FILE NO. 586600 120

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

SAN BERNARDINO COUNTY PUBLIC WORKS

TRANSPORTATION

PLANS FOR CONSTRUCTION ON

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

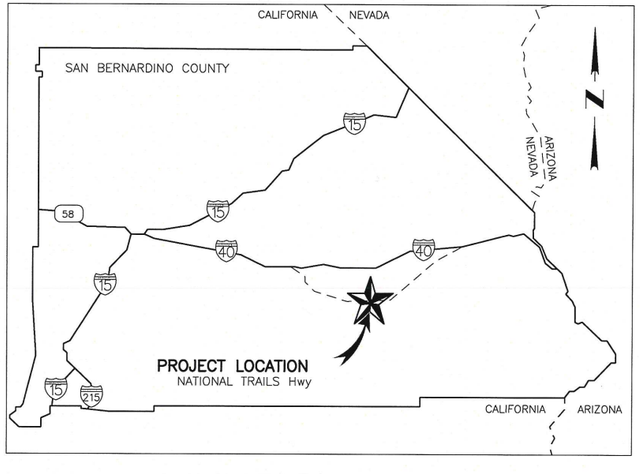
LIMITS

ON NATIONAL TRAILS HIGHWAY

FROM 2.0 MILES EAST OF KELBAKER RD TO 2.8 MILES EAST OF KELBAKER RD

WORK ORDER NO. H15220 ROAD NO. 586600-120

LENGTH = 0.8 MILES



LOCATION MAP

NOT TO SCALE

SAN BERNARDINO COUNTY

APPROVED BY: _____ 1/24/24
NOEL CASTILLO, P.E., DIRECTOR OF PUBLIC WORKS R.C.E. 78044 DATE

T-1

MARK	CHANGES / NO CHANGES	RESIDENT ENGINEER	DATE
	FIELD CHANGES	SHT. NO. 1	TOT. SHTS. 54

FILE NO. 586600 120

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INDEX OF SHEETS:

TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS STANDARD PLANS 2023.

A77L1	A77N4	A77N14	A77N5	A77U4
A87B	D87D	A20B	A20A	A73C
T3A	A85			

TO BE SUPPLEMENTED BY THE LATEST CALIFORNIA MUTCD STD.

FIGURE 3F–101(CA) TYPE E FIGURE 2A–2(CA) FIGURE 2C–13(CA)

GENERAL NOTES

A. THE FACT THAT ANY UTILITY FACILITY IS SHOWN OR NOT SHOWN UPON THE PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER SECTION 5–1.36D "NON–HIGHWAY FACILITIES," OF THE CALTRANS STANDARD SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PURSUANT THERETO, TO ASCERTAIN THE LOCATION OF ANY UTILITY FACILITY WHICH MAY BE SUBJECT TO DAMAGE BY THE REASON OF THE CONTRACTOR'S OPERATIONS.

1. ALL STATIONING NOTES ON PLAN REFER TO THE CL IMP NATIONAL TRAILS HIGHWAY OR SHOOFLY.
2. DIMENSIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE CALTRANS STANDARD SPECIFICATIONS.
3. ALL PAVEMENT WIDTH DIMENSIONS SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
4. TRANSITIONS AND WARPING SHALL BE AS SHOWN AND AS DETERMINED BY THE ENGINEER.
5. ASPHALT CONCRETE OVERLAYS SHALL BE FEATHERED TO MEET EXISTING AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
6. ALL TREES & VEGETATION OUTSIDE THE LIMITS OF EXCAVATION AND EMBANKMENT SLOPE LINES, SHALL BE PROTECTED IN PLACE.

BASIS OF BEARINGS

CCS83 ZONE 5, NAD–83 (1992.88)
COORDINATES AND DISTANCES ARE GRID
COMBINATION FACTOR = 0.9998439119

BENCH MARK:

FOUND 3.5" NGS BRASS DISC IN 10"X10" CONC MNMT STAMPED "Z1308–1978 NATIONAL GEODETIC SURVEY" PER NGS DATASHEET
PID# EU0704.
NAVD ELEVATION = 1099.53'

RESIDENT ENGINEER'S NOTE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE DRAWINGS.

CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE SAN BERNARDINO COUNTY, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

ABBREVIATIONS LEGEND:

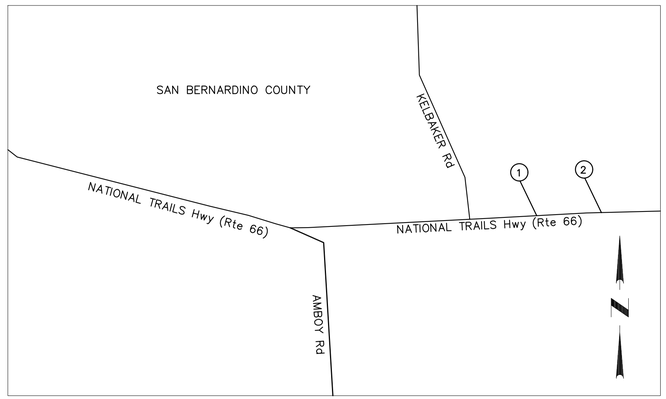
AB	=	AGGREGATE BASE
ABUT	=	ABUTMENT
AITS	=	ALTERNATIVE IN–LINE TERMINAL SYSTEM
APE	=	AREA OF POTENTIAL EFFECTS
BB	=	BEGIN BRIDGE
BP	=	BEGIN PROJECT
BVC	=	BEGIN VERTICAL CURVE
C	=	CUT
CASQA	=	CALIFORNIA STORM WATER QUALITY ASSOCIATION
CL	=	CENTER LINE
CL2	=	CLASS TWO
CONST	=	CONSTRUCTION
CP	=	CATCH POINT
DL	=	DOLA AND LANZIT ALIGNMENT
EB	=	END BRIDGE
Elev	=	ELEVATION
EP	=	EDGE OF PAVEMENT
ES	=	EDGE OF SHOULDER
ETW	=	EDGE OF TRAVEL WAY
EVC	=	END VERTICAL CURVE

ABBREVIATIONS LEGEND:

F	=	FILL
FG	=	FINISHED GRADE
HMA	=	HOT MIX ASPHALT
HP	=	HINGE POINT
MAX	=	MAXIMUM
MGS	=	MIDWEST GUARDRAIL SYSTEM
OG	=	ORIGINAL GROUND
OSD	=	OVERSIDE DRAIN
PG	=	PROFILE GRADE
POT	=	POINT OF TANGENT
PROP	=	PROPOSED
RSP	=	ROCK SLOPE PROTECTION
R/W	=	RIGHT OF WAY
Temp	=	TEMPORARY
TYP	=	TYPICAL
Sta	=	STATION
Var	=	VARIES
VC	=	VERTICAL CURVE
VPI	=	VERTICAL POINTS OF INTERSECTION

CONSTRUCTION/UTILITY LEGEND

- COLD PLANE OVERLAY (HMA)
- FIBER OPTIC
- FIBER ROLL
- PULVERIZE SURFACING
- ROCK SLOPE PROTECTION
- ROADWAY EXCAVATION
- CONSTRUCTION AREA
- DIRECTION OF TRAFFIC
- CUT/FILL
- APE LIMITS
- TEMPORARY BARRIER SYSTEM
- TYPE III BARRICADE
- TEMPORARY FENCE (TYPE CL–6)
- CONSTRUCTION AREA SIGN



	INDEX MAP LEGEND
1	DOLA DITCH
2	LANZIT DITCH

INDEX MAP
NOT TO SCALE

CONSTRUCTION NOTES

1 PLACE 0.40' HOT MIXED ASPHALT TYPE A OVER 0.45' CLASS 2 AGGREGATE BASE WITH 2 LAYERS OF TACK COAT INBETWEEN. WITH 2.5' OVER–EXCAVATION AND 95% COMPACTION.
2 INSTALL MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD PLAN A77L1.
3 INSTALL ALTERNATIVE IN–LINE TERMINAL SYSTEM PER CALTRANS STD. PLAN A77N14.
4 PLACE VEGETATION CONTROL (MINOR CONCRETE) AND BLOCK–OUT MATERIAL PER CALTRANS STD PLAN A77N5.
5 SEE EROSION CONTROL PLANS FOR BMP ON SLOPES PER CASQA STD.
6 PLACE HOT MIXED ASPHALT DIKE (TYPE A), PER CALTRANS STD PLAN A77N4 AND A87B.
7 COLD PLANE ASPHALT CONCRETE PAVEMENT 2" MIN AND OVERLAY HMA (TYPE A). SEE COLD PLANE OVERLAY (HMA) DETAIL, SHEET C–1.
8 INSTALL 3'x6' RSP (20 LB, CLASS I, METHOD B) AT THE OVERSIDE DRAIN. SEE C–1 FOR MORE DETAILS.
9 INSTALL TRANSITION RAILING (TYPE WB–31), PER CALTRANS STD PLAN A77U4.
10 PULVERIZE SURFACE TO A MINIMUM DEPTH OF 6" OR TO THE BOTTOM OF THE IMPERMEABLE UNDERLYING BASE.
11 REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE).
12 REMOVE PAINTED TRAFFIC STRIPE.
13 REMOVE GUARDRAIL
14 ROADWAY EXCAVATION
15 CONTRACTOR SHALL VERIFY DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION, CALL 811.
16 CONSTRUCT OVERSIDE DRAIN PER CALTRANS STD PLAN D87D. SEE SHEET C–1 FOR RSP FOR OVERSIDE DRAIN.
17 PLACE FIBER ROLL
18 REMOVE BRIDGE
19 INSTALL RSP (20 LB, CLASS I, METHOD B)
20 PLACE EARTH RETAINING STRUCTURE (GUARD RAILING), SEE SHEET C–1 FOR MORE DETAILS.

TRAFFIC CONSTRUCTION NOTES

1 PLACE PAINT TRAFFIC STRIPE, DETAIL 27B PER CALTRANS STD PLAN A20B.
2 PLACE PAINT TRAFFIC STRIPE, DETAIL 21 PER CALTRANS STD PLAN A20A.
3 PLACE PAINT TRAFFIC STRIPE, DETAIL 18 PER CALTRANS STD PLAN A20A.
4 INSTALL DELINEATOR (CLASS 1) SPACING 25' PER CA MUTCD 2014, FIG 3F–101 (CA) TYPE E.
5 INSTALL OBJECT MARKER (TYPE L) FOR BRIDGE NUMBER PER CA MUTCD 2014, FIG 2A–2(CA) AND FIG 2C–13(CA).
6 PLACE OBJECT MARKER TYPE P (OM–3R) WITH REFLECTIVE MATERIAL ON IMPACT HEAD.
7 PLACE OBJECT MARKER TYPE P (OM–3L) WITH REFLECTIVE MATERIAL ON IMPACT HEAD.
8 PLACE OBJECT MARKER, SEE SHEET C–1 FOR MORE DETAILS.
9 REMOVE BRIDGE NUMBER OBJECT MARKER.
10 PLACE TYPE III BARRICADE, PER CALTRANS STD PLAN A73C.
11 PLACE TEMPORARY RAILING (TYPE K) PER CALTRANS STD PLAN T3A.
12 PLACE TEMPORARY FENCE (TYPE CL–6) PER CALTRANS STD PLAN A85.

STREET IMPROVEMENT GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH THIS PLAN AND COMPLY WITH THE LATEST SAN BERNARDINO COUNTY ROAD PLANNING AND DESIGN STANDARDS MANUAL AS WELL AS THE SAN BERNARDINO COUNTY STANDARDS AND SPECIFICATIONS, 2023 CALTRANS STANDARD PLANS AND SPECIFICATIONS, AND THE SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS GENERAL PERMIT CONDITIONS AND TRENCH SPECIFICATIONS.
2. BENCH MARK DATA: FOUND 3.5" NGS BRASS DISC IN 10"X10" CONC MNMT STAMPED "Z1308–1978 NATIONAL GEOMETRIC SURVEY" PER NGS DATASHEET, PID# EU0704. NAVD–88 ELEVATION: 1099.53'
3. A PERMIT WILL BE REQUIRED FROM SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY ENCROACHMENT OR CONSTRUCTION WITHIN THE SAN BERNARDINO COUNTY EASEMENT OR RIGHTS–OF–WAY.
4. IF ASPHALT CONCRETE IS TO BE PLACED DIRECTLY ON SUBGRADE OF ROAD OR DRAINAGE FACILITIES A SOIL STERILANT REGISTERED BY THE E.P.A. FOR USE UNDER A.C. AND P.C.C. SHALL BE UNIFORMLY APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE FOR THE FULL PAVEMENT WIDTH PRIOR TO PAVING.
5. COMPACTION TESTS OF EMBANKMENT CONSTRUCTION, TRENCH BACKFILL, COMPACTING ORIGINAL GROUND, ALL SUBGRADES SHALL BE PERFORMED AT NO COSTS TO SAN BERNARDINO COUNTY. A WRITTEN REPORT WITH THESE COMPACTION TESTS SHALL BE SUBMITTED TO THE SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS, PERMITS/OPERATION SUPPORT DIVISION, TRANSPORTATION PERMIT SECTION FOR APPROVAL PRIOR TO PLACEMENT OF BASE MATERIALS AND/OR SURFACING.
6. AT THE COMPLETION OF PAVING, A MATERIALS REPORT SHALL BE SUBMITTED TO THE SAN BERNARDINO COUNTY PUBLIC WORKS DEPARTMENT, PERMITS/OPERATION SUPPORT DIVISION, TRANSPORTATION PERMIT SECTION, LISTING ALL TESTS OR DETERMINATIONS COMPLETED TO VERIFY:
   A. R–VALUE, SIEVE ANALYSIS AND SAND EQUIVALENT OF AGGREGATE BASES.
   B. STABILITY, OIL CONTENT AND SIEVE ANALYSIS OF ASPHALT SURFACING.
7. ALL LONGITUDINAL CUTS SHALL BE TESTED IN ACCORDANCE WITH THE SPECIFIED LIMITS AND AS OUTLINED IN SECTION 6 OF THE SAN BERNARDINO COUNTY STANDARDS AND SPECIFICATIONS.
8. IMMEDIATELY FOLLOWING REMOVAL OF EXISTING PAVEMENT OR DIKE OR CURB AND/OR GUTTER, THE CONTRACTOR SHALL DILIGENTLY PURSUE THIS PORTION OF WORK UNTIL COMPLETION.
9. IF DURING CONSTRUCTION, GROUND WATER IS ENCOUNTERED, A SYSTEM APPROVED BY THE SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE INSTALLED TO DEWATER SAID AREA AT THE DIRECTION OF THE SOILS ENGINEER.
10. THE ENGINEER SHALL INSPECT AND CERTIFY THAT ALL ROAD AND DRAINAGE IMPROVEMENTS HAVE BEEN BUILT IN ACCORDANCE WITH THE APPROVED PLANS.
11. EXISTING COUNTY ROADS THAT WILL REQUIRE RECONSTRUCTION SHALL BE CLOSED FOR TRAFFIC AT ALL TIMES WITH ADEQUATE DETOURS DURING ACTUAL CONSTRUCTION.
12. THE RESIDENT ENGINEER IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE RESIDENT ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISE THE PLAN FOR APPROVAL BY SAN BERNARDINO COUNTY.

T-2

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916–858–0642
MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

INDEX SHEET

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	NTS	2	54

FILE NO. 586600 120

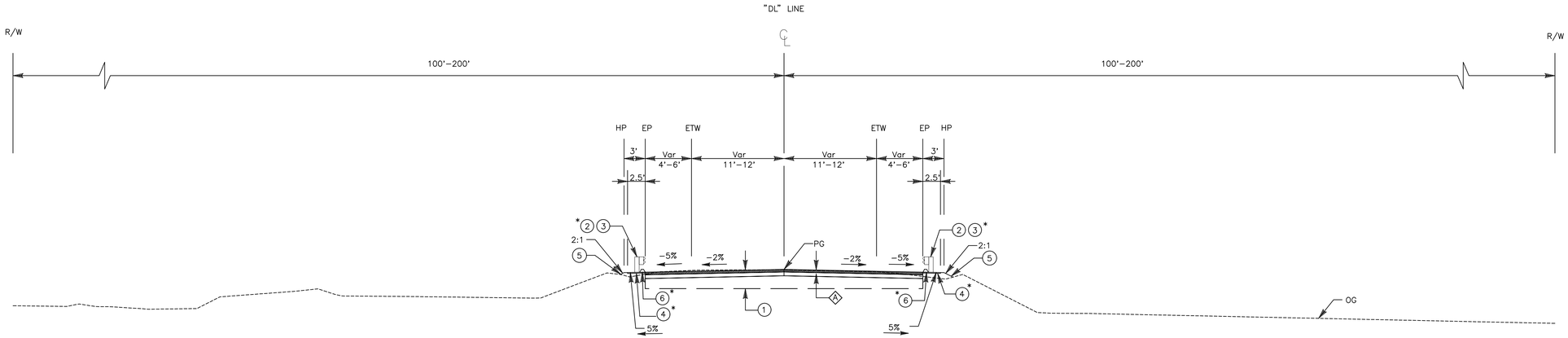
MARK	REVISIONS	APPR.	DATE

CONSTRUCTION NOTES

1. PLACE 0.40' HOT MIXED ASPHALT TYPE A OVER 0.45' CLASS 2 AGGREGATE BASE WITH 2 LAYERS OF TACK COAT INBETWEEN. WITH OVER-EXCAVATION OF NATIVE, 2.5' FROM FG, AND 95% COMPACTION.
2. INSTALL MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION, PER CALTRANS STD PLAN A77L1,
3. INSTALL ALTERNATIVE IN-LINE TERMINAL SYSTEM PER CALTRANS STD. PLAN A77N14.
4. PLACE VEGETATION CONTROL (MINOR CONCRETE) AND BLOCK-OUT MATERIAL PER CALTRANS STD PLAN A77N5.
5. SEE EROSION CONTROL PLANS FOR BMP ON SLOPES PER CASQA STD.
6. PLACE HOT MIXED ASPHALT DIKE (TYPE A), PER CALTRANS STD PLAN A77N4 AND A87B.

NOTE:

A. EXISTING 0.30' HOT MIXED ASPHALT TYPE A OVER EXISTING 0.35' CLASS 2 AGGREGATE BASE.



DOLA DITCH & LANZIT DITCH TYPICAL SECTION

"DL" 9+70.00 TO 12+68.44 BB & 13+68.44 EB TO 16+25.00
"DL" 45+74.98 TO 48+95.23 BB & 49+95.23 EB TO 51+95.23

* "DL" 11+17.70 TO 12+68.44 & 13+68.44 TO 15+30.68
* "DL" 47+35.12 TO 48+95.23 & 49+95.23 TO 51+55.33

FILE NO. 586600 120

X-1

MARK	REVISIONS	APPR.	DATE

FILE NO. 586600 120

MARK	REVISIONS	APPR.	DATE

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

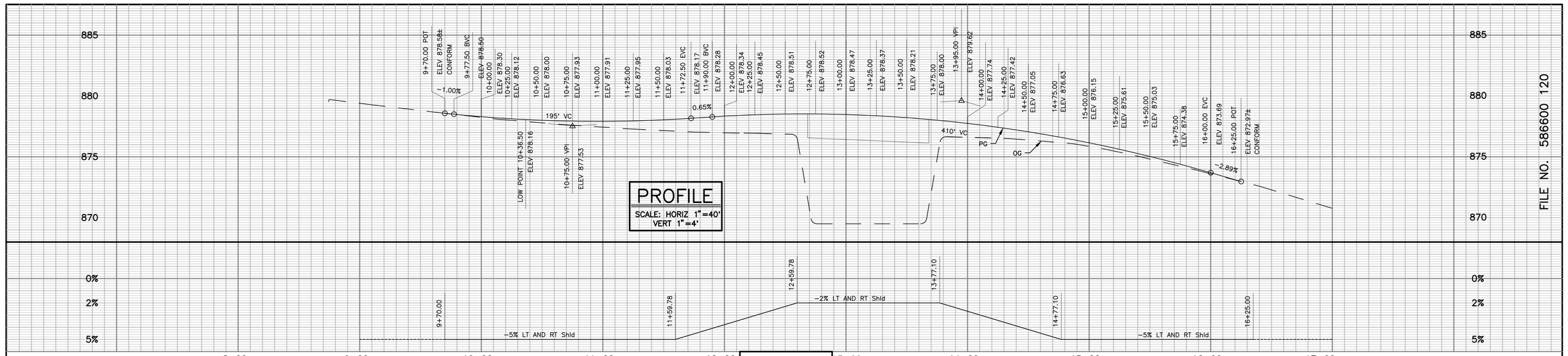
NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

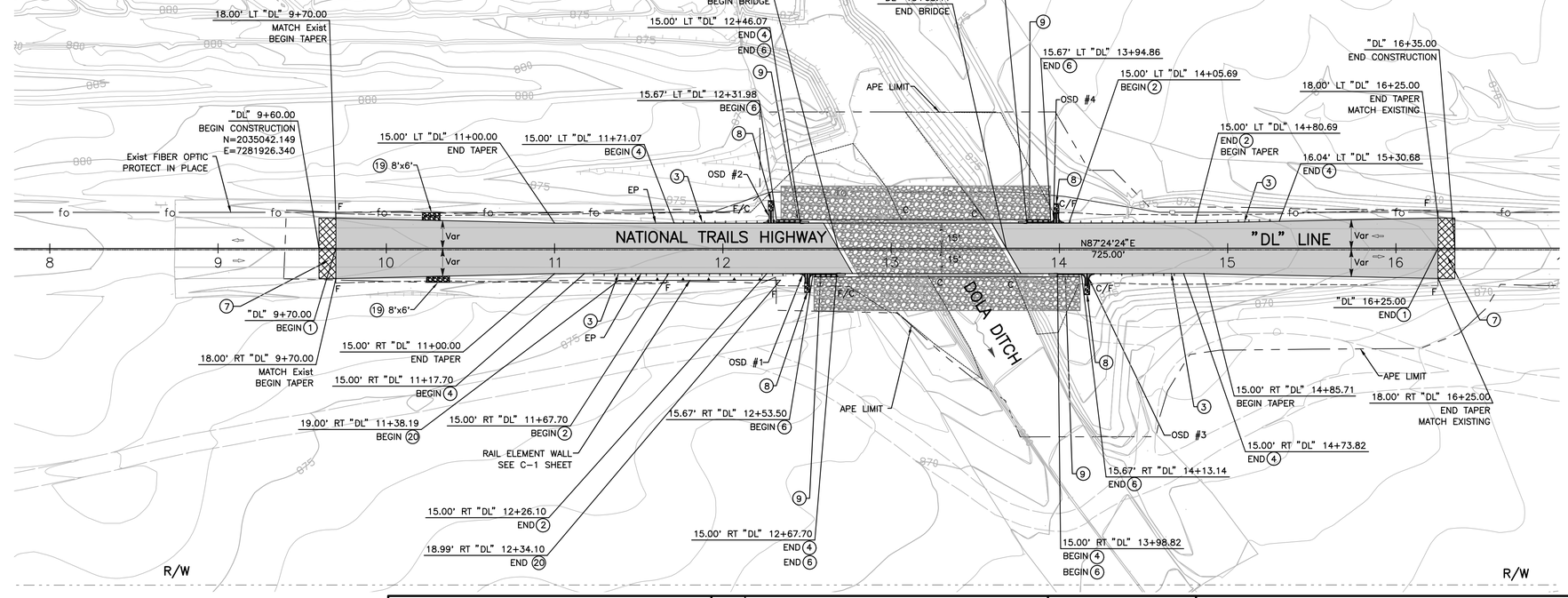
APPROVED BY:
MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

TYPICAL SECTIONS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	NTS	3	54





LEGEND:

- DIRECTION OF TRAFFIC
- CUT/FILL
- APE LIMIT
- PROPOSED PAVEMENT

GRAPHIC SCALE 1"=40'
0 40 80 120

CONSTRUCTION NOTES

1 PLACE 0.40' HOT MIXED ASPHALT TYPE A OVER 0.45' CLASS 2 AGGREGATE BASE WITH 2 LAYERS OF TACK COAT INBETWEEN. WITH OVER-EXCAVATION OF NATIVE, 2.5' FROM FG, AND 95% COMPACTION.
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15 CONTRACTOR SHALL VERIFY DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION, CALL 811.
19 INSTALL RSP (20 LB, CLASS I, METHOD B)
20 PLACE EARTH RETAINING STRUCTURE (GUARD RAILING), SEE SHEET C-1 FOR MORE DETAILS.

L-1

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24
DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MATTHEW ATKINSON No. 82099 Exp. 3/31/24 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

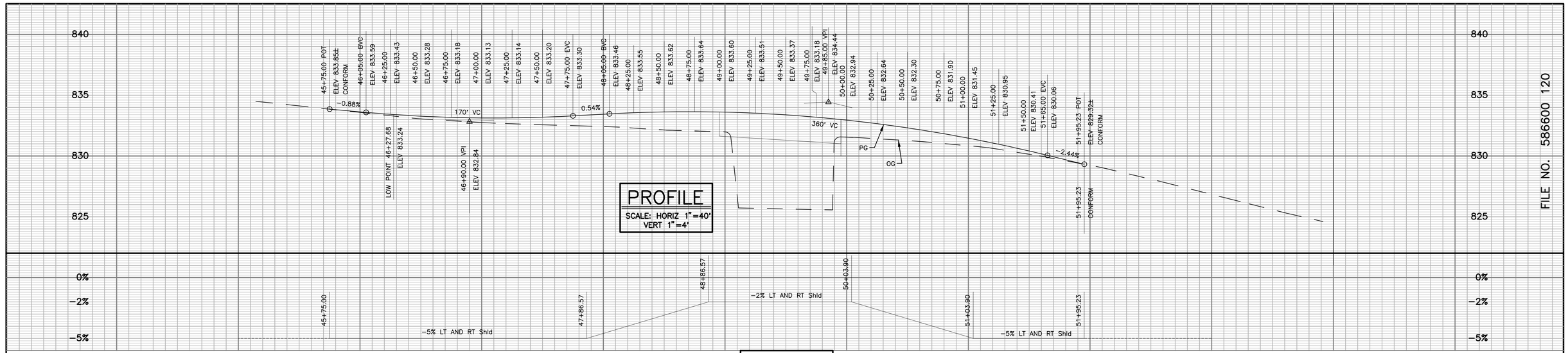
APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

PLAN AND PROFILE
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=40'	4	54

FILE NO. 586600 120



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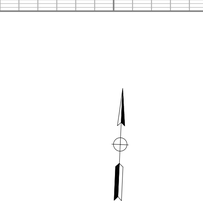
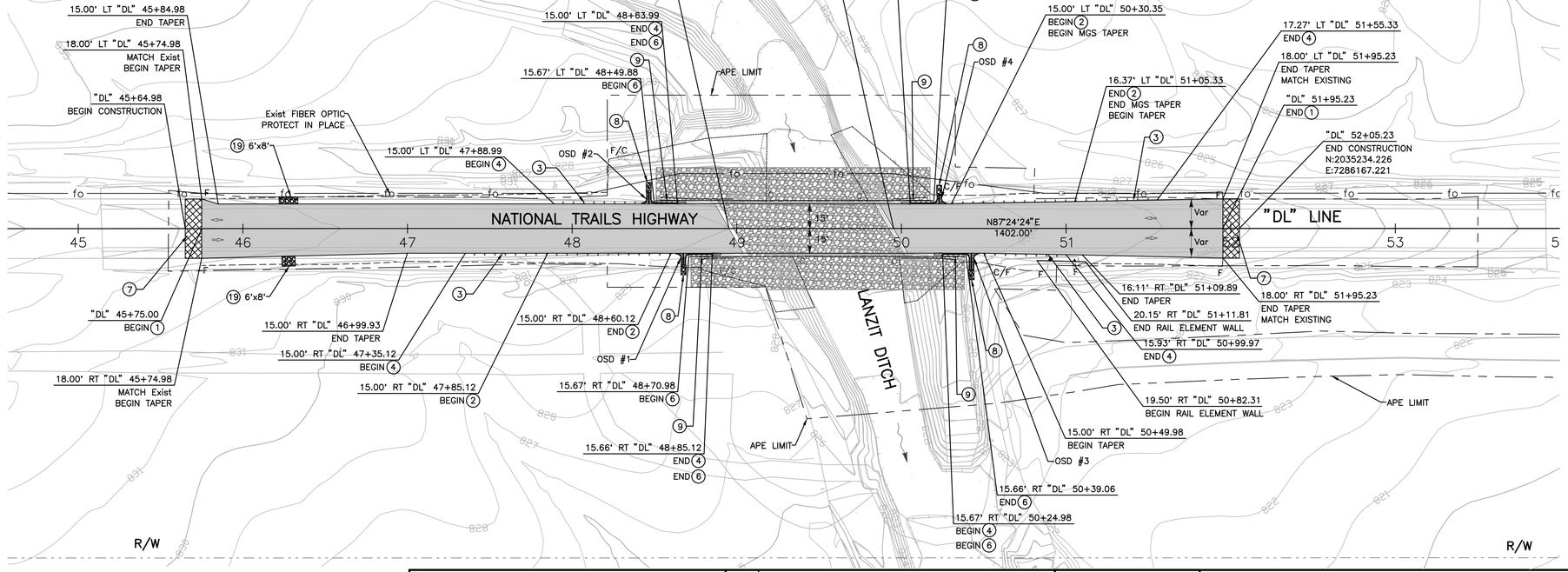


LEGEND:

- DIRECTION OF TRAFFIC
- CUT/FILL
- APE LIMIT
- PROPOSED PAVEMENT



SUPERELEVATION

SCALE: NOT TO SCALE

GRAPHIC SCALE 1"=40'

0 40 80 120

CONSTRUCTION NOTES

1. PLACE 0.40' HOT MIXED ASPHALT TYPE A OVER 0.45' CLASS 2 AGGREGATE BASE WITH 2 LAYERS OF TACK COAT INBETWEEN. WITH OVER-EXCAVATION OF NATIVE, 2.5' FROM FG, AND 95% COMPACATION.
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19. INSTALL RSP (20 LB, CLASS I, METHOD B)
20. PLACE EARTH RETAINING STRUCTURE (GURAD RAILING), SEE SHEET C-1 FOR MORE DETAILS.

L-2

FILE NO. 586600 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

PLAN AND PROFILE
LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=40'	5	54

NOTES:

1. SEE DETOUR PLAN FOR TRAFFIC GENERAL NOTES.

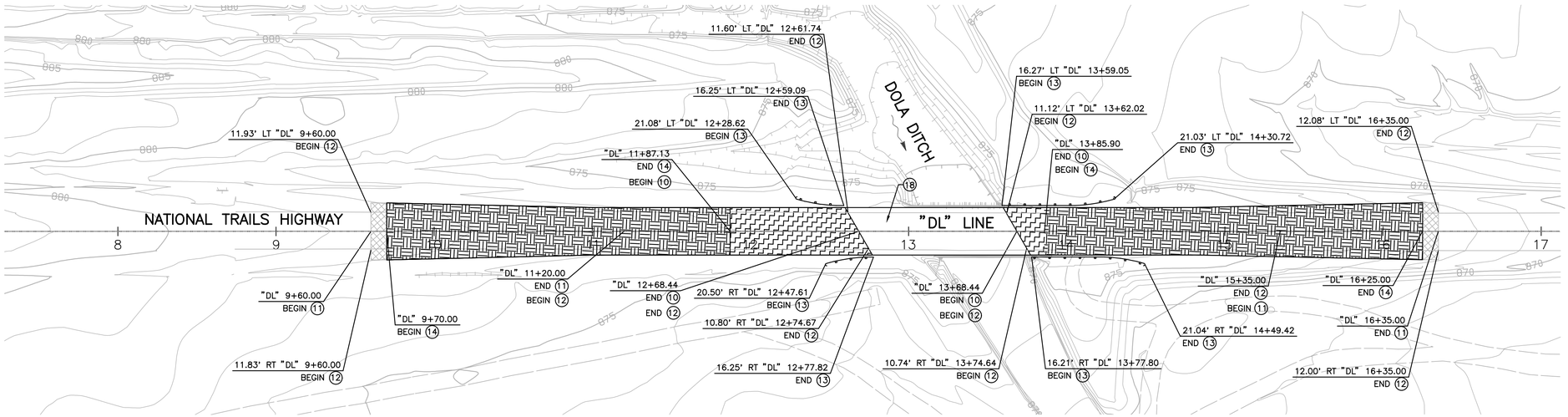
LEGEND:

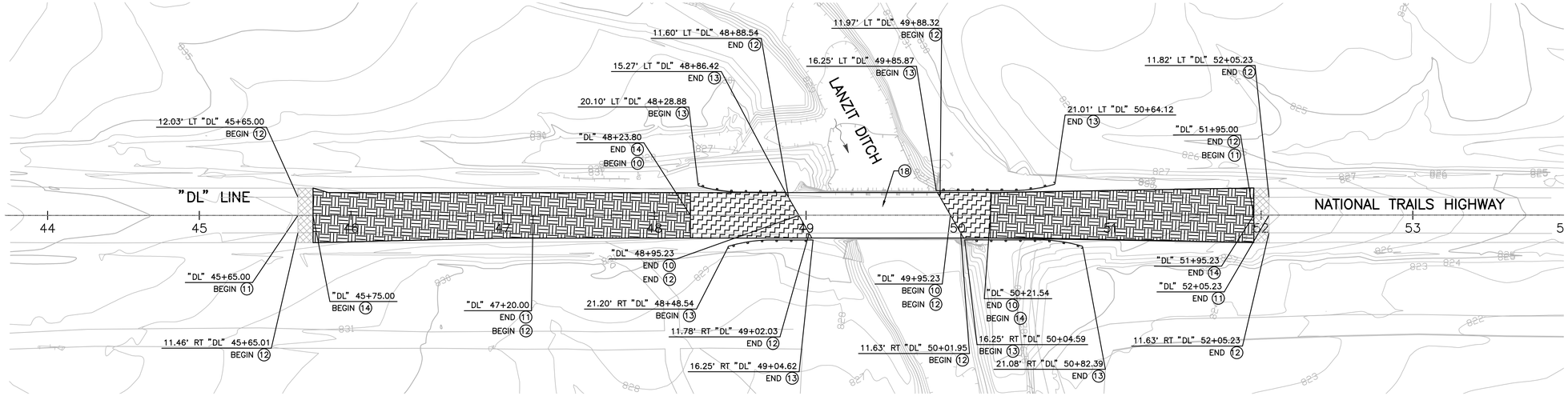
PULVERIZE SURFACING

ROADWAY EXCAVATION

CONSTRUCTION NOTES

10 PULVERIZE SURFACE TO A MINIMUM DEPTH OF 6" OR TO THE BOTTOM OF THE IMPERMEABLE UNDERLYING BASE.
11 REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE).
12 REMOVE PAINTED TRAFFIC STRIPE.
13 REMOVE GUARDRAIL
14 ROADWAY EXCAVATION
15 CONTRACTOR SHALL VERIFY DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION, CALL 811.
18 REMOVE BRIDGE





GRAPHIC SCALE 1"=40'
0 40 80 120

FILE NO. 586600 120

FILE NO. 586600 120

RV-1

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MATTHEW ATKINSON No. 82099 Exp. 3/31/24 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER 01/23/2024 DATE

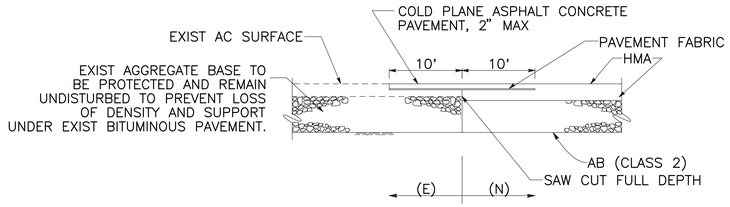
NOEL MONDRAGON, P.E. SUPERVISING ENGINEER 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR 01/24/2024 DATE

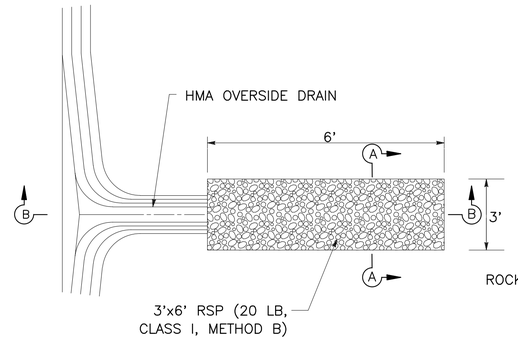
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

REMOVAL PLAN

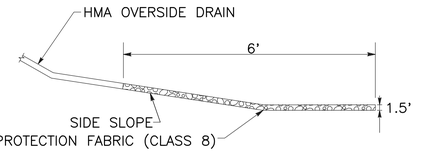
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=40'	6	54



COLD PLANE OVERLAY (HMA)
NOT TO SCALE

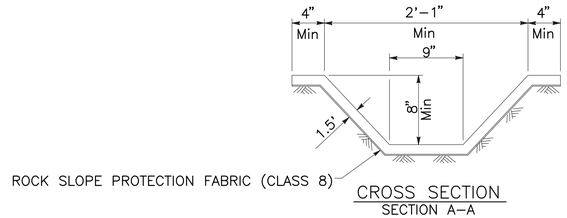


PLAN VIEW

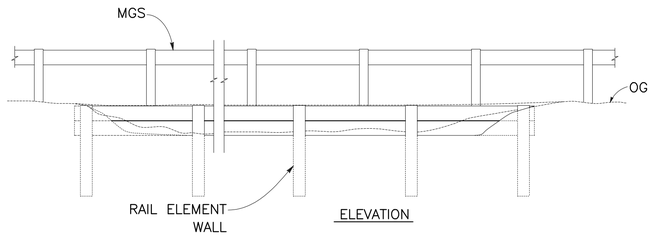


PROFILE VIEW
SECTION B–B

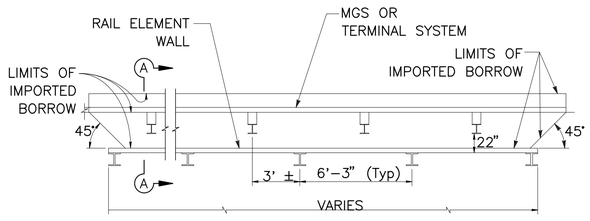
RSP PLAN
NOT TO SCALE



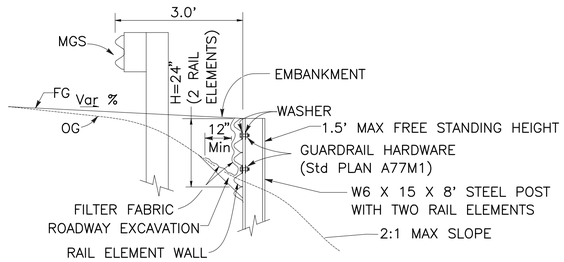
CROSS SECTION
SECTION A–A



ELEVATION

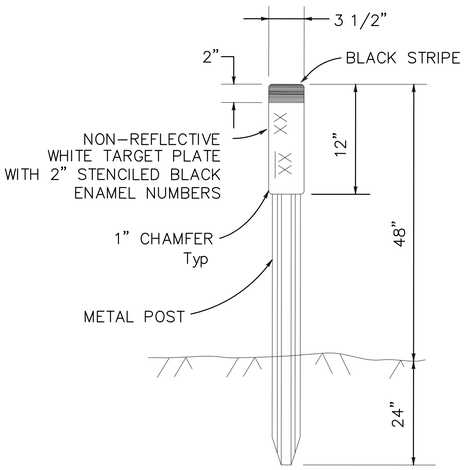


PLAN



SECTION A–A

EARTH RETAINING STRUCTURE (GUARD RAILING)
NOT TO SCALE



OBJECT MARKER
NOT TO SCALE

C-1

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24 DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MATTHEW ATKINSON No. 82099 Exp. 3/31/24 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

CONSTRUCTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	NTS	7	54

FILE NO. 586600 120

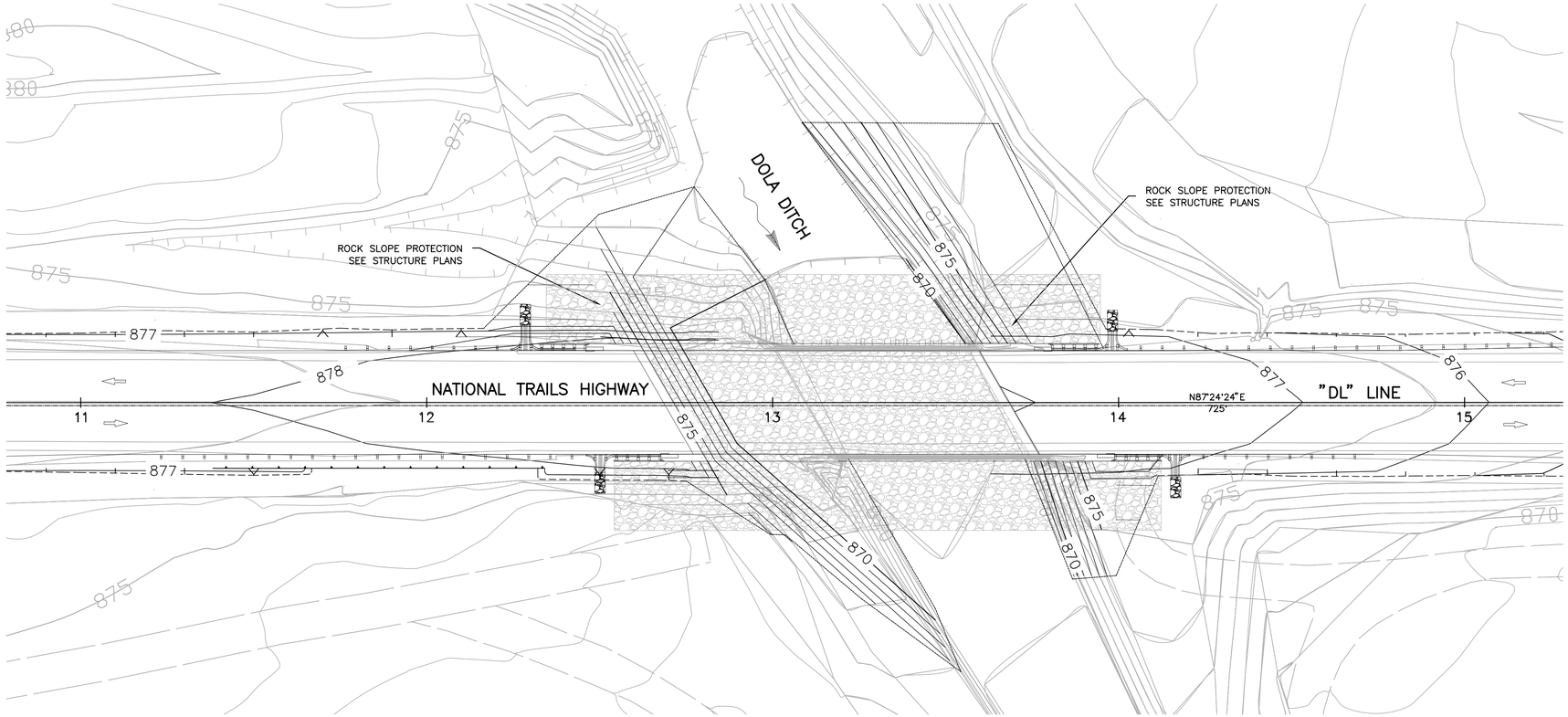
NOTE:

1. FOR DECK CONTOURS, SEE STRUCTURE PLANS

LEGEND:

DIRECTION OF TRAFFIC

ROCK SLOPE PROTECTION



G-1

FILE NO. 586600 120

FILE NO. 586600 120

GRAPHIC SCALE 1"=20'
0 20 40 60

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

CONTOUR GRADING
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=20'	8	54

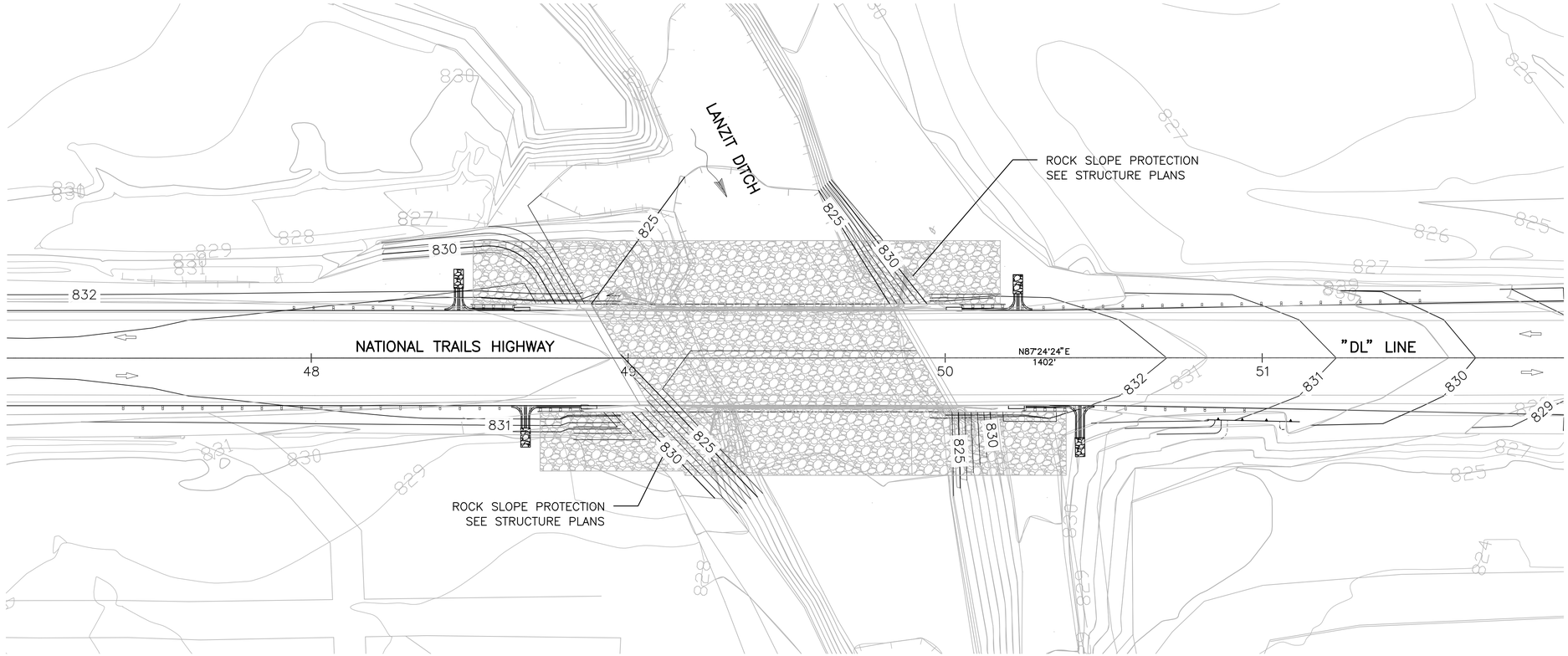
NOTE:

1. FOR DECK CONTOURS, SEE STRUCTURE PLANS

LEGEND:

DIRECTION OF TRAFFIC

ROCK SLOPE PROTECTION



GRAPHIC SCALE 1"=20'

0 20 40 60

FILE NO. 586600 120

FILE NO. 586600 120

G-2

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:

CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY:

MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

CONTOUR GRADING

LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=20'	9	54

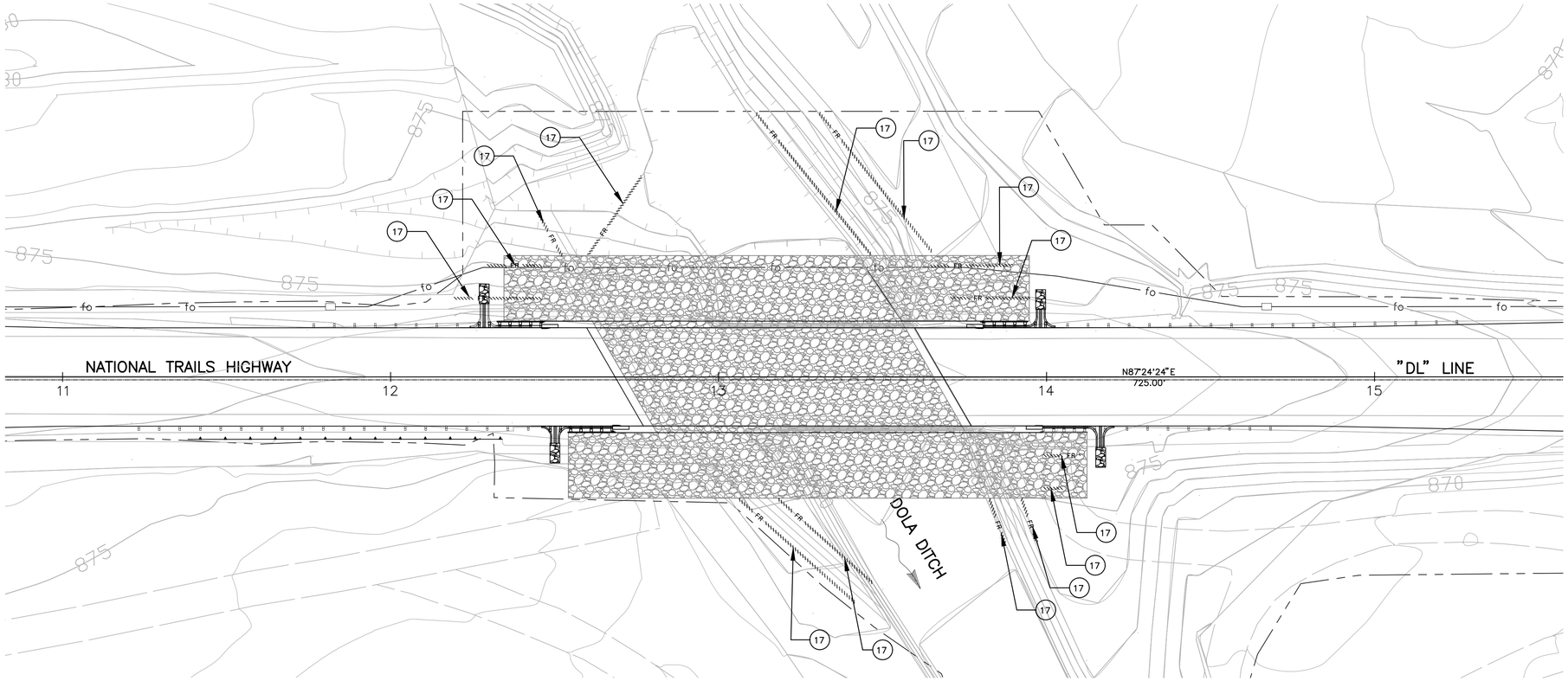
LEGEND:

FR FIBER ROLLS

ROCK SLOPE PROTECTION

CONSTRUCTION NOTES

17 PLACE FIBER ROLL



GRAPHIC SCALE 1"=20'

0 20 40 60

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

EROSION CONTROL

DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=20'	10	54

EC-1

FILE NO. 586600 120

FILE NO. 586600 120

FILE NO. 586600 120

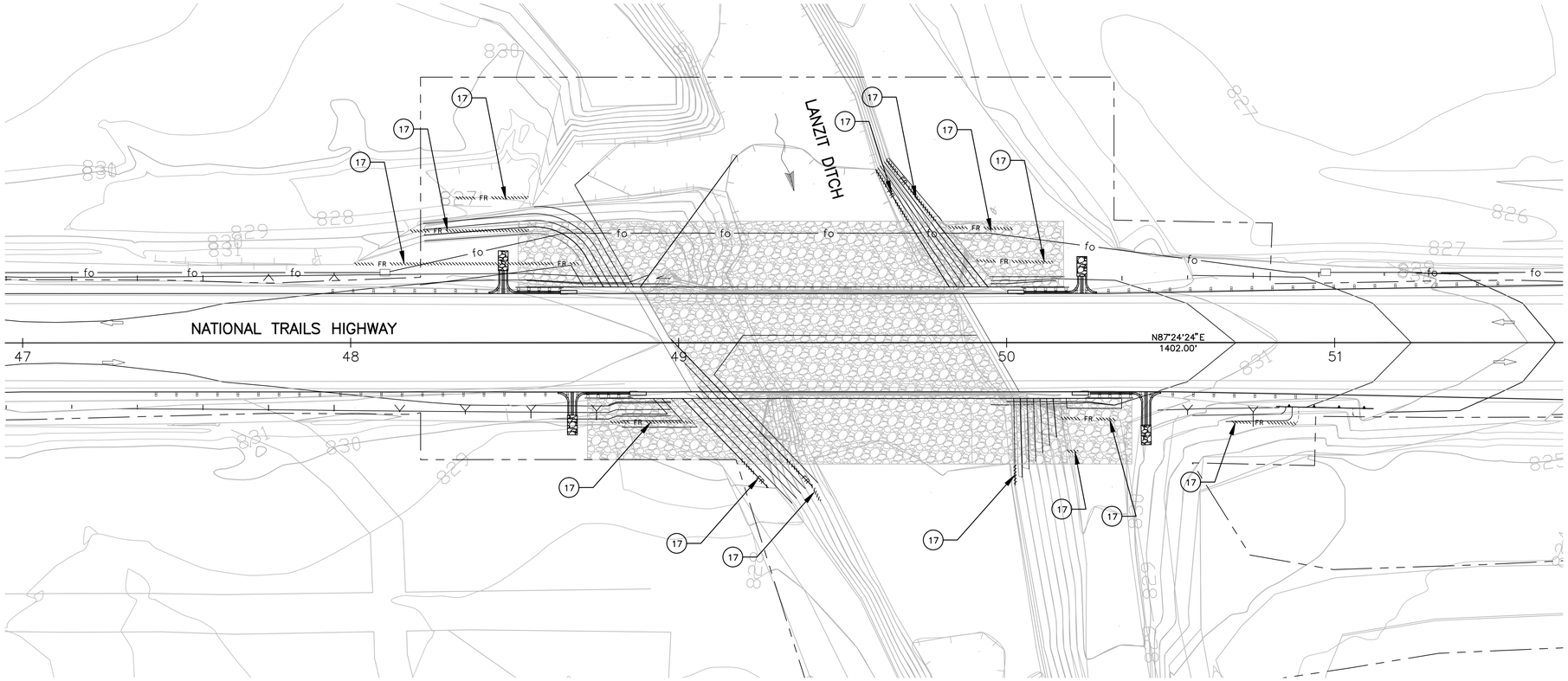
LEGEND:

FR FIBER ROLLS

ROCK SLOPE PROTECTION

CONSTRUCTION NOTES

17 PLACE FIBER ROLL



GRAPHIC SCALE 1"=20'

0 20 40 60

FILE NO. 586600 120

EC-2

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:

CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:

MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

EROSION CONTROL

LANZIT DITCH

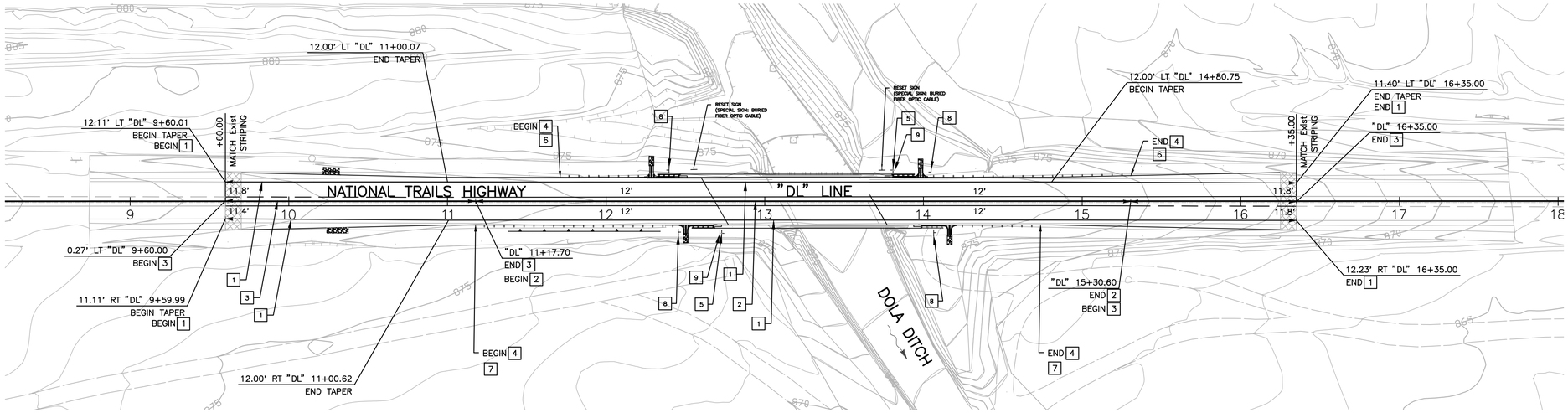
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=20'	11	54

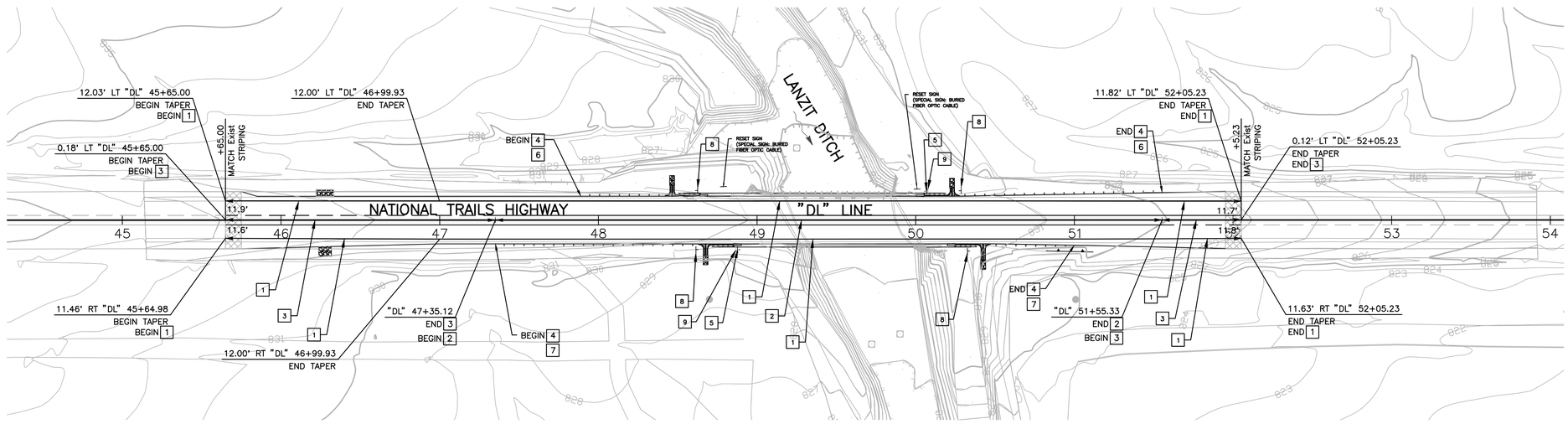
SAN BERNARDINO COUNTY TRAFFIC GENERAL NOTES:

1. ALL SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
2. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE PAINTED IN CONFORMANCE WITH THE CALTRANS 2022 STANDARD PLANS.
3. ALL STRIPING (LONG LINE) AND PAVEMENT MARKINGS SHALL BE RETROREFLECTIVE PAINT.
4. ALL SIGNS SHALL BE OF HIGH INTENSITY (FHWA TYPE III/IV) RETROREFLECTIVE SHEETING EXCEPT:
   - A. STOP SIGNS SHALL BE DIAMOND GRADE (FHWA TYPE VII IN RURAL SETTINGS AND TYPE IX IN URBAN SETTINGS) RETROREFLECTIVE SHEETING.
   - B. "NO PARKING" SIGNS SHALL BE OF SUPER ENGINEERING GRADE (FHWA TYPE II) RETROREFLECTIVE SHEETING.
   - C. SCHOOL SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT YELLOW-GREEN (FYG) RETROREFLECTIVE SHEETING.
   - D. STREET NAME MARKERS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) RETROREFLECTIVE SHEETING AND CONFORM TO COUNTY STANDARD 303.
   - E. CONSTRUCTION SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT ORANGE RETROREFLECTIVE SHEETING.
5. ALL DELINEATORS, CHANNELIZERS, AND OBJECT MARKERS SHALL BE OF FHWA TYPE VII RETROREFLECTIVE SHEETING.
6. SIGNS SHALL BE MOUNTED ON METAL POSTS SIMILAR TO COUNTY STANDARDS 303(a) AND 303(b).
7. ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS NOT SHOWN ON PLANS SHALL BE REMOVED BY THE CONTRACTOR. REMOVAL SHALL BE ACCOMPLISHED BY SANDBLASTING, GRINDING, OR AS DIRECTED BY COUNTY REPRESENTATIVE.
8. ALL CONFLICTING SIGNS SHALL BE REMOVED RELOCATED, OR COVERED BY THE CONTRACTOR. RELOCATABLE SIGNS SHALL BE INSTALLED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY COUNTY REPRESENTATIVE.
9. ALL UNPROTECTED LOCATIONS RESULTING IN ISOLATED ABRUPT DEPRESSIONS OR ELEVATED OBJECT (I.E. CATCH BASINS, HEADWALLS, POWER POLES, END TREATMENT OF ASPHALT DIKES AND CONCRETE CURBS) SHALL BE PROTECTED BY DELINEATORS OR BARRIERS PER THE CALIFORNIA MUTCD LATEST EDITION.
10. ALL EXISTING SIGNING, STRIPING AND PAVEMENT MARKINGS (I.E. CROSS STREET STROP, STOP LIMIT LINE, AND CROSSWALK PAVEMENT MARKINGS) NOT SHOWN ON PLANS, IF REMOVED/OBLITERATED, SHALL BE REPLACED/RESTORED OF SAME KIND, AND IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
11. THE CONTRACTOR SHALL NOTIFY COUNTY REPRESENTATIVE TO SCHEDULE A FINAL REVIEW (WALK THROUGH) WITH TRAFFIC DIVISION PERSONNEL FOR APPROVAL OF TRAFFIC CONTROL DEVICES PRIOR TO PROJECT ACCEPTANCE.

LEGEND:

⊢ BEGIN/END OF TRAFFIC STRIPE DETAIL





TRAFFIC CONSTRUCTION NOTES

1. PLACE PAINT TRAFFIC STRIPE, DETAIL 27B PER CALTRANS STD PLAN A20B.
2. PLACE INSTALL PAINT TRAFFIC STRIPE, DETAIL 21 PER CALTRANS STD PLAN A20A.
3. PLACE PAINT TRAFFIC STRIPE, DETAIL 18 PER CALTRANS STD PLAN A20A.
4. INSTALL DELINEATORS (CLASS 1) SPACING 25' PER CA MUTCD 2014, FIG 3F-101 (CA) TYPE E.
5. INSTALL OBJECT MARKER (TYPE L) FOR BRIDGE NUMBER PER CA MUTCD 2014, FIG 2A-2(CA) AND FIG 2C-13(CA).
6. OBJECT MARKER TYPE P (OM-3R) WITH REFLECTIVE MATERIAL ON IMPACT HEAD.
7. PLACE OBJECT MARKER TYPE P (OM-3L) WITH REFLECTIVE MATERIAL ON IMPACT HEAD.
8. PLACE OBJECT MARKER, SEE SHEET C-1 FOR DETAILS.
9. REMOVE BRIDGE NUMBER OBJECT MARKER.

GRAPHIC SCALE 1"=40'
0 40 80 120

FILE NO. 586600 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY: 01/24/2024
JEREMY JOHNSON, P.E. — DATE
TRAFFIC DIVISION ENGINEERING MANAGER

LEI LI, P.E. — 1/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY: 1/24/24
GRANT MANN, M.S., P.E. — DATE
DEPUTY DIRECTOR

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

SIGNING AND STRIPING

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=40'	12	54

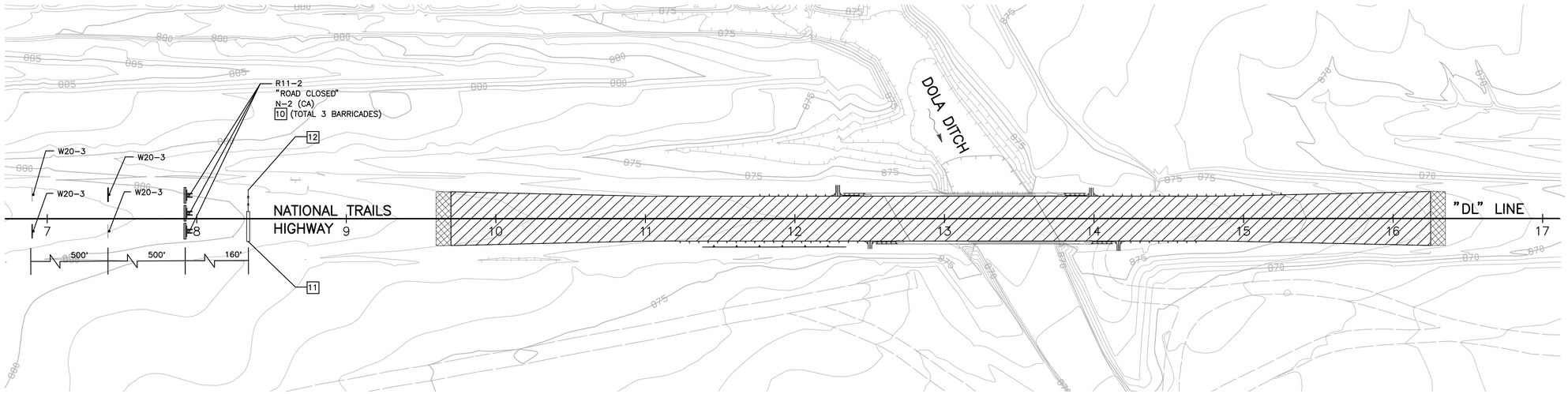
SS-1

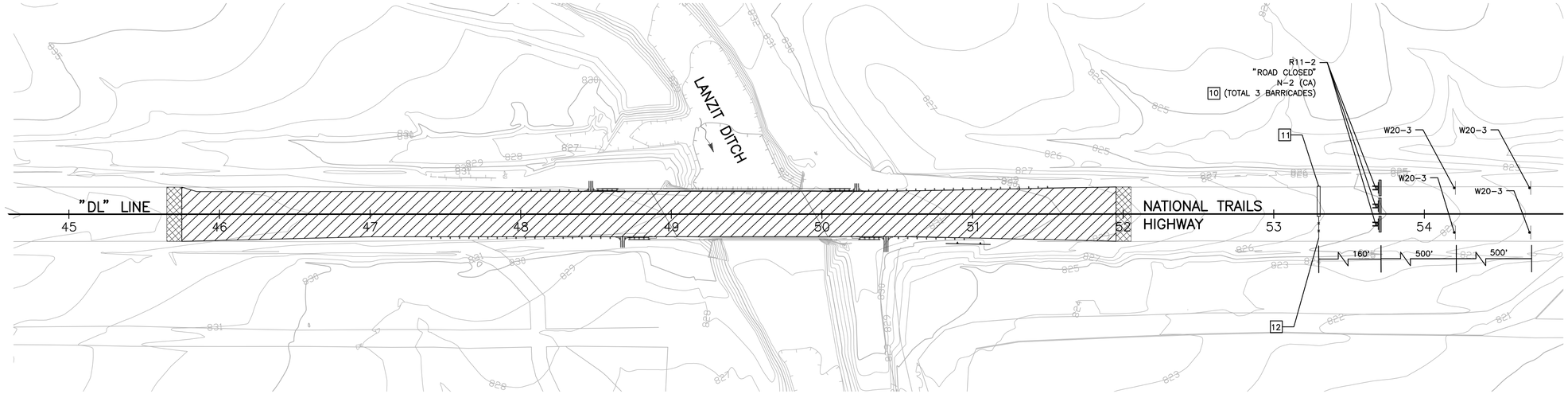
NOTE:

1. SEE SHEET DE–1 FOR TEMPORARY TRAFFIC CONTROL GENERAL NOTES.

LEGEND:

- CONSTRUCTION ZONE
- TEMPORARY BARRIER SYSTEM
- TYPE III BARRICADE
- TEMPORARY FENCE (TYPE CL–6)
- PLACE CONSTRUCTION AREA SIGN





TRAFFIC CONSTRUCTION NOTES

10 PLACE TYPE III BARRICADE, PER CALTRANS STD PLAN A73C.
11 PLACE TEMPORARY BARRIER SYSTEM PER CALTRANS STD PLAN T3A.
12 PLACE TEMPORARY FENCE (TYPE CL–6) PER CALTRANS STD PLAN A85.

CONSTRUCTION AREA SIGNS

SIGN CODE	SIGN MESSAGE	PANEL SIZE	POST SIZE	QUANTITY
W20–3	ROAD CLOSED (DISTANCE)	48"x48"	4"x6"	8
R11–2	ROAD CLOSED	48"x30"	4"x6"	2

FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE DETOUR PLANS

TH-1

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:
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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY: JEREMY JOHNSON, P.E., TRAFFIC DIVISION ENGINEERING MANAGER — 01/24/2024 DATE

LEI LI, P.E., SUPERVISING ENGINEER — 1/23/2024 DATE

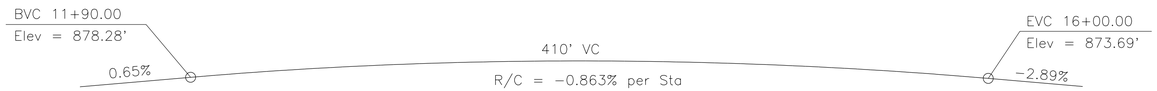
APPROVED BY: GRANT MANN, M.S., P.E., DEPUTY DIRECTOR — 1/24/24 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

TRAFFIC HANDLING PLAN

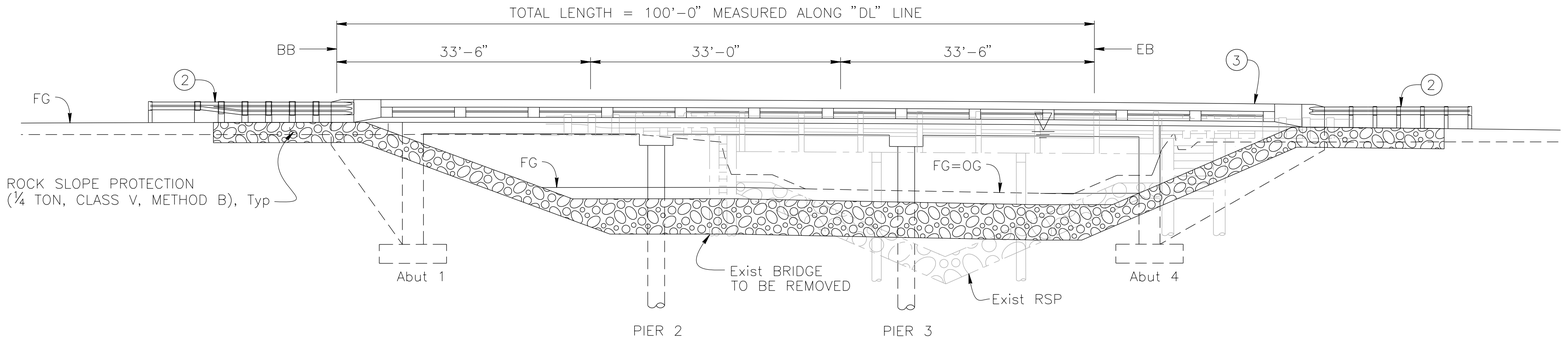
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=40'	13	54

FILE NO. 586600 120



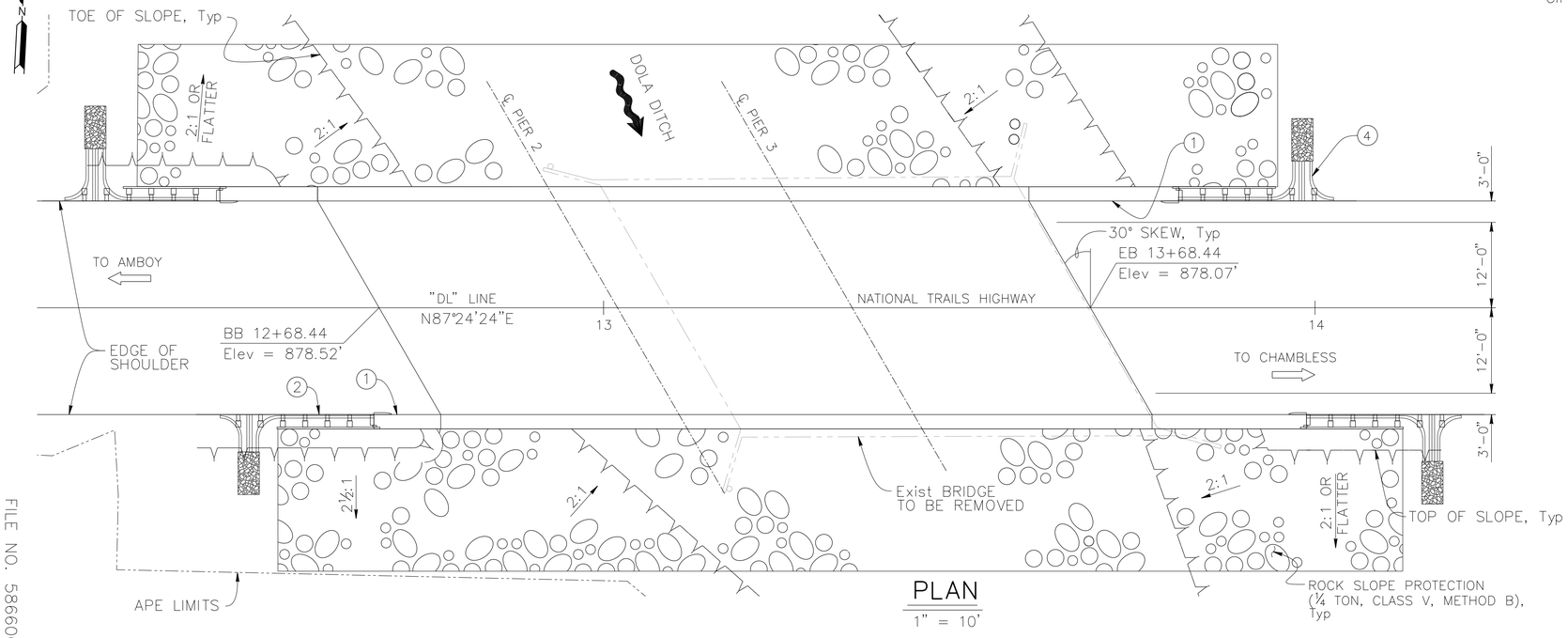
PROFILE GRADE

NO SCALE



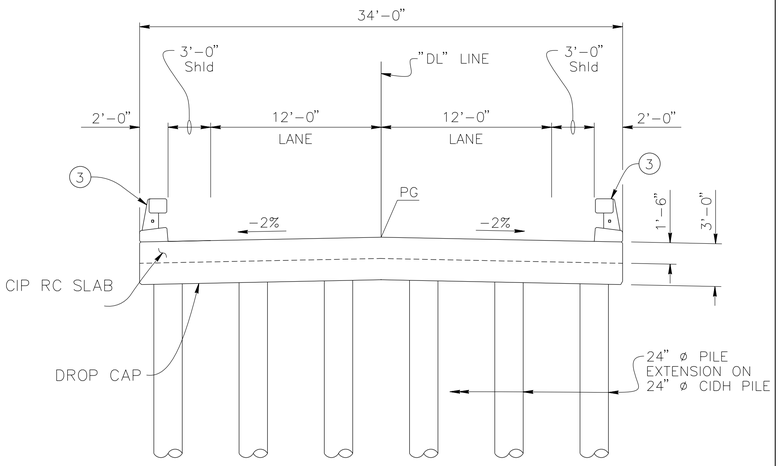
ELEVATION

1" = 10'



PLAN

1" = 10'



TYPICAL SECTION

3/16" = 1'−0"

NOTES:

1. For "INDEX TO PLANS", "GENERAL NOTES", "STANDARD PLANS" list and "QUANTITIES", see "INDEX TO PLANS" sheet.

(1) Paint "DOLA DITCH BRIDGE "Br No. 54C0285" Year Constructed

(2) MGS, See Roadway Plans L−1 sheet.

(3) Concrete Barrier (Type 85). To be painted white.

(4) HMA overside drain with rock slope protection, Typ See Roadway Plans.

LEGEND:

Water Surface Elevation. For "HYDROLOGIC SUMMARY" table, see "FOUNDATION PLAN" sheet.

