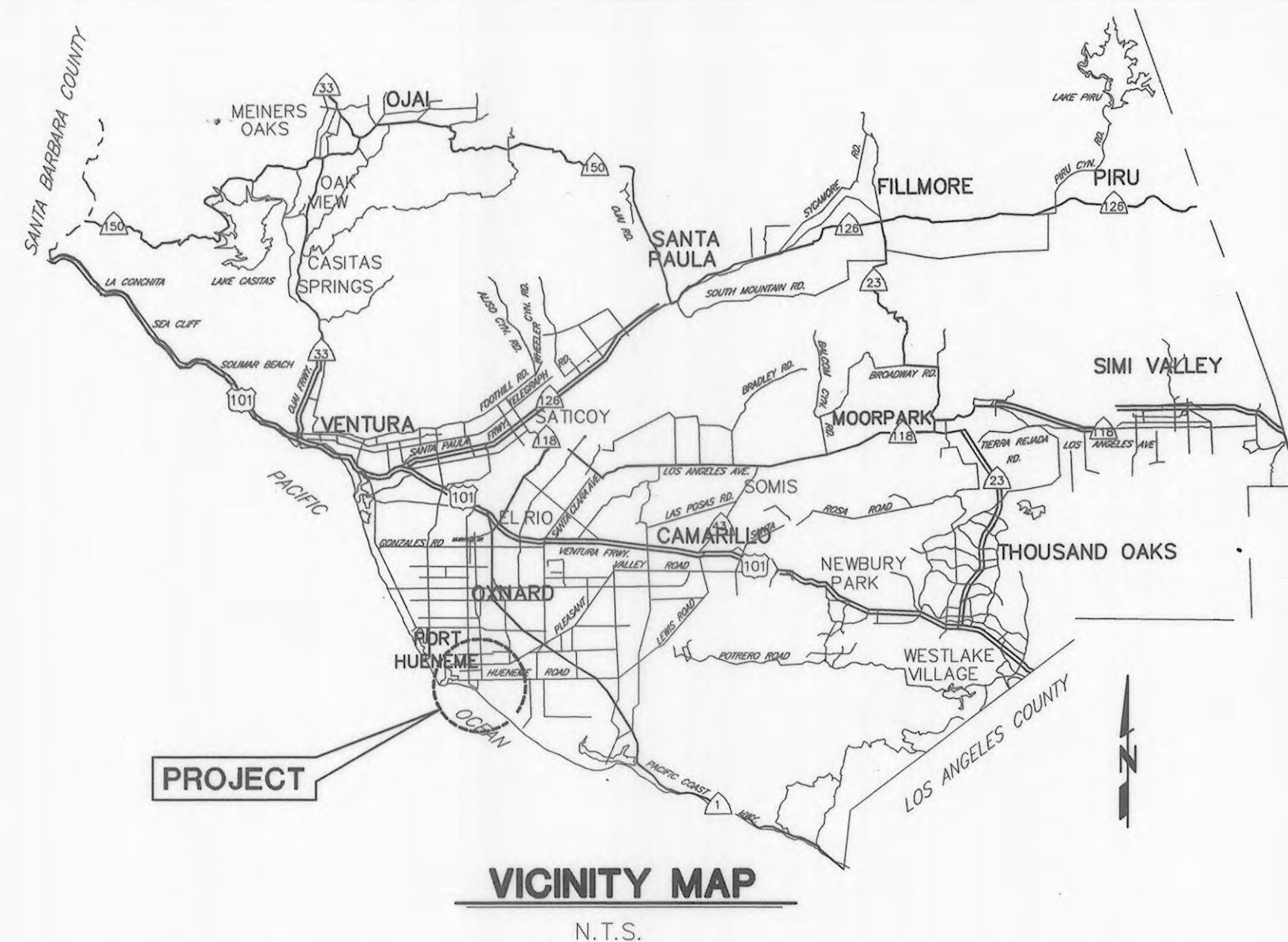




VICINITY MAP

N.T.S.

GENERAL NOTES

- ELEVATIONS SHOWN ARE IN US FEET, NGVD 1929, SCRP 1980
- STATIONS SHOWN ON DRAWINGS ARE ALONG CENTERLINE OF CONSTRUCTION.
- EGL AND HGL ARE BASED ON THE DESIGN DATA HEREON AND ARE SHOWN FOR FUTURE REFERENCE BY THE DISTRICT ONLY.
- NUMBERS IN $\square$ INDICATE BID ITEMS UNDER WHICH PAYMENT WILL BE MADE.
- LETTERS AND NUMBERS IN $\ominus$ INDICATE THE DETAIL CALL-OUT AND SHEET ON WHICH REFERENCE DETAIL IS SHOWN.
- NUMBERS IN $\triangle$ REFER TO NOTES ON THE SAME SHEET UNLESS OTHERWISE NOTED.
- TREES DESIGNATED BY $\odot$ SHALL BE REMOVED. ALL OTHER TREES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED. TREES ARE SHOWN AS KNOWN TO EXIST AT TIME OF SURVEY, IN SEPTEMBER 2009.
- TOPOGRAPHY AND CROSS SECTIONS FOR THIS PROJECT WERE TAKEN FROM SURVEYS PERFORMED IN APRIL 2008 AND SEPTEMBER 2009.
- SOIL TEST BORINGS FOR THE PROJECT WERE MADE IN APRIL 2008, AND THEIR LOCATION IS MARKED BY THE SYMBOL $\oplus$. SUBSURFACE SOIL INVESTIGATION RESULTS ARE FURNISHED FOR INFORMATION ONLY, IN ACCORDANCE WITH SUBSECTION 2-7 OF THE STANDARD SPECIFICATIONS, AND NO WARRANTY IS MADE THEREFOR.
- ALL EXISTING IMPROVEMENTS SHALL REMAIN AND SHALL BE PROTECTED IN-PLACE UNLESS OTHERWISE NOTED. ANY DAMAGED IMPROVEMENTS SHALL BE REPLACED IN KIND TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- SYMBOL $\triangle$ INDICATES THE LOCATION OF THE HORIZONTAL AND VERTICAL CONTROL POINTS.
- UTILITIES ARE SHOWN AS KNOWN TO EXIST AT TIME OF SURVEY. UTILITIES MAY HAVE BEEN OMITTED, MISPLACED, AND/OR RELOCATED. CONTRACTOR SHALL EXERCISE CARE AND SHALL PROTECT ALL UTILITIES IN-PLACE UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL NOTIFY UTILITY OWNERS A MINIMUM OF 48 HOURS PRIOR TO STARTING WORK IN AREAS AFFECTING THEIR FACILITIES:

SOUTHERN CALIFORNIA EDISON TEL. NO. (909) 394-8811 TERRY JONES
CITY OF OXNARD (WASTEWATER) TEL. NO. (805) 271-2216 JEFF MILLER
CITY OF PORT HUENEME TEL. NO. (805) 986-6658 KIT NELL
VENTURA COUNTY RAILWAY COMPANY TEL. NO. (805) 488-3677 NICK NEILSON

UNDERGROUND SERVICE ALERT

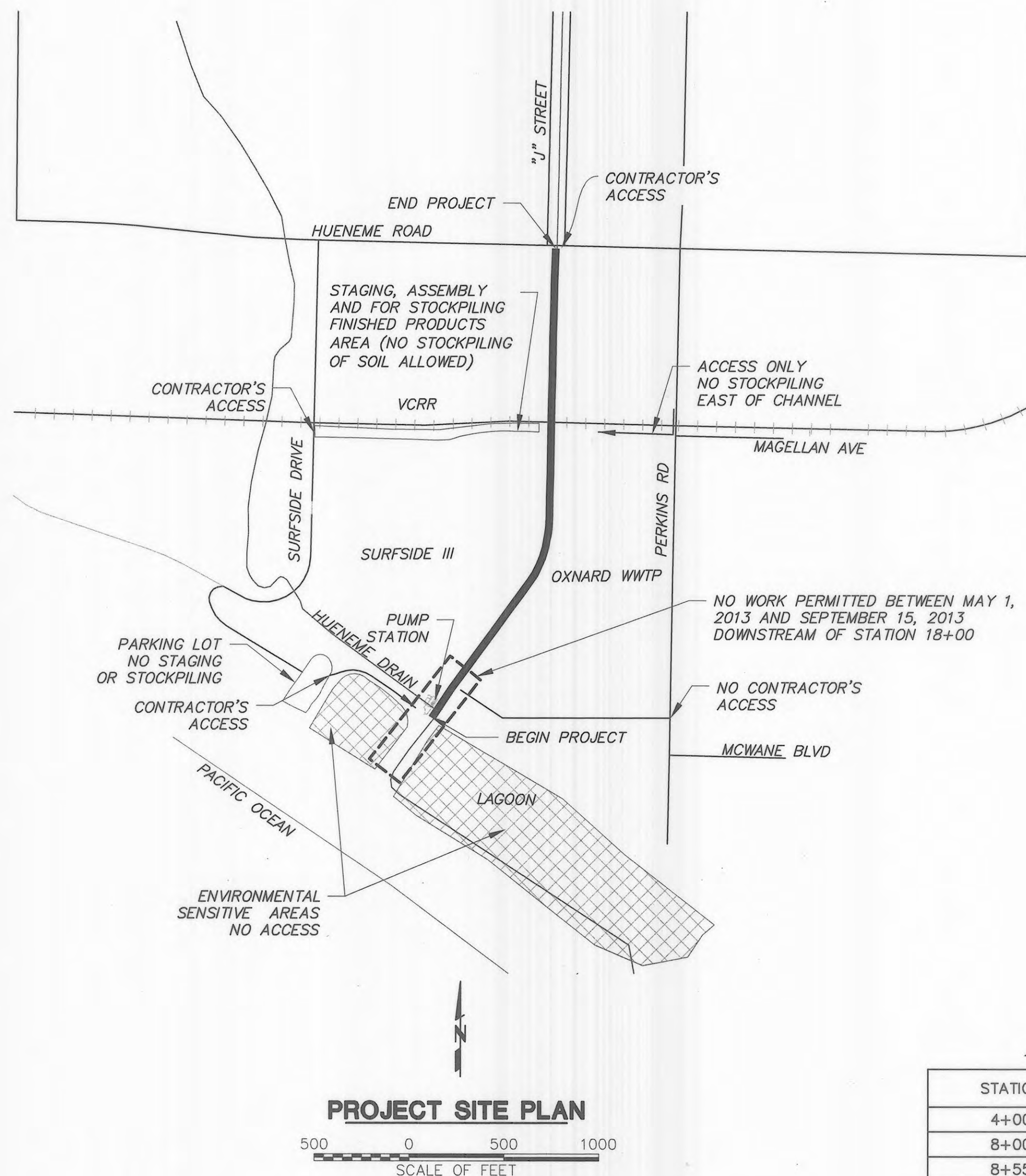
1-800-422-4133

CALL USA/SC

FOR UNDERGROUND LOCATION

2 WORKING DAYS BEFORE YOU DIG

COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT ZONE 2 "J" STREET DRAIN IMPROVEMENT ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD IN THE CITY OF OXNARD



PROJECT SITE PLAN

500 0 500 1000
SCALE OF FEET

INDEX TO SHEETS

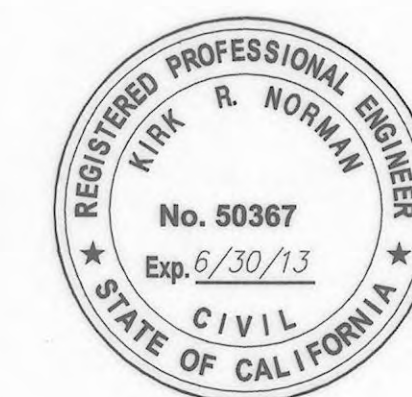
SHEET NO.	TITLE
1.	GENERAL PLAN
2.	PLAN AND PROFILE - STA 7+00 TO STA 12+00
3.	PLAN AND PROFILE - STA 12+00 TO STA 21+00
4.	PLAN AND PROFILE - STA 21+00 TO STA 30+00
5.	PLAN AND PROFILE - STA 30+00 TO STA 33+87
6.	VENTURA COUNTY RAIL ROAD IMPROVEMENTS
7.	CONSTRUCTION PHASING SCHEMATIC
7A.	TRACK PLAN AND PROFILE
7B.	TRACK GEOMETRY
7C.	TYPICAL CROSS SECTIONS
7D.	GRADE CROSSING IMPROVEMENTS
7E.	UTILITY PLAN
8.	RC TRIPLE BOX CULVERT UNDER RAILROAD STRUCTURAL SECTIONS
9.	RC TRIPLE BOX CULVERT STRUCTURAL SECTIONS
10.	RC RECTANGULAR CHANNEL STRUCTURAL SECTIONS
11.	HUENEME DRAIN PUMP STATION
12.	HUENEME DRAIN PUMP STATION DETAILS
13.	HUENEME DRAIN PUMP STATION DETAILS
14.	SIDE DRAINS
14A.	SIDE DRAINS AND CHANNEL DETAIL
15.	SUBDRAIN SYSTEM
16.	SUBDRAIN SYSTEM SECTIONS AND DETAILS
17.	OUTLET STRUCTURE
18.	MISCELLANEOUS DETAILS
19.	TYPICAL FENCE DETAILS
20.	CROSS SECTIONS - STA 7+00 TO STA 12+00
21.	CROSS SECTIONS - STA 13+00 TO STA 20+00
22.	CROSS SECTIONS - STA 21+00 TO STA 27+00
23.	CROSS SECTIONS - STA 28+00 TO STA 33+87
24.	SOIL BORINGS
25.	SURVEY CONTROL AND RIGHT-OF-WAY

SPPWC STANDARD PLANS USED BY REFERENCE

- 615-3: REINFORCED CONCRETE RETAINING WALL TYPE 6

HYDROLOGY

STATION	Q50 (CFS)	Q100 (CFS)
4+00	1,907	2,127
8+00	1,907	2,127
8+55	1,612	1,798
34+27	1,612	1,798



SAVE DATE: 5/21/13 DOKTORN K:\PC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%ADDENDA\ADDENDUM NO. 1\JSD-01-GP.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A	RE-ISSUE TO LIST SHEET 7E AND 14A		
△			

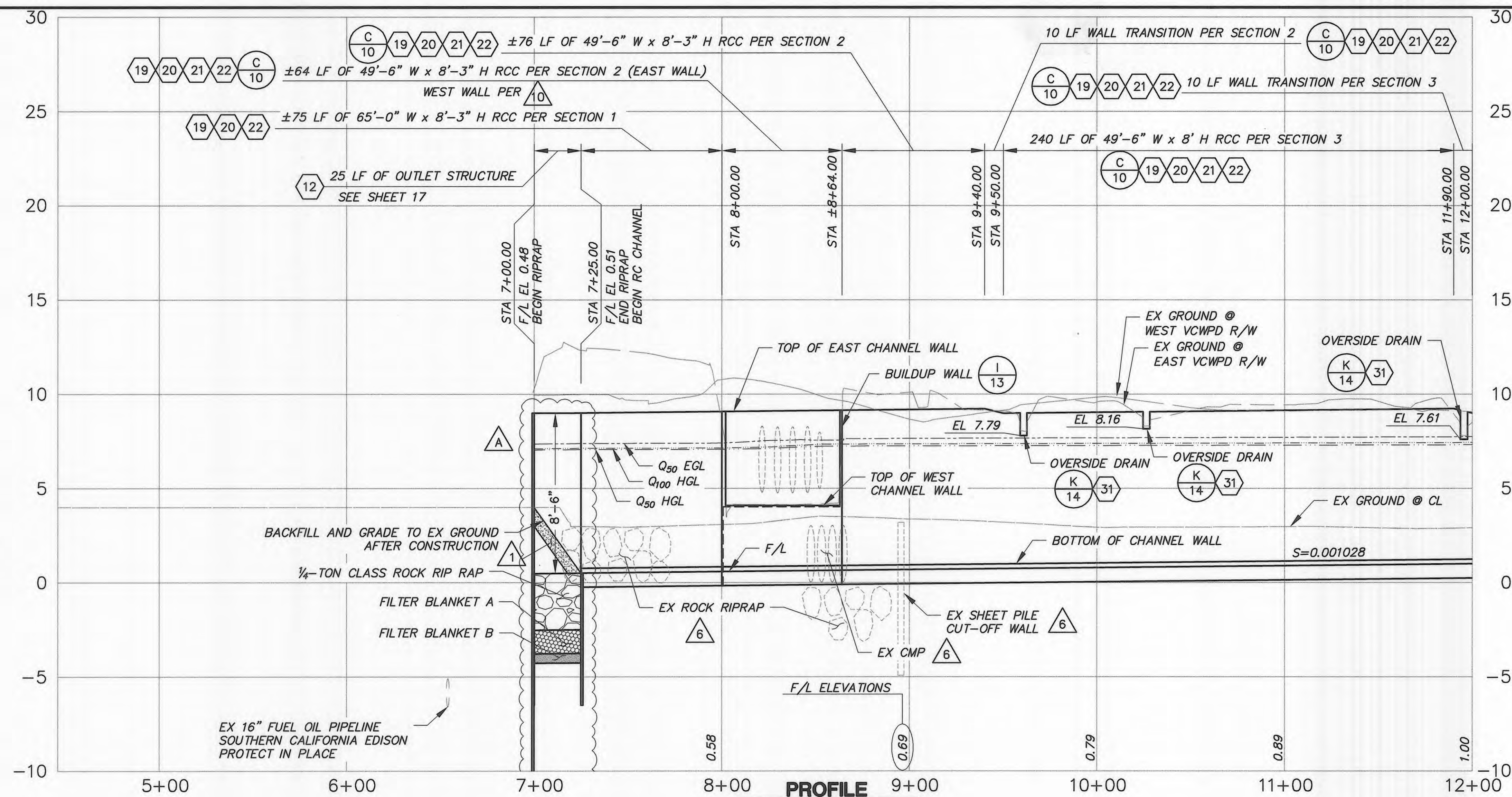
Kirk Norman (acting)	5-21-13
DEPUTY DIRECTOR	DATE
Judy Celler	5/21/2013
DISTRICT DIRECTOR	DATE
AGENCY DIRECTOR	DATE

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

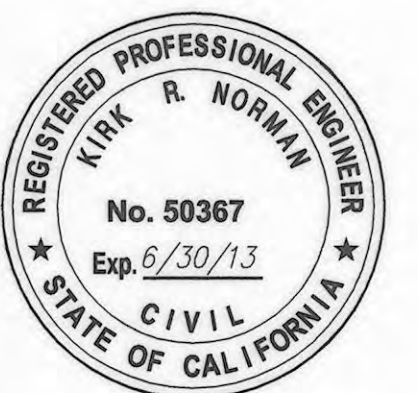
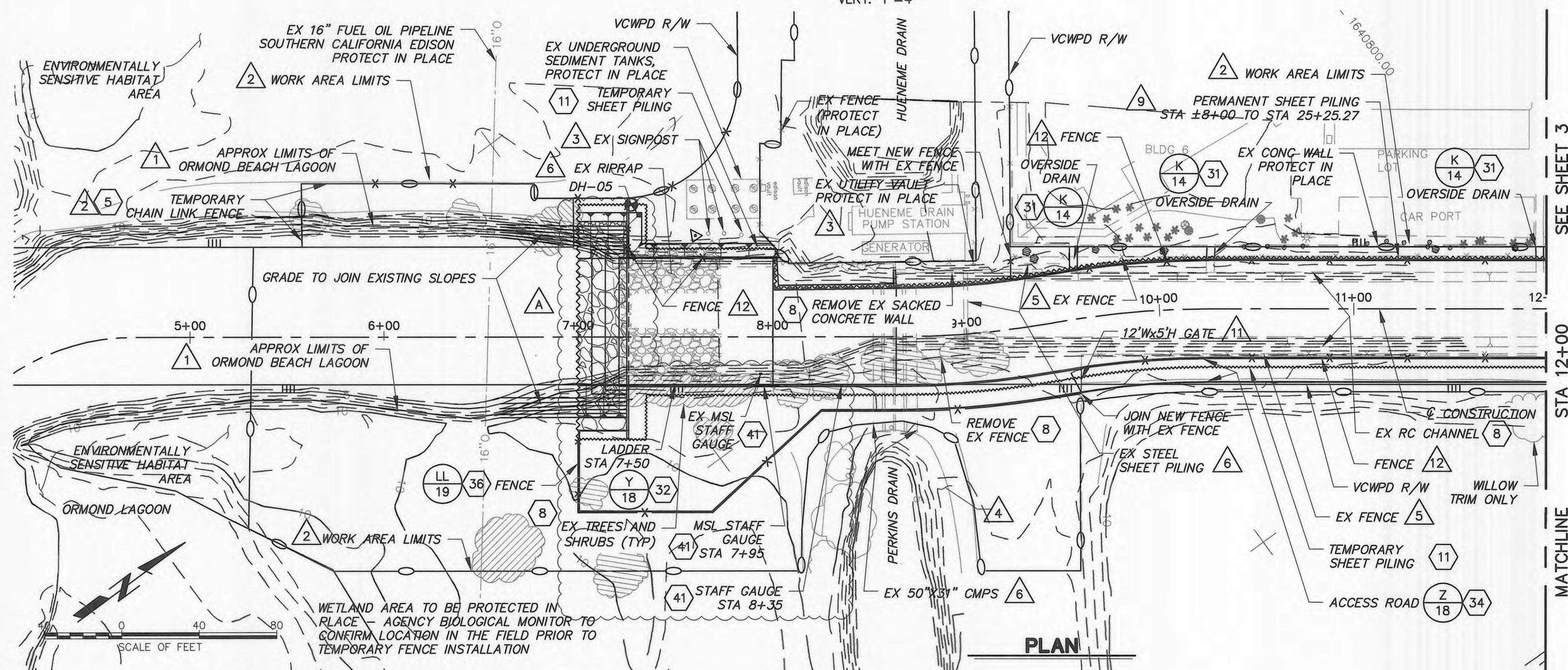
"J" STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
GENERAL PLAN

SHEET	1
OF	31
DRAWING NO.	Y-2-3705



NOTES:

- TOP 12 INCHES OF LAGOON TOPSOIL SHALL BE REMOVED WITHIN LIMITS OF AREA TO BE DISTURBED, STOCKPILED AND REINSTALLED AFTER CONSTRUCTION.
- INSTALL TEMPORARY CHAIN LINK FENCE ALONG WORK AREA LIMITS AS DIRECTED BY ENGINEER. ALL EQUIPMENT SHALL BE OPERATED WITHIN THE WORK AREA LIMITS.
- REMOVE AND REINSTALL CLEARANCE MARKER AFTER CONSTRUCTION.
- NO EARTH MOVEMENT WITHIN 10 FEET OF TOP OF THE BANK. FOOT ACCESS ONLY TO PERKINS DRAIN TO MAINTAIN DEWATERING DISCHARGE POINT.
- REMOVE AND DISPOSE OF INTERFERING PORTIONS OF EX FENCE. REMAINDER OF EX FENCE SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
- EX RIPRAP, CMP, STEEL SHEET PILING AND SHEET PILE CUT-OFF WALL ARE SHOWN APPROXIMATELY AND NOT TO SCALE. REMOVE AND DISPOSE OF THE INTERFERING PORTIONS.
- STEEL SHEET PILING SHALL BE MIN 12 INCHES CLEAR OF ALL EX UTILITY LINES.
- WEST HALF OF RCC CHANNEL FROM STA 8+00 TO STA ±8+64 SHALL BE CONSTRUCTED PER DETAILS ON SHEETS 11, 12 AND 13.
- SHEET PILING FORMING THE OUTSIDE FACE OF CHANNEL WALL IS PERMANENT AND SHALL BE LEFT IN PLACE AFTER CONSTRUCTION.
- THE LOCATION OF SHEET PILING IN RELATION TO THE CHANNEL WALL IS SHOWN APPROXIMATELY AND NOT TO SCALE.
- GATE WITH 2 3/8" DIA. LATCH POST EMBEDDED 12 INCHES IN TOP OF CONCRETE CHANNEL WALL.
- INSTALL CHAIN LINK FENCE ON TOP OF RC WALL.



COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD**
CHANNEL PLAN AND PROFILE
FROM STA 7+00 TO STA 12+00

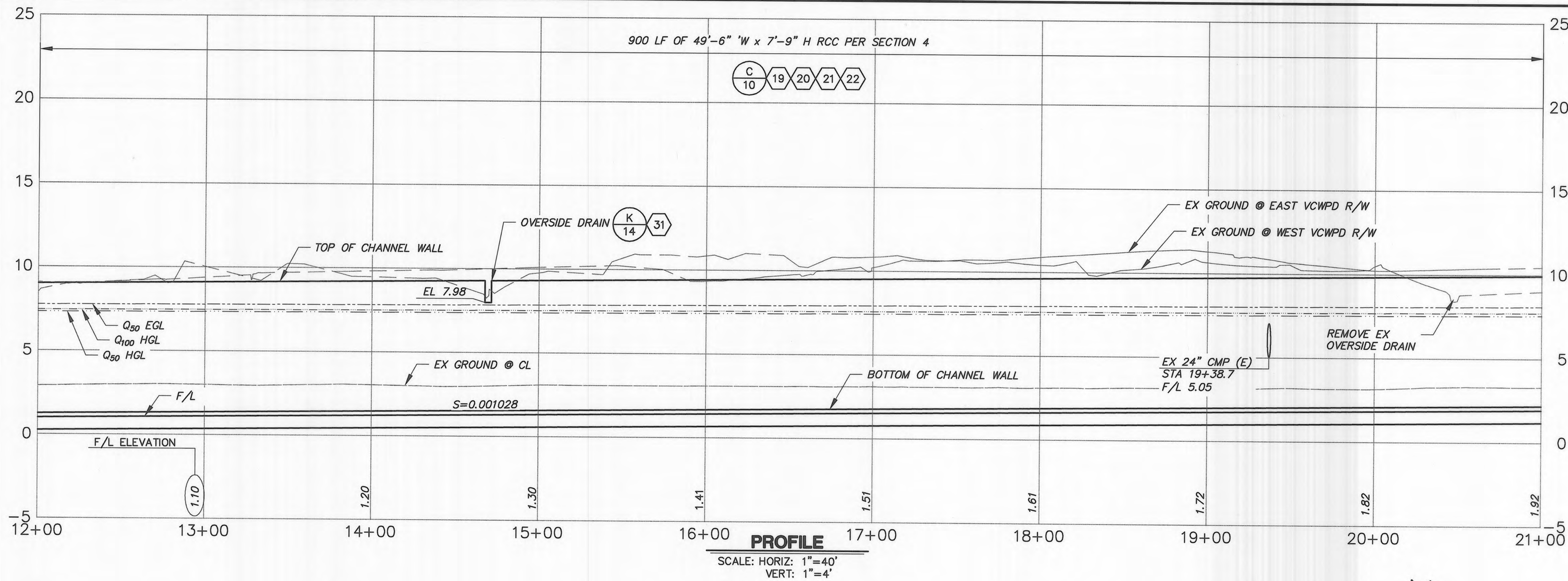
SHEET 2
OF 31
DRAWING NO.
Y-2-3706

SAVE DATE: 5/17/13 HESPEM K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\JSD-02-P&P.DWG

D					
C					
B	ADDED NOTE 12				
A	REVISED OUTLET STRUCT AND STAFF GAUGE				
Δ	REVISION DESCRIPTION	APP.	DATE		

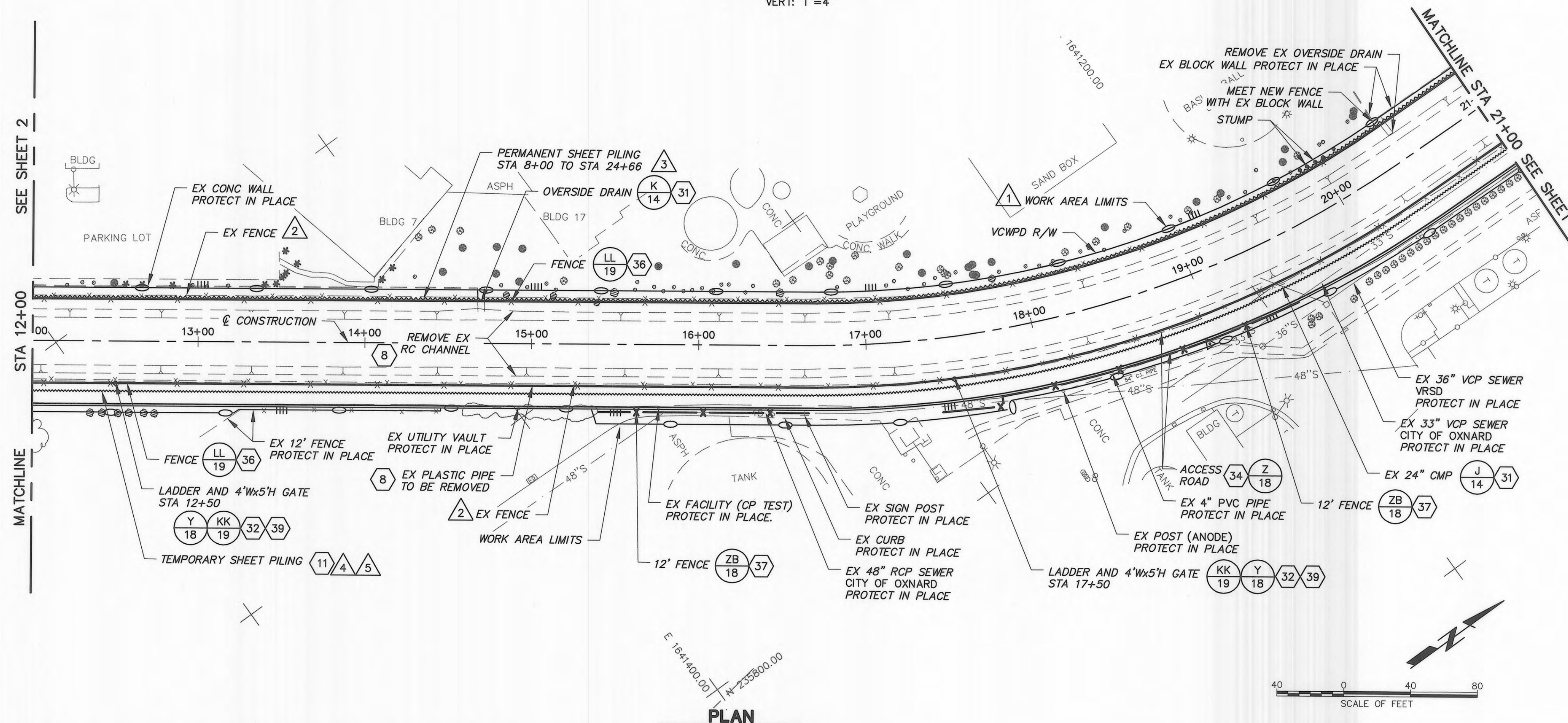
K. ROUSSEV
DESIGNED
KR/ND/AR
DRAWN
K. NORMAN
CHECKED

Kirk Norman
PROJECT MANAGER
Kirk Norman (acting)
DEPUTY DIRECTOR
Judy Clark
DISTRICT DIRECTOR
5-20-13
5-20-13
5/20/13



NOTES:

1. INSTALL TEMPORARY CHAIN LINK FENCE ALONG WORK AREA LIMITS AS DIRECTED BY ENGINEER. ALL EQUIPMENT SHALL BE OPERATED WITHIN THE WORK AREA LIMITS.
2. REMOVE AND DISPOSE OF INTERFERING PORTIONS OF EX FENCE AND GATES. REMAINDER OF EX FENCE SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
3. SHEET PILING THAT FORMS THE OUTSIDE FACE OF CHANNEL WALL IS PERMANENT AND SHALL BE LEFT IN PLACE AFTER CONSTRUCTION
4. SHEET PILING SHALL BE MIN 12 INCHES CLEAR OF ALL EX UTILITY LINES.
5. THE LOCATION OF SHEET PILING IN RELATION TO THE CHANNEL WALL IS SHOWN APPROXIMATELY AND NOT TO SCALE.



PLOT DATE: 4/28/13

SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%LAST\JSD-02THRU05-P&P.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV
DESIGNED
KR/ND/AR
DRAWN
K. NORMAN
CHECKED

Kirk Norman
PROJECT MANAGER
DATE 4.28.13
4/29/13
4/29/2013

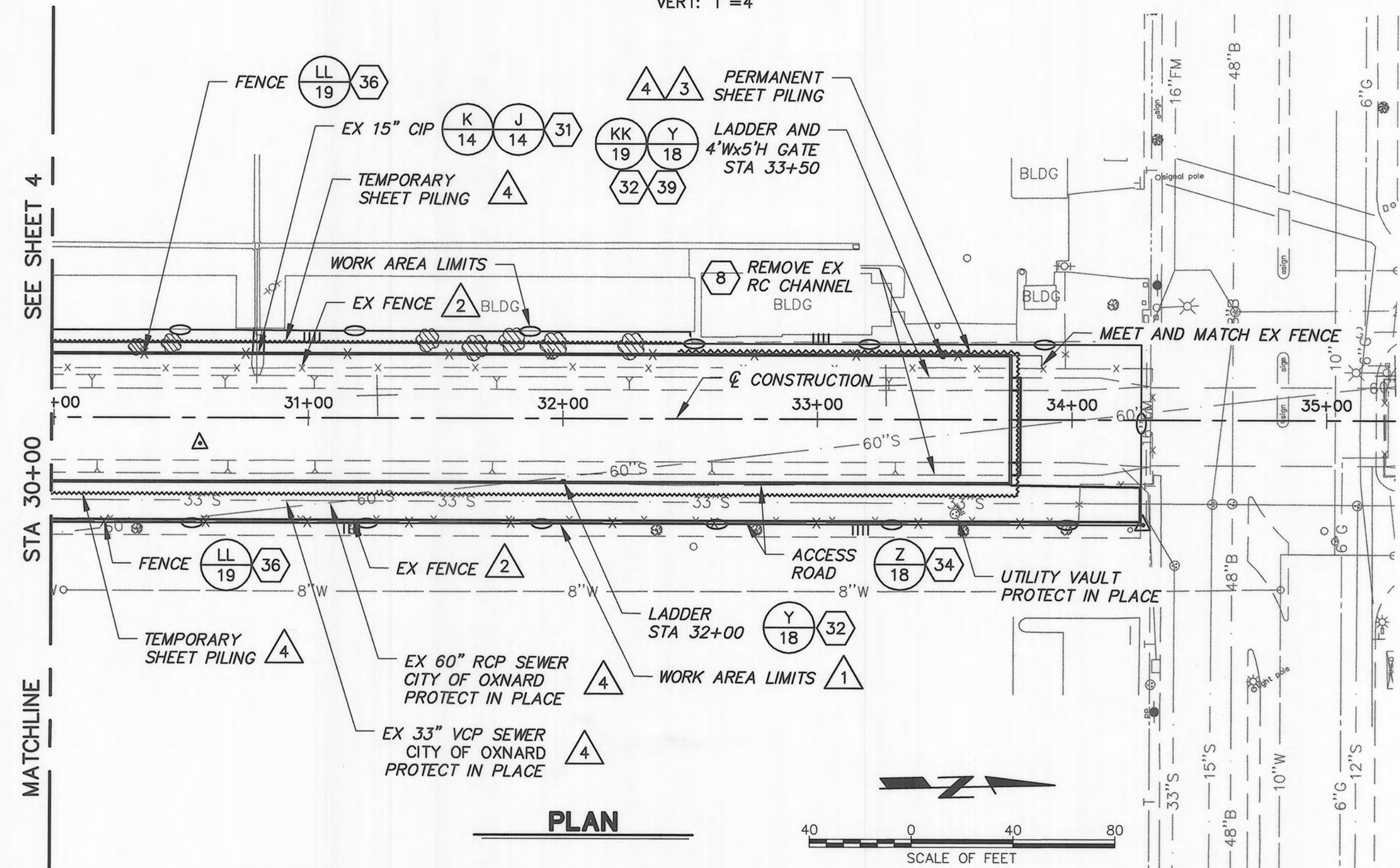
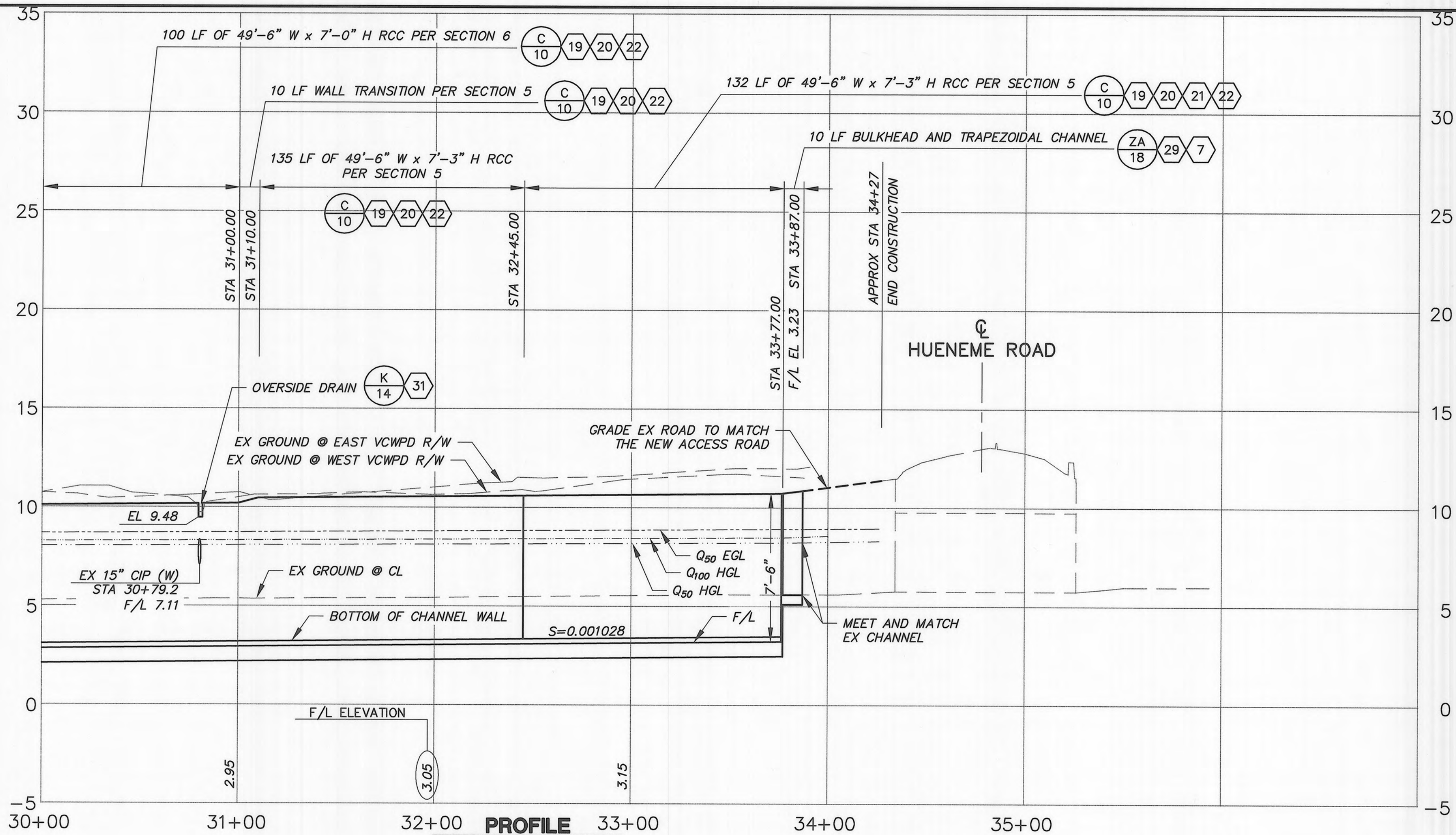
COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

J STREET DRAIN IMPROVEMENT
ORMOND BEACH LAAGOON TO
DOWNSTREAM OF HUENEME ROAD
CHANNEL PLAN AND PROFILE
FROM STA 12+00 TO STA 21+00

SHEET 3
OF 25
DRAWING NO.
Y-2-3707





NOTES:

1. INSTALL TEMPORARY FENCE ALONG WORK AREA LIMITS AS DIRECTED BY ENGINEER. ALL EQUIPMENT SHALL BE OPERATED WITHIN THE WORK AREA LIMITS.
2. REMOVE AND DISPOSE OF INTERFERING PORTIONS OF EX FENCE AND GATES. REMAINDER OF EX FENCE SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
3. SHEET PILING FORMING THE OUTSIDE FACE OF CHANNEL WALL IS PERMANENT AND SHALL BE LEFT IN PLACE AFTER CONSTRUCTION
4. SHEET PILING SHALL BE MIN 12 INCHES CLEAR OF ALL EX UTILITY LINES.



COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUEENEME ROAD
CHANNEL PLAN AND PROFILE
FROM STA 30+00 TO STA 33+87

SHEET 5
OF 25
DRAWING NO.
Y-2-3709

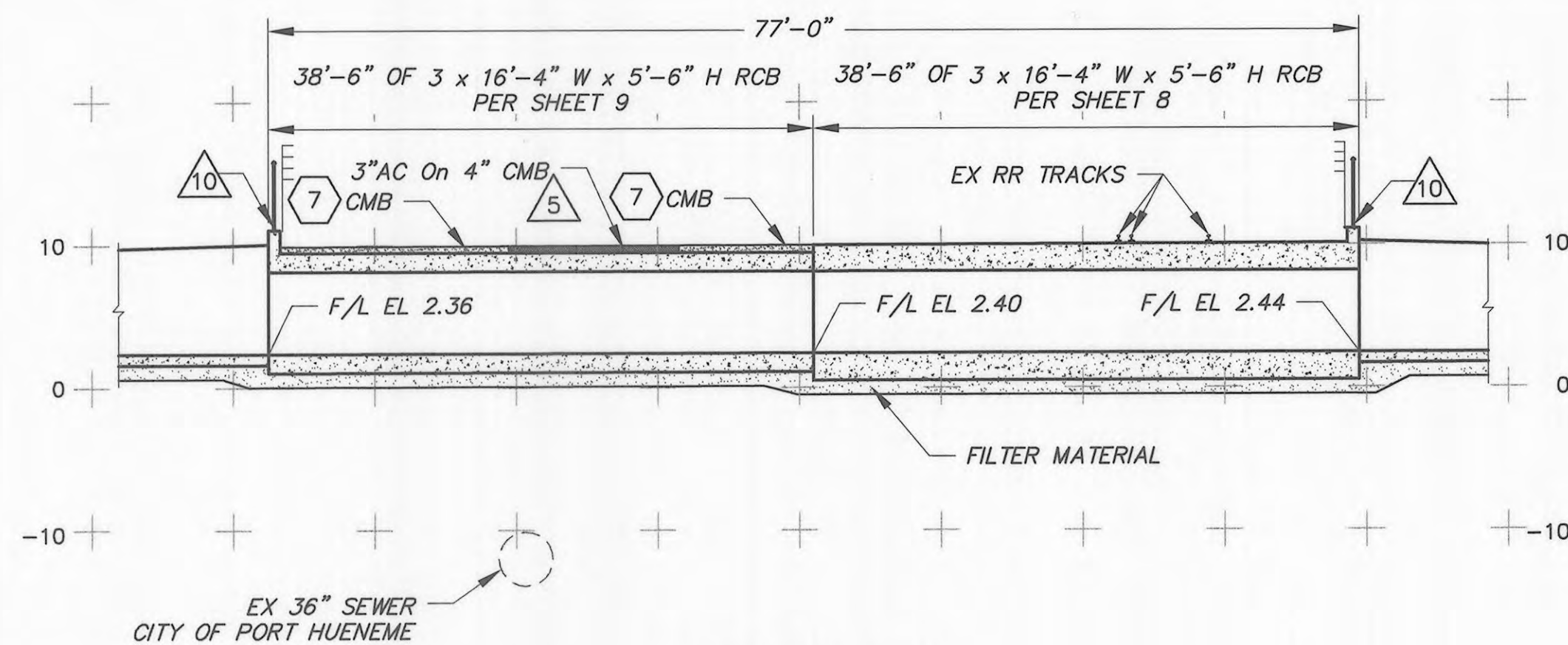
K. ROUSSEV
DESIGNED
KR/ND/AR
DRAWN
K. NORMAN
CHECKED

Kirk Norman
PROJECT MANAGER
DATE 4-28-13
Pete Sydney
DEPUTY DIRECTOR
DATE 4-29-13
DATE 4-29-2013

PLOT DATE: 4/28/13

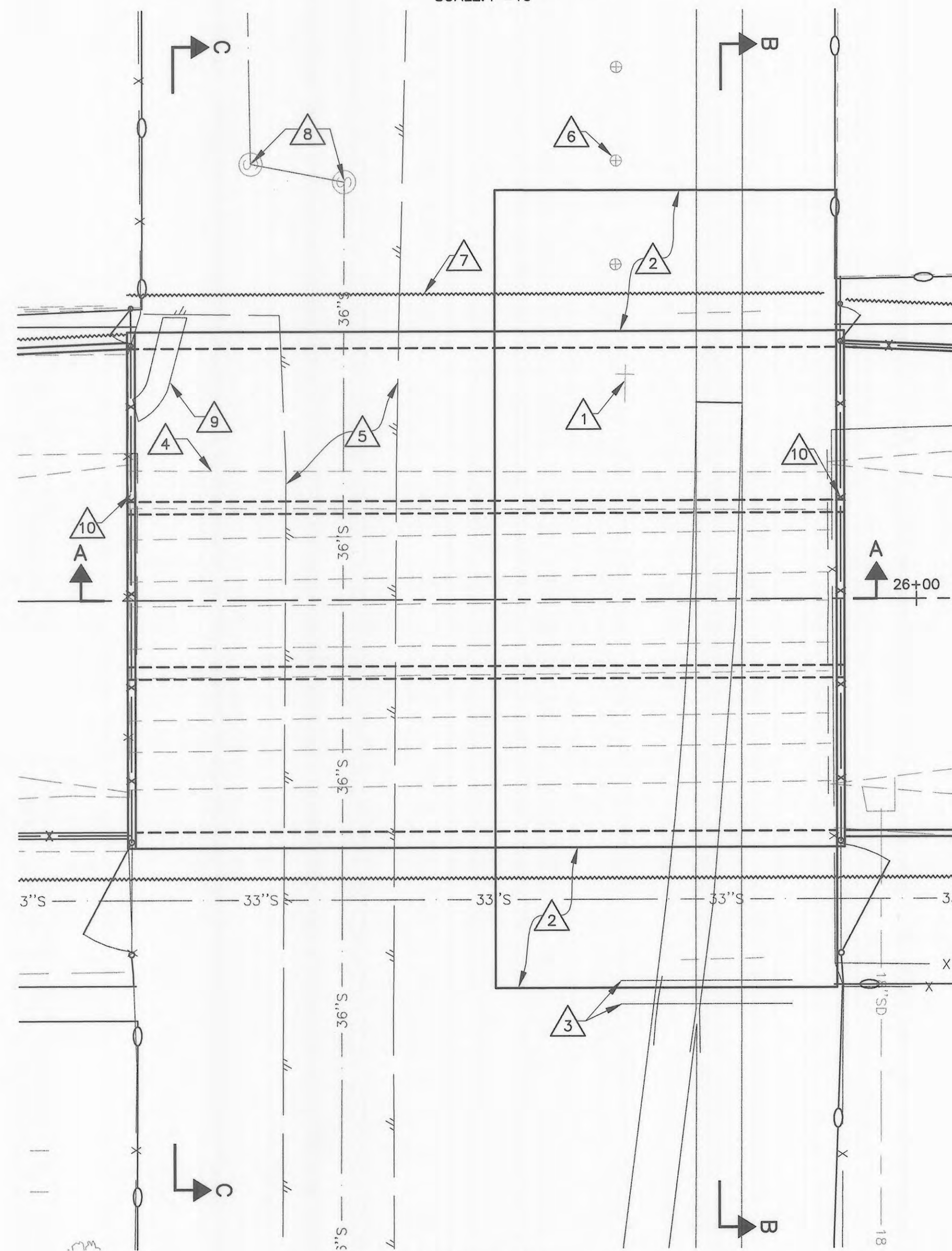
SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%LAST\JSD-02THRU05-P&P.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			



SECTION A-A

SCALE: 1"=10'

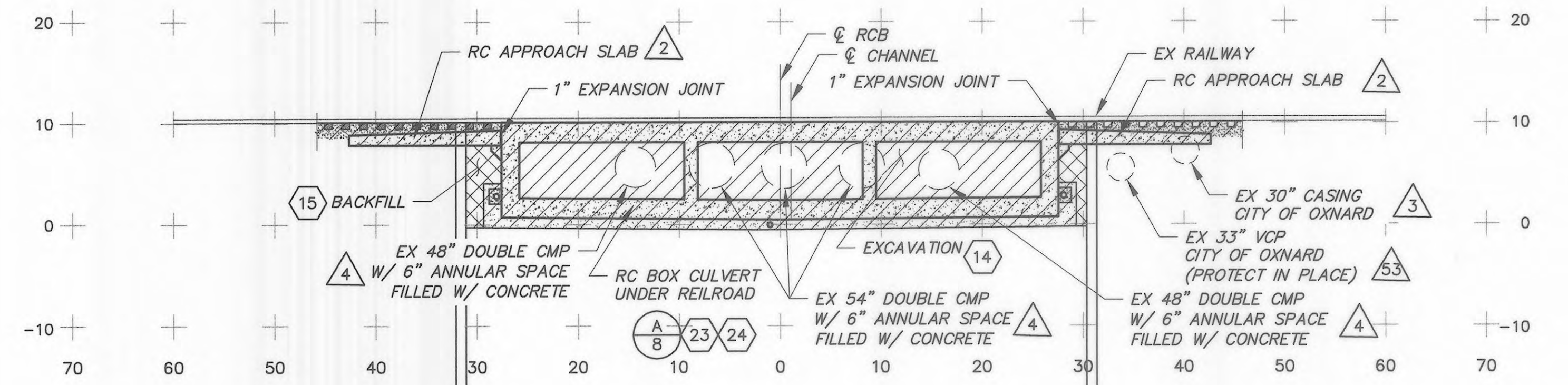


PLAN VIEW

SCALE: 1"=10'

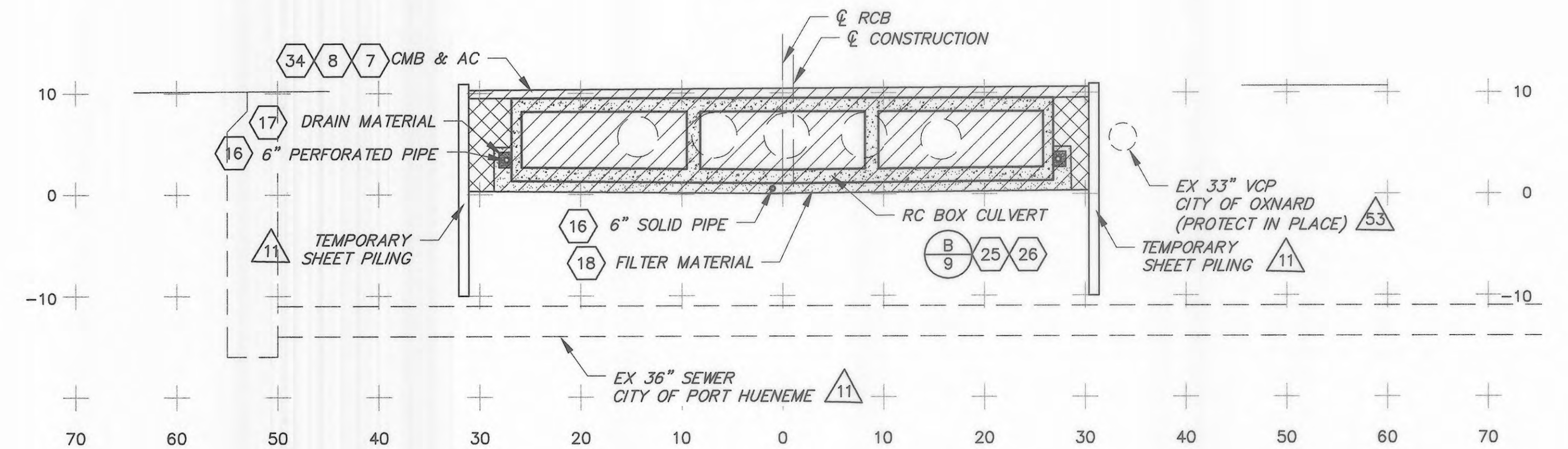
NOTES:

- RAILWAY SWITCH TO BE RELOCATED PER SHEETS 7 THROUGH SHEET 7E.
- CONSTRUCT RC APPROACH SLAB. (AB 8) (27) (28)
- RELOCATE EX 30" CASING 2' BELOW RC APPROACH SLAB. (52)
- REMOVE EX DOUBLE CMP PIPES WITH 6" ANNULAR SPACE FILLED WITH CONCRETE. (8)
- SAW-CUT EX AC, REMOVE THE INTERFERING PORTION AND REPLACE AFTER RCB CONSTRUCTION. (7)
- REMOVE EX POSTS. (8)
- TEMPORARY SHEET PILING. (11)
- PROTECT IN PLACE EX MANHOLE, CITY OF PORT HUENEME. (7)
- REMOVE EX SWALE. (8)
- INSTALL FENCE. (LL 19) (RR 19) (36)
- SHEET PILING SHALL BE MIN 12 INCHES CLEAR OF ALL EX UTILITY LINES.



