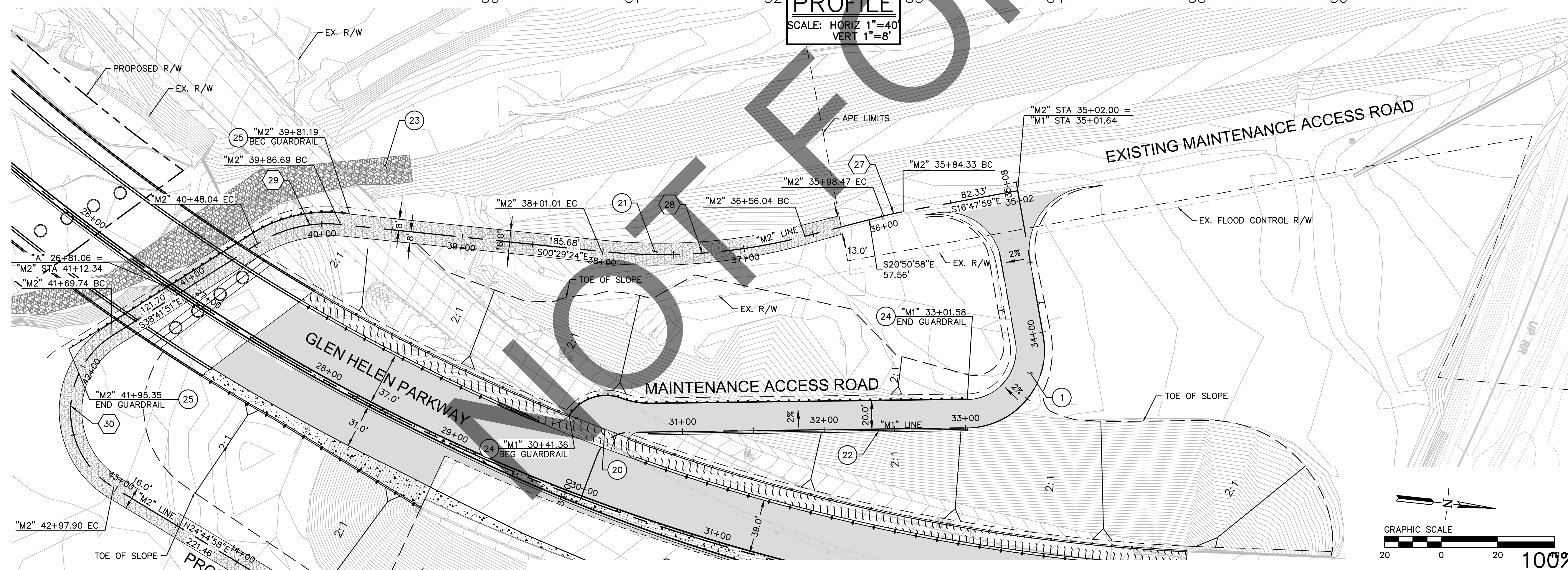
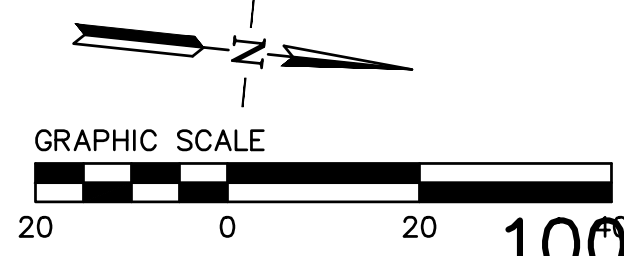


CURVE TABLE				
CURVE NO.	LENGTH	RADIUS	DELTA	TANGENT
27	14.14	200.00	4'03"00"	7.07
28	144.98	408.00	20'21"35"	73.26
29	61.35	92.00	38'12"27"	31.86
30	128.16	63.00	116'33"11"	101.91



- NOTES:**
- FOR GRADING PLAN, SEE MAINTENANCE ACCESS ROAD PLAN
- LEGEND:**
- EXISTING R/W
 - PROPOSED R/W
 - APE LIMIT
 - CONSTRUCT PAVEMENT
 - CONSTRUCT CONCRETE
 - CONSTRUCT TRAIL
 - ROCK SLOPE PROTECTION
 - COMPACTED SOIL
 - ADIEM CRASH CUSHION
- CONSTRUCTION NOTES:**
- CONSTRUCT 0.45' HMA-A OVER 0.80' AB (CLASS 2)
 - INSTALL METAL GATE
 - CONSTRUCT MAINTENANCE ACCESS ROAD, 18" OVEREXCAVATION AND RECOMPACTION, MEASURED FROM EXISTING GRADE, AND EXTENDED HORIZONTALLY 18" FROM EDGES OF NEW FILL
 - CONSTRUCT CONCRETE LINED DITCH PER DETAIL A ON SHEET X-02
 - FOR RSP CONSTRUCTION DETAILS SEE STRUCTURAL PLANS
 - CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS END ANCHOR SYSTEM (TYPE SFT), USING TYPE 11A LAYOUT PER CALTRANS STD. PLAN A77P1
 - CONSTRUCT MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD. PLAN A77L1, WITH CALTRANS IN-LINE TERMINAL SYSTEM END TREATMENT, USING TYPE 11D LAYOUT PER CALTRANS STD. PLAN A77P1



MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050

PLANS PREPARED BY:

BKF ENGINEERS
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460
www.bkf.com

REGISTERED PROFESSIONAL ENGINEER
SHEILA AMPARO
78003
Exp 9-30-25
CIVIL
STATE OF CALIFORNIA

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED 7/31/24

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: BL	DRAWN BY: KW	CHECKED BY: SA	RECOMMENDED BY: <i>[Signature]</i>
			CHRIS NGUYEN, P.E. ENGINEERING MANAGER 8/15/24 DATE
			APPROVED BY: <i>[Signature]</i>
			THOMAS BUSTAMANTE, P.E. SUPERVISING ENGINEER 8/15/24 DATE
			MERVAT M. MURKHAJ, P.E. DEPUTY DIRECTOR 8/15/24 DATE

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH GLEN HELEN PARKWAY

CONSTRUCTION DETAILS MAINTENANCE ACCESS ROAD

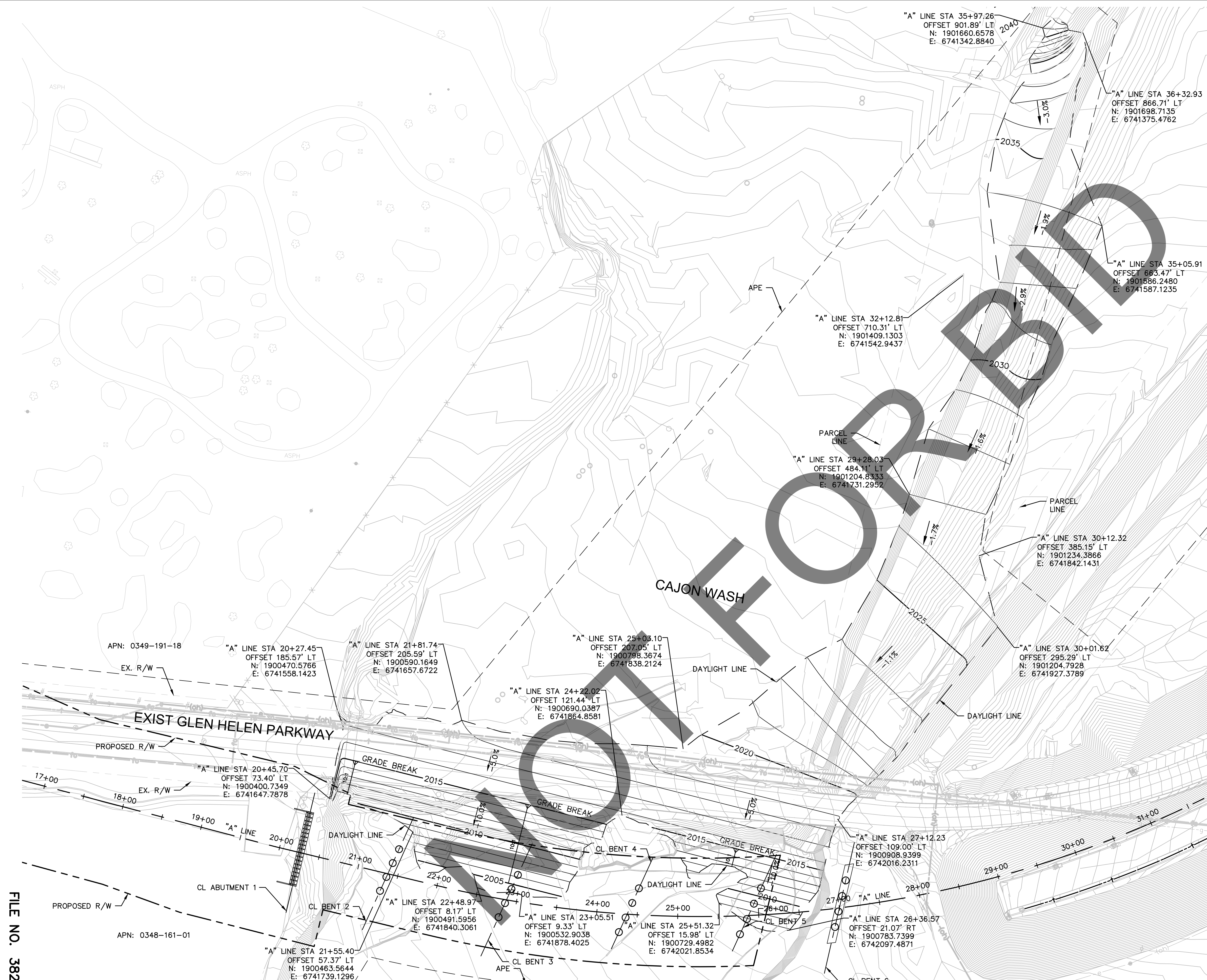
J.L. REF.	W.O. NO.	DRAWING NO.	SHT. NO.	TOT. SHT'S.
11334	H14646	CD-03	16	102

NOTES:

1. THIS PLAN IS ACCURATE FOR CAJON WASH ONLY.
2. EXISTING UTILITIES ARE COMPILED FROM RECORD DRAWINGS, AS-BUILT DRAWINGS, AND SURVEY INFORMATION.
3. SEE COMPOSITE UTILITY PLAN FOR REMOVAL AND/OR ABANDONMENT OF EXISTING UTILITIES.
4. SEE DEMOLITION PLANS FOR DEMOLITION OF EXISTING GLEN HELEN PARKWAY.
5. INFORMATION ON EXISTING GROUND ELEVATIONS IS BASED ON TOPOGRAPHY AND SURVEYING PERFORMED FOR GLEN HELEN PARKWAY OVER CAJON WAS DATED 4/12/06. ADDITIONAL SURVEYING MAY BE REQUIRED DEPENDENT ON EXISTING GROUND CONDITIONS.

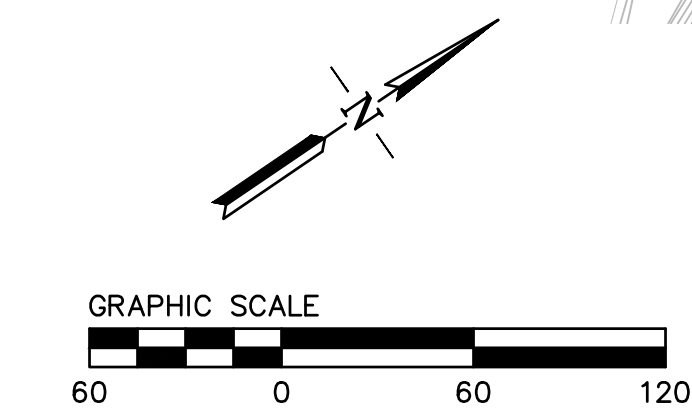
LEGEND:

- APE LIMIT
- - - EXISTING R/W
- PROPOSED R/W
- DAYLIGHT LINE



MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050



100% SUBMISSION 7/31/2024

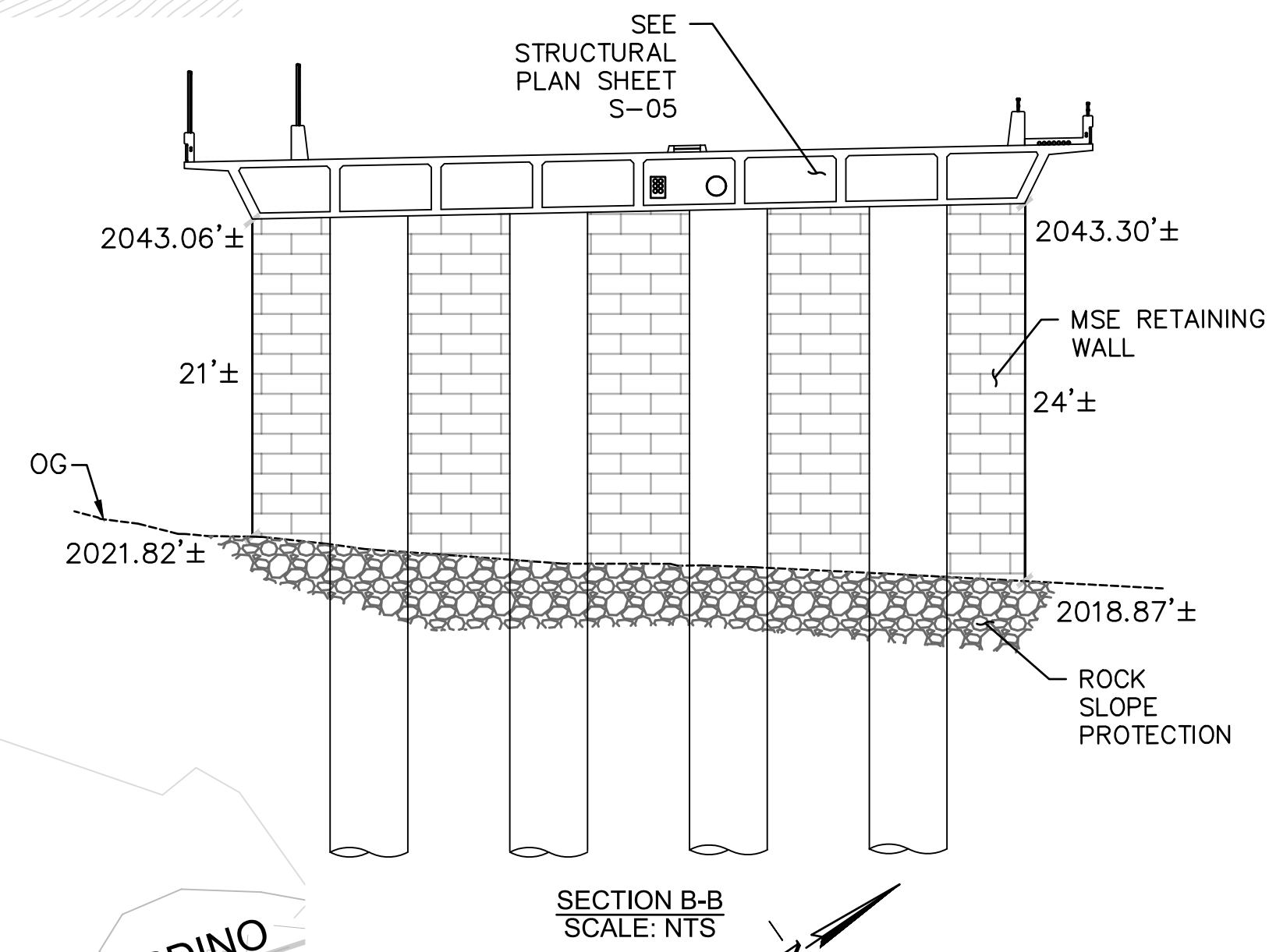
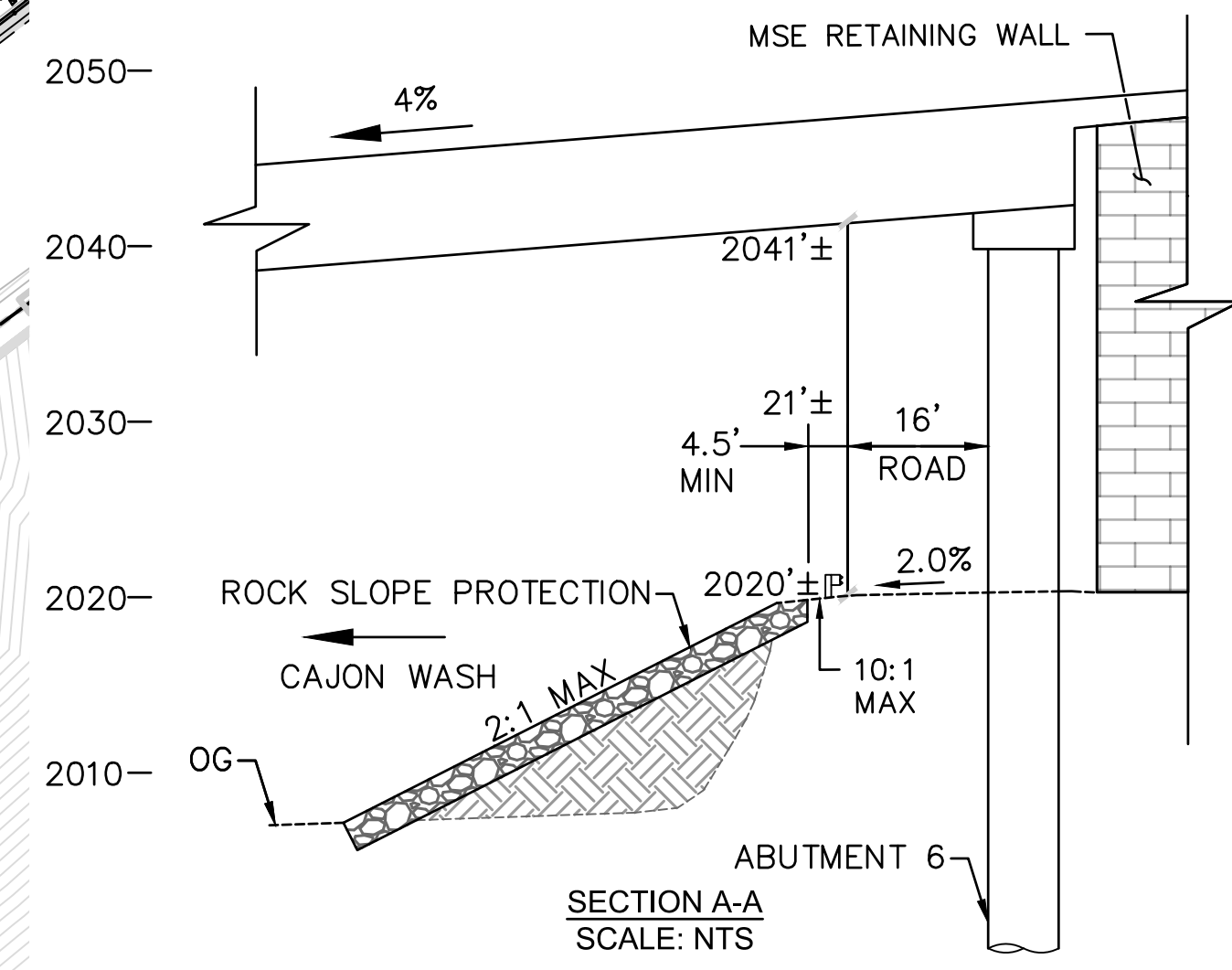
PLANS PREPARED BY: BKF ENGINEERS 4675 MACARTHUR CT. SUITE 400 NEWPORT BEACH, CA 92660 (949) 526-8460 www.bkf.com			SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS		GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH GLEN HELEN PARKWAY CAJON WASH GRADING PLAN																				
<table border="1"> <tr> <td>DESIGNED BY:</td> <td>DRAWN BY:</td> <td>CHECKED BY:</td> <td>RECOMMENDED BY:</td> <td>DATE</td> </tr> <tr> <td>BL</td> <td>KW</td> <td>SA</td> <td><i>Chris Nguyen</i></td> <td>8/15/24</td> </tr> <tr> <td colspan="3"></td> <td>CHRIS NGUYEN, P.E. ENGINEERING MANAGER</td> <td></td> </tr> </table>			DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE	BL	KW	SA	<i>Chris Nguyen</i>	8/15/24				CHRIS NGUYEN, P.E. ENGINEERING MANAGER		<table border="1"> <tr> <td>APPROVED BY:</td> <td>DATE</td> </tr> <tr> <td><i>Thomas Bustamonte</i></td> <td>8/15/24</td> </tr> <tr> <td>THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER</td> <td></td> </tr> </table>		APPROVED BY:	DATE	<i>Thomas Bustamonte</i>	8/15/24	THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER	
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE																					
BL	KW	SA	<i>Chris Nguyen</i>	8/15/24																					
			CHRIS NGUYEN, P.E. ENGINEERING MANAGER																						
APPROVED BY:	DATE																								
<i>Thomas Bustamonte</i>	8/15/24																								
THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER																									
FIELD CHANGES		REGISTERED 7/31/24	APPROVED BY: <i>Mervat El-Mrhal</i> 8/15/24 MERVAT EL-MRHAL, P.E. DEPUTY DIRECTOR																						

NOTES:

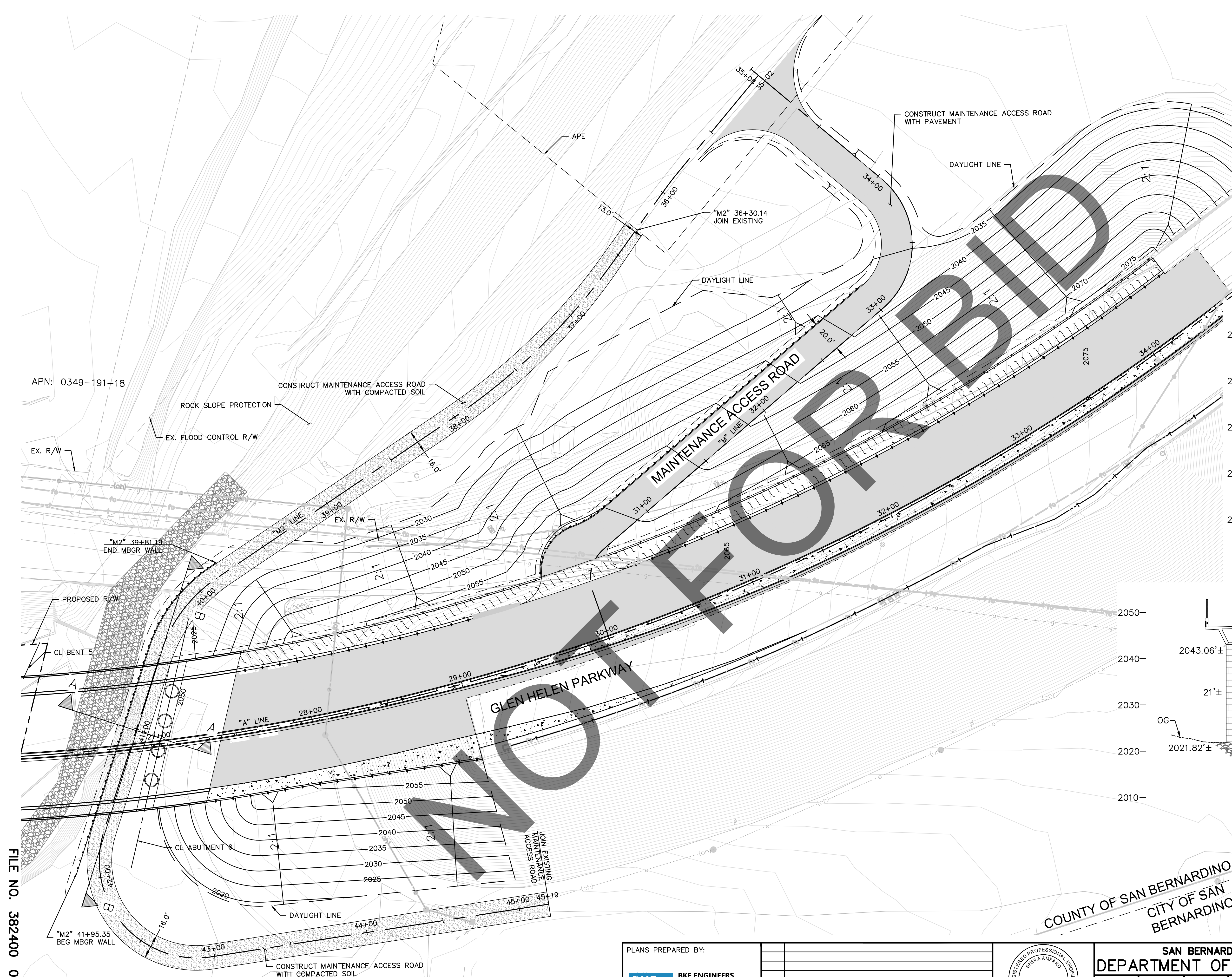
1. THIS PLAN IS ACCURATE FOR MAINTENANCE ACCESS ROAD ONLY.
2. EXISTING UTILITIES ARE COMPILED FROM RECORD DRAWINGS, AS-BUILT DRAWINGS, AND SURVEY INFORMATION.
3. SEE COMPOSITE UTILITY PLAN FOR REMOVAL AND/OR ABANDONMENT OF EXISTING UTILITIES.
4. SEE DEMOLITION PLANS FOR DEMOLITION OF EXISTING GLEN HELEN PARKWAY.
5. INFORMATION ON EXISTING GROUND ELEVATIONS IS BASED ON TOPOGRAPHY AND SURVEYING PERFORMED FOR GLEN HELEN PARKWAY OVER CAJON WASH DATED 4/12/06. ADDITIONAL SURVEYING MAY BE REQUIRED DEPENDENT ON EXISTING GROUND CONDITIONS.

