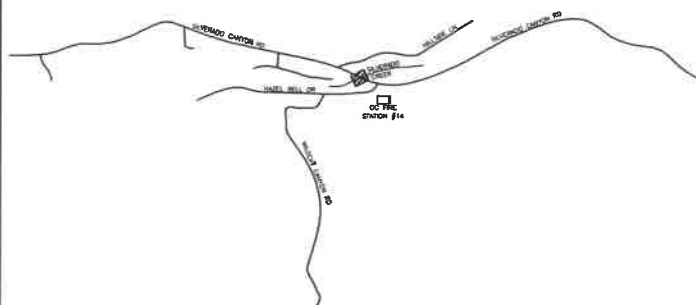




VICINITY MAP
(NOT TO SCALE)



LOCATION MAP
(NOT TO SCALE)



OC Public Works

SHANE L. SILSBY, DIRECTOR

PLANS FOR CONSTRUCTION OF

SILVERADO CANYON RD OVER SILVERADO CANYON CREEK BRIDGE PREVENTATIVE MAINTENANCE

BR. No. 55C0182

W.O. NO. ER 20559
APRIL 2019

FUNDED BY: SENATE BILL 1(SB-1)
MAINTAINED BY: COUNTY OF ORANGE

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A77M1	MIDWEST GUARDRAIL SYSTEM- STANDARD HARDWARE

CONTACT DIGALERT AT 1(800)422-4133 BEFORE BEGINNING WORK.

ALL NATIVE BIRDS ARE PROTECTED FROM DISTURBANCE WHILE NESTING. AS FAR AS POSSIBLE, CONSTRUCTION ACTIVITIES SHOULD TAKE PLACE OUTSIDE OF THE BIRD NESTING SEASON (FEBRUARY 1ST THROUGH SEPTEMBER 15TH). HOWEVER, IF OTHER RESTRICTIONS MAKE IT IMPOSSIBLE TO AVOID THE NESTING SEASON, THE REGULATORY PERMITTING TEAM AT OCPW MUST BE CONTACTED TO ARRANGE FOR PRE-CONSTRUCTION NESTING BIRD SURVEYS OF THE CONSTRUCTION AREAS AT LEAST 7 DAYS BEFORE THE START OF WORK. DISTURBANCE TO ANY ACTIVE NESTS MUST BE AVOIDED. CONSTRUCTION ACTIVITY WITHIN 300 FEET OF AN ACTIVE NEST [500 FEET FOR RAPTORS] SHOULD BE DELAYED UNTIL THE NEST IS NO LONGER ACTIVE, OR OTHERWISE APPROVED BY THE REGULATORY PERMITTING TEAM OR THEIR REPRESENTATIVE.

ANY CRACKS OR CREVICES, VOIDS OR HOLES IN BRIDGES, TREES, BUILDINGS OR OTHER STRUCTURES HAVE THE POTENTIAL TO SUPPORT ROOSTING BATS. THE REGULATORY PERMITTING TEAM MUST BE CONTACTED AT LEAST 7 DAYS BEFORE THE START OF WORK TO CONDUCT A BAT SURVEY.

COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT

SUBMITTED:

REGINA HU, P.E. 4/11/14
 SENIOR CIVIL ENGINEER
 OC INFRASTRUCTURE PROGRAMS
 ENGINEERING DIVISION

DATE _____

RECOMMENDED:

D:  4/11/13
PAUL JEFFREY ERNST, P.E.
MANAGER
OC INFRASTRUCTURE PROGRAMS
ENGINEERING DIVISION

DATE _____

RECOMMENDED

Nardy Khan 4-11-11
NARDY KHAN, P.E.
DEPUTY DIRECTOR
OC INFRASTRUCTURE PROGRAMS

DATE _____

APPROVED:

KHALID BAZMI, P.E.
ASSISTANT PUBLIC WORKS DIRECTOR
COUNTY ENGINEER

DATE _____

RECORD DRAWING

CONTRACTOR:

RESIDENT ENGINEER:

INSPECTOR:

CONSTRUCTION START DATE:

CONSTRUCTION COMPLETION DATE:

