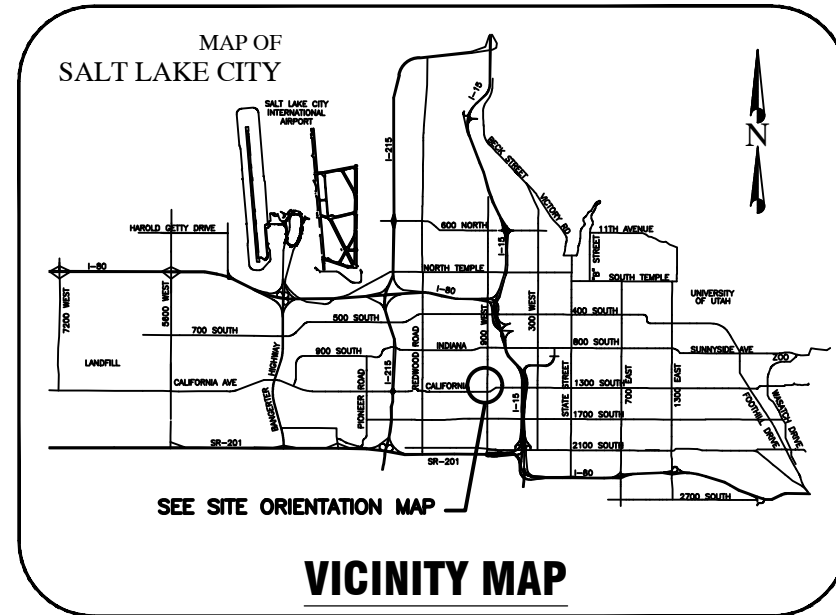


# SALT LAKE CITY CORPORATION



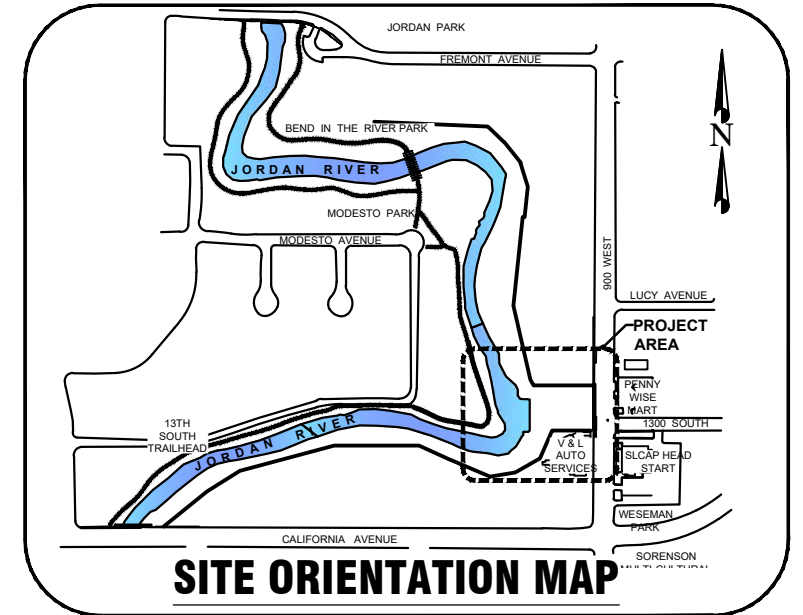
## THREE CREEKS CONFLUENCE



**JOB NO. 253701**

### SHEET SET ASSEMBLY ORDER

SHEET DESIGNATOR	BINDING ORDER	SHEET TITLE
GI 001	1	GENERAL INFORMATION COVER SHEET
GI 002	2	GENERAL INFORMATION NOTES
GI 003	3	GENERAL INFORMATION PARCEL MAP
LD 101	4	LANDSCAPE DEMOLITION PLAN
LS 101	5	LANDSCAPE SITE PLAN
LS 102	6	LANDSCAPE SITE LAYOUT PLAN
LG 101	7	LANDSCAPE GRADING PLAN
LP 101	8	LANDSCAPE PLANTING PLAN
LI 101	9	LANDSCAPE IRRIGATION PLAN
SC 301-SC 304	10-13	LANDSCAPE SECTIONS
DT 501-DT 511	14-24	LANDSCAPE SITE DETAILS
DT 512	25	LANDSCAPE PLANTING DETAILS
DT 513-DT17	26-30	LANDSCAPE IRRIGATION DETAILS
S 000 - S 004	31-35	STRUCTURAL NOTES
S 100	36	PEDESTRIAN BRIDGE
S 200 - S 201	37 - 38	DELTA OVERLOOK
S 300	39	RETAINING WALL PLAN
S 301	40	RETAINING WALL SECTION AND SCHEDULE
S 400	41	TRASH SEPARATOR PLAN



### OWNER

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

INTERIM DIRECTOR - MARCIA WHITE  
CITY ENGINEER - MATTHEW CASSEL, P.E., ENV-SP

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 ANALIA VALDEMOROS  
DIST. 5 ERIN MENDENHALL  
DIST. 6 CHARLIE LUKE  
DIST. 7 AMY FOWLER

### DESIGNER

### LANDSCAPE ARCHITECT:



### PREPARER CONSULTANTS:



PUBLIC UTILITIES DEVELOPMENT REVIEW ENGINEER

KELLY JONES, P.E.

DATE

CITY ENGINEER

MATTHEW CASSEL, P.E., ENV-SP

DATE

CITY PROJECT MANAGER

STEPHANIE TOOMBS, P.E.

DATE

PARKS AND PUBLIC LANDS DIRECTOR

KRISTIN RIKER

DATE

TRAILS & NATURAL LANDS PROGRAM MANAGER

LEWIS KOGAN

DATE

PROJECT DESIGNER

CHRISTOPHER SANDS, RLA

9/11/2019

DATE

THREE CREEKS CONFLUENCE

JOB NO. 253701

## 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 utilities, including but not limited to fiber optic, 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 and other utility maps must be assumed as approximate and requiring field verification. Utilities are shown to best available information. Contractor is responsible to repair utility damage at no additional cost to Salt Lake City. Contact blue stakes or appropriate owner for communication line locations.

### Utility Clearance

Maintain 3' horizontal clearance from water and storm drains, 5' horizontal clearance from sanitary sewers, and 18" cover over and 12" under any Salt Lake City PUD pipe. All distances are to be measured outside to outside.

### 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. 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.

### 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.

### 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.

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, replace trees and shrubs or turf sod) construction features not specified as remaining on the site and clean up all areas at the completion of the project.

The Contractor is responsible to keep access to Private Property open at all times during construction.

The Contractor is responsible for installing water control measures as needed to perform streambank 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.

### Temporary Environmental/Safety Fence

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

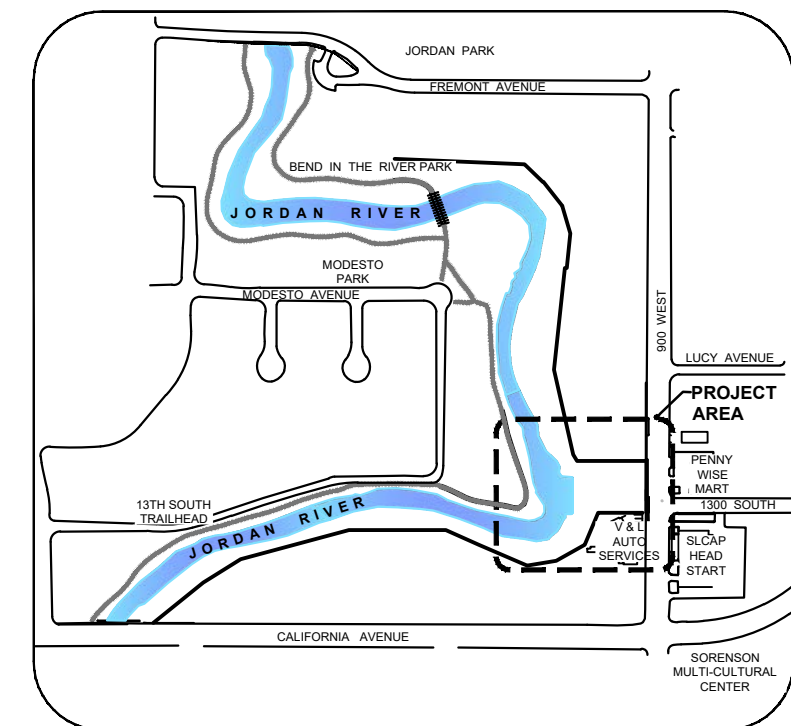
### Storm Water Pollution Prevention Plan Notes

- No earth shall be disturbed until all erosion control measures are in place.
  - Erosion control measures will be maintained and remain in place until re-vegetation measures have been achieved.
  - The Contractor is responsible for submittal of NOI and acquisition of UPDES Storm Water General Permit for Construction Activities (UTR300000) and for SWPPP design, layout, installation, inspection and maintenance of erosion/sediment controls. The Contractor is responsible to submit SWPPP to Salt Lake City for review prior to initiating any disturbances. 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.
  - 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
- Contractor to stake the boundary of the grading area for approval from the Owners Representative prior to initiating grading activities.
  - Contractor is responsible for erosion, dust and temporary drainage control during grading operations.
  - Fill areas are to be compacted throughout to a minimum of 90% relative compaction.
  - Contractor is responsible for the location and protection of all utilities.
  - 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



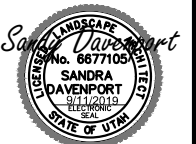
PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

## THREE CREEKS CONFLUENCE

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

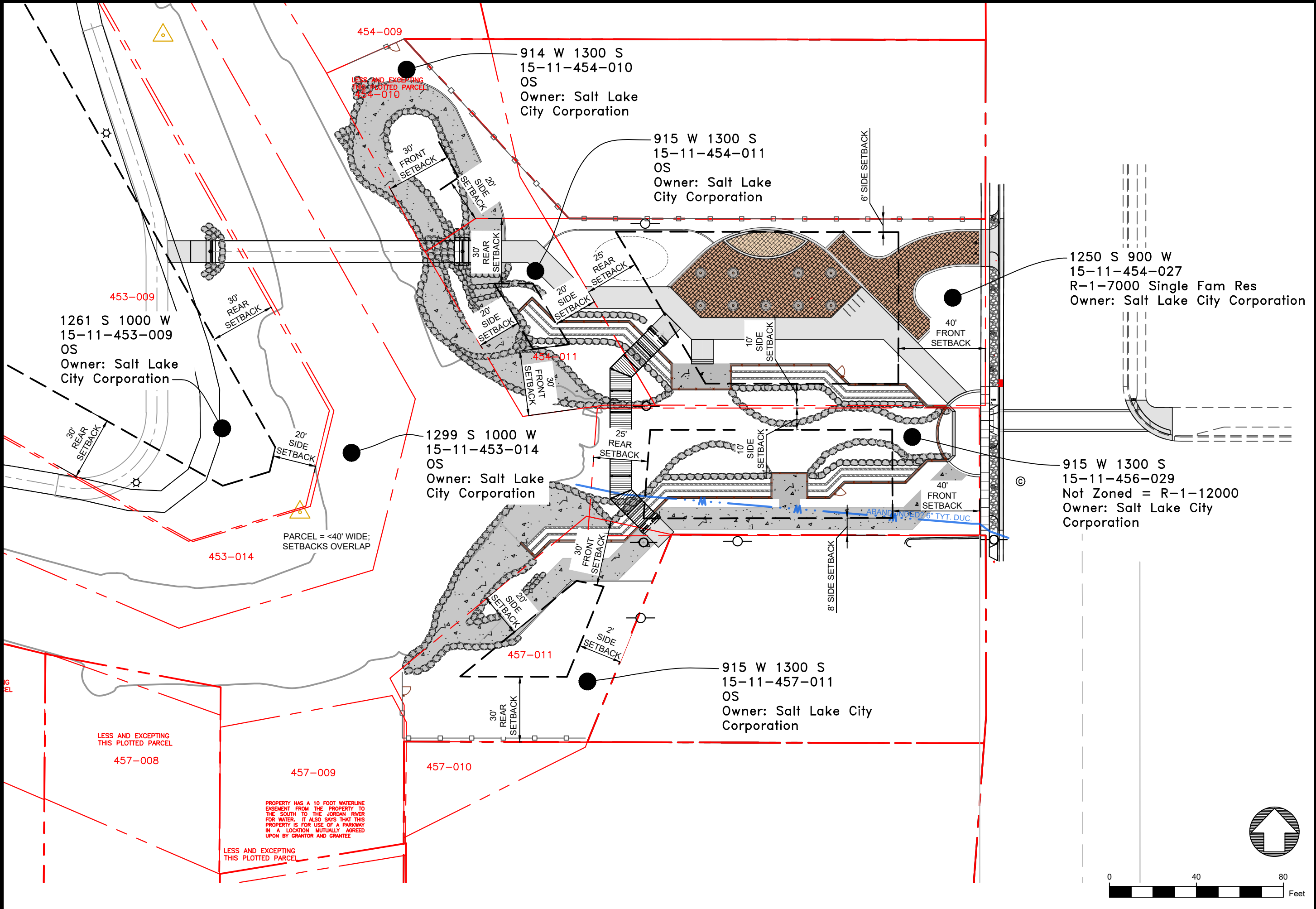
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CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
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CHECKED BY: C. SANDS  
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**SEPTEMBER 2019**


## GENERAL INFORMATION NOTES


SHEET IDENTIFIER:


**GI 002**

BINDING ORDER **2**



PREPARER:  
 BIO-WEST

PREPARER CONSULTANTS:  
 FORSGREN  
 ALRED RESTORATION

PROFESSIONAL SEAL:  


PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE**

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

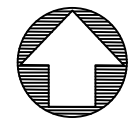
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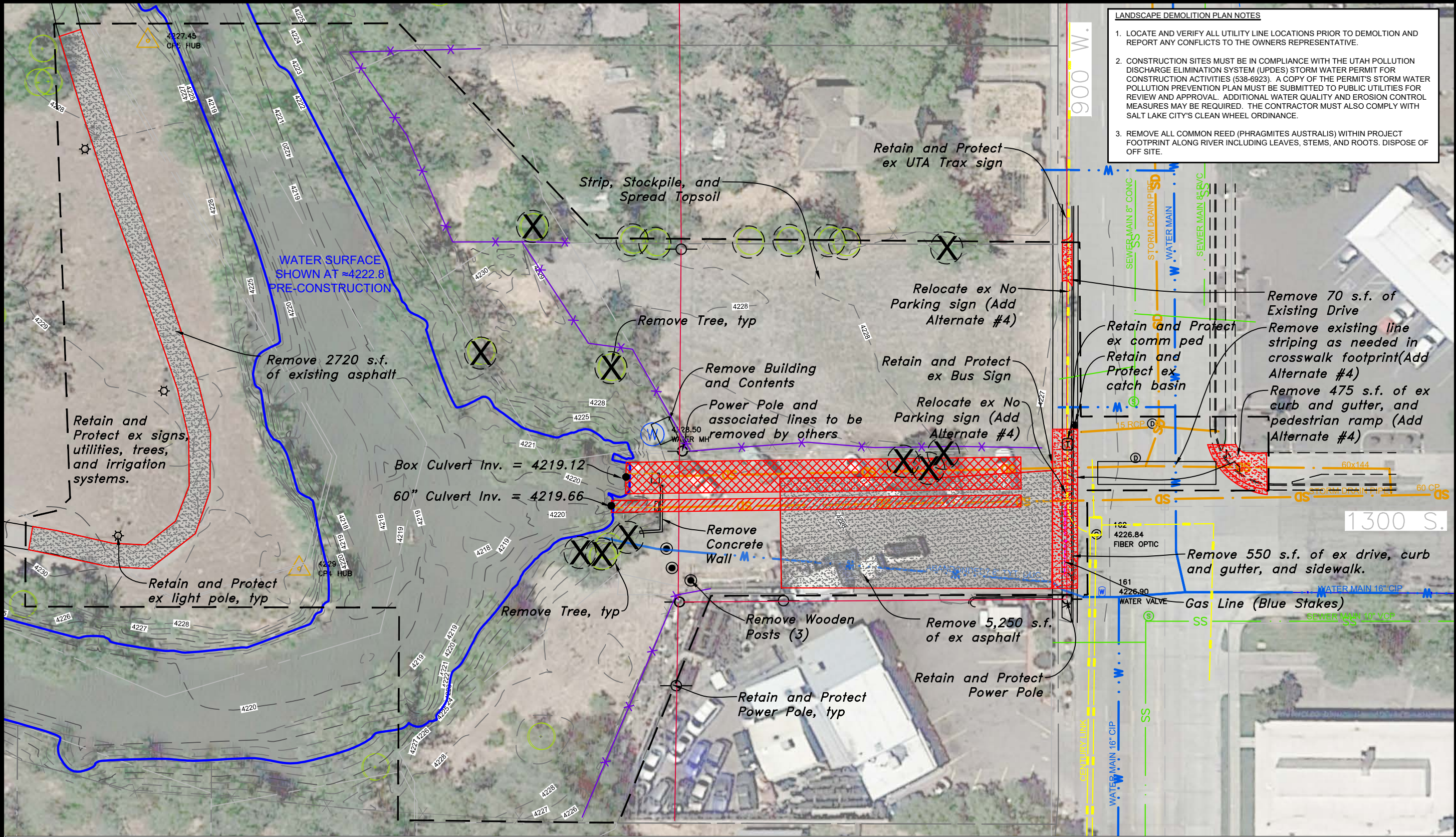
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 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
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SHEET TITLE:  
**GENERAL INFORMATION PARCEL MAP**

SHEET IDENTIFIER:  
**GI 003**

BINDING ORDER **3**





**LANDSCAPE DEMOLITION PLAN NOTES**

1. LOCATE AND VERIFY ALL UTILITY LINE LOCATIONS PRIOR TO DEMOLITION AND REPORT ANY CONFLICTS TO THE OWNERS REPRESENTATIVE.
2. CONSTRUCTION SITES MUST BE IN COMPLIANCE WITH THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) STORM WATER PERMIT FOR CONSTRUCTION ACTIVITIES (538-6923). A COPY OF THE PERMIT'S STORM WATER POLLUTION PREVENTION PLAN MUST BE SUBMITTED TO PUBLIC UTILITIES FOR REVIEW AND APPROVAL. ADDITIONAL WATER QUALITY AND EROSION CONTROL MEASURES MAY BE REQUIRED. THE CONTRACTOR MUST ALSO COMPLY WITH SALT LAKE CITY'S CLEAN WHEEL ORDINANCE.
3. REMOVE ALL COMMON REED (PHRAGMITES AUSTRALIS) WITHIN PROJECT FOOTPRINT ALONG RIVER INCLUDING LEAVES, STEMS, AND ROOTS. DISPOSE OF OFF SITE.

PREPARER:  
  
 PREPARER CONSULTANTS:  
  
  
 PROFESSIONAL SEAL:

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

**LANDSCAPE DEMOLITION PLAN LEGEND**

	PROJECT LIMIT LINE		REMOVE EXISTING TREE		EXISTING GAS LINE
	EXISTING COMMUNICATIONS PEDESTAL		EXISTING CONTOUR		REMOVE EXISTING FENCE (775 LINEAR FEET)
	EXISTING STORM SEWER MANHOLE		EXISTING STORM DRAIN		REMOVE EXISTING CONCRETE BOX CULVERT (165 LF)
	EXISTING STORM MANHOLE		EXISTING WATER LINE		REMOVE EXISTING 60 INCH DIA. RCP CULVERT (170 LF)
	EXISTING FIBER OPTICS		EXISTING TELECOMMUNICATIONS LINE		REMOVE EXISTING CONCRETE SURFACE
	EXISTING WATER VALVE		EXISTING OVERHEAD POWER LINE		REMOVE EXISTING ASPHALT SURFACE



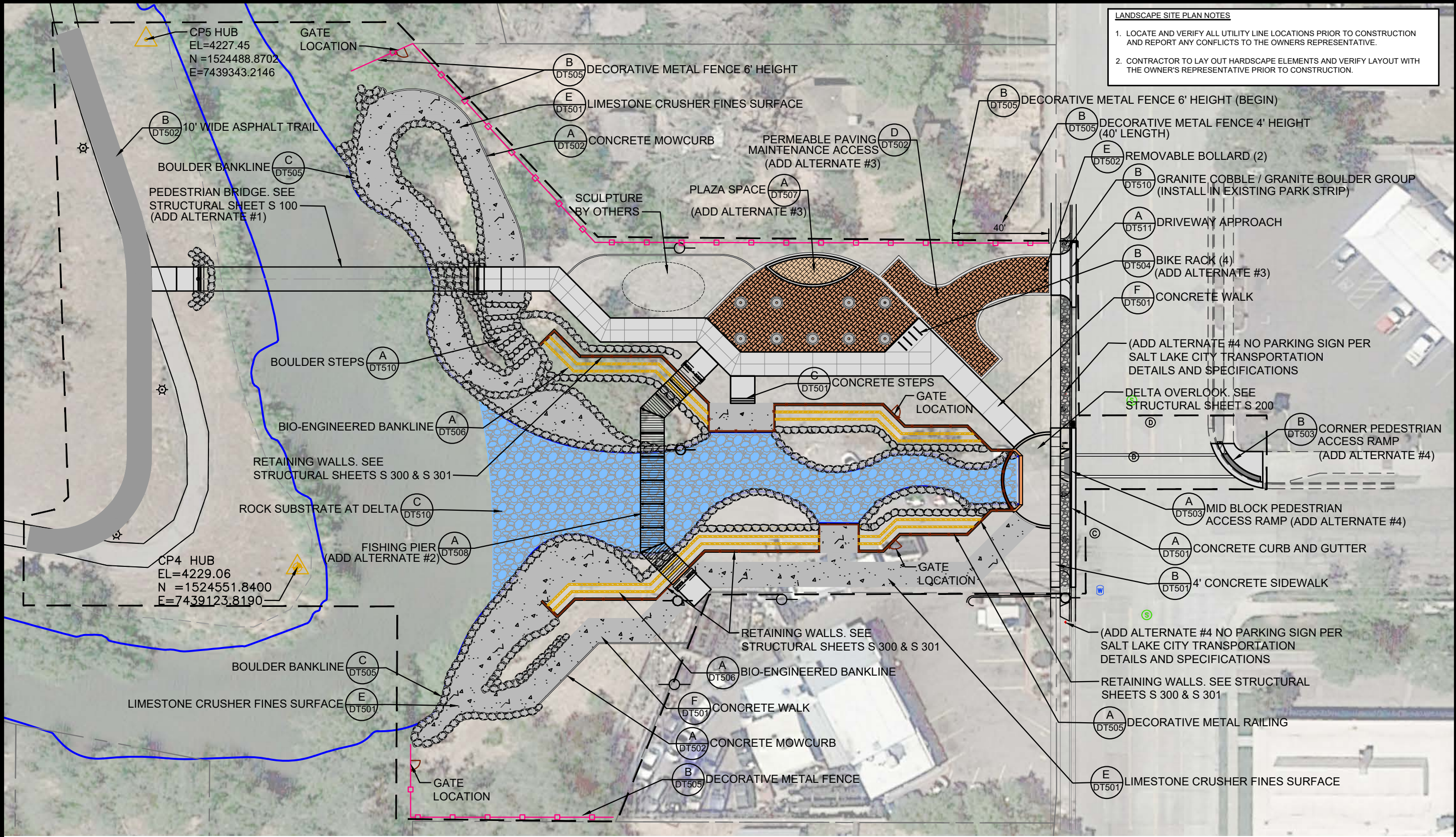
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PREPARER #: BIO-WEST, INC.  
 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
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**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE DEMOLITION PLAN**

SHEET IDENTIFIER:  
**LD 101**

BINDING ORDER **4**



**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 OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

PREPARED BY: **BIO-WEST**

PREPARED CONSULTANTS: **FORSGREEN Associates, Inc.**

**AL RED RESTORATION**

PROFESSIONAL SEAL: **Sandra Davenport**  
 No. 667105  
 SANDRA DAVENPORT  
 01/12/2019  
 LICENSED LANDSCAPE ARCHITECT  
 STATE OF UTAH

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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

PREPARED BY: **BIO-WEST, INC.**  
 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: **S. DAVENPORT**  
 CHECKED BY: **C. SANDS**  
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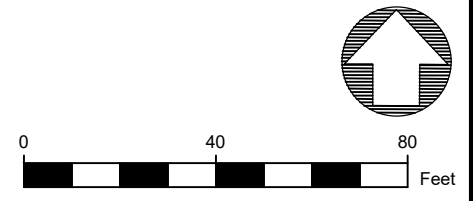
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**LANDSCAPE SITE PLAN**

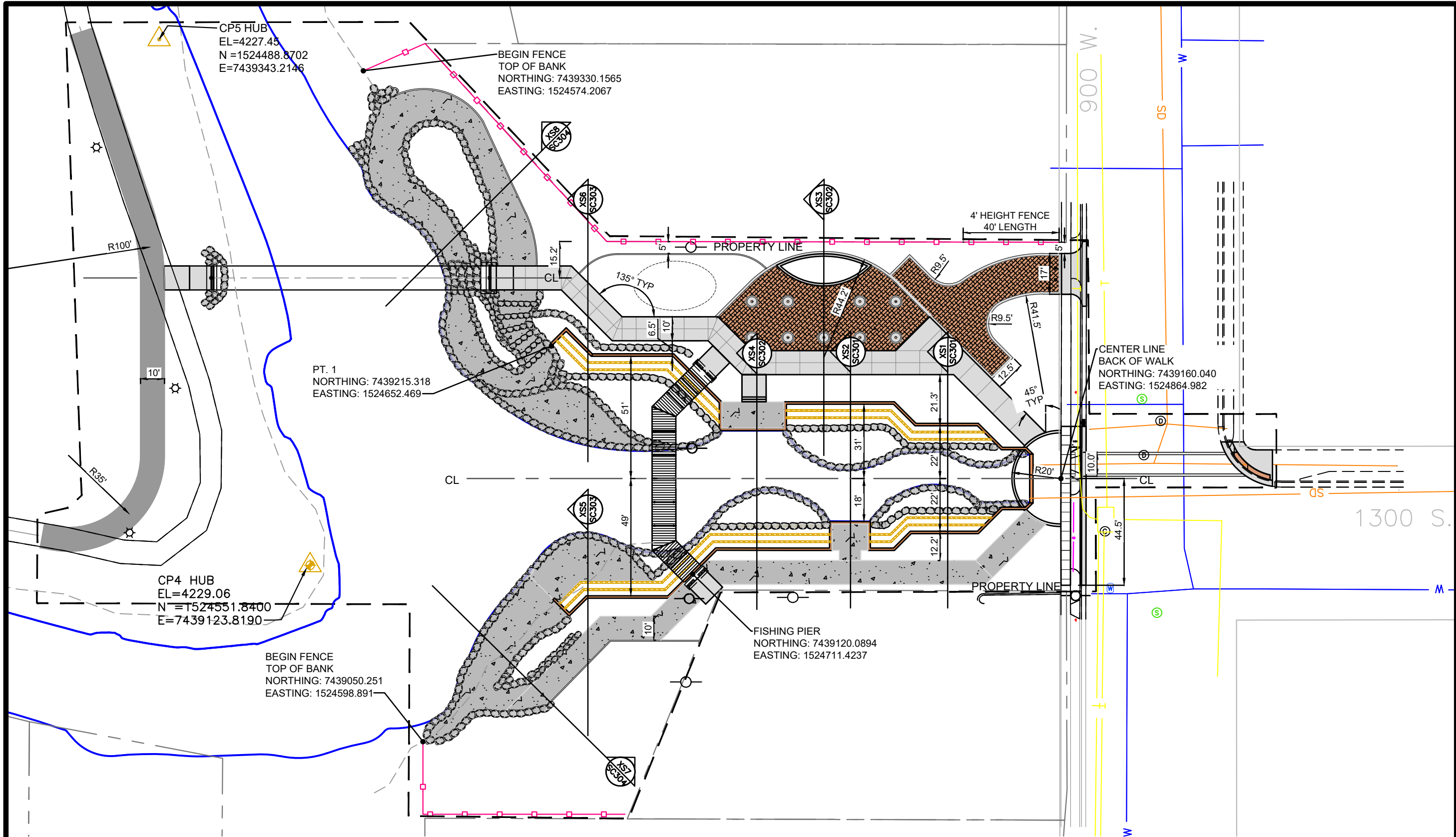
SHEET IDENTIFIER:  
**LS 101**

BINDING ORDER: **5**

**LANDSCAPE SITE PLAN LEGEND**

- PROJECT LIMIT LINE
- EXISTING STORM DRAIN
- EXISTING WATER LINE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- DECORATIVE METAL FENCE
- RETAINING WALL WITH RAILING
- BIO-ENGINEERED BANKLINE
- BOULDER BANKLINE
- CONCRETE WALK
- LIMESTONE CRUSHER FINES SURFACE
- PERMEABLE PAVING SURFACE
- FISHING PIER
- ROCK SUBSTRATE





**LANDSCAPE SITE PLAN LEGEND**

- PROJECT LIMIT LINE
- EXISTING STORM DRAIN
- EXISTING WATER LINE
- EXISTING TELECOMMUNICATIONS LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING GAS LINE
- DECORATIVE METAL FENCE
- RETAINING WALL WITH RAILING
- BIO-ENGINEERED BANKLINE
- BOULDER BANKLINE
- CONCRETE WALK
- LIMESTONE CRUSHER FINES SURFACE
- PERMEABLE PAVING SURFACE
- FISHING PIER
- ROCK SUBSTRATE

PREPARED BY:

PREPARED BY CONSULTANTS:

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE**

PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
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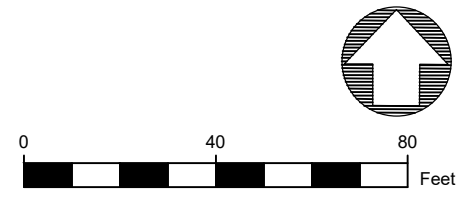
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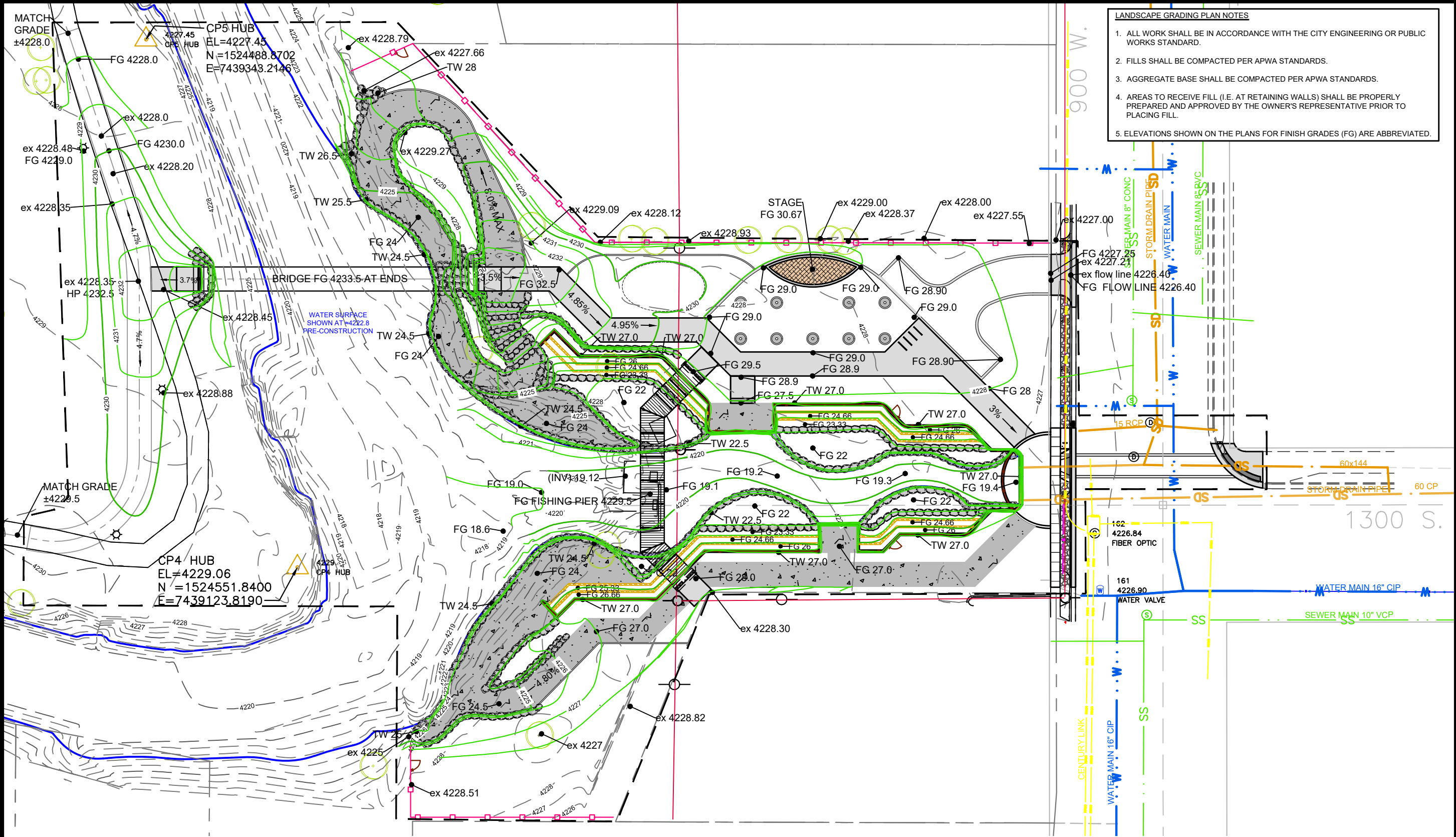
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CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
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**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE LAYOUT PLAN**

SHEET IDENTIFIER:  
**LS 102**

BINDING ORDER: **6**





**LANDSCAPE GRADING PLAN NOTES**

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY ENGINEERING OR PUBLIC WORKS STANDARD.
2. FILLS SHALL BE COMPACTED PER APWA STANDARDS.
3. AGGREGATE BASE SHALL BE COMPACTED PER APWA STANDARDS.
4. AREAS TO RECEIVE FILL (I.E. AT RETAINING WALLS) SHALL BE PROPERLY PREPARED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLACING FILL.
5. ELEVATIONS SHOWN ON THE PLANS FOR FINISH GRADES (FG) ARE ABBREVIATED.

PREPARER:  
  
 PREPARER CONSULTANTS:  
  
  
 PROFESSIONAL SEAL:

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

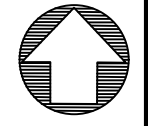
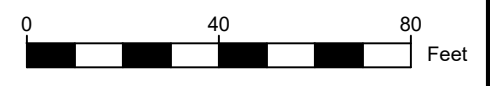
**LANDSCAPE GRADING PLAN LEGEND**

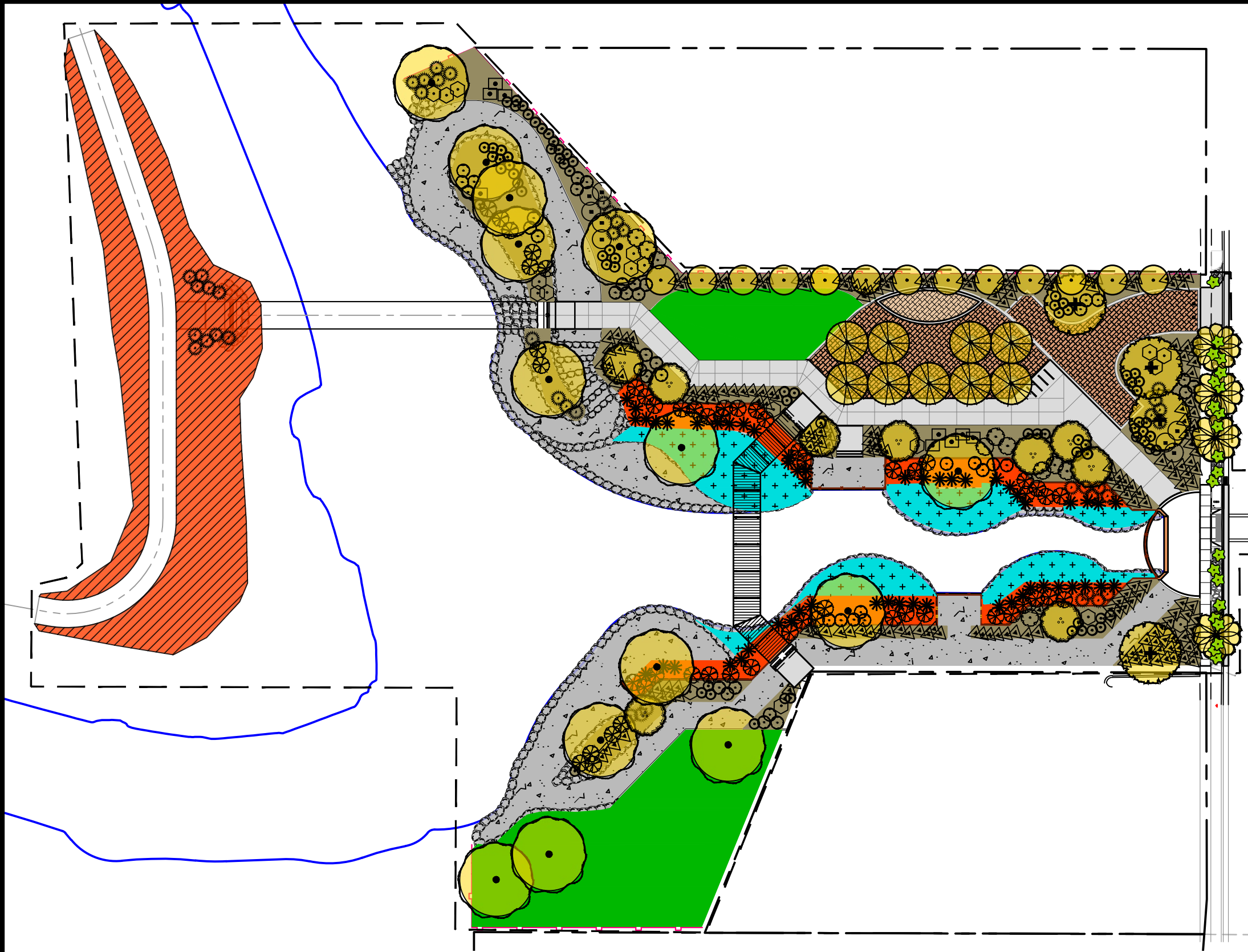
EXISTING CONTOUR	PROJECT LIMIT LINE	DECORATIVE METAL FENCE	CONCRETE SURFACE
PROPOSED CONTOUR	EXISTING STORM DRAIN	CONCRETE RETAINING WALL WITH RAILING	LIMESTONE CRUSHER FINES SURFACE
ex 4229.09 EXISTING GRADE	EXISTING WATER LINE	BIO-ENGINEERED BANKLINE	PERMEABLE PAVING SURFACE
FG 4229.0 PROPOSED GRADE	EXISTING TELECOMMUNICATIONS LINE	BOULDER BANKLINE	FISHING PIER
	EXISTING OVERHEAD POWER LINE		
	EXISTING GAS LINE		

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
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**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE GRADING PLAN**  
 SHEET IDENTIFIER:  
**LG 101**  
 BINDING ORDER  
**7**





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

**LARGE TREES: 2" CALIPER**

POPULUS FREMONTII / FREMONT COTTONWOOD / NA / 14 QTY

ACER GRANDIDENTATUM 'ROCKY MOUNTAIN GLOW' / NA / 6 QTY

**MEDIUM PARK TREES: 2" CALIPER**

BETULA OCCIDENTALIS / WATER BIRCH / NA / 9 QTY

ACER NEGUNDO 'SENSATION' / BOXELDER / NA / 4 QTY

**SMALL PARK TREES: 2" CALIPER**

PRUNUS VIRGINIANA / CHOKECHERRY / NA / 13 QTY

CERCIS CANADENSIS / EASTERN REDBUD / Td4 / 4 QTY

**SHRUBS: 5 GALLON**

CS CORNUS SERICEA / RED-OSIER DOGWOOD / NA / 45 QTY

RW ROSA WOODSII / WOODS ROSE / Sd2 / 38 QTY

SE SALIX EXIGUA / COYOTE WILLOW / NA / 54 QTY

AA AMELANCHIER ALNIFOLIA / SERVICEBERRY / Sd1 / 16 QTY

DF DASIPHORA FRUTICOSA / CINQUEFOIL / Sd2 / 40 QTY

EN ERICAMERIA NAUSEOSA / RABBITBRUSH/ Sd0 / 60 QTY

MR MAHONIA REPENS / CREEPING MAHONIA / GV1 / 190 QTY

RT RHUS TRILOBATA / SKUNKBUSH / Sd0 / 8 QTY

RA RIBES AUREUM / GOLDEN CURRANT / Sd2 / 10 QTY

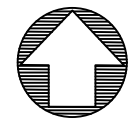
SA SYMPHORICARPOS ALBUS / SNOWBERRY / Sd2 / 11 QTY

**PERENNIALS:** ROCKY MTN COLOMBINE, LANCELEAF TICKSEED, PURPLE CONEFLOWER WASATCH PENSTEMON /P1 - P2

**LANDSCAPE PLANTING PLAN LEGEND**

- BIO-NATIVE SOD: 34% STREAMBANK WHEATGRASS, 33% WESTERN WHEATGRASS, 33% THICKSPIKE WHEATGRASS. AVAILABLE THROUGH BIOGRASS SEED FARMS
- WETLAND SOD: SEDGES, SPIKERUSHES, RUSHES. PRE-VEGETATED (NATIVE) COIR EROSION CONTROL MAT. EACH MAT = 3.3 FEET WIDE X 16.4 FEET LONG X 4 INCHES THICK. AVAILABLE THROUGH NORTH FORK NATIVE PLANTS.
- NATIVE SEED MIX. SEE SHEET DT 512.
- NATIVE SEED MIX AND HYDROMULCH
- SHREDDED BARK MULCH (4 INCHES THICK)

- 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 AND LANDSCAPE PLANTING AREAS 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 CHANNELS.
  8. ALL TREES PLANTED IN THE PUBLIC R.O.W. REQUIRE A PERMIT ISSUED BY THE CITY URBAN FORESTRY OFFICE.



