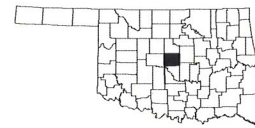


FOR SURVEY CONTROL DATA
SEE SURVEY DATA SHEETS

MANDATORY TIE
THIS PROJECT INCLUDES A MANDATORY TIE
TO JP28854(04) AND SHALL BE BID
ACCORDINGLY.



LOCATION MAP

DESIGN DATA

K = 10%
D = 59%
T(%DHV) = 9%
T(%ADT) = 11%
T₃(%ADT) = 8%

AADT(TWO WAY) 2020- 92,193 I-40
AADT 2050-149,153 I-40
V=50 MPH I-40
3YR FLEX ESAL'S = 9.3 MIL

AADT(TWO WAY) 2020- 11,106 15TH STREET
AADT 2050- 19,771 15TH STREET

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
U.S. INTERSTATE

FEDERAL AID PROJECT NO. NHPPI-0040-5(394)129 SS

BRIDGE AND APPROACHES

U.S. INTERSTATE I-40

OKLAHOMA COUNTY

CONTROL SECTION NO. 40-55-68

STATE JOB NO. 23310(04)

BRIDGE 'A' ~ LOCATION NUMBER 5568 0226 NX
EXISTING NBI NO 15122, NEW NBI NO. 30702

BRIDGE 'B' ~ LOCATION NUMBER 5568 0226 SX
EXISTING NBI NO 15123, NEW NBI NO. 30703

BRIDGE 'C' ~ LOCATION NUMBER 5568 0245 NX
EXISTING NBI NO 15180, NEW NBI NO. 30701

BRIDGE 'D' ~ LOCATION NUMBER 5568 0245 SX
EXISTING NBI NO 15179, NEW NBI NO. 30700

THE FOLLOWING STANDARD DRAWINGS ARE INCLUDED IN THIS PROJECT

ROADWAY	TRAFFIC - SIGNING	TRAFFIC CONTROL	TRAFFIC SIGNAL	TRAFFIC LIGHTING	BRIDGE
SSS-1-1	PM1-1-03	TCS1-1-01	PMAP1-2-01	CCD1-1-00	FSHP-42-2-00E
TSC2-3-2	PM2-1-01	TCS2-1-00	SPBP1-1-01	CCD2-1-00	EJ-SK-04E
ASCD-5-2	PM4-1-02	TCS3-1-01	SA1-1-02	PBD1-1-00	EJ-DTL-02E
CSCD-5-4	PM6-1-00	TCS4-1-01	ID1-1-00	GMF1-2-01	HP1-2-01E
LECS-4-2	DUI-1-00	TCS5-1-00	SNS1-1-02	BMF1-2-00	
LTU-4-0	DU2-1-00	TCS6-1-02	TSSS1-1-00	BMF2-2-00	
WCR-3-2	RSD1-1-00	TCS7-1-02	PWD1-2-00	BMF3-2-00	
TWD-1-1	RSD2-1-00	TCS8-1-00	CFD1-2-01	BMF4-2-00	
PCES-4-1	WSD2-1-00	TCS9-1-01	CC1-1-00	HLBP1-1-01	
CI-1-2	WSD3-1-00	TCS10-1-00	TSSP1-1-00	HLGN1-1-01	
SSIF-4-0	MSD1-1-00	TCS11-1-01	SWD1-1-00	HLPD1-1-00	
CIG-3-0	MSD2-1-00	TCS13-1-00	MAD1-1-01	HLPD2-1-01	
MFC-4-1	MSD3-1-01	TCS14-1-00	RPMAD1-1-01	PPD1-2-00	
MIB-3-2	MSD4-1-00	TCS16-1-00	MPMAD1-1-01	HLD1-2-01	
SPI-4-1	MSD5-1-00	TCS17-1-00	MDL1-1-00	HLD2-2-01	
SPB-1-4	SIS3-1-01	TCS18-1-01	MDL2-1-00	HLMA1-1-01	
FHTCP-3-1	SIS4-1-00	TCS19-1-01		HLMA2-1-01	
PUD-3-3	SBS1-1-00	TCS20-1-00		HLMA3-1-01	
CLB-1-3	SBS2-1-00	TCS21-1-02		UPD1-1-00	
PDT-1-3	SBS3-1-00	TCS24-1-02		SPD1-1-00	
SUEL1-3-2	SBS4-1-00	TCS25-1-00		SCD1-1-00	
SUEL3-3-2	SBS5-1-00			TEWD1-2-00	
	SBS6-1-00				
	GMS1-1-00				
	GMS2-1-00				
	SSA2-1-00				
	FGS1-1-00				
	FGS2-1-01				
	SPA1-1-00				

BEGIN INCIDENTAL CONST.
STA. 92+00.00

BRIDGE 'A' - BEGIN BR. STA. 125+08.05
BR. LENGTH = 216.67'
END BR. STA. 127+24.72

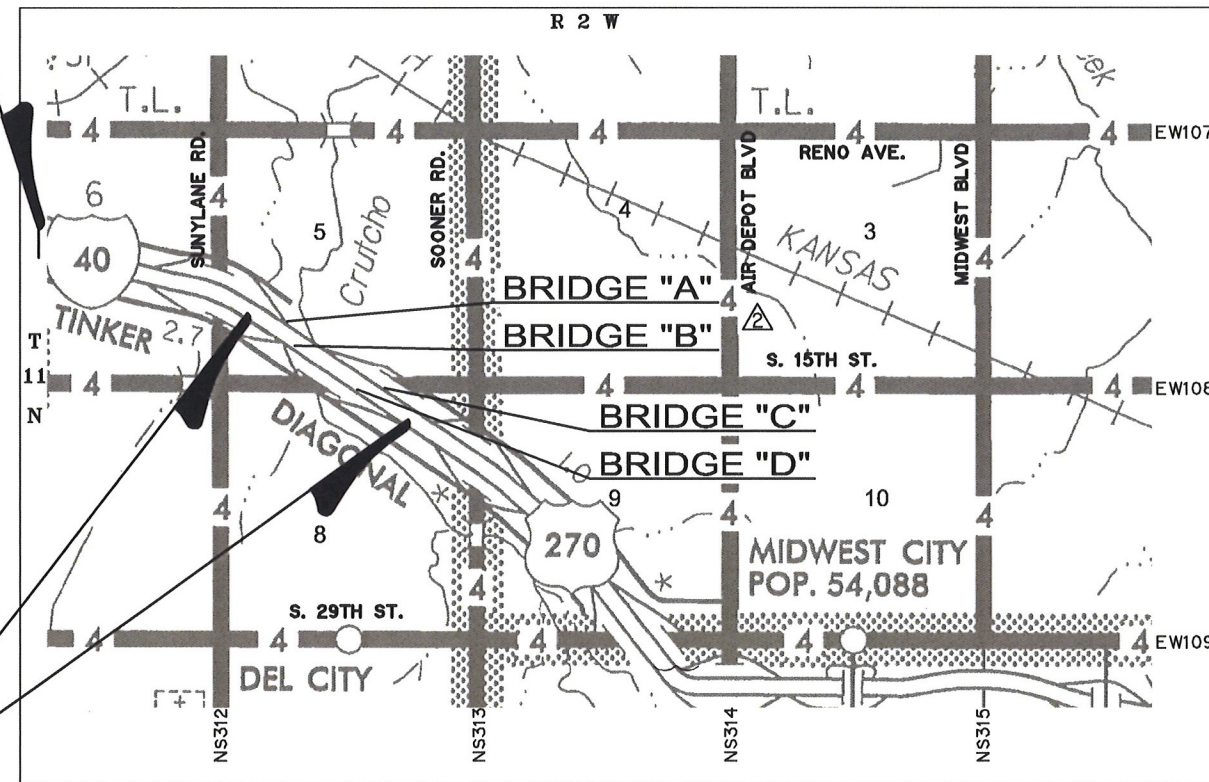
BRIDGE 'B' - BEGIN BR. STA. 125+40.95
BR. LENGTH = 216.67'
END BR. STA. 127+57.62

BRIDGE 'C' - BEGIN BR. STA. 136+07.24
BR. LENGTH = 367.67'
END BR. STA. 139+74.90

BRIDGE 'D' - BEGIN BR. STA. 135+20.72
BR. LENGTH = 367.67'
END BR. STA. 138+88.39

STA. 108+00.00 BEGIN

STA. 149+00.00 END



1000' 0 1000' 2000'

SCALE

PLAN 1"= 30'
PROFILE HOR. 1"= 30'
VER. 1"= 3'
LAYOUT MAP 1"= 4000'

CONVENTIONAL SIGNS

- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP LINES
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- OIL WELLS
- BUILDINGS
- DRAINAGE STRUCTURES-IN-PLACE
- DRAINAGE STRUCTURES-NEW
- RIGHT-OF-WAY LINES-EXISTING
- RIGHT-OF-WAY LINES-NEW
- RIGHT-OF-WAY MARKERS-IN PLACE
- RIGHT-OF-WAY MARKERS-REMOVE & RESET
- RIGHT-OF-WAY MARKERS-NEW
- CONTROLLED ACCESS
- EXISTING SANITARY SEWERS
- EXISTING GAS LINES
- EXISTING WATER LINES
- EXISTING TELEPHONE CABLES UNDERGROUND

ROADWAY LENGTH ----- 3515.660 FT. ----- 0.666 MILES
 BRIDGE LENGTH ----- 584.340 FT. ----- 0.111 MILES
 PROJECT LENGTH ----- 4,100.000 FT. ----- 0.777 MILES
 EQUATIONS _ NONE
 EXCEPTIONS NONE -----

PREPARED AND SUBMITTED BY:

POE & ASSOCIATES INC.
Oklahoma City, Oklahoma
CA NO. 1841

Helene Deles Murdock
DATE 3-9-2020
OKLA. REG. NO. 16848

OKLAHOMA DEPARTMENT OF TRANSPORTATION
DATE APPROVED _____
BY _____ CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED _____
BY _____ DIVISION ADMINISTRATOR

SW04507(1) FEDERAL AID PROJECT NO. SHEET NO. 0001

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
0001	TITLE SHEET
0002	SHEET INDEX (SHEET 1 OF 2)
0003	SHEET INDEX (SHEET 2 OF 2)
0004	INDEX OF SEALS
0005 - 0009	TYPICAL SECTIONS
0010	TYPICAL SECTIONS RAMPS A & B
0011	TYPICAL SECTIONS RAMPS C & D
0012	TYPICAL SECTIONS RAMPS E & F
0013	TYPICAL SECTIONS DETOURS
AB01	SUMMARY OF PAY QUANTITIES (BRIDGE)
AB02	GENERAL NOTES (BRIDGE)
AB03	SUMMARY OF PAY QUANTITIES (BRIDGE)
AB04	GENERAL NOTES (BRIDGE)
AE01	ENVIRONMENTAL NOTES
AR01	SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)
AR02	GENERAL NOTES (ROADWAY)
AR03-AR05	SUMMARY OF QUANTITIES (ROADWAY) (3 SHEET)
AR06-AR13	SUMMARY OF DRAINAGE STRUCTURES SHEETS (8 SHEETS)
AT01	SUMMARY PAY QUANTITIES AND NOTES SIGNING & STRIPING
AT02	SUMMARY OF QUANTITIES SHEET 1 OF 2 (TRAFFIC)
AT03	SUMMARY OF SIGNS SHEET 2 OF 2 (TRAFFIC)
AT04	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC SIGNALS)
AT05	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC LIGHTING)
AT06	SUMMARY OF QUANTITIES SHEET 1 OF 2 (TRAFFIC CONTROL)
AT07	SUMMARY OF QUANTITIES SHEET 2 OF 2 (TRAFFIC CONTROL)
AU01	SUMMARY OF PAY QUANTITIES & NOTES (SANITARY SEWER)
AU02	SUMMARY OF PAY QUANTITIES (WATER)
AU03	GENERAL NOTES (WATER)
B001	GENERAL PLAN & ELEV. - BRIDGE "A"
B002	DESIGN DATA AND SUMMARY OF QUANTITIES - BRIDGE "A"
B003	GENERAL PLAN & ELEV. - BRIDGE "B"
B004	DESIGN DATA AND SUMMARY OF QUANTITIES - BRIDGE "B"
B005 - B008	FOUNDATION REPORT
B009	BRIDGE CONSTRUCTION SEQUENCE
B010	SUBSTRUCTURE LAYOUT PHASE I
B011	SUBSTRUCTURE LAYOUT PHASE II
B012	SUBSTRUCTURE LAYOUT PHASE III
B013	ABUTMENT EXCAVATION UNDERDRAIN DETAILS PHASE I
B014 - B015	ABUTMENT EXCAVATION UNDERDRAIN DETAILS PHASE II
B016	ABUTMENT EXCAVATION UNDERDRAIN DETAILS PHASE III
B017 - B018	ABUTMENT NO. 1 DETAILS PHASE I
B019 - B020	ABUTMENT NO. 2 DETAILS PHASE I
B021 - B023	ABUTMENT NO. 1 DETAILS PHASE II
B024 - B026	ABUTMENT NO. 2 DETAILS PHASE II
B027 - B029	ABUTMENT NO. 1 DETAILS PHASE III
B030 - B032	ABUTMENT NO. 2 DETAILS PHASE III
B033 - B035	PIER NO. 1 DETAILS PHASE I
B036 - B038	PIER NO. 2 DETAILS PHASE I
B039 - B041	PIER NO. 1 DETAILS PHASE II
B042 - B044	PIER NO. 2 DETAILS PHASE II
B045 - B047	PIER NO. 1 DETAILS PHASE III
B048 - B050	PIER NO. 2 DETAILS PHASE III
B051 - B054	SUPERSTRUCTURE DETAILS PHASE I
B055 - B058	SUPERSTRUCTURE DETAILS PHASE II
B059 - B062	SUPERSTRUCTURE DETAILS PHASE III
B063	LONGITUDINAL SECTION
B064	PARAPET DRAIN OPENINGS AND JOINT SPACING
B065 - B066	TYPE III P.C. BEAM DETAILS
B067	P.C. BEAM DIAPHRAGM DETAILS PHASE I
B068	P.C. BEAM DIAPHRAGM DETAILS PHASE II
B069	P.C. BEAM DIAPHRAGM DETAILS PHASE III
B070	BEARING ASSEMBLY DETAILS
B071-B074	APPROACH SLAB DETAILS PHASE I
B075-B077	APPROACH SLAB DETAILS PHASE II
B078-B081	APPROACH SLAB DETAILS PHASE III
B082	GENERAL PLAN & ELEV. - BRIDGE "C"
B083	DESIGN DATA AND SUMMARY OF QUANTITIES - BRIDGE "C"
B084	GENERAL PLAN & ELEV. - BRIDGE "D"
B085	DESIGN DATA AND SUMMARY OF QUANTITIES - BRIDGE "D"
B086 - B089	FOUNDATION REPORT
B090	BRIDGE CONSTRUCTION SEQUENCE
B091	SUBSTRUCTURE LAYOUT PHASE I
B092	SUBSTRUCTURE LAYOUT PHASE II
B093	SUBSTRUCTURE LAYOUT PHASE III
B094	ABUTMENT EXCAVATION AND UNDERDRAIN DETAIL PHASE I
B095-B096	ABUTMENT EXCAVATION AND UNDERDRAIN DETAIL PHASE II

INDEX OF SHEETS CON'T	
B097	ABUTMENT EXCAVATION AND UNDERDRAIN DETAIL PHASE III
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B100 - B101	ABUTMENT NO. 2 DETAILS PHASE I
B102 - B103	ABUTMENT NO. 1 DETAILS PHASE II
B104 - B105	ABUTMENT NO. 2 DETAILS PHASE II
B106 - B107	ABUTMENT NO. 1 DETAILS PHASE III
B108 - B109	ABUTMENT NO. 2 DETAILS PHASE III
B110 - B112	PIER NO. 1 DETAILS PHASE I
B113 - B115	PIER NO. 2 DETAILS PHASE I
B116 - B118	PIER NO. 3 DETAILS PHASE I
B119 - B121	PIER NO. 1 DETAILS PHASE II
B122 - B124	PIER NO. 2 DETAILS PHASE II
B125 - B127	PIER NO. 3 DETAILS PHASE II
B128 - B130	PIER NO. 1 DETAILS PHASE III
B131 - B133	PIER NO. 2 DETAILS PHASE III
B134 - B136	PIER NO. 3 DETAILS PHASE III
B137 - B138	PIER PROTECTION DETAILS
B139 - B141	SUPERSTRUCTURE DETAILS PHASE I
B142 - B144	SUPERSTRUCTURE DETAILS PHASE II
B145 - B147	SUPERSTRUCTURE DETAILS PHASE III
B148	LONGITUDINAL SECTION PHASE I & III
B149	LONGITUDINAL SECTION PHASE II
B150	GIRDER BRACNG DETAILS PHASE I
B151	GIRDER BRACNG DETAILS PHASE II
B152	GIRDER BRACNG DETAILS PHASE III
B153 - B155	PLATE GIRDER DETAILS PHASE I & III
B156 - B158	PLATE GIRDER DETAILS PHASE II
B159	PLATE GIRDER FRAMNG PLAN & DIAPHRAGM DETAILS PHASE I
B160	PLATE GIRDER FRAMNG PLAN & DIAPHRAGM DETAILS PHASE II
B161	PLATE GIRDER FRAMNG PLAN & DIAPHRAGM DETAILS PHASE III
B162	BEARING ASSEMBLY DETAILS PHASE I & III
B163	BEARING ASSEMBLY DETAILS PHASE II
B164 - B167	APPROACH SLAB DETAILS PHASE I
B168 - B170	APPROACH SLAB DETAILS PHASE II
B171 - B174	APPROACH SLAB DETAILS PHASE III
B175 - B179	SLOPEWALL DETAILS
BA001	NORTH ELEVATIONS: BRIDGE 'A'
BA002	SOUTH ELEVATIONS: BRIDGE 'B'
BA003 - BA004	PATTERN ELEVATION & SECTIONS
BA005 - BA007	BRIDGE 'A' NORTH PARAPET WALL ELEVATIONS
BA008	BRIDGE 'A' & 'B' TYPICAL PARAPET WALL DETAILS
BA009	BRIDGE 'A' & 'B' TYPICAL PIER ELEVATIONS
BA010	BRIDGE 'A' & 'B' PIER DETAILS
BA011	BRIDGE 'A' FINISH PLAN NORTH ELEVATIONS
BA012	BRIDGE 'B' FINISH PLAN: SOUTH ELEVATIONS
BA013	BRIDGE 'A' & 'B' TYPICAL SECTIONS: BRIDGE DECK FINISH
BA014 - BA015	BRIDGE 'A' & 'B' TYPICAL PIER ELEVATIONS: PIER FINISH
BA016	BRIDGE 'A' & 'B' ELEVATIONS: WEST ABUTMENT FINISH
BA017 - BA018	NORTH ELEVATIONS: BRIDGE 'C'
BA019 - BA020	SOUTH ELEVATIONS: BRIDGE 'D'
BA021 - BA022	PATTERN ELEVATIONS & SECTIONS
BA023	BRIDGE 'D' SOUTH PARPET WALL ELEVATIONS
BA025 - BA026	BRIDGE 'D' SOUTH PARPET WALL ELEVATIONS
BA027	BRIDGE 'C' NORTH PARPET WALL ELEVATIONS: EAST APPROACH
BA028	BRIDGE 'C' NORTH PARPET WALL ELEVATIONS: WEST APPROACH
BA029	BRIDGE 'C' & 'D' TYPICAL PARAPET WALL DETAILS
BA030	BRIDGE 'C' WINGWALL KEY ELEVATIONS
BA031	BRIDGE 'C' WINGWALL ELEVATIONS
BA032	BRIDGE 'D' WINGWALL KEY ELEVATIONS
BA033	BRIDGE 'D' WINGWALL ELEVATIONS
BA034	BRIDGE 'C' & 'D' TYPICAL PIER ELEVATIONS
BA035	BRIDGE 'C' & 'D' PIER DETAILS
BA036 - BA037	BRIDGE 'C' FINISH PLAN: NORTH ELEVATIONS
BA038 - BA039	BRIDGE 'D' FINISH PLAN: SOUTH ELEVATIONS
BA040	BRIDGE 'C' & 'D' TYPICAL SECTIONS: BRIDGE DECK FINISH
BA041	BRIDGE 'C' & 'D' TYPICAL SECTIONS: ELEVATIONS: PIER FINISH
BA042	BRIDGE 'C' & 'D' ELEVATIONS: EAST ABUTMENT FINISH
BA043	BRIDGE 'C' & 'D' ELEVATIONS: WEST ABUTMENT FINISH
BA044	C.I.P. PATTERN KEY ELEVATIONS
BA045	MSE PANEL KEY ELEVATIONS
BA046	TYPICAL RETAINING WALL PATTERN SECTIONS
BA046	KEY ELEVATIONS: C.I.P. RETAINING WALL A
BA047	ELEVATIONS: C.I.P. RETAINING WALL B
BA048	KEY ELEVATIONS: C.I.P. RETAINING WALL B
BA049	KEY ELEVATIONS: C.I.P. RETAINING WALL A
BA050 - BA053	ELEVATIONS: C.I.P. RETAINING WALL A
BA054	FINISHED PLANS: C.I.P. RETAINING WALL A

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BA055 - BA057	KEY ELEVATIONS: C.I.P. RETAINING WALL B
BA058 - BA062	ELEVATIONS: C.I.P. RETAINING WALL B
BA063	FINISHED PLANS: C.I.P. RETAINING WALL B
BA064 - BA066	KEY ELEVATIONS: MSE & C.I.P. RETAINING WALL C & C1
BA067 - BA068	ELEVATIONS: M.S.E. & C.I.P. RETAINING WALL C & C1
BA070	ELEVATIONS: MSE & C.I.P. RETAINING WALL
BA071	FINISHD PLANS: M.S.E. & C.I.P. RETAINING WALL C & C1
BA072 - BA073	KEY ELEVATIONS: M.S.E. RETAINING WALL D
BA074 - BA076	ELEVATIONS: M.S.E. RETAINING WALL D
BA077	FINISHED PLANS: M.S.E. RETAINING WALL D
BA078	KEY ELEVATIONS: M.S.E. RETAINING WALL E
BA079	ELEVATIONS: M.S.E. RETAINING WALL F
BA080	ELEVATIONS: M.S.E. RETAINING WALL E
BA081	FINISHD PLANS: M.S.E. & RETAINING WALL E
BA082	KEY ELEVATIONS: M.S.E. RETAINING WALL F & F1
BA083	KEY ELEVATIONS: M.S.E. & C.I.P. RETAINING WALL F & F1
BA084	ELEVATIONS: M.S.E. & C.I.P. RETAINING WALL F & F1
BA085	ELEVATIONS: M.S.E. & C.I.P. RETAINING WALL F & F1
BA086	ELEVATIONS: M.S.E. & C.I.P. RETAINING WALL F & F1
BA087	FINISH PLANS: M.S.E. & C.I.P. RETAINING WALL F & F1
BA088	KEY ELEVATIONS: M.S.E. RETAINING WALL G
BA089	ELEVATIONS: M.S.E. RETAINING WALL G
BA090	ELEVATIONS: M.S.E. RETAINING WALL G
BA091	FINISHED PLANS: M.S.E. RETAINING WALL G
BA092 - BA093	KEY ELEVATIONS: M.S.E. RETAINING WALL H
BA094 - BA096	ELEVATIONS: M.S.E. RETAINING WALL H
BA097	FINISHED PLANS: M.S.E. RETAINING WALL H
E001	SECTION 404 PERMIT COMPLIANCE
R001	STORMWATER MANAGEMENT PLAN
R002 - R009	DRAINAGE STRUCTURE DESIGN RECORD
R010 - R016	DRAINAGE AREA MAPS SHEETS
R017 - R018	GEOMETRIC DATA SHEETS
R019 - R022	GEOMETRIC LAYOUT SHEETS
R0223 - R027	RIGHT-OF-WAY SHEETS
R028 - R034	REMOVAL SHEETS
R035 - R041	EROSION CONTROL SHEETS
R042	TEMPORARY INLET SEDIMENT FILTER
R043 - R048	PLAN SHEETS - MAINLINE I-40
R049 - R050	PLAN SHEETS - S.E. 15TH STREETS
R051 - R062	PROFILE SHEETS - MAINLINE I-40
R063 - R064	PROFILE SHEETS - LT. ACCESS ROAD
R065	PROFILE SHEETS - SERVICE ROAD
R066 - R072	PROFILE RAMPS
R073 - R074	PROFILE SHEETS - S.E. 15TH STREET
R075 - R078	TERMINAL DETAIL RAMPS
R079 - R080	SPOT ELEVATION INTERSECTION DETAIL SHEETS
R081 - R087	JOINT LAYOUT SHEETS
R088	PARKING & EROSION CONTROL DETAIL SHEETS
R089	MISCELLANOUS DETAIL SHEET
RW01	M.S.E. RETAINING WALL NOTES
RW02	M.S.E. & C.I.P. RETAINING WALL SUMMARY OF QUANTITIES
RW03	RETAINING WALL LOCATION MAP
RW04	C.I.P. RETAINING WALL 'A' ~ PLAN & ELEVATION
RW05 - RW07	FOUNDATION REPORT-WALL 'A'
RW08	C.I.P. RETAINING WALL 'B' ~ PLAN & ELEVATION
RW09 - RW11	FOUNDATION REPORT-WALL 'B'
RW12	C.I.P. RETAINING WALL 'C'/M.S.E. RETAINING WALL 'C-1' ~ PLAN & ELEVATION
RW13 - RW15	FOUNDATION REPORT-WALL 'C'
RW16	M.S.E. RETAINING WALL 'D' ~ PLAN & ELEVATION
RW17	C.I.P. RETAINING WALL 'D-1' ~ PLAN & ELEVATION
RW18	M.S.E. RETAINING WALL 'E' ~ PLAN & ELEVATION
RW19	C.I.P. RETAINING WALL 'E-1' ~ PLAN & ELEVATION
RW20	C.I.P. RETAINING WALL 'F'/M.S.E. RETAINING WALL 'F-1' ~ PLAN & ELEVATION
RW21 - RW22	FOUNDATION REPORT-WALL 'F'
RW23	M.S.E. RETAINING WALL 'G' ~ PLAN & ELEVATION
RW24	C.I.P. RETAINING WALL 'G-1' ~ PLAN & ELEVATION
RW25	FOUNDATION REPORT-WALL 'G'
RW26	M.S.E. RETAINING WALL 'H' ~ PLAN & ELEVATION
RW27	C.I.P. RETAINING WALL 'H-1' ~ PLAN & ELEVATION
RW28	FOUNDATION REPORT-WALL 'H'
RW29	C.I.P. RETAINING WALLS 'D-1','E-1','G-1' & 'H-1' ~ DESIGN DATA & MISC. DETAILS
RW30 - RW31	C.I.P. RETAINING WALL SUBSTRUCTURE LAYOUT ~ WALLS 'D-1','E-1','G-1' & 'H-1'
RW32	C.I.P. RETAINING WALL EXCAVATION AND UNDERDRAIN
RW33	C.I.P. RETAINING WALL DETAILS ~ WALLS 'A','B','C' & 'F' - DESIGN DATA & MISC. DETAILS
RW34 - RW35	C.I.P. RETAINING WALL DETAILS ~ WALL 'A'

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

INDEX OF SHEETS SHEET 1 OF 2

STATE JOB NO. 23310(04) SHEET NO. 0002

12/16/2019 3:31:10 PM H:\PROJECTS\2990_1-40_Courtoe_CreekRoadway_Drawings\2331004-SHEET_INDEX.dwg

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

INDEX OF SHEETS CONT

SHEET NO.	DESCRIPTION
RW36 - RW37	C.I.P. RETAINING WALL DETAILS ~ WALL 'B'
RW38 - RW39	C.I.P. RETAINING WALL DETAILS ~ WALL 'C'
RW40 - RW41	C.I.P. RETAINING WALL DETAILS ~ WALL 'F'
RW42 - RW47	C.I.P. RETAINING WALL DETAILS ~ WALL 'D-1'
RW48 - RW52	C.I.P. RETAINING WALL DETAILS ~ WALL 'E-1'
RW53 - RW57	C.I.P. RETAINING WALL DETAILS ~ WALL 'G-1'
RW58 - RW63	C.I.P. RETAINING WALL DETAILS ~ WALL 'H-1'
RW64	RETAINING WALL F-SHAPED PARAPET AND MOMENT SLAB DETAILS
RW65	DETAILS M.S.E. RETAINING WALL
RW66	DETAILS STEEL HANDRAIL DETAILS ~ WALLS 'D-1','E-1','G-1' & 'H-1'
S001-S020	SURVEY DATA SHEET SHEET (20 SHEETS)
T001-T060	SUGGESTED CONST. SEQUENCE & TRAFFIC CONTROL
T061-T075	SUGGESTED CONST. SEQUENCE & TRAFFIC CONTROL - SE 15TH STREET
T076-T078	SUGGESTED CONST. SEQUENCE DETOUR ROUTES
T079	ADVANCE WARNING
T080	I-40 E.B. EXIT OUTSIDE LANE CLOSURE
T081	I-40 W.B. EXIT OUTSIDE LANE CLOSURE
T082-T090	SPECIAL SIGNS DETAILS SHEETS
T092	ROUTE ASSEMBLIES DETAIL SHEET
T093-T094	OVERHEAD SIGN PLACEMENT DETAIL SHEETS
T095-T101	SIGNING & STRIPING SHEETS
T102-T104	SPECIAL MEDIAN BARRIER LIGHT POLE FOOTING AND SUPPORT DETAIL (3 SHEETS)
T105	LIGHTING PLAN SPECIAL MEDIAN BARRIER PULL BOX DETAILS
T106-T107	SIGNAL PLANS
T108-T109	SIGNAL DETAIL PLANS
T110-T111	SIGNAL WIRING DIAGRAMS
T112	LIGHTING SCHEDULES
T113-T118	LIGHTING PLANS (6 SHEETS)
T119	UNDERPASS LIGHTING PLAN
T120	UNDERPASS LUMINAIRE DETAIL
T-121-T122	TRAFFIC CONTROL TEMP SPECIAL SIGNS (2 SHEETS)
M1-M7	MONOTUBE STRUCTURE DETAILS (7 SHEETS)
U001	203064 SANITARY SEWER COVER SHEET
U002	203064 SANITARY SEWER LOCATION SHEET
U003	203064 SANITARY SEWER GENERAL NOTES
U004	203064 SANITARY SEWER PLAN & PROFILE SHEET 1
U005	203064 SANITARY SEWER PLAN & PROFILE SHEET 2
U006	203064 SANITARY SEWER DETAIL SHEET 1
U007	203064 SANITARY SEWER DETAIL SHEET 2
U008	203064 SANITARY SEWER DETAIL SHEET 3
U009	203064 SANITARY SEWER DETAIL SHEET 4
U010	203064 SANITARY SEWER DETAIL SHEET 5
U011	2331004 WATER TITLE SHEET
U012	2331004 SUMMARY OF PAY ITEMS
U013	2331004 WATER GENERAL NOTES
U014	2331004 WATER OVERALL
U015	2331004 WATER OVERALL
U016	2331004 WATER CONTROL SHEET
U017	2331004 WATER LINE 'A' PLAN & PROFILE
U018	2331004 WATER LINE 'A' PLAN & PROFILE (CONT.)
U019	2331004 WATER LINE 'B' PLAN & PROFILE
U020	2331004 WATER LINE 'B' PLAN & PROFILE (CONT.)
U021	2331004 WATER LINE 'C' PLAN & PROFILE
U022	2331004 WATER LINE 'C' (CONT.) AND LINE 'B2' PLAN & PROFILE
U023	2331004 WATER LINE 'C' PLAN & PROFILE (CONT.)
U024	2331004 WATER LINE 'D' PLAN & PROFILE
U025	2331004 WATER STANDARD DETAIL STD W-101 & STD W-102
X000	CROSS SECTION LAYOUT LENGEND
X001 - X074	CROSS SECTIONS- MAINLINE I-40
X075 - X130	CROSS SECTIONS- S.E. 15TH STREET
X131 - X148	CROSS SECTIONS- RAMP "A"
X149 - X180	CROSS SECTIONS- LT. ACCESS RD.
X181 - X197	CROSS SECTIONS- RAMP "B"
X198 - X223	CROSS SECTIONS- RAMP "C"
X224 - X253	CROSS SECTIONS- RAMP "D"
X254 - X262	CROSS SECTIONS- RAMP "E"
X263 - X283	CROSS SECTIONS- RAMP "F"
X284 - X308	CROSS SECTIONS- RT. SERVICE RD.

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APPROVED	
SQUAD	POE

INDEX OF SHEETS
SHEET 2 OF 2

STATE JOB NO. 23310(04) SHEET NO. 0003

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION					DATE
					13-Nov-19



POE & ASSOCIATE, INC. - CONSULTING ENGINEERS
OKLAHOMA CITY - TULSA
1601 NORTHWEST EXPRESSWAY
SUITE 400
OKLAHOMA CITY, OK 73118
PHONE: (405) 949-1982

Richard M. Grotte

RICHARD GROTTÉ

11/22/19
DATE

THIS SEAL COVER SHEETS:
AU01, U001-U010



POE & ASSOCIATE, INC. - CONSULTING ENGINEERS
OKLAHOMA CITY - TULSA
1601 NORTHWEST EXPRESSWAY
SUITE 400
OKLAHOMA CITY, OK 73118
PHONE: (405) 949-1982

Michael S. Lettner

MICHAEL LETTNER, P.E. #

11/22/19
DATE

THIS SEAL COVER SHEETS:
AB01-AB04, B001-B179, RW01-RW67



TRAFFIC ENGINEERING CONSULTANTS
OKLAHOMA CITY
6000 S WESTERN AVE
OKLAHOMA CITY, OK 73139
PHONE: (405) 720-7721

R. Wayne Russell

R. WAYNE RUSSELL, P.E. #16030
C.A. #1160, RENEWAL 06-30-21

THIS SEAL COVER SHEETS:
AT01, AT03, T091-T105

11/22/19
DATE



POE & ASSOCIATE, INC. - CONSULTING ENGINEERS
OKLAHOMA CITY - TULSA
1601 NORTHWEST EXPRESSWAY
SUITE 400
OKLAHOMA CITY, OK 73118
PHONE: (405) 949-1982

Helene Deles Murdock

HELENE D. MURDOCK, P.E. #16848

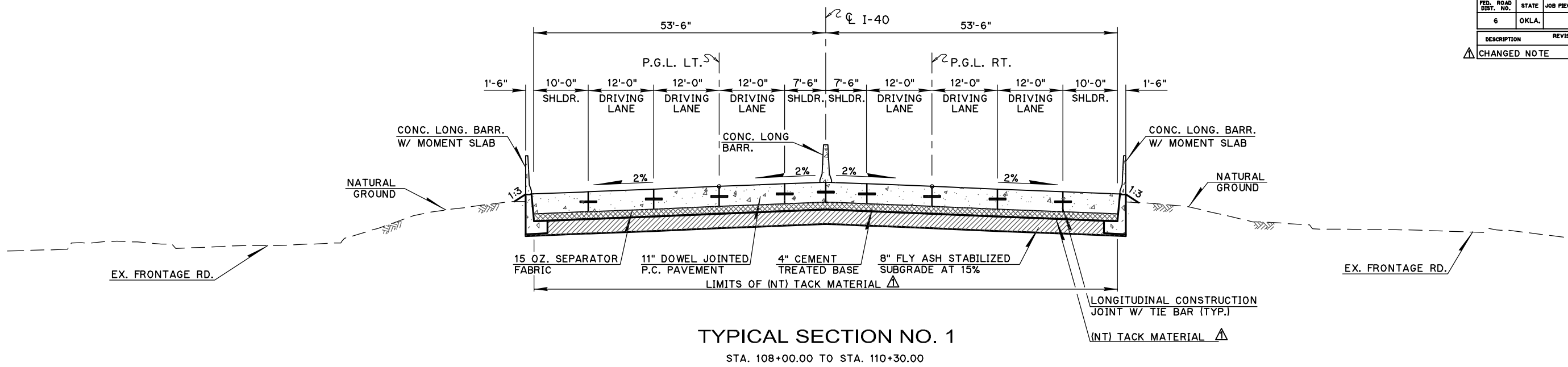
11/22/2019
DATE

THIS SEAL COVER SHEETS:
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E001-E002, R001-R-094
S001-S020
T001-T090, T106-T109
X001-X308

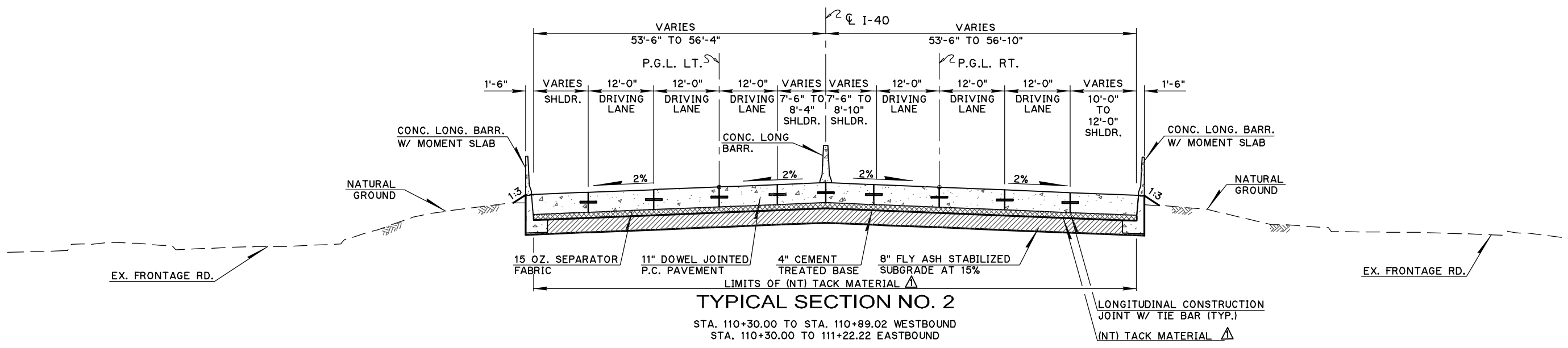
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INDEX OF SEALS

STATE JOB NO. 23310(04) SHEET NO. 0004



TYPICAL SECTION NO. 1
STA. 108+00.00 TO STA. 110+30.00

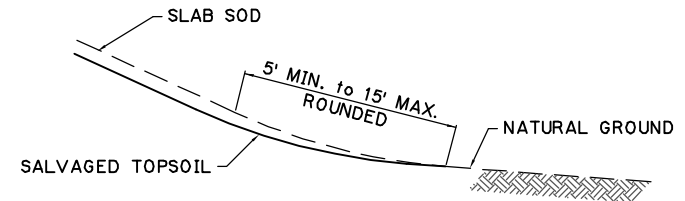


TYPICAL SECTION NO. 2
STA. 110+30.00 TO STA. 110+89.02 WESTBOUND
STA. 110+30.00 TO STA. 111+22.22 EASTBOUND

① **TOPSOIL NOTE:**
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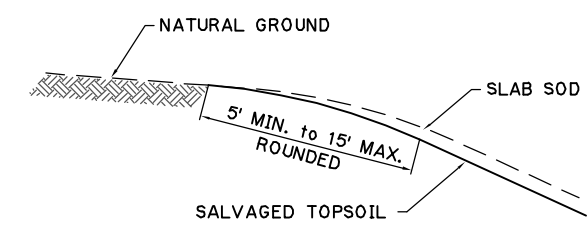
THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.

② **BACKFILL NOTE:**
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TOE OF FILL ROUNDING

INTERSECTION OF CUT AND FILL SLOPES WITH THE GROUND LINE ARE TO BE ROUNDED AS A PART OF FINISHING OPERATIONS. ROUNDED SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS, TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDED TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.



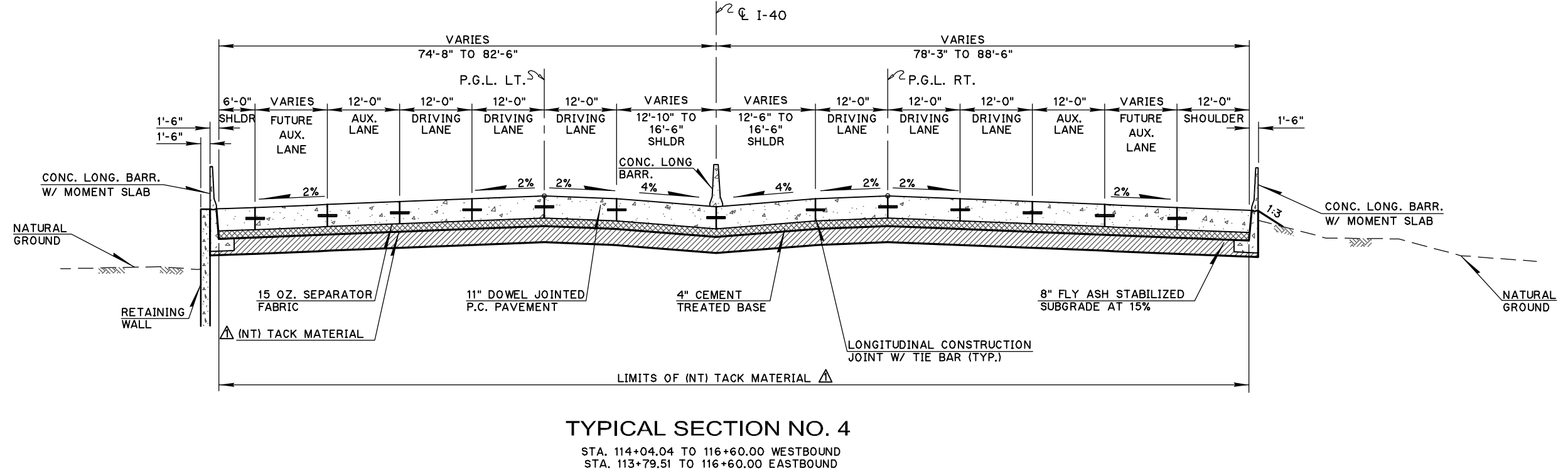
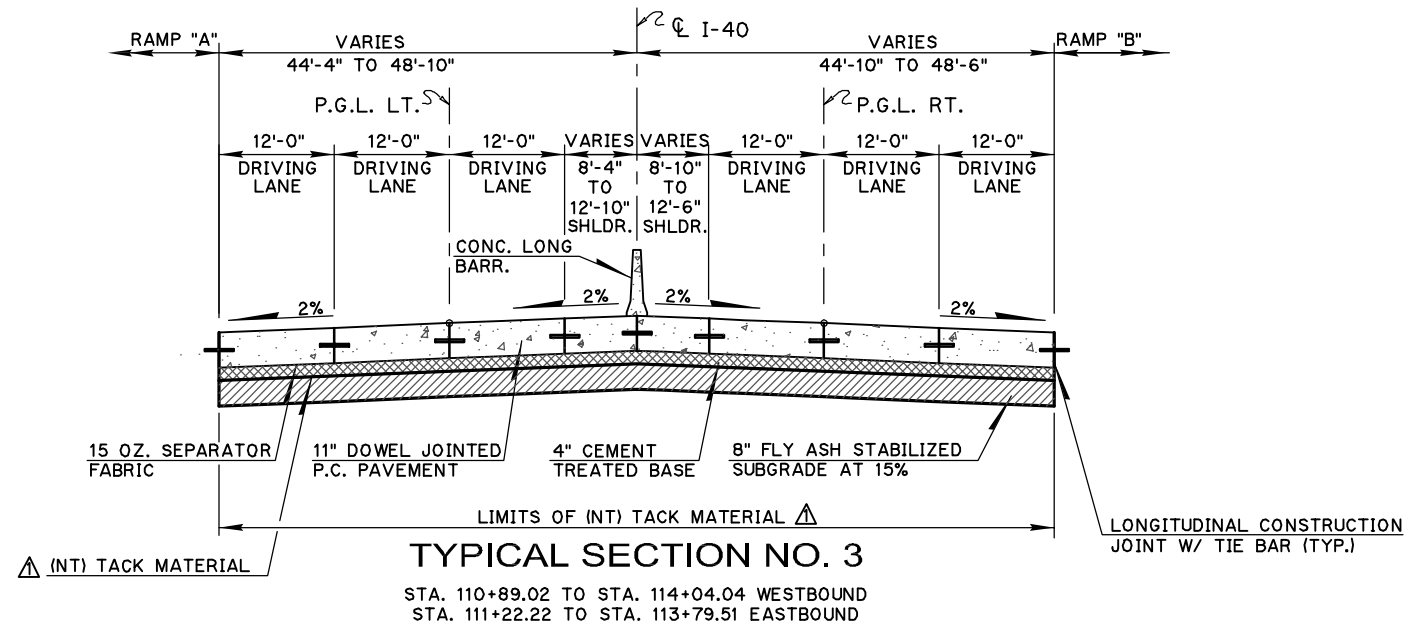
TOP OF CUT ROUNDING

ROUNDING DETAIL

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DRAWN	MAP	09/11
CHECKED	HDM	09/11
APPROVED	HDM	09/11
SQUAD	POE	

TYPICAL SECTIONS

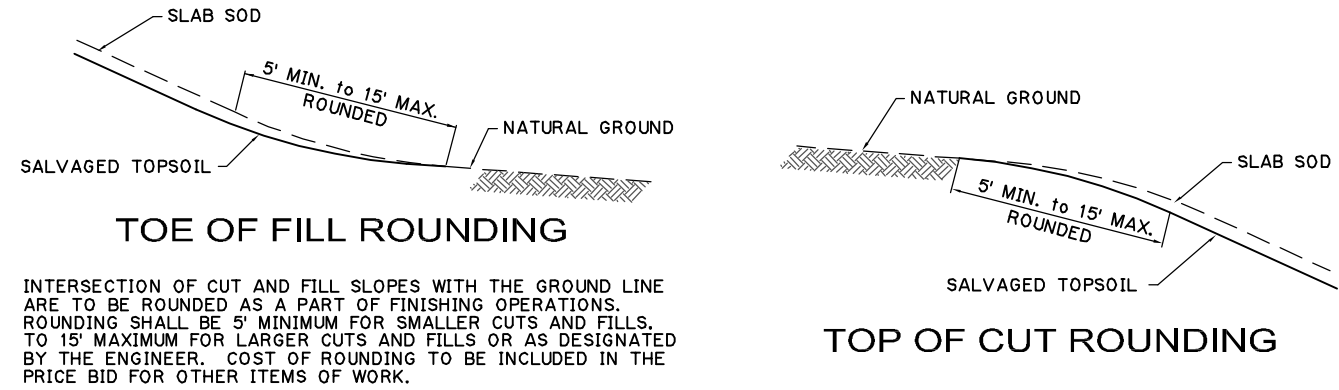
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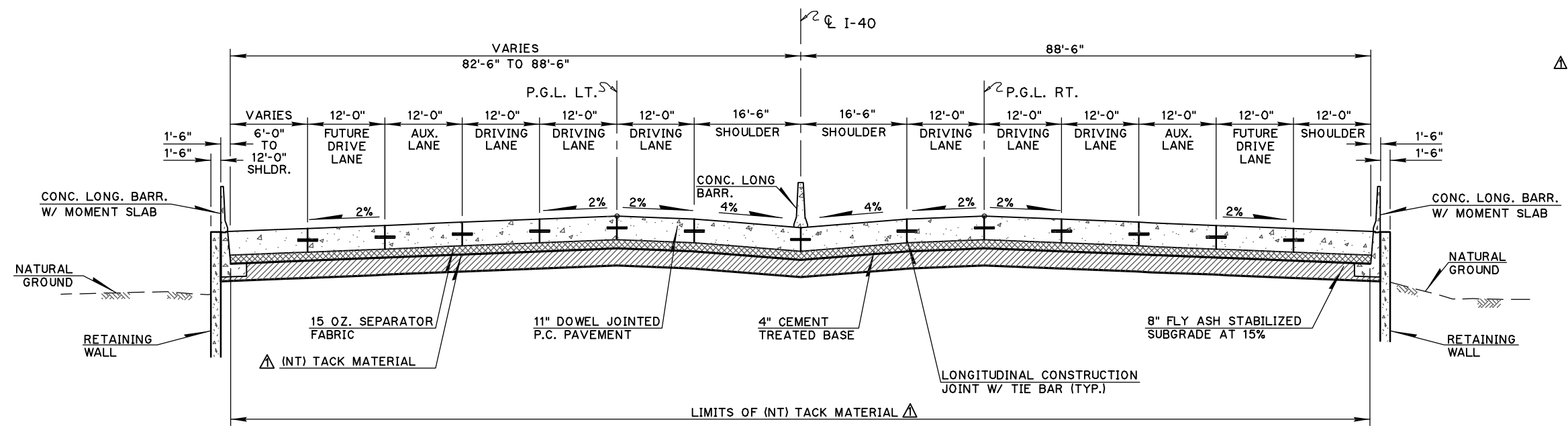
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ROUNDING DETAIL

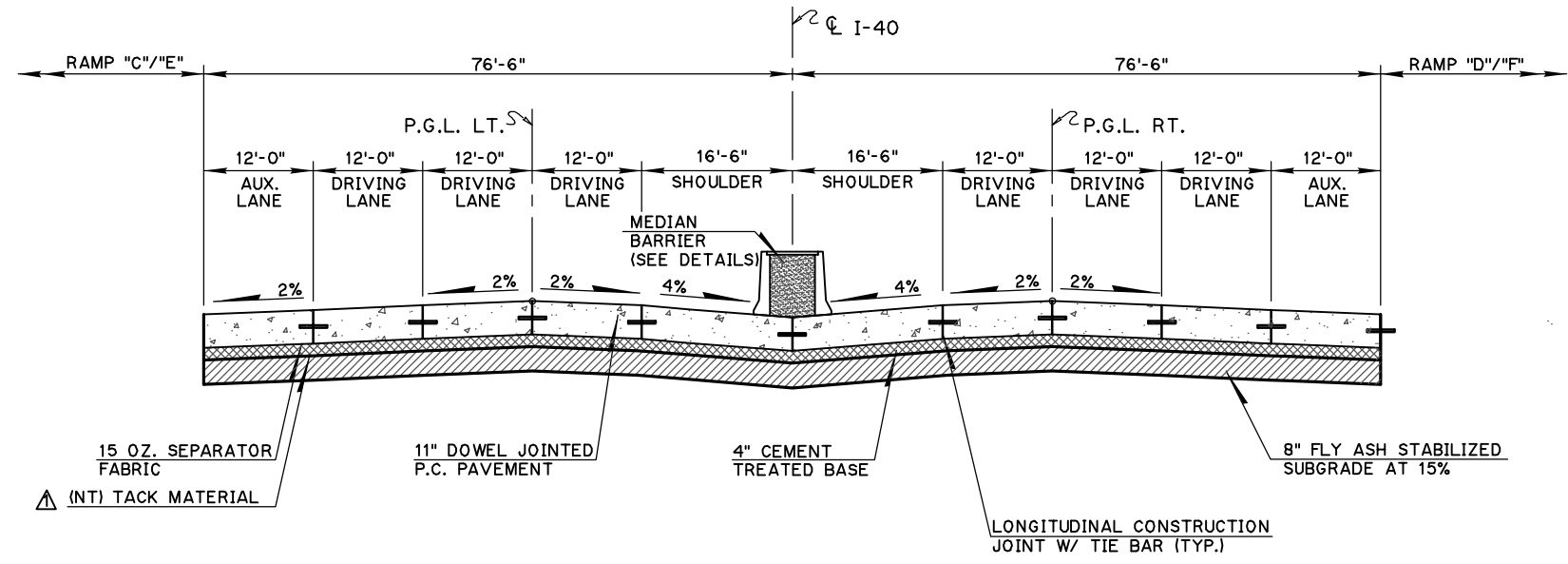
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APPROVED	HDM	09/11
SQUAD	POE	

TYPICAL SECTIONS

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TYPICAL SECTION NO. 5
 STA. 116+60.00 TO STA. 124+44.32 WESTBOUND
 STA. 116+60.00 TO STA. 124+98.01 EASTBOUND

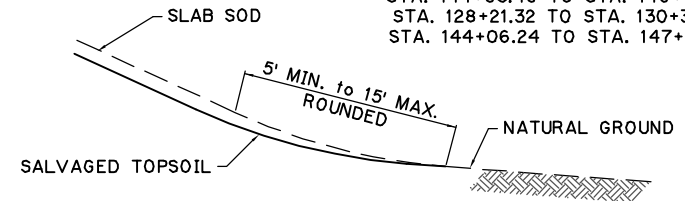


TYPICAL SECTION NO. 6
 STA. 127+67.65 TO STA. 130+47.45 WESTBOUND
 STA. 144+63.46 TO STA. 146+46.32 WESTBOUND
 STA. 128+21.32 TO STA. 130+34.25 EASTBOUND
 STA. 144+06.24 TO STA. 147+24.55 EASTBOUND

① **TOPSOIL NOTE:**
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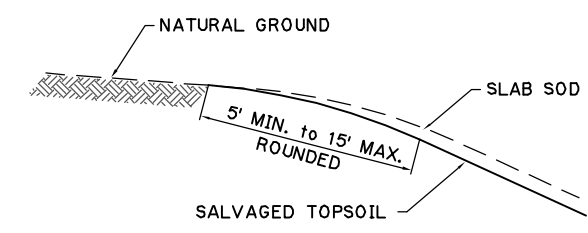
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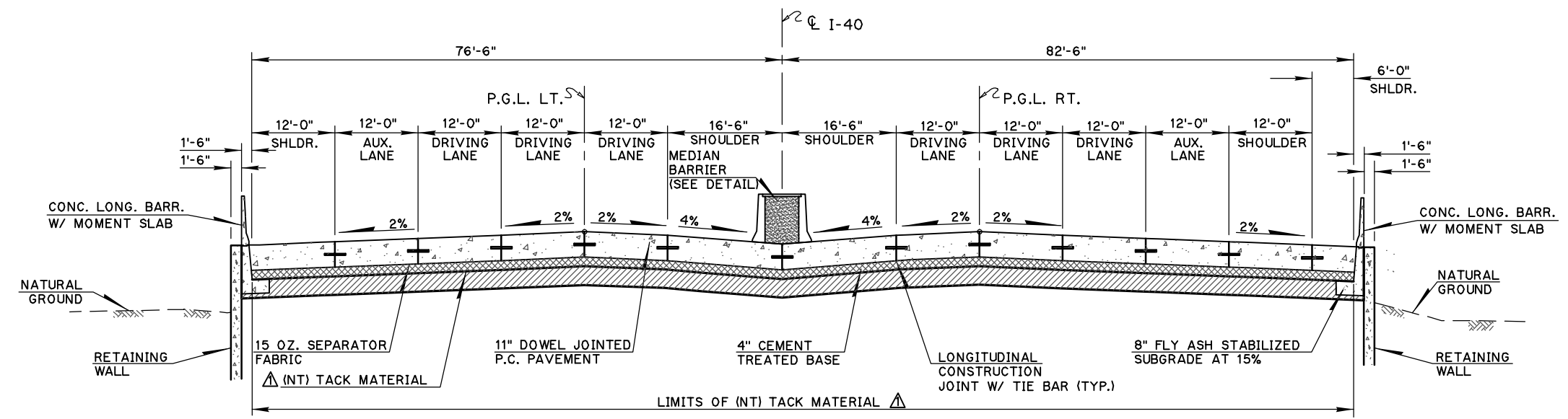
TOP OF CUT ROUNDING

ROUNDING DETAIL

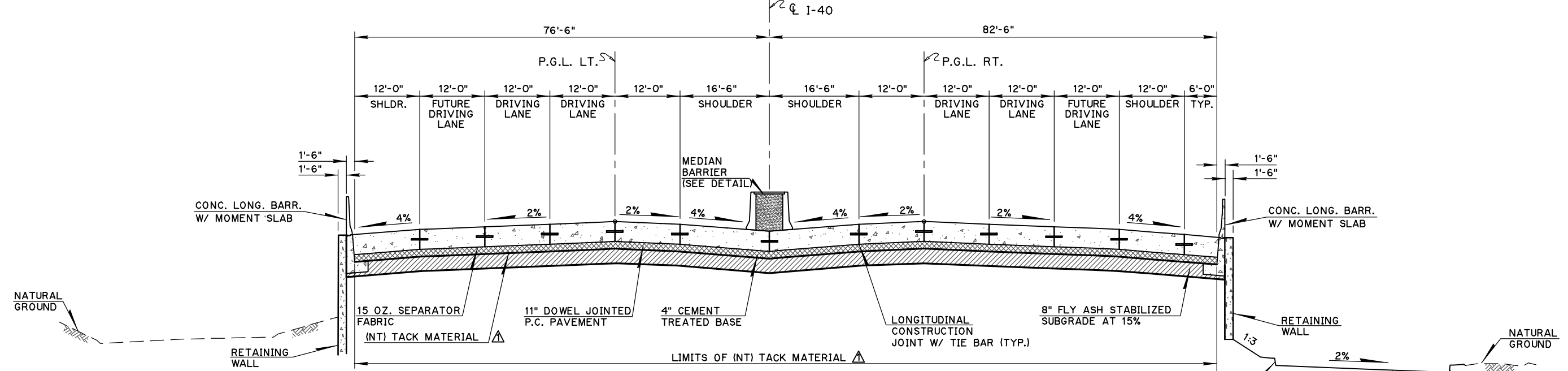
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SQUAD	POE	

TYPICAL SECTIONS

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TYPICAL SECTION NO. 7
 STA. 130+47.45 TO STA. 135+41.70 WESTBOUND
 STA. 131+40.81 TO STA. 134+09.65 EASTBOUND

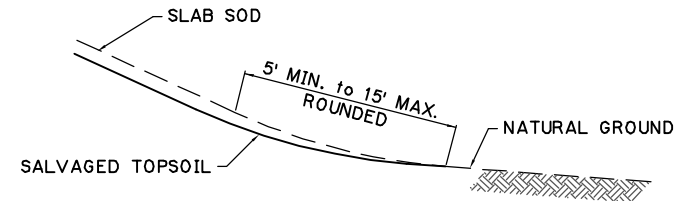


TYPICAL SECTION NO. 8
 STA. 140+76.86 TO STA. 144+63.46 WESTBOUND
 STA. 139+53.92 TO STA. 144+06.24 EASTBOUND

① TOPSOIL NOTE:
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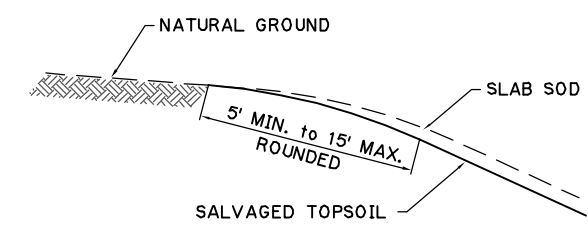
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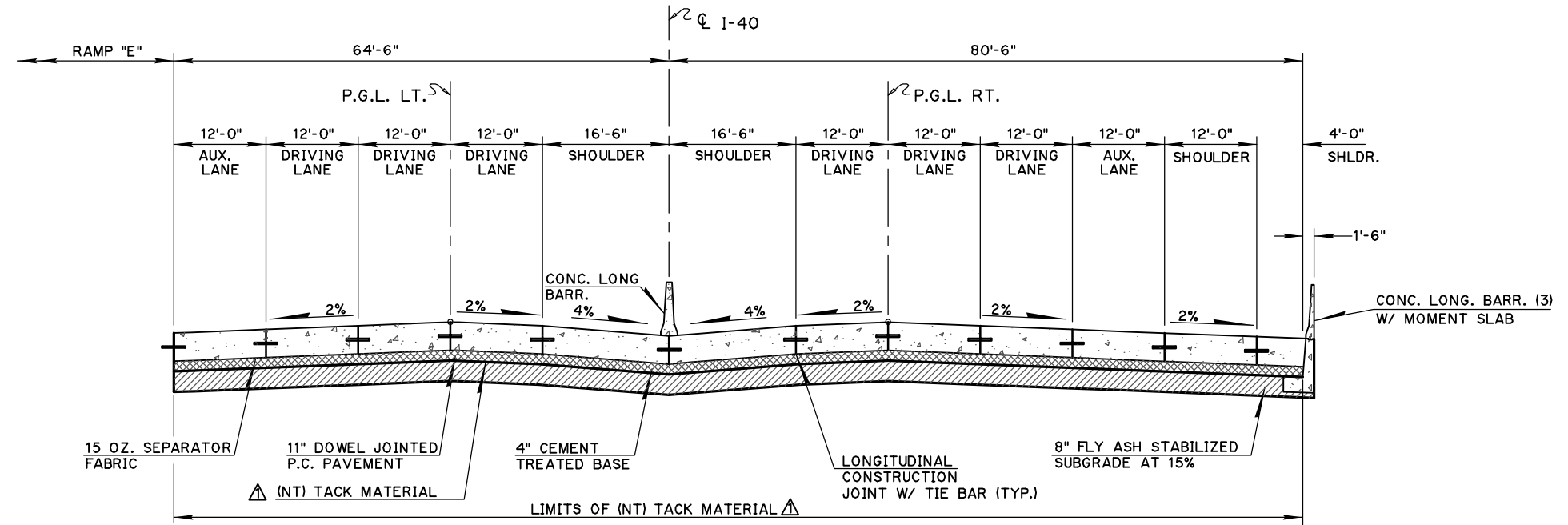
TOP OF CUT ROUNDING

ROUNDING DETAIL

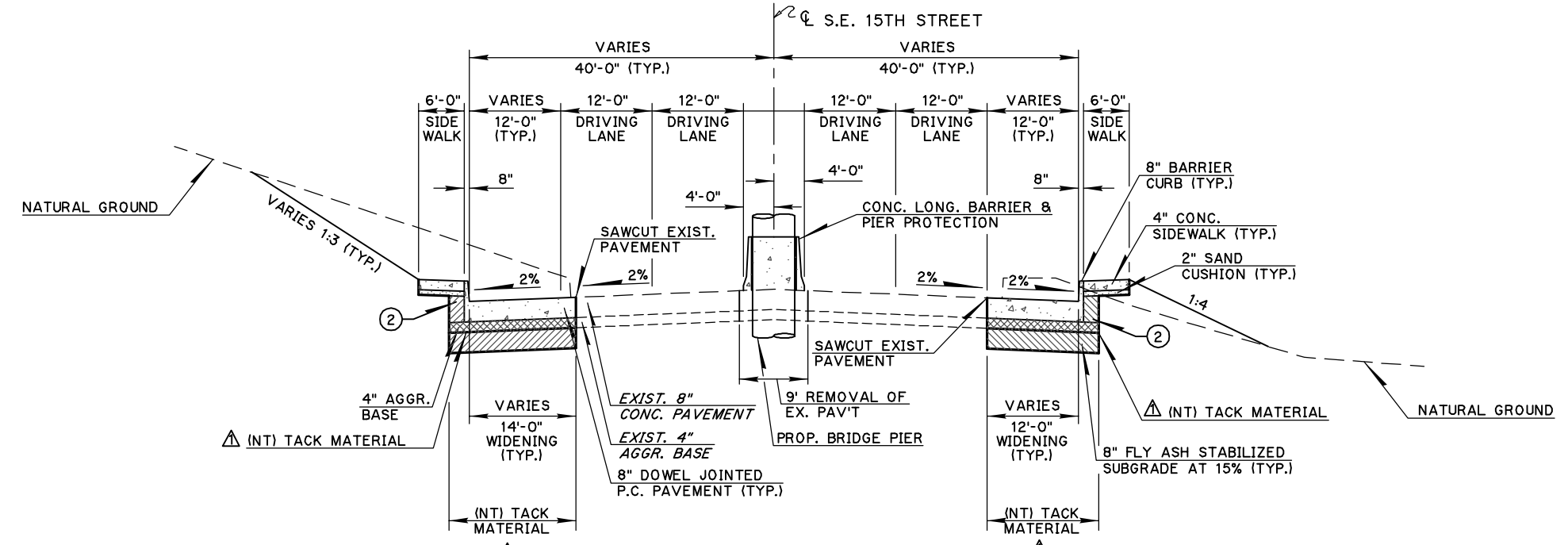
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SQUAD	POE	

TYPICAL SECTIONS

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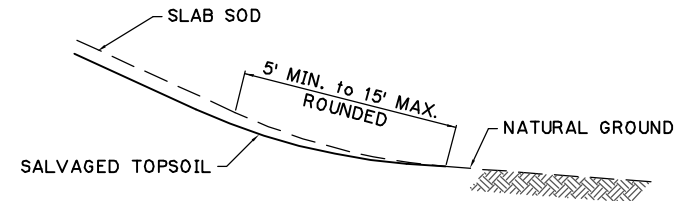


TYPICAL SECTION NO. 9
 STA. 146+46.32 TO STA. 149+00.00 WESTBOUND
 STA. 147+24.55 TO STA. 149+00.00 EASTBOUND

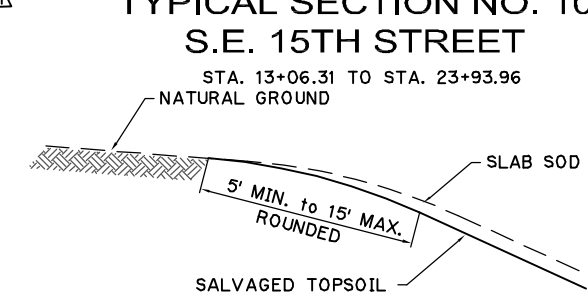


TYPICAL SECTION NO. 10
 S.E. 15TH STREET
 STA. 13+06.31 TO STA. 23+93.96

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TOE OF FILL ROUNDING



TOP OF CUT ROUNDING

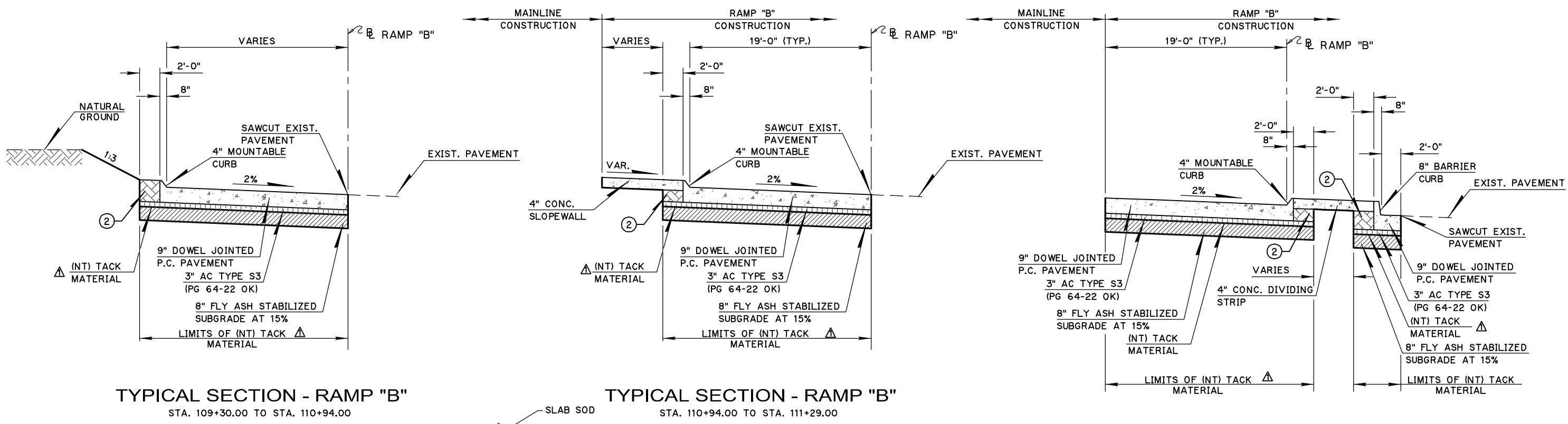
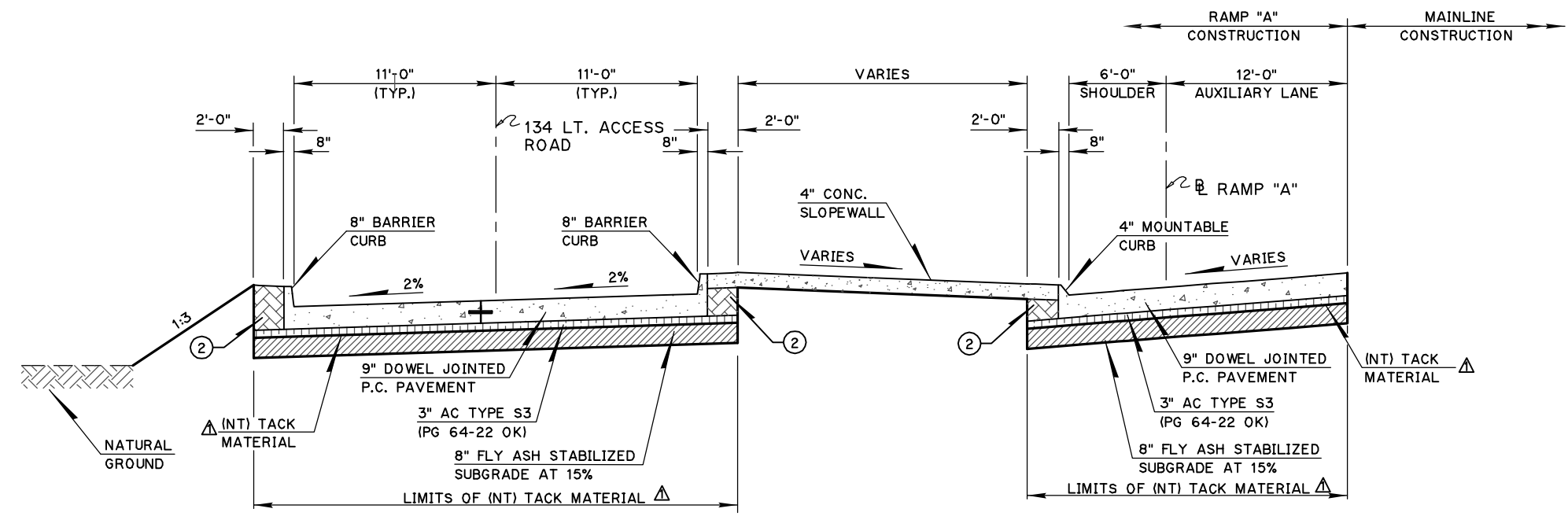
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ROUNDING DETAIL

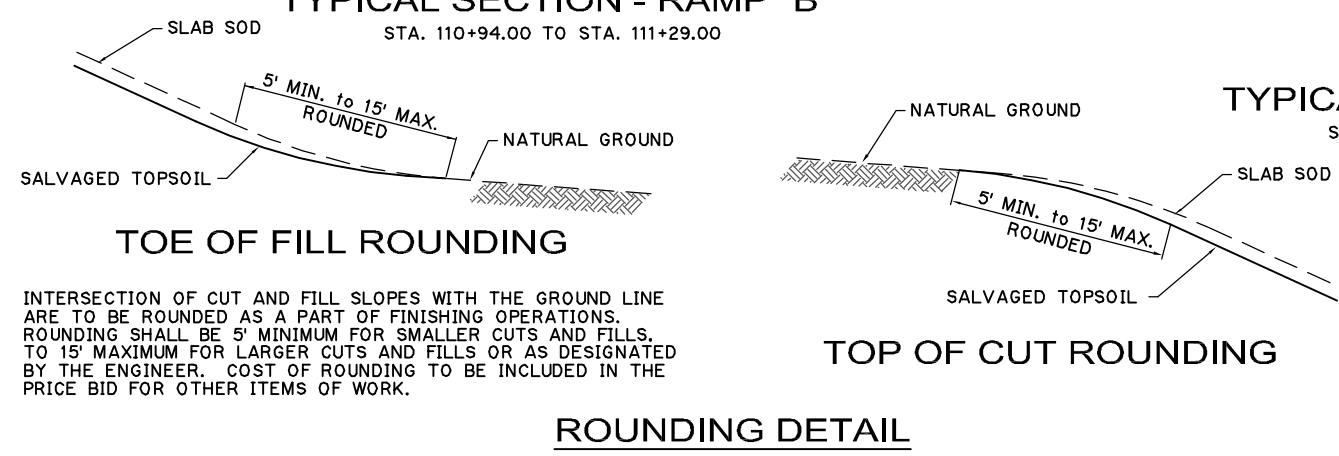
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SQUAD	POE	

TYPICAL SECTIONS
S.E. 15TH STREET

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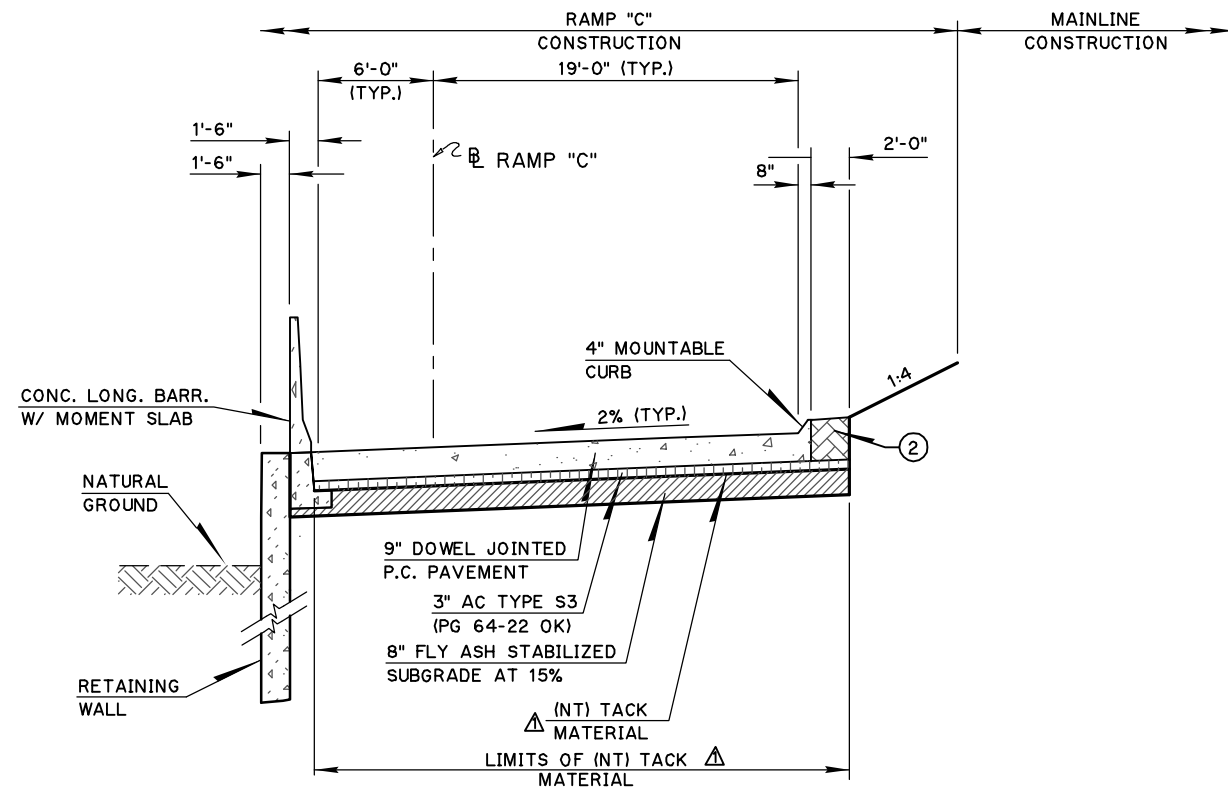


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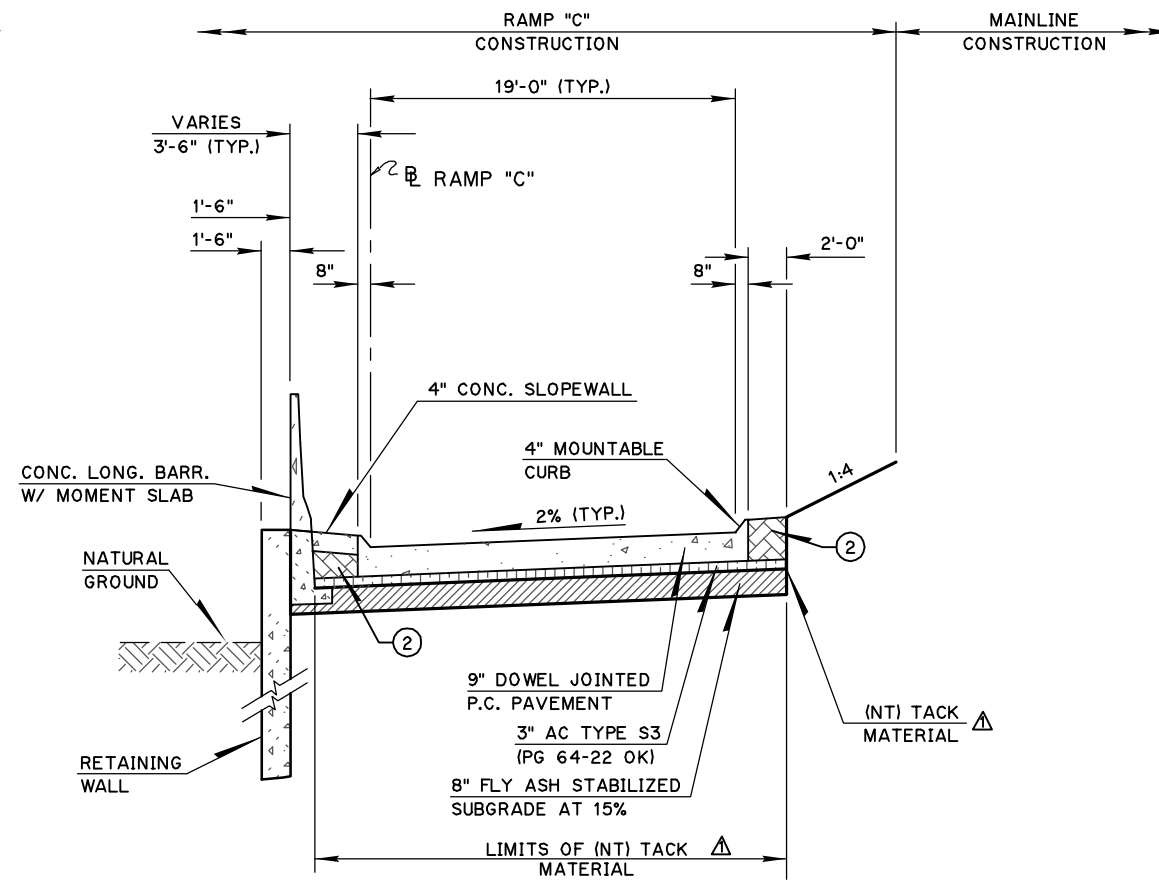
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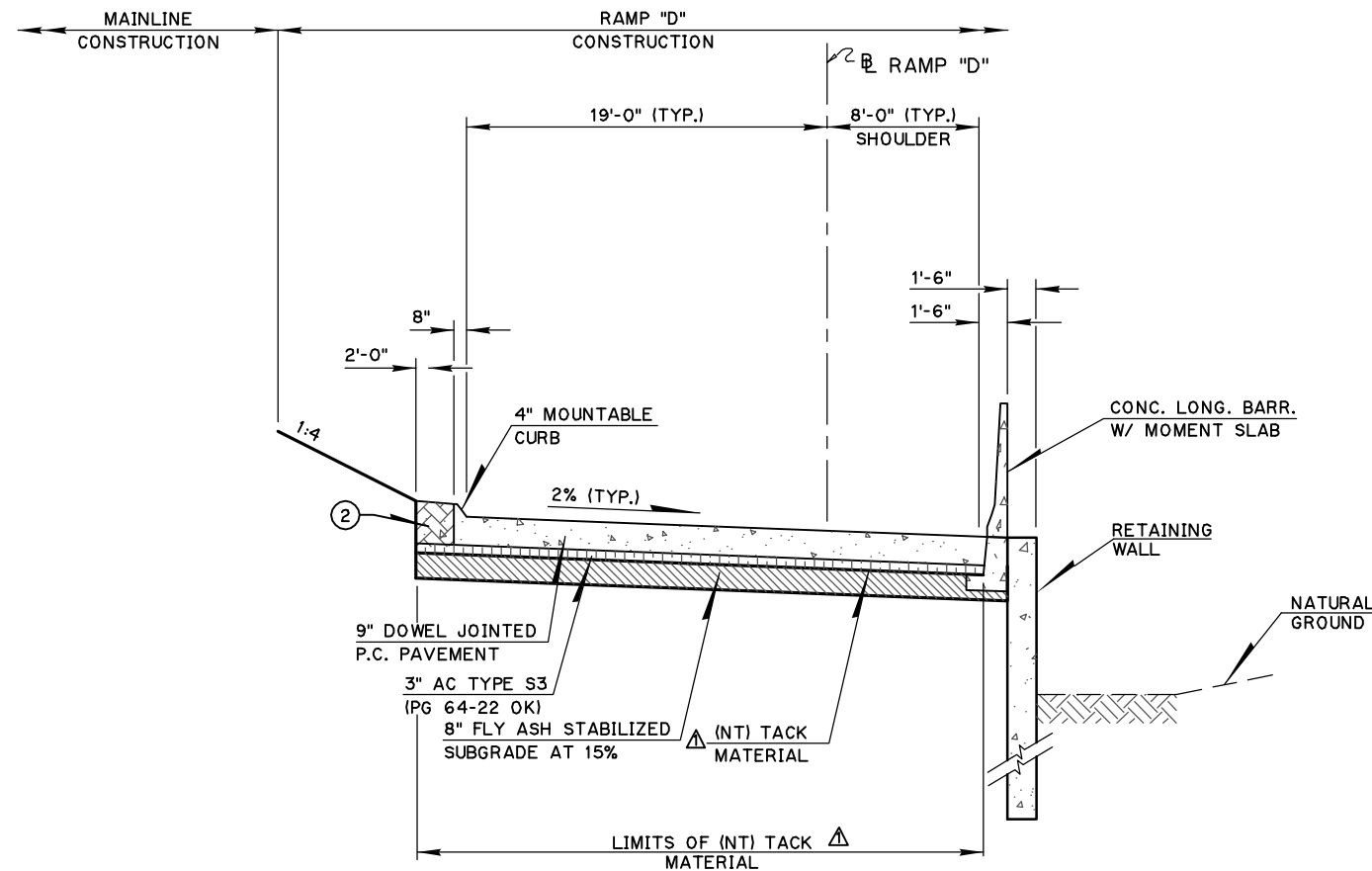
TYPICAL SECTION - RAMP "C"

STA. 127+41.27 TO STA. 131+81.39



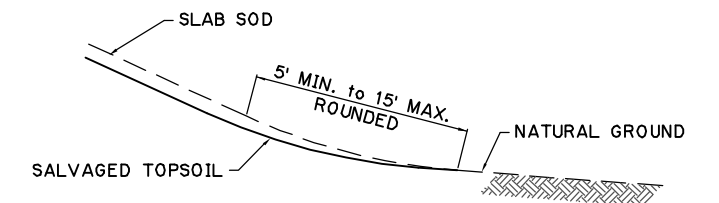
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STA. 131+81.39 TO STA. 139+01.91



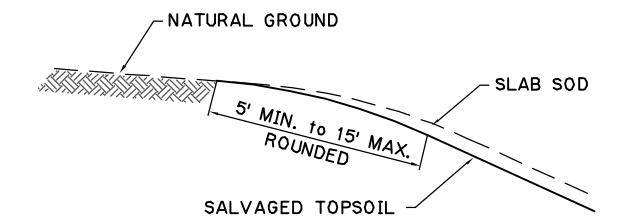
TYPICAL SECTION - RAMP "D"

STA. 127+64.17 TO STA. 135+34.11



TOE OF FILL ROUNDING

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TOP OF CUT ROUNDING ROUNDED DETAIL

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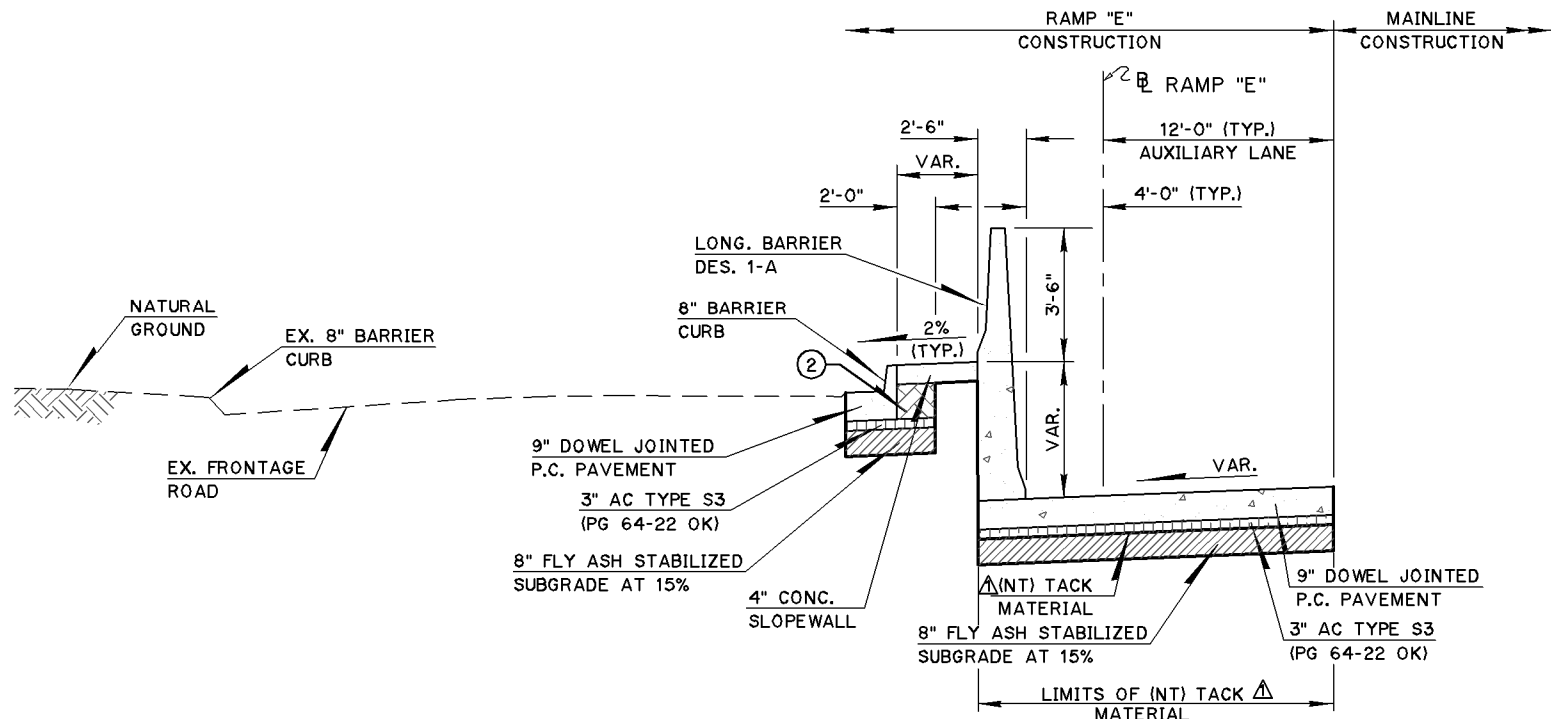
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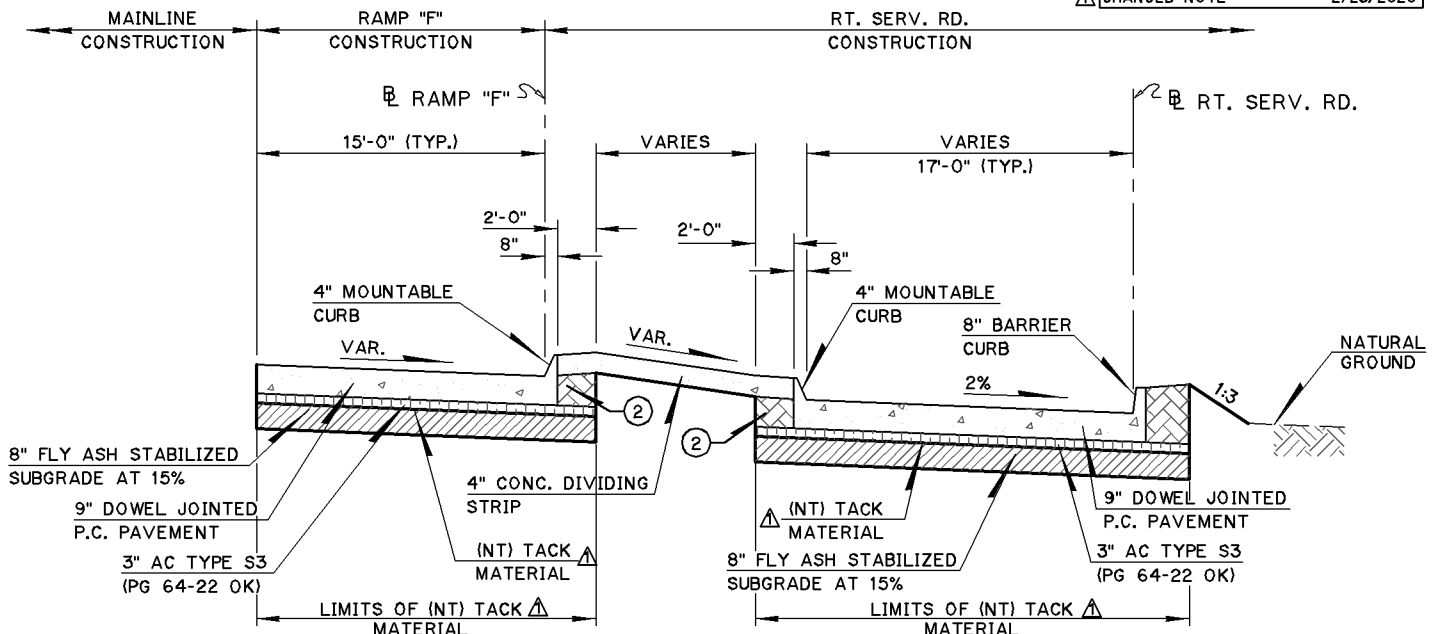
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TYPICAL SECTION RAMPS C & D

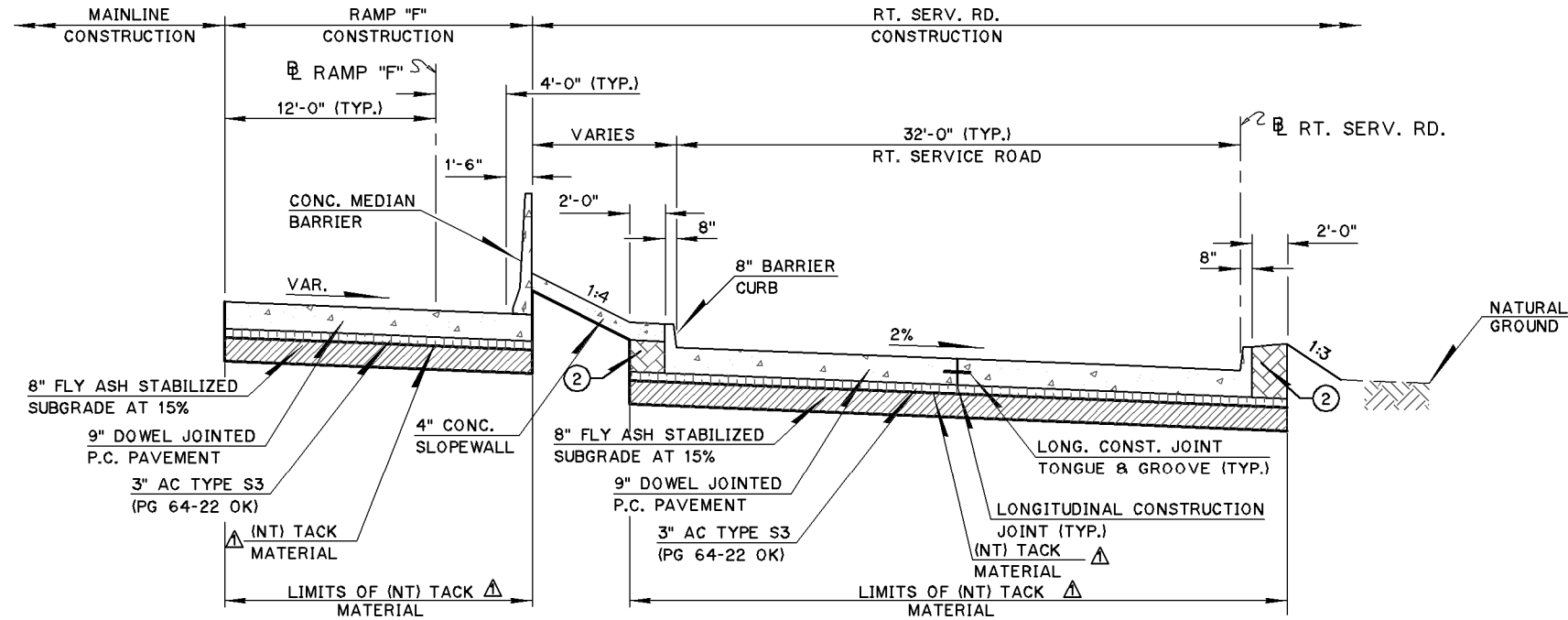
STATE JOB NO. 23310(04) SHEET NO. 0011



TYPICAL SECTION - RAMP "E"
STA. 144+56.26 TO STA. 149+00.00



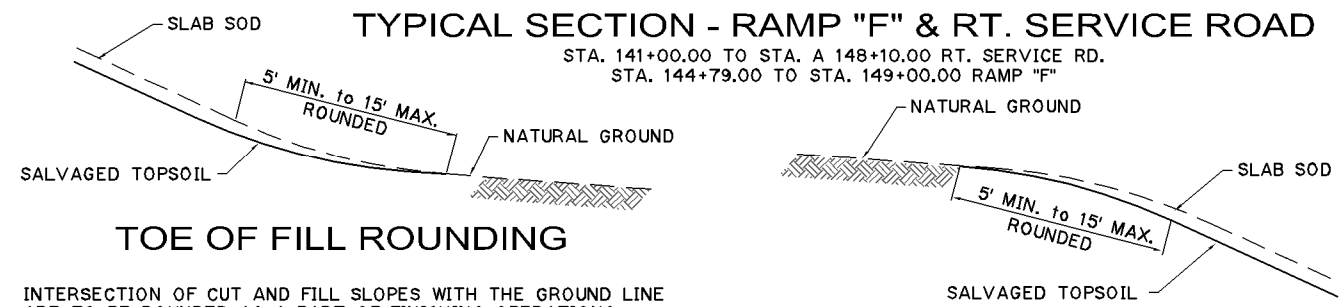
TYPICAL SECTION - RAMP "F"
STA. 144+11.04 TO STA. 144+79.00



TYPICAL SECTION - RAMP "F" & RT. SERVICE ROAD

STA. 141+00.00 TO STA. A 148+10.00 RT. SERVICE RD.
STA. 144+79.00 TO STA. 149+00.00 RAMP "F"

- ① **TOPSOIL NOTE:**
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH THIS OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.
- THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.
- ② **BACKFILL NOTE:**
THIS AREA TO BE BACKFILLED AND COMPACTED AS A PART OF THE FINISHING OPERATIONS AND SHALL BE PAID FOR AS UNCLASSIFIED BORROW.



TOE OF FILL ROUNING

TOP OF CUT ROUNING

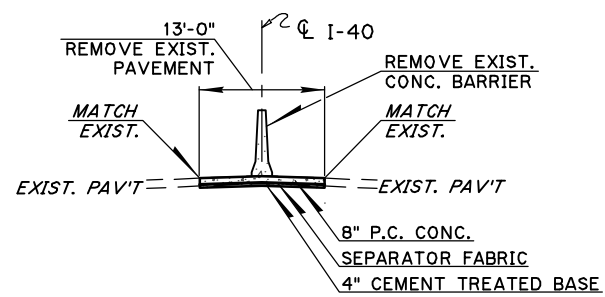
INTERSECTION OF CUT AND FILL SLOPES WITH THE GROUND LINE ARE TO BE ROUNDED AS A PART OF FINISHING OPERATIONS. ROUNING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS, TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNING TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.

ROUNDING DETAIL

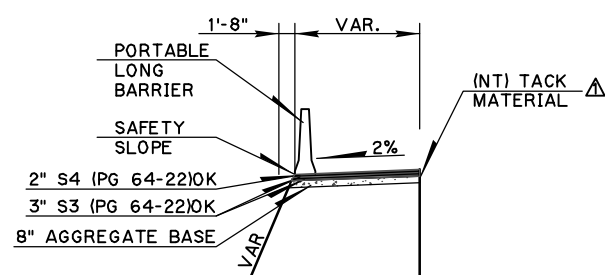
DESIGN	MAP	01/12
DRAWN	KST	01/12
CHECKED	MAP	01/12
APPROVED	HDM	01/12
SQUAD	POE	

TYPICAL SECTION RAMP E & F

2/24/2020 3:21:21 PM F:\PROJETS\23310\Drawings\2331004-Typ-Section_Sheet_1_RAMPS.dwg



TYPICAL SECTION NO. 11
I-40 CROSSOVER
STA. 104+00 TO STA. 108+00



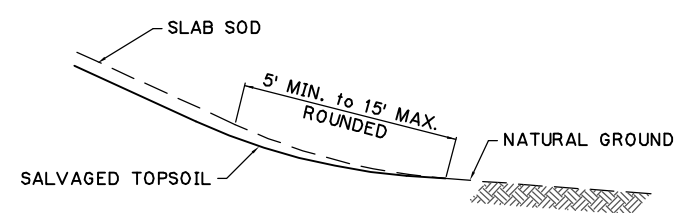
I-40 EASTBOUND
TYPICAL SECTION NO. 12 TEMPORARY WIDENING /PAVING

- PHASE 1 - STA. 104+20 TO STA. 113+79 RT. (* VARIES 3'-7" TO 18'-0")
- PHASE 1 - STA. 120+00 TO STA. 124+90 RT. (*30'-0")
- PHASE 1 - STA. 128+29.13 TO STA. 131+41 RT. (*30'-0")
- PHASE 3 - STA. 104+01 TO STA. 110+81.92 LT. (*VARIES 3'-0" TO 10'-0")
- PHASE 3 - STA. 120+00 TO STA. 124+44.32 LT. (*20'-0")

① **TOPSOIL NOTE:**
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH THIS OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

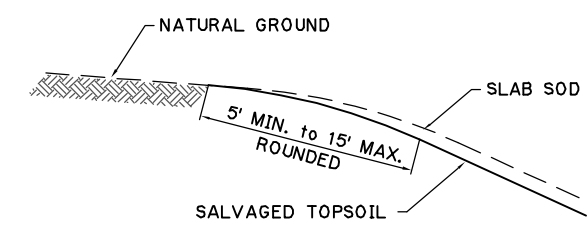
THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.

② **BACKFILL NOTE:**
THIS AREA TO BE BACKFILLED AND COMPACTED AS A PART OF THE FINISHING OPERATIONS AND SHALL BE PAID FOR AS UNCLASSIFIED BORROW.



TOE OF FILL ROUNDDING

INTERSECTION OF CUT AND FILL SLOPES WITH THE GROUND LINE ARE TO BE ROUNDED AS A PART OF FINISHING OPERATIONS. ROUNDDING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS, TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDDING TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.



TOP OF CUT ROUNDDING

ROUNDING DETAIL

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

TYPICAL SECTION DETOURS

STATE JOB NO. 23310(04) SHEET NO. 0013

DESCRIPTION	REVISIONS	DATE
1	ADDED PAY ITEM AND NOTE. REVISED NOTE	3/09/20
2	REVISION AFTER LET	3/09/20

J/P 23310(04)		OKLAHOMA COUNTY	
0200 BRIDGE "A" - NBI 30702		I-40 W.B. OVER CRUTCHO CREEK	
ITEM NO.	ITEM	UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON (BR-1)	C.Y. 385
501(G)	6309	CLSM BACKFILL (BR-1)	C.Y. 642.2
502	1000	TEMPORARY EARTH RETAINAGE (BR-8)	L.SUM 1
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III) (BR-1)	L.F. 2,123.33
504(A)	1304	APPROACH SLAB (BR-1)	S.Y. 1,031.2
504(B)	1305	SAW-CUT GROOVING (BR-1)	S.Y. 3,017.9
504(C)	6250	SEALED EXPANSION JOINT (BR-1)	L.F. 100.5
504(E)	6190	42" F-SHAPED PARAPET (BR-1)	L.F. 646.8
506(A)	1322	STRUCTURAL STEEL (BR-1)	LB. 3,610
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-2)	E.A. 20
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY (BR-2)	E.A. 40
509	5000	ELASTOMERIC COATING (BR-1)	S.F. 675
509(A)	1326	CLASS AA CONCRETE (BR-1)	C.Y. 521.6
509(B)	1328	CLASS A CONCRETE (BR-1)	C.Y. 409.2
511(A)	1332	REINFORCING STEEL (BR-1)	LB. 2,060
511(B)	6010	EPOXY COATED REINFORCING STEEL (BR-1)	LB. 171,290
514(A)	6010	PILES, FURNISHED (HP 10x42) (BR-3)	L.F. 226
514(A)	6011	PILES, FURNISHED (HP 12x53) (BR-3)	L.F. 2,034
514(B)	6292	PILES, DRIVEN (HP 10x42)	L.F. 226
514(B)	6294	PILES, DRIVEN (HP 12x53)	L.F. 2,034
514(L)	6220	PILE SPlice, H-PILE (NON-BIDDABLE)	E.A. 1
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	S.Y. 1,493
516(A)	6095	DRILLED SHAFTS 54" DIAMETER	L.F. 364
516(C)	6200	CROSSHOLE SONIC LOGGING (BR-6)	E.A. 2
523(A)	6550	SEALER CRACK PREPARATION (BR-1)	L.F. 100
523(B)	6560	SEALER RESIN (BR-1)	GAL. 1.1
601(B)	1353	TYPE 1-A PLAIN RIPRAP	TON 910
601(C)	1355	TYPE 1-A FILTER BLANKET	TON 290
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)	L.F. 206
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F. 40
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE (BR-4)	L.SUM 1

1

2

1

1

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES", SECTION 109.01.B.

(BR-2) BEARING ASSEMBLIES
THERE IS AN ESTIMATED TOTAL OF 230 LBS. OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL EXPANSION BEARING ASSEMBLY AT PIER LOCATIONS AND AN ESTIMATED TOTAL OF 250 LBS. OF STRUCTURAL STEEL FOR EACH STAINLESS STEEL FIXED BEARING ASSEMBLY AT ABUTMENT LOCATIONS.

(BR-3) PILES FURNISHED
STEEL PILES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50.

(BR-4) REMOVAL OF EXISTING STRUCTURE - BRIDGE "A"
ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF 3 - 50' I-BEAM SPANS SKEWED 30 DEGREES WITH A 49' CLEAR ROADWAY WITH CONCRETE PARAPETS AT APPROX. CENTERLINE I-40 STA. 126+10 28.50' LT. THE EXISTING PIERS SHALL BE REMOVED TO THE TOP OF EXISTING FOOTINGS TO ALLOW FOR FUTURE CHANNEL IMPROVEMENTS. THE CONTRACTOR SHALL FULLY INFORM HIMSELF OF THE NATURE OF THIS REMOVAL TO ALLOW FOR AN ACCURATE ESTIMATE. UNDER NO CIRCUMSTANCES SHALL THE BRIDGE BE DISCARDED INTO THE CRUTCHO CREEK BELOW.
THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND AS APPROVED BY THE ENGINEER. THE EXISTING STRUCTURAL STEEL MAY BE PAINTED WITH LEAD BASE PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL NECESSARY REGULATIONS IN HANDLING AND TRANSPORTING ANY STRUCTURAL STEEL CONTAINING LEAD BASE PAINT.
THE EXISTING STRUCTURE AND CONCRETE RUBBLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL TO BE GIVEN TO THE CONTRACTOR IS 203,300 POUNDS. ALL COST NECESSARY TO REMOVE THE EXISTING BRIDGE AS DESCRIBED ABOVE INCLUDING LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

J/P 23310(04)		OKLAHOMA COUNTY	
0201 BRIDGE "B" - NBI 30703		I-40 E.B. OVER CRUTCHO CREEK	
ITEM NO.	ITEM	UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON (BR-1)	C.Y. 385
501(G)	6309	CLSM BACKFILL (BR-1)	C.Y. 628.8
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III) (BR-1)	L.F. 2,123.33
504(A)	1304	APPROACH SLAB (BR-1)	S.Y. 1,031.3
504(B)	1305	SAW-CUT GROOVING (BR-1)	S.Y. 3,018.1
504(C)	6250	SEALED EXPANSION JOINT (BR-1)	L.F. 100.5
504(E)	6190	42" F-SHAPED PARAPET (BR-1)	L.F. 646.8
506(A)	1322	STRUCTURAL STEEL (BR-1)	LB. 3,610
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-2)	E.A. 20
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY (BR-2)	E.A. 40
509	5000	ELASTOMERIC COATING (BR-1)	S.F. 630
509(A)	1326	CLASS AA CONCRETE (BR-1)	C.Y. 531.8
509(B)	1328	CLASS A CONCRETE (BR-1)	C.Y. 410.4
511	6306	MECHANICAL SPLICES (BR-1)(BR-7)	E.A. 38
511(A)	1332	REINFORCING STEEL (BR-1)	LB. 2,080
511(B)	6010	EPOXY COATED REINFORCING STEEL (BR-1)	LB. 176,220
514(A)	6010	PILES, FURNISHED (HP 10x42) (BR-3)	L.F. 214
514(A)	6011	PILES, FURNISHED (HP 12x53) (BR-3)	L.F. 1,992
514(B)	6292	PILES, DRIVEN (HP 10x42)	L.F. 214
514(B)	6294	PILES, DRIVEN (HP 12x53)	L.F. 1,992
514(L)	6220	PILE SPlice, H-PILE (NON-BIDDABLE)	E.A. 1
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	S.Y. 1,496
516(A)	6095	DRILLED SHAFTS 54" DIAMETER	L.F. 340
516(C)	6200	CROSSHOLE SONIC LOGGING (BR-6)	E.A. 2
523(A)	6550	SEALER CRACK PREPARATION (BR-1)	L.F. 425
523(B)	6560	SEALER RESIN (BR-1)	GAL. 4.9
601(B)	1353	TYPE 1-A PLAIN RIPRAP	TON 1,020
601(C)	1355	TYPE 1-A FILTER BLANKET	TON 300
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)	L.F. 207
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F. 40
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE (BR-5)	L.SUM 1

(BR-5) REMOVAL OF EXISTING STRUCTURE - BRIDGE "B"
ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF 3 - 50' I-BEAM SPANS SKEWED 30 DEGREES WITH A 49' CLEAR ROADWAY WITH CONCRETE PARAPETS AT APPROX. CENTERLINE I-40 STA. 126+43 28.50' RT. THE EXISTING PIERS SHALL BE REMOVED TO THE TOP OF EXISTING FOOTINGS TO ALLOW FOR FUTURE CHANNEL IMPROVEMENTS. THE CONTRACTOR SHALL FULLY INFORM HIMSELF OF THE NATURE OF THIS REMOVAL TO ALLOW FOR AN ACCURATE ESTIMATE. UNDER NO CIRCUMSTANCES SHALL THE BRIDGE BE DISCARDED INTO THE CRUTCHO CREEK BELOW.
THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND AS APPROVED BY THE ENGINEER. THE EXISTING STRUCTURAL STEEL MAY BE PAINTED WITH LEAD BASE PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL NECESSARY REGULATIONS IN HANDLING AND TRANSPORTING ANY STRUCTURAL STEEL CONTAINING LEAD BASE PAINT.
THE EXISTING STRUCTURE AND CONCRETE RUBBLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL TO BE GIVEN TO THE CONTRACTOR IS 203,300 POUNDS. ALL COST NECESSARY TO REMOVE THE EXISTING BRIDGE AS DESCRIBED ABOVE INCLUDING LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

(BR-6) REFER TO DRILLED SHAFT FOUNDATION SPECIAL PROVISION 516-3(a-r) 09 PROVIDED IN THE CONTRACT DOCUMENTS.

1 (BR-7) MECHANICAL SPLICES
ALL COSTS FOR EPOXY COATED REBAR COUPLERS OR MECHANICAL SPLICES AT PIER CAPS PHASE I AND PHASE III CONNECTION WITH BH1 BARS AND ABUTMENT SEATS PHASE I AND PHASE III CONNECTION WITH BH3 AND BH5 BARS SHALL BE INCLUDED IN THIS PAY ITEM. EACH SPLICE INCLUDES BOTH THE MALE AND FEMALE COMPONENTS OF THE SPLICE. SEE "PIER DETAIL" SHEETS AND "ABUTMENT DETAIL" SHEETS FOR FURTHER DETAILS.

1 (BR-8) THIS PAY ITEM SHALL INCLUDE ALL COST AND INCIDENTALS FOR TEMPORARY SHEETING AND SHORING REQUIRED TO SAFELY CONSTRUCT BRIDGES "A", "B", "C" AND "D". AS DIRECTED BY THE ENGINEER.

REVISION AFTER LET
09/03/2020

OKLAHOMA COUNTY		BRIDGE "A" & "B"		I-40 OVER CRUTCHO CREEK	
Design		SUMMARY OF PAY QUANTITIES (BRIDGE)			
Drawn					
Checked					
Approved					
Squad	POE				
		State Job No. 23310(04)	Sheet No. AB01		

GENERAL BRIDGE NOTES

SPECIFICATIONS:

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND SPECIAL PROVISIONS. (SEE PROPOSAL FOR SPECIAL PROVISIONS).

CONCRETE:

CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'C = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'C = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.

EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:

ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE 3/4" CHAMFER) SHALL HAVE 1 1/2" CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STAY-IN-PLACE FORMS:

STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F. PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS. STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:

- (1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- (2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE ENGINEER FOR APPROVAL.
- (3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2009 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:

- a) EDGES AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
- b) THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS.
- c) THE ROADWAY FACE, TOP AND OUTSIDE FACE OF THE PARAPETS ON THE BRIDGE DECK.
- d) THE FRONT FACE OF THE ABUTMENT BACKWALL, THE TOP AND PEDESTALS AND EXPOSED FACE AND SIDES OF THE BRIDGE SEAT AND 1'-3" OF THE WINGWALLS.
- e) TOP AND SIDES OF PIER CAP AND PEDESTALS, ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
- f) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:

THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE CONSTRUCTION JOINTS OVER PIER I AND THE PHASE LINE BETWEEN PHASE I AND III SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE SECTION 523 OF THE 2009 STANDARD SPECIFICATIONS.

BRIDGE DECK CONSTRUCTION METHODS:

ANY STEEL USED BY THE CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

1 SHEETING AND SHORING:

SHEETING AND SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL PRIOR TO CONSTRUCTION. THE LIMITS OF THE SHEETING AND SHORING ARE TO BE DETERMINED BY THE CONTRACTOR. SEE SECTION 502.04.D OF THE 2009 STANDARD SPECIFICATIONS. ALL COST OF SHEETING AND SHORING TO BE INCLUDED IN THE PRICE BID OF "TEMPORARY EARTH RETAINAGE".

TEMPORARY MEDIAN BARRIER ON BRIDGE DECK:

AT ALL LOCATIONS WHERE TEMPORARY MEDIAN BARRIER SEPARATES TRAFFIC FROM A TERMINATING EDGE OF THE BRIDGE DECK, THE TEMPORARY MEDIAN BARRIER SHALL BE SECURED TO THE BRIDGE DECK. ANCHORAGES AND HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL BE DESIGNED TO KEEP THE BARRIER FROM LEAVING THE BRIDGE DECK UPON IMPACT WITH TRAFFIC. ANCHORAGES OR HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL NOT OBSTRUCT TRAFFIC LANES IN ANY FASHION AND SHALL NOT BE HARMFUL TO HUMAN LIFE SHOULD A VEHICULAR COLLISION WITH THE BARRIER OCCUR. THE ANCHORAGES AND HARDWARE SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. THE DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ANCHORAGES AND HARDWARE SHALL NOT BE INSTALLED UNTIL THE CONTRACTOR HAS RECEIVED APPROVAL FROM THE ENGINEER. AS A RESULT OF INSTALLING ANCHORAGES AND HARDWARE TO SECURE THE BARRIER, ANY DAMAGE TO THE NEW BRIDGE DECKS OR TEMPORARY MEDIAN BARRIERS INCLUDING BUT NOT LIMITED TO HOLES IN THE CONCRETE, SPALLING OF THE CONCRETE, CUT REINFORCEMENT, OR PROJECTIONS FROM THE DECKS OR BARRIERS SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER.

ALL COSTS OF ANCHORAGES, HARDWARE, LABOR, EQUIPMENT, MATERIALS, PROFESSIONAL SERVICES, REPAIRS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ABUTMENT PILING CAPACITY:

THE FACTORED REACTION FOR EACH PILE AT ABUTMENT NO. 1 IS 64.5 TONS. ABUTMENT NO. 2 IS 69.5 TONS.

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

$$\text{AXIAL LOAD RESISTANCE} = \phi [(0.875 \sqrt{E} \log_{10} (10N)) - 50] \text{ (TONS)}$$

WHERE:

- ϕ = RESISTANCE FACTOR OF 0.4
 - E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
 - N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.
- THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:
- THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY)
 - THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
 - THE PENETRATION IS QUICK AND UNIFORM.
 - THERE IS NO APPRECIABLE REBOUND OF THE HAMMER AND A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD. AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

PILE DRIVING EQUIPMENT:

USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESS IN ACCORDANCE WITH SECTION 514.03.A(2).

PROTECTION OF AREAS UNDER BRIDGES:

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:

(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

NO PAYMENTS WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPELINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

EXISTING BRIDGE PLANS:

THE EXISTING BRIDGES WERE ORIGINALLY CONSTRUCTED UNDER FEDERAL AID PROJECT NO. 1-40-5-17154. PLANS ARE AVAILABLE FROM:

TECHNOLOGY SERVICES PLANS SECTION
OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N.E. 21ST ST.
OKLAHOMA CITY, OK 73105

ELASTOMERIC COATING:

THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.

THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE FINISH SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.

THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.

THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.

WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.

ALL COSTS ASSOCIATED WITH THE USE ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS AND SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "ELASTOMERIC COATING".

VERTICAL JOINT SHEAR KEYS:

SHEAR KEYS IN VERTICAL JOINT MEMBERS INCLUDING COLUMNS AND DRILLED SHAFTS SHALL BE CONSTRUCTED ACCORDING TO SEC. 509.04D.(2) OF THE CURRENT CONSTRUCTION SPECIFICATIONS.

Design			BRIDGE "A" & "B"	OKLAHOMA COUNTY
Drawn				1-40 OVER CRUTCHO CREEK
Checked			GENERAL BRIDGE NOTES	
Approved			(BRIDGE)	
Squad	POE		State Job No. 23310(04)	Sheet No. ABO2

J/P 23310(04)		OKLAHOMA COUNTY		
PAY QUANTITIES				
0202 BRIDGE "C" - NBI 30701		I-40 W.B. OVER S.E. 15TH ST.		
ITEM NO.	ITEM	UNIT	QUANTITY	
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON (BR-1)	C.Y.	350
501(F)	6352	GRANULAR BACKFILL (BR-1)	C.Y.	80.0
501(G)	6309	CLSM BACKFILL (BR-1)	C.Y.	1,097.8
502(A)	6173	ENGINEERED FALSEWORK (BR-6)	L.SUM	1
504(A)	1304	APPROACH SLAB (BR-1)	S.Y.	1,395.6
504(B)	1305	SAW-CUT GROOVING (BR-1)	S.Y.	4,281.2
504(C)	6250	SEALED EXPANSION JOINT (BR-1)	L.F.	270.1
504(E)	6190	42" F-SHAPED PARAPET (BR-1)	L.F.	1,071.0
504(F)	6006	HANDRAILING (BR-1)	L.F.	198.4
506(A)	1322	STRUCTURAL STEEL (BR-1)	L.B.	732.600
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-2)	E.A.	8
507(B)	6174	STAINLESS STEEL EXP. BEARING ASSEMBLY (BR-2)	E.A.	32
509	5000	ELASTOMERIC COATING (BR-1)	S.F.	1,539
509(A)	1326	CLASS AA CONCRETE (BR-1)	C.Y.	716.3
509(B)	1328	CLASS A CONCRETE (BR-1)	C.Y.	981.8
510(A)	6334	RETAINING WALLS (BR-1)	S.Y.	440.63
510(C)	6138	SLOPE WALL (5') (BR-1)	S.Y.	1,514
511(A)	1332	REINFORCING STEEL (BR-1)	LB.	18,800
511(B)	6010	EPOXY COATED REINFORCING STEEL (BR-1)	LB.	307,210
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	S.Y.	2,150
516(A)	6092	DRILLED SHAFTS 36" DIAMETER	L.F.	689
516(A)	6094	DRILLED SHAFTS 48" DIAMETER	L.F.	260
516(A)	6096	DRILLED SHAFTS 60" DIAMETER	L.F.	644
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	L.F.	92
516(C)	6200	CROSSHOLE SONIC LOGGING (BR-3)	E.A.	8
523(A)	6550	SEALER CRACK PREPARATION (BR-1)	L.F.	810
523(B)	6560	SEALER RESIN (BR-1)	GAL.	9.0
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)	L.F.	525
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	52
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE (BR-4)	L.SUM	1

- (BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - "PLAN QUANTITIES". SECTION 109.01B.
- (BR-2) THERE IS AN ESTIMATED TOTAL OF 292 LBS. OF STAINLESS STEEL FOR EACH STAINLESS STEEL EXPANSION BEARING ASSEMBLY AND STAINLESS STEEL FIXED BEARING ASSEMBLY AT PIER LOCATIONS AND AN ESTIMATED TOTAL OF 330 LBS. OF STAINLESS STEEL FOR EACH STAINLESS STEEL EXPANSION BEARING ASSEMBLY AT ABUTMENT LOCATIONS.
- (BR-3) REFER TO DRILLED SHAFT FOUNDATION SPECIAL PROVISION 516-3(a-r) 09 PROVIDED IN THE CONTRACT DOCUMENTS.
- (BR-4) REMOVAL OF EXISTING STRUCTURE - BRIDGE "C"
 ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF 61', 110', 61' CONT. PLATE GIRDER SPANS WITH 42'-0" CLEAR ROADWAY, (2) 2'-5" SAFETY CURBS WITH VERTICAL FACE PARAPETS AT APPROXIMATE CENTERLINE SURVEY I-40 STA. 137+91, 28.5' LEFT. ALL ABUTMENTS, PIER FOOTINGS, AND CONCRETE PILES ARE TO BE REMOVED TO A MINIMUM OF 2 FT. BELOW THE FINAL GROUND LINE. ALL PILES INTERFERING WITH NEW CONSTRUCTION MUST BE FULLY REMOVED. THE CONTRACTOR SHALL FULLY INFORM HIMSELF OF THE NATURE OF THIS REMOVAL TO ALLOW FOR AN ACCURATE ESTIMATE.
 THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B(2) OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND AS APPROVED BY THE ENGINEER. THE EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL NECESSARY REGULATIONS IN HANDLING AND TRANSPORTING ANY STRUCTURAL STEEL CONTAINING LEAD BASED PAINT.
 THE CONTRACTOR SHALL DEVELOP A REMOVAL PLAN TO TAKE OUT THE EXISTING BRIDGE. THE PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE REMOVAL OF THE BRIDGE SHALL NOT COMMENCE UNTIL THE PLAN IS APPROVED BY THE ENGINEER.
 THE EXISTING STRUCTURE AND CONCRETE RUBBLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL TO BE GIVEN TO THE CONTRACTOR IS 356,300 POUNDS. ALL COST NECESSARY TO REMOVE THE EXISTING BRIDGE AS DESCRIBED ABOVE INCLUDING LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

J/P 23310(04)		OKLAHOMA COUNTY		
PAY QUANTITIES				
0203 BRIDGE "D" - NBI 30700		I-40 E.B. OVER S.E. 15TH ST.		
ITEM NO.	ITEM	UNIT	QUANTITY	
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON (BR-1)	C.Y.	390
501(F)	6352	GRANULAR BACKFILL (BR-1)	C.Y.	80.0
501(G)	6309	CLSM BACKFILL (BR-1)	C.Y.	1,257.1
502(A)	6173	ENGINEERED FALSEWORK (BR-6)	L.SUM	1
504(A)	1304	APPROACH SLAB (BR-1)	S.Y.	1,589.3
504(B)	1305	SAW-CUT GROOVING (BR-1)	S.Y.	4,717.0
504(C)	6250	SEALED EXPANSION JOINT (BR-1)	L.F.	291.9
504(E)	6190	42" F-SHAPED PARAPET (BR-1)	L.F.	1,089.2
504(F)	6006	HANDRAILING (BR-1)	L.F.	181.9
506(A)	1322	STRUCTURAL STEEL (BR-1)	L.B.	748.140
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-2)	E.A.	9
507(B)	6174	STAINLESS STEEL EXP. BEARING ASSEMBLY (BR-2)	E.A.	36
509	5000	ELASTOMERIC COATING (BR-1)	S.F.	1,629
509(A)	1326	CLASS AA CONCRETE (BR-1)	C.Y.	774.9
509(B)	1328	CLASS A CONCRETE (BR-1)	C.Y.	1,109.9
510(A)	6334	RETAINING WALLS (BR-1)	S.Y.	480.93
510(C)	6138	SLOPE WALL (5') (BR-1)	S.Y.	1,759
511	6306	MECHANICAL SPLICES (BR-1)(BR-7)	E.A.	51
511(A)	1332	REINFORCING STEEL (BR-1)	LB.	19,520
511(B)	6010	EPOXY COATED REINFORCING STEEL (BR-1)	LB.	337,400
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	S.Y.	2,302
516(A)	6092	DRILLED SHAFTS 36" DIAMETER	L.F.	769
516(A)	6094	DRILLED SHAFTS 48" DIAMETER	L.F.	120
516(A)	6096	DRILLED SHAFTS 60" DIAMETER	L.F.	720
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	L.F.	192
516(C)	6200	CROSSHOLE SONIC LOGGING (BR-3)	E.A.	8
523(A)	6550	SEALER CRACK PREPARATION (BR-1)	L.F.	1,434
523(B)	6560	SEALER RESIN (BR-1)	GAL.	16.0
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)	L.F.	613
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	57
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE (BR-5)	L.SUM	1

- (BR-5) REMOVAL OF EXISTING STRUCTURE - BRIDGE "D"
 ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF 61', 110', 61' CONT. PLATE GIRDER SPANS WITH 42'-0" CLEAR ROADWAY, (2) 2'-5" SAFETY CURBS WITH VERTICAL FACE PARAPETS AT APPROXIMATE CENTERLINE SURVEY I-40 STA. 137+05, 28.5' RIGHT. ALL ABUTMENTS, PIER FOOTINGS, AND CONCRETE PILES ARE TO BE REMOVED TO A MINIMUM OF 2 FT. BELOW THE FINAL GROUND LINE. ALL PILES INTERFERING WITH NEW CONSTRUCTION MUST BE FULLY REMOVED. THE CONTRACTOR SHALL FULLY INFORM HIMSELF OF THE NATURE OF THIS REMOVAL TO ALLOW FOR AN ACCURATE ESTIMATE.
 THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B(2) OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND AS APPROVED BY THE ENGINEER. THE EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL NECESSARY REGULATIONS IN HANDLING AND TRANSPORTING ANY STRUCTURAL STEEL CONTAINING LEAD BASED PAINT.
 THE CONTRACTOR SHALL DEVELOP A REMOVAL PLAN TO TAKE OUT THE EXISTING BRIDGE. THE PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE REMOVAL OF THE BRIDGE SHALL NOT COMMENCE UNTIL THE PLAN IS APPROVED BY THE ENGINEER.
 THE EXISTING STRUCTURE AND CONCRETE RUBBLE MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL TO BE GIVEN TO THE CONTRACTOR IS 356,300 POUNDS. ALL COST NECESSARY TO REMOVE THE EXISTING BRIDGE AS DESCRIBED ABOVE INCLUDING LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".
- (BR-6) ENGINEERED FALSEWORK:
 ITEM "ENGINEERED FALSEWORK" CONSISTS OF THE INSTALLATION AND REMOVAL OF TEMPORARY FALSEWORK AND BRACING NECESSARY TO BRACE THE STEEL PLATE GIRDERS AND SUPPORT ANTICIPATED LOADS THROUGHOUT CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PLACEMENT AND FINISHING OF THE DECK SLAB CONCRETE. ITEM ALSO CONSISTS OF SERVICES BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA TO DESIGN, DRAW, INSPECT, AND CERTIFY THE FALSEWORK/BRACING AS NECESSARY FOR THE MEANS, METHODS, AND SEQUENCES CHOSEN BY THE CONTRACTOR. PROVIDE ALL FALSEWORK/BRACING IN ACCORDANCE WITH SECTION 502 OF THE SPECIFICATIONS AND AS SHOWN IN THE PLANS. ALL REMOVED FALSEWORK AND BRACING SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- (BR-7) MECHANICAL SPLICES
 ALL COSTS FOR EPOXY COATED REBAR COUPLERS OR MECHANICAL SPLICES AT PIER CAPS PHASE I AND PHASE III CONNECTION WITH BH1 BARS AND ABUTMENT SEATS PHASE I AND PHASE III CONNECTION WITH BH3 AND BH5 BARS SHALL BE INCLUDED IN THIS PAY ITEM. EACH SPLICE INCLUDES BOTH THE MALE AND FEMALE COMPONENTS OF THE SPLICE. SEE "PIER DETAIL" SHEETS AND "ABUTMENT DETAIL" SHEETS FOR FURTHER DETAILS.