LEGEND:

- PROPOSED R/W
- EXISTING R/W
- APE LIMIT
- DAYLIGHT LINE
- [Pattern] CONSTRUCT PAVEMENT
- [Pattern] CONSTRUCT CONCRETE
- [Pattern] CONSTRUCT TRAIL
- [Pattern] ROCK SLOPE PROTECTION
- [Pattern] CONSTRUCT TRAIL



GRAPHIC SCALE
100% SUBMISSION 7/31/2024



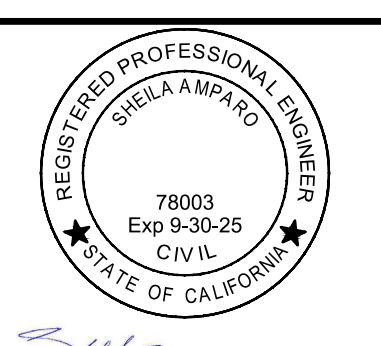
MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050

PLANS PREPARED BY:
BKF ENGINEERS
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460
www.bkf.com

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES



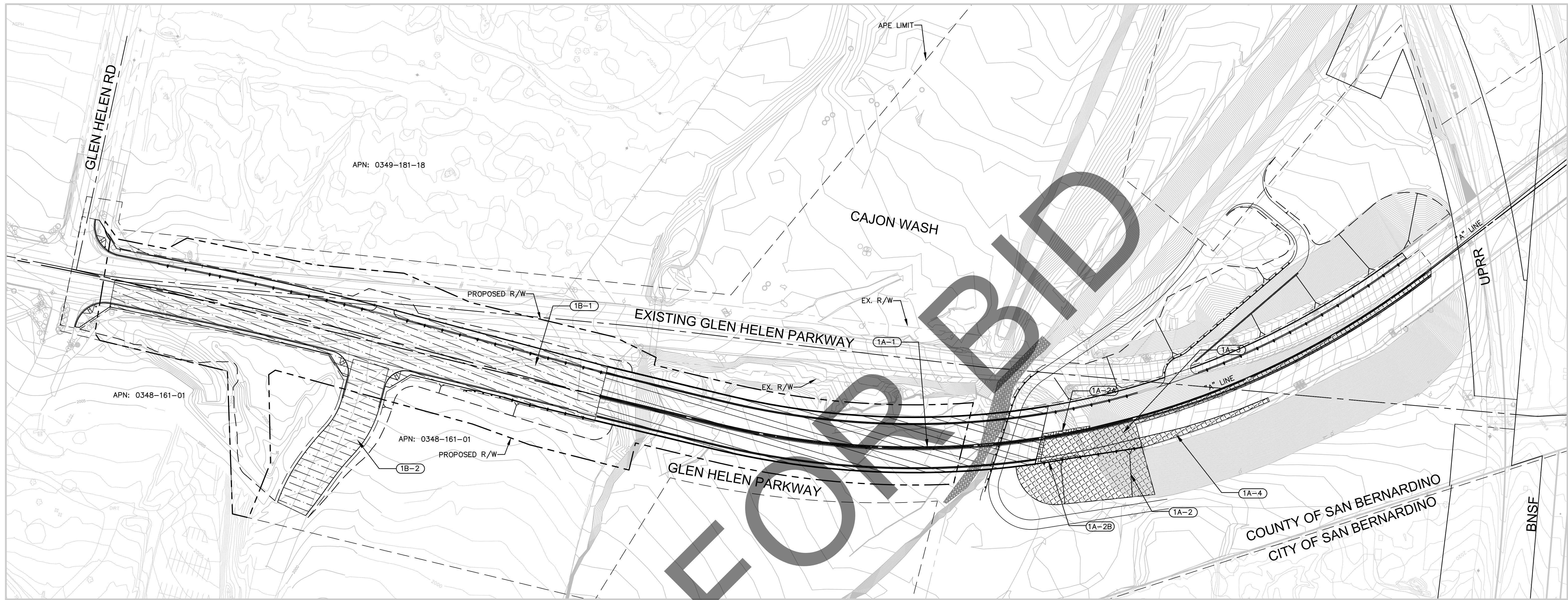
SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: BL	DRAWN BY: KW	CHECKED BY: SA	RECOMMENDED BY: [Signature] 8/15/24
APPROVED BY: [Signature] 8/15/24			DATE: 8/15/24

THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
GLEN HELEN PARKWAY
MAINTENANCE ACCESS ROAD GRADING PLAN

J.L. REF. 11334	W.O. NO. H14646	DRAWING NO. GR-02	SHT. NO. 18	TOT. SHTS. 102
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NOT FOR BID

STAGE 1 CONSTRUCTION

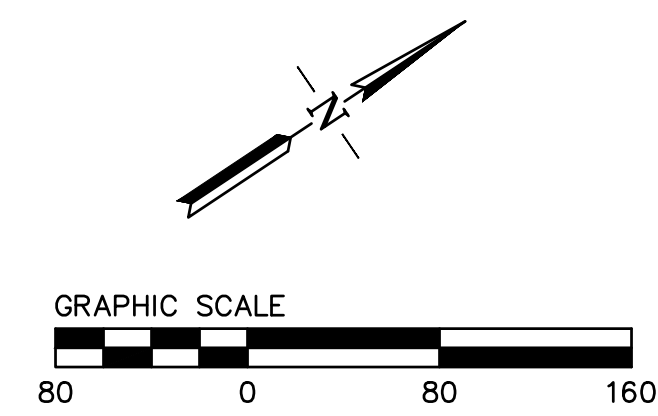
- (1A-1) CONSTRUCT BRIDGE OVER CAJON WASH
- (1A-2) BUILD ULTIMATE EMBANKMENT AND MSE WALL
- (1A-2A) INSTALL TEMPORARY RETAINING WALL
- (1A-2B) BUILD SOUTHERN HALF OF MSE WALL
- (1A-3) CONSTRUCT NORTHBOUND ROADWAY APPROACH TO PHASE I ROADWAY CONNECTION
- (1A-4) MODIFY EXISTING SIDEWALK
- (1B-1) CONSTRUCT SOUTH ROADWAY APPROACH TO GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
- (1B-2) CONSTRUCT DRIVEWAY TO SAN MANUEL AMPHITHEATER

LEGEND:

- CONSTRUCT GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
- CONSTRUCT GLEN HELEN PARKWAY SOUTH OF GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
- CONSTRUCT GLEN HELEN PARKWAY NORTH OF GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH AND CONSTRUCT ULTIMATE EMBANKMENT WITH MSE WALL
- CONSTRUCT RETAINING WALLS FOR GLEN HELEN PARKWAY BRIDGE
- EXISTING R/W
- PROPOSED R/W
- APE LIMIT

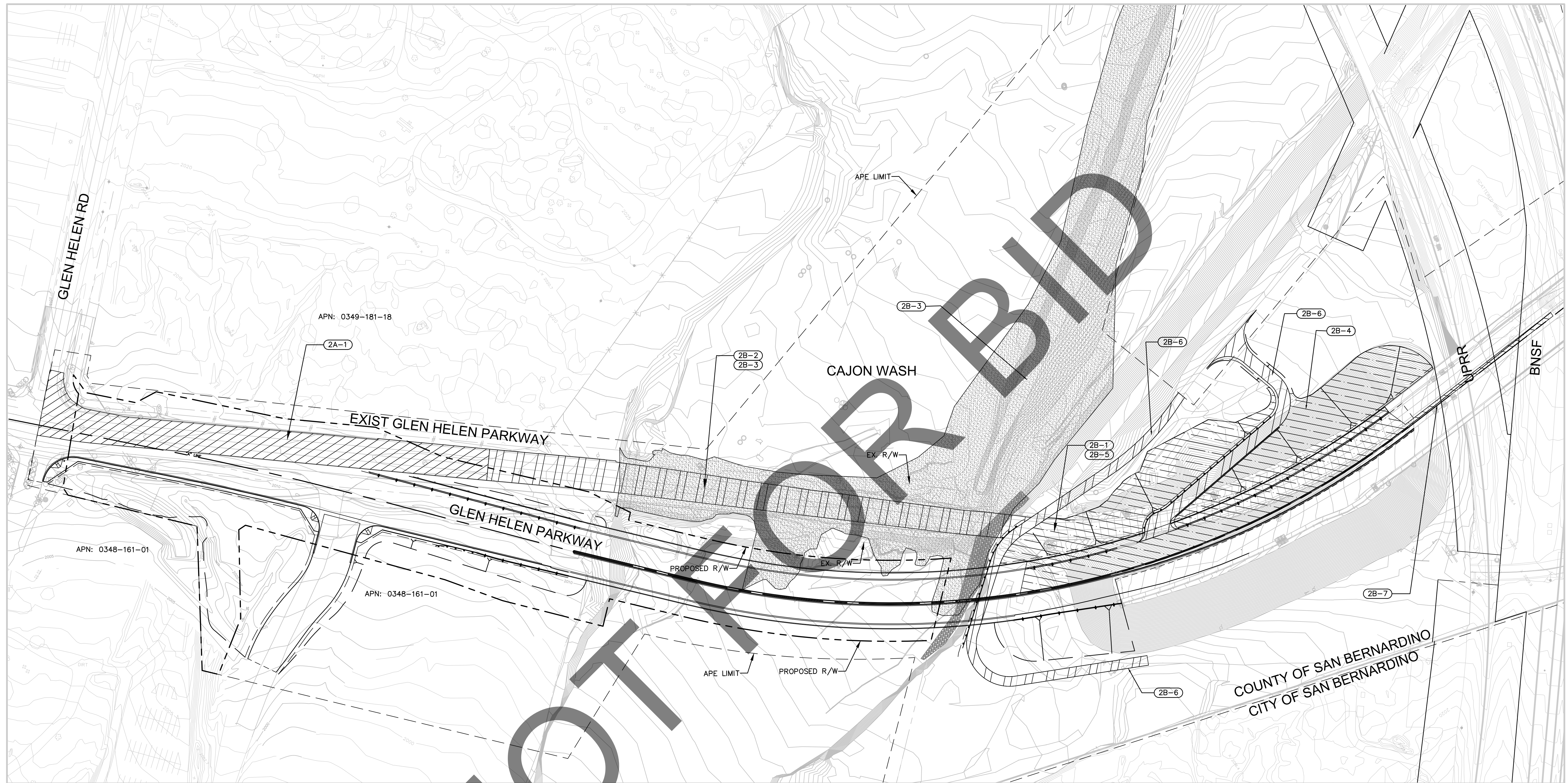
MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050



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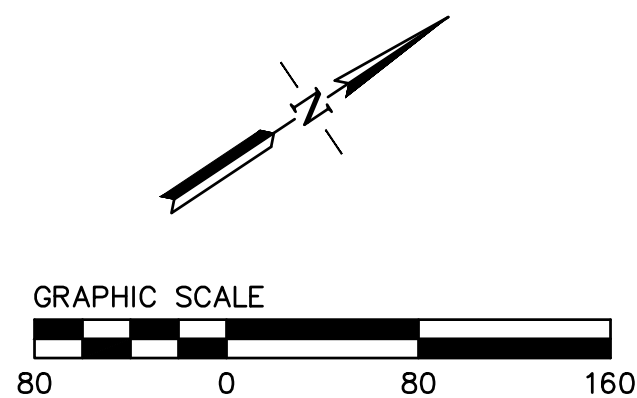
PLANS PREPARED BY: BKF ENGINEERS 4675 MACARTHUR CT. SUITE 400 NEWPORT BEACH, CA 92660 (949) 526-8460 www.bkf.com	REGISTERED PROFESSIONAL ENGINEER SHELIA AMPARO 78003 Exp 9-30-25 CIVIL STATE OF CALIFORNIA	SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS	GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH GLEN HELEN PARKWAY STAGE CONSTRUCTION SC-01
	DESIGNED BY: BL DRAWN BY: KW CHECKED BY: SA RECOMMENDED BY: <i>Chris Nguyen</i> 8/15/24 THOMAS BUSTAMONTE, P.E. 8/15/24 SUPERVISING ENGINEER	APPROVED BY: <i>Thomas Bustamonte</i> 8/15/24 THOMAS BUSTAMONTE, P.E. 8/15/24 SUPERVISING ENGINEER	J.L. REF. 11334 W.O. NO. H14646 DRAWING NO. SC-01 SHT. NO. 19 TOT. SHT'S. 102



MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050



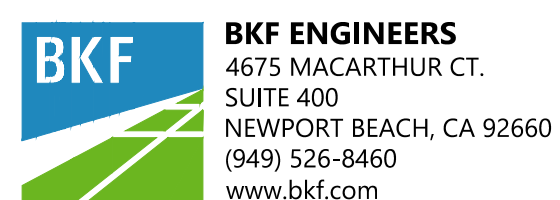
STAGE 2 CONSTRUCTION

- (2A-1) DEMOLISH EXISTING GLEN HELEN PARKWAY ROADWAY AND CONSTRUCT REMAINING PROPOSED GLEN HELEN PARKWAY AND GLEN HELEN ROAD INTERSECTION
- (2B-1) DEMOLISH EXISTING TEMPORARY GLEN HELEN PARKWAY & PHASE I CONNECTION
- (2B-2) DEMOLISH EXISTING GLEN HELEN PARKWAY AND EXISTING GLEN HELEN PARKWAY BRIDGE
- (2B-3) GRADE CAJON WASH & EXISTING GLEN HELEN PARKWAY
- (2B-4) CONSTRUCT GLEN HELEN EMBANKMENT TO ULTIMATE CONDITION
- (2B-5) CONSTRUCT SOUTHBOUND GLEN HELEN PKWY & JOIN PHASE I GRADE SEPARATION
- (2B-6) CONSTRUCT MAINTENANCE ACCESS ROAD
- (2B-7) MODIFY EXISTING MEDIAN

LEGEND:

- DEMOLISH EXISTING AND CONSTRUCT INTERSECTION
- DEMOLISH AND GRADE EXISTING GLEN HELEN PARKWAY, GLEN HELEN PARKWAY BRIDGE AND CONSTRUCT MAINTENANCE ACCESS ROAD
- GRADE CAJON WASH
- DEMOLISH EXISTING TEMPORARY GLEN HELEN PARKWAY, CONSTRUCT PROPOSED SOUTHBOUND GLEN HELEN PARKWAY CONNECTION AND ULTIMATE EMBANKMENT
- EXISTING R/W
- PROPOSED R/W
- APE LIMIT

PLANS PREPARED BY:



MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES



REGISTERED 7/31/24 DATE

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: BL	DRAWN BY: KW	CHECKED BY: SA	RECOMMENDED BY: CHRIS NGUYEN, P.E. ENGINEERING MANAGER 8/15/24 DATE
APPROVED BY: Thomas Bustamonte 8/15/24 DATE			APPROVED BY: MERVAT M. WAKHAIL, P.E. DEPUTY DIRECTOR 8/15/24 DATE

THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER

100% SUBMISSION 7/31/2024

GLEN HELEN PARKWAY BRIDGE
OVER CAJON WASH
GLEN HELEN PARKWAY
STAGE CONSTRUCTION
STAGE 2

J.L. REF. 11334	W.O. NO. H14646	DRAWING NO. SC-02	SHT. NO. 20	TOT. SHT'S. 102
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NOTES

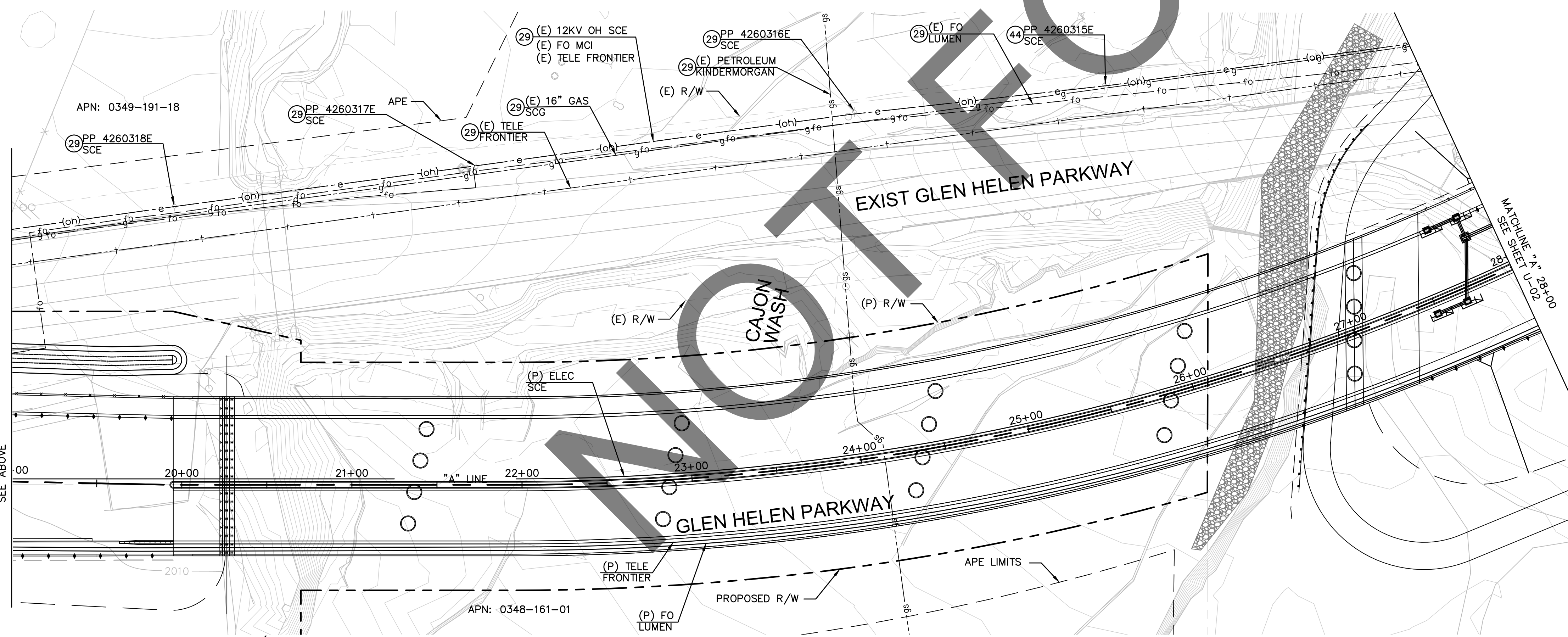
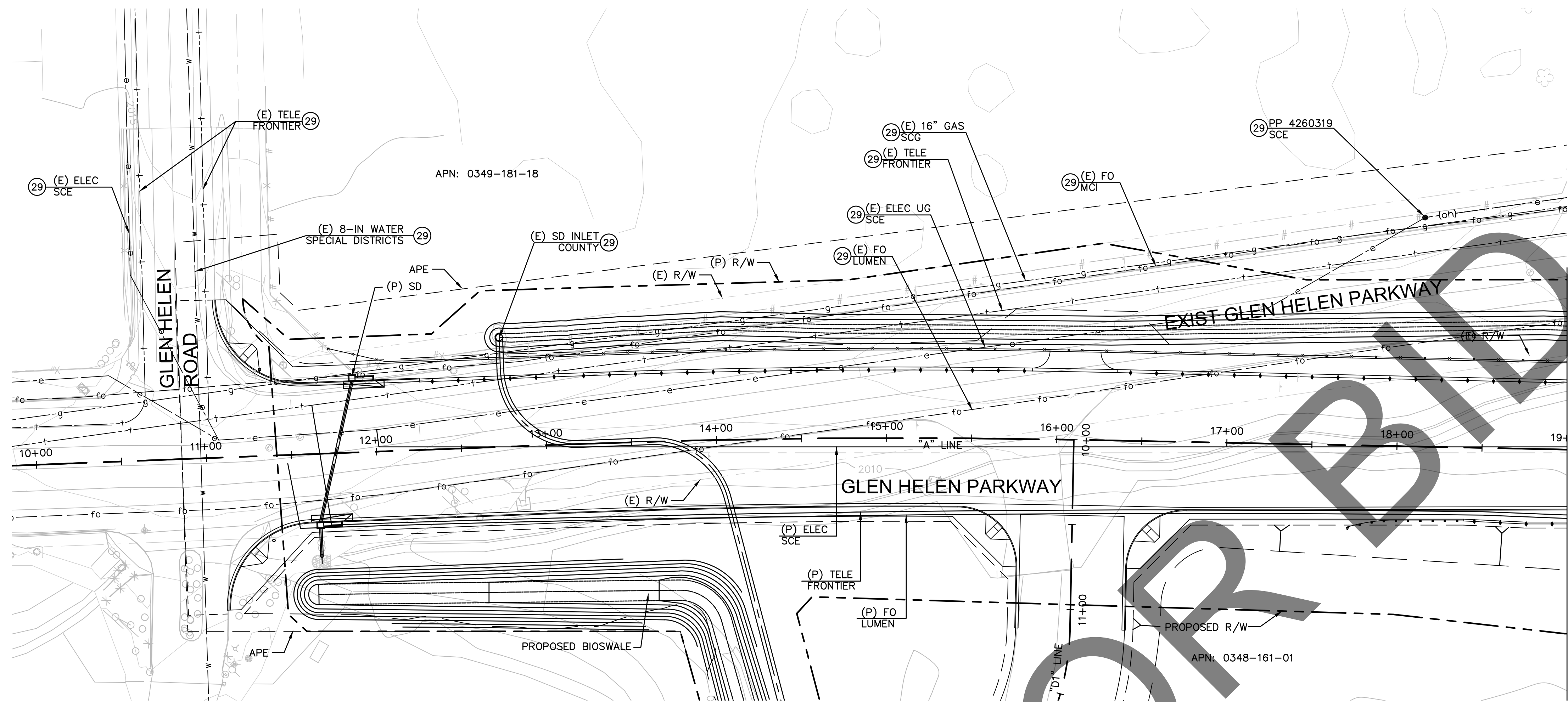
- EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS OF PARENT UTILITY COMPANIES AND MAY NOT ACCURATELY REPRESENT THEIR ACTUAL LOCATIONS. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL UTILITIES IN THE FIELD, OR COORDINATE SUCH INDEPENDENT VERIFICATION WITH THE PARENT UTILITY COMPANIES AND PROVIDE THE COUNTY WITH THE POTHOLE INFORMATION THREE (3) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL PROTECT IN PLACE OR COORDINATE WITH PARENT UTILITY COMPANY FOR THE RELOCATION OF CONFLICTING UTILITIES ENCOUNTERED DURING CONSTRUCTION.

LEGEND

- gs-----gs----- PETROLEUM LINE
- g-----g----- GAS LINE
- t-----t----- TELEPHONE LINE
- fo-----fo----- FIBER OPTICS LINE
- w-----w----- WATER LINE
- e-----e----- UNDERGROUND ELECTRICAL LINE
- e------(oh)----- OVERHEAD ELECTRICAL LINE
- UTILITY POLE
- (E) EXISTING
- (P) PROPOSED
- (E) R/W
- PROPOSED R/W
- SAWCUT
- APE
- BARRIER

CONSTRUCTION NOTES:

- 29 PROTECT-IN-PLACE
- 44 RELOCATE EXISTING SCE POLE PER SCE PLAN



MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050



PLANS PREPARED BY:

BKF ENGINEERS
 4675 MACARTHUR CT.
 SUITE 400
 NEWPORT BEACH, CA 92660
 (949) 526-8460
 www.bkf.com

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER
 SHEILA AMPARO
 78003
 Exp 9-30-25
 CIVIL
 STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: BL	DRAWN BY: KW	CHECKED BY: SA	RECOMMENDED BY: <i>Chris Nguyen</i>
DATE: 8/15/24	DATE: 8/15/24	DATE: 8/15/24	DATE: 8/15/24

APPROVED BY: *Thomas Bustamante*
 THOMAS BUSTAMANTE, P.E.
 SUPERVISING ENGINEER

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
GLEN HELEN PARKWAY COMPOSITE UTILITY PLAN NO.1

J.L. REF.	W.O. NO.	DRAWING NO.	SHT. NO.	TOT. SHT'S.
11334	H14646	U-01	21	102

100% SUBMISSION 7/31/2024

NOTES

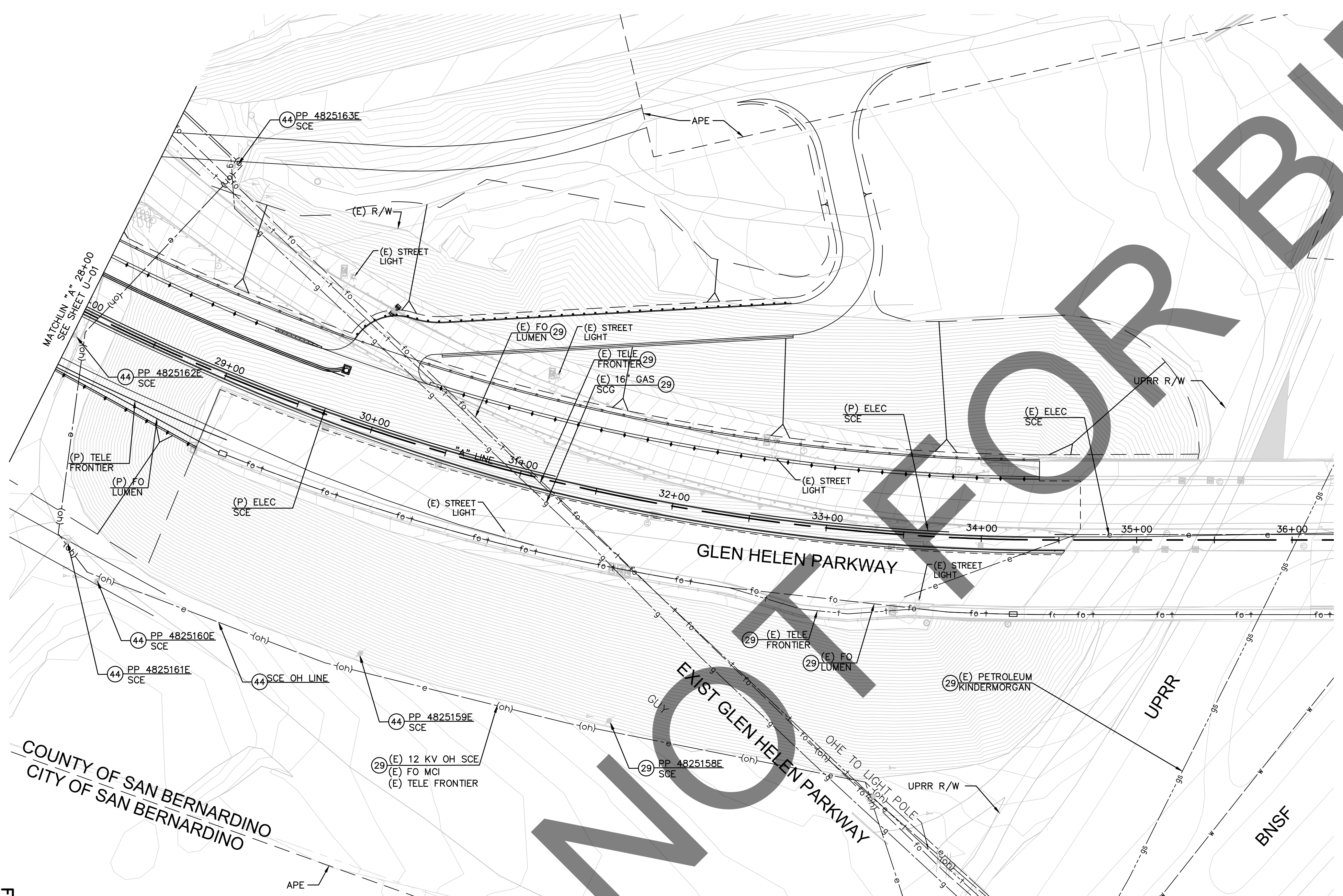
- EXISTING UTILITIES SHOWN ARE BASED ON AVAILABLE RECORDS OF PARENT UTILITY COMPANIES AND MAY NOT ACCURATELY REPRESENT THEIR ACTUAL LOCATIONS. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS (VERTICAL AND HORIZONTAL) OF ALL UTILITIES IN THE FIELD, OR COORDINATE SUCH INDEPENDENT VERIFICATION WITH THE PARENT UTILITY COMPANIES AND PROVIDE THE COUNTY WITH THE POTHOLE INFORMATION THREE (3) WORKING DAYS IN ADVANCE. THE CONTRACTOR SHALL PROTECT IN PLACE OR COORDINATE WITH PARENT UTILITY COMPANY FOR THE RELOCATION OF CONFLICTING UTILITIES ENCOUNTERED DURING CONSTRUCTION.