PREPARER:

PREPARER CONSULTANTS:

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION: **THREE CREEKS CONFLUENCE**

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

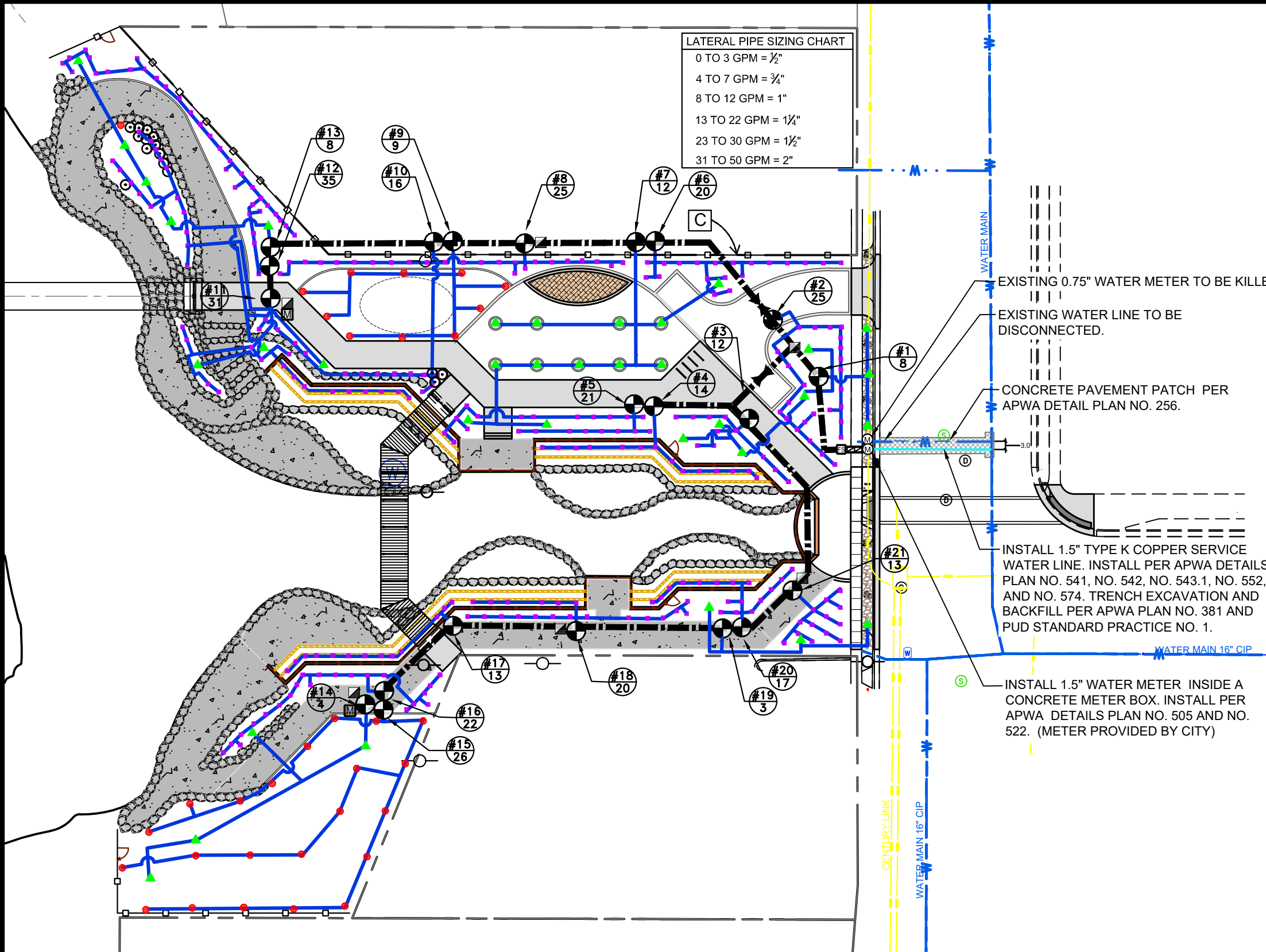
PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
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SHEET TITLE: **LANDSCAPE PLANTING PLAN**

SHEET IDENTIFIER: **LP 101**

BINDING ORDER: **8**





**LATERAL PIPE SIZING CHART**

0 TO 3 GPM = 1/2"
4 TO 7 GPM = 3/4"
8 TO 12 GPM = 1"
13 TO 22 GPM = 1 1/4"
23 TO 30 GPM = 1 1/2"
31 TO 50 GPM = 2"

**LANDSCAPE 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.
- 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 AND BACKFLOW PREVENTION DEVICES MUST BE LOCATED OUTSIDE OF ALL APPROACHES, DRIVEWAYS, PEDESTRIAN WALKWAYS AND OTHER TRAVELED WAYS UNLESS OTHERWISE APPROVED ON PLANS.
- 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.
- THE IRRIGATION SYSTEM IS DESIGNED FOR MAXIMUM OF 35 GALLONS PER MINUTE AT 70 PSI STATIC MIN. VERIFY THE AVAILABLE WATER PRESSURE OF 110 PSI 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 OWNER'S REPRESENTATIVE IN WRITING.
- DO NOT DELIBERATELY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THESE PLANS IF THERE ARE ANY OBVIOUS OBSTRUCTIONS OR INCONSISTENCIES IN THE FIELD THAT MIGHT NOT HAVE BEEN ANTICIPATED IN THE IRRIGATION DESIGN. NOTIFY THE PROJECT MANAGER OF ANY SUCH DIFFERENCE.
- ADJUST ALL SPRINKLER HEADS, VALVES AND EQUIPMENT FOR OPTIMUM COVERAGE, AND ADJUST ARC RADIUS AND NOZZLE OF EACH SPRINKLER TO AVOID SPRAYING ONTO WALKS, STREETS, ETC.
- COORDINATE IRRIGATION HEAD LOCATIONS WITH PLANT MATERIAL PLACEMENT.
- THIS IRRIGATION DESIGN IS DIAGRAMMATIC. WHERE VALVES, PIPING AND ETC. ARE SHOWN OUTSIDE OF PLANTING AREAS, THE INTENT IS FOR THIS EQUIPMENT TO BE INSTALLED WITHIN THE PLANTING AREAS.
- SLEEVE ALL PIPE UNDER PAVING OR WALLS ETC. WITH SCH. 40 PVC PIPE THAT IS 2X DIA. OF PIPE TO BE SLEEVED.
- IRRIGATION SYSTEM ZONES TO BE CONSTRUCTED FOR APPROPRIATE WATERING OF PLANTS RELATIVE TO THEIR HYDRO ZONE FOR EACH OF THE PRESCRIBED SPECIES TO BE PLANTED. HYDROZONES ARE SHOWN ON SHEET LP 101

EXISTING 0.75" WATER METER TO BE KILLED.

EXISTING WATER LINE TO BE DISCONNECTED.

CONCRETE PAVEMENT PATCH PER APWA DETAIL PLAN NO. 256.

INSTALL 1.5" TYPE K COPPER SERVICE WATER LINE. INSTALL PER APWA DETAILS PLAN NO. 541, NO. 542, NO. 543.1, NO. 552, AND NO. 574. TRENCH EXCAVATION AND BACKFILL PER APWA PLAN NO. 381 AND PUD STANDARD PRACTICE NO. 1.

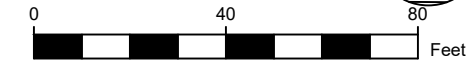
INSTALL 1.5" WATER METER INSIDE A CONCRETE METER BOX. INSTALL PER APWA DETAILS PLAN NO. 505 AND NO. 522. (METER PROVIDED BY CITY)

**KEY IRRIGATION EQUIPMENT**

- (M) IRRIGATION WATER METER
- [Symbol] BACKFLOW PREVENTER / MASTER VALVE: 1.5" SIZE 375B WILKINS REDUCED PRESSURE W/ NORMALLY CLOSED 1.5" MASTER VALVE. LOCATE INSIDE A V.I.T. STRONG BOX ENCLOSURE.
- [FS] MASTER VALVE / FLOW SENSOR: RAINBIRD EFB-CP MV, RAINBIRD FS150P
- [C] RAINBIRD IQ ESP-LXD SERIES 2-WIRE DECODER IRRIGATION CONTROLLER LOCATE INSIDE A V.I.T. STRONG BOX ENCLOSURE. CONNECT TO 120V POWER.

- [Symbol] SCH. 40 IRRIGATION MAINLINE, 2" SIZE
- [Symbol] SCH. 40 LATERAL, SIZE PER SIZING CHART
- [Symbol] ISOLATION VALVE PER SALT LAKE CITY PARKS DEPARTMENT, LINE SIZE. INSIDE A VALVE BOX WITH LOCKING LID.
- [Symbol] REMOTE CONTROL VALVE: RAIN BIRD PEB INSIDE A VALVE BOX WITH LOCKING LID.
- [Symbol] QUICK COUPLER: RAIN BIRD 44LRC INSIDE A VALVE BOX W/ LOCKING LID.

- [Red Dot] ROTARY SPRAY HEAD: RAIN BIRD 1800-SAM-PRS-12-R-VAN-1318, 12" POP-UP ROTARY NOZZLE, 13'-18" RADIUS RANGE (FULL @ 50 PSI: 18' RAD. 2.07 GPM) (HALF @ 50 PSI: 18' RAD. 1.03 GPM)
- [Purple Square] PRESSURE COMPENSATING FULL-CIRCLE BUBBLER, UMBRELLA PATTERN, 3' RADIUS: RAINBIRD 1806 1404 NOZZLE (1 GPM)
- [Green Triangle] ROOT WATERING SYSTEM: RAINBIRD RWSBC1402 - 36" TUBE, 0.5 GPM BUBBLER & CHECK VALVE, 4" GRATE. TWO PER TREE.
- [M] MANUAL DRAIN VALVE



PREPARER: **BIO-WEST**

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

PROFESSIONAL SEAL: **Sandra Davenport**, License No. 6677105, State of Utah

PROJECT IDENTIFICATION: **THREE CREEKS CONFLUENCE**

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

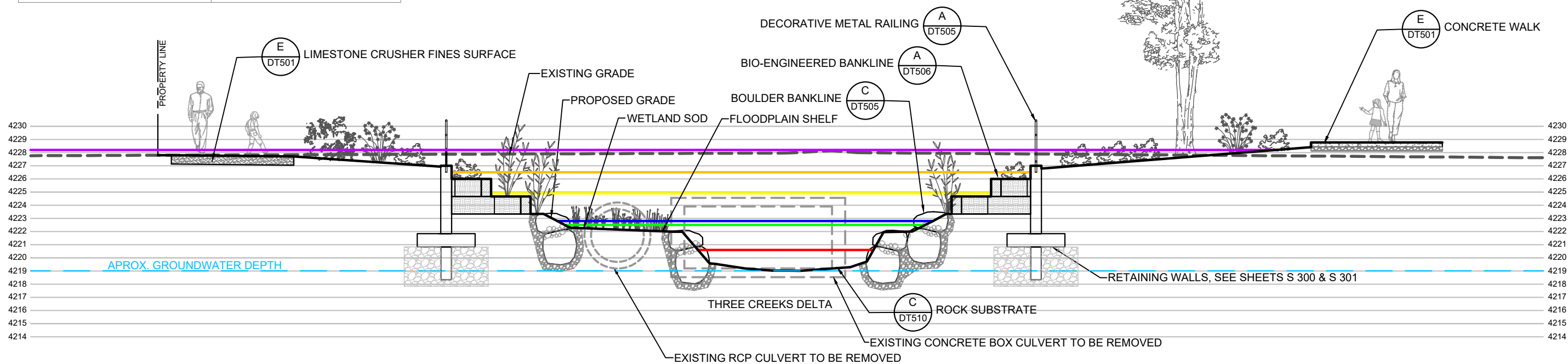
PREPARER #: BIO-WEST, INC.  
 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
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SHEET TITLE: **LANDSCAPE IRRIGATION PLAN**

SHEET IDENTIFIER: **LI 101**

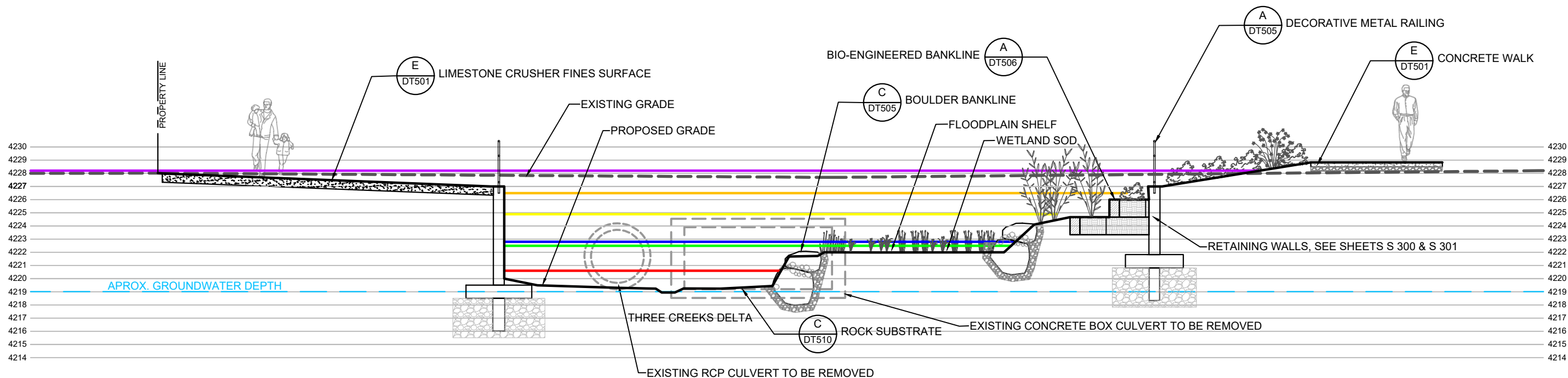
BINDING ORDER: **9**

WATER ELEVATION KEY		
MINIUMUM DRY YEAR FLOW ELEVATION		4,220.6
IRRIGATION SEASON FLOW ELEVATION		4,222.5
ANNUAL AVERAGE FLOW ELEVATION		4,222.8
2-YEAR EVENT FLOW ELEVATION		4,224.9
10-YEAR EVENT FLOW ELEVATION		4,226.5
100-YEAR EVENT FLOW ELEVATION		4,228.2



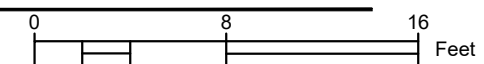
**XS1 CROSS SECTION**

1"=8'-0"



**XS2 CROSS SECTION**

1"=8'-0"



MARK	DATE	DESCRIPTION

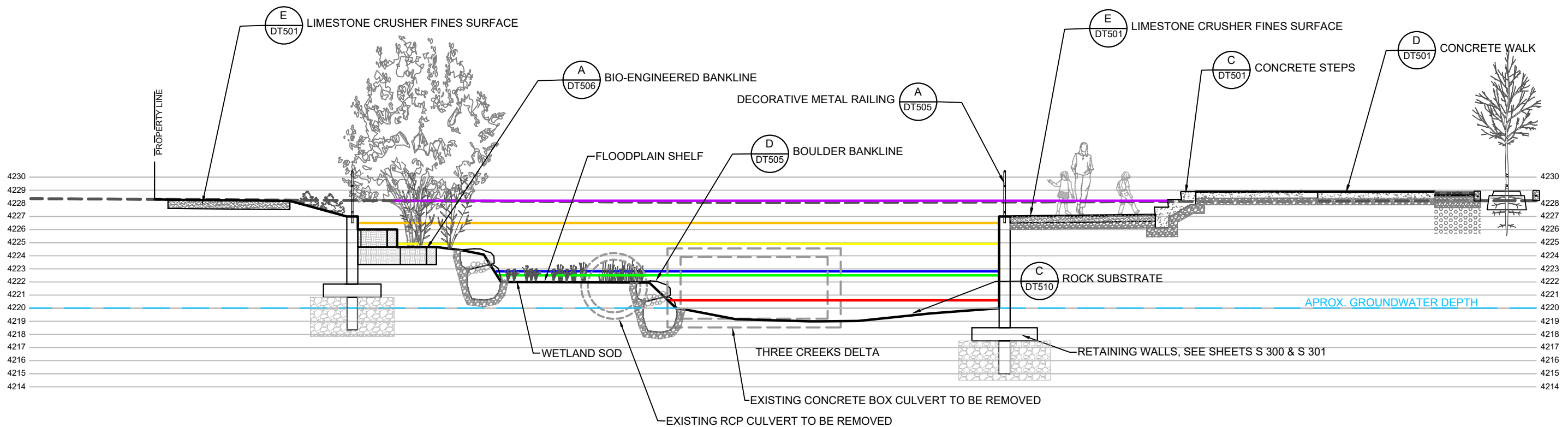
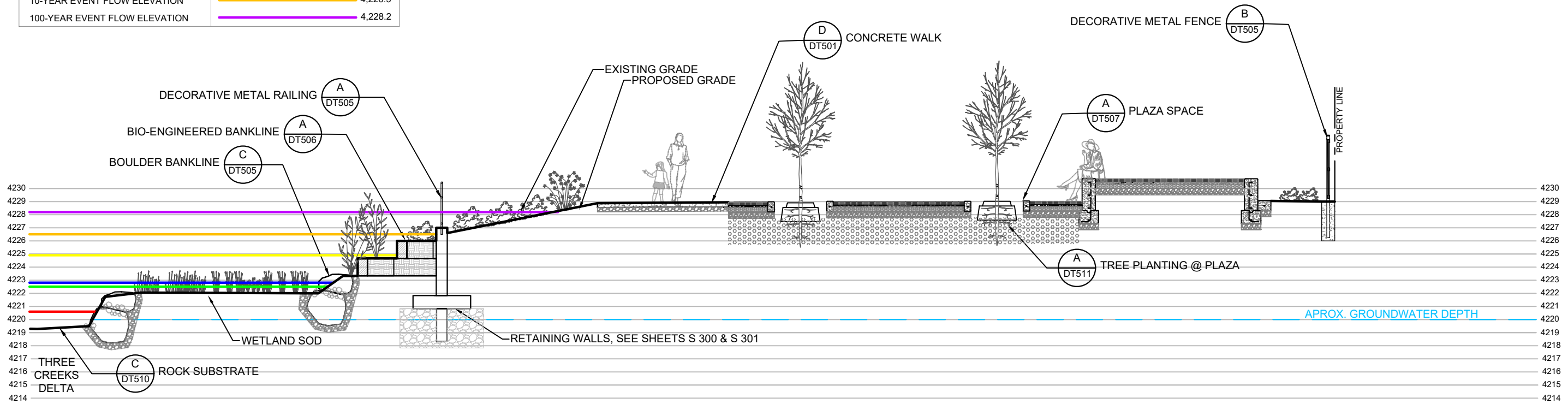
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CONTRACT #: 300124  
PROJECT #: 253701  
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SHEET TITLE:  
**LANDSCAPE SECTIONS**

SHEET IDENTIFIER:  
**SC 301**  
BINDING ORDER **10**

**WATER ELEVATION KEY**

MINIMUM DRY YEAR FLOW ELEVATION	4,220.6
IRRIGATION SEASON FLOW ELEVATION	4,222.5
ANNUAL AVERAGE FLOW ELEVATION	4,222.8
2-YEAR EVENT FLOW ELEVATION	4,224.9
10-YEAR EVENT FLOW ELEVATION	4,226.5
100-YEAR EVENT FLOW ELEVATION	4,228.2



PREPARER: **BIO-WEST**

PREPARER CONSULTANTS: **FORSGREN Associates, Inc.** and **ALRED RESTORATION**

PROFESSIONAL SEAL: **Sandra Davenport**, No. 6677105, SANDRA DAVENPORT, 9/11/2019, STATE OF UTAH

PROJECT IDENTIFICATION: **THREE CREEKS CONFLUENCE**

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

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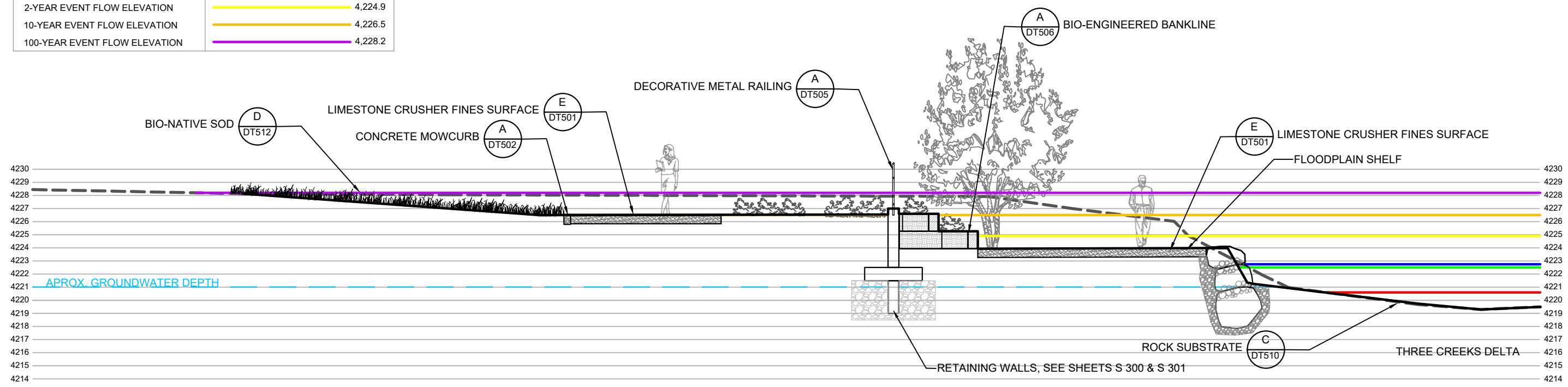
PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
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SHEET TITLE: **LANDSCAPE SECTIONS**

SHEET IDENTIFIER: **SC 302**

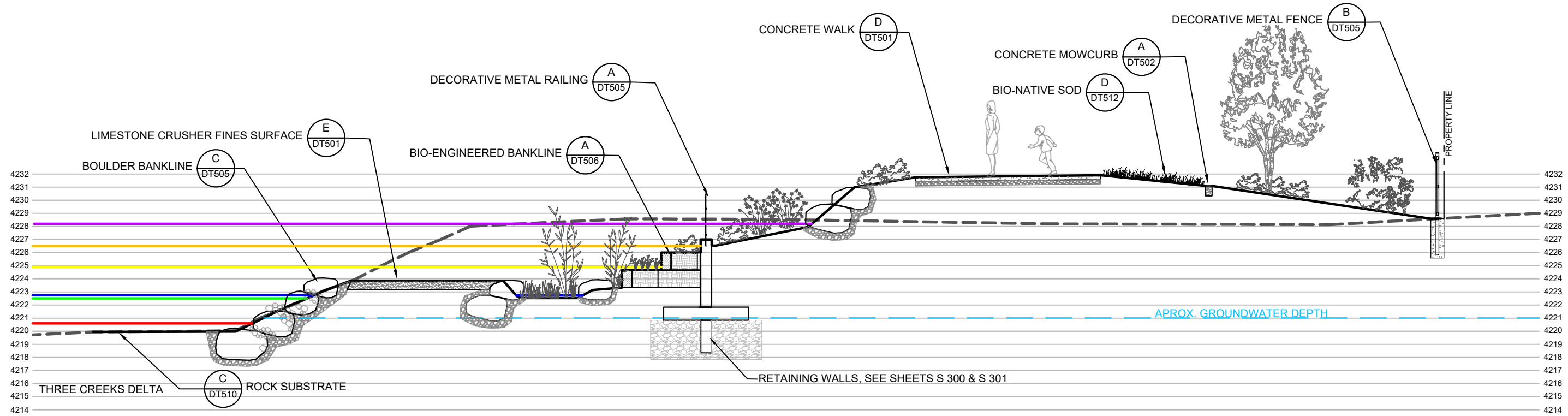
BINDING ORDER **11**

WATER ELEVATION KEY	
MINIUMUM DRY YEAR FLOW ELEVATION	4,220.6
IRRIGATION SEASON FLOW ELEVATION	4,222.5
ANNUAL AVERAGE FLOW ELEVATION	4,222.8
2-YEAR EVENT FLOW ELEVATION	4,224.9
10-YEAR EVENT FLOW ELEVATION	4,226.5
100-YEAR EVENT FLOW ELEVATION	4,228.2



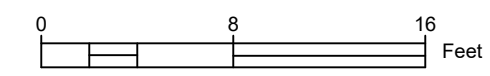
**XS5 CROSS SECTION**

1"=8'-0"



**XS6 CROSS SECTION**

1"=8'-0"



PREPARER:

PREPARER CONSULTANTS:

PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE**

PROJECT OWNER:  
**SALT LAKE CITY CORPORATION**  
 ENGINEERING  
 349 South 200 East, Suite 100  
 Salt Lake City, Utah 84114-5506  
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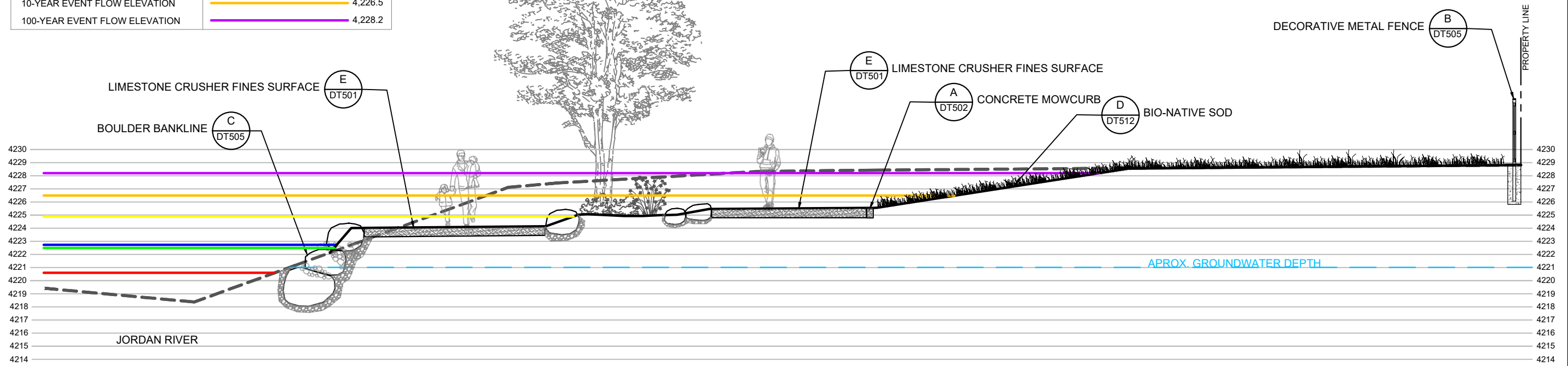
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**LANDSCAPE SECTIONS**

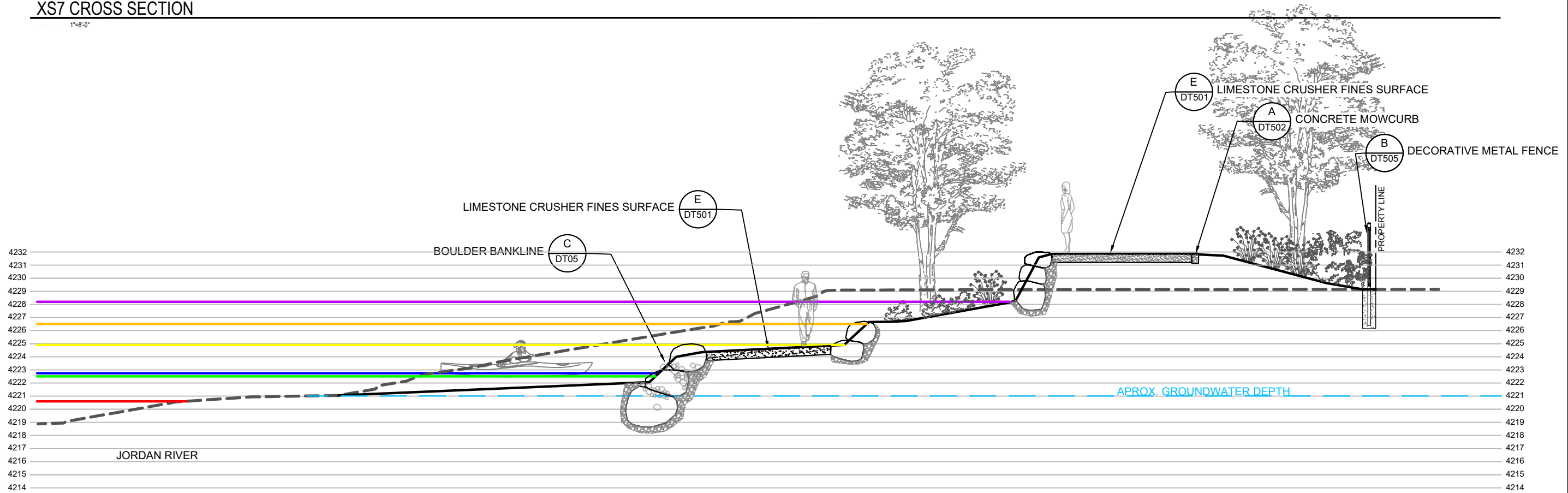
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**SC 303**  
 BINDING ORDER **12**

WATER ELEVATION KEY	
MINIUMUM DRY YEAR FLOW ELEVATION	4,220.6
IRRIGATION SEASON FLOW ELEVATION	4,222.5
ANNUAL AVERAGE FLOW ELEVATION	4,222.8
2-YEAR EVENT FLOW ELEVATION	4,224.9
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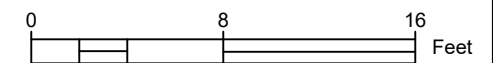
**XS7 CROSS SECTION**

1"=8'-0"



**XS8 CROSS SECTION**

1"=8'-0"



PREPARER:  
  
 PREPARER CONSULTANTS:  
  
  
 PROFESSIONAL SEAL:

PROJECT IDENTIFICATION:  
**THREE CREEKS CONFLUENCE**

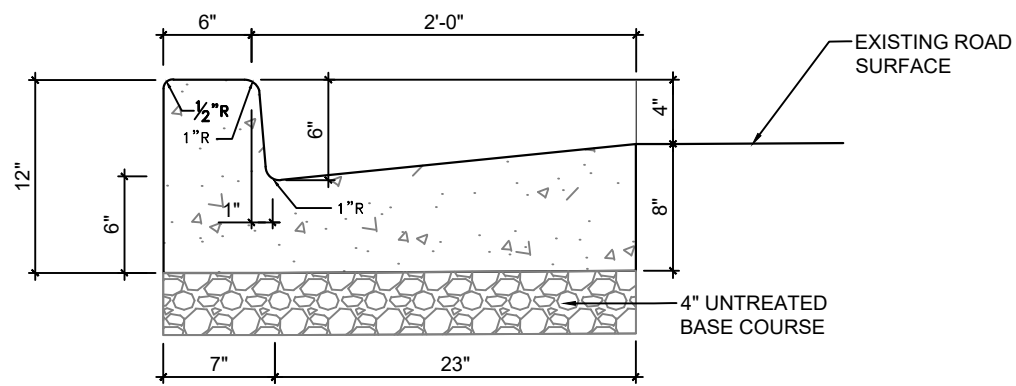
PROJECT OWNER:  
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 349 South 200 East, Suite 100  
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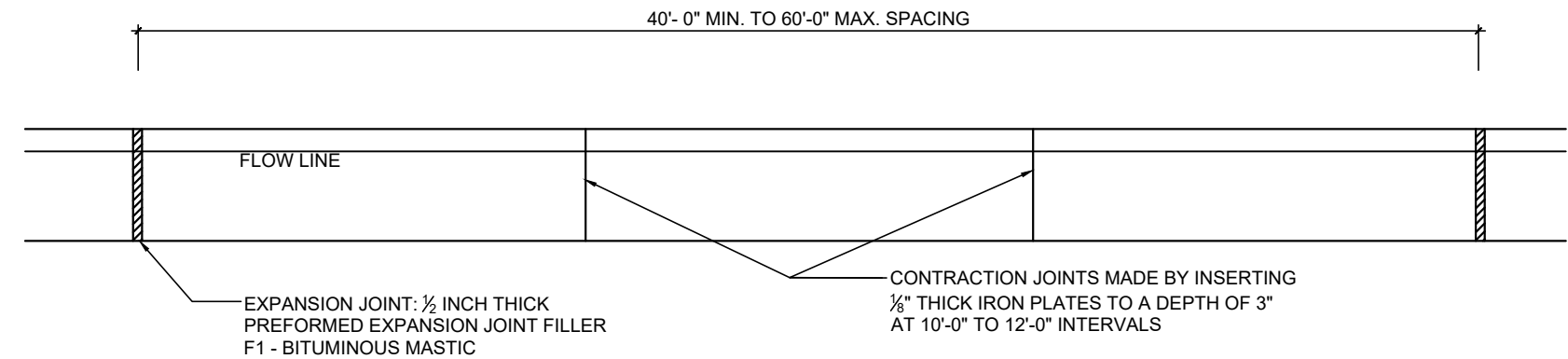
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**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE SECTIONS**

SHEET IDENTIFIER:  
**SC 304**  
 BINDING ORDER **13**

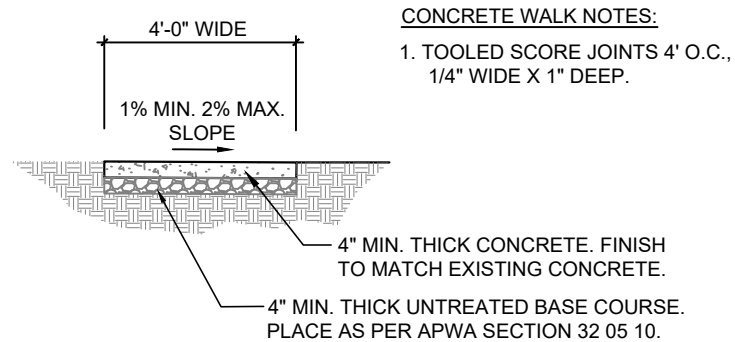


TYPE A CONCRETE CURB AND GUTTER SECTION VIEW  
1" = 1'-0"



PLAN VIEW  
1" = 4'-0"