Existing Structure

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosalli J Griggs 1/12/24
ROSA GRIGGS, PROJECT ENGINEER DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

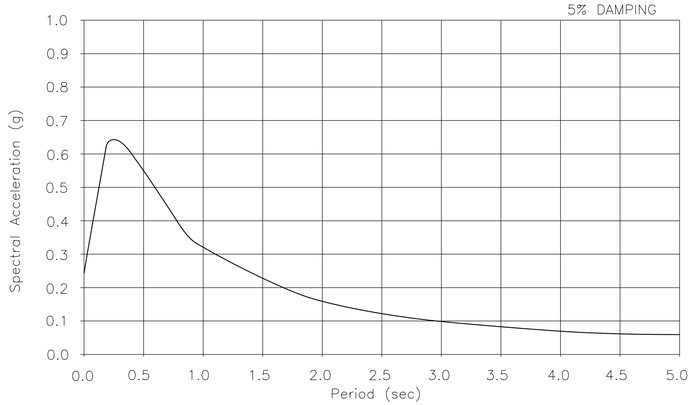
DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)

GENERAL PLAN

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	14	54

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:	AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments, preface dated January 2017
SEISMIC DESIGN:	CALTRANS SEISMIC DESIGN CRITERIA (SDC) Version 2.0, April 2019
DEAD LOAD:	Includes 0.035 ksf for future wearing surface
LIVE LOAD:	HL-93 and Permit Design Load
SEISMIC DATA:	Soil profile : V_{S30} = 1017 ft/s Moment Magnitude : 6.40 Peak Ground Acceleration = 0.25g



ARS CURVE

No Scale

REINFORCED CONCRETE:

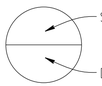
f_y = 60 ksi

f'_c = See "CONCRETE STRENGTH AND TYPE LIMITS"

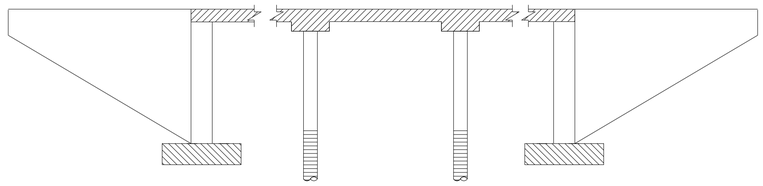
n = 8

STANDARD PLANS DATED 2023

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEETS 2 OF 3)
A3C	ABBREVIATIONS (SHEETS 3 OF 3)
A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B11-83	CONCRETE BARRIER TYPE 85 DETAILS No. 1
B11-84	CONCRETE BARRIER TYPE 85 DETAILS No. 2
B11-85	CONCRETE BARRIER TYPE 85 DETAILS No. 3



INDEX TO PLANS



LEGEND:

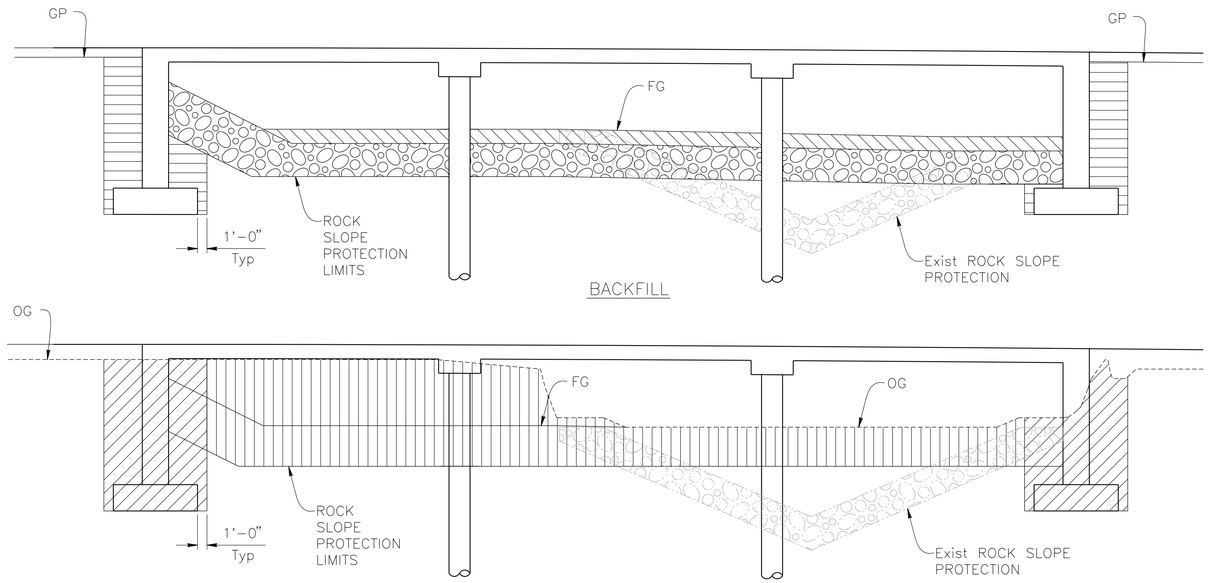
- Structural Concrete, Bridge (f'c = 3.6 ksi @ 28 days)
- Structural Concrete, Bridge Footing (f'c = 3.6 ksi @ 28 days)
- Structural Concrete, Bridge (Polymer Fiber) (f'c = 4.0 ksi)
- Cast-in-Drilled-Hole Concrete Piling (f'c = 3.6 ksi)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

QUANTITIES

ITEM	QUANTITY	UNIT
STRUCTURE EXCAVATION (BRIDGE)	586	CY
STRUCTURE BACKFILL (BRIDGE)	390	CY
STRUCTURE BACKFILL (CHANNEL)	329	CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	726	LF
STRUCTURAL CONCRETE, BRIDGE FOOTING	78	CY
STRUCTURAL CONCRETE, BRIDGE	156	CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	207	CY
BAR REINFORCING STEEL (BRIDGE)	121,089	LB
BAR REINFORCING STEEL (GALVANIZED)	1,798	LB
BRIDGE REMOVAL	1	LS
ROCK SLOPE PROTECTION (¼ TON, CLASS V, METHOD B)	1,352	CY
ROCK SLOPE PROTECTION FABRIC (CLASS 8)	1,131	SQYD
CONCRETE BARRIER (TYPE 85)	267	LF



NOTE:
For Wingwall Excavation and Backfill Limits see Standard Plan A62C

LEGEND:

- Structure Excavation (Bridge)
- Channel Excavation
- Structure Backfill (Bridge)
- Structure Backfill (Channel)
- Rock Slope Protection, See "Rock Slope Protection Detail" sheet.

LIMITS OF PAYMENT OF
STRUCTURE EXCAVATION AND BACKFILL

No Scale

FILE NO. 586600 120

DATE	APPR.	REVISIONS	MARK

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642
ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

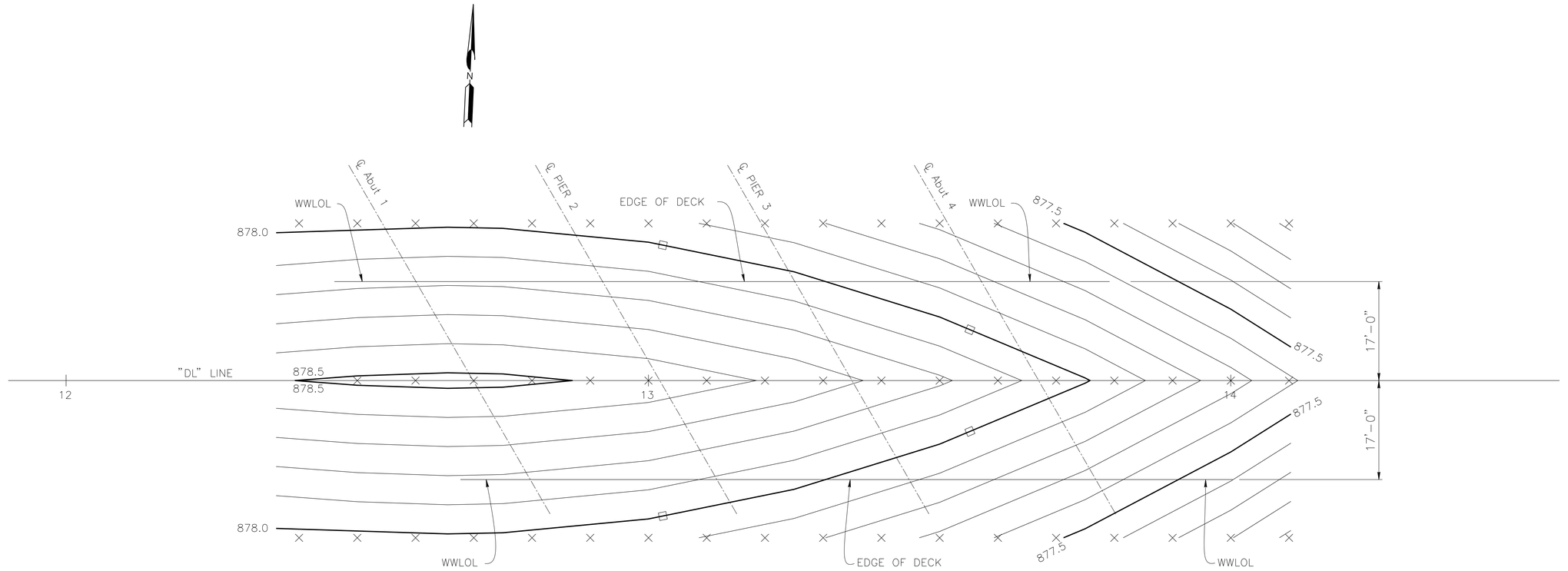
RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

01/23/2024 DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
INDEX TO PLANS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	15	54



NOTES:

1. 0.1' contour intervals shown.
2. Contours do not include camber.
3. Top of concrete deck shown.

LEGEND:

× 10' intervals along station line.

□ 1' index contour intervals.

DECK CONTOURS

1" = 10'

MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

FILE NO. 586600 120

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
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01/23/2024 DATE
NOEL MONDRAGON, P.E.
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APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
DECK CONTOURS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	16	54

SCOUR DATA TABLE

Support Location	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	867.2	4.70
PIER 2	867.2	4.70
PIER 3	867.2	4.70
Abut 4	867.2	4.70

NOTE:

1. The contractor shall verify all existing utilities prior to new construction.

LEGEND:

XXX.X Bottom of footing elevation (ft)

◯ 24" ø CIDH Pile

HYDROLOGIC SUMMARY

Drainage Area: 16,853 acres

	Design Flood	Base Flood
Frequency	50-yr	100-yr
Discharge	3304 cfs	3735 cfs
Water Surface Elevation at Bridge	876.79 ft	877.58 ft

Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.

PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
PIER 2	24" CIDH	320	N/A	801.5(a) 829.5(c) 830.0(d)	801.5
PIER 3	24" CIDH	317	N/A	802.5(a) 839.5(c) 830.0(d)	802.5

NOTES:

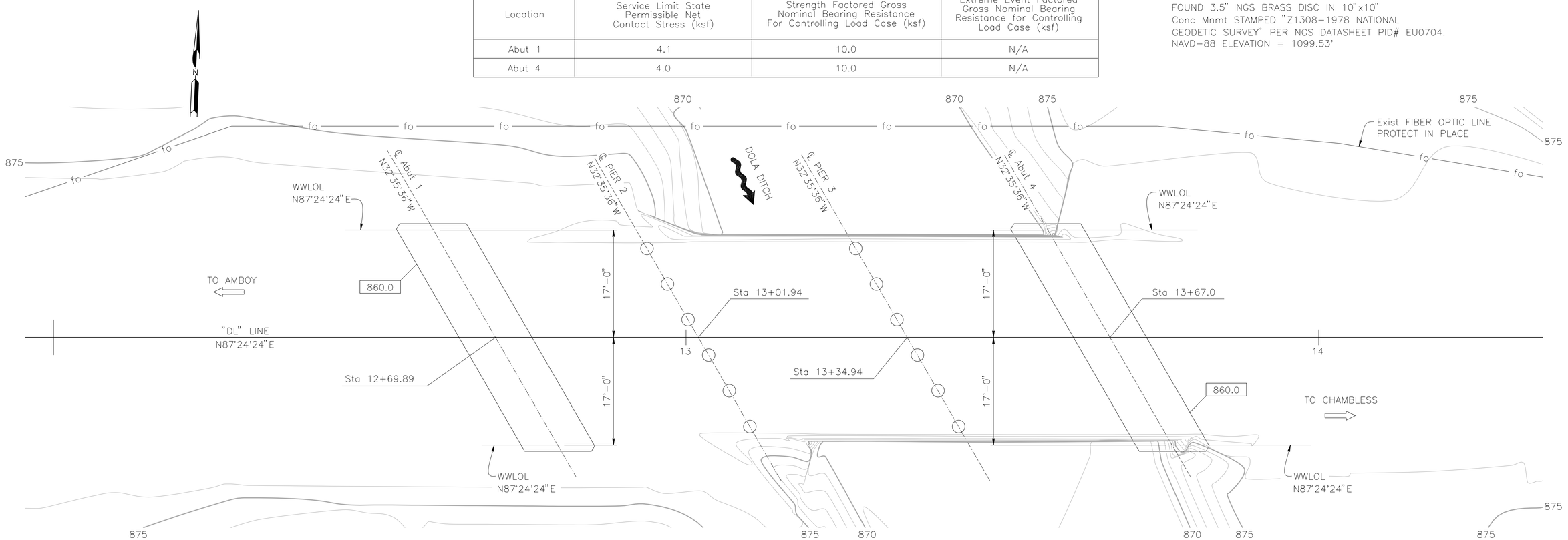
1. Design tip elevations for Abutments are controlled by: (a) Compression, (b) Tension (c) Settlement and (d) Lateral Load.
2. The CIDH Specified Tip Elevation shall not be raised.
3. Design tip elevation for lateral load is provided by design engineer.

SPREAD FOOTING DATA TABLE

Location	Service Limit State Permissible Net Contact Stress (ksf)	Strength Factored Gross Nominal Bearing Resistance For Controlling Load Case (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance for Controlling Load Case (ksf)
Abut 1	4.1	10.0	N/A
Abut 4	4.0	10.0	N/A

BENCHMARK

FOUND 3.5" NGS BRASS DISC IN 10"x10"
Conc Mnmt STAMPED "Z1308-1978 NATIONAL
GEODETIC SURVEY" PER NGS DATASHEET PID# EU0704.
NAVD-88 ELEVATION = 1099.53'



PLAN

1/8" = 1'-0"

PREPARED BY:

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosalli J. Griggs 1/12/24
ROSA GRIGGS, PROJECT ENGINEER DATE

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FIELD CHANGES

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SAN BERNARDINO COUNTY
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NOEL MONDRAGON, P.E.
SUPERVSING ENGINEER

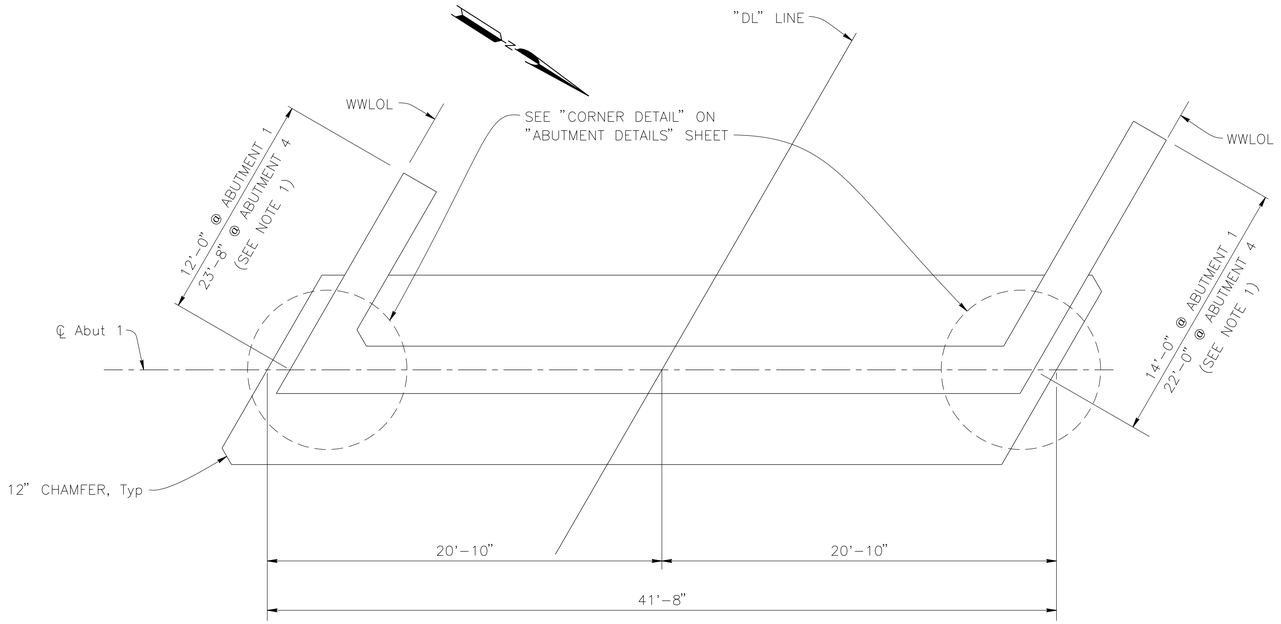
APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
FOUNDATION PLAN

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	17	54

MARK	REVISIONS	APPR.	DATE

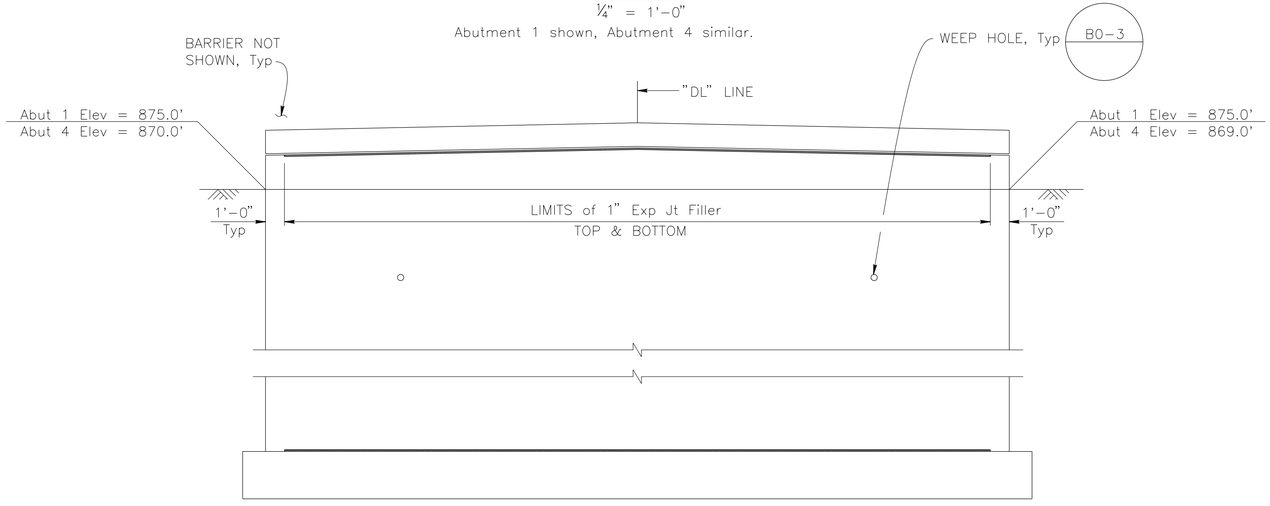
FILE NO. 586600 120



PLAN

1/4" = 1'-0"

Abutment 1 shown, Abutment 4 similar.



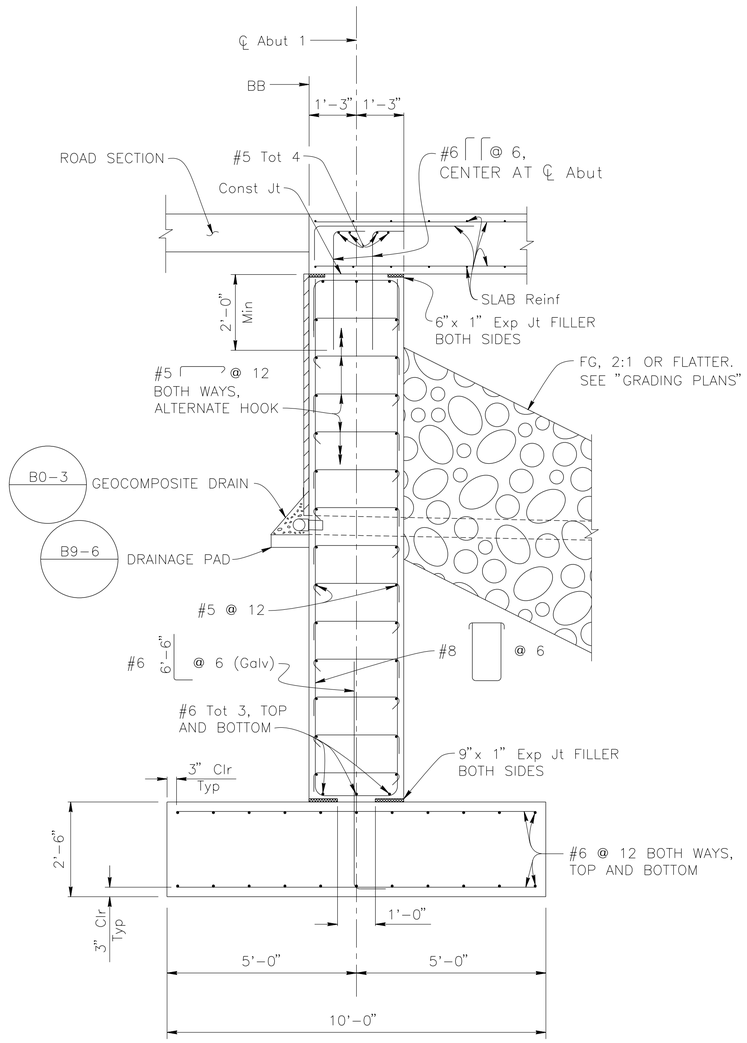
ELEVATION

1/4" = 1'-0"

Abutment 1 shown, Abutment 4 similar.

NOTE:

1. For Wingwall Details, see "ABUTMENT DETAILS" sheet.



TYPICAL SECTION

1/2" = 1'-0"

Abutment 1 shown, Abutment 4 similar.

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

MARK	DATE	APPR.	REVISIONS

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosall S Griggs — 1/12/24

ROSA GRIGGS, PROJECT ENGINEER — DATE

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	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
NO	AD	JR	CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:

MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

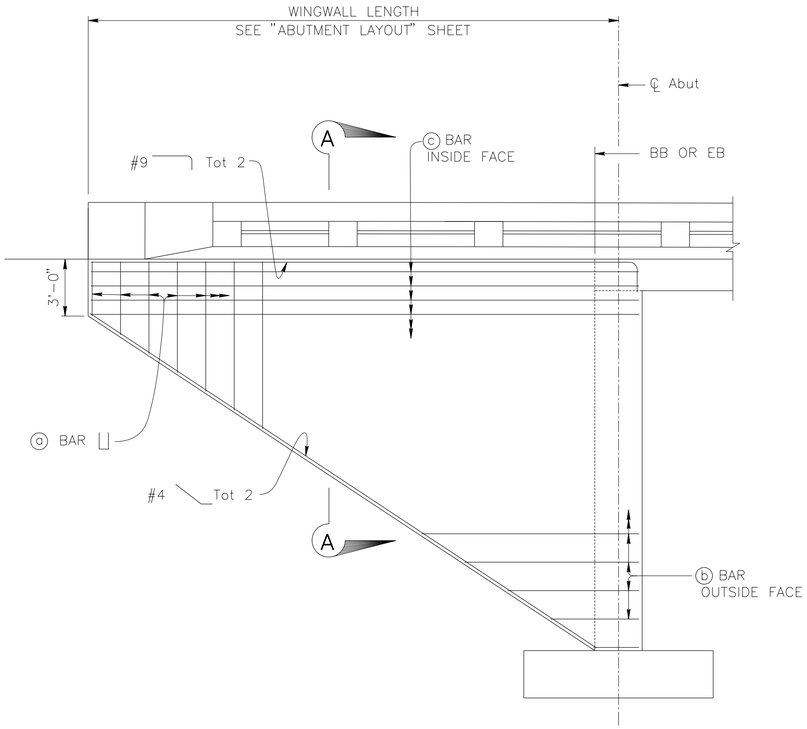
DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)

ABUTMENT LAYOUT

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	18	54

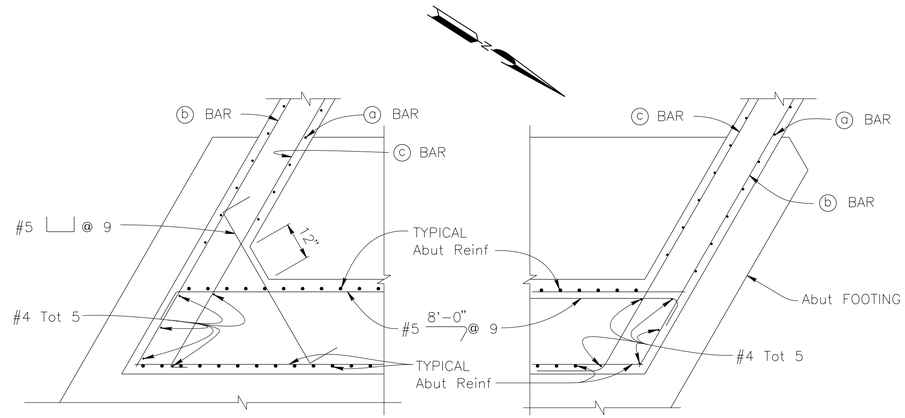
WINGWALL REINFORCEMENT TABLE

BAR	WINGWALL LENGTH			
	12'-0"	14'-0"	22'-0"	23'-8"
ⓐ	#4 @ 18	#4 @ 18	#4 @ 18	#4 @ 18
ⓑ	#4 @ 18	#4 @ 18	#4 @ 18	#4 @ 18
ⓒ	#5 @ 9	#6 @ 9	#9 @ 9	#9 @ 9
T	1'-0"	1'-0"	1'-0"	1'-0"



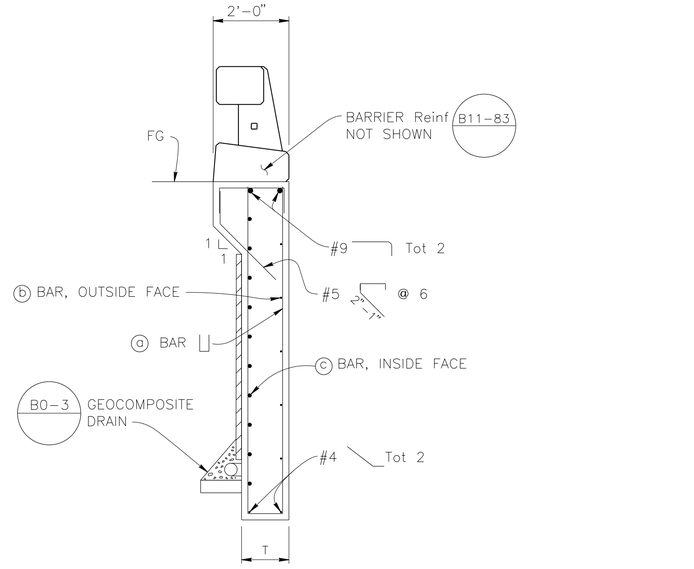
WINGWALL TYPICAL ELEVATION

¼" = 1'-0"



CORNER DETAIL

½" = 1'-0"



SECTION A-A

½" = 1'-0"

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

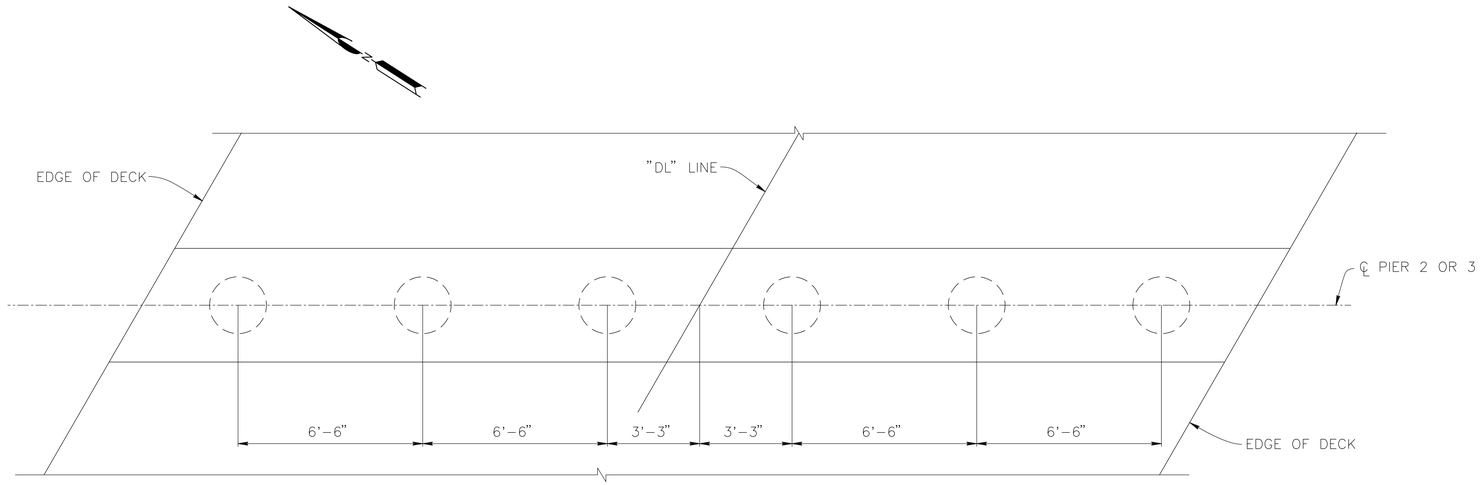
RECOMMENDED BY: CHRIS NGUYEN, P.E., TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E., SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY: MERVAT N. MIKHAIL, P.E., DEPUTY DIRECTOR — 01/24/2024 DATE

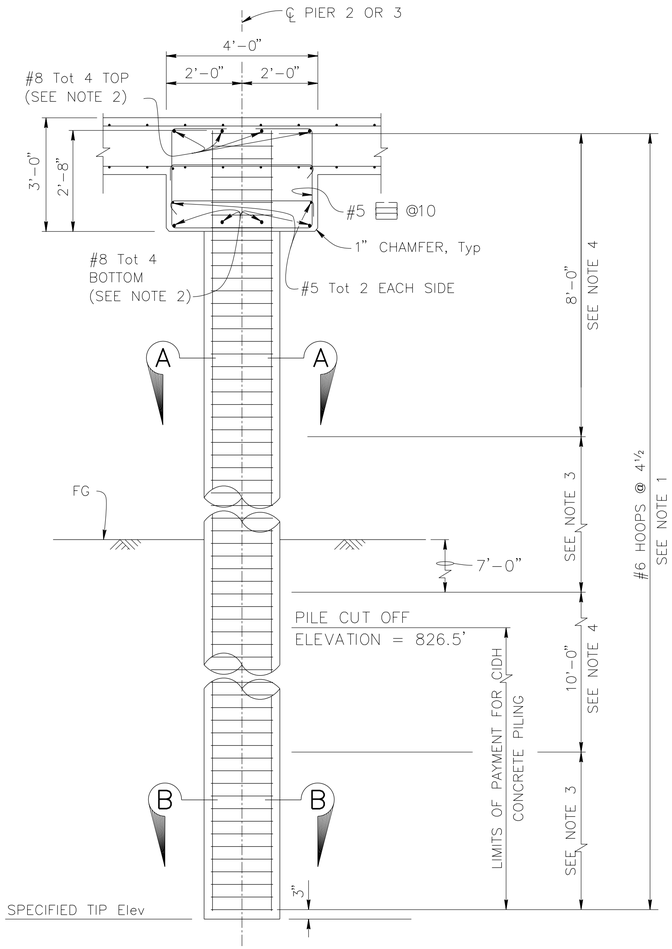
DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
ABUTMENT DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	19	54



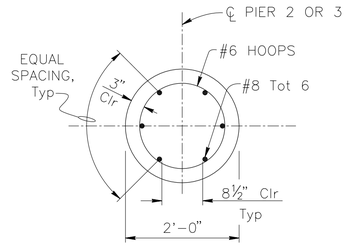
PLAN

3/8" = 1'-0"



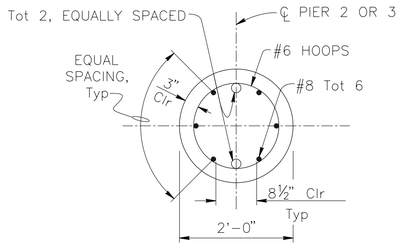
TYPICAL SECTION

½" = 1'-0"



SECTION A-A

¾" = 1'-0"



SECTION B-B

¾" = 1'-0"

NOTES:

1. All hoops must be ultimate butt weld splice continuous.
2. No splices in main cap reinforcement allowed.
3. Ultimate butt splice only in longitudinal reinforcement.
4. No splice in longitudinal reinforcement allowed.

FILE NO. 586600 120

MARK	REVISIONS	APPR.	DATE

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

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FIELD CHANGES

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SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

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RECOMMENDED BY: CHRIS NGUYEN P.E., TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E., SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY: MERVAT N. MIKHAIL, P.E., DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
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PIER LAYOUT

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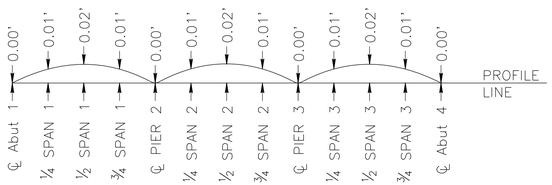
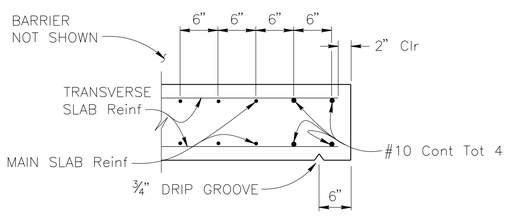


Does not include allowance for falsework settlement.

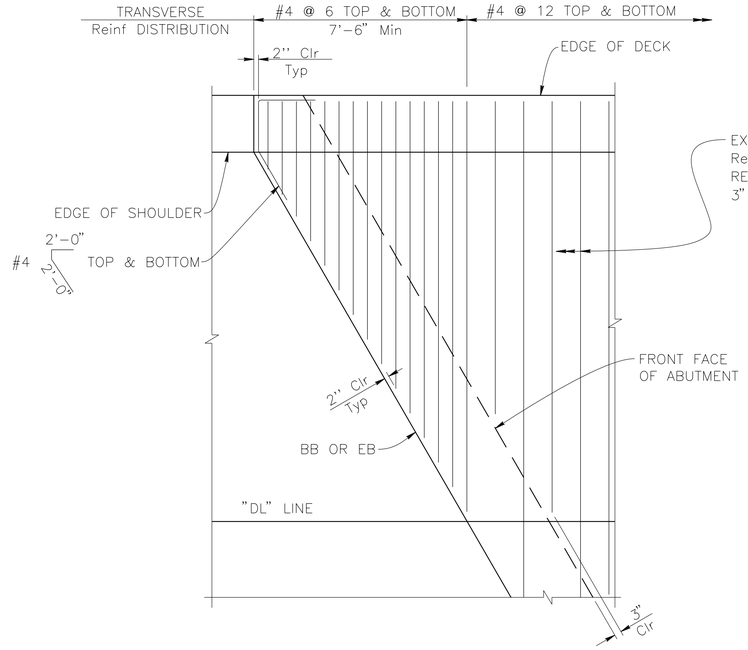
CAMBER DIAGRAM

NO SCALE



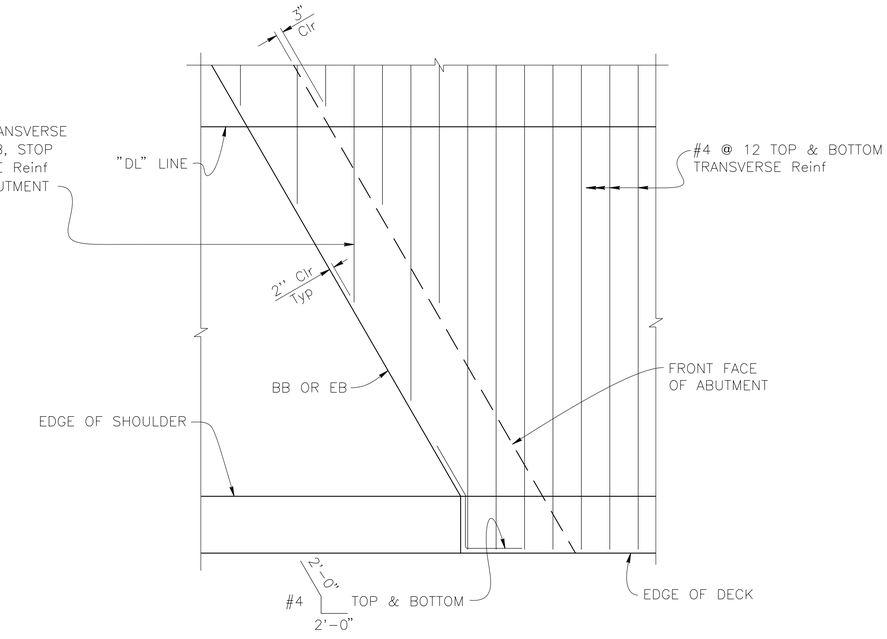
EDGE OF SLAB DETAILS

NO SCALE



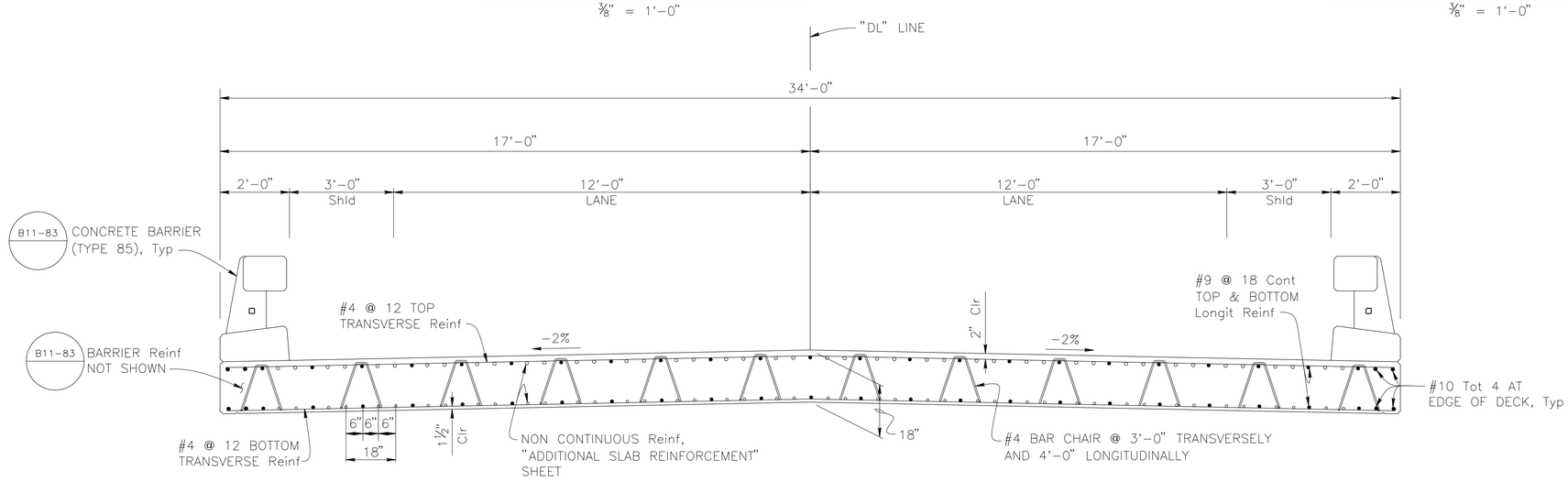
TRANSVERSE REINFORCEMENT ACUTE CORNER DETAIL

⅜" = 1'-0"



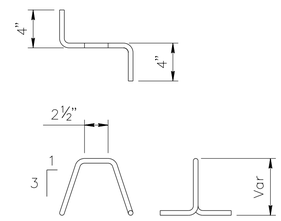
TRANSVERSE REINFORCEMENT OBTUSE CORNER DETAIL

⅜" = 1'-0"



TYPICAL SECTION

½" = 1'-0"



REINFORCEMENT CHAIR DETAIL

NO SCALE

NOTES:

1. Place longitudinal reinforcement parallel to ℄ Bridge.
2. Place and space transverse reinforcement normal to ℄ Bridge.
3. Falsework shall be released as soon as permitted by the specifications.