LEGEND

- gs-----gs----- PETROLEUM LINE
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- w-----w----- WATER LINE
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- e-----(-oh)- OVERHEAD ELECTRICAL LINE
- UTILITY POLE
- (E) EXISTING
- (P) PROPOSED
- (E) STREET LIGHT
- - - - - (E) R/W
- - - - - SAWCUT
- - - - - APE
- - - - - BARRIER

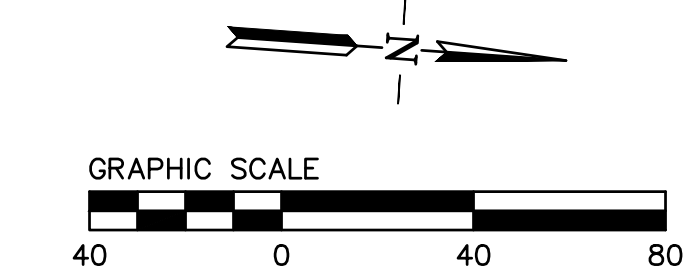
CONSTRUCTION NOTES:

- Ⓣ PROTECT-IN-PLACE
- Ⓚ RELOCATE EXISTING FACILITY PER SCE PLAN



MARK	REVISIONS	APPR.	DATE

COUNTY OF SAN BERNARDINO
CITY OF SAN BERNARDINO



FILE NO. 382400 050

100% SUBMISSION 7/31/2024

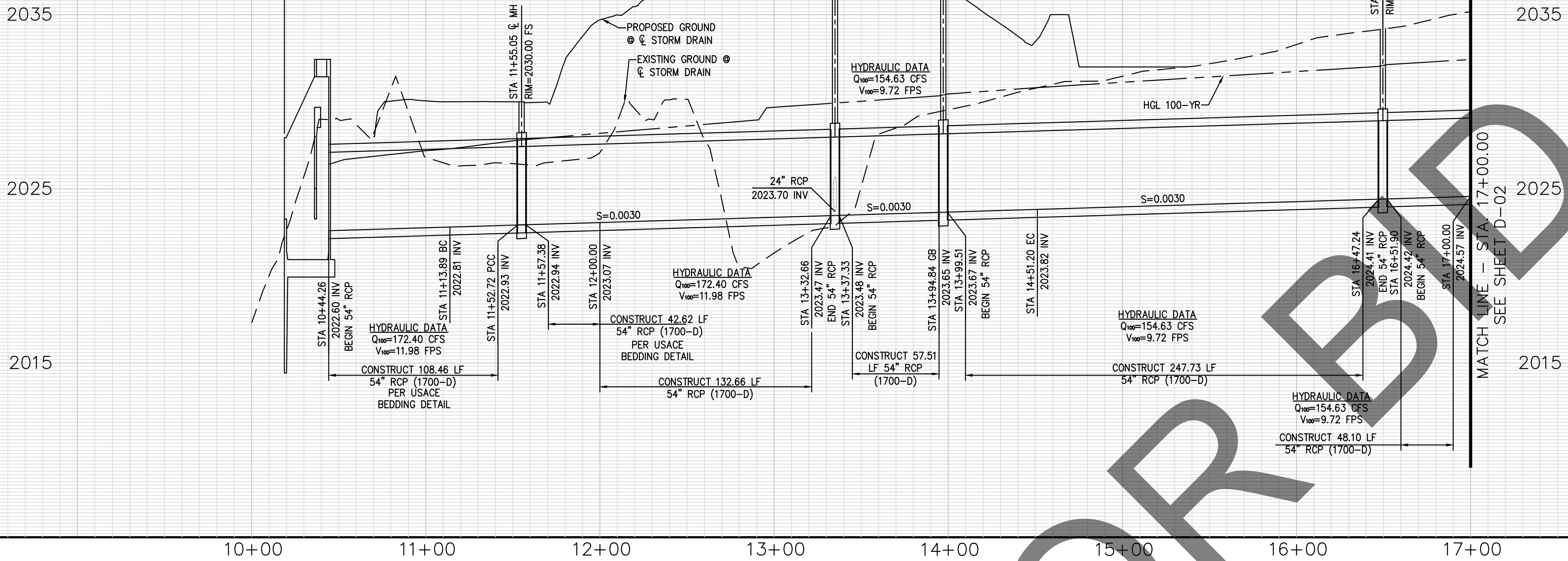
PLANS PREPARED BY: BKF ENGINEERS 4675 MACARTHUR CT. SUITE 400 NEWPORT BEACH, CA 92660 (949) 526-8460 www.bkf.com	REGISTERED PROFESSIONAL ENGINEER SHELIA AMPARO 78003 Exp 9-30-25 CIVIL STATE OF CALIFORNIA	SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS		GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH GLEN HELEN PARKWAY COMPOSITE UTILITY PLAN NO.2	
		DESIGNED BY: BL DRAWN BY: KW CHECKED BY: SA	RECOMMENDED BY: CHRIS NGUYEN, P.E. ENGINEERING MANAGER 8/15/24	APPROVED BY: THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER 8/15/24	APPROVED BY: MERVAT M. MURKHAJ, P.E. DEPUTY DIRECTOR 8/15/24

MARK	CHANGES	RESIDENT ENGINEER	DATE

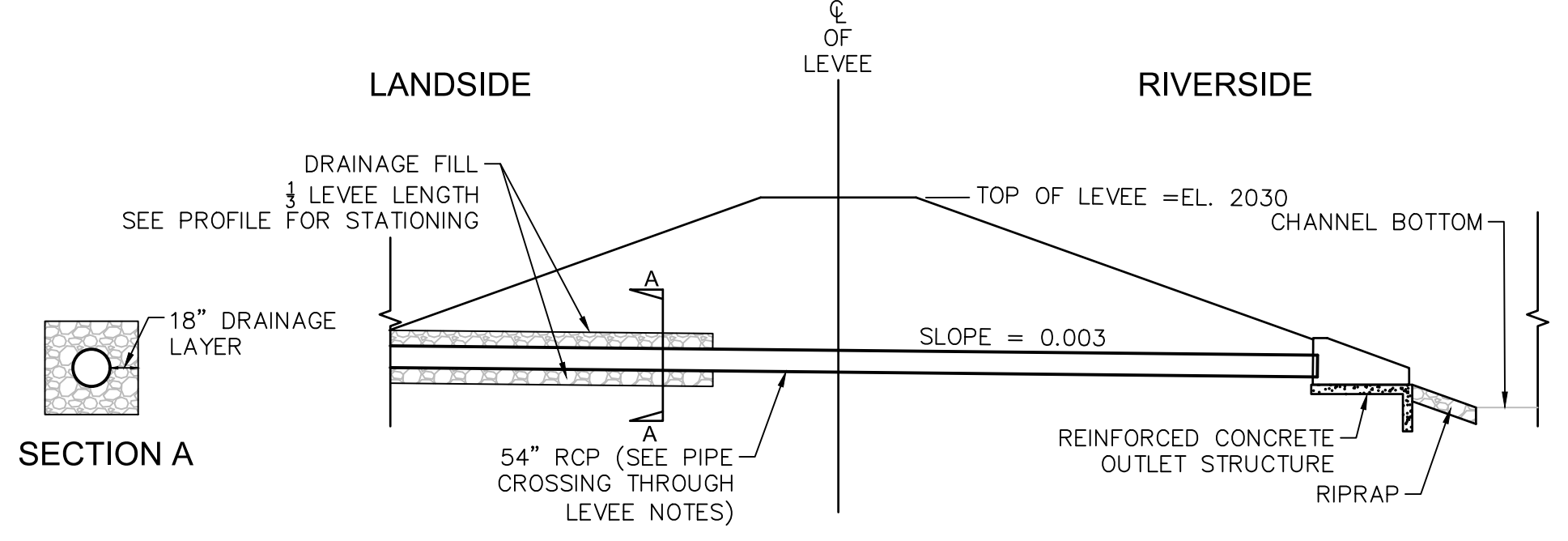
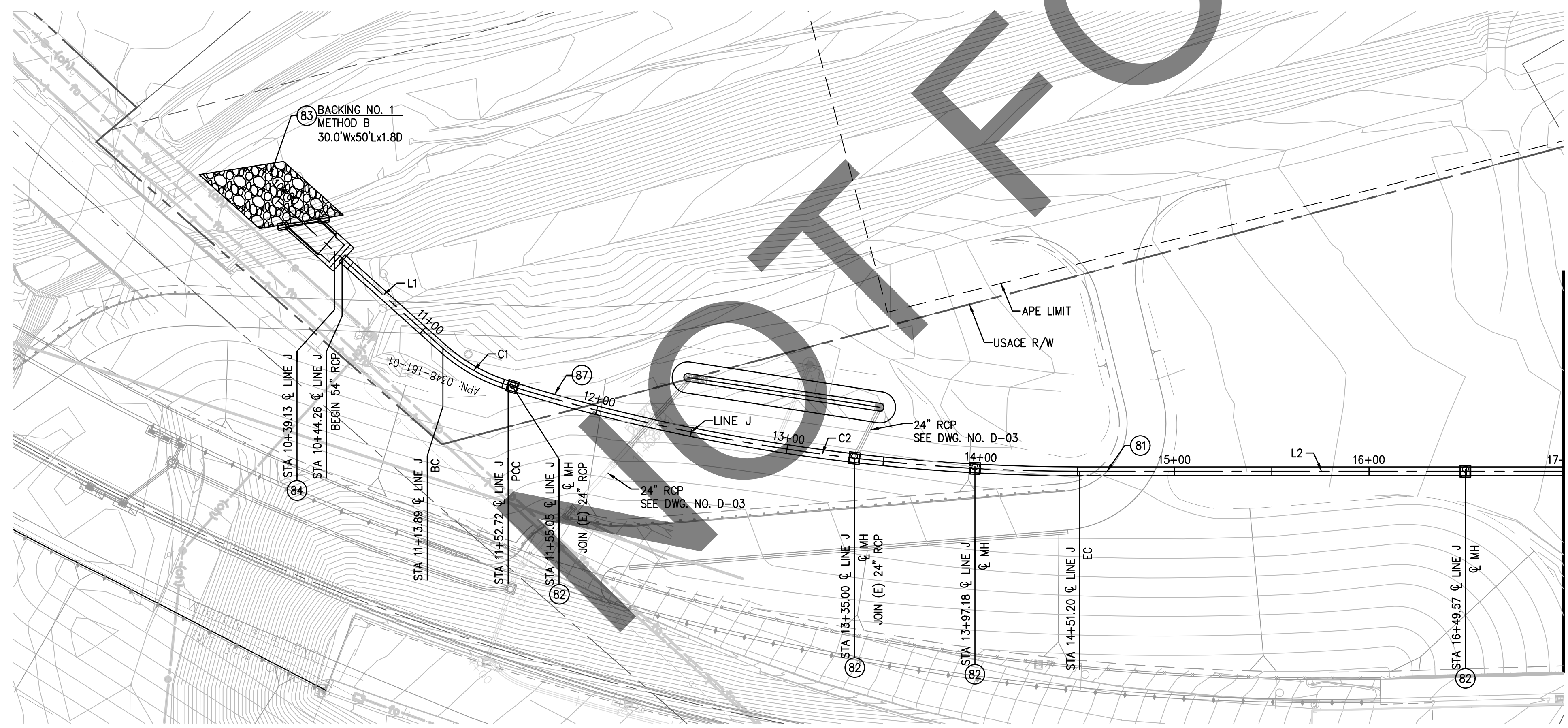
FIELD CHANGES

DESIGN ELEVATION LEGEND

- 100.00 ENGINEERED DESIGN ELEVATION
- (100.00) POTHOLED ELEVATION
- [100.00] ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR HAS TO POTHOLED EXISTING STORM DRAIN TO VERIFY ELEVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY PRIOR TO COMMENCEMENT OF WORK



PROFILE
SCALE: HORIZ 1"=40'
VERT 1"=8'



- PIPE CROSSING THROUGH LEVEES NOTE:
1. COMPACTED FILL MUST BE SPREAD IN LOOSE LIFT THICKNESSES NO GREATER THAN 12 INCHES, MOISTURE CONDITIONED TO +/- 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% RELATIVE COMPACTION.
 2. THE TRENCH DEPTH MUST BE 4-FOOT WIDER THAN THE PIPE DIAMETER AND THE FOUNDATION OVER EXCAVATED TO 2 FEET BELOW THE PIPE INVERT.
 3. CUT SLOPES MUST BE NO STEEPER THAN 1H:1V. SUITABLE EXCAVATED MATERIAL FROM THE LEVEE CAN BE STOCKPILED AND USED AS TRENCH BACKFILL.
 4. EXCAVATED MATERIAL MUST NOT BE STOCKPILED ON TOP OF LEVEE SIDE SLOPES.

