

42NF

14253576 B: 11498 P: 6425 Total Pages: 42  
06/18/2024 12:19 PM By: csummers Fees: \$0.00  
Rashelle Hobbs, Recorder, Salt Lake County, Utah  
Return To: CITY OF DRAPER  
1020 E PIONEER RD DRAPER, UT 84020

**When recorded, mail to:**

Draper City Hall  
1020 Pioneer Rd  
Draper, Utah 84020



**Insert Address:**

Vista 600 West Phase 2  
13631 South 600 West  
Draper, Utah 84020

Affects Parcel No(s): 3301151005, 3301151006, 3301151007

**STORMWATER SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT**

This Stormwater system Operations and Maintenance Agreement ("Agreement") is made and entered into as of the date Owner(s) of the parcel(s) as per Exhibit A, has executed this agreement.

**RECITALS**

WHEREAS, the City is authorized and required to regulate and control the disposition of storm and surface waters within the MS4, as set forth in the Draper Stormwater Ordinance, as amended ("Ordinance"), adopted pursuant to the Utah Water Quality Act, as set forth in *Utah Code Ann.* §§ 19-5-101, *et seq.*, as amended ("Act"); and

WHEREAS, the Owner hereby represents and acknowledges that it is the owner in fee simple of certain real property more particularly described in Exhibit "A," attached hereto and incorporated herein by this reference ("Property"); and

WHEREAS, the Owner desires to build or develop the Property and/or to conduct certain regulated construction activities on the Property which will alter existing storm and surface water conditions on the Property and/or adjacent lands; and

WHEREAS, in order to accommodate and regulate these anticipated changes in existing storm and surface water flow conditions, the Owner is required to build and maintain at Owner's expense a storm and surface water management facility or improvements ("Stormwater Facilities"); and

WHEREAS, the Stormwater Facilities are more particularly described and shown in the final site plan or subdivision approved for the Property and related engineering drawings, and any amendments thereto, which plans and drawings are on file with the City and are hereby incorporated herein by this reference (“Development Plan”); and

WHEREAS, summary description of all Stormwater Facilities, details and all appurtenance draining to and affecting the Stormwater Facilities and establishing the standard operation and routine maintenance procedures for the Stormwater Facilities, and control measures installed on the Property, (“Stormwater System Operations and Maintenance Plan”) more particularly shown in Exhibit “B” on file with the City Recorder and,

WHEREAS, a condition of Development Plan approval, and as required as part of the City’s Small MS4 UPDES General Permit from the State of Utah, Owner is required to enter into this Agreement establishing a means of documenting the execution of the Stormwater System Operations and Maintenance Plan and,

NOW, THEREFORE, in consideration of the benefits received and to be received by the Owner, its successors and assigns, as a result of the City’s approval of the Stormwater System Operations and Maintenance Plan, and the mutual covenants contained herein, the parties agree as follows:

## **AGREEMENT**

### **Section 1**

**Construction of Stormwater Facilities.** The Owner shall, at its sole cost and expense, construct the Stormwater Facilities in accordance with the Development Plans and specifications, and any amendments thereto which have been approved by the City.

### **Section 2**

**Maintenance of Stormwater Facilities.** The Owner shall, at its sole cost and expense, adequately maintain the Stormwater Facilities. Owner’s maintenance obligations shall include all system and appurtenance built to convey stormwater, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance, for purposes of this Agreement, is defined as good working condition so that the Stormwater Facilities are performing their design functions. The Owner shall, at its sole cost and expense, perform all work necessary to keep the Stormwater Facilities in good working condition.

### **Section 3**

**Annual Maintenance Report of Stormwater Facilities.** The Owner shall, at its sole cost and expense, inspect the Stormwater Facilities and submit an inspection report and certification to the MS4 annually. The purpose of the inspection and certification is to assure safe and proper functioning of the Stormwater Facilities. The annual inspection

shall cover all aspects of the Stormwater Facilities, including, but not limited to, the parking lots, structural improvements, berms, channels, outlet structure, pond areas, access roads, vegetation, landscaping, etc. Deficiencies shall be noted in the inspection report. The report shall also contain a certification as to whether adequate maintenance has been performed and whether the structural controls are operating as designed to protect water quality. The annual inspection report and certification shall be due by June 30<sup>th</sup> of each year and shall be on forms acceptable to the City.

#### **Section 4**

**Access and Inspections.** The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Stormwater Facilities upon reasonable notice not less than three business days to the Owner. Such inspections shall be conducted in a reasonable manner and at reasonable times, as determined appropriate by the City. The purpose of the inspection shall be to determine and ensure that the Stormwater Facilities are being adequately maintained, are continuing to perform in an adequate manner, and are in compliance with the Act, the Ordinance, and the Stormwater Facilities Maintenance Plan.

#### **Section 5**

**Notice of Deficiencies.** If the City finds that the Stormwater Facilities contain any defects or are not being maintained adequately, the City shall send Owner written notice of the defects or deficiencies and provide Owner with a reasonable time. Such notice shall be confirmed delivery to the Owner or sent certified mail to the Owner at the address listed on the County Tax Assessor.

#### **Section 6**

**Owner to Make Repairs.** The Owner shall, at its sole cost and expense, make such repairs, changes or modifications to the Stormwater Facilities as may be determined as reasonably necessary by the City within a risk specific determined cure period to ensure that the Stormwater Facilities are adequately maintained and continue to operate as designed and approved. The Owner acknowledges any damage resulting from such defects and deficiencies is their cost liability.

#### **Section 7**

**City's Corrective Action Authority.** In the event the Owner fails to adequately maintain the Stormwater Facilities in good working condition acceptable to the City, after due notice of deficiencies as provided in Section 5 and failure to cure, then, upon Owner's failure to cure or correct within thirty days following a second notice delivered to Owner, the City may issue a Citation punishable as a Misdemeanor in addition to any State or EPA fine. The City may also give written notice that the facility storm drain connection will be disconnected. Any damage resulting from the disconnection is subject to the foregoing cure periods. It is expressly understood and agreed that the City is under no obligation to maintain or repair the Stormwater Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. The actions described in this Section are in addition to and not in lieu of any and all equitable remedies available to the City as provided by law for Owner's failure to

remedy deficiencies or any other failure to perform under the terms and conditions of this Agreement.

#### **Section 8**

**Reimbursement of Costs.** In the event the City, pursuant to this Agreement, incurs any costs, or expends any funds resulting from enforcement or cost for labor, use of equipment, supplies, materials, and the like related to storm drain disconnection from the City system, the Owner shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City. After said thirty (30) days, such amount shall be deemed delinquent and shall be subject to interest at the rate of ten percent (10%) per annum. Owner shall also be liable for any collection costs, including attorneys' fees and court costs, incurred by the City in collection of delinquent payments.

#### **Section 9**

**Successor and Assigns.** This Agreement shall be recorded in the County Recorder's Office and the covenants and agreements contained herein shall run with the land and whenever the Property shall be held, sold, conveyed or otherwise transferred, it shall be subject to the covenants, stipulations, agreements and provisions of this Agreement which shall apply to, bind and be obligatory upon the Owner hereto, its successors and assigns, and shall bind all present and subsequent owners of the Property described herein.

#### **Section 10**

**Severability Clause.** The provisions of this Agreement shall be severable and if any phrase, clause, sentence or provision is declared unconstitutional, or the applicability thereof to the Owner, its successors and assigns, is held invalid, the remainder of this Covenant shall not be affected thereby.

#### **Section 11**

**Utah Law and Venue.** This Agreement shall be interpreted under the laws of the State of Utah. Any and all suits for any claims or for any and every breach or dispute arising out of this Agreement shall be maintained in the appropriate court of competent jurisdiction in Salt Lake County, Utah.

