

When recorded return to:
Robert W. Wells
Deer Valley Resort Company
P. O. Box 889
Park City, Utah 84060

00776496 Bk01788 Pg00776-00849

ALAN SPRIGGS, SUMMIT CO RECORDER
2006 MAY 03 10:07 AM FEE \$164.00 BY GGB
REQUEST: COALITION TITLE

DECLARATION OF RESTRICTIONS

This DECLARATION OF RESTRICTIONS ("Declaration") is made as of MAY 2, 2006 by Deer Valley Resort Company, a Utah limited partnership ("Declarant").

WHEREAS, Declarant is the owner of certain real property located in the City of Park City, County of Summit, State of Utah, described in Exhibit "A" attached hereto and incorporated hereby by this reference (the "Preserve Area"); and

WHEREAS, Silver Baron Partners, a Utah limited liability partnership ("Developer") proposes to develop the Preserve Area subject to restrictions in accordance with the provisions of the Section 404 Permit # 199450369 ("Permit") issued to Developer by the U.S. Army Corps of Engineers ("Corps") and the Deer Valley Meadows Wetland Mitigation Relocation Plan ("Plan"); and

WHEREAS, Declarant, as an accommodation to Developer, is willing to subject the Preserve Area to provisions of the Permit requiring a perpetual binding covenant running with the land, but not restrictions in addition to those provided for herein; and

WHEREAS, the Preserve Area consists of both jurisdictional wetland features and associated natural upland area; and

WHEREAS, this Declaration will benefit both Declarant and Developer in that it will assist in preserving and maintaining the wetland space in the Preserve Area;

NOW THEREFORE, Declarant agrees as follows:

1. Covenant Running with Land. In consideration of the foregoing benefits flowing to all parties and other valuable consideration, the receipt and adequacy of which is hereby acknowledged, subject to the provisions hereof, Declarant agrees to the establishment of the restrictions on the future use of the Preserve Area as set forth below, by the execution of this covenant running with the land in perpetuity.

2. Liability of Declarant. Declarant shall not be responsible for implementation of the actions required by the Permit or the Plan or any actions that violate said restrictions by parties other than Declarant or its successors or assigns in ownership of the property and Declarant shall not be required to enforce said restrictions against such other parties. Developer is hereby granted permission to enter the property for the purpose of the development and maintenance activities set forth in the Permit and the Plan.

3. Prior Encumbrances. This covenant is subject to any easements, restrictions or rights of way existing on the date of execution hereof.

4. Restrictions Concerning the Preserve Area. Except for those actions necessary to accomplish preservation, maintenance, repair, or enhancement as has been, or in the future is authorized by the Corps, consistent with the Permit and the Plan, Declarant shall not engage in any of the following restricted activities in the Preserve Area:

BK1788 PG0776

(a) No plowing or cultivation of the Preserve Area or any portion of such area, and no destruction or removal of any natural tree, shrub or other vegetation that exists upon the Preserve Area shall be done or permitted except by the Developer or Declarant or their successors and assigns as to the Preserve Area, as described in the Plan and in consultation with the Corps, for the purpose of thatch management or the removal / management of newly introduced noxious or dangerous plants as necessary to maintain the Preserve Area;

(b) No materials or debris shall be stored or placed (whether temporarily or permanently) within the Preserve Area or any portion of such area without prior written approval by the Corps;

(c) No discharge of any dredged or fill material shall be done or permitted within the Preserve Area or any portion of such area except as consistent with the terms and conditions of the Permit;

(d) No discharge, dumping, disposal, storage or placement of any trash, refuse, rubbish, grass clippings, cuttings or other waste materials within the Preserve Area or any portion of such area shall be done or permitted;

(e) No leveling, grading or landscaping within the Preserve Area or any portion of such area shall be done or permitted without prior written approval from the Corps;

(f) No dumping or storage of snow shall occur within the Preserve Area, provided, however, that the incidental placement of snow by reason of the plowing and maintenance of the adjacent public street and sidewalks or trails is not restricted by this covenant.

(g) No motorized vehicles shall be ridden, brought, used or permitted on any portion of the Preserve Area, except as provided for in (a) above without prior written approval by the Corps; and

(h) No new roads, utility lines, trails, benches, equipment storage, or other structures or activities shall occur within the Preserve Area without prior written approval by the Corps. The use and maintenance of any existing walks, trails, and utility lines within the Preserve Area is not restricted by this covenant.

5. Not An Offer to Dedicate; No Rights of Public Use. The provisions of this Declaration do not constitute an offer for public use. This instrument does not constitute an irrevocable offer to dedicate.

6. Successors and Assigns Bound. Declarant hereby agrees and acknowledges that the Preserve Area shall be held, sold, conveyed, owned and used subject to the applicable terms, conditions and obligations imposed by this Declaration.

The provisions of this Declaration shall (subject to the limitations contained herein and without modifying the provisions hereof) be enforceable as equitable servitudes and conditions, restrictions and covenants running with the land, and shall be binding on the Declarant and upon its successors and assigns.

7. Severability. The provisions of this Declaration are severable and the violation of any of the provisions hereof by a Court shall not affect any of the other provisions which shall remain in full force and effect.

BK1788 PG0777

DECLARANT:

DEER VALLEY RESORT COMPANY
A Utah limited partnership
By Royal Street of Utah , a Utah corporation
A General Partner

By *Robert W. Wells*
Its Vice President

STATE OF UTAH)
 : ss
COUNTY OF SUMMIT)

On the 2 day of MAY, 2006 personally appeared before me Robert W. Wells, who being by me duly sworn did say, that he is the Vice President of Royal Street of Utah, a Utah corporation, which is a general partner of Deer Valley Resort Company, a Utah limited partnership, and that he executed the foregoing Declaration of Restrictions by authority from and on behalf of said Deer Valley Resort Company.

Jean M. Herndon
NOTARY PUBLIC

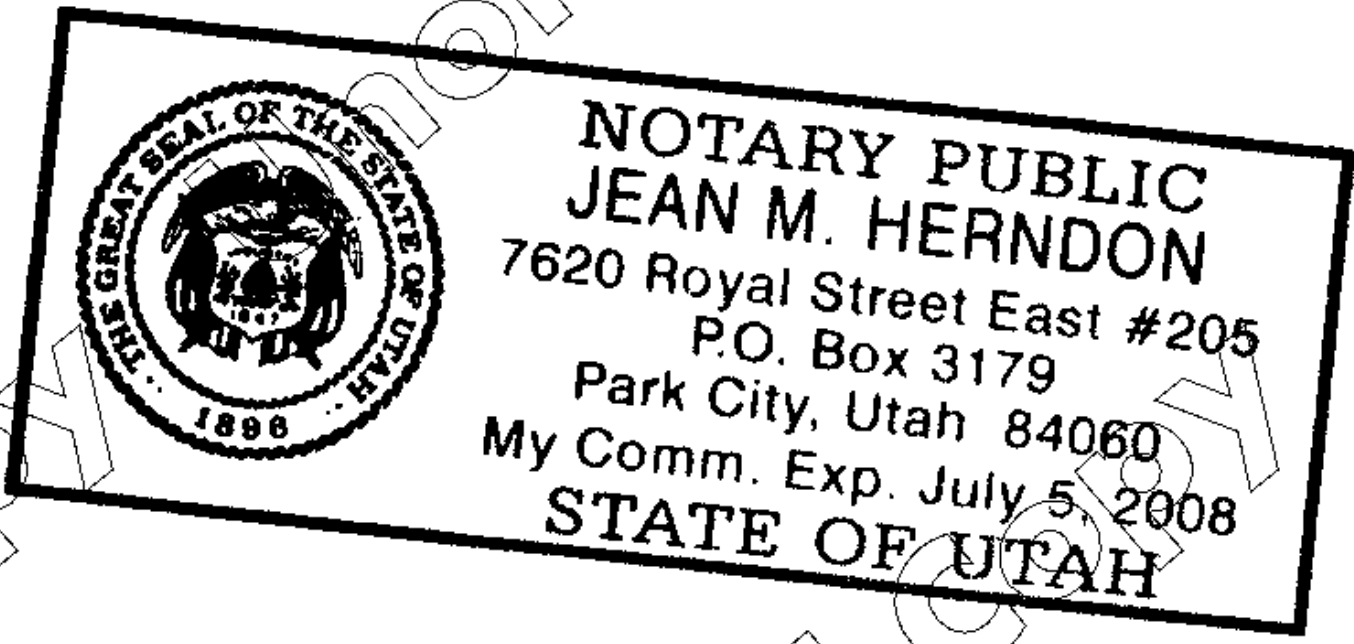


EXHIBIT A - LEGAL DESCRIPTION OF "PRESERVE AREA"

230376.D

WETLANDS LEGAL

BEGINNING AT A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF DEER VALLEY EAST ROAD, SAID POINT BEING ON A 308.456 FOOT RADIUS CURVE, SAID POINT ALSO BEING SOUTH 157.74 FEET AND EAST 4164.13 FEET FROM THE EAST QUARTER CORNER OF SECTION 16, TOWNSHIP 2 SOUTH, RANGE 4 EAST, SALT LAKE BASE AND MERIDIAN, AND RUNNING SOUTHEASTERLY ALONG SAID RIGHT-OF-WAY THE FOLLOWING THREE COURSES: (1) SOUTHEASTERLY ALONG THE ARC OF SAID 308.456 FOOT RADIUS CURVE TO THE RIGHT (CENTER BEARS SOUTH 36°52'59" WEST) THROUGH A CENTRAL ANGLE OF 31°12'01" A DISTANCE OF 167.97 FEET; (2) SOUTH 21°55'00" EAST 124.79 FEET TO THE POINT OF CURVATURE; (3) SOUTHEASTERLY ALONG THE ARC OF A 404.15 FOOT RADIUS CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 27°43'09" A DISTANCE OF 195.52 FEET; THENCE SOUTH 78°53'45" WEST 170.33 FEET; THENCE NORTH 84°19'22" WEST 53.29 FEET; THENCE NORTH 81°09'52" WEST 51.40 FEET; THENCE NORTH 89°31'04" WEST 24.06 FEET; THENCE SOUTH 73°56'30" WEST 76.21 FEET; THENCE NORTH 89°30'28" WEST 50.58 FEET; THENCE SOUTH 78°03'05" WEST 29.64 FEET; THENCE SOUTH 74°04'18" WEST 42.33 FEET; THENCE NORTH 55°49'03" WEST 21.77 FEET; THENCE NORTH 20°48'19" WEST 15.20 FEET; THENCE NORTH 13°12'33" EAST 65.33 FEET TO THE POINT OF CURVATURE OF A 107.82 FOOT, NON-TANGENT RADIUS CURVE TO THE RIGHT (CENTER BEARS SOUTH 79°30'37" EAST); THENCE NORTHEASTERLY ALONG SAID 107.82 FOOT RADIUS CURVE THROUGH A CENTRAL ANGLE OF 16°36'06" A DISTANCE OF 31.24 FEET TO A POINT ON A NON-TANGENT RADIUS CURVE TO THE LEFT (CENTER BEARS NORTH 57°41'12" WEST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID 107.93 FOOT RADIUS CURVE THROUGH A CENTRAL ANGLE OF 30°36'02" A DISTANCE OF 57.65 FEET TO A POINT ON A 61.70 FOOT NON-TANGENT RADIUS CURVE RIGHT (CENTER BEARS SOUTH 79°14'44" EAST); THENCE NORTHEASTERLY ALONG THE ARC OF SAID 61.70 FOOT RADIUS CURVE THROUGH A CENTRAL ANGLE OF 28°07'22" A DISTANCE OF 30.29 FEET TO A POINT ON A 432.41 FOOT NON-TANGENT, RADIUS CURVE TO THE LEFT (CENTER BEARS NORTH 49°30'36" WEST); THENCE NORTHEASTERLY ALONG THE ARC OF SAID 432.41 FOOT RADIUS CURVE THROUGH A CENTRAL ANGLE OF 12°42'54" A DISTANCE OF 95.96 FEET TO A POINT ON A 323.35 FOOT NON-TANGENT, RADIUS CURVE TO THE LEFT (CENTER BEARS NORTH 53°36'36" WEST); THENCE NORTHEASTERLY THROUGH A CENTRAL ANGLE OF 6°33'21" A DISTANCE OF 37.00 FEET ON THE ARC OF A 332.47 FOOT NON-TANGENT, RADIUS CURVE TO THE RIGHT (CENTER BEARS SOUTH 63°45'15" EAST); THENCE NORTHEASTERLY THROUGH A CENTRAL ANGLE OF 9°05'44" A DISTANCE OF 52.78 FEET; THENCE NORTH 27°02'11" EAST 7.07 FEET TO A POINT ON THE ARC OF A 320.69 FOOT NON-TANGENT, RADIUS CURVE TO THE RIGHT (CENTER BEARS SOUTH 65°27'29" EAST); THENCE NORTHEAST THROUGH A CENTRAL ANGLE OF 19°19'52" A DISTANCE OF 108.20 FEET; THENCE NORTH 79°14'14" EAST 25.38 FEET; THENCE NORTH 87°39'23" EAST 29.52 FEET; THENCE NORTH 68°42'28" EAST 43.52 FEET; THENCE NORTH 45°19'55" EAST 32.81 FEET TO THE POINT OF BEGINNING.

CONTAINS: 3.802 ACRES, MORE OR LESS.

PC-550-3
PC-745

Declaration of Restrictions

BK1788 PG0773



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

April 29, 2005

Regulatory Branch (200550156) (199450369)

Lynn Padan
Silver Barons Partners, L.C.
Post Office Box 1937
2900 Deer Valley Drive
Park City, Utah 84060

Dear Mr. Padan:

We are responding to your consultant's March 30, 2005, request for a Department of the Army permit for the Lodges at Deer Valley Mitigation Site Relocation project. This approximately 3-acre project involves activities, including discharges of dredged or fill material, in waters of the United States to relocate the failing wetlands mitigation site that was constructed under Department of the Army Permit Number 199450369. The site is located in Section 15, Township 2 South, Range 4 East, SLB&M, Latitude $040^{\circ} 38' 42.6''$, Longitude $111^{\circ} 28' 35.0''$, in Deer Valley, Summit County, Utah.

Based on the information provided, the proposed activity in approximately 2.96 acres of emergent marsh and wet meadow habitat is authorized by Nationwide Permit Number 27. Your work must comply with the general terms and conditions listed on the enclosed Nationwide Permit information sheets and the following **Special Conditions**:

1. To ensure permit compliance, the March 30, 2005, document entitled Deer Valley Meadows Wetland Mitigation Relocation is incorporated by reference as a condition of this authorization.
2. To document pre- and post-project construction conditions of the mitigation site, you shall submit pre- and post-construction photos of the project site within 30 days after project completion.
3. To validate this authorization, you must take the actions required to record this permit with the Registrar of Deeds for Park City or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property. Prior to any work in waters of the United States otherwise authorized by this permit, you must provide evidence that this permit has been recorded against the deed for this property to this office .
4. You shall implement best management practices (BMP's) during construction of the new mitigation site. BMP's include, but are not limited to, installation of silt fencing, filter socks and construction during drier periods.

BK1788 PG0780

5. You must allow representatives from the Corps of Engineers to inspect the authorized activity and any mitigation, preservation, or avoidance areas at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

6. You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

7. The following state water quality conditions must also be satisfied:

1) Whenever an authorized discharge causes the water turbidity in an adjacent surface water to increase 10 NTUs or more, the permittee shall notify the Utah Division of Water Quality.

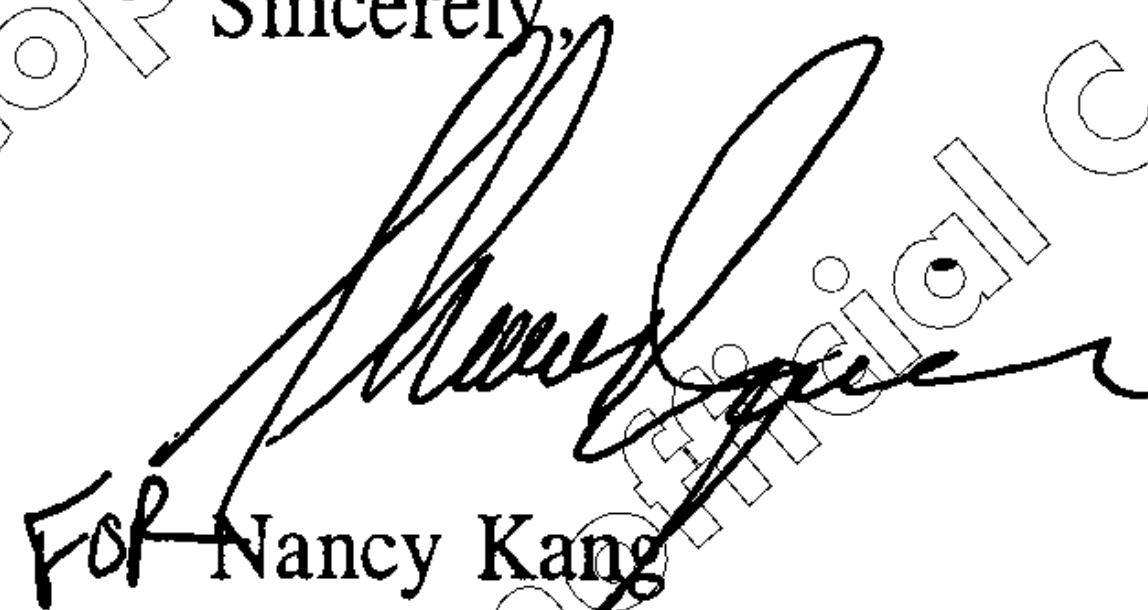
2) Whenever an authorized discharge causes the total suspended solids concentration in an adjacent surface water to exceed 35 mg/l (Class 3A-Cold Water Fishery) or 90 mg/l (Class 3B-Warm Water Fishery), the permittee shall notify the Utah Division of Water Quality and submit calculations indicating the load contribution expressed in pounds per day as total suspended solids.

3) Permittees shall protect any potentially affected fish spawning areas.

8. This verification is valid for two years from the date of this letter, or until the Nationwide Permit is modified or expires, whichever comes first. The Nationwide Permit is scheduled to expire on March 18, 2007. It is incumbent upon you to remain informed about changes to the Nationwide Permit Program.

Please refer to identification number 200550156 in any correspondence concerning this project. If you have any questions, please contact Jason Gipson at the Utah Regulatory Office, 533 West 2600 South, Suite 150, Bountiful, Utah 84010-7744, email jason.a.gipson@usace.army.mil, or telephone 801-295-8380, extension 22.

Sincerely,



For Nancy Kang
Chief, Utah Regulatory Office

Enclosures

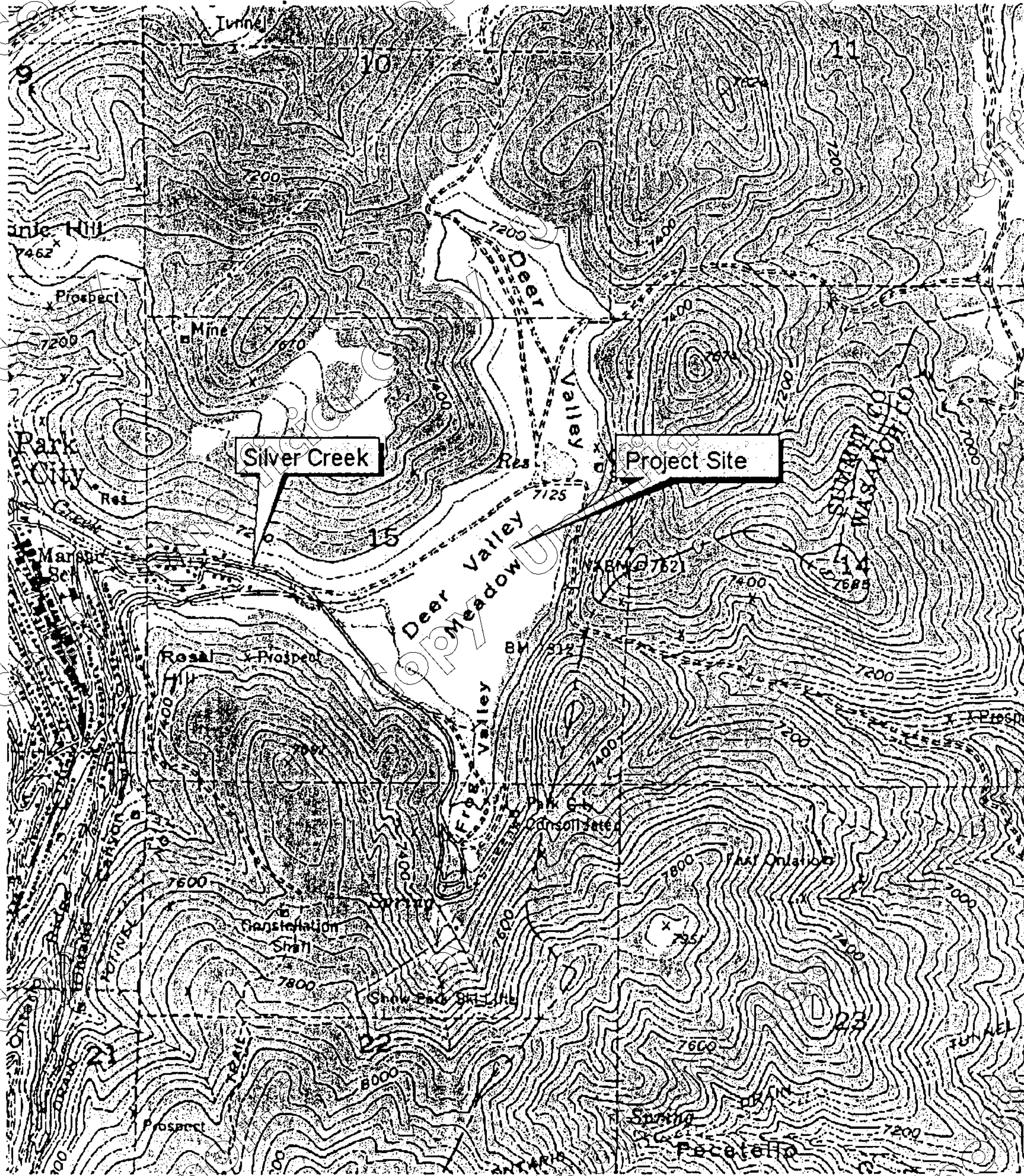
Copy furnished:

Leslie Gecy, Western Wetland Systems, Inc., 13740 Red Fox, Baker, Oregon 97814

Kevin Monson, Silver Baron Partners, P.O. Box 1937, Park City, Utah 84060

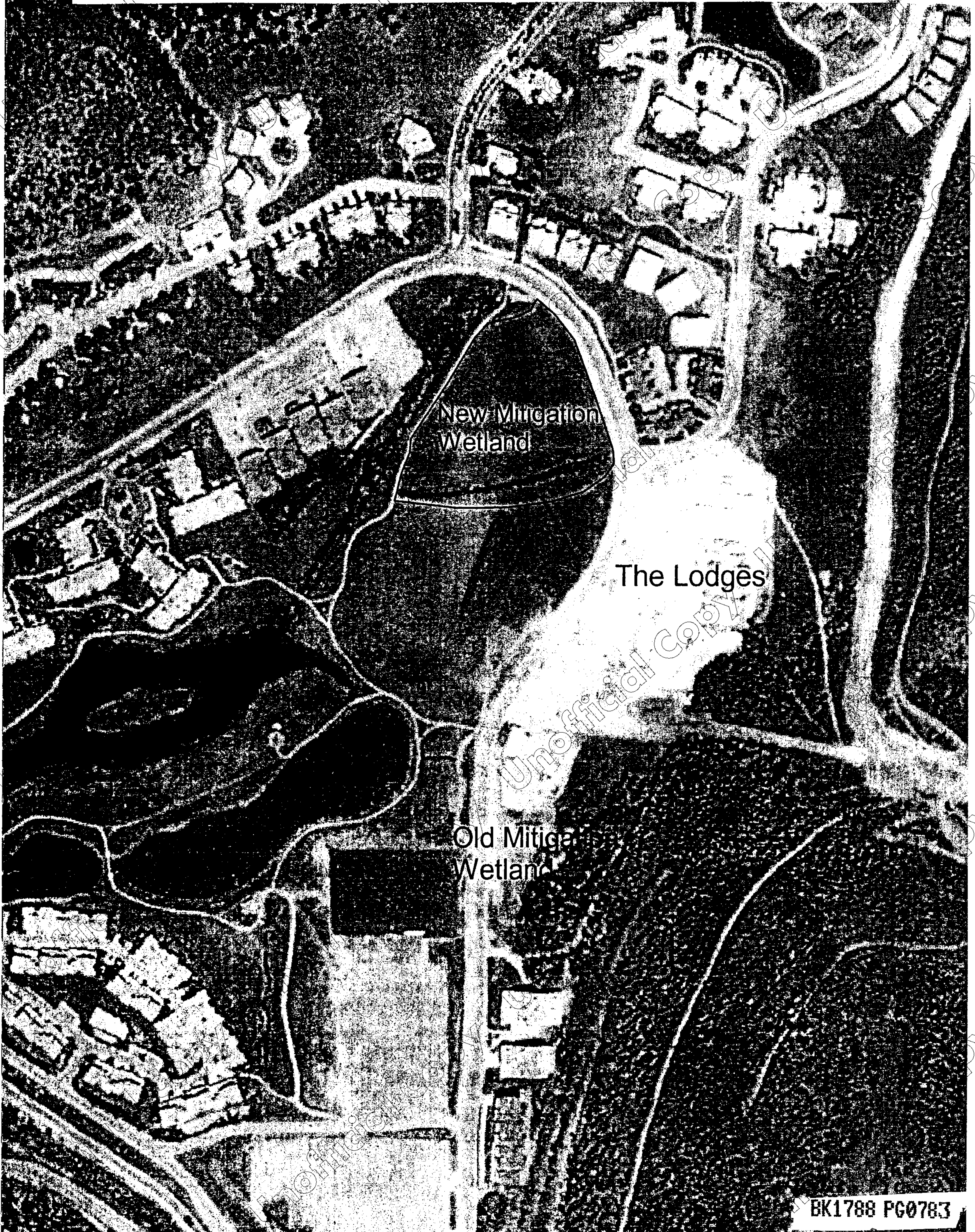
BK1788 PG0781

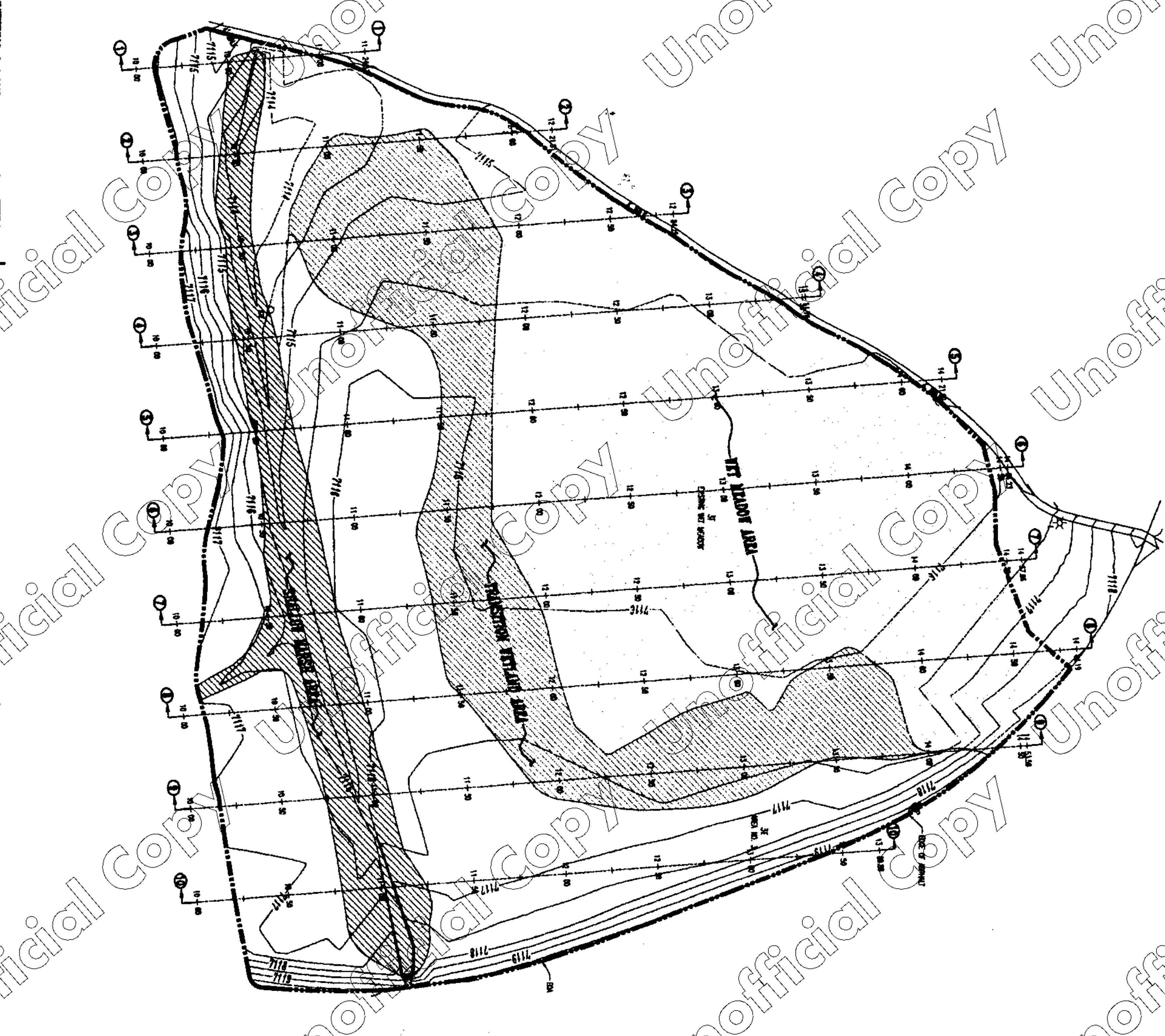
Figure 1. Location of the Proposed New Mitigation Site.



