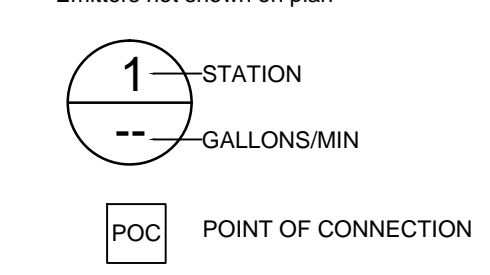
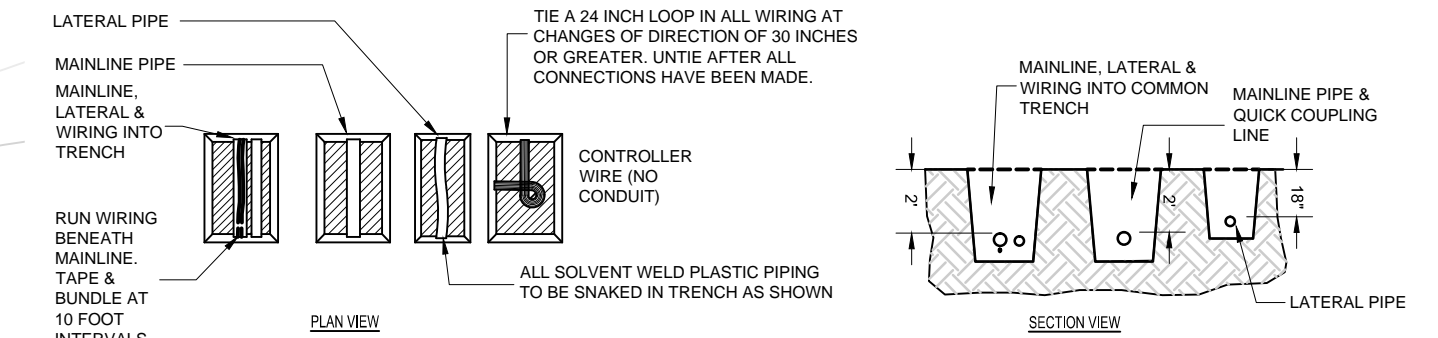


# IRRIGATION LEGEND

STANDARD SYMBOL	DESCRIPTION	MANUFACTURER	MODEL # (if applicable)	COMMENTS	DETAIL (see sheet 10)
	Irrigation Trench - Mainline	Sch. 40 PVC for 2" & less		24" below fin. grade	1
	Irrigation Trench - Lateral line	Sch. 40 PVC for line 1" & smaller		18" below fin. grade	1
	Sleeves	Class 315 PVC		24"/18" below fin. grade	1
	Quick-Coupling Valve w/ Swing Joint (in box)	Hunter	HQ5LRC w/ H5J-1		4
	Quick-Coupling Valve Box	Carson	910 Lockable	10" Round box w/ lid	4
	Dripline Tubing W/ Built in Emitters	Hunter	PLD-04 - 18 - 1K	Extend from lateral PVC	--
	Dripline Tubing	Hunter	PLD-BLNC	Extend from lateral PVC and connect to emitter*	2
	Back Flow Preventor	---	---		2
	Gate Valve (in box)	Nibco	T-113		1
	Gate Valve Box	Carson	910 Lockable		3
	Remote Control Valve (in box)	Hunter	ICZ-101 w/ Node 100 Controller		1
	Remote Control Valve Box	Rainbird	Valve box with cover : Rainbird VB-STD		1

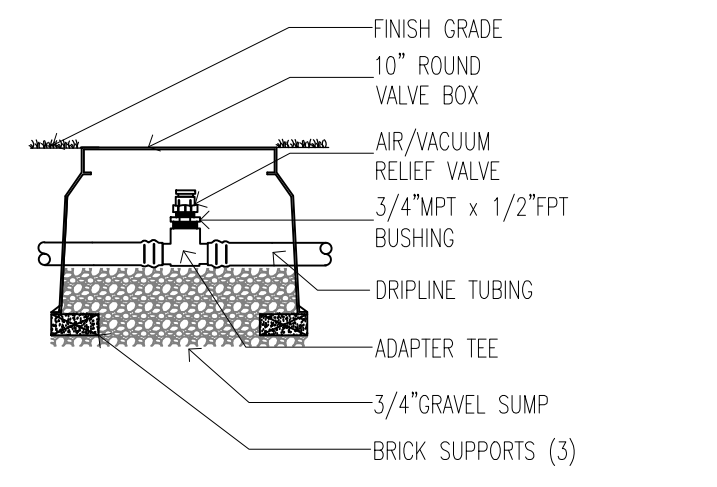


- IRRIGATION NOTES:**
- These irrigation drawings are diagrammatic and indicate the work to be installed. All piping, valves, and other irrigation components may be shown within paved areas for graphic clarity only and are to be installed within planting areas. Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, sleeves, conduit, and other items which may be required. In the event of field discrepancy with contract documents, contact Engineer in accordance with Specifications. Notify and coordinate irrigation contract work with applicable contractors for the location and installation of pipe, conduit or sleeves through or under walls, paving and structures before construction. In the event these notifications are not performed, the contractor assumes full responsibility for required revisions.
  - Irrigation pipe and wire crossing beneath hardscape surfaces shall be contained within sleeving. Sleeving size shall be a minimum of two times the aggregate diameter of all pipes contained within sleeve.
  - Contractor shall be responsible for minor changes in the irrigation layout due to obstructions not shown on the irrigation drawings such as utilities, water lines, signs, electrical enclosures, etc.
  - The intent of this irrigation system is to provide the minimum amount of water required to sustain good plant health.
  - It is the responsibility of the contractor to program the irrigation controller(s) to provide the minimum amount of water needed to sustain good plant health. This includes making adjustments to the program for seasonal weather changes, plant material, water requirements and climate.
  - Install controller per manufacturer's recommendations including wire and wire connections.
  - Irrigation control wires: solid copper with UL approval for direct burial in ground.
  - Do not trench within the dripline of trees unless approved by the City. Where it is necessary to excavate adjacent to existing trees, use caution to avoid injury to trees and tree roots. Excavate by hand, in areas where two (2) inch and larger plant roots occur.
  - Remote control valve box locations, as shown, are diagrammatic. Install in planting areas. Contractor to verify and locate point of connection to existing water main in field. Install per manufacturer's instructions in valve box. Adjust to supply sufficient irrigation for optimal plant growth.
  - Flush and adjust system for optimum performance and optimum operating pressure for each control zone.
  - Locate bubbler/emitters on uphill side of plant where applicable.
  - System is designed for operating water pressure: 40 PSI. The contractor shall verify water pressure prior to construction. Report any difference between the water pressure indicated on the drawings and the actual pressure reading at the irrigation point of connection to the Engineer.
  - Pipe sizing shown on the drawings is typical. As changes in layout occur during construction the size may need to be adjusted accordingly.
  - Unscheduled lateral line piping located downstream of 1" piping shall be 3/4" typical.
  - Do not willfully install the irrigation system when it is obvious in the field that wind conditions, obstructions, grade differences, or differences in the area's dimensions exist that might not have been considered in the design. Bring such differences to the attention of the engineer. In the event that this notification is not performed, contractor shall assume full responsibility for all necessary revisions.
  - Install check valves on lateral lines as needed to prevent low head drainage.

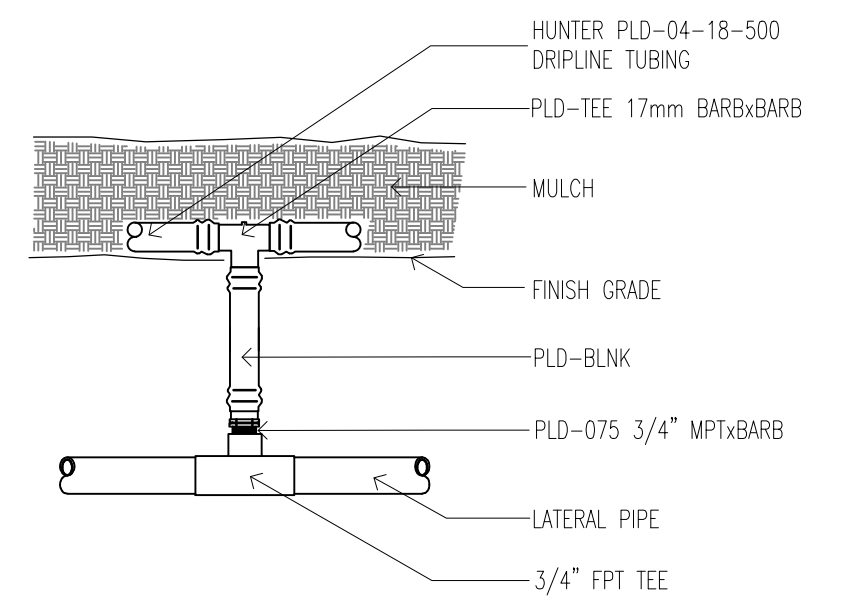


- NOTES:**
- SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH CLASS 315 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN; BURIAL DEPTH FOR SLEEVES BELOW FINISHED GRADE ARE AS FOLLOWS:  
 42 INCH MINIMUM UNDER THOROUGHFARE  
 24 INCH MINIMUM UNDER PLANTER AREA  
 24 INCH MINIMUM UNDER PARKING LOT  
 18 INCH MINIMUM UNDER SIDEWALK  
 36 INCH MINIMUM UNDER TRAFFIC CIRCLES (RESIDENTIAL AREAS)
  - ALL SLEEVES BELOW HARDSCAPE SHALL EXTEND 24 INCHES BEYOND HARD SURFACES EDGES.
  - FOR PIPE AND WIRE BURIAL DEPTHS, SEE SPECIFICATIONS.
  - SCH 40 PVC FOR MAINLINE 2 INCHES OR SMALLER.
  - CLASS 315 PVC FOR MAINLINE 2 1/2 INCHES AND LARGER.
  - CLASS 200 PVC FOR 2 INCH LATERAL LINES AND SMALLER.
  - SCH 40 PVC FOR QUICK COUPLING LINE 1 INCH MIN. TO 2 INCH MAXIMUM.
  - TRENCH BACKFILL SHALL BE NATIVE MATERIAL COMPACT TO 80% MINIMUM RELATIVE COMPACTION.
  - REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS.

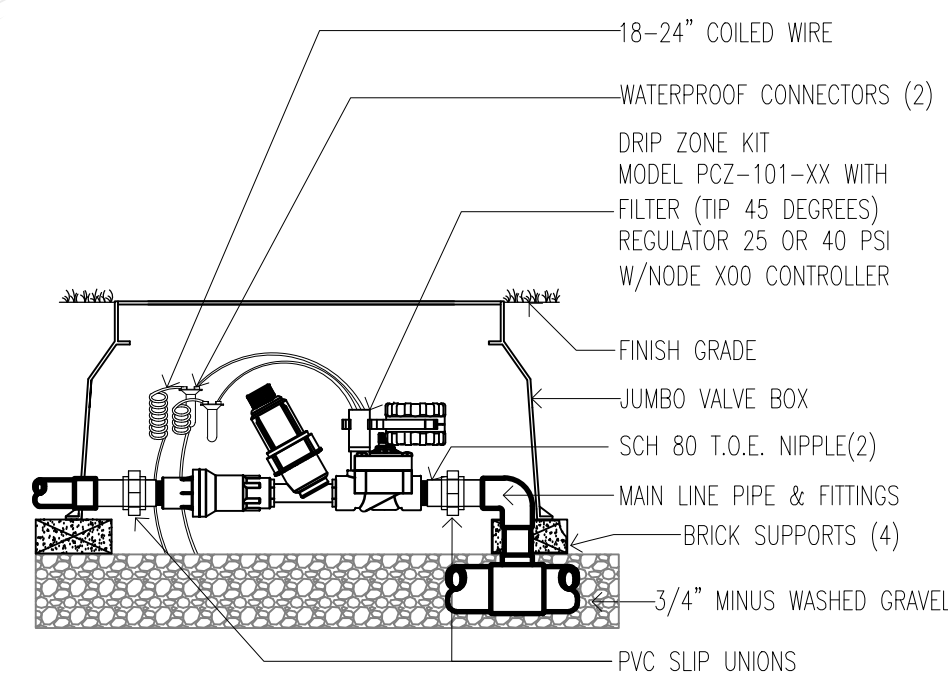
## 1 TRENCHING



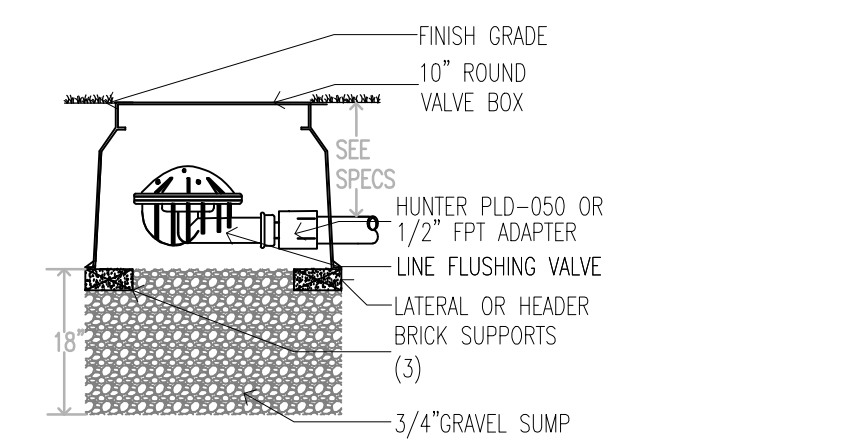
## 2 AIR VACUUM RELEASE VALVE



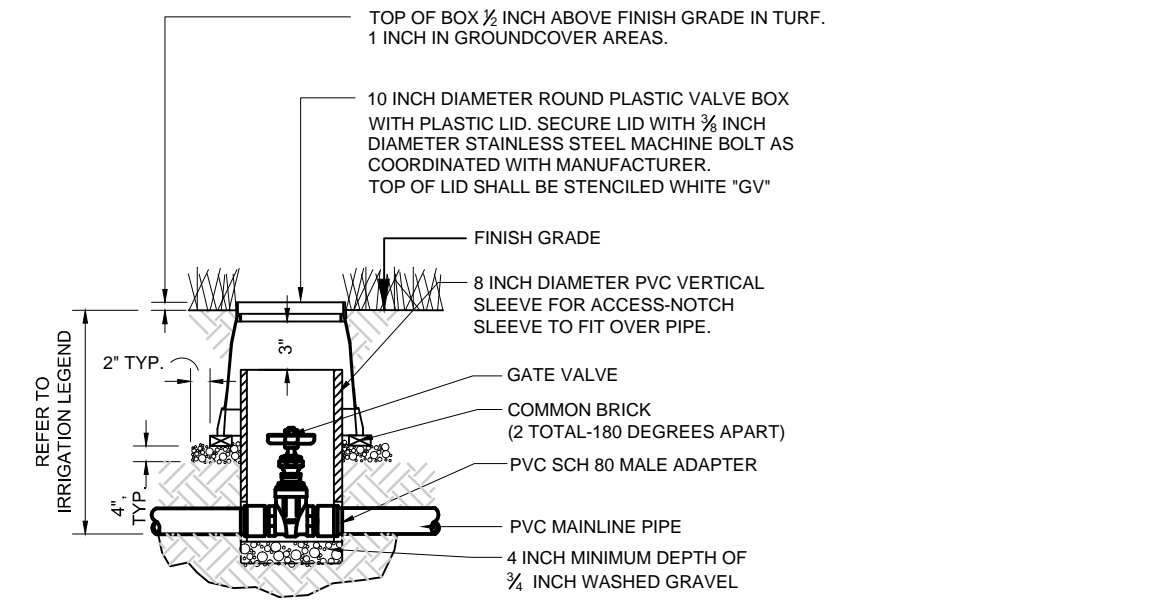
## 3 LATERAL LINE TO DRIPLINE CONNECTION



## 4 VALVE AND CONTROLLER

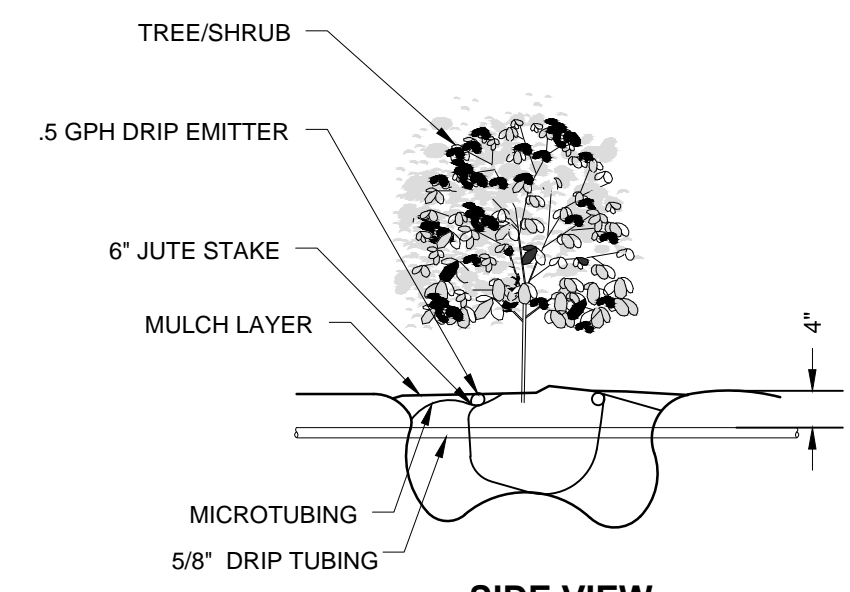


## 5 LINE FLUSH VALVE

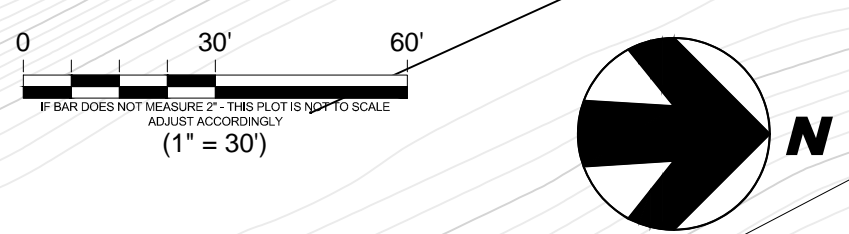


## 7 GATE VALVE

80' LENGTH X 10' WIDTH PEDESTRIAN BRIDGE, HIGH CHORD 866'



