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ABBREVIATIONS:

AD	ALGEBRAIC DIFFERENCE
AP	ANGLE POINT
BB	BEGIN BRIDGE
BC	BEGIN CURVE
BVC	BEGIN VERTICAL CURVE
℄	CENTERLINE
CP	CATCH POINT
DOWC	DEL ORO WATER COMPANY
DR	DRIVE
DWY	DRIVEWAY
EB	END BRIDGE
EC	END CURVE
ELEC	ELECTRIC
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY
EVC	END OF VERTICAL CURVE
EXIST, (E)	EXISTING
FG	FINISHED GRADE
FRONTIER	FRONTIER COMMUNICATIONS
FS	FINISHED SURFACE
HORIZ	HORIZONTAL
HP	HINGE POINT
IE	INVERT ELEVATION
LT	LEFT
MGS	MIDWEST GUARDRAIL SYSTEM
N	NORTH
No.	NUMBER
OG	ORIGINAL GROUND
OH	OVERHEAD
PG	PROPOSED GRADE
PI	POINT OF INFLECTION
PVI	POINT OF VERTICAL INFLECTION
R/W	RIGHT OF WAY
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
S	SOUTH
SAW	SAWCUT
SCE	SOUTHERN CALIFORNIA EDISON
SHLD	SHOULDER
STA	STATION
TELCOM	TELECOMMUNICATION
TCE	TEMPORARY CONSTRUCTION EASEMENT
UPRR	UNION PACIFIC RAILROAD
VAR	VARIABLE
VC	VERTICAL CURVE
VERT	VERTICAL

PROJECT CONTROL

THE COORDINATES AND BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 4, (2017.50).

THE PROJECT ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 COMPUTED USING GEOID18(Conus)

TO CONVERT GRID DISTANCE TO GROUND DISTANCE DIVIDE THE GRID DISTANCE BY 0.9998519894

PROJECT COORDINATES, BEARINGS, AND ELEVATIONS SHALL BE BASED ON THE TABLE BELOW:

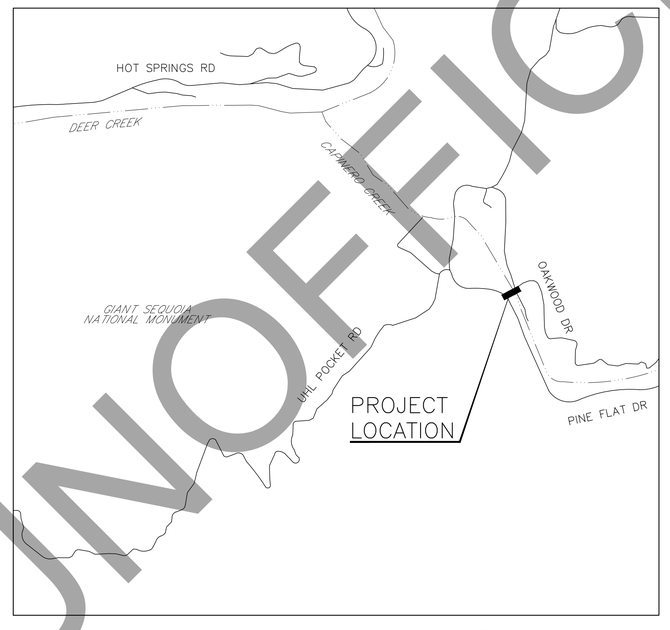
CONTROL TABLE

POINT NO.	ELEVATION USFT	NORTHING USFT	EASTING USFT	POINT DESCRIPTION
1	3742.26	1837321.15	6665023.21	NO 5 REBAR TULARE CO CONTROL 0.1 4 FT SOUTH OF STREET POST LINE WITH POST & SLOW SIGN TO NORTH
2	3738.02	1837327.88	6665122.09	NO 5 REBAR TULARE CO CONTROL 0.5 4 FT NORTHEASTERLY OF SOUTHEAST END WINGWALL
3	3741.92	1837427.22	6665180.88	MAG – FLUSH 4.7 FT SOUTHERLY OF ROAD SIGN LINE WITH POST & WEST FACE REDWOOD WITH SIGNS
4	3734.10	1837577.42	6664945.97	NO 5 REBAR TULARE CO CONTROL 0.5 5 FT EAST OF EAST EDGE DRIVE PATH LINE WITH NORTH EDGE HOUSE TO WEST NO 156
5	3740.75	1837091.82	6665260.97	NO 5 REBAR TULARE CO CONTROL 0.7 5.7 FT NORTH OF EAST EDGE DOUBLE STUMP 16 FT SOUTH OF WEST GATE POST EAST SIDE ROAD
6	3743.09	1837202.01	6665206.78	MAG – FLUSH IN NORTHEASTERLY CORNER OF TOP OF BOULDER WEST OF SOUTH END BLOCK WALL TO EAST

STATE OF CALIFORNIA
COUNTY OF TULARE

PROJECT PLANS FOR CONSTRUCTION OF
M46 W OAKWOOD DR OVER CAPINERO CREEK
BRIDGE NO. 46C0488
FEMA LOCATION ID NO. 20

TO BE SUPPLEMENTED BY STANDARD PLANS AND STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED 2022



VICINITY MAP
N.T.S.

LOCATION MAP

APPROVED BY: DATE:

DENNIS TOWNSEND – CHAIR
COUNTY OF TULARE BOARD OF SUPERVISORS

APPROVED BY: DATE: 9/18/23

REED SCHENKE, PE – DIRECTOR
COUNTY OF TULARE RESOURCE MANAGEMENT AGENCY

SIGNED BY: DATE: 9/15/23

MARK STILLER, PE – PROJECT ENGINEER
NCM ENGINEERING CORPORATION

SIGNED BY: DATE: 9/15/23

STEVE MISLINSKI, PE – PROJECT MANAGER
NCM ENGINEERING CORPORATION

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

REVISIONS

No.	DESCRIPTION	DATE	BY

COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

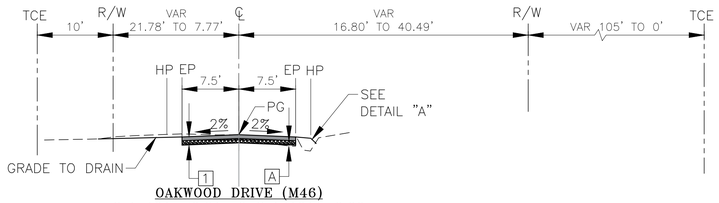
TITLE SHEET

M46 W OAKWOOD DR
OVER CAPINERO CREEK
TULARE COUNTY

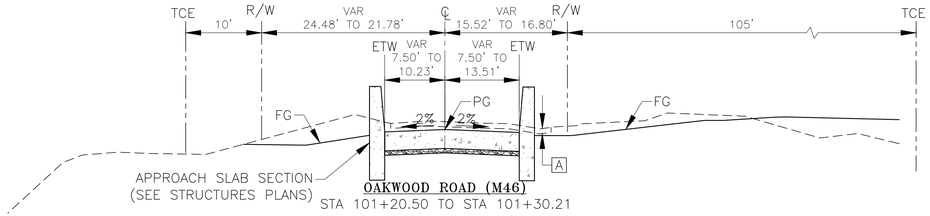
SCALE	NTS
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1T001.DWG
DATE	09-15-23

SHEET No.
T1
1 OF 17

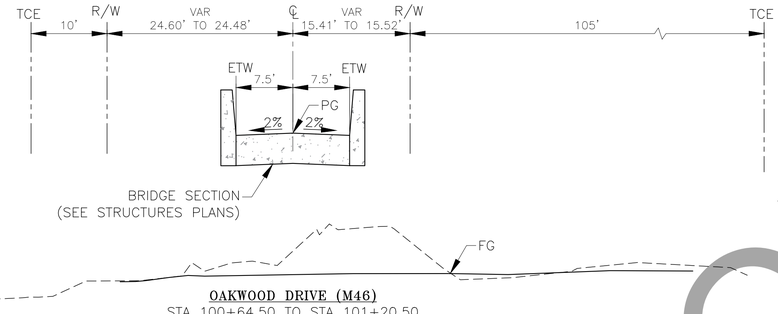
S:\PROJECTS\TULE2202 - M46 W OAKWOOD OVER CAPINERO CREEK\00 CADD\ROADWAY\03 SHEETS\2202-1T001.DWG 9/15/2023 11:21 AM



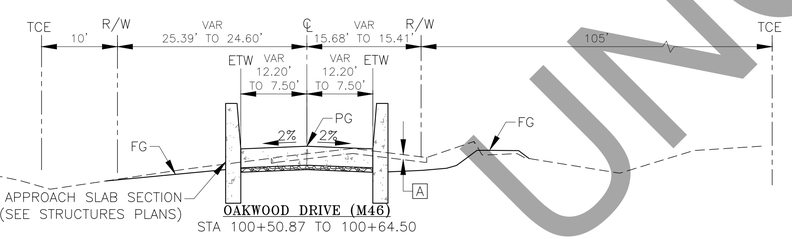
OAKWOOD DRIVE (M46)
STA 101+30.21 TO STA 101+70.00



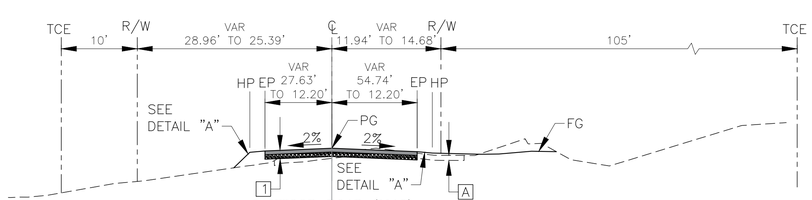
OAKWOOD ROAD (M46)
STA 101+20.50 TO STA 101+30.21



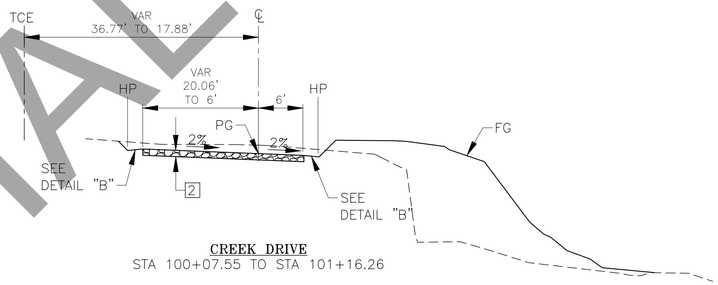
OAKWOOD DRIVE (M46)
STA 100+64.50 TO STA 101+20.50



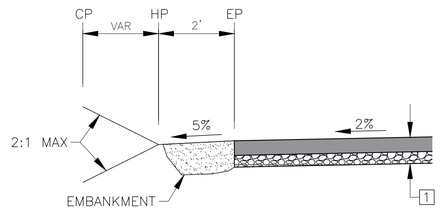
OAKWOOD DRIVE (M46)
STA 100+50.87 TO 100+64.50



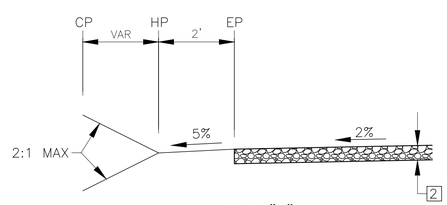
OAKWOOD ROAD (M46)
STA 100+08.21 TO STA 100+50.87



CREEK DRIVE
STA 100+07.55 TO STA 101+16.26



DETAIL "A"
NTS
HINGE POINT AND
CATCH POINT FROM PAVED ROADWAY



DETAIL "B"
NTS
HINGE POINT AND
CATCH POINT FROM GRADED ROADWAY

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS OF FEATURES.

TYPICAL STRUCTURAL SECTIONS:

1 — 3" HMA (TYPE A)
4.5" AB (CLASS 2)

2 — 5" AB (CLASS 2)

A — EXISTING AC

REVISIONS

No.	DESCRIPTION	DATE	BY

COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

TYPICAL CROSS SECTIONS

M46 W OAKWOOD DR. OVER CAPINERO CREEK

TULARE COUNTY

SCALE	H 1"=10' V 1"=5'
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1X001.DWG
DATE	09-15-23

SHEET No. X1

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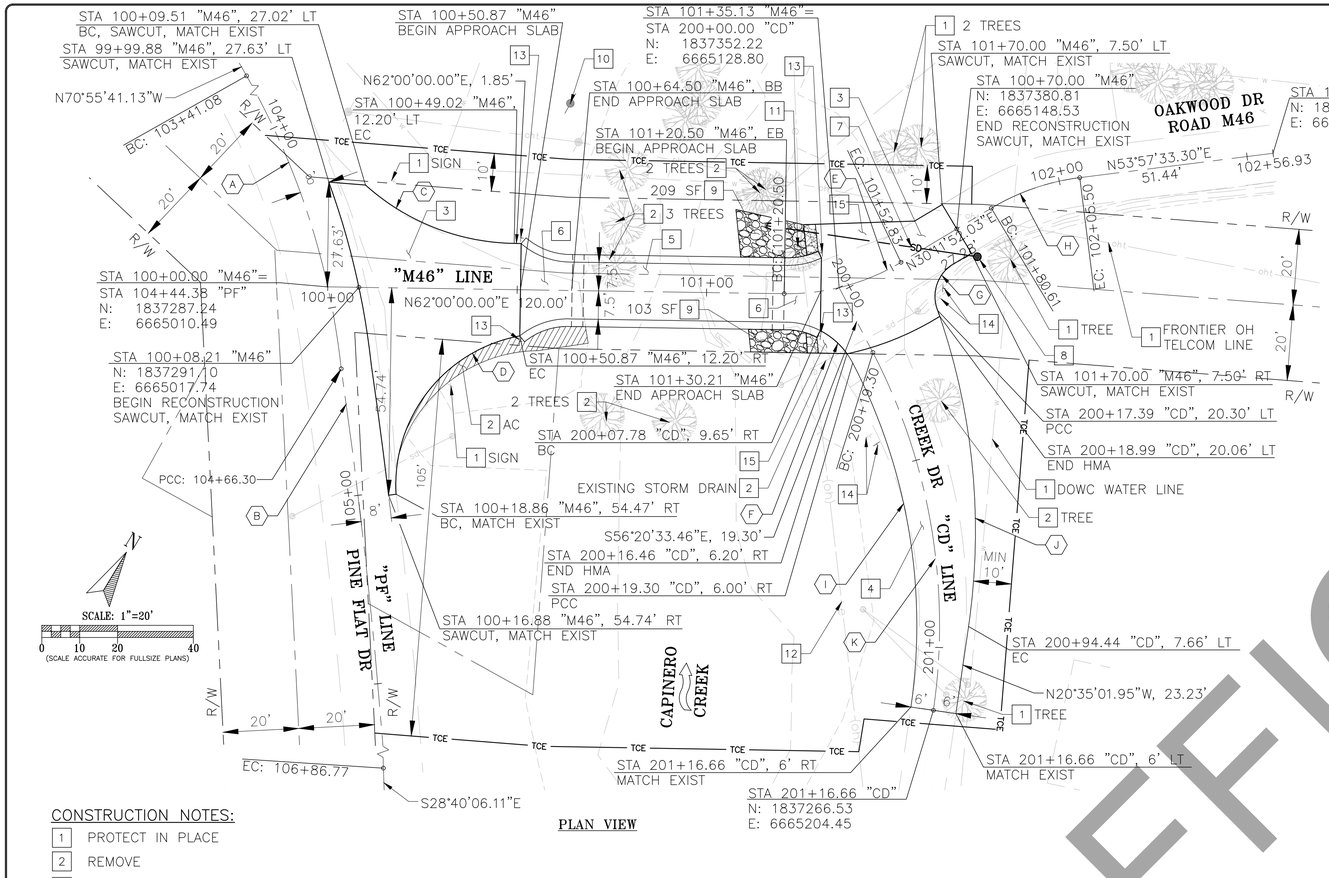