#### **Section 12**

**Indemnification.** This Agreement imposes no liability of any kind whatsoever on the City, and the Owner agrees to hold the City harmless from any liability in the event the Stormwater Facilities fail to operate properly. The Owner shall indemnify and hold the City harmless for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the City from failure of Owner to comply with its obligations under this agreement relating to the Stormwater Facilities.

#### **Section 13**

**Amendments.** This Agreement shall not be modified except by written instrument executed by the City and the Owner of the Property at the time of modification, and no modification shall be effective until recorded in the Salt Lake County Recorder's Office.

#### **Section 14**

**Subordination Requirement.** If there is a lien, trust deed or other property interest recorded against the Property, the trustee, lien holder, etc., shall be required to execute a subordination agreement or other acceptable recorded document agreeing to subordinate their interest to the Agreement.

#### **Section 15**

**Exhibit B.** The Stormwater Operations and Maintenance Plan must adapt to change in good judgment when site conditions and operations change and when existing programs are ineffective. Exhibit B will not be filed with the agreement at County Recorder but is included by reference and kept on file with the City Recorder. Revision applications must be filed with the Draper and amended into the Stormwater System Operations and Maintenance Plan on file with the Draper City recorder.

STORMWATER SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT

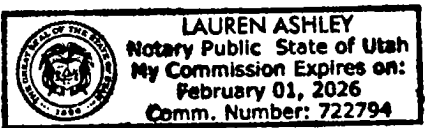
PROPERTY OWNER: GARDNER EIGHTH & MAIN VISTA, LC

By: [Signature] Title: Manager  
By: \_\_\_\_\_ Title: \_\_\_\_\_

STATE OF UTAH )  
 )  
 ) :ss.  
COUNTY OF Salt Lake )

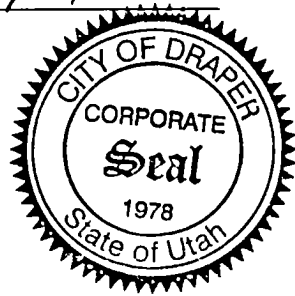
The above instrument was acknowledged before me by Jeff Nielson, this 22 day of May, 2024.

Lauren Ashley  
Notary Public  
Residing in: Salt Lake  
My commission expires: 2/1/26



Draper CITY  
By: [Signature] Date: 6/11/24  
PUBLIC WORKS DIRECTOR

Attest: Laura Oscarson  
City Recorder [Signature]



STATE OF UTAH )  
 )  
 ) :ss.  
COUNTY OF \_\_\_\_\_ )

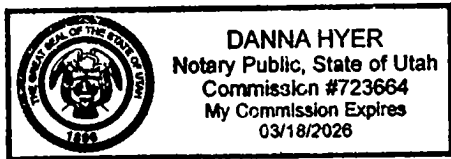
The above instrument was acknowledged before me by \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
Residing in: \_\_\_\_\_  
My commission expires: \_\_\_\_\_  
Attachments:

CITY'S ACKNOWLEDGMENT

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

On the 11 day of June, 2021, personally appeared before me Scott Cooley, who being duly sworn, did say that he is the City Engineer of City of Draper, a municipal corporation, and that this instrument was signed in behalf of City by authority of its governing body and the City Engineer acknowledged to me that City executed the same.



  
NOTARY PUBLIC

Exhibit A: Legal Description

Exhibit B: Stormwater System Operations and Maintenance Plan; Filed with Draper City Recorder



## EXHIBIT A

Parcels: 3301151005, 3301151006, 3301151007

### Vista 11 South Plat

AMMENDING LOTS 2 THRU 4 OF VISTA 600 WEST PLAT  
LOCATED IN THE NORTHWEST QUARTER OF SECTION 1,  
TOWNSHIP 4 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN  
DRAPER CITY, SALT LAKE COUNTY, UTAH  
MARCH 2024

SEE ATTACHED PLAT



## EXHIBIT A

### Stormwater System Operations and Maintenance Plan

for:

Vista 600 West Phase 2  
13631 South 600 West  
Draper, Utah 84020

GARDNER EIGHTH & MAIN VISTA, LC  
Owner Representative: Eric Winters  
620 South State Street  
Salt Lake City, Utah 84115  
Phone: 385-375-1324  
Email: Ericw@wrgco.com

WRG Co.  
Project Manager: Eric Winters  
620 South State Street  
Salt Lake City, Utah 84115  
Phone: 385-375-1324  
Email: Ericw@wrgco.com

I

## **PURPOSE AND RESPONSIBILITY**

The Clean Water Act regulates development to protect water resources. The resulting Draper Municipal Separate Storm Sewer Systems (MS4) Permit regulates development to design with water quality approaches and to show maintenance adequately contains and controls pollution generated on the property.

The Utah Stormwater Advisory Committee formed to support the Utah Department of Environmental Quality, Division of Water Quality CWA obligations, recommends the Stormwater System Operations and Maintenance Plan program to achieve the MS4 obligations and to foster uniformity across municipalities.

The Stormwater System Operations and Maintenance Plan prepared by the designers of this property is intended to help site staff and service contractors understand the property's flood and water quality control system and why adequate maintenance is necessary for sufficient flood control protection and to prevent pollutants in the runoff from affecting the environment. Ultimately, good maintenance helps improve the quality of life in our communities where we live and visit.

This Stormwater System Operations and Maintenance Plan describes the systems, operations and the minimum operating procedures necessary to manage pollutants on this property. Any activities or site operations on this property that contaminate water entering the City's stormwater system, groundwater and results in loose litter must be prohibited.

The Stormwater System Operations and Maintenance Plan is aimed at preventing the Jordan River

1. Total Dissolved Solids
2. Benthic Invertebrate Assessment

**CONTENTS**

SECTION 1: SITE DESCRIPTION, USE AND IMPACT  
SECTION 2: TRAINING  
SECTION 3: RECORDKEEPING  
SECTION 4 APPENDICES

## SECTION 1: SITE DESCRIPTION, USE AND IMPACT

By living in urban communities, every property has runoff that can potentially affect the quality of water that drains to waterways and the ground. To manage flooding, control water pollution and manage cost, it is vital we understand how our flood and water quality system works.

Our site infrastructure is limited at controlling and containing pollutants. If our property and operations are managed improperly, we will contaminate local water resources. This Stormwater System Operations and Maintenance Plan includes standard operations procedures intended to help us manage responsibly manage our grounds. Standard Operation Procedures are filed in appendix B.

**PP-1: Plan and Profile:** (Match Line PP-5) #371 SDCB#371 is piped Southeast to #370 SDCB, then piped Northeast to #336 SDCB where roof drains connect to the storm drain line, then piped Northeast to #337 SDCB then piped North (off sheet to PP-2).

**PP-2: Plan and Profile:** #337 SDCB (from PP-1) is piped North to #338 SDCB, then piped West to StormTech Chambers Phase 2 (2 rows 73 StormTech Chambers See C202). #338 is also piped North to #376 SDCO, #342 SDCB is piped East also to #376 SDCO, then piped North to #339 SDCB (which is piped West off Sheet), then piped to #360 SDCB w/3.95” Orifice, then piped North to Existing #325 SDCO, then connects to City Storm Drain System.

**PP-3: Plan and Profile:** #344 SDCB is piped Southwest and Northwest off sheet. #355 SDCB is piped West to #346 SDCB, then piped East to #339 SDCB from there it is piped North to South on PP-2.

**PP-4: Plan and Profile:** #369 SDCB is piped North to #349 SDCB, then piped East to Match Line PP-5. #343 SDCO is piped North to #345 SDCO, then piped North to #344 SDCB, then piped Northwest to #357 SDCO, then piped North to #358 SDCB, then piped Northwest to #359 SDCB.