## 6 TREE DRIP IRRIGATION

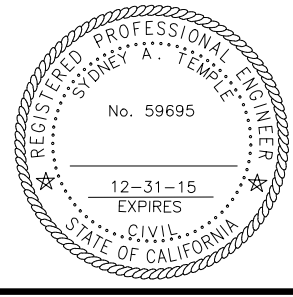


CHUMASH PARK BASEBALL FIELD

**MEDEA CREEK RESTORATION**  
 CITY OF AGOURA HILLS

**QUESTA**  
 ENGINEERING CORP.  
 P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

Civil Environmental & Water Resources  
 (510) 236-6114  
 QUESTA@QUESTA.COM

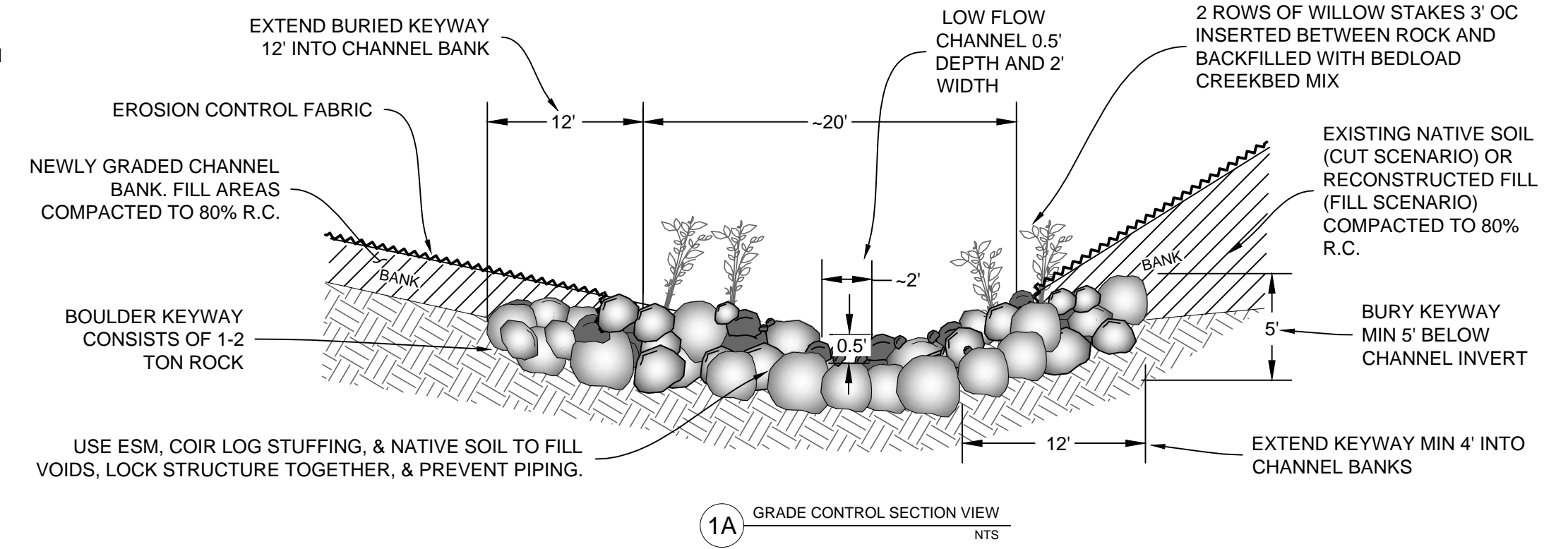
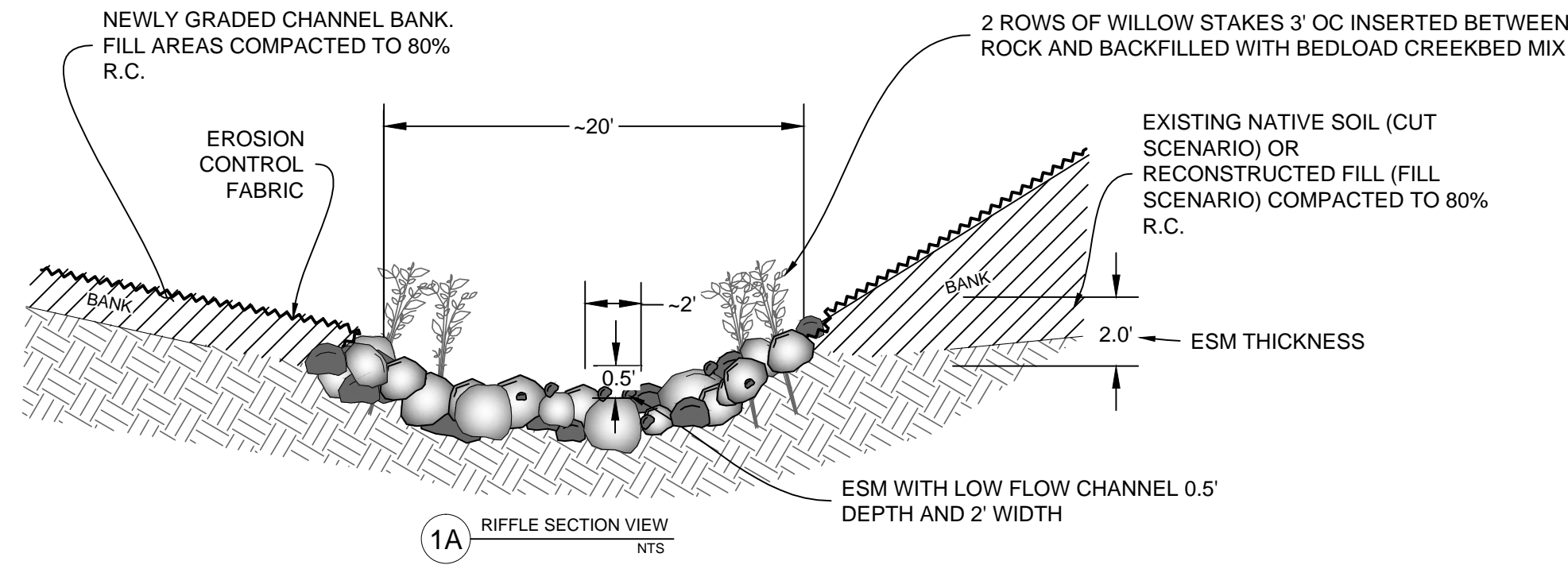
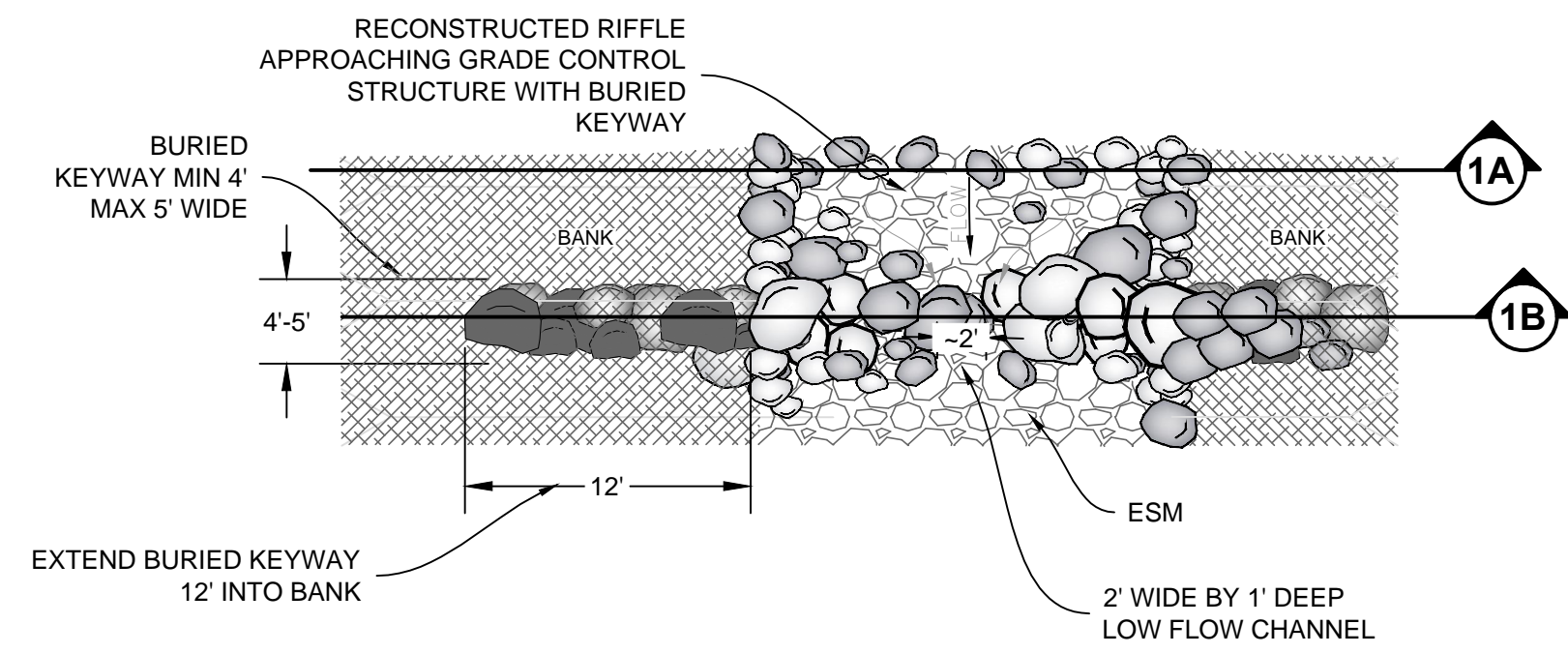


Sht.	Rev.	Date:	By:	Description:	App'd:	Design:
						ST/JM
						JM
						ST
						ST

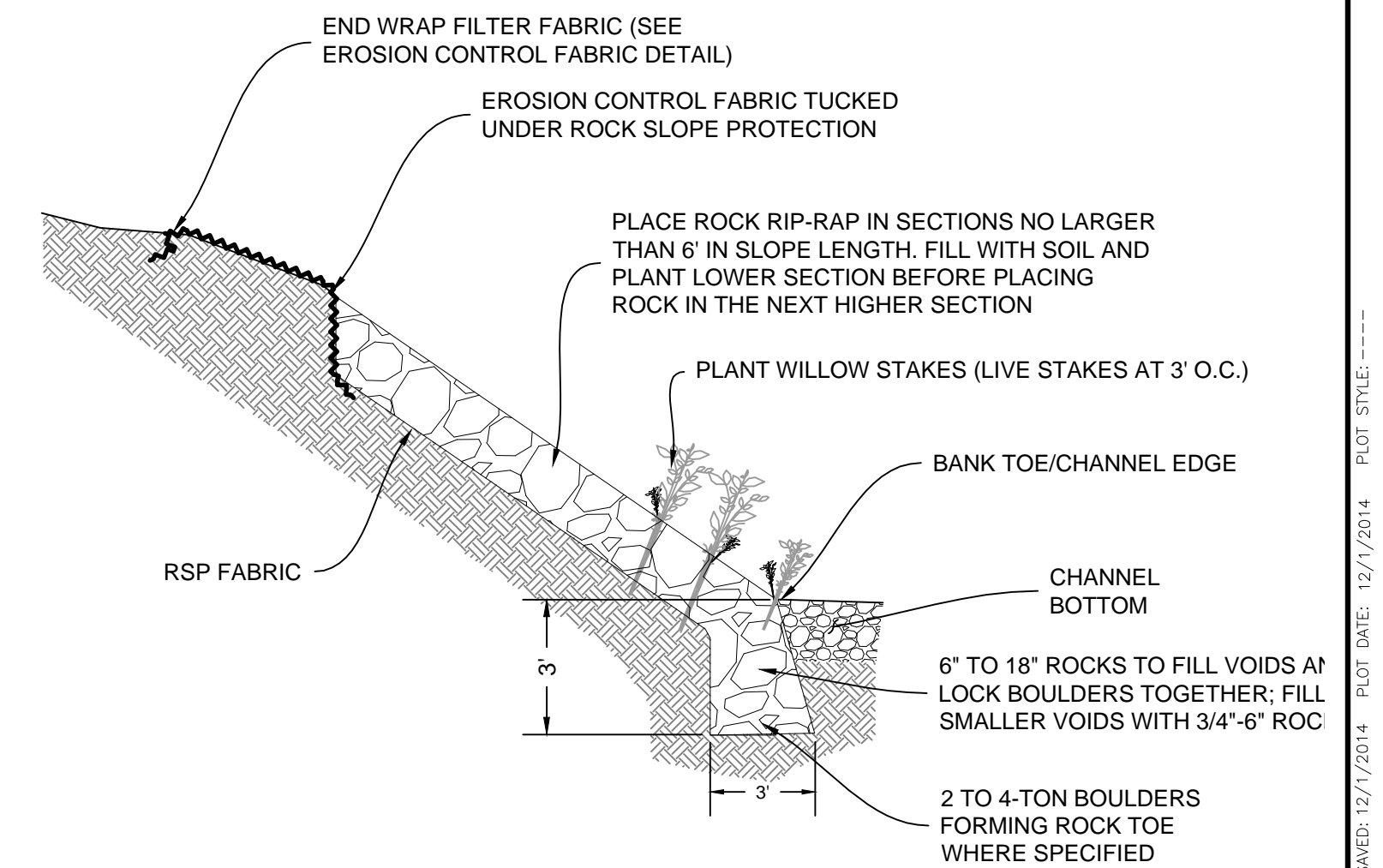
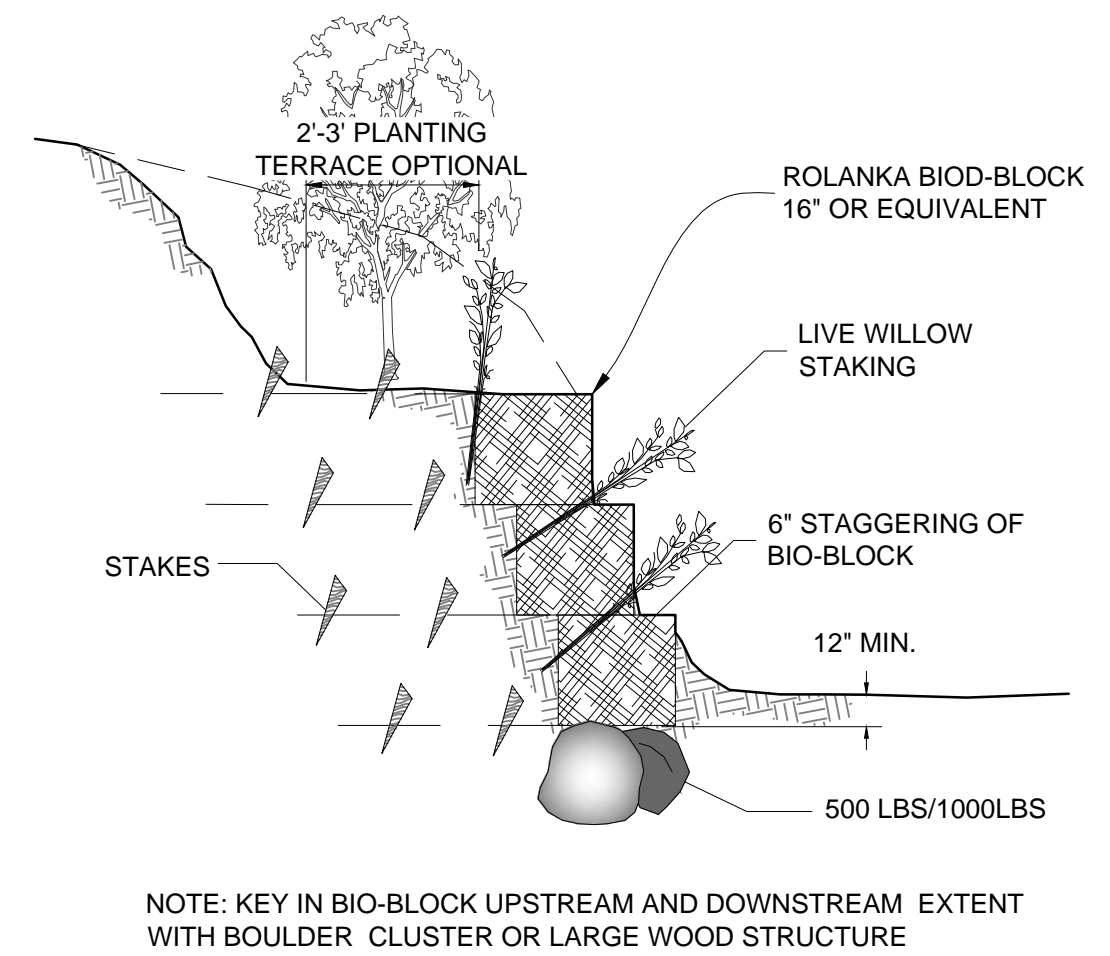
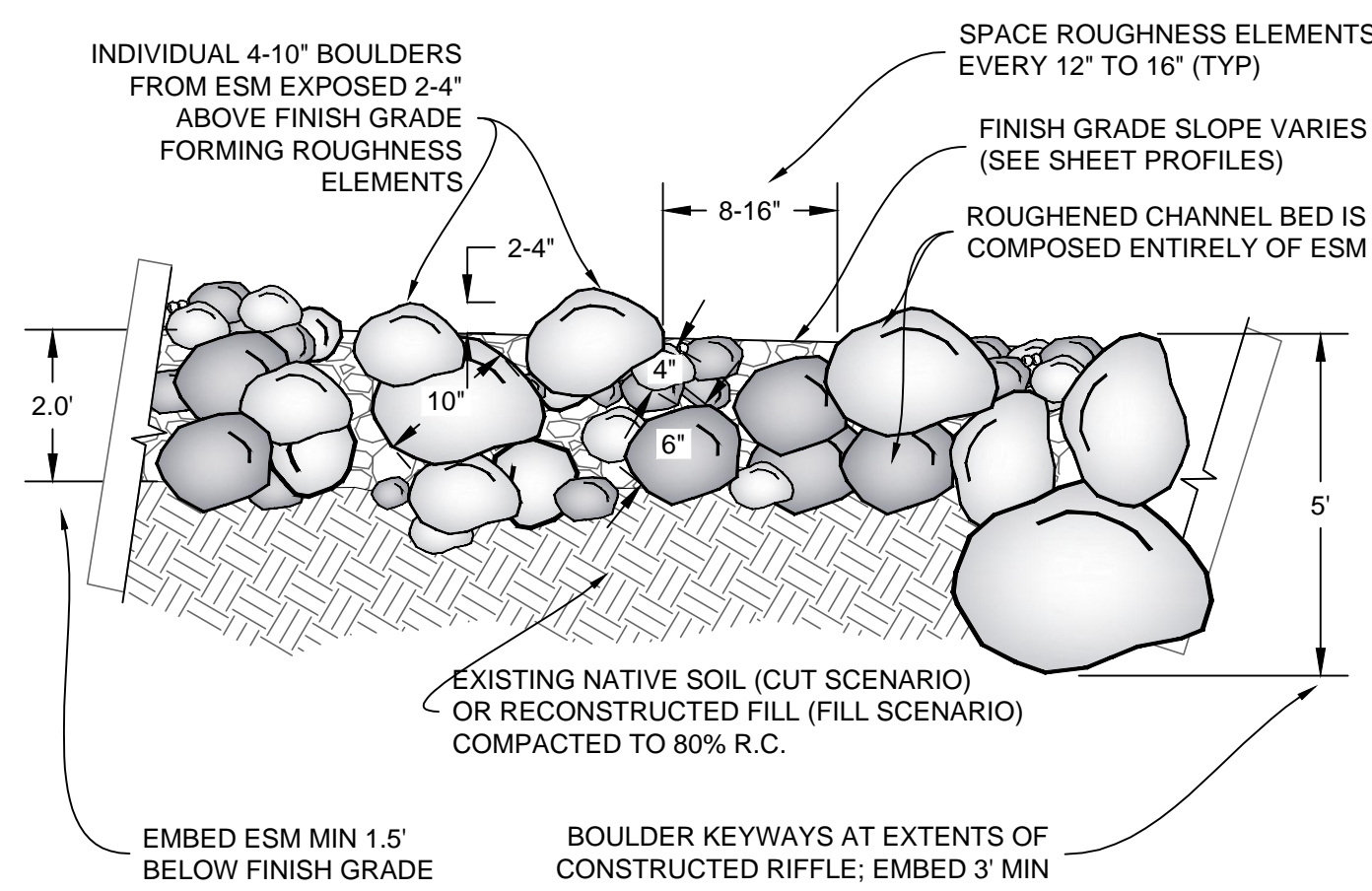
**IRRIGATION PLAN**  
 AGOURA HILLS, LOS ANGELES COUNTY

Size	Project
D	1300042
Scale:	AS NOTED
Date:	2014-2-25
Sheet:	12 OF 23

1300042-IRRIGATION-PLAN-12/17/2014 PLOT DATE: 12/17/2014 PLOT STYLE:



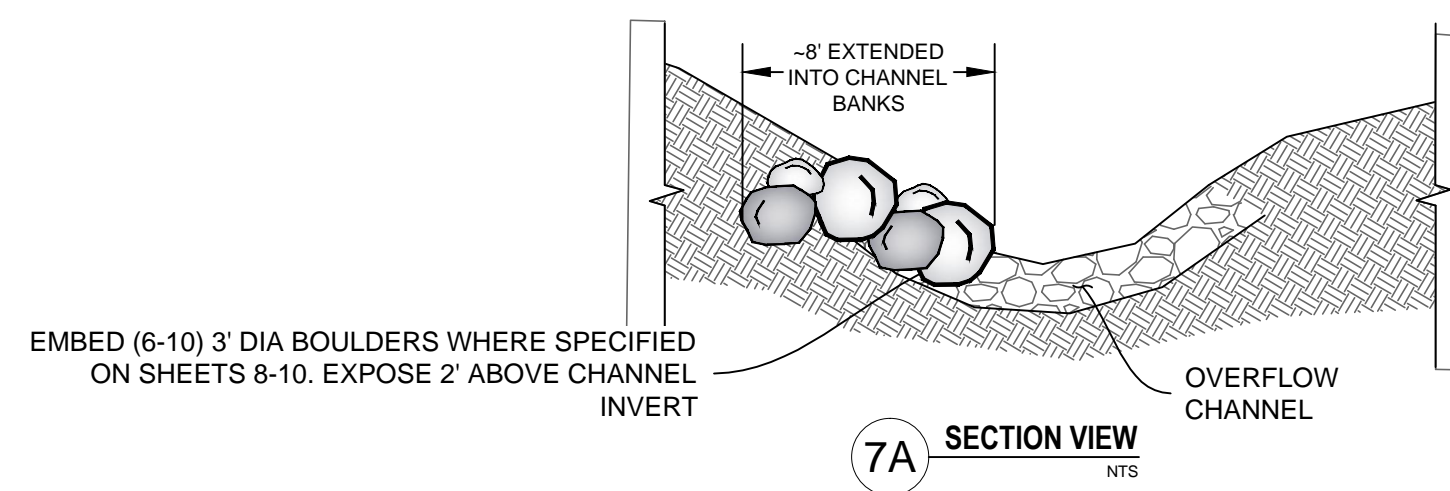
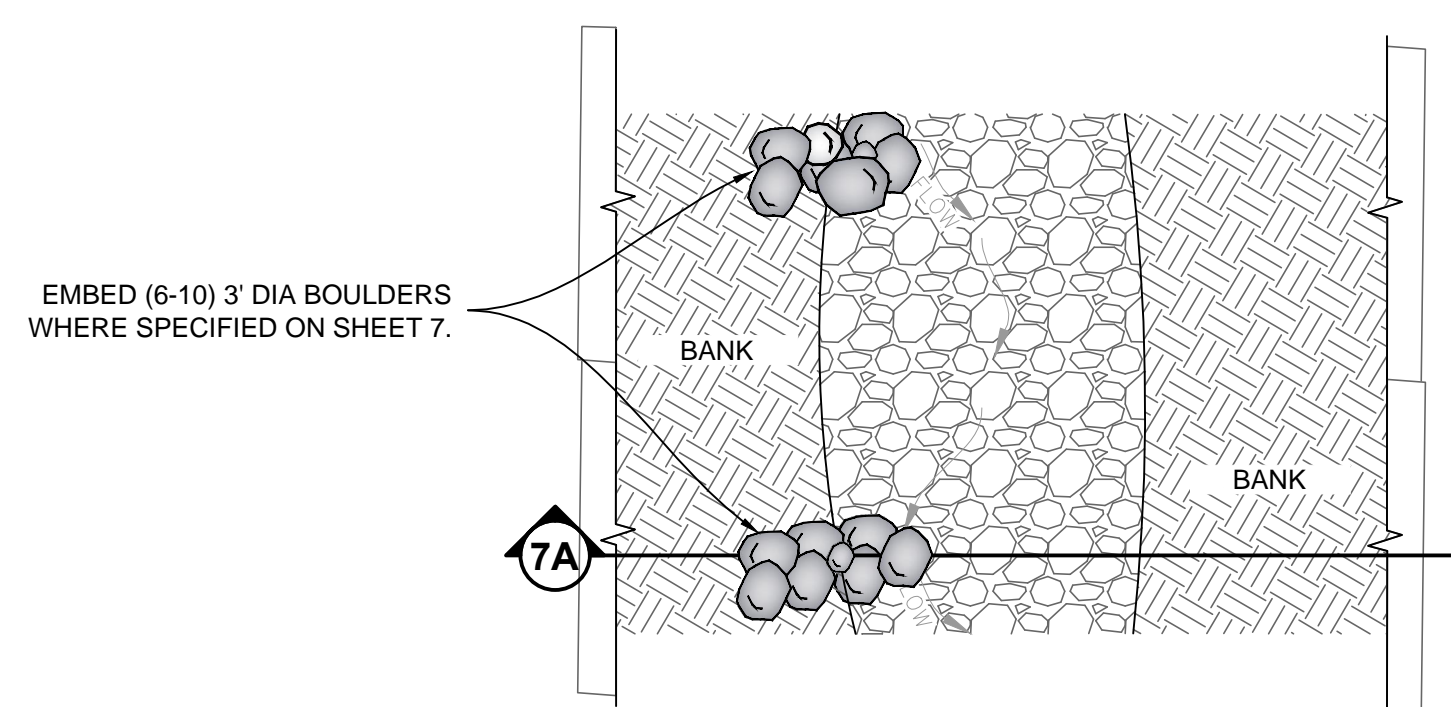
**1 CONSTRUCTED RIFFLE AND GRADE CONTROL STRUCTURE PLAN AND SECTIONS**