PLAN VIEW

CONSTRUCTION NOTES:

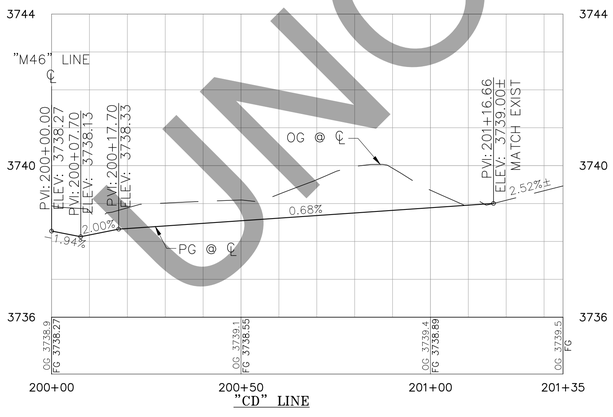
1. PROTECT IN PLACE
2. REMOVE
3. CONSTRUCT 3" HMA OVER 4.5" CLASS 2 AGGREGATE BASE
4. CONSTRUCT GRADED ROAD
5. BRIDGE (SEE STRUCTURE PLANS)
6. BRIDGE APROACH SLAB (SEE STRUCTURE PLANS)
7. 18" CMP (SEE SHEET C2)
8. MODIFIED CROSS DRAIN INLET WITH DEBRIS RACK CAGE (SEE SHEET C2)
9. ROCK SLOPE PROTECTION (SEE SHEET C2)
10. POWER POLE INSTALLED BY SCE
11. REMOVE TREE/POWER POLE BY OTHERS
12. RELOCATE SCE OH ELEC LINE BY OTHERS
13. INSTALL TYPE "P" MARKER
14. RELOCATE SIGN
15. AC OVERLAY (3" HMA OVER 4.5" CLASS 2 AGGREGATE BASE, SEE SHEET C2 FOR DETAILS)

LEGEND:

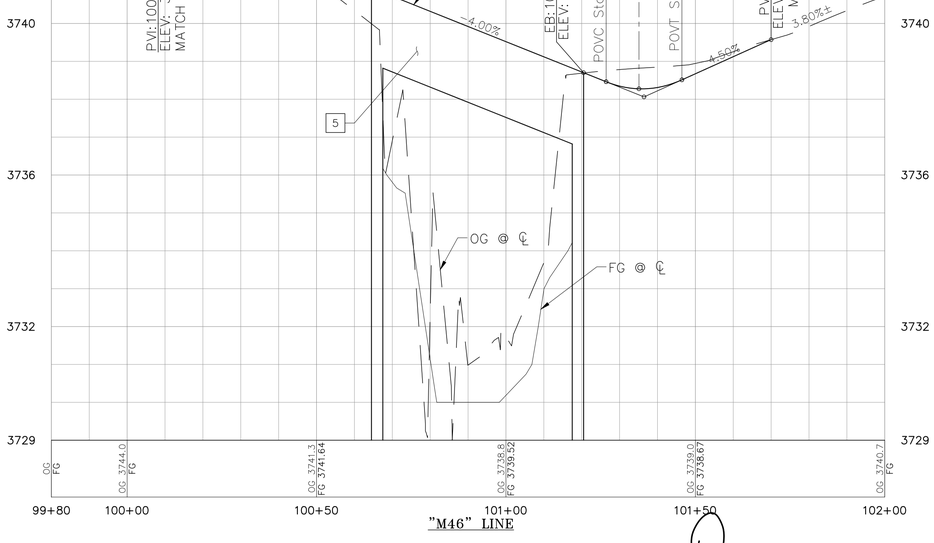
- EX R/W
- EX DOWC WATER LINE (VERIFY LOCATION AND DEPTH)
- EX SCE OH ELEC LINE
- EX FRONTIER OH TELCOM LINE
- PROPOSED TCE
- PROPOSED ROADWAY CONTROL LINE
- PROPOSED RSP (SEE SHEET C2)
- EX AC REMOVAL LIMITS
- EX TREE

CURVE DATA TABLE			
#	DELTA	LENGTH	RADIUS
A	35°52'27"	125.22''	200'
B	8°25'16"	220.47'	1500'
C	41°08'12"	43.08'	60'
D	83°00'41"	57.95'	40'
E	31°48'08"	32.33'	58.24'
F	35°10'16"	12.28'	20'
G	83°05'34"	14.53'	10'
H	23°45'41"	24.88'	60'
I	35°45'31"	93.62'	150'
J	26°17'54"	80.32'	175'
K	35°45'31"	97.36'	156'

SCALE
HORIZ: 1"=20'
VERT: 1"=2'



SCALE
HORIZ: 1"=20'
VERT: 1"=2'



David E. Melis

REGISTERED PROFESSIONAL ENGINEER
DAVID E. MELIS
No. C54383
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

REVISIONS

No.	DESCRIPTION	DATE	BY

COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

PLAN AND PROFILE

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

SCALE	1"=20'
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1L001.DWG
DATE	09-15-23
SHEET No.	L1

3 OF 17

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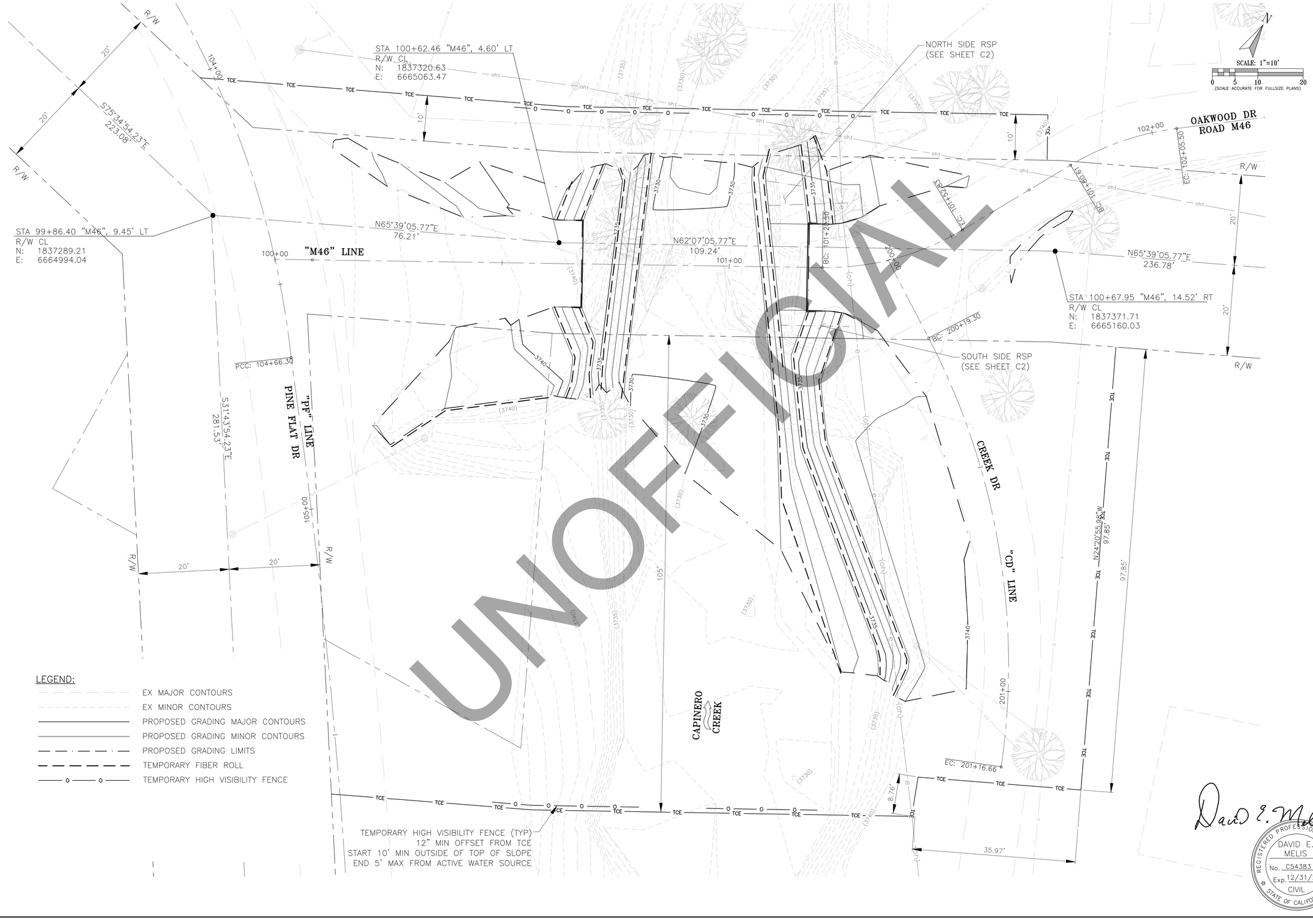

REVISIONS

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COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

GRADING PLANS

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

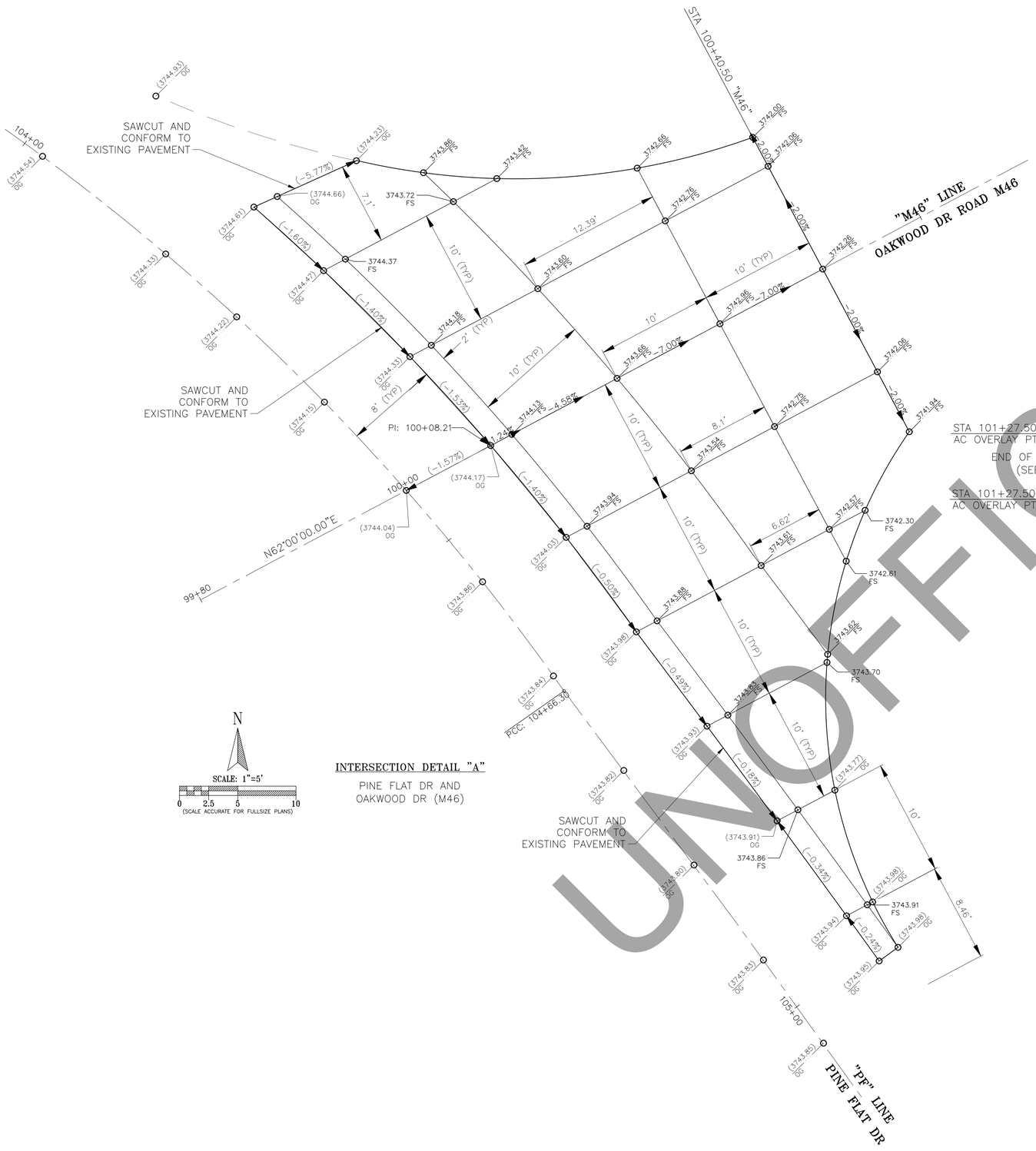
SCALE	1"=10'
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1G001.DWG
DATE	09-15-23