Design		BRIDGE "C" & "D"	OKLAHOMA COUNTY
Drawn		I-40 OVER S.E. 15TH STREET	
Checked		SUMMARY OF PAY QUANTITIES	
Approved		(BRIDGE)	
Squad	POE	State Job No. 23310(04)	Sheet No. AB03

GENERAL BRIDGE NOTES

SPECIFICATIONS:

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND SPECIAL PROVISIONS. (SEE PROPOSAL FOR SPECIAL PROVISIONS).

CONCRETE:

CONCRETE FOR DRILLED SHAFTS, APPROACH SLABS, DECK SLAB AND TRAFFIC RAILS SHALL BE CLASS AA, F'C = 4,000 PSI MINIMUM STRENGTH AT 28 DAYS. CONCRETE FOR ABUTMENTS AND PIERS SHALL BE CLASS A, F'C = 3,000 PSI MINIMUM STRENGTH AT 28 DAYS.

EQUIP CONCRETE VIBRATORS WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO EPOXY COATINGS WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL.

PIER AND ABUTMENT CHAMFER REQUIREMENT:

ALL EXPOSED CONCRETE EDGES (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE $\frac{3}{4}$ " CHAMFER) SHALL HAVE $1\frac{1}{2}$ " CHAMFER UNLESS OTHERWISE NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING STEEL SHALL BE AASHTO M31 (ASTM A615) GRADE 60.

STAY-IN-PLACE FORMS:

STAY-IN-PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL STEEL OF THE DECK FORMS SHALL NOT EXCEED 5 P.S.F. PREFORMED STYROFOAM OR ANY OTHER FILLER MATERIAL MUST BE BONDED TO THE STEEL STAY-IN-PLACE FORMS. STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:

- (1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- (2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB IS SUBMITTED TO THE ENGINEER FOR APPROVAL.
- (3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY-IN-PLACE FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, INCIDENTALS, AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE 2009 STANDARD SPECIFICATIONS.

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:

- a) EDGES AND UNDERSIDE CANTILEVER PORTION OF THE DECK SLAB.
- b) THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS.
- c) THE ROADWAY FACE, TOP AND OUTSIDE FACE OF THE PARAPETS ON THE BRIDGE DECK.
- d) THE FRONT FACE OF THE ABUTMENT BACKWALL, THE TOP AND PEDESTALS AND EXPOSED FACE AND SIDES OF THE BRIDGE SEAT AND 1'-3" OF THE WINGWALLS.
- e) TOP AND SIDES OF PIER CAP AND PEDESTALS, ALSO THE ENDS AND BOTTOM OF THE OUTSIDE CANTILEVER OF PIER CAPS.
- f) THE ROADWAY FACE AND TOP OF PARAPETS ON APPROACH SLABS.

SEALING BRIDGE DECK CONSTRUCTION JOINTS:

THE APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED. THE CONSTRUCTION JOINTS OVER PIER I AND THE PHASE LINE BETWEEN PHASE I AND III SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE SECTION 523 OF THE 2009 STANDARD SPECIFICATIONS.

BRIDGE DECK CONSTRUCTION METHODS:

ANY STEEL USED BY THE CONTRACTOR TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGERS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK, MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

SHEETING AND SHORING:

SHEETING AND SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL, PRIOR TO CONSTRUCTION. THE LIMITS OF THE SHEETING AND SHORING ARE TO BE DETERMINED BY THE CONTRACTOR. SEE SECTION 502.04.D OF THE 2009 STANDARD SPECIFICATIONS. ALL COST OF SHEETING AND SHORING TO BE INCLUDED IN THE PRICE BID OF "TEMPORARY EARTH RETAINAGE".

TEMPORARY MEDIAN BARRIER ON BRIDGE DECK:

AT ALL LOCATIONS WHERE TEMPORARY MEDIAN BARRIER SEPARATES TRAFFIC FROM A TERMINATING EDGE OF THE BRIDGE DECK, THE TEMPORARY MEDIAN BARRIER SHALL BE SECURED TO THE BRIDGE DECK. ANCHORAGES AND HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL BE DESIGNED TO KEEP THE BARRIER FROM LEAVING THE BRIDGE DECK UPON IMPACT WITH TRAFFIC. ANCHORAGES OR HARDWARE INSTALLED TO SECURE THE BARRIER TO THE BRIDGE DECK SHALL NOT OBSTRUCT TRAFFIC LANES IN ANY FASHION AND SHALL NOT BE HARMFUL TO HUMAN LIFE SHOULD A VEHICULAR COLLISION WITH THE BARRIER OCCUR. THE ANCHORAGES AND HARDWARE SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. THE DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ANCHORAGES AND HARDWARE SHALL NOT BE INSTALLED UNTIL THE CONTRACTOR HAS RECEIVED APPROVAL FROM THE ENGINEER. AS A RESULT OF INSTALLING ANCHORAGES AND HARDWARE TO SECURE THE BARRIER, ANY DAMAGE TO THE NEW BRIDGE DECKS OR TEMPORARY MEDIAN BARRIERS INCLUDING BUT NOT LIMITED TO HOLES IN THE CONCRETE, SPALLING OF THE CONCRETE, CUT REINFORCEMENT, OR PROJECTIONS FROM THE DECKS OR BARRIERS SHALL BE REPAIRED IN A MANNER APPROVED BY THE ENGINEER. ALL COSTS OF ANCHORAGES, HARDWARE, LABOR, EQUIPMENT, MATERIALS, PROFESSIONAL SERVICES, REPAIRS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

PROTECTION OF AREAS UNDER BRIDGES:

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

UTILITIES:

(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES THAT WOULD INTERFERE WITH CONSTRUCTION OF NEW BRIDGE SHOULD BE RELOCATED BY THE UTILITY OWNERS PRIOR TO START OF CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY THAT THE UTILITIES HAVE BEEN RELOCATED PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

NO PAYMENTS WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPELINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

OKLAHOMA ONE-CALL SYSTEM:

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

EXISTING BRIDGE PLANS:

THE EXISTING BRIDGES WERE ORIGINALLY CONSTRUCTED UNDER FEDERAL AID PROJECT NO. I-40-5-(7)154. PLANS ARE AVAILABLE FROM:

TECHNOLOGY SERVICES PLANS SECTION
OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N.E. 21ST ST.
OKLAHOMA CITY, OK 73105

PLATE GIRDER BRACING FOR DECK SLAB PLACEMENT:

SELECT A TEMPORARY BRACING SYSTEM IN ACCORDANCE WITH SECTION 502 OF SPECIFICATIONS CAPABLE OF PROVIDING A CONTINUOUS LOAD PATH FOR ALL ANTICIPATED LOADS DURING DECK SLAB CONCRETE PLACEMENT FOR BRIDGE. BRACING SYSTEM MUST ALSO PREVENT SIGNIFICANT LOCALIZED AND/OR GLOBAL DISTORTION OF THE STEEL GIRDERS THAT COULD CAUSE INSTABILITY OR COMPROMISE THE INTENDED FIT CONDITION. PROVIDE RESTRAINT AT BEARING ASSEMBLIES IF UPLIFT OF THE GIRDER IS ANTICIPATED OR ENCOUNTERED. THE BRACING SYSTEM SHOWN IN THE PLANS IS FOR ILLUSTRATION PURPOSES ONLY AND ALTERNATIVE SYSTEMS MAY BE CONSIDERED.

PLACE ALL BEARING MEMBERS PERPENDICULAR TO GIRDERS. PROVIDE A BRACING MEMBER AT THE OPPOSITE SIDE OF THE GIRDER WEB FOR EACH BRACING. FALSEWORK, OR FORMWORK MEMBER BEARING ON THE GIRDER WEB. LOCATE ALL MEMBERS BEARING ON THE GIRDER WEB NOT MORE THAN 6 INCHES FROM THE FLANGE. NO WELDING TO THE GIRDER WEB OR FLANGES IS PERMITTED. EPOXY-COAT OR GALVANIZE ALL COMPONENTS TO REMAIN IN PLACE AND CAST INSIDE THE DECK SLAB. USE DECK SLAB OVERHANG FORMWORK CAPABLE OF ADJUSTMENT DURING THE PLACEMENT OF CONCRETE IN ORDER TO MAINTAIN PROPER GRADES AT THE OVERHANG.

SUBMIT DESIGN DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACING SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL. DESIGN DRAWINGS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA. IF INCLUDED IN THE CHOSEN SYSTEM, INCLUDE WITH THE DESIGN CALCULATIONS METHODS TO PREDICT CRUSH AND SETTLEMENT OF SHIMS USED FOR ADJUSTMENT. DO NOT BEGIN BRACING INSTALLATION OR DECK SLAB PLACEMENT UNTIL APPROVAL OF THE DESIGN CALCULATIONS AND DRAWINGS BY THE ENGINEER OF RECORD IS RECEIVED. ALLOW 2 WEEKS FOR REVIEW AND APPROVAL.

INCLUDE ALL COSTS ASSOCIATED WITH FALSEWORK/BRACING, INCLUDING LABOR, MATERIALS, AND PROFESSIONAL SERVICES, IN THE CONTRACT UNIT PRICE OF "ENGINEERED FALSEWORK". INCLUDE THE INSTALLATION OF ALL OTHER FALSEWORK, BRACING, AND RELATED PROFESSIONAL SERVICES IN OTHER ITEMS OF WORK.

ELASTOMERIC COATING:

THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., POLYCOAT-PC-IM 129 SYSTEM AS MANUFACTURED BY POLYCOAT PRODUCTS, OR AN APPROVED EQUAL.

THE ELASTOMERIC COATING SHALL BE APPLIED TO THE AREAS SHOWN IN THE PLANS. THE FINISH SHALL BE NEAT STRAIGHT LINES FOR APPROVAL.

THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.

THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE ELASTOMERIC COATING.

WATER REPELLANT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.

ALL COSTS ASSOCIATED WITH THE USE ELASTOMERIC COATING INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS AND SHALL BE INCLUDED IN THE PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING".

VERTICAL JOINT SHEAR KEYS:

SHEAR KEYS IN VERTICAL JOINT MEMBERS INCLUDING COLUMNS AND DRILLED SHAFTS SHALL BE CONSTRUCTED ACCORDING TO SEC. 509.04D.(2) OF THE CURRENT CONSTRUCTION SPECIFICATIONS.

BRIDGE AESTHETICS:

BRIDGE AESTHETICS SHALL BE APPLIED TO THE ABUTMENTS, PIERS, RAILING, SLOPEWALLS, RETAINING WALLS, AND OTHER BRIDGE ELEMENTS AS SPECIFIED.

Design		BRIDGE "C" & "D" GENERAL BRIDGE NOTES (BRIDGE) State Job No. <u>23310(04)</u> Sheet No. <u>AB04</u>
Drawn		
Checked		
Approved		
Squad	POE	

ENVIRONMENTAL MITIGATION NOTES

EARTHWORK NOTE:

THE CONTRACTOR MUST ENSURE THAT ANY MATERIAL INCORPORATED INTO THE PROJECT IS FREE OF ANY HAZARDOUS, INDUSTRIAL OR CONTAMINATED WASTE. REFER TO SUB-SECTIONS 106.01 AND 202.02 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

IMPORTED MATERIAL (EG. BORROW) - IF MATERIAL IS IMPORTED TO THE PROJECT AND AT ANY POINT THE MATERIAL IS DETERMINED BY THE ENGINEER TO INCLUDE ANY TYPE OF UNACCEPTABLE CONTAMINATION, THE MATERIAL MAY REQUIRE REMOVAL, IN WHOLE, OR IN PART. IF REMOVAL IS REQUIRED, THEN THE INITIAL PLACEMENT, REMOVAL AND PROPER DISPOSAL OF THIS MATERIAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL OF THE UNACCEPTABLE MATERIAL SHALL BE APPROVED BY THE ENGINEER. REFER TO SUB-SECTION 107.15 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

TO ASSIST THE CONTRACTOR, THE "OFF PROJECT FACILITY/ BORROW SITE HAZARDOUS MATERIALS QUESTIONNAIRE" IS PROVIDED ON THE DEPARTMENT'S WEB SITE:

[HTTPS://OK.GOV/ODOT/PROGRAMS AND PROJECTS/ENVIRONMENTAL/INDEX.HTML](https://ok.gov/odot/programs_and_projects/environmental/index.html)

THIS QUESTIONNAIRE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR SO THAT A CLEARER UNDERSTANDING OF THE CHARACTERISTICS OF THE PROPOSED SITE/ MATERIAL IS ACHIEVED. COMPLETION AND SUBMITTAL OF THIS FORM TO THE ENGINEER DOES NOT EXCUSE THE CONTRACTOR FROM PROVIDING MATERIALS THAT ARE FREE OF HAZARDOUS AND INDUSTRIAL COMPOSITION IN ACCORDANCE WITH SUB-SECTIONS 106.01 AND 202.02 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NON-COMPLIANCE NOTE:

FAILURE TO IMPLEMENT THE COMMITMENTS SPECIFIED IN THE PLAN NOTES CAN RESULT IN NON-COMPLIANCE ISSUES ON THE PROJECT. WORK ACTIVITIES MAY BE SUSPENDED ON THE PROJECT, FOR AN UNDETERMINED DURATION, WHILE WORKING WITH REGULATORS TO BRING THE PROJECT BACK INTO COMPLIANCE. THE CONTRACTOR WILL NOT BE COMPENSATED FOR TIME LOST.

WATER QUALITY NOTE:

WATER QUALITY CONSERVATION: APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES AND SEDIMENTATION IN STREAMS, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS, IN ORDER TO MINIMIZE ANY POTENTIAL IMPACTS TO ANY LISTED SPECIES. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET FROM THE ORDINARY HIGH WATER MARK (OHWM). REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED AT LEAST 100 FEET FROM THE OHWMS. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND STAGING AREAS TO PROHIBIT DISCHARGE OF MATERIALS FROM THESE SITES. CONSTRUCTION WASTE MATERIALS AND DEBRIS SHALL BE STOCKPILED AT LEAST 25 FEET OUTSIDE OF THE OHWMS, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT. PREVENTATIVE MEASURES MUST BE TAKEN TO PROHIBIT THE DISCHARGE OF CONTAMINANTS INTO ANY SURFACE WATERS.

ENVIRONMENTAL MITIGATION NOTES

OFF-SITE AVOIDANCE NOTE:

LOCATIONS OUTSIDE THE PROJECT AREA IN THE FOLLOWING AREA MUST NOT BE UTILIZED FOR BORROW, EQUIPMENT STAGING, HAUL ROADS, SPOIL DUMPS OR ANY OFF-SITE PROJECT-RELATED ACTIVITY.

T11N R2W, SECTION 5, E 1/2 OF THE NW 1/4
SECTION 8, NE 1/4 OF THE NE 1/4 OF THE NW 1/4
SECTION 9, SW 1/4 OF THE NE 1/4 OF THE SW 1/4
SECTION 16, NE 1/4 OF THE NW 1/4

HAZARDOUS WASTE NOTE:

STATION	OCC FAC./CASE NO.	FACILITY
APPROX. 14+50 RT	55-05419/064-0807	FORMER EXPRESS STOP
APPROX. 22+00 LT	55-13411/064-1091	FORMER TEXACO

PETROLEUM CONTAMINATION MAY EXIST AT OR NEAR THE REFERENCED LEAKING UNDERGROUND STORAGE TANK (UST) SITES. BASED ON THE AVAILABLE INFORMATION, CONTAMINATION IS NOT EXPECTED TO AFFECT CONSTRUCTION ACTIVITIES, BUT IS STILL POSSIBLE. IN THE EVENT CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL ADHERE TO ODOT'S HAZARDOUS MATERIALS SPECIFICATION 107.15 AND NOTIFY THE RESIDENT ENGINEER, WHO MAY THEN CONTACT THE GRAMS DIVISION AT (405) 521-3050 FOR ASSISTANCE.

BALD EAGLE NOTE:

THE BALD EAGLE NESTING SEASON IN OKLAHOMA EXTENDS FROM SEPTEMBER 16, THROUGH MAY 31. A BALD EAGLE SURVEY WAS COMPLETED FOR THIS PROJECT IN JANUARY 2019. NO NESTS WERE OBSERVED WITHIN THE EXPECTED IMPACT AREA. SURVEY RESULTS ARE VALID ONLY FOR THE NESTING SEASON IN WHICH THE SURVEY WAS PERFORMED. IF CONSTRUCTION ACTIVITIES HAVE BEGUN, BUT ARE NOT COMPLETED BY SEPTEMBER 16, 2019 THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST. THE ODOT BIOLOGIST SHALL SCHEDULE ANY ADDITIONAL SURVEYS THAT MAY BE REQUIRED AS SOON AS LEAVES FALL OFF THE TREES (APPROXIMATELY NOVEMBER 1). BECAUSE NO NESTS WERE OBSERVED DURING THE INITIAL SURVEY, AND IT CAN TAKE A PAIR OF EAGLES ONE TO THREE MONTHS TO CONSTRUCT A NEW NEST, IF CONSTRUCTION ACTIVITIES HAVE BEGUN BEFORE OCTOBER 31, 2019 THEY MAY CONTINUE WHILE ADDITIONAL NEST SEARCH SURVEYS ARE CONDUCTED AFTER LEAF-OFF. IF CONSTRUCTION ACTIVITIES HAVE NOT BEGUN BY OCTOBER 31, 2019 A NEW NEST SURVEY SHALL BE COMPLETED BY THE ODOT BIOLOGIST BEFORE CONSTRUCTION ACTIVITIES CAN BEGIN. NEST SEARCH SURVEYS CAN ONLY BE CONDUCTED WHEN LEAVES ARE NOT ON THE TREES TYPICALLY BETWEEN DECEMBER 1ST AND FEBRUARY 28TH. IF NESTS ARE OBSERVED, UP TO A 1000 FOOT NO-WORK BUFFER SHALL BE PLACED AROUND THE NEST. THE EXACT DISTANCE OF THE BUFFER ZONE SHALL BE ESTABLISHED BY THE ODOT BIOLOGIST IN CONSULTATION WITH US FISH AND WILDLIFE SERVICES. IF THE BUFFER CANNOT BE MAINTAINED, ALL CLEARING, EXTERNAL CONSTRUCTION AND LANDSCAPING ACTIVITIES WITHIN THE BUFFER SHALL BE CONDUCTED BETWEEN JUNE 1 AND SEPTEMBER 15 (OUTSIDE THE NESTING SEASON).

MIGRATORY BIRD NOTE:

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST MIGRATORY BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE I-40 CRUTCH CREEK BRIDGES (NBI:15122 AND 15123) AND AN I-40 CULVERT (STA:156+00) WAS OBSERVED. PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGES AND CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND FEBRUARY 28, THE BRIDGES AND CULVERTS SHALL BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO MARCH 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO MARCH 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST. ALTHOUGH NO NESTS WERE OBSERVED ON ALL OTHER STRUCTURES, THE BIRDS MAY OCCUPY THE STRUCTURES IN THE FUTURE. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-210-3671 IF ANY BIRD USE OF THESE STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGES AND CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28 (WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED).

ADDITIONAL NOTES:

- 1) ALL ACCESS TO RAY TRENT PARK WILL BE MAINTAINED THROUGH THE CONSTRUCTION PROCESS.
- 2) ALL CONSTRUCTION RELATED IMPACTS WILL BE REPAIRED AND OVERLAY THE TURNAROUND DRIVE IN THE PARK.
- 3) THE DISTURBED LAND SURROUNDING THE TRAIL WILL BE FULLY RESTORED, AND WILL BE GRADED APPROPRIATELY FOR SAFETY AND DRAINAGE.
- 4) IN ORDER TO PRESERVE THE NATURE OF THE SUBJECT PROPERTY AND THE NEARBY LAND AND WATER, THE USE OF THE APPROPRIATE BEST MANAGEMENT PRACTICES – INCLUDING, BUT NOT LIMITED TO, STORM WATER, EROSION, AND DUST CONTROL, AND CHEMICAL/FUEL HANDLING WILL BE IMPLEMENTED DURING CONSTRUCTION.

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	REPLACED SHEET	12/9/19
2	REPLACED SHEET	2/6/20

ENVIRONMENTAL NOTES		DETAIL	
		REVIEW	
		APPROVED	
		ENVIRONMENTAL DIVISION	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB/PIECE NO. 23310(04)	SHEET NO. AE01

FED. ROAD DIST. NO.	STATE	JOB	PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.					

DESCRIPTION	REVISIONS	DATE
REVISED PAY ITEM		2/3/2020
REVISED/ADDED NOTES		2/25/2020
REVISED/ADDED PAY ITEMS AND NOTES		3/09/2020

PAY QUANTITIES - ROADWAY

ITEM NO.	DESCRIPTION	NOTES	UNITS	QUANTITY
0100	ROADWAY			JP 23310(04)
201(A)	0102 CLEARING AND GRUBBING		LSUM	1
202(A)	0183 UNCLASSIFIED EXCAVATION	(R-2)	CY	34,404
202(D)	0184 UNCLASSIFIED BORROW	(R-2)	CY	7,117
202(L)	6100 (SP) VIBRATING WIRE PIEZOMETERS	(R-3)	EA	6
202(L)	6105 (SP) VIBRATING WIRE TERMINAL BOXES	(R-3)	EA	6
202(L)	6110 (SP) VIBRATING WIRE READOUT AND DATA COLLECTOR	(R-3)	EA	6
202(L)	6115 (SP) SUPERVISING AND MAINTAINING INSTRUMENTS	(R-3)	LSUM	1
205(A)	4229 TYPE A-SALVAGED TOPSOIL	(R-4)	LSUM	1
221(C)	2801 TEMPORARY SILT FENCE		LF	9,459
221(H)	0450 (PL)TEMPORARY INLET SEDIMENT FILTER		EA	222
230(A)	2806 SOLID SLAB SODDING	(R-6)(R-7)	SY	25,209
233(A)	2817 VEGETATIVE MULCHING	(R-11)	AC	5.21
241	2832 MOWING	(R-15)	AC	10.42
303(A)	2100 AGGREGATE BASE TYPE A		CY	1,928
307(A)	4200 FLY ASH	(R-16)	TON	4,035
307(E)	4240 CEMENTITIOUS STABILIZED SUBGRADE		SY	74,343
317	4270 CEMENT TREATED BASE		SY	53,739
402(E)	0225 TRAFFIC BOUND SURFACE COURSE TYPE E	(1)(R-18)	TON	200
407(D)	0401 (SP) NT TACK MATERIAL		GAL	18,809
411(B)	5945 SUPERPAVE, TYPE S3(PG 64-22 OK)	(R-24)	TON	3,523
411(C)	5960 SUPERPAVE, TYPE S4(PG 64-22 OK)	(R-24)	TON	2,203
412	5267 COLD MILLING PAVEMENT	(R-26)	SY	2,780
414(B)	5725 DOWEL JOINTED P.C. CONCRETE PAVEMENT(PLACEMENT)		SY	72,593
414(G)	5275 P.C. CONCRETE FOR PAVEMENT		CY	21,005
504(E)	6190 42" F-SHAPED PARAPET		LF	8,304
504(F)	6006 HANDRAILING	(11)	LF	300
509	6153 SPECIAL CONCRETE FINISH	(7)	LSUM	1
509(B)	0321 CLASS A CONCRETE		CY	1,775
509(B)	0325 CLASS A CONCRETE(LONG. BAR. DES. 1-A)		CY	169
510(A)	6333 RETAINING WALL		SY	4,023
510(C)	6137 SLOPE WALL (4")		SY	1,556
510(D)	0350 (SP)GRAFFITI TREATMENT	(5)(7)(R-1)	SF	223,429
510(D)	6341 MSE RETAINING WALL		SY	3,180
511(A)	0332 REINFORCING STEEL		LB	89,208
511(B)	6010 EPOXY COATED REINFORCING STEEL		LB	264,550
514(A)	6011 PILES, FURNISHED (HP 12X53)		LF	17,433
514(B)	6294 PILES, DRIVEN (HP 12X53)		LF	17,433
514(L)	6220 PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	4
514(K)	6260 (PL) PILOT HOLES	(13)	LF	1,760
515(A)	6013 WATER REPELLENT (VISUALLY INSPECTED)		SY	4,051
535	6900 (SP)AESTHETIC FORM LINERS (NON-BIDDABLE)	(8)	LSUM	1
542	4600 (PL)INSTALLATION OF BRIDGE ITEMS	(9)	LSUM	1
609(A)	0287 CONCRETE CURB (4" MNTBLE-INTEGRAL)		LF	3,056
609(A)	0380 CONCRETE CURB (8" BARRIER-INTEGRAL)		LF	5,947
610(A)	0602 4" CONCRETE SIDEWALK	(3)	SY	1,260
610(B)	0604 6" CONCRETE DRIVEWAY		SY	329
610(C)	0608 4" CONCRETE DIVIDING STRIP		SY	244
610(F)	0615 ASPHALT SIDEWALK	(6)(R-24)	TON	128
610(G)	0617 ASPHALT DRIVEWAY	(6)(R-24)	TON	667
610(I)	4610 TACTILE WARNING DEVICE-NEW		SF	120
611(A)	2657 MANHOLE (4' DIAMETER)	(2)(R-32)	EA	72
611(A)	2658 MANHOLE (5' DIAMETER)	(2)(R-32)	EA	4
611(B)	2680 ADD'L DEPTH IN MANHOLE (4' DIAMETER)	(R-32)	VF	225
611(B)	2681 ADD'L DEPTH IN MANHOLE (5' DIAMETER)	(R-32)	VF	42
611(G)	5112 INLET CI DES. 2 (STD)	(R-31)(R-32)	EA	8
611(G)	5113 INLET CI DES. 2 (B)	(R-31)(R-32)	EA	1
611(G)	5120 INLET CI DES. 3 (STD)	(R-31)(R-32)	EA	15
611(G)	5699 INLET - LONGITUDINAL BARRIER - TYPE I, DES. 2		EA	57
611(G)	5700 INLET - LONGITUDINAL BARRIER - TYPE II, DES. 2		EA	8
611(H)	5325 ADD'L DEPTH IN INLET CI DES. 2	(R-32)	VF	23
611(H)	5330 ADD'L DEPTH IN INLET CI DES. 3	(R-32)	VF	25
611(H)	5697 ADD'L DEPTH IN INLET MED. BAR. DES. 2		VF	231
611(H)	5698 ADD'L DEPTH IN INLET MED. BAR. DES. 2-2		VF	30
611(L)	0487 JUNCTION BOXES		CF	41
613(A)	0491 18" R.C.PIPE CLASS III	(4)(10)	LF	8,582
613(A)	0492 24" R.C.PIPE CLASS III	(4)(10)	LF	2,254
613(A)	0493 30" R.C.PIPE CLASS III	(4)(10)	LF	104
613(A)	4496 28" X 18" R.C.PIPE ARCH CLASS A-III	(4)(10)	LF	696
613(A)	4513 36" X 22" R.C.PIPE ARCH CLASS A-IV	(4)(10)	LF	586
613(A)	4498 43" X 26" R.C.PIPE ARCH CLASS A-III	(4)(10)	LF	184
613(L)	4515 28" X 18" PREFAB. CULVERT END SECTION, ARCH		EA	2
613(L)	4531 43" X 26" PREFAB. CULVERT END SECTION, ARCH		EA	1

PAY QUANTITIES - ROADWAY CON'T

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
613(L)	5730 24" PREFAB. CULVERT END SECTION, ROUND		EA	2
613(L)	5732 30" PREFAB. CULVERT END SECTION, ROUND		EA	1
619(A)	0920 REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-36)(R-37)	LSUM	1
619(B)	4725 REMOVAL OF FENCE	(R-37)	LF	4,124
619(B)	4727 REMOVAL OF CONCRETE PAVEMENT	(R-37)(R-38)	SY	8,709
619(B)	4728 REMOVAL OF ASPHALT PAVEMENT	(R-37)(R-38)	SY	59,050
619(B)	4766 REMOVAL OF CONCRETE DRIVEWAY	(R-37)(R-38)	SY	242
619(B)	4791 REMOVAL OF CURB	(R-37)(R-38)	LF	2,251
619(B)	4792 REMOVAL OF SIDEWALK	(R-37)(R-38)	SY	1,787
619(B)	4821 REMOVAL OF CONCRETE SLOPE PROTECTION	(R-37)(R-38)	SY	467
619(B)	4915 REMOVAL OF CONCRETE MEDIAN BARRIER	(R-37)(R-38)	LF	8,675
619(B)	6132 REMOVAL OF 6" CONCRETE DIVIDING STRIP	(R-37)(R-38)	SY	68
624(E)	4290 FENCE-STYLE CLF (5'HIGH, CLASS A)	(R-40)	LF	908
624(E)	4292 FENCE-STYLE CLF (6'HIGH, CLASS A)	(R-40)	LF	528
624(F)	5952 GATES-STYLE CLF (6'HIGH X 6'LONG)		EA	2
624(F)	5966 GATES-STYLE CLF (6'HIGH X 18'LONG)		EA	2
627(A)	4317 CONCRETE LONGITUDINAL BARRIER, DESIGN 1	(R-42)	LF	2,601
871(A)	8325 (SP)IMPACT ATTENUATOR	(STS-1)	EA	6

PAY QUANTITIES (STAKING)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
0600	STAKING			JP 23310(04)
642(B)	0096 CONSTRUCTION STAKING LEVEL II	(12)	LSUM	1

PAY QUANTITIES (CONSTRUCTION)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY
0640	CONSTRUCTION			JP 23310(04)
220	2800 SWPPP DOCUMENTATION AND MANAGEMENT	(12)	LSUM	1
640(A)	1426 FIELD OFFICE	(12)	EA	1
641	1399 MOBILIZATION	(12)	LSUM	1

ROADWAY PAY QUANTITY NOTES

- (R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01 B OF THE STANDARD SPECIFICATIONS.
- (R-2) ESTIMATED QUANTITY ONLY. TO BE USED IN A MANNER APPROVED BY THE ENGINEER, FOR MISCELLANEOUS GRADING.
- (R-3) CONSTRUCTION OF PERMANENT PAVING LOCATED ABOVE FILL BEHIND WALLS A, B, C, AND F SHALL NOT PROCEED UNTIL THE RESIDENT ENGINEER HAS PROVIDED A LETTER APPROVING
- (R-4) AN ESTIMATED QUANTITY OF 4,200 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.
- (R-6) PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 S.Y.
- (R-7) PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER S.Y.
- (R-8) PRICE BID TO INCLUDE COST OF SEDIMENT REMOVAL AND ALL MAINTENANCE. SEDIMENT MUST BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- (R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 20.78
- (R-15) QUANTITY BASED ON TWO APPLICATIONS.
- (R-16) ESTIMATED AT 107 LBS. PER SQ. YD. (SOIL EST. AT 120 LBS. PER CU. FT.).
- (R-18) ESTIMATED AT 160 LBS. PER CU. FT.
- (R-24) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
- (R-26) PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-31) PRICE BID TO INCLUDE COST OF 24 - 4" MOUNTABLE CURB HOODS, 0 - 6" MOUNTABLE CURB HOODS, 0 - 6" BARRIER CURB HOODS, 52 - 8" BARRIER CURB HOODS.
- (R-32) THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.
- (R-36) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-37) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
- (R-38) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.
- (R-40) INCLUDES 2% FOR GROUND MEASUREMENT.
- (R-42) CONCRETE LONGITUDINAL BARRIER TO INCLUDE POST HOLES FITTED WITH GALVANIZED STEEL SLEEVE FOR GLARE DEFLECTOR FENCE OR THREADED FLANGE.
- (STS-1) IMPACT ATTENUATOR ON THIS PROJECT SHALL BE A "SCI100GM", MANUFACTURED BY WORK AREA PROTECTION CORPORATION, OR A "QUAD GUARD ELITE", MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, OR APPROVED EQUAL. THE UNITS MUST MEET NCHRP 350 TEST LEVEL III REQUIREMENTS AND "OKLAHOMA DEPARTMENT OF TRANSPORTATION GUIDELINES FOR CRASH CUSHIONS". PRICE BID FOR THIS ITEM SHALL INCLUDE THE COST FOR FURNISHING AND INSTALLING THE UNITS INCLUDING THE REINFORCING STEEL AND CONCRETE FOR THE CONCRETE PAD AND CONCRETE BACKUP IF NEEDED.

ROADWAY PAY QUANTITY NOTES, CON'T

- (1) INCLUDES 200 TONS OF MATERIAL FOR TEMPORARY DRIVEWAY ACCESS AS APPROVED BY THE ENGINEER.
- (2) ALL MANHOLES GREATER THAN 12 FEET IN DEPTH SHALL BE OF SPECIAL DESIGN AND SUBMITTED TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION FOR APPROVAL OR MEET MJB3-1 STANDARDS.
- (3) PRICE BID TO INCLUDE COST OF 2" SAND CUSHION BELOW THE SIDEWALK.
- (4) PRICE BID TO INCLUDE COST OF TRENCHING AND BEDDING/ EMBEDMENT MATERIALS.
- (5) PROVIDE A NON-SACRIFICIAL ANTI-GRAFFITI COATING SYSTEM THAT FORMS A BARRIER OVER NEW OR EXISTING CONCRETE SURFACES THAT ALLOWS FOR THE REMOVAL OF GRAFFITI WITHOUT LEAVING GRAFFITI SHADOW OR GHOSTS. PROVIDE ANTI-GRAFFITI COATING SYSTEM COMPONENTS FROM A SINGLE MANUFACTURER. ENSURE THAT THE ANTI-GRAFFITI COATING IS PIGMENTED TO THE PROPER COLOR AND IS APPLIED IN A ONE COAT SYSTEM WHEN A COLORED SURFACE IS REQUIRED ON THE PROJECT PLANS. APPLY THE SURFACE PREPARATION AND COATING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, EXCEPT THAT THE COATING MUST BE SPRAYED AND NOT APPLIED BY ROLLING OR BRUSHING. PROVIDE A SYSTEM FIELD TESTED AND APPROVED BY ODOT OR ITS REPRESENTATIVE ALONG WITH A TYPE A CERTIFICATION TO THE RESIDENT ENGINEER FOR ACCEPTANCE.
 PROVIDE A NON-SACRIFICIAL ANTI-GRAFFITI COATING SYSTEM THAT MEETS THE TEST REQUIREMENT OF ASTM D 7089 WITH A CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH HIGH-PRESSURE COLD WATER WASH) FOR FIELD EVALUATION BY THE ODOT MATERIAL DIVISION OR ITS REPRESENTATIVE. ALL COSTS OF FIELD TESTING WILL BE AT THE MANUFACTURER'S EXPENSE. ENSURE THE CLEANABILITY FOR A MINIMUM OF 10 CYCLES OF MARKING AND CLEANING. WHEN A PIGMENTED SYSTEM IS REQUIRED IN THE PLANS, USE LAMINAR SILICATES, TITANIUM DIOXIDE, INORGANIC OXIDES, AND OTHER MINERAL PIGMENTS AND TONING. USE OF ORGANIC PIGMENTS, VEGETABLE OR MARINE OILS, PARAFFINIC MATERIAL, OR STEARATES IN THE FORMULATION ARE NOT PERMITTED.
 INCLUDES 10% FOR FIELD MEASUREMENT
- (6) SUPERPAVE TYPE 3 (PG 64-22 OK) TO BE USED.
- (7) SEE "AESTHETIC TREATMENT SPECIAL PROVISIONS" FOR DETAILS AND COVERAGE AREA
- (8) COST SHALL INCLUDE NEW FORM LINERS AS DESCRIBED IN "AESTHETIC TREATMENT SPECIAL PROVISIONS". PAY ITEM TO INCLUDE THE PARAPET FORM LINERS SPECIFIC FOR 23310(04), ALONG WITH THE PIER CAP, STARS AND WING WALL FORM LINERS TO BE USED ON BOTH PROJECTS. PAY ITEM FOR JP 2885(04) TO INCLUDE THE PARAPET LINERS SPECIFIC FOR 28854(04), ALONG WITH THE M.S.E. FORM LINERS TO BE USED ON BOTH PROJECTS.
- (9) COST SHALL INCLUDE ALL MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY FOR THE USE OF FORMLINES FOR ALL AESTHETIC ELEMENTS DEPICTED IN THE PLANS AND "AESTHETIC TREATMENT SPECIAL PROVISIONS".
- (10) SETTLEMENT OF EXISTING SOILS IS ANTICIPATED FROM APPROXIMATELY STA 121+00 TO STA 131+00. REFER TO GEOTECH SETTLEMENT ANALYSIS REPORTS. DRAINAGE STRUCTURES SHOULD BE MECHANICALLY RESTRAINED IN THIS AREA TO PREVENT SEPERATION AT THE JOINTS DUE TO SETTLEMENT. COST TO RESTRAIN THE JOINTS SHALL BE INCLUDED IN THE COST OF THE PIPE.
- (11) ESTIMATED QUANTITY TO BE USED AT THE DISCRETION OF THE ENGINEER FOR REPLACEMENT OF HANDRAIL ON WALKING TRAIL UNDER BRIDGE A & B.
- (12) MANDATORY TIE: THE COST FOR JP 2885(04), OKLAHOMA COUNTY SHALL BE INCLUDED IN THE PRICE BID FOR JP 23310(04), OKLAHOMA COUNTY FOR THE FOLLOWING ITEMS: MOBILIZATION, CONSTRUCTION STAKING, SWPPP DOCUMENTATION AND MANAGEMENT AND FIELD OFFICE.
- (13) PREBORE PILOT HOLES FOR C.I.P. WALL A, B, C, AND F, PLING IN ACCORDANCE WITH SECTION 514.04C(1)(B) OF THE STANDARD SPECIFICATIONS, AS DIRECTED BY THE ENGINEER, TO DETERMINE THE LOCATION OF BURIED UTILITIES. THERE IS AN ESTIMATED TOTAL 1,760 LF OF PILOT HOLES TO BE USED FOR CIP WALLS. (WALL A= 619 LF, WALL B=510 LF, WALL C=310 LF AND WALL F=330 LF)
 FILL THE VOID SPACE REMAINING AROUND THE PILE, AFTER THE COMPLETION OF DRIVING, WITH CLASS C CONCRETE. THE CONTRACTOR MAY ELECT TO FILL THE ENTIRE VOID WITH THE SAME CLASS A CONCRETE FROM THE STEEL PILE ENCASEMENT AT NO ADDITIONAL COST TO THE DEPARTMENT.
 ALL COST INCLUDING LABOR, EQUIPMENT, BACKFILL MATERIAL, CLASS C CONCRETE AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "PILOT HOLES".

DESIGN	KST	06/12
DRAWN	KST	06/12
CHECKED	MAP	06/12
APPROVED	HDM	06/12
SQUAD	POE	

SUMMARY OF PAY QUANTITIES & NOTES (ROADWAY)

STATE JOB NO. 23310(04) SHEET NO. AR01

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

GENERAL CONSTRUCTION NOTES

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON PLANS.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING SECTION LINE ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE RESIDENT ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LAYING OPERATION, EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-1 (LATEST REVISION SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1 (ONE) DAYS TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENTION OF DRAINAGE STRUCTURES. ALL COST TO THE INCLUDED IN OTHER ITEMS OF WORK.

IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDE DIN OTHER ITEMS OF WORK.

VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORD IN ACCORDANCE WITH THE "ADHESIVE SPRAY METHOD", AS SPECIFIED IN 233.04B(I) OF THE STANDARD SPEICIFICATIONS

AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 18-4-0 FERTILIZER APPLIED, AT THE RATE OF 150 POUNDS PER ACRE, JUST PRIOR TO THE REPLACEMENT OF SLAVAED TOPSOIL.

AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, SHALL BE FERTILIZED AND WATERED AS CALLED FOR ON THE PLANS. BUT SHALL NOT BE SEEDED, SODDED OR SPRIGGED.

SURFACING OF RETURNS, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL BE OF THE SAME MATERIAL (BASE AND SURFACE AS THAT OF THE ABUTTING SHOULDER OF THE MAINLINE. BASE AND SURFACE THICKNESS SHALL BE THE THICKNESS SHOWN ON PLANS.

THE ENGINEER SHALL CHECK GRADES AT RAMP TERMINALS, AND MAKE ANY ADJUSTMENTS OF THE GRADES AND SUPERELEVATIONS, WHICH ARE REQUIRED TO OBTAIN SMOOTH PROFILES FOR BOTH EDGES OF THE RAMP PAVEMENT. CROSS SLOPE BREAKOVER SHALL NOT EXCEED 5% (FIVE PERCENT).

ONLY THE SILICONE SEALANT OPTIONS, FROM STANDARD LECS-4, WILL BE ALLOWED ON THIS PROJECT.

PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.

EXCESS ASPHALT AT JOINTS AND CRACKS IN EXISTING PAVEMENT SHALL BE REMOVED FLUSH TO TOP OF PAVING IN A MANNER APPROVED BY THE ENGINEER.

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DESIGN	KST	06/12
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CHECKED	MAP	06/12
APPROVED	HDM	06/12
SQUAD	POE	

GENERAL CONSTRUCTION NOTES (ROADWAY)

STATE JOB NO. 23310(04) SHEET NO. AR02

SUMMARY OF SURFACING QUANTITIES

STATION LOCATION TO STATION LOCATION	AGGREGATE BASE TYPE A 303	FLY ASH 307(A)	CEMENTITIOUS STABILIZED SUBGRADE 307(E)	4" CEMENT TREATED BASE 317	SEPARATOR FABRIC 325	(SP) INT TACK MATERIAL 407 (D)	SUPERPAVE TYPE S3 (PG64-22 OK) 411(B)	SUPERPAVE TYPE S4 (PG64-22 OK) 411(B)	COLD MILLING PAVEMENT 412	DOWEL JOINTED P.C.C. PAV'T. (PLACEMENT) 414(B)	P.C. CONCRETE FOR PAVEMENT 414(G)	SLOPEWALL (4") 510(C)	4" MOUNT- INTEGRAL CURB 608(A)	8" BARR-INTEGRAL CURB 608(A)	4" CONCRETE SIDEWALK 610(A)	4" CONCRETE DIVIDING STRIP 610(C)	4" ASPHALT SIDEWALK 610(F)	4" ASPHALT DRIVEWAY 610(G)
	CY	TON	SY	SY	SY	GAL	TON	TON	SY	SY	CY	SY	LF	LF	SY	SY	TON	TON
MAINLINE																		
STA 92+00 TO STA 96+00	385				578						385							
STA 108+00.00 TO STA 114+00.00		407.85	7515.28	7515.28	7515.28	2630.35				7515.28	2296.33							
STA 114+00.00 TO STA 123+00.00		929.49	17127.14	17127.14	17127.14	5994.50				17127.14	5233.29							
STA 123+00.00 TO STA 132+00.00		531.30	9789.91	9789.91	9789.91	3426.47				9789.91	2991.36							
STA 132+00.00 TO STA 141+00.00		326.43	6014.90	6014.90	6014.90	2105.21				6014.90	1837.89							
STA 141+00.00 TO STA 149+00.00		721.35	13291.88	13291.88	13291.88	4652.16				13291.88	4061.41							
S.E. 15TH STREET																		
STA. 13+06.31 TO STA. 19+00.00	299.43	146.25	2694.85							2457.23	546.05			1081.71	480.32			
STA. 19+00.00 TO STA. 23+93.96	268.88	131.33	2419.90							2188.18	486.26			948.35	477.85			
LT. ACCESS RD. & RAMP "A"																		
STA. 109+00.00 TO STA. 114+00.00		141.98	2616.21				470.92			2343.38	585.84	555.15	171.41	906.54				
STA. 114+00.00 TO STA. 118+33.30		82.48	1519.89				273.58			1334.34	333.59	384.40		756.84				
RAMP "B"																		
STA. 109+30.00 TO STA. 113+79.55		45.12	831.49				149.67			785.95	196.49	35.16	181.81	366.06		187.22		
RAMP "C"																		
STA. 126+04.86 TO STA. 132+00.00		64.23	1183.59				213.05			1149.56	287.39		183.29		15.50			
STA. 132+00.00 TO STA. 139+01.91		138.71	2555.94				460.07			2256.04	564.01		1864.53		286.01			
RAMP "D"																		
STA. 127+00.00 TO STA. 132+00.00		64.56	1189.56				214.12			1176.16	294.04		60.04					
STA. 132+00.00 TO STA. 135+34.11		72.79	1341.17				241.41			1250.36	312.59		416.28					
RAMP "E"																		
STA. 144+56.26 TO STA. 149+00.00		48.15	887.19				159.69			887.19	221.80	147.45	44.69	386.33		13.09		
RT. SERVICE RD. & RAMP "F"																		
STA. 141+00.00 TO STA. 148+10.00		182.60	3364.58				605.62			3025.94	756.49	434.03	134.30	1501.32		43.51		
PEDESTRIAN PATH																		
I-40 STA. 123+03.61, 139.01' LT. TO																	127.56	
I-40 STA. 126+42.56, 119.48' RT.																		
PARKING FACILITY																		
I-40 STA. 115+18.30, 465.44' LT. TO									2779.66									667.12
I-40 STA. 118+06.53, 143.03' LT.																		
TEMPORARY PAVEMENT																		
PHASES 1, 2 & 3	1360.07						734.40	2203.20										
TOTALS JP 23310(04):	1,928.37	4,034.62	74,343.48	53,739.10	53,739.10	18,808.69	3,522.53	2,203.20	2,779.66	72,593.43	21,004.82	1,556.19	3,056.35	5,947.15	1,259.69	243.81	127.56	667.12

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS		DATE	
REVISED ITEMS					3/09/2020	

SUMMARY OF EROSION CONTROL

INTERSTATE 40 STATION LOCATION	SLAB SODDING 230(A)	FERTILIZING * (15-30-15)	WATERING *	VEGETATIVE MULCH 233(A)	MOWING 241
	S.Y.	TON	M-GAL.	AC.	AC.
STA 108+00 TO STA 114+00	3494	0.02	0.14	0.72	1.44
STA 114+00 TO STA 123+00	10490	0.05	0.42	2.17	4.33
STA 123+00 TO STA 132+00	4348	0.02	0.17	0.90	1.80
STA 132+00 TO STA 141+00	5129	0.03	0.21	1.06	2.12
STA 141+00 TO STA 149+00	1748	0.01	0.07	0.36	0.72
TOTALS JP 23310(04):	25209	0.13	1.01	5.21	10.42

SUMMARY OF TEMPORARY SEDIMENT CONTROL

STATION LOCATION	TEMPORARY SILT FENCE 221(C)	INLET SEDIMENT FILTER 221(H)
	L.F.	EA.
STA 108+00 TO STA 114+00	1022	44
STA 114+00 TO STA 123+00	2992	34
STA 123+00 TO STA 132+00	1902	38
STA 132+00 TO STA 141+00	1926	52
STA 141+00 TO STA 149+00	1617	54
TOTALS JP 23310(04):	9459	222

SUMMARY OF FENCING

INTERSTATE 40 STATION LOCATION	FENCE STYLE C.L.F. (5' HI-CLASS A) 624(E)	FENCE STYLE C.L.F. (6' HI-CLASS A) 624(E)	GATES STYLE C.L.F. (5' HI-CLASS A) 624(F)	GATES STYLE C.L.F. (6' HI-CLASS A) 624(F)
	L.F.	L.F.	EA.	EA.
STA 108+00 TO STA 114+00				
STA 114+00 TO STA 123+00		243.00		
STA 123+00 TO STA 132+00	634.00	275.00		2 (1)
STA 132+00 TO STA 141+00	256.00		2 (2)	
STA 141+00 TO STA 149+00				
TOTALS JP 23310(04):	890.00	518.00	2	2

* FOR INFORMATION ONLY

DESIGN	KST	06/12
DRAWN	KST	06/12
CHECKED	MAP	06/12
APPROVED	HDM	06/12
SQUAD	POE	

SUMMARY OF QUANTITIES (ROADWAY)
SHEET 1 OF 3

STATE JOB NO. 23310(04) SHEET NO. AR03

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SUMMARY OF LONGITUDINAL BARRIER

STATION LOCATION	LOCATION	42" F-SHAPED PARAPET 504(E) L.F.	CLASS A CONCRETE 509(B) C.Y.	CLASS A CONC. (LONG. BAR. DES. 1-A) 509(B) C.Y.	REINF. STEEL 511(A) LB.	EPOXY COATED REINF. STEEL 511(B) LB.	WATER REPELLENT (VISUALLY INSPECTED) 515(A) S.Y.	CONC. LONG. BARRIER (DES. 1) 627(A) L.F.	IMPACT ATTENUATOR 871(A) EA	DESIGN						
										1	1-A	FSB	1-SP	TS	LP. SUP.	
										①	②	③	④	⑤	⑥	
I-40 MEDIAN BARRIER																
STA 92+00.00 TO STA 96+00.00	MEDIAN							400			X					
STA 108+00.00 TO STA 109+55.00	MEDIAN		6	30.7	8680						X				1	
STA 109+55.00 TO STA 122+34.32	MEDIAN		43		40320			1218.15			X				7	
STA 122+34.32 TO STA 124+44.32	MEDIAN		6.3		445			199.83			X		X		1	
STA 124+44.32 TO STA 124+98.01	MEDIAN	54	10.7			1739	26.0					X				
STA 127+67.65 TO STA 128+21.35	MEDIAN	54	10.7			1739	26.0					X				
STA 128+21.35 TO STA 134+09.66	MEDIAN		47.2		6481					X			X			
STA 134+09.66 TO STA 135+41.71	MEDIAN	132	26.1			4220	64.0					X				
STA 139+53.92 TO STA 140+76.66	MEDIAN	123	24.3			3934	60.0					X				
STA 140+76.66 TO STA 142+85.73	MEDIAN		11.0		585			198.90			X		X		1	
STA 142+85.73 TO STA 149+00.00	MEDIAN		18		17280			583.77			X				3	
I-40 EASTBOUND																
STA 104+00.00 TO STA 108+00.00	ON-GRADE	400	79.2			12746	195.0					X				
STA 108+00.00 TO STA 111+22.22	ON-GRADE	322	63.7			10265	157.0					X				
STA 113+79.55 TO STA 116+60.00	ON-GRADE	280	55.4			8928	137.0					X				
STA 116+60.00 TO STA 124+98.01	WALL B	838	165.8			26680	409.0					X				
STA 131+40.81 TO STA 134+09.65	WALL E	269	53.2			8547	131.2					X				
STA 131+40.81									1							
STA 139+53.91 TO STA 144+06.09	WALL H	452	89.5			14401	220.7					X				
I-40 WESTBOUND																
STA 104+00.00 TO STA 108+00.00	ON-GRADE	400	79.2			12746	195.0					X				
STA 108+00.00 TO STA 110+88.97	ON-GRADE	289	57.2			9215	141.0					X				
STA 110+88.97									1							
STA 112+44.30 TO STA 114+01.88	ON-GRADE	158	31.3			5047	77.0					X				
STA 114+01.88 TO STA 124+44.32	WALL A	1042	206.3			33170	508.8					X				
STA 130+47.44 TO STA 135+41.71	WALL D	494	97.8			15737	241.2					X				
STA 140+76.86 TO STA 144+63.46	WALL G	387	76.5			12301	188.7					X				
STA 144+63.46									1							
STA 146+46.32 TO STA 149+00.00	ON-GRADE			104.1	11585						X					
RAMP B																
STA 113+19.93 TO STA 113+79.55	ON-GRADE	60	11.9			1930	29.0					X				
STA 113+19.93									1							
RAMP C																
STA 127+67.66 TO STA 136+14.95	WALL C & C-1	847	167.7			26957	413.5					X				
STA 136+14.95									1							
RAMP D																
STA 128+21.35 TO STA 133+58.25	WALL F & F-1	537	106.2			17092	262.0					X				
RAMP E																
STA 145+56.96 TO STA 146+46.32	ON-GRADE			34.6	3832						X					
RAMP F																
STA 144+98.06 TO STA 149+00	ON-GRADE	402	79.6			12810	196.0					X				
STA 144+98.06									1							
RT. SERVICE ROAD																
STA 136+21.68 TO STA 136+94.26	ON-GRADE	73	14.4			2343	36.0					X				
SUNNYLANE																
STA 136+21.68 TO STA 136+94.26	ON-GRADE	691	136.7			22003	337.0									
TOTALS JP 23310(04):		8304	1775	169	89208	264550	4051	2601	6						13	

- ① DESIGN 1 LONGITUDINAL BARRIER - SEE ODOT STANDARD DRAWING CLB-1-2
- ② DESIGN 1-A LONGITUDINAL BARRIER - SEE ODOT STANDARD DRAWING CLB-1-2 AND DETAIL SHEET NO. RW64
- ③ F-SHAPED PARAPET - SEE ODOT STANDARD DRAWING FSHP-42-2-00E: MOMENT SLAB - SEE DETAIL SHEET NO. R089 & RW064
- ④ MEDIAN BARRIER - SEE DETAIL SHEET NO. R089
- ⑤ MEDIAN BARRIER TRANSITION - SEE ODOT STANDARD DRAWING CLB-1-2
- ⑥ MEDIAN BARRIER LIGHT POLE SUPPORT - SEE DETAIL SHEET NO. T088-T090,

DESIGN	KST	06/12
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APPROVED	HDM	06/12
SQUAD	POE	

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FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS	DATE		

SUMMARY OF GRADING ESTIMATE

STATION AND LOCATION	UNCL. EXCAV. 202(A)	EMB. +15%	UNCL. BORROW 202(D)	EXCESS EXCAV.
	C.Y.	C.Y.	C.Y.	C.Y.
MAINLINE I-40				
STA. 108+00.00 TO STA. 149+00.00	26288.00	25690.00		598.00
S.E. 15TH STREET				
STA. 13+06.31 TO STA. 23+93.96	3822.00	10.00		3812.00
RAMP "A"				
STA. 110+72.84 TO STA. 114+03.71	(1)	(1)	(1)	(1)
LT. ACCESS RD.				
STA. 109+00.00 TO STA. 118+33.30	885.00	474.00		411.00
RAMP "B"				
STA. 109+30.00 TO STA. 113+79.55	486.00	2.00		484.00
RAMP "C"				
STA. 126+04.86 TO STA. 139+01.91	1562.00	5198.00	3636.00	
RAMP "D"				
STA. 127+00.00 TO STA. 135+34.11	355.00	2713.00	2358.00	
RAMP "E"				
STA. 144+56.26 TO STA. 149+00.00	548.00	12.00		536.00
RAMP "F"				
STA. 144+13.05 TO STA. 148+10.00	(2)	(2)	(2)	(2)
STA. 148+10.00 TO STA. 149+00.00	48.00			48.00
RT. SERVICE RD.				
STA. 141+00.00 TO STA. A148+10.00	410.00	1533.00	1123.00	
TOTALS JP 23310(04):	34,404.00	35,632.00	7,117.00	5,889.00

NOTES:
 (1) INCLUDED IN LT. ACCESS RD. GRADING QUANTITIES.
 (2) INCLUDED IN RT. SERVICE RD. GRADING QUANTITIES.

SUMMARY OF DISTURBED DRAINAGE AREA

AREA	OUTFALL STATION & DESCRIPTION	DESCRIPTION	DISTURBED DRAINAGE AREA	SEDIMENT CONTROL MEASURES	STANDARDS
			AC.		
D1	STA. 126+30 RT. DR. STR. M12 OUTFALL TO CRUTCHO CREEK	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	3.91	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, SPEC. DETAIL SHT.
D2	STA. 120+00 LT. DR. STR. M29 OUTFALL TO EXIST. DITCH	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	1.41	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, SPEC. DETAIL SHT.
D3	STA. 125+50 LT. DR. STR. M27 OUTFALL TO CRUTCH CREEK	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	2.61	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, TSD-2, TRFD-1, TFL-1, SPEC. DETAIL SHT. 67
D4	WEST SIDE CRUTCHO CREEK UNDER PROPOSED BRIDGES	BRIDGE & SLOPEWALL RUNOFF TO CRUTCHO CRK.	0.31	CONC. SLOPEWALL & RIPRAP	SEE BRIDGE DETAILS
D5	EAST SIDE CRUTCHO CREEK UNDER PROPOSED BRIDGES	BRIDGE & SLOPEWALL RUNOFF TO CRUTCHO CRK.	0.63	CONC. SLOPEWALL & RIPRAP	SEE BRIDGE DETAILS
D6	STA. 129+20 LT. DR. STR. C4 OUTFALL TO EXIST. DITCH	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	1.01	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, SPEC. DETAIL SHT.
D7	STA. 137+50 RT. DR. STR. D13 OUTFALL TO CRUTCHO CREEK	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	1.81	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, SPEC. DETAIL SHT.
D8	STA. 130+00 LT. DR. STR. C7 OUTFALL TO EXIST. DITCH	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	2.04	SILT FENCE, TEMP. INLET SEDIMENT FILTERS, RIPRAP AT OUTFALL	TSC2-3, SPEC. DETAIL SHT.
D9	STA. 135+25 RT. DR. STR. S1 OUTFALL TO EXIST. STRM SEWER SYSTEM N. SIDE S.E. 15TH ST.	PAVEMENT SHEET RUNOFF TO PROP. & EXIST. STORM DRAIN STRS.	0.64	TEMP. INLET SEDIMENT FILTERS,	SPEC. DETAIL SHT.
D10	STA. 140+75 LT. DR. STRS. S5 & S6 OUTFALL TO EXIST. STRM SEWER SYSTEM N. SIDE S.E. 15TH ST.	PAVEMENT SHEET RUNOFF TO PROP. & EXIST. STORM DRAIN STRS.	0.11	TEMP. INLET SEDIMENT FILTERS,	SPEC. DETAIL SHT.
D11	MULTIPLE OUTFALLS TO EXIST. STRM SEWER SYSTEM S. SIDE S.E. 15TH ST.	PAVEMENT SHEET RUNOFF TO PROP. & EXIST. STORM DRAIN STRS.	1.82	SILT FENCE, TEMP. INLET SEDIMENT FILTERS,	TSC2-3, SPEC. DETAIL SHT.
D12	MULTIPLE OUTFALLS TO EXIST. STRM SEWER SYSTEM RT. SERV. RD.	PAVEMENT SHEET RUNOFF TO PROP. & EXIST. STORM DRAIN STRS.	0.78	SILT FENCE, TEMP. INLET SEDIMENT FILTERS,	TSC2-3, SPEC. DETAIL SHT.
D13	STA. 148+40 RT. DR. STR. M63 OUTFALL TO PROP. STRM. SYS. (TIED PROJ.)	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	1.67	SILT FENCE, TEMP. INLET SEDIMENT FILTERS	TSC2-3, SPEC. DETAIL SHT.
D14	STA. 147+00 DR. STR. M49 OUTFALL TO PROP. STRM. SYS. (TIED PROJ.)	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	0.73	TEMP. INLET SEDIMENT FILTERS	TSC2-3, SPEC. DETAIL SHT.
D15	STA. 148+400 LT. DR. STR. E4 OUTFALL TO PROP. STRM. SYS. (TIED PROJ.)	PAVEMENT SHEET RUNOFF TO PROP. STORM DRAIN STRS.	0.75	SILT FENCE, TEMP. INLET SEDIMENT FILTERS	TSC2-3, SPEC. DETAIL SHT.
D16	PARKING LOT FOR PARK WEST OF CRUTCHO CREEK	PAVEMENT SHEET RUNOFF TO EXISTING DRAINAGE DITCHES	0.55	SILT FENCE,	TSC2-3, SPEC. DETAIL SHT.
TOTAL DISTURBED ACRES			20.78		

SCHEDULE OF DRIVEWAYS / RETURNS

STATION AND LOCATION	WIDTH	LENGTH	RADII	6" CONCRETE DRIVEWAY 610(B)
	FT.	FT.	FT.	SY
LT. ACCESS ROAD				
117+57.26 C/L I-40, LT.	60.0	25.4	42/10/30	(1)
S.E. 15TH STREET				
13+39.30 C/L S.E. 15TH ST.,	36.0	23.5	15/15	(1)
15+65.85 C/L S.E. 15TH ST.,	47.5	50.0	55/20	(1)
21+07.97 C/L S.E. 15TH ST.,	26.0	47.0	25/25	(1)
22+40.46 C/L S.E. 15TH ST.,	24.5	34.9	15/15	(1)
RT. ACCESS ROAD				
141+51.82 C/L I-40, RT.	12.0	33.4	15/15	58.28
142+11.01 C/L I-40, RT.	15.0	32.7	15/15	67.89
142+74.19 C/L I-40, RT.	15.0	3.2	15/15	11.09
143+20.71 C/L I-40, RT.	18.0	31.4	15/15	75.92
147+61.88 C/L I-40, RT.	28.0	34.0	15/15	115.81
TOTALS JP 23310(04):				329.00

NOTES:
 (1) INCLUDED IN MAINLINE SURFACING QUANTITIES. DRIVEWAYS IN THESE LOCATIONS ARE FULL DEPTH CONCRETE.

SUMMARY OF REMOVALS

STATION LOCATION	REMOVAL OF CONCRETE PAVEMENT 619(B)	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF CONCRETE MEDIAN BARRIER 619(B)	REMOVAL OF FENCE 619(B)	REMOVAL OF CONCRETE DRIVEWAY 619(B)	REMOVAL OF SIDEWALK 619(B)	REMOVAL OF CURB 619(B)	REMOVAL OF 6" CONC. DIVIDING STRIP 619(B)	REMOVAL CONC. SLOPE PROTECTION 619(B)
	S.Y.	S.Y.	L.F.	S.Y.	S.Y.	S.Y.	L.F.	S.Y.	S.Y.
INTERSTATE 40									
STA 92+00 TO STA 96+00	578		400						
STA. 104+00 TO STA 108+00							309		
STA 108+00 TO STA 114+00	847	8688	668	459		42			90
STA 114+00 TO STA 123+00	2664	11247	2267	1669		329			
STA 123+00 TO STA 132+00	918	9036	2122	349		594			377
STA 132+00 TO STA 141+00	1074	9477	1981	169	242				
STA 141+00 TO STA 149+00	1284	13063	1237	1284			659		
S.E. 15TH STREET									
STA 14+26.72 TO STA 19+00	787	1032				353	339		
STA 19+00 TO STA 23+93.96	557	387		194		469	944	68	
TEMPORARY PAVEMENT									
		6120							
TOTALS JP 23310(04):	8709	59050	8675	4124	242	1787	2251	68	467

DESIGN	KST	06/12
DRAWN	KST	06/12
CHECKED	MAP	06/12
APPROVED	HDM	06/12
SQUAD	POE	

SUMMARY OF QUANTITIES (ROADWAY)

SHEET 3 OF 3

STATE JOB NO. 23310(04) SHEET NO. AR05

SUMMARY OF DRAINAGE STRUCTURES

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	REINFORCED CONCRETE PIPE						PREFABRICATED CONC. END SECTION P.C.E.S.				INLET C.I.			INLET ADD'L. DEPTH		INLET LONG. BARRIER		INLET LONG. BARRIER ADD'L. DEPTH		INLET FRAME & GRATE (TYPE V/G/F)	CAST IRON HOOD		MANHOLE		MANHOLE ADD'L. DEPTH		MANHOLE FRM. & COVER		TRENCH EXCAVATION	STD. BEDDING MAT'L.	JUNCTION BOX
				ROUND			ARCH			ROUND		ARCH		2 (STD.)	2 (B)	3 (STD.)	2 (STD.)	3 (STD.)	DES. 2		TYPE B	4" MTB.		8" BARR.	4'	5'	4'	5'	4'	5'				
				18"	24"	30"	28" X 18"	36" X 22"	43" X 26"	24"	30"	28" x 18"	43" X 26"						TYPE I	TYPE II											TYPE I			
				LF				EA				EA			VF			EA		VF		EA		EA	EA	VF	EA	VF	EA	VF	EA			
MAINLINE																																		
M1	I40 STA. 108+50.00	CONST. LONG. BARRIER INLET W/ 18" x 74.62' LG. RCP TO STR. M2	CLB-1 (TYPE I), SPI-4, SPB-1	76													1		2.91		2									60	52			
	1.06' LT.																																	
M2	I40 STA. 109+30.00	CONST. LONG. BARRIER INLET W/ 18" x 46.42' LG. RCP TO STR. M5	CLB-1 (TYPE I), SPI-4, SPB-1	48													1		2.53		2									38	33			
	1.06' LT.																																	
M3	I40 STA. 112+50.00	CONST. LONG. BARRIER INLET W/ 18" x 244.62' LG. RCP TO STR. M4	CLB-1 (TYPE II), SPI-4, SPB-1	246														1		3.18		4								224	198			
	ON CL																																	
M4	I40 STA. 115+00.00	CONST. LONG. BARRIER INLET W/ 18" x 140.50' LG. RCP TO STR. M7	CLB-1 (TYPE II), SPI-4, SPB-1	142														1		4.55		4								158	143			
	ON CL																																	
M5	I40 STA. 109+30.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 66.00' LG. RCP TO STR. M6	MJB-3, MFC-4 SPI-4, SPB-1	66																					1		0.80		1		53	46		
	48.00' RT.																																	
M6	I40 STA. 110+00.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 115.57' LG. RCP TO STR. M81	MJB-3, MFC-4 SPI-4, SPB-1	116																					1		1.07		1		95	83		
	47.00' RT.																																	
M7	I40 STA. 116+45.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 64.00' LG. RCP TO STR. M17	MJB-3, MFC-4 SPI-4, SPB-1	64																					1		3.63		1		82	76		
	7.50' LT.																																	
M8	I40 STA. 117+00.00	CONST. LONG. BARRIER INLET W/ 18" x 194.62' LG. RCP TO STR. M9	CLB-1 (TYPE II), SPI-4, SPB-1	196															1		3.04		4							180	160			
	ON CL																																	
M9	I40 STA. 119+00.00	CONST. LONG. BARRIER INLET W/ 18" x 194.62' LG. RCP TO STR. M10	CLB-1 (TYPE II), SPI-4, SPB-1	196															1		4.64		4							230	210			
	ON CL																																	
M10	I40 STA. 121+00.00	CONST. LONG. BARRIER INLET W/ 18" x 244.64' LG. RCP TO STR. M11S	CLB-1 (TYPE II), SPI-4, SPB-1	246															1		6.32		4							369	343			
	ON CL																																	
M11N	I40 STA. 123+50.00	CONST. LONG. BARRIER INLET W/ 18" x 4.11' LG. RCP TO STR. M11S	CLB-1 (TYPE I), SPI-4, SPB-1	6															1		8.77		2							7	6			
	2.71' LT.																																	
M11S	I40 STA. 123+50.00	CONST. LONG. BARRIER INLET W/ 18" x 74.37' LG. RCP TO STR. M92	CLB-1 (TYPE I), SPI-4, SPB-1	76															1		8.87		2							161	153			
	2.71' RT.																																	
M12	I40 STA. 124+80.00	CONST. 5.00' x 4.00' JUNC. BOX W/ 43" x 26" x 182.42' LG. RCPA TO P.C.E.S. OUTLET	MJB-3, MFC-4, PCES-4 SPI-4, SPB-1					184																					1		140	69	41.18	
	105.00' RT.																																	
M13	I40 STA. 110+80.50	CONST. LONG. BARRIER INLET W/ 18" x 3.92' LG. RCP TO STR. M14	CLB-1 (TYPE I), SPI-4, SPB-1	4															1		3.28		2							4	3			
	55.33' LT.																																	
M14	I40 STA. 110+80.50	CONST. 4.0' DIA. MANHOLE W/ 18" x 108.08' LG. RCP TO STR. A1	MJB-3, MFC-4 SPI-4, SPB-1	110																					1		1.25		1		52	46		
	48.00' LT.																																	
M15	I40 STA. 115+00.00	CONST. LONG. BARRIER INLET W/ 18" x 4.49' LG. RCP TO STR. M16	CLB-1 (TYPE I), SPI-4, SPB-1	6															1		2.19		2							4	3			
	76.67' LT.																																	
M16	I40 STA. 115+00.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 141.16' LG. RCP TO STR. M17	MJB-3, MFC-4 SPI-4, SPB-1	142																					1		1.46		1		148	133		
	68.75' LT.																																	
M17	I40 STA. 116+45.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 51.00' LG. RCP TO STR. M19	MJB-3, MFC-4 SPI-4, SPB-1	52																					1		3.50		1		64	59		
	75.50' LT.																																	
M18	I40 STA. 117+00.00	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. M19	CLB-1 (TYPE I), SPI-4, SPB-1	4															1		4.00		2							3	2			
	82.50' LT.																																	
M19	I40 STA. 117+00.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 196.00' LG. RCP TO STR. M21	MJB-3, MFC-4 SPI-4, SPB-1	196																					1		4.44		1		348	313		
	76.00' LT.																																	
M20	I40 STA. 119+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M21	CLB-1 (TYPE I), SPI-4, SPB-1	4															1		3.00		2							3	2			
	82.50' LT.																																	
M21	I40 STA. 119+00.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 196.00' LG. RCP TO STR. M23	MJB-3, MFC-4 SPI-4, SPB-1	196																					1		6.06		1		408	373		
	76.50' LT.																																	
M22	I40 STA. 121+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.59' LG. RCP TO STR. M23	CLB-1 (TYPE I), SPI-4, SPB-1	4															1		3.00		2							3	2			
	82.50' LT.																																	
M23	I40 STA. 121+00.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 229.02' LG. RCP TO STR. M25	MJB-3, MFC-4 SPI-4, SPB-1	230																					1		7.75		1		555	514		
	76.50' LT.																																	
M24	I40 STA. 123+33.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M25	CLB-1 (TYPE I), SPI-4, SPB-1	4															1		2.93		2							3	2			
	85.55' LT.																																	
M25	I40 STA. 123+33.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 101.59' LG. RCP TO STR. M26	MJB-3, MFC-4 SPI-4, SPB-1	102																					1		9.74		1		277			

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS			DATE

SUMMARY OF DRAINAGE STRUCTURES

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	REINFORCED CONCRETE PIPE						PREFABRICATED CONC. END SECTION P.C.E.S.				INLET C.I.			INLET ADD'L. DEPTH		INLET LONG. BARRIER		INLET LONG. BARRIER ADD'L. DEPTH		INLET FRAME & GRATE (TYPE VGF)	CAST IRON HOOD		MANHOLE		MANHOLE ADD'L. DEPTH		MANHOLE FRM. & COVER		TRENCH EXCAVATION	STD. BEDDING MATL.	JUNCTION BOX	
				ROUND			ARCH			ROUND		ARCH		DES. 2			DES. 2		DES. 2		DES. 2			DES. 2		DES. 2									
				18"	24"	30"	28" X 18"	36" X 22"	43" X 26"	24"	30"	28" X 18"	43" X 26"	2 (STD.)	2 (B)	3 (STD.)	2 (STD.)	3 (STD.)	TYPE I	TYPE II	TYPE I	TYPE II		TYPE B	4" MTB.	8" BARR.	4'	5'	4'	5'	4'				5'
				LF						EA				EA			VF		EA		VF			EA		EA		VF		EA					CY
MAINLINE (CONT'D.)																																			
A1	BL RAMP A STA. 111+90.60 ON BL	CONST. DBL. GRATE INLET W/ 18" x 10.73' LG. RCP TO STR. A2	CH-1 (DES. 2 STD) SPI-4, SPB-1	12							1			3.13						2	2							9	6						
A2	BL RAMP A STA. 111+89.36 13.33' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 35.03' LG. RCP TO STR. LAR 9	MJB-3, MFC-4 SPI-4, SPB-1	36																		1		1.22		1		33	30						
A3	DELETED																																		
A4	BL RAMP A STA. 113+00.00 4.02' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.95' LG. RCP TO STR. A5	CLB-1 (TYPE I), SPI-4, SPB-1	6											1		1.51			2								3	2						
A5	BL RAMP A STA. 113+00.00 5.35' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 196.27' LG. RCP TO STR. M16	MJB-3, MFC-4 SPI-4, SPB-1	198																		1				1		152	132						
RAMP B																																			
B1	BL RAMP B STA. 111+67.58 27.02' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 154.93' LG. RCP TO STR. B4	MJB-3, MFC-4 SPI-4, SPB-1	156																		1		1.92		1		167	151						
B2	BL RAMP B STA. 111+66.62 ON BL	CONST. (2) DBL GRATE INLET W/ 18" x 23.61' LG. RCP TO STR. B1	CH-1 DES. 3 (STD) SPI-4, SPB-1	24								1		3.54						4	4							21	19						
B3	BL RAMP B STA. 113+23.50 11.94' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.52' LG. RCP TO STR. B4	CLB-1 (TYPE I), SPI-4, SPB-1	8											1		4.97			2							8	7							
B4	BL RAMP B STA. 113+23.50 2.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 172.39' LG. RCP TO STR. M84	MJB-3, MFC-4 SPI-4, SPB-1	174																		1		3.55		1		229	211						
RAMP C																																			
C1	BL RAMP C STA. 127+73.75 11.82' LT.	CONST. LONG. BARRIER INLET W/ 18" x 3.40' LG. RCP TO STR. C2	CLB-1 (TYPE I), SPI-4, SPB-1	4											1		3.07			2								3	2						
C2	BL RAMP C STA. 127+73.75 5.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 72.14' LG. RCP TO STR. C3	MJB-3, MFC-4 SPI-4, SPB-1	74																		1		1.24		1		70	63						
C3	BL RAMP C STA. 128+50.00 3.90' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 46.04' LG. RCP TO STR. C5	MJB-3, MFC-4 SPI-4, SPB-1	48																		1		3.15		1		69	61						
C4	BL RAMP C STA. 129+00.00 7.62' LT.	CONST. LONG. BARRIER INLET W/ 28" x 18" x 38.37' LG. RCP TO P.C.E.S. OUTLET	CLB-1 (TYPE I), PCES-4 SPI-4, SPB-1			40				1					1		14.97			2							37	20							
C5	BL RAMP C STA. 129+00.00 1.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 3.19' LG. RCP TO STR. C4	MJB-3, MFC-4 SPI-4, SPB-1	4																		1		4.27		1		5	4						
C6	BL RAMP C STA. 130+00.00 1.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 1.58' LG. RCP TO STR. C7	MJB-3, MFC-4 SPI-4, SPB-1	2																		1		10.50		1		5	4						
C7	BL RAMP C STA. 130+00.00 6.00' LT.	CONST. LONG. BARRIER INLET W/ 24" x 17.97' LG. RCP TO P.C.E.S. OUTLET	CLB-1 (TYPE I), PCES-4 SPI-4, SPB-1	18						1					1		14.55			2							13	10							
C8	BL RAMP C STA. 130+00.00 18.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 15.00' LG. RCP TO STR. C6	MJB-3, MFC-4 SPI-4, SPB-1	16																		1		10.04		1		34	33						
C9	BL RAMP C STA. 131+70.25 6.00' LT.	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. C10	CLB-1 (TYPE I), SPI-4, SPB-1	4											1		3.05			2							2	1							
C10	BL RAMP C STA. 131+70.25 0.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 166.24' LG. RCP TO STR. C6	MJB-3, MFC-4 SPI-4, SPB-1	168																		1		10.26		1		387	370						
C11	BL RAMP C STA. 133+50.00 ON BL	CONST. DBL. GRATE INLET W/ 18" x 3.08' LG. RCP TO STR. C12	CH-1 (DES. 2 STD.), SPI-4, SPB-1	4							1			1.54						2	2						2	1							
C12	BL RAMP C STA. 133+50.00 6.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 175.64' LG. RCP TO STR. C10	MJB-3, MFC-4 SPI-4, SPB-1	176																		1		5.41		1		347	329						
C13	BL RAMP C STA. 135+00.00 ON BL	CONST. DBL. GRATE INLET W/ 18" x 3.18' LG. RCP TO STR. C14	CH-1 (DES. 2 STD.), SPI-4, SPB-1	4							1			2.92						2	2						3	2							
C14	BL RAMP C STA. 135+00.00 6.60' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 145.94' LG. RCP TO STR. C12	MJB-3, MFC-4 SPI-4, SPB-1	146																		1		0.78		1		168	153						
C15	BL RAMP C STA. 135+80.80 ON BL	CONST. (2) DBL. GRATE INLET W/ 18" x 3.08' LG. RCP TO STR. C16	CH-1 (DES. 3 STD) SPI-4, SPB-1	4								1		1.74						4	4						2	1							
SUB-TOTAL (THIS SHEET)				1040	246	0	40	0	0	1	0	1	0	3	0	2	8	5	6	0	42.12	0.00	26	14	0	12	0	52.34	0	12	0	1769	1612	0.00	

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DESIGN	MDB	05/17
DRAWN	KST	05/17
CHECKED	MDB	05/17
APPROVED	HDM	05/17
SQUAD	POE	

SUMMARY OF DRAINAGE STRUCTURES SHEET 5 OF 8

STATE JOB NO. 23310(04) SHEET NO. AR10

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SUMMARY OF DRAINAGE STRUCTURES

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	REINFORCED CONCRETE PIPE						PREFABRICATED CONC. END SECTION P.C.E.S.				INLET C.I.			INLET ADD'L DEPTH		INLET LONG. BARRIER		INLET LONG. BARRIER ADD'L DEPTH		INLET FRAME & GRATE (TYPE VG-F)	CAST IRON HOOD		MANHOLE		MANHOLE ADD'L DEPTH		MANHOLE FRM. & COVER		TRENCH EXCAVATION	STD. BEDDING MAT'L.	JUNCTION BOX	
				ROUND			ARCH			ROUND		ARCH		DES. 2			TYPE B	4" MTB.	8" BARR.	4'		5'		4'		5'									
				18"	24"	30"	28" X 18"	36" X 22"	43" X 26"	24"	30"	28" X 18"	43" X 26"	2 (STD.)	2 (B)	3 (STD.)				2 (STD.)	3 (STD.)	TYPE I		TYPE II	TYPE I	TYPE II	EA	EA	EA	VF	EA				EA
				LF						EA				EA						VF		EA		VF		EA		CY	CY	CF					
RAMP F (CONT'D.)																																			
F4	BL RAMP F STA. 147+00.00 2.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 121.00' LG. RCP TO STR. M63	MJB-3, MFC-4 SPI4, SPB-1			122																						1		1.74		1		134	113
LT. ACCESS RD. (LAR)																																			
LAR1	LT. ACC. RD. CL STA. 109+05.33 15.05' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.28' LG. RCP TO STR. LAR2	CH1 (DES. 3 STD.) SPI4, SPB-1	6										1		1.56						4		4								3	2		
LAR2	LT. ACC. RD. CL STA. 109+05.33 22.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 140.67' LG. RCP TO STR. LAR4	MJB-3, MFC-4 SPI4, SPB-1	142																						1						1		118	56
LAR3	LT. ACC. RD. CL STA. 110+50.00 14.92' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.42' LG. RCP TO STR. LAR4	CH1 (DES. 3 STD.) SPI4, SPB-1	6										1		2.59						4		4								4	3		
LAR4	LT. ACC. RD. CL STA. 110+50.00 22.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 136.92' LG. RCP TO STR. LAR9	MJB-3, MFC-4 SPI4, SPB-1	138																					1			0.06			1		129	54	
LAR5	LT. ACC. RD. CL STA. 113+67.50 11.00' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.49' LG. RCP TO STR. LAR6	CH1 (DES. 3 STD.) SPI4, SPB-1	6										1		1.26						4		4								4	3		
LAR6	LT. ACC. RD. CL STA. 113+67.50 18.15' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 123.17' LG. RCPA TO STR. LAR8	MJB-3, MFC-4 SPI4, SPB-1				124																		1			1.12			1		140	82	
LAR7	LT. ACC. RD. CL STA. 114+94.67 11.00' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.09' LG. RCP TO STR. LAR8	CH1 (DES. 3 STD.) SPI4, SPB-1	6										1		1.21						4		4								3	2		
LAR8	LT. ACC. RD. CL STA. 114+94.67 17.75' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 206.27' LG. RCPA TO STR. M28	MJB-3, MFC-4 SPI4, SPB-1				208																		1			1.89			1		235	103	
LAR9	LT. ACC. RD. CL STA. 111+90.91 20.25' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 172.61' LG. RCP TO STR. LAR6	MJB-3, MFC-4 SPI4, SPB-1	174																					1			0.85			1		198	69	
RT. SERVICE RD. (RSR)																																			
RSR1	RT. SERV. RD. BL STA. 141+02.70 BL	CONST. DBL. GRATE INLET W/ 2 ADD'L OPENINGS W/ 18" x 2.64' LG. RCP TO STR. RSR2	CH4 (DES. 2 (B)) SPI4, SPB-1	4										1		3.29						2		2								3	2		
RSR2	RT. SERV. RD. BL STA. 141+02.70 5.30' RT.	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI4, SPB-1																						1			1.89			1				
RSR3	RT. SERV. RD. BL STA. 142+42.70 BL	CONST. (2) DBL. GRATE INLET W/ 18" x 1.79' LG. RCP TO STR. RSR4	CH4 (DES. 3 STD) SPI4, SPB-1	2										1		4.07						4		4								2	1		
RSR4	RT. SERV. RD. BL STA. 142+42.70 4.46' RT.	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI4, SPB-1																						1			1.99			1				
RSR5	RT. SERV. RD. BL STA. A145+99.59 BL	CONST. (2) DBL. GRATE INLET W/ 18" x 2.66' LG. RCP TO STR. RSR6	CH4 (DES. 3 STD) SPI4, SPB-1	4										1		4.77						4		4								3	2		
RSR6	RT. SERV. RD. BL STA. A145+99.59 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 145.72' LG. RCP TO STR. RSR9	MJB-3, MFC-4 SPI4, SPB-1	146																					1			2.40			1		171	58	
RSR7	RT. SERV. RD. BL STA. A147+97.31 BL	CONST. (2) DBL. GRATE INLET W/ 18" x 2.64' LG. RCP TO STR. RSR8	CH4 (DES. 3 STD) SPI4, SPB-1	4										1		0.96						4		4								2	1		
RSR8	RT. SERV. RD. BL STA. A 147+97.31 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 193.72' LG. RCP TO STR. RSR6	MJB-3, MFC-4 SPI4, SPB-1	194																					1						1		163	77	
RSR9	RT. SERV. RD. BL STA. 144+50.00 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 203.18' LG. RCP TO STR. RSR4	MJB-3, MFC-4 SPI4, SPB-1	204																					1			4.45			1		227	81	
S.E. 15TH STREET																																			
S1	CL S.E. 15TH STA. 15+99.60 25.31' LT	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI4, SPB-1																							1						1			
S2	RT. SERV. RD. BL STA. 136+21.82 23.23' RT	CONST. (2) DBL. GRATE INLET W/ 18" x 28.00' LG. RCP TO EXIST. MANHOLE	CH1 (DES. 3 STD) SPI4, SPB-1	28										1		1.26						4		4								22	20		
S3	CL S.E. 15TH STA. 18+05.00 40.00' RT	CONST. DBL. GRATE INLET W/ 18" x 3.40' LG. RCP TO EXIST. MANHOLE	CH1 (DES. 2 STD) SPI4, SPB-1	4										1		1.48						2		2								4	3		
S4	CL S.E. 15TH STA. 20+40.00 36.50' RT	CONST. (2) DBL. GRATE INLET W/ 18" x 8.01' LG. RCP TO EXIST. MANHOLE	CH1 (DES. 3 STD) SPI4, SPB-1	10										1		0.24						4		4								4	3		
SUB-TOTAL (THIS SHEET)				1078	122	0	332	0	0	0	0	0	0	1	1	9	5	18	0	0	0.00	0.00	40	0	40	12	0	16.39	0	12	0	1569	735	0.00	

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DESIGN	MDB	05/17
DRAWN	KST	05/17
CHECKED	MDB	05/17
APPROVED	HDM	05/17
SQUAD	POE	

SUMMARY OF DRAINAGE STRUCTURES SHEET 7 OF 8

STATE JOB NO. 23310(04) SHEET NO. AR12

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SUMMARY OF DRAINAGE STRUCTURES

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	REINFORCED CONCRETE PIPE						PREFABRICATED CONC. END SECTION P.C.E.S.				INLET C.I.			INLET ADD'L DEPTH		INLET LONG. BARRIER		INLET LONG. BARRIER ADD'L DEPTH		INLET FRAME & GRATE (TYPE VG-F)	CAST IRON HOOD		MANHOLE		MANHOLE ADD'L DEPTH		MANHOLE FRM. & COVER		TRENCH EXCAVATION	STD. BEDDING MAT'L.	JUNCTION BOX			
				ROUND			ARCH			ROUND		ARCH		DES. 2			DES. 2		DES. 2		DES. 2			DES. 2		DES. 2											
				18"	24"	30"	28" X 18"	36" X 22"	43" X 26"	24"	30"	28" X 18"	43" X 26"	2 (STD.)	2 (B)	3 (STD.)	2 (STD.)	3 (STD.)	TYPE I	TYPE II	TYPE I	TYPE II		TYPE B	4" MTB.	8" BARR.	4'	5'	4'	5'	4'				5'	4'	5'
				LF						EA				EA			VF		EA		VF			EA		EA		EA		VF					EA		CY
S.E. 15TH STREET (CONT'D.)																																					
S5	CL S.E. 15TH STA. 22+00.00 40.00' LT	CONST. (2) DBL GRATE INLET W/ 18" x 45.56' LG. RCP TO EXIST. MANHOLE	CH-1 (DES. 3 STD) SPI-4, SPB-1	46											1						4		4							17	13						
S6	CL S.E. 15TH STA. 23+00.00 37.40' LT	CONST. (2) DBL GRATE INLET W/ 18" x 46.18' LG. RCP TO EXIST. MANHOLE	CH-1 (DES. 3 STD) SPI-4, SPB-1	48											1						4		4							21	16						
S7	LT. SERV. RD. BL STA. 141+32.74 0.55' LT	CONST. DBL GRATE INLET W/ 18" x 83.49' LG. RCP TO EXIST. MANHOLE	CH-1 (DES. 2 STD) SPI-4, SPB-1	84										1							2		2							74	23						
S8	CL S.E. 15TH STA. 16+25.00 35.80' LT	CONST. (2) DBL. GRATE INLET W/ 18" X 20.33' LG. RCP TO STR. S1	CH-1 (DES. 3 STD) SPI-4, SPB-1	22											1						4		4							8	6						
SUB-TOTAL (THIS SHEET)				200	0	0	0	0	0	0	0	0	0	1	0	3	2	2	0	0	0.00	0.00	14	0	14	0	0	0.00	0	0	0	120	58	0.00			
TOTALS (ALL SHEETS)				8582	2254	104	696	586	184	2	1	2	1	8	1	15	23	25	57	8	231	30	224	24	54	72	4	225	42	73	4	16221	13373	41			

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DESIGN	MDB	05/17
DRAWN	KST	05/17
CHECKED	MDB	05/17
APPROVED	HDM	05/17
SQUAD	POE	

SUMMARY OF DRAINAGE STRUCTURES SHEET 8 OF 8

STATE JOB NO. 23310(04) SHEET NO. AR13

GENERAL CONSTRUCTION NOTES

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. SEE O.D.O.T. AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

ALL GREEN AND BLUE SIGNS ON CONVENTIONAL HIGHWAYS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

ALL PANEL AND OVERHEAD SIGNS SHALL HAVE TYPE III HIGH INTENSITY BACKGROUND WITH TYPE VIII LEGENDS AND BORDERS. THE TYPE III BACKGROUND AND THE TYPE VIII LEGENDS AND BORDERS SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION).

THE MANUFACTURER SHALL FURNISH A TYPE 'A' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, AND SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

ALL BROKEN CONCRETE INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL. ANY PIPE POST OR WIDE FLANGE POST ABOVE THE OLD SIGN FOOTINGS SHALL BE CUT AND HANDLED AS PROPERTY OF THE STATE AND SHALL BE NEATLY STACKED ON THE JOB SITE, AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE, EXACT LENGTH SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

ALL EXISTING AND NEW BREAKAWAY SIGN POSTS, PIPES AND WIDE FLANGE BEAMS SHALL HAVE SHEET METAL BOLT RETAINER PLATES AS SPECIFIED IN O.D.O.T. STD. FGS1-1-(LATEST REVISION). REPLACEMENT COST OF MISSING OR DAMAGED BOLT RETAINER PLATES AND ALL ASSOCIATED HARDWARE AND LABOR SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

ALL SIGNS SHALL BE REMOVED FROM THE POSTS IN A SALVAGEABLE MANNER FOR REUSE. CARE SHALL BE TAKEN DURING REMOVAL AND TRANSPORTING TO ALLEVIATE DAMAGE OF MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED DURING REMOVAL OF SIGNS AND SIGN POSTS.

AFTER REMOVAL OF ANY SIGN FOOTINGS, THE HOLES SHALL BE FILLED WITH SOIL AND TAMPED AND SHAPED IN A MANNER APPROVED BY THE ENGINEER.

FOR NEW OR EXISTING GROUND MOUNTED SIGNS, MAXIMUM STUB POST PROJECTION ABOVE FOOTING/GROUND LINE SHALL BE 1-3/4" +/- 1/4". MAXIMUM FOOTING PROJECTION ABOVE GROUND LINE SHALL BE NO MORE THAN 2". SHOULD ADDITIONAL SOIL BE REQUIRED, THE ENGINEER WILL DESIGNATE AN AREA TO OBTAIN ADDITIONAL SOIL. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

UPRIGHT LENGTHS OF OVERHEAD SIGN STRUCTURES SHOWN ARE APPROXIMATE AND ACTUAL LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR'S FIELD SURVEY.

GENERAL CONSTRUCTION NOTES (CONT.)

DETAILS FOR MOUNTING SIGNS TO OVERHEAD STRUCTURES SHALL BE APPROVED BY THE ENGINEER AND SUBMITTED WITH SHOP DRAWINGS FOR OVERHEAD STRUCTURES. NO MOUNTING HOLES SHALL BE PERMITTED IN OVERHEAD STRUCTURES UPRIGHT MEMBERS.

CONTRACTOR SHALL PROVIDE THE ENGINEER A MINIMUM OF SEVEN (7) DAYS ADVANCE NOTICE FOR INSTALLATION OF OVERHEAD SIGN STRUCTURES AND OVERHEAD SIGNS. INSTALLATION SHOULD PREFERABLY BE ACCOMPLISHED ON SUNDAY BETWEEN 7:00 A.M. AND 10:00 A.M.

POE & ASSOCIATES, OKLAHOMA CITY, OK.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SIGNING AND STRIPING PAY QUANTITIES

0302 TRAFFIC			JP 23310(04)	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	
516(A)	6096 DRILLED SHAFTS 60" DIAMETER	LF	180.00	
804(A)	2915 STRUCTURAL CONCRETE	CY	18.56	
804(B)	2916 REINFORCING STEEL	LB	3,196.00	
805(A)	8718 (PL)REMOVAL OF OVERHEAD SIGN STRUCTURE & SIGNS (STS-2)	LSUM	1.00	
850(A)	8110 SHEET ALUMINUM SIGNS (TS-6, 33)	SF	387.96	
850(B)	8112 EXTRUDED ALUMINUM PANEL SIGNS	SF	443.75	
850(B)	8114 EXTRUDED ALUMINUM PANEL SIGNS (OVERHEAD SIGNS) (STS-2)	SF	855.50	
851(A)	3209 6"@25 GALV. STEEL WIDE FLANGE BEAM POST	LF	293.50	
851(A)	3215 1 1/2"@2.72 GALV. STEEL PIPE POST	LF	33.00	
851(B)	3216 2"@3.65 GALV. STEEL PIPE POST	LF	110.50	
851(B)	3217 2 1/2"@5.79 GALV. STEEL PIPE POST	LF	240.00	
851(B)	3218 3"@7.58 GALV. STEEL PIPE POST	LF	98.50	
852(D)	0330 OVHD. SN. STR., MONOTUBE TYPE B 100'	EA	1.00	
852(E)	0500 OVHD. SN. STR., MONOTUBE TYPE C	EA	3.00	
856(A)	8530 TRAFFIC STRIPE(MULTI-POLYMER)(4" WIDE) (STS-3)	LF	5,600.00	
856(A)	8535 TRAFFIC STRIPE (MULTI-POLY.) (6" WIDE) (STS-4)	LF	34,166.00	
856(A)	8540 TRAFFIC STRIPE (MULTI-POLY.) (8" WIDE) (TS-26)	LF	11,145.00	
856(A)	8548 TRAFFIC STRIPE (MULTI-POLY.) (12" WIDE) (TS-27)	LF	7,266.00	
856(A)	8555 TRAFFIC STRIPE (MULTI-POLY.) (24" WIDE) (TS-28)	LF	1,398.00	
856(B)	8860 TRAFFIC STRIPE (MULTI-POLY.) (ARROWS)	EA	52.00	
856(B)	8870 TRAFFIC STRIPE(MULTI-POLY.)(SYMBOLS)	EA	3.00	
857(F)	8006 PAVEMENT MARKING REMOVAL(TRAFFIC STRIPE) (TS-32)	LF	2,000.00	
878(A)	8485 MODULAR GLARE SCREEN (PERMANENT)	LF	400.00	

PAY QUANTITIES NOTES

- (TS-6) SHOP DRAWINGS FOR ATTACHING SIGNS TO LIGHT AND/OR SIGNAL POLES AND MAST ARMS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEER FOR APPROVAL BEFORE FABRICATION. NO HOLES SHALL BE PERMITTED IN ANY LIGHT AND/OR SIGNAL POLE OR MAST ARM. THE PRICE BID SHALL INCLUDE ALL MATERIALS, LABOR, HARDWARE AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED.
- (TS-26) QUANTITY SHOWN INCLUDES 11,145 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 0 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8") WIDE TRAFFIC STRIPE.
- (TS-27) QUANTITY SHOWN INCLUDES 7,266 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWELVE INCH (12") WIDE TRAFFIC STRIPE.
- (TS-28) QUANTITY SHOWN INCLUDES 1,398 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.
- (TS-32) THE AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL (STRAFFIC STRIPE) SHALL INCLUDE COST OF REMOVAL OF ARROWS, WORDS, AND SYMBOLS. THE PAVEMENT MARKING TO BE REMOVED SHALL BE CONSIDERED THERMOPLASTIC AND BID ACCORDINGLY.
- (TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1-(LATEST REVISION).

PAY ITEM NOTES

- (STS-2) "REMOVAL OF OF OVERHEAD SIGN STRUCTURE & SIGNS" SHALL INCLUDE THE REMOVAL OF THE COMPLETE STRUCTURE AND SIGN ASSEMBLY WHICH MAY INCLUDE MULTIPLE SIGNS, POSTS, FOOTINGS, AND ANY FOOTINGS ADJACENT TO THE STRUCTURE WHEN APPROVED BY THE ENGINEER, FOOTINGS MAY BE OBLITERATED TO A POINT BELOW GROUND LEVEL IN LIEU OF BEING COMPLETELY REMOVED. SEE GENERAL CONSTRUCTION NOTES FOR DISPOSAL OF OLD CONCRETE FOOTING MATERIAL.
- (STS-3) QUANTITY SHOWN INCLUDES 2914 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE), 2250 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND 426 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(BLACK) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR (4") WIDE TRAFFIC STRIPE.
- (STS-4) QUANTITY SHOWN INCLUDES 24317 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE), 1898 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (YELLOW) AND 7951 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(BLACK) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX (6") WIDE TRAFFIC STRIPE.

DESIGN			<h3 style="margin: 0;">SUMMARY PAY QUANTITIES AND NOTES SIGNING & STRIPING</h3> <p style="margin: 0;">STATE JOB NO. <u>23310(04)</u> SHEET NO. <u>AT01</u></p>
DRAWN			
CHECKED			
APPROVED			
SQUAD	POE		

SUMMARY OF STRIPING							
TYPE	856(A) 4" (MULTI-POLY)	856(A) 6" (MULTI-POLY)	856(A) 8" (MULTI-POLY)	856(A) 12" (MULTI-POLY)	856(A) 24" (MULTI-POLY)	856(B) ARROW	856(B) SYMBOLS
	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	EA.
YELLOW	2070	1898					
Dashed	180						
WHITE	2389	16366	11145	7266	1398	52	3
Dashed	436	7452					
Dotted	89	499					
BLACK							
Dashed	436	7452					
Dotted		499					
TOTAL	5600	34166	11145	7266	1398	52	3

SIGN SUMMARY															
ITEM NO.	APPROXIMATE STATION LOCATION	TYPE OF SIGN	SIGN BLANK DESIGNATION	POST				FOOTINGS			SIGN AREA			REMARKS	
				TYPE	A	B	C	SPACING	DESIGN NO.	STRUCTURAL CONCRETE	REINFORCING STEEL	SHEET	PANEL		PANEL OHD
					LF	LF	LF								
1	STA. 110+60, 64' RT. MAINLINE	SP. SIGN NO. 1												207	OVERHEAD MONOTUBE TYPE C
2	STA. 111+72, 86' RT. MAINLINE	R1-1	B-30(O)	2" PIPE POST	12.00					A-2	0.06		5.18		
3	STA. 112+90, 86' RT. MAINLINE	OM3C	B-1236	2" PIPE POST	5.50					A-2	0.06		3		
4	STA. 121+02, 97' RT. MAINLINE	W8-13F	B-48(D)	2-2 1/2" PIPE POST	17.00	17.50		2.33		A-3	0.40	48.00	16		
5	STA. 128+40, 100' RT. MAINLINE	SP. SIGN NO 3A, 3B & 3C													359.75
6	STA. 129+45, 105' RT. MAINLINE	W3-3E	B-48(D)	2-2 1/2" PIPE POST	18.00	18.00		2.33		A-3	0.40	48.00	16		
7	STA. 131+07, 82' RT. MAINLINE	SP.13A & 13B		GRD. MT. 6" WF @ 25	18.00	18.00				KC-2	1.64	348.00	16		
8	STA. 130+39.15, 114' RT. MAINLINE	SP. SIGN NO. 2		GRD. MT. 6" WF @ 25	27.50	28.00		8.70		KC-2	1.64	348.00		72.5	
9	STA. 133+23, 113' RT. MAINLINE	R5-1aF	B-4230	2 1/2" PIPE POST	12.50					A-3	0.20	24.00	8.75		
10	STA. 133+14, 151' RT. MAINLINE	R5-1aF	B-4230	2 1/2" PIPE POST	12.50					A-3	0.20	24.00	8.75		
11	STA. 134+56, 119' RT. MAINLINE	R3-7(L)E, R5-1E	B-(36)S	2 1/2" PIPE POST	1.30					A-3	0.20	24.00	9		
12	STA. 136+88, 91' RT. MAINLINE	R6-1E(R)	B-6018	1 1/2" PIPE POST	12.00					A-1	0.06		7.5		
13	STA. 139+55, 87' RT. MAINLINE	SP SIGN NO 4		GRD. MT. 6" WF @ 25	32.00	32.00		8.10		KC-2	1.64	348.00		103	
14	STA. 140+30, 87' RT. MAINLINE	W4-3E(R)	B-48(D)	2-2 1/2" PIPE POST	28.00	28.50		2.33		A-3	0.40	48.00	16		
15	STA. 141+18, 90' RT. MAINLINE	SP SIGN NO. 5		GRD. MT. 6" WF @ 25	23.50	27.00		9.30		KC-2	1.64	348.00		69.75	
16	STA. 143+21, 89' RT. MAINLINE	R6-1(R)	B-3612	2" PIPE POST	12.50					A-2	0.06		3		
17	STA. 143+93, 123' RT. MAINLINE	ROUTE ASSEM. NO. 4		3" PIPE POST	14.50			9.90		A-4	0.23	32.00	8.19		
18	STA. 147+61, 86' RT. MAINLINE	R6-1(R)	B-3612	2" PIPE POST	12.50					A-2	0.06		3		
19	STA. 147+35, 87' LT. MAINLINE	R2-1 (35)	B-2430	2" PIPE POST	11.50					A-2	0.06		5		
20	STA. 145+33, 86' LT. MAINLINE	R5-1E	B-3624	2" PIPE POST	11.00					A-2	0.06		6		
21	STA. 144+73, 81' LT. MAINLINE	R5-1E	B-3624	2" PIPE POST	12.50					A-2	0.06		6		
22	STA. 144+04, 83' LT. MAINLINE	R1-1E	B-36(O)	2 1/2 PIPE POSTS	11.00					A-3	0.20	24.00	7.48		
23	STA. 144+77, 73' LT. MAINLINE	SP SIGN NO. 13A & 13B		GRD. MT. 6" WF @ 25	15.00	15.50		5.40		KC-2	1.64	348.00		63	
24	STA. 145+05 126' LT. MAINLINE	R1-1E	B-36(O)	2 1/2 PIPE POSTS	11.00					A-3	0.20	24.00	7.48		
25	STA. 141+14, 156' LT. MAINLINE	SP. SIGN NO. 15		GRD. MT. 6" WF @ 25	13.00	13.50		8.70		KC-2	1.64	348.00		72.5	
26	STA. 135+53, 81' LT. MAINLINE	W4-3E(R)	B-48(D)	2-2 1/2" PIPE POSTS	32.00	33.50		2.33		A-3	0.40	48.00	16		
27	STA. 121+25, 90' LT. MAINLINE	SP SIGN NO. 12													175
28	STA. 114+33, 80' LT. MAINLINE	W13-2F	B-4860	2-2 1/2 PIPE POSTS	14.50	15.00		2.33		A-3	0.40	48.00	20		
29	STA. 111+55, 83' LT. MAINLINE	R5-1E	B-36(S)	2" PIPE POST	13.00					A-2	0.06		9		
30	STA. 111+98, 87' LT. MAINLINE	R2-1E (10), SP.SIGN 6	B-2430,B-2436	2 1/2" PIPE POST	14.50					A-3	0.20	24.00	11		

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DESIGN	
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CHECKED	
APPROVED	
SQUAD	POE

SUMMARY OF QUANTITIES SHEET 1 OF 2 (TRAFFIC)

STATE JOB NO. 23310(04) SHEET NO. AT02

SIGN SUMMARY CON'T

ITEM NO.	APPROXIMATE STATION LOCATION	TYPE OF SIGN	SIGN BLANK DESIGNATION	POST				FOOTINGS			SIGN AREA			REMARKS	
				TYPE	A	B	C	SPACING	DESIGN NO.	STRUCTURAL CONCRETE	REINFORCING STEEL	SHEET	PANEL		PANEL OHD
					LF	LF	LF	FT		CY	LBS	SF	SF		SF
31	STA 110+78, 83' LT. MAINLINE	R5-1E	B-36(S)	2 1/2" PIPE POST	12.00				A-3	0.20	24.00	9			
32	STA 111+13, 76' LT. MAINLINE	R1-1E	B-48(T)	2 1/2" PIPE POST	11.00				A-3	0.20	24.00	6.93			
33	STA 110+60, 63' LT. MAINLINE	SP. SIGN NO. 16A & 16B		GRD. MT. 6" WF @ 25	15.00	15.50		5.40	KC-2	1.64	348.00		63		
34	STA 109+91, 83' LT. MAINLINE	R7-1	B-1824	1 1/2" PIPE POST	10.00				A-1	0.06		3			
35	STA 110+34, 84' LT. MAINLINE	R1-1E	B-48(T)	2 1/2" PIPE POST	11.00				A-3	0.20	24.00	6.93			
36	STA 109+59, 127' LT. MAINLINE	W6-3	B-36(D)	2 1/2" PIPE POST	13.50				A-3	0.20	24.00	9			
37	STA 108+15, 64' LT. MAINLINE	SP. SIGN NO. 17												113.75	OVERHEAD MONOTUBE TYPE C ON SIGNAL MAST ARM
38	STA 14+28, 39.6' LT., S.E. 15TH STREET	R10-12	B-24(S)									4			
39	STA 15+78, 46' LT., S.E. 15TH STREET	RT ASSEMBLY SIGN 5		3" POST	14.00				A-4	0.23	32.00	8.19			
40	STA 17+05, CL... , S.E. 15TH STREET	OM-3R	B-1236									3			ON BRIDGE
41	STA 16+24, 45' RT, S.E. 15TH STREET	RT ASSEMBLY SIGN 3		3" POST	14.00	14.50		2.33	A-4	0.46	64.00	16.38			
42	STA 16+68, 84' RT, S.E. 15TH STREET	R6-1(L)	B-3612	2" PIPE POST	10.50				A-2	0.06		3			
43	STA 17+48, 44' RT, S.E. 15TH STREET	R6-1(R)	B-3612	2" PIPE POST	11.00				A-2	0.06		3			
44	STA 16+27, 47' RT, S.E. 15TH STREET	R3-2, R10-11a	B-24(S)									4			ON SIGNAL MAST ARM
45	STA 20+94, 51' RT, S.E. 15TH STREET	R10-11a	B-2430									5			ON SIGNAL MAST ARM
46	STA 21+25, 63' RT., S.E. 15TH STREET	W6-3	B-36(D)	2 1/2" PIPE POST	13.50				A-3	0.20	24.00	9			
47	STA 21+79, 103' RT., S.E. 15TH STREET	W3-1	B30(O)	2" PIPE POST	11.00				A-2	0.06		6.25			
48	STA 22+47, 55' RT S.E. 15TH STREET	R10-12	B-3024									5			ON SIGNAL MAST ARM
49	STA 20+68, 68' LT., S.E. 15TH STREET	R10-12	B-3024									5			ON SIGNAL MAST ARM
50	STA 19+81, 2' LT., S.E. 15TH STREET	OM-3R	B-1236									3			ON BRIDGE
51	STA 19+68, 45' LT., S.E. 15TH STREET	RT ASSEMBLY SIGN 2		3" POST	14.00				A-4	0.23	32.00	8.19			
51A	STA 19+60, 50' RT S.E. 15TH STREET	RT ASSEMBLY SIGN 7		3" POST	13.50				A-4	0.23	32.00	8.19			
52	STA 21+46, 50' LT., S.E. 15TH STREET	RT ASSEMBLY SIGN 6		3" POST	14.00				A-4	0.23	32.00	8.19			
53	STA 23+21, 45' LT, S.E. 15TH STREET	RT ASSEMBLY SIGN 1		3" POST	14.00				A-4	0.23	32.00	16.38			
54	STA 23+61, 41' LT., S.E. 15TH STREET	R7-1	B-1218	1 1/2" PIPE POST	11.00				A-1	0.06		18			
56	STA 20+67.8, 55' LT., S.E. 15TH STREET	R10-10R	B-3630									5.5			ON SIGNAL MAST ARM
57	STA 20+67.8, 55' LT., S.E. 15TH STREET	R3-5R	B-3630									5.5			ON SIGNAL MAST ARM
	TOTALS			1 1/2" PIPE POST	33.00										
				2" PIPE POST	110.50										
				2 1/2" PIPE POST	240.00										
				3" POST	98.50										
				GRD. MT. 6" WF @ 25	293.50										
	TOTALS									18.36	3196.00	387.96	443.75	855.5	

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DESIGN	
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APPROVED	
SQUAD	POE

SUMMARY OF SIGNS
SHEET 2 OF 2 (TRAFFIC)

STATE JOB NO. 23310(04) SHEET NO. ATO3

REVISIONS		
NO.	DESCRIPTION	DATE

GENERAL CONSTRUCTION NOTES

- THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON 24 HOUR CALL AS NEEDED AND DETERMINED BY THE ENGINEER. THIS PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA) OR THE OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION (OTEA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.
- (C-6) THE STRUCTURAL DESIGN OF ALL POLES, MAST ARMS, HIGH-MAST POLES, AND OTHER SUPPORTS FOR SIGNS, LUMINAIRES, AND SIGNALS, AS WELL AS THEIR CONNECTIONS, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. THE MANUFACTURER SHALL ENSURE THE FOLLOWING ARE APPLIED TO THE DESIGN:
- THE MINIMUM DESIGN WIND SPEED AND DESIGN LIFE AS REQUIRED IN THE AASHTO SPECIFICATIONS;
- THE CALCULATED STRESSES AND FORCES FROM THE DESIGN LOADINGS DO NOT EXCEED THOSE REQUIRED IN THE AASHTO SPECIFICATIONS;
- A CATEGORY I FATIGUE IMPORTANCE FACTOR (IF) FOR ALL STRUCTURES; NO VIBRATORY MITIGATION SHALL BE ALLOWED. TRUCK-INDUCED GUSTS SHALL BE APPLIED TO ALL OVERHEAD TRAFFIC SIGNAL SUPPORTS.
- ALL MEMBERS ARE AT LEAST THE MINIMUM THICKNESS AS REQUIRED IN THE AASHTO SPECIFICATIONS;
- LUMINAIRE MAST ARMS SHALL BE DESIGNED TO SUPPORT AT LEAST A 50 LB. (22.7 KG) LUMINAIRE WITH AN EFFECTIVE PROJECTED AREA OF 2.5 FT² (0.23 M²); THE ANCHOR BOLT DESIGN AND AMOUNT OF ANCHOR BOLTS TO BE USED SHALL BE AS REQUIRED IN THE AASHTO SPECIFICATIONS.
- SIGNAL MAST ARMS AND POLES SHALL BE DESIGNED FOR SPECIFIC SIGNAL HEAD AND SIGN PLACEMENT.
- UNLESS SITE SPECIFIC GEOTECHNICAL DATA IS AVAILABLE, FOUNDATIONS SHALL BE DESIGNED UTILIZING THESE PARAMETERS: SHEAR STRENGTH OF COHESIVE SOIL (C) OF 500 PSF, ANGLE OF INTERNAL FRICTION (φ) OF 22 DEGREES, AND EFFECTIVE UNIT WEIGHT OF SOIL (γ) OF 120 PCF.
- MINIMUM HAND HOLE SIZE OF 3 INCH WIDTH BY 5 INCH HEIGHT.
- (C-150) SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEERING DIVISION AT (405)521-2861.
- (C-152) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
- (C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES: THE "OKIE" NOTIFICATION CENTER 811 OR (405)522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

- (7) CONTROLLERS SHALL BE EQUIPPED WITH CONTINUOUS POWER UNIT. THIS UNIT SHALL PROVIDE 400 WATTS OF CONTINUOUS POWER FOR A MINIMUM OF 8 HOURS. THIS UNIT SHALL ALSO INCLUDE BATTERIES, CABINET, WIRING AND PAD IF NECESSARY. THIS POWER UNIT SHALL INCLUDE AN INTERCHANGEABLE HARD DISK THAT IS CAPABLE OF STORING AND RETRIEVING ALL ACTIVITY DATA, SUCH AS TIME, DATE, AND DURATION OF EVENTS. ALSO THE SURGE PROTECTORS TO BE SUPPLIED ON THIS PROJECT FOR THE TRAFFIC SIGNALS SHALL BE INNOVATIVE TECHNOLOGY, INC. SURGE PROTECTORS, MODEL NO. HS-P-SP-120A-60A-RJ, OR APPROVED EQUAL.
- (8) THIS PROJECT INVOLVES THE INSTALLATION OF A GRIDSMART, OR APPROVED EQUAL VIDEO VEHICLE DETECTION SYSTEM.
- (9) CONTRACTOR SHALL PROVIDE POLARA 2-WIRE NAVIGATOR ACCESSIBLE PEDESTRIAN SIGNAL PUSH BUTTON OR APPROVED EQUAL R10-3E PEDESTRIAN PUSH BUTTON SIGNS SHALL BE USED.
- (10) RED, YELLOW AND GREEN LED TRAFFIC SIGNAL HEADS SHALL BE FURNISHED AND INSTALLED ON THIS PROJECT. THE LED TRAFFIC MODULES, LENSES, AND ALL ASSOCIATED MATERIAL AND EQUIPMENT SHALL CONFORM TO I.T.E. VEHICLE TRAFFIC CONTROL SIGNAL HEAD (VTC SH) STANDARDS IN EFFECT AT THE TIME THAT THE ORDER IS PLACED. LED HEADS SHALL BE CAPABLE OF OPERATING WITHOUT A REFLECTOR.
- (11) LED INTERNATIONAL HEADS DISPLAYING INCANDESCENT LOOKING FULLY-ILLUMINATED SYMBOLS (WALKING PERSON AND UPRaised HAND) SHALL BE REQUIRED ON THIS PROJECT.
- THESE PEDESTRIAN HEADS SHALL ALSO BE COUNTDOWN TYPE HEADS.
- (12) REFLECTORIZED BACKPLATES SHALL BE SUPPLIED ON THIS PROJECT IN ACCORDANCE WITH GENERAL NOTE 4 ON ODOT STANDARD DRAWING SA1-1-(LATEST REVISION).
- (13) PAY ITEM IS TO RUN FROM THE PEDESTRIAN PUSH BUTTONS TO THE TERMINAL STRIP AT THE BASE OF THE POLES.
- (14) THE PREEMPTION CONTROL SYSTEM SHALL INTERFACE WITH THE TRAFFIC CONTROLLER TO GIVE EMERGENCY VEHICLES APPROACHING THE INTERSECTION A GREEN WITH ALL OTHER INDICATIONS BEING RED. THE SYSTEM SHALL BE CAPABLE OF TWO PRIORITY LEVELS AND LOG THE LAST 100 EVENTS WITH TIME DATE STAMP. EMITTER SHALL BE SELECTABLE TO TRANSMIT UP TO 9999 VEHICLE CODES. ALL EQUIPMENT IN THE SYSTEM SHALL MEET NEMA ENVIRONMENTAL STANDARDS.
- THE MANUFACTURER OR MANUFACTURER'S REPRESENTATIVES SHALL PROVIDE ASSISTANCE TO THE CONTRACTOR OR AGENCY INSTALLING THE EQUIPMENT AS TO THE BEST LOCATION FOR THE DETECTOR PLACEMENT AT EACH INTERSECTION INVOLVED WITH THE PROJECT. ALL EQUIPMENT MUST BE PLAINLY MARKED AS TO THE MANUFACTURER OF THE EQUIPMENT TO PROVIDE CLEAR IDENTIFICATION AS TO THE MANUFACTURER'S MODEL AND SERIAL NUMBER OF EACH UNIT. NEMA CERTIFICATION, TEST REPORTS SHALL BE PROVIDED UPON REQUEST BY THE ENGINEER.
- (15) MAST ARM MOUNTED STREET NAME SIGNS SHOWN ON THE PLANS ARE LARGER THAN THE MAXIMUM SIZE USED IN STANDARD ODOT POLE AND FOOTING DESIGNS. THE CONTRACTOR AND SUPPLIER SHALL PROVIDE CERTIFICATION AND DESIGN CALCULATIONS FOR HIGHER LOADING REQUIREMENTS.

- PAY QUANTITY NOTES**
- (TL-35) SEE SERVICE POLE SCHEDULE; FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:
PERSON'S NAME.....MIKE CANTRELL
WITH THE COMPANY/CITY OF.....DEL CITY,
COMPANY'S/CITY'S TELEPHONE NO.....(405)671-2874
- (TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- (TR-24) ALL TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CITY. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DIRECTED BY THE ENGINEER. THE PRICE BID SHALL INCLUDE THE REMOVAL OF ALL FOOTINGS BELOW GROUND LEVEL OR AS DIRECTED BY THE ENGINEER. FOOTINGS TO BECOME THE PROPERTY OF THE CONTRACTOR.
- (1) POLYMER CONCRETE PULL BOXES SHALL BE USED.
- (2) THE HAND HOLES AT THE BASE OF THE POLES SHALL BE PLACED AT 135 DEGREES CLOCKWISE FROM THE MAST ARMS IN ORDER TO AVOID CONFLICTS WITH THE PEDESTRIAN PUSH BUTTONS AND SIGNS BEING INSTALLED ON THIS PROJECT.
- (3) ROADWAY LUMINAIRES INSTALLED ON THIS PROJECT SHALL BE LED LUMINAIRES IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS HLD1-2- AND HLD2-2- (LATEST STANDARD).
- (4) THIS PAY ITEM IS TO BRING POWER TO THE CONTROLLER CABINET FROM THE SERVICE POLE.
- (5) THE CABINET(S) TO BE FURNISHED ON THIS PROJECT SHALL BE A N.E.M.A. TS2 TYPE 2 CABINET AND HAVE A NATURAL ALUMINUM FINISH. CABINET SHALL HAVE A/B/C/D CONNECTORS FOR BACKWARDS COMPATIBILITY. A MINIMUM OF SIXTEEN (16) LOAD SWITCH RECEPTACLES SHALL BE FURNISHED AND WIRED TO THE FRAME. ALL WIRING FROM THE FIELD TERMINALS SHALL BE WIRED TO THE MOUNTING FRAME FOR EIGHT (8) PHASE OPERATION. ALL CORRESPONDING RECEPTACLE WIRING IN THE CABINET AND THE FIELD WIRING SHALL BE INSTALLED FOR THE CONTROLLER AS REQUIRED EXCEPT FOR ADDITIONAL DETECTOR CONNECTOR CABLES WHEN THE CONTROLLER IS EXPANDED. CABINET SHALL HAVE TWO (2) 120V RECEPTACLES INSTALLED INSIDE OF THE CABINET WITH ONE BEING A GFI RECEPTACLE. ALSO, ALL CABINETS THAT ARE TO BE INSTALLED IN A SIGNAL INTERCONNECT SYSTEM SHALL HAVE A PULL OUT COMPUTER SHELF AND DRAWER INSTALLED FOR LAPTOP USE AT THE CONTROLLER CABINET.
- THE CONTROLLER(S) TO BE FURNISHED ON THIS PROJECT SHALL BE A LINUX BASED ATC CONTROLLER WHICH MEETS N.E.M.A. SPECIFICATIONS. THE CONTROLLER(S) SHALL BE CAPABLE OF PERFORMING AS SHOWN ON THE PHASE AND SEQUENCE DIAGRAMS. PEDESTRIAN ISOLATION SHALL BE PROVIDED IN THE CONTROLLER CABINET. ALL N.E.M.A. FUNCTIONS SHALL TERMINATE IN THE CONTROLLER CABINET.
- (6) THE CONTROLLER TO BE USED ON THIS PROJECT SHALL BE ECONOLITE IN ORDER TO BE COMPATIBLE WITH THE CONTROLLER CURRENTLY IN USE BY THE CITY.

PAY QUANTITIES			
0300 TRAFFIC SIGNAL			
ITEM	DESCRIPTION	UNIT	TOTAL
802(B) 8342	2" PVC SCH. 40 PLASTIC CONDUIT TRENCHED	(TP-1) LF	355.00
802(B) 8344	3" PVC SCH. 40 PLASTIC CONDUIT BORED	(TP-1) LF	1535.00
802(B) 8346	3" PVC SCH. 40 PLASTIC CONDUIT TRENCHED	(TP-1) LF	40.00
803(A) 8065	PULL BOX (SIZE I)	(1) EA	8.00
803(A) 8066	PULL BOX (SIZE II)	(1) EA	2.00
804(A) 2915	STRUCTURAL CONCRETE	(TP-1) CY	35.60
804(B) 2916	REINFORCING STEEL	(TP-1) LB	5076.40
805(A) 8726	(PL) REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	(TR-24) LSUM	1.00
806(A) 8352	32' MH POLE, 20' TS & 10' LMA (G.STL.)	(2) EA	1.00
806(A) 8350	32' MH POLE, 30' TS & 10' LMA (G.STL.)	(2) EA	1.00
806(A) 8311	32' MH POLE 35' TS & 10' LMA (G.STL.)	(2) EA	1.00
806(A) 8312	32' MH POLE 40' TS & 10' LMA (G.STL.)	(2) EA	1.00
806(A) 8353	32' MH POLE, 55' TS & 10' LMA (G.STL.)	(2) EA	2.00
806(B) 8894	10' MTG. HT. TS PED. POLE (G.STL.)	EA	8.00
809(A) 8090	ROADWAY LUMINAIRE	(3) EA	6.00
810(A) 3118	SERVICE POLE	(TL-35) EA	1.00
811 8040	1/C NO. 6 ELECTRICAL CONDUCTOR	(TP-1)(4) LF	400.00
811 8044	1/C NO. 10 ELECTRICAL CONDUCTOR	(TP-1) LF	4160.00
825 8550	TRAFFIC SIGNAL CONTROLLER ASSEMBLY	(5,6,7) EA	1.00
828 8132	(PL) DETECTION SYSTEM (VIDEO)	(8) LSUM	1.00
830 8000	PEDESTRIAN PUSH BUTTON	(9) EA	14.00
831 8231	1WAY 3SEC. ADJ. SIG. HD. S-6	(10) EA	18.00
831 8280	1WAY 4SEC. ADJ. SIG. HD. S-13	(10) EA	3.00
831 8286	1WAY 5SEC. ADJ. SIG. HD. S-19	(10) EA	2.00
831 8295	1WAY 2SEC. ADJ. PED. SIG. HD. S-20	(11) EA	16.00
833 3030	BACKPLATE	(12) EA	23.00
834(A) 8207	5/C TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	7180.00
834(A) 8208	7/C TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	1975.00
834(A) 8213	21/C TRAFFIC SIGNAL ELECTRICAL CABLE	(TP-1) LF	2875.00
834(B) 8220	2/C SHIELDED LOOP DETECTOR LEAD-IN CABLE	(TP-1)(13) LF	90.00
840(A) 8592	E.P.S. OPTICAL EMITTER	(14) EA	5.00
840(B) 8593	E.P.S. OPTICAL DETECTOR	(14) EA	6.00
840(C) 8594	E.P.S. OPTICAL DETECTOR CABLE	(TP-1)(14) LF	2065.00
840(D) 8595	E.P.S. 2 CHANNEL PHASE SELECTOR	(14) EA	3.00
850(C) 8118	MAST ARM MOUNTED SIGNS (ALUMNUM)	(15) SF	118.50

11/21/2019 \$FILES

Design	RWR	11/21/2019
Drawn	SB	11/21/2019
		

SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC SIGNALS)

State Job No. 23310(04) Sheet No. AT04

REVISIONS		
NO.	DESCRIPTION	DATE

GENERAL CONSTRUCTION NOTES

(C-6) THE STRUCTURAL DESIGN OF ALL POLES, MAST ARMS, HIGH-MAST POLES, AND OTHER SUPPORTS FOR SIGNS, LUMINAIRES, AND SIGNALS, AS WELL AS THEIR CONNECTIONS, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. THE MANUFACTURER SHALL ENSURE THE FOLLOWING ARE APPLIED TO THE DESIGN:

THE MINIMUM DESIGN WIND SPEED AND DESIGN LIFE AS REQUIRED IN THE AASHTO SPECIFICATIONS;

THE CALCULATED STRESSES AND FORCES FROM THE DESIGN LOADINGS DO NOT EXCEED THOSE REQUIRED IN THE AASHTO SPECIFICATIONS;

A CATEGORY I FATIGUE IMPORTANCE FACTOR (IF) FOR ALL STRUCTURES; NO VIBRATORY MITIGATION SHALL BE ALLOWED. TRUCK-INDUCED GUSTS SHALL BE APPLIED TO ALL OVERHEAD TRAFFIC SIGNAL SUPPORTS.

ALL MEMBERS ARE AT LEAST THE MINIMUM THICKNESS AS REQUIRED IN THE AASHTO SPECIFICATIONS;

LUMINAIRE MAST ARMS SHALL BE DESIGNED TO SUPPORT AT LEAST A 50 LB. (22.7 KG) LUMINAIRE WITH AN EFFECTIVE PROJECTED AREA OF 2.5 FT² (0.23 M²); THE ANCHOR BOLT DESIGN AND AMOUNT OF ANCHOR BOLTS TO BE USED SHALL BE AS REQUIRED IN THE AASHTO SPECIFICATIONS.

UNLESS SITE SPECIFIC GEOTECHNICAL DATA IS AVAILABLE, FOUNDATIONS SHALL BE DESIGNED UTILIZING THESE PARAMETERS: SHEAR STRENGTH OF COHESIVE SOIL (C) OF 500 PSF, ANGLE OF INTERNAL FRICTION (Φ) OF 22 DEGREES, AND EFFECTIVE UNIT WEIGHT OF SOIL (γ) OF 120 PCF.

MINIMUM HAND HOLE SIZE OF 3 INCH WIDTH BY 5 INCH HEIGHT.

(C-150) SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEERING DIVISION AT (405)521-2861.

(C-152) ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

(C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR (405)522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

PAY QUANTITY NOTES

(TL-35) SEE SERVICE POLE SCHEDULE; FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:
PERSON'S NAME.....MIKE CANTRELL
WITH THE COMPANY/CITY OF.....DEL CITY.
COMPANY'S/CITY'S TELEPHONE NO.....(405)671-2874

(TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

(1) PAY ITEM IS TO BE USED FOR THE UNDERPASS LIGHTING.

(2) PAY ITEM IS TO BE USED FOR PLACING IN THE CONCRETE MEDIAN BARRIER FOR THE LIGHT POLE ON I-40.

(3) PAY ITEM IS TO BE USED FOR THE UNDERPASS LIGHTING AND ALSO FOR THE LIGHT POLE CIRCUITS THAT ARE SHOWN TO BE PLACED ON BRIDGES.

(4) PAY ITEM IS FOR THE SPECIAL PULL BOXES TO BE INSTALLED IN THE MEDIAN BARRIER ON THIS PROJECT.

(5) POLYMER CONCRETE PULL BOXES SHALL BE USED.