**2 CONSTRUCTED RIFFLE AND GRADE CONTROL PROFILE**

**4 BANK STABILIZATION COIR BIO-BLOCK DETAIL**

**5 PLANTED ROCK REVETMENT DETAIL**



FEATURE	ROCK SIZE	ROCK WEIGHT AND VOLUME	ENGINEERED STREAMBED MATERIAL (ESM)*
BOULDERS CLUSTER	1/2 - 3 TON, 18" - 65"	TOTAL: 35 CY; 70 TN	SIZE (INCHES) %PASSING
ANCHOR BOULDERS FOR LWD	2 - 4 TON, 40" - 72"	TOTAL: 45 CY; 90 TN	D84 15"-18"
RSP CULVERT OUTLETS	1/2 - 3 TON, 18" - 54"	TOTAL: 470 CY; 940 TN	D50 10"
SEWER LINE ARMORING	1/2 - 1 TON, 12" - 30"	TOTAL: 180 CY; 360 TN	D30 6"
CONSTRUCTED RIFFLE	SEE "ESM" DESCRIPTION AT RIGHT	TOTAL: 480 CY; 960 TN	D16 1"
GRADE CONTROL STRUCTURE	1/2 - 4 TON, 18" - 72"	TOTAL: 750 CY; 1500 TN	D0 SAND

\*ESM SHALL CONTAIN A MIN OF 10% AND MAX OF 15% NATIVE ON-SITE SOIL

**7 BOULDER CLUSTER DETAIL**

**6 ROCK SIZING AND VOLUMES**

NOTE: WHERE SHOWN ON THE PLANS, INCORPORATE ONE LOG INTO BOULDER CLUSTER PER SHEET 10 DETAILS 4 & 5

**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



Sht.	Rev.	Date:	By:	Description:	App'd:

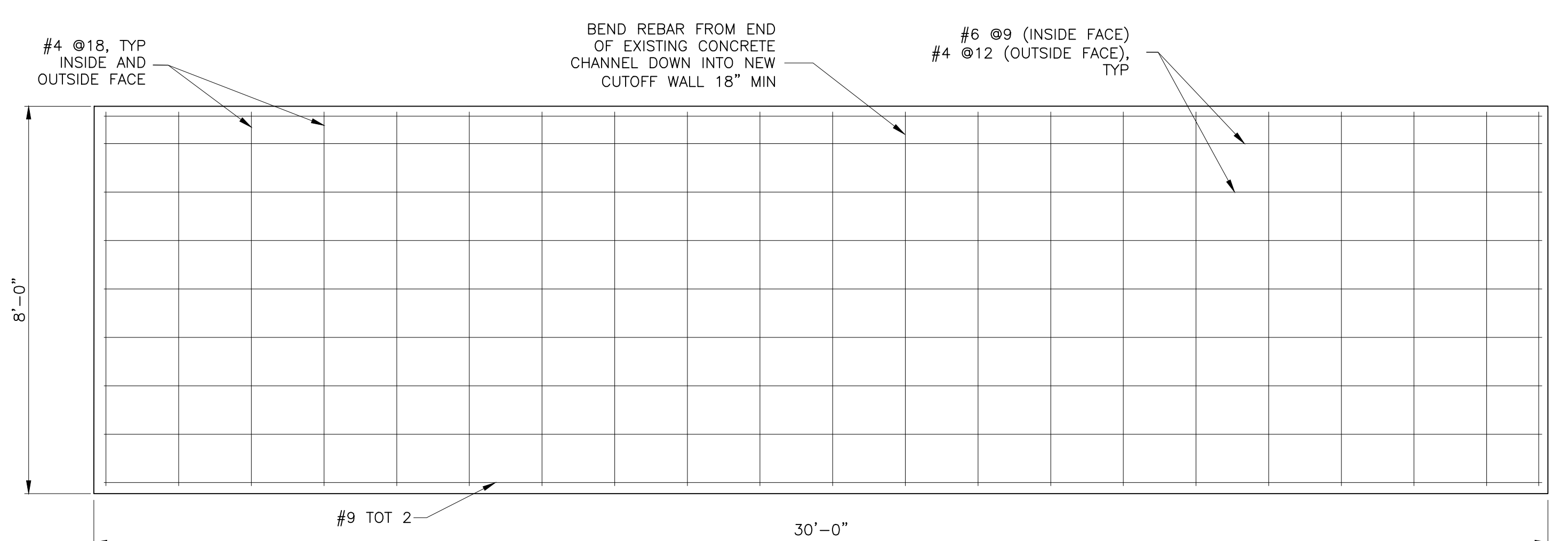
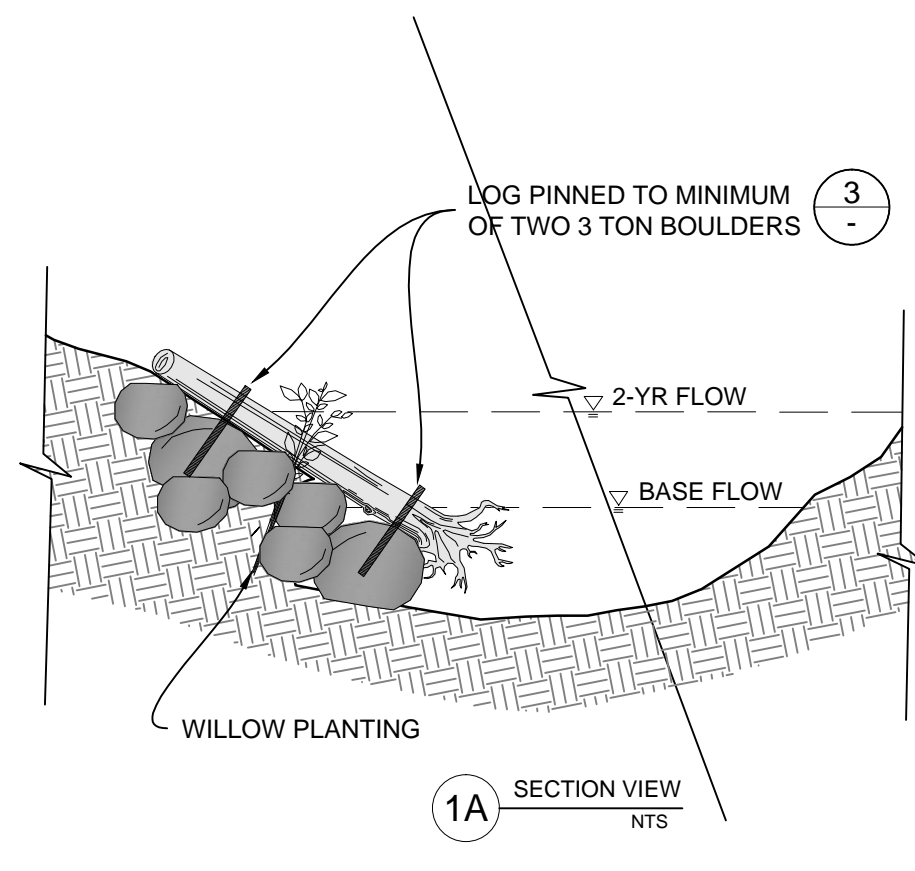
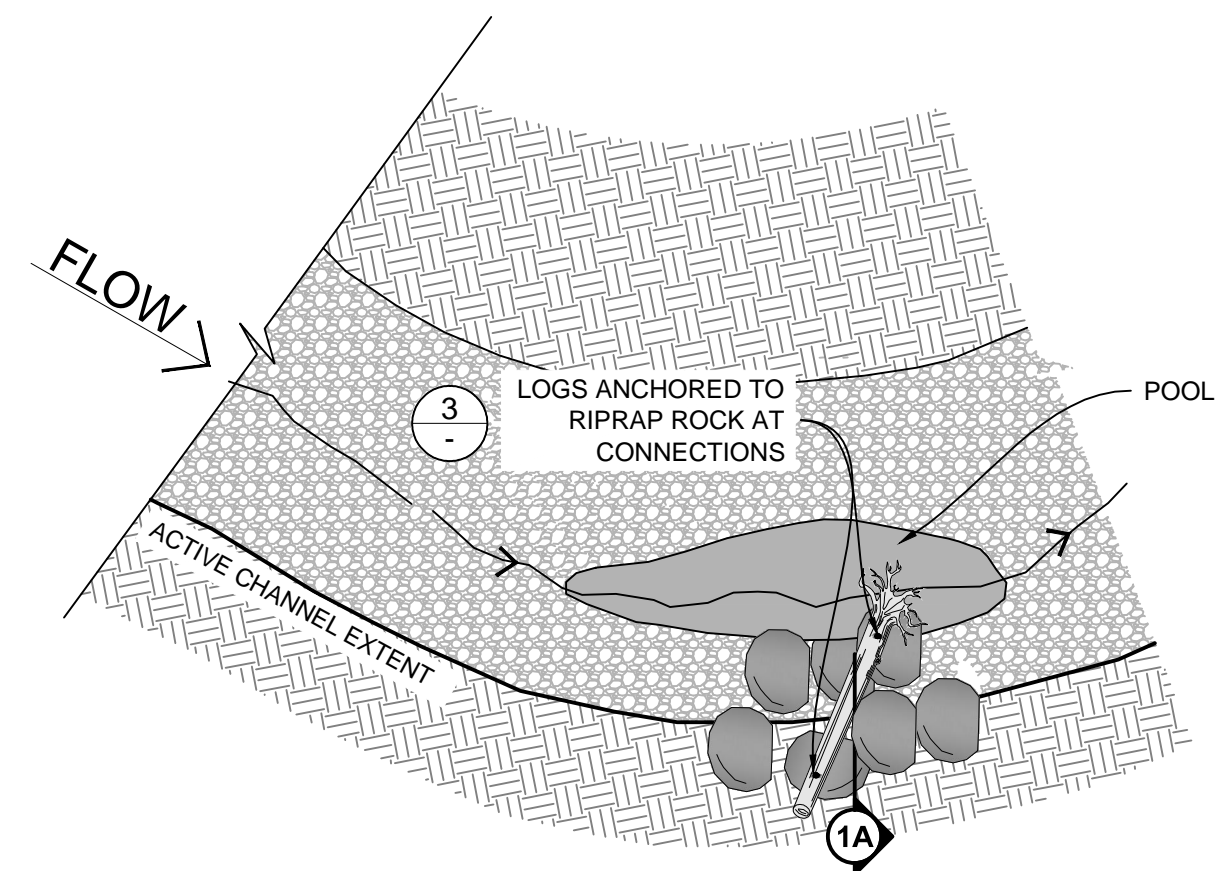
Design: ST/JM  
Drawn: JM  
Checked: ST  
Appr'd: ST

**CONSTRUCTION DETAILS 1**

AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
Scale: AS NOTED  
Date: 2014-11-25  
Sheet: 13 OF 23

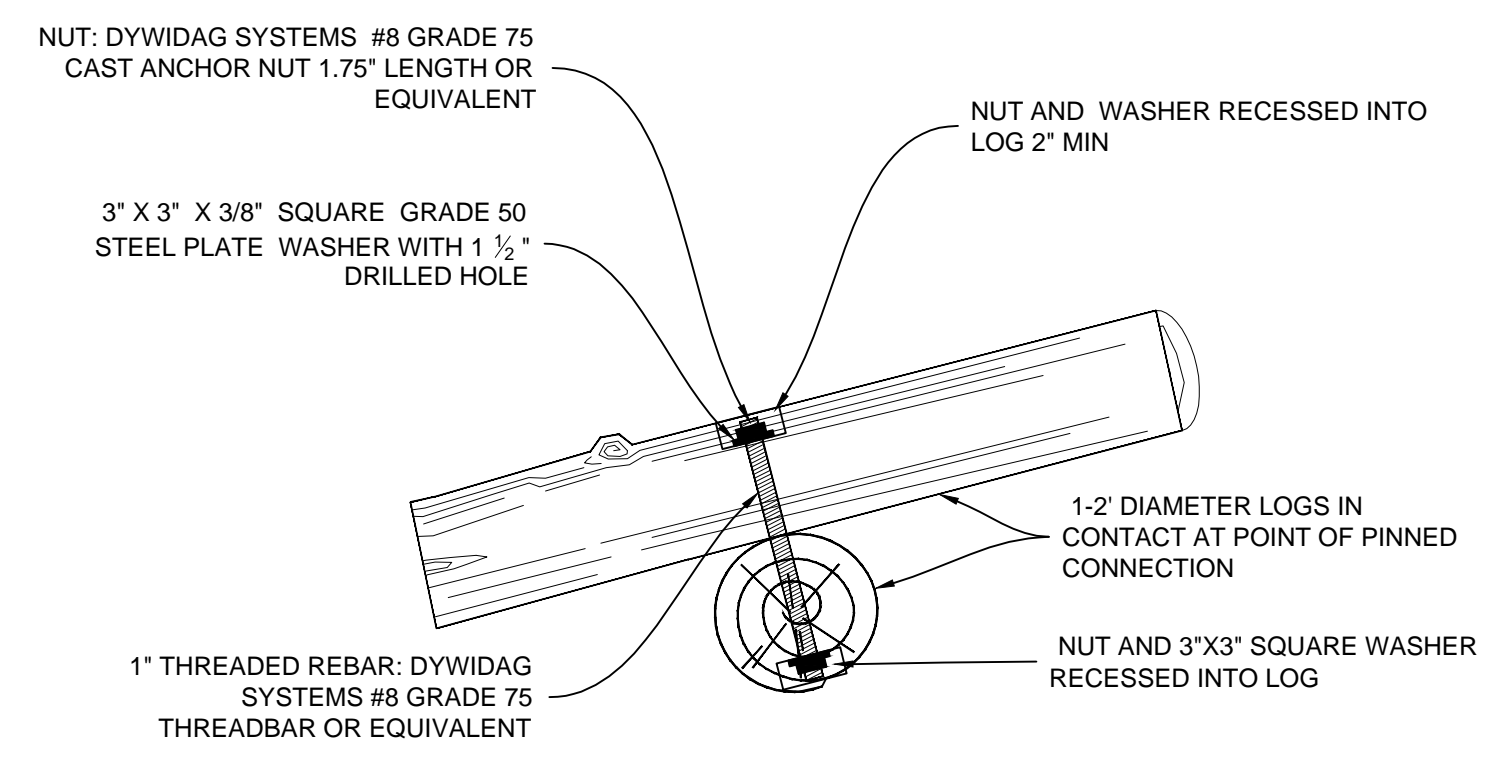
P:\2013\1300042-MEDIA-CREEK\CAD\1300042-MEDIA-ROCKING.PLOT DATE: 12/7/2014 PLOT STYLE: sct.dwt



**1 ROCK REVETMENT ENHANCEMENT LARGE WOOD STRUCTURE**

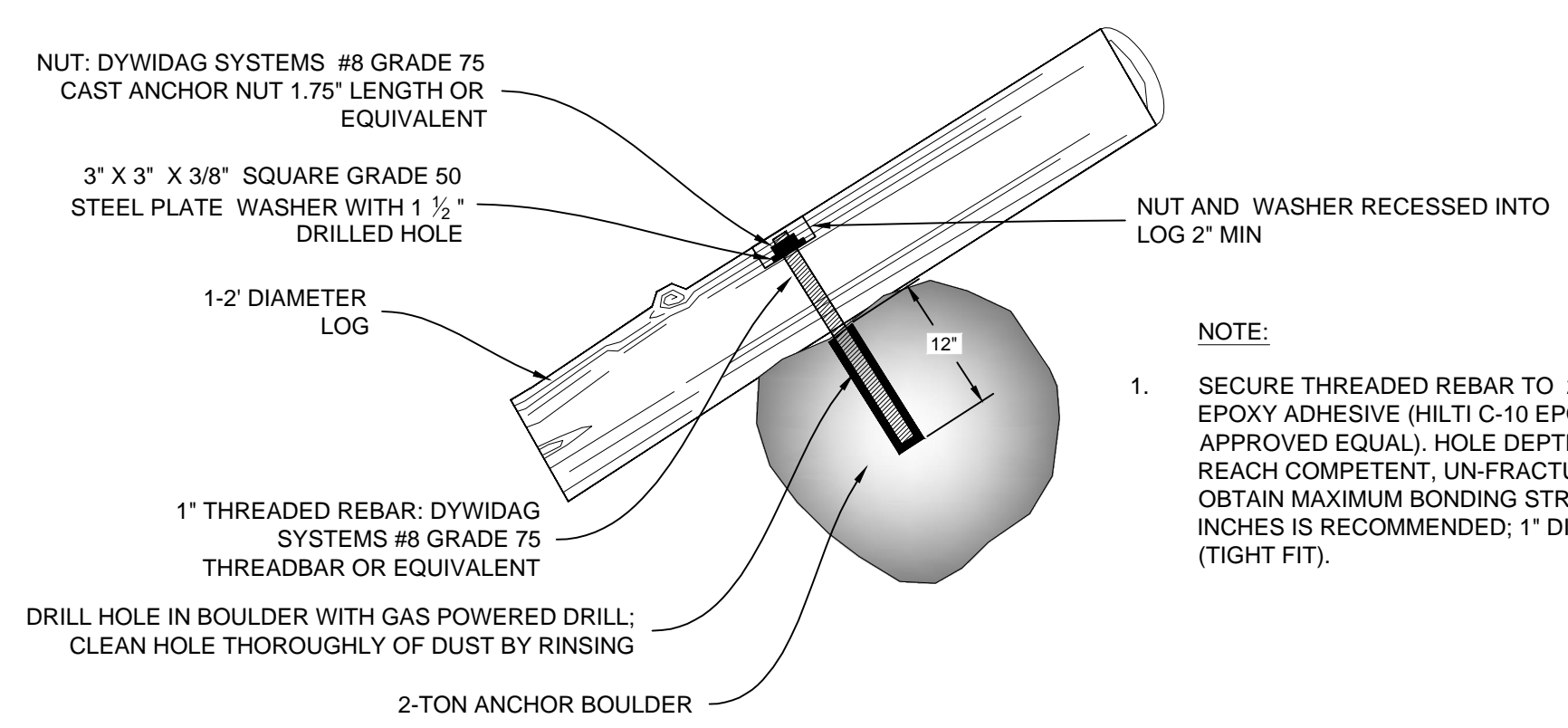
NTS

- NOTES:  
 1. CUTOFF WALL THICKNESS = 1'  
 2. 2" MINIMUM COVER ON ALL REBAR  
 3. ALL STRUCTURAL EXCAVATION SHALL BE



**2 LOG-LOG ANCHORING**

NTS



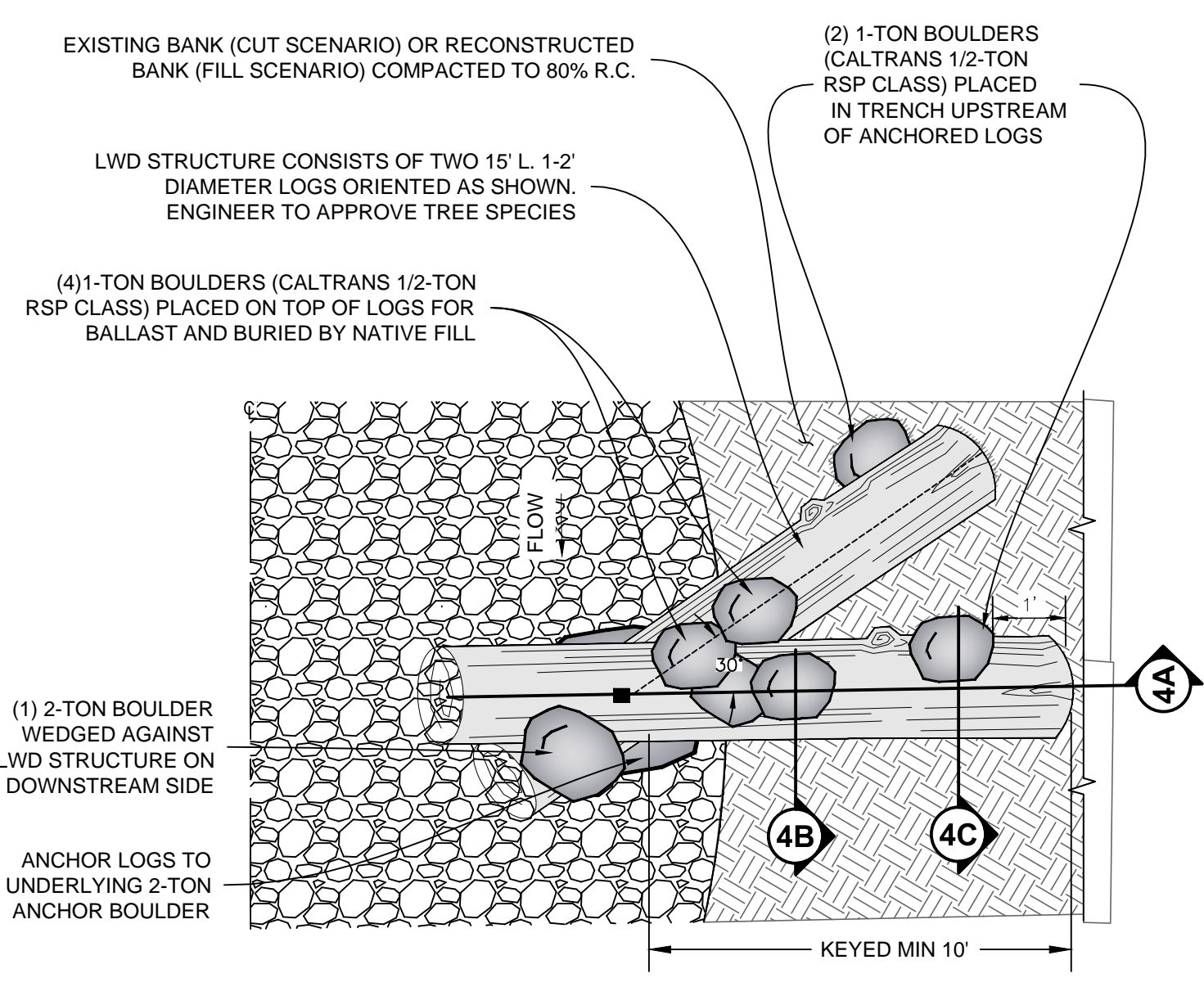
**3 LOG-BOULDER ANCHORING**

NTS

- NOTE:  
 1. SECURE THREADED REBAR TO 2 TON BOULDER USING EPOXY ADHESIVE (HILTI C-10 EPOXY CARTRIDGES, OR APPROVED EQUAL). HOLE DEPTH MUST BE SUFFICIENT TO REACH COMPETENT, UN-FRACTURED ROCK IN ORDER TO OBTAIN MAXIMUM BONDING STRENGTH. A MINIMUM OF 12 INCHES IS RECOMMENDED; 1" DIAMOND-TIPPED DRILL (TIGHT FIT).

