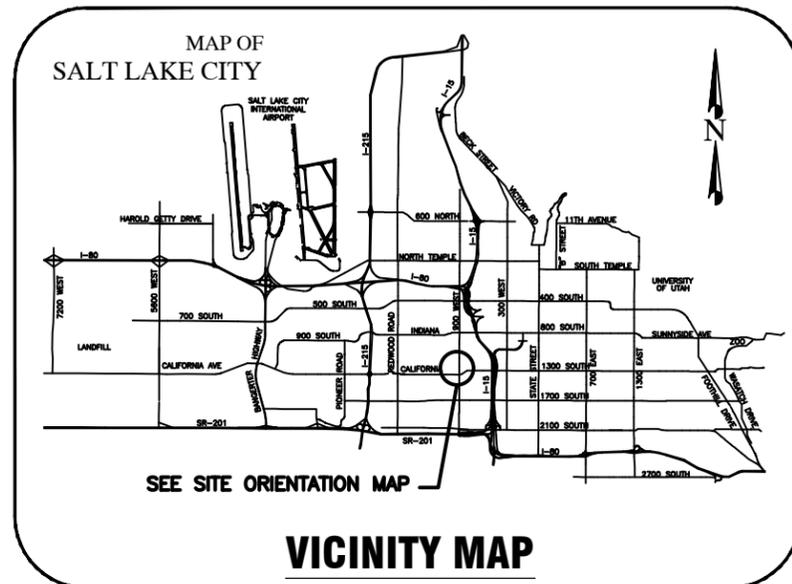


# SALT LAKE CITY CORPORATION

## THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION JOB NO. 300124



### OWNER

DEPARTMENT OF:  
**COMMUNITY AND NEIGHBORHOODS  
ENGINEERING DIVISION**

DIRECTOR - MIKE REBERG  
CITY ENGINEER - JEFF SNELLING, S.E.

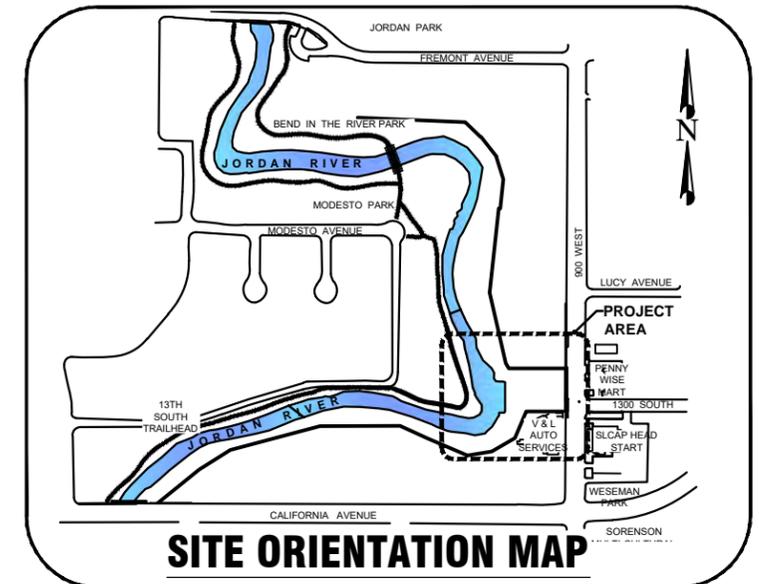
349 SOUTH 200 EAST, SUITE 100  
SALT LAKE CITY, UTAH 84111  
OFFICE - 801.535.7961  
FAX - 801.535.6093

### CITY OFFICIALS

MAYOR JACKIE BISKUPSKI  
CITY COUNCIL  
DIST. 1 JAMES ROGERS  
DIST. 2 ANDREW JOHNSTON  
DIST. 3 CHRIS WHARTON  
DIST. 4 DEREK KITCHEN  
DIST. 5 ERIN MENDENHALL  
DIST. 6 CHARLIE LUKE  
DIST. 7 AMY FOWLER

### SHEET SET ASSEMBLY ORDER

SHEET DESIGNATOR	BINDING ORDER	SHEET TITLE
GI 001	1	GENERAL INFORMATION COVER SHEET
GI 002	2	GENERAL INFORMATION NOTES
LD 101	3	LANDSCAPE DEMOLITION PLAN
LS 101	4	LANDSCAPE SITE PLAN
LS 102	5	LANDSCAPE SITE LAYOUT PLAN
LG 101	6	LANDSCAPE GRADING PLAN
LP 101	7	LANDSCAPE PLANTING PLAN
LI 101	8	LANDSCAPE IRRIGATION PLAN
SC 301-SC 303	9-11	LANDSCAPE SECTIONS
DT 501-DT 512	12-24	LANDSCAPE SITE DETAILS
DT 511	25	LANDSCAPE PLANTING DETAILS
DT 512-DT13	26-27	LANDSCAPE IRRIGATION DETAILS
S 000	28	STRUCTURAL NOTES
S 100	29	PEDESTRIAN BRIDGE
S 200	30	CANTILEVER SLAB
S 300	30	RETAINING WALLS
S 400	31	OVERLOOK PLATFORM



### DESIGNER

#### LANDSCAPE ARCHITECT:



#### PREPARER CONSULTANTS:



40% PROGRESS SET  
NOT FOR CONSTRUCTION

THREE CREEKS CONFLUENCE OPEN SPACE  
REACTIVATION AND RIPARIAN RESTORATION

JOB NO. 300124

CITY ENGINEER	CITY PROJECT MANAGER	PPL DIRECTOR	OPEN SPACE LANDS PROGRAM MANAGER	PROJECT DESIGNER
JEFF SNELLING, S.E.	JOSH WILLIE, P.E.	KRISTIN RIKER	LEWIS KOGAN	CHRISTOPHER SANDS, RLA
DATE	DATE	DATE	DATE	DATE

# GENERAL NOTES

## Project Limits

All construction activity shall be confined to the project limit of disturbance including any staging/stockpile areas. Do not disturb, excavate or work beyond project limits of disturbance without permission from the Owners Representative.

## Site Mapping

Basis of bearing for plans is Utah State Plane Central Zone NAD' 83 US Survey foot Coordinates. Elevation datum is NAVD 88/Geoid model 1999. The base survey was provided by Salt Lake City Corporation. Verification of survey mapping is the responsibility of the Contractor.

## Survey Staking

Survey staking is the responsibility of the Contractor. The Contractor may obtain CAD files from the Designer for staking and layout purposes.

## Permits

The Contractor is required to comply with all construction related requirements in each permit issued for the project.

## Utilities

The Contractor is responsible for locating and avoiding all utilities and service laterals, and for repairing all damage that occurs to the utilities due to the Contractor's activities. It is the responsibility of the Contractor to perform all utility locations at least 48 hours prior to excavation, call 1(800)662-4111. It is the responsibility of the Contractor to protect all existing sewer, water, gas and electric utilities encountered in the work. Any relocation or improvements of utilities shall be accurately noted on as-built drawings and issued to the Owners Representative at the completion of the project. Existing utility information obtained from Public Utilities' maps must be assumed as approximate and requiring field verification. Contact blue stakes or appropriate owner for communication line locations.

## Utility Relocations

For utility conflicts requiring relocations, the contractor must notify the applicable utility company or user a minimum of 2-weeks in advance. A one-week minimum notification is required for conflicts requiring the relocation of service laterals. All relocations are subject to approval from the applicable utility company and/or user.

## Safety

The Contractor is responsible for all aspects of safety of the project and shall meet all OSHA, State, County and other governing entity requirements. The Contractor is solely responsible for conforming to local and Federal codes governing shoring and bracing of excavations and trenches, and for the protection of workers.

## Traffic Control and Haul Routes

Traffic control must conform to the most current edition of Salt Lake City Traffic Control Manual - Part 6 of "Manual On Uniform Traffic Control Devices" for Salt Lake County and state roads. SLC Transportation must approve all project haul routes (535-7129). The Contractor must also conform to UDOT, Salt Lake County or other applicable governing entities requirements for traffic control.

## Temporary Construction Facilities

All temporary utilities and facilities will be the responsibility of the Contractor. A construction trailer is not required. Potable water is not available on site and shall be provided by the Contractor. A chemical toilet of suitable type shall be provided and maintained by the Contractor at all times. The Contractor is responsible for job site conditions and the safety for human life during the course of construction. This requirement shall apply continuously during the period of construction and is not limited to normal working hours.

The Contractor shall keep job site area clean, hazard free and dispose of all debris, rubbish and construction waste, and remove all abandoned materials from the site. All disturbed staging and access areas are to be restored to pre-construction condition. The Contractor is responsible to reclaim (regrade, seed and mulch, or turf sod) construction features not specified as remaining on the site and clean up all areas at the completion of the project.

## Construction Spoils and Waste Handling

Items encountered below grade and not shown on the drawings shall be brought to the attention of the Owners Representative. All construction spoils and waste are the responsibility of the Contractor and shall be disposed of at an approved landfill facility.

## Clearing and Grubbing

Existing on-site materials shall be carefully removed and stored for re-use, or disposed of at an approved landfill facility. All existing vegetation not in designated excavation areas and not designated for removal is to be protected in place. Completely remove stumps, roots, shrubs, weeds, and other debris protruding from the ground in areas to be excavated.

## Site Earthwork and Grading

The Contractor is responsible for all site earthwork and grading activities to meet designs identified in plans and details, which are intended to show final result of design. Modifications may be required to suit job site conditions encountered during construction and shall be included in as-built drawings provided to the Owners Representative at completion of the project.

All river channel banks and stream channel banks affected by construction activities shall be

stabilized and protected throughout construction.

Backfill and embankment material shall be composed of suitable excavated soils.

Existing topsoil shall be excavated and salvaged by Contractor for use in landscaping and grading activities. Topsoils used in landscaping shall have acidity range (pH) from 5.5 to 7.5 and a minimum organic content of 2%.

Topsoil shall be placed at 80% to 90% maximum dry density and subsoil at 85% minimum compaction as determined by the Standard Proctor Method (ASTM D0698-66T or AASHTO T99). All existing topsoils shall be salvaged and utilized for revegetation activities to the extent possible.

## Site Construction Notes

All tree removal activities and site disturbance activities between April 1 and August 31 shall occur only after a Nesting Bird Survey has been conducted within the construction site footprint and all protocols and protective measures are followed.

All planting and seeding activities shall occur during the designated seeding and planting window from September 15 to December 1 unless in areas with irrigation or as otherwise authorized by the Owners Representative.

Where ground conditions are damp and equipment traffic would result in excessive ground compaction and rutting, use construction mats to access active work areas.

Use a water truck or other suitable watering device as needed to control dust.

Inspect paved roads adjacent to the project site regularly for mud tracking; sweep roadways as needed and ensure roads are left clean at the end of each shift.

Clean site and dispose of construction waste as permitted.

## Temporary Environmental/Safety Fence

Install fencing to demarcate active work areas as appropriate based on construction phasing.

The Contractor is responsible to keep access to Private Property open at all times during construction. The Contractor is responsible to keep access to areas of the park not affected by construction open at all times during construction.

The Contractor is responsible for installing water control measures as needed to perform stream work in dry conditions. Water control measures include but are not limited to diversions, culverts, sumps with pumps or other means necessary to divert surface water away from the active work area. Adequate measures must be taken to remove all sediment prior to discharge.

## Storm Water Pollution Prevention Plan Notes

1. No earth shall be disturbed until all erosion control measures are in place.
2. Erosion control measures will be maintained and remain in place until re-vegetation measures have been established.
3. Monitor, inspect, and maintain all erosion control measures as needed to prevent erosion and sediment discharge into creeks or pond. Adjust locations of measures and install additional measures as construction phasing requires. Disturbed areas where construction activity has ceased will be stabilized in accordance with State UPDES and Salt Lake City requirements. Submittal of NOI and acquisition of UPDES Storm Water General Permit for Construction Activities (UTR300000) is the responsibility of the Contractor.
4. The Contractor is responsible for implementing and utilizing Best Management Practices (BMPs) to prevent storm water runoff and water pollution during construction activities. The Contractor is responsible for supplying equipment and plans that provide both dust and fire control during project construction. Use caution when working in and around wet areas. If potential hazardous materials are encountered, contact the Owners Representative immediately.

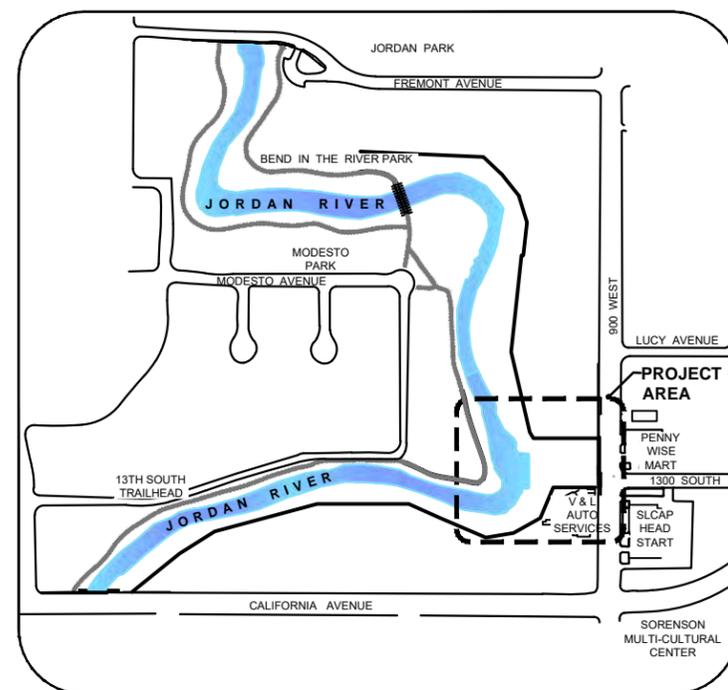
## Grading And Drainage Plan Notes

1. Contractor to stake the boundary of the grading area for approval from the Owners Representative prior to initiating grading activities.
2. Contractor is responsible for erosion, dust and temporary drainage control during grading operations.
3. Fill areas are to be compacted throughout to a minimum of 90% relative compaction.
4. Contractor is responsible for the location and protection of all utilities.
5. Export soil, if any, must be transported to a legal landfill or permitted site.

# ABBREVIATIONS

APPROX	APPROXIMATE
AVG	AVERAGE
BC	BOTTOM OF CURB
BM	BENCHMARK
BOC	BACK OF CURB
BW	BOTTOM OF WALL
CAL	CALIPER
CL	CENTERLINE
CY	CUBIC YARD
DIA	DIAMETER
EL	ELEVATION
EX	EXISTING
FG	FINISH GRADE
HORIZ	HORIZONTAL
HP	HIGH POINT
IN	INCHES
LF	LINEAR FEET
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
REQ'D	REQUIRED
ROW	RIGHT OF WAY
SF	SQUARE FOOT
SHT	SHEET
TC	TOP OF CURB
TW	TOP OF WALL
TYP	TYPICAL
VERT	VERTICAL

# SITE ORIENTATION KEY



PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

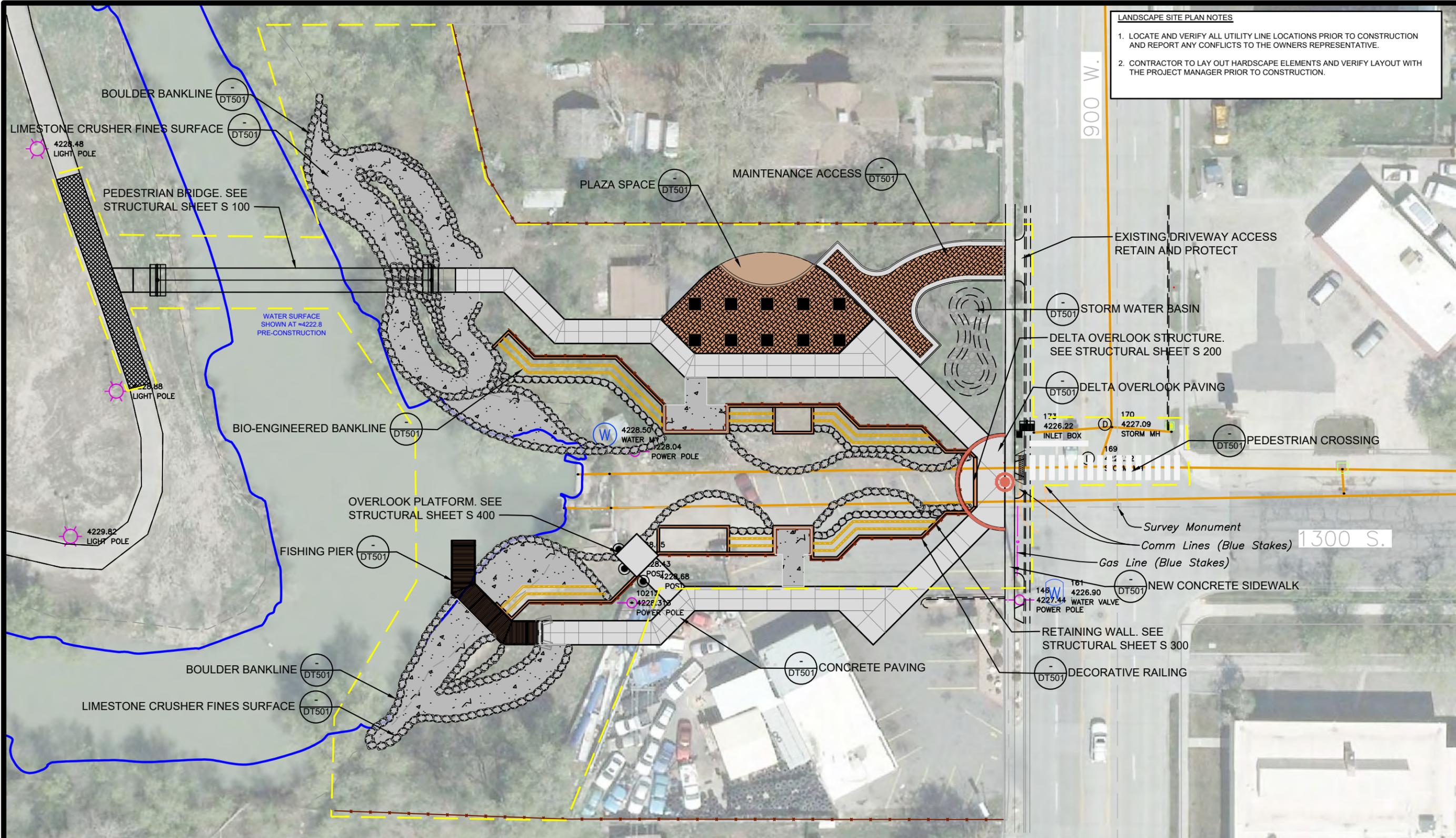
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**GENERAL  
INFORMATION  
NOTES**

SHEET IDENTIFIER:  
**GI 002**

BINDING ORDER





**LANDSCAPE SITE PLAN NOTES**

1. LOCATE AND VERIFY ALL UTILITY LINE LOCATIONS PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS TO THE OWNERS REPRESENTATIVE.
2. CONTRACTOR TO LAY OUT HARDSCAPE ELEMENTS AND VERIFY LAYOUT WITH THE PROJECT MANAGER PRIOR TO CONSTRUCTION.

PREPARER:  
  
 PREPARER CONSULTANTS:  
  
  
 PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

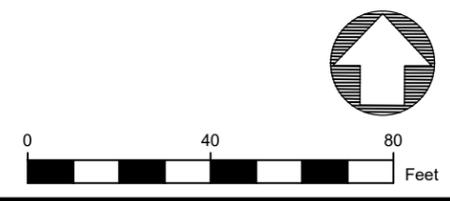
MARK	DATE	DESCRIPTION

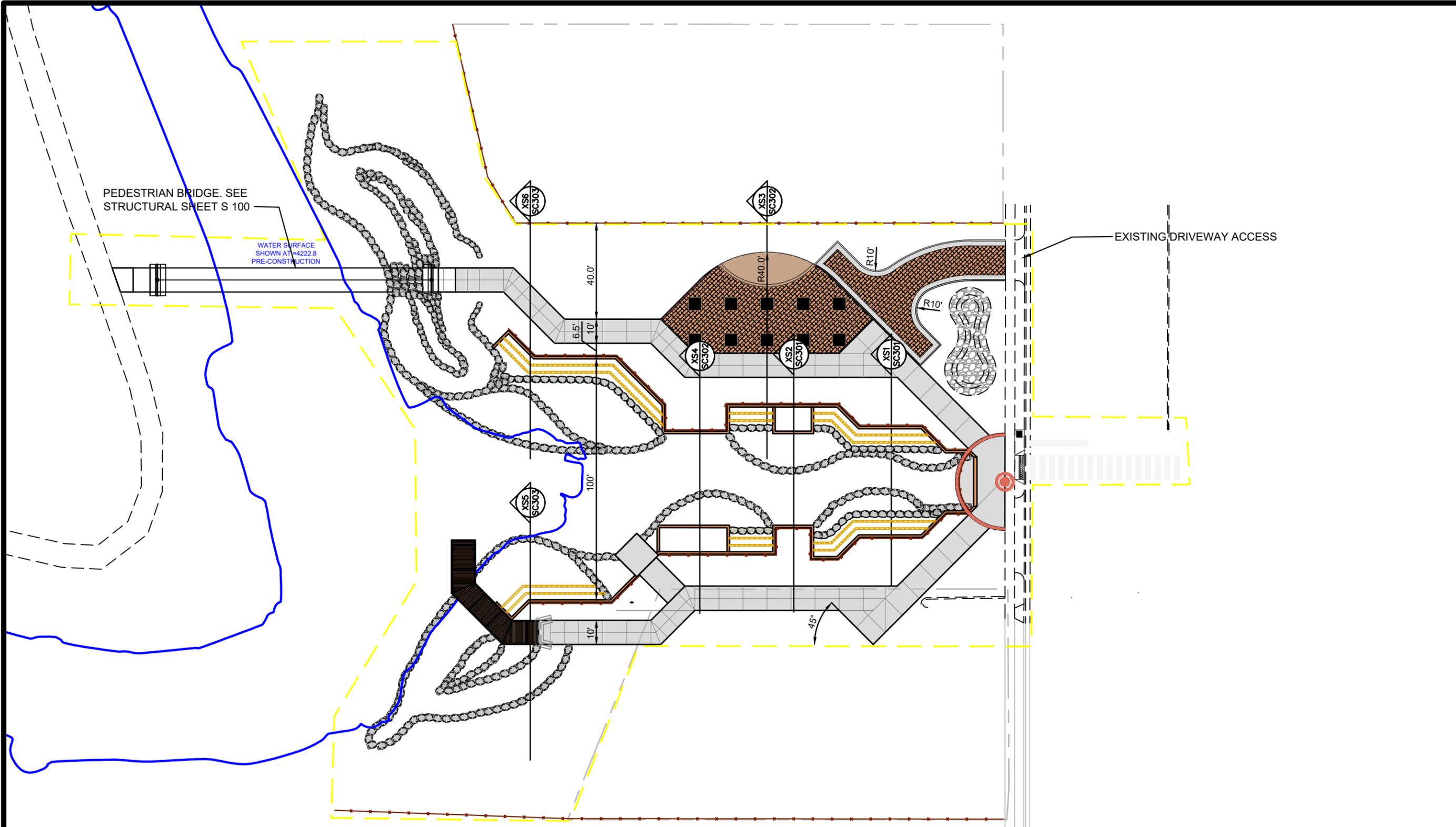
PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT:  
**FEBRUARY 2018**

SHEET TITLE:  
**LANDSCAPE SITE PLAN**  
 SHEET IDENTIFIER:  
**LS 101**  
 BINDING ORDER

**LANDSCAPE SITE PLAN LEGEND**

 PROJECT LIMIT LINE





**LANDSCAPE LAYOUT PLAN LEGEND**

PROJECT LIMIT LINE

PREPARER:  
**BIO-WEST**  
349 SOUTH 200 EAST, SUITE 100, SALT LAKE CITY, UTAH 84114-5506

PREPARER CONSULTANTS:  
**FORSGREN**  
*Associates, Inc.*

**ALL RED RESTORATION**

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
**ENGINEERING**  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

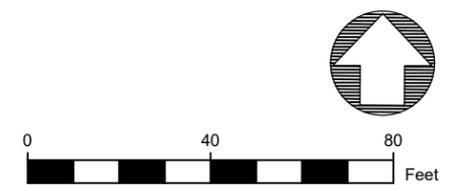
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: **S. DAVENPORT**  
 CHECKED BY: **C. SANDS**  
 COPYRIGHT:  
**FEBRUARY 2018**