FILE NO. 586600 120

MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosali G Griggs — 1/12/24

ROSA GRIGGS, PROJECT ENGINEER — DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 (DATE)
CHRIS NGUYEN, P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER

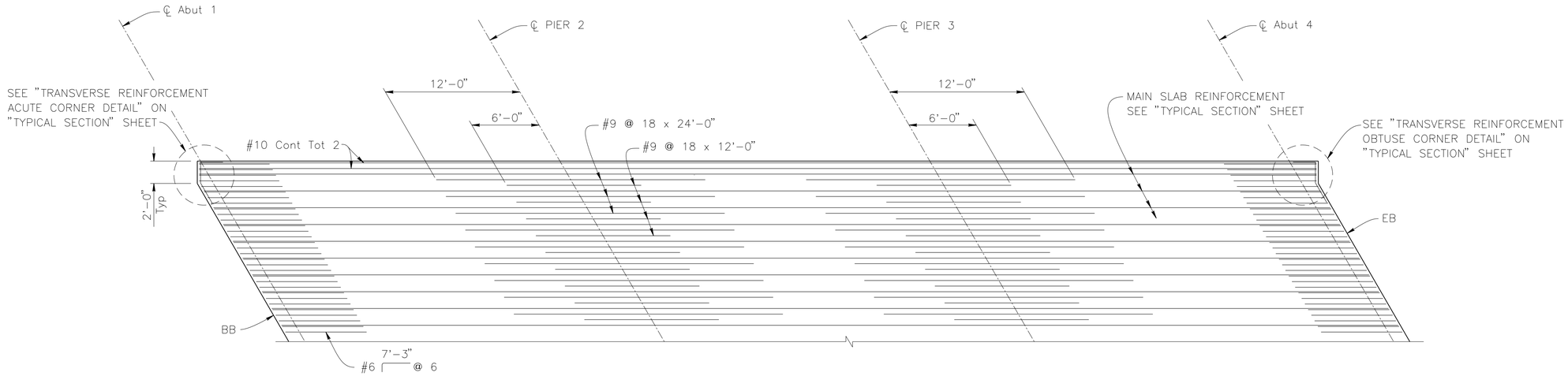
01/23/2024 (DATE)
NOEL MONDRAGON, P.E. SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 (DATE)
MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR

DOLA DITCH BRIDGE BRIDGE No. 54C0285 (County No. 81)

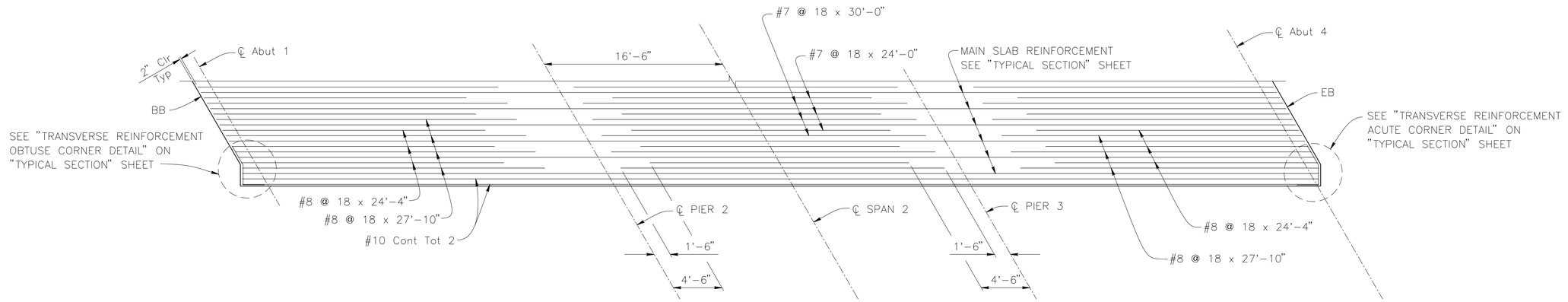
TYPICAL SECTION

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	21	54



ADDITIONAL TOP SLAB REINFORCEMENT

3/16" = 1'-0"



ADDITIONAL BOTTOM SLAB REINFORCEMENT

3/16" = 1'-0""

BAR SPLICE LENGTH								
Bar size	#4	#5	#6	#7	#8	#9	#10	#11
All bars, except top bars in spans over 24'	23"	28"	34"	39"	45"	68"	76"	85"
Top bars in spans over 24'	23"	28"	34"	53"	60"	77"	97"	120"

REINFORCEMENT NOTES:

1. Splices in top main bars to be located near center of span.
2. Splices in bottom main bars to be located near bent.

FILE NO. 586600 120

REVISIONS: DATE | APPR. | MARK

REVISIONS: DATE | APPR. | MARK

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200 FOLSOM CA. 916-858-0642

Rosalí J. Griggs
ROSA GRIGGS, PROJECT ENGINEER

1/12/24
DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

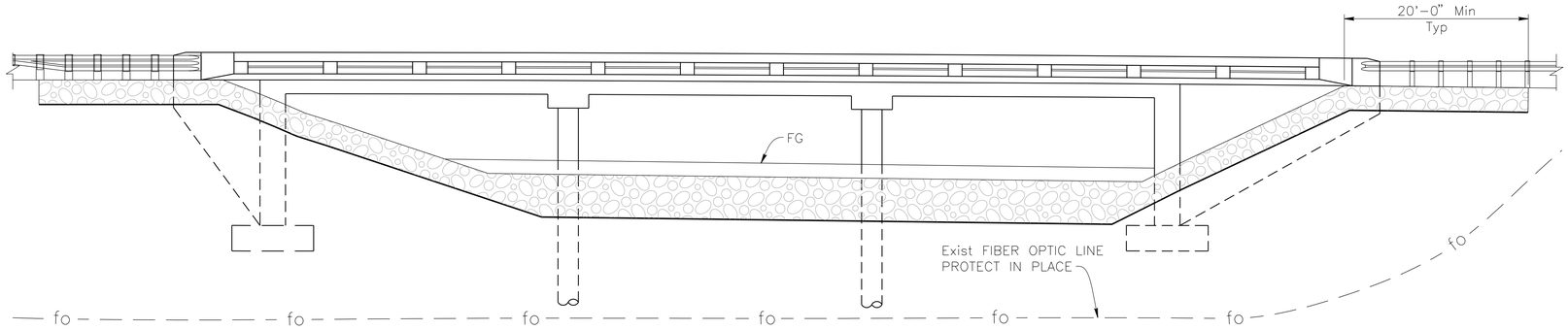
RECOMMENDED BY:
CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
ADDITIONAL SLAB REINFORCEMENT

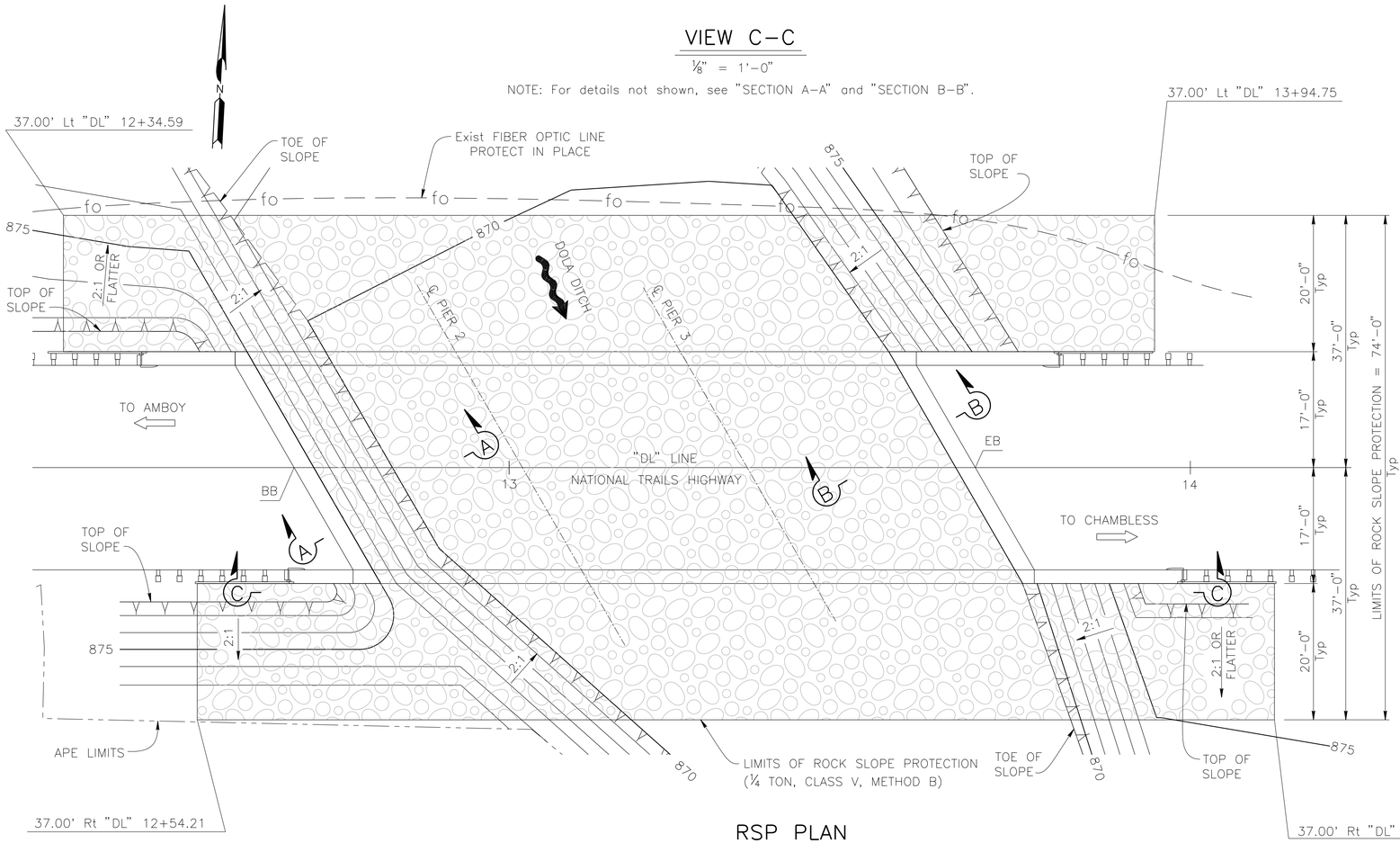
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	22	54



VIEW C-C

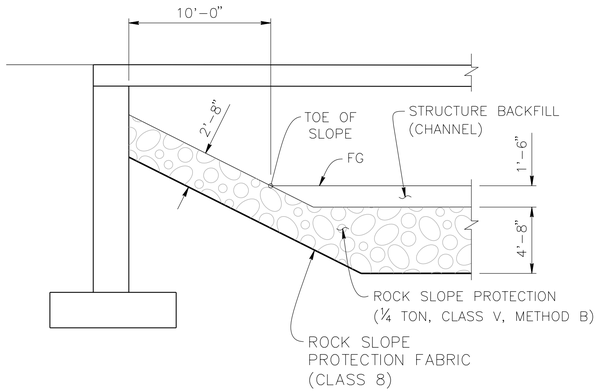
1/8" = 1'-0"

NOTE: For details not shown, see "SECTION A-A" and "SECTION B-B".



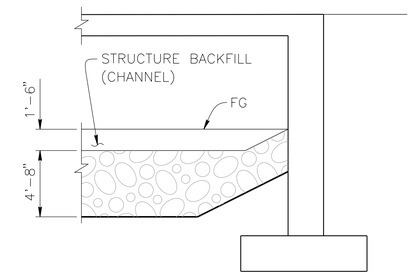
RSP PLAN

1" = 10'



SECTION A-A

3/16" = 1'-0"



SECTION B-B

3/16" = 1'-0"

NOTE: For details not shown, see "SECTION A-A".

FILE NO. 58600 120

MARK	REVISIONS	APPR.	DATE

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200 FOLSOM CA. 916-858-0642

Rosalli J. Griggs — 1/12/24 DATE

ROSA GRIGGS, PROJECT ENGINEER

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

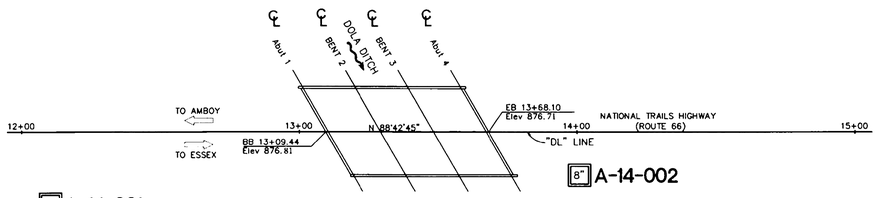
NOEL MONDRAGON, P.E. 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
ROCK SLOPE PROTECTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	23	54

BENCHMARK:
D.O.T. CONCRETE "C" R/W MONUMENT AT STATION 396+83.39, 150. FEET LEFT OF THE CENTERLINE OF NATIONAL TRAILS HIGHWAY (ROUTE 66) UP 0.50 FEET, PER CSFB 4234/1; HELD ELEVATION = 877.02 FEET, NAVD 88. SURVEYED BY GLENN O. SNOKE ON 1/31/2013.



PLAN
SCALE: 1"=20'

AS BUILT
NO CORRECTIONS THIS SHEET
NO CORRECTIONS
BY TARIQ MALIK, P.E.
DATE 10-16-17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
08	SBd	66	86.04	1	3

April 4, 2016
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — PETER SKOPEK — No. GE 2635 — Exp 06/30/2017 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

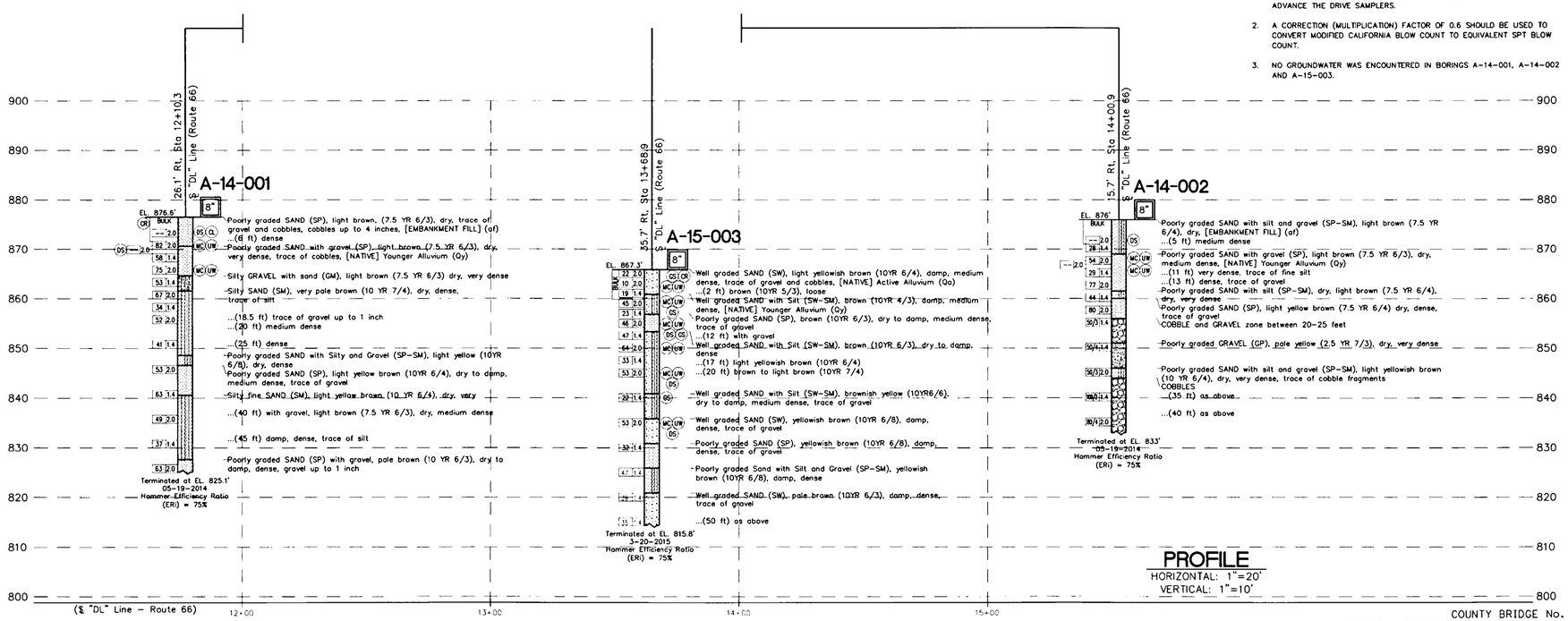
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

TETRA TECH BAS GEOSCENCE
1360 VALLEY VISTA DRIVE
DIAMOND BAR, CA 91765

THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

NOTES:

1. AUTOMATIC TRIP HAMMER SYSTEM CONSISTS OF A HAMMER WEIGHT OF 140 POUNDS FALLING A DISTANCE OF 30 INCHES WHICH WAS USED TO ADVANCE THE DRIVE SAMPLERS.
2. A CORRECTION (MULTIPLICATION) FACTOR OF 0.6 SHOULD BE USED TO CONVERT MODIFIED CALIFORNIA BLOW COUNT TO EQUIVALENT SPT BLOW COUNT.
3. NO GROUNDWATER WAS ENCOUNTERED IN BORINGS A-14-001, A-14-002 AND A-15-003.



PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

COUNTY BRIDGE No. 81
FEDERAL PROJECT No.: BRLO-5954(093)

PETER SKOPEK, G.E. DESIGN OVERSIGHT	DRAWN BY	CDS/J.B. DEPOORTER	A.H.M. FIELD INVESTIGATION BY:	PREPARED FOR THE SAN BERNARDINO COUNTY TRANSPORTATION DESIGN DIVISION	BIGGS CARDOSA ASSOCIATES, Inc. MICHAEL A. THOMAS PROJECT ENGINEER - BRIDGE DESIGNER	BRIDGE NO. 54C-0285	DOLA DITCH BRIDGE	
SIGN OFF DATE	CHECKED BY	FERNANDO CUENCA, P.E.	DATE: MAY 19, 2014 AND MARCH 20, 2015			POST MILES 86.04	LOG OF TEST BORINGS No. 1	
GS LOTB SOIL LEGEND SHEET 1 (ENGLISH) (REV. 03/14/12)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: PROJECT NUMBER & PHASE:	CONTRACT NO.: 08-924806L	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES 10/2015 10/2016 — SHEET 38 OF 39

DESIGN OVERSIGHT > 16:09:50 DATE PLOTTED > 15-JAN-2016 TIME PLOTTED > 13:48

REVISIONS: DATE | APPR. | MARK

FILE NO. 586600 120

REVISIONS: DATE | APPR. | MARK

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200 FOLSOM CA. 916-858-0642
ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

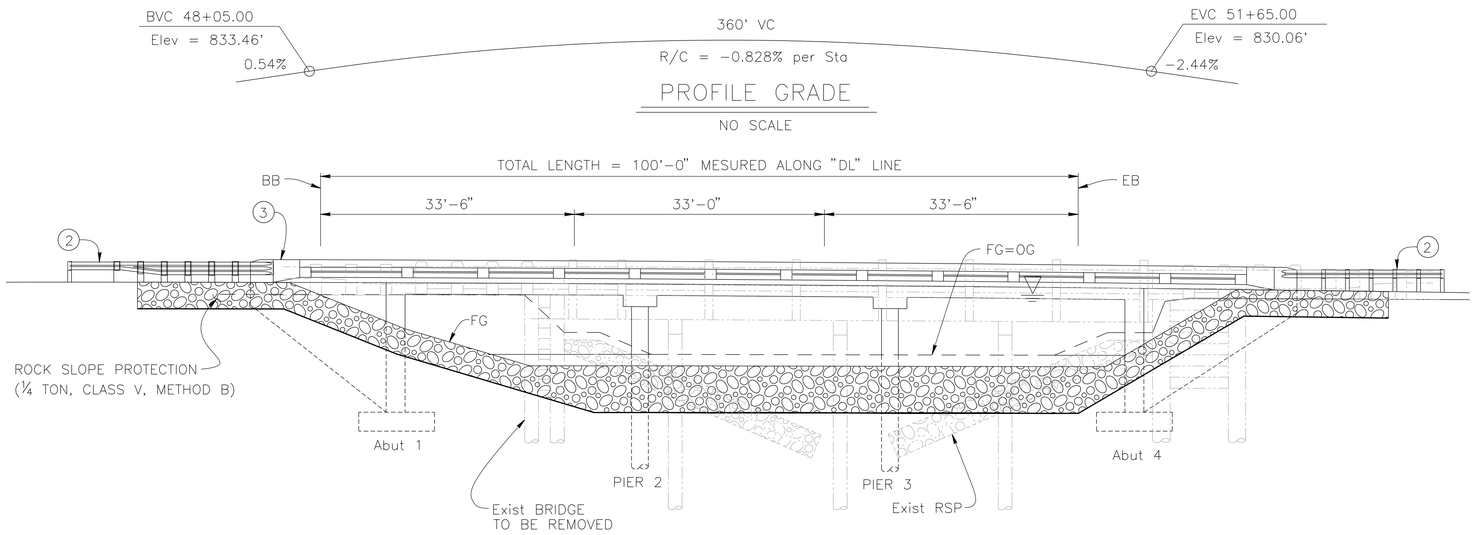
RECOMMENDED BY:
CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

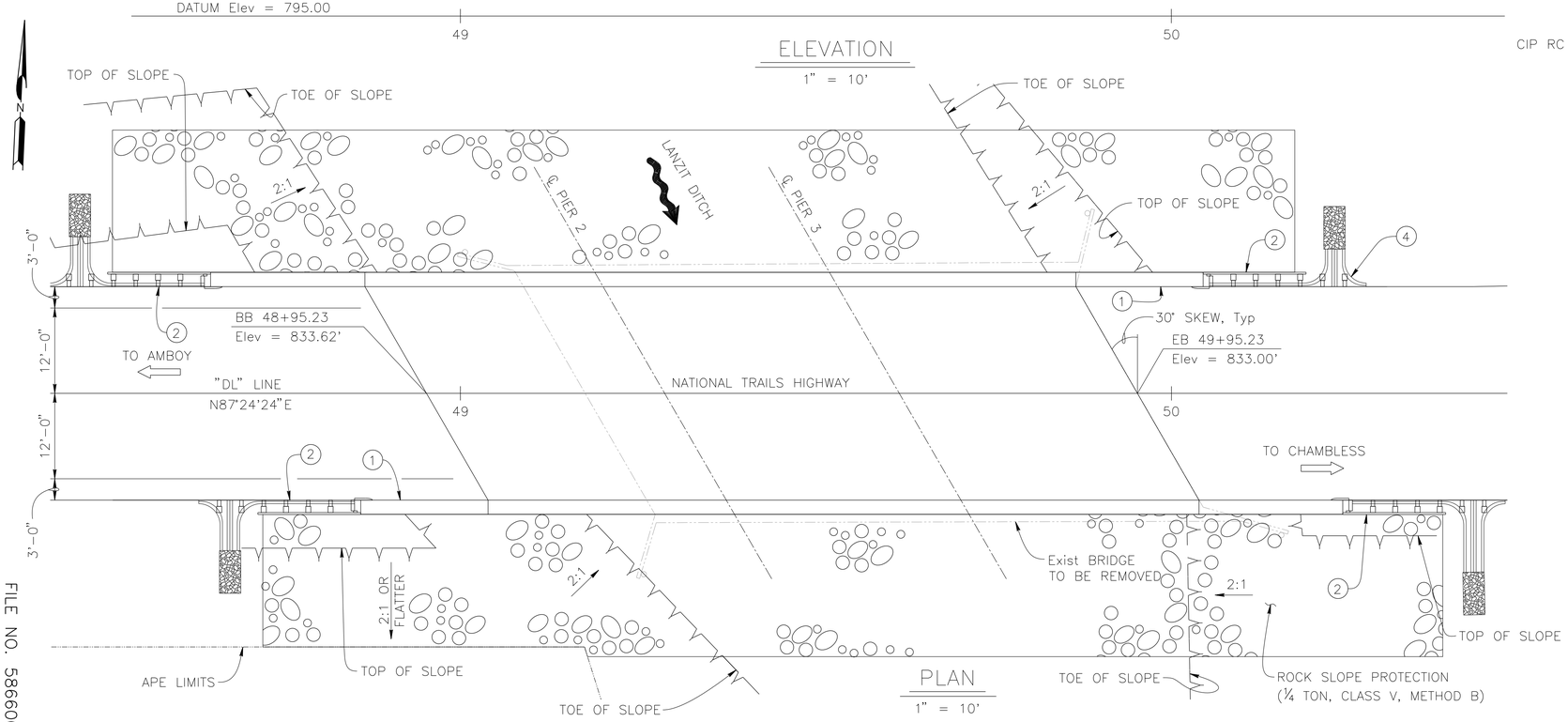
NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

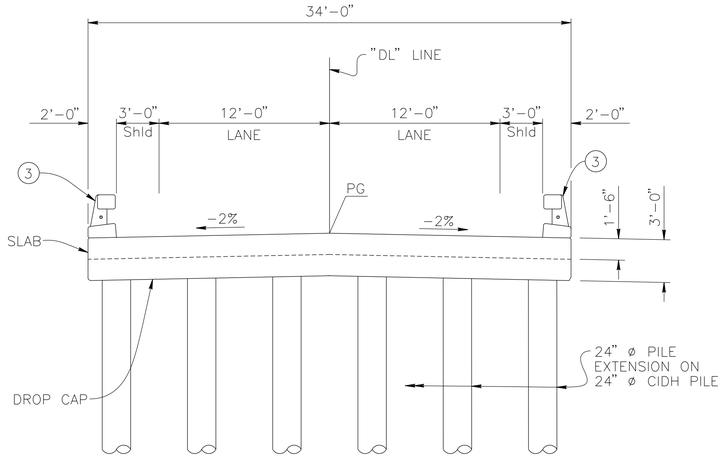
APPROVED BY:
MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

DOLA DITCH BRIDGE
BRIDGE No. 54C0285
(County No. 81)
LOG OF TEST BORINGS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	24	54







TYPICAL SECTION

3/16" = 1'-0"

NOTES:

1. For "INDEX TO PLANS", "GENERAL NOTES", "STANDARD PLANS" list and "QUANTITIES", see "INDEX TO PLANS" sheet.

(1) Paint "LANZIT DITCH BRIDGE
"Br No. 54C0286"
Year Constructed

(2) MGS, see Roadway Plans L-2 sheet.

(3) Concrete Barrier (Type 85). To be painted white.

(4) HMA overside drain with rock slope protection, Typ See Roadway Plans.

LEGEND:

Water Surface Elevation. For "HYDROLOGIC SUMMARY" table, see "FOUNDATION PLAN" sheet.

Existing Structure

FILE NO. 586000 120

REVISIONS: DATE | APPR. | MARK

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM, CA 916-858-0642

Rosalli Griggs
ROSA GRIGGS, PROJECT ENGINEER
1/12/24
DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER
ROSA GRIGGS
No. 54169
Exp. 12-31-25
CIVIL
STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY:
01/23/2024
DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

01/23/2024
DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

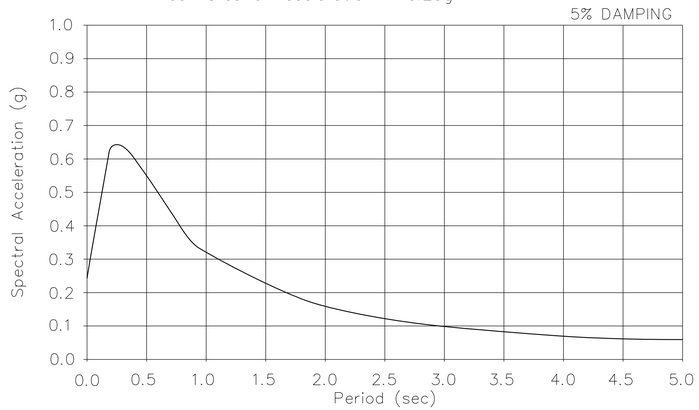
APPROVED BY:
01/24/2024
DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)
GENERAL PLAN

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	25	54

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:	AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments, preface dated January 2017
SEISMIC DESIGN:	CALTRANS SEISMIC DESIGN CRITERIA (SDC) Version 2.0, April 2019
DEAD LOAD:	Includes 0.035 ksf for future wearing surface
LIVE LOAD:	HL-93 and Permit Design Load
SEISMIC DATA:	Soil profile : V_{S30} = 1017 ft/s Moment Magnitude : 6.40 Peak Ground Acceleration = 0.25g

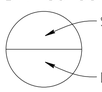


ARS CURVE
No Scale

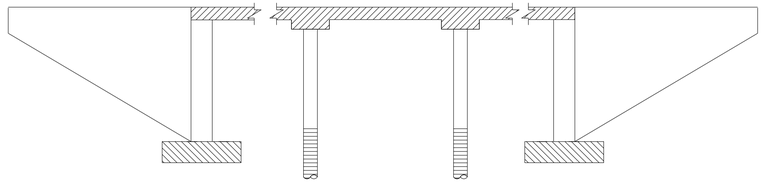
REINFORCED CONCRETE:
f_y = 60 ksi
f'_c = See "CONCRETE STRENGTH AND TYPE LIMITS"
n = 8

STANDARD PLANS DATED 2023

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEETS 2 OF 3)
A3C	ABBREVIATIONS (SHEETS 3 OF 3)
A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B11-83	CONCRETE BARRIER TYPE 85 DETAILS No. 1
B11-84	CONCRETE BARRIER TYPE 85 DETAILS No. 2
B11-85	CONCRETE BARRIER TYPE 85 DETAILS No. 3



INDEX TO PLANS

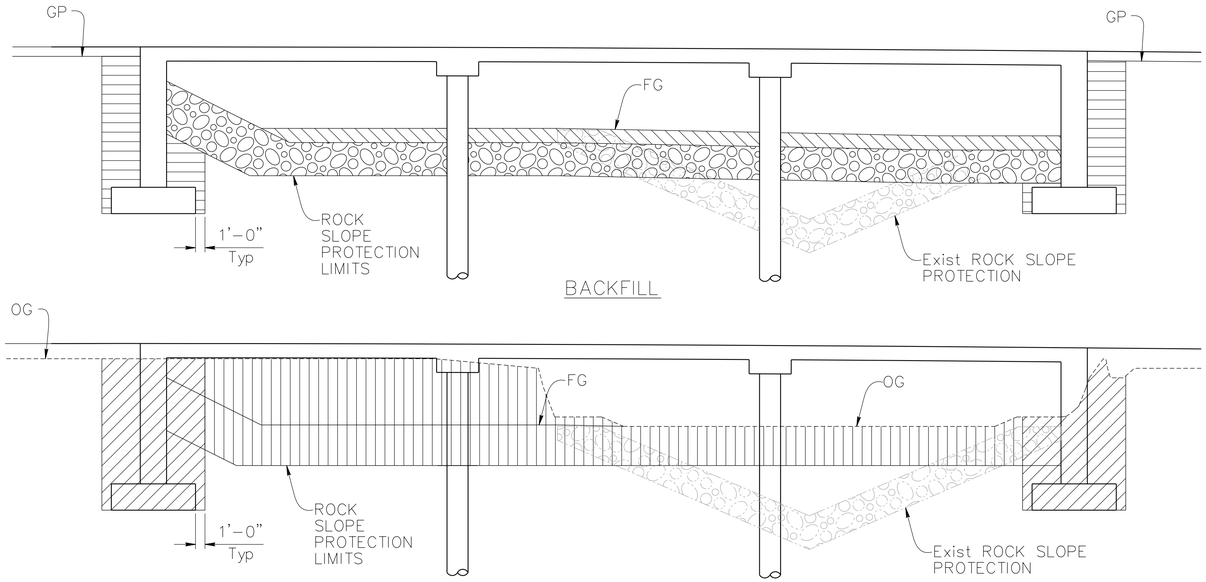


LEGEND:
- Structural Concrete, Bridge (f'c = 3.6 ksi @ 28 days)
- Structural Concrete, Bridge Footing (f'c = 3.6 ksi @ 28 days)
- Structural Concrete, Bridge (Polymer Fiber) (f'c = 4.0 ksi)
- Cast-in-Drilled-Hole Concrete Piling (f'c = 3.6 ksi)

CONCRETE STRENGTH AND TYPE LIMITS
No Scale

QUANTITIES

ITEM	QUANTITY	UNIT
STRUCTURE EXCAVATION (BRIDGE)	678	CY
STRUCTURE BACKFILL (BRIDGE)	392	CY
STRUCTURE BACKFILL (CHANNEL)	362	CY
24" CAST-IN-DRILLED-HOLE CONCRETE PILING	618	LF
STRUCTURAL CONCRETE, BRIDGE FOOTING	78	CY
STRUCTURAL CONCRETE, BRIDGE	165	CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	207	CY
BAR REINFORCING STEEL (BRIDGE)	98,287	LB
BAR REINFORCING STEEL (GALVANIZED)	1,838	LB
BRIDGE REMOVAL	1	LS
ROCK SLOPE PROTECTION (¼ TON, CLASS V, METHOD B)	1,791	CY
ROCK SLOPE PROTECTION FABRIC (CLASS 8)	1,131	SQYD
CONCRETE BARRIER (TYPE 85)	279	LF



NOTE:
For Wingwall Excavation and Backfill Limits see Standard Plan A62C

LEGEND:
- Structure Excavation (Bridge)
- Channel Excavation
- Structure Backfill (Bridge)
- Structure Backfill (Channel)
- Rock Slope Protection, See "Rock Slope Protection Detail" sheet.

LIMITS OF PAYMENT OF STRUCTURE EXCAVATION AND BACKFILL
No Scale

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642
ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

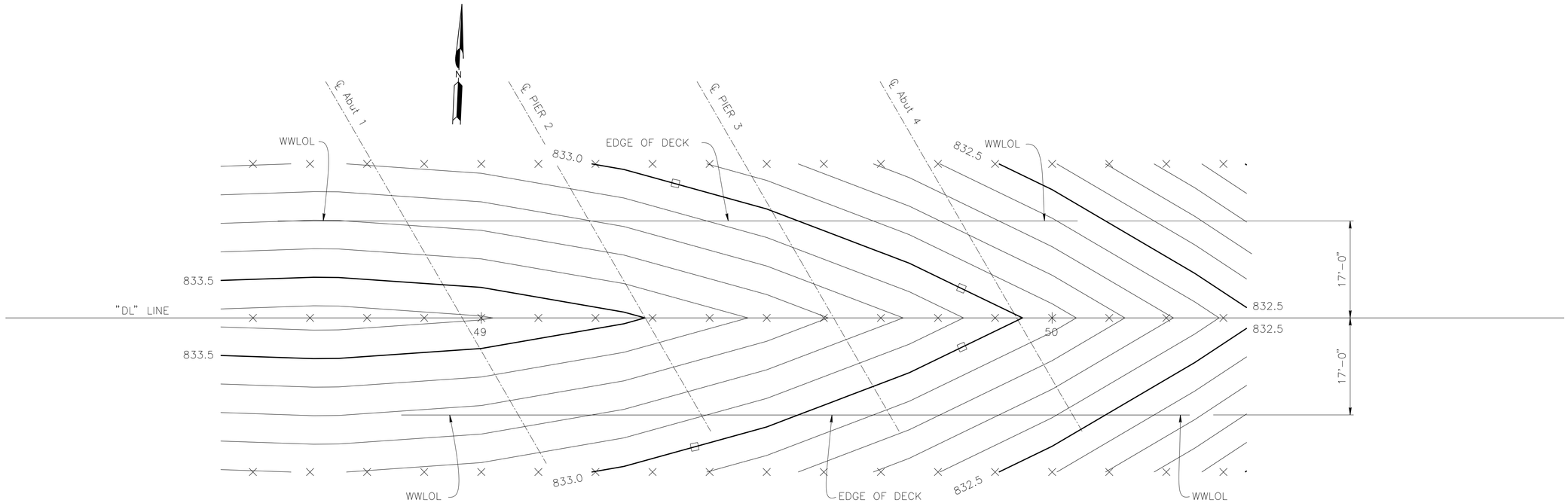
RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)
INDEX TO PLANS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	26	54



NOTES:

1. 0.1' contour intervals shown.
2. Contours do not include camber.
3. Top of concrete deck shown.

LEGEND:

× 10' intervals along station line.

□ 1' index contour intervals.

DECK CONTOURS

1" = 10'

REVISIONS

MARK	DATE	APPR.

REVISIONS

MARK	DATE	APPR.

FILE NO. 586600 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

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RECOMMENDED BY:

CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY:

MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)

DECK CONTOURS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	27	54

SCOUR DATA TABLE

Support Location	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	821.06	4.56
PIER 2	821.06	4.56
PIER 3	821.06	4.56
Abut 4	821.06	4.56

NOTE:

1. The contractor shall verify all existing utilities prior to new construction.

LEGEND:

XXX.X Bottom of footing elevation (ft)

◯ 24" ø CIDH Pile

HYDROLOGIC SUMMARY

Drainage Area: 16,853 acres

	Design Flood	Base Flood
Frequency	50-yr	100-yr
Discharge	4020 cfs	4545 cfs
Water Surface Elevation at Bridge	831.42 ft	832.14 ft

Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.

PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
PIER 2	24" CIDH	320	N/A	763.5(a) 806.5(c) 785.0(d)	763.5
PIER 3	24" CIDH	316	N/A	766.5(a) 806.5(c) 785.0(d)	766.5

NOTES:

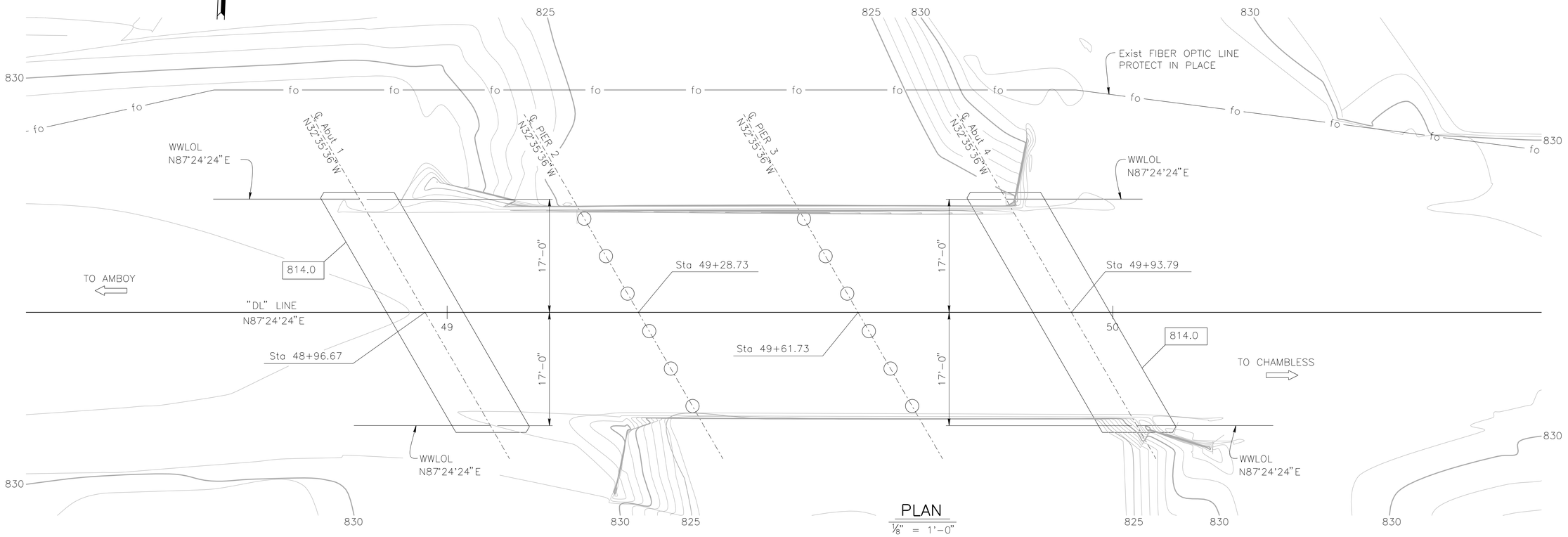
1. Design tip elevations for Abutments are controlled by: (a) Compression, (b) Tension (c) Settlement and (d) Lateral Load.
2. The CIDH Specified Tip Elevation shall not be raised.
3. Design tip elevation for lateral load is provided by design engineer.

SPREAD FOOTING DATA TABLE

Location	Service Limit State Permissible Net Contact Stress (ksf)	Strength Factored Gross Nominal Bearing Resistance For Controlling Load Case (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance for Controlling Load Case (ksf)
Abut 1	4.1	10.0	N/A
Abut 4	3.9	10.0	N/A

BENCHMARK

FOUND 3.5" NGS BRASS DISC IN 10"x10" Conc Mnmt STAMPED "Z1308-1978 NATIONAL GEODETIC SURVEY" PER NGS DATASHEET PID# EU0704. NAVD-88 ELEVATION = 1099.53'



PLAN

1/8" = 1'-0"

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE

CHRIS NGUYEN P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER

NOEL MONDRAGON, P.E. SUPERVSING ENGINEER — 01/23/2024 DATE

APPROVED BY: 01/24/2024 DATE

MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR

LANZIT DITCH BRIDGE BRIDGE No. 54C0286 (County No. 82)

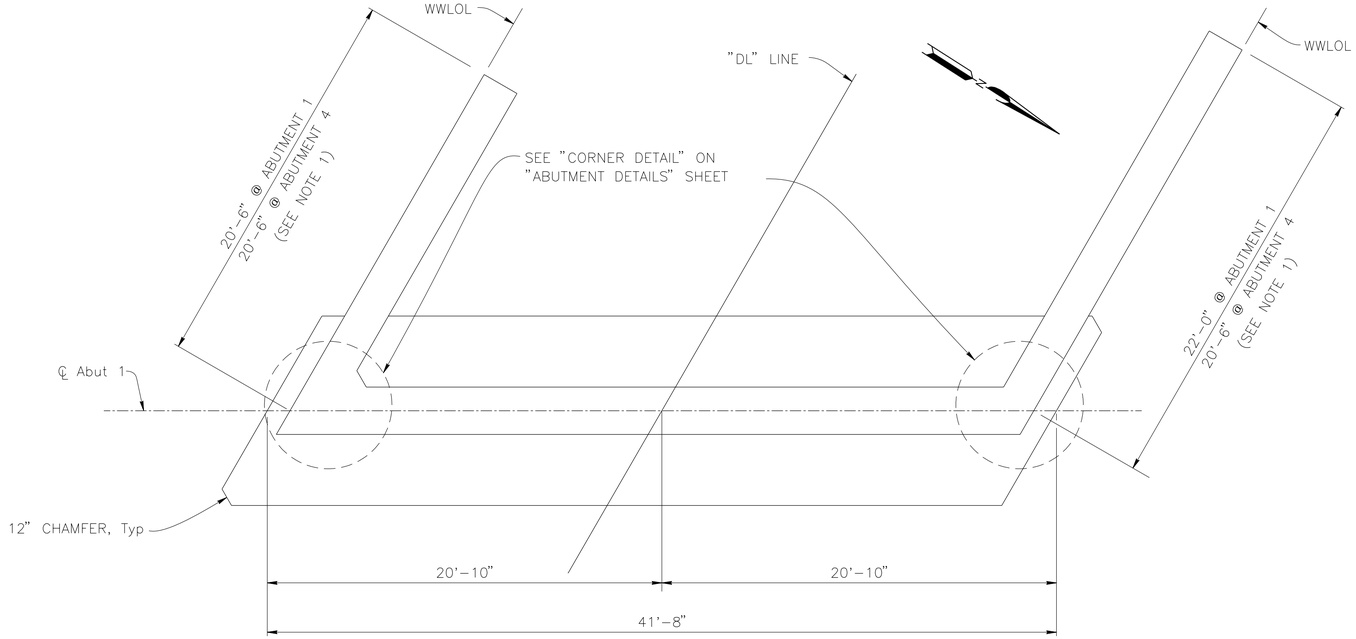
FOUNDATION PLAN

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	28	54

MARK	DATE	APPR.	REVISIONS

MARK	DATE	APPR.	REVISIONS

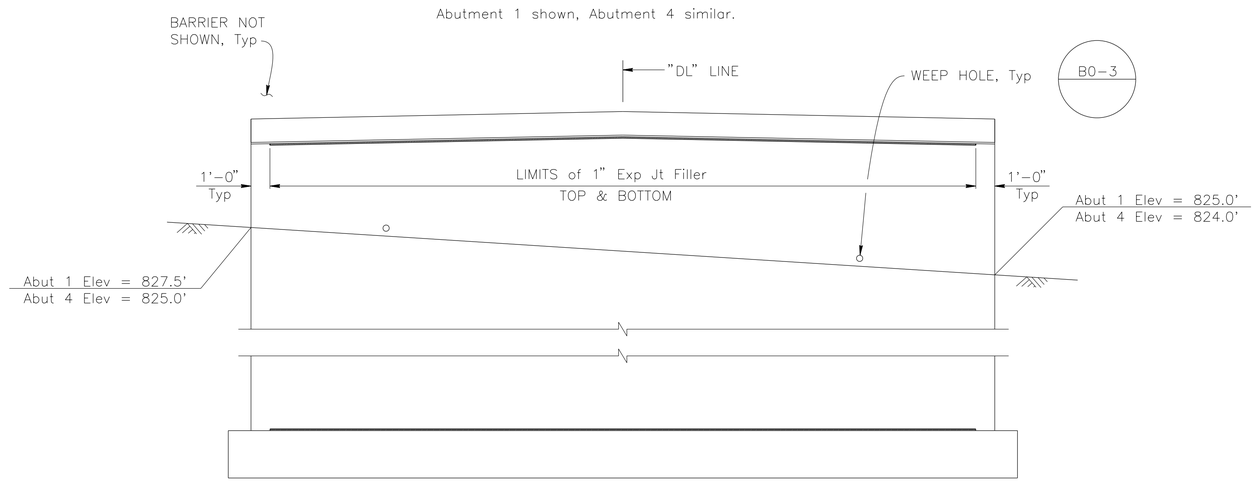
FILE NO. 586600 120



PLAN

1/4" = 1'-0"

Abutment 1 shown, Abutment 4 similar.



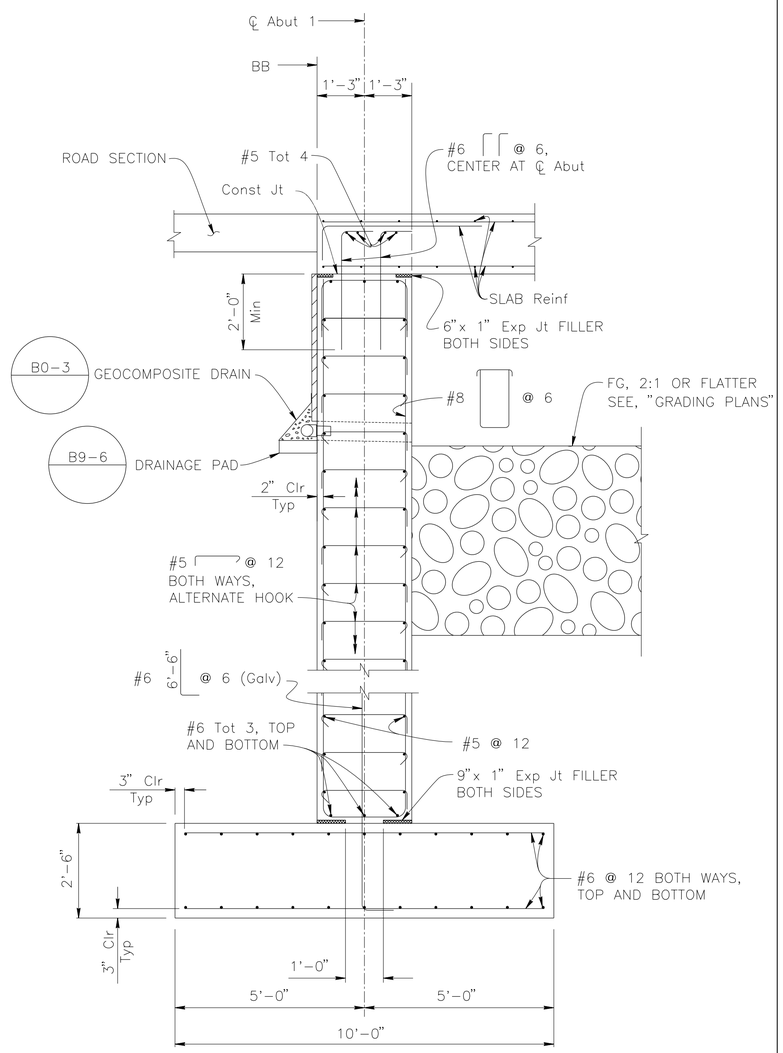
ELEVATION

1/4" = 1'-0"

Abutment 1 shown, Abutment 4 similar.

NOTES:

1. For Wingwall Details, see "ABUTMENT DETAILS" sheet.



TYPICAL SECTION

1/2" = 1'-0"

Abutment 1 shown, Abutment 4 similar.

MARK	DATE	APPR.	REVISIONS

MARK	DATE	APPR.	REVISIONS

FILE NO. 586600 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

01/23/2024 DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

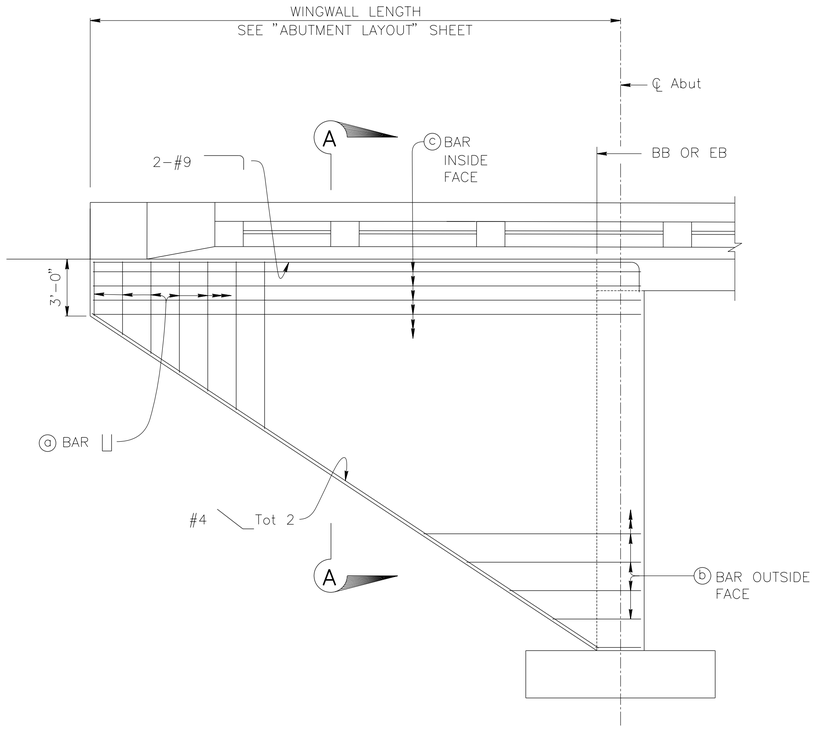
LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)

ABUTMENT LAYOUT

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	29	54

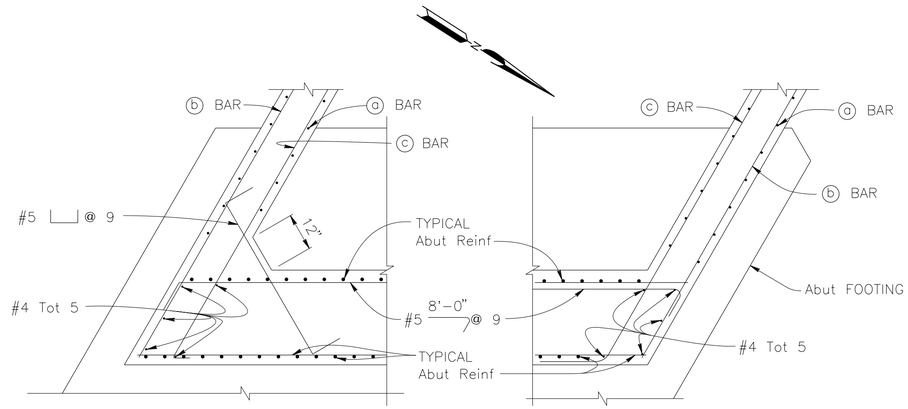
WINGWALL REINFORCEMENT TABLE

BAR	WINGWALL LENGTH 20'-6"	WINGWALL LENGTH 22'-0"
ⓐ	#4 @ 18	#4 @ 18
ⓑ	#4 @ 18	#4 @ 18
ⓒ	#9 @ 9	#9 @ 9
T	1'-0"	1'-0"



WINGWALL TYPICAL ELEVATION

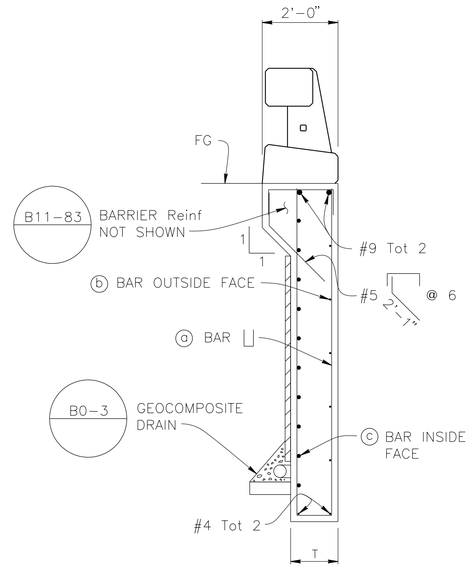
¼" = 1'-0"



CORNER DETAIL

½" = 1'-0"

Abutment 1 shown, Abutment 4 similar.



SECTION A-A

½" = 1'-0"

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

MARK	DATE	APPR.	REVISIONS

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200 FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

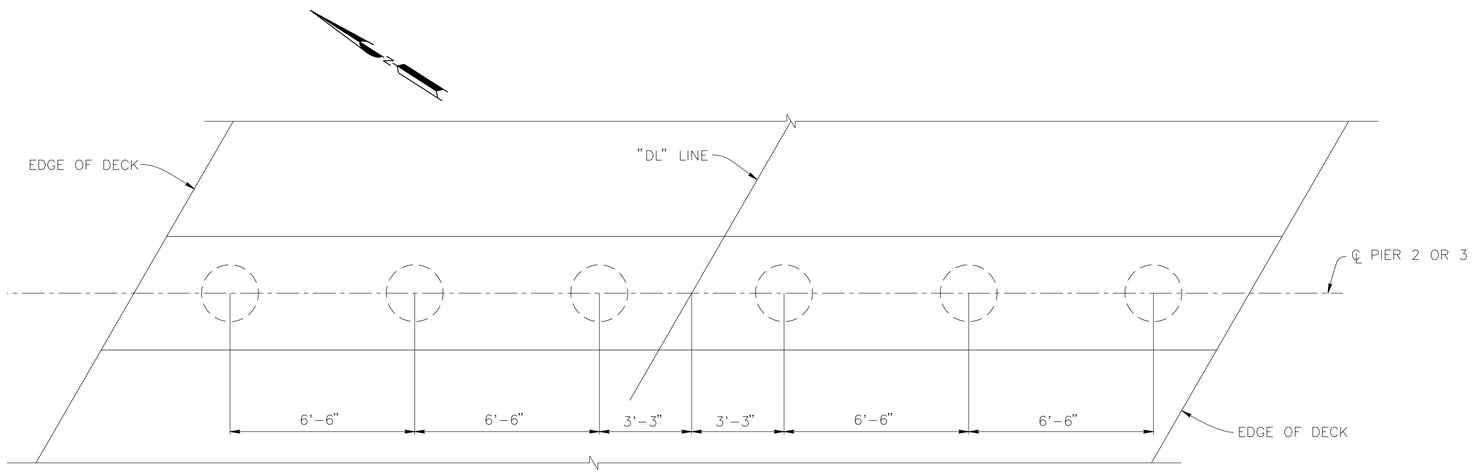
RECOMMENDED BY: CHRIS NGUYEN, P.E., TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E., SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY: MERVAT N. MIKHAIL, P.E., DEPUTY DIRECTOR — 01/24/2024 DATE

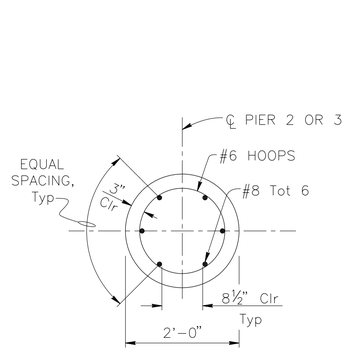
LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)
ABUTMENT DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	30	54



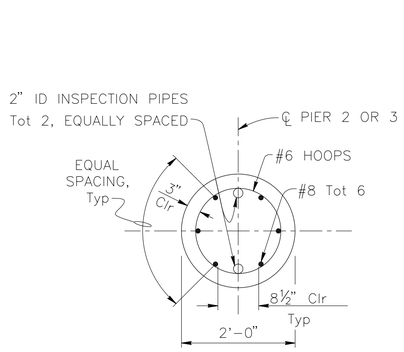
PLAN

3/8" = 1'-0"



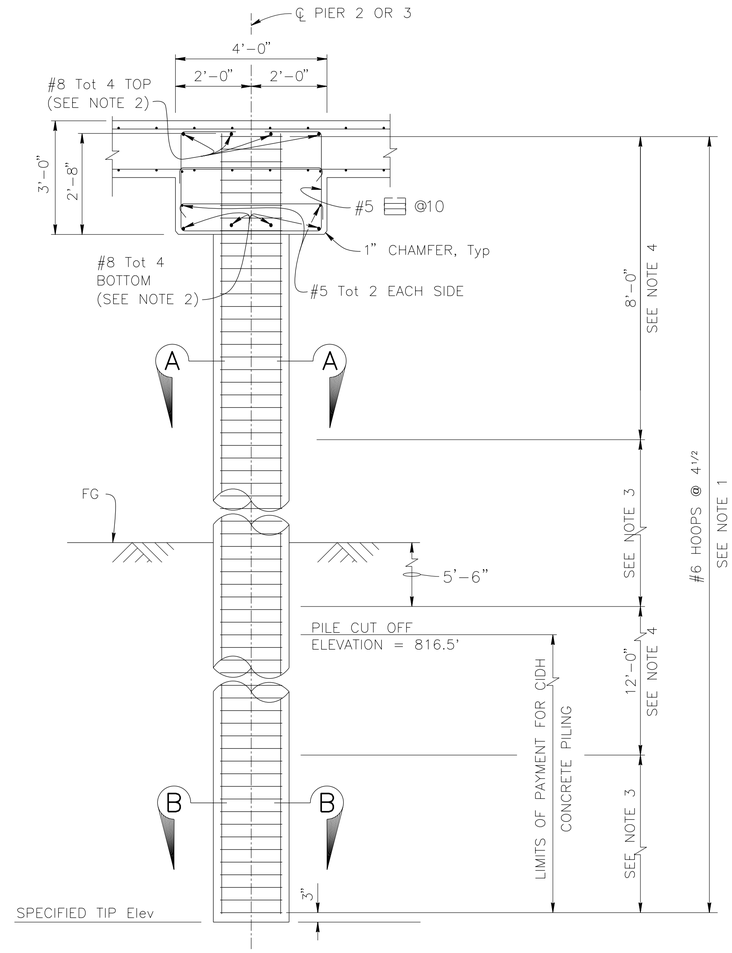
SECTION A-A

¾" = 1'-0"



SECTION B-B

¾" = 1'-0"



TYPICAL SECTION

½" = 1'-0"

NOTES:

1. All hoops must be ultimate butt weld splice continuous.
2. No splices in main cap reinforcement allowed.
3. Ultimate butt splice only in longitudinal reinforcement.
4. No splice in longitudinal reinforcement allowed.

FILE NO. 586600 120

MARK	REVISIONS	APPR.	DATE

MARK	REVISIONS	APPR.	DATE

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

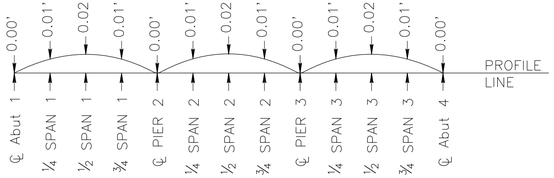
01/23/2024 DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)

PIER LAYOUT

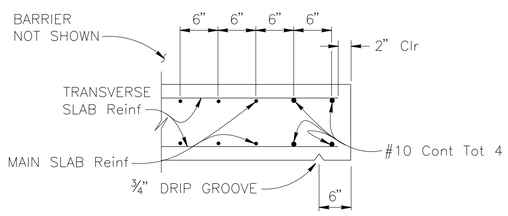
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	31	54



Does not include allowance for falsework settlement.

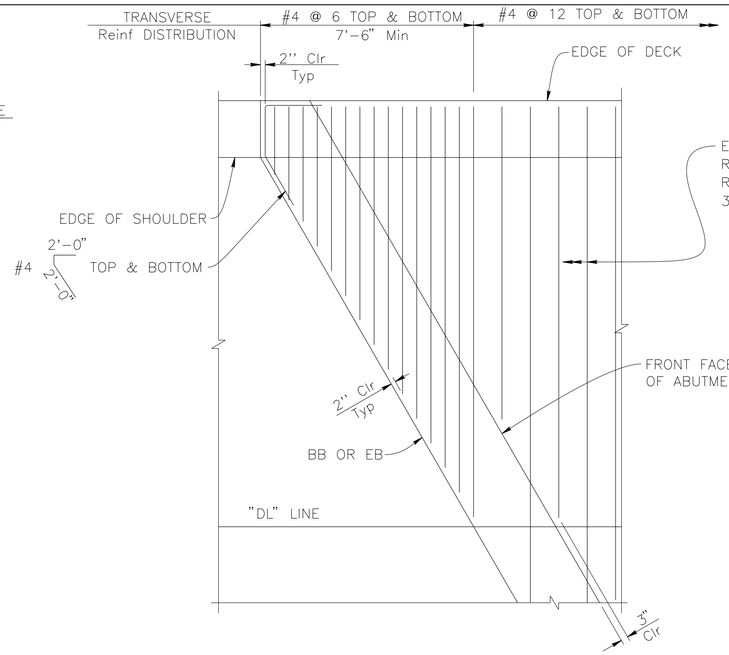
CAMBER DIAGRAM

NO SCALE



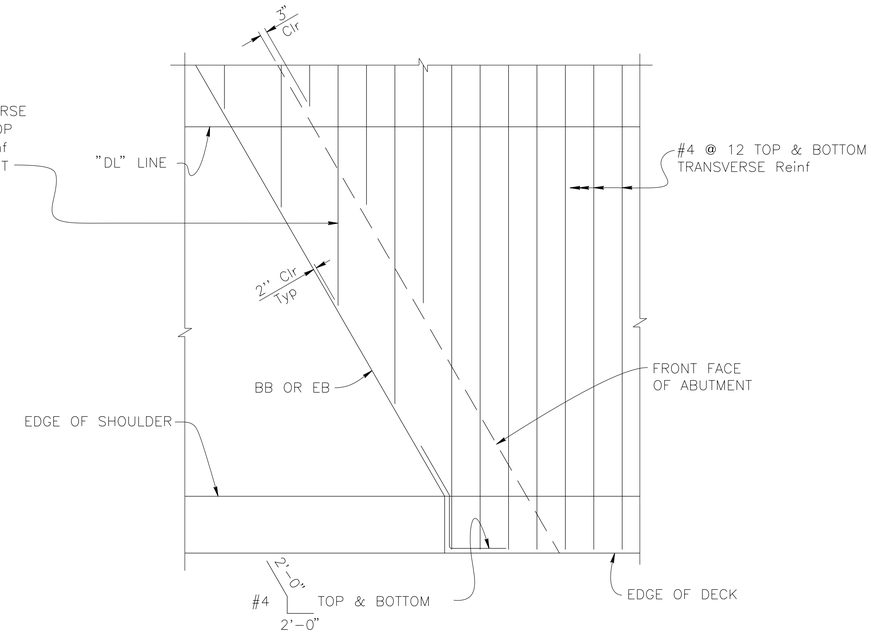
EDGE OF SLAB DETAILS

NO SCALE



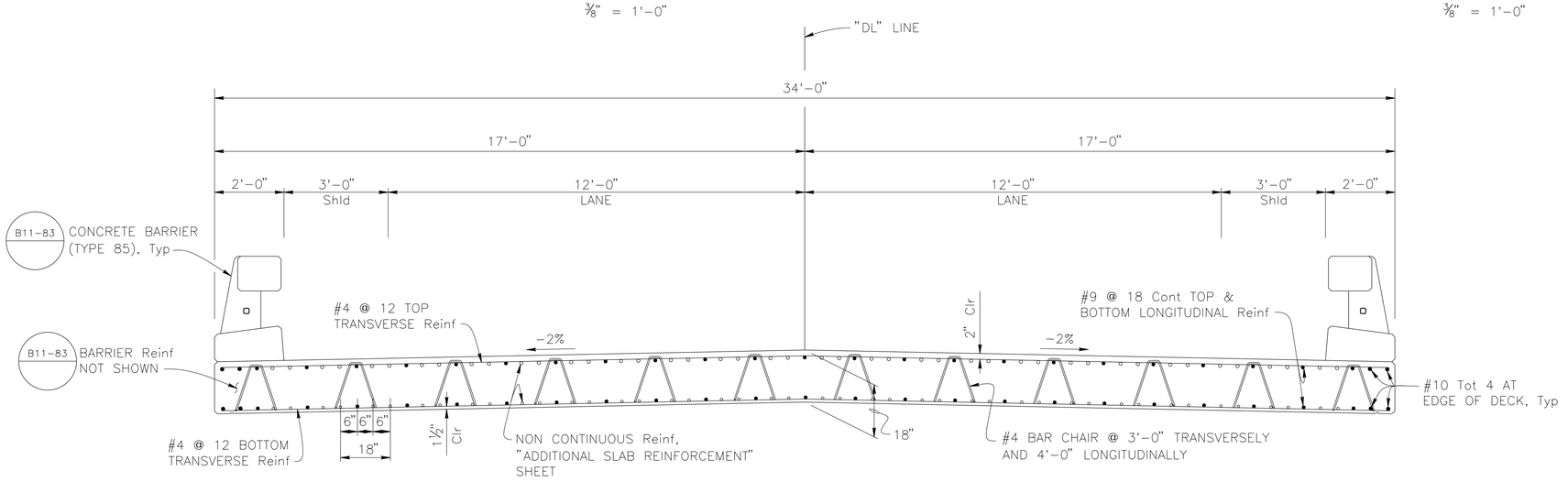
TRANSVERSE REINFORCEMENT ACUTE CORNER DETAIL

⅜" = 1'-0"



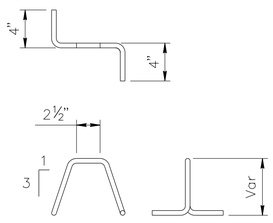
TRANSVERSE REINFORCEMENT OBTUSE CORNER DETAIL

⅜" = 1'-0"



TYPICAL SECTION

½" = 1'-0"



REINFORCEMENT CHAIR DETAIL

NO SCALE

NOTES:

1. Place longitudinal reinforcement parallel to ℄ Bridge.
2. Place and space transverse reinforcement normal to ℄ Bridge.
3. False work shall be released as soon as permitted by the specifications.

FILE NO. 586600 120

MARK	DATE	APPR.	REVISIONS

MARK	DATE	APPR.	REVISIONS

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosali Griggs 1/12/24

ROSA GRIGGS, PROJECT ENGINEER — DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 (DATE)
CHRIS NGUYEN, P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER

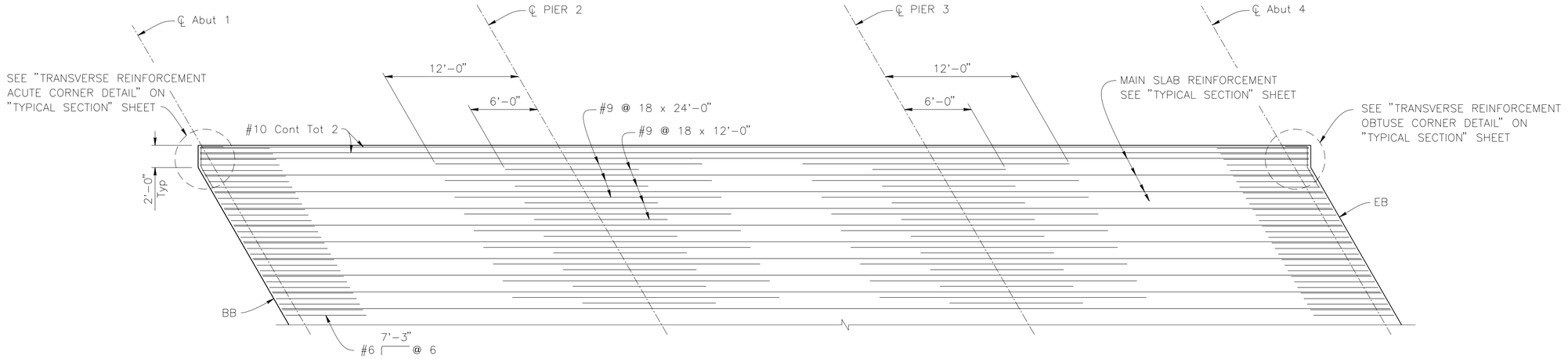
01/23/2024 (DATE)
NOEL MONDRAGON, P.E. SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 (DATE)
MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR

LANZIT DITCH BRIDGE BRIDGE No. 54C0286 (County No. 82)

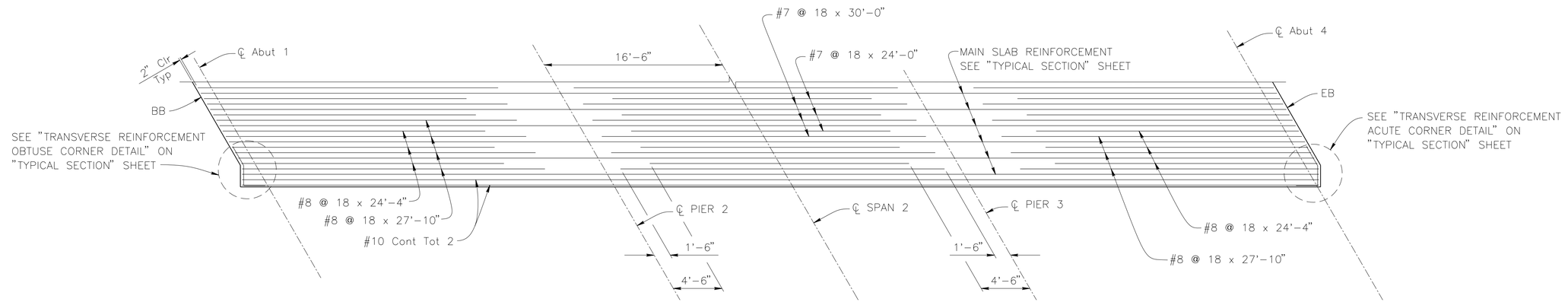
TYPICAL SECTION

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	32	54



ADDITIONAL TOP SLAB REINFORCEMENT

3/16" = 1'-0"



ADDITIONAL BOTTOM SLAB REINFORCEMENT

3/16" = 1'-0""

BAR SPLICE LENGTH								
Bar size	#4	#5	#6	#7	#8	#9	#10	#11
All bars, except top bars in spans over 24'	23"	28"	34"	39"	45"	68"	76"	85"
Top bars in spans over 24'	23"	28"	34"	53"	60"	77"	97"	120"

REINFORCEMENT NOTES:

1. Splices in top main bars to be located near center of span.
2. Splices in bottom main bars to be located near bent.

FILE NO. 586600 120

REVISIONS: MARK | APPR. | DATE

REVISIONS: MARK | APPR. | DATE

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

Rosali Griggs 1/12/24
ROSA GRIGGS, PROJECT ENGINEER — DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

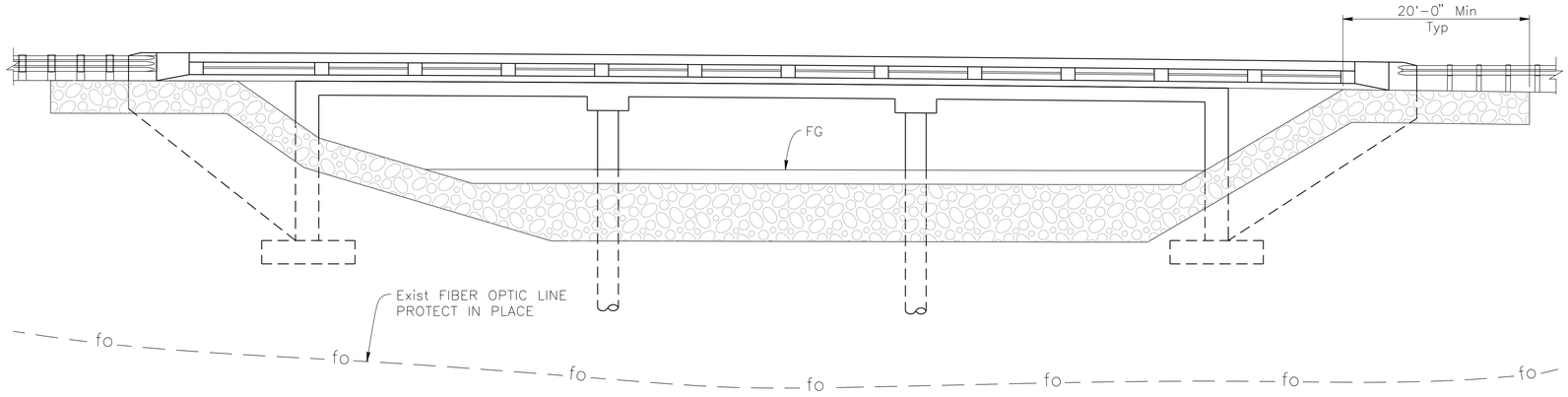
RECOMMENDED BY:
CHRIS NGUYEN, P.E., TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E., SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E., DEPUTY DIRECTOR — 01/24/2024 DATE

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)
ADDITIONAL SLAB REINFORCEMENT

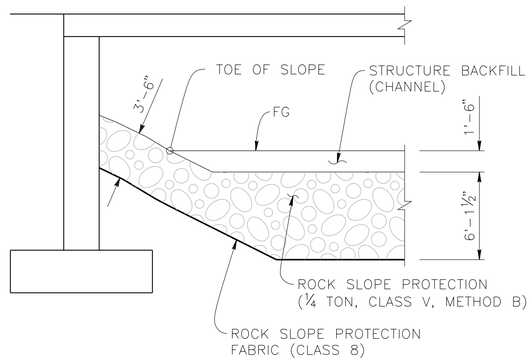
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	33	54



VIEW C-C

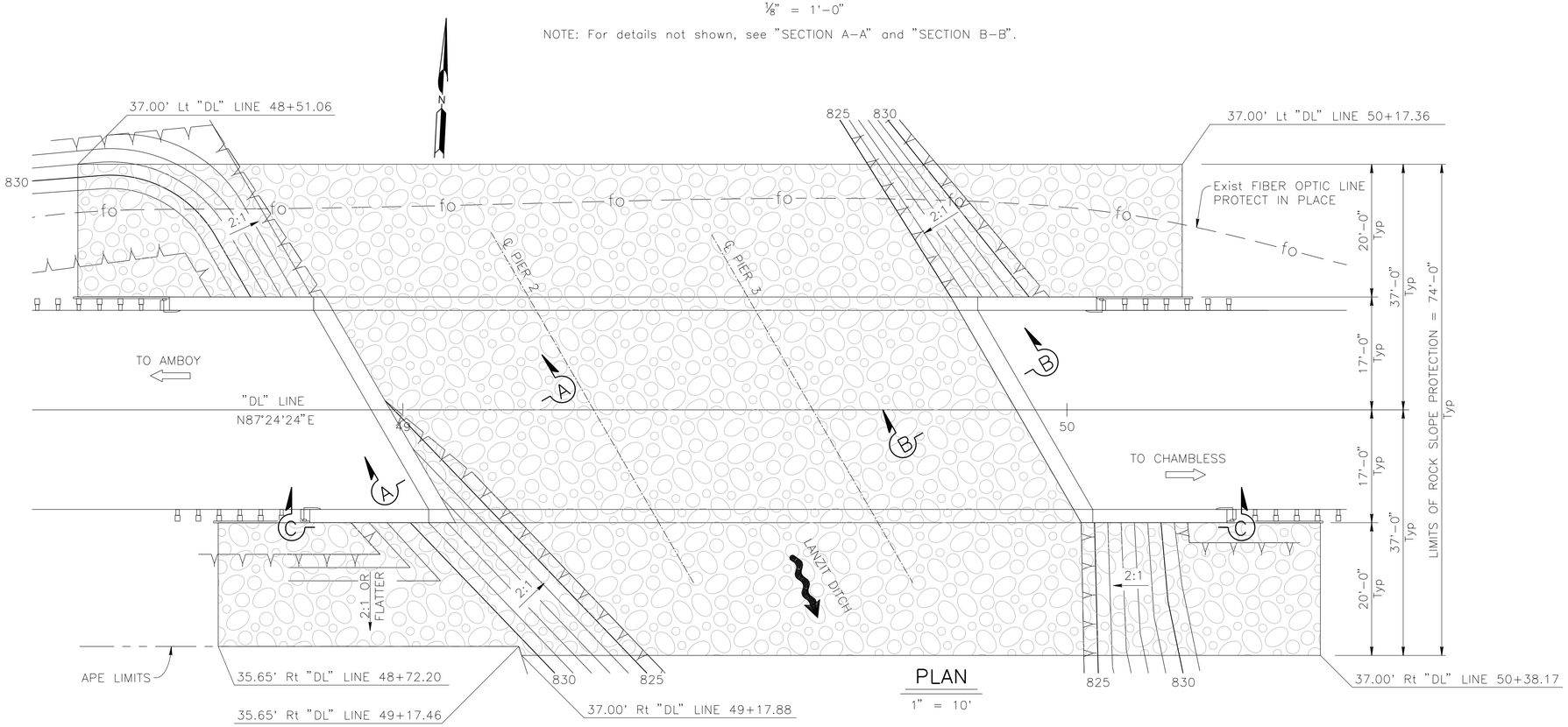
1/8" = 1'-0"

NOTE: For details not shown, see "SECTION A-A" and "SECTION B-B".



