



**CONSTRUCTION LEGEND**

- ① REMOVE & DISPOSE EXISTING METAL BEAM GUARDRAIL
- ② TRANSITION RAILING PER CALTRANS STD PLANS AS INDICATED ON PLAN
- ③ MIDWEST GUARDRAIL SYSTEM
- ④ TERMINAL SYSTEM END TREATMENT (TYPE AS SHOWN ON PLAN)
- ⑤ MIDWEST GUARDRAIL SYSTEM END ANCHOR ASSEMBLY (TYPE SFT) PER CALTRANS STD PLAN A77S1 AND END CAP TYPE A PER CALTRANS STANDARD PLAN A77M1
- ⑥ DELINEATOR PER CALTRANS STD PLAN A77N4
- ⑦ MIDWEST GUARDRAIL SYSTEM BURIED POST END ANCHOR PER STD PLAN A77T2
- ⑧ METAL BEAM GUARDRAIL
- ⑨ ASPHALT CONCRETE PAVEMENT
- ⑩ HOT MIX ASPHALT DIKE PER CALTRANS STD PLAN A87B (TYPE AS SHOWN ON PLAN)
- ⑪ SHOULDER GRADING
- ⑫ CONNECTIONS TO ABUTMENTS AND WALLS
- ⑬ STRUCTURE CONCRETE (BRIDGE)

**CONSTRUCTION NOTES**

- 1. PRIME CONTRACTOR LICENSE REQUIRED: CLASS A OR C13.
- 2. STANDARD PLANS REFERENCED ARE PER THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC) UNLESS OTHERWISE NOTED.

**GUARDRAIL NOTES**

- 1. TERMINAL SYSTEM MUST BE CONSTRUCTED PER MANUFACTURER'S RECOMMENDATION AND INSTALLED PER 2018 CALTRANS STANDARD PLAN REFERENCED IN PLAN SHEET.
- 2. EACH TERMINAL SYSTEM INSTALLED MUST BE IDENTIFIED BY PAINTING THE TYPE OF THE TERMINAL SYSTEM IN NEAT BLACK LETTERS AND FIGURES 2 INCHES HIGH ON THE BACKSIDE OF THE RAIL ELEMENT BETWEEN SYSTEM POST NUMBERS 4 AND 5.
- 3. ALL GUARDRAIL LENGTH AND LOCATION ARE MEASURED ALONG THE FACE OF THE RAILING, UNLESS OTHERWISE SHOWN ON THE PLANS AND DETAILS OR AS DIRECTED BY THE ENGINEER.
- 4. FOR INSTALLATION OF TERMINAL SYSTEMS, BLACK AND YELLOW RETROREFLECTIVE STRIPED SHEETING SHALL BE ADHERED TO THE APPROACH END (S) OF THE GUARDRAIL. THE STRIPES SHALL BE SLOPED DOWN AT AN ANGLE OF 45 DEGREES TOWARDS THE SIDE OF THE ROADWAY ON WHICH TRAFFIC IS TO PASS THE OBSTRUCTION BEING PROTECTED. THE SHEETING SHALL BE CONSISTENT WITH THE DESIGN PATTERN, COLORS, AND DIRECTION OF A TYPE "P(CA)" OBJECT MARKER PER CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 EDITION, SECTION 2C.65.
- 5. THE PROPOSED TERMINAL SYSTEM SHALL BE INSTALLED IN A STRAIGHT FLARE OVER THE ENTIRE LENGTH AND SHOULD NOT BE INSTALLED ON A PARABOLIC CURVE.
- 6. INSTALL DELINEATORS PER CALTRANS STANDARD PLANS A77N4 AND A73C, CLASS 1, TYPE F AS SHOWN ON PLANS.
- 7. ALL STD GUARDRAIL INSTALLATION SHALL BE STEEL POSTS WITH NOTCHED RECYCLED PLASTIC BLOCKS UNLESS OTHERWISE SHOWN ON PLANS OR CALTRANS STANDARD PLANS.
- 8. WHEN POST IS CONSTRUCTED WITHIN THE AC PAVEMENT, CONSTRUCT A BLOCKOUT AREA PER STD PLAN A77N5.

**STANDARD PLANS**

CALTRANS STANDARD PLANS, 2018 EDITION	
A73C	DELINEATORS, CHANNELIZERS AND BARRICADES
A77L2	MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION (STEEL POST WITH NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCK)
A77L3	METAL BEAM GUARD RAILING RECONSTRUCT INSTALLATION
A77M1	MIDWEST GUARDRAIL SYSTEM STANDARD HARDWARE
RSP A77N3 10-19-18	MIDWEST GUARDRAIL SYSTEM TYPICAL LINE POST EMBEDMENT AND HINGE POINT OFFSET DETAILS
A77N4	MIDWEST GUARDRAIL SYSTEM TYPICAL RAILING DELINEATION AND DIKE POSITION DETAILS
A77N5	MINOR CONCRETE VEGETATION CONTROL GUARDRAIL SYSTEM
A77N5A	MINOR CONCRETE VEGETATION CONTROL GUARDRAIL SYSTEM NARROW VEGETATION CONTROL INSTALLATION
A77N6	MINOR CONCRETE VEGETATION CONTROL GUARDRAIL SYSTEM FOR TERMINAL SYSTEM END TREATMENTS
A77R3	MIDWEST GUARDRAIL SYSTEM TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS
A77R4	MIDWEST GUARDRAIL SYSTEM TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS
A77S1	MIDWEST GUARDRAIL SYSTEM END ANCHOR ASSEMBLY (TYPE SFT)
A77T2	MIDWEST GUARDRAIL SYSTEM BURIED POST END ANCHOR
A77U3	MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO ABUTMENTS AND WALLS
A77U4	MIDWEST GUARDRAIL SYSTEM TRANSITION RAILING (TYPE WB-31)
A77U5	MIDWEST GUARDRAIL SYSTEM TRANSITION TO METAL BEAM GUARDRAIL
A87B	HOT MIX ASPHALT DIKES
SPPWC, 2012 EDITION	
133-2	ASPHALT CONCRETE PAVEMENT REPLACEMENT

**TOPOGRAPHY LEGEND**

	EXISTING TOPOGRAPHY	PROPOSED IMPROVEMENTS
CURB	---	=====
CURB AND GUTTER	--- ---	=====
GUTTER	== ==	=====
PAVEMENT CONCRETE	====	=====
AC	////	=====
BUILDING	┌───┐	┌───┐
FENCE	×-×-×-×	○-○-○-○
GUY POLE	⊙	⊙
FIRE HYDRANT	⊕	⊕
GUY WIRE	⊖	⊖
MANHOLE	⊗	⊗
POLE	○	○
R/W LINE	---	---
PULL BOX	▣	▣
SIGNAL CONTROL BOX	▣	▣
SIGNAL FLASHING TRAFFIC	⊙	⊙
STREET LIGHT	⊕	⊕
PALM TREE	✱	✱
OAK TREE	⊕	⊕
OTHER TREE	⊕	⊕
VALVE	⊕	⊕
VAULT	⊕	⊕
BRICK (BLOCK) WALL	--- ---	--- ---
CONCRETE WALL	====	====
STONE WALL	--- ---	--- ---
TOP OF SLOPE	┌───┐	┌───┐
TOE OF SLOPE	└───┘	└───┘
DIRECTION OF TRAFFIC	→	→

**CONSTRUCTION SYMBOLS**

- Ⓝ INDICATES WORK PER CONSTRUCTION LEGEND
- Ⓛr. CURVE DATA SHOWN IN TABLE ON PLAN
- <sup>2" P4</sup> ABOVE LINE: INDICATES THE TYPE OF STANDARD OR THICKNESS OF SURFACE MATERIAL IN INCHES, STANDARD PLAN VARIABLES; CURB RAMP CASE, TYPE, SECTION AND DETAIL; OR TREE PLANTING CASE
- <sup>5" CMB</sup> BELOW LINE: REFERENCE TO DETAIL OR THICKNESS OR BASE MATERIAL IN INCHES OR TREE WELL CASE

**ABBREVIATIONS**

ABBREVIATION	WORD OR WORDS
AC	ASPHALT CONCRETE
BC	BEGINNING OF CURVE
BCR	BEGINNING OF CURB RETURN
CL	CENTER LINE
CMB	CRUSHED MISCELLANEOUS BASE
CMP	CORRUGATED METAL PIPE
CONST	CONSTRUCT, CONSTRUCTION
DIA	DIAMETER
EC	END OF CURVE
ECR	END OF CURB RETURN
EL	ELEVATION
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
ETW	EDGE OF TRAVELED WAY
EXST	EXISTING
FL	FLOW LINE
L	LENGTH
LACPW	LOS ANGELES COUNTY PUBLIC WORKS
MAX	MAXIMUM
MIN	MINIMUM
PP	POWER POLE
PROP	PROPOSED
SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
STD	STANDARD
R/W	RIGHT OF WAY
TYP	TYPICAL

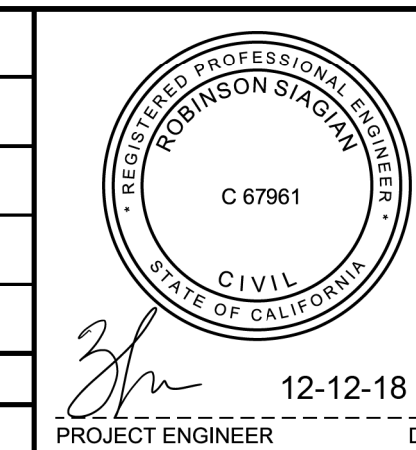
**AC PAVEMENT CLASS AND GRADE LEGEND**

P2 C2-PG 64-10

P4 D2-PG 64-10

DATE: \_\_\_\_\_ REVIEWED: \_\_\_\_\_  
 CADD PROJECT FILE NAME: SHEET 2 - CONSTRUCTION NOTES.DGN  
 CHECKER: J. MELGAR  
 DESIGNER: B. PALAFOX  
 DRAFTER: M. GAMINO

DATE	MARK	DESCRIPTION
01/16/19	BP	REVISED CONSTRUCTION LEGEND 5 & ADDED STD PLAN A77M1



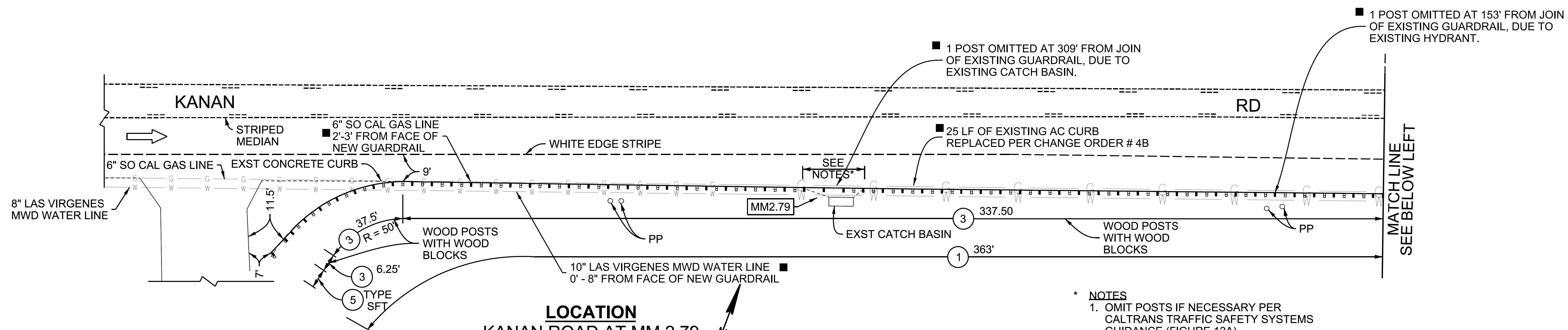
LOS ANGELES COUNTY PUBLIC WORKS

**KANAN ROAD  
GUARDRAIL REPLACEMENT  
ON-SYSTEM (2018WOOLSEYFIRE)**

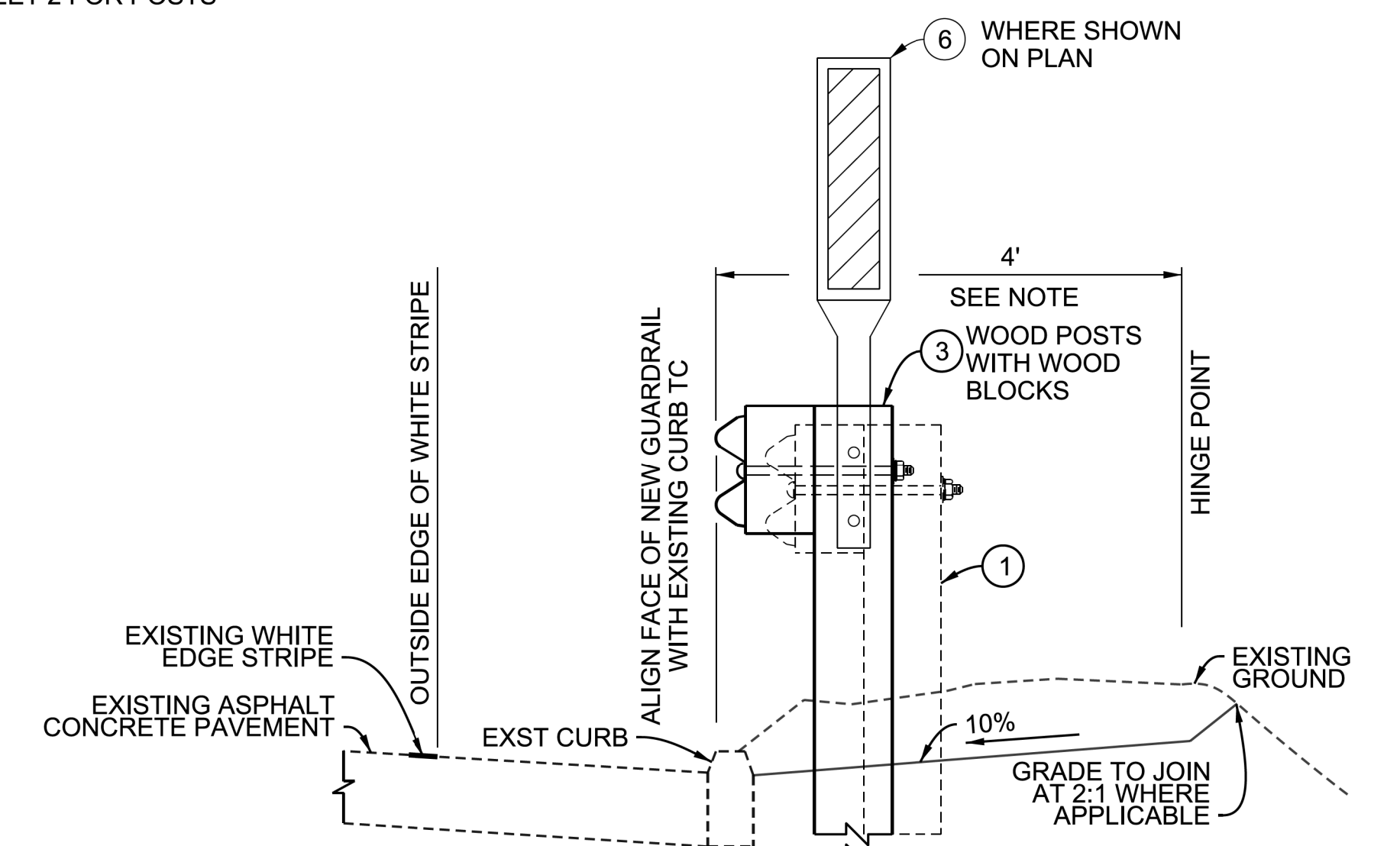
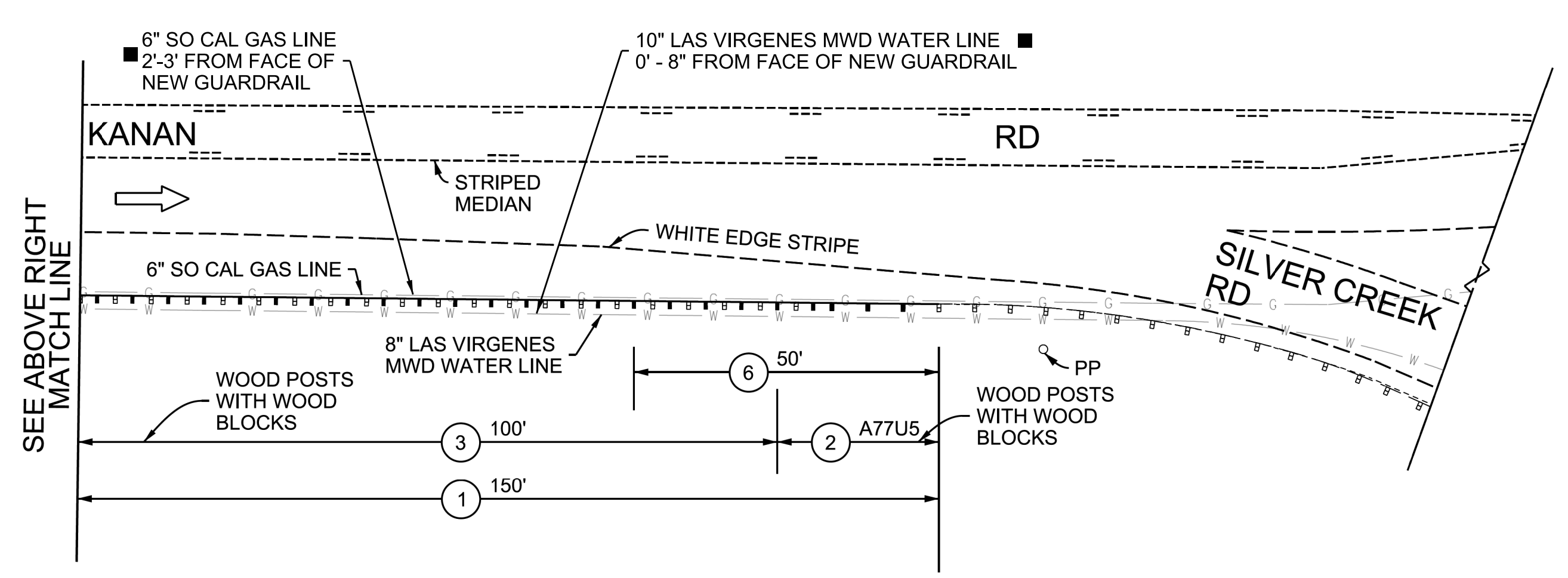
PROJECT ID NO. RDC0016369  
NOTES AND REFERENCES