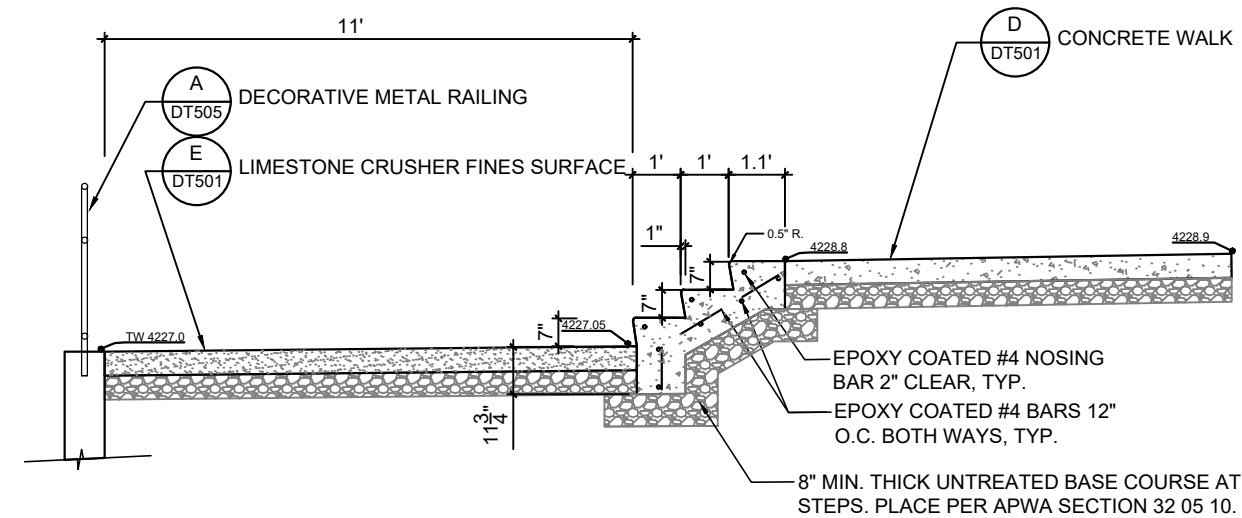
**A CONCRETE CURB AND GUTTER**



SECTION VIEW

**B 4' C ONCRETE SIDEWALK**

**CONCRETE WALK NOTES:**  
1. TOOLED SCORE JOINTS 4' O.C., 1/4" WIDE X 1" DEEP.

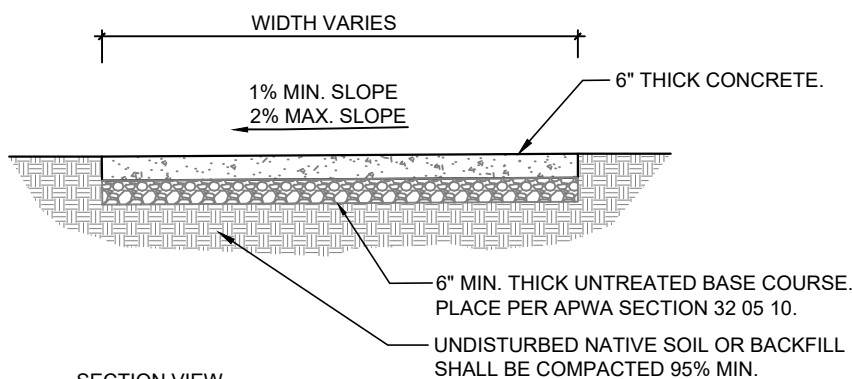


**CONCRETE STEP NOTES:**  
1. 2% SLOPE ON STEP TREAD.

**C CONCRETE STEPS**

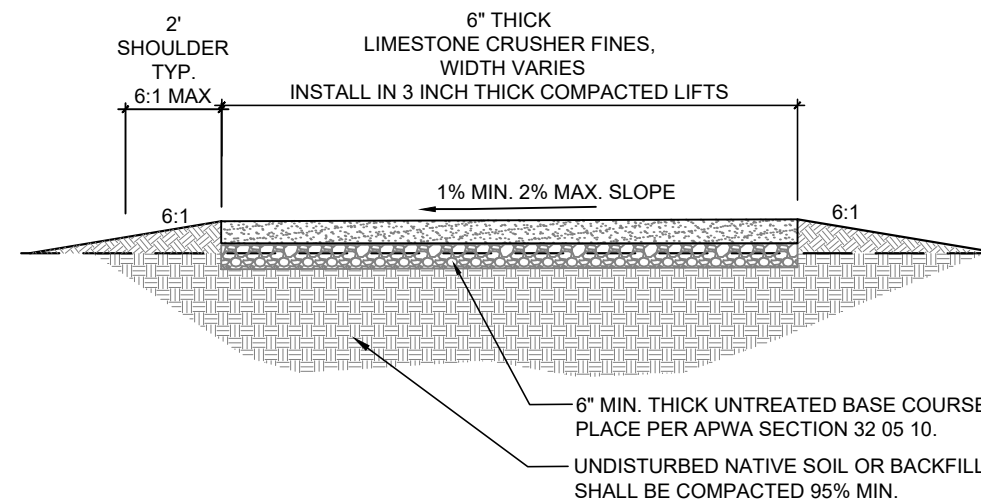
**CONCRETE WALK NOTES:**

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



SECTION VIEW

**D CONCRETE WALK**



SECTION VIEW

**E LIMESTONE CRUSHER FINES SURFACE**

**LIMESTONE CRUSHER FINES NOTES:**

- 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%

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**

**ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
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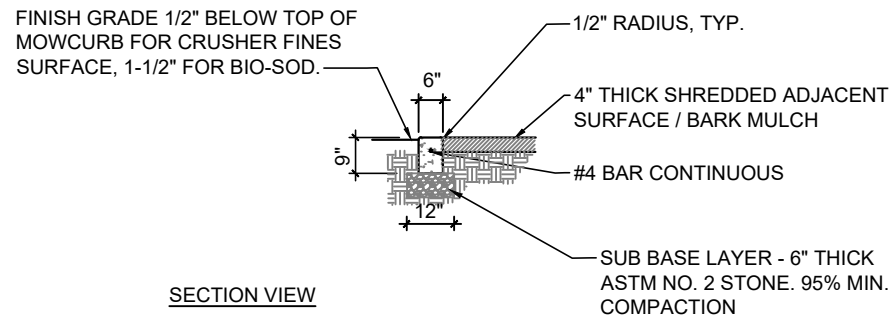
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**SEPTEMBER 2019**

**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:

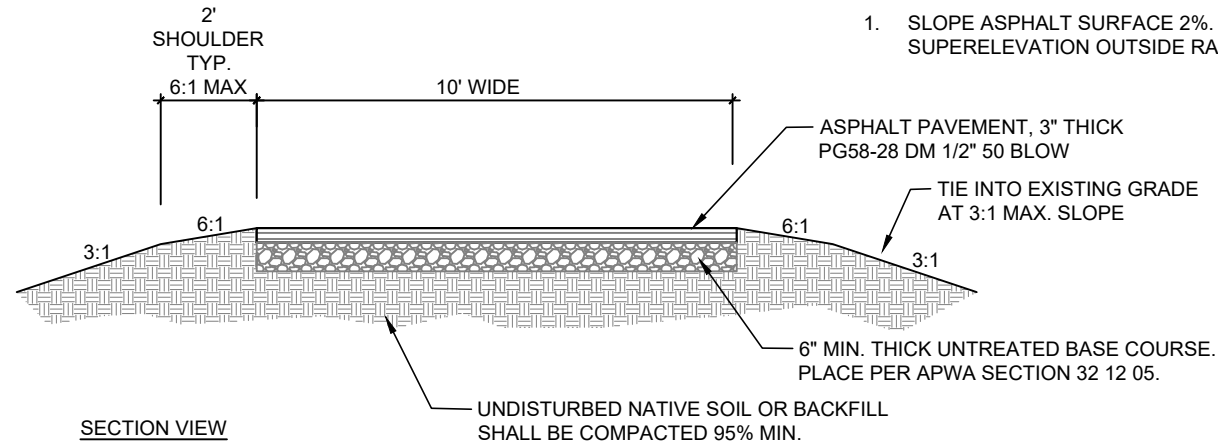
**DT 501**

BINDING ORDER **14**



**A** CONCRETE MOWCURB

1"=2'-0"



**B** 10' WIDE ASPHALT TRAIL

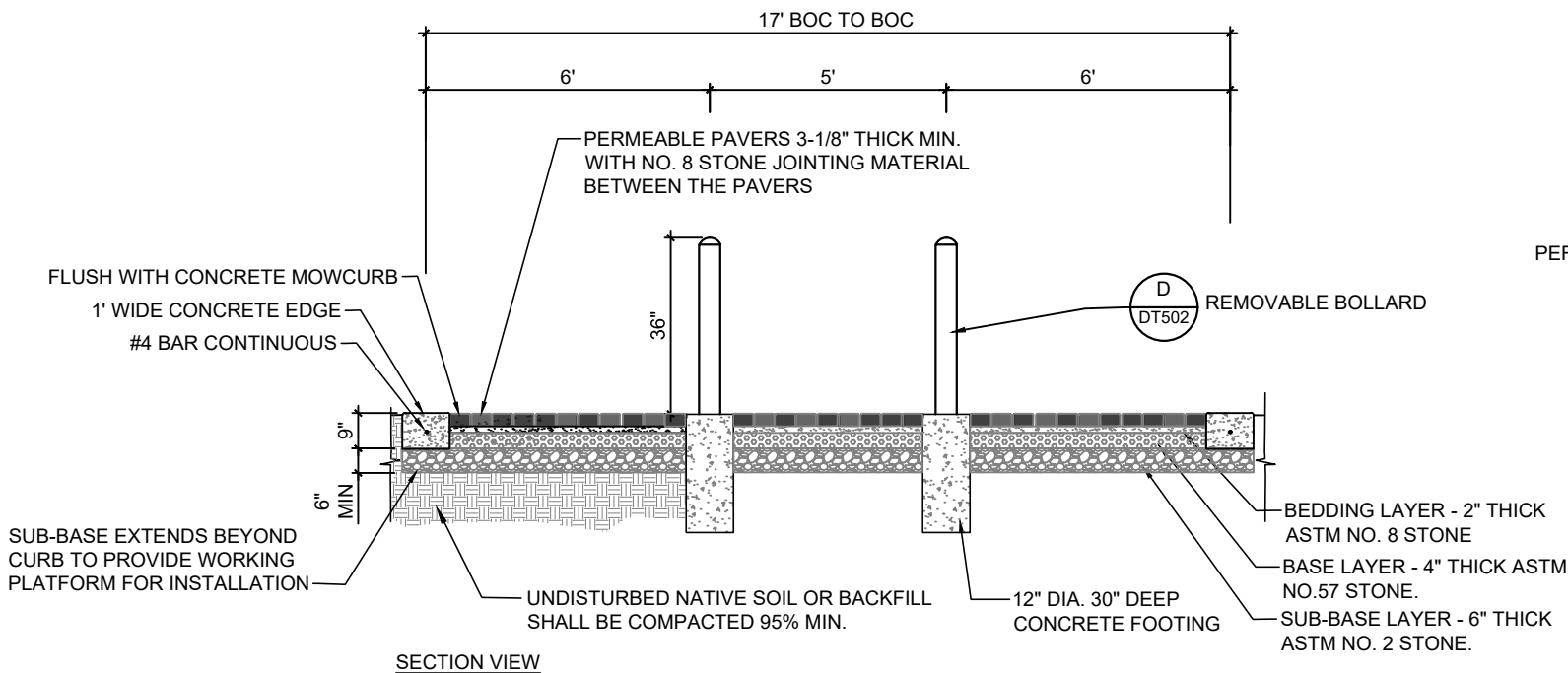
1"=4'-0"

**10' WIDE ASPHALT TRAIL NOTES:**

1. SLOPE ASPHALT SURFACE 2%. GIVE HIGHER ELEVATION TO SUPERELEVATION OUTSIDE RADIUS WHERE APPLICABLE.

**PERMEABLE PAVING NOTES:**

1. PERMEABLE PAVERS TO BE BELGARD AQUA ROC. STANDARD FINISH. SIZE LARGE SQUARE AND 4-1/2" X 9. TOSCANA BLEND COLOR. AVAILABLE THROUGH AMCOR PHONE# 801-963-7628. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

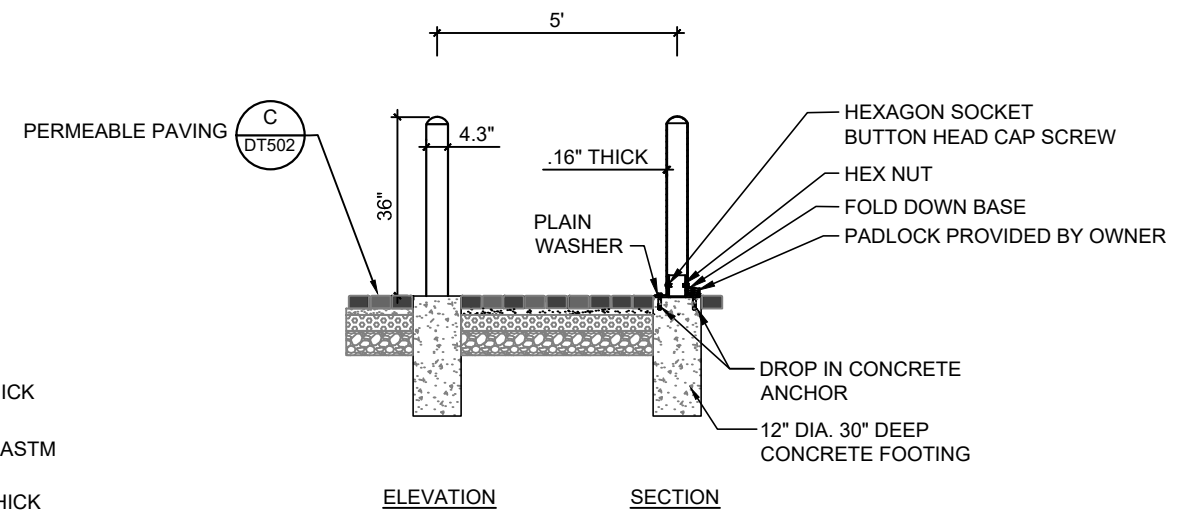


**C** PERMEABLE PAVING - AT MAINTENANCE ACCESS (ADD ALTERNATE #3)

1"=4'-0"

**REMOVABLE BOLLARD NOTES:**

1. REMOVABLE BOLLARDS TO BE MODEL NO. R-8902 FROM RELIANCE FOUNDRY CO. LTD. UNIT 207, 6450-148 STREET SURREY, BC V3S 7G7, TOLL FREE: 1-877-789-3245 (www.reliance-foundry.com) OR EQUAL.
2. COLOR TO BE BLACK TEXTURED WITH YELLOW REFLECTIVE STRIPE.
3. PROVIDE SHOP DRAWINGS FOR OWNER REVIEW PRIOR TO FABRICATION.



**D** REMOVABLE BOLLARD - FOLD DOWN MOUNT

1"=4'-0"

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

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PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING

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SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

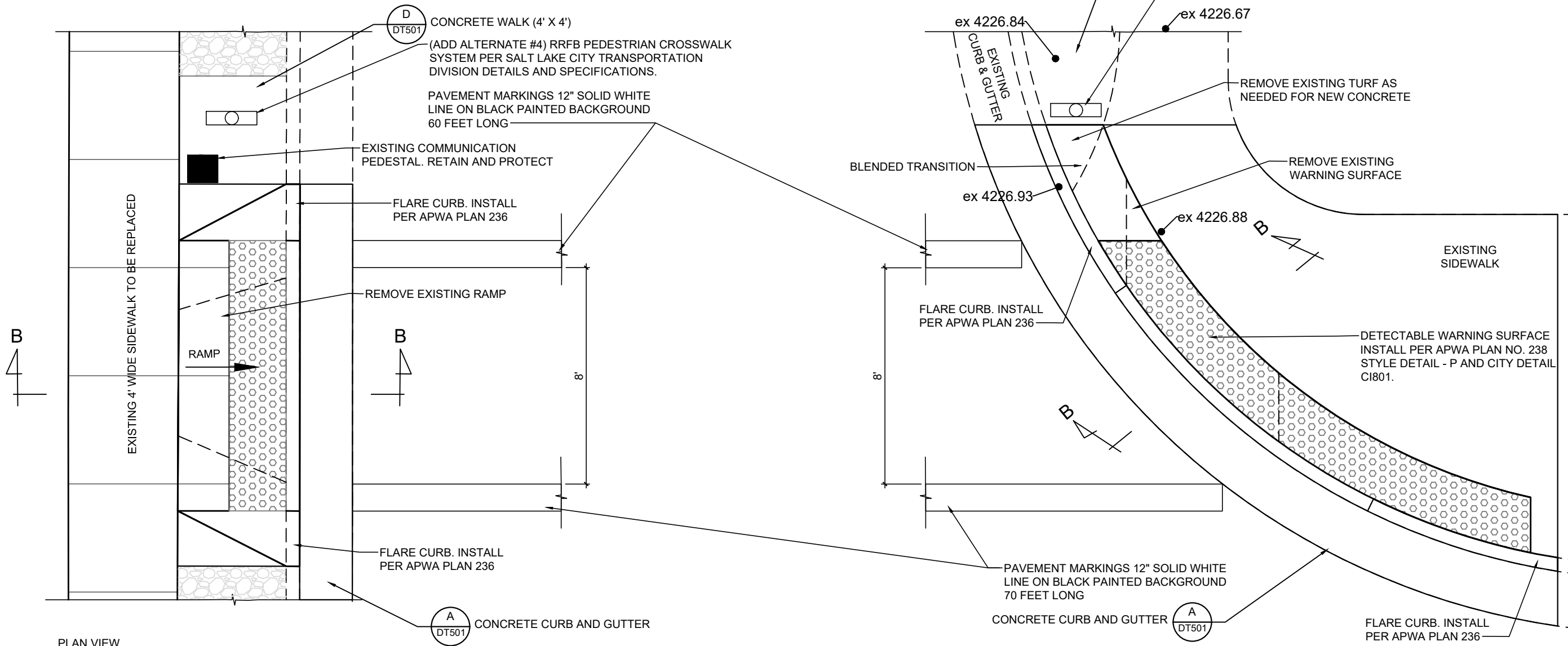
SHEET IDENTIFIER:

**DT 502**

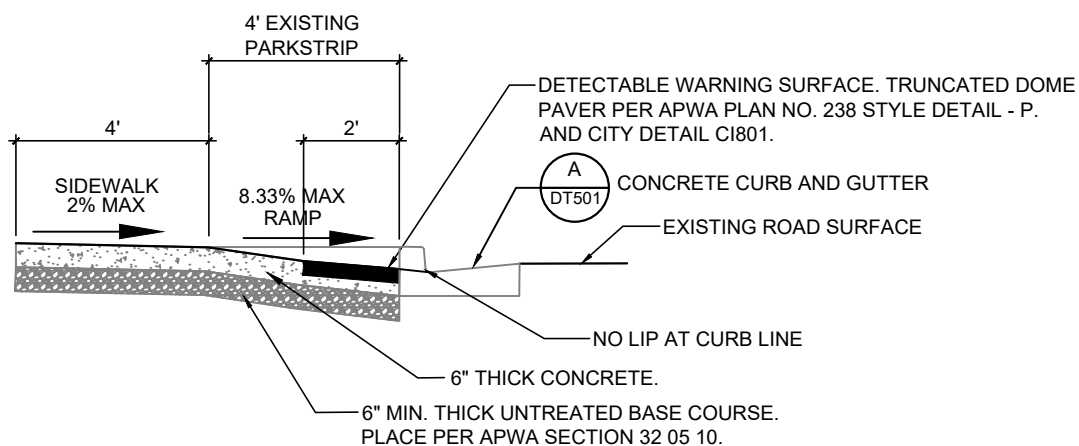
BINDING ORDER **15**

**PEDESTRIAN ACCESS RAMP NOTES:**

1. COORDINATE SIGNING AND STRIPING WITH SALT LAKE CITY TRANSPORTATION DIVISION. PROVIDE 5 DAY NOTIFICATION PRIOR TO PLACEMENT. COORDINATE CROSSWALK STRIPING WITH ENGINEER PRIOR TO PLACEMENT.
2. PEDESTRIAN ACCESS RAMPS AND DETECTABLE WARNING SURFACE ARE SCHEMATIC AND MUST BE FIELD VERIFIED. THE CONTRACTOR SHALL ADJUST SLOPES OF CURB RETURNS AS NECESSARY TO MEET PEDESTRIAN ACCESS RAMP AND DETECTABLE WARNING SURFACE SLOPE REQUIREMENTS. SEE APWA STANDARD PLANS NO. 235 AND 238 AND CITY STANDARD PLAN CI801.



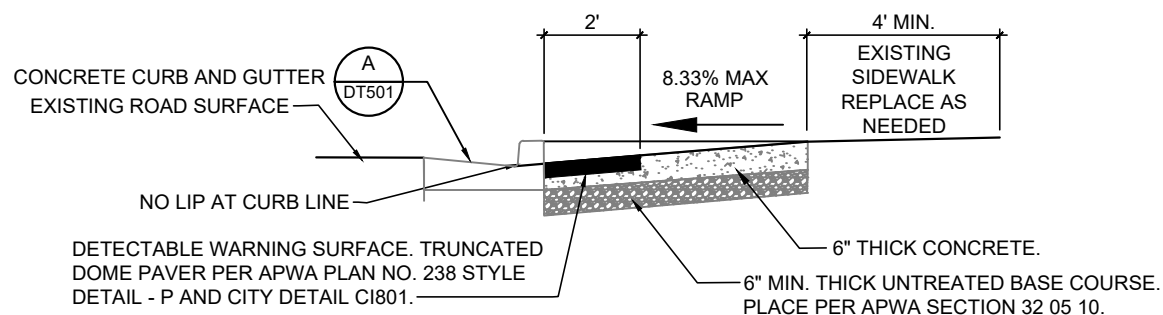
PLAN VIEW



SECTION B-B

**MID BLOCK PEDESTRIAN ACCESS RAMP (ADD ALTERNATE #4)**

1"=4'-0"



SECTION B-B

**CORNER PEDESTRIAN ACCESS RAMP (ADD ALTERNATE #4)**

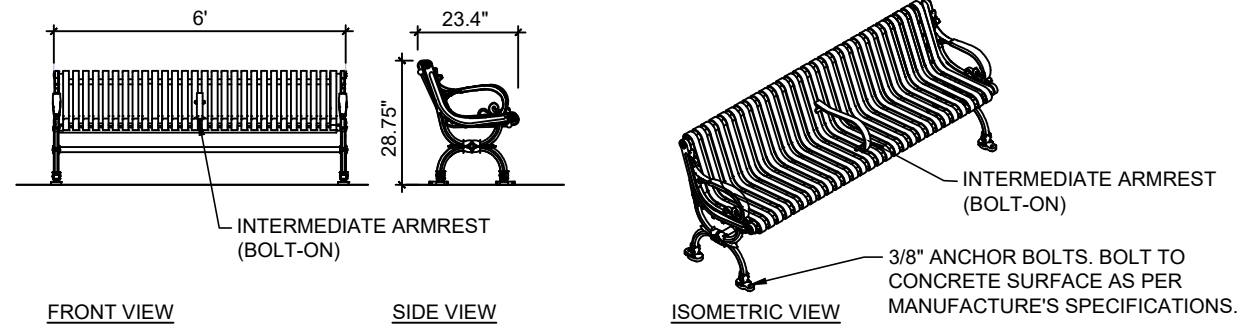
1"=4'-0"

MARK	DATE	DESCRIPTION



**BENCH NOTES:**

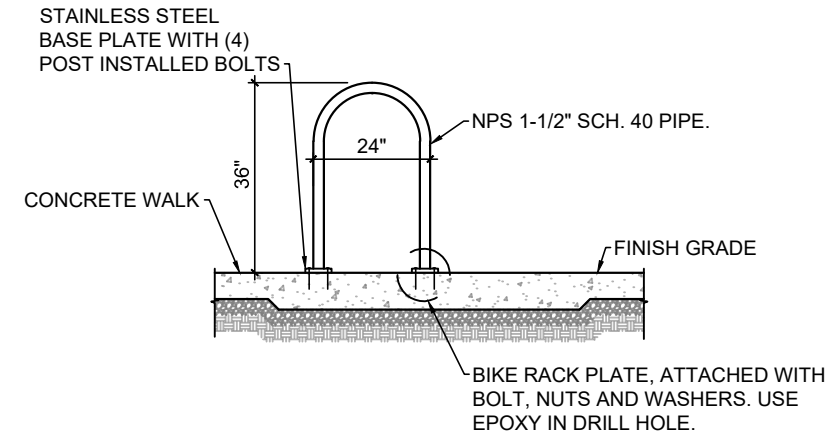
1. BENCH IS TO BE VICTOR STANLEY MODEL NO. CR-10 CLASSIC SERIES, 6 FOOT, BLACK WITH INTERMEDIATE ARM REST, OR EQUAL.
2. ALL FABRICATED METAL COMPONENTS ARE POWDER-COATED STEEL.
3. CONTRACTOR TO FURNISH ANCHOR BOLTS.
4. LOCATION TO BE DETERMINED BY OWNER.



**A** BENCH (ADD ALTERNATE #3)  
N.T.S.

**BIKE RACK NOTES:**

1. BIKE RACK TO BE PER SLCTRANS.COM STANDARD BICYCLE PARKING SECTION F1.f2 AND F1.g1 OF THE DIVISION OF TRANSPORTATION SALT LAKE CITY COMMUNITY & ECONOMIC DEVELOPMENT.
2. COLOR TO BE BLACK TEXTURED PAINT OVER GALVANIZATION.
3. PROVIDE SHOP DRAWINGS FOR OWNER REVIEW PRIOR TO FABRICATION.



**B** BIKE RACK: INVERTED "U", 2 BIKE CAPACITY (ADD ALTERNATE #3)  
N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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 #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT:  
**SEPTEMBER 2019**

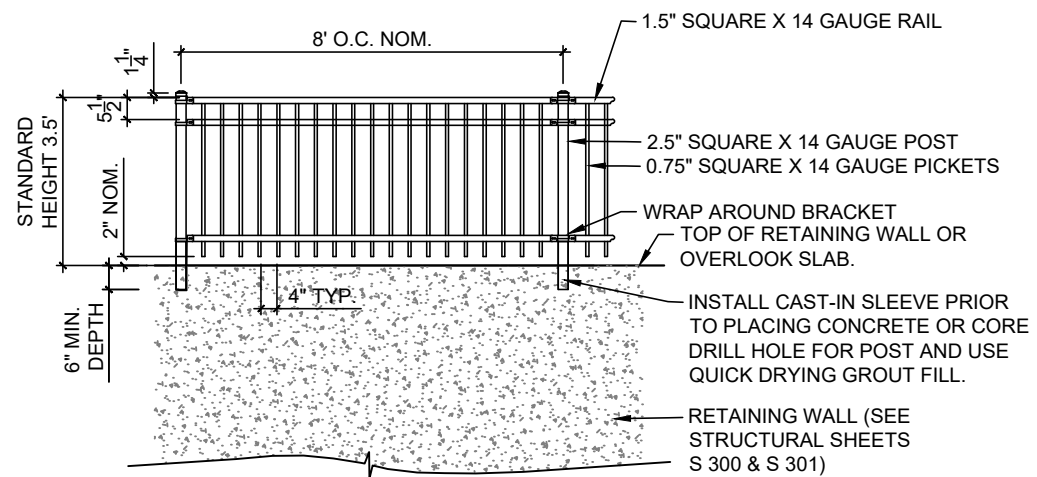
SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:  
**DT 504**

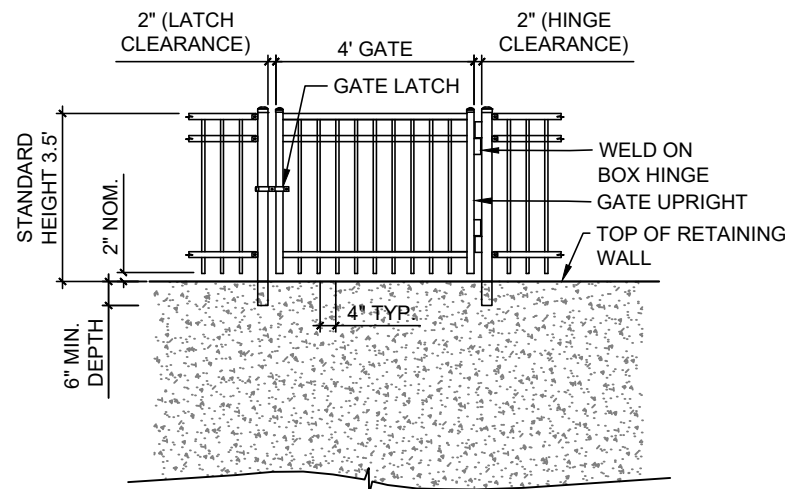
BINDING ORDER **17**

**DECORATIVE METAL RAILING NOTES:**

1. DECORATIVE METAL RAILING TO BE AMERISTAR MONTAGE PLUS MAJESTIC 3-RAIL OR EQUAL.
2. ALL FENCING MATERIAL TO BE HOT DIPPED GALVANIZED WITH NO-MAR BLACK POWDER FINISH COAT.



ELEVATION VIEW

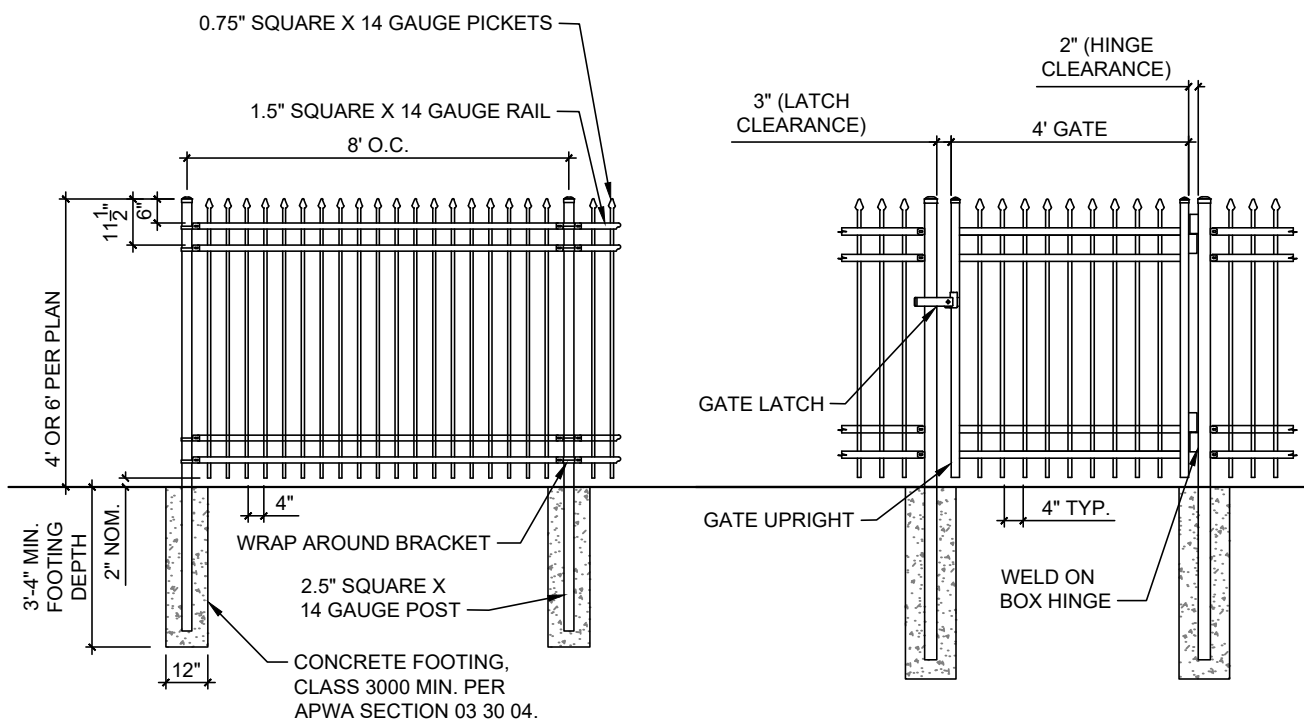


GATE ELEVATION VIEW

**A** DECORATIVE METAL RAILING  
1"=4'-0"

**DECORATIVE METAL FENCE NOTES:**

1. DECORATIVE METAL FENCE TO BE AMERISTAR MONTAGE COMMERCIAL CLASSIC 4-RAIL OR EQUAL.
2. ALL FENCING MATERIAL TO BE HOT DIPPED GALVANIZED WITH NO-MAR BLACK POWDER FINISH COAT.



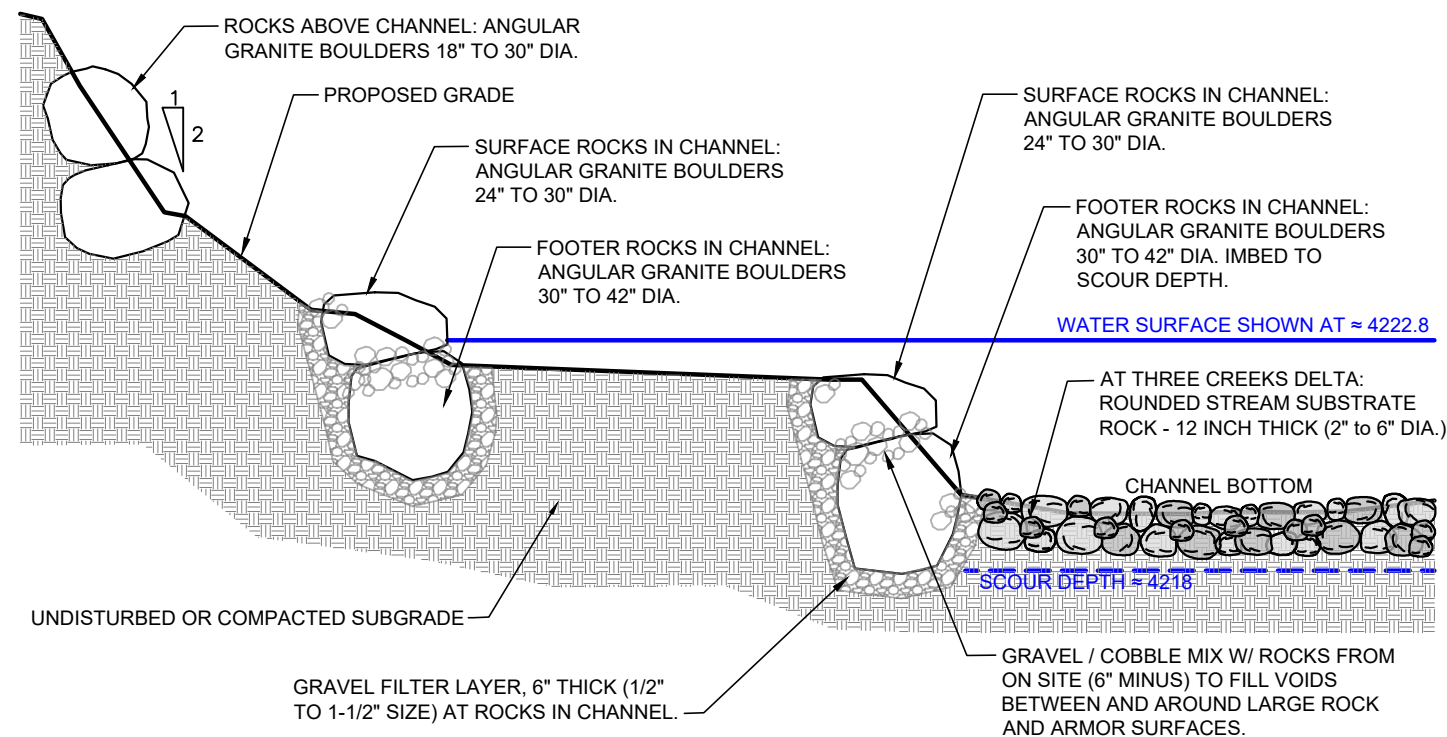
FENCE ELEVATION VIEW

GATE ELEVATION VIEW

**B** DECORATIVE METAL FENCE  
1"=4'-0"

**BOULDER BANKLINE NOTES:**

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



SECTION VIEW

**C** BOULDER BANKLINE  
1"=4'-0"

PREPARED BY:  
**BIO-WEST**

PREPARED BY CONSULTANTS:  
**FORSGREN**  
**ALRED RESTORATION**

PROFESSIONAL SEAL:  
**Sandra Davenport**  
No. 6677105  
SANDRA DAVENPORT  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF UTAH

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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

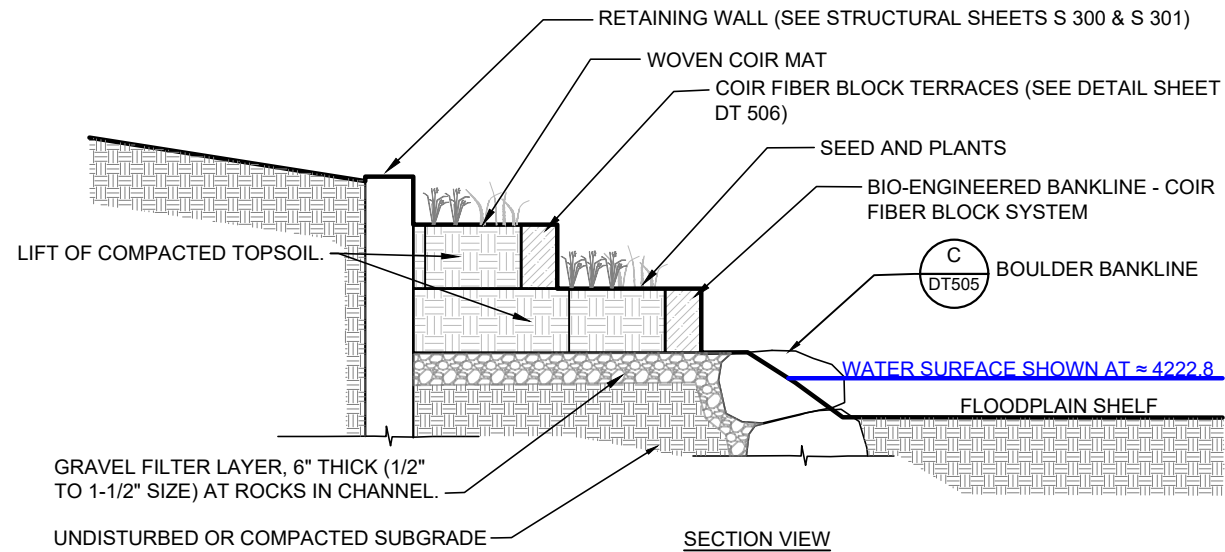
PREPARED BY: **BIO-WEST, INC.**  
CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: **S. DAVENPORT**  
CHECKED BY: **C. SANDS**  
COPYRIGHT:  
**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

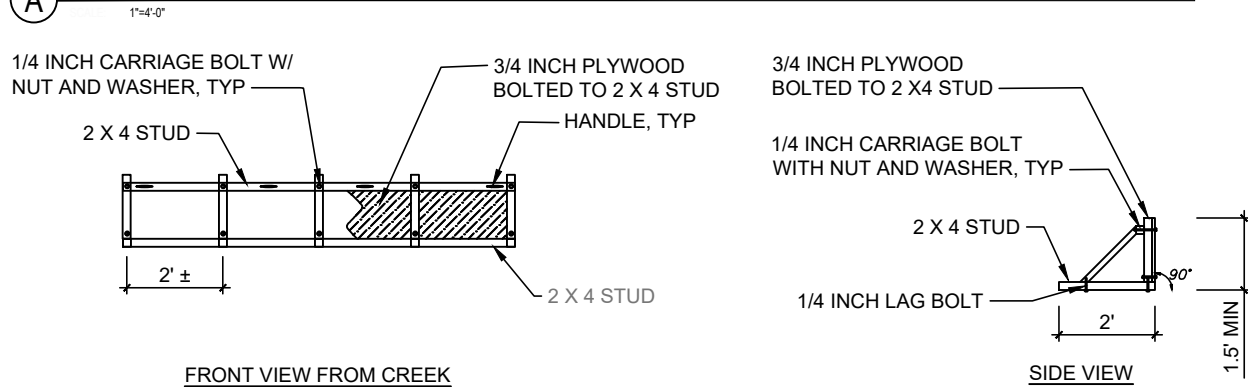
SHEET IDENTIFIER:  
**DT 505**  
BINDING ORDER **18**

**BIO-ENGINEERED BANKLINE NOTES:**

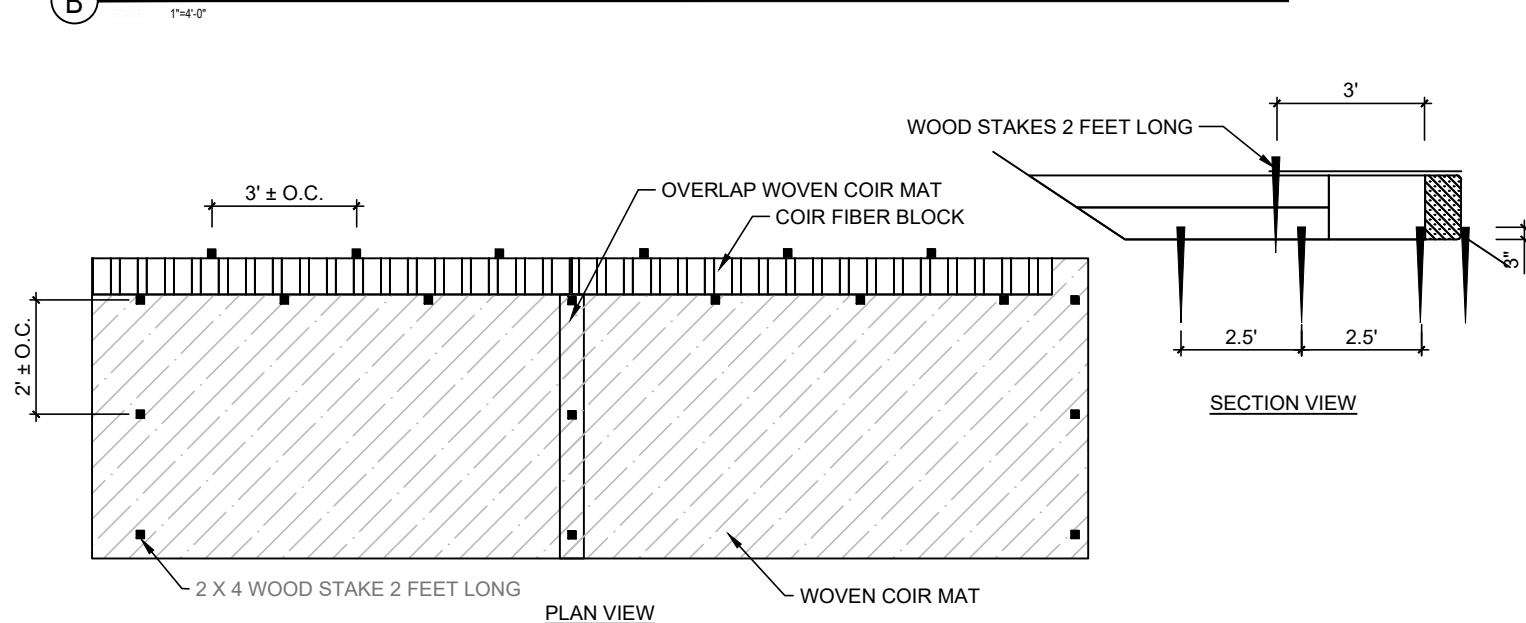
1. COIR FIBER BLOCK SHALL BE BioD-BLOCK 16-400, AVAILABLE THROUGH ROLANKA.COM
2. MATERIAL OBTAINED FROM EXCAVATION MAY BE USED AS FILL FOR COIR FIBER BLOCK TERRACE LIFT OF COMPACTED TOPSOIL, PROVIDED ORGANIC MATERIAL, RUBBISH, DEBRIS, AND OTHER OBJECTIONABLE MATERIALS ARE REMOVED PER APWA SECTION 31 05 13.