Park City East Quad

Figure 2. Location of the Relocated Mitigation Wetland within the Deer Valley Meadows.

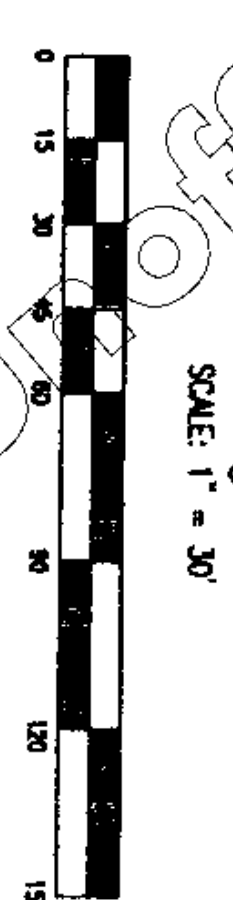




- WETLAND AREA TYPES**
- WET MEADOW AREA (1.80 ACRES)
 - THICKET AREA (0.65 ACRES)
 - SHALLOW WASH AREA (0.34 ACRES)
 - WETLAND BOUNDARY AREA (1.14 ACRES)

- STANDARD ABBREVIATIONS**
- FOUN. FOUND.
 - BAC. BENCH MARK
 - CON. CONCRETE
 - EA. EDGE OF ASPHALT
 - CL. CATCH BASIN
 - R. ROAD
 - TOP. TOP OF
 - CL. CATCH BASIN
 - FL. FLOWLINE
 - TOP. TOP OF
 - CL. CATCH BASIN
 - TOP. TOP OF
 - CL. CATCH BASIN

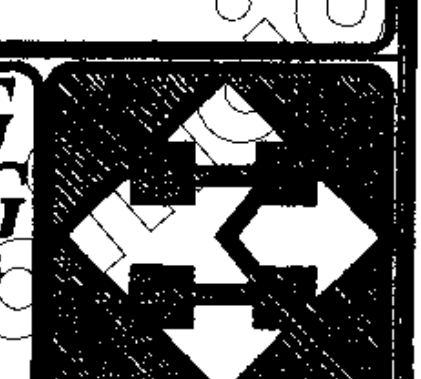
- SURVEY STANDARD LEGEND**
- TELEPHONE LINE
 - WATER LINE
 - STORM DRAIN LINE
 - IRREGULAR BOUNDARY
 - WETLAND BOUNDARY
 - CONTOUR LINE (2.5 FT)
 - RIGHT OF WAY
 - TELEPHONE REST
 - WATER VALVE
 - FIRE HYDRANT
 - IRREGULAR CONTROL VALVE
 - STORM DRAIN CATCH BASIN



1 OF 2	EXISTING CONDITIONS BASE MAP
2 OF 2	MITIGATION WETLAND PLAN

SILVER BARON PARTNERS, L.C.
MITIGATION WETLAND PLAN
 DELINEATION BY WESTERN WETLAND SYSTEMS
 WESTERLY SIDE OF EAST DEER VALLEY DRIVE
 LOCATED IN THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 SOUTH, RANGE 4 EAST.

McNEIL ENGINEERING AND LAND SURVEYING
 PROFESSIONAL CIVIL ENGINEERING & LAND SURVEYING SERVICES
 6005 SOUTH 900 EAST MIDVALE, UTAH 84047
 TEL. 801-266-7700 FAX (801) 266-0171
 E-MAIL: info@mcneileng.com WEB SITE AT: www.mcneileng.com





U S Army Corps of
Engineers
Sacramento District

Nationwide Permit Summary

33 CFR Part 330; Issuance of Nationwide
Permits - January 15, 2002, including
Correction - February 13, 2002

27. Stream and Wetland Restoration Activities. Activities in waters of the US associated with the restoration of former waters, the enhancement of degraded tidal and non-tidal wetlands and riparian areas, the creation of tidal and non-tidal wetlands and riparian areas, and the restoration and enhancement of non-tidal streams and non-tidal open water areas as follows:

(a) The activity is conducted on:

(1) Non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or creation agreement between the landowner and the U.S. Fish and Wildlife Service (FWS) or the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service, the National Ocean Service, or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or

(2) Reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the OSM or the applicable state agency (the future reversion does not apply to streams or wetlands created, restored, or enhanced as mitigation for the mining impacts, nor naturally due to hydrologic or topographic features, nor for a mitigation bank); or

(3) Any other public, private or tribal lands;

(b) *Notification:* For activities on any public or private land that are not described by paragraphs (a)(1) or (a)(2) above, the permittee must notify the District Engineer in accordance with General Condition 13; and

(c) Planting of only native species should occur on the site.

Activities authorized by this NWP include, to the extent that a Corps permit is required, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or creation of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or create stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; activities needed to reestablish vegetation, including

plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic or nuisance vegetation; and other related activities.

This NWP does not authorize the conversion of a stream to another aquatic use, such as the creation of an impoundment for waterfowl habitat. This NWP does not authorize stream channelization. This NWP does not authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed. However, this NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands, on the project site provided there are net gains in aquatic resource functions and values. For example, this NWP may authorize the creation of an open water impoundment in a non-tidal emergent wetland, provided the non-tidal emergent wetland is replaced by creating that wetland type on the project site. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Reversion. For enhancement, restoration, and creation projects conducted under paragraphs (a)(3), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion. For restoration, enhancement, and creation projects conducted under paragraphs (a)(1) and (a)(2), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities). The reversion must occur within five years after expiration of a limited term wetland restoration or creation agreement or permit, even if the discharge occurs after this NWP expires. This NWP also authorizes the reversion of wetlands that were restored, enhanced, or created on prior-converted cropland that has not been abandoned, in accordance with a binding agreement between the landowner and NRCS or FWS (even though the restoration, enhancement, or creation activity did not require a Section 404 permit). The five-year reversion limit does not apply to agreements without time limits reached under paragraph (a)(1). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before any reversion activity the permittee or the appropriate Federal or state agency must notify the District Engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements will be at that future date. (Sections 10 and 404)

BK1788 PG0786

Note: Compensatory mitigation is not required for activities authorized by this NWP, provided the authorized work results in a net increase in aquatic resource functions and values in the project area. This NWP can be used to authorize compensatory mitigation projects, including mitigation banks, provided the permittee notifies the District Engineer in accordance with General Condition 13, and the project includes compensatory mitigation for impacts to waters of the US caused by the authorized work. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition. NWP 27 can be used to authorize impacts at a mitigation bank, but only in circumstances where it has been approved under the Interagency Federal Mitigation Bank Guidelines.

A. General Conditions. The following general conditions must be followed in order for any authorization by an NWP to be valid:

- 1. Navigation.** No activity may cause more than a minimal adverse effect on navigation.
- 2. Proper Maintenance.** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
- 3. Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.
- 4. Aquatic Life Movements.** No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
- 5. Equipment.** Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
- 6. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.
- 7. Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).
- 8. Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
- 9. Water Quality.**
 - (a) In certain states and tribal lands an individual 401 Water Quality Certification must be obtained or waived (See 33 CFR 330.4(c)).
 - (b) For NWPs 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the state or tribal 401 certification (either generically or individually) does not require or approve water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of water quality management includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality (refer to General Condition 21 for stormwater management requirements). Another important component of water quality management is the establishment and maintenance of vegetated buffers next to open waters, including streams (refer to General Condition 19 for vegetated buffer requirements for the NWPs).

This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.
- 10. Coastal Zone Management.** In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see 33 CFR 330.4(d)).

11. Endangered Species.

(a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the NWPs.

(b) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their world wide web pages at <http://www.fws.gov/r9endspp/endspp.html> and http://www.nfms.noaa.gov/prot_res/overview/es.html respectively.

12. Historic Properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

13. Notification.

(a) Timing; where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the notification is complete within 30 days of the date of receipt and can request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the notification is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) If notified in writing by the District or Division Engineer that an Individual Permit is required; or

(3) Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification: The notification must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), Regional General Permit(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f)).

(5) For NWP 7 (Outfall Structures and Maintenance), the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed;

(6) For NWP 14 (Linear Transportation Projects), The PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the US and a statement describing how temporary losses of waters of the US will be minimized to the maximum extent practicable;

(7) For NWP 21 (Surface Coal Mining Activities), the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan, if applicable. To be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing;

(8) For NWP 27 (Stream and Wetland Restoration Activities), the PCN must include documentation of the prior condition of the site that will be reverted by the permittee;

(9) For NWP 29 (Single-Family Housing), the PCN must also include:

(i) Any past use of this NWP by the Individual Permittee and/or the permittee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring ¼-acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than ¼-acre in size, formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(10) For NWP 31 (Maintenance of Existing Flood Control Facilities), the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:

(i) Sufficient baseline information identifying the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site;

(11) For NWP 33 (Temporary Construction, Access, and Dewatering), the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources;

(12) For NWPs 39, 43 and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization for losses of waters of the US were achieved on the project site;

(13) For NWP 39 and NWP 42, the PCN must include a compensatory mitigation proposal to offset losses of waters of the US or justification explaining why compensatory mitigation should not be required. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

(14) For NWP 40 (Agricultural Activities), the PCN must include a compensatory mitigation proposal to offset losses of waters of the US. This NWP does not authorize the relocation of greater than 300 linear-feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent non-tidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

- (15) For NWP 43 (Stormwater Management Facilities), the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with state and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the US. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;
- (16) For NWP 44 (Mining Activities), the PCN must include a description of all waters of the US adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the US, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for all aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities);
- (17) For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work; and
- (18) For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.
- (c) Form of Notification: The standard Individual Permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(18) of General Condition 13. A letter containing the requisite information may also be used.
- (d) District Engineer's Decision: In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may submit a proposed mitigation plan with the PCN to expedite the process. The District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary. The District Engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.
- If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then the District Engineer will notify the applicant either:
- (1) that the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an Individual Permit;
- (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or
- (3) that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the US will occur until the District Engineer has approved a specific mitigation plan.
- (e) Agency Coordination: The District Engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than ½-acre of waters of the US, the District Engineer will provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to NMFS within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

(f) Wetland Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps (For NWP 29 see paragraph (b)(9)(iii) for parcels less than ¼-acre in size). The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

14. Compliance Certification. Every permittee who has received NWP verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include:

(a) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;

(b) A statement that any required mitigation was completed in accordance with the permit conditions; and (c) The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit (e.g. if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed 1/3-acre).

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the CWA).

19. Mitigation. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

(a) The project must be designed and constructed to avoid and minimize adverse effects to waters of the US to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland impacts requiring a PCN, unless the District Engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands as compensatory mitigation, with preservation used only in exceptional circumstances.

(d) Compensatory mitigation (i.e., replacement or substitution of aquatic resources for those impacted) will not be used to increase the acreage losses allowed by the acreage limits of some of the NWP's. For example, ¼-acre of wetlands cannot be created to change a ¾-acre loss of wetlands to a ½-acre loss associated with NWP 39 verification. However, ½-acre of created wetlands can be used to reduce the impacts of a ½-acre loss of wetlands to the minimum impact level in order to meet the minimal impact requirement associated with NWP's.

(e) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., easements, deed restrictions) of vegetated buffers to open waters. In many cases, vegetated buffers will be the only compensatory mitigation required. Vegetated buffers should consist of native species. The width of the vegetated buffers required will address documented water quality or aquatic habitat loss concerns. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineers may require slightly wider vegetated buffers to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the Corps will determine the appropriate compensatory mitigation (e.g., stream buffers or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where vegetated buffers are determined to be the most appropriate form of compensatory mitigation, the District Engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland impacts.

(g) Compensatory mitigation proposals submitted with the "notification" may be either conceptual or detailed. If conceptual plans are approved under the verification, then the Corps will condition the verification to require detailed plans be submitted and approved by the Corps prior to construction of the authorized activity in waters of the US.

(h) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases that require compensatory mitigation, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

20. Spawning Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

This condition is only applicable to projects that have the potential to affect waterflows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22 Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to the acceleration of the passage of water, and/or the restricting its flow shall be minimized to the maximum extent practicable. This includes structures and work in navigable waters of the US, or discharges of dredged or fill material.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWP's 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWP's in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the USFWS or the NMFS has concurred in a determination of compliance with this condition.

(b) For NWP's 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

(a) **Discharges in Floodplain; Below Headwaters.** Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWP's 39, 40, 42, 43, and 44.

(b) **Discharges in Floodway; Above Headwaters.** Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWP's 39, 40, 42, and 44.

(c) The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. Construction Period. For activities that have not been verified by the Corps and the project was commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12-months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps.

For projects that have been verified by the Corps, an extension of a Corps approved completion date may be requested. This request must be submitted at least one month before the previously approved completion date.

B. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWP's do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law.
3. NWP's do not grant any property rights or exclusive privileges.
4. NWP's do not authorize any injury to the property or rights of others.
5. NWP's do not authorize interference with any existing or proposed Federal project.

C. Regional Conditions for Nationwide Permits – Sacramento District

I. Regional Conditions to be applied across the entire Sacramento District:

1. Nationwide Permits 14, 29, 39, 40, 41, 42, and 44 are withdrawn from used in histosols, including fens. For the used of all other nationwide permits in fens, project proponents are required to notify the Corps using the notification or PCN procedures of the nationwide permit program (General Condition 13). This will be a "Corps only" notification.

2. For all activities using any existing and proposed nationwide permits, mitigation that is required by special condition must be completed before or concurrent with project construction. Where project mitigation involves the use of a mitigation bank or in-lieu fee, payment must be made to the bank or fee-in-lieu program before commencing construction of the permitted activity.

3. For all nationwide permits requiring notification, except 27, the applicant must provide a written statement to the district engineer explaining how avoidance and minimization of losses of waters of the United States were achieved on the project site.

II. Regional conditions to be applied in California and Nevada.

All existing and proposed nationwide permits are suspended in the Lake Tahoe basin in favor of using General Permit 16.

III. Regional conditions to be applied in Utah

For use of any nationwide permit with the following attributes, notification of the Corps of Engineers' Utah Regulatory Office, using the "Notification" procedures of the Nationwide Permit Program (General Condition 13), is required, except where certain nationwide permits are restricted and can not be used as indicated in each category. This will be a "Corps only" notification.

1. All activities that will affect waters of the U.S. below the elevation 4217 feet msl adjacent to the Great Salt Lake and below 4500 feet msl adjacent to Utah Lake.

2. Bank stabilization in a perennial stream that would affect more than 100 feet of stream length as measured from the upstream portion of the affected bank to the downstream section, narrow the cross-section of the stream, substantially reduce the riparian vegetation, or increase velocities.

3. All activities that will affect springs. A spring is an aquatic feature caused by ground water being discharged to the surface, creating wetland and/or stream characteristics. Nationwide Permits 14, 16, 18, 29, 33, 36, 40, 42, 43, and 44 can not be used in spring areas.

TO WHOM IT MAY CONCERN:

SUBJECT: Request for a letter of permission to relocate a non-functional, isolated mitigation wetland constructed in 1996 to a nearby area in the headwaters of Silver Creek as shown in the attached drawings.

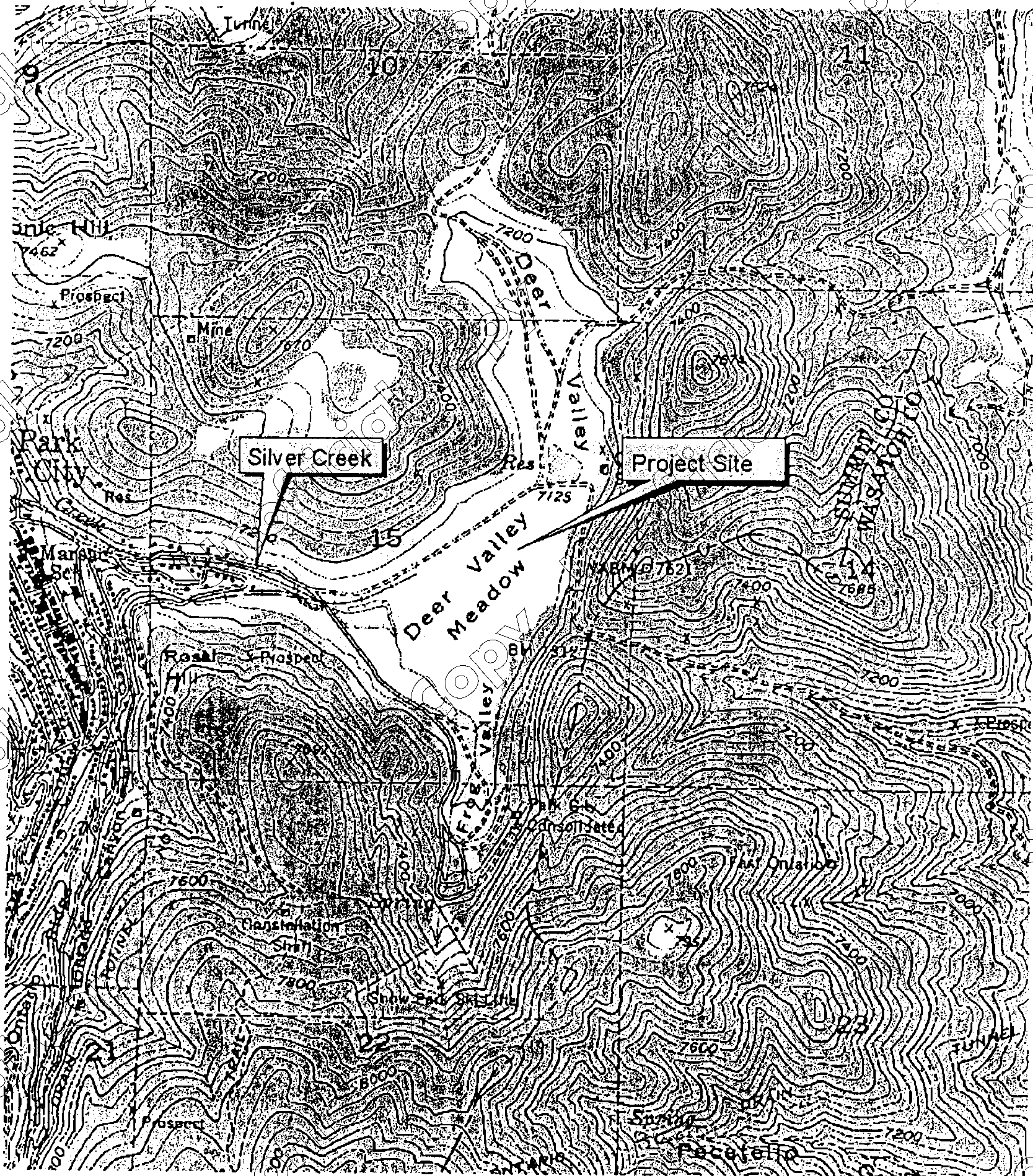
APPLICANT: Silver Baron Partners, LC
c/o Lynn Padan
PO Box 1937
2900 Deer Valley Drive
Park City, Utah 84060

LOCATION: The proposed new mitigation site consists of 3.84 acres of which 2.34 acres are wetland. The site is located in Township 2 South, Range 4 East, Section 15 (Salt Lake Meridian). The approximate street address of the site is 2900 Deer Valley Drive, west of the Lodges in Deer Valley, Summit County, Utah. The UTM coordinates are UTM 12 459703East 4498965 North. The site is bordered to the east and north by Deer Valley Drive, to the south by a series of constructed ponds used for snowmaking by the Deer Valley ski area and to the west by a cement walking trail.

BACKGROUND: A Nationwide 26 permit was granted to Bojer/Deer Valley Multi-Family L.P. in 1995 to fill 0.59 acres of wetlands for condominium development on a parcel located near the Deer Valley Ski Area in Park City, Summit County. Associated with this permit, a mitigation plan was submitted to create 0.52 acres of wetland adjacent to the impacted wetlands with a 0.05 acre tree/shrub buffer around the created wetlands in a 400 foot long by 5 foot wide strip. The mitigation wetland was created on the east side of Deer Valley Drive immediately adjacent to the filled wetland.

The mitigation wetland was created and the buffer zone planted in 1996, while the site was still owned by Bojer/Deer Valley Multi-Family L.P. The Army Corps of Engineers (COE) examined the mitigation site in 1996 and identified that the mitigation had been completed. There was no as-built survey completed in 1996; a 2002 survey identified that 0.645 acres of wetland had been constructed, 0.1 acres more than the plan called for. A subsequent COE site visit in 2002 identified that the buffer zone was non-functional and needed to be re-planted (December 10, 2002 letter from the COE to Snow Park Associates, LLC [now Silver Baron Partners, LC]). Additional mitigation was required to compensate for the lost buffer functions over the past seven years. Silver Baron Partners submitted a conceptual mitigation plan for the compensatory buffer to the COE in July 2003.

Figure 1. Location of the Proposed New Mitigation Site.



Park City East Quad

There were no success criteria or monitoring requirements for the mitigation wetland, and since creation, the wetland has deteriorated. A separate wetland analysis (WWS 2003) identified that the mitigation wetland was dominated by non-native and invasive weeds, upland species and provided low functional value. The long term viability of the wetland is in question. Park City intends to develop a paved trail on their easement immediately adjacent to the wetland which will prohibit planting of a buffer zone. In the near future, the wetland will be surrounded on three sides by high density development, with the potential to further degrade and isolate the wetland.

The COE identified in January 2004 that the wetland created in 1995 was an isolated water feature lacking both a hydrologic connection to a water of the United States and any interstate commerce connection. However, the COE also noted that "in filling the site, you would be in violation of the terms and conditions of Nationwide 26 Permit No. 199450369 issued February 24, 1995. Therefore you would need to recreate the mitigation area to remain in compliance".

PROJECT PURPOSE: The purposes of the project are to: relocate the mitigation wetland to a site with long term sustainability and incorporate the functions of a tree/shrub area within the new mitigation wetland.

ALTERNATIVES: Four alternatives were evaluated to meet to the project purposes.

1. Develop Mitigation at a Site that Historically Contained Wetlands-Acreage Based. This alternative would develop both wetlands and a compensatory buffer within a single site across the street in Deer Valley Meadows (the Meadows). The Meadows is an approximately 30 acre parcel containing a mix of constructed ponds, wetlands and non-native upland grassland. There is little woody species cover and none around the ponds, which are used to some extent by wildlife (e.g., osprey, moose). Historically three tributaries to Silver Creek traversed the Meadows and this area was likely all wetland. The new mitigation wetland would be hydrologically connected to Silver Creek. This alternative would result in the restoration of 0.95 acres of wetland through a berm-based design and the creation of 0.25 acres of mixed upland and wetland tree/shrub habitat. Because of the underlying clay soils, trees and shrubs would be limited to the side slopes and berms of the snowmaking ponds where more loamy soils occur. These areas are predominantly above the wetland water table and would require long term irrigation to survive.

The Meadows is currently owned by the Deer Valley Ski Area and could be subject to condominium development at any time. Under the proposed plan, Deer Valley Ski Area would agree to the mitigation and place it under a deed restriction in perpetuity.

Because of the long term maintenance needed for trees and shrubs, and the artificial nature of bermed wetlands, the applicant does not favor this alternative.

2. Develop Mitigation at a Site that Historically Contained Wetlands-Function Based. This alternative is similar to the first alternative except that woody species would be limited to areas in which wetland hydrology coincides with suitable soils, wetlands would be restored along a

meandering stream channel and associated floodplain, with additional wetland enhancement acreage added to increase the water quality functions of the new mitigation wetland. This alternative would result in the restoration of 0.52 acres of a meandering stream channel and associated wetland floodplain; enhancement of 2.34 acres of existing wetland through weed control, planting of native wetland species and planting of native upland grasses in upland inclusions; and the creation of 0.10 acres of wetland shrub habitat¹.

Overall, the original mitigation would be replaced through restoration at a 1:1 ratio, the original buffer requirement would be replaced at a 2:1 ratio, and existing wetland functions, particularly water quality protection would be enhanced at a 4.5:1 ratio².