DWG \_\_\_\_\_ PD \_\_\_\_\_ SHEET 2 OF 13

**AS BUILT DRAWINGS**



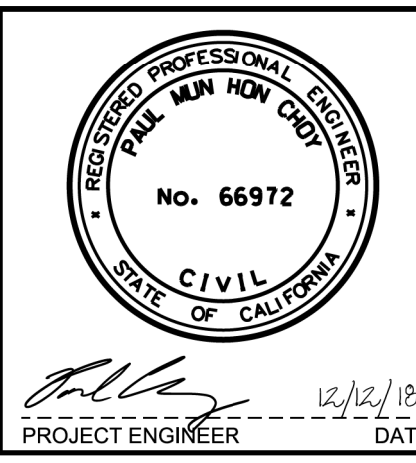
- NOTES**
1. OMIT POSTS IF NECESSARY PER CALTRANS TRAFFIC SAFETY SYSTEMS GUIDANCE (FIGURE 12A)
  2. SEE NOTE 8 ON SHEET 2 FOR POSTS IN AC PAVEMENT



- NOTES:**
1. CONCRETE FOOTING FOR EXISTING GUARDRAIL POSTS AT THIS LOCATION NOT REMOVED.
  2. (TRAFFIC SAFETY SYSTEMS GUIDANCE FIGURE 16, MULTIPLE BLOCK-OUT DETAILS FOR MIDWEST GUARDRAIL SYSTEM - PG 45, 03-2019) DETAIL USED DUE TO EXISTING UTILITY
- NOTE:**  
WHERE DISTANCE BETWEEN FACE OF GUARDRAIL AND HINGE POINT IS LESS THAN 4', USE LONG POST PER CALTRANS STD PLAN A77N3

DATE	REVIEWED
CADD PROJECT FILE NAME	KANAN RD @ MM 2.79.DGN
CHECKER	J. MELGAR
DESIGNER	P. CHOY
DRAFTER	P. CHOY

01/09/19	BP	ADDED UTILITY LINES
05/12/20	■	REVISED AS BUILT
05/12/20		
DATE	MARK	DESCRIPTION
REVISIONS		



LOS ANGELES COUNTY PUBLIC WORKS

**KANAN ROAD GUARDRAIL REPLACEMENT ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID NO. RDC0016369  
PLAN, TYPICAL SECTIONS & DETAILS

DWG PD SHEET 3 OF 13

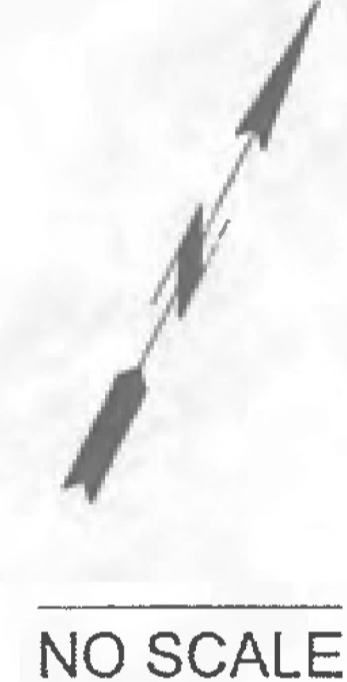
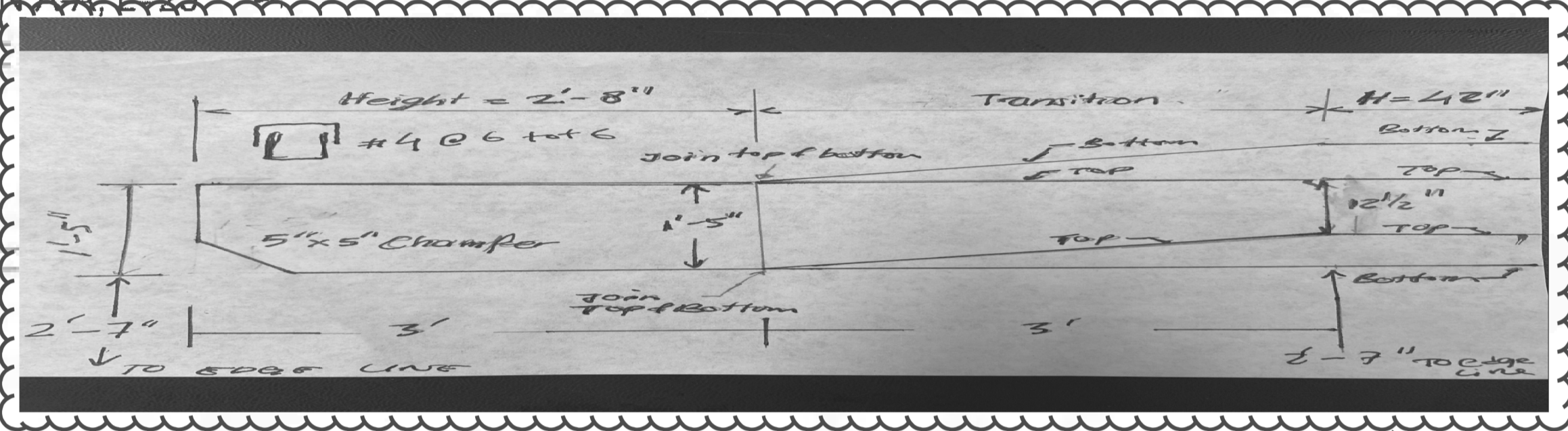
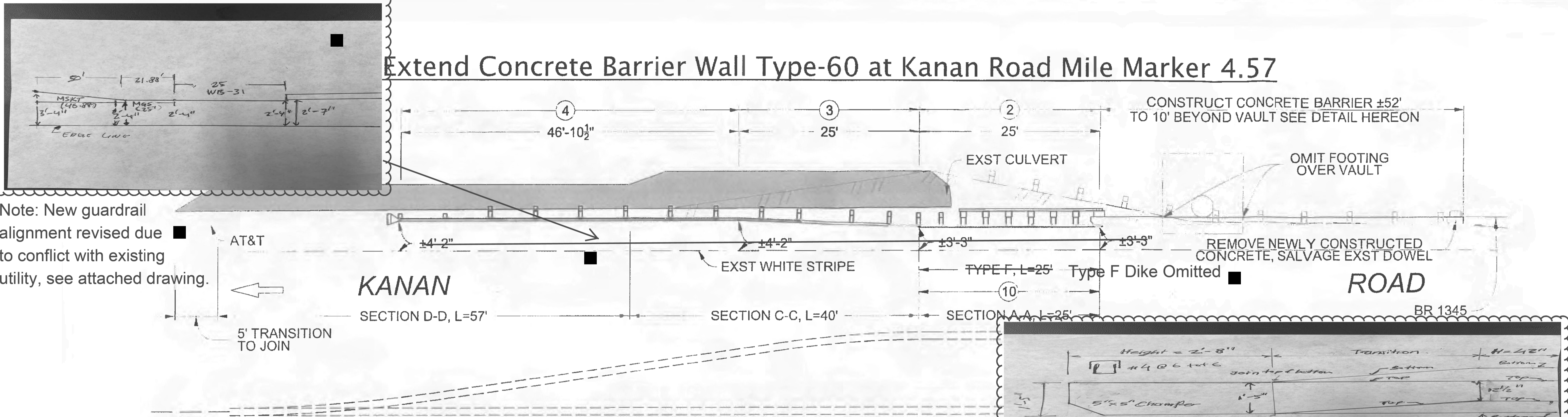
**AS BUILT DRAWINGS**





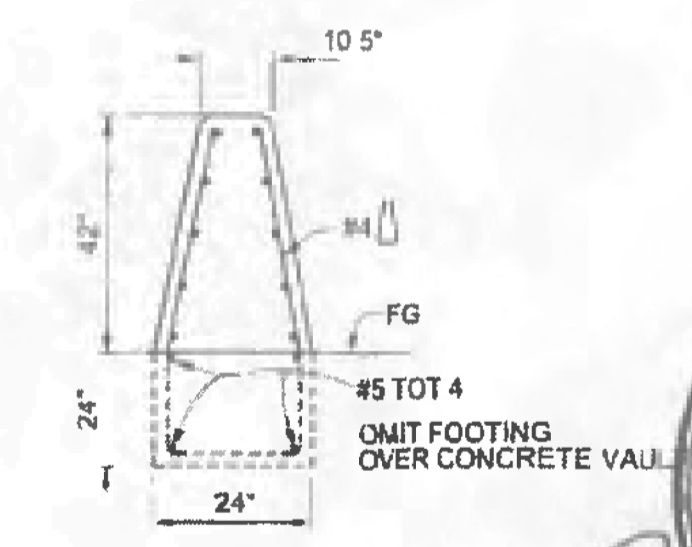
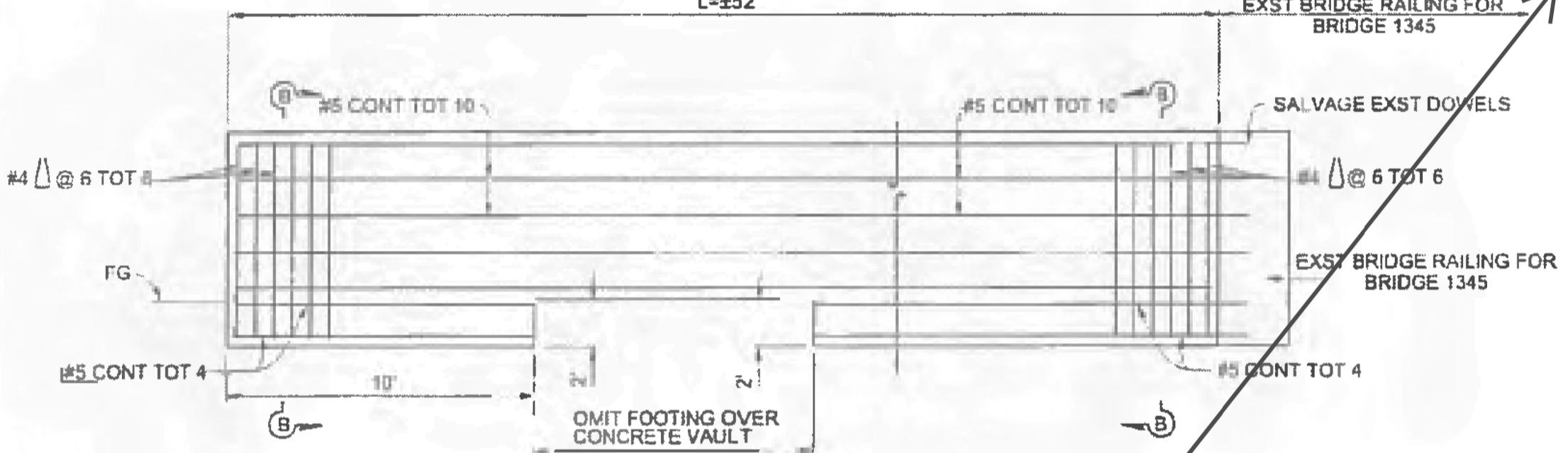
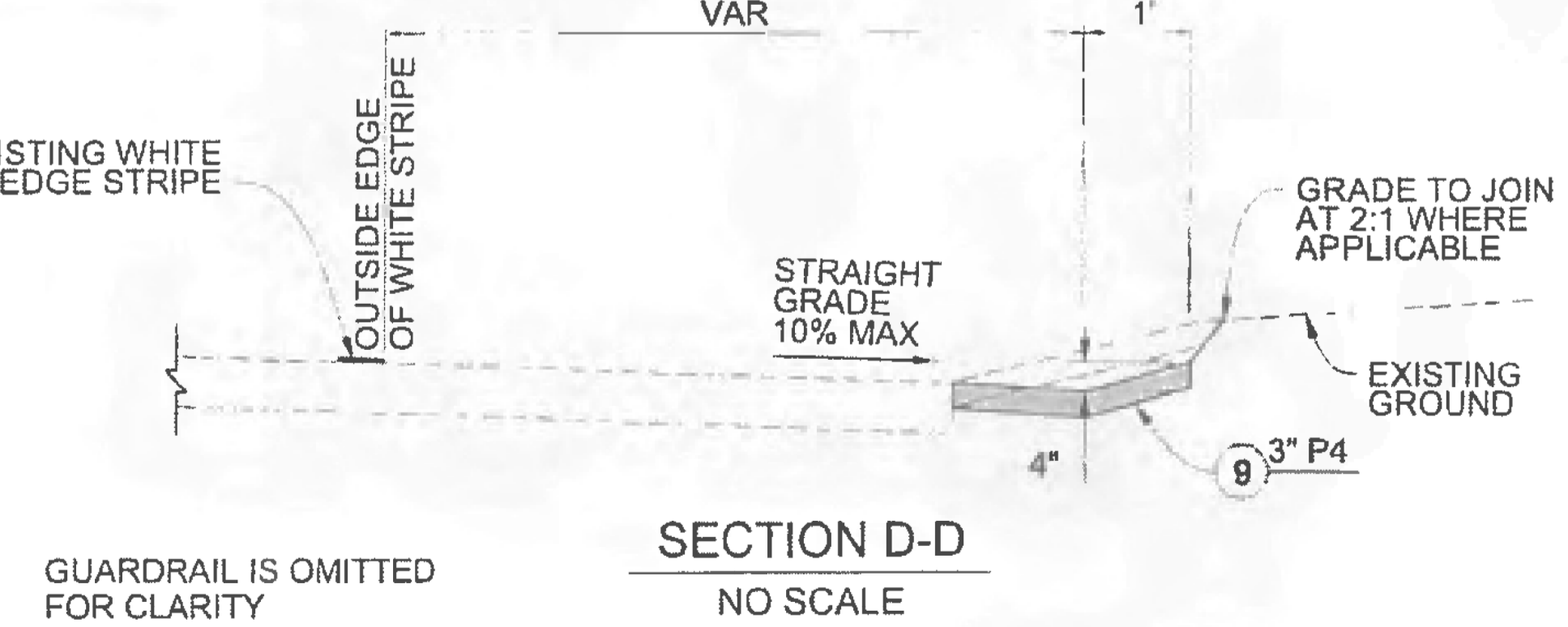
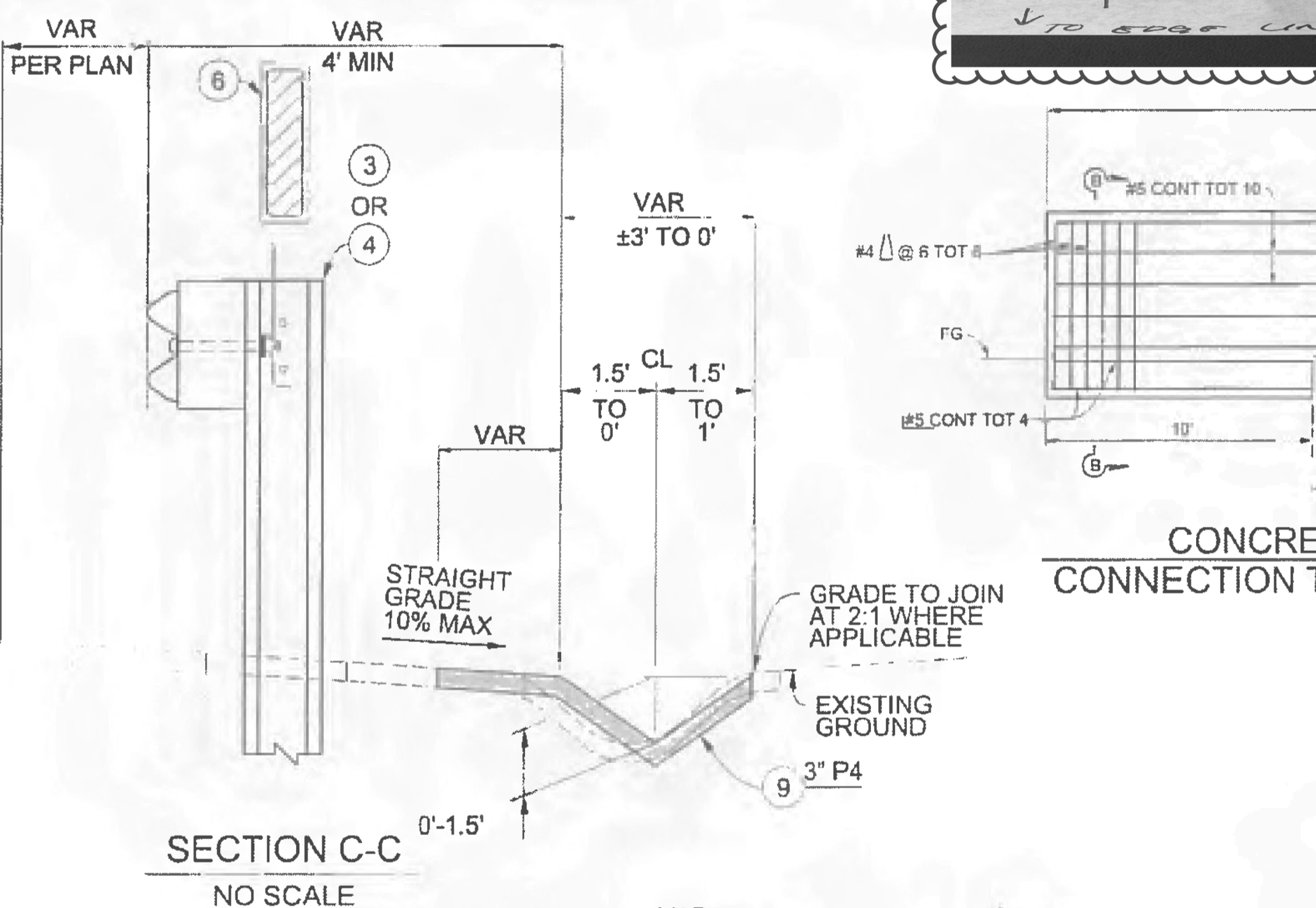
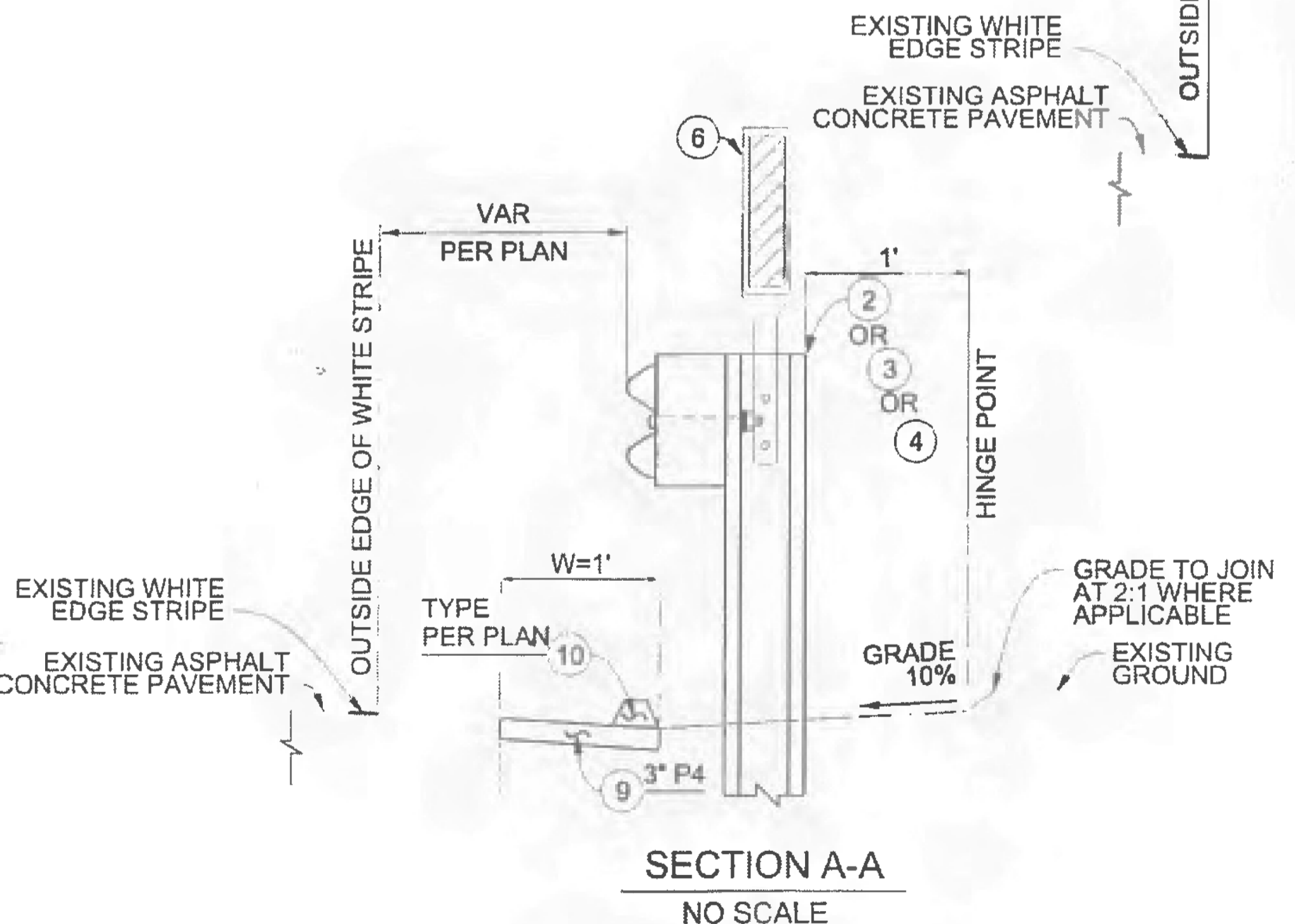
# Extend Concrete Barrier Wall Type-60 at Kanan Road Mile Marker 4.57