87 USACE BEDDING DETAIL
D-01

CONSTRUCTION NOTES:

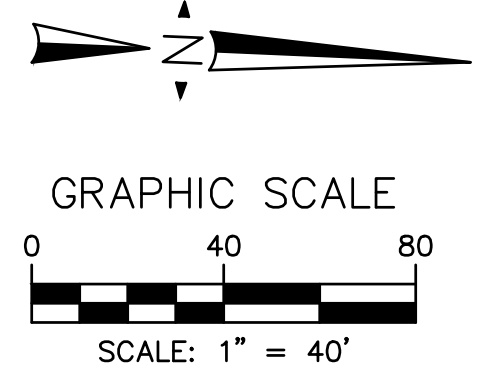
- (81) CONSTRUCT 54" RCP PER PLAN AND PROFILE AS SHOWN
- (82) CONSTRUCT MANHOLE PER SPPWC STD. PLAN NO. 320-2
- (83) CONSTRUCT 2" THICK BACKING NO.1 RSP PER PLAN AND CALTRANS METHOD B PLACEMENT
- (84) CONSTRUCT OUTLET STRUCTURE PER DETAIL ON SHEET S-200
- (87) CONSTRUCT 54" RCP WITH BEDDING IN ACCORDANCE WITH USACE STDS. EM 1110-2-1913 "PIPE CROSSING THROUGH OR BENEATH LEVEES" AND NOTES AS SHOWN ON DWG. NO. D-01

C.L. CURVE DATA:			
BEARING/DELTA	R	L	T
L1 N39°20'47"E	---	113.89'	---
C1 24°43'12"	90.00'	38.83'	19.72'
L2 N2°28'33"W	---	248.80'	---
C2 17°06'07"	1000.00'	298.49'	150.36'

100% SUBMISSION 8/1/2024

MARK	REVISIONS	APPR.	DATE

FILE NO. 382400 050



PLANS PREPARED BY:

BKF ENGINEERS
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460
www.bkf.com

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER
ROGER T. CHUNG
No. C65388
CIVIL
STATE OF CALIFORNIA

8/1/24
REGISTERED PROFESSIONAL ENGINEER

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: BL	DRAWN BY: KW	CHECKED BY: SA	RECOMMENDED BY: [Signature]
			CHRIS NGUYEN, P.E. ENGINEERING MANAGER
			8/15/24 DATE

APPROVED BY: [Signature]
Thomas Bustamante
THOMAS BUSTAMONTE, P.E.
SUPERVISING ENGINEER

8/15/24 DATE

8/15/24 DATE
SERVATI M. WIKHAIL, P.E.
DEPUTY DIRECTOR

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH
DRAINAGE IMPROVEMENT PLAN
PLAN AND PROFILE
LINE J: 10+00 TO 17+00

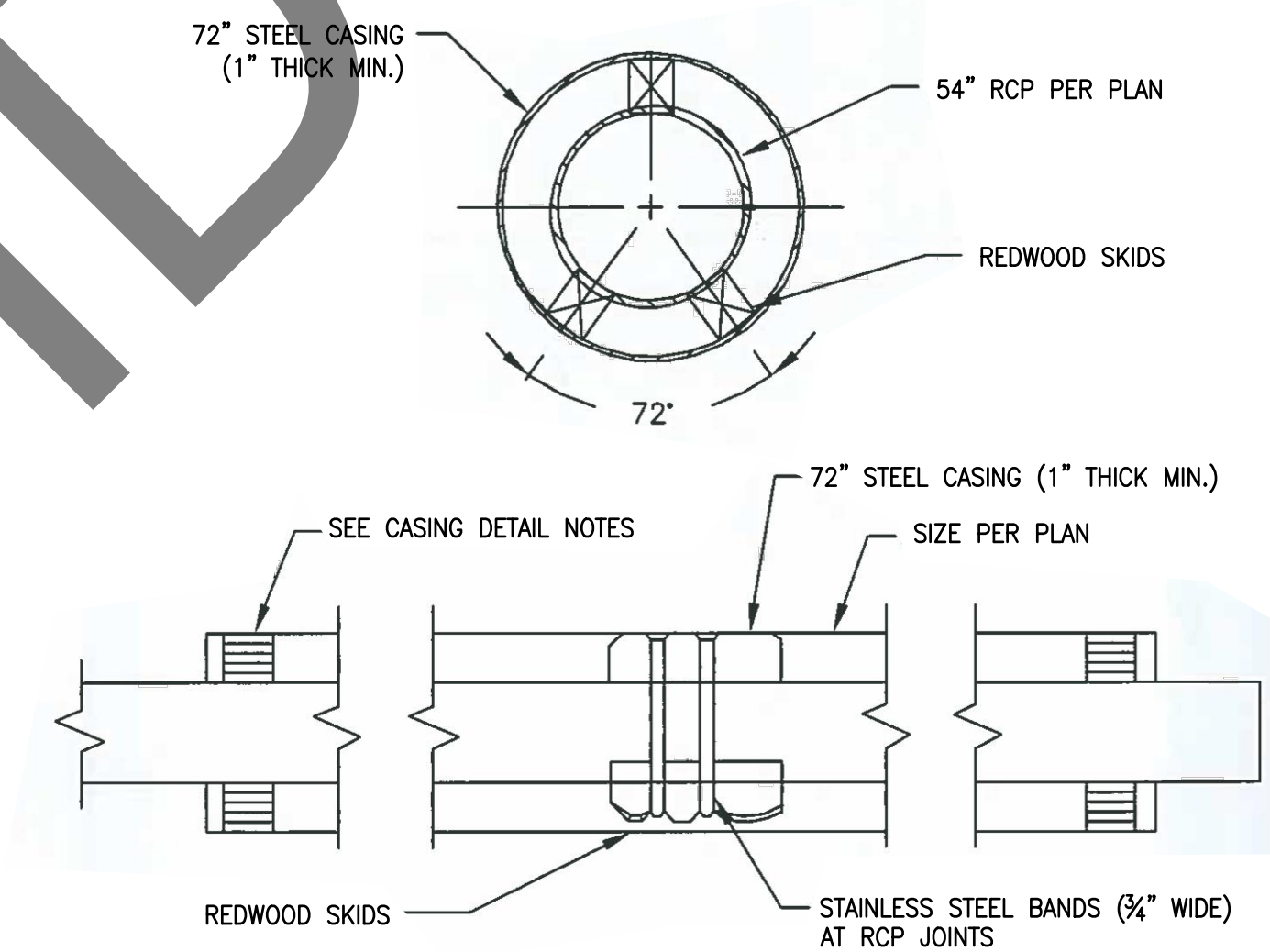
J.L. REF.	W.O. NO.	DRAWING NO.	SHT. NO.	TOT. SHTS.
11334	H14646	D-01	23	102

DESIGN ELEVATION LEGEND

- 100.00 ENGINEERED DESIGN ELEVATION
- (100.00) POTHOLED ELEVATION
- [100.00]** ELEVATIONS SHOWN ARE APPROXIMATE. CONTRACTOR HAS TO POTHOLE EXISTING STORM DRAIN TO VERIFY ELEVATIONS. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCY PRIOR TO COMMENCEMENT OF WORK

CASING DETAIL NOTES:

1. SKIDS SHALL BE REDWOOD, 30" LONG AND 4" WIDE, AND OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM 2" CLEARANCE BETWEEN INVERT OF CASING OUTSIDE OF RCP. ALL SKIDS SHALL BE OF EQUAL DIMENSIONS AND POSITIONED UNIFORMLY.
2. ALL STEEL CASING PIPE FIELD JOINTS SHALL BE WELDED WITH CONTINUOUS CIRCUMFERENTIAL WELDS.
3. CARRIER PIPE SHALL BE AIR TESTED PRIOR TO SLURRY BACKFILLING AND SEALING CASING.
4. VOID BETWEEN CASING AND CARRIER PIPE SHALL BE FILLED WITH PRESSURE CONCRETE CLASS 490-C-2000P.
5. UPSTREAM AND DOWNSTREAM ELEVATIONS TO BE VERIFIED PRIOR TO SEALING CASING.



72" STEEL CASING DETAIL

C.L. CURVE DATA:			
BEARING/Delta	R	L	T
L3 N2°28'33"W	---	540.61'	---

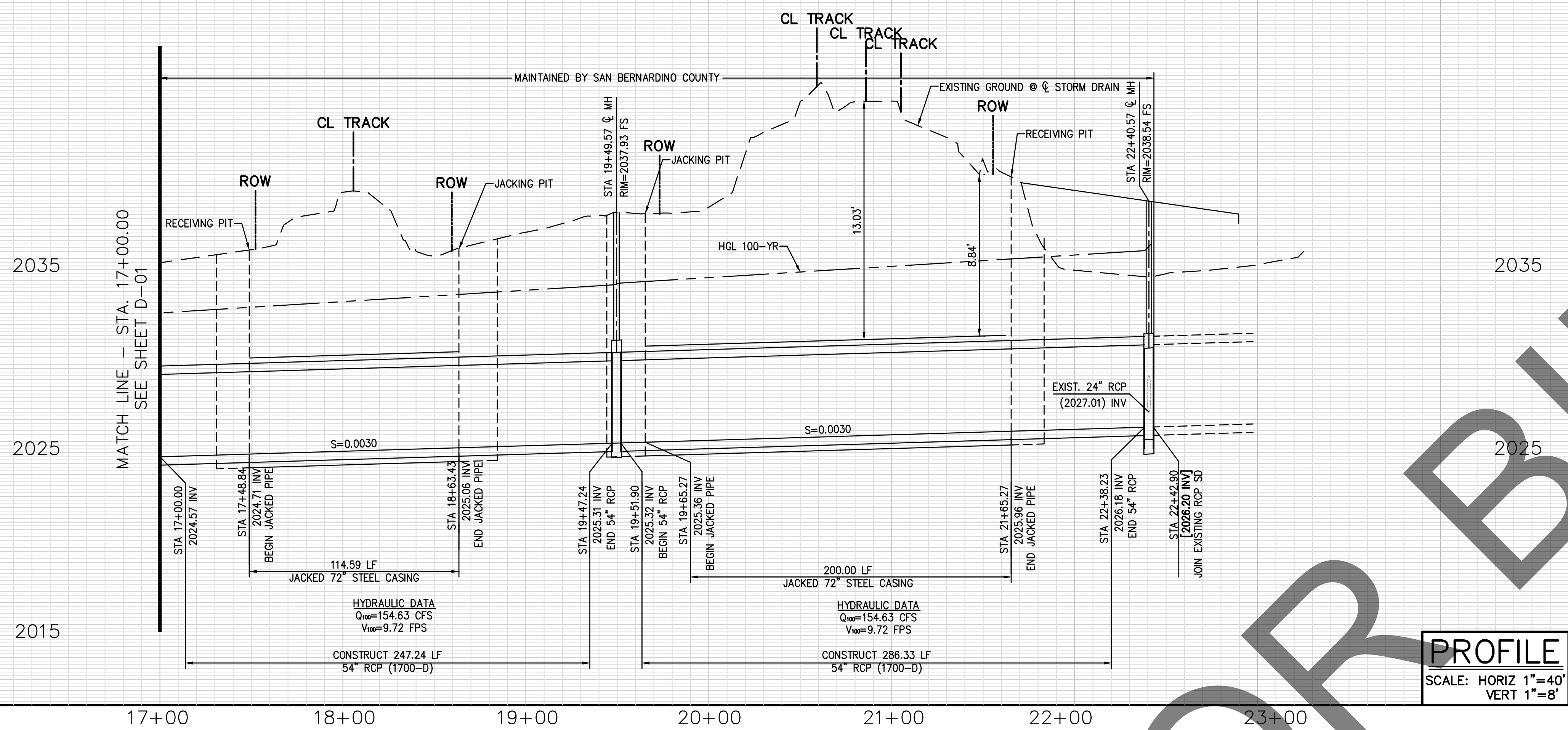
CONSTRUCTION NOTES:

- (29) PROTECT-IN-PLACE
- (81) CONSTRUCT 54" RCP PER PLAN AND PROFILE AS SHOWN
- (82) CONSTRUCT MANHOLE PER SPPWC STD. PLAN NO. 320-2
- (86) CONSTRUCT 72" STEEL CASING W/ 1" VIA BORE AND JACK METHOD PER PLAN, PROFILE, AND DETAIL ON SHEET D-02

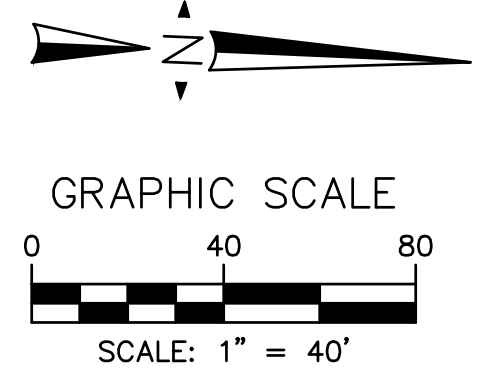
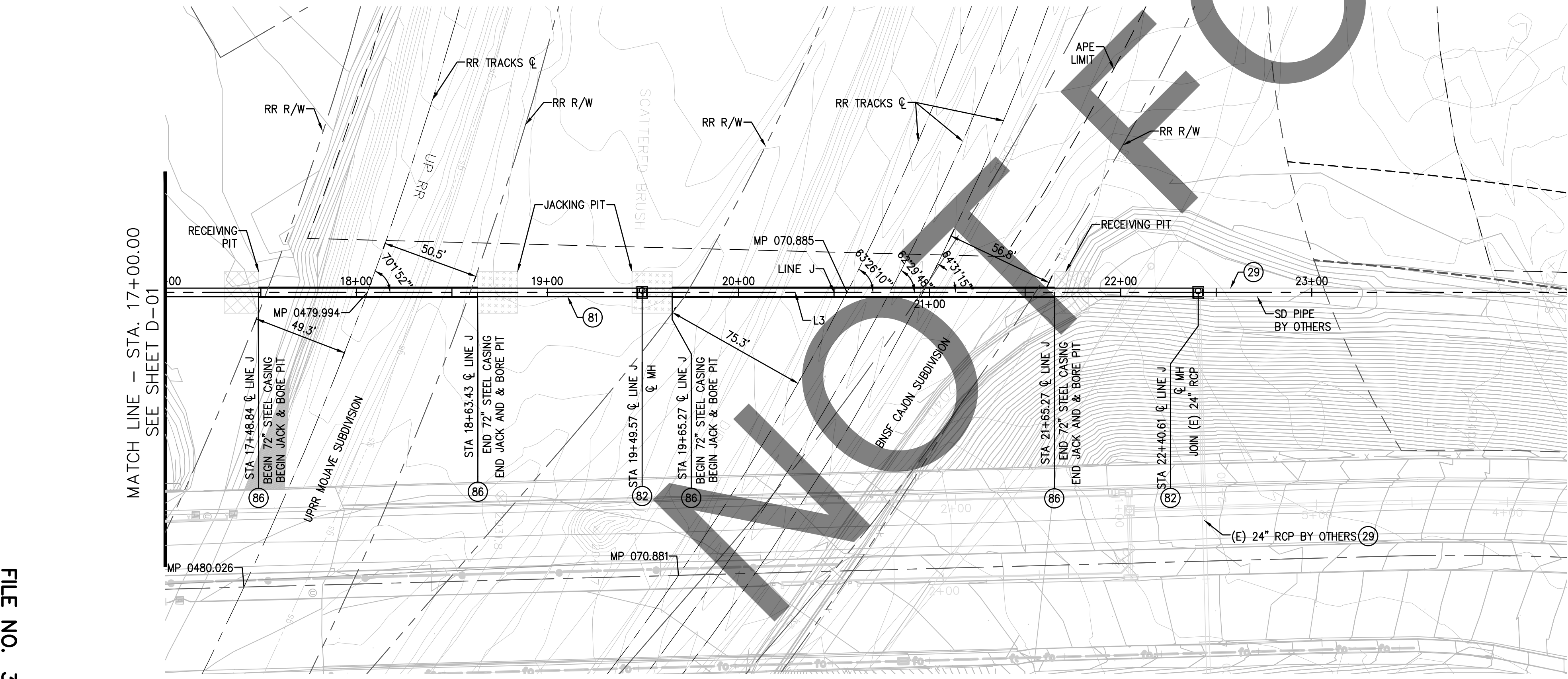
100% SUBMISSION 8/1/2024