SHEET No. G1

4 OF 17

REGISTERED PROFESSIONAL ENGINEER
DAVID E. MELIS
No. C54383
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

S:\PROJECTS\TULE2202 - M46 W OAKWOOD OVER CAPINERO CREEK\000 CADD\ROADWAY\03 SHEETS\2202-1G001.DWG 9/15/2023 11:23 AM



N

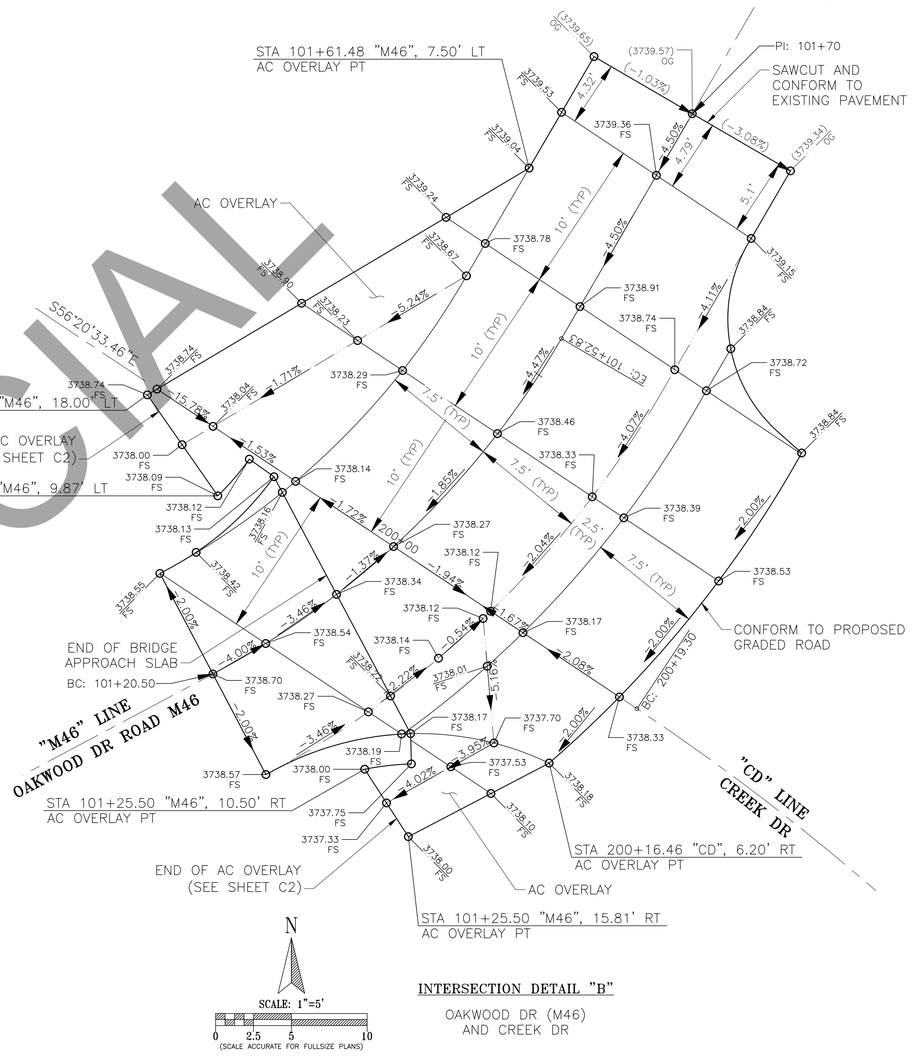
SCALE: 1"=5'

0 2.5 5 10

(SCALE ACCURATE FOR FULLSIZE PLANS)

INTERSECTION DETAIL "A"

PINE FLAT DR AND
OAKWOOD DR (M46)



N

SCALE: 1"=5'

0 2.5 5 10

(SCALE ACCURATE FOR FULLSIZE PLANS)

INTERSECTION DETAIL "B"

OAKWOOD DR (M46)
AND CREEK DR

LEGEND:

XX.XX FS — PROPOSED PAVEMENT SPOT ELEVATION IN FEET

(XX.XX) OG — EXISTING PAVEMENT SPOT ELEVATION IN FEET

David E. Melis

REGISTERED PROFESSIONAL ENGINEER
DAVID E. MELIS
No. C54383
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

REVISIONS

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(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

CONSTRUCTION DETAILS

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

SCALE	PER PLANS
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1C001.DWG
DATE	09-15-23

SHEET No. C1

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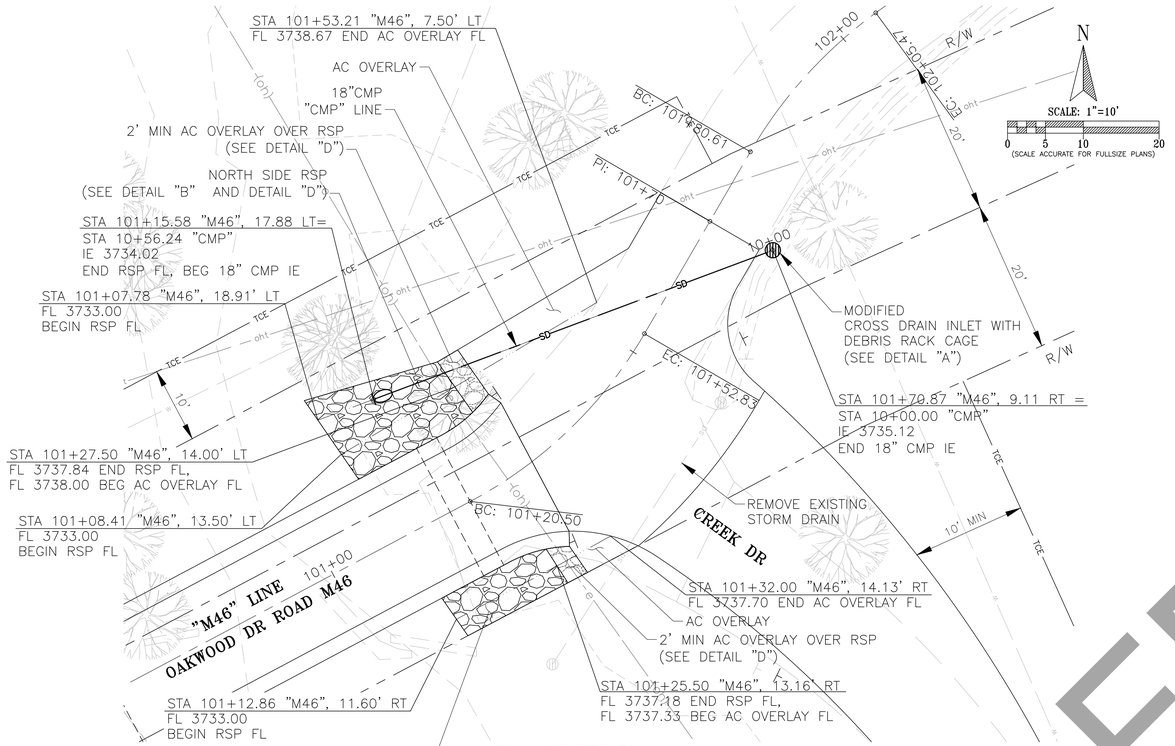
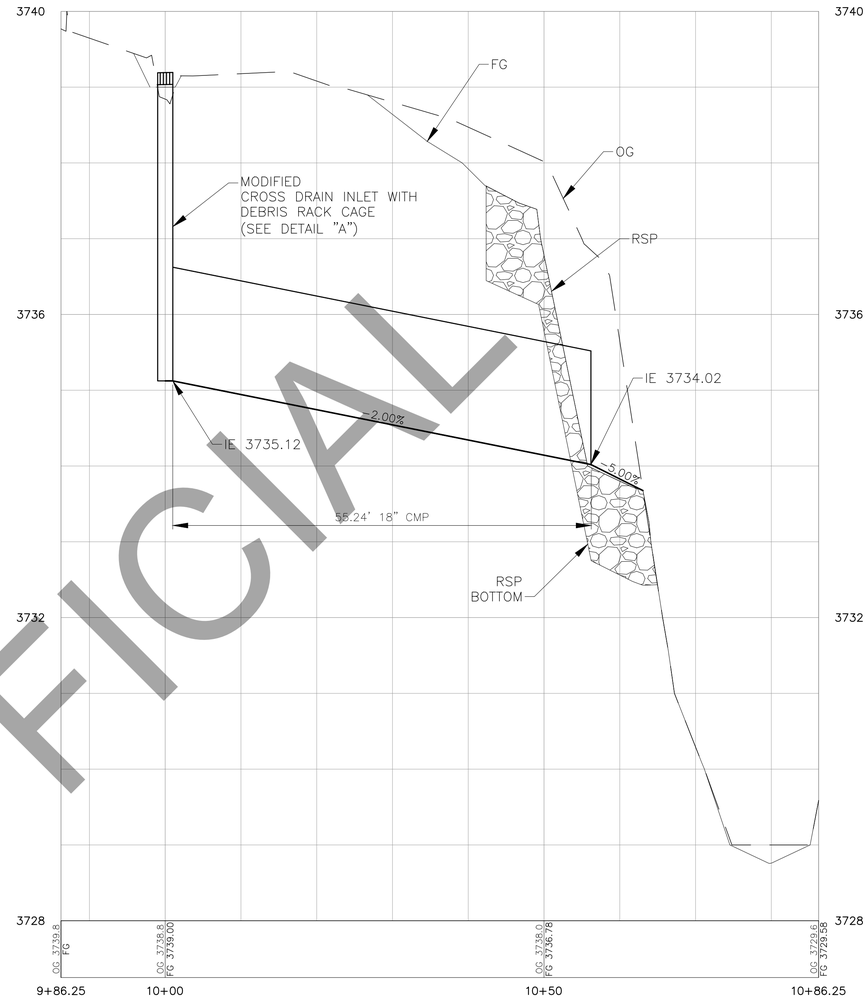
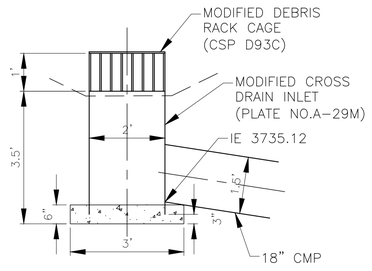


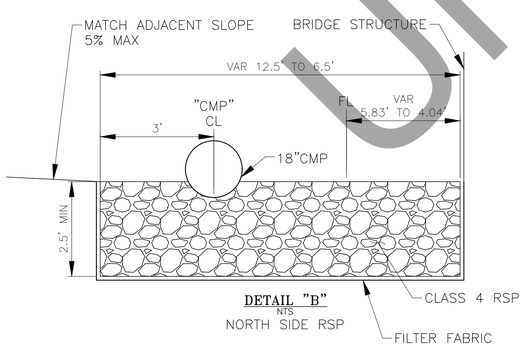
DRAINAGE PIPE PLAN



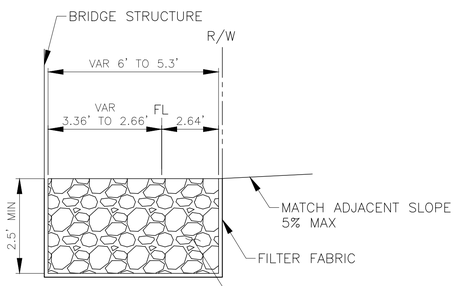
DRAINAGE PIPE PROFILE



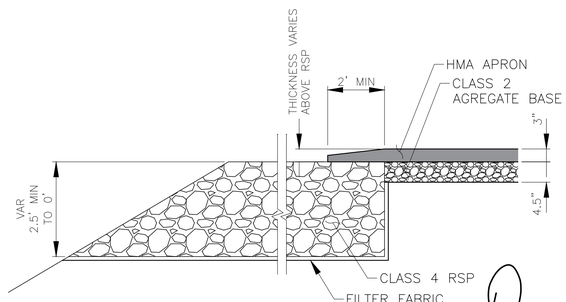
DETAIL "A"
NTS
MODIFIED INLET GRATE STRUCTURE



DETAIL "B"
NTS
NORTH SIDE RSP



DETAIL "C"
NTS
SOUTH SIDE RSP



DETAIL "D"
NTS
AC OVERLAY OVER RSP
END TREATMENT

David E. Melis

REGISTERED PROFESSIONAL ENGINEER
DAVID E. MELIS
No. C54383
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

REVISIONS

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COUNTY OF TULARE
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5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

CONSTRUCTION DETAILS

M46 W OAKWOOD DR. OVER CAPINERO CREEK

TULARE COUNTY

SCALE	H 1"=10' V 1"=1'
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202-1C002.DWG
DATE	09-15-23