Note: New guardrail alignment revised due to conflict with existing utility, see attached drawing.

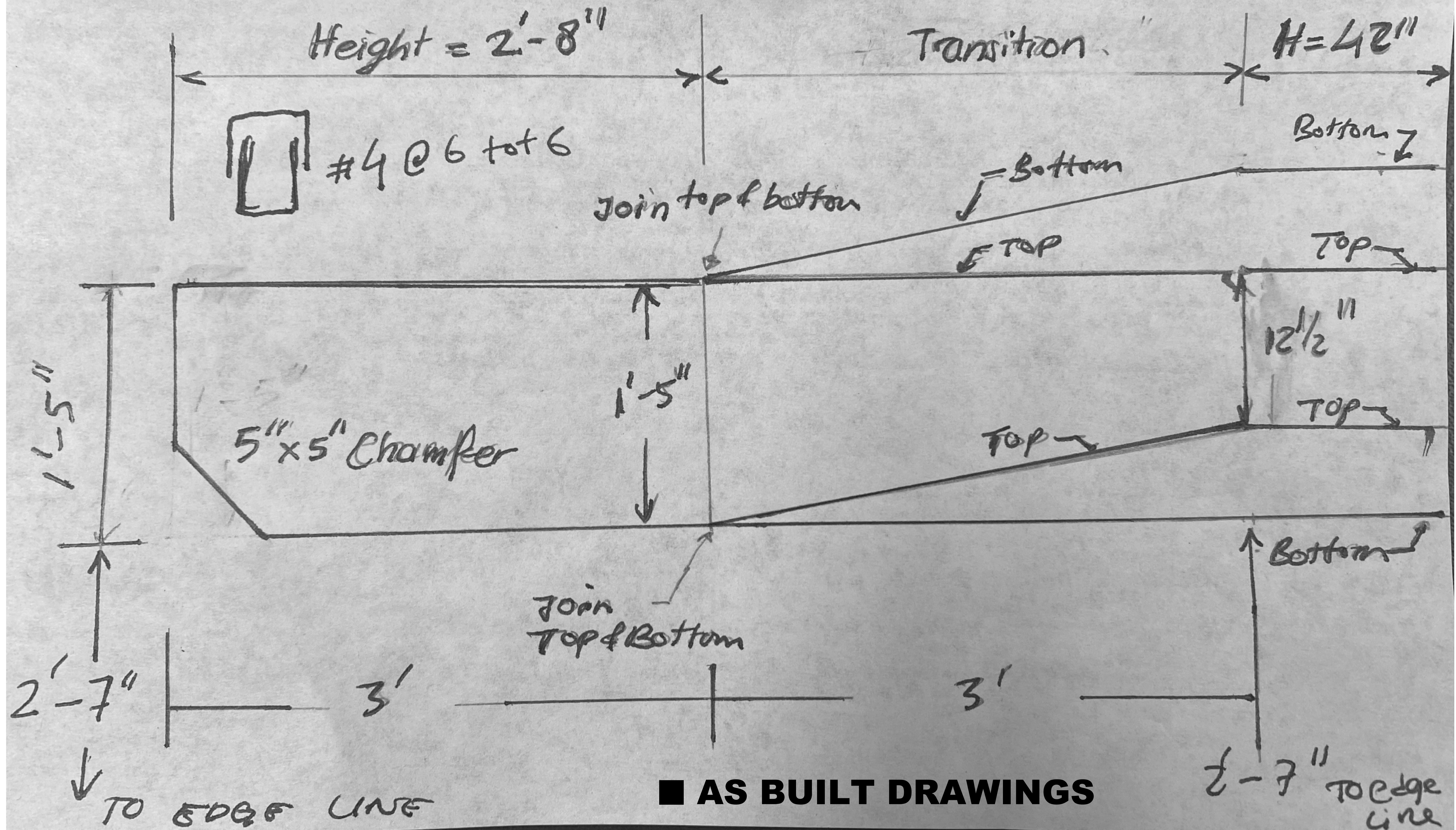


## LOCATION KANAN ROAD AT MM 4.57

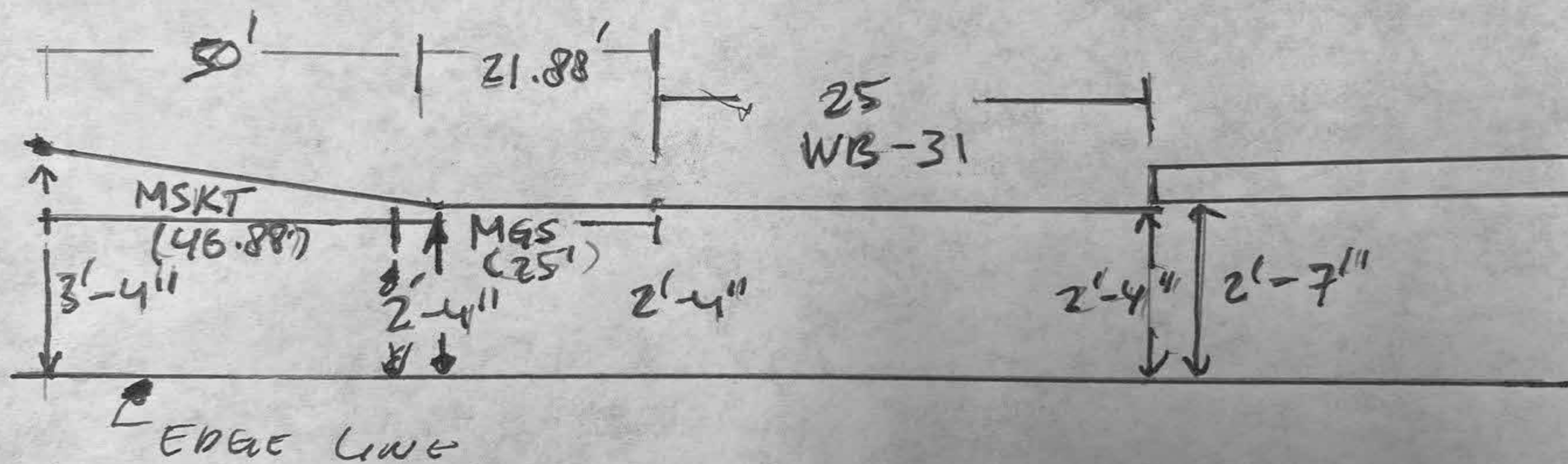
INDICATES DIRECTION OF TRAFFIC



Note: Type 60 barrier revised, see attached drawing.