**PP-5: Plan and Profile:** #375 SDCO piped Northeast to #371 SDCB, #370 is piped Northwest to #371 SDCO.

### Parking, Sidewalk and Pavements

Any sediment, leaves, debris, spilt fluids or other waste that collects on our parking areas, sidewalks and other pavements, will be carried by runoff to our storm drainage system including our StormTech Chambers. Any solids will fill in our StormTech Chambers requiring removal and cleaning.

Any solid material, dissolved solids and liquids mixed with runoff can contaminate surface and potentially groundwater for which we are responsible.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

### Landscaping

Our landscape operations can result in grass clippings, sticks, branches, dirt, mulch, fertilizers, herbicides, pesticides to collect on our paved areas. When left on pavements, these solids will fill in our StormTech Chambers system requiring removal and cleaning. Any dissolved solids and liquids mixing with runoff can contaminate surface and potentially groundwater for which we are responsible.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

## **Flood and Water Quality Control System**

Our flood and water quality control system collects runoff directly from pavements with inlets and pipes. The pipes carry runoff and anything washed off our pavement directly to our manufactured treatment device and to our StormTech Chamber system designed to retain and infiltrate the first INSERT 80<sup>TH</sup> PERCENTILE DEPTH of runoff. Our manufactured treatment device are StormTech Chambers and only captures sediments and floating material. Pollution that dissolves in water is not treated and anything else that can bypass runoff events will drain into the ground. The runoff in excess of the retention volume is released to the City system at 0.2 cfs. The entire system is designed to manage the peak volume runoff for the 100 year storm event.

Treating and infiltrating runoff from our property is required by the Clean Water Act intended to protect streams, rivers and groundwater. It is important we regularly maintain our system and diligently follow our standard operation procedures to manage and prevent pollution with potential to dissolve and mix with runoff, damaging surface and subsurface water resources for which we are responsible.

Also, anything we allow to reach our StormTech Chamber system will fill it with sediment and debris increasing maintenance cost. It is important to follow our standard operation procedures to help manage site maintenance cost and ensure our system is working properly.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

## **Waste Management**

Good waste management systems, if managed improperly, can become the source of the very pollution it was intended to manage. Closing the lids of our dumpster and trash receptacles are necessary to prevent light weight trash carried off by wind and precipitation exposure preventing liquids that can leak to our pavement and from haul trucks. In addition, our dumpster pad slopes toward our pavement and any leaks can leach into runoff, staining our pavement, increasing odors and increasing risk to water resources.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

## **Utility System**

Our roof top utility system is exposed to our roof drains which drain to our pavements. This heating and air conditioner unit contains oils and other chemicals that can harm surface and groundwater if allowed to reach our StormTech Chamber system.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

## **Snow and Ice Removal Management**

Salt is a necessary pollutant and is vital to ensuring a safe parking and pedestrian walkways. However, salt and other ice management chemicals, when improperly managed will unnecessarily increase our salt impact to our own vegetation and local

water resources. In addition, we need to minimize salt to maintain healthy root systems needed for optimum infiltration rates.

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)

**Equipment / Outside Storage**

(See Section 1, PP-1, PP-2, PP-3, PP-4 and PP-5.)



## **SECTION 2: TRAINING**

Ensure that all employees and maintenance contractors know and understand the standard operations procedure specifically written to manage and maintain the property.

Maintenance contractors must use the stronger of their Company and the Stormwater System Operations and Maintenance Plan standard operations procedures. File all training records in Appendix C.

## **SECTION 3: RECORDKEEPING**

Maintain records of operation and maintenance activities in accordance with standard operations procedures.

Mail a copy of the record to Draper annually.

## **SECTION 4: APPENDICES**

Appendix A- Site Drawings and Details

Appendix B- Standard Operation Procedures SOPs

Appendix C- Recordkeeping Documents

Appendix D- Drainage and Geotechnical Reports, UIC Registration

## APPENDIX A – SITE DRAWINGS AND DETAILS

C-202 StormTech Chambers

Plan & Profile – 1

Plan & Profile – 2

Plan & Profile – 3

Plan & Profile – 4

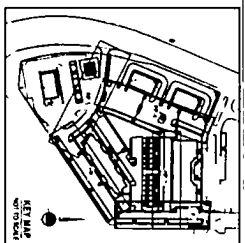
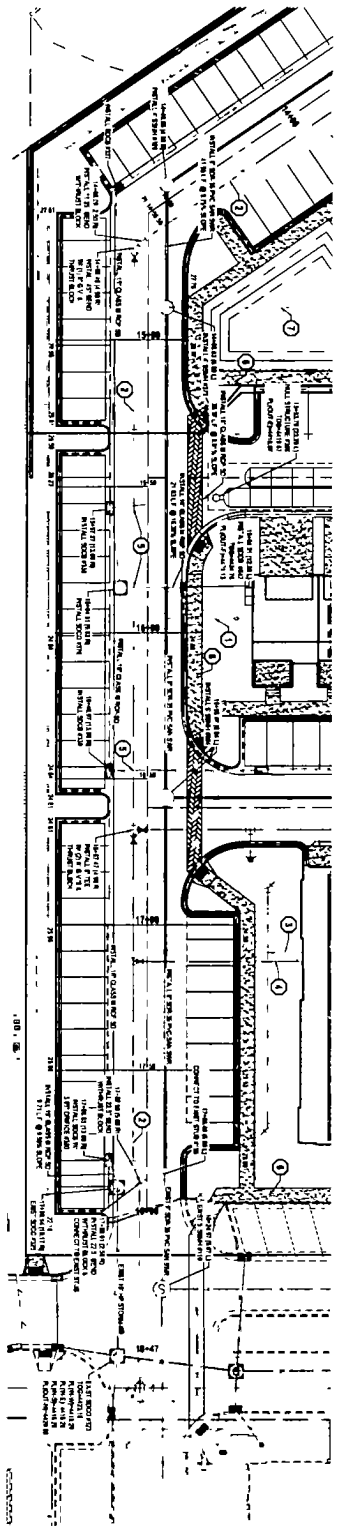
Plan & Profile – 5

C-502 StormTech Chambers Detail Sheet

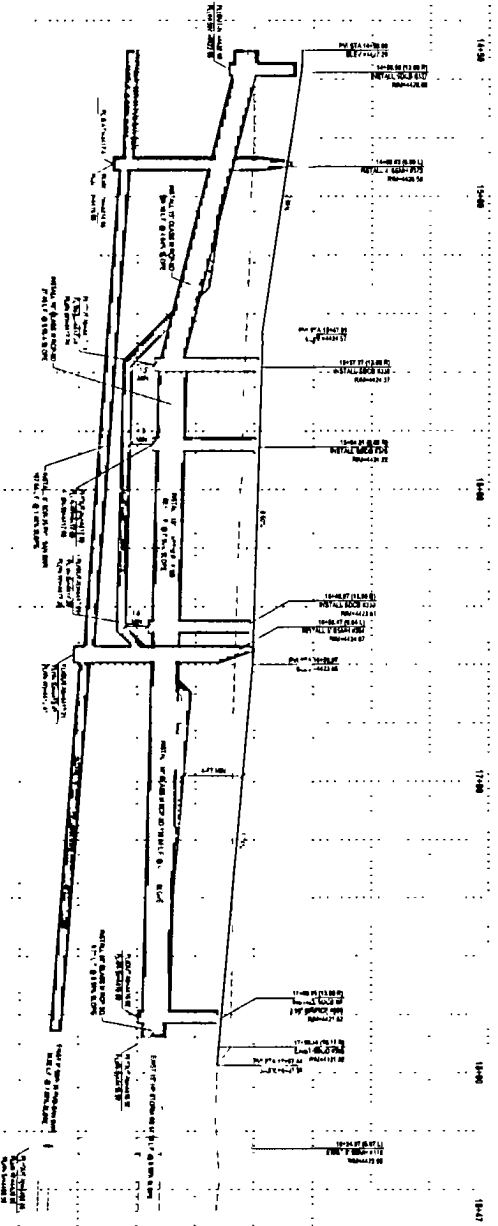




- NOTICE OF REVIEW**  
 THIS PLAN IS SUBJECT TO THE CITY ENGINEER'S REVIEW AND APPROVAL. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
1. THIS PLAN IS SUBJECT TO THE CITY ENGINEER'S REVIEW AND APPROVAL.
  2. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  3. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  4. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  5. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  6. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  7. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.
  8. THE CITY ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE PLAN AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED HEREON.