SHEET No.
C2

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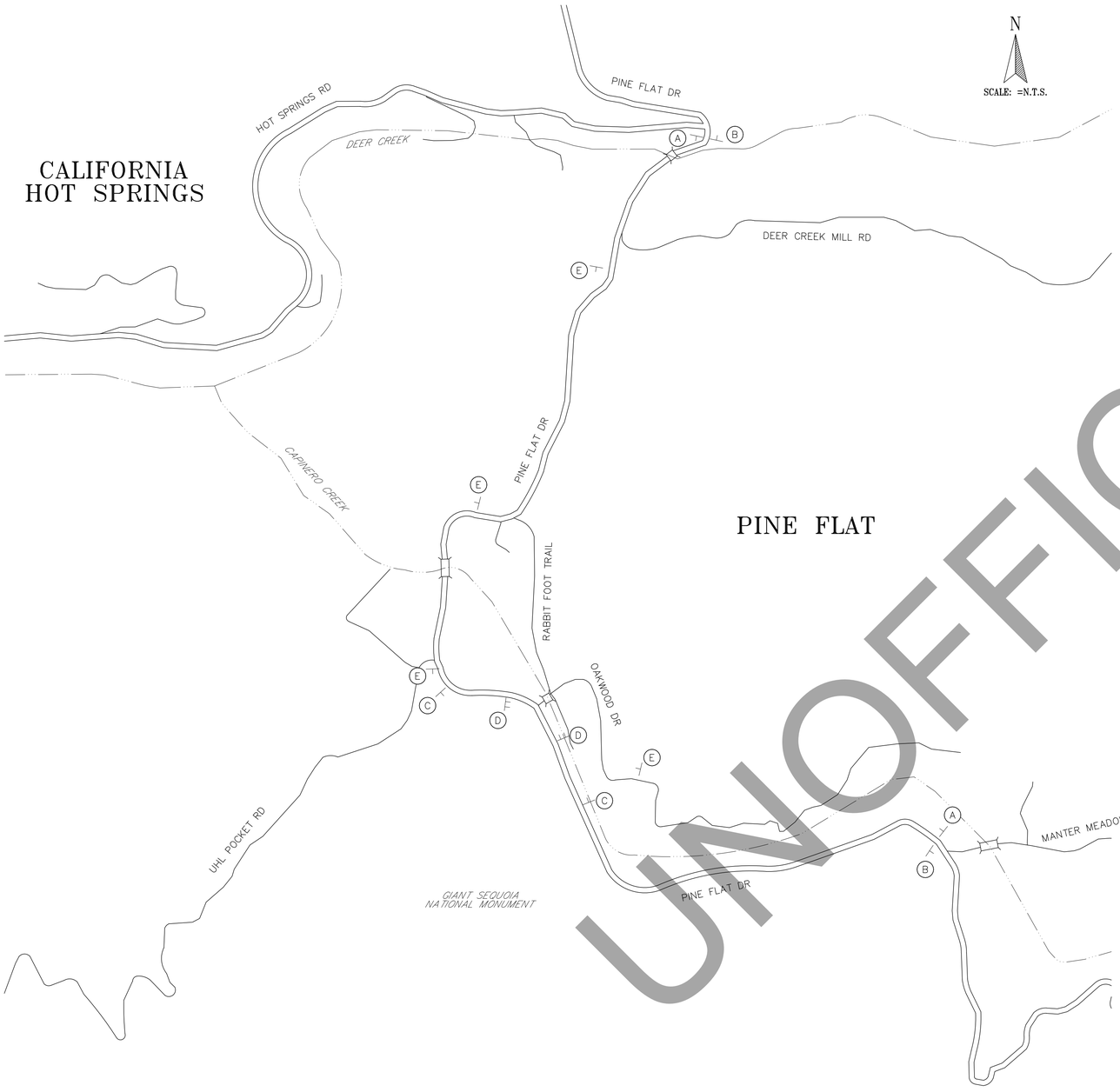

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS					
(#)	SIGN DESIGNATION	PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	No. OF SIGNS
(A)	G20–1	60" X 36"	ROAD WORK NEXT 1 MILE	1 – 4" X 6"	2
(B)	G20–2	36" X 18"	END ROAD WORK	1 – 4" X 4"	2
(C)	C12(CA)	36" X 36"	NARROW LANE	1 – 4" X 6"	2
(D)	SC20(CA)	42" X 36"	SLOW FOR THE CONE ZONE	2 – 4" X 6"	2
(E)	W20–1	36" X 36"	ROAD WORK AHEAD	1 – 4" X 6"	4

NOTE:

LOCATION OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE COUNTY ENGINEER.

REGISTERED PROFESSIONAL ENGINEER
DAVID E. MELIS
No. C54383
Exp. 12/31/23
CIVIL
STATE OF CALIFORNIA

REVISIONS

No.	DESCRIPTION	DATE	BY

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VISALIA, CA 93277
(559)624–7000
WWW.TULARECOUNTY.CA.GOV/RMA

CONSTRUCTION DETAILS

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

SCALE	NTS
DIVISION	–
JOB NO.	TULE2202
DESIGNED	RS
DRAWN	RS
CHECKED	DM
FILE	2202–1C003.DWG
DATE	09–15–23

SHEET No. C3

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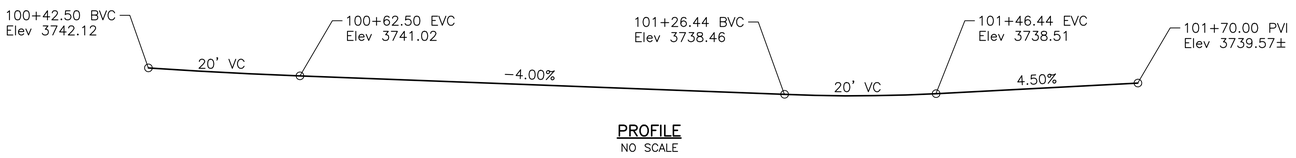
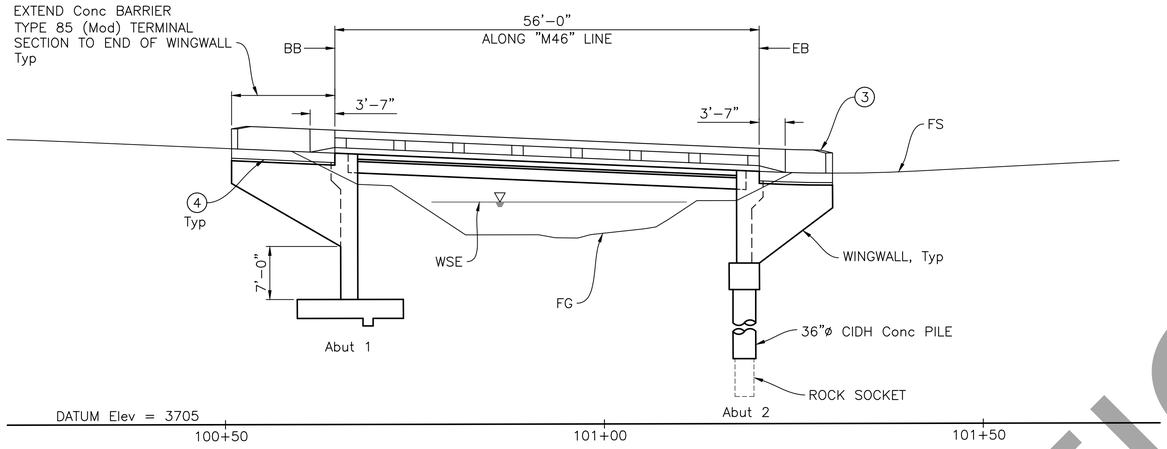
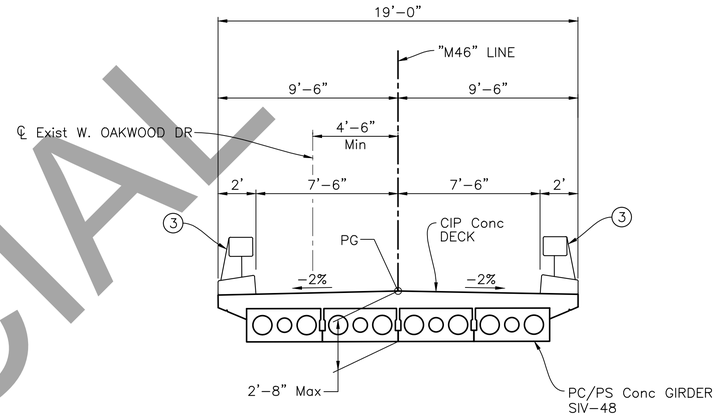


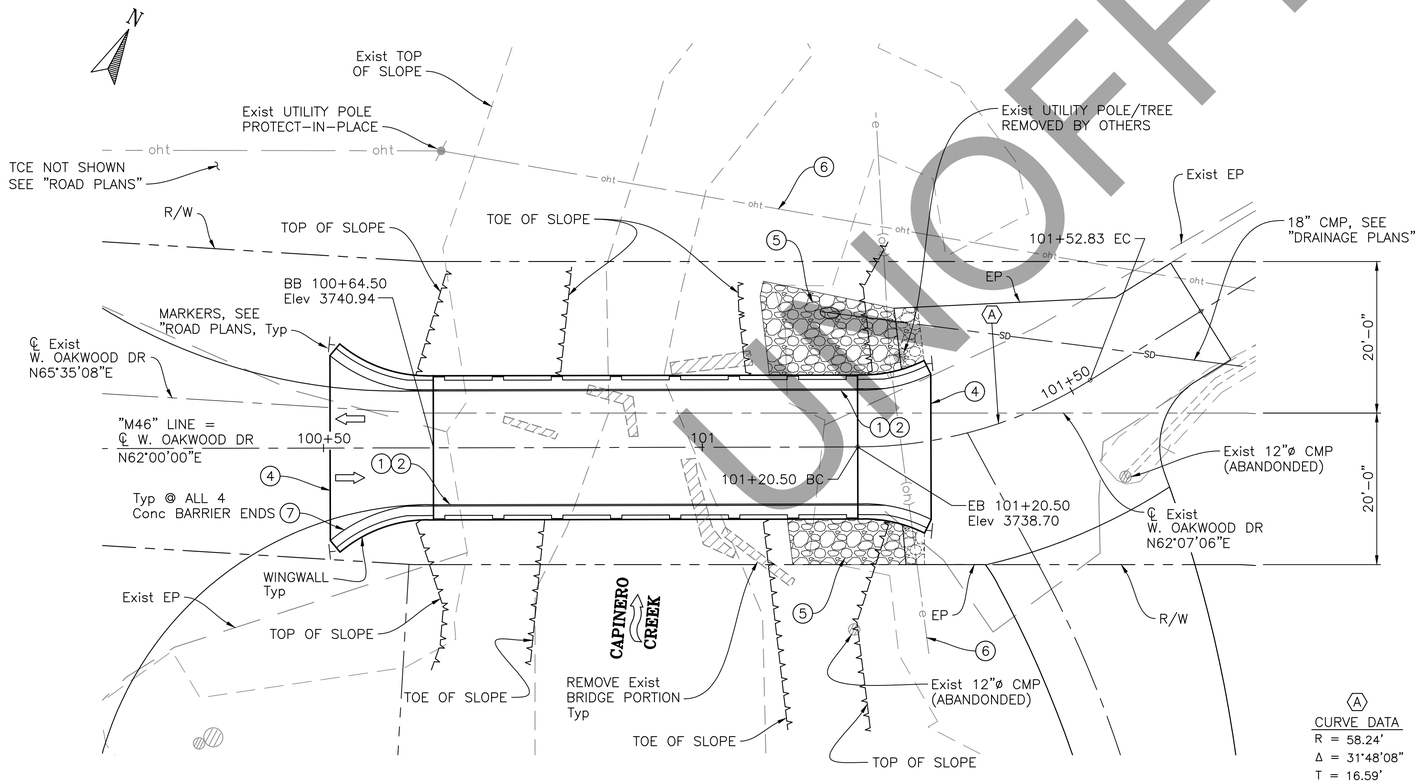
PROFILE
NO SCALE



ELEVATION
SCALE: 1"=10'



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



PLAN
SCALE: 1"=10'

A
CURVE DATA
R = 58.24'
Δ = 31°48'08"
T = 16.59'
L = 32.33'

LEGEND

- DIRECTION OF TRAVEL
- EXIST STRUCTURE TO BE REMOVED
- NEW CONSTRUCTION
- DIRECTION OF WATER FLOW
- (1) DATE STAMP PROVIDED BY COUNTY
- (2) PAINT "BRIDGE NO. 46C0488"
- (3) CONCRETE BARRIER, TYPE 85 (Mod)
- (4) STRUCTURE APPROACH, TYPE N30 (Mod)
- (5) RSP, SEE "DRAINAGE PLANS"
- (6) FOR UTILITY DATA, REMOVALS & OTHER INFORMATION NOT SHOWN, SEE "FOUNDATION PLAN".
- (7) ARCHITECTURAL BARRIER TREATMENT, FOR DETAILS SEE "INDEX TO PLANS" SHEET.

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

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT
AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

NCM ENGINEERING
CORPORATION
1322 E. SHAW AVE. SUITE 340
FRESNO, CA 93710
559-492-3016

GENERAL PLAN

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

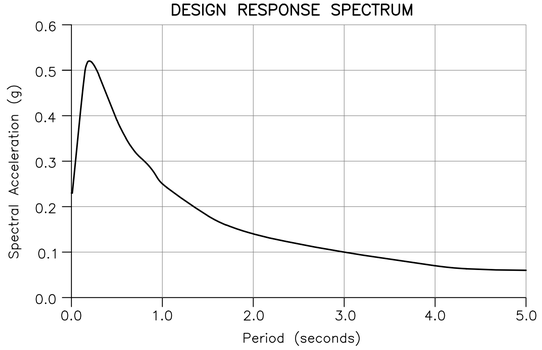
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S001GP.DWG
DATE	9/15/23
SHEET No.	S1

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

2202-1S001GP.DWG 9/15/2023 11:17 AM

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

Design:	AASHTO LFRD Bridge Design Specifications, 8th Edition with California Amendments Dated October, 2022
Seismic Design:	Caltrans Seismic Design Criteria (SDC) Version 2.0 dated April 2019 with Interim Revisions Dated October 2019 and Errata Dated July 2020
Dead Load:	Includes 35 psf for future wearing surface.
Live Load:	HL–93 and permit design load.
Seismic Loading:	Caltrans SDC and Caltrans ARS Online Tools Soil Profile: V_{S30} = 318 m/s Magnitude: 6.9 Peak Ground Acceleration = 0.23g
Reinforced Concrete:	fy = 60 ksi f'c = 3.6 ksi @ 28 days, Unless Otherwise Noted