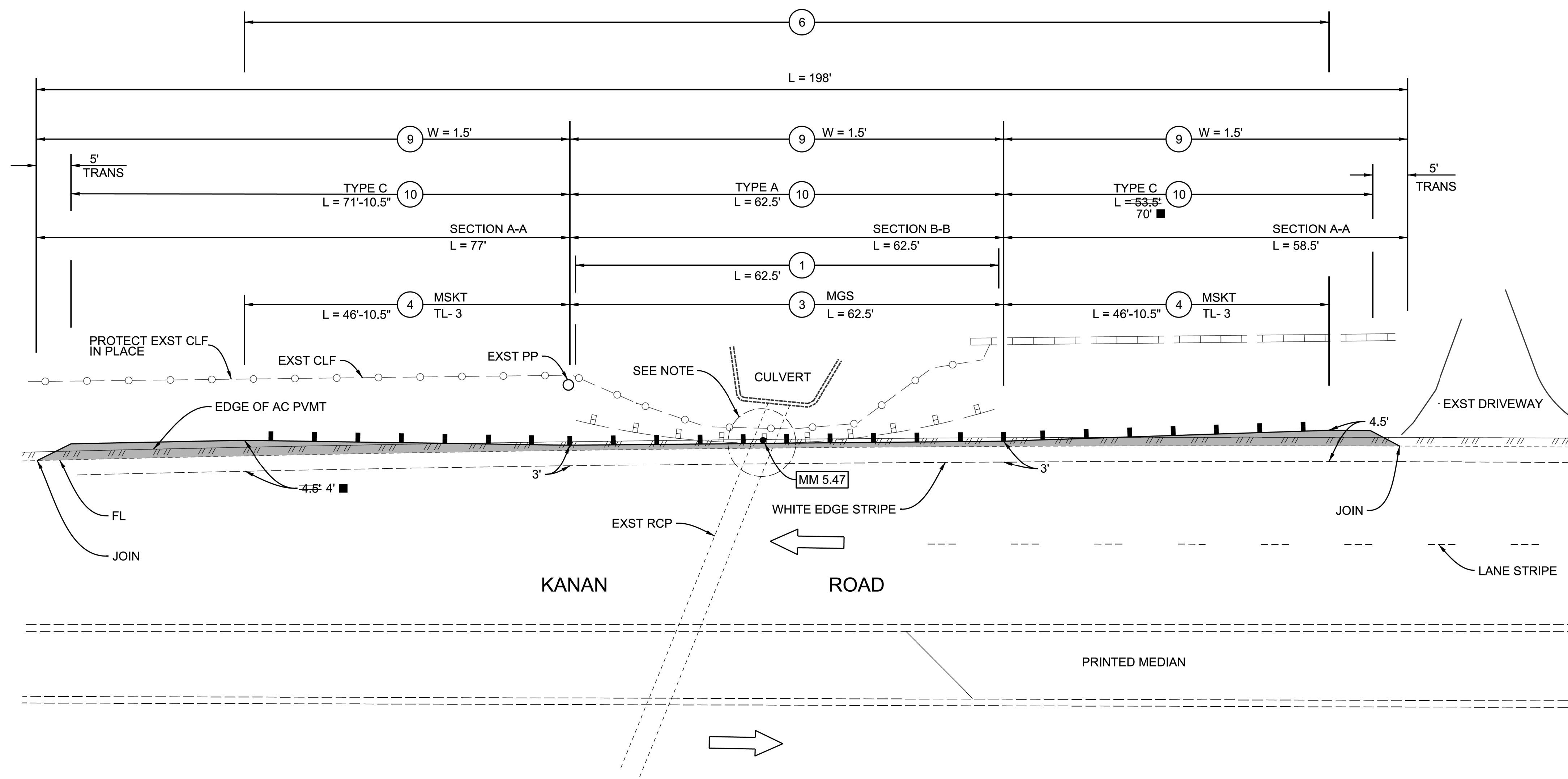


■ AS BUILT DRAWINGS



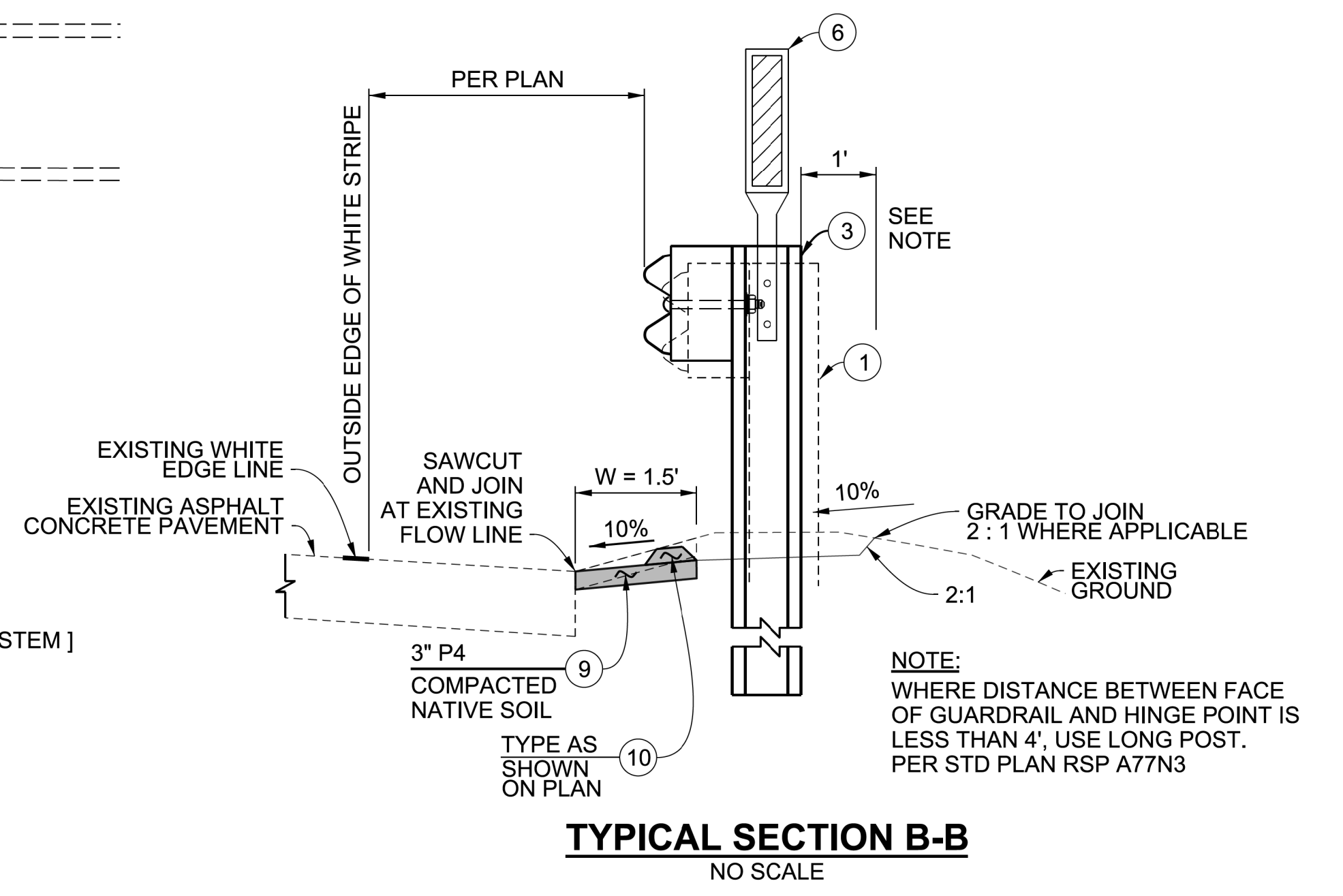
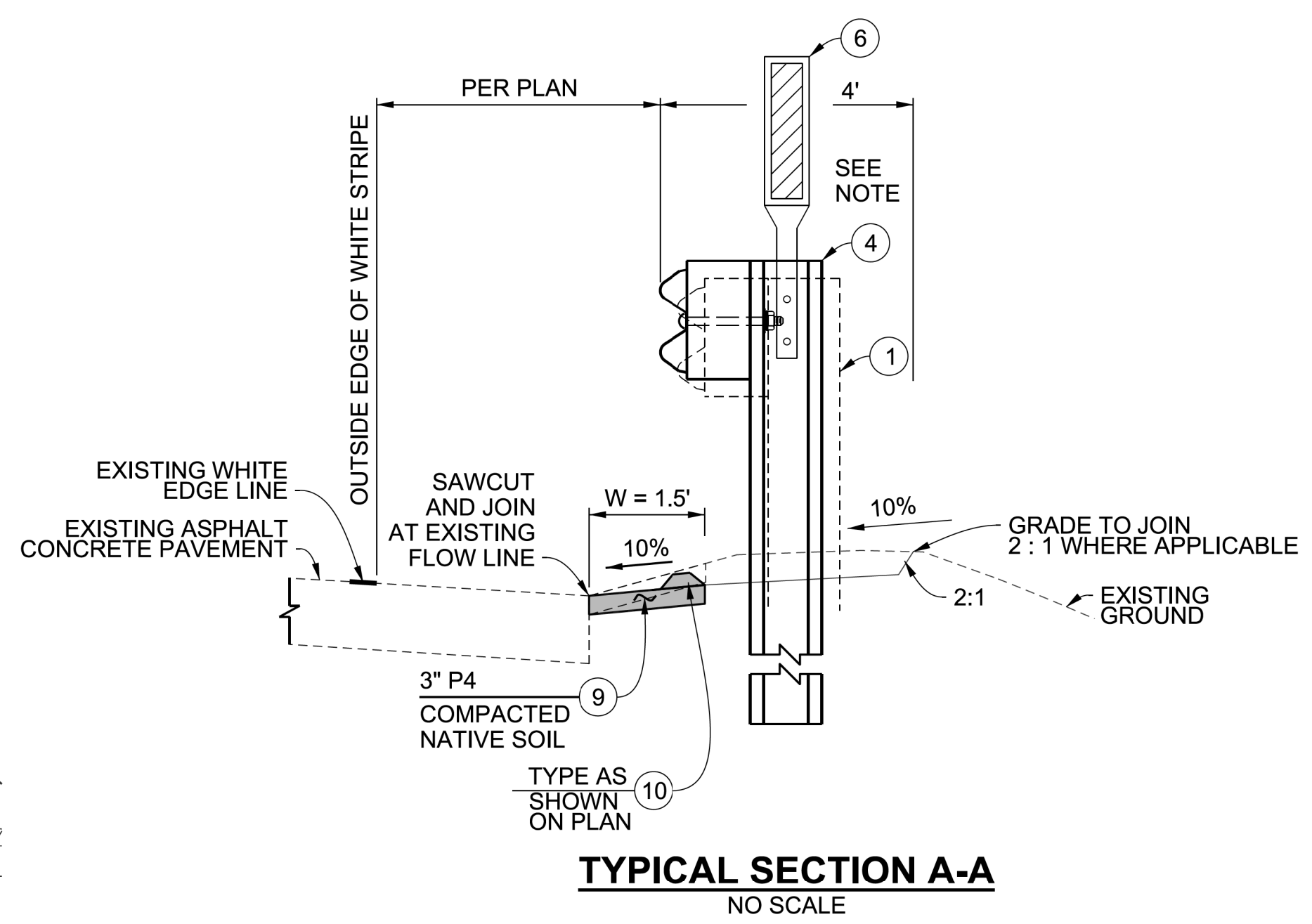
■ AS BUILT DRAWINGS



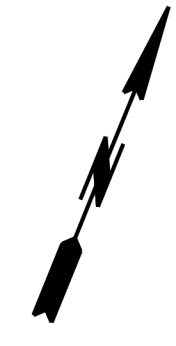


**LOCATION**  
KANAN ROAD AT MM 5.47

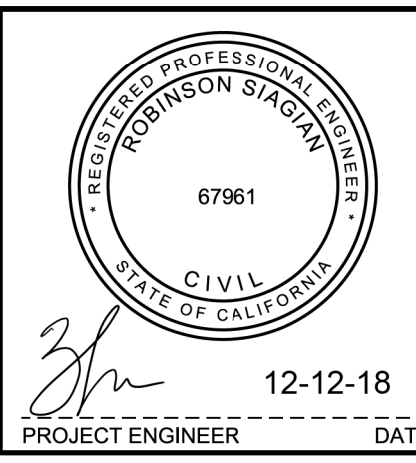
- NOTE:**
1. OMIT POSTS IF NECESSARY PER CALTRANS TRAFFIC SAFETY SYSTEMS GUIDANCE [ FIG. 12a : LONG SPAN MIDWEST GUARDRAIL SYSTEM ]
  2. SEE NOTE 8 ON SHEET 2 FOR POSTS ON AC PAVEMENT
  3. WITHIN TYPE A CURB, TRANSITION TYPE A TO TYPE C IN 2' WHERE APPLICABLE



DATE	
REVIEWED	
CADD PROJECT FILE NAME	KANAN RD @ MM 5.47.DGN
CHECKER	J. MELGAR
DESIGNER	G. CASTILLO
DRAFTER	G. CASTILLO



05/12/20	■	REVISED AS BUILT
DATE	MARK	DESCRIPTION
REVISIONS		



LOS ANGELES COUNTY PUBLIC WORKS

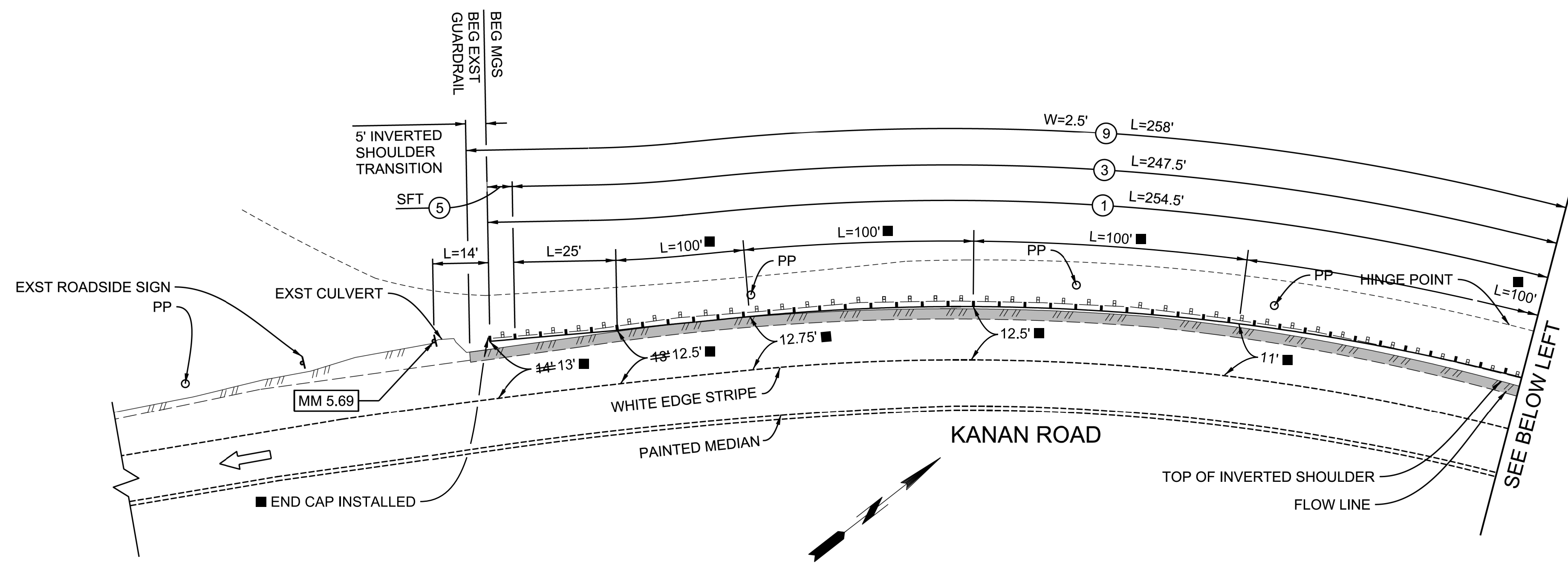
**KANAN ROAD GUARDRAIL REPLACEMENT ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID NO. RDC0016369  
PLAN, TYPICAL SECTIONS & DETAILS

PROJECT ENGINEER: *[Signature]* DATE: 12-12-18

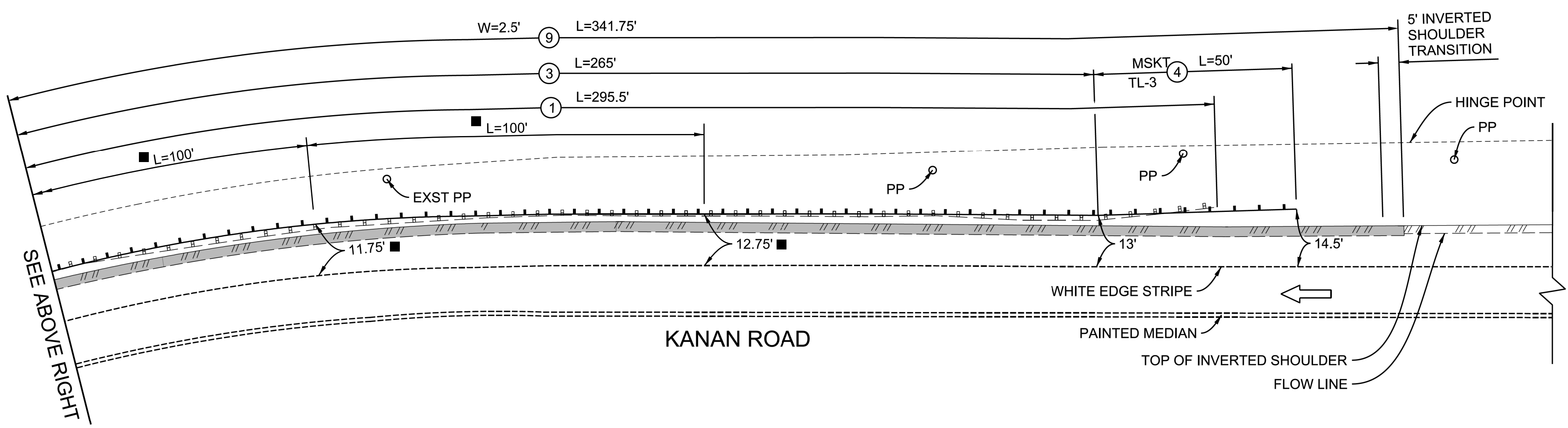
DWG PD SHEET 6 OF 13

**AS BUILT DRAWINGS**

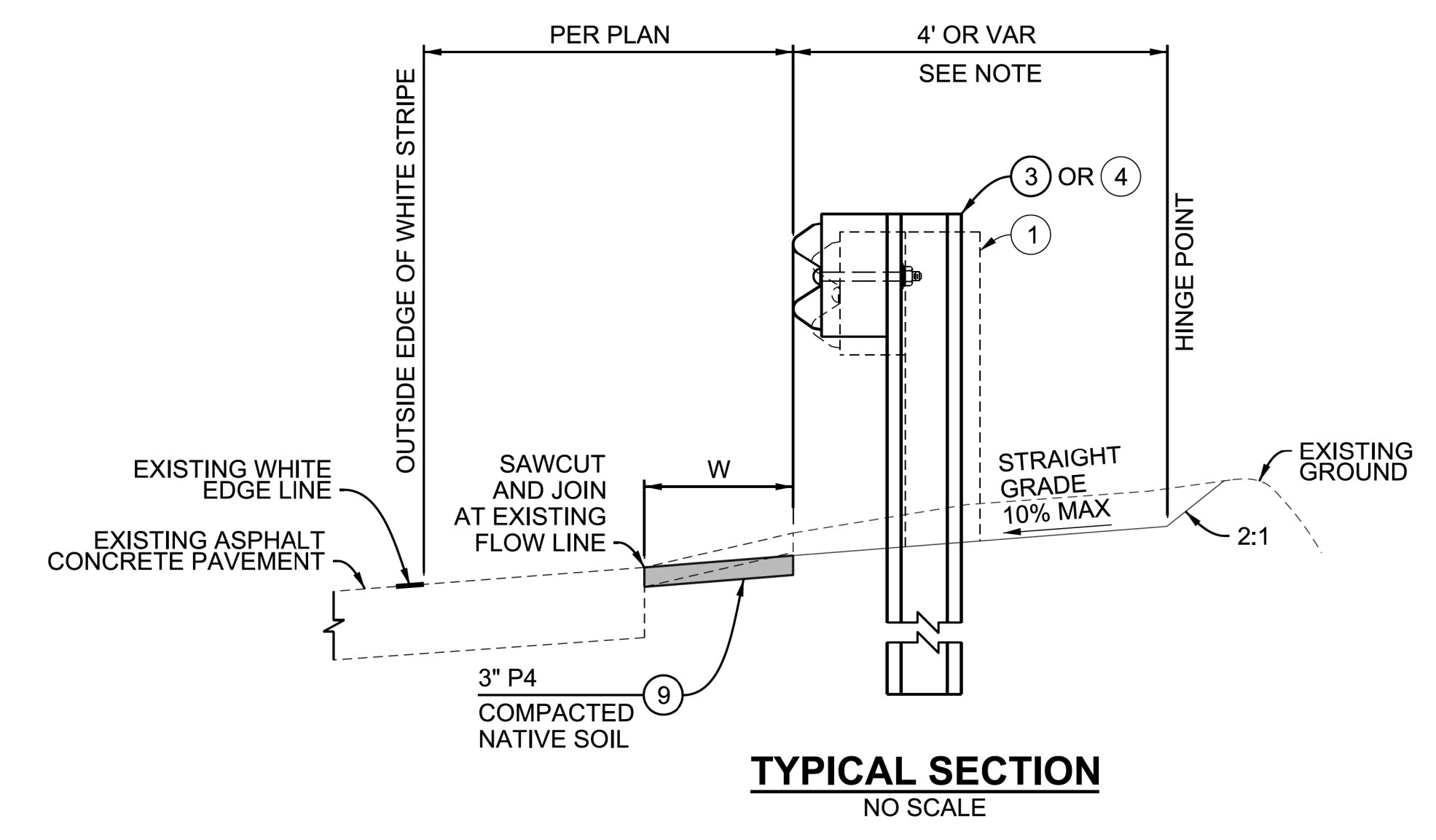


**LOCATION**  
KANAN RD AT MM 5.69  
NOT TO SCALE

SEE BELOW LEFT



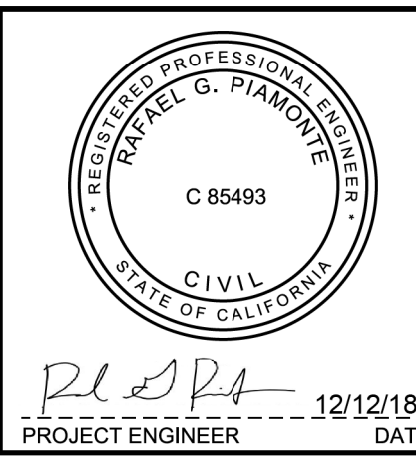
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**TYPICAL SECTION**  
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DATE	
REVIEWED	
CADD PROJECT FILE NAME	KANAN RD @ MM 5.69.DGN
CHECKER	R. PIAMONTE
DESIGNER	B. LIANG
DRAFTER	B. LIANG