**A BIO-ENGINEERED BANKLINE**



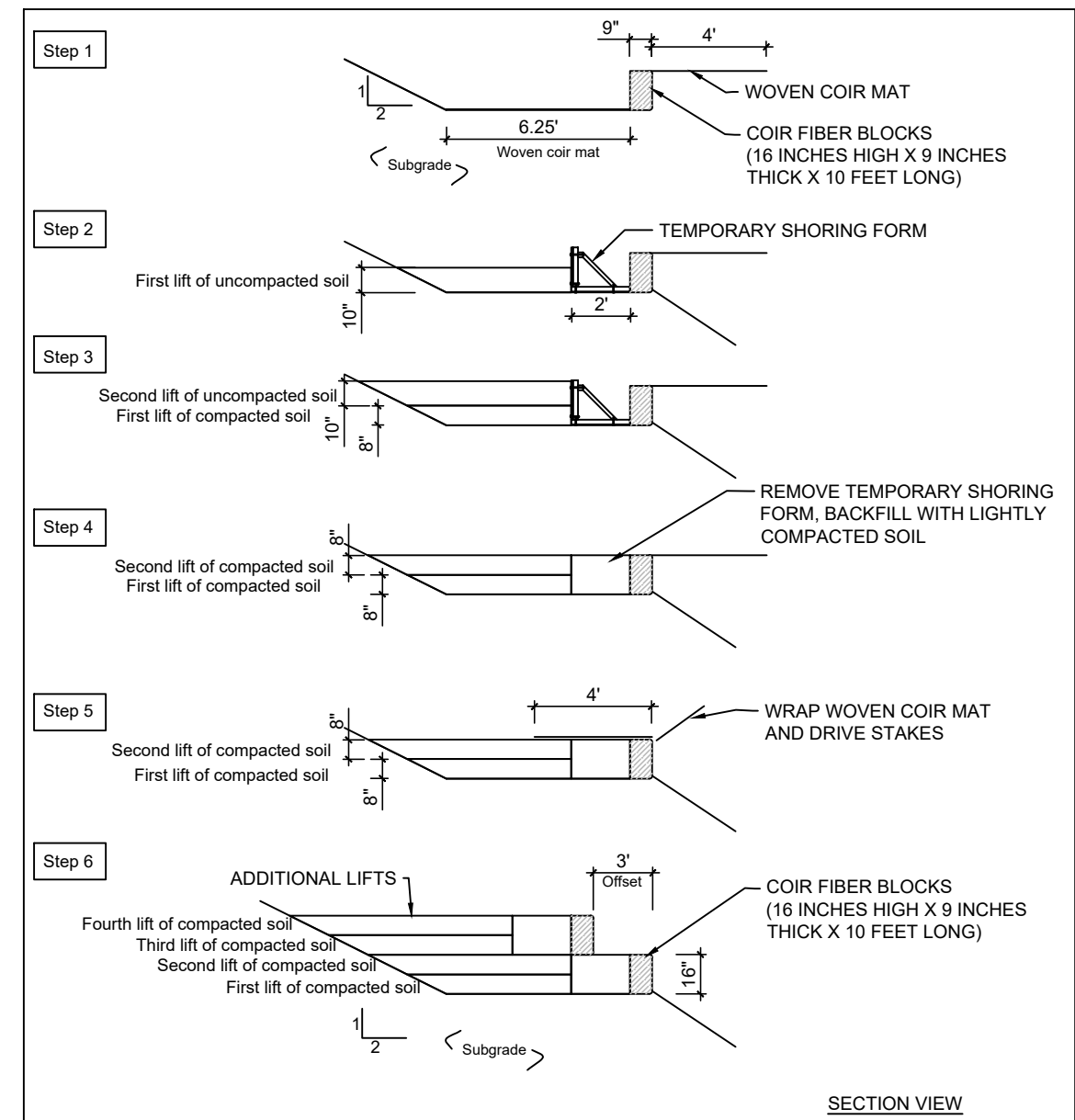
**B COIR FIBER BLOCK TEMPORARY SHORING FORM**



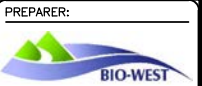
**C COIR FIBER BLOCK STAKING PATTERN**

**COIR FIBER BLOCK CONSTRUCTION NOTES:**

1. CONSTRUCT THE BIOENGINEERED BANK USING COIR FIBER BLOCK WITH ATTACHED COIR FABRIC TO ENCAPSULATE THE SOIL INTO FABRIC WRAPPED LAYERS. COIR BLOCK AND FIBER TO BE BioD-Block 16-400 AVAILABLE THROUGH ROLANKA INTERNATIONAL, INC. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. ANCHOR THE ENDS TO THE TOP AND BOTTOM FABRICS WITH A 2 FOOT LONG WOOD STAKE. STAKE EVERY 30 INCHES, ASSURING THAT THE SEAM WHERE THE TWO ENDS OF THE FABRIC STRIP OVERLAP IS ANCHORED.
3. THE COIR FIBER BLOCK WITH ATTACHED COIR FABRIC IS 120 INCHES LONG AND 16 INCHES HIGH WITH A 9 INCH WIDTH FIBER BLOCK ON THE END. THE TOP FABRIC LENGTH IS 48 INCHES AND THE BOTTOM FABRIC LENGTH IS 75 INCHES. THERE IS A MINIMUM OF 12 INCHES OVERLAP ON TOP FABRIC.
4. OVERLAP MALE AND FEMALE ENDS WITH A MINIMUM OF 6 INCHES TO CREATE CONTINUOUS LONG SECTIONS.



**D CONSTRUCTION SEQUENCE OF COIR FIBER BLOCK**



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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 #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
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SEPTEMBER 2019

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:  
**DT 506**

BINDING ORDER **19**

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

### THREE CREEKS CONFLUENCE

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

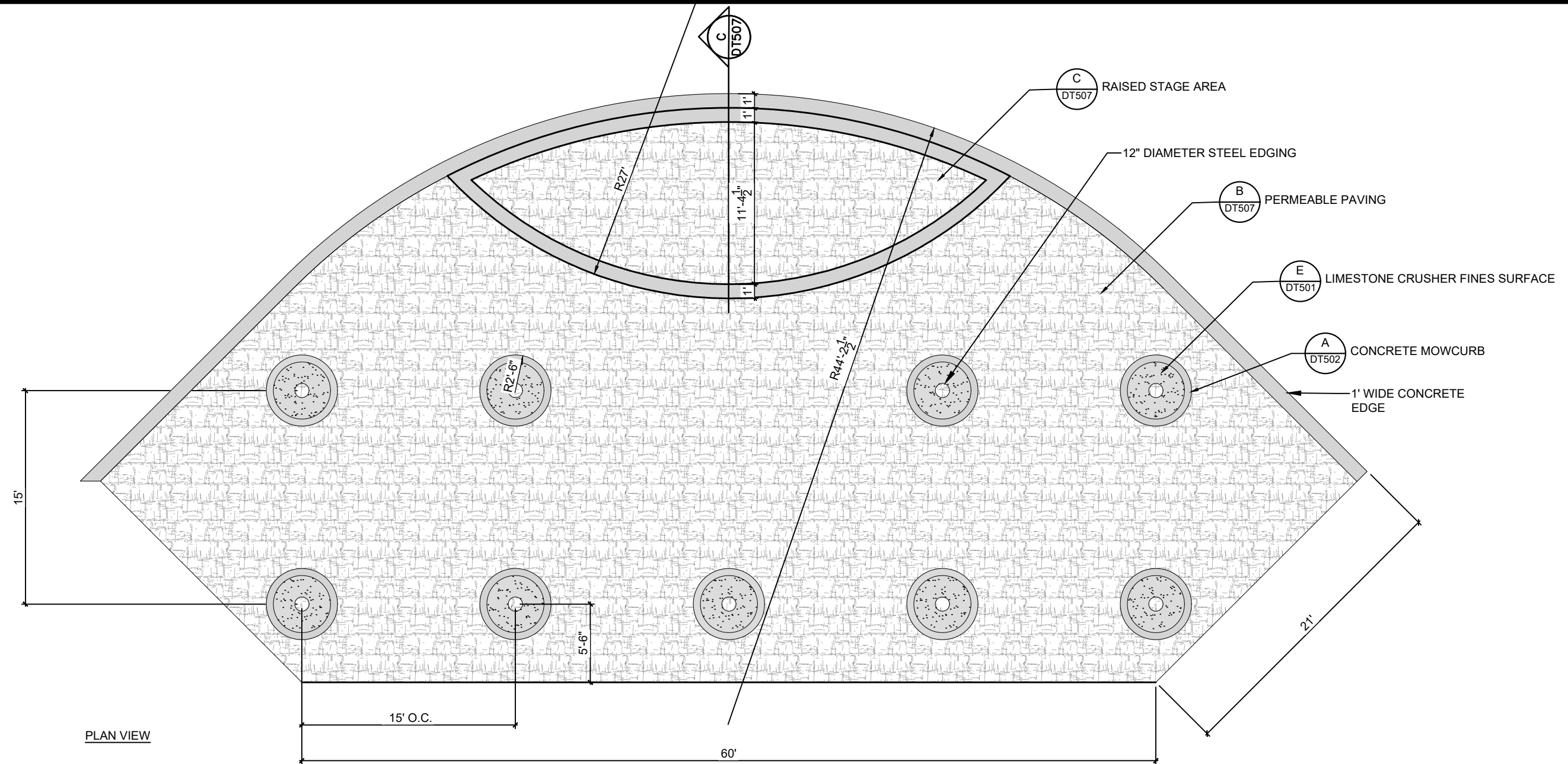
PREPARER #: BIO-WEST, INC.  
 CONTRACT #: 300124  
 PROJECT #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT: SEPTEMBER 2019

### LANDSCAPE SITE DETAILS

SHEET IDENTIFIER:

# DT 507

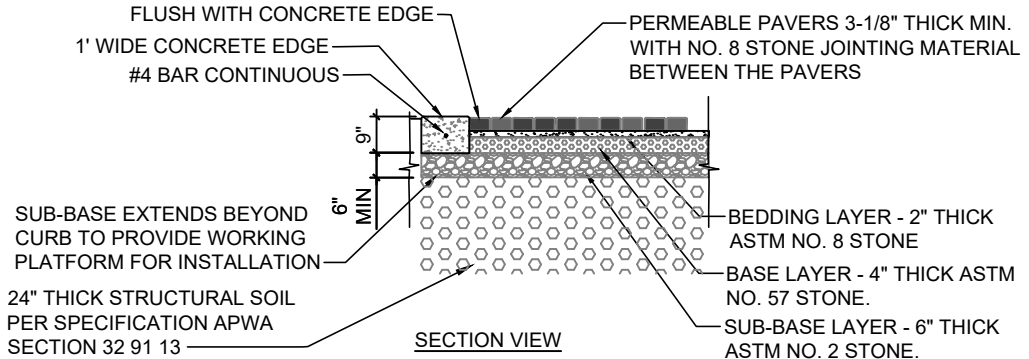
BINDING ORDER **20**



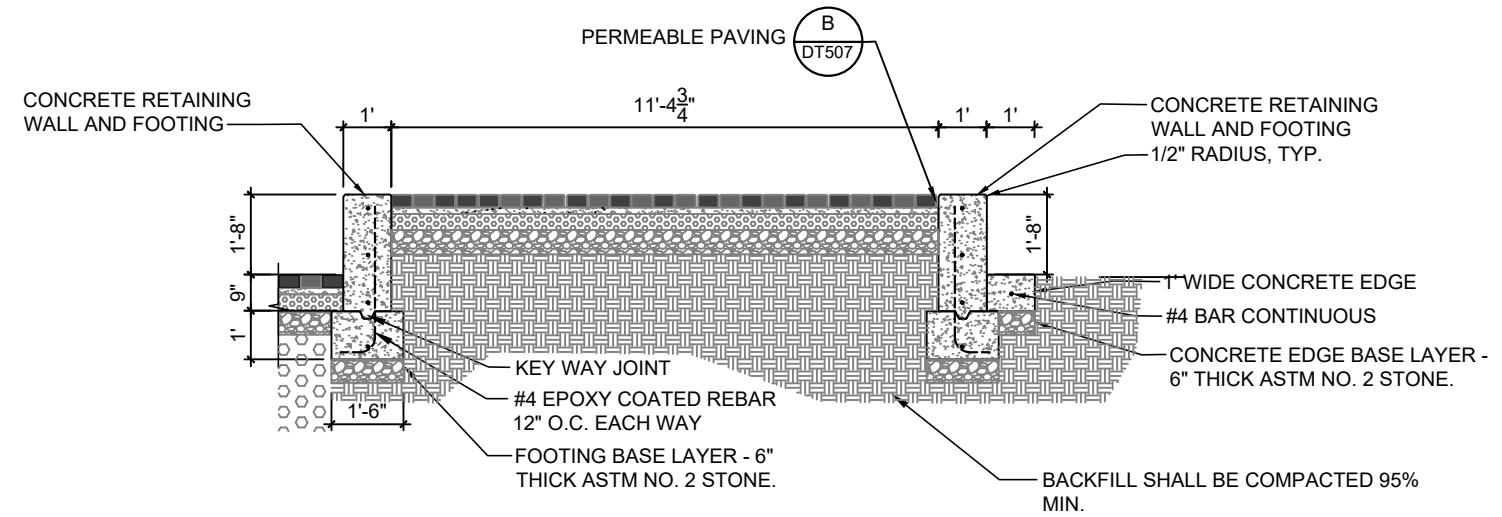
**(A) PLAZA SPACE PAVING AND LAYOUT (ADD ALTERNATE #3)**  
 1"=8'-0"

#### PERMEABLE PAVING NOTES:

- PERMEABLE PAVERS TO BE BELGARD ECO DUBLIN. STANDARD FINISH. 3-PIECE MODULAR PAVER SIZES. RUNNING BOND PATTERN (MACHINE INSTALLED CLUSTER). TOSCANA BLEND COLOR. AVAILABLE THROUGH AMCOR PHONE: 801-963-7628. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

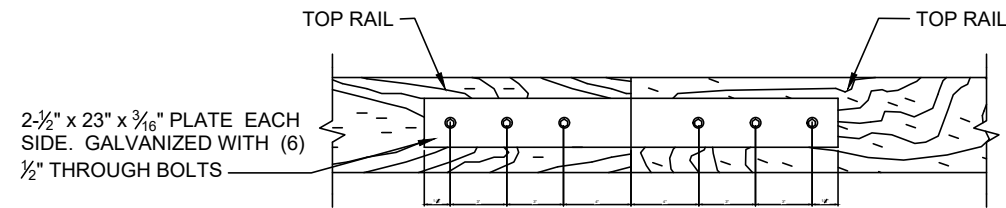
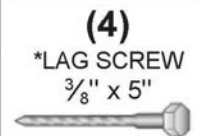


**(B) PERMEABLE PAVING - AT PLAZA SPACE (ADD ALTERNATE #3)**  
 1"=4'-0"



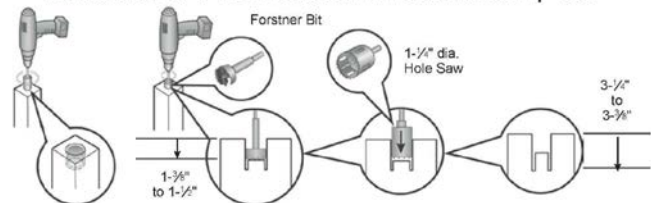
**(C) RAISED STAGE AREA (ADD ALTERNATE #3)**  
 1"=4'-0"

**Titan Post Anchor™ Kit**



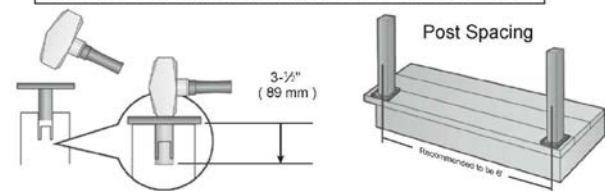
**TOP RAIL SPLICE DETAIL: TOP VIEW**  
NOT TO SCALE

**1 Hardwood Post Anchor Installation | 4x4**

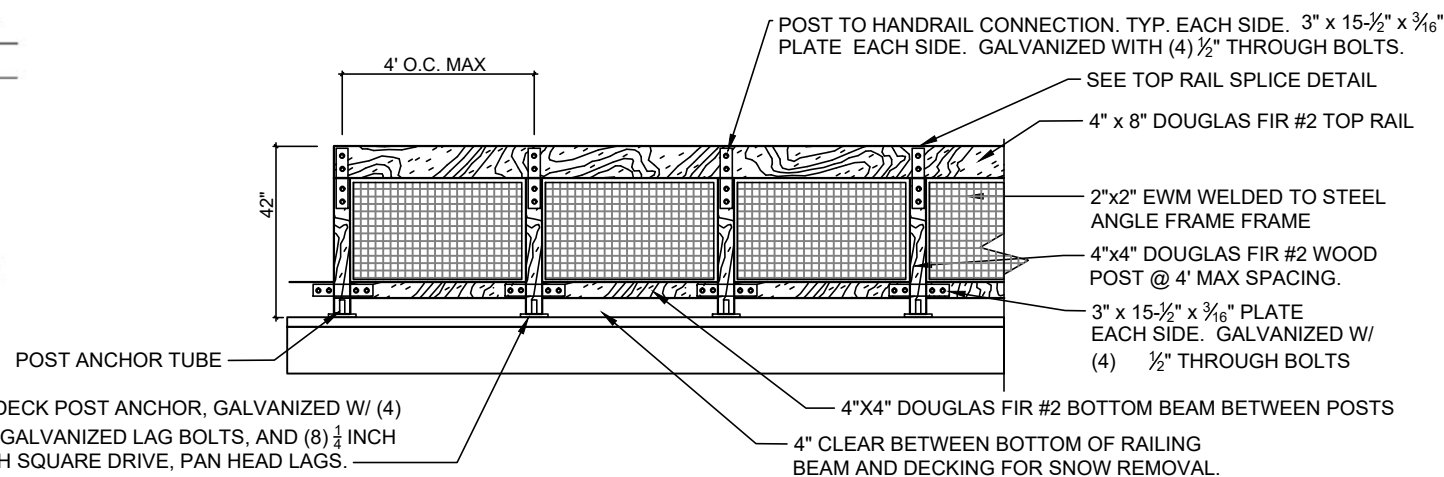


FOR VERY DRY WOOD, WET ENDS OF POST WITH WATER BEFORE USE TO PREVENT CRACKING.

**2**

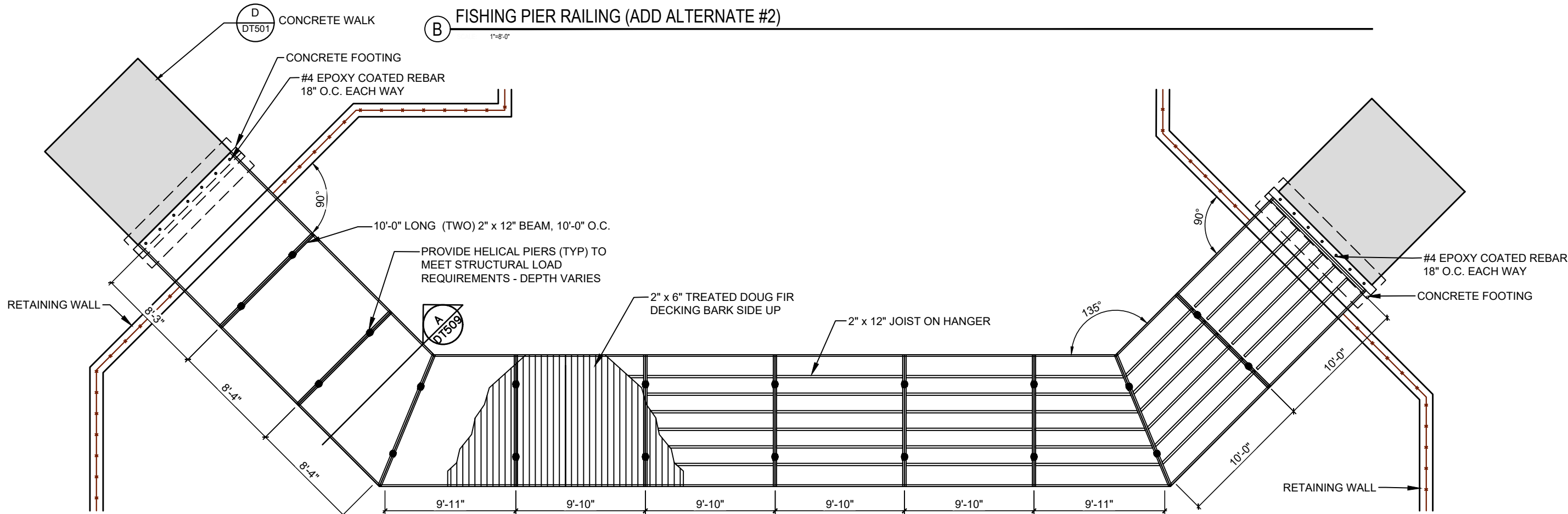


4" X 4" DECK POST ANCHOR, GALVANIZED W/ (4) 3/8" INCH GALVANIZED LAG BOLTS, AND (8) 1/2" INCH X 3 INCH SQUARE DRIVE, PAN HEAD LAGS.



**(B) FISHING PIER RAILING (ADD ALTERNATE #2)**

1"=8'-0"



**(A) FISHING PIER: PLAN VIEW (ADD ALTERNATE #2)**

1"=8'-0"

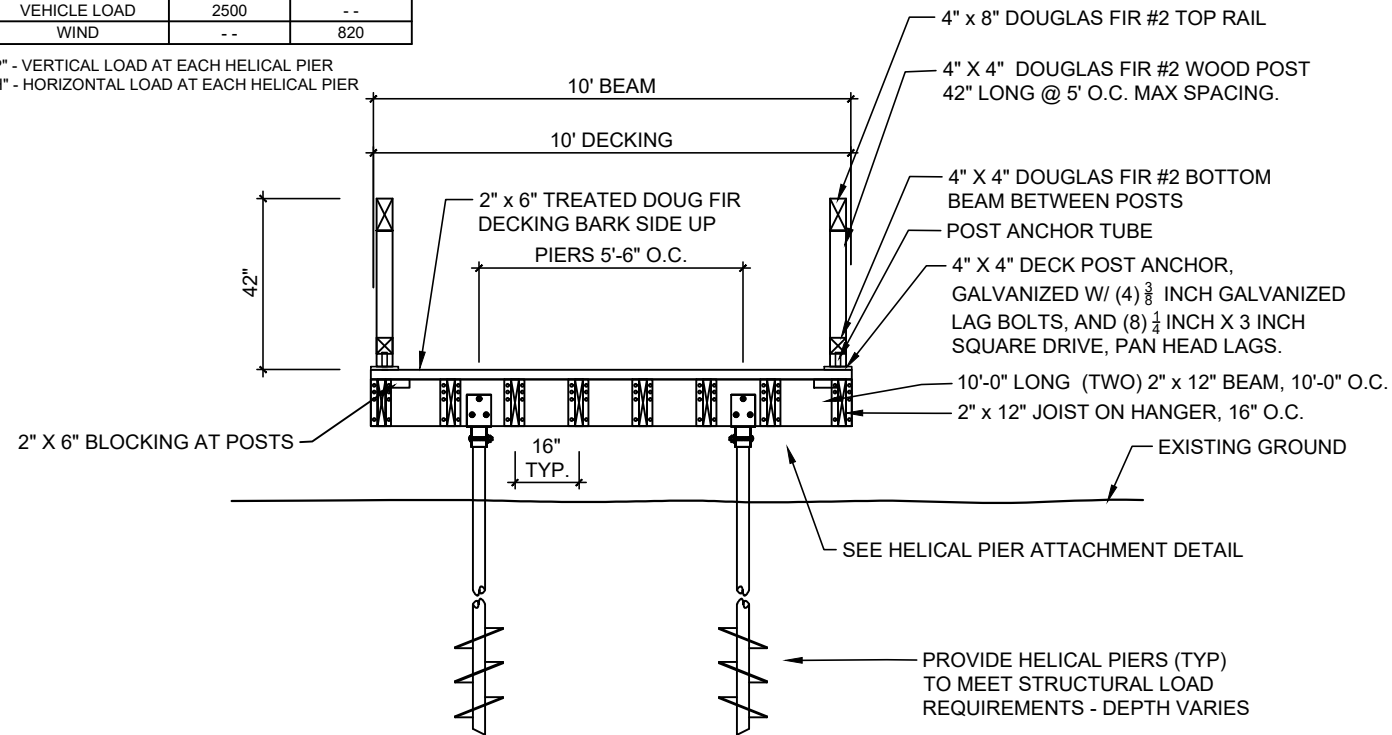
MARK	DATE	DESCRIPTION

PREPARED BY: **BIO-WEST, INC.**  
CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: **S. DAVENPORT**  
CHECKED BY: **C. SANDS**  
COPYRIGHT:  
**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

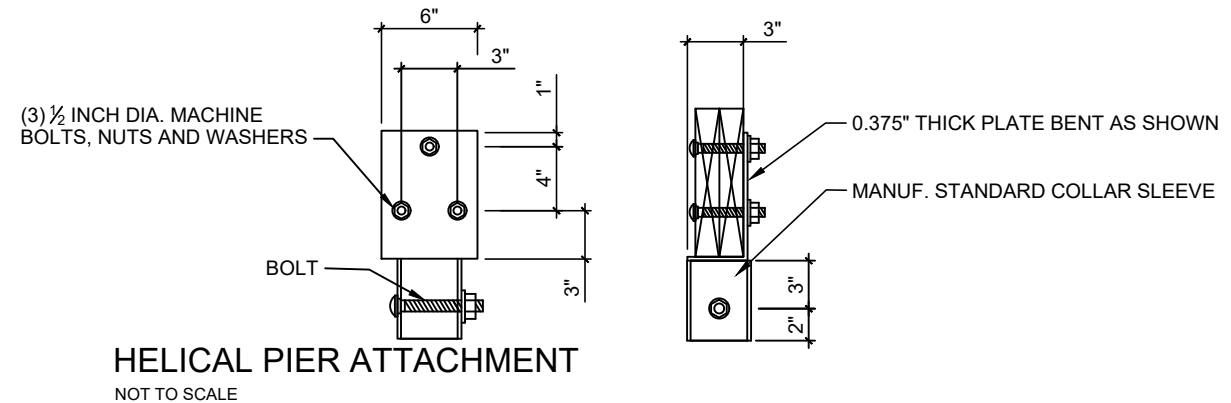
PIER REACTIONS		
	P (LBS)	H (LBS)
DEAD	1000	--
UNIFORM LIVE LOAD	3000	--
VEHICLE LOAD	2500	--
WIND	--	820

"P" - VERTICAL LOAD AT EACH HELICAL PIER  
"H" - HORIZONTAL LOAD AT EACH HELICAL PIER

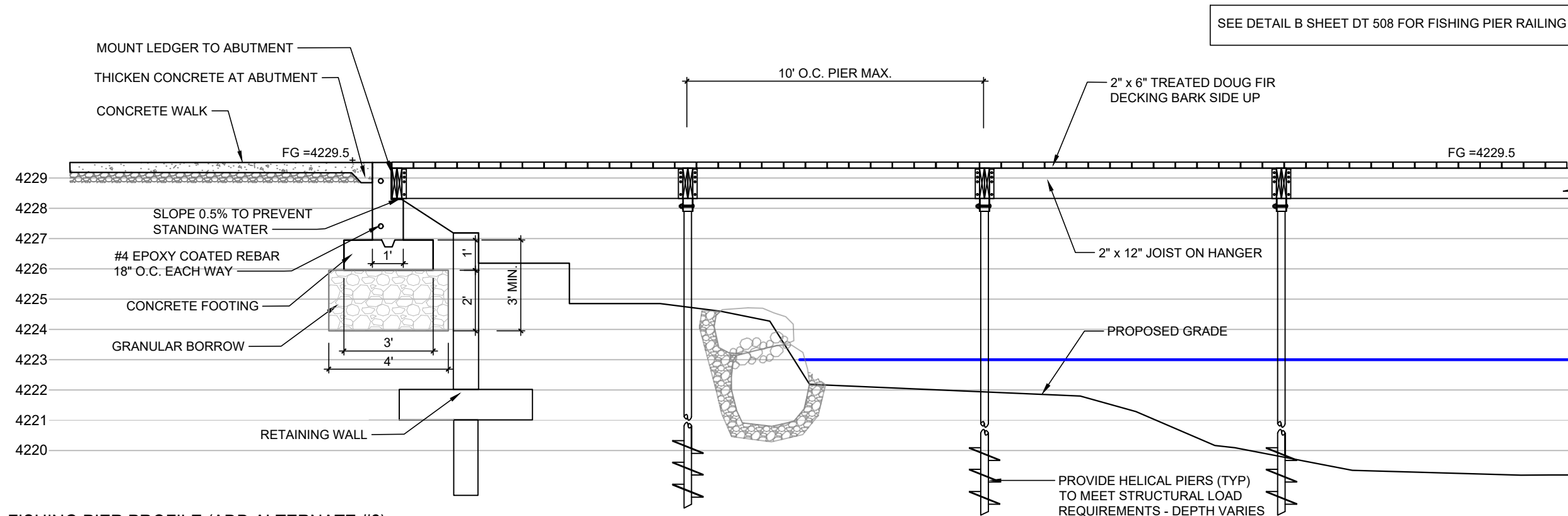


**FISHING PIER NOTES:**

1. 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.
2. THE HELICAL PIER NUMBER AND SIZE OF BLADES SHALL BE SO AS TO ACHIEVE APPROPRIATE INSTALLATION TORQUE AND CAPACITY. ALL PIER COMPONENTS SHALL BE HOT DIP ZINC GALVANIZED PER ASTM 123 OR 153. HELICAL PIER INSTALLATION SHOULD BE OBSERVED BY A GEOTECHNICAL ENGINEER TO VERIFY INSTALLATION TORQUE AND MINIMUM DEPTHS. PROVIDE A MINIMUM OF 72 HOURS NOTICE PRIOR TO INSTALLATION WORK. THE LOADS SHOWN ON THE PLAN ARE MINIMUM DESIGN LOADS. THE MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED REGARDING THE TORQUE AND BEARING CAPACITY RELATIONSHIP FOR THE PARTICULAR HELICAL PIER SELECTED.
3. PRE-DRILL WOOD MEMBER 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.
4. USE ONLY GALVANIZED HARDWARE.
5. 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.
6. THE BOARDWALK DESIGN ASSUMES A LIVE LOAD OF 60 PSF PEDESTRIAN, 36 PSF SNOW, AND 20 PSF WIND.



**A** FISHING PIER SECTION (ADD ALTERNATE #2)  
1"=4'-0"



**B** FISHING PIER PROFILE (ADD ALTERNATE #2)  
1"=4'-0"

PREPARER: **BIO-WEST**

PREPARER CONSULTANTS: **FORSGREN**

PROFESSIONAL SEAL: **Sandra Davenport**  
No. 6677105  
SANDRA DAVENPORT  
9/11/2019  
STATE OF UTAH

PROJECT IDENTIFICATION: **THREE CREEKS CONFLUENCE**

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 #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
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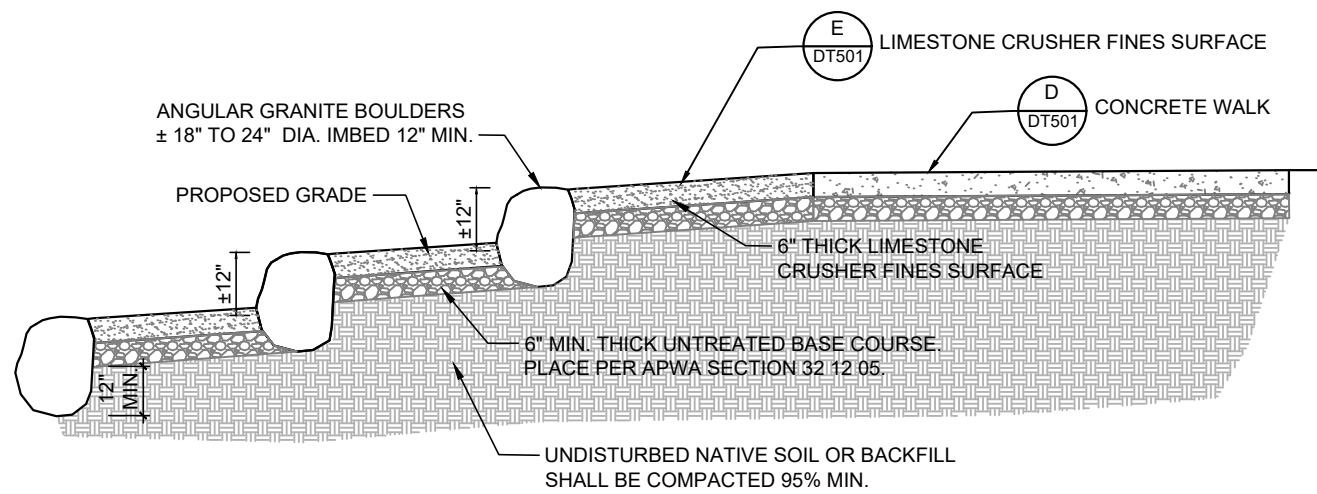
SHEET TITLE: **LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER: **DT 509**

BINDING ORDER **22**

**BOULDER STEP NOTES:**

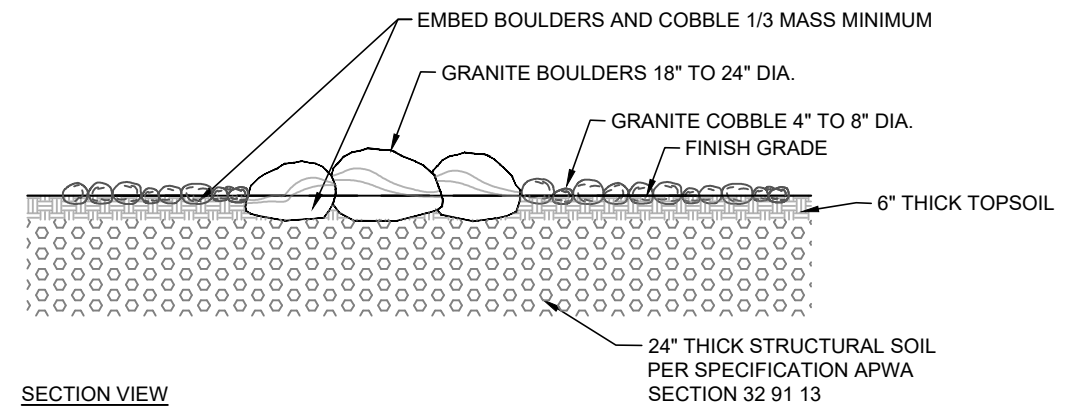
1. SET ROCKS SO THEY SIT SECURELY AND ARE FITTED TOGETHER.



