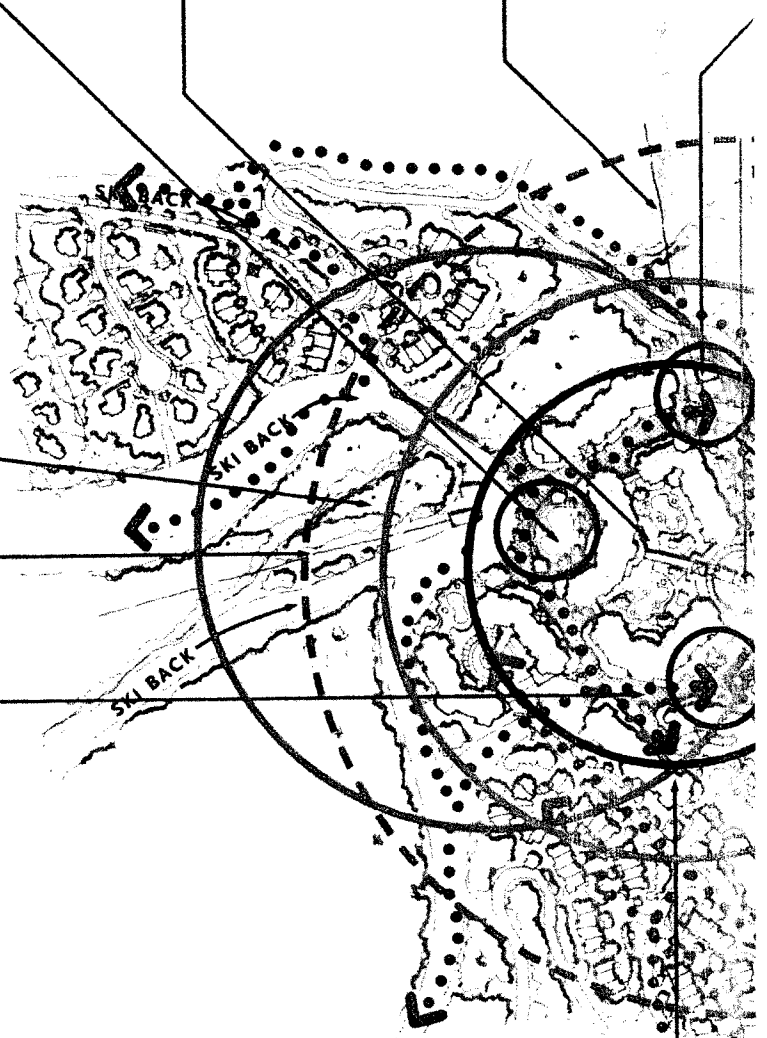
ANCHOR  
DESTINATION  
RESORT HOTEL  
COMPLEX

POTENTIAL TRANSFER  
LIFT FROM POCHE/  
DEERCREST BASE &  
DEERCREST VILLAGE

FUTURE  
BEGINNER'S  
LIFT TO SKI  
SCHOOL

FUTURE  
SKI LIFT UP  
MOUNTAIN

PEDESTRIAN  
STREET



LEGEND

.....	PRIMARY CIRCULATION
.....	SECONDARY CIRCULATION
.....	TERTIARY CIRCULATION (TRAILS)
○	PEDESTRIAN NODES
○	DEER VALLEY SKI & MOUNTAIN BIKING ACTIVITY ZONE
○	PEDESTRIAN STREET RETAIL, DINING, ENTERTAINMENT ZONE
○	CONFERENCE, FAMILY SKATE, GOLF & TRAILS ACTIVITY ZONE
Ⓟ	PUBLIC PARKING STRUCTURES
—	EXISTING LIFTS
- - -	PROPOSED LIFTS
.....	POTENTIAL FUTURE LIFTS

ANCHOR  
HOTEL  
COMPLEX

AL TRANSFER  
M PIOCHE/  
ST BASE &  
ST VILLAGE

TRANSFER  
LIFT STATION

GOLF CLUB HOUSE  
POTENTIAL  
RESIDENTIAL OVER

POTENTIAL TRANSFER  
LIFT FROM MAYFLOWER  
SOUTH EAST SIDE &  
DAYSKIER PARKING

TO THE MAYFLOWER INTERCHANGE  
DEER CREST VILLAGE/PARK CITY/  
SALT LAKE CITY/HEBER CITY

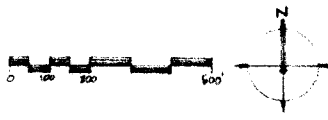
MAYFLOWER  
FRONTAGE  
ROAD

1200' RADIUS  
(5 MIN. WALK)

"2400' WALKING RULE" AREA  
(10 MIN. WALK)

ANCHOR  
HOTEL  
COMPLEX

CAR/  
TRANSIT  
DROP-OFF/  
PICK-UP



	B-36 MAYFLOWER SOUTH PEDESTRIAN CIRCULATION	<b>IBI</b> GROUP
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DEER VALLEY LAKESIDE—DEER CREST VILLAGE PLAN

WATER FEATURE/  
SKATING POND &  
FIRE PIT

ANCHOR  
DESTINATION  
RESORT HOTEL  
COMPLEX

POTENTIAL TRANSFER  
LIFT FROM POCHE/  
DEERCREST BASE &  
DEERCREST VILLAGE

FUTURE  
BEGINNER'S  
LIFT TO SKI  
SCHOOL

FUTURE  
SKI LIFT UP  
MOUNTAIN

PEDESTRIAN  
STREET



LEGEND

	US HIGHWAY 40
	PRIMARY ROADS
	SECONDARY ROADS
	TERTIARY SITE DEVELOPMENT/ PARKING ACCESS
	EMERGENCY VEHICLE ACCESS ONLY
	EMERGENCY VEHICLE / GOLF CART ACCESS
	GOLF CART TRAIL
	DEER CREST TROLLEY
	TROLLEY TURN-AROUND
	TRANSIT ROUTE
	TRANSIT STOP
	PUBLIC PARKING STRUCTURES

ANCHOR  
HOTEL  
COMPLEX

POTENTIAL TRANSFER  
FROM PIOCHE/  
REST BASE &  
REST VILLAGE

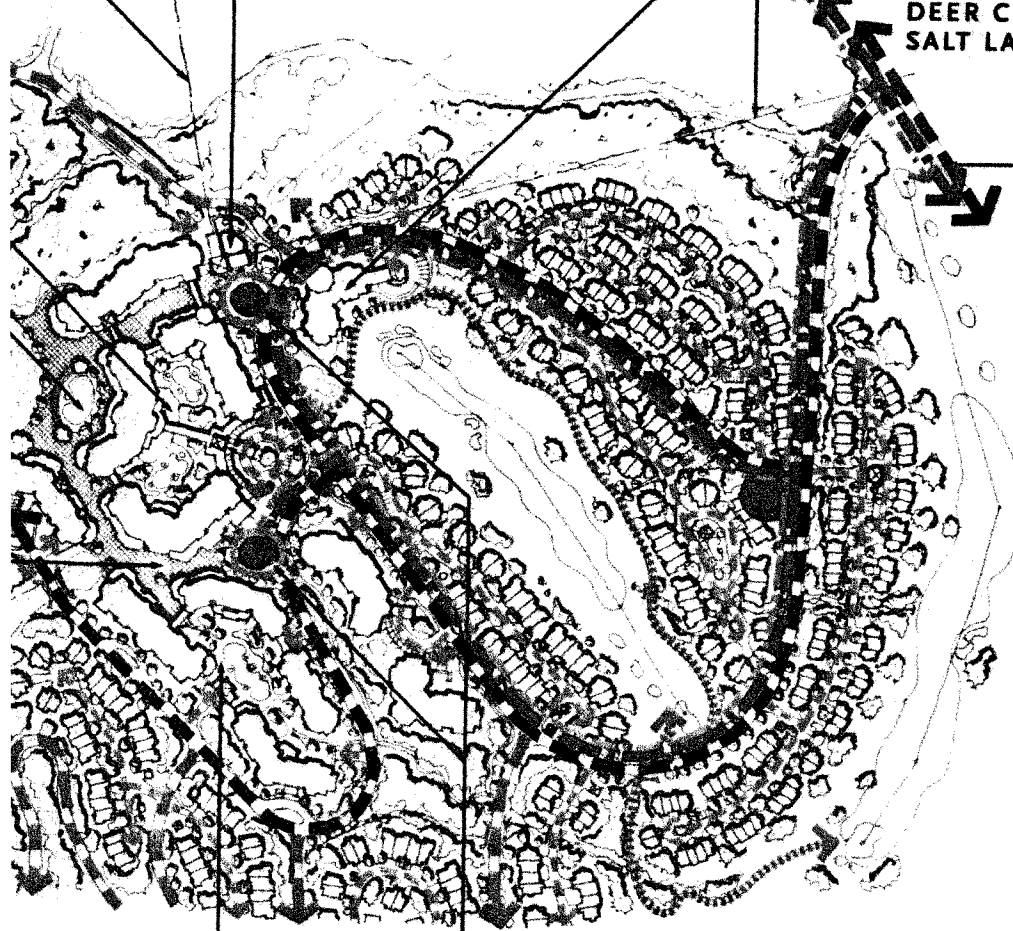
TRANSFER  
LIFT STATION

GOLF CLUB HOUSE  
POTENTIAL  
RESIDENTIAL OVER

POTENTIAL TRANSFER  
LIFT FROM MAYFLOWER  
SOUTH EAST SIDE &  
DAYSKIER PARKING

TO THE MAYFLOWER INTERCHANGE  
DEER CREST VILLAGE/PARK CITY/  
SALT LAKE CITY/HEBER CITY

MAYFLOWER  
FRONTAGE  
ROAD



ANCHOR  
HOTEL  
COMPLEX

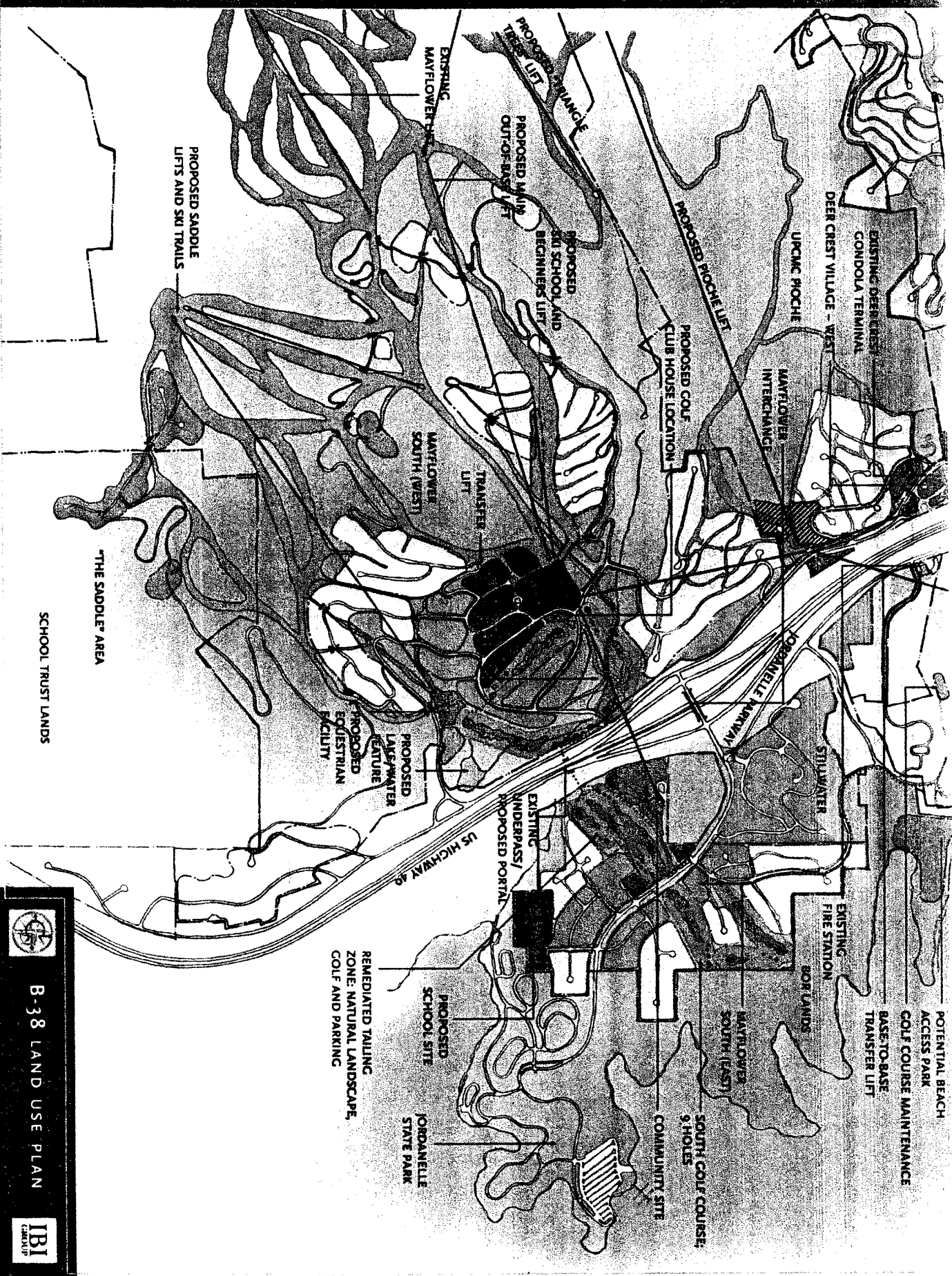
CAR/  
TRANSIT  
DROP-OFF/  
PICK-UP



B-37 MAYFLOWER SOUTH  
VEHICULAR CIRCULATION

IBI  
GROUP

# DEER VALLEY LAKES

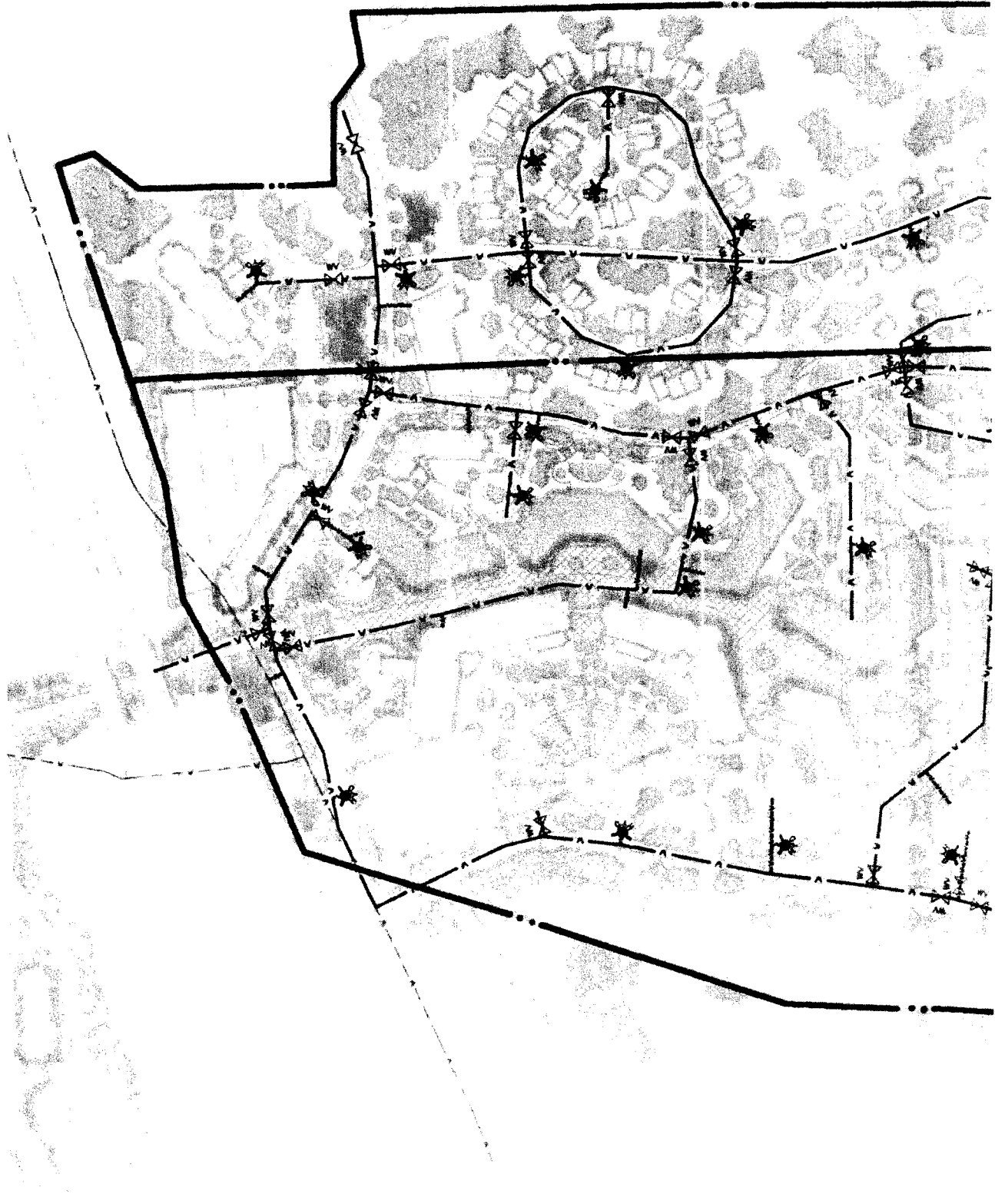


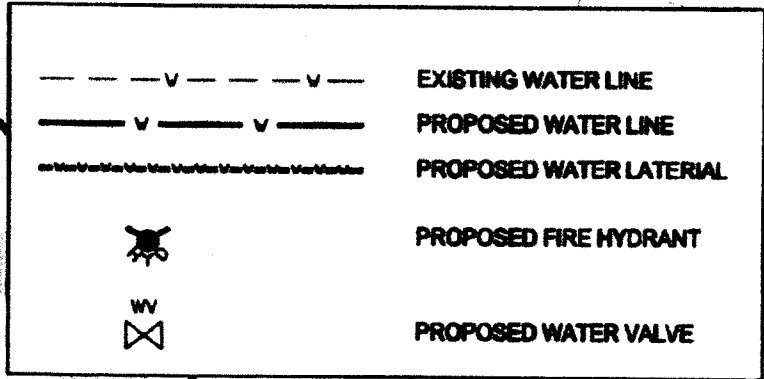
  
**B-38 LAND USE PLAN**  



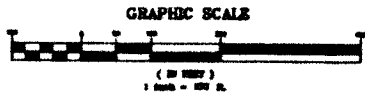
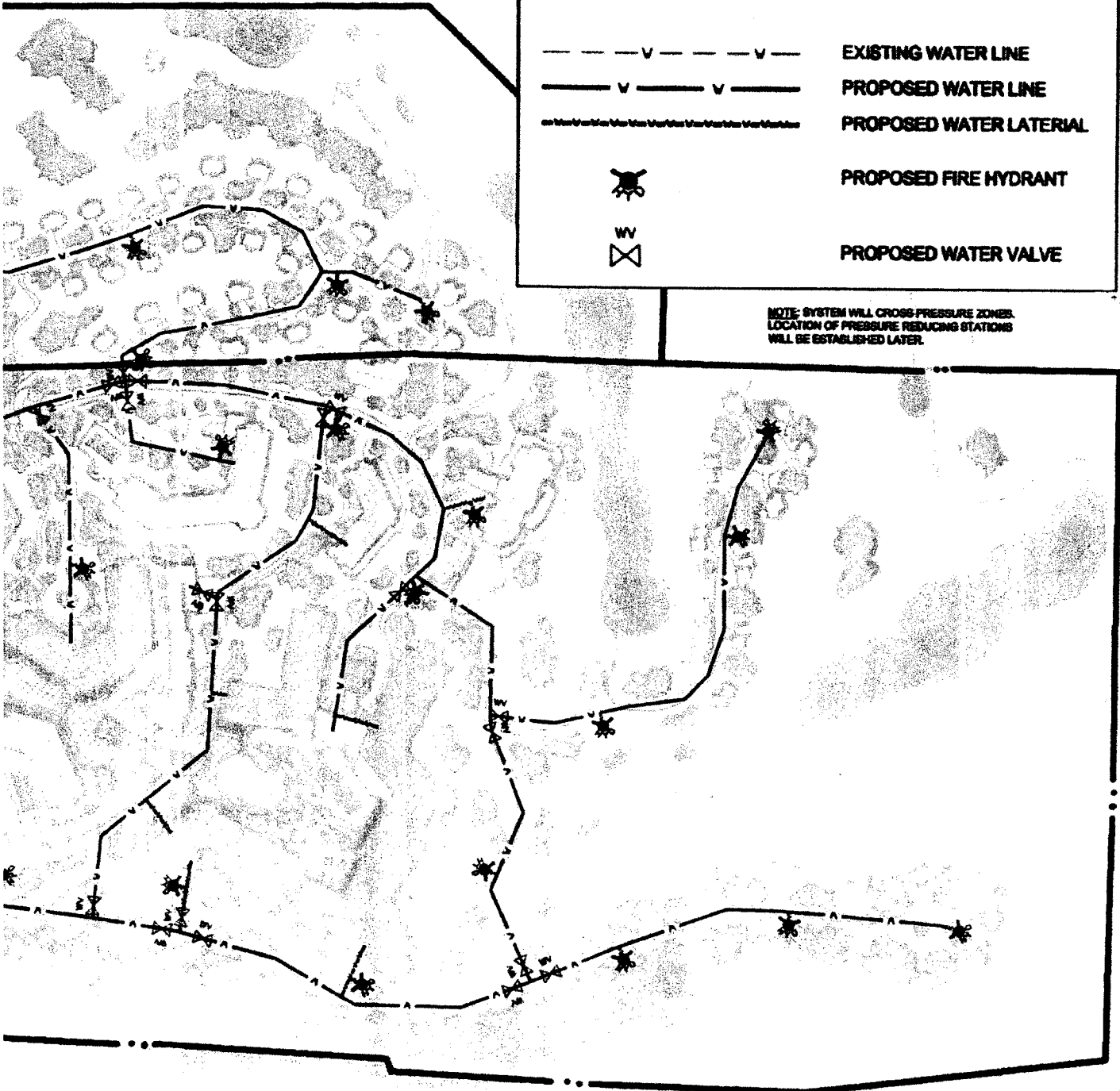



DEER VALLEY LAKESIDE—MASTER PLAN







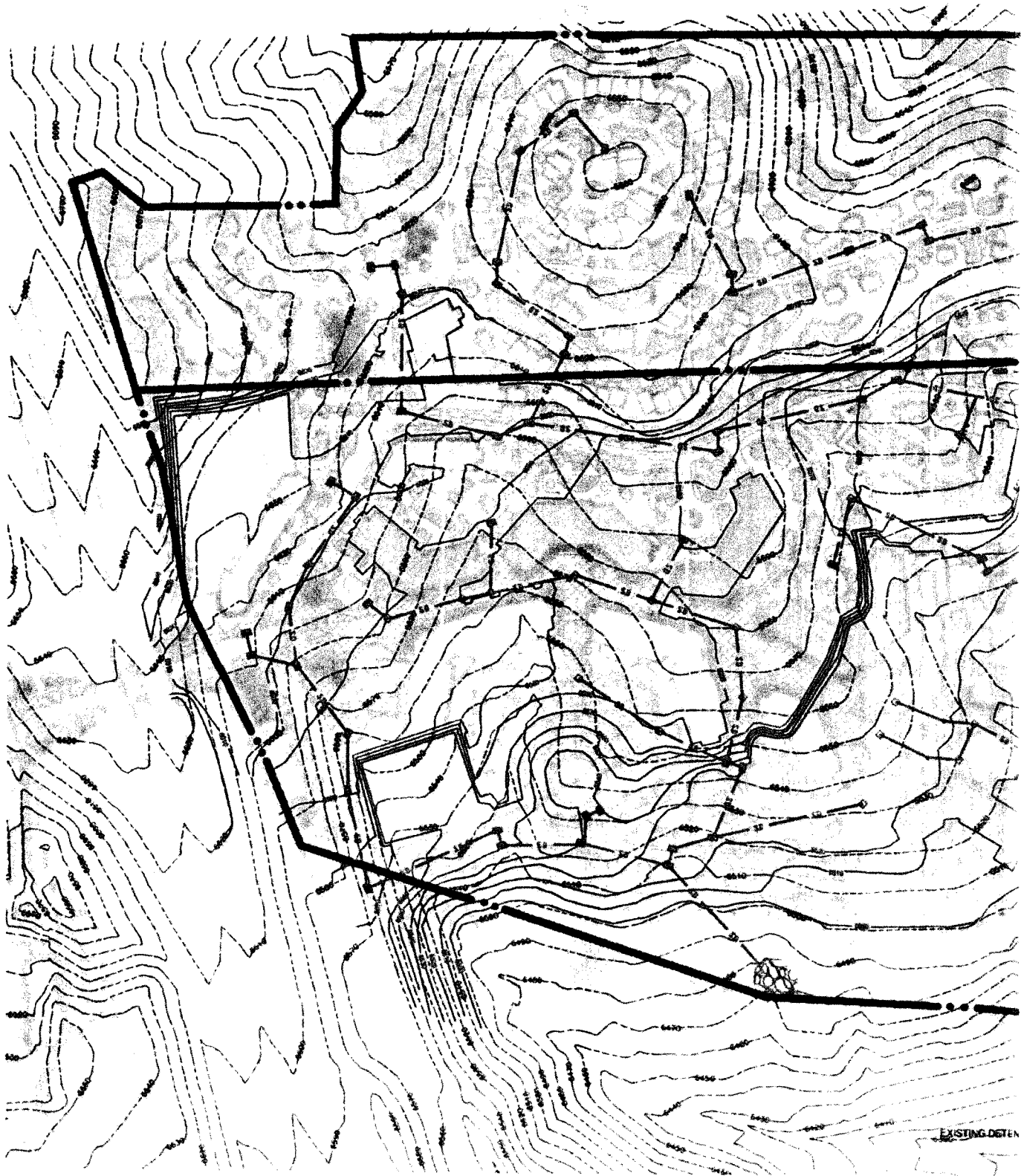
NOTE: SYSTEM WILL CROSS PRESSURE ZONES.  
LOCATION OF PRESSURE REDUCING STATIONS  
WILL BE ESTABLISHED LATER.



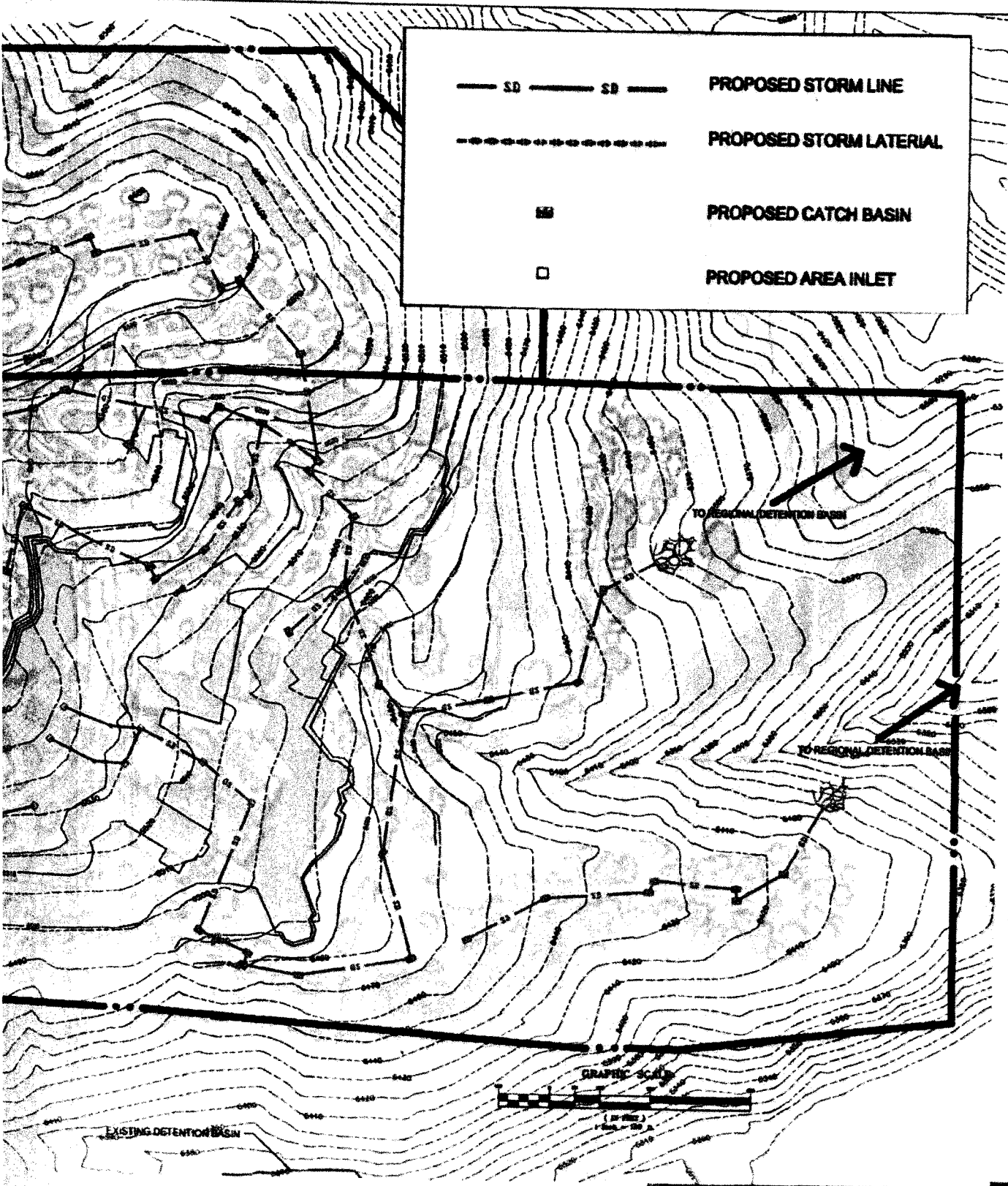
B-39 UTILITIES  
WATER PLAN



DEER VALLEY LAKESIDE—MASTER PLAN



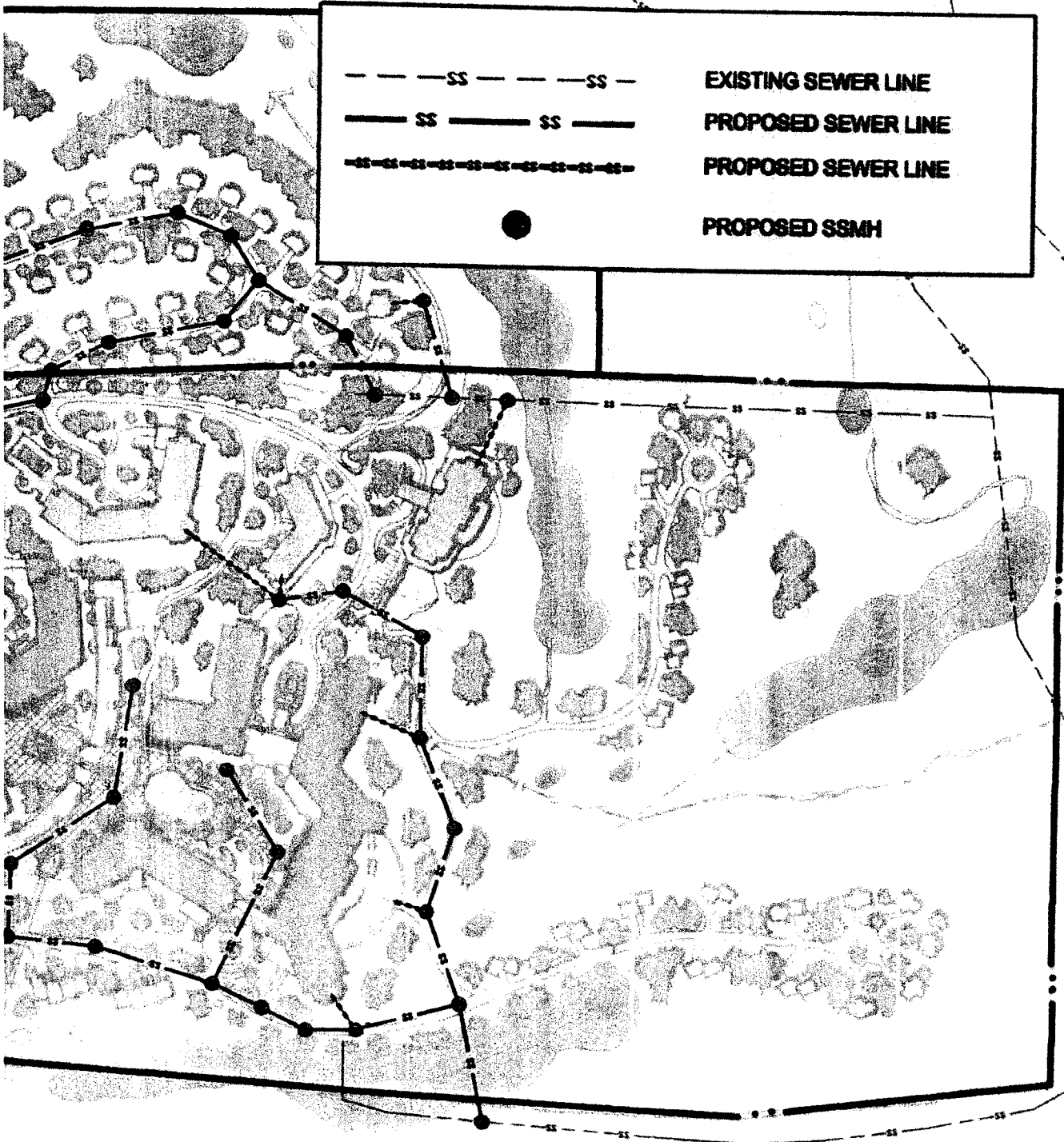
EXISTING DETEN





 **B-40 UTILITIES  
STORM PLAN** 

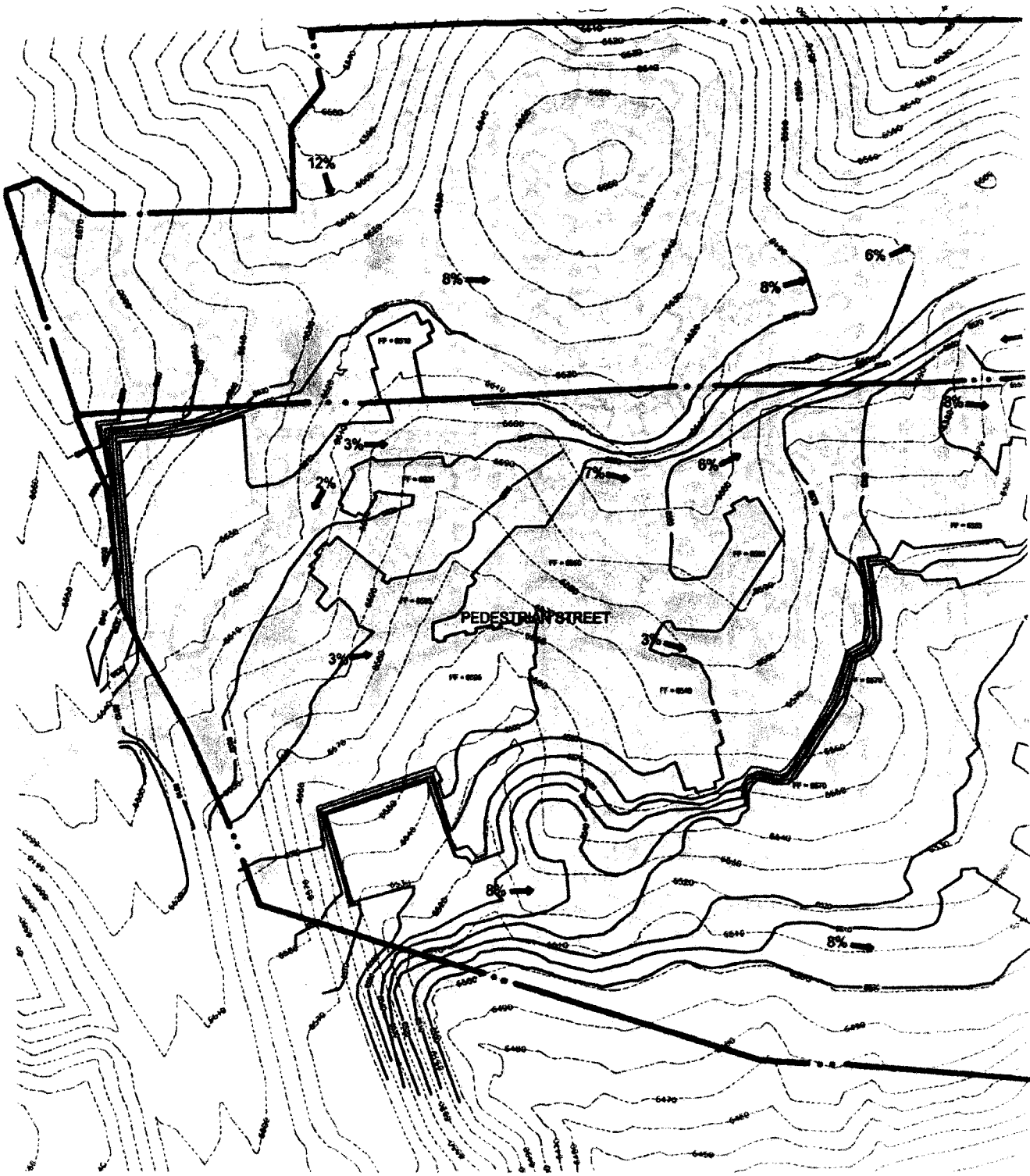
DEER VALLEY LAKESIDE—MASTER PLAN

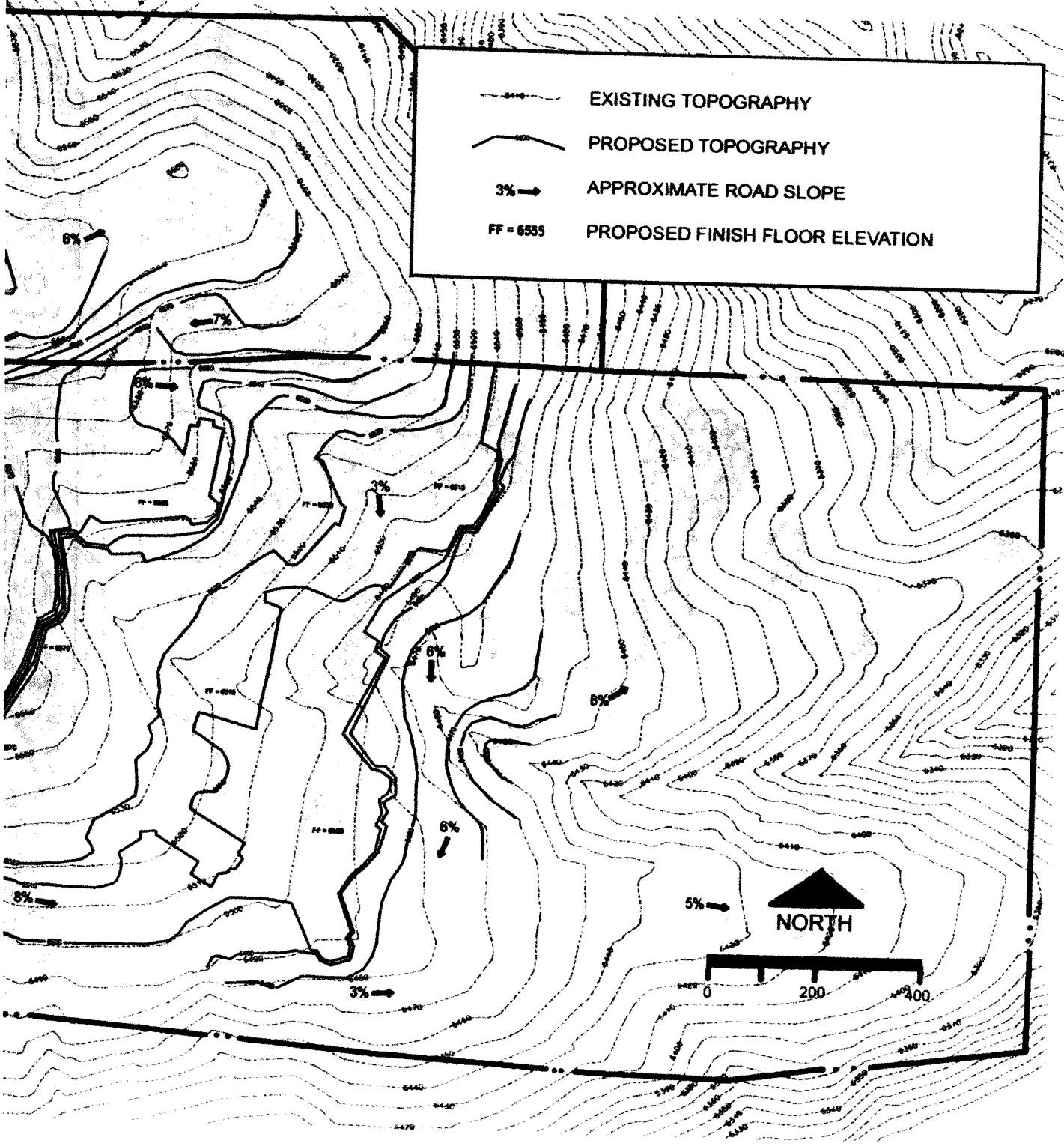






 **B-41 UTILITIES  
SEWER PLAN** 

DEER VALLEY LAKESIDE—MASTER PLAN

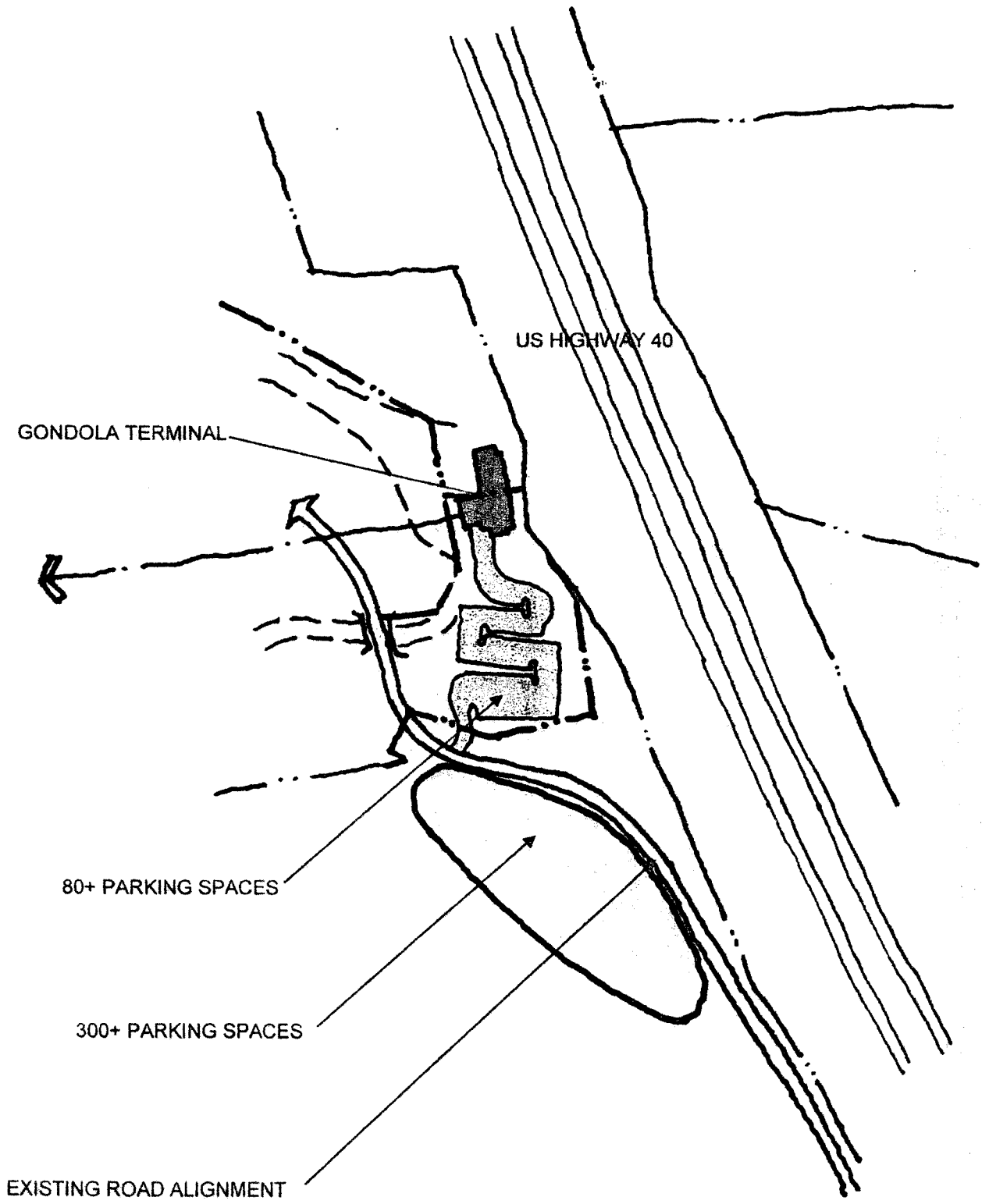




 **B-42 GRADING PLAN** 



DEER CREST VILLAGE WEST

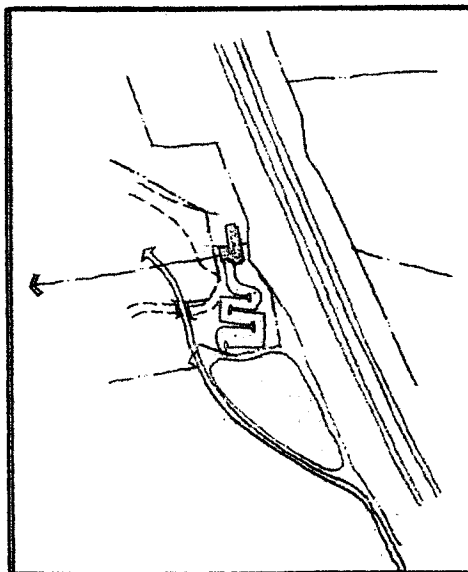


## STEP 1 – ALTERNATIVE A

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing below entitled "New Parcel Location." For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion on the sheet entitled STEP 1 – ALTERNATIVE B.