DATE	MARK	DESCRIPTION
05/12/20	■	REVISED AS BUILT



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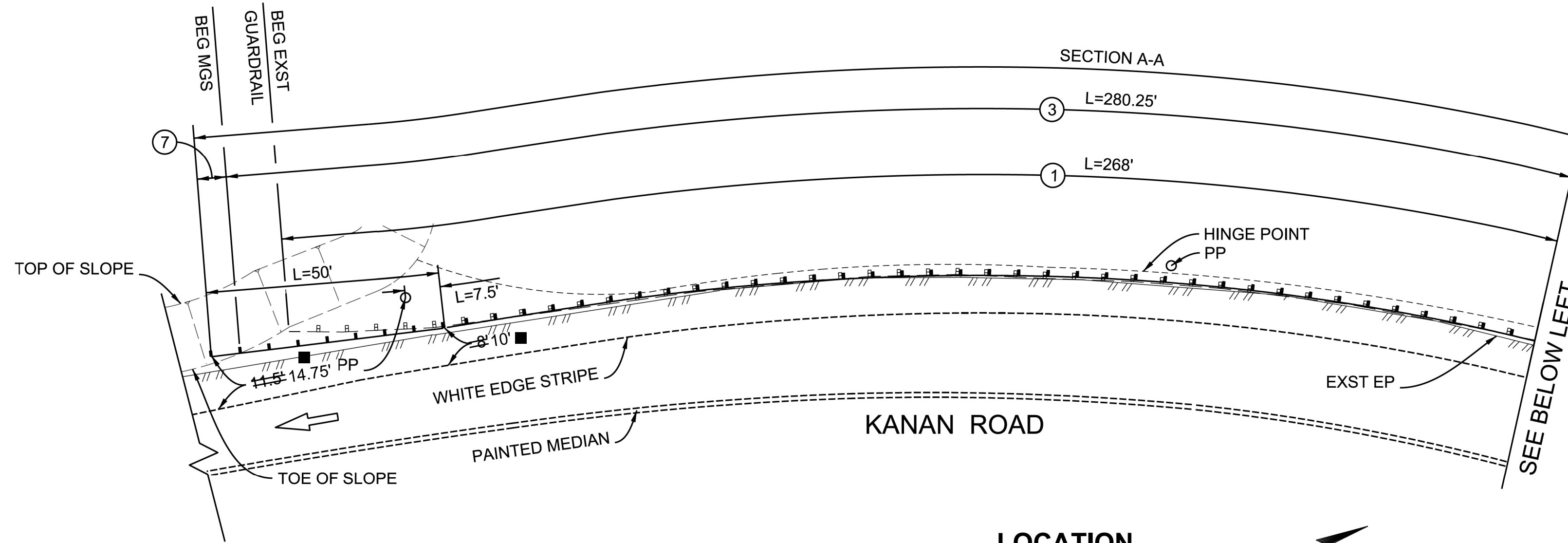
**KANAN ROAD  
GUARDRAIL REPLACEMENT  
ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID No. RDC0016369  
PLAN, TYPICAL SECTIONS & DETAILS

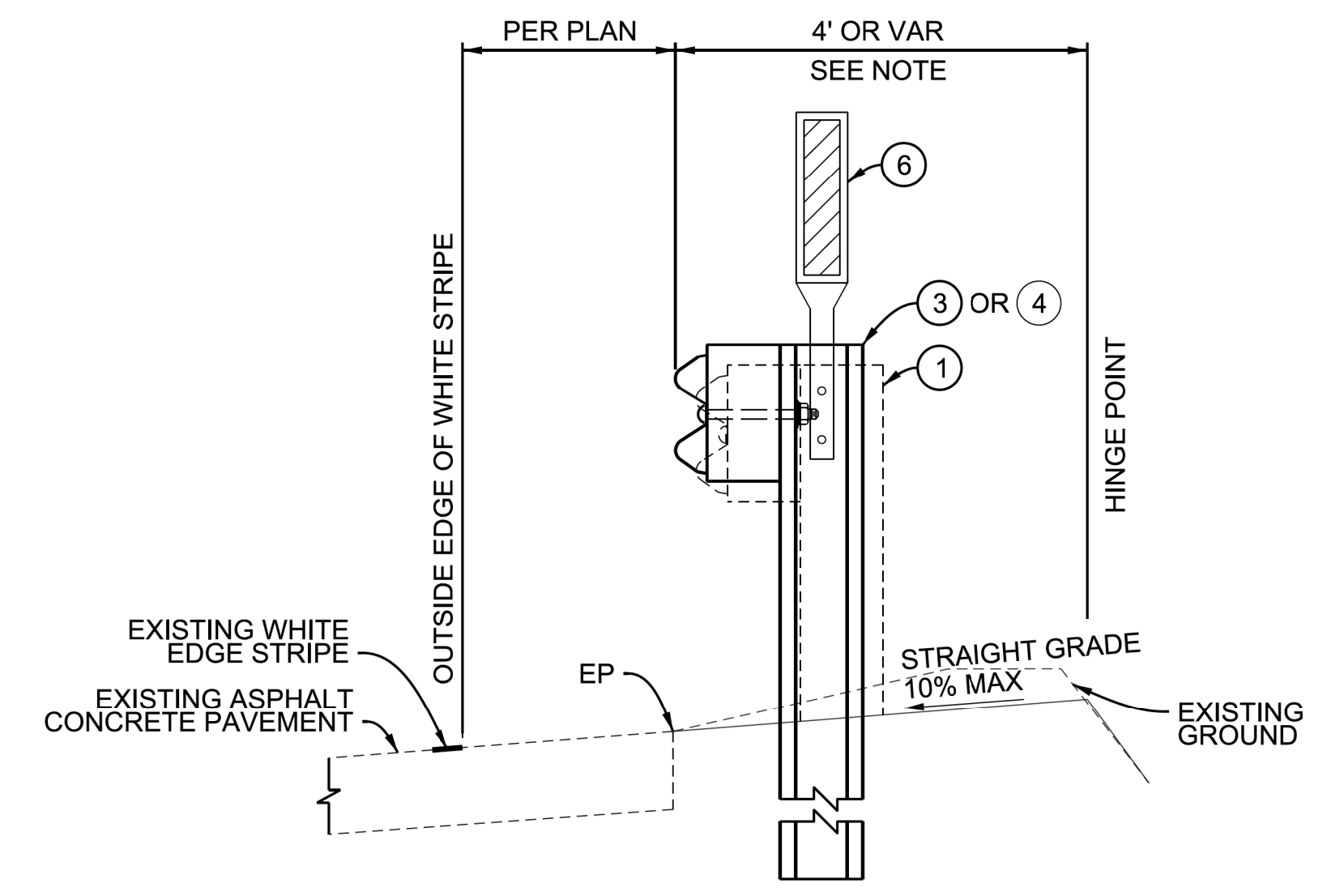
DATE: 12/12/18  
PROJECT ENGINEER: [Signature]

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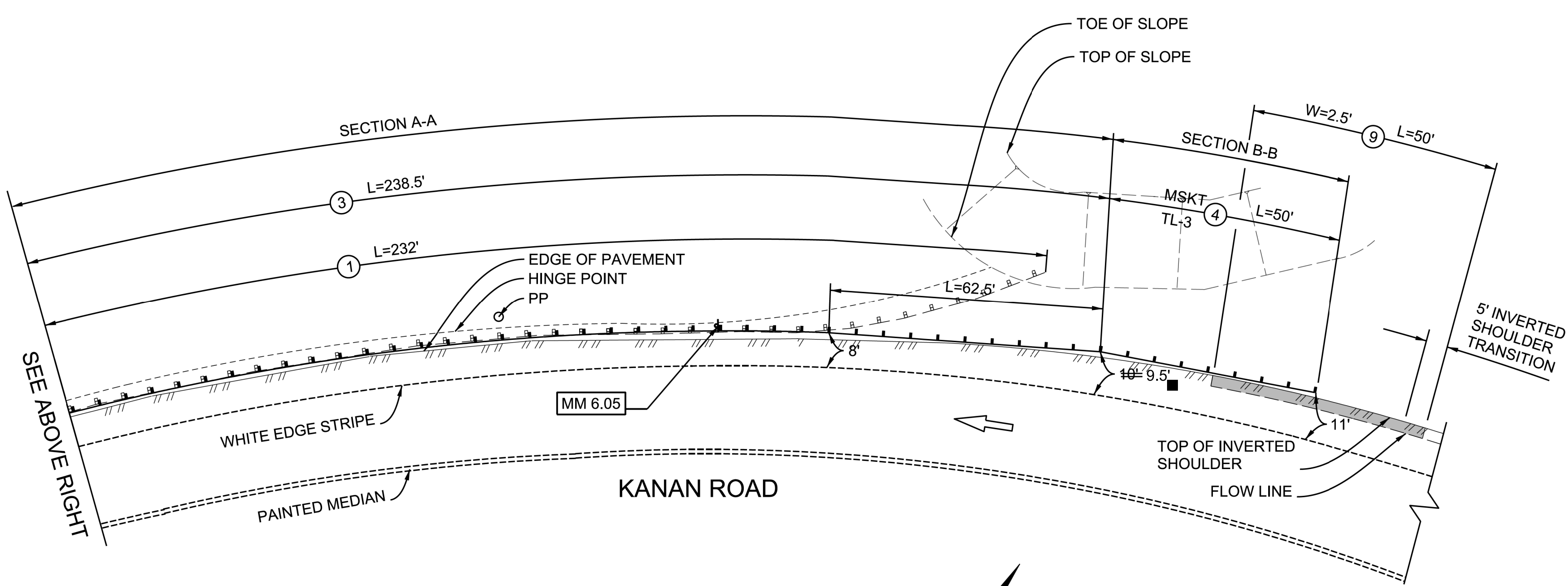
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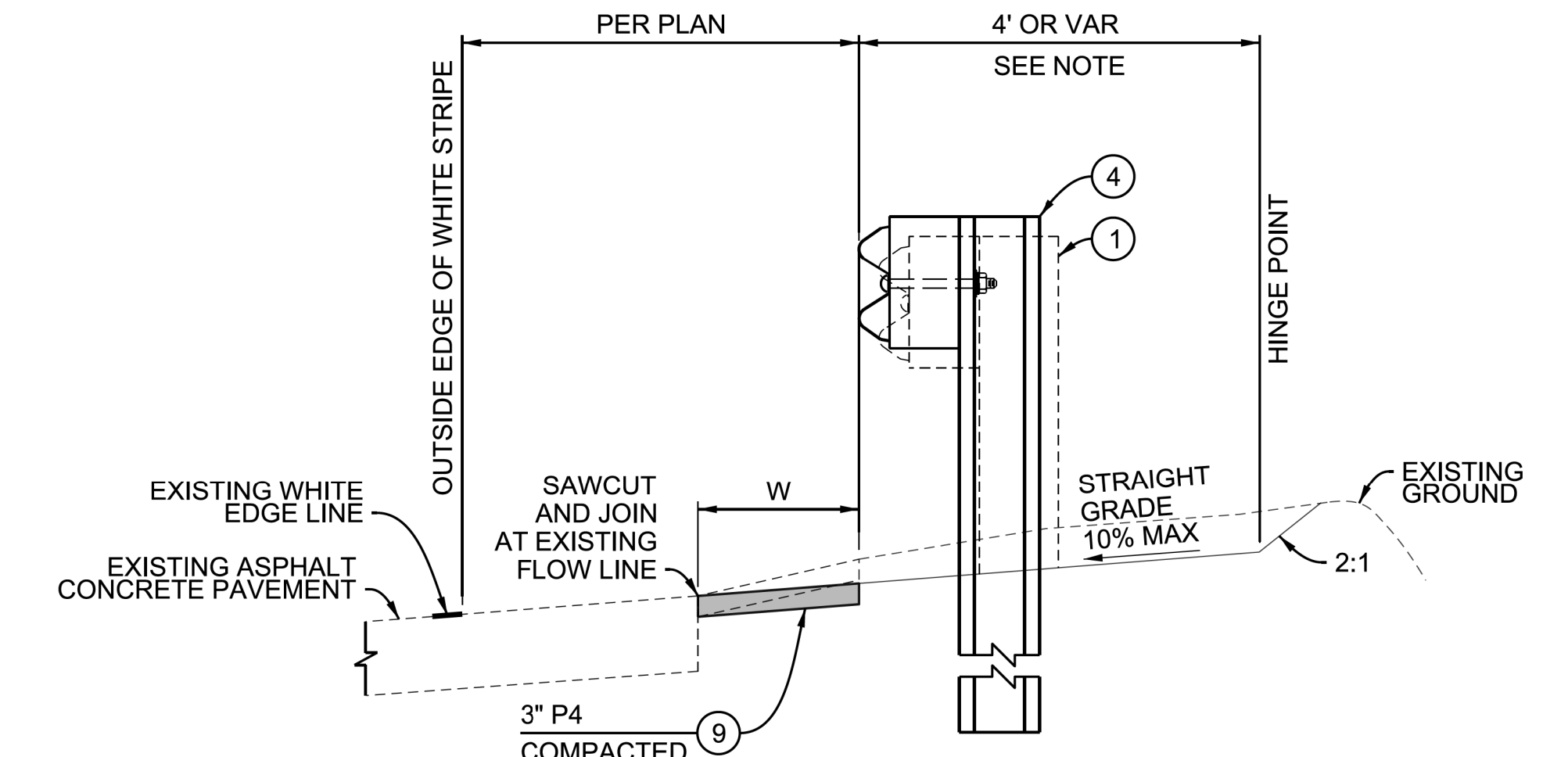
**LOCATION**  
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NOT TO SCALE



**SECTION A-A**  
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**LOCATION**  
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NOT TO SCALE