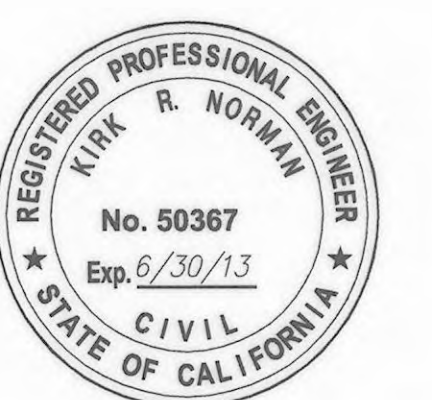
SECTION B-B

SCALE: 1"=10'



SECTION C-C

SCALE: 1"=10'



COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
VENTURA COUNTY RAIL ROAD IMPROVEMENTS

SHEET 6
OF 31
DRAWING NO.
Y-2-3710

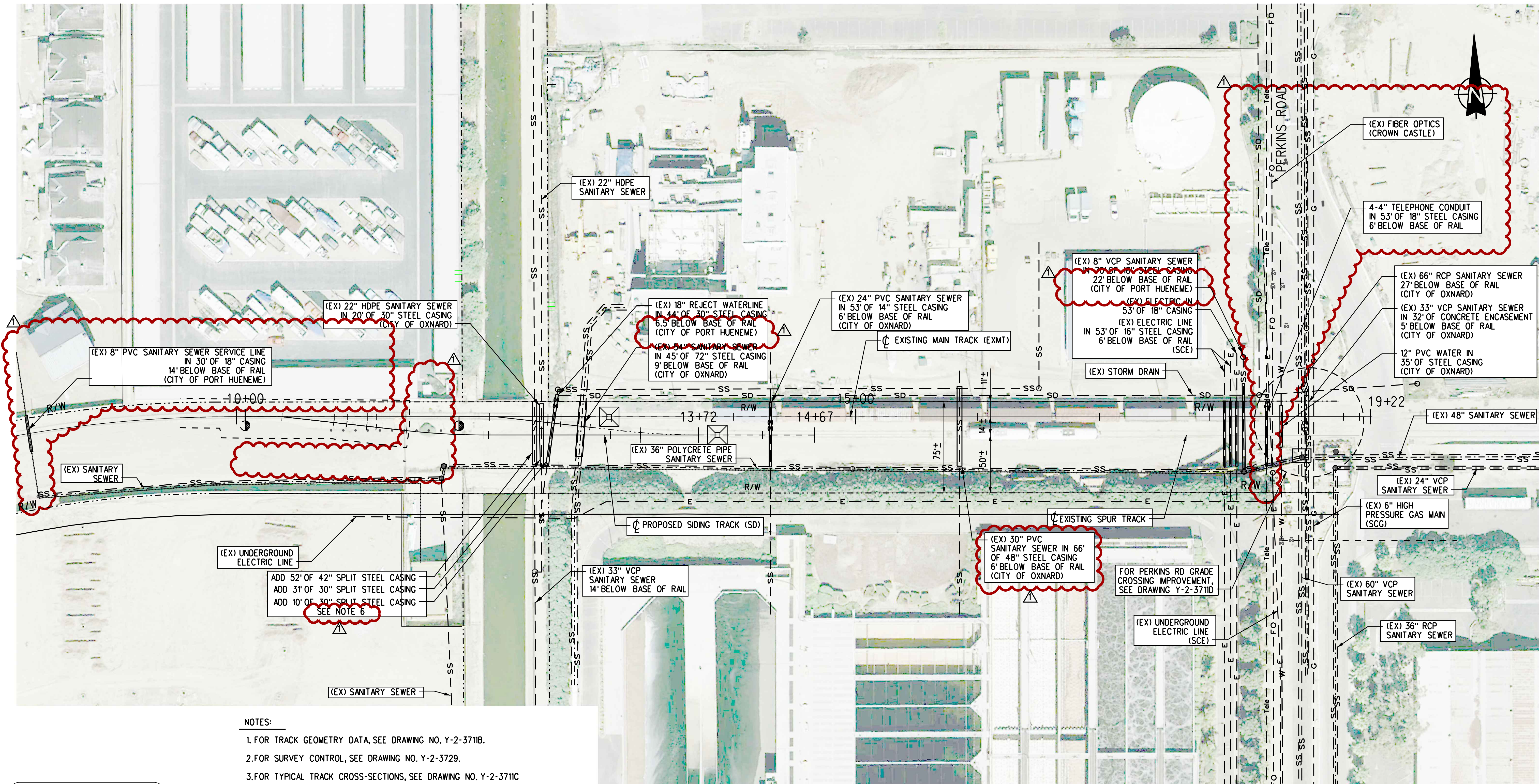
DESIGNED K. ROUSSEV 5-20-13	PROJECT MANAGER Kirk Norman (acting) 5-20-13	DATE 5-20-13
DRAWN K. NORMAN 5-20-13	CHECKED J. R. NORMAN 5-20-13	DATE 5-20-13
RECOMMENDED AECOM DATE	APPROVED PORT OF HUENEME, OXNARD HARBOR DISTRICT DATE	
REVISION A REVISED RC APPROACH SLAB	DESCRIPTION APP. DATE	

PLOT DATE: 5/20/13

SAVE DATE: 5/20/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\JSD-06-RR.DWG

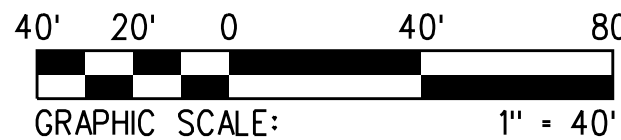
TO PORT HUENEME

TO OXNARD



NOTES:

1. FOR TRACK GEOMETRY DATA, SEE DRAWING NO. Y-2-3711B.
2. FOR SURVEY CONTROL, SEE DRAWING NO. Y-2-3729.
3. FOR TYPICAL TRACK CROSS-SECTIONS, SEE DRAWING NO. Y-2-3711C
4. STATIONING IS BASED ON THE TRACK AS INDICATED.
5. SIGNAL FACILITY LOCATIONS TO BE DETERMINED BY GENESEE AND WYOMING SIGNAL DEPARTMENT.
6. POT HOLE TO IDENTIFY AND PROTECT EXISTING UTILITIES IN PLACE, PRIOR TO CONSTRUCTION.



EDUARDO M. LOPEZ
CIVIL ENGINEER
05/17/2013
DATE

REVISION	DESCRIPTION	APP.	DATE
1	REMOVE 25 LF 18\"	EML	06/21/13

RECOMMENDED:	AECOM	DATE
APPROVED:	PORT OF HUENEME, OXNARD HARBOR DISTRICT	DATE

N. BARON DESIGNED
N. BARON DRAWN
E.M. LOPEZ CHECKED

PROJECT MANAGER	DATE
DEPUTY DIRECTOR	DATE
DISTRICT DIRECTOR	DATE

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
UTILITY PLAN
VENTURA COUNTY RAIL ROAD IMPROVEMENTS

SHEET	7E
OF	31
DRAWING NO.	Y-2-3711E

CONSTRUCTION NOTES:

- ① PROTECT IN PLACE.
- ② CONSTRUCT ASPHALT CONCRETE CROSSING. PER DETAIL A
- ③ CONSTRUCT 12' WIDE ASPHALT CONCRETE PRIVATE GRADE CROSSING PER DETAIL B

REMOVAL NOTES:

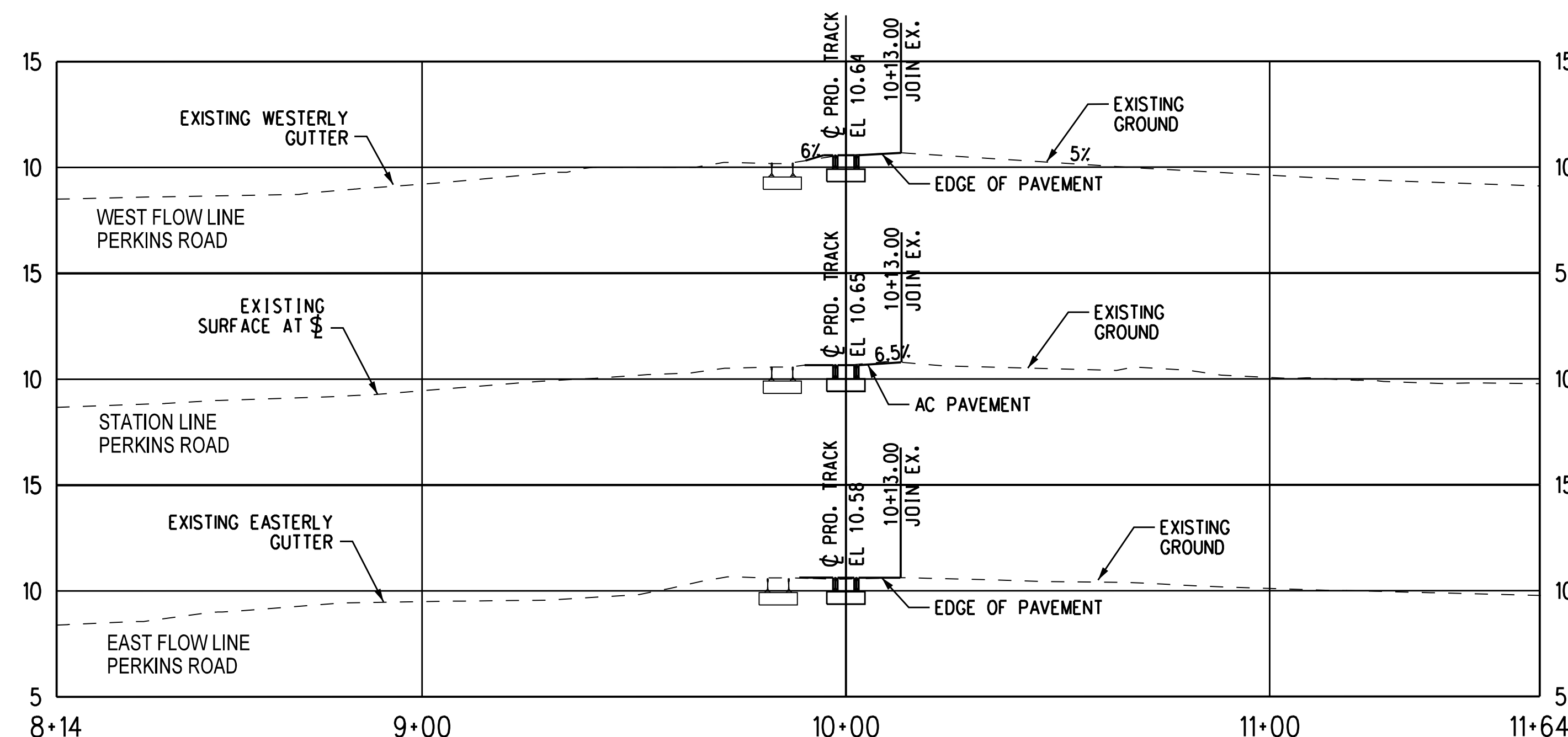
- ① SAWCUT LINE.
- ② REMOVE ASPHALT CONCRETE PAVEMENT.

TRACK WORK

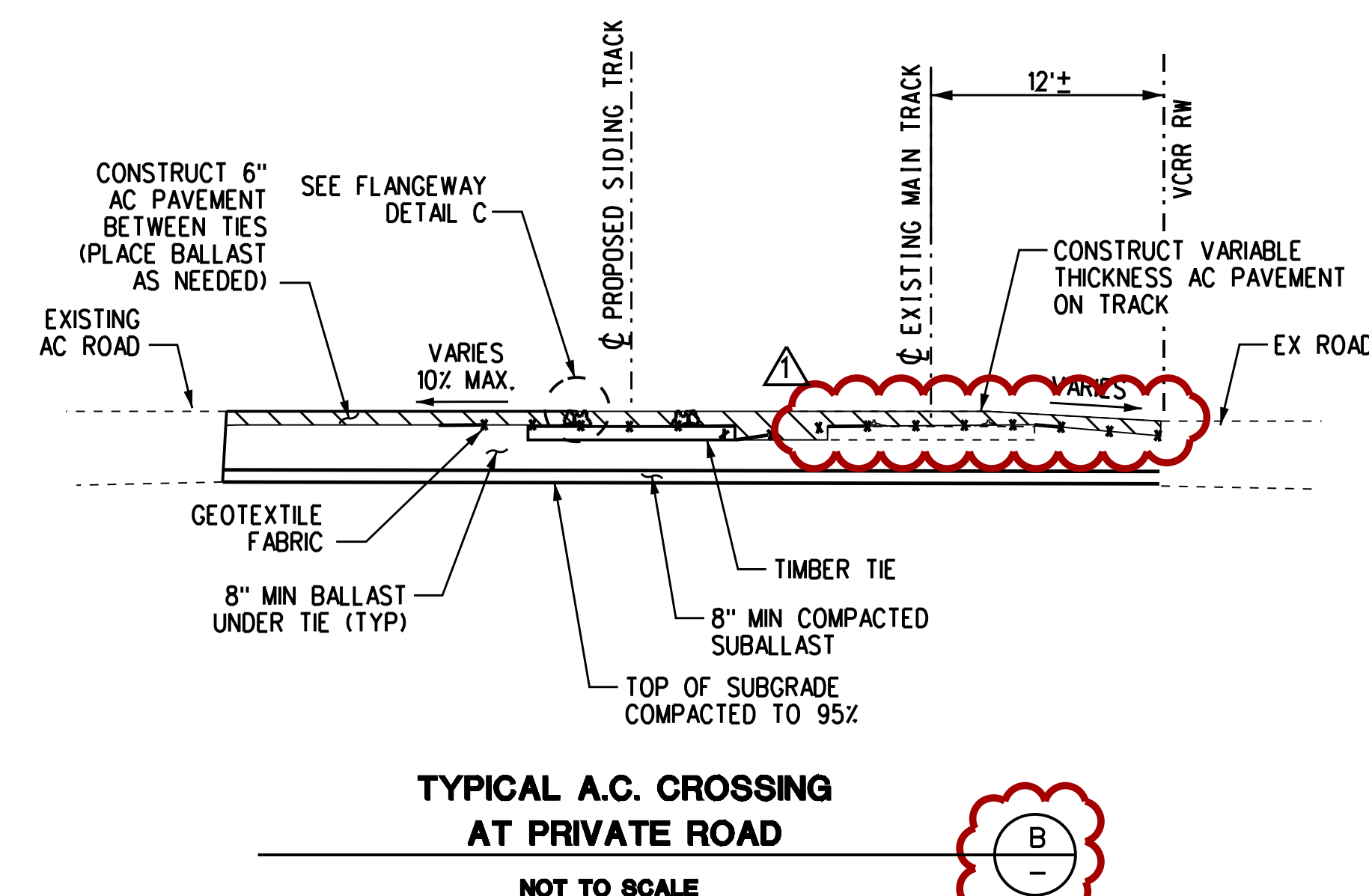
- ① REMOVE EXISTING RAIL AND DAMAGED TIES.
- ② INSTALL AND RAISE TRACK SECTION,

NOTES:

1. FOR TRACK ALIGNMENT, SEE DRAWING NO. RP-01.
2. CONTRACTOR TO RESTRIPE STREET TO MATCH EXISTING STRIPING, EXCEPT LIMIT LINES SHALL BE 24" WIDE WHITE STRIPES.
3. CONTRACTOR TO VERIFY ELEVATIONS SHOWN IN PARENTHESES PRIOR TO CONSTRUCTION.
4. PAVEMENT MARKINGS AND SIGNS TO BE PLACED TO CALIFORNIA MUTCD STANDARDS.

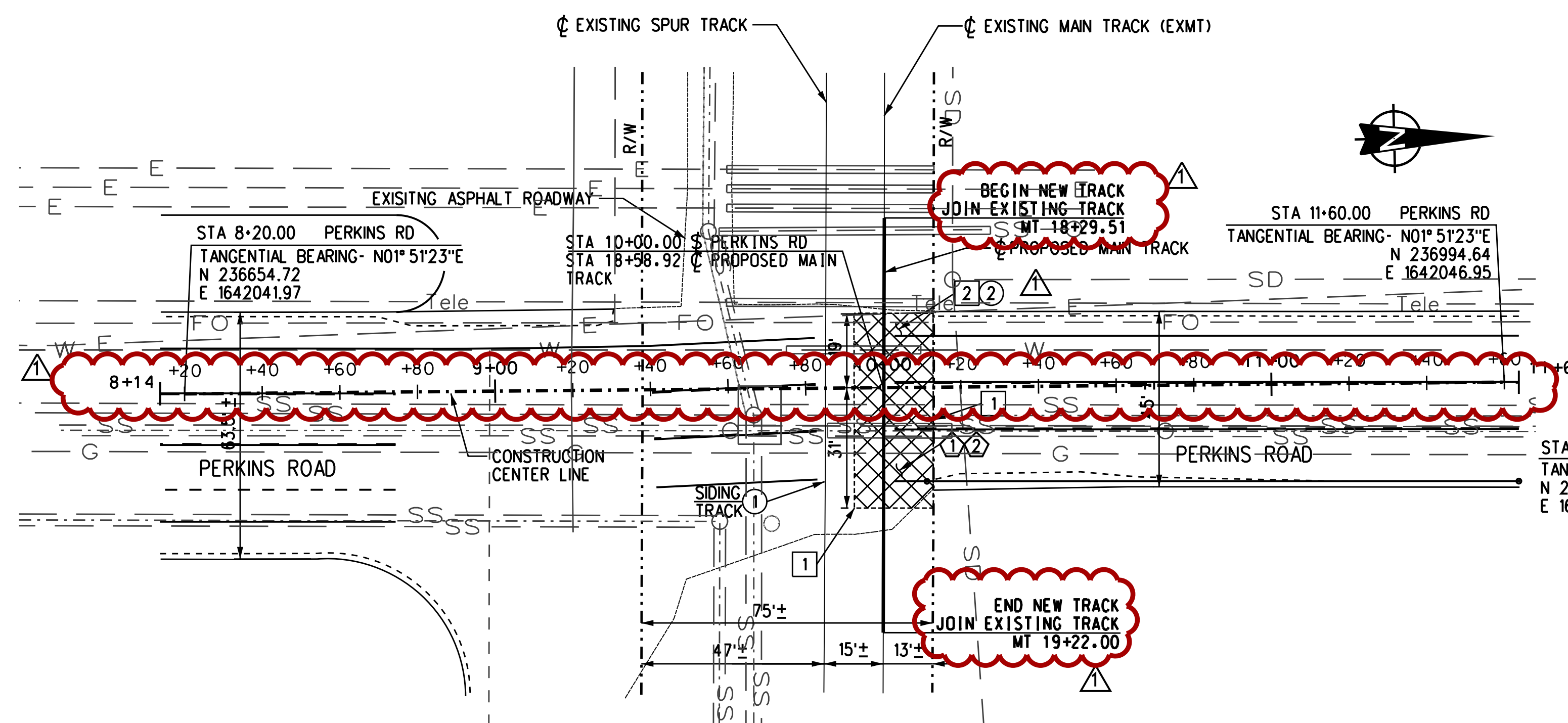
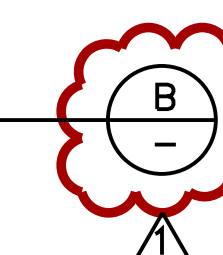


PROFILE

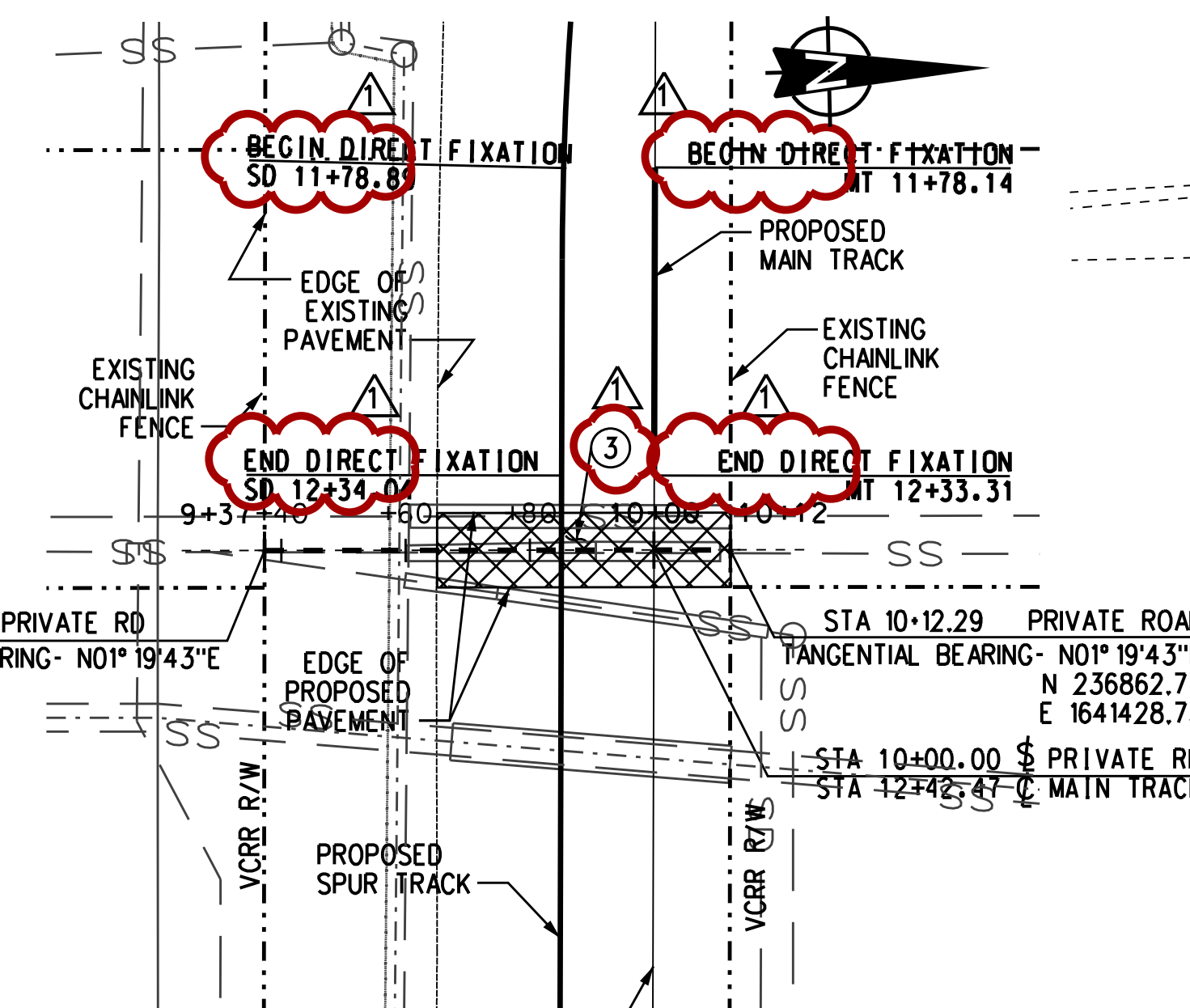


TYPICAL A.C. CROSSING AT PRIVATE ROAD

NOT TO SCALE

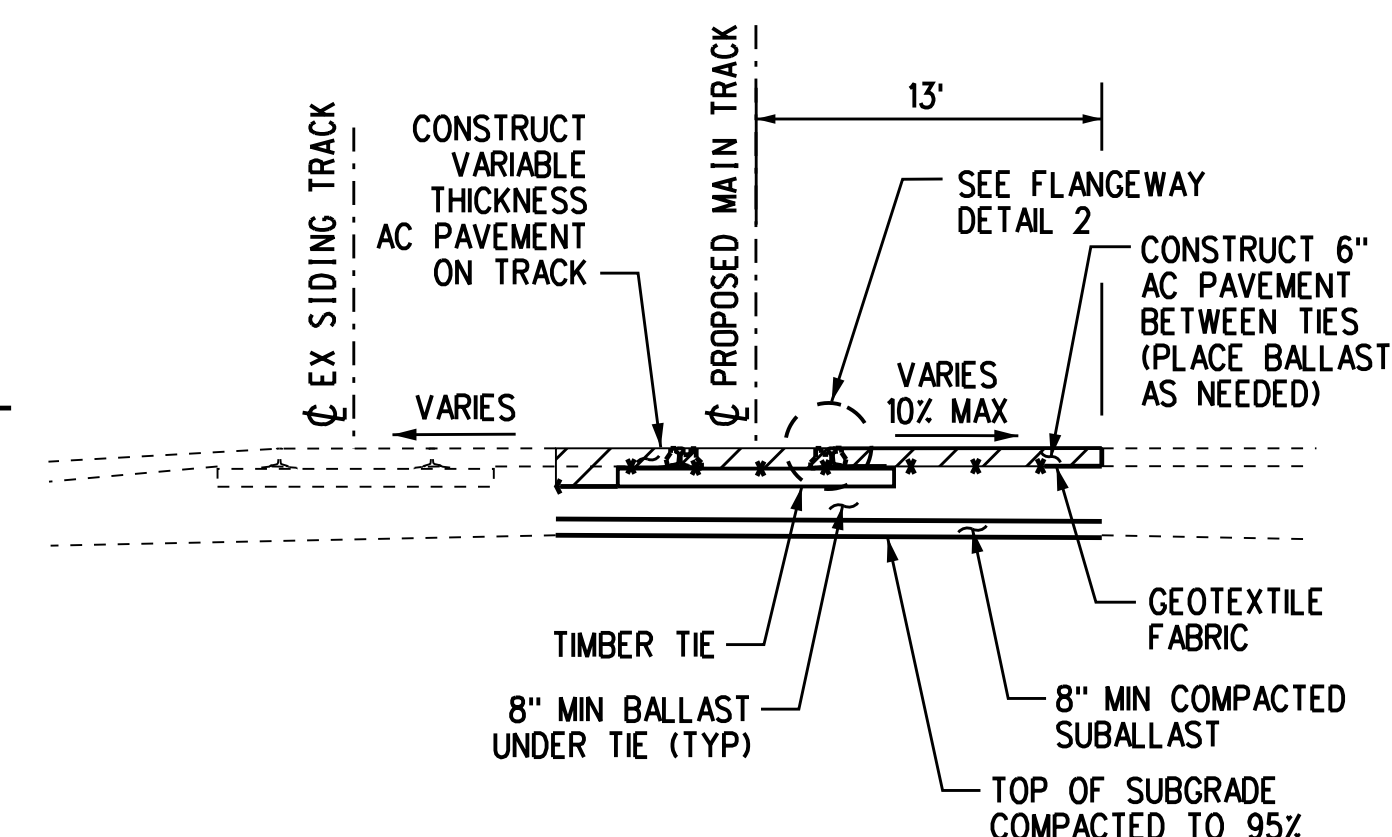


PERKINS ROAD CROSSING PLAN



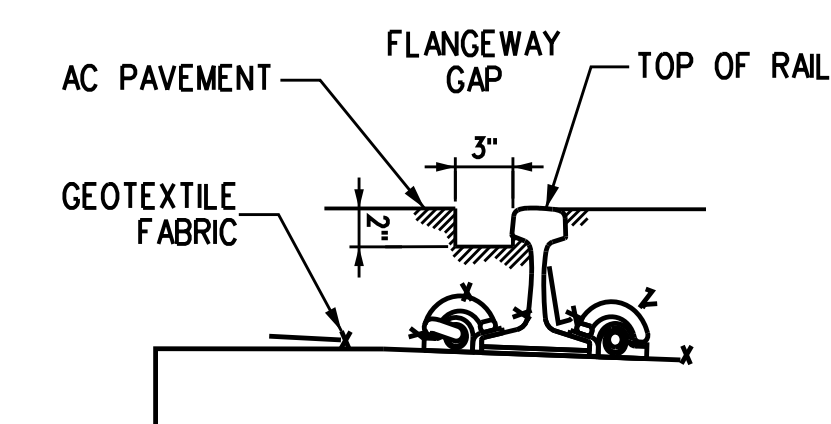
PRIVATE CROSSING PLAN

NOT TO SCALE



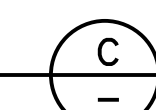
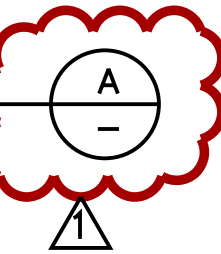
TYPICAL A.C. CROSSING AT PERKINS ROAD

NOT TO SCALE



FLANGEWAY DETAIL

NOT TO SCALE



EDUARDO M. LOPEZ
CIVIL ENGINEER

05/17/2013
DATE

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
GRADE CROSSING IMPROVEMENTS
VENTURA COUNTY RAIL ROAD IMPROVEMENTS

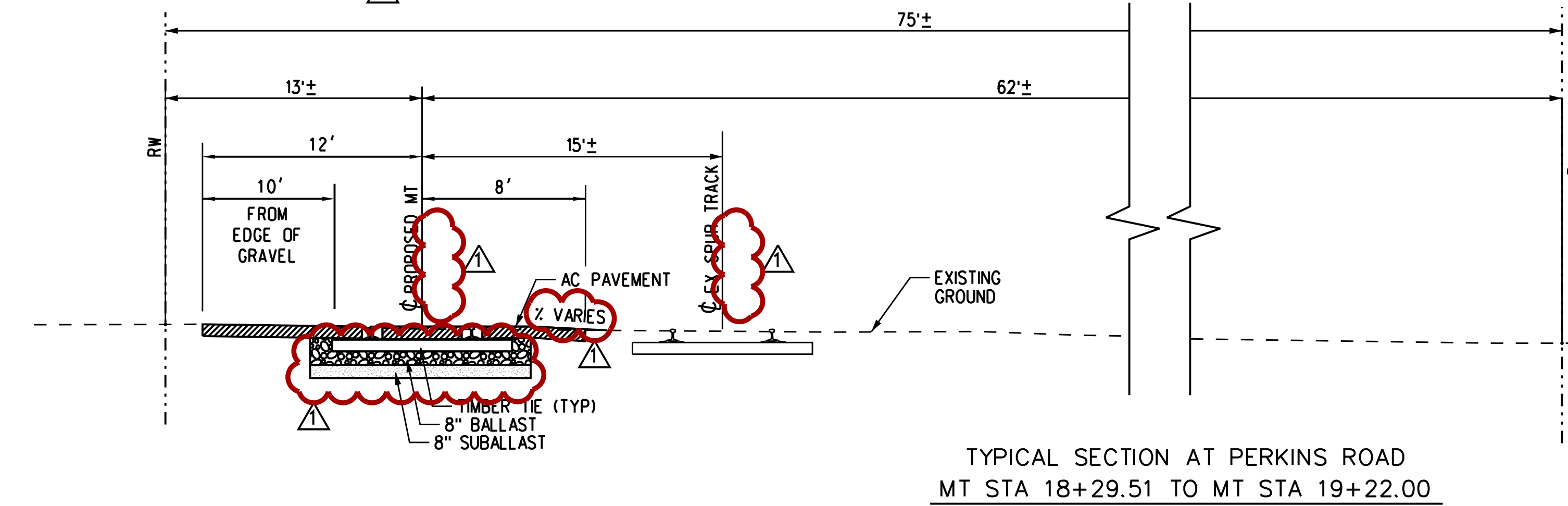
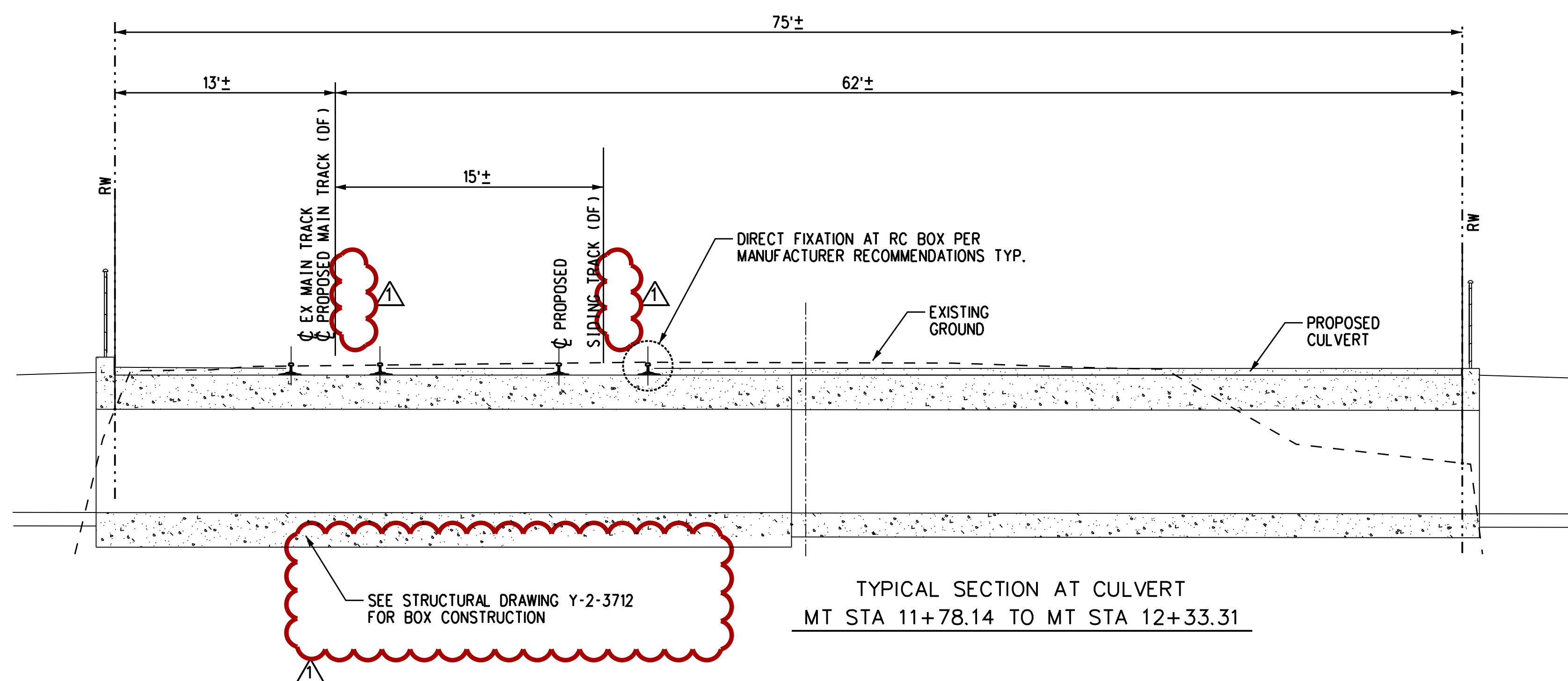
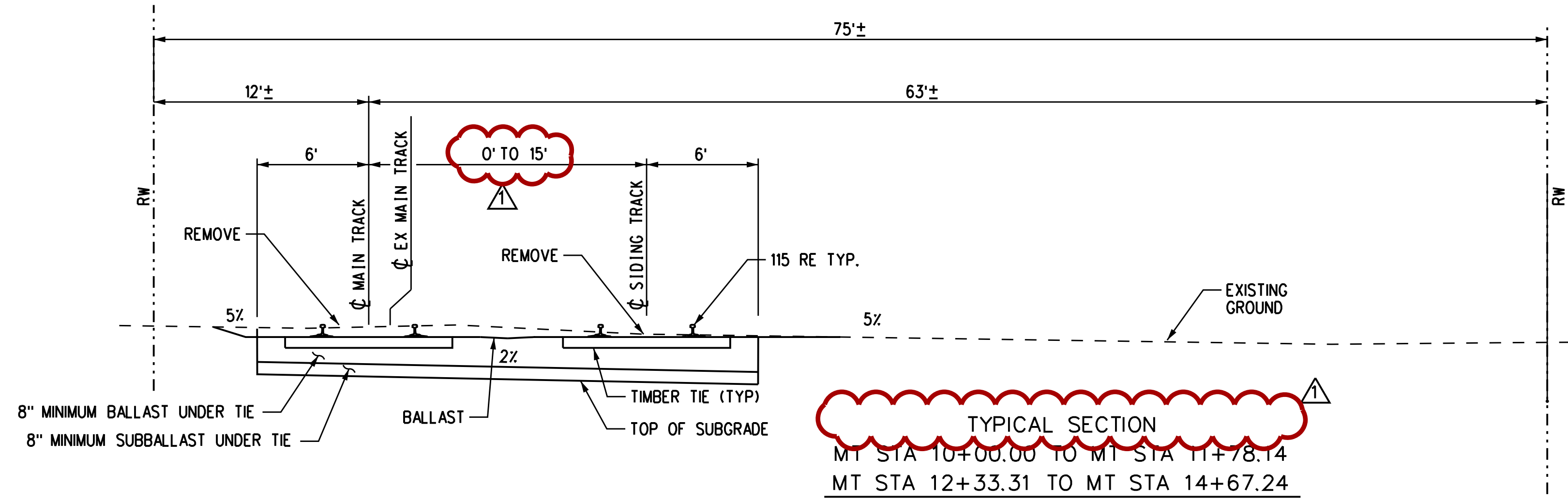
SHEET 7D
OF 31
DRAWING NO.
Y-2-3711D

alopez
11:36:16 AM
6/24/2013
J:\Projects\Ventura_County_Watershed_Protection_District\J_Street_Culvert\Drawings\214.2_OP-01.dgn

D					
C					
B					
Δ	REVISE DETAIL AND CALL OUTS	EML	06/21/13	APPROVED:	DATE
Δ	REVISION DESCRIPTION	APP.	DATE	PORT OF HUENEME, OXNARD HARBOR DISTRICT	

RECOMMENDED:	AECOM	DATE	
C. LEE DESIGNED		DATE	
C. LEE DRAWN		DATE	
E.M. LOPEZ CHECKED		DATE	

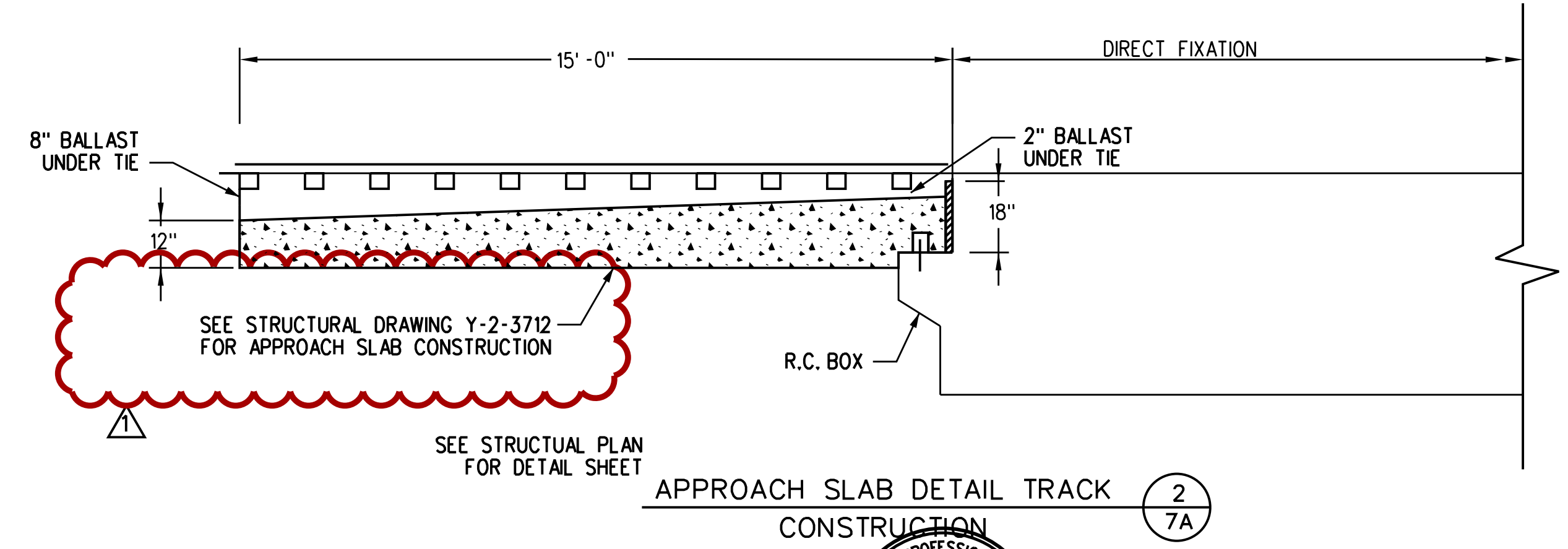
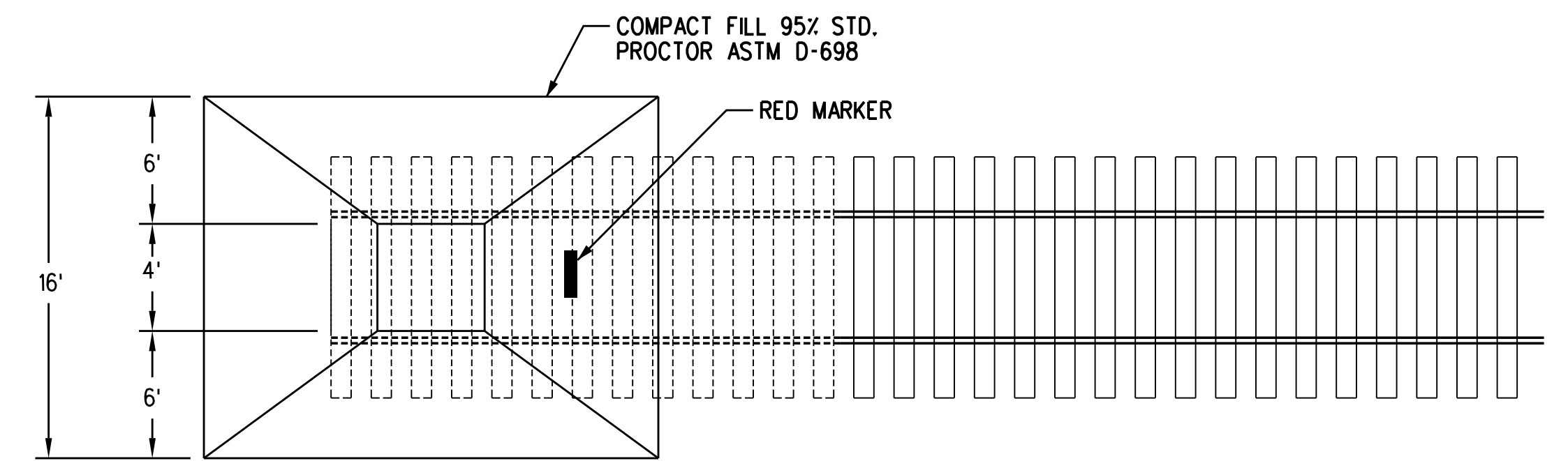
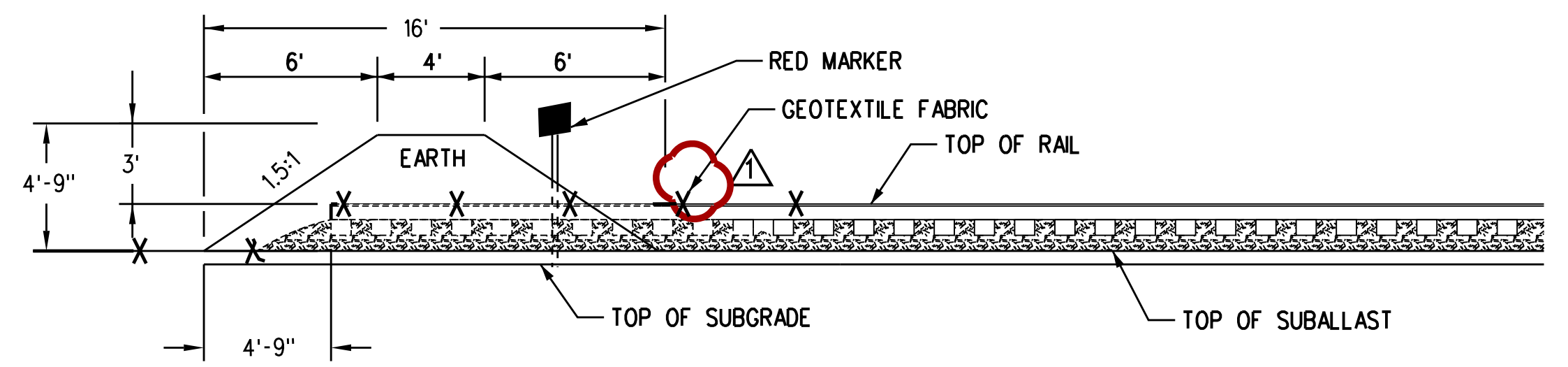
PROJECT MANAGER	DATE	
DEPUTY DIRECTOR	DATE	
DISTRICT DIRECTOR	DATE	



NOTES:

- STATIONING IS BASED ON TRACKS AS INDICATED. WHERE THERE ARE GAPS IN THE STATIONING OF TYPICAL SECTIONS, PROVIDE A LINEAR TRANSITION BETWEEN ADJACENT TYPICAL SECTIONS.
- ON TANGENT TRACK (NO SUPERELEVATION, $E_a=0"$) AND ON CURVED TRACK ON THE INSIDE OF THE CURVE, TOP OF SUBGRADE PLANE SHALL BE 2.43' BELOW TOP OF LOW RAIL OF INDICATED TRACK AT CENTERLINE OF TRACK. ON CURVED TRACK ON THE OUTSIDE OF THE CURVE, THE TOP OF SUBGRADE PLANE SHALL BE 2.43' BELOW TOP OF LOW RAIL OF INDICATED TRACK AT CENTERLINE OF TRACK PLUS $\frac{1}{2}"$ FOR EACH INCH OF SUPERELEVATION (FORMULA: $3.43' \times 0.04' \times E_a$ (IN INCHES)).