This alternative is the applicant's preferred alternative, as it provides for increased water quality benefits in the headwaters of a stream that has downstream water quality problems, and in a self-sustaining system.

3. Pay In-lieu Fees: This alternative would result in Silver Baron Partners paying a fee to the COE in exchange for abandoning the original mitigation site and all associated responsibilities, including the compensatory buffer. The COE would then identify an appropriate mitigation site towards which the money would be applied. A new project would be developed to address these concerns. The amount and location of wetlands to be replaced is not known. Since originally proposed the COE has identified that the in-lieu fee option would not apply to this project and therefore is not feasible.

4. No Action. The No Action alternative would result in no action being taken to plant the buffer zone around the original mitigation wetland, compensate for lost buffer functions or address the degraded state of the current mitigation wetland. This alternative is not feasible as it would result in the Applicant not addressing COE concerns about buffer zone compliance and would likely result in the long term loss of wetland functions through continued degradation.

AREA DESCRIPTION

The proposed new wetland mitigation area is located in the northeast corner of Deer Valley Meadows (Figure 2). It is bordered to the east and north by Deer Valley Drive, to the south by a series of constructed ponds used for snowmaking by the Deer Valley ski area and to the west by a cement walking trail. Stormwater drains traverse the existing marsh wetlands and appear to be in

¹ The approved wetland delineation in the Meadows identified that the wet meadow contained a number of small upland inclusions on slight topographic rises of less than 0.5 feet. The presence of these upland inclusions was acknowledged by the COE.

² The main buffer functions were identified as water quality protection and wildlife habitat. The shift to increase herbaceous over woody species habitat would increase the water quality benefits, as herbaceous species have far greater nutrient transformation capabilities. Having a contiguous 3.84 acre mixed wetland-upland area would reduce human visitation, thereby providing wildlife buffer benefits.

locations historically occupied by Silver Creek tributaries. Water carried through the drains enter adjacent snow-making ponds which outlet into Silver Creek, a tributary of Weber Creek.

The Meadows mitigation area is 3.84 acres in size, of which 2.00 acres consist of wet meadow wetlands³ and 0.34 acres consist of shallow emergent marsh wetlands (delineation approved by the COE on September 23, 2003). Wetlands occur in two topographic locations: along swales fed by stormwater and in adjacent flat areas that may also have some ground water support. Soils in the swales are saturated to the surface and/or inundated. Dominant wetland species include cattail (*Typha latifolia*), wiregrass (*Juncus arcticus*), beaked sedge (*Carex utriculata=rostrata*) and water sedge (*Carex aquatilis*). Species diversity is higher in the wet meadows within the flat with various sedge species (e.g. *Carex lanuginosa*, *C. praegracilis*, *C. microptera*, *C. nebrascensis*), wiregrass (*Juncus arcticus*), checkermallow (*Sidalcea neomexicana*) and meadow barley (*Hordeum brachyantherum*). The wet meadows in the flats also contain a large component of noxious and/or invasive weeds such as creeping and bull thistles (*Cirsium arvense*, *C. vulgare*) and smooth brome (*Bromus inermis*).

The hydrology appears to be a mix of ground water and stormwater run-off. Current hydrology for the wetland swales is provided by stormwater runoff through two stormwater drains (Drains B and C) both of which run directly into the adjacent pond without much filtering.

Based on a 30-year period of record (1971-2000), the average snowmelt run-off through Drain B is 6.7 acre-feet per year. The average precipitation run-off from May 1 to September 30 through Drain B is 5.3 acre-feet. The current annual wetland consumptive water demand is estimated as 0.72 acre-feet, resulting in the majority of the annual run-off flowing directly into the pond. The average snowmelt run-off through Drain C is 18.8 acre-feet per year. The average precipitation run-off from May 1 to September 30 through Drain C is 18.1 acre-feet. The current annual wetland consumptive water demand within the wetland swale is estimated as 1.98 acre-feet, resulting in the majority of the annual run-off flowing directly into the pond.

The upland portions of the Meadows mitigation area are dominated by two upland grasses smooth brome and sheep fescue (*Festuca ovina*). Together these two grasses comprise more than 90% of the upland vegetative cover. Neither species is native, and smooth brome is considered an undesirable and invasive species.

³ As previously noted, the wet meadow does contain a number of upland inclusions.

Figure 2. Location of the Relocated Mitigation Wetland within the Deer Valley Meadows.



PROJECT DESCRIPTION:

MITIGATION GOALS

The Meadows mitigation will focus on restoring and enhancing a mix of wetland shrub, wet meadow, and shallow emergent marsh adjacent to existing open water habitats at the headwaters of Silver Creek. Specific objectives will be to:

- Enhance 2.0 acres of existing wet meadow by removing noxious weeds, planting of native wetland species, planting of native upland grasses on small upland inclusions, and linking the wet meadow to the new channel and the existing shallow marsh.
- Develop 0.10 acres of wetland shrub habitat where soils are suitable and provide other components to enhance wildlife and water quality functions.
- Enhance 0.34 acres of wetland by reducing the input of potential pollutants through the repair of existing sediment catch basins and by installing an oil and grease separator at culvert C.
- Restore 0.52 acres of meandering channel and floodplain in a historic location to increase the interaction of vegetation with storm water runoff before the water enters the Silver Creek system.

PROJECT FEATURES

(1) Enhance 2.0 acres of wet meadow by removing noxious weeds and planting additional native wetland species.

Weed control: The existing wet meadow is diverse but is being encroached upon by a number of noxious, invasive or otherwise undesirable species. The species of greatest concern are smooth brome (*Bromus inermis*) and thistles (*Cirsium* spp.). This area will be enhanced by treating weeds and replanting with native species that are both fast growing and highly rhizomatous (i.e., able to hold their space against any new invasion of noxious weeds). Although weedy species are scattered throughout the wet meadow area, they are most concentrated in the drier southern portion of the wetland and adjacent upland (labelled as transition wet meadow) on the enclosed map. Therefore, weed control and planting efforts will be most intense in this 0.65 acre area.

Control of smooth brome will require chemical treatment through Rodeo, which is an aquatic-approved herbicide. Because Rodeo can also harm desired native plants species, it will be hand applied or backpack sprayed with a no-drift nozzle along with an innocuous dye to monitor any potential drift. Additional Weed Control Specifications can be found in Appendix B.

Plant wetland vegetation: Wetland plants will be placed in the areas treated for weeds, approximately 2 weeks following weed control. Species to be planted in the wet meadow area need to meet the following requirements: (1) be rhizomatous, fast establishing, competitive species (2) tolerant of a seasonally high, and fluctuating hydroregime, (3) able to establish on silty-clay soils, (4) adapted to an elevation of 7,000 feet, and (5) are similar to native species that occur in the less disturbed wet meadow area. Because few species that meet these requirements are available as plugs, both broadcast seeding and planting of plugs will be used. Species to be planted will include Nebraska sedge and wiregrass (*Juncus arcticus*) as plugs and meadow barley (*Hordeum brachyantherum*), small wing sedge (*Carex microptera*) and saltgrass (*Distichlis stricta*) as seeds. Plug planting and seeding will occur according to the general procedures described for the channel construction area. Table 1 provides a list of the species and amounts to be planted. Detailed planting specifications are provided in Appendix C.

(2) Develop 0.10 acres of wetland shrub habitat where soils are suitable and provide other components to enhance wildlife and water quality functions.

Plant Wetland Shrubs. The current soils throughout most of the mitigation site consist of a tight upper clay layer, which will prohibit deep rooted woody species from growing. The exceptions are along the lower berm edges of the adjacent snowmaking pond. Shrubs will be planted along the berm in all locations within 18 inches of the water table so that the shrubs will be maintained by the existing wetland hydrology and not artificially irrigated. This will result in approximately 0.10 acre of shrub habitat along the berm. Shrubs will be planted as dormant bare root stock. Species will include those shrub species which occur in the Meadows vicinity: Booth's willow coyote willow, and/or yellow willow, depending on availability. See Table 1 and Appendix C for additional planting details.

Provide other functional components. Upland islands in the existing wet meadow are currently dominated by smooth brome. The smooth brome will be chemically treated, as described in Appendix B and the upland islands seeded with Great Basin wild-rye (*Elymus=Elytrigia cinereus*) at a rate of 40 Pure Live Seeds (PLS) per square foot. Great Basin wild-rye readily established from seed, already occurs in the Meadows area, and as tall bunchgrass (up to 3+ feet in height) will provide a unique habitat niche within the Meadows. Seeding will occur as described in Appendix C.

Table 1. Wetland Planting Specifications.								
Community Type/Planting Area	Scientific Name/Symbol	Wetland Status	Stock Type	Center Spacing	Distribution	Cover by Species	#/Acre	Tot #
Wetland shrub (.10 acres)	Salix exigua (Saex)	OBL	dormant	5 ft	intermixed and staggered in 3 rows	50%	2012	100
	Salix boothii (Sabo)	OBL	bare root	10 ft		50%	550	25
Emergent marsh (.34 acres)	No planting; original wetland sod to be replaced after sediment removal							
Wet meadow (.65 acres)	Carex nebrascensis (Cane)	OBL	4-10" non dormant	3 ft	clumped in weed control patches	15%	5588	500
	Juncus arcticus (Juar)	FACW	plug or equivalent	3 ft		15%	5588	500
	Deachampsia caespitosa (Deca)	FACW				4%	5588	200
	Distichlis spicata (Disp)	FAC+	Seed	NA	clumped in weed control patches	20%	NA	NA
Sedge channel (.52 acres)	Hordeum brachyanterum (Hobr)	FACW-		NA	in upland inclusions	10%	NA	NA
	Leymus cinereus (Leci)	FAC-	Seed	NA				
	Carex rostrata (Caro)	OBL	4-10" non dormant	3 ft	even along the channel banks	15%	5588	500
	Carex lanuginosa (Cala)	OBL	plug or equivalent	3 ft		15%	5588	500
	Carex nebrascensis (Cane)	OBL		3 ft		15%	5588	500
	Eleocharis palustris (Elpa)	OBL		3 ft		5%	5588	150
	Carex rostrata (Caro)	OBL	Seed	NA	even along the channel banks	NA	NA	NA
Carex nebrascensis (Cane)	OBL							
Distichlis spicata (Disp)	FAC+							
Hordeum brachyanterum (Hobr)	FACW-							
Triticum aestivum x Elytrigia elongata (RG)	FAC?							

Table 2. Seed Mix Specifications.			
Area	Species	Target Rate	Seed Mix (Total # lbs)
Wet Meadow	Distichlis spicata	40 PLS/sq. ft., split evenly	0.2
	Hordeum brachyanterum		1.3
Wet Meadow- Upland Inclusions	Leymus cinereus	40 PLS/sq. ft.	1.0
New channel/ floodplain	Carex rostrata	20 PLS/sq. ft.	0.3
	Carex nebrascensis		0.25
	Distichlis spicata		0.1
	Hordeum brachyanterum		0.5
	Triticum aestivum x		Regreen at cover crop rate
	Elytrigia elongata		

(3) Enhance 0.34 acres of wetland downgradient of culvert C by eliminating the input of potential pollutants associated with stormwater run-off.

Repair/clean-out existing sediment basins at the outlet of culvert C: Three existing sediment basins within Deer Valley Drive leading into culvert C have not been maintained for more than 10 years. These basins will be cleaned out and any necessary repairs made to ensure that the basins can function as intended. The exact nature of the repairs to the concrete catch basins, if any are needed, will not be determinable until the sediment is removed. The basins are all within the road prism and all activities will occur on either the road or adjacent concrete sidewalk. The accumulated sediment will be removed off-site and will not be stockpiled adjacent to the mitigation wetland.

In addition to cleaning out the sediment basins, the outlet of culvert C is currently blocked by sediment. The accumulated sediment will be removed to a depth of about 0.62 feet for a distance of between 20 to 35 feet along the existing wetland channel. Excavation will occur between the culvert outlet and cross-section 10 (see figure 3 for a location of cross sections) to expose the pipe outlet and unplug it. Less than 1 cubic yards of accumulated sediment would be removed. This material would be removed off-site.

The accumulated sediment will be removed according to the following procedure. Prior to sediment removal, the wetland vegetation and upper roots will be cut and laid back, similar to a roll of sod. Following sediment removal, the "wetland sod" will be laid back into its original location, although at an elevation lower than originally. This process will temporarily disturb up to 0.01 acres of wetlands.

Wetland sod stripping, sediment removal, and replacement of the wetland sod is anticipated to occur over a period of less than one week (5 consecutive days). During the time the sod is stockpiled, it will be covered and kept moist or wet.

Any wetland sod remaining after the sediment has been removed will be stockpiled, covered, kept moist or wet and used to line the new channel.

As a result of the sediment excavation, channel slope will be reduced slightly between the culvert outlet and cross section 10 but remain unchanged downstream of culvert 10 (figure 4). A gravel blanket will be placed at the outlet(s) of the weir to protect against scour during high flows. This will be accomplished by the addition of approximately 1 yard of washed gravel (2-4" diameter; 6" depth) into the channel bed that is then pressed into the bed material (silty clay) to the current elevation. Under most flow conditions, shear stresses and flow velocities will be very low (i.e., approximately 1.27 ft/sec). Bed scour under these conditions will be negligible.

Install an oil and grease separator upgradient of the culvert C outlet: A "snout" type oil and grease separator will be placed within the cement catch basin outlet pipe upgradient of the culvert C outlet into the wetland. The catch basin grate is located in the west shoulder of Deer Valley Drive. If the snout can not be installed by accessing the catch basin outlet pipe through the basin grate, installation

access will be accomplished by removal and replacement of the sidewalk between the catch basin and the culvert C outlet. There will be no equipment or materials within the mitigation wetland during the snout installation. Appendix D provides typical snout installation specifications.

(4) Restore 0.52 acres of meandering channel and floodplain in a historic location to increase the interaction of vegetation with storm water runoff before the water enters the Silver Creek system.

Channel Construction overview. A meandering channel, similar to what historically occurred in the Meadows will be constructed to the north of the existing wetland swale (see Figure 3). This channel will not replace the existing wetland swale, but will be used to develop additional wetland area adjacent to, and north of, the existing wetlands. The existing swale will be maintained so that it can continue to provide hydrologic support for existing wetlands and convey storm water runoff.

Splitting of Channel Flow. The new channel will begin upstream of cross-section 10, approximately 10-20 feet from the outlet of culvert C. Flow between the existing and new channels will be distributed evenly during low flow events (approximately 0.033 cubic feet per second; 15 gallons per minute) by construction of two weirs - one outlet weir to each channel. Each weir will have a compound structure consisting of a smaller section to convey low flows and a larger section to convey high flows up to the flow capacity of culvert C. Because the low flow volumes are small, weir dimensions and the elevation of weir crests need to be precise in order to maintain hydrologic support of the existing and proposed wetlands.

In order to maintain existing channel dimension and wetland area, the proposed outlet elevation of the low-flow weirs is 7115.50 feet. This elevation maintains the existing channel grade and hydrologic support to existing wetlands.

The weir structure will have dimensions of approximately 6 feet wide by 10 feet in length by 2 feet high (0.001 acres), and require a fill volume of 0.6 to 3.0 cubic yards. Figure 5 depicts a typical weir cross section. The low flow weirs will have the same dimensions so that flow is split equally between for flows up to about 0.4 cfs. The weir to the existing channel will be larger so that at high flows, more water will be conveyed by the existing channel than the constructed channel. Material used to construct the weir will consist of steel, treated wood, concrete, washed angular rock, or some combination of these materials.

The exact elevation of the culvert outlet will not be determinable until the sediment surrounding it is removed. Therefore, the weir location and dimensions may be modified slightly during construction, but modifications will be within the proposed footprint. Any construction modifications will be identified on the as-built surveys.

The base of the weirs will be higher than the culvert invert by 0.62 feet, resulting in partial obstruction of the culvert outlet. To minimize this effect, the weir will be constructed at a distance of 10-20 feet away from the culvert and the weir to the existing channel will be slightly oversized.

Appendix A contains a detail of the weir-outlet specifications.

Wetland Floodplain Creation. Creating 0.52 acre of new wetland requires converting all of the upland area north of the existing channel and west of cross section 10 to wetland. Because of the present topography and water table relations, it is unlikely that constructing a channel without re-grading the site will result in the desired wetland extent. Excavation of only about 0.25 feet, on average, is needed in order to create the same channel-wetland-water table relations that exist in the present wetland. Excavation would also place the new wetland at the same elevation as the existing wetland. (See Appendix A for cross-sections).

Re-grading will start approximately at the line of cross-section 10. As already described, excavation equalizes the elevations of the constructed and existing wetland. Some enhancement of the transitional wetland is expected because of the new water source. The total amount of material to be excavated is approximately 200 ± 30 cubic yards.

Channel Features. The constructed channel will be smaller than the existing channel. Proposed dimensions are 12-18 inches (2.0 feet) wide and 4 inches to 6 inches (0.33 feet to 0.5 feet deep) at construction. Re-vegetation will contract the channel slightly. Final channel width can be as low as 6 inches (0.5 feet) and still carry the necessary base flow.

The primary function of the constructed channel is to provide water for establishment of wetland vegetation over the maximum area possible. Making the channel sinuous (channel length up to 2.0 times the straight line length) will help maintain an expanded wetland area over a straight channel and will flatten the gradient relative to the existing channel. Allowing for some irregularity in the channel sinuosity, the radius of curvature will vary between 12 and 20 feet. Average channel slope will be 0.0047 ft/ft. Because flow velocities in the new channel will be very low, after vegetation is established, it is possible that the channel will be mostly obscured so that water will flow over a wider area during larger runoff events.

Beginning at cross-section 9, the constructed channel will have the same bottom elevation as the existing channel as determined from the existing cross-sections #1-9. By cross-section, channel bottom elevations are approximately (nearest 0.1 feet) as follows:

Table 3. Average Post Construction Elevations (ft.) along Each of the Wetland Cross Sections For the New Channel and Floodplain. (See Figure 3 for the locations of cross sections).										
	XS10	XS9	XS8	XS7	XS6	XS5	XS4	XS3	XS2	XS1
New Channel	7115.5	7115.5	7115.4	7115.3	7115.0	7114.6	7114.3	7113.6	7113.5	7113.4
New Floodplain	7117.0	7116.2	7116.1	7115.9	7115.7	7115.3	7115.2	7114.7	7114.6	7114.5
Ave Floodplain Excavation Depth	0	0.25	0.30	0.20	0.25	0.50	0.20	0	0	0

Appendix A depicts the existing and proposed elevations within the new wetland channel and floodplain area. Channel construction may require some minor field adjustments to the proposed grades. Any such adjustments will be documented in the as-built designs submitted as part of the year 1 monitoring report.

Weed Control. The soil within in the channel construction area will be removed off-site along with any weeds/weed seeds in the upper profile. However, as with any soil-disturbing activities, there is the potential for weedy species to establish on the bare soil. The potential for noxious weeds to establish in the construction area will be limited by the following measures:

- Channel and floodplain construction will occur in September when soils are at their driest and after many weedy species have shed their seed,
- Control of weedy species will be conducted on the adjacent areas to minimize the potential for weed seed dispersal, and
- A wetland cover crop will be seeded immediately to allow initial plant establishment until the wetland plugs can be planted in the spring.

In spite of these measures, some weedy species may establish in the new channel area. The degree to which this may occur can not be predicted. Therefore the Year 1 monitoring report as well as the 2006 spring monitoring will be used to establish the criteria for any subsequent weed control. Species of concern will likely be smooth brome and creeping thistle.

All chemical treatment will proceed according to the specifications in Appendix B.

Planting. The combination of the new channel and adjacent floodplain excavation is anticipated to provide a permanently saturated condition in 0.52 acres of former upland. The channel banks and floodplain will be seeded immediately after construction with a mix of sedges and native grasses along with a sterile rye cover crop. This initial seeding will be supplemented by planting a mix of sedge species suited to both high elevation and silty clay soils, and which already occur on-site in the existing wetland swales. Species to be planted include Nebraska sedge (*Carex nebrascensis*), beaked sedge (*Carex rostrata*) and woolly sedge (*Carex lanuginosa*). These species will be planted as plugs according to the specifications in Table 1 and Appendix C.

Plug planting will be scheduled for early spring 2006, as soon as snow has melted sufficiently to allow soil preparation.

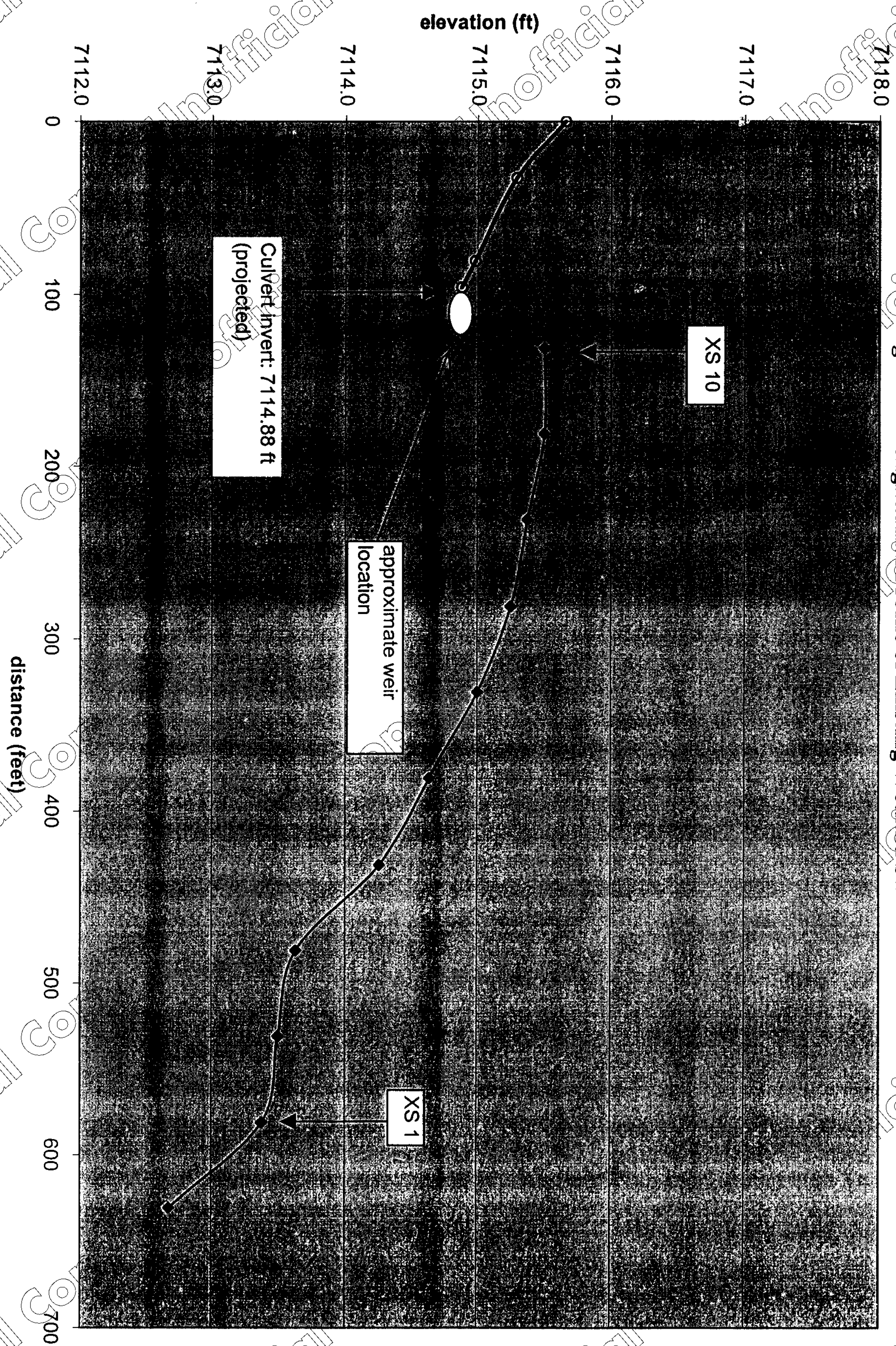
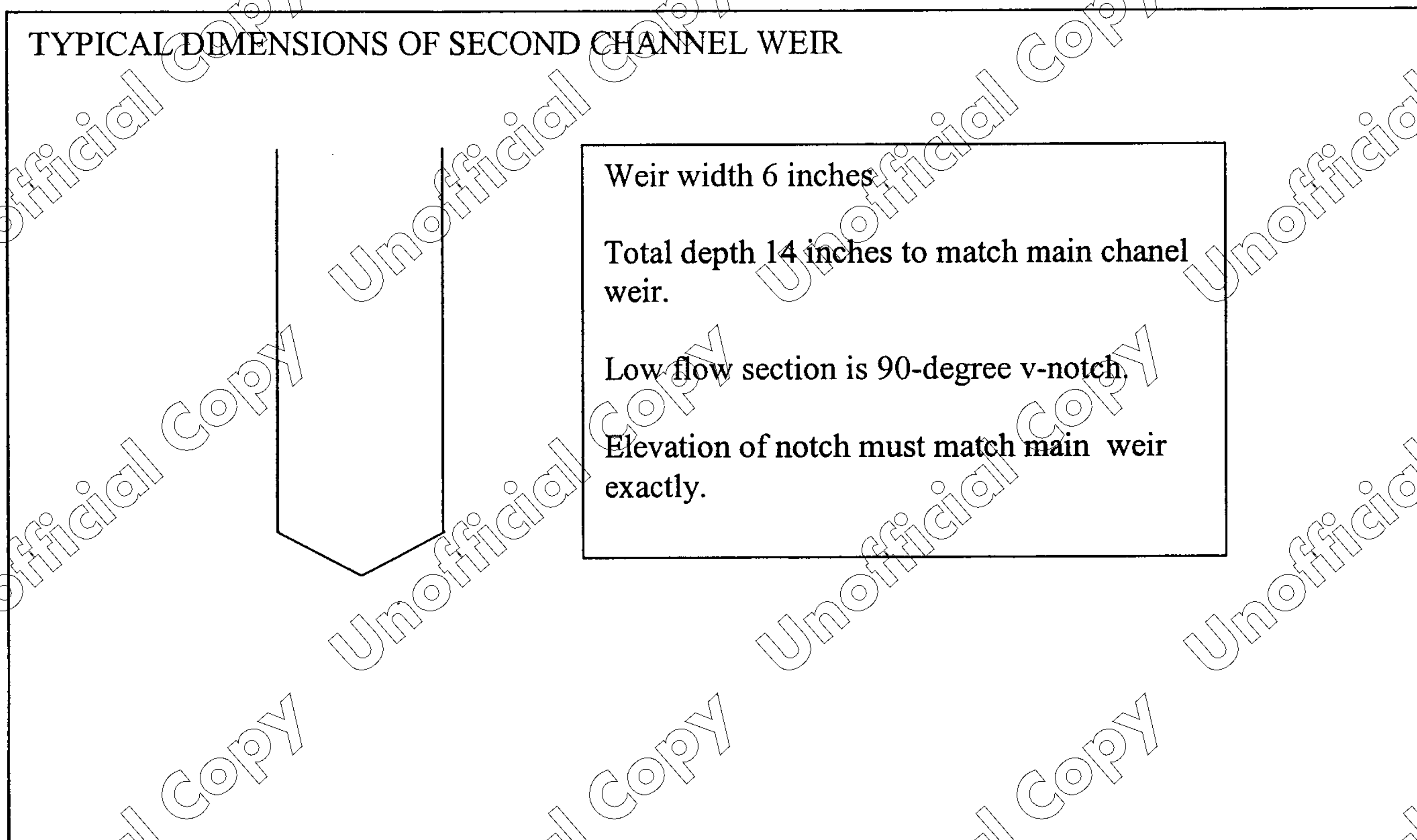
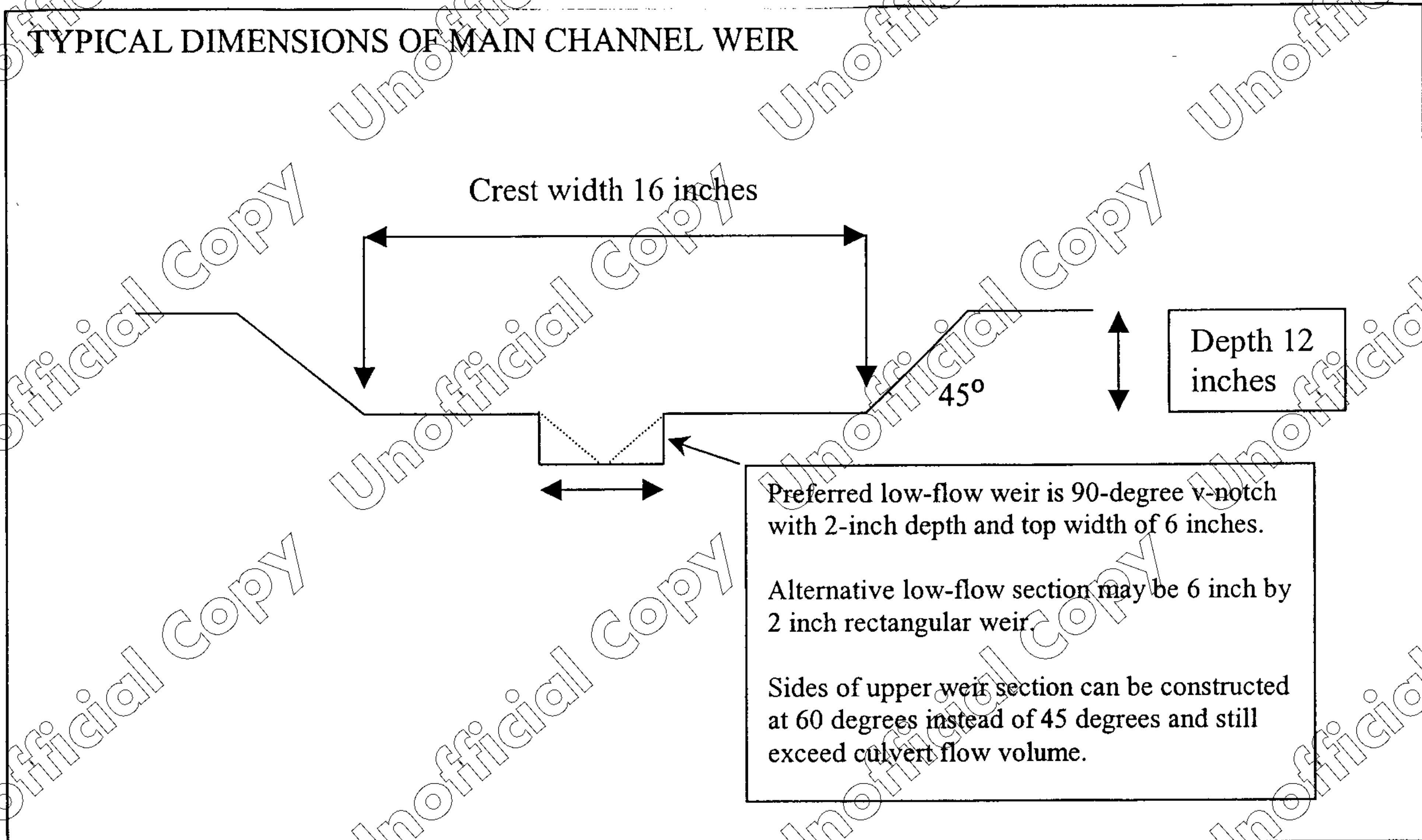