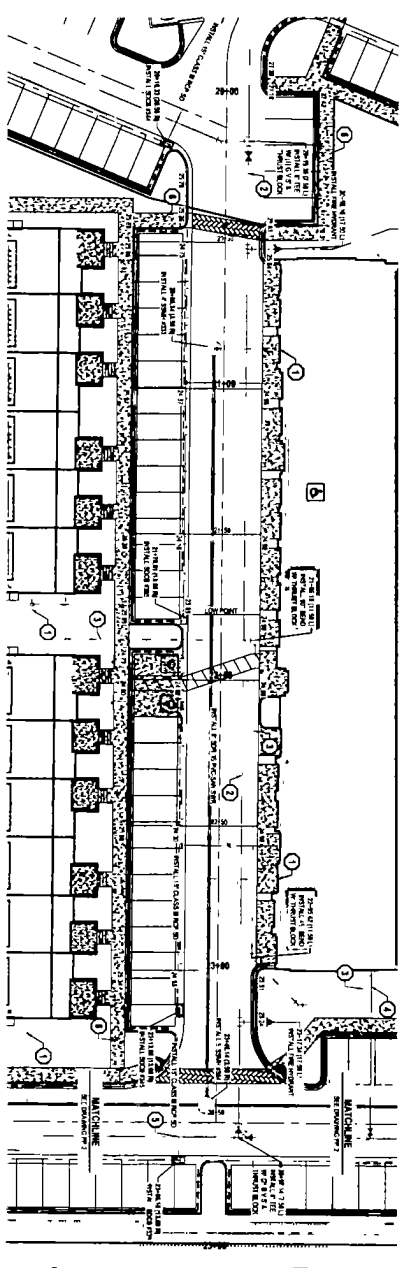
**PLAN AND PROFILE**



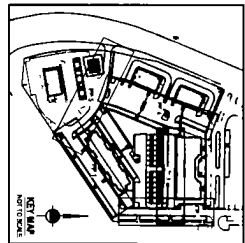
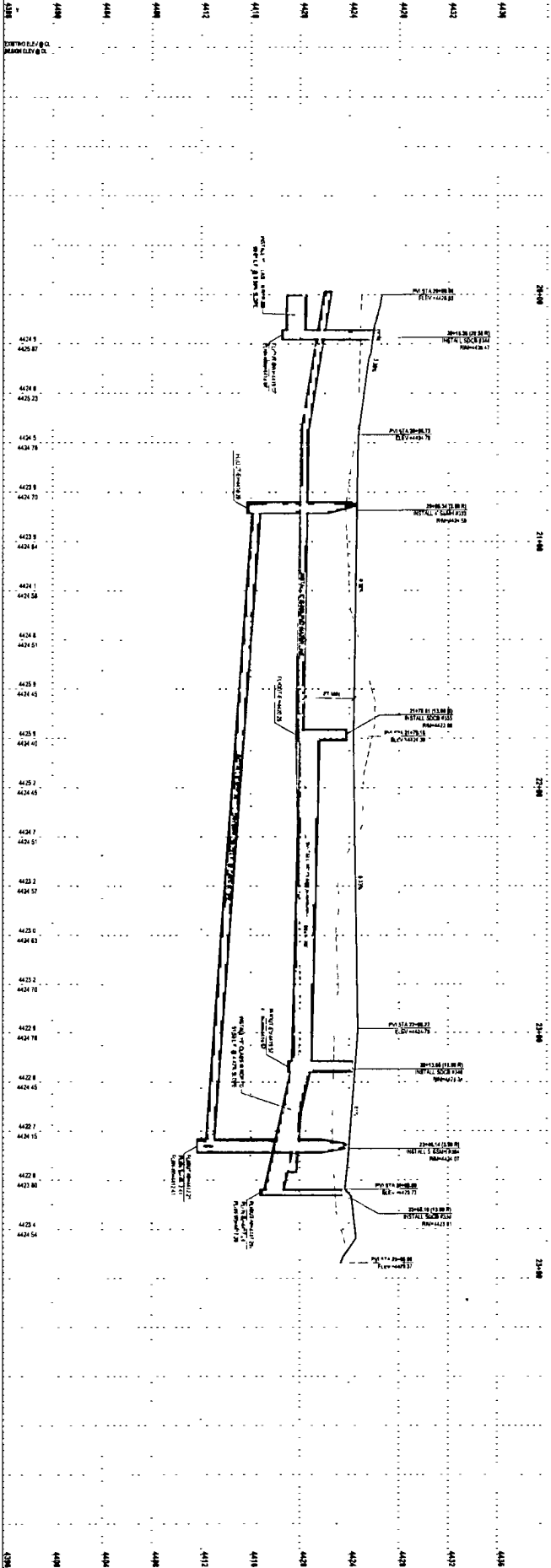
4438	15436	15438	15440	15442	15444	15446	15448	15450	15452	15454	15456	15458	15460	15462	15464	15466	15468	15470	15472	15474	15476	15478	15480	15482	15484	15486	15488	15490	15492	15494	15496	15498	15500
4424	4426	4428	4430	4432	4434	4436	4438	4440	4442	4444	4446	4448	4450	4452	4454	4456	4458	4460	4462	4464	4466	4468	4470	4472	4474	4476	4478	4480	4482	4484	4486	4488	4490

**811**  
 CALL BEFORE YOU DIG  
 UTILITY LOCATING SERVICE  
 COMMUNICATIONS  
 1-800-4-A-DIG  
 1-800-472-4343

- NOTES:**
1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.
  2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
  3. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  4. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  5. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  6. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  7. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  8. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  9. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
  10. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.