(6) PAY ITEM IS FOR THE REMOVAL OF THREE TOWER LIGHT POLES NEAR SE 15TH STREET ON THIS PROJECT. PRICE BID SHALL INCLUDE THE OBLITERATION OF THE EXISTING FOOTING BELOW GROUND LEVEL AS APPROVED BY THE ENGINEER.

(7) PAY ITEM IS FOR THE REMOVAL OF THE EXISTING LIGHT POLES ALONG I-40 AND THE FRONTAGE ROADS WHERE NEW POLES ARE BEING INSTALLED. THE REMOVED POLES SHALL BECOME THE PROPERTY OF THE CITY OF MIDWEST CITY AND SHALL BE DELIVERED TO A LOCATION AS SPECIFIED BY THE ENGINEER. PRICE BID SHALL INCLUDE THE OBLITERATION OF THE EXISTING FOOTING BELOW GROUND LEVEL AS APPROVED BY THE ENGINEER.

(8) LUMINAIRES USED ON THIS PROJECT SHALL BE LED FIXTURES AS DESCRIBED BELOW.

74 - LED MONGOOSE FIXTURES MANUFACTURED BY HOLOPHANE. THE MODEL NUMBER IS MGLED-6-5K-AH-M-L-H-G. THE HORIZONTAL TWIN TENON MOUNTED MAST ARMS ARE 1'-0" LONG FOR THE LUMINAIRES MOUNTED ON THE 36' OVAL POLES IN THE MEDIAN BARRIER.

14 - LED WALLPACK IV FIXTURES MANUFACTURED BY HOLOPHANE. THE MODEL NUMBER IS W4GLED-20C-1000-50K-T3M-480-GYSDP FOR UNDERPASS LIGHTING..

(9) LUMINAIRES USED ON THIS PROJECT SHALL BE THE HOLOPHANE LED MONGOOSE, OR APPROVED EQUAL. LIGHTING LAYOUT PRESENTED IN THE PLANS IS BASED ON THE PHOTOMETRICS AND LIGHT DISTRIBUTION OF THIS LIGHT FIXTURE. OTHER LIGHT FIXTURES SATISFYING THE SPECIFICATIONS WILL BE CONSIDERED AS LONG AS THE LIGHT DISTRIBUTION MEETS ODOT DESIGN CRITERIA WITH THE SPACING OF THE POLES AS SHOWN IN THE PLANS AND FUTURE MAINTENANCE CAN BE PROVIDED BY THE CITY.


(10) LUMINAIRE USED ON THIS PROJECT FOR UNDERPASS LIGHTING SHALL BE THE HOLOPHANE WALLPACK IV LED FIXTURE, OR APPROVED EQUAL. LIGHTING LAYOUT PRESENTED IN THE PLANS IS BASED ON THE PHOTOMETRICS AND LIGHT DISTRIBUTION OF THIS LIGHT FIXTURE. OTHER LIGHT FIXTURES SATISFYING THE SPECIFICATIONS WILL BE CONSIDERED AS LONG AS THE LIGHT DISTRIBUTION MEETS ODOT DESIGN CRITERIA WITH THE SPACING OF THE POLES AS SHOWN IN THE PLANS AND FUTURE MAINTENANCE CAN BE PROVIDED BY THE CITY.

(11) THIS WIRE SHALL BE ALUMINUM WIRE ONLY. ALL ASSOCIATED HARDWARE (CONNECTORS, SPLICES, BREAKERS, ETC.) NECESSARY TO ASSURE PROPER INSTALLATION AND PERFORMANCE OF THIS ALUMINUM WIRE IN ACCORDANCE WITH CURRENT SPECIFICATIONS, STANDARDS AND PRACTICE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM.

PAY QUANTITY INCLUDES SUFFICIENT QUANTITY TO RUN THREE (3) NO. 4 ELECTRICAL WIRES FOR THESE CIRCUITS. ONE BLACK FOR THE LOAD, ONE WHITE FOR NEUTRAL AND ONE BARE WIRE TO GROUND ALL LIGHT POLES ON THIS PROJECT IN ACCORDANCE WITH CURRENT STANDARDS AND PRACTICE. THE USE OF PAINT OR TAPE FOR THE WIRE COLORS WILL NOT BE ACCEPTABLE ON THIS PROJECT.

PAY QUANTITIES			
0301 TRAFFIC LIGHTING			
ITEM	DESCRIPTION	UNIT	TOTAL
802(A) 8300	3/4" GALV. STEEL ELECTRICAL CONDUIT EXPOSED (TP-1)(1)	LF	1275.00
802(A) 8306	1 1/4" GALV. STEEL ELECTRICAL CONDUIT EXPOSED (TP-1)	LF	1855.00
802(B) 8340	2" PVC SCH. 40 PLASTIC CONDUIT BORED (TP-1)	LF	960.00
802(B) 8342	2" PVC SCH. 40 PLASTIC CONDUIT TRENCHED (TP-1)	LF	3740.00
802(C) 8557	2" HIGH DENSITY PE PIPE - TRENCHED (TP-1)(2)	LF	3760.00
802(E) 8376	JUNCTION BOX (12" X 12" X 8") (3)	EA	6.00
803(A) 8060	PULL BOX (4)	EA	20.00
803(A) 8065	PULL BOX (SIZE I) (5)	EA	30.00
804(A) 2915	STRUCTURAL CONCRETE (TP-1)	CY	57.40
804(B) 2916	REINFORCING STEEL (TP-1)	LB	9940.00
805(A) 8708	REMOVAL OF HIGH MAST TOWER (6)	EA	3.00
805(A) 8712	(PL) REMOVAL OF LIGHT POLE (7)	EA	61.00
806(C) 8924	40' MTG & 10' HLMA (G.STL.)	EA	38.00
806(D) 8995	36' MTG. HT. HL. PTP. (G.STL.)	EA	13.00
807	BREAKAWAY BASE (DES. B)	EA	23.00
809(A) 8090	ROADWAY LUMINAIRE (8,9)	EA	74.00
809(B) 8098	UNDERPASS LUMINAIRE (8,10)	EA	14.00
810(A) 3118	SERVICE POLE (TL-35)	EA	1.00
811	1/C NO. 4 ELECTRICAL CONDUCTOR (TP-1)(11)	LF	37026.00
811	1/C NO. 10 ELECTRICAL CONDUCTOR (TP-1)(3)	LF	2680.00
811	1/C NO. 12 ELECTRICAL CONDUCTOR (TP-1)	LF	9250.00

11/21/2019 \$FILES

Design	RWR	11/21/2019
Drawn	SB	11/21/2019
		

SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC LIGHTING)

State Job No. 23310(04) Sheet No. AT05

PAY QUANTITIES NOTES

- (TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.
- (TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.
- (TC-17) INCLUDES AN ESTIMATED 1900 L.F. (PAINT) (4" WIDE) WHITE/5600 L.F. (PAINT)(4" WIDE) YELLOW STRIPE.
- (TC-19) THIS ITEM INCLUDES AN ESTIMATED 25,000 L.F. (4" WIDE) WHITE AND 25,000 L.F. (4" WIDE) YELLOW STRIPE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN O.D.O.T. APPROVED REMOVABLE PAVEMENT MARKING TAPE. COST FOR REMOVAL OF THIS TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NON-REMOVABLE MARKING TAPE (FOIL BACK) SHALL NOT BE CONSIDERED AN APPROVED EQUAL FOR
- (TC-20) ALL STRIPING TO BE PLACED ON TEMPORARY SURFACES OR ON SURFACES SCHEDULED TO BE REMOVED SHALL BE DONE WITH PAINT UNLESS OTHERWISE NOTED ON THE PLANS OR STANDARD DRAWINGS. TEMPORARY PAVEMENT MARKINGS PLACED ON FINISHED PAVEMENT OR EXISTING PAVEMENT TO REMAIN IN PLACE SHALL USE ONE OF THE FOLLOWING METHODS:
• REMOVABLE PAVEMENT MARKING TAPE
• CLASS A PAVEMENT MARKERS
- (TC-22) AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL SHALL INCLUDE THE COST OF REMOVING STRIPE, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN THE PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON-REMOVABLE MARKING TAPE.
- (TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.
- (TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
- (TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
- (TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
- (TC-31) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE 33.0 S.F. AND OVER. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
- (TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION)

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.
- (TC-52) ANY USED CHANGEABLE MESSAGE SIGNS AND CONSTRUCTION ZONE IMPACT ATTENUATORS TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.
- (TC-61) ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTORS NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.
- (TC-65) THE PRICE BID FOR THIS ITEM SHALL INCLUDE THE FOLLOWING:
A. ONE OFFICIALLY MARKED OKLAHOMA HIGHWAY PATROL CAR (WHEN PROJECT INVOLVES A STATE OR FEDERAL HIGHWAY). IF AN OKLAHOMA HIGHWAY PATROL CAR IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT VEHICLE IS TO BE USED. PRICE BID FOR THIS ITEM SHALL BE PAID ON A PER UNIT PER HOUR BASIS.
B. ONE OKLAHOMA HIGHWAY LAW ENFORCEMENT OFFICER WITH JURISDICTIONAL AUTHORITY TO WRITE AND ISSUE TRAFFIC CITATIONS. IF AN OKLAHOMA HIGHWAY PATROL LAW OFFICER IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT OFFICER IS TO BE USED. THE LAW ENFORCEMENT OFFICER SHALL BE INSURED, LICENSED AND BONDED, IF REQUIRED, BY THE CONTRACTOR. THIS OFFICER SHALL BE SPECIFICALLY APPROVED AND ASSIGNED TO THIS WORK ACTIVITY.
C. THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH THE OKLAHOMA HIGHWAY PATROL OR THE LAW ENFORCEMENT AGENCY TO PROVIDE THE REQUIRED LAW ENFORCEMENT ON THIS PROJECT.
D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS ANTICIPATED WEEKLY SCHEDULE TO THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW AGENCY TWO WEEKS IN ADVANCE OF THE WORK. THE WORK SCHEDULE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
E. THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW ENFORCEMENT AGENCY WILL BE PAID FOR A MAXIMUM OF ONE (1) HOUR, PER WORK PERIOD, TO ALLOW FOR TRAVEL TO AND FROM THE OFFICER'S PERMANENT DUTY STATION AND THE WORK SITE. THIS WILL BE PAID ONE (1) TIME PER WORK PERIOD AS DEFINED BY THE CONTRACTOR IN AGREEMENT WITH THE ENGINEER.

PAY QUANTITIES NOTES CONT'

- (TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.
- (TC-73) QUANTITY SHOWN INCLUDES 5000 EA. (WHITE) AND 5000 EA. (YELLOW) CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS). THESE CONSTRUCTION ZONE PAVEMENT MARKERS SHALL BE EITHER "DAVIDSON PLASTICS: MODEL TOM", OR AN APPROVED EQUAL. PRICE BID FOR THIS ITEM SHALL INCLUDE THE INITIAL PLACEMENT, SUBSEQUENT REPLACEMENT, AND REMOVAL. THE CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON STANDARD DRAWING TCS21-1-(LATEST REVISION).
- (TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.
- (TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:
<http://www.okladot.state.ok.us/traffic/qpl/index.php>

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		
▲ REVISIED PAY ITEMS				1/15/20		
▲ REVISIED PAY ITEMS				1/23/20		
▲ REVISIED PAY ITEMS				2/11/20		
▲ REVISIED PAY ITEMS				2/13/20		
▲ REVISIED PAY ITEMS				2/18/20		

TRAFFIC CONTROL PAY QUANTITIES

0303 TRAFFIC CONTROL				JP 23310(04)	
ITEM NO.	DESCRIPTION		UNIT	QUANTITY	
857(A)	8839	CONSTRUCTION TRAFFIC STRIPE(PAINT)(4" WIDE) (TC-17)(TC-20, 70, 75)	LF	7,500.00	
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE) (TC-19, 70, 75)	LF	50,000.00	
857(E)	8887	(PL)CONSTRUCTION ZONE PAVEMENT MARKERS(FLEX TAB)TYPE 2-1 (TC-61, 70, 73,75)	EA	10,000.00	
857(F)	8006	PAVEMENT MARKING REMOVAL(TRAFFIC STRIPE) (TC-22, 70)	LF	8,000.00	
871(B)	8705	(SP)CONST.ZONE IMPACT ATTEN. (TC-52), (1)	SD	1,800.00	
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER (TC-1,2)	LF	22,500.00	
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER (TC-1,2)	LF	22,200.00	
880(A)	8812	ARROW DISPLAY(TYPE C) (1)	SD	740.00	
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF (TC-26, 28, 33)(1)	SD	30,000.00	
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF (TC-26, 29, 33)(1)	SD	32,000.00	
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF (TC-26, 30, 33)(1)	SD	28,600.00	
880(B)	8827	CONSTRUCTION SIGNS 33.0 SF & OVER (TC-26, 31, 33)(1)	SD	1,400.00	
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III) (TC-26)(1)	SD	32,000.00	
880(C)	8848	WING BARRICADES (TC-26)(1)	SD	3,400.00	
880(E)	8860	WARNING LIGHTS(TYPE A) (TC-26)(1)	SD	71,000.00	
880(F)	8878	DRUMS (TC-26)(1,2)	SD	53,000.00	
▲ 880(G)	8890	CHANNELIZER CONES (TC-26)(1)	SD	40,500.00	
880(L)	8920	TRAFFIC SURVEILLANCE, OHP (Non Biddable) (T-65, 70)	HR	7,760.00	
880(N)	0100	(SP) TEMPORARY TRAFFIC SIGNAL SPAN WIRE EQUIPMENT (3)	LSUM	1.00	
▲ 880(O)	0500	SERVICE PATROL (1)	SD	970.00	
▲ 882	8360	(SP) SMART WORK ZONE SYSTEM (1,4,5)	SD	970.00	
▲ 882	8370	(SP) SMART WORK ZONE SYSTEM-PORTABLE CHANGEABLE MESSAGE (1,4)	SD	69,840.00	
▲ 882	8372	(SP) SMART WORK ZONE SYSTEM-PORTABLE TRAFFIC SENSOR (1,4)	SD	29,100.00	
▲ 882	8374	(SP) SMART WORK ZONE SYSTEM-PAN-TILT-ZOOM CAMERA (PTZC) (1,4)	SD	9,700.00	
882	8376	(SP) SMART WORK ZONE SYSTEM-WEBSITE SYSTEM (1,4)	SD	970.00	
882(A)	8306	PORT.CHANGEABLE MESSAGE SIGN (TC-52, 70, 85)(1)	SD	1,940.00	

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

SUMMARY OF QUANTITIES SHEET 1 OF 2 (TRAFFIC CONTROL)
STATE JOB NO. 23310(04) SHEET NO. AT06

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GENERAL CONSTRUCTION NOTES

FULL FUNCTION SERVICE PATROL (FFSP) REQUIREMENTS

SERVICE PATROL REQUIREMENTS

THE FOLLOWING LIST OF SERVICES ARE TO BE PROVIDED BY THE FULL FUNCTION SERVICE PATROL (FFSP)

PROVIDE INCIDENT RESPONSE SERVICES, CLEARANCE RESOURCES, AND FREE MOTORIST ASSISTANCE SERVICES 24 HOURS, 7 DAYS-A-WEEK ALONG THE DESIGNATED CORRIDOR

OPERATOR TO HAVE THE APPROPRIATE TRAINING AND CERTIFICATIONS TO PROVIDE SERVICE

PROVIDE EMERGENCY TEMPORARY TRAFFIC CONTROL (TTC) AT INCIDENT SCENES, EQUIPMENT FFSP VEHICLES TO FULLY RELOCATE A STALLED OR ABANDONED AUTOMOBILE OR LIGHT TRUCK FROM A HIGHWAY TO A SAFE LOCATION AS DESIGNATED IN THE PLANS

SUGGESTED ON-BOARD TOOLS AND EQUIPMENT

SCREWDRIVERS, STANDARD AND PHILLIPS OF VARIOUS SIZES
 NEEDLE NOSE PLIERS
 ADJUSTABLE RIB JOINT PLIERS, 2" MINIMUM CAPACITY
 ENGLISH SET OF COMBINATION BOX/OPEN END WRENCHES
 METRIC SET OF COMBINATION BOX/OPEN END WRENCHES
 CRESCENT WRENCHES, 8" AND 12"
 HAMMER, 1 POUND
 HAMMER, 5 POUND
 MALLET, RUBBER
 TAPE, ELECTRICAL
 TAPE, DUCT, 20 YARD ROLL
 ZIP TIES (50)
 TIRE PRESSURE GAUGE
 MECHANICS WIRE
 BOLT CUTTER
 FLASHLIGHT AND SPARE BATTERIES
 MULTIPURPOSE FUNNEL, WITH FLEXIBLE SPOUT
 5-GALLON CONTAINERS
 GARBAGE BAGS
 WIRE BRUSH
 35-GALLON TRASH CAN

SUGGESTED VEHICLE EQUIPMENT AND SUPPLIES

LIGHT BAR
 DIESEL FUEL (5 GALLONS)
 GASOLINE, 100% UNLEADED (5 GALLONS)
 SAFETY CHAINS (4 EACH, 10 FOOT MINIMUM)
 TIE DOWN STRAPS AND BUNGEEES OF ASSORTED LENGTHS (MINIMUM OF 5 EACH)
 TAIL LIGHT/BRAKE LIGHTS, PORTABLE REMOTE WITH EXTENSION CORD
 WOOD BLOCKS, 4" W X 6" H X 12" L (MINIMUM OF 2)
 WHEEL CHOCKS (2 PAIR)
 JACK, HYDRAULIC 3-TON FLOOR (1)
 20-TON BOTTLE JACK
 FOUR-WAY LUG WRENCH (1 STED, 1 METRIC, 1 LARGE)
 IMPACT SOCKET WRENCH
 RECHARGEABLE AIR BOTTLE HOSES AND FITTINGS TO FIT TIRE VALVE STEMS (MINIMUM 10 GALLON CAPACITY)
 FIRST AID KIT
 FIRE EXTINGUISHER (10LB CHEMICAL ABC)
 PRY BAR, 36" OR LONGER
 BROOM, 24" WIDE (2)
 SHOVEL, SQUARE POINT
 SHOVEL, LARGE CAPACITY SQUARE POINT
 OIL DRY (2-BAGS @50 LBS/BAG)
 BOOSTER CABLES, 15 FEET LONG MINIMUM, 3-GAUGE COPPER WIRE WITH HEAVY DUTY CLAMPS
 LOCK OUT SET

(C-1) ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

(C-2) EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

(C-155) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES: THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

CONST. NUMBER NOTES (TRAFFIC CONTROL)

PAY QUANTITY NOTES (TRAFFIC CONTROL)

(1) 970 TOTAL CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAYS ITEMS. THE TOTAL CALENDAR DAYS ARE BROKEN DOWN BY PHASE TO CALCULATE THE SIGN DAYS PAY ITEMS PER PHASE. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY. BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECTS CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION THE CALENDAR DAYS PER PHASE ON THIS PROJECT. THE CALENDAR DAYS PER PHASE ON THIS PROJECT ARE AS FOLLOWS:

PHASE 1: 256 DAYS
 PHASE 2: 14 DAYS
 PHASE 3: 230 DAYS
 PHASE 4: 230 DAYS
 PHASE 5: 120 DAYS
 PHASE 6: 60 DAYS
 PHASE 7: 30 DAYS
 PHASE 8: 20 DAYS
 PHASE 9: 10 DAYS
 TOTAL: 970 DAYS

(2) WARNING LIGHTS TYPE "C" ARE REQUIRED ON THIS PROJECT.

(3) PRICE BID FOR THIS ITEM SHALL BE FOR TWO COMPLETE SPAN WIRE SIGNAL INSTALLATIONS TO OPERATE SIMULTANEOUSLY AND IN SYNC ON THIS PRICE BID FOR THIS SHALL INCLUDE ALL LABOR AND EQUIPMENT NECESSARY TO ACCOMMODATE TRAFFIC FOR DIFFERENT PHASES OF CONSTRUCTION ON THIS PROJECT.

(4) MADATORY TIE: THE PRICE BID FOR JP 2884(04), OKLAHOMA COUNTY SHALL BE INCLUDED IN THE PRICE BID FOR JP 23310(04), OKLAHOMA COUNTY FOR SMARK WORK ZONE SYSTEM.

(5) PRICE BID FOR THIS ITEM SHALL INCLUDE COST FOR SEVEN (7) BLUETOOTH SENSORS (BTS) FOR THE DURATION OF THE PROJECT (970 DAYS) FOR A TOTAL OF 6,790 SIGN DAYS.

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
REVISIED PAY ITEMS		1/15/20
ADDED NOTES		1/23/20

REVISIED PAY ITEMS	1/15/20
ADDED NOTES	1/23/20

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DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

**SUMMARY OF
 QUANTITIES SHEET 2 OF 2
 (TRAFFIC CONTROL)**
 STATE JOB NO. 23310(04) SHEET NO. ATOZ

DESCRIPTION	REVISIONS	DATE
REV. TABLE		1/15/2020
ADDED NOTE		3/9/2020

PAY ITEM NOTES

- (1) PRICE BID TO INCLUDED COST OF TRENCHING AND BEDDING/EMBEDMENT MATERIALS.
- (2) ESTIMATED QUANTITY TO BE USED TO FILL ABANDONED SANITARY SEWER LINES. SEE NOTE THIS SHEET.
- (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GPS AS-BUILT SURVEY, FOLLOWING THE COMPLETION OF CONSTRUCTION, FOR EVERY 100' ALONG THE ALIGNMENT OF THE PROJECT. COORDINATES OF THE MANHOLES, MANHOLE RIM ELEVATIONS, MANHOLE INVERT ELEVATIONS, MANHOLE DEPTHS, AND SIMILAR APPURTENANCES. AN AUTOCAD DRAWING AND COORDINATES DATA SHEET SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL. THIS TASK MUST BE PERFORMED BY A REGISTERED PROFESSIONAL LAND SURVEYOR. DATA SUBMITTED SHALL BE TIED TO OKLAHOMA STATE PLANE COORDINATE SYSTEM.
- (4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLOR AUDIO/VIDEO RECORDING PRE AND POST CONSTRUCTION AS PER THE CITY OF OKLAHOMA CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS: SECTION 109.08 AUDIO-VIDEO RECORDING PRE- AND POST-CONSTRUCTION.
- (5) SPECIAL PROVISIONS, BID ALTERNATE: THE CONTRACTOR SHALL PROVIDE SEWER FLOW CONTROL BETWEEN MANHOLE #3 AND MANHOLE #4. CLEAN THE EXISTING 42" SANITARY SEWER LINE, AND THEN PERFORM TELEVISION INSPECTION OF THE 42" SANITARY SEWER LINE BETWEEN MANHOLE #3 AND MANHOLE #4.

THE SEWER FLOW CONTROL BETWEEN MANHOLE #3 AND MANHOLE #4 THEN CAN BE TEMPORARILY TERMINATED WHILE THE CITY OF OKLAHOMA CITY REVIEWS THE TELEVISION INSPECTION FOOTAGE OF THE 42" SEWER LINE.

AFTER REVIEW OF THE TELEVISION INSPECTION FOOTAGE OF THE 42" SEWER LINE BY THE CITY OF OKLAHOMA CITY, THE CITY WILL DETERMINE WHICH METHOD OF CONSTRUCTION SHALL BE USED ON THE EXISTING 42" SANITARY SEWER LINE BETWEEN MANHOLE #3 AND MANHOLE #4. FROM THE FOLLOWING ALTERNATES:

- ALTERNATE #1 - 657.07 - RESIN IMPREGNATED TUBE (42")
- ALTERNATE #2 - 616.07 - SLIPLINING (42") WITH A (36") LINE

THE CONTRACTOR SHALL PROVIDE SEWER FLOW CONTROL BETWEEN MANHOLE 3# AND MANHOLE #4, AND CONSTRUCT THE ALTERNATE SELECTED BY THE CITY BETWEEN MANHOLE 3# AND MANHOLE #4.

- (6) PROTECTIVE COATING, AS PER THE CITY OF OKLAHOMA CITY STANDARD SPECIFICATIONS NO. 626 SANITARY SEWER MANHOLES. ALL INSIDE SURFACES (WALLS, BOTTOM, AND ETC.) OF PRE-CAST CONCRETE MANHOLES SHALL BE SHOP COATED WITH A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 8 MILS OF TNEPEC SERIES 69 HI-BUILD EPOXOLINE II, OR APPROVED EQUAL.

- (7) CONSTRUCTION STAKING ITEM IS AS NEEDED SEPARATE FROM THE OTHER PROJECTS.

GENERAL CONSTRUCTION NOTES

ALL CONSTRUCTION OF WATER AND SANITARY SEWER SHALL BE IN ACCORDANCE WITH THE CITY OF OKLAHOMA CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS. ALL CONSTRUCTION MATERIALS PERTAINING TO WATER AND SANITARY SEWER SHALL BE APPROVED BY THE CITY OF OKLAHOMA CITY.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

NO PAYMENT WILL BE MADE FOR THE REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A "CONTRACT PAY ITEM" SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.

(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE. DUE TO RELOCATIONS PLANNED OR PRESENTLY UNDER CONSTRUCTION THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC., PRIOR TO DIGGING NEAR THE UTILITIES. THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDER GROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES: THE "OKIE" NOTIFICATION CENTER (405) 840-5021 OR 1-800-522-6543.

DEPTH & LOCATION OF EXISTING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

IN THE EVENT THE EXISTING SECTION LINE ROADS OR PUBLIC ROAD ARE IN ANY WAY DISTURBED AS A RESULT OF THE CONTRACTORS EFFORTS, IT SHALL BE THE RESPONSIBILITY OF SAID CONTRACTOR TO RETURN THE AREA TO ITS ORIGINAL CONDITION WITH NO ADDITIONAL COMPENSATION AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER.

A CONTRACTOR'S PROGRESS SCHEDULE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 108A OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

CONSTRUCTION TRAFFIC CONTROL AND CLEARING AND GRUBBING TO BE INCLUDED IN PRICE BID FOR ROADWAY. JP 23310(04).



DESIGN	ABC	12/06
DRAWN	ABC	12/06
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SQUAD	POE	

SUMMARY OF PAY QUANTITIES & NOTES-SAN SEWER LN. RELOCATION

STATE JOB NO. 23310(04) SHEET NO. AU01

PAY QUANTITIES - SANITARY SEWER

ODOT ITEM NUMBER	ITEMS	UNIT	QTY.
615(H)0110	SANITARY SEWER LINE RELOCATION	LS	1

NOTE: THE FOLLOWING TABLE "SUMMARY OF SANITARY SEWER QUANTITIES" IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND HAS THE ESTIMATED QUANTITIES FOR THE CONSTRUCTION OF THE CONSTRUCTION OF THE CITY OF OKLAHOMA SANITARY SEWER PROJECT SC-0930. THESE QUANTITIES REFLECT THE SANITARY SEWER PLANS ON SHEETS U0001 TO U0010.

SUMMARY OF SANITARY SEWER QUANTITIES

ITEM NO.	OKC SPEC. NO.	ITEM	UNIT	TOTAL QUANTITY
1	109.08	AUDIO / VIDEO RECORDING PRE AND POST CONSTRUCTION	(4) LS	1
2	109.09	SEDIMENT AND EROSION CONTROL	LS	1
3	212	TRENCH EXCAVATION AND BACKFILL - ZERO (0) FT TO FIFTEEN (15) FT	LF	357
4	215	EMBEDMENT MATERIAL	CY	1030
5	456	ABANDON MANHOLE (7-FOOT DIA.)	EA	1
6	456	REOVING MANHOLE	EA	1
7	505	42-IN AWWA C-905-PVC PIPE CLASS 200	LF	20
8	610	SANITARY SEWER PIPE (42")	(2) LF	337
9	614	ABANDON SEWER	(5) CY	125
10	616	SLIPLINING 42"-INCH SEWER PIPE	(5) LF	283
11	617	FORMED-IN-PLACE PIPE (42")	(5) LF	283
12	618	SEWER FLOW CONTROL	(5) LS	1
13	619	CLEANING SEWER LINE	(5) LF	283
14	623	DEFLECTION TEST (≥24")	LF	357
15	624	TELEVISION INSPECTION (CCTV)	(5) LF	640
16	625	SANITARY LEAKAGE TEST (≥24")	LF	640
17	626	SANITARY SEWER MANHOLE (7 FT DIAMETER) (0 - 6FT)	(6) EA	4
18	626	EXTRA DEPTH MANHOLE WALL (7 FT DIAMETER)	VF	21
19	633	MANHOLE COVER WATER PROOFING	EA	4
20	801	CONSTRUCTION STAKING	(7) LS	1
21	818	REMOVE AND REPLACE 6" ASPHALT WALKING TRAIL	R-24 SY	130
22	840	SOLID SLAB SODDING	R-6 SY	2,000
23	SPECIAL	GPS AS-BUILT SURVEY	LS	1

PAY QUANTITY NOTES

(R-6) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 SQ. YDS.

(R-24) ESTIMATED AT 112 LBS. PER SQ. YDS. PER 1" THICK

NOTE: CONTRACTOR WILL BE REQUIRED TO PROVIDE THE CITY WITH A MAINTENANCE BOND AND RECEIVE A WORK ORDER FROM THE CITY PRIOR TO CONSTRUCTION OF ANY WATER AND/OR SEWER WORK.

NOTE: CONTRACTOR PERFORMING THIS WORK SHALL BE PRE-QUALIFIED BY THE CITY OF OKLAHOMA CITY.

NOTE: EXISTING SANITARY SEWER LINES THAT ARE ABANDONED AND NOT REMOVED BY EITHER NOTE OR ROADWAY CONSTRUCTION SHALL BE FILLED WITH CLSM. THIS DOES NOT INCLUDE ABANDONED LINES ON SIDE/CROSS STREETS OR ALLEYS BEYOND THE CONSTRUCTION EXTENTS OF ROADWAY IMPROVEMENTS.

DESCRIPTION	REVISIONS	DATE

GENERAL NOTES

- ALL CONSTRUCTION OF WATERLINES SHALL BE IN ACCORDANCE WITH THE CITY OF DEL CITY STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF PUBLIC IMPROVEMENTS, AND ALL WATERLINE CONSTRUCTION MATERIALS SHALL BE AS APPROVED BY THE CITY OF DEL CITY EXCEPT WHERE NOTED OTHERWISE.
- CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN THE OTHER ITEMS OF WORK.
- NO PAYMENT SHALL BE MADE FOR THE REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH THE CONSTRUCTION. ALL COST TO BE INCLUDED IN THE OTHER ITEMS OF WORK.
- ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A CONTRACT PAY ITEM SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS THAT ARE CLASSIFIED FOR PAYMENT.
- LOCATION OF ALL UTILITIES SHOWN ON PLANS ARE APPROXIMATE. THERE MAY BE SOME UTILITIES THAT NEED TO BE RELOCATED BUT NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY AND ALL UTILITIES.
- DEPTH AND LOCATION OF ALL EXISTING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION.
- IN THE EVENT THE EXISTING SECTION LINE ROADS OR PUBLIC ROADS ARE IN ANYWAY DISTURBED AS A RESULT OF THE CONTRACTOR'S EFFORTS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RETURN THE AREA TO ITS ORIGINAL CONDITION WITH NO ADDITIONAL COMPENSATION AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER.
- CONTRACTOR'S PROGRESS SCHEDULE SHALL BE PREPARED AND SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH SECTION 108A OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- ALL MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF IN A MANNER APPROVED BY THE ENGINEER.
- THE CITY OF DEL CITY SHALL INSPECT ALL TAPS, AND SHALL TAKE INDEPENDENT WATER TEST PER "ODEQ".
- MOBILIZATION/DEMOLITION, CONSTRUCTION STAKING, AND CONSTRUCTION TRAFFIC CONTROL SHALL BE PAID UNDER ROADWAY CONTRACT.
- COMPACTION OF TRENCH BACKFILL IN PAVED AREAS SHALL BE 95% STANDARD PROCTOR DENSITY.
- WHEN AN EXISTING VALVE IS ABANDONED IN A PAVED AREA, THE VALVE BOX IS TO BE FILLED WITH CONCRETE. WHEN AN EXISTING VALVE IS ABANDONED IN A GRASSY AREA, THE BOX IS TO BE PULLED AND THE TOP NUT REMOVED FROM THE VALVE. THE COST OF THIS WORK IS CONSIDERED INCIDENTAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROMPT REPLACEMENT AND/OR REPAIR OF ALL TRAFFIC CONTROL DEVICES AND APPURTENANCES DAMAGED OR DISTURBED DUE TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT DEL CITY TRAFFIC OPERATIONS FOR THE MARKING OF TRAFFIC SIGNAL CONDUIT AND APPURTENANCES AT LEAST TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AND/OR PLACING OR REMOVING ANY BARRICADES OR MODIFYING EXISTING TRAFFIC CONTROL DEVICES. CALL TO OBTAIN A COPY OF THIS FORM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL LANDSCAPING IN AS GOOD OR BETTER CONDITION AS EXISTING LANDSCAPING.
- ALL CONCRETE DRIVEWAYS TO BE REPLACED SHALL BE REMOVED AND REPLACED FROM THE PAVING GUTTER LINE TO THE JOINT ALONG THE PROPERTY LINE.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL PRIVATE & PUBLIC UTILITIES DAMAGED DURING CONSTRUCTION. UTILITY CROSSINGS SHOWN ARE BASED ON AS-BUILT AND ARE APPROXIMATE.
- ALL NEW SERVICE LINES SHALL BE HDPE.
- BORE OR DIRECTIONAL DRILL ALL STREET CROSSINGS, DRIVEWAYS, TREES, AND ANY OTHER AFFECTED STRUCTURES UNLESS OTHERWISE NOTED.
- STANDARD DEPTH OF COVER SHALL BE A MINIMUM OF 48". VERTICAL SEPARATION BENEATH EXISTING/PROPOSED STORM SEWER PIPES/STRUCTURES SHALL BE A MINIMUM OF 30" TO OUTSIDE OF PIPE OR CASING.
- ALL CROSSINGS AND PROPOSED TIE-IN LOCATIONS SHALL BE EXCAVATED AHEAD OF CONSTRUCTION TO VERIFY THE FLOWLINE OF EXISTING WATER MAINS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION STAKING. THE STAKING MUST BE DONE BY A REGISTERED PROFESSIONAL LAND SURVEYOR BY THE STATE OF OKLAHOMA, WHICH WILL BE VERIFIED AT PRE-WORK CONFERENCE.
- THE CENTERLINE AS NOTED ON THE PLANS IS THE CENTERLINE OF PAVING, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO DRAIN AS GOOD OR BETTER THAN EXISTING CONDITIONS.
- ANY WATER MAIN TEMPORARILY TAKEN OUT OF SERVICE FOR MAKING CONNECTIONS AND INSTALLING PLUGS/CAPS SHALL BE MADE AT LOW DEMAND TIMES. THE CONTRACTOR SHALL PROVIDE SEVEN (7) DAYS NOTICE FOLLOWED BY THREE (3) DAYS NOTICE TO DEL CITY WATER UTILITIES, LINE MAINTENANCE DIVISION, AND THE PROPERTY OWNERS PRIOR TO TAKING ANY WATER MAIN OUT OF SERVICE. THE CONTRACTOR IS NOT ALLOWED TO OPERATE ANY VALVE CONNECTED TO DEL CITY WATER MAINS.
- ALL P.C. CONCRETE PAVEMENT, CURBS, DRIVEWAYS AND SIDEWALKS DISTURBED BY THIS PROJECT SHALL BE REPLACED WITH HIGH EARLY STRENGTH (HES) CONCRETE, 3500 P.S.I. MIN.
- THE COST OF OBTAINING A STORM WATER DISCHARGE PERMIT SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS. A STORM WATER DISCHARGE PERMIT IS REQUIRED BEFORE ANY LAND DISTURBING ACTIVITIES CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS & REPLACEMENT OF ALL EROSION CONTROL MEASURES.

- ALL WORK NOT CLASSIFIED AS A "PAY ITEM" SHALL BE CONSIDERED INCIDENTAL CONSTRUCTION. THE COST OF WHICH, INCLUDING, BUT NOT LIMITED TO METER REPLACEMENTS & SERVICE RECONNECTIONS, SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
- CRUSHER RUN BACKFILL WILL NOT BE PAID DIRECTLY, COST SHALL BE INCLUDED IN OTHER ITEMS. CRUSHER RUN BACKFILL REQUIRED IN ALL PAVED AREAS.
- WHEN PVC PIPE IS SPECIFIED AND USED ON THIS PROJECT, CONTRACTOR SHALL INSTALL ONE STRAND OF NO. 12 GAUGE COPPER TRACER WIRE ALONG TOP OF ALL PVC PIPES. BRING THE TRACER WIRE TO TOP OF GROUND AND ANCHOR AT ALL VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES. COST FOR THIS ITEM SHALL BE CONSIDERED AS INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF OTHER ITEMS OF THE PROJECT.
- LINE STOP EQUIPMENT AND FITTINGS SHALL BE APPROVED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL EXISTING WATER METER BOXES WITH AN APPROVED LOAD BEARING WATER METER BOX THAT IS TO REMAIN WITHIN A PAVED AREA, OR TO BE RELOCATED TO A PAVED AREA, OR THOSE AREAS CONTAINING DECORATIVE PAVERS. LOAD BEARING WATER METER BOXES SHALL BE MANUFACTURED BY CARSON INDUSTRIES LLC., MODELS MSBCF 1730-18XL METER BOX, MSBCF 1118-18XL METER BOX, OR APPROVED EQUAL. LOAD BEARING WATER METER BOX COVERS SHALL BE MANUFACTURED BY EAST JORDAN IRON WORKS, INC., MODELS MSCBC 1730R-DD DUCTILE IRON COVER W/FLIP READER LID, MSCBC 1118R-DD DUCTILE IRON COVER W/FLIP READER LID, OR APPROVED EQUAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GPS "AS-BUILT" SURVEY, FOLLOWING THE COMPLETION OF CONSTRUCTION, FOR EVERY 100 FEET ALONG THE ALIGNMENT OF THE PROJECT, COORDINATES OF THE VALVES, FIRE HYDRANTS, EXISTING WATER METERS, AND SIMILAR APPURTENANCES. AN AUTOCAD DRAWING AND COORDINATES DATA SHEET SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL. THIS TASK MUST BE PERFORMED BY A REGISTERED PROFESSIONAL LAND SURVEYOR. DATA SUBMITTED SHALL BE TIED TO OKLAHOMA STATE PLANE COORDINATE SYSTEM.
- ALL WATER METERS TO BE RELOCATED SHALL BE RELOCATED TO A LOCATION WITHIN CITY RIGHT-OF-WAY ONLY.
- NO DIRECT TAPS SHALL BE ALLOWED. ALL TAPS SHALL BE MADE WITH TAPPING SLEEVES.
- ALL EXISTING FEATURES SHOWN ON THE PLANS ARE AT APPROXIMATE LOCATIONS, UNLESS OTHERWISE NOTED.
- WHERE CONNECTING TO EXISTING D.I.P. OR C.I.P., MEGALUG SERIES 1100 RESTRAINTS SHALL BE USED IN LIEU OF MEGALUG SERIES 2000PV. OVERSIZING OF THE MEGALUG GLAND MAY BE REQUIRED. CONTRACTOR TO EXPOSE PIPE AND FIELD VERIFY THE SERIES/SIZE FOR ALL CONNECTIONS TO EXISTING MAINS.
- ALL DISTURBED AREAS SHALL BE SLAB SODDED. COST OF SLAB SOD SHALL BE CONSIDERED AS INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF OTHER BID ITEMS.
- ALL HDPE FITTINGS SHALL BE AS MANUFACTURED BY JCM INDUSTRIES, NASH, TX., OR APPROVED EQUAL.
- CONTRACTOR SHALL FIELD LOCATE EXISTING WATERLINE SERVICES AND RECONNECT TO THE NEW WATERLINE.
- MEGALUGS SHALL BE USED AT ALL VERTICAL BENDS. MEGALUGS ARE CONSIDERED INCIDENTAL TO CONSTRUCTION AND THE COST OF MEGALUGS SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. NO EXTRA PAYMENT IS MADE.

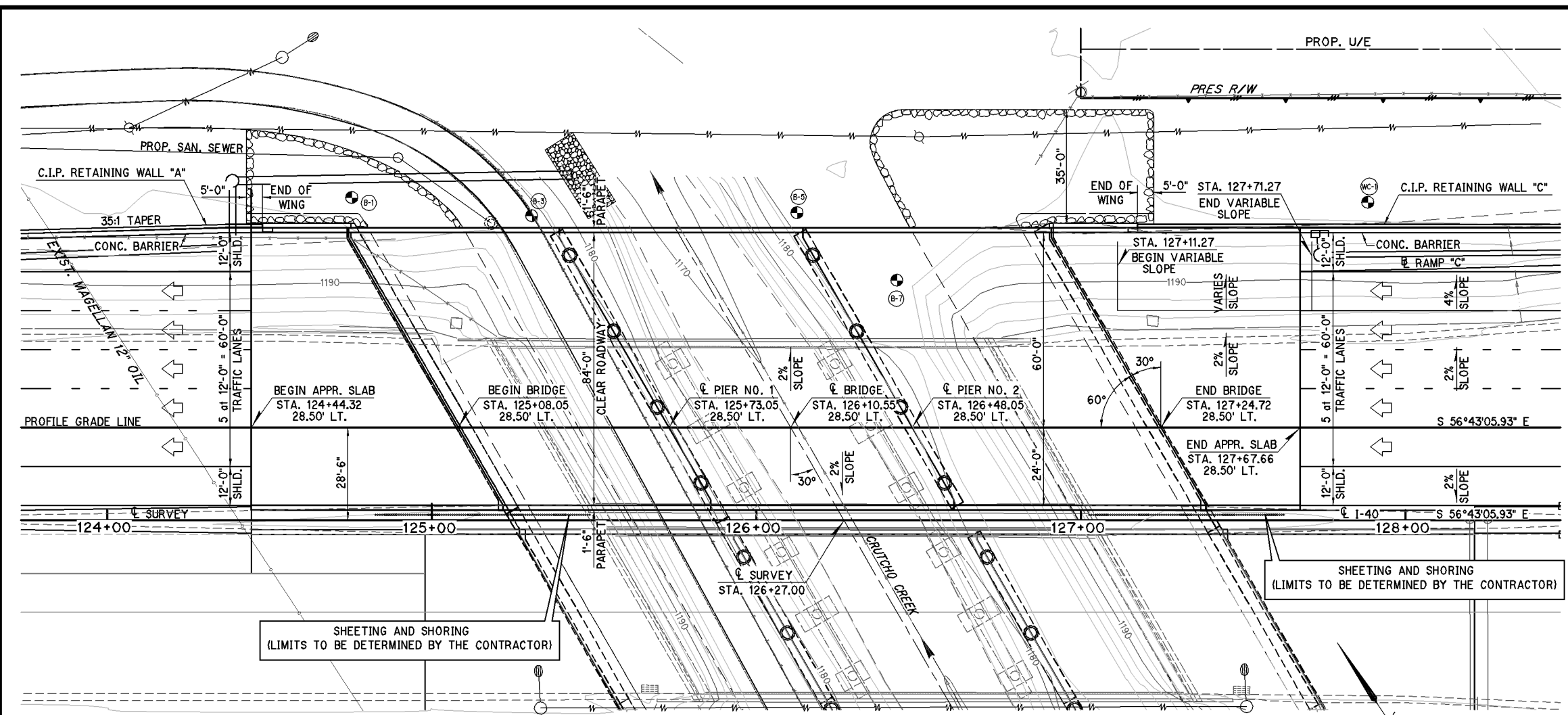
ODEQ NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) AND OKLAHOMA ADMINISTRATIVE CODE (OAC) INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
- DISTRIBUTION SYSTEM-INSTALLATION OF MAINS- STANDARDS**
IN ACCORDANCE WITH OAC 252:626-19-2(A), PIPE INSTALLATION MUST MEET THE PROVISIONS OF THE AWWA STANDARDS SPECIFIC FOR THE TYPE OF PIPE CONSTRUCTED.
- DISTRIBUTION SYSTEM-INSTALLATION OF MAINS-BEDDING**
IN ACCORDANCE WITH OAC 252:626-19-2(B), REMOVE ALL STONES FOUND IN THE PIPE TRENCH TO A DEPTH OF AT LEAST 6 INCHES BELOW THE BOTTOM OF THE PIPE.
- DISTRIBUTION SYSTEM-INSTALLATION OF MAINS-PRESSURE AND LEAKAGE TESTING**
IN ACCORDANCE WITH OAC 252:626-19-2(E), TEST THE INSTALLED PIPE FOR LEAKAGE IN ACCORDANCE WITH THE AWWA STANDARD SPECIFICATIONS. LEAKAGE MUST NOT EXCEED 10 GAL/INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT 150 PSI TESTING PRESSURE.
- DISTRIBUTION SYSTEM-INSTALLATION OF MAINS-DISINFECTION**
IN ACCORDANCE WITH OAC 252:626-19-2(F), DISINFECT ALL WATERLINES ACCORDING TO AWWA C-651 STANDARD SPECIFICATIONS. OBTAIN SAFE BACTERIOLOGICAL SAMPLES ON TWO CONSECUTIVE DAYS BEFORE PLACING THE WATERLINE INTO SERVICE.
- DISTRIBUTION SYSTEM-INSTALLATION OF MAINS-SEPARATION FROM CONTAMINANT SOURCES**
IN THE EVENT THAT UNANTICIPATED UNDERGROUND UTILITY LINES OR CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION, CONSTRUCT WATER LINE AND OTHER UTILITY LINE SEPARATION IN COMPLIANCE WITH THE FOLLOWING:
- IN ACCORDANCE WITH OAC 252:626-19-2(H)(1), LOCATE WATER MAINS AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER LINES AND AT LEAST 5 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED STORM SEWERS, RAW WATER LINES, PETROLEUM PRODUCT LINES, NATURAL GAS LINES, AND OTHER BURIED UTILITY LINES.
 - IN ACCORDANCE WITH OAC 252:626-19-2(H)(2), LAY WATERLINES CROSSING SEWER LINES TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 24 INCHES BETWEEN THE WATER MAIN AND THE SEWER LINE. ARRANGE THE PIPING SO THAT JOINTS IN A 20-FOOT LENGTH OF PVC OR 10 FOOT LENGTH OF CAST IRON SEWER PIPE WILL BE EQUIDISTANT FROM THE WATER MAIN. WHERE A WATER MAIN CROSSES UNDER A SEWER, PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN. MAINTAIN A TWO FOOT VERTICAL SEPARATION BETWEEN WATERLINES AND ANY EXISTING OR PROPOSED STORM SEWERS, RAW WATER LINES, PETROLEUM PRODUCT LINES, NATURAL GAS LINES, AND OTHER BURIED UTILITY LINES.
 - IN ACCORDANCE WITH OAC 252:626-19-2(H)(3), WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, DESIGN AND CONSTRUCT THE OTHER LINE EQUAL TO WATER PIPE, WHERE FEASIBLE, AND PRESSURE TEST IT TO ASSURE WATER TIGHTNESS OF JOINTS ADJACENT TO THE WATER LINE PRIOR TO BACKFILLING. WITH THE EXCEPTION OF SANITARY SEWER LINES, WHERE IT IS NOT FEASIBLE TO RELOCATE OR CONSTRUCT THE OTHER UTILITY LINE AS WATER LINE PIPE AND PRESSURE TEST, PROVIDE MAXIMUM OBTAINABLE SEPARATION. PLACING ANY UTILITY LINE IN THE SAME TRENCH OF WATER LINE IS PROHIBITED IN ACCORDANCE WITH OAC 252:626-5-11(B)

G:\Projects\18-e88-city-of-del-city\002-del-city-odet-waterline (p2791-38)\change-order\GENERAL NOTES.dwg - Inpurmon - Aug 06, 2018 - 1:44pm

Design	CG	7/17/2018	WATERLINE RELOCATION OKLAHOMA COUNTY GENERAL NOTES
Drawn	HG	7/16/2018	
Checked	DV	7/16/2018	
Approved			
Squad	JVGE		
STATE JOB NO. <u>J/P 23310 (04)</u>			SHEET NO. <u>AU03</u>

DESCRIPTION	REVISIONS	DATE

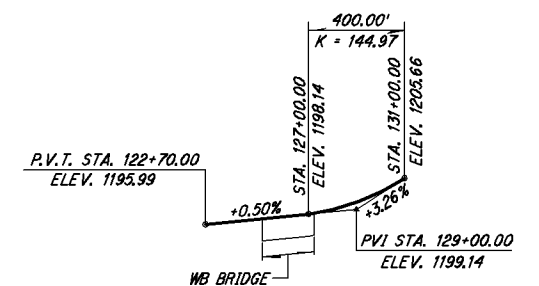


HYDRAULIC DATA

Total Drainage Area = 17.64 Sq. Mi.
 Drainage Area Controlled = 0.0 Sq. Mi.
 Drainage Area Effective = 17.64 Sq. Mi.

Q10 = 7,123 cfs	Q10 CHW = 1186.42	V10 = 11.39 fps
Q50 = 11,798 cfs	Q50 CHW = 1189.26	V50 = 17.64 fps
Q100 = 13,209 cfs	Q100 CHW = 1190.40	V100 = 19.21 fps
Q500 = 16,146 cfs	Q500 CHW = 1192.78	V500 = 22.20 fps
Q0.T. = Q500		

Q100 Contraction Scour = 0.12'	Q500 Contraction Scour = 0.70'
Q100 Pier Scour = 9.36'	Q500 Pier Scour = 6.83'
Q100 Total Scour = 9.48'	Q500 Total Scour = 7.53'

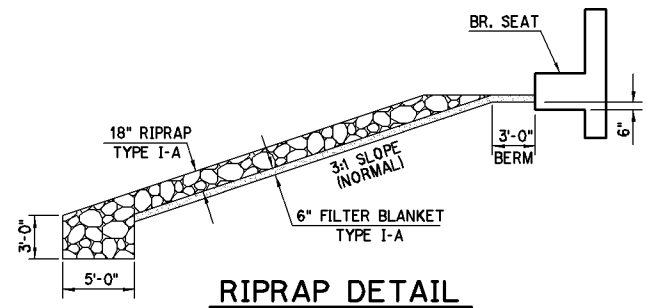


**W.B. I-40
PROFILE GRADE DATA**

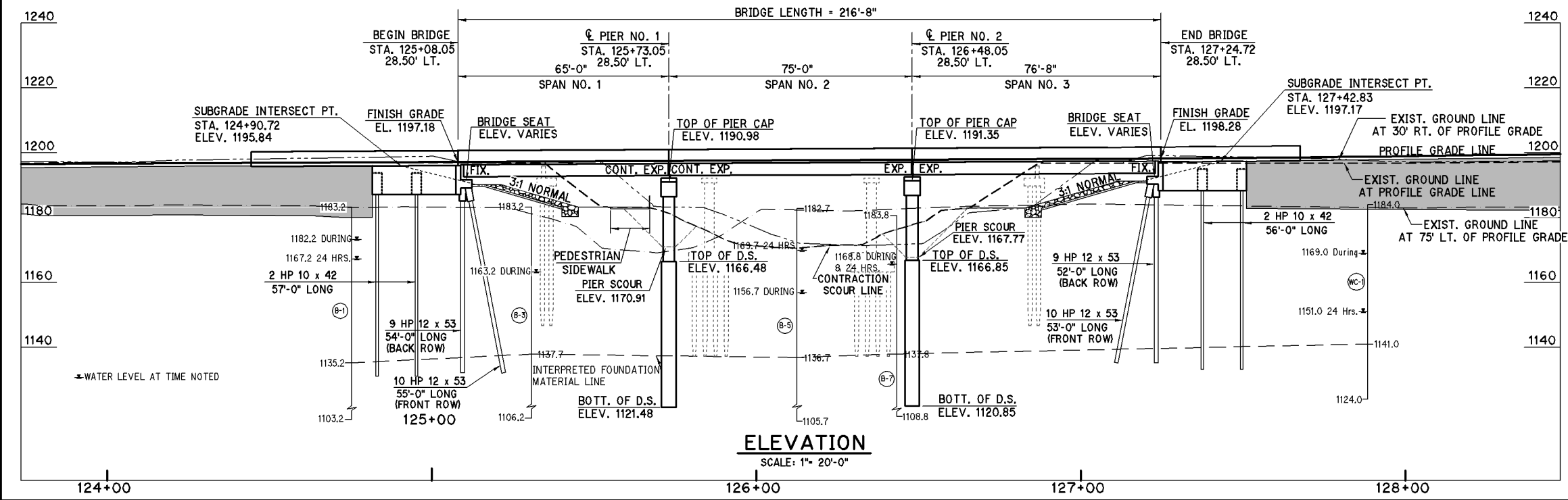
BM18 ~ 'D' ON TOP OF W. HDWL OF 30" RCP 12' W. OF ASPH. TRAIL, SW OF CRUTCHO CRK. BRIDGE 136.06' RT. CL I-40 STA.126+35.52 ELEV. 1182.81

BM17 ~ 'D' ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. L I-40 STA.133+75.70 ELEV. 1193.35

**PLAN
SCALE: 1"= 20'-0"**



RIPRAP DETAIL



**ELEVATION
SCALE: 1"= 20'-0"**

Design		BRIDGE "A"	W.B. I-40 OVER CRUTCHO CREEK
Drawn		GENERAL PLAN & ELEVATION STA. 126+10.55 28.50' LT. CL SURVEY I-40 CONST. 65'-75'-75' TYPE III P.C. BEAM SPANS, SKEW 30° RF 84'-0" CLR. RDY. WITH 42" F-SHAPED PARAPET State Job No. 23310(04) Sheet No. B001	
Checked			
Approved			
Squad	POE		

REVISIONS		DATE
1	REVISED PAY ITEM & NOTE	3/09/20
2	REVISION AFTER LET	9/03/20

J/P 23310(04)		OKLAHOMA COUNTY					
0200 BRIDGE "A"		SUMMARY OF QUANTITIES					
ITEM NO.	ITEM	UNIT	ABUTS.	SUPERSTR.	PIERS	APPR. SLAB	TOTAL
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	385	-	-	385
501(G)	6309	CLSM BACKFILL	C.Y.	642.2	-	-	642.2
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.	-	2,123.33	-	2,123.33
504(A)	1304	APPROACH SLAB	S.Y.	-	-	1,031.2	1,031.2
504(B)	1305	SAW-CUT GROOVING	S.Y.	-	2,022.3	995.6	3,017.9
504(C)	6250	SEALED EXPANSION JOINT	L.F.	-	100.5	-	100.5
504(E)	6190	42" F-SHAPED PARAPET	L.F.	-	433.4	213.4	646.8
506(A)	1322	STRUCTURAL STEEL	L.B.	-	3,610	-	3,610
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	-	20	-	20
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	-	40	-	40
509	5000	ELASTOMERIC COATING	S.F.	-	-	675	675
509(A)	1326	CLASS AA CONCRETE	C.Y.	-	521.6	-	521.6
509(B)	1328	CLASS A CONCRETE	C.Y.	196.2	-	213.0	409.2
511(A)	1332	REINFORCING STEEL	LB.	-	-	2,060	2,060
511(B)	6010	EPOXY COATED REINFORCING STEEL	LB.	23,500	114,520	33,270	171,290
514(A)	6010	PILES, FURNISHED (HP 10x42)	L.F.	226	-	-	226
514(A)	6011	PILES, FURNISHED (HP 12x53)	L.F.	2,034	-	-	2,034
514(B)	6292	PILES, DRIVEN (HP 10x42)	L.F.	226	-	-	226
514(B)	6294	PILES, DRIVEN (HP 12x53)	L.F.	2,034	-	-	2,034
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	-	-	-	1
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	251	863	277	1,493
516(A)	6095	DRILLED SHAFTS 54" DIAMETER	L.F.	-	-	364	364
516(C)	6200	CROSSHOLE SONIC LOGGING	EA.	-	-	2	2
523(A)	6550	SEALER CRACK PREPARATION	L.F.	-	100	-	100
523(B)	6560	SEALER RESIN	GAL.	-	1.1	-	1.1
601(B)	1353	TYPE 1-A PLAIN RIPRAP	TON	-	-	-	910
601(C)	1355	TYPE 1-A FILTER BLANKET	TON	-	-	-	290
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	206	-	-	206
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	40	-	-	40
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	-	-	-	1

① QUANTITIES SHOWN ARE BASED ON A WEIGHT OF 1.5 TONS PER CUBIC YARD.

REVISION AFTER LET
09/03/2020

INDEX OF SHEETS

SHT. NO.	DESCRIPTION
AB01	SUMMARY OF PAY QUANTITIES (BRIDGE)
AB02	GENERAL NOTES (BRIDGE)
B001	GENERAL PLAN & ELEV. - BRIDGE "A"
B002	DESIGN DATA AND SUMMARY OF QUANTITIES
B005-B006	FOUNDATION REPORT
B009	BRIDGE CONSTRUCTION SEQUENCE
B011	SUBSTRUCTURE LAYOUT PHASE II
B014-B015	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE II
B021-B023	ABUTMENT NO. 1 DETAILS PHASE II
B024-B026	ABUTMENT NO. 2 DETAILS PHASE II
B039-B041	PIER NO. 1 DETAILS PHASE II
B042-B044	PIER NO. 2 DETAILS PHASE II
B055-B058	SUPERSTRUCTURE DETAILS PHASE II
B063	LONGITUDINAL SECTION
B064	PARAPET DRAIN OPENINGS AND JOINT SPACING
B065-B066	TYPE III P.C. BEAM DETAILS
B068	P.C. BEAM DIAPHRAGM DETAILS PHASE II
B070	BEARING ASSEMBLY DETAILS
B075-B077	APPROACH SLAB DETAILS PHASE II
STD.	FSHP-42-2
STD.	EJ-SK
STD.	EJ-DTL
STD.	HPI-2
STD.	PUD-3
STD.	LECS-4
STD.	LTU-4

DESIGN DATA

DESIGN SPECIFICATIONS:
 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 EDITION
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
 ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

DESIGN LOADING:
 HL-93
 OKLAHOMA OVERLOAD (STRENGTH-II LOAD COMBINATION)
 OPERATING RATING (LFD) HS 45
 DESIGN DEAD LOAD INCLUDES AN ALLOWANCE OF 20 PSF FOR A FUTURE WEARING SURFACE AND 5 PSF FOR STAY-IN-PLACE FORMS.

UNIT STRESSES:
 CLASS AA CONCRETE F_c = 4,000 PSI
 CLASS A CONCRETE F_c = 3,000 PSI
 REINFORCING STEEL (GRADE 60) F_y = 60,000 PSI
 STRUCTURAL STEEL M270 GRADE 50W F_y = 50,000 PSI
 STAINLESS STEEL A240 (TYPE 316) F_y = 30,000 PSI

FOUNDATION CAPACITIES

ABUTMENTS

MAXIMUM FACTORED PILE REACTION BRIDGE "A" = 69.5 TONS PER PILE

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATION PURPOSES ONLY.

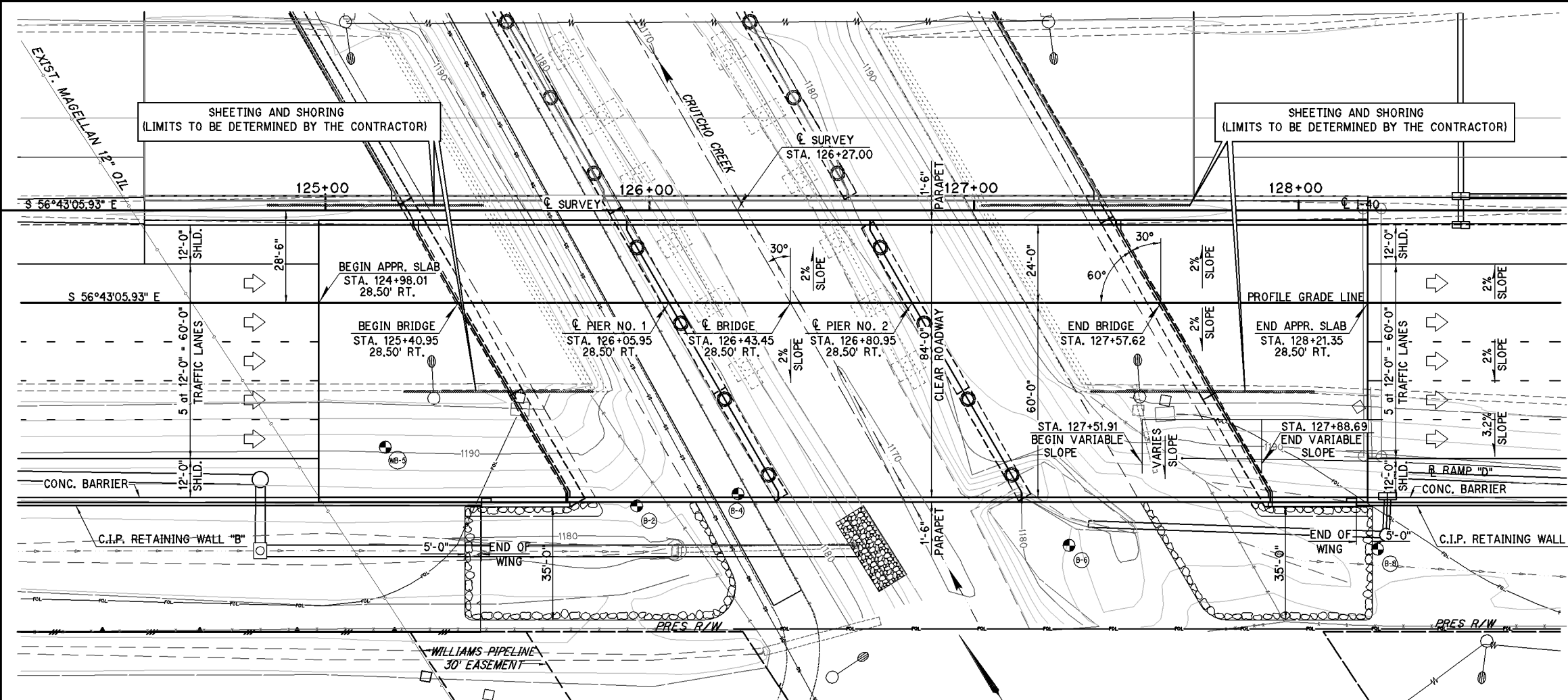
PIERS

DRILLED SHAFT DIAMETER = 54"
 DRILLED SHAFT MINIMUM DEPTH INTO SHALE = 16'-0"
 FACTORED REACTION = 561 TONS
 NOMINAL UNIT BEARING RESISTANCE = 19.1 TSF
 BEARING RESISTANCE FACTOR = 0.7
 FACTORED BEARING RESISTANCE = 212 TONS
 NOMINAL UNIT FRICTION RESISTANCE = 5.1 TSF
 FRICTION RESISTANCE FACTOR = 0.45
 FACTORED FRICTION RESISTANCE = 373 TONS
 DEPTH OF SHALE NEGLECTED FOR FRICTION = 4.5 FT.
 TOTAL FACTORED RESISTANCE = 585 TONS

OKLAHOMA COUNTY

Design		BRIDGE "A"	W.B. I-40 OVER CRUTCHO CREEK
Drawn		DESIGN DATA AND SUMMARY OF QUANTITIES	
Checked			
Approved			
Squad	POE	State Job No. 23310(04)	Sheet No. B002

DESCRIPTION	REVISIONS	DATE

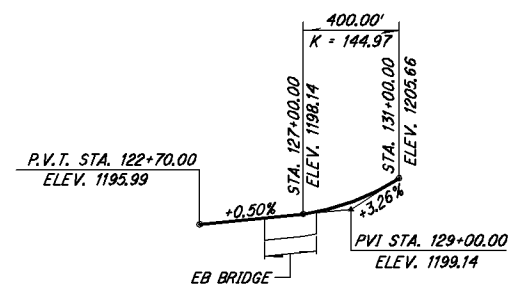


HYDRAULIC DATA

Total Drainage Area = 17.64 Sq. Mi.
 Drainage Area Controlled = 0.0 Sq. Mi.
 Drainage Area Effective = 17.64 Sq. Mi.

Q ₁₀ = 7,123 cfs	Q ₁₀ CHW = 1186.42	V ₁₀ = 11.39 fps
Q ₅₀ = 11,798 cfs	Q ₅₀ CHW = 1189.26	V ₅₀ = 17.64 fps
Q ₁₀₀ = 13,209 cfs	Q ₁₀₀ CHW = 1190.40	V ₁₀₀ = 19.21 fps
Q ₅₀₀ = 16,146 cfs	Q ₅₀₀ CHW = 1192.78	V ₅₀₀ = 22.20 fps
Q _{0.T.} = Q ₅₀₀		

Q ₁₀₀ Contraction Scour = 0.12'	Q ₅₀₀ Contraction Scour = 0.70'
Q ₁₀₀ Pier Scour = 9.36'	Q ₅₀₀ Pier Scour = 6.83'
Q ₁₀₀ Total Scour = 9.48'	Q ₅₀₀ Total Scour = 7.53'

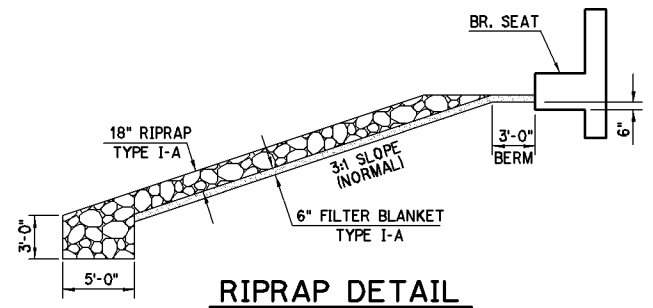


**E.B. I-40
PROFILE GRADE DATA**

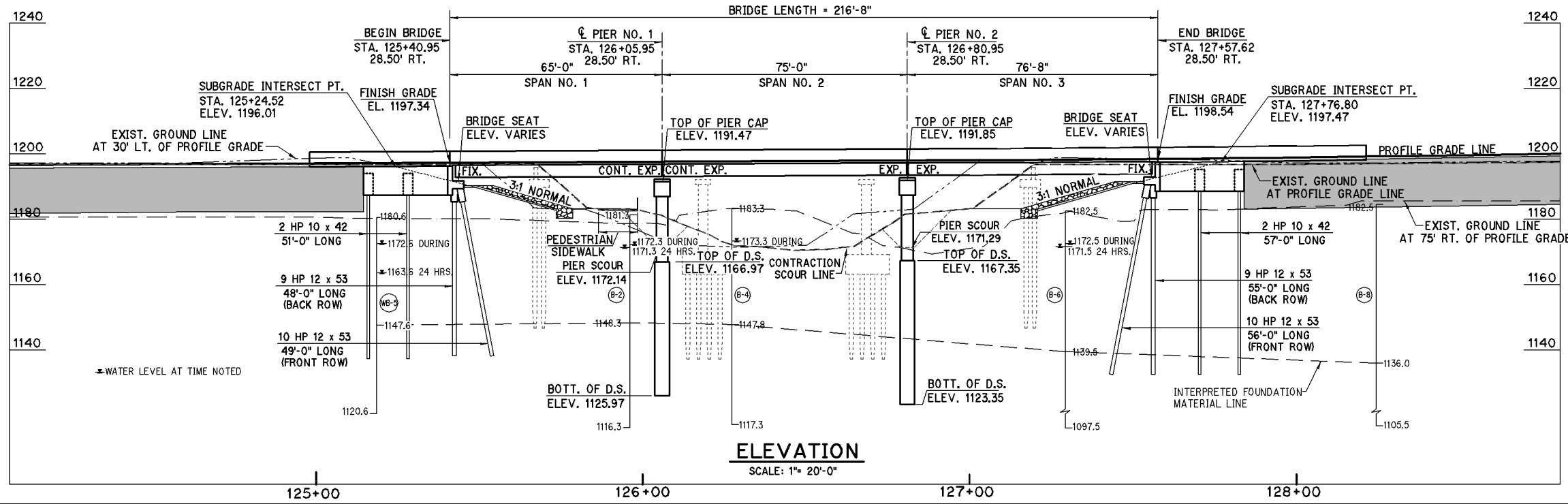
BM18 ~ 'I' ON TOP OF W. HDWL OF 30" RCP 12" W. OF ASPH. TRAIL, SW OF CRUTCHO CRK. BRIDGE 136.06' RT. CL I-40 STA.126+35.52 ELEV. 1182.81

BM17 ~ 'I' ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. L I-40 STA.133+75.70 ELEV. 1193.35

PLAN
SCALE: 1" = 20'-0"



RIPRAP DETAIL



ELEVATION
SCALE: 1" = 20'-0"

Design		BRIDGE "B"	E.B. I-40 OVER CRUTCHO CREEK
Drawn		GENERAL PLAN & ELEVATION	
Checked		CL STA. 126+43.45 28.50' RT. CL SURVEY I-40	
Approved		CONST. 65'-75'-75' TYPE III P.C. BEAM SPANS, SKEW 30° RF	
Squad	POE	84'-0" CLR. RDY. WITH 42" F-SHAPED PARAPET	
		State Job No. 23310(04)	Sheet No. B003

J/P 23310(04)		OKLAHOMA COUNTY					
0201 BRIDGE "B"							
SUMMARY OF QUANTITIES							
ITEM NO.	ITEM	UNIT	ABUTS.	SUPERSTR.	PIERS	APPR. SLAB	TOTAL
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	385	-	-	385
501(G)	6309	CLSM BACKFILL	C.Y.	628.8	-	-	628.8
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.	-	2,123.33	-	2,123.33
504(A)	1304	APPROACH SLAB	S.Y.	-	-	1,031.3	1,031.3
504(B)	1305	SAW-CUT GROOVING	S.Y.	-	2,022.3	-	2,022.3
504(C)	6250	SEALED EXPANSION JOINT	L.F.	-	100.5	-	100.5
504(E)	6190	42" F-SHAPED PARAPET	L.F.	-	433.4	213.4	646.8
506(A)	1322	STRUCTURAL STEEL	L.B.	-	3,610	-	3,610
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	E.A.	-	20	-	20
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	E.A.	-	40	-	40
509	5000	ELASTOMERIC COATING	S.F.	-	-	630	630
509(A)	1326	CLASS AA CONCRETE	C.Y.	-	531.8	-	531.8
509(B)	1328	CLASS A CONCRETE	C.Y.	200.6	-	209.8	410.4
511	6306	MECHANICAL SPLICES	E.A.	20	-	18	38
511(A)	1332	REINFORCING STEEL	L.B.	-	-	2,080	2,080
511(B)	6010	EPOXY COATED REINFORCING STEEL	L.B.	23,850	115,480	36,890	176,220
514(A)	6010	PILES, FURNISHED (HP 10x42)	L.F.	214	-	-	214
514(A)	6011	PILES, FURNISHED (HP 12x53)	L.F.	1,992	-	-	1,992
514(B)	6292	PILES, DRIVEN (HP 10x42)	L.F.	214	-	-	214
514(B)	6294	PILES, DRIVEN (HP 12x53)	L.F.	1,992	-	-	1,992
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)	E.A.	-	-	-	1
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	247	864	283	1,496
516(A)	6095	DRILLED SHAFTS 54" DIAMETER	L.F.	-	-	340	340
516(C)	6200	CROSSHOLE SONIC LOGGING	E.A.	-	-	2	2
523(A)	6550	SEALER CRACK PREPARATION	L.F.	-	318	107	425
523(B)	6560	SEALER RESIN	GAL.	-	3.6	1.3	4.9
601(B)	1353	TYPE 1-A PLAIN RIPRAP	TON	-	-	-	1020
601(C)	1355	TYPE 1-A FILTER BLANKET	TON	-	-	-	300
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	207	-	-	207
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	40	-	-	40
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	-	-	-	1

① QUANTITIES SHOWN ARE BASED ON A WEIGHT OF 1.5 TONS PER CUBIC YARD.

DESIGN DATA

DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE STAINLESS STEEL

DESIGN LOADING:

HL-93
OKLAHOMA OVERLOAD (STRENGTH-II LOAD COMBINATION)
OPERATING RATING (LFD) HS 45
DESIGN DEAD LOAD INCLUDES AN ALLOWANCE OF 20 PSF FOR A FUTURE WEARING SURFACE AND 5 PSF FOR STAY-IN-PLACE FORMS.

UNIT STRESSES:

CLASS AA CONCRETE	$F_c = 4,000$ PSI
CLASS A CONCRETE	$F_c = 3,000$ PSI
REINFORCING STEEL (GRADE 60)	$F_y = 60,000$ PSI
STRUCTURAL STEEL M270 GRADE 50W	$F_y = 50,000$ PSI
STAINLESS STEEL A240 (TYPE 316)	$F_y = 30,000$ PSI

FOUNDATION CAPACITIES

ABUTMENTS

MAXIMUM FACTORED PILE REACTION BRIDGE "B" = 69.5 TONS PER PILE

ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATION PURPOSES ONLY.

PIERS

DRILLED SHAFT DIAMETER *	54"
DRILLED SHAFT MINIMUM DEPTH INTO SHALE *	16'-0"
FACTORED REACTION *	557 TONS
NOMINAL UNIT BEARING RESISTANCE *	19.1 TSF
BEARING RESISTANCE FACTOR *	0.7
FACTORED BEARING RESISTANCE *	212 TONS
NOMINAL UNIT FRICTION RESISTANCE *	5.1 TSF
FRICTION RESISTANCE FACTOR *	0.45
FACTORED FRICTION RESISTANCE *	373 TONS
DEPTH OF SHALE NEGLECTED FOR FRICTION *	4.5 FT.
TOTAL FACTORED RESISTANCE *	585 TONS

INDEX OF SHEETS

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AB01	SUMM. OF PAY QUANTITIES (BRIDGE)
AB02	GENERAL NOTES (BRIDGE)
B003	GENERAL PLAN & ELEV. - BRIDGE "B"
B004	DESIGN DATA AND SUMMARY OF QUANTITIES
B007-B008	FOUNDATION REPORT
B009	BRIDGE CONSTRUCTION SEQUENCE
B010	SUBSTRUCTURE LAYOUT PHASE I
B012	SUBSTRUCTURE LAYOUT PHASE III
B013	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE I
B016	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE III
B017-B018	ABUTMENT NO. 1 DETAILS PHASE I
B019-B020	ABUTMENT NO. 2 DETAILS PHASE I
B027-B029	ABUTMENT NO. 1 DETAILS PHASE III
B030-B032	ABUTMENT NO. 2 DETAILS PHASE III
B033-B035	PIER NO. 1 DETAILS PHASE I
B036-B038	PIER NO. 2 DETAILS PHASE I
B045-B047	PIER NO. 1 DETAILS PHASE III
B048-B050	PIER NO. 2 DETAILS PHASE III
B051-B054	SUPERSTRUCTURE DETAILS PHASE I
B059-B062	SUPERSTRUCTURE DETAILS PHASE III
B063	LONGITUDINAL SECTION
B064	PARAPET DRAIN OPENINGS AND JOINT SPACING
B065-B066	TYPE III P.C. BEAM DETAILS
B067	P.C. BEAM DIAPHRAGM DETAILS PHASE I
B069	P.C. BEAM DIAPHRAGM DETAILS PHASE III
B070	BEARING ASSEMBLY DETAILS
B071-B074	APPROACH SLAB DETAILS PHASE I
B078-B081	APPROACH SLAB DETAILS PHASE III
STD.	FSHP-42-2
STD.	EJ-SK
STD.	EJ-DTL
STD.	HLBP-1
STD.	HLBP-2
STD.	HPI-2
STD.	PUD-3
STD.	LECS-4
STD.	LTU-4

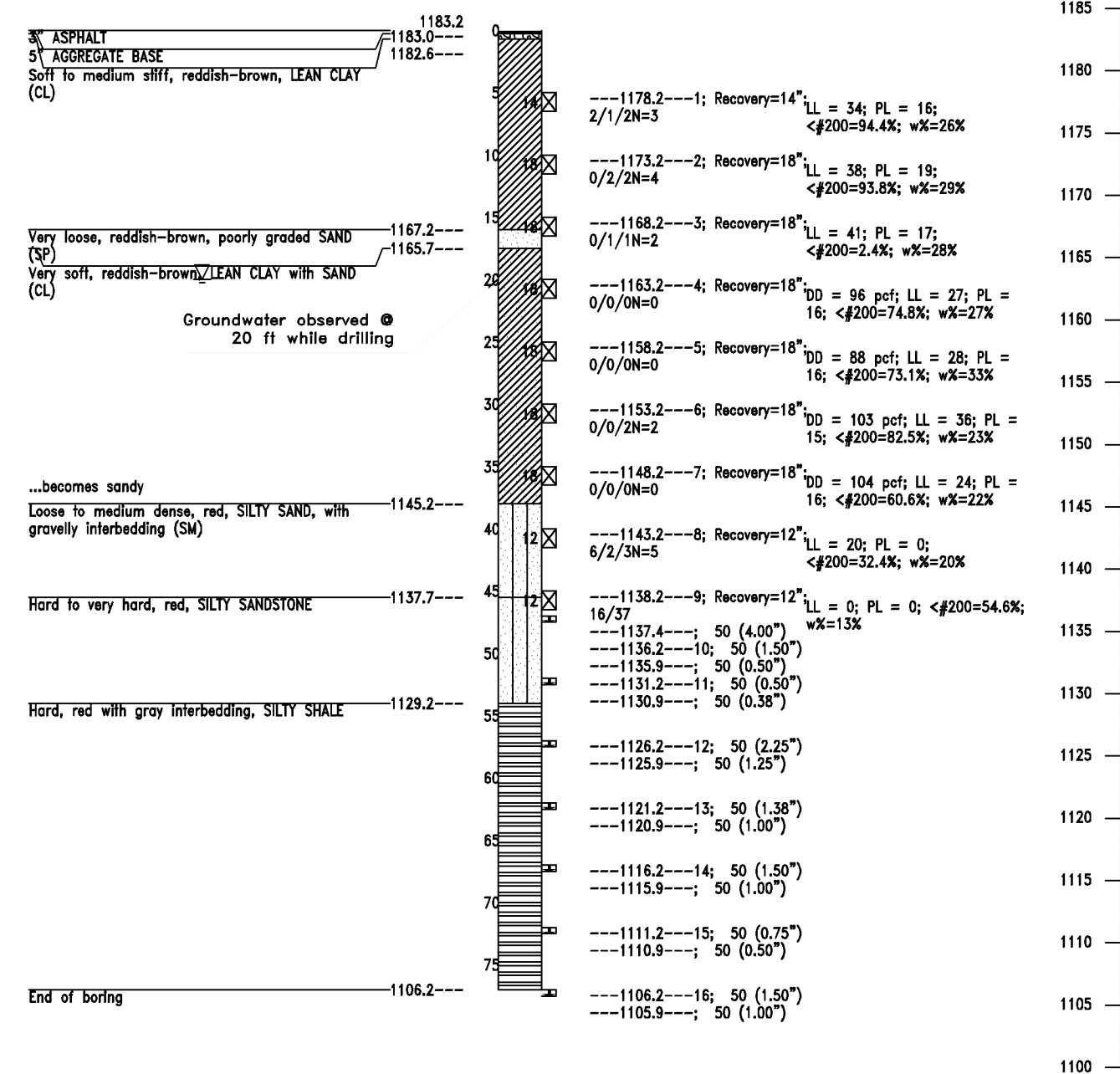
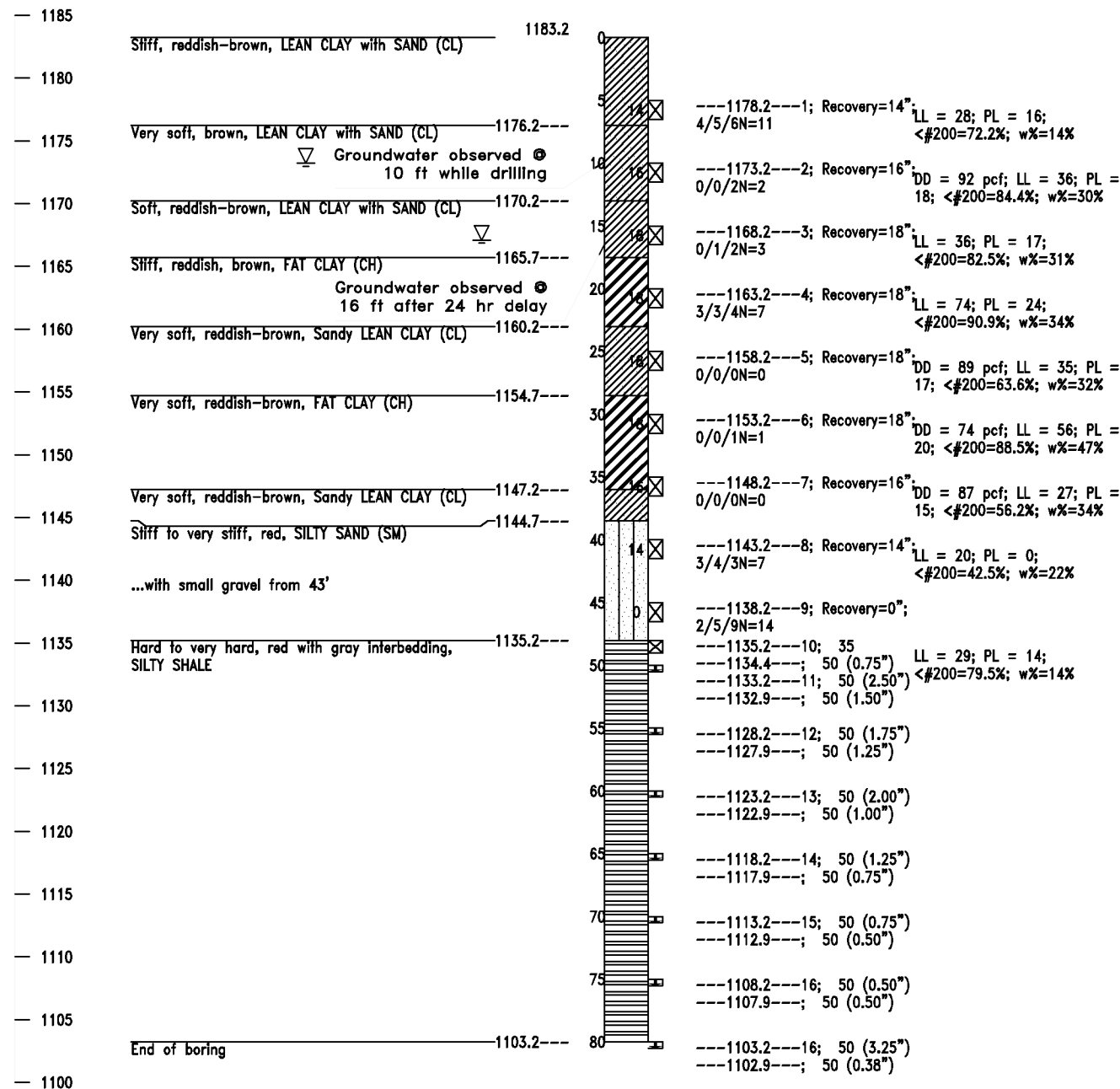
OKLAHOMA COUNTY

Design		BRIDGE "B"	E.B. 1-40 OVER CRUTCHO CREEK
Drawn		DESIGN DATA	
Checked		AND	
Approved		SUMMARY OF QUANTITIES	
Squad	POE	State Job No. 23310(04)	Sheet No. B004

DESCRIPTION	REVISIONS	DATE

Boring Number B-1
I-40 Station: 124+75.34
Offset: 99.31 LT.

Boring Number B-3
I-40 Station: 125+30.74
Offset: 93.67 LT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands or streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

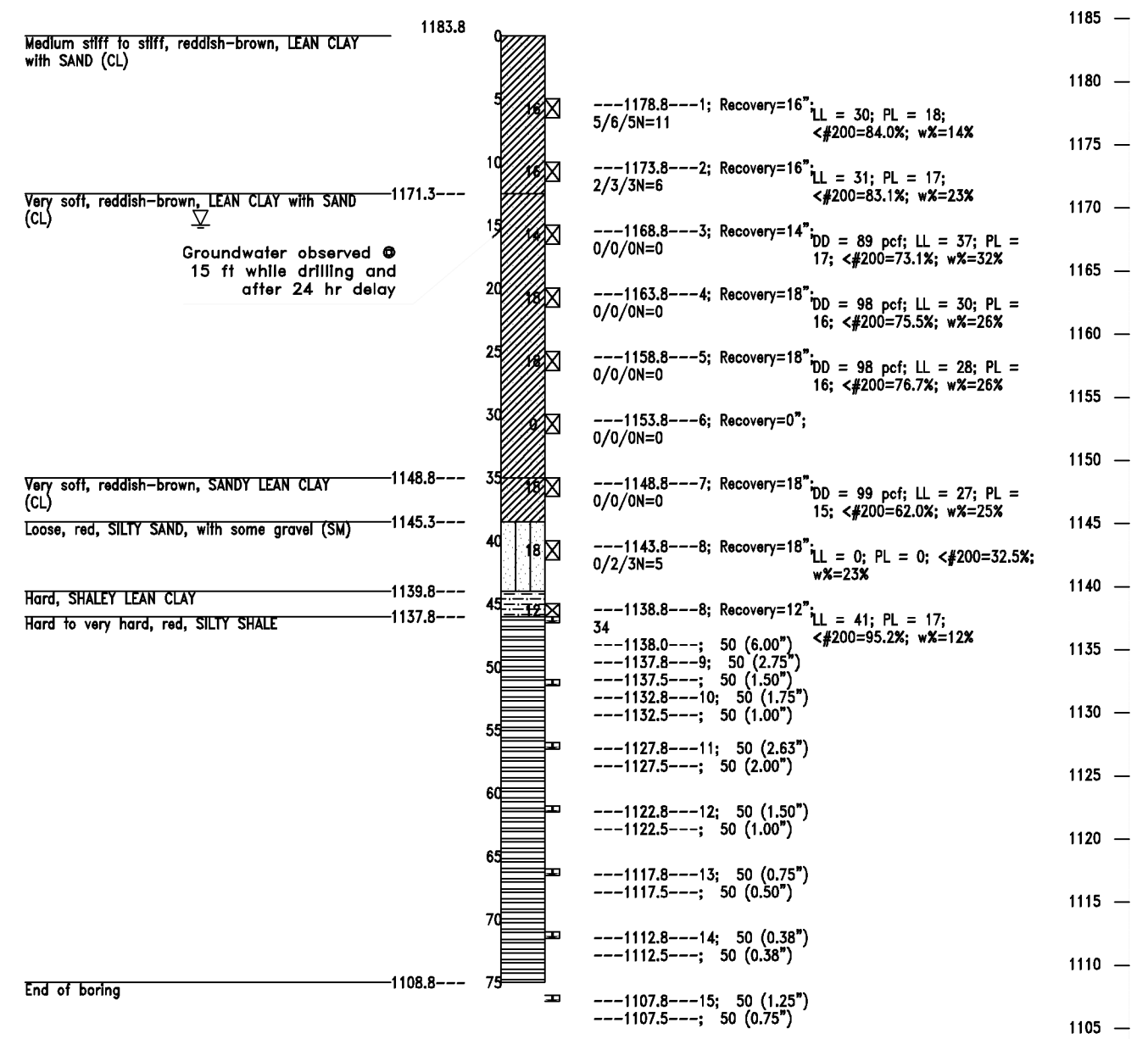
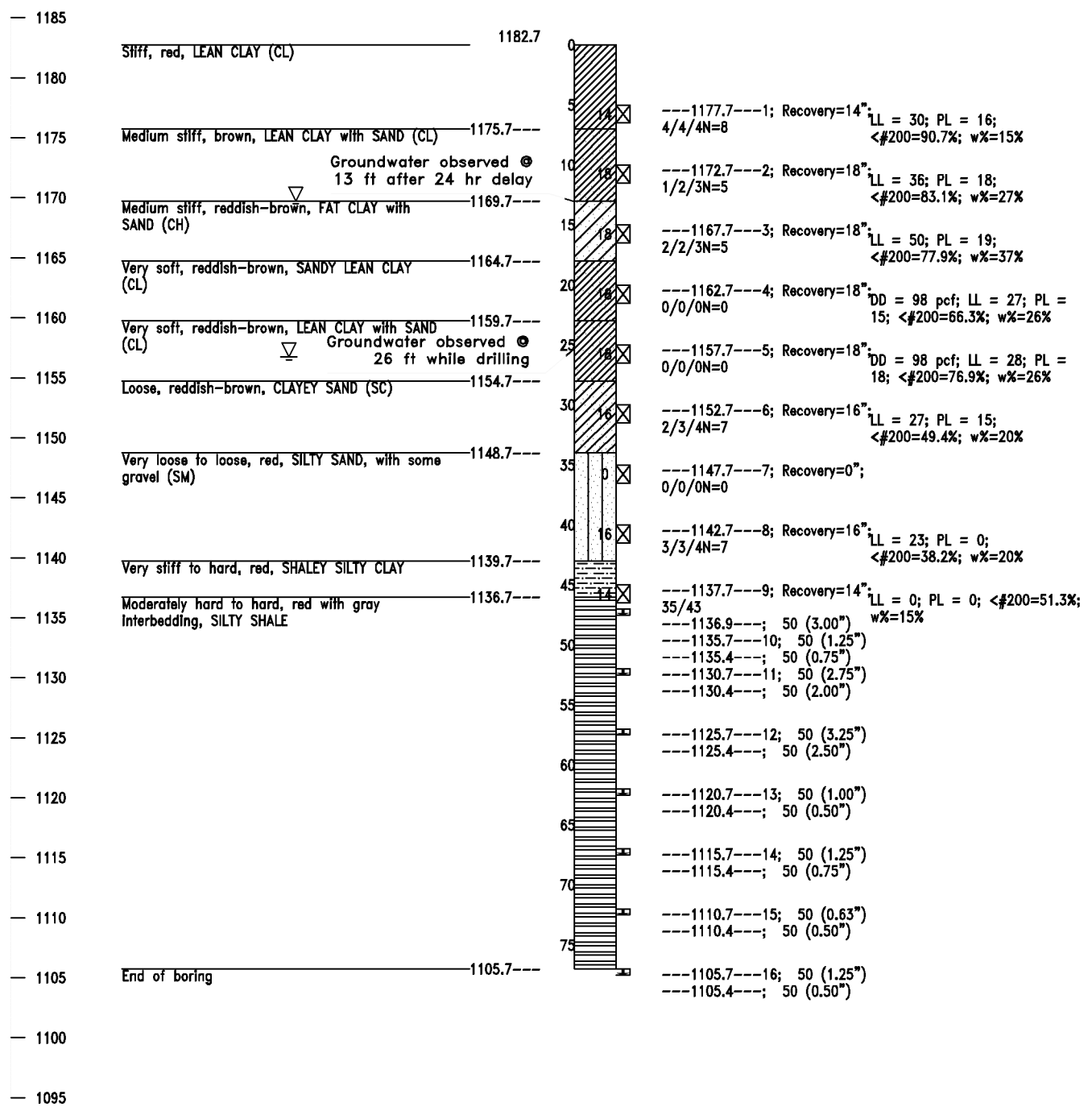
NOTE:
 Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			FOUNDATION REPORT
Approved			(SHEET 1 OF 2)
Squad	PSI	State Job No. 23310(04)	Sheet No. B005

DESCRIPTION	REVISIONS	DATE

Boring Number B-5
I-40 Station: 126+12.56
Offset: 94.64 LT.

Boring Number B-7
I-40 Station: 126+43.32
Offset: 73.80 LT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (PPhy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

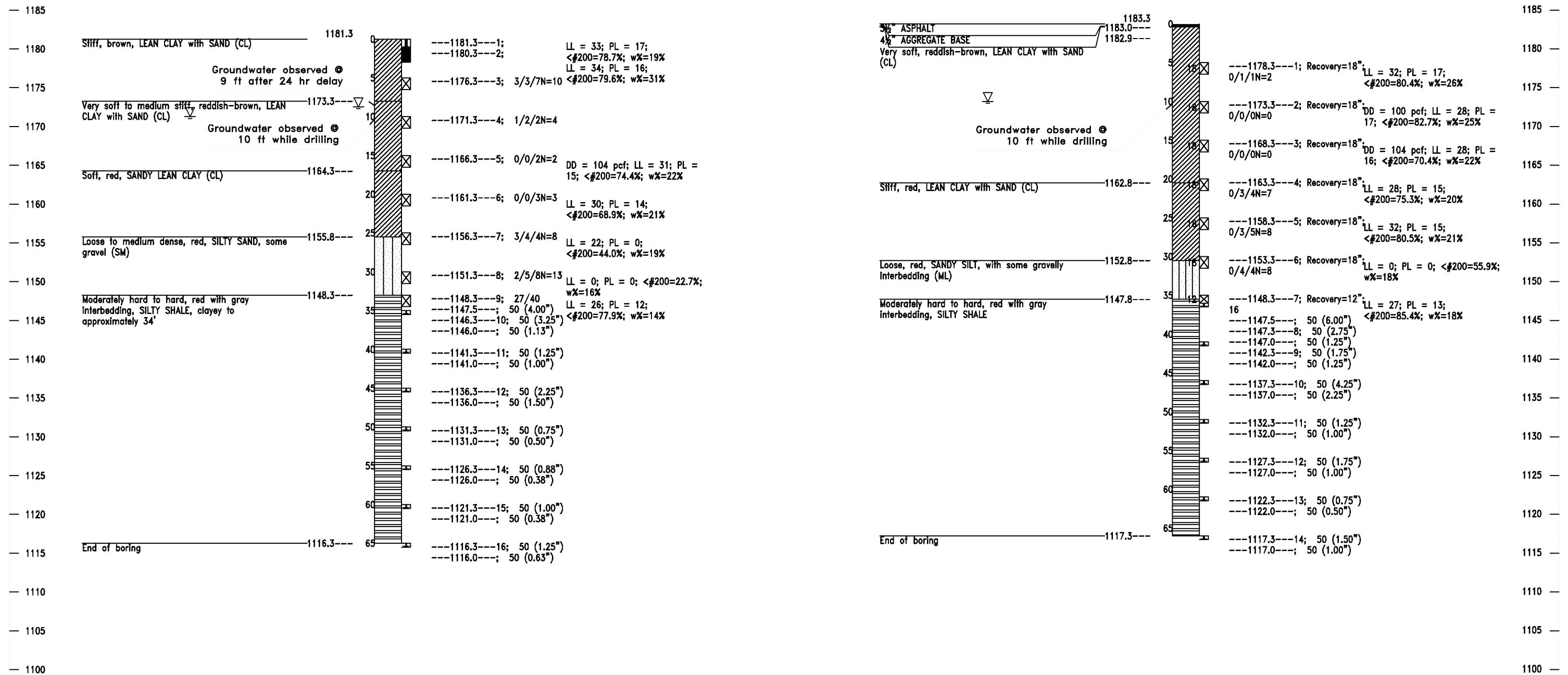
- NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrometer Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			FOUNDATION REPORT
Approved			(SHEET 2 OF 2)
Squad	PSI	State Job No. 23310(04)	Sheet No. B006

DESCRIPTION	REVISIONS	DATE

Boring Number B-2
I-40 Station: 125+96.03
Offset: 91.21 RT.

Boring Number B-4
I-40 Station: 126+27.29
Offset: 87.42 RT.



GEOLOGIC STATEMENT

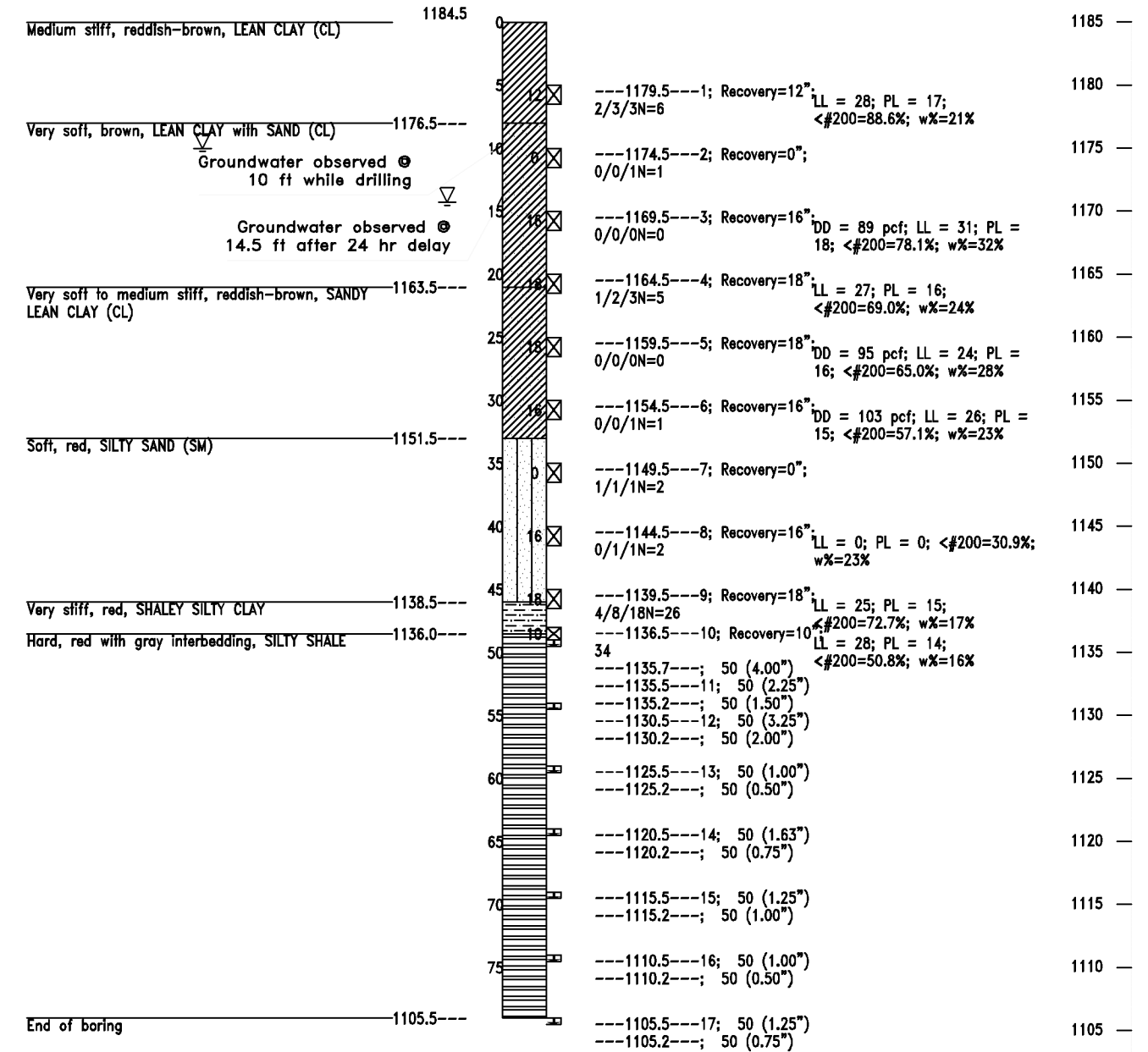
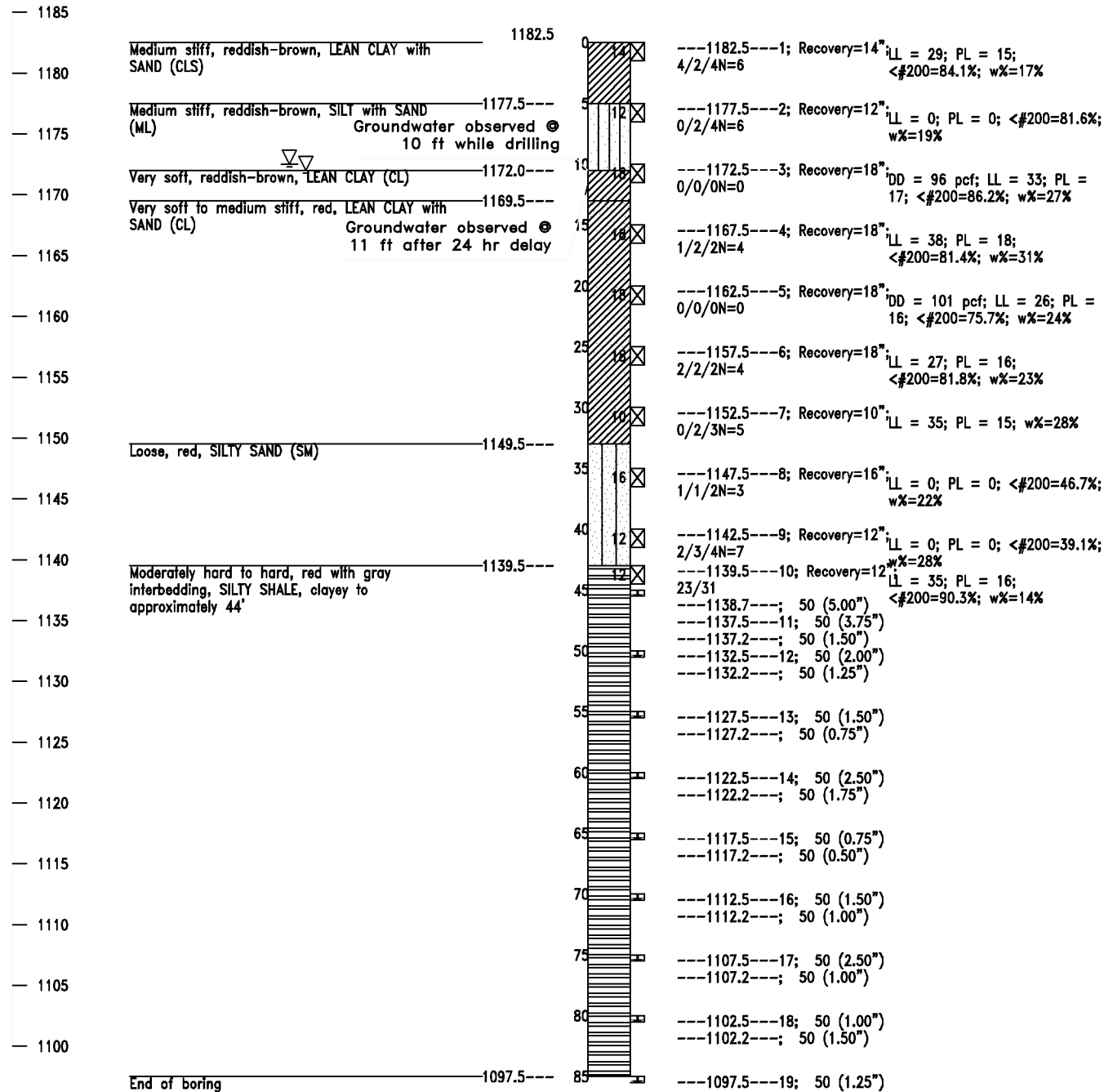
"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE:
 Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			FOUNDATION REPORT
Approved			(SHEET 1 OF 2)
Squad	PSI		State Job No. 23310(04) Sheet No. 007

Boring Number B-6
I-40 Station: 127+29.30
Offset: 103.38 RT.

Boring Number B-8
I-40 Station: 128+24.43
Offset: 104.49 RT.



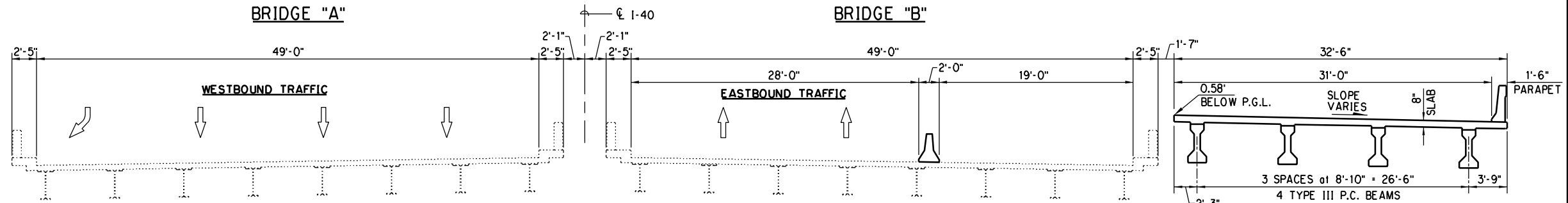
GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

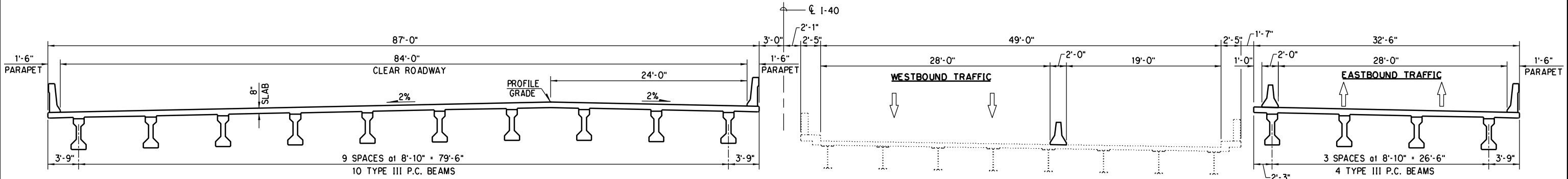
NOTE:
 Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			FOUNDATION REPORT
Approved			(SHEET 2 OF 2)
Squad	PSI	State Job No. 23310(04)	Sheet No. B008

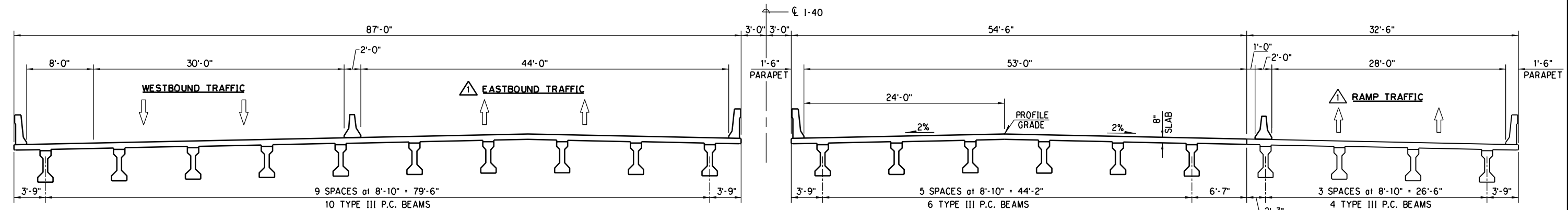
DESCRIPTION	REVISIONS	DATE
REVIS	PHASING	3/09/20



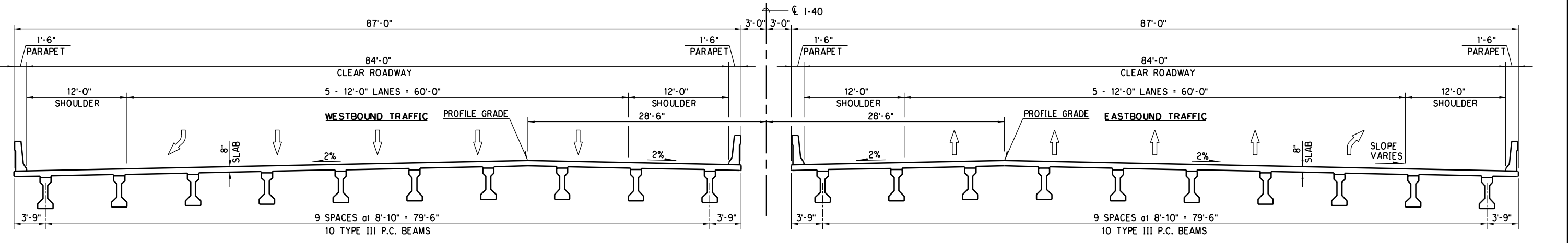
BRIDGE PHASE I
SEQUENCE OF CONSTRUCTION PHASE I - II



BRIDGE PHASE II
SEQUENCE OF CONSTRUCTION PHASE III



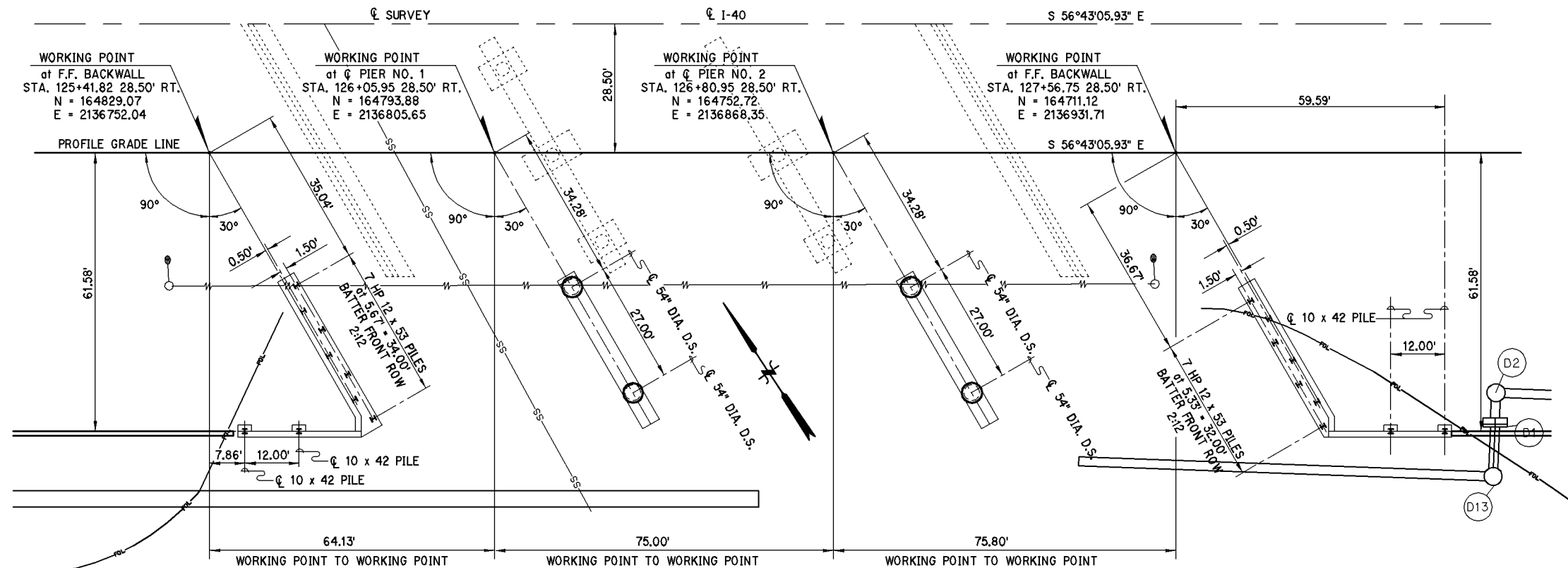
BRIDGE PHASE III
SEQUENCE OF CONSTRUCTION PHASE IV



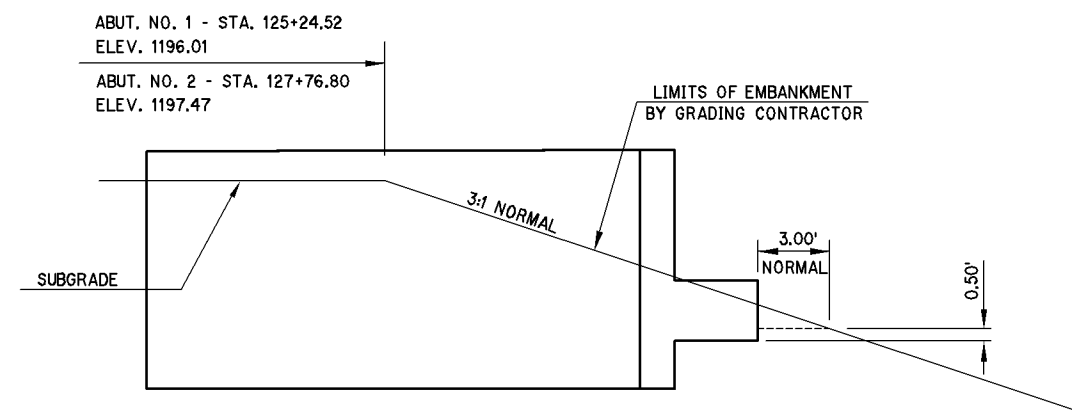
FINISHED ROADWAY

Design		OKLAHOMA COUNTY BRIDGE "A" & "B" 1-40 OVER CRUTCHO CREEK BRIDGE CONSTRUCTION SEQUENCE State Job No. 23310(04) Sheet No. B009
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENTS
ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

OKLAHOMA ONE-CALL SYSTEM:

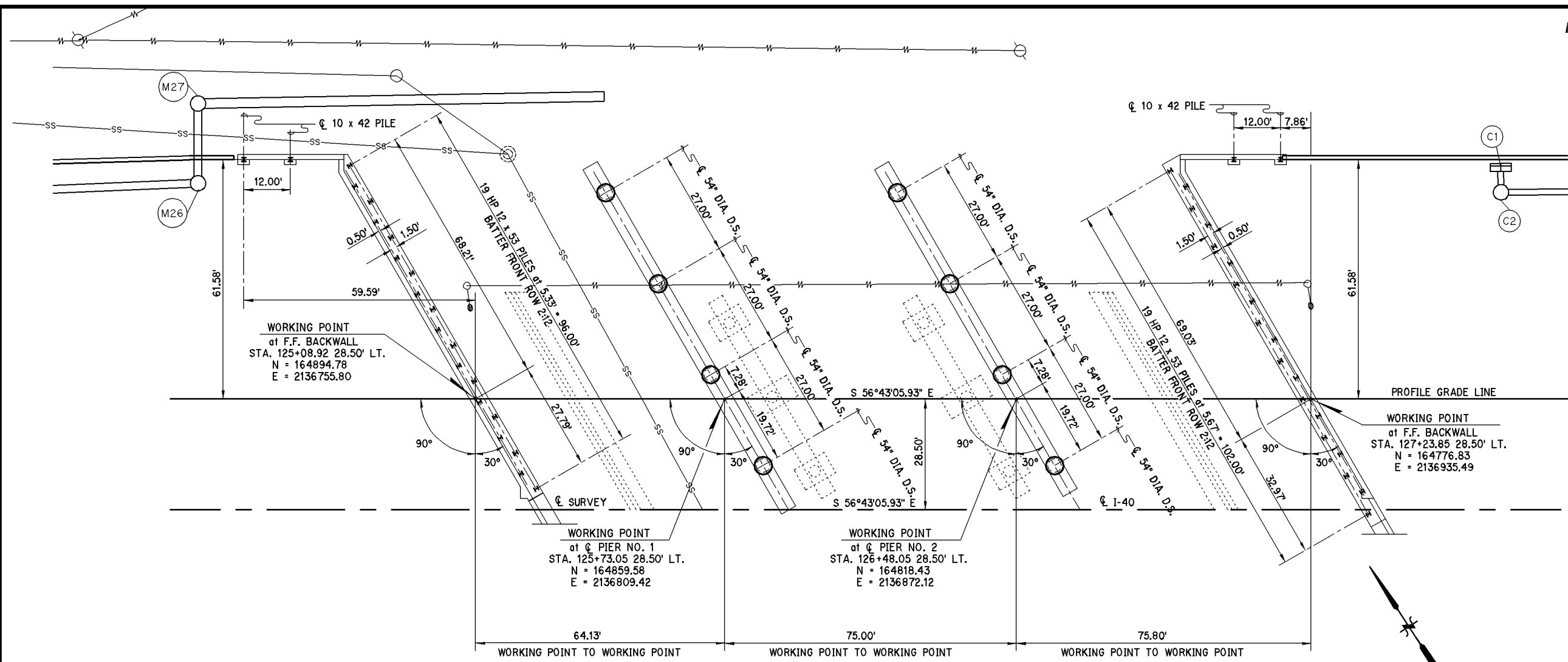
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:

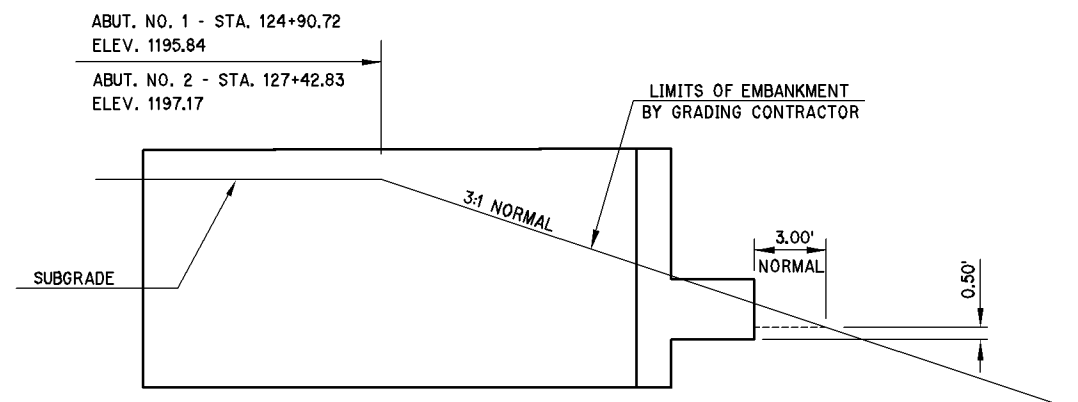
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES. NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			SUBSTRUCTURE LAYOUT
Approved			PHASE I
Squad	POE	State Job No. 23310(04)	Sheet No. B010

DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENTS
ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

OKLAHOMA ONE-CALL SYSTEM:

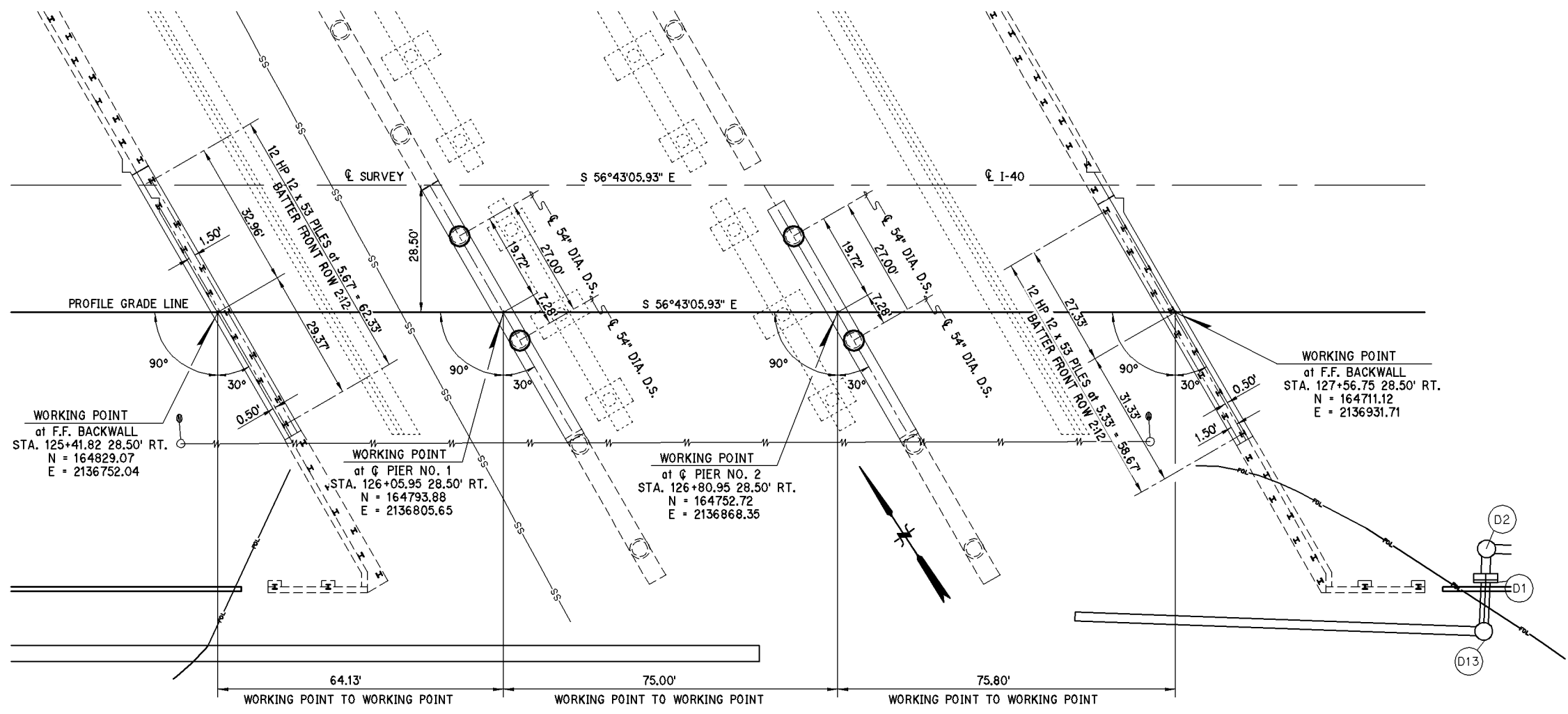
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:

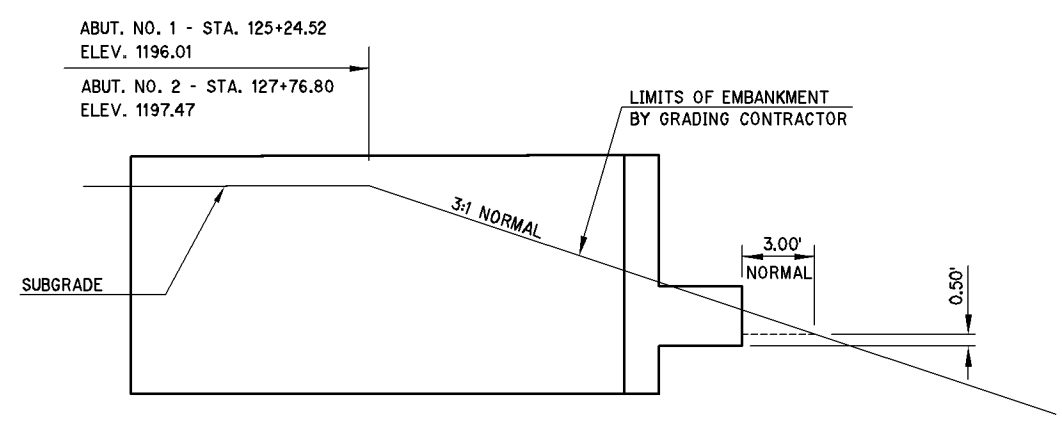
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES. NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked		SUBSTRUCTURE LAYOUT PHASE II	
Approved			
Squad	POE		
		State Job No. 23310(04)	Sheet No. B011

DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENTS
ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

OKLAHOMA ONE-CALL SYSTEM:

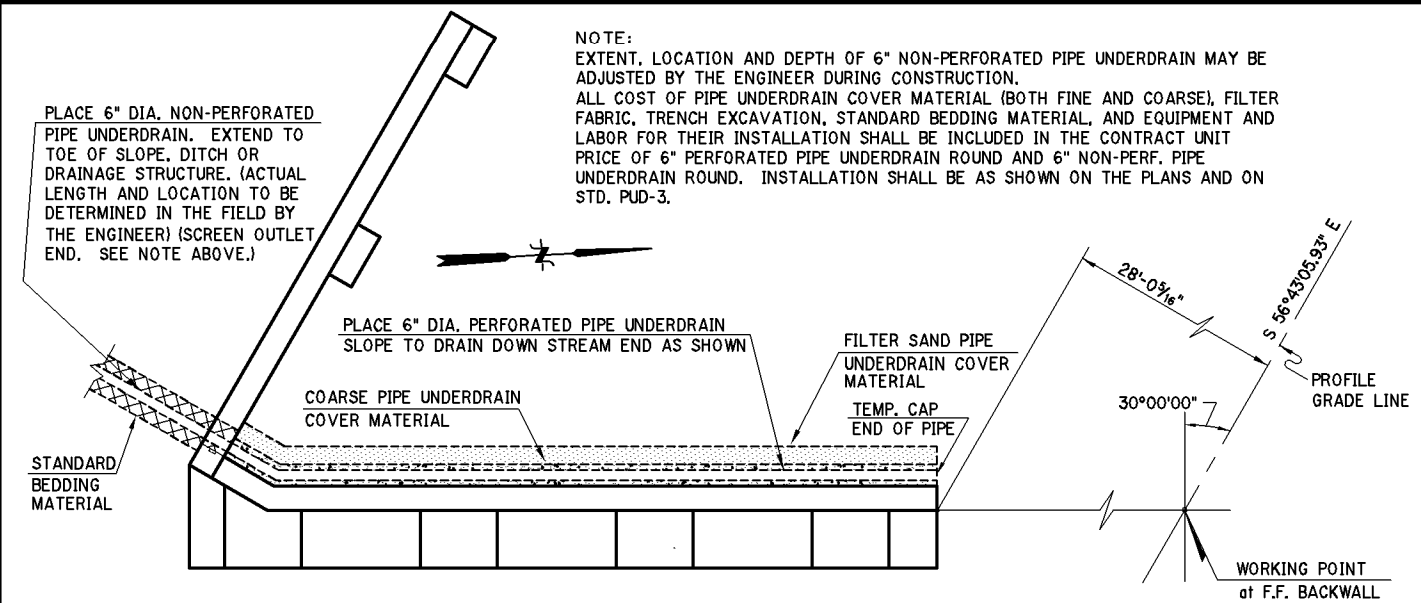
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:

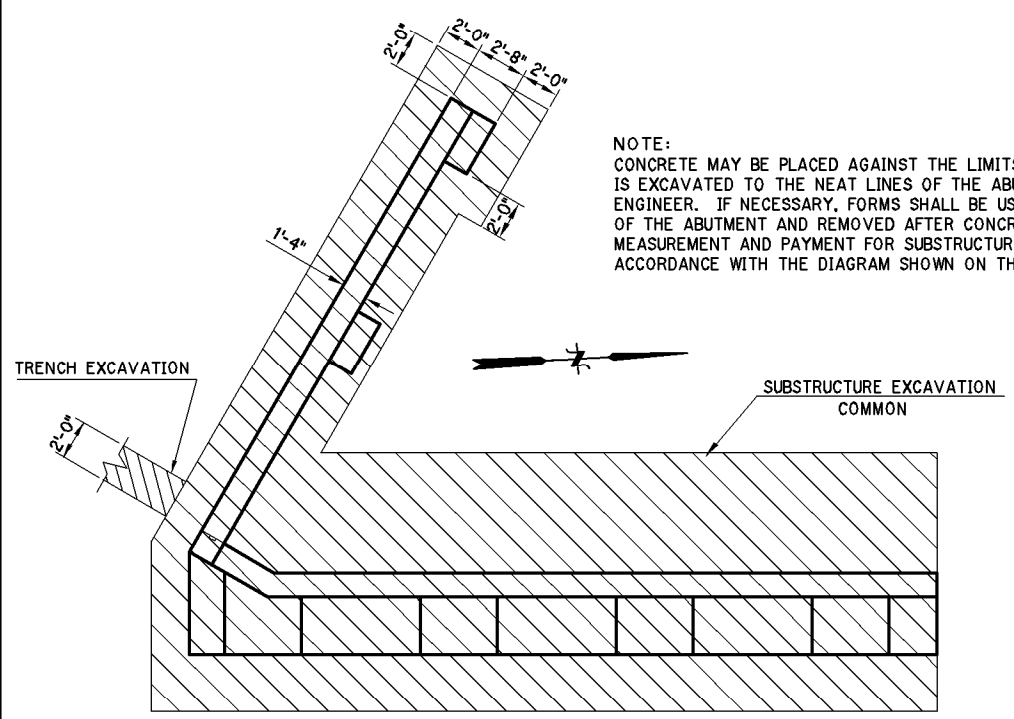
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES. NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked		SUBSTRUCTURE LAYOUT PHASE III	
Approved			
Squad	POE		
		State Job No. 23310(04)	Sheet No. B012

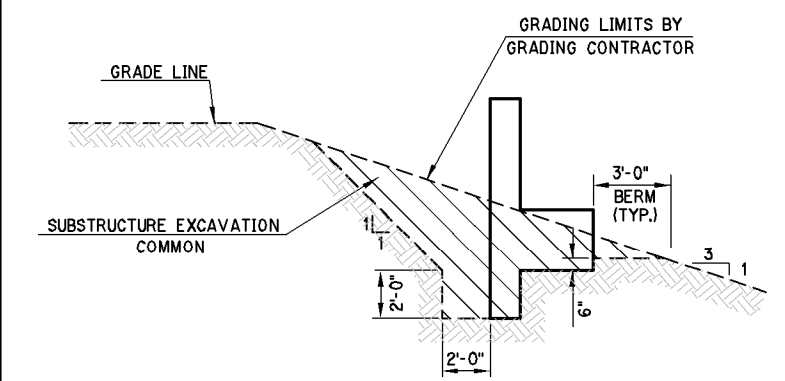
DESCRIPTION	REVISIONS	DATE



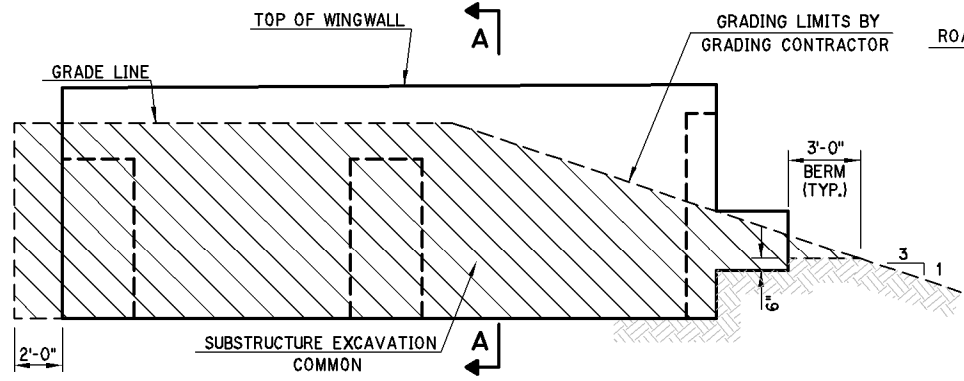
PIPE UNDERDRAIN PLAN
(ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



EXCAVATION PLAN
(ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)

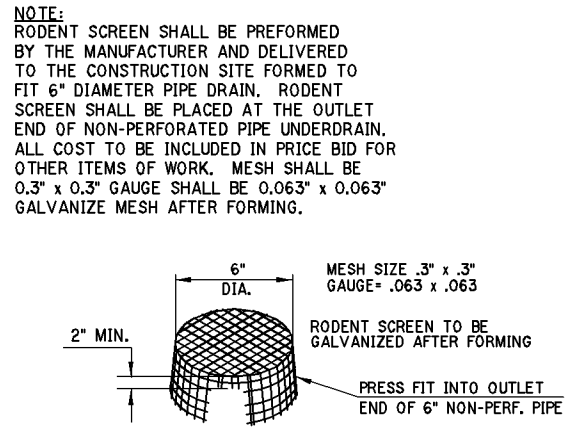


SECTION THRU BRIDGE SEAT



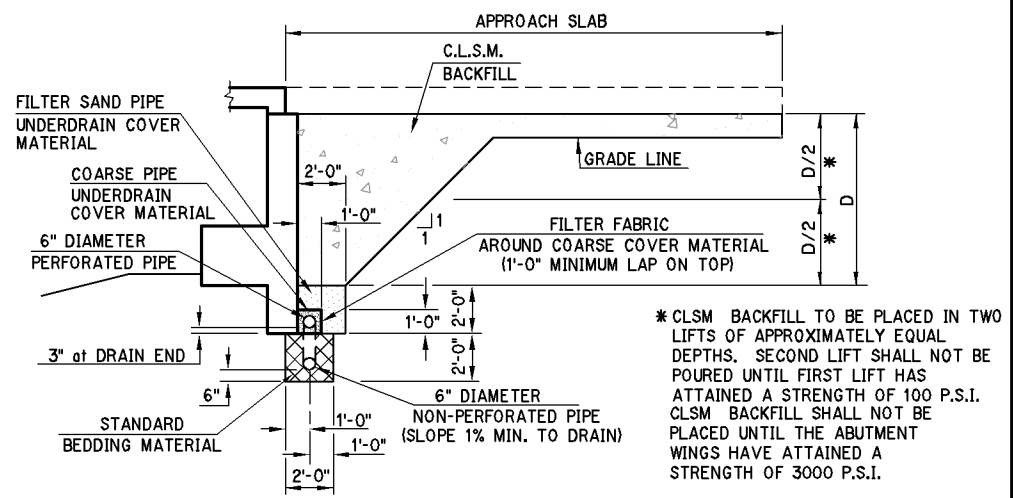
WING ELEVATION

ABUTMENT EXCAVATION DIAGRAM



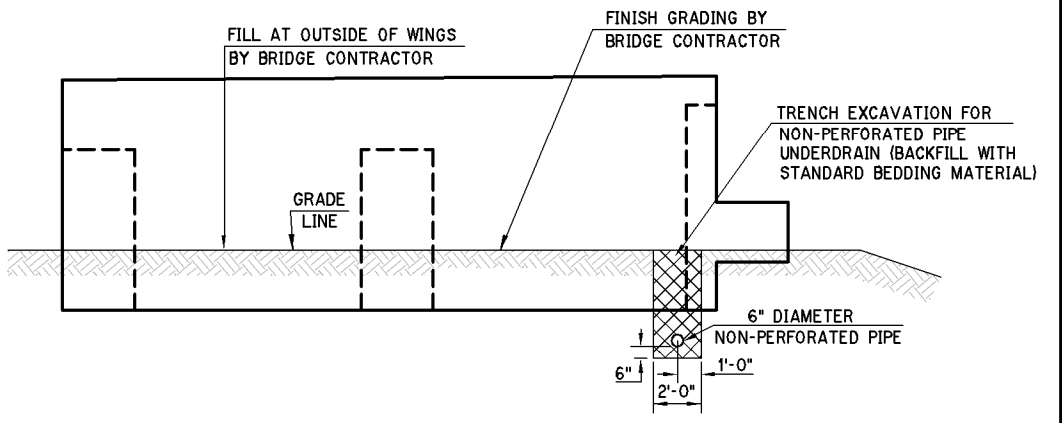
RODENT SCREEN DETAIL

ABUTMENT UNDERDRAIN DETAILS



UNDERDRAIN INSTALLATION DETAIL

NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-3



BACKFILL DETAIL OUTSIDE OF WING

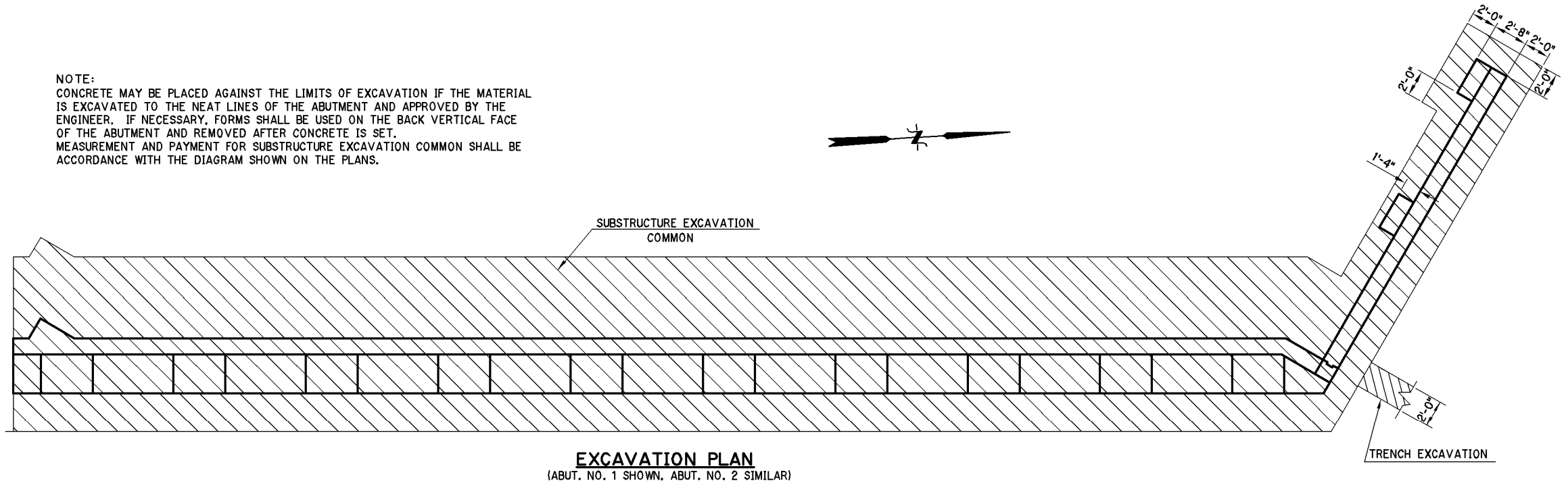
CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 p.s.i.
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

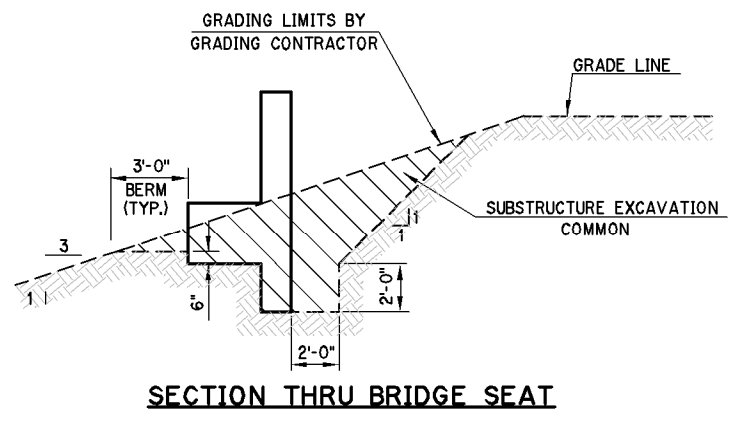
Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS	
Approved		PHASE I	
Squad	POE	State Job No. 23310(04)	Sheet No. B013

DESCRIPTION	REVISIONS	DATE

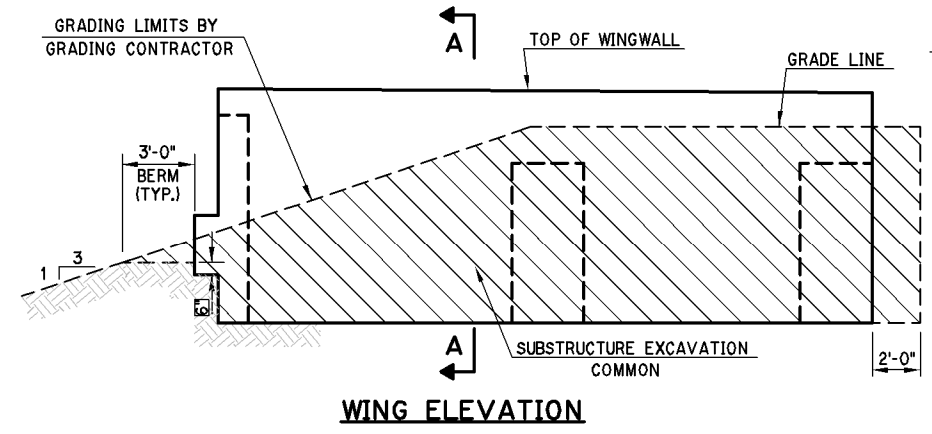
NOTE:
 CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET. MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON SHALL BE ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.