**Alternative A Summary and Assumptions.** The assumptions and results of Alternative A are summarized as follows:

1. There is no Portal access to the east side of US Highway 40.
2. There are no additional buildings constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is minimal grading on the parcels on the south side of the Gondola Terminal.
4. The County Road retains its existing alignment.
5. The existing parking (switch back area) has 80+ parking spaces.
6. The New Parcel yields 300+ spaces.



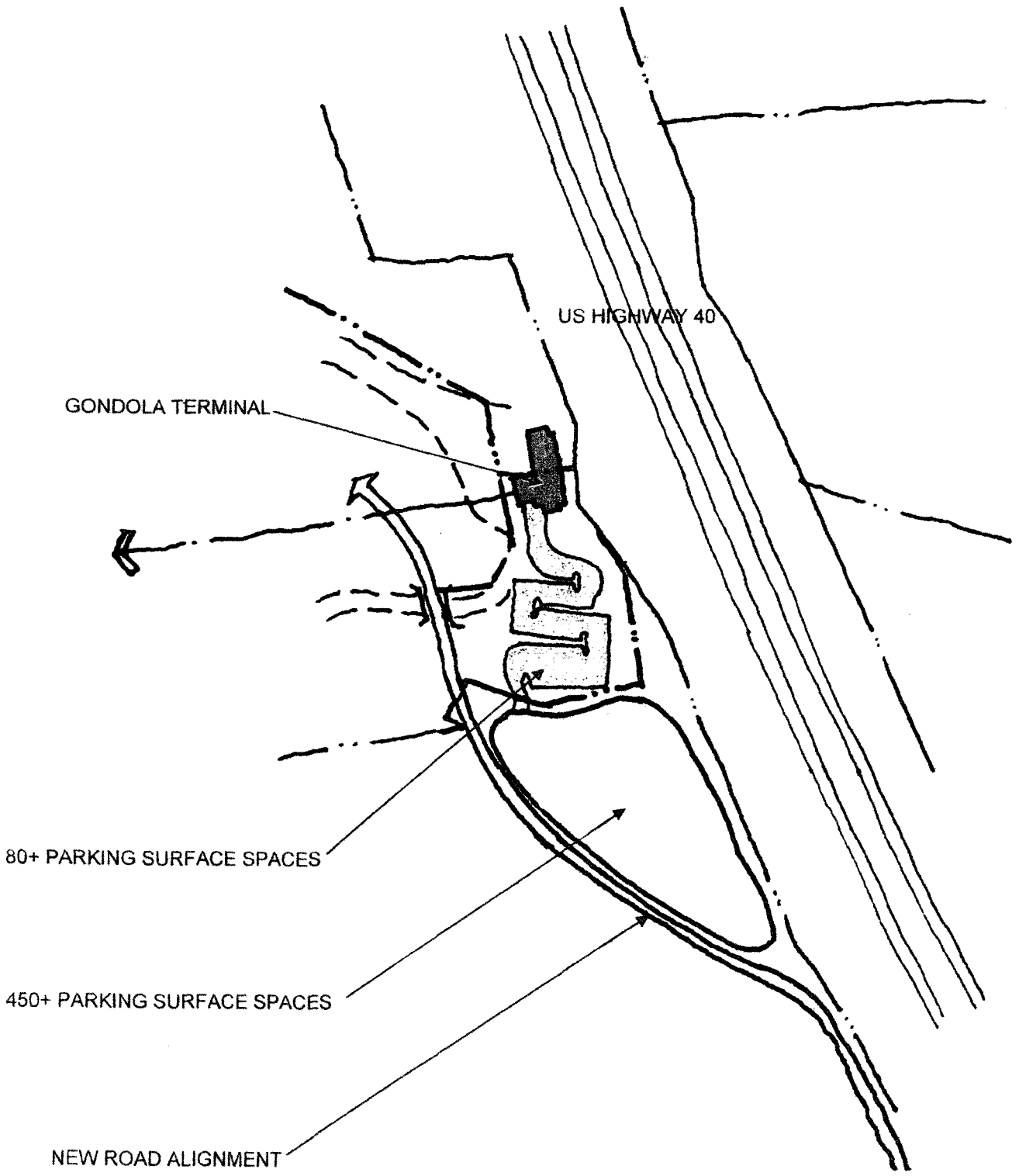
NEW PARCEL LOCATION

IBI  
GROUP



C-1 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 1 ALTERNATIVE A

DEER CREST VILLAGE WEST



## STEP 1 – ALTERNATIVE B

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing on sheet STEP 1 – ALTERNATIVE B entitled "New Parcel Location." For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion below.

**Alternative A Summary and Assumptions.** The assumptions and results of Alternative A are summarized as follows:

1. There is no Portal access to the east side of US Highway 40.
2. There are no additional buildings constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is minimal grading on the parcels on the south side of the Gondola Terminal.
4. The County Road is re-aligned and re-graded.
5. The existing parking (switch back area) has 80+ parking spaces.
6. The New Parcel yields 450+ spaces.

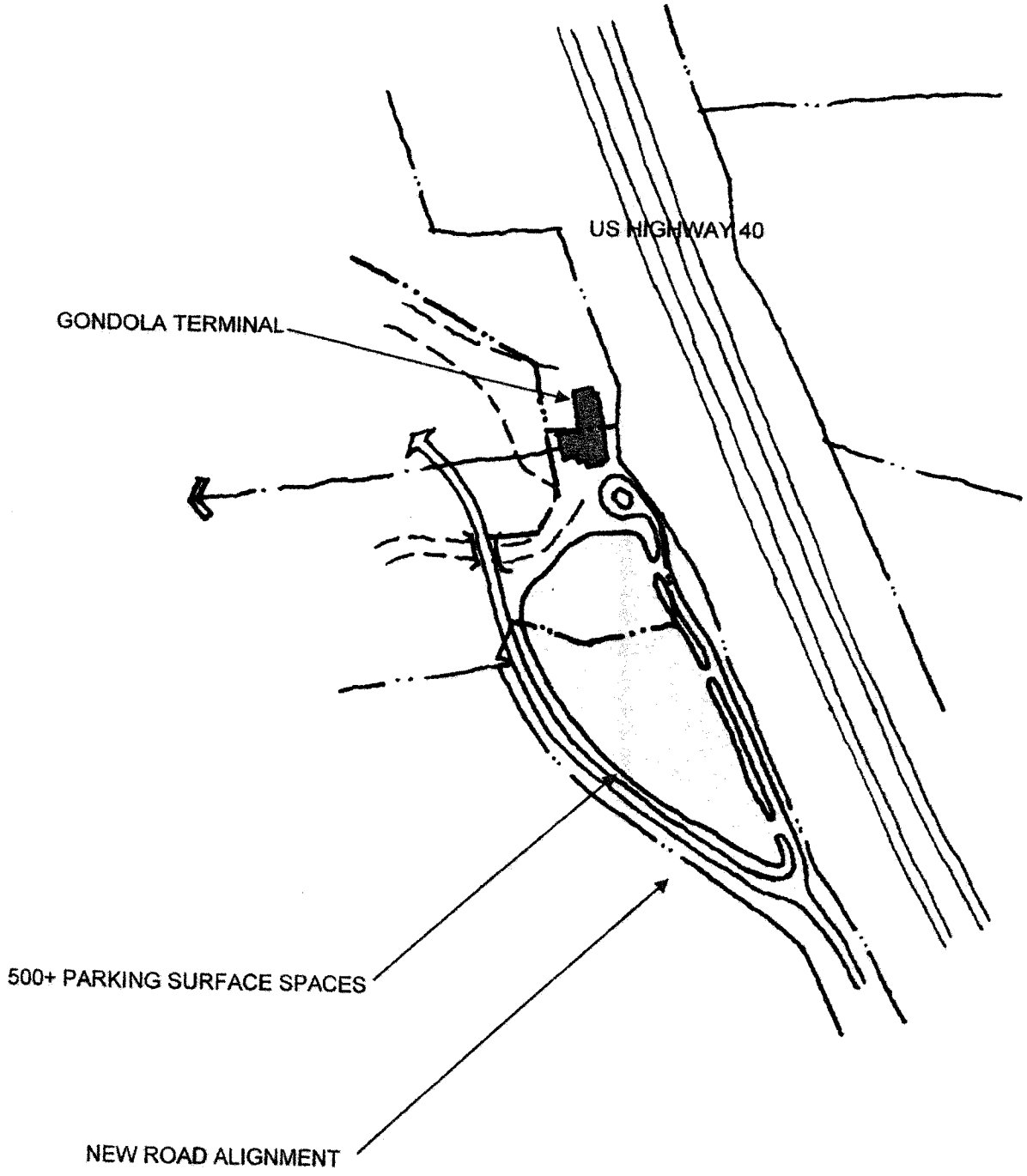
**Strategy for Circumstance if the New Parcel (4.8 Acres) Were Not Included.** The acquisition of the New Parcel is currently under an acquisition agreement. However, if for any reason the property is not acquired, the one of two courses of action would be followed:

1. A parking structure with approximately 300 spaces (or otherwise adequate amount) would be constructed on the existing parking site (switch back parking area).
2. The Portal would be constructed and Step 3 would be implemented (in accordance with a cross option agreement with DDRM for the use of the property on the east side of Highway 40). This makes sense because the cost of the parking structure is in excess of the cost of the portal.



C-2 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 1 ALTERNATIVE B

DEER CREST VILLAGE WEST



## STEP 2

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing on sheet STEP 1 – ALTERNATIVE A entitled "New Parcel Location." For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion on the sheet entitled STEP 1 – ALTERNATIVE B.

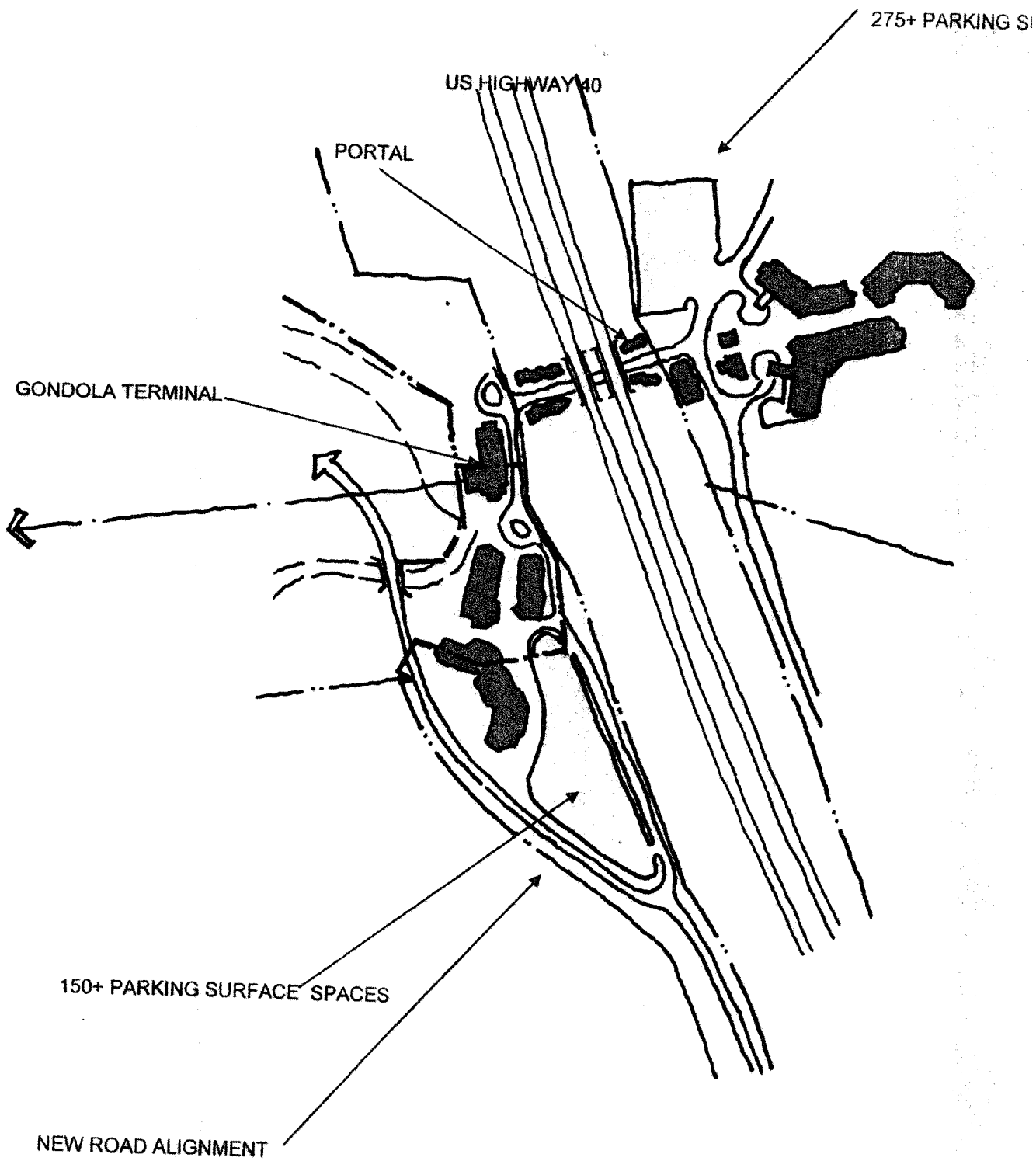
**Alternative A Summary and Assumptions.** The assumptions and results of Alternative A are summarized as follows:

1. There is no Portal access to the east side of US Highway 40 or there is a Portal and the dirt from the grading would be exported to the east side of the highway..
2. There are no additional buildings constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is significant grading on the parcels on the south side of the Gondola Terminal. The site would be graded almost flat and the dirt would be exported.
4. The County Road is re-aligned and re-graded.
5. The existing parking (switch back area) has 80+ parking spaces.
6. The New Parcel yields 450+ spaces.



C-3 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 2

DEER CREST VILLAGE WEST



/ 275+ PARKING SURFACE SPACES

### STEP 3

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing on sheet STEP 1 – ALTERNATIVE A entitled "New Parcel Location." For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion on the sheet entitled STEP 1 – ALTERNATIVE B.

**Alternative A Summary.** The assumptions and results of Alternative A are summarized as follows:

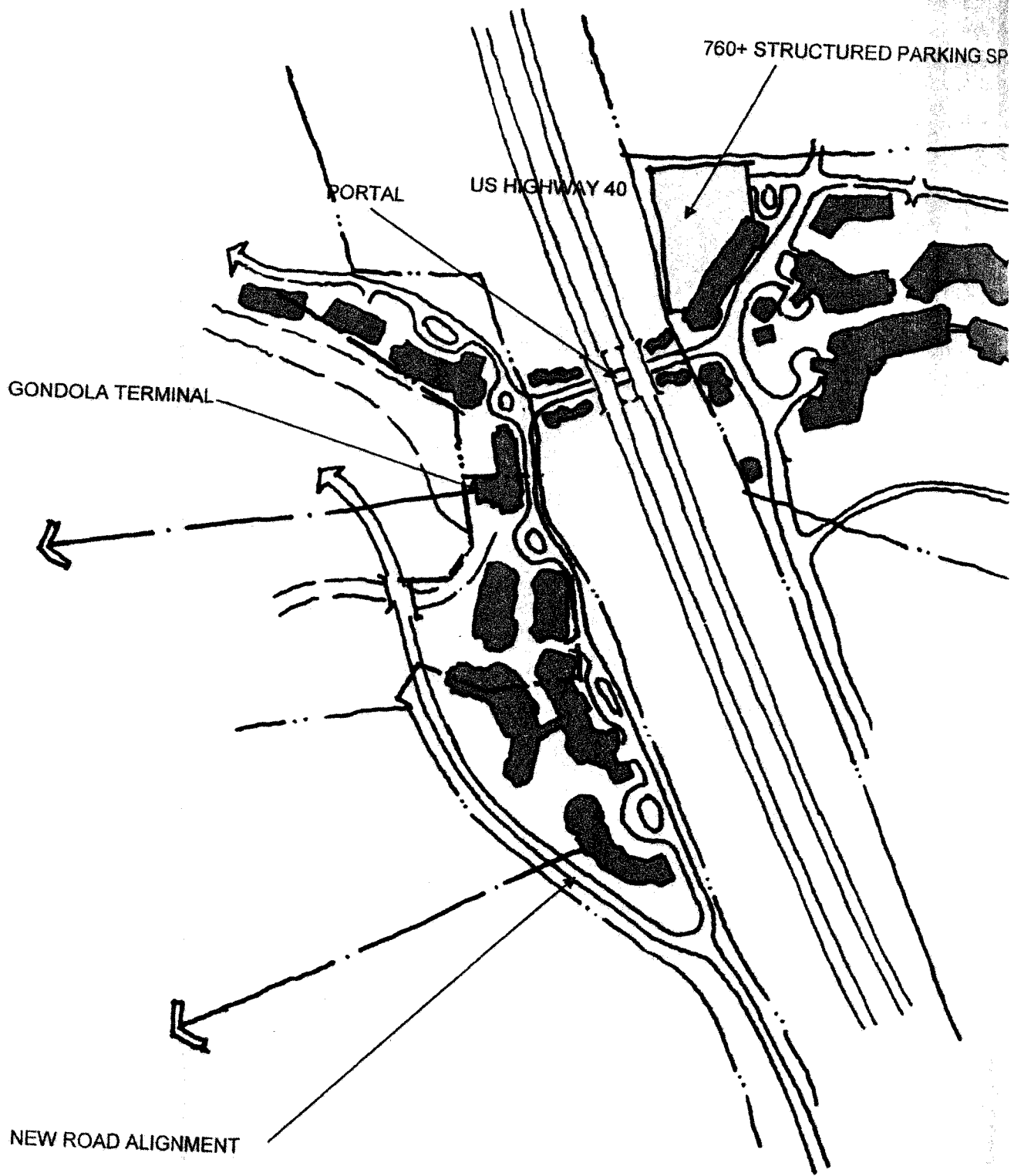
1. There is a Portal access to the east side of US Highway 40.
2. Additional buildings are constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is substantial grading and dirt is exported to the east side of US Highway 40 through the Portal.
4. The County Road is re-aligned and re-graded.
5. The parcel shown on the east side of US Highway 40 will provide 275+ surface spaces. There is significant land on the DDRM property to provide interim surface parking in addition to the parcel shown.
6. The New Parcel yields 150+ spaces of surface parking.



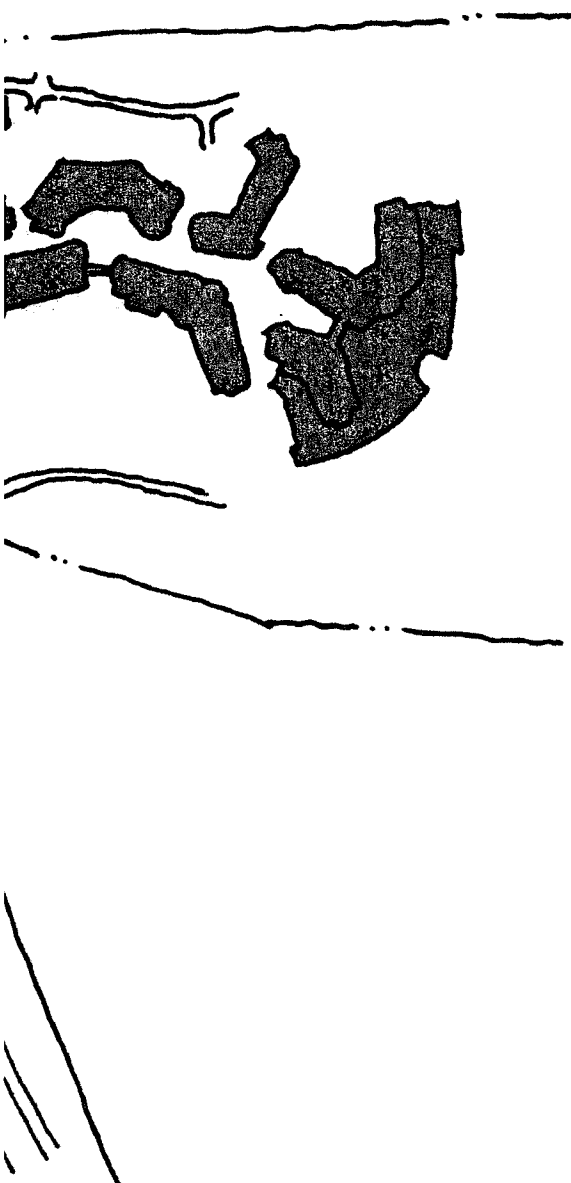
C-4 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 3



DEER CREST VILLAGE WEST



PARKING SPACES



**STEP 4**

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing on sheet STEP 1 – ALTERNATIVE A entitled "New Parcel Location." For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion on the sheet entitled STEP 1 – ALTERNATIVE B.

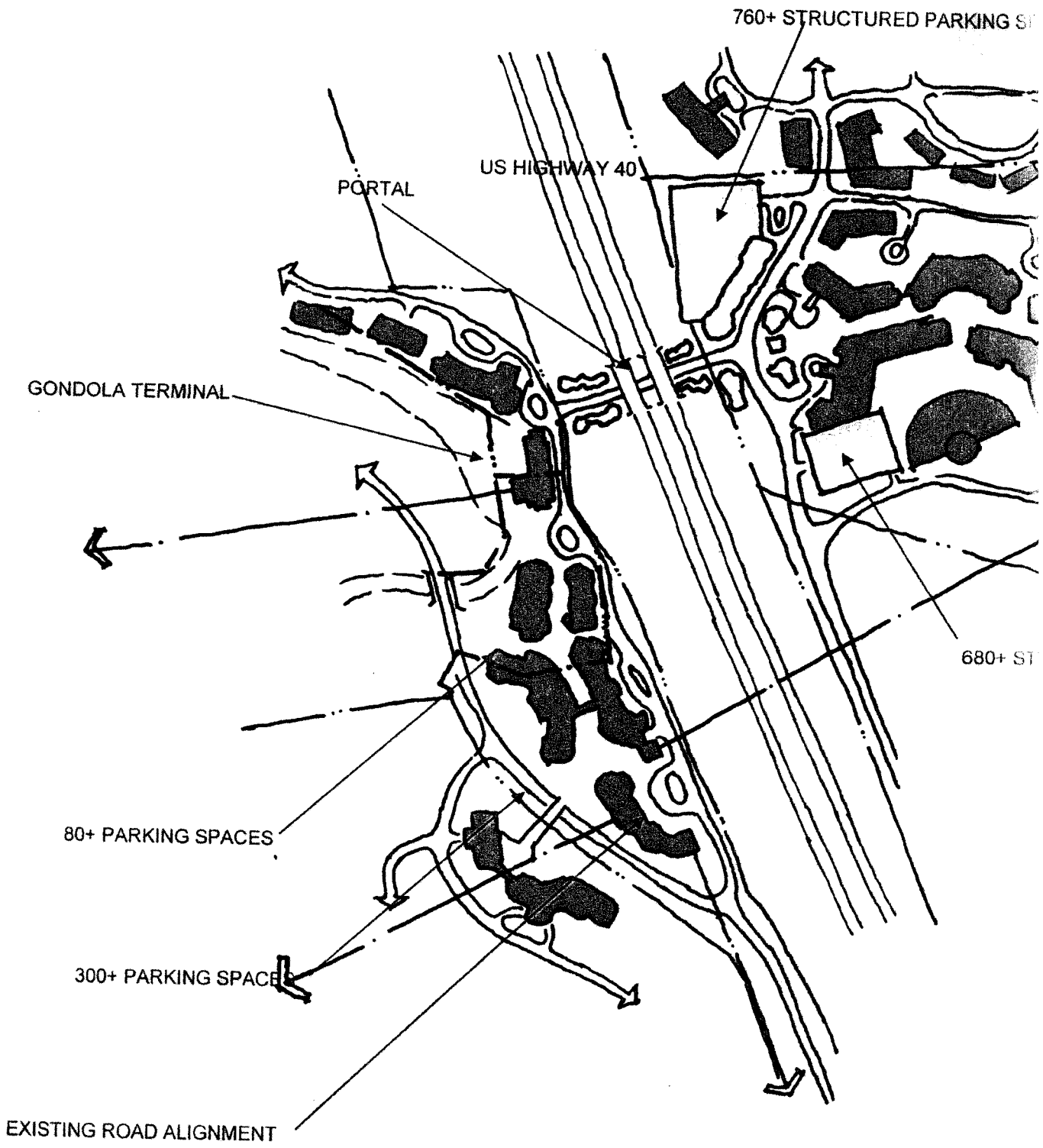
**Alternative A Summary.** The assumptions and results of Alternative A are summarized as follows:

1. There is a Portal access to the east side of US Highway 40.
2. Additional buildings are constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is substantial grading and dirt is exported to the east side of US Highway 40 through the Portal.
4. The County Road is re-aligned and re-graded.
5. The parking structure shown on the east side of US Highway 40 will provide 760+ spaces.

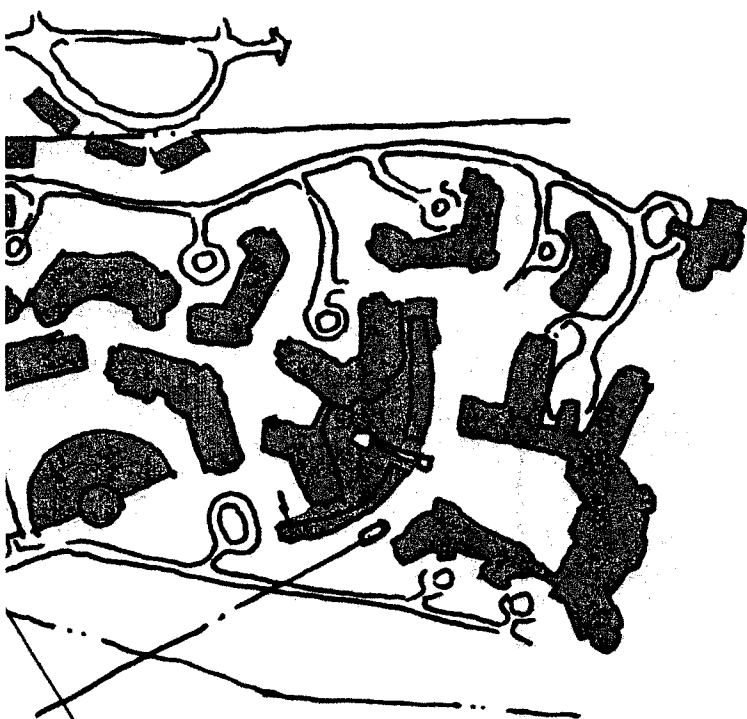


C-5 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 4

DEER CREST VILLAGE WEST



ED PARKING SPACES



680+ STRUCTURED PARKING SPACES

### STEP 5

**Basic Assumptions.** Each of the 5 Steps in this phased parking plan assumes that the 4.8 acre site is acquired and is available for parking (at least on an interim basis). This site is highlighted in the drawing on sheet STEP 1 – ALTERNATIVE A entitled “New Parcel Location.” For specifics on what would happen if the New Parcel were not acquired or utilized for any reason, see the discussion on the sheet entitled STEP 1 – ALTERNATIVE B.

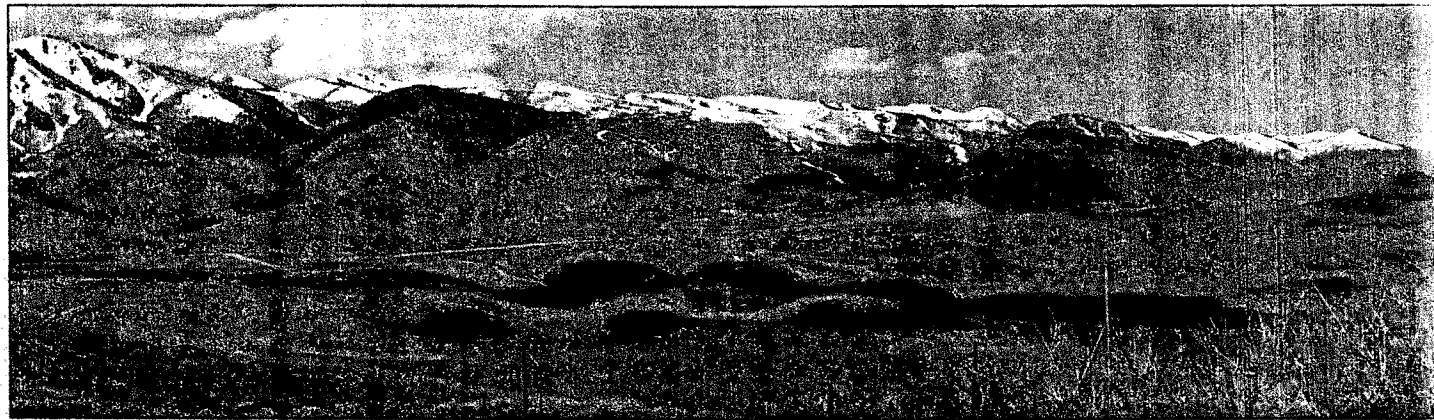
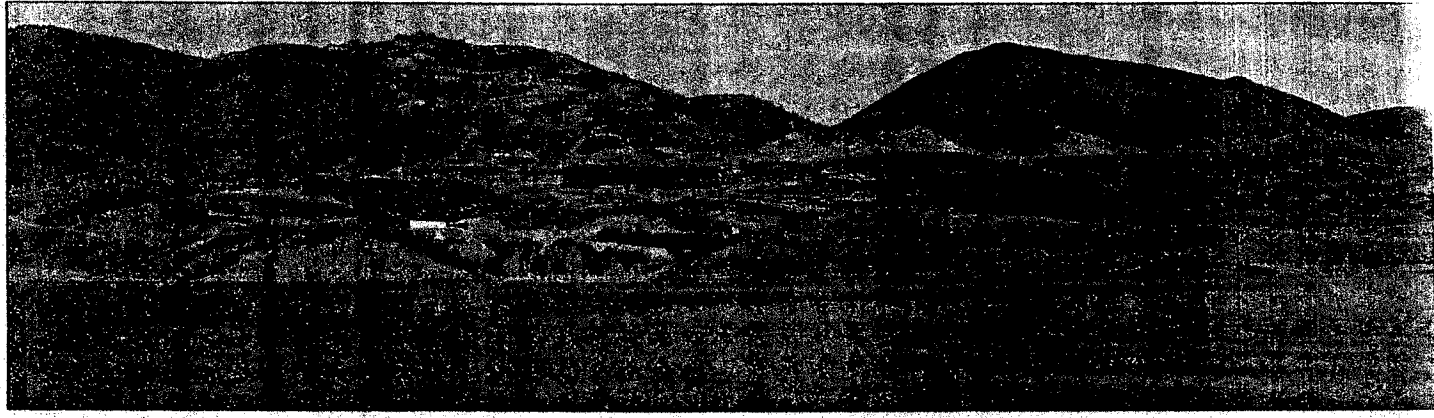
**Alternative A Summary.** The assumptions and results of Alternative A are summarized as follows:

1. There is a Portal access to the east side of US Highway 40.
2. Additional buildings are constructed on the Jordanelle Village 1 Parcel or on the New Parcel.
3. There is substantial grading and dirt is exported to the east side of US Highway 40 through the Portal.
4. The County Road is re-aligned and re-graded.
5. The parking structure shown on the east side of US Highway 40 will provide 760+ spaces.
6. The parking structure shown on the south portion of the site on the east side of US Highway 40 will provide 680+ spaces.



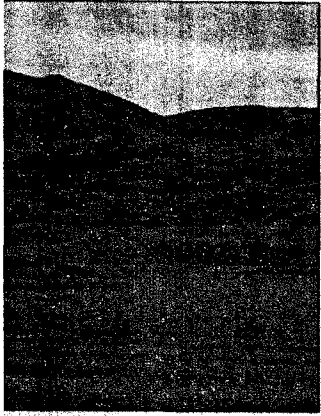
C-6 DEER CREST VILLAGE WEST  
PHASED PARKING PLAN  
STEP 5

DEER VALLEY LAKESIDE RSPA

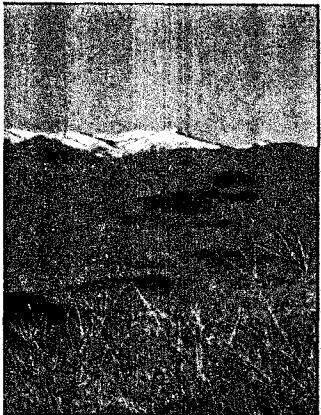




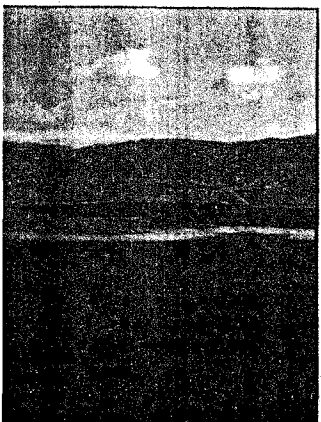
**VIEW 1: PROPOSED PANORAMIC VIEW  
FROM HWY 40 AT MAYFLOWER EXIT**



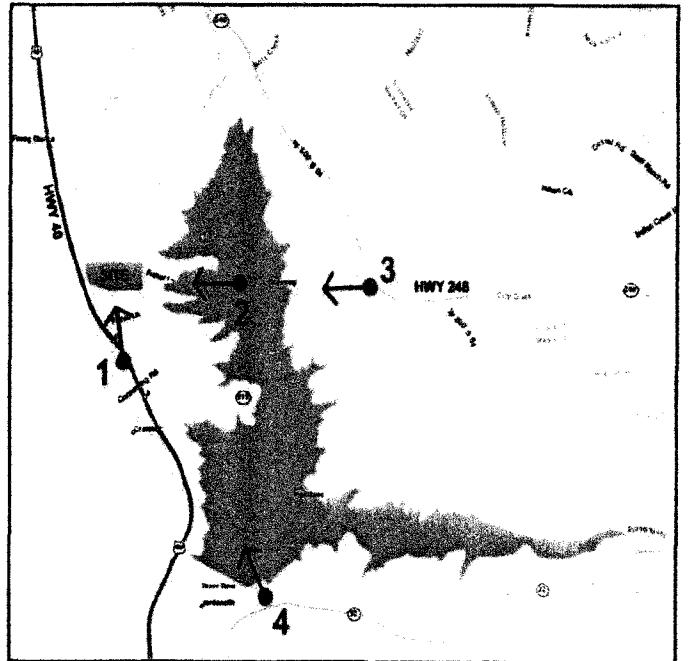
**VIEW 2: PROPOSED PANORAMIC VIEW  
FROM JORDANELLE LAKE**



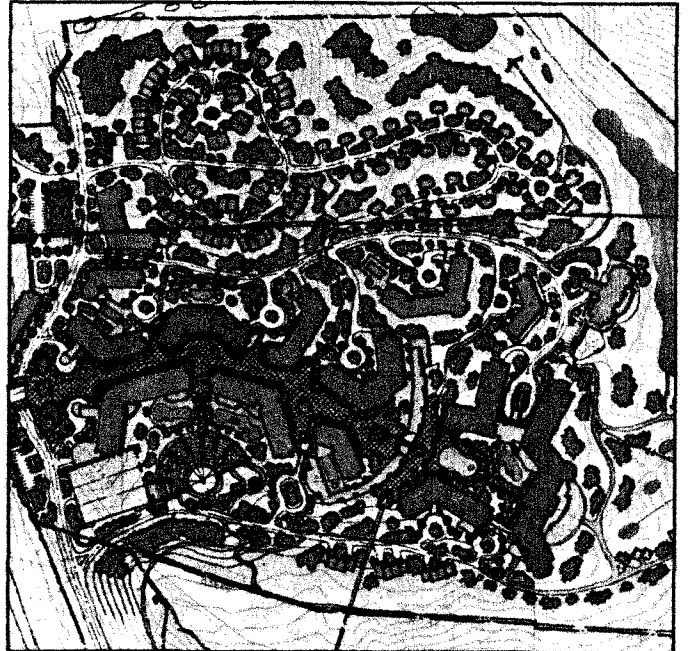
**VIEW 3: PROPOSED PANORAMIC VIEW  
FROM HWY 248 LOOKING WEST**



**VIEW 4: PROPOSED PANORAMIC VIEW  
FROM JORDANELLE DAM REST AREA**

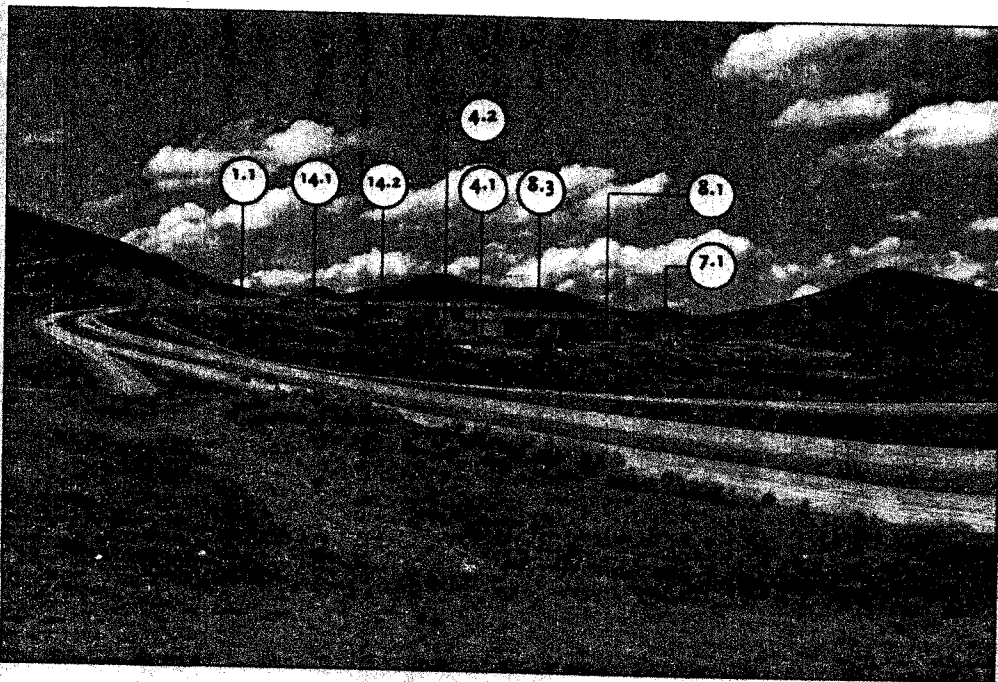


**KEYMAP**

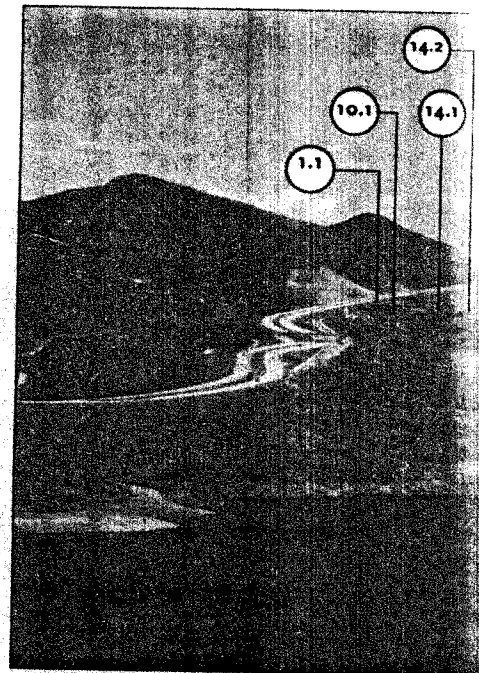
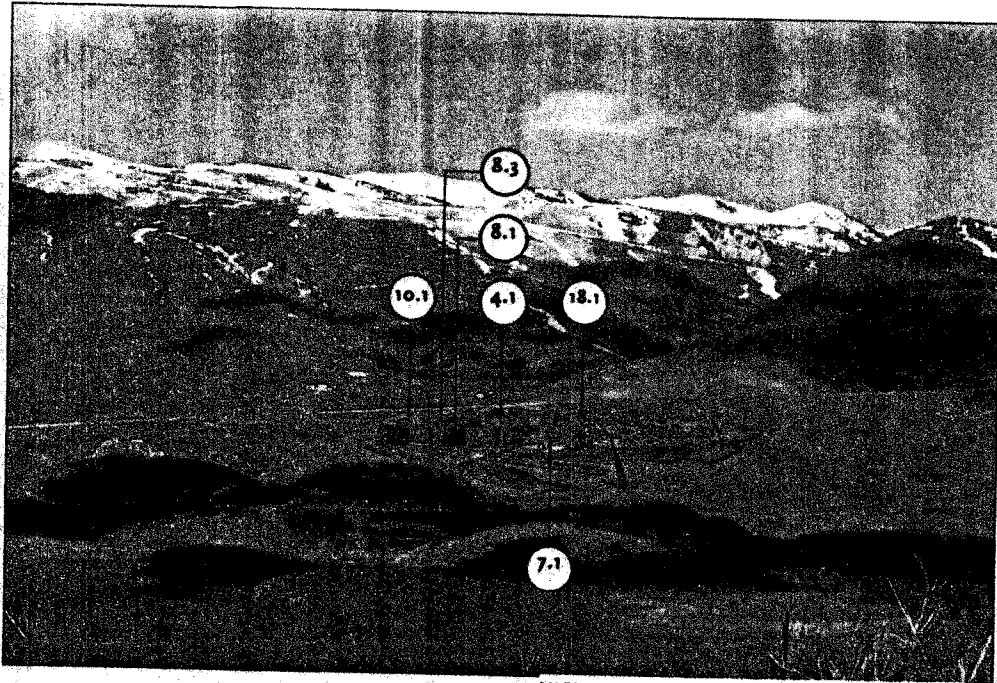


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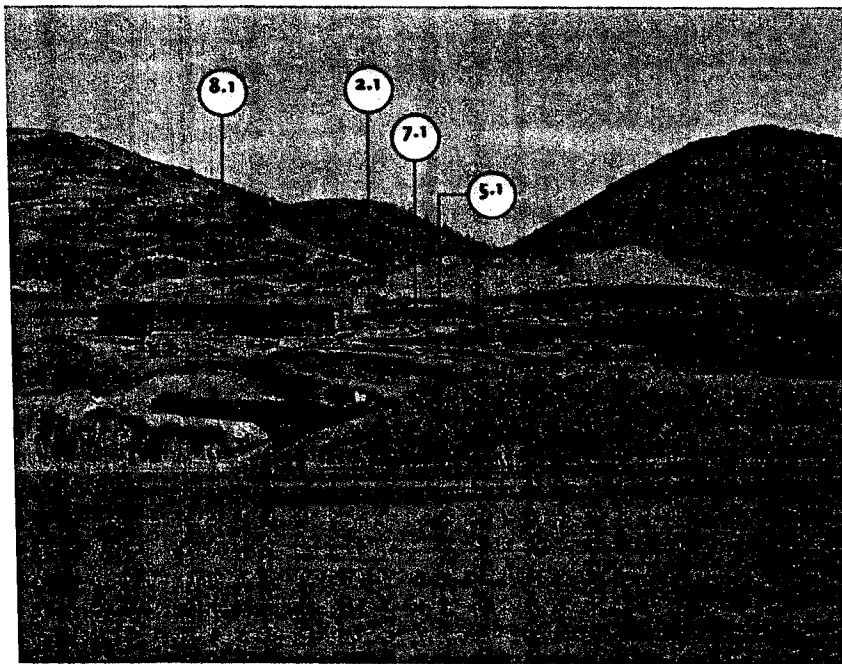
DEER VALLEY LAKESIDE RSPA