**PLAN AND PROFILE**



**ENSIGN**  
 4571 1000 S. State St.  
 Sandy, UT 84070  
 Phone 801 262 0202  
 FAX 801 262 0202  
 LAYTON  
 Phone 801 547 1100  
 TOOELE  
 Phone 435 843 3386  
 CEDAR CITY  
 Phone 435 865 1433  
 RICHFIELD  
 Phone 435 898 2943  
 WWW.ENSIGNING.COM

**W&W ENGINEERING CO.**  
 13677 SOUTH 600 WEST  
 DRAPER, UTAH 84020  
 PHONE 801 262 0202  
 FAX 801 262 0202  
 WWW.WWENGINEERING.COM

**VISTA 600 WEST  
 PHASE 2**  
 13677 SOUTH 600 WEST  
 DRAPER, UTAH

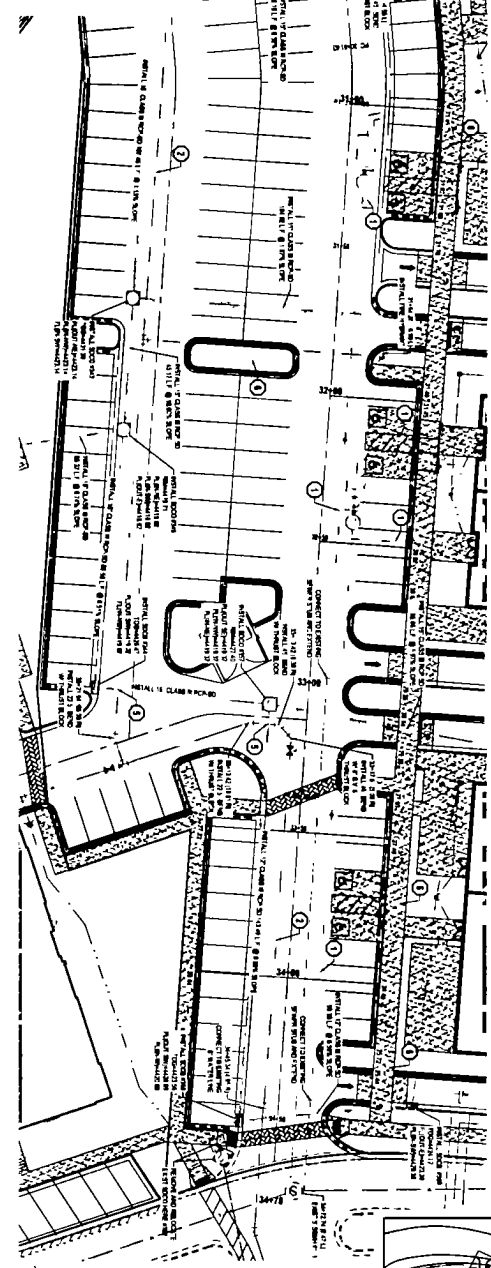


PLAN AND PROFILE

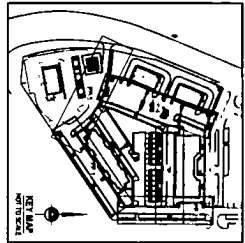
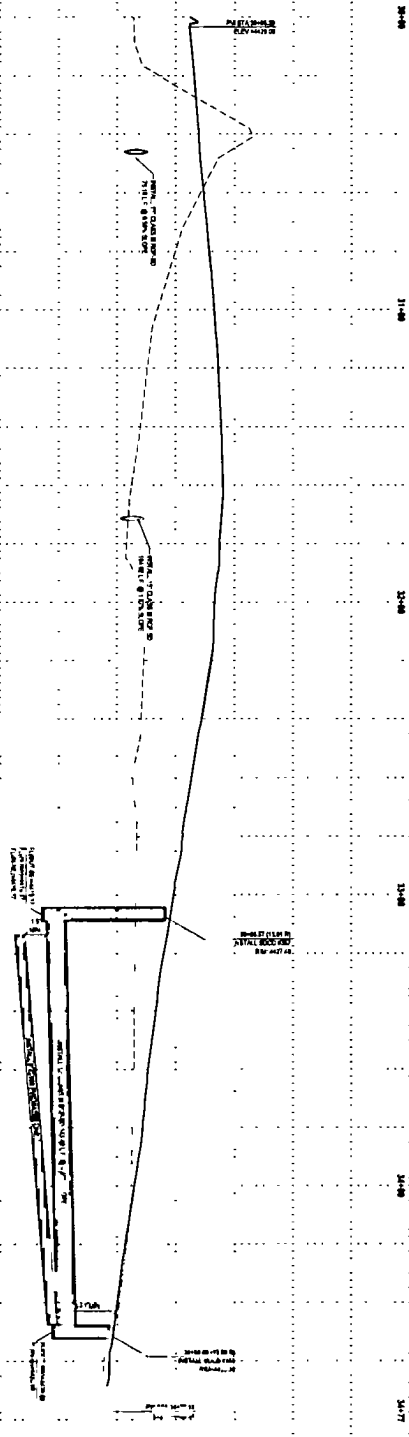
PP-3

**817**  
 CIVIL ENGINEERING  
 1000 S. 1000 E. SUITE 100  
 DRAPER, UTAH 84024  
 PHONE: (801) 225-8229  
 FAX: (801) 225-8230  
 WWW.ENSIGN.COM

- LEGEND OF SYMBOLS:**
- 1. EXISTING CURB
  - 2. EXISTING SIDEWALK
  - 3. EXISTING DRIVEWAY
  - 4. EXISTING DRIVEWAY
  - 5. EXISTING DRIVEWAY
  - 6. EXISTING DRIVEWAY
  - 7. EXISTING DRIVEWAY
  - 8. EXISTING DRIVEWAY
  - 9. EXISTING DRIVEWAY
  - 10. EXISTING DRIVEWAY
  - 11. EXISTING DRIVEWAY
  - 12. EXISTING DRIVEWAY
  - 13. EXISTING DRIVEWAY
  - 14. EXISTING DRIVEWAY
  - 15. EXISTING DRIVEWAY
  - 16. EXISTING DRIVEWAY
  - 17. EXISTING DRIVEWAY
  - 18. EXISTING DRIVEWAY
  - 19. EXISTING DRIVEWAY
  - 20. EXISTING DRIVEWAY
  - 21. EXISTING DRIVEWAY
  - 22. EXISTING DRIVEWAY
  - 23. EXISTING DRIVEWAY
  - 24. EXISTING DRIVEWAY
  - 25. EXISTING DRIVEWAY
  - 26. EXISTING DRIVEWAY
  - 27. EXISTING DRIVEWAY
  - 28. EXISTING DRIVEWAY
  - 29. EXISTING DRIVEWAY
  - 30. EXISTING DRIVEWAY
  - 31. EXISTING DRIVEWAY
  - 32. EXISTING DRIVEWAY
  - 33. EXISTING DRIVEWAY
  - 34. EXISTING DRIVEWAY
  - 35. EXISTING DRIVEWAY
  - 36. EXISTING DRIVEWAY
  - 37. EXISTING DRIVEWAY
  - 38. EXISTING DRIVEWAY
  - 39. EXISTING DRIVEWAY
  - 40. EXISTING DRIVEWAY
  - 41. EXISTING DRIVEWAY
  - 42. EXISTING DRIVEWAY
  - 43. EXISTING DRIVEWAY
  - 44. EXISTING DRIVEWAY
  - 45. EXISTING DRIVEWAY
  - 46. EXISTING DRIVEWAY
  - 47. EXISTING DRIVEWAY
  - 48. EXISTING DRIVEWAY
  - 49. EXISTING DRIVEWAY
  - 50. EXISTING DRIVEWAY
  - 51. EXISTING DRIVEWAY
  - 52. EXISTING DRIVEWAY
  - 53. EXISTING DRIVEWAY
  - 54. EXISTING DRIVEWAY
  - 55. EXISTING DRIVEWAY
  - 56. EXISTING DRIVEWAY
  - 57. EXISTING DRIVEWAY
  - 58. EXISTING DRIVEWAY
  - 59. EXISTING DRIVEWAY
  - 60. EXISTING DRIVEWAY
  - 61. EXISTING DRIVEWAY
  - 62. EXISTING DRIVEWAY
  - 63. EXISTING DRIVEWAY
  - 64. EXISTING DRIVEWAY
  - 65. EXISTING DRIVEWAY
  - 66. EXISTING DRIVEWAY
  - 67. EXISTING DRIVEWAY
  - 68. EXISTING DRIVEWAY
  - 69. EXISTING DRIVEWAY
  - 70. EXISTING DRIVEWAY
  - 71. EXISTING DRIVEWAY
  - 72. EXISTING DRIVEWAY
  - 73. EXISTING DRIVEWAY
  - 74. EXISTING DRIVEWAY
  - 75. EXISTING DRIVEWAY
  - 76. EXISTING DRIVEWAY
  - 77. EXISTING DRIVEWAY
  - 78. EXISTING DRIVEWAY
  - 79. EXISTING DRIVEWAY
  - 80. EXISTING DRIVEWAY
  - 81. EXISTING DRIVEWAY
  - 82. EXISTING DRIVEWAY
  - 83. EXISTING DRIVEWAY
  - 84. EXISTING DRIVEWAY
  - 85. EXISTING DRIVEWAY
  - 86. EXISTING DRIVEWAY
  - 87. EXISTING DRIVEWAY
  - 88. EXISTING DRIVEWAY
  - 89. EXISTING DRIVEWAY
  - 90. EXISTING DRIVEWAY
  - 91. EXISTING DRIVEWAY
  - 92. EXISTING DRIVEWAY
  - 93. EXISTING DRIVEWAY
  - 94. EXISTING DRIVEWAY
  - 95. EXISTING DRIVEWAY
  - 96. EXISTING DRIVEWAY
  - 97. EXISTING DRIVEWAY
  - 98. EXISTING DRIVEWAY
  - 99. EXISTING DRIVEWAY
  - 100. EXISTING DRIVEWAY