Figure 4. Longitudinal Profile of Existing Wetland Swale.

Figure 5. Typical Weir Dimensions.



MONITORING PLAN

Overview

A monitoring plan will be established to evaluate the success of the restoration in meeting the overall restoration goals of:

- Enhance 2.0 acres of existing wet meadow by removing noxious weeds, planting of native wetland species, planting of native upland grasses on small upland inclusions, and linking the wet meadow to the new channel and the existing shallow marsh.
- Develop 0.10 acres of wetland shrub habitat where soils are suitable and provide other components to enhance wildlife and water quality functions.
- Enhance 0.34 acres of wetland by reducing the input of potential pollutants through the repair of existing sediment catch basins and by installing an oil and grease separator at culvert C.
- Restore 0.52 acres of meandering channel and floodplain in a historic location to increase the interaction of vegetation with storm water runoff before the water enters the Silver Creek system.

The monitoring will be most intense during year 1 to (1) ensure that appropriate hydrologic conditions exist and that no additional grading or soil treatments are necessary, (2) evaluate the success of the initial planting, and (3) identify the need for supplemental planting, supplemental watering or other contingency measures.

Although, there are no specific hydrologic goals, hydrologic conditions will be documented during each monitoring visit to ensure that the proposed water sources are sufficient to allow plant establishment or if additional watering is necessary. This will be particularly important if establishment is occurring in a drought year.

Monitoring will continue through the entire five year monitoring period or as needed thereafter to ensure that success criteria are met. The specifics of the monitoring plan for each parameter are listed below. Direct measures of wildlife and water quality functions will not be collected. Instead the monitoring will focus on measuring those structural components that have been documented in the literature as being important components in providing wildlife and water quality functions.

Evaluation of the goals will be measured by a mix of as-built surveys, photopoints and collection of data along line intercept transects, with nested plots for herbaceous species monitoring, and collection of sedimentation data.

Vegetation data will be collected along transects. Four transects will be established along existing cross sections in a north to south direction across the Meadows mitigation site. The endpoints will be marked for repeat monitoring. During monitoring, vegetation type, dominant species, shrub vigor and height will be recorded each time a species intercepts the transect line. Along with the line intercept measurements for vegetation type and shrub cover/frequency, a series of random nested herbaceous plots will be placed along each transect outside of the wetland shrub area. Plots will be 0.50 m² in size and a minimum of 10 plots per transect will be placed, with a minimum of 10 plots within each herbaceous wetland type. This data will subsequently used to compare total per cent cover, cover by species frequency, and type of distribution to the targets established in the mitigation plan. In addition, a revegetation of each wetland area will be conducted to identify weed species cover.

Year 1 data will be collected once in the spring (pre-construction data for the channel/floodplain areas and post-construction assessment in the enhancement and buffer areas) and once in September following channel construction (all areas). In year 2, data will be collected in the spring (April to May depending on snowmelt date) and late summer (August), with a qualitative review during mid-summer (late June-early July) to ensure that any plant establishment, hydrologic problems or weed control issues can be addressed as soon as possible. Thereafter, monitoring will occur annually during August, unless the first two years's data shows that supplemental or correctional measures are necessary to ensure success. Table 3 summarizes the target goals, types of data to be collected and the frequency of collection. In addition to these parameters photopoints will be established at the end of each transect, for a total of 10 photopoints. Photo-documentation will occur pre-construction, post construction and annually thereafter.

The overall goal in year 1 will be to remove weedy species, and ensure that suitable hydrologic conditions exist for subsequent plant growth. New plants typically expend more energy in root growth rather than shoot growth in their first year and therefore the year 1 cover is expected to be lower than cover in subsequent years.

Data Analysis

Vegetation data collected along transects will be analyzed statistically using a statistical software program able to conduct both parametric and non-parametric tests (e.g., SYSTAT, Statgraphics, SAS). All data will first be analyzed for normality; if not normal, transformations to achieve normality will be attempted. If the data can be normalized, the actual site data will be compared to the pre-construction reference data to identify any significant differences between the two data sets. If the data can not be normalized an appropriate non-parametric test shall be substituted.

Annual monitoring reports will be submitted by Silver Baron to the COE and Deer Valley following the end of the growing season and by the end of the calendar year.

Table 3. Summary of Data to Be Collected During Monitoring. Data Is Listed by Restoration Goal and Monitoring Parameter.

Parameter	Monitoring Unit	Data Unit	Success Criteria	Data Points	Monitoring Frequency
Goal#1: Remove noxious weeds and plant native species in the existing wet meadow.					
Native species cover	per cent cover along transects	per cent cover	not significantly different from cover in the wet meadow area lacking noxious weeds (80%)	minimum of 10 plots	twice during years 1 and 2 and annually, thereafter
Goal# 2: Establish a wetland shrub/upland grass buffer					
As-Built Survey	survey of shrub area	acres	0.10 acres of wetland shrub	NA	at the end of the monitoring period
Native species cover in the wetland SS	per cent cover along line intersect transects	per cent cover	80% cover in the willow SS	# of hrs/ transect	twice during years 1 and 2 and annually, thereafter
Native grass	# plants, % cover within individual islands	per cent cover, counts	Native grasses replace smooth brome	full count up to 10 islands	twice during years 1 and 2 and annually, thereafter
Goal#3: Reduce potential input of stormwater runoff pollutants into the Silver Creek System					
As-Built Conditions	survey/documentation of repair work conducted	engineering records	repair meets engineering standards	NA	at end of construction
Sediment accumulation	measurement of sediment at established point downstream of weir outlet	inches of sediment	no measurable sediment input from culvert C	2	3 times year 2 and annually thereafter
Native species cover in the wetland following sediment removal	per cent cover along transects	per cent cover	not significantly different from pre-disturbance cover (approx 80%)	minimum of 10 plots	twice during years 1 and 2 and annually, thereafter
Goal#4: Restore 0.52 acres of meandering channel and floodplain to increase water-vegetation contact					
As-Built Survey	survey of channel/floodplain wetland	acres	0.52 acres of wetland	NA	twice once at the end of construction and once at the end of the monitoring period
Native species cover in the new floodplain	per cent cover along transects	per cent cover	not significantly different from pre-disturbance cover in the existing floodplain (80%)	minimum of 10 plots	twice during years 1 and 2 and annually, thereafter

Project Schedule

The proposed project will proceed according to the following general schedule.

- Weed control and planting (seed and plugs) of the wetland enhancement area: April 2005 (depending on timing of snowmelt)
- Woody species planting (bare root): April 2005 (depending on timing of snowmelt and availability of dormant bare root stock)
- Installation of erosion control measures for sediment removal and new channel construction: August-September 2005, 1 week prior to any physical construction
- Physical construction measures around culvert C: September 2005, sequenced in the following order, all to occur within 1 week:
 - Sediment removal from outlet pipe,
 - Sediment basin repair/snout installation,
 - Final outlet pipe adjustments (if any)
 - Weir construction
- New channel construction: September 2005
- Seeding of the new channel/floodplain area: September 2005
- Plug planting in the new channel/floodplain area: April 2006
- Initiate monitoring plan: April 2005

PROJECT IMPACTS

Development of the Meadows mitigation wetland would have only very minor wetland impacts. There would be less than 0.01 acres of temporary impacts associated with cleaning of culvert C, and 0.003 acres of permanent impacts associated with the weir used to divide flow among the two wetland channels. Permanent impacts are largely limited to the existing sediment basin footprint.

The temporary impacts around culvert C would be mitigated by removing the upper "wetland sod" prior to construction, storing the "sod" under damp to wet conditions and then replacing the sod following the construction. Impacts would also be minimized by limiting the time period during which the work could take place to less than 5 consecutive working days.

Development of the Meadows mitigation wetland would result in some permanent impacts to existing wetlands through construction of a weir to separate flow into the two channels. This impacts would be less than 0.003 acres.

Overall, there would be a net increase of 0.62 acres of wetland habitat, a net gain in functions on 2.34 acres of wetland, a net reduction in sediment input to Silver Creek, and maintenance/enhancement of an additional 0.88 acres of upland buffer habitat.

Avoidance, Minimization, Compensatory Mitigation Measures. This purpose of the proposed project is to develop a mitigation wetland that can be viable over the long term by restoring historic wetlands, so that while there are some very minor impacts associated with the Meadows mitigation wetland, there is no compensatory mitigation proposed for the mitigation. Complete avoidance of the existing wetlands is not practicable as the purpose is to expand the wetlands from channelized swales into a larger wetland system which will require some existing wetland disturbance. Additionally, removal of sediment from the existing wetlands will require some temporary disturbance. However, numerous measures have been incorporated into the project to avoid and minimize impacts to existing wetlands. These are listed below.

- Temporary impacts to wetlands through accumulated sediment removal around culvert C will be minimized by limiting the time period during which this work can be done (i.e., avoidance of wet periods, all work completed within 5 working days), use of cofferdams or straw bale barriers to prevent downstream sedimentation, and removal and replacement of original wetland sod in the temporary disturbance area.
- During work around culvert C, the wetland will be temporarily dewatered, with flow diverted and/or pumped around the outlet into the lower wetland area. Given the typical low flow anticipated during September, this will likely be accomplished through the use of a cofferdam (plastic liner and straw bales) to collect flow into a 4" plastic drain pipe. The drain line will extend below the construction zone to approximately cross-section 2. If necessary to prevent erosion, the drain line can be extended to the culvert at the downstream end of the project.
- Long term impacts to wetlands will be avoided by repairing existing catch basins above the current inlet to prevent future sedimentation and by installing an oil and grease separator.
- Silt fences will be installed along the southern boundary of the existing wet meadow and the northern boundary of the existing wetland swale between cross section 10 and cross section 3. Silt fences will be maintained throughout the duration of the project. The fences will remain in place until 70% of the target vegetative cover is achieved.

Cumulative Impacts. The upper Silver Creek Basin has been affected over time, first by mining and then by various developments. The total amounts and types of wetlands affected by these historical activities is unknown. The proposed project will not offset historical wetland losses, but will provide an increase in wetlands in the headwaters of Silver Creek that will assist in water quality protection to a greater degree than the original mitigation wetland.

OTHER AUTHORIZATIONS REQUIRED

Utah General Storm Water Construction Permit-in preparation
Deer Valley consent for deed restriction - granted
Park City grading permit -in preparation

ADDITIONAL INFORMATION

Cultural Resources: James L. Dykman of the Utah State Historic Preservation Office (SHPO) was consulted regarding the potential impacts of the project to cultural resources within the project area. According to Mr. Dykman, no known historic properties have been recorded in the project area. The potential for finding cultural resources in the area of potential impact by the project is considered by SHPO to be low and additional surveys for such resources are not recommended (Appendix E).

Threatened and Endangered Species: The US Fish and Wildlife Service identified that the bald eagle (*Haliaeetus leucocephalus*) and the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) may occur within the project area (Appendix E). The Meadows mitigation site currently provides no perching or foraging habitat for the bald eagle. The snow-making ponds could provide foraging habitat as other fish-eating birds have been observed using the ponds. The establishment of woody vegetation adjacent to the ponds could provide perching habitat for bald eagle, providing a potential benefit, but there would be no impact to existing habitat as there is none.

The yellow billed-cuckoo nests in riverine woodlands with dense shrubby understory. There is no such habitat in the Meadows mitigation site, and the proposed mitigation, although developing scrub-shrub habitat, will not provide scrub-shrub patches of sufficient size to develop habitat for the yellow billed-cuckoo. There would be no impact, either beneficial or adverse on the species.

Preconstruction Photographs: Pre construction photographs of all areas were taken by the COE in September 2003 and will be taken as in 2005 as part of the 5-year monitoring plan.

Adjacent Landowners/Other Interested Parties: The following list identifies the landowners adjacent to the mitigation site and other known interested parties:

Eric DeHaan, City Engineer
Park City Municipal Corporation
445 Marsac Avenue
Park City, UT 84060

**APPENDIX A
PRE AND POST CONSTRUCTION WETLAND AND CHANNEL CROSS SECTIONS**

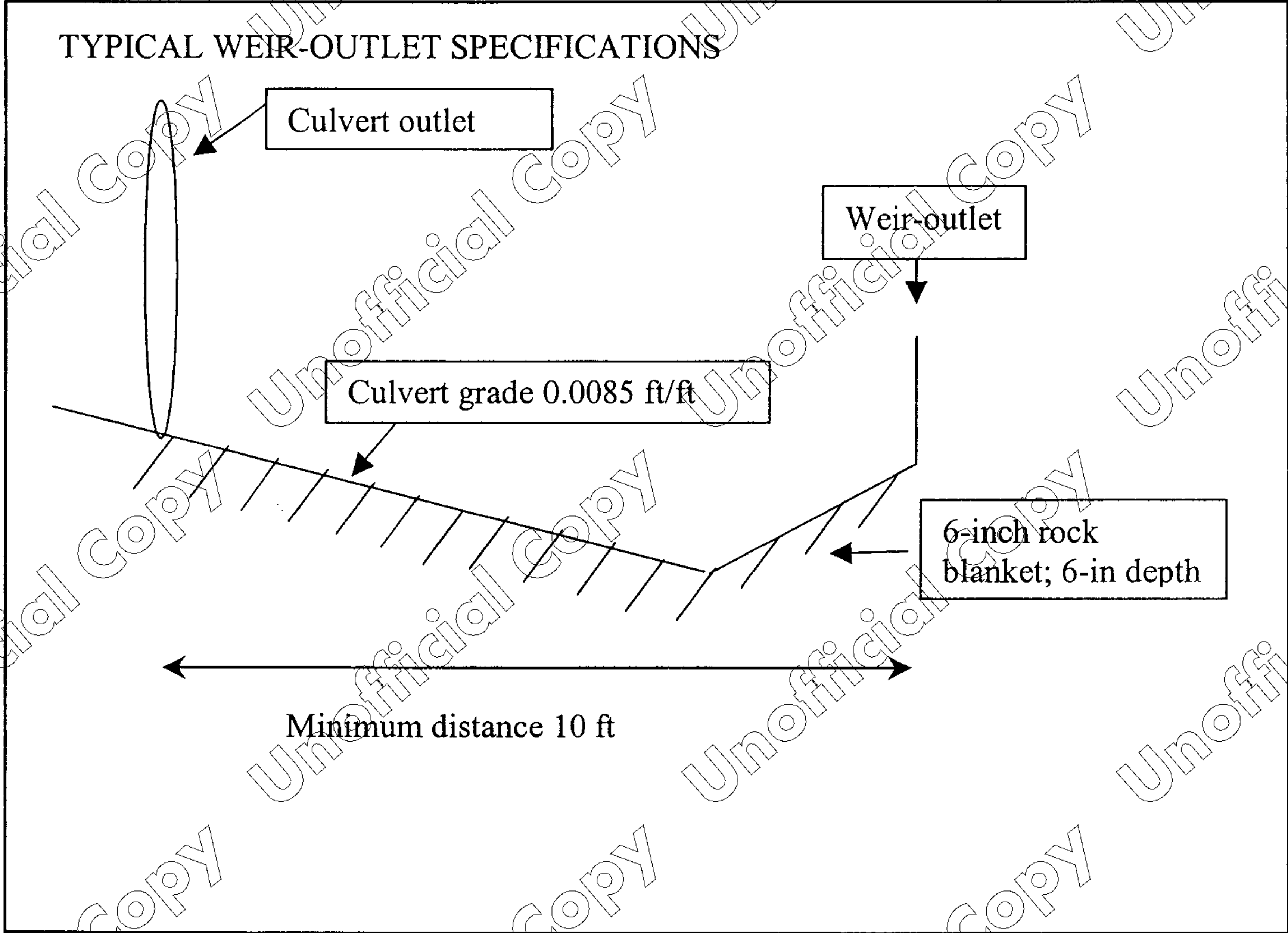
Legend

The dotted line depicts the existing ground surface

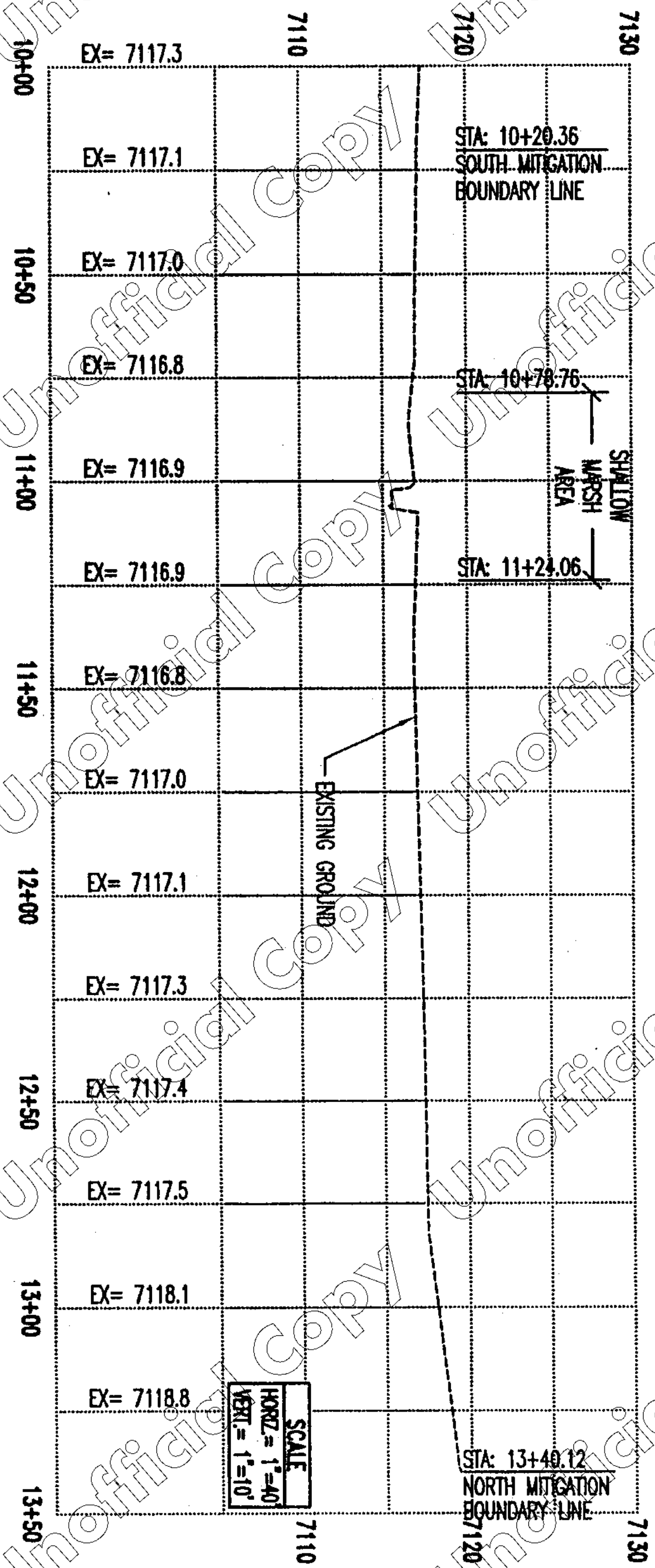
The solid line depicts the post construction floodplain surface

The solid box indicates the location of the new channel

No wetland/floodplain construction will occur along cross sections 10, 3, 2 or 1

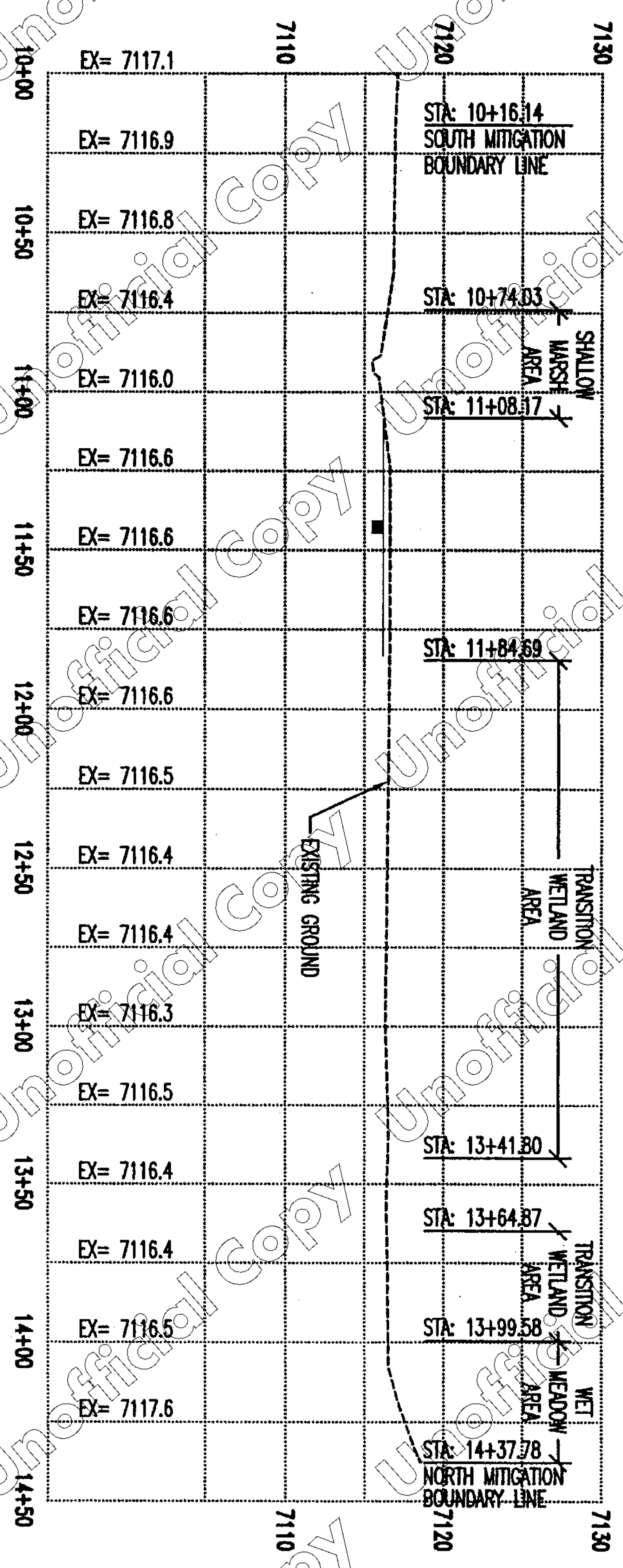


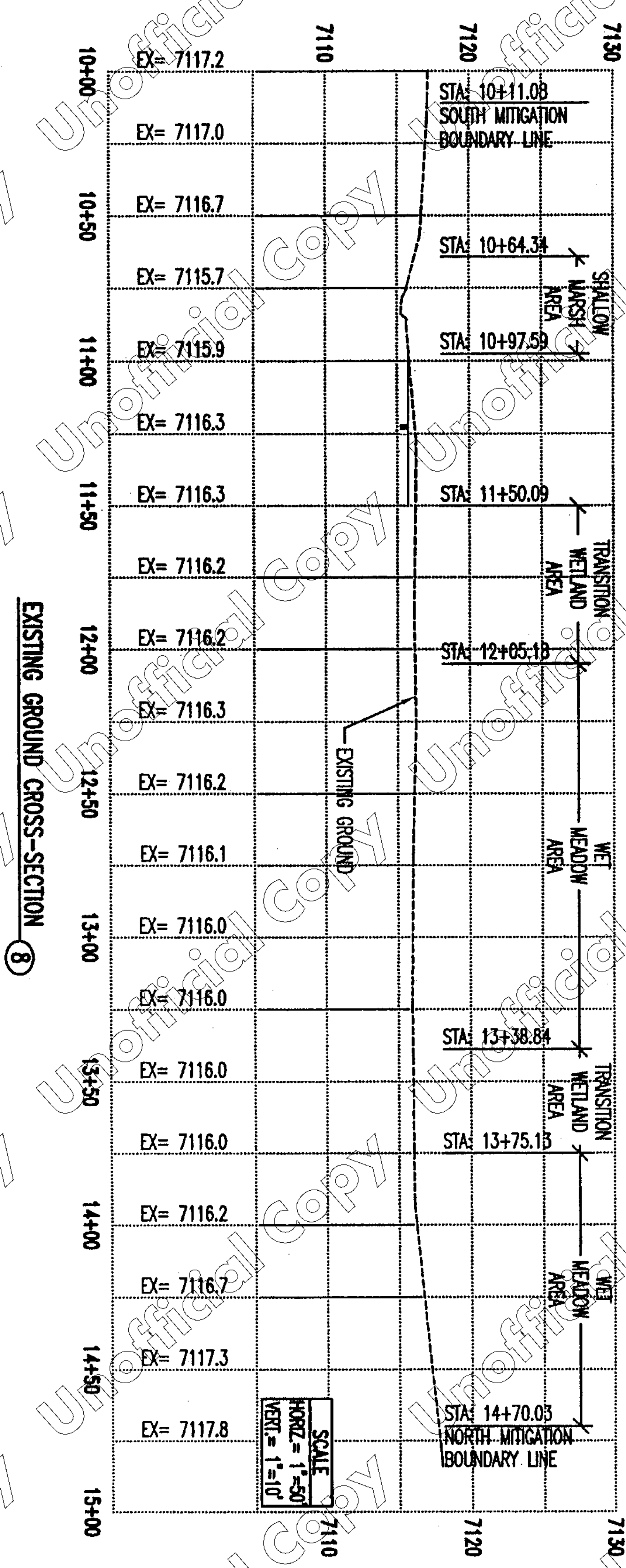
EXISTING GROUND CROSS-SECTION ⑩



SCALE
HORIZ = 1"=40'
VERT = 1"=10'