- NOT USED
- TIE SHOULDER IS 12" ON THE LOW SIDE OF SUPERELEVATED TRACK OR ON TANGENT TRACK.
- FOR RIGHT-OF-WAY DIMENSIONS, SEE PLAN AND PROFILE DRAWINGS.
- BETWEEN MT STA 10+00.00 AND MT STA 19+22.00, TRACK CENTERS VARY.
- AT THE OPTION OF THE CONTRACTOR, THE EXISTING FENCE MAY BE REMOVED AND REPLACED, IN KIND, TO FACILITATE CONSTRUCTION; HOWEVER, THE CONSTRUCTION SITE MUST REMAIN SECURE AT ALL TIMES.



EDUARDO M. LOPEZ
CIVIL ENGINEER
05/17/2013
DATE

REVISION	DESCRIPTION	APP.	DATE
1	REVISE DETAILS AND CROSS SECTIONS	EML	06/21/13

RECOMMENDED:	AECOM	DATE	
APPROVED:	PORT OF HUENEME, OXNARD HARBOR DISTRICT	DATE	

C. LEE DESIGNED	PROJECT MANAGER	DATE	
C. LEE DRAWN	DEPUTY DIRECTOR	DATE	
E.M. LOPEZ CHECKED	DISTRICT DIRECTOR	DATE	

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO. WP13-14	PROJ. NO. 82322
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'J' STREET DRAIN IMPROVEMENT
TYPICAL CROSS SECTIONS
VENTURA COUNTY RAIL ROAD IMPROVEMENTS

SHEET 7C	OF 31
DRAWING NO. Y-2-3711C	

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J:\Projects\Ventura_County_Watershed_Protection_District\J_Street_Culvert\Drawings\214.2_RC-01.sht

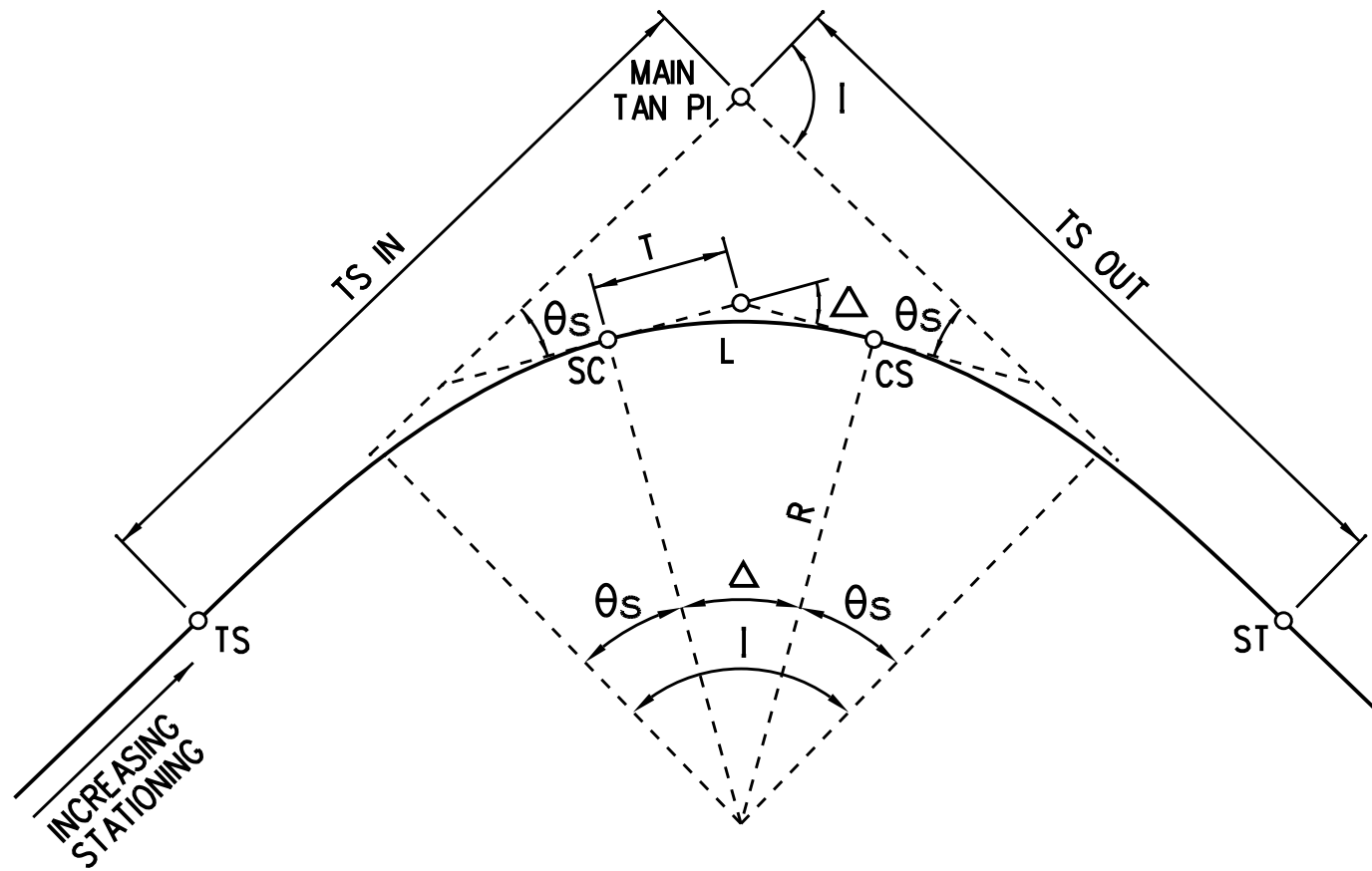


FIGURE A
CIRCULAR CURVES
WITH SPIRAL TRANSITION

I - TOTAL INTERSECTION ANGLE

θ_s - SPIRAL ANGLE = $\frac{LS \cdot D_c}{200}$

Δ - CENTRAL ANGLE OF CIRCULAR CURVE = $I - 2\theta_s$

R - RADIUS OF CIRCULAR CURVE

T - TANGENT LENGTH OF CIRCULAR CURVE = $R \tan \frac{\Delta}{2}$

L - LENGTH OF CIRCULAR CURVE = $\frac{\Delta}{D_c} \times 100$

TS - TANGENT TO SPIRAL

SC - SPIRAL TO CURVE

CS - CURVE TO SPIRAL

ST - SPIRAL TO TANGENT

MAIN TAN PI - POINT OF INTERSECTION OF MAIN TANGENTS

(TS IN) - TANGENT LENGTH OF COMPLETE CURVE = $(R+P) \tan \frac{1}{2} \cdot K$

(WHEN SPIRALS OF EQUAL LENGTH
ARE USED ON BOTH SIDES OF
CIRCULAR CURVE, SEE FIGURE C.
FOR P AND K).

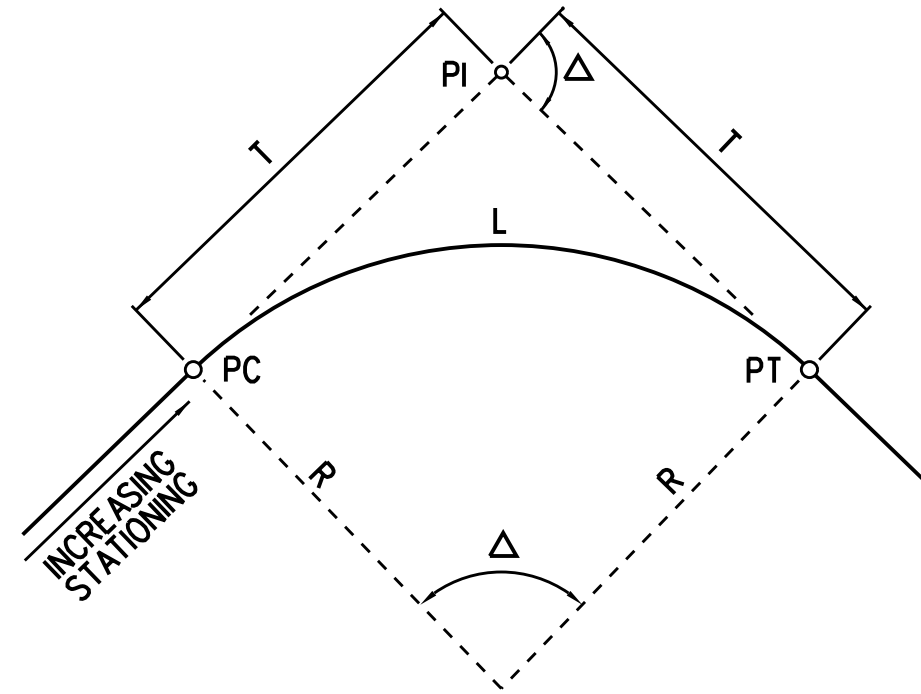


FIGURE B
SIMPLE CIRCULAR CURVE

R - RADIUS OF CIRCULAR CURVE

Δ - CENTRAL ANGLE OF CIRCULAR CURVE

$T = R \tan \frac{\Delta}{2}$

$L = \frac{\Delta}{D_c} \times 100$

$D_c = 2 \sin^{-1} (50/R) = \text{DEGREE OF CURVE (CHORD DEFINITION)}$

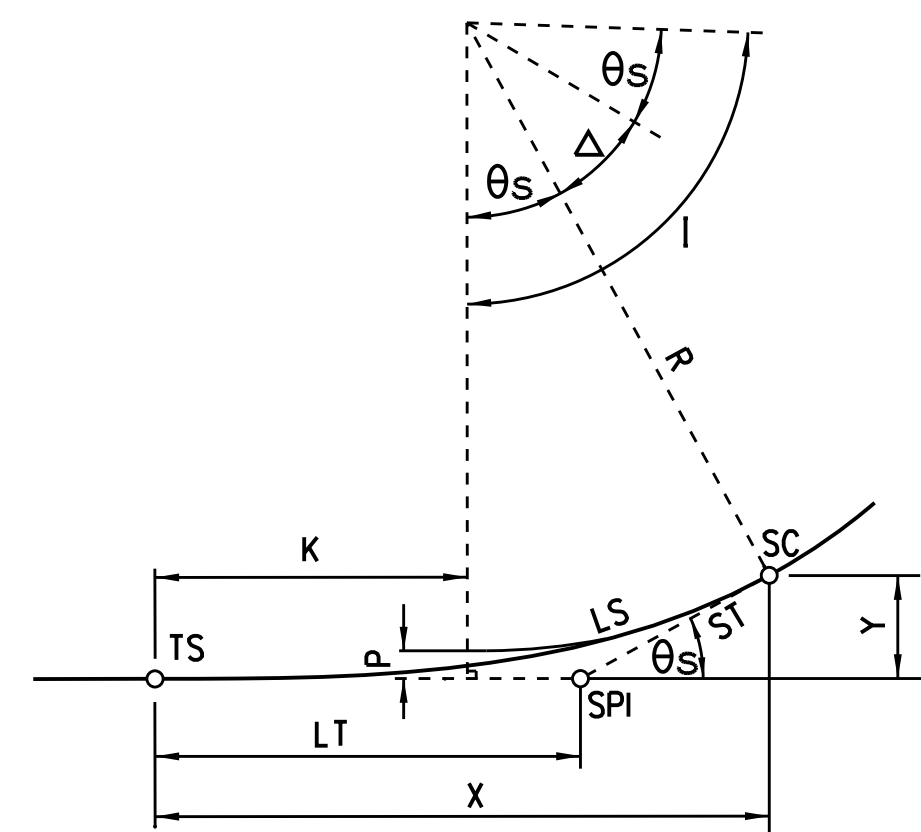


FIGURE C
SPIRAL TRANSITION CURVE

SPIRAL TRANSITION CURVE DATA:

THE SPIRAL USED IS DEFINED BY THE BARNETT SPIRAL.

LS = LENGTH OF SPIRAL (TS TO SC)

$\theta_s = \frac{\theta_s \pi}{180}$ $\theta_s = \frac{LS \cdot D_c}{200}$

$X = LS (1 - \frac{\theta_s^2}{10} + \frac{\theta_s^4}{216})$

$Y = LS (\frac{\theta_s}{3} - \frac{\theta_s^3}{42})$

$P = Y - R(1 - \cos \theta_s)$

$K = X - R \sin \theta_s$

$ST = \frac{Y}{\sin \theta_s}$

$LT = X - \frac{Y}{\tan \theta_s}$

$D_c = 2 \sin^{-1} (50/R) = \text{DEGREE OF CURVE (CHORD DEFINITION)}$

SPI - SPIRAL POINT OF INTERSECTION

NOTE: D_c , θ_s , Δ , AND I ARE IN DEGREES.

θ_s - EXPRESSED IN RADIAN.

ALL OTHERS DIMENSIONS ARE FEET.

JST-MAIN TRACK GEOMETRY DATA											
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	RADIUS	Δ	L	T
#9 TO	POB	N80°59'56"E	0.00	10+00.00	236850.465	1641185.922					
	PS	N80°59'56"E	30.17	10+00.00	236850.465	1641185.922					
	PI TO	N80°59'56"E	255.23	10+30.17	236855.938	1641216.240					
	POE	N80°59'56"E	255.23	12+85.40	236849.928	1641471.841					
JST-MAIN TRACK PERKINS ROAD											
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	RADIUS	Δ	L	T
	POB	S88°31'41"E	102.00	18+20.00	236836.021	1641991.308					
	POE	S88°31'41"E	102.00	19+22.00	236837.026	1642107.780					

JST-SIDING TRACK GEOMETRY DATA											
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	RADIUS	Δ	L	T
#9 TO	POB	S88°31'41"E	0.00	10+00.00	236856.713	1641186.082					
	PS	S88°31'41"E	30.17	10+00.00	236856.713	1641186.082					
	PI TO	S88°31'41"E	30.17	10+30.17	236855.938	1641216.240					
	POE	S88°31'41"E	30.17	10+30.17	236855.938	1641216.240					
	PC	S82°10'05"E	102.68	11+32.85	236841.946	1641317.966					
	PI				236837.609	1641349.492	10°00'00"	573.69	6°21'00"	63.50	31.82
	PT				11+96.35	236836.786					
	POE	S88°31'05"E	175.99	13+71.94	236832.246	1641556.831					

alopez
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6/24/2013

D				RECOMMENDED: _____ DATE _____	C. LEE DESIGNED	PROJECT MANAGER _____ DATE _____	SPEC. NO. WP13-14	'J' STREET DRAIN IMPROVEMENT TRACK GEOMETRY VENTURA COUNTY RAIL ROAD IMPROVEMENTS	SHEET 7B
C									OF 31
B				APPROVED: _____ DATE _____	C. LEE DRAWN	DEPUTY DIRECTOR _____ DATE _____	PROJ. NO. 82322		DRAWING NO. Y-2-3711B
A	REVISE BEGIN STATION FOR CROSSING AT PERKINS	EML	06/21/13	PORT OF HUENEME, OXNARD HARBOR DISTRICT	E.M. LOPEZ CHECKED	DISTRICT DIRECTOR _____ DATE _____			
	REVISION	DESCRIPTION	APP.	DATE					

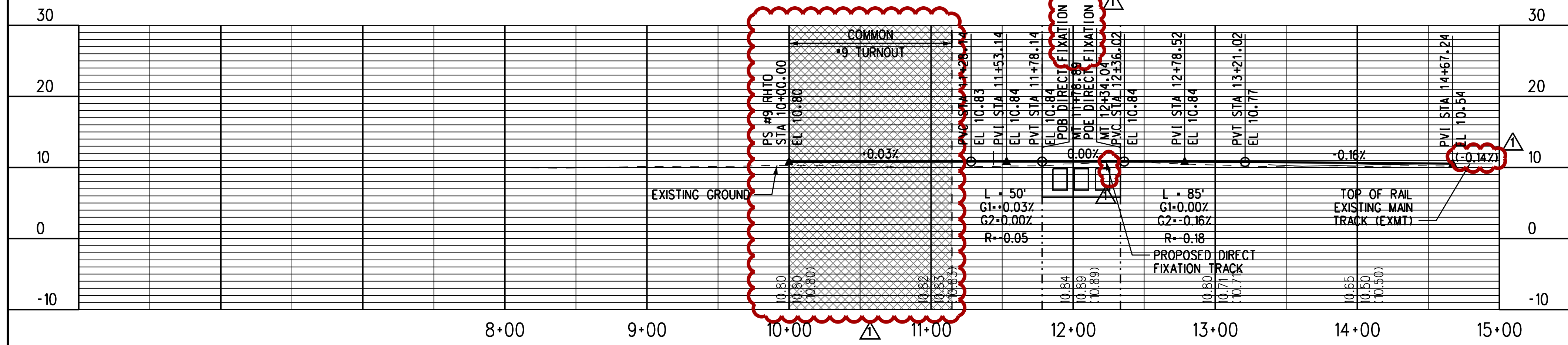
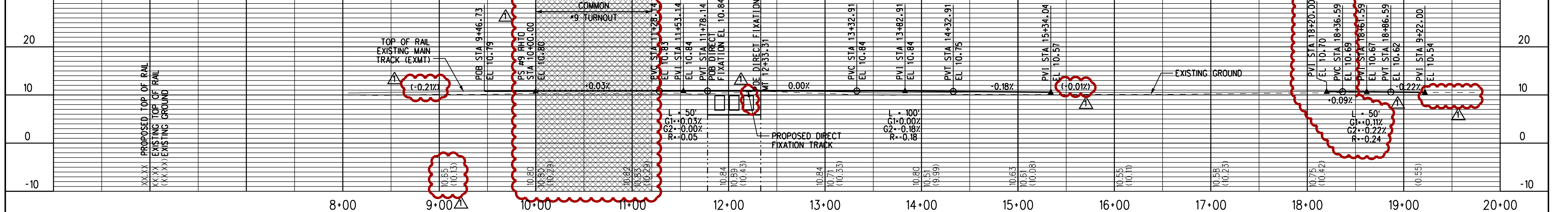
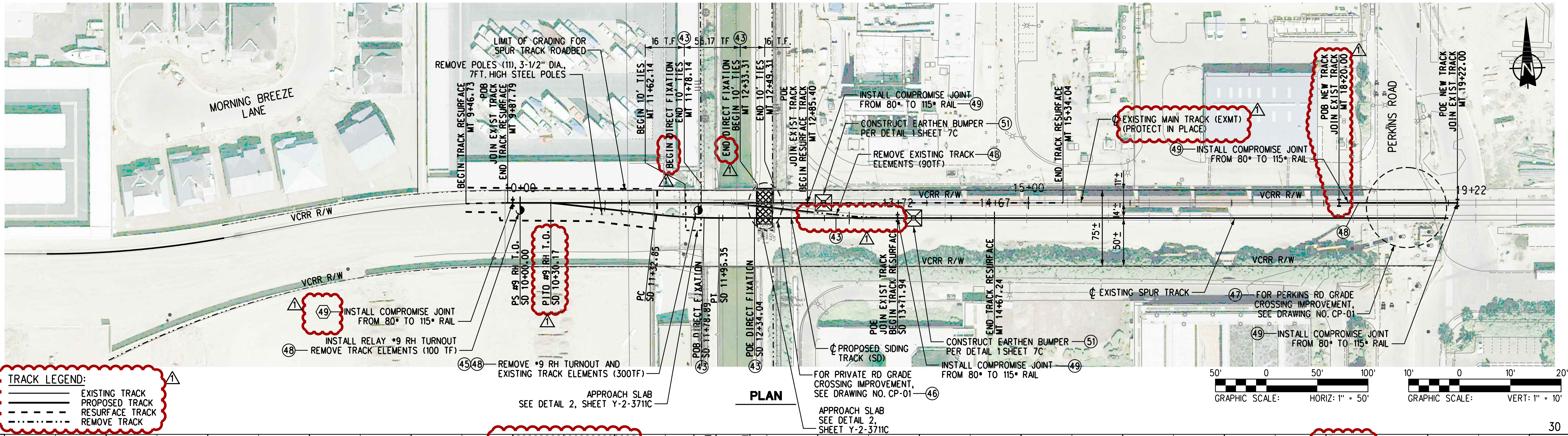


EDUARDO M. LOPEZ
CIVIL ENGINEER

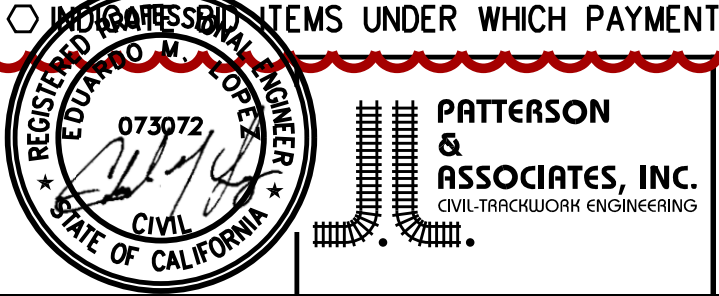
05/17/2013
DATE

TO PORT HUENEME

TO OXNARD



- NOTES:**
- FOR TRACK GEOMETRY DATA, SEE DRAWING NO. Y-2-3711B.
 - FOR SURVEY CONTROL, SEE DRAWING NO. Y-2-3729.
 - FOR TYPICAL TRACK CROSS-SECTIONS, SEE DRAWING NO. Y-2-3711C.
 - FOR UTILITY IMPROVEMENTS, SEE DRAWING NO. Y-2-3711E.
 - STATIONING IS BASED ON THE PROPOSED TRACK AS INDICATED.
 - SIGNAL FACILITY LOCATIONS TO BE DETERMINED BY GENESEE AND WYOMING SIGNAL DEPARTMENT.
 - NUMBERS IN CIRCLES ARE ITEMS UNDER WHICH PAYMENT WILL BE MADE.



PATTERSON & ASSOCIATES, INC.
CIVIL-TRUCKWORK ENGINEERING
EDUARDO M. LOPEZ
CIVIL ENGINEER
05/17/2013
DATE

D	REVISION	DATE	APP.	DATE
C	REVISION	DATE	APP.	DATE
B	REVISION	DATE	APP.	DATE
A	REVISION	DATE	APP.	DATE

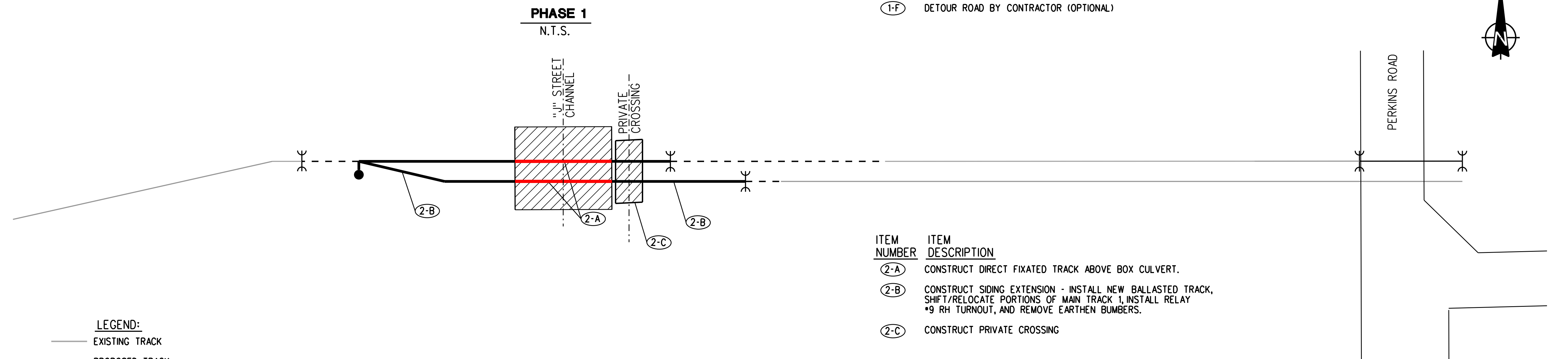
C. LEE DESIGNED	PROJECT MANAGER	DATE
C. LEE DRAWN	DEPUTY DIRECTOR	DATE
E.M. LOPEZ CHECKED	DISTRICT DIRECTOR	DATE

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

SPEC. NO.
WP13-14
PROJ. NO.
82322

**'J' STREET DRAIN IMPROVEMENT
TRACK PLAN AND PROFILE
VENTURA COUNTY RAIL ROAD IMPROVEMENTS**

SHEET 7A
OF 31
DRAWING NO.
Y-2-3711A

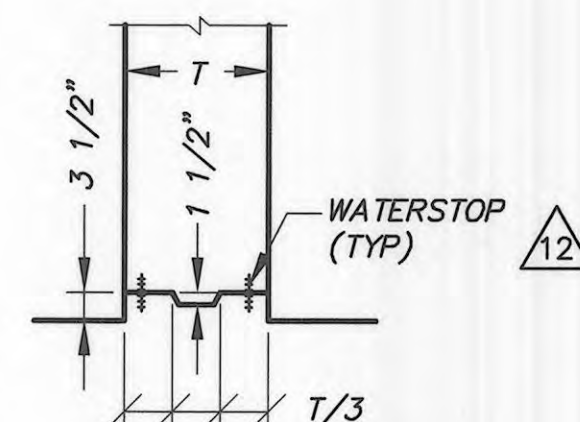
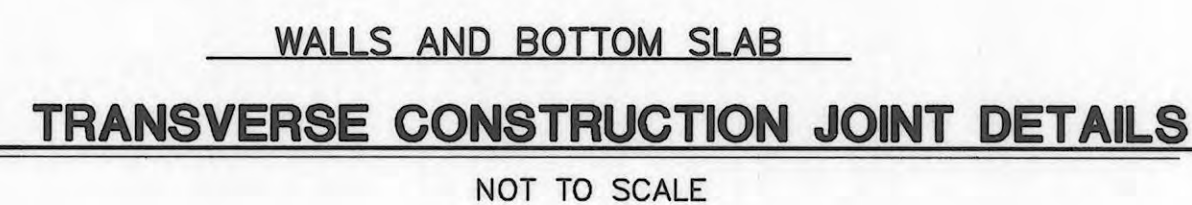


 COMPROMISE JOINT
 TURNOUT
 EARTHEN BUMPERS

<u>ITEM NUMBER</u>	<u>ITEM DESCRIPTION</u>
(2-A)	CONSTRUCT DIRECT FIXATED TRACK ABOVE BOX CULVERT.
(2-B)	CONSTRUCT SIDING EXTENSION - INSTALL NEW BALLASTED TRACK, SHIFT/RELOCATE PORTIONS OF MAIN TRACK 1, INSTALL RELAY #9 RH TURNOUT, AND REMOVE EARTHEN BUMBERS.
(2-C)	CONSTRUCT PRIVATE CROSSING



- | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| BAR SIZE | #4 | #5 | #6 | #7 | #8 | #9 |
| LENGTH OF LAP SPLICE | 25" | 31" | 37" | 54" | 62" | 70" |
| THE LAP LENGTH SHALL BE BASED ON THE SMALLER SIZE BAR | | | | | | |

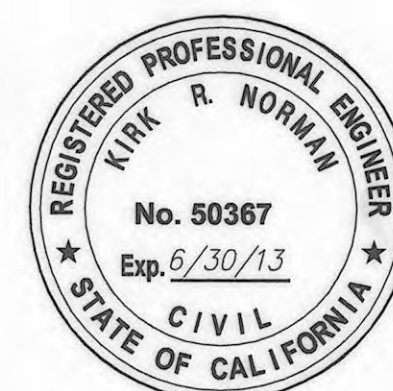


NOT TO SCALE


$$\begin{aligned} f'_c &= 5,000 \text{ psi} \\ f_c &= 1,800 \text{ psi} \\ f_s &= 24,000 \text{ psi} \\ n &= 8 \\ v_c &= 70 \text{ psi} \end{aligned}$$

STATION	P	BAR NUMBER AND SPACING	
		J - BAR	K - BAR
25+25.27	19"	#5 @ 8.5"	#5 @ 8.5"
25+92.27	12"	#4 @ 8.5"	#4 @ 8.5"

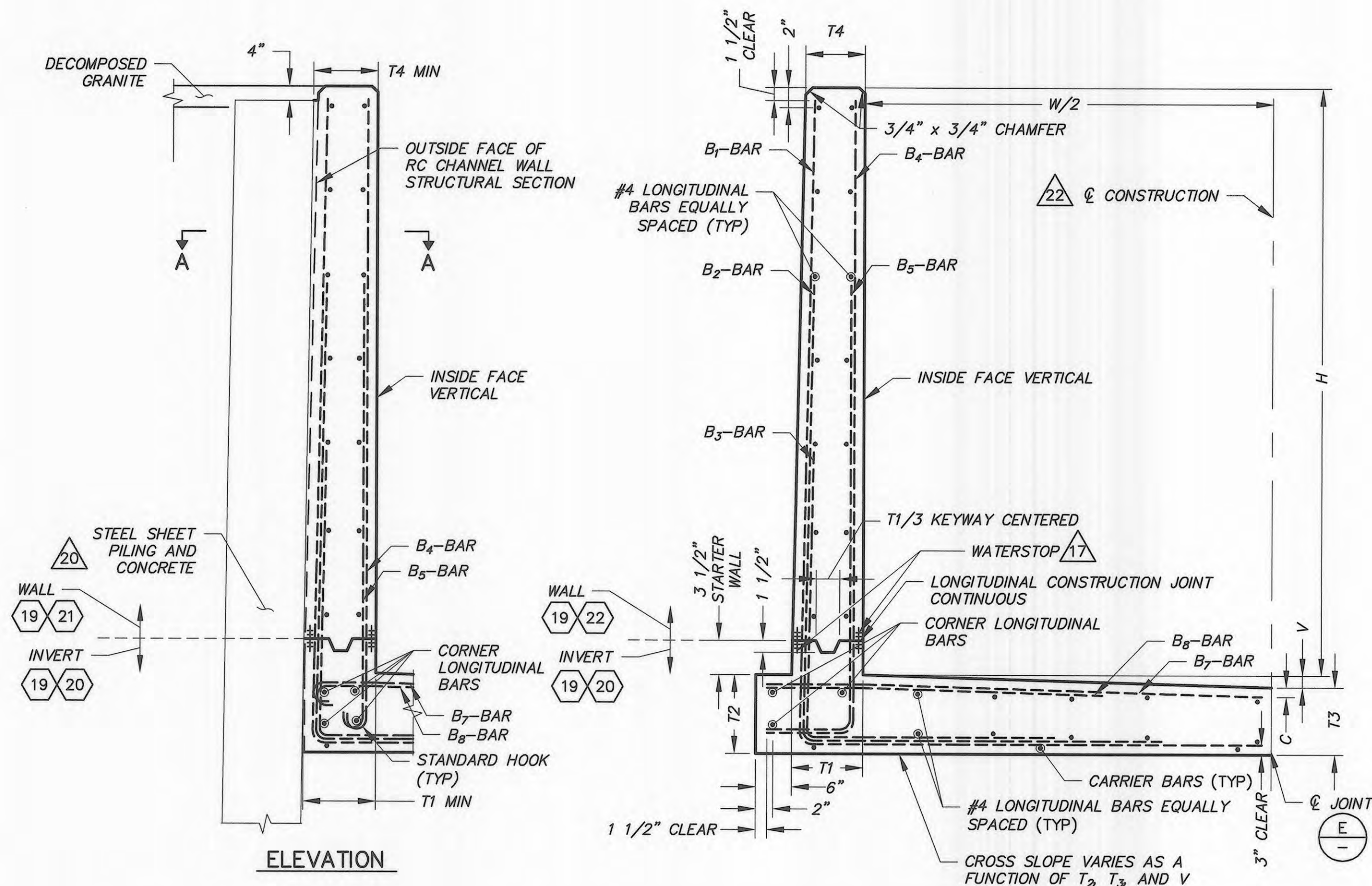
RC TRIPLE BOX CULVERT TABLE			
LIVE LOAD			HS20
WIDTH			W 16'-4"
HEIGHT			H 5'-6"
THICKNESS (INCHES)	TOP SLAB	T ₁	16
	SIDE WALL	T ₂	12.5
	BOTTOM SLAB	T ₃	16
	INTERNAL WALL	T ₄	16
B BAR	BAR NO. & SPACING		#4 @ 8.5"
	LENGTH		52'-0"
B ₁ BAR	BAR NO. & SPACING		#5 @ 8.5"
	LENGTH		9'-2"
C BAR	BAR NO. & SPACING		#6 @ 8.5"
	HORIZONTAL LENGTH (ROOF)		5'-9"
	HORIZONTAL LENGTH (INVERT)		3'-0"
	VERTICAL LENGTH		7'-8"
C ₁ BAR	BAR NO. & SPACING		#7 @ 8.5"
	HORIZONTAL LENGTH		4'-0"
	VERTICAL LENGTH		6'-9"
C ₂ BAR	BAR NO. & SPACING		#4 @ 8.5"
	HORIZONTAL LENGTH		12'-6"
	VERTICAL LENGTH		5'-6"
C ₃ BAR	BAR NO. & SPACING		-
	HORIZONTAL LENGTH		-
	VERTICAL LENGTH		-
D BAR	BAR NO. & SPACING		#4 @ 8.5"
	LENGTH		7'-8"
F BAR	BAR NO. & SPACING		#4 @ 8.5"
	LENGTH		52'-0"
F ₁ BAR	BAR NO. & SPACING		#5 @ 8.5"
	LENGTH		11'-10"
G BAR	BAR NO. & SPACING		#4 @ 8.5"
	LENGTH		26'-0"
G ₁ BAR	BAR NO. & SPACING		#7 @ 8.5"
	LENGTH		7'-0"
H BAR	BAR NO. & SPACING		#5 @ 8.5"
	LENGTH		26'-9"
H ₁ BAR	BAR NO. & SPACING		#7 @ 8.5"
	LENGTH		7'-0"
C _w BAR	BAR NO. & SPACING		#4 @ 8.5"
	LENGTH		4'-8"
DISTR BARS	BAR NO. & SPACING		#4 @ 4.25"
	NUMBER OF BARS		28
NUMBER OF #4 LONGITUDINAL BARS		TOP SLAB	52
		BOTTOM SLAB	72
		SIDE WALLS	16
		INTERNAL WALLS	16
TOTAL #4 LONGITUDINAL BARS			156
#4 CARRIER BARS	TOP	12	
	BOTTOM	14	
CONCRETE QUANTITY (CY/LF)			6.36
STEEL QUANTITY (LBS/LF)			495



STRUCTURAL NOTES

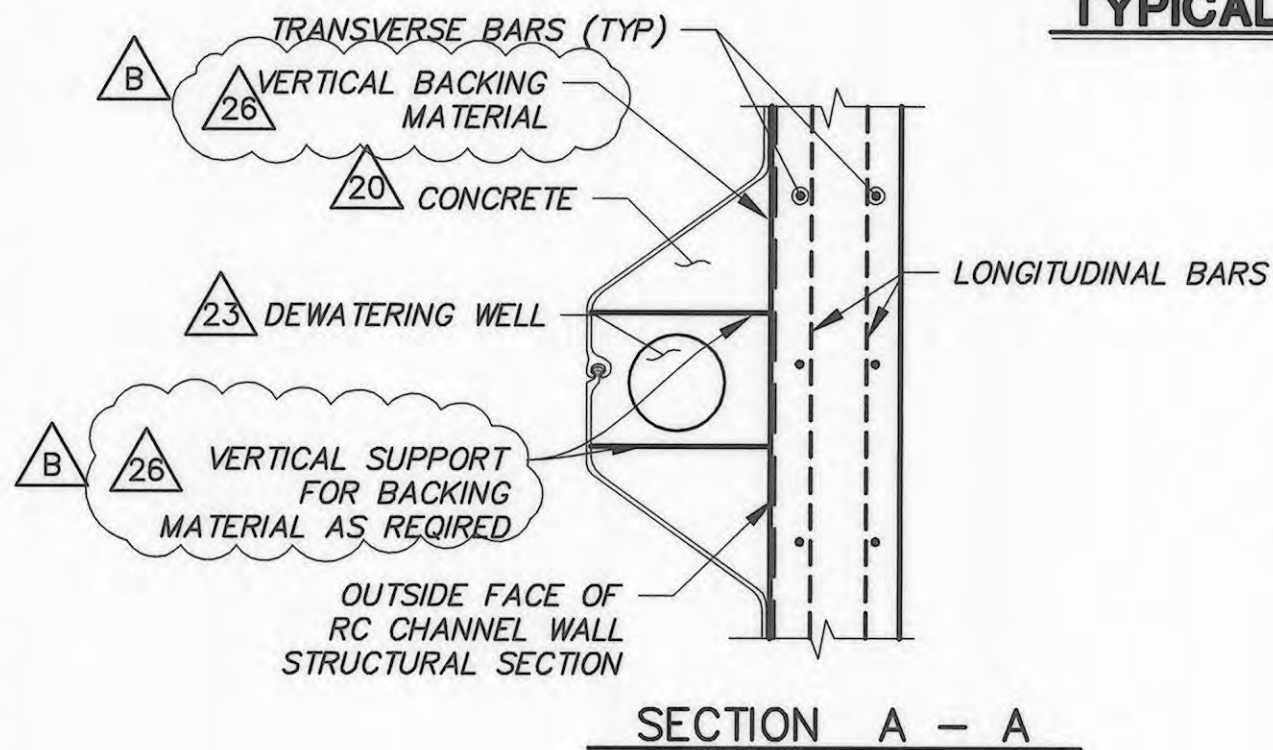
- DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO THE NEAREST EDGE OF THE BAR AND SHALL BE TWO INCHES (2" CLEAR) UNLESS OTHERWISE SHOWN.
- CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADIALY) TO CENTERLINE OF CHANNEL ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
- REINFORCEMENT DETAILS SHALL CONFORM TO THE LATEST EDITION OF ACI 318.
- TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 30 INCHES OF OPENINGS FOR SIDE DRAINS OR INLETS.
- TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION.
- THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE PLANS.
- EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED.
- NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN IN THE DRAWING WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN ONE SPlice SHALL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
- LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE SPACED NOT TO EXCEED 50 FEET NOR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED AT THE JUNCTION OF RECTANGULAR OPEN CHANNEL SECTIONS WITH CLOSED CONDUIT SECTIONS.
- THE MAXIMUM SPACING OF BARS IN CURVED SECTIONS SHALL NOT EXCEED THAT SHOWN ON THE TYPICAL SECTIONS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. STEEL SHALL BE PLACED RADIALY FROM THE MAXIMUM SPACING.
- AT THE BEGINNING AND ENDING OF ALL POURS, A COMPLETE CURTAIN OF REINFORCEMENT COMPOSED OF B_1 , B_2 , AND B_3 BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.
- ALL TRANSVERSE JOINTS SHALL BE PROVIDED WITH 1 1/2" x 3/4" FORMED GROOVE IN THE INSIDE FACE AND TOP OF WALLS AND WITH 3/4" TOOLED JOINT IN THE BOTTOM SLAB.
- THE BAR LENGTHS TABULATED FOR TRANSITIONS ARE APPLICABLE TO THE LARGER SECTION ONLY. THE BARS REQUIRING ADJUSTMENT ARE THOSE TABULATED IN THE TABLE HEREON AND SHALL BE ADJUSTED AS NECESSARY WITHIN THE TRANSITION.
- TRANSVERSE WALL JOINTS SHALL HAVE A 4" POLYVINYL CHLORIDE WATERSTOP (SPLIT RIBBED CENTER BULB TYPE) WHICH SHALL BE CONTECH VINYLSTOP NO. 431S, BURKE VINYLK WATERSTOP R.S.B. 316-4, OR AN APPROVED EQUAL.
- INSTALL A 4" POLYVINYL CHLORIDE WATERSTOP (RIBBED TYPE) ON EACH SIDE OF THE WALL. THE WATERSTOP SHALL BE BURKE VINYLK WATERSTOP R316-4, WATER SEALS INC. FLEXSTRIP OR AN APPROVED EQUAL. THE WATERSTOP SHALL BE TIED TO THE OUTSIDE OF THE REINFORCING STEEL AT THE TOP AND BOTTOM WITH ONE PIECE OF WIRE AT APPROXIMATELY 1'-0" SPACING, PUNCHING SHALL NOT BE ALLOWED. THE WATERSTOP SHALL BE CONTINUOUS FOR EACH WALL SECTION.
- B_1 BARS MAY BE SPLICED ABOVE THE LONGITUDINAL CONSTRUCTION JOINT. USE LAP SHOWN IN THE TABLE HEREON.
- THE LONGITUDINAL CONSTRUCTION JOINTS SHALL BE CONTINUOUS.
- FILL-IN THE SPACE BETWEEN STEEL SHEET PILING AND RCC WALL WITH CONCRETE.
- DEFLECTION OF STEEL SHEET PILING SHALL BE CONSIDERED DURING INSTALLATION TO ALLOW FOR CONSTRUCTION OF RC CHANNEL ALONG ϕ CONSTRUCTION AND PER STRUCTURAL SECTIONS HEREON. STEEL SHEET PILING INSIDE RC CHANNEL STRUCTURAL SECTION SHALL NOT BE ALLOWED.
- UNLESS OTHERWISE SHOWN OR NOTED, THE RC CHANNEL SECTIONS ARE SYMMETRICAL ABOUT ϕ CONSTRUCTION.
- SIZE AND LOCATION OF DEWATERING WELLS IS SHOWN APPROXIMATELY AND MAY BE ADJUSTED BASED ON THE CONTRACTOR'S DESIGN OF THE EXCAVATION DEWATERING SYSTEM.
- GALVANIZED STEEL MECHANICAL KEYWAY MAY BE USED ALONG CENTERLINE JOINT
- ALL LAP SPLICES SHALL CONFORM TO THE LATEST EDITION OF ACI 318. LONGITUDINAL STEEL SHALL BE LAPPED 24 BAR DIAMETERS AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED USING THE FOLLOWING TABLE:

BAR SIZE	#4	#5	#6	#7	#8	#9
LENGTH OF LAP SPICE	25"	31"	37"	54"	62"	70"
THE LAP LENGTH SHALL BE BASED ON THE SMALLER SIZE BAR						