**(A) BOULDER STEP DETAIL**  
1"=4'-0"

**LANDSCAPE BOULDER PLACEMENT NOTES:**

1. SET BOULDERS IN GROUPS OF THREE SO THEY SIT SECURELY AND ARE FITTED TOGETHER.
2. COORDINATE BOULDER PLACEMENT WITH OWNER'S REPRESENTATIVE.

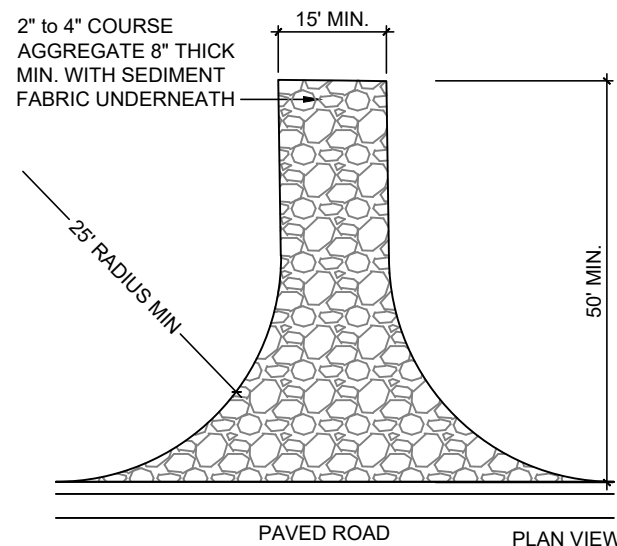


SECTION VIEW

**(B) GRANITE COBBLE / GRANITE BOULDER GROUP AT PARKSTRIP**  
1"=4'-0"

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

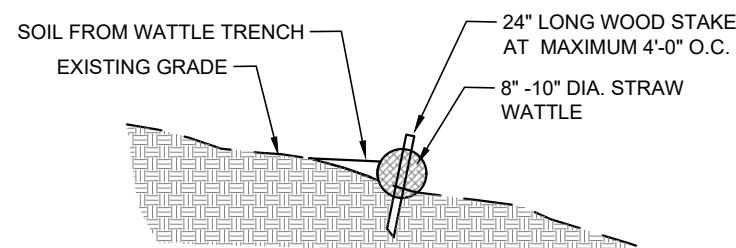
1. MOW EXISTING VEGETATION AS NECESSARY BEFORE INSTALLING DRAINAGE FABRIC AND/OR GRAVEL.
2. COMPACT SUBGRADE.
3. INSPECT DAILY FOR LOSS OF COBBLE OR SEDIMENT BUILDUP.
4. PREVENT CONSTRUCTION SITE DIRT, MUD, AND ROCKS FROM BEING TRACKED ONTO ADJACENT ROADS.
5. REPAIR ENTRANCE AND REPLACE COBBLE AS REQUIRED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



**(D) TEMPORARY STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.

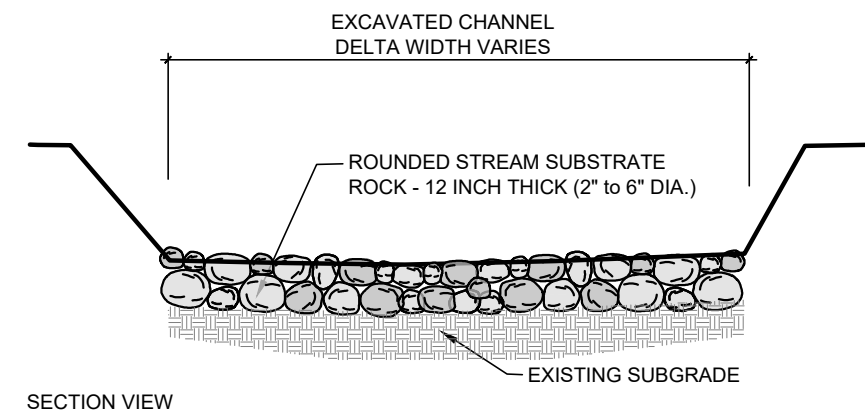
**TEMPORARY STRAW WATTLE NOTES:**

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.

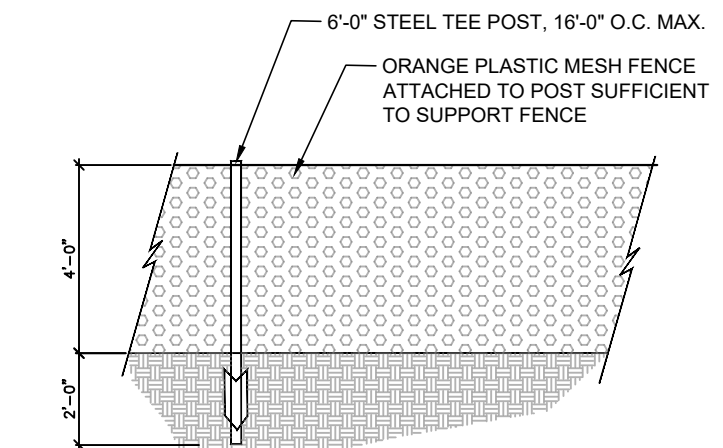


**(E) TEMPORARY STRAW WATTLE**  
N.T.S.

**(C) ROCK SUBSTRATE AT DELTA**  
N.T.S.



SECTION VIEW



**(F) TEMPORARY ENVIRONMENTAL FENCE**  
N.T.S.

PREPARER:  
BIO-WEST

PREPARER CONSULTANTS:  
FORSGREN  
ALFRED RESTORATION

PROFESSIONAL SEAL:  
Sandra Davenport  
No. 6677105  
SANDRA DAVENPORT  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF UTAH

PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

PROJECT OWNER:

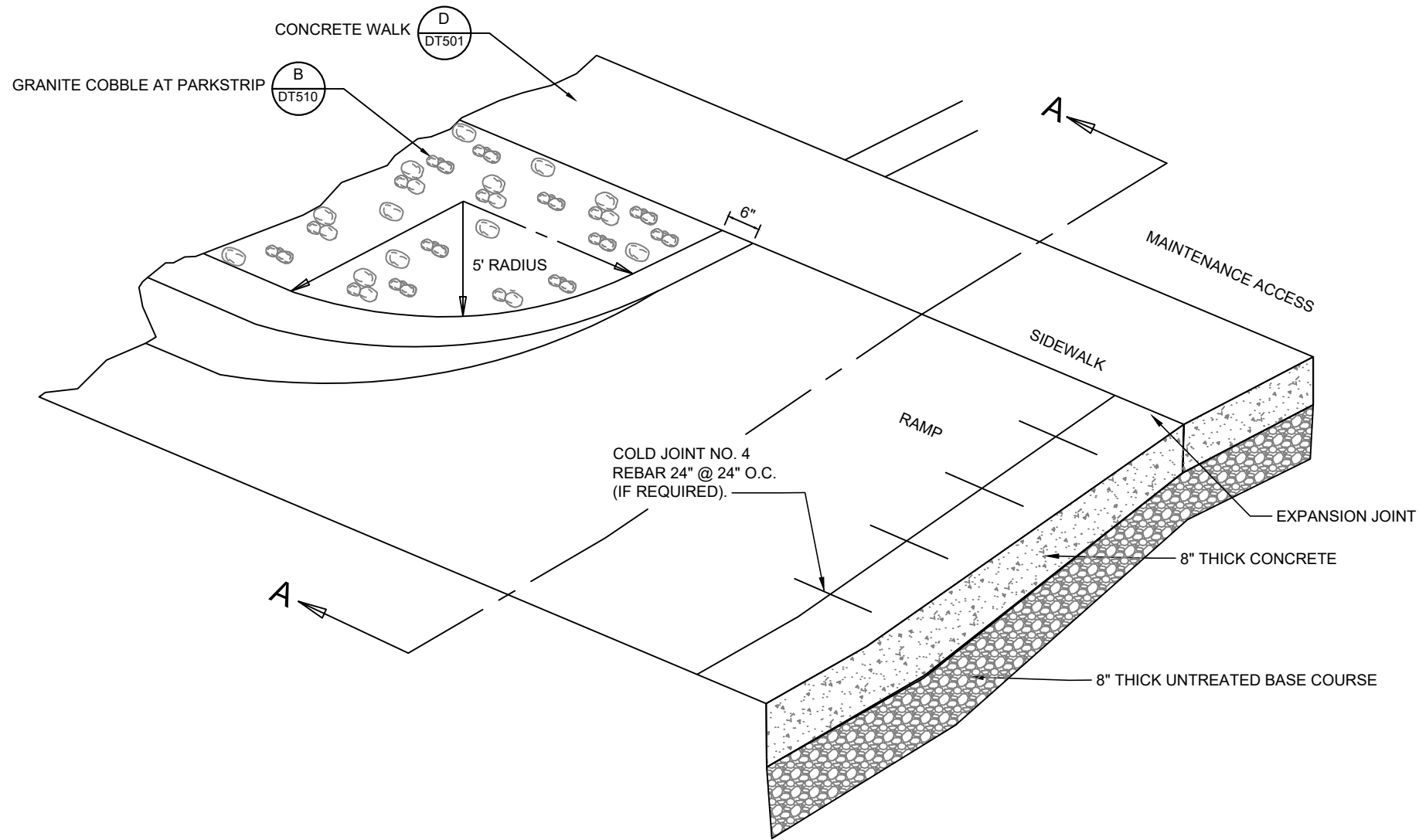
**SALT LAKE CITY CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

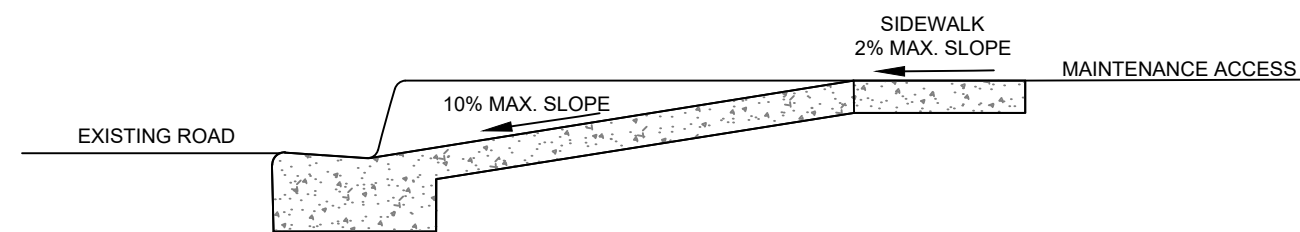
PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT:  
SEPTEMBER 2019

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

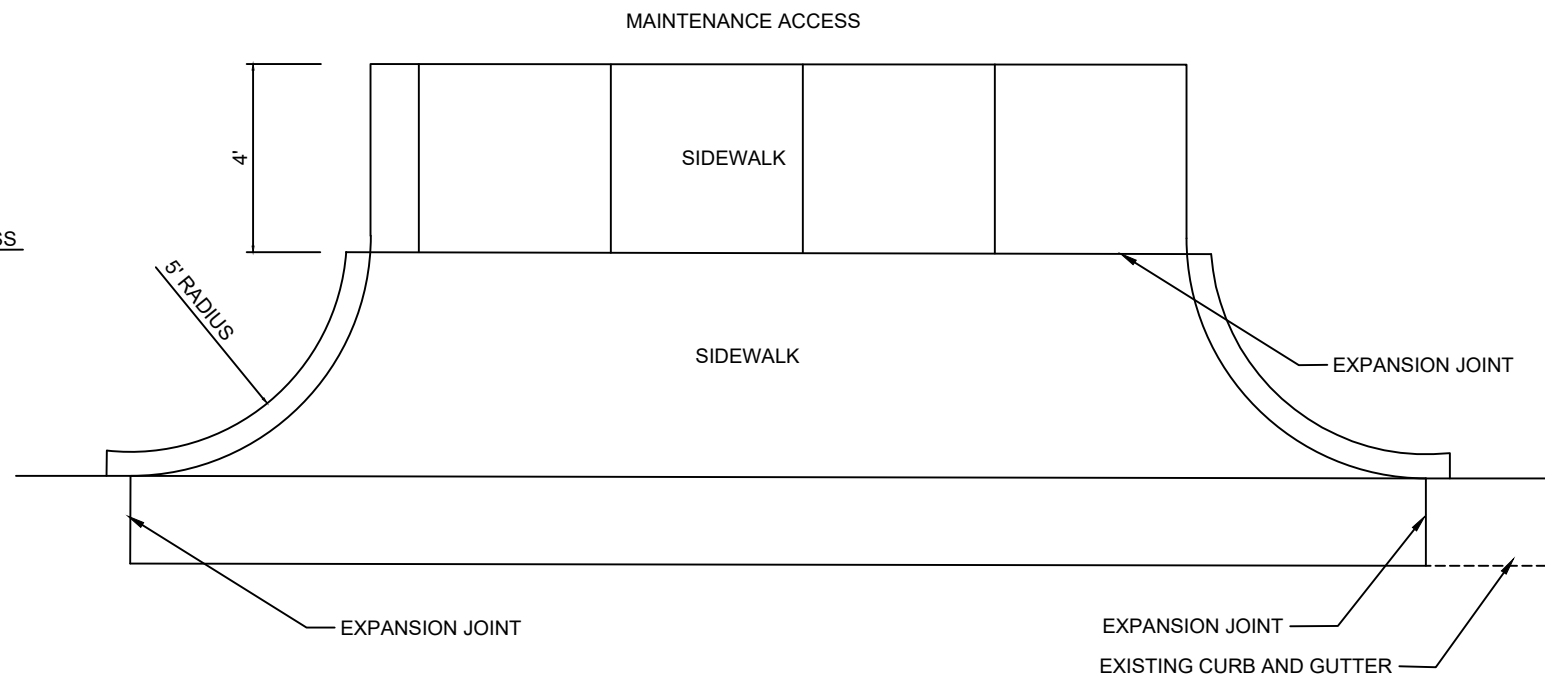
SHEET IDENTIFIER:  
**DT 510**  
BINDING ORDER **23**



OBLIQUE VIEW



SECTION A-A - APPROACH REQUIRING SERVICE TRUCK ACCESS



PLAN VIEW

**DRIVEWAY APPROACH NOTES:**

1. DRIVEWAY APPROACH TO BE CONSTRUCTED PER APWA STANDARD PLAN NO. 225.
2. UNTREATED BASE COURSE: PROVIDE MATERIAL SPECIFIED IN APWA SECTION 32 11 23.
3. PLACE MATERIAL PER APWA SECTION 32 05 10.
4. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95 PERCENT OR GREATER.
5. CONCRETE: CLASS 4000 PER APWA SECTION 03 30 04. PROVIDE 1/2 INCH RADIUS ON CONCRETE EDGES EXPOSED TO PUBLIC VIEW. CURE CONCRETE PER APWA SECTION 03 39 00.
6. EXPANSION JOINT: MAKE EXPANSION JOINTS VERTICAL, FULL DEPTH, 1/2 INCH WIDE. JOINT FILLER MATERIAL PER APWA SECTION 32 13 73. SET TOP OF FILLER FLUSH WITH SURFACE OF CONCRETE.
7. CONTRACTION JOINT: MAKE CONTRACTION JOINTS VERTICAL. 1/8 INCH WIDE AND 1 INCH DEEP OR 1/4 SLAB THICKNESS IF SLAB IS GREATER THAN 4 INCHES THICK.
8. REINFORCEMENT: ASTM A 615, GRADE 60, GALVANIZED OR EPOXY COATED DEFORMED STEEL.
9. FINISH: BROOMED.
10. PROTECTION AND REPAIR: FILL FLOW-LINE WITH WATER. REPAIR CONSTRUCTION THAT DOESN'T DRAIN. PROTECT CONCRETE FROM DEICING CHEMICALS DURING CURE PERIOD.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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 #: 253701  
 BW PN #: 2011  
 DRAWING FILE:  
 DRAWN BY: S. DAVENPORT  
 CHECKED BY: C. SANDS  
 COPYRIGHT:  
**SEPTEMBER 2019**

SHEET TITLE:  
**LANDSCAPE SITE DETAILS**

SHEET IDENTIFIER:

**DT 511**

BINDING ORDER **24**

**A DRIVEWAY APPROACH**

NTS



**TREE PLANTING NOTES:**

1. WATER TREE SUFFICIENTLY AT PLANTING 5-10 GAL./1" TRUNK DIA.
2. TREE STAKING IS NOT REQUIRED UNLESS CONDITIONS IN FIELD WARRANT. IF STAKING IS NECESSARY A TREE STAKING DETAIL WILL BE PROVIDED. TREE STAKING WILL BE PAID FOR WITH A CHANGE ORDER.
3. ALL TREES MUST BE INSTALLED AND MAINTAINED AT TRUE VERTICAL.

PLANT WITH TRUNK / ROOT FLARE VISIBLE.

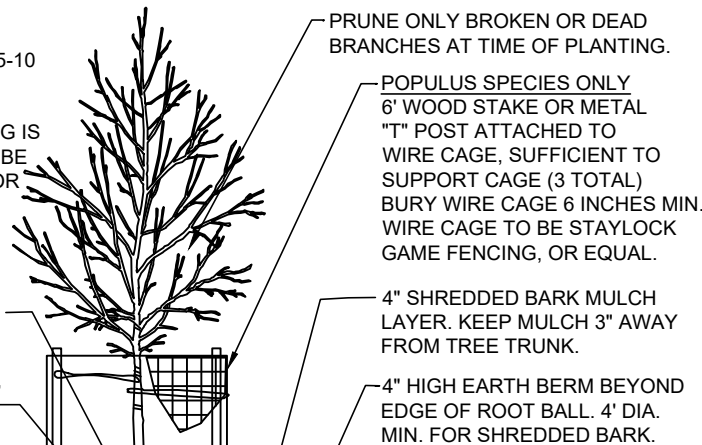
REMOVE ALL ROPE, TWINE BURLAP AND WIRE BASKET COMPLETELY AND DISCARD, BEFORE INSTALLATION OF TREE.

REPAIR / REPLACE SOD/ GROUND COVER, TYP.

RE-USE 100% NATIVE BACKFILL

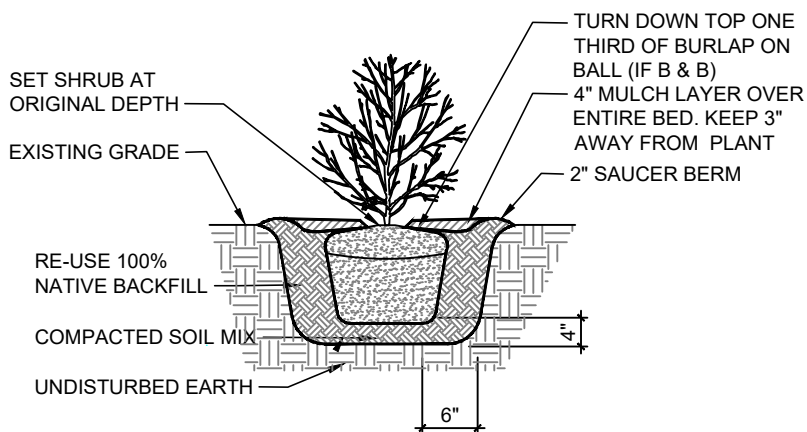
ENSURE NO VOIDS OR AIR POCKETS UNDER AND AROUND ROOTBALL

DIG HOLE 3x MIN. ROOTBALL WIDTH. SLOPE SIDES TO FINISH GRADE



**A TREE PLANTING DETAIL**

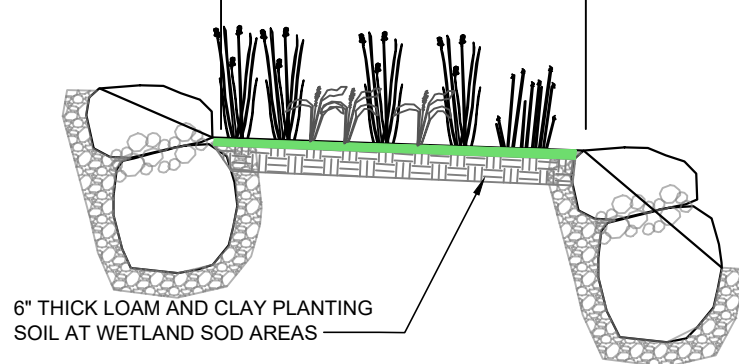
N.T.S.



**C SHRUB PLANTING DETAIL**

N.T.S.

WETLAND SOD: SEDGES, SPIKERUSHES, RUSHES. PRE-VEGETATED (NATIVE) COIR EROSION CONTROL MAT. EACH MAT = 3.3 FEET WIDE X 16.4 FEET LONG X 4 INCHES THICK.



**E WETLAND SOD DETAIL**

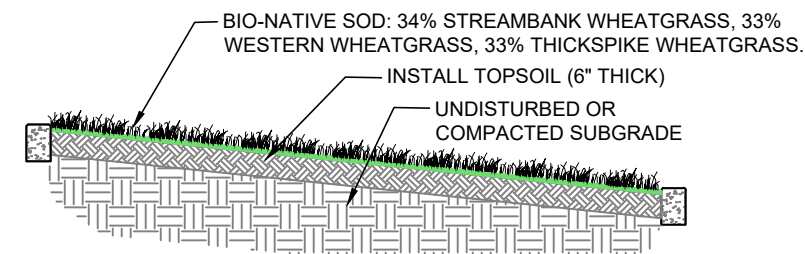
N.T.S.

**WETLAND SOD NOTES:**

1. **COIR MAT**  
MAT MATERIAL: BIODEGRADABLE, PROCESSED COCONUT FIBER PLUGGED WITH NATIVE WETLAND PLANTS  
AREA: WETLAND SOD UNITS ARE 52-53 SQ. FT. PER UNIT  
LENGTH: 16.2 FT. LONG,  
WIDTH: 3.2 FT. WIDE  
COIR MAT THICKNESS: 3-4 INCHES
2. **WETLAND SOD**  
WEIGHT: 80-120 LBS.  
PLANT HEIGHT: 8-36"  
PLANT COVERAGE: MINIMUM OF 50% ROOT AND 50% SHOOT COVERAGE
3. AVAILABLE THROUGH NORTH FORK NATIVE PLANTS.
4. PLACE WETLAND SOD PER SUPPLIER'S DIRECTIONS.

**D BIO-NATIVE SOD DETAIL**

N.T.S.

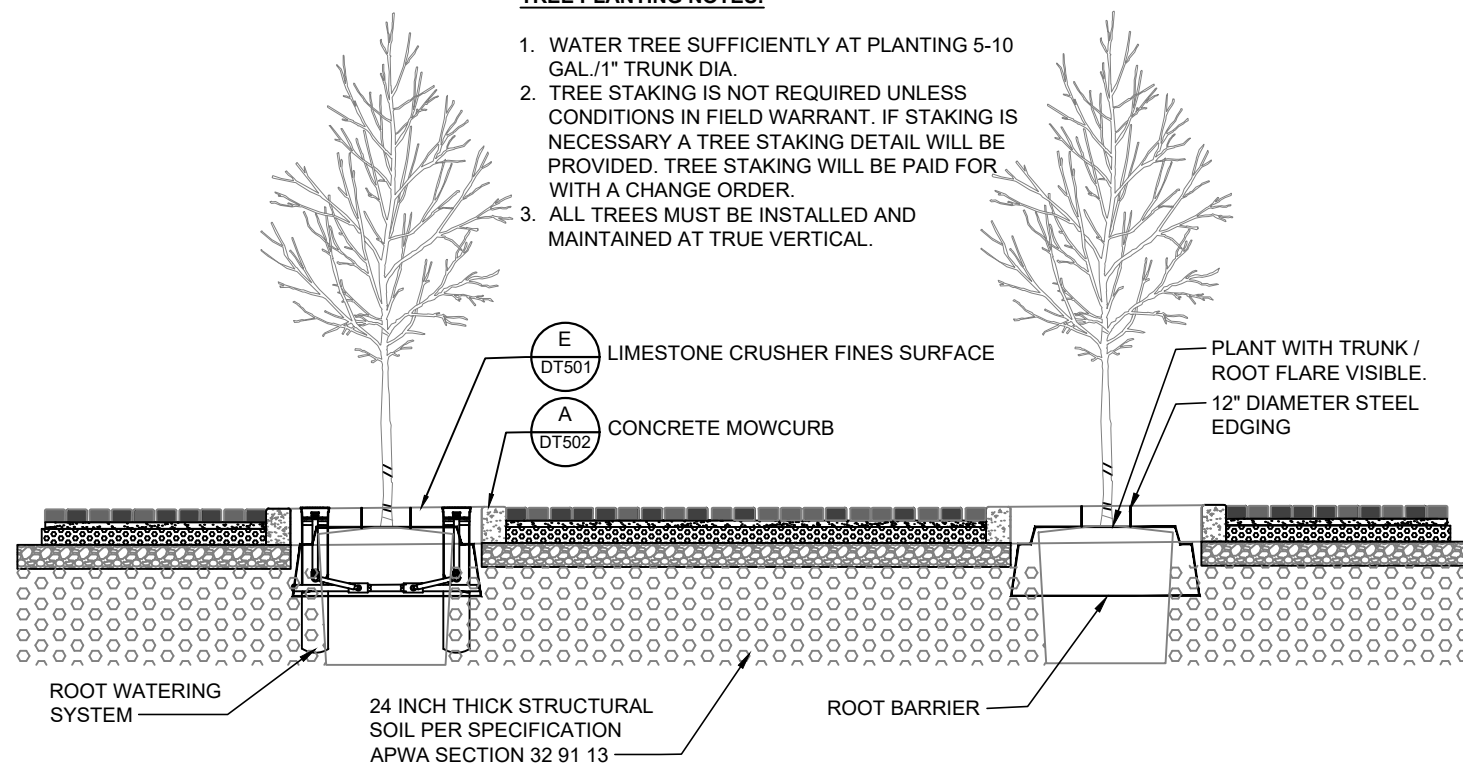


**BIO-NATIVE SOD NOTES:**

1. BIO-NATIVE SOD AVAILABLE THROUGH BIOGRASS SEED FARMS. 9980 SOUTH STATE, SANDY, UT.
2. INSTALL BIG ROLL SOD ,30" X 80' SIZE WITH 1/2" OF SOIL.
3. MOW TO 8 INCH HEIGHT, ONCE IN LATE SPRING, ONCE IN EARLY FALL.
4. PLACE PER SUPPLIER'S DIRECTIONS.

**B TREE PLANTING AT PLAZA DETAIL**

N.T.S.



**TREE PLANTING NOTES:**

1. WATER TREE SUFFICIENTLY AT PLANTING 5-10 GAL./1" TRUNK DIA.
2. TREE STAKING IS NOT REQUIRED UNLESS CONDITIONS IN FIELD WARRANT. IF STAKING IS NECESSARY A TREE STAKING DETAIL WILL BE PROVIDED. TREE STAKING WILL BE PAID FOR WITH A CHANGE ORDER.
3. ALL TREES MUST BE INSTALLED AND MAINTAINED AT TRUE VERTICAL.

PLANT WITH TRUNK / ROOT FLARE VISIBLE.

REMOVE ALL ROPE, TWINE BURLAP AND WIRE BASKET COMPLETELY AND DISCARD, BEFORE INSTALLATION OF TREE.

REPAIR / REPLACE SOD/ GROUND COVER, TYP.

RE-USE 100% NATIVE BACKFILL

ENSURE NO VOIDS OR AIR POCKETS UNDER AND AROUND ROOTBALL

DIG HOLE 3x MIN. ROOTBALL WIDTH. SLOPE SIDES TO FINISH GRADE

**NATIVE SEED MIX**

SEED NO.	SPECIES NAME		Number of seeds per pound	BROADCAST SEED		
	BOTANICAL NAME	COMMON NAME		Pounds of pure live seed per acre	Percent of mix	Seeds per square foot
<b>Grasses</b>						
1	<i>Aristida purpurea</i>	Purple three-awn	250,000	2	7.31%	11
2	<i>Elymus elymoides</i>	Bottlebrush squireltail	192,000	2	5.61%	9
3	<i>Distichlis spicata stricta</i>	Inland saltgrass	518,000	0.50	3.79%	6
4	<i>Sporobolus cryptandrus</i>	Sand dropseed	130,000	3	5.70%	9
5	<i>Hesperostipa comata</i>	Needle and thread grass	115,000	3	5.04%	8
6	<i>Elymus trachycaulum</i>	Slender wheatgrass	135,000	3.5	6.91%	11
7	<i>Poa secunda (sandbergii)</i>	Sandberg bluegrass	1,046,960	0.5	7.65%	12
8	<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass	125,680	4	7.35%	12
<b>Forbs and Shrubs</b>						
9	<i>Cleome serrulata</i>	Rocky Mountain Beeplant	65,900	3	2.89%	5
10	<i>Linum lewisii 'Appar'</i>	Appar blue flax	294,848	2	8.62%	14
11	<i>Erigeron speciosus</i>	Aspen daisy	1,600,000	0.5	11.70%	18
12	<i>Hedysarum boreale</i>	Utah Sweetvetch	46,000	3	2.02%	3
13	<i>Heliomeris multiflora</i>	Showy goldeneye	1,055,000	0.5	7.71%	12
14	<i>Lupinus argenteus</i>	Silvery lupine	126,000	1	1.84%	3
15	<i>Sphaeralcea coccinea</i>	Scarlet Globemallow	500,000	1	7.31%	11
16	<i>Artemisia ludoviciana</i>	Prairie sage	32,767	2	0.96%	2
17	<i>Ericameria nauseosus</i>	Rubber rabbitbrush	400,000	1	5.85%	9
18	<i>Shepherdia canadensis</i>	Buffaloberry	59,215	2	1.73%	3
<b>TOTAL</b>				<b>34.5</b>	<b>100.00%</b>	<b>157</b>

**F NATIVE SEED MIX**

N.A.

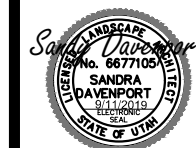
PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

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

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CONTRACT #: 300124  
PROJECT #: 253701  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
COPYRIGHT:  
**SEPTEMBER 2019**

**LANDSCAPE PLANTING DETAILS**

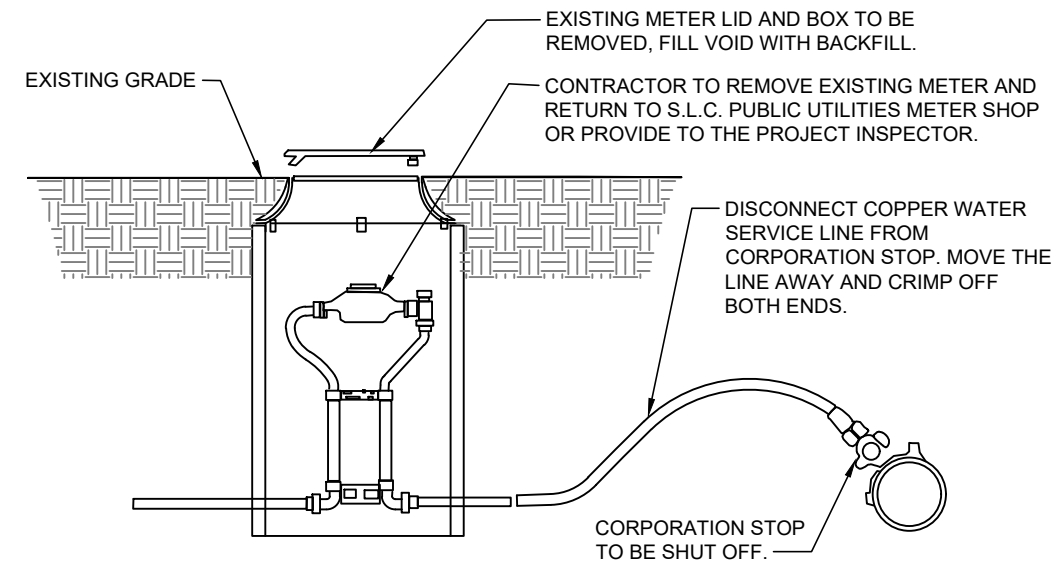
SHEET IDENTIFIER:

**DT 512**

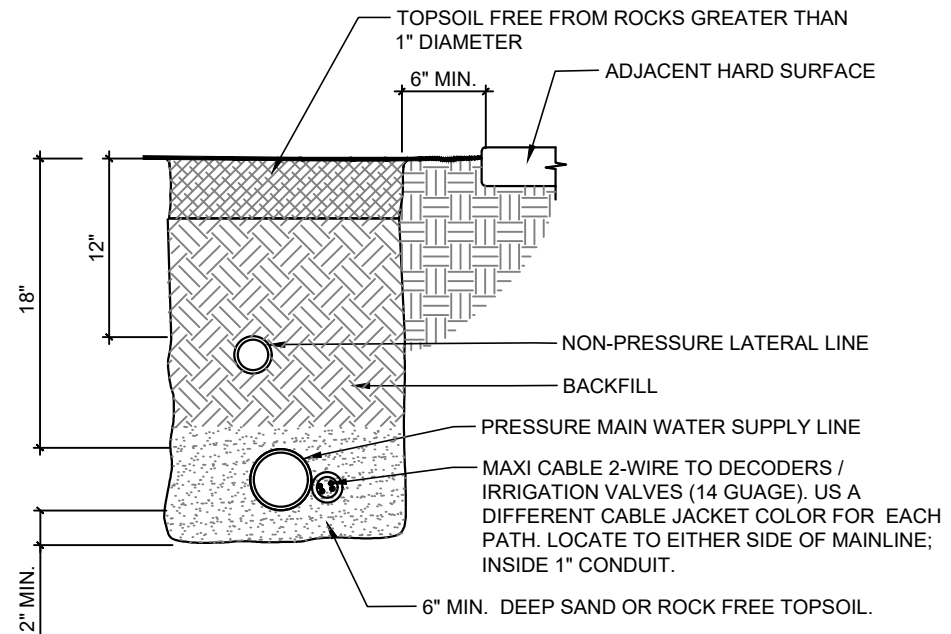
BINDING ORDER **25**

**WATER SERVICE KILL NOTES:**

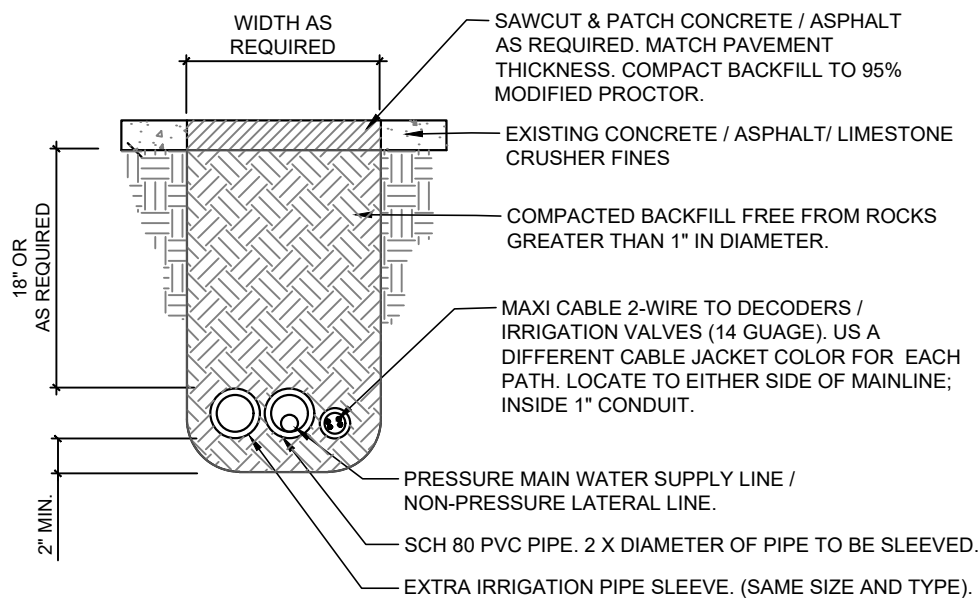
1. EXISTING PIPES ARE TO BE DISCONNECTED FROM THE WATER MAIN.
2. ALL WORK TO MEET REQUIREMENTS AND STANDARD SPECIFICATIONS OF S.L.C. PUBLIC UTILITIES AND /OR OTHER GOVERNING AGENCIES.
3. RESTORE CONSTRUCTION SITE TO MATCH SURROUNDING AREA. ANY DAMAGE TO ADJACENT FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE PROPERTY OWNERS SATISFACTION.
4. ALL WORK TO BE INSPECTED PRIOR TO BACKFILL BY S.L.C. PUBLIC UTILITIES.



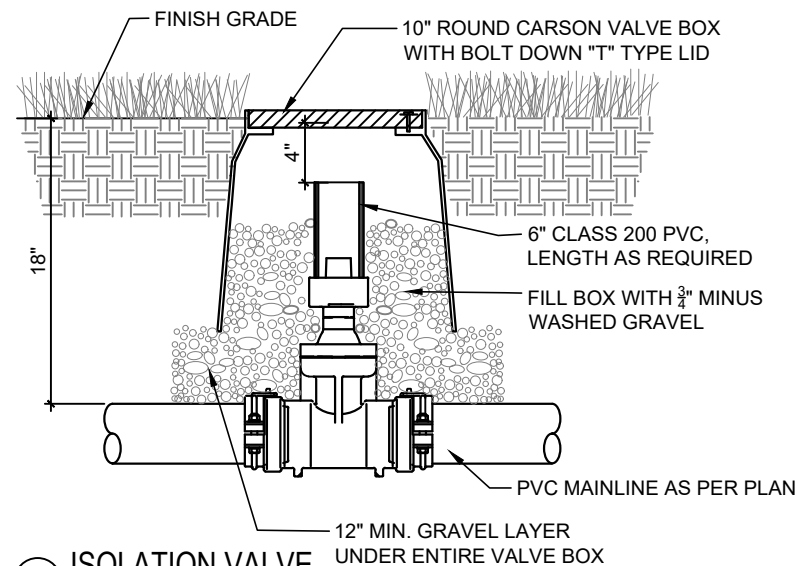
**A WATER SERVICE KILL**  
N.T.S.