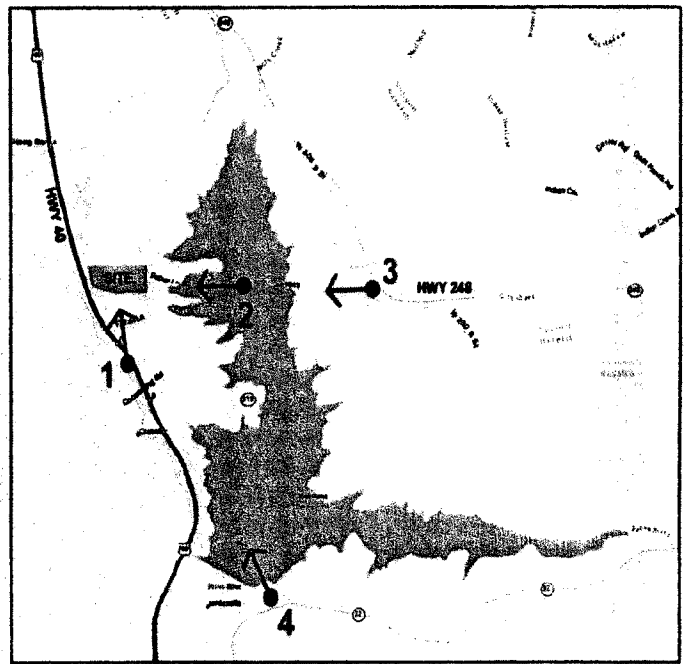
VIEW 1: PROPOSED PANORAMIC VIEW FROM HWY 40 AT MAYFLOWER EXIT



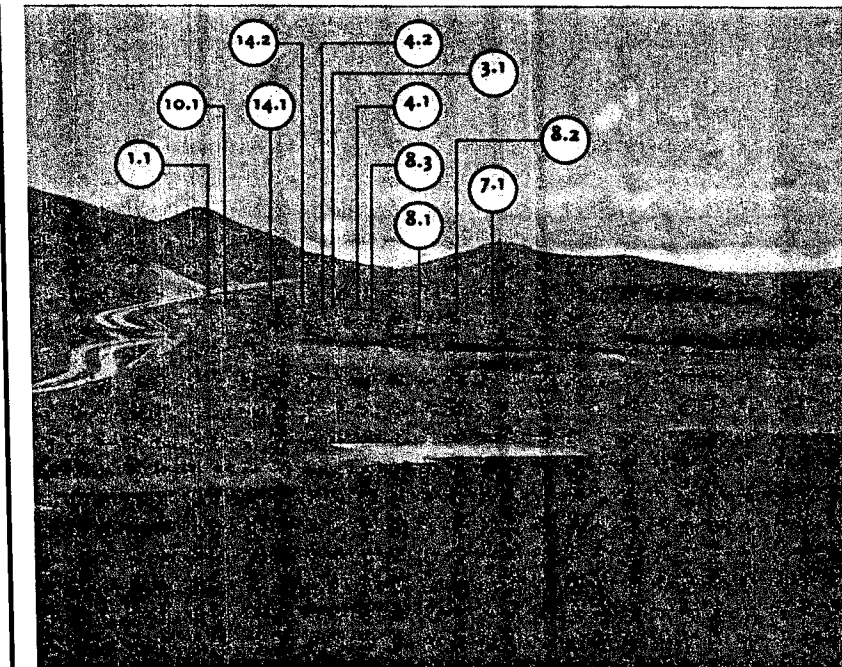
VIEW 3: PROPOSED PANORAMIC VIEW FROM HWY 248 LOOKING WEST



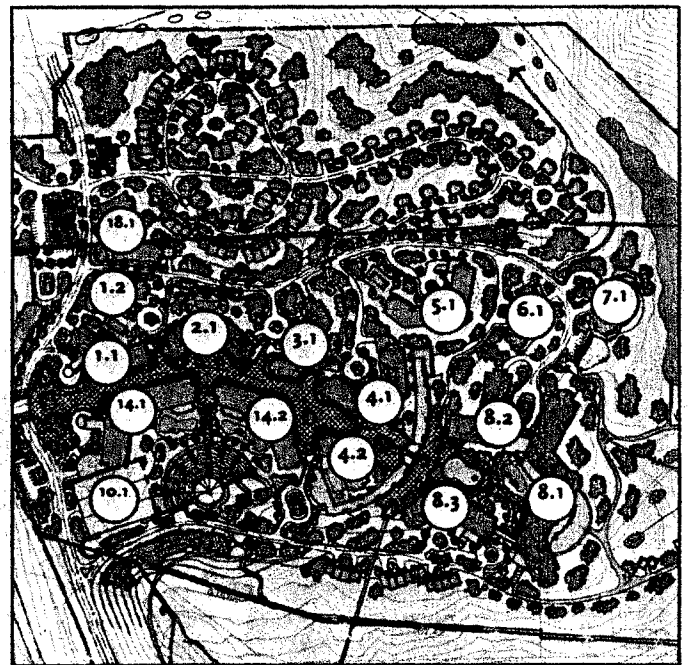
**VIEW 2: PROPOSED PANORAMIC VIEW FROM JORDANELLE LAKE**



**KEYMAP**



**VIEW 4: PROPOSED PANORAMIC VIEW FROM JORDANELLE DAM REST AREA**



**NOTE: BUILDINGS LABELS CORRESPOND TO SHEET B-19**

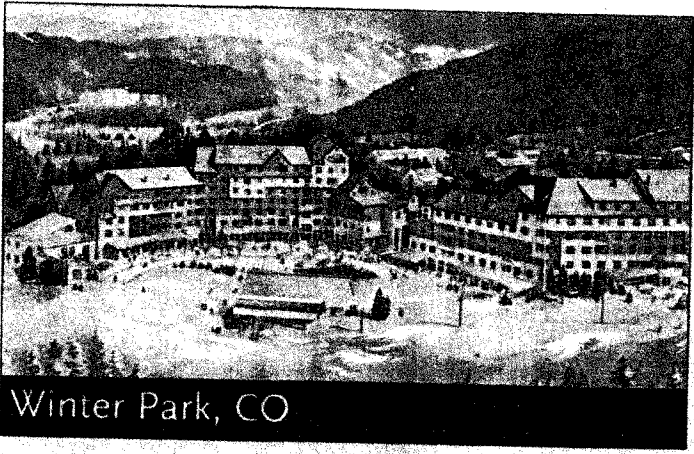


V-2 VIEW STUDIES

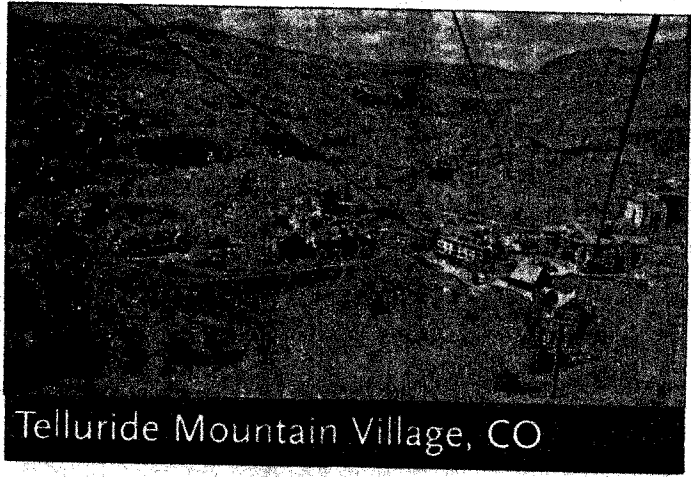
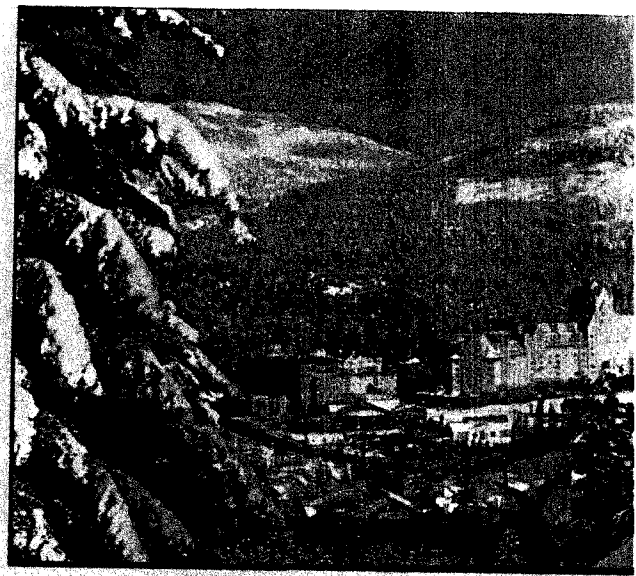
**IBI**  
GROUP



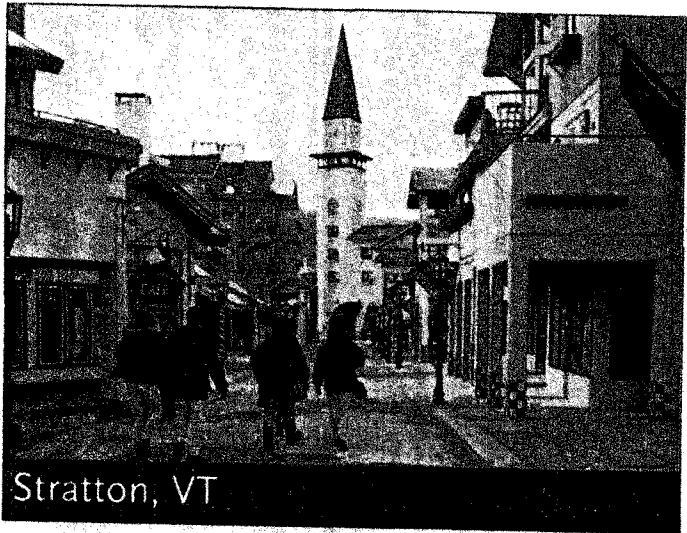
DEER CREST VILLAGE



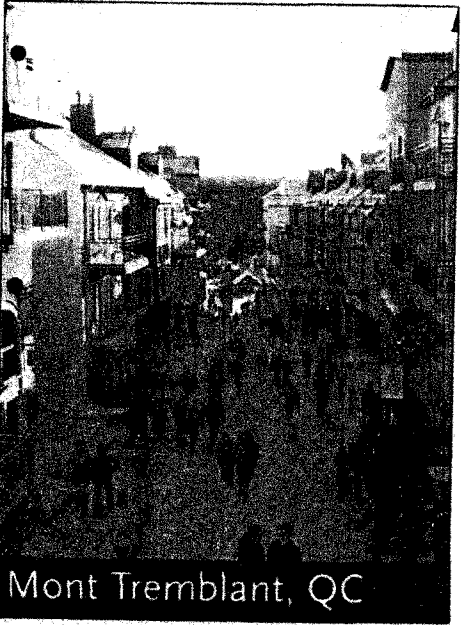
Winter Park, CO



Telluride Mountain Village, CO



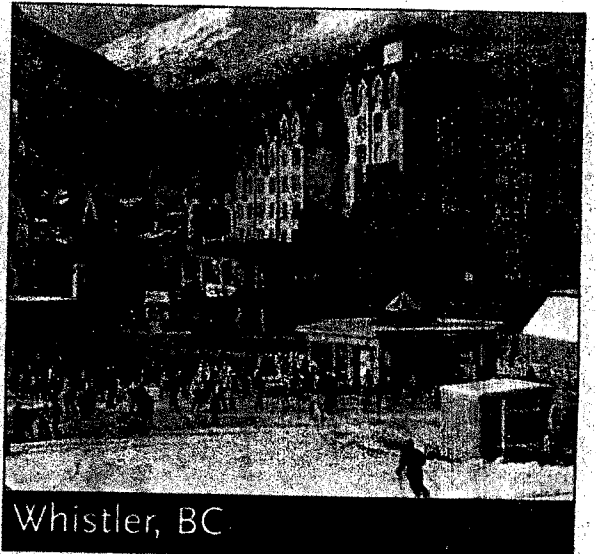
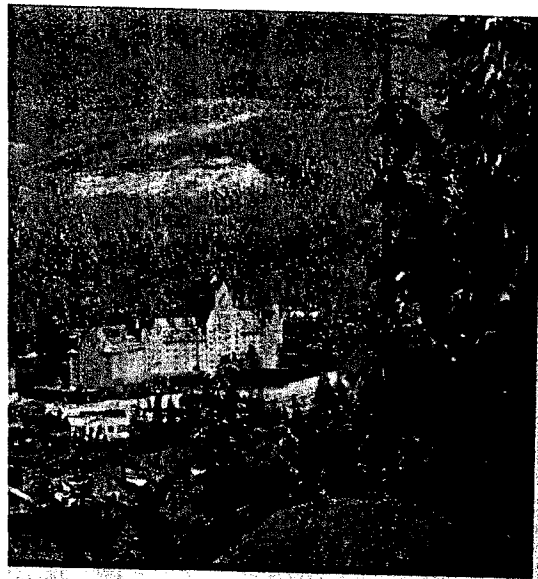
Stratton, VT



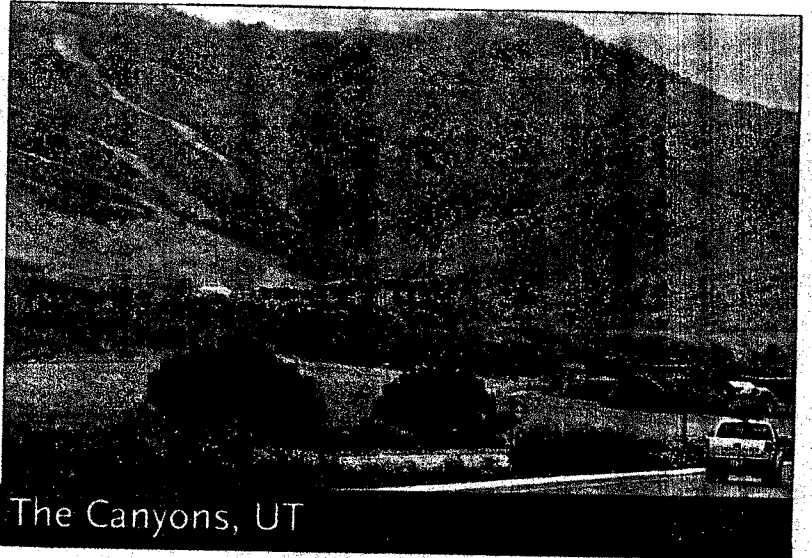
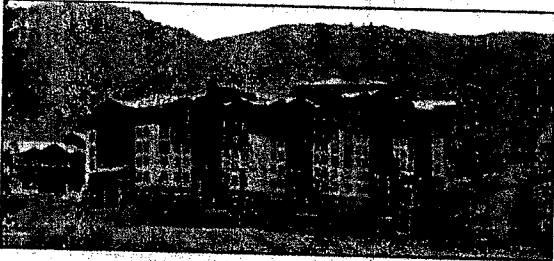
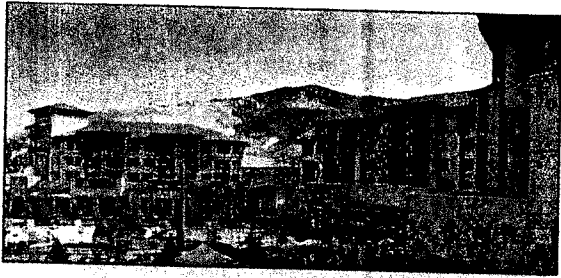
Mont Tremblant, QC



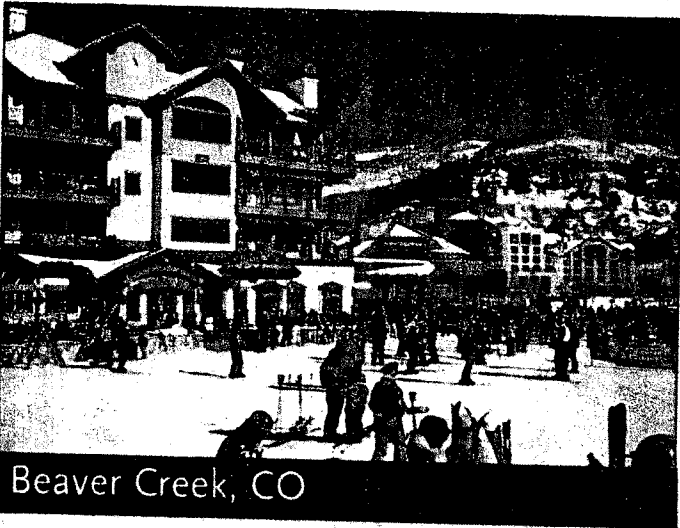
Beave



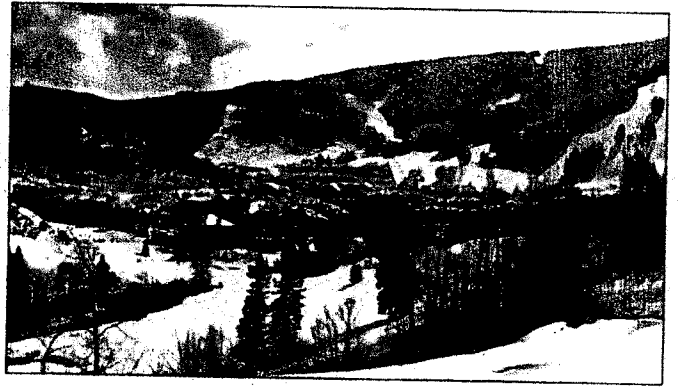
Whistler, BC



The Canyons, UT



Beaver Creek, CO



RESORT VILLAGE  
EXAMPLES

IBI  
GROUP

# **EXHIBIT - E**

Approved ERU's

# EXHIBIT E-2

Ent 309761 Bk 0902 Pg 0883

DENSITY ANALYSIS IN THE RSPA					
PROPERTIES	EXISTING DENSITY	CHANGES AS RESULT OF CLARIFICATIONS	DENSITY AMENDMENTS	RSPA "CLARIFIED" ERUs	COMMENTS
Mayflower South	2074	(656)		1,418	The Original Density Determination was approved in 1984 prior to US Highway 40, the Jordanelle Reservoir, the Jordanelle Basin Land Use Plan and the JBOZ, and the JSSD
Mayflower North	503			503	
Deer Crest Village (West)	191	7		198	The remaining density for the Jordanelle Village area is 191 units plus 62,000 square feet of retail
Deer Crest Village (Deer Cove)	330		535	865	
Jordanelle View	72			72	
Gimbel	55			55	
East Park	260			260	
Sage Hen Hollows	60			60	
The Hollows	26			26	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 16 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
The Points	36			36	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 40 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
Ploche	182			182	The total approved for the Property is 182 ERUs, but a lowers amount will actually be used per the current application for Preliminary Approval to the County
Stillwater	181			181	
Trans-Atlantic Financial (Mayflower)				0	It is anticipated that this site would receive a transfer of an yet to be identified amount of ERUs pursuant to Section 2.3 of the RSPA Amendment
SK Hart Engineering				0	Under the current JBOZ, there are no density approved for this site
LDN				0	
Blue Ledge Corporation	34			34	Under the current JBOZ, there are no density approved for this site
Star Harbor	35			35	
Fox Bay	66			66	
Deer Valley Triangle				0	It is anticipated that pursuant to Section 2.3 of the RSPA Amendment that this site would received a Density Transfer from the Deer Crest Village Property of 60 ERUs the RSPA is approved and the landowners enter into an appropriate agreement
JSSD Water Treatment Site				0	
South School Site				0	
<b>TOTALS</b>	<b>4,105</b>	<b>(649)</b>	<b>535</b>	<b>3,991</b>	

**RSPA Amendment**

# **EXHIBIT - F**

Deer Crest Village  
Amended Density Determination

RESOLUTION NO. 02-32

**A RESOLUTION ADOPTING CLARIFICATIONS AND AMENDMENTS TO DENSITY DETERMINATION FOR DEER CREST VILLAGE IN THE DEER VALLEY LAKESIDE RESORT SPECIALLY PLANNED AREA (RSPA), JORDANELLE BASIN, WASATCH COUNTY, UTAH.**

**RECITALS**

WHEREAS, HAMC Wasatch, LLC ("Owner") is the owner of certain real property situated in the Jordanelle Basin of Wasatch County, Utah, as shown on the map of the Deer Valley Lakeside Resort Specially Planned Area which is attached hereto as Exhibit A and incorporated herein by reference (the "Property"); and

WHEREAS, a portion of the Property is the subject of that certain Findings and Order on Density Determination dated January 27, 1997 for Elkhorn Mountain - Staghorn Village, which was recorded in the Office of the Wasatch County Recorder on July 15, 1997, as Entry No. 195645, in Book 353, Page 17 (the "Density Determination"); and

WHEREAS, Owner, together with other property owners, submitted to the County a proposal for the development of a master planned resort community within the Jordanelle Basin Overlay Zone commonly referred to as Deer Valley Lakeside; and

WHEREAS, in order to provide for the necessary entitlements and to impose certain restrictions on the scope and manner of development of the Property, Owner proposed to the County the establishment of a Resort Specially Planned Area for the Property and certain other property owned by third parties (the "RSPA"); and

WHEREAS, in order to effectuate the RSPA, and to make the Density Determination consistent with the implementing provisions of the RSPA, Owner requested that the County adopt certain modifications and clarifications to the Density Determination, a true and correct copy of which is attached hereto as Exhibit "B" (the "Amendment"); and


WHEREAS, following the positive recommendation of the Wasatch County Planning Commission, approved at a lawfully advertised public meeting and hearing on August 15, 2002, the Wasatch County Board of County Commissioners held a lawfully advertised public hearing on September 23, 2002 to discuss and receive public comment regarding the RSPA and the Amendment; and

WHEREAS, the Wasatch County Board of County Commissioners, at a lawfully advertised public meeting on October 28, 2002, approved the establishment of the RSPA and the adoption of the Amendment;

NOW, THEREFORE, it is hereby acknowledged as follows:

1. The Density Determination has been, and is hereby, amended to incorporate all of the terms, conditions, rights, densities, limitations, duties and obligations set forth in the Amendment.
2. Effective as of October 28, 2002, the Amendment shall for all purposes be a part of the Density Determination, and to the extent of any inconsistency in the terms of the original Density Determination and the Amendment, the terms of the Amendment shall control.
3. Except as specifically set forth in the Amendment, the Density Determination shall continue in full force and effect, enforceable in accordance with its original terms and conditions.

DATED this 30 day of December, 2002.

  
\_\_\_\_\_

T. LaREN PROVOST, Chairman  
Board of Wasatch County Commissioners

Attest:

  
\_\_\_\_\_

BRENT TITCOMB

Wasatch County Clerk-Auditor

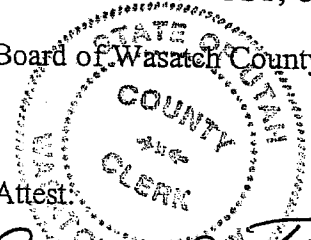


EXHIBIT A

Description of the Property

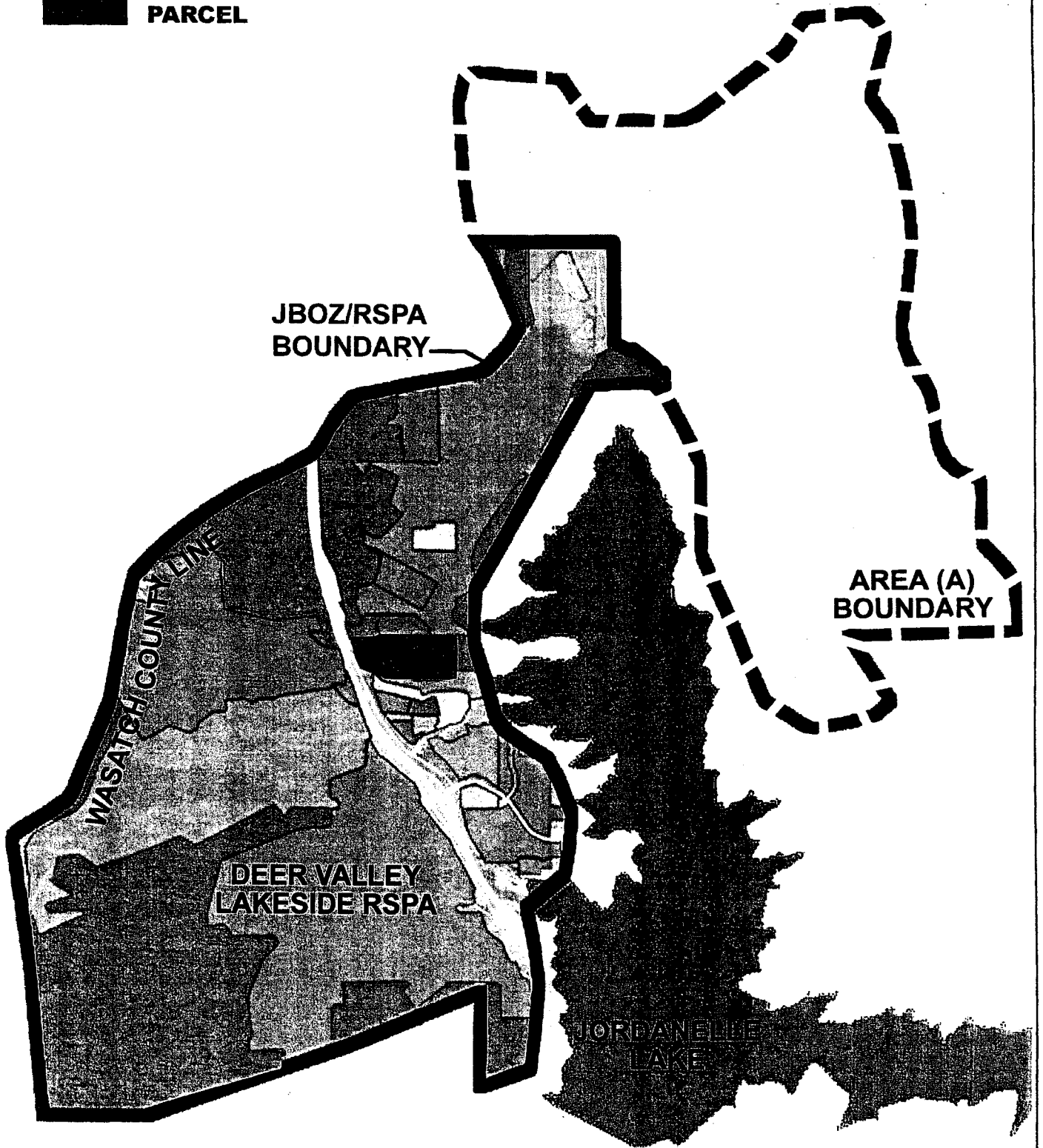
Exhibit A



Exhibit A



**DEER COVE  
PARCEL**



RSPA BOUNDARY MAP WITHIN THE JORDANELLE BASIN OVERLAY ZONE AREA (A)

**EXHIBIT B**

**Amendment to Density Determination**

Exhibit B

DEER CREST VILLAGE

**Deer Crest Village (Formerly Deer Cove)  
Amended Density Determination**

Submission to Wasatch County  
July 3, 2002

Exhibit B



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REVISED DENSITY DETERMINATION

# 1.0 PROJECT DATA

## 1.1 Project name

1.1.1 DEER CREST VILLAGE ("The Project")

## 1.2 Developer

1.2.1 DDRM Greatplace, LLC  
777 Convention Way, Suite 100  
Anaheim, CA 92802

## 1.3 Owner

1.3.1 HAMC Wasatch, LLC  
777 Convention Way Suite 100  
Anaheim CA, 92802

Mailing Address:  
P.O. Box 32467  
Long Beach, CA 90832-2467

## 1.4 Project Area. Total project area is 85.31 acres. West of Highway 40 is 3.35 acres, and East of Highway 40 is 81.96 acres.

1.4.1 (Parcel 1) Lot 11 of Section 23 of Township 2 South, Range 4 East, Salt Lake Base and Meridian Lying Westerly of the West Right of Way Line of State Highway Parcel JDR-HY-40-19: 8:2A, Recorded March 29, 1988, as Instrument 145250, at Book 198, Page 631, Official Records of Wasatch County

(Tax Serial No. OWC-0011-1)

1.4.2 (Parcel 2) The Southerly remainder of Lot 25 of Section 14, Township 2 South, Range 4 East, Salt Lake Base and Meridian lying Westerly of the West Right of Way Line of State Highway Parcel JDR-HY-40-19: 8:2A, Recorded March 29, 1988, as Instrument 145250, at Book 198, Page 631, official records of Wasatch County.

(Tax Serial No. OWC-0011-8)

1.4.3 (Parcel 3) Government Lots 7 and 8, in Section 24, Township 2 South, Range 4 East, Salt Lake Base and Meridian, lying Easterly of the East Right of Way Line of State Highway Parcel JDR-HY-40-19: 8:2A, Recorded March 29, 1988, as Instrument 145250, at Book 198, Page 631, Official Records of Wasatch County.

(Tax Serial No. OWC-0011-2)

1.4.4 (Parcel 4) Government Lot 2, in Section 24, Township 2 South, Range 4 East, Salt Lake Base and Meridian.

(Tax Serial No. OWC-0011-5)

DEER CREST VILLAGE



**1.5.1 Land Planners**

IBI Group  
10 Exchange Place  
Suite 112  
Salt Lake City, UT 84111

Design Workshop  
1390 Lawrence Street  
Suite 200  
Denver, CO 80204

**1.5.2 Engineers**

IBI Group  
10 Exchange Place  
Suite 112  
Salt Lake City, UT 84111

Psomas  
2824 E. Cottonwood Parkway  
Salt Lake City, UT 84121

SE GROUP  
1700 Park Ave., South, Suite 20  
Park City, UT 84060

**1.5.3 Soils/Environmental Engineers**

AGRA Earth & Environmental, Inc.  
4137 South 500 West  
Salt Lake City, UT 84123

ATC Associates, Inc.  
2681 East Parleys Way  
Suite 107  
Salt Lake City, UT 84109

**1.5.4 Legal**

Ballard, Spahr, Andrew & Ingersoll  
201 S. Main Street, Suite 600  
Salt Lake City, UT 84111

**1.5.5 Title Company**

Coalition Title Company  
2200 Park Avenue, C-100  
Park City, UT 84060



- 1.6 **Project History:** In November of 1999 and in May of 2000, HAMC Wasatch LLC, in association with DDRM Greatplace LLC, purchased the land(s) as described in the table below:

Site (At time of acquisition)	Staghorn	Kimball Ridge
<b>Seller</b>	Land der Berg LLC (Joel VanLeeuwen)	Pamela Stewart/Mike Weilenmann
<b>Acquisition Date</b>	November 1999	May 2000
<b>Acreage</b>	Parcel 1: 2.41 acres Parcel 2: .94 acres Parcel 3: 41.97 acres	Parcel: 39.99
<b>Density Allocation</b>	285 ERU's	45 ERU's

**NOTE:** Subsequent to the acquisition of the two (2) parcels detailed above, the developer named the project "Deer Cove". The name of "Deer Cove" has been used in reference to the project since that time. However, this name will no longer be used.

Since that time, through intensive planning activities, dialogue with neighboring landowners, and dialogue with Wasatch County official, the vision for the property has changed. The evolution has resulted in "Deer Crest Village", in the greater context of the "Deer Valley Lakeside Resort Specially Planned Area" or RSPA. Consequently, this Amendment to Density Determination is submitted as an Appendix to the RSPA Implementation Guidelines and Standards along with the Plans and Exhibits.

- 1.7 **Relationship to RSPA.** While it is intended that this Amended Density Determination be adopted in conjunction with the RSPA, it is not dependent upon the adoption or continuation of the RSPA. If the RSPA is not implemented or terminates for any reason, including without limitation the failure of Wasatch County to approve the RSPA or failure to complete the "Closing the Loop" process within the time period required by the RSPA, this Amended Density Determination shall, nevertheless, survive and continue in full force and effect. In such event, the materials submitted as part of the RSPA application, including without limitation the RSPA Implementation Guidelines and Standards which are referenced herein shall be deemed to be adopted herein for all purposes by such reference. Without limiting the generality of the foregoing, the zoning classifications and related rights and attributes of the Implementation Guidelines and Standards which are applicable to the Project shall apply, together with the definitions, design guidelines, use limitations, parking requirements and all other matters, with intent that the RSPA Implementation Guidelines and Standards shall apply to the Project to the greatest extent possible and reasonable under the circumstances. To the extent appropriate, the applicable terms and provisions of the Implementation Guidelines and Standards shall be included in



the restrictive covenants, design guidelines and other governing documents adopted for the Project.

**1.8 Density Amendment.** To accommodate Deer Crest Village, a revision of density for the project is required. The density request amount is for 535 ERU's.

**1.9 Project Description.** Deer Crest Village is an integrated mixed use Resort Village to serve as a center or hub for the Deer Valley Lakeside Resort Specially Planned Area. The development consists of an integrated broad mix of:

- a. State-of-the-art meeting/convention facilities,
- b. Lodging facilities,
- c. Residential facilities,
- d. Village shopping (retail sales),
- e. Recreational facilities and Entertainment uses, and
- f. Common areas and community facilities.

Deer Crest Village will be very unique because it will combine meetings and leisure market segments with skiing, future golf, water sports and the Deer Valley brand, all in the same immediate location.

**1.10 Purpose.** It is the purpose of Deer Crest Village to meet the demand and satisfy the following requirements:

- a. "Critical Mass" of lodging, retail, services, recreational amenities, etc, which requires a "Village"
- b. Meeting Space of approximately 100,000 square feet to provide significant competitive advantage
- c. Family Activities
- d. Year Round Resort amenities and experience
- e. Resort Village with a real "Sense of Community"
- f. Strong Governance System to provide the structure necessary to be well managed and adequately funded.

**1.11 Zones & Land Uses.** As shown in **Plan B-12** and **Plan B-13** in the Plan Book and summarized in detail on **Exhibit E-6** in the Exhibit Book, and consistent with the RSPA Zones for a Resort Village, Deer Crest Village will consist of the following general Zones and accompanying land uses:

RVMD (Resort Village Medium Density):	Mixed Use
RVHD (Resort Village High Density):	Mixed Use
HC (Hotel Casitas):	Hotel/lodging



CS (Community Site):

Convention Center (Section 4.7)  
Amphitheatre

The Convention Center area has some special vertical zoning, which is not totally shown in **Plans B-12** or **Plan B-13** in the Plan Book. This is discussed in detail in Section 4.7 herein.

**1.12 Amenities.** Deer Crest Village will be cohesive in appearance, design, and construction utilizing strong design guidelines which control the aesthetics of buildings, fencing, signs, landscaping, lighting, trail systems, recreation structures, project infrastructure, etc. The village will include the following major resort features and amenities:

- a. Tubing hill;
- b. Golf access;
- c. Ski access through the Portal;
- d. Amphitheatre;
- e. "Critical Mass" of lodging;
- f. "Critical Mass" of retail, services & recreational amenities;
- g. Meeting Space of approximately 100,000 square feet to provide significant competitive advantage.

**1.13 Key Elements of the Project.** The key focus of the Project is to deliver the elements that are consistent with and that enhance the RSPA Vision and Design Guidelines, along with the following Guiding Development Principles of Resort Villages:

- a. Deer Crest Village provides a critical mass of lodging, retail, dining and entertainment which will help ensure activity and energy on a year round basis.
- b. Deer Crest Village is designed to provide a seamless environment by having experiences and storefronts along both sides of the roadway or walkway, and direct connectivity to resort features and amenities.
- c. Deer Crest Village is designed such that the resident and guest will have a sense of excitement about discovering what is next within the project. This is achieved by curved walkways, mix of experiences, intriguing and exciting design features, etc.
- d. Deer Crest Village will provide the guest and resident with a wide range of things to do, as well as create a steady stream of diverse events. Family oriented gatherings consistent with the design and diverse land uses will be emphasized.
- e. Deer Crest Village will be very accessible to vehicular traffic and pedestrian circulation. Signage throughout the Village will be effective in accommodating a pleasant experience.
- f. Deer Crest Village's parking design will be adequate, simple, and convenient.





- g. Deer Crest Village's design concept is one in which the natural features will help in "creating the story" which residents and guest alike will want to experience many times over.
- h. Deer Crest Village will be a gathering place for all; offering many experiences, as well as providing the basic services.
- i. Deer Crest Village will be a unique environment providing common and uncommon goods and services, such that will compel the guest to become repeat visitors.

**1.14 Architectural Concepts.** The Project will follow the Design Guidelines, Architectural Guidelines and Other Guidelines as specified in the Section 6.0 and 7.0 of the RSPA Implementation Guidelines and Standards document submitted with this application.

**1.15 Landscape Architecture.** As mentioned above, the Project Team will follow the Design Guidelines, Architectural Guidelines and Other Guidelines as specified in the RSPA Implementation Guidelines and Standards document submitted with this application. Specifically, the Landscape Guidelines in Section 5.0 of the RSPA Implementation Guidelines and Standards submitted with this application will be followed.

**1.16 Project Parking.** The Project will follow the Parking Plan contemplated in the RSPA Amendment and Exhibits.

**1.16.1** Specifically, in **Section 3.4.1** of the RSPA Implementation Guidelines and Standards, a description of the Shared Use Parking for a Resort Village outlines the required parking spaces in the Shared Use Parking Study executed by IBI Group's Transportation Division. A copy of this Shared Use Study is included as **Exhibit E-10** in the Exhibit Book.

**1.16.2** The parking locations on the project are shown in detail on **Plan B-35** in the Plan Book. This plan will be executed in phases over the development of the project. Each building would contain enough parking for its basic residential needs. The commercial and recreation uses will be met by the additional parking for skiing and summer uses such as the amphitheatre.

**1.16.3** The total number of parking spaces, compared to the required spaces per the Shared Use Study, is shown in **Exhibit E-10** in the Exhibit Book. In addition each building's proposed parking requirement is shown in **Exhibit E-22**.

**1.16.4** The Project will comply with the Benchmark Parking Plan as specified in **Section 3.4.2** of the RSPA Implementation Guidelines and Standards included in this Submittal.

**1.17 Open Space.** The Project open space is analyzed on **Plan B-19** in the Plan Book. This analysis is support and further discussed in **Section 5.2** of this Submittal.



**1.15 Project Densities.**

**1.15.1 Density Flexibility.** Pursuant to **Section 2.3.3** in the RSPA Implementation Guidelines and Standards, although the uses are specified, this Submittal contemplates the need to allow the Development Team to change the uses and densities of each building, as long as the overall density is not increased, and the density of any single building is not great than 80 dwelling units per acre. This will allow the flexibility that is needed to meet the market.

**1.15.2 Anticipated Transfers.** It is anticipated that the Project will eventually come to an arrangement with the each of Deer Valley, the Pointe and the Hollows to transfer density pursuant to **Section 2.3.4** of the RSPA Amendment. The Target Study for Neighborhood B indicated densities of 60 ERUs for Deer Valley, 76 ERUs for the Pointe and 42 for the Hollows. This would equate to an eventual transfer of 60 ERUs to Deer Valley, 40 ERUs to the Pointe and 16 ERUs to the Hollows, upon consummation of the transfer agreements with each of the landowners. If the transfer does not take place, then Option 2 will be implemented.

**1.16 Fiscal Impact to Wasatch County.** See **Exhibit E-26** in the Exhibit Book.

**1.17 Governmental Services**

**1.17.1 Fire Department.** Will-Serve Letter is shown in **Exhibit E-35**.

**1.17.2 Law Enforcement Services.** Also Shown in **Exhibit E-35**.

**1.17.3 Refuse Collection.** Also Shown in **Exhibit E-35**.

**1.18 Design Guidelines.** The Project will follow the Design Guidelines as specified in Sections 5.0, 6.0 and 7.0 in the RSPA Implementation Guidelines and Standards.

**1.19 Geological Reports**

**1.19.1 Summary Write-up Soils and Geology.** A site-specific engineering geology/geotechnical study for the subject property has been prepared. A copy of the "Report, Engineering Geology Reconnaissance and Geotechnical Study Proposed Staghorn Village, for Joel Van Leeuwen, August 31, 1995, Dames & Moore: Job No. 31406-001-031, Near Jordanelle Reservoir, Wasatch County, Utah, prepared by, Russell Owens, Professional Engineer, Craig Nelson, Certified Engineer Geologist" is included in **Exhibit E-30** in the Exhibit Book.

**1.19.2 Environmental Impact.** The proposed project facilities will have the following probable impact on the environment.

- a. Site grading within the development will result in short term disturbance but long-term stability with respect to site soils.
- b. Topsoil will be removed in areas of project construction. This is considered to be a short-term effect, which is subject to mitigation.
- c. Site grading within the development will result in short term disturbance but long-term stability with respect to site geology.

- d. The project will increase the potential for erosion within the development.
- e. The project will increase the potential for storm water runoff with the development.
- f. The project will decrease the hazards associated with underground workings and openings within the project, due to closing procedures that will be performed.
- g. The project will avoid unstable foundation materials in the location of buildings.

**1.19.3 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing, environmental conditions.

- a. All soils engineering and geotechnical recommendations contained in the Soils Report shall be incorporated into project planning, design, plans, specifications, and construction review.
- b. All soils engineering recommendations regarding collapsible soils contained in the site Soils Report shall be incorporated into project planning, design, plans, specifications, and construction review.
- c. All topsoil removed in construction areas shall be stockpiled for later use in disturbed areas of the site, or in other areas within the project.
- d. Grading construction activities will be monitored by a competent geotechnical engineer to insure compliance with geotechnical reports and recommendations, and to provide for unexpected conditions that may be encountered in the field.
- e. Grading will be designed and constructed in accordance with Chapter A33 Excavation and Grading, of the Uniform Building Code, 1994 Edition.
- f. All buildings will be structurally designed as specified in the Uniform Building Code for Seismic Risk Zone 3 and as may further be specified by the Wasatch County Building Department.
- g. Building placement shall not be allowed in areas of very shallow groundwater, or in the path of seeps, sumps, and natural drainage courses.
- h. Building construction will not be allowed on steep slopes (slopes over 30%)
- i. Appropriate measures shall be taken in the construction of buildings to protect against intrusion of radon gas.
- j. Areas of the property containing unstable shale formations, at adverse strikes and dips, will be avoided where possible in order to avoid slippage of soils along the plane of the bedrock.



- k. Grading construction activities will be monitored by a competent engineering geologist to insure compliance with geotechnical reports and recommendations, and to provide for unexpected conditions, which may be encountered in the field.

**1.19.4 EIS Information.** An Environmental Impact Statement Supplemental Environmental Study was completed on the property, August 1996. Enclosed, as **Exhibit E-31** in the Plan Book, is a copy of Chapter 18, "Soils/Geology" which presents very detail background information, as well as site-specific information concerning Soils and Geology.

**1.20 Water Rights.**

**1.20.1 Summary Write-up.** Deer Crest Village is current with the Jordanelle Special Service District in the procuring and payment of water rights for the following; a) the current entitlement of 330 ERU's, and b) for the increase of 535 ERU's that is proposed within this Revised Density Determination.

Deer Crest Village is committed to working jointly with the Jordanelle Special Service District in all matters that relate to Water Rights for the property.

**1.20.2 Agreement with JSSD.** A copy of the Agreement with the JSSD is found to provide services is found in **Exhibit E-32** in the Exhibit Book.



## 2.0 ENVIRONMENTAL DATA

**2.1 Wildlife Resources.** There have been numerous deer kills along US Highway 40 near the subject Property since the completion of the new highway in 1989. Also, there are some reported elk and moose kills in the area. The major impact on wildlife in the area has already taken place by virtue of highway construction and continued flow of traffic through the highway corridor. It is not felt that the proposed project will impact wildlife any more significantly than that which is already occurring as a result of US Highway 40.

**2.1.1 Environmental Impact.** The following summarize the environmental impact to wildlife:

- a. Wildlife displaced from their habitat by project construction may seek to replace lost food sources with project ornamental shrubs and trees.
- b. The development of the project may have a negative effect through increased recreational use of the land.
- c. Based on use of and experience with the land in question, the owner of the property reports that there are no known threatened or endangered animal species within the project area.
- d. Based on use of and experience with the land in question, the owner of the property reports that there are no known sensitive species of animals within the project area.
- e. The proposed development should not displace any rare or endangered species of wildlife.
- f. The proposed development should not alter the hunting opportunities in the area since the subject property is private, and has not been open to hunters.
- g. There is no fish habitat on the subject property since intermittent storm water paths through the subject property do not provide opportunity for habitat.
- h. Deer and elk wintering range in the area will be slightly affected.
- i. The development of the Deer Crest Village will cause a few species of wildlife to possibly relocate their habitat.
- j. The proposed development should not adversely affect any fishing opportunities in the area.

**2.1.2 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following Fauna measures designed to either mitigate the effects of development and/or enhance the exiting environmental conditions:

- a. Snowmobiles, motorcycles, and ATVs will be prohibited from using hillside and common areas.