PREPARED BY

PREPARED UNDER RESPONSIBLE CHARGE OF:
NCM ENGINEERING CORP.
22362 GILBERTO
RANCHO SANTA MARGARITA, CA 92688


MARK STILLER, P.E. DATE: 4/04/19

INDEX OF SHEETS

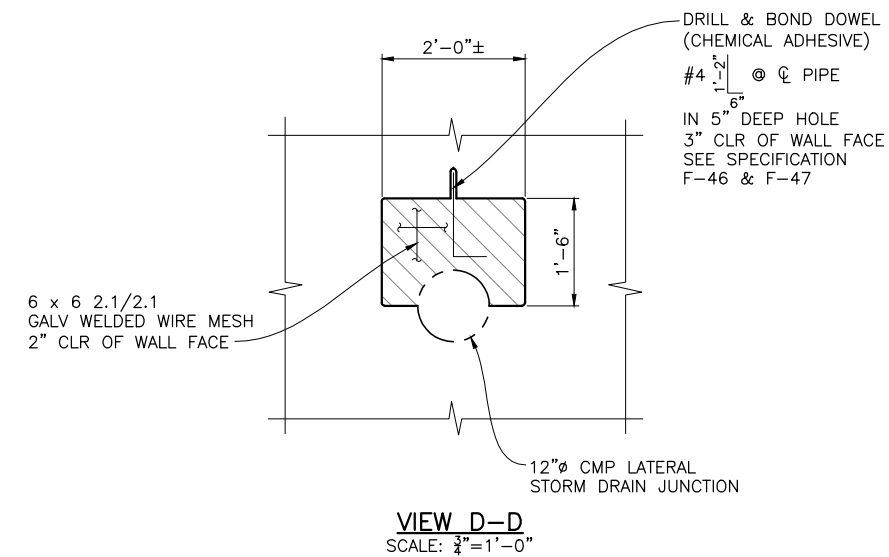
<u>SHEET</u>	<u>REF</u>	<u>DESCRIPTION</u>
1	T1	TITLE SHEET
2	S1	GENERAL PLAN
3	S2	MISCELLANEOUS DETAILS
4	S3	SPALL REPAIR DETAILS
5	S4	POST REPLACEMENT DETAILS

UTILITY OWNER	CONTACT	PHONE NO.
IRVINE RANCH WATER DISTRICT	BRIANNA PALECEK	(949) 453-5811
SCE DISTRIBUTION	JEFF LAMENDOLA	(949) 458-4667

[illegible]

W. O. NO. ER 20559
DWG. NO. T1

(SHEET 1 OF 5



- | | |
|---|---|
|  | LIMITS OF CONCRETE PATCH & WELDED WIRE REINF, SEE SPECIFICATION F-45. |
|  | LIMITS OF EXISTING REINF CONCRETE CULVERT WALL FACE |
| | INDICATES EXISTING |
|  | DIRECTION OF FLOW |

NOTES:

1. INJECT EPOXY IN EXISTING CRACKS WITHIN LIMITS OF EXISTING REINFORCED CONCRETE CULVERT WALL. FINAL LIMITS OF INJECT CRACK (EPOXY) TO BE ESTABLISHED DURING CONSTRUCTION.
2. FOR TYPICAL SECTION, VIEW B-B, AND SECTION C-C, SEE SHEET S2.
3. FOR GUARDRAIL POST "A" AND POST "B", SEE SHEET S4. SEE SPECIFICATION F-50.
4. PROTECT-IN-PLACE EXISTING UTILITIES
5. PROVIDE TRAFFIC CONTROL PER SPECIFICATION F-3.

QUANTITIES

<u>ITEM</u>	<u>QUANTITY</u>
CONCRETE PATCH AND WELDED WIRE REINFORCEMENT	3 SQFT
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	1 LF
BAR REINFORCING STEEL	2 LB
INJECT CRACK (EPOXY)	150 LF
REPAIR SPALLED SURFACE AREA	20 SQFT
CONCRETE (SLOPE PROTECTION)	2 CY
MODIFY GUARDRAIL (REPLACE POST)	2 EA

UTILITIES

- 1 8"Ø WATERLINE (IRVINE RANCH WATER DISTRICT)

[illegible]

COUNTY OF ORANGE OC PUBLIC WORKS	DESIGNED BY: M. STILLER	
	DRAWN BY: R. ANDRASEK	CHECKED BY: M. CHAR
	DRAWING CODE:	
NCM ENGINEERING CORP. 22362 GILBERTO RANCHO SANTA MARGARITA CALIFORNIA, 92668	FILE NAME: 02 SILVERADO.DWG	
	PLOT DATE: SCALE: 4/4/19 AS SHOWN	