**PLAN AND PROFILE**



**ENSIGN**  
 CIVIL ENGINEERING  
 1000 S. 1000 E. SUITE 100  
 DRAPER, UTAH 84024  
 PHONE: (801) 225-8229  
 FAX: (801) 225-8230  
 WWW.ENSIGN.COM

**VISTA 600 WEST  
 PHASE 2**  
 13677 SOUTH 600 WEST  
 DRAPER, UTAH



**PLAN AND PROFILE**

**PP4**





PROJECT INFORMATION	
Project Name:	VISTA 600 WEST PHASE 2
Client:	DRAPER UT, USA
Location:	
Scale:	



**MC-3000 STORMTECH CHAMBER SPECIFICATIONS**

**VISTA 600 WEST PHASE 2  
DRAPER, UT, USA**

**IMPORTANT NOTES FOR THE ORDERING AND INSTALLATION OF MC-3000 CHAMBER SYSTEM**

1. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
2. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
3. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
4. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
5. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
6. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
7. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
8. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
9. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
10. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

**NOTES FOR CONSTRUCTION EQUIPMENT**

1. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

2. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

3. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

4. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

5. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

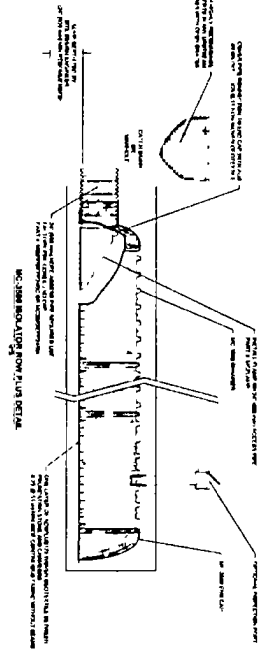
6. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

7. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

8. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

9. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

10. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.



- INSTRUCTIONS & MAINTENANCE**
1. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  2. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  3. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  4. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  5. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  6. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  7. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  8. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  9. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  10. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

**NOTES**

1. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

2. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

3. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

4. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

5. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

6. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

7. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

8. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

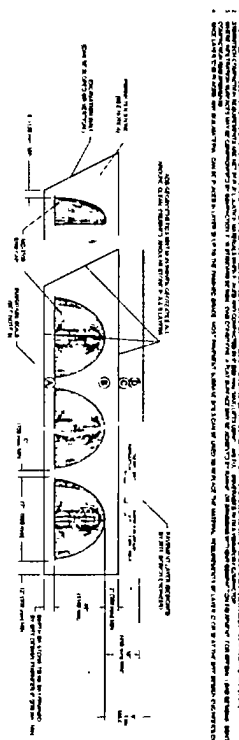
9. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

10. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

**ADS** StormTech Chamber System  
VISTA 600 WEST PHASE 2  
4 OF 5

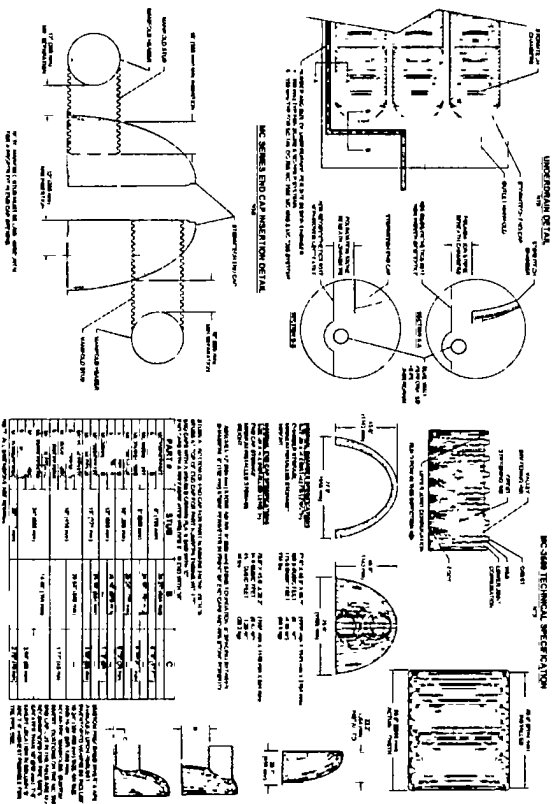
**ACCEPTABLE FILL MATERIALS - STORMTECH MC-3000 CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AGGREGATE MATERIAL CHARACTERISTICS	CONSTRUCTION IDENTIFY REQUIREMENT
1	Fill material for the chamber base	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
2	Fill material for the chamber walls	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
3	Fill material for the chamber top	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
4	Fill material for the chamber bottom	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
5	Fill material for the chamber side	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
6	Fill material for the chamber end	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
7	Fill material for the chamber front	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
8	Fill material for the chamber back	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
9	Fill material for the chamber left	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone
10	Fill material for the chamber right	1/2" to 3/4" clean washed crushed limestone	100% clean washed crushed limestone



- NOTES**
1. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  2. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  3. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  4. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  5. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  6. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  7. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  8. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  9. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.
  10. The MC-3000 Chamber System is designed for use in conjunction with the StormTech MC-3000 Chamber System.

**ADS** StormTech Chamber System  
VISTA 600 WEST PHASE 2  
3 OF 5



**MC-3000 TECHNICAL SPECIFICATION**

ITEM	DESCRIPTION	QUANTITY	UNIT	REMARKS
1	MC-3000 Chamber System	1	EA	
2	MC-3000 Chamber System	1	EA	
3	MC-3000 Chamber System	1	EA	
4	MC-3000 Chamber System	1	EA	
5	MC-3000 Chamber System	1	EA	
6	MC-3000 Chamber System	1	EA	
7	MC-3000 Chamber System	1	EA	
8	MC-3000 Chamber System	1	EA	
9	MC-3000 Chamber System	1	EA	
10	MC-3000 Chamber System	1	EA	

**ADS** StormTech Chamber System  
VISTA 600 WEST PHASE 2  
5 OF 5

**ENSIGN**  
14253576 B: 11498 P: 6450

**VISTA 600 WEST PHASE 2**  
13677 SOUTH 600 WEST  
DRAPER, UTAH

**ADDITIONAL CONTACT INFORMATION:**  
SALES: 801.225.3500  
4500 S. 1300 W. SUITE 300  
DRAPER, UT 84020  
Phone: 801.225.3500

**CONTACT:**  
LARRY  
Phone: 801.547.1100

**YOUNG**  
Phone: 801.843.3300

**CELANO GUY**  
Phone: 435.855.1455

**MORFIELD**  
Phone: 435.796.7261

**WWW.ENSIGN.COM**

**DESIGN SHEET**  
C-502

## APPENDIX B – Standard Operation Procedures (SOPs)

### Pavement Sweeping

#### General:

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

#### 1. Purpose:

- a) The primary contaminants in the Jordan River are Total Dissolved Solids and Benthic Invertebrate Assessment.
- b) Any sediment, leaves, debris, silt fluids or other waste that collects on our parking areas and sidewalks will fill in our StormTech Chamber system increasing our maintenance cost. Removing these debris after they have washed to our StormTech Chamber system is very expensive.