- b. Large open space areas will be left within the development in order to mitigate disturbance to wildlife in other areas of the property.
- c. Disturbed common area facilities will be replanted with native species conducive to wildlife grazing.
- d. Storm water facilities (detention ponds) and water quality facilities (debris basins) shall be designed in a distributed fashion where possible throughout the development to increase the opportunities for wildlife.
- e. Riparian zone habitats such as canal corridors shall not be utilized for development except where absolutely necessary for road construction.
- f. Water quality debris basins will be constructed within the development to preserve water quality of downstream habitat areas.
- g. Areas disturbed by construction shall be restored to their original conditions as nearly as possible and as soon as possible to minimize the disturbance to wildlife habitat.
- h. The significant recreation facilities and areas included within the development will help to offset the loss of wildlife opportunities caused by project development.
- i. Open space areas and corridors will be maintained within the development to allow for the migration of wildlife.

**2.1.3 EIS Information.** An Environmental Impact Statement Supplemental Environmental Study was completed on the property, August 1996. Enclosed, as **Exhibit E-33** in the Exhibit Book, is a copy of Chapter 8, "Natural Resources" which presents very detail background information, as well as site-specific information concerning Wildlife Resources within the Deer Crest Village environs.

## 2.2 Plant Resources

### 2.2.1 Project Clearing Standards

Project clearing required for the construction of the village will be accomplished in a sensitive manner as outlined in Mitigating Measures below.

### 2.2.2 Fire Protection Fuel Breaks

Fire protection fuel breaks are in compliance with the Wasatch County Fire Department and consist of selective clearing of native vegetation and specific replanting of fire resistant materials.

### 2.2.3 Environmental Impact

The proposed project facilities will have the following probable impact on the environment.



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- a. The development of the Deer Crest Village Project will change the visual character of the subject property with the introduction of roads, and buildings.
- b. The project will remove vegetation in areas due to roadway construction.
- c. The project will remove vegetation in areas due to building construction.
- d. Project grading will in some areas bring about a change in landforms.
- e. The visual character of the property will change in some degree by the introduction of man-made objects such as buildings, roads, etc. onto the property.
- f. The project will disturb vegetation areas of common open space due to bike and pedestrian paths. The disturbance to the site for this type of construction will be minimal.
- g. Based on use of and experience with the land in question, the owner of the property reports that there are no known sensitive species of plants within the project area.
- h. Based on use and experience with the land in question the owner of the property reports that there are no known sensitive species of plants within the project area.
- i. The proposed development should not eradicate any rare, endangered, or threatened species of plants, trees, or shrubs on the property.
- j. The proposed development should not unduly injure the natural beauty of the site itself.
- k. Due to the project's slope, aspect, vegetative diversity, landform diversity, soil productivity, soil stability, and field of view, the land in question will incorporate grading and planting to accommodate the development proposed.

#### 2.2.4 Mitigating Measures

The potential impact of the Deer Crest Village development will be mitigated by the following Flora measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- a. Re-vegetation, replanting, and reseedling of areas disturbed by grading and development will be undertaken in order to:
  - 1. Minimize erosion,
  - 2. Reduce dust emissions,



3. Replace and enhance vegetation lost to construction and,
  4. Improve water quality of down stream area
- b. Topsoil will be stockpiled and reused to aid in landscape restoration.
  - c. Plant materials used in re-vegetation programs shall selectively be native materials, or native appearing materials, which will blend with the existing vegetation.
  - d. Construction and development areas shall be replanted as soon as possible after disturbance:
    1. To insure a successful re-vegetation program,
    2. To restore the visual character of the land,
    3. To restore wildlife habitat, and
    4. To minimize erosion potential.
  - e. Trails shall be constructed using non-destructive construction techniques where possible to minimize erosion potential and improve water quality of downstream areas. Non-destructive construction techniques will include removal of trees and shrubs on trails by hand and small equipment as opposed to massive earthwork grading by bulldozers.
  - f. Construction of steeper angle cut slopes where geologically possible will be utilized to minimize the amount of vegetation removal and erosion potential.
  - g. Construction of minimum road lengths possible to minimize effect of project grading and disturbance to landscape and existing vegetation.
  - h. Adequate off-street parking will be provided throughout the development to minimize street widths and the grading necessary for the construction of roadways.
  - i. Provision for open space preserves will be made to protect and enhance significant trees, plants, and shrubs on the land.
  - j. The necessary removal of trees shall be accomplished in a manner, which shall not harm other trees or vegetation to the extent possible.
  - k. Site construction limits for building and facilities shall be minimized to the extent possible.
  - l. Provision for pedestrian access ways will be provided where possible in lieu of automobile traffic, circulation, and parking
  - m. Provision for bike and pedestrian pathways will be made throughout the project to minimize automobile travel, traffic, and parking.





- n. Open space preserves will be set aside for recreational uses where possible to minimize the effect of development on existing natural vegetation and landscape.
- o. Development, utilization, and maintenance of open space areas will be conducted in compliance with project Conditions, Covenants, and Restrictions (CC&R's) relating to the preservation and enhancement of common open space areas.
- p. Care will be taken where possible in the construction of roadway, project facilities, buildings, and homes to preserve any trees of significance.
- q. In areas of large scale grading, topsoil removed from the site will be saved and stockpiled for later use in landscaping purposes within the development.
- r. Extreme caution shall be exercised in the use of herbicides within the development to avoid introduction of these chemicals into stream channels or drainage courses.
- s. Re-vegetation efforts within the project shall consider the use of fire retardant or fire resistant plant species.

**2.2.5 EIS Information.** An Environmental Impact Statement Supplemental Environmental Study was completed on the property, August 1996. Enclosed, as **Exhibit E-33** in the Exhibit Book, is a copy of Chapter 8, "Natural Resources" which presents very detailed background information, as well as site-specific information concerning Plant Resources within the Deer Crest Village environs.

## 2.2 Fire Protection

**2.3.1 Summary Report.** Responsibility for fire protection within the Deer Crest Village Project is as follows:

- a. Structure fires: Wasatch County Fire Service District,
- b. Wildfires: State Lands & Forestry.

The Fire Chief of Wasatch County Fire Services has been contacted and he states that his agency is in a position to provide fire protection services to the Deer Crest Village project.

The following fire resistant plant materials may be used in replanting programs within the development:

- a. Grasses such as Orchard grass, Rye grass, Kentucky bluegrass, White clover, Alfalfa, Crested wheat grass, Manzarita, and other perennial grasses.
- b. Shrubs such as Salt brush, Bitter brush, Sand cherry, Lilac, Bladdersenna, etc.

- c. Broadleaf trees such as Quaking aspen, Box elder, and Cottonwood, etc.

**2.3.2 Environmental Impact.** Fire risks will change with the development of the Deer Crest Village project. The proposed project facilities will have the following probable impact on the environment.

- a. The project will impact existing fire protection resources located in Wasatch County.
- b. The project may increase the possibility of fires due to the introduction of construction activities and higher density uses on the property.
- c. The construction of project fuel breaks will increase fire protection in the area.
- d. Project facilities will increase fire protection in the area by means of the improved access provided which facilitates the movement of men and equipment to fire sites.
- e. The project will provide increased fire protection facilities in the areas due to the construction of water storage tank, water system, and fire hydrants.
- f. The project will not unduly expose the property or the surrounding areas to risk of fire danger.

**2.3.3 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing, environmental conditions.

- a. The proposed water system will be constructed as necessary to provide fire service and domestic water service to the proposed projects. The water system construction will consist of the following facilities:
  - i. Water storage tank,
  - ii. Supply and distribution mains, and
  - iii. Fire hydrants.
- b. The Jordanelle Special Service District shall maintain all fire hydrants.
- c. All construction equipment shall have properly installed and maintained spark arresters to minimize the danger of starting fires.
- d. A water truck should be present on the site of road grading and major building construction to provide immediate fire fighting capabilities for fires, which might be associated with these activities.



- e. Project employees shall be trained in fire fighting and suppression techniques and shall act as a fire deterrent within the project.
- f. All access roads servicing homes shall be paved, or otherwise hard surfaced with materials such as paving bricks, or gravel.
- g. Public access roadways will be constructed to the project from at least two different locations at widths and grades sufficient to permit ingress and egress to and from the project and to permit the passage of emergency fire fighting equipment and vehicles.
- h. Combustible materials associated with construction shall not be allowed to accumulate on the site and shall be disposed of in a timely fashion.
- i. Combustible plant materials shall not be allowed to accumulate on the site and shall be disposed of in a timely fashion.
- j. Fire retardant roofing materials will be specified in CC&R's and Architectural Standards in order to minimize the risk to buildings as a result of possible fire. Treated fire resistant wood shingles and shakes meeting fire resistant specifications may be allowed within certain areas of the development deemed to be free of wildfire hazard.
- k. Fuel breaks consisting of fire resistant plant materials shall be provided around the perimeter of high-density development areas.
- l. Fire protection sprinkler systems, both internal and external, will be considered in all design and construction.
- m. All building construction shall meet the requirements of the Uniform Building Code, 1994 edition.
- n. Building roofs shall be constructed of minimum fire resistant materials, and preferably maximum fire resistant materials such as tile or metal.
- o. Structural projections of building such as eaves, balconies, and decks shall be constructed of fire resistant materials.
- p. Roof, attic, and under floor openings of buildings shall be screened or closed off.
- q. All chimneys shall be equipped with spark arrestor caps and have all plant material removed a minimum of 15 feet around the chimney.
- r. Bridge and culvert crossings of watercourse shall be designed for a minimum 40,000 pound GVW.
- s. Prior to issuance of any construction permits, the Architectural Control Committee of Deer Crest Village shall require the applicant to submit and have approved a firebreak plan.



- t. Common area fuel breaks of approximately 100 feet in width will be constructed around the perimeter of the development to aid in preventing the spread of wildfire from adjacent properties and lands.

**2.3.4 EIS Information.** An Environmental Impact Statement Supplemental Environmental Study was completed on the property, August 1996. Enclosed, as **Exhibit E-34** in the Exhibit Book, is a copy of Chapter 16, "Fire Protection" which presents very detail background information, as well as site-specific information concerning Fire Protection within the Deer Crest Village environs.

**2.3.5 Will-serve letter from Fire Marshall.** The letter is found at **Exhibit E-35** in the Exhibit Book.

## 2.4 Air Quality

**2.4.4 Summary.** Deer Crest Village is located in the northerly area of Wasatch County just outside of the Heber Valley in hilly and mountain terrain.

Typically in the Heber Valley, during the nighttime and early morning hours, cold air drains down the mountain slopes into the low lying valleys. Because the mountains are high and the Heber Valley is broad, inversion layers can occur in the winter months resulting in a very stable atmosphere with poor dispersion conditions. By mid-morning, as solar insulation increases, the air near the ground warms becomes buoyant, and the atmosphere becomes less stable resulting in generally favorable dispersion conditions.

During the winter months, during periods of snow cover and light winds, inversions and poor dispersion conditions may persist throughout the day. Extended periods of poor dispersion can occur during winter conditions when large high-pressure systems persist over the intermountain region for a long period of time. These conditions may prevail until the atmosphere is cleansed by winter storms, which move through the area. The inversion level normally occurs at or below the 6,000-foot elevation level, which is below the subject project elevation.

The potential for significant pollutant concentrations is greatest in the late fall and early winter when slow moving high pressure systems frequent the area, and less in the late winter and early spring when low pressure storm systems are more prevalent. Late spring through early fall is very favorable for pollutant, dispersion because of the relatively strong solar insulation and increased atmospheric mixing and winds.

The actual site of the subject property just outside of Heber Valley in the upper end of the County presents different air movements than the Heber Valley proper. The exact nature of wind conditions in this area of the county directly adjacent to the Jordanelle Reservoir has indicated that late afternoon winds on the lake are substantial. Air quality conditions in the area should therefore be very good.

Although no monitoring has been performed in the Heber Valley, the existing air quality is known to be good. There are no know major pollutants sources in the Valley outside of open burning of waste material from the area, which sometimes occurs. Although the property is close



to non-attainment areas along the Wasatch Front, The Wasatch Mountains act as an effective barrier preventing pollutants from these areas in reaching the Heber Valley.

The existing air quality in Wasatch County is considered to be very good. There are no major sources of pollution and the entire area is considered to be a pristine valley, not an urban or industrial setting. The air quality in the vicinity of the Jordanelle Reservoir is very good due to the movement of air currents throughout the day.

- 2.4.5 Mitigating Measures.** The potential impact of the Deer Crest Village project will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.
- a. Watering during the construction process will control dust possible from site grading construction.
  - b. Project space heating will be accomplished with natural gas, which is considered to be a low pollution-heating source.
  - c. Space heating equipment installed in units, shall be new equipment incorporating the latest in technology with respect to efficient combustion and emission control.
  - d. Fireplace units shall be clean burning "gas log" fireplaces. There may be a few wood burning fireplaces within the project in restaurants and lobbies. Where possible, these wood-burning fireplaces shall have catalytic combustors or be Low-emission Non-catalytic units in order to minimize pollutants.
  - e. Construction practices will comply with state and local laws and regulations pertaining to air quality with respect to the control of fugitive dusts.
  - f. Slash and shrubs resulting from cutting and clearing operations will be chipped for mulching purposes to minimize burning practices which result in possible air pollution.
  - g. Construction material remains shall be removed from the site where possible to minimize burning practices, which result in possible air pollution.
- 2.4.6 EIS Information.** See Exhibit E-36 in the Exhibit Book for a copy of "An Environmental Impact Statement Supplemental Environmental Study was completed on the property, August 1996. Enclosed is a copy of Chapter 21, 'Air Quality'" which presents very detail background information, as well as site-specific information concerning Air Quality within the Deer Crest Village environs.

## 2.5 Sound Quality

- 2.5.1 Summary.** Potential noise sources with the development are:



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- a. Construction noise,
- b. Traffic noise from US Highway 40,
- c. Traffic noise from project roadways,
- d. Noise from project facilities.

**2.5.2 Construction Noise.** Project construction noise will be confined to construction seasons during the build-out of the phased project – the majority of noise generated from this source will be confined to the immediate construction sites in question and will affect project sites only as opposed to any significant outside communities.

**2.5.3 Highway Traffic Noise from US Highway 40.** The subject property lies adjacent to US Highway 40, which will be a source of noise to the proposed commercial village and residential units. This sound source will be mitigated somewhat since the development lies below the highway. Personnel from the Utah Department of Transportation were contacted regarding the potential noise, which may be generated from the highway. Potential noise from Highway 40 may be estimated as described in the report in **Exhibit 37** in the Exhibit Book.

**2.5.4 Traffic Noise from Project Roadways.** Traffic noise from project roadways will be typical of that generated from relatively low volume residential streets.

**2.5.5 Noise from Project Facilities.**

**2.5.5.1** Noise will be generated from project operations as follows:

- 1. Maintenance operations of equipment and facilities,
- 2. Hiking and jogging on trails, bike riding, picnicking etc. within project facilities

The above noise sources are considered to be infrequent in nature, or nominal in nature; hence they should not constitute an adverse environmental impact.

**2.5.6 Environmental Impact.** The proposed project facilities will have the following probably impacts on the environment:

- a. Homes and residential units constructed in initial phases of development will be subject to noise of subsequent construction activities, which will consist of earthmoving, equipment, and possible rock drilling & blasting which will be a temporary noise source and nuisance.
- b. Project areas will be subject to highway noise generated by US Highway 40.
- c. Homes and residential units within the development will be subject to possible noise from recreational facilities and activities within the development.



- d. Homes within the development will be subject to normally associated street noises.

**2.5.7 Mitigating Measures.** The Potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- a. Structures constructed within the "hard site" minimum distance of 623 feet will have sound mitigators in place; such as landscaping and or sound barriers.
- b. Construction practices will comply with state and local laws and regulations pertaining to noise control standards.
- c. High-density activity areas will be screened planted with sound absorbing plant materials to the maximum extent possible to provide sound buffering.
- d. Snowmobiles will not be allowed within the development.
- e. The discharge of firearms will not be allowed within the development.
- f. Off road & all-terrain motorcycles and vehicles will be prohibited within project open space and on project trails.

Owners within the development will be encouraged to employ the use of sound absorbing planting materials in areas which may be subject to noise generated from both onsite and offsite sources.

**2.5.8 EIS Information.** See Exhibit E-37 in the Exhibit Book taken from "An Environmental Impact Statement Supplemental Environmental Study which was completed on the property, August 1996. Also enclosed is a copy of Chapter 22, 'Sound Quality,'" which presents very detailed background information, as well as site-specific information concerning Sound Quality within the Deer Crest Village environs.



### 3.0 ENGINEERING INFORMATION

- 3.1 Cost Estimates.** See **Exhibit E-38** in the Exhibit Book for a summary of the engineering costs for Deer Crest Village.
- 3.2 Traffic Report.** The Project Team has supplied a traffic analysis as a part of the RSPA Amendment submission. See **Exhibit E-39** in the Exhibit Book for a copy of the letter from IBI and the accompanying IBI Traffic Analysis at **Exhibit E-40** in the Exhibit Book. The Traffic analysis clearly shows that the changes in Land Use as a result of the RSPA will reduce the long-term traffic impact on the area and specifically reduce the impact on the Mayflower off ramp from US Highway 40. The main reason for this is the higher percentage of resort uses in the RSPA, as opposed to the normal residential uses in the prior land use plan.
- 3.3 Water Systems.**
- 3.3.1 Jordanelle Special Service District.** The Jordanelle Special Service District has provided a water system master plan for the Jordanelle Basin. Deer Crest Village is within the District's boundary, and is currently participating in the Phase 1 assessments for the water system. Future water requirements are being integrated within the JSSD's master plan. Attached is an agreement at **Exhibit E-32** between the Project and the JSSD for water services.
- 3.3.2 Proposed Project Water Distribution Systems.** Proposed water system facilities for the Deer Crest Village project will consist of the following:
- 3.3.2.1 Peak Simultaneous Flows.** Distribution mains capable of delivering simultaneous Peak Instantaneous Flows for,
1. Domestic, 401 gpm
  2. Irrigation, 136 gpm
  3. Fire, 2000 gpm
  4. Total Flow, 2537 gpm
- 3.3.2.2 Fire Hydrant Spacing.** Fire hydrant spacing per Wasatch County ordinances (based on Uniform Fire Code, 1994 Edition) is maximum 500 feet between hydrants, 250 feet between hydrant and building.
- 3.3.2.3 Irrigation Water System.** The irrigation water system may consist of a separate underground pressurized irrigation system consisting of 4" irrigation water pipes, drain sumps for winter draining of the system, and irrigation water service connections.
- 3.3.3** The water system facilities are shown on the water system drawing in **Plan B-39** in the Plan Book. The Plan shows that culinary water will be delivered from existing JSSD water distribution lines in the Jordanelle Parkway. The Deer Crest Village East area will be tied together with a



series of loops to most efficiently serve water to the various buildings. Lines will likely be large (up to 16 inches in diameter) to provide adequate fire flow. Pressure reducing stations will probably be needed as a JSSD pressure zone crosses the property.

**3.3.4 Water Conservation Measures.** Water conservation measures will be encouraged within the development. These measures may take the form of the following:

- a. Installation of water efficient fixtures in buildings,
- b. The planting of low water use plants and materials where possible,
- c. The use of water saving irrigation practices, and
- d. The use of rate structures to discourage excessive water use.

**3.3.5 Environmental Impact.** The proposed project facilities will have the following probable impact on the environment.

- a. Water system construction should have a minimal effect upon the environment,
- b. The impact of utility line construction is considered.

**3.3.6 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- a. The project will avoid areas within a 100' radius of wells used for culinary water purposes for the development of structures, lots, or building sites.
- b. Water line construction on steep slopes shall utilize baffles in trench refilling operations to prevent surface drainage along the top of the utility trench, and to minimize surface erosion along trench lines.
- c. Proposed water tanks will be sited on the property in an unobtrusive manner.
- d. All water mains shall be constructed with a minimum of 5 feet of cover over mains. In high traffic roadway areas, additional depth of cover should be considered.
- e. Water conservation measures will be encouraged within the development:

Through the use of architectural standards and review procedures and through the project CC&R's:

- a. Water conservation measures to consist of the following:
  1. Installation of water efficient fixtures in buildings



2. The planting of low water use plants and materials in landscaping programs where possible:
3. Planting of cool season grasses, such as Bluegrass, Bentgrass, Fescue, and Perennial Rye grass,
4. The use of water saving irrigation practices:
5. Water only when plants need it,
6. Watering thoroughly but infrequently to train deep plant roots,
7. Keeping lawns at 1 3/4" to 2" in length thus avoiding root burn and excessive water loss,
8. Avoid watering on windy days or at midday when evaporation is high,
9. Watering in early mornings or late evenings,
10. Adjust sprinklers to water plants only (no walks or drives),
11. Using adequate mulch around plantings,
12. Providing basins around plantings,
13. Removing water robbing weeds before they reach maturity,
14. Sweeping pavements and walks clean rather than using hoses and water.

- b. All water system construction will be constructed in accordance with:
  1. Wasatch County Health Department regulations, and
  2. State of Utah Public Drinking Water Regulations

**3.3.7 Water Plan Drawing. See Plan B-39 in the Plan Book.**

**3.3.8 Agreement with JSSD. See Exhibit E-32 in the Plan Book.**

**3.4 Utilities.** The proposed utility systems serving Deer Crest Village are considered to be energy efficient since the property is directly adjacent to major existing electrical utility systems, and since major natural gas supply lines already exist in the vicinity of Deer Crest Village, and actually cross the property.

**3.4.1 Power.** Utah Power and Light supply power in the area of Deer Crest Village. Power system facilities consist of existing overhead and underground facilities. It is contemplated that underground power facilities will be constructed throughout the development consisting of:

- a. Underground power lines, and
- b. Transformer stations



Project power facilities will be designed and constructed by Power Company at the developer's expense subject to reimbursement. Power facilities will be owned, operated, and maintained by the power company.

- 3.4.2 Telephone.** Telephone service in the area of Deer Crest Village is provided by Qwest Communications. Existing telephone system facilities in the vicinity of subject property consist of existing telephone poles and telephone lines.

The telephone company has been contacted and is in a position to provide telephone service to the project subject to their standard provisions of agreements between the company and developers.

Project telephone facilities will be designed and constructed by the telephone company at the developer's expense subject to reimbursement. Telephone facilities will be owned, operated, and maintained by the telephone company.

- 3.4.3 Natural Gas.** Questar will provide natural gas service in the area of Deer Crest Village. Natural gas utilities are available in the area of the property, and in fact a natural gas line crosses the property. A copy of Questar's "will serve" letter is located in Exhibit 44 in the Exhibit Book.

- 3.4.4 Environmental Impact.** The proposed project facilities will have the following probable impact on the environment.

- a. Utility facilities should have a minimal effect upon the environment.
- b. The development of Deer Crest Village will result in increased demand for use of electrical energy.
- c. The development of Deer Crest Village will result in increased demand for use of natural gas.
- d. The development of Deer Crest Village will result in increased demand for use of telephone service.
- e. The development of Deer Crest Village may result in the construction of major utility line upgrades to service the development.
- f. The development of the project will result in an irreversible commitment of energy resources to service the project buildings and facilities.

- 3.4.5 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing, environmental conditions.

- a. Proposed power system facilities and telephone facilities will be buried, thereby eliminating offensive silhouettes of pole lines on ridge lines or hill tops.
- b. Utilities will be constructed within a single corridor, such as roads, or utility easements where possible to minimize impacts of vegetation

disturbance, soil erosion, and degradation to down stream water quality.

- c. Valves will be installed in water systems, and utility systems to minimize environmental damage resulting from possible line breaks.
- d. Utility line construction on steep slopes shall utilize baffles in trench refilling operations to prevent surface drainage along, the top of the utility trench, and to minimize surface erosion along trench lines.
- e. All utility trench backfills shall be compacted to the same standards as required for public streets.
- f. Project buildings will be designed and constructed to be "energy efficient" in accordance with current standards of practice.

**3.4.1 See Exhibit E-44 for Utilities Will-Serve Gas, Power, and Telephone Letters.**

**3.5 Storm Water**

**3.5.1 Summary.** Basic analysis in flash flood hydrology indicates that soils, when dry, act as an impervious surface during a cloudburst and much water tends to flow over the ground surface. It is for this reason and due to experience relating to flash flood hydrology, that the damage potential of storm water flows should not be underestimated in project design. Not all project watersheds on the land have clearly defined drainage channels – these areas may experience runoff on a sheet flow basis. Preliminary and Final plans will include detailed calculations and specify a recommended minimum finished floor elevation rise above the natural ground for all structures. To analyze Deer Crest Village's options, Psomas was commissioned to investigate the hydrologic and water quality issues relating to storm water detention. In **Exhibit E-46** in the Exhibit Book, a memorandum from Psomas dated 4/18/01, regarding "Deer Cove Detention Alternatives" has identified four alternative locations for regional detention basins to be shared with Deer Crest and other adjacent property owners within the Resort Specially Planned Area. The alternatives are described in this memo. See also Section 4.0 in the RSPA Implementation Guidelines and Standards for a description of the long-term approach to solving storm water issues for the RSPA.

**3.5.1.1 Environmental Impact.** The proposed project facilities will have the following probable impact on the environment.

- 1) Increase storm water runoff due to construction of roads and homes (hard surfaces) [to be reduced to before condition flow rates by means of construction of detention ponds].
- 2) Increased soil erosion and silt production, which will be mitigated as follows:
  - a. Construction of temporary erosion control facilities during construction, and
  - b. Construction of permanent storm water retention basins.



**3.5.1.2 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions.

- 1) Project streets will be constructed to the minimum width possible consistent with traffic functions in order to minimize the amount of impervious surfaces, which increase the quantity, and velocity of storm water runoff within the project.
- 2) Project right of ways shall be graded to the minimum width possible to minimize the amount of disturbance to the landscape.
- 3) Placement of temporary erosion facilities to trap and detain silt during crucial grading operations.
- 4) Restriction of project clearing to minimum areas necessary for grading operations to minimize risk of soil erosion.
- 5) Constructions of on-site silt and soil retention facilities where possible.
- 6) Permanent planting of slopes and other graded areas as soon as possible after completion of construction.
- 7) Construction of detention basins to reduce stream flows from the completed project to "before project" conditions.
- 8) Storm water routing will take place in natural channels, improved channels, culvert pipes culminating in energy dissipaters leading to detention basins.
- 9) Construction of storm water detention basins to catch peak storm water runoff and confine releases into natural channels to quantities appearing in the "before project" condition.
- 10) Construction of debris basins as a last measure of defense in retaining soil erosion on site.
- 11) Disturbance to landscape and vegetation during project construction will be minimized to the extent possible, with special attention being given to minimizing impacts to flood plains and wetlands.
- 12) Individual lot drainage shall be accomplished such that buildings are not subject to flood hazard and such that all drainage is directed away from buildings in a positive manner.
- 13) Stream channel areas will be protected from encroachment of fills where possible.
- 14) Site construction shall not significantly change natural drainage patterns.



- 15) All building construction shall take place outside the limits of flood hazard areas determined from 100-year storm water flow calculations.
- 16) The Design Review Committee of the RSPA will require that all landscape plans include a drainage plan for the disposal of storm water runoff from the dwelling, driveway, and other impervious surfaces. Such drainage plan shall include quantities of water, method of transporting water, and the location and nature of discharging said water to either a natural drainage course or approved storm water conveyance facility.

**3.5.2 Storm Water Plans.** See Plan B-40 in the Plan Book. The historic storm water runoff pattern for Deer Crest Village East follows the draws easterly toward Jordanelle Reservoir. Storm water will be collected in catch basins and directed through storm sewer lines easterly to regional detention basins. The regional basins will also be designed with filter systems to meet JSSD storm water quality requirements. If regional detention basins are not available, on-site detention basins and filter systems will be constructed on the easterly portion of the site.

**3.5.3 Psomas Regional Detention Study.** See Exhibit E-46 in the Exhibit Book.

### 3.6 Sewer Plan

**3.6.1 Offsite Sewer Service.** The Jordanelle Special Service District will provide offsite sewer transmission mains and sewer service.

**3.6.2 Onsite Sewer Service.** Sewage disposal for the various residential and commercial facilities within the proposed project will be provided by gravity sewer collection systems. Sewer pumping plants and sewer force mains may be constructed in isolated area of the project only if found to be necessary.

**3.6.3 Environmental Impact.** The proposed project facilities will have the following probable impact on the environment:

- a. The project will not pose a threat to ground water quality through the underground treatment and discharge, since septic systems will not be used on the project.
- b. The project will not cause slope instabilities through the underground discharge of sewage effluent.
- c. The project will not create conditions of possible surface sewage flow through the underground discharge of sewage effluent.

**3.6.3 Mitigating Measures.** The potential impact of the Deer Crest Village development will be mitigated by the following measures designed to either mitigate the effects of development and/or enhance the existing environmental conditions:

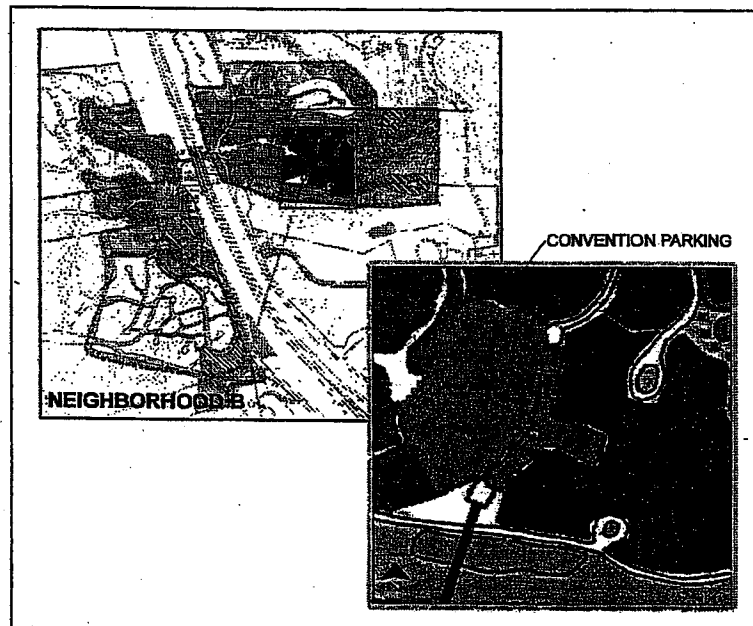
- a. Sewer line construction on steep slopes shall utilize baffles in trench refilling operations to prevent surface drainage along the top of the utility trench, and to minimize surface erosion along trench lines.
- b. All utility trench backfills shall be compacted to the same standards as required for public streets.
- c. A complete sewer system, consisting of sewer collection mains, pumps, and force transmission mains, will be constructed to service project homes and facilities.
- d. Septic tank and sewer absorption drain field construction will not be allowed within the development to serve swelling units and commercial areas.
- e. All sewer systems shall be constructed in accordance with:
  - i. Wasatch County Health Department regulations,
  - ii. Utah State Department of Health standards, and
  - iii. Jordanelle Special Service District design and specifications.

**3.7 Sewer Plan.** See **Plan B-41** in the Plan Book for a detailed plan for the Sewer system for Deer Crest Village. The Sanitary Sewer System for Deer Crest Village East will be served from two existing JSSD sewer lines down hill (easterly) on the village. The northerly existing sewer line will serve the lands now called the Hollows, the Pointe, and part of Deer Cove, which make up Deer Crest Village East. The southerly existing line will serve the remainder of the Village. All parts of the village can be served by gravity without additional pump stations.



## 4.0 CONCEPT DRAWINGS

- 4.1 **Site Plan.** See **Plan B-32** in the Plan Book.
- 4.2 **Village Master Plan.** See **Plan B-17** in the Plan Book.
- 4.3 **Resort Features.** See **B-18** in the Plan Book.
- 4.4 **Pedestrian Circulation.** See **Plan B-33** in the Plan Book.
- 4.5 **Vehicle Circulation.** See **Plan B-34** in the Plan Book.
- 4.6 **Parking Concepts.** See **Plan B-35** in the Plan Book.
  - 4.6.1 **Deer Crest (Jordanelle Village) Parking Plan.** See **Plans C-1 through C-6** in the Plan Book.
  - 4.6.2 **Parking Study.** See **Exhibit E-10** in the Exhibit Book.
  - 4.6.3 **Parking Drawings.** See **Plan B-35** in the Plan Book.
- 4.7 **Convention Center.** The meeting space in the Convention Center is in a CS Zone that is actually partially situated underneath one of the hotel buildings zoned RVMD. This CS portion of this is partially a vertical zoning area that is shown on **Plan B-12**, but is further described by the drawing below:



The dotted line in the drawing shows the area which is underneath the RVMD Zone and is actually below grade in this concept study. This possibility of the vertical zone in the final site plan is highly likely, even though it may not be in the configuration shown here.



## 5.0 PROJECT STATISTICS

### 5.1 Tabulation of Projected ERU's

**5.1.1 Summary.** Contained within the attached **Exhibit 23** and **Exhibit 24**, tabulations of the following project statistics are noted:

- a. Footprint square footage by building, and totals
- b. Total Square footage area by use, and totals
- c. Number of residential units by building, and totals
- d. ERU's by building, and totals.

**5.1.2 Deer Crest Village Building Statistics (Option 1). See Exhibit E-23.**

**5.1.3 Deer Crest Village Building Statistics (Option 2). See Exhibit E-24**

### 5.2 Open Space Acreage & Percentage, Landscape Acreage and Percentage, Hard Surface Acreage & Percentage

#### 5.2.1 Summary

**5.2.1.1 Open Space Management.** A primary objective of the Deer Crest Village Resort is to create and enhance open space. By clustering the buildings within the village space, and increasing the building height envelope, open space can be created and preserved. Within the Deer Crest Village Resort, property areas have been designated as Open Space Areas under this Density Determination. The management and ownership of these open space areas is an important consideration in the overall Density Determination, and is viewed as an essential amenity to the development sites.

The enclosed **Exhibit E-47** in the Exhibit Book entitled, "Open Space Calculation & Site Reconciliation presents the percentage of open space on each of the respective land parcels. The open space land designations far exceed the Wasatch County's open space requirement. Open space calculations can be summarized as follows:

(Note: Deer Crest Village will be subdivided into numerous building parcels; i.e. noted as Building Parcels B-1 through B-22. In analyzing "Percent of Open Space", one needs to look at two open space percentage calculations; (i) Net Open Space - the acreage of open space that is not subdivided into building parcels, and it's accompanying acreage as a percent of total project acres, and (ii) Gross Open Space - in addition to Net Open Space the inclusion of the acreage of open space that is preserved within each building parcel, and how this sum impacts the total overall open space percentage within the project.)



See **Exhibit E-47** in the Exhibit Book for detailed analysis of Open Space Calculations & Site Reconciliation for Deer Crest Village.

**5.2.1.2 Open Space Preservation.** Upon preliminary approval, Open Space Preservation parcels within Deer Crest Village shall be delineated, and shall be a common area owned by the Deer Crest Village Owners Association.

**5.2.1.3 Open Space Recreation.** The Open Space Recreation parcels located within Deer Crest Village shall be owned by either the Deer Crest Village Owner's Association, or by a designated recreational owner and management company.

**5.2.1.4 Project Access:** Residents, and lodging guests shall have full access to both:

- i. Open Space Preservation parcels and facilities and
- ii. Open Space Recreational parcels and facilities.

**5.2.1.5 Public Access:** Common area within Deer Crest Village Resort will be private. The developer and the individual property owners Associations may allow public access to Recreational Amenities and may charge for such use. Such charges may have a differential between individual Property Owners Association Members, Wasatch County Residents and the general public, but shall not otherwise discriminate against the general public. The common areas of the Deer Crest Village Resort project are not dedicated to the public.

**5.2.2 Table with Calculations.** See **Exhibit E-47** in Exhibit Book.

**5.2.3 Open Space Drawing.** See **Plan B-19** in the Plan Book for a drawing of the open space in Deer Crest Village.

## 6.0 EMPLOYEE HOUSING ISSUES

**6.1 Summary.** Wasatch County requires that new developments provide an affordable housing component and/or payments in lieu thereof to the County's affordable housing fund. The developers of Deer Crest Village believe that it's long-term success as a resort community is contingent upon retaining a stable resident workforce. Deer Crest Village desires to work hand-in-hand with Wasatch County in providing residents with a range of housing opportunities. The economy of Wasatch County, specifically, the operational needs of Wasatch County's tourism related business is naturally tied to seasonal activities. For example, the ski industry and related businesses experience a substantial peaking of activity and employment during the winter months. With the development of Deer Crest Village, and other neighboring developments, Wasatch County will see a significant peaking of summer tourism; i.e. golf and the convention and conference industry. This seasonal business activity creates substantial demands for seasonal affordable housing for employees.

**6.2 Wasatch County Regulations.** To this end, in January 2002, Wasatch County enacted Section 16.02.950 of the Wasatch County Code "Employee Housing Credit." Any development that conforms to the definition of a "Resort Development" and "Employee Housing Unit" as stated in this Title may receive partial credit for meeting the affordable housing requirement of Wasatch County, except for affordable housing requirements requiring in-lieu payments by agreement between the developer and Wasatch County. Further, any development that conforms to the definition of a "Resort Development" and "Seasonal Employee Housing Unit" as stated in this Title may receive partial credit for meeting the affordable housing requirement of Wasatch County. However, the credit shall not exceed twenty-five (25) percent of the total affordable housing requirement for a development or project.

**6.3 Wasatch County Ordinance.** Attached as **Exhibit E-42** in the Exhibit Book, is a copy of Ordinance No. 02-02, approved and passed on January 14, 2002, which amends Section 16.01.10 and enacts Section 16.02.950 of the Wasatch County Code.

**6.4 Summary of other Mountain Resorts.** With the adoption of the above ordinance, Wasatch County is very consistent with other mountain resorts in western North America. Attached, as Exhibit E-45 is a "Summary of Seasonal Employee Housing Guidelines." In looking at the guidelines of others; i.e. Aspen, Mammoth, and Whistler it is interesting to note the following:

- a. Flexibility in housing guidelines is important; such that the real needs of the community can be monitored and adjusted accordingly. To accommodate this, yearly surveys are performed to evaluate and monitor.
- b. The successful resorts communities have contemplated the need for employee housing. Their primary purpose is to provide housing for the resort employee.
- c. Each of these resort communities has recognized the need for seasonal housing and do allocate a portion of their total affordable housing credit to this need.

By providing Seasonal Employee Housing Units, Deer Crest Village will be able to meet the needs of those who will be employed within the resort environs. This will



provide a fundamental cornerstone in building a vibrant, thriving and balanced community.

6.5 DDRM Study. See Exhibit E-45 in the Exhibit Book.

DEER CREST VILLAGE



IBI  
GROUP

7.0 **MEETING SPACE REQUIREMENTS.**

An integral component, which contributes to Deer Crest Village being a year-round mixed use Resort Use Village, is the integration of state-of-the-art meeting and convention facilities into the village plans and design. This Resort Feature is key in keeping the visitors coming year round, thus keeping the occupancies at the hotels and rental units high.

The amount of space, and the quality of this space, which is dedicated to meetings and conventions will be able to fill a niche that, up to this point, has not been met by any other convention or meeting facilities anywhere in the entire Wasatch Front. This component is a very important key in the economic vitality of the Deer Valley Resort, as well as Wasatch County.

Within the calculations on Exhibit E-23, the square footage of meeting and convention space is noted.



# **EXHIBIT - G**

Deer Crest Clarifications to  
Density Determination

## 1.0 DEER CREST CLARIFICATIONS

**1.1 Deer Crest Village (West) Clarifications.** Deer Crest Associates I, L.C. ("Deer Crest"), is the developer of the Deer Crest Project. The project is entitled to be developed by that certain First Amended Findings and Order on Density Determination, which is recorded in the office of the Wasatch County Recorder, on August 8, 1996, as Entry No. 188648 in Book 328, at Page 634 of the Official Records of the Wasatch County Recorder (the "Amended Density Determination"). Deer Crest's entitlements pre-dated the Jordanelle Basin Land Use Plan and the JBOZ. Deer Crest is a mature project. Except for the areas in Deer Crest Village (formerly Jordanelle Village), the project has been platted and construction is underway in many places. The Jordanelle Village area, or Deer Crest Village (West) is a very important part of the Resort Village concept and to the economic success of the RSPA. In order to make the entitlements consistent with the RSPA, the following "Clarifications" are being made:

**1.1.1.1 ERU Conversion.** The original entitlement contemplated 191 units, including 26 employee housing bonus units. It also included an additional 62,000 square feet of commercial space, of which 20,000 square feet were to be a ski school or ski related facility. The units were specified as to size. The conversion to ERUs under the RSPA is summarized in the "Deer Crest ERU Conversion Table" as Exhibit 25 in the Exhibit Book attached hereto.

**1.1.1.1.1 Use Zones.** The Zones, pursuant to Section 2.3.7.5 and as shown on Plan B-12 and B-13 shall apply.

**1.1.1.1.2 Density.** The Density shall be as shown on Exhibit E-6 shall apply.

**1.1.1.1.3 Ski Lodge.** The requirement for a ski related facility of 20,000 square shall remain. It will utilize 7 ERUs.

**1.1.1.1.4 Park City Settlement.** There are certain limits on the number of units that can be constructed on this Property pursuant to a Settlement Agreement dated \_\_\_\_, \_\_\_\_. In no way does the RSPA amend or supercede terms and conditions of that agreement.

**1.1.1.2 Parking.** The parking requirements will be governed by the RSPA requirements pursuant to Section \_\_\_\_ of the RSPA Amendment. The specific requirements for parking are summarized in the Deer Crest (West) Parking Table as Exhibit E-16 in the Exhibit Book.

**1.1.1.3 Deer Crest Jordanelle Village Parking Plan.** The phased parking plan, which addresses all of the alternatives under the various development alternatives for this compressed site, are found in Plan C-1 through Plan C-6.

**1.1.1.4 Affordable Housing.** In a separate development agreement, Deer Crest will agree to make payment in lieu for all of its remaining Affordable Housing requirements.



CLARIFICATIONS

# **EXHIBIT - H**

Mayflower South Clarifications to  
Density Determination



RESOLUTION NO. 02-31

**A RESOLUTION ADOPTING SUSPENSION OF DENSITY DETERMINATION CONDITIONS FOR MAYFLOWER MOUNTAIN RESORT AND MAYFLOWER SOUTH IN THE DEER VALLEY LAKESIDE RESORT SPECIALLY PLANNED AREA (RSPA), JORDANELLE BASIN, WASATCH COUNTY, UTAH.**

**RECITALS**

WHEREAS, Stichting Mayflower Recreational Fonds, Stichting Mayflower Mountain Fonds and Jordan Investments, Inc. (collectively, the "Owner") is the owner of certain real property situated in the Jordanelle Basin of Wasatch County, Utah, the approximate boundaries of which are shown on the map which is attached hereto as Exhibit "A" and incorporated herein by this reference (the "Property"); and

WHEREAS, the Property is the subject of the Second Revised Findings and Order (Revised August 2, 1985), executed September 18, 1985; Density Determination Conditions for the Mayflower Mountain Resort (Revised August 2, 1985); and Notice of Density Standards dated September 18, 1985 (collectively, the "Density Determination"); and

WHEREAS, Owner, together with other property owners, submitted to Wasatch County (the "County") a proposal for the development of a master planned resort community within the Jordanelle Basin Overlay Zone commonly referred to as Deer Valley Lakeside; and

WHEREAS, in order to provide for the necessary entitlements and to impose certain restrictions on the scope and manner of development of the Property, Owner proposed to the County the establishment of a Resort Specially Planned Area for the Property and certain other property owned by third parties (the "RSPA"); and

WHEREAS, in order to effectuate the RSPA, and to make the Density Determination consistent with the implementing provisions of the RSPA, Owner requested that the County adopt the document attached hereto as Exhibit "B" (the "Suspension"), suspending the Density Determination Conditions, subject to replacement as necessary by "conditions" in conformity with the RSPA; and

WHEREAS, following the positive recommendation of the Wasatch County Planning Commission, approved at a lawfully advertised public meeting and hearing on August 15, 2002, the Wasatch County Board of County Commissioners held a lawfully advertised public hearing on September 23, 2002 to discuss and receive public comment regarding the RSPA and the Suspension; and

WHEREAS, the Wasatch County Board of County Commissioners, at a lawfully advertised public meeting on October 28, 2002, approved the establishment of the RSPA and the adoption of the Suspension;

NOW, THEREFORE, it is hereby acknowledged as follows:

1. The Density Determination has been, and is hereby, suspended, subject to all of the terms, conditions, rights, densities, limitations, duties and obligations set forth in the Suspension, Exhibit "B".
2. Effective as of October 28, 2002, the Suspension shall for all purposes be a part of the Density Determination, and to the extent of any inconsistency in the terms of the original Density Determination and the Suspension, the terms of the Suspension shall control.
3. Except as specifically set forth in the Suspension, the Density Determination shall continue in full force and effect, enforceable in accordance with its original terms and conditions.

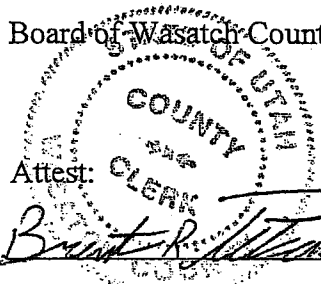
DATED this 30 day of December, 2002.