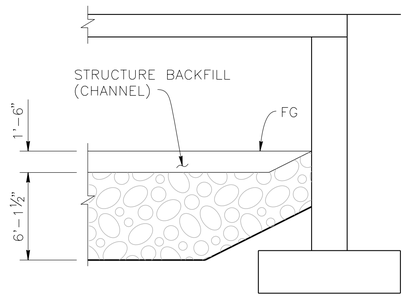
SECTION A-A

3/16" = 1'-0"



PLAN

1" = 10'



SECTION B-B

3/16" = 1'-0"

NOTE: For details not shown, see "SECTION A-A".

FILE NO. 586600 120

REVISIONS			
MARK	APPR.	DATE	

REVISIONS			
MARK	APPR.	DATE	

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM, CA. 916-858-0642

ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
NO	AD	JR

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
TRANSPORTATION DESIGN ENGINEERING MANAGER

01/23/2024 DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

APPROVED BY: 01/24/2024 DATE
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)

ROCK SLOPE PROTECTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	34	54

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	66	86.72	1	3

REGISTERED CIVIL ENGINEER — DATE April 4, 2016

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

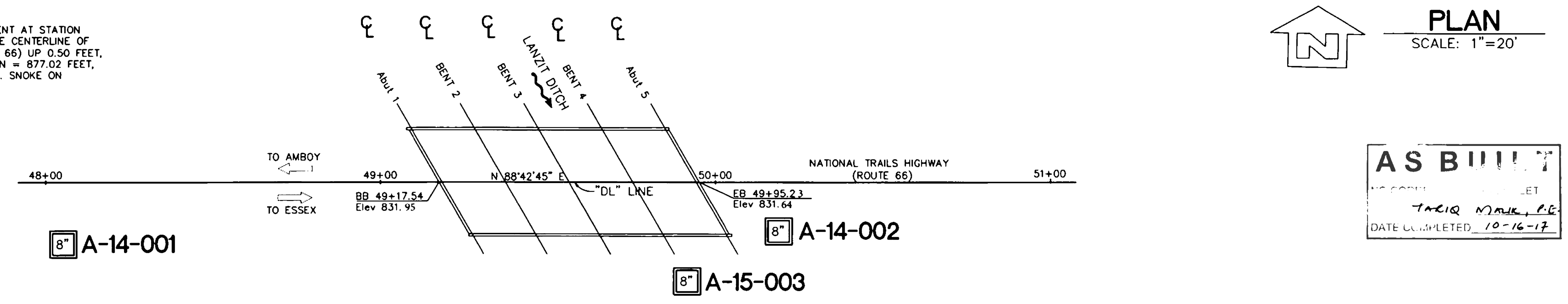
REGISTERED PROFESSIONAL ENGINEER — PETER SKOPEK — No. GE 2635 — Exp. 06/30/2017 — CIVIL — STATE OF CALIFORNIA

TETRA TECH BAS GEOSCENCE
1360 VALLEY VISTA DRIVE
DIAMOND BAR, CA 91765

BENCHMARK:
D.O.T. CONCRETE "C" R/W MONUMENT AT STATION 396+83.39, 150. FEET LEFT OF THE CENTERLINE OF NATIONAL TRAILS HIGHWAY (ROUTE 66) UP 0.50 FEET, PER CSFB 4234/1; HELD ELEVATION = 877.02 FEET, NAVD 88. SURVEYED BY GLENN O. SNOKE ON 1/31/2013.

PLAN

SCALE: 1"=20'

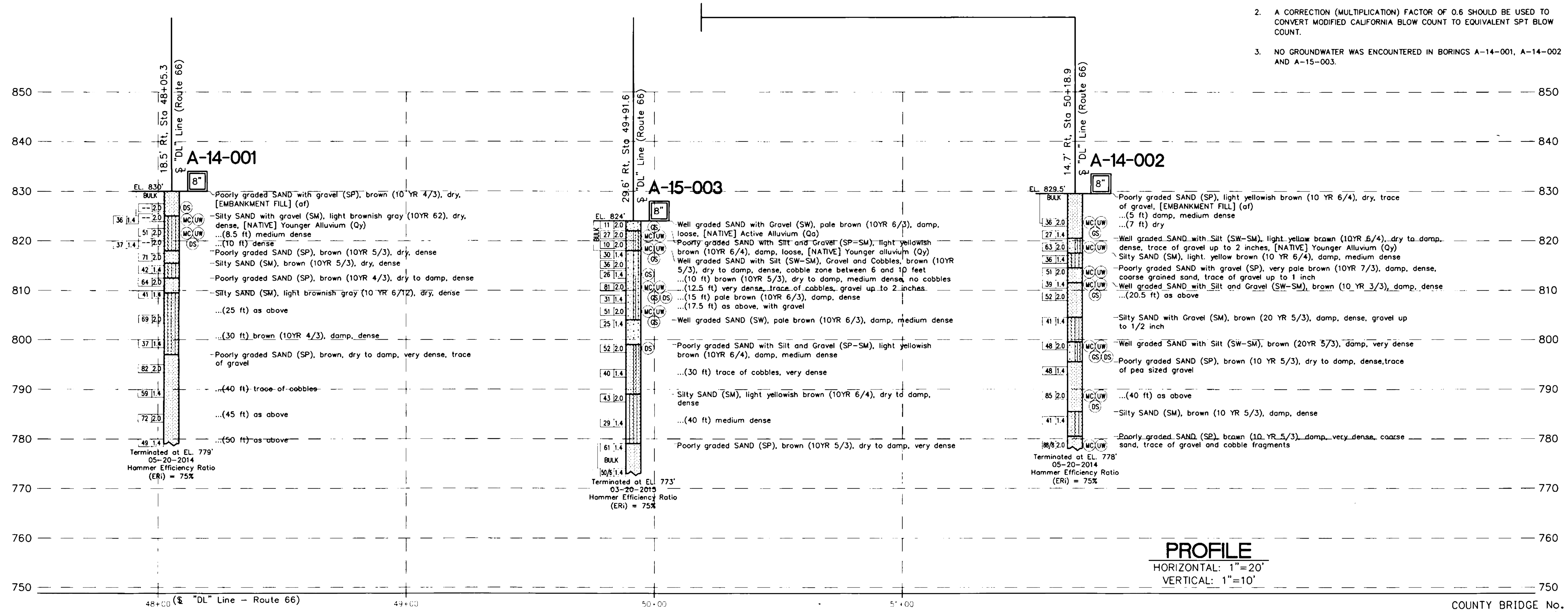


AS BUILT — DATE COMPLETED 10-16-17

THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

NOTES:

1. AUTOMATIC TRIP HAMMER SYSTEM CONSISTS OF A HAMMER WEIGHT OF 140 POUNDS FALLING A DISTANCE OF 30 INCHES WHICH WAS USED TO ADVANCE THE DRIVE SAMPLERS.
2. A CORRECTION (MULTIPLICATION) FACTOR OF 0.6 SHOULD BE USED TO CONVERT MODIFIED CALIFORNIA BLOW COUNT TO EQUIVALENT SPT BLOW COUNT.
3. NO GROUNDWATER WAS ENCOUNTERED IN BORINGS A-14-001, A-14-002 AND A-15-003.



PROFILE

HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

COUNTY BRIDGE No. 82
FEDERAL PROJECT No.: BRLO-5954(094)

PETER SKOPEK, G.E. DESIGN OVERSIGHT	DRAWN BY	CDS/J.B. DEPOORTER	A.H.M. FIELD INVESTIGATION BY:
SIGN OFF DATE	CHECKED BY	FERNANDO CUENCA, P.E.	DATE: MAY 20, 2014 AND MARCH 20, 2015

GS LOTB SOIL LEGEND SHEET 1 (ENGLISH) (REV. 03/14/12)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

PREPARED FOR THE SAN BERNARDINO COUNTY TRANSPORTATION DESIGN DIVISION

BIGGS CARDOSA ASSOCIATES, Inc.
MICHAEL A. THOMAS
PROJECT ENGINEER - BRIDGE DESIGNER

BRIDGE NO. 54C-0286
POST MILES 86.72

LANZIT DITCH BRIDGE
LOG OF TEST BORINGS No. 1

UNIT:
PROJECT NUMBER & PHASE: CONTRACT NO.: 08-924807L

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 05/27/15 01/18/16 — SHEET 39 OF 39

FILE NO. 586600 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642
ROSA GRIGGS, PROJECT ENGINEER — 1/12/24 DATE

REGISTERED PROFESSIONAL ENGINEER — ROSA GRIGGS — No. 54169 — Exp. 12-31-25 — CIVIL — STATE OF CALIFORNIA

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

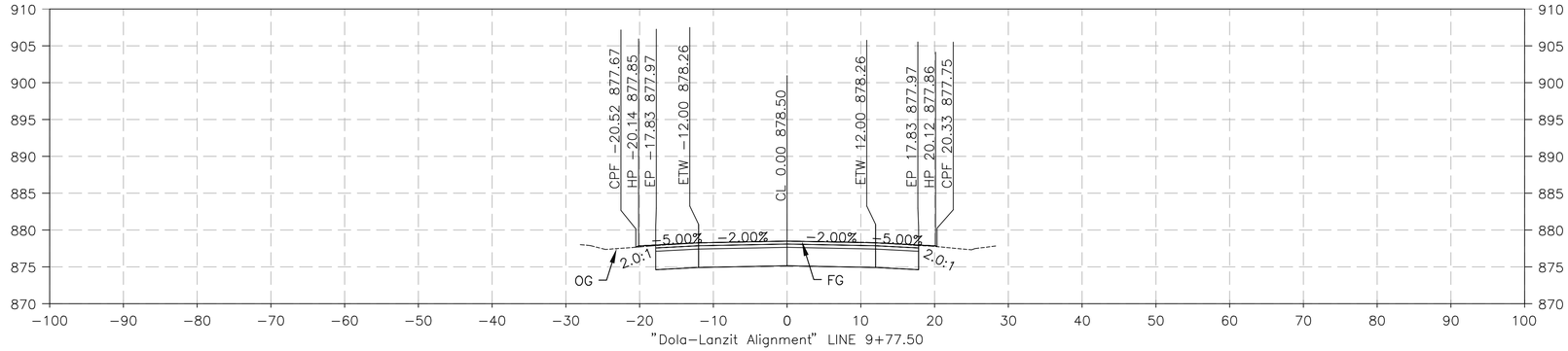
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
NO	AD	JR	CHRIS NGUYEN, P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

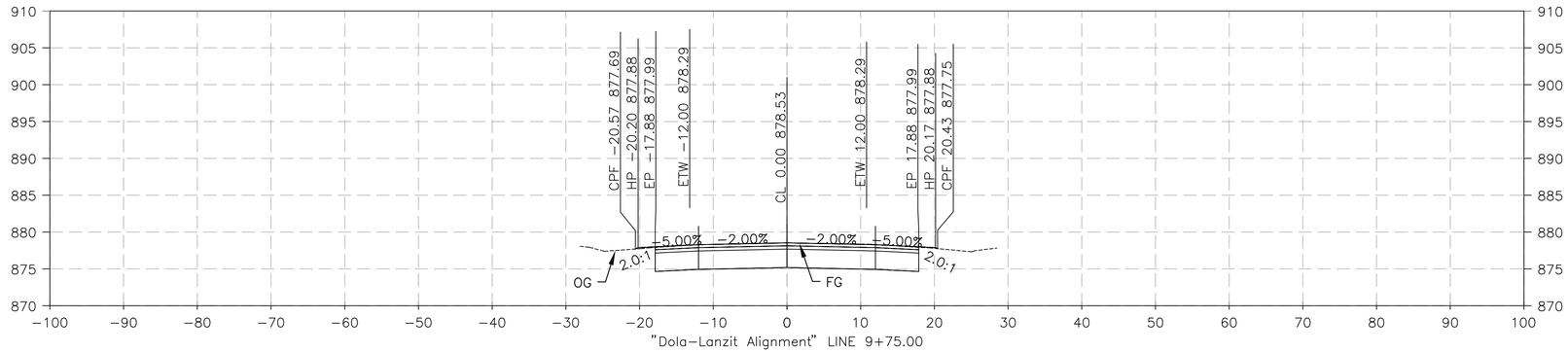
NOEL MONDRAGON, P.E. SUPERVISING ENGINEER — 01/23/2024 DATE

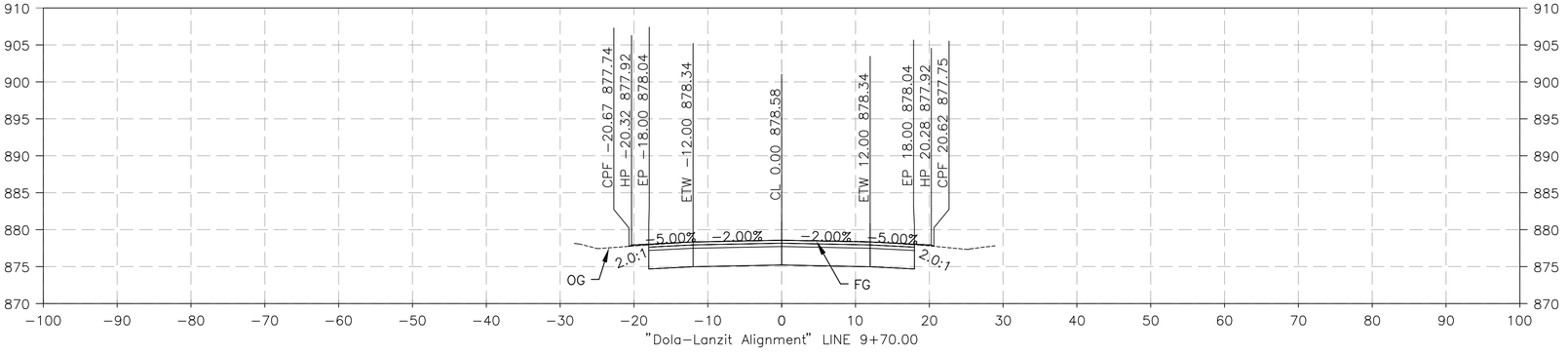
APPROVED BY: MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR — 01/24/2024 DATE

LANZIT DITCH BRIDGE
BRIDGE No. 54C0286
(County No. 82)
LOG OF TEST BORINGS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	AS NOTED	35	54







FILE NO. 586600 120

FILE NO. 586600 120

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24
DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER MATTHEW ATKINSON No. 82099 Exp. 3/31/24 CIVIL STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — 01/23/2024
TRANSPORTATION DESIGN ENGINEERING MANAGER — DATE

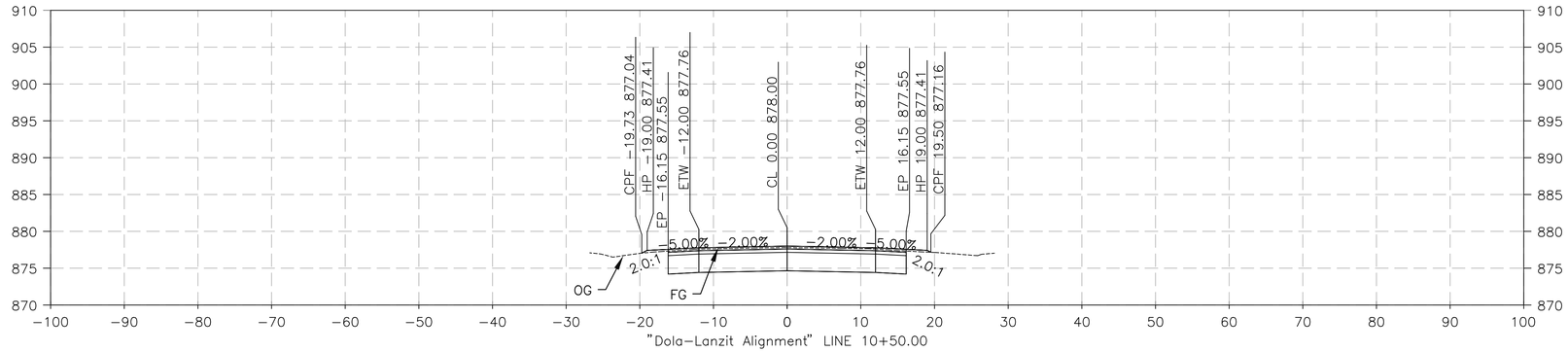
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER — 01/23/2024 DATE

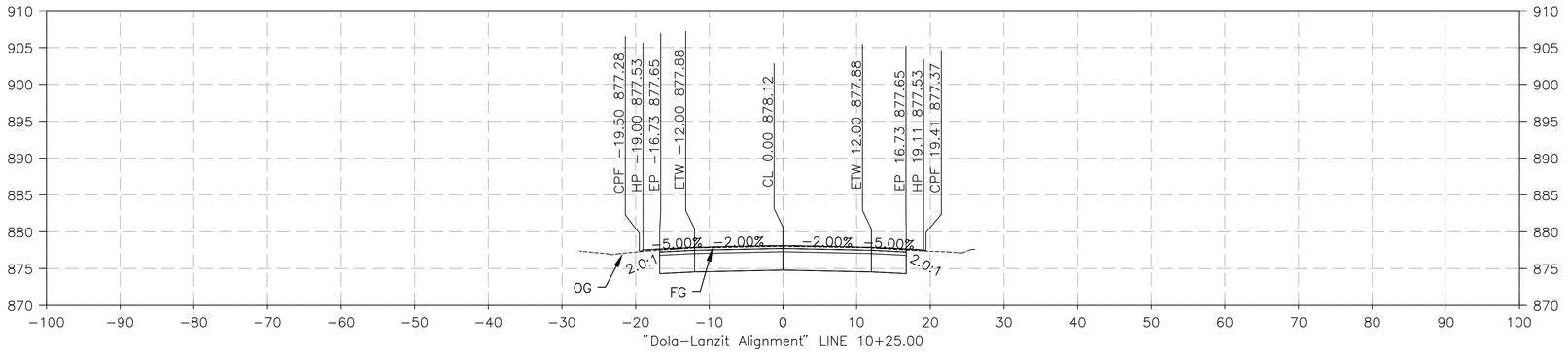
APPROVED BY:
MERVAT N. MIKHAIL, P.E. — 01/24/2024
DEPUTY DIRECTOR — DATE

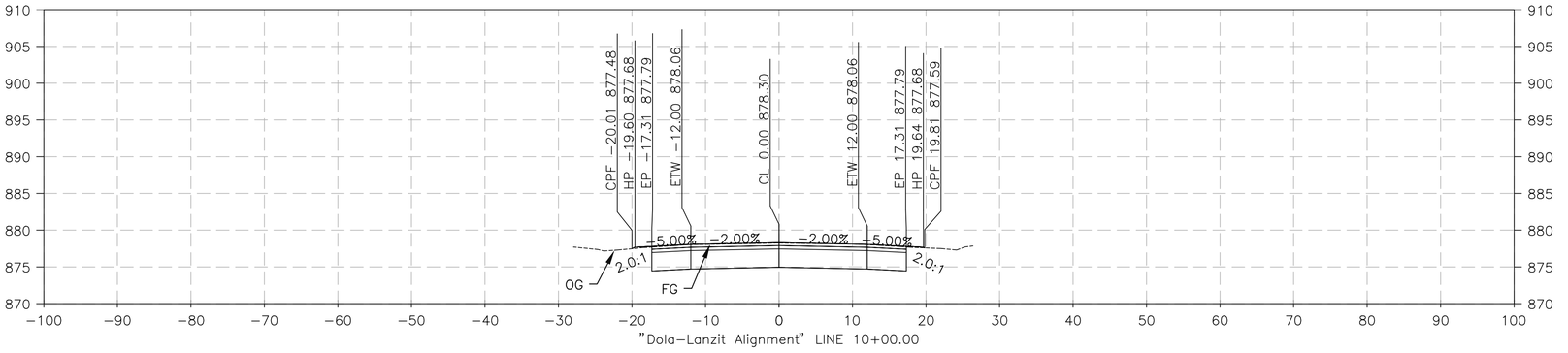
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	36	54







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STATE OF CALIFORNIA

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DH	DH	MA	01/23/2024 DATE CHRIS NGUYEN, P.E. TRANSPORTATION DESIGN ENGINEERING MANAGER

	APPROVED BY:
01/23/2024 DATE NOEL MONDRAGON, P.E. SUPERVISING ENGINEER	01/24/2024 DATE MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR

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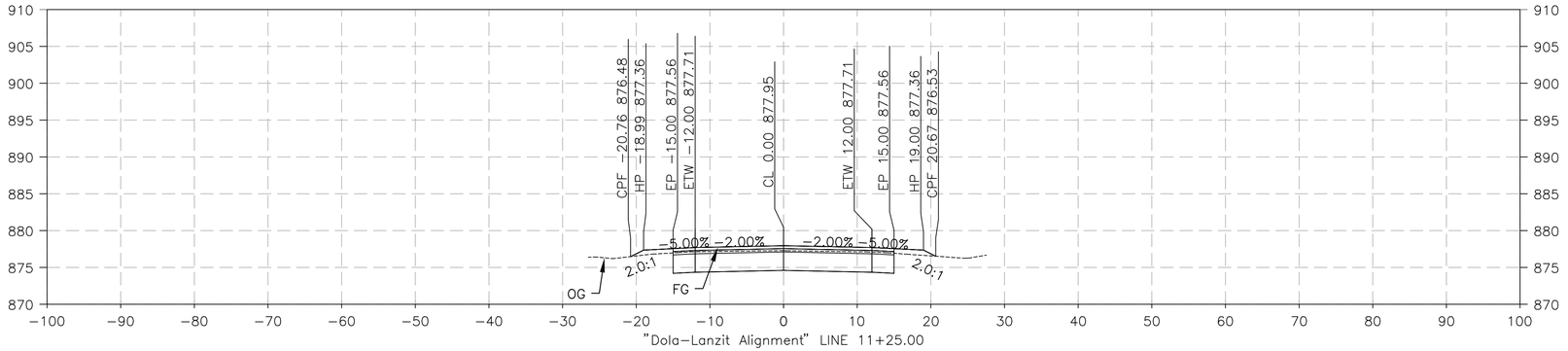
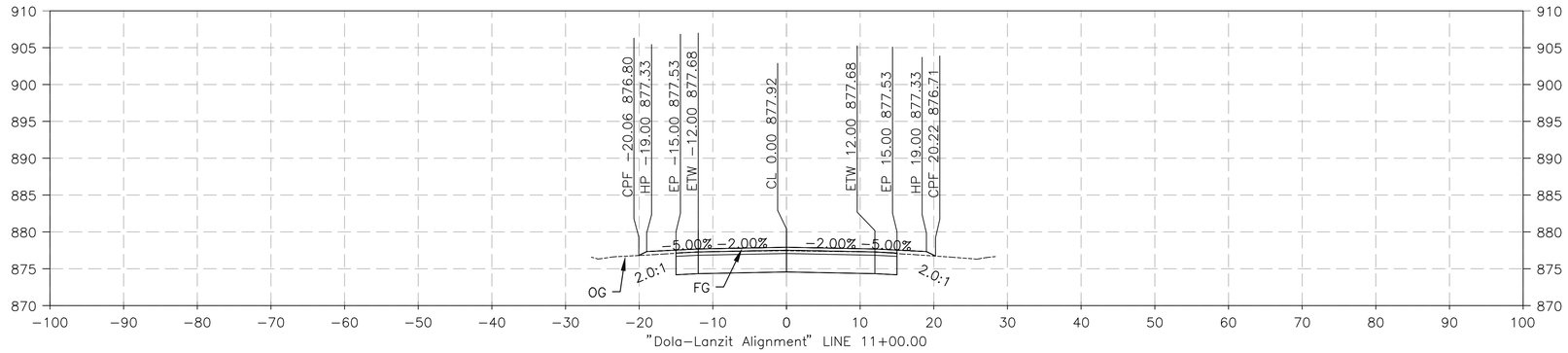
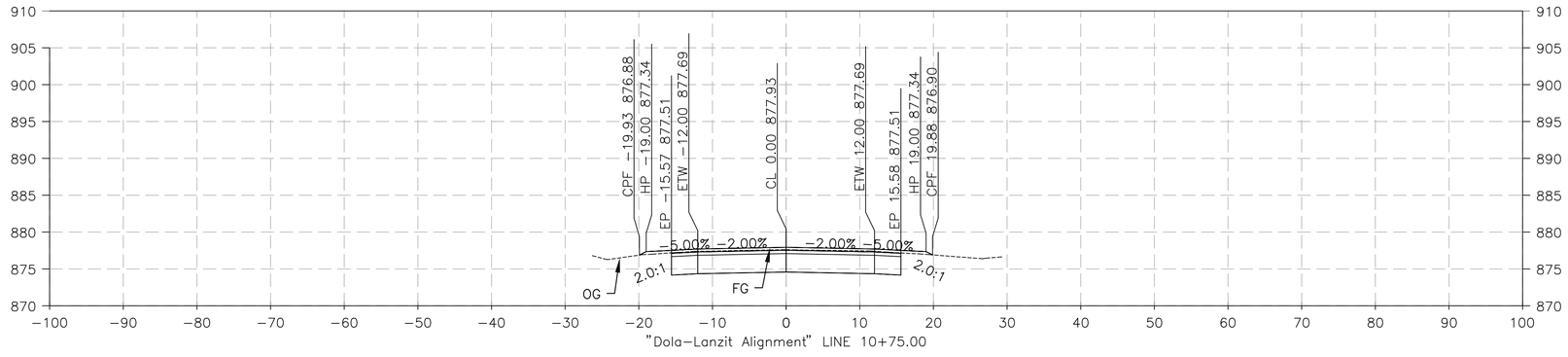
DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	37	54







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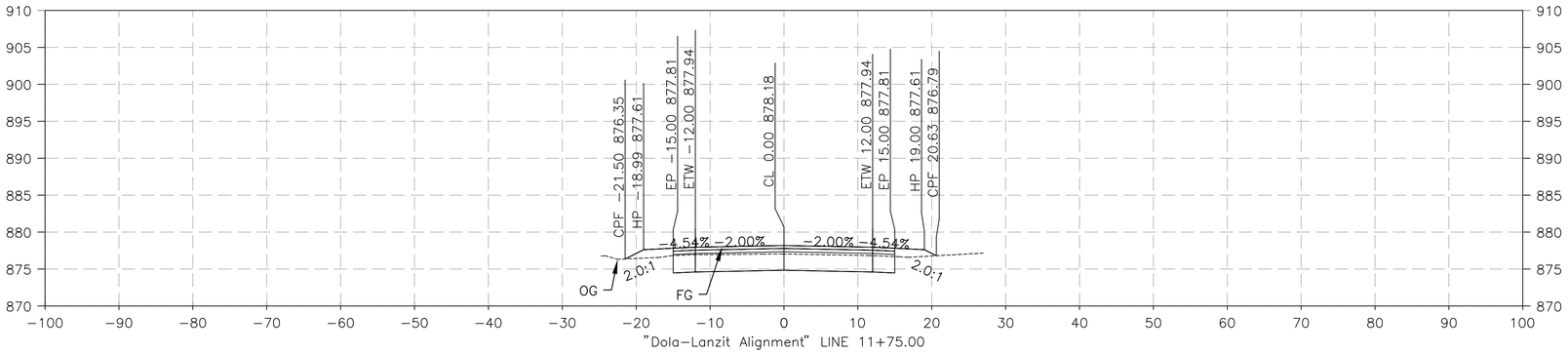
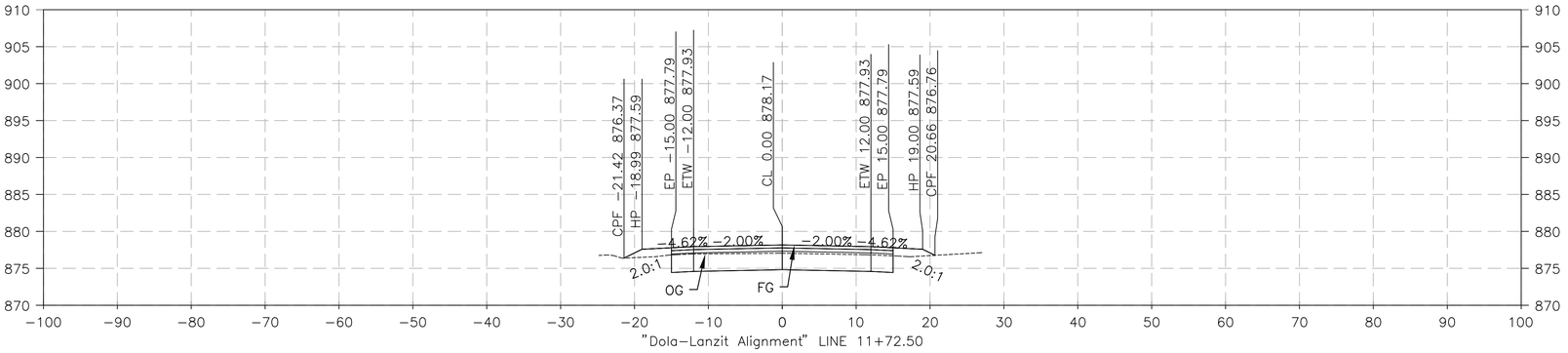
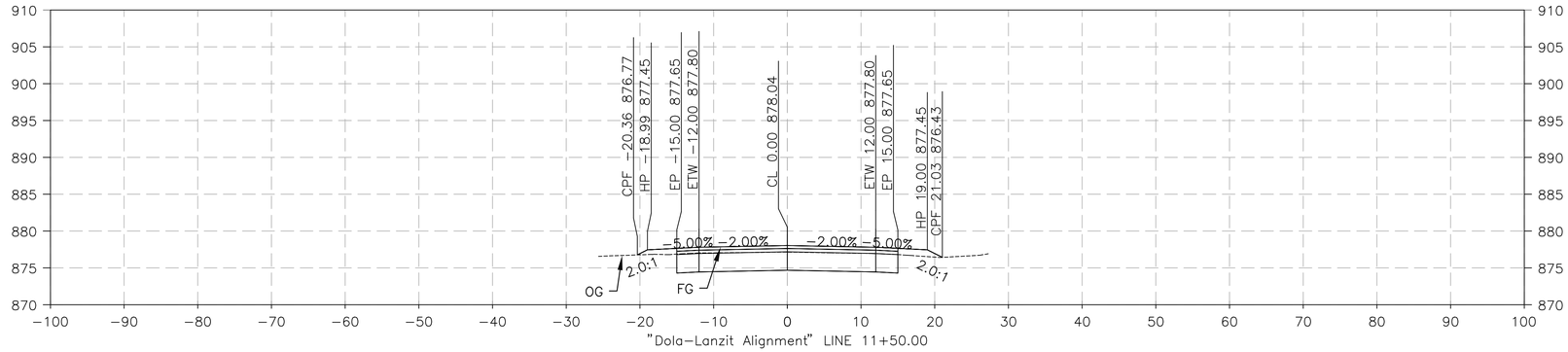
J.L. 12145	H15220	1"=10'	38	54







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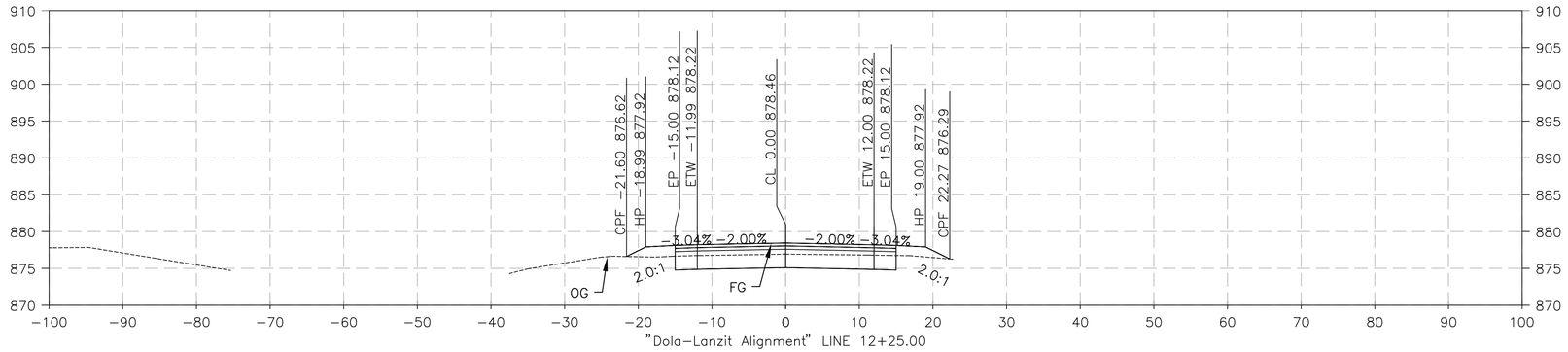
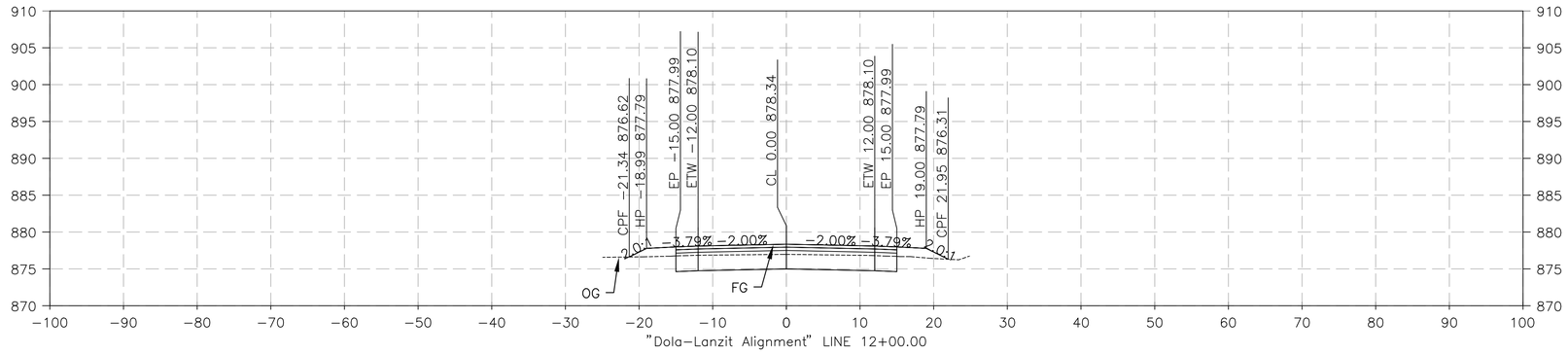
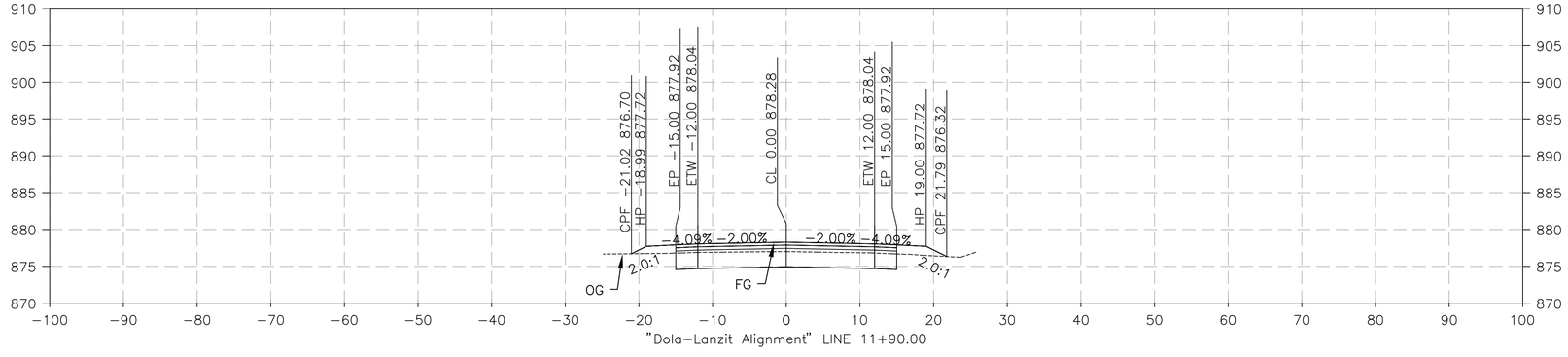
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	39	54







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MATTHEW ATKINSON, PROJECT ENGINEER 01/12/24 DATE

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SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