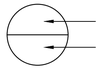


SITE SPECIFIC – ACCELERATION RESPONSE SPECTRUM

INDEX TO BRIDGE PLANS

CALTRANS STANDARD PLANS, 2022 EDITION

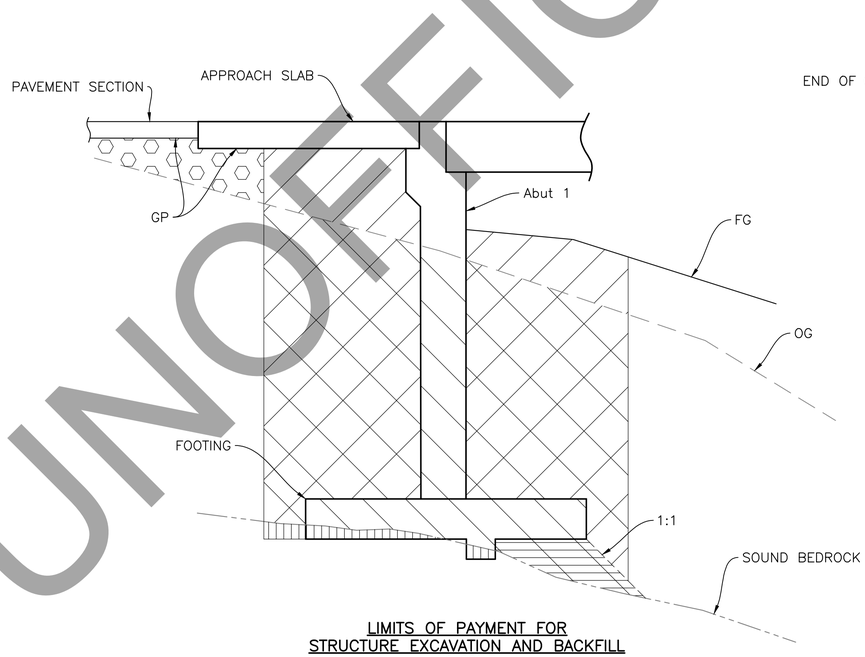
A3A	ABBREVIATIONS (Sheet 1 of 2)
A3B	ABBREVIATIONS (Sheet 2 of 2)
A3C	ABBREVIATIONS (Sheet 3 of 3)
A10A	LEGEND – LINE AND SYMBOLS (Sheet 1 of 5)
A10B	LEGEND – LINE AND SYMBOLS (Sheet 2 of 5)
A10C	LEGEND – LINE AND SYMBOLS (Sheet 3 of 5)
A10D	LEGEND – LINE AND SYMBOLS (Sheet 4 of 5)
A10E	LEGEND – LINE AND SYMBOLS (Sheet 5 of 5)
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL – BRIDGE
B0–1	BRIDGE DETAILS
B0–3	BRIDGE DETAILS
B0–13	BRIDGE DETAILS
B6–21	JOINT SEALS (MAXIMUM MOVEMENT RANGE = 2")
B7–1	BOX GIRDER DETAILS
B9–1	STRUCTURE APPROACH – TYPE N (30)
B9–5	STRUCTURE APPROACH – SLAB 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. 2



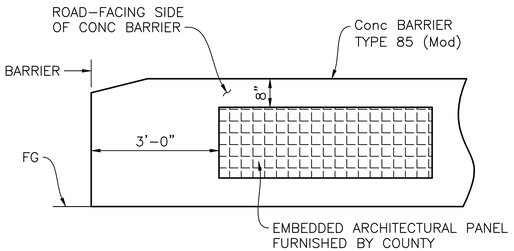
DESIGNER ASSUMED CONSTRUCTION SEQUENCE

1. CONSTRUCT FOUNDATIONS AND ABUTMENTS UP TO GIRDER SEAT ELEVATION.
2. BACKFILL ABUTMENT 1. ABUTMENT 2 NOT BACKFILLED.
3. ERECT GIRDERS ON ABUTMENT SEATS.
4. CAST DECK CONCRETE UP TO GIRDER ENDS.
5. CAST REMAINDER OF ABUTMENT AT GIRDER ENDS.
6. BACKFILL ABUTMENT 2.
7. CONSTRUCT APPROACH SLABS, CONCRETE BARRIER, AND ALL OTHER REMAINING WORK.

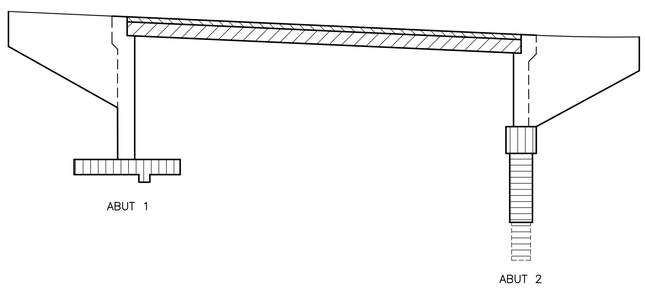
NOTE:
AT STEP 2, ABUTMENT 2 MAY BE PARTIALLY BACKFILLED IF THE FILL ELEVATION ON THE INSIDE AND OUTSIDE FACE MAINTAINED AT 2'–0" OF DIFFERENTIAL ELEVATION OR LESS.



LIMITS OF PAYMENT FOR
STRUCTURE EXCAVATION AND BACKFILL
NO SCALE



ARCHITECTURAL TREATMENT PANEL DETAIL
NO SCALE



CONCRETE STRENGTH AND TYPE LIMITS

- Structural Concrete, Bridge (f'c = 4.0 ksi @ 28 days)
- Structural Concrete, Bridge Footing (f'c = 4.5 ksi @ 28 days)
- Structural Concrete, Bridge (Polymer Fiber) (f'c = 4.0 ksi @ 28 days)
- Precast Prestressed Concrete Girder, See "GIRDER DETAILS" sheet
- Structural Concrete, CIDH Concrete Pile (f'c = 4.0 ksi @ 28 days)

LEGEND

- STRUCTURE EXCAVATION (BRIDGE)
- ROCK EXCAVATION
- STRUCTURE BACKFILL (BRIDGE)
- MINOR CONCRETE (BACKFILL)
- ROADWORK EARTHWORK, SEE "ROAD PLANS"

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
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REVISIONS

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TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
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559–492–3016

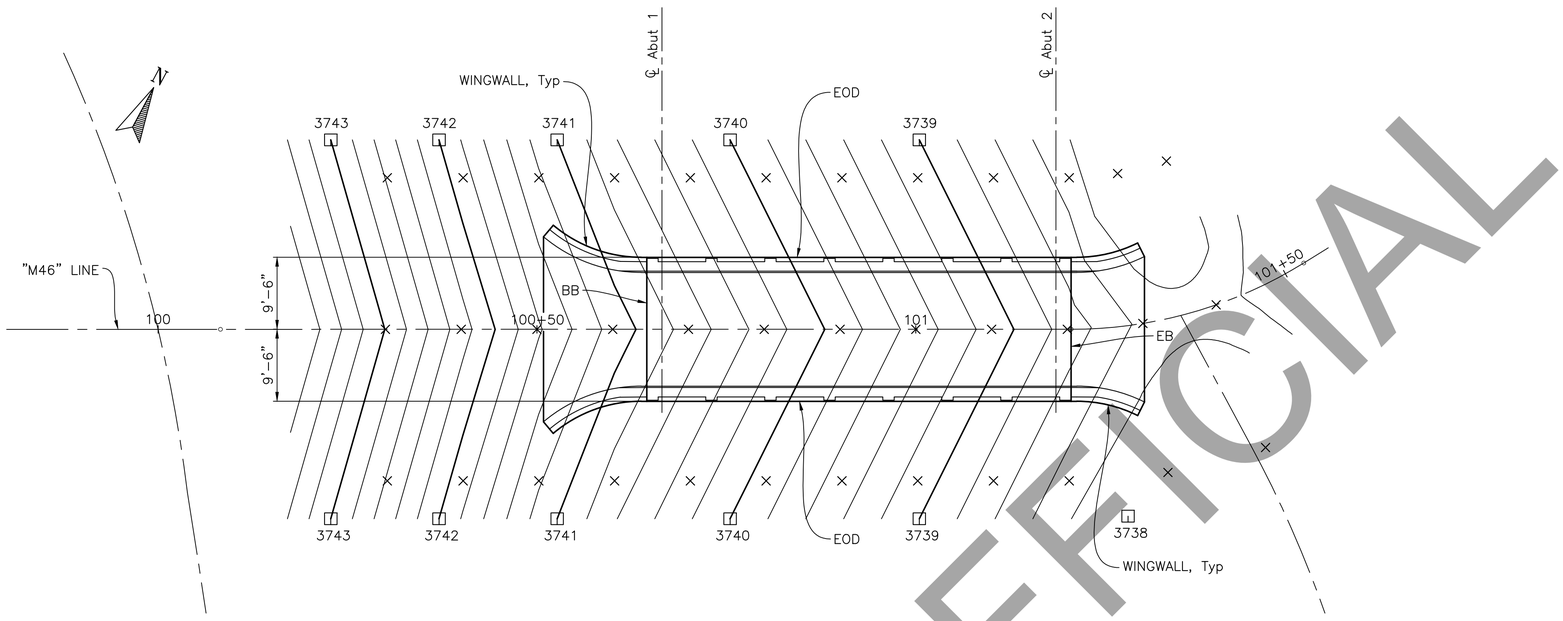
GENERAL NOTES

M46 W OAKWOOD DR
OVER CAPINERO CREEK
TULARE COUNTY

SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202–1S002GN.DWG
DATE	9/15/23

SHEET No.
S2

2202-1S002GN.DWG 9/15/2023 11:16 AM



DECK CONTOUR PLAN
SCALE: 1"=10'

LEGEND:

× INDICATES 10' INTERVALS ALONG "M46" LINE

□ = INDICATES 1.0' CONTOURS

CONTOUR INTERVAL IS 0.2'
CONTOURS DO NOT INCLUDE CAMBER

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559-492-3016

DECK CONTOURS

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S003DC.DWG
DATE	9/15/23

SHEET No.
S3

2202-1S003DC.DWG 9/15/2023 11:17 AM

DRAINAGE AREA: 6.4 SQUARE MILES			
	DESIGN	BASE	FLOOD OF RECORD
Frequency (Years)	50	100	~100
Discharge (Cubic feet per second)	478	550	566
Water Surface (Elevation at u/s face of Bridge)	3,733.4	3,733.7	3,733.7

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 COUNTY AND INTERESTED OR AFFECTED PARTIES SHOULD MAKE THEIR OWN INVESTIGATION.

THE FOLLOWING SCOUR DATA TABLE IS PROVIDED FOR PLACEMENT ON THE FOUNDATION PLAN, ASSUMING A THALWEG ELEVATION OF 3,728 ft:

SUPPORT No.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR ELEVATION (ft)	SHORT TERM (LOCAL) SCOUR DEPTH (ft)
A1	3,723*	2
A2	3,723*	2

*THEORETICAL ABUTMENT SCOUR IS INCLUSIVE OF CONTRACTION SCOUR.

PILE DATA TABLE						
SUPPORT LOCATION	PILE TYPE	NOMINAL RESISTANCE (KIPS)		CUTOFF ELEVATION (FT)	DESIGN TIP (1) ELEVATION (FT)	SPECIFIED TIP ELEVATION (FT)
		COMPRESSION	TENSION			
Abut 2	36" Dia Conc CIDH PILE	357	0	3722.95	3690 (a–I) 3694 (a–II) 3694 (b) 3690 (c)	3690.0

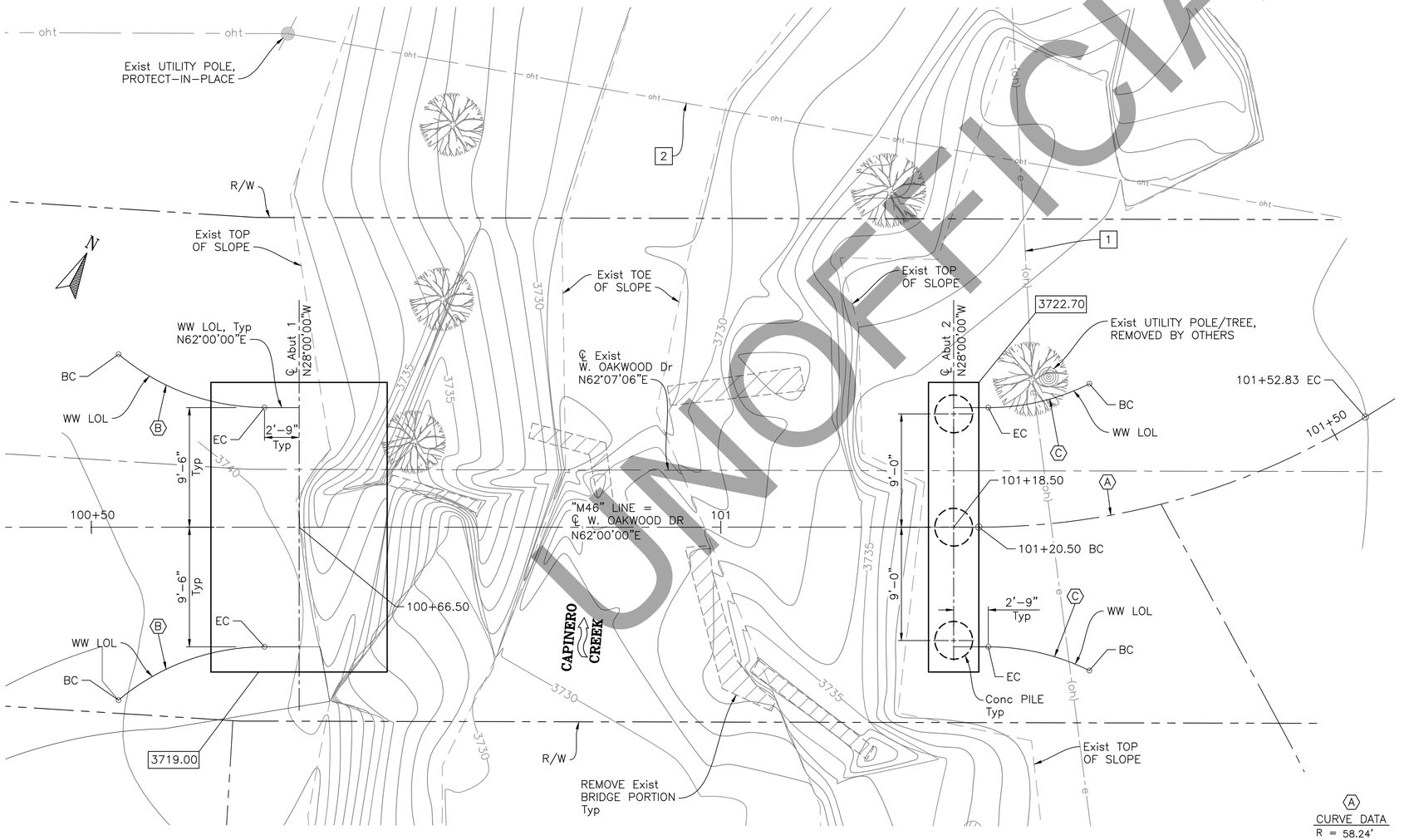
1. DESIGN TIP ELEVATION IS CONTROLLED BY THE FOLLOWING DEMANDS
   (a) COMPRESSION
   (b) SETTLEMENT
   (c) LATERAL LOAD

SPREAD FOOTING DATA TABLE			
SUPPORT LOCATION	SERVICE PERMISSIBLE[1] NET CONTACT STRESS (SETTLEMENT) (ksf)	STRENGTH/CONSTRUCTION[1] FACTORED GROSS NOMINAL BEARING RESISTANCE Qb = X (ksf)	EXTREME EVENT[1] FACTORED GROSS NOMINAL BEARING RESISTANCE Qb = 1.00 (ksf)
Abut 1	30	40	40

1. CONTACT STRESS OR BEARING RESISTANCE SHOWN IS ACCORDING TO THE LOAD COMBINATION THAT RESULTS IN THE LOWEST CAPACTITY TO DEMAND RATIO.