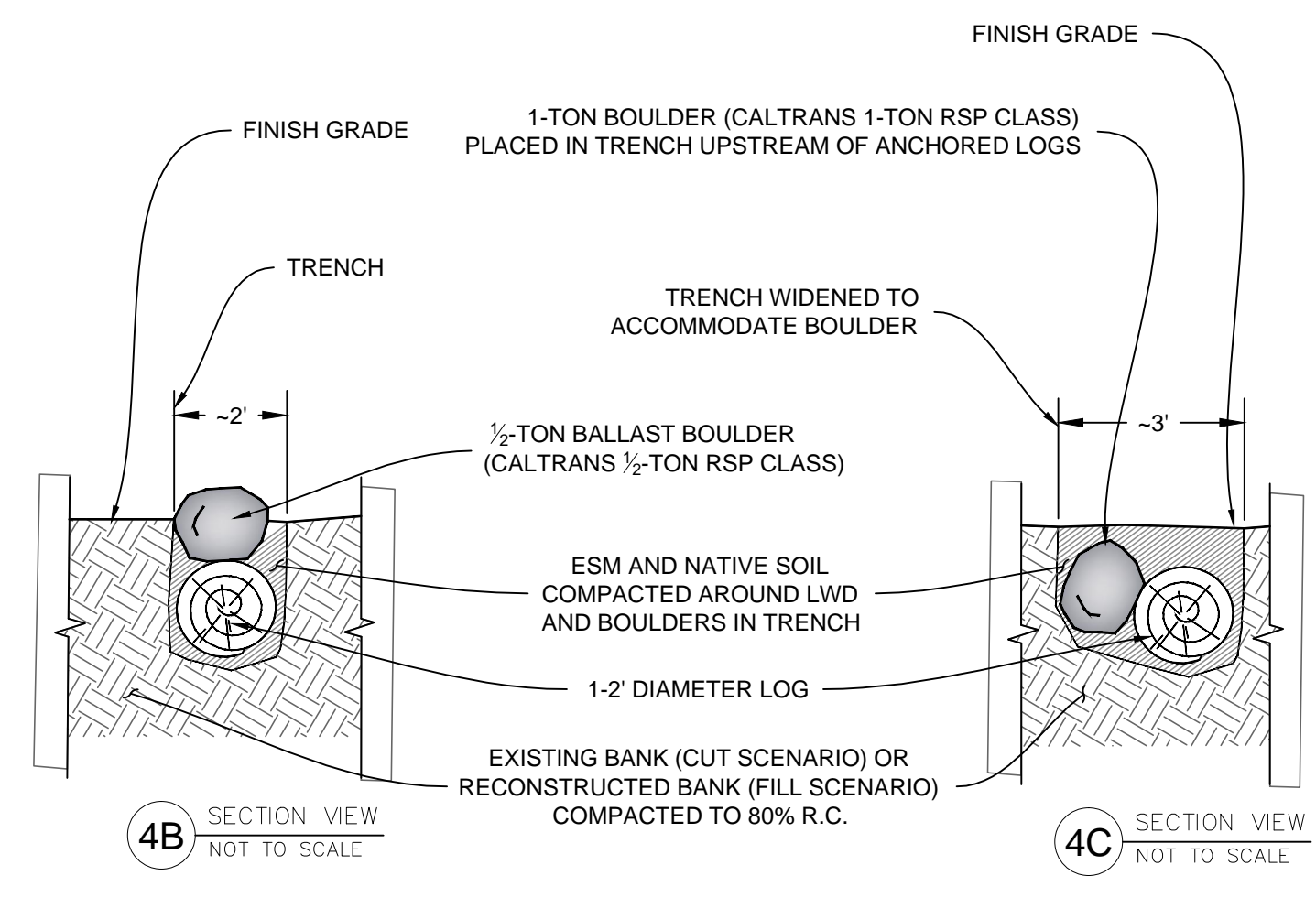
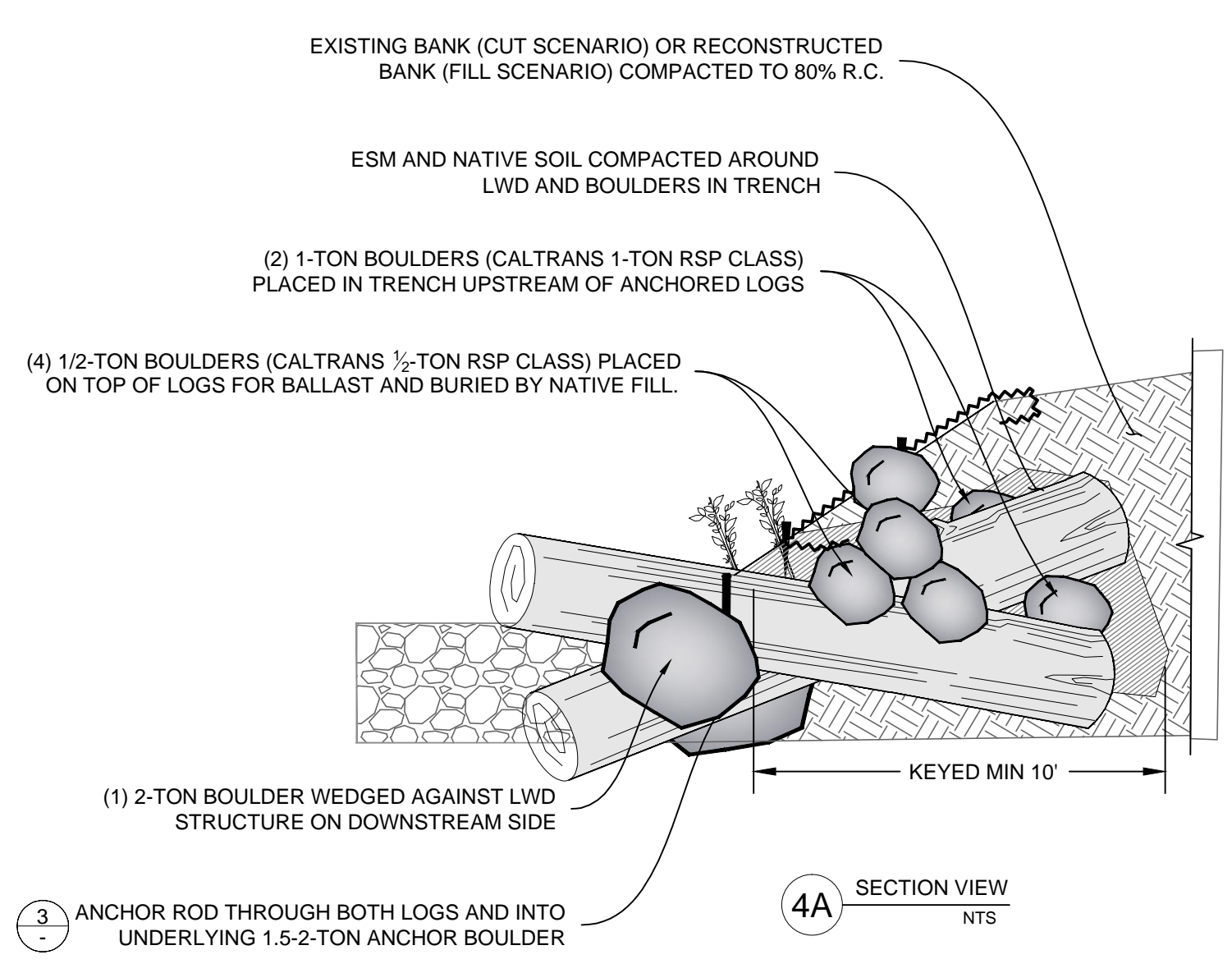
**5 CUTOFF WALL DETAILS**

NTS



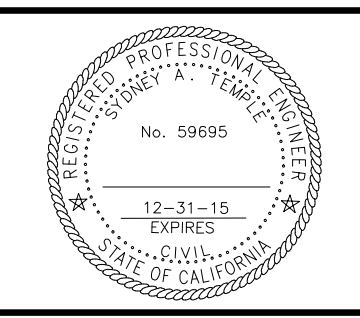
**4 2-LOG LARGE WOOD STRUCTURE**

NTS



**MEDEA CREEK RESTORATION**  
 CITY OF AGOURA HILLS

**QUESTA**  
 ENGINEERING CORP.  
 Civil Environmental & Water Resources  
 (510) 236-6114  
 P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

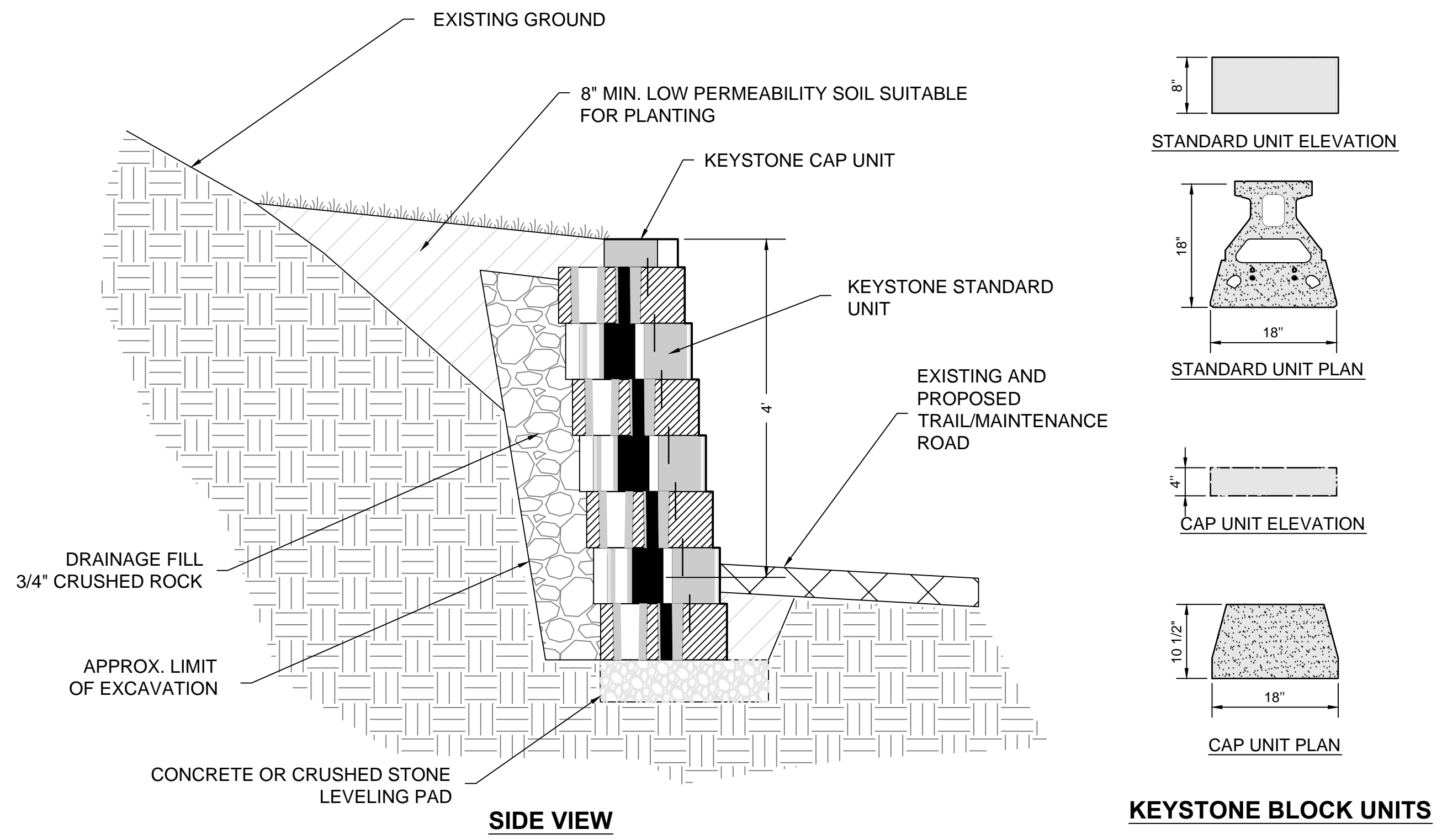


Sht.	Rev.	Date:	By:	Description:	App'd:	Design:
						ST/JM
						JM
						ST
						ST

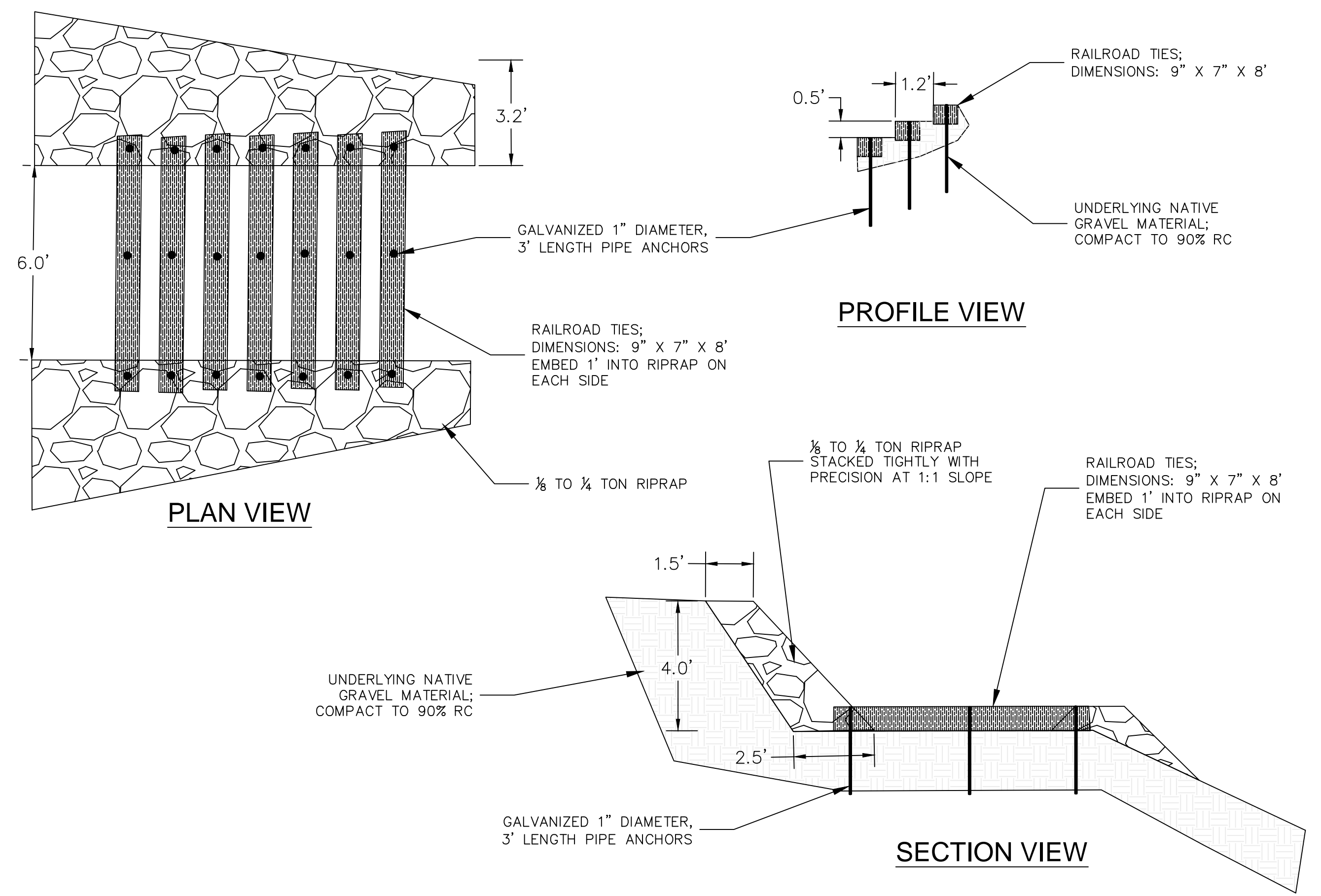
**CONSTRUCTION DETAILS 2**  
 AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
 Scale: AS NOTED  
 Date: 2014-11-25  
 Sheet: 14 OF 23

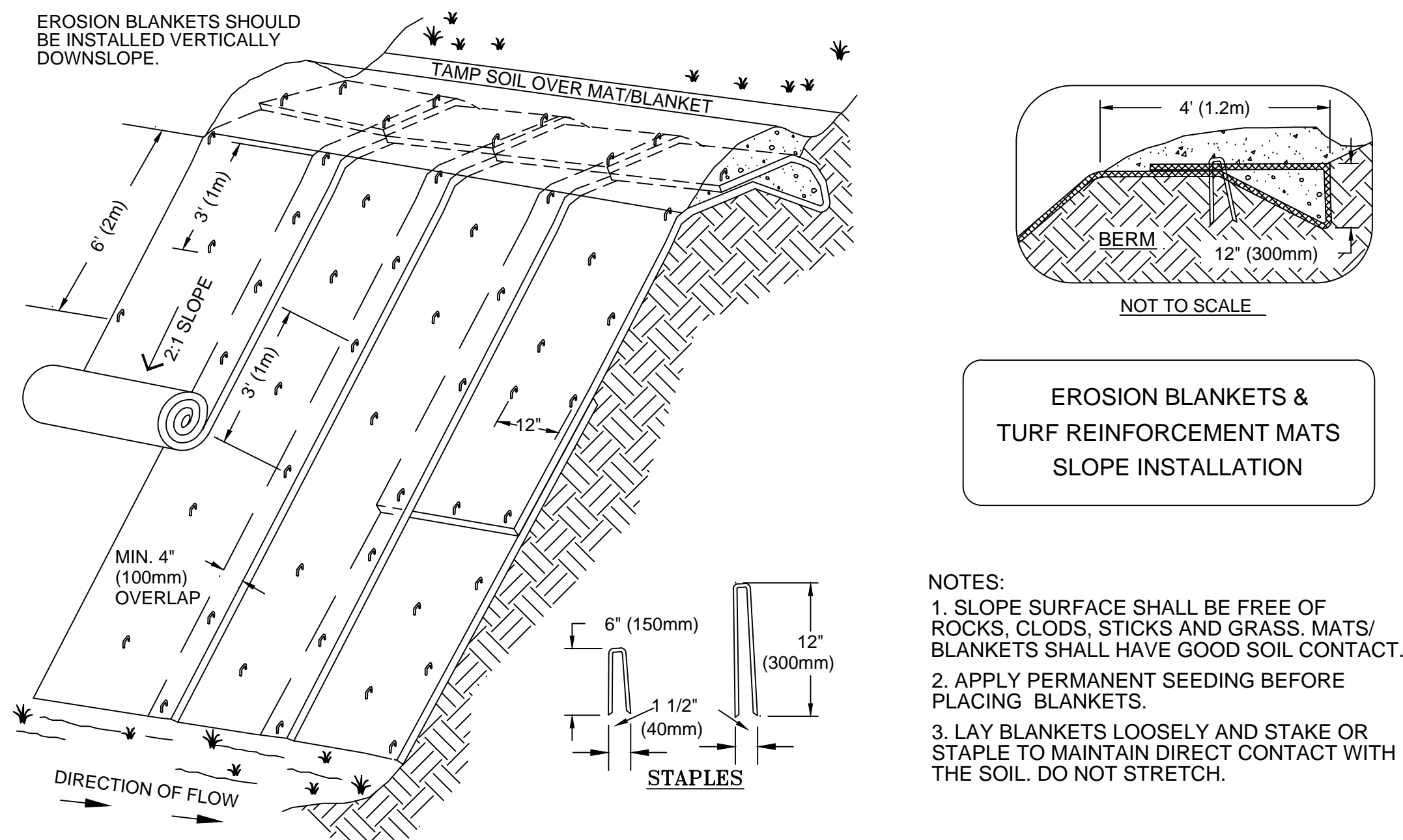
P:\2013\1300042-MEDIA-CREEK\CAD\1300042-MEDIA-BOX.DWG PLOT DATE: 12/7/2014 PLOT STYLE: ----- LAST SAVED: 12/7/2014