EXISTING GROUND CROSS-SECTION ⑨

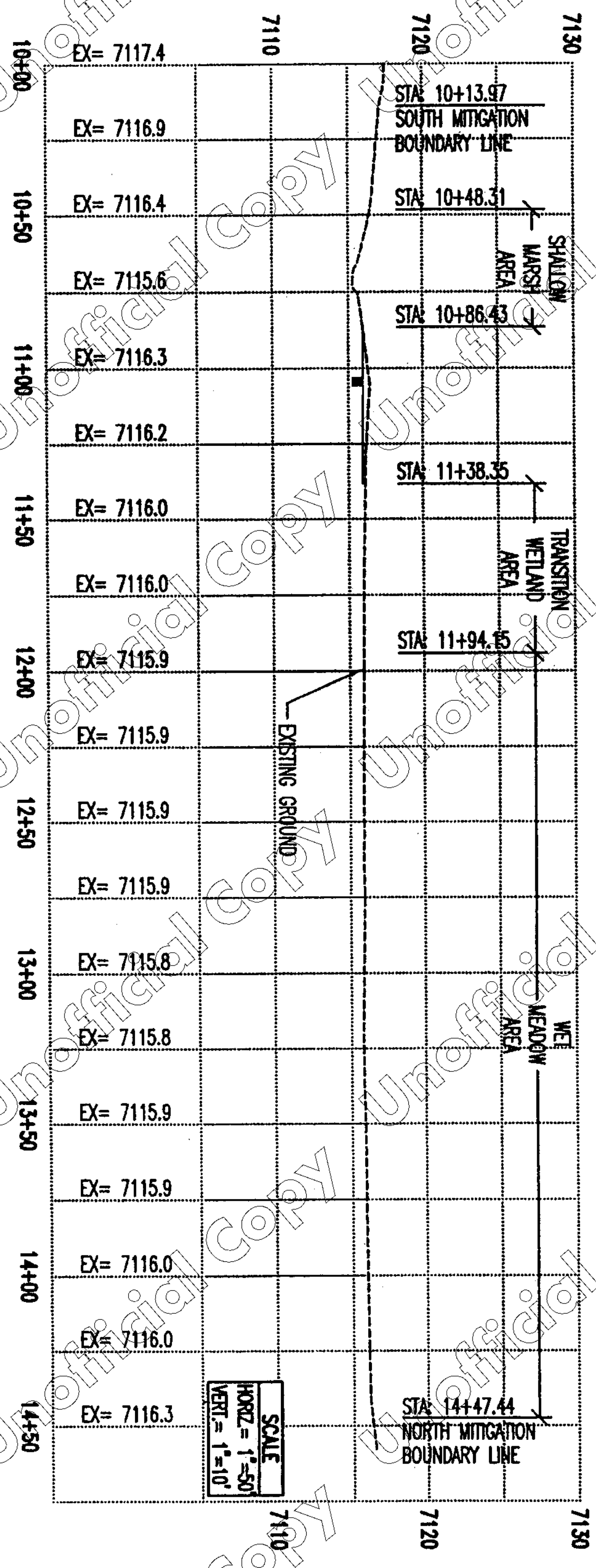




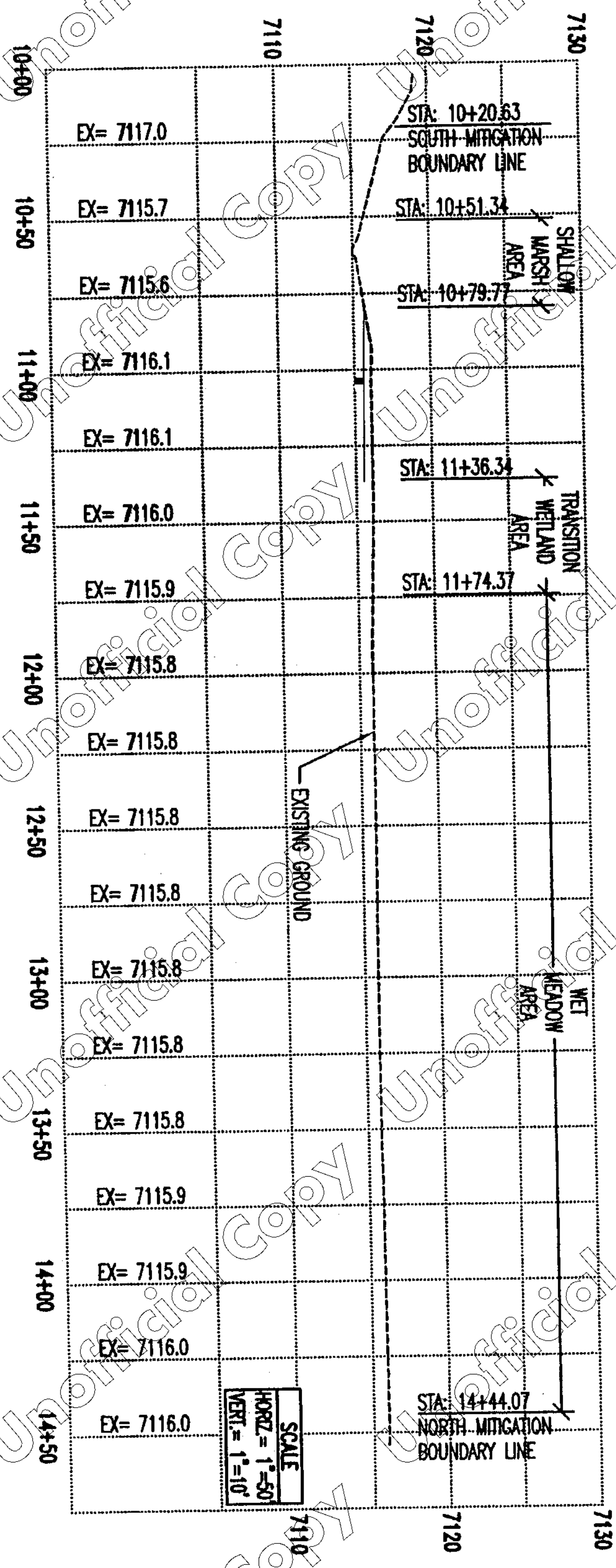
EXISTING GROUND CROSS-SECTION 8

SCALE
 HORIZ. = 1"=50'
 VERT. = 1"=10'

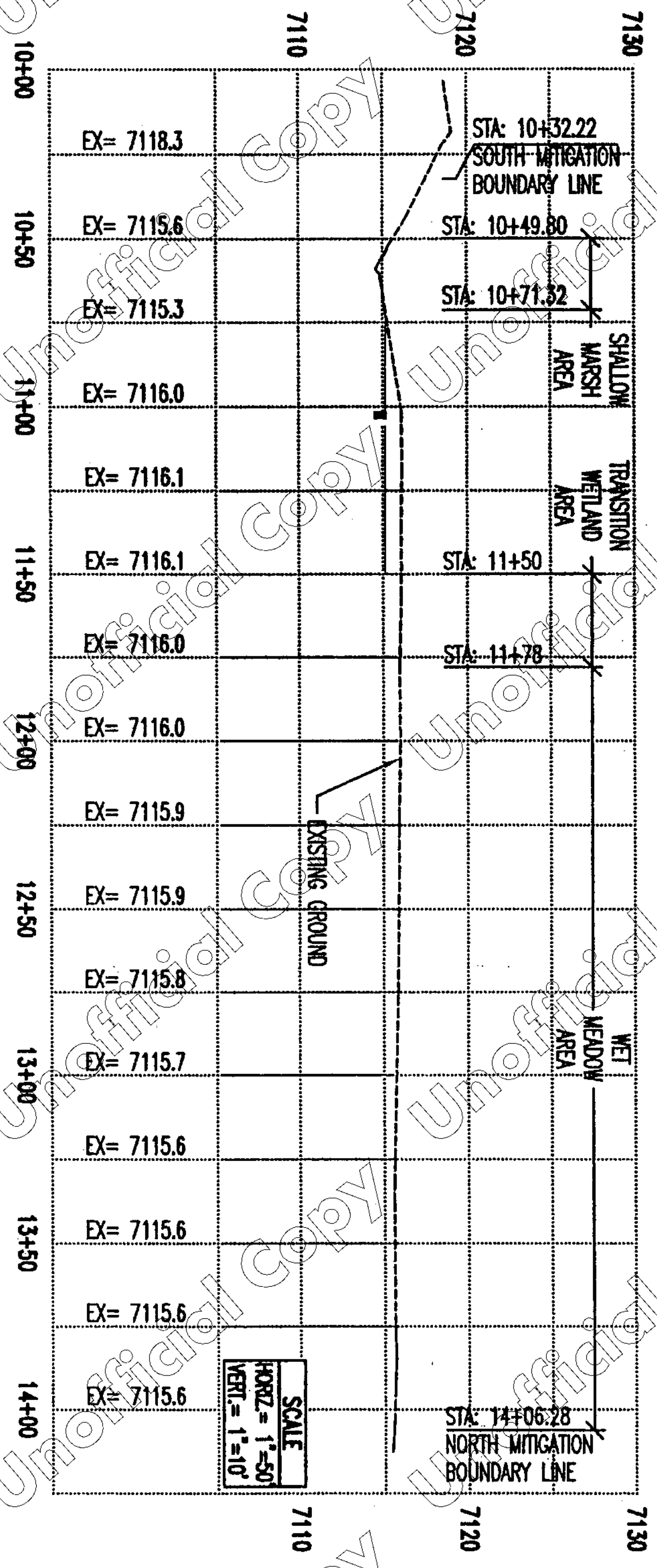
EXISTING GROUND CROSS-SECTION ⑦



EXISTING GROUND CROSS-SECTION ⑥

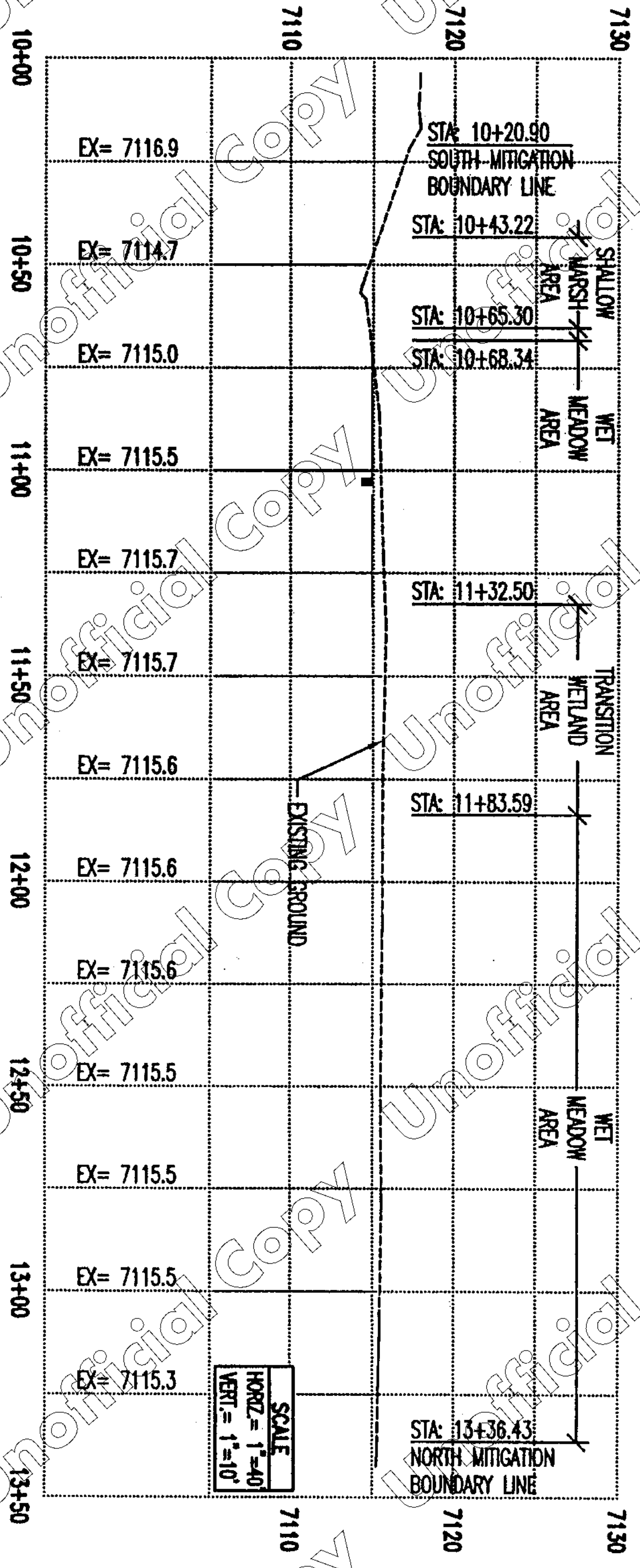


EXISTING GROUND CROSS-SECTION ⑤



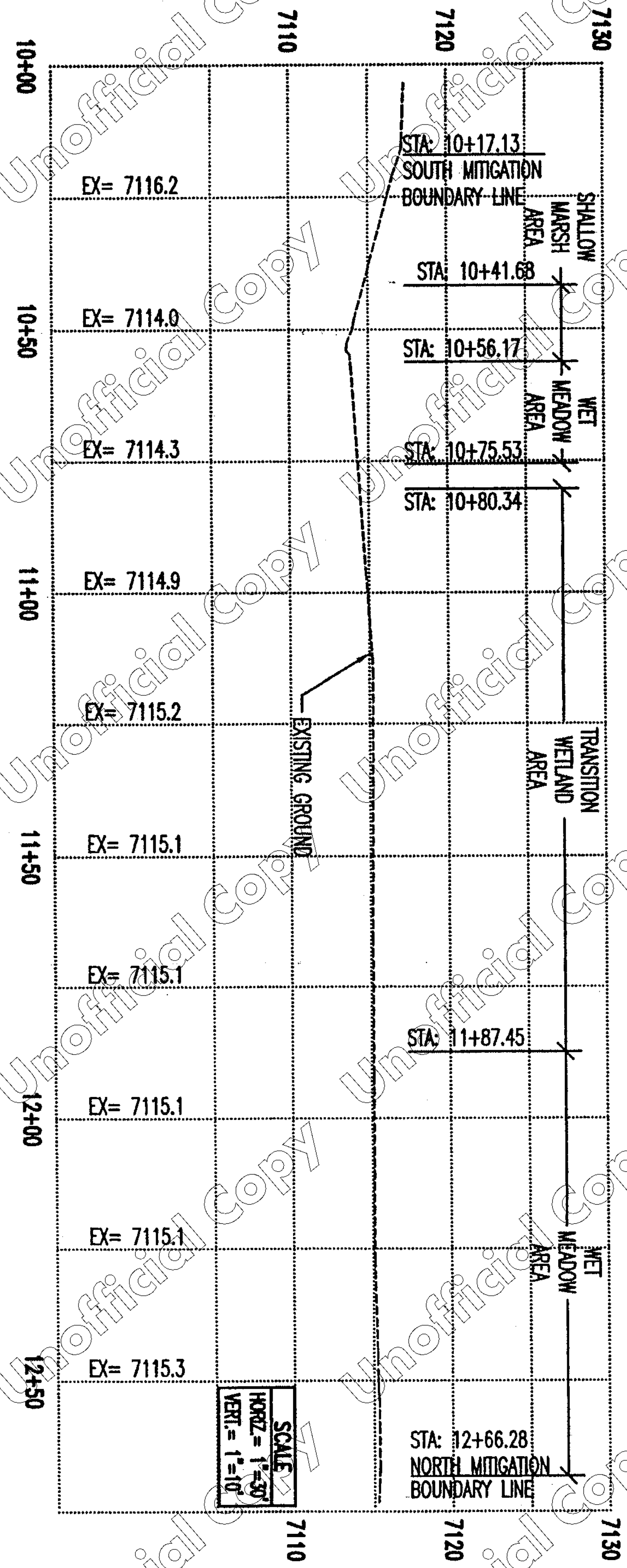
SCALE
 HORIZ. = 1"=50'
 VERT. = 1"=10'

EXISTING GROUND CROSS-SECTION 4



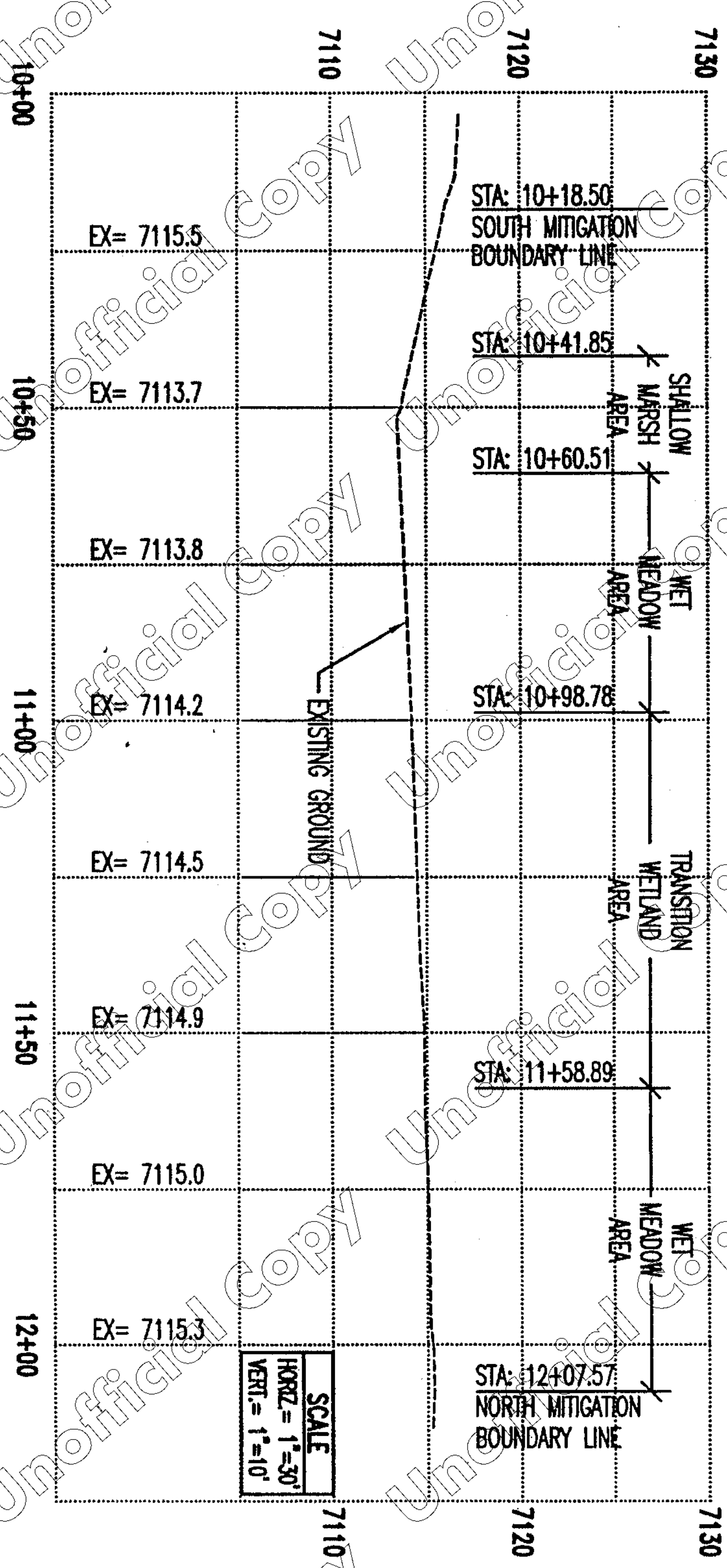
SCALE
HORIZ = 1"=40'
VERT = 1"=10'

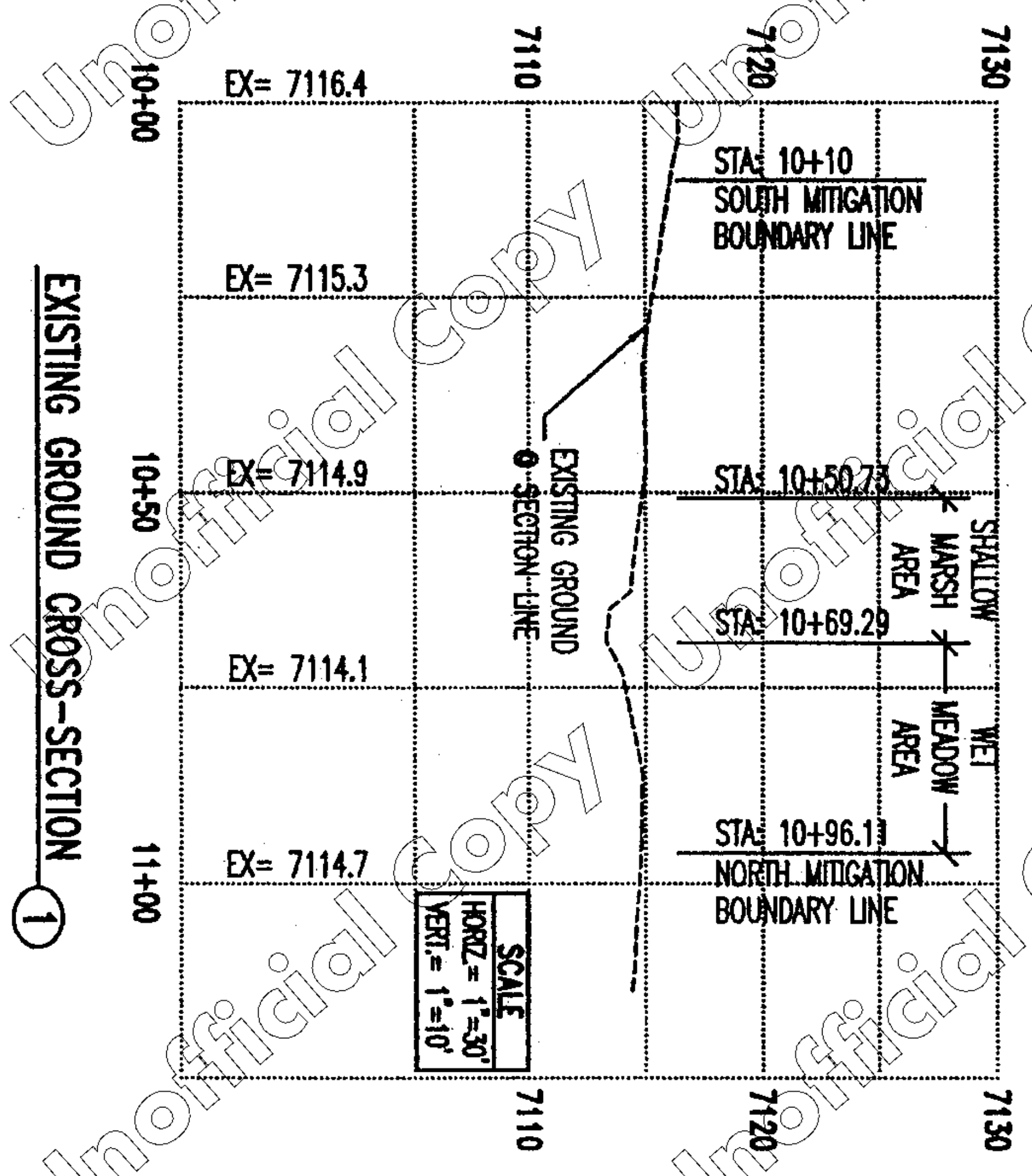
EXISTING GROUND CROSS-SECTION 3



SCALE
HORIZ. = 1" = 30'
VERT. = 1" = 10'

EXISTING GROUND CROSS-SECTION ②





APPENDIX B. WEED CONTROL SPECIFICATIONS

“Weed control” shall mean removal of all plant species listed as noxious by the State of Utah and smooth brome, which is being considered for listing.

Enhancement Area: Weed control shall include the following activities: initial chemical treatment of smooth brome and thistles in the wetland enhancement area though Rodeo, which is an aquatic-approved herbicide. Because Rodeo can also harm desired native plants species, it will be hand applied or backpack sprayed with a no-drift nozzle along with an innocuous dye to monitor any potential drift. The contractor is responsible for ensuring that no drift enters the adjacent wetland areas. Spraying can not be performed under conditions with winds more than 10 mph nor can it occur within 24 hours of a precipitation event.