LEGEND

- BOTTOM OF FOOTING ELEVATION
- CIDH CONCRETE PILE
- DIRECTION OF WATER FLOW
- 1 SOUTHERN CALIFORNIA EDISON OVERHEAD. TO BE RELOCATED BY OTHERS
- 2 FRONTIER COMMMUNICATIONS OVERHEAD. PROTECT–IN–PLACE



PLAN
SCALE: 1"=5'

A CURVE DATA	B CURVE DATA	C CURVE DATA
R = 58.24'	R = 18.00'	R = 18.00'
Δ = 31°48'08"	Δ = 40°06'25"	Δ = 26°29'14"
T = 16.59'	T = 6.57'	T = 4.14'
L = 32.33'	L = 12.60'	L = 8.32'

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

REVISIONS

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TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624–7000
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1322 E. SHAW AVE, SUITE 340
FRESNO, CA 93710
559–492–3016

FOUNDATION PLAN

M46 W OAKWOOD DR OVER CAPINERO CREEK

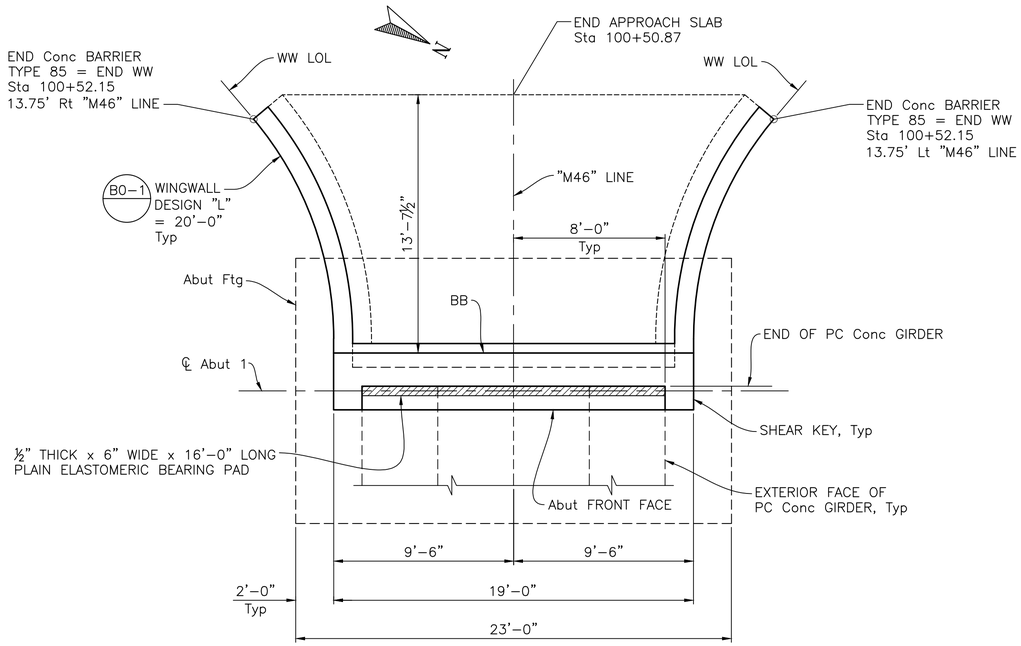
TULARE COUNTY

SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202–1S004FP.DWG
DATE	9/15/23
SHEET No.	S4

11 OF 17

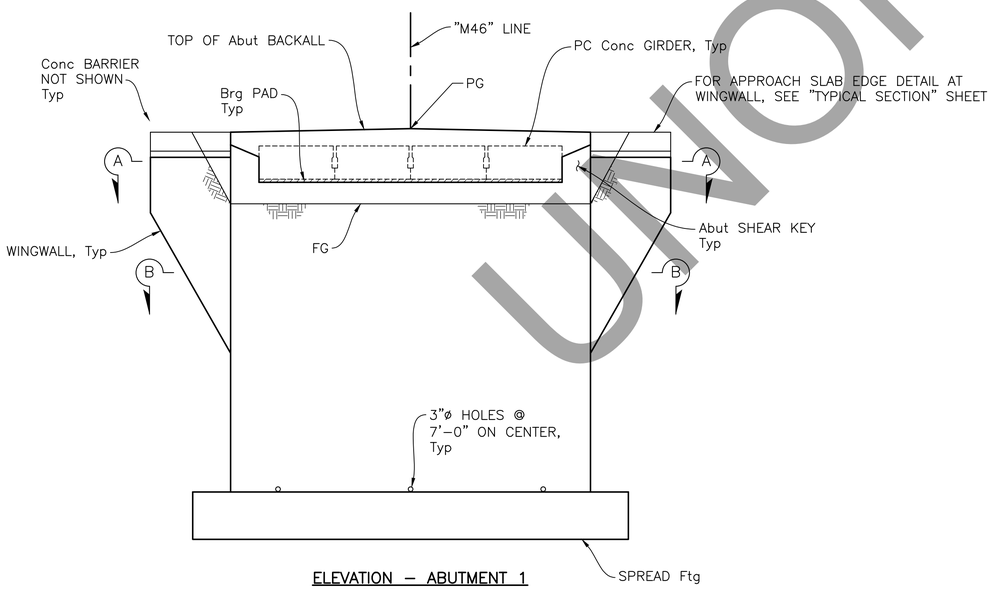
REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

2202-1S004FP.DWG 9/15/2023 11:18 AM



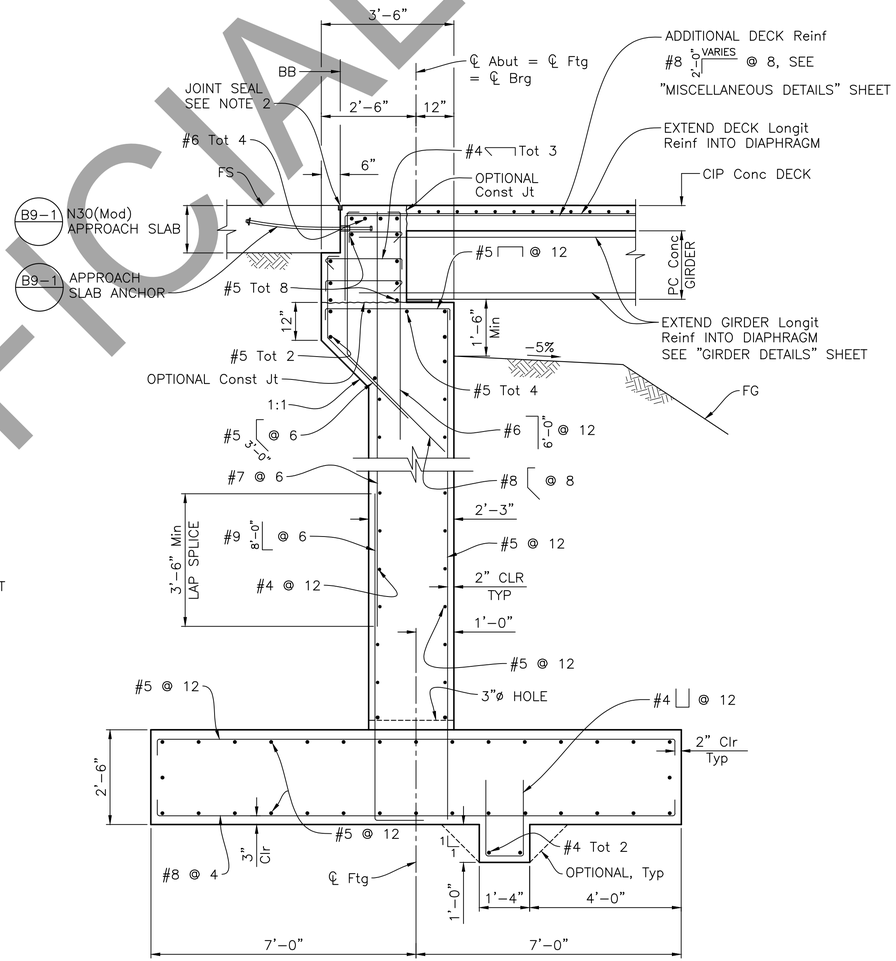
PLAN – ABUTMENT 1

SCALE: ¼" = 1'-0"



ELEVATION – ABUTMENT 1

SCALE: ¼" = 1'-0"



ABUTMENT 1 TYPICAL SECTION

SCALE: 1/2" = 1'-0"

NOTES:

1. FOR "SECTION A–A" & "SECTION B–B", SEE "MISCELLANEOUS DETAILS" SHEET.
2. FOR JOINT SEAL DETAILS, SEE CALTRANS STANDARD PLAN B9–1 MR = ½".

REVISIONS

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TULARE COUNTY
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559-492-3016

ABUTMENT 1 LAYOUT

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

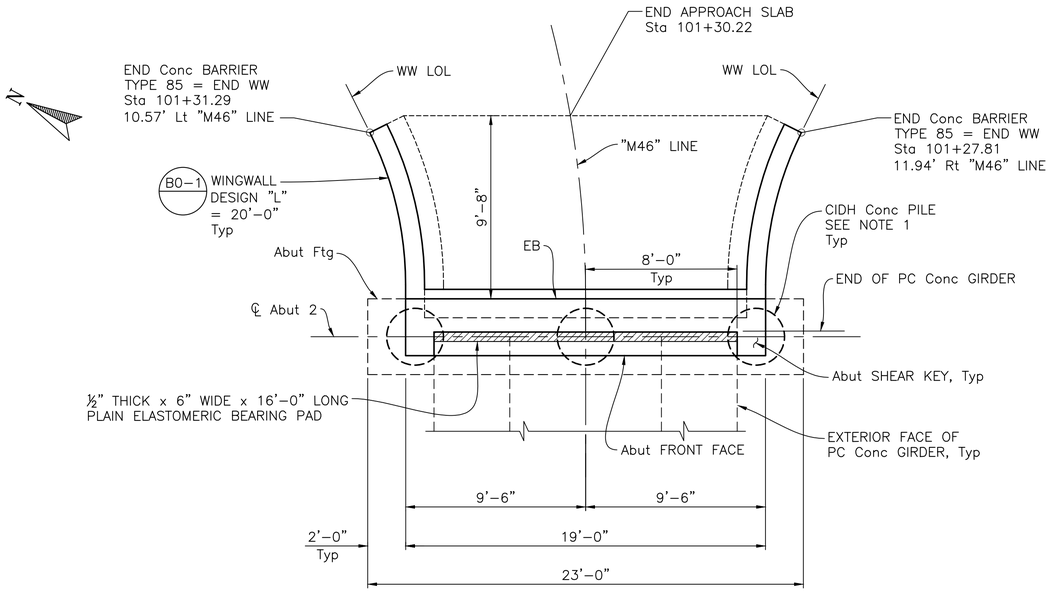
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S005AB1.DWG
DATE	9/15/23

SHEET No. S5

12 OF 17

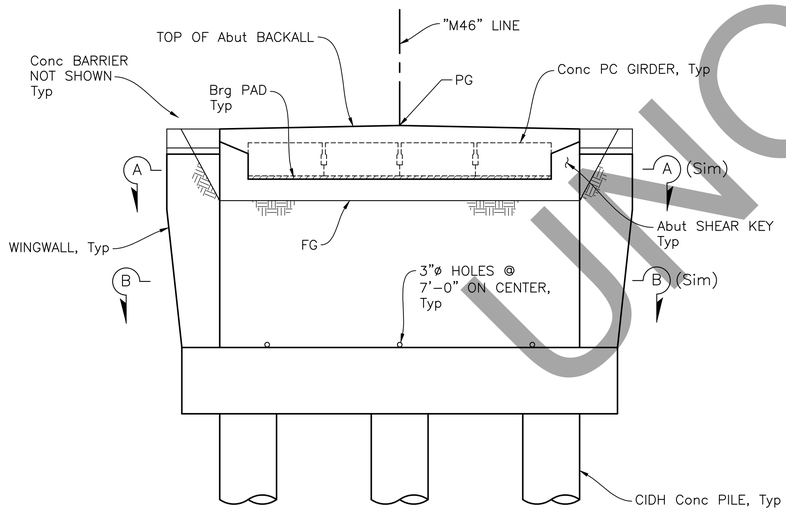
REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

2202-1S005AB1.DWG 9/15/2023 11:19 AM



PLAN – ABUTMENT 2

SCALE: ¼" = 1'-0"

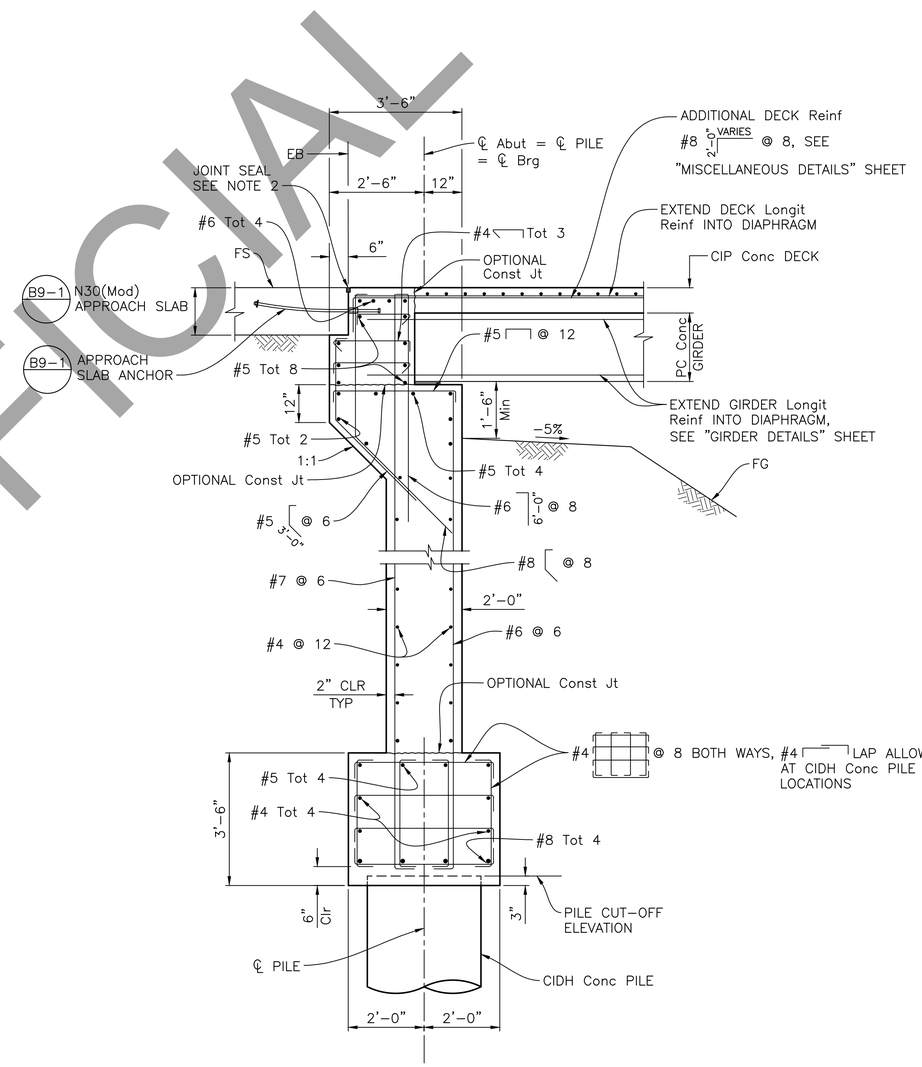


ELEVATION – ABUTMENT 2

SCALE: ¼" = 1'-0"

NOTES:

1. FOR PILE SPACING, SEE "FOUNDATION PLAN" SHEET.
2. FOR "SECTION A–A" & "SECTION B–B", SEE "MISCELLANEOUS DETAILS" SHEET.
3. FOR JOINT SEAL DETAILS, SEE CALTRANS STANDARD PLAN B9-1 MR = ½".