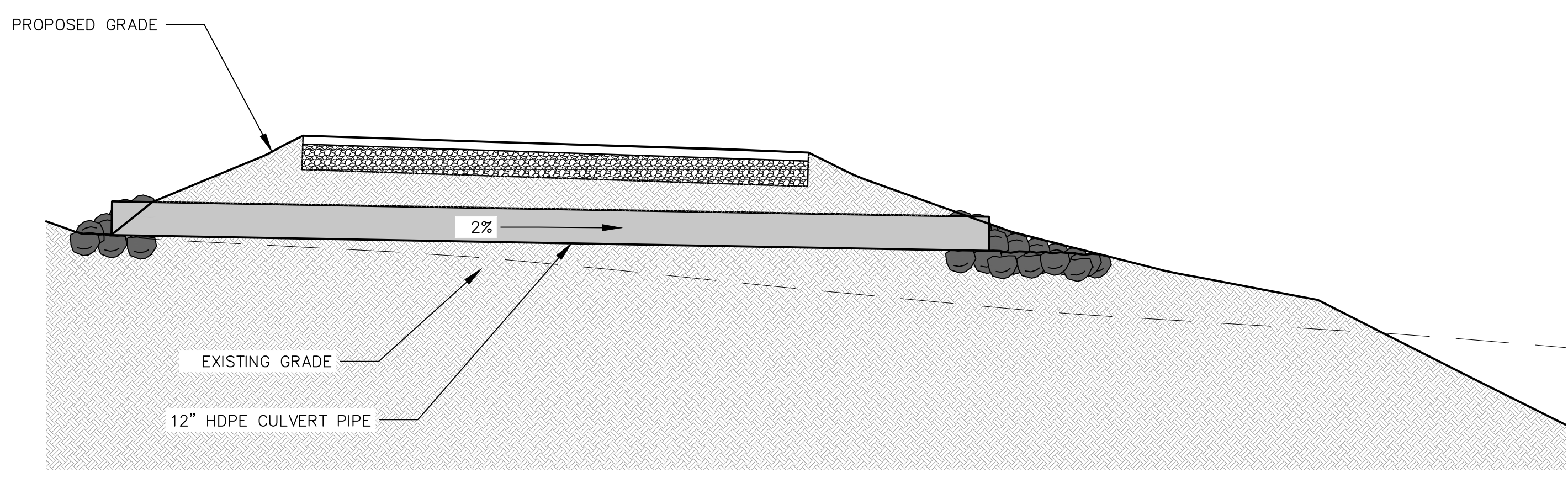
**1 KEystone RETAINING WALL** NTS



**2 TRAIL STEPS** NTS



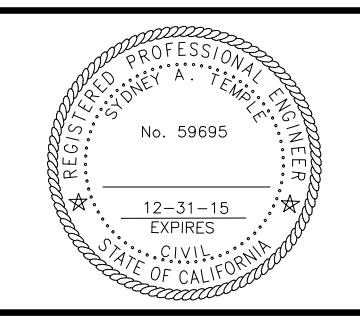
**3 EROSION CONTROL FABRIC** NTS



**4 CULVERT SECTION** NTS

**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaac.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

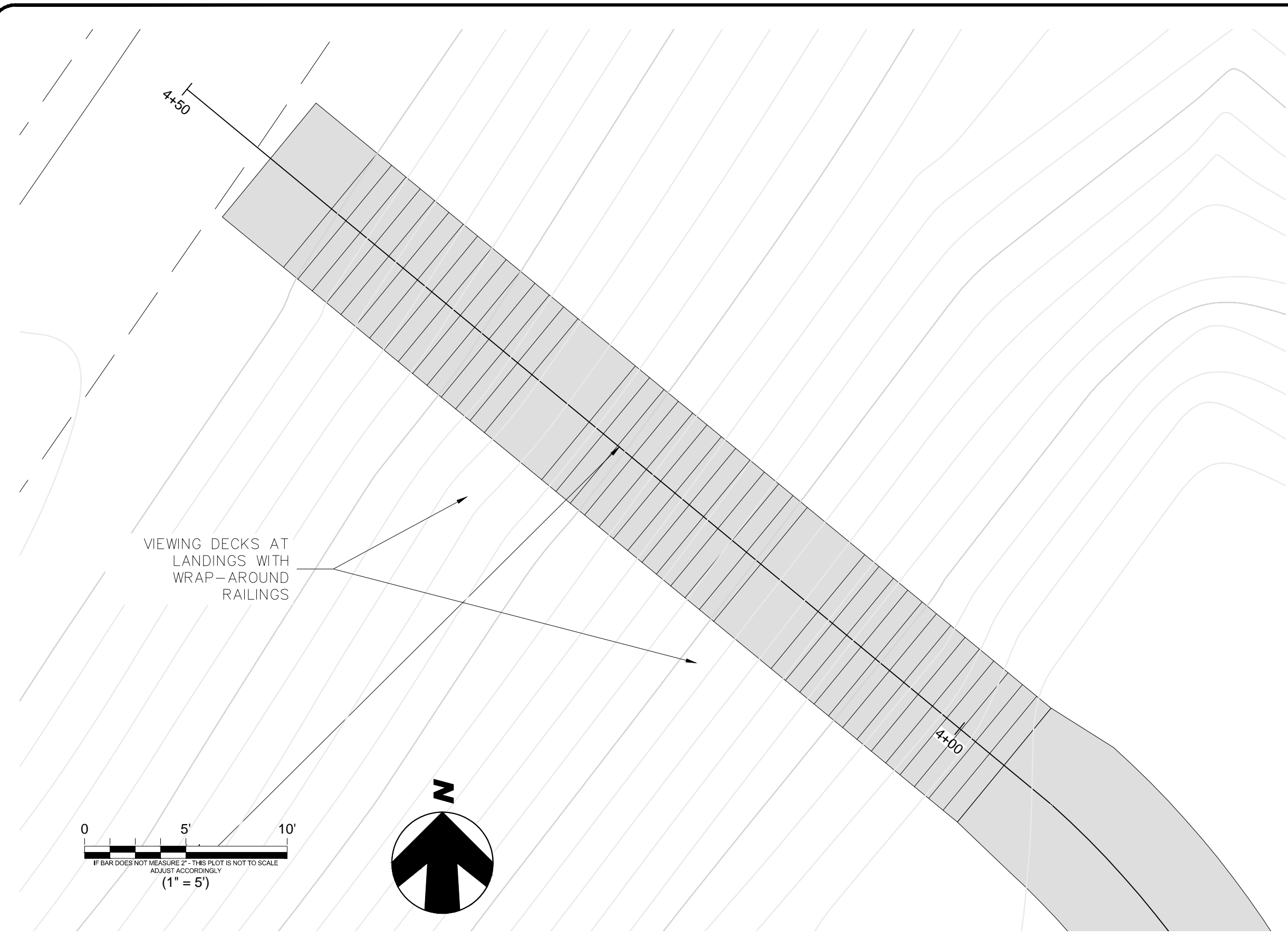


Sht.	Rev.	Date	By	Description	App'd	Design
						ST/JM
						JM
						ST
						ST

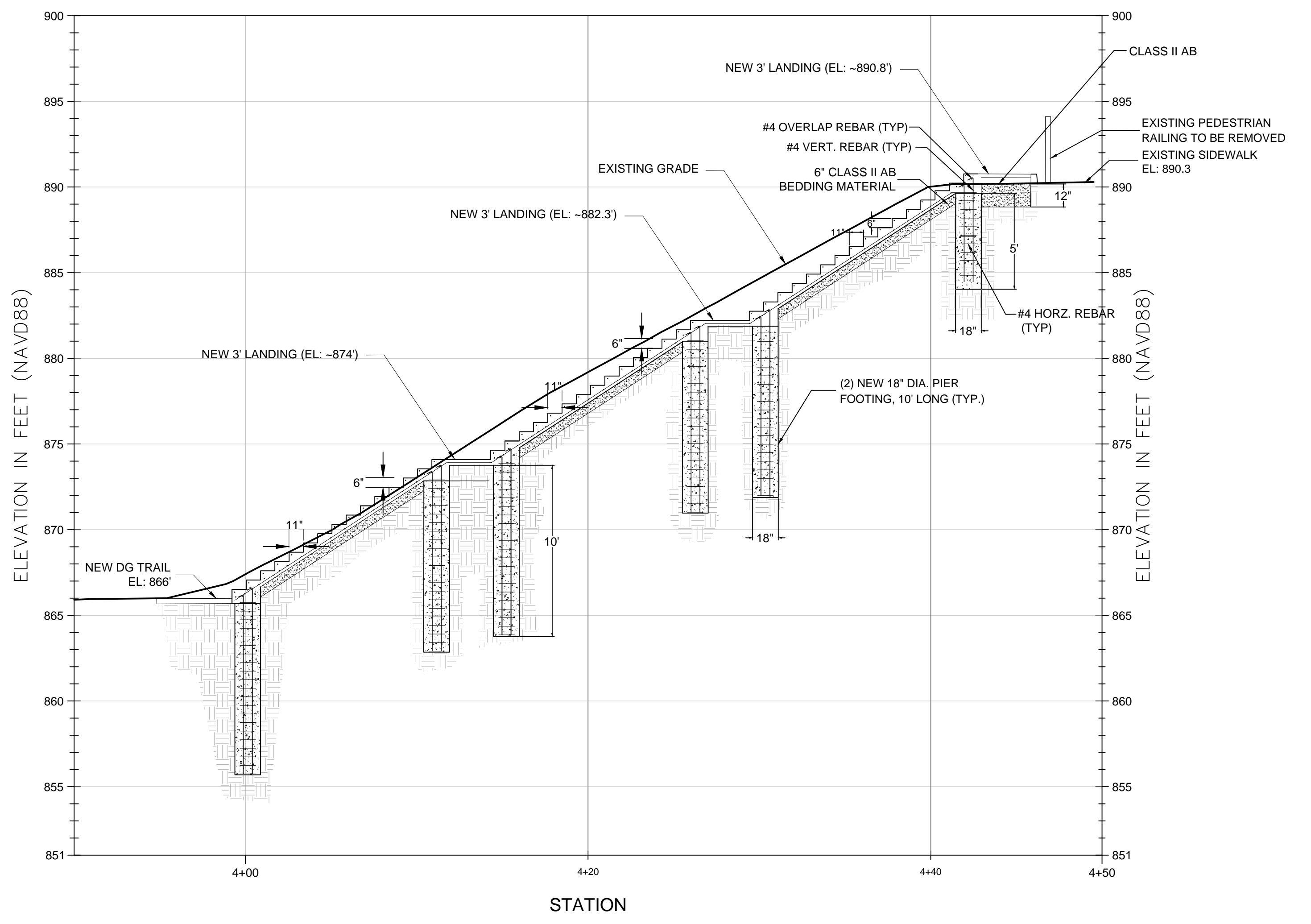
**CONSTRUCTION DETAILS 3**  
AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
Scale: AS NOTED  
Date: 2014-11-25  
Sheet: 15 OF 23

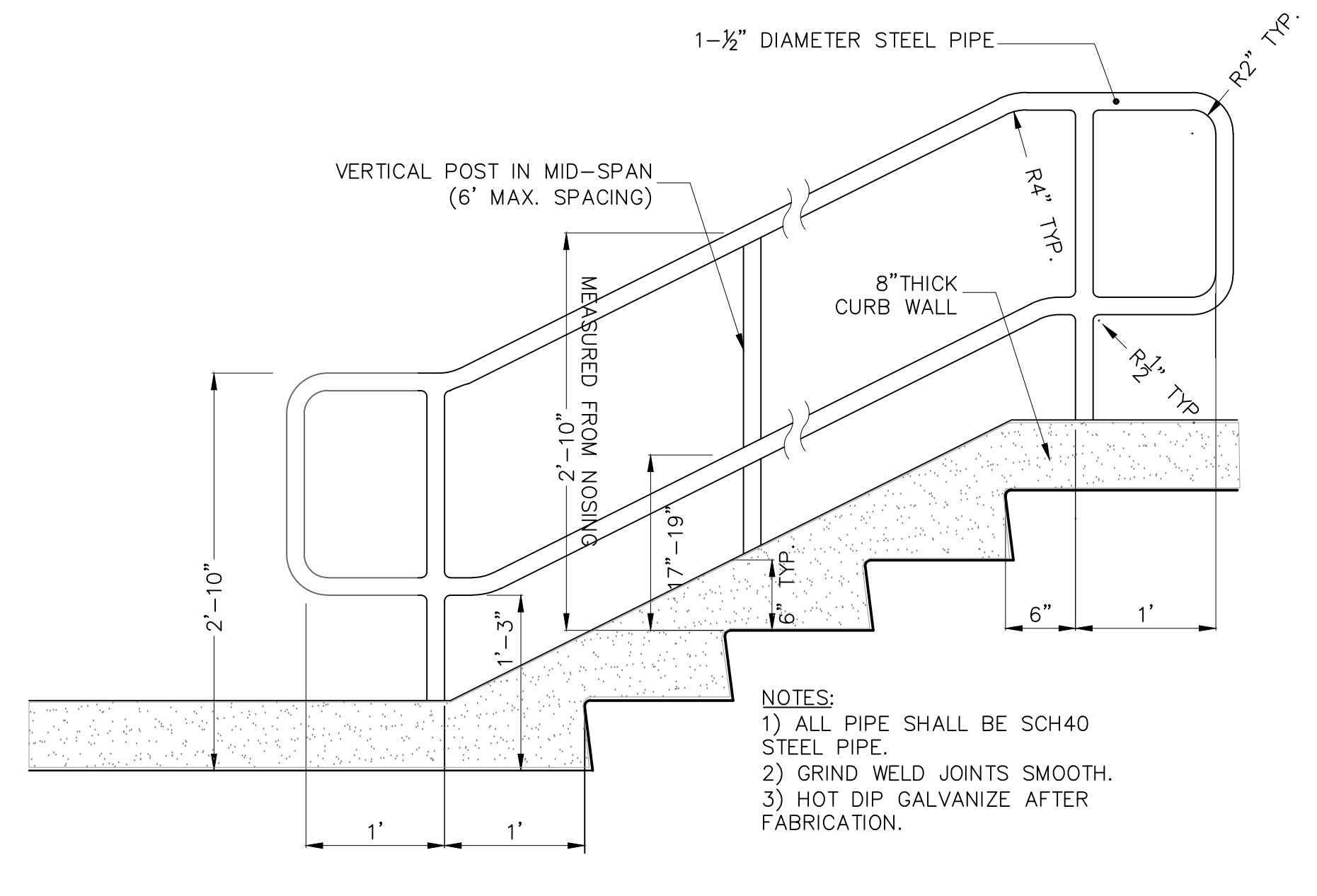
P:\3013\1300042\_MEDA-CREEK\CAD\130042\_MEDA\_BORING  
 LAST SAVED: 12/17/2014 PLOT DATE: 12/7/2014 PLOT STYLE:



**1 STAIRS - PLAN VIEW**

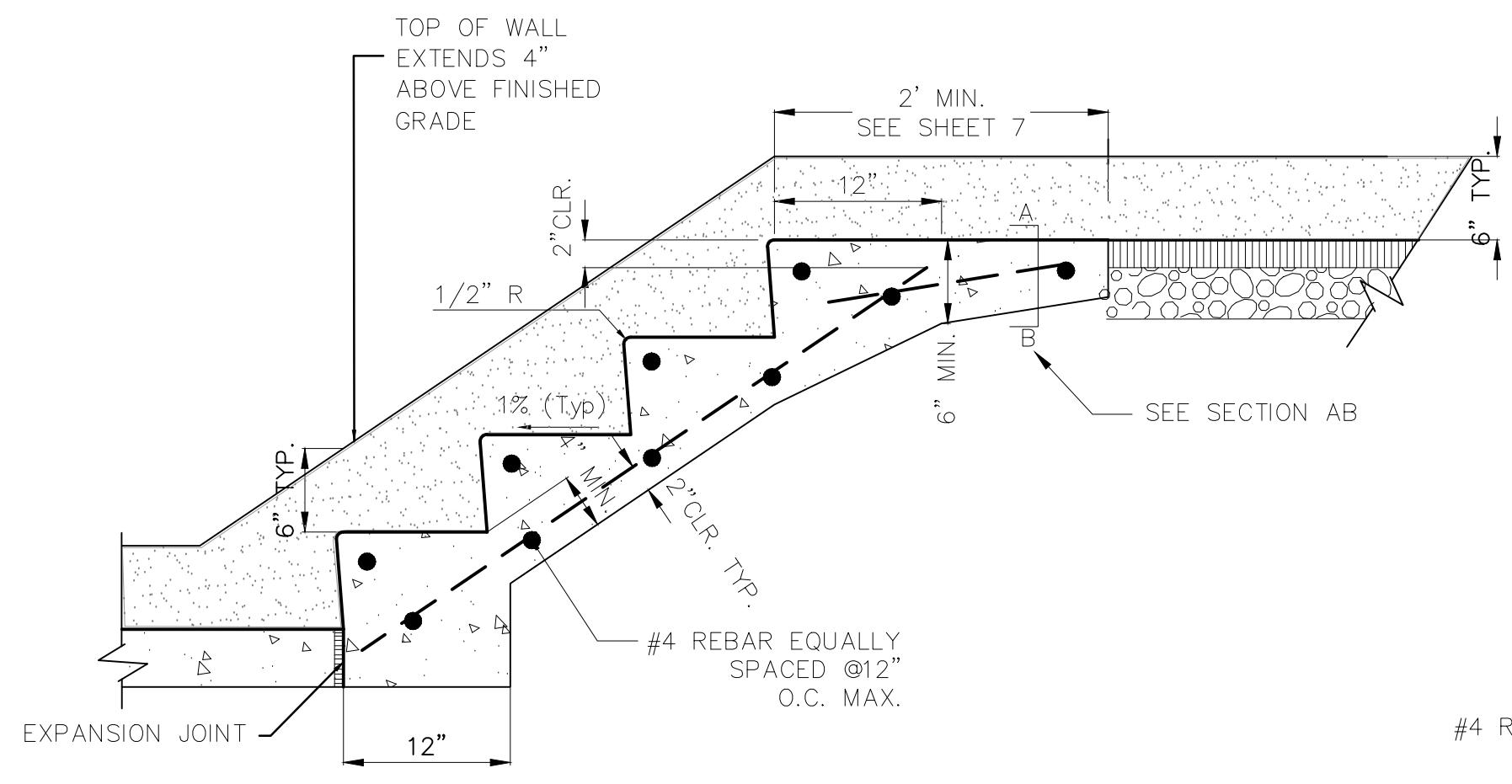


**2 STAIRS - PROFILE VIEW**

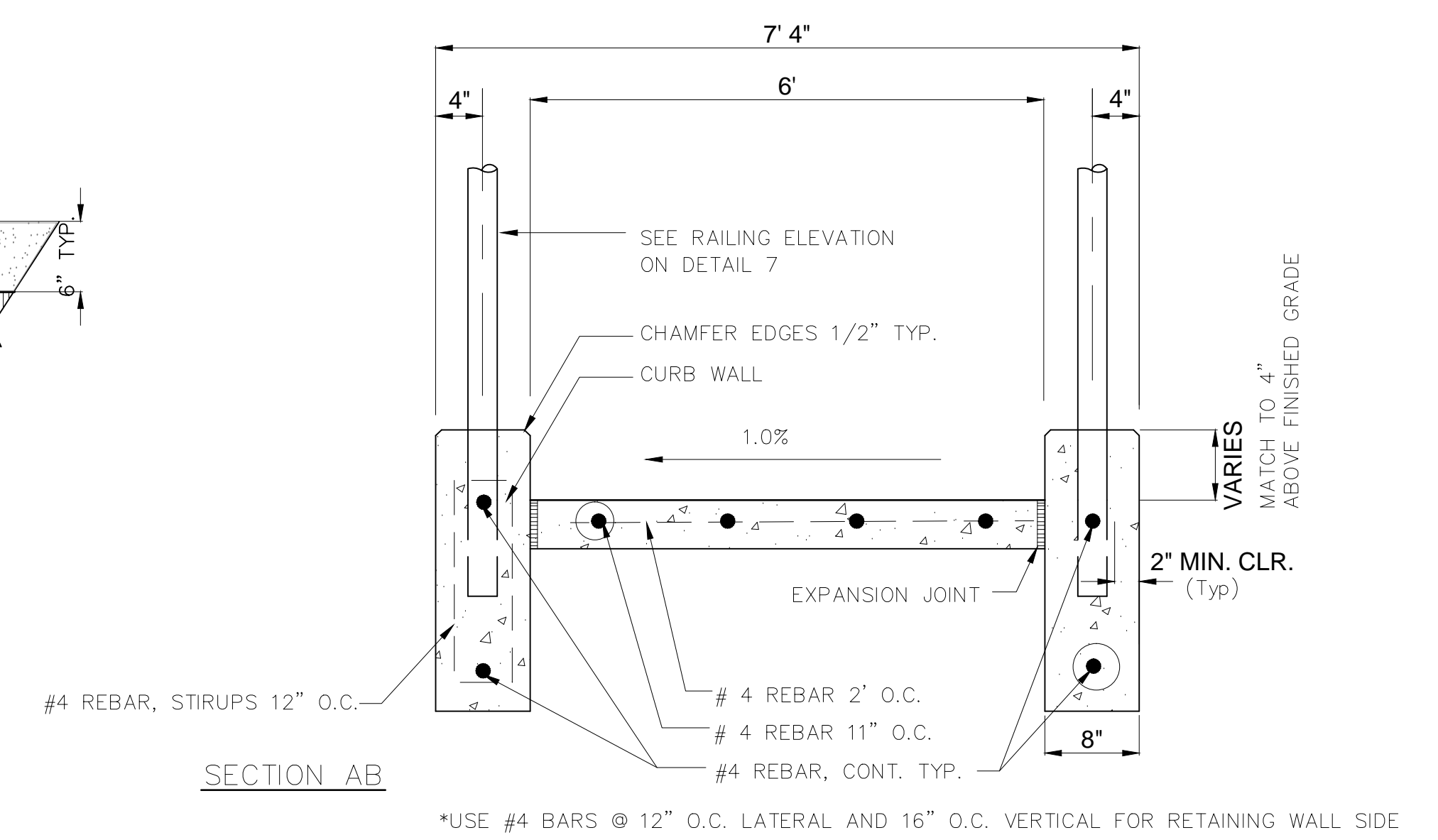


**3 STAIRS - RAILING DETAIL**  
NTS

- NOTES:  
 1) ALL PIPE SHALL BE SCH40 STEEL PIPE.  
 2) GRIND WELD JOINTS SMOOTH.  
 3) HOT DIP GALVANIZE AFTER FABRICATION.