The contractor shall be responsible for monitoring the success of the first application and submit a short report as to success within 30 days of the first spray date. This report will include dates of spray, concentration, wind speed, pre and post spray weather conditions within 48 hours on either side of the spraying date, and estimated ocular per cent kill. The report will be signed by either the Site Manager or the Wetland Specialist as to its accuracy of treatment conditions and to verify the estimated “weed kill”.

The initial treatment will be conducted in early spring 2005, with the exact treatment date to be determined based on the spring phenology. Chemical effectiveness is temperature and precipitation-dependent. Therefore, the wetland specialist will coordinate with the contractor to determine the appropriate spray timing in relation to the spring snow melt period and air temperature patterns. In no circumstances will be the Contractor enter the site for spraying without 1 week’s notice to the Wetland Specialist and without 24 hours notice to the Site Manager

Because both smooth brome and creeping thistle can be difficult to control, with one treatment, a second chemical treatment may be necessary. A second treatment would be applied after planting of native species, be only conducted with a backpack sprayer, unless otherwise authorized by Site Manager and Wetland Specialist and in accordance with the above conditions (with a no-drift nozzle along with an innocuous dye to monitor any potential drift. The contractor is responsible for ensuring that no drift enters the adjacent wetland areas. Spraying can not be performed under conditions with winds more than 10 mph.

All herbicides must be applied by registered pesticide applicators certified by the Utah Department of Agriculture.

Channel Construction Area:

The soil within in the channel construction area will be removed off-site along with any weeds/weed seeds in the upper profile. However, as with any soil-disturbing activities, there is the potential for weedy species to establish on the bare soil. The potential for noxious weeds to establish in the construction area will be limited by the following measures: Channel and floodplain construction

in September when soils are at their driest and after many weedy species have shed their seed, control of weedy species on the adjacent areas to minimize the potential for weed seed dispersal, and seeding of a wetland cover crop over the winter until the wetland plugs can be planted in the spring.

In spite of these measures, some weedy species may establish in the new channel area. The degree to which this may occur can not be predicted. Therefore the Year 1 monitoring report as well as the 2006 spring monitoring will be used to establish the criteria for any subsequent weed control. Species of concern will continue to be smooth brome and creeping thistle.

All chemical treatment of the channel construction area will proceed according to the specifications listed for the wetland enhancement area.

MEADOWS MITIGATION WETLAND WEED CONTROL REPORT

Date of Treatment:

Area Treated: Wet Meadow Transition Meadow New Channel Construction

Target Species:

Chemical/Concentration Used:

Wind Speed (note if estimated or measured):

Precipitation within 48 hours of Treatment? Yes/No; If Yes, note date and amount from nearest weather station

Estimated Per Cent Kill:

Weed Control Specialist

Site Manager or Wetland Specialist

APPENDIX C. PLANTING SPECIFICATIONS

Species chosen to be planted within each habitat were based primarily on local and/or historic presence in the Silver Creek watershed and tolerance of current soil and water conditions. Additional factors used in species choice included local availability, and competitive ability against noxious or invasive species that might establish post-construction. Except for the initial cover crop, only native species were selected.

Materials Definitions

(A) Nomenclature: All plants shall be true to name according to Welsh et al. (2004) unless otherwise listed on the Plans. No hybrid species are allowed. The Contractor shall supply certification from the suppliers that the plants supplied are the plants specified or agreed to under substitution. No compensation shall be made for materials or the cost of installation for plant species that are not specified.

(B) Plants: Plant materials shall conform to **one or more** of the below categories for the stock type shown on the plans, as determined by the Agent. Additional information concerning the characteristics of the stock, including the minimum size of the plant stock shall be as shown on the plans. If approved in writing by the Agent, tubling stock or peat pots **may** be considered acceptable substitutes for plugs. If approved in writing by the Agent, container pots **may** be considered acceptable substitutes for poles and/or bare-root stock. All stock shall be free of seed and vegetative propagules of *Phragmites* (common reed), *Lythrum salicaria* (purple loose strife), *Typha* (cattail), and sweet clover (*Melilotus* spp.)

Non-Dormant Stock: All non-dormant plants shall be healthy and vigorous with well-developed leaf, stem and root systems. New root systems of cleaned plants shall be fresh and turgid with a bright color, not blackened. Plants shall appear without significant deleterious leaf spots, leaf damage, leaf discolorations, chlorosis, leaf wilting or curling, disease, or evidence of deleterious insect infestation that could adversely affect the survival or performance of the plants, as solely determined by the Agent. Types of non-dormant stock include sprigs, peat pots, plugs, tublings, and containers.

Dormant Stock: Dormant shall be defined as plant materials that are in an over-wintering condition, cold hardy, and that are not actively producing new leaf or stem tissues. Dormancy shall not be defined by proposed planting dates or windows. It is the sole responsibility of the Contractor to ensure that when dormant materials are specified, the plants meet this definition.

The diameter of the stock shall be defined as the average length of the long and short center axes of the stock, as determined by the Agent. When examined, the plants shall exhibit live buds or shoots. All stock, including the buds and shoots, shall be turgid, firm and resilient. Soft or mushy stock including the shoots and buds shall be rejected. The stock shall be free of significant deleterious insect infestation and disease that could adversely affect the survival or performance of the plants, as solely determined by the Agent. Bare-root and poles shall be planted as dormant stock.

Plugs and Tublings: All stock shall comply with the requirements for non-dormant stock, detailed under this section. Plugs and tublings shall be propagated and grown in cells and not as bedded plants. The size and dimensions of the plugs shall be as specified on the plans for each species. The extracted root system of the stock shall conform to the shape and dimensions of the growing cells without sloughing soil or growth media, as determined during the on-site inspection. Materials not conforming to the dimensions of the cell may be rejected without compensation. The extracted root systems shall have the majority of the roots in vertical orientation. If the horizontal roots are thick and flattened and the root stays in a thick net the shape of the original cell when the media is shaken loose, the plant may be determined to be "pot bound" and shall be considered unacceptable stock.

Bare-root and poles: Bare-root and pole stock shall conform to the criteria for dormant stock.

Seeds: Seeds shall be fresh, free of deleterious material and disease, and delivered to the site in the original, unopened bags showing a certified net weight, date of germination tests, supplier's name and certified guarantee of analysis including the composition, purity and germination percentages, and percent weed seed. Seed shall not contain any noxious weed seed. At the time of delivery, the germination test shall be less than nine (9) months old. The Agent reserves the right to conduct germination tests for each bag. The Agent's germination tests shall be the final determination of percent germination. Analysis sampling and testing of the seed and seed tag labeling requirements shall be done in accordance with the Rules and Regulations for Testing Seeds adopted by the Association of Official Seed Analysts.

Seeds shall be supplied on the basis of Pure Live Seed (PLS). These seeds shall be supplied as full seed mixes as indicated on the plans. As specified on the plans or contained within this specification, seed mixes shall be collected from an approved genus/species list with minimum (PLS) percentage standards for each of the various groupings. When specified, the seed shall conform to the minimum percent purity, minimum percent germination, and maximum weed seed percentage requirements. Pure Live Seed is defined by the formula:

$$\text{PLS} = (\text{Percent Purity of the Seed} \times \text{Germination Percentage})/100$$

It is the sole responsibility of the Contractor to supply approved seed that meets the percent germination and percent purity requirements. All storage requirements including fungicide treatments and stratification considerations shall be the sole responsibility of the Contractor.

Seed mixes shall be as specified in Table 2 or as shown on the plans.

When legumes are included in the seeding mix, a legume inoculant shall be utilized in the seeding program. This inoculant shall be a pure live culture of nitrogen-fixing bacteria selected for maximum vitality and for the ability to transform nitrogen from the air into soluble nitrates and deposit them in the soil. All containers of inoculant shall be fresh and unopened, with the manufacturer's expiration date. Inoculant shall not be used later than the expiration date indicated on the container. The type of inoculation shall be targeted at the legumes within the mix, as

Seeding operations shall be initiated and completed within the seeding dates indicated for each of the mixes. The Contractor shall notify the Agent at least forty-eight (48) hours in advance of the time he/she intends to begin sowing seed and shall not proceed with such work until permission to do so has been obtained.

(B) Seed Handling: Plant materials shall be delivered to the site only after preparations for planting have been completed. During all operations, seeds and seed bags shall be kept covered, shaded and out of direct sunlight. Seeds shall not be stored or temporarily stored in locations or vehicles where the temperature will be in excess of 90°F. Legume inoculant shall be refrigerated until immediately prior to use. At no time shall the inoculant be exposed to direct sun or temperatures in excess of 70°F. Inoculation of the seed shall occur immediately prior to commencing the seeding operation. If approved by the Agent, inoculation may occur within a window 24 hours prior to the seeding with the requirement that the seed be temporarily stored at a temperature of less than 75°F. For all seeding protocols, inoculant shall be utilized at twice the rate indicated on the packaging.

(C) Seeding: Seeding shall consist of no-till broadcast seeding with minimal or no additional site preparation.

All seeding operations shall be initiated and completed within the seeding window shown on the plans or as specified herein. Seeding shall not be done during periods of rain, severe drought, excessive moisture, frozen grounds, wind speeds greater than 10 miles per hour or other conditions that preclude satisfactory results.

After receiving the approval of the Agent for the seed, the seed mix shall be thoroughly and completely blended with inert materials until a homogeneous mixture is achieved, subject to approval of the Agent. The mixing of the seed mix with the inert material shall be by volume with one part seed mix to three parts medium sand.

Where legume inoculants are required, the seed and inoculant shall be mixed immediately prior to the incorporation of the inert materials.

Following mixing of the seed with the inert materials, the seed/inert material mixture shall then be uniformly and evenly broadcast over the designated areas at a density that shall achieve a minimum of 40 pure live seeds per square foot, as solely determined by the Agent. Following the seeding, the seed shall be incorporated into the soil to a minimum depth of one-quarter inch (¼") and a maximum depth of 2 ½ times the seed diameter. This incorporation shall occur through hand-raking.

Areas to be seeded shall be maintained at current grades.

Hydro-seeding may be substituted for broadcast seeding upon written approval by the Agent.

Plug Planting

(A) Plant Handling: Plants shall be scheduled for shipping so that the plants arrive at the construction site or designated delivery location no earlier than 24 hours prior to the anticipated planting date for those specific plants. Each shipping container shall be clearly labeled as to species, quantity, lift date and packing date. Transit time from the plant source/nursery to the construction site or designated delivery point shall be direct and shall not exceed 24 hours or as approved by the Agent. The plants shall be stored on site in a shaded location or in a well-ventilated vehicle during which time the material shall be kept from freezing and kept covered, **moist, cool**, and out of the wind and sun.

With the permission of the Agent, the period of on-site storage may be extended if the Contractor can demonstrate to the Agent's satisfaction the ability to store the materials on site without damaging the viability of the plant materials. However, it is the sole responsibility of the Contractor to ensure that the plants are properly stored.

Unless directed by the Agent, plants shall be handled, culled and sorted in a shaded location. If insufficient natural shade does not exist, shade shall be erected by the Contractor using tarps or other materials approved by the Agent.

If wind speeds exceed ten (10) miles per hour, a wind barrier shall be erected immediately adjacent to the stockpiling area. Whenever appropriate, the wind barrier shall be re-located or re-positioned to protect the quality of the stock. The construction of wind barriers or shade or the use of thermal-reflective tarps shall be incidental to this item and no additional compensation to the Contractor shall be made by the Department.

(B) Plant Installation Period: After plant delivery to the construction site or to the designated delivery location, all dormant plant material shall be installed within 8 hours and all non-dormant plant material shall be installed within 16 hours. During this period, it is the sole responsibility of the Contractor to ensure that the soil is kept saturated and the plants are not desiccated, as solely determined by the Agent.

(C) Setting Plants: Plugs will be planted under moist to wet soil conditions as typically occurs during spring snowmelt. Plugs shall be placed on 3' centers or as otherwise identified on the plans or in Table 1 and planted with the top of the soil surface of the plug flush with the existing ground. Holes 4" deep (for 4" plugs) and 10" deep (for 10" plugs) are to be prepared with a dibble or similar bar or instrument, and one rooted plug placed in each hole. All stock shall be planted upright. Each plug shall be settled and have surrounding soil compacted by hand, so that roots and soil are covered by compacted site soil. If soils are dry at the time of planting, the Contractor will be responsible for watering the plugs after planting.

Wetland Shrubs

All wetland shrubs shall be planted as dormant stock. Only enough plants shall be delivered to the site to be planted within one day. Additional plants shall be stored in a cool, shaded location. During planting, roots shall be kept moist and protected from any exposure to sun or wind.

Planting holes shall be dug just big enough to accept the plant root ball, approximately 1 foot in diameter and 2 feet deep. The stock shall be planted immediately after the hole is dug so that it doesn't dry out. The surrounding vegetation shall be scalped back within the planting basin. Plants shall be installed so that the root crown is level with the existing grade. Ensure that roots are spread out and hang straight down in the hole, not clumped together, horizontal or curled back upward. Compact the soil around the root ball to eliminate air pockets. The root ball shall be covered with $\frac{1}{4}$ inch of soil, so that no nursery soil is showing, to prevent wicking and drying of root ball.

APPENDIX D

SNOUT INSTALLATION SPECIFICATIONS

SITE DESIGN RECOMMENDATIONS FOR THE SNOUT WATER QUALITY IMPROVEMENT SYSTEM

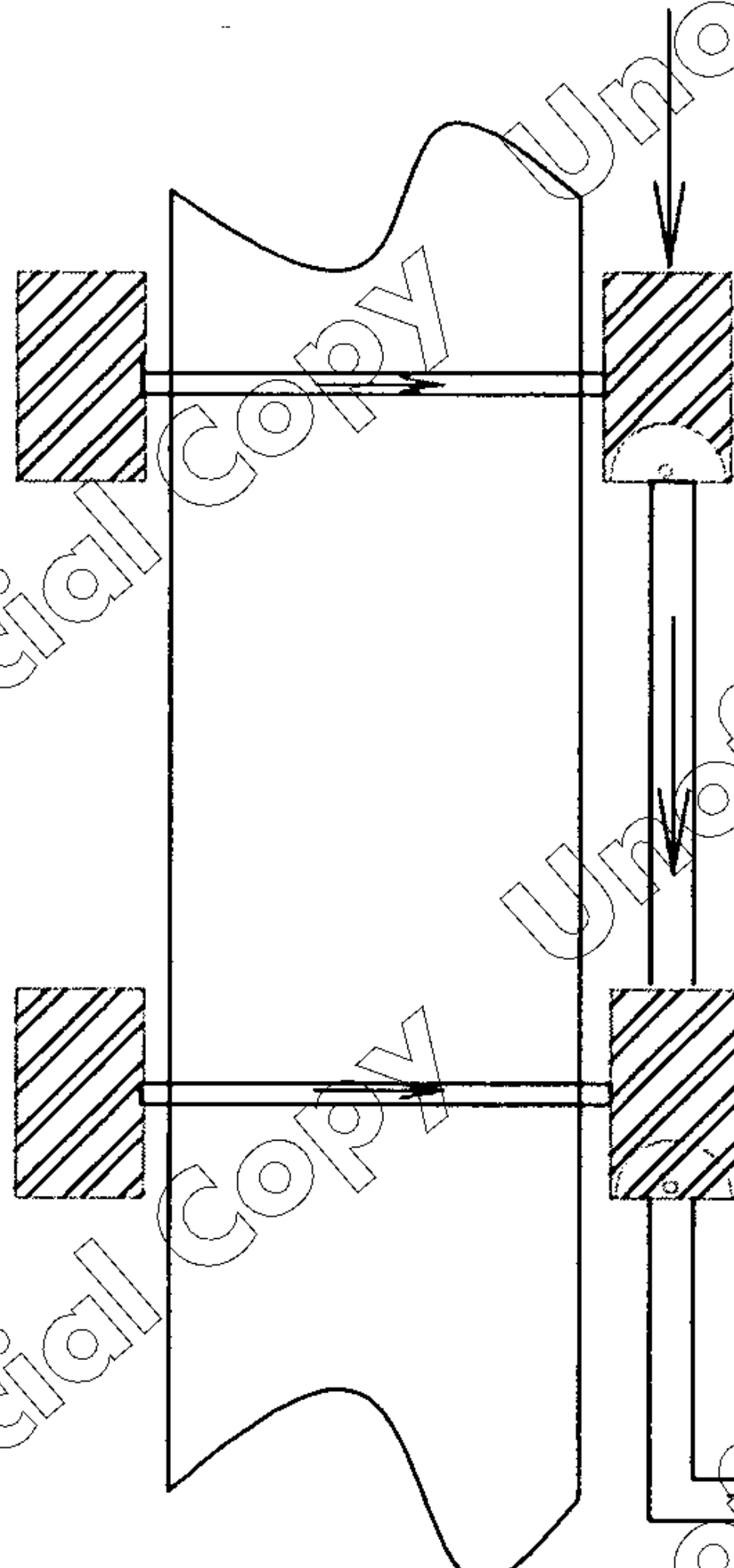
RECOMMENDATIONS

SNOUTS SHOULD BE PLACED STRATEGICALLY IN STRUCTURES TO INTERCEPT FLOW FROM ALL INLETS. MANY CONFIGURATIONS ARE POSSIBLE.

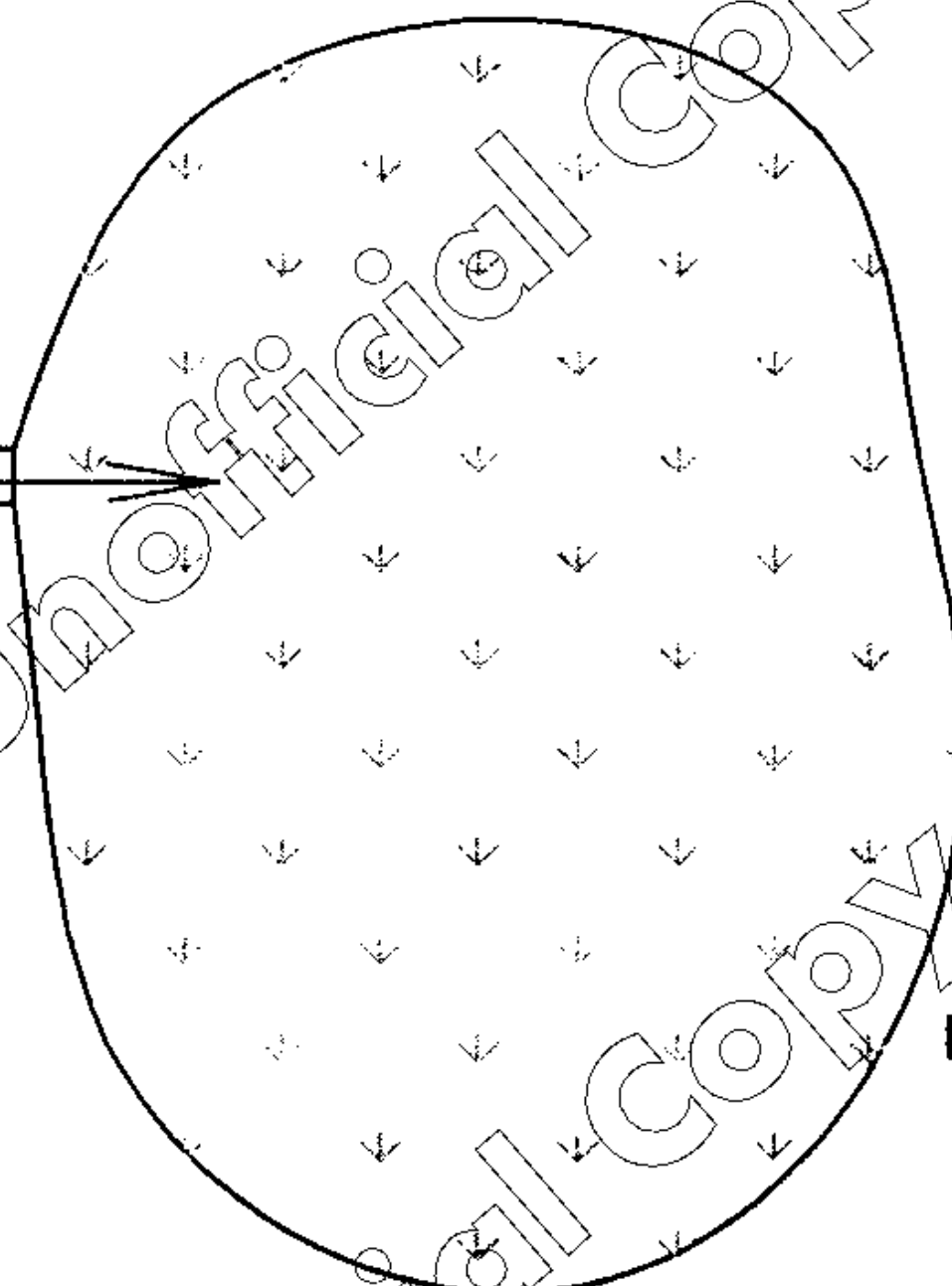
THE NUMBER OF ADDITIONAL INLETS FLOWING INTO A SNOUT EQUIPPED STRUCTURE SHOULD BE DETERMINED BY FLOW QUANTITY AND STORAGE CAPACITY OF SUMP IN THE STRUCTURE. (SEE DESIGN PARAMETERS FOR WATER QUALITY IMPROVEMENT SHEET)

MAXIMUM POLLUTANT REMOVALS WILL RESULT FROM A SNOUT IN EVERY STRUCTURE.

NO MORE THAN 3 INLET STRUCTURES SHOULD FLOW INTO ANY SINGLE SNOUT EQUIPPED STRUCTURE FOR OPTIMAL PERFORMANCE.

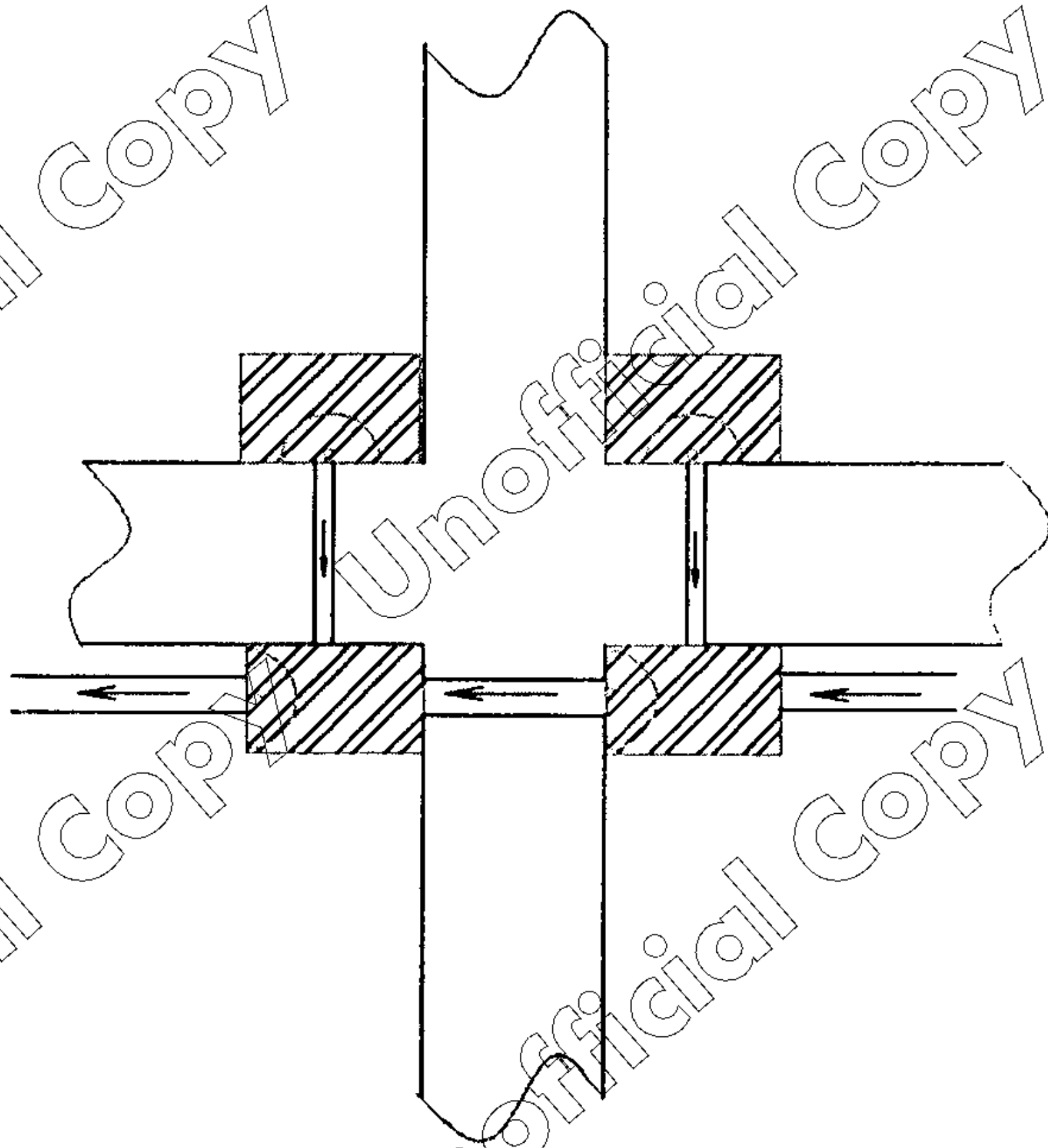


TERMINAL
STRUCTURE
WITH OPTIONAL
FLOW DIFFUSERS
FOR POLISHING

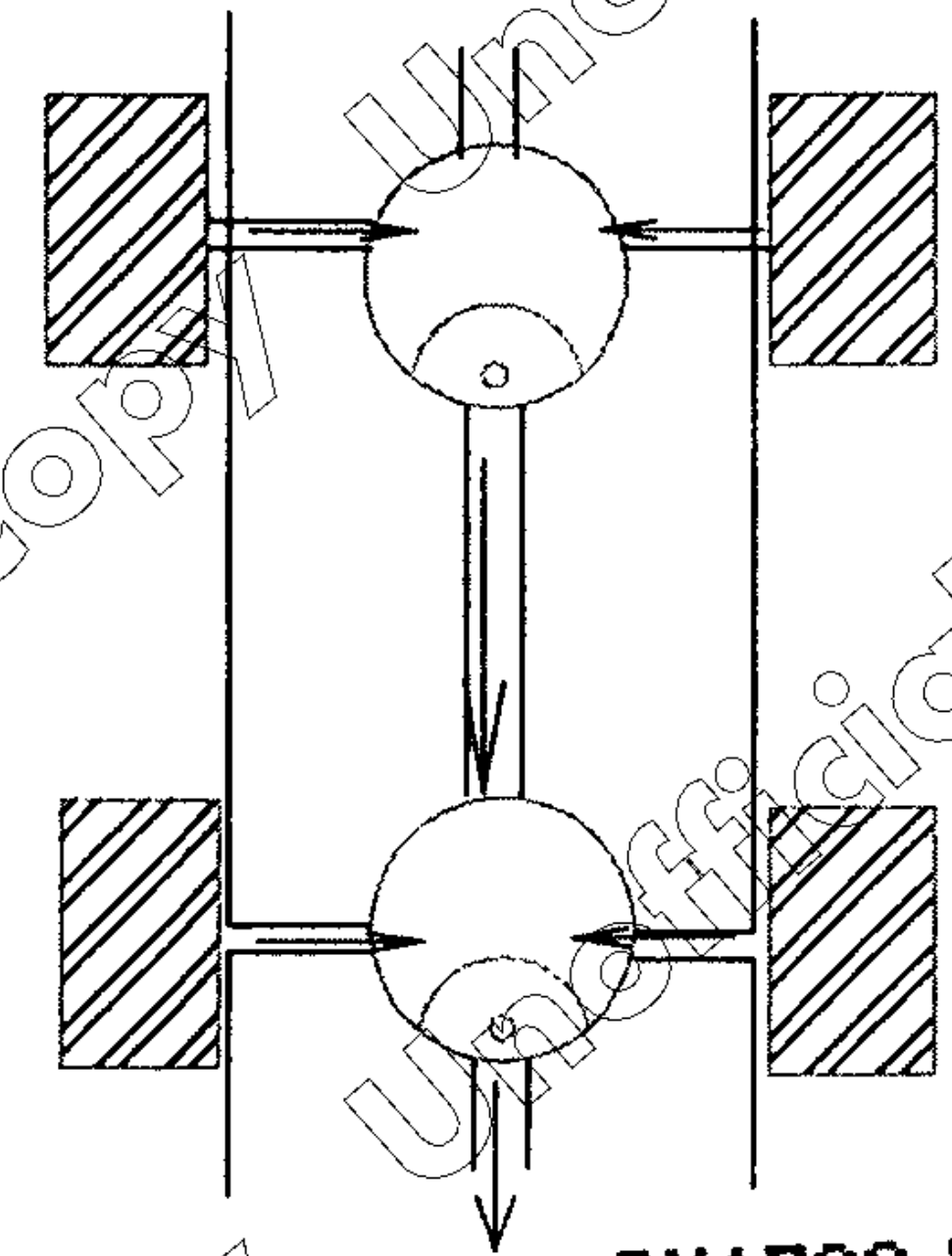


STORMWATER
DISCHARGE AREA

SNOUTS DEPLOYED IN EACH STRUCTURE
AT INTERSECTION FOR FUEL SPILL
CONTAINMENT IN CASE OF MOTOR
VEHICLE ACCIDENTS

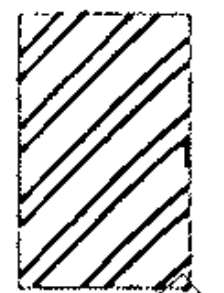


ALTERNATIVE CONFIGURATION SHOWING
SNOUTS IN STORMWATER MANHOLES.