SILVERADO CANYON RD
OVER SILVERADO CANYON
CREEK (E01)
PREVENTATIVE MAINTENANCE
Br. No. 55C0182

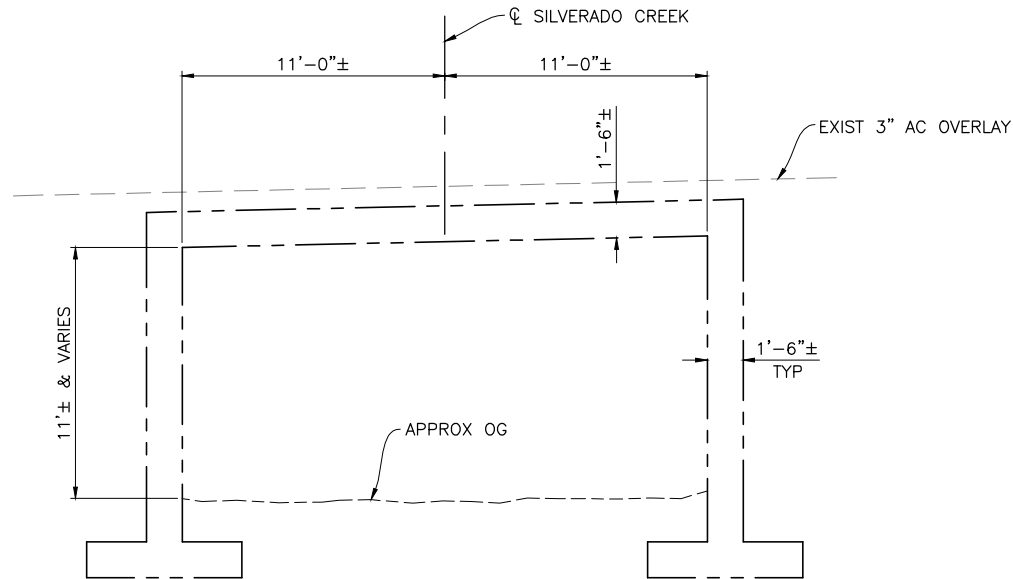
GENERAL PLAN

Sheet
Reference
Number

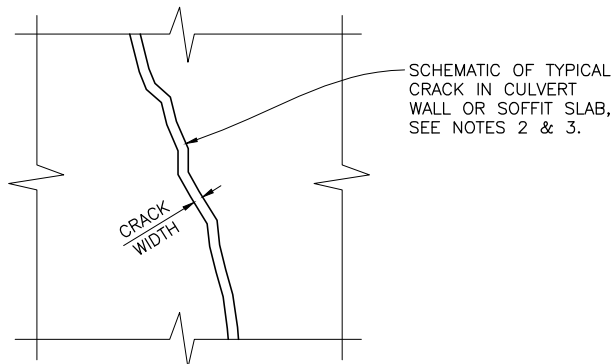
S1

Sheet 2 of 5

THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD
DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



TYPICAL SECTION
SCALE: 1/4"=1'-0"