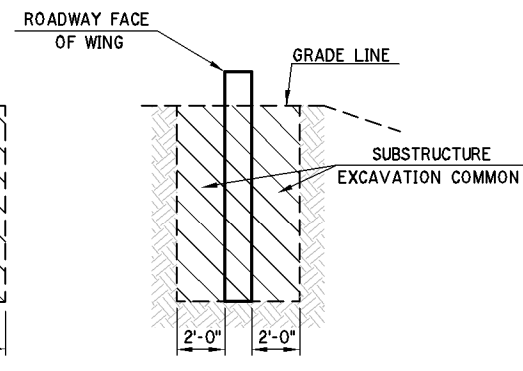
EXCAVATION PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



SECTION THRU BRIDGE SEAT



WING ELEVATION



**SECTION A-A
 SECTION THRU WING**

ABUTMENT EXCAVATION DIAGRAM

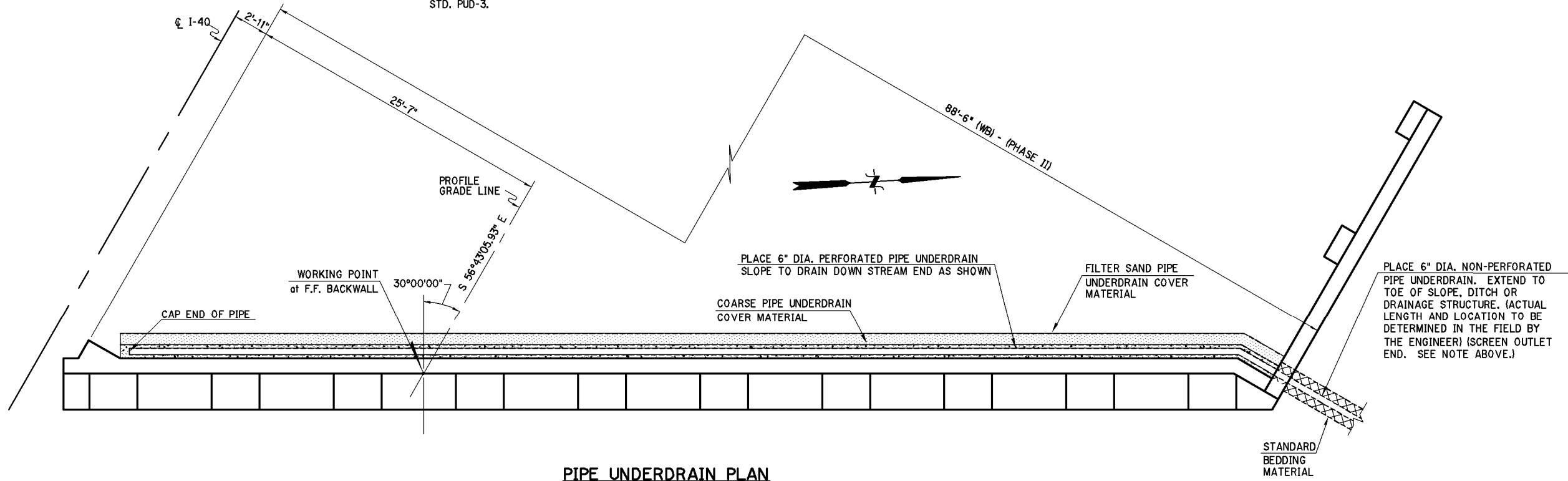
CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 p.s.i.
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

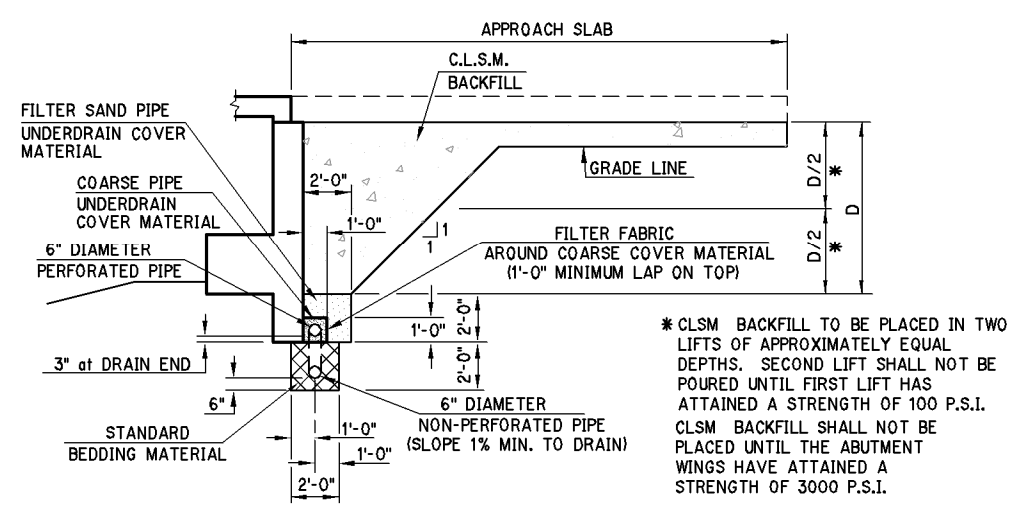
Design		BRIDGE "A" ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE II (SHEET 1 OF 2) State Job No. 23310(04) Sheet No. B014
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE

NOTE:
 EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
 ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-3.



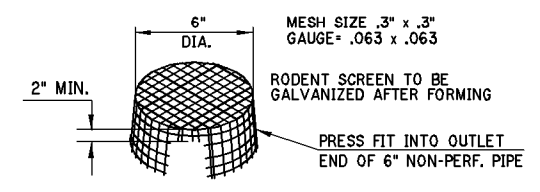
PIPE UNDERDRAIN PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



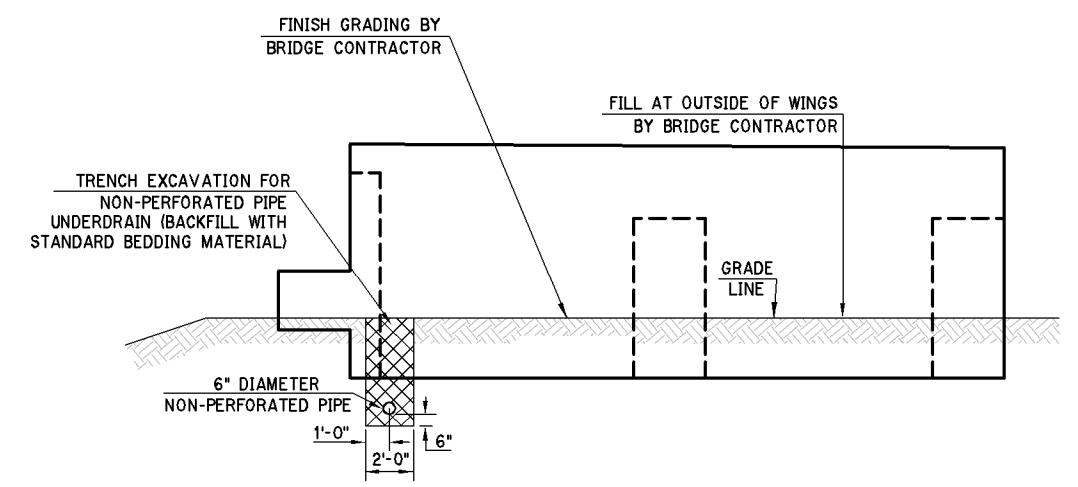
UNDERDRAIN INSTALLATION DETAIL

NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-3 AND SPI-4

NOTE:
 RODENT SCREEN SHALL BE PREFORMED BY THE MANUFACTURER AND DELIVERED TO THE CONSTRUCTION SITE FORMED TO FIT 6" DIAMETER PIPE DRAIN. RODENT SCREEN SHALL BE PLACED AT THE OUTLET END OF NON-PERFORATED PIPE UNDERDRAIN. ALL COST TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK. MESH SHALL BE 0.3" x 0.3" GAUGE SHALL BE 0.063" x 0.063" GALVANIZE MESH AFTER FORMING.



RODENT SCREEN DETAIL



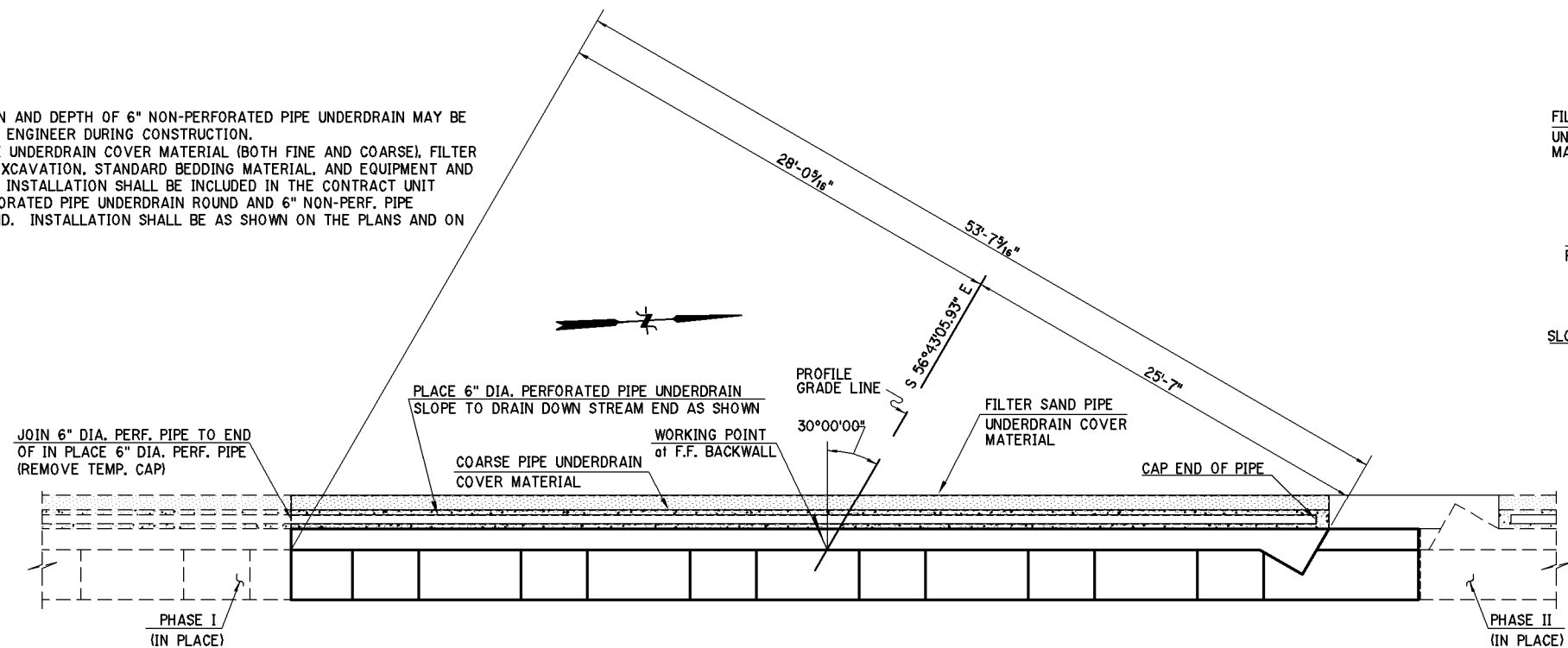
BACKFILL DETAIL OUTSIDE OF WING

ABUTMENT UNDERDRAIN DETAILS

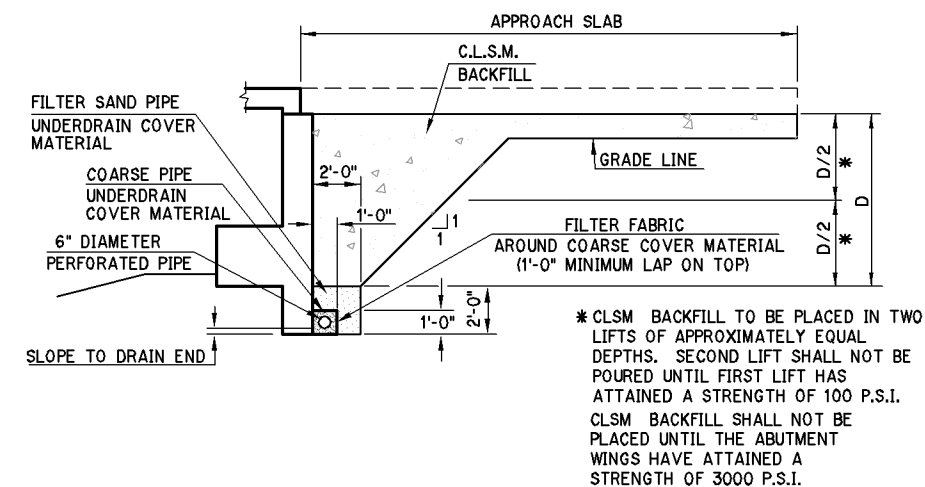
Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 2)	
		State Job No. 23310(04)	Sheet No. B015

DESCRIPTION	REVISIONS	DATE

NOTE:
 EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
 ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-3.



PIPE UNDERDRAIN PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)

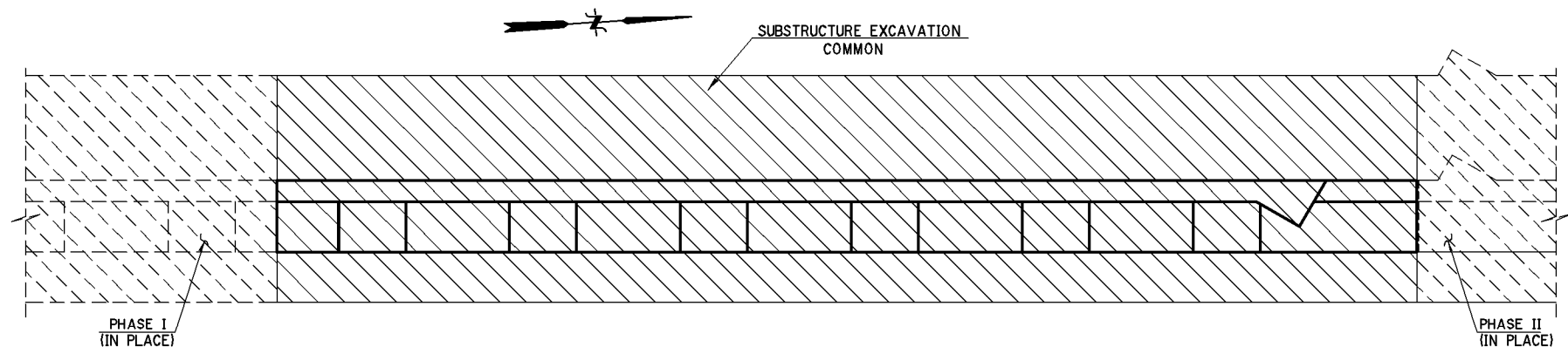


UNDERDRAIN INSTALLATION DETAIL

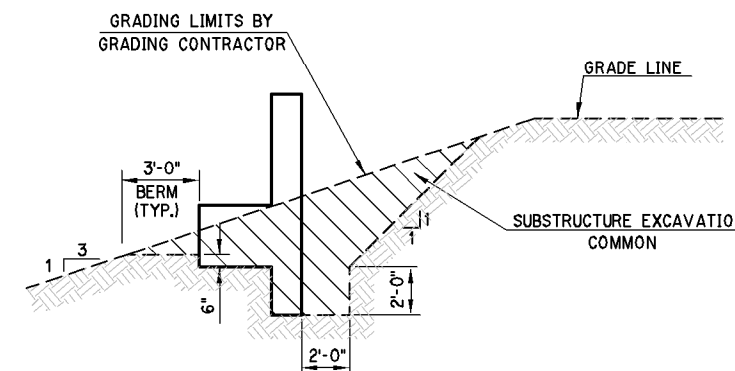
NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-3

ABUTMENT UNDERDRAIN DETAILS

NOTE:
 CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET. MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON SHALL BE ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.



EXCAVATION PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



SECTION THRU BRIDGE SEAT

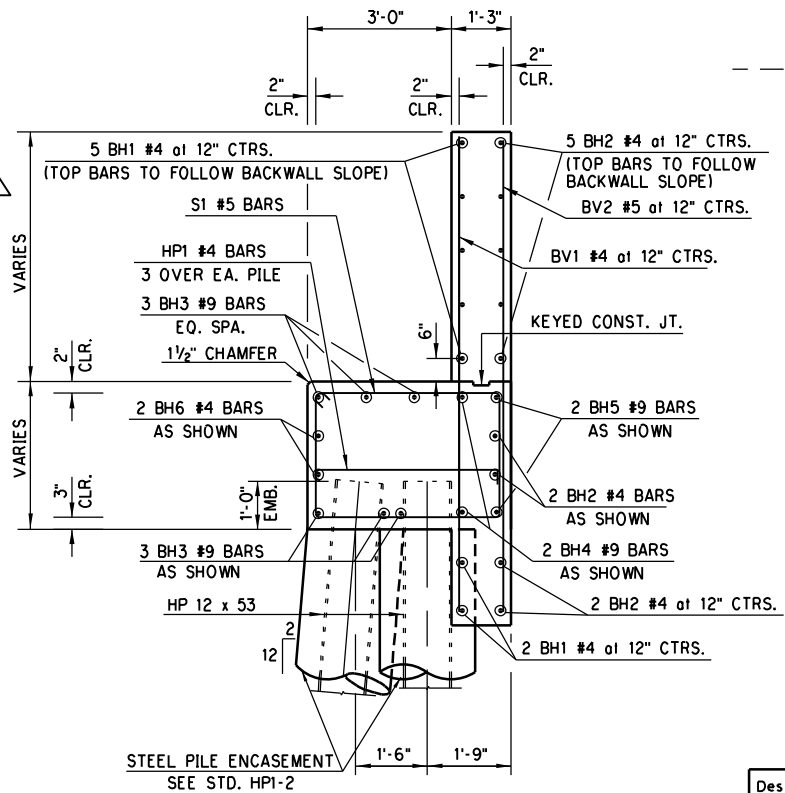
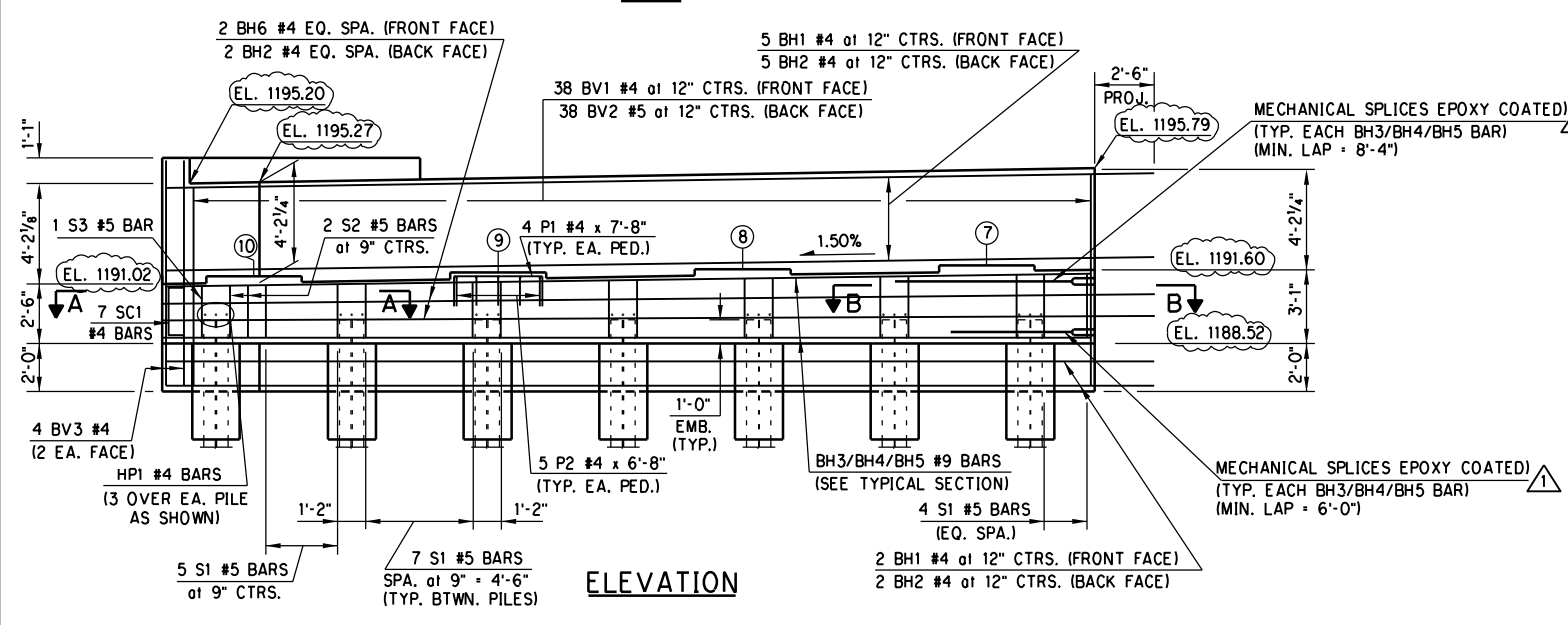
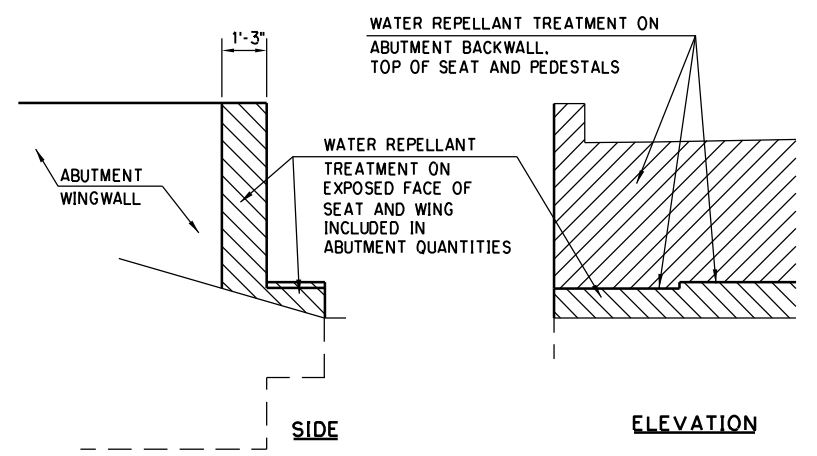
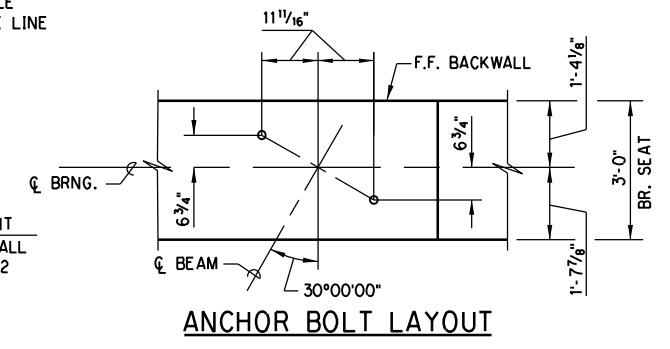
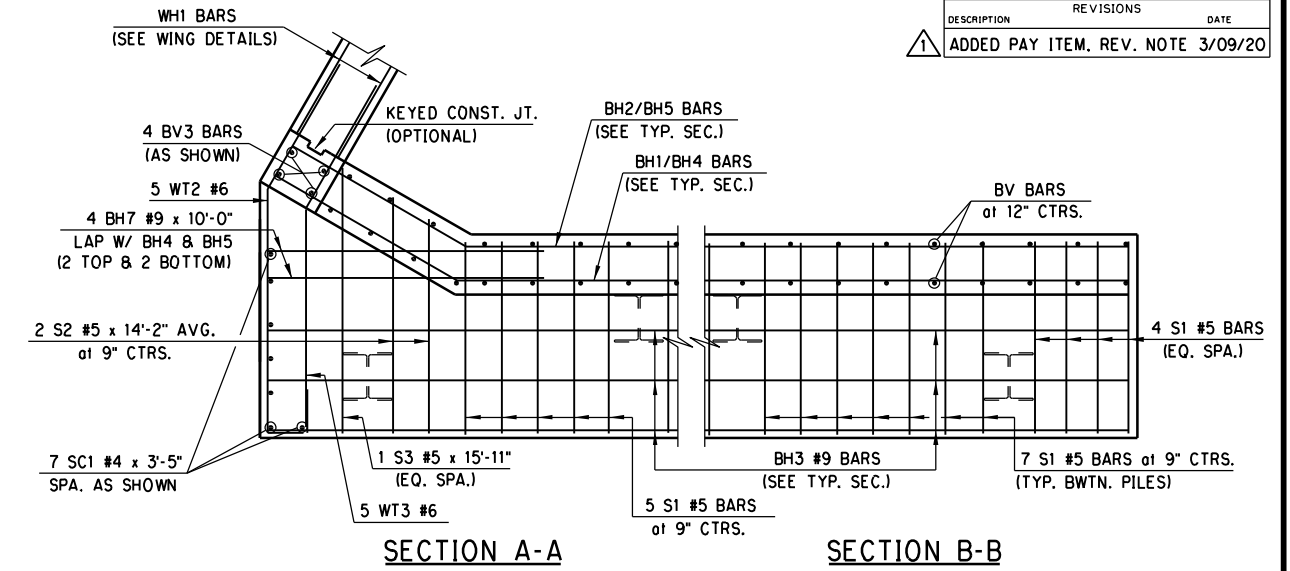
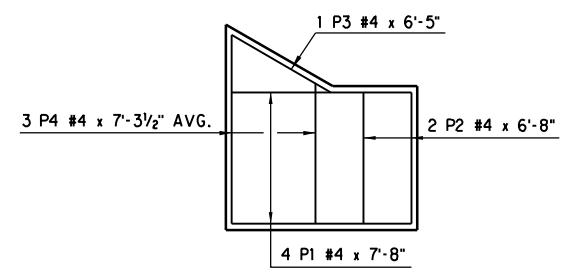
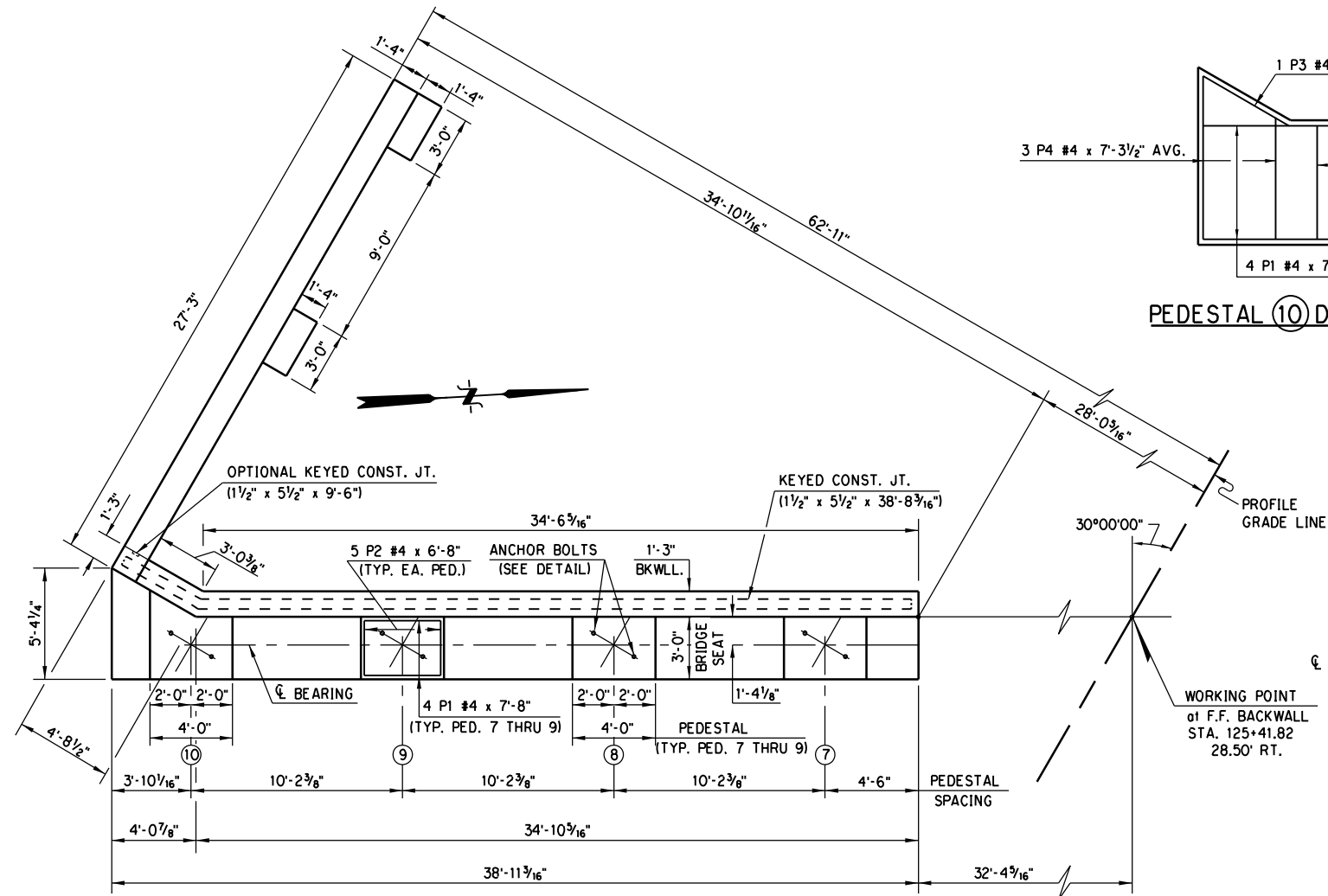
CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 p.s.i.
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

ABUTMENT EXCAVATION DIAGRAM

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS	
Approved		PHASE III	
Squad	POE	State Job No. 23310(04)	Sheet No. B016

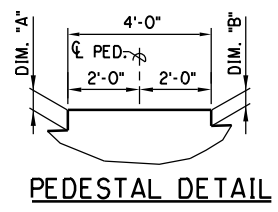
DESCRIPTION	REVISIONS	DATE
ADDED PAY ITEM. REV. NOTE		3/09/20



WATER REPELLANT TREATMENT DETAILS

QUANTITIES		
ITEM		
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	134.5
CLASS A CONCRETE	C.Y.	44.2
MECHANICAL SPLICES	E.A.	10
EPOXY REINFORCING STEEL	LB.	5,940
PILES, FURNISHED (HP 10 x 42)	L.F.	102
PILES, DRIVEN (HP 10 x 42)	L.F.	102
PILES, FURNISHED (HP 12 x 53)	L.F.	340
PILES, DRIVEN (HP 12 x 53)	L.F.	340
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	46
6" PERF. PIPE UNDERDRAIN RND.	L.F.	38
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

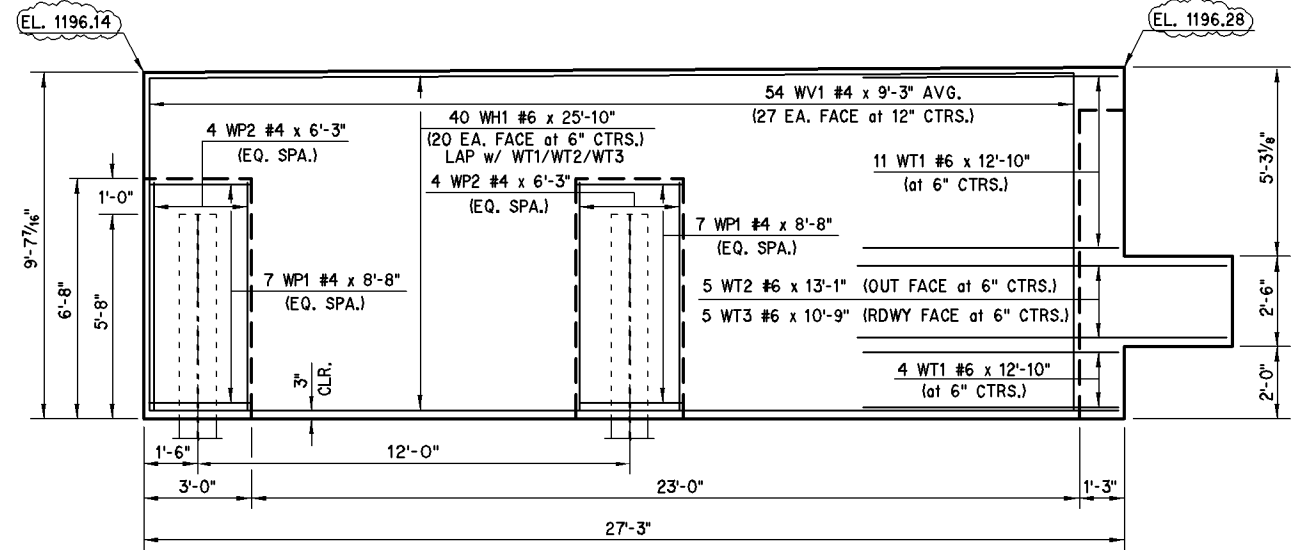
PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	10	9	8	7
ELEVATION	1191.33	1191.48	1191.63	1191.78
DIM. "A"	3 1/8"	3 1/8"	3 1/8"	3 1/16"
DIM. "B"	2 13/16"	2 3/4"	2 3/4"	2 11/16"



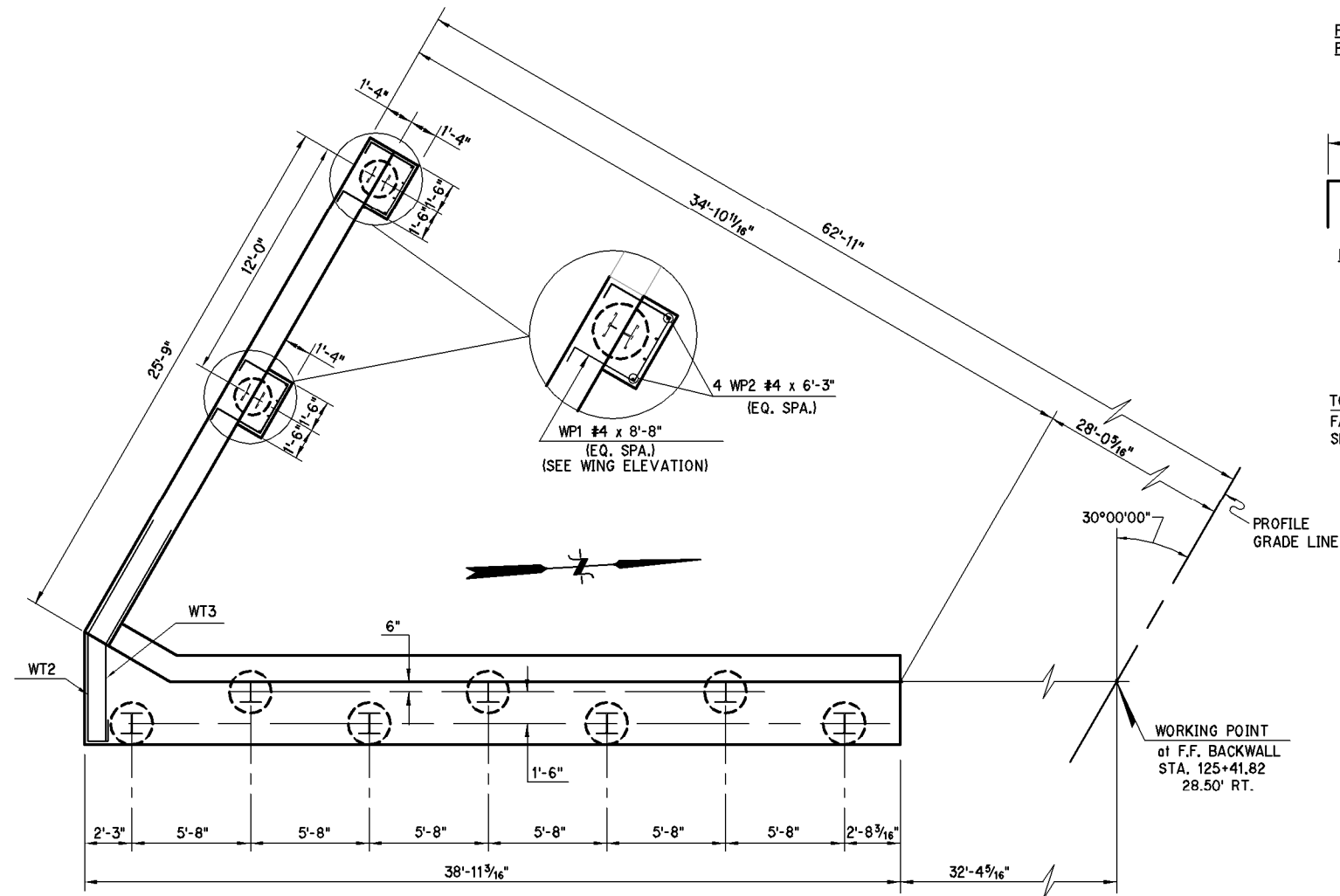
OKLAHOMA COUNTY
 BRIDGE "B"
 E.B. I-40 OVER CRUTCHO CREEK
ABUTMENT NO. 1 DETAILS
 PHASE I
 (SHEET 1 OF 2)
 State Job No. 23310(04) Sheet No. B017

Design	
Drawn	
Checked	
Approved	
Squad	POE

DESCRIPTION	REVISIONS	DATE

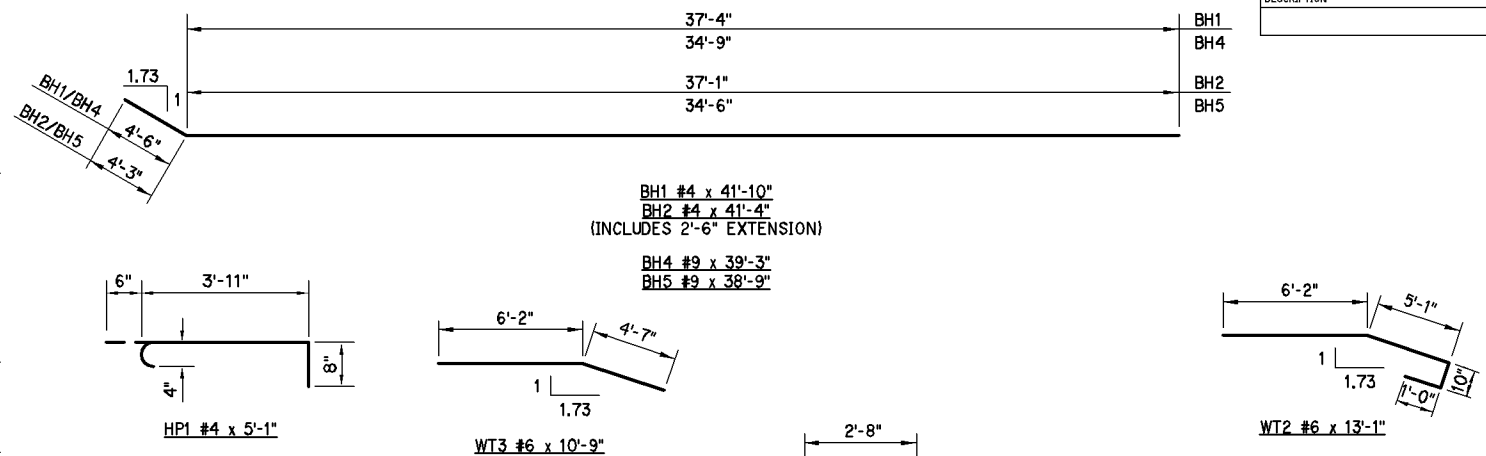


SOUTH WING - ELEVATION

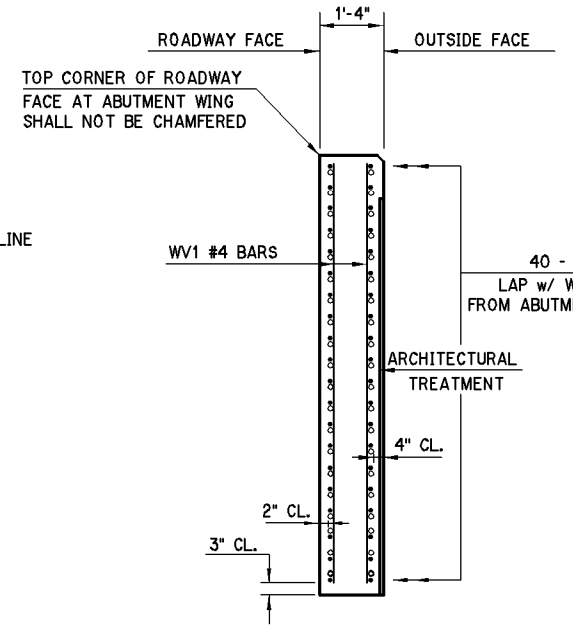
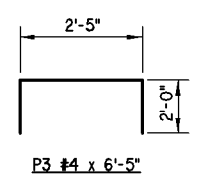
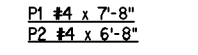
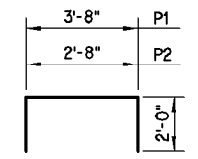


PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILE IS HP 10 x 42 (BATTER FRONT ROW IN BR. SEAT 2:12)



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT

BAR LIST - EPOXY COATED

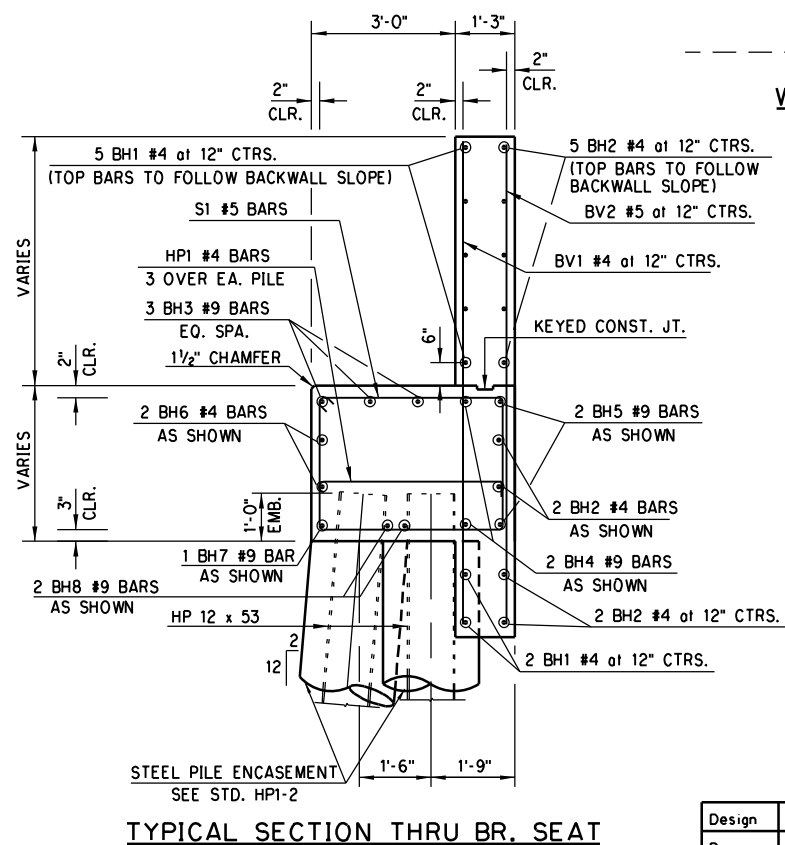
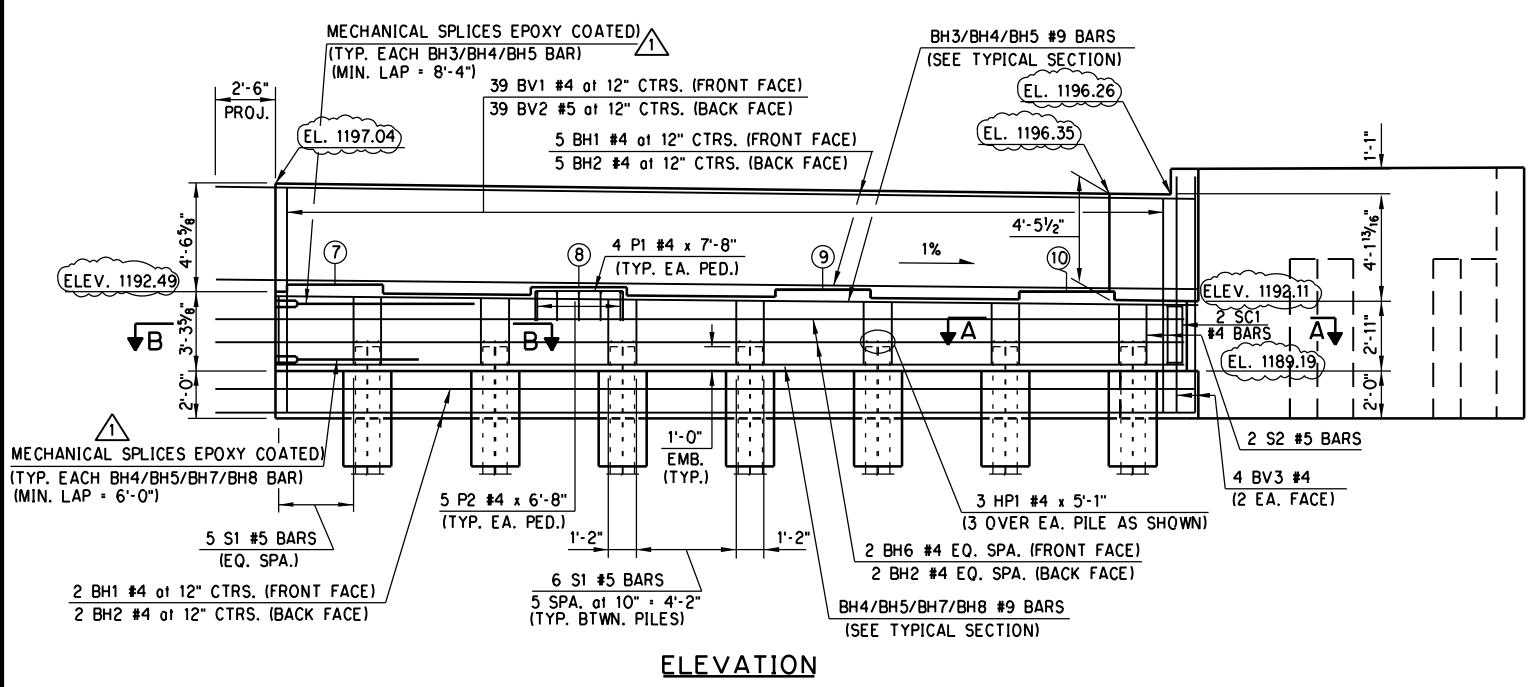
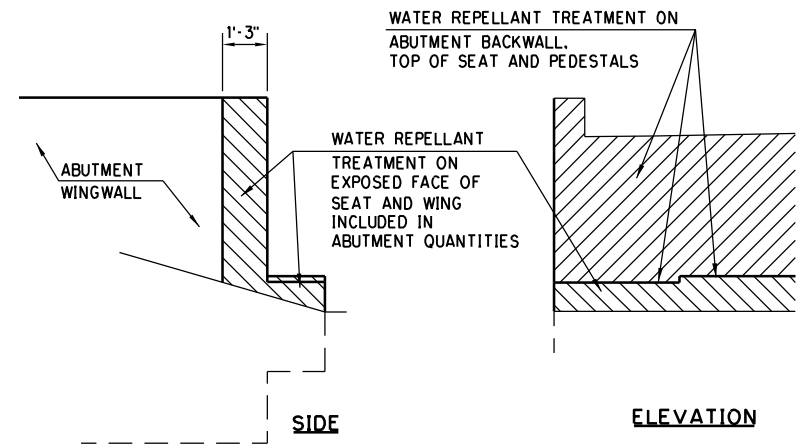
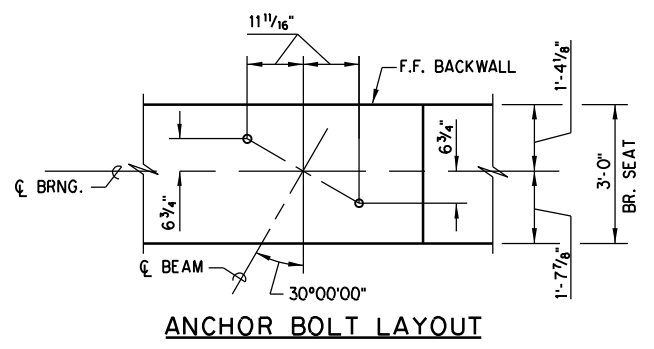
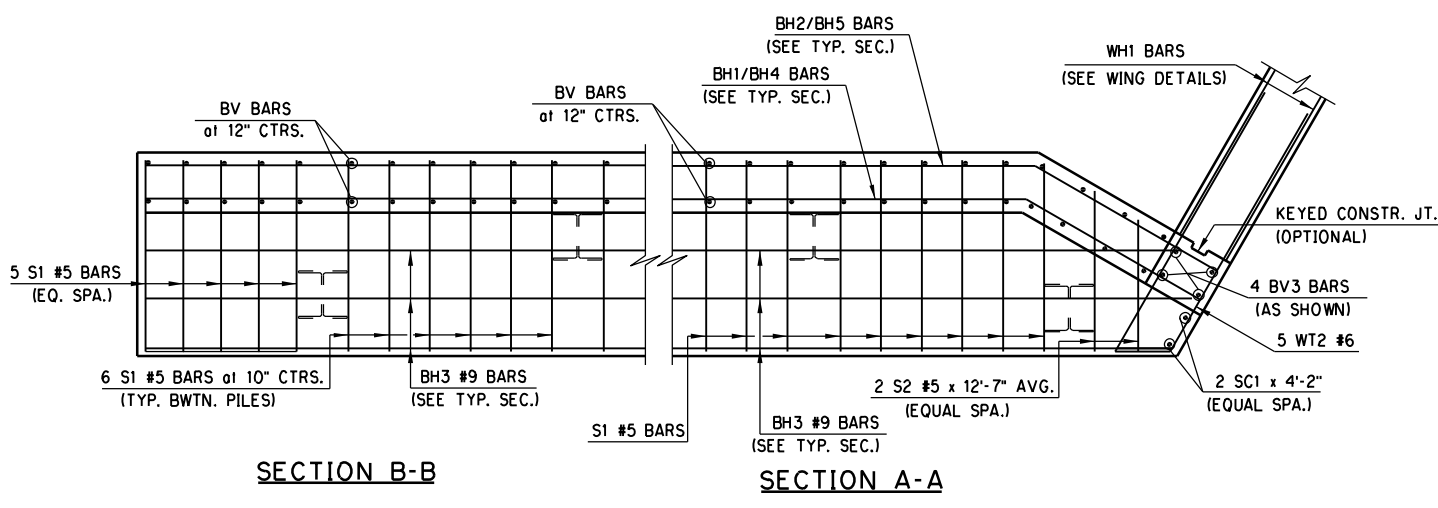
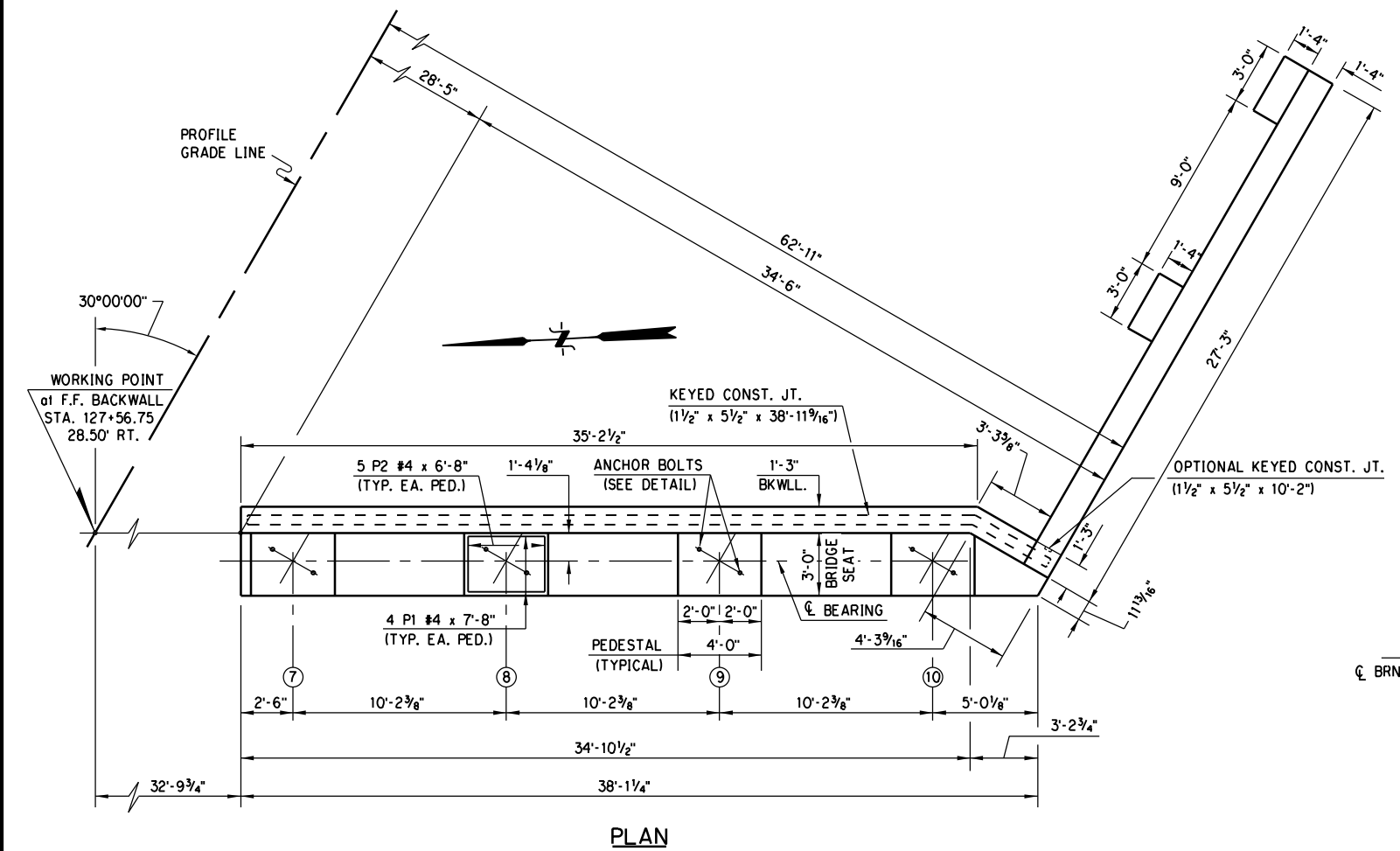
MARK	NO.	SIZE	FORM	SPACING	LENGTH
BH1	7	#4	BNT.	AS SHOWN	41'-10"
BH2	9	#4	BNT.	AS SHOWN	41'-4"
BH3	6	#9	STR.	AS SHOWN	38'-9"
BH4	2	#9	BNT.	AS SHOWN	39'-3"
BH5	2	#9	BNT.	AS SHOWN	38'-9"
BH6	2	#4	STR.	AS SHOWN	41'-3"
BH7	4	#9	STR.	AS SHOWN	10'-0"
BV1	38	#4	STR.	12" C/C	8'-7" AVG.
BV2	38	#5	STR.	12" C/C	8'-7" AVG.
BV3	4	#4	STR.	AS SHOWN	9'-5"
HP1	21	#4	BNT.	AS SHOWN	5'-1"
P1	16	#4	BNT.	EQ. SPA.	7'-8"
P2	17	#4	BNT.	EQ. SPA.	6'-8"
P3	1	#4	BNT.	EQ. SPA.	6'-5"
P4	3	#4	BNT.	EQ. SPA.	7'-3 1/2" AVG.
S1	44	#5	BNT.	9" C/C	13'-6" AVG.
S2	2	#5	BNT.	EQ. SPA.	14'-2" AVG.
S3	1	#5	BNT.	EQ. SPA.	15'-11"
SC1	7	#4	BNT.	AS SHOWN	3'-5"
WH1	40	#6	STR.	6" C/C	25'-10"
WP1	14	#4	BNT.	EQ. SPA.	8'-8"
WP2	8	#4	STR.	EQ. SPA.	6'-3"
WT1	15	#6	BNT.	6" C/C	12'-10"
WT2	5	#6	BNT.	6" C/C	13'-1"
WT3	5	#6	BNT.	6" C/C	10'-9"
WV1	54	#4	STR.	12" C/C	9'-3" AVG.

① LENGTH VARIES:
 BV1 - (8'-3" to 8'-11")
 BV2 - (8'-3" to 8'-11")
 P4 - (6'-9" to 7'-10")
 S1 - (12'-11" to 14'-1")
 S2 - (13'-9" to 14'-7")
 WV1 - (9'-2" to 9'-4")

OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
ABUTMENT NO. 1 DETAILS
PHASE I
 (SHEET 2 OF 2)
 State Job No. 23310(04) Sheet No. B018

Design	
Drawn	
Checked	
Approved	
Squad	POE

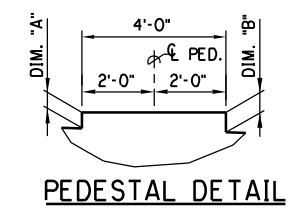
DESCRIPTION	REVISIONS	DATE
ADDED PAY ITEM. REV. NOTE		3/09/20



WATER REPELLANT TREATMENT DETAILS

QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	102.1
CLASS A CONCRETE	C.Y.	46.3
MECHANICAL SPLICES	EA.	10
EPOXY REINFORCING STEEL	LB.	5880
PILES, FURNISHED (HP 10 x 42)	L.F.	112
PILES, DRIVEN (HP 10 x 42)	L.F.	112
PILES, FURNISHED (HP 12 x 53)	L.F.	368
PILES, DRIVEN (HP 12 x 53)	L.F.	368
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	46
6" PERF. PIPE UNDERDRAIN RND.	L.F.	39
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	7	8	9	10
ELEVATION	1193.02	1192.86	1192.64	1192.40
DIM. "A"	6 7/16"	5 3/4"	4 3/16"	2 3/16"
DIM. "B"	6 13/16"	6 1/4"	4 13/16"	3 1/16"



DESIGN		BRIDGE "B"		OKLAHOMA COUNTY	
Design					
Drawn					
Checked					
Approved					
Squad	POE				

E.B. 1-40 OVER CRUTCHO CREEK

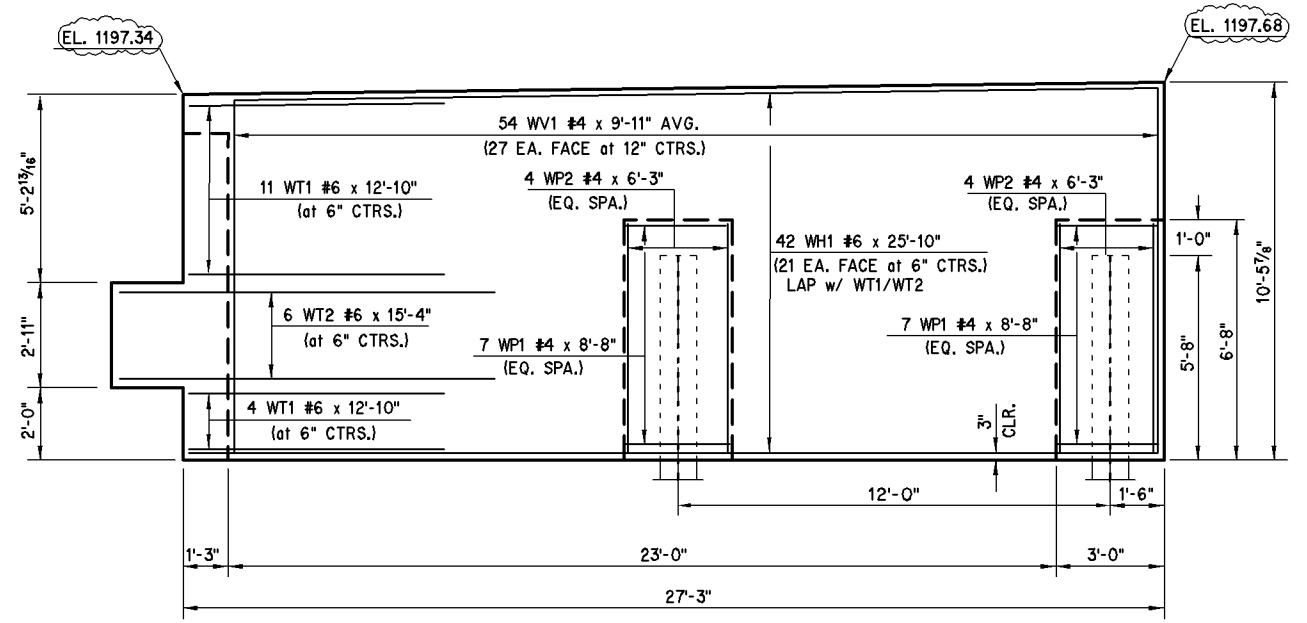
ABUTMENT NO. 2 DETAILS

PHASE I

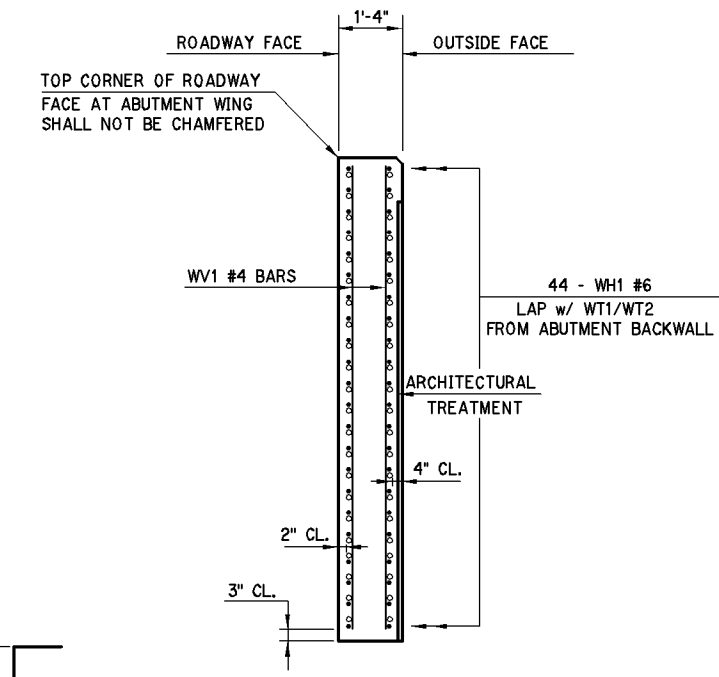
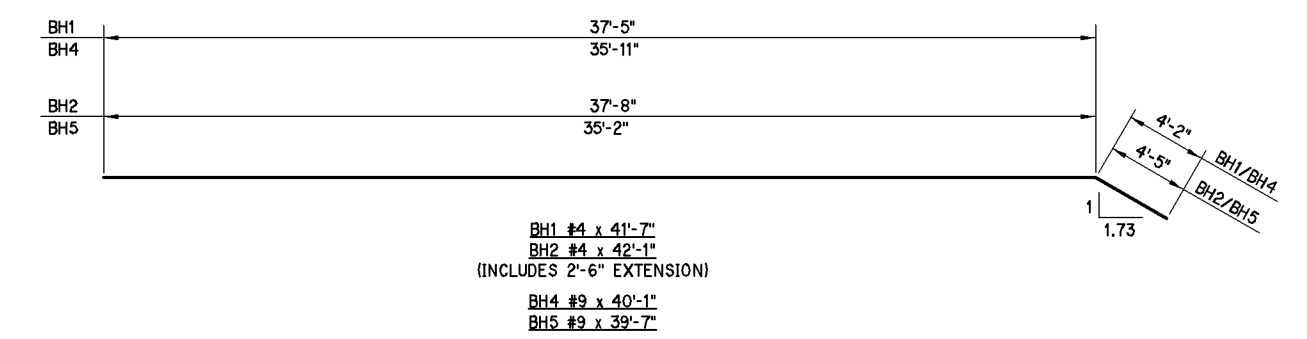
(SHEET 1 OF 2)

State Job No. 23310(04) Sheet No. B019

DESCRIPTION	REVISIONS	DATE



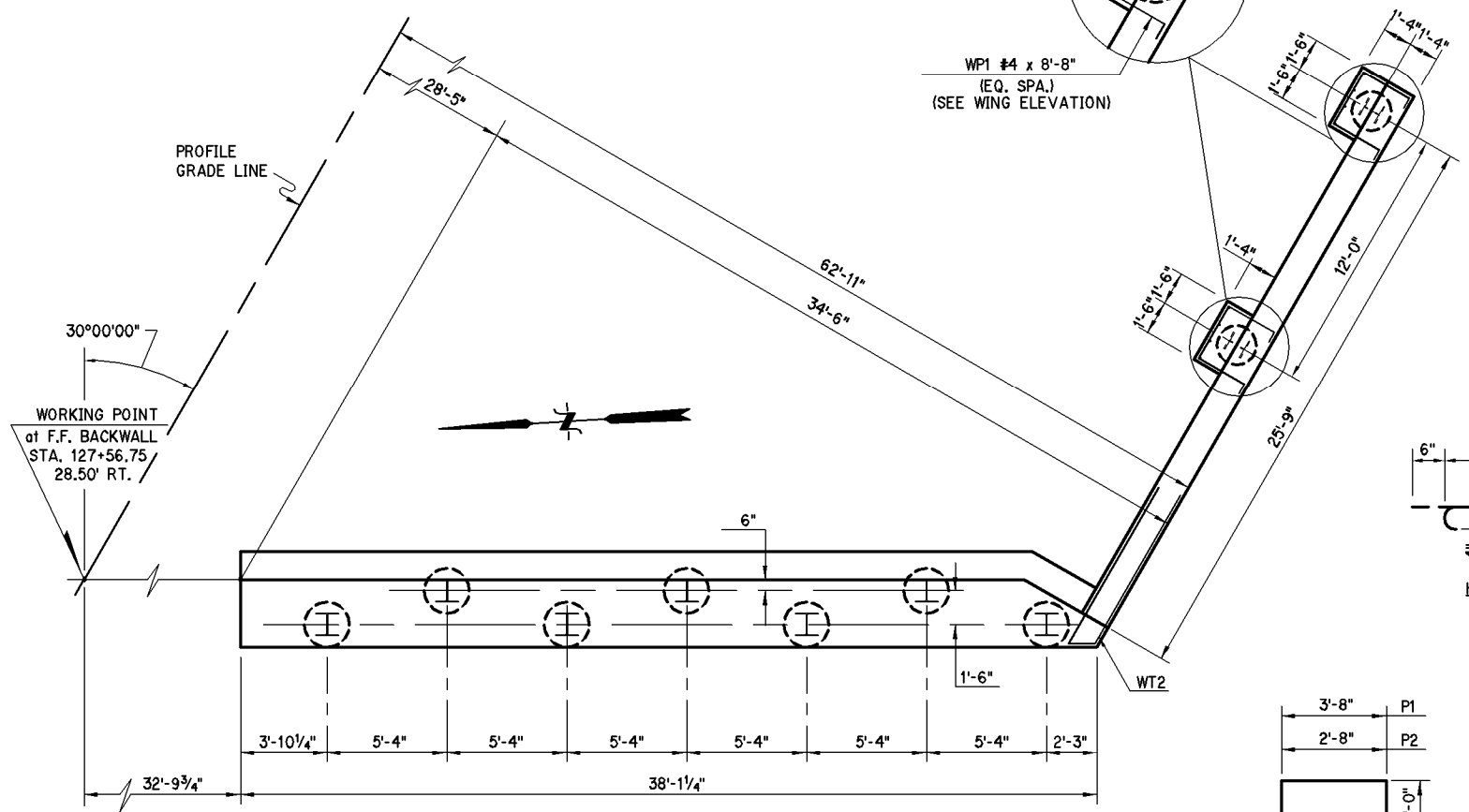
SOUTH WING - ELEVATION



SECTION THRU WING AT BACK FACE OF ABUTMENT SEAT

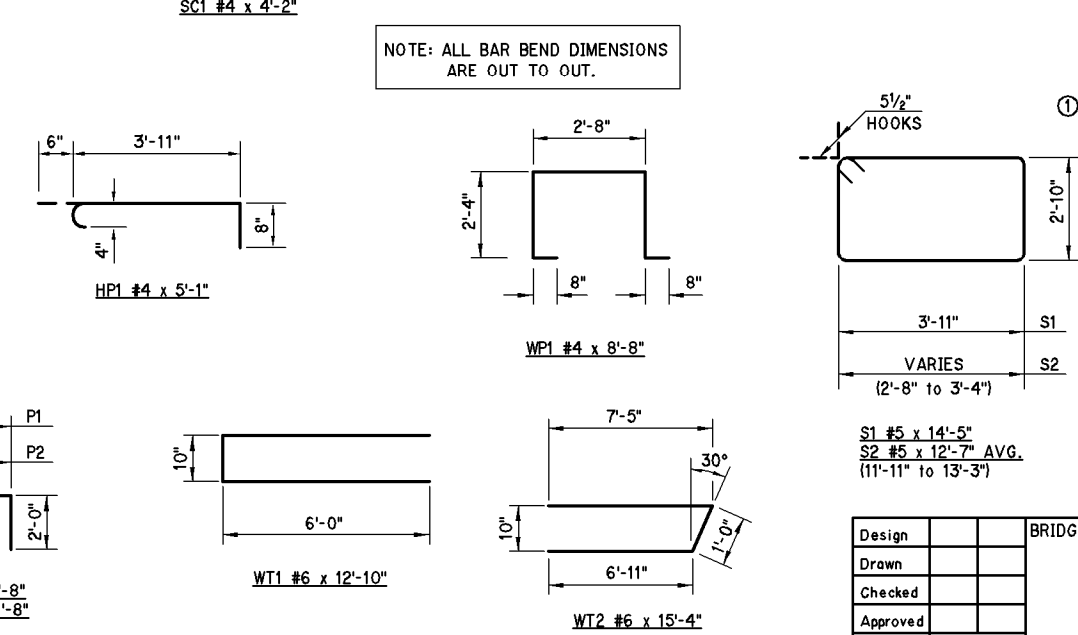
BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
BH1	7	#4	BNT.	AS SHOWN	41'-7"
BH2	9	#4	BNT.	AS SHOWN	42'-1"
BH3	3	#9	STR.	AS SHOWN	38'-3" AVG.
BH4	2	#9	BNT.	AS SHOWN	40'-1"
BH5	2	#9	BNT.	AS SHOWN	39'-7"
BH6	2	#4	STR.	AS SHOWN	40'-6"
BH7	1	#9	STR.	AS SHOWN	38'-0"
BH8	2	#9	STR.	AS SHOWN	38'-9 1/2" AVG.
BV1	39	#4	STR.	12" C/C	9'-1" AVG.
BV2	39	#5	STR.	12" C/C	9'-1" AVG.
BV3	4	#4	STR.	AS SHOWN	9'-9"
HP1	21	#4	BNT.	AS SHOWN	5'-1"
P1	16	#4	BNT.	EQ. SPA.	7'-8"
P2	20	#4	BNT.	EQ. SPA.	6'-8"
S1	41	#5	BNT.	10" C/C	14'-5"
S2	2	#5	BNT.	EQ. SPA.	12'-7" AVG.
SC1	2	#4	BNT.	AS SHOWN	4'-2"
WH1	42	#6	STR.	6" C/C	25'-10"
WP1	14	#4	BNT.	EQ. SPA.	8'-8"
WP2	8	#4	STR.	EQ. SPA.	6'-3"
WT1	15	#6	BNT.	AS SHOWN	12'-10"
WT2	6	#6	BNT.	6" C/C	15'-4"
WV1	54	#4	STR.	12" C/C	9'-11" AVG.

① LENGTH VARIES:
 BH3 - (38'-0" to 38'-6")
 BH8 - (38'-8" to 38'-11")
 BV1 - (8'-8" to 9'-6")
 BV2 - (8'-8" to 9'-6")
 S2 - (11'-11" to 13'-3")
 WV1 - (9'-9" to 10'-1")

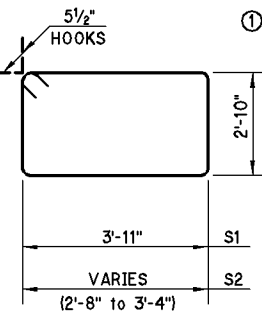


PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILE IS HP 10 x 42 (BATTER FRONT ROW IN BR. SEAT 2:12)



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

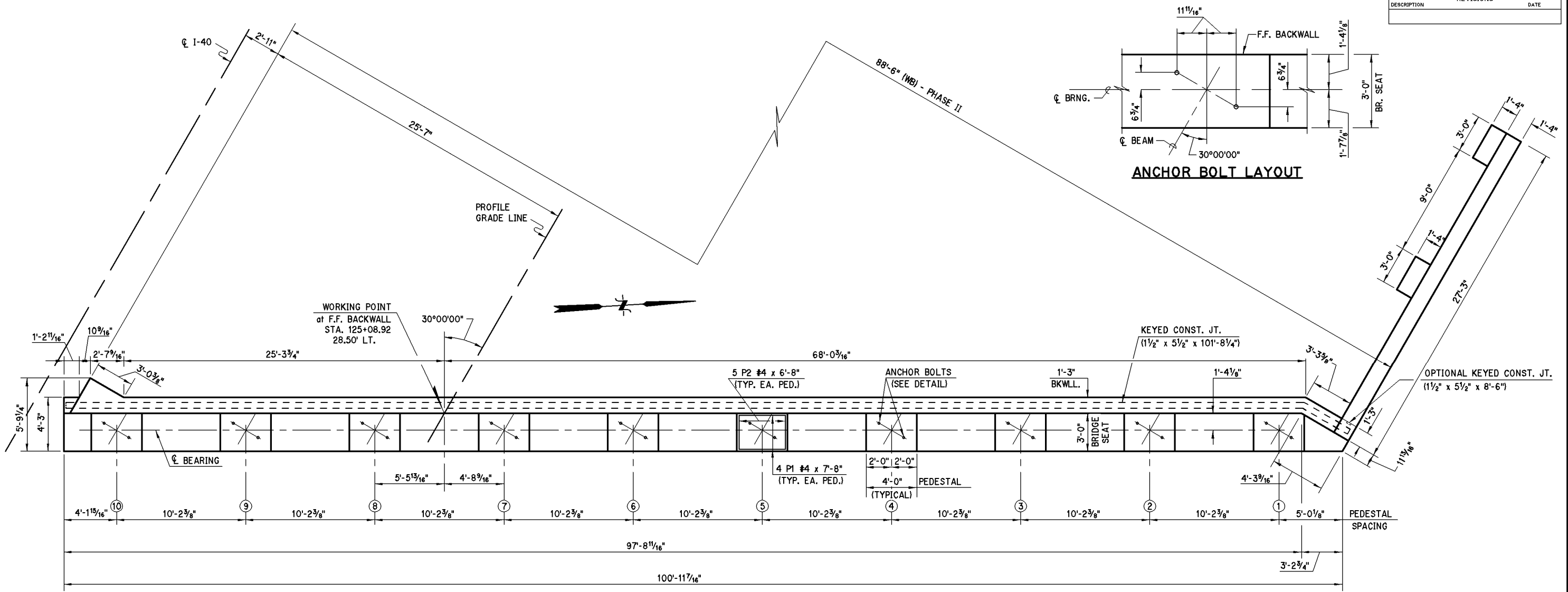


S1 #5 x 14'-5"
 S2 #5 x 12'-7" AVG.
 (11'-11" to 13'-3")

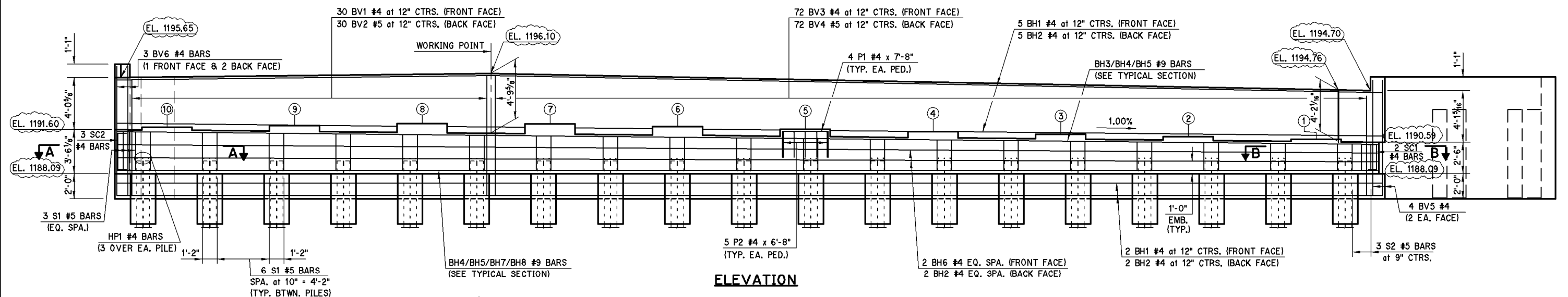
Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 2 OF 2)	

State Job No. 23310(04) Sheet No. B020

DESCRIPTION	REVISIONS	DATE

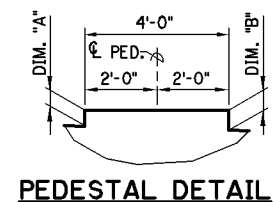


PLAN



ELEVATION

PEDESTAL ELEVATION SCHEDULE										
PEDESTAL	10	9	8	7	6	5	4	3	2	1
ELEVATION	1191.78	1191.93	1192.08	1192.04	1191.84	1191.64	1191.44	1191.23	1191.03	1190.83
DIM. "A"	2 3/8"	5 3/8"	8 7/16"	9 3/16"	8"	6 13/16"	5 3/8"	4 3/8"	3 3/16"	2"
DIM. "B"	2 7/8"	5 7/8"	8 15/16"	9 11/16"	8 1/2"	7 5/16"	6 1/8"	4 7/8"	3 1/16"	2 1/2"

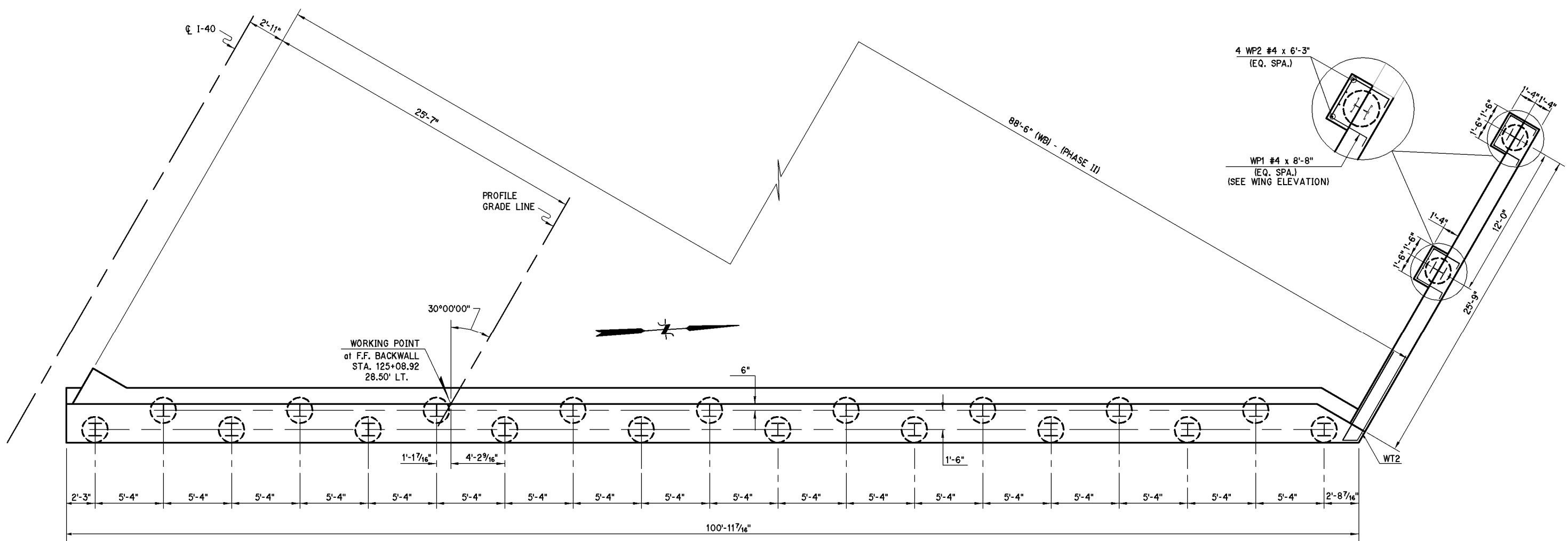


PEDESTAL DETAIL

NOTE: FOR SECTION A-A AND B-B, SEE SHEET NO. B022.

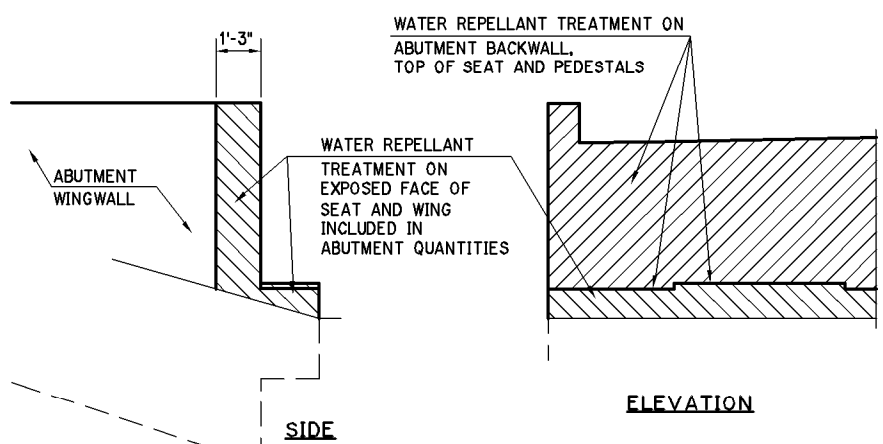
Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 1 OF 3)	
		State Job No. 23310(04)	Sheet No. B021

DESCRIPTION	REVISIONS	DATE

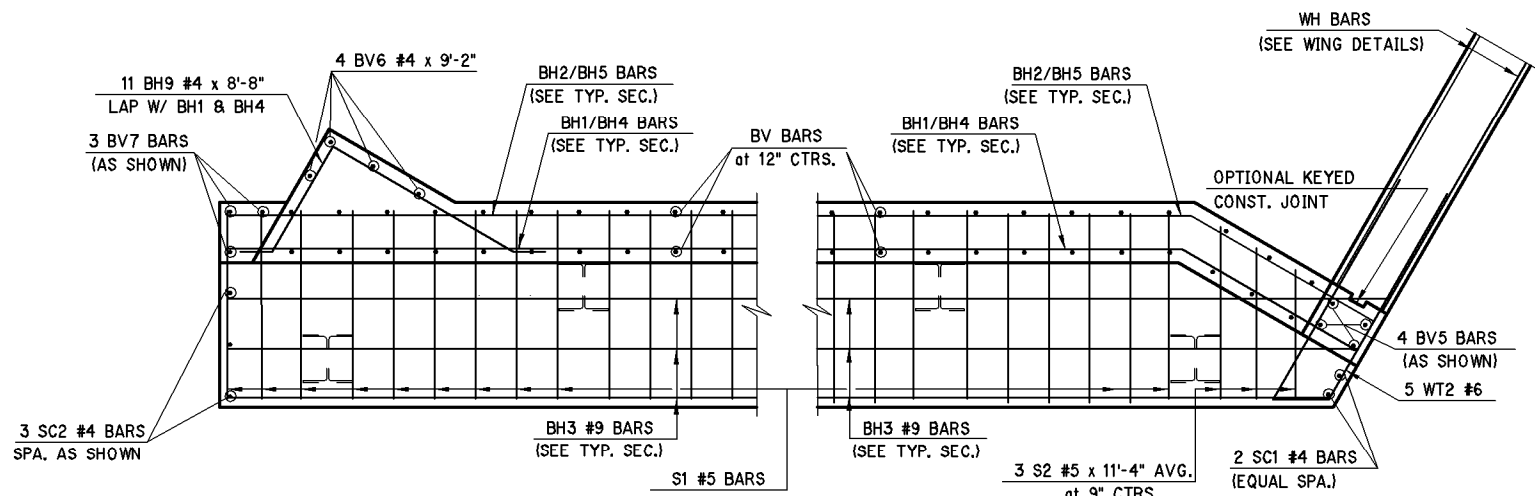


PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILES ARE HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:2)



WATER REPELLANT TREATMENT DETAILS



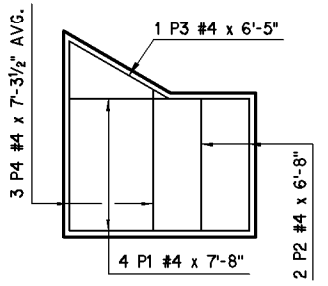
SECTION A-A

SECTION B-B

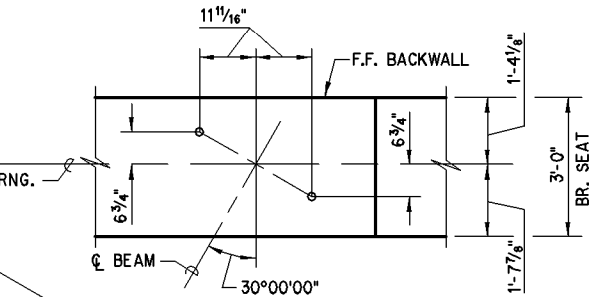
QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	185
CLSM BACKFILL	C.Y.	317.8
CLASS A CONCRETE	C.Y.	95.4
EPOXY REINFORCING STEEL	LB.	11,390
PILES, FURNISHED (HP 10 x 42)	L.F.	114
PILES, DRIVEN (HP 10 x 42)	L.F.	114
PILES, FURNISHED (HP 12 x 53)	L.F.	1,036
PILES, DRIVEN (HP 12 x 53)	L.F.	1,036
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	117
6" PERF. PIPE UNDERDRAIN RND.	L.F.	101
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B022

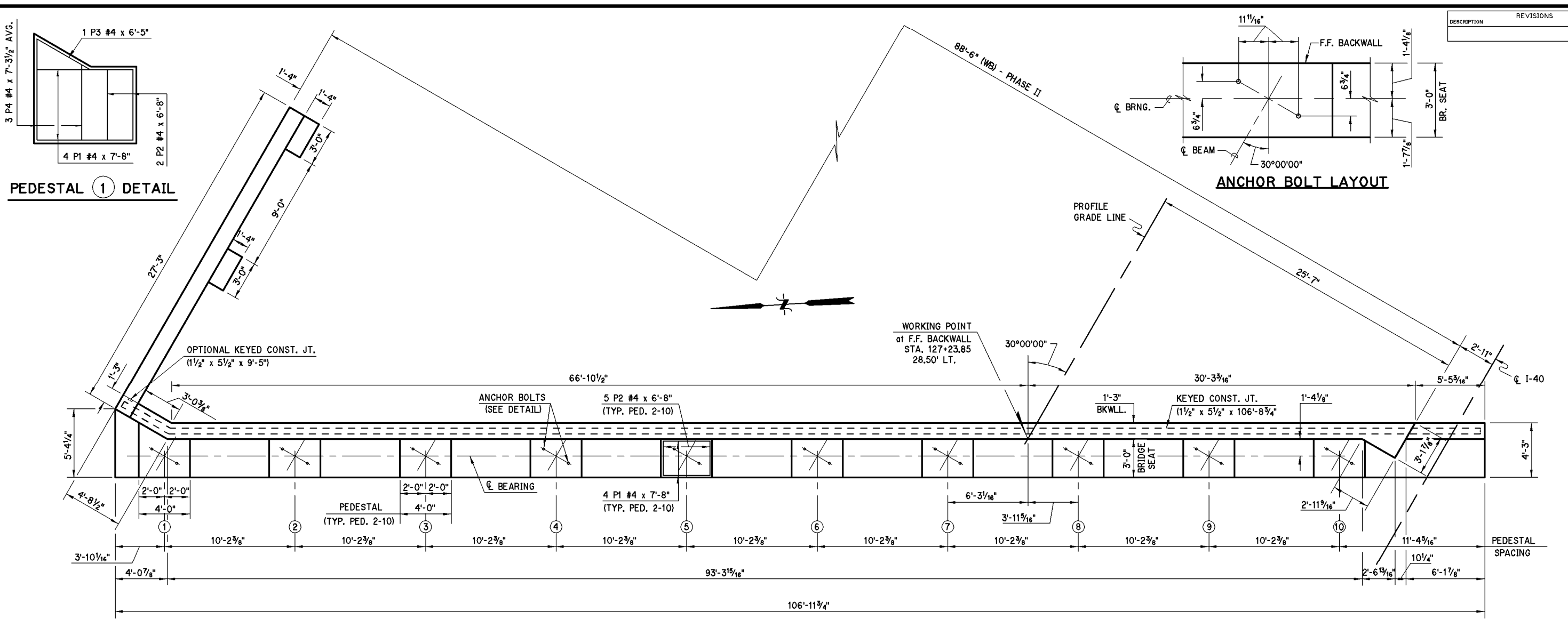
DESCRIPTION	REVISIONS	DATE



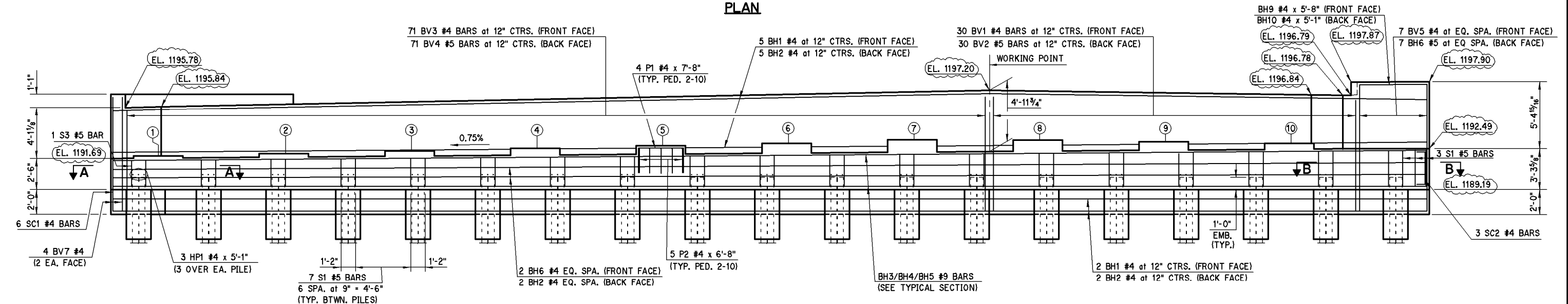
PEDESTAL 1 DETAIL



ANCHOR BOLT LAYOUT

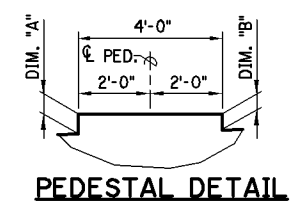


PLAN



ELEVATION

PEDESTAL ELEVATION SCHEDULE										
PEDESTAL	1	2	3	4	5	6	7	8	9	10
ELEVATION	1191.89	1192.09	1192.29	1192.50	1192.70	1192.91	1193.11	1193.16	1193.02	1192.88
DIM. "A"	2 3/16"	3 1/16"	5/4"	6 3/4"	8 1/4"	9 13/16"	11 7/16"	11 1/16"	8 7/16"	5 7/8"
DIM. "B"	2"	3 3/8"	4 7/8"	6 3/8"	7 15/16"	9 1/2"	11 1/16"	10 1/16"	8 1/16"	5 1/2"

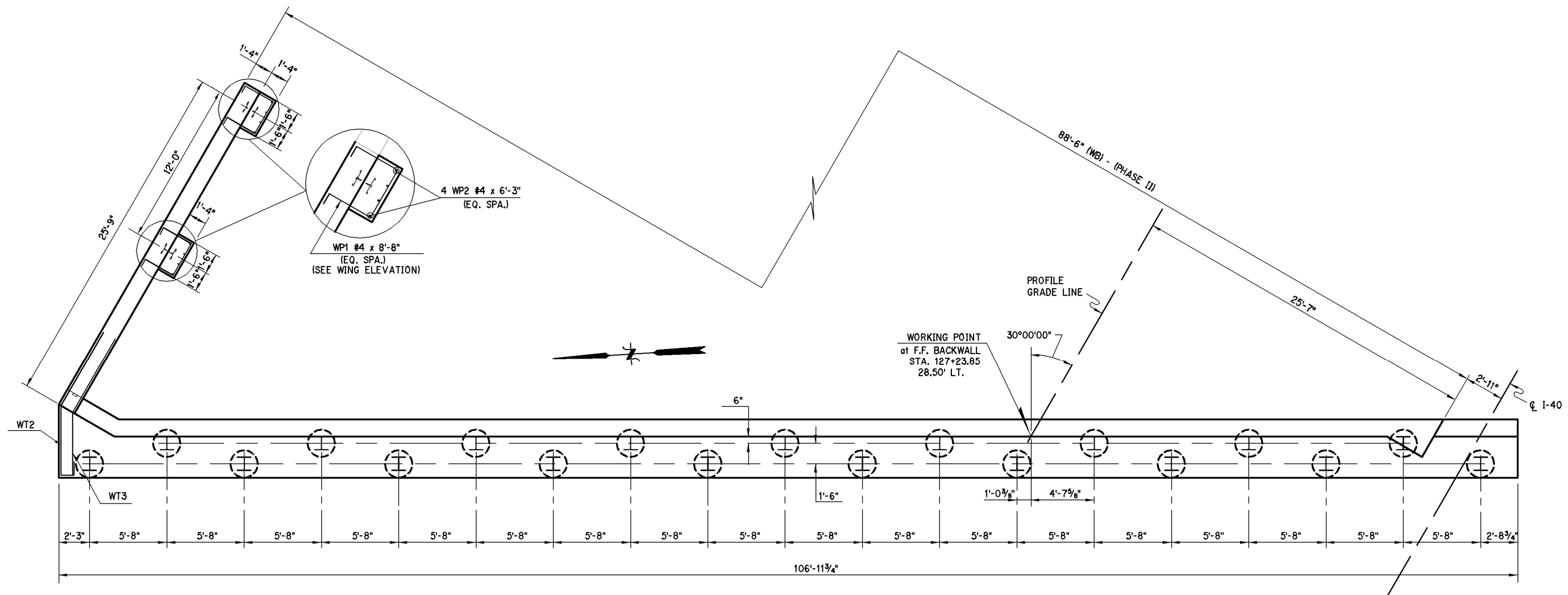


PEDESTAL DETAIL

NOTE: FOR SECTION A-A AND B-B, SEE SHEET NO. B025.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		ABUTMENT NO. 2 DETAILS	W.B. I-40 OVER CRUTCHO CREEK
Checked		PHASE II	
Approved		(SHEET 1 OF 3)	
Squad	POE	State Job No. 23310(04)	Sheet No. B024

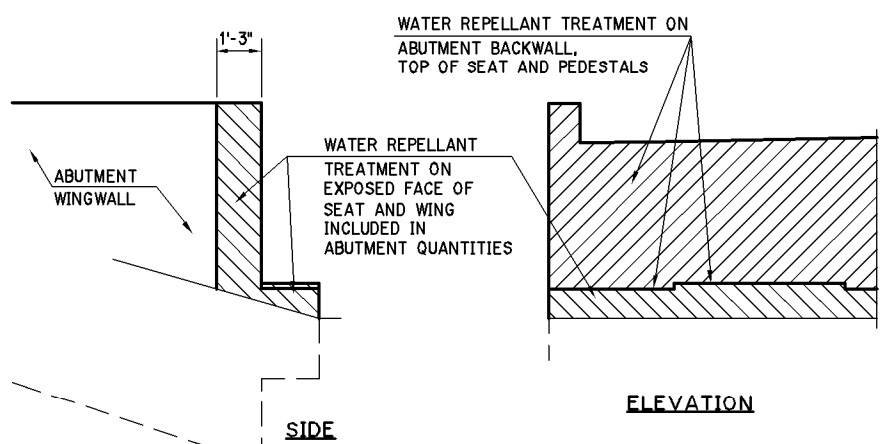
DESCRIPTION	REVISIONS	DATE



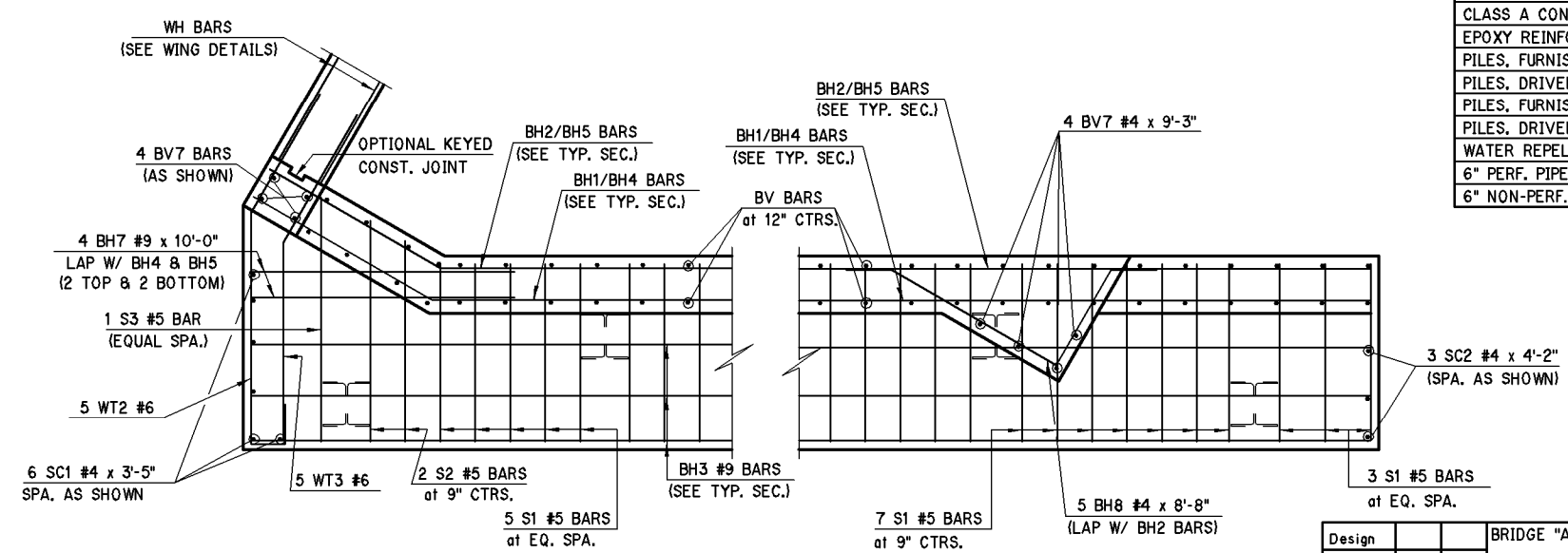
PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILES ARE HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:12)

QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	200
CLSM BACKFILL	C.Y.	324.4
CLASS A CONCRETE	C.Y.	100.8
EPOXY REINFORCING STEEL	LB.	12,110
PILES, FURNISHED (HP 10 x 42)	L.F.	112
PILES, FURNISHED (HP 12 x 53)	L.F.	998
PILES, DRIVEN (HP 10 x 42)	L.F.	112
PILES, DRIVEN (HP 12 x 53)	L.F.	998
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	134
6" PERF. PIPE UNDERDRAIN RND.	L.F.	105
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20



WATER REPELLANT TREATMENT DETAILS

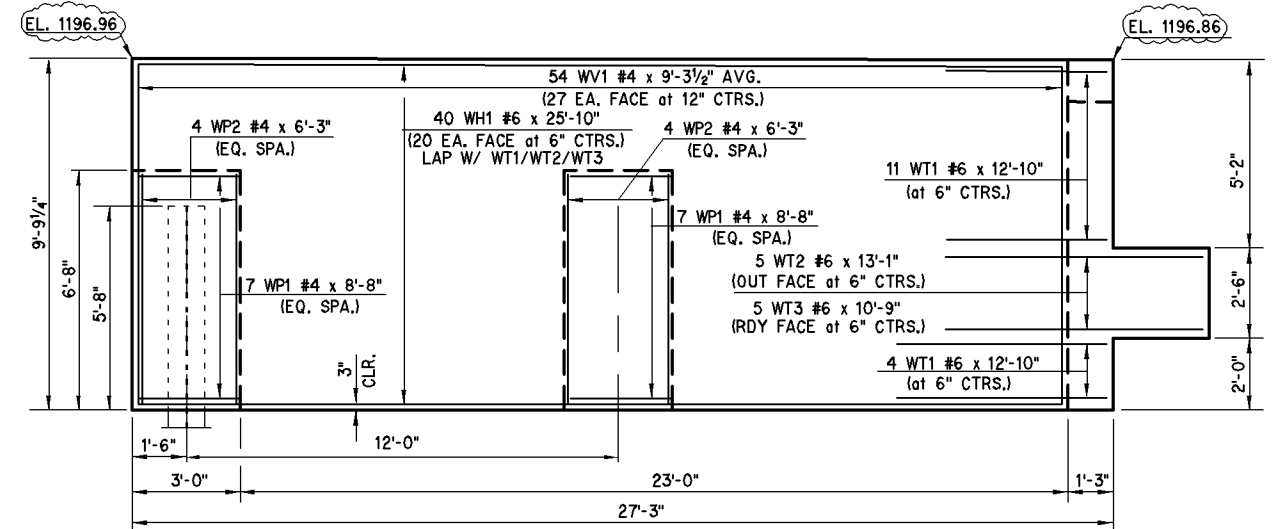


SECTION A-A

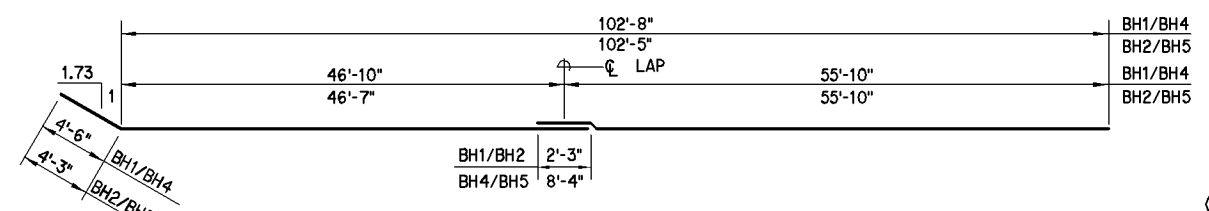
SECTION B-B

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B025

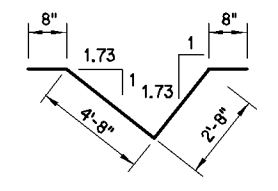
DESCRIPTION	REVISIONS	DATE



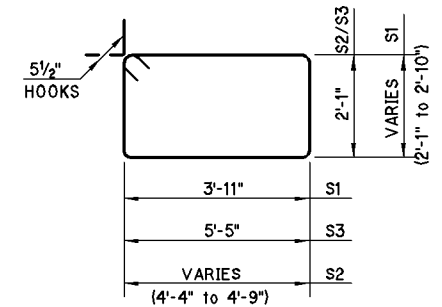
NORTH WING - ELEVATION



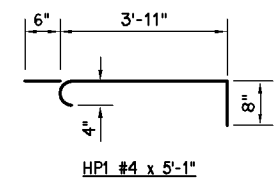
BH1 #4 x 109'-5"
 BH2 #4 x 108'-11"
 BH4 #9 x 115'-6"
 BH5 #9 x 115'-0"



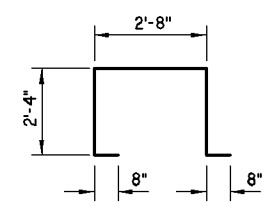
BH8 #4 x 8'-8"



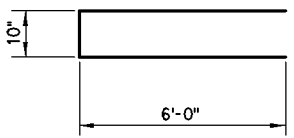
S1 #5 x 13'-8" AVG. (12'-11" to 14'-5")
 S2 #5 x 14'-2" AVG. (13'-9" to 14'-7")
 S3 #5 x 15'-11"



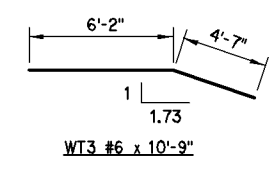
HP1 #4 x 5'-1"



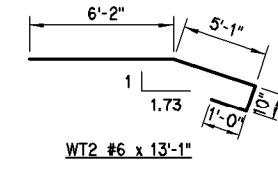
WP1 #4 x 8'-8"



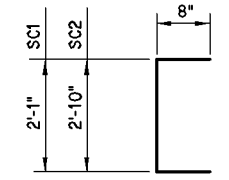
WT1 #6 x 12'-10"



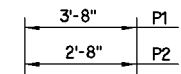
WT3 #6 x 10'-9"



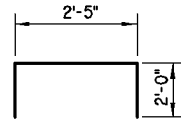
WT2 #6 x 13'-1"



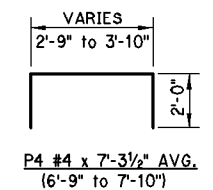
SC1 #4 x 3'-5"
 SC2 #4 x 4'-2"



P1 #4 x 7'-8"
 P2 #4 x 6'-8"

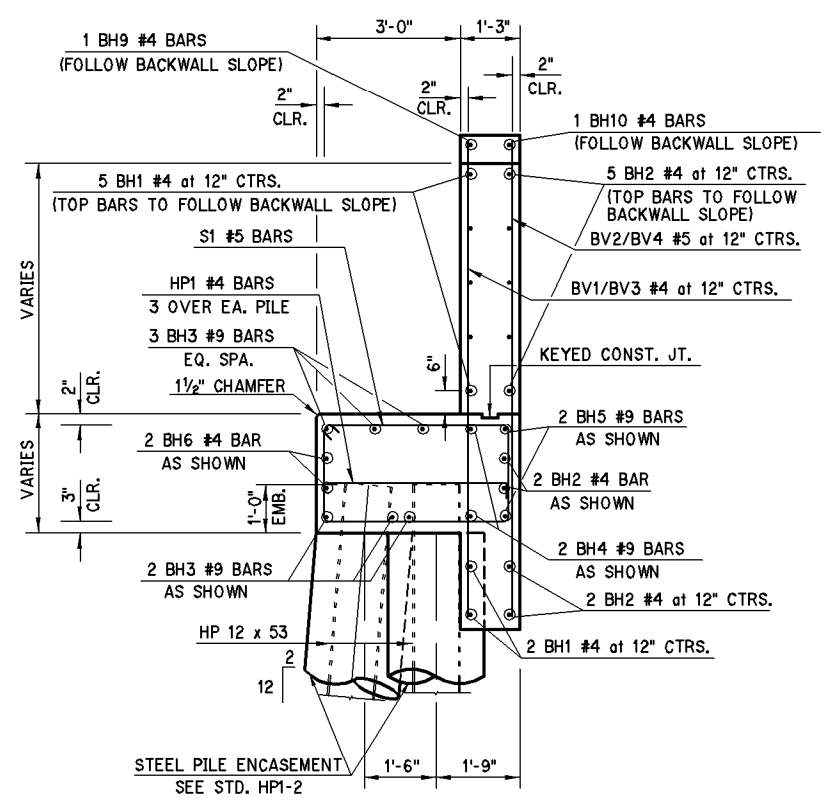


P3 #4 x 6'-5"

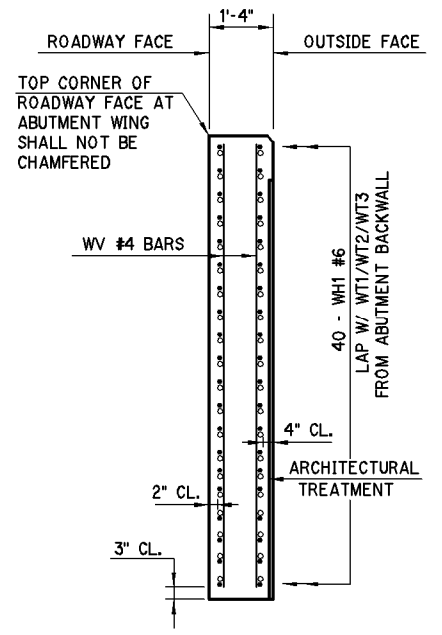


P4 #4 x 7'-3 1/2" AVG. (6'-9" to 7'-10")

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



TYPICAL SECTION THRU BR. SEAT



SECTION THRU NORTH WING AT BACK FACE OF ABUTMENT SEAT

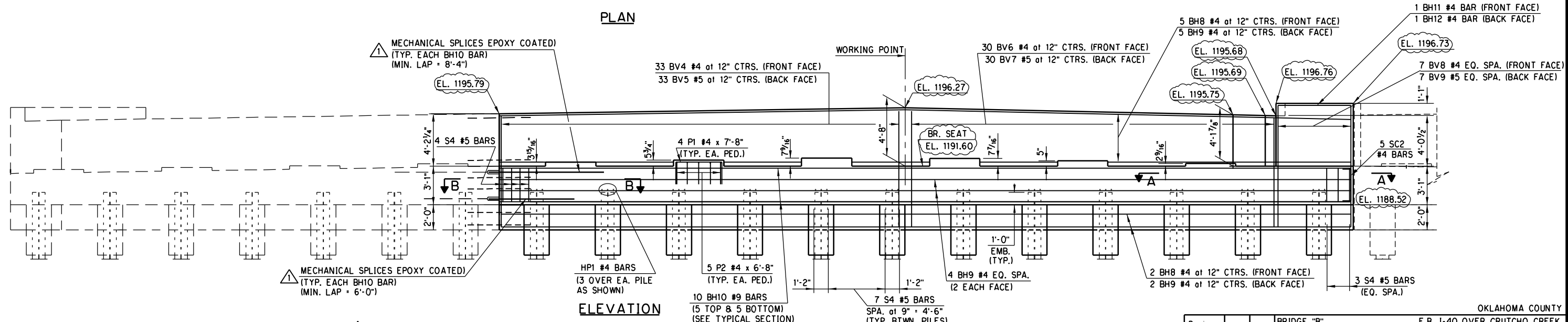
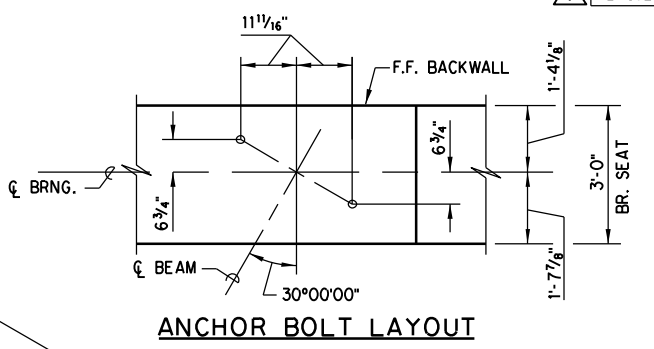
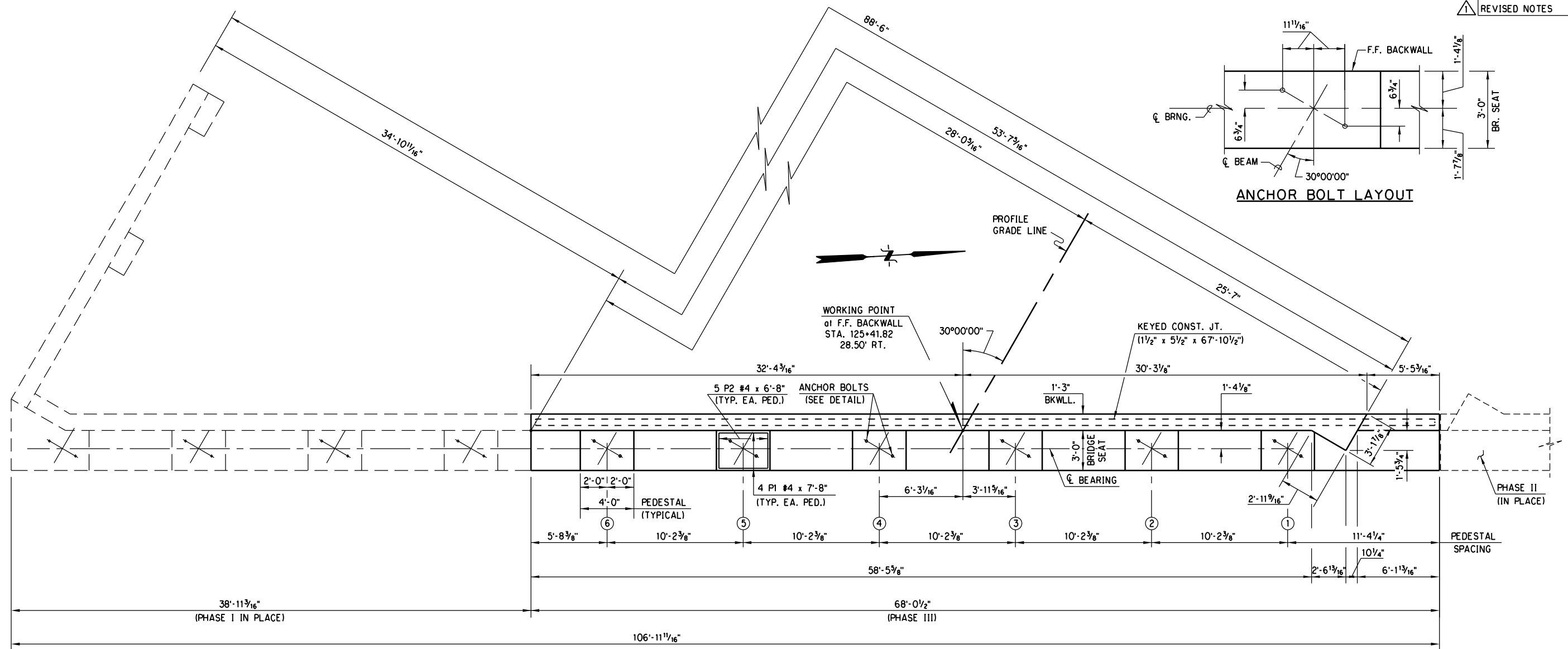
BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
②	BH1	7	#4	BNT.	AS SHOWN 109'-5"
②	BH2	9	#4	BNT.	AS SHOWN 108'-11"
②	BH3	6	#9	STR.	AS SHOWN 114'-11"
②	BH4	2	#9	BNT.	AS SHOWN 115'-6"
②	BH5	2	#9	BNT.	AS SHOWN 115'-0"
②	BH6	2	#4	STR.	AS SHOWN 108'-10"
②	BH7	4	#9	STR.	AS SHOWN 10'-0"
②	BH8	5	#4	STR.	AS SHOWN 8'-8"
②	BH9	1	#4	STR.	AS SHOWN 5'-8"
②	BH10	1	#4	STR.	AS SHOWN 5'-1"
①	BV1	30	#4	STR.	12" C/C 9'-4 1/2" AVG.
①	BV2	30	#5	STR.	12" C/C 9'-4 1/2" AVG.
①	BV3	71	#4	STR.	12" C/C 8'-10 1/2" AVG.
①	BV4	71	#5	STR.	12" C/C 8'-10 1/2" AVG.
①	BV5	7	#4	STR.	12" C/C 10'-3"
①	BV6	7	#5	STR.	12" C/C 10'-3"
①	BV7	8	#4	STR.	AS SHOWN 9'-3"
①	HP1	57	#4	STR.	AS SHOWN 5'-1"
①	P1	40	#4	BNT.	EQ. SPA. 7'-8"
①	P2	47	#4	BNT.	EQ. SPA. 6'-8"
①	P3	1	#4	BNT.	EQ. SPA. 6'-5"
①	P4	3	#4	BNT.	EQ. SPA. 7'-3 1/2" AVG.
①	S1	127	#5	BNT.	12" C/C 13'-8" AVG.
①	S2	2	#5	BNT.	EQ. SPA. 14'-2" AVG.
①	S3	1	#5	BNT.	EQ. SPA. 15'-11"
①	SC1	6	#4	BNT.	AS SHOWN 3'-5"
①	SC2	3	#4	BNT.	AS SHOWN 4'-2"
①	WH1	40	#6	STR.	6" C/C 25'-10"
①	WP1	14	#4	BNT.	EQ. SPA. 8'-8"
①	WP2	8	#4	STR.	EQ. SPA. 6'-3"
①	WT1	15	#6	BNT.	6" C/C 12'-10"
①	WT2	5	#6	BNT.	6" C/C 13'-1"
①	WT3	5	#6	BNT.	6" C/C 10'-9"
①	WV1	54	#4	STR.	12" C/C 9'-3 1/2" AVG.