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T. LaREN PROVOST, Chairman

Board of Wasatch County Commissioners

Attest: 




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BRENT TITCOMB

Wasatch County Clerk-Auditor



MAYFLOWER SOUTH PROPERTIES

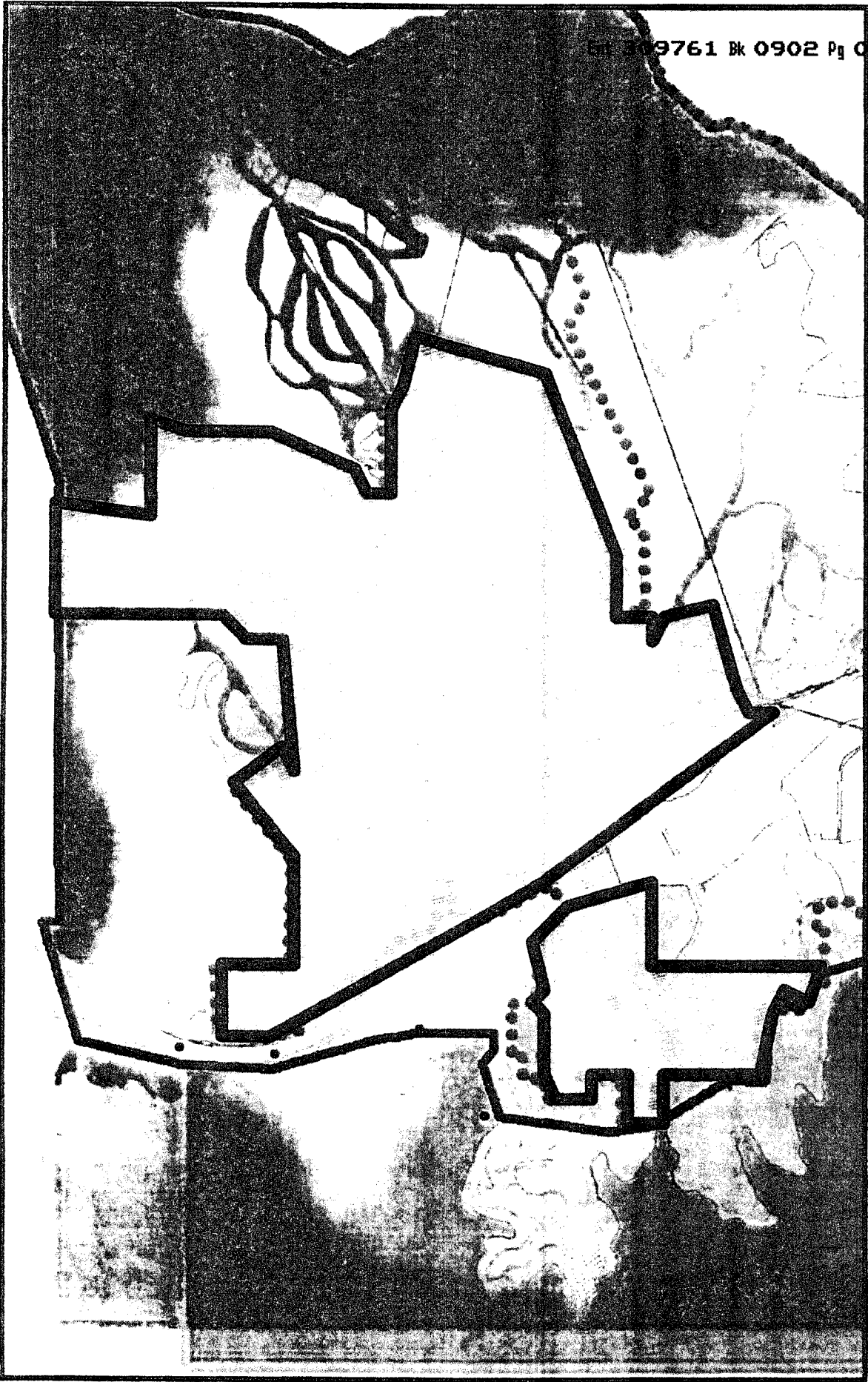


Exhibit A

**Suspension of Density Determination Conditions, Mayflower Mountain Resort**

Wasatch County wishes to include in the Deer Valley Lakeside Resort Specially Planned Area ("Deer Valley Lakeside RSPA"), the Mayflower North Property as well as the Mayflower Mountain Resort (Mayflower South Property), for the latter of which it approved Density Standards in 1985 (Second Revised Findings and Order in the Matter of the Application for Density Determination for Mayflower Mountain Resort (Revised August 2, 1985)).

As part of the Mayflower Mountain Resort Density Determination, Wasatch County found it appropriate to adopt "Density Determination Conditions for the Mayflower Mountain Resort (Revised August 2, 1985) (the "Density Conditions"), setting forth conditions, requirements, restrictions, limitations, terms, provisions, and regulations in addition to those set forth in the Wasatch County Development Code, on all of the following subjects:

- a. the nature of rights granted by said Density Standards (Conditions 1, 2);
- b. the effect and nature of the Conditions (Condition 3);
- c. certain conditions precedent to said Density Standards, including (a) acknowledgement of the conditions by all owners and mortgagees, (b) approval of a sewage disposal plan, (c) approval of a mine tailings disposal plan, and (d) approval of a water quality monitoring plan (Condition 4);
- d. compliance with the owner's application for such Density Standards (Condition 5);
- e. the type and locale of development in the property (Condition 6);
- f. the staging of development (Condition 7);
- g. the nature of housing units in the development (Condition 8);
- h. hydrology, flooding, water quality and sewage treatment (Condition 9);
- i. geology and soil (Condition 10);
- j. solid waste disposal (Condition 11);
- k. location of future schools (Condition 12);
- l. fire control (Condition 13);
- m. contributions to offset County-wide impacts (Condition 14);
- n. landscaping and visual quality (Condition 15);
- o. site preparations, grading and revegetation (Condition 16);
- p. transportation within the development (Condition 17);

Exhibit B

- q. roads and related construction (Condition 18);
- r. parking requirements (Condition 19);
- s. building design, siting, footprints and envelopes (Condition 20);
- t. water conservation (Condition 21);
- u. recreation facilities (Condition 22);
- v. the application of specific conditions to development of ski facilities (Condition 23);
- w. the mountain plan (Condition 24);
- x. restrictions upon mining activities within the development (Condition 25);
- y. the structure of ownership and service-providing organizations within the development, including the rights of owners in common areas and facilities, and the relationship of the development to the Deer Valley Resort (Condition 26);
- z. highway noise (Condition 27).

Inclusion of the Mayflower South Property in the Deer Valley Lakeside RSPA would, among other things, eliminate the "Neighborhoods" described in the Density Determination and substitute therefor development pods having different boundaries, change and relocate recreational uses, alter the type and mix of residential and commercial construction permitted and provide flexibility in the choice, location and staging of such construction, and create different needs for services and transportation. Because the Density Standards constitute zoning characteristics for the subject property, inclusion of the Mayflower South Property in the Deer Valley Lakeside RSPA constitutes re-zoning. Pursuant to its authority to re-zone, Wasatch County may amend, suspend, or terminate the Density Determination Conditions for Mayflower Mountain Resort.

Since the approval of Density Standards for the Mayflower Mountain Resort, the owners have complied with the Conditions as required, and many of the Conditions have been fulfilled. Events have transpired which render many of the remaining conditions in varying degrees superfluous or obsolete. Inclusion of the Mayflower South Property in the RSPA will render the remaining Conditions largely unworkable or incompatible. As a result of such events, detailed below, Findings Nos. 1-10 set out in the Second Revised Findings and Order will continue to be true and valid if the Mayflower South Property is included in and developed as part of the RSPA, notwithstanding the Conditions are modified, deleted, or suspended as provided herein. At the same time, the Specific Findings Concerning Big Dutch Pete Hollow contained in the Findings and Order, and related Conditions, are rendered unnecessary and inappropriate by the RSPA.

Since 1985, important developments have occurred which impact the assumptions and expectations employed in formulation and imposition of the Conditions, including at least (1) construction of Jordanelle Reservoir and Jordanelle State Park; (2) relocation and expansion of

Highway U.S. 40 and related roads; (3) relocation and expansion of utility facilities for power, gas and telephones; (4) the organization of Jordanelle Special Service District and the construction of sewer and water facilities; (5) enactment of the Jordanelle Master Plan and the Jordanelle Basin Overlay Zone; (6) the expansion of the Deer Valley ski complex and its extension to other properties in the Jordanelle Basin; (7) the approval and implementation of a Waste Plan for the Mayflower Mine Tailings; (8) approval and implementation of a Water quality monitoring program for the Mayflower South Property, the construction of a fire station in the Jordanelle Basin; and (9) the acquisition and planning for large scale development of properties near the Mayflower properties in response to substantial changes in the market.

Development of the Mayflower South Property within the RSPA will render largely obsolete contradictory, and incapable of substantial compliance Conditions Nos. 1, 2, 3, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, and 27. Therefore, land planning and use issues applicable to the Mayflower South Property, including, without limitation, siting, phasing, dimensions and footprints, design, parking, paving, product mixes, construction envelopes, open space, and all related issues, shall be governed by the terms of the RSPA (as shown by the Amendment to the RSPA attached hereto) and the Wasatch County Development Code, upon submission of preliminary or final plans. The developer shall pay such impact fees for waste removal, fire protection and police protection, at such times and upon such terms, as are generally imposed upon comparable properties in the County. Condition Nos. 2, 3, 17, 26 and 27 are deleted in entirety.

Conditions relating to provision of services (Conditions 9, 11, 13) are rendered obsolete by the establishment of the JSSD and the construction in the Jordanelle Basin of a new fire station. Therefore, services now or hereafter provided by the JSSD or other public service entities may be contracted for by the developer upon such terms as appropriate.

Certain of the Conditions have been completed, or binding arrangements are in place to complete them, and further enforcement of them is unnecessary. These include Conditions Nos. 4, 9(h), 12 and 25. The school site previously conveyed to the Wasatch County School District pursuant to Condition 12 may be relocated upon agreement with the School District.

Retention of the "undisturbed" designation of the area of Big Dutch Pete Hollow, has been shown to be unnecessary by the environmental and engineering analysis attached hereto as Exhibit "A." Big Dutch Pete Hollow may be developed as that part of the RSPA shown by Exhibit "B" hereto.

Therefore, except as provided in the succeeding paragraph, the Density Determination Conditions for the Mayflower Mountain Resort (Revised August 2, 1985) are suspended and may be replaced, at the time of application for preliminary or final approval of development of the Mayflower South Property, by conditions, requirements, restrictions, limitations, terms, provisions and regulations as appropriate and in conformity with the intent and standards of the Deer Valley Lakeside RSPA, the Wasatch County Development Code and applicable State and Federal regulations. Conditions attached to such approvals shall be deemed replacements of previous Conditions; Conditions not reimposed shall be terminated.

Except as necessitated by the foregoing, the rights granted and restrictions imposed, by the Density Standards for the Mayflower Mountain Resort shall remain unchanged. Nothing herein shall be deemed in violation of Condition 3 of the Density Determination Conditions. Specifically, the maximum number of units approved in the Density Standards, as set forth in Table 1 of the Density Determination Conditions for the Mayflower Mountain Resort shall not be reduced, but shall be converted to comparable "Equivalent Residential Units" as defined in the amendments to the Deer Valley Lakeside RSPA, as shown by the chart attached hereto as Exhibit "C."

This document does not amend or modify any vested rights of the owners of the Mayflower South Property under the Density Standards, or under any subsequent amendment of the Wasatch County Development Code. Specifically, this document shall not limit any rights under that certain ordinance adopted by Wasatch County November 21, 1984, amending Section 9-3C of the Wasatch County Development Code.

EXHIBIT A



PRELIMINARY REPORT  
BIG DUTCH PETE CANYON  
LIMITED ENVIRONMENTAL ASSESSMENT

### WILDERNESS AREAS

In addressing the issue of officially designated wilderness areas, ATC reviewed information from the National Wilderness Preservation System (NWPS), <http://www.wilderness.net/nwps>. The NWPS is comprised of lands administered as wilderness areas by the United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS), United States Bureau of Land Management (BLM), and the National Park Service (NPS). There are currently 644 wilderness areas in the United States, 16 of which are located within the State of Utah. According to the NWPS, the site is not located in a designated wilderness area.

ATC has also consulted with the USFWS, Ecological Services, Utah Field Office. The USFWS has stated that designated wilderness areas are delineated on United States Geological Survey (USGS) 7.5-minute series topographic quadrangle maps. ATC reviewed the USGS Heber City, Utah topographic map (7.5-minute series), dated 1999, and determined that the site is not located within an officially designated wilderness area. Additionally, a review of the DeLorme, *Utah Atlas and Gazetteer*, 2000 edition, did not indicate the presence of a designated wilderness area in the site vicinity.

### WILDLIFE PRESERVES

ATC also consulted with the USFWS, Ecological Services, Utah Field Office. The USFWS has stated that designated wildlife preserves are delineated on USGS 7.5-minute series topographic quadrangle maps. ATC reviewed the USGS Heber City Quadrangle map and determined that the site is not located within an officially designated wildlife preserve. Additionally, a review of the *DeLorme, Utah Atlas and Gazetteer*, 2000 edition, did not indicate the presence of a designated wildlife preserve in the site vicinity.

### ECOLOGY – ENDANGERED PLANTS AND ANIMALS

The USFWS provided a list (Date of list, September 2001) of threatened, endangered, and candidate species and habitat in Utah by county. The five species included on that list for Wasatch County are:

Endangered Species: Whooping Crane (*Grus americanus*)

Threatened Species: Ute Ladies'-tresses (*Spiranthes diluvialis*), Canada Lynx (*Lynx Canadensis*), and the Bald Eagle (*Haliaeetus leucocephalus*).

Candidate Species: Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*).

It is unlikely that the proposed site development will adversely affect the above mentioned endangered, threatened or candidate species. A letter (dated May 24, 2002) from Mr. Henry Maddux, Field Supervisor – Ecological Services, United States Fish and

Exhibit A

Wildlife, Service, Utah Field Office stated "No Adverse Affect" concurrence for the residential development in Big Dutch Pete Canyon area in Wasatch County, Utah.

In addition to the above-listed threatened and endangered species, Anne Axel with the Utah Division of Wildlife Resources (UDWR) has provided ATC (via. e-mail) with a list of the Utah sensitive species that have occurrence records in the vicinity of the site. The UDWR does not have record of occurrence for any threatened, endangered, or sensitive species on the proposed site; however, there are recent records nearby for Townsends big-eared bat, blue grosbeak, osprey nest, greater sage grouse, common yellowthroat, and bobolink. In addition, the proposed site is located in area identified as a limited value elk winter use area, high value deer summer use area and a substantial value greater sage-grouse summer use area.

An evaluation by a biologist may be warranted to evaluate if the above mentioned threatened, endangered, or sensitive species listed by the UDWR will be affected by site development.

According to the USFWS, critical habitat "identifies specific areas that have the physical and biological features that are essential to the conservation of a listed species, and that may require special management considerations or protection." ATC reviewed 50 CFR, Wildlife and Fisheries, Parts 17.94 through 17.96 and Parts 226.101 through 226.213 (dated October 1, 2000), for designated critical habitats that may exist in the vicinity of the site. The review of this information did not reveal the presence of designated critical habitats within a one-mile radius of the site.

#### HISTORICAL AND ARCHEOLOGICAL

ATC sent a letter (dated May 9, 2002) to Mr. Jim Dykmann, Compliance Archaeologist, Utah State Historic Preservation Office, requesting an evaluation to determine if the proposed Big Dutch Pete Canyon area development will impact on historic places and/or archaeologically sensitive sites. We are requesting that the Utah State Historic Preservation Office review and comment on a finding of *no historic properties or cultural resources affected* for the project. Mr. Dykmann responded in a letter dated May 24, 2002 (received by ATC on May 28, 2002). The letter basically states that because of extensive mine development and the potential to effect important mining sites, the USHPO recommends that a cultural resource survey be completed of the area. So, a determination of *no historic properties or cultural resources affected* is premature without further data. The letter from USHPO is attached to this project memorandum.

North of the site the topographic map shows structures in the Mayflower Mine area. During the site inspection I found that only the foundations of these buildings exist. In addition, the site inspection found the site to be vacant, undeveloped with no structures or structures older than 50 years. Because there are no buildings/structure older than 50 years on the site there will likely be no historical places impacted on the site.

#### WATER POLLUTION

**Storm Water Controls and Design During Construction.** Construction projects that disturb five acres or more must be covered under the general construction permit (Permit No.: UTR100000). Coverage under this permit must be obtained and erosion

and sediment controls must be installed prior to any grading activities at the site, which will disturb 5 acres or more per common plan. The permit is attached to this project memorandum.

**Storm Water Controls and Design For Residential Development.** Wasatch County has guidelines for design for storm water controls for residential development. These guidelines can be found in a document called "A Guide for Erosion and Sediment Control". This document is attached to this project memorandum.

**Flood Zone.** According to the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, Community Panel Number 490164C 04 (dated October 1, 1986), the site parcel is located in Flood Zone C, which is defined by FEMA as "areas of minimal flooding." Wasatch County participates in the National Flood Insurance Program, according to a listing dated July 23, 2001 (Community ID # 490164). The flood map is attached to this project memorandum.

**Surface Water Contamination.** Disposal and spill prevention controls for hazardous materials and toxic waste is outlined in "A Guide for Erosion and Sediment Control" Section IV, Step Four – Design of Storm Water Pollution Prevention Plan.

#### **SANITATION**

Jordanalle Special Services Distract will provide sewer services for the site. In the event an individual septic system is allowed it must meet County Health Department requirements and cannot be located on any lots less than 5 acres in size and only be for the use of one resident (Wasatch County, Jordanelle Basin Overlay Zone, 16.03.170.9.B). Wasatch County, Jordanelle Basin Overlay Zone document is provided with this project memorandum.

#### **ZONING**

The Big Dutch Pete Canyon area is zoned as RF-1, Recreation Forestry. Development and uses of land shall be permitted in RF-1 upon compliance with requirements set forth in Wasatch County, Title 16, Land Use and Development Code (16.02.080). The Wasatch County, Title 16, Land Use and Development document is provided with this project memorandum.

#### **AIR POLLUTION**

**Fugitive Dust Emissions and Fugitive Dust.** Fugitive dust emissions and fugitive dust generated during construction activities will follow regulatory guidelines set forth by Utah Division of Air Quality a (DAQ) Dust Control Plans A copy of Utah Division of Air Quality Dust Control Plans is attached to this project memorandum.

**Traffic Generated Emissions.** The additional traffic emissions generated by vehicles used during construction activities and vehicles used by new residents should not significantly affect air quality. Currently there are not regulatory guidelines set forth by DAQ or Wasatch County for traffic air emissions.

**NOISE POLLUTION**

No residential development will be allowed within a 67 dBA level of US Highway 40 and SR 248. All local ordinances shall be followed unless a contractor has obtained approval or a variance from Wasatch County officials (Land Use Plan Jordanelle Basin, December 1997).

**SOLID WASTE**

Garbage collection will be provided by Wasatch County Solid Waste District. Construction debris shall be properly disposed of by the contractor prior to a Certificate of Occupancy being granted for any building.

**HAZARDOUS WASTE**

It is anticipated that there will be no hazardous waste generated during construction and development activities for new residents.

**COMMUNITY SERVICES**

The following services will service the Dig Dutch Pete Canyon development:

Sewer and water service: Jordanell Special Services Distract

Natural gas service: Questar

Electrical power service: Utah Power and Light

Phone service: US West Communications.

Elementary and secondary schools: Wasatch School District (Elementary and secondary schools located in Heber Valley)

Hospital: Intermountain Care Hospital, with ambulance, located in Heber City

Emergency/law enforcement service: Wasatch County Sheriffs Office, located in Heber City

Fire Department: Jordanelle Fire Station

**RCRA and CERCLA CONSIDERATIONS**

There are no RCRA or CERCLA facilities on the site or facility. There should be no significant generation of RCRA-regulated hazardous waste during construction activities or residents.

**Population.** Currently, there is no resident population at the site.

**Anticipated Public and Official Attitudes Toward the Project .** Master Plan – no information.

**Economic Impact Predictions and Economic Potential.** No information

**SITE VISIT**

ATC conducted a site visit on May 1, 2002. Staff walked over the general area and took pictures. During the site visit, there was no evidence of USTs, stained soil, or stressed vegetation. Evidence of past mining activities was noted. On or near the southern end

of the site is a mine tunnel located within 50 feet of the creek that flows through Big Dutch Pete Canyon (see photo 4). Along and near this same creek, within the site, were found to be three areas of overburden or other mine waste that appears to have been generated from mining related activities (see photos 9, 17, & 29). Near the south end of the site and within 20 feet of the creek is what appears to be a dug well type structure (see photograph 7). This photograph (looking down stream) shows a two inch steel pipe rising out of the ground approximately five feet. At the base of the pipe is a five-by-five foot concrete structure covered with wood planks. Piping from this structure follows the creek down stream (see photograph 8). Near or on the northwest end of the site was found what appears to be a detention basin or small reservoir full of water (see photographs 6 & 12). The background in photograph 6 is Big Dutch Pete Canyon. Photographs 3, 19, & 25 shows different views of Bid Dutch Pete Canyon, its terrain and vegetation, chiefly sage brush, scrub oak, aspen, and pine trees. Photograph 3, looking south; photograph 19, looking southeast; photograph 25, looking northeast to Jordanelle Reservoir. Additional Photographs of the site can be seen and found on file.

### **GEOLOGIC HAZARDS**

Wasatch County has a Geologic Overlay Zone Ordinance. This ordinance includes an investigation on fault rupture, liquefaction, landslides, debris flow, avalanche, steep slopes and other geologic Hazards. A copy of this ordinance is attached to this memorandum.

### **SLOPES**

A slope analysis for the site must be prepared. The slope categories are:

0% - 10% Gentle slopes suitable for municipal facilities, schools and primary road corridors.

10%-20% Moderate slopes suitable for development with limited restrictions. Category also relates to Soil suitability categories. Soil Conservation Service (SCS) report.

20% - 25% Steeper slopes suitable for development. Category also relates to soil suitability categories, SCS report, and UGS's Landslide Potential.

Over 30% Prohibitive development (other than ski trail construction and other recreational uses, i.e. trails). Road construction regulations. Category also relates to UGS's potential landslide hazards.

These categories are listed in Land Use Plan Jordanelle Basin document, pages 17 and 18. Based on the Wasatch County - Slope (Percent) Map the site appears to be chiefly within 20% -30% slopes.

### **VIEW SHEDS**

No structure can be built on a ridge line. A Visual assessment by Wasatch County would be performed prior to development.

### **PRELIMINARY PLANS**

On pages 7, 8, & 9 of the Land Use Plan Jordanelle Basin document lists requirements

of preliminary plans for land development in the Jordanelle Basin area. Photo copies of pages are attached.

## ENVIRONMENTAL ANALYSIS

Wasatch County will require Environmental Analysis. Much of this analysis information has already been gathered and presented in this memorandum. Wasatch County, however, will require more detailed information, study, and survey on slopes, soils, geologic hazards, aspect, view sheds, flood plain, 100 year and 24 hour storm, aquifer recharge areas, streams, seeps, springs and drainages, and physical constraints. The Environmental Analysis required by Wasatch County can be found in the Land Use Plan Jordanelle Basin document, pages 17-33.

## REFERENCES:

National Wilderness Preservation System (NWPS, <http://www.wilderness.net/nwps>)

USGS Heber City, Utah topographic map (7.5-minute series), dated 1999

DeLorme, *Utah Atlas and Gazetteer*, 2000 edition

Threatened, Endangered, and Candidate Species and Habitat in Utah by County. (Date of list, September 2001)

50 CFR, Wildlife and Fisheries, Parts 17.94 through 17.96 and Parts 226.101 through 226.213 (dated October 1, 2000),

Utah Division of Wildlife Resources, Anne Axel, Information Manager

State of Utah Department of Environmental Quality Division of Water Quality, Authorization to Discharge Under the Utah Pollutant Discharge Elimination System, Storm Water General Permit for Construction Activities (Permit No.: UTR100000)

A Guide for Erosion and Sediment Control, Wasatch County, Utah, Final Report - January 1996

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, Community Panel Number 490164C 04 (dated October 1, 1986)

Wasatch County, Jordanell Basin Overlay Zone, 16.03.170.9.B

Wasatch County, Title 16, Land Use and Development Code

Utah Division of Air Quality Dust Control Plans

Land Use Plan Jordanelle Basin, December 1997



PIOCHE (UPCMC)

STILLWATER  
Ent 302761 R 8902 P 0943

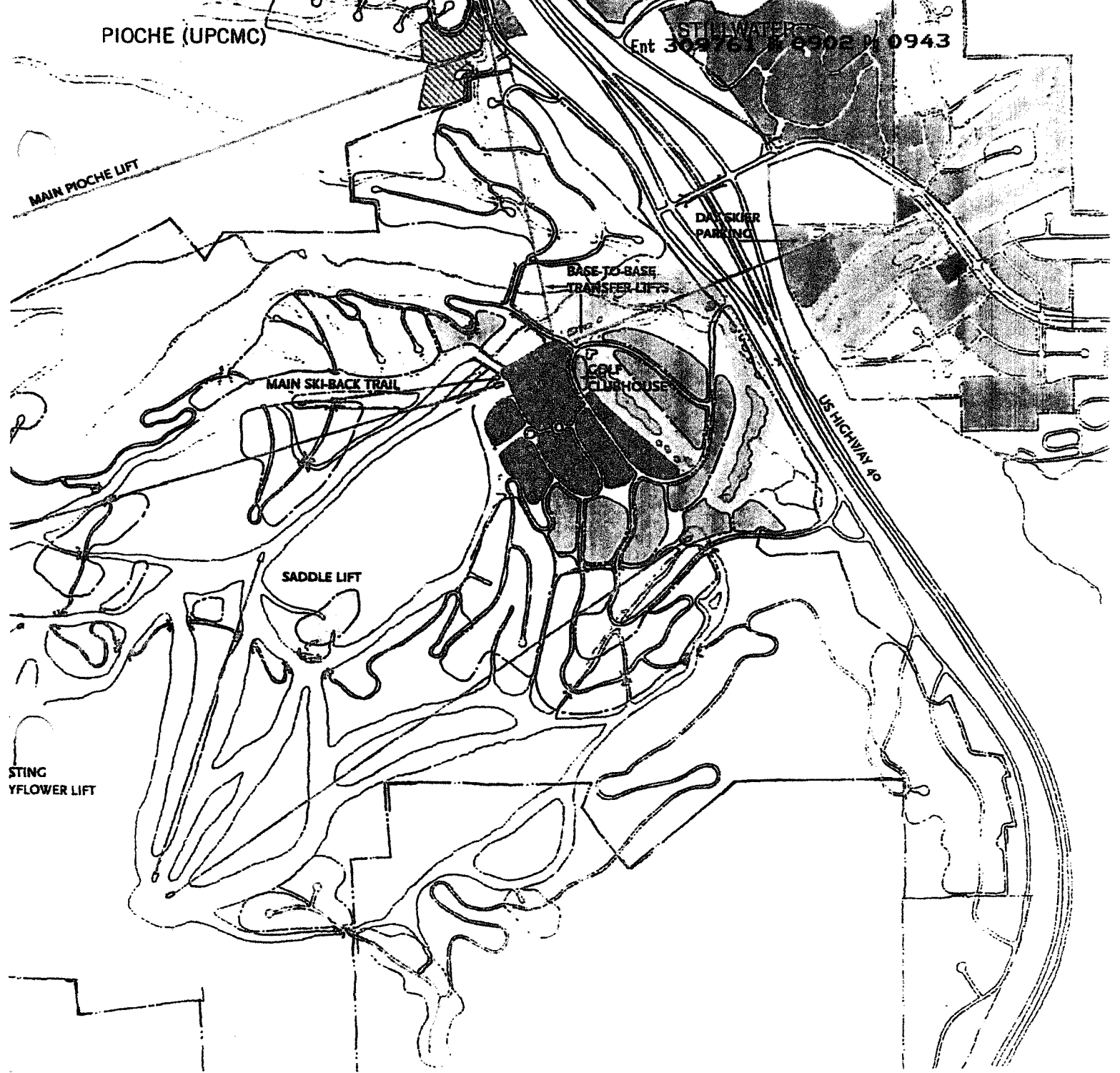


Exhibit B



EXHIBIT C

Ent 309761 Bk 0902 Pg 0944

# MAYFLOWER E CONVERSION ANALYSIS

## Information Per Original Density Determination

Unit Categories Approved in Original Density Determination

Number of Units in Alternative II (Note 1)

Estimate of Unit Size in Sq Ft (Note 2)

Reference Page in Original Density Determination (or Size Estimate)

ERU Conversion Factor (Note 3)

Number of Units Adjusted by ERU Conversion Factor (Rounded to Nearest ERU)

ERU Equivalency Per "Clarifications" (Rounded to Nearest ERU)

## NOTES TO METHOD 2 CONVERSION TABLE

### Notes:

- In the Original Density Determination, two alternative densities were contemplated. Alternative I assumed that no Jordanelle Reservoir would exist and that no Highway 40 would ever exist. Alternative II assumed that both the Highway and the Reservoir would exist. The density allowed under Alternative I was 2,577 Units. The Alternative II density level is reflected in the Table.
- The data in the Original Density Determination was incomplete with respect to exact unit sizes planned. The sizes that are revealed in the documents are shown in this column. The other unit sizes are estimates based on standard sizes for the type of unit. Although we may never know the exact sizes contemplated by the Density Determination, this analysis should be very close.
- The ERU conversion factors are those in the JBOZ formula which is determined primarily by unit size.
- This "converted" number of ERUs was compared to the Target Study done by IBI, which showed a comparable density level for the site, further justifying this level of density.
- In the Original Density Determination, 18 units were eliminated because of noise for the Highway. Although the Highway noise is an issue for the entire RSPA, it is certainly no different for Mayflower South than any other Property in the RSPA. Therefore, these units were added back to the total density amount. It is assumed that they were duplexes.

Ent 309761 0902 Pg 0945

Unit Categories Approved in Original Density Determination	Number of Units in Alternative II (Note 1)	Estimate of Unit Size in Sq Ft (Note 2)	Reference Page in Original Density Determination (or Size Estimate)	ERU Conversion Factor (Note 3)	Number of Units Adjusted by ERU Conversion Factor (Rounded to Nearest ERU)	ERU Equivalency Per "Clarifications" (Rounded to Nearest ERU)
<b>Neighborhood One</b>						
Hotel	250	500	Page 31	0.3	(187.5)	62.5
Condo-Hotel	250	500	Page 32	0.3	(187.5)	62.5
Townhouses	99	1,500+	Assumption	1.0	0.0	99.0
Multi-Family	639	1,200	Page 32	0.8	(159.8)	479.3
Employee Housing	148	1,250	Assumption	0.8	(37.0)	111.0
Subtotal	1,386				(57.8)	814.3
<b>Neighborhood Two</b>						
Townhouses	110	1,500+	Assumption	1.0	0.0	110.0
Multi-Family	213	1,200	Assumption	0.5	(106.5)	106.5
Employee Housing	50	1,250	Assumption	0.8	(12.5)	37.5
Subtotal	373				(119.0)	254.0
<b>Neighborhood Three</b>						
Townhouses	131	1,500+	Assumption	1.0	0.0	131.0
Duplex Units	86	1,400	Assumption	0.8	(21.5)	64.5
Subtotal	217				(21.5)	195.5
<b>Neighborhood Four</b>						
Townhouses	82	1,500+	Assumption	1.0	0.0	82.0
Duplex Units	16	1,400	Assumption	0.8	(4.0)	12.0
Subtotal	98				(4.0)	94.0
<b>Neighborhood Five</b>						
SFD - <1/2 acre	0	1,500+	Not Applicable	1.0	0.0	0.0
SFD - 1/2 - 1 acre	0	1,500+	Not Applicable	1.0	0.0	0.0
Subtotal	0				0.0	0.0
<b>Neighborhood Six</b>						
Duplex Units	0	1,400	Not Applicable	1.0	0.0	0.0
SFD - <1/2 acre	0	1,500+	Not Applicable	1.0	0.0	0.0
Subtotal	0				0.0	0.0
<b>Neighborhood Seven</b>						
Duplex Units	0	1,400	Not Applicable	0.8	0.0	0.0
SFD - 1/2 - 1 acre	0	1,500+	Not Applicable	1.0	0.0	0.0
Subtotal	0				0.0	0.0
Total Before Adjustments	2,074				(716.3)	1,357.8
Adjustment for Noise Impact	18	1,400		0.8	(4.5)	13.5
<b>TOTAL RESIDENTIAL</b>	<b>2,092</b>				<b>(720.8)</b>	<b>1,371.3</b>
<b>Commercial</b>						
Comm I		36,000	Per 2000 Sq Ft	0.9		15.5
Comm II		11,000	Per 2000 Sq Ft	0.9		4.7
Subtotal						20.2
<b>TOTAL</b>						<b>1,391.5</b>

# **EXHIBIT - I**

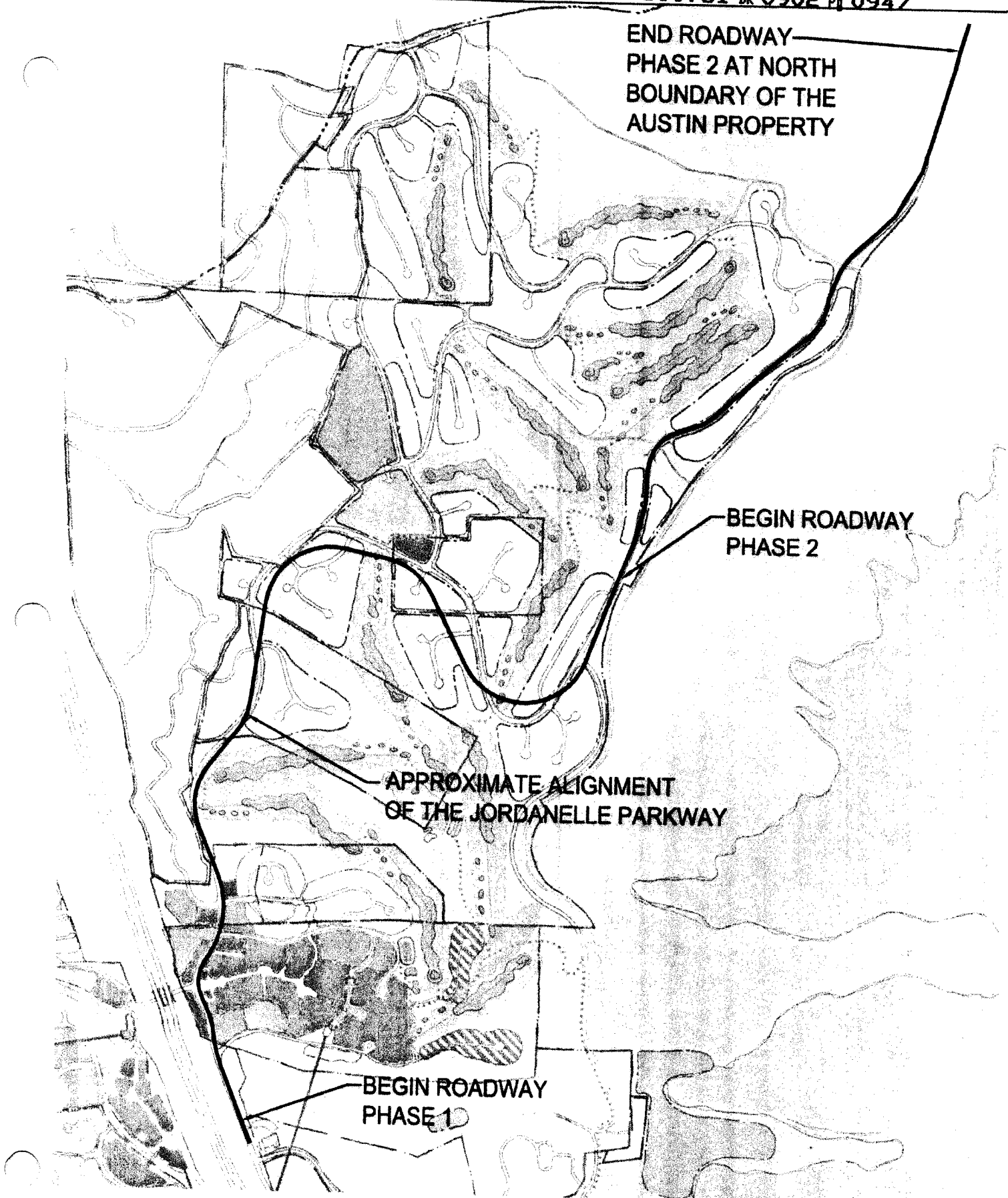
Map Showing Approximate Routing and  
Phasing of Parkway and Portal

END ROADWAY  
PHASE 2 AT NORTH  
BOUNDARY OF THE  
AUSTIN PROPERTY

BEGIN ROADWAY  
PHASE 2

APPROXIMATE ALIGNMENT  
OF THE JORDANELLE PARKWAY

BEGIN ROADWAY  
PHASE 1



# **EXHIBIT - J**

Form of Reimbursement Agreement

**REIMBURSEMENT AGREEMENT**

entered into by and among

**HAMC WASATCH, LLC,**  
a Delaware limited liability company

**WESTSIDE RESORT, LLC,**  
a Utah limited liability company

**JAS REALTY**

**JORDANELLE VIEW L.C.,**  
a Utah limited liability company

**JORDANELLE SPECIAL SERVICE DISTRICT,**  
a political subdivision of the State of Utah

and

**WASATCH COUNTY,**  
a political subdivision of the State of Utah

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Salt Lake City, Utah  
Effective as of December \_\_, 2005

**REIMBURSEMENT AGREEMENT**

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List of Exhibits

- Exhibit 1 - Description of the Properties
- Exhibit 2 - Allocation of Reimbursement Obligations
- Exhibit 3 - Form of Release Notice



**WHEN RECORDED  
PLEASE RETURN TO:**

Wasatch County Clerk

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**REIMBURSEMENT AGREEMENT**

This **REIMBURSEMENT AGREEMENT** (this "Agreement") is made and entered into as of the \_\_\_ day of December, 2005, by and among: **HAMC WASATCH, LLC**, a Delaware limited liability company ("HAMC"), **WESTSIDE RESORT, LLC**, a Utah limited liability company ("Westside"), **JAS REALTY ("JAS")**, **JORDANELLE VIEW L.C.**, a Utah limited liability company ("View"), **JORDANELLE SPECIAL SERVICE DISTRICT**, a political subdivision of the State of Utah ("JSSD"), and **WASATCH COUNTY**, a political subdivision of the State of Utah ("County"). HAMC, Westside, JAS and View are referred to collectively herein as "Owners" or at times individually as an "Owner". All of the Parties described above are referred to collectively herein as the "Parties."

Recitals

A. Simultaneously with this Agreement, the Parties have entered into a Development Agreement (the "Development Agreement"). Unless otherwise indicated herein, capitalized terms used in this Agreement have the meanings given in the Development Agreement.

B. The Development Agreement satisfies certain of the Implementation Guidelines & Standards for the Deer Valley Lakeside Resort Specially Planned Area that have been adopted by the Wasatch County Council, in connection with the lawful creation of the Deer Valley Lakeside Resort Specially Planned Area (the "RSPA").

C. The Owners are owners of parcels of real property (collectively, the "Properties") that are located within the RSPA. The Properties are described in Exhibit 1 attached.

D. The Development Agreement provides for the construction of a road commonly known as the "Jordanelle Parkway" which provides access to and through the Properties from U.S. Highway 40 (the "Parkway") to Highway 248, as well as a portal (the "Portal") connecting some of the RSPA property east of U.S. Highway 40 to the properties, ski amenities and other developments on the west side of U.S. Highway 40.

E. The Development Agreement defines four phases or categories of work for construction of the Parkway and the Portal (the "Phases"). This Agreement pertains to the payment and reimbursement obligations of the Owners with respect to all of the Phases of the Parkway.

F. The Development Agreement, in Section 3.8 thereof, provides for sharing by the Owners of the costs of constructing and developing the Phases. This Agreement is the Reimbursement Agreement that is described in Section 3.8(a) of the Development Agreement.

Agreement

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Construction and Design of Phase 1. The County and/or JSSD shall design and construct the Phase 1 improvements as provided in the Development Agreement. Westside shall pay all of the costs required to design and construct such Phase 1 improvements.
2. Reimbursement of Phase 1 Costs. Each Owner (each "Reimbursing Owner") shall reimburse Westside for the Reimbursing Owner's share of all costs incurred in constructing and designing Phase 1 in accordance with the Development Agreement. This obligation of each Reimbursing Owner is referred to herein as the Reimbursing Owner's "Phase 1 Reimbursement Obligation." Each Reimbursing Owner's Phase 1 Reimbursement Obligation shall include an accrual of interest on the unpaid balance of the Phase 1 Reimbursement Obligation at the rate of 6.5% per annum.
3. Schedule of Phase 1 Reimbursement Obligations. A schedule showing the allocation of the Phase 1 Reimbursement Obligations among the Reimbursing Owners, based on an assumed cost of construction for each Phase, is set forth in Exhibit 2 attached to this Agreement. The allocations shown in Exhibit 2 attached have been determined based on (a) a "per ERU" formula (with each ERU being allocated an equal share of the Phase 1 Reimbursement Obligation for each Phase), and (b) a weighting factor, referred to in Exhibit 2 attached as a "Participation Percentage" (based on benefit). In the event that Stichting Mayflower Recreational Fonds and Stichting Mayflower Stichting Mountain Fonds ("Mayflower") become parties to the Development Agreement, as provided in Section 3.8(d) thereof, Mayflower shall execute a joinder to this Agreement, the County or the JSSD shall notify all of the parties hereto, and the Reimbursement Obligations shall be modified to reflect the allocation schedule in Exhibit 2A hereof.
4. Timing of Phase 1 Reimbursement Payments. Each Reimbursing Owner shall pay its Phase 1 Reimbursement Obligation on a building by building basis (in accordance with the ERU's for each such building) at the time that the County issues a building permit for vertical construction of each such building (a "Building Permit") on the Reimbursing Owner's property. (The term "Building Permit" when used herein does not refer to any building permit issued by the County solely for horizontal construction improvements, such as grading, excavation, utility installations, road construction, etc.) It shall be a condition to issuance of any Building Permit by the County to any Reimbursing Owner applying for a Building Permit that the Reimbursing Owner first make the payment to the Payment Trustee, as provided in Section 13 for the ERU's consumed in such building, in accordance with this Agreement. Notwithstanding anything to the contrary that may be contained or implied herein, the entire amount of each Reimbursing Owner's Phase 1 Reimbursement Obligation, including interest as provided in Section 2 above, shall be paid in full to the Payment Trustee at the latest on or before the date that is ten years

from the date of commencement of construction of Phase 1. Construction shall be deemed to have commenced on Phase 1 at the time a building permit is issued by Wasatch County for the Phase 1 improvements, and grading begins on the Phase 1 road.

5. Construction and Design of the Portal. If construction of the Portal is funded by HAMC then the provisions of Sections 6 through 8 of this Agreement shall apply.

6. Reimbursement of the Portal Costs. Each Reimbursing Owner shall reimburse HAMC for the Reimbursing Owner's share of all costs incurred by HAMC in constructing and designing the Portal. This obligation of each Reimbursing Owner is referred to herein as the Reimbursing Owner's "Portal Reimbursement Obligation." Each Reimbursing Owner's Portal Reimbursement Obligation shall include an accrual of interest on the unpaid balance of the Portal Reimbursement Obligation at the same rate of interest that is paid by HAMC for the financing that it obtains for construction and design of the Portal, provided that such rate of interest shall be not less than 6.5% per annum.

7. Schedule of Portal Reimbursement Obligations. A schedule showing the allocation of the Portal Reimbursement Obligations among the Reimbursing Owners, based on an assumed cost to construct the Portal, is set forth in Exhibit 2 attached to this Agreement. The allocations shown in Exhibit 2 attached have been determined based on (a) a "per ERU" formula (with each ERU being allocated an equal share of the Portal Reimbursement Obligation for each Phase), and (b) a weighting factor, referred to in Exhibit 2 attached as a Participation Percentage (based on benefit). In the event that Mayflower joins as a party to the Development Agreement and this Agreement, the Portal Reimbursement Obligations shall be modified to reflect the allocation schedule in Exhibit 2A hereof.

8. Timing of Portal Reimbursement Payments. Each Reimbursing Owner shall pay its Portal Reimbursement Obligation to the Payment Trustee on a building by building basis (in accordance with the ERU's for each such building) at the time that the County issues a Building Permit for each such building to the Reimbursing Owner. It shall be a condition to issuance of any Building Permit by the County to any Reimbursing Owner applying for a Building Permit that the Reimbursing Owner first make the payment to the Payment Trustee for the ERU's consumed in such building, in accordance with this Agreement. Notwithstanding anything to the contrary that may be contained or implied herein, the entire amount of each Reimbursing Owner's Portal Reimbursement Obligation, including interest as provided above, shall be paid in full to the Payment Trustee at the latest on or before the date that is ten years from the date of commencement of construction of the Portal. Construction shall be deemed to have commenced on the Portal at the time a building permit is issued by the regulating governmental authorities for the Portal improvements, and grading, excavation or other work begins on the Portal.