ABUTMENT 2 TYPICAL SECTION

SCALE: 1/2" = 1'-0"

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT
AGENCY
5961 SOUTH MOONEY BLVD.
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ABUTMENT 2 LAYOUT

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

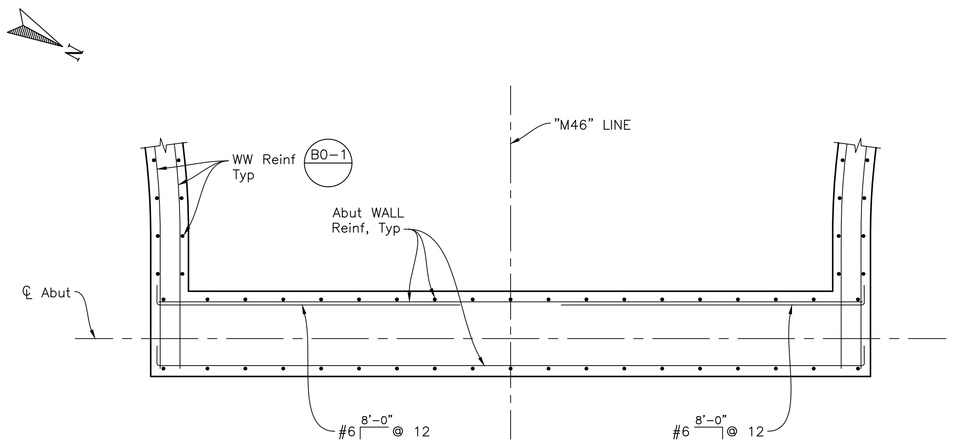
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S006AB2.DWG
DATE	9/15/23

SHEET No. S6

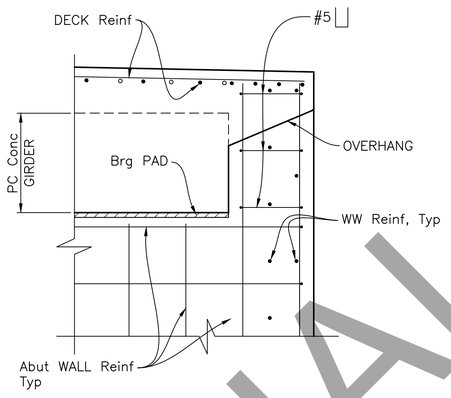
13 OF 17

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

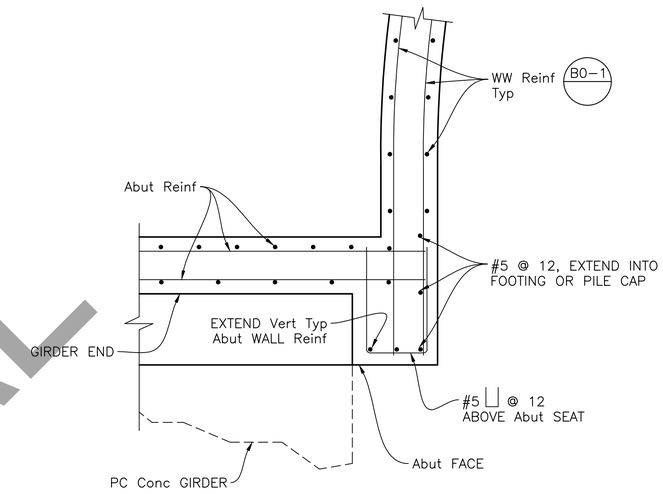
2202-1S006AB2.DWG 9/15/2023 11:20 AM



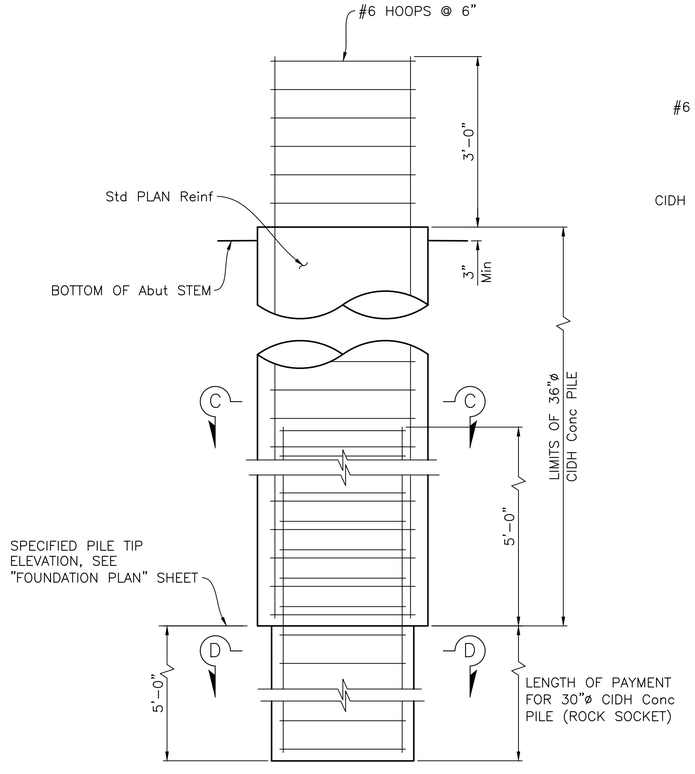
SECTION B–B
SCALE: 1/2" = 1'-0"
(ABUTMENT 1 SHOWN, ABUTMENT 2 SIMILAR)



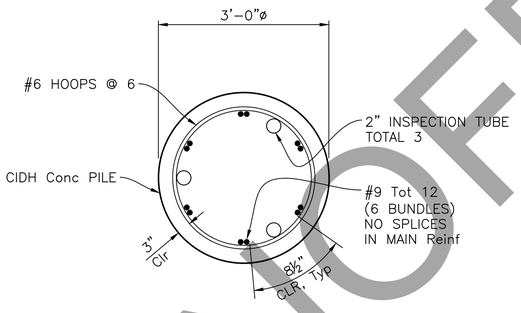
SHEAR KEY DETAIL
SCALE: 3/4" = 1'-0"



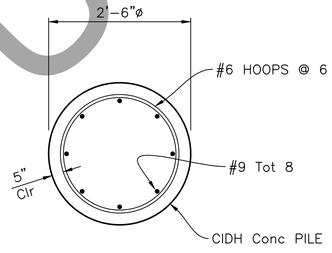
PART SECTION A–A
SCALE: 3/4" = 1'-0"



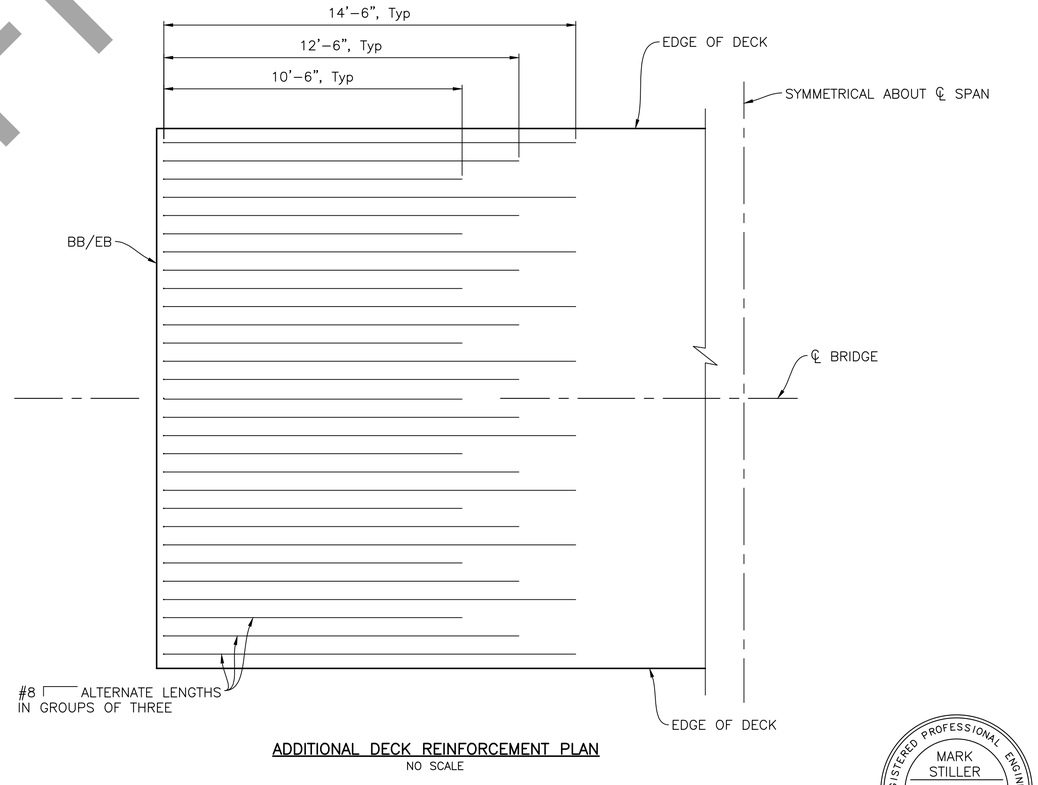
CIDH PILE DETAIL
SCALE: 3/4" = 1'-0"



SECTION C–C
SCALE: 3/4" = 1'-0"



SECTION D–D
SCALE: 3/4" = 1'-0"



ADDITIONAL DECK REINFORCEMENT PLAN
NO SCALE

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
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FRESNO, CA 93710
559-492-3016

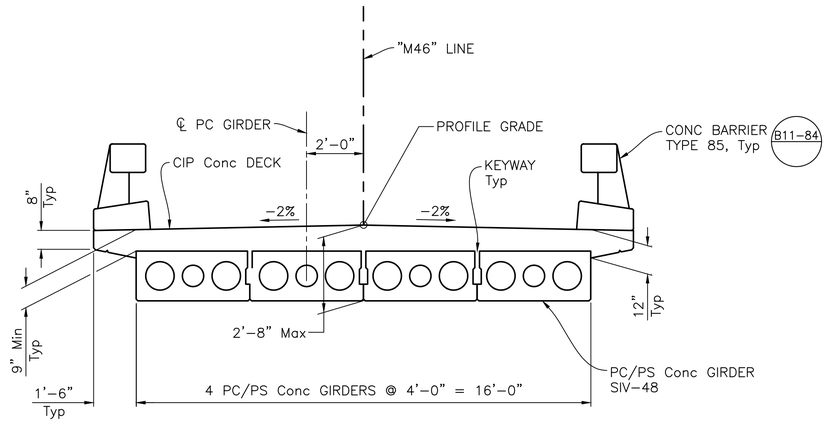
MISCELLANEOUS DETAILS

M46 W OAKWOOD DR OVER CAPINERO CREEK
TULARE COUNTY

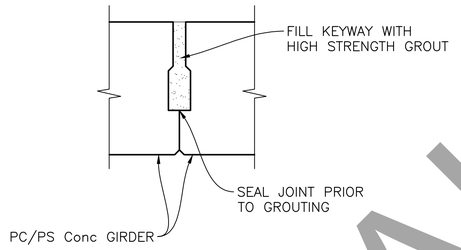
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S007MSC1.DWG
DATE	9/15/23
SHEET No.	S7

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

2202-1S007MSC1.DWG 9/15/2023 11:22 AM



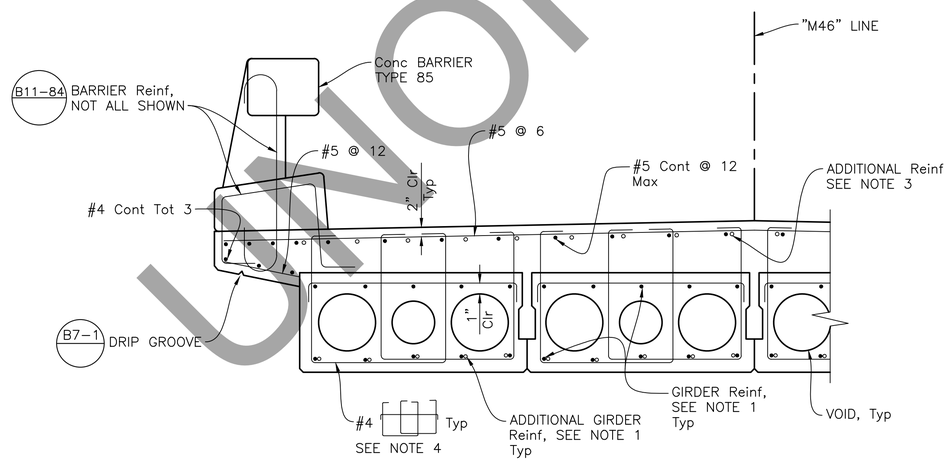
TYPICAL SECTION
SCALE: 3/8" = 1'-0"



KEYWAY DETAIL
SCALE: 1" = 1'-0"

NOTES:

1. FOR PC/PS Conc GIRDER DETAILS, SEE "GIRDER DETAILS" SHEET.
2. DOWEL BAR SPLICER SYSTEM SHOWN SHALL BE FROM CALTRANS PREQUALIFIED LIST.
3. FOR LOCATION OF ADDITIONAL REINFORCEMENT, SEE "MISCELLANEOUS DETAILS" SHEET.
4. FOR SPACING OF PC Conc GIRDER STIRRUPS, SEE "GIRDER DETAILS" SHEET.