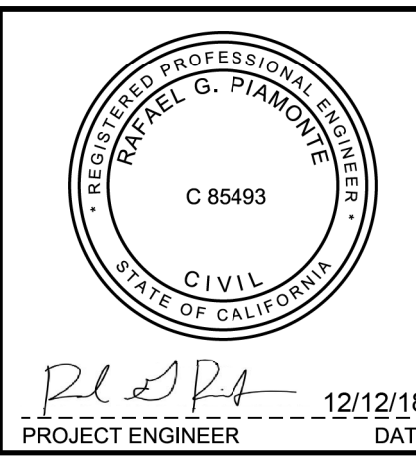


**SECTION B-B**  
NO SCALE

**NOTE:**  
WHERE DISTANCE BETWEEN FACE OF GUARDRAIL AND HINGE POINT IS LESS THAN 4', USE LONG POST PER STD PLAN A77N3.

DATE	
REVIEWED	
CADD PROJECT FILE NAME	KANAN RD @ MM 6.05.DGN
CHECKER	R. PIAMONTE
DESIGNER	B. LIANG
DRAWER	B. LIANG

DATE	MARK	DESCRIPTION
05/12/20	■	REVISED AS BUILT
REVISIONS		



LOS ANGELES COUNTY PUBLIC WORKS

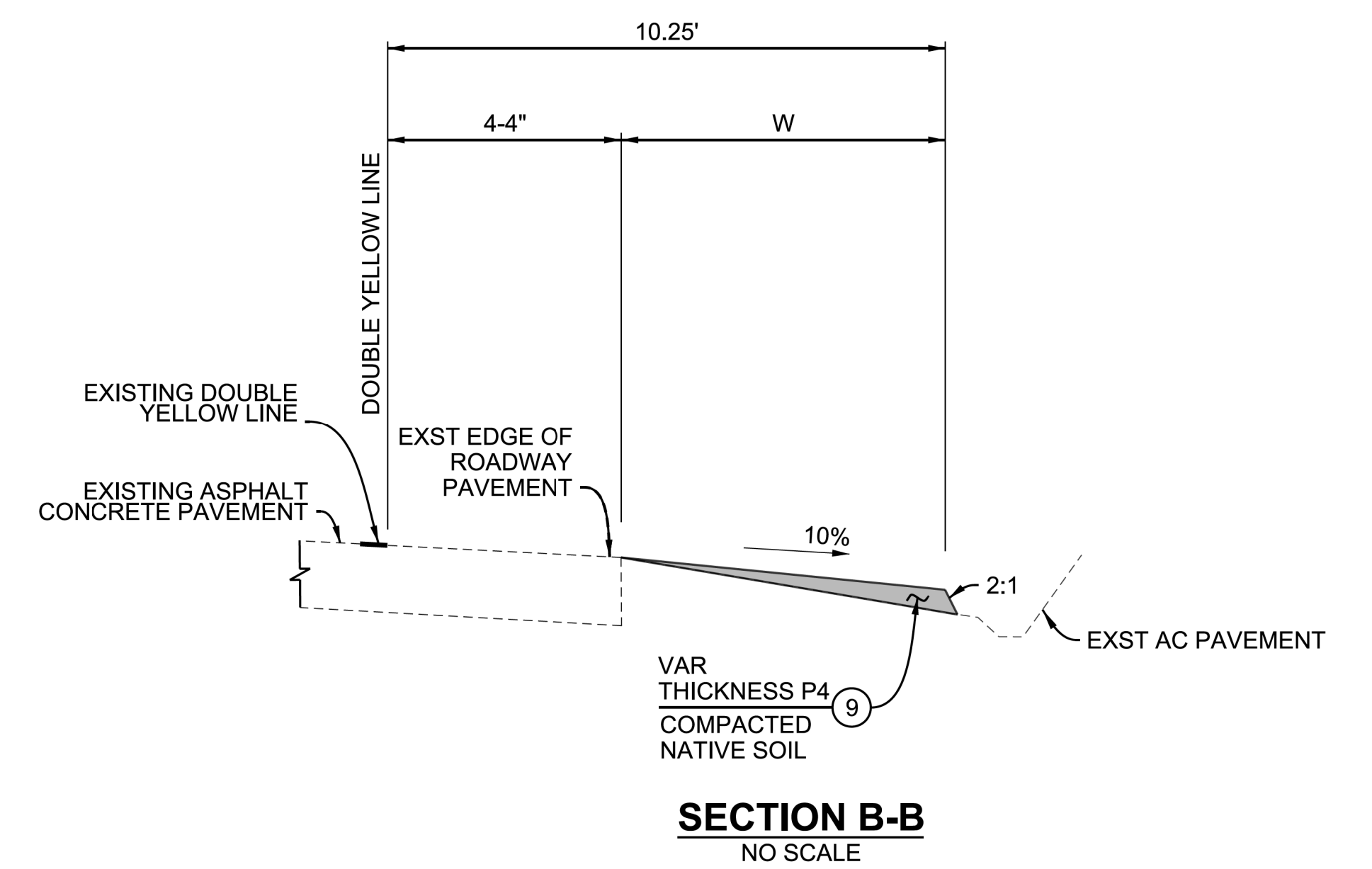
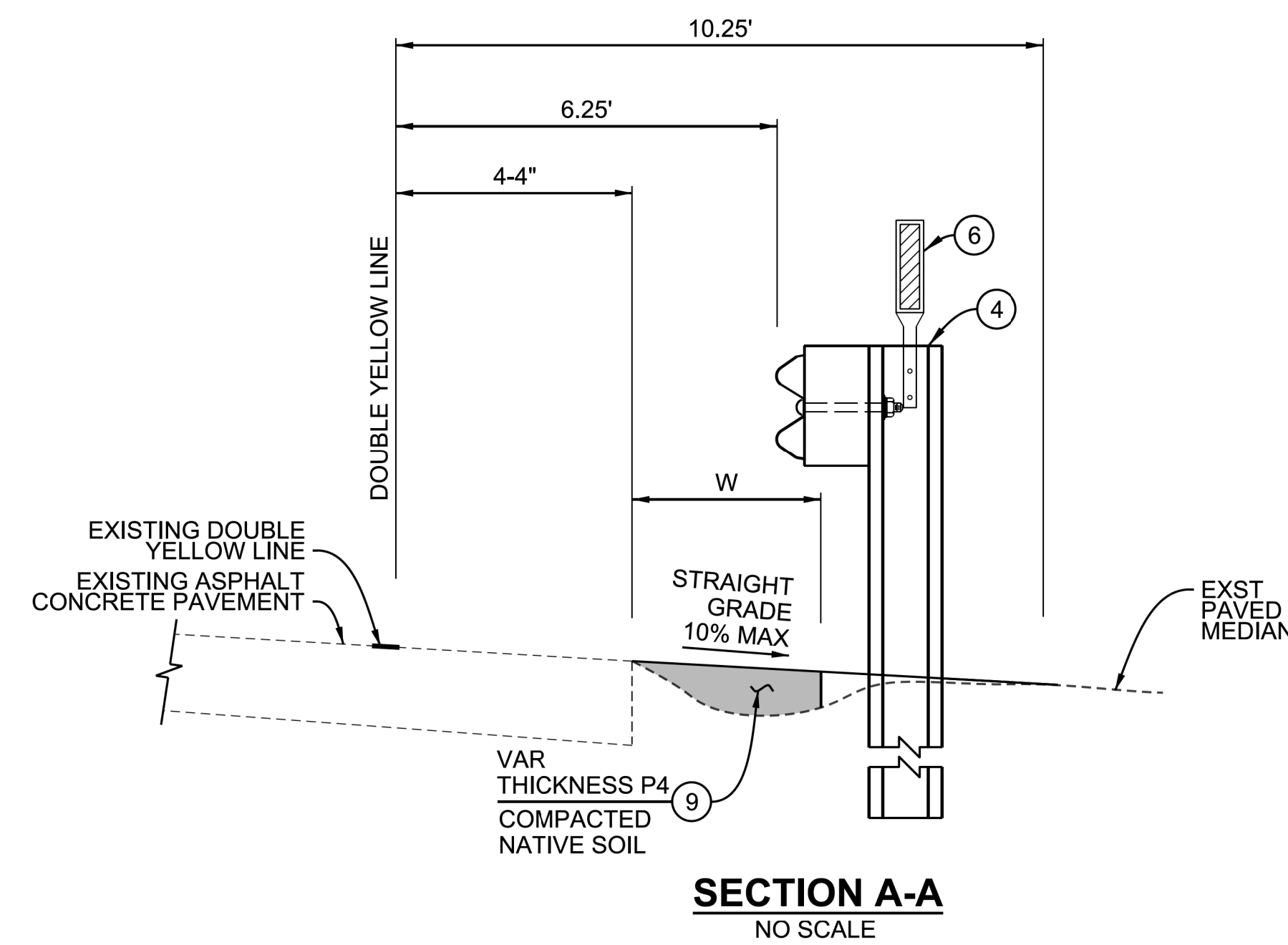
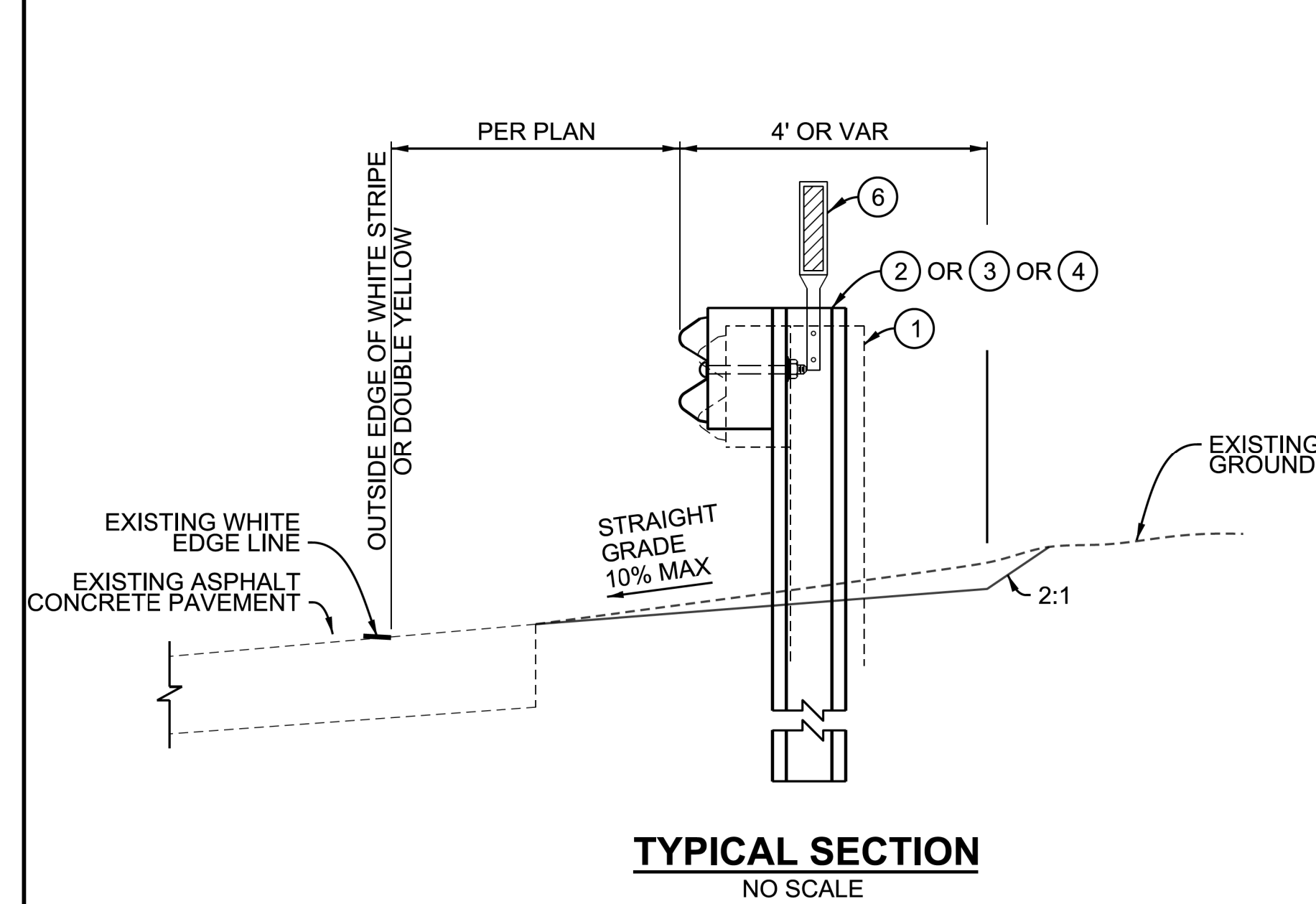
**KANAN ROAD GUARDRAIL REPLACEMENT ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID No. RDC0016369  
PLAN, TYPICAL SECTIONS & DETAILS

DWG PD SHEET 8 OF 13

**AS BUILT DRAWINGS**

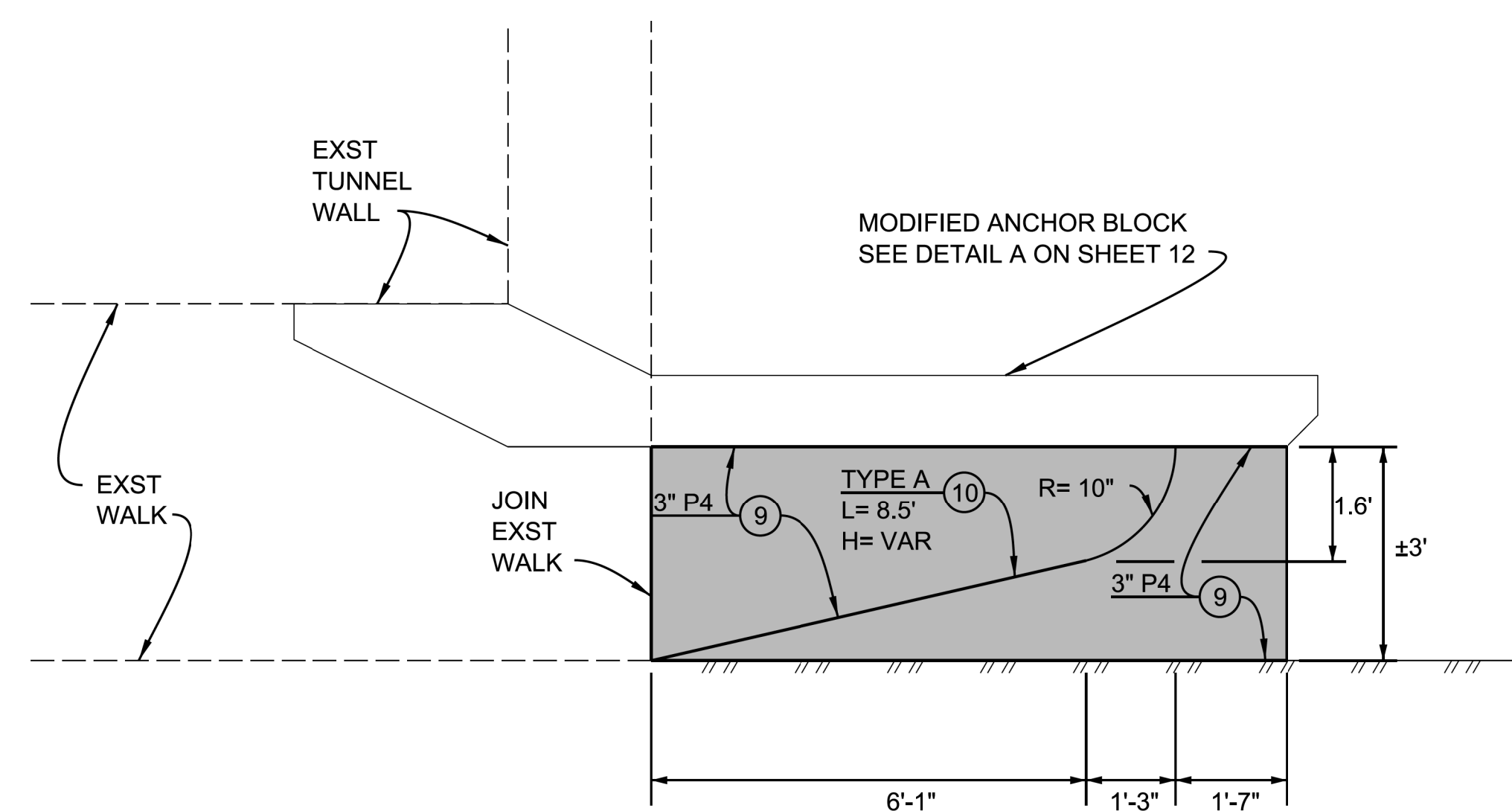




**NOTES:**

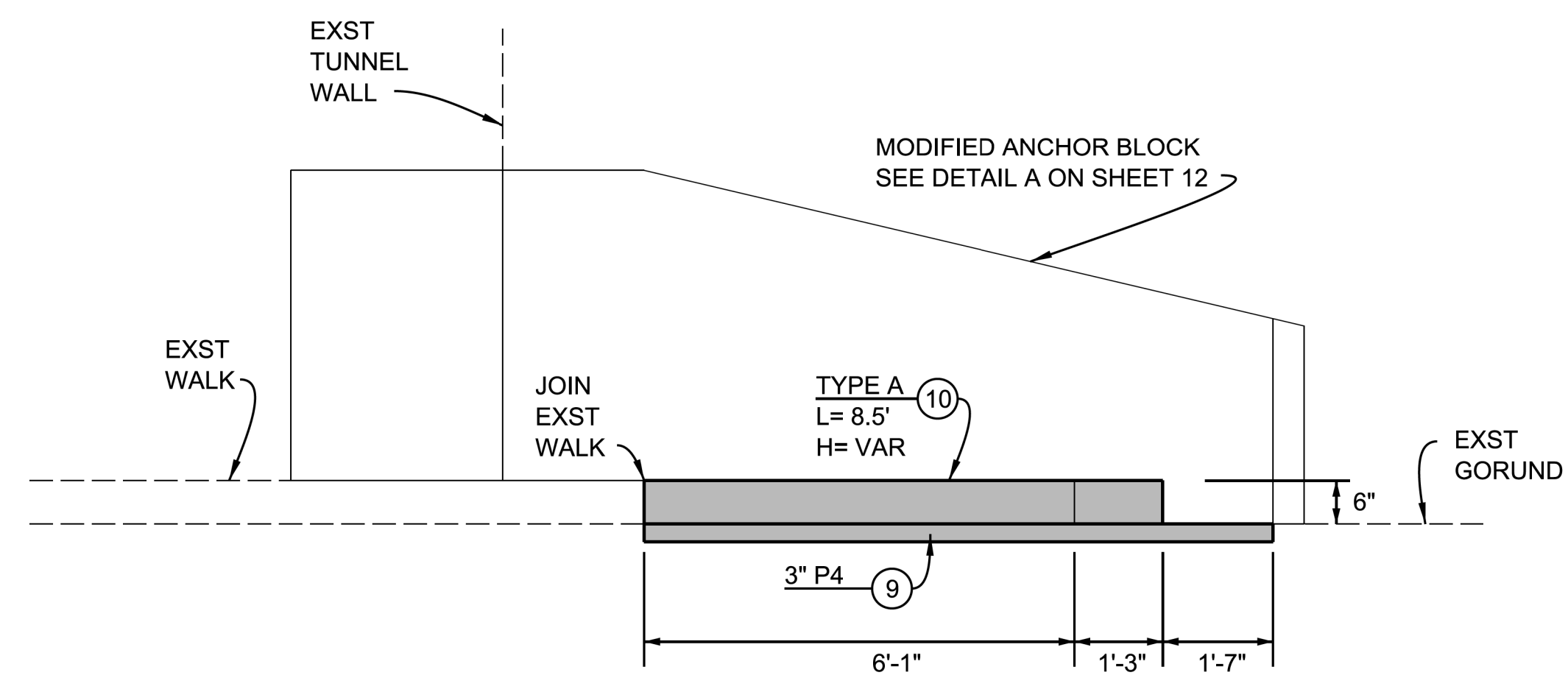
1. SEE NOTE 8 ON SHEET 2 FOR POSTS AROUND AC PAVEMENT

DATE: \_\_\_\_\_  
 REVIEWED BY: \_\_\_\_\_  
 CADD PROJECT FILE NAME: KANAN RD @ MM 6.44.DGN  
 CHECKER: J. MELGAR  
 DESIGNER: R. SIAGIAN  
 DRAFTER: S. MAOULAWI