**4 STAIRS - STEP CONSTRUCTION DETAIL**  
NTS



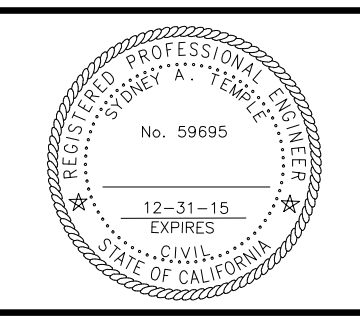
**5 STAIRS - CROSS SECTION DETAIL**  
NTS

\*USE #4 BARS @ 12" O.C. LATERAL AND 16" O.C. VERTICAL FOR RETAINING WALL SIDE

\*ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED IN WRITING BY PROJECT GEOTECHNICAL CONSULTANT PRIOR TO PLACEMENT OF REINFORCING STEEL

**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA ENGINEERING CORP.**  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questa.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



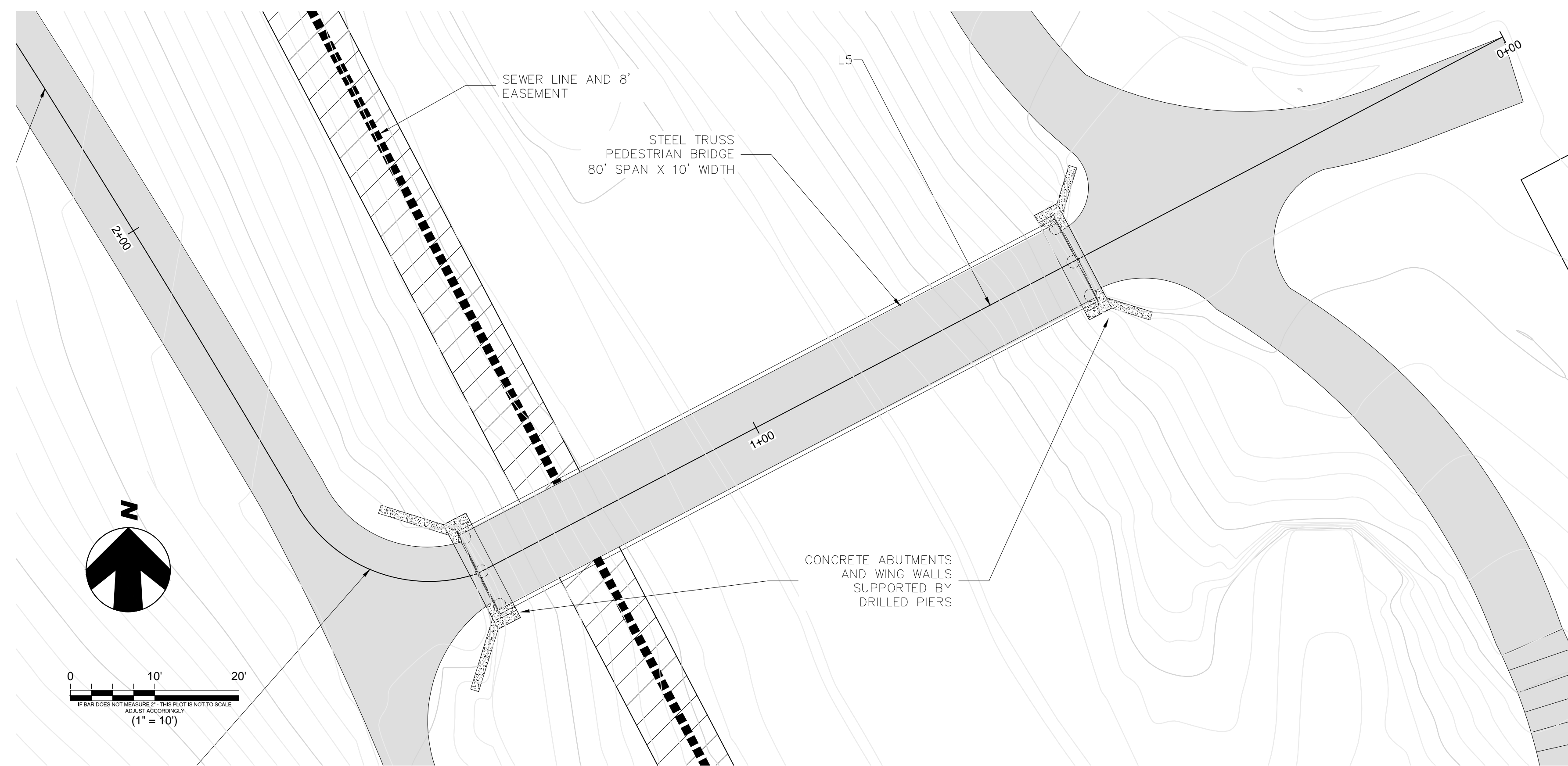
Sht.	Rev.	Date:	By:	Description:	App'd:

Design: ST/JM  
 Drawn: JM  
 Checked: ST  
 App'd: ST

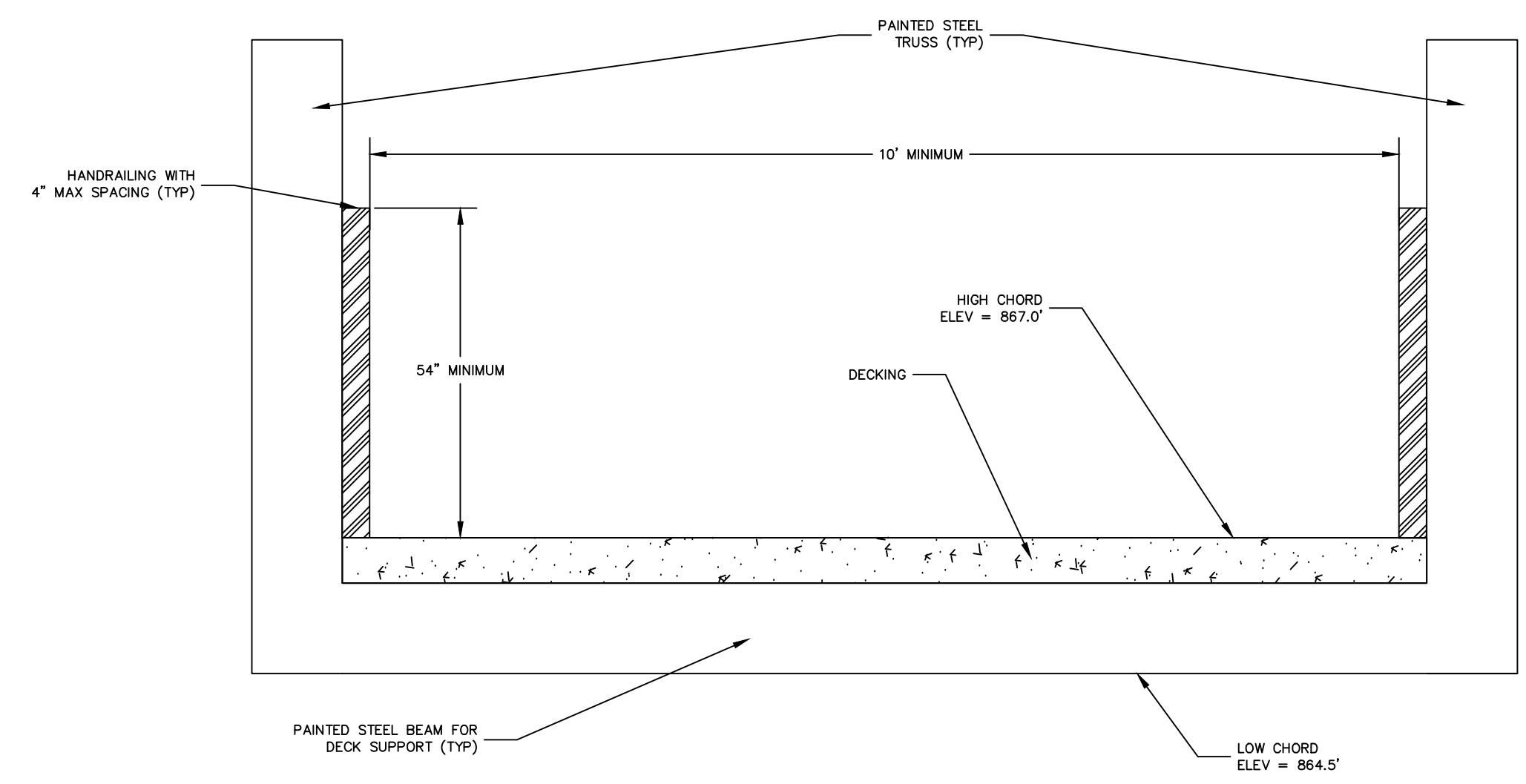
**CONSTRUCTION DETAILS 4**  
AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
 Scale: AS NOTED  
 Date: 2014-11-25  
 Sheet: 16 OF 23

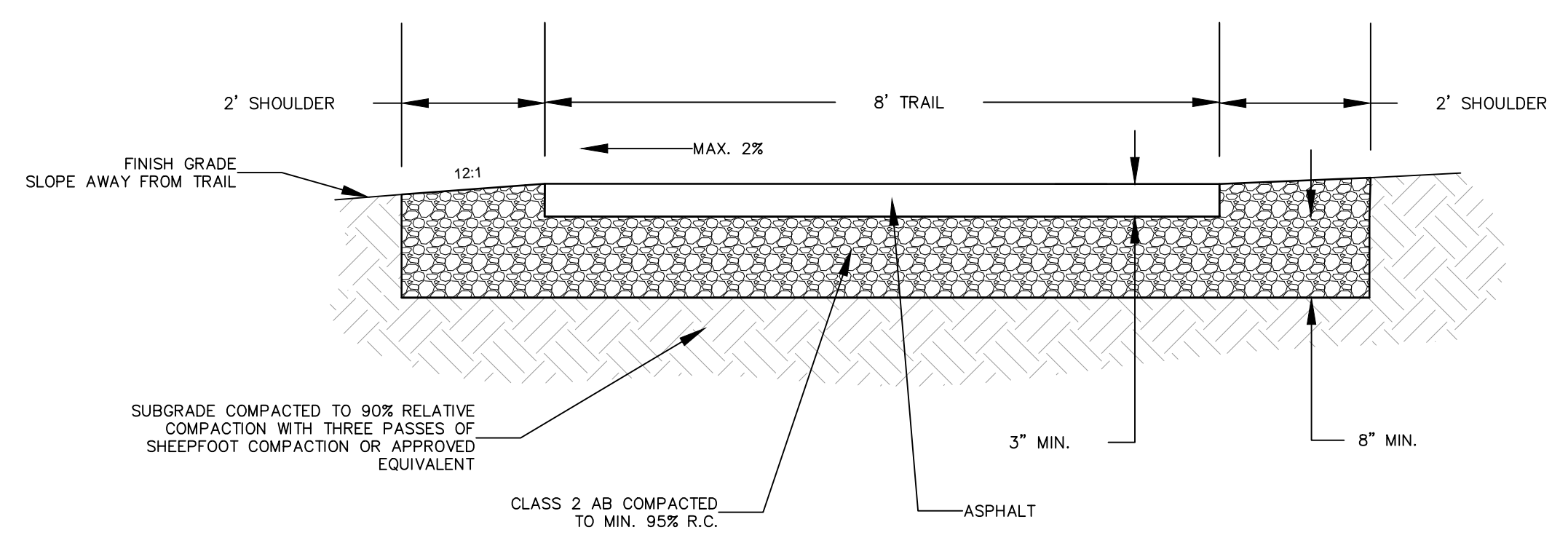
LAST SAVED: 12/7/2014 PLOT DATE: 12/7/2014 PLOT STYLE: ----- P:\2013\1300042\_MEDA-CREEK\CAD\300942\_MEDA\_000.DWG



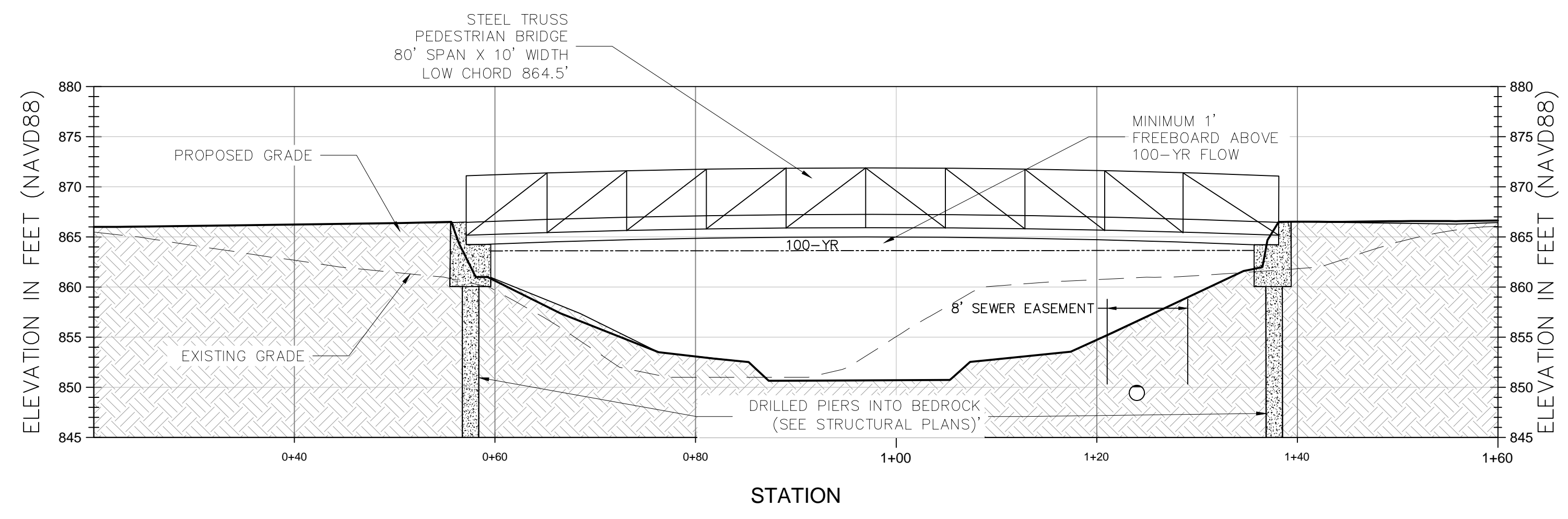
**1 BRIDGE - PLAN VIEW**



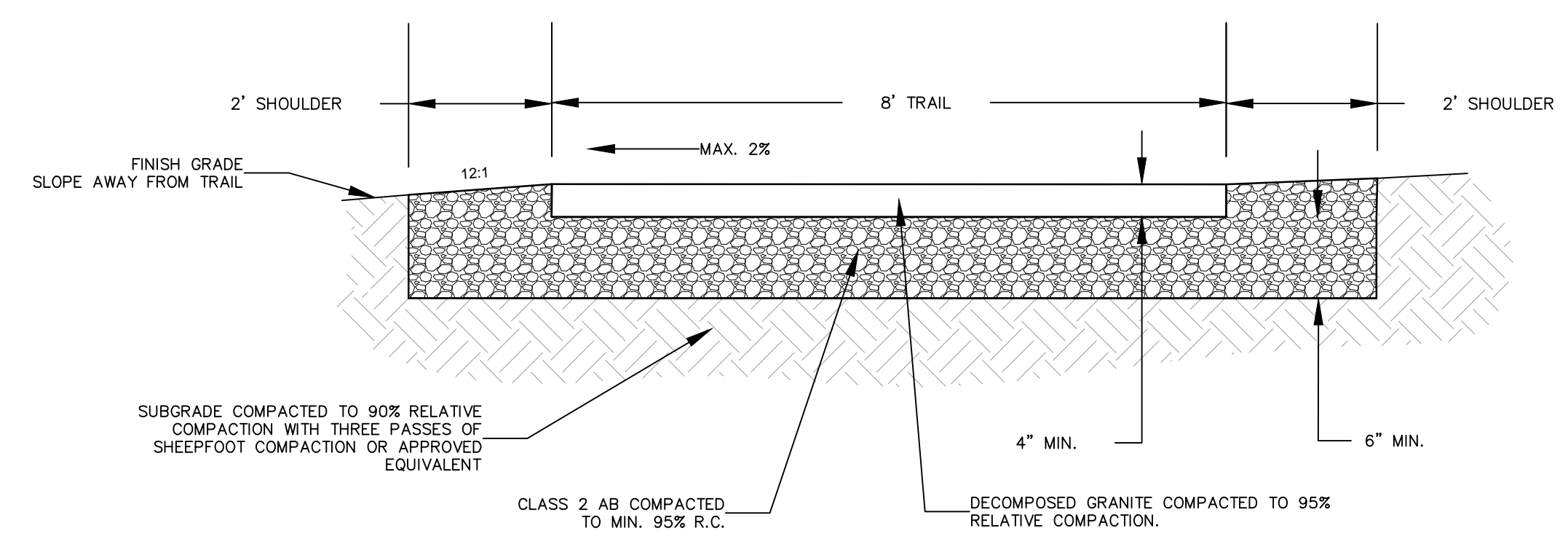
**2 BRIDGE CROSS SECTION**  
NTS



**4 ASPHALT TRAIL SECTION**  
NTS



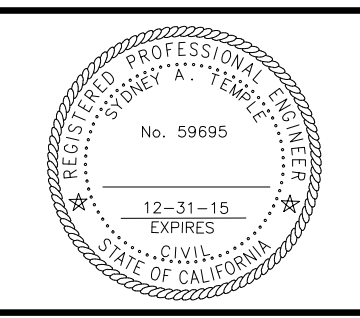
**3 TRAIL PROFILE AT PEDESTRIAN BRIDGE**  
NTS



**5 DECOMPOSED GRANITE TRAIL SECTION**  
NTS

**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questa.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

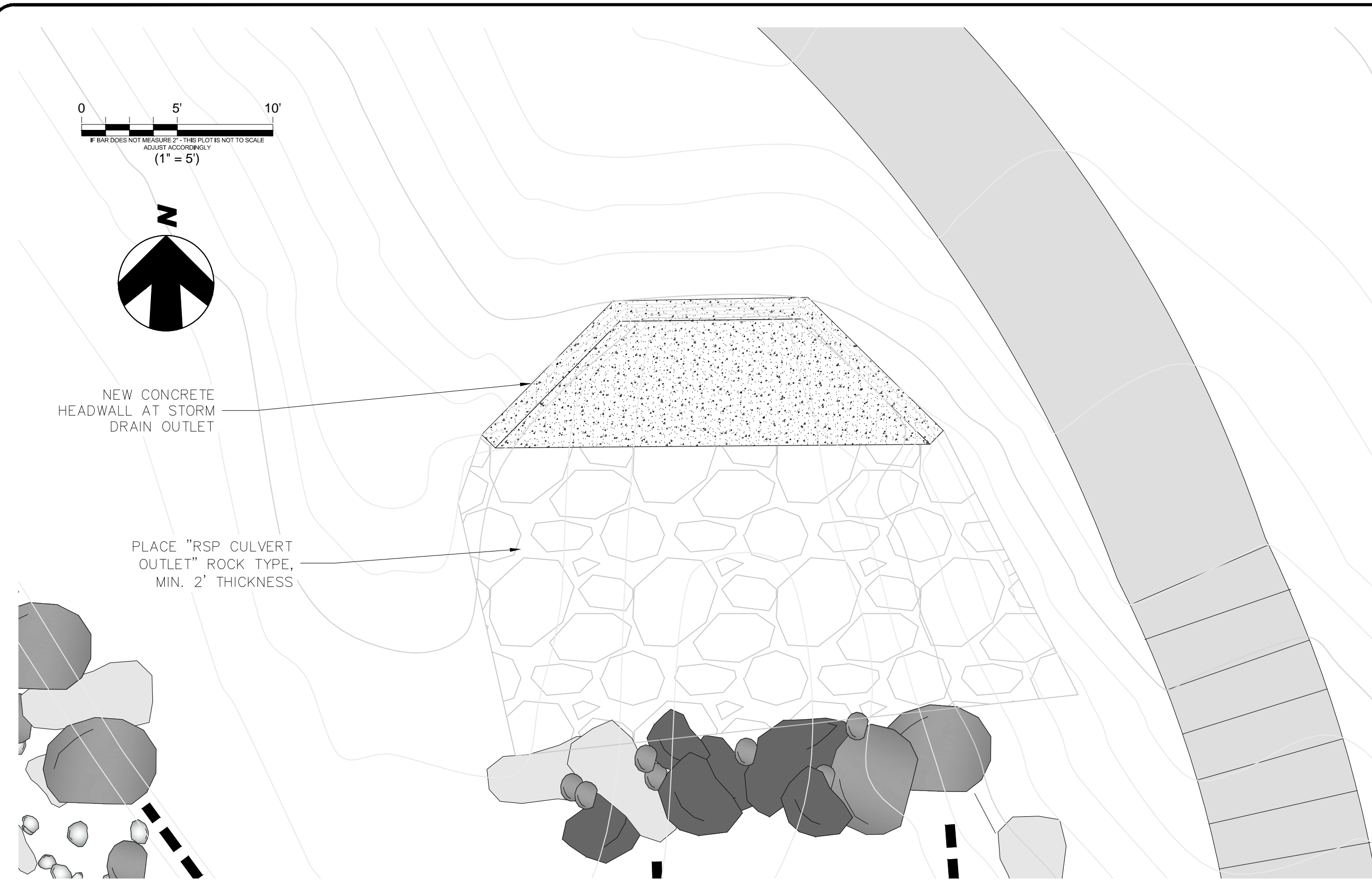


Sht.	Rev.	Date:	By:	Description:	App'd:	Design:
						ST/JM
						JM
						ST
						ST