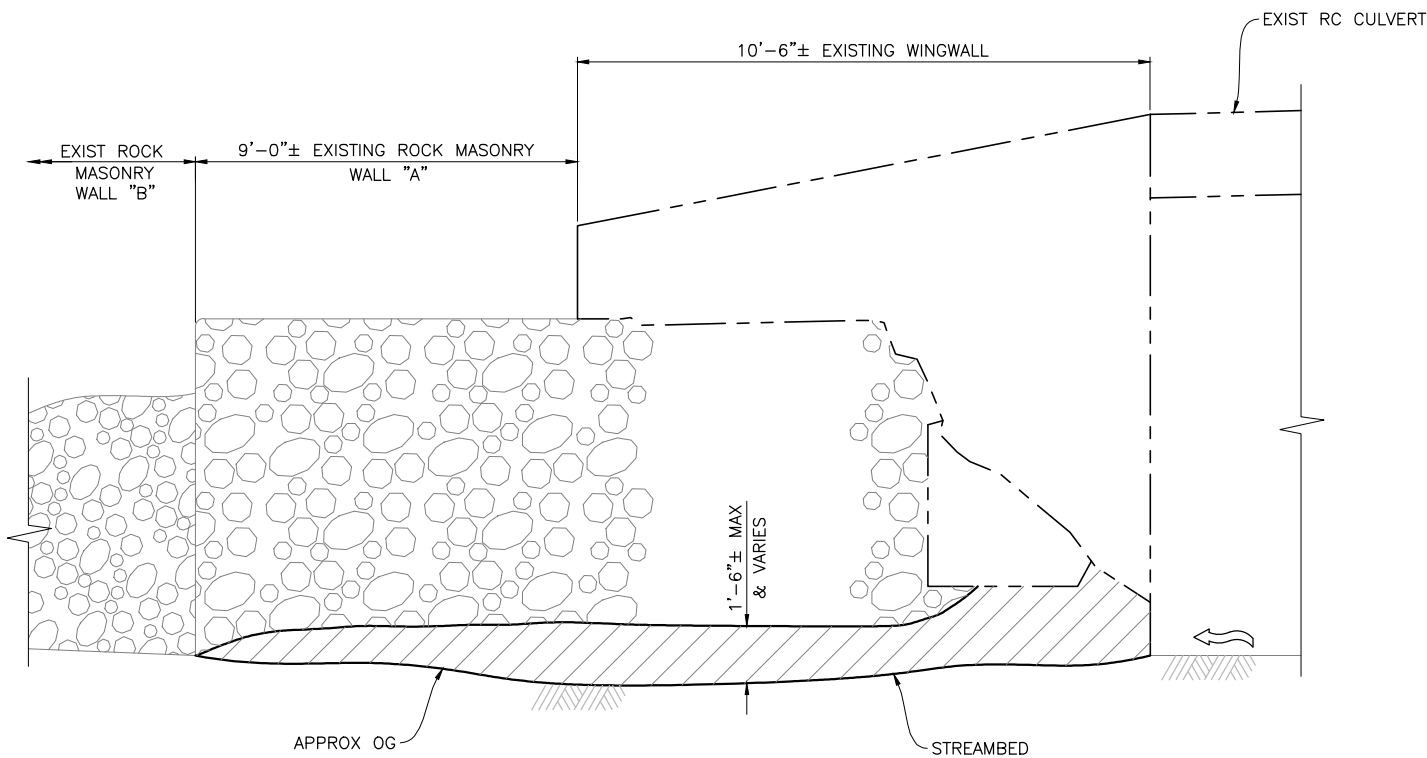
DETAIL 1
NO SCALE

LEGEND

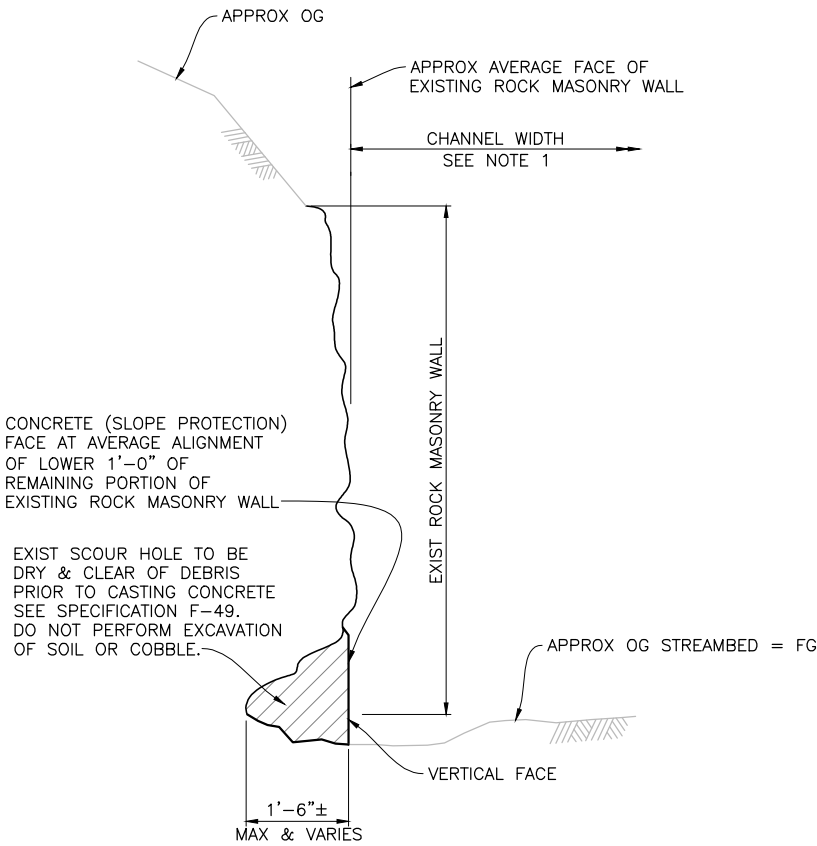
- LIMITS OF CONCRETE (SLOPE PROTECTION)
- INDICATES EXISTING
- DIRECTION OF FLOW