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



**C IRRIGATION PIPE SLEEVING**  
N.T.S.



**D ISOLATION VALVE**  
N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

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**ENGINEERING**

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**SEPTEMBER 2019**

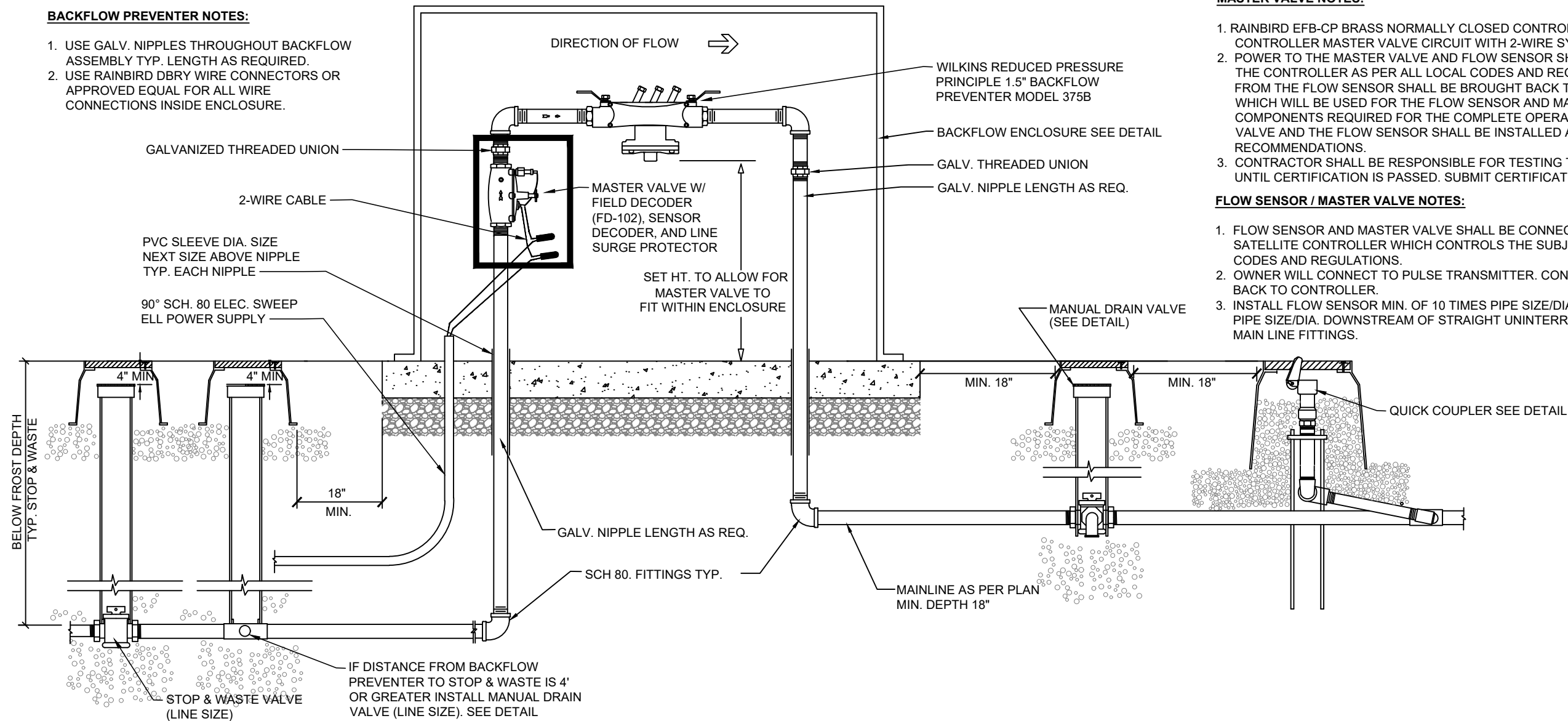
SHEET TITLE:  
**LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER:  
**DT 513**

BINDING ORDER **26**

**BACKFLOW PREVENTER NOTES:**

1. USE GALV. NIPPLES THROUGHOUT BACKFLOW ASSEMBLY TYP. LENGTH AS REQUIRED.
2. USE RAINBIRD DBRY WIRE CONNECTORS OR APPROVED EQUAL FOR ALL WIRE CONNECTIONS INSIDE ENCLOSURE.



**MASTER VALVE NOTES:**

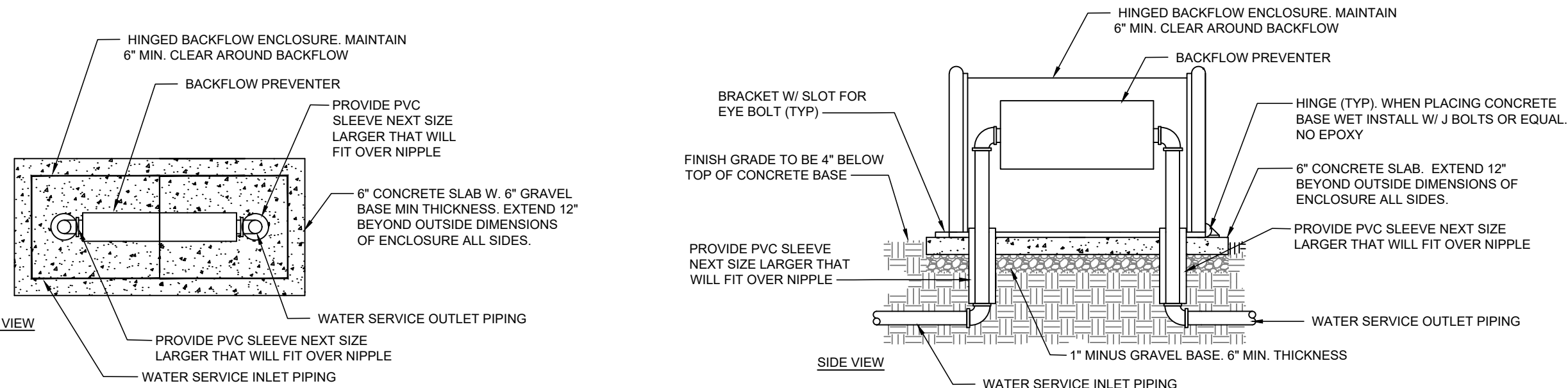
1. RAINBIRD EFB-CP BRASS NORMALLY CLOSED CONTROL VALVE CONNECTED TO CONTROLLER MASTER VALVE CIRCUIT WITH 2-WIRE SYSTEM.
2. POWER TO THE MASTER VALVE AND FLOW SENSOR SHALL BE BROUGHT FROM THE CONTROLLER AS PER ALL LOCAL CODES AND REGULATIONS. 2-WIRE CABLE FROM THE FLOW SENSOR SHALL BE BROUGHT BACK TO THE CONTROLLER, WHICH WILL BE USED FOR THE FLOW SENSOR AND MASTER VALVE. ALL COMPONENTS REQUIRED FOR THE COMPLETE OPERATION OF THE MASTER VALVE AND THE FLOW SENSOR SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING THE BACKFLOW ASSEMBLY UNTIL CERTIFICATION IS PASSED. SUBMIT CERTIFICATION SHEETS TO OWNER.

**FLOW SENSOR / MASTER VALVE NOTES:**

1. FLOW SENSOR AND MASTER VALVE SHALL BE CONNECTED TO THE CLOSEST SATELLITE CONTROLLER WHICH CONTROLS THE SUBJECT AREA PER ALL LOCAL CODES AND REGULATIONS.
2. OWNER WILL CONNECT TO PULSE TRANSMITTER. CONTRACTOR TO BRING WIRE BACK TO CONTROLLER.
3. INSTALL FLOW SENSOR MIN. OF 10 TIMES PIPE SIZE/DIA. UPSTREAM AND 5 TIMES PIPE SIZE/DIA. DOWNSTREAM OF STRAIGHT UNINTERRUPTED FLOW FROM ANY MAIN LINE FITTINGS.

**A BACKFLOW PREVENTER / MASTER VALVE FOR MAXICOM AND IQ CONVENTIONAL SYSTEMS**

N.T.S.



**B BACKFLOW ENCLOSURE DETAIL**

N.T.S.

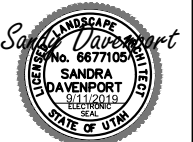
PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING

349 South 200 East, Suite 100  
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Phone: (801)535-6157

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DRAWN BY: S. DAVENPORT  
CHECKED BY: C. SANDS  
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SEPTEMBER 2019

SHEET TITLE:  
**LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER:  
**DT 514**

BINDING ORDER **27**

**IRRIGATION CONTROLLER NOTES:**

CONTRACTOR SHALL SUPPLY THE FOLLOWING ITEMS WHICH WILL BE INSTALLED BY THE CONTRACTOR, ALL OTHER ITEMS FOR THE COMPLETE AND OPERATIONAL IRRIGATION SYSTEM SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR:

1. RAINBIRD IQ ESP-LXD SERIES 2-WIRE DECODER IRRIGATION CONTROLLER.
2. RAIN BIRD IQ ANTENNA PART NO. 4640 EXTERNAL ANTENNA.
3. RAIN BIRD IQ CELL CARTRIDGE PART NO. IQ4613B-IQ-NCC-GP WITH SERVICE (WITH RAINBIRD SIM CARD).
4. PT322 PULSE TRANSMITTER AS REQUIRED IF 1" FLOW SENSOR IS USED.
5. AG2401C3 SURGE ARRESTOR.
6. IQ EXPANSION STATION MODULES AS NEEDED FOR CONTROLLER
7. BLANK BACK PAN FROM ENCLOSURE.
8. 5 POSITION BUSS BAR (FOR GROUNDING).

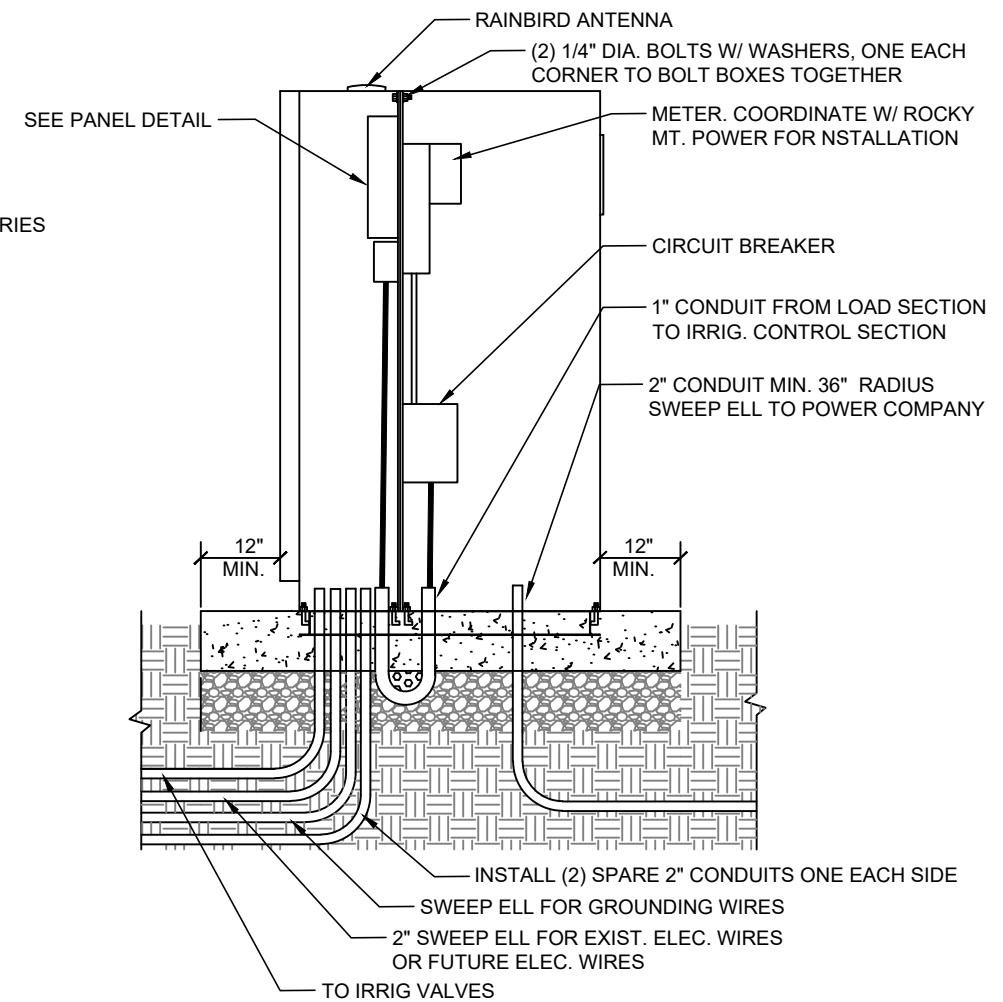
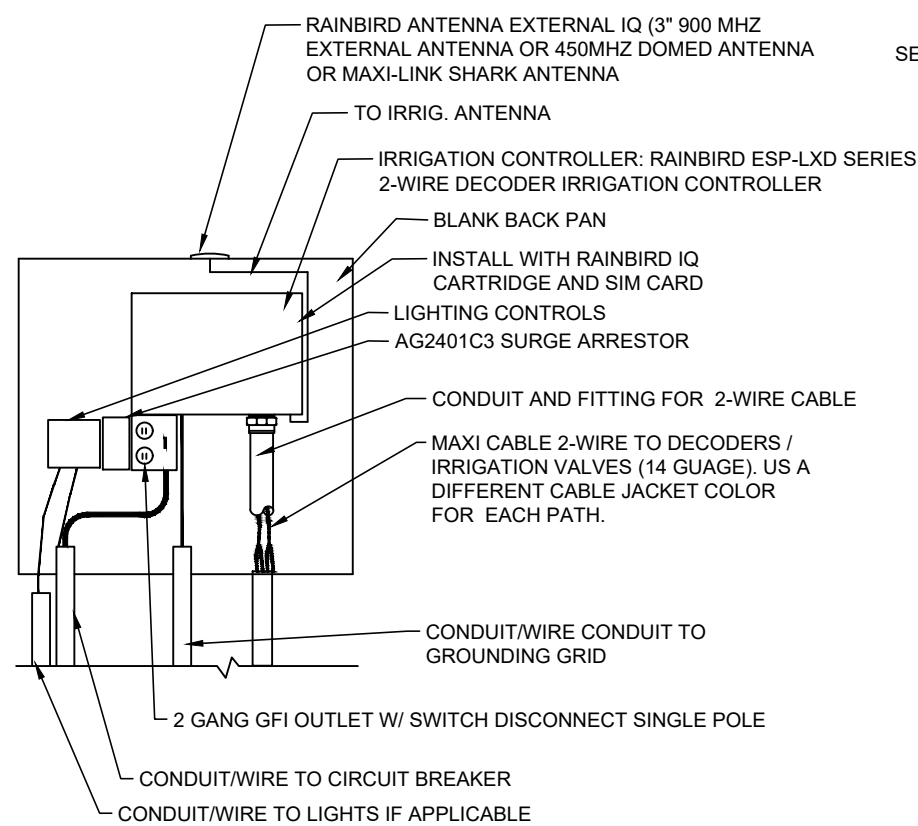
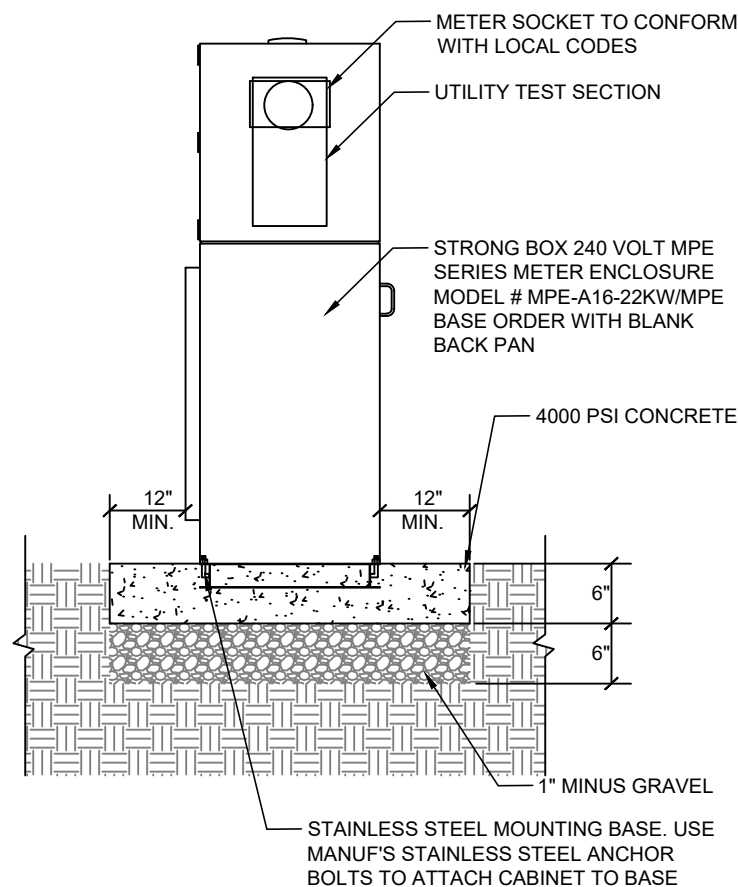
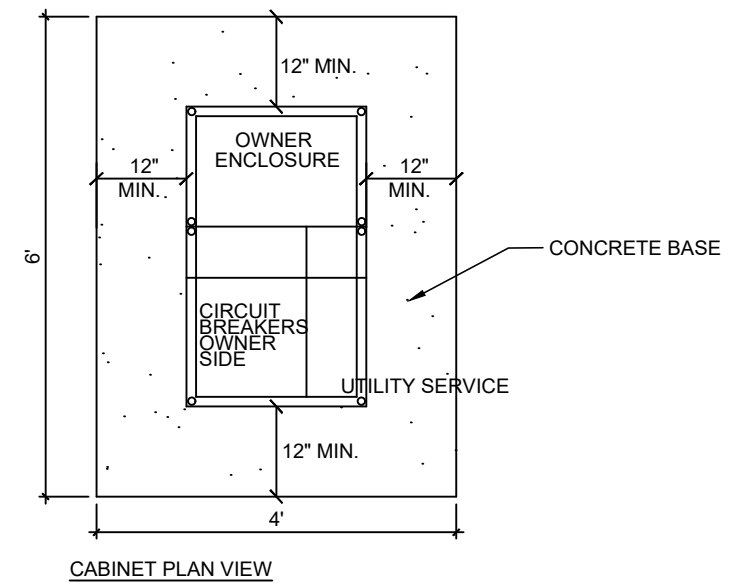
**IRRIGATION PANEL NOTES:**

1. FURNISH AND INSTALL (1) 2 POLE, 20 AMP. ELECTRICALLY HELD CONTACTOR.

**GENERAL NOTES:**

1. NEW STRONG BOX PANEL ENCLOSURE MODEL # MPE-A16-22KW / MPE AND NEW PANEL ON ONE SIDE WITH NEW IRRIGATION CONTROLLER, GFI OUTLET, SURGE ARRESTOR, AND DOMED ANTENNA, TO BE MOUNTED ON TOP OF ENCLOSURE .
2. CONTRACTOR TO COORDINATE INSTALLATION OF ELEC. METER W/ ROCKY MTN. POWER.
3. CONTRACTOR SHALL INSTALL LIGHTING CONTROL AND WIRES TO NEW ENCLOSURE IF APPLICABLE.
4. CONTRACTOR SHALL SUPPLY AND INSTALL GROUNDING GRID FOR IRRIGATION CONTROLLER AS PER DETAIL AND MANUFACTURES SPECIFICATIONS.
5. CONTRACTOR SHALL TIE GROUNDING FROM UTILITY TO GROUNDING FROM IRRIGATION UTILITY TO BE NEC COMPLIANT.
6. CONTRACTOR SHALL INSTALL LONG SWEEP ELLS FOR ALL WIRES, SIZE AS SHOWN.
7. CONTRACTOR SHALL HOOK UP ALL 120V & 240V WIRING.
8. ORIENTATION OF ENCLOSURE TO BE APPROVED BY OWNER PRIOR TO PLACEMENT.
9. CONTRACTOR MUST COORDINATE WITH OWNER TO TEST AND VERIFY PROPER INSTALLATION TO RAINBIRD SPECIFICATIONS FOR GROUNDING REQUIREMENTS OF 10 OHM OR LESS BEFORE FINAL WALK THROUGH BY AN AUTHORIZED SERVICE PROVIDER.

PANEL "A" VOLTAGE 120 / 240 VOLTS, 1 PHASE, 3 WIRE, BLANK BACK PANEL, SURFACE MOUNT, BOLT ON BREAKER, MAIN 100A MLO A.I.C. 10,000 SERIES RATED 22K



**IRRIGATION CONTROLLER (MAXICOM) PANEL ENCLOSURE DETAIL**

A

N.T.S.

PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**  
ENGINEERING

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PREPARER #: BIO-WEST, INC.  
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**SEPTEMBER 2019**

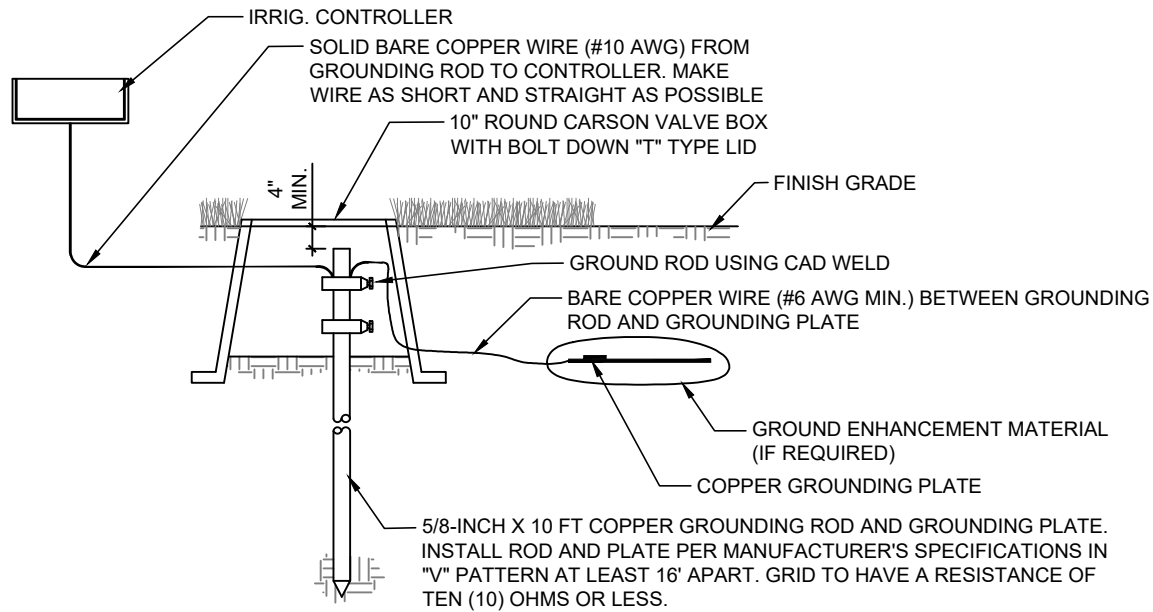
SHEET TITLE:  
**LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER:  
**DT 515**

BINDING ORDER **28**

**IRRIGATION CONTROLLER GROUNDING NOTES:**

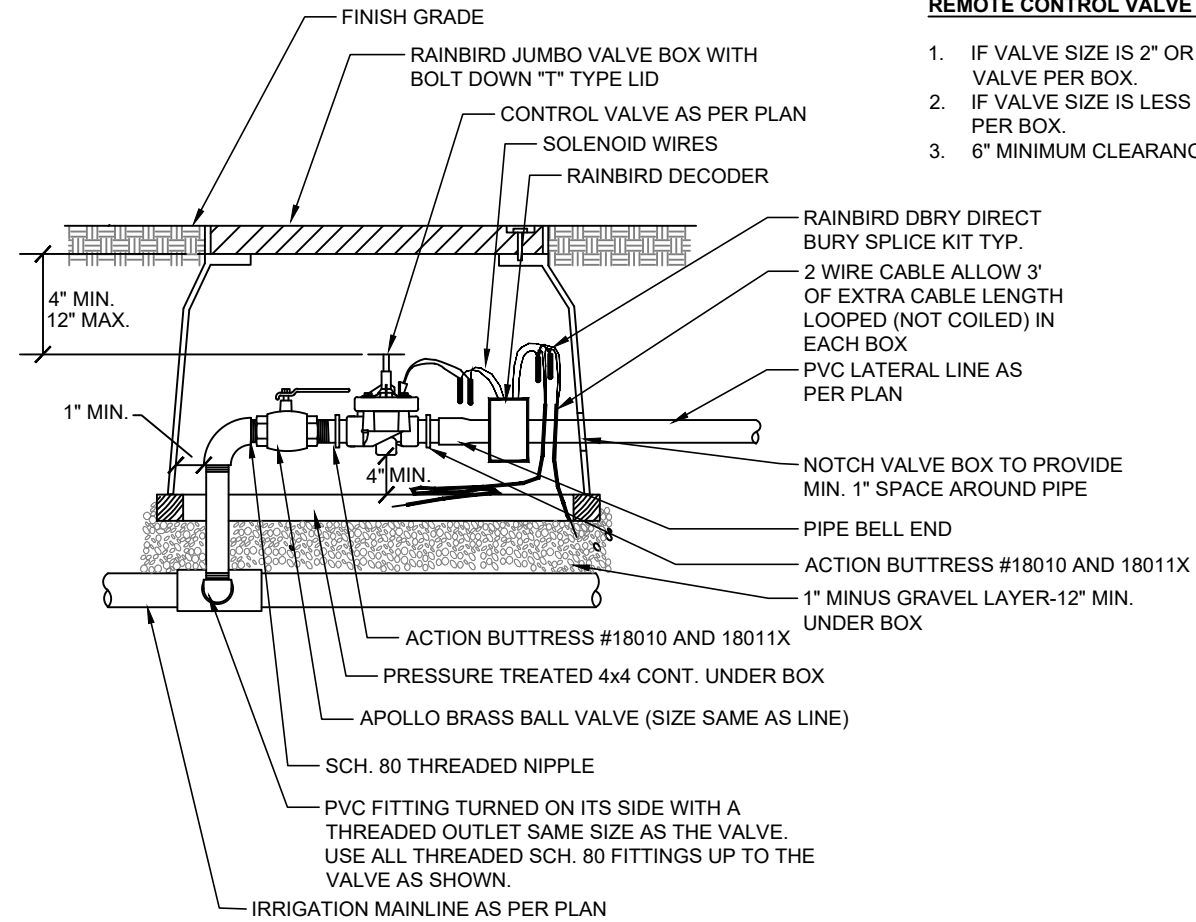
1. REQUIRED GROUNDING KIT CONSISTS OF GROUNDING ROD, COPPER GROUND PLATE, AND EXOTHERMIC WELD CONNECTION.
2. CONTRACTOR TO TIE EXIST. UTILITY GROUND TO NEW IRRIGATION GROUND TO MEET NEC COMPLIANCE.
3. DO NOT BACK FILL OVER GROUND PLATE UNTIL INSPECTED BY OWNER.
4. BEFORE FINAL INSPECTION CONTRACTOR SHALL PERFORM WITH OWNER PRESENT TESTING AND VERIFICATION OF PROPER INSTALLATION TO RAINBIRD SPECIFICATIONS ALL GROUNDING (INCLUDING 2 WIRE PATH AND MASTER VALVE) FOR ACCEPTANCE. TESTING MUST READ 10 OHMS OR LESS. TESTING AND DOCUMENTATION SHALL BE DONE BY AN AUTHORIZED SERVICE PROVIDER.



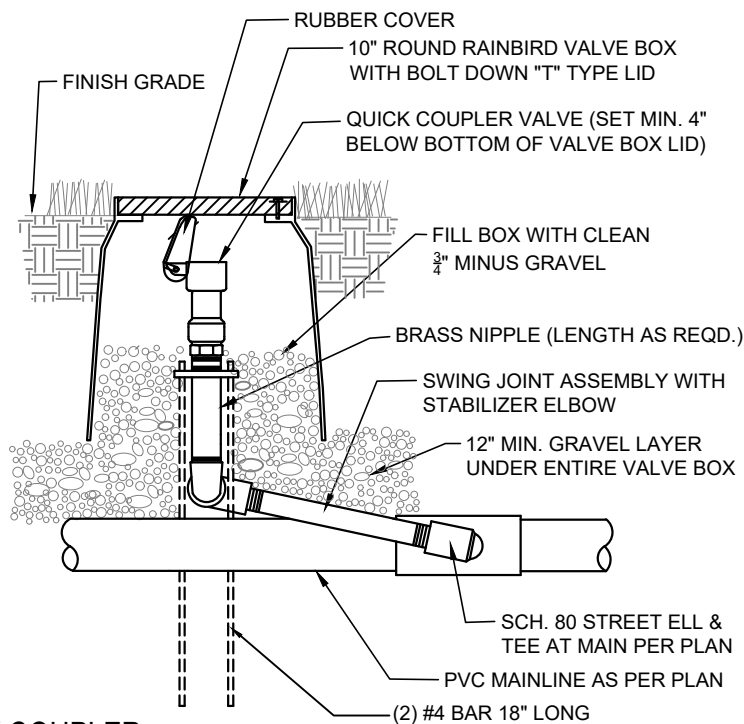
**A** IRRIGATION CONTROLLER GROUNDING DETAIL  
N.T.S.

**REMOTE CONTROL VALVE NOTES:**

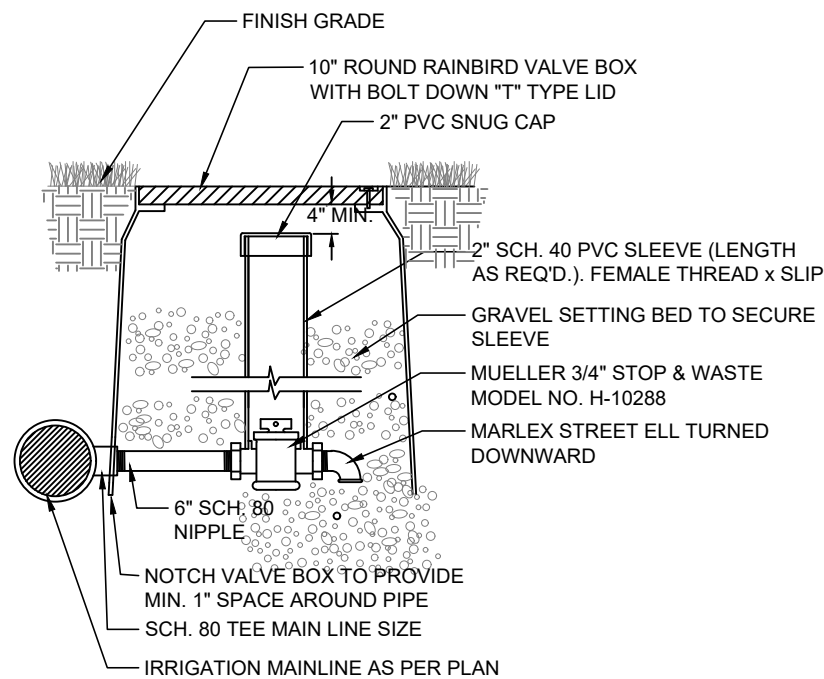
1. IF VALVE SIZE IS 2" OR GREATER INSTALL ONE VALVE PER BOX.
2. IF VALVE SIZE IS LESS THAN 2" INSTALL (2) VALVES PER BOX.
3. 6" MINIMUM CLEARANCE BETWEEN VALVES.



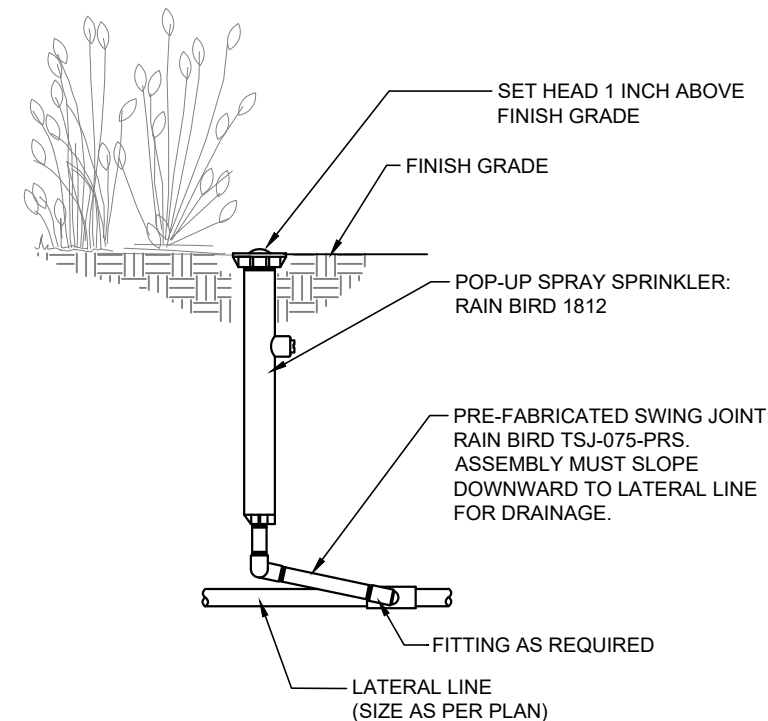
**B** IRRIGATION CONTROL VALVE  
N.T.S.



**C** QUICK COUPLER  
N.T.S.



**D** MANUAL DRAIN VALVE - MAIN LINE  
N.T.S.



**E** 12 INCH POP-UP ROTARY SPRAY ON S.J. ASSEMBLY  
N.T.S.

PREPARED BY:



PREPARED CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

**THREE CREEKS CONFLUENCE**

PROJECT OWNER:

**SALT LAKE CITY CORPORATION**

ENGINEERING  
349 South 200 East, Suite 100  
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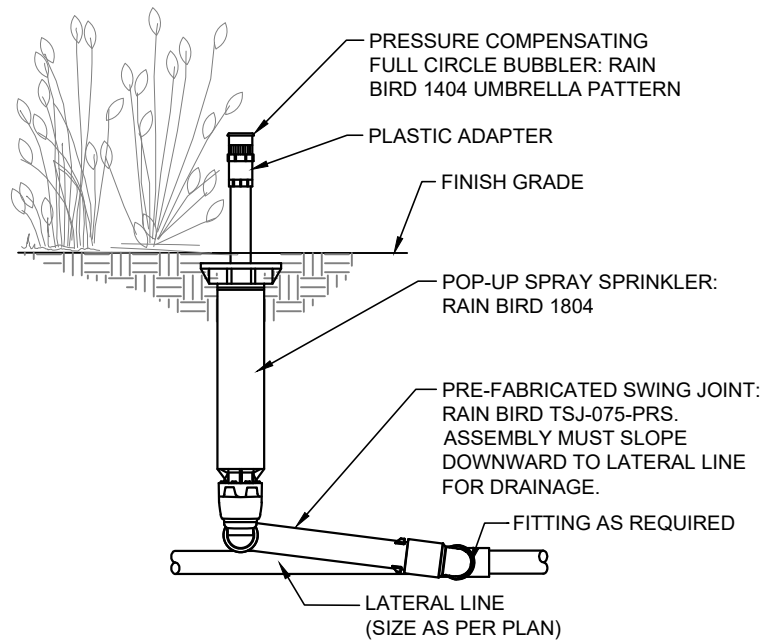
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COPYRIGHT:  
SEPTEMBER 2019

SHEET TITLE:  
**LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER:  
**DT 516**

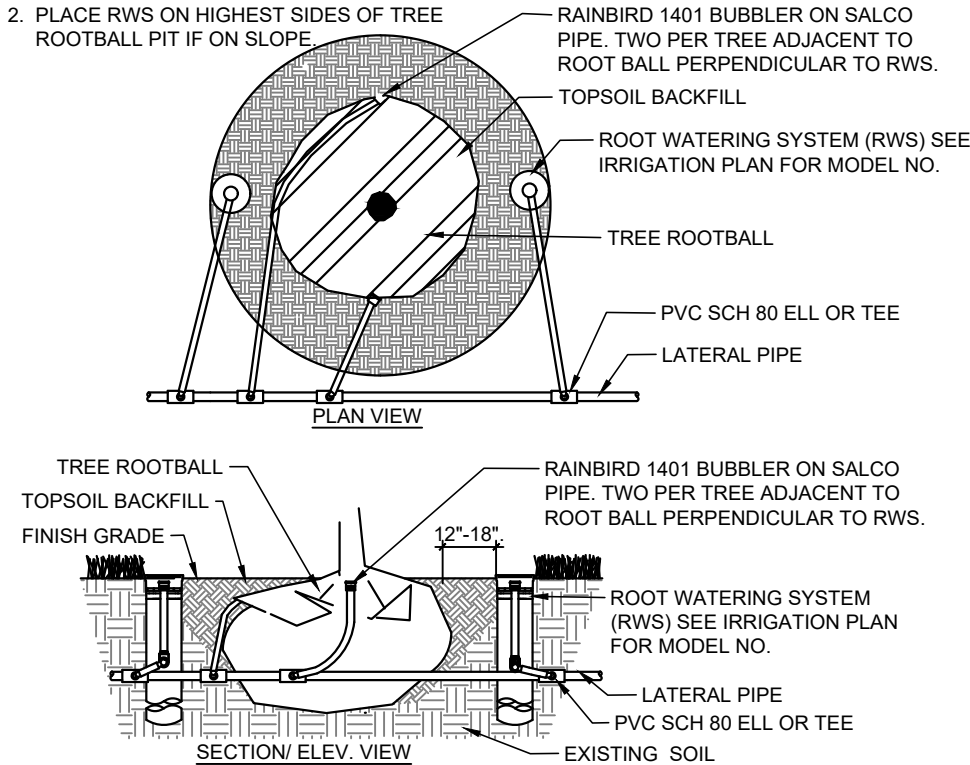
BINDING ORDER **29**



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

**ROOT WATERING SYSTEM NOTES:**

1. TWO RWS PER TREE TYP. EQUALLY SPACED.
2. PLACE RWS ON HIGHEST SIDES OF TREE ROOTBALL PIT IF ON SLOPE.



**B** ROOT WATERING SYSTEM  
N.T.S.

MARK	DATE	DESCRIPTION

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SEPTEMBER 2019

SHEET TITLE:  
**LANDSCAPE IRRIGATION DETAILS**

SHEET IDENTIFIER:  
**DT 517**  
BINDING ORDER **30**

## 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.:

### AASHTO DESIGN LOADS

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

### SNOW LOAD:

GROUND SNOW LOAD . . . . . Pg = 43 PSF  
 SNOW IMPORTANCE FACTOR . . . . . Is = 1.00  
 SNOW EXPOSURE FACTOR . . . . . Ce = 1.00  
 SNOW THERMAL FACTOR . . . . . Ct = 1.2  
 FLAT SNOW LOAD . . . . . Pf = 36 PSF

### WIND:

BASIC WIND SPEED . . . . . V = 115 MPH  
 WIND IMPORTANCE FACTOR . . . . . Iw = 1.00  
 WIND EXPOSURE . . . . . C

### SEISMIC:

OCCUPANCY CATEGORY . . . . . II  
 SEISMIC IMPORTANCE FACTOR . . . . . IE = 1.00  
 SPECTRAL RESPONSE ACCELERATION . . SS = 1.574  
 SPECTRAL RESPONSE ACCELERATION . . S1 = .553  
 SEISMIC SOIL SITE CLASS . . . . . F  
 SPECTRAL RESPONSE COEFFICIENT . . . SDS = .944  
 SPECTRAL RESPONSE COEFFICIENT . . . SD1 = .844  
 SEISMIC DESIGN CATEGORY . . . . . D

## 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

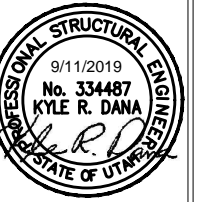
## CONCRETE

- 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: 4500 PSI  
 SLUMP: 4 INCH + 1 INCH.  
 MAX. WATER/CEMENT RATIO: 0.44
- 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.