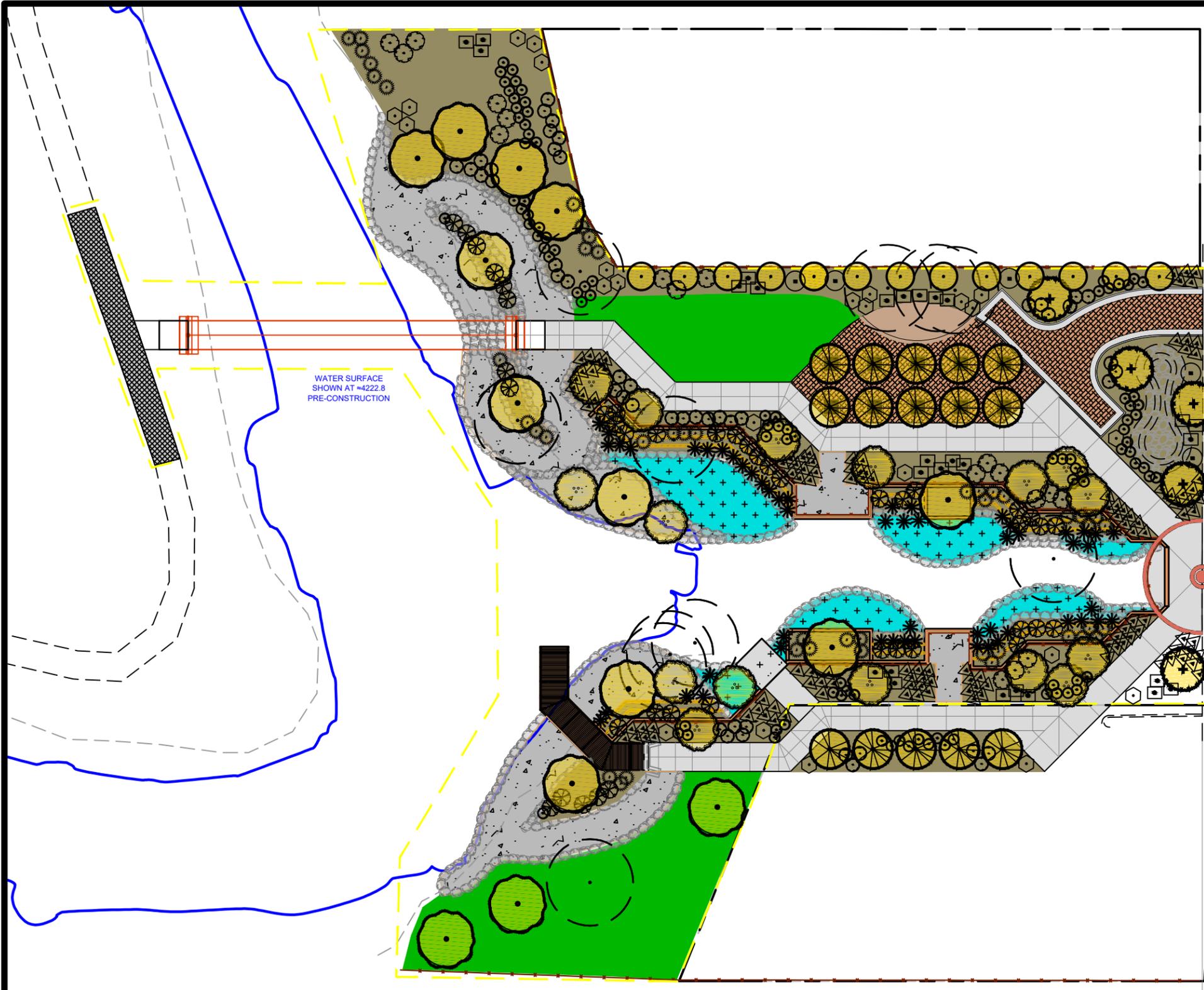
SHEET TITLE:  
**LANDSCAPE LAYOUT PLAN**

SHEET IDENTIFIER:  
**LS 102**

BINDING ORDER







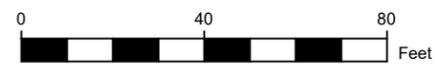
- LANDSCAPE PLANTING PLAN NOTES**
1. THE PLANTING PLAN IS DIAGRAMMATIC. PLANT LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS OF PLANT MATERIALS TO BE APPROVED BY THE OWNERS REPRESENTATIVE IN THE FIELD PRIOR TO INSTALLATION.
  2. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY "THE AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
  3. NO SUBSTITUTION OF PLANT SPECIES WILL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
  4. LOCATE AND VERIFY ALL UTILITY LINE LOCATIONS PRIOR TO STAKING AND REPORT ANY CONFLICTS TO THE OWNERS REPRESENTATIVE.
  5. PROVIDE A MINIMUM TOPSOIL DEPTH OF SIX (6) INCHES ON AREAS OF CUT AND FILL DISTURBANCES AS PER SECTION 32 92 00.
  6. DO NOT INSTALL PLANT MATERIAL UNTIL THE ROUGH GRADING OF TOPSOIL IS APPROVED BY THE OWNERS REPRESENTATIVE.
  7. ALL PLANT SPECIES ARE NATIVE TO UTAH AND ADAPTED TO CONDITIONS FOUND ON SITE. RIPARIAN SPECIES ARE LOCATED ALONG STREAMS AND POND.

**PLANT KEY BOTANICAL / COMMON NAME / HYDROZONE**

- LARGE TREES:**  
 POPULUS ANGUSTIFOLIA / NARROWLEAF COTTONWOOD  
 ACER NUGUNDO / BOX ELDER  
 ACER GRANDIDENTATUM / BIGTOOTH MAPLE  
 PICEA PUNGENS / BLUE SPRUCE
- MED PARK TREES:**  
 BETULA OCCIDENTALIS / RIVER BIRCH  
 ACER NEGUNDO 'SENSATION' / SENSATION BOXELDER
- SMALL PARK TREES:**  
 PRUNUS VIRGINIANA / CHOKECHERRY  
 ACER GRANDIDENTATUM 'ROCKY MOUNTAIN GLOW' / BIG TOOTH MAPLE

- SHRUBS: 5 GALLON SIZE**
- CS CORNUS SERICEA / RED-OSIER DOGWOOD
  - RW ROSA WOODSII / WOODS ROSE / Sd2
  - SE SALIX EXIGUA / COYOTE WILLOW
  - AA AMELANCHIER ALNIFOLIA / SERVICEBERRY / Sd1
  - DF DASIPHORA FRUTICOSA / CINQUEFOIL / Sd2
  - EN ERICAMERIA NAUSEOSA / RABBITBRUSH / Sd0
  - MR MAHONIA REPENS / CREEPING MAHONIA / GV1
  - RT RHUS TRILOBATA / SKUNKBUSH / Sd0

- RA RIBES AUREUM / GOLDEN CURRANT / Sd2
- SA SYMPHORICARPOS ALBUS / SNOWBERRY / Sd2
- NATIVE UPLAND SEED MIX
- WETLAND SOD: PRE-VEGETATED (NATIVE)  
COIR EROSION CONTROL MAT. EACH MAT = 3.3 FEET WIDE X 16.4 FEET LONG X 4 INCHES THICK.
- SHREDDED BARK MULCH (4 INCHES THICK).



PREPARER: **BIO-WEST**  
349 South 200 East, Suite 100, Salt Lake City, UT 84114 • 801-535-6157

PREPARER CONSULTANTS: **FORSGREN** Associates, Inc.  
**ALL RED RESTORATION**

PROFESSIONAL SEAL:

---

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER: **SALT LAKE CITY CORPORATION**  
**ENGINEERING**  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

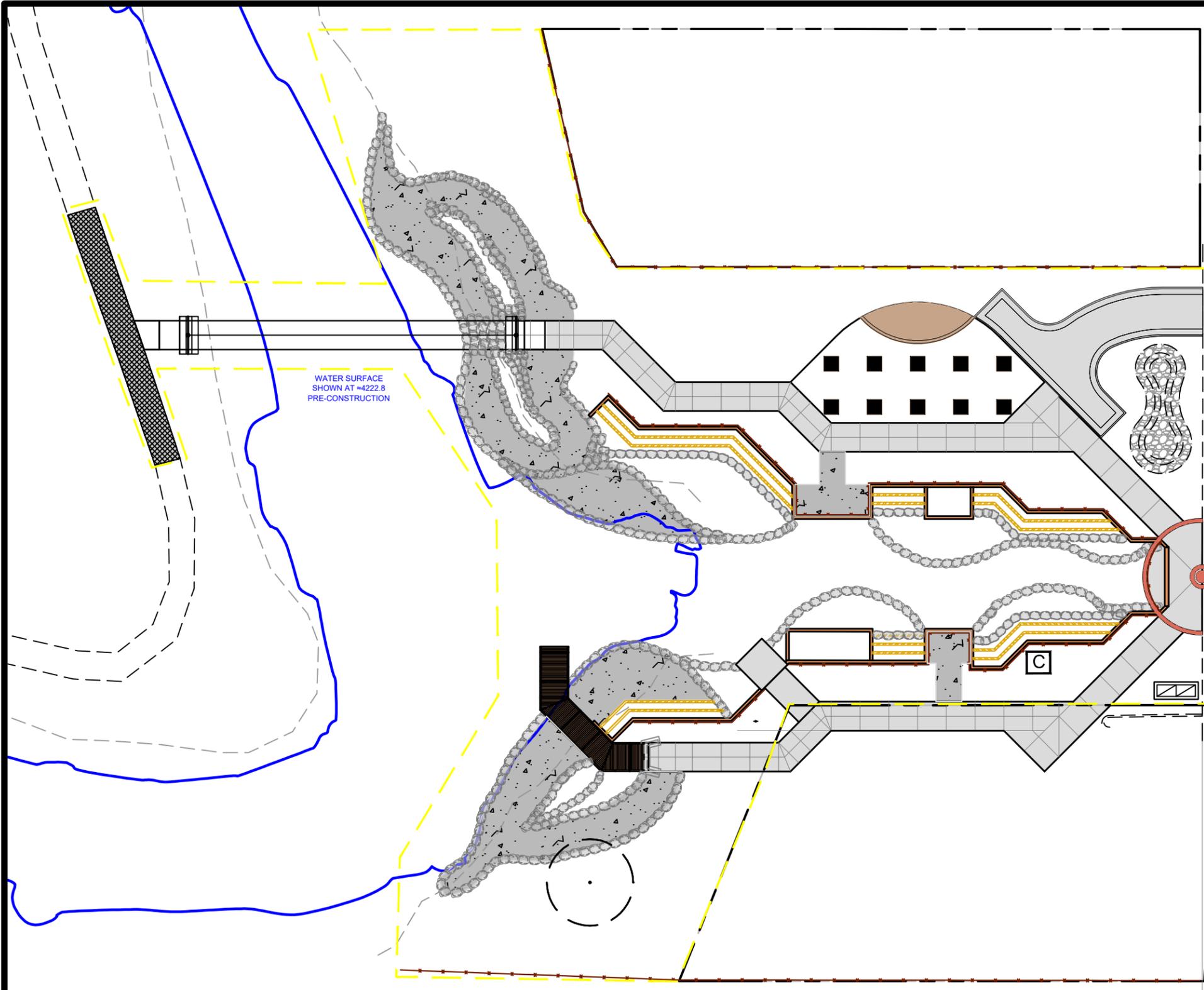
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT: **FEBRUARY 2018**

SHEET TITLE:  
**LANDSCAPE PLANTING PLAN**

SHEET IDENTIFIER:  
**LP 101**

BINDING ORDER



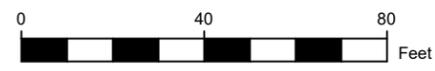
- IRRIGATION PLAN NOTES**
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE MOST RECENT EDITIONS OF THE FOLLOWING: THE INTERNATIONAL PLUMBING CODE, UTAH DRINKING WATER REGULATIONS, APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS, AND SLC PUBLIC UTILITIES MODIFICATIONS TO APWA STANDARD PLANS AND APPROVED MATERIALS AND SLC PUBLIC UTILITIES APWA SPECIFICATIONS MODIFICATIONS. THE CONTRACTOR IS REQUIRED TO ADHERE TO ALL OF THE ABOVE-MENTIONED DOCUMENTS UNLESS OTHERWISE NOTED AND APPROVED IN WRITING BY THE SALT LAKE CITY DIRECTOR OF PUBLIC UTILITIES.
  - CONTRACTOR MUST OBTAIN ALL THE NECESSARY PERMITS AND AGREEMENTS AND PAY ALL APPLICABLE FEES PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTACT SALT LAKE CITY ENGINEERING (535-6248) FOR PERMITS AND INSPECTIONS REQUIRED FOR ANY WORK CONDUCTED WITHIN SALT LAKE CITY'S PUBLIC RIGHT-OF-WAY. APPLICABLE UTILITY PERMITS MAY INCLUDE MAINLINE EXTENSION AGREEMENTS AND SERVICE CONNECTION PERMITS. ALL UTILITY WORK MUST BE BONDED. ALL CONTRACTORS MUST BE LICENSED TO WORK ON CITY UTILITY MAINS.
  - WATER SERVICE CONSTRUCTION REQUIREMENTS -**  
SLC PUBLIC UTILITIES MUST APPROVE ALL WATER SERVICE CONNECTIONS. A MINIMUM 3-FOOT SEPARATION IS REQUIRED BETWEEN ALL WATER AND FIRE SERVICE TAPS INTO THE MAIN. ALL CONNECTIONS MUST BE MADE MEETING SLC PUBLIC UTILITIES REQUIREMENTS. A 5-FOOT MINIMUM BURY DEPTH (FINAL GRADE TO TOP OF PIPE) IS REQUIRED ON ALL WATER/FIRE LINES UNLESS OTHERWISE APPROVED BY PUBLIC UTILITIES. WATER LINE THRUST BLOCK AND RESTRAINTS ARE AS PER SLC APPROVED DETAIL DRAWINGS AND SPECIFICATIONS. ALL EXPOSED NUTS AND BOLTS WILL BE COATED WITH CHEVRON FM1 GREASE PLUS MINIMUM 8 MIL THICKNESS PLASTIC. PROVIDE STAINLESS STEEL NUTS, BOLTS AND WASHERS FOR HIGH GROUNDWATER/ SATURATED CONDITIONS AT FLANGE FITTINGS, ETC.
  - ALL WATERLINES INSTALLATIONS AND TESTING TO BE IN ACCORDANCE WITH AWWA SECTIONS C600, C601, C651, C206, C200, C900, C303 AWWA MANUAL M11 AND ALL OTHER APPLICABLE AWWA, UPWS, ASTM AND ANSI SPECIFICATIONS RELEVANT TO THE INSTALLATION AND COMPLETION OF THE PROJECT. AMENDMENT TO SECTION C600 SECTION 4.1.1; DOCUMENT TO READ MINIMUM TEST PRESSURE SHALL NOT BE LESS THAN 200 P.S.I. GAUGED TO A HIGH POINT OF THE PIPELINE BEING TESTED. ALL MATERIALS USED FOR WATERWORKS PROJECTS TO BE RATED FOR 150 P.S.I. MINIMUM OPERATING PRESSURE.
  - CONTRACTOR IS TO INSTALL WATER SERVICE LINES, METER YOKES AND/OR ASSEMBLIES AND METER BOXES WITH LIDS LOCATED AS APPROVED ON THE PLANS PER APPLICABLE PUBLIC UTILITIES DETAIL DRAWINGS. METER BOXES ARE TO BE PLACED IN THE PARK STRIPS PERPENDICULAR TO THE WATERMAIN SERVICE TAP CONNECTION. ALL WATER METERS, CATCH BASINS, CLEANOUT BOXES, MANHOLES, DOUBLE CHECK VALVE DETECTOR ASSEMBLIES, REDUCED PRESSURE DETECTOR ASSEMBLIES AND BACKFLOW PREVENTION DEVICES MUST BE LOCATED OUTSIDE OF ALL APPROACHES, DRIVEWAYS, PEDESTRIAN WALKWAYS AND OTHER TRAVELED WAYS UNLESS OTHERWISE APPROVED ON PLANS.
  - BACKFLOW PREVENTORS ARE REQUIRED ON ALL IRRIGATION TAPS PER PUBLIC UTILITIES REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM BACKFLOW PREVENTION TESTS PER SALT LAKE CITY STANDARDS AND SUBMIT RESULTS TO PUBLIC UTILITIES. ALL TESTS MUST BE PERFORMED AND SUBMITTED TO PUBLIC UTILITIES WITHIN 10 DAYS OF INSTALLATION OR WATER TURN-ON. BACKFLOW TEST FORMS ARE AVAILABLE AT PUBLIC UTILITIES' CONTRACTS AND AGREEMENTS OFFICE.
  - CONTRACTOR SHALL NOT ALLOW ANY GROUNDWATER OR DEBRIS TO ENTER THE NEW OR EXISTING PIPE DURING CONSTRUCTION. UTILITY TRENCHING, BACKFILL, AND PIPE ZONE AS PER SLC PUBLIC UTILITIES, "UTILITY INSTALLATION DETAIL."
  - THE IRRIGATION SYSTEM IS DESIGNED FOR MAXIMUM OF xxx GALLONS PER MINUTE AT 75 PSI STATIC MIN. VERIFY THE AVAILABLE WATER PRESSURE AT THE P.O.C. PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE SHOWN ON THE PLANS AND THE ACTUAL PRESSURE READING AT THE P.O.C. TO THE LANDSCAPE ARCHITECT IN WRITING.
  - SLEEVE ALL PIPE UNDER PAVING OR TRAILS ETC. WITH SCH. 40 PVC PIPE THAT IS 2X DIA. OF PIPE TO BE SLEEVED.
  - IRRIGATION SYSTEM IS INTENDED SOLELY FOR USE DURING PLANT ESTABLISHMENT PERIOD AND DROUGHT CONDITIONS.

**KEY EQUIPMENT**

- POC** IRRIGATION POINT OF CONNECTION: TIE INTO EXIST. WATER LINE WITH A 2" MAIN LINE AND ISOLATION VALVE.
- M** 2" COMPOUND WATER METER WITH 2" BYPASS INSIDE A CONCRETE METER BOX. INSTALL PER APWA DETAILS PLAN NO. 505 AND NO. 523. (METER PROVIDED BY CITY)
- W** BACKFLOW PREVENTER: WILKINS REDUCED PRESSURE 975XL2 INSIDE A METAL HOTBOX ENCLOSURE
- C** CONTROLLER: RAINBIRD MAXICOM W/ I.Q. TWO WIRE SYSTEM AND METAL CASE AND PEDESTAL. CONNECT TO 120V POWER.

- SCH. 40 IRRIGATION MAINLINE
- SCH. 40 LATERAL, SIZE AS NOTED
- ISOLATION VALVE: LEEMCO LMV SERIES, LINE SIZE. IN A CARSON 910 VALVE BOX WITH LID.
- REMOTE CONTROL VALVE: RAIN BIRD PEB INSIDE A CARSON VALVE BOX WITH LID.
- QUICK COUPLER: RAIN BIRD 44LRC INSIDE A CARSON 910 VALVE

- BOX W/ LID.
- ROTOR SPRAY HEAD: RAIN BIRD 5000 RED SERIES 5012-MPR-25-Q,H,F, (@ 45 PSI: 25' RAD. Q=1 GPM, H=2 GPM, F= 4 GPM)
- PRESSURE COMPENSATING FULL-CIRCLE BUBBLER: RAINBIRD 1806 1404 NOZZLE (1 GPM)
- AIR RELEASE VALVE
- MANUAL DRAIN VALVE



PREPARER:

PREPARER CONSULTANTS:

PROFESSIONAL SEAL:

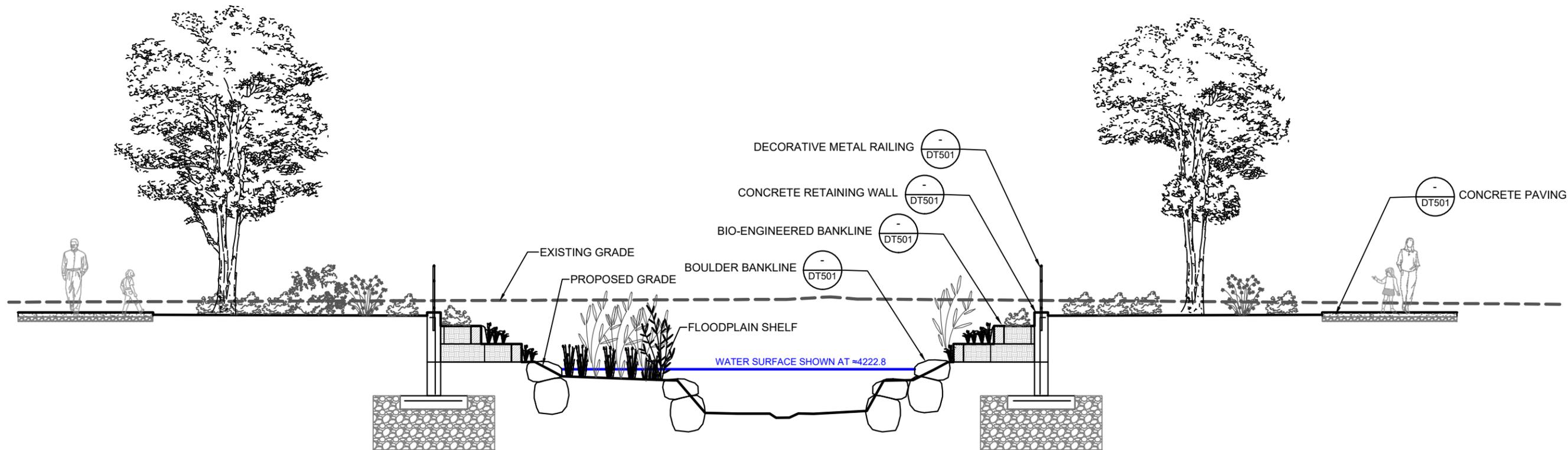
PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

MARK	DATE	DESCRIPTION

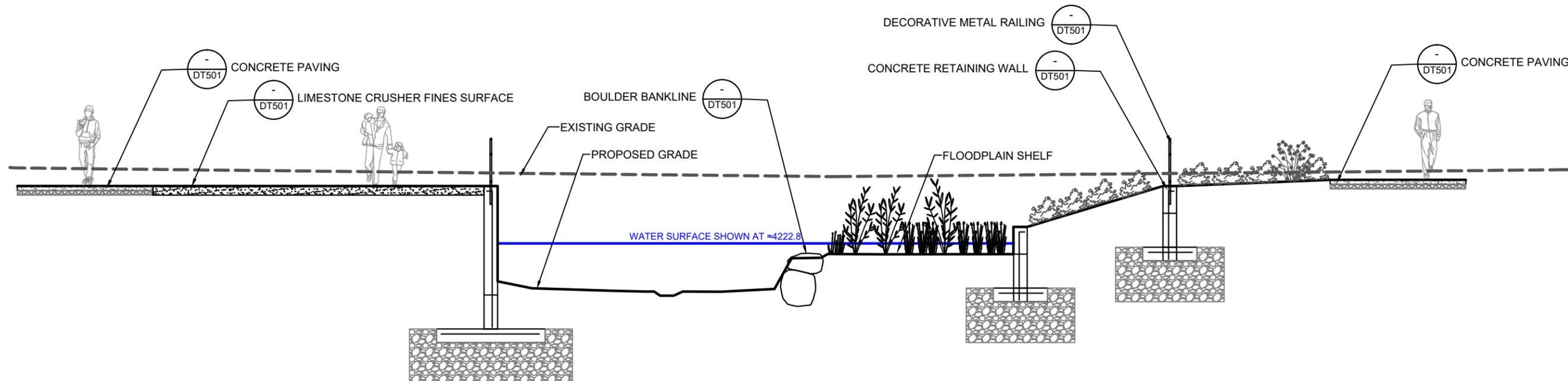
PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE IRRIGATION PLAN**  
 SHEET IDENTIFIER:  
**LI 101**  
 BINDING ORDER



**XS1 CROSS SECTION**

1"=8'-0"



**XS2 CROSS SECTION**

1"=8'-0"



PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

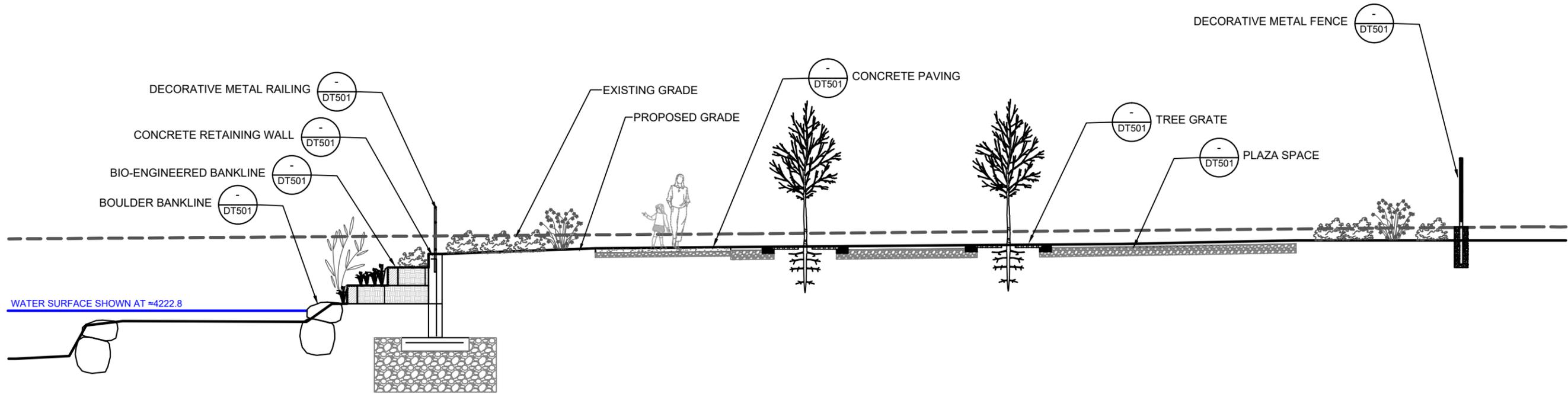
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE  
SECTIONS**

SHEET IDENTIFIER:

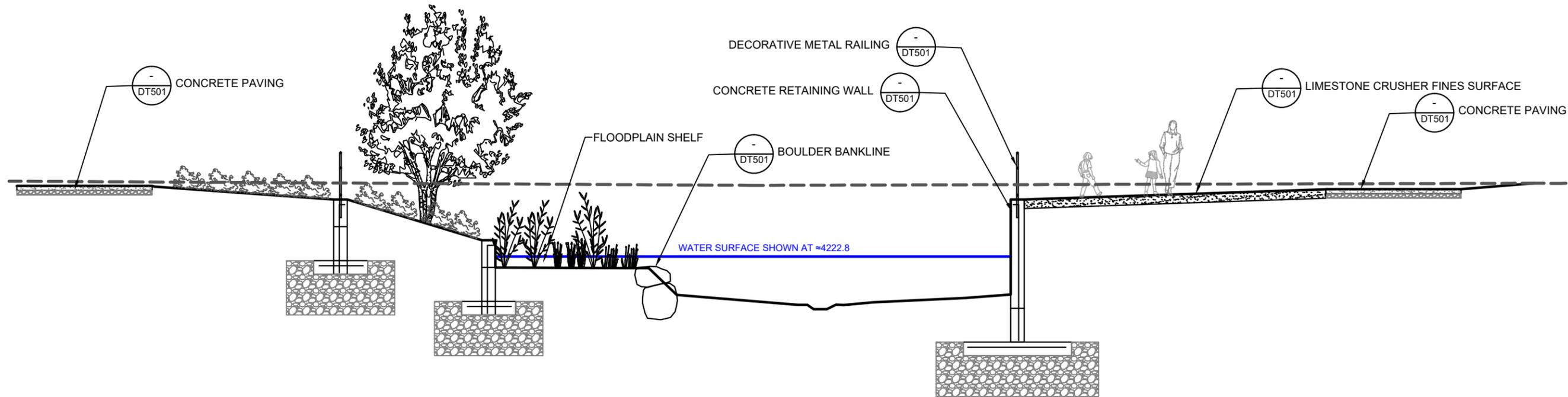
**SC 301**

BINDING  
ORDER



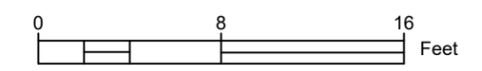
**XS3 CROSS SECTION**

1"=8'-0"



**XS4 CROSS SECTION**

1"=8'-0"



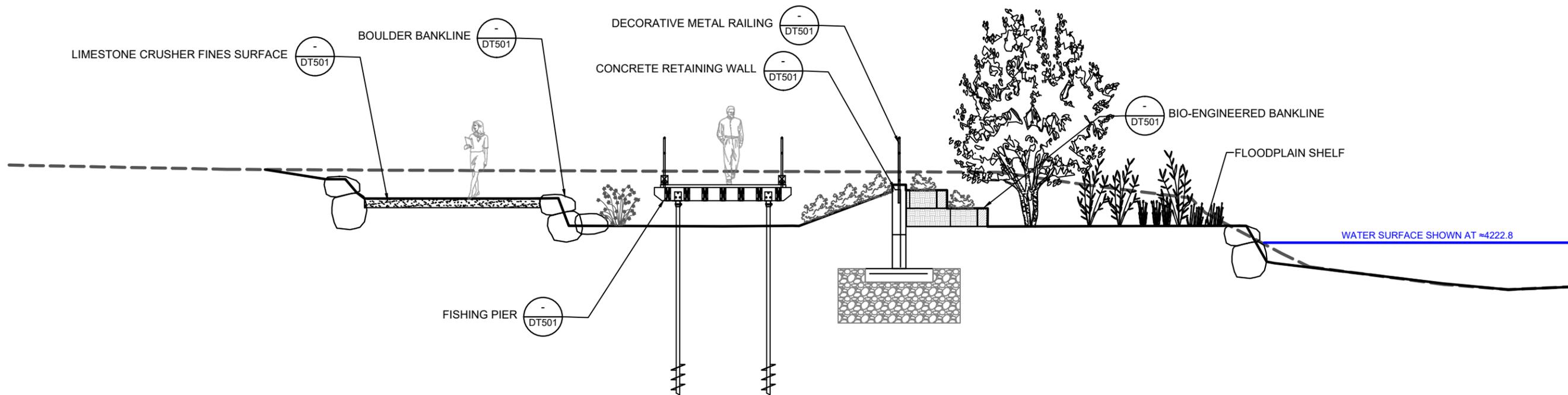
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT:  
 FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE  
 SECTIONS**

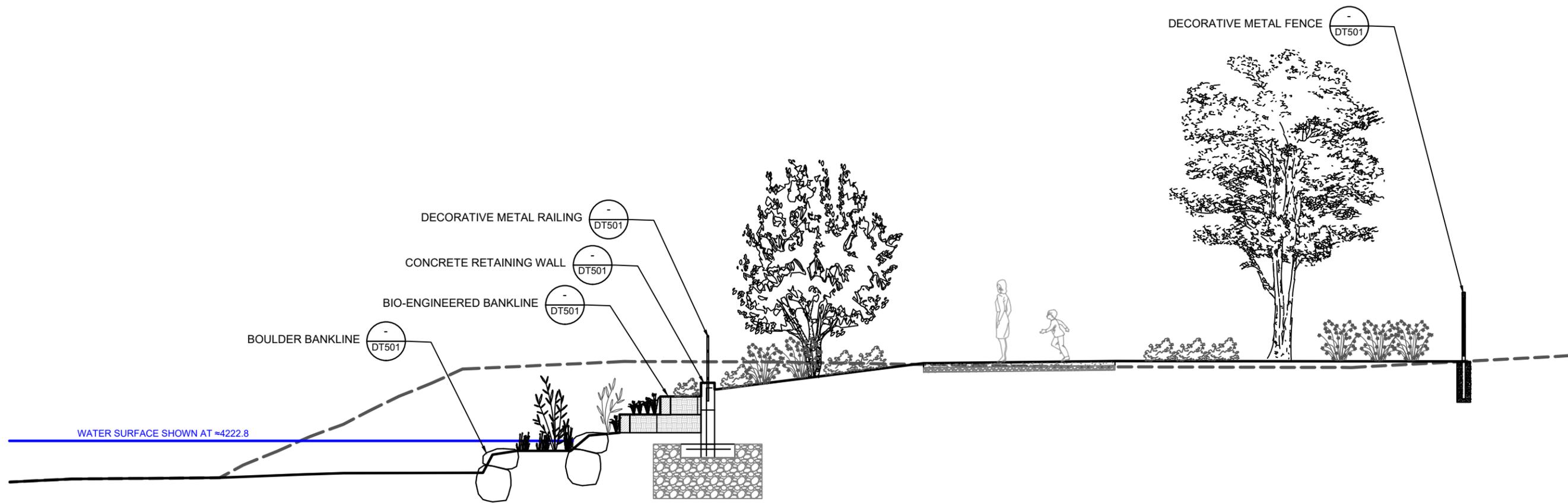
SHEET IDENTIFIER:  
**SC 302**

BINDING  
 ORDER



**XS5 CROSS SECTION**

1"=8'-0"



**XS6 CROSS SECTION**

1"=8'-0"



PREPARER:  
  
 BIO-WEST  
 1000 WEST 1100 SOUTH • UTAH • 84114 • (801) 535-4300

PREPARER CONSULTANTS:  
  
 FORSGREN  
 Associates, Inc.  
  
 ALL RED  
 RESTORATION

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
 CONFLUENCE OPEN  
 SPACE  
 REACTIVATION AND  
 RIPARIAN  
 RESTORATION**

PROJECT OWNER:  
**SALT LAKE CITY  
 CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT:  
**FEBRUARY 2018**

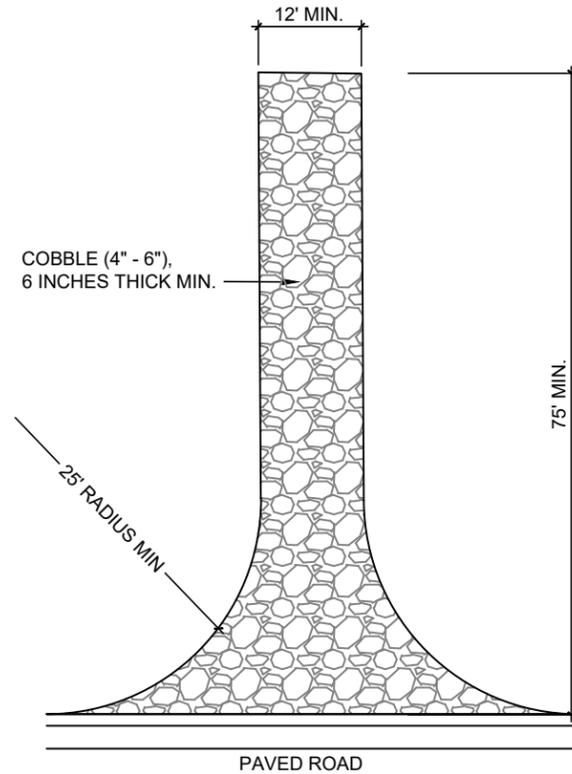
SHEET TITLE:  
**LANDSCAPE  
 SECTIONS**

SHEET IDENTIFIER:  
**SC 303**

BINDING  
 ORDER

**TEMPORARY CONSTRUCTION ENTRANCE / WASH AREA NOTES:**

1. MOW EXISTING VEGETATION AS NECESSARY BEFORE INSTALLING DRAINAGE FABRIC AND/OR GRAVEL.
2. COMPACT SUBGRADE.
3. INSPECT DAILY FOR LOSS OF COBBLE OR SEDIMENT BUILDUP.
4. PREVENT CONSTRUCTION SITE DIRT, MUD, AND ROCKS FROM BEING TRACKED ONTO ADJACENT ROADS.
5. REPAIR ENTRANCE AND REPLACE COBBLE AS REQUIRED TO MAINTAIN CONTROL IN GOOD WORKING CONDITION.
6. EXPAND STABILIZED AREA AS REQUIRED TO ACCOMMODATE TRAFFIC AND TO PREVENT EROSION AT DRIVEWAY.

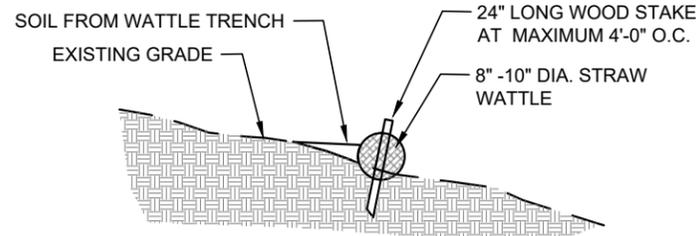


PLAN VIEW

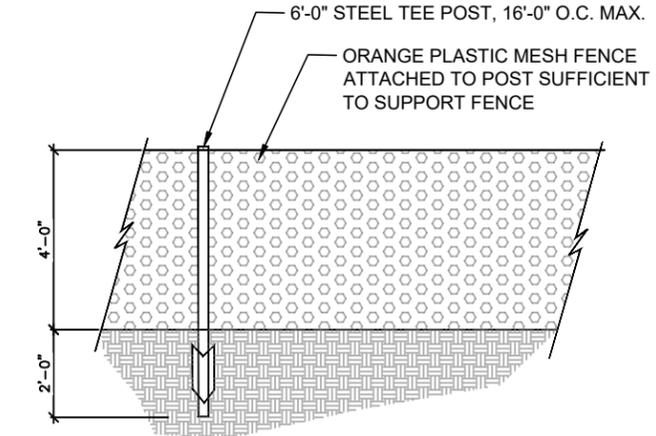
**A** TEMPORARY STABILIZED CONSTRUCTION ENTRANCE  
N.T.S.

**TEMPORARY STRAW WATTLE NOTES:**

1. TRENCH IN STRAW WATTLES TO PREVENT FLOWS FROM GOING UNDER THEM. PLACE SOIL FROM EXCAVATING THE WATTLE TRENCH ON THE UPHILL SIDE OF THE TRENCH.
2. INSTALL WATTLES PERPENDICULAR TO FLOWS AND PARALLEL TO SLOPE CONTOURS.
3. STAKE THE WATTLES AT EACH END AND MAXIMUM 4'-0" O.C.
4. USE CERTIFIED WEED FREE / SEED FREE STRAW.
5. REMOVE STRAW WATTLE BARRIERS WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UP-SLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.



**B** TEMPORARY STRAW WATTLE  
N.T.S.

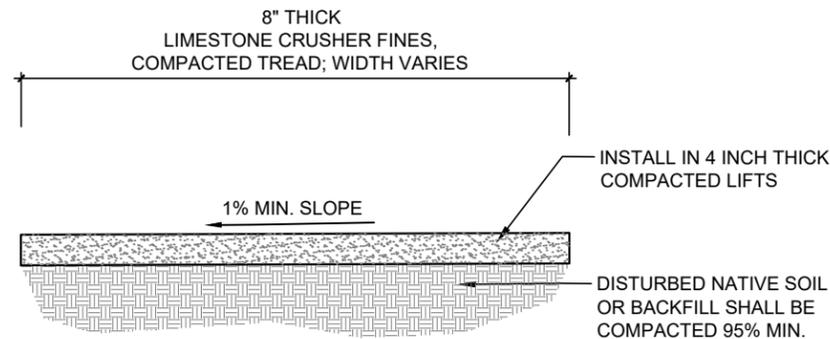


**C** TEMPORARY ENVIRONMENTAL FENCE  
N.T.S.

**DO WE NEED THICKER CONCRETE FOR MAINTENANCE ACCESS?**

**CONCRETE PAVING NOTES:**

1. TOOLED SCORE JOINTS, 1/4" WIDE X 1" DEEP. PLACE 10' O.C. OR AS INDICATED ON PLANS.
2. EXPANSION JOINTS SHALL BE PLACED AT 50' O.C. AND AT INTERSECTIONS WITH OTHER WALKS, CURBS, OR WALLS.



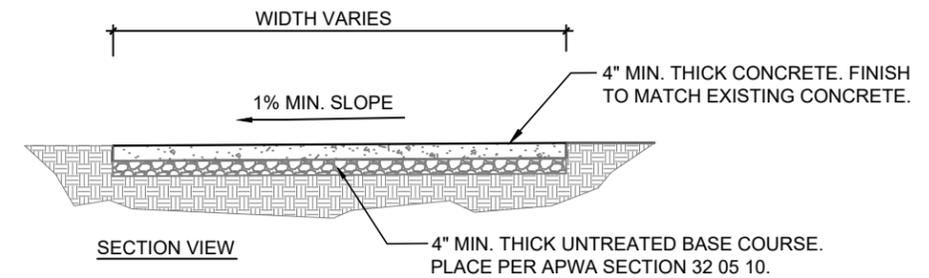
SECTION VIEW

**D** LIMESTONE CRUSHER FINES SURFACE  
1"=4'-0"

**LIMESTONE CRUSHER FINES NOTES:**

1. THE CONTRACTOR SHALL FURNISH AND DELIVER LIMESTONE CRUSHER FINES CONSISTING OF IRREGULAR AND ANGULAR PARTICLES. NO ROUNDED MATERIAL IS ACCEPTABLE. THE LIMESTONE CRUSHER FINES SHALL MEET THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	PERCENT PASSING
3/8 INCH (9.52 MM)	100%
NO. 4 (4.76 MM)	75 TO 92%
NO. 8 (2.38 MM)	50 TO 72%
NO. 16 (1.20 MM)	38 TO 55%
NO. 40 (0.42 MM)	20 TO 40%
NO. 100 (0.149 MM)	10 TO 22%
NO. 200 (0.074 MM)	8 TO 15%



SECTION VIEW

**E** CONCRETE PAVING  
1"=4'-0"

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

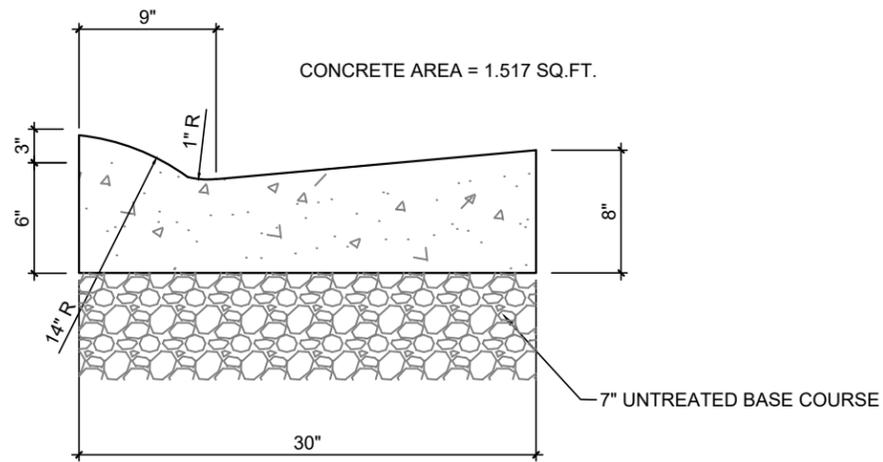
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:

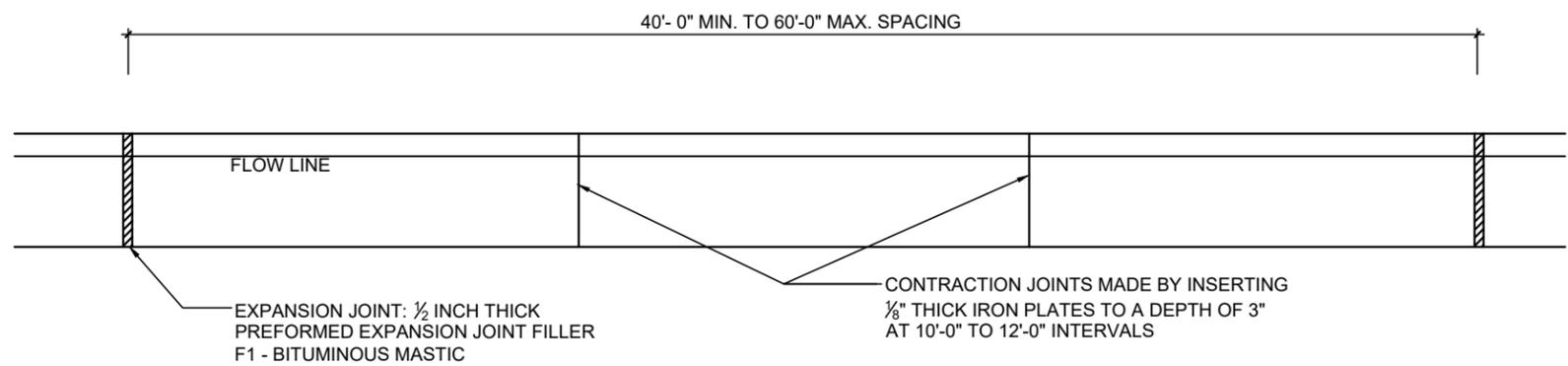
**DT 501**

BINDING ORDER



SECTION VIEW

**A** TYPE C CONCRETE CURB AND GUTTER  
1"=1'-0"

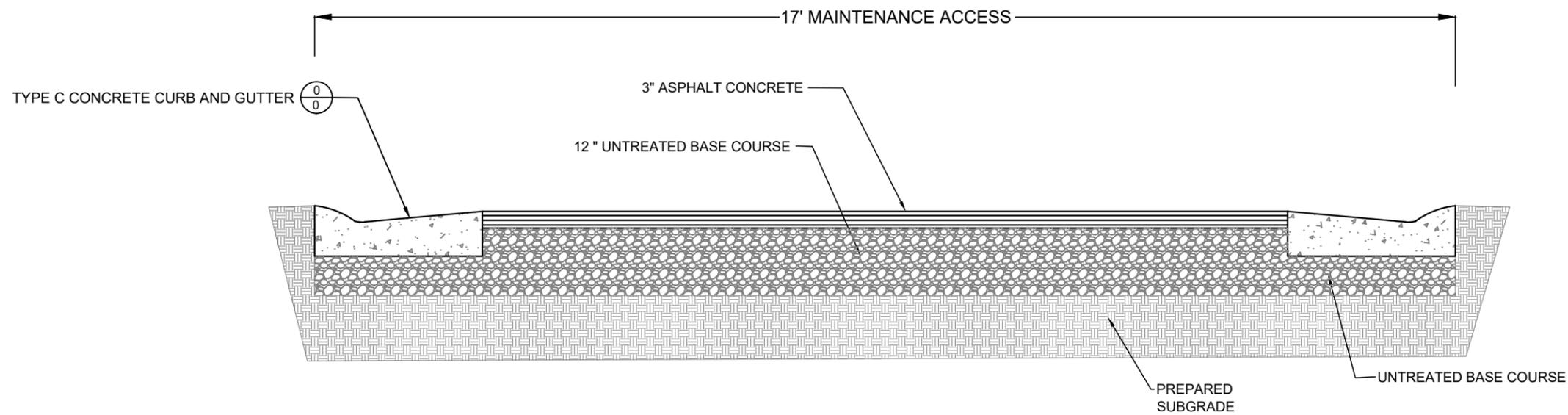


PLAN VIEW

**B** CONCRETE CURB AND GUTTER JOINT DETAIL  
1"=4'-0"

**ASPHALT PAVING NOTES:**

1. UNTREATED BASE COURSE: SHALL BE GRADE 1 AS PER APWA SECTION 02060 (SELECT FILL). PLACE FILL IN NO GREATER THAN 6 INCH LIFTS AFTER COMPACTION. COMPACT TO NO LESS THAN 95% RELATIVE DENSITY.
2. ASPHALT CONCRETE SHALL BE AC-20-DM-3/4 AS PER APWA SECTION 32 12 05.
3. PRIME COAT: PRIME COAT ON UNTREATED BASE COURSE BEFORE PLACING ASPHALT.
4. CONSTRUCT ROAD MIX BITUMINOUS SURFACE COURSE ONLY WHEN AIR TEMPERATURE IN THE SHADE AND ROAD BED TEMPERATURE ARE GREATER THAN 50 DEGREES.



SECTION VIEW

**C** ASPHALT PAVING AT MAINTENANCE ACCESS  
1"=2'-0"

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157


MARK DATE DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
DETAILS**

SHEET IDENTIFIER:

**DT 502**

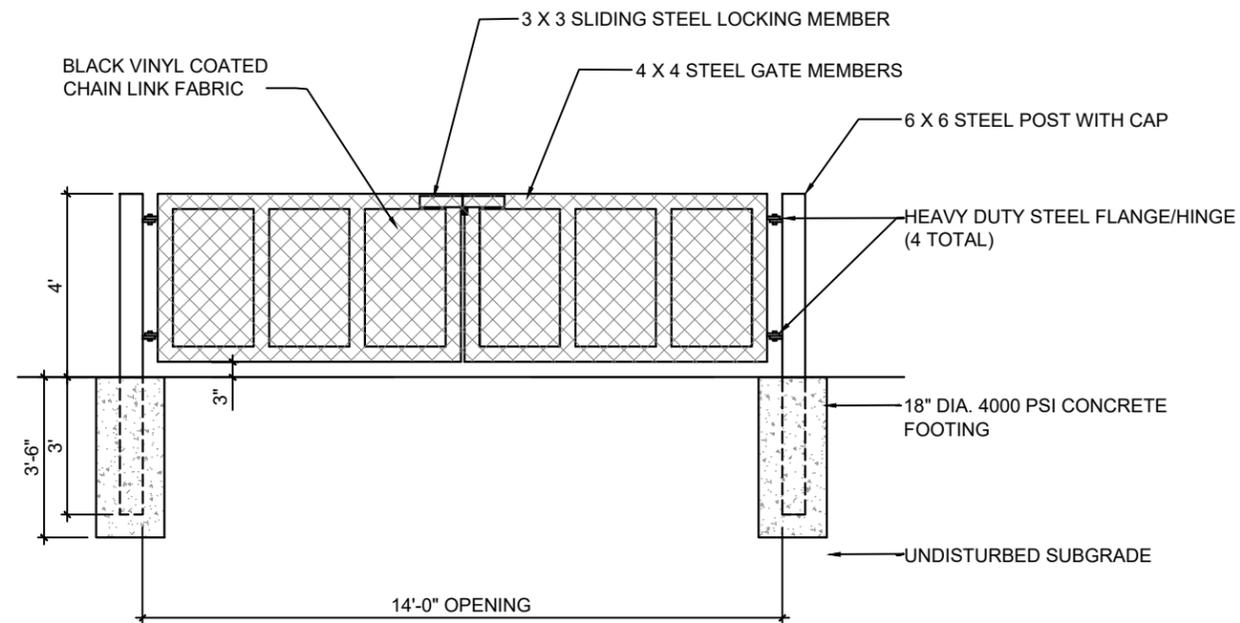
BINDING  
ORDER

PENDING

**A** PLAZA SPACE PAVING AND LAYOUT  
1"=4'-0"

**VEHICLE GATE NOTES:**

1. ALL VEHICLE GATE MEMBERS SHALL BE SCH. 40 TUBULAR STEEL. GRIND ALL WELDS SMOOTH.
2. PRIME AND PAINT.
3. PROVIDE SHOP DRAWINGS FOR OWNER REVIEW PRIOR TO FABRICATION.