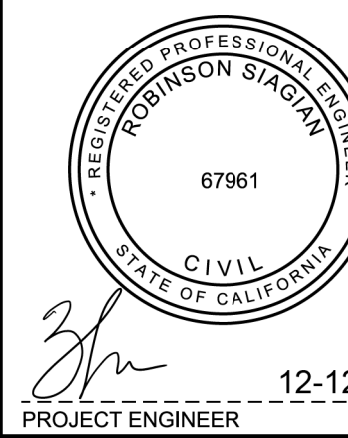
**PLAN**  
NO SCALE

**DETAIL C**  
NO SCALE



**ELEVATION**  
NO SCALE

DATE	MARK	DESCRIPTION



LOS ANGELES COUNTY PUBLIC WORKS

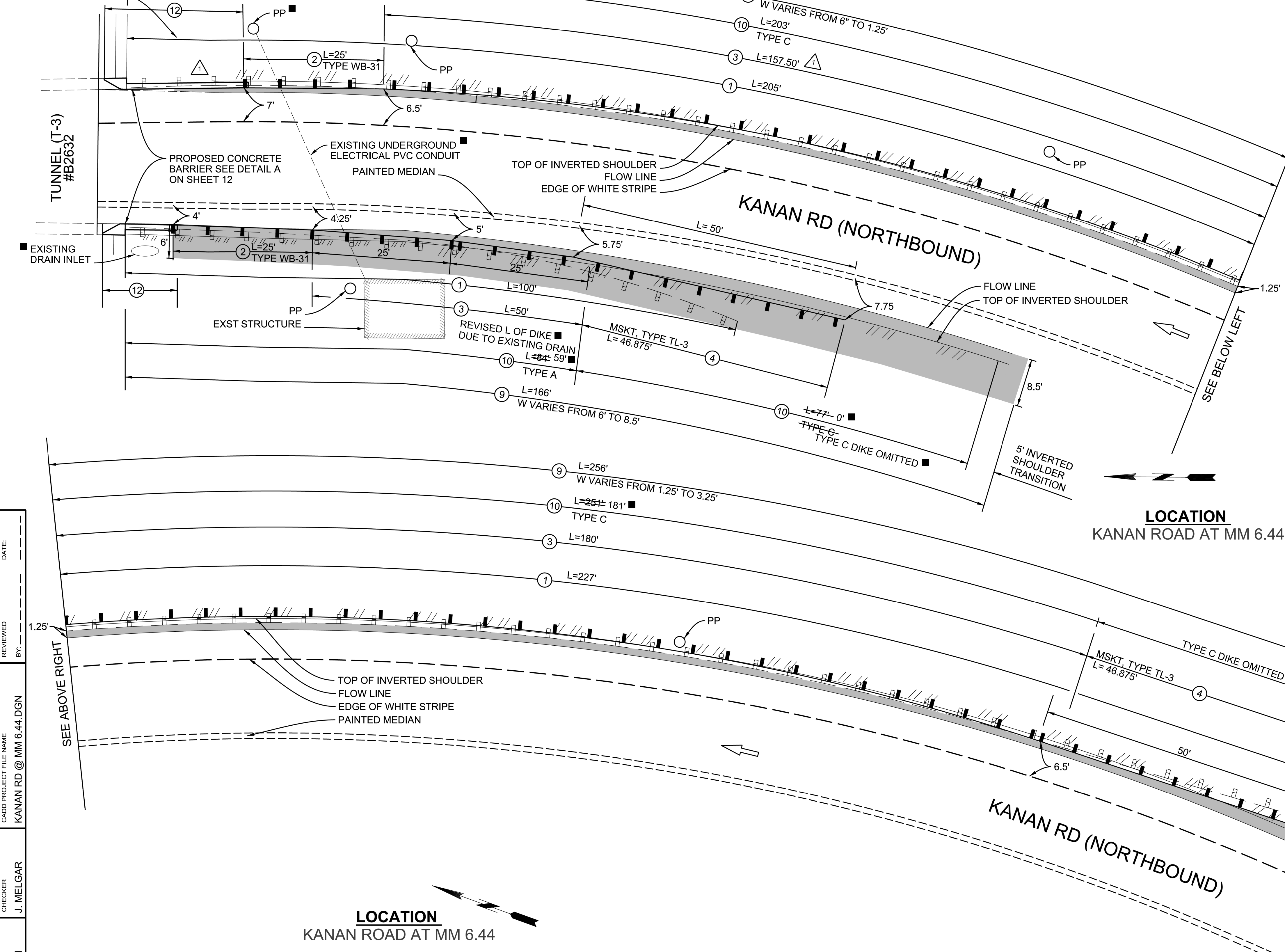
**KANAN ROAD  
 GUARDRAIL REPLACEMENT  
 ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID No. RDC0016369  
 PLAN, TYPICAL SECTIONS & DETAILS

DATE: 12-12-18  
 PROJECT ENGINEER: [Signature]  
 DWG: \_\_\_\_\_ PD: \_\_\_\_\_ SHEET 10 OF 13

**AS BUILT DRAWINGS**

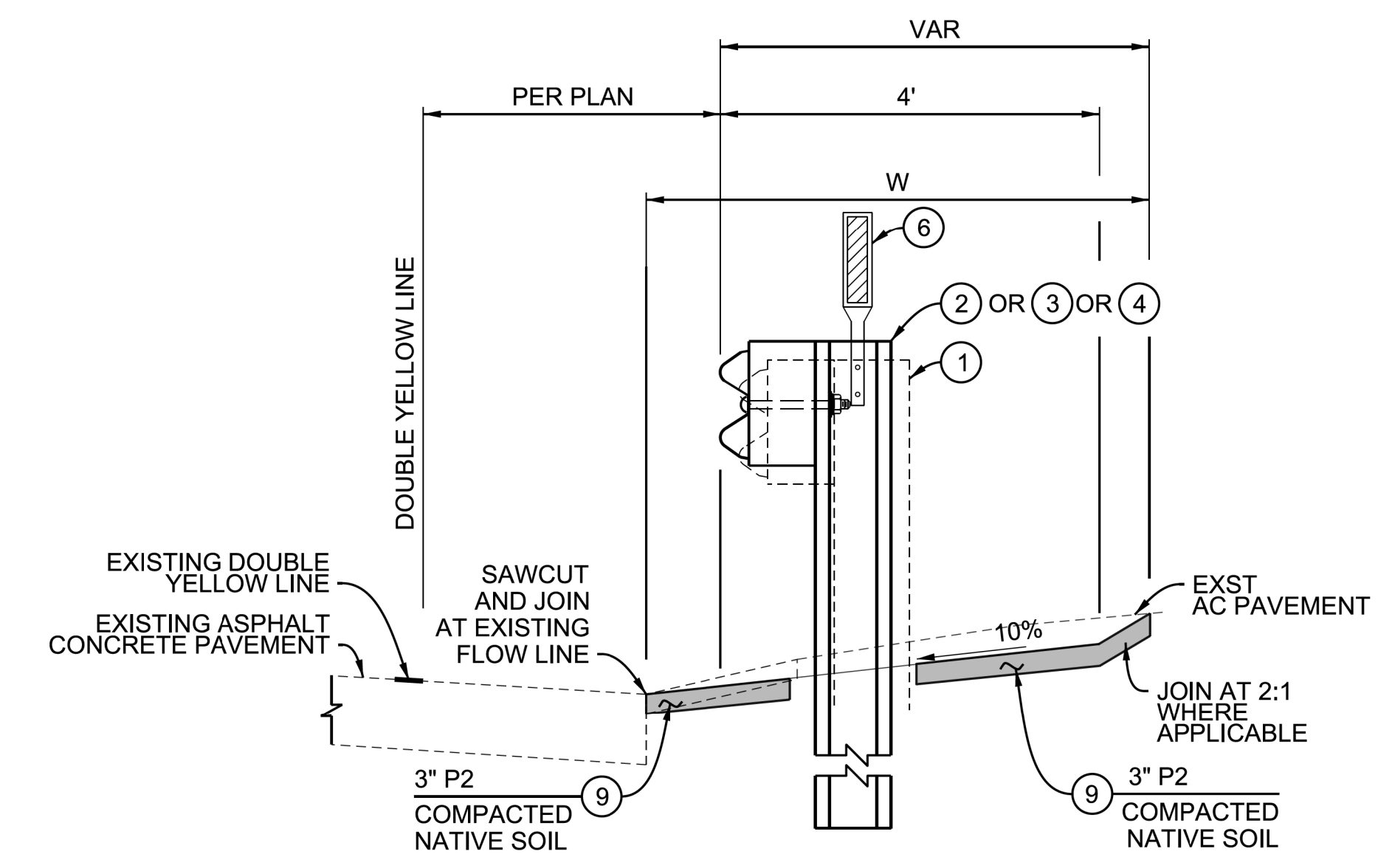
NOTE:  
 CONCRETE BARRIER L  
 REVISED, DUE TO  
 CONFLICT WITH  
 EXISTING UTILITY.  
 CO #8, SEE DRAWING  
 ON NEXT SHEET



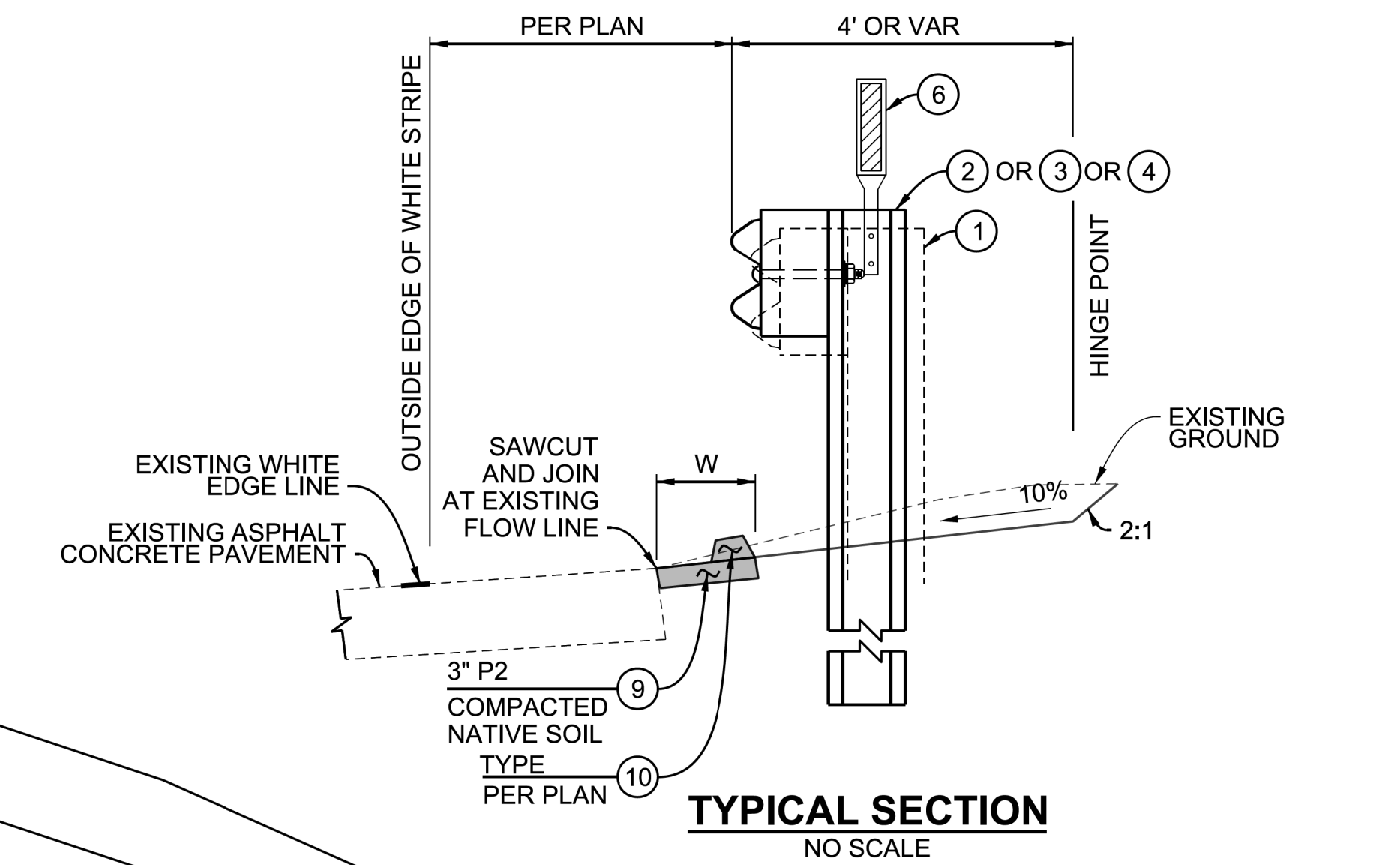
DATE	REVIEWED BY	CADD PROJECT FILE NAME	CHECKER	DESIGNER	DRAWN
		KANAN RD @ MM 6.44.DGN	J. MELGAR	R. SIAGIAN	S. MAJULAWI

LOCATION  
 KANAN ROAD AT MM 6.44

PLAN  
 NOT TO SCALE



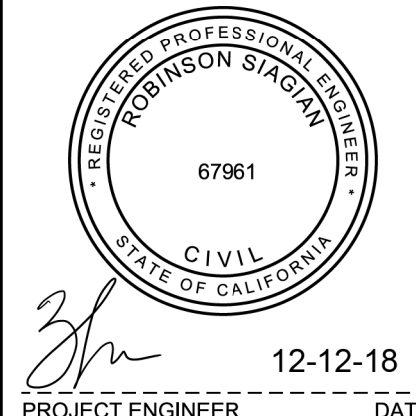
TYPICAL SECTION  
 NO SCALE



TYPICAL SECTION  
 NO SCALE

- NOTES:
- SEE NOTE 8 ON SHEET 2 FOR POSTS AROUND AC PAVEMENT

DATE	MARK	DESCRIPTION
05/12/20	■	REVISED AS BUILT
01/22/20	▲	ANCHOR BLOCK LENGTH INCREMENT, AND PROPOSED GUARDRAIL LENGTH REDUCTION
		REVISIONS



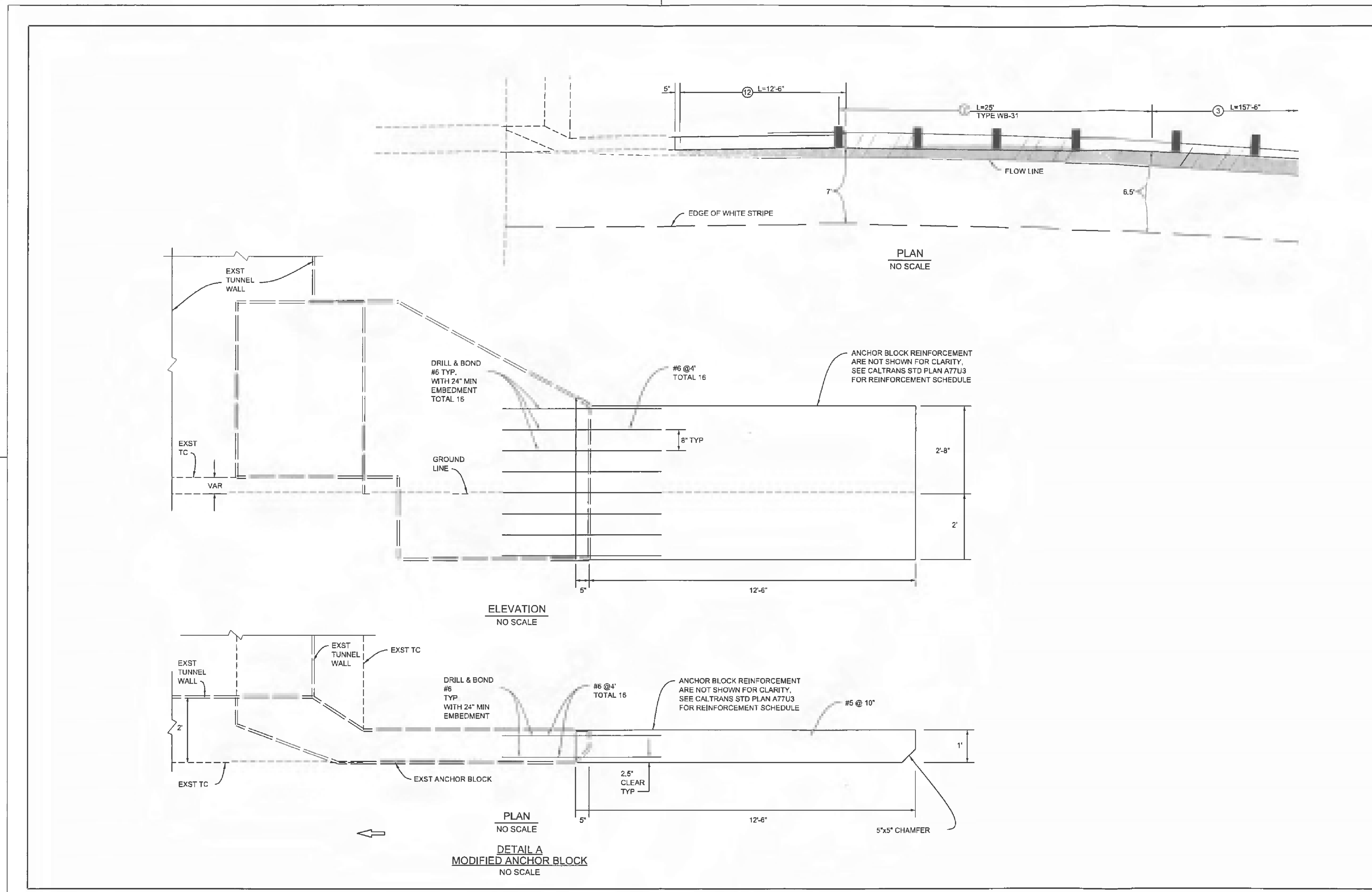
LOS ANGELES COUNTY PUBLIC WORKS

**KANAN ROAD GUARDRAIL REPLACEMENT ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID No. RDC0016369  
 PLAN, TYPICAL SECTIONS & DETAILS