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH DRAINAGE IMPROVEMENT PLAN PLAN AND PROFILE
 LINE J: 17+00 TO 22+42.90

J.L. REF.	W.O. NO.	DRAWING NO.	SHT. NO.	TOT. SHT'S.
11334	H14646	D-02	24	102



PROFILE
 SCALE: HORIZ 1"=40'
 VERT 1"=8'



PLANS PREPARED BY:

BKF ENGINEERS
 4675 MACARTHUR CT.
 SUITE 400
 NEWPORT BEACH, CA 92660
 (949) 526-8460
 www.bkf.com

REGISTERED PROFESSIONAL ENGINEER
 ROGER T. CHUNG
 No. C65388
 CIVIL
 STATE OF CALIFORNIA

DESIGNED BY: BL
 DRAWN BY: KW
 CHECKED BY: SA
 RECOMMENDED BY: [Signature] 8/15/24
 DATE

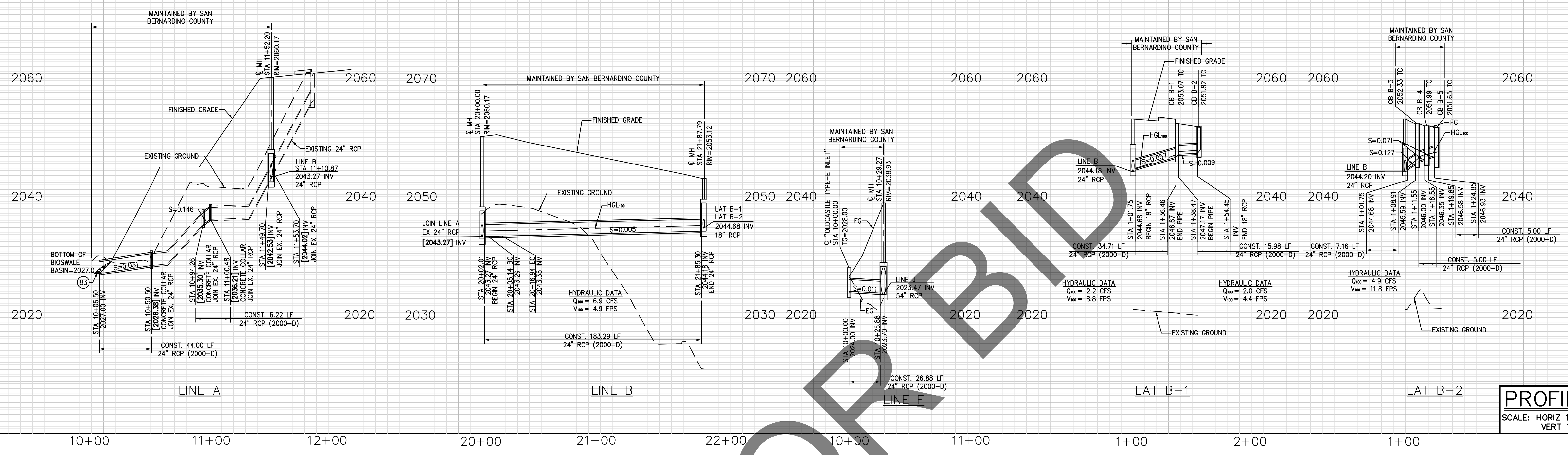
APPROVED BY: [Signature] 8/15/24
 DATE

THOMAS BUSTAMONTE, P.E.
 SUPERVISING ENGINEER

APPROVED BY: [Signature] 8/15/24
 DATE

HERVAT M. WIKHAIL, P.E.
 DEPUTY DIRECTOR

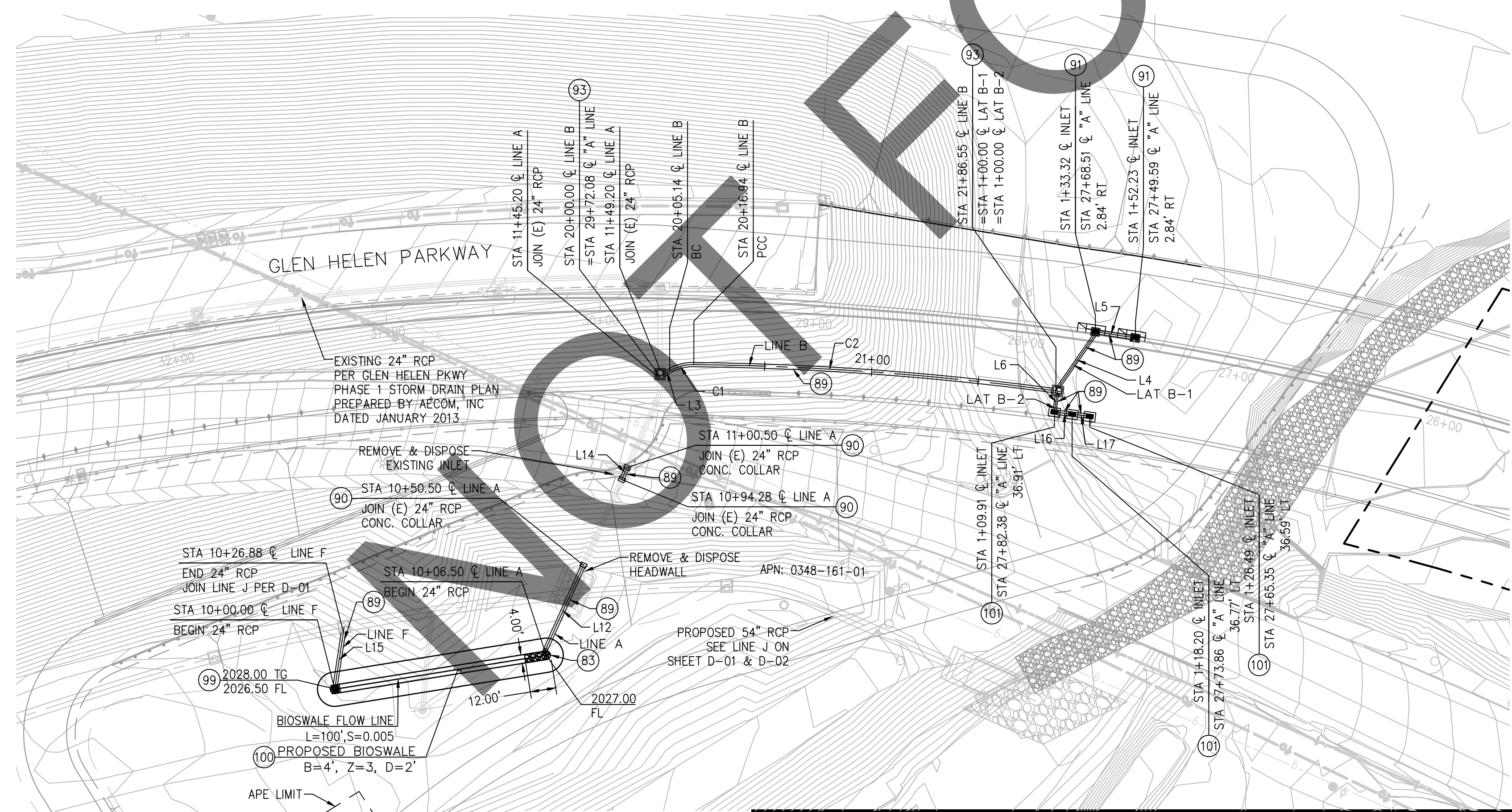
MARK	REVISIONS	APPR.	DATE



PROFILE
 SCALE: HORIZ 1"=40'
 VERT 1"=8'

MARK	REVISIONS	DATE

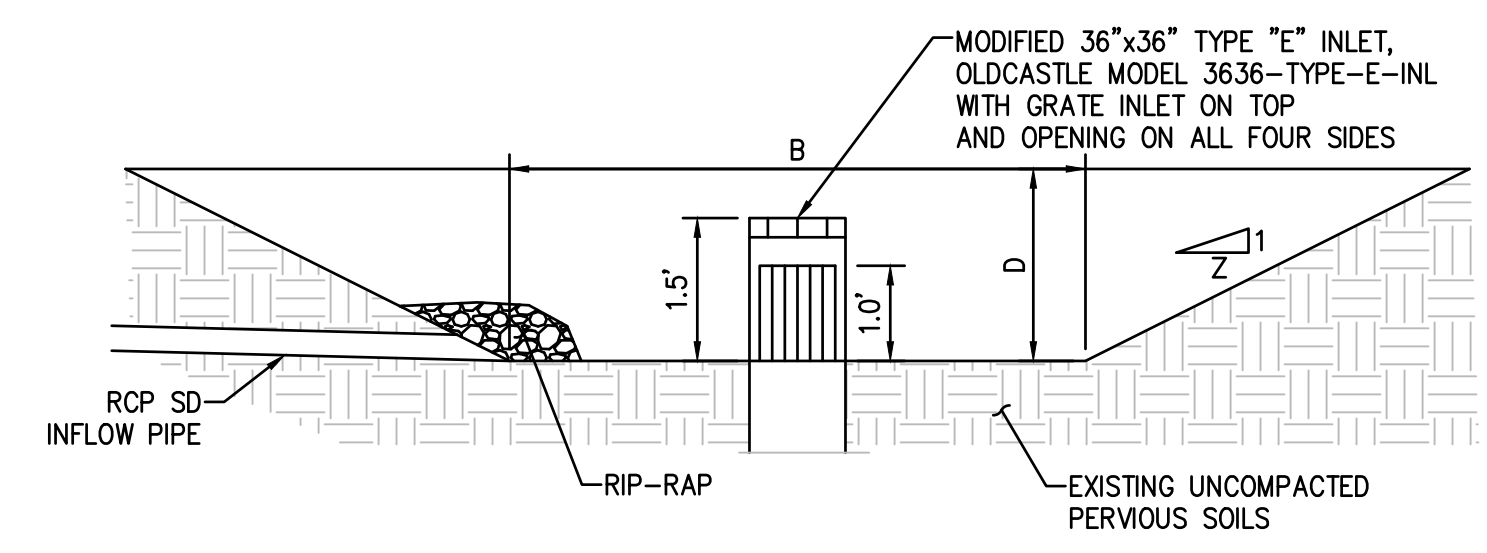
FILE NO. 382400 050



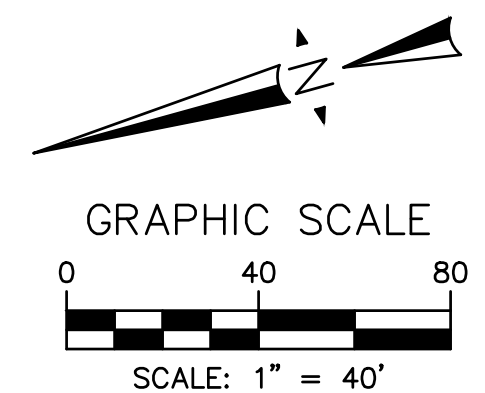
C.L. CURVE DATA:

BEARING/DELTA	R	L	T
C1 30°02'19"	22.50'	11.80'	6.04'
C2 7°01'32"	1373.00'	168.36'	84.28'
C3 45°56'10"	45.00'	36.08'	19.07'
L3 S13°57'06"E	---	3.14'	---
L4 S39°43'05"E	---	34.71'	---
L5 S24°24'33"W	---	15.98'	---
L6 N66°00'44"W	---	7.16'	---
L12 S50°23'14"E	---	44.00'	---
L14 S50°23'14"E	---	6.22'	---
L15 S65°49'19"E	---	26.88'	---
L16 S22°26'32"W	---	5.00'	---
L17 S22°26'32"W	---	5.00'	---