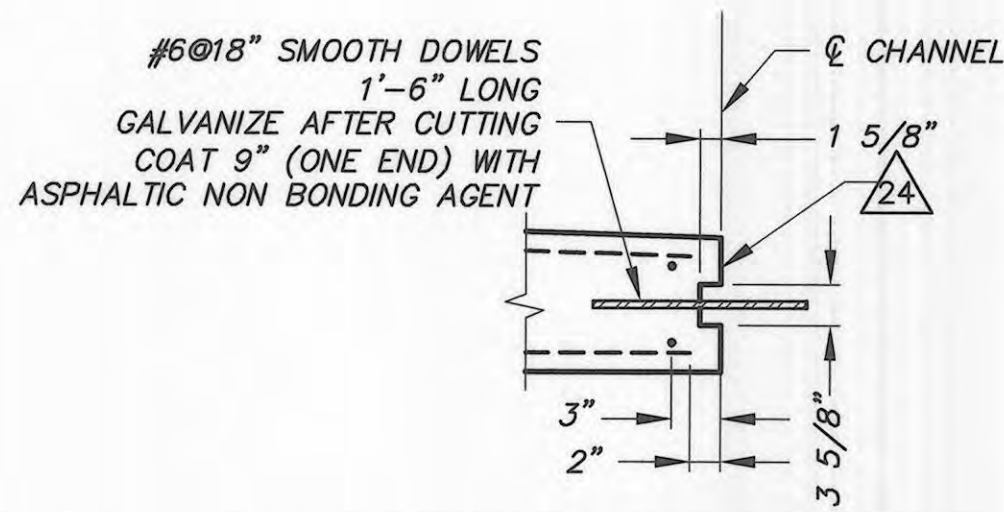
TYPICAL RC OPEN CHANNEL SECTION

NOT TO SCALE



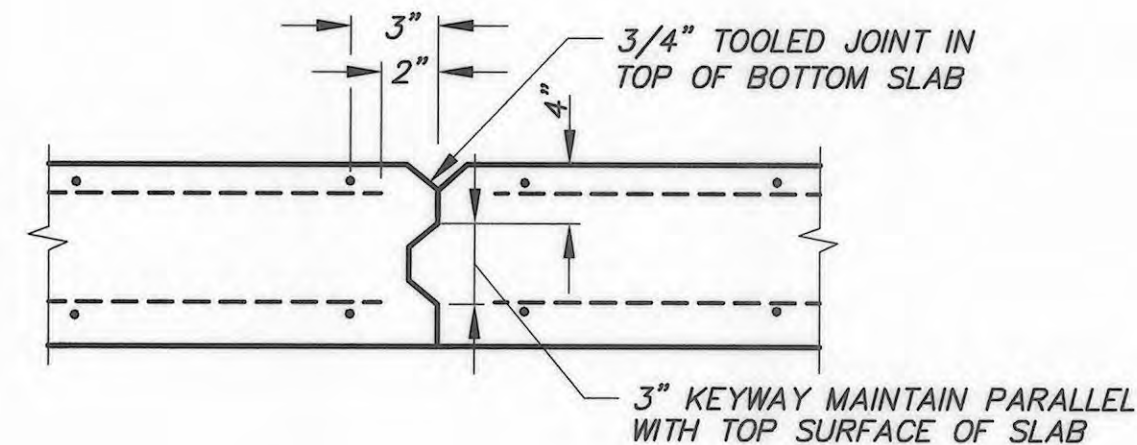
SHEET PILING NEXT TO WALL DETAIL

NOT TO SCALE

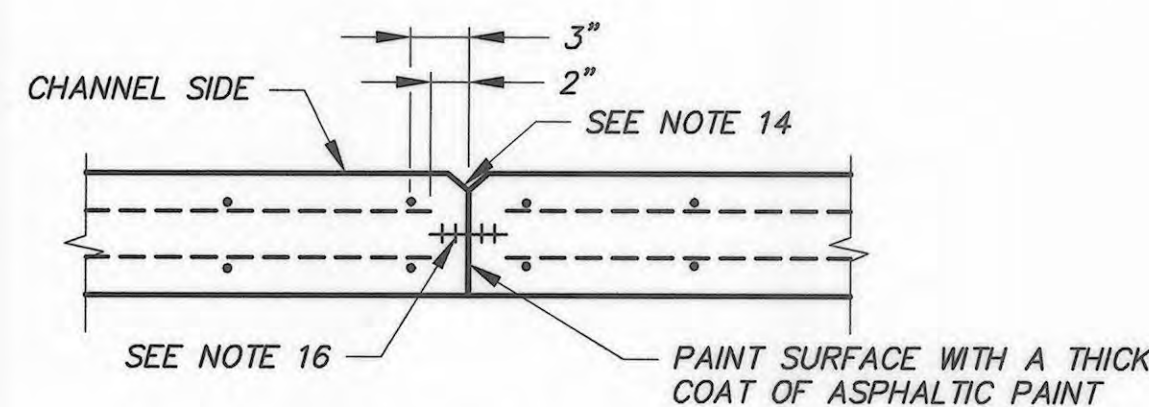


CENTERLINE JOINT DETAIL

NOT TO SCALE



SLAB CONSTRUCTION JOINT



WALL CONSTRUCTION JOINT

TRANSVERSE JOINTS DETAILS

NOT TO SCALE

RC CHANNEL TABLE

SECTION NUMBER	1	2	3	4	5	6	7
WIDTH W	65'-0"	49'-6"	49'-6"	49'-6"	49'-6"	49'-6"	49'-6"
HEIGHT H	8'-3"	8'-3"	8'-0"	7'-9"	7'-3"	7'-0"	7'-0"
THICKNESS (INCHES)	BASE OF WALL T ₁	11"	11"	11"	11"	11"	15"
	SLAB AT FACE OF WALL T ₂	12"	12"	12"	12"	12"	15"
	SLAB AT ϕ T ₃	9"	9"	9"	9"	9"	12"
	TOP OF WALL T ₄	9"	9"	9"	9"	9"	9"
INVERT DROP V	3"	3"	3"	3"	3"	3"	3"
STEEL CLEARANCE INVERT C	2.5"	2.5"	2.5"	2.5"	2.5"	2.5"	2.5"
B ₁ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#5@18"	#7@18"
	HORIZONTAL LENGTH	30'-6"	25'-4"	25'-4"	25'-4"	25'-4"	25'-8"
	VERTICAL LENGTH	8'-10"	8'-10"	8'-6"	8'-4"	7'-10"	10'-5"
B ₂ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#5@18"	#7@18"
	HORIZONTAL LENGTH	30'-6"	25'-4"	25'-4"	25'-4"	25'-4"	25'-8"
	VERTICAL LENGTH	6'-7"	6'-7"	6'-5"	6'-4"	4'-11"	8'-6"
B ₃ BAR	BAR NO. & SPACING	#7@9"	#7@9"	#7@9"	#7@9"	#7@9"	#8@9"
	HORIZONTAL LENGTH	8'-4"	7'-5"	7'-5"	7'-5"	7'-5"	25'-8"
	VERTICAL LENGTH	4'-9"	4'-9"	4'-9"	4'-8"	4'-7"	5'-10"
B ₄ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#4@18"	#5@18"
	HORIZONTAL LENGTH	1'-1"	1'-1"	1'-1"	1'-1"	1'-1"	*
	VERTICAL LENGTH	8'-10"	8'-10"	8'-6"	8'-4"	7'-10"	10'-5"
B ₅ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#4@18"	#5@18"
	HORIZONTAL LENGTH	1'-1"	1'-1"	1'-1"	1'-1"	1'-1"	*
	VERTICAL LENGTH	3'-7"	3'-6"	3'-6"	3'-5"	3'-4"	3'-6"
B ₇ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#4@18"	#5@18"
	HORIZONTAL LENGTH	31'-1"	25'-10"	25'-10"	25'-10"	25'-10"	25'-8"
	VERTICAL LENGTH	31'-1"	25'-10"	25'-10"	25'-10"	25'-10"	25'-8"
B ₈ BAR	BAR NO. & SPACING	#5@18"	#5@18"	#5@18"	#5@18"	#5@18"	#5@18"
	HORIZONTAL LENGTH	31'-1"	25'-10"	25'-10"	25'-10"	25'-10"	25'-8"
	VERTICAL LENGTH	31'-1"	25'-10"	25'-10"	25'-10"	25'-10"	25'-8"
# 4 LONGITUDINAL BARS	BOTTOM SLAB	98	74	74	74	74	74
	SIDE WALLS	28	28	28	28	26	36
TOTAL #4 LONGITUDINAL BARS		132	108	108	108	106	112
#4 CARRIER BARS IN BOTTOM SLAB		17	13	13	13	13	13
CONCRETE QUANTITY (CY/LF)		2.74	2.40	2.37	2.35	2.18	2.85
STEEL QUANTITY (LBS/LF)		400	331	330	328	305	337

* PROVIDE STANDARD 180 DEGREE HOOK PER ACI 318

DESIGN DATA

LIVE LOAD

H20-44

LATERAL LOADS:

EXTERNAL: 80 psf (EFP)

INTERNAL: 40 psf (EFP)

ALLOWABLE STRESS

$f'_c = 5,000$ psi

$f_c = 2,250$ psi

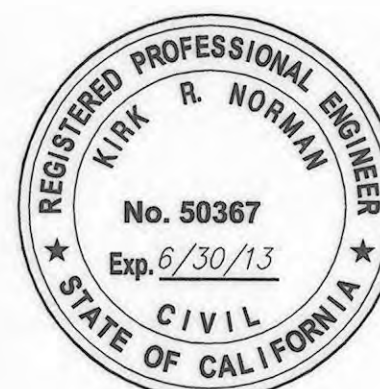
$f_s = 24,000$ psi

$v_c = 78$ psi

$n = 8$

FOUNDATION MODULUS

50 #/in.³



PLOT DATE: 5/20/13

SAVE DATE: 5/17/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\JSD-10-RCC.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B	ADDED BACKING MATERIAL		
A	ADDED CHANNEL SECTION 7		

K. ROUSSEV
DESIGNED
KR
DRAWN
K. NORMAN
CHECKED

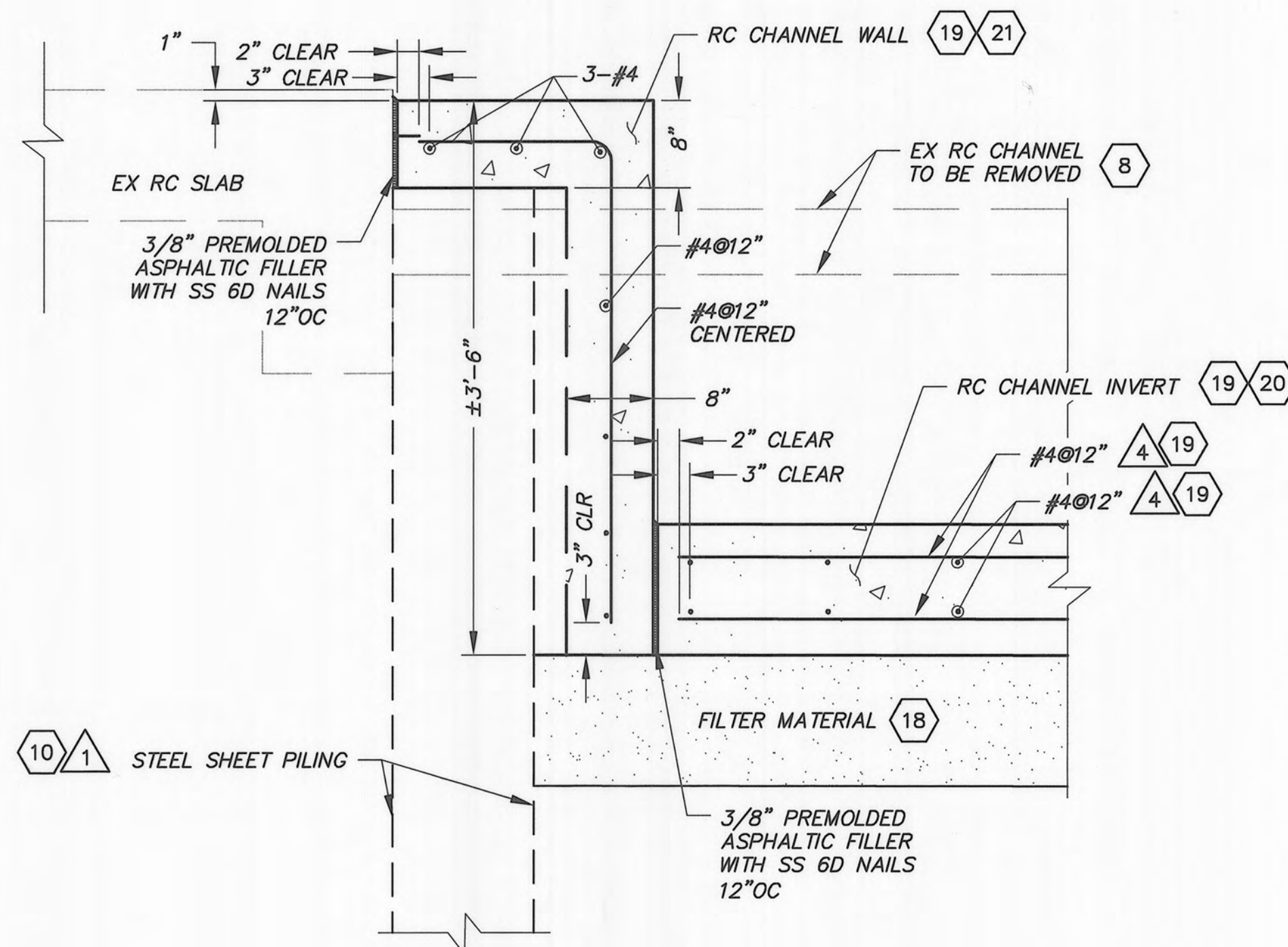
Kirk Norman
PROJECT MANAGER
Kirk Norman
DISTRICT DIRECTOR
5-20-13
5-20-13
5/20/2013

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

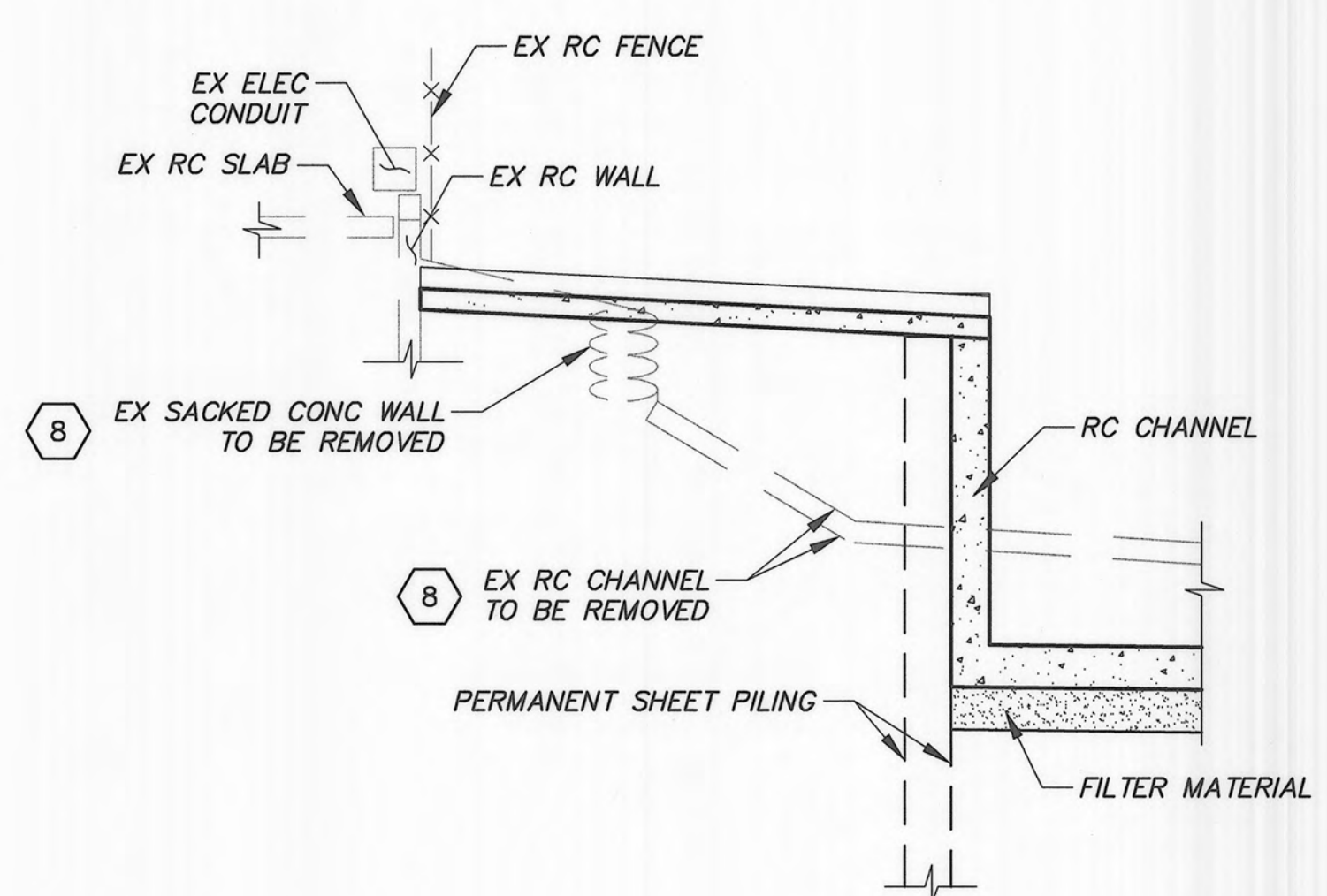
SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAAGOON TO
DOWNSTREAM OF HUENEME ROAD
RC RECTANGULAR CHANNEL STRUCTURAL SECTIONS

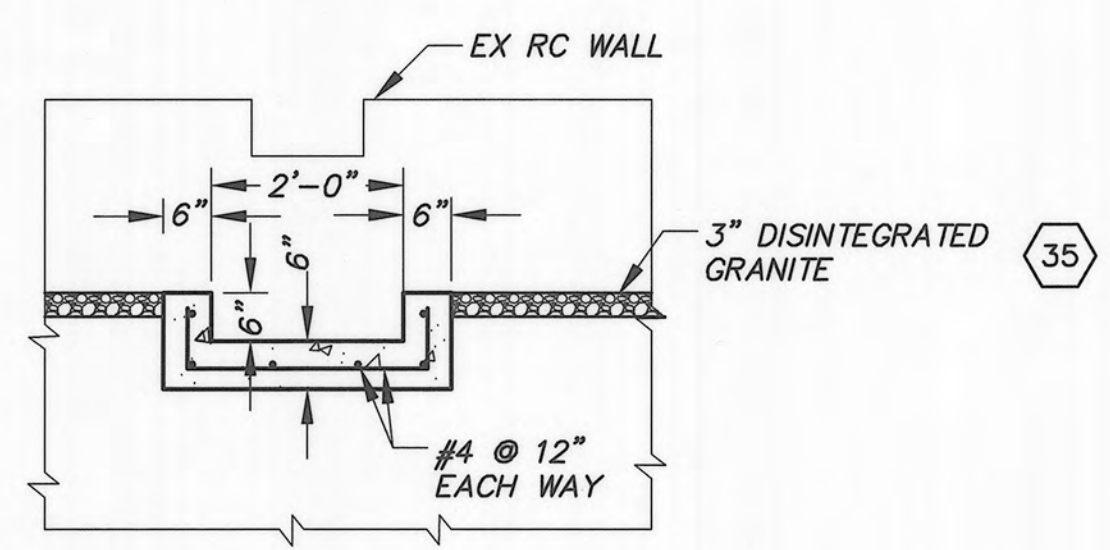
SHEET 10
OF 31
DRAWING NO.
Y-2-3714



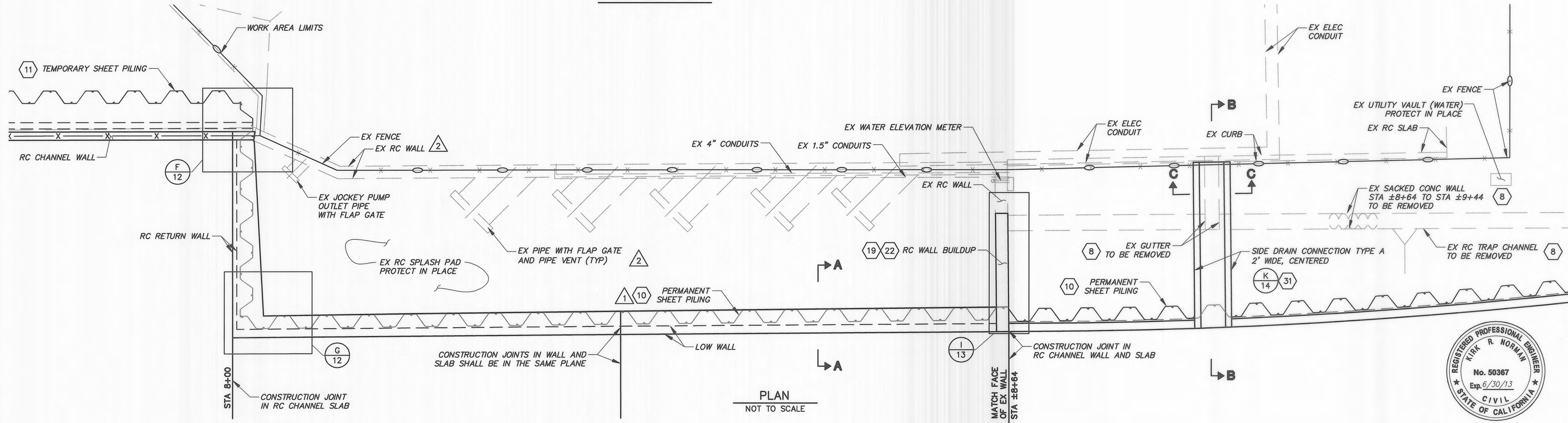
SECTION A-A (LOW WALL)
NOT TO SCALE



SECTION B-B
NOT TO SCALE



SECTION C-C



PLAN
NOT TO SCALE

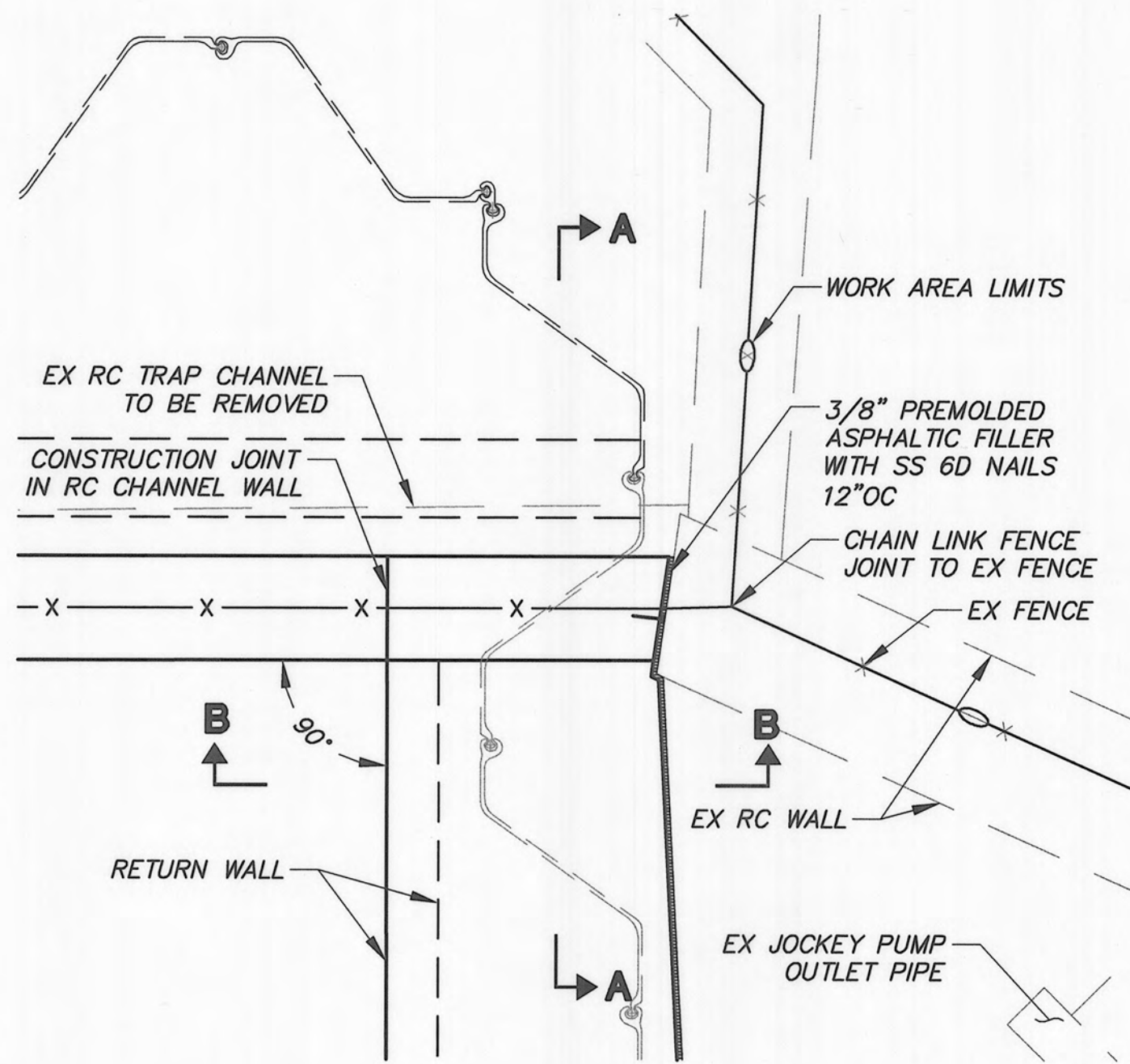
NOTES:

1. INSTALL PERMANENT SHEET PILING TO PROTECT AND SUPPORT EXISTING STRUCTURES IN PLACE. PERMANENT SHEET PILING SHALL NOT BE REMOVED AFTER CONSTRUCTION.
2. ALL EX FACILITIES SHALL BE PROTECTED IN PLACE UNLESS NOTED OTHERWISE.
3. STRUCTURAL NOTES ON SHEET 10 SHALL APPLY TO DETAILS AND SECTIONS SHOWN HEREON.
4. THE REBAR HEREON APPLIES TO WEST HALF OF THE RC CHANNEL AT HUENEME DRAIN PUMP STATION (HDPS) ONLY.

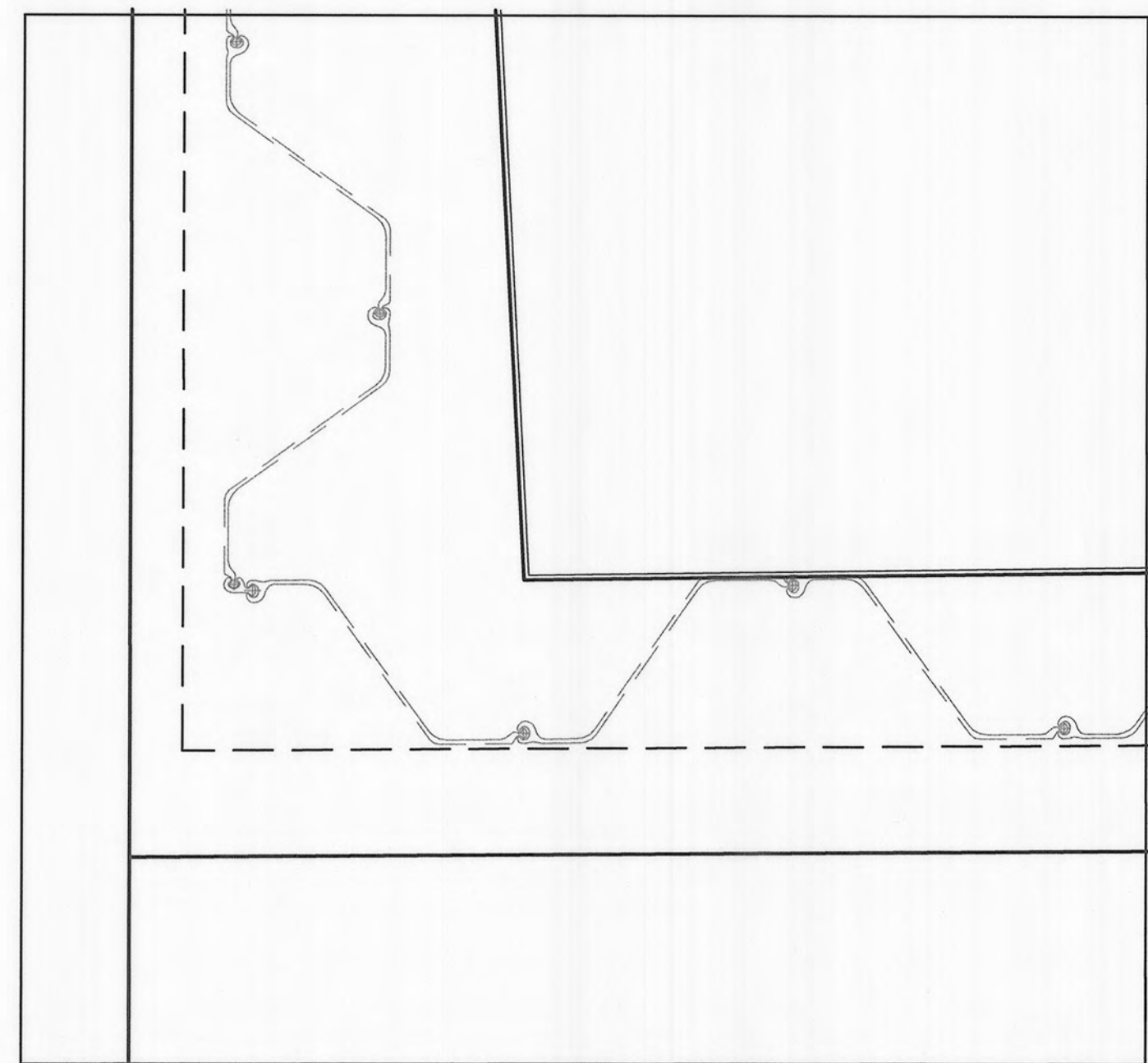


PLOT DATE: 4/28/13

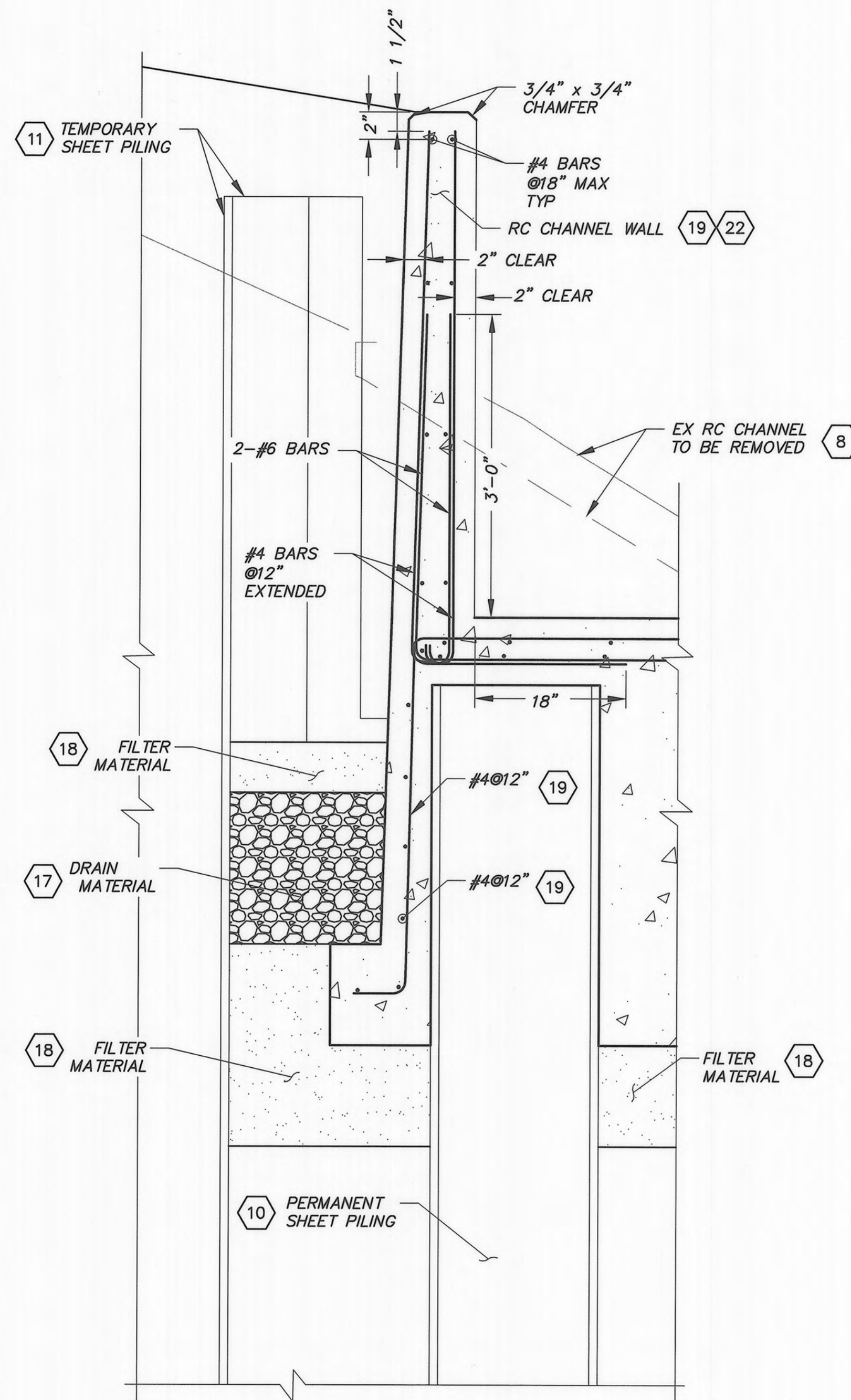
SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-11THRU13-HDPS.DWG				K. ROUSSEV DESIGNED KR/ND DRAWN K. NORMAN CHECKED		 PROJECT MANAGER DEPUTY DIRECTOR DISTRICT DIRECTOR		COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT		SPEC. NO. WP13-14 PROJ. NO. 82322	'J' STREET DRAIN IMPROVEMENT ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD HUENEME DRAIN PUMP STATION	SHEET 11 OF 25 DRAWING NO. Y-2-3715
---	--	--	--	--	--	---	--	---	--	--	--	--



RC SPLASH PAD SW CORNER
NOT TO SCALE



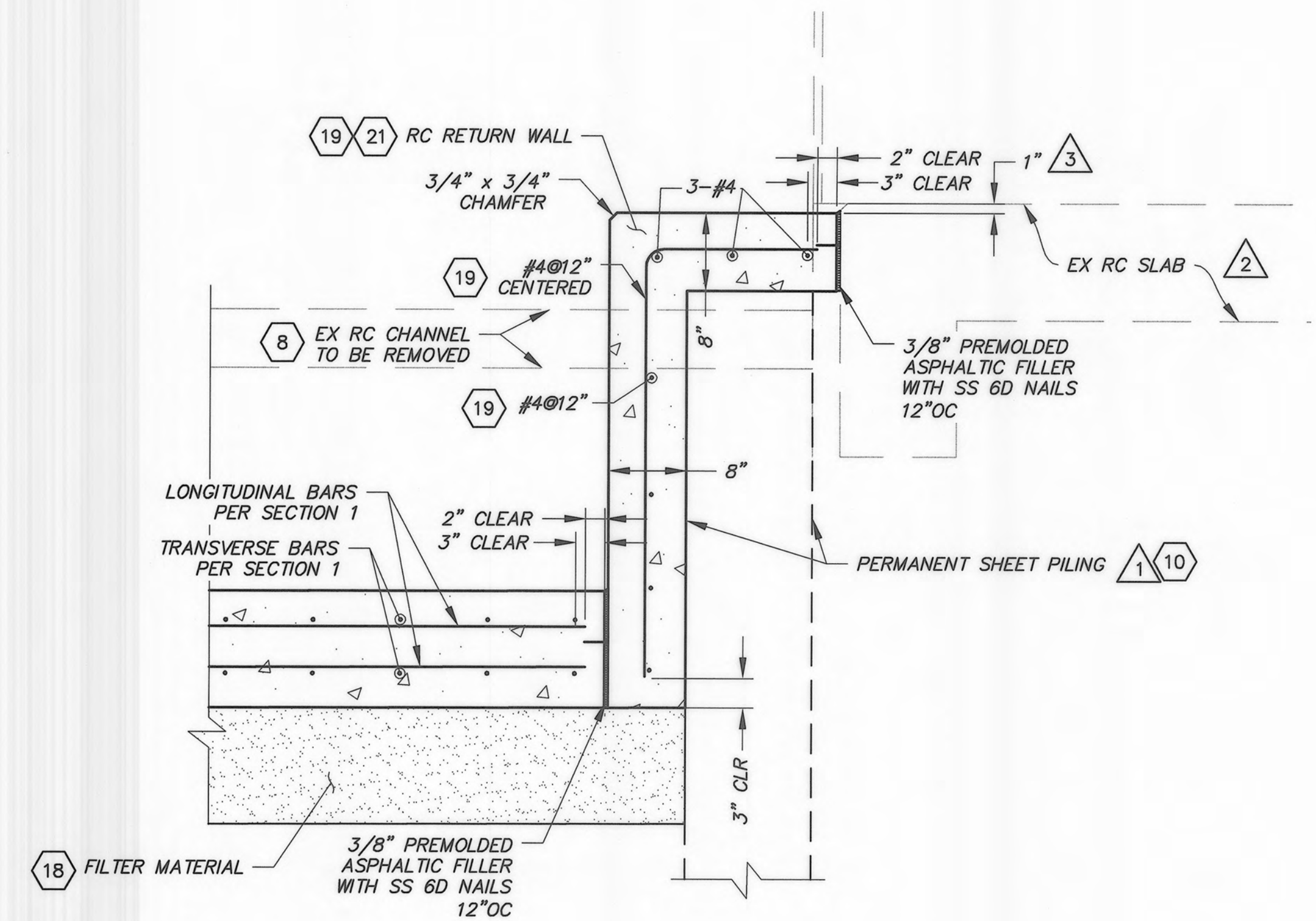
RC SPLASH PAD SE CORNER
NOT TO SCALE



SECTION A-A
NOT TO SCALE

NOTES:

1. INSTALL PERMANENT SHEET PILING TO PROTECT AND SUPPORT EXISTING STRUCTURES IN PLACE. PERMANENT SHEET PILING SHALL NOT BE REMOVED AFTER CONSTRUCTION.
2. ALL EX FACILITIES SHALL BE PROTECTED IN PLACE UNLESS NOTED OTHERWISE.
3. TOP OF CHANNEL WALL SHALL BE 1" BELOW TOP OF EX SLAB.
3. STRUCTURAL NOTES ON SHEET 10 SHALL APPLY TO DETAILS AND SECTIONS SHOWN HEREON.



SECTION B-B (RETURN WALL)
NOT TO SCALE



PLOT DATE: 4/28/13

SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JD-11THRU13-HDPS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV
DESIGNED
KR/ ND
DRAWN
K. NORMAN
CHECKED

Kirk Norman 4.28.13
PROJECT MANAGER DATE
Pat Sydy 4/29/13
DEPUTY DIRECTOR DATE
Julie O'Brien 4/29/2013
DISTRICT DIRECTOR DATE

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

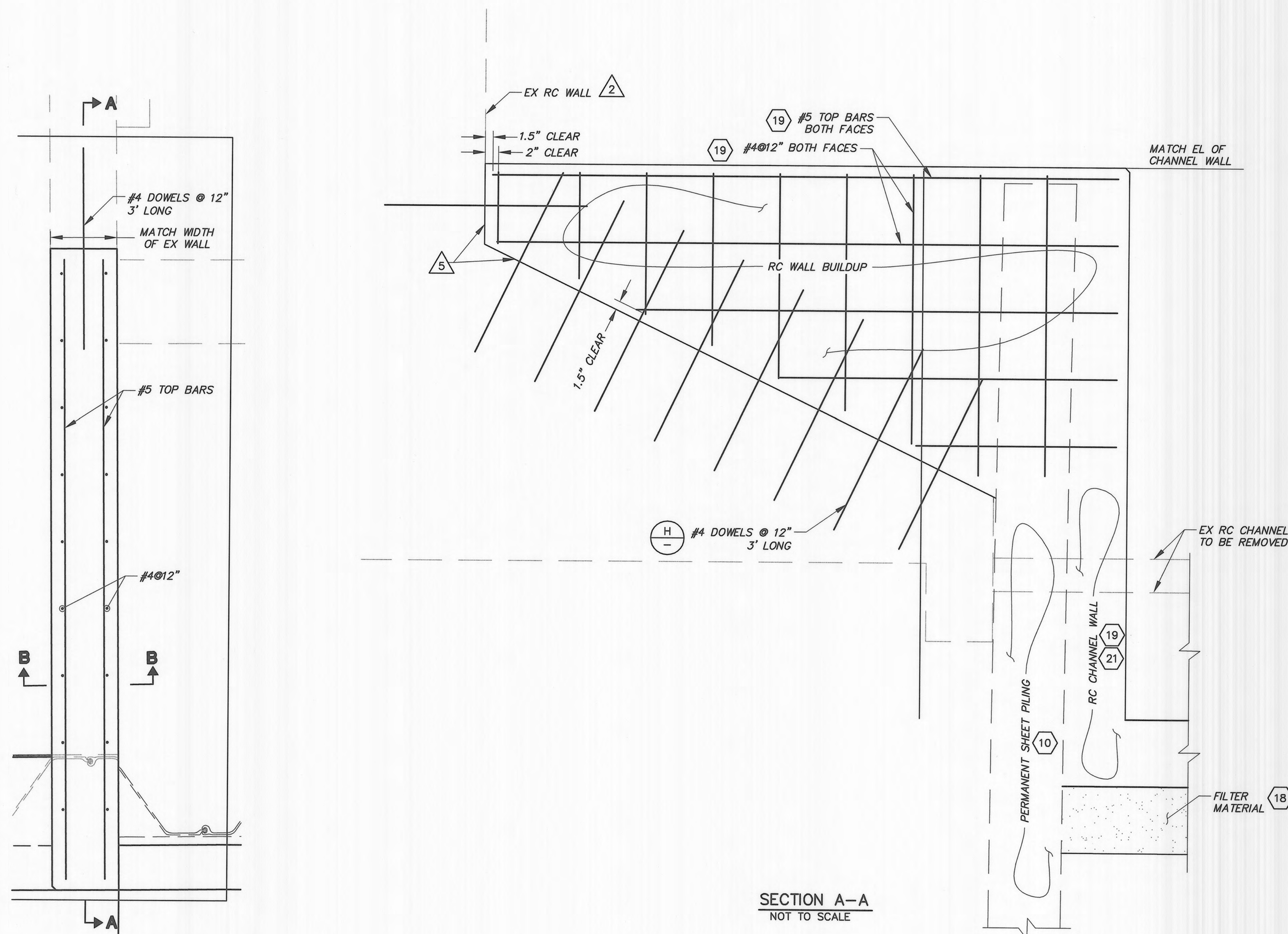
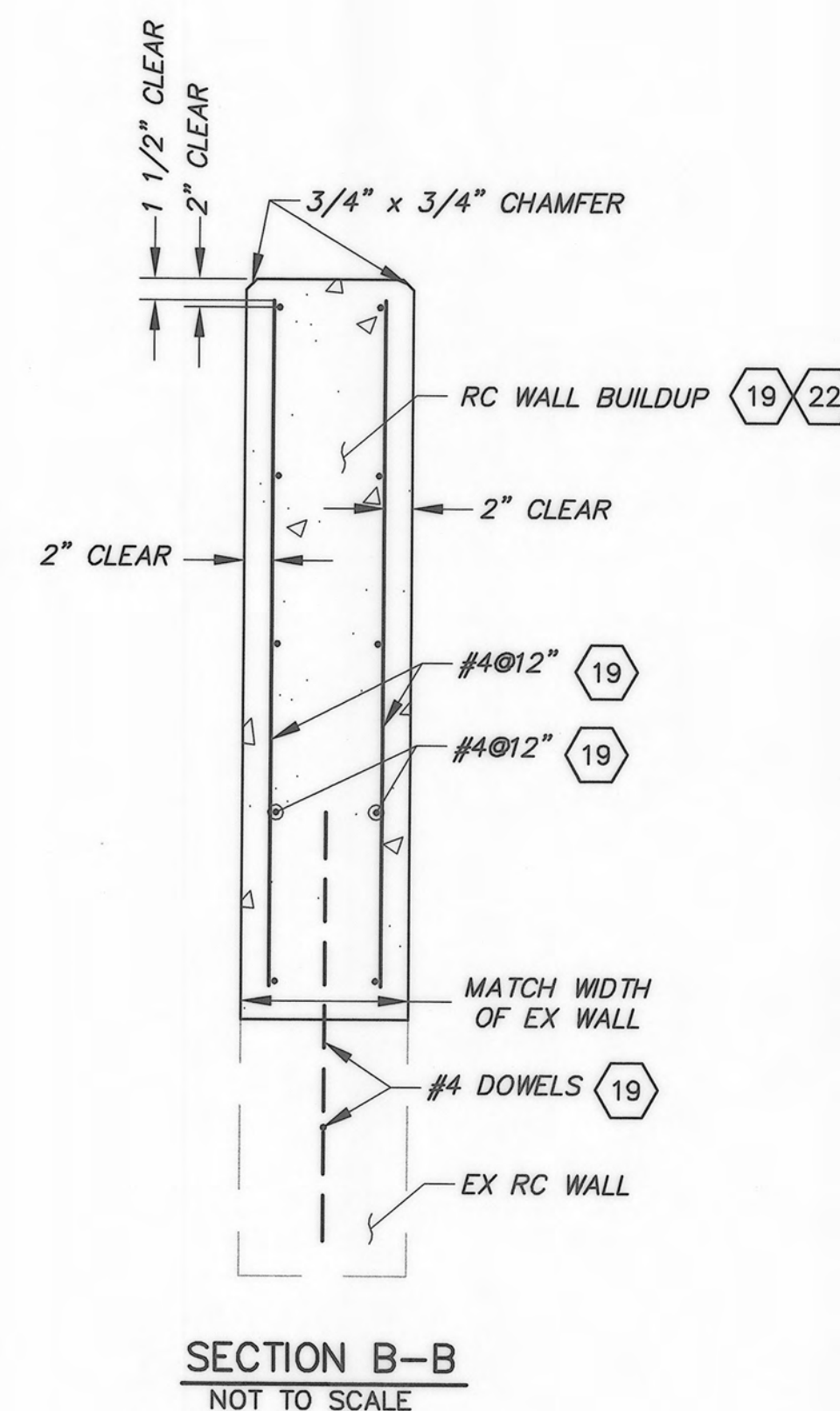
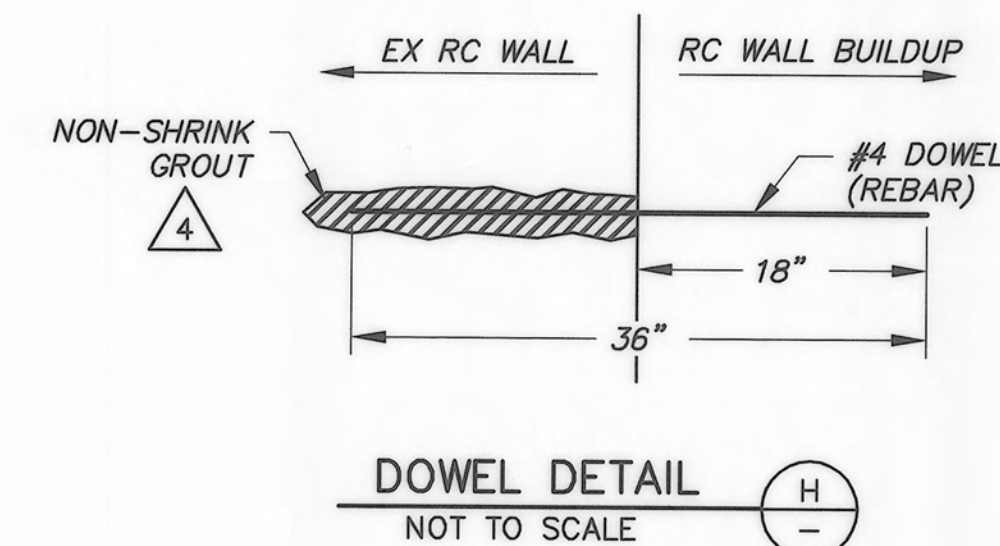
SPEC. NO.
WP13-14
PROJ. NO.
82322

**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
HUENEME DRAIN PUMP STATION DETAILS**

SHEET 12
OF 25
DRAWING NO.
Y-2-3716

NOTES:

1. PERMANENT SHEET PILING SHALL NOT BE REMOVED AFTER CONSTRUCTION.
2. ALL EX FACILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
3. TOP OF CHANNEL WALL SHALL BE 1" BELOW TOP OF EX SLAB.
4. DRILL A ONE INCH DIAMETER HOLE AND INJECT AN APPROVED NON-SHRINK GROUT INTO THE HOLE PRIOR TO PLACEMENT OF THE BAR.
5. SANDBLAST THE EX SURFACE TO EXPOSE THE AGGREGATE.
6. STRUCTURAL NOTES ON SHEET 10 SHALL APPLY TO DETAILS AND SECTIONS SHOWN HEREON.