#### 2. Regular Procedure:

- a) Remain aware of minor sediment/debris and hand sweep or remove material by other means as needed. Significant deposits will likely collect in autumn with leaf fall and early spring after winter thaw. Usually sweeping machinery is the best tool for this application.
- b) Regularly manage outside activities that spread fugitive debris on our pavements. This involves outside functions including but not limited to: Yard sales, yard storage, fund raisers, etc.
- c) Do not allow car wash fund raiser or other related activities. Detergents will damage water resources and washed pollutants will fill our StormTech Chamber system and drain into the ground which we are responsible.

#### 4. Disposal Procedure:

- a) Dispose of hand collected material in dumpster
- b) Use licensed facilities when haul off is necessary

#### 5. Training:

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## **Landscape Maintenance**

### **General:**

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) The primary contaminants in the Jordan River are Total Dissolved Solids and Benthic Invertebrate Assessment.
- b) Grass clippings, sticks, branches, dirt, mulch, fertilizers, pesticides and other pollutants will fill our StormTech Chamber system increasing our maintenance cost. Removing these debris after they have washed to our StormTech Chamber system is very expensive.

### **2. Maintenance Procedure:**

- a) Maintain healthy vegetation root systems. Healthy root systems will help improve permeable soils maintaining more desirable infiltration rates of our landscape areas receiving runoff from our pavements.
- b) Grooming
  - Lawn Mowing – Immediately following operation sweep or blow clippings onto vegetated ground.
  - Fertilizer Operation – Prevent overspray. Sweep or blow granular fertilizer onto vegetated ground immediately following operation.
  - Herbicide Operation – Prevent overspray. Sweep or blow granular herbicide onto vegetated ground immediately following operation.
  - Trash and Debris – Remove trash and debris collecting within landscaping.
- c) Remove or contain all erodible or loose material prior to forecast wind and precipitation events, before any non-stormwater will pass through the property and at end of work period. Light weight debris and landscape materials can require immediately attention when wind or rain is expected.
- d) Landscape project materials and waste can usually be contained or controlled by operational best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement
    - Avoiding multiple day staging of landscaping backfill and spoil on pavements
    - Haul off spoil as generated and daily
    - Scheduling work when weather forecast are clear.

e) Cleanup:

- Use dry cleanup methods, e.g. square nose shovel and broom. Conditions are usually sufficient when no more material can be swept onto the square nosed shovel.
- Power blowing tools

**3. Waste Disposal:**

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.

**4. Equipment:**

- a) Tools sufficient for proper containment of pollutants and removal.

**5. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.
- c) Landscape Service Contractors must use equal or better SOPs.

## **Waste Management**

### **General:**

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Trash can easily blow out of our dumpster and trash receptacles.
- b) Liquids can leak from our dumpster polluting waterways, subsurface soils, leak from haul trucks, stain pavements and increase odors.

### **2. Procedure:**

- a) Remain aware of the lids and keep them closed.
- b) Remain aware of leaking and fix. Minimize allowing disposal of liquids in our receptacles and dumpster.
- c) Beware of dumpster capacity. Solve capacity issues. Leaving bags outside of dumpster is not acceptable.

### **3. Waste Disposal Restrictions for all waste Scheduled for the Trans-Jordan Landfill**

- a) Generally, most waste generated at this property, and waste from spill and cleanup operations can be disposed in our dumpsters under the conditions listed in this SOP. Unless specific disposal requirements are identified by the product SDS or otherwise specified in other SOPs.
- b) Know the facility disposal requirements and restrictions. It should not be assumed that all waste disposed in collection devices will be disposed at the Trans-Jordan Landfill.
- c) Review Trans-Jordan Landfill regulations for additional restrictions and understand what waste is prohibited in the Trans-Jordan Landfill. Ensure the SDS and Trans-Jordan Landfill regulations are not contradictory.

Generally, the waste prohibited by the Trans-Jordan Landfill are:

- List local prohibitions: ...
  - Hazardous Waste
  - Asbestos
  - Motor Oil
  - Car Batteries(Landfill Facility Contact – 801-569-8994).

### **4. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## **Flood and Water Quality System**

### **General:**

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### **1. Purpose:**

- a) Our flood and water quality system will collect anything we leave in the way of runoff which will fill in our StormTech Chamber system increasing our maintenance cost. Removing these debris after they have washed to our StormTech Chamber system is very expensive.
- b) Any liquids or dissolved pollutants can increase the risk for contaminating groundwater for which we are responsible.
- c) During very intense storm events pollutants in excess runoff can bypass our system increasing risk of contaminating groundwater and the Jordan River.

### **2. Inspections:**

- a) Inspect Manufactured Treatment Device. Remove any floating trash at each inspection interval with rake or other means. Remove oil sheen with absorbent materials. Remove sediments with accumulations 6” and more. This will usually require hydro-vacuum machinery.
- b) Inspect Manufactured Treatment Device for mosquito larvae. Contact the South Salt Lake Valley Mosquito Abatement District when necessary.
- c) Inspect our StormTech Chamber system for liquid or solid pollutants that can pollute subsurface soils. Find sources and prevent. There is no vegetation, and less soil biology to break down harmful chemicals at these depths.
- d) Inspect our StormTech Chamber system for sediment and debris accumulations.

### **2. Disposal Procedure:**

- a) Remove and dispose sediment and debris at licensed facilities. Also, dry waste can be disposed in your dumpster as permitted by the Trans-Jordan Landfill.
- b) Disposal of hazardous waste
  1. Dispose of hazardous waste at regulated disposal facilities. Follow SDS Sheets. Also see Waste Management and Spill Control SOP

### **3. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.

## **Pavement Washing**

### **General:**

These SOPs are not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in these SOPs.

### **1. Purpose:**

- a) Pavement washing involving detergents can potentially contaminate groundwater with phosphates and with whatever we are washing from pavements.
- b) Pavement washing can fill our StormTech Chamber system increasing our maintenance cost. Removing these debris after they have washed to our StormTech Chamber system is very expensive.

### **2. Procedure:**

- a) Prevent waste fluids and any detergents if used from entering storm drain system. The following methods are acceptable for this operation.
  - Dam the inlet using a boom material that seals itself to the pavement and pick up the wastewater with shop-vacuum or absorbent materials.
  - Collect wastewater with shop-vacuum simultaneous with the washing operation.
  - Collect wastewater with vacuum truck or trailer simultaneous with the washing operation.
- b) This procedure must not be used to clean the initial spills. First apply the Spill Containment and cleanup SOP following by pavement washing when desired or necessary.

### **3. Disposal Procedure:**

- a) Small volumes of diluted washing waste can usually be drained to the local sanitary sewer. Contact the Salt Lake City Sewer Department.
- b) Large volumes must be disposed at regulated facilities.

### **4. Pavement Cleaning Frequency:**

- a) There is no regular pavement washing regimen. Pavement washing is determined by conditions that warrant it, including but not limited to: prevention of slick or other hazardous conditions or restore acceptable appearance of pavements.