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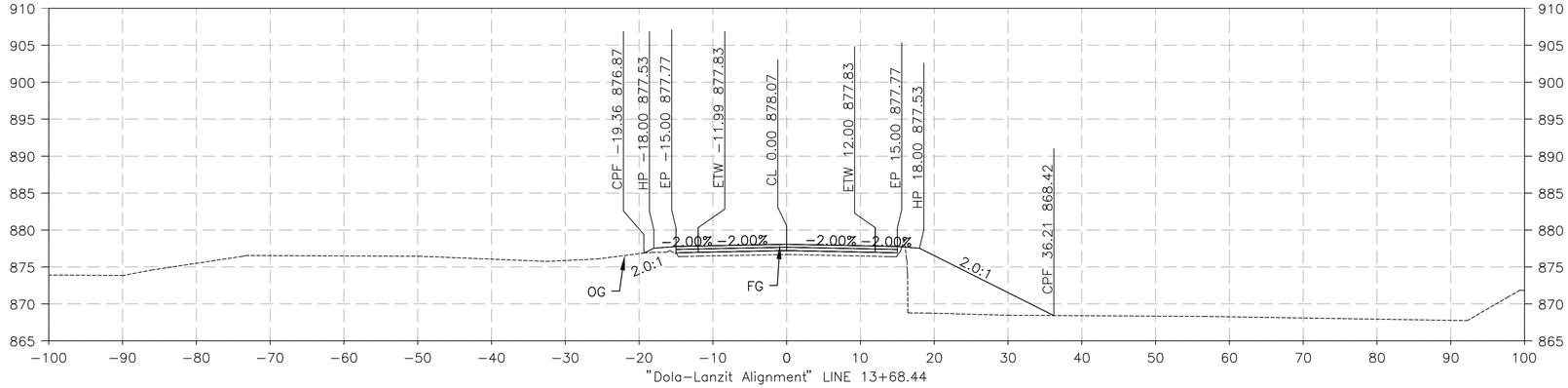
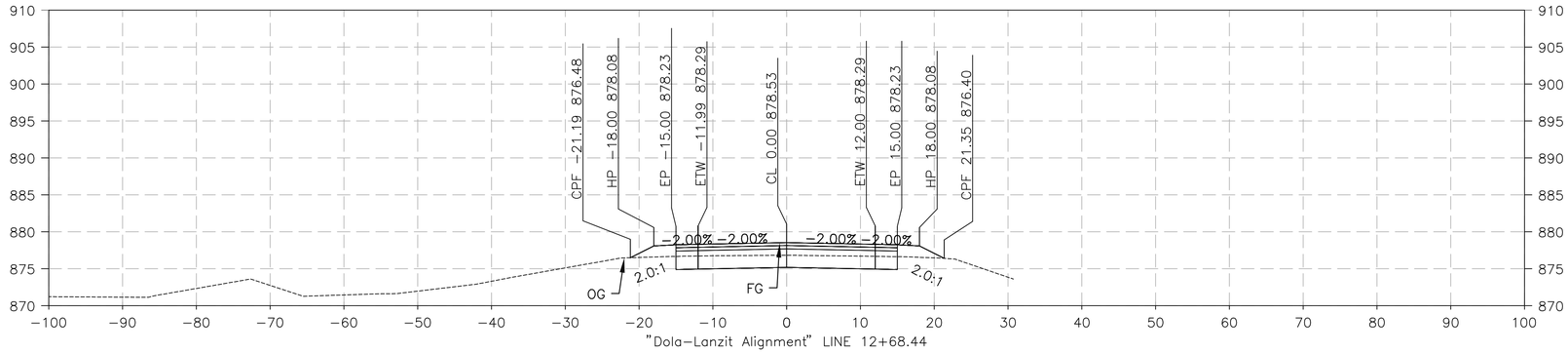
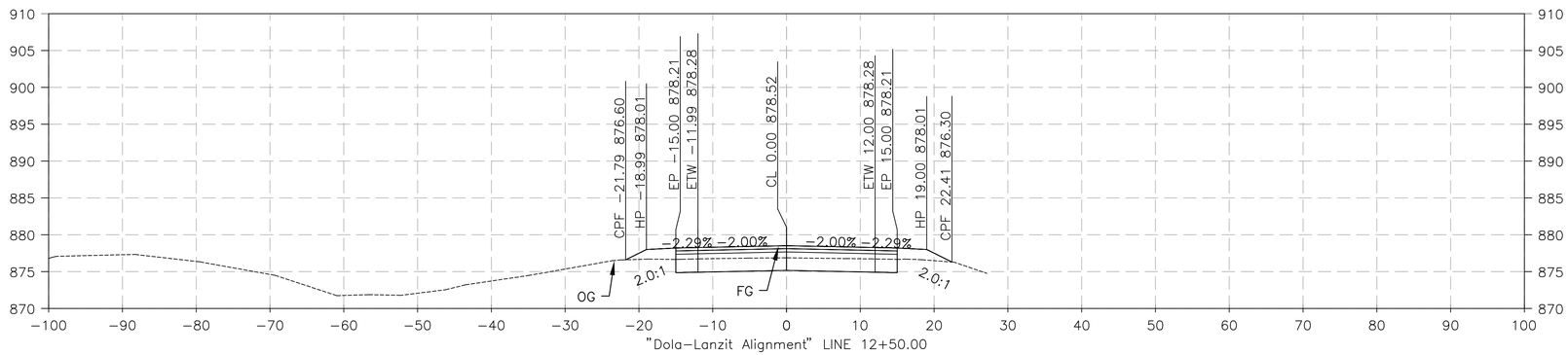
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	40	54







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MERVAT N. MIKHAIL, P.E. 01/24/2024
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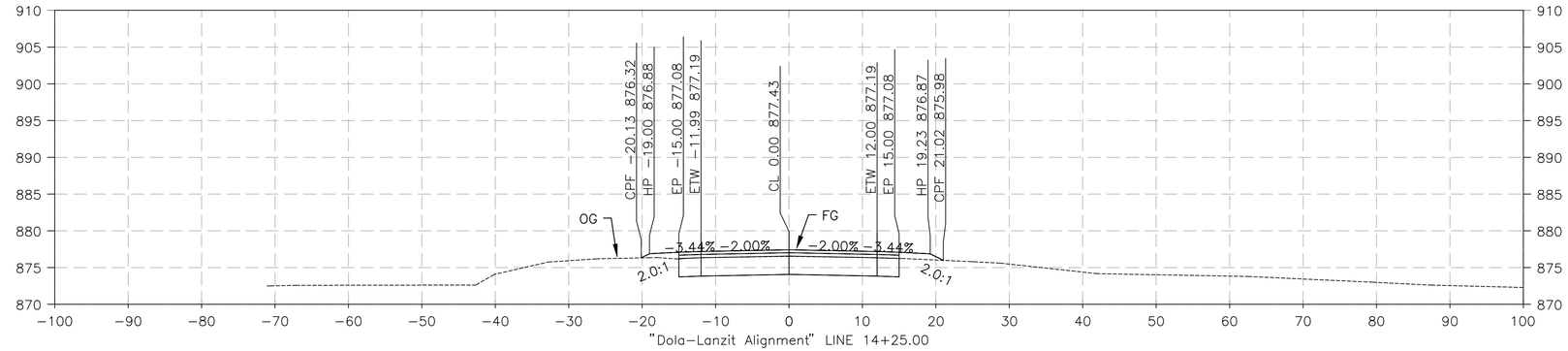
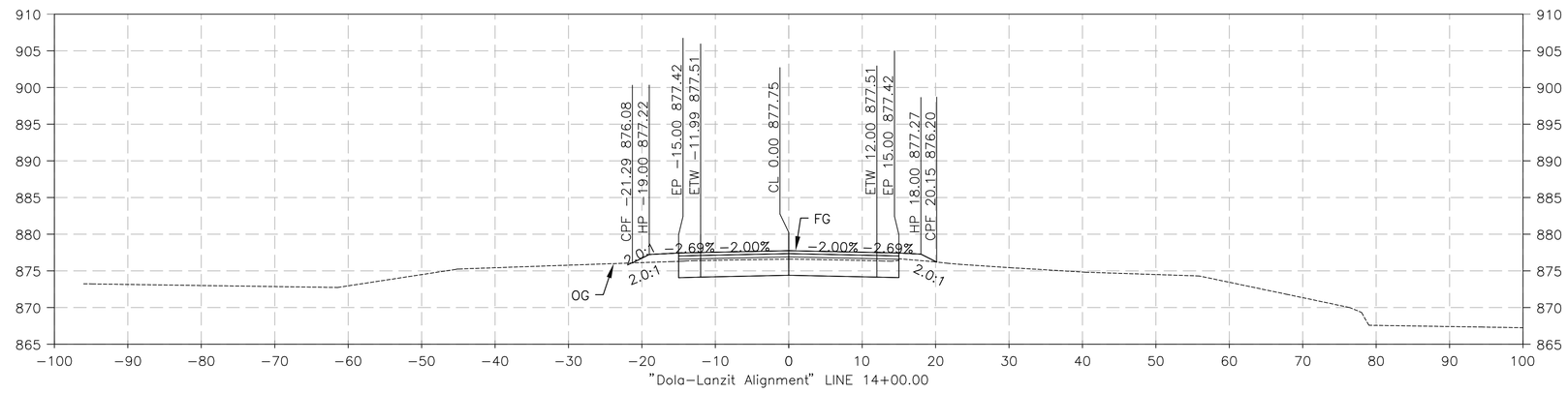
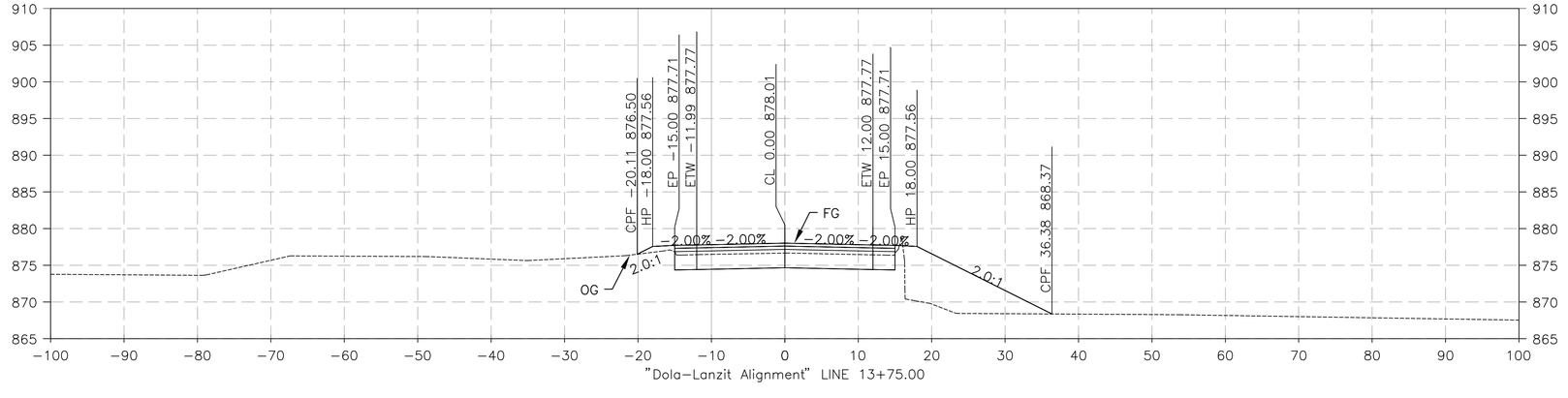
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	41	54







GRAPHIC SCALE 1"=40'
0 40 80 120

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

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DH	DH	MA

RECOMMENDED BY: 01/23/2024 DATE
CHRIS NGUYEN, P.E.
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01/23/2024 DATE
NOEL MONDRAGON, P.E.
SUPERVISING ENGINEER

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MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	42	54

FILE NO. 586600 120

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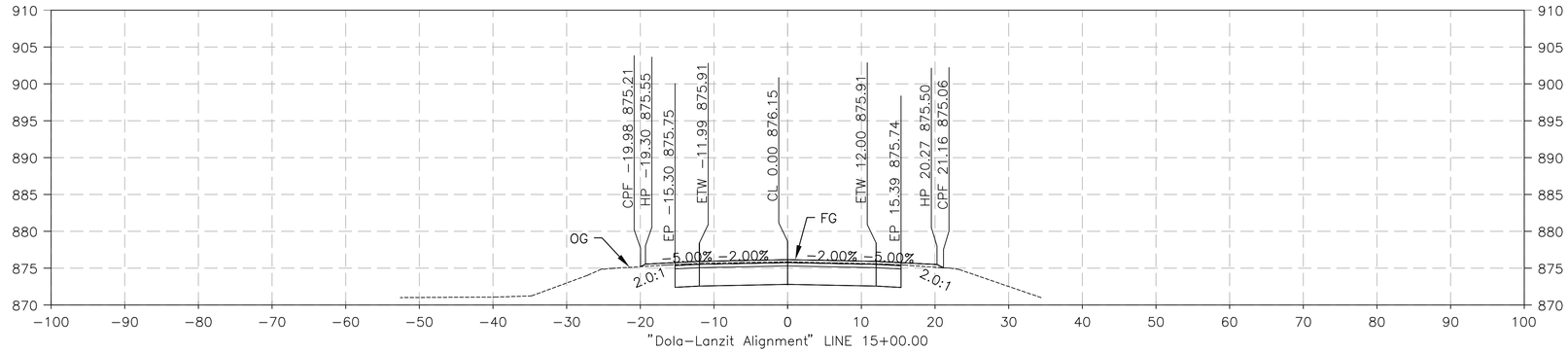

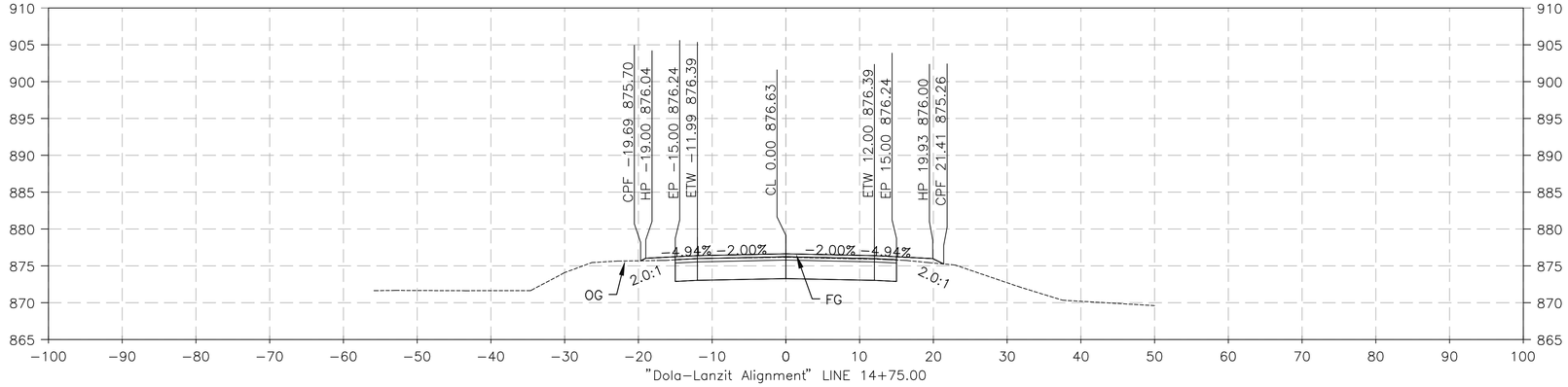

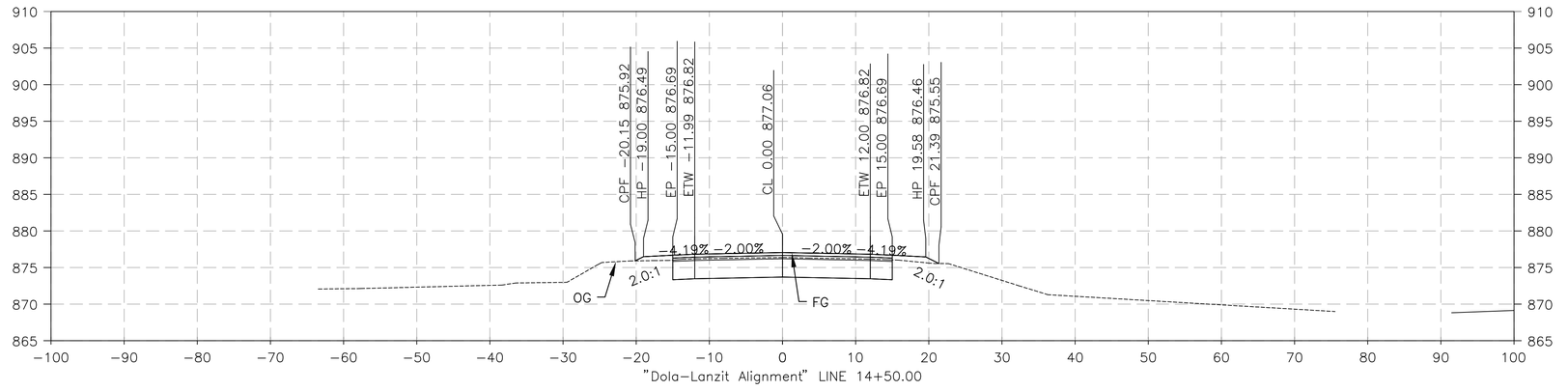

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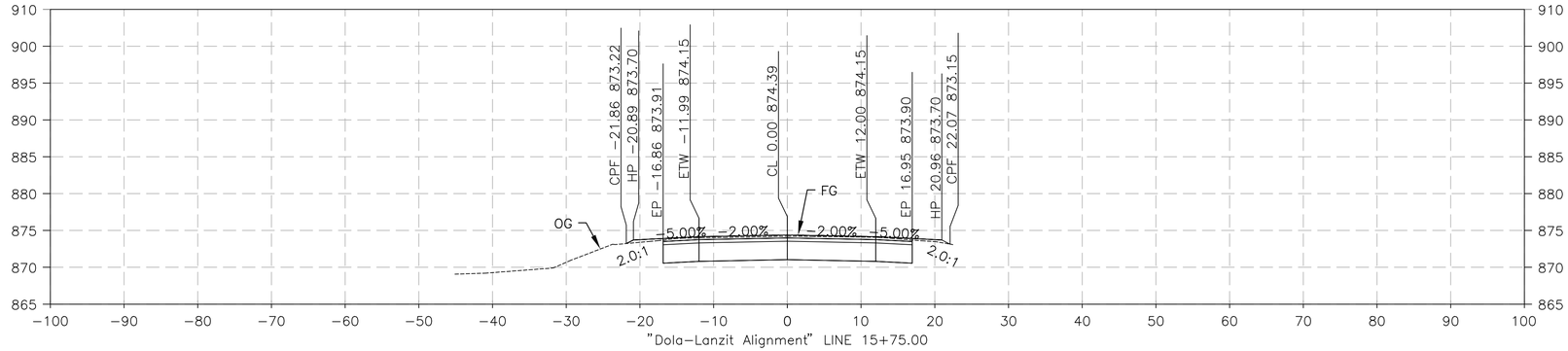
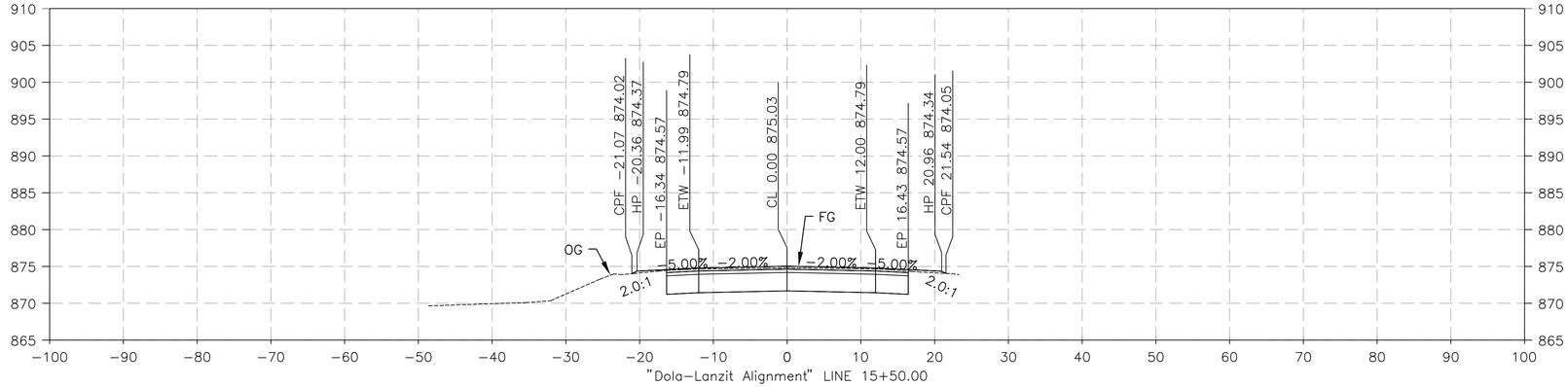
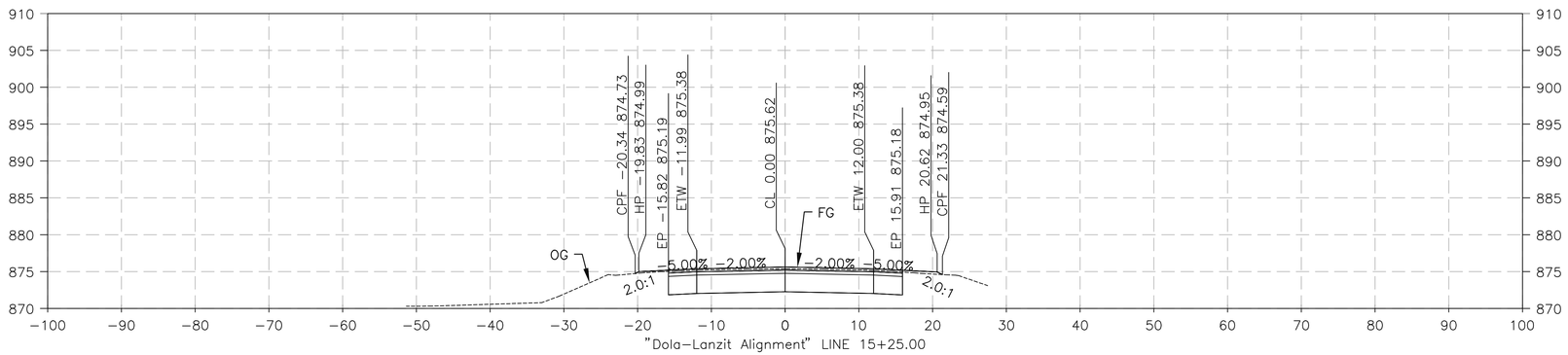
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	43	54







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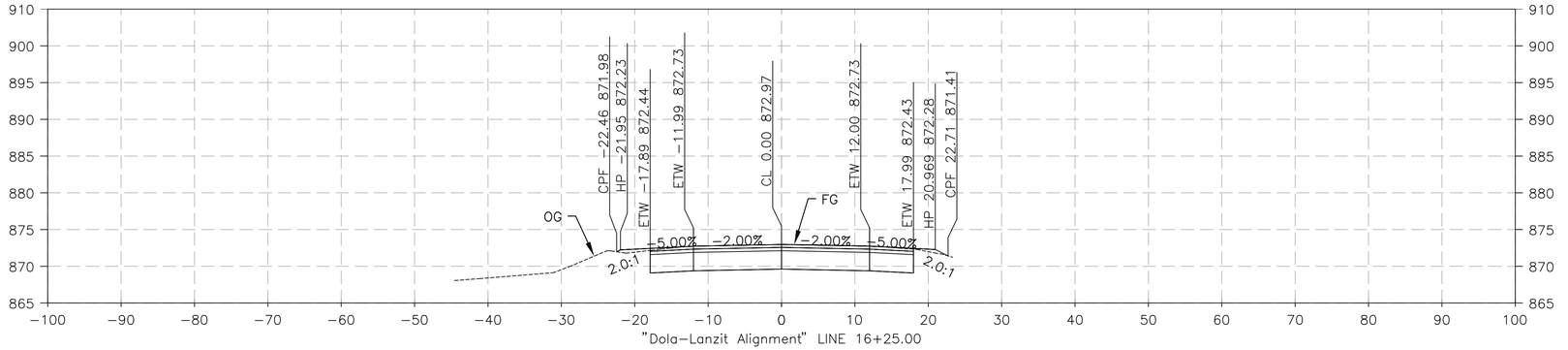

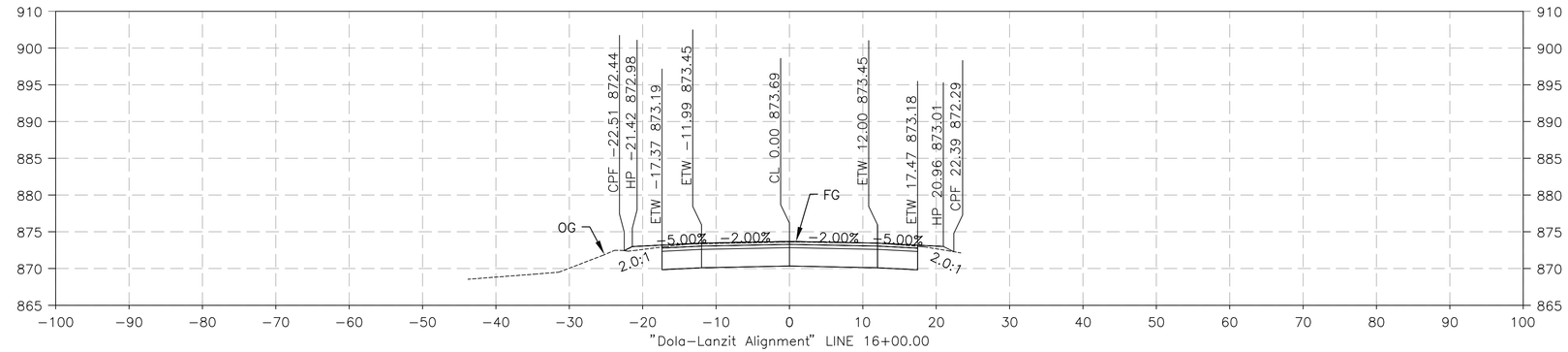

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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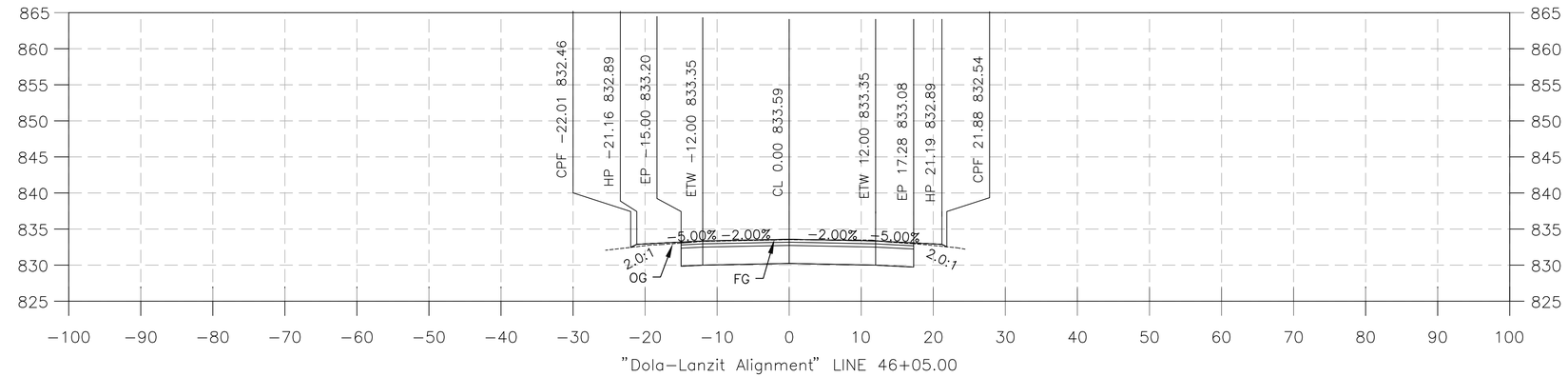
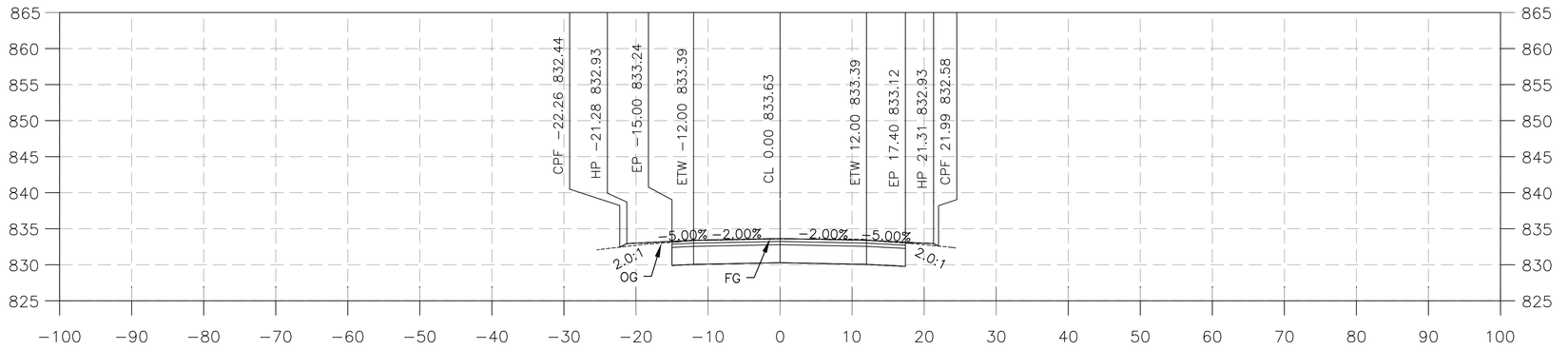
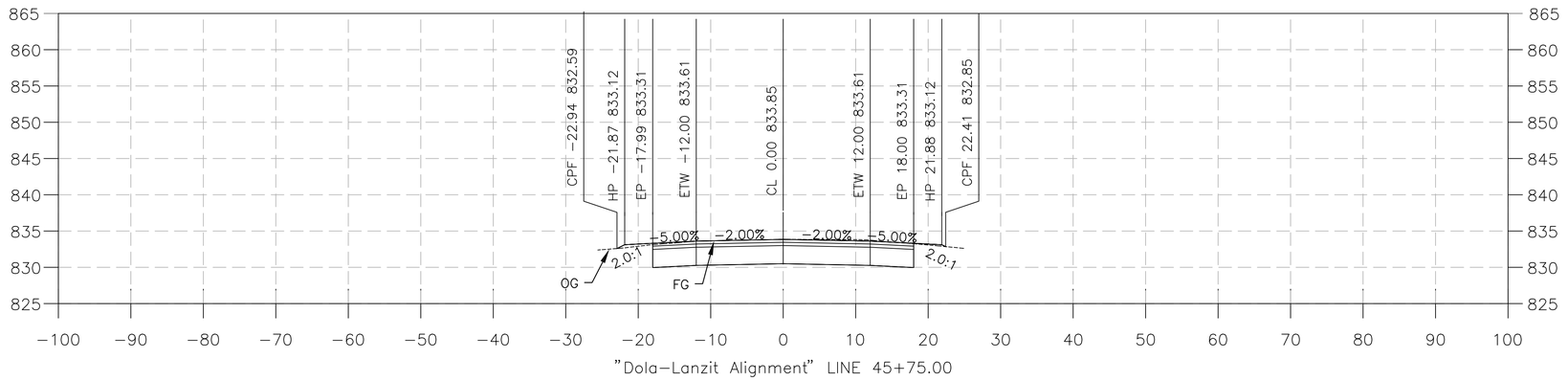
DOLA DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	45	54

FILE NO. 586600 120







FILE NO. 586600 120

FILE NO. 586600 120

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24
DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER
MATTHEW ATKINSON
No. 82099
Exp. 3/31/24
CIVIL
STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:
DH	DH	MA

RECOMMENDED BY:
CHRIS NGUYEN, P.E. — 01/23/2024 DATE
TRANSPORTATION DESIGN ENGINEERING MANAGER

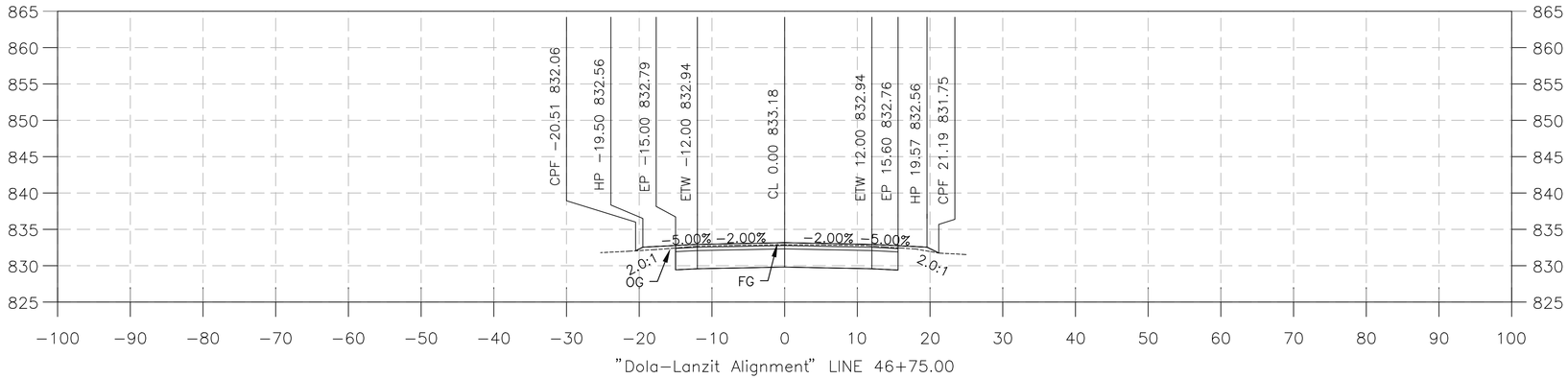
NOEL MONDRAGON, P.E. — 01/23/2024 DATE
SUPERVISING ENGINEER

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — 01/24/2024 DATE
DEPUTY DIRECTOR

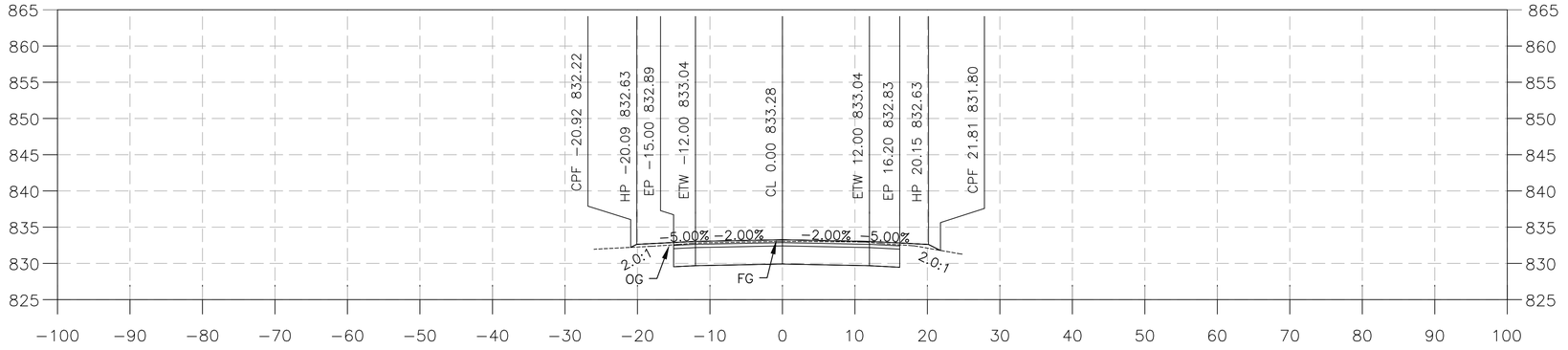
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	46	54



"Dola–Lanzit Alignment" LINE 46+75.00



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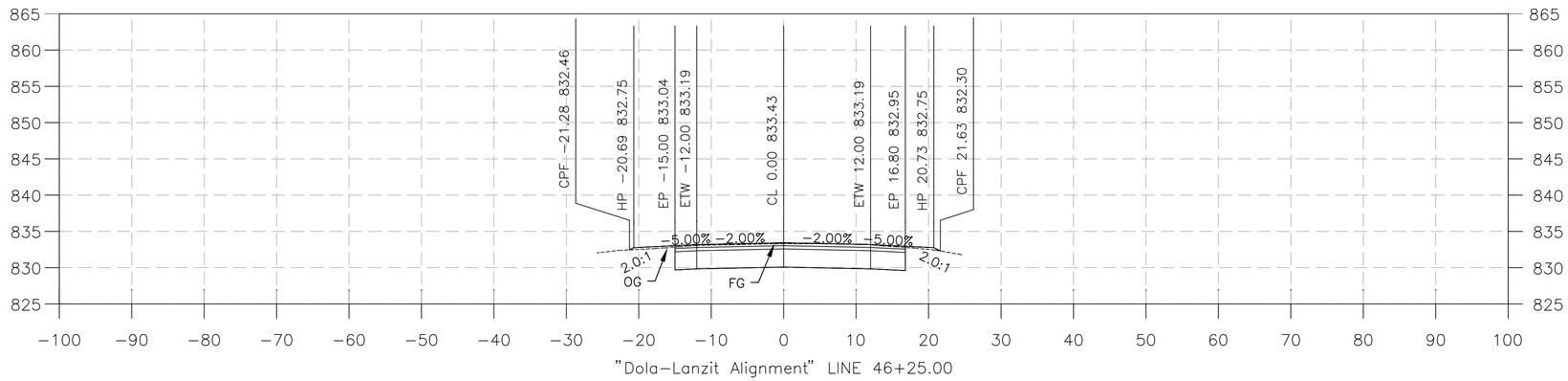

"Dola–Lanzit Alignment" LINE 46+25.00

FILE NO. 586600 120

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:

DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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	NO CHANGES	RESIDENT ENGINEER	DATE

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SAN BERNARDINO COUNTY
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NOEL MONDRAGON, P.E., SUPERVISING ENGINEER — 01/23/2024 DATE

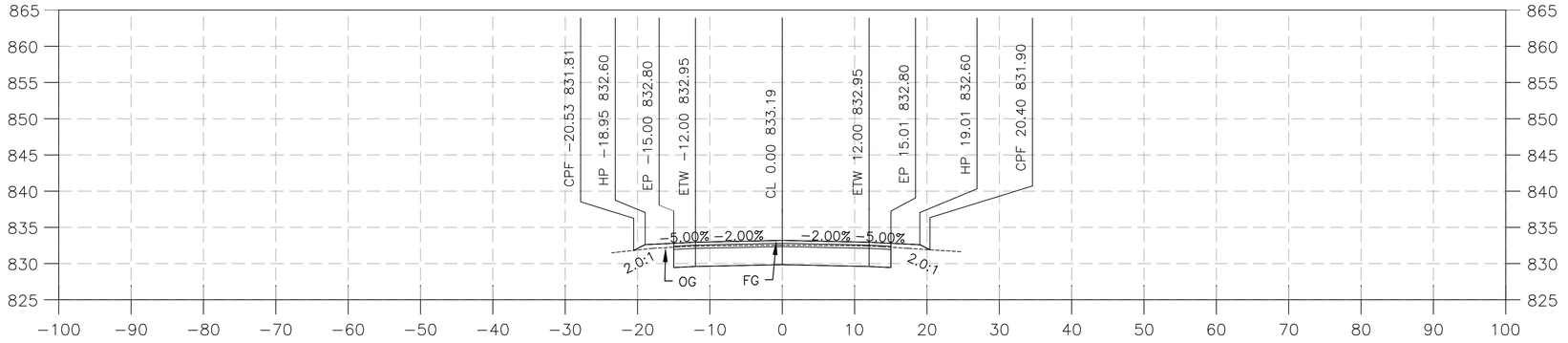
APPROVED BY: MERVAT N. MIKHAIL, P.E., DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