9. Phases 2, 4 and 5.

(a) Westside, so far as Phase 1 is concerned, and HAMC, so far as the Portal is concerned if the cost to construct the Portal is paid by HAMC, shall be referred to herein as "Receiving Parties". Any Phase constructed with funds provided by a property owner, rather than by the County or the JSSD, shall be

referred to as a "Privately Funded Phase". The property owner(s) providing the funds to construct any Privately Funded Phase shall also be a "Receiving Party".

(b) If any of Phases 2, 4 or 5 is a Privately Funded Phase, the Receiving Party, if any, for such Phase shall be reimbursed for its construction and design costs in a manner similar to that provided above for Phase 1 and the Portal. This means, for example and without limitation, that (i) each Reimbursing Owner shall have a Reimbursement Obligation to the Receiving Party for Phases 2, 4 and 5 that is calculated according to the percentages stated in attached Exhibit 2 for such Phases, (ii) each Reimbursing Owner's Reimbursement Obligation shall include interest at the rate described in Section 6, above, and (iii) each Reimbursing Owner shall pay its Reimbursement Obligation for the applicable Phase to the Payment Trustee on an ERU basis at the time that the County issues a Building Permit for any ERU developed by the Reimbursing Owner. In addition, it shall be a condition to issuance of such a Building Permit by the County to any Reimbursing Owner applying for a Building Permit that the Reimbursing Owner first make the payment to the Payment Trustee for those ERU's as described in this Agreement.

(c) Notwithstanding anything to the contrary that may be contained or implied herein, the entire amount of each Reimbursing Owner's Phase 2, 4 or 5 Reimbursement Obligation, including interest as provided above, shall be paid in full to the Payment Trustee at the latest on or before the date that is ten years from the date of commencement of construction of the applicable Phase. The construction commencement date shall be determined in a manner consistent with the method for determining the commencement date for the construction of Phase 1 and the Portal, as set forth herein.

10. Changes in Construction Costs. In the event that there are cost overruns in the construction of any Phase, or in the event that cost estimates for future Phases are modified to reflect changes in the cost of labor, materials, land acquisition or any other matter, Exhibit 2 shall be amended to reflect such cost overruns or changes, provided that the method and formula for allocating the costs for each Phase shall be the same as that used in Exhibit 2.

11. Costs of Condemnation. In the event that any land necessary for the construction of any Phase of the Parkway or the Portal is acquired by the County or the JSSD through condemnation proceedings, the amount paid for such land, and the costs incurred by the condemning authority to acquire such land, shall be paid to the condemning authority by the party financing such Phase within thirty (30) following written notice that the County or the JSSD, as the case may be, has expended funds to acquire such land. Such costs shall then be included in the amounts to be paid by the Reimbursing Owners to the Receiving Party paying such costs. It should be noted that Exhibit 2 does not include any land acquisition costs; but any such costs for a particular Phase shall be allocated among the Reimbursing Owners in the same manner as the other costs to design and construct that portion of the Parkway or the Portal included in such Phase.

12. Payment of Reimbursement Obligations as a Condition to the Issuance of any Building Permit by the County. Notwithstanding any other provision of this Agreement or the Development Agreement to the contrary, each Reimbursing Owner shall pay its Reimbursement Obligations to the Payment Trustee for any Building Permit being applied for by the Reimbursing Owner. The amount of Reimbursement Obligations shall be based on estimates, if exact information is not available, of total design and construction costs for all of the Phases, assuming that all of the Phases will be Privately Funded Phases unless the Parties have actual knowledge that any Phase will not be a Privately Funded Phase, in which case the Reimbursement Obligations shall not include an amount for that Phase. The amount of Reimbursement Obligations shall be recalculated, retroactively, once exact numbers are known. All such payments must be made at or before the time that the County issues a Building Permit for any ERU being constructed by the Reimbursing Owner.

(a) It shall be a condition to issuance of a Building Permit by the County that the Reimbursing Owner first make all such payments for all of the Phases for that permit as described in this Agreement.

(b) On or before the date that is twelve months from the date first set forth above, the Road Committee shall estimate as accurately as reasonably possible the total costs of designing and constructing all of the Phases. Such estimate shall then be used to calculate the amount that must be paid by a Reimbursing Party in order to obtain a Building Permit from the County as provided in this Section 12, by allocating such estimate among the Reimbursing Parties according to the percentages stated in Exhibit 2 attached, adjusted as required by Section 14 below.

(c) The Owners acknowledge that the County shall have the right to withhold a Building Permit for failure of an Owner to pay its full Reimbursement Obligation for the ERU's to be constructed under such Building Permit, notwithstanding the fact that all other requirements for obtaining a Building Permit may have been satisfied by such Owner.

13. Payment Trustee and Payment Procedures. On or before the date that is twelve months from the date first set forth above, the Road Committee, shall choose a "Payment Trustee" to receive payment of amounts payable to the Receiving Parties as provided herein. The Payment Trustee shall receive all payments required to be made by a Reimbursing Owner in order to obtain a Building Permit as provided in Section 12, above. Any payments provided by this Agreement be made to Westside, HAMC or any other Receiving Party shall be paid directly to the Payment Trustee, and the Payment Trustee shall remit the appropriate amount to Receiving Party entitled to such payment, as provided in this Agreement. The Payment Trustee will act according to the terms of a trust agreement and/or escrow instructions (the "Trust Instructions"). The Trust Instructions will specify how all funds held by the Payment Trustee are to be allocated, to whom they are to be paid and when they are paid. The Trust Instructions shall be consistent in all respects with the terms, purpose and intent of this Agreement. The Payment Instructions will specify how funds are to be held and invested by the Payment Trustee until they are disbursed. A Receiving Party may elect to receive to itself directly the portion of the total amount required to obtain a Building Permit that is payable to such Receiving Party (i.e. receive

a credit against the Reimbursement Obligation payable for a specific Building Permit for that portion of the Reimbursement Obligation to which the Receiving Party is entitled). Amounts payable to a Receiving Party who has not yet been identified shall always be paid to the Payment Trustee.

14. Verification by the County that Payments have been Made. Any Party that wishes to obtain a Building Permit from the County shall obtain from the Payment Trustee verification that all required payments of the Reimbursement Obligations of the applying Party have been made with respect to the ERUs to be developed under such Building Permit. Such verification shall be in the form of a certificate of payment or a similar form of document that confirms receipt and provides the County with information about the number of ERU's that have been paid for and the building or project for which such payment was made, sufficient in form to allow the County to verify that the Building Permit(s) applied for should be issued. Along with such a certificate of payment, the Payment Trustee shall provide the Reimbursing Party with a Notice of Release, in substantially the form of Exhibit 3 attached, for each portion of the Properties for which all of the Reimbursing Party's Reimbursement Obligations have been paid, as provided in Section 17, below.

15. Changes in Number of ERU's. The allocations of Reimbursement Obligations for all of the Phases shown in Exhibit 2 attached have been determined based on the assumption that the number of ERU's actually owned by each Reimbursing Owner will be the same as the number of ERU's stated in Exhibit 2 attached.

(a) If the number of ERU's actually owned by any Reimbursing Owner, as shown in the official records of the County, is at any time more than the amount of ERU's stated in Exhibit 2 attached, the percentages calculated in Exhibit 2 shall be recalculated retroactively and on a proportional basis to reflect the updated number of ERU's actually owned by each Reimbursing Owner, as shown in the official records of the County. If such recalculation occurs, the weighting factors shown in Exhibit 2 for each Reimbursing Owner shall not change (but the amount of Reimbursement Obligations for each Owner listed in Exhibit 2 will change in the manner described above).

(b) If the number of ERU's actually owned by any Reimbursing Owner, as shown in the official records of the County, is at any time less than the amount of ERU's stated in Exhibit 2 attached, the percentages calculated in Exhibit 2 shall not change.

(c) If JSSD or the County contracts or enters into any other arrangement with any owners of lots that will benefit from the Phases but that are not located in the County (e.g. those portions of the East Park Subdivision situated in Summit County), the JSSD or the County or both, as applicable, shall exercise their best efforts to cause the owners of such lots to pay and to assume Reimbursement Obligations as provided in this Agreement for such lots. If for any reason any of the owners of such lots do not pay or assume Reimbursement Obligations as provided in this Agreement for such lots, then the calculations in Exhibit 2 shall

be revised to allocate the costs of designing and constructing the Phases to Owners of ERU's for Properties that are located in the County.

16. Releases of Properties that Become Part of the Golf Course. If, at any time, any part of the Properties becomes part of Golf Course A, as described in Section 8 of the Development Agreement, that part of the Properties shall no longer be subject to this Agreement. The Parties hereby authorize all of the Receiving Parties and the Payment Trustee to execute a release of this Agreement and to record such release in the real property records of the County as necessary or proper to provide notice to third parties of the release of this Agreement from the Properties that are included in Golf Course A. Third parties, such as lenders, purchasers, title insurance companies, escrow companies, lessor, lessees, owners and other successors in interest to the original Owner of the part of the Properties that became part of Golf Course A shall be entitled to rely on the provisions of this Section 16 and on any release that is recorded as provided in this Section 16. A notice of release of this Agreement (a "Release Notice"), in substantially the form of Exhibit 3 attached, shall be provided to any Owner at any time if the Owner requests and is entitled to receive and to record such a release as provided in this Agreement. No approvals or consent of the County shall be required for a Release Notice to be effective or to be recorded.

17. Releases of Properties for which Reimbursement Obligations have been Paid. As all Reimbursement Obligations for a particular portion of the Properties have been paid in full (e.g. when the Reimbursement Obligation is paid to obtain a Building Permit), that particular portion of the Properties shall no longer be subject to this Agreement (but shall in all other respects continue to be subject to the Development Agreement). The Parties hereby authorize the Receiving Parties and the Payment Trustee to execute a Release Notice, which may be recorded by the recipient in the real property records of the County as necessary or proper to provide notice to third parties of the release of this Agreement, so far as that portion of the Properties is concerned. Third parties, such as lenders, purchasers, title insurance companies, escrow companies, lessor, lessees, owners and other successors in interest to the original Owner of the part of the Properties for which all Reimbursement Obligations have been paid shall be entitled to rely on the provisions of this Section 17 and on any Release Notices recorded as provided in this Section 17. A Release Notice, in recordable form, shall be provided to any Owner at any time if the Owner requests and is entitled to receive and to record such a release as provided in this Section 17. No approvals or consent of the County shall be required for a Release Notice to be effective or to be recorded. The Payment Trustee shall have full power and authority to execute and deliver Release Notices in accordance with the provisions of this Agreement, and, in such event, no other signatures shall be required for the Release Notice to be effective.

18. Refund of Reimbursement Obligation Payments if SID Financing Elected. If payments have been made to Receiving Parties or the Payment Trustee, if a Payment Trustee is appointed, and the Parties elect, pursuant to the Development Agreement, to obtain Special Improvement District bond financing ("SID Financing") instead of private financing for a Phase, the Payment Trustee shall deposit the amount of all such payments into a construction fund that is part of the SID Financing, and each Owner shall receive a credit against its share of the cost of such improvements equal to the amount previously deposited with the Payment Trustee by such Owner for such Phase of improvements. To the extent feasible the governmental authority issuing any SID Financing shall use assessment classes or other means available at law to avoid

burdening any party with additional payments or assessments if the party has already paid the party's proper share of design and construction costs by making Reimbursement Obligation payments in the past.

19. Agreements to Run with the Land. This Agreement shall be recorded against the Properties. The agreements contained herein, including the Exhibits hereto, shall be deemed to run with the land and shall be binding on and shall inure to the benefit of all successors in ownership of the Properties. As used herein, Owner shall include the parties signing this Agreement and identified as "Owner", and all successor owners of any part of the Properties or Project.

20. Construction of Agreement. This Agreement and any future amendments thereto, shall be construed so as to effectuate the public purpose of resolving disputes, implementing long-range planning objectives, obtaining public benefits, and protecting any compelling, countervailing public interest; while providing reasonable assurances of continued vested development rights under this Agreement.

21. Duration. The term of this Agreement shall commence on the date first set forth above, and shall continue until all Reimbursement Obligations of the Parties hereto have been satisfied and paid in full. Once all Reimbursement Obligations of any Party have been paid in full, the Party shall be entitled to receive a Release Notice as to that Party's Properties.

22. State and Federal Law. The parties agree, intend and understand that the obligations imposed by this Agreement are intended to be consistent with state and federal law. The parties further agree that if any provision of this Agreement becomes, in its performance, inconsistent with state or federal law or is declared invalid, this Agreement shall be deemed amended or modified to the extent necessary to make it consistent with state or federal law, as the case may be, and the balance of this Agreement shall remain in full force and effect.

23. Notices. Any notice delivered personally or by courier shall be deemed to have been given when delivered to the addresses set forth below. Any Party may change its address by giving notice to the other Parties as provided below. Any and all notices and demands shall be in writing and shall be validly given or made only if personally delivered, sent by FedEx or other recognized international courier service that provides a receipt of delivery, or deposited, certified and registered return receipt requested in the United States mail or Dutch Postal Service (if mailed from the Netherlands) and addressed as follows:

If to HAMC:                   HAMC Wasatch, LLC  
  P. O. Box 32467  
  Long Beach, California 90832-2467

With a copy to:               DDRM GREATPLACE, LLC  
  777 Convention Way, #100  
  Anaheim, CA 92802  
  Attn: Stanley R. Castleton



With a copy to: Thomas G. Bennett  
Ballard Spahr Andrews & Ingersoll, LLP  
201 South Main St.  
Suite 600  
Salt Lake City, Utah 84111-2215

If to Westside: Westside Resorts, LLC  
3750 West 500 South  
Salt Lake City, Utah 84104  
Telephone: (801) 908-0196  
Fax: (801) 908-0198

With a copy to: Mark E. Rinehart, Esq.  
Rinehart Simonsen & Fetzer, P.C.  
Suite 175  
3 Triad Center  
Salt Lake City, Utah 84180  
Telephone: (801) 328-0266  
Fax: (801) 328-0269

If to View: Michael Ahlin  
Jordanelle View, LLC  
64 East Winchester  
Salt Lake City, Utah 84107

If to JAS: JAS Realty Limited Partnership  
42 Indian Head Road  
Riverside, Connecticut 06878  
Attn: Donald B. Gimbel

With a copy to: Tom Flinders  
P.O. Box 682666  
Park City, Utah 84068

If to JSSD: Jordanelle Special Service District  
c/o Dan Matthews  
10420 North Jordanelle Boulevard  
Heber City, Utah 84032

If to County: Wasatch County  
25 No. Main St.

Heber City, Utah 84032

Attn: City Manager

24. Exhibits and Recitals. The Recitals at the beginning of this Agreement and Development Agreement Book of Exhibits are hereby incorporated herein by this reference.

25. No Waiver. Failure of a Party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such Party to exercise such right at some future time said right or any other right it may have hereunder.

26. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the issues addressed herein and supersedes all prior agreements, whether oral or written, covering the same subject matter. This Agreement may not be modified or amended except in writing mutually agreed to and accepted by the parties to this Agreement. Further, this Agreement may be amended with respect to terms and conditions solely affecting any particular portion of the Properties with the consent and agreement of the Owner(s) of such Properties, but without the necessity of obtaining the consent or approval of any other Owners or third parties.

27. Attorneys' Fees. Should any party hereto employ attorneys (whether such attorney be in house or outside counsel) for the purpose of enforcing this Agreement, or any judgment based on this Agreement, including but not limited to bankruptcy, arbitration, declaratory relief or other litigation, including appeals or rehearings, and whether or not an action has actually commenced, the prevailing party shall be entitled to receive from the other party thereto reasonable attorneys' fees and reimbursements for all costs and expenses (including expert witnesses). Should any judgment or final order be issued in that proceeding, said reimbursement shall be specified therein. For purposes of calculating reasonable attorneys' fees, any in-house counsel shall be entitled to fees at the same rate as comparable outside counsel would charge for similar work.

28. Applicable Law. This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Utah.

29. Execution of Agreement. This Agreement may be executed in multiple counterparts or originals or by facsimile copies of executed originals; provided, however, if executed and evidence of execution is made by facsimile copy, then an original shall be provided to the other Parties within seven (7) days of receipt of said facsimile copy. Failure by any Party to provide an original, signed copy of this Agreement after providing a facsimile copy shall not, however, invalidate this Agreement or create any inference that the Party failing to provide an original copy is not bound by the Party's signature of a facsimile copy of this Agreement.

30. Estoppel Certificates. The Receiving Parties and the Payment Trustee, if any, shall, within ten (10) days after written request from any Reimbursing Owner, execute and deliver to the Reimbursing Owner any documents, including estoppel certificates, in the form prepared by the Reimbursing Owner: (a) certifying that this Agreement is unmodified and in full force and effect or, if modified, stating the nature of such modification and certifying that this Agreement, as so modified, is in full force and effect and the date to which all Reimbursement

Obligations have been paid and the amount of all Reimbursement Obligations that have been paid or remain to be paid, and (b) acknowledging that there are not, to the Receiving Parties' and the Payment Trustee's, if any, knowledge, any uncured defaults on the part of the Reimbursing Owner, or, if there are uncured defaults on the part of the Reimbursing Owner, stating the nature of such uncured defaults, and (c) otherwise evidencing the status of this Agreement, as may be required by an investor, a lender making a loan to the Reimbursing Owner to be secured by deed of trust or mortgage covering the Reimbursing Owner's Properties or as may be required by a purchaser of any portion of the Properties from the Reimbursing Owner.

31. Relationship of Parties. The contractual relationship between the County and Owners arising out of this Agreement is one of independent contractor and not agency. The parties do not intend, and this Agreement shall not create, any partnership, joint venture, or other business association between the County and any of the Owners, or between an Owner and any other Owner. It is specifically understood by the parties that: (i) the Project is a private development, (ii) County has no interest in, responsibilities for, or duty to third parties concerning any improvements to the Properties unless the County accepts the improvements pursuant to the provisions of this Agreement or in connection with subdivision plat, site plan, deed, or map approval, and (iii) the Owners shall have the full power and exclusive control of that portion of the Properties owned by each of them subject to the obligations of each Owner set forth in this Agreement.

32. Authority. If any Party is a corporation, partnership, limited liability company or state or governmental entity, each individual executing this Agreement on behalf of that Party hereby represents and warrants that the individual is duly authorized to execute and deliver this Agreement on behalf of said Party in accordance with the Party's governing documents, and that this Agreement is binding upon said entity in accordance with its terms. Any Party, at its option, may require a copy of such written authorization as a condition to entering into this Agreement. The failure of any Party to deliver the written authorization to the requesting Party within seven (7) days of request therefor shall be deemed to be a material breach of this Agreement.

33. Further Assurances. Each of the Parties shall execute and deliver to any other Party all additional papers, documents and other assurances, and each of the Parties shall do all acts and things reasonably necessary in connection with the performance of that Party's obligations under this Agreement as reasonably required to carry out the purposes and intention of this Agreement.

34. Rights of Third Parties. This Agreement is made and entered into for the sole protection and benefit of the parties hereto, and their successors and assigns with respect to the Properties. It is not intended to affect or create any additional rights or obligations on the part of third parties, whether as third party beneficiaries or otherwise, except as expressly provided in Sections 15 and 16 above.

35. Titles and Captions. All section titles or captions contained in this Agreement are for convenience only and shall not be deemed part of the context nor affect the interpretation hereof.

IN WITNESS WHEREOF, this Agreement has been executed by Wasatch County, acting by and through the County Council of Wasatch County, State of Utah, pursuant to Ordinance No. \_\_\_\_\_, authorizing such execution, and by a duly authorized representative of each of the Owners.

**WASATCH COUNTY**, a political subdivision of the State of Utah

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**JORDANELLE SPECIAL SERVICE DISTRICT**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**HAMC WASATCH LLC**, a Delaware limited liability company

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**WESTSIDE RESORT, LLC**, a Utah limited liability company

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**JORDANELLE VIEW L.C., a Utah limited liability company**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**JAS REALTY\_\_**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of December, 2005, by \_\_\_\_\_, the \_\_\_\_\_ of **HAMC WASATCH, LLC**, a Delaware limited liability company.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of December, 2005, by \_\_\_\_\_, the \_\_\_\_\_ of **WESTSIDE RESORT, LLC**, a Utah limited liability company.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of December, 2005, by \_\_\_\_\_, the \_\_\_\_\_ of **JAS REALTY**.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of December, 2005, by \_\_\_\_\_, an individual residing in the State of Utah, as the authorized representative of **JORDANELLE VIEW L.C.**, a Utah limited liability company.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of July, 2005, by \_\_\_\_\_, an individual residing in the State of Utah, as the authorized representative of **JORDANELLE SPECIAL SERVICE DISTRICT**.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_

STATE OF UTAH )  
 : ss.  
COUNTY OF UTAH )

The foregoing **REIMBURSEMENT AGREEMENT** was acknowledged before me this \_\_\_\_\_ day of December, 2005, by \_\_\_\_\_, the \_\_\_\_\_ of **WASATCH COUNTY**, a political subdivision of the State of Utah.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY PUBLIC  
Residing at: \_\_\_\_\_



**EXHIBIT 1**

Description of the Properties (other than the Mayflower Property)

**EXHIBIT 2**

Cost Allocation Table

RSPA "AIDA" Agreement

Summary - All Landowners

Owner	TOTAL	Jordanelle View		JAS Realty		East Park		Space Hen Hollow	The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Michael Alfin	Don Gimbel	Arie C. Bopard	Other	Westside	Westside						
<b>Phase One - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		175%	175%	150%	150%	150%	150%	150%	50%	50%	0%	0%	150%
Cost of Parkway Phase I per Landowner	7,000,000	459,315	350,866	147,637	973,311	300,742	328,082	113,006	1,576,618	0	0	0	2,780,423
ERU Cost per Landowner		6,379	6,379	5,468	5,468	5,468	5,468	1,823	1,823	-	-	-	5,468
Participation Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	1.6%	22.5%	0.0%	0.0%	0.0%	39.3%
<b>Phase Two - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		150%	150%	100%	100%	100%	100%	100%	40%	40%	0%	0%	200%
Cost of Parkway Phase II per Landowner	6,000,000	286,123	218,566	71,531	471,573	145,711	158,957	65,702	916,653	-	-	-	2,665,183
ERU Cost per Landowner		3,974	3,974	2,649	2,649	2,649	2,649	1,060	1,060	0	0	0	5,299
Participation Percentage	100%	5.7%	4.4%	1.4%	9.4%	2.9%	3.2%	1.3%	18.3%	0.0%	0.0%	0.0%	53.3%
<b>Phase Three &amp; Four - Portal &amp; Jordanelle Parkway Improvements</b>													
Participation Percentage (Based upon Benefit)		40%	40%	60%	60%	60%	60%	60%	150%	150%	75%	30%	75%
Cost of Parkway/Portal Phase III & IV per Landowner	7,000,000	92,348	70,544	51,946	342,457	105,815	115,435	298,207	4,160,464	476,169	78,957	78,957	1,209,661
ERU Cost per Landowner		1,283	1,283	1,924	1,924	1,924	1,924	4,810	4,810	2,405	2,405	962	2,405
Participation Percentage	100%	1.3%	1.0%	0.7%	4.9%	1.5%	1.6%	4.3%	59.4%	6.8%	6.8%	1.1%	17.3%
<b>Phase Five - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		175%	175%	150%	150%	150%	150%	150%	50%	50%	0%	0%	150%
Cost of Parkway Phase V per Landowner	3,000,000	196,849	150,371	63,273	417,133	128,888	140,607	48,431	675,893	0	0	0	1,178,753
ERU Cost per Landowner		2,734	2,734	2,343	2,343	2,343	2,343	781	781	0	0	0	2,343
Participation Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	1.6%	22.5%	0.0%	0.0%	0.0%	39.3%
<b>TOTAL</b>													
Cost	22,000,000	1,034,635	790,347	334,386	2,204,474	681,158	743,081	525,346	7,329,428	476,169	76,957	76,957	7,804,020
ERU Cost per Landowner		14,370	14,370	12,365	12,385	12,385	12,385	8,473	8,473	2,405	2,405	962	15,515

RSPA 'AIDA' Agreement  
Summary - Excluding Mayflower

Owner	TOTAL	Jordanelle View		JAS Realty		East Park		Sage Hen Hollow	The Points/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Michael Albin	175%	Don Gimbel	Arie C. Bopert	Other	Westside						
Phase One - Jordanelle Parkway													
Participation Percentage (Based upon Benefit)		175%	175%	0%	0%	150%	150%	150%	50%	50%	0%	0%	0%
Cost of Parkway Phase I per Landowner	7,000,000	783,926	586,756	0	1,660,964	513,219	589,876	192,848	2,680,513	0	0	0	0
ERU Cost per Landowner		10,866	10,866	-	9,331	9,331	9,331	3,110	3,110	-	-	-	-
Participation Percentage	100%	11.2%	8.6%	0.0%	23.7%	7.3%	8.0%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
Phase Two - Jordanelle Parkway													
Participation Percentage (Based upon Benefit)		150%	150%	0%	100%	100%	100%	40%	40%	0%	0%	0%	0%
Cost of Parkway Phase II per Landowner	5,000,000	632,096	482,851	-	1,041,789	321,901	351,165	145,148	2,025,050	-	-	-	-
ERU Cost per Landowner		8,779	8,779	0	5,853	5,853	5,853	2,341	2,341	0	0	0	0
Participation Percentage	100%	12.6%	9.7%	0.0%	20.8%	6.4%	7.0%	2.9%	40.5%	0.0%	0.0%	0.0%	0.0%
Phase Three & Four - Portal & Jordanelle Parkway Improvements													
Participation Percentage (Based upon Benefit)		40%	40%	0%	60%	60%	60%	150%	150%	75%	75%	30%	0%
Cost of Parkway/Portal Phase III & IV per Landowner	7,000,000	112,651	86,053	-	417,747	129,079	140,814	363,768	5,075,156	580,856	580,856	93,878	-
ERU Cost per Landowner		1,565	1,565	0	2,347	2,347	2,347	5,867	5,867	0	0	0	0
Participation Percentage	100%	1.6%	1.2%	0.0%	6.0%	1.8%	2.0%	5.2%	72.5%	8.3%	8.3%	1.3%	0.0%
Phase Five - Jordanelle Parkway													
Participation Percentage (Based upon Benefit)		175%	175%	0%	150%	150%	150%	50%	50%	0%	0%	0%	0%
Cost of Parkway Phase V per Landowner	3,000,000	335,925	256,610	0	711,842	219,951	239,947	82,648	1,153,077	0	0	0	0
ERU Cost per Landowner		4,666	4,666	0	3,999	3,999	3,999	1,333	1,333	0	0	0	0
Participation Percentage	100%	11.2%	8.6%	0.0%	23.7%	7.3%	8.0%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
TOTAL													
Cost	22,000,000	1,864,498	1,424,270	-	3,832,342	1,164,161	1,291,901	784,411	10,943,797	580,856	580,856	93,878	-
ERU Cost per Landowner		25,886	25,886	0	21,530	21,530	21,530	12,652	12,652	0	0	0	0

RSPA "AIDA" Agreement  
Jordanelle Parkway-Phase I

	TOTAL	Jordanelle View		JAS Realty			East Park		Sage Hen Hollow	The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Michael Ahlin	Don Gimbel	Arie C. Bogerd	Other	Westside	Westside	HAMC/DDRM	Angela Sabella	Stillwater	Arie C. Bogerd			
<b>Owner</b>														
Jordanelle Parkway - Phase I: Construction of the Parkway from the JSSD Fire Station to the railroad trail. Scope of work includes engineering, development and construction of road, retaining walls, detention basins, landscape improvements, monumentation, signage, maintenance, etc. monumentation, etc. This work will be privately financed by Westside. Reimbursement agreements will be put in place.														
<b>ALL BENEFITING LANDOWNERS</b>														
1 ERUs	1,877	72	55	27	178	55	60	865	62	865	-	-	-	503
ERU Percentage	100%	4%	3%	1%	9%	3%	3%	46%	3%	46%	0%	0%	0%	27%
2 Participation Amount	7,000,000	268,514	205,115	100,693	663,825	205,115	223,761	3,225,892	231,220	3,225,892	-	-	-	1,875,866
Participation Amount/Per ERU		3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729				3,729
<b>Effective ERUs (Based upon by Benefit)</b>														
ERU Percentage	1,920	126	96	41	267	83	90	433	31	433	0	0	0	755
ERU Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	22.5%	1.6%	22.5%	0.0%	0.0%	0.0%	39.3%
5 Cost of Improvement - (Input Estimate)	7,000,000	459,315	350,866	147,637	973,311	300,742	328,092	1,576,616	113,006	1,576,616	-	-	-	2,750,423
Per ERU Cost		6,379	6,379	5,468	5,468	5,468	5,468	1,823	1,823	1,823				5,468
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>														
ERUs	1,877	72	55	27	178	55	60	865	62	865	-	-	-	503
ERU Percentage	100%	4%	3%	1%	9%	3%	3%	46%	3%	46%	0%	0%	0%	27%
Participation Amount	7,000,000	268,514	205,115	100,693	663,825	205,115	223,761	3,225,892	231,220	3,225,892	-	-	-	1,875,866
Participation Amount/Per ERU		3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729				3,729
<b>Effective ERUs (Based upon by Benefit)</b>														
ERU Percentage	1,125	126	96	0	267	83	90	433	31	433	0	0	0	0
ERU Percentage	100%	11.2%	8.6%	0.0%	23.7%	7.3%	8.0%	38.4%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
Net Cost of Roads per Landowner	7,000,000	783,826	598,756	-	1,660,964	513,219	559,876	2,690,513	192,846	2,690,513	-	-	-	-
Per ERU Cost		10,866	10,866	-	9,331	9,331	9,331	3,110	3,110	3,110				
<b>Notes:</b>														
1 ERU-Number of ERUs, (by landowner) which will benefit by said improvement.														
2 Participation Amount- Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.														
3 Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.														
4 Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.														
5 Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.														

RSPA "AIDA" Agreement

Jordanella Parkway-Phase II

Owner	Jordanella View	JAS Realty	East Park			Sage Hen Hollow	The Points/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
			Arie C. Bogard	Other	Westside						
<b>ALL BENEFITING LANDOWNERS</b>											
1 ERUs	1,877	83	27	178	55	60	25	0	0	0	0
ERU Percentage	100%	4.4%	1.4%	9.4%	2.9%	3.2%	1.3%	0.0%	0.0%	0.0%	0.0%
2 Participation Amount	5,000,000	218,566	71,531	471,573	145,711	158,957	65,702	916,853	-	-	2,865,183
Participation Amount/Per ERU		3,974	2,649	2,649	2,649	2,649	1,060	1,060	-	-	5,299
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>											
4 Effective ERU's (Based upon by Benefit)	1,877	83	27	178	55	60	25	346	0	0	1,008
ERU Percentage	100%	4.4%	1.4%	9.4%	2.9%	3.2%	1.3%	18.3%	0.0%	0.0%	53.3%
5 Cost of Improvement - (Input Estimate)	5,000,000	286,123	71,531	471,573	145,711	158,957	65,702	916,853	-	-	2,865,183
Per ERU Cost		3,974	2,649	2,649	2,649	2,649	1,060	1,060	-	-	5,299
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>											
ERUs	1,877	83	27	178	55	60	25	865	-	-	503
ERU Percentage	100%	4.4%	1.4%	9.4%	2.9%	3.2%	1.3%	46%	0%	0%	27%
Participation Amount	5,000,000	191,795	71,923	474,161	146,510	159,830	65,157	2,304,209	-	-	1,339,904
Participation Amount/Per ERU		2,664	2,664	2,664	2,664	2,664	2,664	2,664	-	-	2,664
Effective ERU's (Based upon by Benefit)	854	83	0	178	55	60	25	346	0	0	0
ERU Percentage	100%	9.7%	0.0%	20.8%	6.4%	7.0%	2.9%	40.5%	0.0%	0.0%	0.0%
Net Cost of Roads per Landowner	5,000,000	632,096	-	1,041,789	321,901	351,165	145,148	2,025,050	-	-	-
Per ERU Cost		8,779	-	5,853	5,853	5,853	2,341	2,341	-	-	-

Notes:

- 1 ERU-Number of ERUs, (by landowner) which will benefit by said improvement.
- 2 Participation Amount- Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.
- 3 Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.
- 4 Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.
- 5 Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.

**RSPA "AIDA" Agreement  
Portal & Jordanelle Parkway-Phase III & IV**

	TOTAL	Jordanelle View		East Park			The Points/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Michael Ahlin	Don Gimbel	Arie C. Bogard	Other	Westside					
<b>Portal &amp; Jordanelle Parkway Improvements- Phase III &amp; IV: Construction of the Portal (connection to Deer Valley) and Jordanelle Parkway Improvements.</b>											
<b>Jordanelle Parkway Improvements include landscape improvements, monumentation, roundabout etc. for the currently improved section from Stillwater to Jordanelle freestation.</b>											
<b>Owner</b>											
<b>ALL BENEFITING LANDOWNERS</b>											
1 ERUs	2,155	72	55	27	178	55	82	865	198	80	503
ERU Percentage	100%	3%	3%	1%	8%	3%	3%	40%	9%	4%	23%
2 Participation Amount	7,000,000	233,875	178,654	87,703	578,190	178,654	201,392	2,809,745	643,155	259,861	1,633,875
Participation Amount/Per ERU		3,248	3,248	3,248			3,248	3,248	3,248	3,248	3,248
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>											
4 Effective ERU's (Based upon by Benefit)	2,183	29	22	16	107	33	93	1,298	149	24	377
ERU Percentage	100%	1.3%	1.0%	0.7%	4.9%	1.5%	4.3%	59.4%	6.8%	1.1%	17.3%
5 Cost of Improvement - (Input Estimate)	7,000,000	92,348	70,544	51,846	342,457	105,815	298,207	4,160,464	476,169	78,957	1,209,661
Per ERU Cost		1,283	1,283	1,924	1,924	1,924	4,810	4,810	2,405	962	2,405
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>											
ERUs	2,155	72	55	27	178	55	62	865	198	80	503
ERU Percentage	100%	3%	3%	1%	8%	3%	3%	40%	9%	4%	23%
Participation Amount	7,000,000	233,875	178,654	87,703	578,190	178,654	201,392	2,809,745	643,155	259,861	1,633,875
Participation Amount/Per ERU		3,248	3,248	3,248			3,248	3,248	3,248	3,248	3,248
Effective ERU's (Based upon by Benefit)	1,780	29	22	0	107	33	93	1,298	149	24	0
ERU Percentage	100%	1.6%	1.2%	0.0%	6.0%	1.8%	5.2%	72.5%	8.3%	1.3%	0.0%
Net Cost of Improvements per Landowner	7,000,000	112,651	86,053	-	417,747	129,079	363,768	5,075,156	580,856	93,876	-
Per ERU Cost		1,565	1,565	-	2,347	2,347	5,867	5,867	5,867	5,867	-
<b>Notes:</b>											
1	ERU-Number of ERU's, (by landowner) which will benefit by said improvement.										
2	Participation Amount- Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.										
3	Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.										
4	Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.										
5	Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.										





**EXHIBIT 3**

Form of Notice of Release

**WHEN RECORDED  
PLEASE RETURN TO:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NOTICE OF RELEASE OF PROPERTY**

This undersigned hereby releases the real property described in Exhibit A attached from all of the obligations provided for in that certain Reimbursement Agreement dated as of December \_\_\_\_, 2005, entered into by and among HAMC WASATCH, LLC, a Delaware limited liability company, WESTSIDE RESORT, LLC, a Utah limited liability company, JORDANELLE VIEW L.C., a Utah limited liability company, JAS REALTY, LLC, JORDANELLE SPECIAL SERVICE DISTRICT ("JSSD"), and WASATCH COUNTY, a political subdivision of the State of Utah, which Reimbursement Agreement was recorded on \_\_\_\_\_, 200\_\_ as Entry No. \_\_\_\_\_, Book \_\_\_ at Page \_\_\_ of the official records of Wasatch County, Utah.

IN WITNESS WHEREOF, the undersigned has executed and delivered this Notice of Release of Property on the dates set forth below, to be effective as of the date set forth below .

Date: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF \_\_\_\_\_ )

: ss.

COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_.

\_\_\_\_\_  
NOTARY PUBLIC

**EXHIBIT A**

Legal Description of Released Property

# **EXHIBIT - K**

Allocation of Costs for  
Construction of Parkway and Portal,  
executed July 21, 2005

RSPA "AIDA" Agreement

Summary - All Landowners

Owner	TOTAL	Jordanelle View		JAS Realty		East Park		Sage Hen Hollow	The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Marflower North
		Michael Ahlin	Don Gimbel	Arie C. Bopard	Other	Westside	Westside						
<b>Phase One - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		175%	175%	150%	150%	150%	150%	150%	50%	50%	0%	0%	150%
Cost of Parkway Phase I per Landowner	7,000,000	459,315	350,866	147,637	973,311	300,742	328,082	328,082	113,008	1,576,618	0	0	2,750,423
ERU Cost per Landowner		6,379	6,379	5,468	5,468	5,468	5,468	5,468	1,823	1,823	-	-	5,468
Participation Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	4.7%	1.6%	22.5%	0.0%	0.0%	39.3%
<b>Phase Two - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		150%	150%	100%	100%	100%	100%	100%	40%	40%	0%	0%	200%
Cost of Parkway Phase II per Landowner	6,000,000	286,123	218,566	71,531	471,573	145,711	158,957	158,957	65,702	916,663	-	-	2,665,183
ERU Cost per Landowner		3,974	3,974	2,649	2,649	2,649	2,649	2,649	1,060	1,060	0	0	5,298
Participation Percentage	100%	5.7%	4.4%	1.4%	9.4%	2.9%	3.2%	3.2%	1.3%	18.3%	0.0%	0.0%	53.3%
<b>Phase Three &amp; Four - Portal &amp; Jordanelle Parkway Improvements</b>													
Participation Percentage (Based upon Benefit)		40%	40%	60%	60%	60%	60%	60%	150%	150%	75%	30%	75%
Cost of Parkway/Portal Phase III & IV per Landowner	7,000,000	92,348	70,544	51,946	342,457	105,815	115,435	115,435	298,207	4,160,464	476,169	76,957	1,209,661
ERU Cost per Landowner		1,283	1,283	1,924	1,924	1,924	1,924	1,924	4,810	4,810	2,405	962	2,405
Participation Percentage	100%	1.3%	1.0%	0.7%	4.9%	1.5%	1.6%	1.6%	4.3%	59.4%	6.8%	1.1%	17.3%
<b>Phase Five - Jordanelle Parkway</b>													
Participation Percentage (Based upon Benefit)		175%	175%	150%	150%	150%	150%	150%	50%	50%	0%	0%	150%
Cost of Parkway Phase V per Landowner	3,000,000	196,849	150,371	63,273	417,133	128,889	140,607	140,607	48,431	675,683	0	0	1,176,753
ERU Cost per Landowner		2,734	2,734	2,343	2,343	2,343	2,343	2,343	781	781	0	0	2,343
Participation Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	4.7%	1.6%	22.5%	0.0%	0.0%	39.3%
<b>TOTAL</b>													
Cost	22,000,000	1,034,635	790,347	334,386	2,204,474	681,158	743,081	743,081	525,346	7,329,428	476,169	76,957	7,804,020
ERU Cost per Landowner		14,370	14,370	12,385	12,385	12,385	12,385	12,385	8,473	8,473	2,405	962	15,515

RSPA 'AIDA' Agreement  
Summary - Excluding Mayflower

Owner	TOTAL	JAS Realty			East Park		Sage Hen Hollow	The Points/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Don Gimbel	Arie C. Bogard	Other	Westside	Westside						
<b>Phase One - Jordanelle Parkway</b>												
Participation Percentage (Based upon Benefit)		175%	0%	150%	150%	150%	50%	50%	0%	0%	0%	0%
Cost of Parkway Phase I per Landowner	7,000,000	783,826	0	1,660,964	513,219	559,878	182,846	2,690,513	0	0	0	0
ERU Cost per Landowner		10,886	-	9,331	9,331	9,331	3,110	3,110	-	-	-	-
Participation Percentage	100%	11.2%	0.0%	23.7%	7.3%	8.0%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
<b>Phase Two - Jordanelle Parkway</b>												
Participation Percentage (Based upon Benefit)		150%	0%	100%	100%	100%	40%	40%	0%	0%	0%	0%
Cost of Parkway Phase II per Landowner	5,000,000	632,096	-	1,041,789	321,901	351,165	145,148	2,025,050	-	-	-	-
ERU Cost per Landowner		8,779	0	5,853	5,853	5,853	2,341	2,341	0	0	0	0
Participation Percentage	100%	12.6%	0.0%	20.8%	6.4%	7.0%	2.9%	40.5%	0.0%	0.0%	0.0%	0.0%
<b>Phase Three &amp; Four - Portal &amp; Jordanelle Parkway Improvements</b>												
Participation Percentage (Based upon Benefit)		40%	0%	60%	60%	60%	150%	150%	75%	75%	30%	0%
Cost of Parkway/Portal Phase III & IV per Landowner	7,000,000	112,651	-	417,747	129,079	140,814	363,768	5,075,156	580,856	580,856	93,876	-
ERU Cost per Landowner		1,565	0	2,347	2,347	2,347	5,867	5,867	0	0	0	0
Participation Percentage	100%	1.6%	0.0%	6.0%	1.8%	2.0%	5.2%	72.5%	8.3%	8.3%	1.3%	0.0%
<b>Phase Five - Jordanelle Parkway</b>												
Participation Percentage (Based upon Benefit)		175%	0%	150%	150%	150%	50%	50%	0%	0%	0%	0%
Cost of Parkway Phase V per Landowner	3,000,000	335,925	0	711,842	219,951	239,947	82,848	1,153,077	0	0	0	0
ERU Cost per Landowner		4,666	0	3,999	3,999	3,999	1,333	1,333	0	0	0	0
Participation Percentage	100%	11.2%	0.0%	23.7%	7.3%	8.0%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
<b>TOTAL</b>												
Cost	22,000,000	1,864,498	-	3,832,342	1,184,151	1,291,801	784,411	10,943,797	580,856	580,856	93,876	-
ERU Cost per Landowner		25,896	0	21,530	21,530	21,530	12,652	12,652	0	0	0	0

RSPA "AIDA" Agreement  
Jordanelle Parkway-Phase I

Jordanelle Parkway - Phase I: Construction of the Parkway from the JSSD Fire Station to the railroad trail. Scope of work includes engineering, development and construction of road, retaining walls, detention basins, landscape improvements, monumentation, signage, maintenance, etc. monumentation, etc. This work will be privately financed by Westside. Reimbursement agreements will be put in place.

	Owner	TOTAL	Jordanelle View		JAS Realty		East Park		Sage Hen Hollow	The Pointe/The Hollows	Deer Creek Village East	Deer Creek Village West	Stillwater	Mayflower North
			Michael Ahlin	Don Gimbel	Arie C. Bogard	Other	Westside	Westside						
<b>ALL BENEFITING LANDOWNERS</b>														
1	ERUs	1,877	72	55	27	178	55	60	62	865	-	-	-	503
	ERU Percentage	100%	4%	3%	1%	9%	3%	3%	3%	46%	0%	0%	0%	27%
2	Participation Amount	7,000,000	288,514	205,115	100,693	663,825	205,115	223,761	231,220	3,225,892	-	-	-	1,875,866
	Participation Amount/Per ERU		3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729				3,729
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>														
4	Effective ERU's (Based upon by Benefit)	1,920	126	96	41	267	83	90	31	433	0	0	0	755
	ERU Percentage	100%	6.6%	5.0%	2.1%	13.9%	4.3%	4.7%	1.8%	22.5%	0.0%	0.0%	0.0%	39.3%
5	Cost of Improvement - (Input Estimate)	7,000,000	459,315	350,866	147,637	973,311	300,742	328,082	113,006	1,576,618	-	-	-	2,750,423
	Per ERU Cost		6,379	6,379	5,468	5,468	5,468	5,468	1,823	1,823				5,468
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>														
	ERUs	1,877	72	55	27	178	55	60	62	865	-	-	-	503
	ERU Percentage	100%	4%	3%	1%	9%	3%	3%	3%	46%	0%	0%	0%	27%
	Participation Amount	7,000,000	288,514	205,115	100,693	663,825	205,115	223,761	231,220	3,225,892	-	-	-	1,875,866
	Participation Amount/Per ERU		3,729	3,729	3,729	3,729	3,729	3,729	3,729	3,729				3,729
	Effective ERU's (Based upon by Benefit)	1,125	128	96	0	267	83	90	31	433	0	0	0	0
	ERU Percentage	100%	11.2%	8.6%	0.0%	23.7%	7.3%	8.0%	2.8%	38.4%	0.0%	0.0%	0.0%	0.0%
	Net Cost of Roads per Landowner	7,000,000	783,826	598,766	-	1,660,964	513,219	559,879	192,846	2,680,513	-	-	-	-
	Per ERU Cost		10,886	10,886	-	9,331	9,331	9,331	3,110	3,110				3,729
<b>Notes:</b>														
1	ERU Number of ERU's, (by landowner) which will benefit by said improvement.													
2	Participation Amount: Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.													
3	Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.													
4	Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.													
5	Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.													