① LENGTH VARIES:
 BV1/BV2 - (9'-2" to 9'-7")
 BV3/BV4 - (8'-2" to 9'-7")
 P4 - (6'-9" to 7'-10")
 S1 - (12'-11" to 14'-5")
 S2 - (13'-9" to 14'-7")
 WV1 - (9'-3" to 9'-4")

② LENGTH INCLUDES LAP:
 BH1 - 1 at 2'-3"
 BH2 - 1 at 2'-3"
 BH3 - 1 at 8'-4"
 BH4 - 1 at 8'-4"
 BH5 - 1 at 8'-4"
 BH6 - 1 at 2'-3"

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 3 OF 3)	
		State Job No. 23310(04)	Sheet No. B026

DESCRIPTION	REVISIONS	DATE
REVISED NOTES		3/09/20

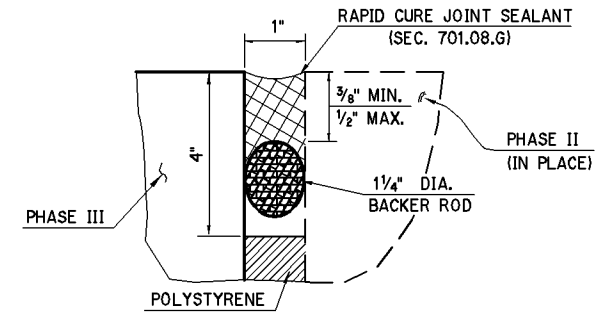
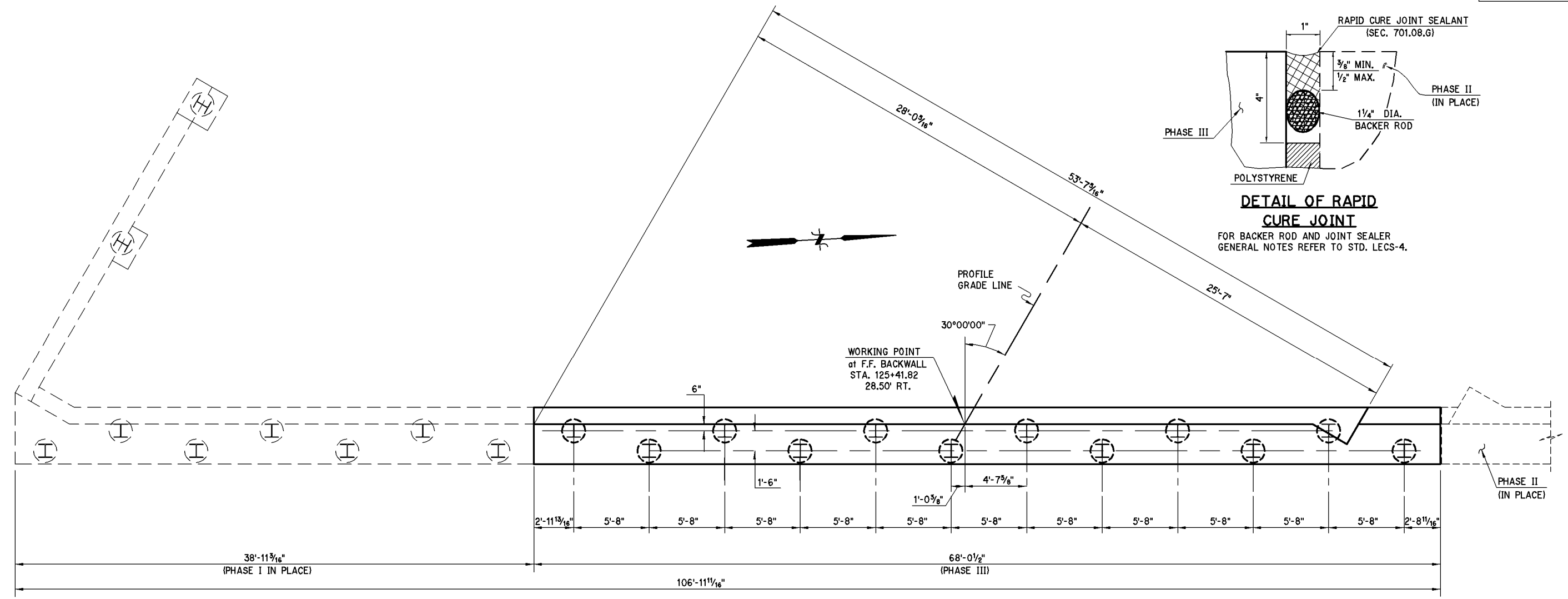


NOTE: ALL COST OF MECHANICAL SPLICES TO BE INCLUDED IN COST OF MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

NOTE: FOR SECTION A-A AND B-B. SEE SHEET NO. B028.

Design		BRIDGE "B"	E.B. I-40 OVER CRUTCHO CREEK
Drawn		ABUTMENT NO. 1 DETAILS	
Checked		PHASE III	
Approved		(SHEET 1 OF 3)	
Squad	POE	State Job No. 23310(04)	Sheet No. B027

DESCRIPTION	REVISIONS	DATE

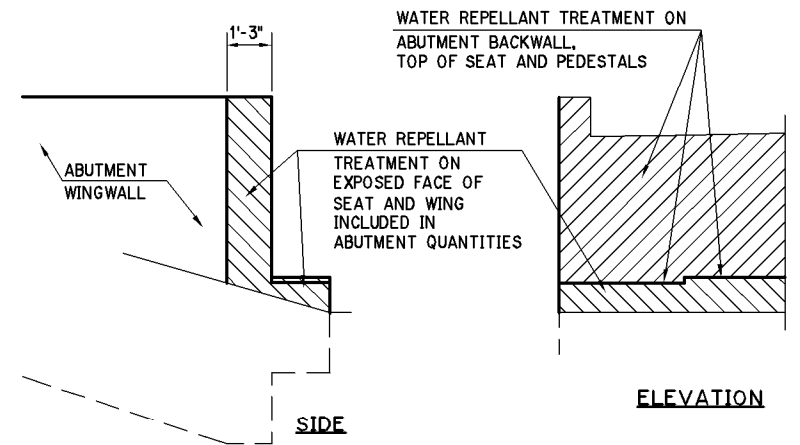


DETAIL OF RAPID CURE JOINT
FOR BACKER ROD AND JOINT SEALER
GENERAL NOTES REFER TO STD. LECS-4.

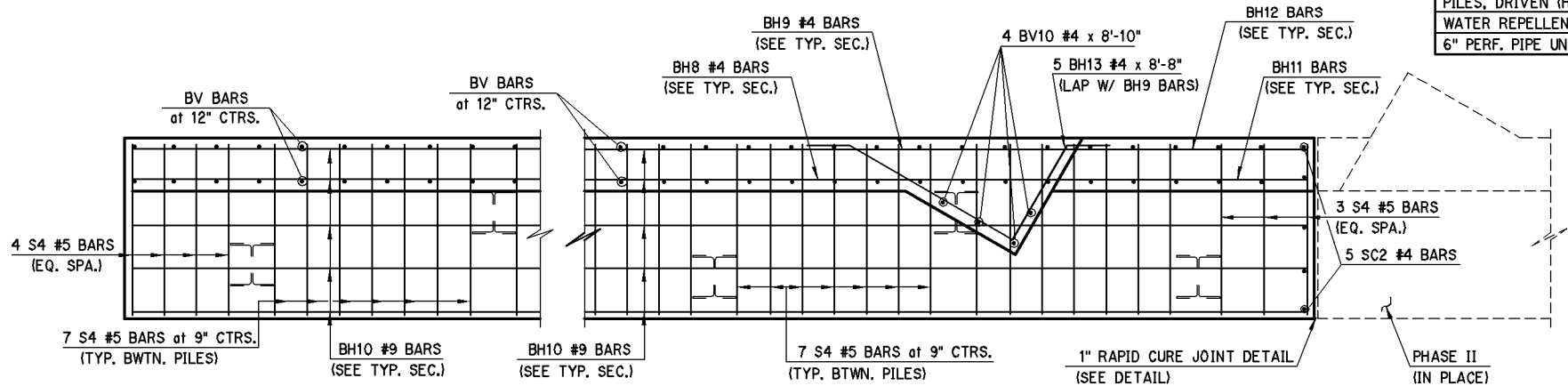
PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILE IS HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:12)

QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	100
CLSM BACKFILL	C.Y.	175.6
CLASS A CONCRETE	C.Y.	55
EPOXY REINFORCING STEEL	LB.	6,220
PILES, FURNISHED (HP 12 x 53)	L.F.	654
PILES, DRIVEN (HP 12 x 53)	L.F.	654
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	79
6" PERF. PIPE UNDERDRAIN RND.	L.F.	67



WATER REPELLANT TREATMENT DETAILS

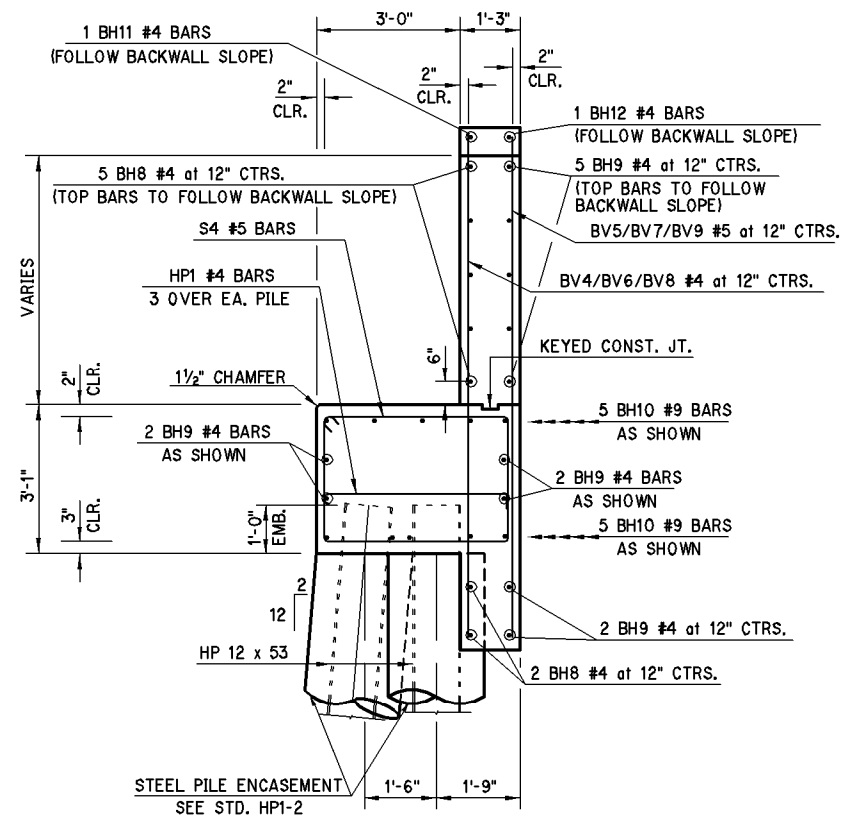


SECTION B-B

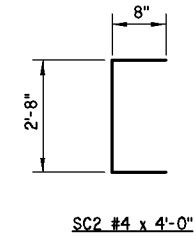
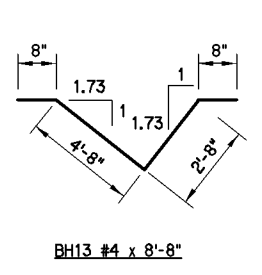
SECTION A-A

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B028

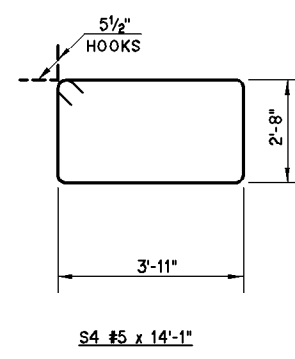
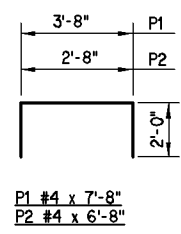
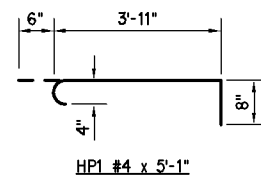
DESCRIPTION	REVISIONS	DATE



TYPICAL SECTION THRU BR. SEAT

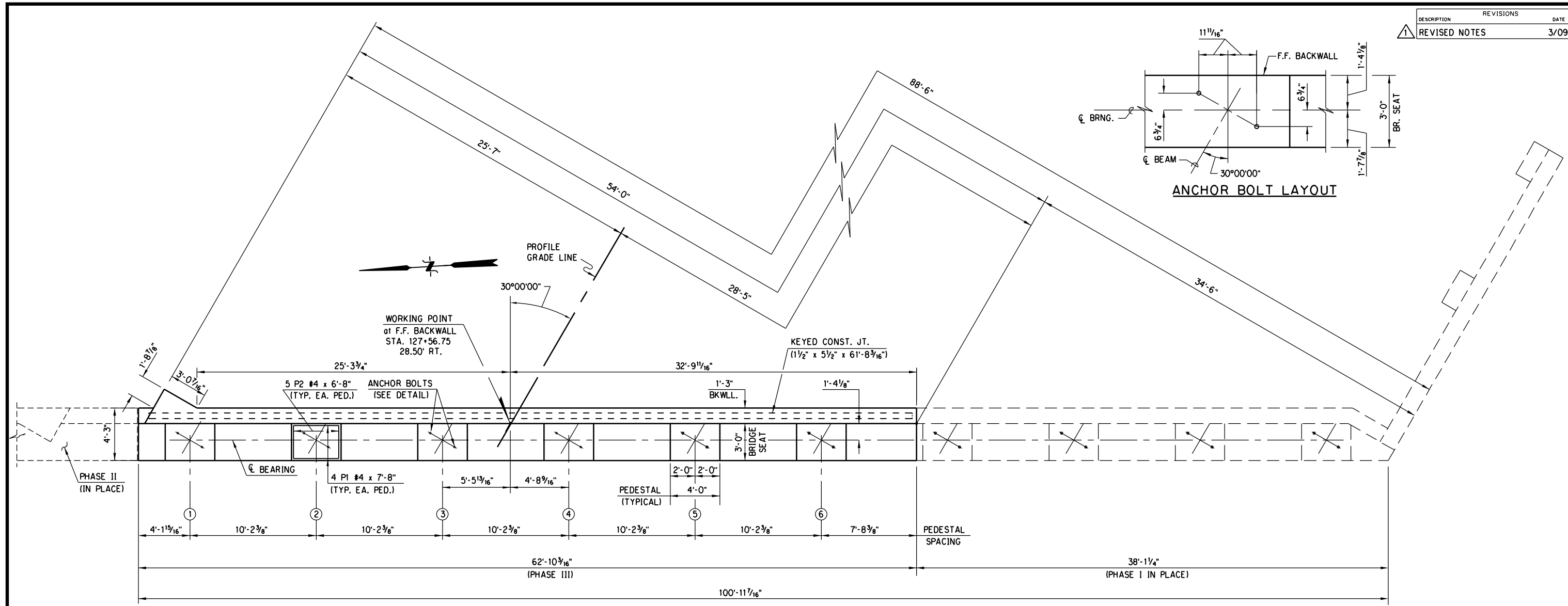


NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

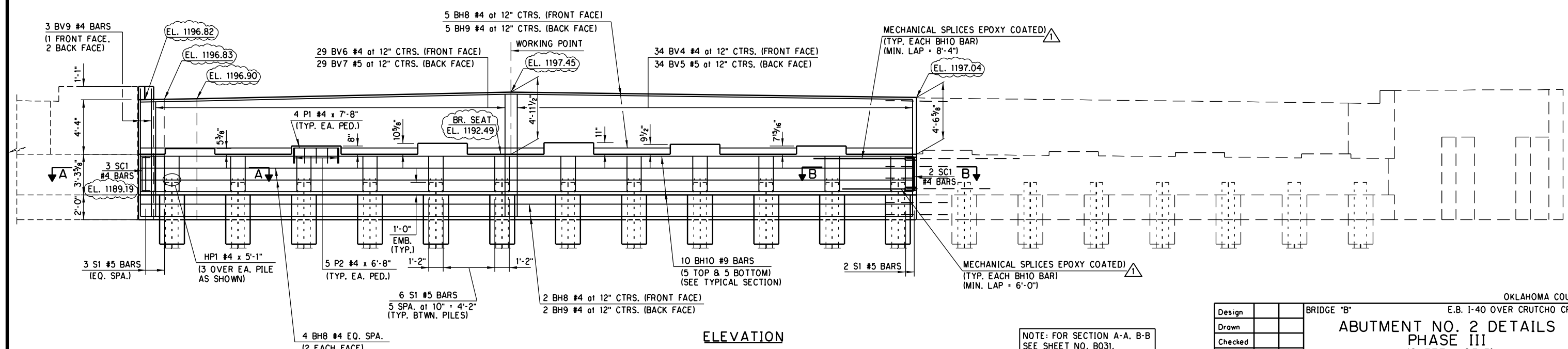


BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
②	BH8	7 #4	STR.	AS SHOWN	70'-1"
②	BH9	11 #4	STR.	AS SHOWN	70'-1"
②	BH10	10 #9	STR.	AS SHOWN	76'-2"
	BH11	1 #4	STR.	EQ. SPA.	5'-8"
	BH12	1 #4	STR.	EQ. SPA.	5'-2"
	BH13	5 #4	BNT.	AS SHOWN	8'-8"
①	BV4	33 #4	STR.	12" C/C	9'-2" AVG.
①	BV5	33 #5	STR.	12" C/C	9'-2" AVG.
①	BV6	30 #4	STR.	12" C/C	9'-1" AVG.
①	BV7	30 #5	STR.	12" C/C	9'-1" AVG.
	BV8	7 #4	STR.	AS SHOWN	9'-10"
	BV9	7 #5	STR.	AS SHOWN	9'-10"
	BV10	4 #4	STR.	AS SHOWN	8'-10"
	HP1	36 #4	BNT.	AS SHOWN	5'-1"
	P1	24 #4	BNT.	EQ. SPA.	7'-8"
	P2	30 #4	BNT.	EQ. SPA.	6'-8"
	S4	84 #5	BNT.	9" C/C	14'-1"
	SC2	5 #4	BNT.	AS SHOWN	4'-0"

- ① LENGTH VARIES:
BV4/BV5 - (8'-11" to 9'-5")
BV6/BV7 - (8'-9" to 9'-5")
- ② LENGTH INCLUDES LAP
BH8 - 1 at 2'-3"
BH9 - 1 at 2'-3"
BH10 - 1 at 8'-4"



PLAN



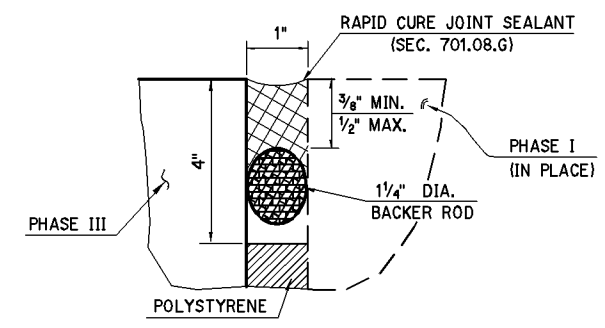
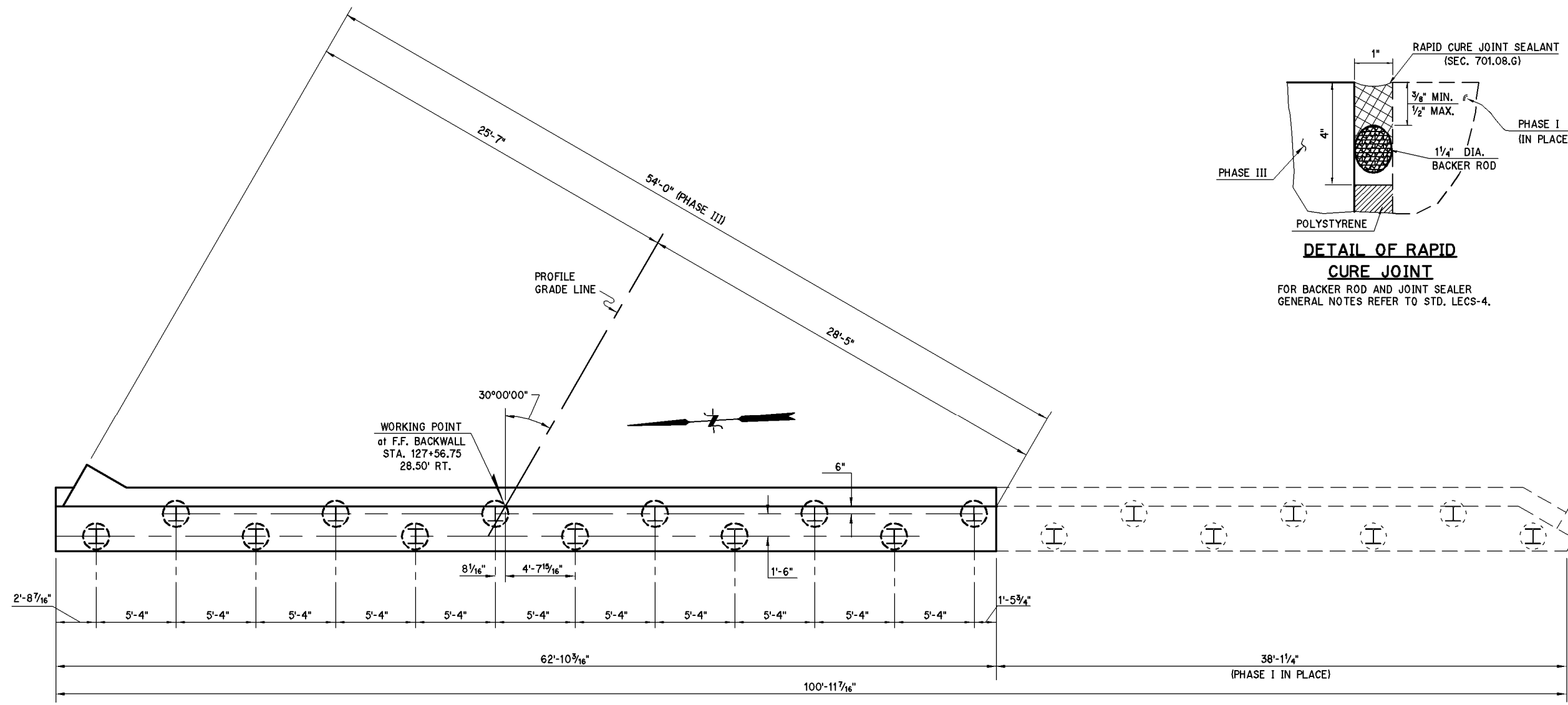
ELEVATION

NOTE: FOR SECTION A-A, B-B SEE SHEET NO. B031.

NOTE: ALL COST OF MECHANICAL SPLICES TO BE INCLUDED IN COST OF MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. 1-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 1 OF 3)	
		State Job No. 23310104	Sheet No. B030

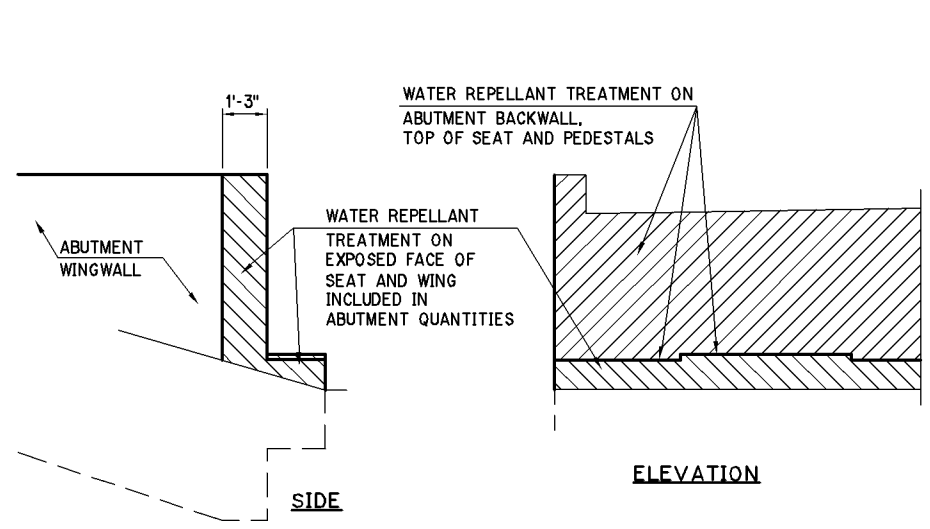
DESCRIPTION	REVISIONS	DATE



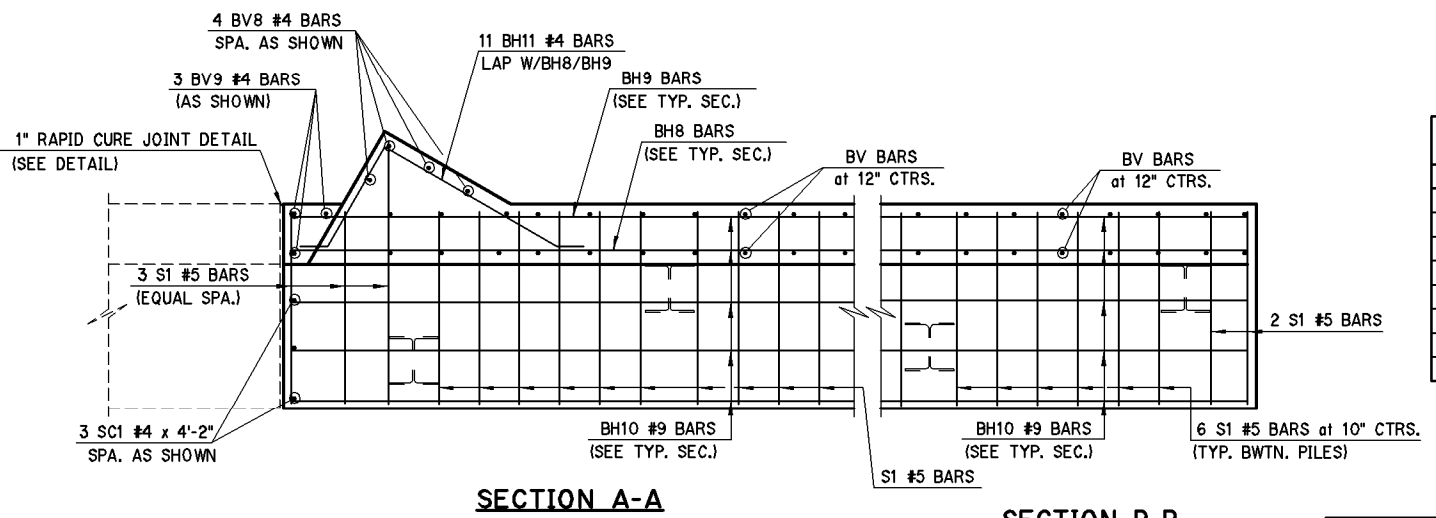
DETAIL OF RAPID CURE JOINT
FOR BACKER ROD AND JOINT SEALER
GENERAL NOTES REFER TO STD. LECS-4.

PILE SPACING DIAGRAM

NOTE: BR. SEAT PILES ARE HP 12 x 53, WING PILE IS HP 10 x 42
(BATTER FRONT ROW IN BR. SEAT 2:12)



WATER REPELLANT TREATMENT DETAILS



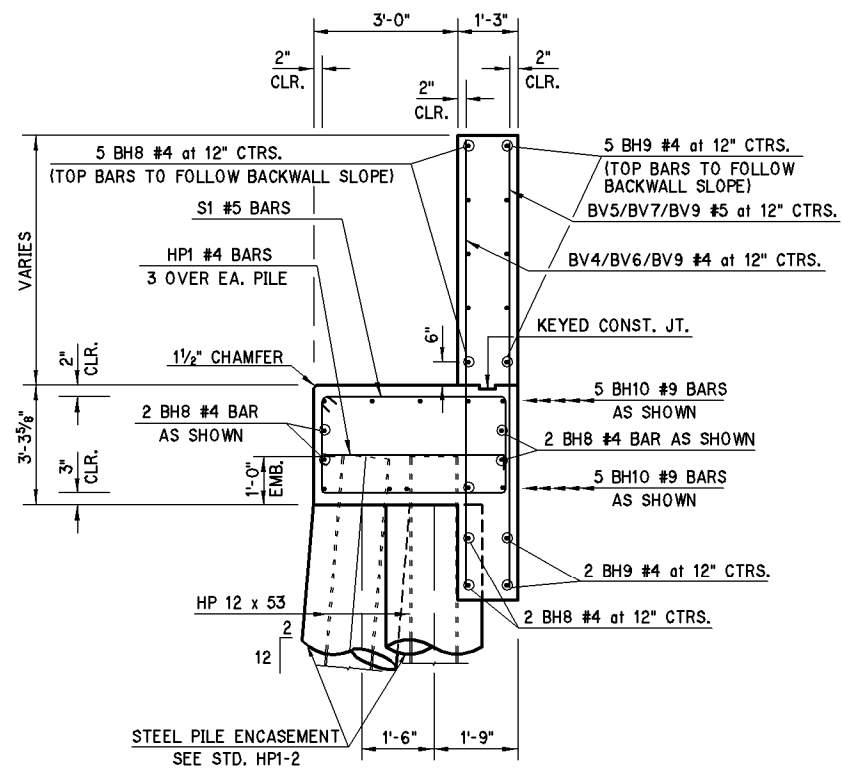
SECTION A-A

SECTION B-B

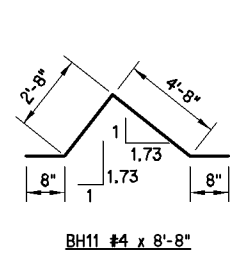
QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	95
CLSM BACKFILL	C.Y.	216.6
CLASS A CONCRETE	C.Y.	55.1
EPOXY REINFORCING STEEL	LB.	5,810
PILES, FURNISHED (HP 12 x 53)	L.F.	630
PILES, DRIVEN (HP 12 x 53)	L.F.	630
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	76
6" PERF. PIPE UNDERDRAIN RND.	L.F.	63

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B031

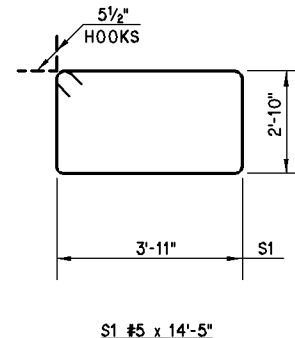
DESCRIPTION	REVISIONS	DATE



TYPICAL SECTION THRU BR. SEAT

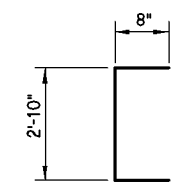


BH11 #4 x 8'-8"

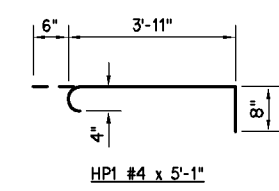


S1 #5 x 14'-5"

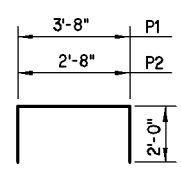
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



SC1 #4 x 4'-2"



HP1 #4 x 5'-1"



P1 #4 x 7'-8"
P2 #4 x 6'-8"

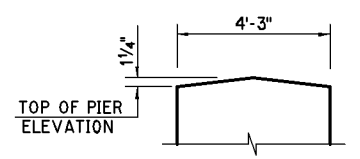
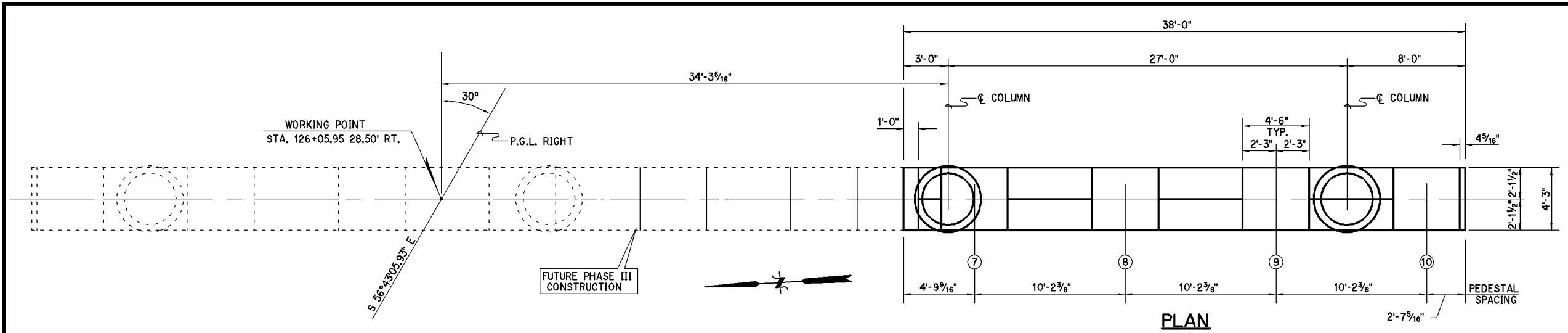
BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
②	BH8	11	#4	STR.	AS SHOWN 64'-11"
②	BH9	7	#4	STR.	AS SHOWN 64'-11"
②	BH10	10	#9	STR.	AS SHOWN 71'-0"
	BH11	11	#4	STR.	AS SHOWN 8'-8"
①	BV4	34	#4	STR.	12" C/C 9'-7 1/2" AVG.
①	BV5	34	#5	STR.	12" C/C 9'-7 1/2" AVG.
①	BV6	29	#4	STR.	12" C/C 9'-6 1/2" AVG.
①	BV7	29	#5	STR.	12" C/C 9'-6 1/2" AVG.
	BV8	4	#4	STR.	AS SHOWN 9'-3"
	BV9	3	#4	STR.	AS SHOWN 10'-3"
	HP1	36	#4	BNT.	AS SHOWN 5'-1"
	P1	24	#4	BNT.	EQ. SPA. 7'-8"
	P2	30	#4	BNT.	EQ. SPA. 6'-8"
	S1	71	#5	BNT.	10" C/C 14'-5"
	SC1	3	#4	STR.	AS SHOWN 4'-2"

① LENGTH VARIES:
BV4/BV5 - (9'-5" to 9'-10")
BV6/BV7 - (9'-3" to 9'-10")

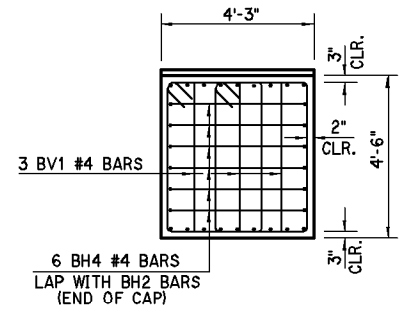
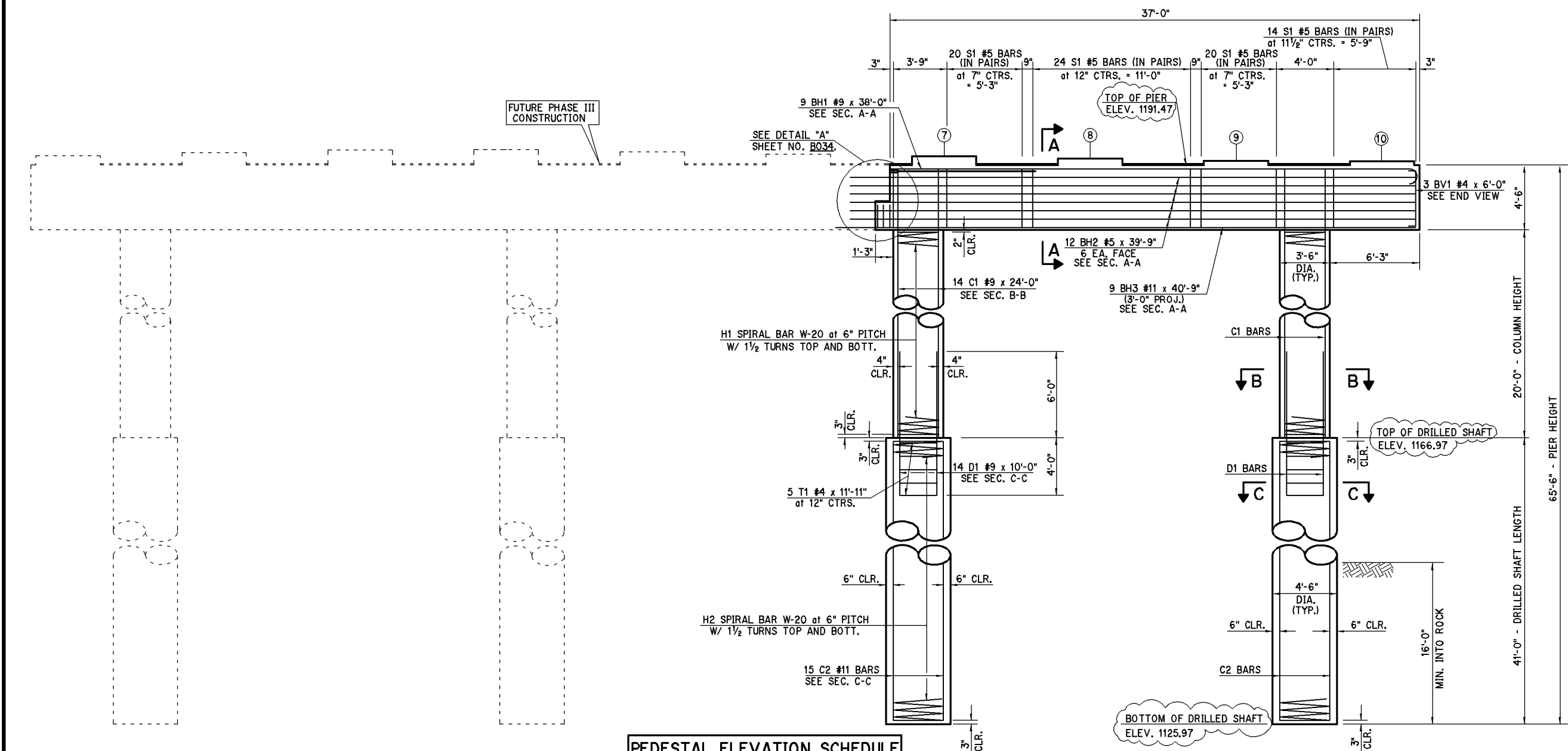
② LENGTH INCLUDES LAP
BH8 - 1 at 2'-3"
BH9 - 1 at 2'-3"
BH10 - 1 at 8'-4"

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 3 OF 3)	
		State Job No. 23310(04)	Sheet No. B032

DESCRIPTION	REVISIONS	DATE



DETAIL OF PIER CAP BETWEEN PEDESTALS



END VIEW

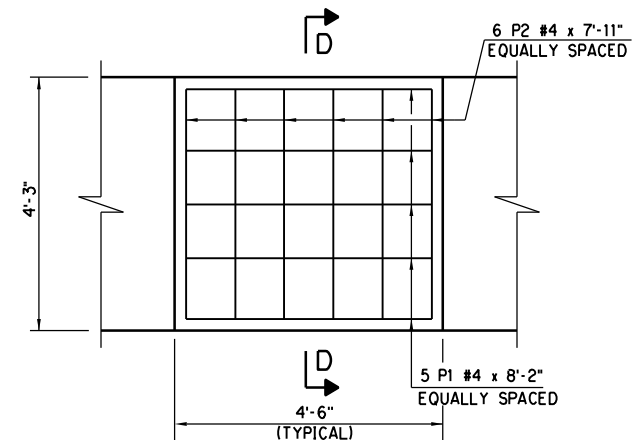
PEDESTAL	⑦	⑧	⑨	⑩
ELEVATION	1192.09	1191.94	1191.79	1191.64
PED. HEIGHT	7 7/16"	5 5/8"	3 13/16"	2"

ELEVATION

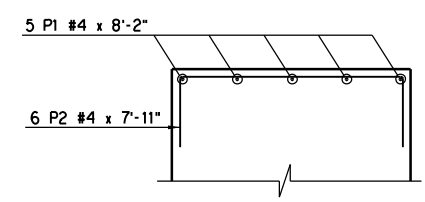
NOTE: FOR SECTION A-A, B-B, AND C-C SEE SHEET NO. B034.

Design	
Drawn	
Checked	
Approved	
Squad	POE

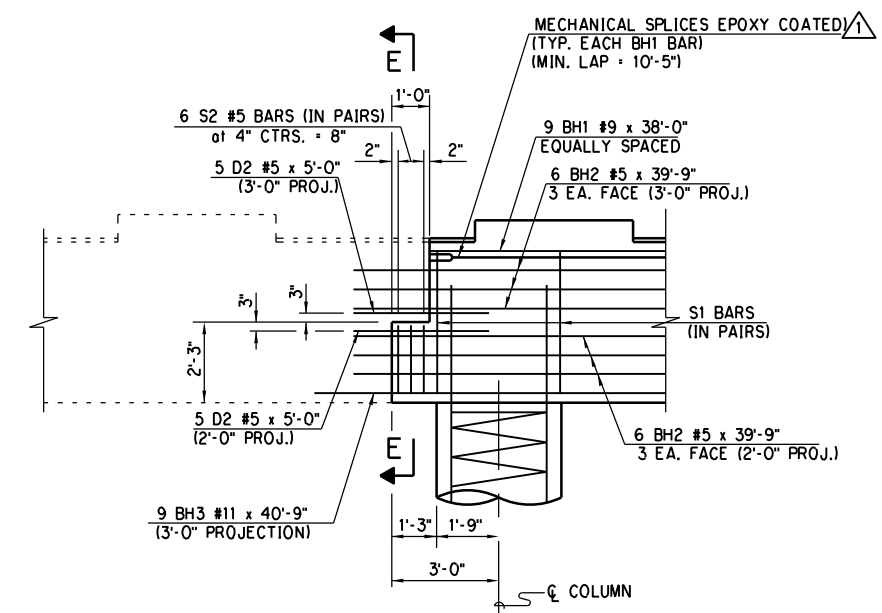
OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
PIER NO. 1 DETAILS
PHASE I
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B033



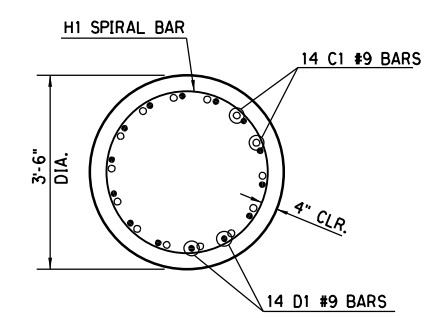
PEDESTAL REINFORCING DETAIL



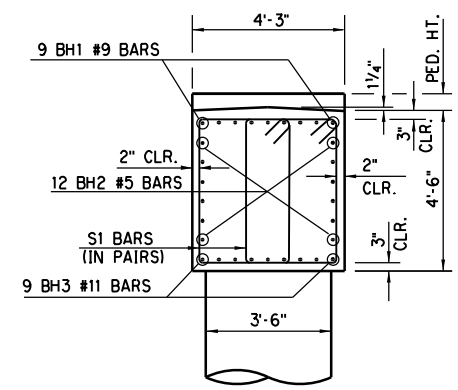
SECTION D-D



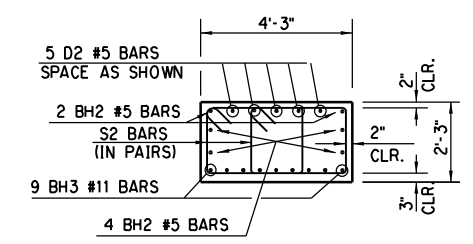
DETAIL "A"



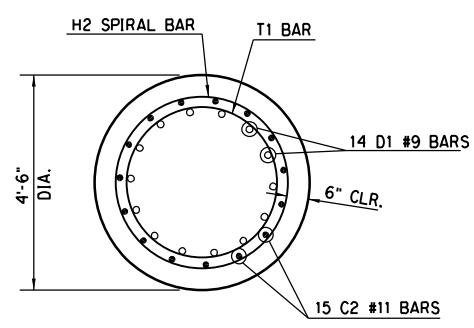
SECTION B-B



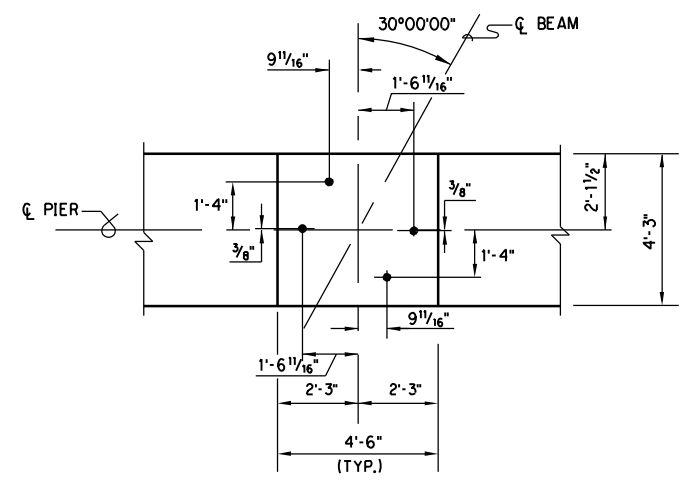
SECTION A-A



SECTION E-E



SECTION C-C



ANCHOR BOLT LAYOUT

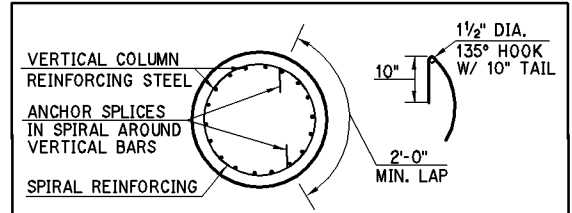
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B070.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	42.2
MECHANICAL SPLICES	E.A.	9
REINFORCING STEEL	LB.	520
EPOXY COATED REINF. STEEL	LB.	7460
DRILLED SHAFTS 54" DIAMETER	L.F.	82
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	65

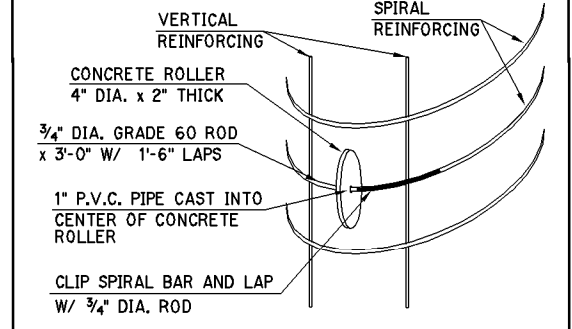
≠ TOP AND SIDES OF PIER CAP AND PEDESTALS.
BOTTOM AND END OF EXTERIOR CANTILEVER.

Design	
Drawn	
Checked	
Approved	
Squad	POE

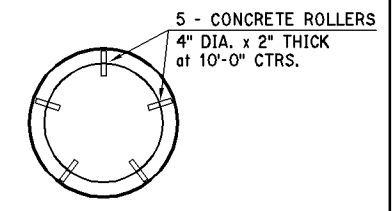
OKLAHOMA COUNTY
BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
PIER NO. 1 DETAILS
PHASE I
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B034



SPIRAL REINFORCING SPLICE DETAIL
 NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

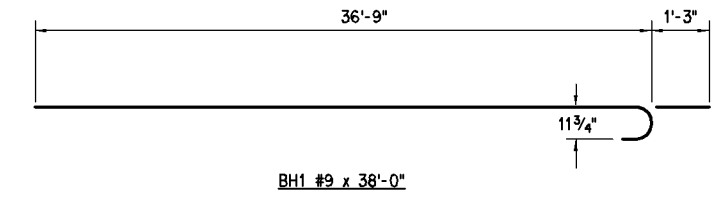


ROLLER INSTALLATION DETAIL

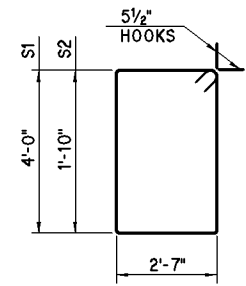


ROLLER PLACEMENT DETAIL

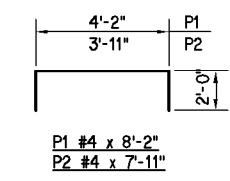
NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



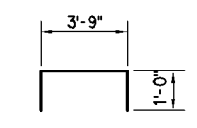
BH1 #9 x 38'-0"



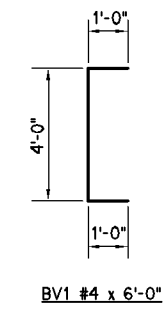
S1 #5 x 14'-1"
S2 #5 x 9'-9"



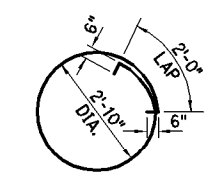
P1 #4 x 8'-2"
P2 #4 x 7'-11"



BH4 #4 x 5'-9"



BV1 #4 x 6'-0"



T1 #4 x 11'-11"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

BAR LIST - ONE PIER

MARK	NO.	SIZE	FORM	SPACING	LENGTH
① BH1	9	#9	BNT.	EQUAL	38'-0"
① BH2	12	#5	STR.	AS SHOWN	39'-9"
① BH3	9	#11	STR.	EQUAL	40'-9"
① BH4	6	#4	BNT.	AS SHOWN	5'-9"
① BV1	3	#4	BNT.	AS SHOWN	6'-0"
① C1	28	#9	STR.	EQUAL	24'-0"
① D2	10	#5	STR.	EQUAL	5'-0"
H1	2	W-20	BNT.	6" PITCH	375'-11" *
① S1	80	#5	BNT.	AS SHOWN	14'-1"
① S2	6	#5	BNT.	4" C/C	9'-9"
① P1	20	#4	BNT.	EQUAL	8'-2"
① P2	24	#4	BNT.	EQUAL	7'-11"

TWO DRILLED SHAFTS

▲ C2	30	#11	STR.	EQUAL	40'-6"
① ▲ D1	28	#9	STR.	EQUAL	10'-0"
▲ T1	10	#4	BNT.	12" C/C	11'-11"
▲ H2	2	W-20	BNT.	6" PITCH	928'-3" *

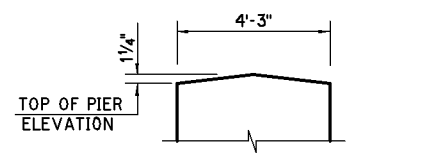
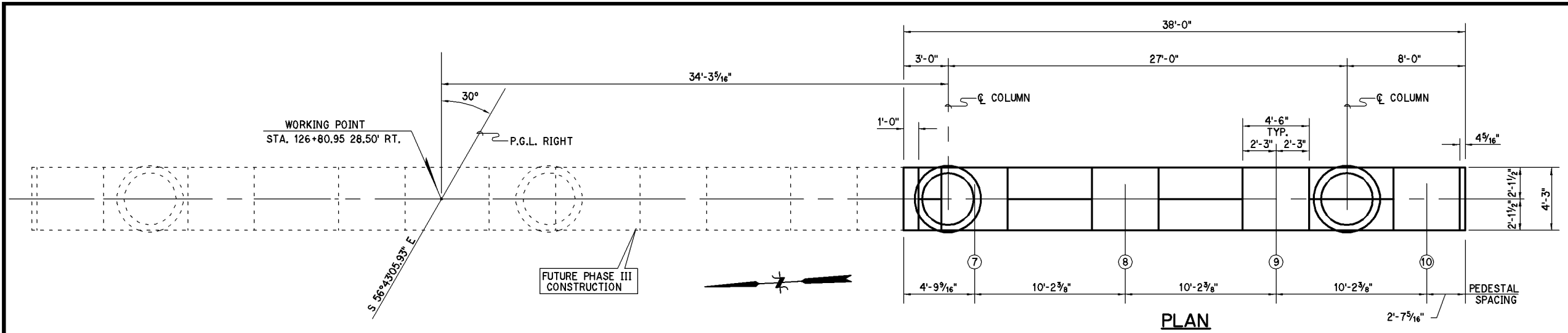
① EPOXY COATED

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

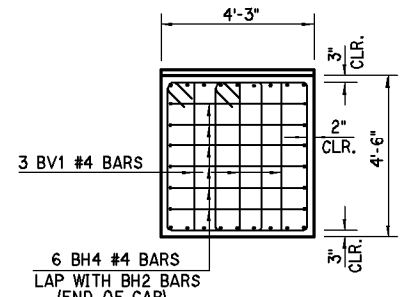
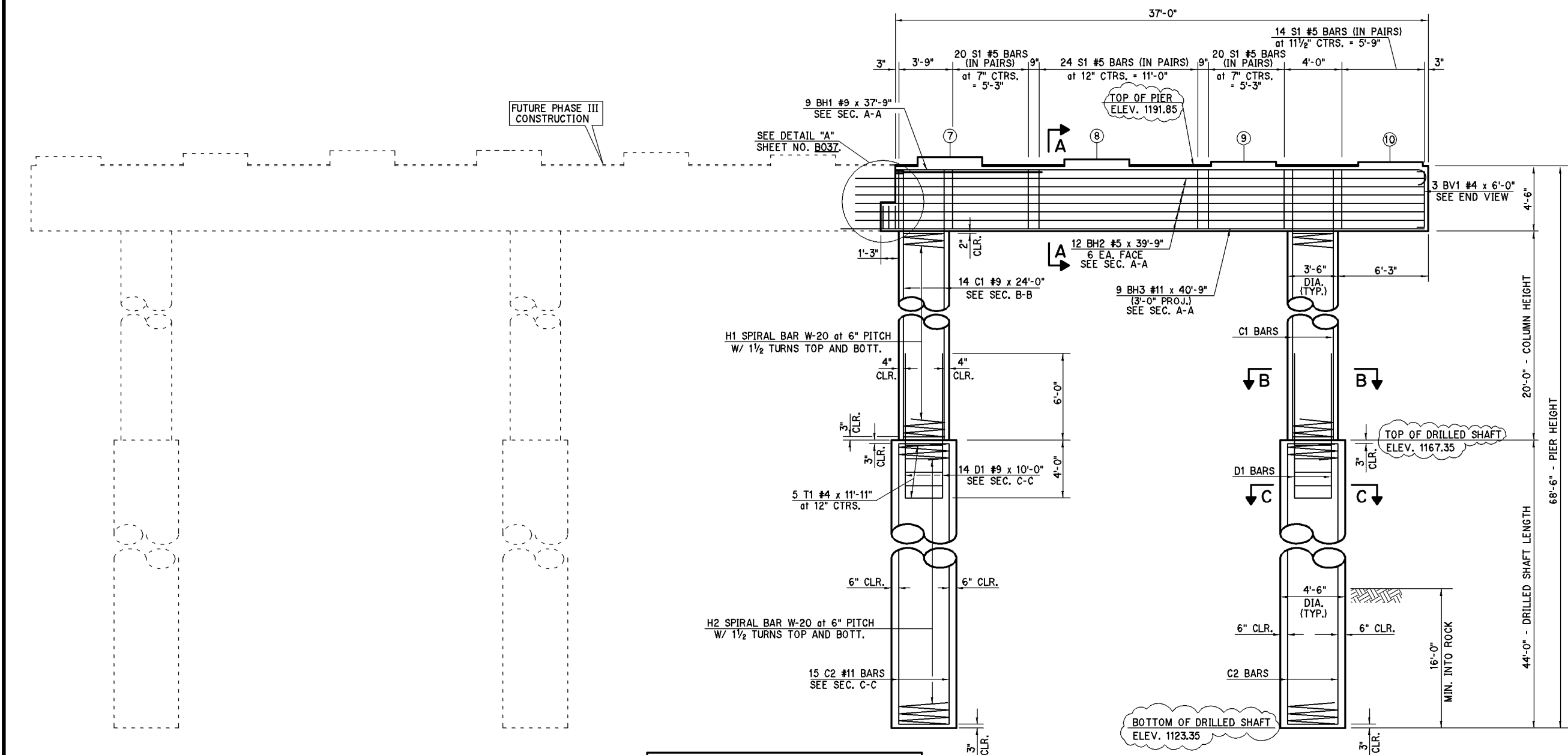
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 1 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B035

DESCRIPTION	REVISIONS	DATE

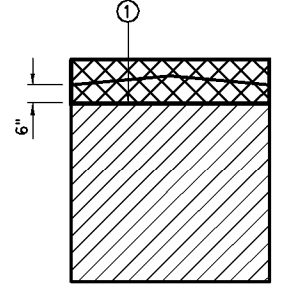


DETAIL OF PIER CAP BETWEEN PEDESTALS



END VIEW

① MASK SIDES AND SOUTH END OF PIER CAP AND ALONG THIS LINE TO PROVIDE A CLEAN STRAIGHT FINISH AT THE TOP AND BOTTOM OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.



ELASTOMERIC COATING (HATCHING AND HEAVY LINE)
 WATER REPELLENT (HATCHING AND MEDIUM LINE)

CONCRETE TREATMENT DETAILS

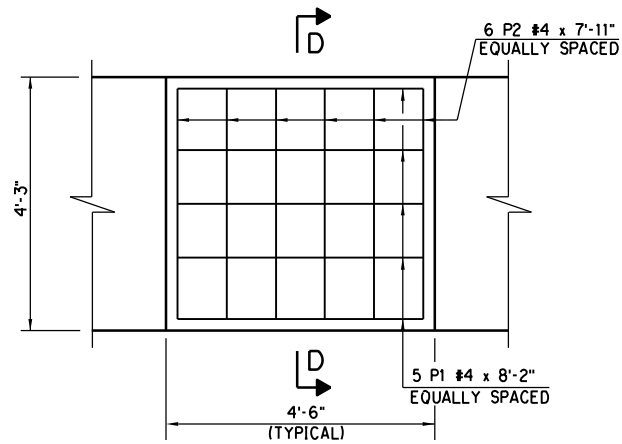
PEDESTAL	⑦	⑧	⑨	⑩
ELEVATION	1192.47	1192.32	1192.17	1192.02
PED. HEIGHT	7 ⁷ / ₁₆ "	5 ⁵ / ₈ "	3 ¹ / ₁₆ "	2"

ELEVATION

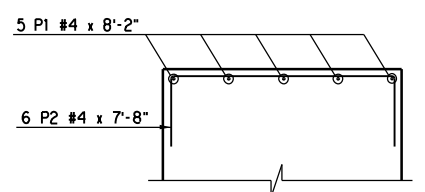
NOTE: FOR SECTION A-A, B-B, AND C-C SEE SHEET NO. B037.

Design	
Drawn	
Checked	
Approved	
Squad	POE

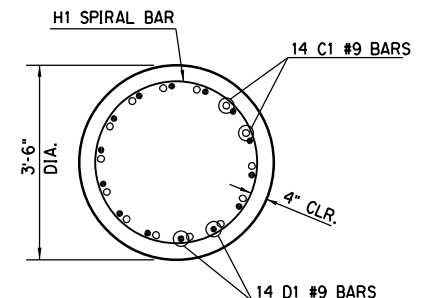
OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
PIER NO. 2 DETAILS
PHASE I
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B036



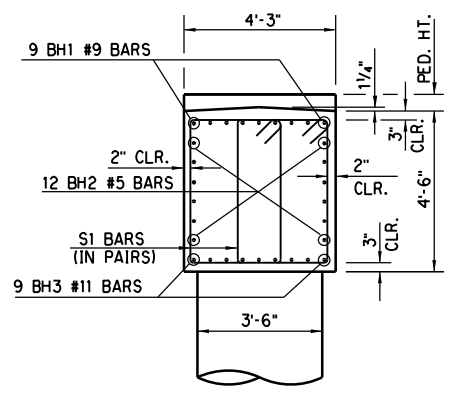
PEDESTAL REINFORCING DETAIL



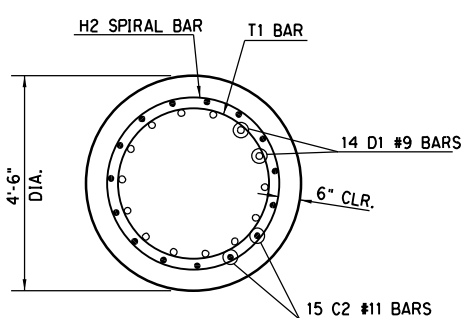
SECTION D-D



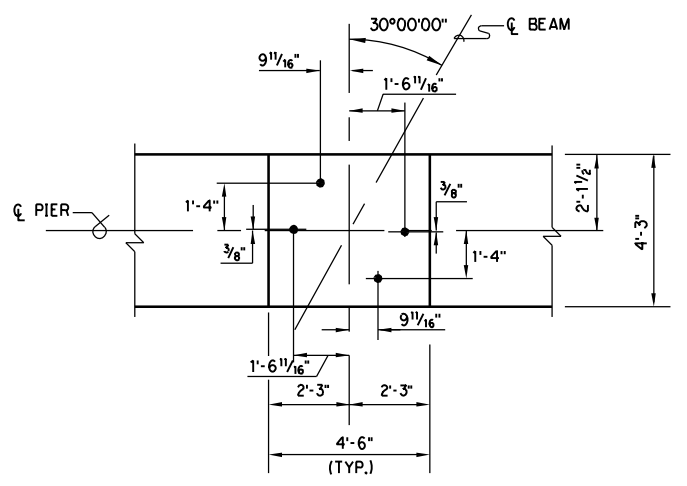
SECTION B-B



SECTION A-A

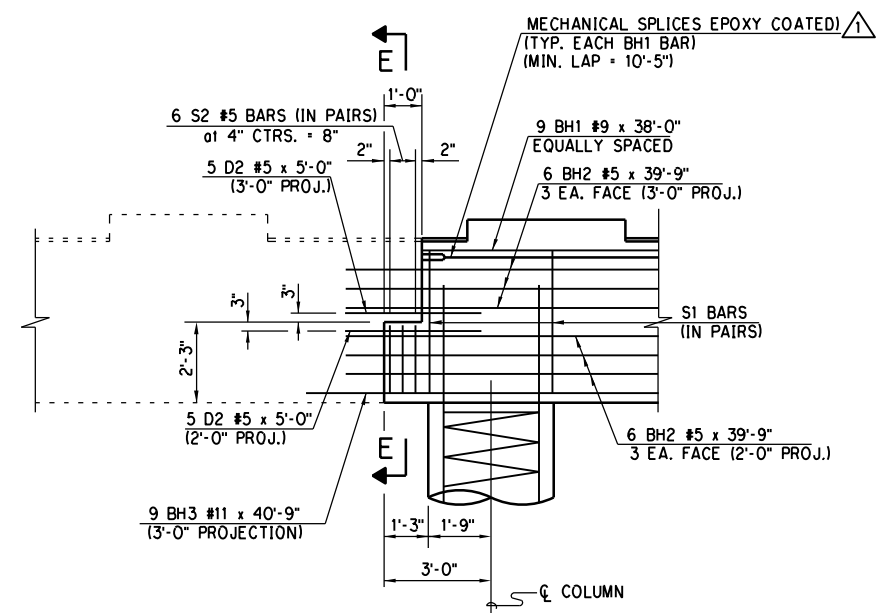


SECTION C-C

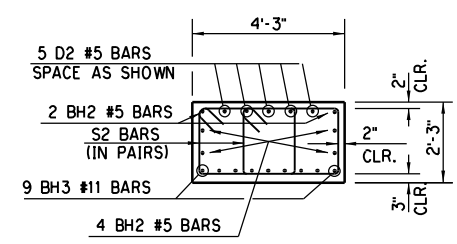


ANCHOR BOLT LAYOUT

NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B07Q.



DETAIL "A"

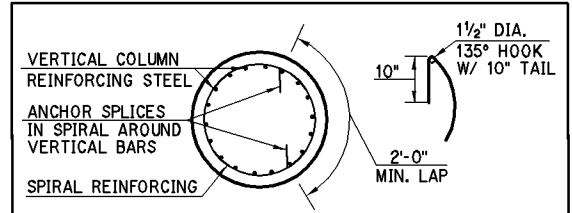


SECTION E-E

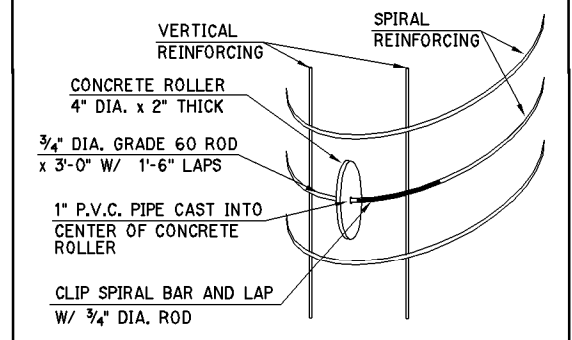
QUANTITIES		
ITEM	UNIT	TOTAL
ELASTOMERIC COATING	S.F.	225
CLASS A CONCRETE	C.Y.	42.2
MECHANICAL SPLICES	E.A.	9
REINFORCING STEEL	LB.	520
EPOXY COATED REINF. STEEL	LB.	7460
DRILLED SHAFTS 54" DIAMETER	L.F.	88
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	41

NOTES: SIDES AND END OF PIER CAP LOWER THAN 6" FROM THE TOP OF CAP. BOTTOM OF EXTERIOR CANTILEVER.

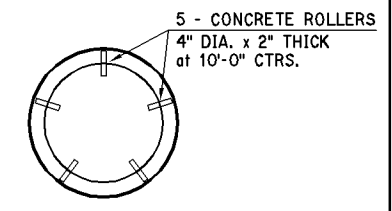
Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 2 OF 3)
			State Job No. 23310(04) Sheet No. B037



SPIRAL REINFORCING SPLICE DETAIL
 NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

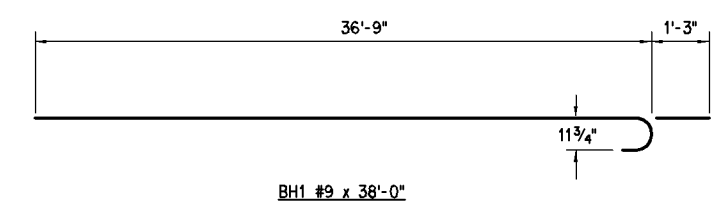


ROLLER INSTALLATION DETAIL

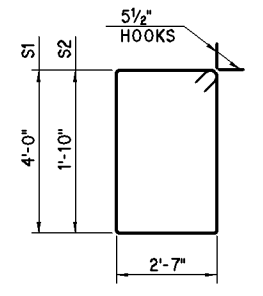


ROLLER PLACEMENT DETAIL

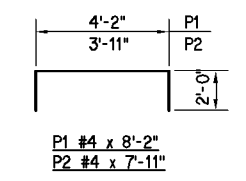
NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



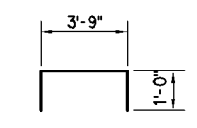
BH1 #9 x 38'-0"



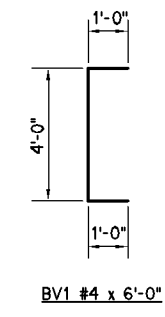
S1 #5 x 14'-1"
S2 #5 x 9'-9"



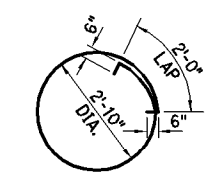
P1 #4 x 8'-2"
P2 #4 x 7'-11"



BH4 #4 x 5'-9"



BV1 #4 x 6'-0"



T1 #4 x 11'-11"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

BAR LIST - ONE PIER					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
① BH1	9	#9	BNT.	EQUAL	38'-0"
① BH2	12	#5	STR.	AS SHOWN	39'-9"
① BH3	9	#11	STR.	EQUAL	40'-9"
① BH4	6	#4	BNT.	AS SHOWN	5'-9"
① BV1	3	#4	BNT.	AS SHOWN	6'-0"
① C1	28	#9	STR.	EQUAL	24'-0"
① D2	10	#5	STR.	EQUAL	5'-0"
H1	2	W-20	BNT.	6" PITCH	375'-11" *
① S1	80	#5	BNT.	AS SHOWN	14'-1"
① S2	6	#5	BNT.	4" C/C	9'-9"
① P1	20	#4	BNT.	EQUAL	8'-2"
① P2	24	#4	BNT.	EQUAL	7'-11"
TWO DRILLED SHAFTS					
▲ C2	30	#11	STR.	EQUAL	43'-6"
① ▲ D1	28	#9	STR.	EQUAL	10'-0"
▲ T1	10	#4	BNT.	12" C/C	11'-11"
▲ H2	2	W-20	BNT.	6" PITCH	994'-4" *

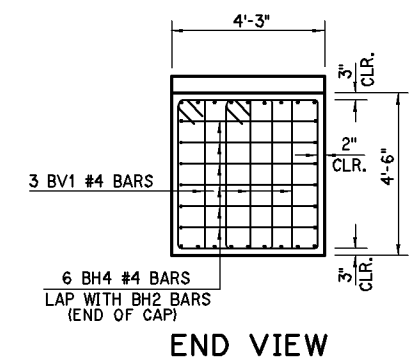
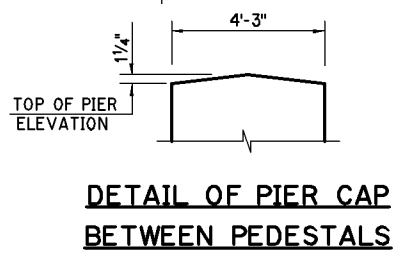
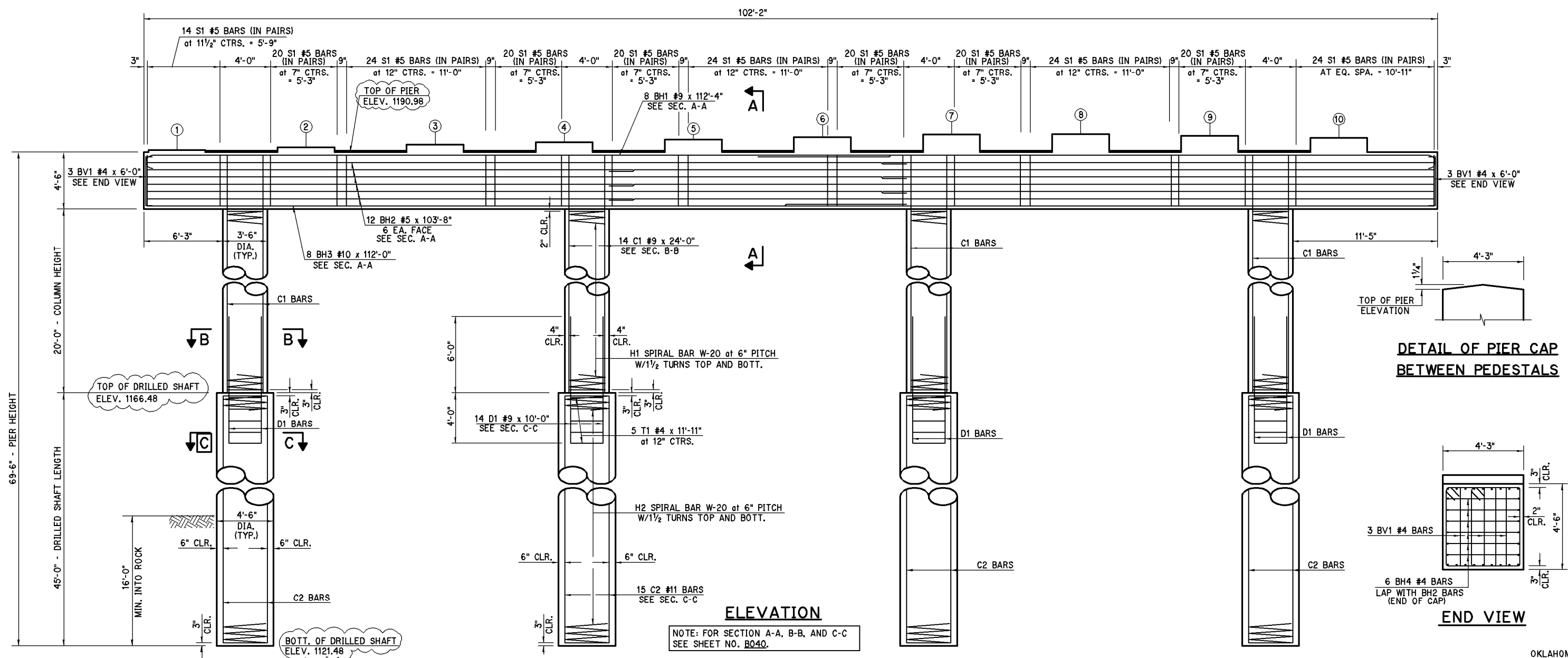
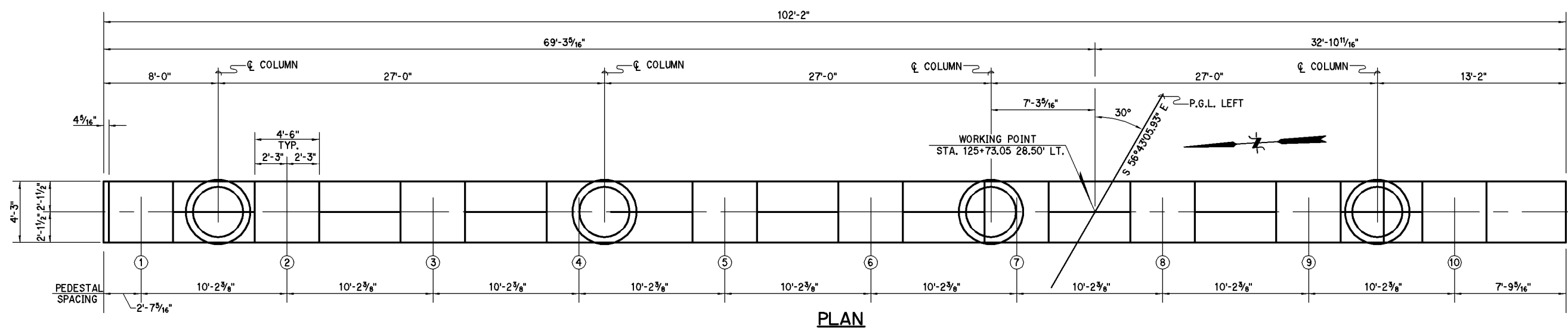
① EPOXY COATED

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B038

DESCRIPTION	REVISIONS	DATE

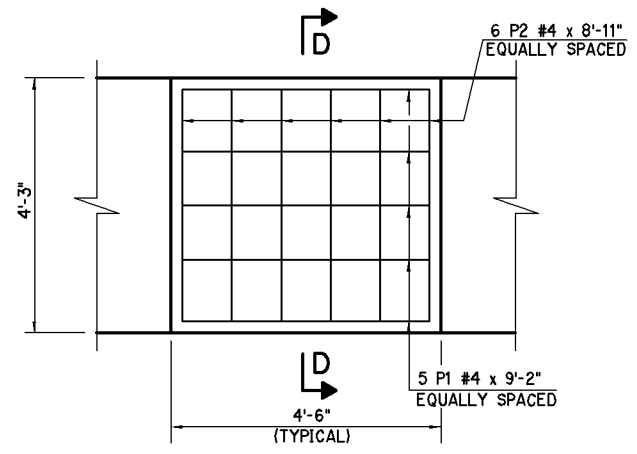


NOTE: FOR SECTION A-A, B-B, AND C-C SEE SHEET NO. B040.

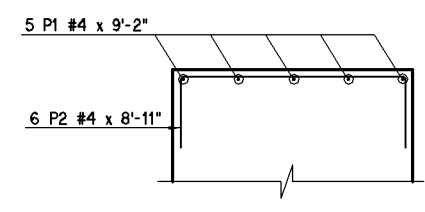
PEDESTAL ELEVATION SCHEDULE										
PEDESTAL	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
ELEVATION	1191.15	1191.35	1191.55	1191.75	1191.95	1192.16	1192.36	1192.40	1192.25	1292.09
PED. HEIGHT	2"	4 ⁷ / ₁₆ "	6 ⁷ / ₈ "	9 ¹ / ₄ "	11 ¹¹ / ₁₆ "	1'-2 ¹ / ₈ "	1'-4 ⁹ / ₁₆ "	1'-5"	1'-3 ³ / ₁₆ "	1'-1 ³ / ₈ "

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 1 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 1 OF 3)
		State Job No. 23310(04)	Sheet No. B039

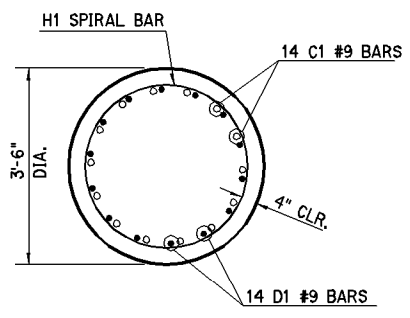
DESCRIPTION	REVISIONS	DATE



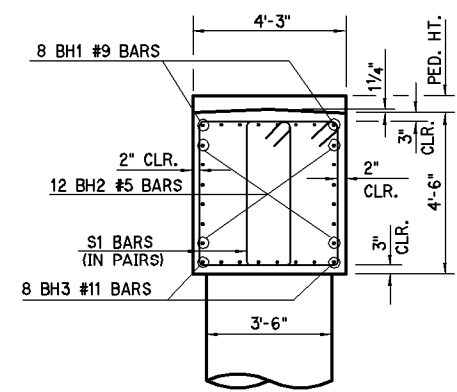
PEDESTAL REINFORCING DETAIL



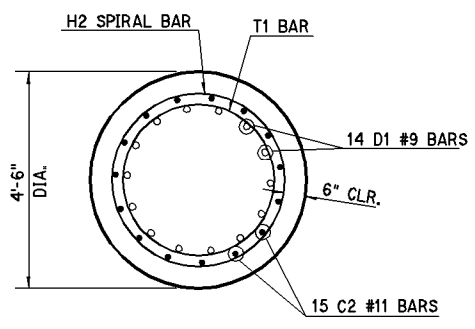
SECTION D-D



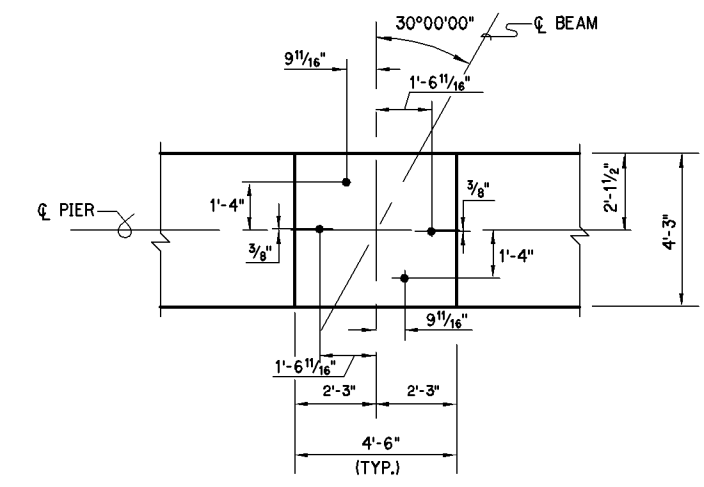
SECTION B-B



SECTION A-A



SECTION C-C



ANCHOR BOLT LAYOUT

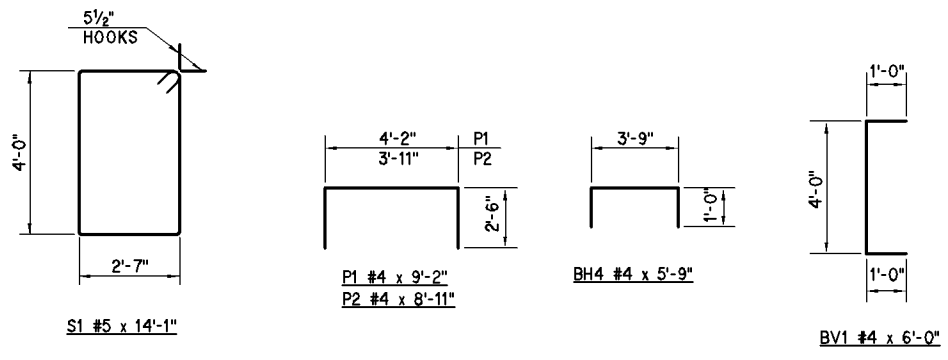
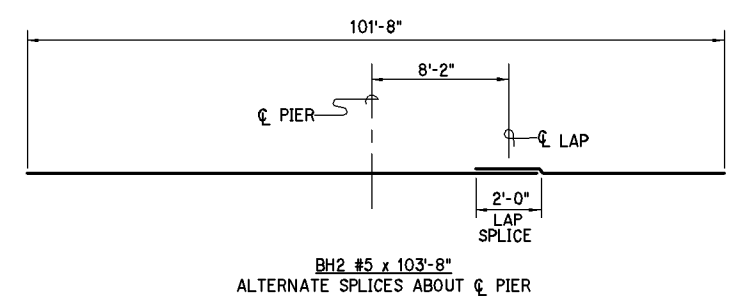
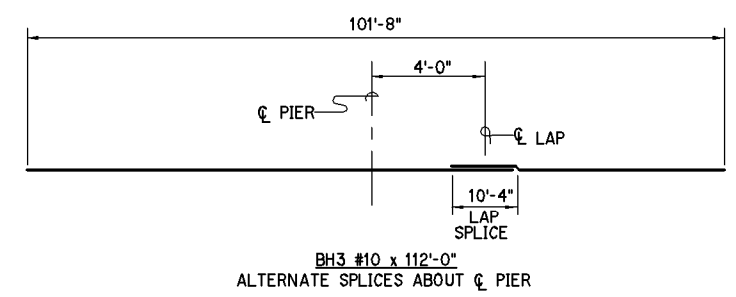
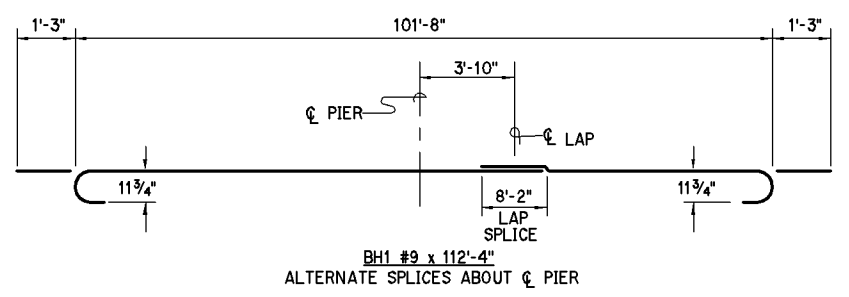
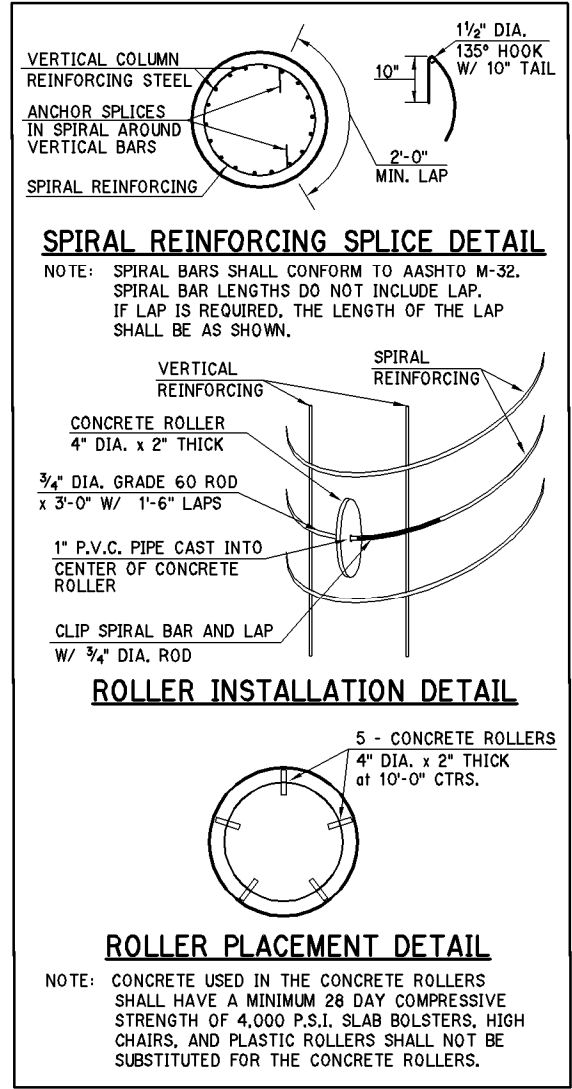
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B070.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	108.3
REINFORCING STEEL	LB.	1030
EPOXY COATED REINF. STEEL	LB.	16,900
DRILLED SHAFTS 54" DIAMETER	L.F.	180
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	181

≠ TOP AND SIDES OF PIER CAP AND PEDESTALS,
BOTTOM AND END OF EXTERIOR CANTILEVER.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "A" W.B. I-40 OVER CRUTCHO CREEK
PIER NO. 1 DETAILS
PHASE II
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B040



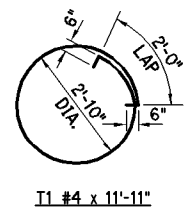
BAR LIST - ONE PIER					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
① ②	BH1	8 #9	BNT.	EQUAL	112'-4"
① ②	BH2	12 #5	STR.	AS SHOWN	103'-8"
① ②	BH3	8 #10	STR.	AS SHOWN	112'-0"
①	BH4	12 #4	BNT.	AS SHOWN	5'-9"
①	BV1	6 #4	BNT.	AS SHOWN	6'-0"
①	C1	56 #9	STR.	EQUAL	24'-0"
	H1	4 W-20	BNT.	6" PITCH	375'-11" *
①	S1	230 #5	BNT.	AS SHOWN	14'-1"
①	P1	50 #4	BNT.	EQUAL	9'-2"
①	P2	60 #4	BNT.	EQUAL	8'-11"
FOUR DRILLED SHAFTS					
▲	C2	60 #11	STR.	EQUAL	44'-6"
▲	D1	56 #9	STR.	EQUAL	10'-0"
▲	T1	20 #4	BNT.	12" C/C	11'-11"
▲	H2	4 W-20	BNT.	6" PITCH	1016'-4" *

① EPOXY COATED
 ② LENGTH INCLUDES LAP:
 BH1 - 1 at 8'-2"
 BH2 - 1 at 2'-0"
 BH3 - 1 at 10'-4"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

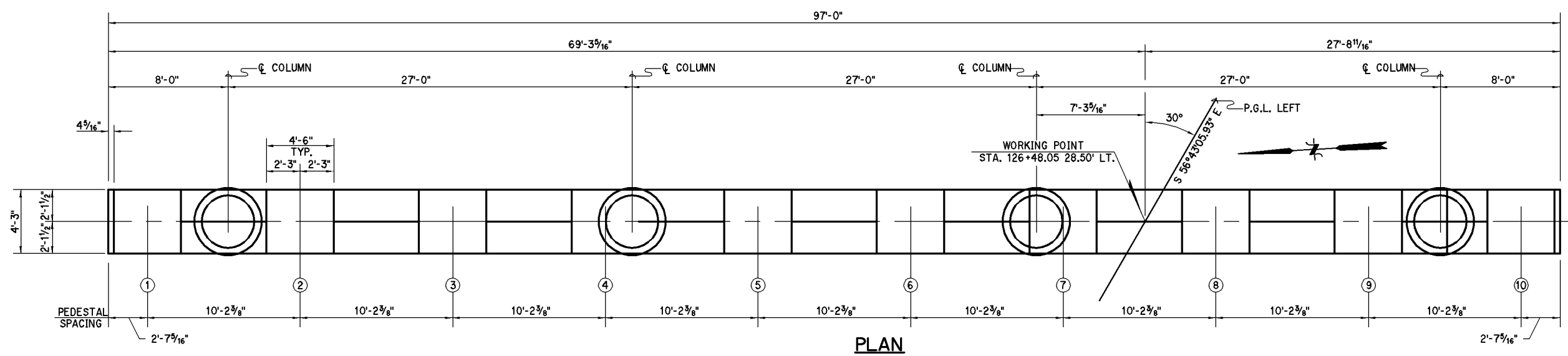
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

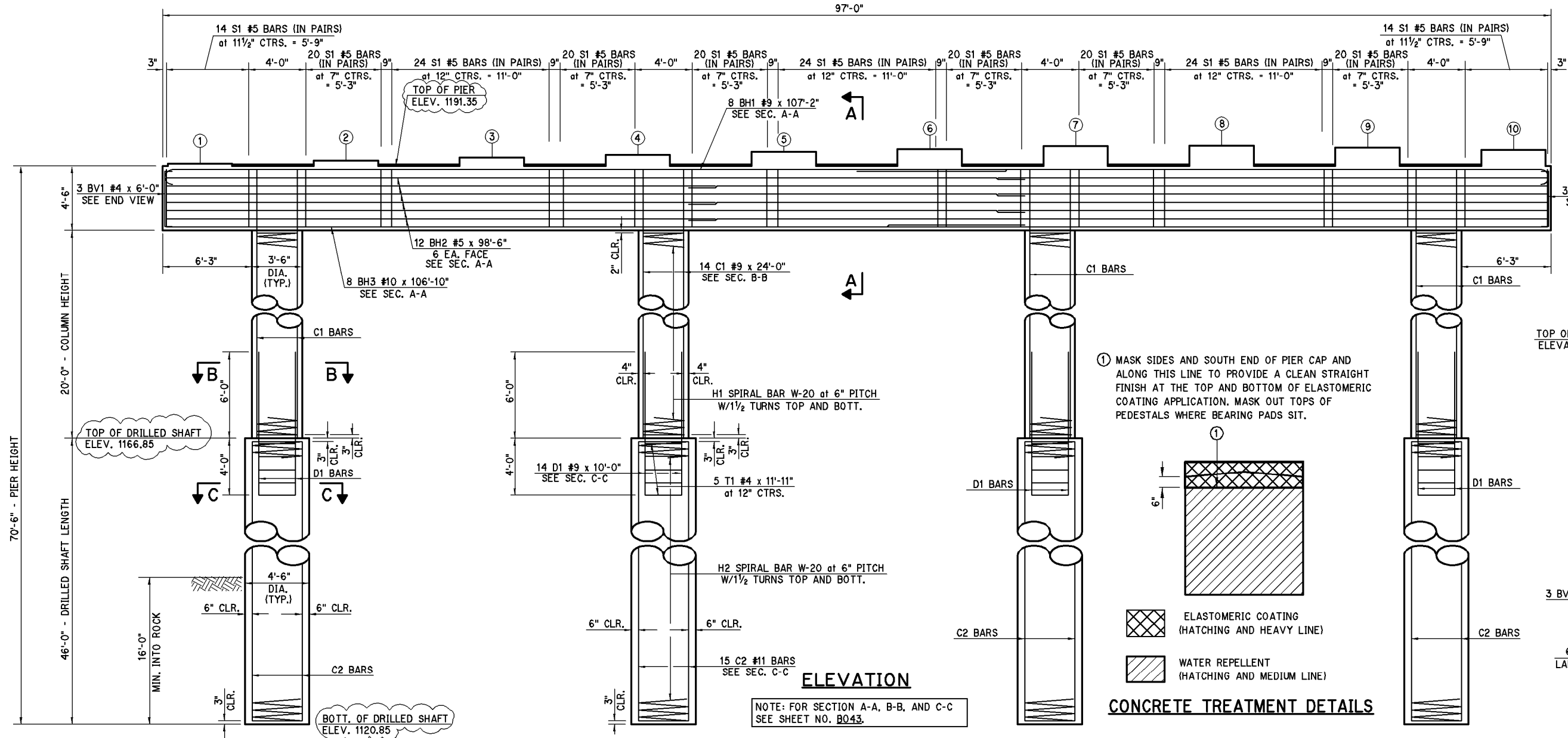


Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 1 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B041

DESCRIPTION	REVISIONS	DATE



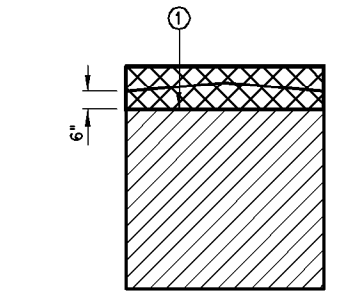
PLAN



ELEVATION

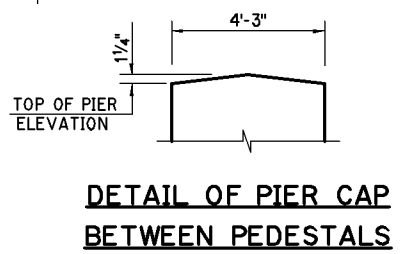
NOTE: FOR SECTION A-A, B-B, AND C-C SEE SHEET NO. B043.

① MASK SIDES AND SOUTH END OF PIER CAP AND ALONG THIS LINE TO PROVIDE A CLEAN STRAIGHT FINISH AT THE TOP AND BOTTOM OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.

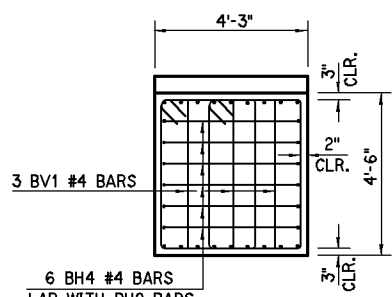


ELASTOMERIC COATING (HATCHING AND HEAVY LINE)
WATER REPELLENT (HATCHING AND MEDIUM LINE)

CONCRETE TREATMENT DETAILS



DETAIL OF PIER CAP BETWEEN PEDESTALS

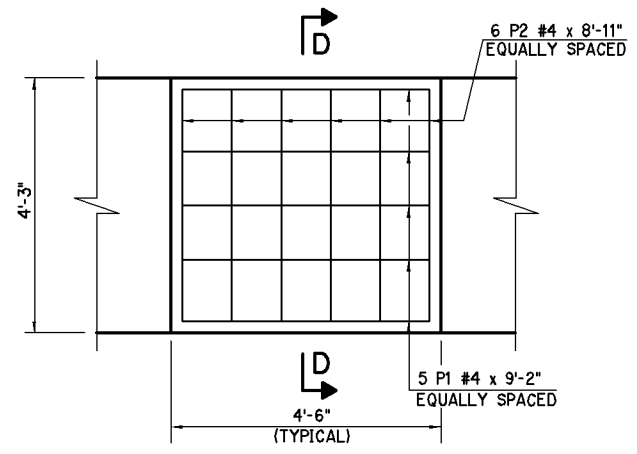


END VIEW

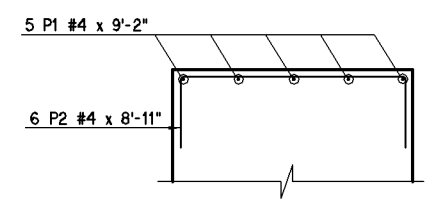
PEDESTAL ELEVATION SCHEDULE										
PEDESTAL	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
ELEVATION	1191.52	1191.72	1191.92	1192.12	1192.32	1192.53	1192.73	1192.77	1192.62	1192.47
PED. HEIGHT	2"	4 ⁷ / ₁₆ "	6 ⁷ / ₈ "	9 ¹ / ₄ "	11 ¹¹ / ₁₆ "	1'-2 ¹ / ₈ "	1'-4 ⁹ / ₁₆ "	1'-5"	1'-3 ³ / ₁₆ "	1'-1 ³ / ₈ "

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 1 OF 3)
		State Job No. 23310(04)	Sheet No. B042

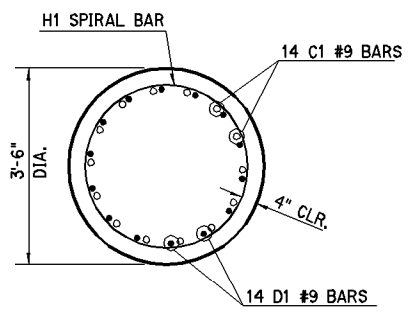
DESCRIPTION	REVISIONS	DATE



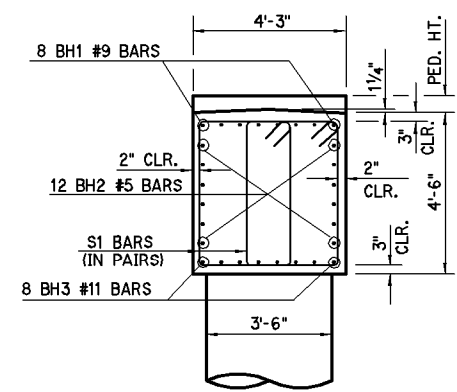
PEDESTAL REINFORCING DETAIL



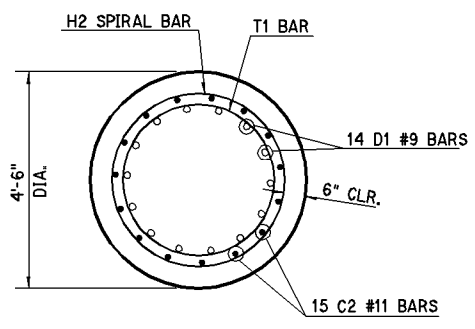
SECTION D-D



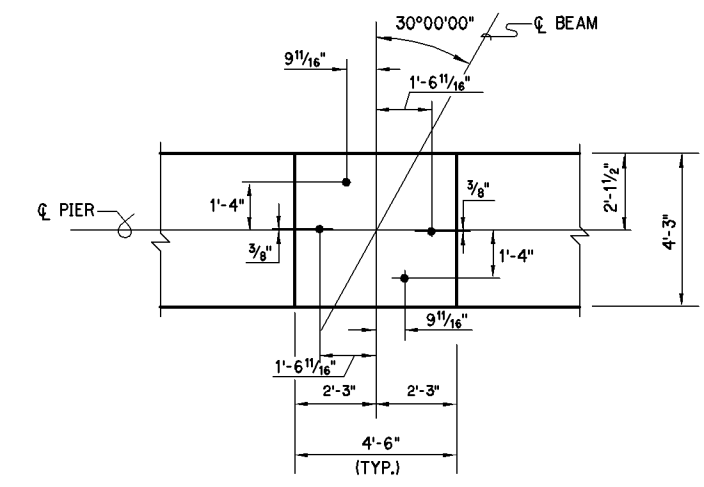
SECTION B-B



SECTION A-A



SECTION C-C



ANCHOR BOLT LAYOUT

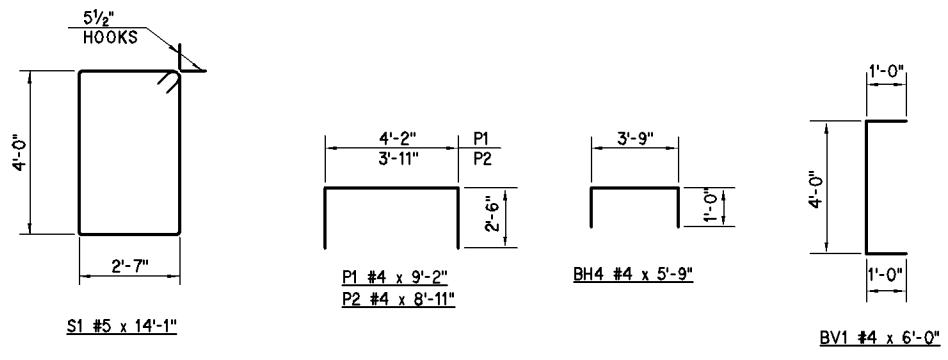
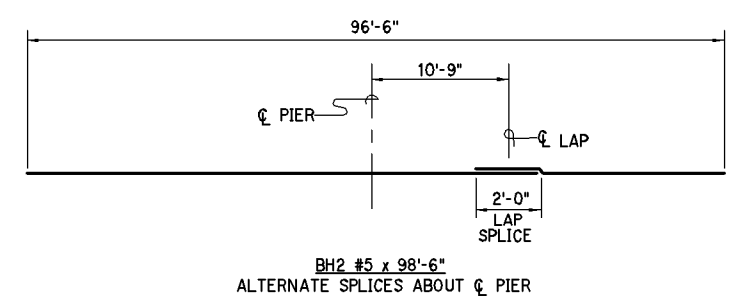
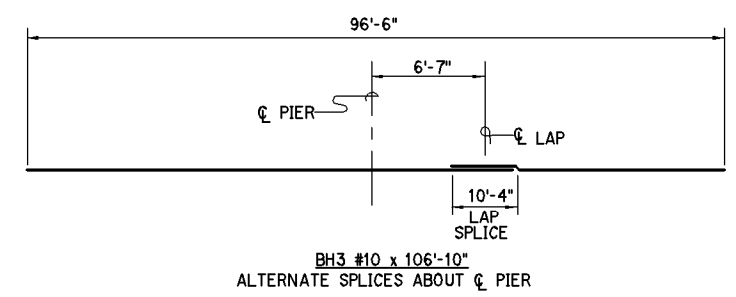
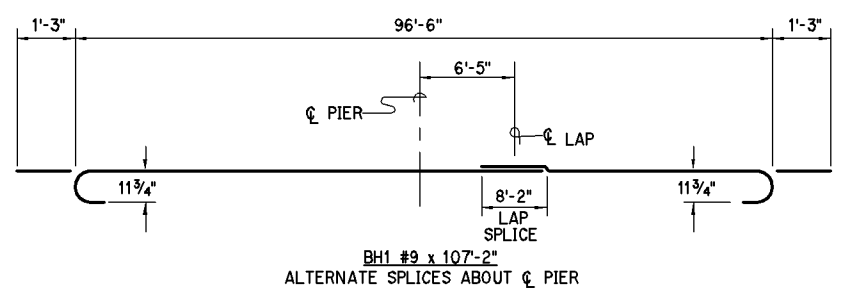
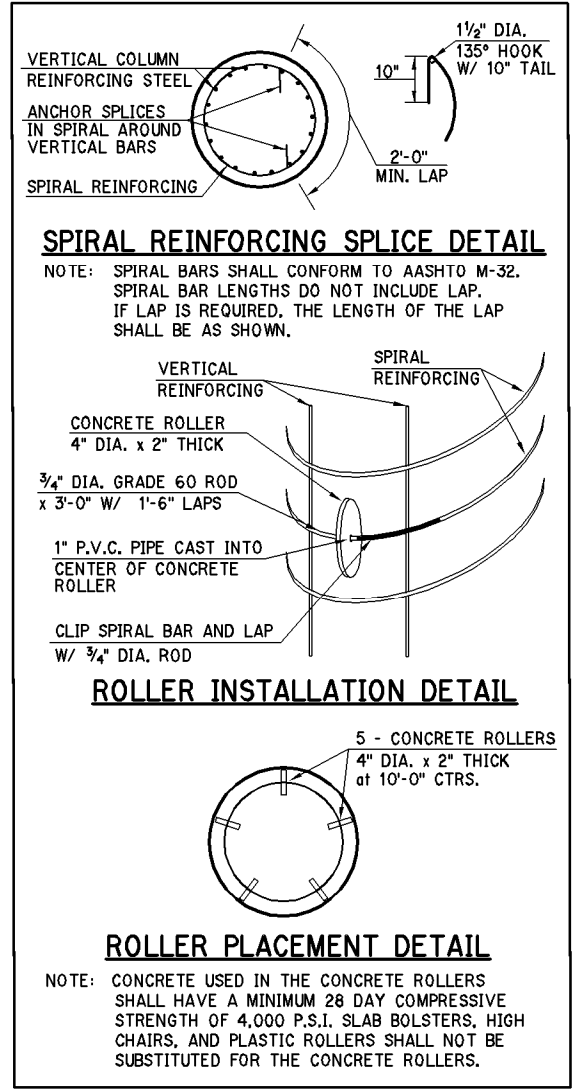
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B070.

QUANTITIES		
ITEM	UNIT	TOTAL
ELASTOMERIC COATING	S.F.	675
CLASS A CONCRETE	C.Y.	104.6
REINFORCING STEEL	LB.	1030
EPOXY COATED REINF. STEEL	LB.	16,370
DRILLED SHAFTS 54" DIAMETER	L.F.	184
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	96

≠ SIDES AND ENDS OF PIER CAP LOWER THAN 6" FROM THE TOP OF CAP, BOTTOM OF EXTERIOR CANTILEVER.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 BRIDGE "A" W.B. I-40 OVER CRUTCHO CREEK
PIER NO. 2 DETAILS
PHASE II
 (SHEET 2 OF 3)
 State Job No. 23310(04) Sheet No. B043



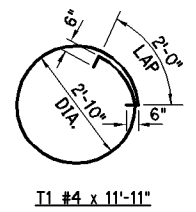
BAR LIST - ONE PIER					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
① ②	BH1	8 #9	BNT.	EQUAL	107'-2"
① ②	BH2	12 #5	STR.	AS SHOWN	98'-6"
① ②	BH3	8 #10	STR.	AS SHOWN	106'-10"
①	BH4	12 #4	BNT.	AS SHOWN	5'-9"
①	BV1	6 #4	BNT.	AS SHOWN	6'-0"
①	C1	56 #9	STR.	EQUAL	24'-0"
	H1	4 W-20	BNT.	6" PITCH	375'-11" *
①	S1	220 #5	BNT.	AS SHOWN	14'-1"
①	P1	50 #4	BNT.	EQUAL	9'-2"
①	P2	60 #4	BNT.	EQUAL	8'-11"
FOUR DRILLED SHAFTS					
▲	C2	60 #11	STR.	EQUAL	45'-6"
▲	D1	56 #9	STR.	EQUAL	10'-0"
▲	T1	20 #4	BNT.	12" C/C	11'-11"
▲	H2	4 W-20	BNT.	6" PITCH	1038'-4" *

① EPOXY COATED
 ② LENGTH INCLUDES LAP:
 BH1 - 1 at 8'-2"
 BH2 - 1 at 2'-0"
 BH3 - 1 at 10'-4"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

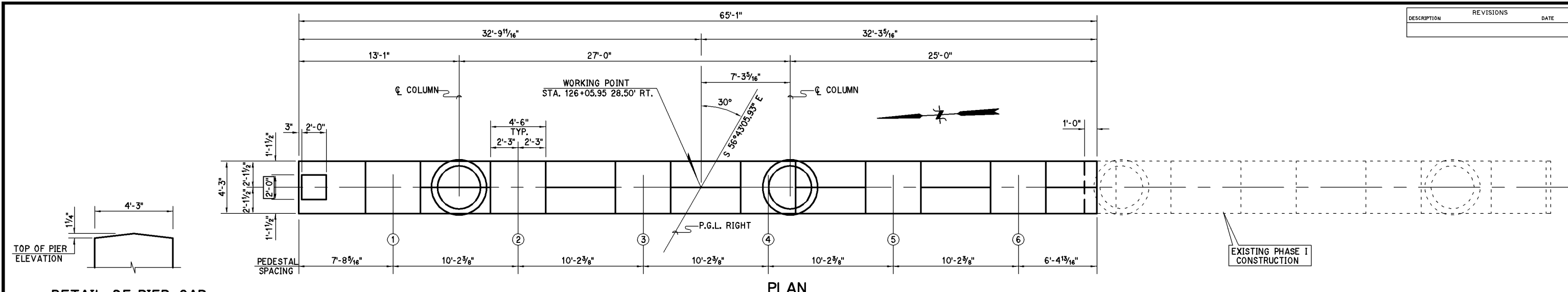
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

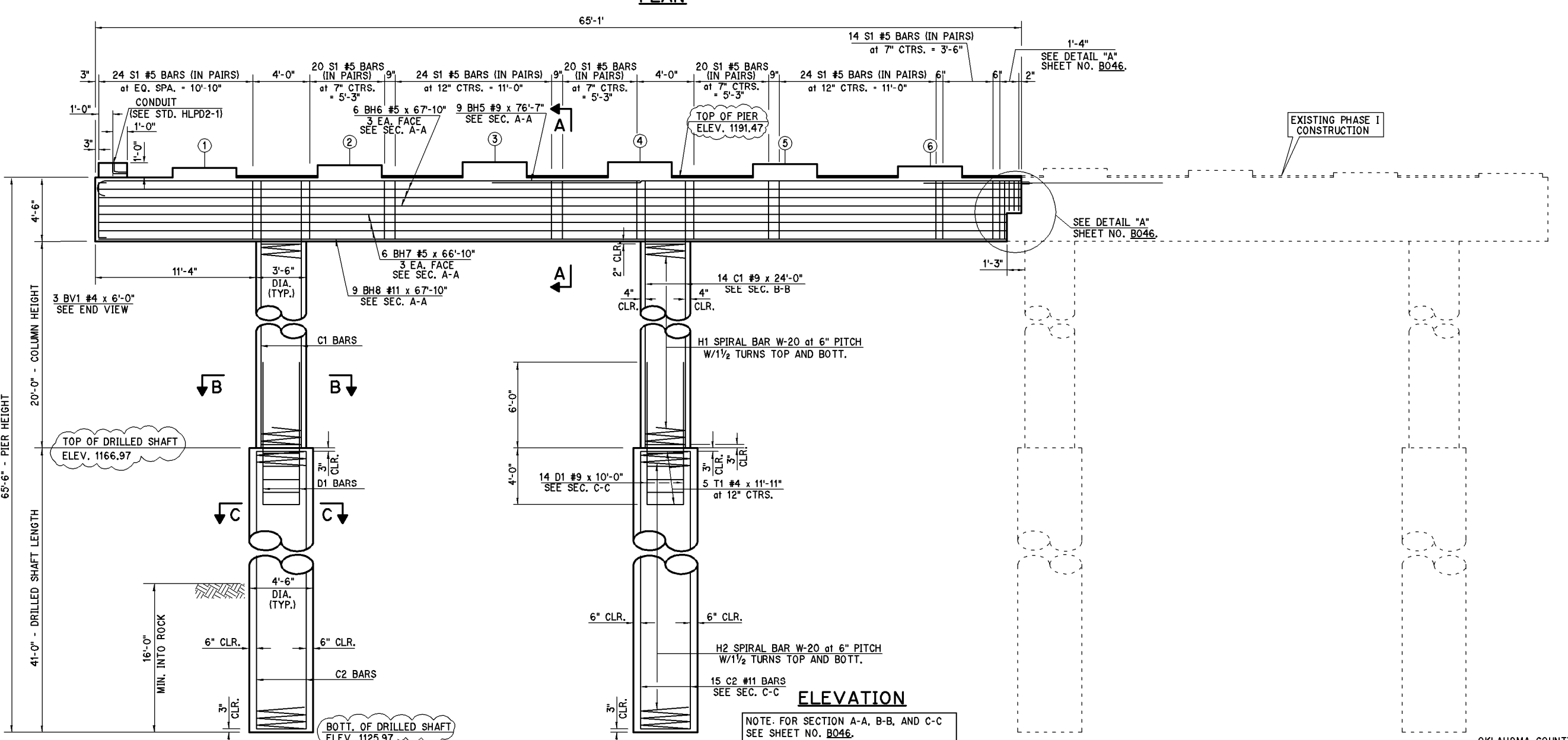
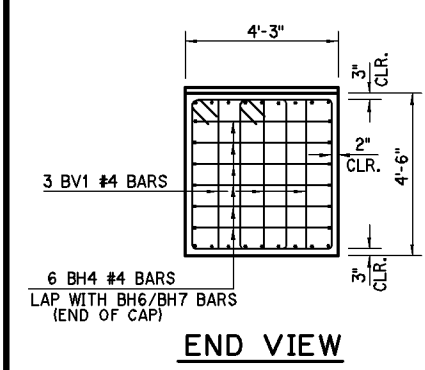


Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B044

DESCRIPTION	REVISIONS	DATE

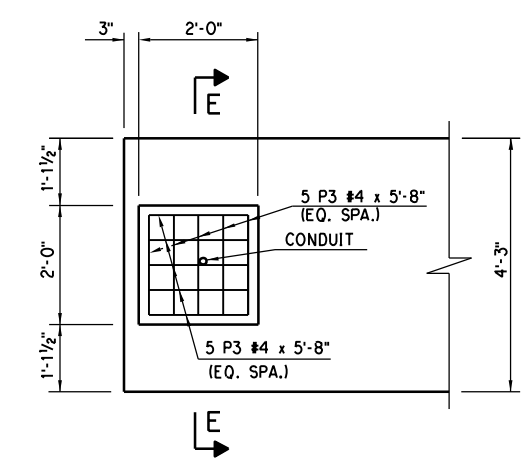


DETAIL OF PIER CAP BETWEEN PEDESTALS

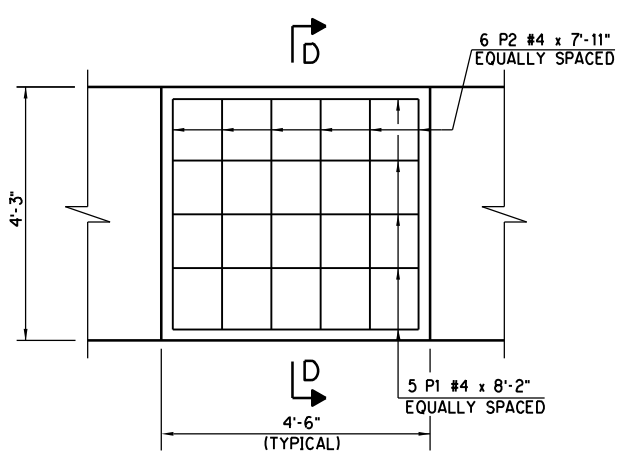


PEDESTAL	①	②	③	④	⑤	⑥
ELEVATION	1192.13	1192.33	1192.53	1192.54	1192.39	1192.24
PED. HEIGHT	7 7/8"	10 3/16"	1'-0 3/4"	11 1/16"	11 1/16"	9 1/4"

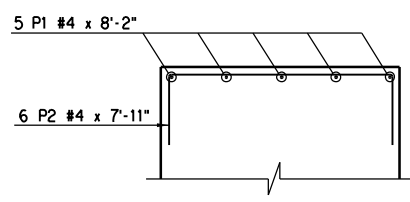
Design		BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK PIER NO. 1 DETAILS PHASE III (SHEET 1 OF 3) State Job No. 23310(04) Sheet No. B045
Drawn		
Checked		
Approved		
Squad	POE	



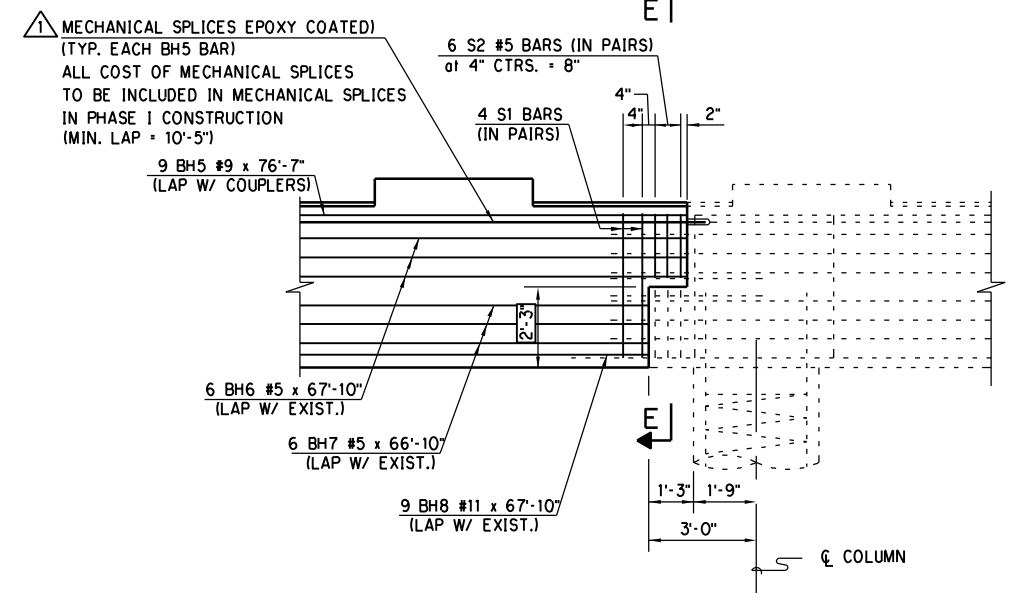
LIGHT POLE PEDESTAL
(SEE STD. HLBPI-1 FOR ANCHOR BOLT DETAILS)



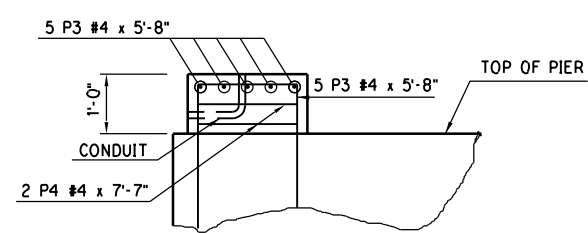
PEDESTAL REINFORCING DETAIL



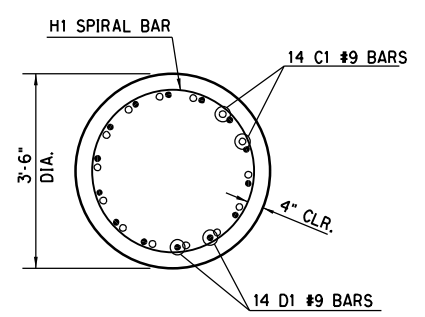
SECTION D-D



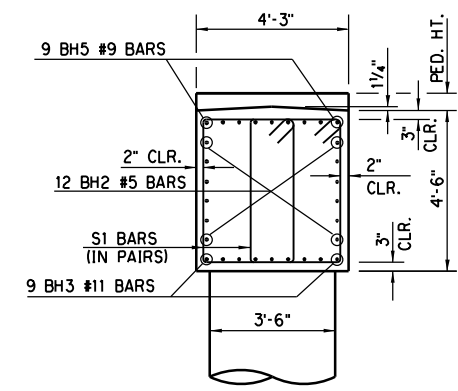
DETAIL "A"



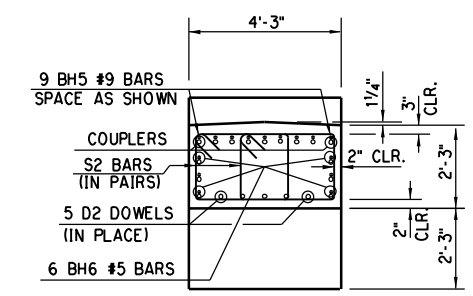
SECTION E-E
(ANCHOR BOLTS NOT SHOWN FOR CLARITY)



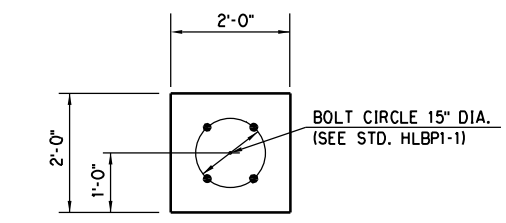
SECTION B-B



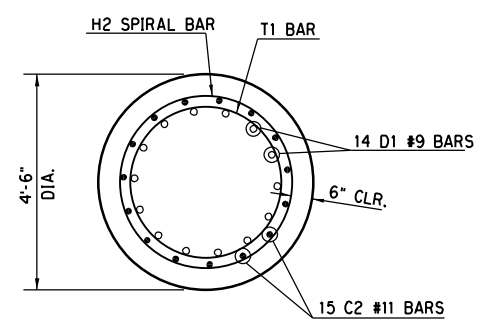
SECTION A-A



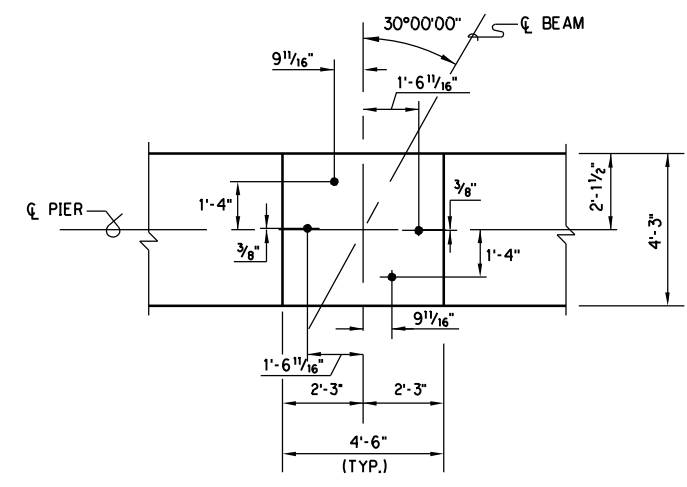
SECTION E-E



LIGHT POLE BOLT PATTERN



SECTION C-C



ANCHOR BOLT LAYOUT

NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B07Q.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	64.5
REINFORCING STEEL	LB.	520
EPOXY COATED REINF. STEEL	LB.	11,430
DRILLED SHAFTS 54" DIAMETER	L.F.	82
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	116

≠ TOP AND SIDES OF PIER CAP AND PEDESTALS, BOTTOM AND END OF EXTERIOR CANTILEVER.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 1 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 2 OF 3)
		State Job No. 23310(04)	Sheet No. B046

VERTICAL COLUMN REINFORCING STEEL
ANCHOR SPLICES IN SPIRAL AROUND VERTICAL BARS
SPIRAL REINFORCING

1 1/2" DIA.
135° HOOK
W/ 10" TAIL

10"

2'-0" MIN. LAP

SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

VERTICAL REINFORCING
CONCRETE ROLLER
4" DIA. x 2" THICK

3/4" DIA. GRADE 60 ROD
x 3'-0" W/ 1'-6" LAPS

1" P.V.C. PIPE CAST INTO CENTER OF CONCRETE ROLLER

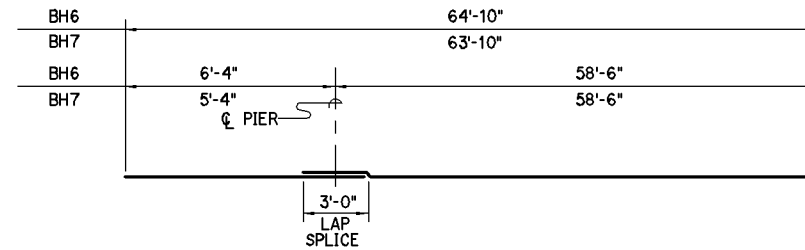
CLIP SPIRAL BAR AND LAP
W/ 3/4" DIA. ROD

ROLLER INSTALLATION DETAIL

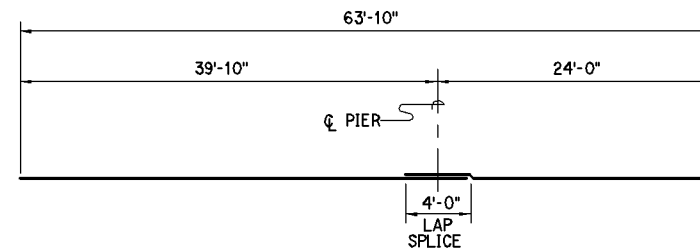
5 - CONCRETE ROLLERS
4" DIA. x 2" THICK
at 10'-0" CTRS.