SECTION/ELEVATION

**B** VEHICLE GATE  
1"=4'-0"

PENDING

**C** TREE GRATE  
1"=4'-0"

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

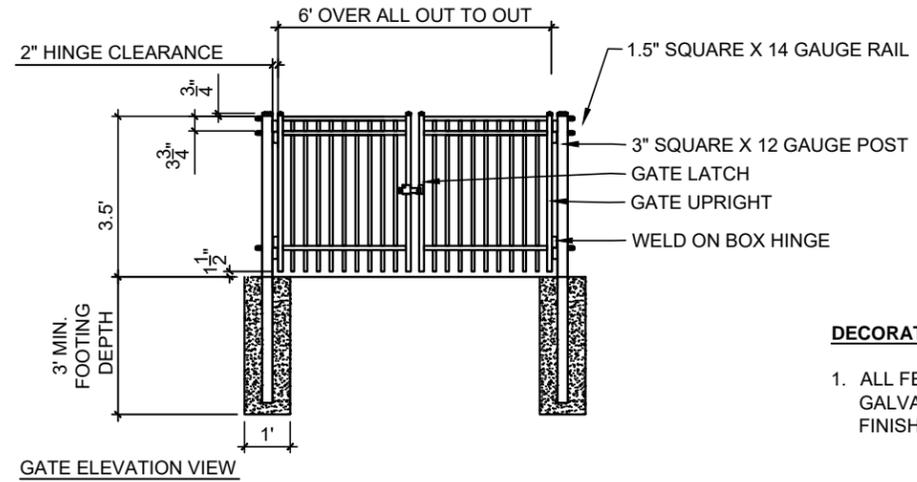
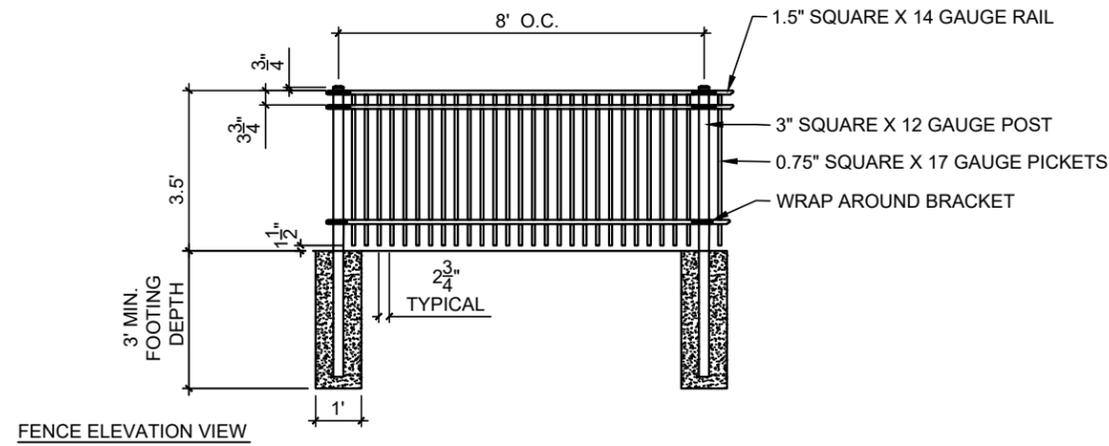

MARK DATE DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
DETAILS**

SHEET IDENTIFIER:  
**DT 503**

BINDING  
ORDER

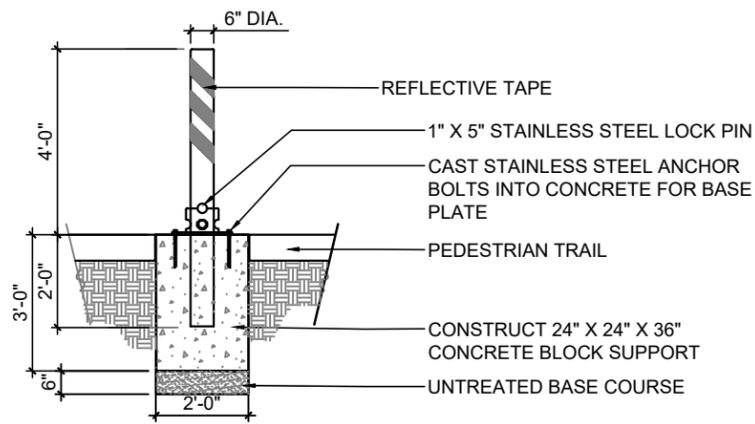


**DECORATIVE METAL FENCE NOTES:**

1. ALL FENCING MATERIAL TO BE HOT DIPPED GALVANIZED WITH NO-MAR BLACK POWDER FINISH COAT.

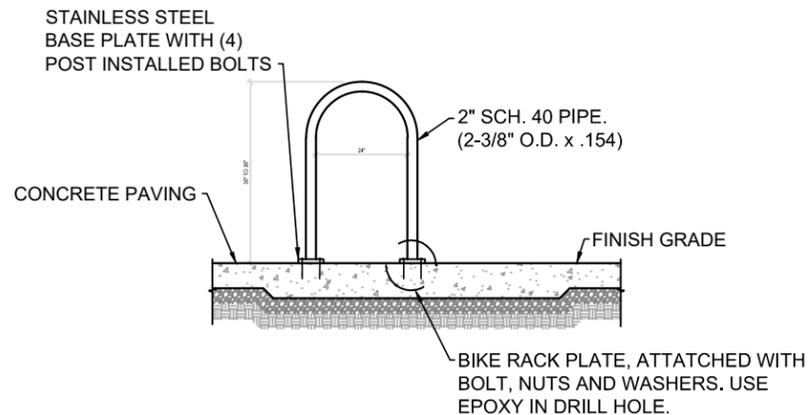
**A DECORATIVE METAL FENCE / RAILING (RAILING MAY BE SURFACE MOUNT TO TOP OF WALL)**

1"=4'-0"



**B COLLAPSIBLE BOLLARD**

N.T.S.

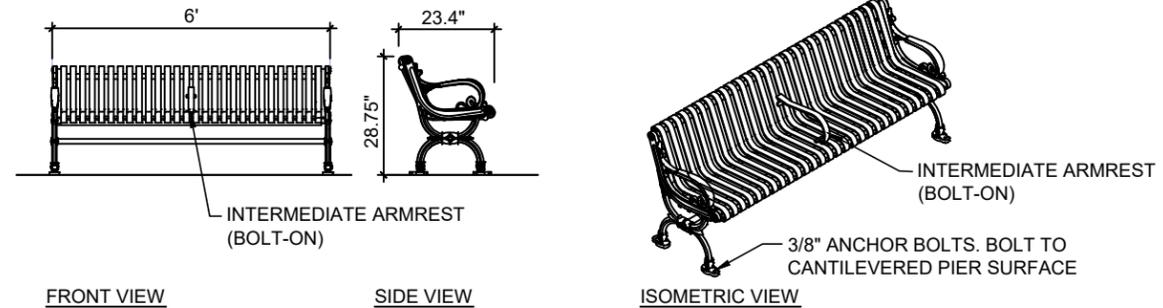


**D BICYCLE RACK: INVERTED "U" (2 BIKE CAPACITY)**

N.T.S.

**BENCH NOTES:**

1. BENCH IS TO BE VICTOR STANLEY MODEL NO. CR-10 CLASSIC SERIES, 6 FOOT, BLACK WITH INTERMEDIATE ARM REST, OR EQUAL.
2. ALL FABRICATED METAL COMPONENTS ARE POWDER-COATED STEEL.
3. CONTRACTOR TO FURNISH ANCHOR BOLTS.



**C BENCH**

N.T.S.

DO WE NEED LIGHTING?

DO WE NEED A DRINKING FOUNTAIN?

ENTRANCE SIGNAGE?

INTERPRETIVE SIGNAGE?

**E**

N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK DATE DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

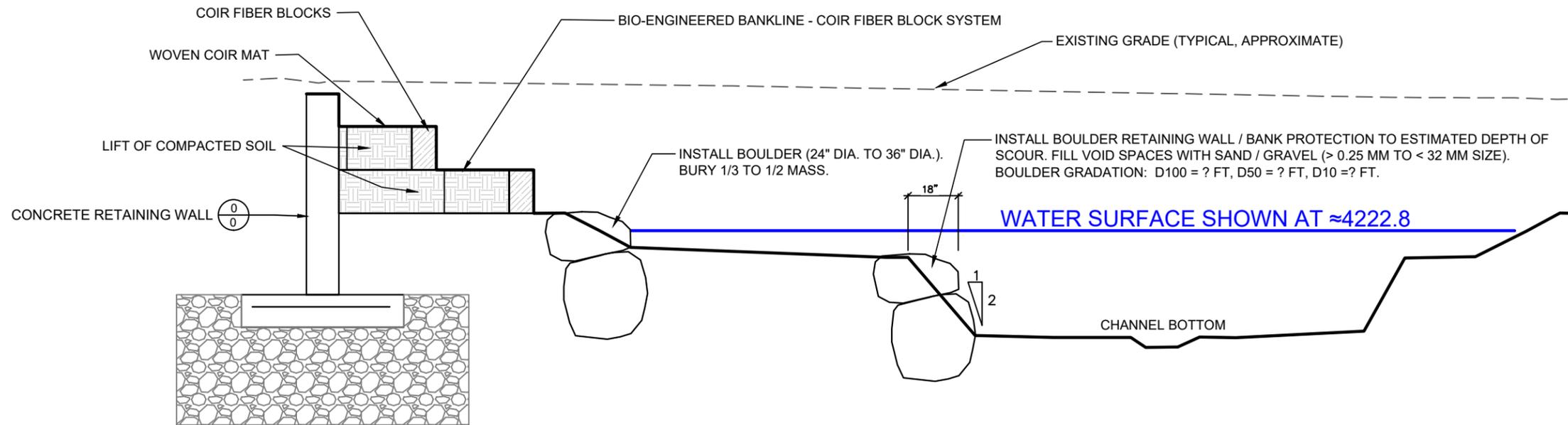
SHEET IDENTIFIER:

**DT 504**

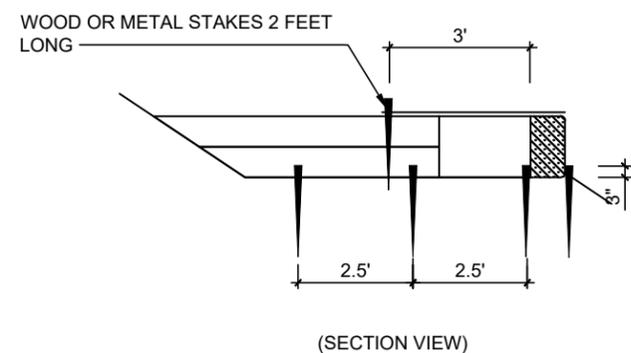
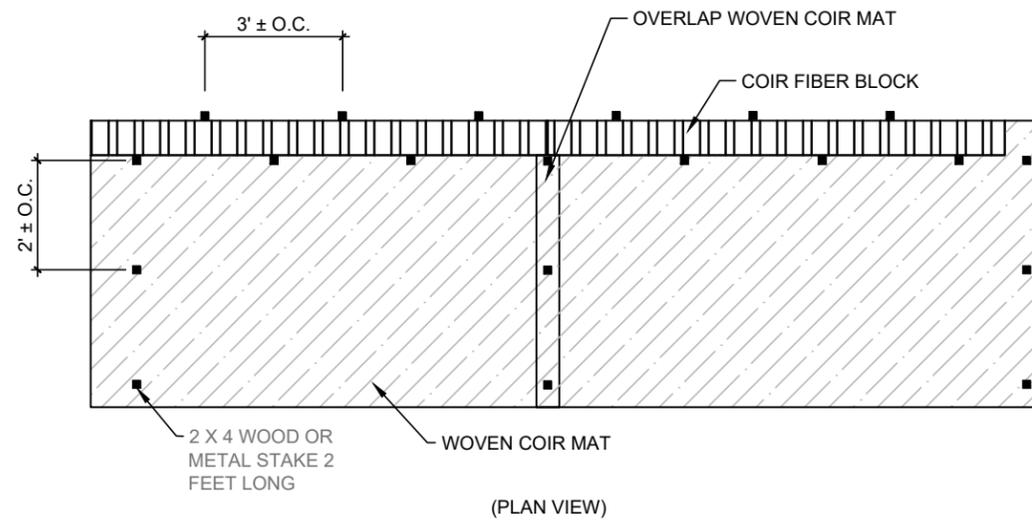
BINDING ORDER

**BOULDER RETAINING WALL / BANK PROTECTION NOTES:**

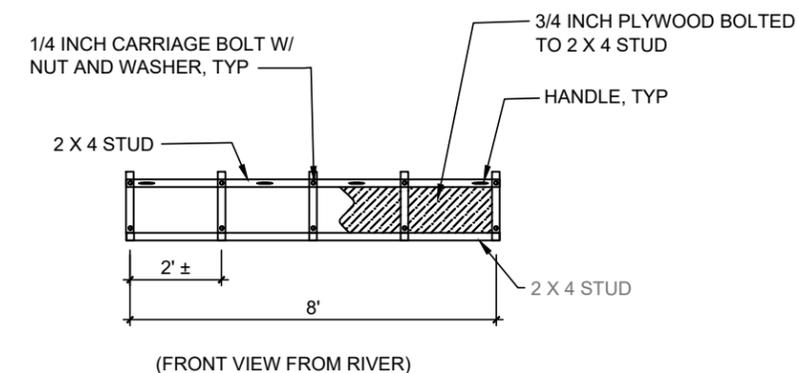
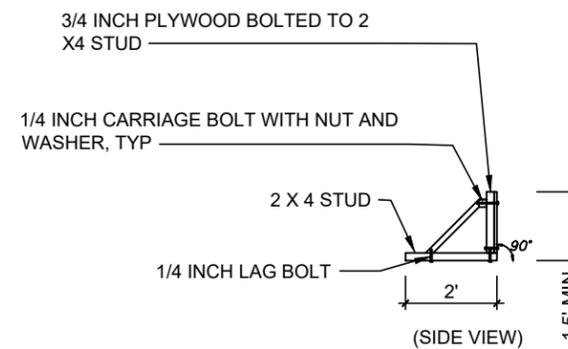
1. SET ROCKS SO THEY SIT SECURELY AND ARE FITTED TOGETHER.



**A BIO-ENGINEERED BANKLINE AND BOULDER BANKLINE**  
1"=4'-0"



**B COIR FIBER BLOCK STAKING PATTERN**  
1"=4'-0"



**C COIR FIBER BLOCK TEMPORARY SHORING FORM**  
1"=4'-0"

PREPARER:  
  
 PREPARER CONSULTANTS:  
  
  
 PROFESSIONAL SEAL:

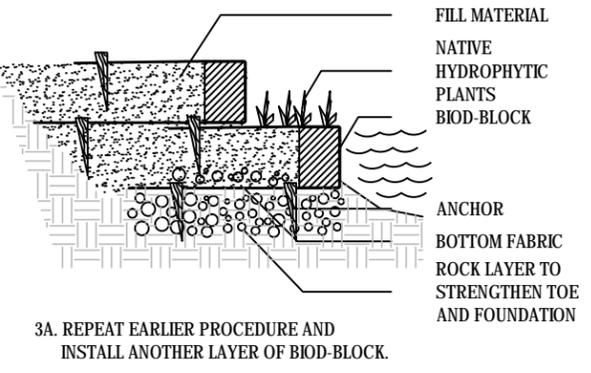
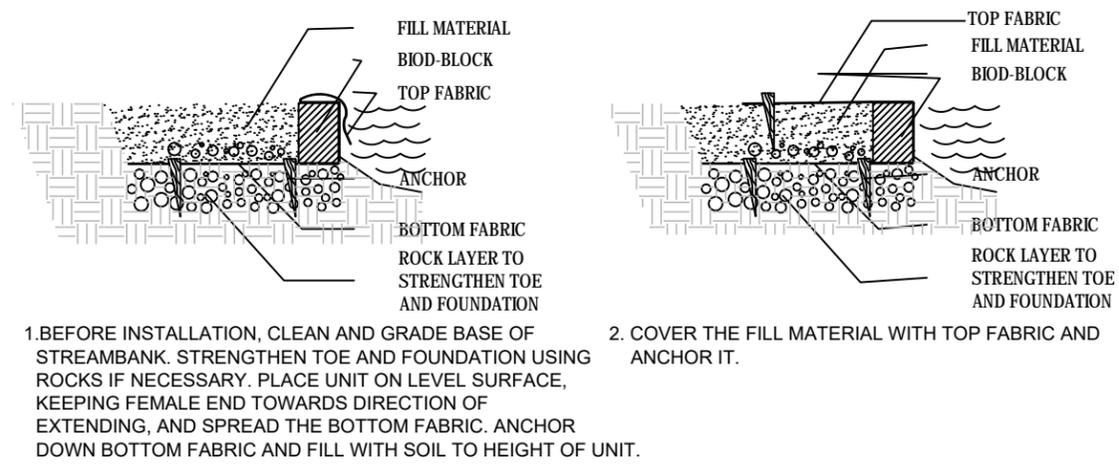
PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**  
 PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT: FEBRUARY 2018

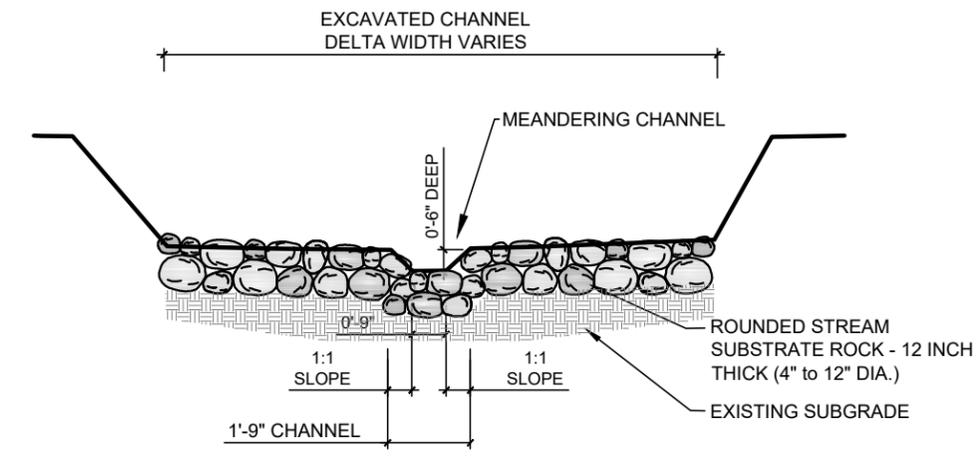
SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:  
**DT 505**  
 BINDING ORDER

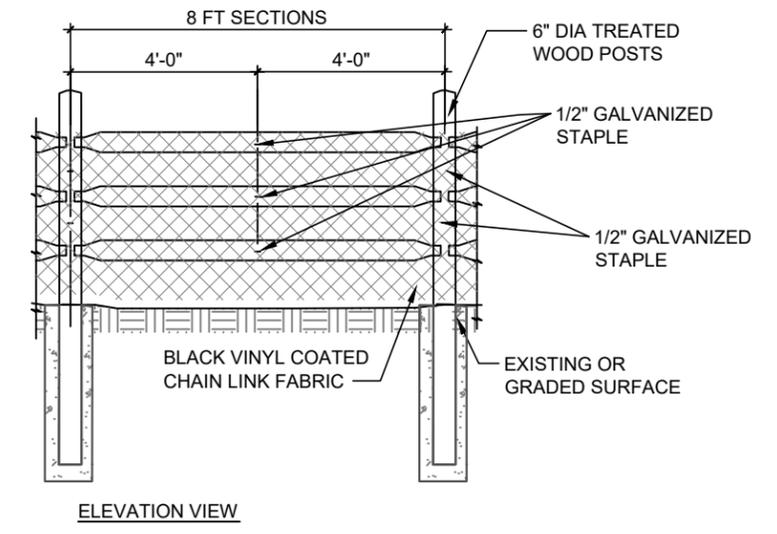
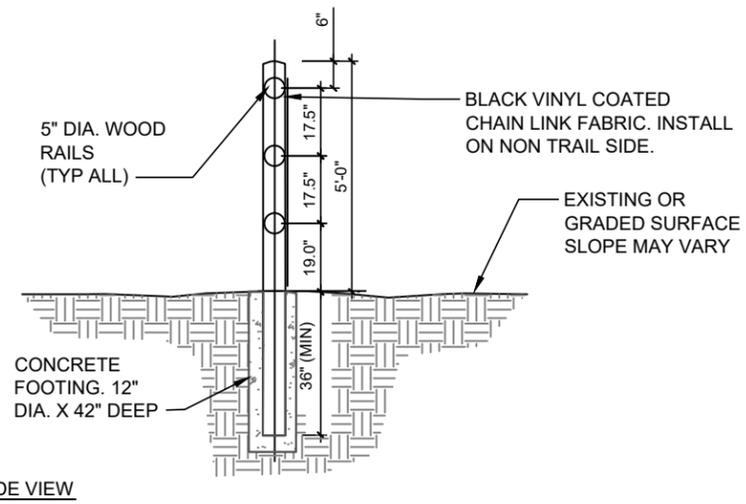
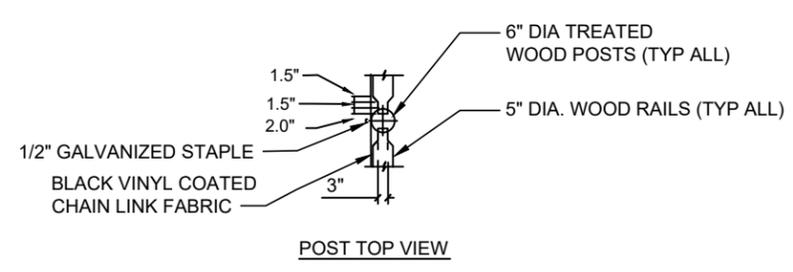


**COIR BLOCK SYSTEM NOTES:**  
 1. FABRIC EXTENDING BEYOND FIBER BLOCK AT FEMALE END PROVIDES STRUCTURAL SUPPORT FOR INSERTED MALE END.  
 2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
 3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT ROLANKA.COM

**A** COIR BLOCK SYSTEM INSTALLATION  
 N.T.S.

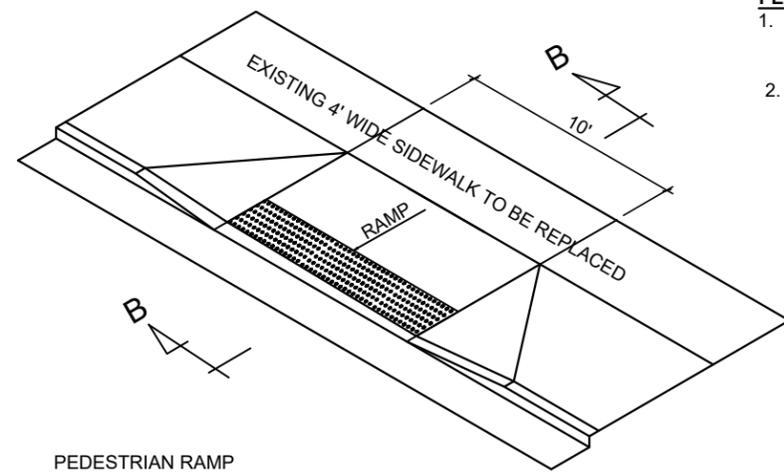


**C** DELTA ROCK SUBSTRATE WITH MEANDERING CHANNEL  
 N.T.S.



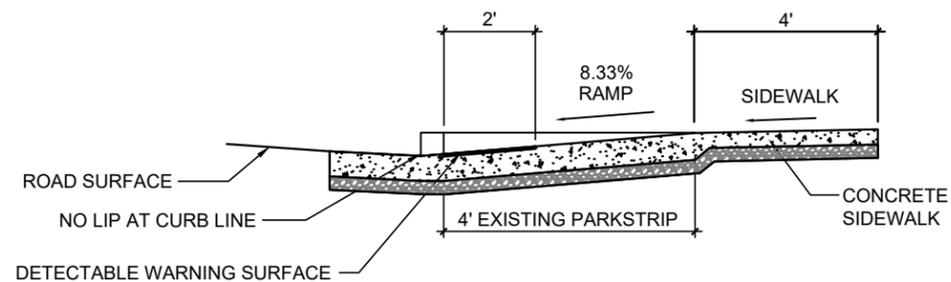
**WOOD POST AND RAIL FENCE NOTES:**  
 1. ALL DIMENSIONS FOR RAIL SPACING AND CONNECTIONS TO POSTS ARE SUBJECT TO CHANGE AS PER MANUFACTURERS PRE-FABRICATED MATERIALS.  
 2. MAINTAIN MINIMUM 5 FEET HEIGHT OF FENCE.