RC WALL BUILDUP DETAIL
NOT TO SCALE

DATE: 4/28/13

SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\USD-11THRU13-HDPS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV
DESIGNED
KR/ ND
DRAWN
K. NORMAN
CHECKED

Kirk Norman
PROJECT MANAGER
4/28/13
DATE
4/29/13
DATE
4/29/2013
DATE

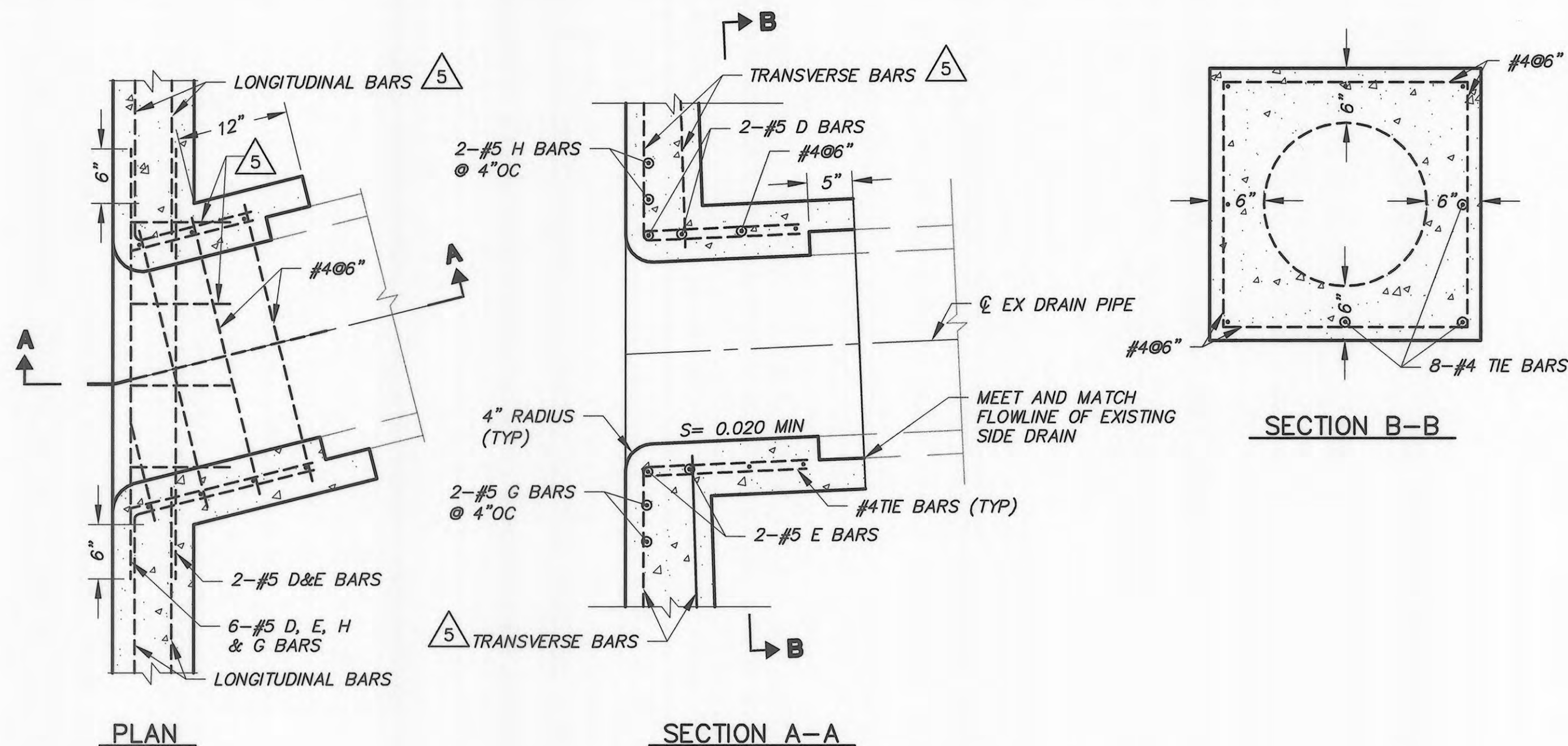
**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

SPEC. NO.
WP13-14
PROJ. NO.
82322

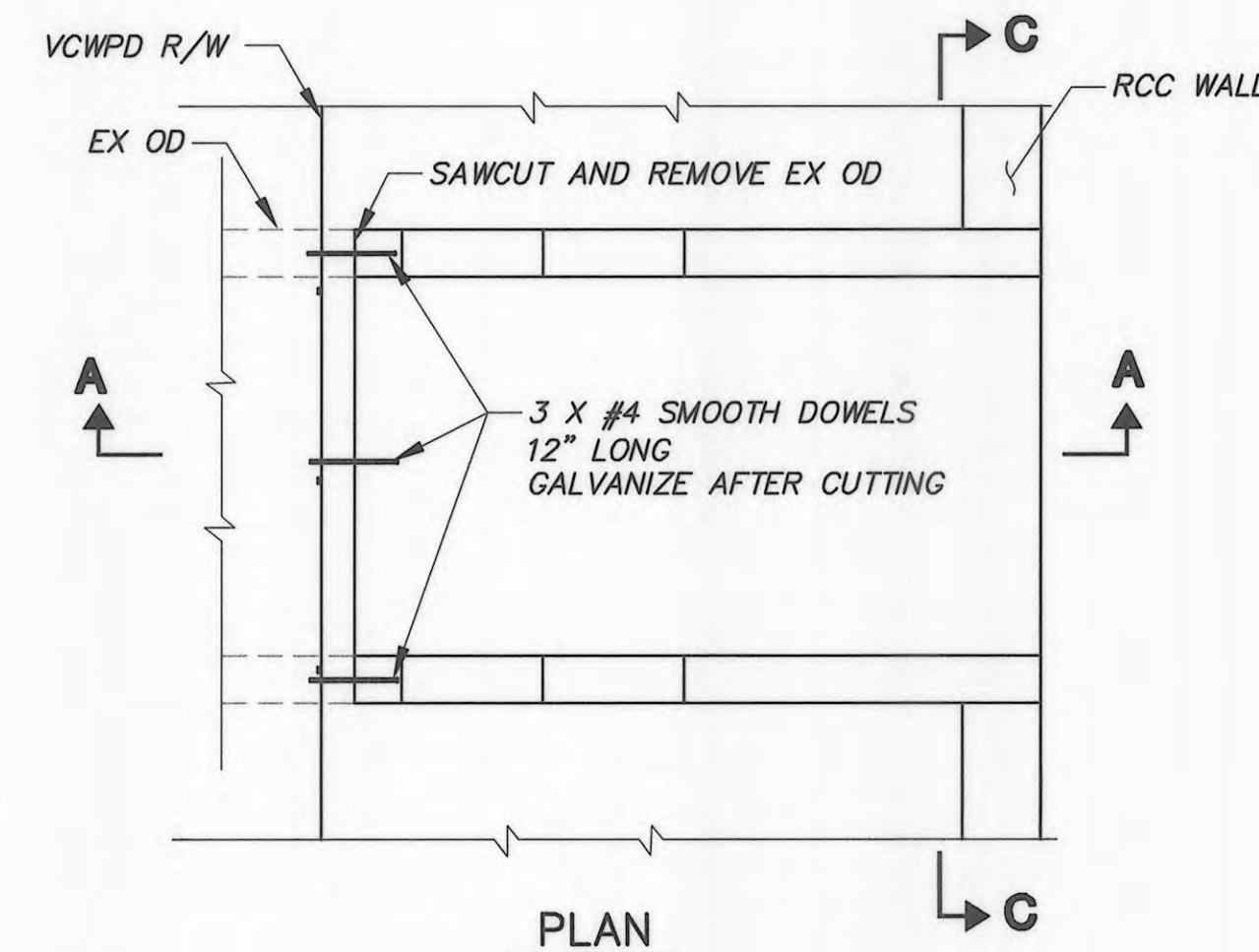
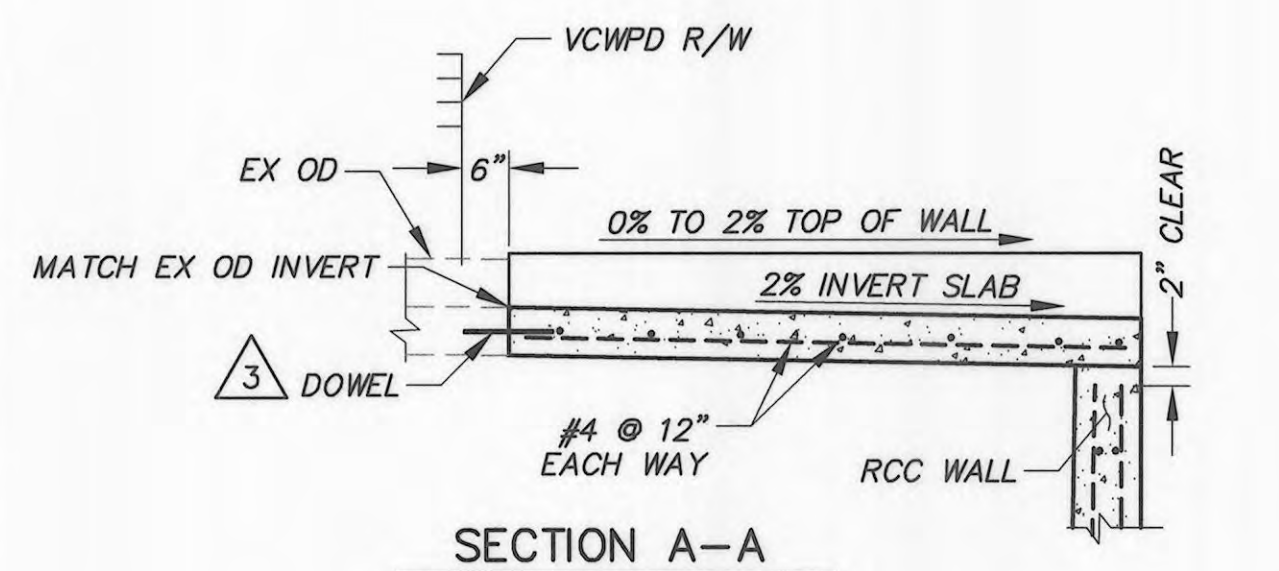
**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
HUENEME DRAIN PUMP STATION DETAILS**



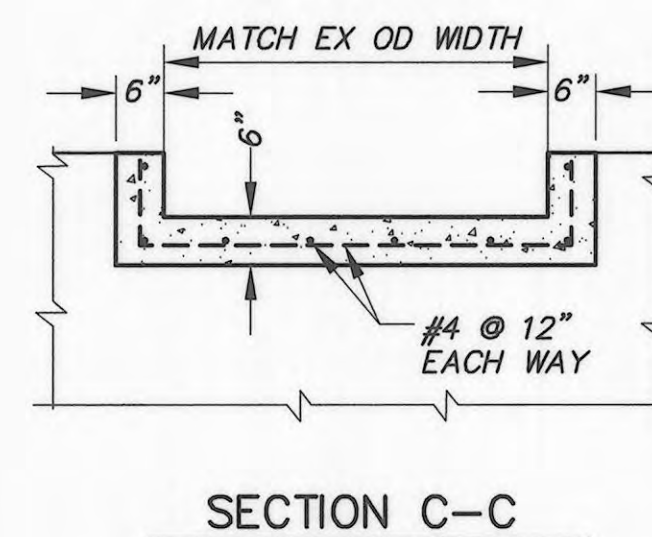
SHEET 13
OF 25
DRAWING NO.
Y-2-3717



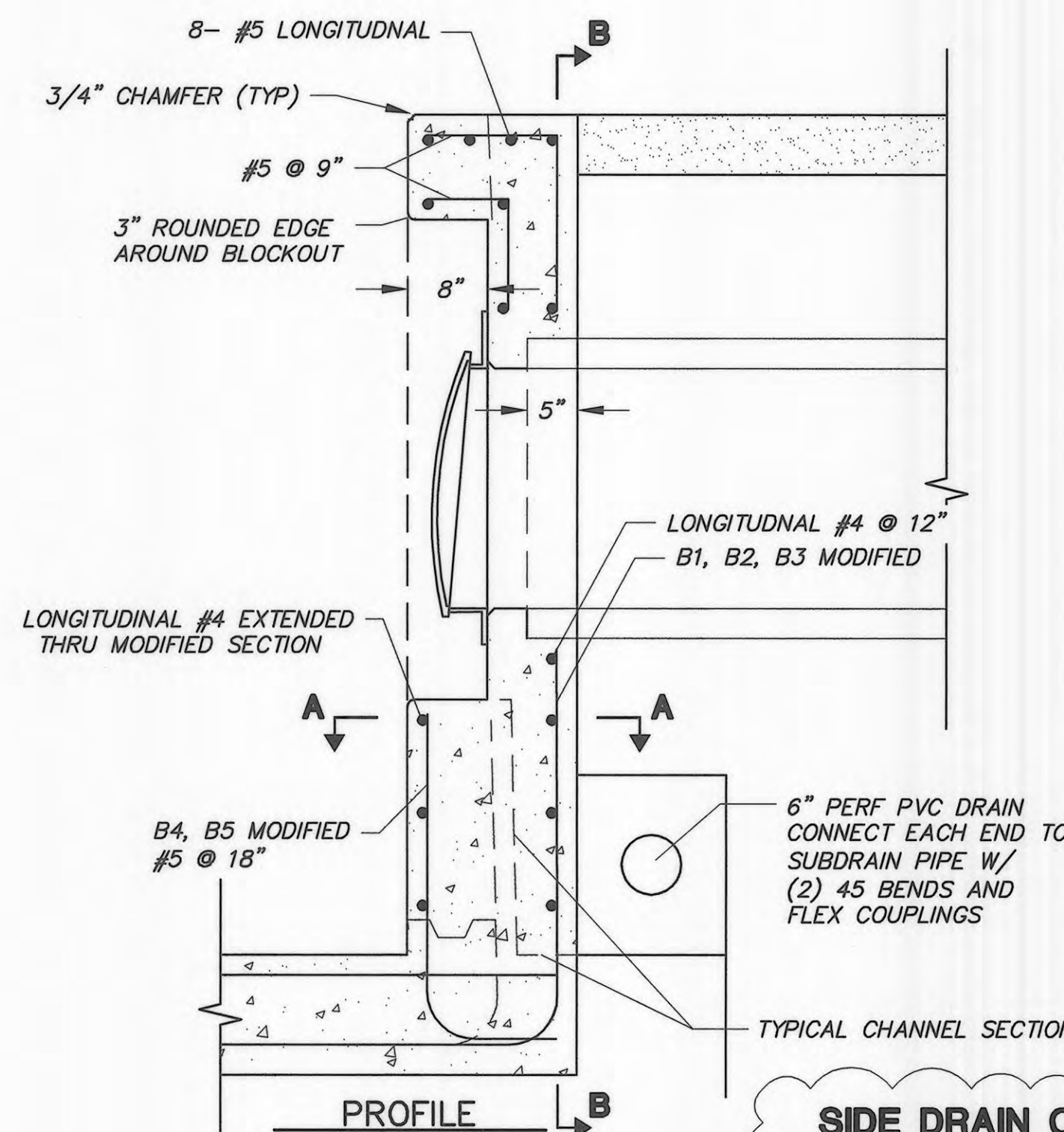
SIDE DRAIN CONNECTION TYPE - B
NOT TO SCALE



SIDE DRAIN CONNECTION TYPE - A
NOT TO SCALE



SECTION C-C



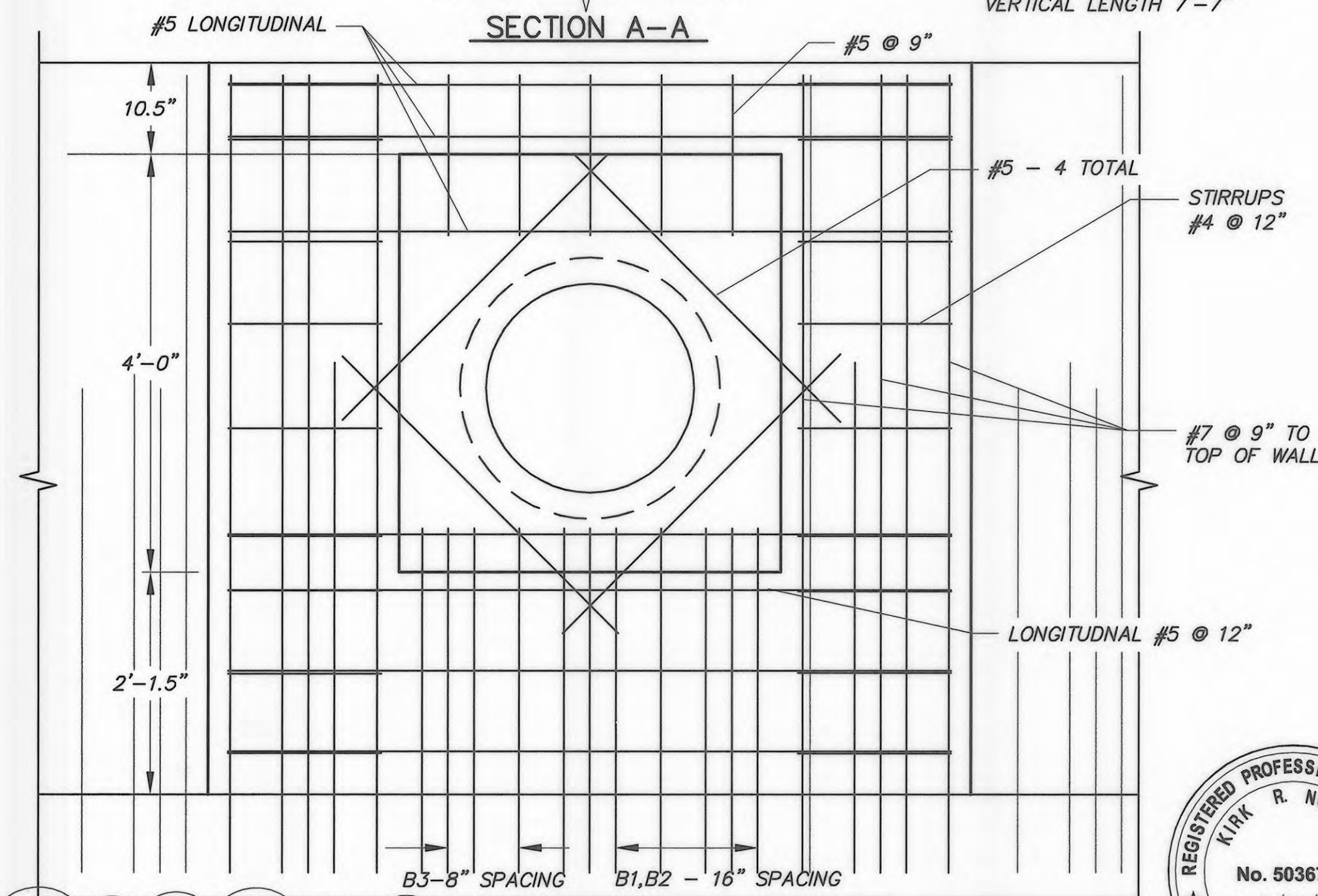
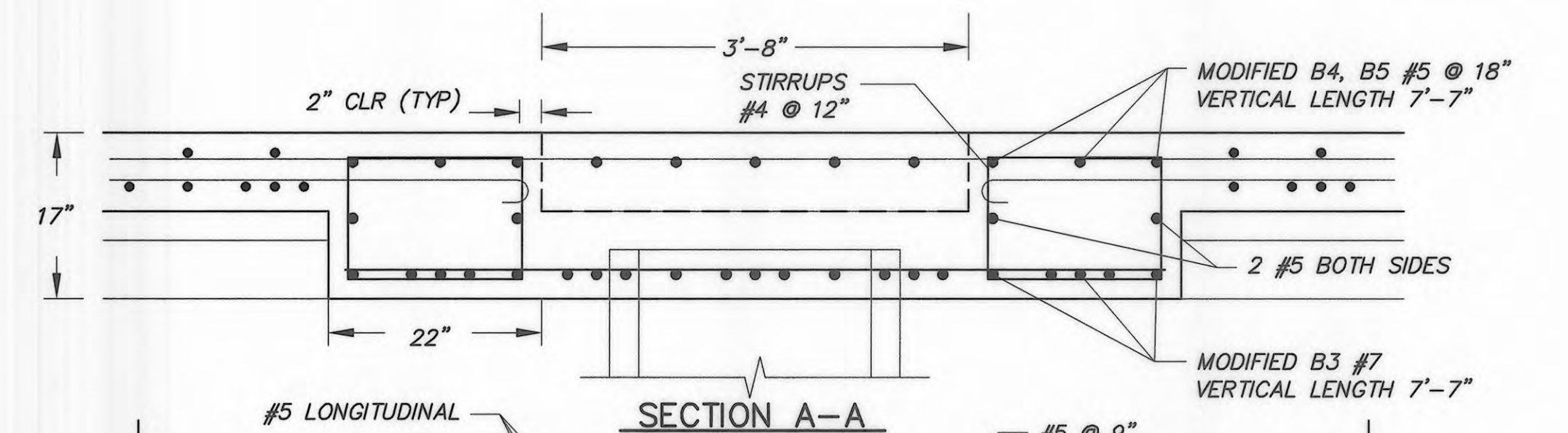
SIDE DRAIN CONNECTION TYPE - C
STA. 29+59.20

NOT TO SCALE

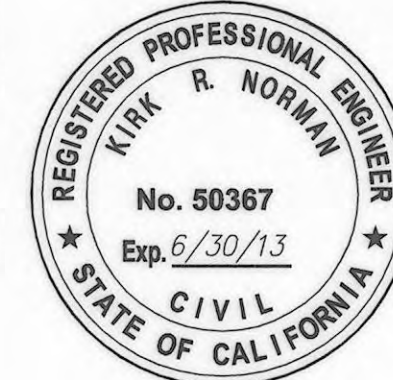
SIDE DRAIN CONNECTIONS		
STATION	SIZE	TYPE
9+60 (W)	4" RCC	A
10+26 (W)	4" RCC	A
11+96 (W)	4" RCC	A
14+69.5 (W)	4" RCC	A
19+38.7 (E)	24" CMP	B
21+64.8 (E)	24" CIP	B
24+09 (W)	2" AC	A
25+0.6 (E)	18" CIP	B
25+96.1 (E)	18" RCP	C
26+09.3 (W)	15" RCP	B
29+59.2 (E)	24" RCP	C
30+79.2 (W)	15" RCP	B
30+79.2 (W)	2" AC	A

NOTES:

- AT SURFSIDE III PROPERTY, SAWCUT EX OVERSIDE DRAIN (OD) 6 INCHES INSIDE VCWPD R/W. REMOVE AND DISPOSE OF EX OD EAST OF THE SAWCUT.
- EXCAVATE, PLACE FILL OR GRADE THE EX GROUND AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE TOWARD THE CHANNEL.
- DRILL A ONE INCH DIAMETER HOLE AND INJECT AN APPROVED NON-SHRINK GROUT INTO THE HOLE PRIOR TO PLACEMENT OF THE BAR.
- REINFORCING STEEL SHALL BE 1-1/2" CLEAR FROM FACE OF CONCRETE UNLESS OTHERWISE SHOWN
- TRANSVERSE AND LONGITUDINAL BARS INSIDE FACE OF WALL SHALL BE CUT AND BENT INTO TOP, BOTTOM, AND SIDES OF JUNCTION STRUCTURE.
- JUNCTION STRUCTURE SHALL BE POURED MONOLITHICALLY WITH THE WALL OF RC CHANNEL.
- FLOOR OF JUNCTION STRUCTURE SHALL BE FORMED OR STEEL-TROWELED.
- AT THE CONTRACTOR'S OPTION, EXISTING SIDE DRAINS MAY BE CUT OUTSIDE OF THE TEMPORARY SHEET PILING AND CONNECTED TO THE CHANNEL AFTER REMOVAL OF THE SHEET PILING. IF THE CONTRACTOR CHOOSES THIS OPTION, HE MUST PROVIDE FOR AN ALTERNATIVE METHOD TO CONTROL WATER DRAINING THROUGH THE PIPE. ALSO, THE SECTION OF PIPE TO BE INSTALLED AFTER REMOVAL OF THE SHEET PILING SHALL BE A MINIMUM OF A 4 FT SECTION, CONNECTED TO THE EXISTING PIPE PER 380-3, AND HAVE A MINIMUM SLOPE OF 0.02 MATCHING THE PRE-PROJECT HORIZONTAL ANGLE TO THE CHANNEL.



SECTION B-B



PLOT DATE: 5/20/13

SAVE DATE: 5/17/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\SD-14-SD_MH.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C	REVISED NOTE 8		
B	REVISED TYPE C SIDE DRAIN CONNECTION		
A			

K. ROUSSEV
DESIGNED
KR
DRAWN
K. NORMAN
CHECKED

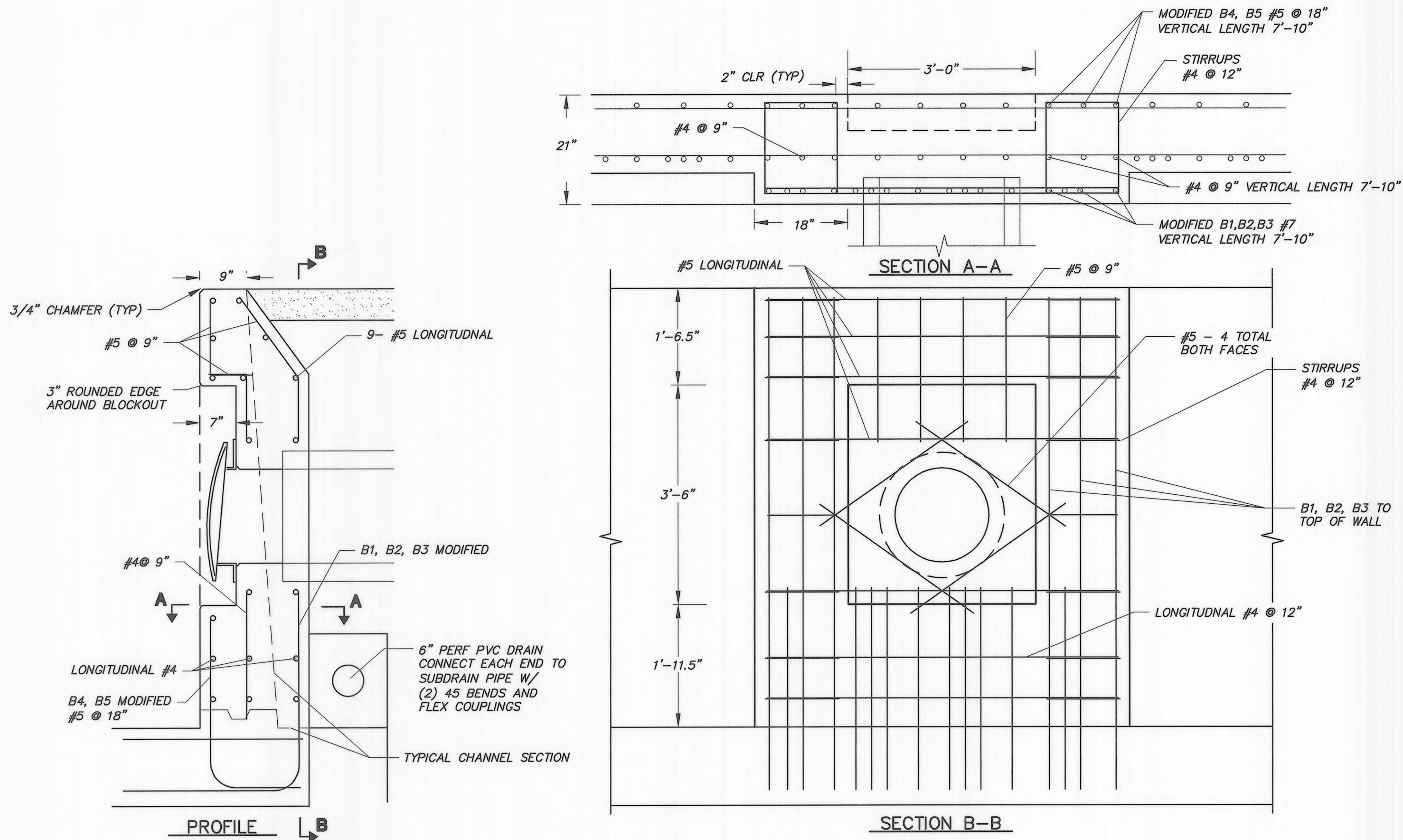
Kirk Norman
PROJECT MANAGER
Kirk Norman (acting)
DEPUTY DIRECTOR
Julie Cella
DISTRICT DIRECTOR
5-20-13
5-20-13
5/20/2013

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

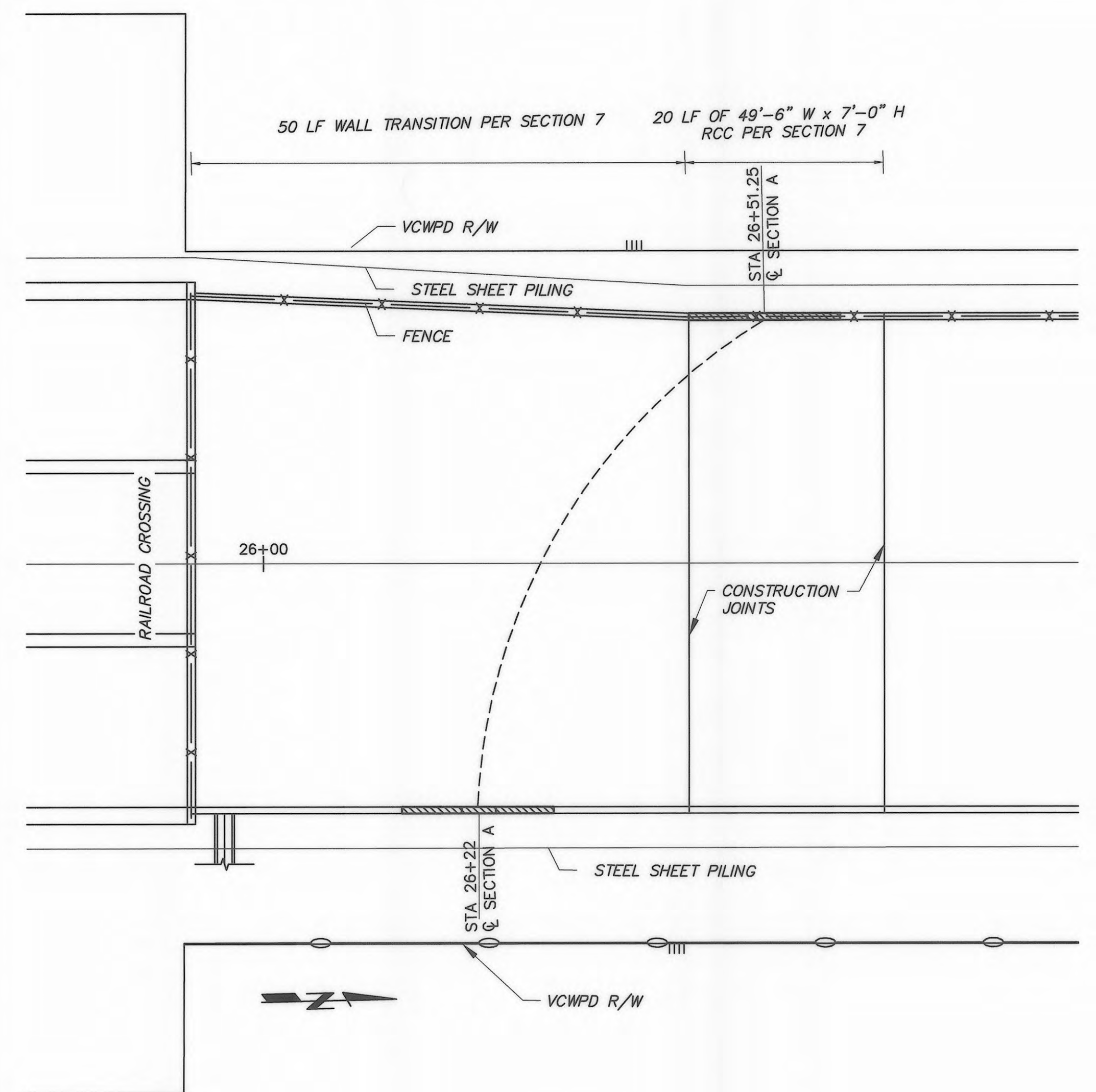
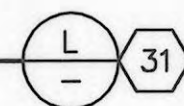
'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
SIDE DRAINS

SHEET 14
OF 31
DRAWING NO.
Y-2-3718



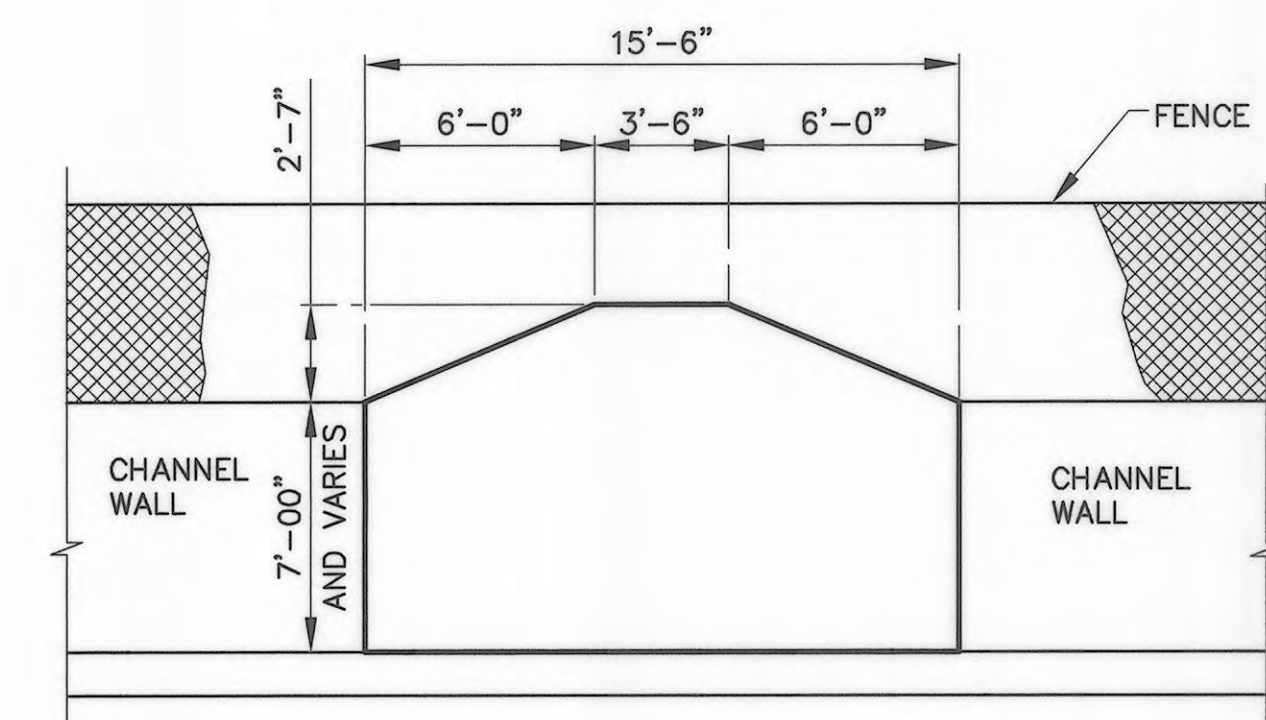
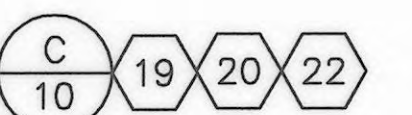
SIDE DRAIN CONNECTION TYPE - C
STA. 25+96.00

NOT TO SCALE



FUTURE TRASH BOOM

SCALE: 1"=10'



SECTION A

NOT TO SCALE



DATE: 5/20/13

SAVE DATE: 5/17/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\JSD-14-SH_MH.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV
 DESIGNED
 KR
 DRAWN
 K. NORMAN
 CHECKED

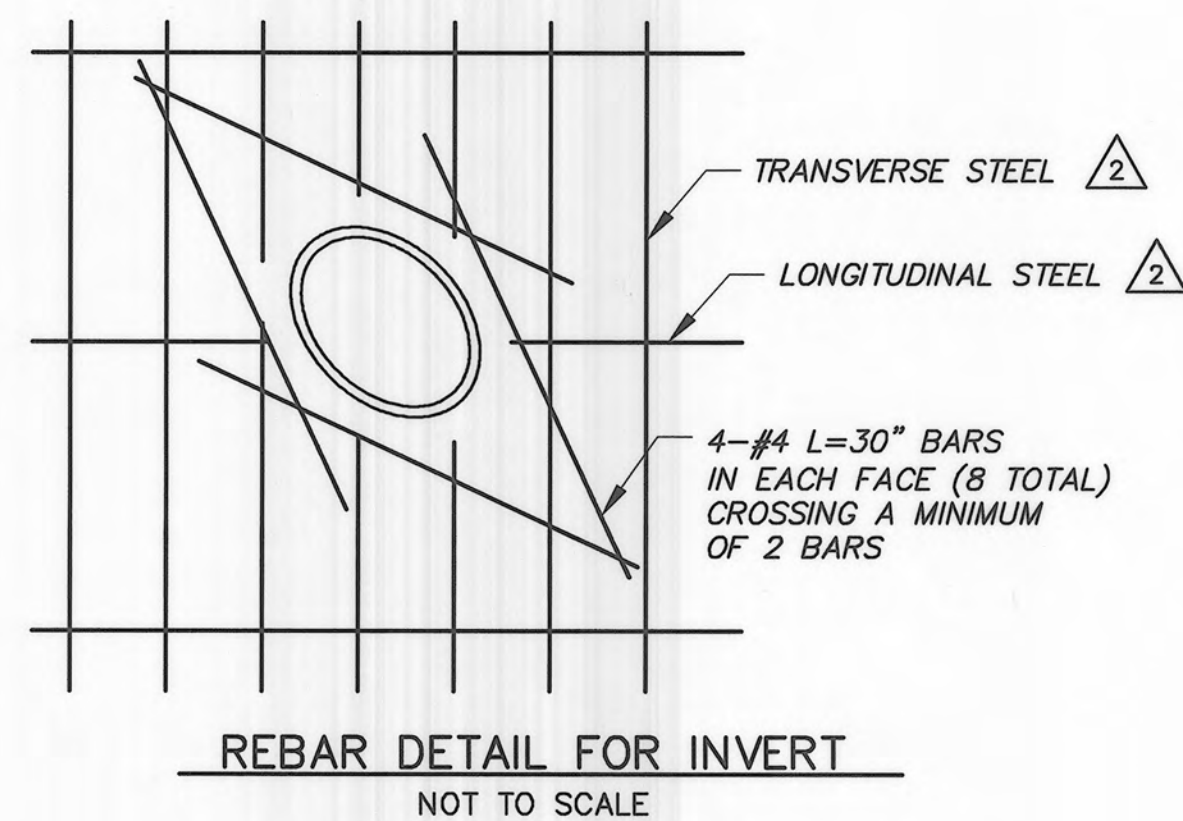
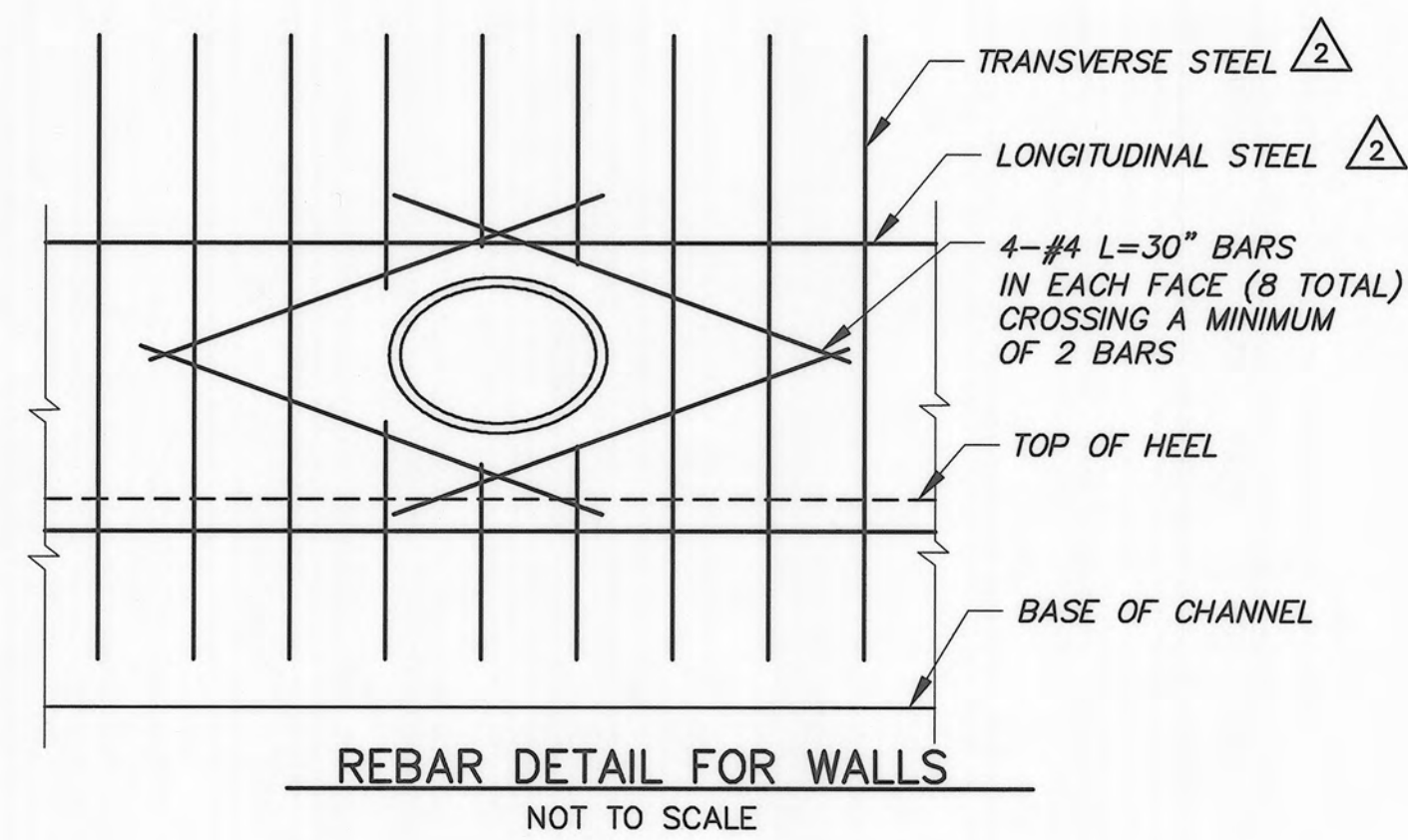
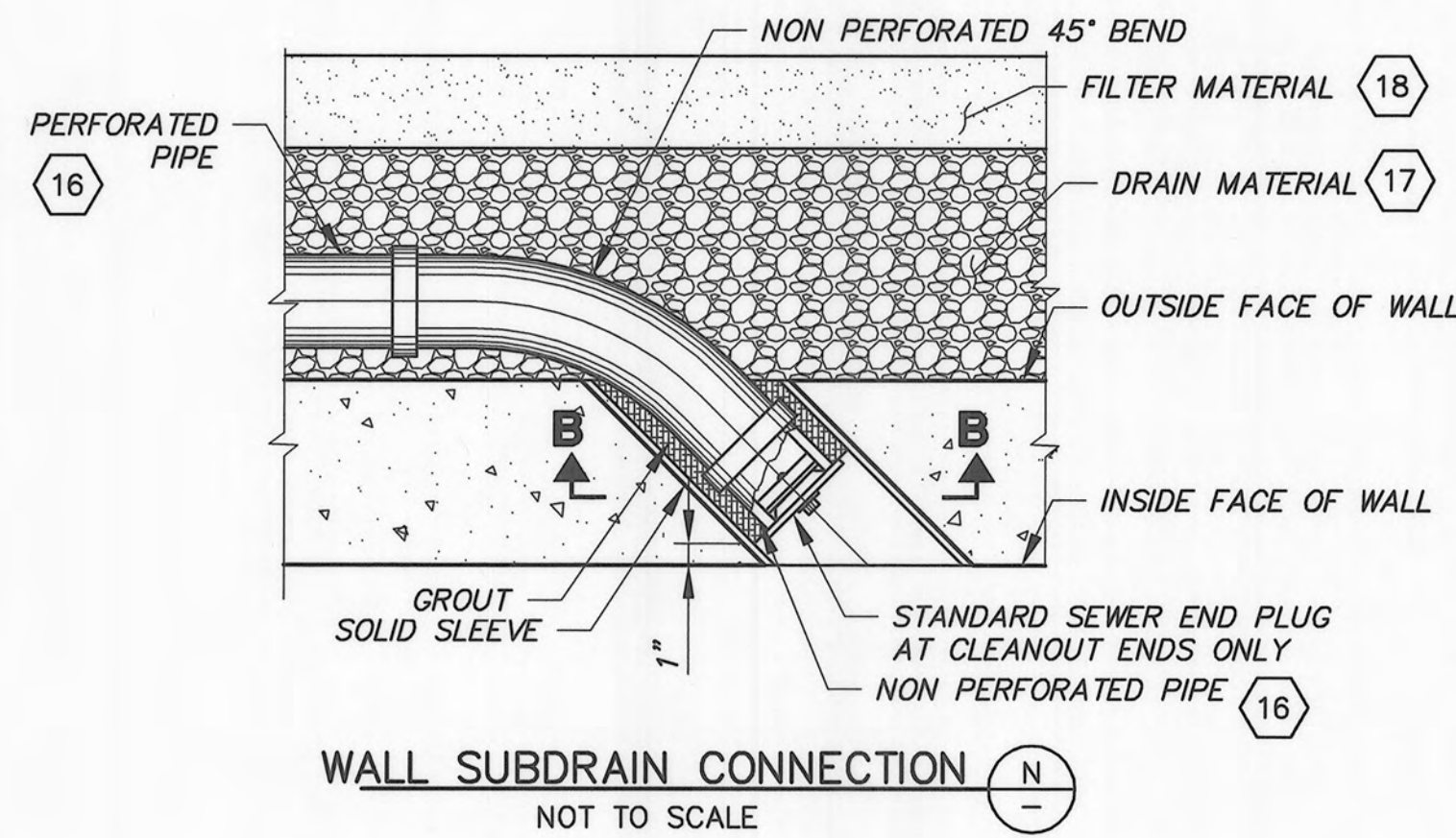
Kirk Norman
 PROJECT MANAGER
 5.20.13
 DATE
 Kirk Norman (acting)
 DEPUTY DIRECTOR
 5.20.13
 DATE
 Judy Claff
 DISTRICT DIRECTOR
 5.20.13
 DATE