ROLLER PLACEMENT DETAIL

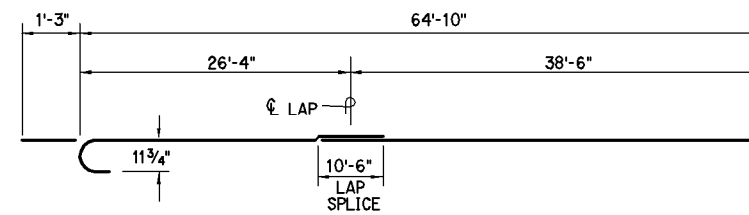
NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



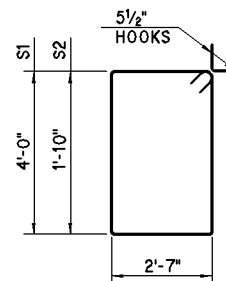
BH6 #5 x 67'-10"
(ALTERNATE LAP SPLICES)
BH7 #5 x 66'-10"
(ALTERNATE LAP SPLICES)



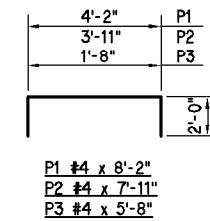
BH8 #11 x 67'-10"
(CENTER SPLICE OVER COLUMN)



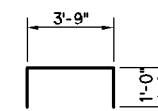
BH5 #9 x 76'-7"



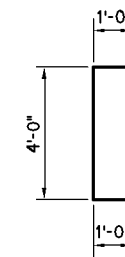
S1 #5 x 14'-1"
S2 #5 x 9'-9"



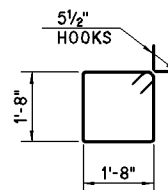
P1 #4 x 8'-2"
P2 #4 x 7'-11"
P3 #4 x 5'-8"



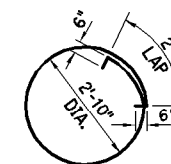
BH4 #4 x 5'-9"



BV1 #4 x 6'-0"



P4 #4 x 7'-7"



T1 #4 x 11'-11"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

BAR LIST - ONE PIER					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
①	BH4	6 #4	BNT.	AS SHOWN	5'-9"
②①	BH5	9 #9	BNT.	EQUAL	76'-7"
②①	BH6	6 #5	STR.	AS SHOWN	67'-10"
②①	BH7	6 #5	STR.	AS SHOWN	66'-10"
②①	BH8	9 #11	STR.	EQUAL	67'-10"
①	BV1	3 #4	BNT.	AS SHOWN	6'-0"
①	C1	28 #9	STR.	EQUAL	24'-0"
	H1	2 W-20	BNT.	6" PITCH	375'-11" *
①	S1	150 #5	BNT.	AS SHOWN	14'-1"
①	S2	6 #5	BNT.	4" C/C	9'-9"
①	P1	30 #4	BNT.	EQUAL	8'-2"
①	P2	36 #4	BNT.	EQUAL	7'-11"
①	P3	10 #4	BNT.	EQUAL	5'-8"
①	P4	2 #4	BNT.	EQUAL	7'-7"
TWO DRILLED SHAFTS					
▲	C2	30 #11	STR.	EQUAL	40'-6"
▲	D1	28 #9	STR.	EQUAL	10'-0"
▲	T1	10 #4	BNT.	12" C/C	11'-11"
▲	H2	2 W-20	BNT.	6" PITCH	928'-3" *

① EPOXY COATED

② LENGTH SHOWN INCLUDES 1 LAP:

BH5 - 1 at 10'-6"

BH6 - 1 at 3'-0"

BH7 - 1 at 3'-0"

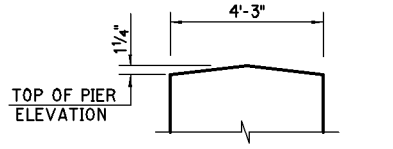
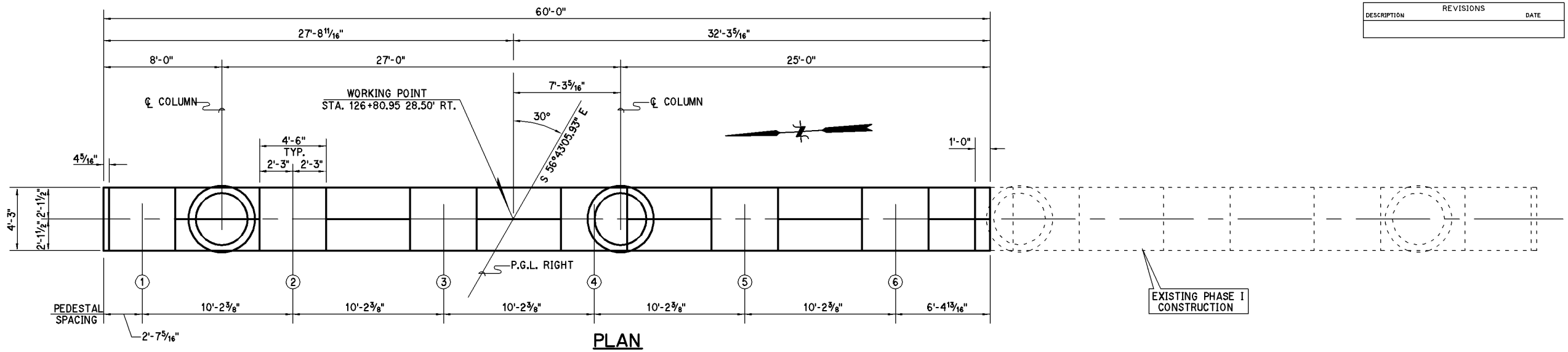
BH8 - 1 at 4'-0"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

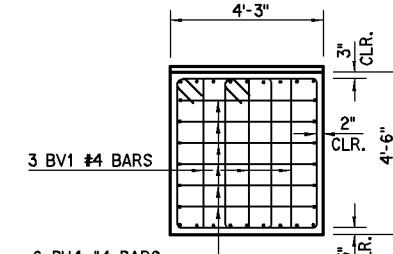
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 1 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B047

DESCRIPTION	REVISIONS	DATE

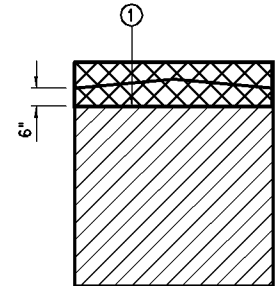


DETAIL OF PIER CAP BETWEEN PEDESTALS



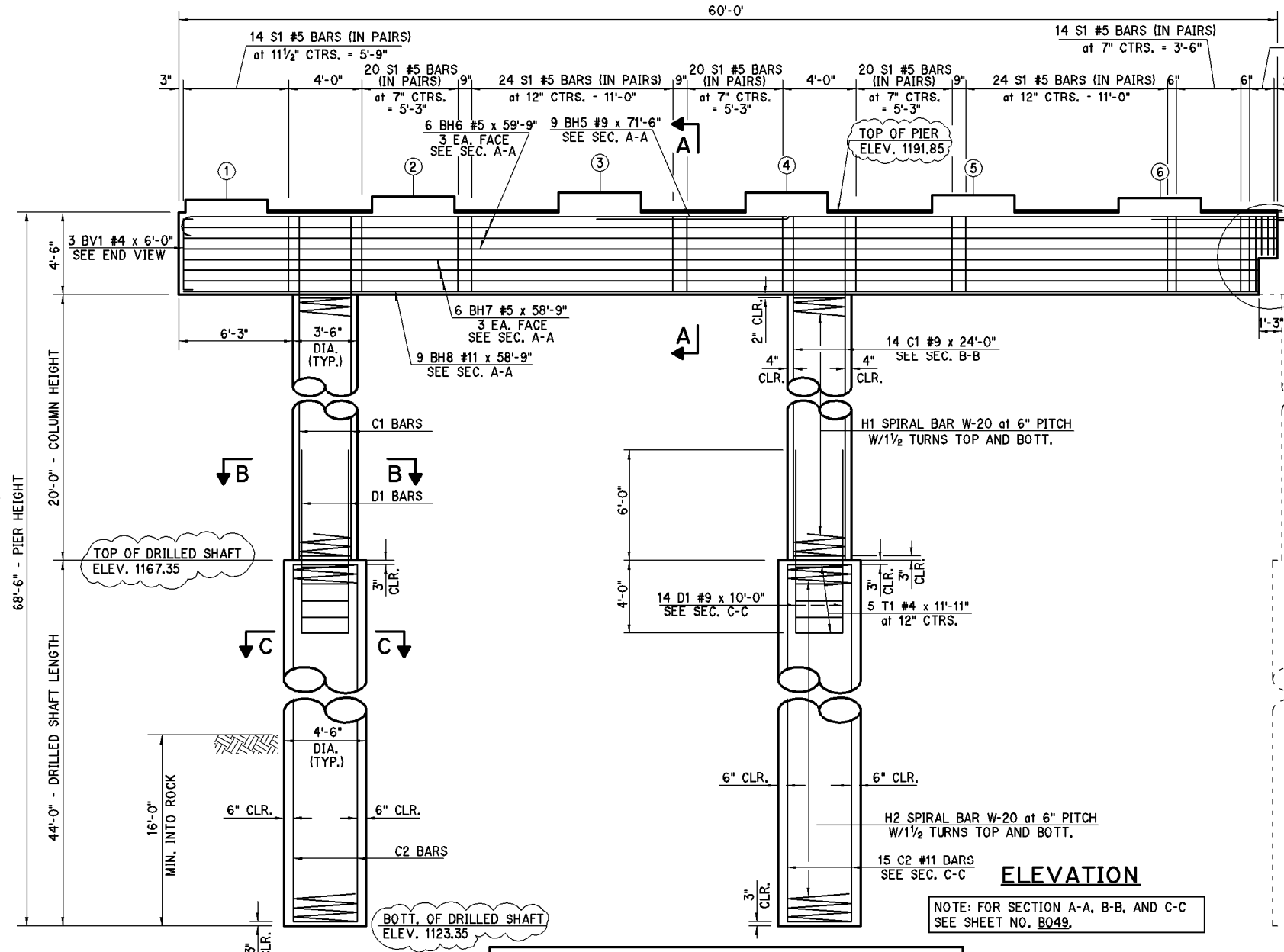
END VIEW

① MASK SIDES AND NORTH END OF PIER CAP AND ALONG THIS LINE TO PROVIDE A CLEAN STRAIGHT FINISH AT THE TOP AND BOTTOM OF ELASTOMERIC COATING APPLICATION. MASK OUT TOPS OF PEDESTALS WHERE BEARING PADS SIT.



- ELASTOMERIC COATING (HATCHING AND HEAVY LINE)
- WATER REPELLENT (HATCHING AND MEDIUM LINE)

CONCRETE TREATMENT DETAILS



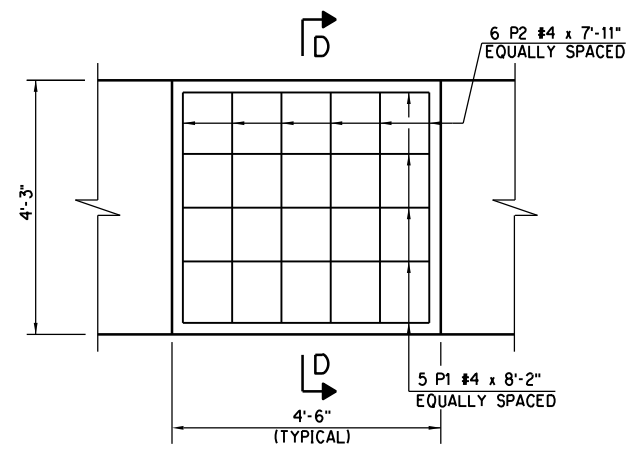
ELEVATION

NOTE: FOR SECTION A-A, B-B, AND C-C SEE SHEET NO. B049.

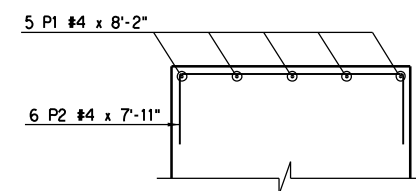
PEDESTAL	①	②	③	④	⑤	⑥
ELEVATION	--	--	--	--	--	--
PEDESTAL HEIGHT	77/8"	10 5/16"	1'-0 3/4"	11 1/16"	11 1/16"	9 1/4"

Design	
Drawn	
Checked	
Approved	
Squad	POE

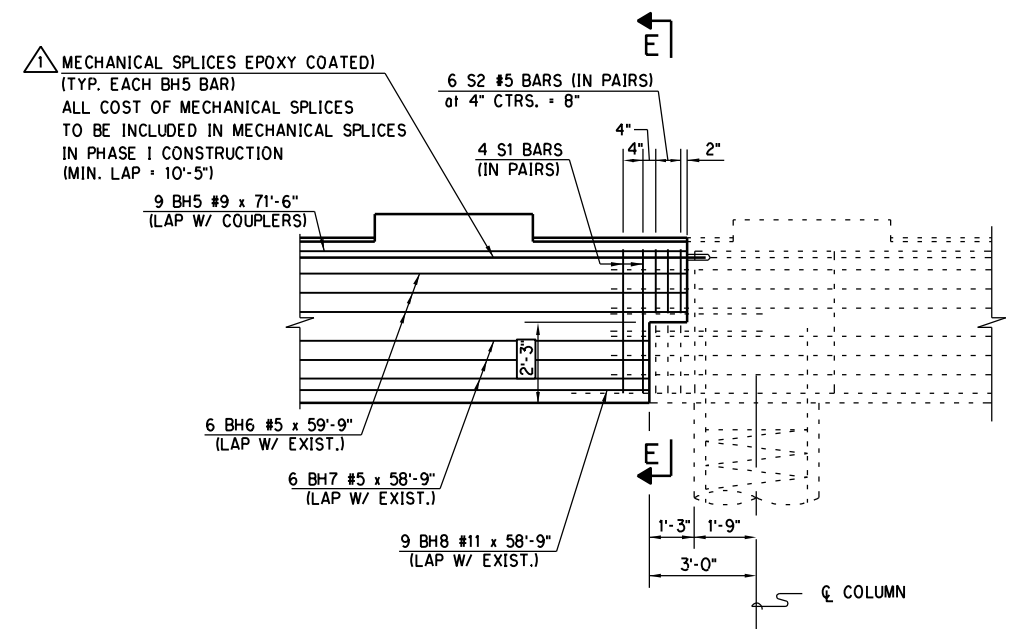
OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
PIER NO. 2 DETAILS
PHASE III
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B048



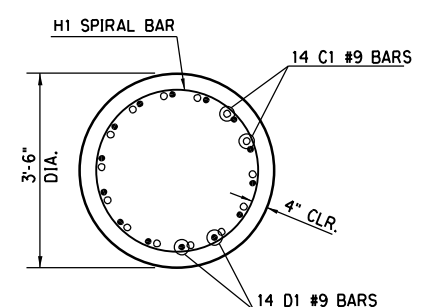
PEDESTAL REINFORCING DETAIL



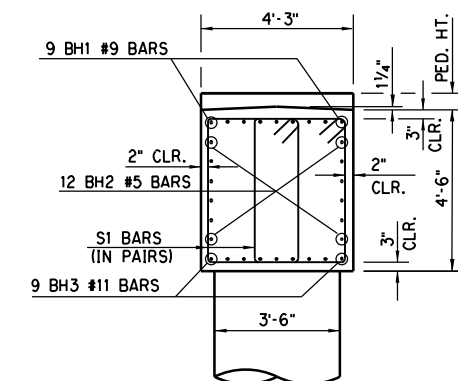
SECTION D-D



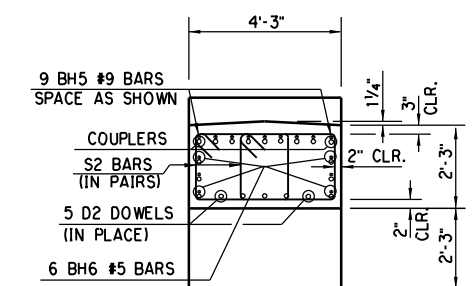
DETAIL "A"



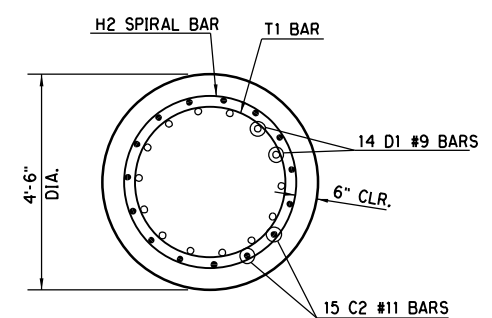
SECTION B-B



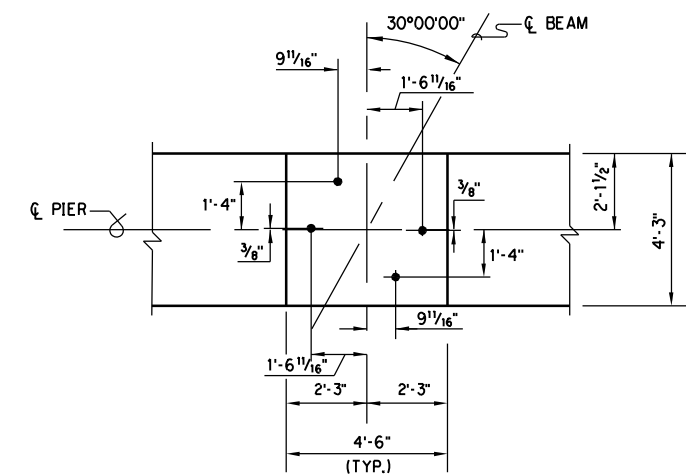
SECTION A-A



SECTION E-E



SECTION C-C



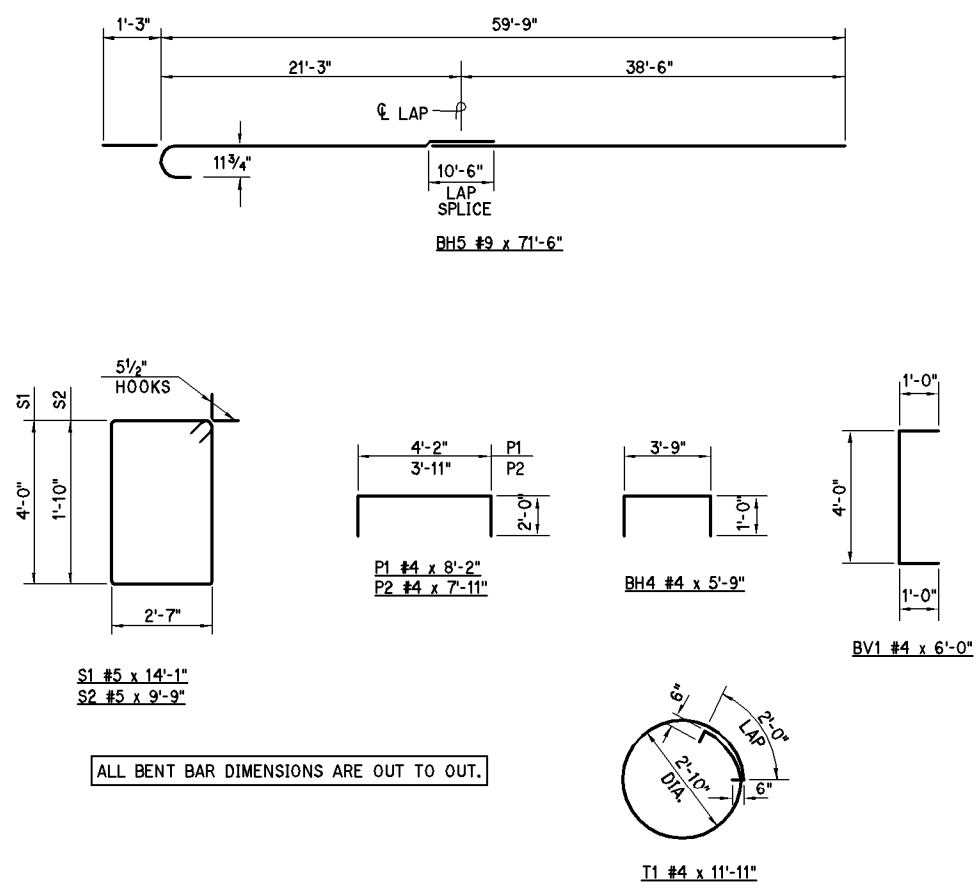
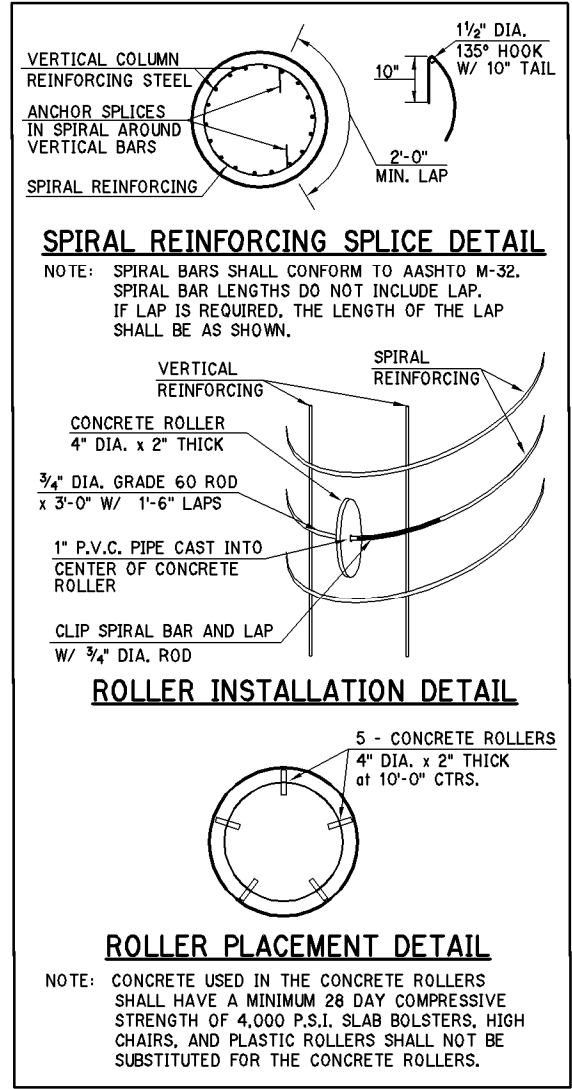
ANCHOR BOLT LAYOUT

NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. BQ7Q.

QUANTITIES		
ITEM	UNIT	TOTAL
ELASTOMERIC COATING	S.F.	405
CLASS A CONCRETE	C.Y.	60.8
REINFORCING STEEL	LB.	520
EPOXY COATED REINF. STEEL	LB.	10,540
DRILLED SHAFTS 54" DIAMETER	L.F.	88
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	60

≠ SIDES AND ENDS OF PIER CAP LOWER THAN 6" FROM THE TOP OF CAP, BOTTOM OF EXTERIOR CANTILEVER.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 2 OF 3)
			State Job No. 23310(04) Sheet No. BQ49



BAR LIST - ONE PIER					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
①	BH4	6 #4	BNT.	AS SHOWN	5'-9"
②	BH5	9 #9	BNT.	EQUAL	71'-6"
①	BH6	6 #5	STR.	AS SHOWN	59'-9"
①	BH7	6 #5	STR.	AS SHOWN	58'-9"
①	BH8	9 #11	STR.	EQUAL	58'-9"
①	BV1	3 #4	BNT.	AS SHOWN	6'-0"
①	C1	28 #9	STR.	EQUAL	24'-0"
	H1	2 W-20	BNT.	6" PITCH	375'-11" *
①	S1	140 #5	BNT.	AS SHOWN	14'-1"
①	S2	6 #5	BNT.	4" C/C	9'-9"
①	P1	30 #4	BNT.	EQUAL	8'-2"
①	P2	36 #4	BNT.	EQUAL	7'-11"
TWO DRILLED SHAFTS					
▲	C2	30 #11	STR.	EQUAL	43'-6"
▲	D1	28 #9	STR.	EQUAL	10'-0"
▲	T1	10 #4	BNT.	12" C/C	11'-11"
▲	H2	2 W-20	BNT.	6" PITCH	994'-4" *

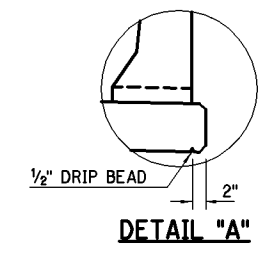
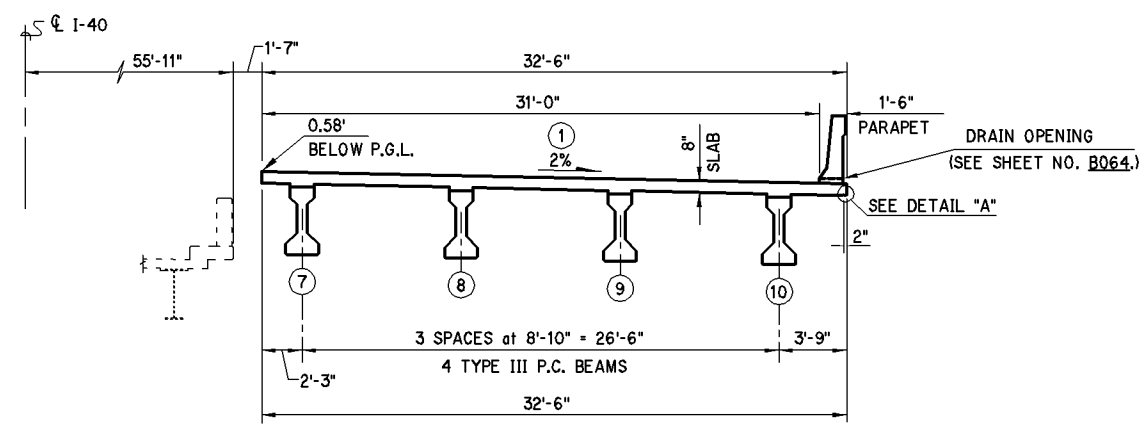
① EPOXY COATED
 ② LENGTH SHOWN INCLUDES 1 LAP at 10'-6"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

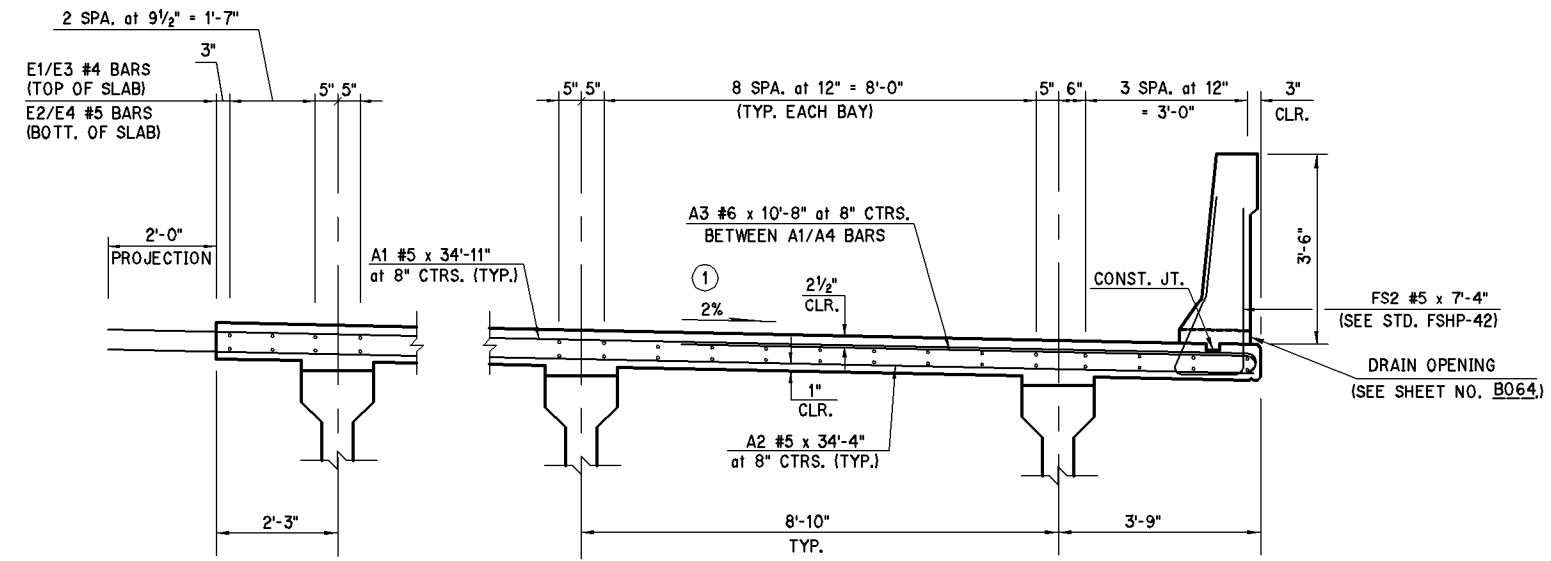
Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			PIER NO. 2 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 3 OF 3)
			State Job No. 23310(04) Sheet No. B050

DESCRIPTION	REVISIONS	DATE

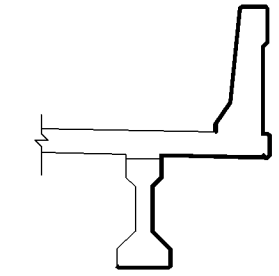
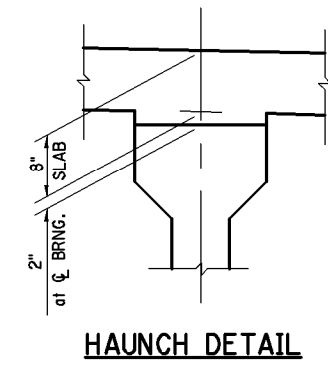


NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42.

TYPICAL BRIDGE SECTION
 ① SLOPE VARIES STA. 127+51.91 TO STA. 128+21.35. SEE SHEET NO. B003 FOR DETAILS



TYPICAL REINFORCING SECTION
 ① SLOPE VARIES STA. 127+51.91 TO STA. 128+21.35. SEE SHEET NO. B003 FOR DETAILS



WATER REPELLENT SURFACE TREATMENT
 SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.

QUANTITIES		
ITEM	UNIT	TOTAL
PRESTRESSED CONC. BEAMS (TYPE III)	L.F.	849.33
SAW-CUT GROOVING	S.Y.	746.3
CLASS AA CONCRETE	C.Y.	197.9
42" F-SHAPED PARAPET	L.F.	216.7
STRUCTURAL STEEL	LB.	1,280
EPOXY COATED REINFORCING STEEL	LB.	45,690
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	432
SEALED EXPANSION JOINT	L.F.	37.55
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	8
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	16
SEALER CRACK PREPARATION	L.F.	38
SEALER RESIN	GAL.	0.5

**** NOTE:**
 PLAN QUANTITY FOR CLASS "AA(AE)" CONCRETE INCLUDES 7.0 C.Y. FOR HAUNCHES OVER BEAMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF BEAMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.

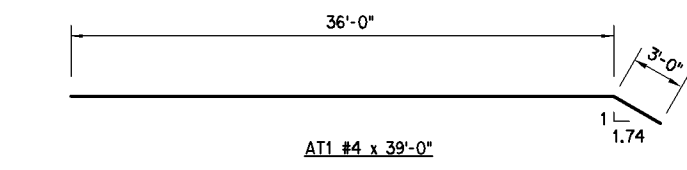
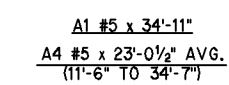
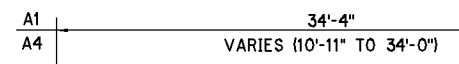
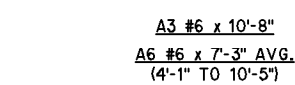
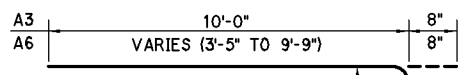
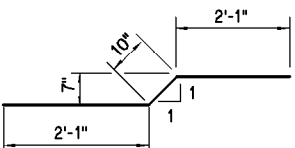
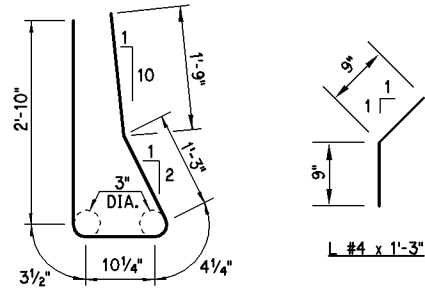
BEAM LINE	DECK SLAB ELEVATION SCHEDULE AT TENTH POINTS																																
	ABUT 1 BRNG	SPAN 1									SPAN 2									SPAN 3									ABUT 2 BRNG				
	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1 BRNG	PIER 1 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 2 BRNG	PIER 2 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	ABUT 2 BRNG	
7	1196.82	1196.85	1196.88	1196.91	1196.95	1196.98	1197.01	1197.04	1197.07	1197.10	1197.13	1197.14	1197.18	1197.21	1197.25	1197.29	1197.32	1197.36	1197.40	1197.43	1197.47	1197.51	1197.51	1197.55	1197.59	1197.64	1197.69	1197.74	1197.80	1197.86	1197.93	1197.99	1198.07
8	1196.67	1196.70	1196.73	1196.76	1196.79	1196.83	1196.86	1196.89	1196.92	1196.95	1196.98	1196.99	1197.02	1197.06	1197.10	1197.13	1197.17	1197.21	1197.24	1197.28	1197.32	1197.36	1197.36	1197.40	1197.45	1197.50	1197.55	1197.61	1197.67	1197.72	1197.78	1197.84	1197.91
9	1196.52	1196.55	1196.58	1196.61	1196.64	1196.67	1196.71	1196.74	1196.77	1196.80	1196.83	1196.84	1196.87	1196.91	1196.95	1196.98	1197.02	1197.06	1197.09	1197.13	1197.17	1197.21	1197.21	1197.26	1197.31	1197.36	1197.41	1197.47	1197.52	1197.56	1197.60	1197.64	1197.69
10	1196.37	1196.40	1196.43	1196.46	1196.49	1196.52	1196.55	1196.58	1196.62	1196.65	1196.68	1196.69	1196.72	1196.76	1196.80	1196.83	1196.87	1196.91	1196.94	1196.98	1197.02	1197.06	1197.07	1197.11	1197.16	1197.22	1197.28	1197.34	1197.35	1197.37	1197.39	1197.41	1197.44

OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
SUPERSTRUCTURE DETAILS
PHASE I
 (SHEET 1 OF 4)
 State Job No. 23310(04) Sheet No. B051

Design	
Drawn	
Checked	
Approved	
Squad	POE

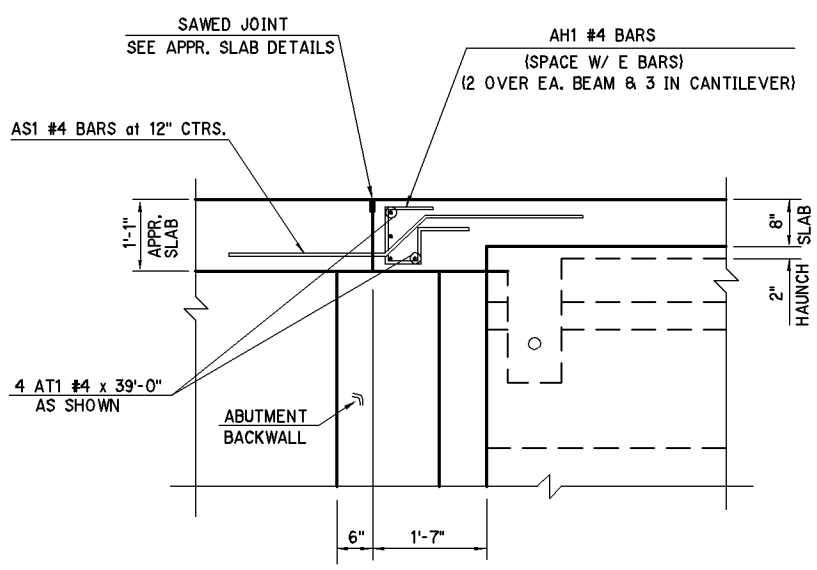
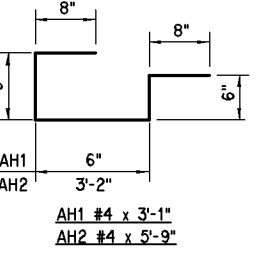
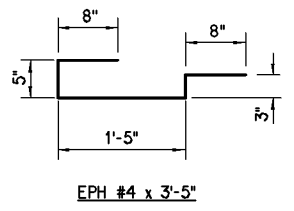
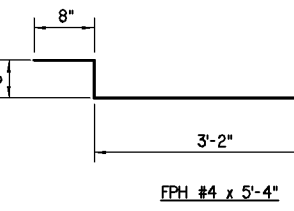
DESCRIPTION	REVISIONS	DATE

BAR LIST- SUPERSTRUCTURE EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
A1	242	#5	BNT.	8" C/C	34'-11"
A2	242	#5	STR.	8" C/C	34'-4"
A3	305	#6	BNT.	8" C/C	10'-8"
A4	63	#5	BNT.	8" C/C	23'-0 1/2" AVG.
A5	63	#5	STR.	8" C/C	22'-5 1/2" AVG.
A6	36	#6	BNT.	4" C/C	7'-3" AVG.
A7	36	#5	STR.	4" C/C	6'-7" AVG.
A8	144	#5	STR.	8" C/C	16'-11 1/2" AVG.
AH1	22	#4	BNT.	AS SHOWN	3'-1"
AH2	46	#4	BNT.	AS SHOWN	5'-9"
AS1	66	#4	BNT.	12" C/C	5'-0"
AT1	14	#4	BNT.	AS SHOWN	39'-0"
E1	34	#4	STR.	AS SHOWN	142'-7"
E2	34	#5	STR.	AS SHOWN	143'-7"
E3	34	#4	STR.	AS SHOWN	77'-9"
E4	34	#5	STR.	AS SHOWN	78'-3"
EPH	68	#4	BNT.	AS SHOWN	3'-5"
FPH	30	#4	BNT.	AS SHOWN	5'-4"
FPT	4	#4	STR.	AS SHOWN	36'-0"
F1	54	#4	STR.	AS SHOWN	7'-11"
F2	72	#4	STR.	AS SHOWN	8'-3"
F3	36	#4	STR.	AS SHOWN	9'-2"
F4	24	#4	STR.	AS SHOWN	3'-8"
F5	12	#4	STR.	AS SHOWN	4'-2"
FS2	152	#5	BNT.	12" C/C	7'-4"
L	68	#4	BNT.	STD.	1'-3"
U1	72	#4	BNT.	12" C/C	4'-1"
U2	180	#4	BNT.	12" C/C	5'-9"

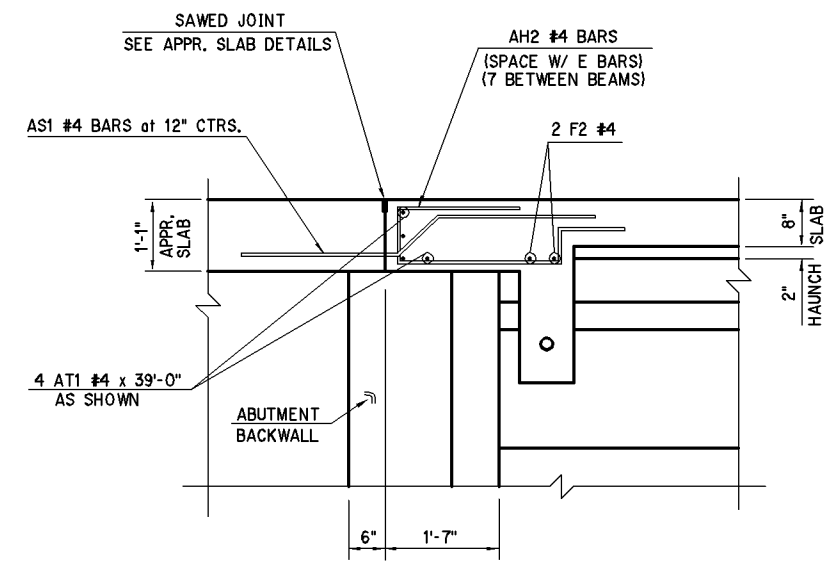


- ① LENGTH VARIES:
A4 = 11'-6" TO 34'-7"
A5 = 10'-11" TO 34'-0"
A6 = 4'-1" TO 10'-5"
A7 = 3'-5" TO 9'-9"
A8 = 3'-8" TO 30'-3"
- ② LENGTH SHOWN INCLUDES LAP:
E1 = 2 at 1'-6"
E2 = 2 at 2'-0"
E3 = 1 at 1'-6"
E4 = 1 at 2'-0"

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

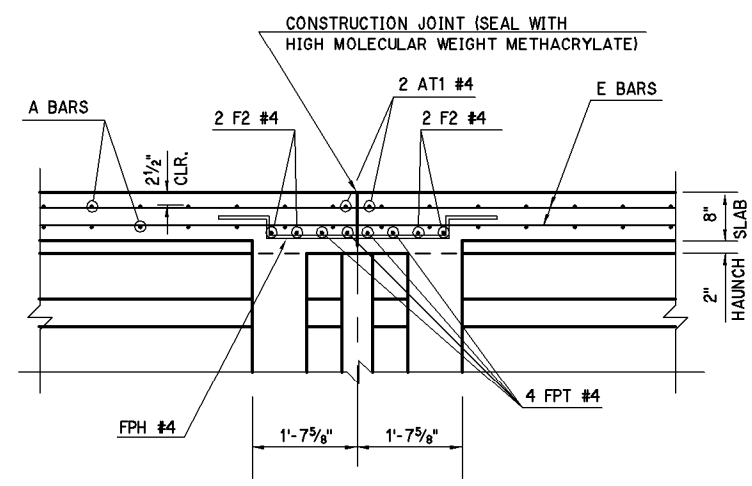


SECTION A-A
SECTION AT BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)

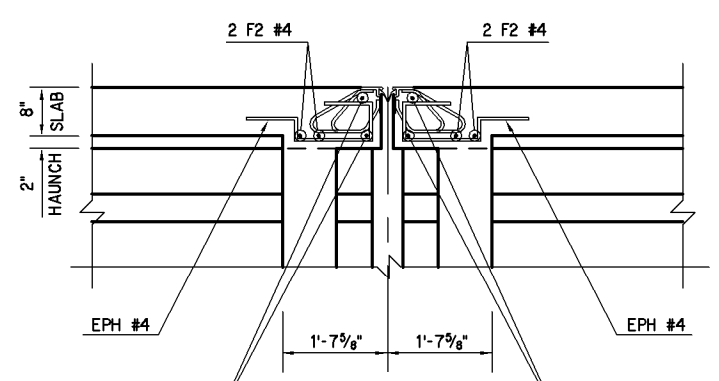


SECTION B-B
SECTION BETWEEN BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)

NOTE: ADDITIONAL DIAPHRAGM REINFORCING OMITTED FROM SECTIONS FOR CLARITY.



SECTION C-C
(PIER NO. 1 ONLY)
(TYPICAL BETWEEN BEAMS)



SECTION D-D
(PIER NO. 2 ONLY)
(A BARS & E BARS NOT SHOWN FOR CLARITY)

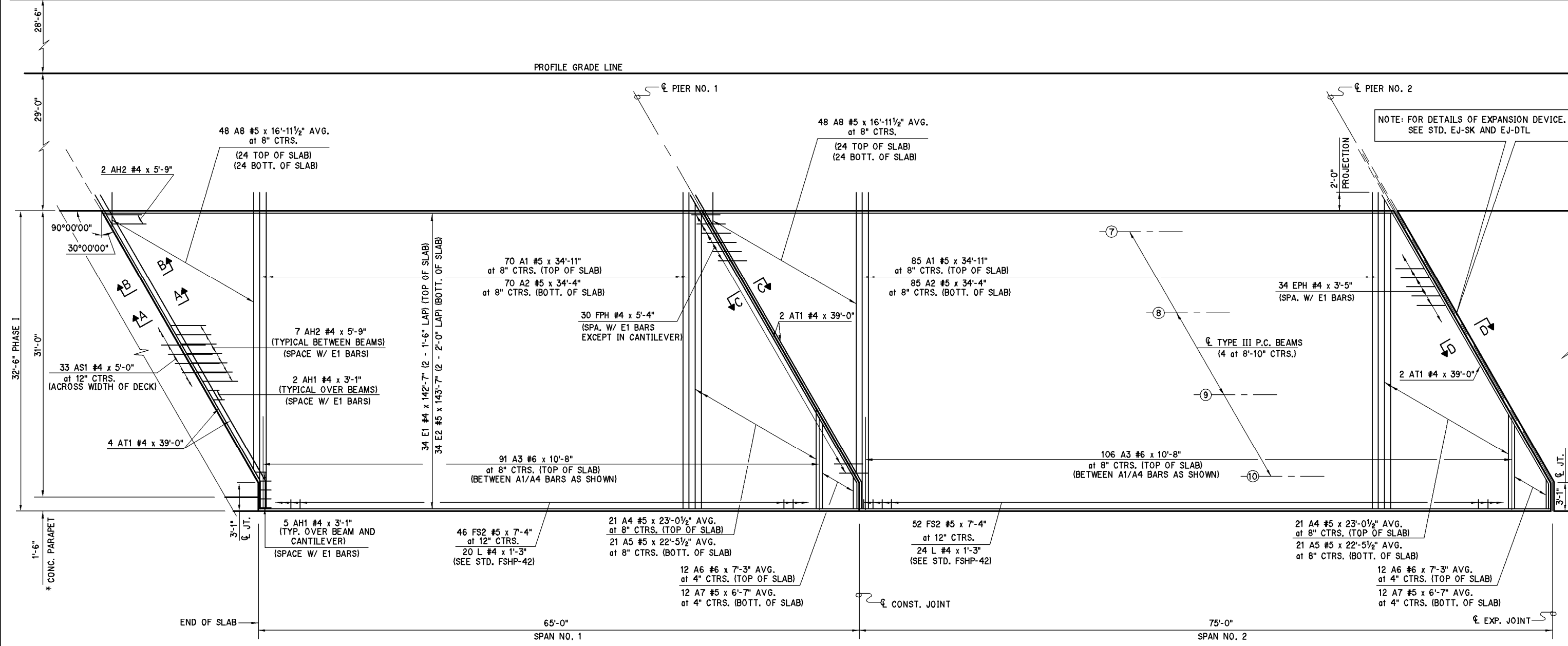
FOR EXPANSION DEVICE DETAILS, SEE STD. EJ-SK & EJ-DTL.

PHASING OF SEALED EXPANSION JOINTS:
DURING INSTALLATION OF SEALED EXPANSION JOINTS ON PHASE I, APPROXIMATELY 6" OF THE PREFORMED NEOPRENE GLAND SHALL BE LEFT IN PLACE BEYOND THE LONGITUDINAL CONSTRUCTION JOINT. DURING INSTALLATION OF THE PHASE III EXPANSION DEVICES THE ANGLES SHALL BE BUTT WELDED TO THE PHASE I EXPANSION DEVICE ANGLES AND THE PREFORMED NEOPRENE GLAND SHALL BE SCARFED AND HEAT VULCANIZED WITH THE PHASE I PREFORMED NEOPRENE GLAND IN AN APPROVED MANNER. ALL COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID PER L.F. OF "SEALED EXPANSION JOINT" AND SHALL INCLUDE ALL MATERIALS, WELDING, CUTTING, AND HEAT VULCANIZING TO JOIN THE PHASE I AND PHASE III EXPANSION DEVICES.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 2 OF 4)	
		State Job No. 23310(04)	Sheet No. B052

DESCRIPTION	REVISIONS	DATE

CL I-40

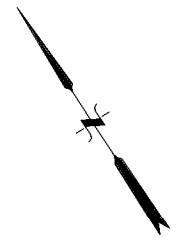


* NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

**SLAB REINFORCING LAYOUT
SPANS 1 AND 2**

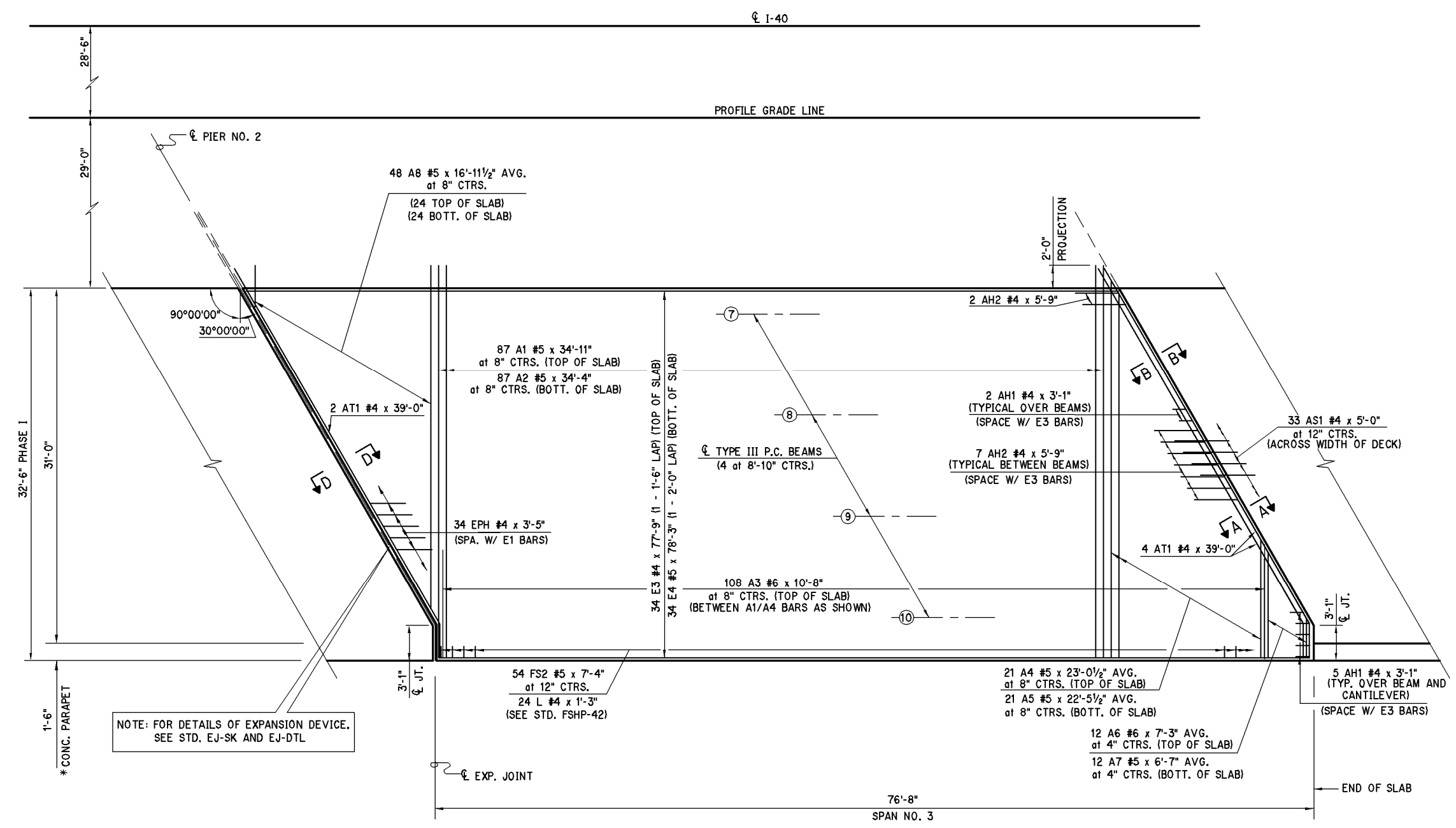
NOTE: FOR SECTIONS A-A, B-B, C-C AND D-D. SEE SHT. B052.

NOTE: STAGGER ALL E1/E2 BAR LAPS. DO NOT LAP WITHIN 10'-0" OF PIER CENTERLINE.



Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 3 OF 4)	
		State Job No. 23310(04)	Sheet No. B053

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

* NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

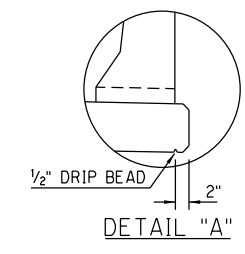
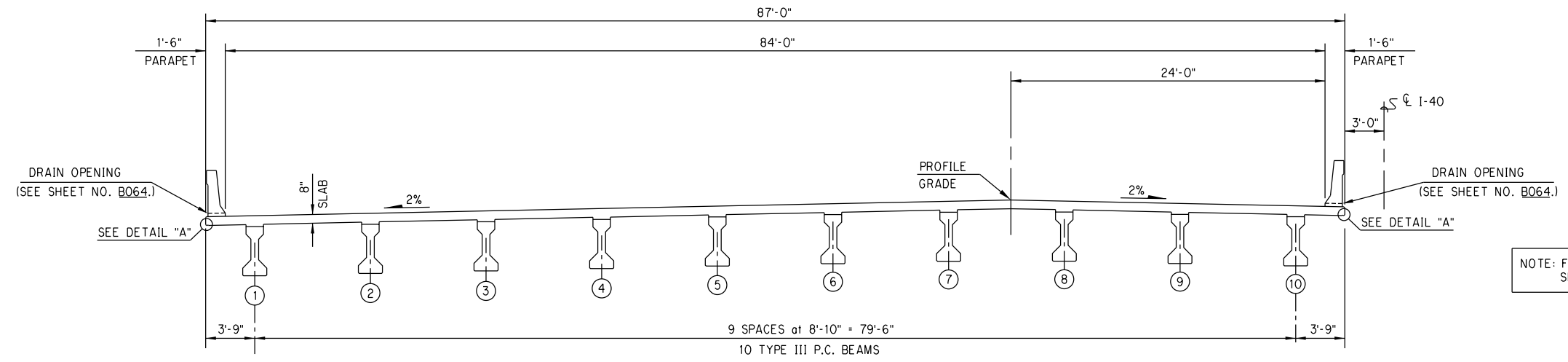
**SLAB REINFORCING LAYOUT
SPAN 3**

NOTE: FOR SECTIONS A-A, B-B, AND D-D, SEE SHT. B052.

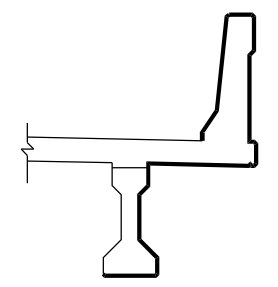
NOTE: STAGGER ALL E3/E4 BAR LAPS. DO NOT LAP WITHIN 10'-0" OF PIER CENTERLINE.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			SUPERSTRUCTURE DETAILS
Approved			PHASE I
Squad	POE		(SHEET 4 OF 4)
		State Job No. 23310(04)	Sheet No. B054

DESCRIPTION	REVISIONS	DATE
1	REVISION AFTER LET	9/03/20

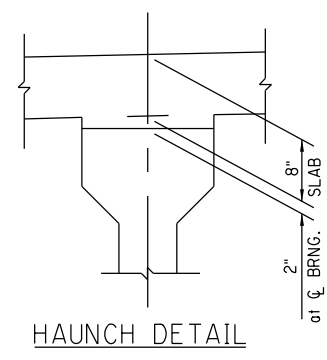


NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42.

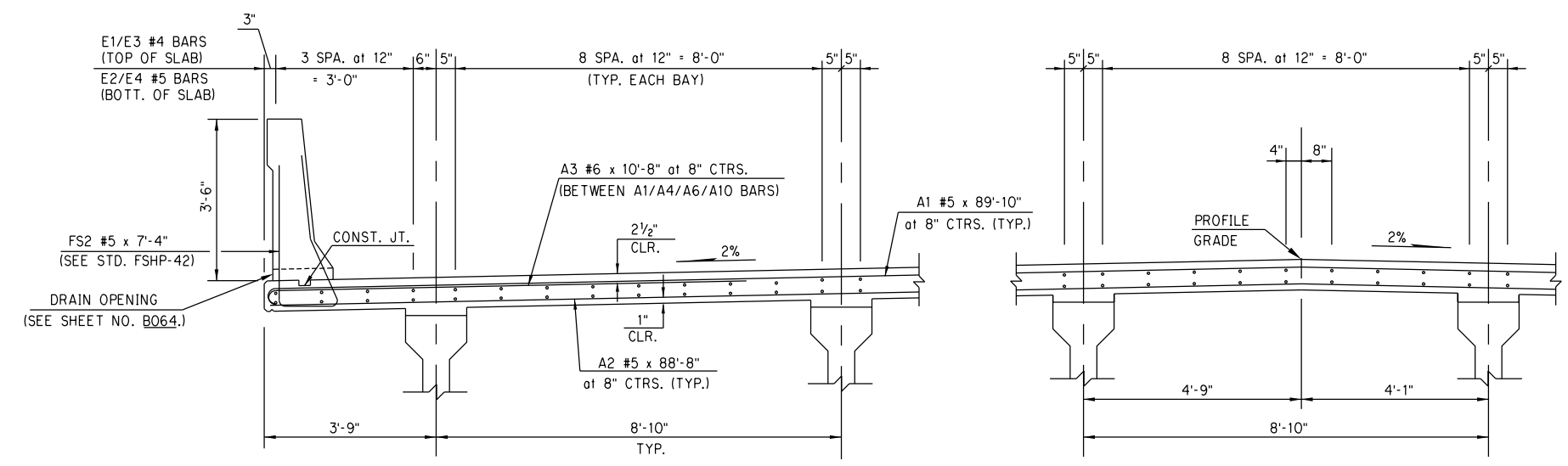


WATER REPELLENT SURFACE TREATMENT
 SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.

TYPICAL BRIDGE SECTION



HAUNCH DETAIL



TYPICAL REINFORCING SECTION

QUANTITIES		
ITEM	UNIT	TOTAL
PRESTRESSED CONC. BEAMS (TYPE III)	L.F.	2,123.33
SAW-CUT GROOVING	S.Y.	2,022.3
** CLASS AA CONCRETE	C.Y.	521.6
42" F-SHAPED PARAPET	L.F.	433.4
STRUCTURAL STEEL	LB.	3,610
EPOXY COATED REINFORCING STEEL	LB.	114,520
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	86.3
SEALED EXPANSION JOINT	L.F.	100.50
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	20
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	40
SEALER CRACK PREPARATION	L.F.	100
SEALER RESIN	GAL.	1.1

****NOTE:**
 PLAN QUANTITY FOR CLASS "AA(AE)" CONCRETE INCLUDES 17.5 C.Y. FOR HAUNCHES OVER BEAMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF BEAMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.

BEAM LINE	DECK SLAB ELEVATION SCHEDULE AT TENTH POINTS																																
	ABUT 1 BRNG	SPAN 1								SPAN 2								SPAN 3								ABUT 2 BRNG							
	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1 BRNG	PIER 1 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 2 BRNG	PIER 2 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	ABUT 2 BRNG	
1	1195.87	1195.90	1195.93	1195.96	1195.99	1196.03	1196.06	1196.09	1196.12	1196.15	1196.18	1196.19	1196.22	1196.26	1196.30	1196.33	1196.37	1196.41	1196.44	1196.48	1196.52	1196.55	1196.56	1196.60	1196.64	1196.67	1196.71	1196.75	1196.78	1196.82	1196.86	1196.89	1196.93
2	1196.07	1196.10	1196.13	1196.17	1196.20	1196.23	1196.26	1196.29	1196.32	1196.35	1196.38	1196.39	1196.43	1196.46	1196.50	1196.54	1196.57	1196.61	1196.65	1196.68	1196.72	1196.76	1196.76	1196.80	1196.84	1196.87	1196.91	1196.95	1196.98	1197.02	1197.06	1197.10	1197.13
3	1196.27	1196.31	1196.34	1196.37	1196.40	1196.43	1196.46	1196.49	1196.52	1196.55	1196.58	1196.59	1196.63	1196.67	1196.70	1196.74	1196.78	1196.81	1196.85	1196.89	1196.92	1196.96	1196.97	1197.00	1197.04	1197.08	1197.11	1197.15	1197.19	1197.22	1197.26	1197.30	1197.33
4	1196.48	1196.51	1196.54	1196.57	1196.60	1196.63	1196.66	1196.69	1196.72	1196.76	1196.79	1196.79	1196.83	1196.87	1196.90	1196.94	1196.98	1197.01	1197.05	1197.09	1197.12	1197.16	1197.17	1197.21	1197.24	1197.28	1197.32	1197.35	1197.39	1197.43	1197.46	1197.50	1197.54
5	1196.68	1196.71	1196.74	1196.77	1196.80	1196.83	1196.86	1196.90	1196.93	1196.96	1196.99	1197.00	1197.03	1197.07	1197.11	1197.14	1197.18	1197.22	1197.25	1197.29	1197.33	1197.36	1197.37	1197.41	1197.44	1197.48	1197.52	1197.55	1197.59	1197.63	1197.66	1197.70	1197.74
6	1196.88	1196.91	1196.94	1196.97	1197.01	1197.04	1197.07	1197.10	1197.13	1197.16	1197.19	1197.20	1197.23	1197.27	1197.31	1197.35	1197.38	1197.42	1197.46	1197.49	1197.53	1197.57	1197.57	1197.61	1197.65	1197.68	1197.72	1197.76	1197.79	1197.83	1197.87	1197.91	1197.95
7	1197.08	1197.11	1197.15	1197.18	1197.21	1197.24	1197.27	1197.30	1197.33	1197.36	1197.39	1197.40	1197.44	1197.47	1197.51	1197.55	1197.58	1197.62	1197.66	1197.69	1197.73	1197.77	1197.78	1197.81	1197.85	1197.89	1197.92	1197.96	1198.00	1198.03	1198.07	1198.11	1198.16
8	1197.12	1197.15	1197.18	1197.22	1197.25	1197.28	1197.31	1197.34	1197.37	1197.40	1197.43	1197.44	1197.48	1197.51	1197.55	1197.59	1197.62	1197.66	1197.70	1197.73	1197.77	1197.81	1197.81	1197.85	1197.89	1197.92	1197.96	1198.00	1198.03	1198.07	1198.11	1198.16	1198.20
9	1196.97	1197.00	1197.03	1197.06	1197.09	1197.13	1197.16	1197.19	1197.22	1197.25	1197.28	1197.29	1197.32	1197.36	1197.40	1197.43	1197.47	1197.51	1197.55	1197.58	1197.62	1197.66	1197.66	1197.70	1197.74	1197.77	1197.81	1197.85	1197.88	1197.92	1197.96	1198.01	1198.06
10	1196.82	1196.85	1196.88	1196.91	1196.94	1196.97	1197.01	1197.04	1197.07	1197.10	1197.13	1197.14	1197.17	1197.21	1197.25	1197.28	1197.32	1197.36	1197.39	1197.43	1197.47	1197.50	1197.51	1197.55	1197.59	1197.62	1197.66	1197.70	1197.73	1197.77	1197.82	1197.87	1197.92

REVISION AFTER LET
 09/03/2020

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			SUPERSTRUCTURE DETAILS
Approved			PHASE II
Squad	POE		(SHEET 1 OF 4)
		State Job No. 23310(04)	Sheet No. B055

DESCRIPTION	REVISIONS	DATE

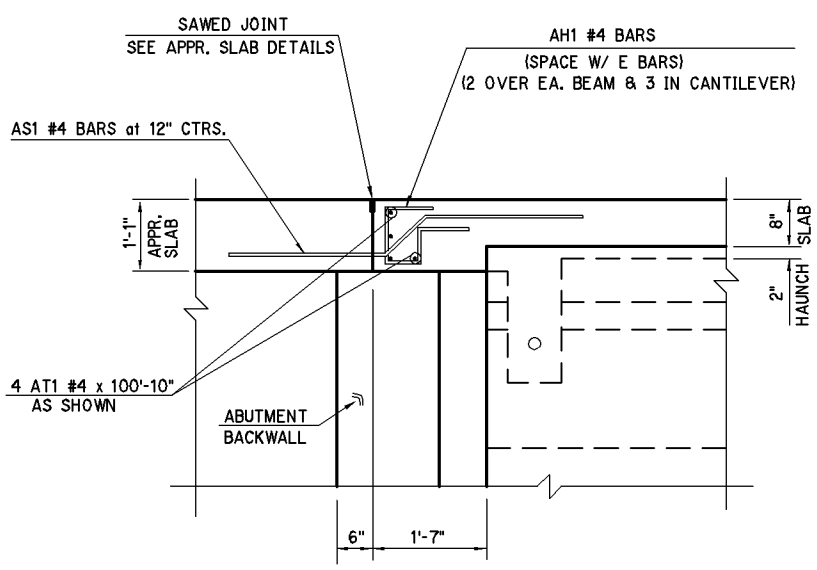
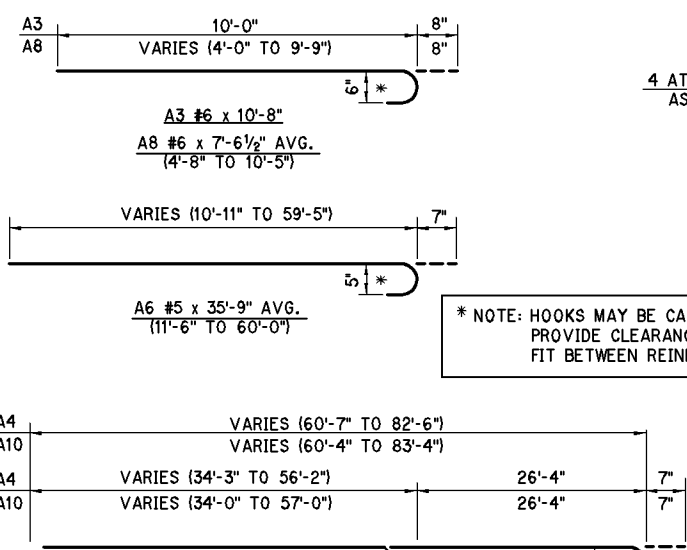
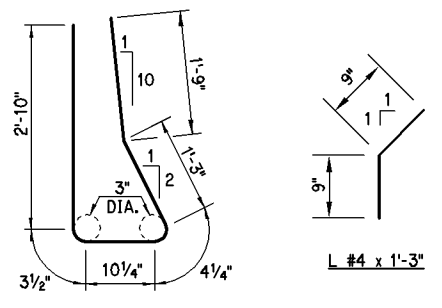
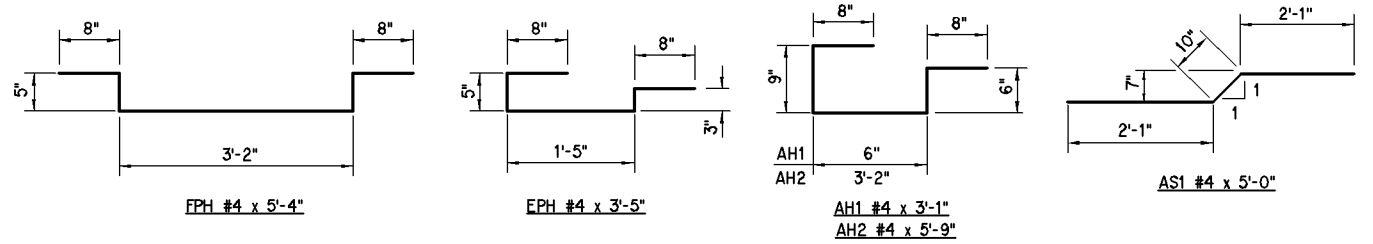
**BAR LIST- SUPERSTRUCTURE
EPOXY COATED**

MARK	NO.	SIZE	FORM	SPACING	LENGTH
② A1	115	#5	BNT.	8" C/C	89'-10"
② A2	115	#5	STR.	8" C/C	88'-8"
A3	610	#6	BNT.	8" C/C	10'-8"
①② A4	100	#5	BNT.	8" C/C	74'-1 1/2" AVG.
①② A5	100	#5	STR.	8" C/C	73'-6 1/2" AVG.
① A6	258	#5	BNT.	8" C/C	35'-9" AVG.
① A7	258	#5	STR.	8" C/C	35'-2" AVG.
① A8	66	#6	BNT.	4" C/C	7'-6 1/2" AVG.
① A9	66	#5	STR.	4" C/C	6'-10 1/2" AVG.
①② A10	21	#5	BNT.	8" C/C	74'-5" AVG.
①② A11	21	#5	STR.	8" C/C	73'-10" AVG.
AH1	52	#4	BNT.	AS SHOWN	3'-1"
AH2	126	#4	BNT.	AS SHOWN	5'-9"
AS1	178	#4	BNT.	12" C/C	5'-0"
② AT1	14	#4	BNT.	AS SHOWN	100'-10"
E1	89	#4	STR.	AS SHOWN	142'-7"
② E2	89	#5	STR.	AS SHOWN	143'-7"
② E3	89	#4	STR.	AS SHOWN	77'-9"
② E4	89	#5	STR.	AS SHOWN	78'-3"
EPH	178	#4	BNT.	AS SHOWN	3'-5"
FPH	81	#4	BNT.	AS SHOWN	5'-4"
② FPT	4	#4	STR.	AS SHOWN	94'-6"
F1	162	#4	STR.	AS SHOWN	7'-11"
F2	216	#4	STR.	AS SHOWN	8'-3"
F3	108	#4	STR.	AS SHOWN	9'-2"
FS2	304	#5	BNT.	12" C/C	7'-4"
L	136	#4	BNT.	STD.	1'-3"
U1	216	#4	BNT.	12" C/C	4'-1"
U2	486	#4	BNT.	12" C/C	5'-9"

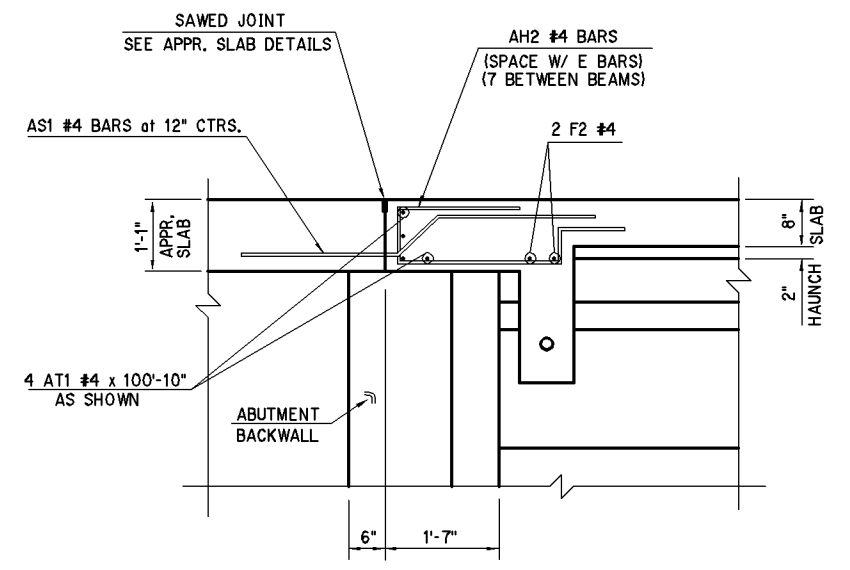
① LENGTH VARIES:
A4 = 63'-2" TO 85'-1"
A5 = 62'-7" TO 84'-6"
A6 = 11'-6" TO 60'-0"
A7 = 10'-11" TO 59'-5"
A8 = 4'-8" TO 10'-5"
A9 = 4'-0" TO 9'-9"
A10 = 62'-11" TO 85'-11"
A11 = 62'-4" TO 85'-4"

② LENGTH SHOWN INCLUDES LAP:
A1 = 1 at 2'-0"
A2 = 1 at 2'-0"
A4 = 1 at 2'-0"
A5 = 1 at 2'-0"
A10 = 1 at 2'-0"
A11 = 1 at 2'-0"
AT1 = 1 at 1'-6"
E1 = 2 at 1'-6"
E2 = 2 at 2'-0"
E3 = 1 at 1'-6"
E4 = 1 at 2'-0"
FPT = 1 at 1'-6"

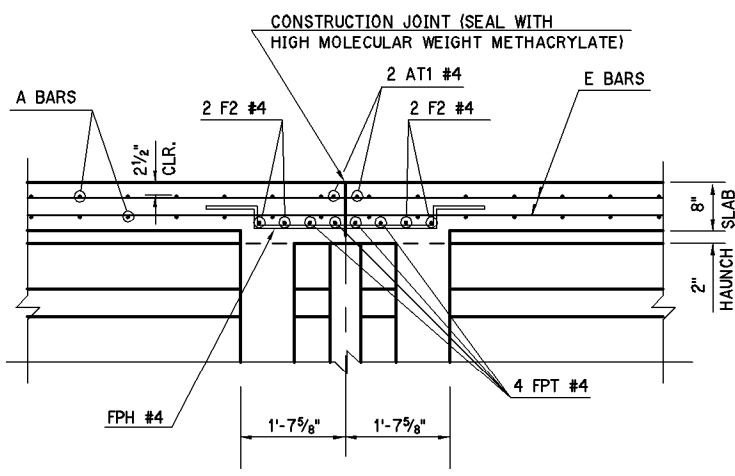
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



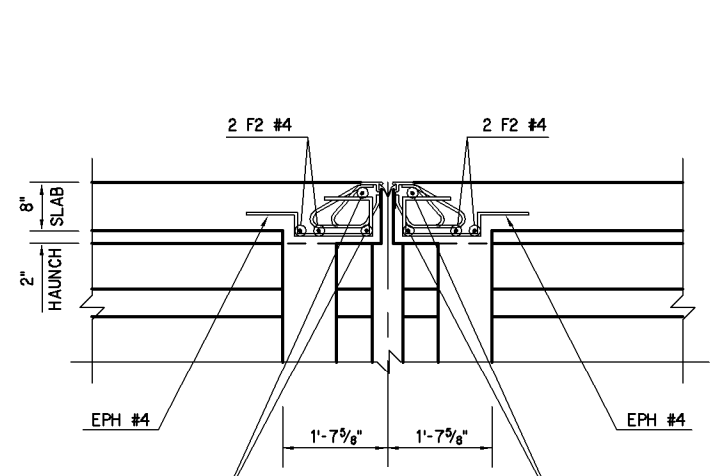
SECTION A-A
SECTION AT BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)



SECTION B-B
SECTION BETWEEN BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)



SECTION C-C
(PIER NO. 1 ONLY)
(TYPICAL BETWEEN BEAMS)



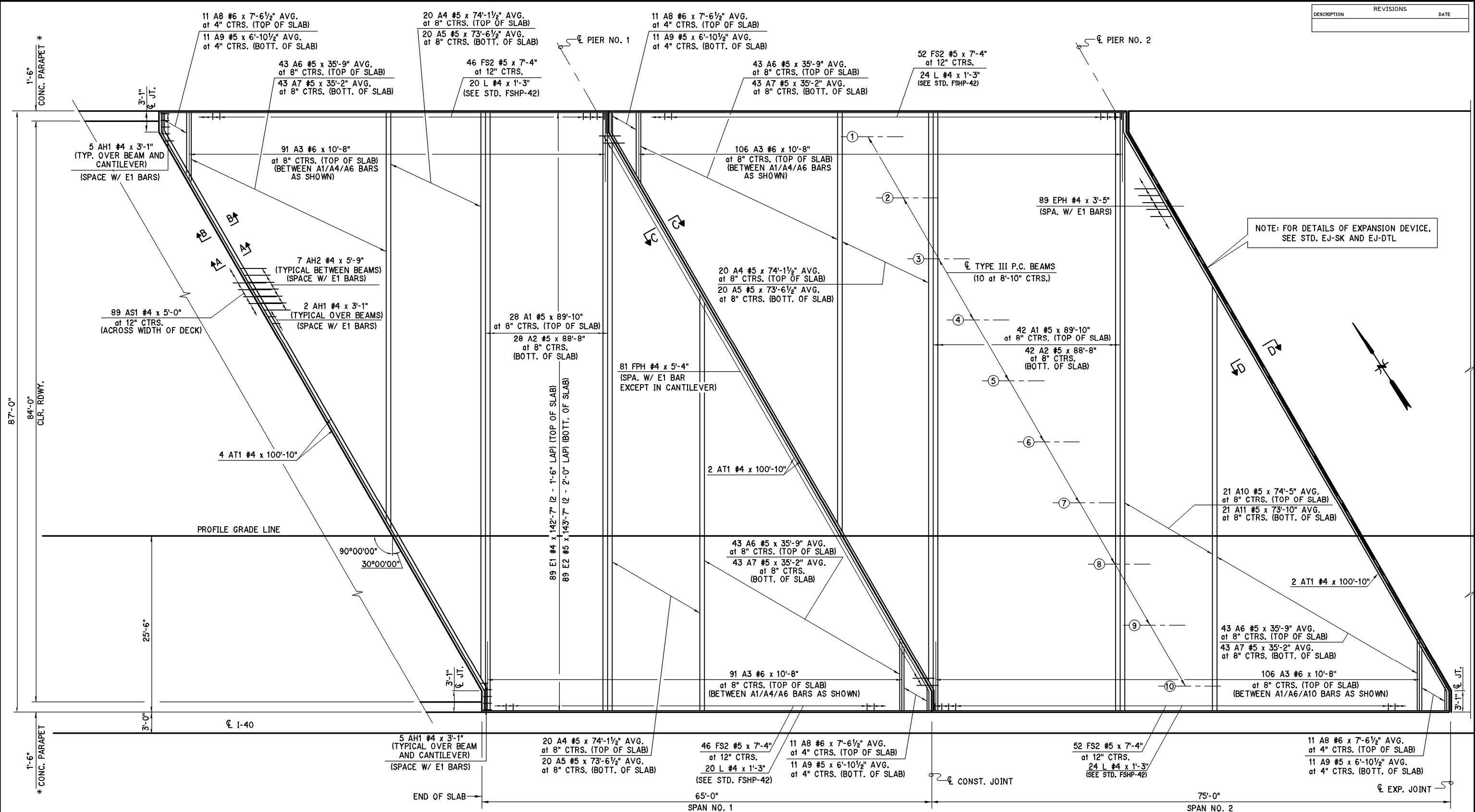
SECTION D-D
(PIER NO. 2 ONLY)
(A BARS & E BARS NOT SHOWN FOR CLARITY)

NOTE: ADDITIONAL DIAPHRAGM REINFORCING OMITTED FROM SECTIONS FOR CLARITY.

FOR EXPANSION DEVICE DETAILS, SEE STD. EJ-SK & EJ-DTL.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked			SUPERSTRUCTURE DETAILS
Approved			PHASE II
Squad	POE		(SHEET 2 OF 4)
		State Job No. 23310(04)	Sheet No. B056

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

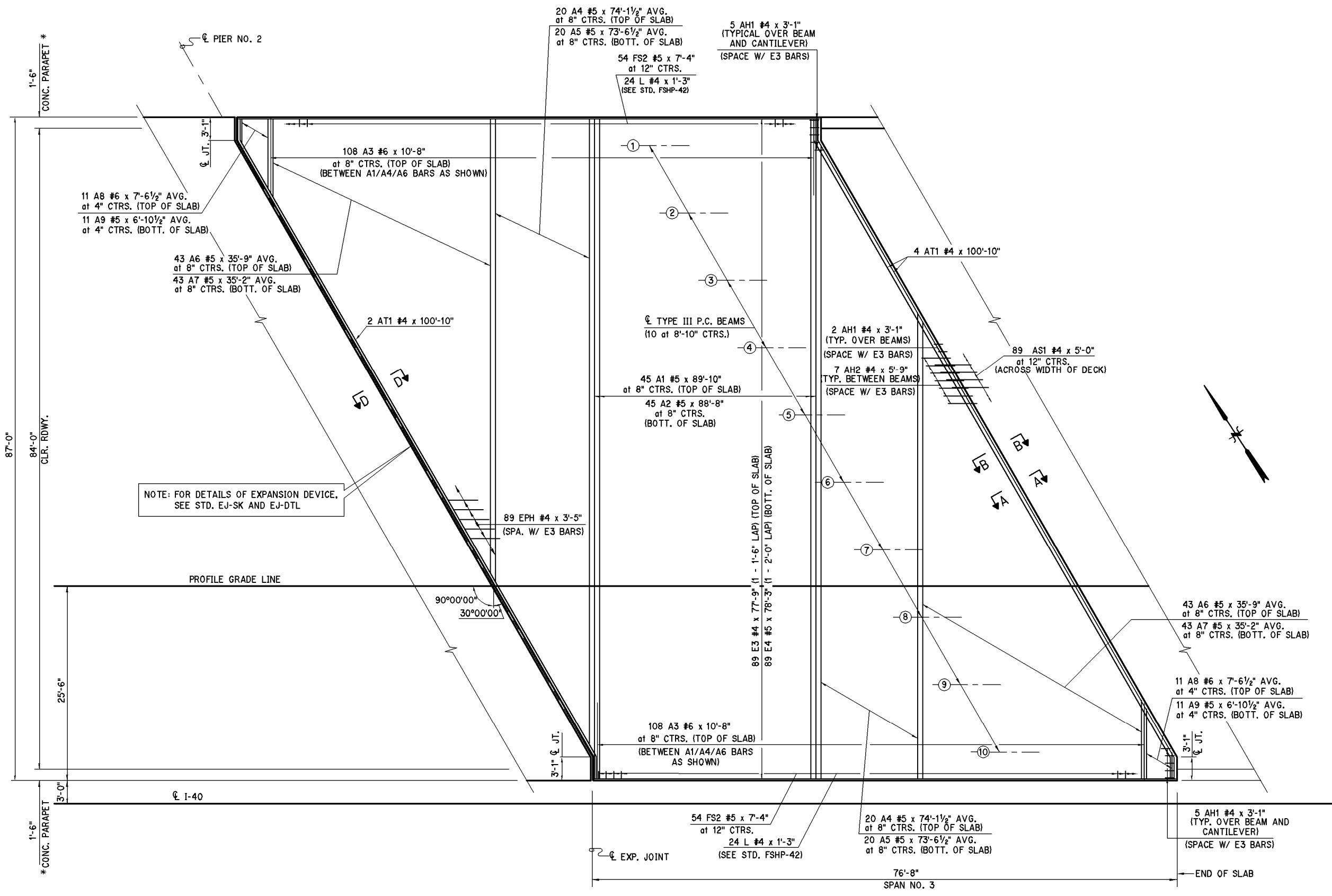
NOTE: STAGGER ALL E1/E2 BAR LAPS. DO NOT LAP WITHIN 10'-0" OF PIER CENTERLINE.

**SLAB REINFORCING LAYOUT
SPANS 1 AND 2**

NOTE: FOR SECTIONS A-A, B-B, C-C AND D-D, SEE SHT. B056.

Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 3 OF 4)	
		State Job No. 23310(04)	Sheet No. B057

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

**SLAB REINFORCING LAYOUT
SPANS 3**

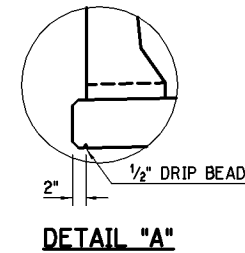
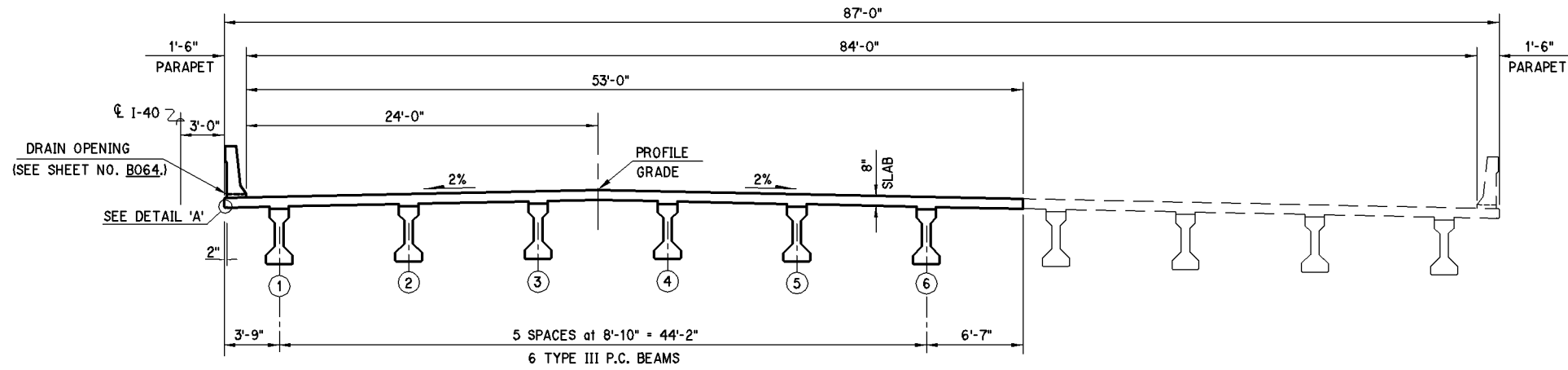
NOTE: FOR SECTIONS A-A, B-B, AND D-D. SEE SHT. B056.

NOTE: STAGGER ALL E3/E4 BAR LAPS. DO NOT LAP WITHIN 10'-0\"/>

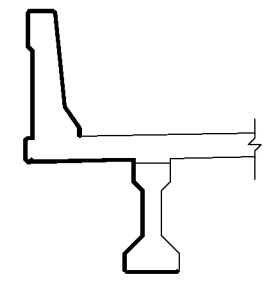
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "A" W.B. I-40 OVER CRUTCHO CREEK
**SUPERSTRUCTURE DETAILS
PHASE II**
(SHEET 4 OF 4)
State Job No. 23310(04) Sheet No. B058

DESCRIPTION	REVISIONS	DATE



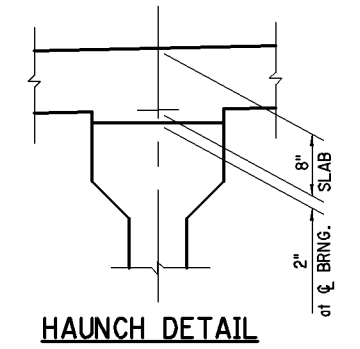
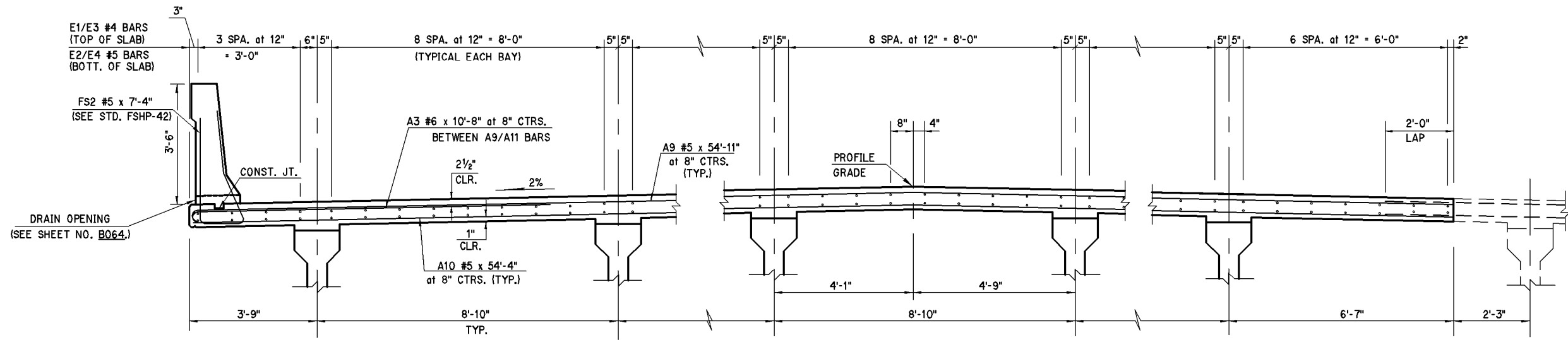
NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42.



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.

TYPICAL BRIDGE SECTION



HAUNCH DETAIL

TYPICAL REINFORCING SECTION

****NOTE:**
 PLAN QUANTITY FOR CLASS "AAIAE" CONCRETE INCLUDES 11.6 C.Y. FOR HAUNCHES OVER BEAMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF BEAMS TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES WILL BE AS SHOWN ABOVE.

QUANTITIES		
ITEM	UNIT	TOTAL
PRESTRESSED CONC. BEAMS (TYPE III)	L.F.	1,274.00
SAW-CUT GROOVING	S.Y.	1,276.0
CLASS AA CONCRETE	C.Y.	333.9
42" F-SHAPED PARAPET	L.F.	216.7
STRUCTURAL STEEL	LB.	2,330
EPOXY COATED REINFORCING STEEL	LB.	69,790
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	432
SEALED EXPANSION JOINT	L.F.	62.95
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	12
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	24
SEALER CRACK PREPARATION	L.F.	280
SEALER RESIN	GAL.	3.1

BEAM LINE	SPAN 1											SPAN 2											SPAN 3										
	ABUT 1 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1 BRNG	PIER 1 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 2 BRNG	PIER 2 BRNG	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	ABUT 2 BRNG
1	1196.86	1196.89	1196.92	1196.95	1196.98	1197.01	1197.04	1197.08	1197.11	1197.14	1197.17	1197.18	1197.21	1197.25	1197.29	1197.32	1197.36	1197.40	1197.43	1197.47	1197.51	1197.54	1197.55	1197.59	1197.62	1197.66	1197.70	1197.74	1197.78	1197.82	1197.87	1197.92	1197.98
2	1197.06	1197.09	1197.12	1197.15	1197.18	1197.22	1197.25	1197.28	1197.31	1197.34	1197.37	1197.38	1197.41	1197.45	1197.49	1197.52	1197.56	1197.60	1197.64	1197.67	1197.71	1197.75	1197.75	1197.79	1197.83	1197.86	1197.90	1197.94	1197.98	1198.03	1198.08	1198.14	1198.20
3	1197.26	1197.29	1197.33	1197.36	1197.39	1197.42	1197.45	1197.48	1197.51	1197.54	1197.57	1197.58	1197.62	1197.65	1197.69	1197.73	1197.76	1197.80	1197.84	1197.87	1197.91	1197.95	1197.96	1197.99	1198.03	1198.07	1198.10	1198.15	1198.19	1198.25	1198.30	1198.36	1198.42
4	1197.28	1197.31	1197.34	1197.37	1197.40	1197.43	1197.46	1197.49	1197.52	1197.55	1197.58	1197.59	1197.63	1197.67	1197.70	1197.74	1197.78	1197.81	1197.85	1197.89	1197.92	1197.96	1197.97	1198.00	1198.04	1198.08	1198.12	1198.17	1198.22	1198.27	1198.33	1198.39	1198.45
5	1197.12	1197.16	1197.19	1197.22	1197.25	1197.28	1197.31	1197.34	1197.37	1197.40	1197.43	1197.44	1197.48	1197.51	1197.55	1197.59	1197.62	1197.66	1197.70	1197.74	1197.77	1197.81	1197.82	1197.85	1197.89	1197.93	1197.98	1198.02	1198.08	1198.13	1198.19	1198.25	1198.32
6	1196.97	1197.00	1197.04	1197.07	1197.10	1197.13	1197.16	1197.19	1197.22	1197.25	1197.28	1197.29	1197.33	1197.36	1197.40	1197.44	1197.47	1197.51	1197.55	1197.58	1197.62	1197.66	1197.66	1197.70	1197.74	1197.78	1197.83	1197.88	1197.94	1198.00	1198.06	1198.12	1198.19

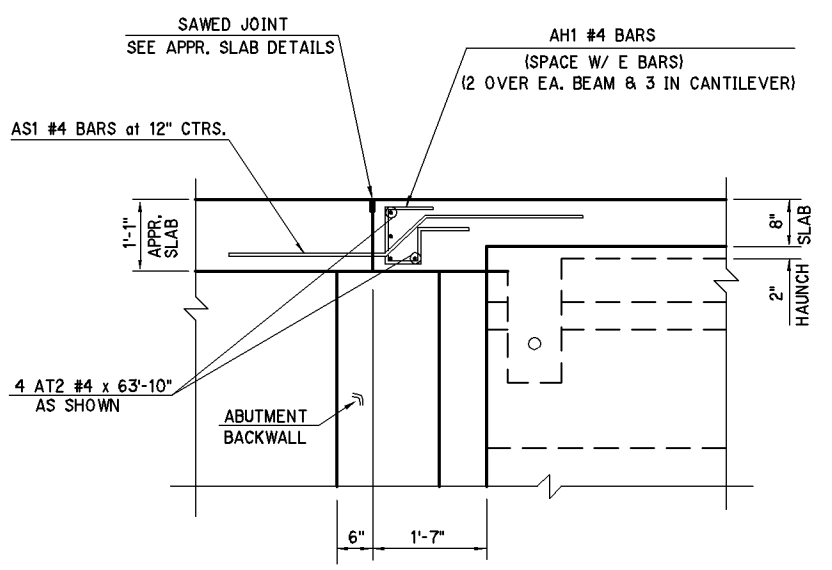
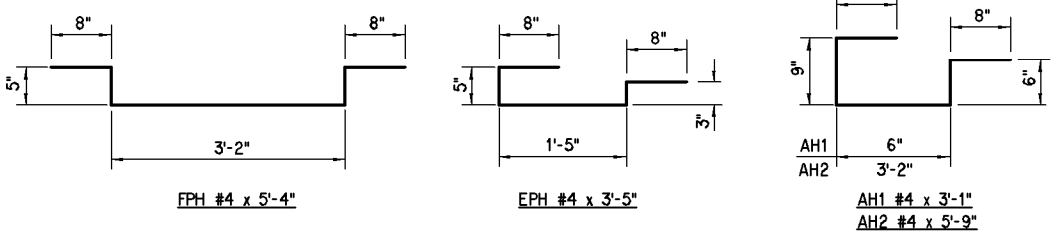
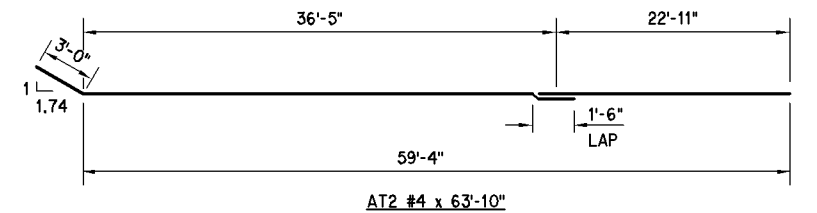
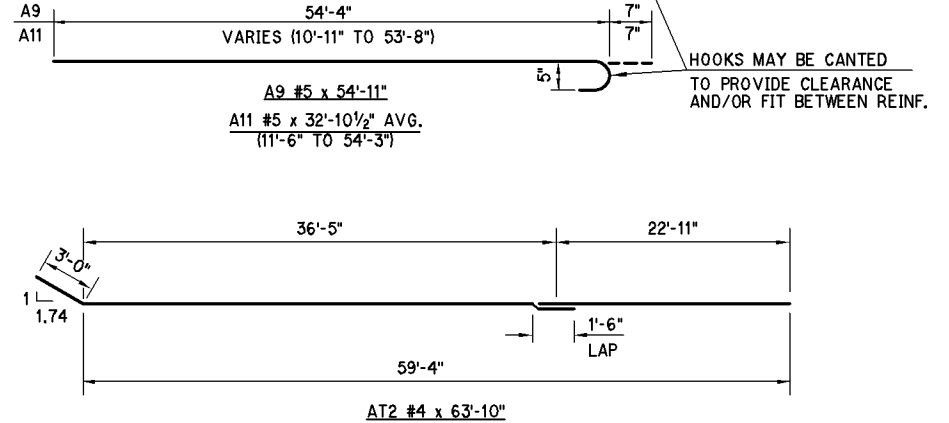
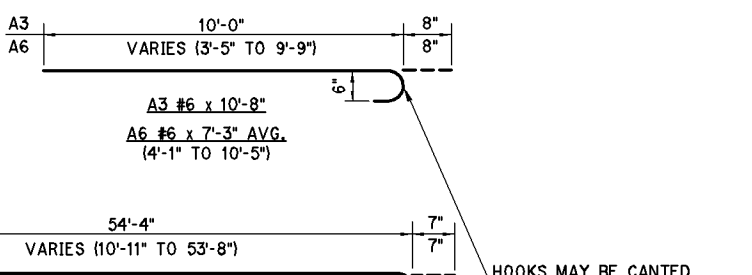
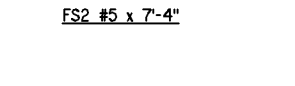
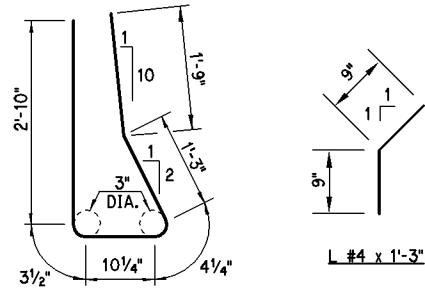
Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 1 OF 4)	
		State Job No. 23310(04)	Sheet No. B059

DESCRIPTION	REVISIONS	DATE

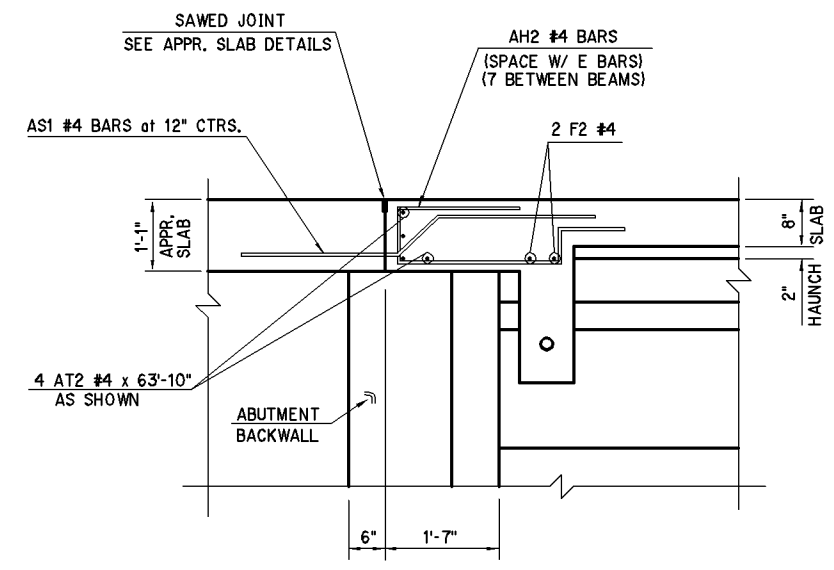
BAR LIST- SUPERSTRUCTURE EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
A3	305	#6	BNT.	8" C/C	10'-8"
A6	36	#6	BNT.	4" C/C	7'-3" AVG.
A7	36	#5	STR.	4" C/C	6'-7" AVG.
A9	190	#5	BNT.	8" C/C	54'-11"
A10	190	#5	STR.	8" C/C	54'-4"
A11	114	#5	BNT.	8" C/C	32'-10 1/2" AVG.
A12	114	#5	STR.	8" C/C	32'-3 1/2" AVG.
A13	84	#5	STR.	8" C/C	26'-6" AVG.
A14	86	#5	STR.	8" C/C	27'-3" AVG.
A15	84	#5	STR.	8" C/C	26'-10" AVG.
AH1	30	#4	BNT.	AS SHOWN	3'-1"
AH2	82	#4	BNT.	AS SHOWN	5'-9"
AS1	112	#4	BNT.	12" C/C	5'-0"
AT2	14	#4	BNT.	AS SHOWN	63'-10"
E1	56	#4	STR.	AS SHOWN	142'-7"
E2	56	#5	STR.	AS SHOWN	143'-7"
E3	56	#4	STR.	AS SHOWN	77'-9"
E4	56	#5	STR.	AS SHOWN	78'-3"
EPH	112	#4	BNT.	AS SHOWN	3'-5"
FPH	52	#4	BNT.	AS SHOWN	5'-4"
FPT	4	#4	STR.	AS SHOWN	59'-4"
F1	108	#4	STR.	AS SHOWN	7'-11"
F2	120	#4	STR.	AS SHOWN	8'-3"
F3	60	#4	STR.	AS SHOWN	9'-2"
F4	24	#4	STR.	AS SHOWN	6'-7"
F5	12	#4	STR.	AS SHOWN	7'-0"
FS2	152	#5	BNT.	12" C/C	7'-4"
L	68	#4	BNT.	STD.	1'-3"
U1	144	#4	BNT.	12" C/C	4'-1"
U2	318	#4	BNT.	12" C/C	5'-9"

- ① LENGTH VARIES:
A6 = 4'-1" TO 10'-5"
A7 = 3'-5" TO 9'-9"
A11 = 11'-6" TO 54'-3"
A12 = 10'-11" TO 53'-8"
A13 = 2'-10" TO 50'-2"
A14 = 3'-6" TO 51'-0"
A15 = 3'-2" TO 50'-6"
- ② LENGTH SHOWN INCLUDES LAP:
E1 = 2 at 1'-6"
E2 = 2 at 2'-0"
E3 = 1 at 1'-6"
E4 = 1 at 2'-0"

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

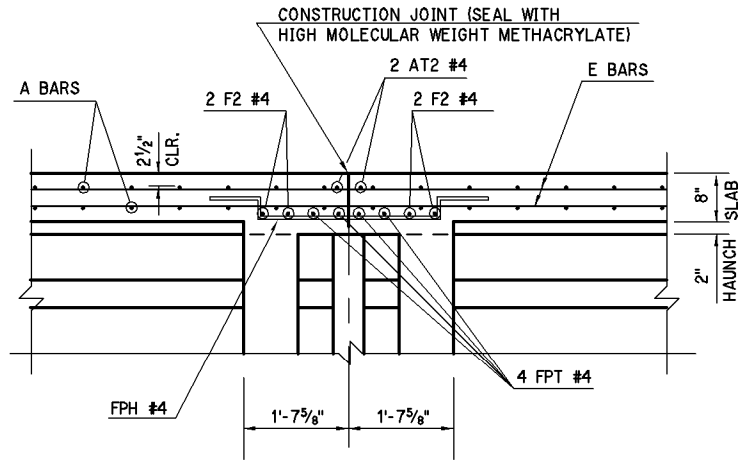


SECTION A-A
SECTION AT BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)

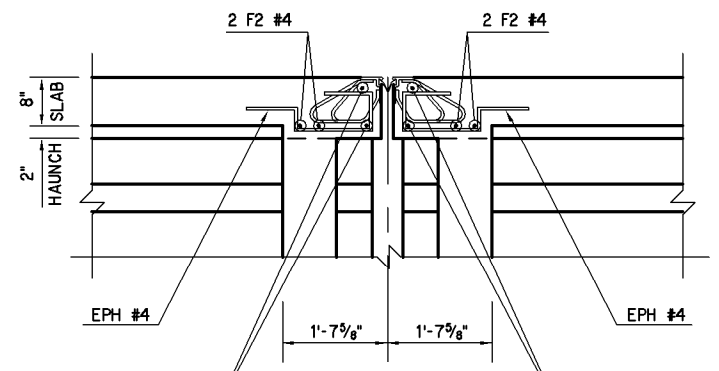


SECTION B-B
SECTION BETWEEN BEAMS
(A BARS & E BARS NOT SHOWN FOR CLARITY)

NOTE: ADDITIONAL DIAPHRAGM REINFORCING OMITTED FROM SECTIONS FOR CLARITY.



SECTION C-C
(PIER NO. 1 ONLY)
(TYPICAL BETWEEN BEAMS)



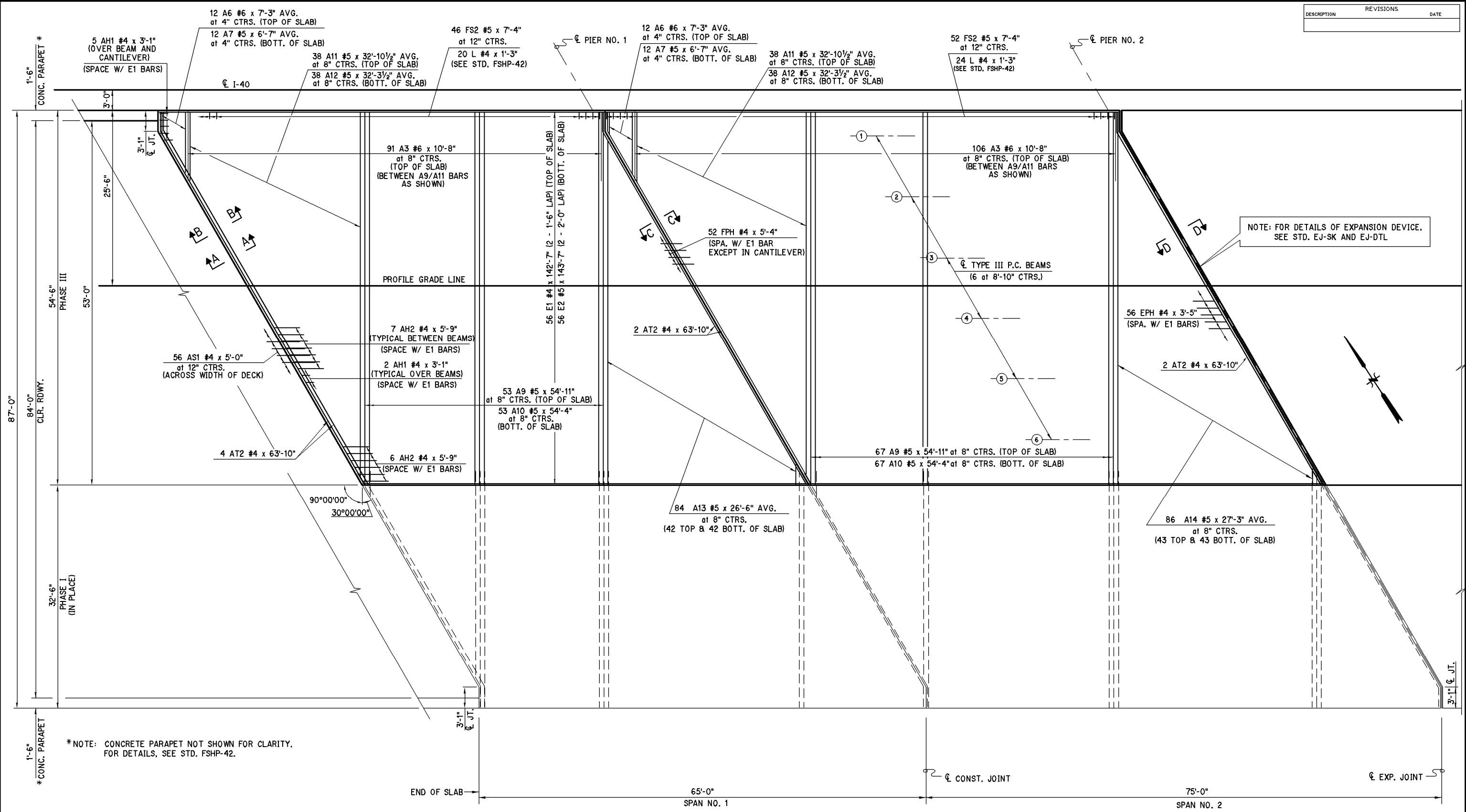
SECTION D-D
(PIER NO. 2 ONLY)
(A BARS & E BARS NOT SHOWN FOR CLARITY)

FOR EXPANSION DEVICE DETAILS, SEE STD. EJ-SK & EJ-DTL.

PHASING OF SEALED EXPANSION JOINTS:
DURING INSTALLATION OF SEALED EXPANSION JOINTS ON PHASE I, APPROXIMATELY 6" OF THE PREFORMED NEOPRENE GLAND SHALL BE LEFT IN PLACE BEYOND THE LONGITUDINAL CONSTRUCTION JOINT. DURING INSTALLATION OF THE PHASE III EXPANSION DEVICES THE ANGLES SHALL BE BUTT WELDED TO THE PHASE I EXPANSION DEVICE ANGLES AND THE PREFORMED NEOPRENE GLAND SHALL BE SCARFED AND HEAT VULCANIZED WITH THE PHASE I PREFORMED NEOPRENE GLAND IN AN APPROVED MANNER. ALL COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID PER L.F. OF "SEALED EXPANSION JOINT" AND SHALL INCLUDE ALL MATERIALS, WELDING, CUTTING, AND HEAT VULCANIZING TO JOIN THE PHASE I AND PHASE III EXPANSION DEVICES.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 2 OF 4)	
		State Job No. 23310(04)	Sheet No. B060

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

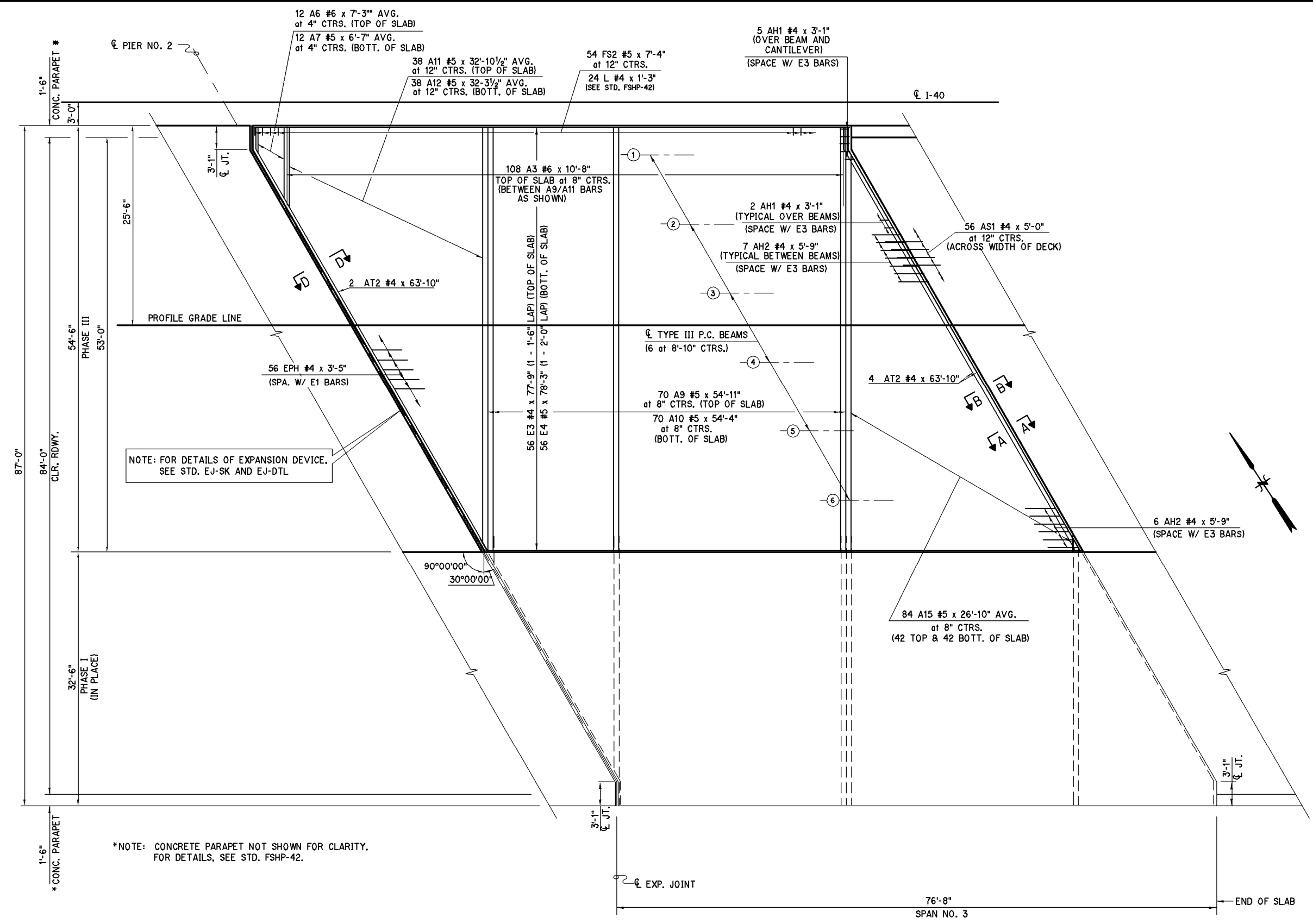
NOTE: STAGGER ALL E1/E2 BAR LAPS. DO NOT LAP WITHIN 10'-0" OF PIER CENTERLINE.

**SLAB REINFORCING LAYOUT
SPANS 1 AND 2**

NOTE: FOR SECTIONS A-A, B-B, C-C AND D-D. SEE SHT. B060.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 3 OF 4)	
		State Job No. 23310(04)	Sheet No. B061

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

**SLAB REINFORCING LAYOUT
SPANS 3**

NOTE: FOR SECTIONS A-A, B-B, AND D-D. SEE SHT. B060.

NOTE: STAGGER ALL E3/E4 BAR LAPS. DO NOT LAP WITHIN 10'-0" OF PIER CENTERLINE.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
**SUPERSTRUCTURE DETAILS
PHASE III**
(SHEET 4 OF 4)
State Job No. 23310(04) Sheet No. B062

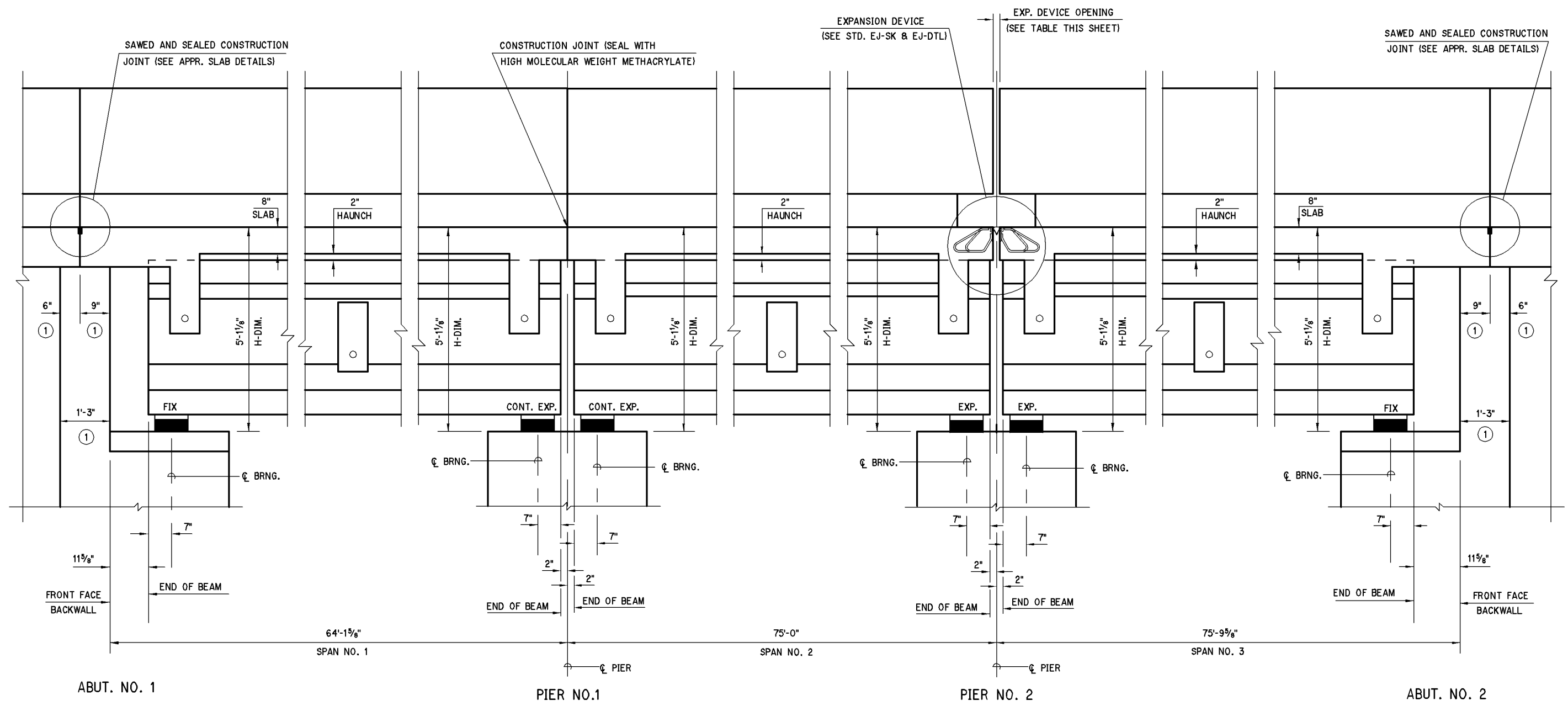
DECK SLAB NOTES

THE DECK SLAB SHALL BE POURED ONE SPAN AT A TIME. IN THE EVENT OF AN EMERGENCY, POURING OF THE DECK SLAB MAY BE HALTED WITH A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 5 FT. OF ANY CONSTRUCTION JOINT UNTIL THE DECK SLAB IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HRS. HAS ELAPSED SINCE CONCRETE PLACEMENT. ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". DO NOT TINE WITHIN 6" OF ANY CONSTRUCTION JOINT.

DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

NOTE:
DECK SHALL NOT BE PLACED ON BEAMS YOUNGER THAN 28 DAYS OLD.

TEMPERATURE	19°F	27°F	35°F	43°F	51°F	59°F	67°F	75°F	83°F	91°F	99°F
OPENING	2 3/8"	2 1/4"	2 1/8"	2"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"



LONGITUDINAL SECTION

① THESE DIMENSIONS ARE NORMAL TO ABUTMENT.

H - DIMENSION SHOWN IS MEASURED FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ϕ BEARING.

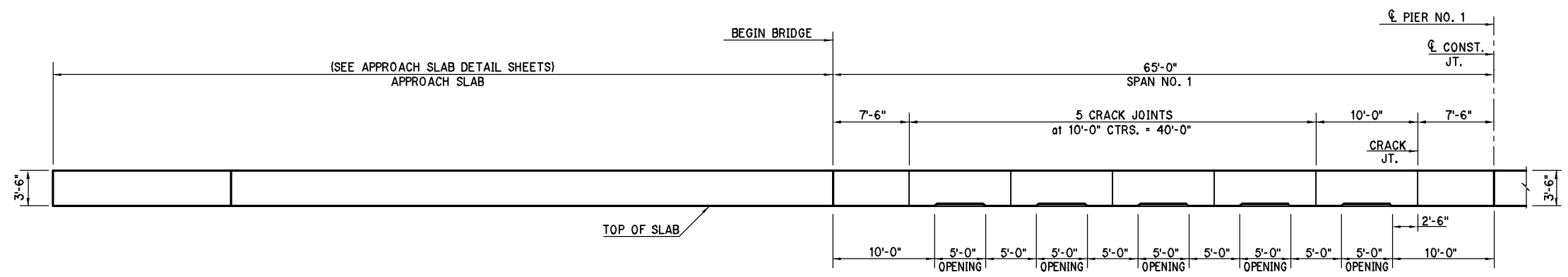
REVISION AFTER LET
07/29/2020

Design		BRIDGE "A" & "B"	OKLAHOMA COUNTY
Drawn			I-40 OVER CRUTCHO CREEK
Checked			
Approved			
Squad	POE		

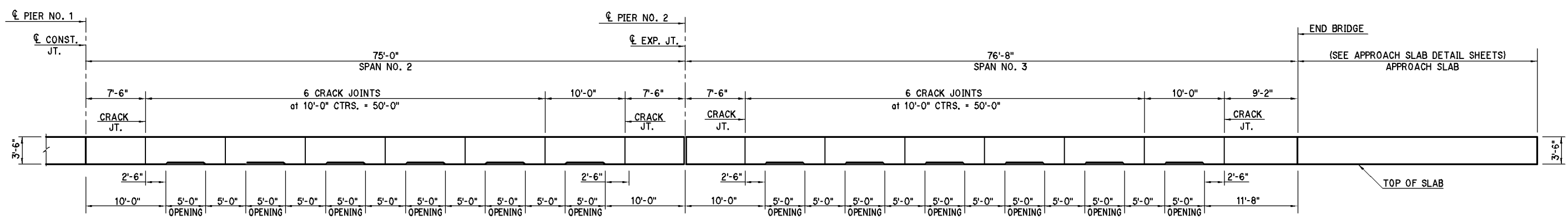
LONGITUDINAL SECTION

State Job No. 23310(04) Sheet No. B063

DESCRIPTION	REVISIONS	DATE



**PARAPET OPENING AND JOINT SPACING
SPAN NO. 1**

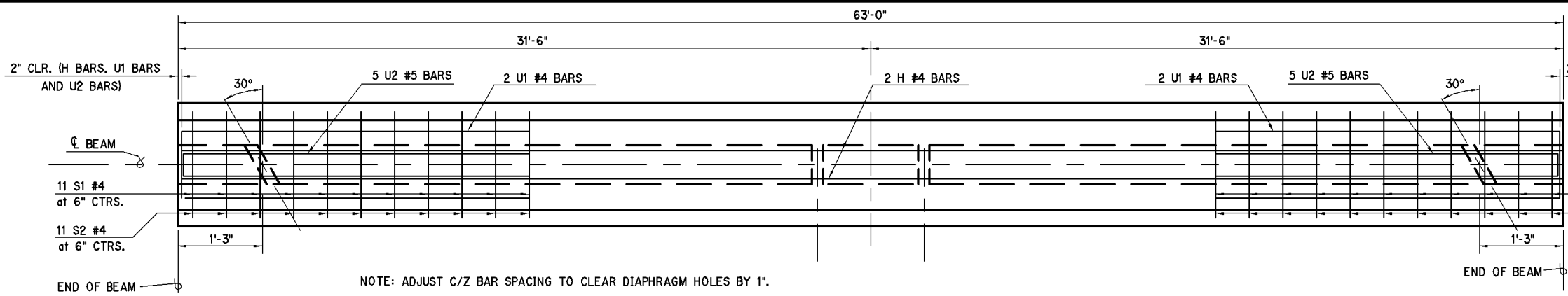


**PARAPET OPENING AND JOINT SPACING
SPAN NO. 2 & 3**

NOTE: FOR ADDITIONAL DETAILS AND LOCATION OF CRACK JOINTS SEE STD. FSHP-42-2.