**B** WOOD POST AND RAIL FENCE  
 N.T.S.



**PEDESTRIAN ACCESS NOTES:**

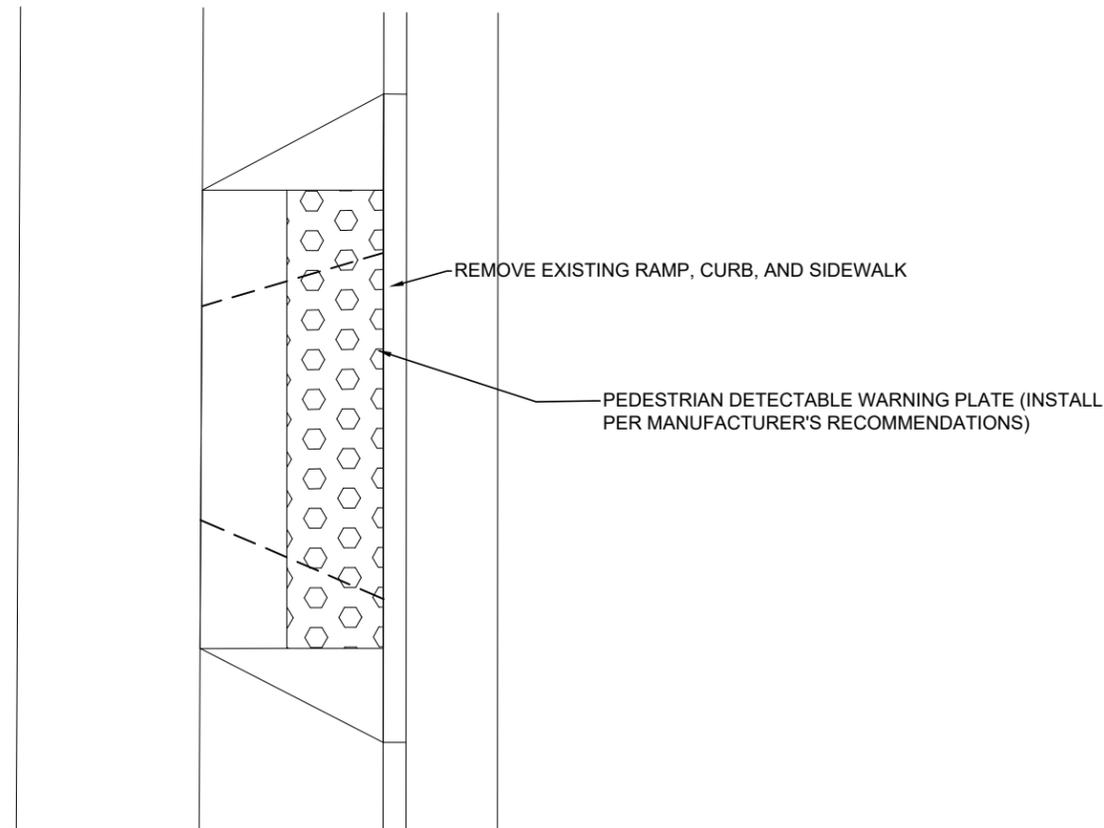
1. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF CURB CUT.
2. GRIND OFF REMAINING PORTION OF ANY CUT DOMES WHEN DETECTABLE WARNING SURFACE IS CUT. SEAL ALL CUT PANEL EDGES TO PREVENT WATER DAMAGE.



SECTION B-B

**A PEDESTRIAN ACCESS RAMP**

1"=4'-0"



PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157


MARK DATE DESCRIPTION

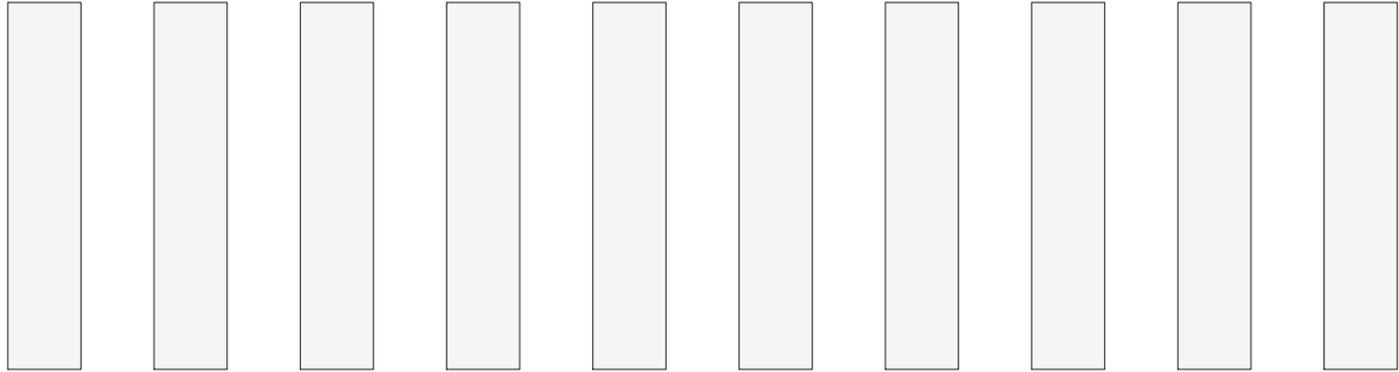
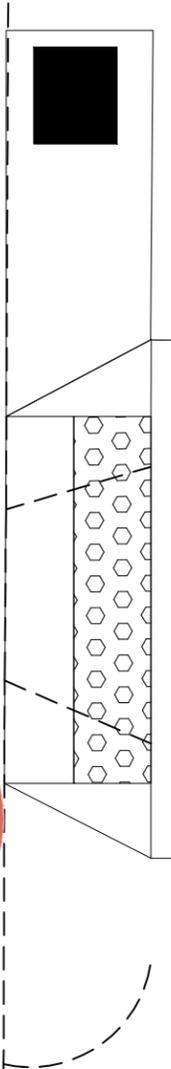
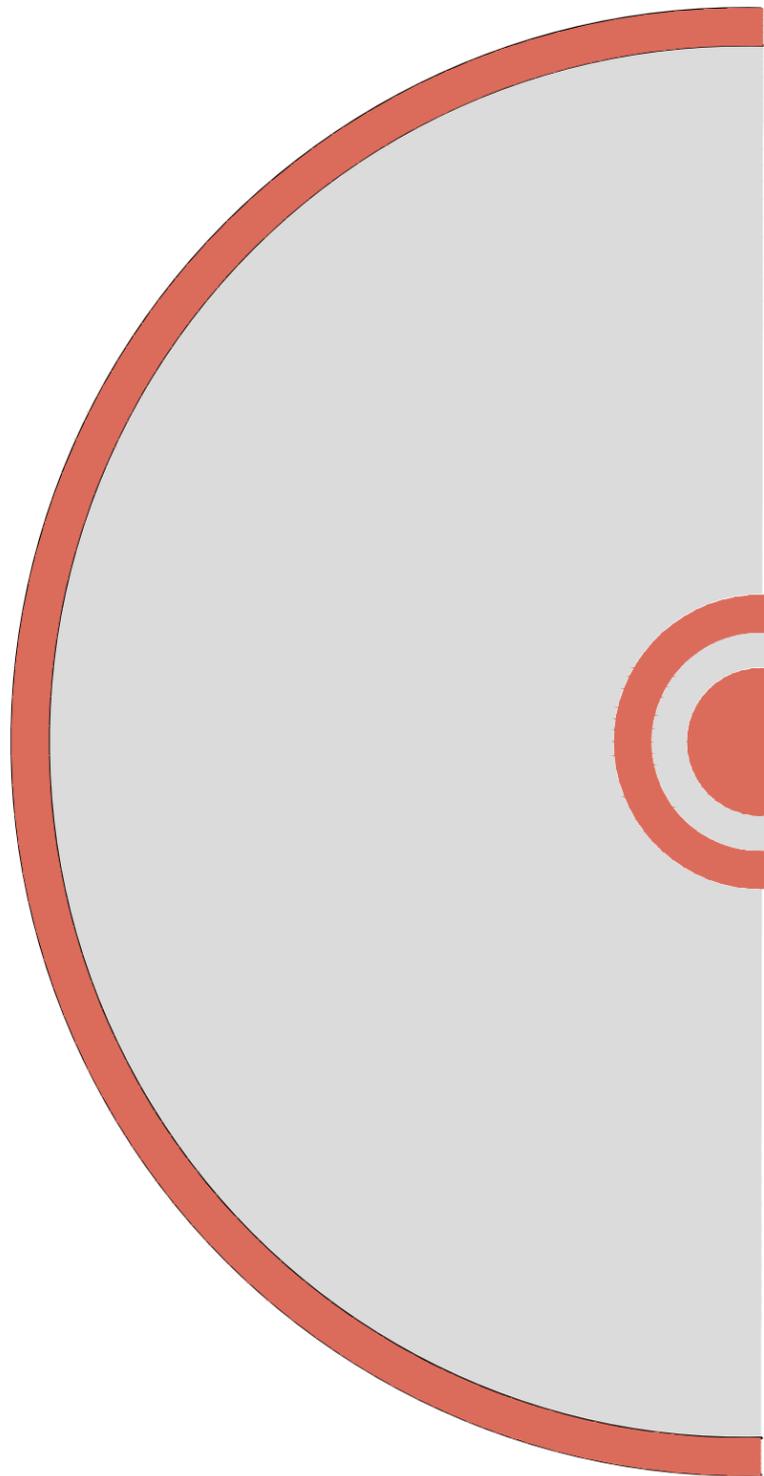
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
DETAILS**

SHEET IDENTIFIER:

**DT 507**

BINDING  
ORDER



PLAN VIEW

**A** DELTA OVERLOOK PAVING  
1"=5'-0"

PREPARER:  
  
 BIO-WEST  
 1000 WEST 1100 NORTH • UTAH • UTAH 84114 • 435-753-4302

PREPARER CONSULTANTS:  
  
 FORSGREN  
 Associates, Inc.  
  
 ALL RED  
 RESTORATION

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:  
**THREE CREEKS  
 CONFLUENCE OPEN  
 SPACE  
 REACTIVATION AND  
 RIPARIAN  
 RESTORATION**

PROJECT OWNER:  
**SALT LAKE CITY  
 CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
 Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT:  
 FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
 DETAILS**

SHEET IDENTIFIER:  
**DT 508**

BINDING  
 ORDER

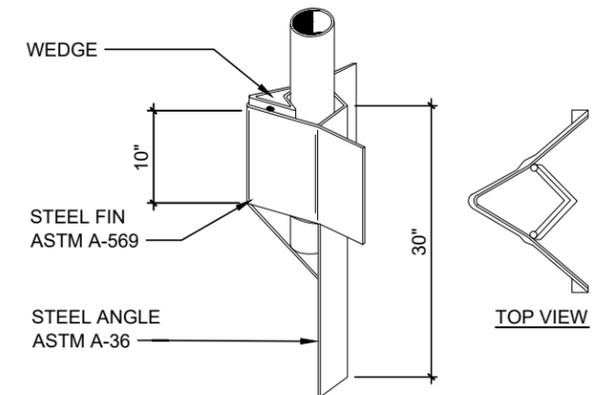
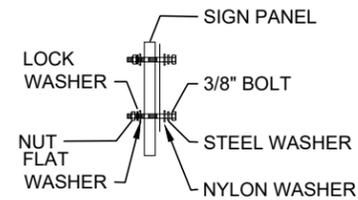
PENDING

SIGN PANEL TO POST DIRECT CONNECTION WITH PREPUNCHED POST

ASSEMBLY

- HARDWARE:
  - 3/8" x 3" BOLT
  - 3/8" DIA. HEX HEAD BOLT WITH NUT
  - 3/8" DIA. STEEL FLAT WASHER
  - 3/8" DIA. STEEL LOCK WASHER
  - 3/8" DIA. NYLON WASHER
- ALL STEEL COMPONENTS WILL BE GALVANIZED EXCEPT AS NOTED.

BOLT & WASHER REQUIREMENTS



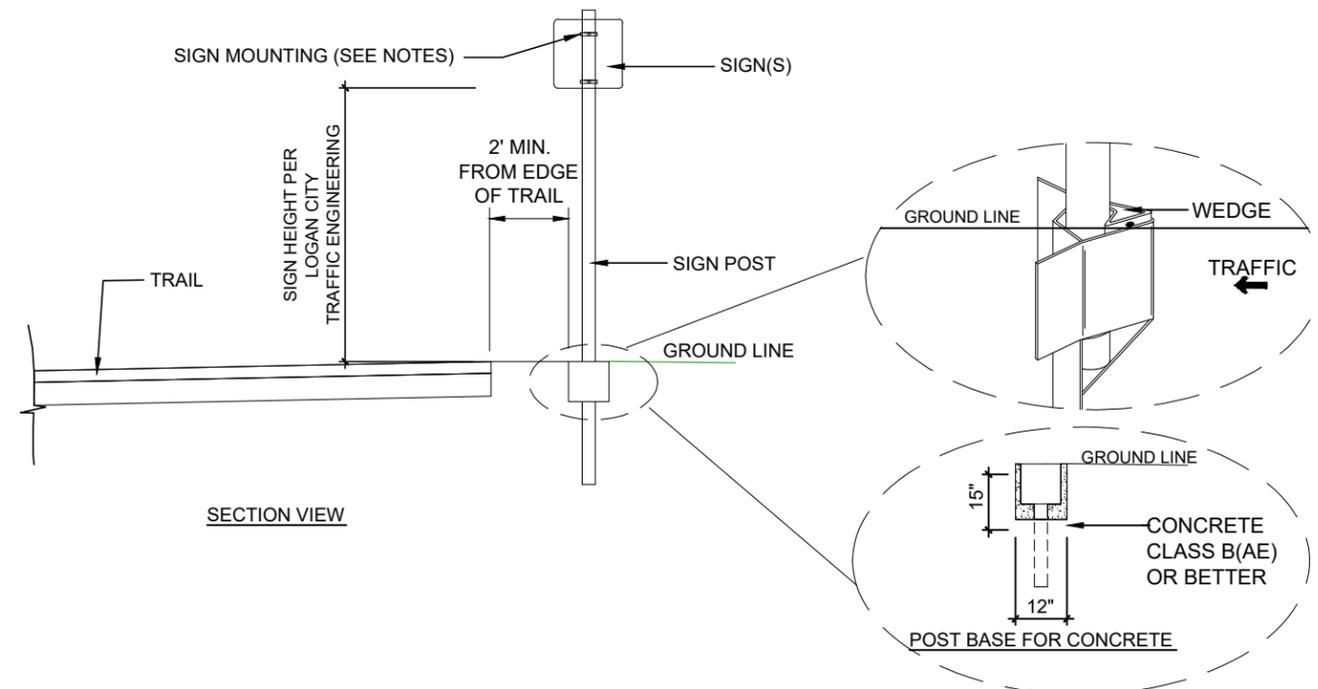
TRIANGULAR STEEL SIGN POST DRIVE ANCHOR

POST NOTES:

- POST: ASTM-513 GALVANIZED TO MEET ASTM A-653-G90 (13 GAUGE WALL THICKNESS). 2-3/8" OUTSIDE DIAMETER.
- POSTS PRE-PUNCHED WITH 3/8" HOLES.
- MOUNT SIGN DIRECTLY TO POST OR USE AN APPROVED MOUNTING CLAMP.

DRIVE ANCHOR INSTALLATION NOTES:

- GALVANIZE AFTER FABRICATION.
- DRIVE POST ANCHOR FLUSH WITH GROUND LINE. ORIENT ANCHOR SO WEDGE INSTALLATION IS TOWARDS OPPOSING TRAFFIC.
- INSTALL WEDGE WITH 1" MAX EXPOSURE TO TOP OF ANCHOR.



SECTION VIEW

SIGN LAYOUT FOR PEDESTRIAN CROSSWALK WITH SOLAR POWERED PEDESTRIAN ACTIVATED RAPID FLASH BEACON

TUBULAR STEEL POST AND BASE FOR SIGNS

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:

**DT 509**

BINDING ORDER

PEDESTRIAN CROSSING AHEAD SIGN TEXT:



PEDESTRIAN CROSSING SIGN TEXT AT PEDESTRIAN ACTIVATED RRFB:



PEDESTRIAN TRAIL STOP SIGN TEXT:

R1-1  
12" X 12"

PEDESTRIAN TRAIL STOP AHEAD SIGN TEXT:

W3-1  
12" X 12"

PEDESTRIAN TRAIL NO MOTOR VEHICLES TEXT:

R5-3  
12" X 12"  
ON THE BACKSIDE  
OF STOP SIGN

PEDESTRIAN PUSH BUTTON STATION SIGN TEXT:



R10-25

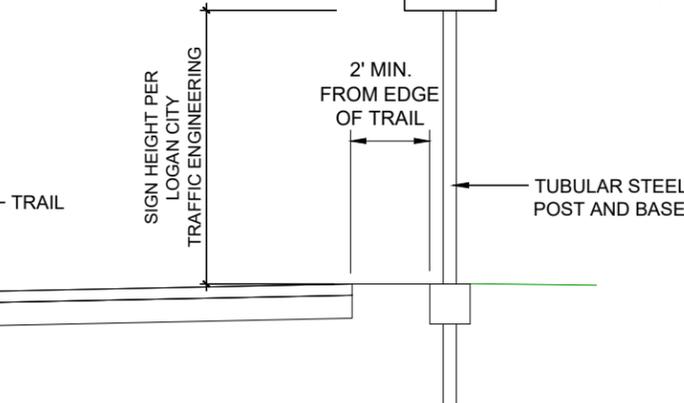
**RECTANGULAR RAPID FLASH BEACON (RRFB) NOTES:**

1. RECTANGULAR RAPID FLASH BEACON WITH SOLAR ASSISTED BATTERY POWERED SYSTEM AND PUSH BUTTON SYSTEM SHALL BE BY TAPCO TRAFFIC AND PARKING CONTROL CO. INC.

SOLAR ASSISTED BATTERY POWERED SYSTEM

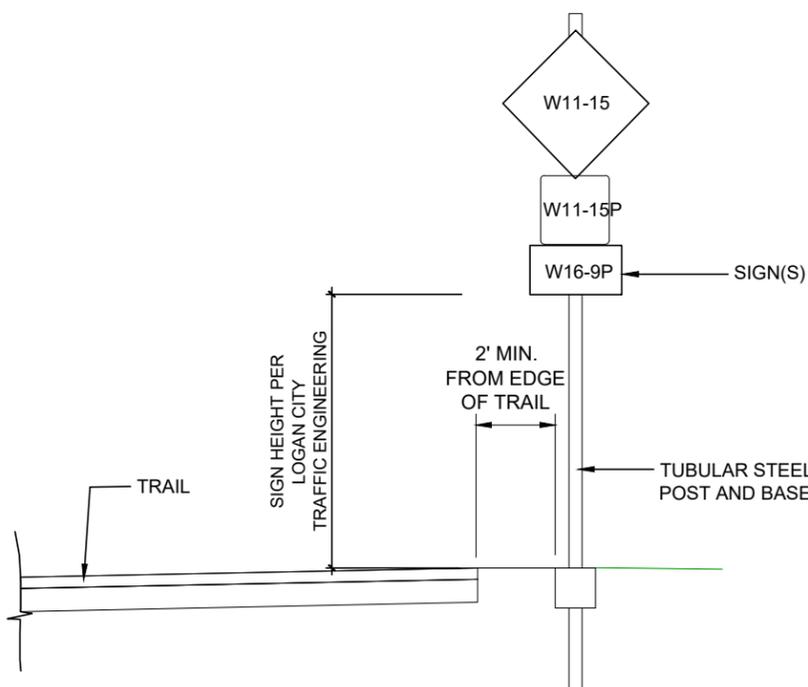
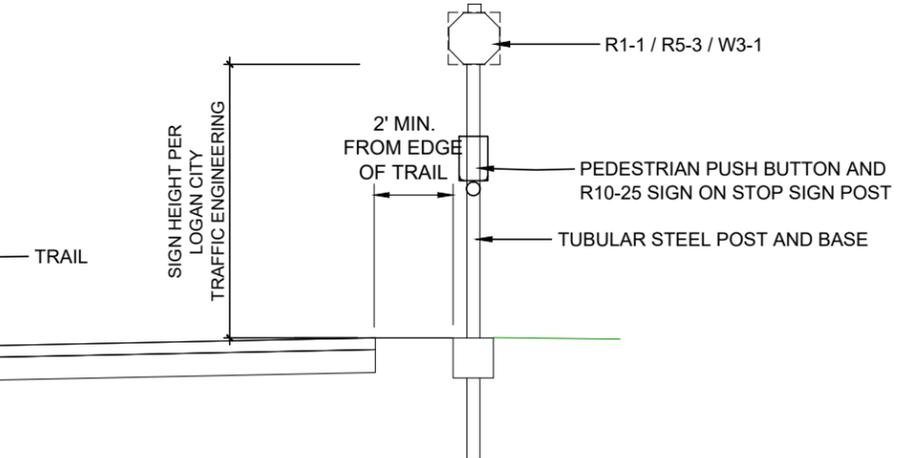
RECTANGULAR RAPID FLASHING BEACON (RRFB)

W11-15  
W11-15P  
W16-7P ← SIGN(S)



**PEDESTRIAN ACTIVATED RRFB NOTES:**

1. PEDESTRIAN PUSH BUTTON SYSTEM SHALL BE BY TAPCO TRAFFIC AND PARKING CONTROL CO. INC.



**A** PEDESTRIAN CROSSING AHEAD SIGN

**B** PEDESTRIAN CROSSING SIGN W/ RAPID FLASH BEACON

**C** STOP AHEAD SIGN W. PEDESTRIAN PUSH BUTTON

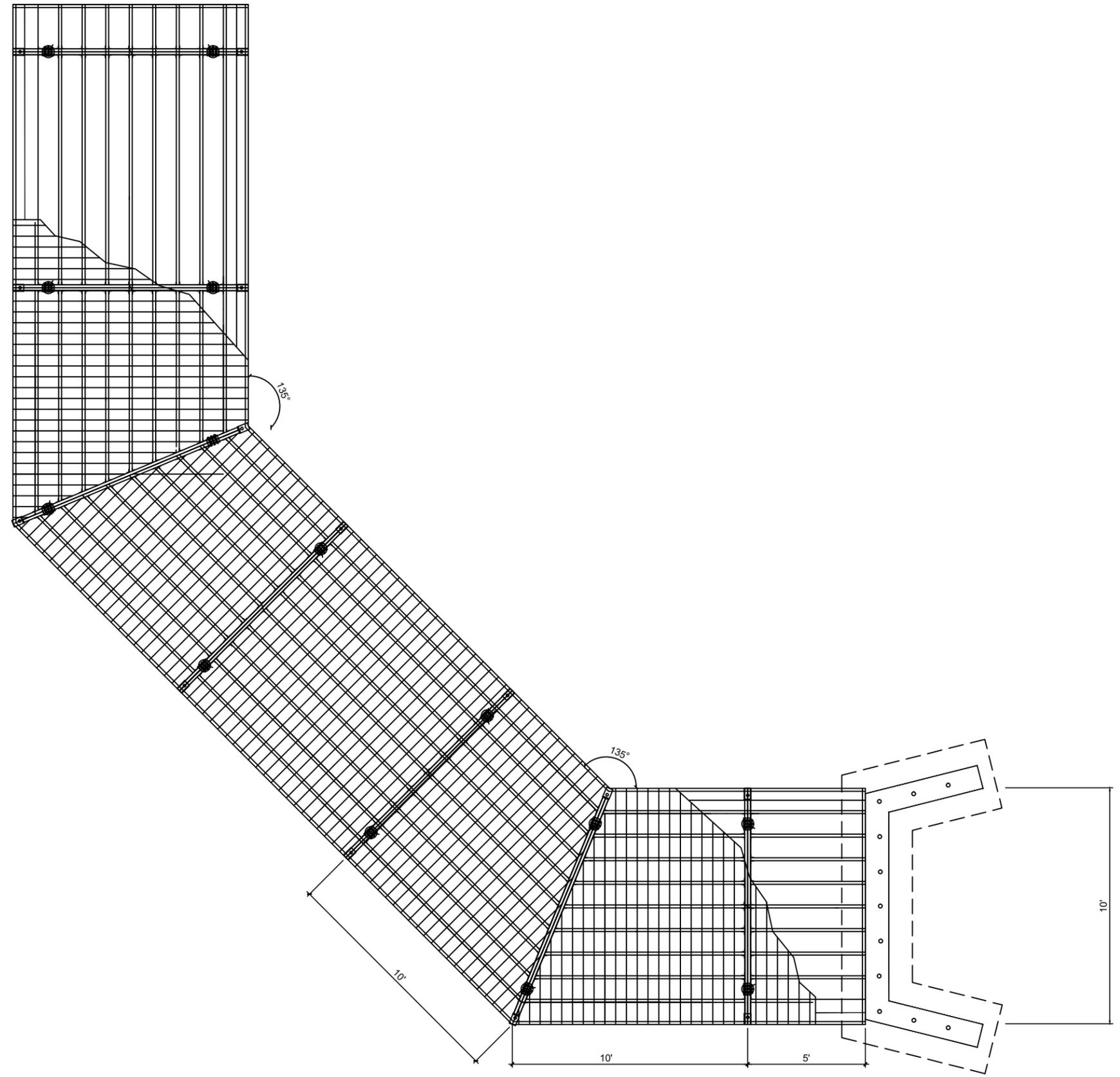
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT:  
FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
DETAILS**

SHEET IDENTIFIER:  
**DT 510**

BINDING  
ORDER



**A** FISHING PIER: PLAN VIEW  
1"=5'-0"

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157


MARK DATE DESCRIPTION

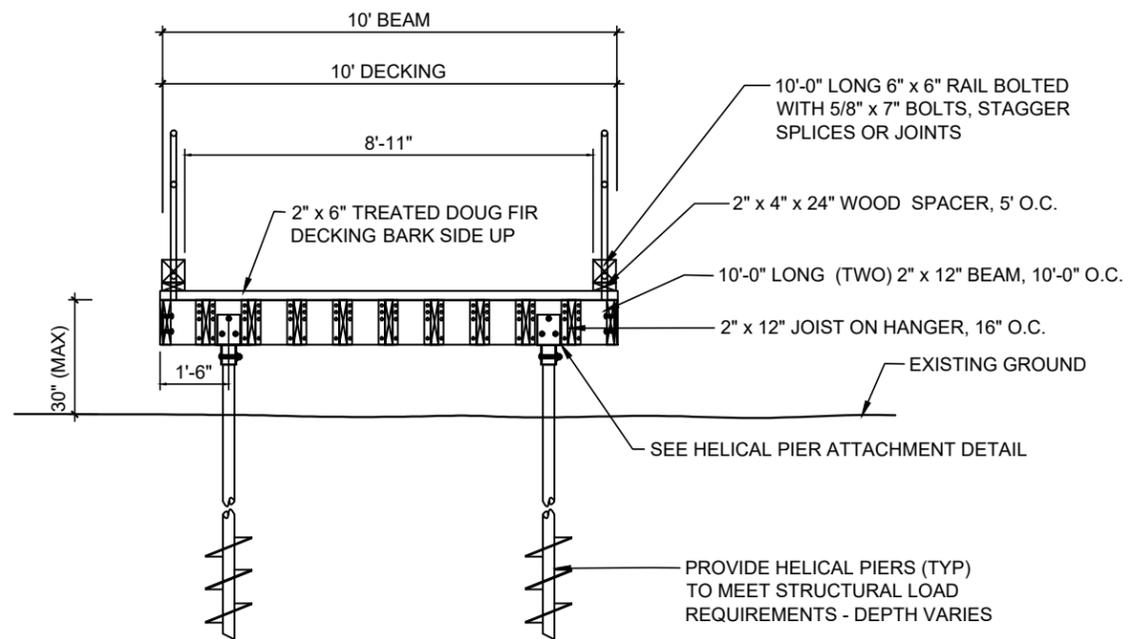
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE SITE  
DETAILS**