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
 WP13-14
 PROJ. NO.
 82322

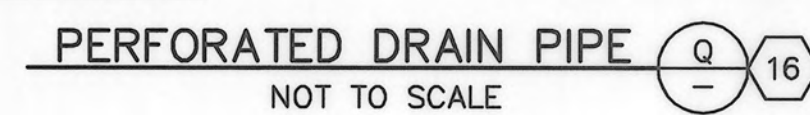
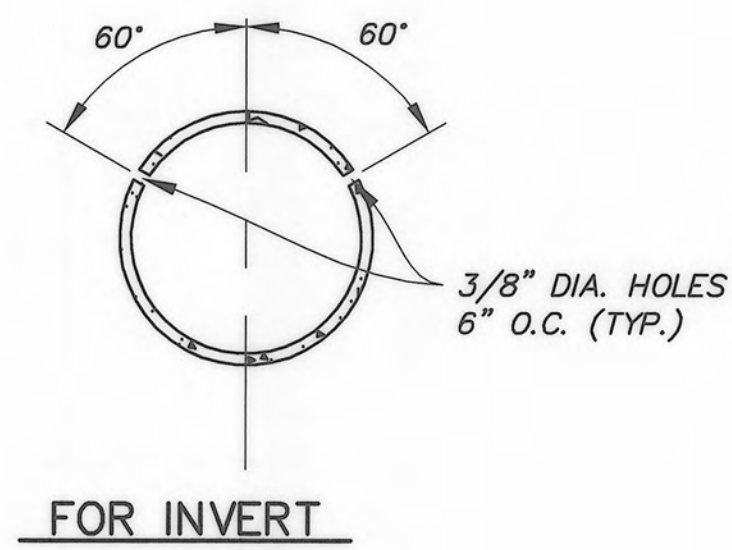
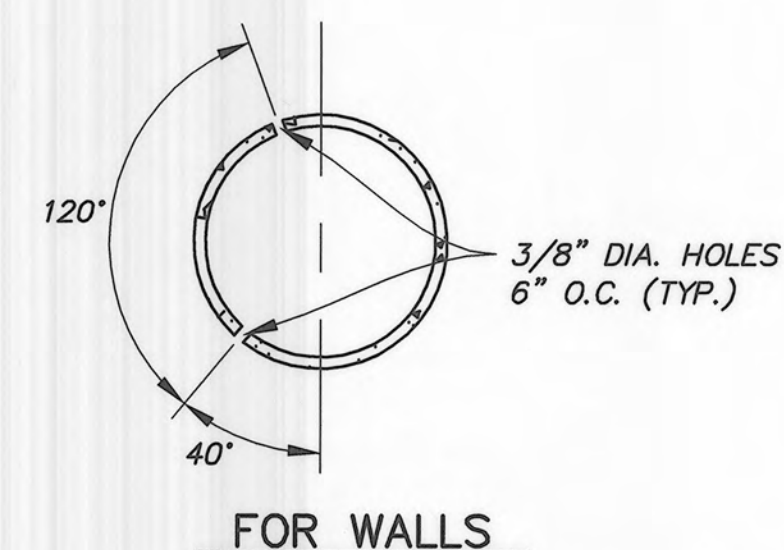
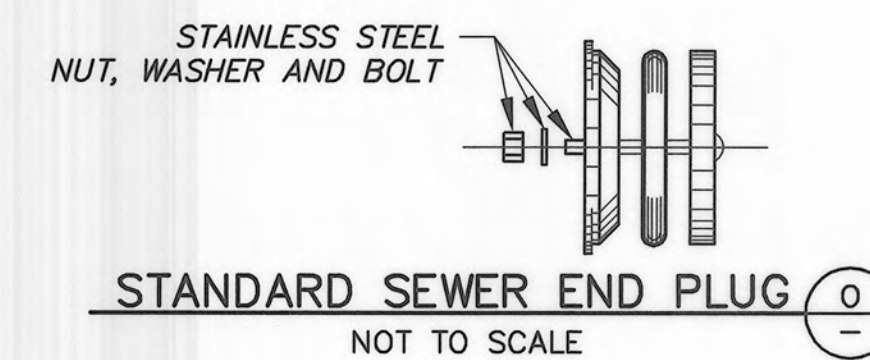
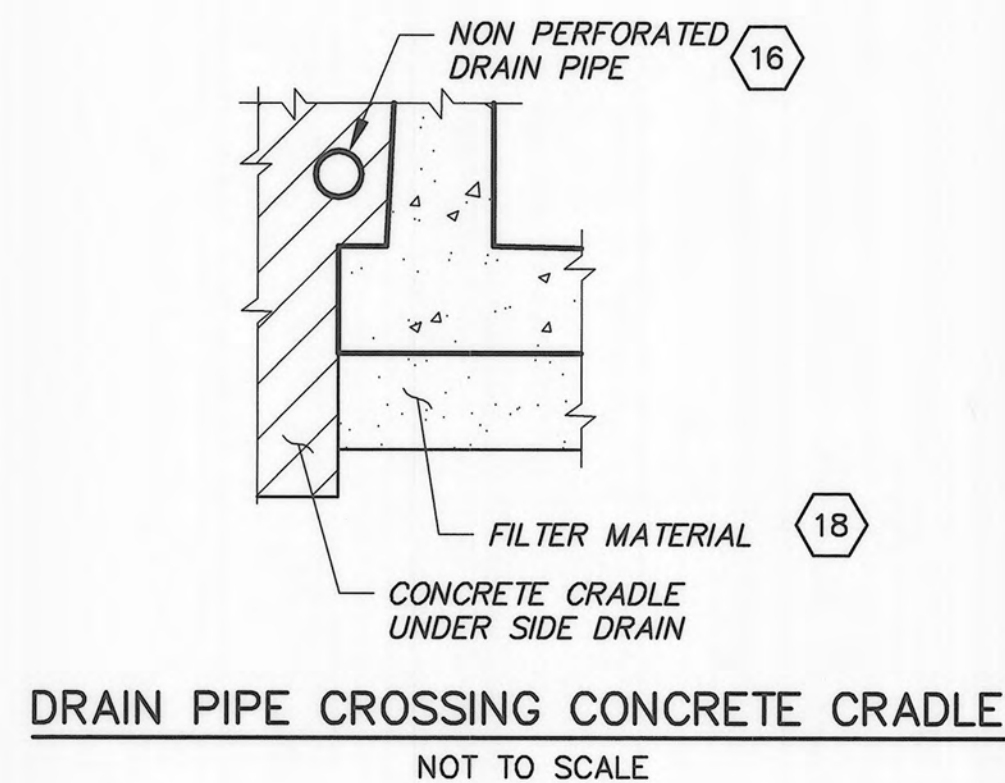
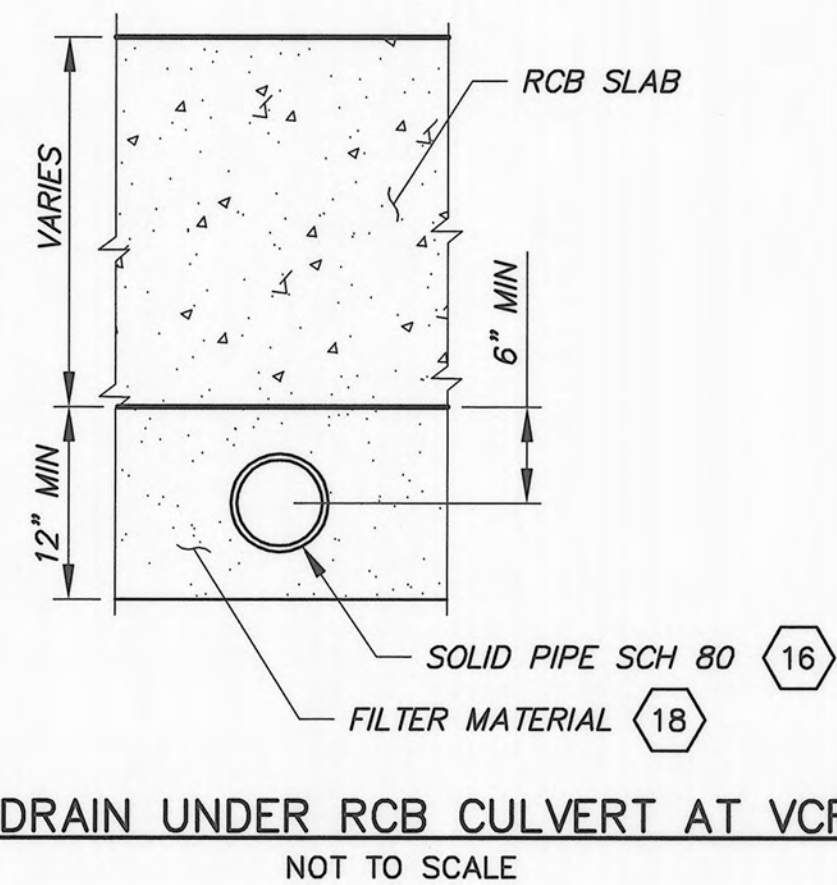
'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
SIDE DRAINS AND CHANNEL DETAIL

SHEET **14A**
 OF **31**
 DRAWING NO.
 Y-2-3718A

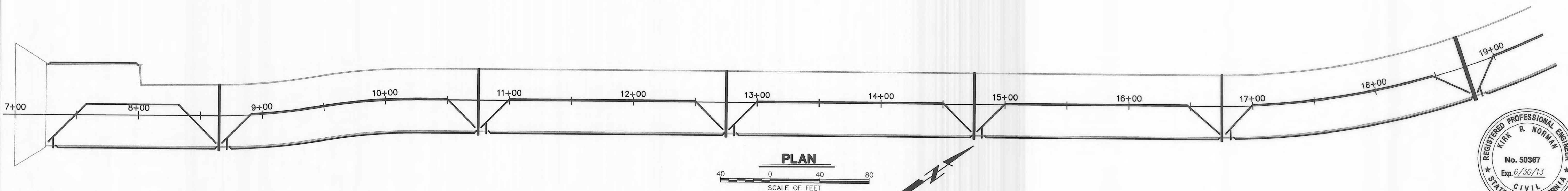
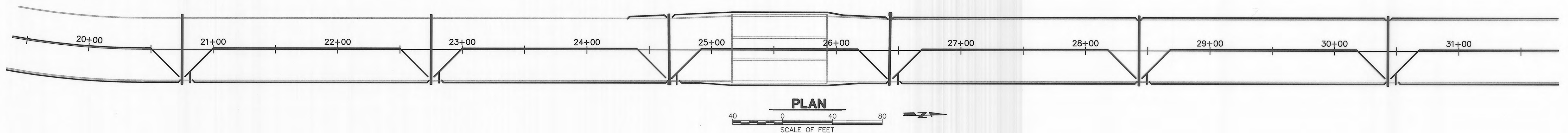
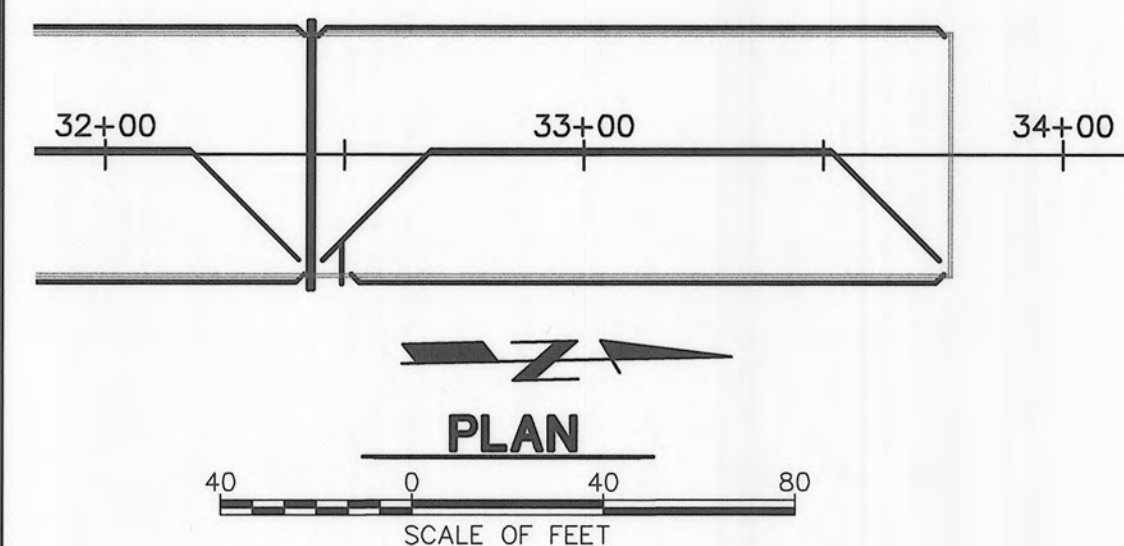


NOTES

- SUBDRAIN CLEANOUT ENDS AND OUTLETS SHALL BE LOCATED AT A MINIMUM OF 2' FROM TRANSVERSE JOINTS. ADJUST LOCATION OF IMPERVIOUS PLUGS AND/OR TRANSVERSE JOINTS TO COMPLY WITH THE ABOVE REQUIREMENT.
- CUT OR BEND INTERFERING STEEL 2" CLEAR AROUND SOLID SLEEVE.
- DRAIN MATERIAL SHALL BE PLACED UP TO PIPE INVERT PRIOR TO INSTALLING DRAIN PIPE.
- SOLID SLEEVE I.D. SHALL BE 2" LARGER THAN O.D. OF PIPE.



IMPERVIOUS PLUGS DATA TABLE	
STATION	
8+75	
10+75	
12+75	
14+75	
16+75	
18+75	
20+75	
22+75	
24+66	
26+43	
28+43	
30+43	
32+43	



PLOT DATE: 4/28/13

SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-15&16-SS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

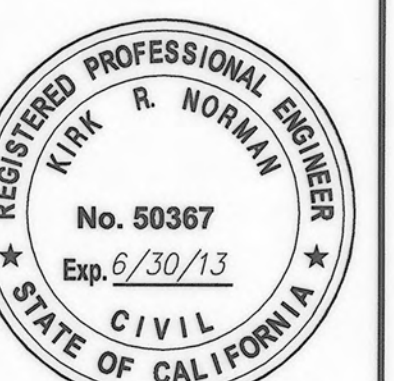
K. ROUSSEV
DESIGNED
KR/ND/AR
DRAWN
K. NORMAN
CHECKED

Kirk Norman
PROJECT MANAGER
4/28/13
DATE
4/29/13
DATE
4/29/2013
DATE

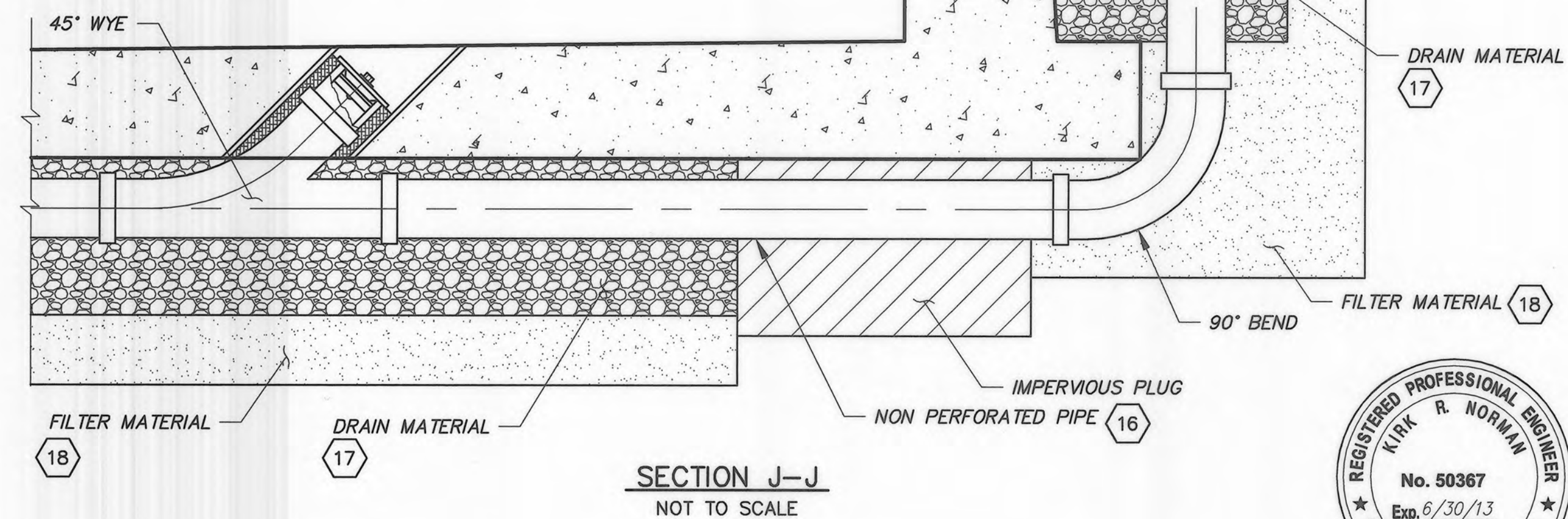
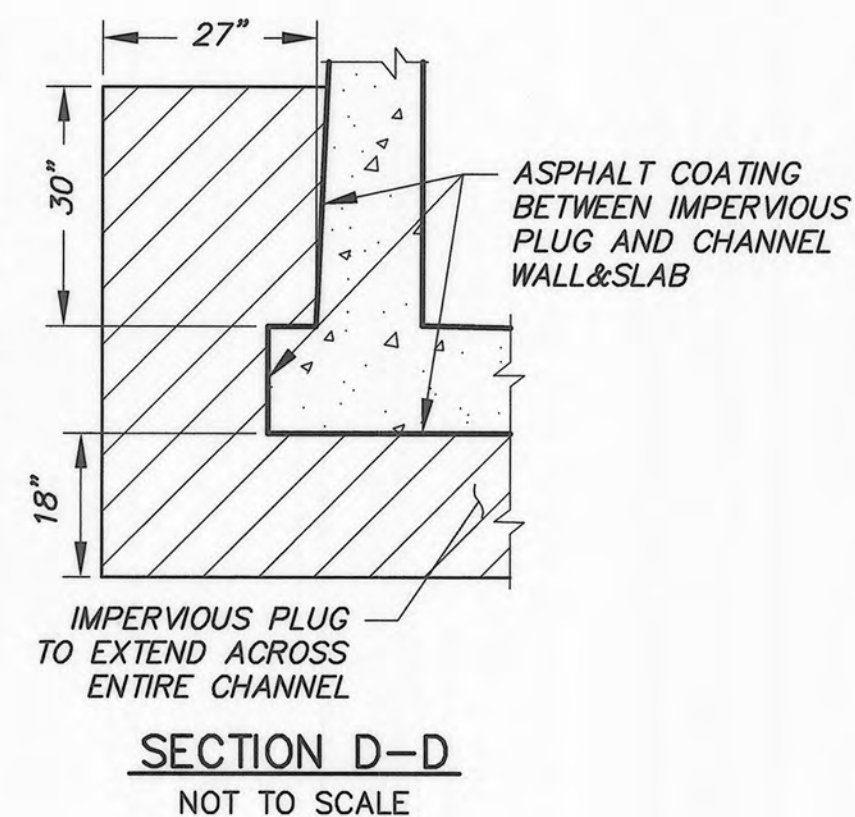
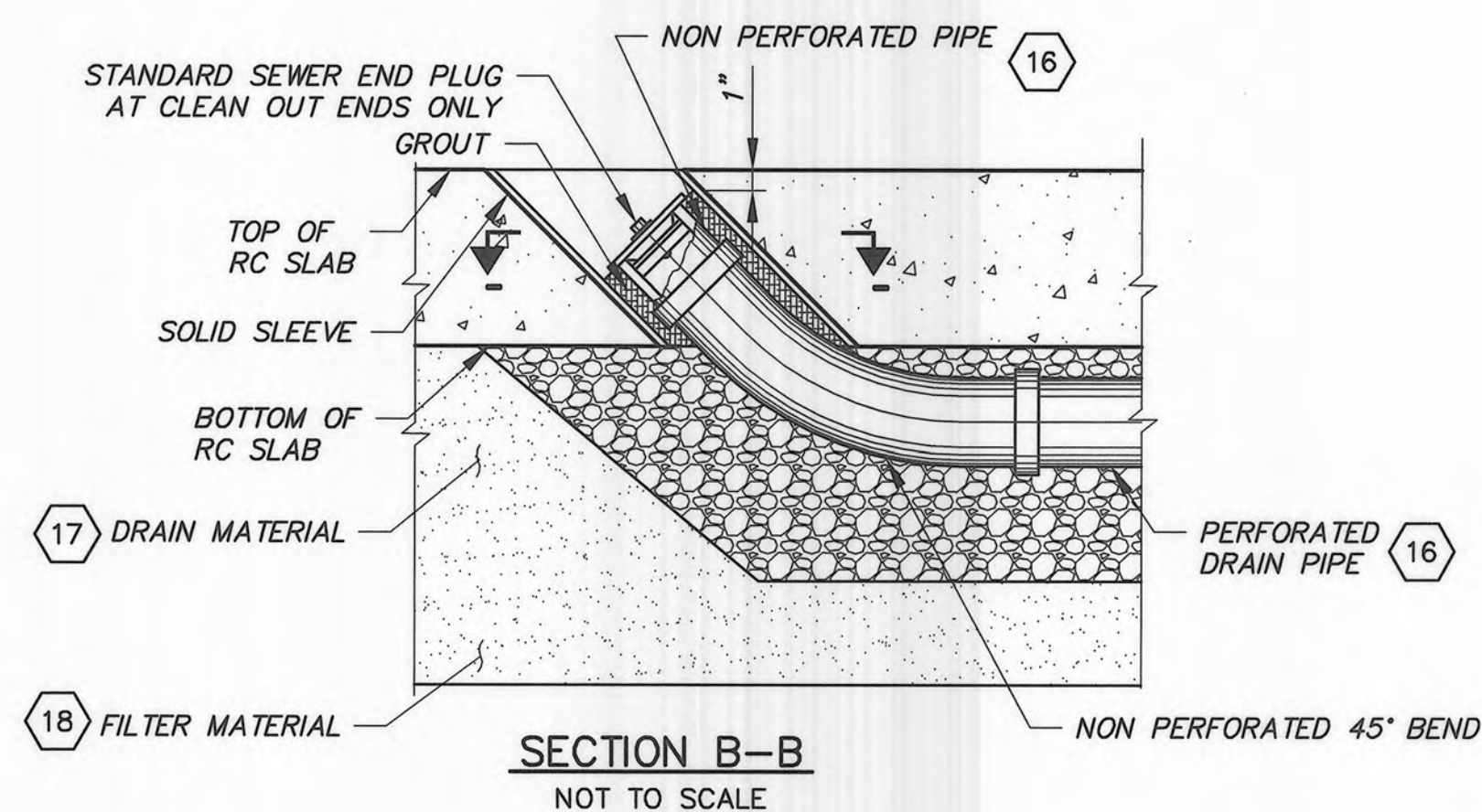
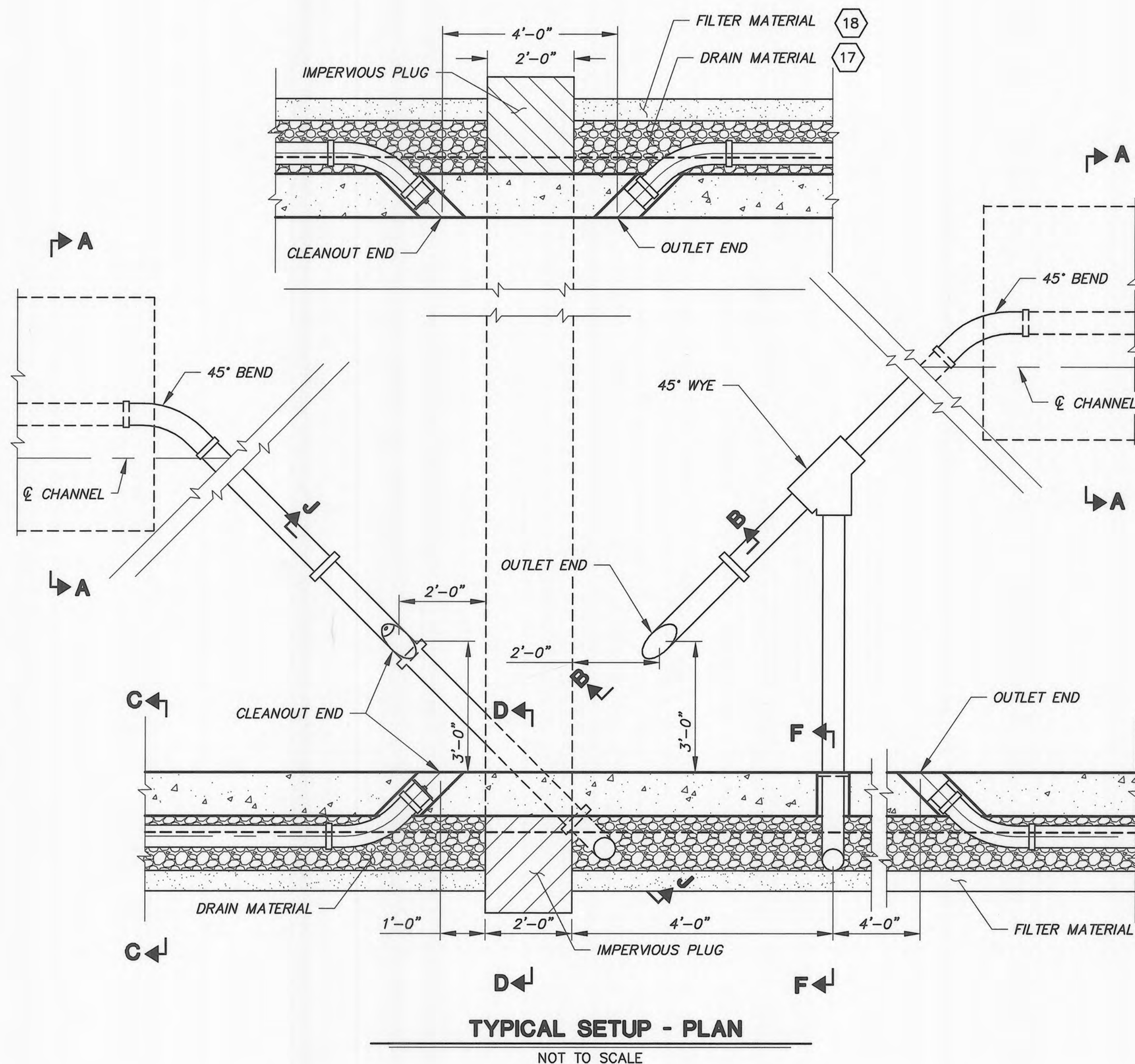
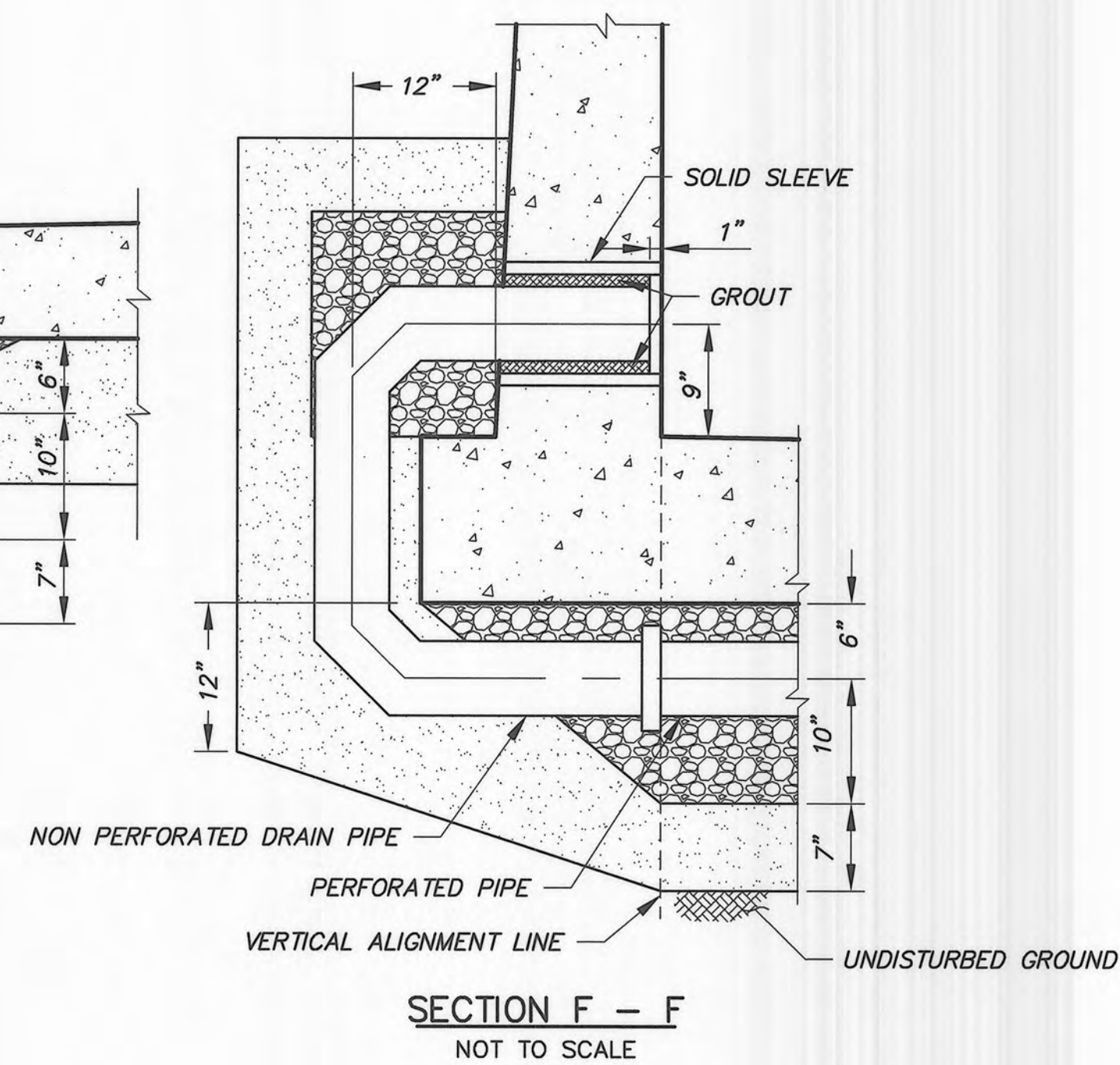
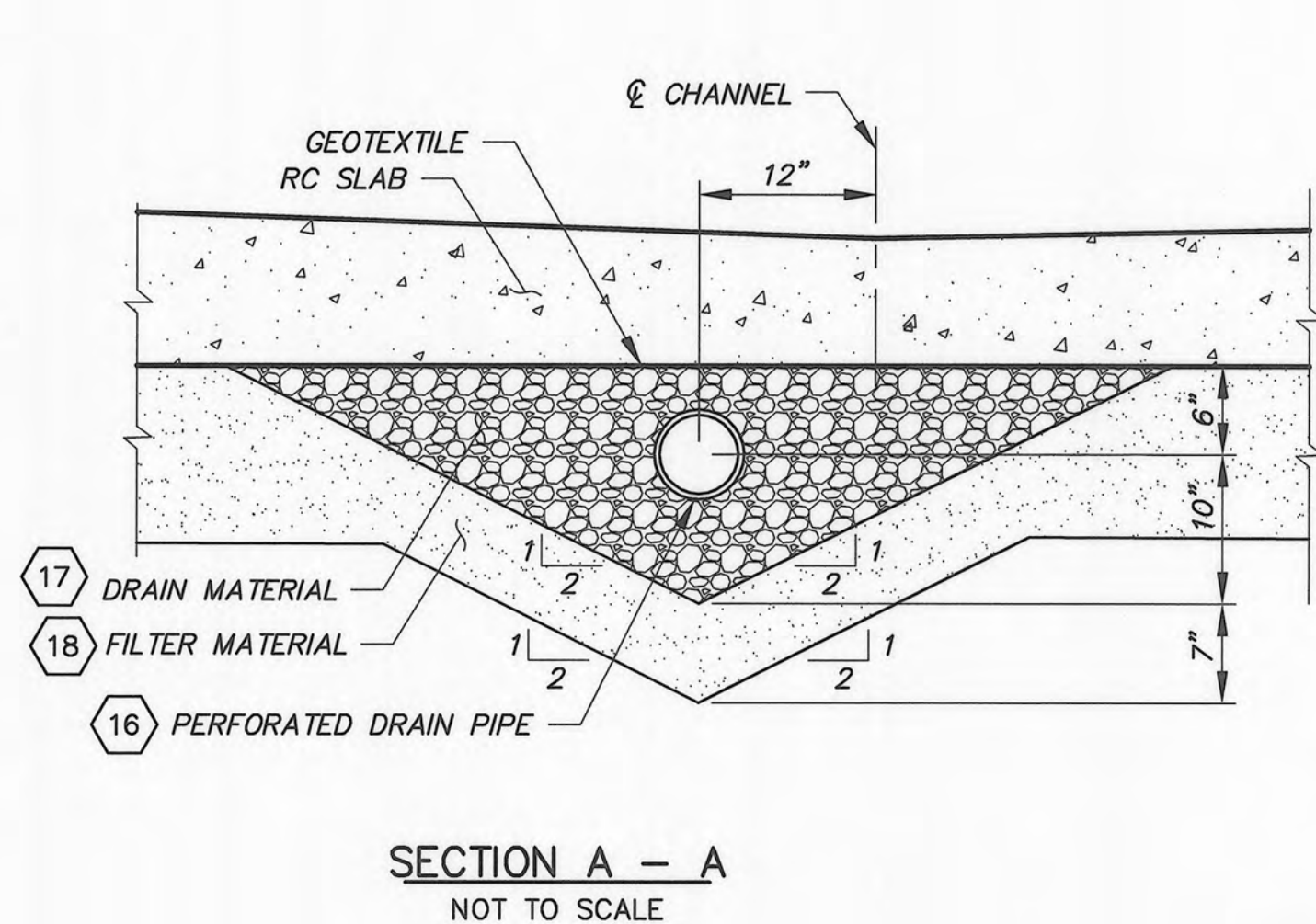
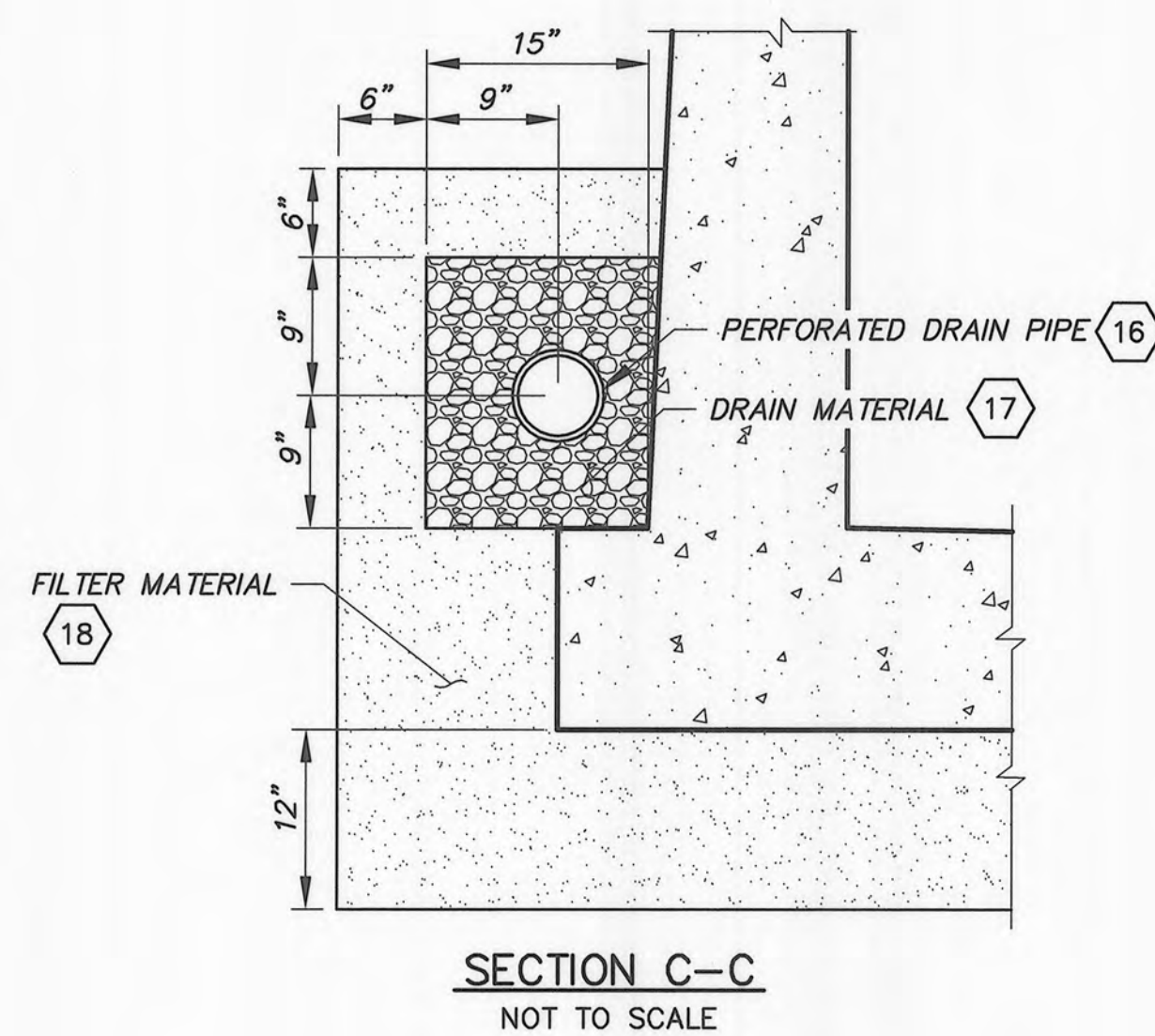
COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
SUBDRAIN SYSTEM



SHEET 15
OF 25
DRAWING NO.
Y-2-3719



- NOTES**
1. DRAIN MATERIAL SHALL BE PLACED UP TO PIPE INVERT PRIOR TO INSTALLING DRAIN PIPE.
 2. CUT OR BEND INTERFERING STEEL 2" CLEAR AROUND SOLID SLEEVE.
 3. SOLID SLEEVE I.D. SHALL BE 2" LARGER THAN O.D. OF PIPE.

PLOT DATE: 4/28/13

SAVE DATE: 4/28/13 RAMIREA K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-15&16-SS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV DESIGNED	Kirk Norman PROJECT MANAGER	4.28.13 DATE
KR/ND/AR DRAWN	Pat S. An DEPUTY DIRECTOR	4/29/13 DATE
K. NORMAN CHECKED	Julia Chaff DISTRICT DIRECTOR	4/29/2013 DATE

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

SPEC. NO. WP13-14
PROJ. NO. 82322

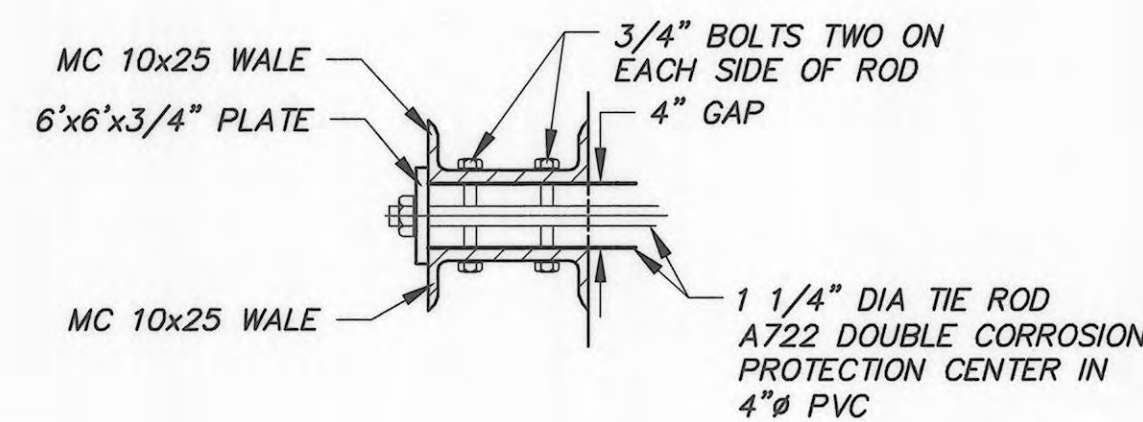
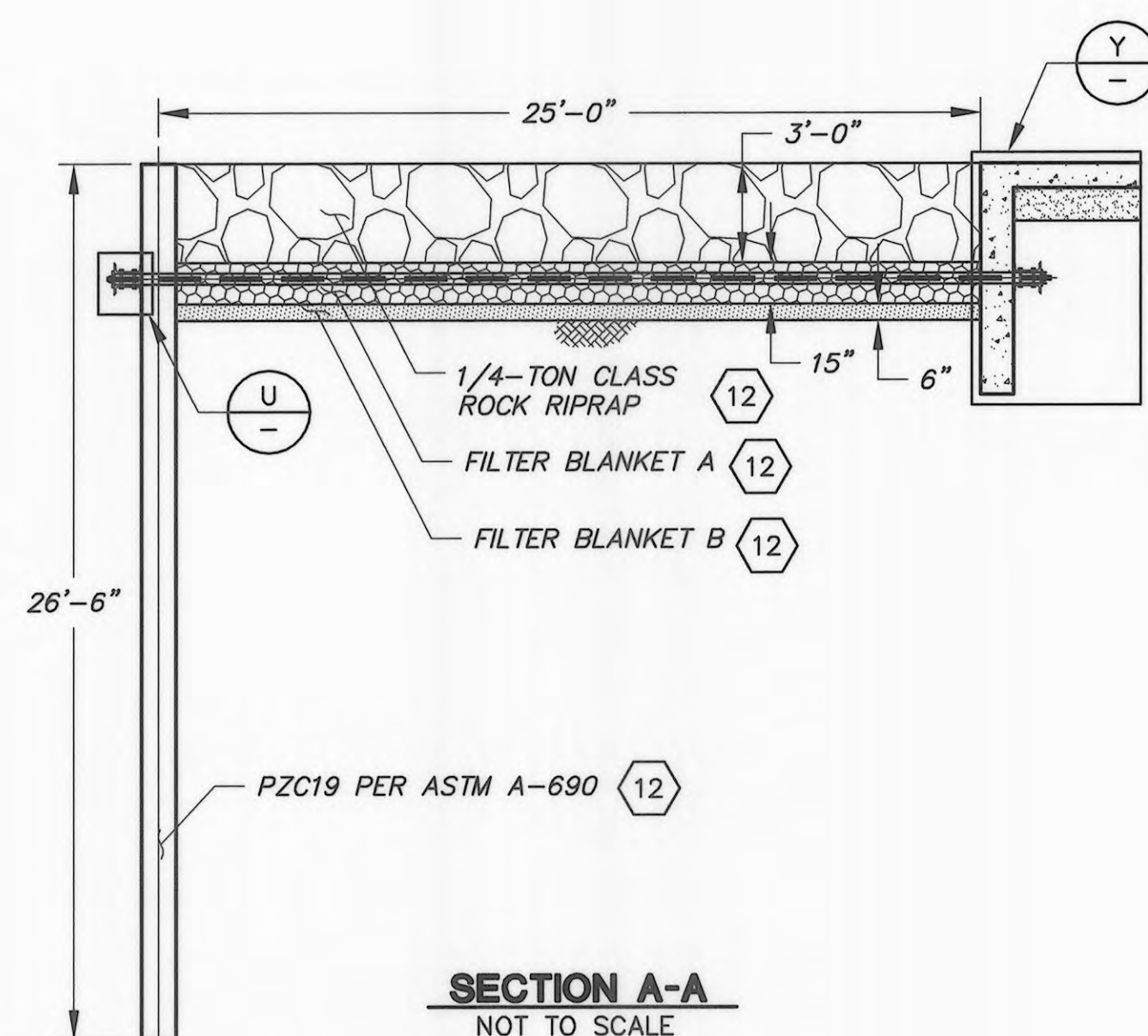
'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
SUBDRAIN SYSTEM SECTIONS AND DETAILS