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

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

NCM ENGINEERING CORPORATION
1322 E. SHAW AVE, SUITE 340
FRESNO, CA 93710
559-492-3016

TYPICAL SECTION

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

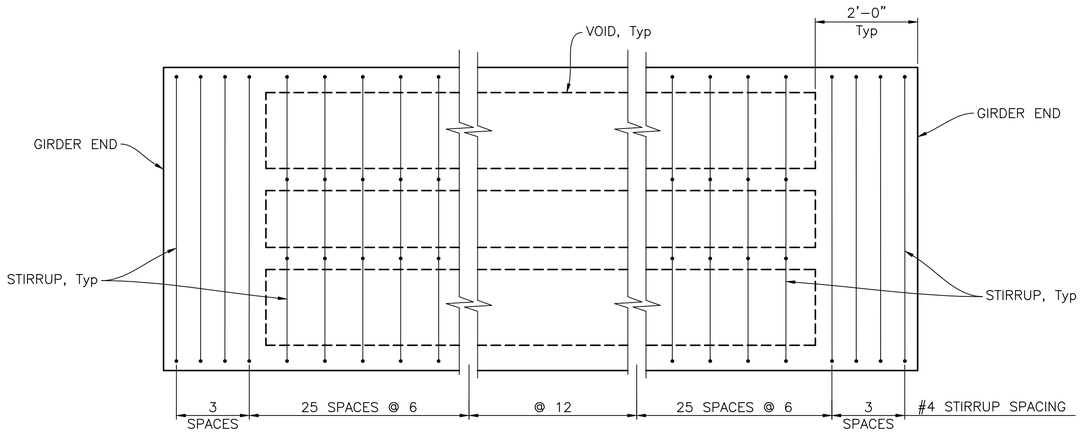
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S008TS.DWG
DATE	9/15/23

SHEET No. S8

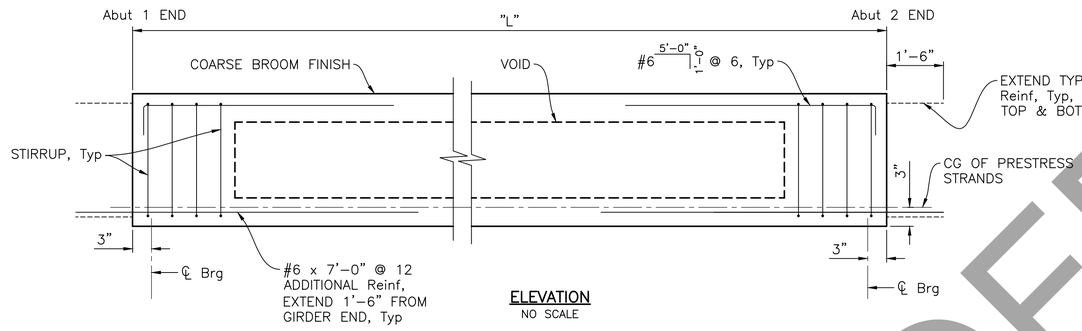
15 OF 17

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

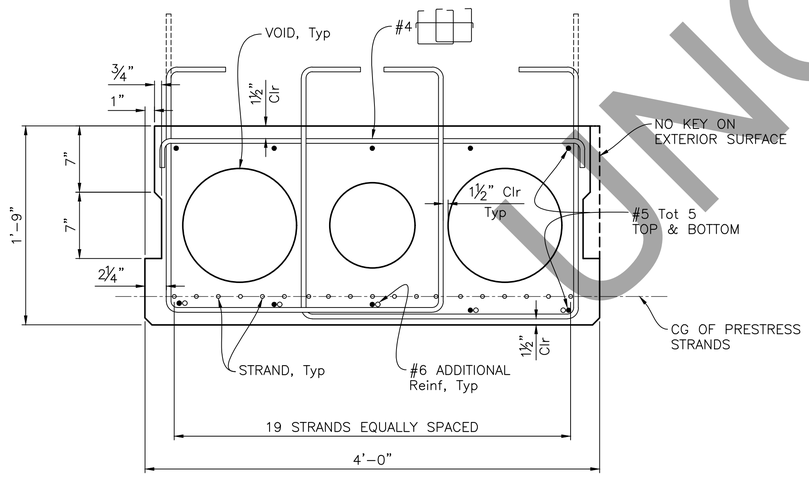
2202-1S008TS.DWG 9/15/2023 11:22 AM



PLAN
NO SCALE

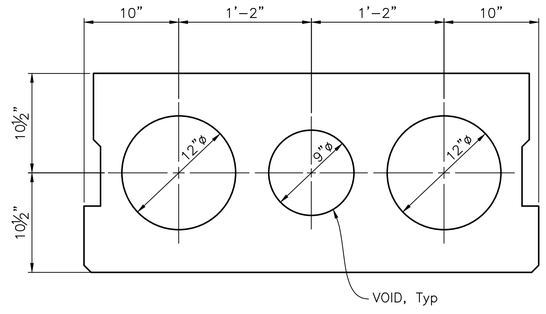


ELEVATION
NO SCALE



SECTION – GIRDER REINFORCEMENT
1 1/2" = 1'-0"

○ INDICATES 0.6" DIAMETER STRANDS



SIV–48 – GIRDER VOID LAYOUT
1 1/2" = 1'-0"
(INTERIOR GIRDER SHOWN, EXTERIOR GIRDER SIMILAR)

GENERAL NOTES:

1. THE JACKING FORCE (P) IS THE JACKING FORCE REQUIRED AT THE POINT OF CONTROL ALONG THE SPAN. THE JACKING FORCE DOES NOT INCLUDE ANY FABRICATION SPECIFIC LOSSES.
2. THE MAXIMUM TENSILE STRESS IN THE PRESTRESSING STEEL UPON RELEASE SHALL NOT EXCEED 75% OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL.
3. THE MAXIMUM TEMPORARY TENSILE STRESS (JACKING STRESS) IN THE PRESTRESSING STEEL SHALL NOT EXCEED 80% OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL.
4. CONCRETE STRENGTH:
   f'ci is at time of initial stressing
   f'c is at 28 days
5. KEYWAYS TO BE FILLED WITH GROUT PRIOR TO DECK POUR.
6. SCREED LINE ELEVATIONS TO BE DETERMINED BY THE ENGINEER.
7. PRESTRESSING STRAND MUST BE 270 ksi LOW RELAXATION STRAND.

GIRDER LOCATION OR DESIGNATION AND LENGTH	JACKING FORCE (P) IN kips	CONCRETE STRENGTH (ksi)		MIDSPAN DEAD LOAD DEFLECTION (INCHES)	
		f'ci	f'c	DECK	RAIL
SIV–48	835	5.0	6.0	0.6	0.1

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

NCM ENGINEERING CORPORATION
1322 E. SHAW AVE, SUITE 340
FRESNO, CA 93710
559-492-3016

GIRDER DETAILS

M46 W OAKWOOD DR
OVER CAPINERO CREEK
TULARE COUNTY

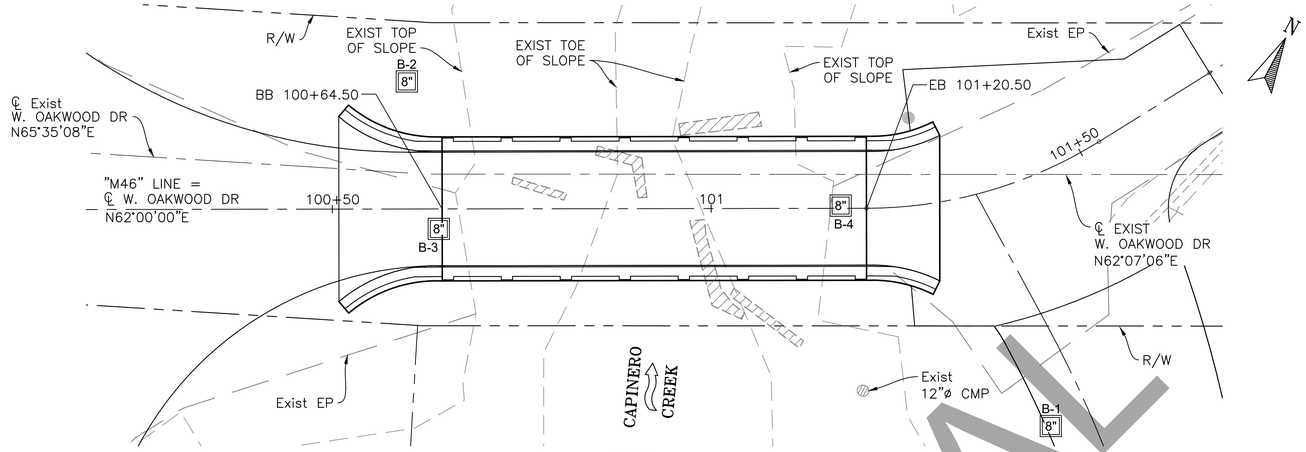
SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AL
DRAWN	RA
CHECKED	LM
FILE	2202-1S009GD.DWG
DATE	9/15/23
SHEET No.	S9

REGISTERED PROFESSIONAL ENGINEER
MARK STILLER
No. 75935
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

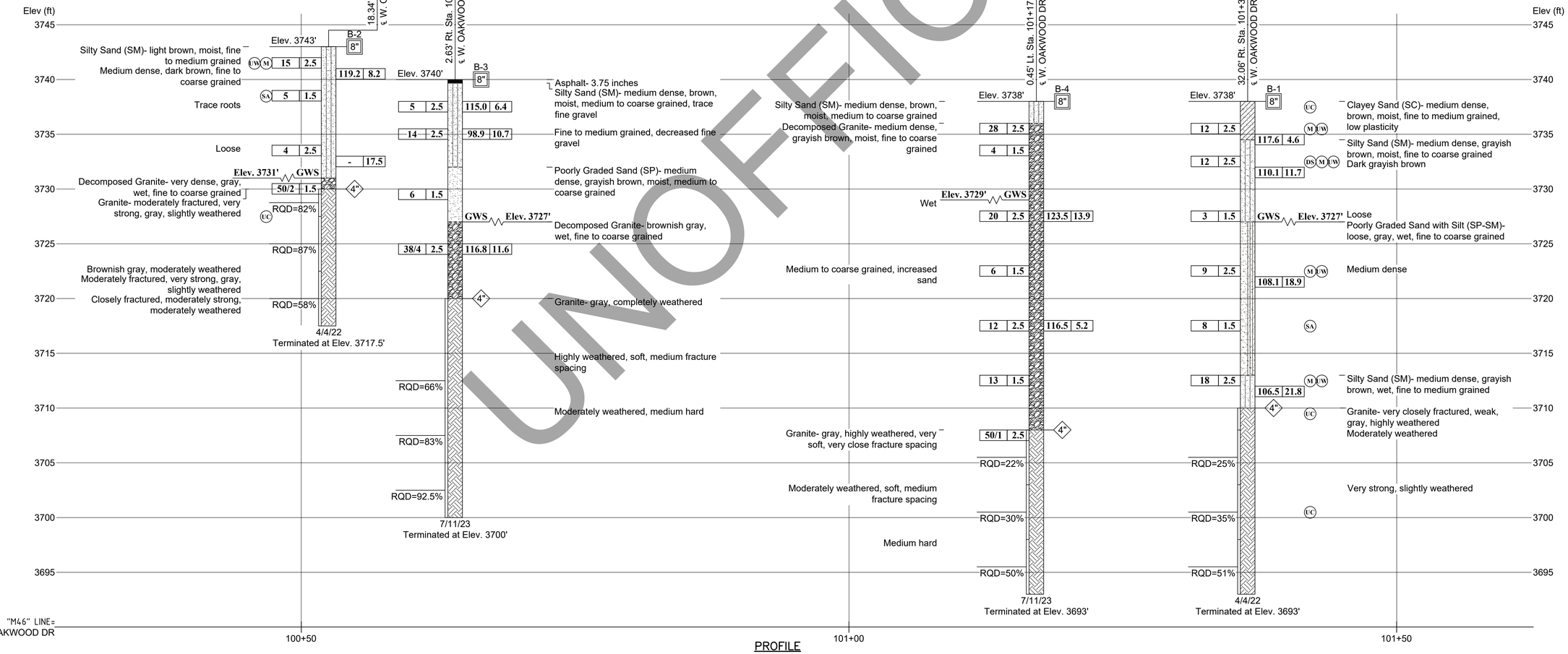
2202-1S009GD.DWG 9/15/2023 11:33 AM

NOTES:

1. Hammer type - CME55 Automatic 140 pound with 30-inch drop for all samples.
2. All dimensions are in feet unless otherwise noted.
3. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Preparation Manual (June 2010).



PLAN
SCALE: 1"=10'



PROFILE
SCALE: 1"=5'

REGISTERED PROFESSIONAL ENGINEER
SALVADOR ALVAREZ
No. 3209
GEOTECHNICAL
STATE OF CALIFORNIA

REVISIONS

No.	DESCRIPTION	DATE	BY

TULARE COUNTY
RESOURCE MANAGEMENT AGENCY
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
(559)624-7000
WWW.TULARECOUNTY.CA.GOV/RMA

COUNTY OF TULARE

TECHNICON ENGINEERING SERVICES, INC.
4539 N. BRAWLEY AVE, SUITE 108
FRESNO, CA 93722
559-276-9311

LOG OF TEST BORINGS

M46 W OAKWOOD DR OVER CAPINERO CREEK

TULARE COUNTY

SCALE	PER PLAN
DIVISION	–
JOB NO.	2202
DESIGNED	AA
DRAWN	MH
CHECKED	SA
FILE	2202-1S010LTB.DWG
DATE	9/15/23

SHEET No.
S10
17 OF 17

2202-1S010LTB.DWG 9/15/2023 11:55 AM