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**THREE CREEKS  
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 SPACE  
 REACTIVATION AND  
 RIPARIAN  
 RESTORATION**

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MARK	DATE	DESCRIPTION

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 CONTRACT #:  
 PROJECT #: 300124  
 BW PN #: 2011  
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 NOTES**

SHEET IDENTIFIER:  
**S 000**  
 BINDING ORDER **31**

## REINFORCING STEEL

1. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH BP-66(04): ACI DETAILING MANUAL - 2011, ACI 350-11, AND ACI 318-14.
2. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND ASTM A185.
3. ALL REINFORCEMENT SHALL BE SECURELY TIED AND HELD IN PLACE.
4. 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.
5. 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.
6. THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:
  - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
  - B. ALL OTHER CONCRETE: 2"
7. PRIOR TO FABRICATION AND PLACEMENT, SHOP DRAWINGS FOR ALL REINFORCING STEEL SHALL BE REVIEWED BY THE ENGINEER.
8. 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.
9. ALL BENDS, UNLESS OTHERWISE SHOWN, SHALL BE A 90 DEGREE STANDARD HOOK. REFER TO STANDARD CONCRETE HOOK DETAILS.
10. 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

1. FOLLOW RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347).
2. 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:

1. PRE-ENGINEERED, PRE-MANUFACTURER STEEL BRIDGE.
2. ANCHOR BOLTS.
3. REINFORCING STEEL.

## STRUCTURAL STEEL

1. 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.
2. 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.
3. ALL ASTM A325 BOLTING MATERIAL SHALL BE PROVIDED WITH CERTIFIED DIRECT TENSION INDICATOR WASHERS AND HARDENED WASHERS FOR FIELD BOLTED CONNECTIONS.

## ANCHOR BOLTS

1. CONCRETE ANCHOR RODS SHALL MEET THE QUALITY OF ASTM F1554 GRADE 55 KSI, GALVANIZED (ASTM A153, CLASS C) RODS AND SHALL HAVE A STANDARD HEX HEAD OR AN EQUAL DEFORMITY IN THE EMBEDDED PORTION.

## POST-INSTALLED ANCHORS

1. 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.
2. ANCHORAGE TO CONCRETE
  - ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
    - (A) HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HIT-Z ROD PER ICC ESR-3187.
3. REBAR DOWELING INTO CONCRETE
  - (A) HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT SYSTEM WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187.
4. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
5. 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.

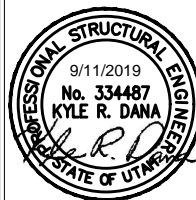
PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

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

PROJECT OWNER:

**SALT LAKE CITY  
CORPORATION**  
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CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
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**STRUCTURAL  
NOTES**

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**S 001**

BINDING ORDER **32**



## 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 3.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


## QUALITY ASSURANCE PLAN


- SPECIAL INSPECTION SHALL BE PROVIDED ACCORDING TO IBC CHAPTER 17 FOR THE ITEMS IDENTIFIED IN THIS SECTION AND ON THE CONTRACT DOCUMENTS.
- THE NAMES AND CREDENTIALS OF SPECIAL INSPECTORS TO BE USED SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT WHEN APPLYING FOR A BUILDING PERMIT.
- SPECIAL INSPECTION REPORTS SHALL BE DELIVERED TO THE OWNER BI-WEEKLY OR MORE FREQUENTLY AS REQUIRED BY THE INSPECTOR OR BUILDING OFFICIAL.
- OFF-SITE FABRICATION: WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATORS SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE IN ACCORDANCE WITH IBC SECTION 1704.2.5 UNLESS THE FABRICATOR IS APPROVED ACCORDING TO IBC SECTION 1704.2.5.1.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS SHALL BE PROVIDED IN ACCORDANCE WITH TABLE 1705.3.
- SOILS: SPECIAL INSPECTION SHALL BE PROVIDED FOR PLACEMENT OF FILL 12 INCHES OR MORE DEEP IN ACCORDANCE WITH SECTION 1705.6.
- EPOXY ANCHORS: PRIOR TO AND DURING EPOXY INJECTION TO INSURE PROPER INSTALLATION AS PER MANUFACTURERS REQUIREMENTS. CONTRACTOR SHALL SUBMIT PROPOSED EPOXY MANUFACTURERS I.C.B.O. REPORT TO ENGINEER PRIOR TO INSTALLATION.


## QUALITY ASSURANCE CONTRACTOR RESPONSIBILITY

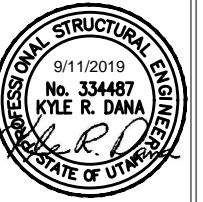
EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A COMPONENT LISTED IN THE QUALITY ASSURANCE PLAN SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND TO THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT IN ACCORDANCE WITH IBC SECTION 1704.4. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:

- ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE PLAN.
- ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
- IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THE POSITION(S) IN THE ORGANIZATION.

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

PROJECT OWNER:  
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MARK	DATE	DESCRIPTION

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 CONTRACT #:  
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**STRUCTURAL NOTES**

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**S 002**  
 BINDING ORDER **33**

REINFORCEMENT LAP LENGTHS				
CONCRETE DESIGN STRENGTH - 4500 PSI				
BAR SIZE	#3	#4	#5	#6
TOP BAR	1'-7"	2'-1"	2'-7"	3'-1"
OTHER BAR	1'-3"	1'-7"	2'-0"	2'-5"

**NOTES:**

- ALL REINFORCEMENT LAPS, UNLESS OTHERWISE NOTED, SHALL SATISFY THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE "REINFORCEMENT LAP LENGTHS."
- TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR, IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.

RECOMMENDED END HOOKS					
BAR SIZE	D	180° HOOKS		90° HOOKS	HOOK EMBED DEPTH
		A	B	A	
#3	2¼"	5"	3"	6"	8"
#4	3"	6"	4"	8"	10"
#5	3¾"	7"	5"	10"	13"
#6	4½"	8"	6"	1'-0"	16"

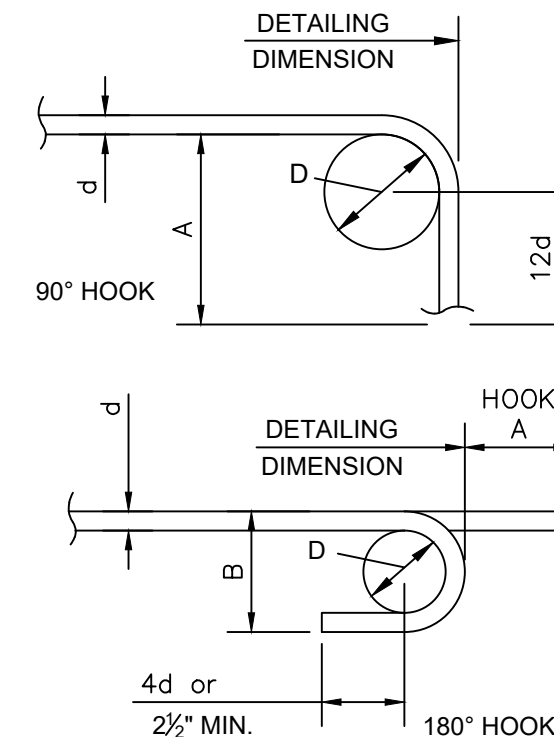
**STD. CONCRETE HOOK SCHEDULE**

(IN ACCORDANCE WITH ACI 318-14)

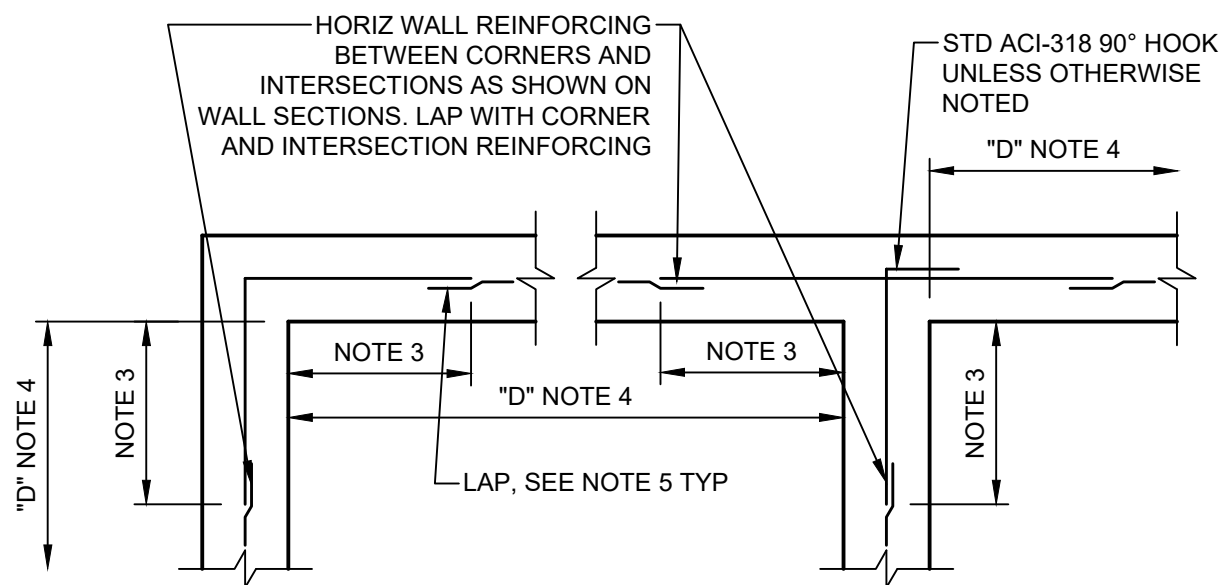
NOTE: EMBED BARS WITH HOOKS TO THE DEPTH SHOWN.

D = 6d FOR #3 THROUGH #8  
D = 8d FOR #9, #10 AND #11  
D = 10d FOR #14 AND #18

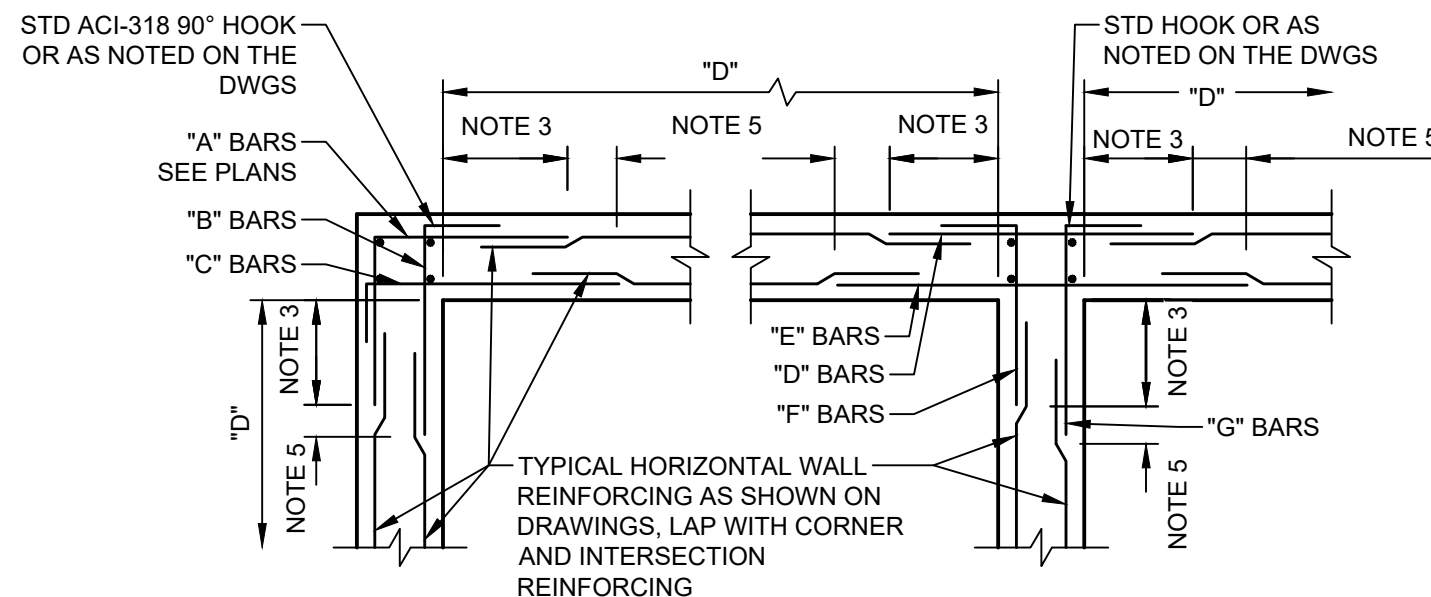
ALL GRADES OF STEEL (MIN. YIELD STRENGTHS)  
D = FINISHED INSIDE BEND DIAMETER  
d = BAR DIAMETER



**CONCRETE REINFORCEMENT LAP & DEVELOPMENT SCHEDULES**



**TYPICAL SINGLE MAT CORNER AND INTERSECTION REINFORCING**



**TYPICAL DOUBLE MAT CORNER AND INTERSECTION REINFORCING**

**NOTES FOR CORNER AND INTERSECTION REINFORCING DETAILS**

- TYPICAL HORIZONTAL WALL CORNER AND INTERSECTION REINFORCING LAYOUT IS SHOWN TO AVOID CONGESTION AND PERMIT PROPER PLACEMENT, FOR SIZE AND SPACING SEE PLANS. ALL HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS SHALL BE FABRICATED AND INSTALLED WITH SPLICES LOCATED WHERE SHOWN REGARDLESS OF BAR SIZE AND SPACING.
- WHERE THE CORNER OR INTERSECTION REINFORCING SIZE AND SPACING IS NOT SHOWN, NOTED OR TABULATED ON THE PLANS, THE SIZE AND SPACING SHALL BE THE SAME AS THE WALL HORIZONTAL REINFORCING SHOWN ON THE WALL SECTIONS OR AS NOTED FOR THE REINFORCING BETWEEN THE CORNERS OR INTERSECTIONS.
- EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 3" SHALL BE THE LESSER OF D/4, 10 FEET, OR 1.0 TIMES THE HEIGHT OF THE WALL, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN THE SPLICE LENGTH.
- D = LENGTH OF WALL PARALLEL TO THE BAR LENGTH IN QUESTION.
- EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 5" SHALL BE EQUAL TO ONE "LAP LENGTH" AS REQUIRED BY THE GENERAL STRUCTURAL NOTES. USE THE LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO REINFORCING BARS BEING SPLICED.
- HORIZONTAL BARS IN WALLS SHALL HAVE SPLICES STAGGERED ONE LAP LENGTH AS DEFINED IN NOTE 5.
- ALTERNATE SPLICE LOCATIONS OF HORIZONTAL BARS IN WALLS BETWEEN THE TWO CURTAINS SO THAT NO SPLICES AT THE SAME ELEVATION ARE LOCATED TOGETHER.

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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: D. BOUDRERO  
CHECKED BY: K. DANA  
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SHEET TITLE:  
**STRUCTURAL NOTES**

SHEET IDENTIFIER:  
**S 003**  
BINDING ORDER **34**

# MATERIALS TESTING

A. CONCRETE TESTS: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:

1. 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.

a. 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.

2. 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.

3. 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.

4. 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

5. 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.

6. COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M.

a. CAST AND LABORATORY CURE THREE SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.

b. CAST AND FIELD CURE THREE SETS OF TWO STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE.

7. 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.

a. 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.

b. 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:

1. 8" MAXIMUM LIFTS ON IMPORTED GRANULAR BORROW AS REQUIRED.

2. PROVIDE A MINIMUM OF (1) DENSITY TEST PER LIFT AT EACH BRIDGE FOOTING AND MINIMUM (1) TEST PER LIFT OF 25 FOOT SPACING FOR RETAINING WALL SUBGRADE PREPARATION.

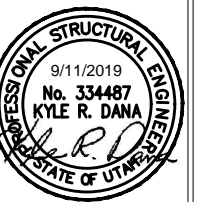
PREPARER:



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  
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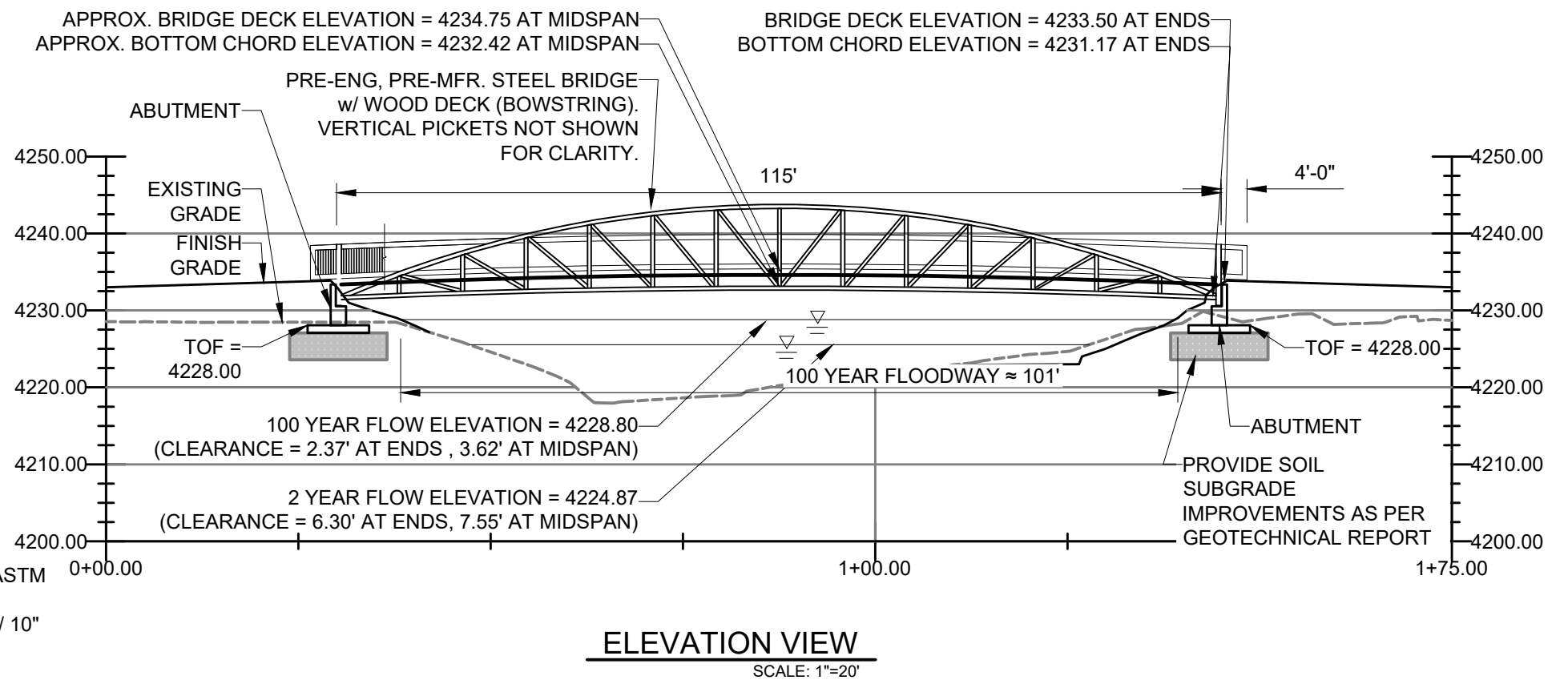
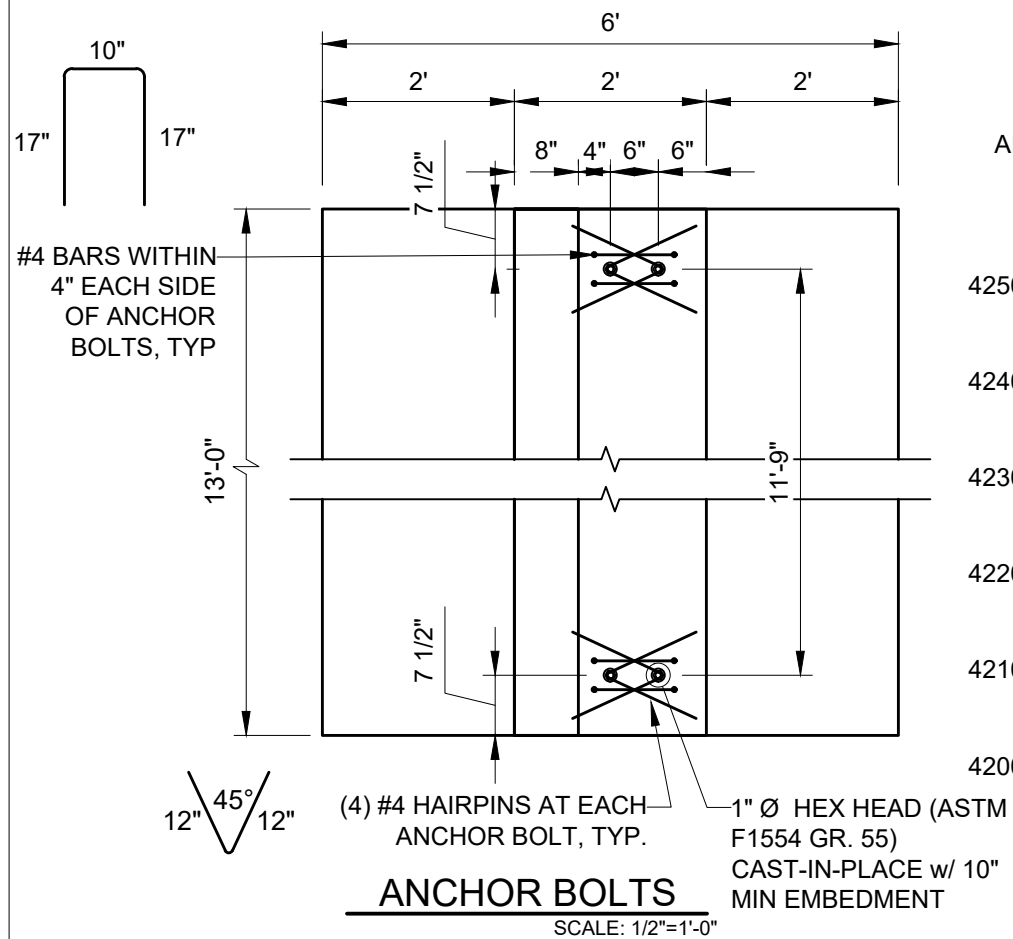
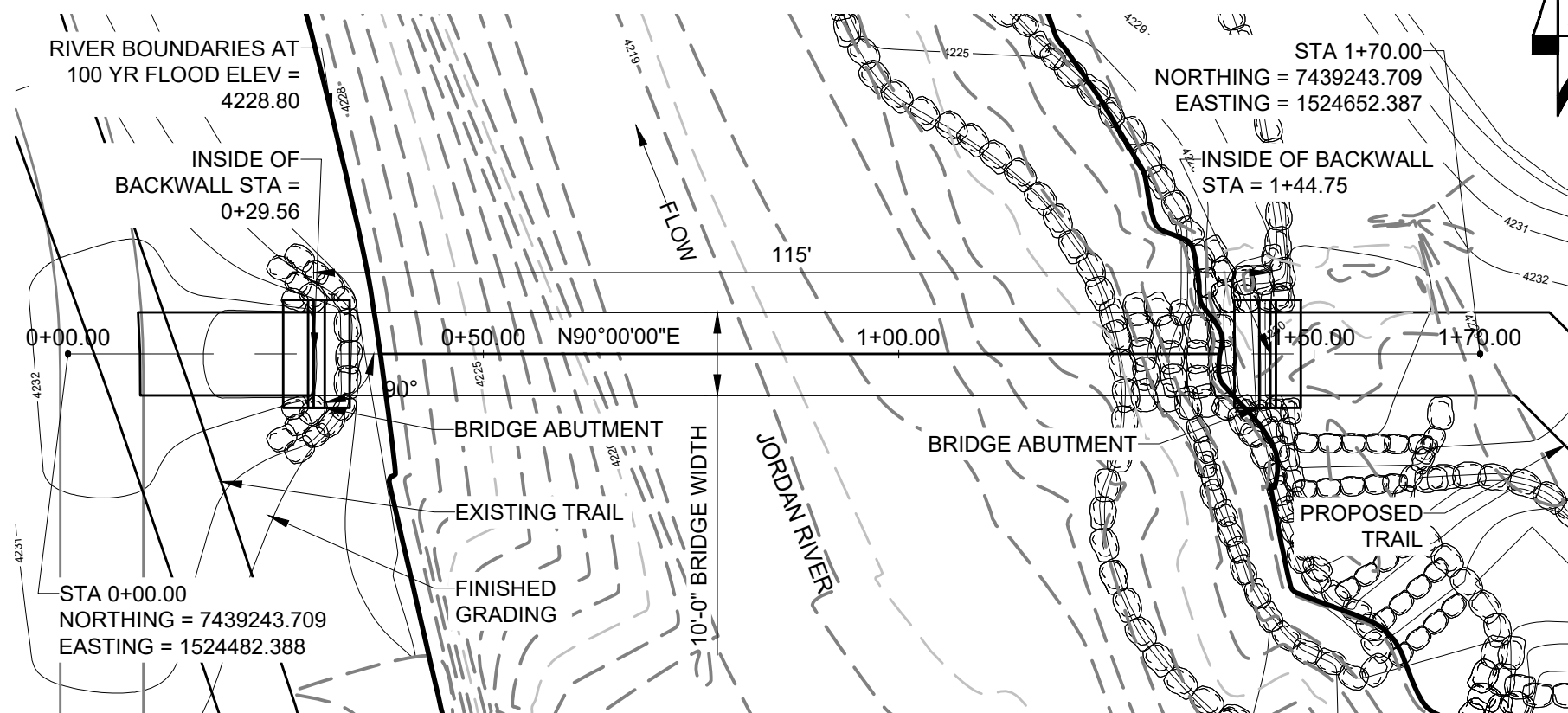
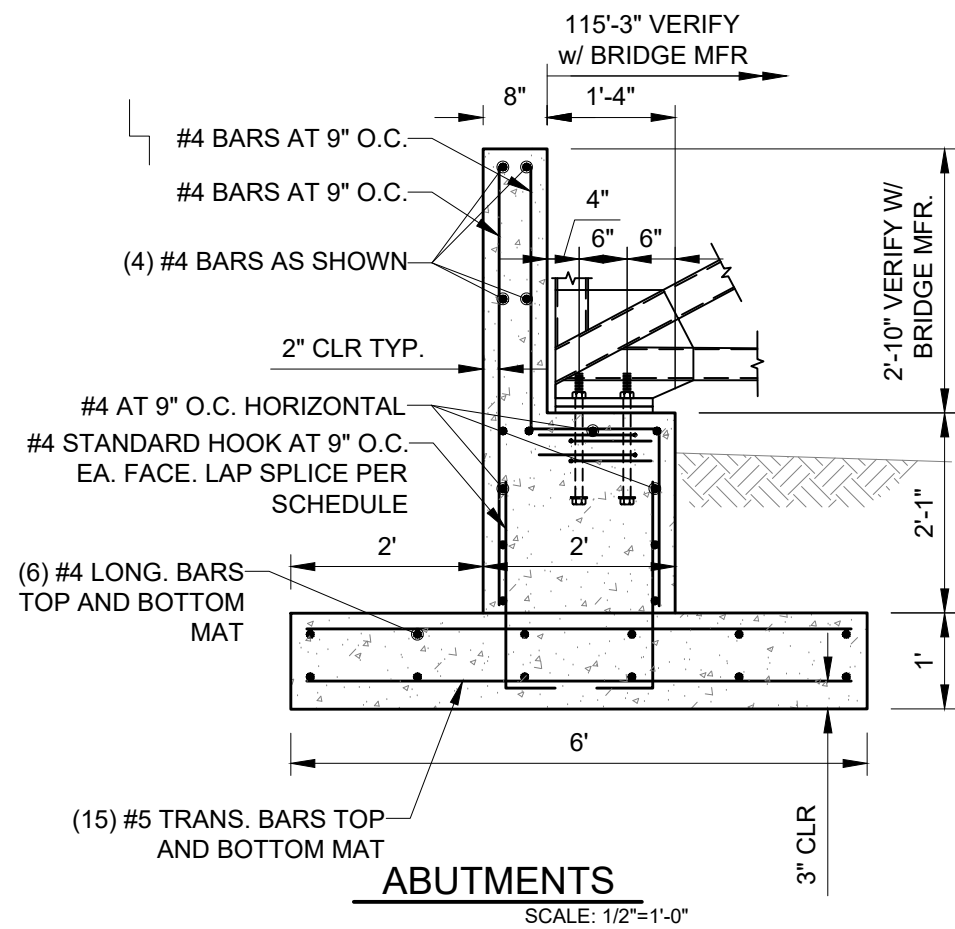
SHEET TITLE:

**STRUCTURAL  
NOTES**

SHEET IDENTIFIER:

**S 004**

BINDING ORDER **35**



PREPARER:  
BIO-WEST  
1863 West 1800 North • Logan, Utah 84321 • 435-752-4302

PREPARER CONSULTANTS:  
FORSGREEN Associates Inc.  
engineering stronger communities  
ALL RED RESTORATION

PROFESSIONAL SEAL:  
9/11/2019  
No. 334487  
KYLE R. DANA  
STATE OF UTAH

PROJECT IDENTIFICATION:

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

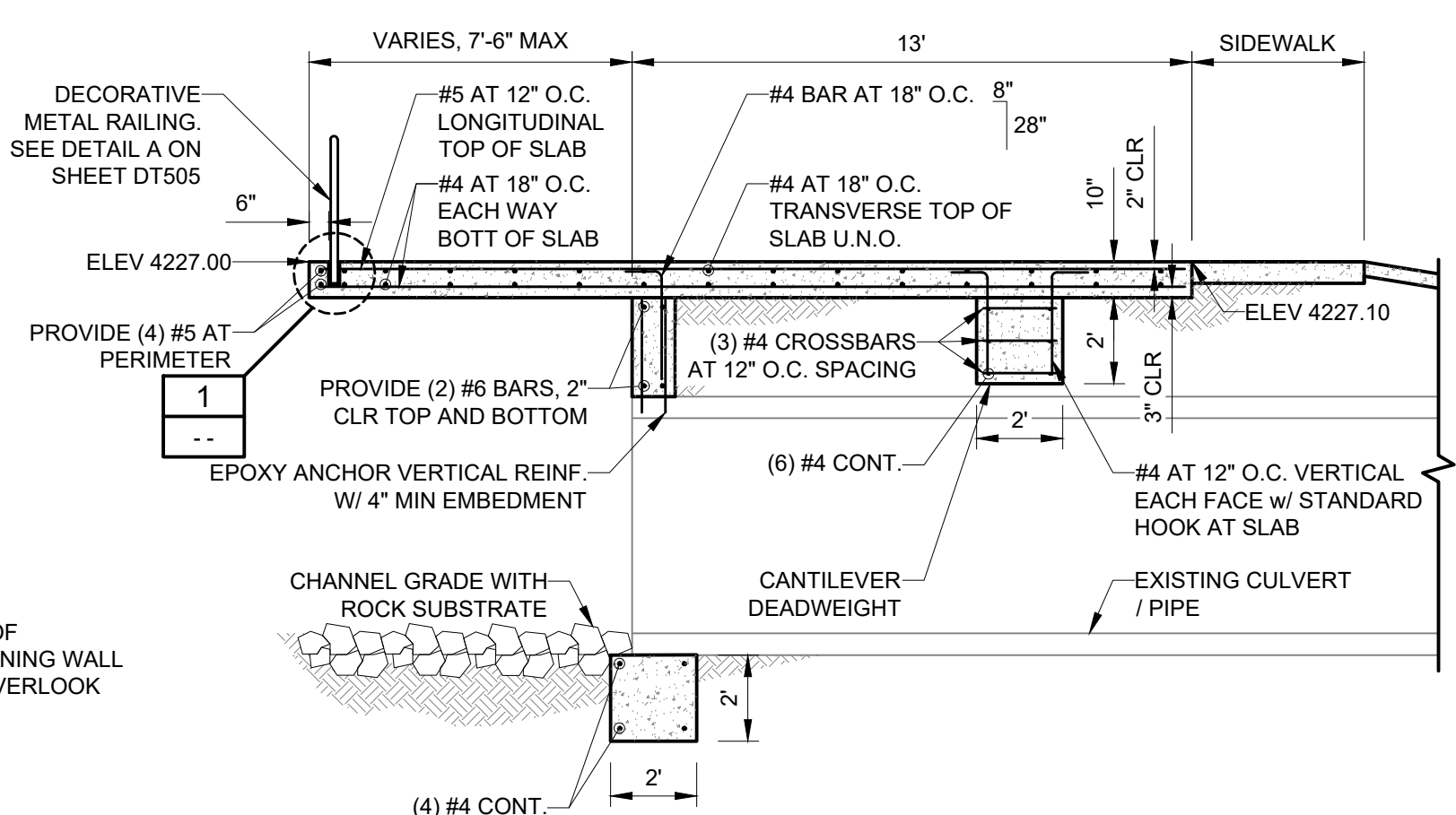
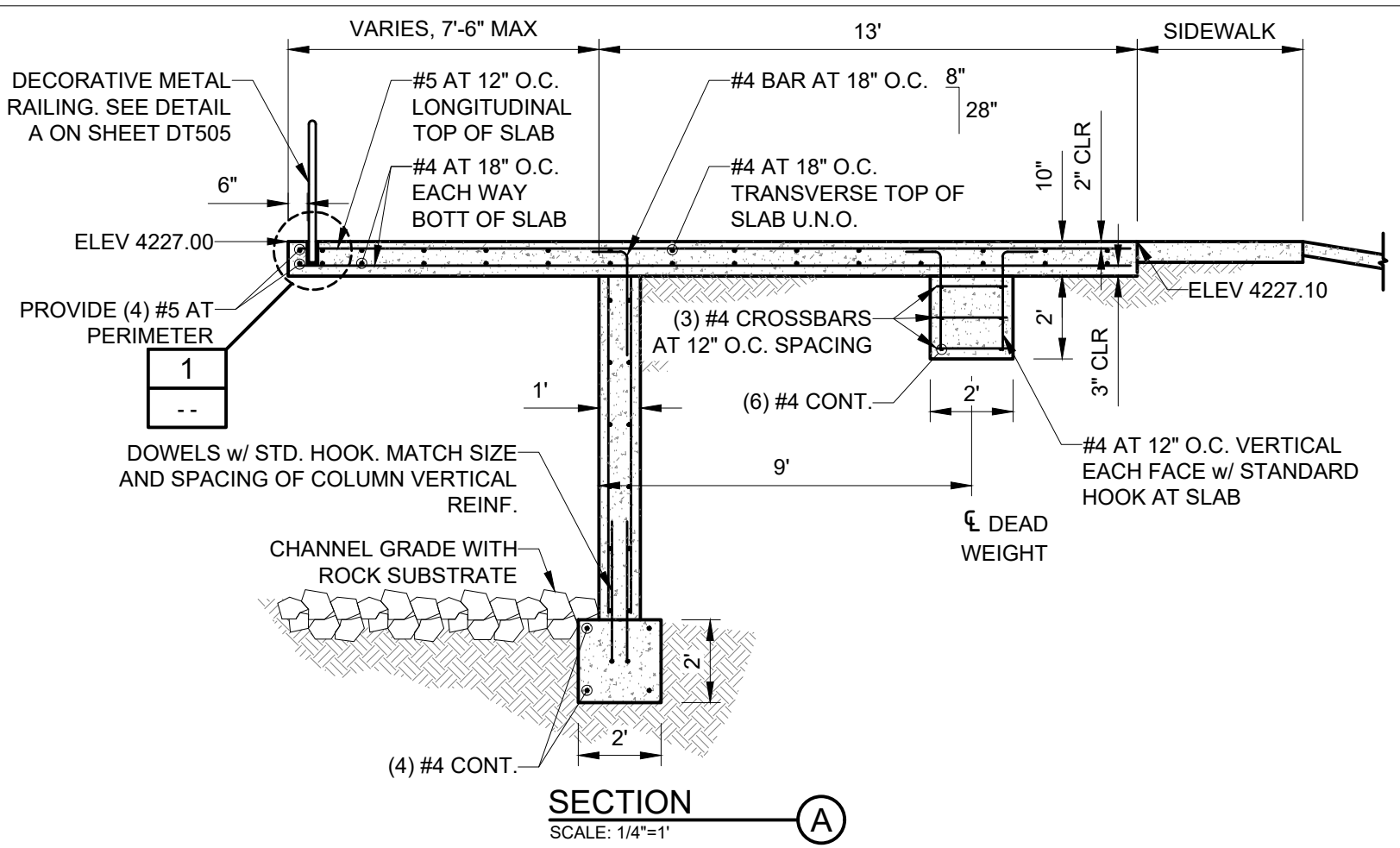
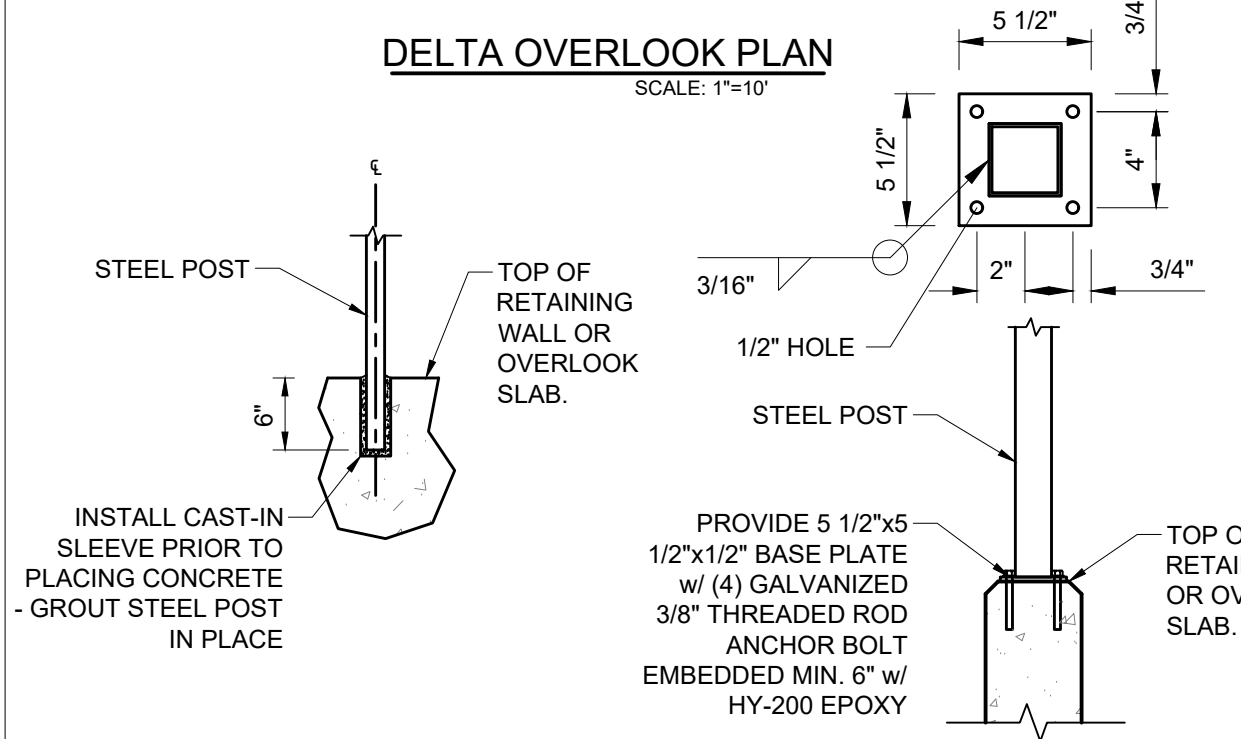
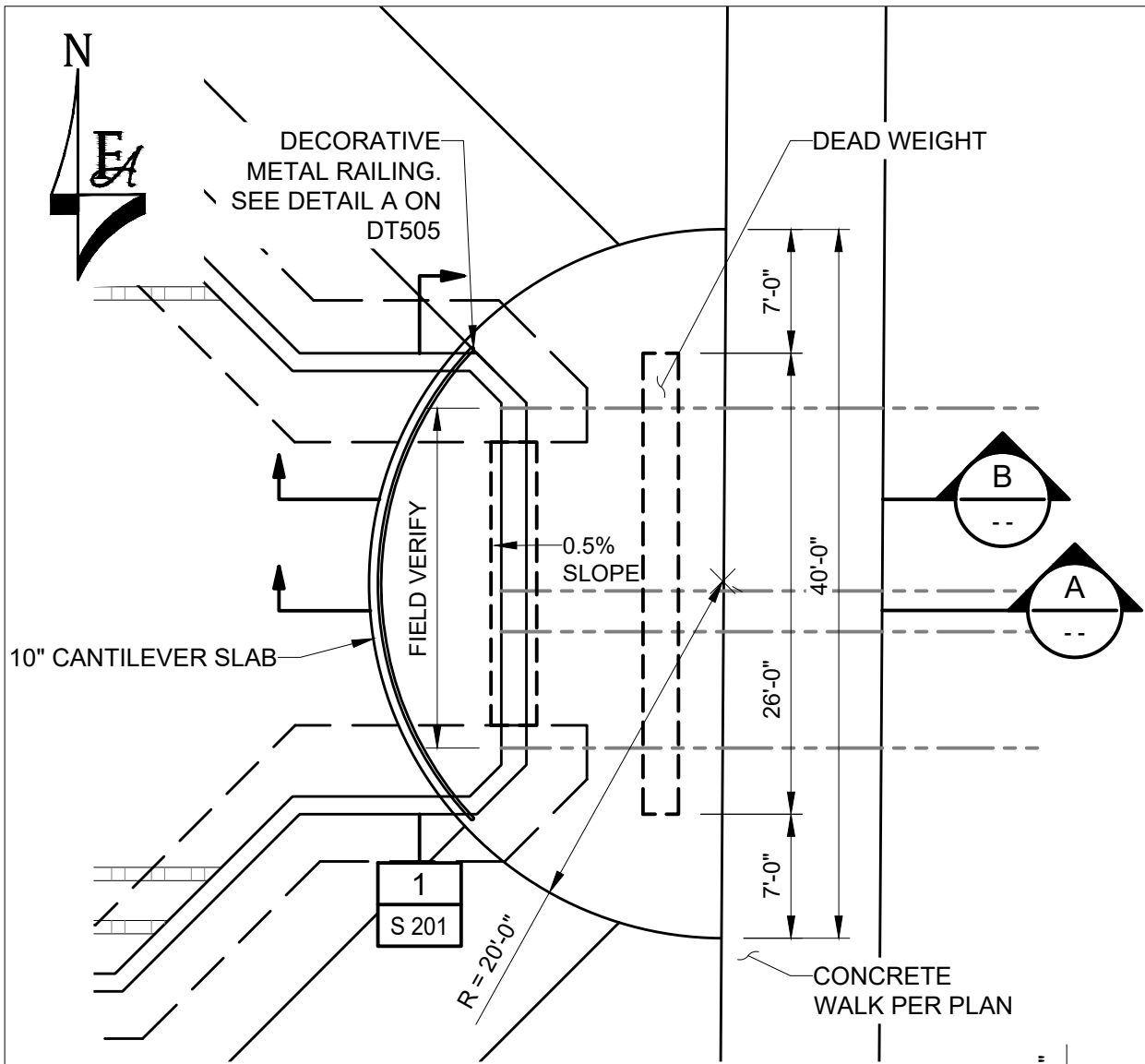
PROJECT OWNER:  
**SALT LAKE CITY  
CORPORATION**  
ENGINEERING  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: D. BOUDRERO  
CHECKED BY: K. DANA  
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SHEET TITLE:  
**PEDESTRIAN  
BRIDGE**