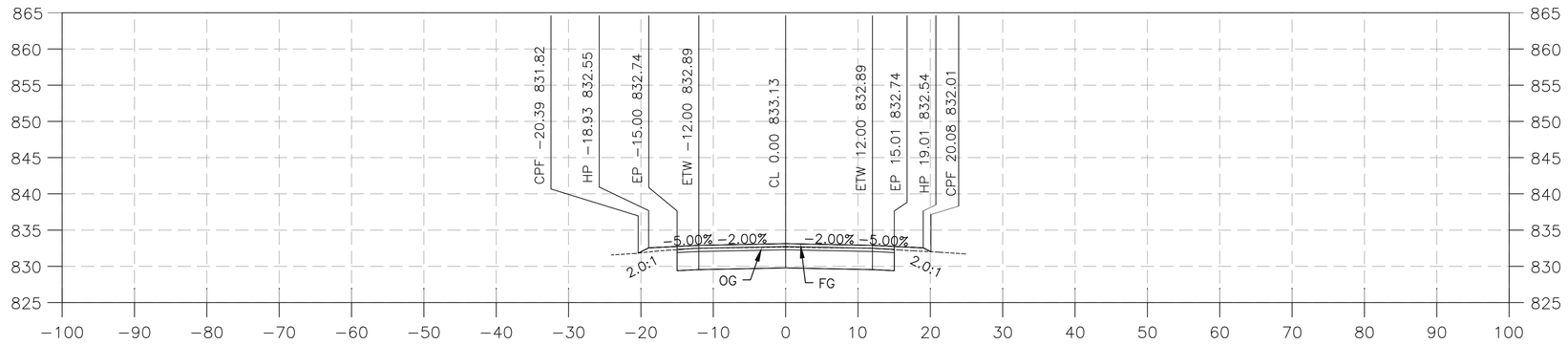
DESGIN CROSS SECTION
LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	47	54

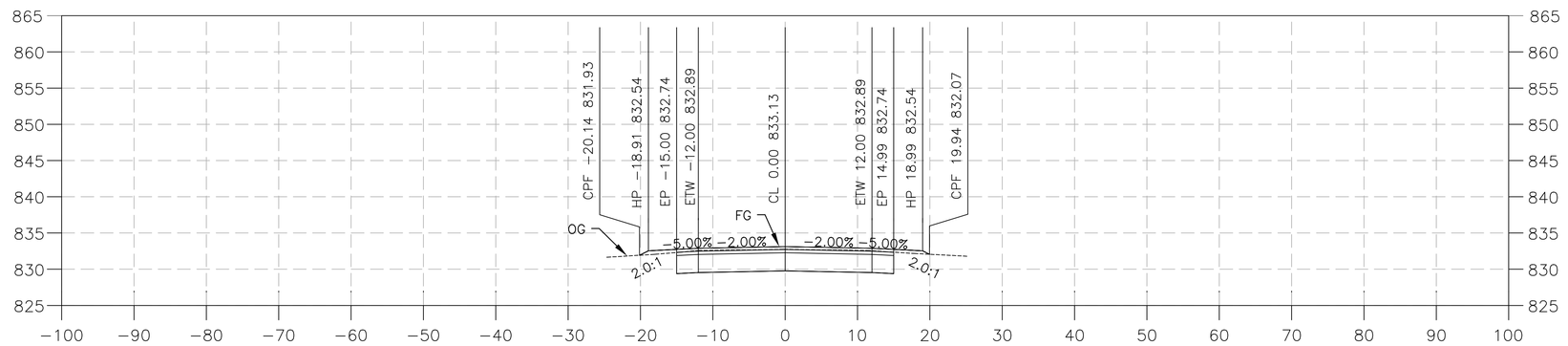
FILE NO. 586600 120



"Dola–Lanzit Alignment" LINE 47+50.00



"Dola–Lanzit Alignment" LINE 47+25.00



"Dola–Lanzit Alignment" LINE 47+00.00

GRAPHIC SCALE 1"=40'
0 40 80 120

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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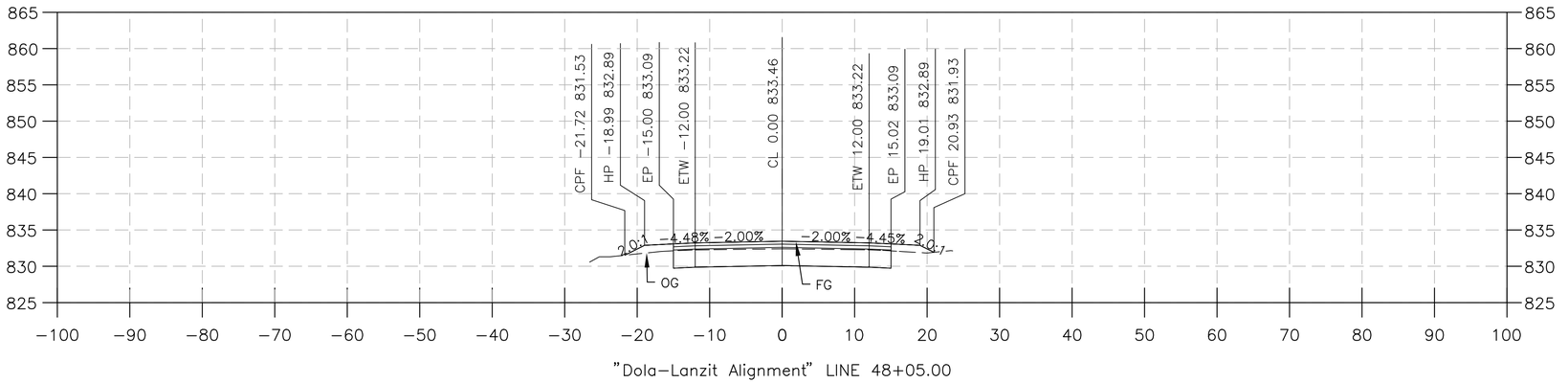
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
LANZIT DITCH

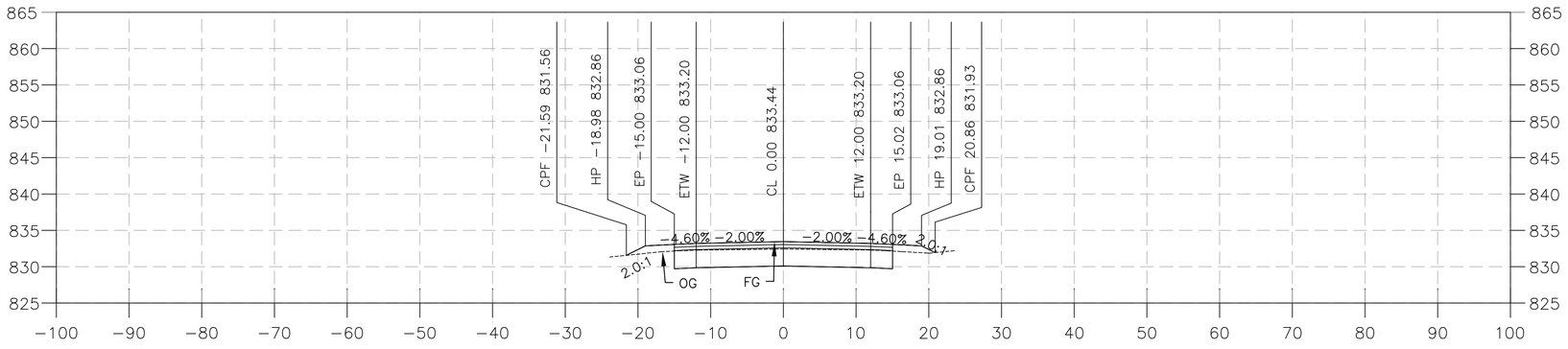
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	48	54

FILE NO. 586600 120

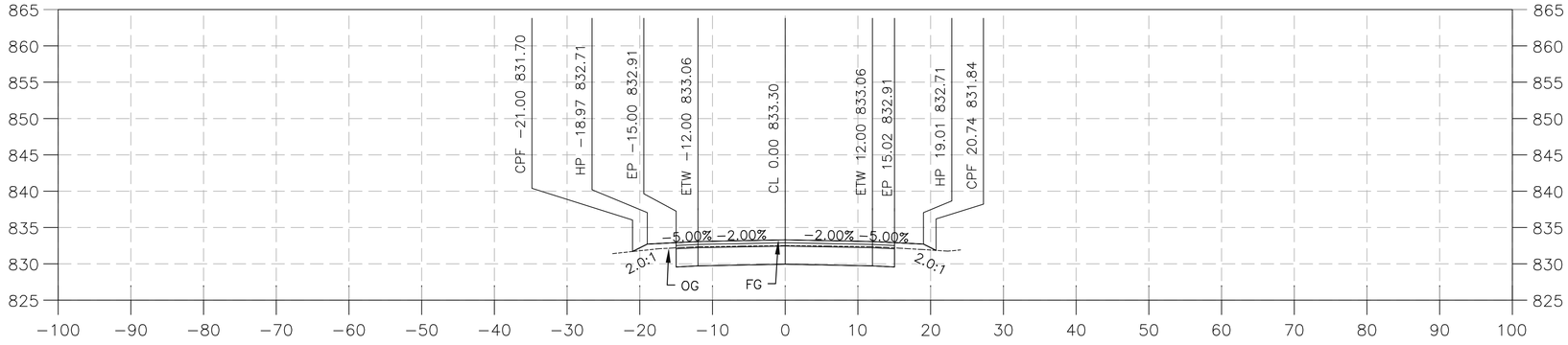
FILE NO. 586600 120



"Dola–Lanzit Alignment" LINE 48+05.00



"Dola–Lanzit Alignment" LINE 48+00.00



"Dola–Lanzit Alignment" LINE 47+75.00

FILE NO. 586600 120

FILE NO. 586600 120

GRAPHIC SCALE 1"=40'
0 40 80 120

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
01/12/24
DATE

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	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

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MATTHEW ATKINSON
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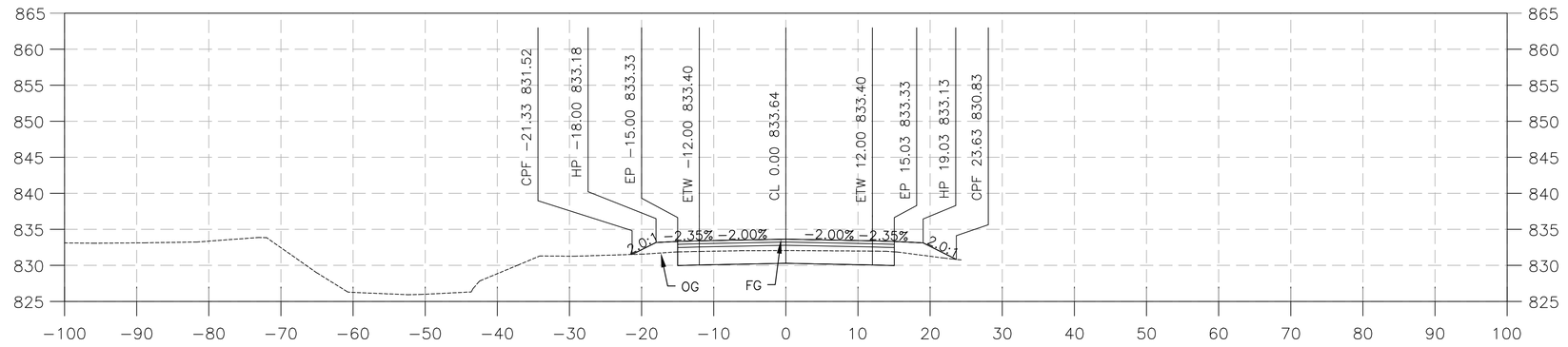
SUPERVISING ENGINEER
01/23/2024
DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E.
DEPUTY DIRECTOR
01/24/2024
DATE

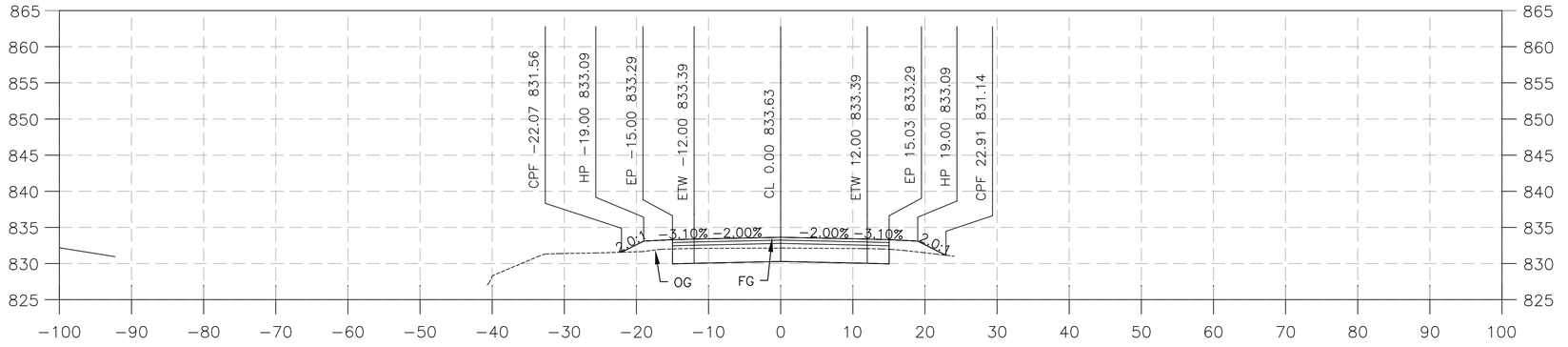
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	49	54



"Dola–Lanzit Alignment" LINE 48+75.00



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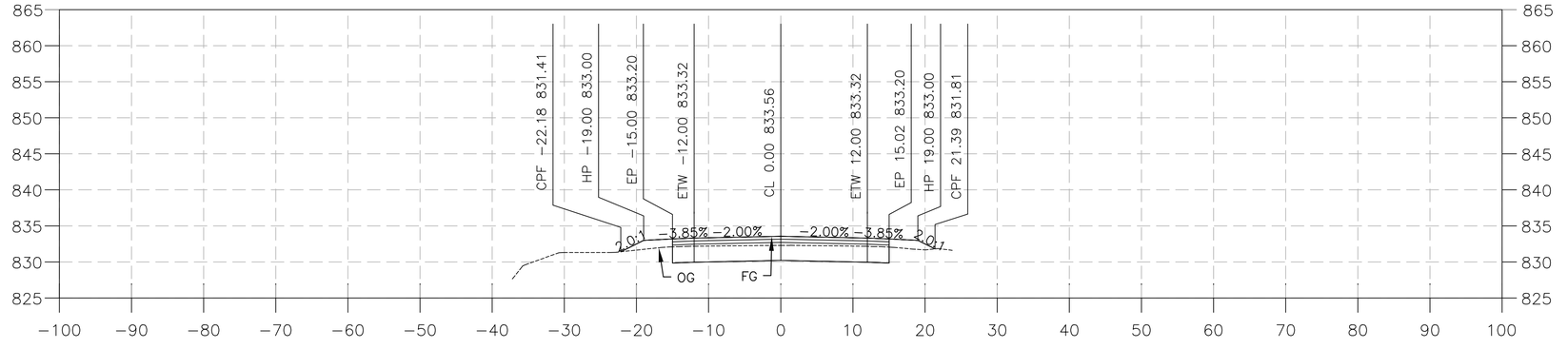

"Dola–Lanzit Alignment" LINE 48+25.00

GRAPHIC SCALE 1"=40'
0 40 80 120

PREPARED BY:
DOKKEN ENGINEERING
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY
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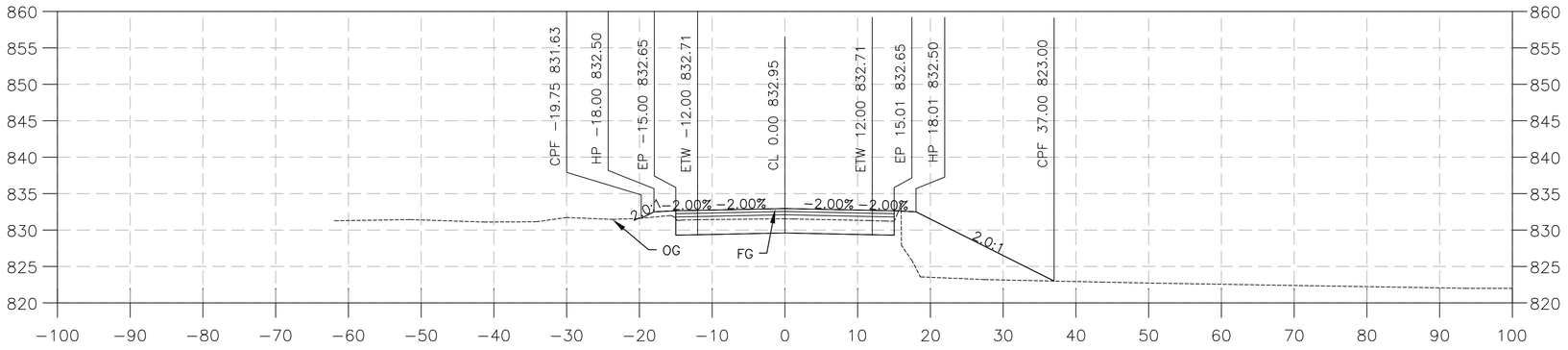
DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

DESGIN CROSS SECTION
LANZIT DITCH

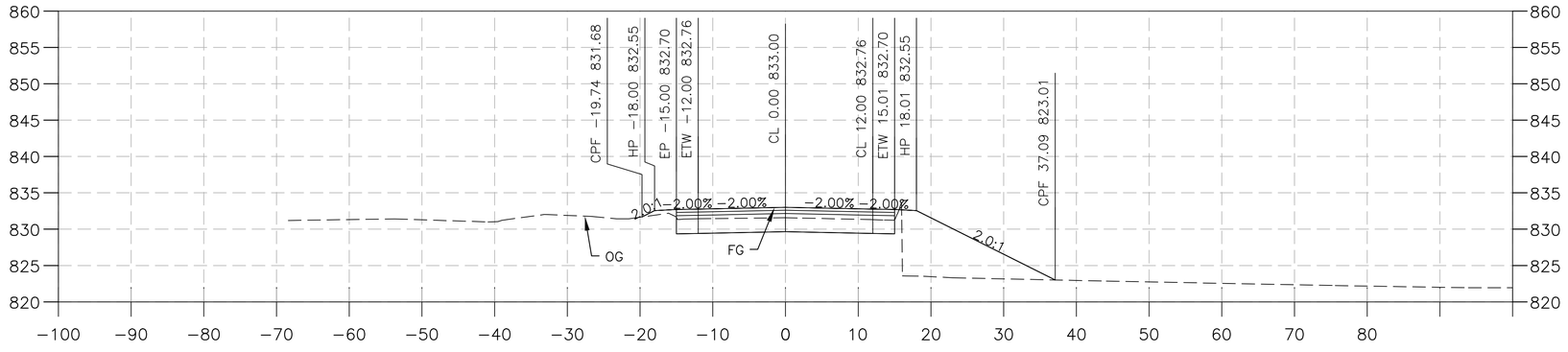
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	50	54

FILE NO. 586600 120

FILE NO. 586600 120



"Dola−Lanzit Alignment" LINE 50+00.00



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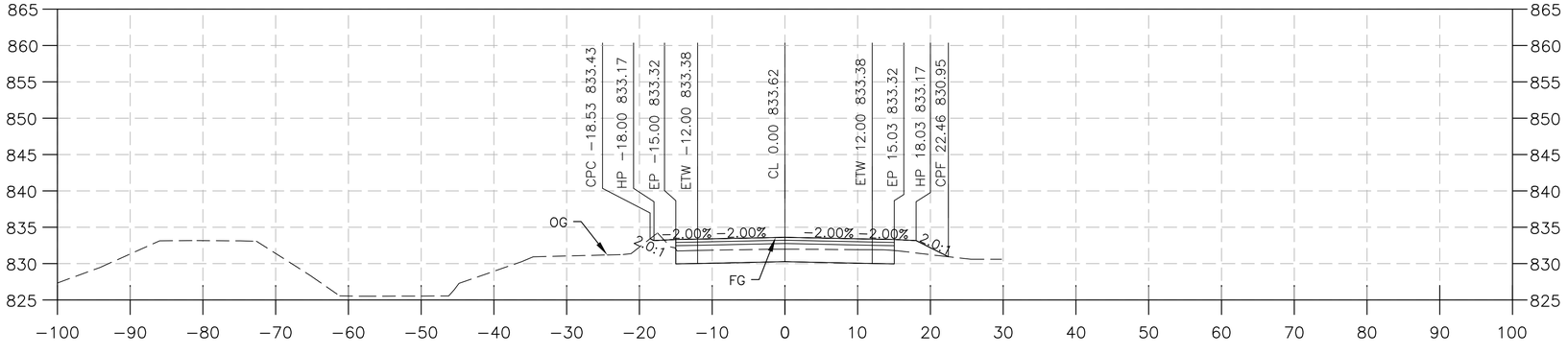

"Dola−Lanzit Alignment" LINE 48+95.23

GRAPHIC SCALE 1"=40'

0 40 80 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

MARK	CHANGES		
	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

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CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

NOEL MONDRAGON, P.E. — SUPERVISING ENGINEER — 01/23/2024 DATE

APPROVED BY:
MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

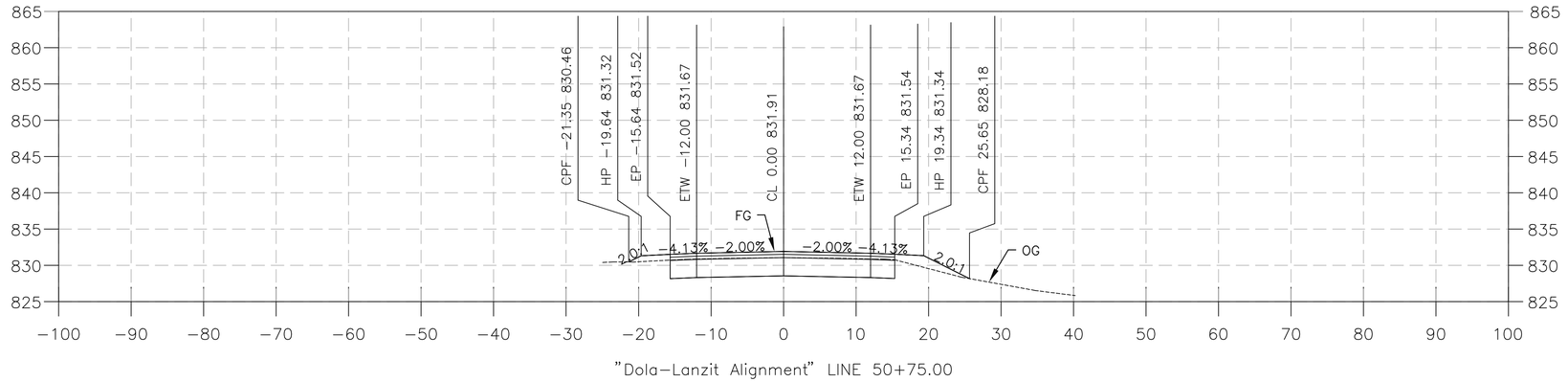
DESGIN CROSS SECTION

LANZIT DITCH

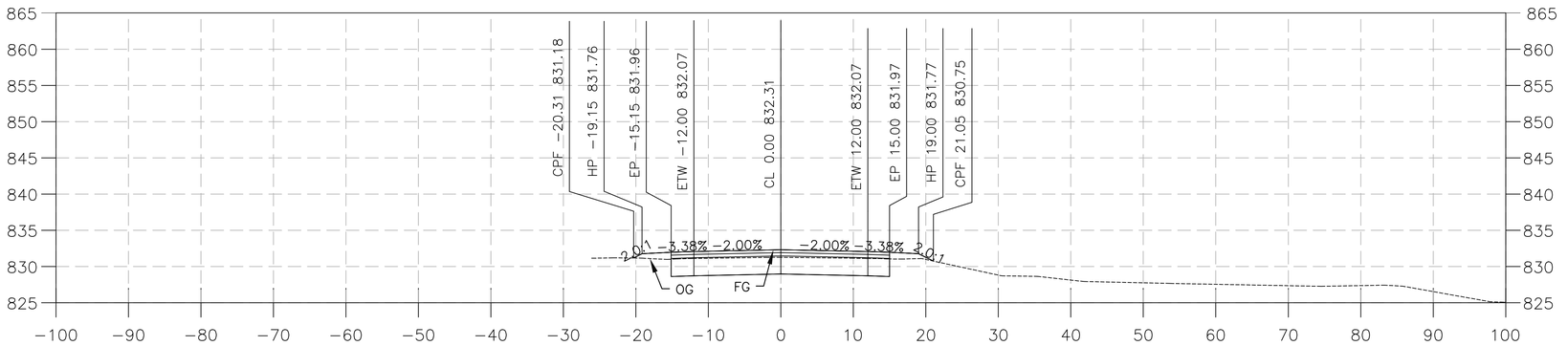
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	51	54

FILE NO. 586600 120

FILE NO. 586600 120



"Dola–Lanzit Alignment" LINE 50+75.00



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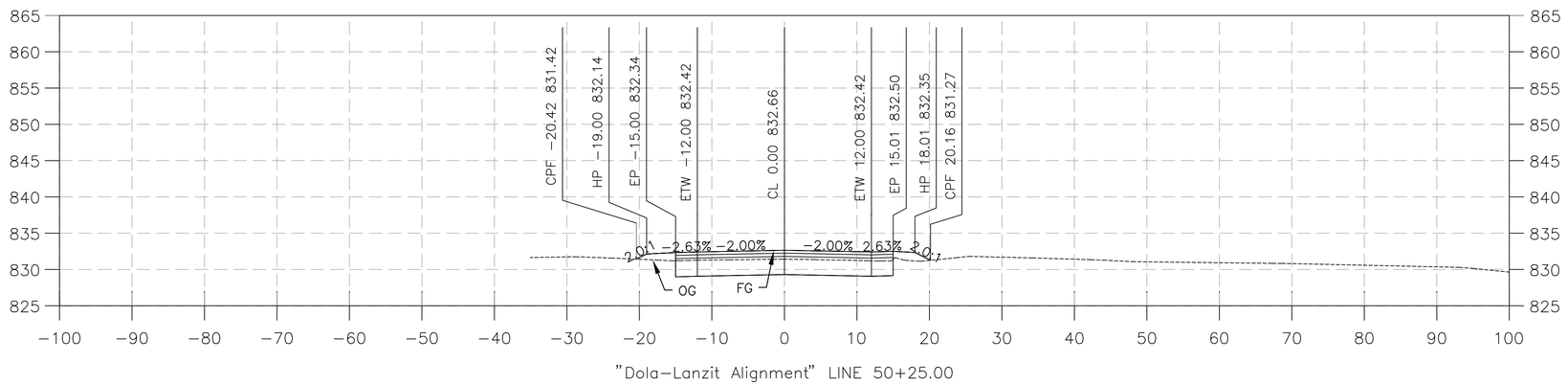

"Dola–Lanzit Alignment" LINE 50+25.00

GRAPHIC SCALE 1"=40'

0 40 80 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

REGISTERED PROFESSIONAL ENGINEER — MATTHEW ATKINSON — No. 82099 — Exp. 3/31/24 — CIVIL — STATE OF CALIFORNIA

SAN BERNARDINO COUNTY

DEPARTMENT OF PUBLIC WORKS

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CHRIS NGUYEN, P.E. — TRANSPORTATION DESIGN ENGINEERING MANAGER — 01/23/2024 DATE

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MERVAT N. MIKHAIL, P.E. — DEPUTY DIRECTOR — 01/24/2024 DATE

DOLA DITCH AND LANZIT DITCH BRIDGE REPLACEMENT

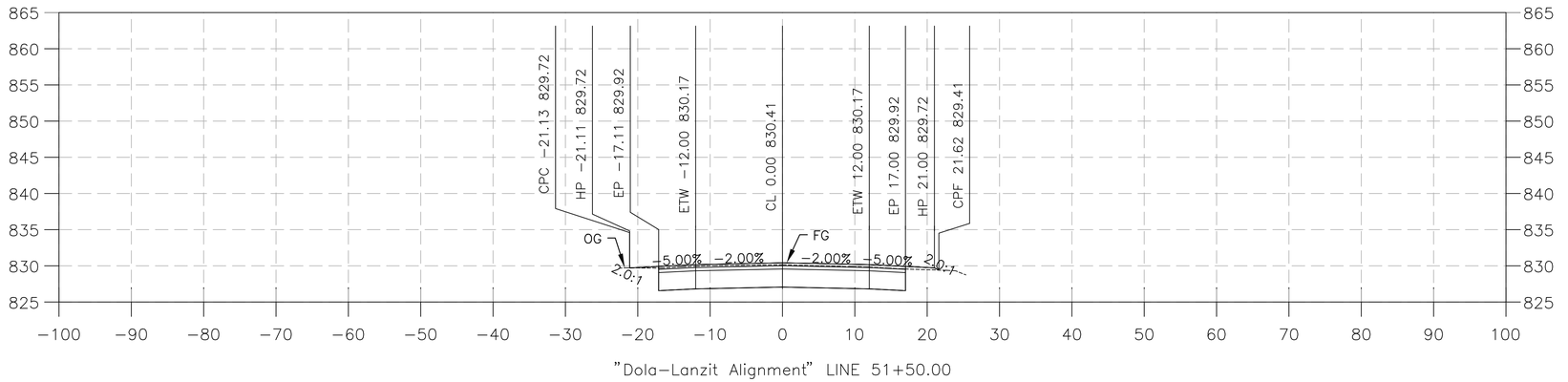
DESGIN CROSS SECTION

LANZIT DITCH

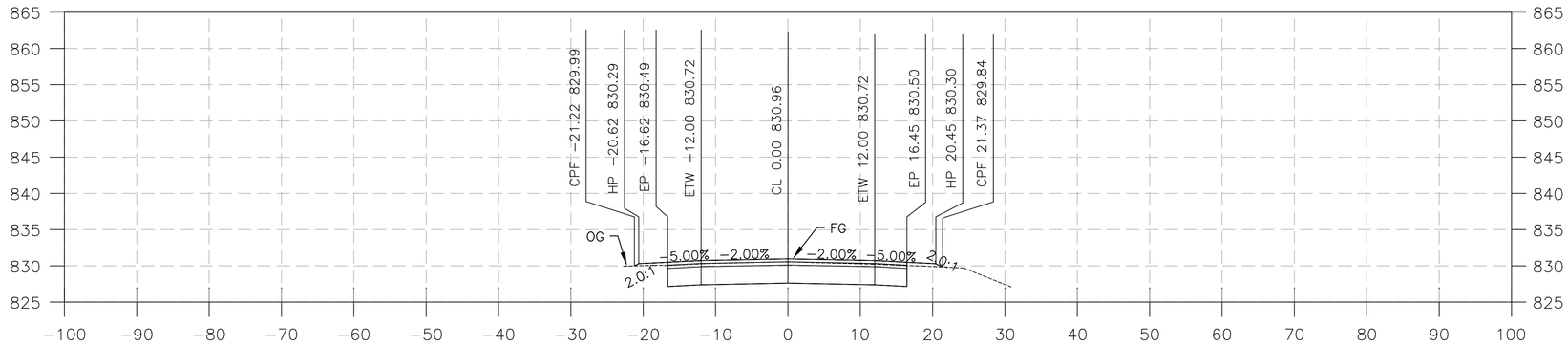
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	52	54

FILE NO. 586600 120

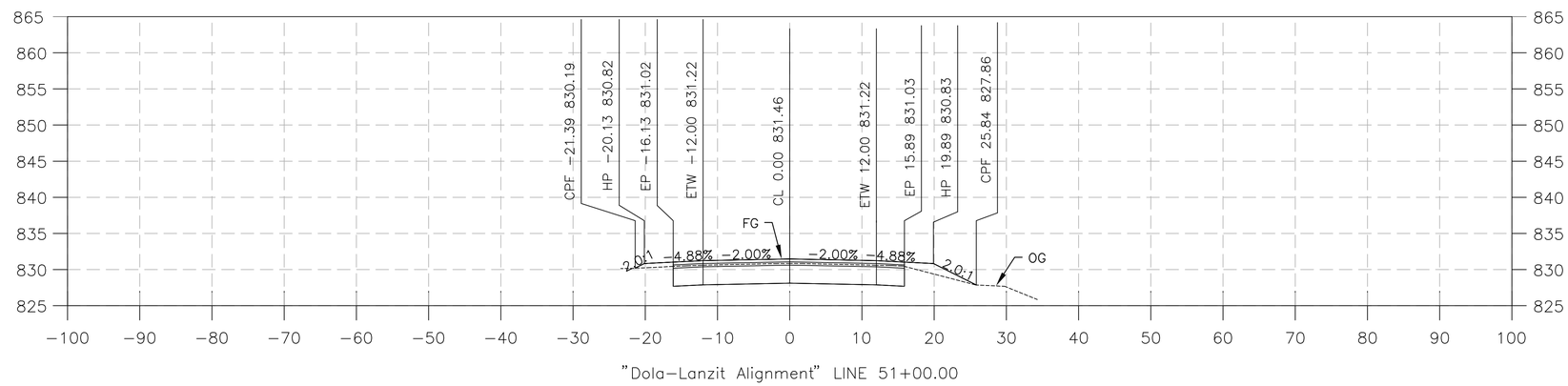
FILE NO. 586600 120



"Dola−Lanzit Alignment" LINE 51+50.00



"Dola−Lanzit Alignment" LINE 51+25.00



"Dola−Lanzit Alignment" LINE 51+00.00

GRAPHIC SCALE 1"=40'
0 40 80 120

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110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642
MATTHEW ATKINSON, PROJECT ENGINEER
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SAN BERNARDINO COUNTY
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DESGIN CROSS SECTION
LANZIT DITCH

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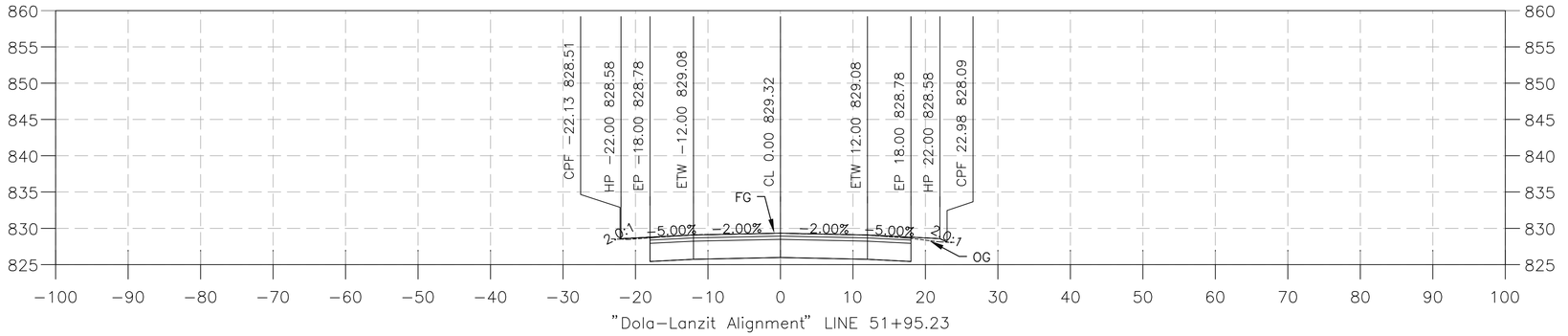
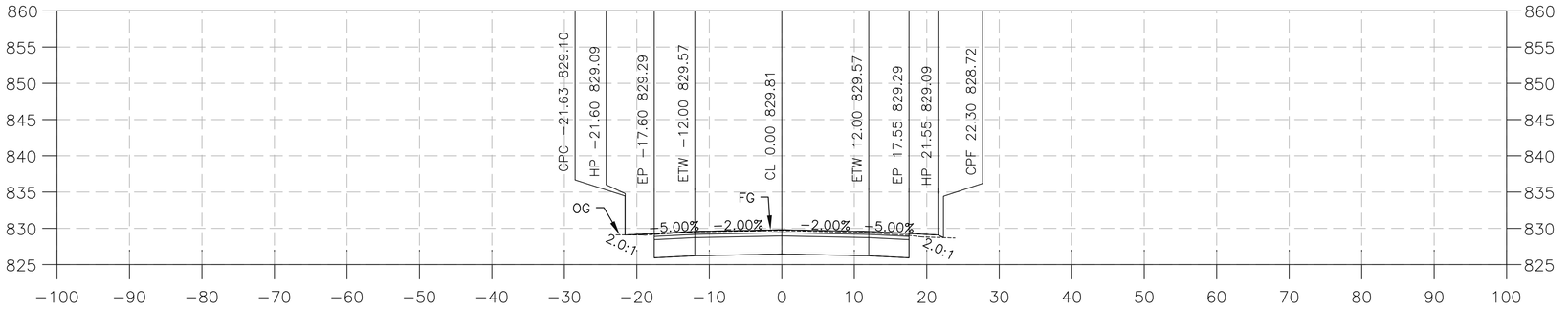
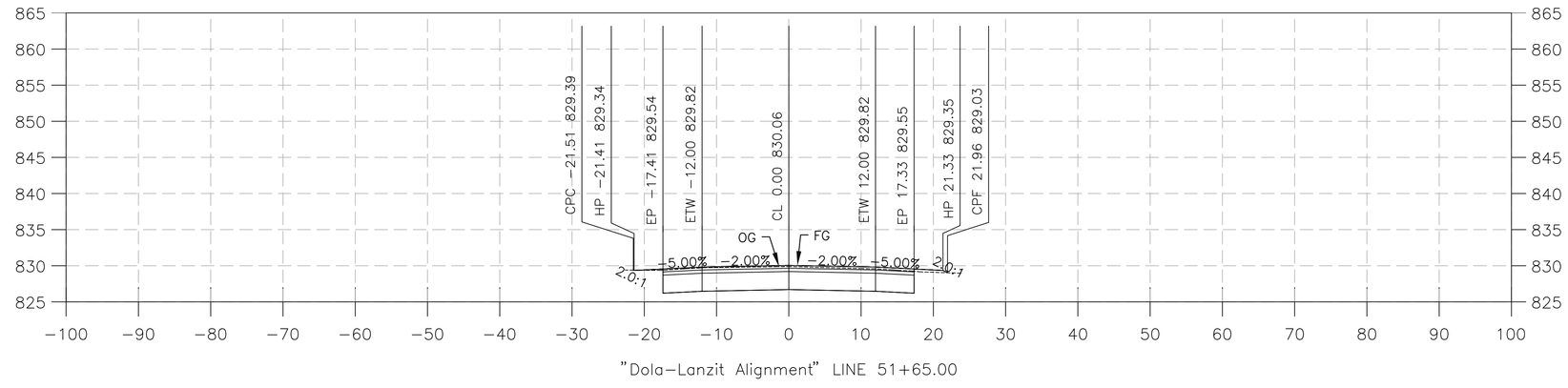


"Dola−Lanzit Alignment" LINE 51+95.23



"Dola−Lanzit Alignment" LINE 51+75.00



"Dola−Lanzit Alignment" LINE 51+65.00

GRAPHIC SCALE 1"=40'

0 40 80 120

PREPARED BY:

DOKKEN ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

MATTHEW ATKINSON, PROJECT ENGINEER — 01/12/24 DATE

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SAN BERNARDINO COUNTY

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LANZIT DITCH

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 12145	H15220	1"=10'	54	54

FILE NO. 586600 120

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