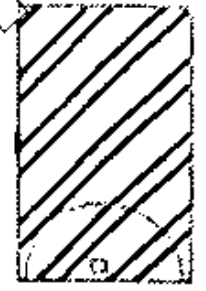


BK1788 PG0839

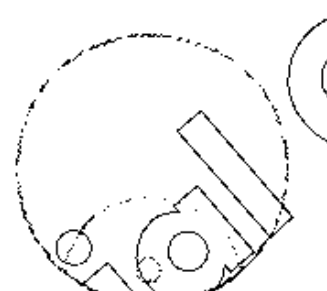
LEGEND



INLET
STRUCTURE
ONLY



INLET
STRUCTURE
WITH SNOUT



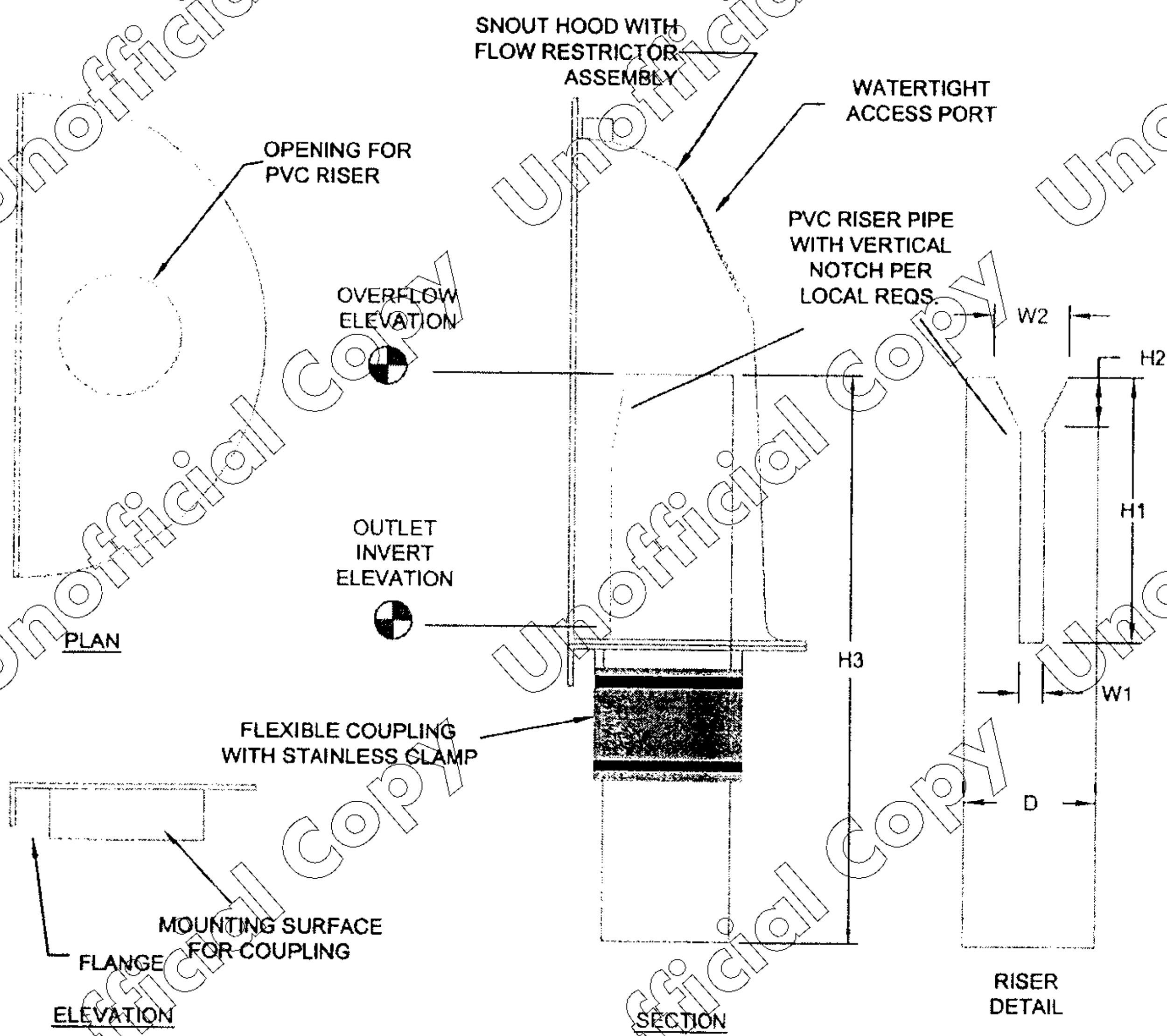
STORMWATER
MANHOLE
WITH SNOUT

BMP, INC.

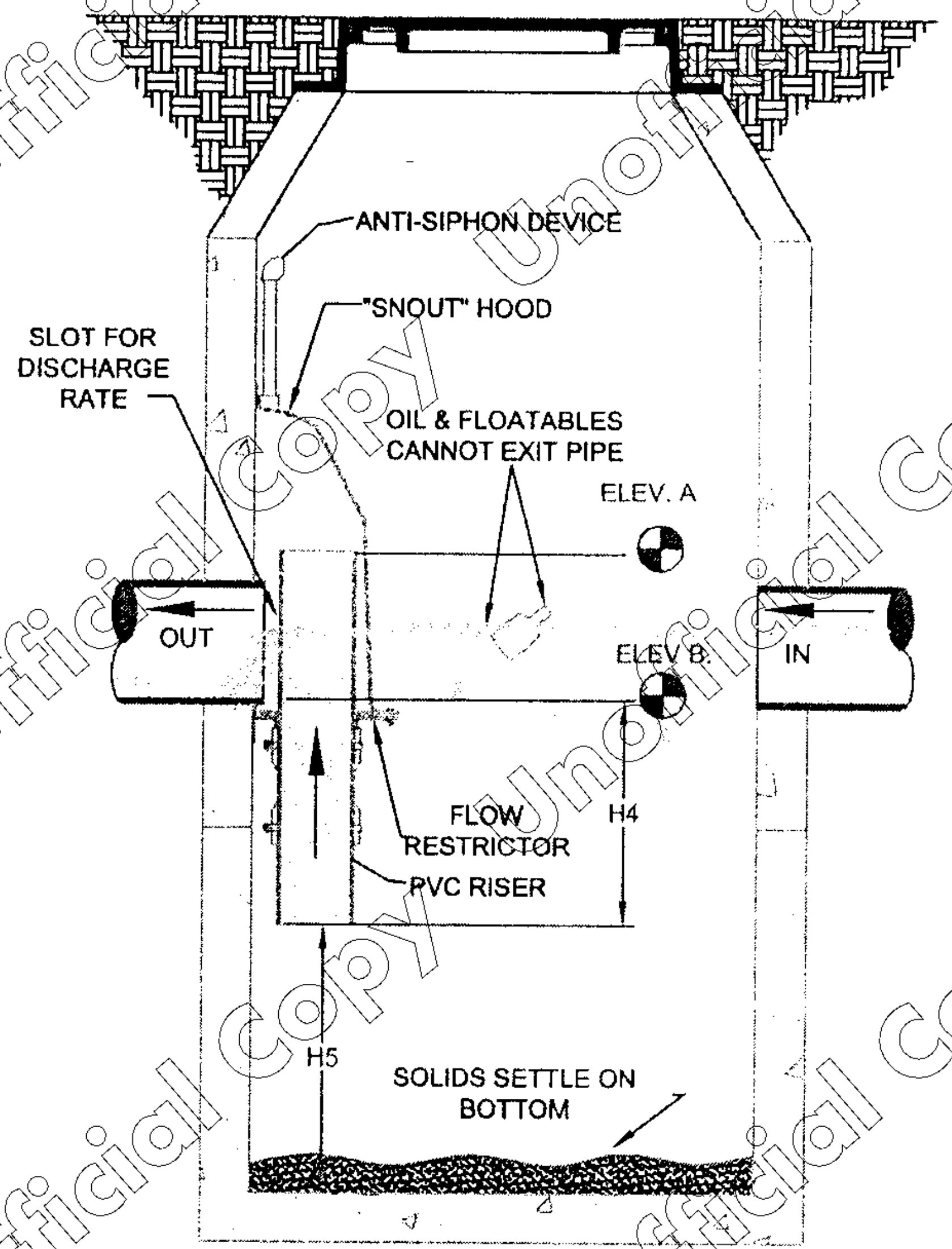
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 504-8008 FAX: (860) 434-3195

DESCRIPTION	DATE	SCALE
SNOUT SITE DESIGN RECOMMENDATIONS	08/24/00	NONE
DRAWING NUMBER		
00-0824		

FLOW RESTRICTOR DETAIL



TYPICAL INSTALLATION



NOTES:

1. ALL FLOW RESTRICTOR HOODS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8008 OR (888) 354-7585
WEB SITE: www.bestmp.com
OR PRE-APPROVED EQUAL
2. ALL FLOW RESTRICTOR HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL FLOW RESTRICTOR HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN.
4. THE SIZE AND CONFIGURATION OF THE DISCHARGE SLOT SHALL IN THE PVC RISER* SHALL BE DETERMINED BY LOCAL REQUIREMENTS.
5. THE PVC RISER SHALL BE SECURED TO FLOW RESTRICTOR PLATE WITH A FLEXIBLE PIPE COUPLING WITH STAINLESS STEEL CLAMPS.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE FLOW RESTRICTOR HOOD BY A MINIMUM OF 12" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD AND FLOW RESTRICTOR ARE MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE FLOW RESTRICTOR HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND SEALED TO WALL WITH OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER.
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. FLEXIBLE PIPE COUPLING FOR SDR 35 PVC WITH STAINLESS CLAMPS
D. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
E. 3/8" STAINLESS STEEL MOUNTING BOLTS
F. STAINLESS STEEL BOLTS AND LOCK NUTS TO SECURE PLATE TO HOOD
G. ANCHOR SHIELDS

*PVC RISER PIPE SHALL BE SDR 35, AND MAY BE PURCHASED SEPARATELY AND CUT PER LOCAL REQUIREMENTS.

DIMENSION REQUIREMENTS

- ELEVATION A: _____ (OVERFLOW)
- ELEVATION B: _____ (OUTLET INVERT)

RISER DIMENSIONS

- D= RISER ID: _____
- W1= SLOT WIDTH: _____
- W2= NOTCH WIDTH: _____
- H1= SLOT LENGTH: _____
- H2= NOTCH LENGTH: _____
- H3= RISER LENGTH: _____
- H4= SUBMERGE DEPTH: _____ (MIN. 18")
- H5= DEPTH TO BOTTOM: _____ (MIN. 24")

HOOD SIZE DETERMINED BY MANUFACTURER BASED ON RISER DIAMETER.

ADDITIONAL SKIRT PIECES AVAILABLE TO INCREASE HEIGHT OF HOOD.

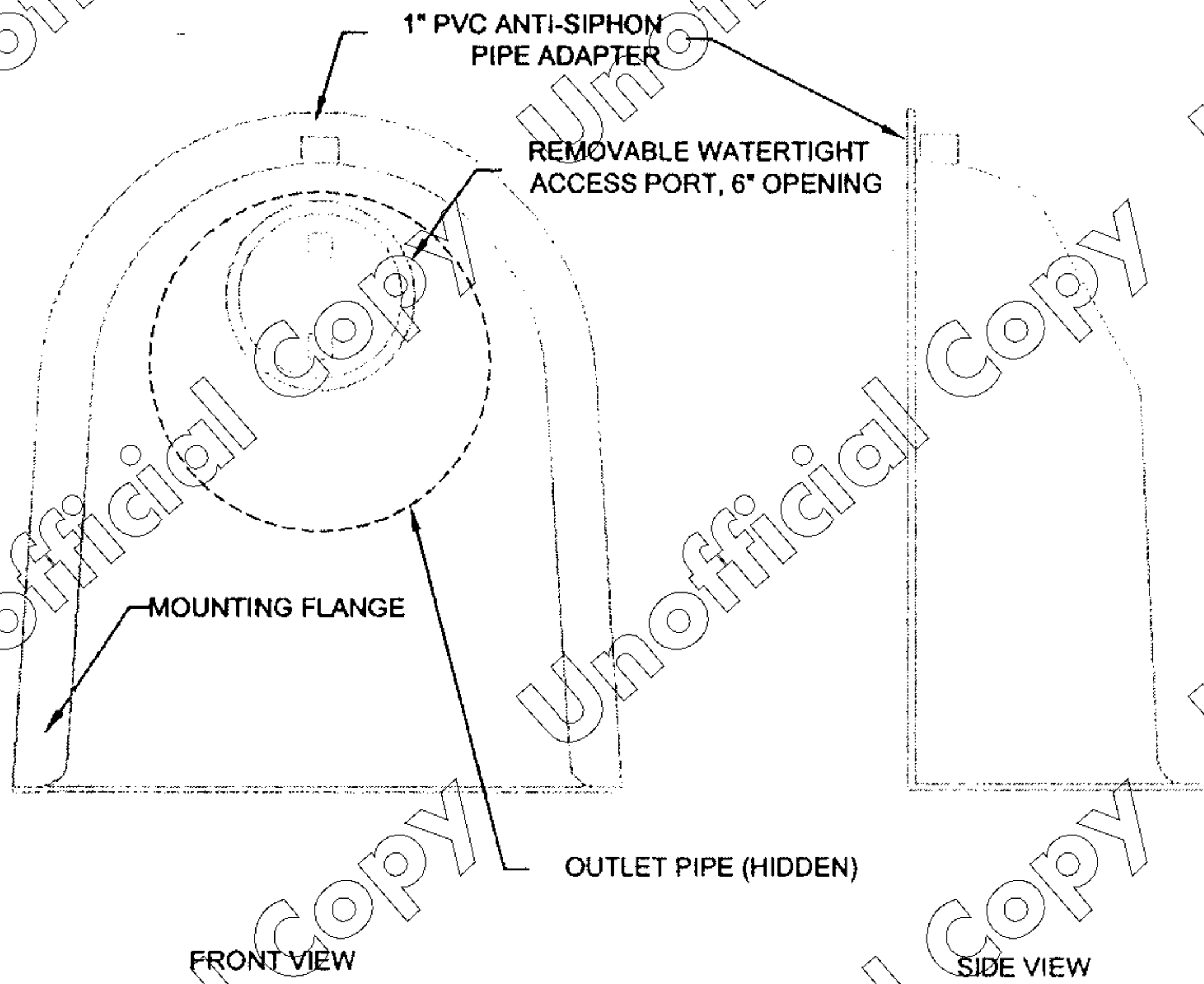
US Patent # 6126817

FLOW RESTRICTOR SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

BK1788 PG0840

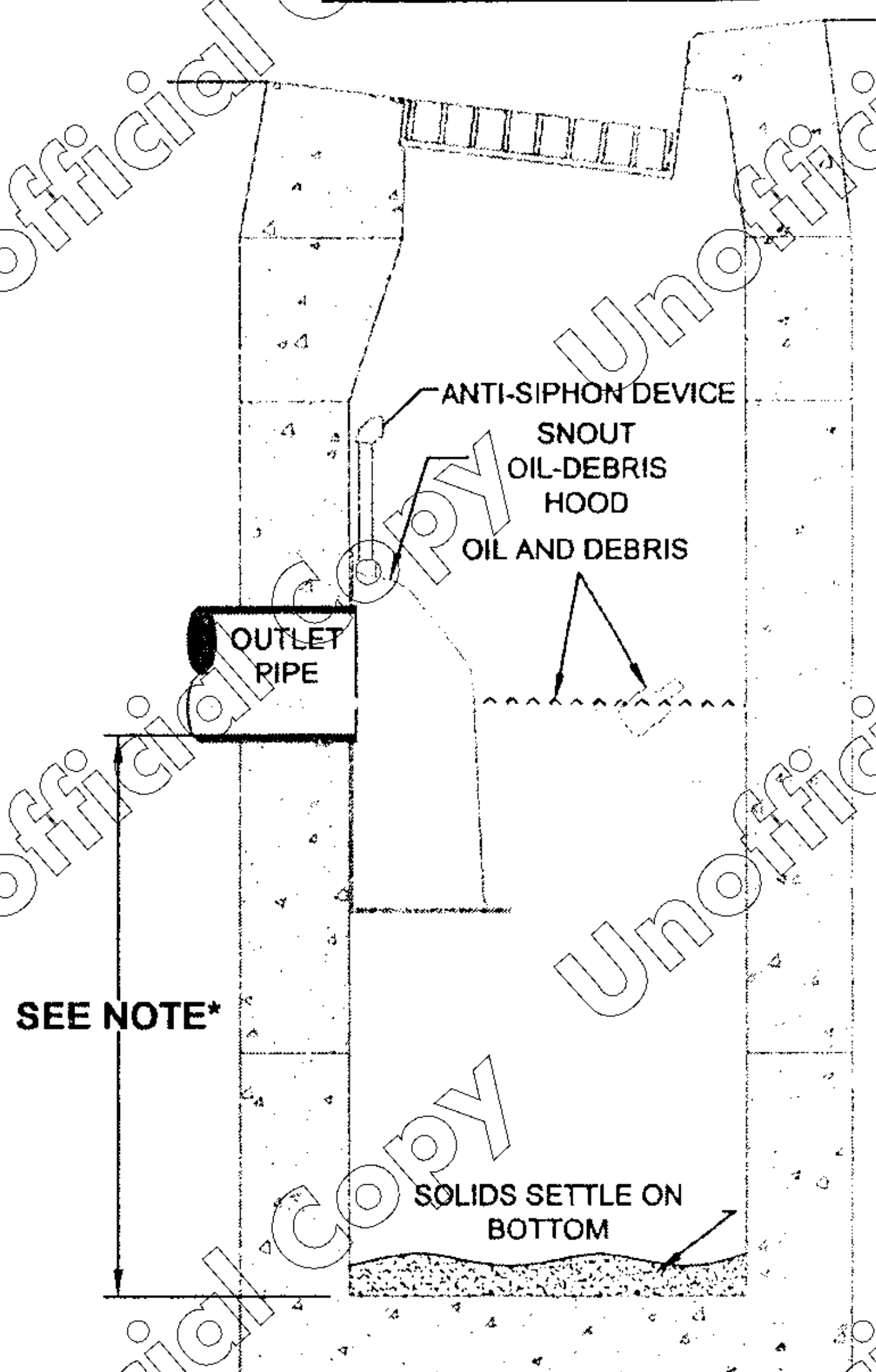
DESCRIPTION FLOW RESTRICTOR SPECIFICATION AND INSTALLATION (TYPICAL)	DATE 09/25/00	SCALE NONE
	DRAWING NUMBER 09-2500	

CONFIGURATION DETAIL



SNOUT OIL-WATER-DEBRIS SEPARATOR

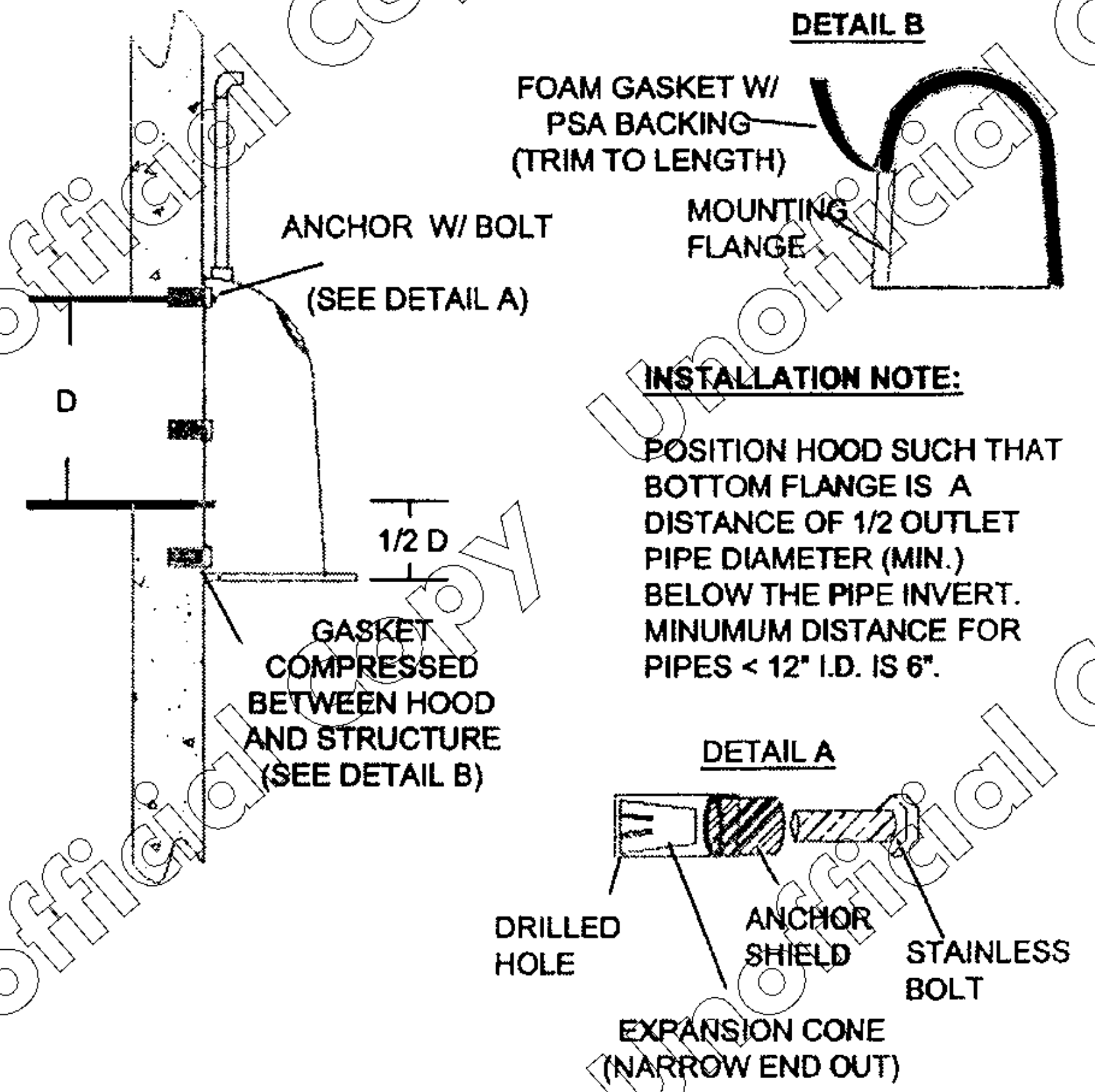
TYPICAL INSTALLATION



NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8008 OR (888) 354-7585
WEB SITE: www.bestmp.com
OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125\"/>

INSTALLATION DETAIL



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

BK1788 PG0841

DESCRIPTION OIL-DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	DATE 09/08/00	SCALE NONE
	DRAWING NUMBER 09-0800	

US Patent # 6126817

APPENDIX E

AGENCY CORRESPONDENCE



State of Utah

MICHAEL O. LEAVITT
Governor

OLENE S. WALKER
Lieutenant Governor

Department of Community and Economic Development

DAVID HARMER
Executive Director

Division of State History / Utah State Historical Society

PHILIP F. NOTARIANNI
Division Director

January 14, 2004

Leslie Gecy
Western Wetland Systems
175 North Main, Suite 201
Heber UT 84032

RE: Information on the Location and Existence of Historic Resources


In Reply Please Refer to Case No. 04-0020

Dear Ms. Gecy:

The Utah State Historic Preservation Office received the information on January 6, 2004. The cultural resource report states that no historic properties were located in the project area. We, therefore, concur with the report's recommendation of No Historic Properties Affected.

If you have questions, please contact me at (801) 533-3555. My email address is:
jdykman@utah.gov

As ever,



James L. Dykmann
Deputy State Historic
Preservation Officer - Archaeology

JLD:04-0020 OR/NPA

BK1788 PG0843

Utah!

Where ideas connect™



United States Department of the Interior
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UTAH 84119

In Reply Refer To

FWS/R6
ES/UT
04-0408

January 9, 2004

Leslie Gecy
Western Wetland Systems
13740 Red Fox Lane
Baker, Oregon 97814

RE: Deer Valley Meadows Wetland Restoration, Summit County

Dear Ms. Gecy:

Based on information provided in your letter of December 28, 2003, below is a list of endangered (E), threatened (T), and candidate (C) species that may occur in the area of influence of your proposed action.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Bald Eagle ³	<i>Haliaeetus leucocephalus</i>	T
Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	C

³ Wintering populations (only four known nesting pairs in Utah).