NOTES:

1. CHANNEL WIDTH MUST BE MAINTAINED FREE OF VEHICLES AND HEAVY EQUIPMENT AT ALL TIMES. CHANNEL WIDTH MUST NOT BE REDUCED BY CONSTRUCTION OF FALSEWORK OR FORMWORK THAT REMAINS IN-PLACE OVERNIGHT. ALTERNATELY, FORMWORK LEFT IN-PLACE OVERNIGHT MUST NOT BE AN OBSTRUCTION TO FLOW OR WILDLIFE.
2. INJECT EPOXY INTO CRACKS HAVING A CRACK WIDTH OF 0.050" OR GREATER. IF CRACKS HAVE A CRACK WIDTH 0.050" OR GREATER AND ALSO HAVE PORTIONS LESS THAN 0.050" IN WIDTH, INJECT EPOXY IN ALL PORTIONS OF THE CRACK DOWN TO 0.010" IN WIDTH. SEE SPECIFICATION F-48.
3. FOR CRACKS GREATER THAN 0.250" IN WIDTH, CONSIDER AS A SPALL AND REPAIR PER DETAILS ON "SPALL REPAIR DETAILS" SHEET. SEE SPECIFICATION F-51.



VIEW B-B
NO SCALE"



SECTION C-C
SCALE: 3/4"=1'-0"

THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

MARK STILLER
REGISTERED CIVIL ENGINEER
No. C 79935
STATE OF CALIFORNIA

Mark Stiller

4/04/19
DATE

DESIGNED BY: M. STILLER	CHECKED BY: M. CHAR
DRAWN BY: R. ANDRASEK	DRAWING CODE:
COUNTY OF ORANGE OC PUBLIC WORKS	FILE NAME: 03 SILVERADO.DWG
NCM ENGINEERING CORP. 22362 GILBERTO RANCHO SANTA MARGARITA CALIFORNIA, 92688	PLOT DATE: 4/4/19 SCALE: AS SHOWN

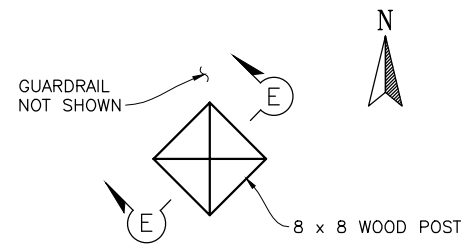
SILVERADO CANYON RD
OVER SILVERADO CANYON
CREEK (E01)
PREVENTATIVE MAINTENANCE
Br. No. 55C0182

**MISCELLANEOUS
DETAILS**

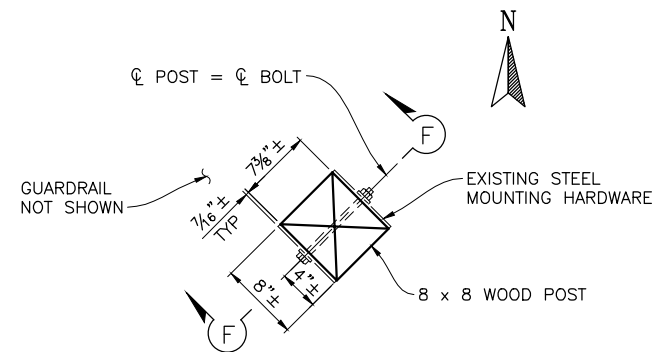
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Reference
Number