- CONSTRUCTION NOTES:**
- (83) CONSTRUCT 2" THICK BACKING NO.1 RSP PER PLAN AND CALTRANS METHOD B PLACEMENT
 - (89) CONSTRUCT 24" RCP PER PLAN AND PROFILE AS SHOWN
 - (90) CONSTRUCT CONCRETE COLLAR PER SPPWC STD PLAN NO. 380-4
 - (91) CONSTRUCT TYPE "GO" INLET PER CALTRANS STD PLAN NO. D73B
 - (92) CONSTRUCT JUNCTION STRUCTURE PER SPPWC STD PLAN NO. 321-2
 - (93) INSTALL MODIFIED 36"x36" TYPE "E" INLET, OLDCASTLE MODEL 3636-TYPE-E-INL, WITH GRATE INLET ON TOP AND OPENING ON ALL FOUR SIDES
 - (100) CONSTRUCT BIOSWALE PER DETAIL ON DWG. NO. D-03, DIMENSIONS PER PLAN
 - (101) CONSTRUCT TYPE "G1" INLET PER CALTRANS STD PLAN NO. D73B



(100) D-03

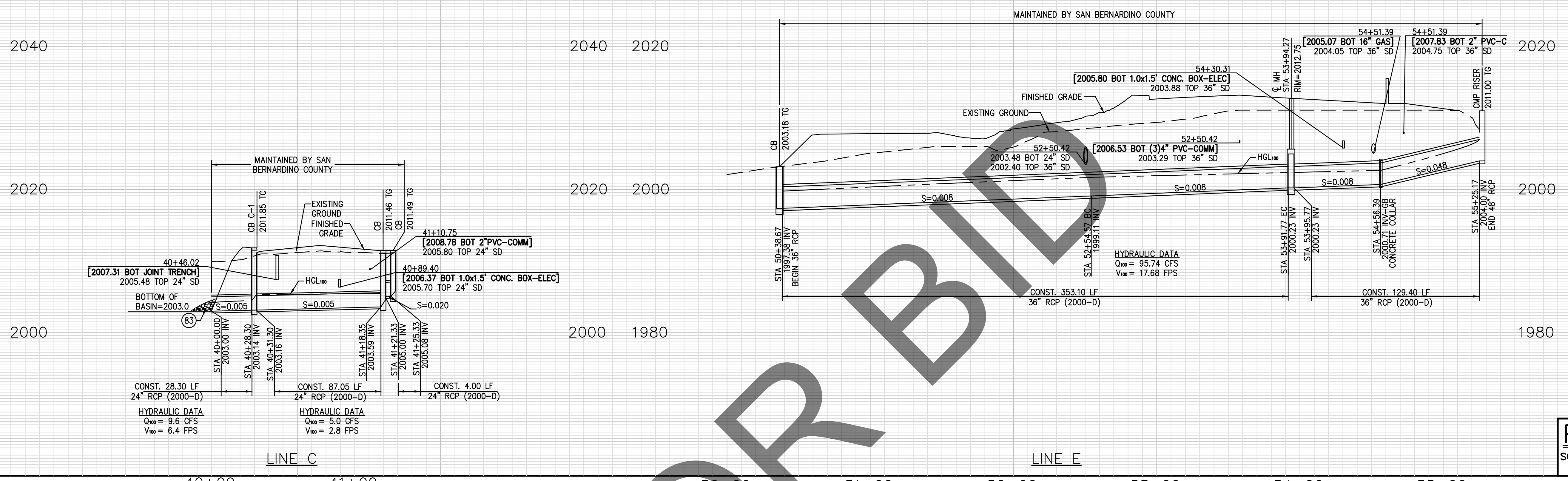


DESIGN ELEVATION LEGEND

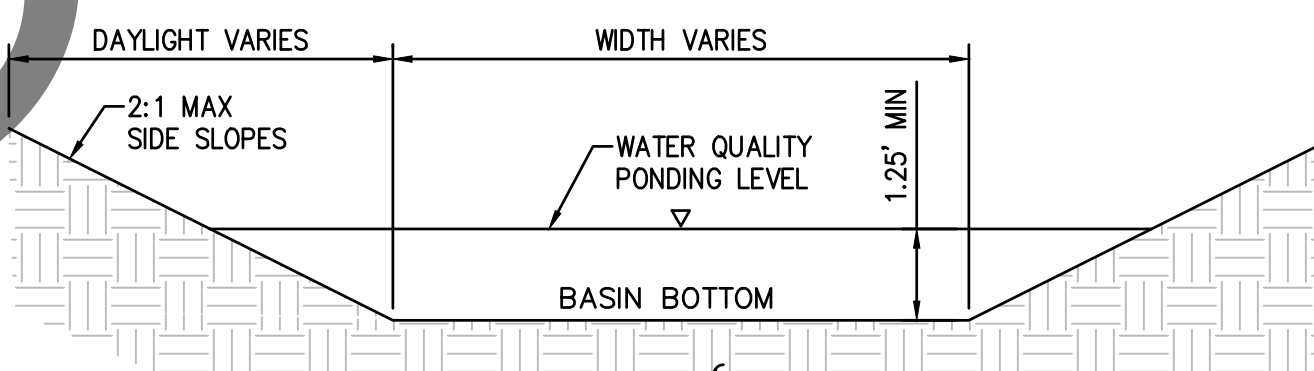
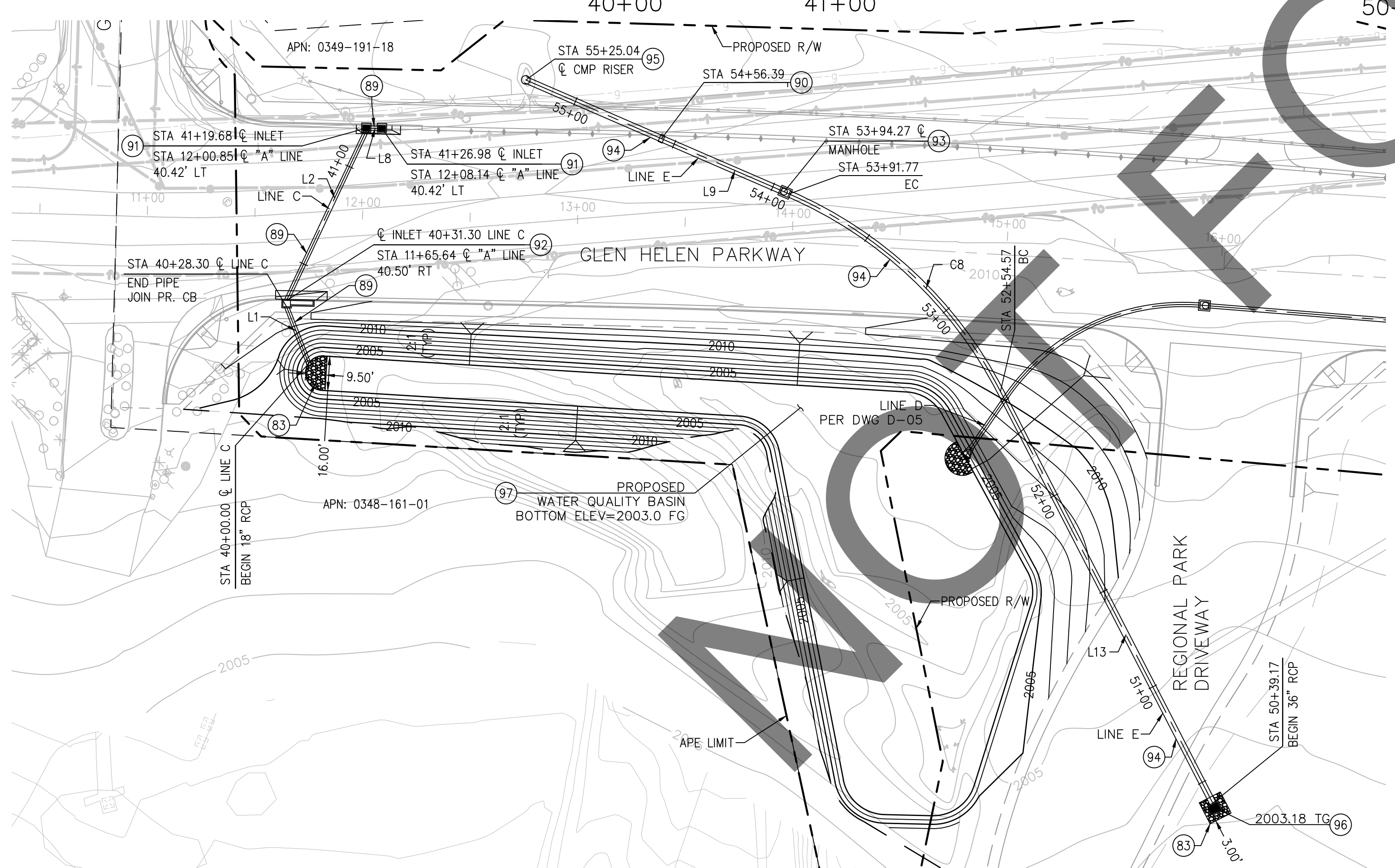
- 100.00 ENGINEERED DESIGN ELEVATION
- (100.00) POTHOLE ELEVATION
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100% SUBMISSION 7/31/2024

PLANS PREPARED BY: BKF ENGINEERS 4675 MACARTHUR CT. SUITE 400 NEWPORT BEACH, CA 92660 (949) 526-8460 www.bkf.com		REGISTERED PROFESSIONAL ENGINEER ROGER T. CHUNG No. C65388 CIVIL STATE OF CALIFORNIA		SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS DESIGNED BY: BL DRAWN BY: KW CHECKED BY: SA RECOMMENDED BY: [Signature] THOMAS BUSTAMANTE, P.E. 8/15/24 SUPERVISING ENGINEER DEPUTY DIRECTOR		GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH DRAINAGE IMPROVEMENT PLAN PLAN AND PROFILE LINE A, LINE B, AND LINE F	
FIELD CHANGES CHANGES: NO CHANGES RESIDENT ENGINEER: [Signature] DATE: 7/31/24 REGISTERED PROFESSIONAL ENGINEER		J.L. REF. 11334 W.O. NO. H14646 DRAWING NO. D-03 SHT. NO. 25 TOT. SHT'S. 102		2014233			



PROFILE
SCALE: HORIZ 1"=40'
VERT 1"=8'



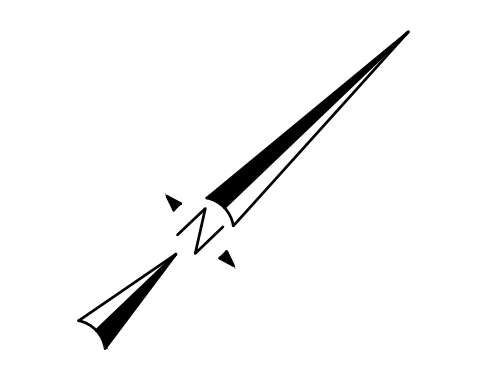
C.L. CURVE DATA:

BEARING/Delta	R	L	T
L1 N67°30'53"W	---	28.30'	---
L2 N21°06'32"W	---	87.05'	---
L8 N44°59'07"E	---	4.00'	---
L9 S67°09'48"W	---	129.40'	---
CB 39°18'21"	200.00'	137.20'	71.42'
L13 N73°31'51"W	---	215.90'	---

- CONSTRUCTION NOTES:**
- (83) CONSTRUCT 2' THICK BACKING NO.1 RSP PER PLAN AND CALTRANS METHOD B PLACEMENT
 - (89) CONSTRUCT 24" RCP PER PLAN AND PROFILE AS SHOWN
 - (90) CONSTRUCT CONCRETE COLLAR PER SPPWC STD PLAN NO. 380-4
 - (91) CONSTRUCT TYPE "GO" INLET PER CALTRANS STD PLAN NO. D73B
 - (92) CONSTRUCT TYPE "OL" INLET (L=14') PER CALTRANS STD PLAN NO. D73A
 - (93) CONSTRUCT JUNCTION STRUCTURE PER SPPWC STD PLAN NO. 321-2
 - (94) CONSTRUCT 36" RCP PER PLAN AND PROFILE AS SHOWN
 - (95) CONSTRUCT 48" CMP RISER WITH CONNECTION DETAIL PER CALTRANS STD D93A
 - (96) INSTALL OLDCASTLE CATCH BASIN MODEL CB-484848 WITH A PERFORATED OR SOFT BOTTOM OR APPROVED EQUAL
 - (97) CONSTRUCT WATER QUALITY BASIN PER GRADING AND DETAIL AS SHOWN ON DWG. NO. D-04

DESIGN ELEVATION LEGEND

- 100.00 ENGINEERED DESIGN ELEVATION
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100% SUBMISSION 8/17/2024

MARK	REVISIONS	DATE

FILE NO. 382400 050

PLANS PREPARED BY:

BKF ENGINEERS
4675 MACARTHUR CT.
SUITE 400
NEWPORT BEACH, CA 92660
(949) 526-8460
www.bkf.com

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER
ROGER T. CHUNG
No. C65388
CIVIL
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
THOMAS BUSTAMONTE
8/15/24
DATE

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: **BL** DRAWN BY: **KW** CHECKED BY: **SA** RECOMMENDED BY: **Chris Nguyen** 8/15/24 DATE

APPROVED BY: **Thomas Bustamonte** 8/15/24 DATE
THOMAS BUSTAMONTE, P.E. SUPERVISING ENGINEER

GLEN HELEN PARKWAY BRIDGE OVER CAJON WASH DRAINAGE IMPROVEMENT PLAN PLAN AND PROFILE LINE C & LINE E

J.L. REF.	W.O. NO.	DRAWING NO.	SHT. NO.	TOT. SHT'S.
11334	H14646	D-04	26	102