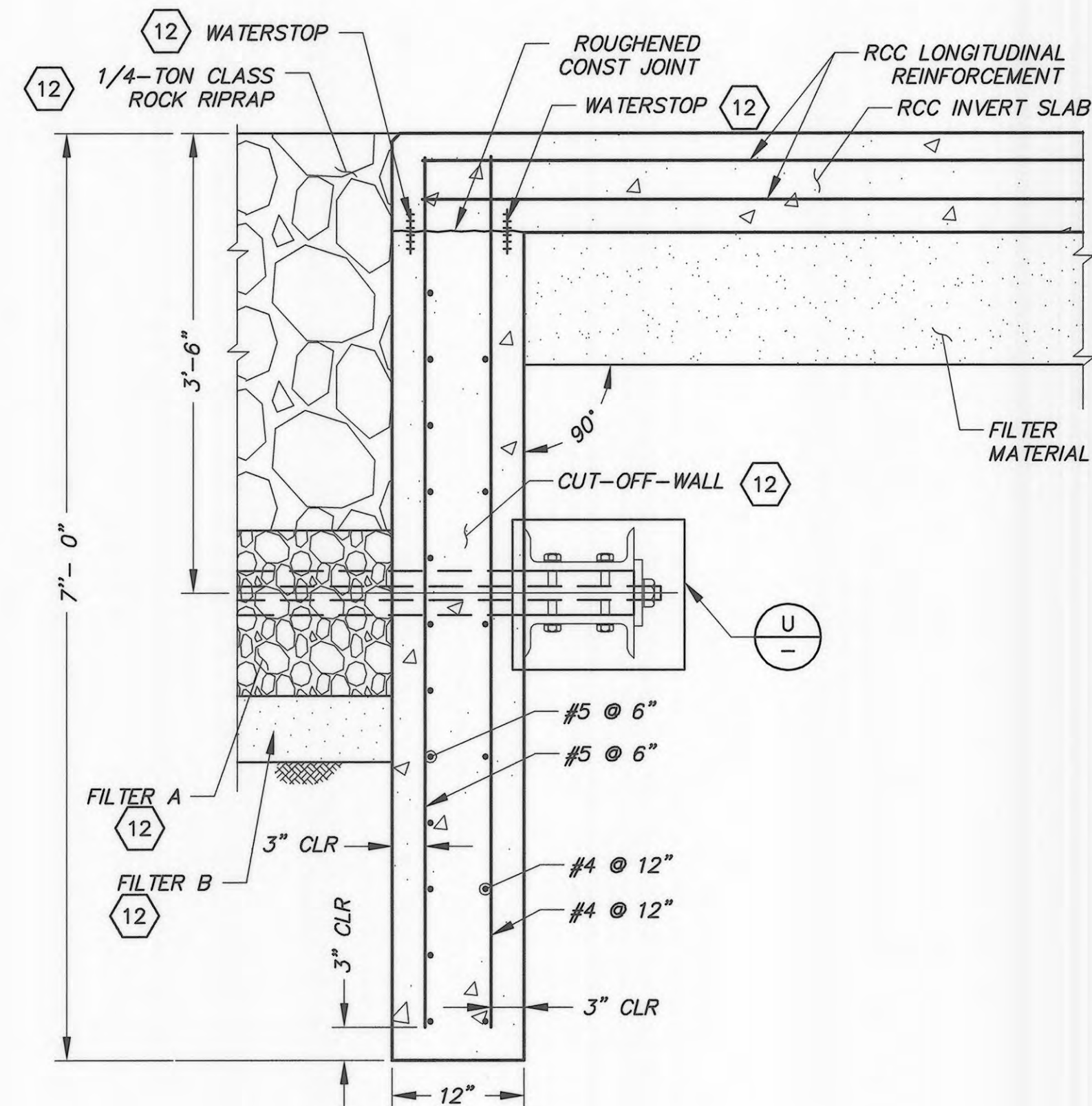
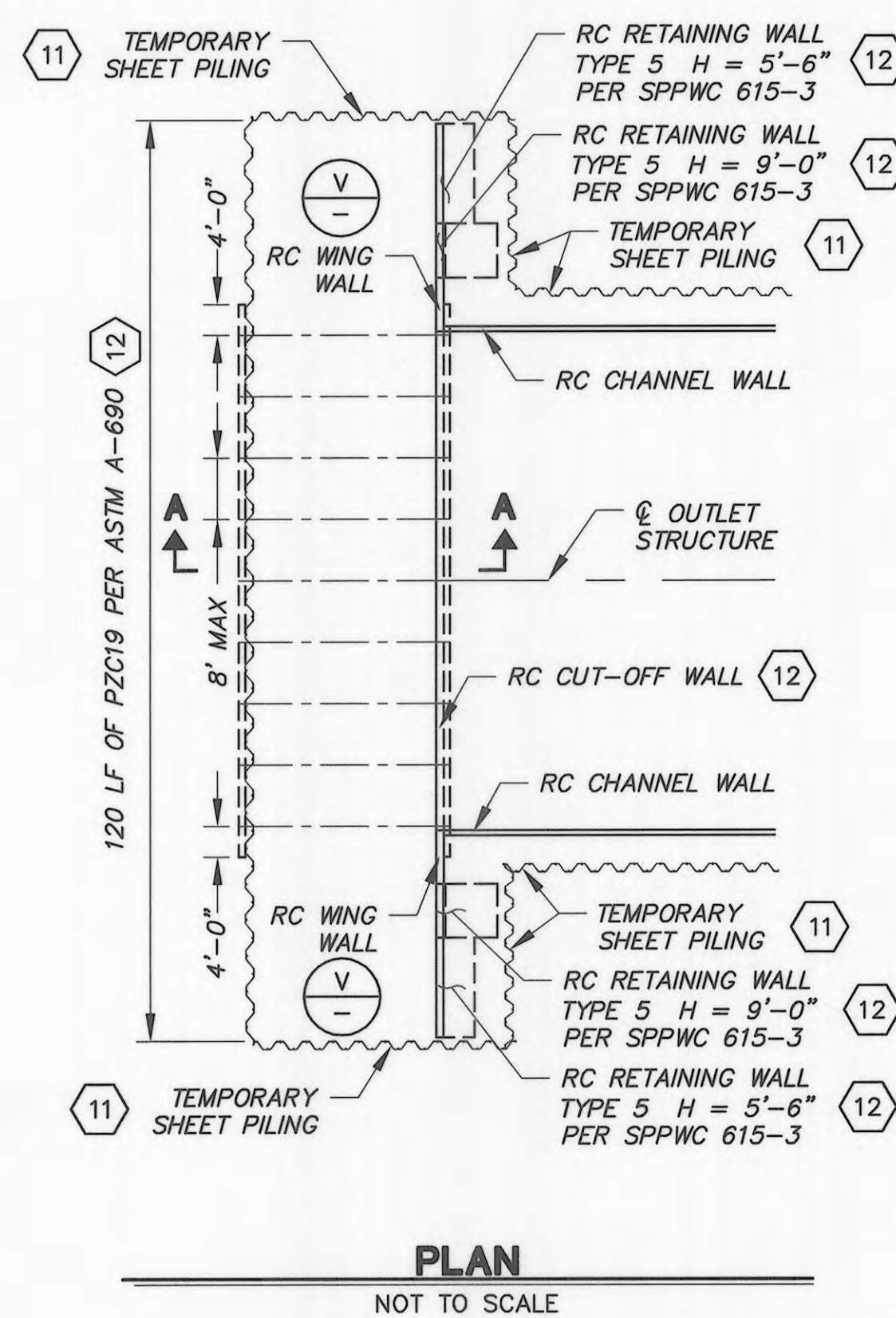
SHEET 16
OF 25
DRAWING NO. Y-2-3720

STRUCTURAL NOTES

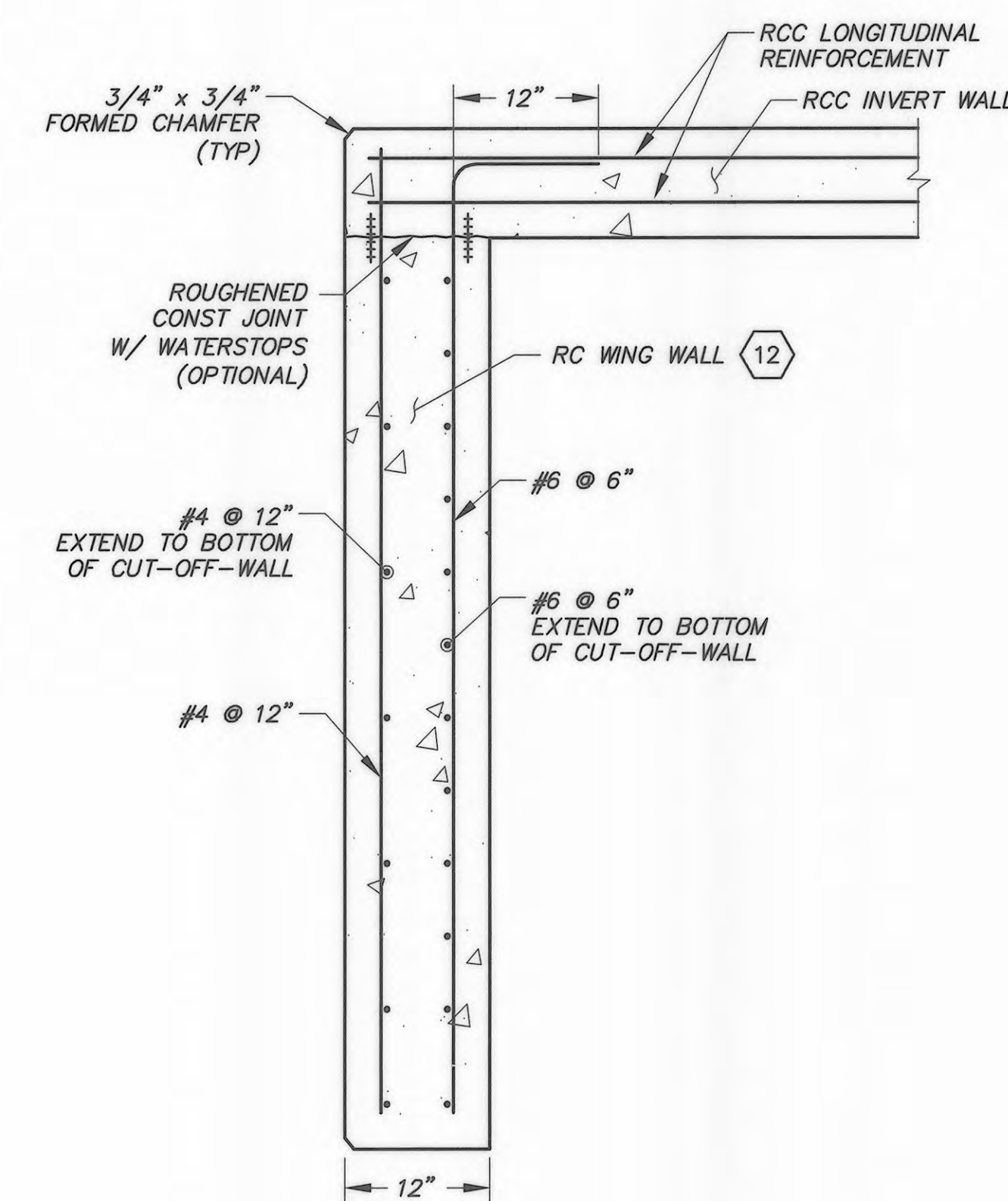
1. RC RETAINING WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPPWC PLANS SPECIFIED HEREIN, EXCEPT THAT THE MINIMUM 28-DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 5,000 PSI AND THE DISTANCE FROM FACE OF CONCRETE TO THE NEAREST EDGE OF THE BAR SHALL BE MINIMUM TWO AND A HALF INCHES (MIN 2.5" CLEAR).
2. CONCRETE DIMENSIONS SHALL BE MEASURED HORIZONTALLY OR VERTICALLY ON THE PROFILE, AND PARALLEL TO OR AT RIGHT ANGLES (OR RADially) TO CENTERLINE OF CHANNEL ON THE PLAN EXCEPT AS OTHERWISE SHOWN.
3. REINFORCEMENT DETAILS SHALL CONFORM TO THE LATEST EDITION OF ACI 318.
4. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMFERED.
5. INSTALL A 4" POLYVINYL CHLORIDE WATERSTOP (SPLIT RIBBED CENTER BULB TYPE) WHICH SHALL BE CONTECH VINYLSTOP NO. 431S, BURKE VINYLK WATERSTOP R.S.B. 316-4, OR AN APPROVED EQUAL.
6. ALL LAP SPLICES SHALL CONFORM TO NOTE 24 ON SHEET 10.



TIE ROD DETAIL U 12
NOT TO SCALE



CUT-OFF WALL PROFILE DETAIL Y 12
NOT TO SCALE



RC WINGWALL PLAN DETAIL V 12
NOT TO SCALE



PLOT DATE: 5/20/13

SAVE DATE: 5/17/13 DOKTORN

K:\DC\PROJECTS\B2322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\SD-17-MD.DWG

REVISION	DESCRIPTION	APP.	DATE
A	REVISED OUTLET STRUCTURE		

K. ROUSSEV
DESIGNED
KR
DRAWN
K. NORMAN
CHECKED

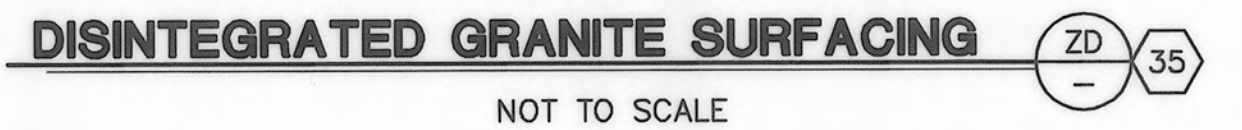
Kirk Norman
PROJECT MANAGER
Kirk Norman (acting)
DEPUTY DIRECTOR
Jelly Off
DISTRICT DIRECTOR
5-20-13
5-20-13
5/20/2013

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

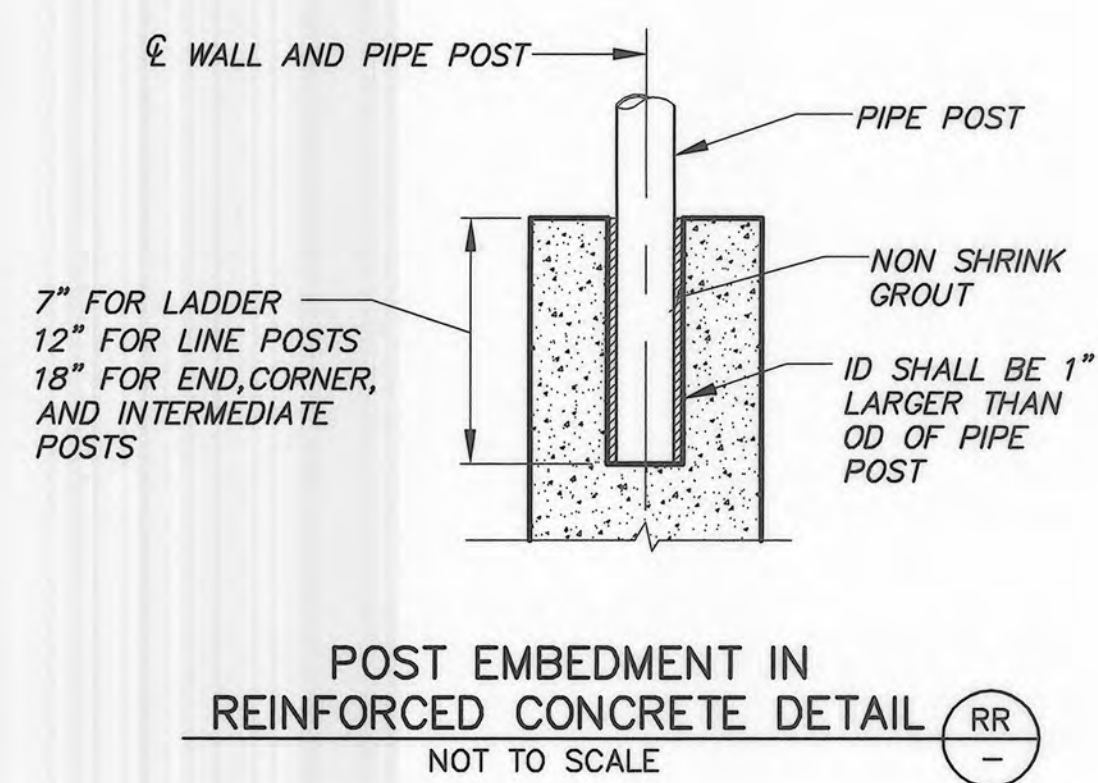
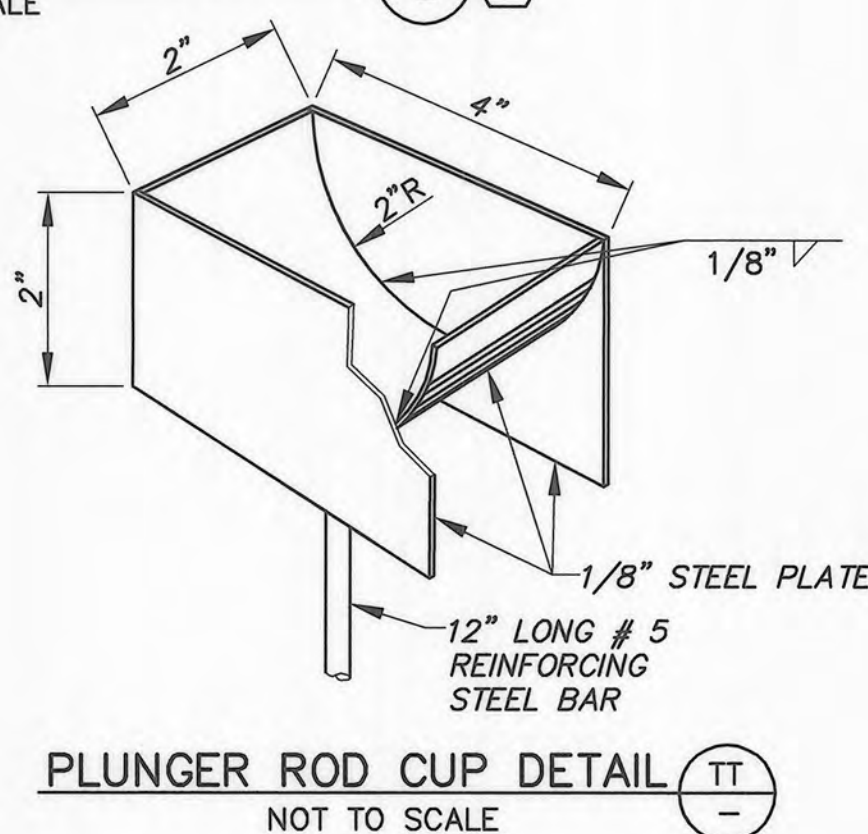
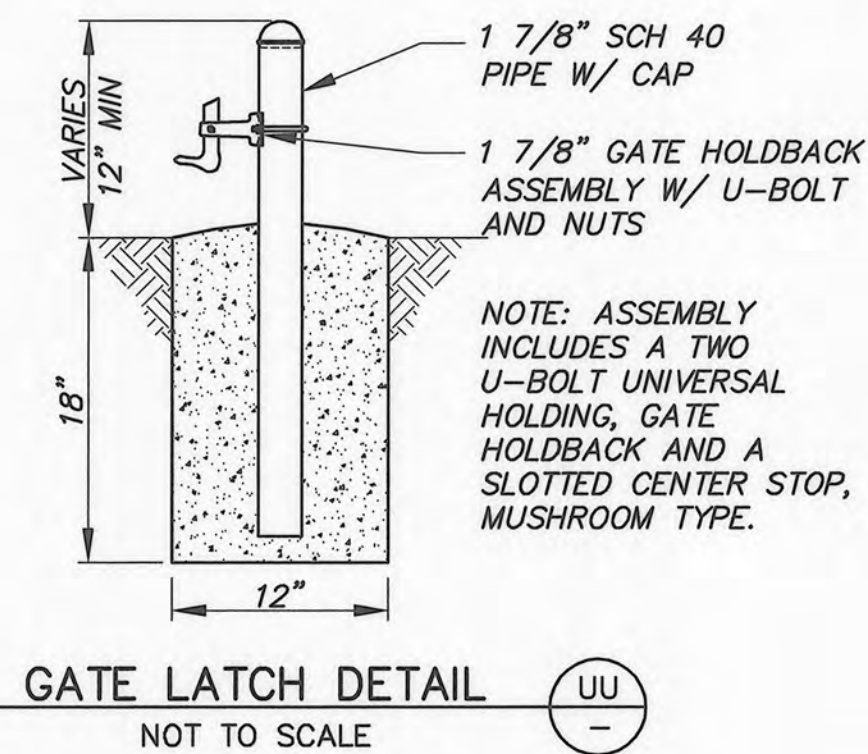
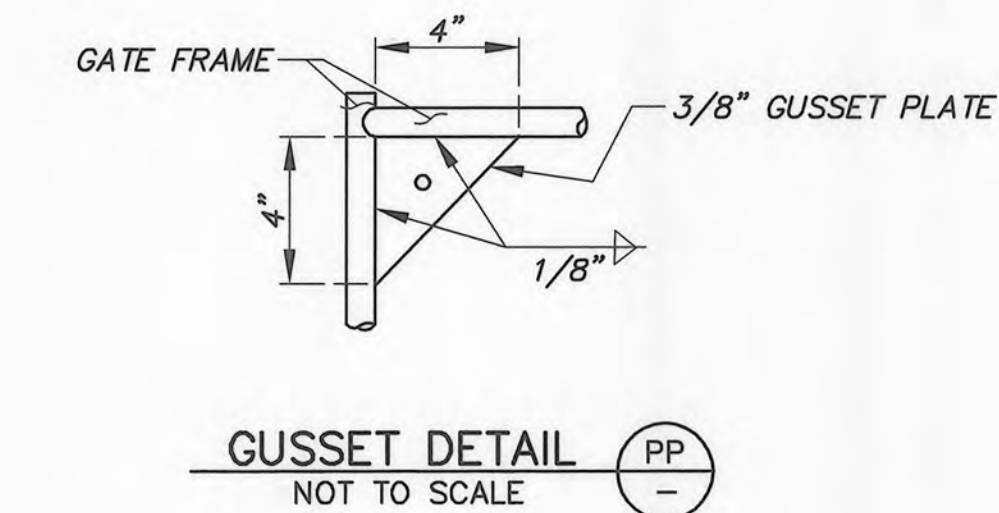
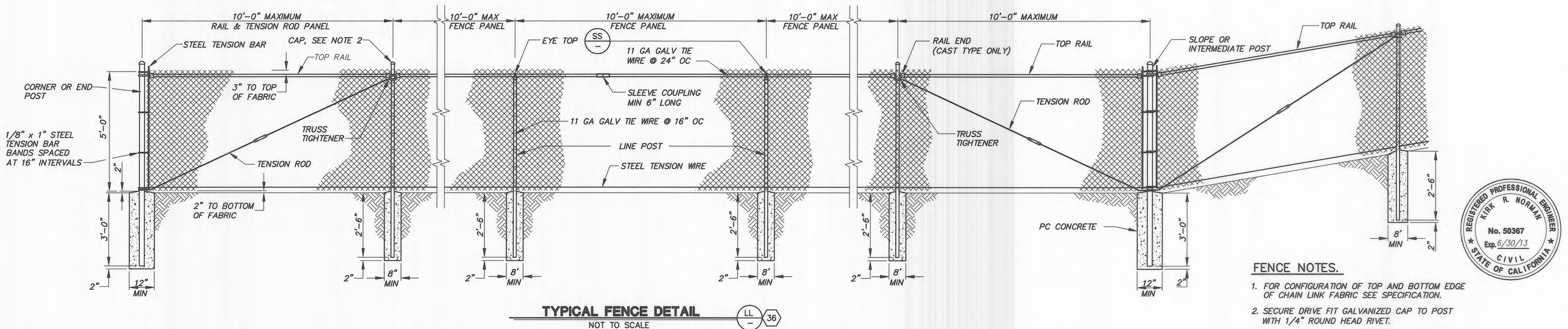
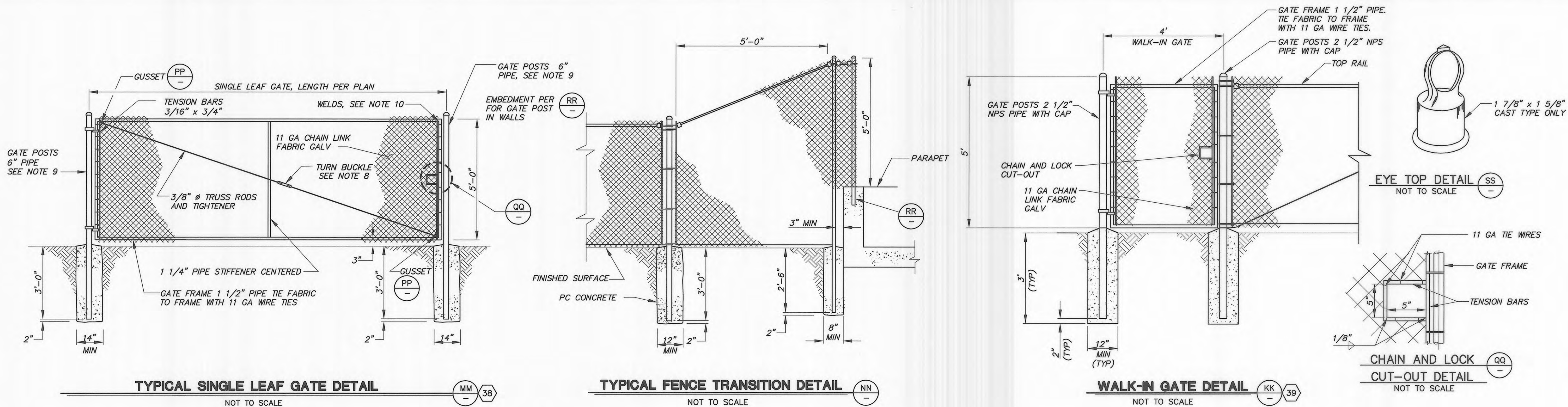
SPEC. NO.
WP13-14
PROJ. NO.
82322

'J' STREET DRAIN IMPROVEMENTS
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
OUTLET STRUCTURE

SHEET 17
OF 31
DRAWING NO.
Y-2-3721



D				K. ROUSSEV DESIGNED	<i>Karl Norman</i> 4-28-13 PROJECT MANAGER DATE	COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT	SPEC. NO. WP13-14	'J' STREET DRAIN IMPROVEMENTS ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD MISCELLANEOUS DETAILS	SHEET 18
C				KR	<i>Rick Spady</i> 4/29/13 DEPUTY DIRECTOR DATE		PROJ. NO.		OF 25
B				K. NORMAN	<i>Judy Callan</i> 4/23/2013 DISTRICT DIRECTOR DATE		82322		DRAWING NO. Y-2-3722
A									
	REVISION	DESCRIPTION	APP.	DATE					
△									



PLOT DATE: 4/28/13

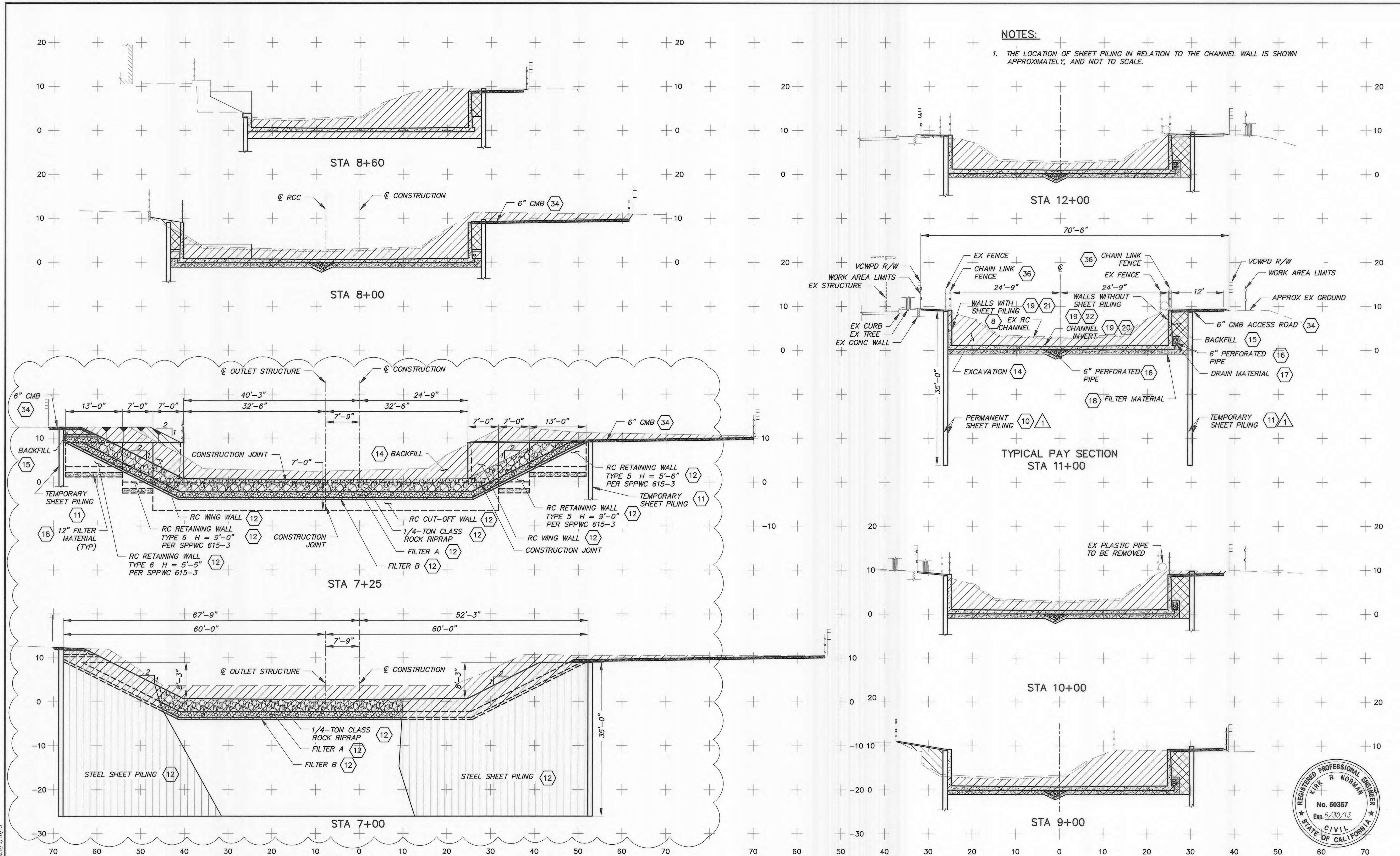
SAVE DATE: 4/26/13 DOKTORN				K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-19-FENCE.DWG			
D				K. ROUSSEV	Kirk Norman	4-28-13	
C				DESIGNED	PROJECT MANAGER	DATE	
B				AR	4/29/13	4/29/13	
A				DRAWN	DEPUTY DIRECTOR	DATE	
Δ	REVISION	DESCRIPTION	APP.	DATE	K. NORMAN	4/29/2013	
				CHECKED	DISTRICT DIRECTOR	DATE	

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

SPEC. NO.
WP13-14
PROJ. NO.
82322

**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
TYPICAL FENCE DETAILS**

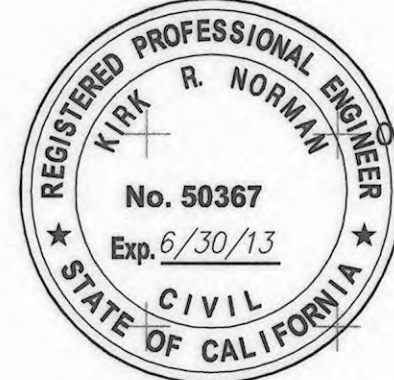
SHEET **19**
OF **25**
DRAWING NO.
Y-2-3723



PLOT DATE: 5/20/13

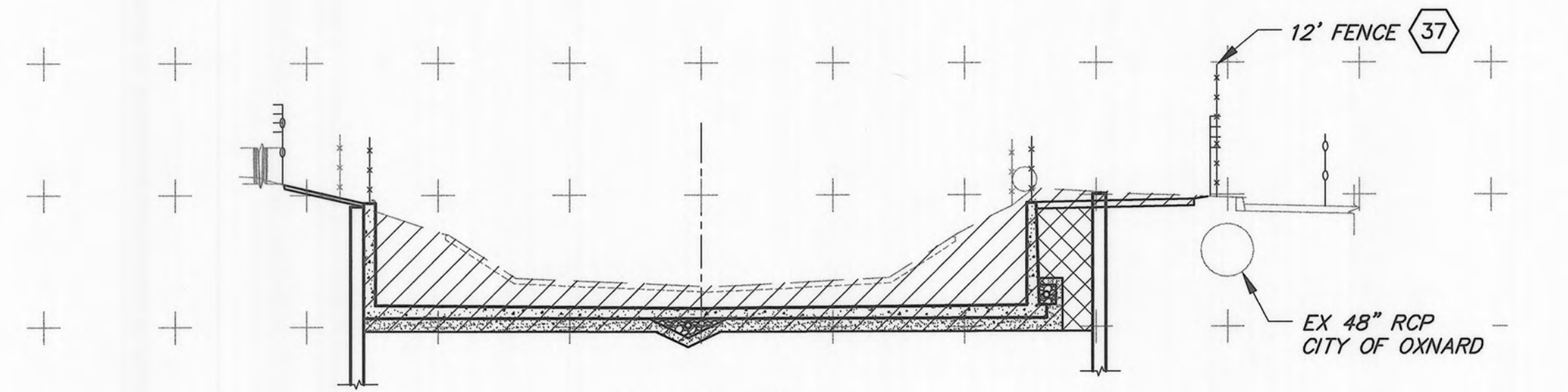
SAVE DATE: 5/17/13 DOKTORN K:\DC\PROJECTS\B2322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\SD-20-XS.DWG

D					K. ROUSSEV	<i>Kirk Roussev</i>	5-20-13	COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT	SPEC. NO. WP13-14	"J" STREET DRAIN IMPROVEMENT ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD CROSS SECTIONS - STA 7+00 TO STA 12+00	SHEET 20
C					DESIGNED	PROJECT MANAGER	DATE				
B					KR/ ND	<i>Kirk Roussev (acting)</i>	5-20-13				
A	REVISED SEC @ STA 7+00 AND STA 7+25				DRAWN	DEPUTY DIRECTOR	DATE				
Δ	REVISION	DESCRIPTION	APP.	DATE	K. NORMAN	<i>Julie Off</i>	5/20/2013		PROJ. NO. 82322		DRAWING NO. Y-2-3724

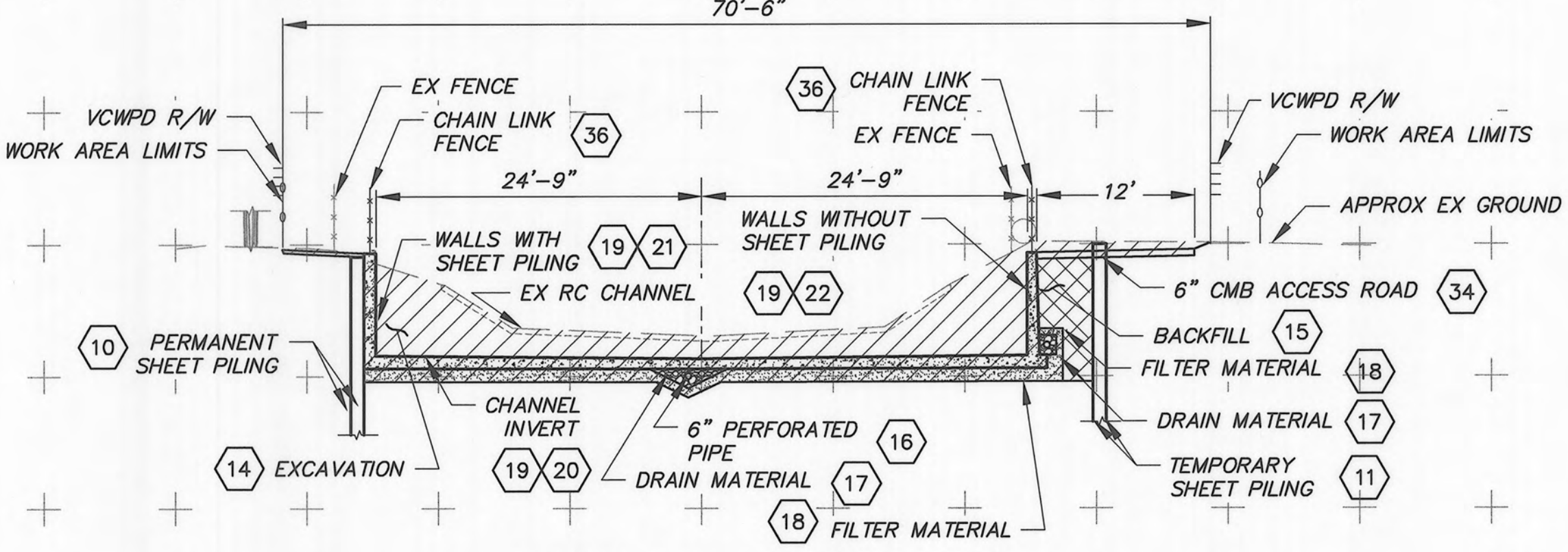


NOTES:

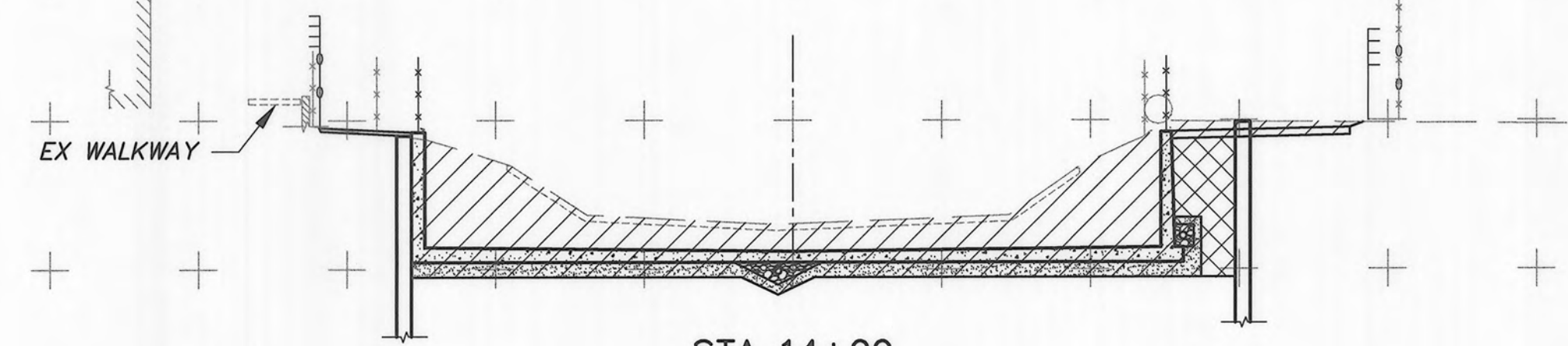
1. THE LOCATION OF SHEET PILING IN RELATION TO THE CHANNEL WALL IS SHOWN APPROXIMATELY, AND NOT TO SCALE.