SHEET IDENTIFIER:

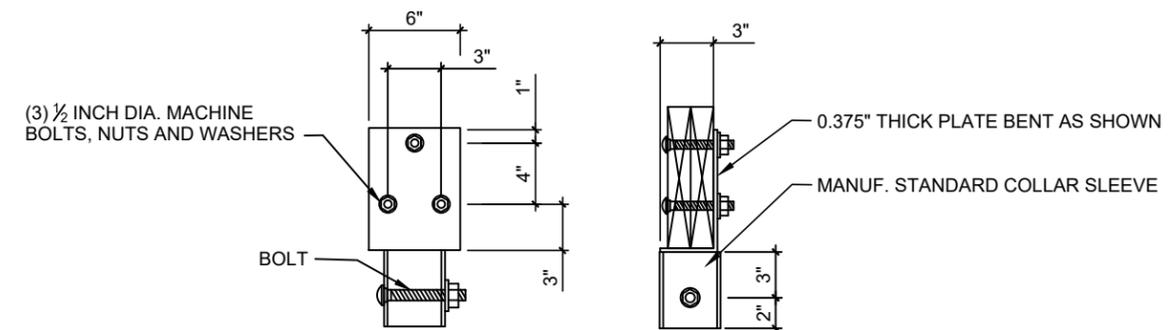
**DT 511**

BINDING  
ORDER



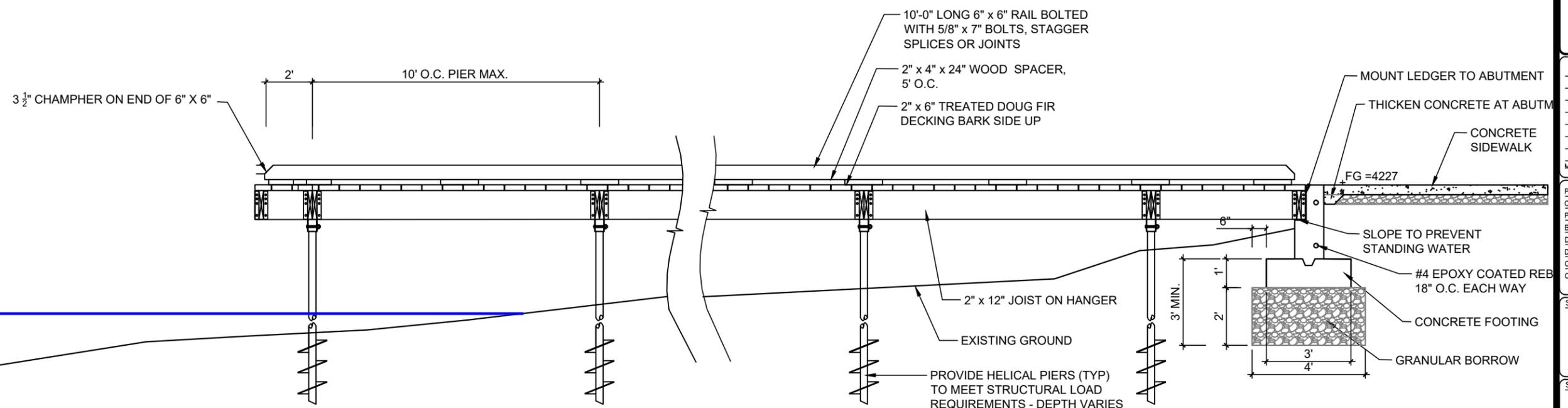
**FISHING PIER NOTES:**

1. PRE-DRILL HOLES TO PREVENT SPLITTING DURING CONSTRUCTION. ATTACH DECKING USING GALVANIZED SECURITY SCREWS & HARDWARE. ALL WOODEN MEMBERS SHALL BE BOLTED OR SCREWED TOGETHER. NO NAIL CONNECTIONS.
2. USE ONLY GALVANIZED HARDWARE.
3. THE CONTRACTOR CAN OBTAIN FROM THE CLIENT, A GEOTECHNICAL REPORT INDICATING THE SITE SOIL PROPERTIES THAT CAN SUPPORT HELICAL PIER LOADS PRIOR TO BEGINNING CONSTRUCTION.
4. ALL WOOD MEMBERS OR ELEMENTS ARE TO BE PRESSURE TREATED NO. 2 GRADE DOUGLAS-FIR OR LARCH AS PER APWA STANDARDS EXCEPT FOR THE BOARDWALK DECKING WHICH IS TO BE TREATED DOUGLAS FIR.
5. THE BOARDWALK DESIGN ASSUMES A LIVE LOAD OF 60 PSI PEDESTRIAN AND 150 PSF SNOW AND WIND LOAD.



**HELICAL PIER ATTACHMENT**  
NOT TO SCALE

**A FISHING PIER: SECTION**  
1"=4'-0"

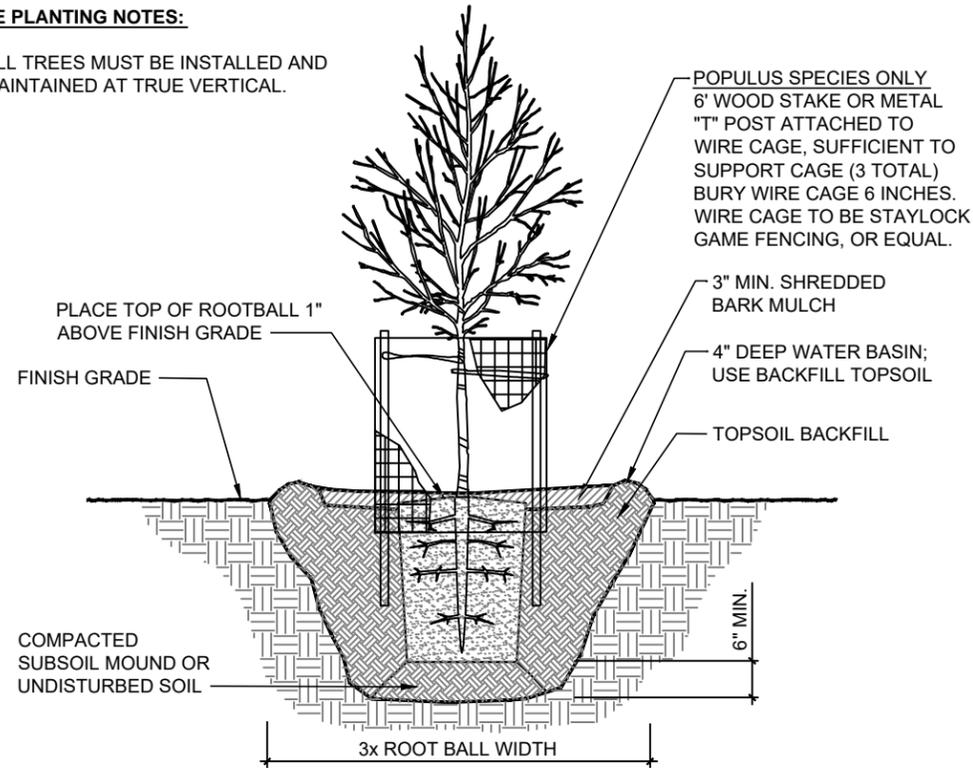


**A FISHING PIER: PROFILE**  
1"=4'-0"

MARK	DATE	DESCRIPTION

**TREE PLANTING NOTES:**

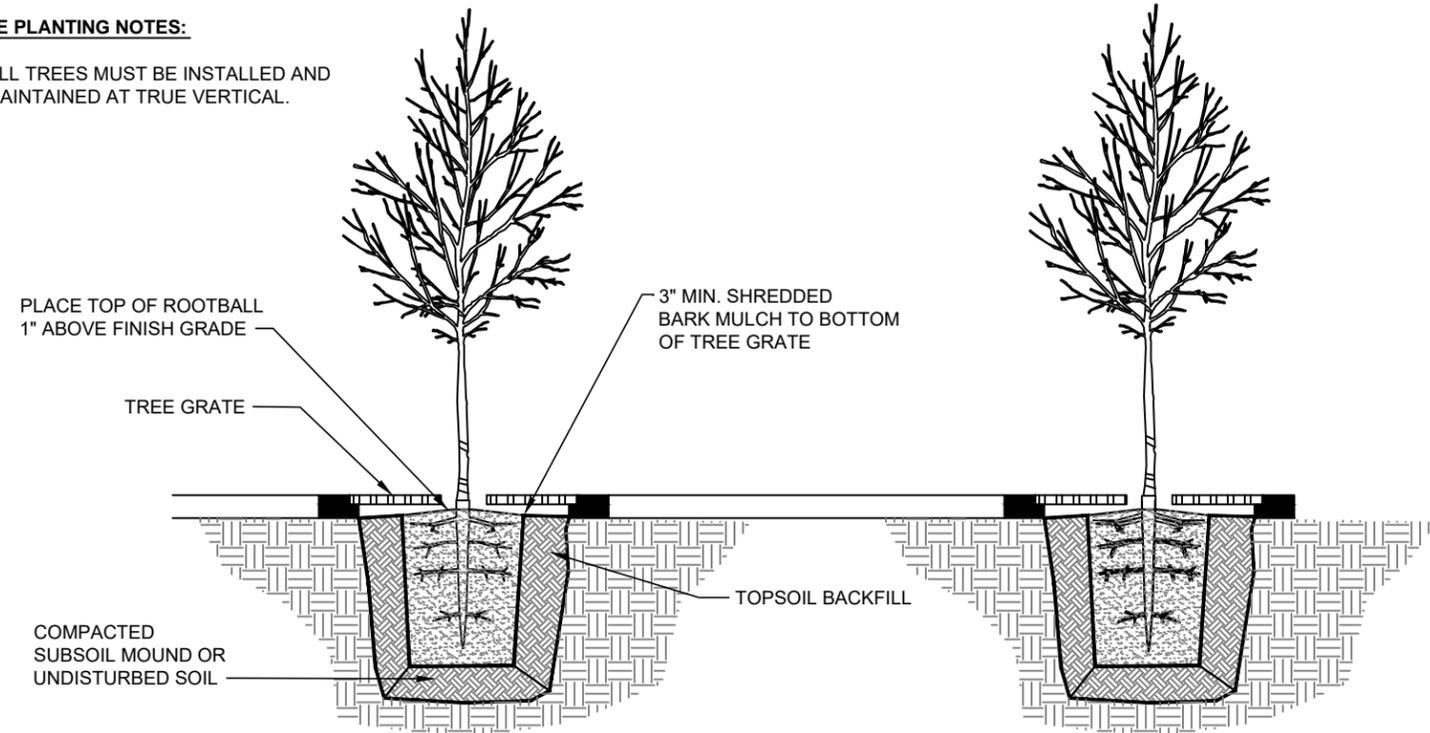
1. ALL TREES MUST BE INSTALLED AND MAINTAINED AT TRUE VERTICAL.



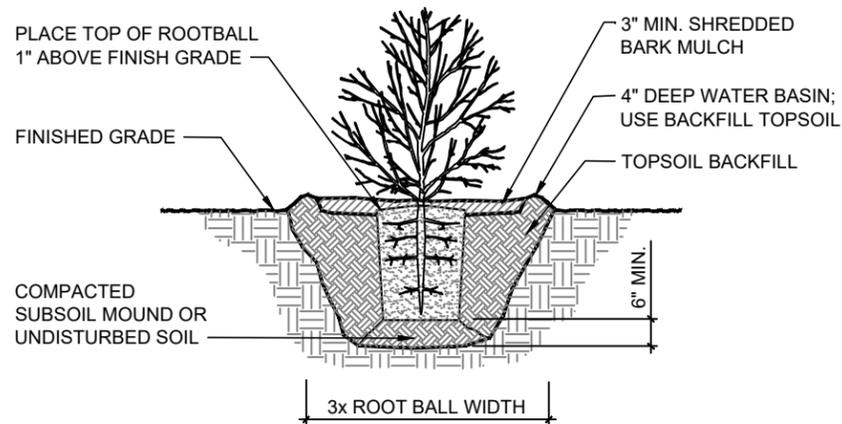
**A** TREE PLANTING DETAIL  
N.T.S.

**TREE PLANTING NOTES:**

1. ALL TREES MUST BE INSTALLED AND MAINTAINED AT TRUE VERTICAL.



**C** TREE GRATE PLANTING DETAIL  
N.T.S.



**B** SHRUB PLANTING DETAIL  
N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

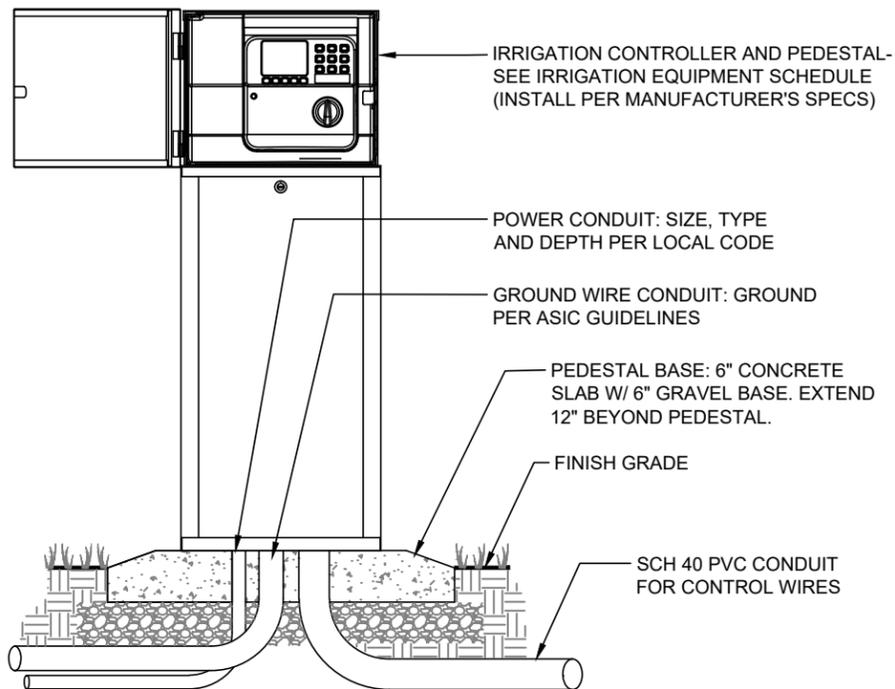
SHEET TITLE:  
**LANDSCAPE  
PLANTING  
DETAILS**

SHEET IDENTIFIER:  
**DT 513**

BINDING  
ORDER

**IRRIGATION CONTROLLER NOTES:**

1. CONTRACTOR SHALL SUPPLY AND INSTALL GROUNDING GRID FOR IRRIGATION CONTROLLER
2. TIE GROUNDING FROM UTILITY TO GROUNDING FROM IRRIGATION UTILITY TO BE NEC COMPLIANT.
3. ORIENTATION OF ENCLOSURE TO BE APPROVED BY OWNER PRIOR TO PLACEMENT.

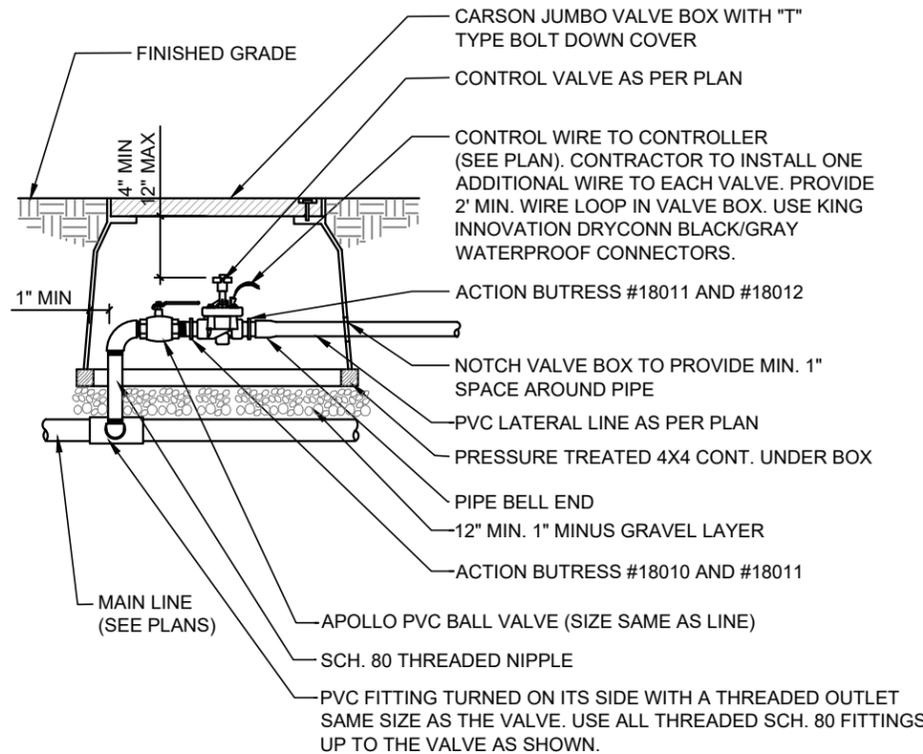


**A** CONTROLLER WITH METAL PEDESTAL

N.T.S.

**REMOTE CONTROL VALVE NOTES:**

1. IF VALVE SIZE IS 2" OR GREATER INSTALL ONE VALVE PER BOX.
2. IF VALVE SIZE IS LESS THAN 2" INSTALL (2) VALVES PER BOX.
3. 6" MINIMUM CLEARANCE BETWEEN VALVES.

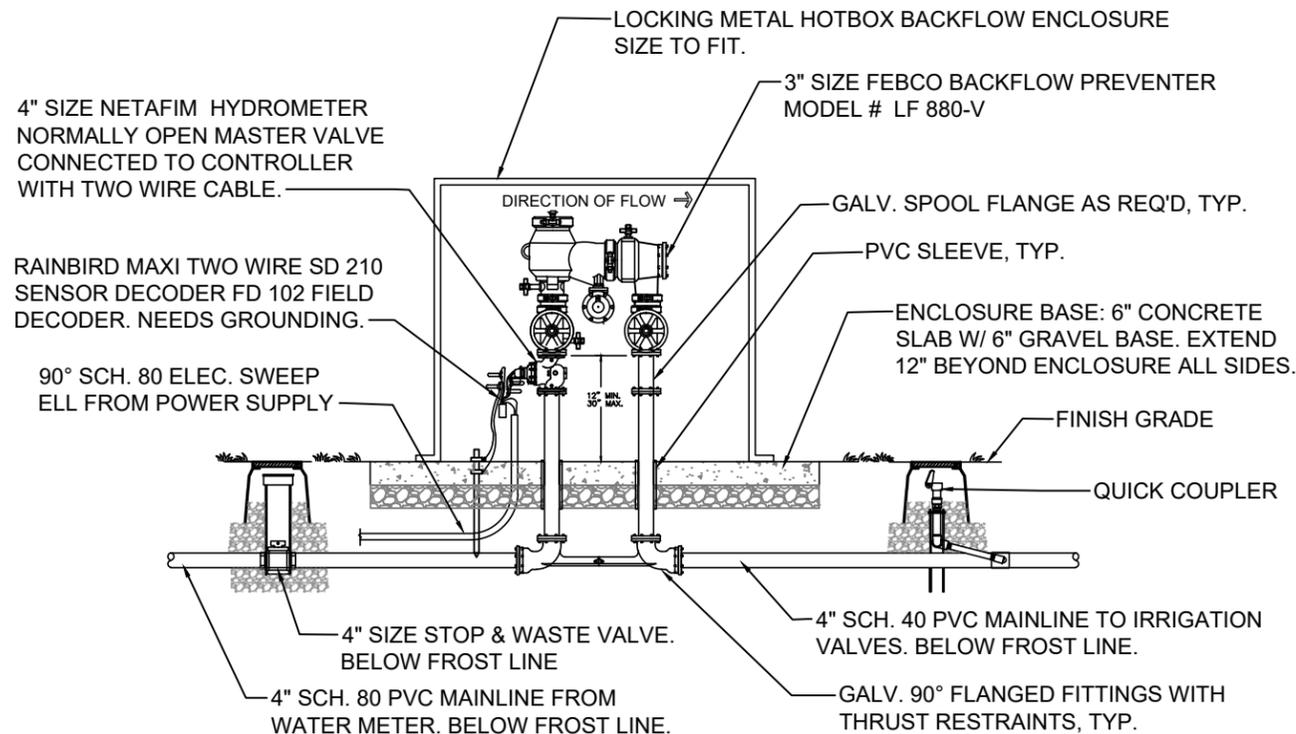


**C** REMOTE CONTROL VALVE

N.T.S.

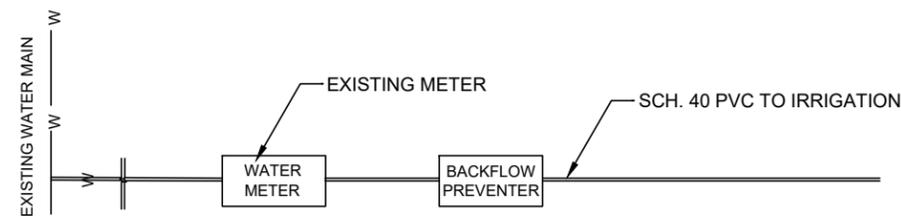
**BACKFLOW PREVENTER NOTES:**

1. USE 3M DBRY CONNECTORS (OR APPROVED EQUAL) INSIDE ENCLOSURE FOR ALL WIRE CONNECTIONS.
2. MASTER VALVE SHALL BE CONNECTED TO THE CLOSEST SATELLITE CONTROLLER WHICH CONTROLS THE SUBJECT AREA PER ALL LOCAL CODES AND REGULATIONS.
3. CONNECT NETAFIM HYDROMETER NORMALLY OPEN MASTER VALVE TO CONTROLLER WITH RAINBIRD MAXI TWO WIRE CABLE. ALL COMPONENTS REQUIRED FOR THE COMPLETE VALVE AND THE FLOW SENSOR SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE BACKFLOW ASSEMBLY UNTIL CERTIFICATION IS PASSED. SUBMIT CERTIFICATION SHEETS TO OWNER.



**B** BACKFLOW PREVENTER / MASTER VALVE FOR MAXICOM AND I.Q. TWO WIRE SYSTEMS

N.T.S.