### **5. Training:**

- a) Annually and at hire
- b) Inform staff and service contractors when incorrect SOP implementation is observed.



## **Snow and Ice Removal Management**

### **General:**

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### **1. Purpose:**

- a) Salt and other ice management chemicals if improperly managed will unnecessarily increase our salt impact to our own vegetation and local water resources.
- b) We need to maintain healthy root systems to help maintain optimum infiltration rates.

### **2. De-Icing Procedure:**

- a) Do not store or allow salt or equivalent to be stored on outside paved surfaces.
- b) Minimize salt use by varying salt amounts relative to hazard potential.
- c) Sweep excessive piles left by the spreader.
- d) Watch forecast and adjust salt amounts when temperatures are expected to increase the risk is low, the same day.

### **3. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## General Construction Maintenance

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) Any sediment, debris, or construction waste will fill our StormTech Chamber system increasing our maintenance cost. Removing these debris after they have washed to our StormTech Chamber system is very expensive.

### 2. Construction Procedure:

- a) Remove or contain all erodible or loose material prior forecast wind and precipitation events or before non-stormwater will pass through the project site. For light weight debris maintenance can require immediately attention for wind and runoff events. Many times, daily maintenance is necessary or as needed per random, precipitation or non-stormwater events.
- b) Project materials and waste can be contained or controlled by operational or structural best management practices.
  - Operational; including but not limited to:
    - Strategic staging of materials eliminating exposure, such as not staging on pavement
    - Avoiding multiple day staging of backfill and spoil
    - Haul off spoil as generated or daily
    - Schedule work during clear forecast
  - Structural; including but not limited to:
    - Inlet protection, e.g. wattles, filter fabric, drop inlet bags, temporary covers
    - Gutter dams, e.g. wattles, sandbags, dirt dams
    - Boundary containment, e.g. wattles, silt fence
    - Dust control, e.g. water hose,
    - Waste control, e.g. construction solid or liquid waste containment, dumpster, receptacles
- c) Inspection often to insure the structural best management practices are in good operating condition and at least prior to the workday end. Promptly repair damaged best management practices achieving effective containment.
- d) Cleanup:
  - Use dry cleanup methods, e.g. square nose shovel and broom.

- Wet methods are allowed if wastewater is prevented from entering the stormwater system, e.g. wet/dry vacuum, disposal to our landscaped areas.
- e) Cleanup Standard:
  - When a broom and a square nosed shovel cannot pick any appreciable amount of material.

**3. Waste Disposal:**

- a) Dispose of waste according to General Waste Management SOP, unless superseded by specific SOPs for the operation.
- b) Never discharge waste material to storm drains

**4. Equipment:**

- a) Tools sufficient for proper containment of pollutants and cleanup.
- b) Push broom and square blade shovel should be a minimum.

**5. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## Spill Control

### General:

This SOP is not expected to cover all necessary procedure actions. Operators are allowed to adapt SOPs to unique site conditions in good judgment when it is necessary for safety, and the proper, and effective containment of pollutants. However, any changes of routine operations must be amended in this SOP.

### 1. Purpose:

- a) Spilt liquids and solids will reach our StormTech Chamber system potentially contaminating groundwater which we are responsible.
- b) It is vital we contain all spills on the surface. Spills reaching waterways and permeable surfaces can result in expensive spill mitigation, including waterway restoration and potential tear out and replacement of our StormTech Chamber system.

### 2. Containment Procedure:

- a) Priority is to dam and contain flowing spills.
- b) Use spill kits booms if available or any material available to stop flowing liquids; including but not limited to, nearby sand, dirt, landscaping materials, etc.
- c) Hazardous or unknown waste material spills
  1. Critical Emergency constitutes large quantities of flowing uncontained liquid that people at risk or reach storm drain systems. Generally, burst or tipped tanks and containment is still critical. Call HAZMAT, DWQ, Salt Lake County Health Department, Draper City.  
Also report spills to DWQ of quantities of 25 gallons and more and when the spill of lesser quantity causes a sheen on downstream water bodies
  2. Minor Emergency constitutes a spill that is no longer flowing but has reached a storm drain and adequate cleanup is still critical. Call Salt Lake County Health Department, Draper City.
  3. Spills that are contained on the surface, typically do not meet the criteria for Critical and Minor Emergencies and may be managed by the responsible implementation of this SOP.
  4. Contact Numbers:  
NATIONAL RESPONSE CENTER (NRC) 800-424-8802  
HAZMAT - 911  
DWQ HOTLINE –801-536-4123, 801-231-1769, 801-536-4300  
Salt Lake County Health Department – 385-468-4000  
Draper City – 801-576-6500

**3. Cleanup Procedure:**

- a) NEVER WASH SPILLS TO THE STORM DRAIN SYSTEMS.
- b) Clean per SDS requirements but generally most spills can be cleaned up according to the following:
  - Absorb liquid spills with spill kit absorbent material, sand or dirt until liquid is sufficiently converted to solid material.
  - Remove immediately using dry cleanup methods, e.g. broom and shovel, or vacuum operations.
  - Cleanup with water and detergents may also be necessary depending on the spilled material. However, the waste from this operation must be vacuumed or effectively picked up by dry methods or vacuum machinery. See Pavement Washing SOP.
  - Repeat process when residue material remains.

**4. DISPOSAL:**

- a) Follow SDS requirements but usually most spills can be disposed per the following b. & c.
- b) Generally, most spills absorbed into solid forms can be disposed to the dumpster and receptacles. Follow Waste Management SOP.
- c) Generally, liquid waste from surface cleansing processes may be disposed to the sanitary sewer system after the following conditions have been met:
  - Dry cleanup methods have been used to remove the bulk of the spill and disposed per the Waste Management SOP.
  - The liquid waste amounts are small and diluted with water. This is intended for spill cleanup waste only and never for the disposal of unused or spent liquids.

**5. Documentation:**

- a) Document all spills in Appendix C.

**6. SDS sheets:**

- a) SDS Manual is filed in break room.

**7. Materials:**

- a) Generally, sand or dirt will work for most cleanup operations and for containment. However, it is the responsibility of the owner to select the absorbent materials and cleanup methods required by the SDS Manuals for chemicals used by the company.

**8. Training:**

- a) Annually and at hire.
- b) Require snow and ice service contractors to follow the stronger this SOP and their company SOPs.

## APPENDIX C – PLAN RECORDKEEPING DOCUMENTS

**MAINTENANCE/INSPECTION SCHEDULE**

Frequency	Site Infrastructure.
	Replace text with the infrastructure / system that must be maintained; repeat
A	#375 SDCO, #376 SDCO, #357 SDCO, #345 SDCO, #343 SDCO
A	#359 SDCB, #358 SDCB, #371 SDCB, #344 SDCB, #349 SDCB, #369 SDCB, #339 SDCB
A	#346 SDCB, #355 SDCB, #342 SDCB, #337 SDCB, #338 SDCB, #336 SDCB, #370 SDCB
Q	#360 SDCB w/3.95" Orifice (connected to Existing #325 SDCO, then City storm drain system)
A	Existing #325 SDCO (connects to City Storm Drain System)
A	StormTech Chambers Phase 2

Inspection Frequency Key: A=annual, Q=Quarterly, M=monthly, W=weekly, S=following appreciable storm event, U=Unique infrastructure specific (specify)

**RECORD INSPECTIONS IN THE MAINTENANCE LOG**

Inspection Means: Either; Traditional walk through, Awareness/Observation, and during regular maintenance operations while noting efficiencies/inefficiencies/concerns found, etc.







## APPENDIX D – Support Design Reports and Documents