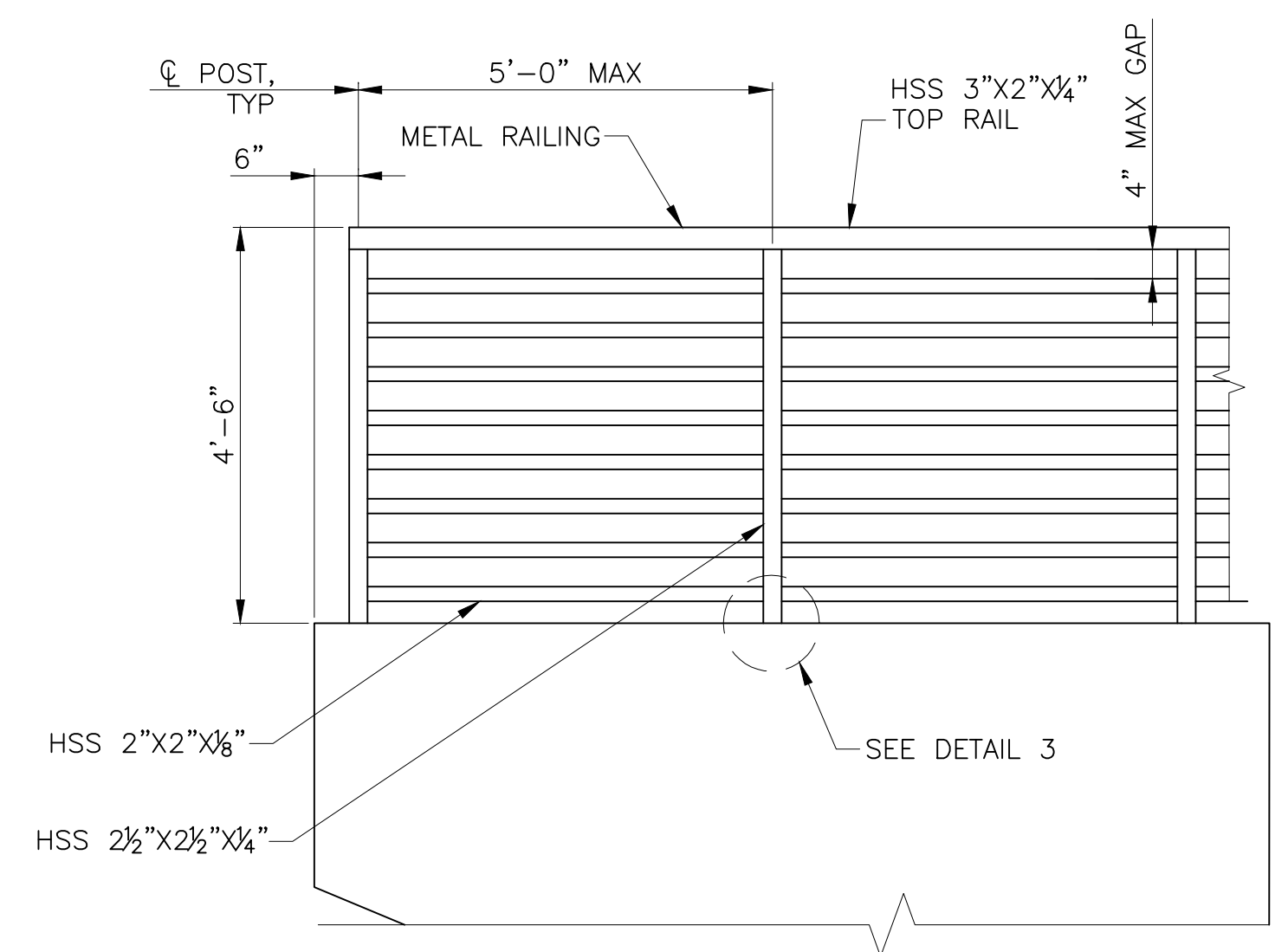
**CONSTRUCTION DETAILS 5**  
AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
Scale: AS NOTED  
Date: 2014-11-25  
Sheet: 17 OF 23

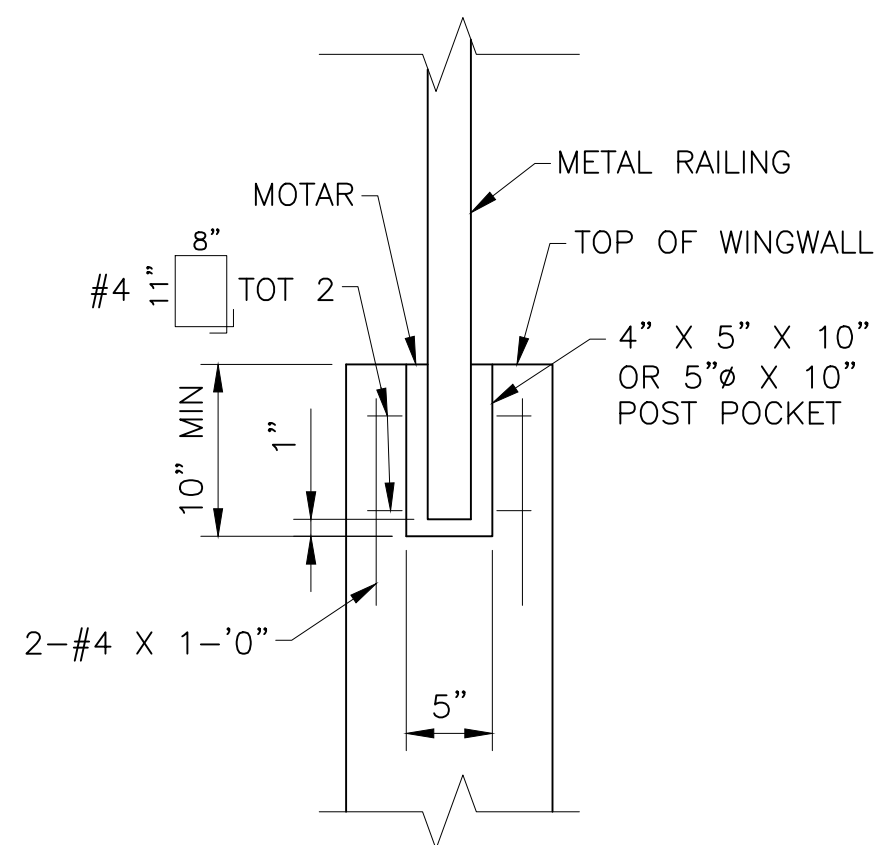
P:\2013\1300042\_MEDA-CREEK\CAD\1300042\_MEDA\_CAD.DWG  
 LAST SAVED: 12/17/2014 PLOT DATE: 12/17/2014 PLOT STYLE:



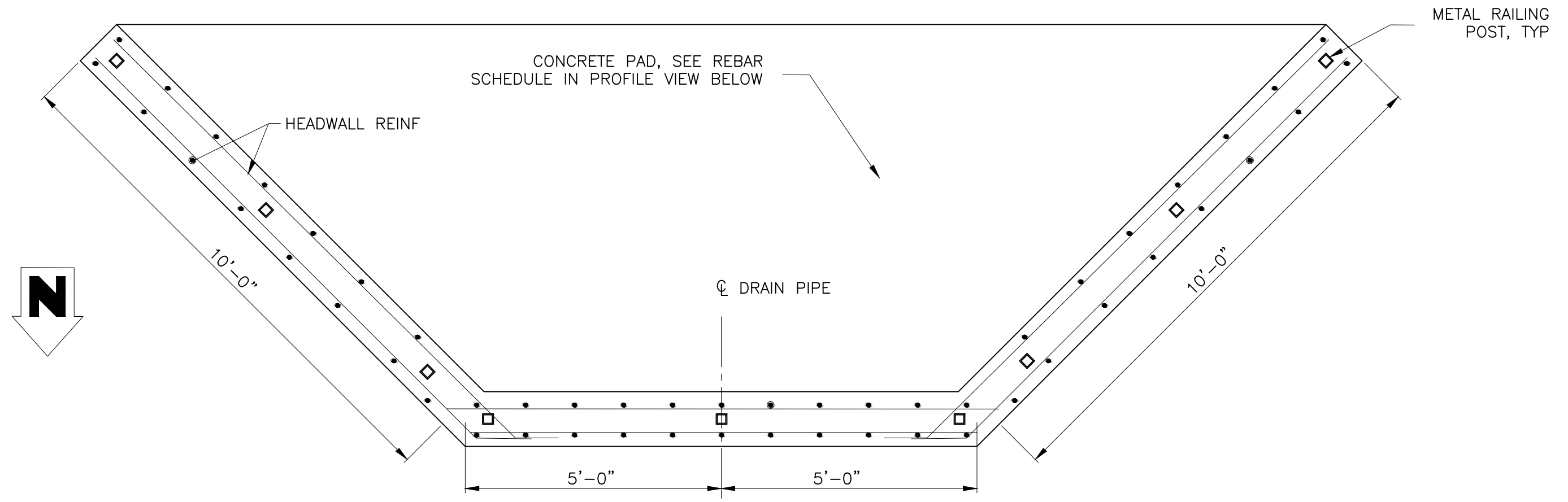
1 STORM DRAIN OUTFLOW - OVERVIEW



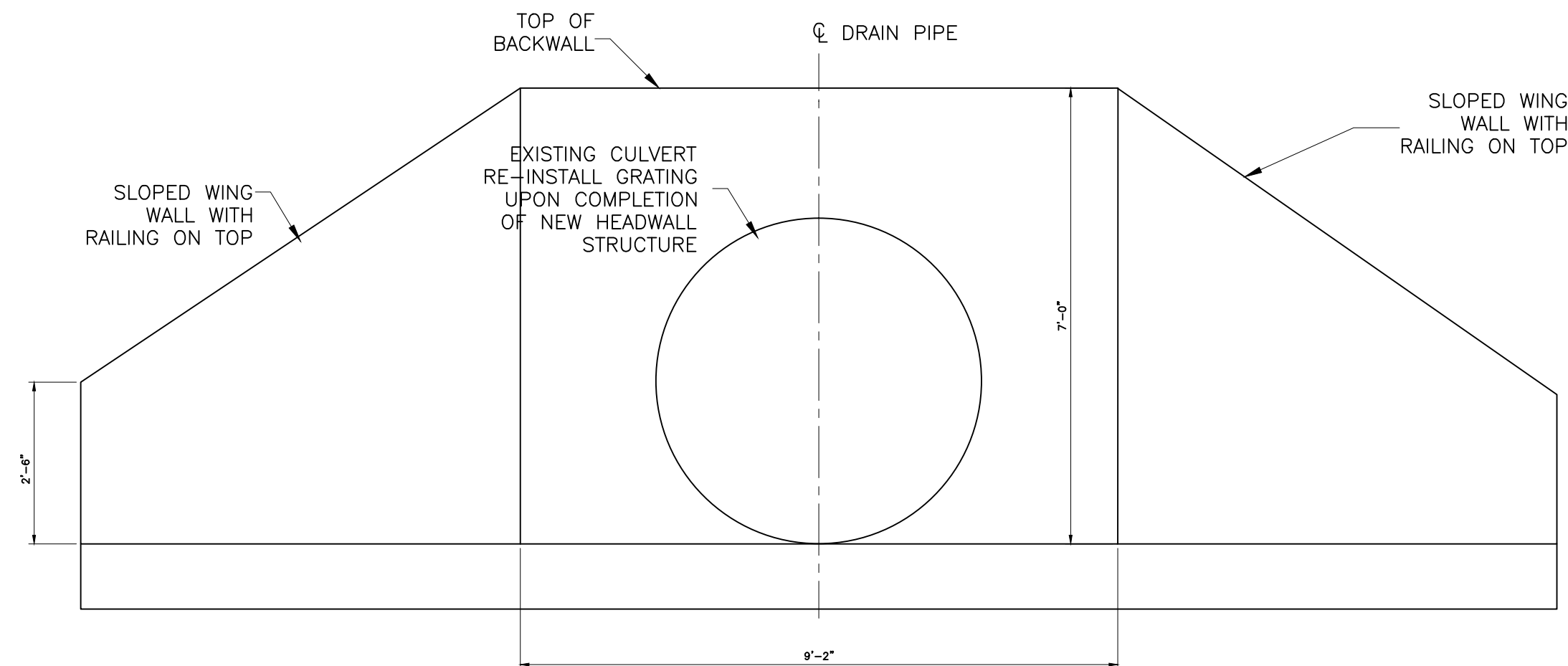
2 METAL RAILING (TYP) NTS



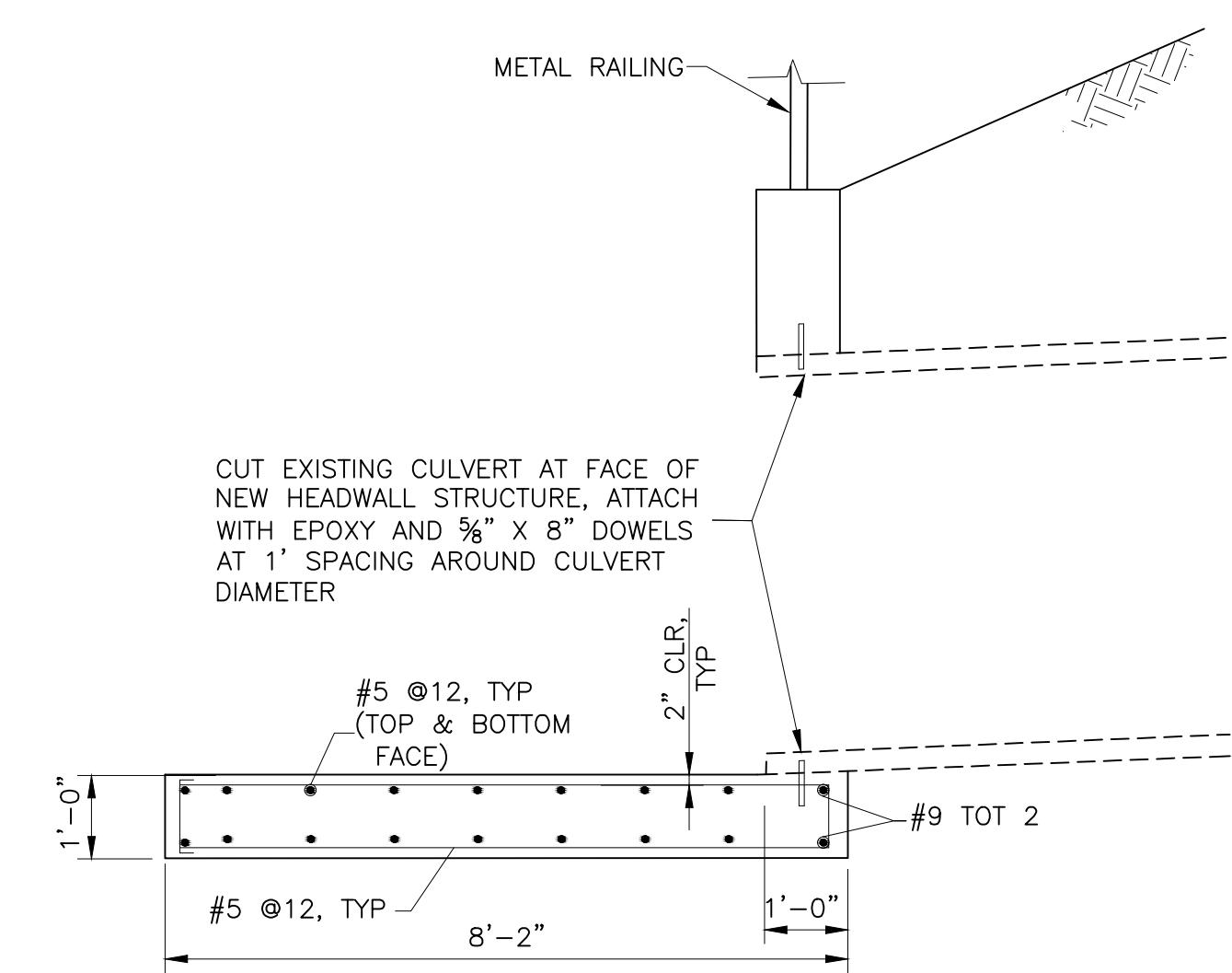
3 RAILING CONNECTION (TYP) NTS



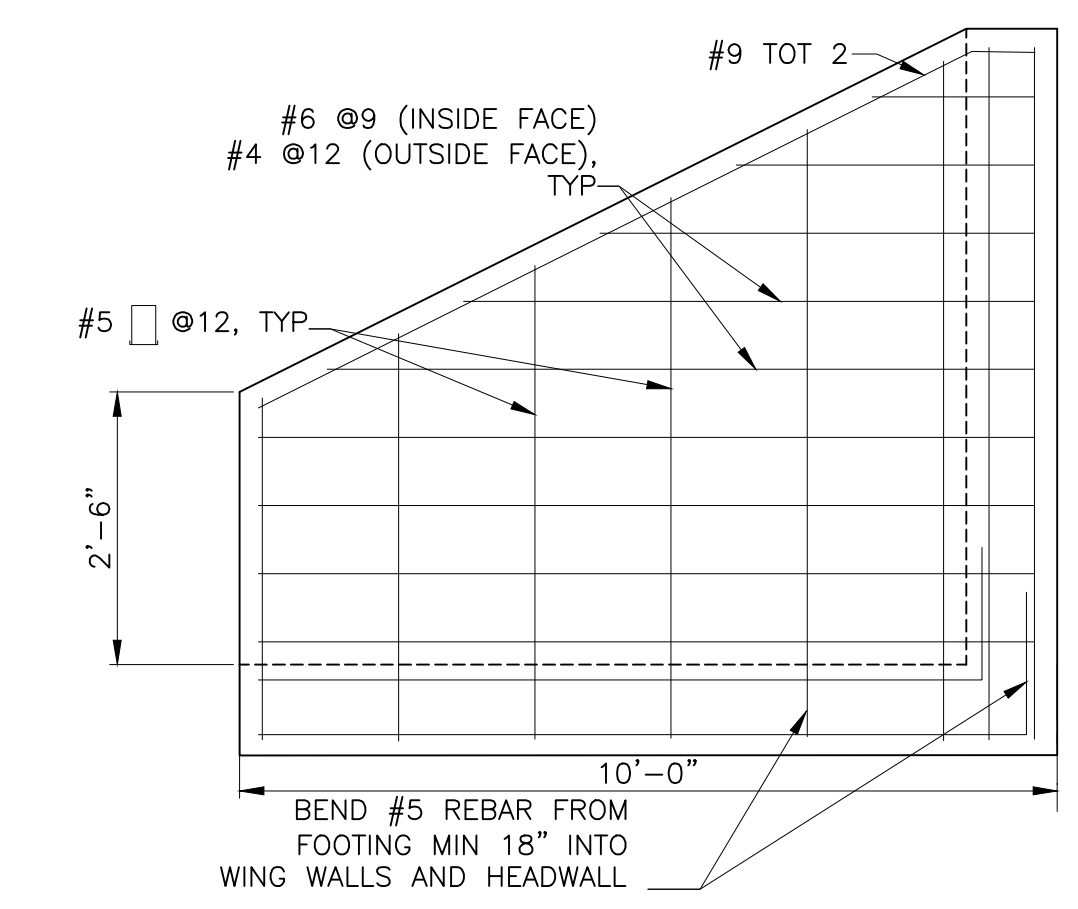
4 STORMDRAIN OUTLET PLAN VIEW DETAIL



5 STORMDRAIN CROSS SECTION DETAIL



6 STORMDRAIN PROFILE VIEW DETAIL NTS

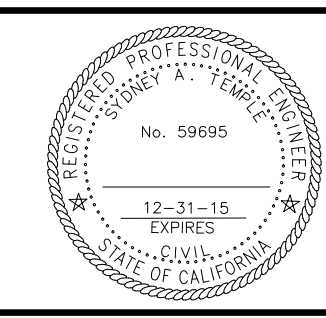


7 STORMDRAIN HEADWALL REBAR SCHEDULE NTS

60% DESIGN NOT FOR CONSTRUCTION

MEDEA CREEK RESTORATION  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaac.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807

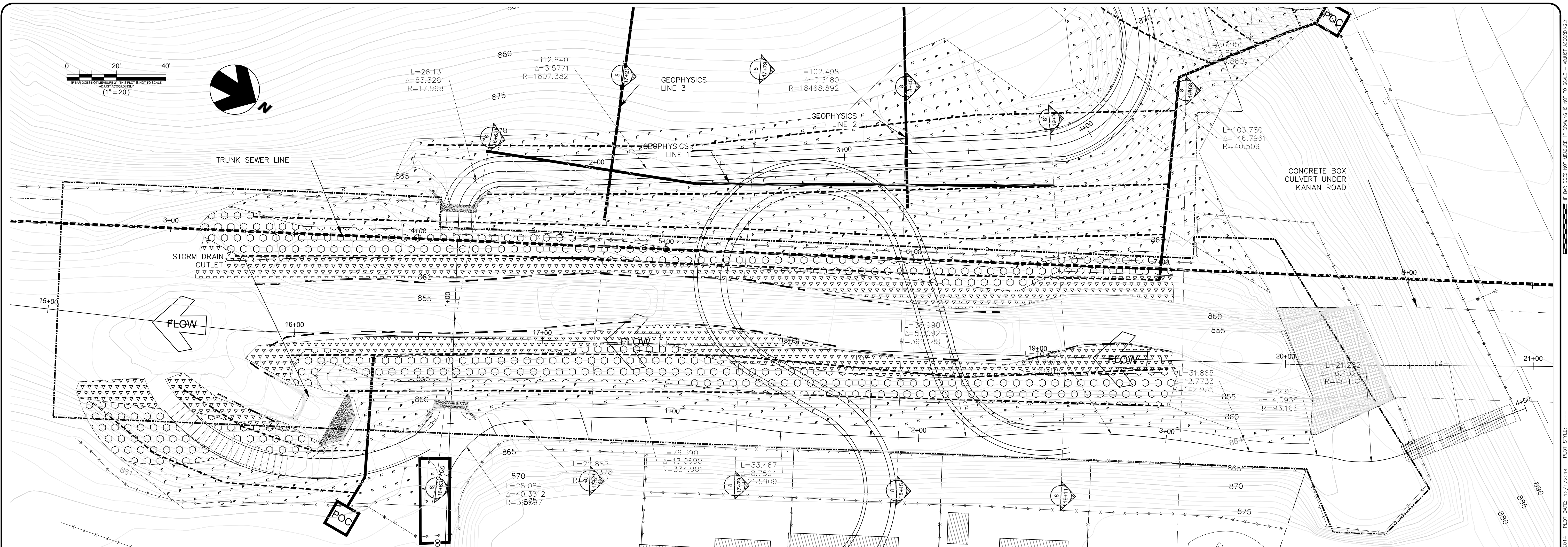


Sht.	Rev.	Date:	By:	Description:	App'd:	Design:
						ST/JM
						JM
						ST
						ST

**STORM DRAIN OUTLET DETAILS**  
AGOURA HILLS, LOS ANGELES COUNTY

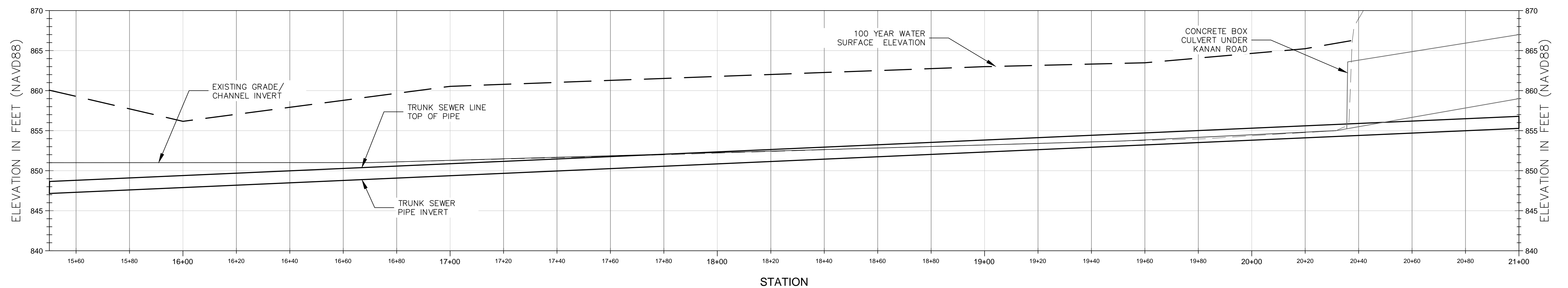
Size D Project 1300042  
Scale: AS NOTED  
Date: 2014-11-25  
Sheet: 18 OF 23

P:\2013\1300042-MEDIA-CREEK\CAD\130042-MEDIA-BOXING  
 LAST SAVED: 12/7/2014 PLOT DATE: 12/7/2014 PLOT STYLE:



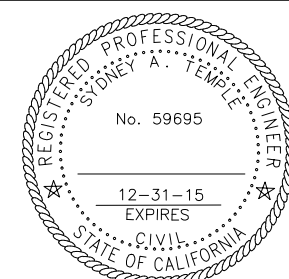
**35% DESIGN  
NOT FOR CONSTRUCTION**

EXISTING CHANNEL AND SEWER LINE PROFILE



**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaac.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



Sht.	Rev.	Date	By	Description	App'd.