PREPARER: **BIO-WEST**

PREPARER CONSULTANTS: **FORSGREN** and **ALL RED RESTORATION**

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER: **SALT LAKE CITY CORPORATION**

ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

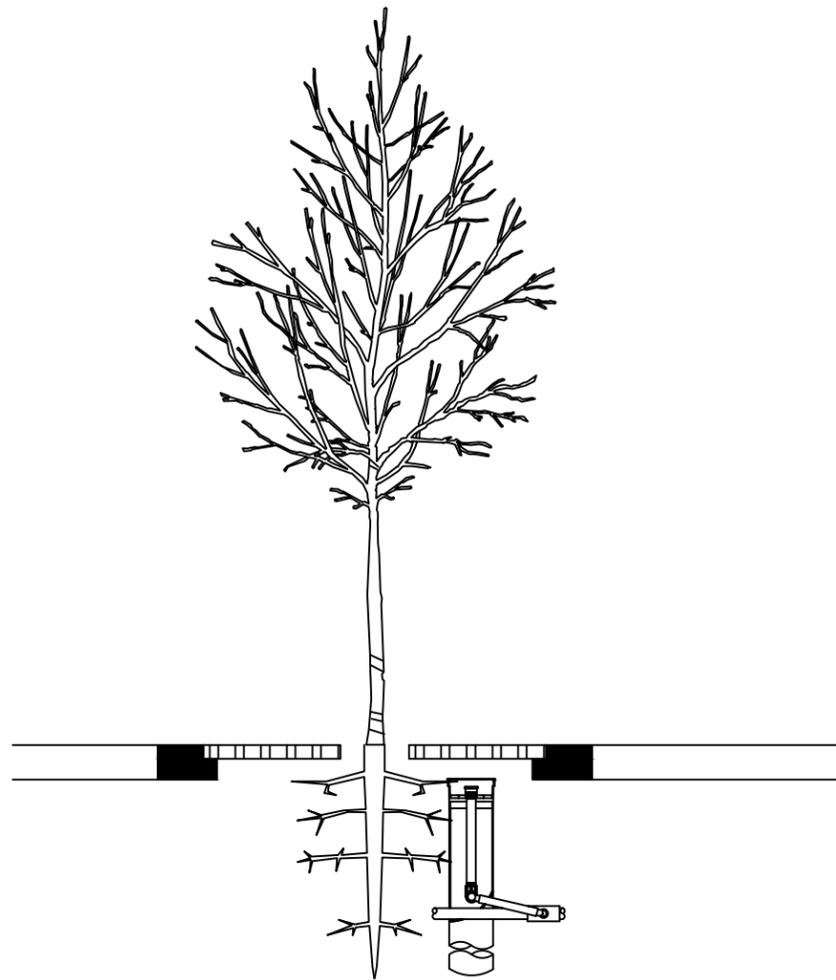
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 2011  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT: FEBRUARY 2018

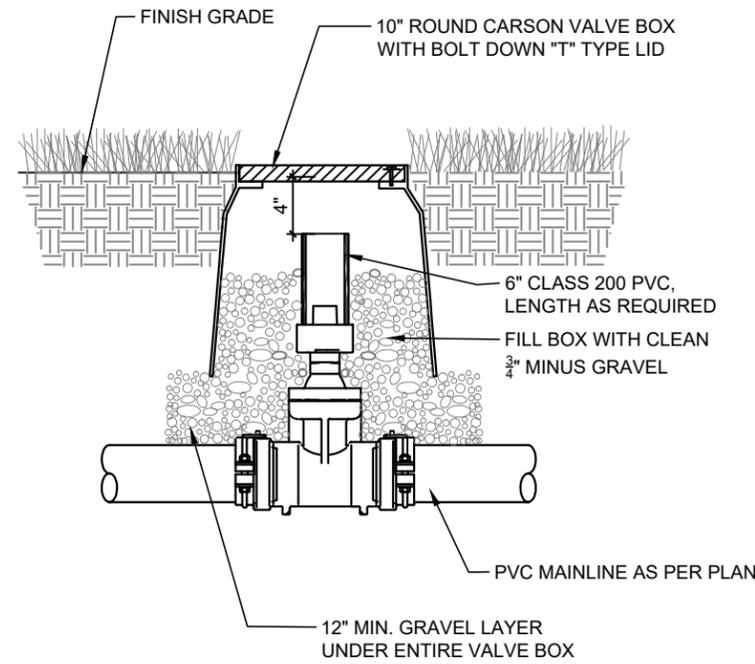
SHEET TITLE: **LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER: **DT 514**

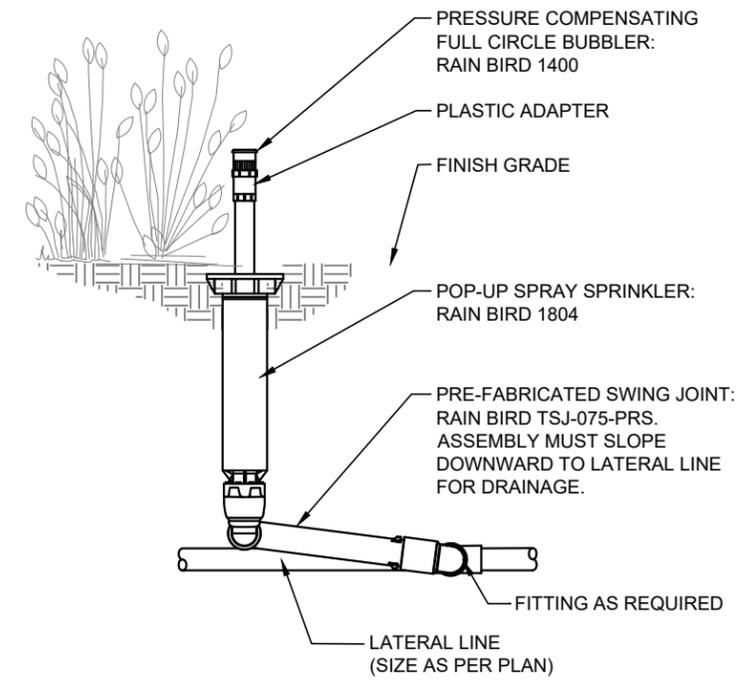
BINDING ORDER



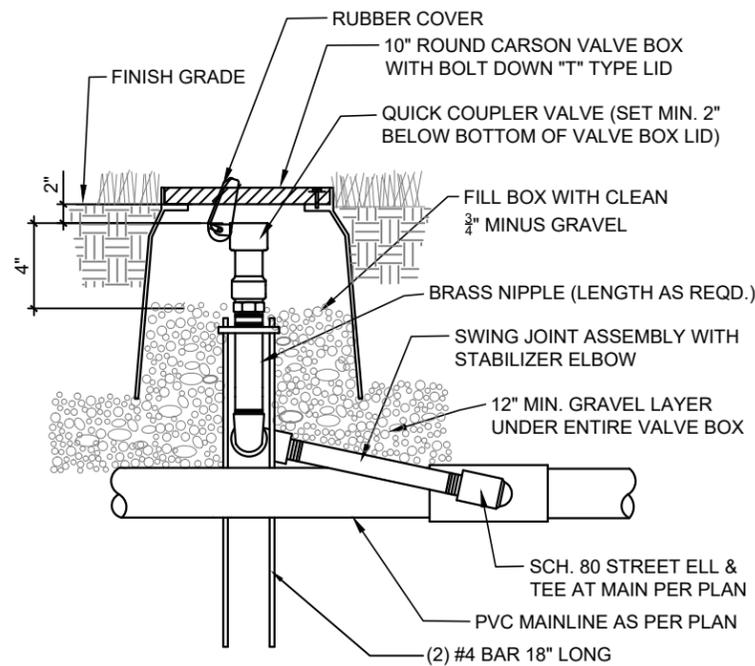
**A** ROOT BUBBLER AT TREE GRATE PLANTING  
N.T.S.



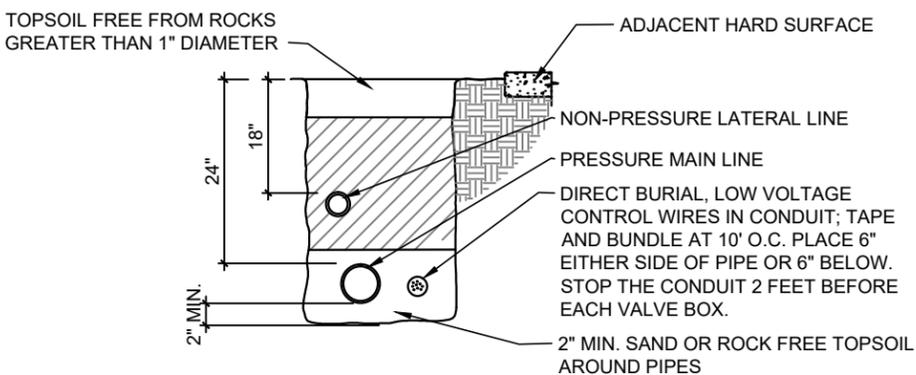
**C** ISOLATION VALVE  
N.T.S.



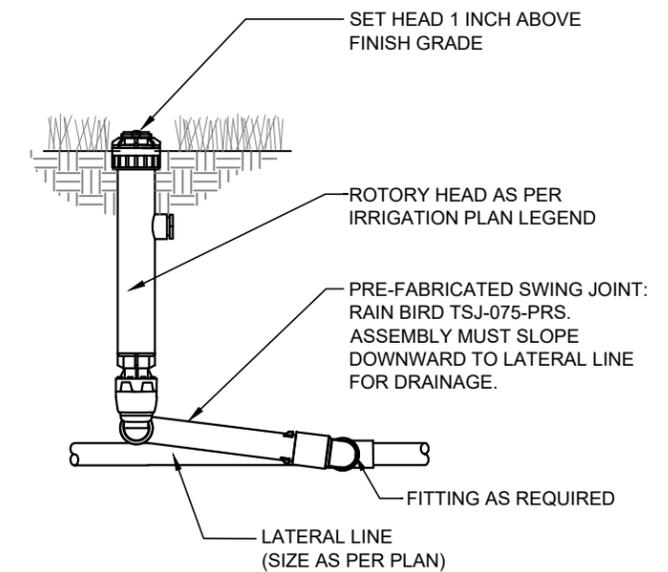
**E** BUBBLER ON POP-UP  
N.T.S.



**D** QUICK COUPLER  
N.T.S.



**B** IRRIGATION PIPE TRENCHING  
N.T.S.



**F** ROTOR HEAD ON SWING JOINT ASSEMBLY  
N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION  
ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK DATE DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT:  
FEBRUARY 2018

SHEET TITLE:  
**LANDSCAPE  
IRRIGATION  
DETAILS**

SHEET IDENTIFIER:  
**DT 515**

BINDING  
ORDER

## GENERAL

- ALL DESIGN, CONSTRUCTION, AND INSPECTION SHALL BE IN CONFORMANCE WITH THE 2015 INTERNATIONAL BUILDING CODE (IBC) AND REFERENCED STANDARDS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
- DRAWINGS INDICATE THE FINISHED PRODUCT. THEY DO NOT INDICATE A METHOD OF CONSTRUCTION. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH PRECAUTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, ETC..
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE OWNER FOR ANY CHANGES MADE AS A RESULT OF A DEVIATION FROM THE CONTRACT DOCUMENTS, DEVIATION FROM THE SPECIFICATIONS, FAULTY MATERIALS, OR FAULTY WORKMANSHIP.
- OPTIONS ARE FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED DESIGN CHANGES. COST ASSOCIATED WITH ANY DESIGN WORK INITIATED BY THE OPTION SHALL BE BORN BY THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY AND PROTECTION WITHIN AND ADJACENT TO THE JOB SITE.
- TEMPORARY SHORING AND BRACING SHALL BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED INCLUDING WIND. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE COMPLETE.
- DURING AND AFTER CONSTRUCTION THE CONTRACTOR AND/OR OWNER SHALL KEEP LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN LOADS.
- THE GENERAL CONTRACTOR SHALL HAVE SHOP DRAWINGS REVIEWED BY THE ENGINEER PRIOR TO THE FABRICATION OR ERECTION FOR THE FOLLOWING ITEMS: HELICAL PIERS, REINFORCING STEEL, PRE-ENGINEERED, AND PRE-MANUFACTURED STRUCTURAL STEEL BRIDGE.
- ALL DETAILS, SECTIONS, AND NOTES ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS UNLESS NOTED OR SHOWN OTHERWISE.
- REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT COVERED ON THE DRAWINGS.
- OBSERVATION VISITS TO THE JOB SITE BY THE OWNER, ENGINEER OR FIELD REPRESENTATIVES OF THE ENGINEER SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.
- SIZES, LOCATIONS, AND ANCHORAGE'S OF EQUIPMENT SHALL BE VERIFIED IN THE FIELD WITH EQUIPMENT MANUFACTURERS (SUPPLIERS) PRIOR TO PLACING CONCRETE OR FABRICATING STEEL.

## STRUCTURAL DESIGN LOADS

THE FOLLOWING STRUCTURAL DESIGN LOADS APPLY U.N.O.:

LIVE LOAD ..... L = 90 PSF  
VEHICLE LOAD ..... L = 10,000 LBS

SNOW LOAD:  
GROUND SNOW LOAD ..... P<sub>g</sub> = 43 PSF  
SNOW IMPORTANCE FACTOR ..... I<sub>s</sub> = 1.00  
SNOW EXPOSURE FACTOR ..... C<sub>e</sub> = 1.00  
SNOW THERMAL FACTOR ..... C<sub>t</sub> = 1.2  
FLAT SNOW LOAD ..... P<sub>f</sub> = 36 PSF

WIND:  
BASIC WIND SPEED ..... V = 115 MPH  
WIND IMPORTANCE FACTOR ..... I<sub>w</sub> = 1.00  
WIND EXPOSURE ..... C

SEISMIC:  
OCCUPANCY CATEGORY ..... II  
SEISMIC IMPORTANCE FACTOR ..... I<sub>e</sub> = 1.00  
SPECTRAL RESPONSE ACCELERATION ..... S<sub>s</sub> = 1.574  
SPECTRAL RESPONSE ACCELERATION ..... S<sub>1</sub> = .533  
SEISMIC SOIL SITE CLASS ..... F  
SPECTRAL RESPONSE COEFFICIENT ..... S<sub>DS</sub> = .944  
SPECTRAL RESPONSE COEFFICIENT ..... S<sub>DI</sub> = .844  
SEISMIC DESIGN CATEGORY ..... E

## FOOTINGS

- FOOTING ELEVATIONS SHOWN ON PLAN ARE TOP OF FOOTINGS AND ARE MINIMUM DEPTH. DIFFERENT OR UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ENGINEER.
- FOOTINGS SHALL BEAR AT A MINIMUM DEPTH OF 30" BELOW FINISHED GRADE.
- NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
- ANY SOIL CONDITION ENCOUNTERED DURING EXCAVATION THAT IS CONTRARY TO THE CONDITIONS USED FOR DESIGN OF FOOTINGS, OR ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING.
- ALL FOOTING EXCAVATIONS SHALL BE EXAMINED BY THE ENGINEER FOR VERIFICATION OF ADEQUATE BEARING CONDITIONS BEFORE PLACING CONCRETE.
- COMPACT IMPORTED STRUCTURAL FILL AS UNDER FOOTINGS AS REQUIRED TO AT LEAST 90% OF MAXIMUM DRY DENSITY AS DETERMINED BY (MODIFIED PROCTOR) ASTM D1557.
- FOUNDATION SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE RECOMMENDATIONS GEOTECHNICAL REPORT PREPARED BY TERRACON DATED JANUARY 25, 2018.
- ALLOWABLE BEARING CAPACITY = 1500 PSF

## CONCRETE

- ALL CONCRETE SHALL MEET THE REQUIREMENTS OF ACI-301, SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS. PROPORTIONING OF INGREDIENTS FOR EACH CONCRETE MIX SHALL BE BY METHOD 2 OR THE ALTERNATE PROCEDURE GIVEN IN ACI-301. PLACE CONCRETE PER ACI-304 AND CONFORM TO ACI-604 (306) FOR COLD WEATHER PLACEMENT AND ACI-605 (305) FOR HOT WEATHER PLACEMENT. USE INTERIOR MECHANICAL VIBRATORS WITH 7,000 RPM MINIMUM FREQUENCY. DO NOT OVER-VIBRATE. CONCRETE SHALL BE PLACED MONOLITHICALLY BETWEEN CONSTRUCTION AND CONTROL JOINTS. PROTECT ALL CONCRETE FROM PREMATURE DRYING, EXCESSIVE HOT OR COLD TEMPERATURE FOR SEVEN DAYS AFTER PLACING.
- STRENGTH  
TWENTY-EIGHT DAY COMPRESSIVE STRENGTH SHALL BE:  
4000 PSI, 5 ½ SACK  
SLUMP: 4 + 1 INCH  
MAX. WATER/CEMENT RATIO: 0.45
- STRUCTURAL CONCRETE EXPOSURE CLASS: F2
- MATERIALS  
CEMENT: ASTM 150, TYPE I.  
COARSE AND FINE AGGREGATE: ASTM C33.  
WATER SHALL BE CLEAN AND POTABLE.
- ADMIXTURES  
  
WATER REDUCING ADMIXTURE: ASTM C494. ADMIXTURES SHALL BE USED IN EXACT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.  
  
SYNERGIZED PERFORMANCE SYSTEMS: CONCRETE USING ADMIXTURES TO PRODUCE FLOWABLE CONCRETE MAY BE USED SUBJECT TO ENGINEER'S APPROVAL.
- AIR ENTRAINMENT: ASTM C260 AND ASTM C494, ENTRAIN 6% PLUS/MINUS 1 1/2% BY VOLUME IN ALL EXPOSED CONCRETE.
- NO OTHER ADMIXTURE PERMITTED UNLESS APPROVED BY THE ENGINEER OF RECORD.
- A STATEMENT OF MIX DESIGN FOR ALL CONCRETE SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER PRIOR TO COMMENCING WORK.
- ALL CONCRETE WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS DIRECTED BY THE SPECIFICATIONS AND ACI STANDARDS AND PRACTICES.
- BEFORE CONCRETE IS POURED CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, ETC. RELATIVE TO WORK.
- REFER TO DRAWINGS FOR TYPICAL CONSTRUCTION JOINT DETAILS. UNLESS NOTED IN DRAWINGS, ALL REINFORCEMENT SHALL BE CONTINUOUS THROUGH JOINTS AND EACH CONSTRUCTION JOINT SHALL BE KEYED.
- CONTRACTOR SHALL SUBMIT A PLACEMENT PLAN FOR REVIEW INCLUDING ALL ITEMS EMBEDDED IN CONCRETE AND ALL CONCRETE PENETRATIONS.

## REINFORCING STEEL

- ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH BP-66(04); ACI DETAILING MANUAL - 2011, ACI 350-11, AND ACI 318-14.
- REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND ASTM A185.
- ALL REINFORCEMENT SHALL BE SECURELY TIED AND HELD IN PLACE.
- REINFORCING BARS THAT ARE TO BE WELDED, INCLUDING DEFORMED BAR ANCHORS (D.B.A.) SHALL COMPLY WITH ASTM A706 OR ANOTHER APPROVED WELDABLE GRADE AND SHALL BE WELDED IN ACCORDANCE WITH THE A.W.S. RECOMMENDATIONS.
- ALL CONTINUOUS REINFORCEMENT SHALL TERMINATE WITH A 90 DEG. TURN OR A SEPARATE CORNER BAR. ALL SPLICES IN CONCRETE SHALL LAP THE LISTED LAP LENGTH.
- THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:  
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"  
B. ALL OTHER CONCRETE: 2"
- PRIOR TO FABRICATION AND PLACEMENT, SHOP DRAWINGS FOR ALL REINFORCING STEEL SHALL BE REVIEWED BY THE ENGINEER.
- REFER TO WALL CORNER AND WALL INTERSECTION REINFORCING DETAIL. IN GENERAL, THE WALL CORNER REINFORCING SIZES AND SPACING SHALL BE CALLED OUT ON THE PLANS AND REFERENCED TO THESE DETAILS AND THE TYPICAL HORIZONTAL WALL REINFORCING SHALL LAP WITH THE HORIZONTAL REINFORCING.
- ALL BENDS, UNLESS OTHERWISE SHOWN, SHALL BE A 90 DEGREE STANDARD HOOK. REFER TO STANDARD CONCRETE HOOK DETAILS.
- UNLESS INDICATED OTHERWISE, CONTRACTOR MAY SPLICE CONTINUOUS SLAB OR LONGITUDINAL BEAM BARS AT LOCATION OF HIS CHOOSING, EXCEPT THAT TOP BAR SPLICES SHALL BE LOCATED AT MIDSPAN AND BOTTOM BAR SPLICES SHALL BE LOCATED AT SUPPORTS. STAGGER SPLICES IN HORIZONTAL WALL BARS SO THAT NO TWO ADJACENT BARS IN THE SAME OR OPPOSITE CURTAIN ARE SPLICED AT THE SAME LOCATION. ALL REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE REQUIREMENTS OF THE STD. CONCRETE HOOK SCHEDULE AND THE CONCRETE REINFORCEMENT LAP AND DEVELOPMENT SCHEDULES.

## FORM WORK

- FOLLOW RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347).
- ALL SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FORMWORK SUPPORTS AND SHORING SHALL BE DESIGNED TO PROVIDE FINISHED CONCRETE SURFACES OF ALL FACES LEVEL, PLUMB, AND TRUE TO THE DIMENSIONS AND ELEVATIONS SHOWN. TOLERANCES AND VARIATIONS SHALL BE AS SPECIFIED.

## SHOP DRAWINGS

SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER OF RECORD FOR THE FOLLOWING:

- PRE-ENGINEERED, PRE-MANUFACTURER STEEL BRIDGE.
- ANCHOR BOLTS.

## STRUCTURAL STEEL

- ALL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING, LATEST EDITION.
- OBTAIN APPROVAL OF THE ENGINEER OF RECORD PRIOR TO SITE CUTTING, MAKING ADJUSTMENTS OR PERFORMING FIELD WELDS NOT SCHEDULED OR SHOWN ON PLANS OR DETAILS.
- ALL ASTM A325 BOLTING MATERIAL SHALL BE PROVIDED WITH CERTIFIED DIRECT TENSION INDICATOR WASHERS AND HARDENED WASHERS FOR FIELD BOLTED CONNECTIONS.

## PENETRATING CONCRETE SEALER

- CHOOSE FROM THE FOLLOWING LIST OF: SILANE, SILOXANE, SILICATE, SILICONATE, ORGANO SILANE ESTER, STYRENE ACRYLIC COPOLYMER, ORGANO SILOXANE, ALKYLALKOXY SILOXANE, ALKYLALKOXY SILANE.
- KEEP SURFACES DRY AND FREE OF RELEASE AGENTS, LAITANCE, DIRT, DUST, PAINT, GREASE, OIL, RUST AND OTHER CONTAMINANTS.
- REMOVE ANY CURING COMPOUND FROM THE SURFACE OF THE CONCRETE BEFORE APPLYING PENETRATING SEALER.
- USE ONE OF THE FOLLOWING CLEANING METHODS:
  - HYDROBLASTING - 700 PSI MIN.
  - SHOTBLASTING
  - SANDBLASTING
  - ETCHING
- KEEP CONCRETE SURFACE MATRIX INTACT WITHOUT EXPOSING ANY LARGE AGGREGATE.
- CURE CONCRETE FOR 28 DAYS BEFORE SEALER APPLICATION.
- OBTAIN APPROVAL FROM THE ENGINEER BEFORE APPLYING MATERIAL.
- COAT ONLY WHEN THE OUTSIDE AIR TEMPERATURE WILL REMAIN BETWEEN 45 AND 90 DEGREES FOR 24 HOURS.
- APPLY ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR HORIZONTAL, VERTICAL, AND OVERHEAD SURFACES.
- APPLY CONCRETE SEALER EVENLY AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER.

## MATERIALS TESTING - CONTRACTOR PROVIDED

- A. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
- TESTING FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD. PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF.
    - IF THE TOTAL VOLUME OF CONCRETE ON A GIVEN STRUCTURE IS SUCH THAT THE FREQUENCY OF TESTING WILL PROVIDE LESS THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIXTURE, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
  - SLUMP: ASTM C 143/C 143M; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.
  - AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
  - CONCRETE TEMPERATURE: ASTM C 1064/C 1064M; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEG F AND BELOW AND WHEN 80 DEG F AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE
  - UNIT WEIGHT: ASTM C 567, FRESH UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIXTURE.
  - COMPRESSION TEST SPECIMENS: ASTM C 311/C 311M.
    - CAST AND LABORATORY CURE THREE SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
    - CAST AND FIELD CURE THREE SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.
  - COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M; TEST ONE SET OF TWO LABORATORY-CURED SPECIMENS AT 7 DAYS, TEST ONE SET OF TWO LABORATORY-CURED SPECIMENS AT 14 DAYS, AND ONE SET OF TWO SPECIMENS AT 28 DAYS.
    - TEST ONE SET OF TWO FIELD-CURED SPECIMENS AT 7 DAYS, ONE SET OF TWO FIELD-CURED SPECIMENS AT 14 DAYS, AND ONE SET OF TWO SPECIMENS AT 28 DAYS.
    - A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM A SET OF TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED.
- B. COMPACTION TESTING:
- 8" MAXIMUM LIFTS ON IMPORTED GRANULAR BORROW AS REQUIRED.
  - PROVIDE A MINIMUM OF (3) DENSITY TESTS AT EACH FOOTING.

## ANCHOR BOLTS

- CONCRETE ANCHOR RODS SHALL MEET THE QUALITY OF ASTM F1554 GRADE 36 KSI, GALVANIZED (ASTM A153, CLASS C) RODS AND SHALL HAVE A STANDARD BOLT HEAD OR AN EQUAL DEFORMITY IN THE EMBEDDED PORTION.

## POST-INSTALLED ANCHORS

- EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC. CONTACT HILTI AT (800) 879-8000 FOR PRODUCT RELATED QUESTIONS.
  - ANCHORAGE TO CONCRETE  
  
ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:  
(1. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HIT-Z ROD PER ICC ESR-3187.  
(2. HILTI HIT-RE 500-SD SAFE SET EPOXY ADHESIVE ANCHORING SYSTEM WITH HAS-E THREADED ROD PER ICC ESR-2322 FOR SLOW CURE APPLICATIONS
- INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
- THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
- ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY HILTI FERROSCAN, GPR, X-RAY, CHIPPING OR OTHER MEANS.

### SECTION 1704.2.5 FABRICATORS

APPROVED FABRICATOR - YES
FABRICATORS NAME: CONTECH, BIG R BRIDGE, EXCEL BRIDGE, WHEELER BRIDGE, US BRIDGE. OTHER MANUFACTURERS SHALL BE APPROVED BASED ON EXPERIENCE BY THE ENGINEER
FABRICATOR'S PLANT LOCATION:
REQUIRED IN-PLANT INSPECTIONS: NONE.