The proposed action should be reviewed and a determination made if the action will affect any listed species or their critical habitat. If it is determined by the Federal agency, with the written concurrence of the Service, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is complete, and no further action is necessary.

Formal consultation (50 CFR 402.14) is required if the Federal agency determines that an action is "likely to adversely affect" a listed species or will result in jeopardy or adverse modification of critical habitat (50 CFR 402.02). Federal agencies should also confer with the Service on any action which is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10). A written request for formal consultation or conference should be submitted to the Service with a completed biological assessment and any other relevant information (50 CFR 402.12).

Candidate species have no legal protection under the Endangered Species Act (ESA). Candidate species are those species for which we have on file sufficient information to support issuance of a proposed rule to list under the ESA. Identification of candidate species can assist environmental

BK1788 PG0844

planning efforts by providing advance notice of potential listings, allowing resource managers to alleviate threats and, thereby, possibly remove the need to list species as endangered or threatened. Even if we subsequently list this candidate species, the early notice provided here could result in fewer restrictions on activities by prompting candidate conservation measures to alleviate threats to this species.

Only a Federal agency can enter into formal Endangered Species Act (ESA) section 7 consultation with the Service. A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA section 7, however, remains with the Federal agency.

Your attention is also directed to section 7(d) of the ESA, as amended, which underscores the requirement that the Federal agency or the applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable and prudent alternatives regarding their actions on any endangered or threatened species.

Please note that the peregrine falcon which occurs in all counties of Utah was removed from the federal list of endangered and threatened species per Final Rule of August 25, 1999 (64 FR 46542). Protection is still provided for this species under authority of the Migratory Bird Treaty Act (16 U.S.C. 703-712) which makes it unlawful to take, kill, or possess migratory birds, their parts, nests, or eggs. When taking of migratory birds is determined by the applicant to be the only alternative, application for federal and state permits must be made through the appropriate authorities. For take of raptors, their nests, or eggs, Migratory Bird Permits must be obtained through the Service's Migratory Bird Permit Office in Denver at (303) 236-8171.

We recommend use of the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* which were developed in part to provide consistent application of raptor protection measures statewide and provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the Raptor Guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors, including the peregrine falcon.

The following is a list of species that may occur within the project area and are managed under Conservation Agreements/Strategies. Conservation Agreements are voluntary cooperative plans among resource agencies that identify threats to a species and implement conservation measures to proactively conserve and protect species in decline. Threats that warrant a species listing as a sensitive species by state and federal agencies and as threatened or endangered under the ESA should be significantly reduced or eliminated through implementation of the Conservation Agreement. Project plans should be designed to meet the goals and objectives of these Conservation Agreements.

Common Name

Bonneville Cutthroat Trout
Colorado River Cutthroat Trout
Spotted Frog

Scientific Name

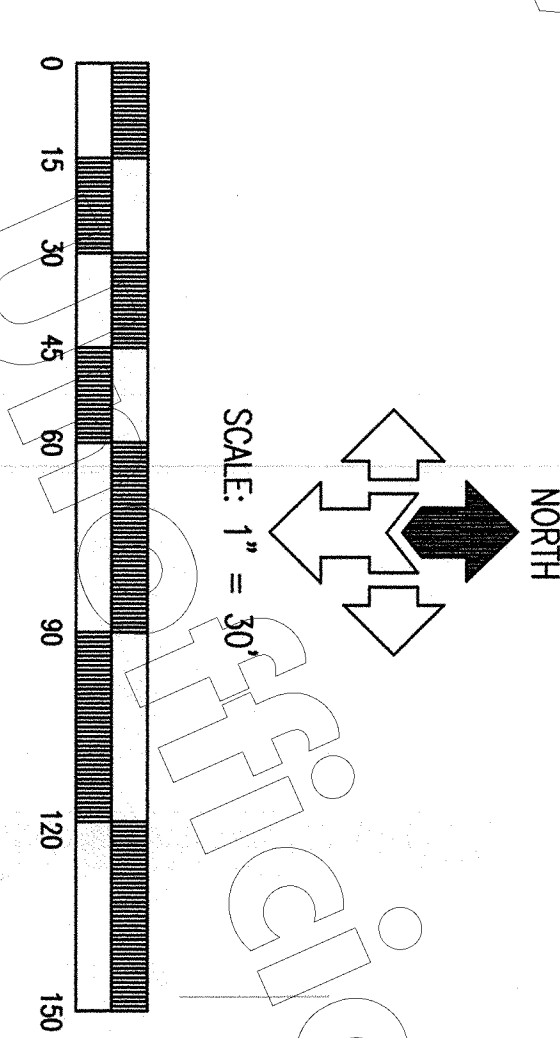
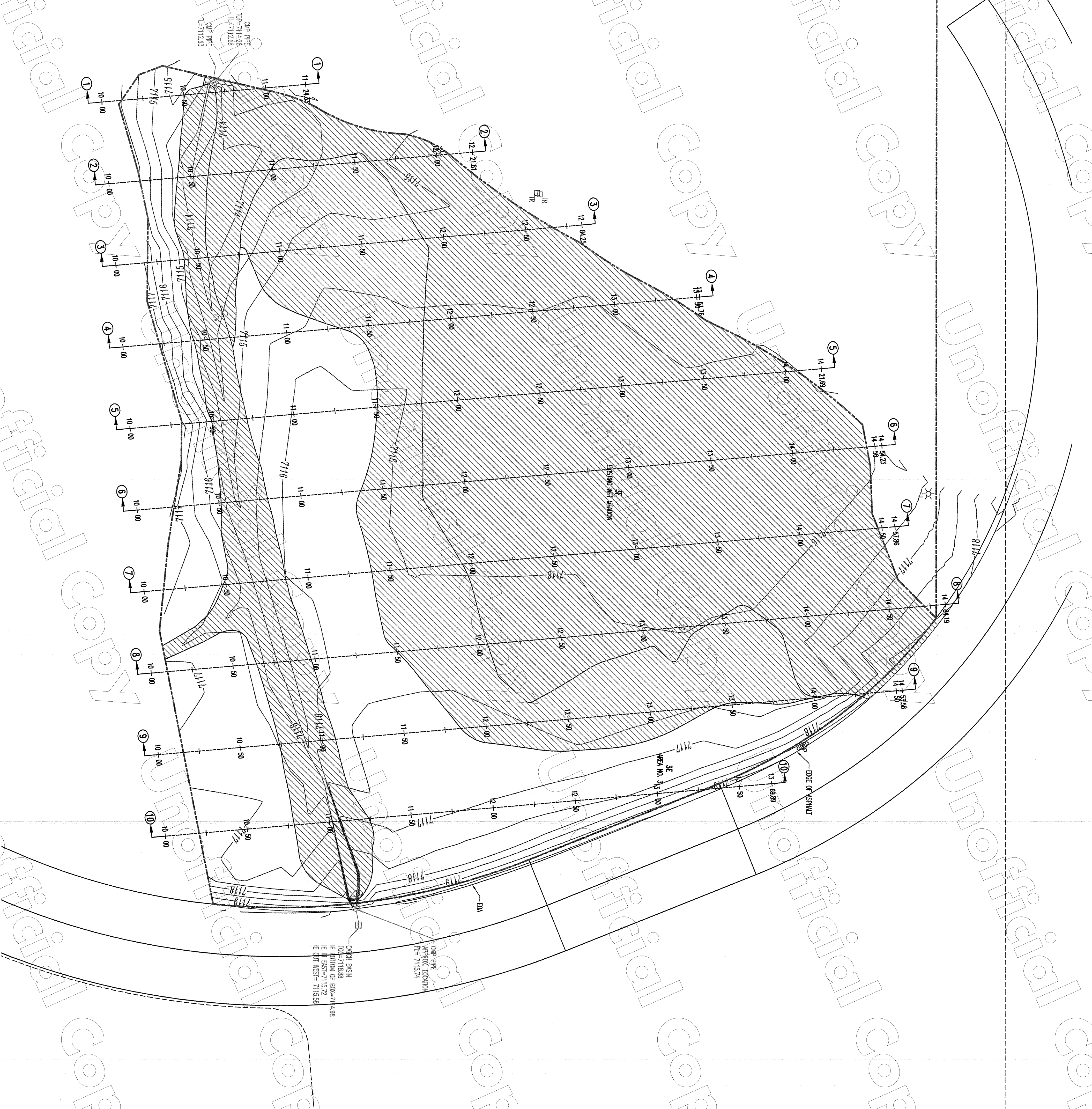
Oncorhynchus clarki utah
Oncorhynchus clarki pleuriticus
Rana luteiventris

If we can be of further assistance or if you have any questions, please feel free to contact Marianne Crawford of our office at (801)975-3330 extension 134.

Sincerely,



Henry R. Maddux
Utah Field Supervisor



- SURVEY STANDARD LEGEND**
- TELEPHONE LINE
 - WATER LINE
 - STORM DRAIN LINE
 - MITIGATION BOUNDARY
 - WETLAND BOUNDARY
 - WEIR
 - CONTOUR LINE (0.5 FT)
 - ★ LIGHT
 - WATER RESER
 - FIRE HYDRANT
 - IRRIGATION CONTROL VALVE
 - STORM DRAIN CATCH BASIN

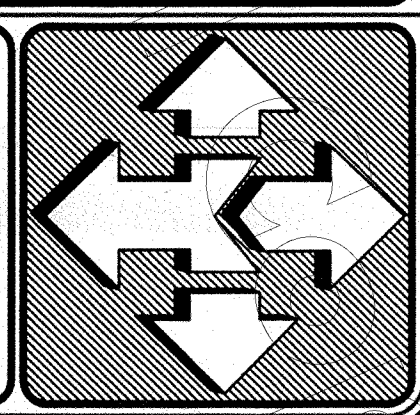
- STANDARD ABBREVIATIONS**
- FB FOUND
 - BAC BAR & CAP
 - CB CATCH BASIN
 - EA EDGE OF ASPHALT
 - FL FLOWLINE
 - FL TOP OF CATCH BASIN
 - TOP TOP OF PREP.

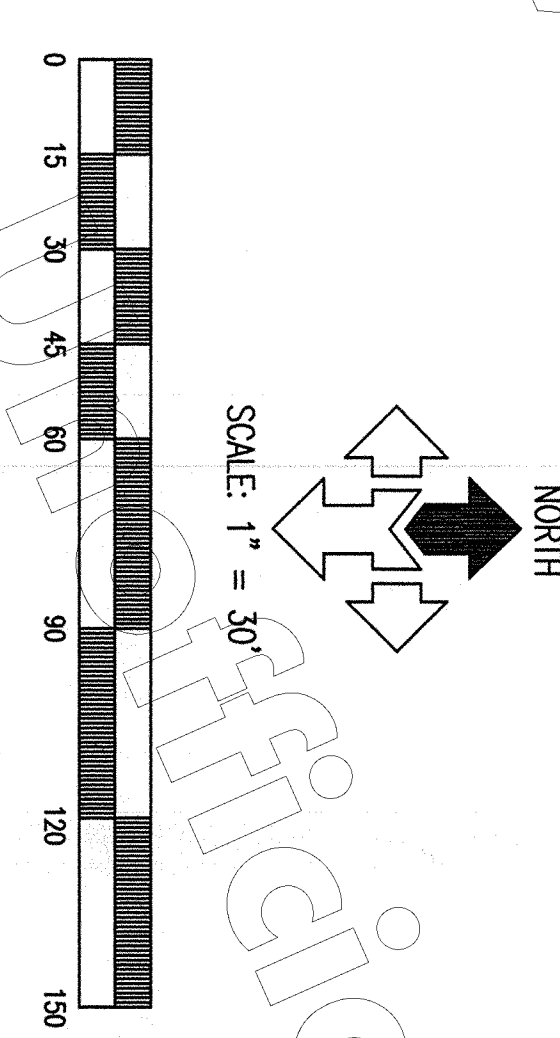
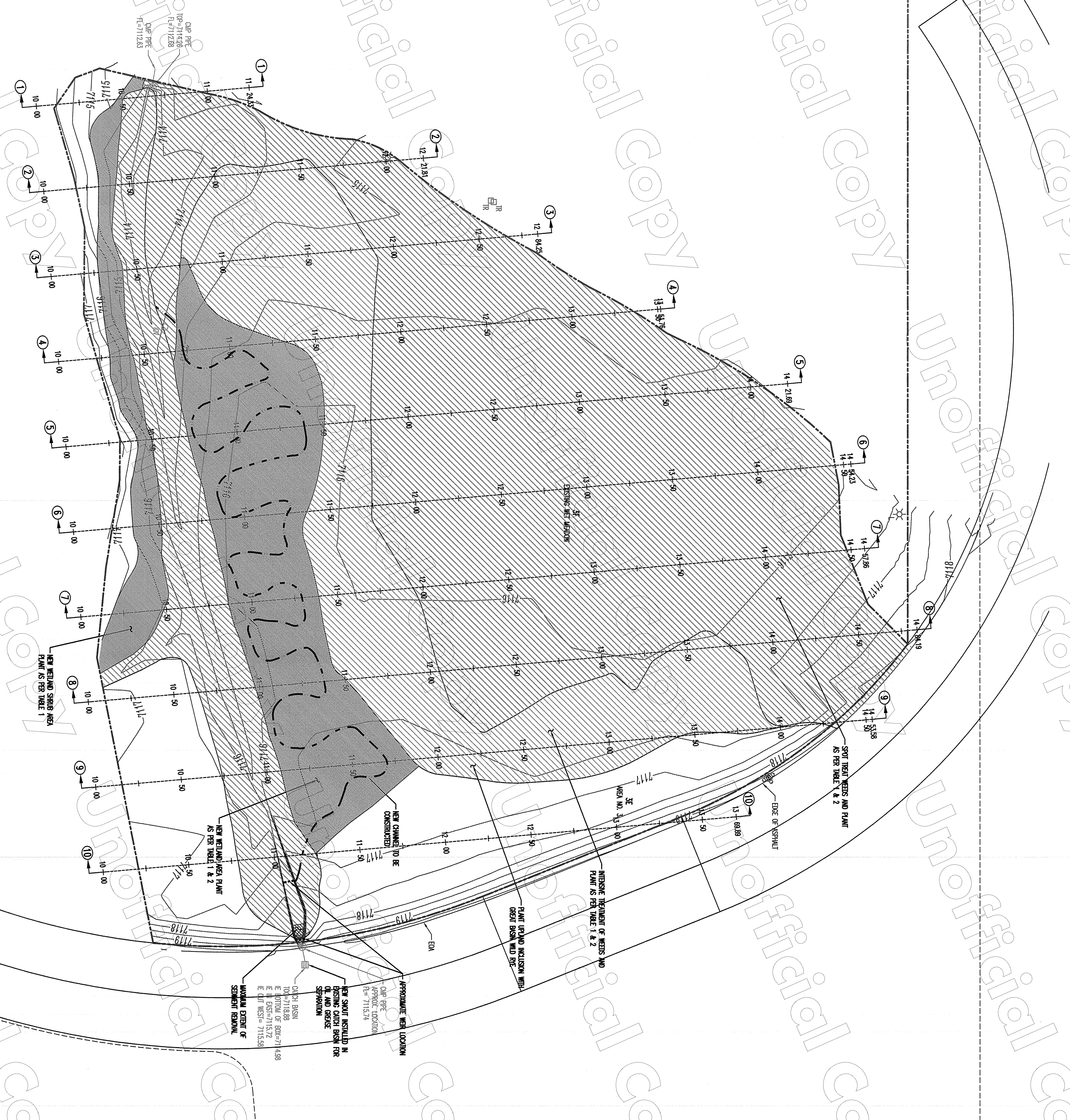
- WETLAND AREA (TYPE)**
- MITIGATION BOUNDARY AREA (3.84 ACRES)
 - WET MEADOW AREA (1.80 ACRES)
 - TRANSITION AREA (0.65 ACRES)
 - SHALLOW MARSH AREA (0.34 ACRES)

REV.	DATE	DESCRIPTION

SILVER BARON PARTNERS, L.C.
MITIGATION WETLAND PLAN
DELINEATION BY WESTERN WETLAND SYSTEMS
 WESTERLY SIDE OF EAST DEER VALLEY DRIVE
 LOCATED IN THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 SOUTH, RANGE 4 EAST

McNEIL ENGINEERING AND LAND SURVEYING
 PROFESSIONAL CIVIL ENGINEERING & LAND SURVEYING SERVICES
 6885 SOUTH 900 EAST MIDVALE, UTAH 84047
 TEL. (801) 255-7700 FAX (801) 255-8071
 E-MAIL info@mcneileng.com WEB SITE AT www.mcneileng.com



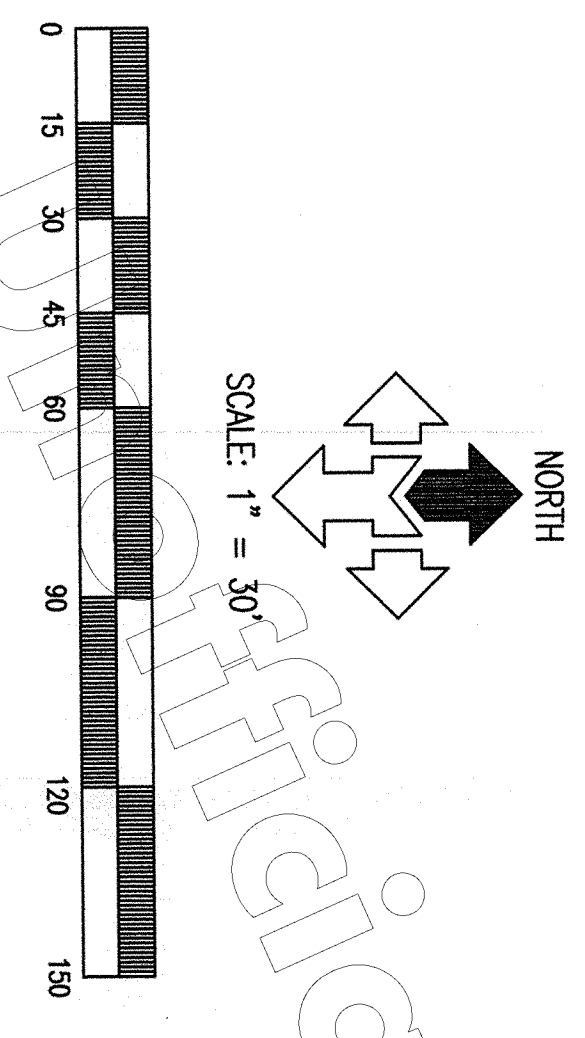
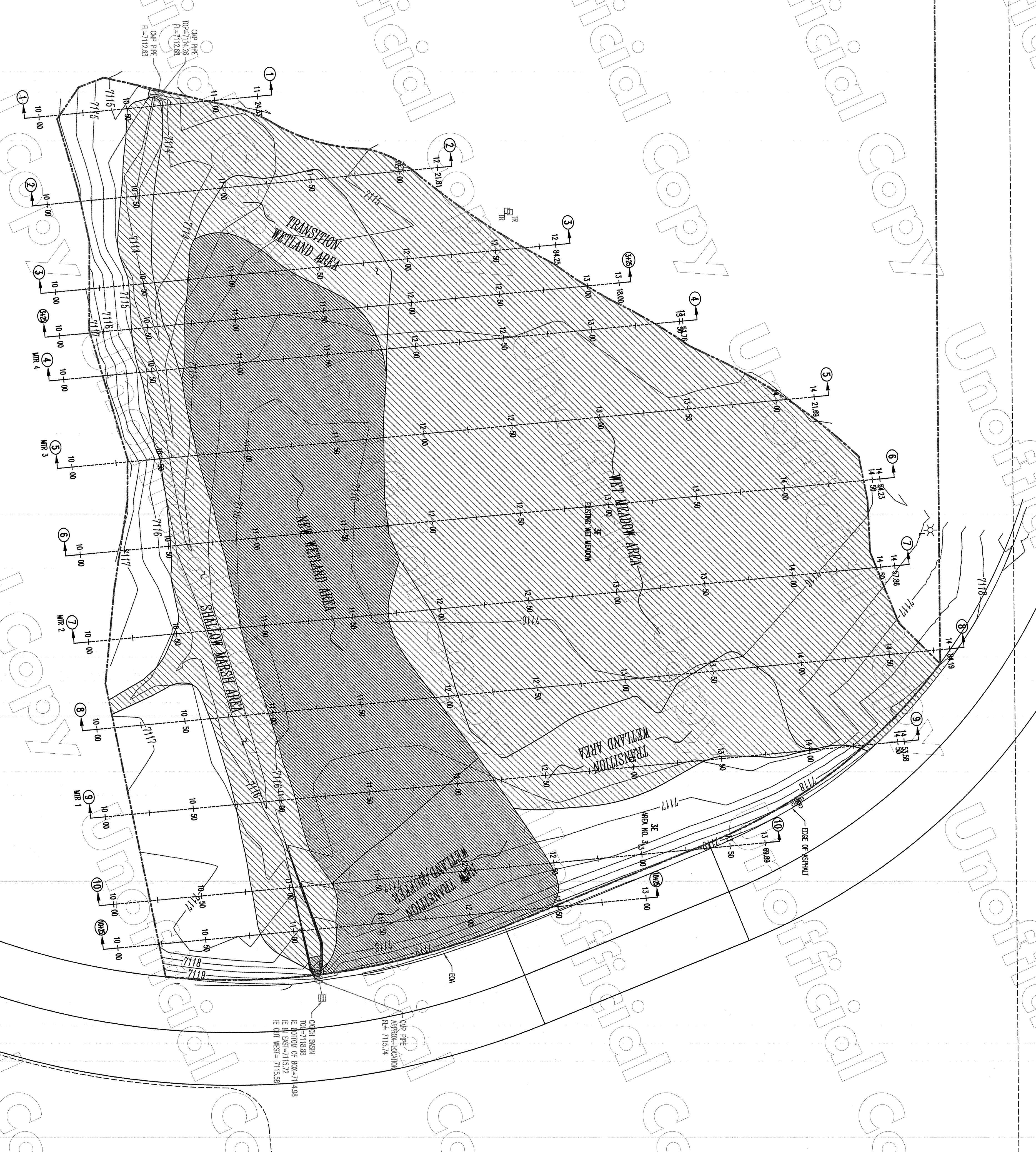


- SURVEY STANDARD LEGEND**
- TELEPHONE LINE
 - WATER LINE
 - STORM DRAIN LINE
 - FIRE ALARMANT
 - IRRIGATION CONTROL VALVE
 - STOP DRAIN CATCH BASIN
 - CONTOUR LINE (0.5 FT)
 - LIGHT
 - TELEPHONE RISER
 - WATER VALVE
 - FIRE ALARMANT
 - IRRIGATION CONTROL VALVE
 - STOP DRAIN CATCH BASIN

- STANDARD ABBREVIATIONS**
- FB FOUND
 - BAC BAR & CAP
 - CB CATCH BASIN
 - EA EDGE OF ASPHALT
 - CB CATCH BASIN
 - FL FLOWLINE
 - TOG TOP OF GRADE
 - TOP TOP OF PRE

- WETLAND AREA (TYPE)**
- MITIGATION BOUNDARY AREA (3.84 ACRES)
 - WET MEADOW AREA (1.80 ACRES)
 - TRANSITION AREA (0.65 ACRES)
 - SHALLOW MARSH AREA (0.34 ACRES)
 - NEW WETLAND AREA
 - NEW WETLAND SHRUB AREA
 - NEW CHANNEL

<p>2 OF 3</p>	<p>SILVER BARON PARTNERS, L.C. MITIGATION WETLAND PLAN DELINEATION BY WESTERN WETLAND SYSTEMS WESTERLY SIDE OF EAST DEER VALLEY DRIVE LOCATED IN THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 SOUTH, RANGE 4 EAST</p>	<p>McNEIL ENGINEERING AND LAND SURVEYING PROFESSIONAL CIVIL ENGINEERING & LAND SURVEYING SERVICES 6895 SOUTH 900 EAST MIDVALE, UTAH 84047 TEL. (801) 255-7700 FAX (801) 255-8071 E-MAIL info@mcneileng.com WEB SITE AT www.mcneileng.com</p>									
<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REL. DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REL. DATE	DESCRIPTION							<p>PROJECT NO: 230376.D DRAWING FILE: 230376SUR DRAWN BY: FBA CALC BY: FIELDWORK: DS CS CHECKED BY: DGM DATE: 04/20/05</p>	<p>SHEET TITLE: PROPOSED MITIGATION ACTIVITIES</p>	
REL. DATE	DESCRIPTION										



- SURVEY STANDARD LEGEND**
- TELEPHONE LINE
 - W- WATER LINE
 - SD- STORM DRAIN LINE
 - IMITATION BOUNDARY
 - WEIR
 - CONTOUR LINE (0.5 FT)
- STANDARD ABBREVIATIONS**
- ☆ LIGHT
 - ⊕ TELEPHONE RISER
 - ⊕ WATER VALVE
 - ⊕ FIRE HYDRANT
 - ⊕ IRRIGATION CONTROL VALVE
 - ⊕ STORM DRAIN CATCH BASIN
- WETLAND AREA (TYPE)**
- IMITATION BOUNDARY AREA (3.84 ACRES)
 - WET MEADOW AREA (1.80 ACRES)
 - TRANSITION AREA (0.34 ACRES)
 - SHALLOW MARSH AREA (0.34 ACRES)
 - NEW WETLAND AREA (0.73 ACRES)
 - NEW TRANSITION WETLAND/BUFFER (0.21 ACRES)
- FOUND**
- BAR & CAP
 - CATCH BASIN
 - EDGE OF ASPHALT
- STANDARD ABBREVIATIONS**
- CB CATCH BASIN
 - FL FLOWLINE
 - TOP TOP OF GRADE
 - TOP TOP OF PIPE

CATCH BASIN
 10N+71838
 E BOTTOM OF 30"Ø 71438
 E. DIST. 71515.88
 E. DIST. 71535.88
 E. DIST. 71555.88

CURB PIPE
 APPROX. LOCATION
 12+71527.4

REV.	DATE	DESCRIPTION

SILVER BARON PARTNERS, L.C.
MITIGATION WETLAND PLAN

DELINEATION BY WESTERN WETLAND SYSTEMS
WESTERLY SIDE OF EAST DEER VALLEY DRIVE
 LOCATED IN THE NORTHEAST QUARTER OF SECTION 16, TOWNSHIP 2 SOUTH, RANGE 4 EAST

McNEIL ENGINEERING AND LAND SURVEYING
 PROFESSIONAL CIVIL ENGINEERING & LAND SURVEYING SERVICES
 6895 SOUTH 900 EAST MIDVALE, UTAH 84047
 TEL. (801) 255-7700 FAX (801) 255-8071
 E-MAIL info@mcneileng.com WEB SITE AT www.mcneileng.com