RSPA "AIDA" Agreement													
Jordanelle Parkway-Phase II													
Owner	Jordanelle View		JAS Realty		East Park			Sage Hen Hollow	The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
	Michael Alvin	Don Gimbel	Arie C. Bopard	Other	Westside	Westside	Westside	Westside	Westside	HAMC/DDRM	Angela Sabela	Stillwater	Arie C. Bopard
<b>ALL BENEFITING LANDOWNERS</b>													
1	ERUs	1,877	72	55	27	178	55	60	62	865	-	-	503
	ERU Percentage	100%	4%	3%	1%	9%	3%	3%	3%	46%	0%	0%	27%
2	Participation Amount	5,000,000	191,795	146,510	71,923	474,161	146,510	159,830	165,157	2,304,209	-	-	1,339,904
	Participation Amount/Per ERU		2,664	2,664	2,664	2,664	2,664	2,664	2,664	2,664			2,664
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>													
4	Effective ERU's (Based upon by Benefit)	1,887	108	83	27	178	55	60	25	346	0	0	1006
	ERU Percentage	100%	5.7%	4.4%	1.4%	9.4%	2.9%	3.2%	1.3%	18.3%	0.0%	0.0%	53.3%
5	Cost of Improvement - (Input Estimate)	5,000,000	286,123	218,598	71,531	471,573	145,711	158,957	65,702	916,853	-	-	2,665,183
	Per ERU Cost		3,974	3,974	2,649	2,649	2,649	2,649	1,060	1,060			5,299
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>													
	ERUs	1,877	72	55	27	178	55	60	62	865	-	-	503
	ERU Percentage	100%	4%	3%	1%	9%	3%	3%	3%	46%	0%	0%	27%
	Participation Amount	5,000,000	191,795	146,510	71,923	474,161	146,510	159,830	165,157	2,304,209	-	-	1,339,904
	Participation Amount/Per ERU		2,664	2,664	2,664	2,664	2,664	2,664	2,664	2,664			2,664
	Effective ERU's (Based upon by Benefit)	854	108	83	0	178	55	60	25	346	0	0	0
	ERU Percentage	100%	12.6%	9.7%	0.0%	20.8%	6.4%	7.0%	2.9%	40.5%	0.0%	0.0%	0.0%
	Net Cost of Roads per Landowner	5,000,000	632,086	482,851	-	1,041,789	321,901	351,165	145,148	2,025,060	-	-	-
	Per ERU Cost		8,779	8,779	-	5,853	5,853	5,853	2,341	2,341			-
<b>Notes:</b>													
1	ERU-Number of ERU's, (by landowner) which will benefit by said improvement.												
2	Participation Amount. Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.												
3	Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.												
4	Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.												
5	Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.												



**RSPA "AIDA" Agreement**  
**Portal & Jordanelle Parkway-Phase III & IV**

Portal & Jordanelle Parkway Improvements- Phase III & IV: Construction of the Portal (connection to Deer Valley) and Jordanelle Parkway Improvements. Jordanelle Parkway Improvements include landscape improvements, monumentation, roundabout etc. for the currently improved section from Stillwater to Jordanelle freestation.

	TOTAL	Jordanelle View		East Park			Seac Hen Hollow	The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
		Michael Almir	Don Gimbel	Arie C. Bogard	Other	Westside						
<b>Owner</b>												
<b>ALL BENEFITING LANDOWNERS</b>												
1 ERUs	2,155	72	55	27	178	55	60	62	865	198	80	503
ERU Percentage	100%	3%	3%	1%	8%	3%	3%	3%	40%	9%	4%	23%
2 Participation Amount	7,000,000	233,875	178,654	87,703	578,180	178,654	194,896	201,392	2,809,745	643,155	259,861	1,633,875
Participation Amount/Per ERU		3,248	3,248	3,248			3,248	3,248	3,248	3,248	3,248	3,248
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>												
4 Effective ERU's (Based upon by Benefit)	2,183	29	22	16	107	33	36	93	1,298	149	24	377
ERU Percentage	100%	1.3%	1.0%	0.7%	4.9%	1.5%	1.6%	4.3%	59.4%	6.8%	1.1%	17.3%
5 Cost of Improvement - (Input Estimate)	7,000,000	92,348	70,544	51,948	342,457	105,815	115,435	298,207	4,160,464	476,169	76,957	1,209,861
Per ERU Cost		1,283	1,283	1,924	1,924	1,924	1,924	4,810	4,810	2,405	962	2,405
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>												
ERUs	2,155	72	55	27	178	55	60	62	865	198	80	503
ERU Percentage	100%	3%	3%	1%	8%	3%	3%	3%	40%	9%	4%	23%
Participation Amount	7,000,000	233,875	178,654	87,703	578,180	178,654	194,896	201,392	2,809,745	643,155	259,861	1,633,875
Participation Amount/Per ERU		3,248	3,248	3,248			3,248	3,248	3,248	3,248	3,248	3,248
Effective ERU's (Based upon by Benefit)	1,790	29	22	0	107	33	36	93	1,298	149	24	0
ERU Percentage	100%	1.6%	1.2%	0.0%	6.0%	1.8%	2.0%	5.2%	72.5%	8.3%	1.3%	0.0%
Net Cost of Improvements per Landowner	7,000,000	112,651	86,053	-	417,747	129,079	140,814	363,768	5,075,156	580,856	93,876	-
Per ERU Cost		1,565	1,565	-	2,347	2,347	2,347	5,867	5,867	5,867	5,867	-
<b>Notes:</b>												
1 ERU-Number of ERU's, (by landowner) which will benefit by said improvement.												
2 Participation Amount- Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.												
3 Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.												
4 Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.												
5 Cost of improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.												

RSPA "AIDA" Agreement  
Jordanelle Parkway-Phase V

Jordanelle Parkway - Phase V: Construction of the Parkway from the JSSD Fire Station to the Pointe-Hollows project. This phase is for the re-designed roadway which accommodates the Village and Pointe planning. Scope of work includes engineering, development and construction of road, retaining walls, detention basins, landscape improvements, monumentation.

Owner	JAS Realty		East Park		The Pointe/The Hollows	Deer Crest Village East	Deer Crest Village West	Stillwater	Mayflower North
	Don Gimbel	Ane C. Bogard	Other	Westside					
<b>ALL BENEFITING LANDOWNERS</b>									
1 ERUs	72	55	178	60	62	865	-	-	503
ERU Percentage	4%	3%	9%	3%	3%	48%	0%	0%	27%
2 Participation Amount	115,077	87,906	43,154	284,497	99,094	1,382,525	-	-	803,942
Participation Amount/Per ERU	1,598	1,598	1,598	1,598	1,598	1,598	-	-	1,598
<b>ALL BENEFITING LANDOWNERS (Based upon by Benefit)</b>									
4 Effective ERU's	126	96	41	267	83	433	0	0	755
ERU Percentage	6.6%	5.0%	2.1%	13.9%	4.3%	22.5%	0.0%	0.0%	39.3%
5 Cost of Improvement - (Input Estimate)	196,849	150,371	63,273	417,133	128,889	675,693	-	-	1,178,753
Per ERU Cost	2,734	2,734	2,343	2,343	2,343	781	-	-	2,343
<b>ALL BENEFITING LANDOWNERS (w/o MAYFLOWER)</b>									
ERUs	72	55	27	178	55	865	-	-	503
ERU Percentage	4%	3%	1%	9%	3%	46%	0%	0%	27%
Participation Amount	115,077	87,906	43,154	284,497	87,906	1,382,525	-	-	803,942
Participation Amount/Per ERU	1,598	1,598	1,598	1,598	1,598	1,598	-	-	1,598
<b>Effective ERU's (Based upon by Benefit)</b>									
Effective ERU's	126	96	0	267	83	433	0	0	0
ERU Percentage	11.2%	8.6%	0.0%	23.7%	7.3%	38.4%	0.0%	0.0%	0.0%
Net Cost of Roads per Landowner	335,925	256,610	-	711,842	219,951	1,153,077	-	-	-
Per ERU Cost	4,666	4,666	-	3,999	3,999	1,333	-	-	-
<b>Notes:</b>									
1 ERU-Number of ERU's, (by landowner) which will benefit by said improvement.									
2 Participation Amount- Based upon each landowner's ERU percentage of the total, the cost of the improvement that is allocated to each landowner.									
3 Benefit Valuation-Based upon relative benefit, or lack of benefit, as compared to the other landowners, a "percentage valuation" factor is assigned to each landowner.									
4 Effective ERU-A calculated ERU which represents the relative benefit derived by each landowner for the respective improvement.									
5 Cost of Improvement-Cost allocated to each landowner based upon the relative cost/benefit calculation.									

# **EXHIBIT - L**

Statement of Joinder

WHEN RECORDED RETURN TO:

Wasatch County Clerk

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**JOINDER STATEMENT**

This Joinder Statement, dated \_\_\_\_\_, 200\_\_, is entered into by \_\_\_\_\_ ("New Participant").

**RECITALS**

A. That certain Development Agreement dated \_\_\_\_\_, 2005 ("Development Agreement"), for the development of a master planned resort community within the Jordanelle Basin Overlay Zone commonly referred to as Deer Valley Lakeside Resort Specially Planned Area (the "RSPA"), was originally entered into by and among Wasatch County, a political subdivision of the State of Utah ("County"), Jordanelle Special Service District, a political subdivision of the State of Utah, HAMC Wasatch, LLC, a Delaware limited liability company, Westside Resort, LLC, a Utah limited liability company, Jordanelle View L.C., a Utah limited liability company, and JAS Realty.

B. New Participant owns real property located in the RSPA as more particularly described on Exhibit A which is attached hereto and incorporated herein by this reference (the "Property").

C. Notwithstanding the efforts of the original parties to the Development Agreement, certain property owners (including New Participant) did not execute the Development Agreement ("Non-Participants").

D. Pursuant to Section 3.8(c) of the Development Agreement, Non-Participants have a specified period of time, within which they may enter into the Development Agreement by signing a Statement of Joinder. This instrument constitutes such Statement of Joinder.

E. New Participant desires to enter into the Development Agreement and be subject to all of the rights, benefits, burdens and obligations therein.

**AGREEMENT**

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, New Participant hereby joins and agrees to be bound by all the terms and provisions of the Development Agreement, and further submits the Property to be encumbered and benefited by the Development Agreement and the terms and provisions thereof. Upon signing this Joinder Statement, New Participant shall be deemed to be an "Owner" (as such

term is defined in the Development Agreement) to the same extent as if New Participant had been an original signatory to the Development Agreement,

IN WITNESS WHEREOF, this Joinder Statement has been executed by New Participant as of the date first above written.

**NEW PARTICIPANT**

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

ss.:

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 200\_\_ by \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_.

\_\_\_\_\_

Notary Public

[Notarial Stamp]

**EXHIBIT A**

**Description of the Property**

# **EXHIBIT - M**

## **Golf Course Purchase and Sale Agreement**

**PURCHASE AND SALE AGREEMENT****(Golf Course Land)**

THIS PURCHASE AND SALE AGREEMENT (this "Agreement") is made and entered into as of the 21st day of July, 2005 by and among DDRM GOLF, LLC, a Utah limited liability company ("Buyer"), STICHTING MAYFLOWER RECREATIONAL FONDS, an association formed under the laws of the Netherlands, and STICHTING MAYFLOWER MOUNTAIN FONDS, an association formed under the laws of the Netherlands (individually and collectively, "Seller"). Buyer and Seller shall sometimes be referred to herein as the "parties" or, individually, as a "party".

**RECITALS**

A. Seller is the owner of certain real property commonly known as "Mayflower North" located in Wasatch County, Utah. Seller desires to sell a portion of the Mayflower North property to Buyer, as depicted on the attached Exhibit A and in Section 3.2 below (the "Property"), and Buyer desires to purchase the Property from Seller, subject to, and in accordance with, the terms and conditions of this Agreement.

B. Buyer may, but shall not be obligated to, enter into separate purchase agreements with other property owners ("Other Landowners") for the acquisition of land adjacent to the Property (together with the Property, the "Golf Course Property"). Buyer intends to construct a resort golf course and related facilities ("Golf Course A") on the Golf Course Property. Exhibit A is a preliminary drawing showing the approximate location of Golf Course A.

C. Buyer is the owner, or is an affiliate of the owner, of certain real property situated in the Deer Valley Lakeside Resort Specially Planned Area ("RSPA") near the proposed site of Golf Course A, upon which property Buyer intends to develop a mountain resort village, to be called Deer Crest Village, as shown by the Deer Crest Village Site Plan (a copy of which is attached hereto as Exhibit B), as part of the RSPA Master Plan, approved by the Wasatch County Commission on October 28, 2002, as the same may be amended from time to time. Buyer and Seller, together with other property owners in the RSPA, submitted to Wasatch County a proposal for the development of a master planned resort community within the RSPA which was adopted by Wasatch County on October 28, 2002.

E. The Property included within Golf Course A is considered open space in determining the satisfaction of Wasatch County's open space requirements for development in the RSPA, with the benefit of such open space inuring to the benefit of Seller.

F. Golf Course A is being constructed to provide recreational facilities to residents and guests within the RSPA and to secure for Seller the benefit of enhanced property values for its land to be developed within the RSPA.



## AGREEMENT

NOW, THEREFORE, in consideration of the above Recitals, the mutual covenants set forth below in this Agreement, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Seller and Buyer agree as follows:

### ARTICLE I

#### DEFINED TERMS

1.1 As used in this Agreement, the following terms shall have the meanings respectively indicated:

(a) "Closing" means the transfer of title to the Property from Seller to Buyer in accordance with the terms and provisions of Article VI below.

(b) "Closing Date" means the date thirty (30) days after Seller receives written confirmation from Buyer that the conditions set forth in Sections 4.1(d), (e), (f) and (g) have been satisfied or waived by Buyer.

(c) "Golf Course Property" shall mean the Property and the property of Other Landowners, if any, that is included as part of Golf Course A, as shown on Exhibit A.

(d) "Other Landowners" means the other landowners in the RSPA, if any, that are selling land to Buyer for Golf Course A.

(e) "Permitted Exceptions" means those exceptions or conditions that affect Seller's title to the Property, but which are acceptable to Buyer, pursuant to Section 3.5 below.

(f) "Property" has the meaning set forth in Recital A above. In addition, the definition of Property shall include all of the Seller's right, title and interest in the following items:

(i) Such portion of the Property, if any, which lies in the bed of any street, road or avenue, open or proposed, at the foot of, adjoining or below the Property that is, by operation of law, a part of or appurtenant to the Properties; and

(ii) All easements, agreements, permits, licenses and rights, appurtenant to the Property, and the use of any streets and rights-of-way, if any, abutting, adjacent, contiguous or adjoining the Property.

(g) "Purchase Price" shall mean the full purchase price to be paid for the Property, as set forth in Article II, below.

(h) "Title Company" shall mean High Country Title Company, or such other title company selected by Buyer and authorized to issue title insurance on behalf of a nationally recognized title insurance company.

## ARTICLE II

### AGREEMENT OF PURCHASE AND SALE

Upon the terms and conditions stated below, and in consideration of the mutual covenants set forth below, the receipt and sufficiency of which are hereby acknowledged, Seller hereby agrees to sell and convey the Property to Buyer and Buyer hereby agrees to purchase the Property from Seller and to pay One Thousand Dollars (\$1,000) ("Purchase Price") to Seller in accordance with the terms and provisions of this Agreement.

## ARTICLE III

### BUYER'S AND SELLER'S OBLIGATIONS PRIOR TO CLOSING

3.1 Development Agreement. Buyer and Seller shall exercise commercially reasonable efforts to cause HAMC Wasatch, LLC and Mayflower to enter into a development agreement with Wasatch County with respect to the design and development of roads and other infrastructure within the RSPA. In the event that a development agreement has not been executed and recorded in the Official Records of Wasatch County, Utah by November 1, 2005, either party may terminate this Agreement by providing written notice to the other, in which event this Agreement shall be terminated and both parties shall be released of all duties and obligations hereunder.

### 3.2 Survey and Description of Golf Course Property.

3.2.1 Legal Description of Property. As of the date of this Agreement, the exact boundary of the Golf Course Property cannot be determined because a preliminary design of Golf Course A has not been completed. Buyer and Seller acknowledge that Exhibit A is only an approximation of the boundaries of the Property ("Initial Description").

3.2.2 Land Planning and Golf Course Routing. The parties acknowledge that the routing and layout of Golf Course A and the land planning for the development of Seller's remaining property designated as "Mayflower North" shall be implemented in a collaborative fashion, with the dual objectives of (i) maximizing the value of the Mayflower North property, and (ii) developing a golf course of sufficiently high quality to maximize its benefit to the value of all property within the RSPA. Buyer and Seller shall proceed at a commercially reasonable, but accelerated, pace following the execution of this Agreement to design Golf Course A (which shall be the responsibility of Buyer) and prepare the land plan for the development of the Mayflower North property (which shall be the responsibility of Seller). Buyer shall complete and deliver to Seller a preliminary routing plan for Golf Course A ("Preliminary Golf Layout") on or before June 30, 2006 and Seller shall complete and deliver to Buyer on or before June 30, 2006

a preliminary land plan, showing, at a minimum, proposed roads, lots and development parcels for development of the Mayflower North property (the "Preliminary Mayflower North Land Plan").

3.2.3 Survey. No later than July 31, 2007, Buyer shall have the Golf Course Property surveyed, based on the Preliminary Golf Layout, and will provide to Seller a boundary survey drawing of the Golf Course Property prepared by a licensed surveyor (the "Survey"). The Survey shall include a metes and bounds description of the Golf Course Property, the Property (if different from the Golf Course Property), as well as a description of any property not owned by Seller to be included in the Golf Course Property. The Survey may result in Seller conveying more or less land to Buyer than was contemplated in the Initial Description. Notwithstanding the foregoing, Seller may object to the Survey and description of the Property set forth therein only if Seller delivers a written notice to Buyer, in accordance with Section 9.8, within thirty (30) days after receipt of the Survey and said objection is based on one of the following reasons:

(a) The area of the Property described in the Survey is five percent (5%) greater than the Initial Description of the Property; or

(b) Conveying the Property described in the Survey to Buyer would result in a material loss of density to that portion of Seller's land adjacent to or within the Property.

If Seller does not object to the Survey as set forth above, the Survey shall be affixed to this Agreement as Exhibit C, shall be deemed incorporated herein by this reference, and the description of the Property for all purposes hereunder shall be the description of the Property set forth in the Survey. Upon completion of the Survey and attachment of the Survey as an Exhibit hereto, Buyer shall attach as Exhibit D the Preliminary Golf Layout for Golf Course A, overlaid on the Golf Course Property as surveyed.

3.2.4 Recordation of Plat. If required by the Wasatch County Planning, Zoning and Development Code, Buyer shall cause a subdivision plat for the Golf Course Property to be prepared, showing the boundaries of the Golf Course Property (in accordance with the Survey) and establishing the Golf Course Property as a legally recognized platted parcel (the "Plat"). Buyer shall submit the Plat to Wasatch County for approval, and shall take such action as may be reasonably necessary to obtain all necessary governmental approvals for the Plat. Seller shall cooperate in all such action, and shall sign such applications, the Plat and other documentation necessary to obtain approval for the Plat.

3.3 Recordation of Memorandum of Purchase Agreement. Upon the execution of this Agreement, Buyer and Seller shall execute a written Memorandum of Purchase Agreement in the form attached hereto as Exhibit E, setting forth the basic terms of this Agreement. Buyer shall have the right, at its sole expense, to record such Memorandum of Purchase Agreement in the Office of the Wasatch County Recorder. Upon completion of the Survey, Buyer and Seller agree to promptly take all steps necessary to execute any amendments to the Memorandum of Purchase

Agreement necessary to amend the legal description of the Property to correspond to the agreed upon surveyed description of the Property.

3.4 Approval of Business Plan for Golf Course. Prior to the Closing, Buyer shall deliver a draft business plan to Seller, setting forth Buyer's plan for construction and operation of Golf Course A, including, without limitation, a five-year projection of estimated capital costs and operating expenses ("Business Plan"). The draft Business Plan shall include a detailed description of operating standards, operating guidelines, the rules and regulations for the management of the courses and allocation of tee times in accordance the relative RSPA Golf Rights. Upon receipt of the draft Business Plan, Seller shall have sixty (60) days to approve or object to the draft Business Plan. If Seller does not approve or object to the draft Business Plan within such sixty (60) day period, then Seller shall be deemed to have approved the draft Business Plan and shall have no further right to object to the Business Plan. Upon approval of the draft Business Plan, the Buyer shall incorporate any changes agreed to by the parties and submit the final Business Plan to Seller. Seller shall then have forty-five (45) days to approve or object to the final Business Plan. If Seller does not approve or reject the final Business Plan within such forty-five (45) day period, then the Seller shall be deemed to have approved the final Business Plan and shall have no further right to object to the Business Plan.

3.5 Title Policy and Permitted Exceptions. Within thirty (30) days after receipt of the Survey, Seller shall obtain from the Title Company, and furnish to Buyer a current Commitment for Title Insurance (the "Commitment"). The Commitment shall set forth the state of title to the Property, together with all exceptions or conditions to such title, including without limitation, all liens, mortgages, trust deeds, easements, restrictions, rights-of-way, covenants, reservations, and all other encumbrances affecting the Property. The Commitment shall also contain the express commitment of the Title Company to issue an Alta Extended Coverage Policy of Title Insurance ("Title Policy") to Buyer together with true, correct and legible copies of all instruments referred to in the Commitment as conditions or exceptions to title to the Property. Within fifteen (15) days after receipt of the Commitment, Buyer shall notify Seller of any objections that Buyer may have to anything contained or set forth in the Commitment. Any exceptions to title appearing in the Commitment to which Buyer does not object to within such fifteen (15) day period shall be deemed to be "Permitted Exceptions". The Title Policy shall be issued through the Title Company on behalf of a nationally recognized title insurance company in a face amount equal to the construction loan obtained by Buyer for Construction of Golf Course A, or such other amount as deemed appropriate by Buyer. The Title Policy shall insure fee simple, indefeasible, marketable title to the Property in Buyer, free and clear of any financial liens and encumbrances other than property taxes for the year in which the Closing occurs, subject only to the Permitted Exceptions. The cost of the Title Policy for the Property shall be paid by Buyer.

3.6 Reversionary Interest of Seller. In addition to the Permitted Exceptions, Seller shall convey the Property to Buyer subject to the condition that construction of Golf Course A shall commence by August 31, 2007. If construction of Golf Course A is not commenced by such date, the Property shall automatically revert back to Seller, or Seller's successors and assigns in substantially the same condition as existed as of the Closing Date. Construction of Golf Course A shall be deemed to have commenced at the time Wasatch County issues a building permit for any work, and excavation is begun on, Golf Course A. The foregoing condition may either be included as a condition in the deed conveying the Property to Buyer, or

in a restrictive covenant subsequently recorded on the Property. In the event that the Property reverts to Seller as a result of Buyer's failure to satisfy one of the conditions set forth above, Seller shall have the right to develop the Property as a golf course, or for any other purpose permitted by law and approved by Wasatch County. Buyer shall diligently pursue the construction of Golf Course A, and shall exercise commercially reasonable efforts to complete construction of Golf Course A on or before July 1, 2010.

3.7 Release of Encumbrances from Property. Within thirty (30) days after recordation of the Plat (but no later than the Closing Date), Seller shall obtain and deliver to Buyer and the Title Company the release of all financial liens and encumbrances on the Property. Notwithstanding the foregoing, in the event Wasatch County requires lien holders on the Property to sign the Plat, then all financial liens and encumbrances on the Property shall be released prior to final Plat approval by Wasatch County's Board of County Commissioners.

3.8 Financing for Construction of Golf Course A. Buyer shall use commercially reasonable efforts to provide the required financing for the construction and opening of Golf Course A in accordance with the Business Plan. Prior to the Closing, Buyer shall deliver evidence to Seller that Buyer has secured such financing. As a condition to the commencement of construction of Golf Course A, Buyer shall obtain, or cause its contractor to obtain, and deliver to Seller copies of, payment and performance bonds in the amount of the contract price to construct Golf Course A, issued by a surety duly authorized to conduct business in the State of Utah.

3.9 License to Inspect Property for Golf Course A. Seller hereby grants to Buyer and Buyer's agents a limited license to enter, inspect and test the Property at all reasonable times as necessary to survey the Property, determine the suitability of the Property for a golf course, conduct environmental assessments pursuant to Section 4.1(i), below, develop the design of the golf course and as otherwise determined necessary by Buyer. The Property shall be returned to substantially its original condition upon completion of any investigations, and Buyer agrees to indemnify and hold Seller harmless from and against any and all claims, costs, damages, liabilities or losses arising as a result of Buyer's entry upon the Property. Buyer shall obtain a policy of general commercial liability insurance meeting the requirements set forth in Exhibit F hereto, and naming Seller as an additional insured. Proof of such insurance shall be delivered to Seller prior to Buyer entering upon the Property for the purposes described above.

3.10 No Condemnation or Damage. Except for any land provided by Seller for the Jordanelle Parkway through condemnation, Buyer shall not be obligated to purchase the Property if, on or before the Closing Date, the Property, or any portion thereof, has been condemned or sold under threat of condemnation, is the subject of a condemnation proceeding or threat, or has been damaged by fire, earthquake or other event or occurrence. In such event, and upon written notice by Buyer to Seller, this Agreement shall terminate.

3.11 Cooperation. The parties shall cooperate with each other to promptly perform, execute, and deliver, or cause to be performed, executed, and delivered, any and all further acts, documents, and assurances as may be necessary to consummate the requirements set forth in this Article III.

## ARTICLE IV

CONDITIONS PRECEDENT

4.1 Conditions Precedent to Buyer's Obligations. The following conditions must be satisfied not later than the Closing Date or such other period of time as may be specified below and, as such, are conditions precedent to Buyer's obligation to purchase the Property:

(a) Representations, Warranties and Covenants of Seller. Seller shall have duly performed each and every agreement to be performed by Seller hereunder, and Seller's representations, warranties and covenants set forth in this Agreement shall be true and correct as of the Closing.

(b) Seller's Deliveries. Seller shall have made the deliveries to the Title Company as set forth in Section 6.2.1.

(c) Material Change. No material adverse change to the Property shall have occurred.

(d) Wasatch County Approvals. Buyer shall have obtained Wasatch County's approval of the Plat. Buyer shall also have obtained from Wasatch County all necessary permits and approvals necessary to construct and operate Golf Course A.

(e) Recordation of Plat. The Plat shall have been recorded in the Official Records of Wasatch County.

(f) Financing for Construction of Golf Course A. Buyer shall have secured financing for the construction and opening of Golf Course A in accordance with the approved Business Plan.

(g) Other Landowners' Purchase Agreements. If necessary, Buyer shall have entered into purchase agreements with the Other Landowners for the purchase of the remaining Golf Course Land and Buyer is ready to simultaneously close on the purchase of all such property.

(h) Title Policy. The Title Company shall issue the Title Policy to Buyer.

(i) Guaranteed Closing Letter. The Title Company shall deliver to Buyer a "guaranteed closing letter" or similar instrument, issued by the underwriter of the Title Policy, assuring the full and faithful performance of the escrow and other closing obligations of the Title Company.

(j) Environmental Assessment. Buyer and its contractors shall have the right to enter upon the Property and conduct such assessments, examinations and tests deemed necessary and appropriate by Buyer to ascertain the extent to which there may be environmental risks and liabilities with respect to the Property. Buyer shall notify Seller prior to entering on the Property for such purpose, and shall generally describe the scope of the work to be done. Buyer's obligation to purchase the Property is contingent upon

Buyer's review and acceptance of the results of such assessments and tests. Buyer acknowledges that there may have been mining activities on the Property prior to Seller's ownership of the Property. Seller shall have the right to obtain a copy of the written report of any environmental assessment commissioned by Buyer with respect to the Property.

(k) Survey and Business Plan. The requirements for an approved Survey and Business Plan, as set forth in Sections 3.2.3 and 3.4, respectively, shall have been satisfied or waived.

The conditions set forth in this Section 4.1 are solely for the benefit of Buyer and may be waived only by Buyer. At all times Buyer has the right to waive any such condition. Such waiver or waivers must be in writing to Seller. If any such conditions are not satisfied within the time limits specified therein (and not waived in writing by Buyer or otherwise deemed waived by Buyer in accordance with the terms thereof) then the Buyer's sole remedy will be to terminate this Agreement, unless the failure of the condition is due in whole or in part to Seller's negligence or to Seller defaulting under this Agreement, in which event Section 7.1 will apply. In the event this Agreement is terminated, all rights and obligations of Buyer and Seller hereunder shall cease, other than indemnity obligations and matters that by their terms survive the termination hereof.

4.2 Conditions Precedent to Seller's Obligations. The following conditions must be satisfied not later than the Closing Date or such other period of time as may be specified below and, as such, are conditions precedent to Seller's obligations to sell the Property:

(a) Representations, Warranties and Covenants of Buyer. Buyer shall have duly performed each and every agreement to be performed by Buyer hereunder, and Buyer's representations, warranties and covenants set forth in this Agreement shall be true and correct as of the Closing.

(b) Buyer's Deliveries. Buyer shall have made the deliveries to the Title Company as set forth in Section 6.2.2.

(c) Evidence of Financing. Buyer shall have delivered evidence to Seller that Buyer has secured financing for the construction of Golf Course A in accordance with the approved Business Plan.

(d) Survey and Business Plan. The requirements for an approved Survey and Business Plan, as set forth in Sections 3.2.3 and 3.4, respectively, shall have been satisfied or waived.

The conditions set forth in this Section 4.2 are solely for the benefit of Seller and may be waived only by Seller. At all times Seller has the right to waive any condition. Such waiver or waivers must be in writing to Buyer. If any conditions are not satisfied on or before the Closing Date and Seller has not waived the unsatisfied conditions, then the Seller's sole remedy will be to terminate this Agreement. In the event this Agreement is terminated, all rights and obligations of Buyer and Seller hereunder shall cease, other than indemnity obligations and matters that by their terms survive the termination hereof.

## ARTICLE V

REPRESENTATIONS, COVENANTS AND AGREEMENTS

5.1 Representations of Seller. Seller represents and warrants to Buyer the following as of the date this Agreement is fully executed and as of the Closing Date, except where specific reference is made to another date or dates, in which case such date or dates shall be applicable:

(a) That Seller is, or by the Closing Date will be, the sole owner of the fee simple title to the Property, and on the Closing Date Seller will have, and will convey to Buyer good, marketable, and indefeasible title to the Property, free and clear of all conditions, exceptions, encumbrances or reservations, except the Permitted Exceptions;

(b) That Seller has not received written notice of any pending or contemplated condemnation action with respect to the Property, or any part thereof, with the exception of any property that may be subject to condemnation, or threat thereof, for the Jordanelle Parkway;

(c) Except for a season by season grazing lease which may be terminated by Buyer after the Closing (and with respect to which Buyer agrees not to terminate unless it conflicts with the construction of Golf Course A), that no third party has been granted any lease, license, or other right relating to the use or possession of the Property after the Closing Date;

(d) That Seller has not received written notice from any governmental or quasi-governmental agency requiring the correction of any condition with respect to the Property, or any part thereof, by reason of a violation of any code, ordinance, or law of any city, county, state, or federal government ("Regulation") or otherwise, and the Property does not violate any such Regulation;

(e) That the Property is not subject to claims from any persons or entities based on prior negotiations, sales, or agreements regarding the Property;

(g) That Seller has full power and proper authority to execute this Agreement, convey the Property and to perform all of its terms and conditions without violation of Seller's charter documents or other contractual or legal obligations, and that all required actions necessary to authorize Seller to enter into this Agreement and to carry out its obligations hereunder have been taken;

(h) That, to the best of Seller's knowledge and belief, there are no underground storage tanks located at the Property;

(i) That, to the best of Seller's knowledge and belief, there has been no Release of any Hazardous Substance on, under or near the Property. The term "Hazardous Substance" shall mean and refer to any material, substance, chemical, compound, product, solid, gas, liquid, waste, byproduct, pollutant, contaminant or material which is hazardous or toxic, and includes, without limitation (i) asbestos, polychlorinated biphenyls and petroleum (including crude oil or any fraction thereof),



and (ii) any such material classified or regulated as "hazardous" or "toxic" under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, *et seq.*, the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 *et seq.*, the Clean Air Act, 42 U.S.C. §§ 7401, *et seq.*, the Hazardous Materials Transportation Act, 49 U.S.C. §§ 1801 *et seq.*, the Toxic Substances Control Act, 15 U.S.C. §§ 2601 *et seq.*, and the Safe Drinking Water Act, 42 U.S.C. §§ 300f through 300j-26, as such Acts have been or are hereafter amended from time to time; any so called Superfund or Superlien law; and any other federal, state and local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance or material as now or any time hereafter in effect. Seller shall not be required to conduct any assessment of the Property in order to comply herewith.

(j) All statements made and all information given to Buyer pursuant to this Agreement and any schedule and exhibits related thereto are true and accurate in every material respect;

(k) No consent, approval or authorization of any governmental authority or private party is required in connection with the execution, delivery and performance of this Agreement by Seller;

(l) There is not now pending, or to Seller's Knowledge threatened, any action, suit or proceeding, to which Seller is a named party, before any court or governmental agency or body whatsoever, which would adversely affect the Property or the operation thereof; and

(m) Seller has disclosed all material adverse conditions affecting the Property of which Seller is aware, and, subject to the terms hereof and representations herein, Buyer accepts the Property as is.

5.2 Limitation on Warranties. Except for the representations and warranties made above and in the documents delivered at Closing, the sale of the Property by Seller to Buyer shall be "as is" and "where is", without additional warranties or warranties with respect to the condition of the Property or its suitability for the use contemplated by Buyer.

5.3 Representations of Buyer. Buyer represents, warrants, covenants, and agrees with Seller, as of the date this Agreement is fully executed and as of the Closing Date, that Buyer has or will have the full right, power, and authority to purchase the Property from Seller as provided in this Agreement and to carry out its obligations hereunder, and that all required action necessary to authorize Buyer to enter into this Agreement and to carry out its obligations hereunder has been taken, or upon the Closing, will have been taken.

## ARTICLE VI CLOSING

6.1 Date and Place of Closing. On the Closing Date, the Closing hereunder shall take place in the offices of the Title Company, or such other location as Buyer and Seller shall agree.

If the Closing has not occurred on or before August 31, 2007, this Agreement may be terminated by either party upon written notice to the other party and to the Title Company.

6.2 Items to be delivered at the Closing.

6.2.1 Seller's Deliveries. On or before the Closing Date, Seller shall deliver to the Title Company each of the following items, together with instructions to deliver the same to Buyer at the Closing:

(a) Deed or deeds to the Property. It is anticipated that Seller shall convey the Property by special warranty deed. However, Buyer acknowledges that Seller may have obtained title to certain portions of the Property by quit claim deed, and that Seller shall not be required to provide warranties of title to Buyer beyond the warranties of title received by Seller when it acquired the Property. In any event, the deed or deeds conveying the Property to Buyer shall be in a form acceptable to the Title Company in order for the Title Company to issue the Title Policy as described herein.

(b) Joint escrow instructions from Buyer and Seller to the Title Company; and

(c) All additional documents and instruments which the Buyer or the Title Company reasonably determine to be necessary to the consummation of this transaction.

6.2.2 Buyer's Deliveries On or before the Closing Date, Buyer shall deliver to the Title Company each of the following items:

(a) Cashier's check or bank-to-bank wire transfer to the Title Company for delivery to Seller, funds equal to the Purchase Price plus Buyer's share of closing costs and prorations, as provided below, less all costs, expenses, and prorations to be paid by Seller, if any;

(b) A restrictive covenant, in a form reasonably acceptable to Seller, to be recorded following recordation of the deed(s) conveying the Property to Buyer, providing that the Property may not be developed for commercial purposes except as a golf course and related amenities and improvements. In the event that the owner of the Property ever elects to discontinue operations of the golf course on the Property, the Property shall remain as open space, free of residential or commercial development.

(c) Joint escrow instructions from Buyer and Seller to the Title Company; and

(d) All additional documents and instruments which the Seller or the Title Company reasonably determine to be necessary to the consummation of this transaction.

6.3 Closing Prorations. Ad valorem and similar taxes and assessments relating to the Property shall be prorated between Seller and Buyer as of midnight of the Closing Date, based upon the best available estimates of the amount of taxes and assessments that will be due and payable on the Property during the calendar year in which the Closing occurs. As soon as the amount of taxes and assessments on the Property for the calendar year in which the Closing occurs are known, Seller and Buyer shall adjust the amount of taxes and assessments to be paid by each party so that Seller shall pay for those taxes and assessments attributable to the period of time prior to and including the Closing Date, and Buyer shall pay for those taxes and assessments attributable to the period of time commencing with the day after the Closing Date. Buyer shall pay any "rollback tax" applicable to the Property pursuant to Utah's Farmland Assessment Act (Utah Code Section 59-2-501, et seq.). All other rents, revenues and expenses of the Property shall also be prorated as of midnight of the Closing Date. The provisions of this Section shall survive the Closing.

6.4 Closing Costs. All escrow and closing fees charged by the Title Company shall be paid by Buyer. Buyer shall pay all recording fees. Buyer shall pay the premium for the Title Policy. Buyer and Seller shall each pay for the cost of their own counsel and other advisors in connection with this transaction.

## ARTICLE VII

### DEFAULTS AND REMEDIES

#### 7.1 Seller's Defaults; Buyer's Remedies.

7.1.1 Seller's Default. Seller shall be deemed to be in default hereunder upon the occurrence of the following events:

- (a) Any of Seller's warranties or representations set forth herein shall be or become untrue at any time on or before the Closing Date; and
- (b) Seller shall fail to meet, comply with, or perform any covenant, agreement, or obligation on its part required within the time limits and in the manner required in this Agreement.

7.1.2 Buyer's Remedies. In the event Seller shall be in default hereunder and shall fail to cure such default within thirty (30) days following written notice from Buyer, Buyer may, at Buyer's sole option, exercise one of the following remedies:

- (a) Terminate this Agreement by written notice to Seller, in which event the parties shall be released of all duties, obligations, or liabilities to each other hereunder; or
- (b) Obtain specific performance of this Agreement.

#### 7.2 Buyer's Default; Seller's Remedy.

7.2.1 Buyer's Default. Buyer shall be deemed to be in default hereunder upon the occurrence of any one or more of the following events:

(a) Any of Buyer's warranties or representations set forth herein shall be or become untrue at any time on or before the Closing Date; and

(b) Buyer shall fail to meet, comply with, or perform any covenant, agreement, or obligation on its part required within the time limits and in the manner required in this Agreement.

7.2.2 Seller's Remedies. In the event Buyer shall be in default hereunder and shall fail to cure such default within thirty (30) days following written notice from Seller, Seller may, as its sole and exclusive remedy, terminate this Agreement by written notice to Buyer, in which event the parties shall be released of all duties, obligations, or liabilities to each other hereunder.

## ARTICLE VIII

### INDEMNIFICATION

Seller shall assume and pay all debts, losses, demands, assessments, judgments, charges, claims, damages, reasonable attorneys' fees and liabilities attributable to the Property and first arising on or before Closing and shall hold Buyer harmless therefrom and indemnify and defend against the same, except liabilities expressly assumed in writing by Buyer, or due to Buyer's negligence or intentional acts, subject to anything to the contrary in this Agreement. Buyer shall assume and pay all debts, losses, demands, assessments, judgments, charges, claims, damages, reasonable attorneys' fees and liabilities attributable to the Property and first arising from and after the Closing, and shall hold Seller harmless therefrom and indemnify and defend against the same, except liabilities expressly assumed in writing by Seller, or due to Seller's negligence or intentional acts, or arising from a breach by Seller of any representation or warranty of Seller made in this Agreement, subject to anything to the contrary in this Agreement. This Article VIII shall survive the Closing or sooner termination of this Agreement.

## ARTICLE IX

### MISCELLANEOUS

9.1 References. All references to "Article", "articles", "section", or "Sections" contained herein are, unless specifically indicated otherwise, references to Articles and Sections of this Agreement.

9.2 Exhibits. All references to "Exhibits" contained herein are references to exhibits attached hereto, all of which are made a part hereof for all purposes.

9.3 Captions. The captions, headings, and arrangements used in this Agreement are for convenience only and do not in any way affect, limit, amplify, or modify the terms and provisions hereof.

9.4 Number and Gender of Words. Whenever herein the singular number is used, the same shall include the plural where appropriate, and words of any gender shall include each other gender where appropriate.

9.5 Assignment. Buyer shall have the right to assign its rights under this Agreement to HAMC Wasatch, LLC, a Delaware limited liability company or a related entity formed for the purpose of acquiring the Property and developing Golf Course A.

9.6 Commission. Buyer and Seller warrant that they have had no dealings with any broker or agent in connection with this Agreement, and covenant to pay, hold harmless and indemnify the other from and against any and all cost, expense or liability for any compensation, commissions and charges claimed by any broker or agent with respect to this Agreement or the negotiation thereof.

9.7 Attorneys' Fees. If any action is brought or counsel otherwise employed to enforce this Agreement or any provision thereof, to collect damages for an alleged breach thereof, or for a declaratory judgment thereunder, the prevailing party in such action shall be entitled to an allowance for reasonable attorneys' fees in addition to costs of suit as determined by the court.

9.8 Notices. Any notice delivered personally or by courier shall be deemed to have been given when delivered to the addresses set forth below. Any party may change its address by giving notice to the other party as provided below. Any and all notices and demands shall be in writing and shall be validly given or made only if personally delivered, sent by FedEx or other recognized international courier service that provides a receipt of delivery, or deposited, certified and registered return receipt requested in the United States mail or Dutch Postal Service (if mailed from the Netherlands) and addressed as follows:

If to DDRM:                   DDRMM Golf, LLC  
777 Convention Way, #100  
Anaheim, CA 92802  
Attn: Stanley R. Castleton

With a copy to:               Thomas G. Bennett  
Ballard Spahr Andrews & Ingersoll, LLP  
201 South Main St.  
Suite 600  
Salt Lake City, Utah 84111-2215

If to Mayflower:              Stichting Mayflower Recreational Fonds,  
Stichting Mayflower Mountain Fonds,  
P.O.Box 100,  
4140 AC LEERDAM  
Netherlands  
Fax: 011-31-345-616161

With a copy to: E. Craig Smay  
174 E. South Temple  
Salt Lake City, Utah 84111  
Fax: (801) 539-8544

If to Title Company: High Country Title Co.  
1729 Sidewinder Drive  
Park City, Utah 84060  
Fax: (435) 649-4839

9.9 Governing Law. The laws of the State of Utah shall govern the validity, construction, enforcement, and interpretation of this Agreement, unless otherwise specified herein.

9.10 Entirety and Amendments. This Agreement embodies the entire agreement between the parties and supersedes any prior agreements and understandings, if any, relating to the Property, and may be amended or supplemented only by an instrument in writing executed by both Seller and Buyer.

9.11 Invalid Provisions. If any provision in this Agreement is held to be illegal, invalid, or unenforceable under this Agreement, then such provision shall be construed and enforced as if it had never comprised a part of this Agreement and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance from this Agreement.

9.12 Multiple Counterparts. This Agreement may be executed in a number of identical counterparts. If so executed, each of such counterparts is to be deemed an original for all purposes, and all such counterparts shall, collectively, constitute one agreement, but in making proof of this Agreement, it shall not be necessary to produce or account for more than one such counterpart.

9.13 Parties Bound. This Agreement shall be binding upon and inure to the benefit of Seller and Buyer, and their respective heirs, successors and assigns.

9.14 Further Acts. In addition to the acts and deeds recited herein and contemplated to be performed, executed, and delivered by Seller and Buyer, Seller and Buyer agree to perform, execute, and deliver or cause to be performed, executed, and delivered at the Closing or after the Closing any and all such further acts, deeds, and assurances as may be necessary to consummate the transactions contemplated hereby.

9.15 Time. Time is of the essence of each and every term, condition, obligation and provision hereof.

9.16 Dates and Computation of Time. In computing any period of time pursuant to this Agreement, the day of the act or event from which the designated period of time begins to run will not be included. The last day of the period so computed will be included. If any dates

hereunder fall on a Saturday, Sunday or legal holiday, such date shall be the next following business day.

9.17 Non-Waiver. The failure to enforce or the delay in enforcement of any provision of this Agreement by a party hereto or the failure of a party to exercise any right hereunder shall in no way be construed to be a waiver of such provision or right (or of any other provision or right hereof whether of a similar or dissimilar nature) unless such party expressly waives such provision or right in writing.

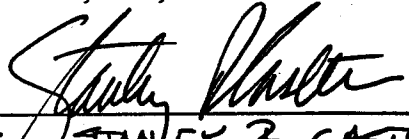
9.18 No Joint Venture. This Agreement is not intended to create, and shall not be deemed to create, any partnership, joint venture or other similar business arrangement between Seller and Buyer, other than as Seller and Buyer.