### SECTION 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	--	X	ACI 318 CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. INSPECT ANCHORS CAST IN CONCRETE.	--	X	ACI 318:17.8.2	--
3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	--	ACI 318:17.8.2.4	--
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	--	X	ACI 318: 17.8.2	--
4. VERIFYING USE OF REQUIRED DESIGN MIX.	--	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	--	ASTM C172, ASTM C31, ACI 318: 26.4, 26.12	1908.10
6. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	--	ACI 318: 26.5	1908.6, 1908.7, 1908.8
7. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	--	X	ACI 318: 26.5.3-26.5.5	1908.9
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	--	X	ACI 318: 26.11.1.2(b)	--

### SECTION 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	--	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	--	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	--	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	--
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	--	X

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:

**NOT FOR CONSTRUCTION**

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION ENGINEERING**

349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK DATE DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: C. ATKINSON  
CHECKED BY: K. DANA  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:

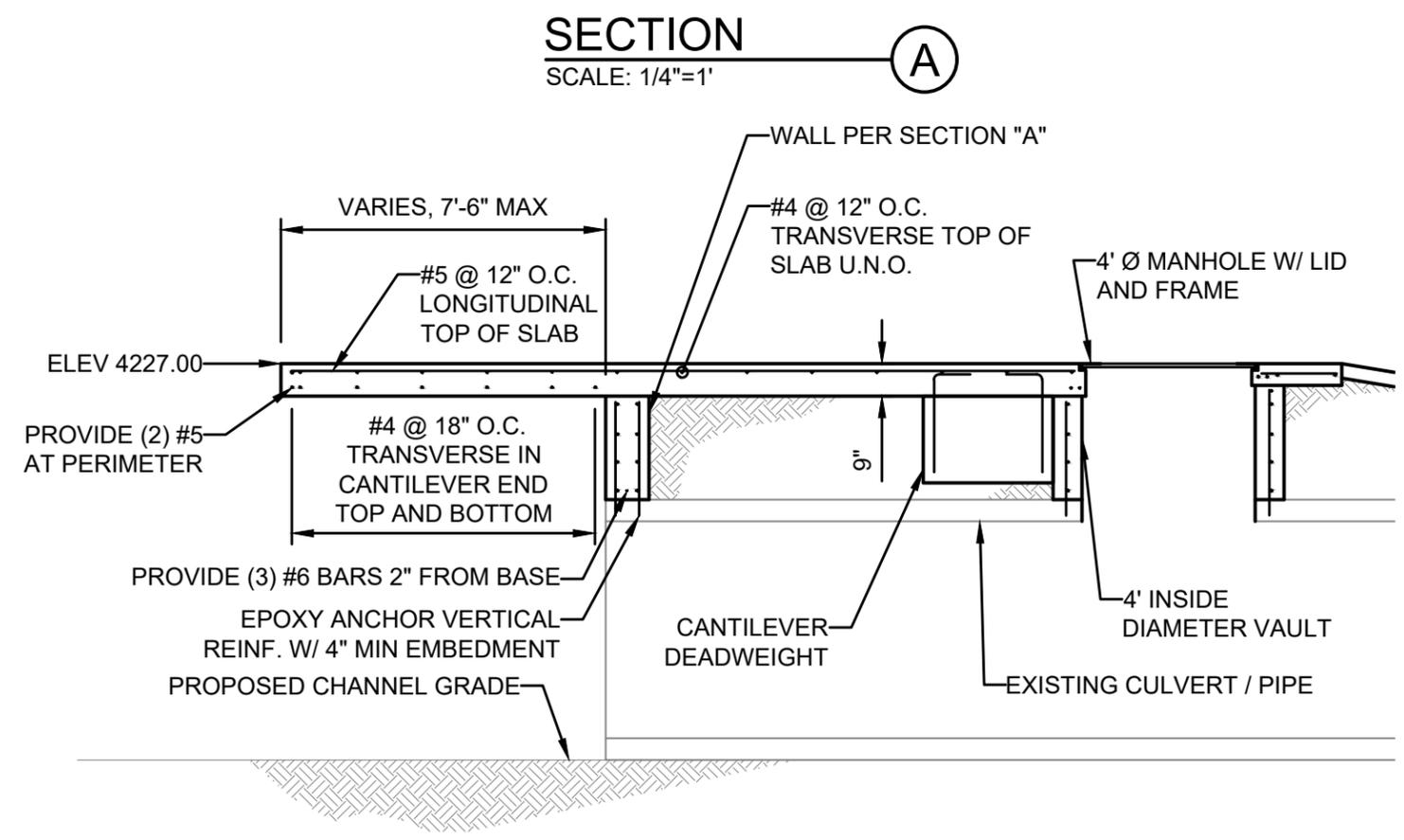
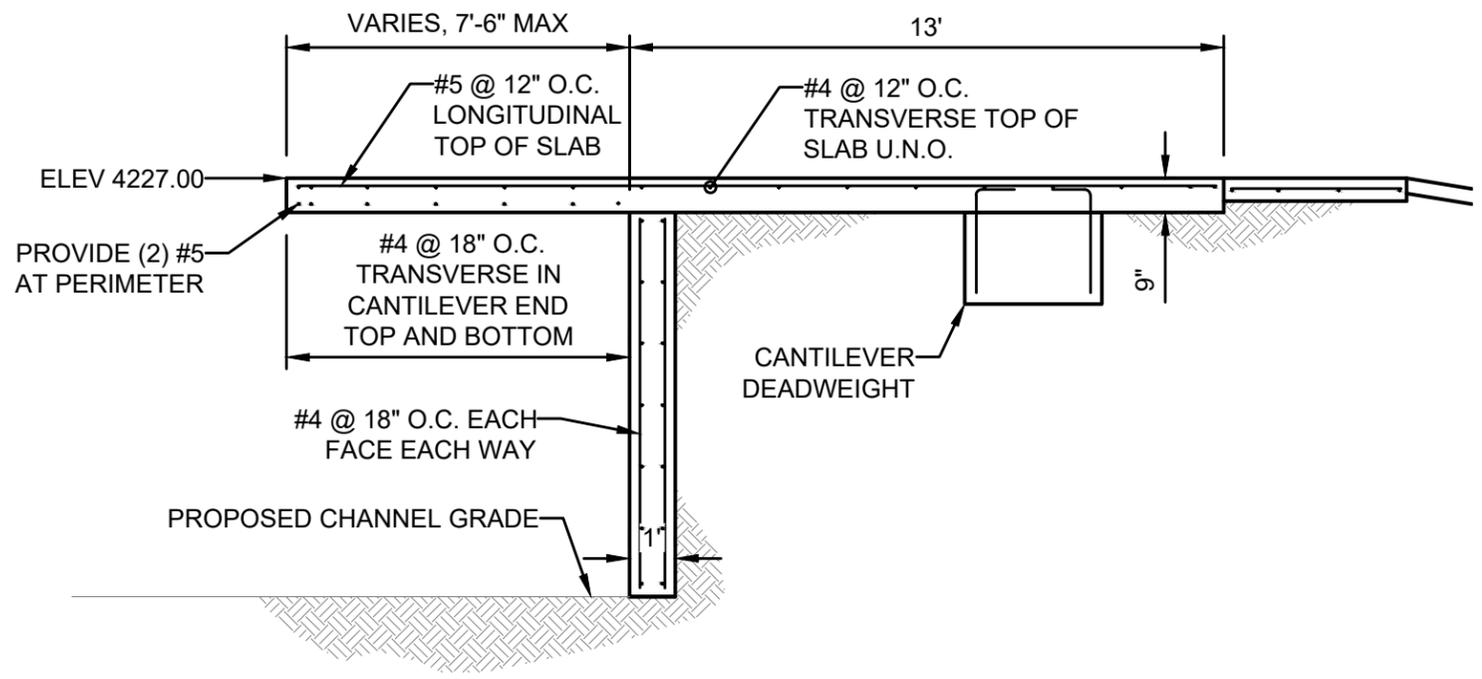
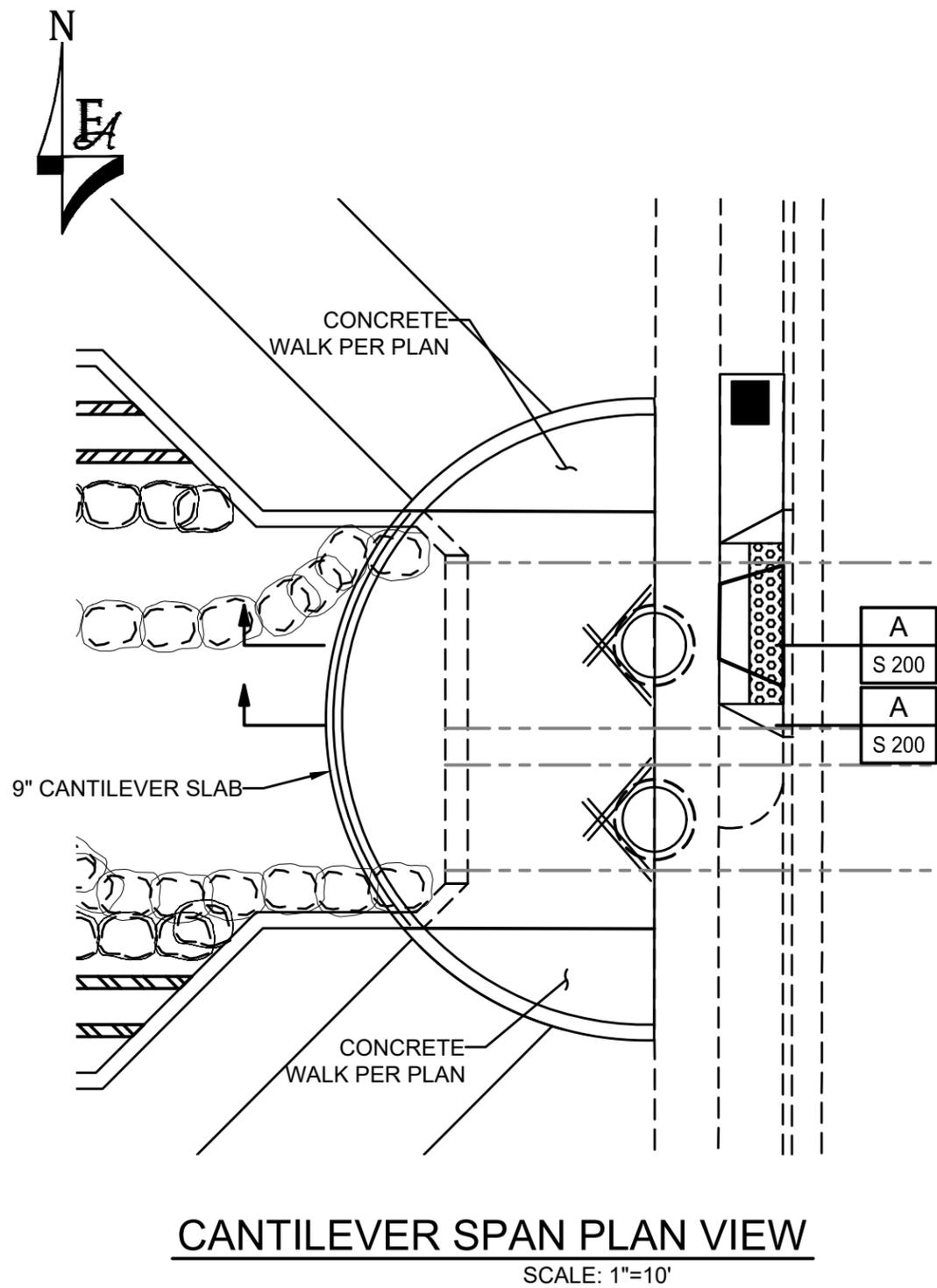
**STUCTURAL NOTES**

SHEET IDENTIFIER:

**\$ 000**

BINDING ORDER





PREPARER:  
BIO-WEST  
300 South 200 East, Suite 100  
Salt Lake City, Utah 84114-0506  
Phone: (801)335-0157

PREPARER CONSULTANTS:  
FORSGREN Associates, Inc.  
Engineering stronger communities

PROFESSIONAL SEAL:  
**NOT FOR CONSTRUCTION**

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
ENGINEERING  
310 South 200 East, Suite 100  
Salt Lake City, Utah 84114-0506  
Phone: (801)335-0157

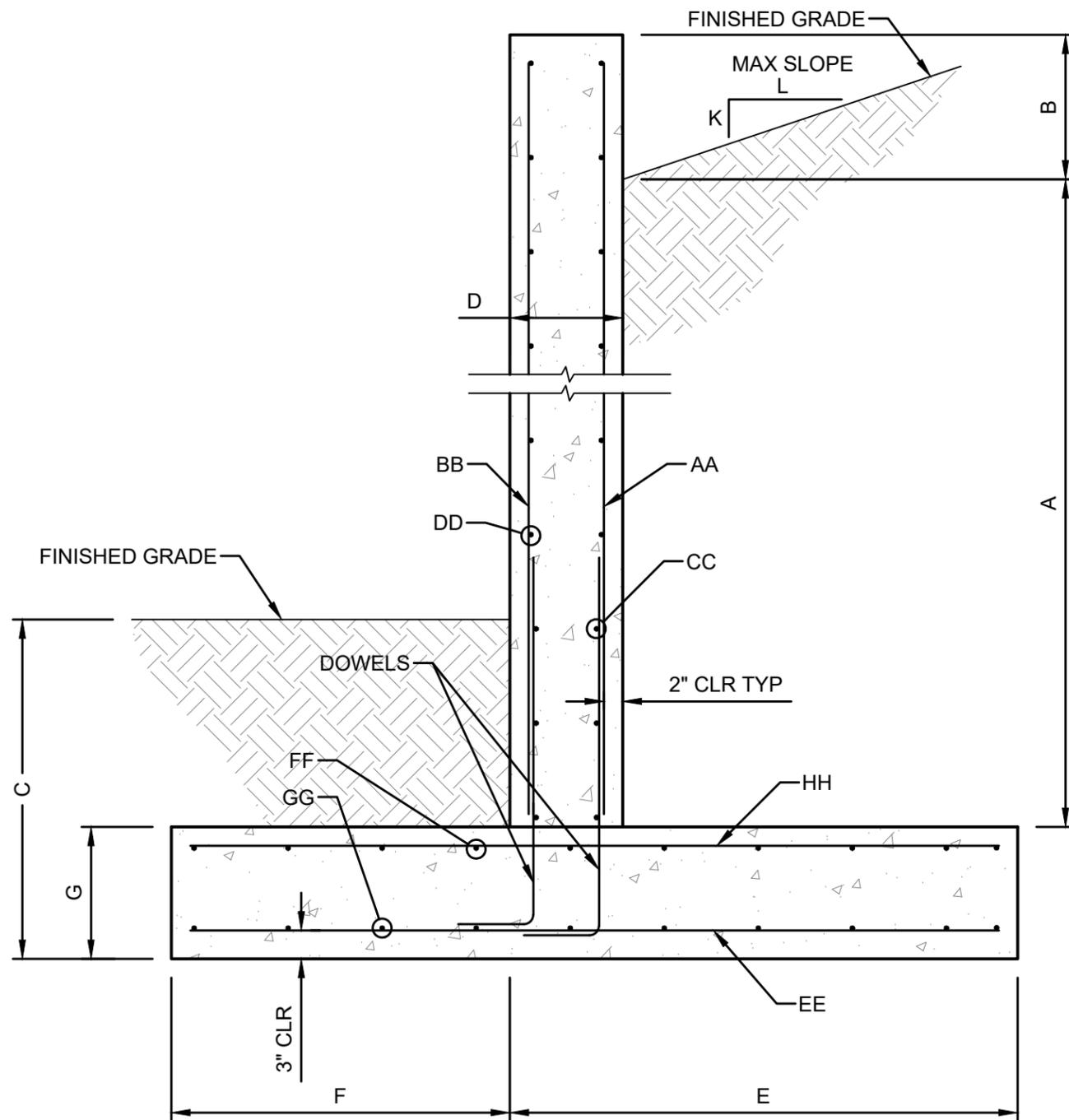
MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 2011  
DRAWING FILE:  
DRAWN BY: C. ATKINSON  
CHECKED BY: K. DANA  
COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**CANTILEVER SLAB**

SHEET IDENTIFIER:  
**S 200**

BINDING ORDER



**NOTES:**

1. ALIGN EXTERIOR FACES OF KEY AND STEM.
2. MAINTAIN 3" CLEAR FOR REINFORCEMENT WHERE CONCRETE IS CAST AGAINST EARTH.
3. PLACE CONTINUOUS LONGITUDINAL REINFORCEMENT AS SHOWN, INSIDE OF TRANSVERSE REINFORCEMENT.
4. WHERE APPLICABLE INSTALL SLAB AT TOE BEFORE BACKFILLING THE HEAL.
5. BACKFILL SLOPE SHALL REMAIN AT OR BELOW MAXIMUM SLOPE FOR DISTANCE "A" BEYOND STEM.
6. FOOTING DOWEL REINFORCEMENT TO MATCH SIZE AND SPACING OF THE WALL VERTICAL REINFORCEMENT.

**DOWEL LAP SPLICE LENGTH**

- #4 BAR - 25"
- #5 BAR - 31"
- #6 BAR - 37"

**RETAINING WALL SCHEDULE**

MARK	DIMENSIONS										REINFORCEMENT								NOTES
	A	B	C	D	E	F	G	K	L	STEM				FOOTING					
										AA	BB	CC	DD	EE	FF	GG	HH		
RW1	11'-0" MAX	6" MAX	2'-6" MIN	10"	5'-10"	5'-0"	1'-4"	1	10	#5 @ 16" O.C.									
RW2	11'-0" MAX	6" MAX	2'-6" MIN	10"	5'-10"	5'-0"	1'-4"	1	10	#5 @ 16" O.C.									
RW3	11'-0" MAX	6" MAX	2'-6" MIN	10"	5'-10"	5'-0"	1'-4"	1	10	#5 @ 16" O.C.									

**RETAINING WALL SCHEDULE**

SCALE: N.T.S.

PREPARER:

PREPARER CONSULTANTS:

PROFESSIONAL SEAL:  
**NOT FOR CONSTRUCTION**

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE OPEN SPACE REACTIVATION AND RIPARIAN RESTORATION**

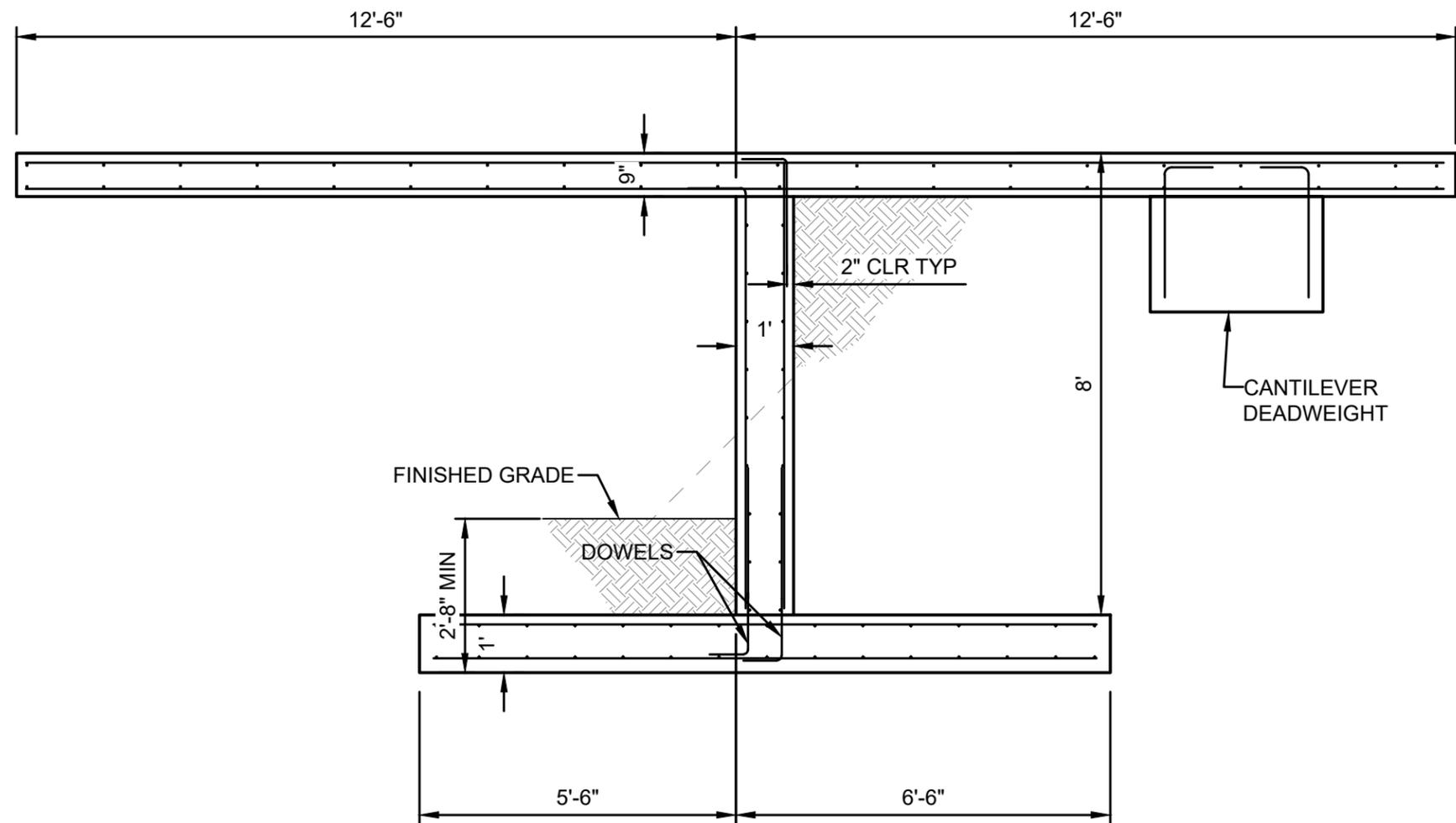
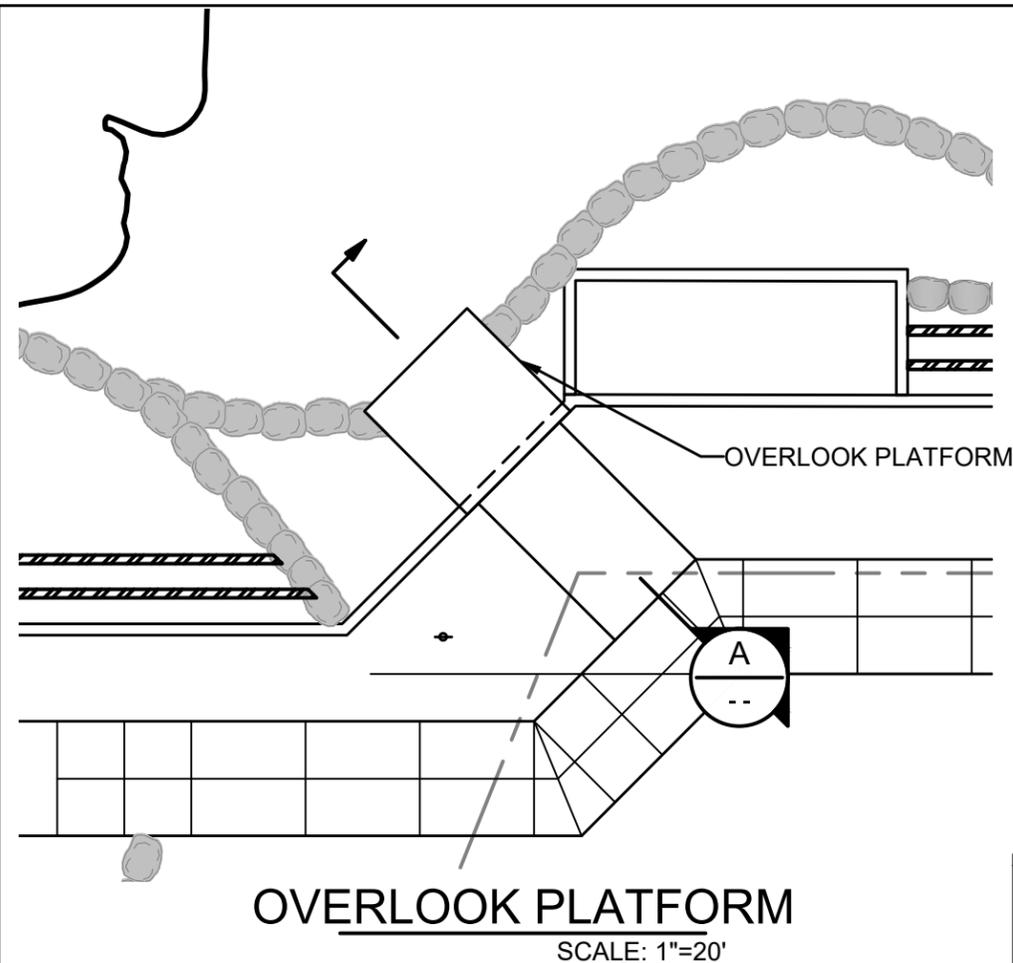
PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
 ENGINEERING  
 340 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-9908  
 Phone: (801)635-0157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: C. ATKINSON  
 CHECKED BY: K. DANA  
 COPYRIGHT: FEBRUARY 2018

SHEET TITLE:  
**RETAINING WALLS**

SHEET IDENTIFIER:  
**S 300**  
 BINDING ORDER



**SECTION** A

SCALE: 3/8"=1'-0"

PREPARED BY:



PREPARED CONSULTANTS:



PROFESSIONAL SEAL:

**NOT FOR  
CONSTRUCTION**

PROJECT IDENTIFICATION:

**THREE CREEKS  
CONFLUENCE OPEN  
SPACE  
REACTIVATION AND  
RIPARIAN  
RESTORATION**

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
ENGINEERING  
340 South 200 East, Suite 100  
Salt Lake City, Utah 84114-9908  
Phone: (801)635-6157

MARK	DATE	DESCRIPTION

PREPARED BY: BIO-WEST, INC.

CONTRACT #: 300124

PROJECT #: 300124

BW PN #: 2011

DRAWING FILE:

DRAWN BY: C. ATKINSON

CHECKED BY: K. DANA

COPYRIGHT: FEBRUARY 2018

SHEET TITLE:

**OVERLOOK**

SHEET IDENTIFIER:

**S 400**

BINDING ORDER