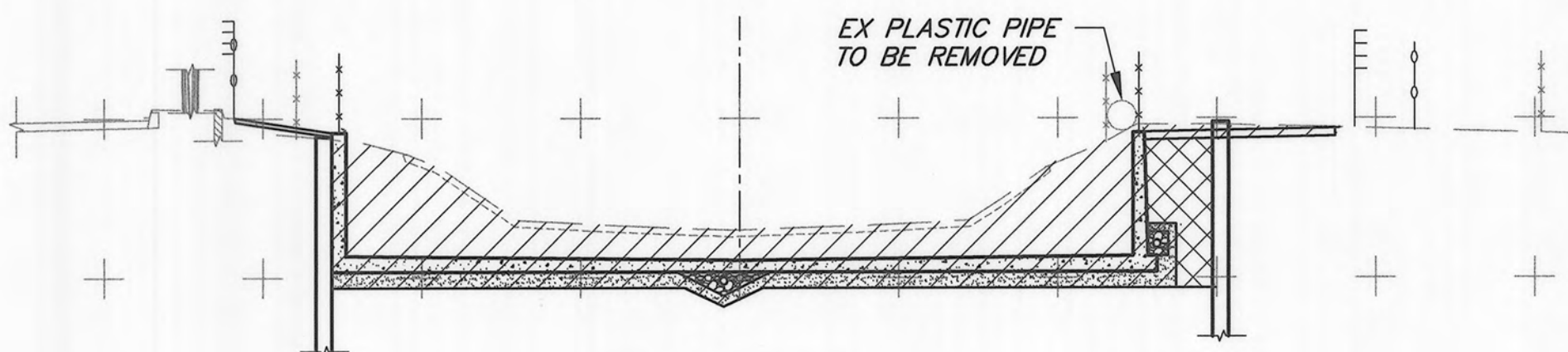
STA 16+00



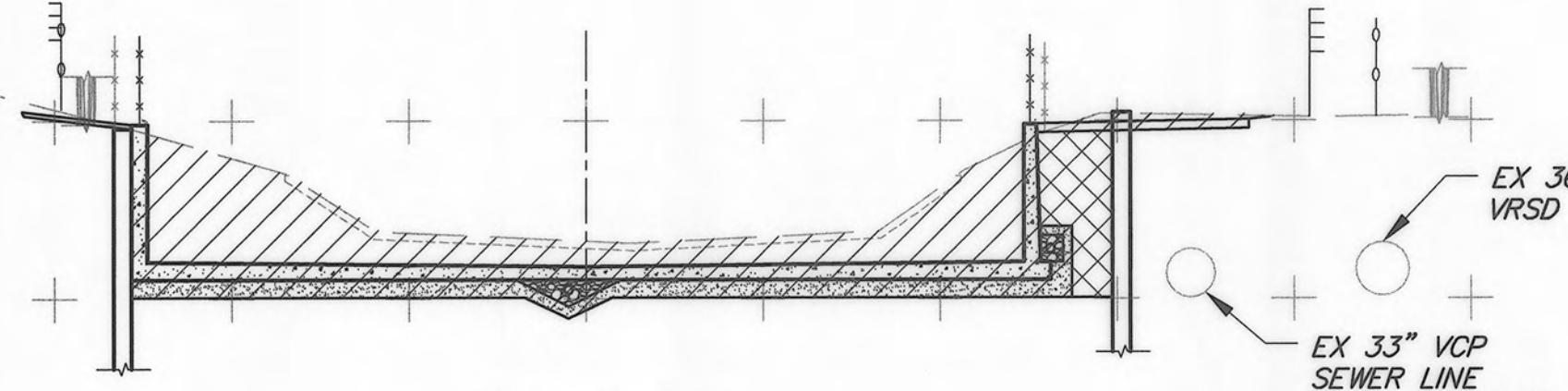
TYPICAL PAY SECTION
STA 15+00



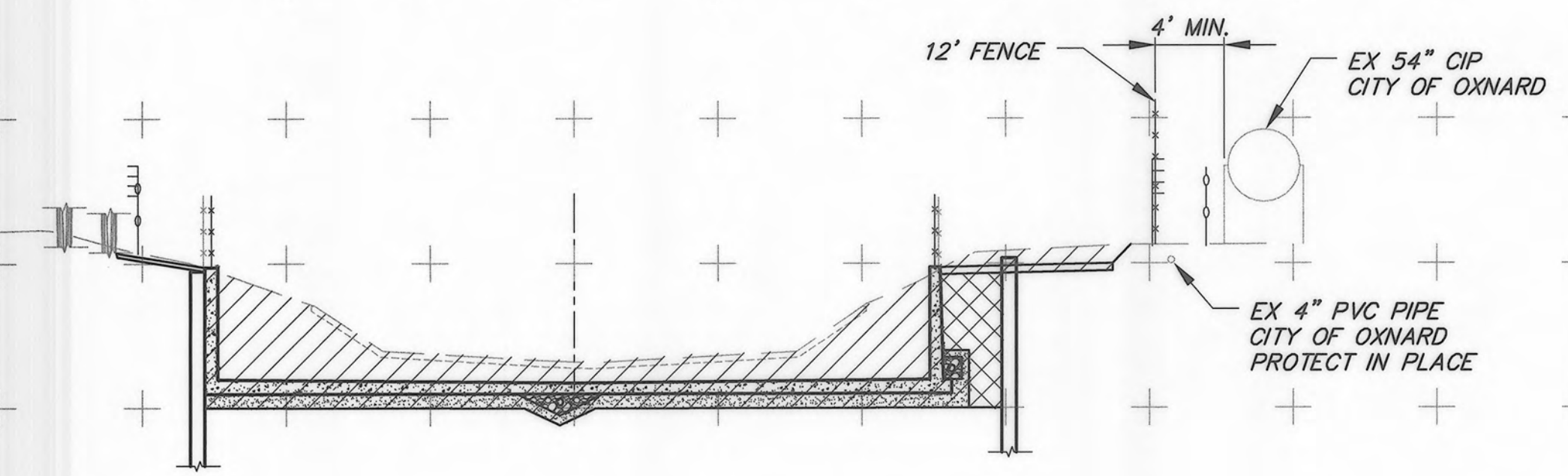
STA 14+00



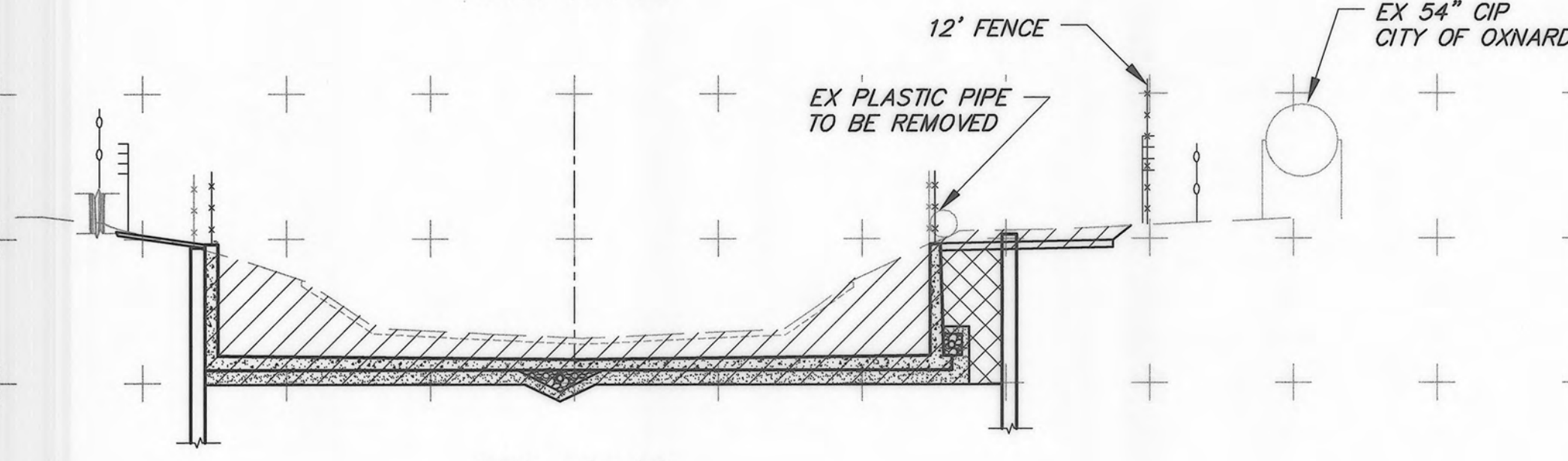
STA 13+00



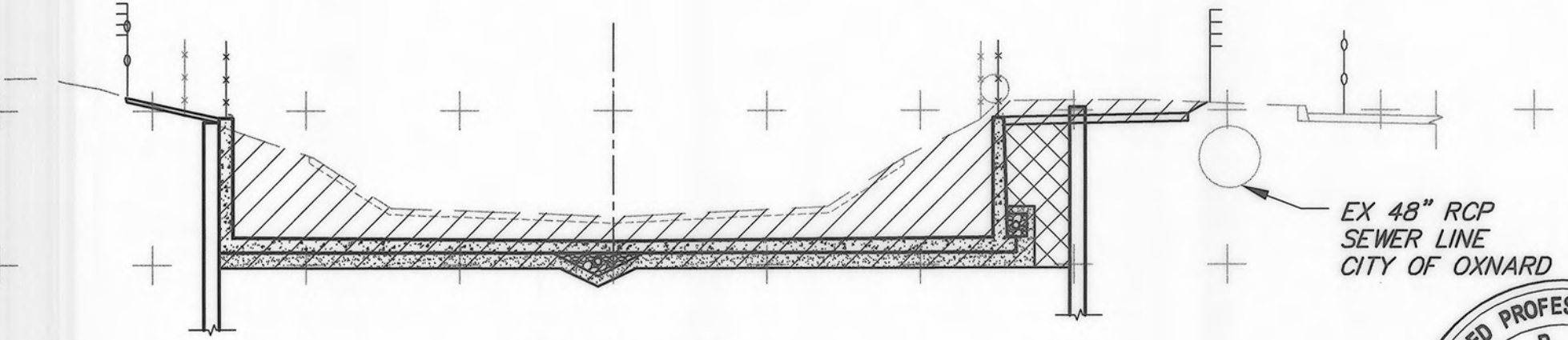
STA 20+00



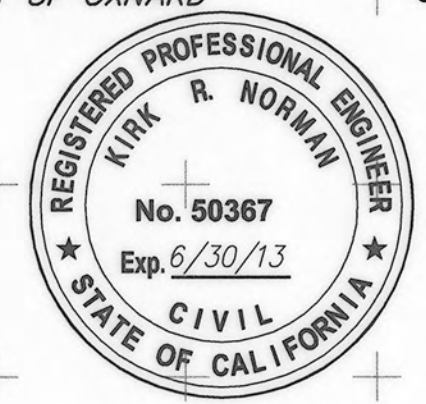
STA 19+00

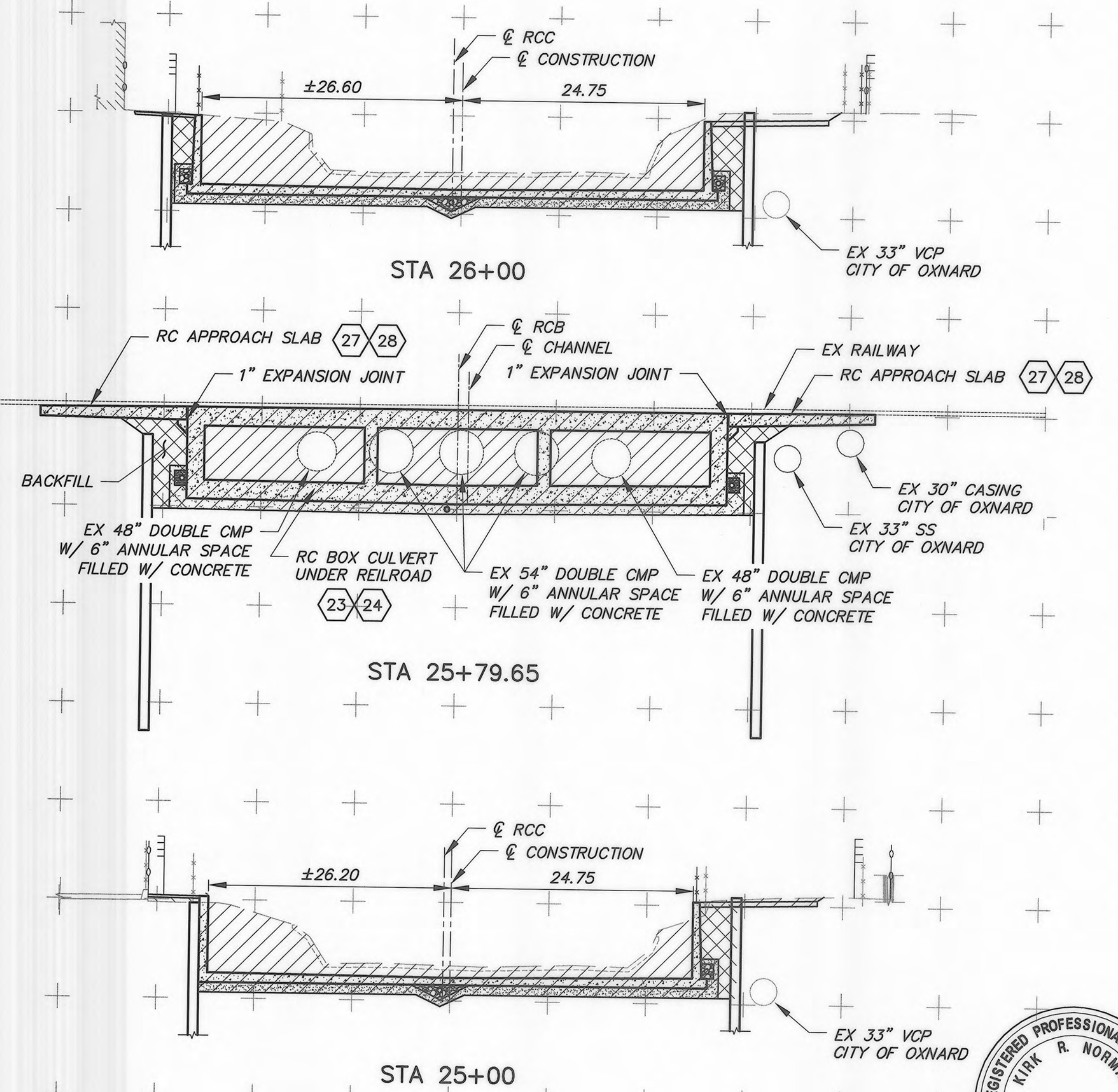
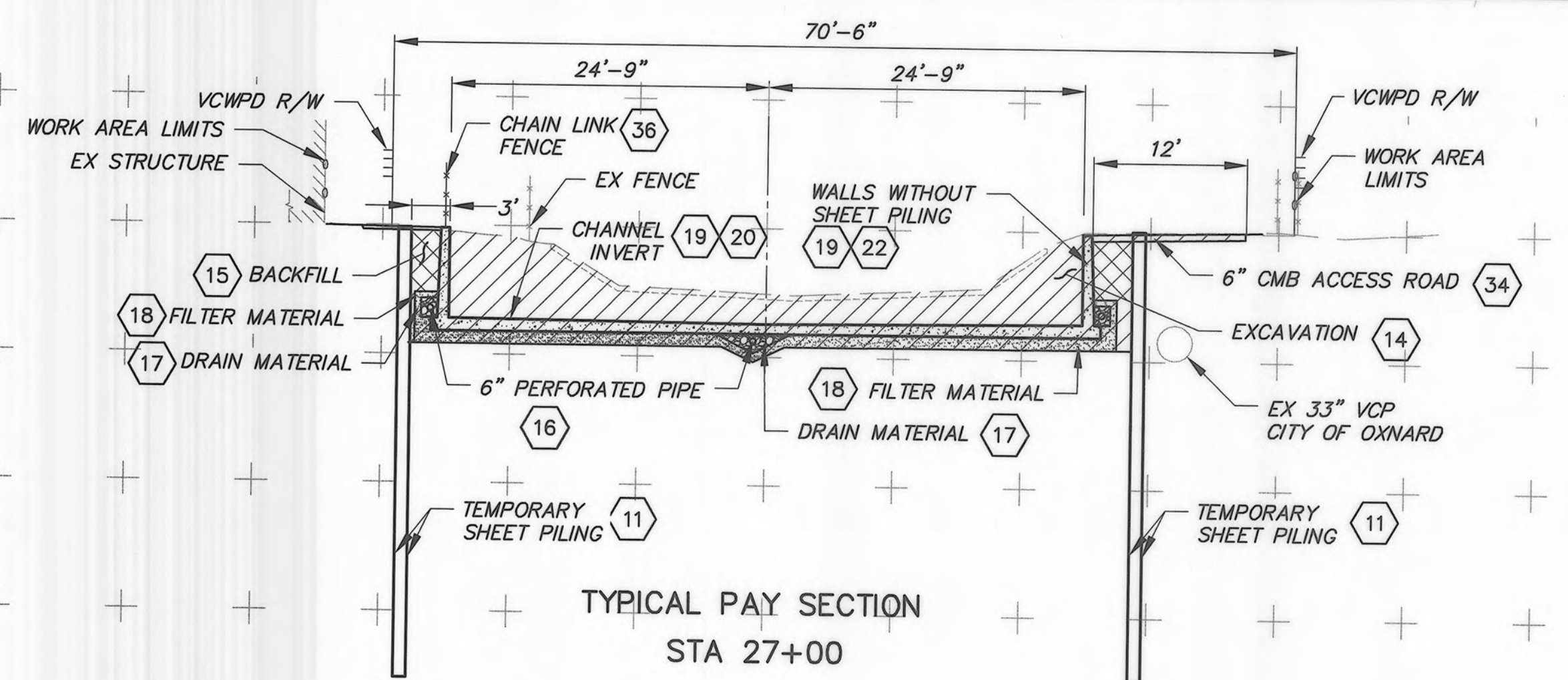
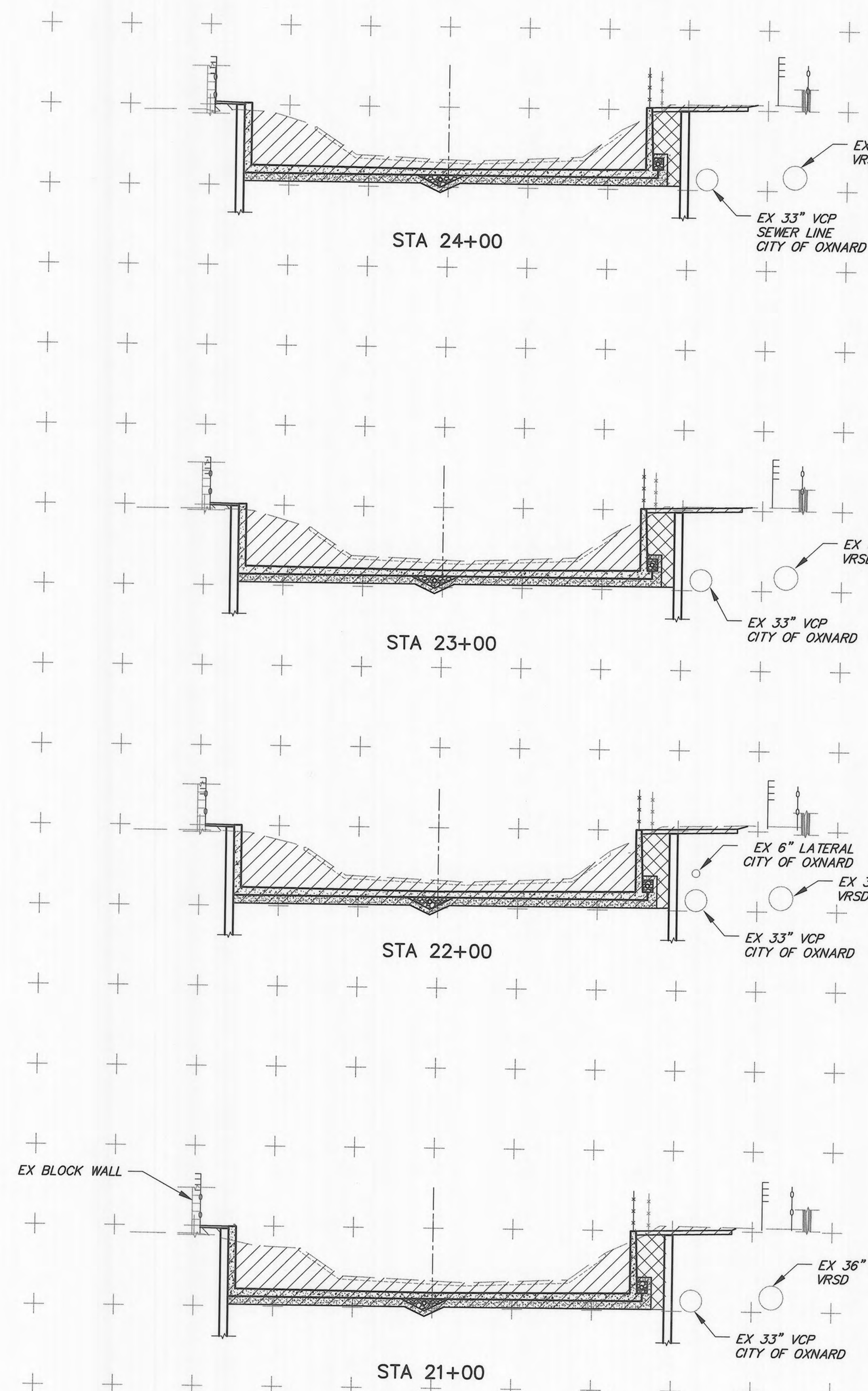


STA 18+00

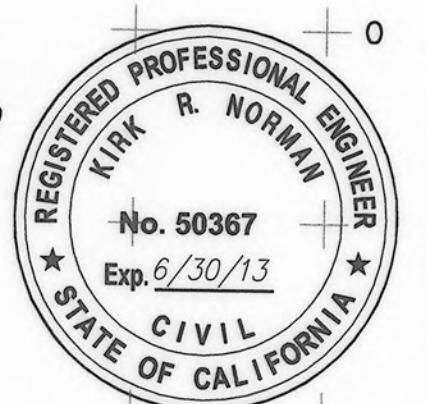


STA 17+00





NOTES:
 1. THE LOCATION OF SHEET PILING IN RELATION TO THE CHANNEL WALL IS SHOWN APPROXIMATELY, AND NOT TO SCALE



PLOT DATE: 4/28/13

SAVE DATE: 4/28/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-20THRU23-XS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV DESIGNED	4.28.13
KR/ ND DRAWN	4/29/13
K. NORMAN CHECKED	4/29/2013

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

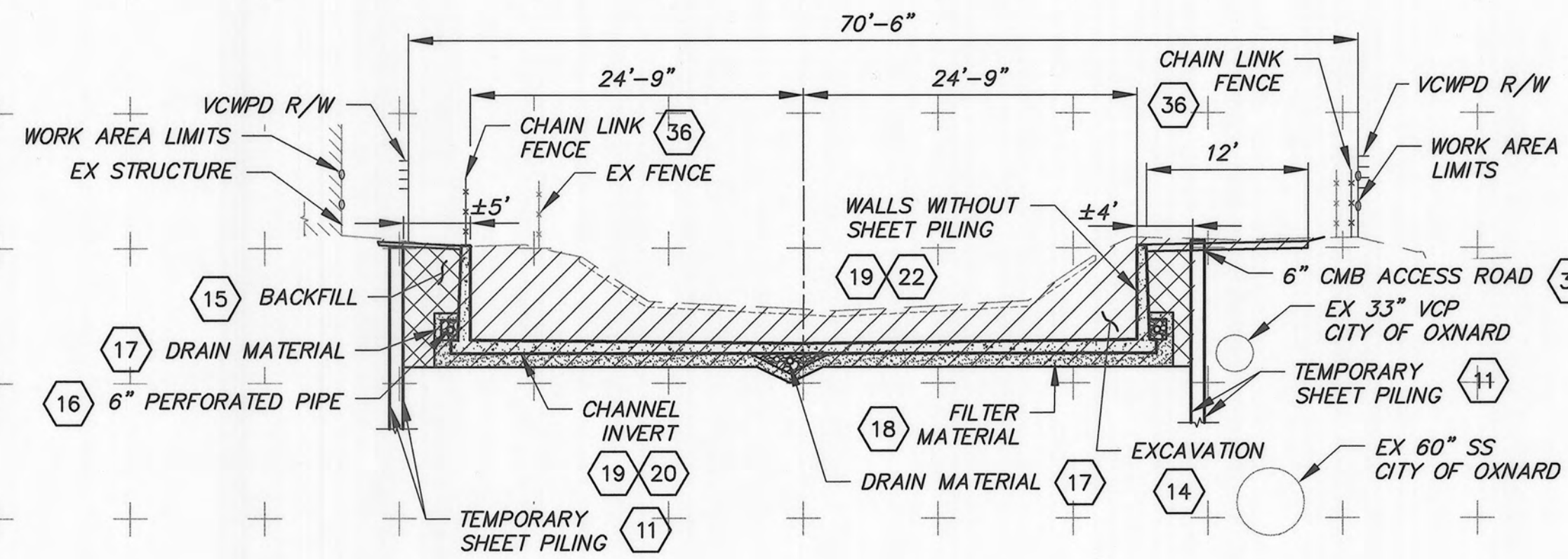
SPEC. NO. WP13-14
PROJ. NO. 82322

**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
CROSS SECTIONS - STA 21+00 TO STA 27+00**

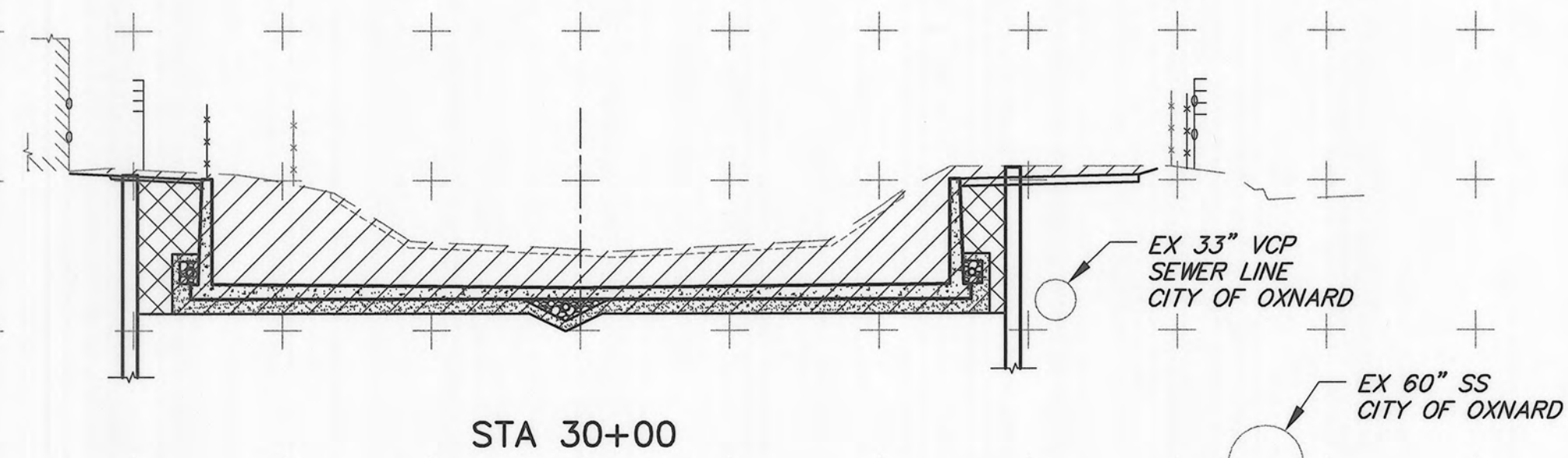
SHEET 22
OF 25
DRAWING NO. Y-2-3726

NOTES:

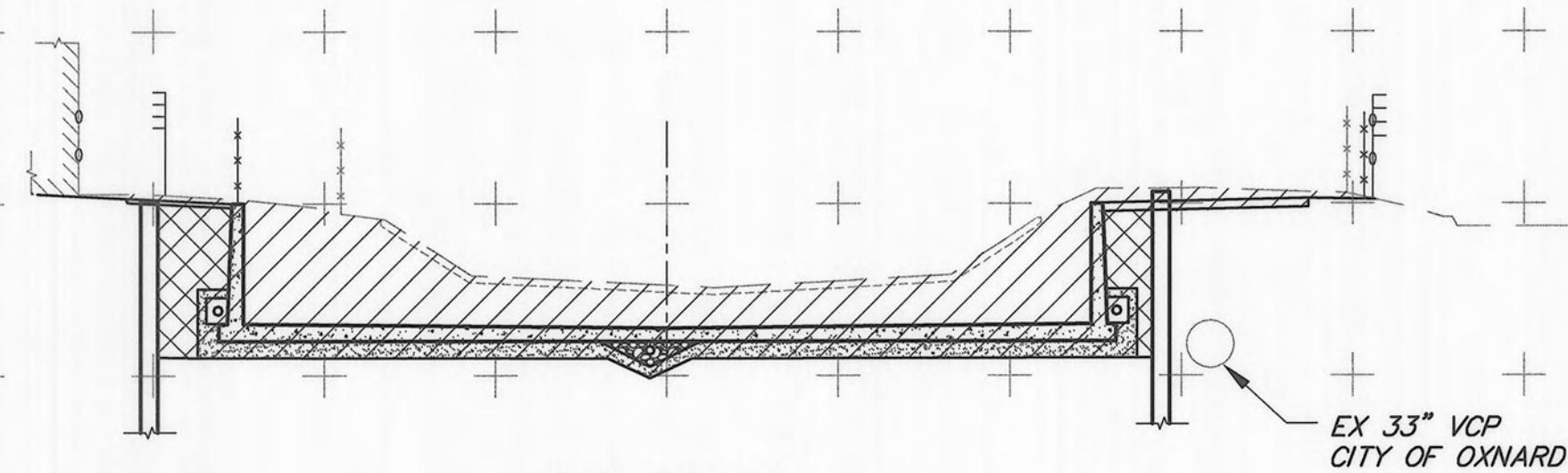
1. THE LOCATION OF SHEET PILING IN RELATION TO THE CHANNEL WALL IS SHOWN APPROXIMATELY, AND NOT TO SCALE



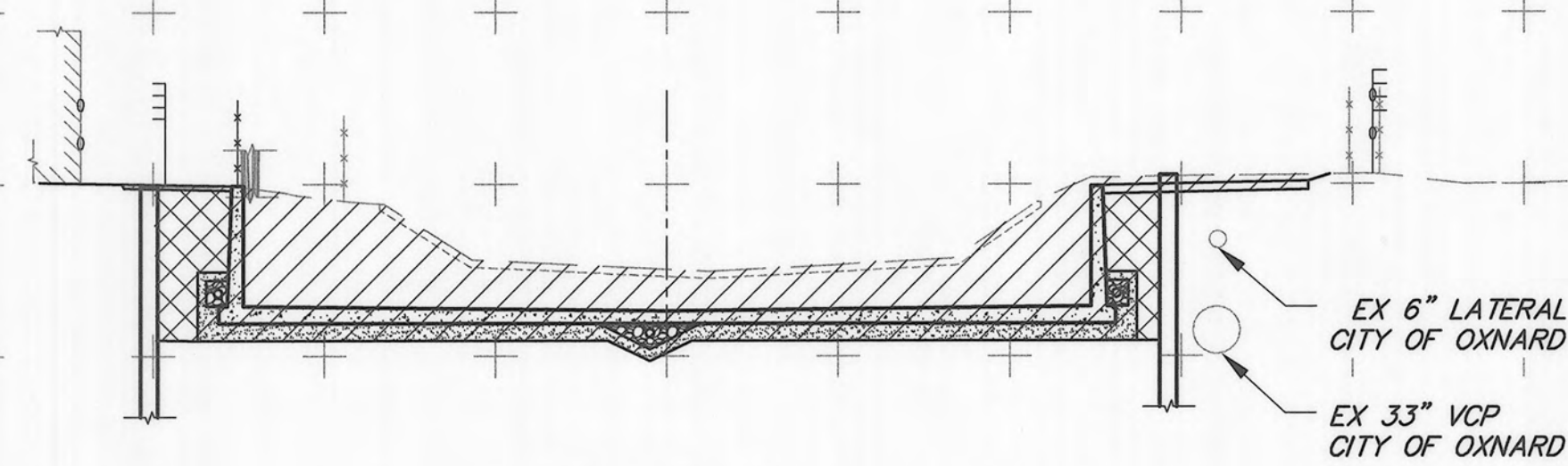
TYPICAL PAY SECTION
STA 31+00



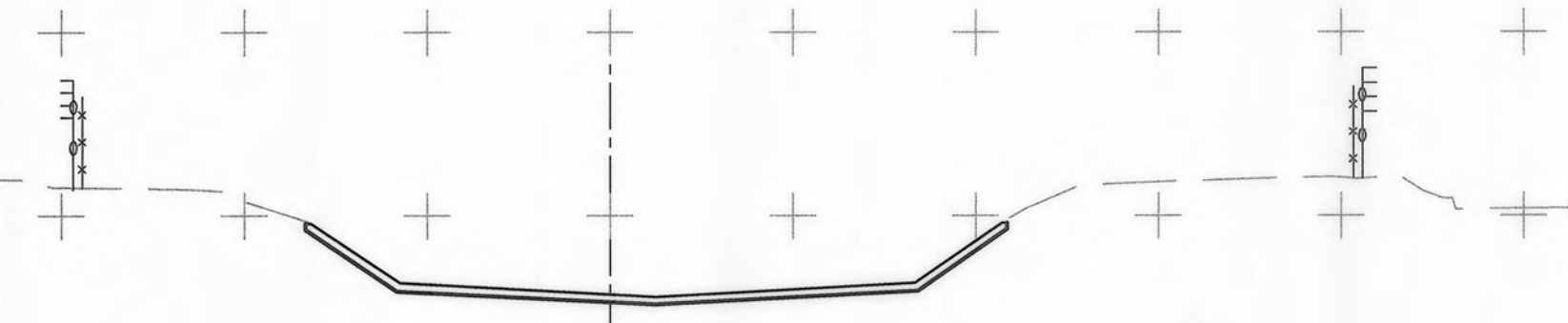
STA 30+00



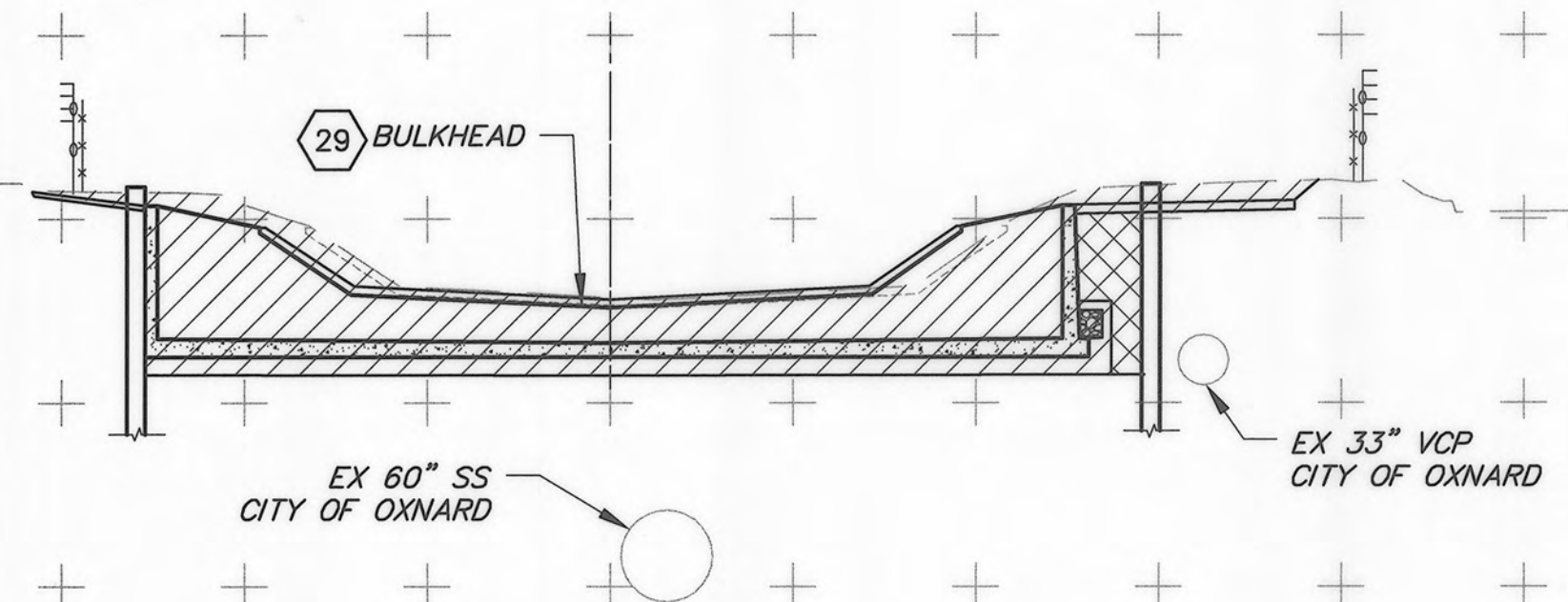
STA 29+00



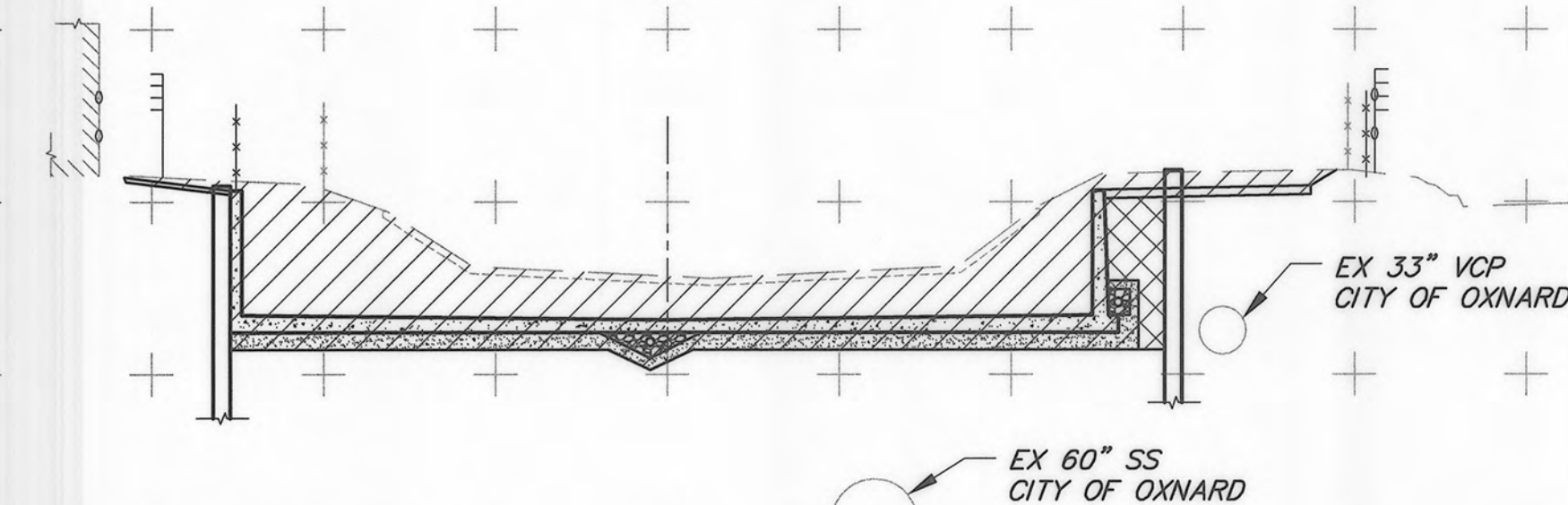
STA 28+00



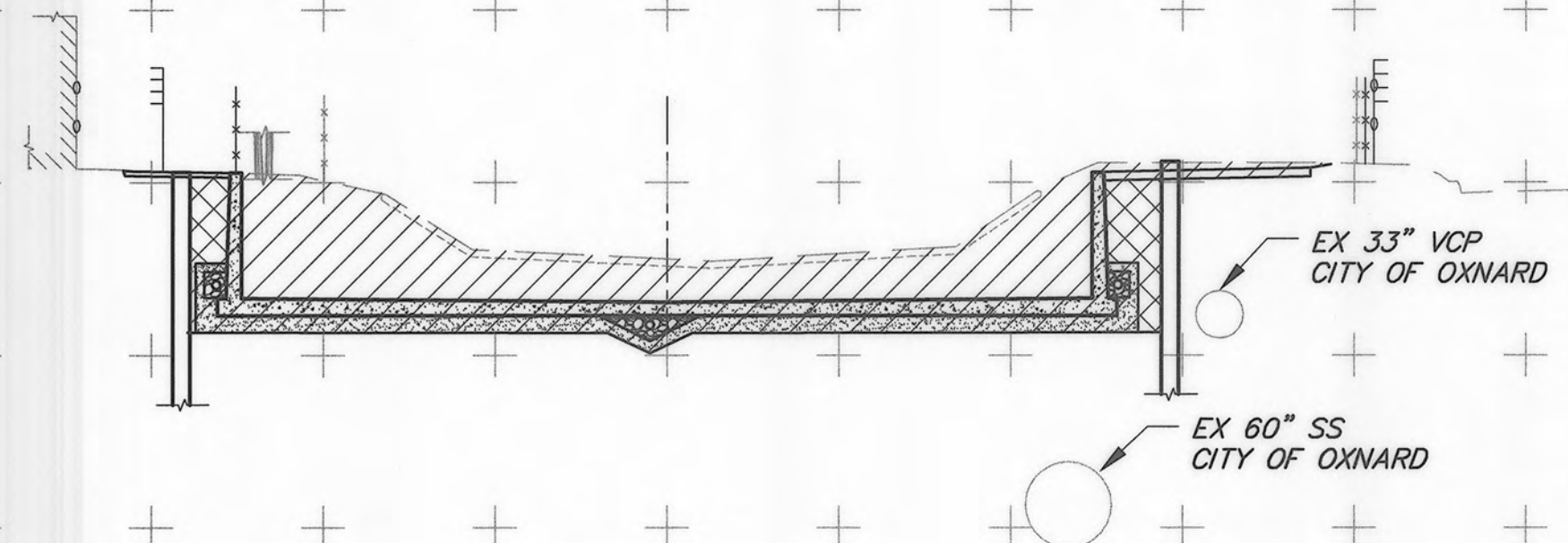
STA. 33+87



STA. 33+77



STA 33+00



STA 32+00



PLOT DATE: 4/26/13

SAVE DATE: 4/26/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-20THRU23-XS.DWG

REVISION	DESCRIPTION	APP.	DATE
D			
C			
B			
A			

K. ROUSSEV	DESIGNED	4/29/13	DATE
KR/ND	DRAWN	4/29/13	DATE
K. NORMAN	CHECKED	4/29/2013	DATE

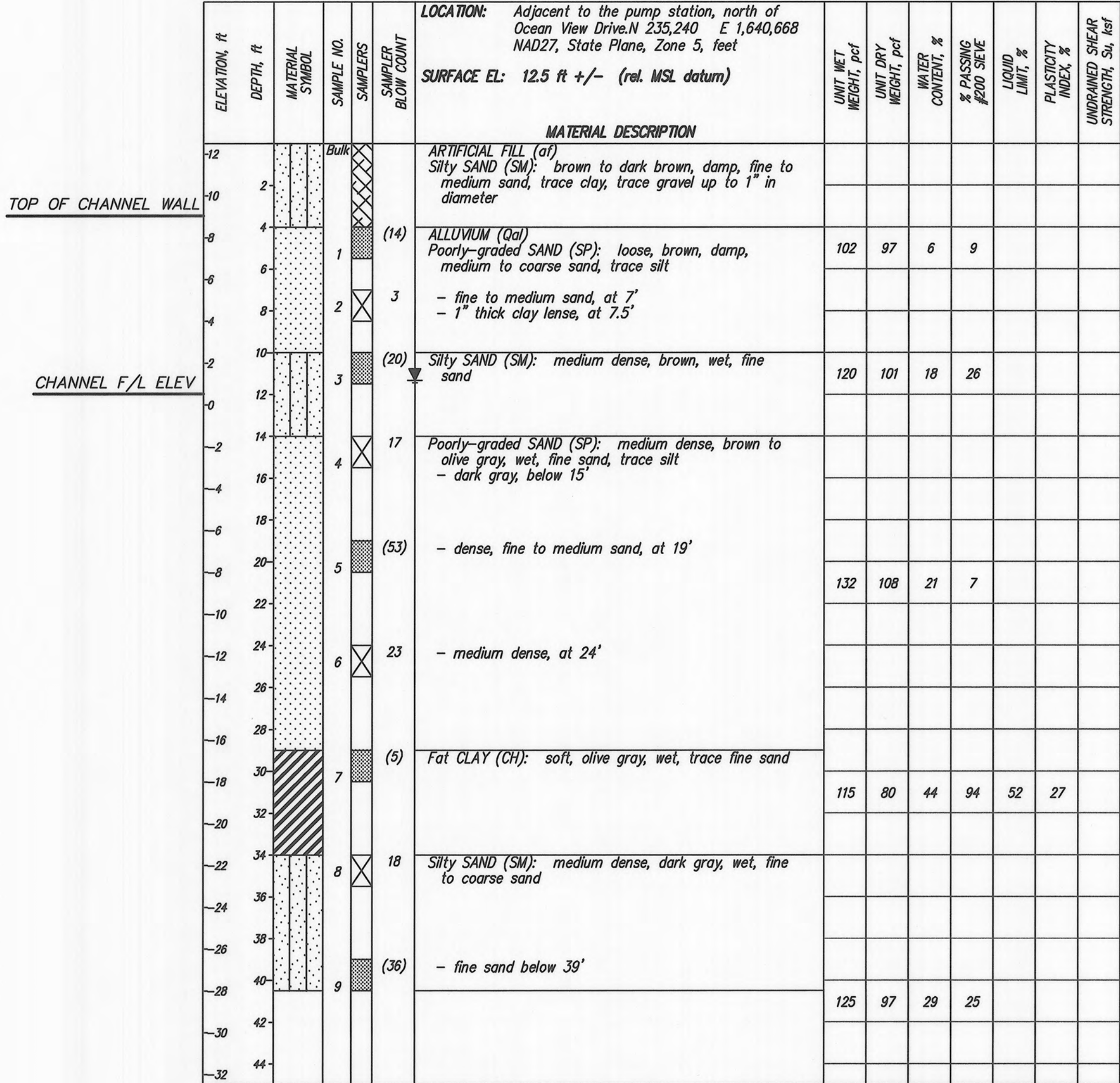
**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT**

SPEC. NO.	WP13-14
PROJ. NO.	82322

**'J' STREET DRAIN IMPROVEMENT
ORMOND BEACH LAGOON TO
DOWNSTREAM OF HUENEME ROAD
CROSS SECTIONS - STA 28+00 TO STA 33+87**

SHEET	23
OF	25
DRAWING NO.	Y-2-3727

HDR Engineering, Inc.
Project No. 3161.014

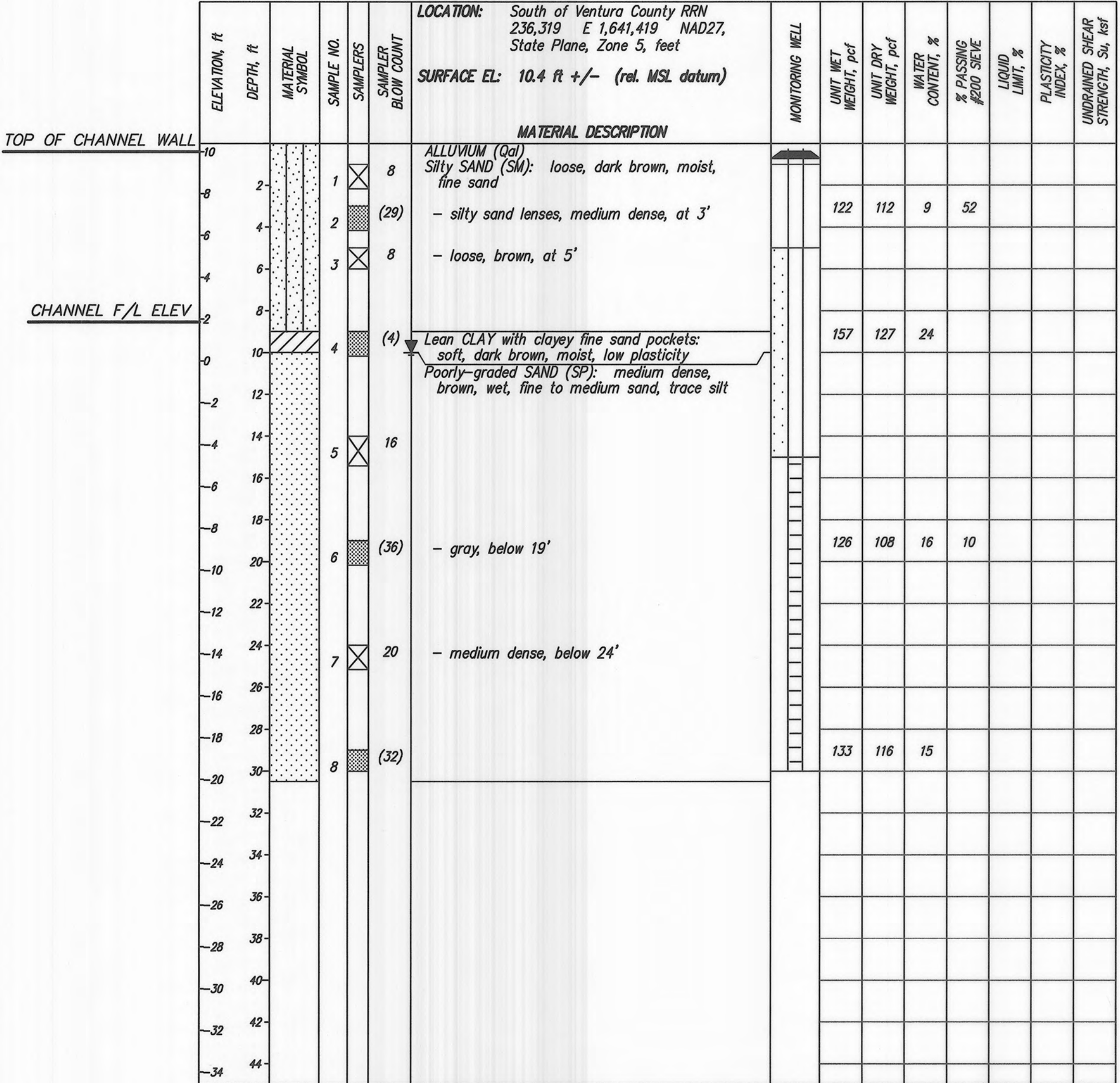


The log and data presented are a simplification of actual conditions encountered at the time of drilling at the drilled location. Subsurface conditions may differ at other locations and with the passage of time.

COMPLETION DEPTH: 40.5 ft
DEPTH TO WATER: 11.3 ft
BACKFILLED WITH: Cuttings and bentonite, topped with concrete.
DRILLING DATE: April 28, 2008

DRILLING METHOD: 8-inch-dia. Hollow Stem Auger
HAMMER TYPE: Automatic Trip
DRILLED BY: Martini Drilling Corporation
LOGGED BY: K. Nelson
CHECKED BY: LE Prentice R.G.

HDR Engineering, Inc.
Project No. 3161.014



The log and data presented are a simplification of actual conditions encountered at the time of drilling at the drilled location. Subsurface conditions may differ at other locations and with the passage of time.

COMPLETION DEPTH: 30.5 ft
DEPTH TO WATER: 10.0 ft
BACKFILLED WITH: Well Materials.
DRILLING DATE: April 29, 2008

DRILLING METHOD: 8-inch-dia. Hollow Stem Auger
HAMMER TYPE: Automatic Trip
DRILLED BY: Martini Drilling Corporation
LOGGED BY: J. Hutchins
CHECKED BY: LE Prentice R.G.

PLATE A-17

PLATE A-20



SAVE DATE: 4/26/13 DOKTORN	K:\DC\PROJECTS\62322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\LAST\JSD-24-SB.DWG	K. ROUSSEV DESIGNED KR DRAWN K. NORMAN CHECKED	Kirk Norman PROJECT MANAGER 4.28.13 DATE 4/29/13 DATE 4/29/2013 DATE	COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT	SPEC. NO. WP13-14 PROJ. NO. 82322	'J' STREET DRAIN IMPROVEMENT ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD SOIL BORINGS	SHEET 24 OF 25 DRAWING NO. Y-2-3728
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LINE DATA		
LINE	LENGTH	BEARING
L1	105.00'	N47°13'55"W
L2	394.50'	N36°16'36"E
L3	1.65'	N26°09'58"E
L4	640.49'	N36°16'36"E
L5	1659.33'	N1°16'36"E

CURVE DATA						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	BC STATION	EC STATION
C1	83°30'31"	113.59'	165.56'	101.40'	3+05.00	4+70.55
C2	10°06'38"	450.00'	79.41'	39.81'	8+65.05	9+44.46
C3	10°06'38"	450.00'	79.41'	39.81'	9+46.10	10+25.51
C4	35°00'01"	612.11'	373.92'	193.00'	16+66.00	20+39.92

SURVEY CONTROL

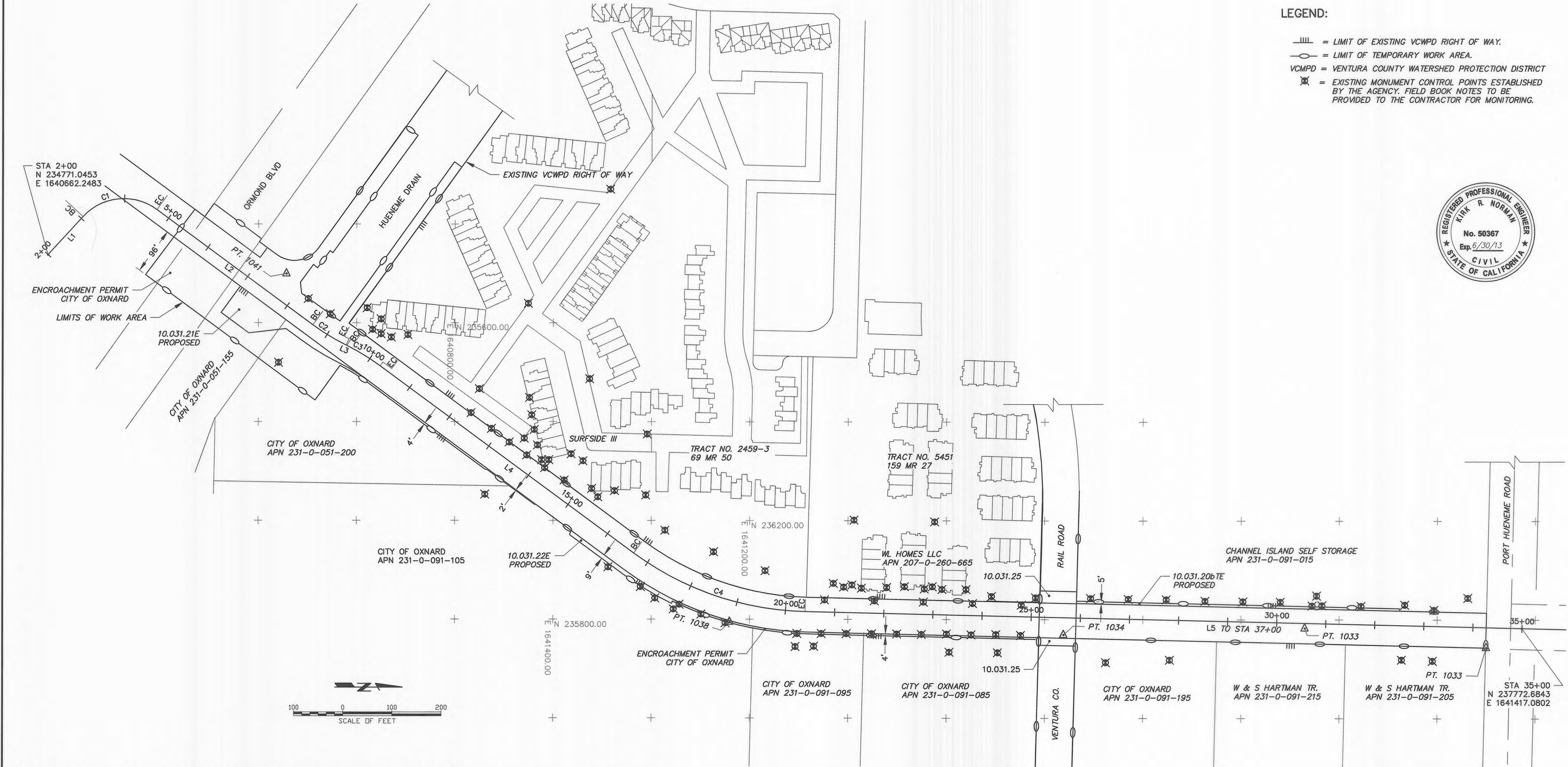
Point	Northing	Easting	Elevation	Description	STA
1041	235257.30	1640700.26	12.07	1/2" REBAR	±7+60W
1038	236159.47	1641405.49	11.51	1/2" REBAR	±18+90E
1034	236838.58	1641431	10.75	1/2" REBAR	±25+70E
1033	237330.01	1641417.28	5.73	L & T W/ VC TAG	±30+60E
1031	237699.93	1641456.47	12.65	L & T, TAG RCE11332	±34+30E

NOTES:

1. THE BOUNDARIES OF THE PARCELS OF LAND SHOWN HEREON ARE GRAPHIC REPRESENTATIONS FOR GENERAL INFORMATION PURPOSES ONLY.

LEGEND:

- ||— = LIMIT OF EXISTING VCMPD RIGHT OF WAY.
—○— = LIMIT OF TEMPORARY WORK AREA.
VCMPD = VENTURA COUNTY WATERSHED PROTECTION DISTRICT
✕ = EXISTING MONUMENT CONTROL POINTS ESTABLISHED BY THE AGENCY; FIELD BOOK NOTES TO BE PROVIDED TO THE CONTRACTOR FOR MONITORING.



SAVE DATE: 5/17/13 DOKTORN K:\DC\PROJECTS\82322 J STREET DRAIN IMPROVEMENT\FINAL DESIGN\DESIGN DRAWINGS\100%\ADDENDUM\SD-25-SC&RW.DWG				K. ROUSSEV DESIGNED KR DRAWN K. ROUSSEV CHECKED		Kirk Norman PROJECT MANAGER Kirk Norman (acting) DEPUTY DIRECTOR Jelly DISTRICT DIRECTOR		5-20-13 DATE 5-20-13 DATE 5/20/2013 DATE		COUNTY OF VENTURA PUBLIC WORKS AGENCY WATERSHED PROTECTION DISTRICT		SPEC. NO. WP13-14 PROJ. NO. 82322		'J' STREET DRAIN IMPROVEMENT ORMOND BEACH LAGOON TO DOWNSTREAM OF HUENEME ROAD SURVEY CONTROL AND RIGHT-OF-WAY		SHEET 25 OF 31 DRAWING NO. Y-2-3729	
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