Design		BRIDGE "A" & "B"	OKLAHOMA COUNTY
Drawn			I-40 OVER CRUTCHO CREEK
Checked			PARAPET DRAIN OPENINGS AND JOINT SPACING
Approved			State Job No. 23310(04) Sheet No. B064
Squad	POE		

DESCRIPTION	REVISIONS	DATE

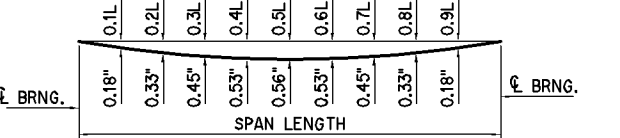


PLAN

DESIGN DATA

LOADING: HL-93 WITH 20 P.S.F. FOR FUTURE WEARING SURFACE.
 OPERATING RATING (LFD) HS-45
 CONCRETE: $f'_c = 7000$ psi
 $f'_{ci} = 5250$ psi

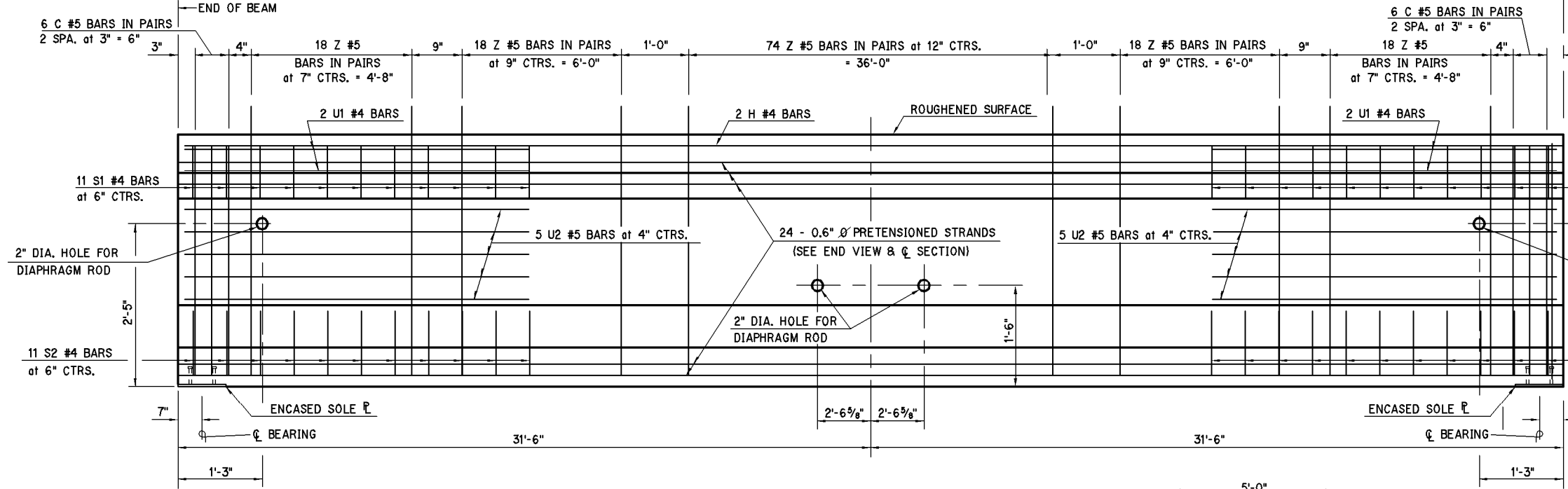
PRESTRESSED STRANDS: THE REQUIRED STRAND TYPE IS LOW-RELAXATION. USE STRANDS HAVING A NOMINAL DIAMETER OF 0.60" WITH ULTIMATE TENSILE STRENGTH OF 270 KSI



DEAD LOAD DEFLECTION DIAGRAM

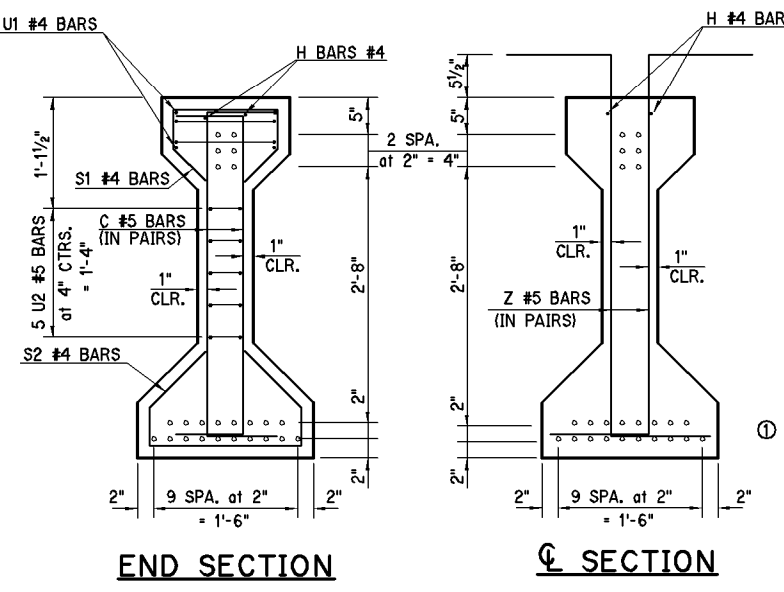
DEAD LOAD DEFLECTION DUE TO SLAB, DIAPHRAGMS, 5 PSF DECK FORM ALLOWANCES AND CONCRETE PARAPETS IS APPROXIMATE AS SHOWN AT THE 10th POINTS ABOVE. IT DOES NOT INCLUDE THE BEAM SELF WEIGHT OR FUTURE WEARING SURFACE.

THE DEFLECTION SHOWN ABOVE SHALL BE TAKEN INTO CONSIDERATION IN POURING SLAB.

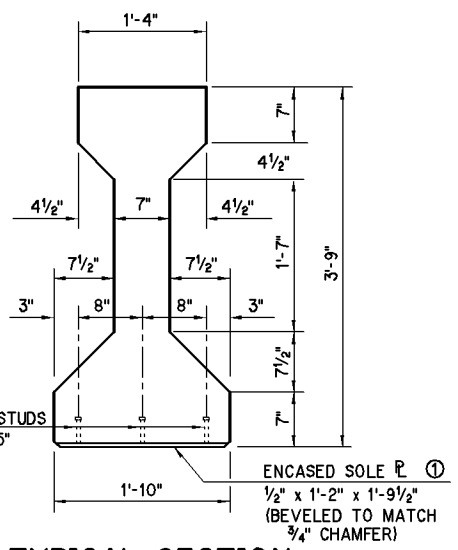


**ELEVATION
(TYPICAL BEAM REINFORCING)**

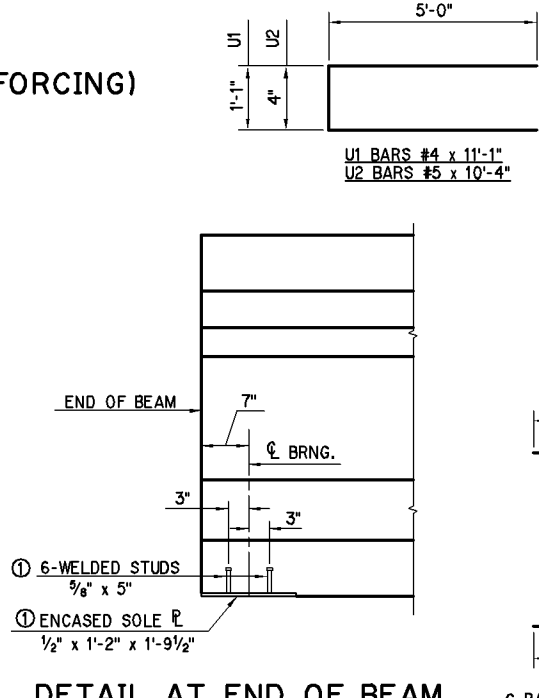
PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH ENDS OF BEAM AND PAINTED WITH TWO COATS (6 MILS MIN.) OF ZINC-RICH PAINT.



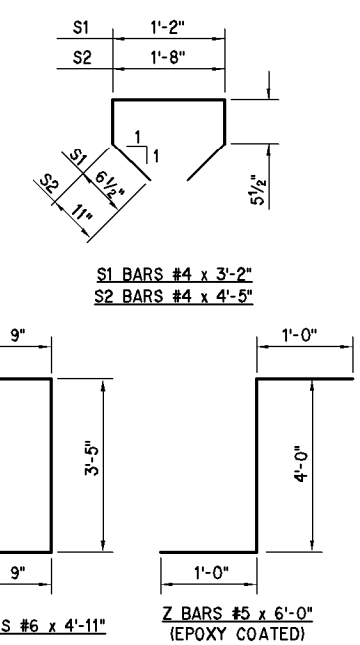
**BEAM SECTIONS
(24 - 0.6" Ø STRANDS)**



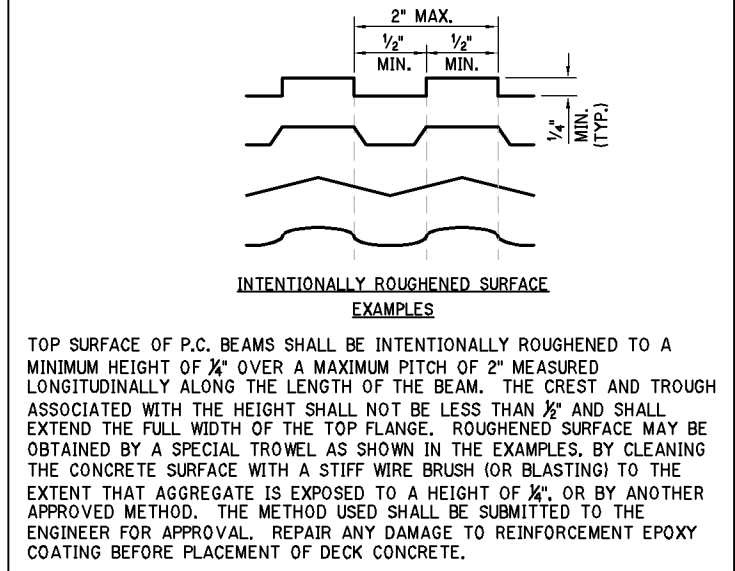
**TYPICAL SECTION
TYPE III BEAM**
 ① LOCATED AT END OF EACH BEAM



DETAIL AT END OF BEAM



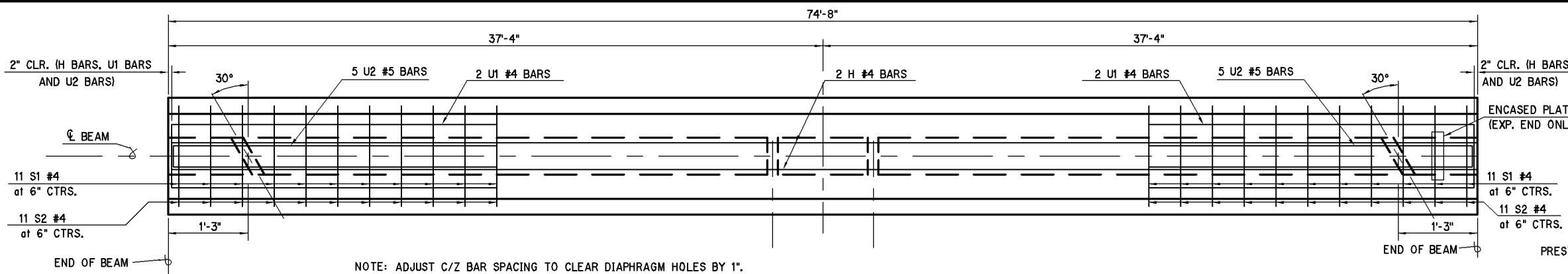
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



TOP SURFACE OF P.C. BEAMS SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. THE CREST AND TROUGH ASSOCIATED WITH THE HEIGHT SHALL NOT BE LESS THAN 1/2" AND SHALL EXTEND THE FULL WIDTH OF THE TOP FLANGE. ROUGHENED SURFACE MAY BE OBTAINED BY A SPECIAL TROWEL AS SHOWN IN THE EXAMPLES, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO THE EXTENT THAT AGGREGATE IS EXPOSED TO A HEIGHT OF 1/4", OR BY ANOTHER APPROVED METHOD. THE METHOD USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REPAIR ANY DAMAGE TO REINFORCEMENT EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

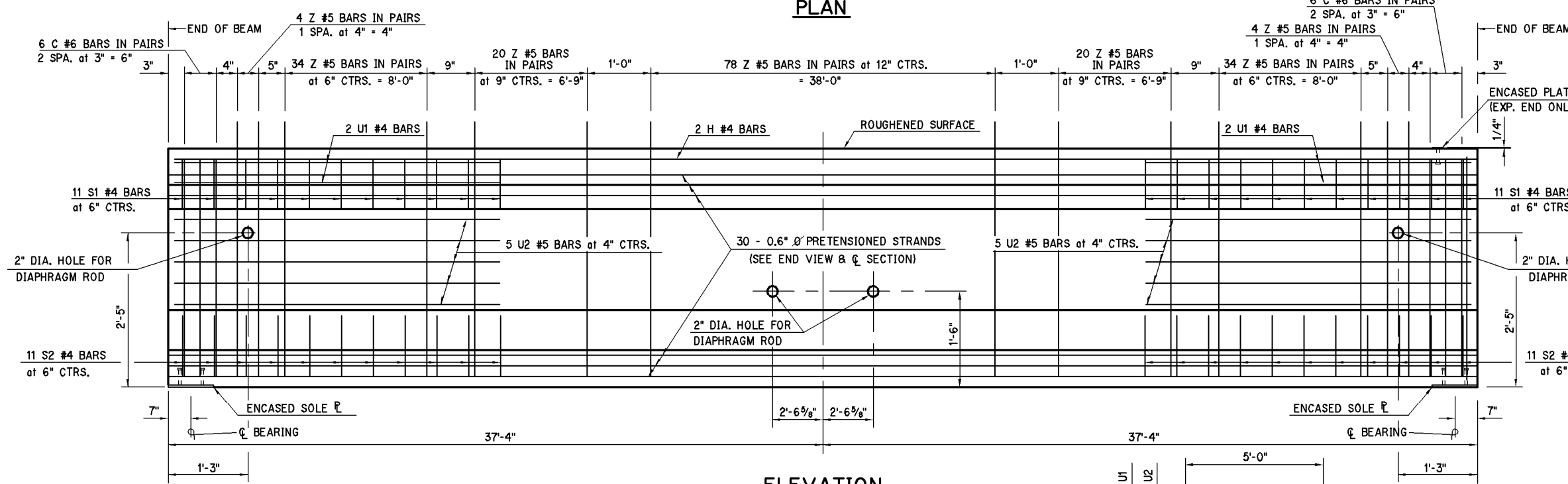
Design		BRIDGES "A" & "B"	OKLAHOMA COUNTY
Drawn		I-40 OVER CRUTCHO CREEK	
Checked		TYPE III P.C. BEAM DETAILS	
Approved		SPAN 1	
Squad	POE	State Job No. 23310(04)	Sheet No. B065

DESCRIPTION	REVISIONS	DATE



NOTE: ADJUST C/Z BAR SPACING TO CLEAR DIAPHRAGM HOLES BY 1".

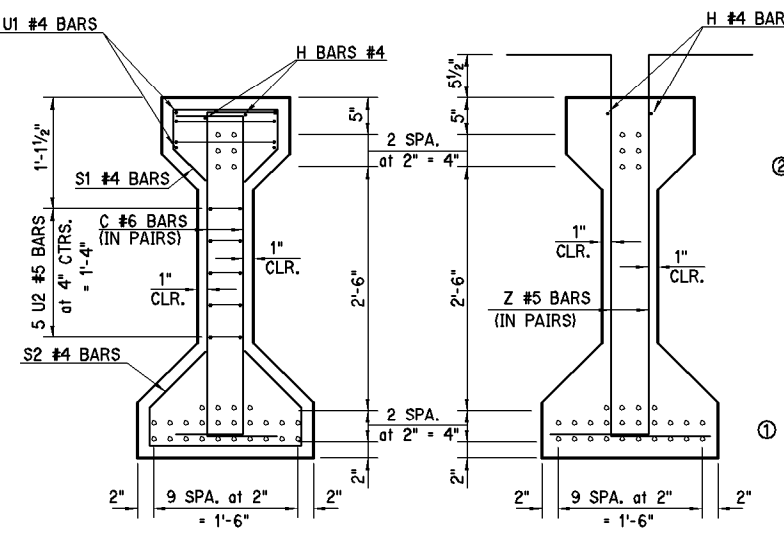
PLAN



ELEVATION

(TYPICAL BEAM REINFORCING)

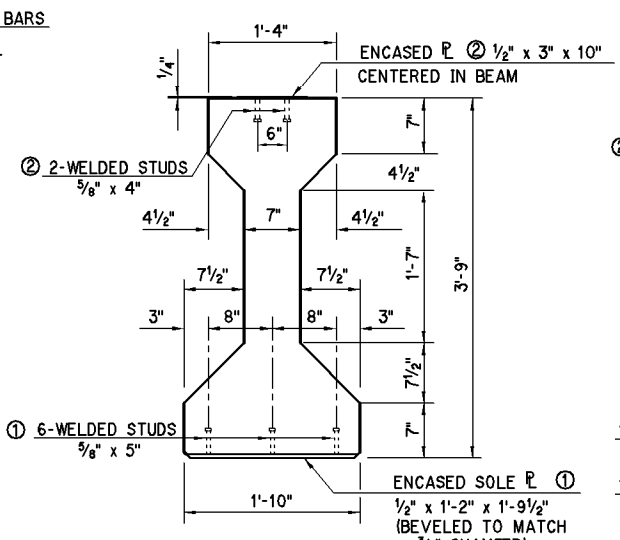
PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH ENDS OF BEAM AND PAINTED WITH TWO COATS (6 MILS MIN.) OF ZINC-RICH PAINT.



END SECTION **CL SECTION**

BEAM SECTIONS

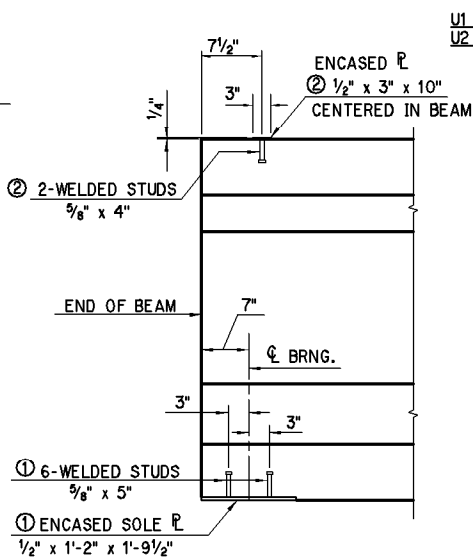
(30 - 0.6" Ø STRANDS)



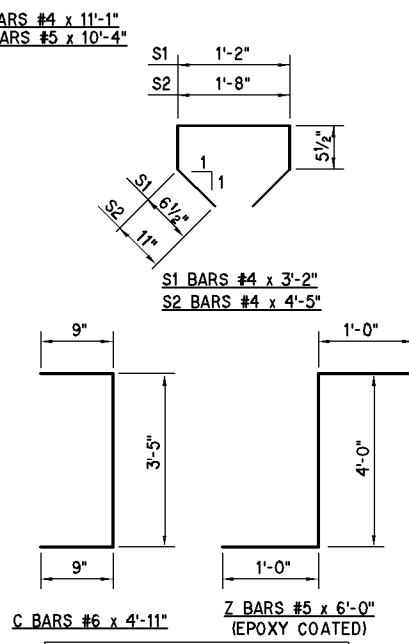
TYPICAL SECTION

TYPE III BEAM

- ① LOCATED AT END OF EACH BEAM
- ② LOCATED AT EXPANSION END ONLY



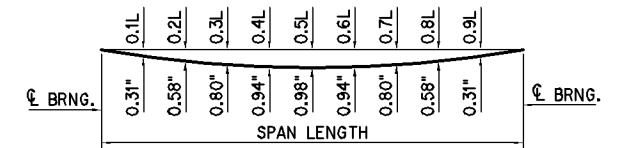
DETAIL AT END OF BEAM



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

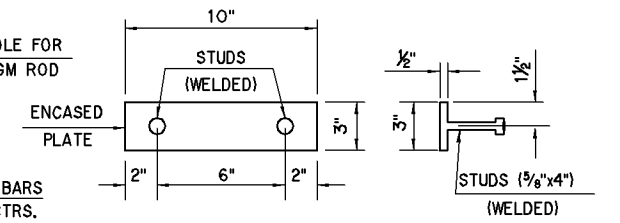
DESIGN DATA

LOADING: HL-93 WITH 20 P.S.F. FOR FUTURE WEARING SURFACE.
 OPERATING RATING (LFD) HS-46
 CONCRETE: $f'_c = 9000$ psi
 $f'_{ci} = 6750$ psi
 PRESTRESSED STRANDS: THE REQUIRED STRAND TYPE IS LOW-RELAXATION. USE STRANDS HAVING A NOMINAL DIAMETER OF 0.60" WITH ULTIMATE TENSILE STRENGTH OF 270 KSI



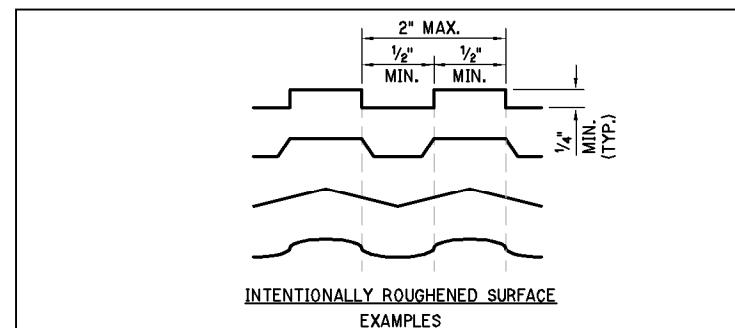
DEAD LOAD DEFLECTION DIAGRAM

DEAD LOAD DEFLECTION DUE TO SLAB, DIAPHRAGMS, 5 PSF DECK FORM ALLOWANCES AND CONCRETE PARAPETS IS APPROXIMATE AS SHOWN AT THE 10th POINTS ABOVE. IT DOES NOT INCLUDE THE BEAM SELF WEIGHT OR FUTURE WEARING SURFACE. THE DEFLECTION SHOWN ABOVE SHALL BE TAKEN INTO CONSIDERATION IN POURING SLAB.



ENCASED BEAM PLATE DETAIL

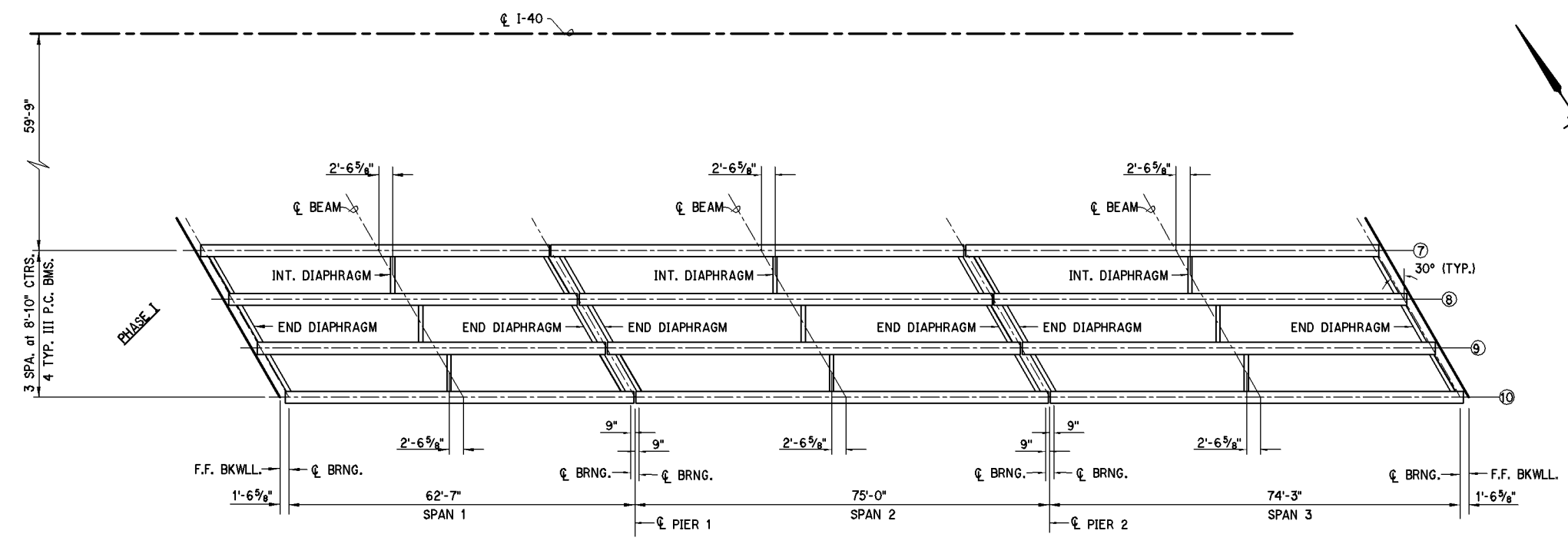
EXPANSION END ONLY



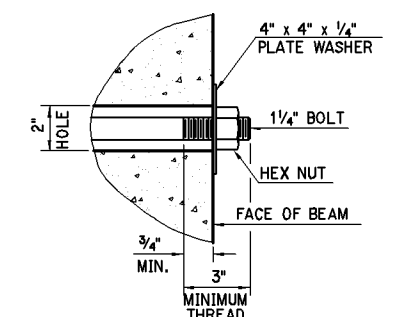
TOP SURFACE OF P.C. BEAMS SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. THE CREST AND TROUGH ASSOCIATED WITH THE HEIGHT SHALL NOT BE LESS THAN 1/2" AND SHALL EXTEND THE FULL WIDTH OF THE TOP FLANGE. ROUGHENED SURFACE MAY BE OBTAINED BY A SPECIAL TROWEL AS SHOWN IN THE EXAMPLES, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO THE EXTENT THAT AGGREGATE IS EXPOSED TO A HEIGHT OF 1/4", OR BY ANOTHER APPROVED METHOD. THE METHOD USED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REPAIR ANY DAMAGE TO REINFORCEMENT EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

Design		BRIDGES "A" & "B"	OKLAHOMA COUNTY
Drawn		I-40 OVER CRUTCHO CREEK	
Checked		TYPE III P.C. BEAM DETAILS	
Approved		SPANS 2 & 3	
Squad	POE	State Job No. 23310(04)	Sheet No. B066

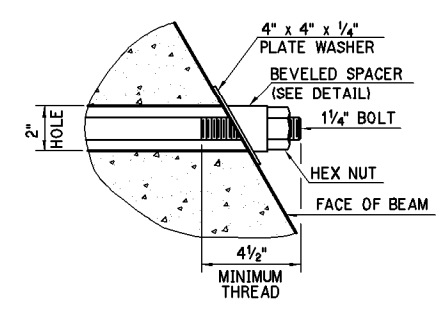
DESCRIPTION	REVISIONS	DATE



BEAM AND DIAPHRAGM LAYOUT

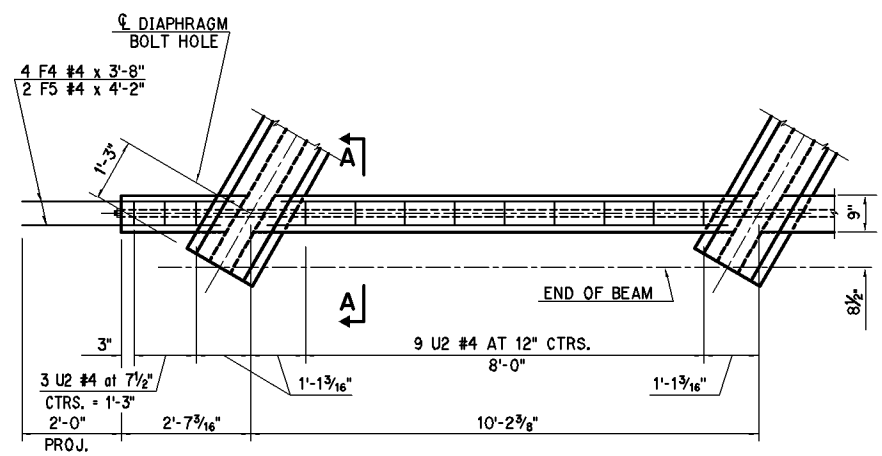


INTERMEDIATE DIAPHRAGM BOLT DETAIL

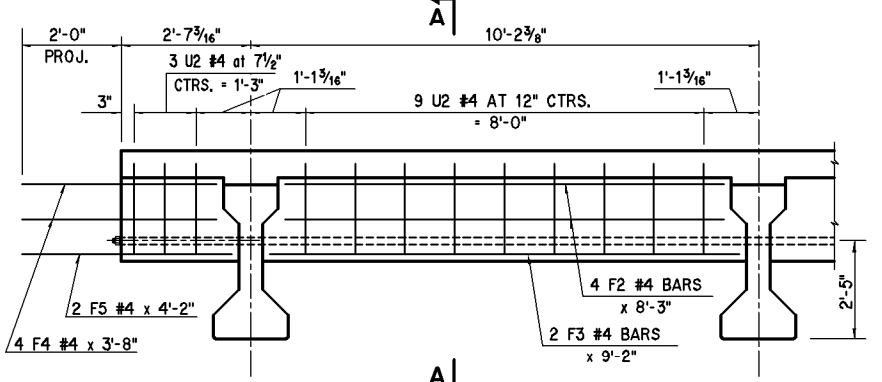


END DIAPHRAGM BOLT DETAIL

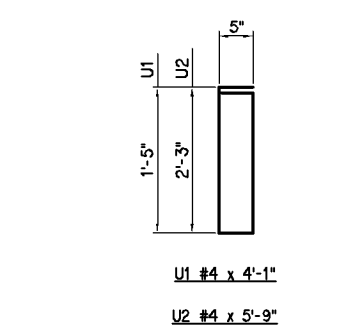
NOTE: STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, HEX NUTS, BEVELED SPACERS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60 AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563).
 PAINT EXPOSED DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. ALL COST OF DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "STRUCTURAL STEEL".



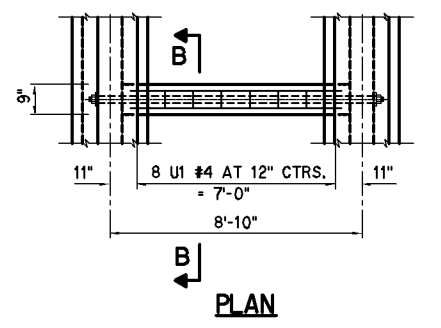
PLAN



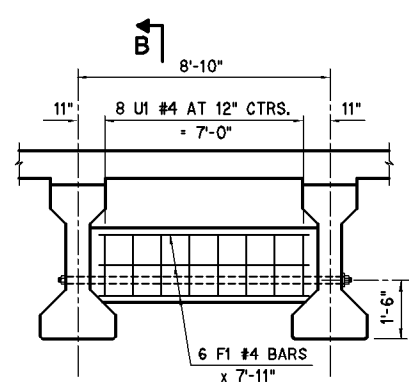
ELEVATION



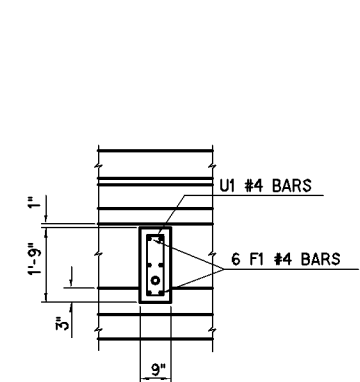
SECTION A-A



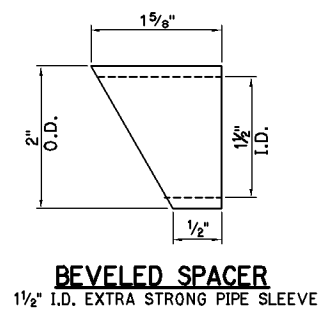
PLAN



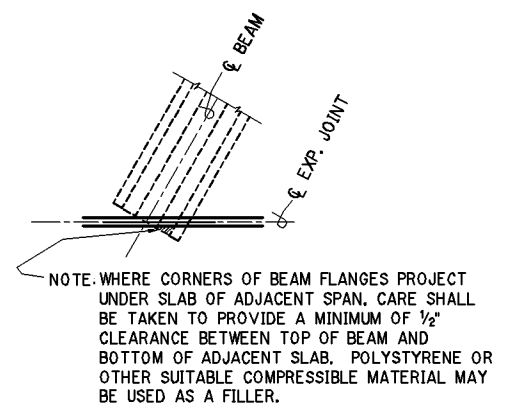
ELEVATION



SECTION B-B



BEVELED SPACER
1 1/2" I.D. EXTRA STRONG PIPE SLEEVE



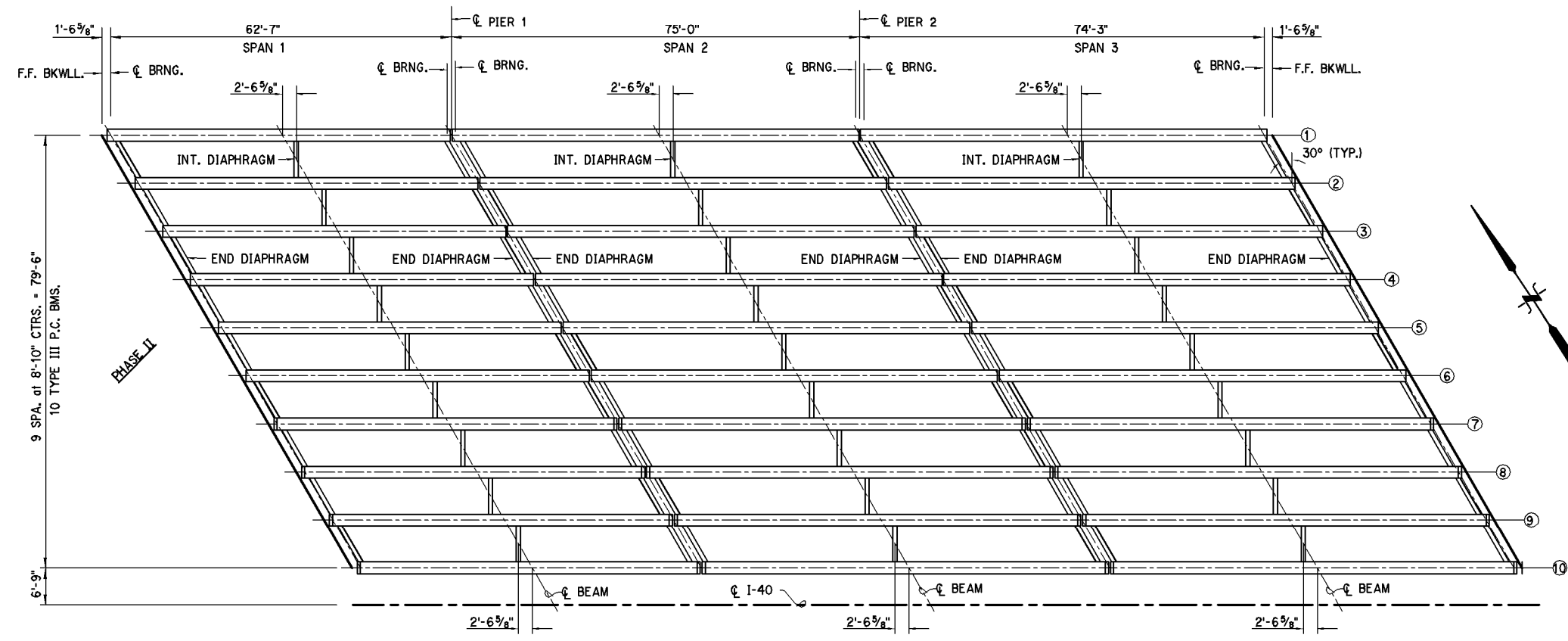
TREATMENT OF BEAM END

END DIAPHRAGM DETAIL

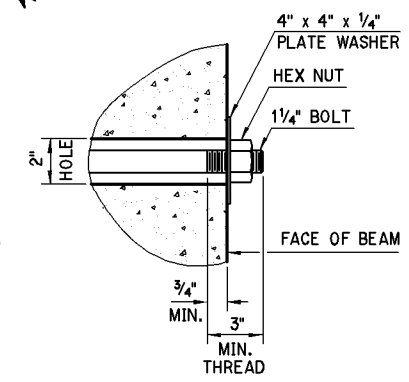
INTERMEDIATE DIAPHRAGM DETAIL

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		P.C. BEAM DIAPHRAGM DETAILS	
Approved		PHASE I	
Squad	POE	State Job No. 23310(04)	Sheet No. B067

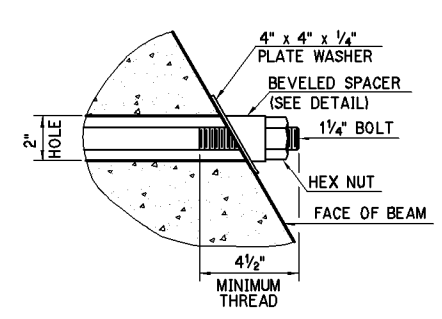
DESCRIPTION	REVISIONS	DATE



BEAM AND DIAPHRAGM LAYOUT

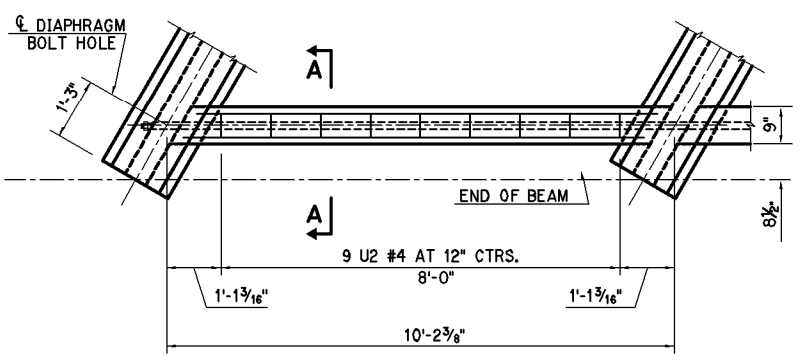


INTERMEDIATE DIAPHRAGM BOLT DETAIL

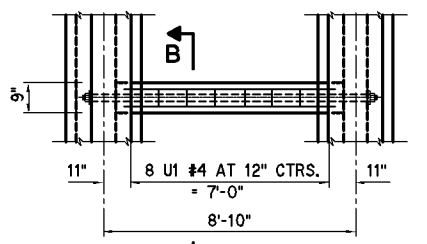
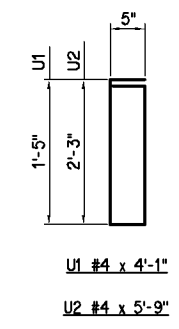


END DIAPHRAGM BOLT DETAIL

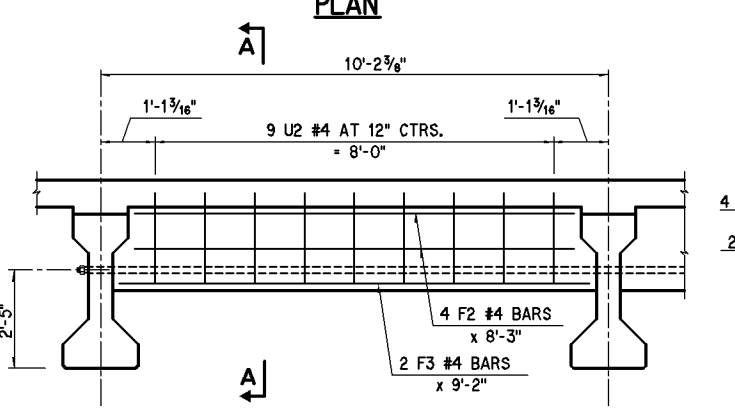
NOTE: STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, HEX NUTS, BEVELED SPACERS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60 AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563).
 PAINT EXPOSED DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. ALL COST OF DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "STRUCTURAL STEEL".



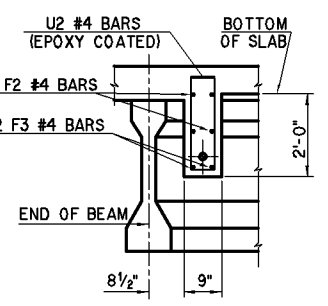
PLAN



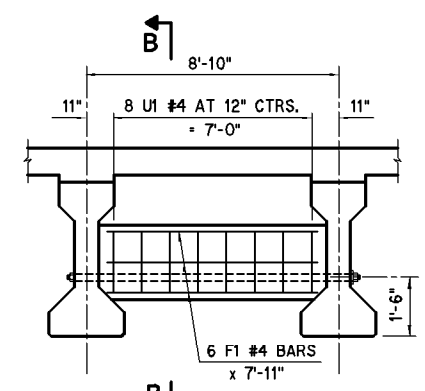
PLAN



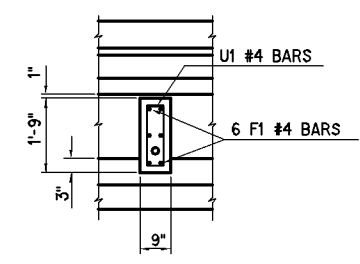
ELEVATION



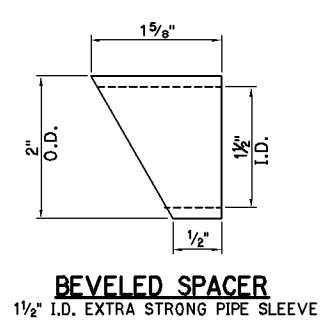
SECTION A-A



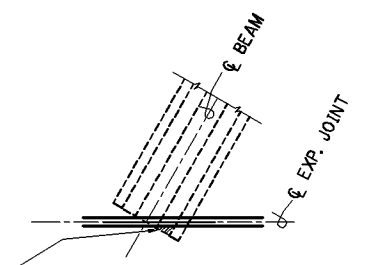
ELEVATION



SECTION B-B



BEVELED SPACER
1 1/2" I.D. EXTRA STRONG PIPE SLEEVE

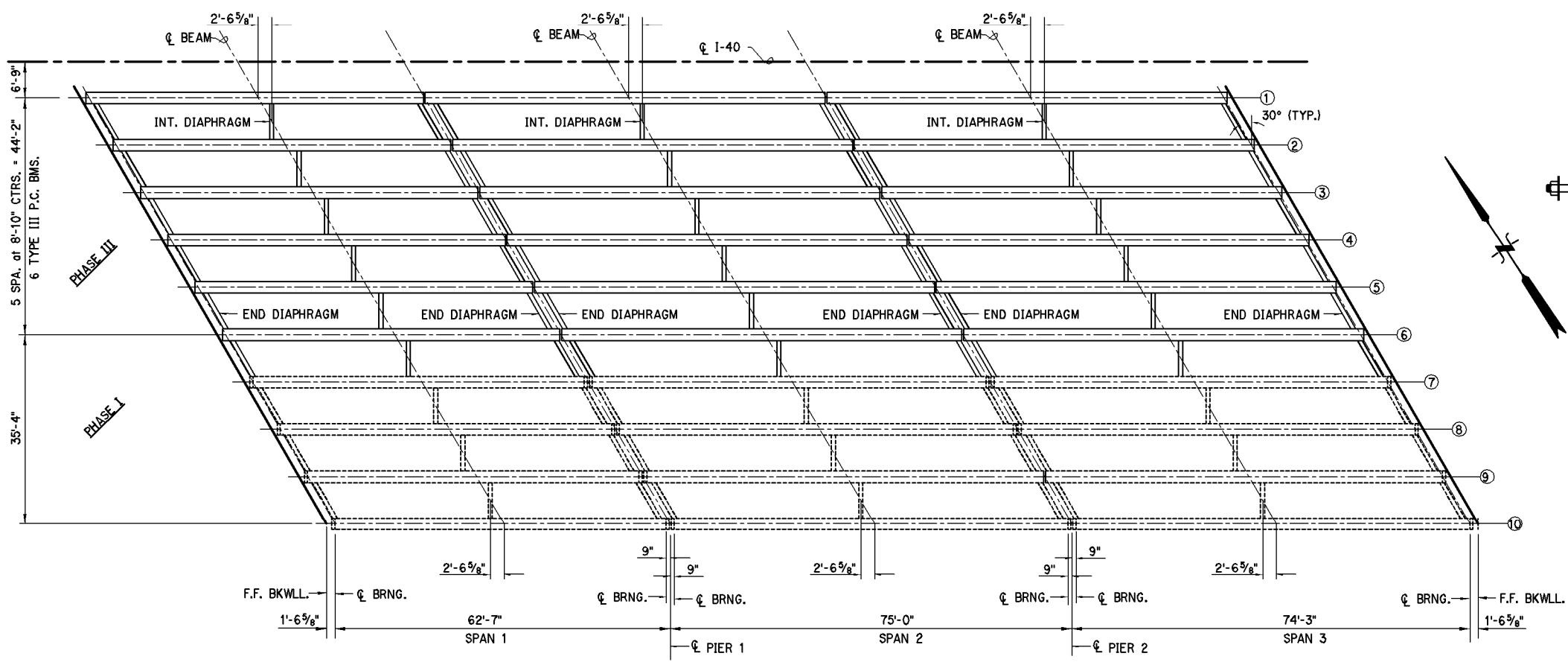


TREATMENT OF BEAM END

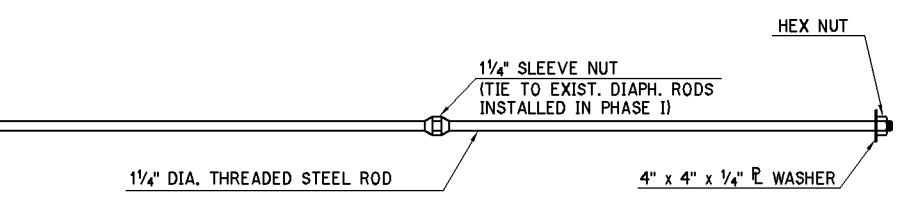
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 BRIDGE "A" W.B. I-40 OVER CRUTCHO CREEK
P.C. BEAM DIAPHRAGM DETAILS
PHASE II
 State Job No. 23310(04) Sheet No. B068

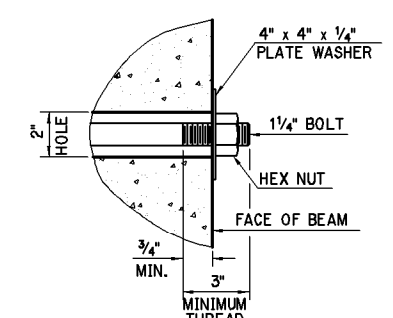
DESCRIPTION	REVISIONS	DATE



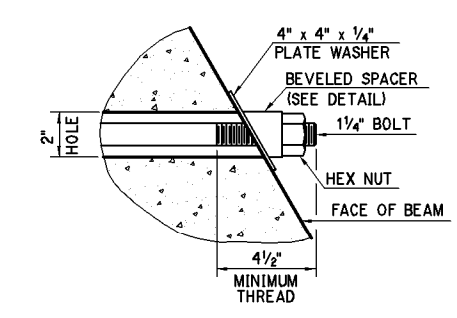
BEAM AND DIAPHRAGM LAYOUT



DIAPHRAGM BOLT DETAIL

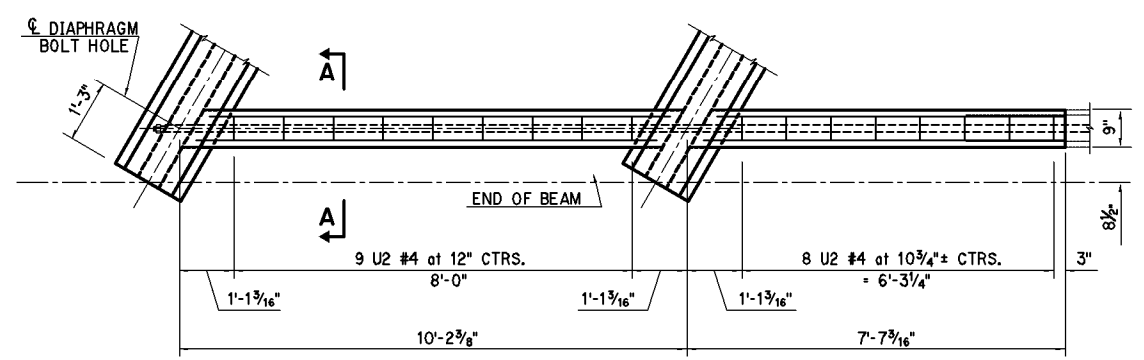


INTERMEDIATE DIAPHRAGM BOLT DETAIL

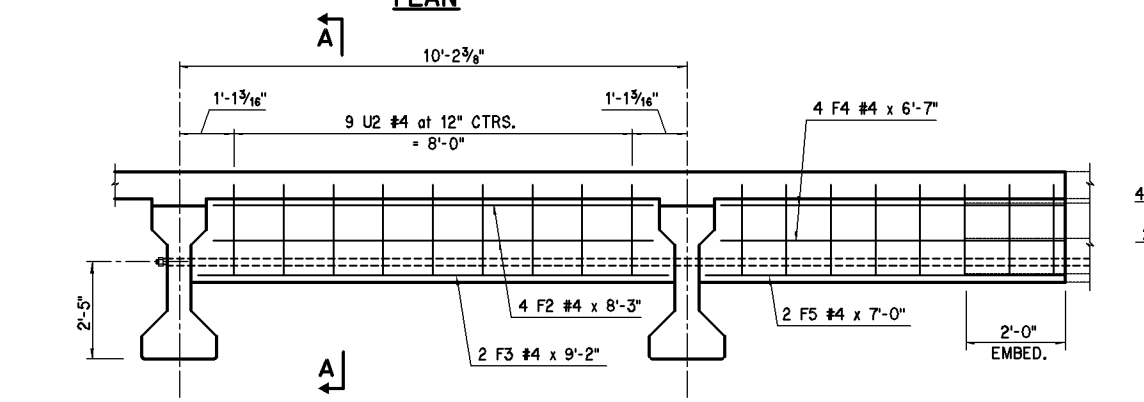


END DIAPHRAGM BOLT DETAIL

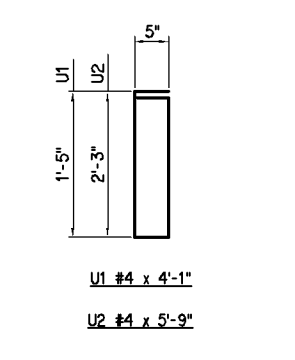
NOTE: STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, HEX NUTS, BEVELED SPACERS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60 AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563). PAINT EXPOSED DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. ALL COST OF DIAPHRAGM BOLTS, PLATE WASHERS, HEX NUTS AND BEVELED SPACERS TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "STRUCTURAL STEEL".



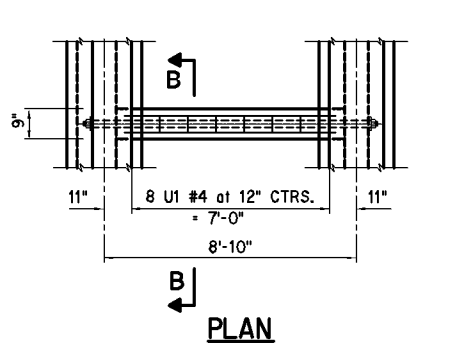
PLAN



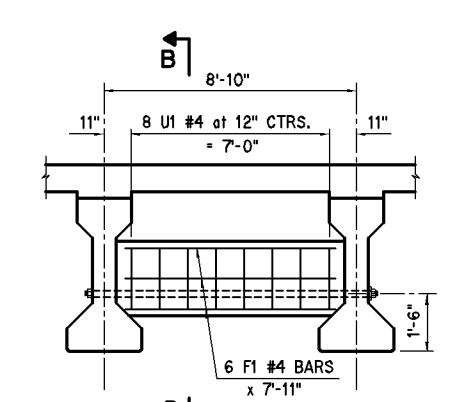
ELEVATION



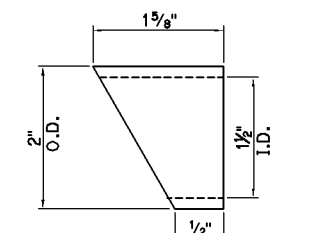
SECTION A-A



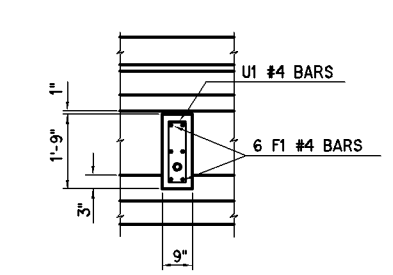
PLAN



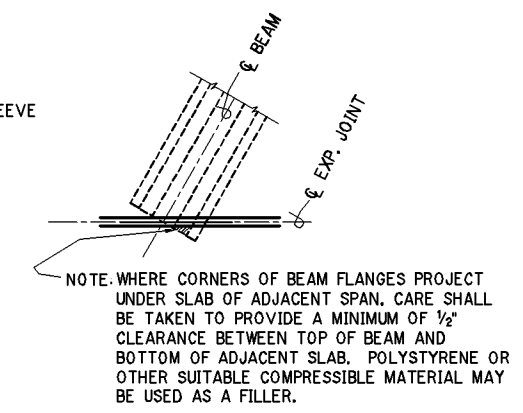
ELEVATION



BEVELED SPACER
1/2" I.D. EXTRA STRONG PIPE SLEEVE



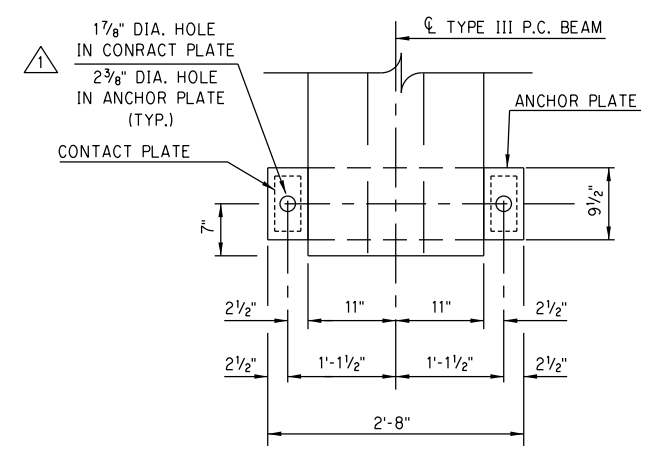
SECTION B-B



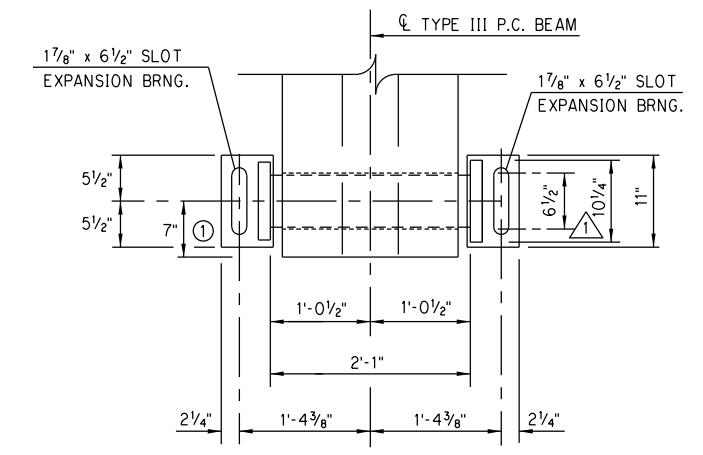
TREATMENT OF BEAM END

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER CRUTCHO CREEK	
Checked		P.C. BEAM DIAPHRAGM DETAILS	
Approved		PHASE III	
Squad	POE	State Job No. 23310(04)	Sheet No. B069

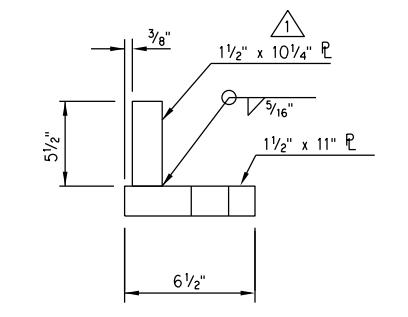
DESCRIPTION	REVISIONS	DATE
1	REVISION AFTER LET	9/03/20



PLAN

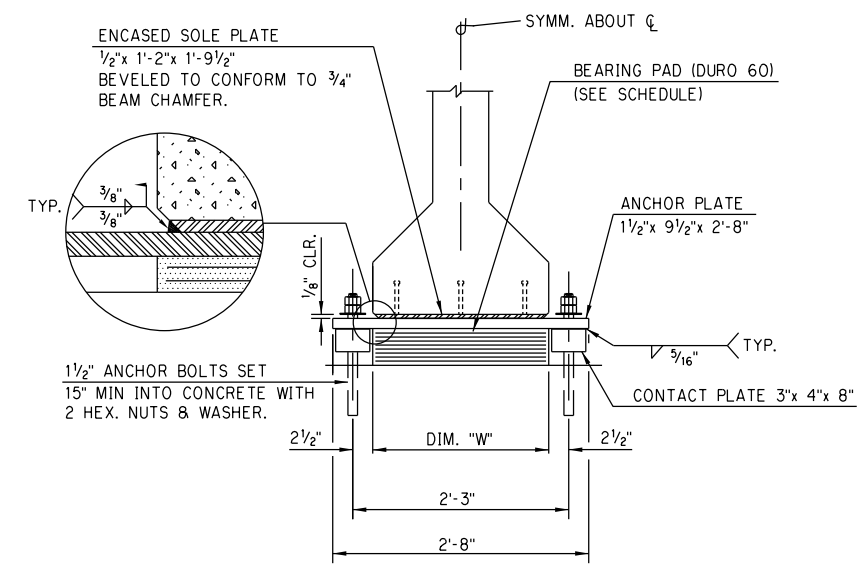


PLAN

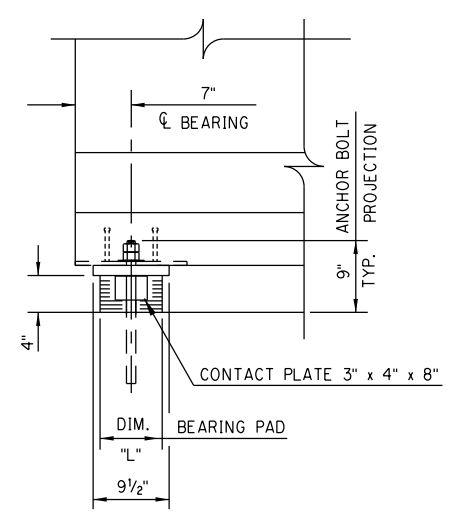


BUILT-UP CONTACT ANGLE DETAIL

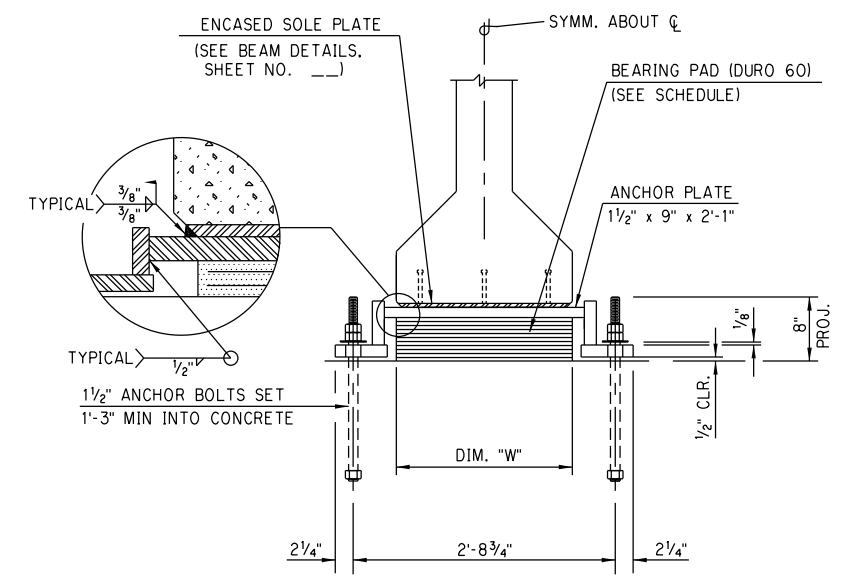
1 ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



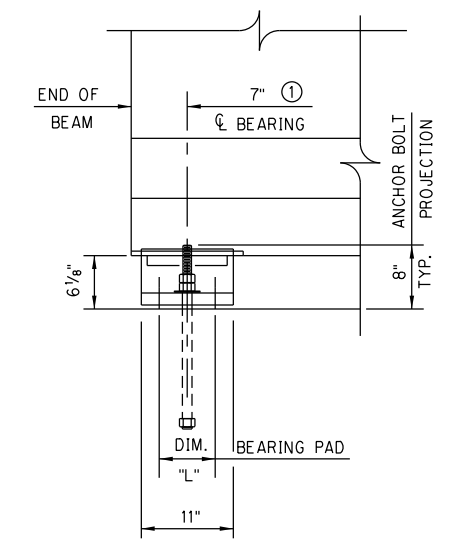
ELEVATION



SIDE VIEW



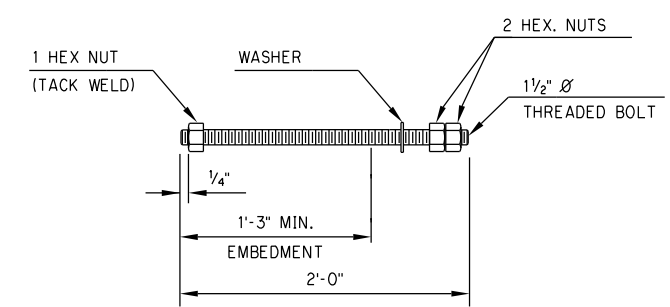
ELEVATION



SIDE VIEW

DETAILS OF BEARING ASSEMBLY AT ABUTMENTS

DETAILS OF BEARING ASSEMBLY AT PIERS



DETAIL OF BEARING ANCHOR BOLT (SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)

DURO 60 BEARING PAD SCHEDULE			
SPAN LENGTHS	BEARING PAD DIMENSIONS L x W x T	COVER LAYERS	INNER LAYERS
65'-0"	9" x 17" x 4"	2 - 1/4"	6 - 1/2"
75'-0"	9" x 18" x 4"	2 - 1/4"	6 - 1/2"
76'-8"	9" x 18" x 4"	2 - 1/4"	6 - 1/2"

LAMINATES BETWEEN LAYERS CONSIST OF 14 GA. A-36 STEEL PLATES.

BEARING ASSEMBLY NOTES:

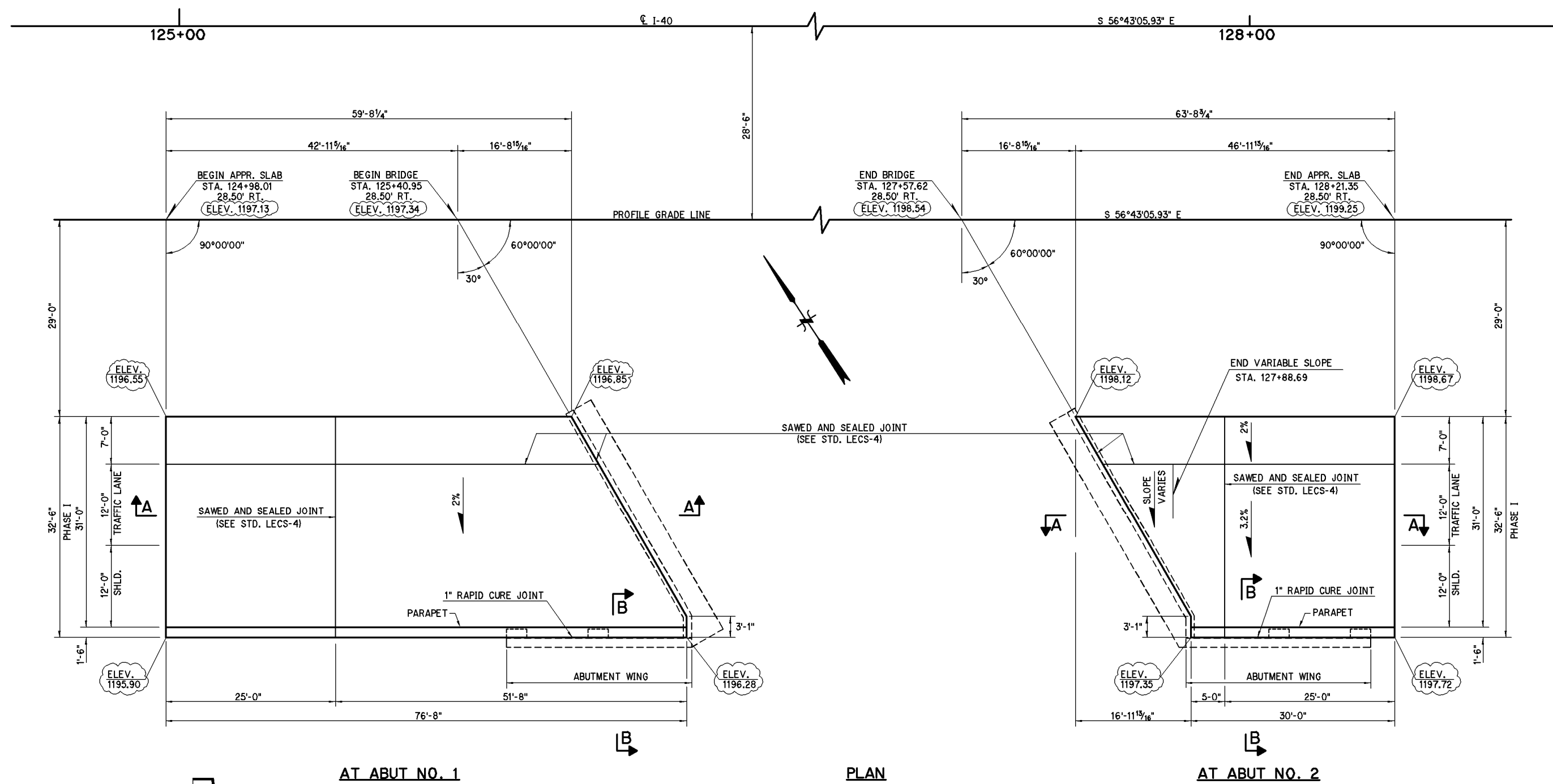
PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316. CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316. CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

REVISION AFTER LET
09/03/2020

NOTE: SEE SECTION 507.04.D OF THE STANDARD SPECIFICATIONS FOR INSTALLATION OF THE BEARING ASSEMBLIES.

Design		BRIDGE "A" & "B"	OKLAHOMA COUNTY
Drawn			1-40 OVER CRUTCHO CREEK
Checked			BEARING ASSEMBLY DETAILS
Approved			
Squad	POE	State Job No. 23310(04)	Sheet No. B070

DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1

PLAN

AT ABUT NO. 2

NOTE: FOR SECTION A-A & B-B. SEE SHEET NO. B074.

NOTES:
 CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.
 ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.
 ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

WATER REPELLENT SURFACE TREATMENT

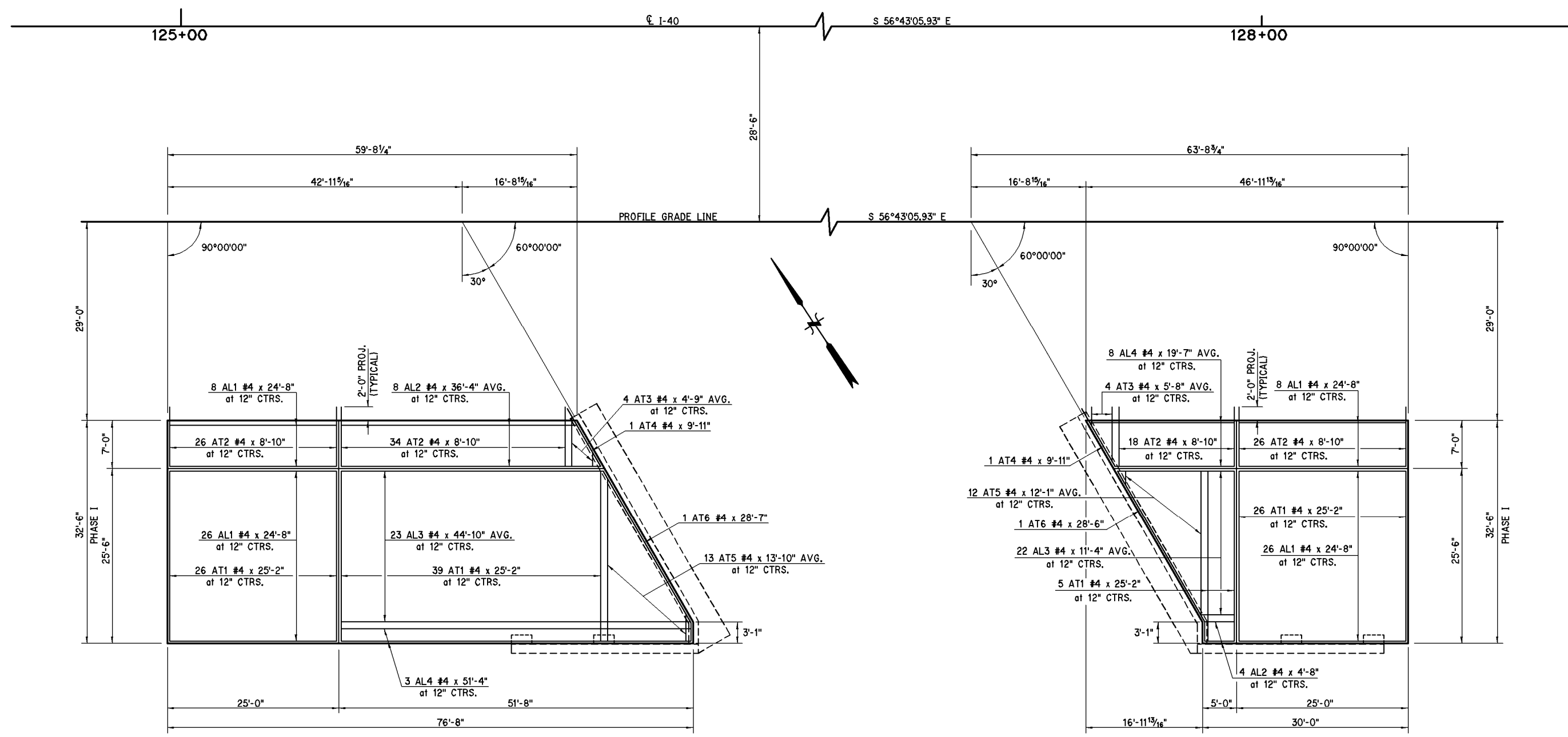
SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	249.2	136.1	385.3
SAW-CUT GROOVING	S.Y.	236.4	131.1	367.5
42" F-SHAPED PARAPET	L.F.	76.7	30.0	106.7
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	37	14	51

Design	
Drawn	
Checked	
Approved	
Squad	POE

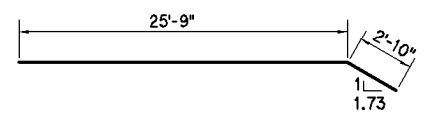
OKLAHOMA COUNTY
 BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
APPROACH SLAB DETAILS
 PHASE I
 (SHEET 1 OF 4)
 State Job No. 23310(04) Sheet No. B071

DESCRIPTION	REVISIONS	DATE

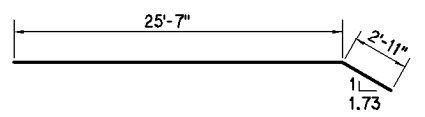


AT ABUT NO. 1
NOTE: TOP MAT OF REINFORCING STEEL SHOWN.

AT ABUT NO. 2
NOTE: TOP MAT OF REINFORCING STEEL SHOWN.



AT6 #4 x 28'-7"
(at ABUT. NO. 1)



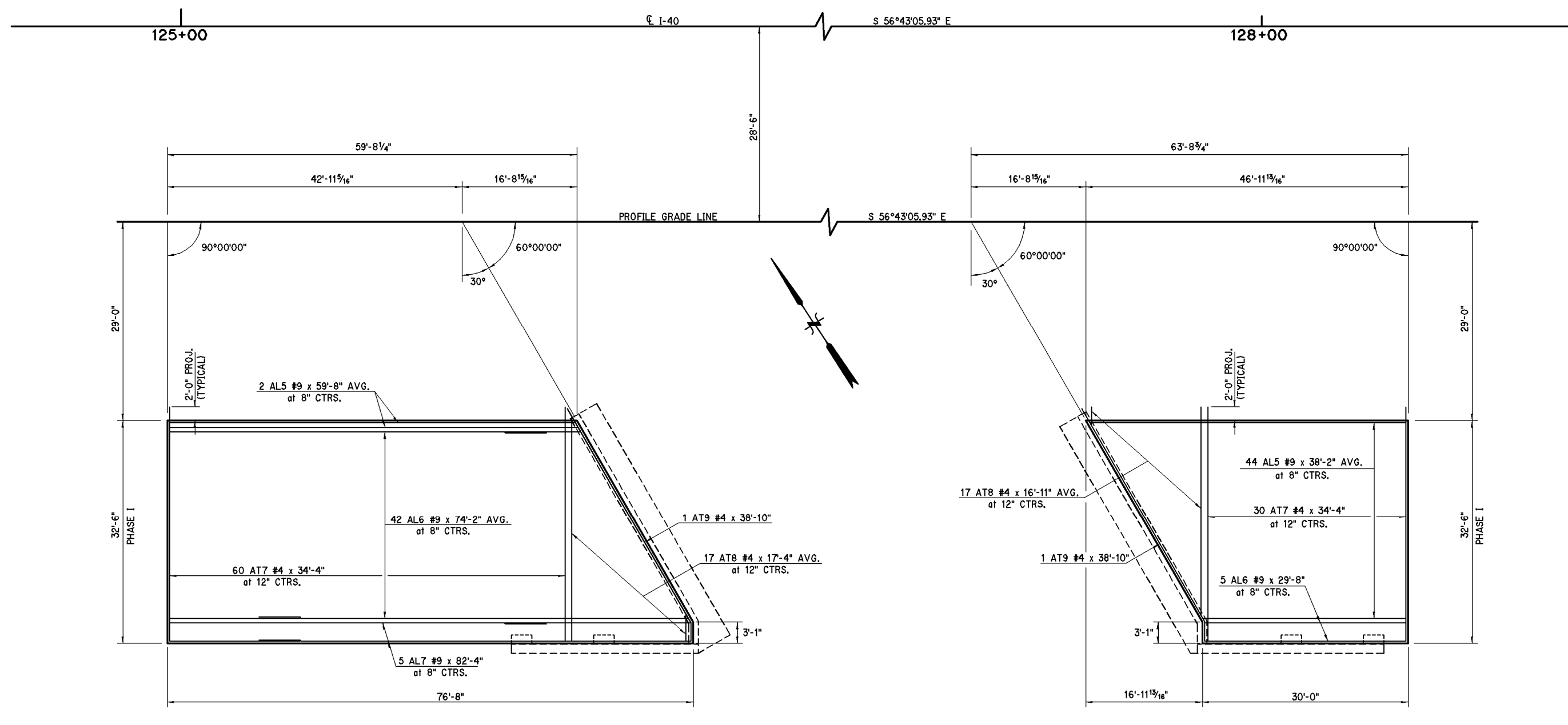
AT6 #4 x 28'-6"
(at ABUT. NO. 2)

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
APPROACH SLAB DETAILS
PHASE I
(SHEET 2 OF 4)
State Job No. 23310(04) Sheet No. B072

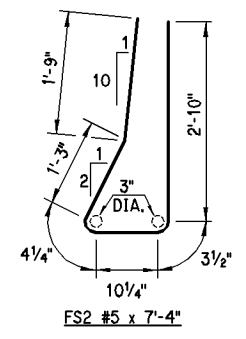
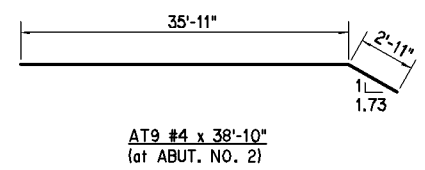
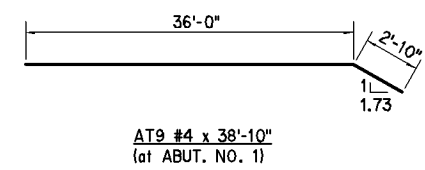
DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1
NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN.

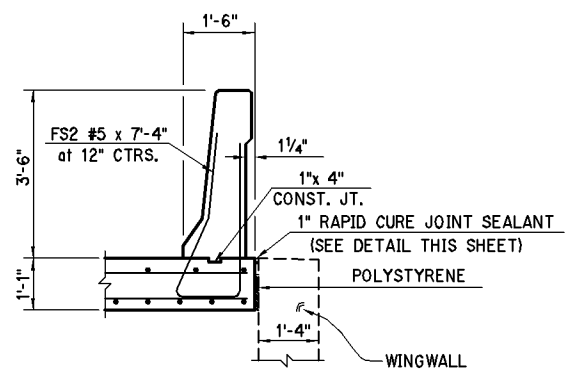
AT ABUT NO. 2
NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN.

NOTE: FS2 BARS SHALL BE TIED AND IN PLACE BEFORE POURING APPROACH SLABS.



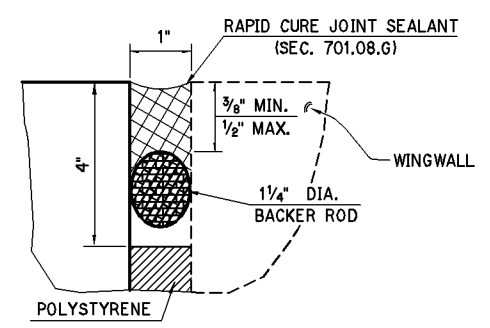
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked		APPROACH SLAB DETAILS PHASE I (SHEET 3 OF 4)	
Approved			
Squad	POE		
		State Job No. 23310(04)	Sheet No. B073



SECTION B-B

NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42-2. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF APPROACH SLABS.



DETAIL OF RAPID CURE JOINT AT ABUT. WING

FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-4.

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 1 FOR INFORMATION ONLY

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	34	#4	STR.	12" C/C	24'-8"
AL2	8	#4	STR.	12" C/C	36'-4" AVG.
AL3	23	#4	STR.	12" C/C	44'-10" AVG.
AL4	3	#4	STR.	12" C/C	51'-4"
AL5	2	#9	STR.	8" C/C	59'-8" AVG.
AL6	42	#9	STR.	8" C/C	74'-2" AVG.
AL7	5	#9	STR.	8" C/C	82'-4"
AT1	65	#4	STR.	12" C/C	25'-2"
AT2	60	#4	STR.	12" C/C	8'-10"
AT3	4	#4	STR.	12" C/C	4'-9" AVG.
AT4	1	#4	STR.	AS SHOWN	9'-11"
AT5	13	#4	STR.	12" C/C	13'-10" AVG.
AT6	1	#4	BNT.	AS SHOWN	28'-7"
AT7	60	#4	STR.	12" C/C	34'-4"
AT8	17	#4	STR.	12" C/C	17'-4" AVG.
AT9	1	#4	BNT.	AS SHOWN	38'-10"
FS2	77	#5	BNT.	12" C/C	7'-4"

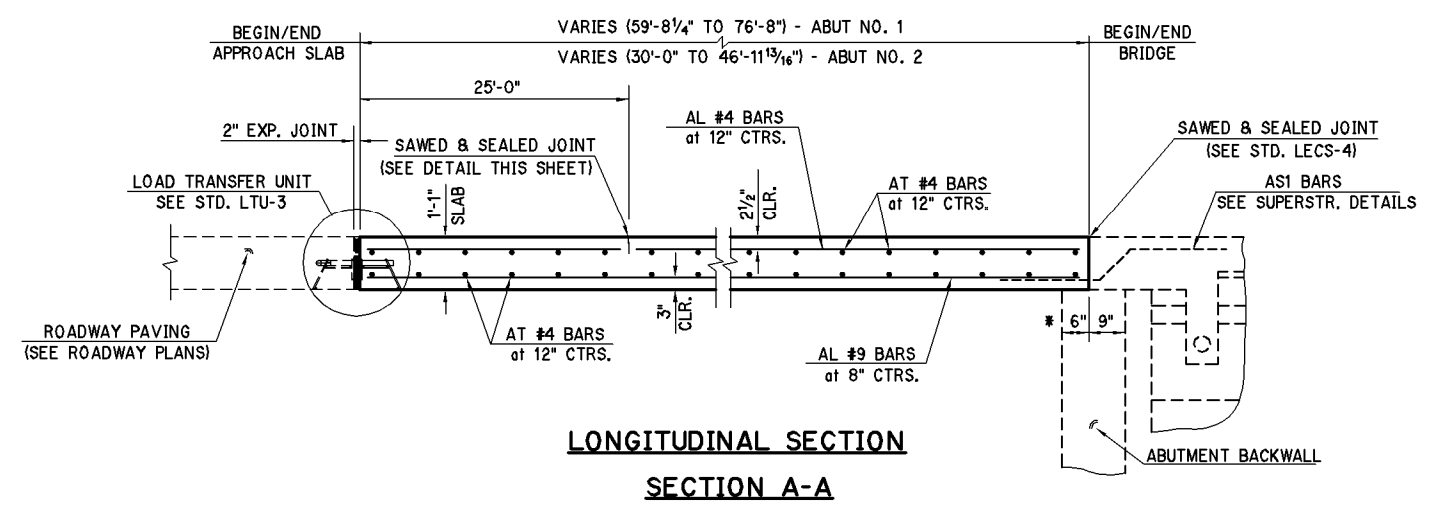
- ① LENGTH VARIES:
AL2 - 34'-5" TO 38'-3" AT3 - 2'-2" TO 7'-4"
AL3 - 38'-5" TO 51'-3" AT5 - 3'-5" TO 24'-3"
AL5 - 59'-5" TO 59'-11" AT8 - 3'-6" TO 31'-2"
AL6 - 66'-3" TO 82'-1"
- ② LENGTH INCLUDES LAP:
AL6 - 1 at 6'-0"
AL7 - 1 at 6'-0"

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 2 FOR INFORMATION ONLY

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	34	#4	STR.	12" C/C	24'-8"
AL2	4	#4	STR.	12" C/C	4'-8"
AL3	22	#4	STR.	12" C/C	11'-4" AVG.
AL4	8	#4	STR.	12" C/C	19'-7" AVG.
AL5	44	#9	STR.	8" C/C	38'-2" AVG.
AL6	5	#9	STR.	8" C/C	29'-8"
AT1	31	#4	STR.	12" C/C	25'-2"
AT2	44	#4	STR.	12" C/C	8'-10"
AT3	4	#4	STR.	12" C/C	5'-8" AVG.
AT4	1	#4	STR.	AS SHOWN	9'-11"
AT5	12	#4	STR.	12" C/C	12'-1" AVG.
AT6	1	#4	BNT.	AS SHOWN	28'-6"
AT7	30	#4	STR.	12" C/C	34'-4"
AT8	17	#4	STR.	12" C/C	16'-11" AVG.
AT9	1	#4	BNT.	AS SHOWN	38'-10"
FS2	30	#5	BNT.	12" C/C	7'-4"

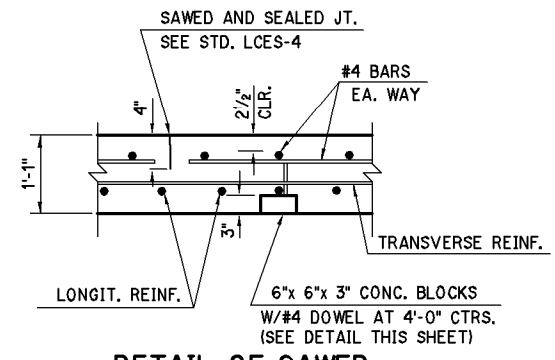
- ① LENGTH VARIES:
AL3 - 5'-3" TO 17'-5" AT3 - 3'-1" TO 8'-3"
AL4 - 17'-8" TO 21'-6" AT5 - 2'-7" TO 21'-7"
AL5 - 29'-11" TO 46'-5" AT8 - 3'-1" TO 30'-9"

NOTE: STAGGER ALL BAR LAPS.



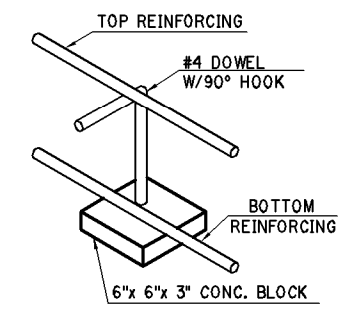
LONGITUDINAL SECTION SECTION A-A

* DIMENSIONS ARE NORMAL TO ABUTMENT.



DETAIL OF SAWED JOINT AND DOWEL BLOCK

NOTE: ALL REINFORCING STEEL IN THE TOP OF THE APPROACH SLAB SHALL CLEAR THE SAWED LONGITUDINAL AND TRANSVERSE JOINTS BY 2".



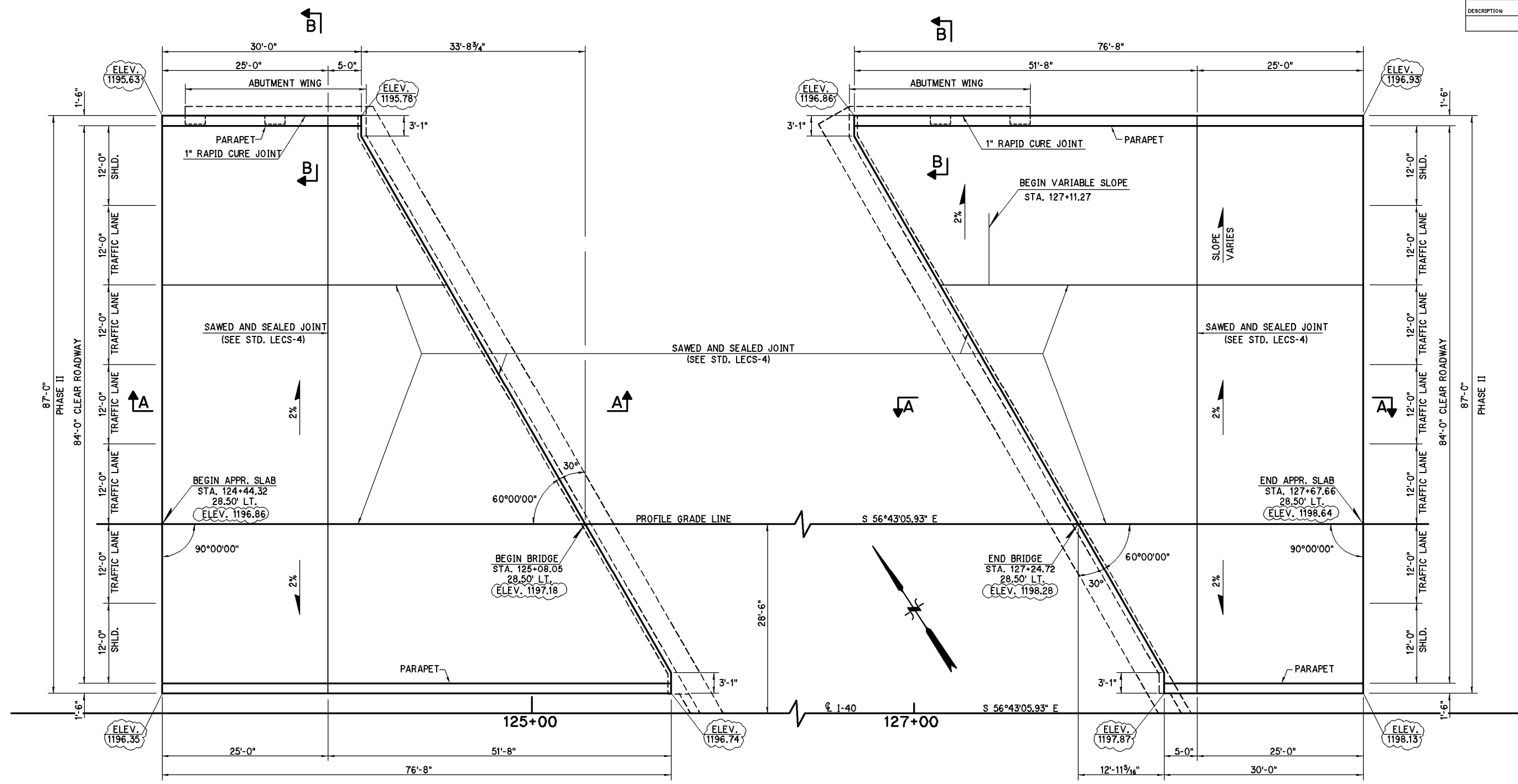
DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6"x 6"x 3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.

		BRIDGE "B"	E.B. I-40 OVER CRUTCHO CREEK
Design			
Drawn			
Checked			
Approved			
Squad	POE		

APPROACH SLAB DETAILS
PHASE I
(SHEET 4 OF 4)
State Job No. 23310(04) Sheet No. B074

DESCRIPTION	REVISIONS	DATE

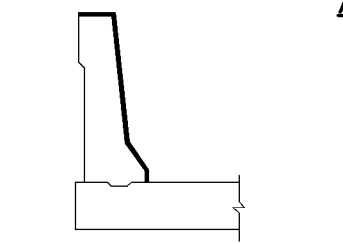


AT ABUT NO. 1

PLAN

AT ABUT NO. 2

NOTE: FOR SECTION A-A & B-B. SEE SHEET NO. B077.



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.

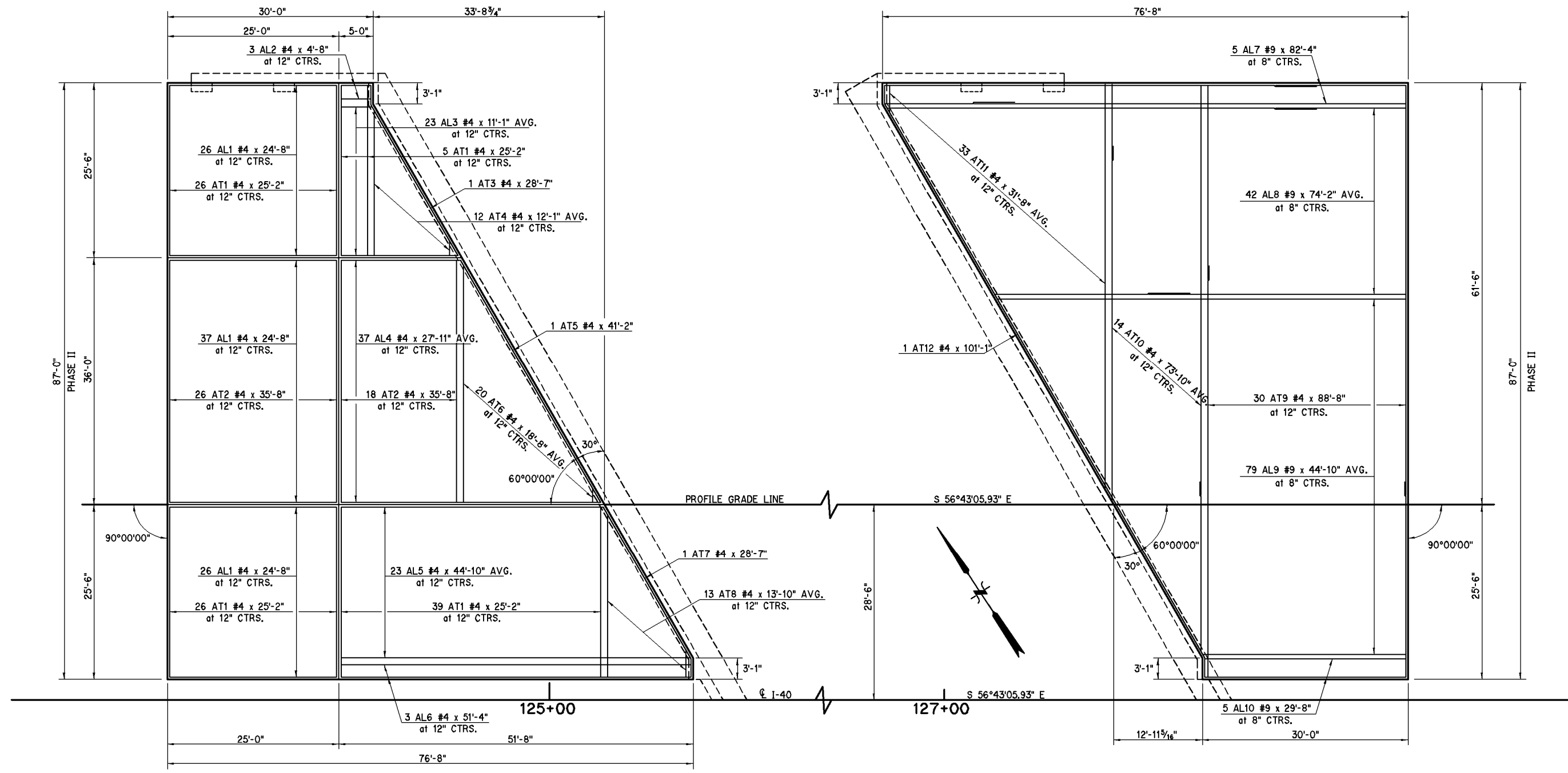
ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	515.6	515.6	1,031.2
SAW-CUT GROOVING	S.Y.	497.8	497.8	995.6
42" F-SHAPED PARAPET	L.F.	106.7	106.7	213.4
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	51	51	102

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 BRIDGE "A" W.B. I-40 OVER CRUTCHO CREEK
APPROACH SLAB DETAILS
PHASE II
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B075

DESCRIPTION	REVISIONS	DATE



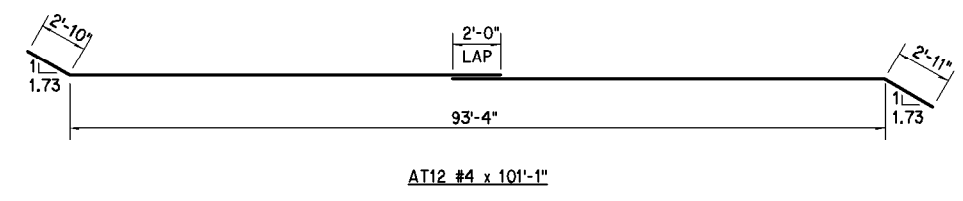
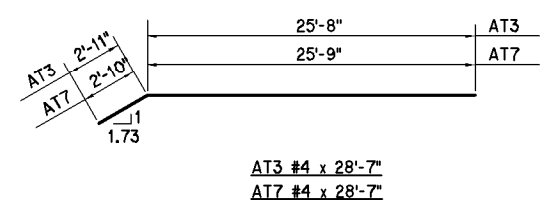
AT ABUT NO. 1

NOTE: TOP MAT OF REINFORCING STEEL SHOWN. TYPICAL FOR EACH APPROACH SLAB

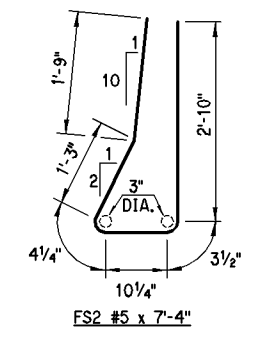
AT ABUT NO. 2

NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN. TYPICAL FOR EACH APPROACH SLAB

NOTE: FS2 BARS SHALL BE TIED AND IN PLACE BEFORE POURING APPROACH SLABS.

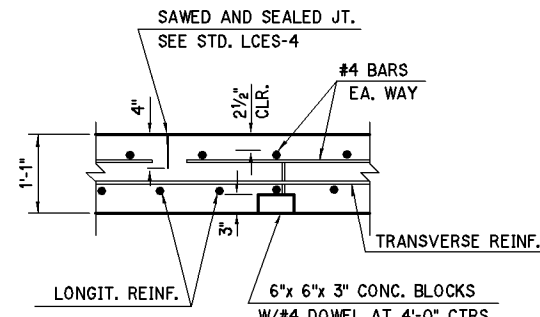


NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



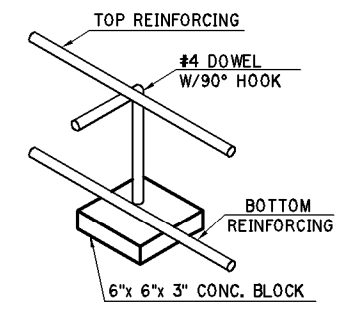
Design		BRIDGE "A"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER CRUTCHO CREEK
Checked		APPROACH SLAB DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04) Sheet No. B076	

DESCRIPTION	REVISIONS	DATE



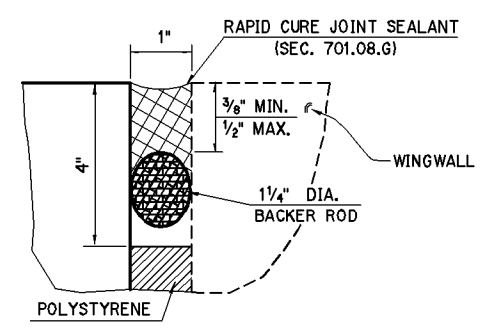
DETAIL OF SAWED JOINT AND DOWEL BLOCK

NOTE: ALL REINFORCING STEEL IN THE TOP OF THE APPROACH SLAB SHALL CLEAR THE SAWED LONGITUDINAL AND TRANSVERSE JOINTS BY 2".



DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6" x 6" x 3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



DETAIL OF RAPID CURE JOINT AT ABUT. WING

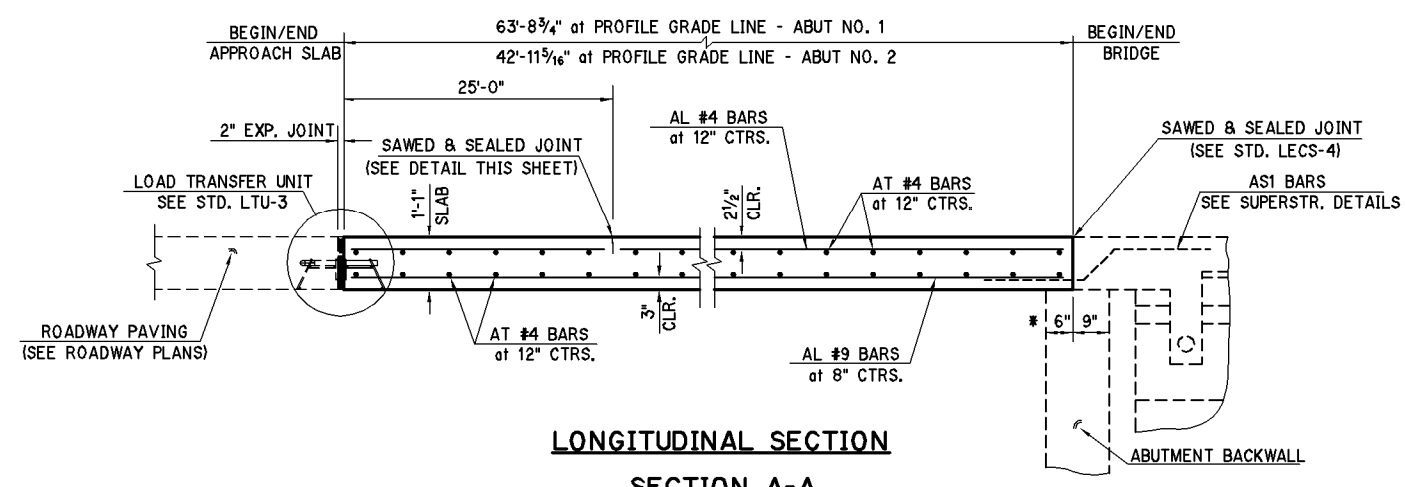
FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-4.

**BAR LIST - EPOXY COATED
(ONE APPROACH SLAB - 2 REQUIRED)
FOR INFORMATION ONLY**

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	89	#4	STR.	12" C/C	24'-8"
AL2	3	#4	STR.	12" C/C	4'-8"
AL3	23	#4	STR.	12" C/C	11'-1" AVG.
AL4	37	#4	STR.	12" C/C	27'-11" AVG.
AL5	23	#4	STR.	12" C/C	44'-10" AVG.
AL6	3	#4	STR.	12" C/C	51'-4"
AL7	5	#9	STR.	8" C/C	82'-4"
AL8	42	#9	STR.	8" C/C	74'-2" AVG.
AL9	79	#9	STR.	8" C/C	44'-10" AVG.
AL10	5	#9	STR.	8" C/C	29'-8"
AT1	96	#4	STR.	12" C/C	25'-2"
AT2	44	#4	STR.	12" C/C	35'-8"
AT3	1	#4	BNT.	AS SHOWN	28'-7"
AT4	12	#4	STR.	12" C/C	12'-1" AVG.
AT5	1	#4	STR.	AS SHOWN	41'-2"
AT6	20	#4	STR.	12" C/C	18'-8" AVG.
AT7	1	#4	BNT.	AS SHOWN	28'-7"
AT8	13	#4	STR.	12" C/C	13'-10" AVG.
AT9	30	#4	STR.	12" C/C	88'-8"
AT10	14	#4	STR.	12" C/C	73'-10" AVG.
AT11	33	#4	STR.	12" C/C	31'-8" AVG.
AT12	1	#4	BNT.	AS SHOWN	101'-1"
FS2	107	#5	BNT.	12" C/C	7'-4"

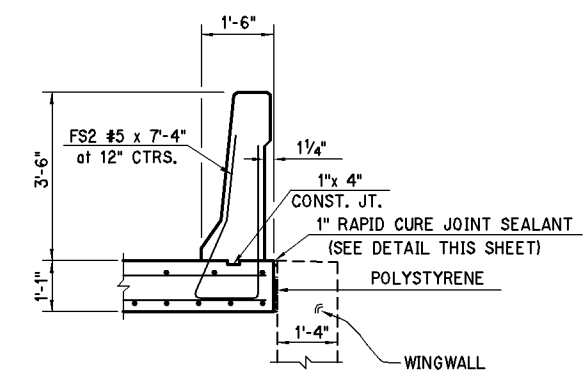
- ① LENGTH VARIES:
AL3 - 4'-9" TO 17'-5" AT4 - 2'-7" TO 21'-7"
AL4 - 17'-7" TO 38'-3" AT6 - 2'-3" TO 35'-1"
AL5 - 38'-5" TO 51'-3" AT8 - 3'-5" TO 24'-3"
AL8 - 66'-3" TO 82'-1" AT10 - 62'-7" TO 85'-1"
AL9 - 29'-10" TO 59'-10" AT11 - 3'-6" TO 59'-10"
- ② LENGTH INCLUDES LAP:
AL7 - 1 at 6'-0" AT10 - 1 at 2'-0"
AL8 - 1 at 6'-0" AT12 - 1 at 2'-0"
AT9 - 1 at 2'-0"

NOTE: STAGGER ALL BAR LAPS.



LONGITUDINAL SECTION SECTION A-A

* DIMENSIONS ARE NORMAL TO ABUTMENT.

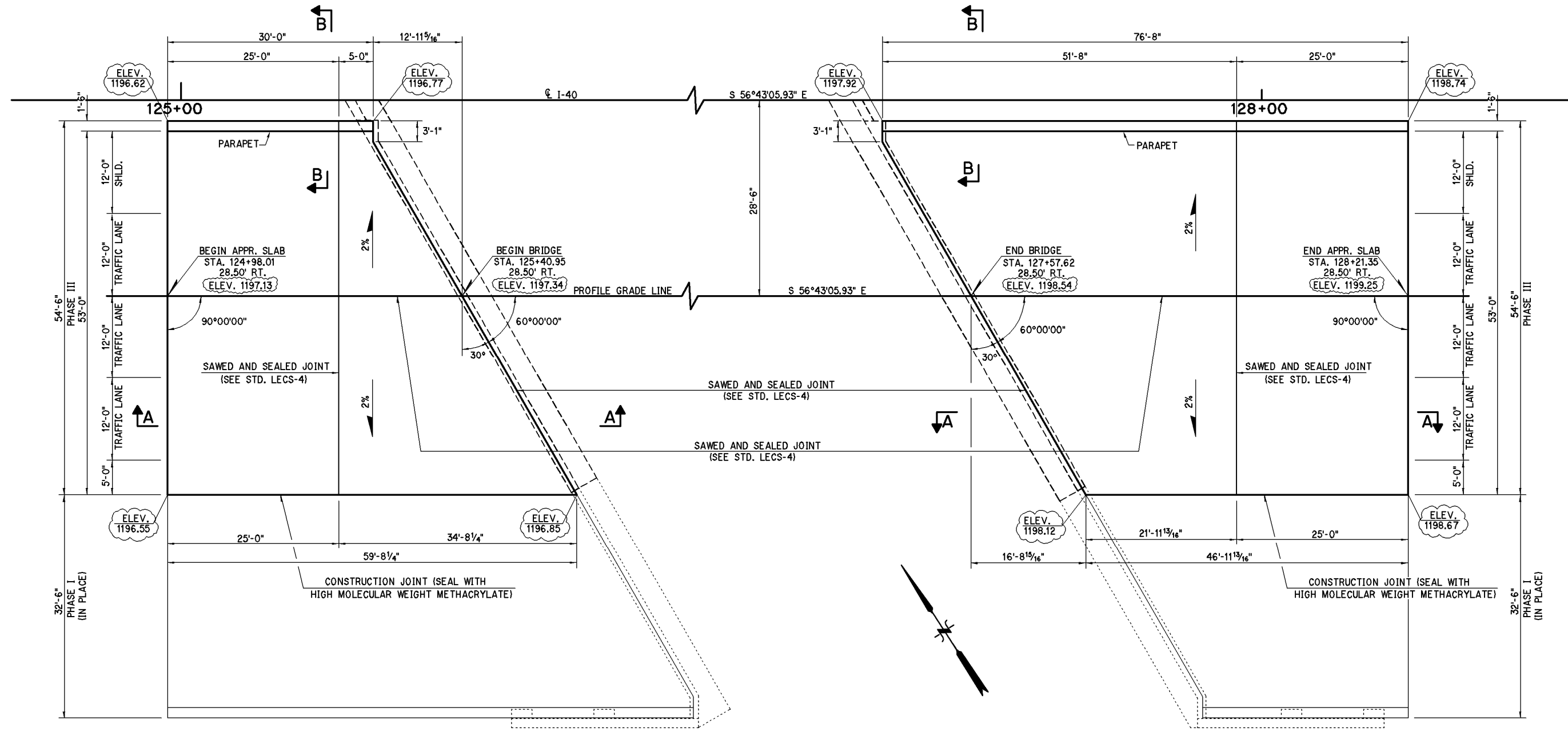


SECTION B-B

NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42-2. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF APPROACH SLABS.

Design		BRIDGE "A"	OKLAHOMA COUNTY	
Drawn			W.B. I-40 OVER CRUTCHO CREEK	
Checked			APPROACH SLAB DETAILS	
Approved			PHASE II	
Squad	POE		(SHEET 3 OF 3)	
State Job No. <u>23310(04)</u>			Sheet No. <u>B077</u>	

DESCRIPTION	REVISIONS	DATE

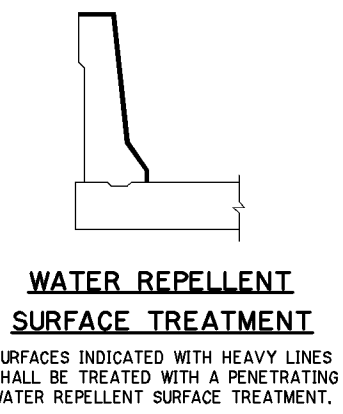


AT ABUT NO. 1

AT ABUT NO. 2

PLAN

NOTE: FOR SECTION A-A & B-B. SEE SHEET NO. B081.

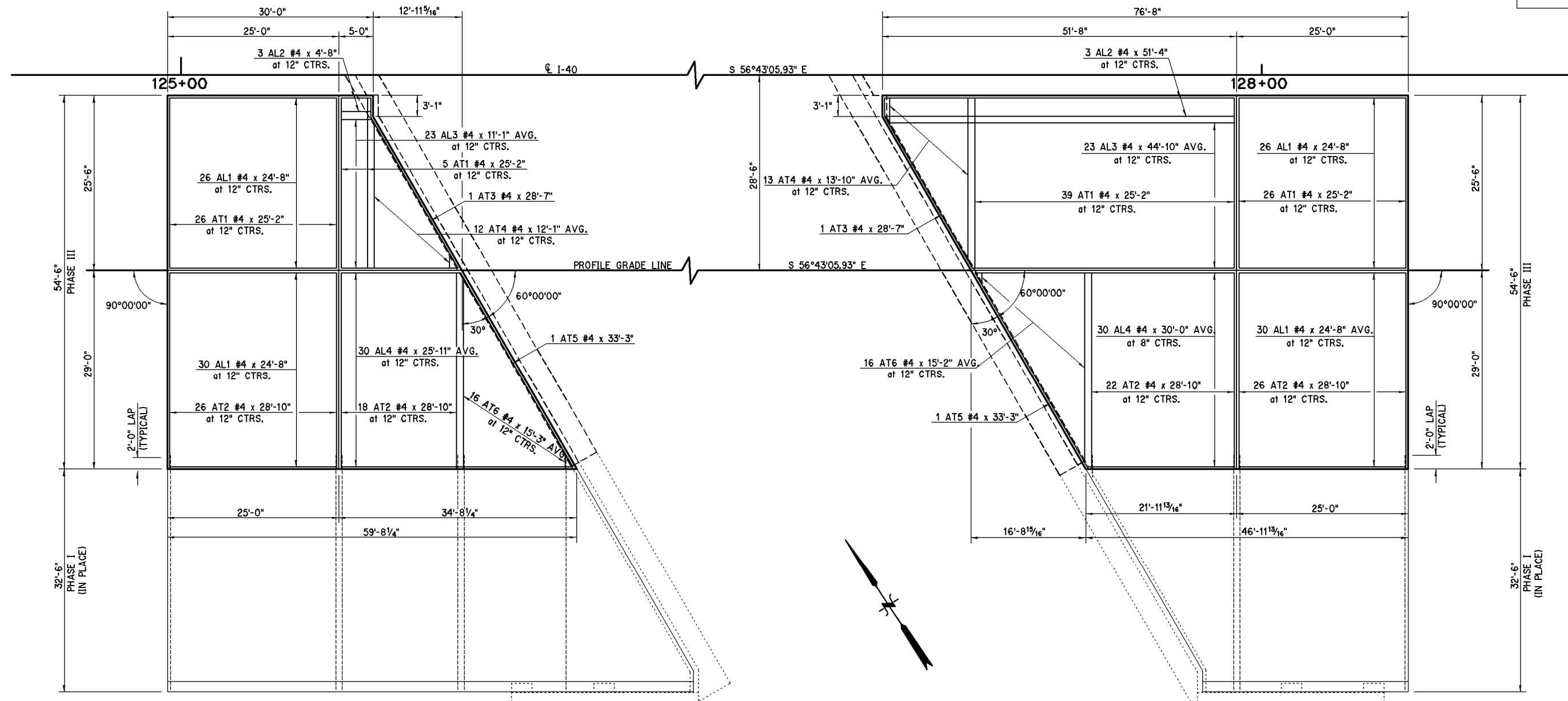


NOTES:
CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.
ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.
ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	266.5	379.5	646.0
SAW-CUT GROOVING	S.Y.	261.5	366.8	628.3
42" F-SHAPED PARAPET	L.F.	30.0	76.7	106.7
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	14	37	51
SEALER CRACK PREPARATION	L.F.	60	47	107
SEALER RESIN	GAL.	0.7	0.6	1.3

Design		BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK APPROACH SLAB DETAILS PHASE III (SHEET 1 OF 4) State Job No. 23310(04) Sheet No. B078
Drawn		
Checked		
Approved		
Squad	POE	

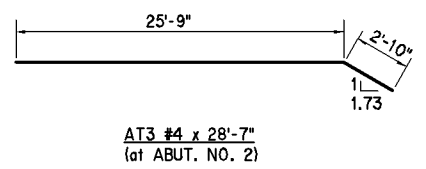
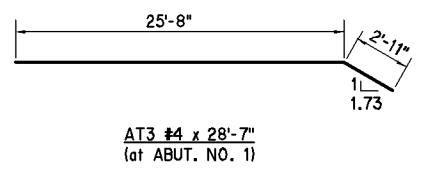
DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1
NOTE: TOP MAT OF REINFORCING STEEL

AT ABUT NO. 2
NOTE: TOP MAT OF REINFORCING STEEL

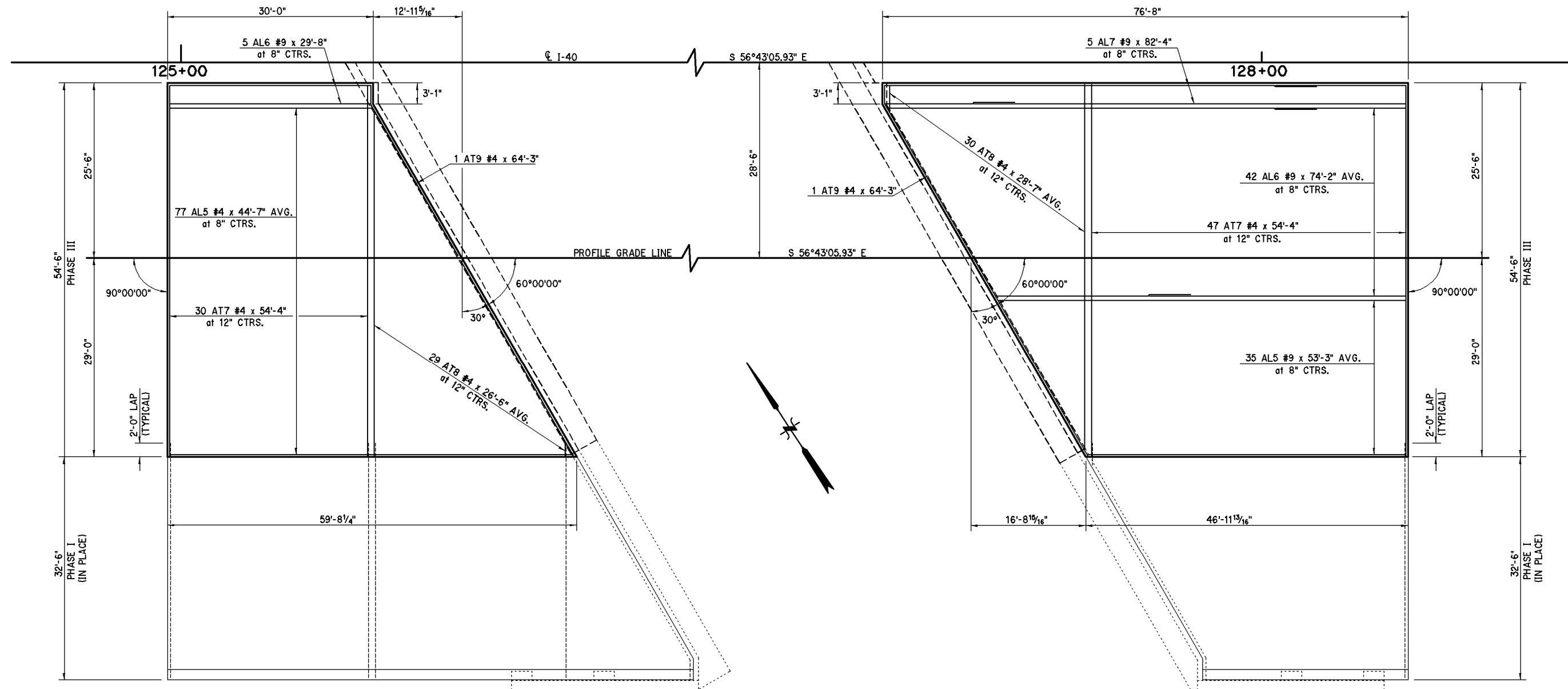
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.



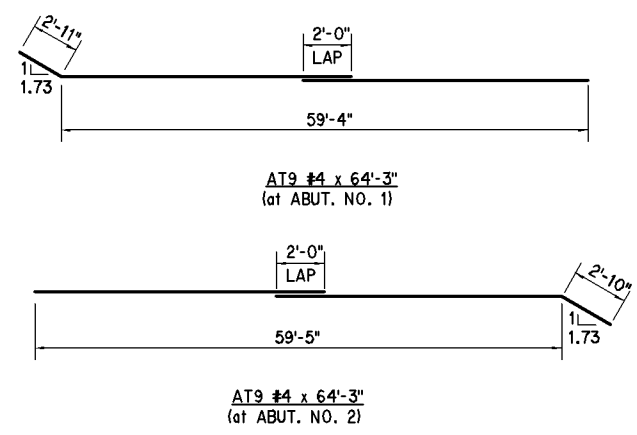
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "B" E.B. I-40 OVER CRUTCHO CREEK
APPROACH SLAB DETAILS
PHASE III
(SHEET 2 OF 4)
State Job No. 23310(04) Sheet No. B079

DESCRIPTION	REVISIONS	DATE

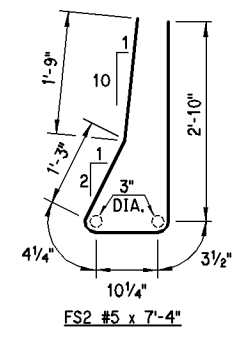


AT ABUT NO. 1
NOTE: BOTTOM MAT OF REINFORCING STEEL



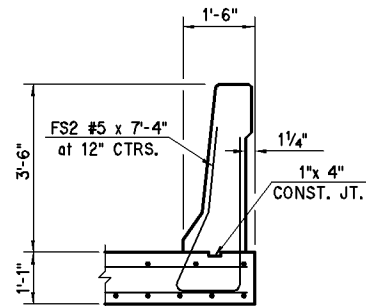
AT ABUT NO. 2
NOTE: BOTTOM MAT OF REINFORCING STEEL

NOTE: FS2 BARS SHALL BE TIED AND IN PLACE BEFORE POURING APPROACH SLABS.



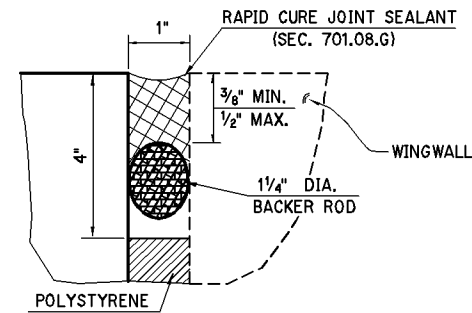
NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked		APPROACH SLAB DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 3 OF 4)	
		State Job No. 23310(04) Sheet No. B080	



SECTION B-B

NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42-2. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF APPROACH SLABS.



DETAIL OF RAPID CURE JOINT AT ABUT. WING

FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-4.

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 1 FOR INFORMATION ONLY					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	56	#4	STR.	12" C/C	24'-8"
AL2	3	#4	STR.	12" C/C	4'-8"
AL3	23	#4	STR.	12" C/C	11'-1" AVG.
AL4	30	#4	STR.	12" C/C	25'-11" AVG.
AL5	77	#9	STR.	8" C/C	44'-7" AVG.
AL6	5	#9	STR.	8" C/C	29'-8"
AT1	31	#4	STR.	12" C/C	25'-2"
AT2	44	#4	STR.	12" C/C	28'-10"
AT3	1	#4	BNT.	12" C/C	28'-7"
AT4	12	#4	STR.	AS SHOWN	12'-1" AVG.
AT5	1	#4	STR.	12" C/C	33'-3"
AT6	16	#4	STR.	AS SHOWN	15'-3" AVG.
AT7	30	#4	STR.	12" C/C	54'-4"
AT8	29	#4	STR.	12" C/C	26'-6" AVG.
AT9	1	#4	BNT.	AS SHOWN	64'-3"
FS2	30	#5	BNT.	12" C/C	7'-4"

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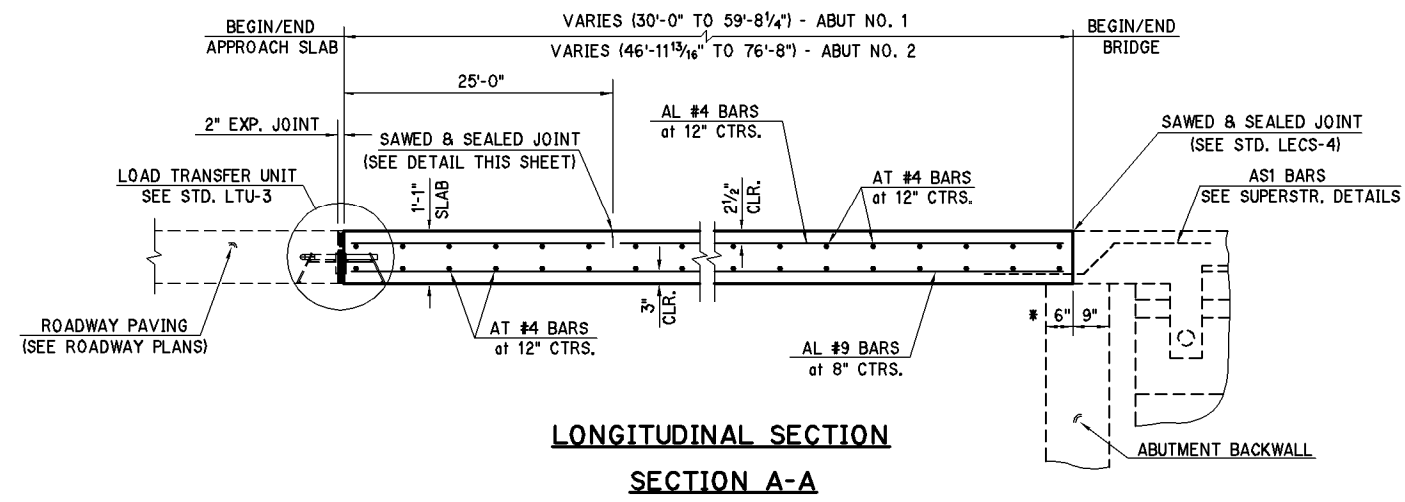
- ① LENGTH VARIES:
AL3 - 4'-9" TO 17'-5" AT4 - 2'-7" TO 21'-7"
AL4 - 17'-8" TO 34'-2" AT6 - 2'-3" TO 28'-3"
AL5 - 29'-11" TO 59'-3" AT8 - 2'-3" TO 50'-9"
- ② LENGTH INCLUDES LAP:
AT9 - 1 at 2'-0"

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 2 FOR INFORMATION ONLY					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	56	#4	STR.	12" C/C	24'-8"
AL2	3	#4	STR.	12" C/C	51'-4"
AL3	23	#4	STR.	12" C/C	44'-10" AVG.
AL4	30	#4	STR.	12" C/C	30'-0" AVG.
AL5	35	#9	STR.	8" C/C	53'-3" AVG.
AL6	42	#9	STR.	8" C/C	74'-2" AVG.
AL7	5	#9	STR.	8" C/C	82'-4"
AT1	65	#4	STR.	12" C/C	25'-2"
AT2	48	#4	STR.	12" C/C	28'-10"
AT3	1	#4	BNT.	12" C/C	28'-7"
AT4	13	#4	STR.	AS SHOWN	13'-10" AVG.
AT5	1	#4	STR.	12" C/C	33'-3"
AT6	16	#4	STR.	AS SHOWN	15'-2" AVG.
AT7	47	#4	STR.	12" C/C	54'-4"
AT8	30	#4	STR.	12" C/C	28'-7" AVG.
AT9	1	#4	BNT.	AS SHOWN	64'-3"
FS2	77	#5	BNT.	12" C/C	7'-4"

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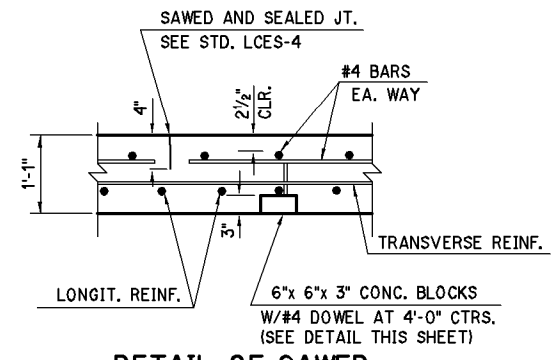
- ① LENGTH VARIES:
AL3 - 38'-5" TO 51'-3" AT4 - 3'-5" TO 24'-3"
AL4 - 21'-9" TO 38'-3" AT6 - 2'-2" TO 28'-2"
AL5 - 46'-9" TO 59'-9" AT8 - 3'-6" TO 53'-8"
AL6 - 66'-3" TO 82'-1"
- ② LENGTH INCLUDES LAP:
AL6 - 1 at 6'-0"
AL7 - 1 at 6'-0"
AT9 - 1 at 2'-0"

NOTE: STAGGER ALL BAR LAPS.



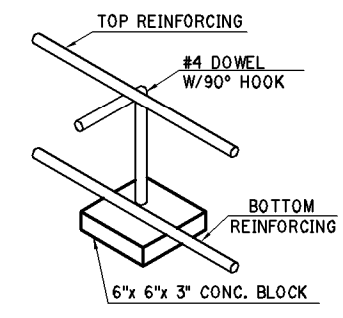
LONGITUDINAL SECTION SECTION A-A

* DIMENSIONS ARE NORMAL TO ABUTMENT.



DETAIL OF SAWED JOINT AND DOWEL BLOCK

NOTE: ALL REINFORCING STEEL IN THE TOP OF THE APPROACH SLAB SHALL CLEAR THE SAWED LONGITUDINAL AND TRANSVERSE JOINTS BY 2".