SHEET IDENTIFIER:  
**S 100**  
BINDING ORDER **36**



HANDRAIL EMBEDMENT  
SCALE: 3/8" = 1'-0" **1A**

ALTERNATIVE - SURFACE MOUNT  
SCALE: 3/8" = 1'-0" **1B**

SECTION  
SCALE: 1/4"=1' **B**

PREPARER: **BIO-WEST**  
1065 West 1800 North • Logan, Utah 84321 • 435-752-4202

PREPARER CONSULTANTS:  
**FORSGREEN Associates Inc.**  
engineering stronger communities  
**ALL RED RESTORATION**

PROFESSIONAL SEAL:  
9/11/2019  
No. 334487  
KYLE R. DANA  
Professional Engineer  
STATE OF UTAH

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

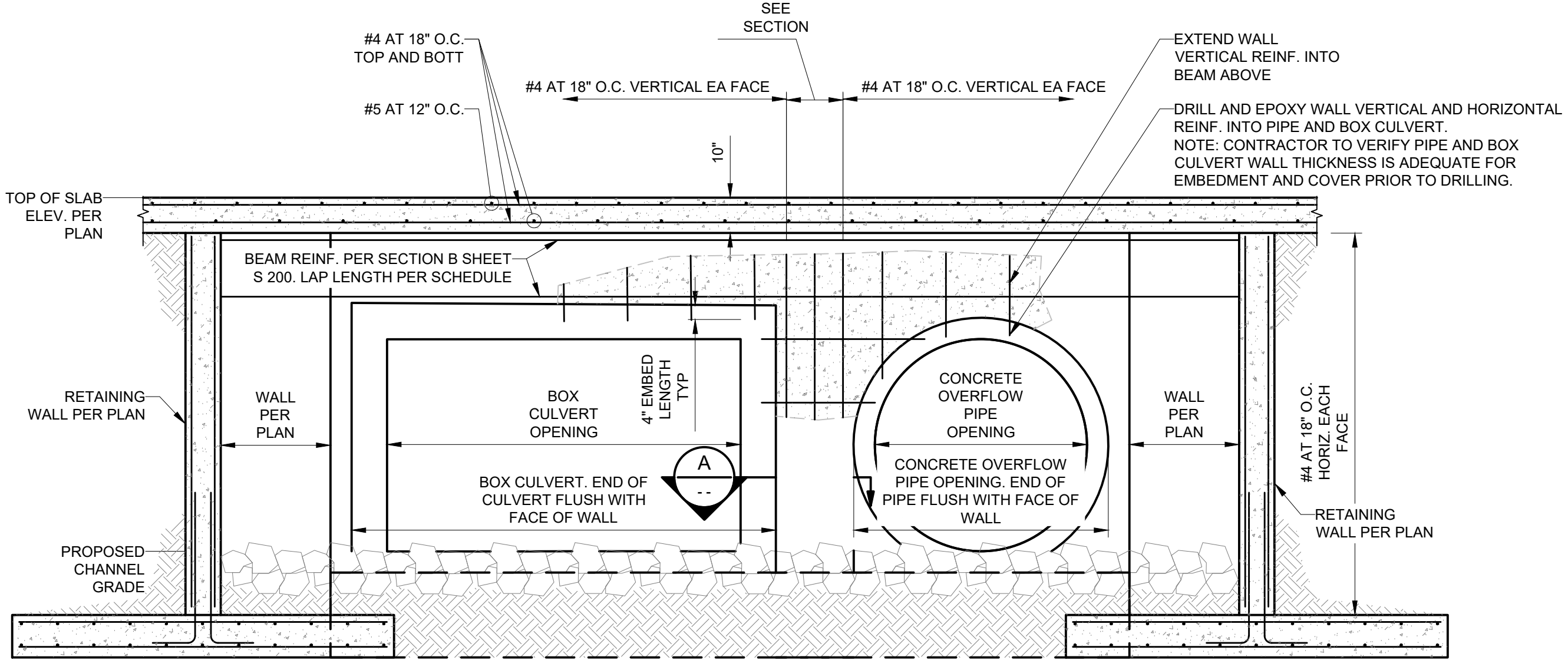
PROJECT OWNER:  
**SALT LAKE CITY CORPORATION ENGINEERING**  
349 South 200 East, Suite 100  
Salt Lake City, Utah 84114-5506  
Phone: (801)535-6157

MARK	DATE	DESCRIPTION

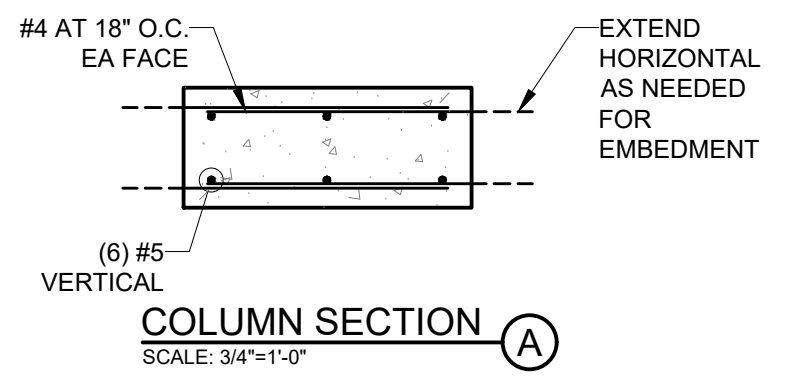
PREPARER #: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 300124  
BW PN #: 2011  
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SHEET TITLE:  
**DELTA OVERLOOK**

SHEET IDENTIFIER:  
**S 200**  
BINDING ORDER **37**



**DELTA OVERLOOK ELEVATION 1**  
 SCALE: 3/8" = 1'-0"

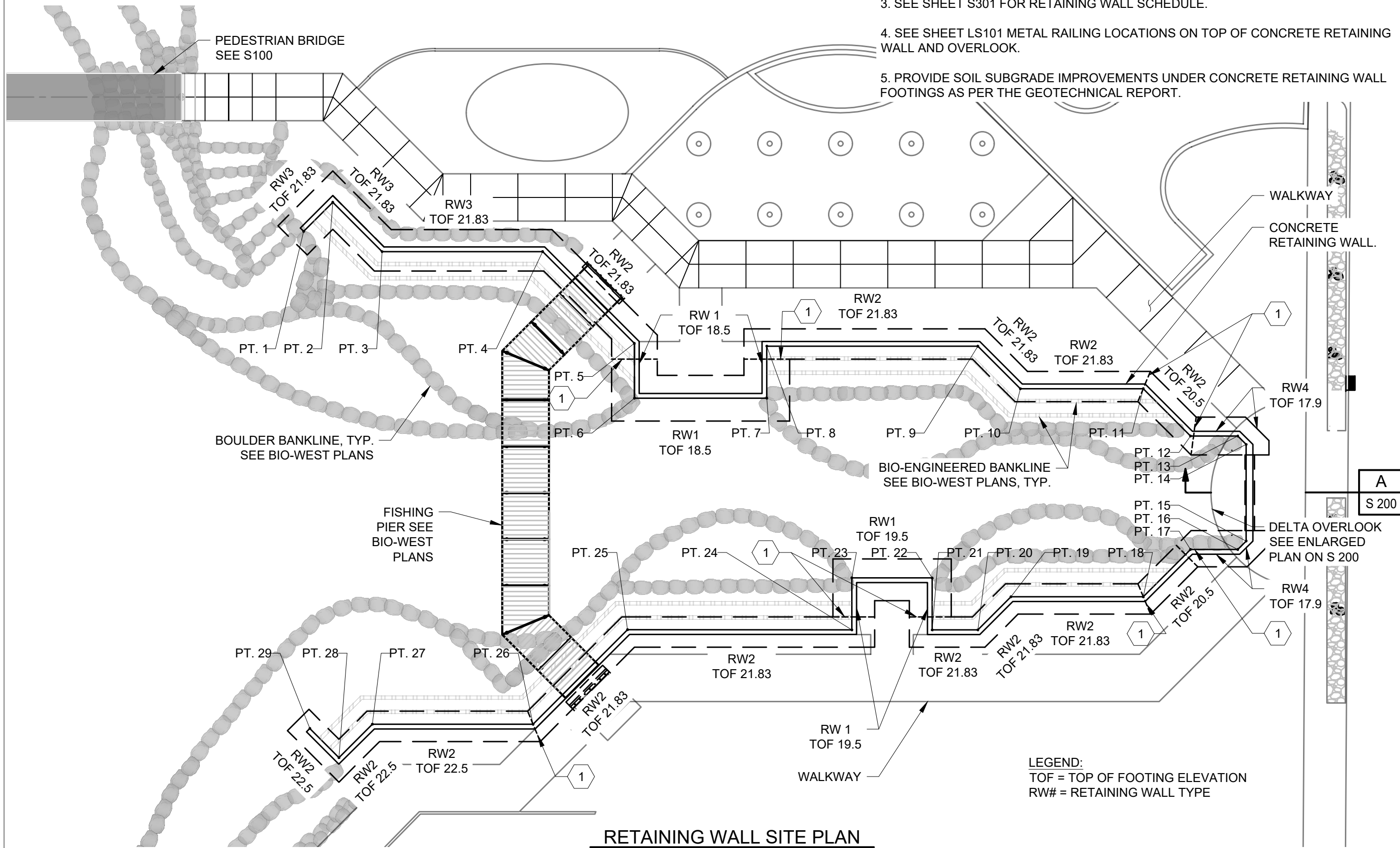


**SHEET KEY NOTES:**

1. FOOTING STEP. SEE DETAIL 1/S301

**GENERAL SHEET NOTES:**

1. ALL TOP OF WALL ELEVATIONS ARE 4227.0 U.N.O.
2. SEE SHEET S301 FOR WALL COORDINATES. COORDINATES ARE FROM FRONT FACE OF WALL.
3. SEE SHEET S301 FOR RETAINING WALL SCHEDULE.
4. SEE SHEET LS101 METAL RAILING LOCATIONS ON TOP OF CONCRETE RETAINING WALL AND OVERLOOK.
5. PROVIDE SOIL SUBGRADE IMPROVEMENTS UNDER CONCRETE RETAINING WALL FOOTINGS AS PER THE GEOTECHNICAL REPORT.



**RETAINING WALL SITE PLAN**

SCALE: 1"= 20'-0"

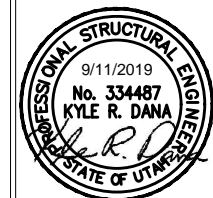
PREPARER:



PREPARER CONSULTANTS:



PROFESSIONAL SEAL:



PROJECT IDENTIFICATION:

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

PROJECT OWNER:

**SALT LAKE CITY  
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349 South 200 East, Suite 100  
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CONTRACT #:  
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BW PN #: 2011  
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SHEET TITLE:

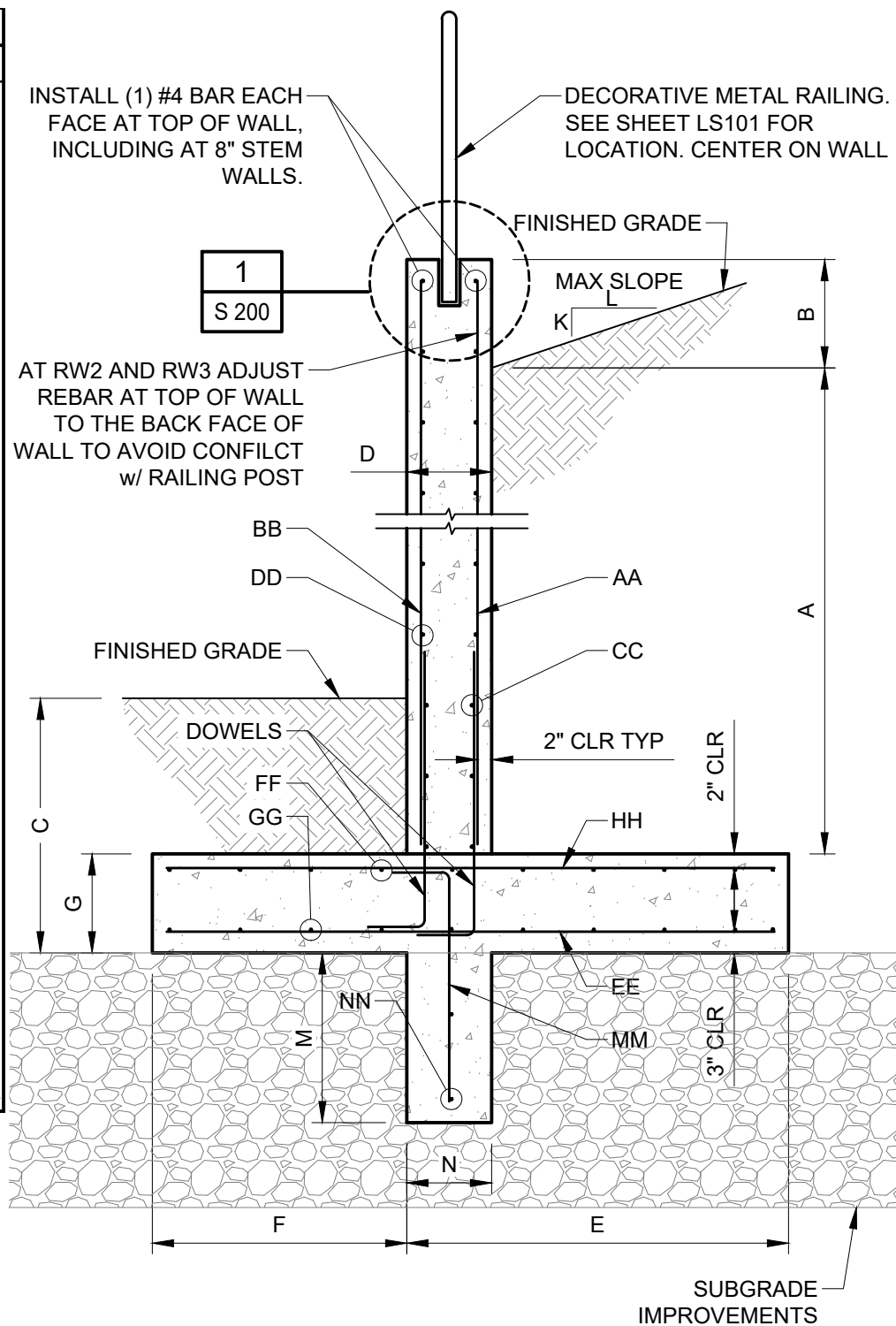
**RETAINING WALL  
PLAN**

SHEET IDENTIFIER:

**S 300**

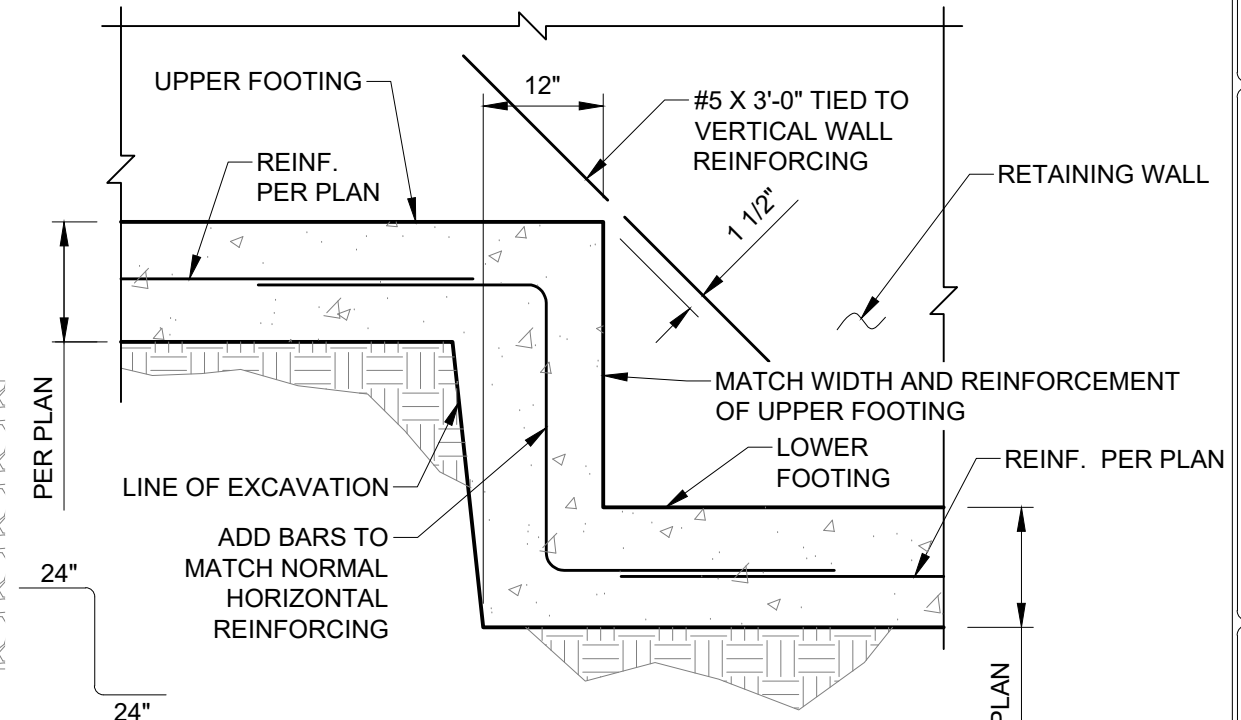
BINDING ORDER **39**

RETAINING WALL LAYOUT COORDINATES		
PT	NORTHING	EASTING
1	7439215.318	1524652.469
2	7439221.475	1524658.626
3	7439211.04	1524669.061
4	7439211.04	1524703.061
5	7439191.626	1524722.475
6	7439180.04	1524722.475
7	7439180.04	1524750.475
8	7439191.04	1524750.475
9	7439191.04	1524795.125
10	7439182.04	1524804.125
11	4739182.04	1524830.125
12	7439172.04	1524840.125
13	7439172.04	1524850.125
14	7439170.255	1524851.91
15	7439149.824	1524851.91
16	7439148.04	1524850.125
17	7439148.04	1524840.125
18	7439138.04	1524830.125
19	7439138.04	1524802.125
20	7439131.04	1524795.125
21	7439131.04	1524785.475
22	7439142.04	1524785.475
23	7439142.04	1524768.475
24	7439131.04	1524768.475
25	7439131.094	1524721.008
26	7439111.092	1524701.007
27	7439111.092	1524667.007
28	7439104.021	1524659.936
29	7439110.193	1524653.764



**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.
7. PROVIDE SOIL SUBGRADE IMPROVEMENTS UNDER CONCRETE RETAINING WALL FOOTINGS AS PER THE GEOTECHNICAL REPORT.



**FOOTING STEP 1**  
SCALE: 3/4" = 1'-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

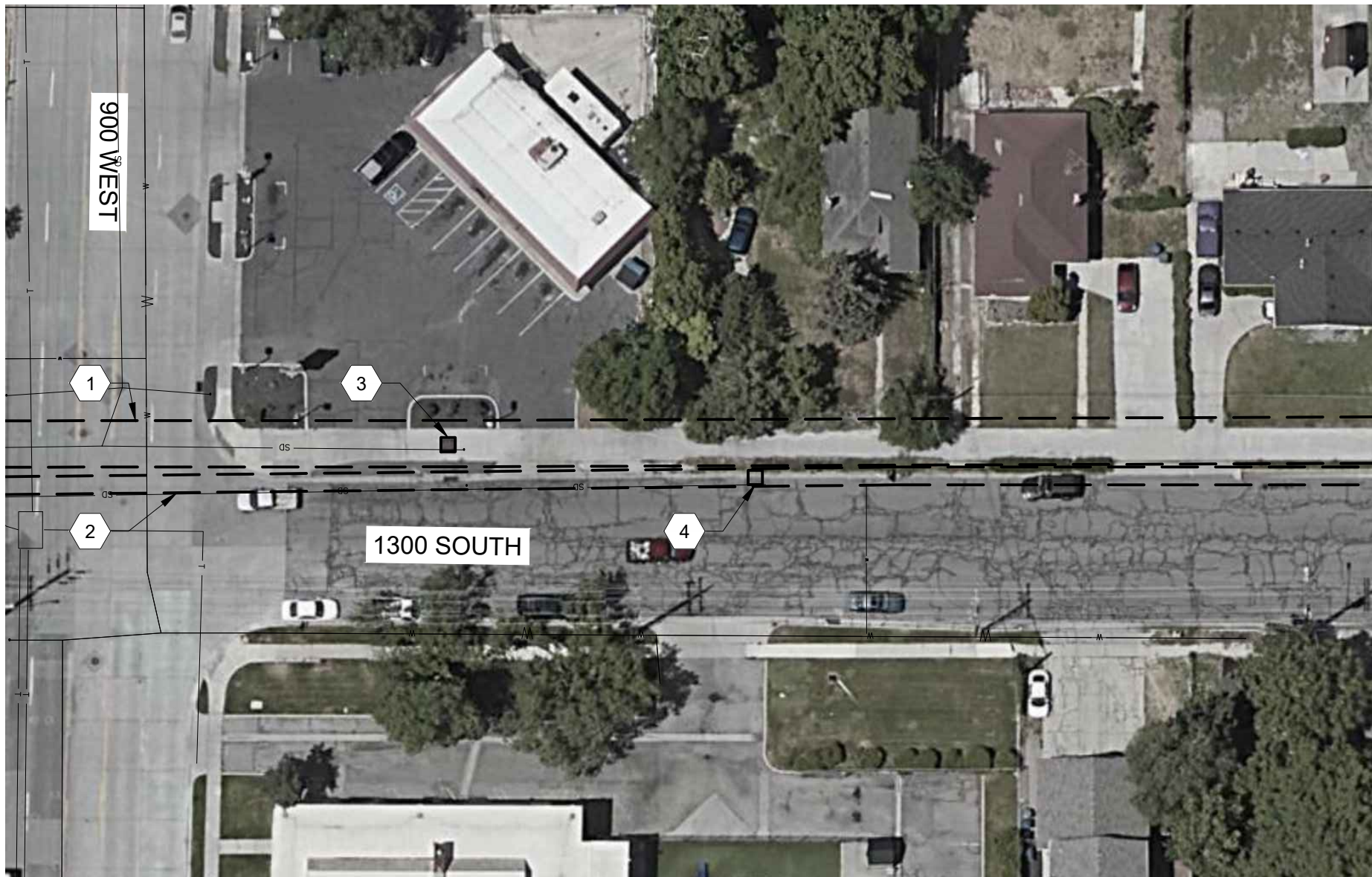
PREPARER #: BIO-WEST, INC.  
CONTRACT #:  
PROJECT #: 300124  
BW PN #: 2011  
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SHEET TITLE:  
**RETAINING WALL SECTION AND SCHEDULE**

SHEET IDENTIFIER:  
**S 301**  
BINDING ORDER **40**

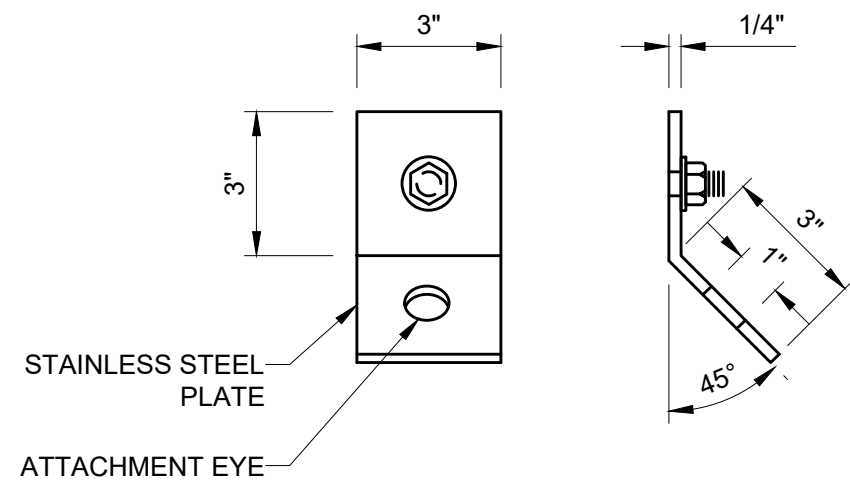
MARK	DIMENSIONS											REINFORCEMENT								NOTES				
	A	B	C	D	E	F	G	K	L	M	N	STEM				FOOTING					KEY			
	AA	BB	CC	DD	EE	FF	GG	HH	MM	NN	AA	BB	CC	DD	EE	FF	GG	HH	MM		NN			
RW1	8'-6" MAX	6" MAX	2'-6" MIN	10"	4'-11"	4'-1"	12"	1	10	2'-6"	10"	#5 AT 8" O.C.	#5 AT 8" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#5 AT 12" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#5 AT 12" O.C.	#5 AT 12" O.C.	#4 AT 18" O.C.			
RW2	5'-2" MAX	6" MAX	2'-6" MIN	8"	2'-6"	1'-10"	12"	1	10	2'-6"	8"	#4 AT 12" O.C.	--	#4 AT 18" O.C.	--	#4 AT 12" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#5 AT 8" O.C.	#4 AT 18" O.C.	STEM REINF. CENTERED IN WALL		
RW3	5'-2" MAX	6" MAX	2'-6" MIN	8"	3'-8"	2'-10"	12"	1	1.2	2'-6"	8"	#4 AT 12" O.C.	--	#4 AT 18" O.C.	--	#5 AT 12" O.C.	#4 AT 18" O.C.	#5 AT 12" O.C.	#4 AT 8" O.C.	#5 AT 8" O.C.	#4 AT 18" O.C.	STEM REINF. CENTERED IN WALL		
RW4	9'-1" MAX	--	2'-6" MIN	10"	4'-11"	4'-1"	12"	-	-	2'-6"	10"	#5 AT 8" O.C.	#5 AT 8" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#5 AT 8" O.C.	#4 AT 18" O.C.	#4 AT 18" O.C.	#5 AT 12" O.C.	#5 AT 12" O.C.	#5 AT 12" O.C.			



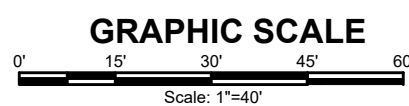


**SHEET KEYNOTES:**

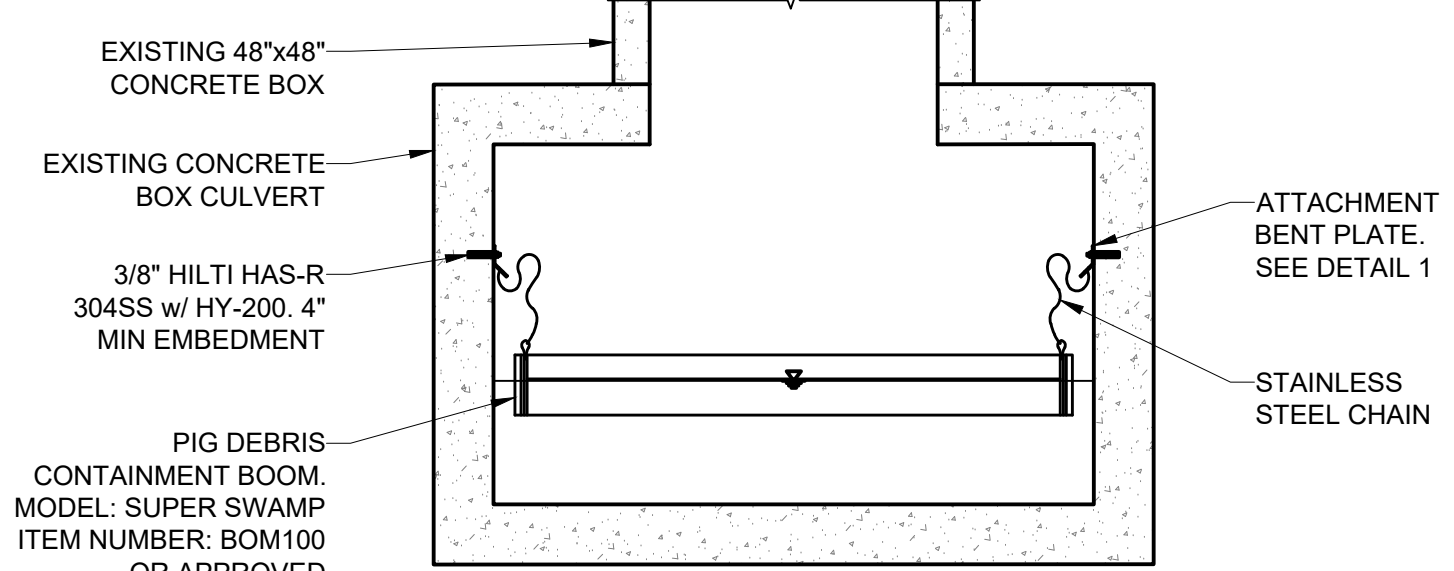
1. EXISTING STORM WATER BOX CULVERT.
2. EXISTING STORM WATER OVERFLOW 60" CONCRETE PIPE.
3. EXISTING 48"x48" CONCRETE BOX w/ SOLID LID IN SIDEWALK. PROPOSED LOCATION FOR TRASH SEPARATOR INSTALLATION. SEE DETAIL 2.
4. EXISTING 48"x48" CONCRETE BOX w/ SOLID LID IN ROADWAY. PROPOSED LOCATION FOR TRASH SEPARATOR INSTALLATION. SEE DETAIL 3.



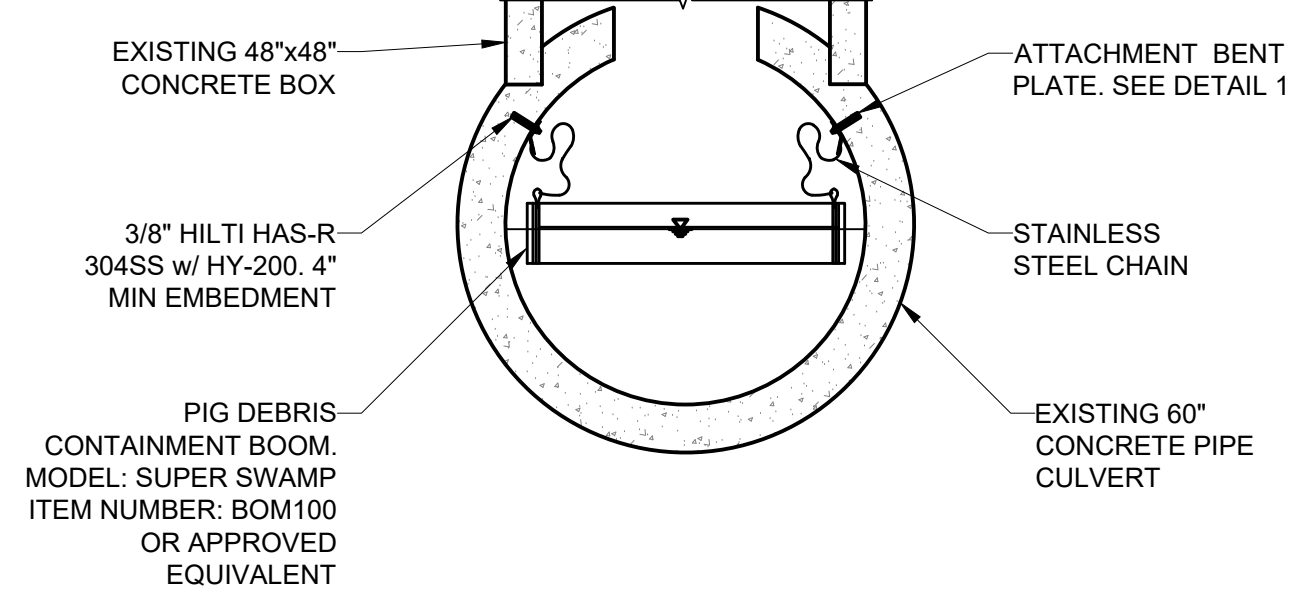
**ATTACHMENT PLATE** 1  
SCALE: N.T.S.



**TRASH SEPARATOR PLAN**  
SCALE: 1" = 40'



**TRASH SEPARATOR** 2  
SCALE: N.T.S.



**TRASH SEPARATOR** 3  
SCALE: N.T.S.

PREPARED BY:  
**BIO-WEST**  
1063 West 1800 North • Ogden, Utah 84127 • 435-752-0302

PREPARED CONSULTANTS:  
**FORSGREEN Associates, Inc.**  
*engineering stronger communities*  
**ALL RED RESTORATION**

PROFESSIONAL SEAL:  
9/11/2019  
No. 334487  
KYLE R. DANA  
STATE OF UTAH

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

PROJECT OWNER:  
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MARK	DATE	DESCRIPTION

PREPARED BY: BIO-WEST, INC.  
CONTRACT #: 300124  
PROJECT #: 2011  
BW PN #: 2011  
DRAWING FILE:  
DRAWN BY: D. BOUDRERO  
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SHEET TITLE:  
**TRASH SEPARATOR PLAN**

SHEET IDENTIFIER:  
**S 400**  
BINDING ORDER **41**