S2

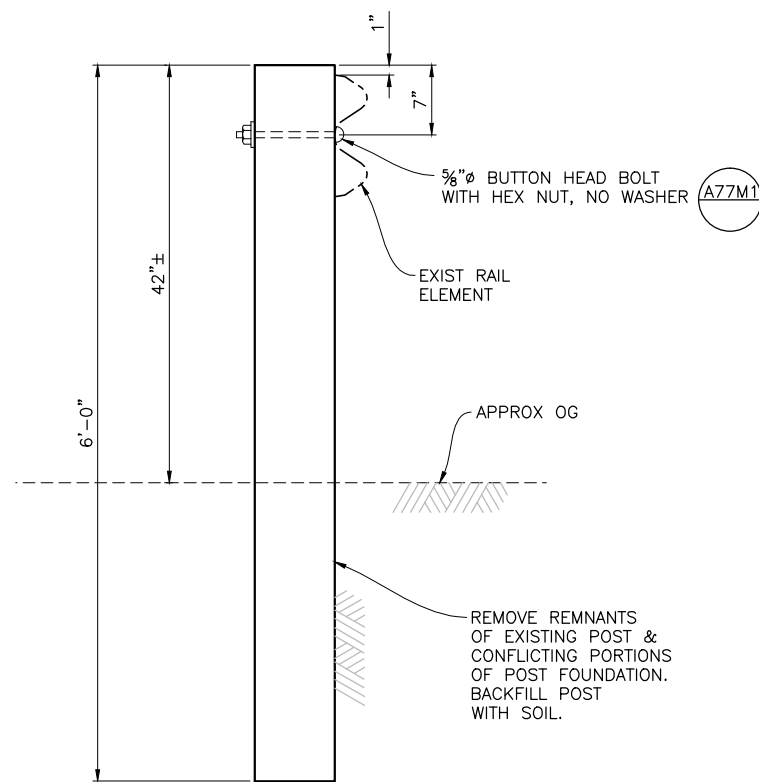
Sheet 3 of 5



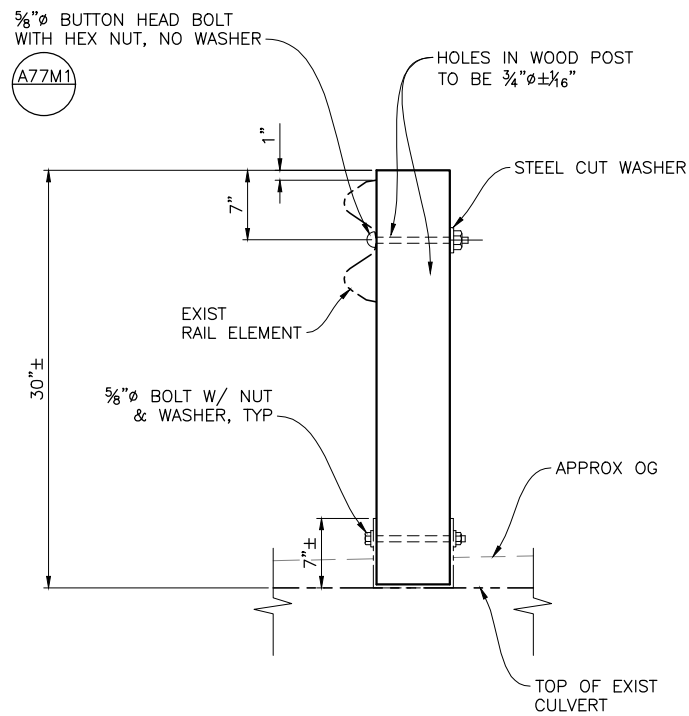
PLAN — POST "A"
NO SCALE



PLAN — POST "B"
NO SCALE



SECTION E-E
NO SCALE



SECTION F-F
NO SCALE

LEGEND

--- INDICATES EXISTING

XX-XX INDICATES 2015 CALTRANS
STANDARD PLAN



MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED CIVIL ENGINEER

MARK STILLER

No. C 75935 Exp. 08/2020

STATE OF CALIFORNIA

4/04/19

DATE

Mark Stiller

DESIGNED BY: M. STILLER	CHECKED BY: M. CHAR
DRAWN BY: R. ANDRASEK	DRAWING CODE:
COUNTY OF ORANGE OC PUBLIC WORKS	FILE NAME: 05 SILVERADO.DWG
NCM ENGINEERING CORP. 22362 GILBERTO RANCHO SANTA MARGARITA CALIFORNIA, 92688	PLOT DATE: 4/4/19 SCALE: AS SHOWN

SILVERADO CANYON RD
OVER SILVERADO CANYON
CREEK (E01)
PREVENTATIVE MAINTENANCE
Br. No. 55C0182

**POST
REPLACEMENT
DETAILS**

Sheet
Reference
Number

S4

Sheet 5 of 5