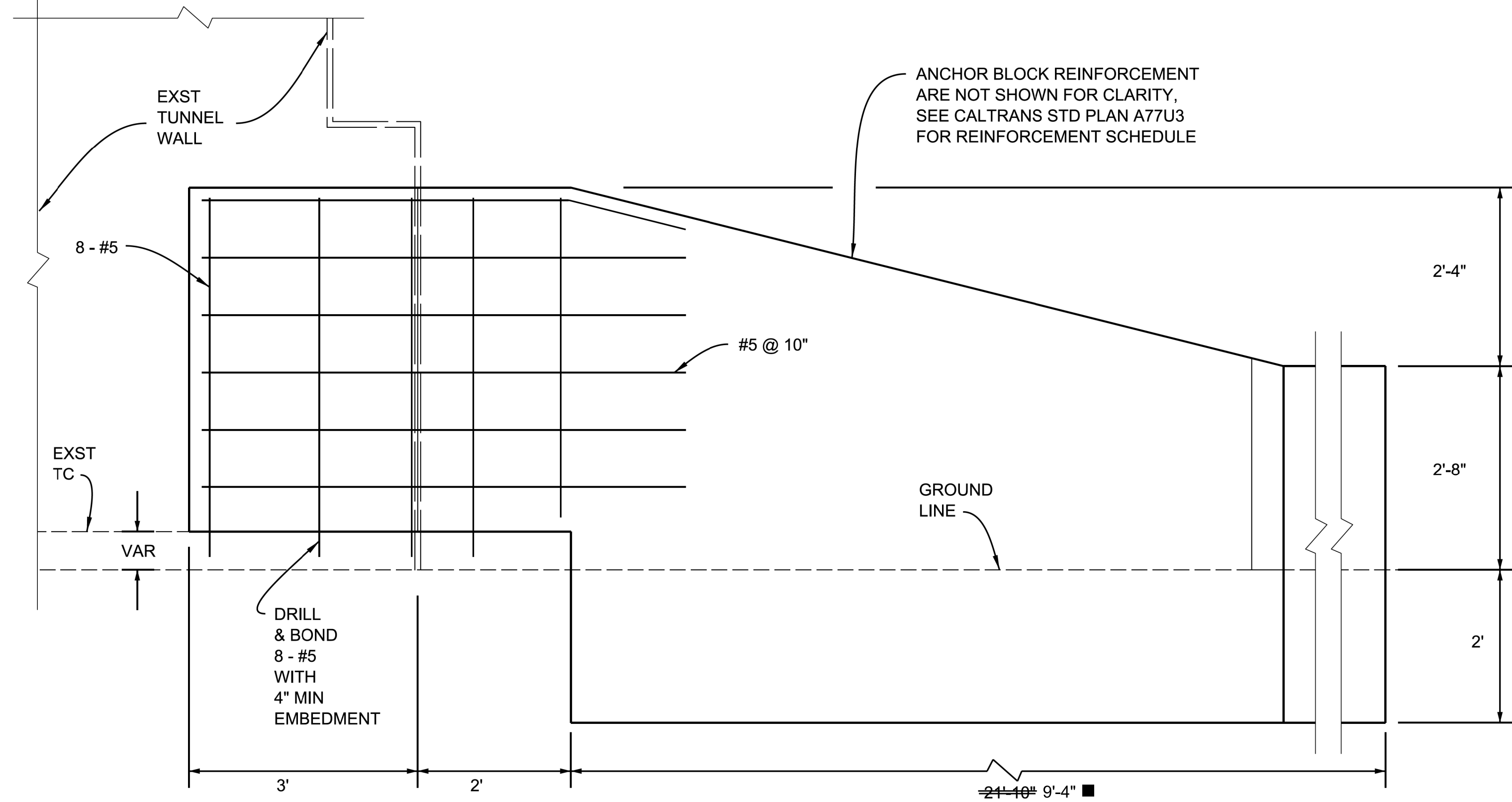
DWG PD SHEET 11 OF 13

AS BUILT DRAWINGS

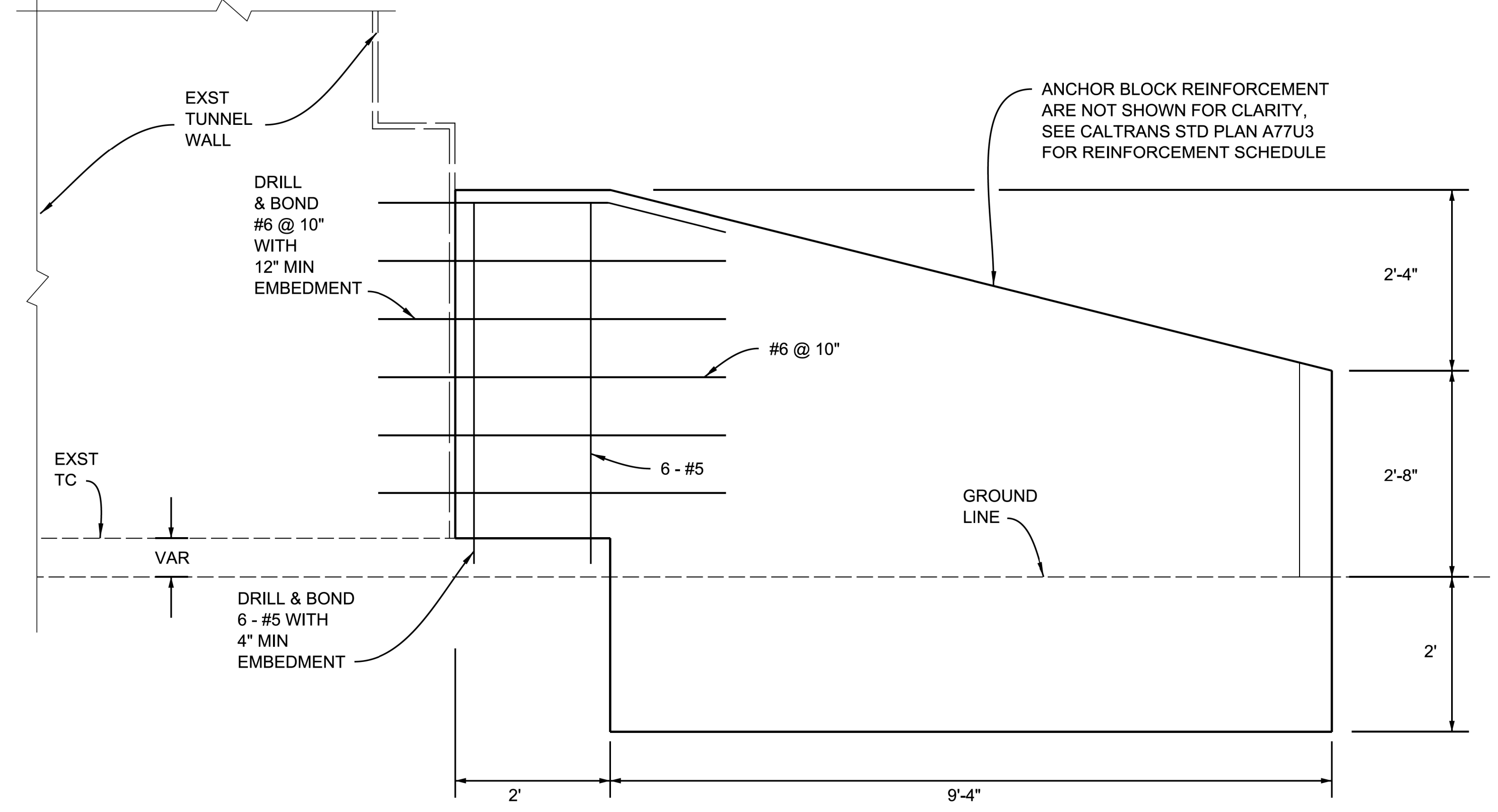


DATE: 10/11/13 TMC: STW/13 PRC: VHS/13

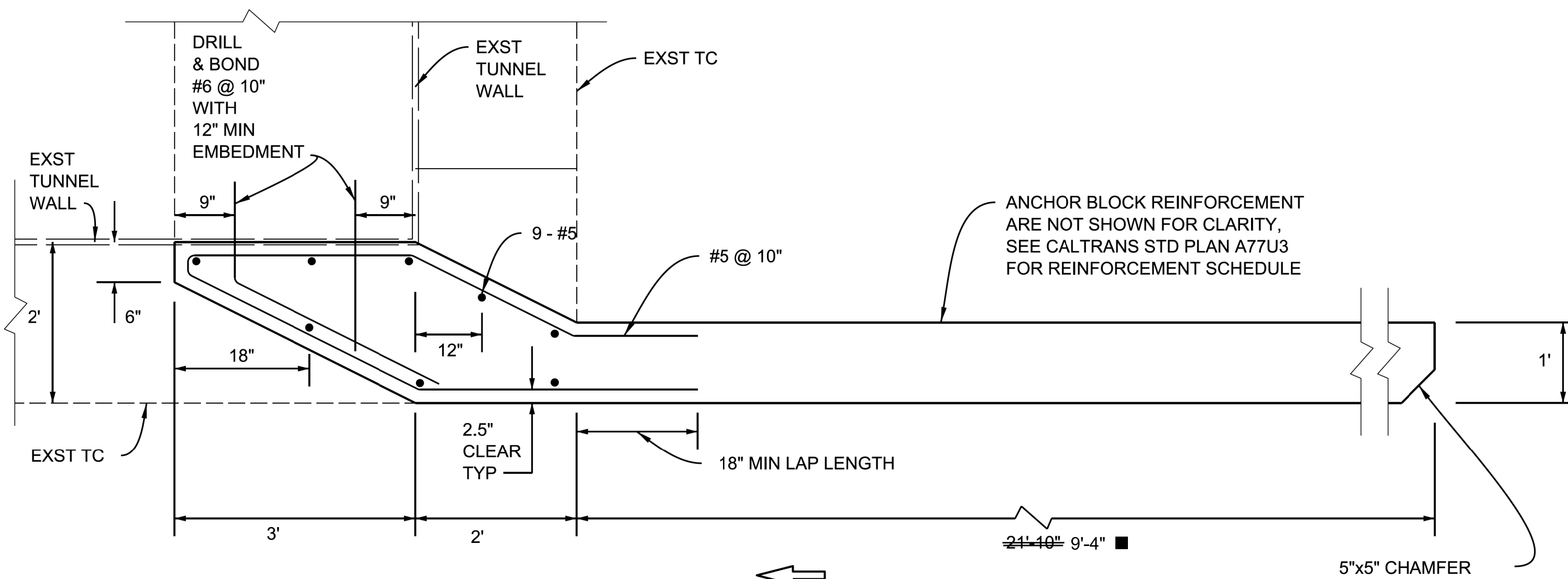
# ■ AS BUILT DRAWINGS



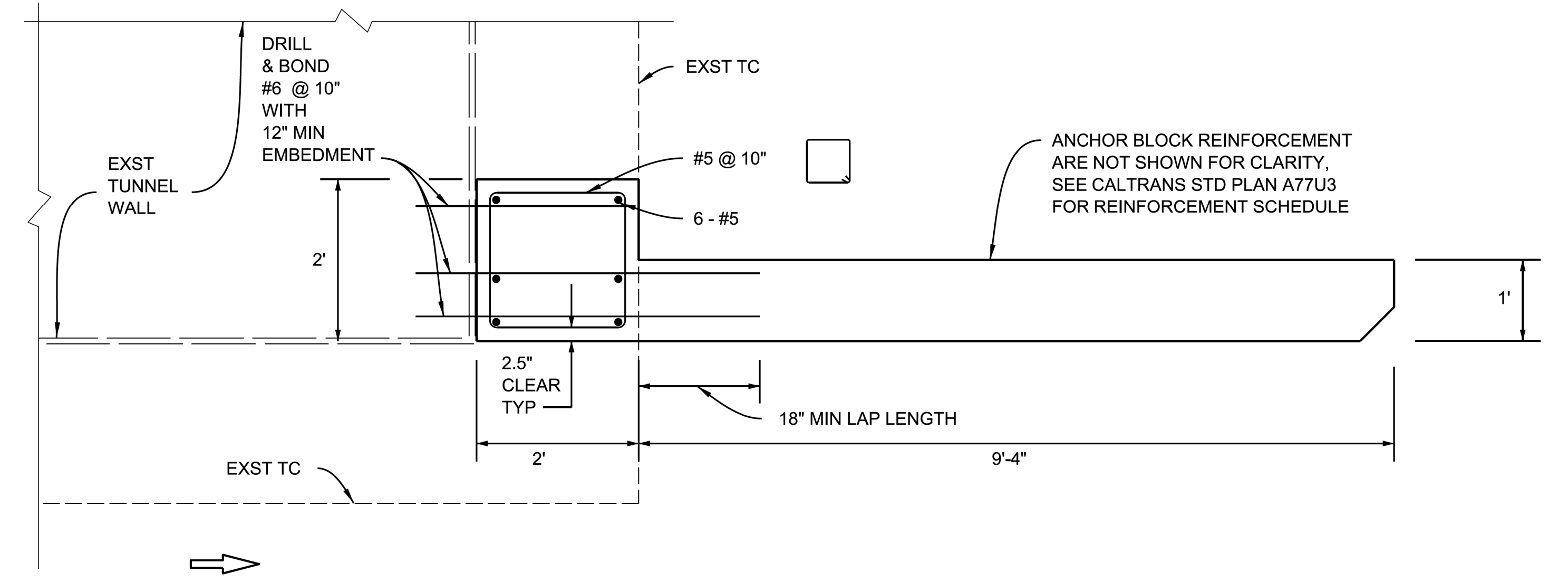
**ELEVATION**  
NO SCALE



**ELEVATION**  
NO SCALE



**PLAN**  
NO SCALE  
**DETAIL A**  
**MODIFIED ANCHOR BLOCK**  
NO SCALE



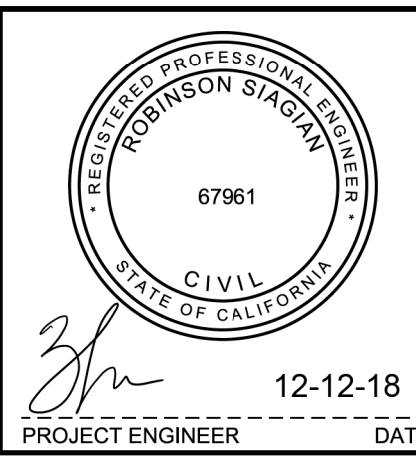
**PLAN**  
NO SCALE  
**DETAIL B**  
**MODIFIED ANCHOR BLOCK**  
NO SCALE

- NOTES:**
- PERFORATE DRAIN HOLES AS NEEDED TO MATCH EXISTING
  - COST OF THE STRUCTURE EXCAVATION AND STRUCTURE BACKFILL SHALL BE INCLUDED IN THE UNIT PRICE FOR MODIFIED ANCHOR BLOCK

➔ INDICATES DIRECTION OF TRAFFIC

DATE: \_\_\_\_\_  
 REVIEWED BY: \_\_\_\_\_  
 CADD PROJECT FILE NAME: KANAN RD @ MM 6.44.DGN  
 CHECKER: J. MELGAR  
 DESIGNER: R. SIAGIAN  
 DRAFTER: R. SIAGIAN

DATE	MARK	DESCRIPTION
05/12/20	■	REVISED AS BUILT



LOS ANGELES COUNTY PUBLIC WORKS

**KANAN ROAD GUARDRAIL REPLACEMENT ON-SYSTEM (2018WOOLSEYFIRE)**

PROJECT ID No. RDC0016369  
 PLAN, TYPICAL SECTIONS & DETAILS

PROJECT ENGINEER: *3hu* 12-12-18  
 DWG: \_\_\_\_\_ PD: \_\_\_\_\_ SHEET 12 OF 13

**AS BUILT DRAWINGS**