9.19 Construction. This Agreement shall not be construed more strictly against one party than against the other, merely by virtue of the fact that it may have been prepared primarily by counsel for one of the parties, it being recognized that both Buyer and Seller have contributed substantially and materially to the preparation of this Agreement.

IN WITNESS WHEREOF, this Agreement is executed as of the date first above written.

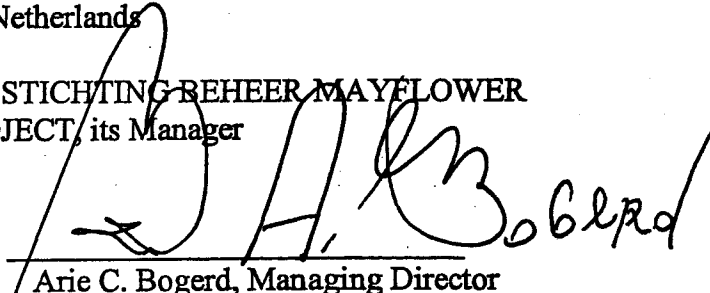
**BUYER:**

DDRM Golf, LLC, a Utah limited liability company

By:   
Name: STANLEY Z. CASTLETON  
Its: CEO

**SELLER:**

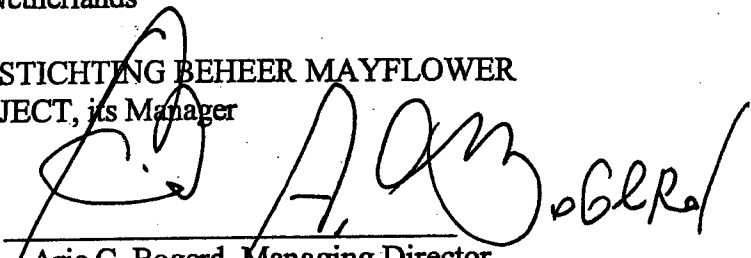
STICHTING MAYFLOWER RECREATIONAL FONDS, an association formed under the laws of the Netherlands

By: STICHTING BEHEER MAYFLOWER PROJECT, its Manager  
By:   
Arie C. Bogerd, Managing Director

STICHTING MAYFLOWER MOUNTAIN  
FONDS, an association formed under the laws of  
the Netherlands

By: STICHTING BEHEER MAYFLOWER  
PROJECT, its Manager

By:

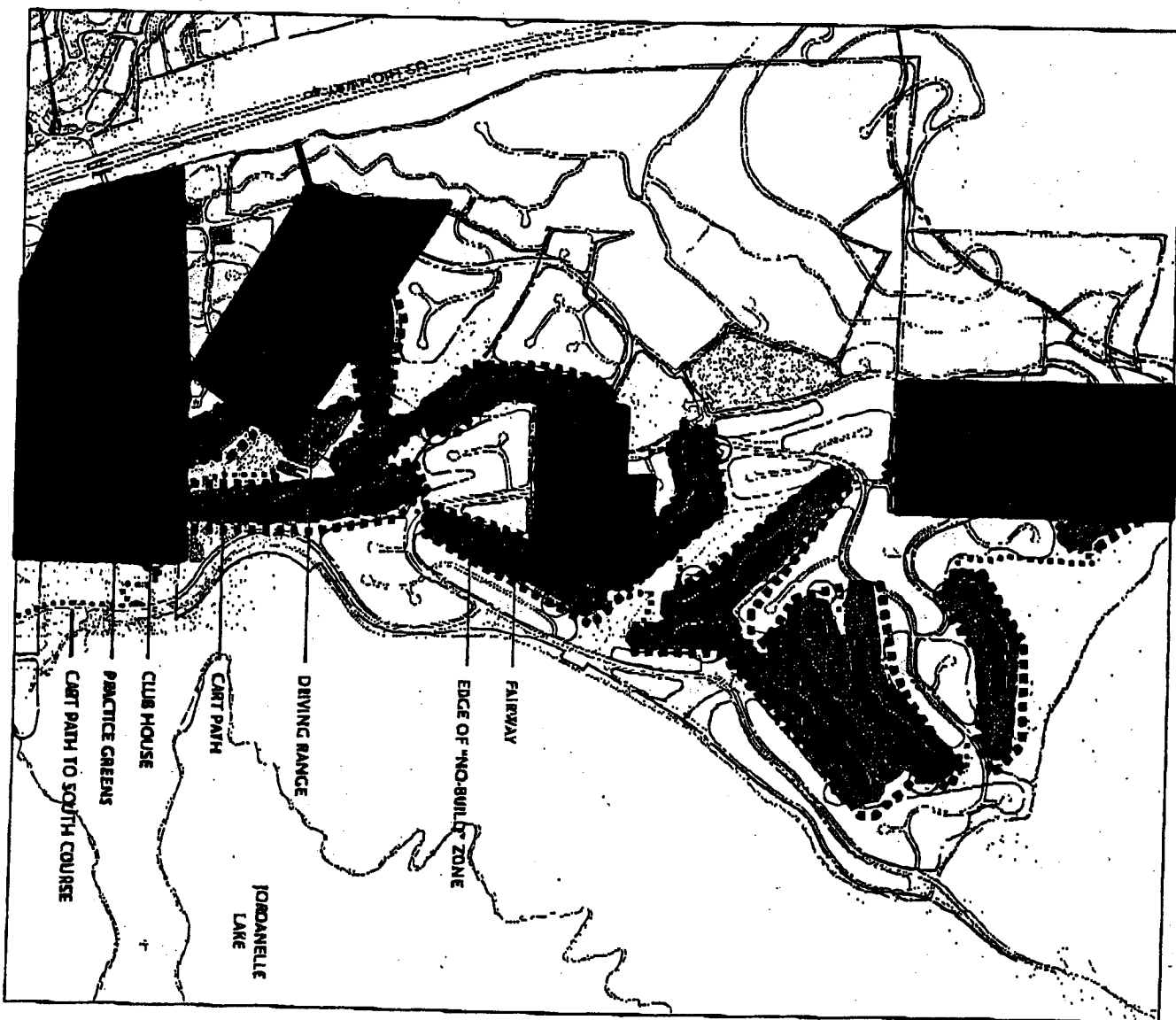


Arie C. Bogerd, Managing Director



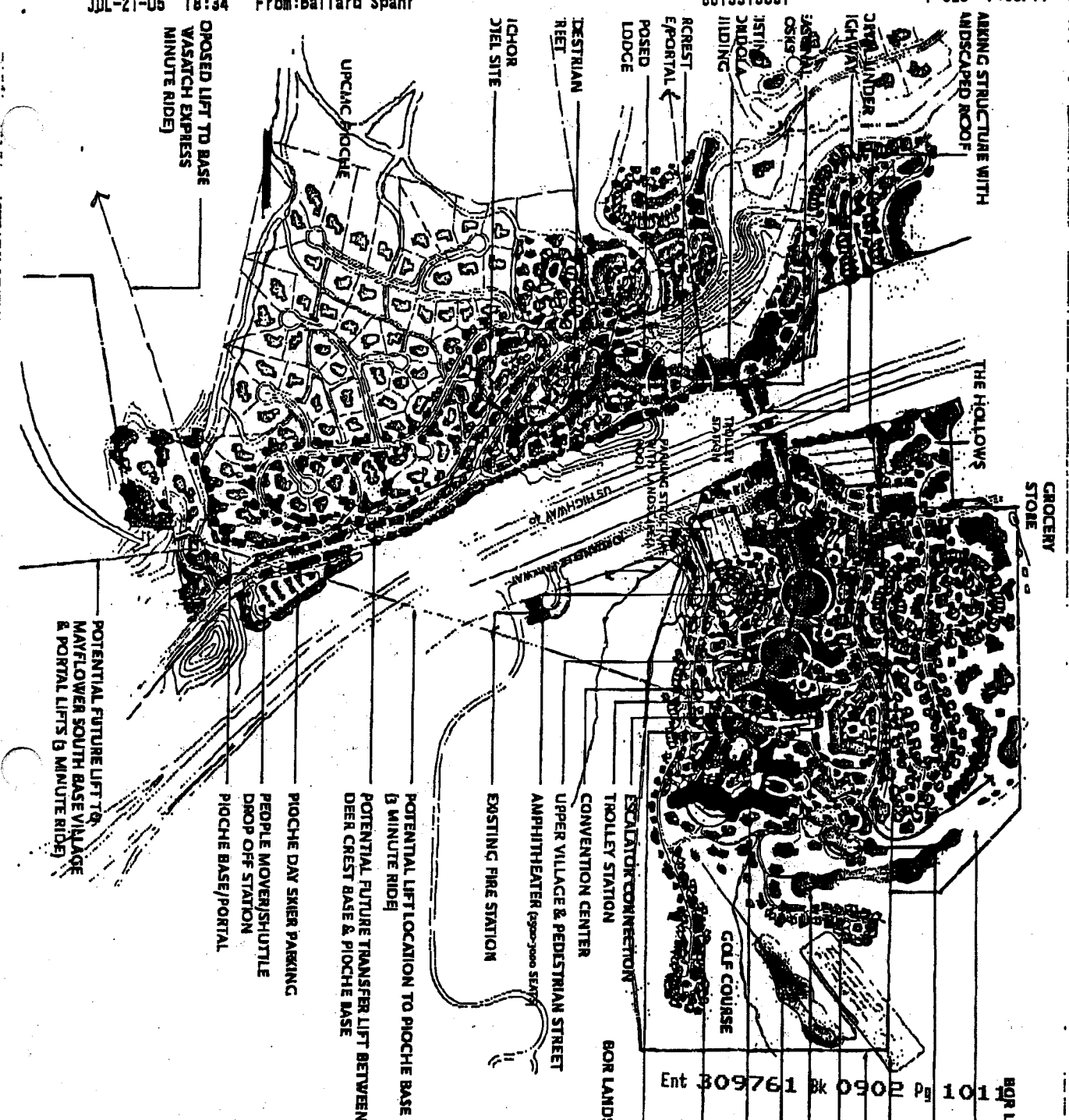
**EXHIBIT A**

**Map Showing the Property**



**EXHIBIT B**

**Deer Crest Village Site Plan**



1	1-1.5 SKIER SERVICES
2	EXISTING
3	6-8 FLOORS
4	4-6 FLOORS
5	2-4 FLOORS
6	2-3 FLOORS
7	1-2 FLOORS/PODIUM
8	PARKING
9	PEDESTRIAN NODE
10	TROLLEY STATION TURN-AROUND

6-17 DEER CREST VILLAGE SITE PLAN

**EXHIBIT C**

**Survey**

[To be attached when prepared, as provided in Section 3.2.3.]

**EXHIBIT D**

**Map of Preliminary Golf Layout**

[To be attached when prepared, as provided in Section 3.2.2.]

**EXHIBIT E**

**Memorandum of Purchase Agreement**

WHEN RECORDED, MAIL TO:

Ballard Spahr Andrews & Ingersoll, LLP  
Thomas G. Bennett  
201 South Main Street, Suite 600  
Salt Lake City, UT 84111

**MEMORANDUM OF PURCHASE AGREEMENT**

THIS MEMORANDUM OF PURCHASE AGREEMENT ("Memorandum of Purchase Agreement") is made as of the \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, by and among DDRM Golf, LLC, a Utah limited liability company ("Buyer"), STICHTING MAYFLOWER RECREATIONAL FONDS, an association formed under the laws of the Netherlands, and STICHTING MAYFLOWER MOUNTAIN FONDS, an association formed under the laws of the Netherlands (collectively, "Seller").

WITNESSETH:

1. Seller is the owner of certain real property located in Wasatch County, Utah and more particularly described on Exhibit A which is attached hereto and incorporated herein by reference (the "Property").
2. Pursuant to the terms of that certain Purchase and Sale Agreement dated \_\_\_\_\_, 2005, by and among Buyer and Seller (the "Purchase Agreement"), Seller agreed to sell the Property to Buyer subject to certain conditions being met, as set forth in the Purchase Agreement.
3. The purpose of this Memorandum of Purchase Agreement is to provide notice of the existence of the Purchase Agreement and Buyer's right to purchase the Property.
4. This Memorandum of Purchase Agreement shall not amend or modify the Purchase Agreement in any respect. If a conflict exists between the terms of the Purchase Agreement and this Memorandum of Purchase Agreement, those terms contained in the Purchase Agreement shall govern and be controlling.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Purchase Agreement as of the date first set forth above.

**BUYER**

DDRM GOLF, LLC, a Utah limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

**SELLER**

STICHTING MAYFLOWER RECREATIONAL FONDS, an association formed under the laws of the Netherlands

By: STICHTING BEHEER MAYFLOWER PROJECT, its Manager

By: \_\_\_\_\_  
Arie C. Bogerd, Managing Director

STICHTING MAYFLOWER MOUNTAIN FONDS, an association formed under the laws of the Netherlands

By: STICHTING BEHEER MAYFLOWER PROJECT, its Manager

By: \_\_\_\_\_  
Arie C. Bogerd, Managing Director



STATE OF )  
 : ss.  
COUNTY OF )

This instrument was acknowledged before me on \_\_\_\_\_ 2005, by \_\_\_\_\_, the \_\_\_\_\_ of DDRM Golf, LLC, a Utah limited liability company.

\_\_\_\_\_  
Notary Public  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

STATE OF )  
 : ss.  
COUNTY OF )

This instrument was acknowledged before me on \_\_\_\_\_ 2005, by \_\_\_\_\_, the \_\_\_\_\_ of Stichting Mayflower Recreational Fonds, an association formed under the laws of the Netherlands.

\_\_\_\_\_  
Notary Public  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

STATE OF )  
 : ss.  
COUNTY OF )

This instrument was acknowledged before me on \_\_\_\_\_ 2005, by \_\_\_\_\_, the \_\_\_\_\_ of Stichting Mayflower Mountain Fonds, an association formed under the laws of the Netherlands.

\_\_\_\_\_  
Notary Public  
Residing at: \_\_\_\_\_

My Commission Expires:  
\_\_\_\_\_

**EXHIBIT F**

**Liability Insurance Requirements**

# **EXHIBIT - N**

Agreement Concerning Golf Courses

## AGREEMENT CONCERNING GOLF COURSES

This Agreement Concerning Golf Courses ("Agreement") is made and entered into as of the ~~25<sup>th</sup>~~ day of July, 2005, by and among DDRM GOLF, LLC, a Utah limited liability company ("DDRM"), and STICHTING MAYFLOWER RECREATIONAL FONDS, an association organized under the laws of the Netherlands, and STICHTING MAYFLOWER MOUNTAIN FONDS, an association organized under the laws of the Netherlands (individually and collectively "Mayflower"). The entities listed above may be sometimes collectively referred to herein as the "parties", or, individually, as a "party".

### RECITALS

A. DDRM entered into that certain Purchase and Sale Agreement with Mayflower dated the same day as this Agreement ("Purchase Agreement") to purchase certain real property owned by Mayflower (the "Property"), which is part of the property commonly known as "Mayflower North", located in Wasatch County, Utah. Under the terms of the Purchase Agreement, DDRM has agreed to construct a resort golf course ("Golf Course A") on the Property and any other property that DDRM may acquire for the purpose of constructing Golf Course A (collectively, the "Golf Course Property"). Golf Course A is one of the items of infrastructure and amenities to be developed as part of the Deer Valley Lakeside Resort Specially Planned Area ("RSPA"), as more fully set forth in the Development Agreement between Wasatch County and the owners of the various properties included within the boundaries of the RSPA.

B. Upon completion of Golf Course A, DDRM will assign its interest in Golf Course A to a non-profit corporation, limited liability company, or other business association ("Golf Company") that will own and be responsible for the operation of Golf Course A and/or other golf courses ("Golf Courses B and C") that may be developed by DDRM in the future. DDRM shall initially own all of the memberships, shares or other ownership interests in Golf Company ("Golf Rights"), and shall have the right to sell such interests to Mayflower and others as set forth herein. Purchasers of Golf Rights shall be entitled to an exclusive allocation of tee times at one or more of the Golf Courses, based on their percentage of ownership interest in Golf Company and the Operating Rules and Regulations of the Golf Courses.

C. Mayflower desires to purchase, and DDRM is willing to reserve and sell Golf Rights to Mayflower, in accordance with the terms and conditions of this Agreement and the Purchase Agreement.

### AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, and the promises and covenants made herein, DDRM and Mayflower hereby agree as follows:

1. Definitions. The following words, phrases or terms used in this Agreement shall have the following meanings:

(a) "ERU" shall mean an Equivalent Residential Unit, as such term is defined in the ordinances of Wasatch County.

(b) "Golf Company" shall mean the assignee of DDRM's interest in the Golf Courses, which entity shall be responsible for the operations, costs and expenses of owning and operating the Golf Courses.

(c) "Golf Course A" shall mean the golf course to be developed by DDRM on the property purchased pursuant to the Mayflower Purchase Agreement and other agreements, if any, for the purchase of land comprising the Golf Course Property.

(d) "Golf Course B" shall mean the golf course that DDRM may, at its sole option, develop on certain land managed by the State of Utah and situated roughly adjacent to Golf Course A.

(e) "Golf Course C" shall mean the golf course to be developed on a portion of the land owned by Mayflower and commonly referred to as the "Mayflower South" property.

(f) "Golf Courses" shall mean one or more of Golf Course A, Golf Course B and Golf Course C.

(g) "Golf Course Property" shall mean the property on which Golf Course A shall be situated.

(h) "Golf Manager" shall mean the manager selected by the Golf Company to manage and operate the day-to-day affairs of the Golf Courses.

(i) "Golf Rights" shall mean all ownership or membership interests in the Golf Company. Owners of Golf Rights shall be entitled to an allocation of tee times at one or more of the Golf Courses, based upon their percentage of ownership interest or membership in Golf Company and the Operating Rules and Regulations.

(j) "Golf Rights Percentage" shall mean that portion of the Mayflower Course A Rights purchased by Mayflower at any particular date, as determined in accordance with the provisions of Section 7(c), below.

(k) "Mayflower Course A Rights" shall mean Mayflower's interest in the Golf Company, entitling Mayflower to use and make available to its guests and others up to twenty percent (20%) of the Total Tee Times available at Golf Course A.

(l) "Mayflower North Property" shall mean that certain real property owned by Mayflower within the RSPA and commonly known as "Mayflower North".

(m) "Mayflower Purchase Agreement" shall mean that certain Purchase Agreement by and among DDRM and Mayflower dated as of the same date as this Agreement.

(n) "Mayflower South Property" shall mean that certain real property owned by Mayflower within the RSPA and commonly known as "Mayflower South".

(o) "Operating Rules and Regulations" shall be the plan adopted by Golf Company to describe the specific methods and procedures that will govern the access and use of the Golf Courses by the owners of Golf Rights and others, outlining the operating standards for the maintenance and management of the Golf Courses and including such other operating details as the owners of Golf Rights deem necessary and appropriate.

(p) "Qualified Potential Owners" shall mean the owners of those developments to which DDRM is permitted to sell Golf Rights without the consent of the other owners of Golf Company, as provided in Section 5 below.

(q) "RSPA" shall mean the land included in the Deer Valley Lakeside Specially Planned Area, as established by Wasatch County, Utah as shown on Exhibit "A", which is attached hereto and incorporated herein by this reference.

(r) "Total Purchase Price" shall mean the purchase price for Mayflower to purchase all of the Mayflower Course A Rights, as set forth in Section 6, below.

(s) "Total Tee Times" shall mean the total number of individual tee times that will be available on any particular Golf Course during a year. The number of Total Tee Times may vary from year to year and from Golf Course to Golf Course based on weather, the condition of each Golf Course and other factors. The number of Total Tee Times at each Golf Course each year shall be determined by DDRM until DDRM has assigned its rights and interest to Golf Company, and, thereafter, by Golf Company.

2. Organization. Upon completion of Golf Course A, DDRM will assign its interest in Golf Course A to Golf Company, the entity that will own and be responsible for the operation of Golf Course A. At the time of such assignment, Golf Company shall assume any outstanding debts and obligations incurred by DDRM in the design and construction of Golf Course A. DDRM shall initially own all of the Golf Rights, and shall have the right to sell such interests to Mayflower and others as set forth herein. Purchasers of Golf Rights shall be entitled to an exclusive allocation of tee times at one or more of the Golf Courses, based on their percentage of ownership interest in Golf Company and the Operating Rules and Regulations of the Golf Courses. It is currently anticipated, but not required, that Golf Courses B and C will also be owned and operated by Golf Company. An organizational chart of the various entities which might be involved in the development, ownership and operation of Golf Course A is attached hereto for illustrative purposes only as Exhibit "B", and incorporated herein by this reference.

3. Development Agreement. DDRM and Mayflower shall exercise commercially reasonable efforts to cause HAMC Wasatch, LLC and Mayflower to enter into a development agreement with Wasatch County with respect to the development of the RSPA. In the event that a development agreement has not been executed and recorded in the Official Records of Wasatch County, Utah by November 1, 2005, either party may terminate this Agreement and the Mayflower Purchase Agreement by providing written notice to the other, in

which event this Agreement shall be terminated and both parties shall be released of all duties and obligations hereunder.

4. Commencement of Construction of Golf Course A. If construction of Golf Course A has not commenced by August 31, 2007, either party shall have the right to terminate this Agreement and the Mayflower Purchase Agreement. Construction of Golf Course A shall be deemed to have commenced at the time Wasatch County issues a building permit and excavation is begun on Golf Course A. Any termination of the Mayflower Purchase Agreement shall also result in a concurrent termination of this Agreement.

5. Allocation of Golf Rights to Qualified Potential Owners.

(a) Course A. Mayflower has the right to purchase up to twenty percent (20%) of the Total Tee Times at Golf Course A by acquiring a corresponding percentage of Golf Rights ("Mayflower Course A Rights"). The Course A Rights and all other Golf Rights may only be offered and sold to, or for the use and benefit of:

(i) various developments anticipated for property owned or controlled by affiliates of DDRM within the RSPA;

(ii) developments within the Deer Crest project, including without limitation the St. Regis Deer Crest Hotel and condominiums; and

(iii) other developments within the RSPA, selected by DDRM, that have participated in organizing the RSPA and become parties to the Development Agreement.

The owners and developers of the developments described in items (a)(i)-(iii), above, shall be referred to as "Qualified Potential Owners". No Golf Rights may be sold to persons or entities that are not Qualified Potential Owners without the consent of DDRM and Mayflower.

(b) Course B and Course C. The ownership of the Golf Rights for Golf Courses B and C may, but shall not be required to, be the same as the allocation of Total Tee Times for Golf Course A. There is no assurance that Golf Course B will be constructed, or that it will be constructed by DDRM. However, in the event that DDRM develops, or is a partner in the development of, Golf Course B, Mayflower shall be given the opportunity to purchase up to twenty percent (20%) of the Total Tee Times for Golf Course B owned by DDRM, at a price determined in the same manner as the Total Purchase price for the Mayflower Course A Rights, as described in Section 6, below. The sale and allocation of Golf Rights in Golf Course C shall be determined by Mayflower. Notwithstanding the foregoing, the Parties agree that all of the Golf Courses shall be managed by the same Golf Manager, and shall be subject to the Operating Rules and Regulations, which may be different for each of the Golf Courses.

6. Course A Rights Sold at Cost to Mayflower. The purchase price for the Mayflower Course A Rights ("Total Purchase Price") shall be equal to twenty percent (20%) of the total of all hard and soft costs for the development of Golf Course A, including a development fee of four percent (4%) which shall be charged to all purchasers of Golf Rights in

Golf Course A. Mayflower shall be paid a portion of such development fee equal to one and one-half percent (1 1/2%) of the total hard and soft development costs, in accordance with the approved Business Plan (as described in the Mayflower Purchase Agreement) and DDRM shall be paid the balance of such development fee. A breakdown of approved cost categories shall be included in the Business Plan. In no event shall the Total Purchase Price exceed (on a per tee time basis) the lowest purchase price paid by any other purchaser of Golf Rights relating to Golf Course A. Subject to the limitation of the immediately preceding sentence, DDRM shall determine the sales price and terms for all other Golf Rights sold.

7. Payment of Purchase Price for Mayflower Course A Rights. Mayflower shall have the right to pay the Total Purchase Price in installments, as lots, parcels and/or residential units (collectively, "Lots") in the Mayflower North Property are sold. Upon closing each sale of a Lot in the Mayflower North Property, Mayflower shall pay a portion of the Total Purchase Price for Course A Rights based upon the number of ERUs allocated to such Lot. The price required to be paid by Mayflower for each ERU sold (the "Per ERU Payment") is set forth in subparagraphs (a) and (b), below. The formula for calculating the percentage of Golf Rights purchased as of any particular time is set forth in subsection (c), below. The formula for calculating the percentage of Total Tee Times at Golf Course A allocated to the Mayflower Course A Rights purchased as of any particular date is set forth in subsection (d), below.

(a) Price Per ERU. The "Per ERU Payment" shall be calculated by dividing the Total Purchase Price by the total number of ERUs Mayflower intends to develop on the Mayflower North Property (as reasonably determined by Mayflower by written notice to DDRM prior to the commencement of construction of Golf Course A). For example, if Mayflower anticipates developing 500 ERUs on the Mayflower North Property and the Total Purchase Price equals \$2,500,000, the Per ERU Payment would be \$5,000. In the event that Mayflower sells a Lot with multiple ERUs, Mayflower shall pay the Per ERU Payment for all of the ERUs intended for development on such Lot. Once Mayflower has sold Lots aggregating to one hundred (100) ERUs on the Mayflower North Property, the Per ERU Payment shall be increased by multiplying the Per ERU Payment by one and one-half (1.5). Once Mayflower has sold Lots aggregating two hundred (200) ERUs on the Mayflower North Property, the Per ERU Payment shall be increased by multiplying the Per ERU Payment by two (2). In the above example, once Mayflower has sold Lots having 100 ERUs and paid \$500,000 of the Total Purchase Price [ $100 \times \$5,000 = \$500,000$ ], the Per ERU Payment would increase to \$7,500; and once Mayflower has sold Lots having 200 ERUs and paid \$1,250,000 of the Total Purchase Price [ $\$500,000 + (100 \times \$7,500) = \$1,250,000$ ], the Per ERU Payment would increase to \$10,000. Once the Total Purchase Price has been paid in full, regardless of the number of ERUs then sold, no further Per ERU Payments shall be made with respect to Golf Course A. In the above example, the Total Purchase Price would be paid after the sale of the 325<sup>th</sup> Lot [ $(100 \times \$5,000) + (100 \times \$7,500) + (125 \times \$10,000) = \$2,500,000$ ].

(b) Progress Payments to DDRM. Within five (5) days after closing on the sale by Mayflower of each Lot in the Mayflower North Property, Mayflower shall cause payment to be made to DDRM, from the escrow established for such Lot sale, an amount equal to the number of ERUs sold in such transaction multiplied by the applicable Per ERU Payment as defined in Section 7(a), above ("Progress Payment"). So



long as each Progress Payment is paid when due, as provided herein, no interest shall accrue on the unpaid balance of the Total Purchase Price outstanding from time to time. If any default in the delivery of a Progress Payment is due solely to the failure of the applicable escrow agent to timely pay such Progress Payment, interest shall only accrue on the amount of such delinquent payment at the rate of ten percent (10%) per annum from the date due until paid.

(c) Percentage of Interests in the Golf Company The percentage of Golf Rights ("Golf Rights Percentage") owned by Mayflower at any particular date shall be calculated by multiplying twenty percent (20%) by a fraction, the numerator of which is the total of all Progress Payments made as of such date, and the denominator of which is the Total Purchase Price.

(d) Number of Tee Times Per Golf Rights Percentage. The total number of tee times in Golf Course A that Mayflower shall be entitled to use ~~or reserve~~ in a particular year as the result of its purchase of Mayflower Course A Rights shall be calculated by multiplying the Golf Rights Percentage by the Total Tee Times available at Golf Course A in such year. Notwithstanding anything to the contrary, Mayflower shall not be entitled to use, ~~reserve~~ or have any rights to tee times allocated to Mayflower Course A Rights until Mayflower has paid the required Progress Payment for such Mayflower Course A Rights as provided in this Section 7. m/B  
m/B

(e) Default in Making Progress Payments. In the event Mayflower fails to timely make a Progress Payment pursuant to subsection (b) above, DDRM shall notify Mayflower (in accordance with Section 17) of such default and Mayflower shall have thirty (30) days after receipt of such notice to cure the default. Interest shall accrue on any delinquent Progress Payments at the rate of ten percent (10%) per annum until paid. During any period of default Mayflower shall not have the right to purchase additional Golf Rights and shall not receive any Golf Rights for the Lots sold. If Mayflower fails to cure the default within the thirty (30) day cure period stated above, then DDRM's sole remedy shall be to terminate Mayflower's right to purchase any additional Golf Rights. Such cancellation shall be effective upon the sending of written notice of termination to Mayflower (in accordance with Section 17), without any other act or legal proceedings. In the event of a failure to cure the default within the thirty (30) day cure period which is due solely to the failure of an escrow agent to comply with Mayflower's escrow instructions to timely pay the appropriate Progress Payment, Mayflower shall be entitled to a thirty (30) day extension of the original cure period.

8. Cooperation and Development of Golf Courses. DDRM shall be responsible for obtaining all necessary governmental approvals for the construction of the Golf Courses. Mayflower shall cooperate and assist in the process of obtaining such necessary approvals.

9. Green Fees, Cart Rental Fee and Other Admission Costs. Mayflower acknowledges that the purchase of tee times, as evidenced by the Golf Rights, shall not exempt Mayflower or others from an obligation to pay green fees, cart rental fees and other admission costs (collectively, "Green Fees") charged to play on the Golf Courses. The Green Fees shall be

established by the Golf Manager, subject to the approval of the Golf Company. However, in no event shall the price for Green Fees charged to Mayflower exceed the lowest rate paid by any other owner of Golf Rights. The limitation in the immediately preceding sentence shall not apply to Green Fees charged for tournament play, special groups and special events as specified in the Operating Rules and Regulations.

10. Allocation of Tee Times for Golf Courses. The purchase of Golf Rights gives Mayflower and other owners of Golf Rights the right to reserve a number of tee times, in accordance with the Golf Rights Percentage owned by each such owner. Such tee times shall be allocated among all those holding Golf Rights, and may be made available to owners and guests of the Golf Rights owners, in accordance with the Operating Rules and Regulations.

11. Management of Golf Courses. Golf Company shall have the right to select one or more managers ("Golf Manager") and enter into a contract for the management of the Golf Courses by the Golf Manager. Golf Company shall supervise the Golf Manager, approve or disapprove the business plan of the Golf Manager, and replace the Golf Manager, as appropriate. All use of the Golf Courses shall be subject to the Operating Rules, Regulations and charges established by Golf Company.

12. Operating Deficits of Golf Courses. The owners of Golf Rights shall be responsible for all cash deficits generated from the operations of the Golf Courses. In the event that revenues generated by the operations of a Golf Course are less than the expenses and capital expenditures necessary for the ongoing operations (in accordance with the Operating Rules and Regulations) of such Golf Course, all owners of Golf Rights in such Golf Course shall be liable for assessment for their proportionate share of such shortfalls. Mayflower acknowledges the likelihood that there will be shortfalls in revenues from the Golf Courses, especially in the early years of operating the Golf Courses, and perhaps indefinitely, and Mayflower agrees to pay its share of such costs and shortfalls in accordance with the Golf Rights Percentage that it owns. In any fiscal year in which there is a change in the ownership of the Golf Rights, the operating deficit for such year shall be allocated among the owners of Golf Rights in accordance with their respective Golf Rights as of the last day that the Golf Course is open for business in such fiscal year. Mayflower acknowledges that when the Golf Courses are developed, the benefits to Mayflower and its property from the development of the Golf Courses are adequate consideration for Mayflower's assumption of its share of the financial risk for the operations of the Golf Courses, and hereby releases and agrees to hold DDRM, its managers, officers, directors, shareholders, employees, owners and agents harmless of and from all damages and liabilities relating to the construction and operation of the Golf Courses. Mayflower acknowledges that it is acquiring the Golf Rights as an amenity and not for investment purposes.

13. Ownership of DDRM. In order to insure adequate communication and cooperation between Mayflower and DDRM, Arie Bogerd shall be made a member of DDRM. The ownership interests in DDRM shall be as follows: Stanley R. Castleton fifty percent (50%), Arie C. Bogerd thirty-eight percent (38%), and Brent H. Hall twelve percent (12%). It is also anticipated that third-party investors may receive an ownership interest in DDRM, in which event the ownership interests set forth herein may change. However, the ownership interest of Arie C. Bogerd shall not be diluted or otherwise reduced.

14. Captions. The captions, headings, and arrangements used in this Agreement are for convenience only and do not in any way affect, limit, amplify, or modify the terms and provisions hereof.

15. Number and Gender of Words. Whenever herein the singular number is used, the same shall include the plural where appropriate, and words of any gender shall include each other gender where appropriate.

16. Attorneys' Fees. If any action is brought or counsel otherwise employed to enforce this Agreement or any provision thereof, to collect damages for an alleged breach thereof, or for a declaratory judgment thereunder, the prevailing party in such action shall be entitled to an allowance for reasonable attorneys' fees in addition to costs of suit as determined by the court.

17. Notices. Any notice delivered personally or by courier shall be deemed to have been given when delivered to the addresses set forth below. Any party may change its address by giving notice to the other party as provided below. Any and all notices and demands shall be in writing and shall be validly given or made only if personally delivered, sent by FedEx or other recognized international courier service that provides a receipt of delivery, or deposited, certified or registered with return receipt requested, in the United States mail or Dutch Postal Service (if mailed from the Netherlands) and addressed as follows:

If to DDRM:           DDRMM Golf, LLC  
777 Convention Way, #100  
Anaheim, CA 92802  
Attn: Stanley R. Castleton  
Fax: (714) 740-4711

With a copy to:       Thomas G. Bennett  
Ballard Spahr Andrews & Ingersoll, LLP  
201 South Main St.  
Suite 600  
Salt Lake City, Utah 84111-2215  
Fax: (801) 531-3001

If to Mayflower:     Stichting Mayflower Recreational Fonds,  
Stichting Mayflower Mountain Fonds,  
P.O.Box 100,  
4140 AC LEERDAM  
Netherlands  
Fax: 011-31-345-616161

With a copy to:       E. Craig Smay  
174 E. South Temple  
Salt Lake City, Utah 84111  
Fax: (801) 539-8544

18. Governing Law. The laws of the State of Utah shall govern the validity, construction, enforcement, and interpretation of this Agreement, unless otherwise specified herein.

19. Entirety and Amendments. This Agreement embodies the entire agreement between the parties and supersedes any prior agreements and understandings, if any, relating to the subject matter hereof, and may be amended or supplemented only by an instrument in writing executed by both DDRM and Mayflower.

20. Invalid Provisions. If any provision of this Agreement is held to be illegal, invalid, or unenforceable, then such provision shall not be considered a part of this Agreement, but the remaining provisions of this Agreement shall remain in full force and effect.

21. Multiple Counterparts. This Agreement may be executed in a number of identical counterparts. If so executed, each of such counterparts is to be deemed an original for all purposes, and all such counterparts shall, collectively, constitute one agreement, but in making proof of this Agreement, it shall not be necessary to produce or account for more than one such counterpart.

22. Assignment. This Agreement may be freely assigned in connection with any sale of a major development parcel of real estate in the RSPA owned by the assigning party. As used herein, "major development parcel" shall mean any of (a) Mayflower North, (b) Mayflower South, or (c) the hotel parcel in Deer Cove, or (d) the remainder of Deer Cove. Otherwise, this Agreement may only be assigned with the consent of the non-assigning party, which may be withheld for any reason; provided, however, DDRM may assign its rights and interests in this Agreement to HAMC Wasatch, LLC, a Delaware limited liability company ("HAMC") without the consent of any other party, so long as HAMC assumes, in writing, DDRM's obligations under this Agreement.

23. Further Acts. In addition to the acts recited herein and contemplated to be performed, executed, and delivered by the parties hereto, DDRM and Mayflower agree to perform, execute, and deliver or cause to be performed, executed, and delivered any and all such further acts and assurances as may be necessary to consummate the transactions contemplated hereby.

24. Construction. The terms and conditions of this Agreement shall be construed as a whole according to its fair meaning and not strictly for or against any party. The parties acknowledge that each of them has reviewed this Agreement, and has had the opportunity to have it reviewed by their attorneys and that any rule or construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement, or any amendment to this Agreement.

25. Time. Time is of the essence of each and every term, condition, obligation and provision hereof.

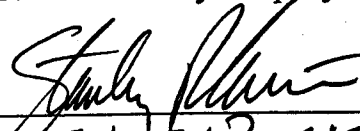
26. Dates. If any dates hereunder fall on a Saturday, Sunday or legal holiday, such date shall be the next following business day.

[Signatures on Following Page]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

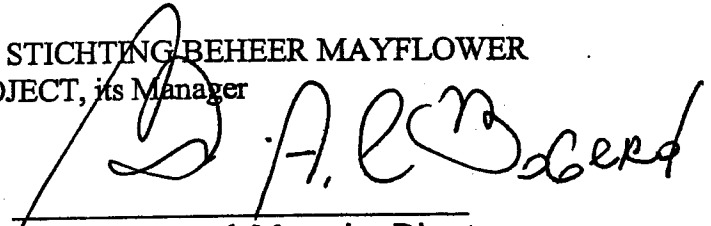
**DDRM:**

DDRM GOLF, LLC,  
a Utah limited liability company

By:   
Name: STANLEY R. CASTLETON  
Its: CEO

**MAYFLOWER:**

STICHTING MAYFLOWER RECREATIONAL  
FONDS, an association formed under the laws of  
the Netherlands

By: STICHTING BEHEER MAYFLOWER  
PROJECT, its Manager  
By:   
Arie C. Bogerd, Managing Director

STICHTING MAYFLOWER MOUNTAIN  
FONDS, an association formed under the laws of  
the Netherlands

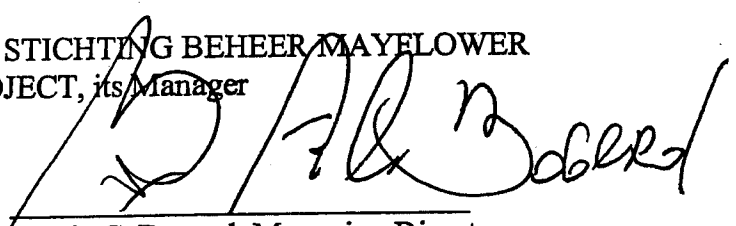
By: STICHTING BEHEER MAYFLOWER  
PROJECT, its Manager  
By:   
Arie C. Bogerd, Managing Director

EXHIBIT A

Map of the RSPA

Being the same as the  
map found at page B 7  
of the RSPA Plan Book



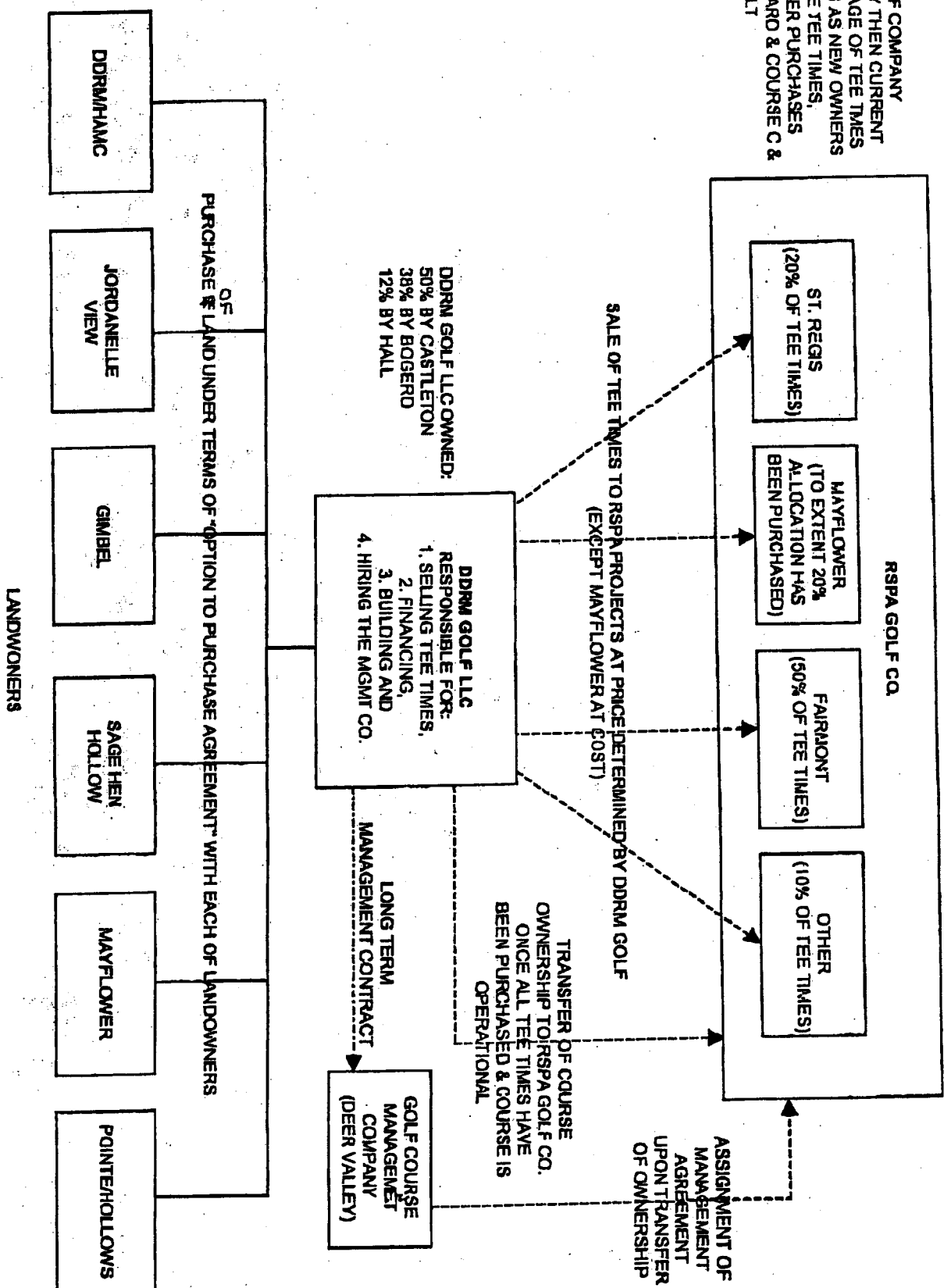




EXHIBIT B

Organizational Chart

RSPA GOLF COMPANY OWNED BY THEN CURRENT PERCENTAGE OF TEE TIMES (CHANGES AS NEW OWNERS PURCHASE TEE TIMES, MAYFLOWER PURCHASES GO FORWARD & COURSE C & B ARE BUILT



DDRDM GOLF LLC OWNED:  
50% BY CASTLETON  
38% BY BOGERD  
12% BY HALL

TRANSFER OF COURSE OWNERSHIP TO RSPA GOLF CO. ONCE ALL TEE TIMES HAVE BEEN PURCHASED & COURSE IS OPERATIONAL

ASSIGNMENT OF MANAGEMENT AGREEMENT UPON TRANSFER OF OWNERSHIP

SALE OF TEE TIMES TO RSPA PROJECTS AT PRICE DETERMINED BY DDRDM GOLF (EXCEPT MAYFLOWER AT COST)

PURCHASE OF LAND UNDER TERMS OF "OPTION TO PURCHASE AGREEMENT" WITH EACH OF LANDOWNERS

LANDOWNERS

# **EXHIBIT - 0**

Provisions for Jordanelle Ridge Road  
Access Agreement

1. Stichting Mayflower ("Mayflower") to grant to Wasatch County an easement for Jordanelle Ridge Road;
  - Jordanelle View, LLC ("JV") shall design, engineer, and construct Jordanelle Ridge Road at its expense;
  - Mayflower has no obligation to pay for any improvements for the Jordanelle Ridge Road;
  - Mayflower will be allowed free access to Jordanelle Ridge Road with no cost obligations;
  - Prior to the construction and completion of the Jordanelle Ridge Road, Mayflower shall grant temporary easements along the proposed roadways over Mayflower's property for secondary access to Jordanelle View.
2. Jordanelle View will realign its southerly property line to re-convey land ("Mayflower Lots") to Mayflower and use its best efforts to maximize the lot and value potential;
  - Jordanelle View will provide road and utility improvements to the Mayflower Lots within the Jordanelle View subdivision. The costs of such improvements, when completed, are to be reimbursed to JV on a pro-rata basis; but with no obligation for future assessments;
3. JV will grant to Mayflower an easement through the Jordanelle View Property to Mayflower. Said easement will allow roadway access from Mayflower's Wasatch County property to Mayflower's Summit County property, and access between Golf Course A, proposed for Mayflower's property in Wasatch County, to any golf course constructed by Mayflower on its property in Summit County.
4. Westside agrees to cooperate and work with Mayflower in the planning and engineering of Mayflower East Park lots that are on the west side of the Jordanelle Ridge Road;
  - Mayflower agrees to convey to Wasatch County the roadway easement to connect Westside's properties to the East Park Gardner Addition. Westside will construct the connecting road without cost to Mayflower, and Mayflower will have free access to said road.