Design: ST/JM  
Drawn: JM  
Checked: ST  
Appr'd: ST

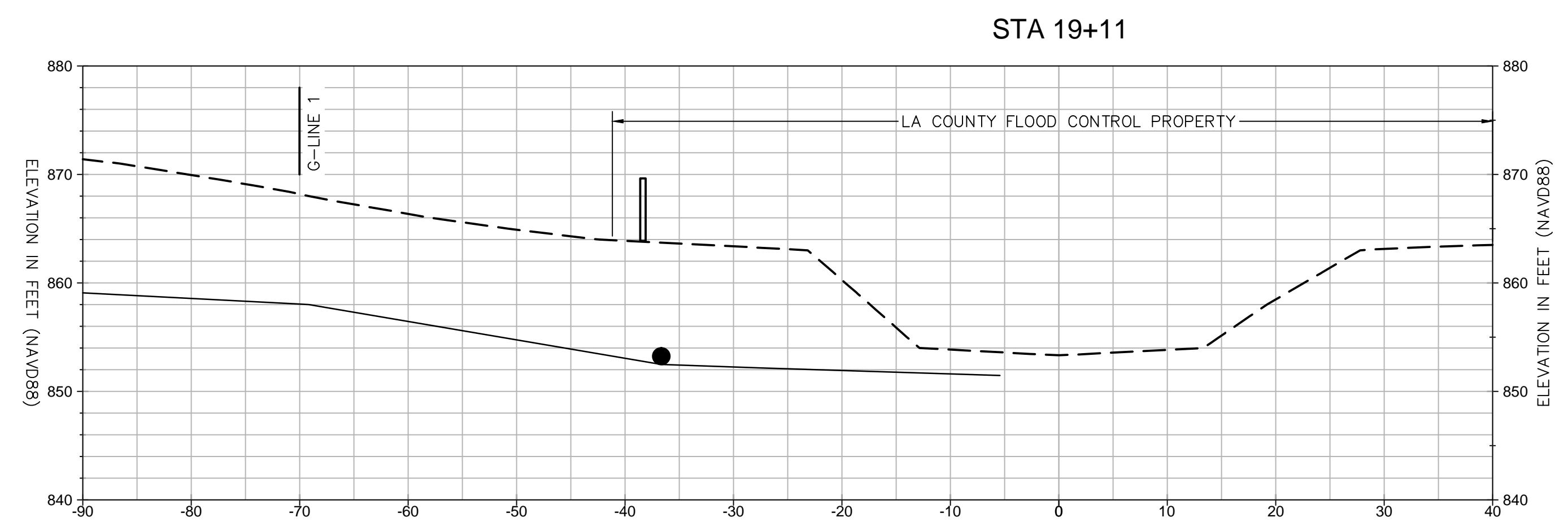
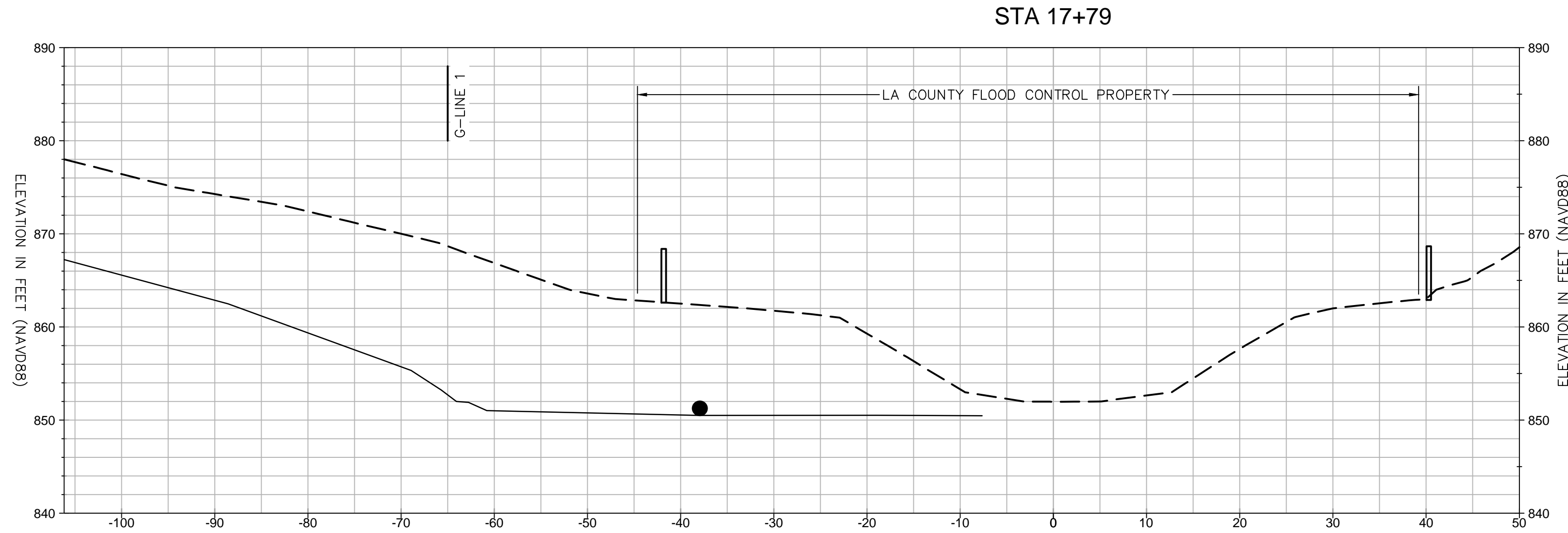
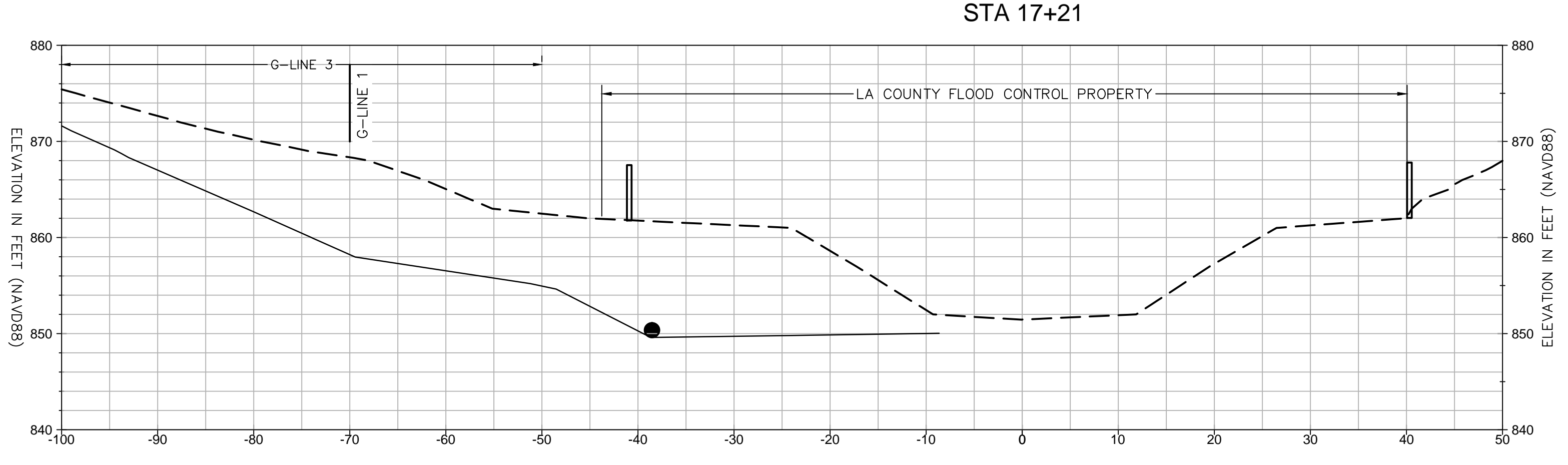
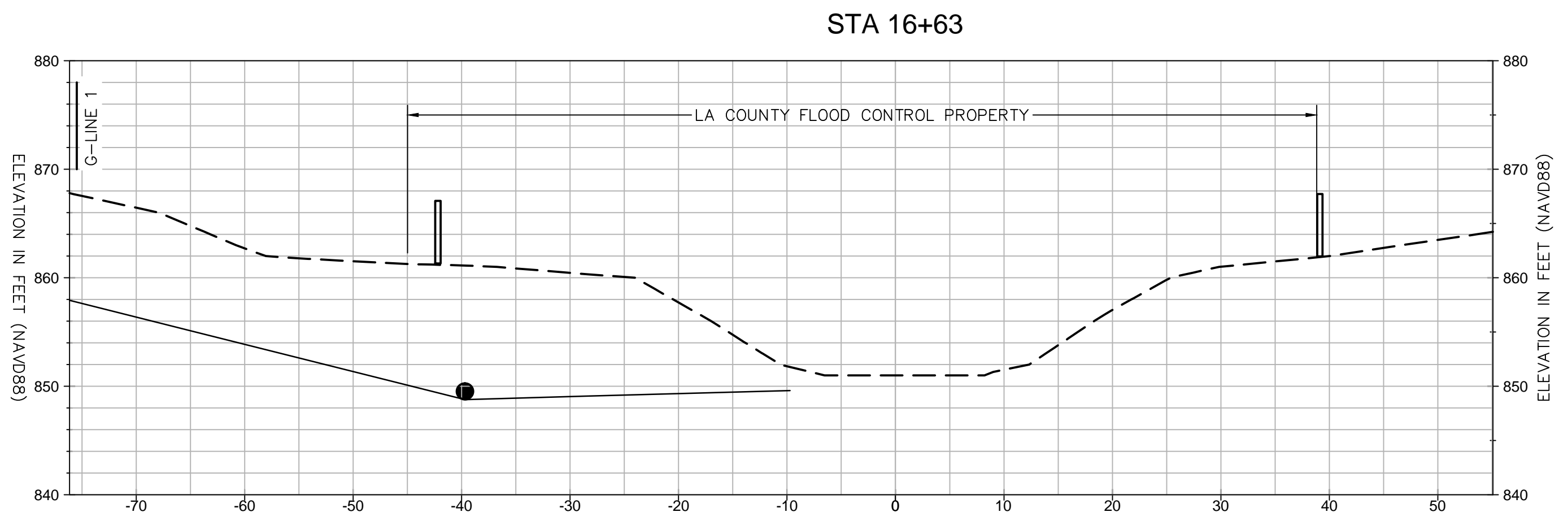
**EXISTING CONDITIONS PLAN & PROFILE WITH SEWER LINE**

AGOURA HILLS, LOS ANGELES COUNTY

Size D Project 1300042  
Scale: AS NOTED  
Date: 2014-11-25  
Sheet: **3** OF 23

LAST SAVED: 12/17/2014 PLOT DATE: 12/17/2014 PLOT STYLE: ... P:\2013\1300042\_MEDA\_CREEK\CAD\300042\_MEDA\_000.DWG

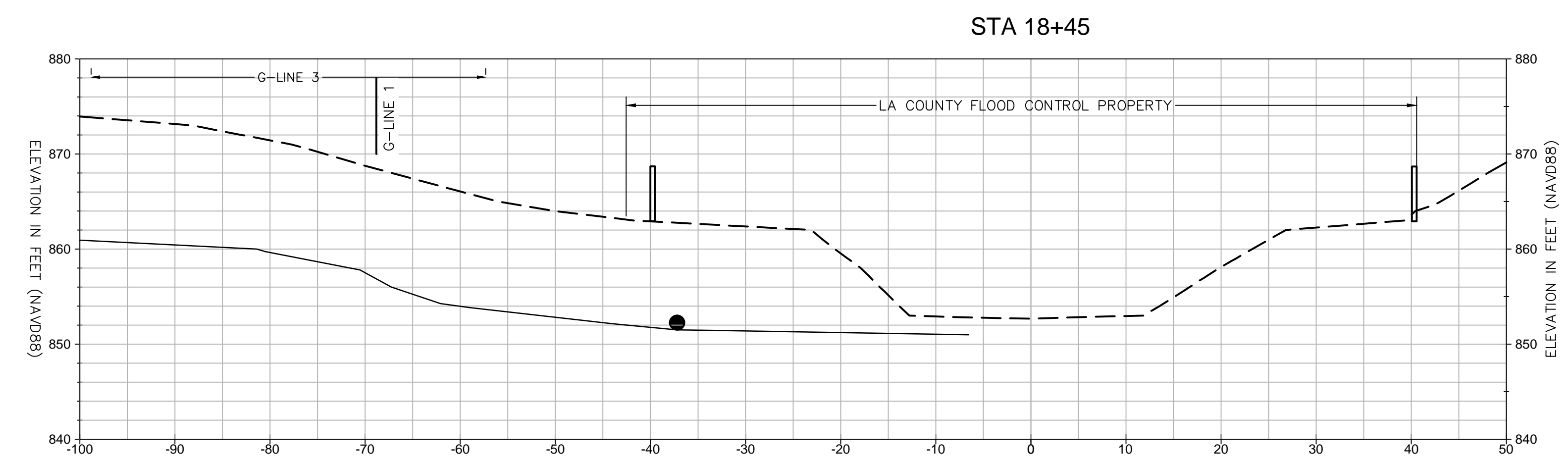




**35% DESIGN  
NOT FOR CONSTRUCTION**

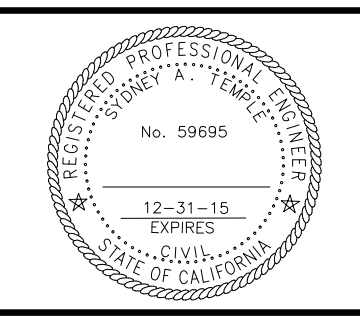
**LEGEND**

- EXISTING GROUND SURFACE
- BEDROCK CONTACT
- 18" DIAMETER TRUNK SEWER LINE
- EXISTING FENCE LINE



**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



Sht.	Rev.	Date	By	Description	App'd.

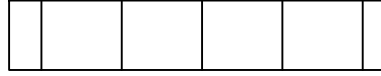

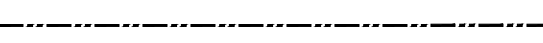


Design: ST/JM  
Drawn: JM  
Checked: ST  
Appr'd: ST

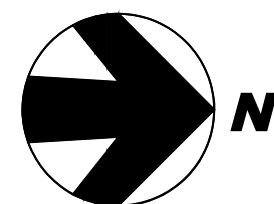
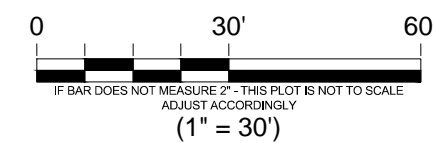
**EXISTING CHANNEL SECTIONS -  
BEDROCK AND SEWER LINE**  
AGOURA HILLS, LOS ANGELES COUNTY

Size D	Project 1300042
Scale: AS NOTED	
Date: 2014-11-25	
Sheet: 4 OF 23	

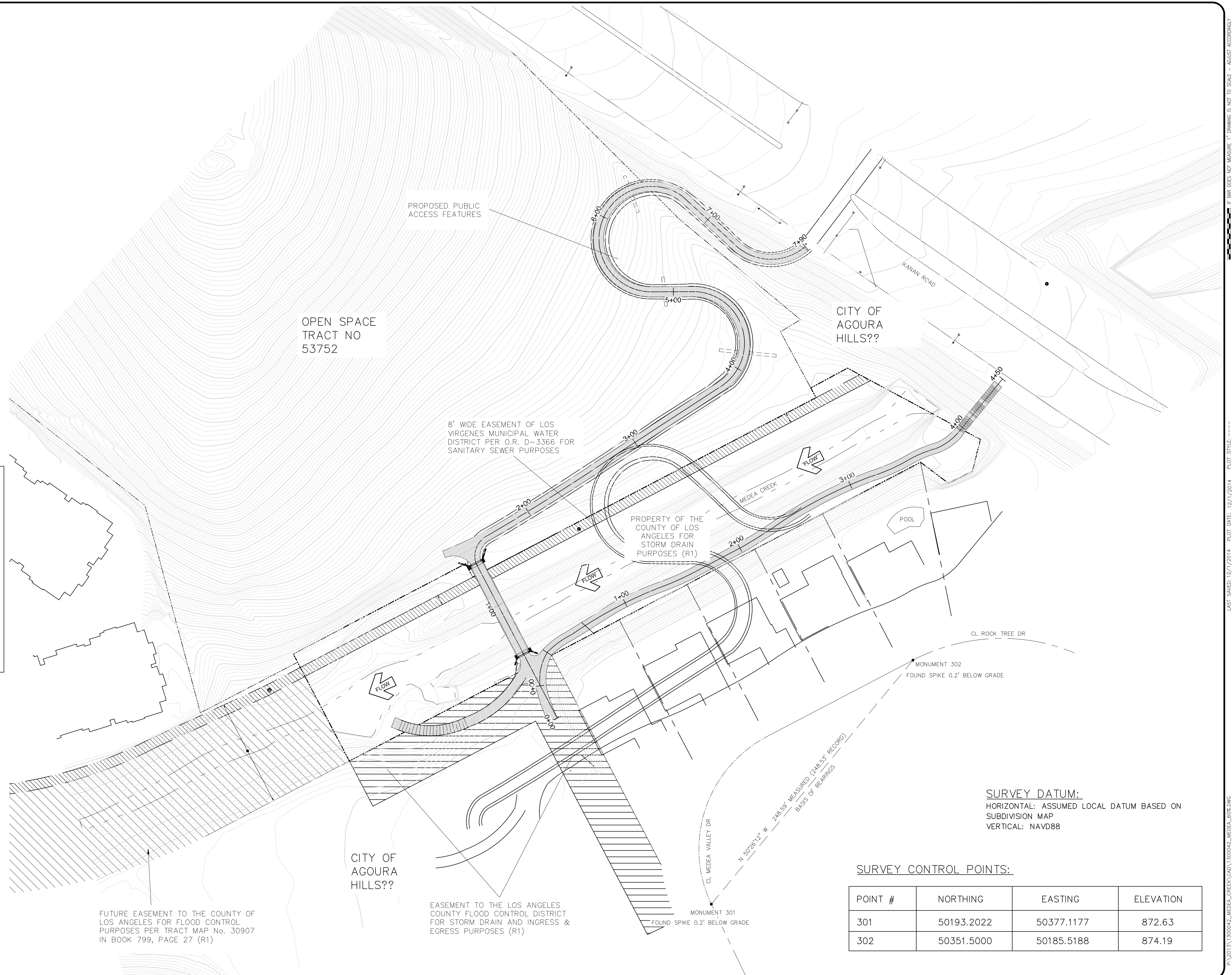
P:\2013\1300042\_MEDA\_CREEK\CAD\130042\_MEDA\_005.DWG PLOT DATE: 12/7/2014 PLOT STYLE: ----- LAST SAVED: 12/7/2014 PLOT DATE: 12/7/2014 PLOT STYLE: -----

# LEGEND

-  EASEMENTS
-  EXTENT OF LA COUNTY FLOOD CONTROL PROPERTY
-  OTHER PARCEL BOUNDARIES
-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR



**60% DESIGN  
NOT FOR CONSTRUCTION**



**SURVEY DATUM:**  
HORIZONTAL: ASSUMED LOCAL DATUM BASED ON SUBDIVISION MAP  
VERTICAL: NAVD88

**SURVEY CONTROL POINTS:**

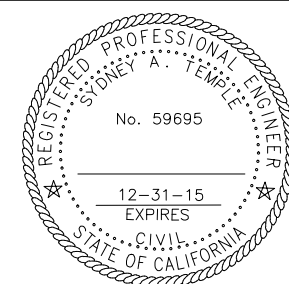
POINT #	NORTHING	EASTING	ELEVATION
301	50193.2022	50377.1177	872.63
302	50351.5000	50185.5188	874.19

FUTURE EASEMENT TO THE COUNTY OF LOS ANGELES FOR FLOOD CONTROL PURPOSES PER TRACT MAP No. 30907 IN BOOK 799, PAGE 27 (R1)

EASEMENT TO THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT FOR STORM DRAIN AND INGRESS & EGRESS PURPOSES (R1)

**MEDEA CREEK RESTORATION**  
CITY OF AGOURA HILLS

**QUESTA**  
ENGINEERING CORP.  
Civil Environmental & Water Resources  
(510) 236-6114  
FAX (510) 236-2423  
questa@questaec.com  
P.O. Box 70356 1220 Brickyard Cove Road Point Richmond, CA 94807



Sht.	Rev.	Date:	By:	Description:	App'd:	Design:
						ST/JM
						JM
						ST
						ST

**PARCEL OWNERSHIP MAP**  
AGOURA HILLS, LOS ANGELES COUNTY

Size D	Project 1300042
Scale:	AS NOTED
Date:	2014-11-25
Sheet:	XX OF 23

P:\2013\1300042-MEDEA-CREEK\CAD\1300042-MEDEA-0808.DWG LAST SAVED: 12/17/2014 PLOT DATE: 12/17/2014 PLOT STYLE: ----- IF BAR DOES NOT MEASURE 1" DRAWING IS NOT TO SCALE - ADJUST ACCORDINGLY