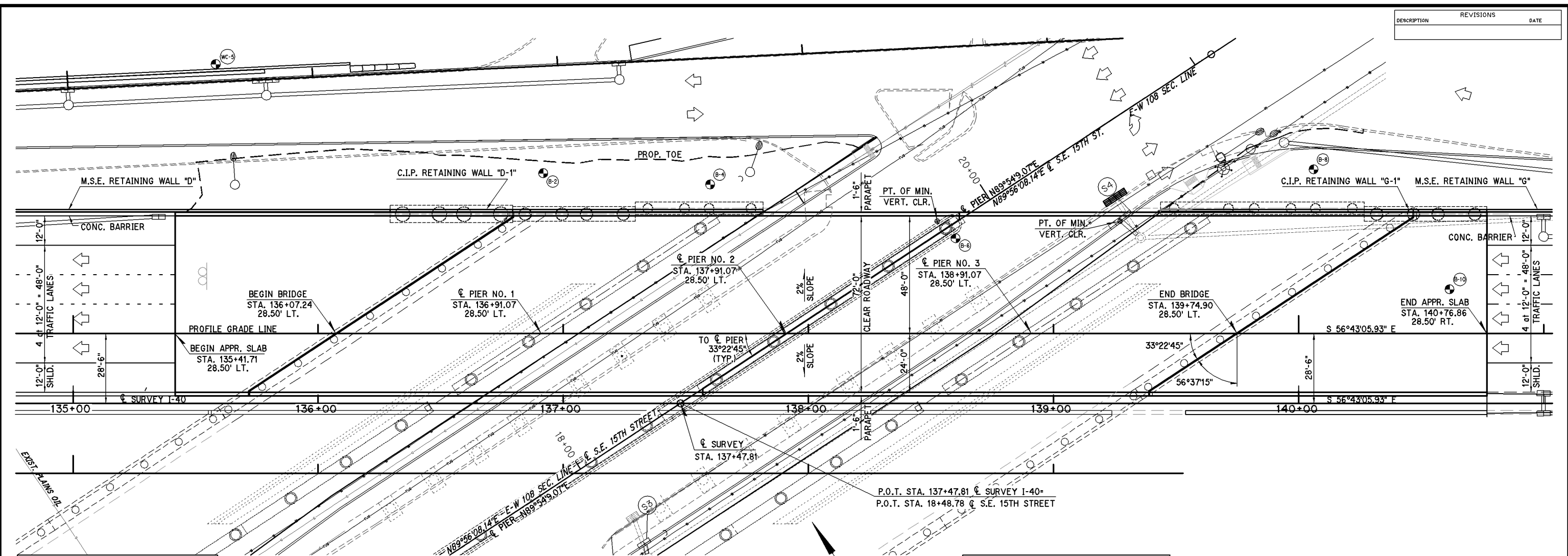


DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 6"x 6"x 3" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.

Design		BRIDGE "B"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER CRUTCHO CREEK
Checked			APPROACH SLAB DETAILS
Approved			PHASE III
Squad	POE		(SHEET 4 OF 4)
		State Job No. 23310(04)	Sheet No. B081

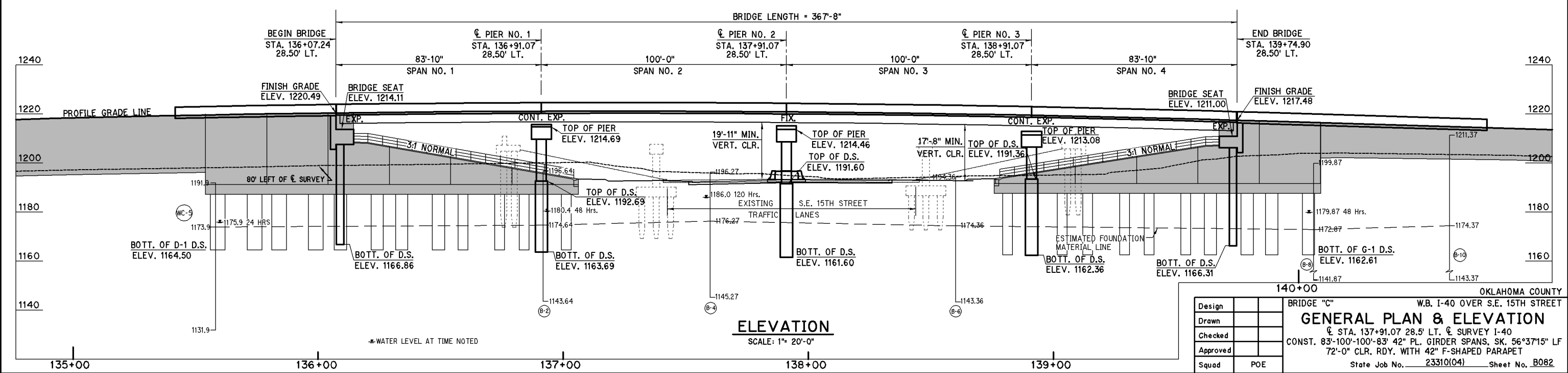
DESCRIPTION	REVISIONS	DATE



PLAN
SCALE: 1" = 20'-0"

BM17 ~ ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. @ I-40 STA. 133+75.70 ELEV. 1193.35

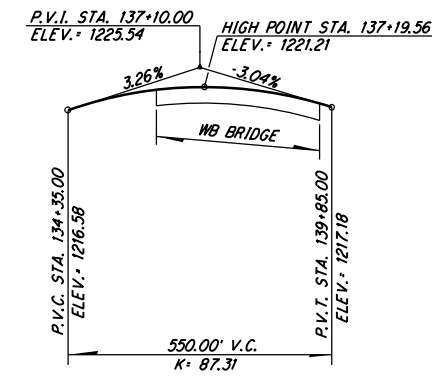
BM19 ~ ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. @ VICKIE DR. NORTH 183.46' LT. @ I-40 STA. 141+49.56 ELEV. 1202.95



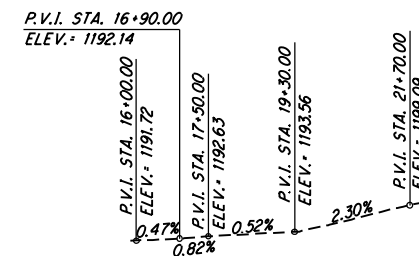
ELEVATION
SCALE: 1" = 20'-0"

DESCRIPTION	REVISIONS	DATE
REVISD & ADDED PAY ITEM & REVISED NOTE		3/09/20

SUMMARY OF QUANTITIES											
ITEM NO.	ITEM	UNIT	ABUTS.	SUPERSTR.	PIERS	APPR. SLAB	SLOPE WALL	PIER PROT.	C.I.P. RET. WALL "D-1"	C.I.P. RET. WALL "G-1"	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	350	-	-	-	-	-	-	350
501(F)	6352	GRANULAR BACKFILL	C.Y.	-	-	-	-	80	-	-	80
501(G)	6309	CLSM BACKFILL	C.Y.	1,097.8	-	-	-	-	-	-	1,097.8
502(A)	6173	ENGINEERED FALSEWORK	L.SUM	-	-	-	-	-	-	-	1
504(A)	1304	APPROACH SLAB	S.Y.	-	-	1,395.6	-	-	-	-	1,395.6
504(B)	1305	SAW-CUT GROOVING	S.Y.	-	2,941.4	-	1,339.8	-	-	-	4,281.2
504(C)	6250	SEALED EXPANSION JOINT	L.F.	-	270.1	-	-	-	-	-	270.10
504(E)	6190	42" F-SHAPED PARAPET	L.F.	-	735.4	-	335.6	-	-	-	1,071.0
504(F)	6006	HANDRAILING	L.F.	-	-	-	-	-	95.6	99.2	194.8
506(A)	1322	STRUCTURAL STEEL	L.B.	-	732.600	-	-	-	-	-	732.600
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	E.A.	-	8	-	-	-	-	-	8
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	E.A.	-	32	-	-	-	-	-	32
509	5000	ELASTOMERIC COATING	S.F.	1,539	-	-	-	-	-	-	1,539
509(A)	1326	CLASS AA CONCRETE	C.Y.	-	716.3	-	-	-	-	-	716.3
509(B)	1328	CLASS A CONCRETE	C.Y.	390.6	-	490.2	-	101	-	-	981.8
510(A)	6334	RETAINING WALL	S.Y.	-	-	-	-	287.04	153.59	-	440.63
510(C)	6138	SLOPE WALL (5")	S.Y.	-	-	-	1,514	-	-	-	1,514
511(A)	1332	REINFORCING STEEL	L.B.	-	-	4,080	-	14,720	-	-	18,800
511(B)	6010	EPOXY COATED REINFORCING STEEL	L.B.	35,100	191,070	81,040	-	-	-	-	307,210
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	273	971	742	164	-	-	-	2,150
516(A)	6092	DRILLED SHAFTS 36" DIAMETER	L.F.	689	-	-	-	-	-	-	689
516(A)	6094	DRILLED SHAFTS 48" DIAMETER	L.F.	-	-	-	-	92	168	-	260
516(A)	6096	DRILLED SHAFTS 60" DIAMETER	L.F.	-	-	440	-	92	112	-	644
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	L.F.	-	-	-	-	92	-	-	92
516(C)	6200	CROSSHOLE SONIC LOGGING	E.A.	2	-	2	-	2	2	-	8
523(A)	6550	SEALER CRACK PREPARATION	L.F.	-	810	-	-	-	-	-	810
523(B)	6560	SEALER RESIN	GAL.	-	9.0	-	-	-	-	-	9.0
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	273	-	-	252	-	-	-	525
613(I)	6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	32	-	-	20	-	-	-	52
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	-	-	-	-	-	-	-	1



W.B. I-40
VERTICAL CURVE DATA



S.E. 15th St.
VERTICAL CURVE DATA

DESIGN DATA

- DESIGN SPECIFICATIONS:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 EDITION
- DESIGN LOADING:
HL-93
OKLAHOMA OVERLOAD (STRENGTH-II LOAD COMBINATION)
OPERATING RATING (LFD) HS 42
DESIGN DEAD LOAD INCLUDES AN ALLOWANCE OF 20 PSF FOR A FUTURE WEARING SURFACE AND 5 PSF FOR STAY-IN-PLACE FORMS.
- UNIT STRESSES:
CLASS AA CONCRETE F_c = 4,000 PSI
CLASS A CONCRETE F_y = 3,000 PSI
REINFORCING STEEL (GRADE 60) F_y = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W) F_y = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316) F_y = 30,000 PSI

FOUNDATION CAPACITIES

	ABUT. NO. 1	ABUT. NO. 2	PIER NO. 1	PIER NO. 2	PIER NO. 3
DRILLED SHAFT DIAMETER *	36"	36"	60"	60"	60"
DRILLED SHAFT MINIMUM DEPTH INTO SHALE *	6'-0"	6'-0"	10'-0"	10'-0"	10'-0"
FACTORED REACTION *	312 TONS	266 TONS	566 TONS	581 TONS	576 TONS
NOMINAL UNIT BEARING RESISTANCE *	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF
BEARING RESISTANCE FACTOR *	0.70	0.70	0.70	0.70	0.70
FACTORED BEARING RESISTANCE *	297 TONS	297 TONS	824 TONS	824 TONS	824 TONS
NOMINAL UNIT FRICTION RESISTANCE *	9.0 TSF	9.0 TSF	9.0 TSF	9.0 TSF	9.0 TSF
FRICTION RESISTANCE FACTOR *	0.45	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE *	183 TONS	155 TONS	419 TONS	431 TONS	415 TONS
DEPTH OF SHALE NEGLECTED FOR FRICTION *	2 FT.	2 FT.	4 FT.	4 FT.	4 FT.
TOTAL FACTORED RESISTANCE *	480 TONS	452 TONS	1244 TONS	1255 TONS	1239 TONS

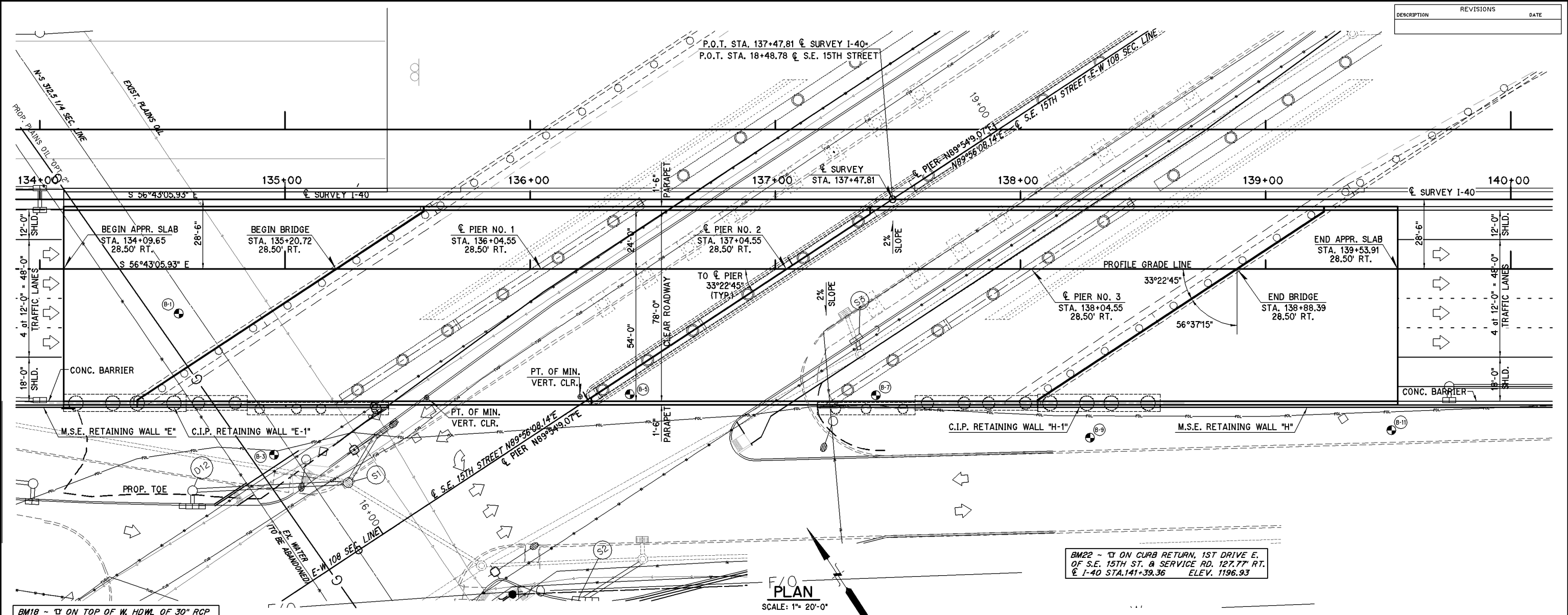
INDEX OF SHEETS

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AB04	GENERAL NOTES (BRIDGE)
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B083	DESIGN DATA AND SUMMARY OF QUANTITIES
B086-B087	FOUNDATION REPORT
B090	BRIDGE CONSTRUCTION SEQUENCE
B092	SUBSTRUCTURE LAYOUT PHASE II
B095-B096	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE II
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B119-B121	PIER NO. 1 DETAILS PHASE II
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STD.	PUD-3
STD.	LECS-4
STD.	LTU-4

OKLAHOMA COUNTY

Design		BRIDGE "C"	W.B. I-40 OVER S.E. 15TH STREET
Drawn			DESIGN DATA AND SUMMARY OF QUANTITIES
Checked			
Approved			
Squad	POE	State Job No. 2331(04)	Sheet No. B083

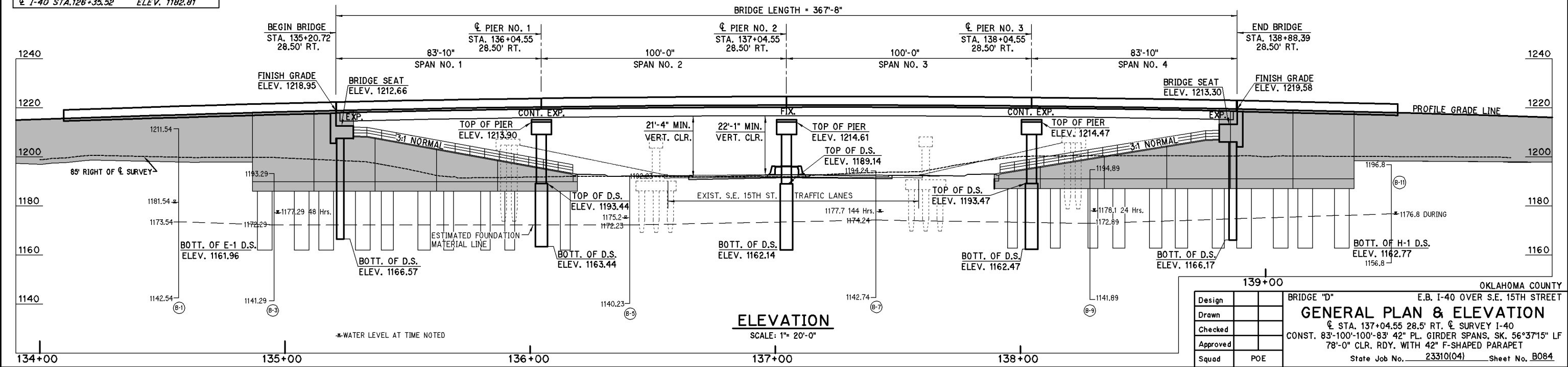
DESCRIPTION	REVISIONS	DATE



F/O PLAN
SCALE: 1" = 20'-0"

BM18 - ∇ ON TOP OF W. HDWL. OF 30" RCP
12' W. OF ASPH. TRAIL, SW OF CRUTCHO CRK.
BRIDGE 136.06' RT.
 ∇ I-40 STA. 126+33.52 ELEV. 1192.81

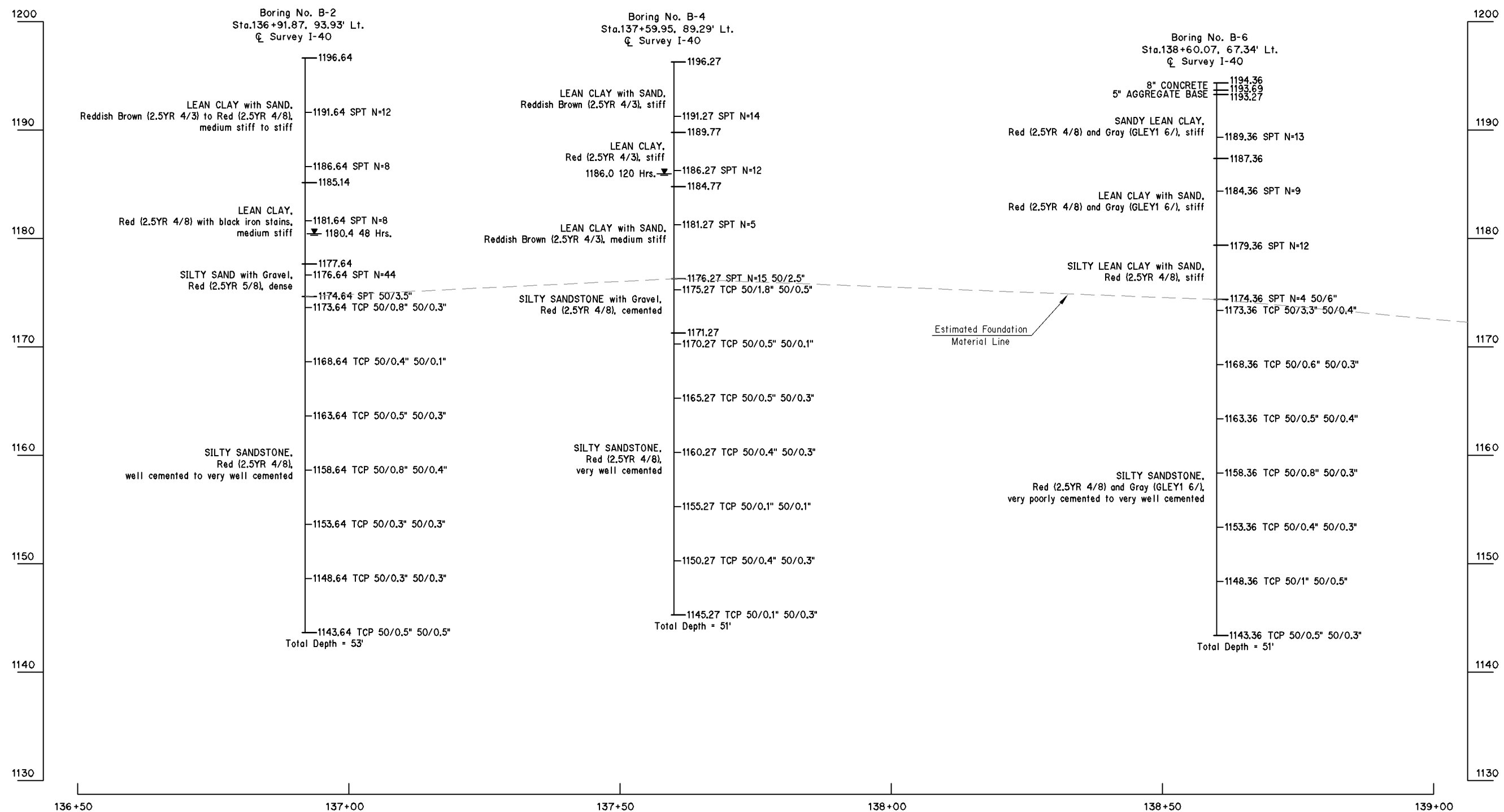
BM22 - ∇ ON CURB RETURN, 1ST DRIVE E.
OF S.E. 15TH ST. & SERVICE RD. 127.77' RT.
 ∇ I-40 STA. 141+39.36 ELEV. 1196.93



ELEVATION
SCALE: 1" = 20'-0"

Design		BRIDGE "D"	E.B. I-40 OVER S.E. 15TH STREET
Drawn		GENERAL PLAN & ELEVATION	
Checked		∇ STA. 137+04.55 28.5' RT. ∇ SURVEY I-40	
Approved		CONST. 83'-100'-100'-83' 42" PL. GIRDER SPANS, SK. 56°37'15" LF	
Squad	POE	78'-0" CLR. RDY. WITH 42" F-SHAPED PARAPET	
		State Job No.	23310(04) Sheet No. B084

DESCRIPTION	REVISIONS	DATE



GEOLOGICAL STATEMENT:

The "Engineering Classification of Geologic Materials, Division Four," Research and Development Division of Oklahoma Highway Department, 1969, indicates that the project site is underlain by the Garber-Wellington Unit (Pgw). This geologic formation is described below as follows:

Garber-Wellington Unit (Pgw): The upper 400 feet of the Garber-Wellington unit consists dominantly of red, massive, soft, lenticular, commonly cross-bedded, sandstone with minor amounts of red clay shale and red sandy shales. The lower 700 feet consists of red to maroon fissile to blocky shale containing some pinkish buff, massive to thin-bedded, fine-grained, lensing sandstones.

The total thickness of the Garber-Wellington unit is about 1,100 feet, of which the upper 700 feet outcrops in Division Four. The unit outcrops in southeastern Oklahoma County, south of the North Canadian River.

Topographically, the sandstones generally cap ridges and support blackjack oak and post oak trees. The soft sandstones are easily eroded and, locally, winds have reworked the surface to form vegetated dunes. Shales generally underlie the valleys and more gently rolling hills.

According to the Geologic Map of the "Hydrologic Atlas 8 of Oklahoma, Reconnaissance of the Water Resources of The Oklahoma City Quadrangle, Central Oklahoma," by Robert B. Morton, U.S. Geological Survey, 1980, indicates that the project site located over the Garber Sandstone (pg). The geologic formation is described therein as follows:

Garber Sandstone (Pg): These materials mostly consisted of orange-brown to red-brown fine-grained sandstone, irregularly bedded with re-brown shale and some chert and mudstone conglomerate. Thickness ranges from 150 feet in the south to 400 or more in north. The Garber and underlying Wellington are major aquifers in Cleveland and Oklahoma Counties.

SPT = Standard Penetration Test
 TCP = Texas Cone Penetration
 RQD = Rock Quality Designation

☰ Water Level during drilling
 ☒ Water Level after drilling
 ☒ Water Level after 24 hours

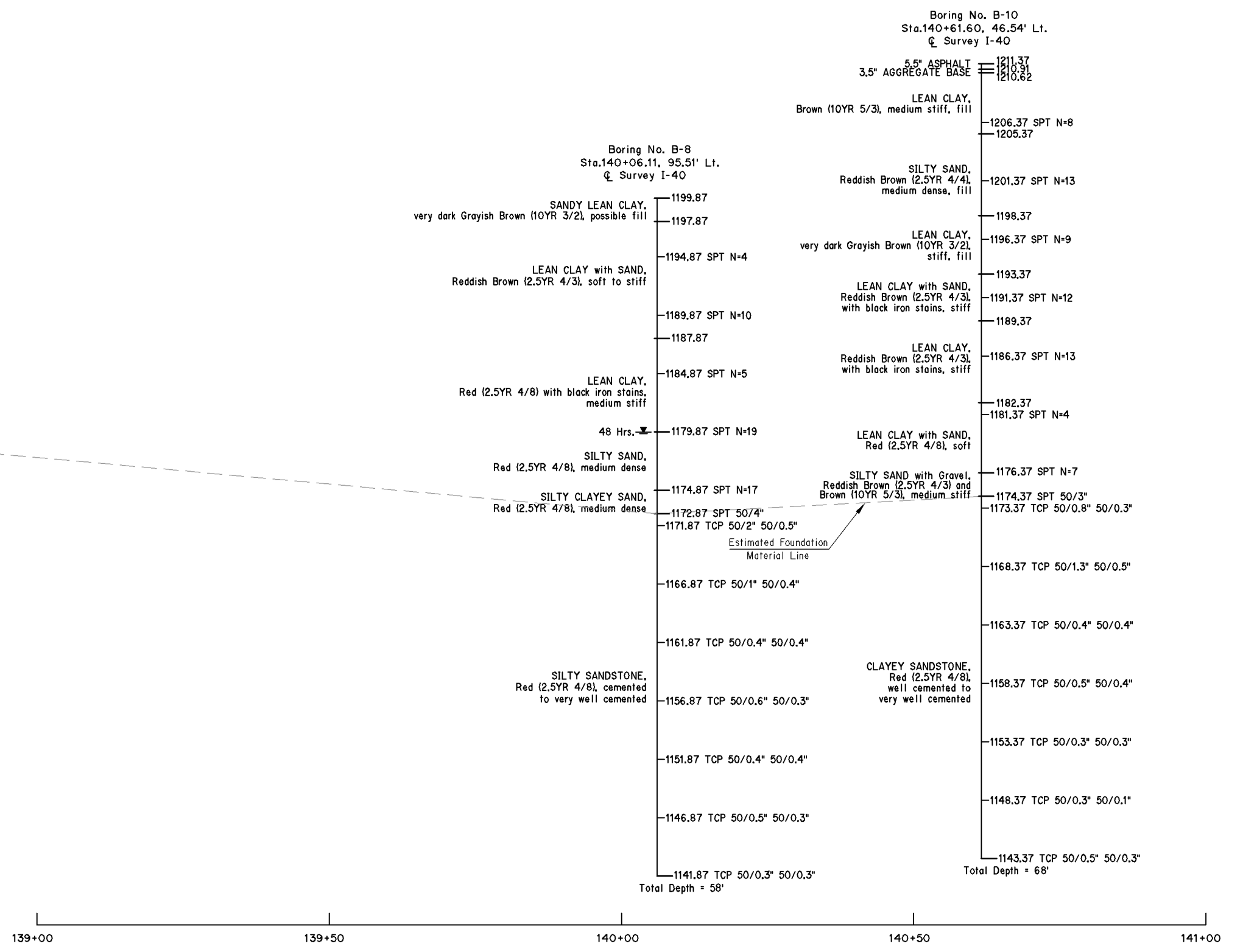
HORIZONTAL SCALE: 1"=10'
 VERTICAL SCALE: 1"=5'

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER S.E. 15TH STREET
Checked			FOUNDATION REPORT
Approved			(SHEET 1 OF 2)
Squad	RED ROCK		State Job No. 23310(04) Sheet No. B086

DESCRIPTION	REVISIONS	DATE

1220
1210
1200
1190
1180
1170
1160
1150
1140

1220
1210
1200
1190
1180
1170
1160
1150
1140



GEOLOGICAL STATEMENT:
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HORIZONTAL SCALE: 1"=10'
 VERTICAL SCALE: 1"=5'

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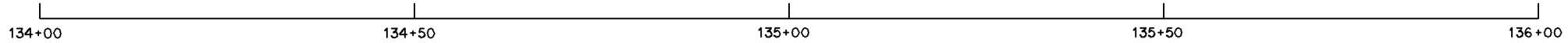
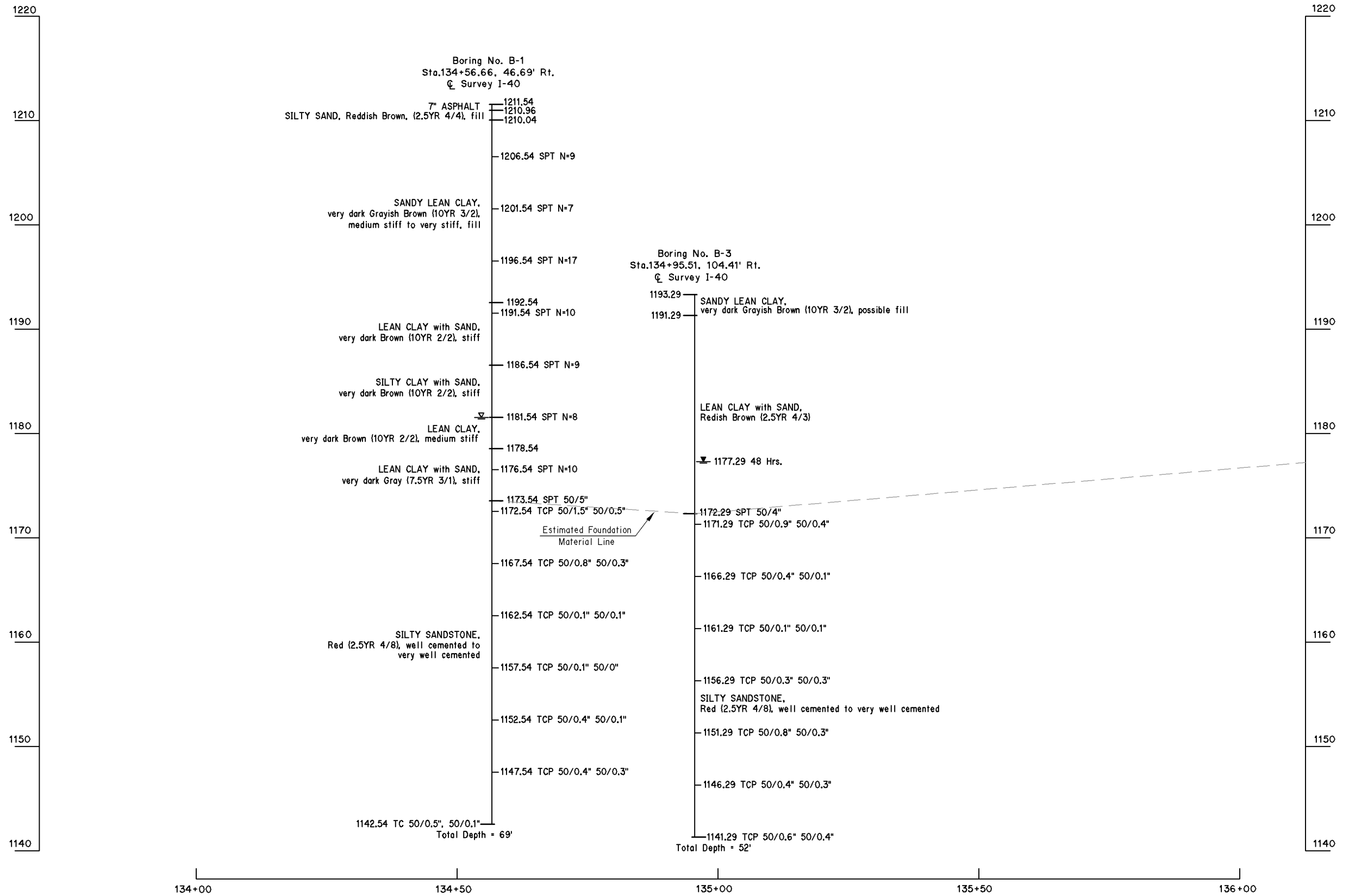
☼ Water Level during drilling
 ☼ Water Level after drilling
 ☼ Water Level after 24 hours

Design		BRIDGE "C" W.B. I-40 OVER S.E. 15TH STREET
Drawn		
Checked		
Approved		
Squad	RED ROCK	

FOUNDATION REPORT
(SHEET 2 OF 2)

State Job No. 23310(04) Sheet No. B087

DESCRIPTION	REVISIONS	DATE



HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

GEOLOGICAL STATEMENT:

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- RQD = Rock Quality Designation
- ☒ Water Level during drilling
- ☒ Water Level after drilling
- ☒ Water Level after 24 hours

Design	
Drawn	
Checked	
Approved	
Squad	RED ROCK

OKLAHOMA COUNTY

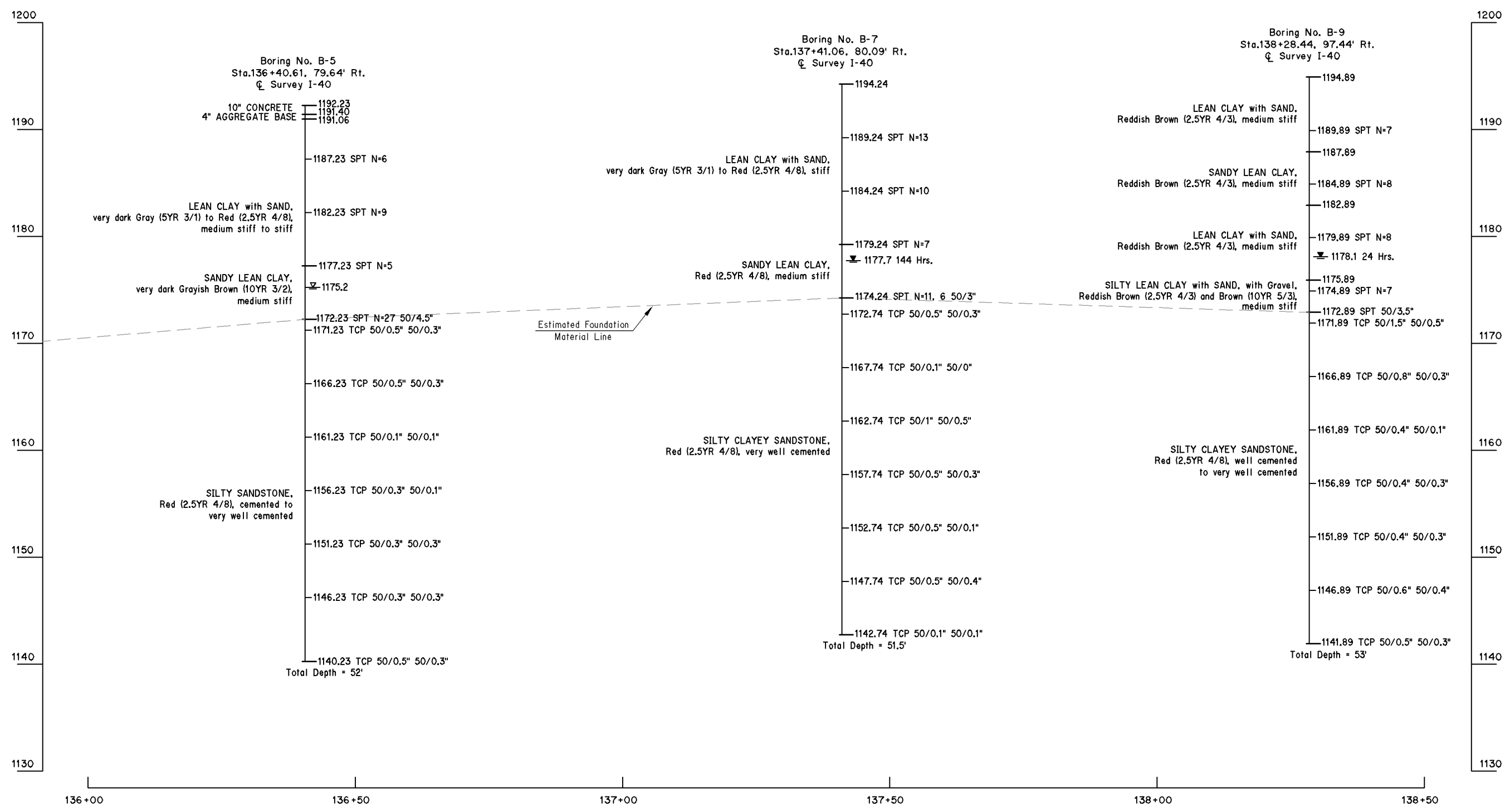
BRIDGE "D" E.B. I-40 OVER S.E. 15TH STREET

FOUNDATION REPORT

(SHEET 1 OF 2)

State Job No. 23310(04) Sheet No. B088

DESCRIPTION	REVISIONS	DATE



GEOLOGICAL STATEMENT:

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- TCP = Texas Cone Penetration
- RQD = Rock Quality Designation
- ☰ Water Level during drilling
- ☷ Water Level after drilling
- ☹ Water Level after 24 hours

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

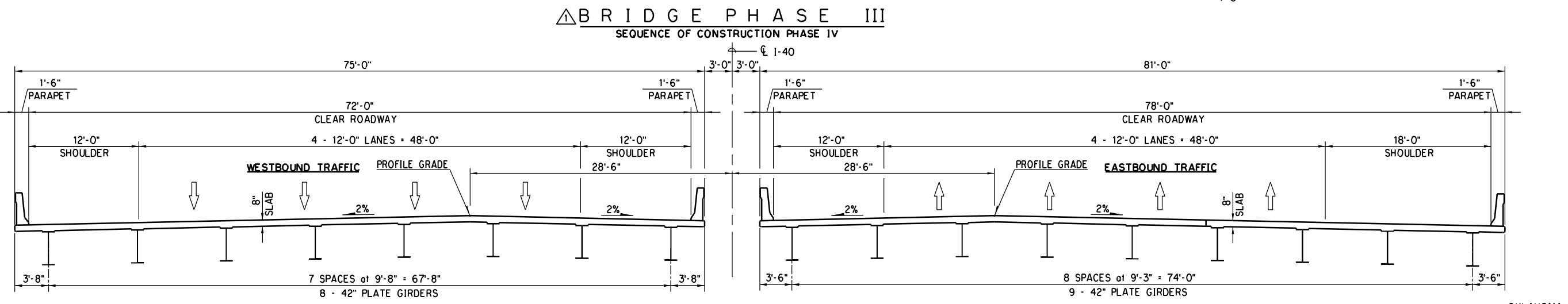
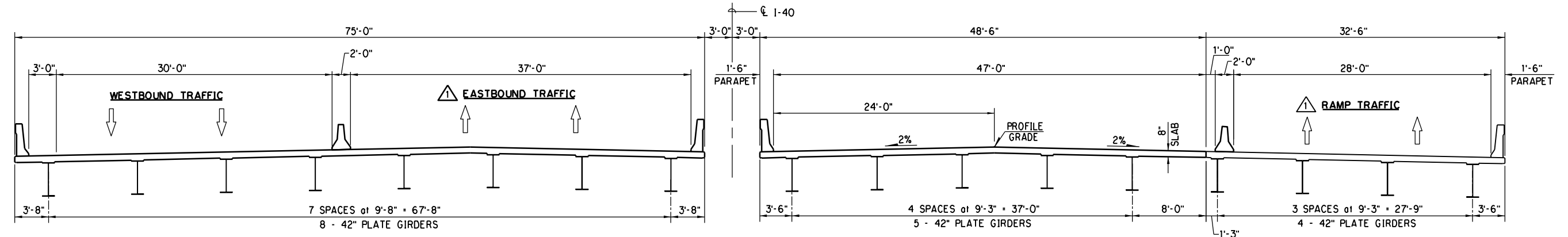
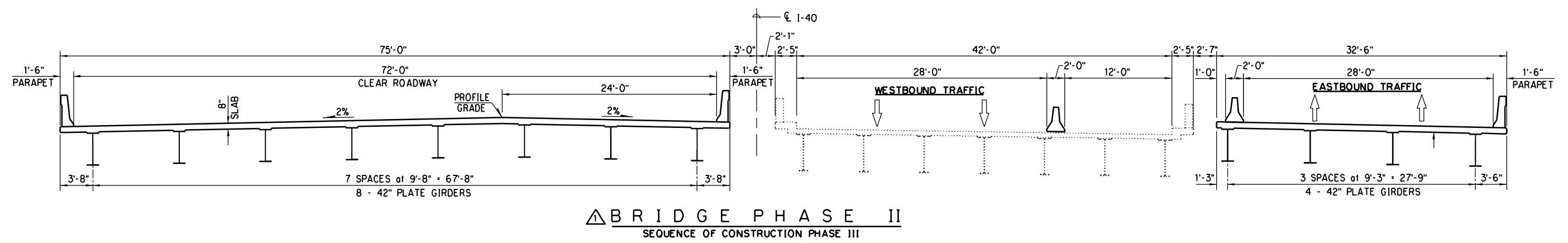
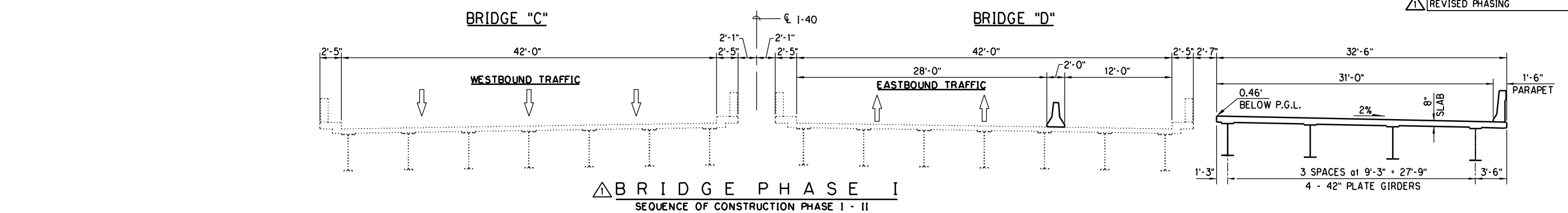
Design	
Drawn	
Checked	
Approved	
Squad	RED ROCK

OKLAHOMA COUNTY
E.B. I-40 OVER S.E. 15TH STREET

FOUNDATION REPORT
(SHEET 2 OF 2)

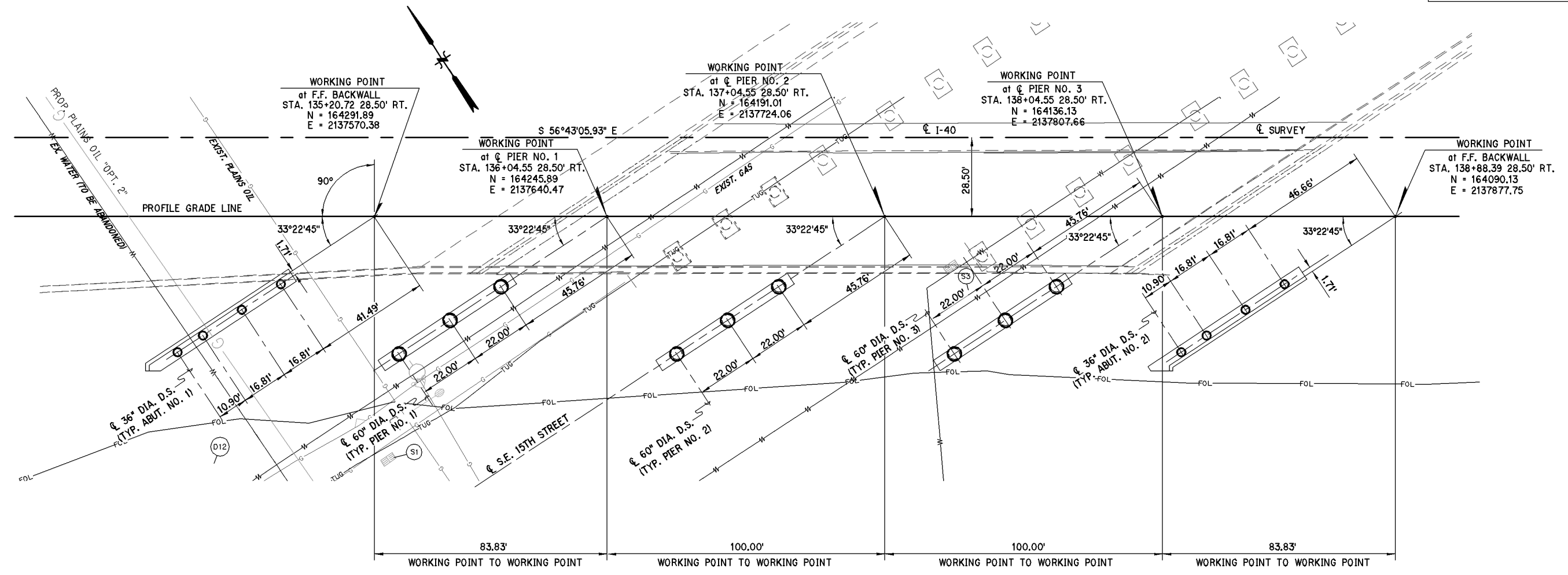
State Job No. 23310(04) Sheet No. B089

DESCRIPTION	REVISIONS	DATE
REVISED PHASING		3/09/20

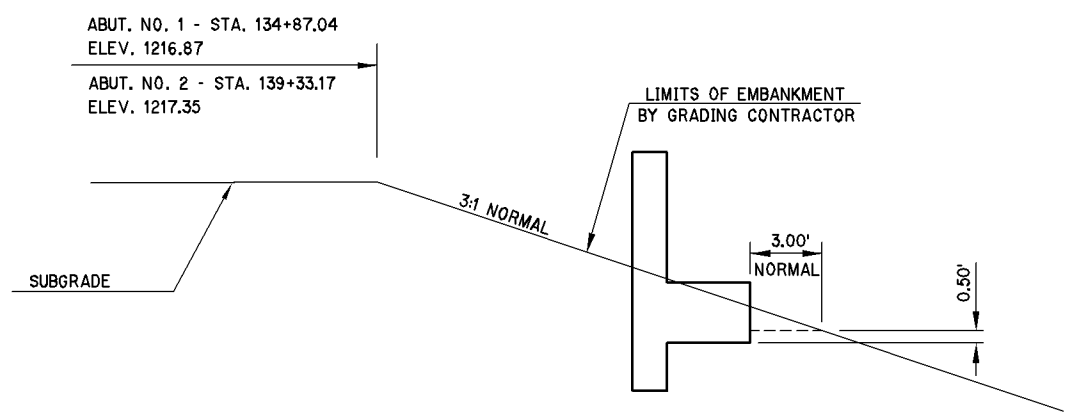


Design		OKLAHOMA COUNTY BRIDGE "C" & "D" 1-40 OVER S.E. 15th STREET BRIDGE CONSTRUCTION SEQUENCE State Job No. 23310(04) Sheet No. B090
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENTS
ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

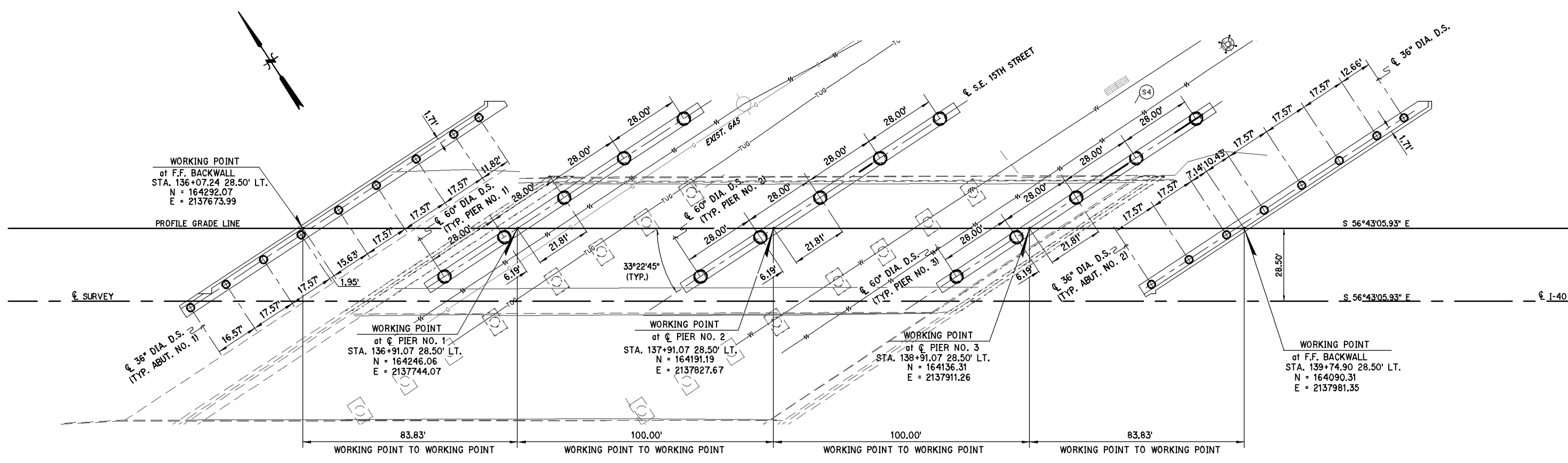
CAUTION:
CONTRACTOR TO LOCATE UTILITIES PRIOR TO DRILLING DRILLED SHAFTS TO ENSURE THE UTILITIES WILL NOT BE IMPACTED. IF UTILITIES ARE IN THE WAY OF CONSTRUCTING THE DRILLED SHAFTS, CONTACT THE ENGINEER.

OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER 15TH ST
Checked		SUBSTRUCTURE LAYOUT PHASE I	
Approved			
Squad	POE		
		State Job No. 23310(04)	Sheet No. B091

DESCRIPTION	REVISIONS	DATE
REVISION AFTER LET		07/29/2020

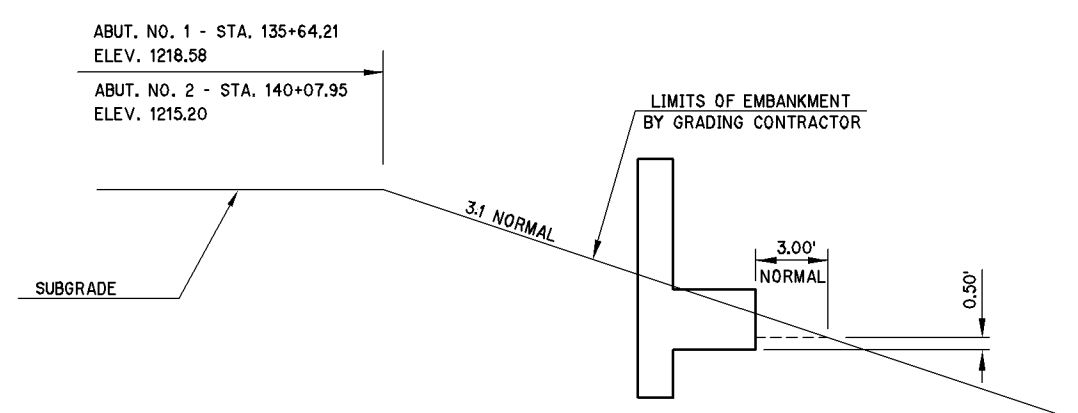


SUBSTRUCTURE STAKING DIAGRAM

CAUTION:
 CONTRACTOR TO LOCATE UTILITIES PRIOR TO DRILLING DRILLED SHAFTS TO ENSURE THE UTILITIES WILL NOT BE IMPACTED. IF UTILITIES ARE IN THE WAY OF CONSTRUCTING THE DRILLED SHAFTS, CONTACT THE ENGINEER.

OKLAHOMA ONE-CALL SYSTEM:
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DETAIL OF GRADING AT ABUTMENTS
 ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

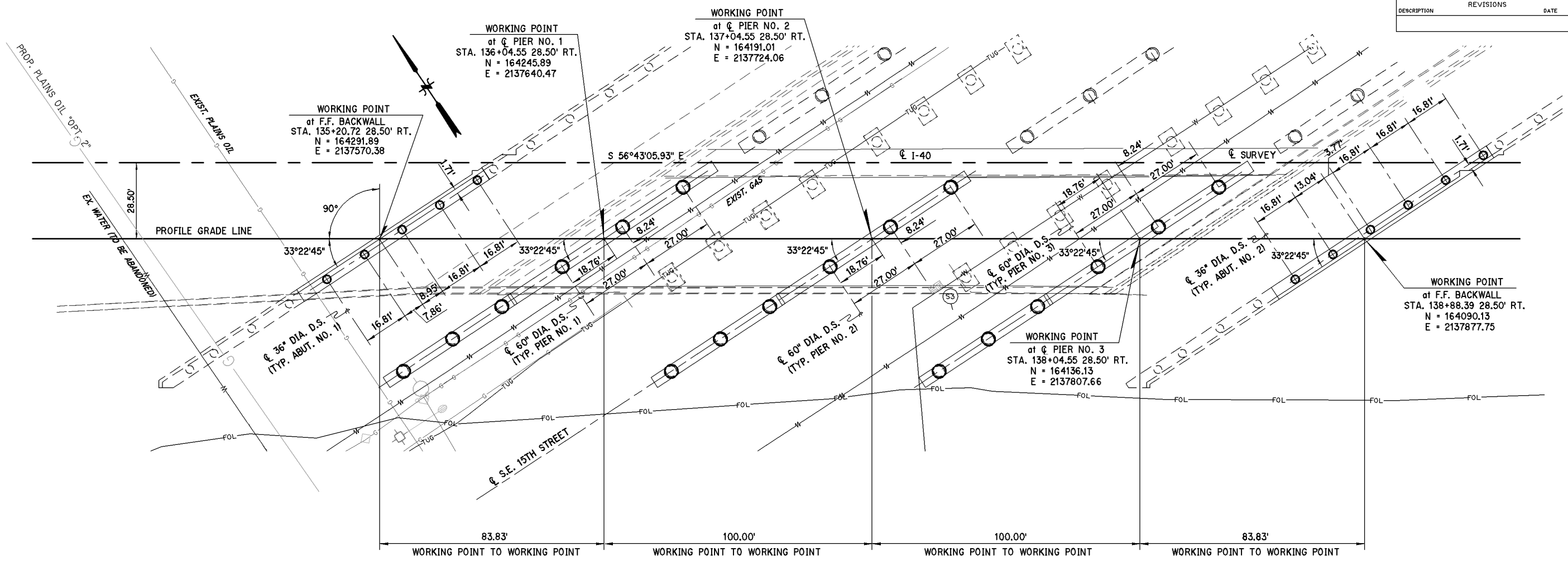
REVISION AFTER LET
 07/29/2020

Design		BRIDGE "C"	OKLAHOMA COUNTY W.B. I-40 OVER 15TH ST
Drawn			
Checked			
Approved			
Squad	POE		

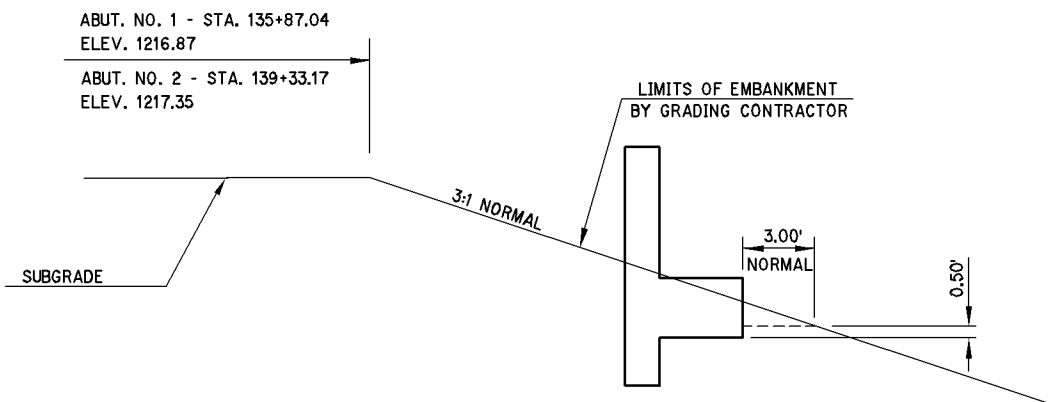
**SUBSTRUCTURE LAYOUT
 PHASE II**

State Job No. 23310(04) Sheet No. B092

DESCRIPTION	REVISIONS	DATE



SUBSTRUCTURE STAKING DIAGRAM



DETAIL OF GRADING AT ABUTMENTS
ELEVATIONS SHOWN ARE ALONG PROFILE GRADE LINE

CAUTION:
CONTRACTOR TO LOCATE UTILITIES PRIOR TO DRILLING DRILLED SHAFTS TO ENSURE THE UTILITIES WILL NOT BE IMPACTED. IF UTILITIES ARE IN THE WAY OF CONSTRUCTING THE DRILLED SHAFTS, CONTACT THE ENGINEER.

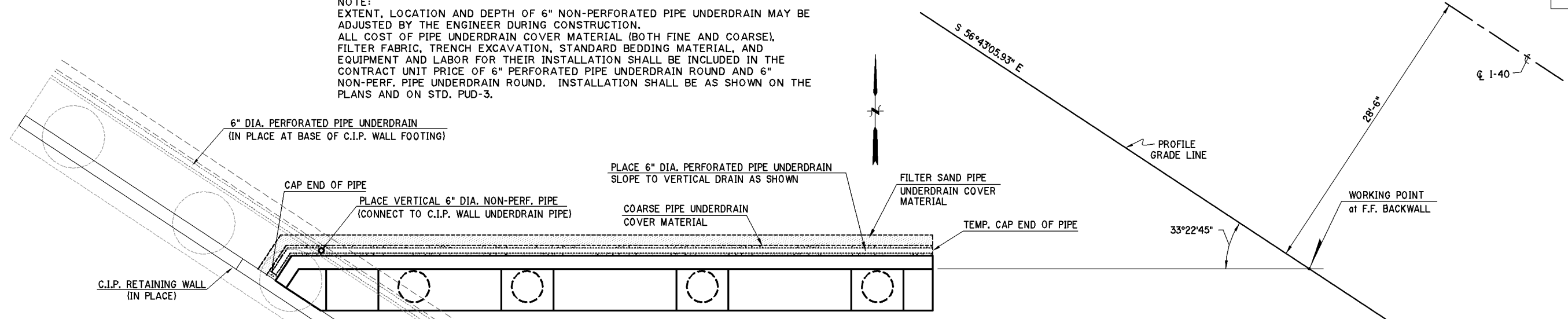
OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

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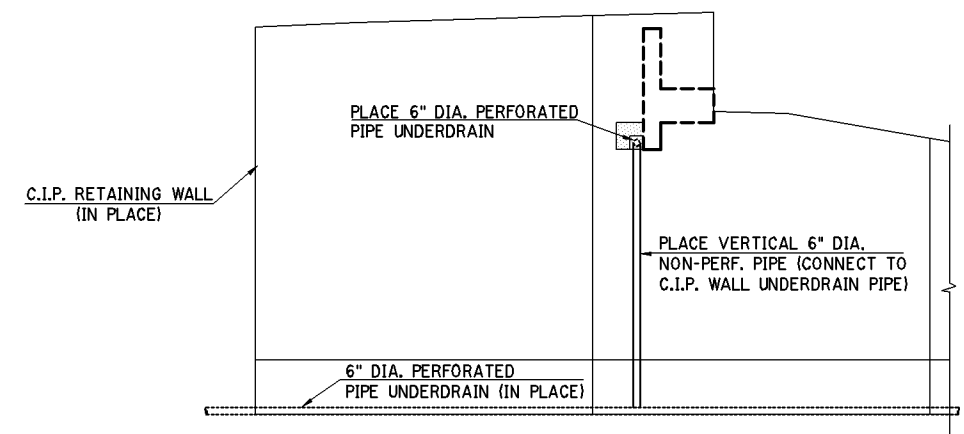
Design		OKLAHOMA COUNTY
Drawn		BRIDGE "D" E.B. I-40 OVER 15TH ST
Checked		SUBSTRUCTURE LAYOUT
Approved		PHASE III
Squad	POE	State Job No. 23310(04) Sheet No. B093

DESCRIPTION	REVISIONS	DATE

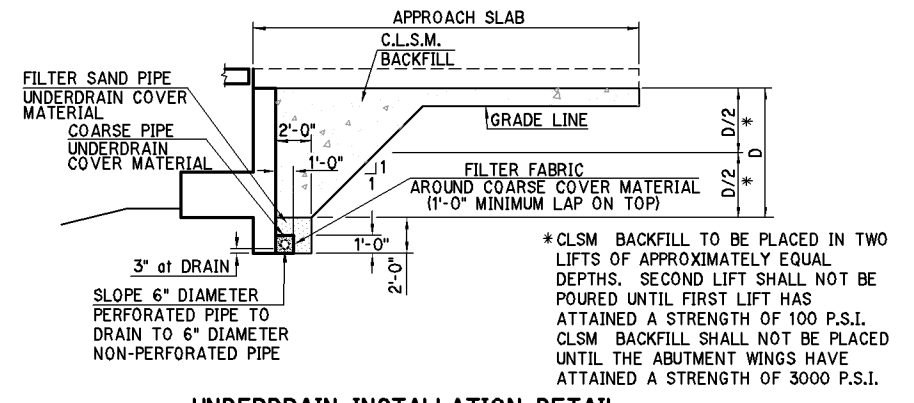
NOTE:
 EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
 ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-3.



PIPE UNDERDRAIN PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)

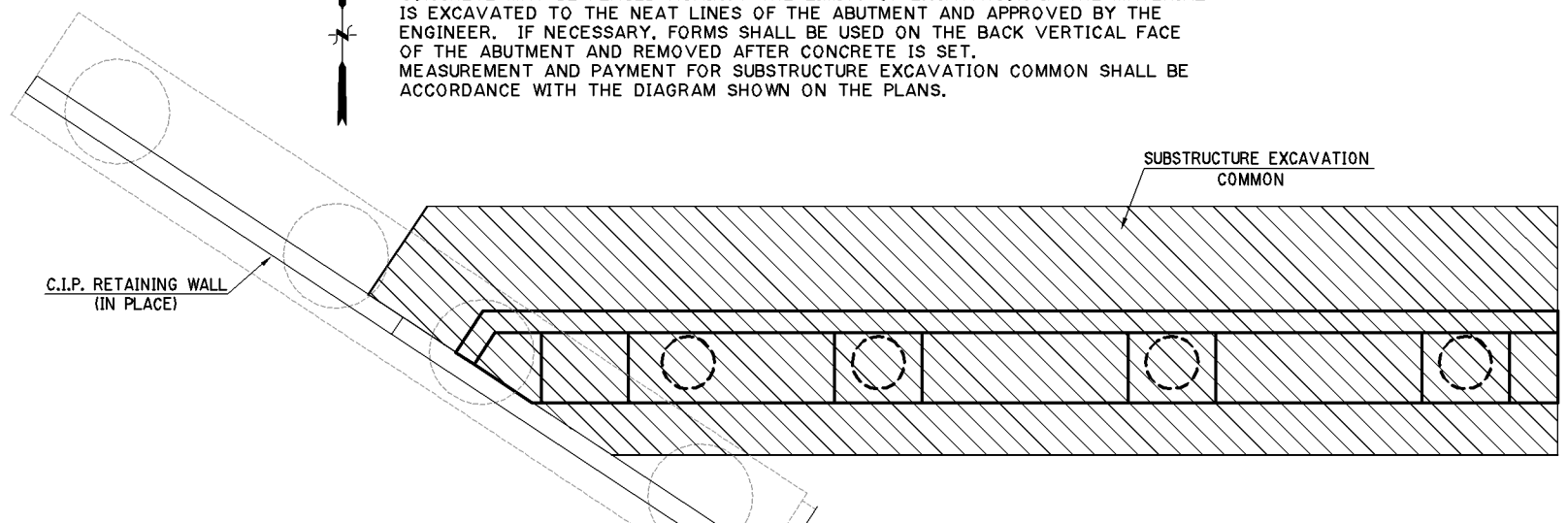


UNDERDRAIN DETAIL AT C.I.P. WALL

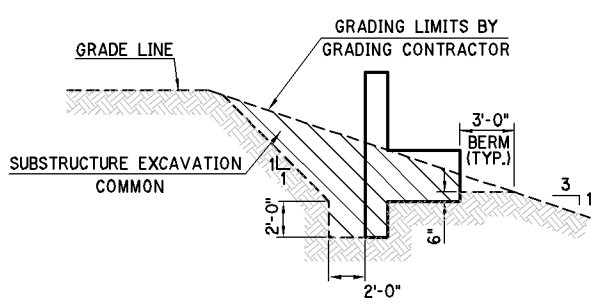


UNDERDRAIN INSTALLATION DETAIL
 NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-3 AND SPI-4

NOTE:
 CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET. MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON SHALL BE ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.



EXCAVATION PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



SECTION THRU BRIDGE SEAT ABUTMENT EXCAVATION DIAGRAM

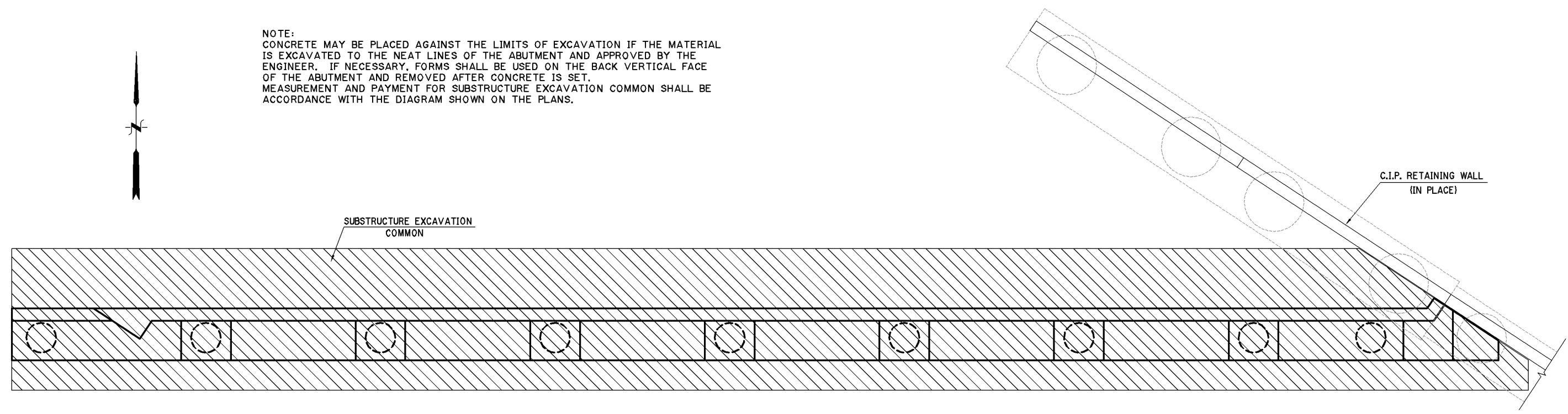
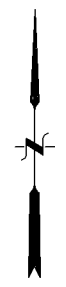
CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE.
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

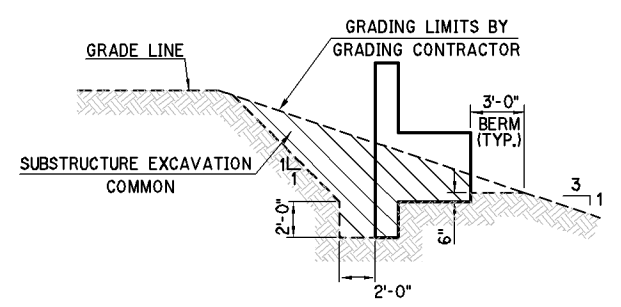
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS	
Approved		PHASE I	
Squad	POE	State Job No. 23310(04)	Sheet No. B094

DESCRIPTION	REVISIONS	DATE

NOTE:
 CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET.
 MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON SHALL BE ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.



EXCAVATION PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



**SECTION THRU BRIDGE SEAT
 ABUTMENT EXCAVATION DIAGRAM**

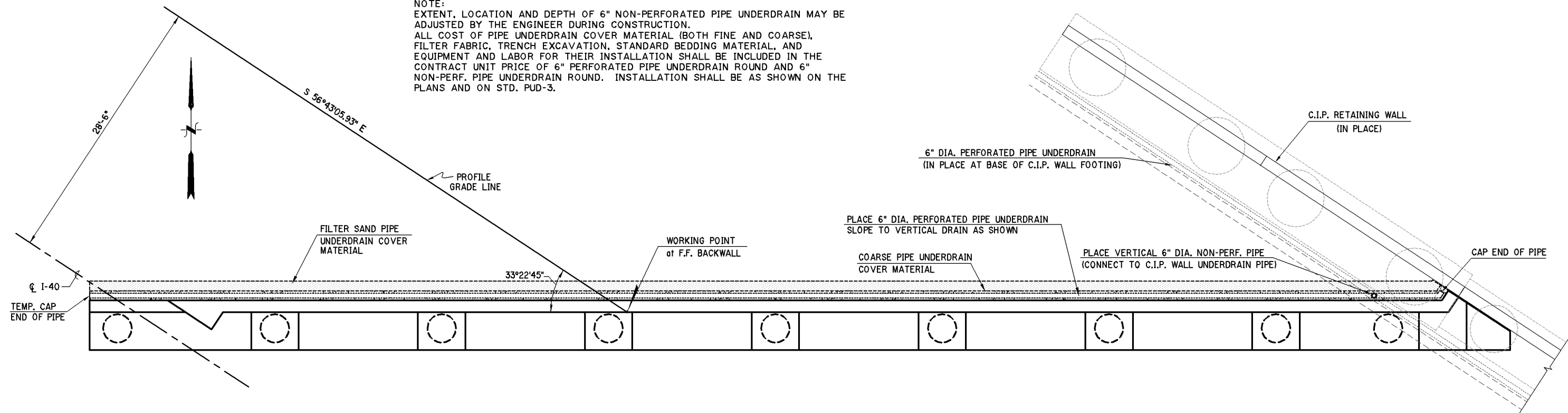
CONSTRUCTION NOTES

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3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

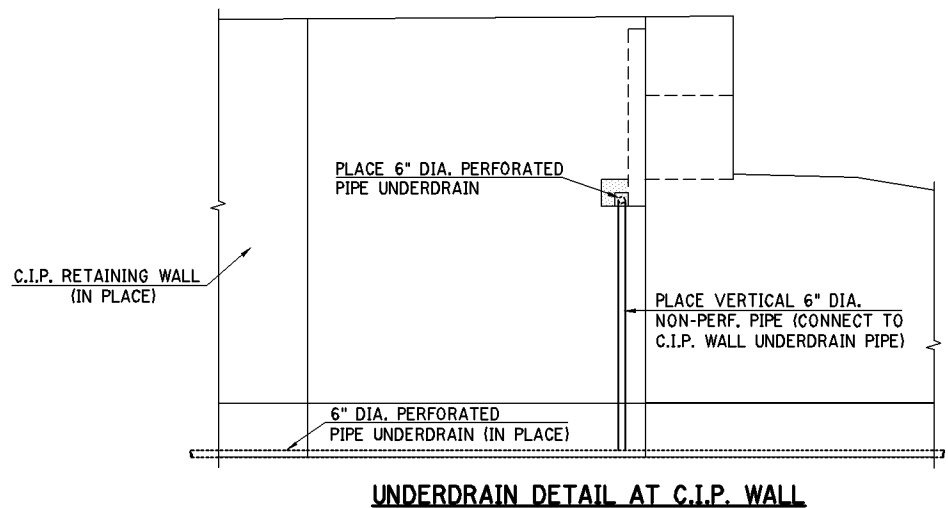
Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			I-40 OVER S.E. 15TH ST
Checked			ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS
Approved			PHASE II
Squad	POE		(SHEET 1 OF 2)
			State Job No. 23310(04) Sheet No. B095

DESCRIPTION	REVISIONS	DATE

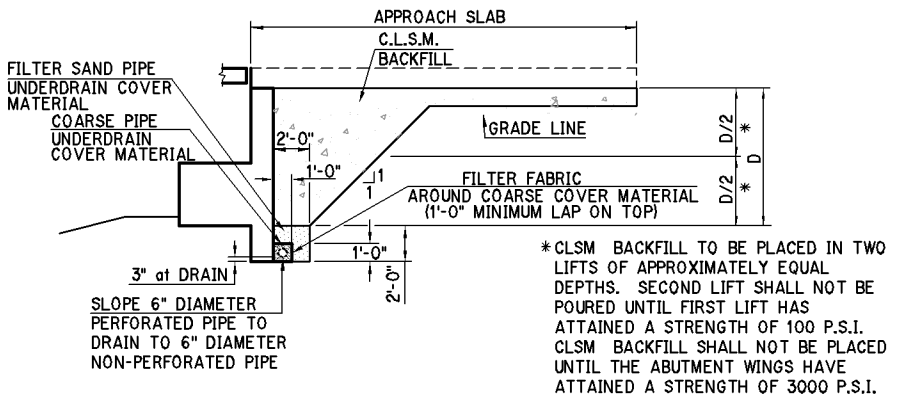
NOTE:
 EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.
 ALL COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ON STD. PUD-3.



PIPE UNDERDRAIN PLAN
 (ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



UNDERDRAIN DETAIL AT C.I.P. WALL

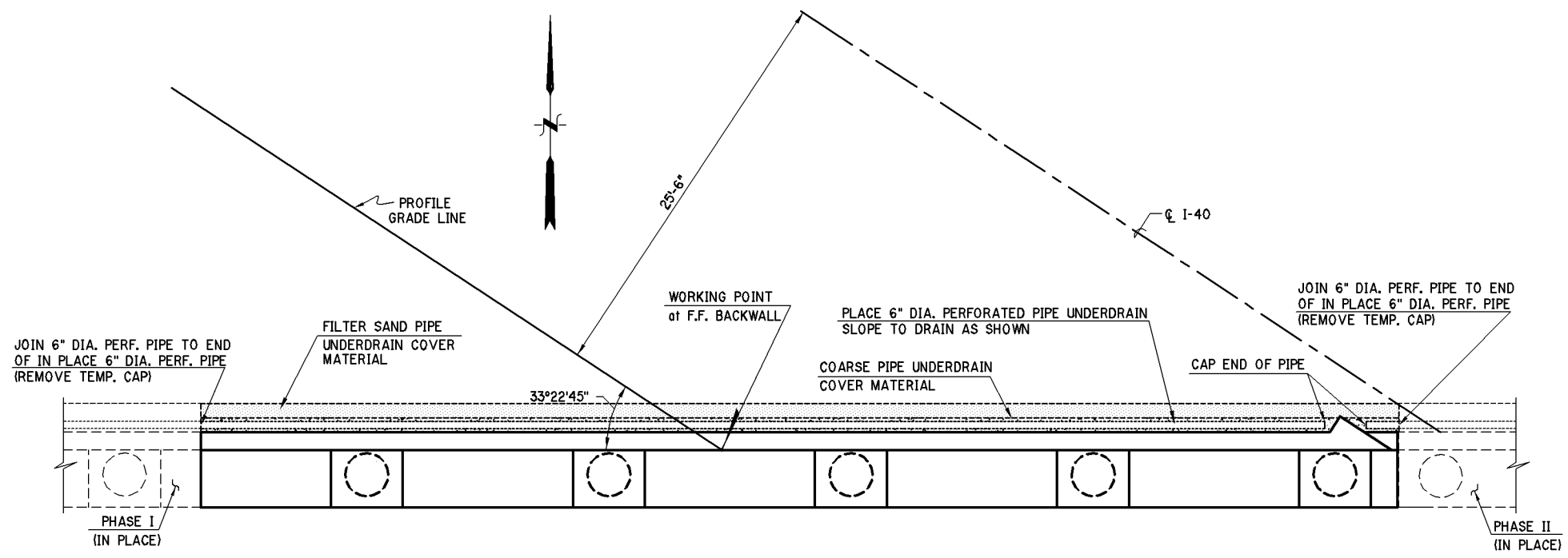


UNDERDRAIN INSTALLATION DETAIL

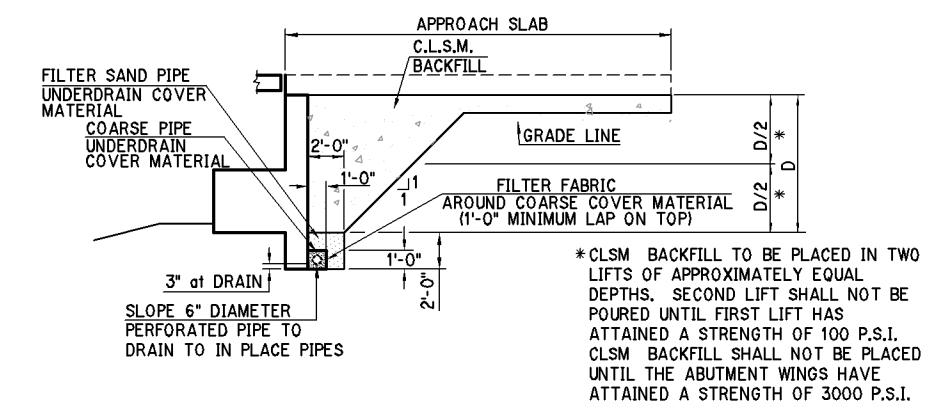
NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION, SEE ODOT STDS. PUD-3 AND SPI-4

Design		BRIDGE "C" ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS PHASE II (SHEET 2 OF 2) State Job No. 23310(04) Sheet No. B096
Drawn		
Checked		
Approved		
Squad	POE	

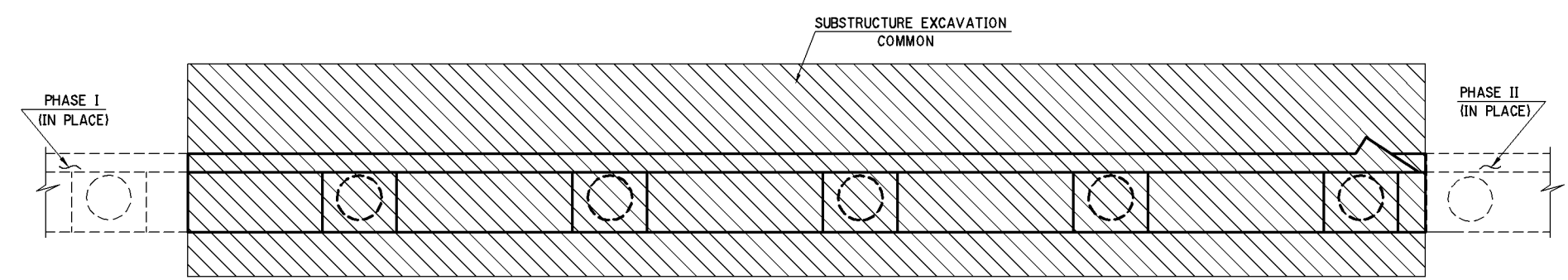
DESCRIPTION	REVISIONS	DATE



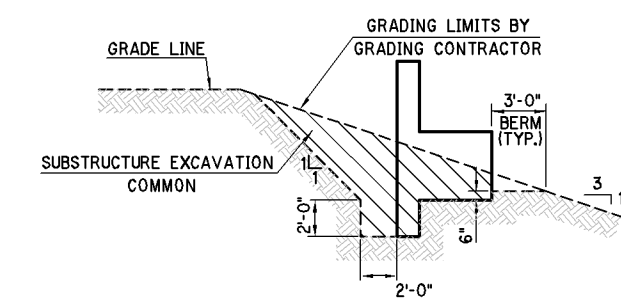
PIPE UNDERDRAIN PLAN
(ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)



UNDERDRAIN INSTALLATION DETAIL
NOTE: FOR ADDITIONAL DETAILS AND GENERAL NOTES FOR PIPE UNDERDRAIN INSTALLATION. SEE ODOT STDS, PUD-3 AND SPI-4



EXCAVATION PLAN
(ABUT. NO. 1 SHOWN, ABUT. NO. 2 SIMILAR)

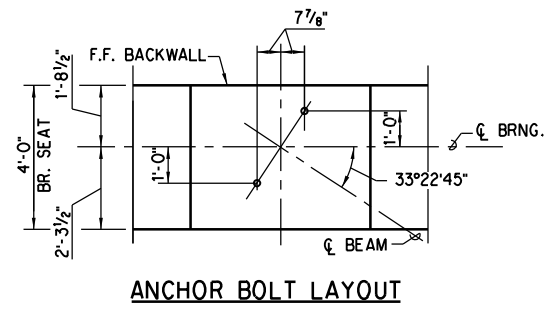


SECTION THRU BRIDGE SEAT ABUTMENT EXCAVATION DIAGRAM

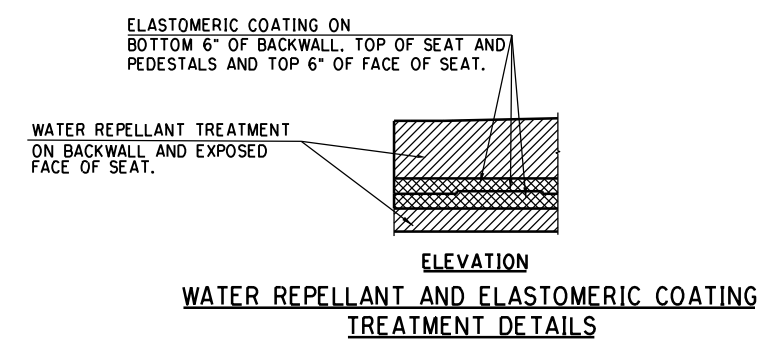
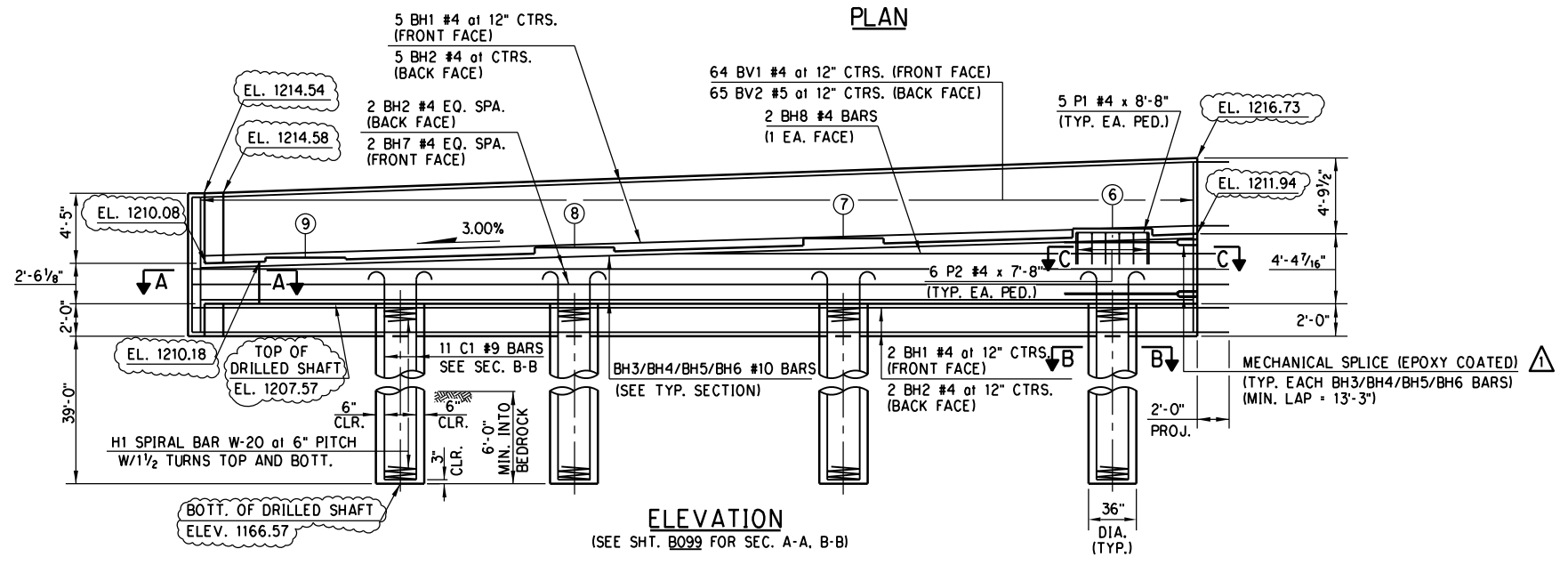
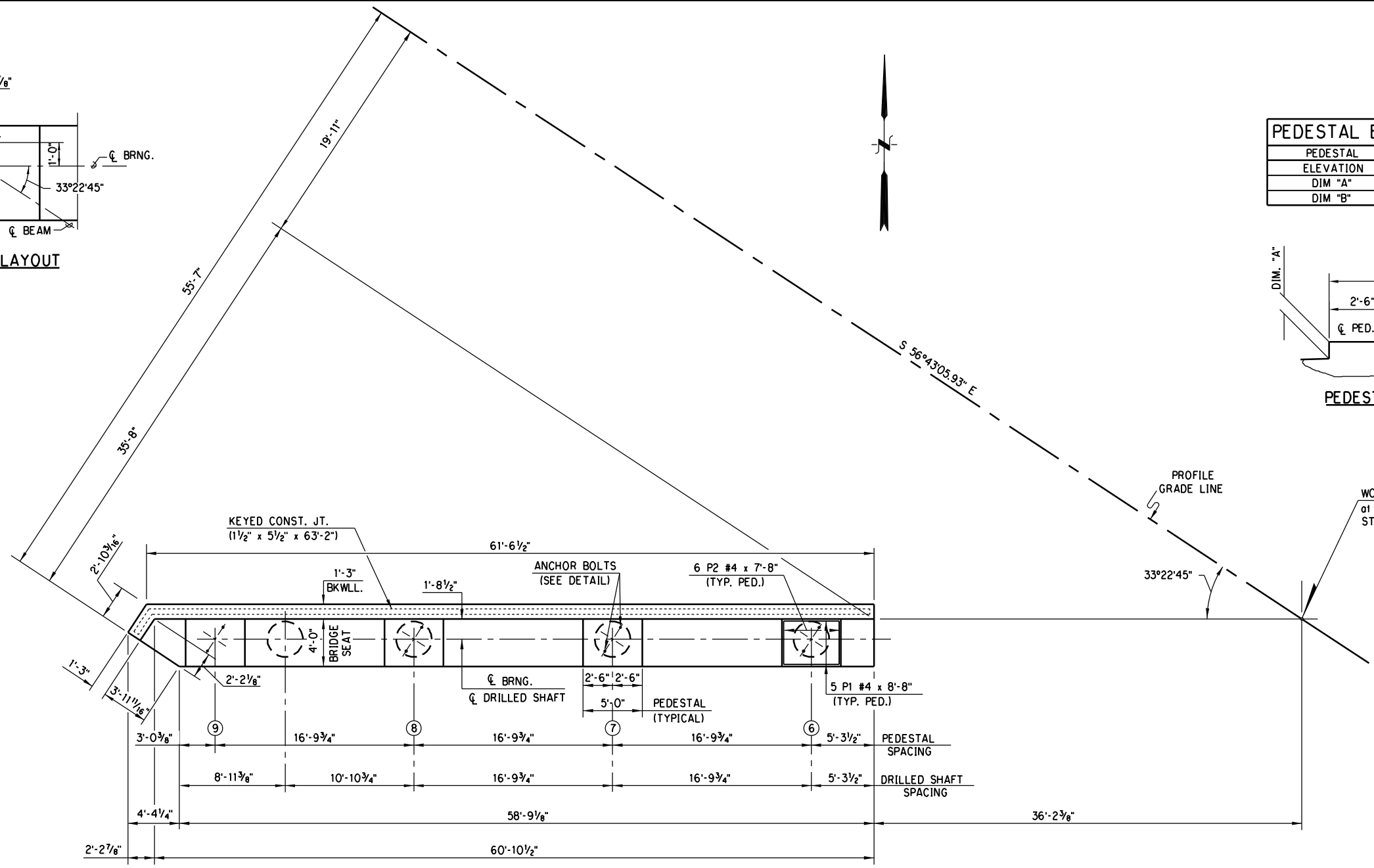
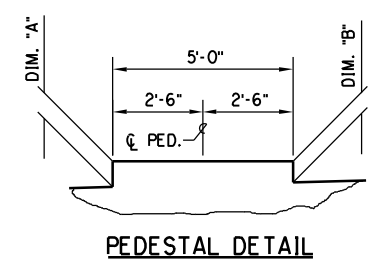
CONSTRUCTION NOTES

1. CLSM BACKFILL SHALL NOT BE PLACED UNTIL THE SUPERSTRUCTURE IS IN PLACE.
2. THE EXTENT, LOCATION, AND DEPTH OF DRAINS MAY BE ADJUSTED BY THE ENGINEER TO SUIT CONDITIONS FOUND DURING CONSTRUCTION.
3. COST OF ALL FITTINGS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF PIPE UNDERDRAIN.
4. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			I-40 OVER S.E. 15TH ST
Checked			ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS
Approved			PHASE III
Squad	POE		State Job No. 23310(04) Sheet No. B097

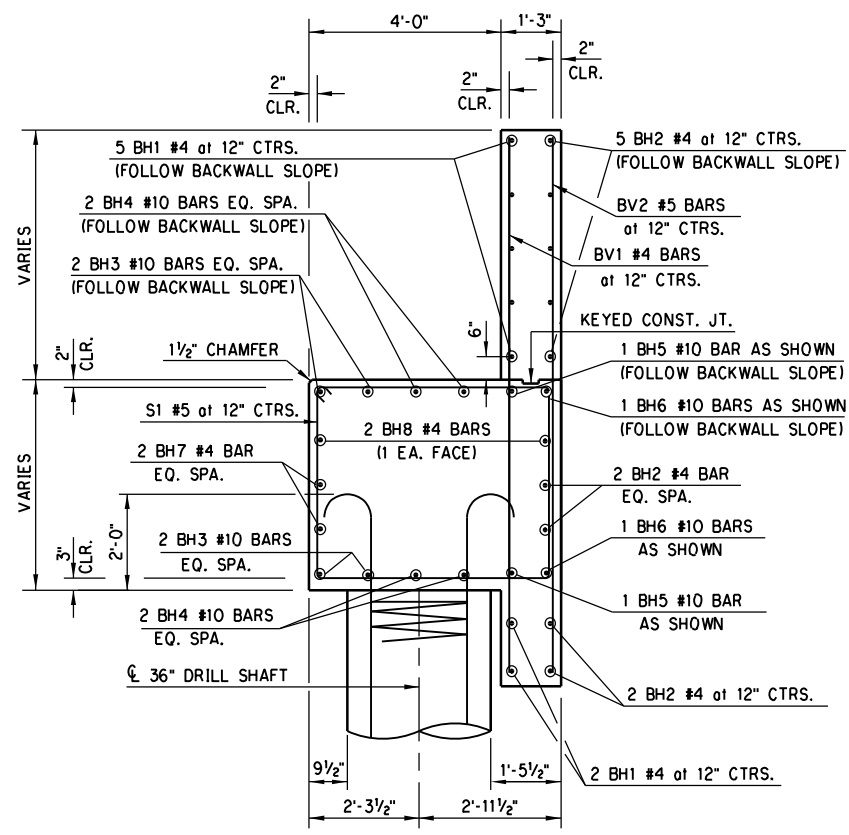


PEDESTAL	⑨	⑧	⑦	⑥
ELEVATION	1210.51	1211.12	1211.72	1212.29
DIM "A"	3 13/16"	5 1/8"	6 3/16"	7"
DIM "B"	2"	3 1/16"	4 3/8"	5 3/16"

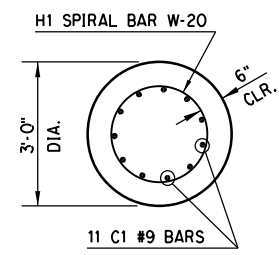


Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. 1-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 1 OF 2)	
		State Job No. 23310(04)	Sheet No. B098

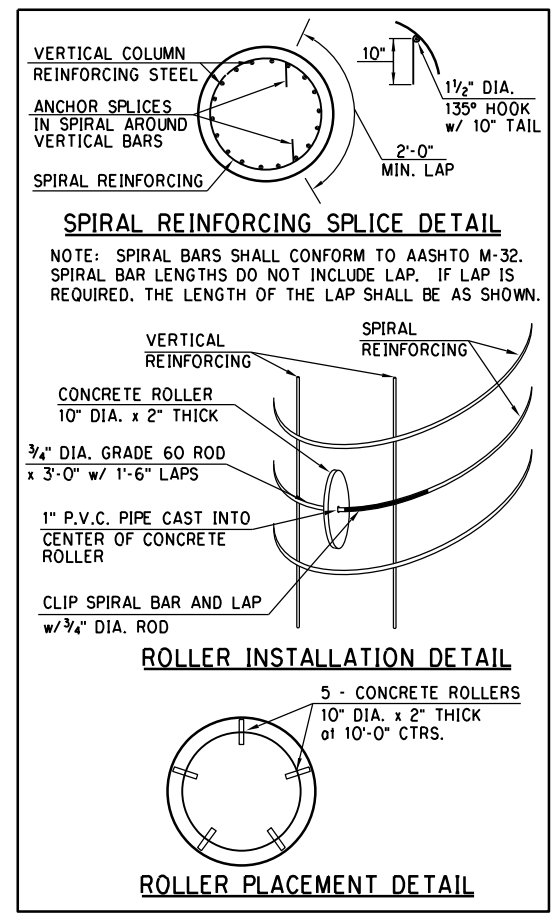
DESCRIPTION	REVISIONS	DATE
ADDED PAY ITEM & REVISED NOTES		3/09/20



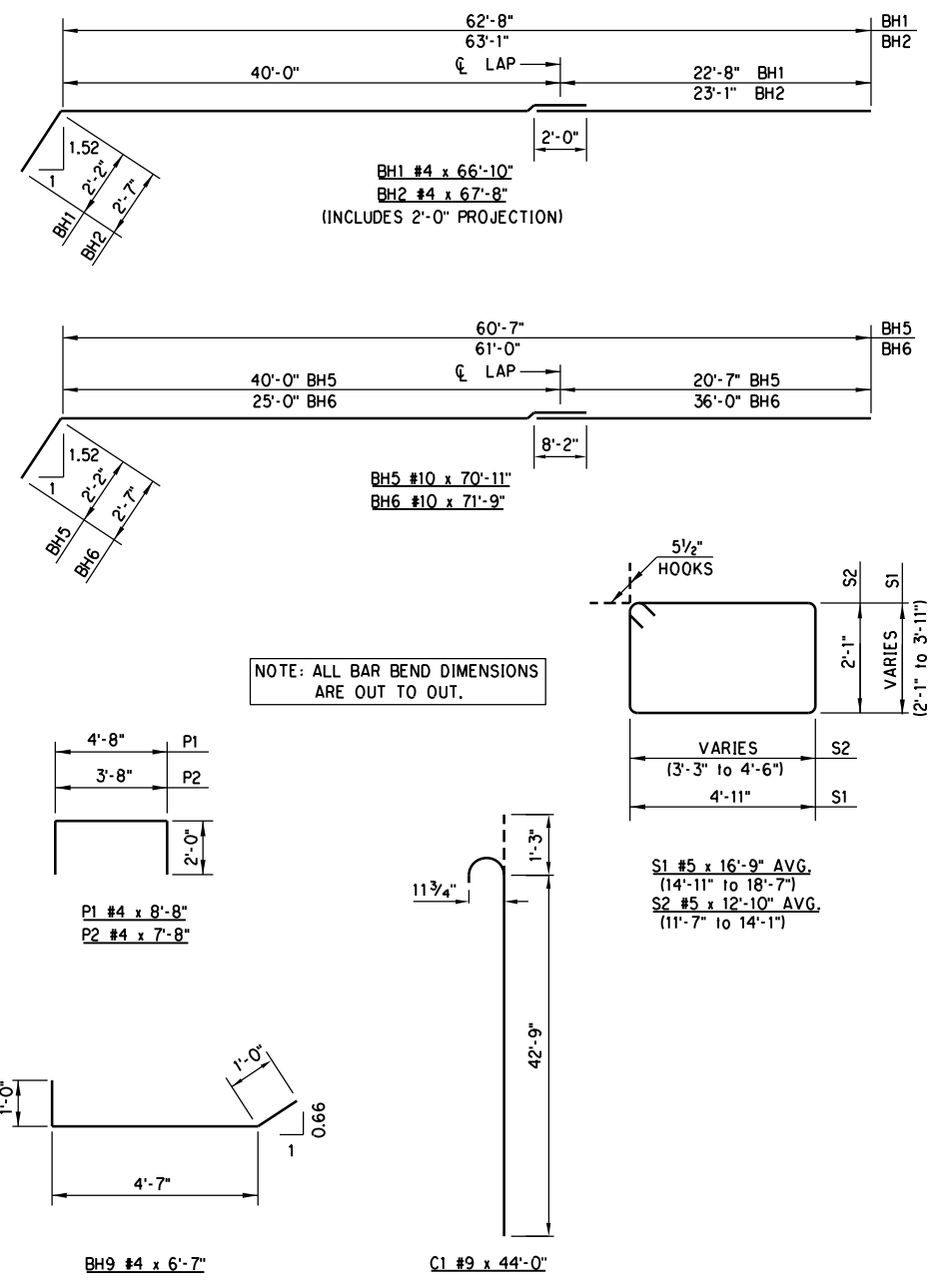
TYPICAL SECTION THRU BR. SEAT



SECTION B-B



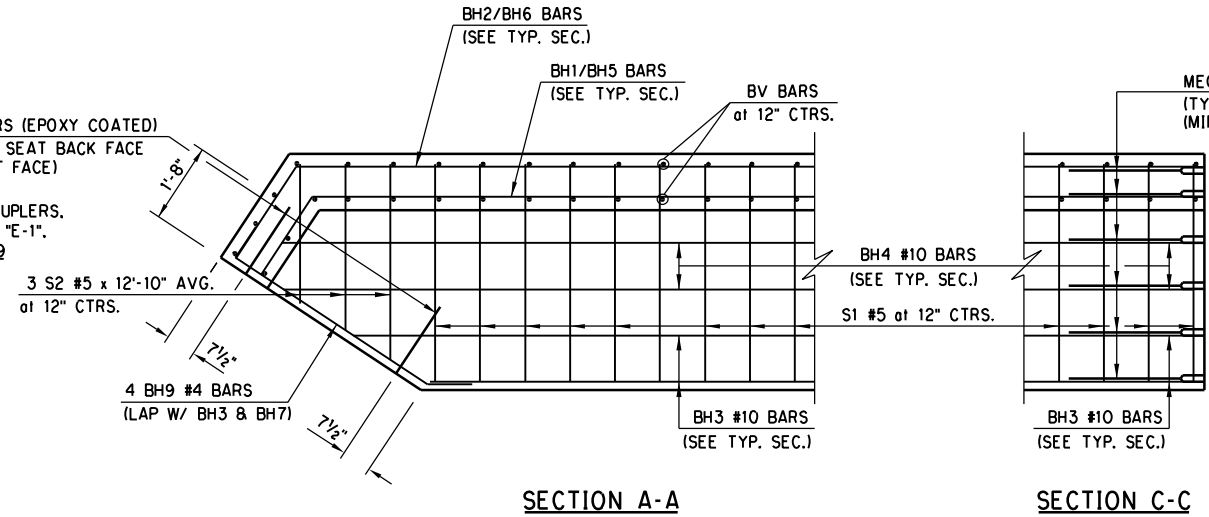
ROLLER PLACEMENT DETAIL



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

13 #7 REBAR COUPLERS (EPOXY COATED)
(10 at BACKWALL AND SEAT BACK FACE AND 3 at SEAT FRONT FACE)

FOR LOCATION OF COUPLERS, SEE RETAINING WALL "E-1", PANEL 2, SHEET RW49



SECTION A-A

SECTION C-C

BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
②	BH1	7 #4	BNT.	AS SHOWN	66'-10"
②	BH2	9 #4	BNT.	AS SHOWN	67'-8"
①	BH3	4 #10	STR.	AS SHOWN	59'-3" AVG.
①	BH4	4 #10	BNT.	AS SHOWN	69'-6 1/2" AVG.
②	BH5	2 #10	BNT.	AS SHOWN	70'-11"
②	BH6	2 #10	STR.	AS SHOWN	71'-9"
②	BH7	2 #4	STR.	AS SHOWN	62'-8"
	BH8	2 #4	STR.	AS SHOWN	31'-0"
	BH9	4 #4	BNT.	AS SHOWN	6'-7"
①	BV1	64 #4	STR.	12" C/C	9'-7 1/2" AVG.
①	BV2	65 #5	STR.	12" C/C	9'-7 1/2" AVG.
▲	C1	44 #9	BNT.	EQUAL	44'-0"
④	H1	4 W-20	BNT.	6" PITCH	529'-5" *
	P1	20 #4	BNT.	EQUAL	8'-8"
	P2	24 #4	BNT.	EQUAL	7'-8"
①	S1	62 #5	BNT.	12" C/C	16'-9" AVG.
①	S2	3 #5	BNT.	EQUAL	12'-10" AVG.

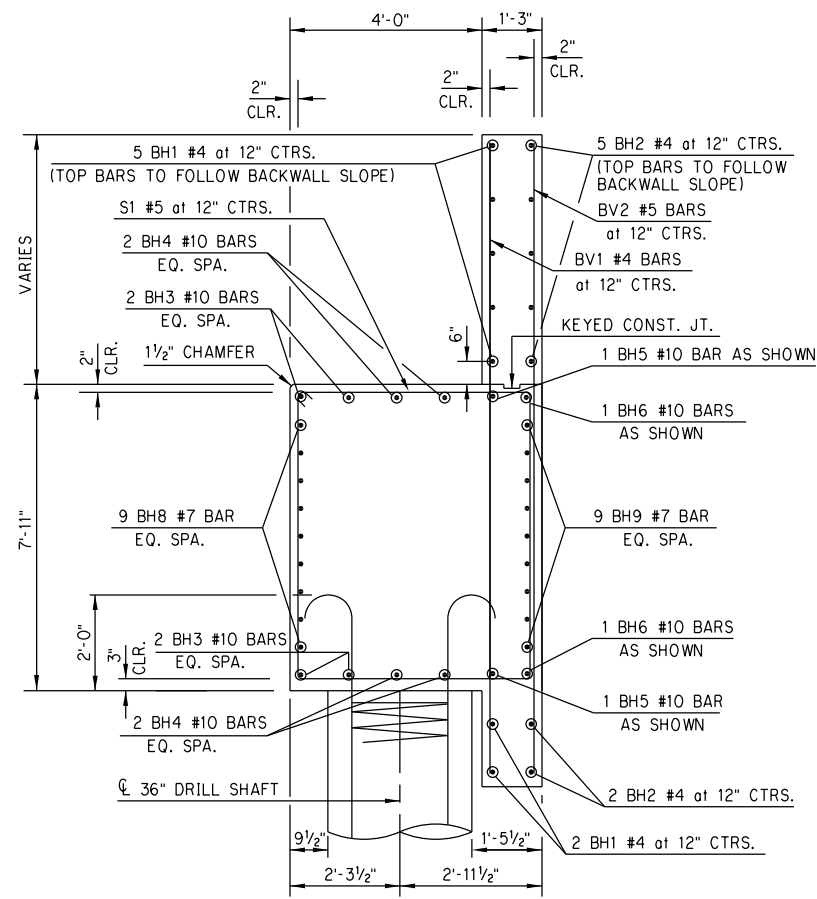
- ① LENGTH VARIES:
BH3 - 58'-6" to 60'-0"
BH4 - 69'-5" to 69'-8"
BV1/BV2 - 8'-6" to 10'-9"
S1 - 14'-11" to 18'-7"
S2 - 11'-3" to 14'-9"
- ② LENGTH INCLUDES LAP:
BH1 - 1 at 2'-0"
BH2 - 1 at 2'-0"
BH4 - 1 at 8'-2"
BH5 - 1 at 8'-2"
BH6 - 1 at 8'-2"
BH7 - 1 at 2'-0"
- ③ STAGGER LAPS 15'-0" AT EACH BH4 LAP AND BH5 LAP.
- ④ NON-EPOXY COATED
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

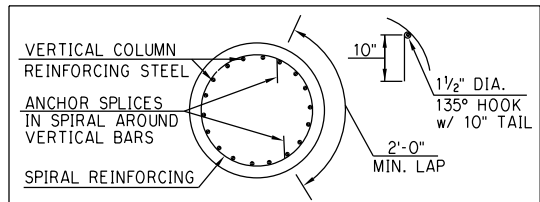
QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	85
CLSM BACKFILL	C.Y.	153.9
ELASTOMERIC COATING	S.F.	324
CLASS A CONCRETE	C.Y.	62.0
MECHANICAL SPLICES	E.A.	12
EPOXY REINFORCING STEEL	LB.	6,870
DRILLED SHAFT 36" DIAMETER	L.F.	164
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	45
6" PERF. PIPE UNDERDRAIN RND.	L.F.	64
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	20

Design		BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST
Drawn		
Checked		
Approved		
Squad	POE	
ABUTMENT NO. 1 DETAILS		
PHASE I		
(SHEET 2 OF 2)		
State Job No. 23310(04) Sheet No. B099		

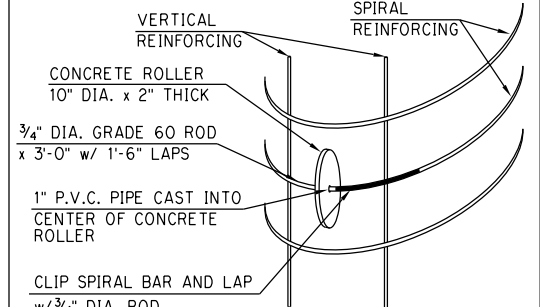
REVISIONS	DATE
ADDED PAY ITEM & REVISED NOTES	3/09/20
REVISION AFTER LET	07/29/2020



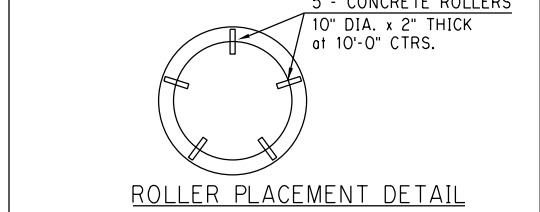
TYPICAL SECTION THRU BR. SEAT



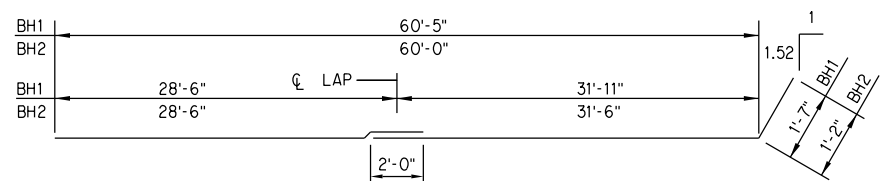
SPIRAL REINFORCING SPLICE DETAIL
 NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



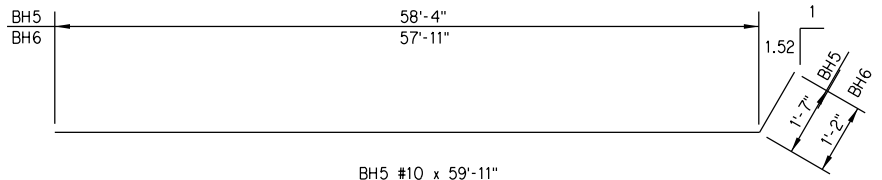
ROLLER INSTALLATION DETAIL
 5 - CONCRETE ROLLERS
 10" DIA. x 2" THICK
 at 10'-0" CTRS.



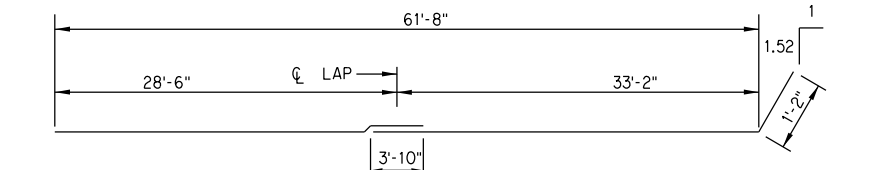
ROLLER PLACEMENT DETAIL



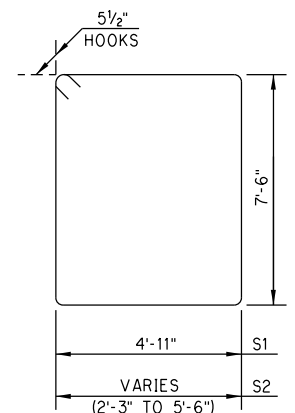
BH1 #4 x 64'-0"
 BH2 #4 x 63'-2"
 (INCLUDES 2'-0" PROJECTION)



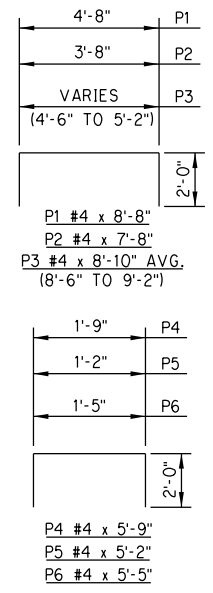
BH5 #10 x 59'-11"
 BH6 #10 x 59'-1"



BH9 #7 x 66'-8"
 (INCLUDES 3'-10" PROJECTION)



S1 #5 x 25'-9"
 S2 #5 x 23'-8" AVG.
 (20'-5" TO 26'-11")



P1 #4 x 8'-8"
 P2 #4 x 7'-8"
 P3 #4 x 8'-10" AVG.
 (8'-6" TO 9'-2")
 P4 #4 x 5'-9"
 P5 #4 x 5'-2"
 P6 #4 x 5'-5"

BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
B1	3	#4	STR.	AS SHOWN	7'-6"
BH1	7	#4	BNT.	AS SHOWN	64'-0"
BH2	7	#4	BNT.	AS SHOWN	63'-2"
BH3	4	#10	STR.	AS SHOWN	72'-10"
BH4	4	#10	STR.	AS SHOWN	71'-4 1/2" AVG.
BH5	2	#10	BNT.	AS SHOWN	59'-11"
BH6	2	#10	BNT.	AS SHOWN	59'-1"
BH7	2	#4	STR.	AS SHOWN	10'-0"
BH8	9	#7	STR.	AS SHOWN	72'-4"
BH9	9	#7	BNT.	AS SHOWN	66'-8"
BH10	9	#4	BNT.	AS SHOWN	11'-0"
BV1	61	#4	STR.	12" C/C	14'-0 1/2" AVG.
BV2	60	#5	STR.	12" C/C	14'-0 1/2" AVG.
C1	44	#9	BNT.	EQUAL	43'-0"
H1	4	W-20	BNT.	6" PITCH	516'-10"*
P1	20	#4	BNT.	EQUAL	8'-8"
P2	22	#4	BNT.	EQUAL	7'-8"
P3	2	#4	BNT.	EQUAL	8'-10" AVG.
P4	1	#4	BNT.	AS SHOWN	5'-9"
P5	1	#4	BNT.	AS SHOWN	5'-2"
P6	1	#4	BNT.	AS SHOWN	5'-5"
S1	59	#5	BNT.	12" C/C	25'-9"
S2	6	#5	BNT.	12" C/C	23'-8" AVG.

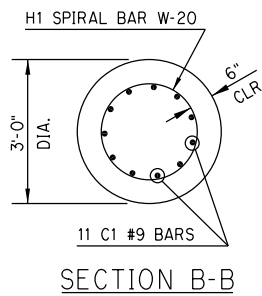
① LENGTH VARIES:
 BH4 - 70'-7" to 72'-2"
 BV1/BV2 - 14'-0" to 14'-1"
 P3 - 8'-6" to 9'-2"
 S2 - 20'-5" to 26'-11"

② LENGTH INCLUDES LAP:
 BH1 - 1 at 2'-0"
 BH2 - 1 at 2'-0"
 BH3 - 1 at 8'-2"
 BH4 - 1 at 8'-2"
 BH8 - 1 at 3'-10"
 BH9 - 1 at 3'-10"

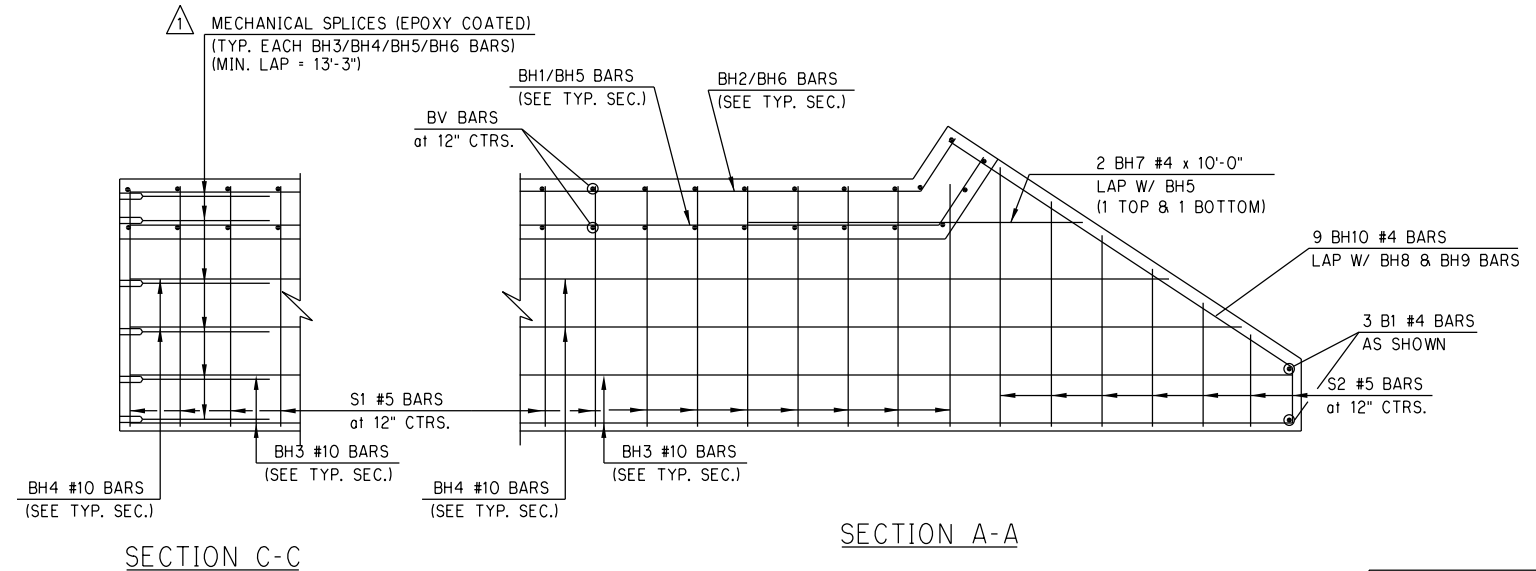
③ STAGGER LAPS 15'-0"
 ④ NON-EPOXY COATED

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT

* THE LENGTH SHOWN DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.



SECTION B-B



SECTION C-C

SECTION A-A

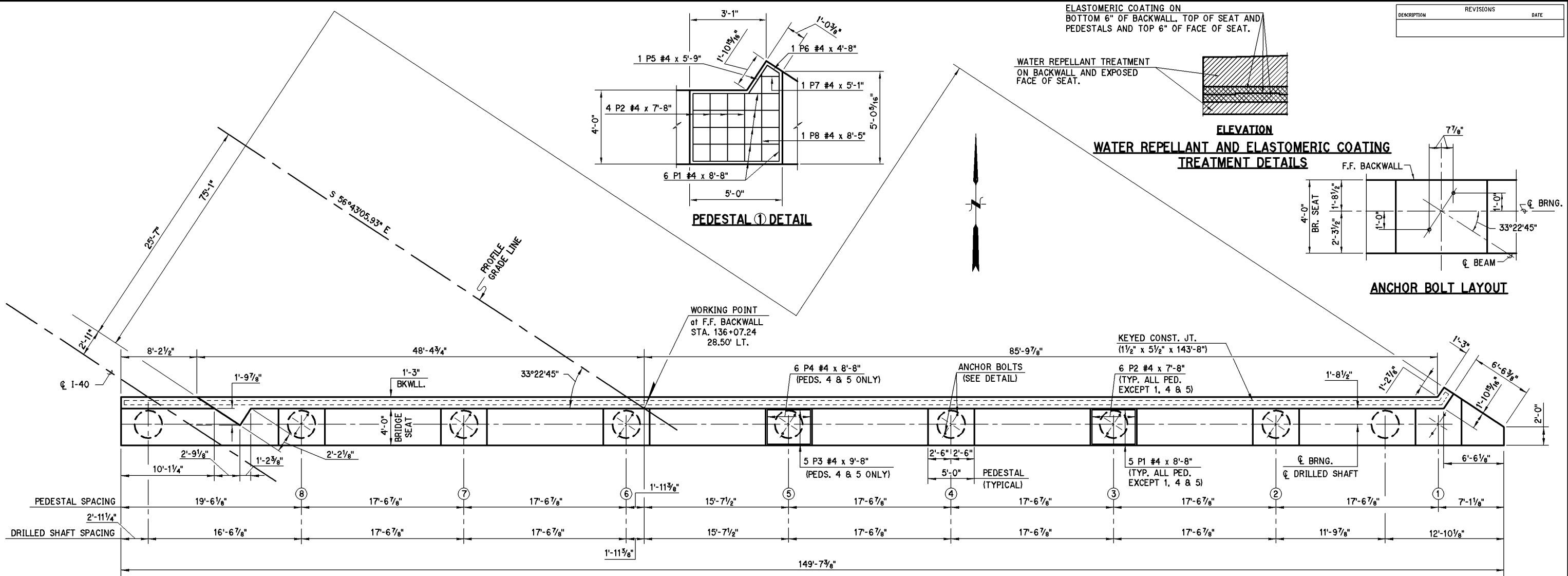
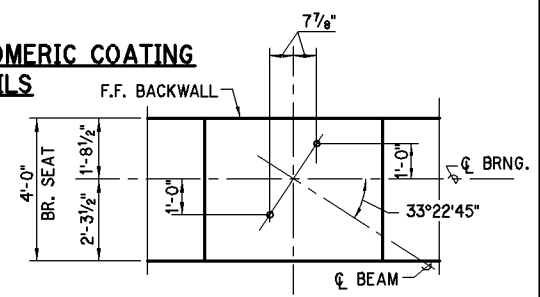
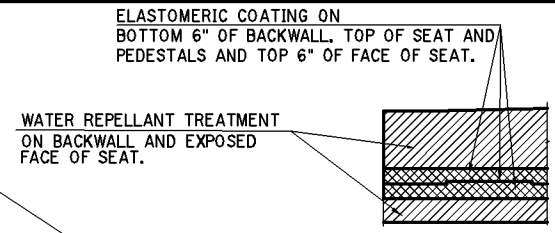
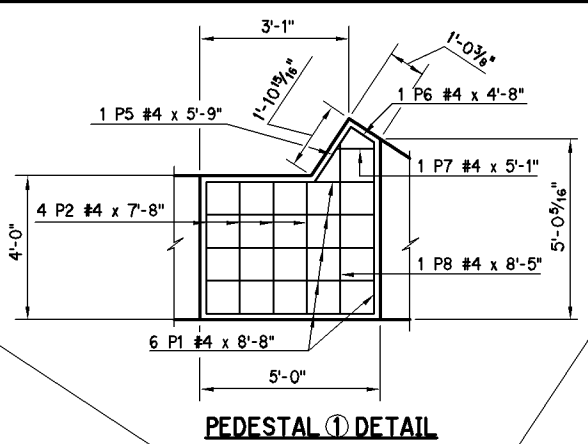
REVISION AFTER LET
 07/29/2020

QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	80
CLSM BACKFILL	C.Y.	351.1
ELASTOMERIC COATING	S.F.	342
CLASS A CONCRETE	C.Y.	117.2
MECHANICAL SPLICES	EA.	12
EPOXY REINFORCING STEEL	LB.	10,190
DRILLED SHAFT 36" DIAMETER	L.F.	160
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	78
6" PERF. PIPE UNDERDRAIN RND.	L.F.	59
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	17

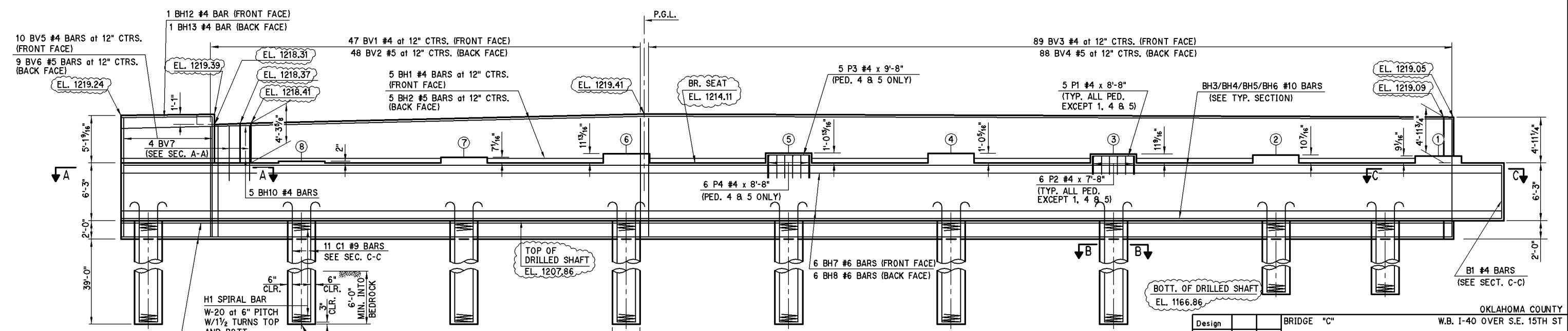
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST
 ABUTMENT NO. 2 DETAILS
 PHASE I
 (SHEET 2 OF 2)
 State Job No. 23310(04) Sheet No. B101

DESCRIPTION	REVISIONS	DATE

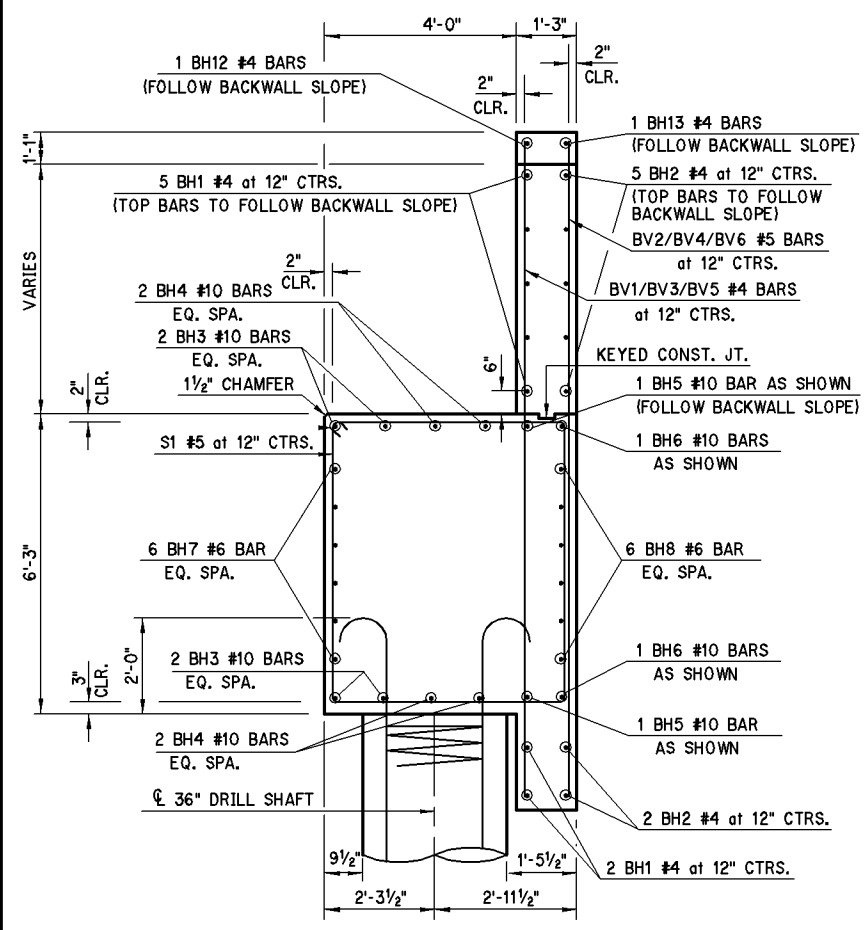


PLAN

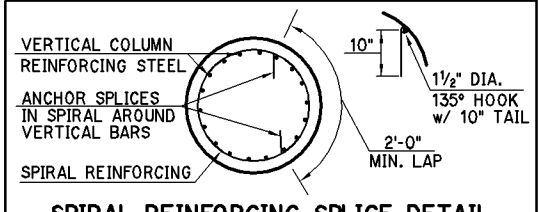


ELEVATION
(SEE SHT. B103 FOR SEC. A-A, B-B & C-C)

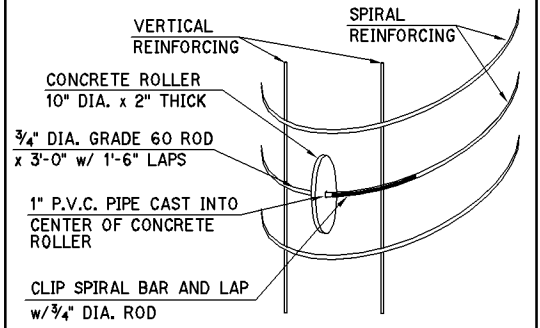
Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 1 OF 2)	
		State Job No. 23310(04)	Sheet No. B102



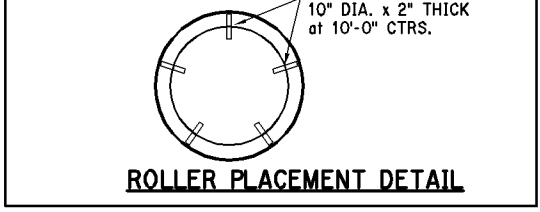
TYPICAL SECTION THRU BR. SEAT



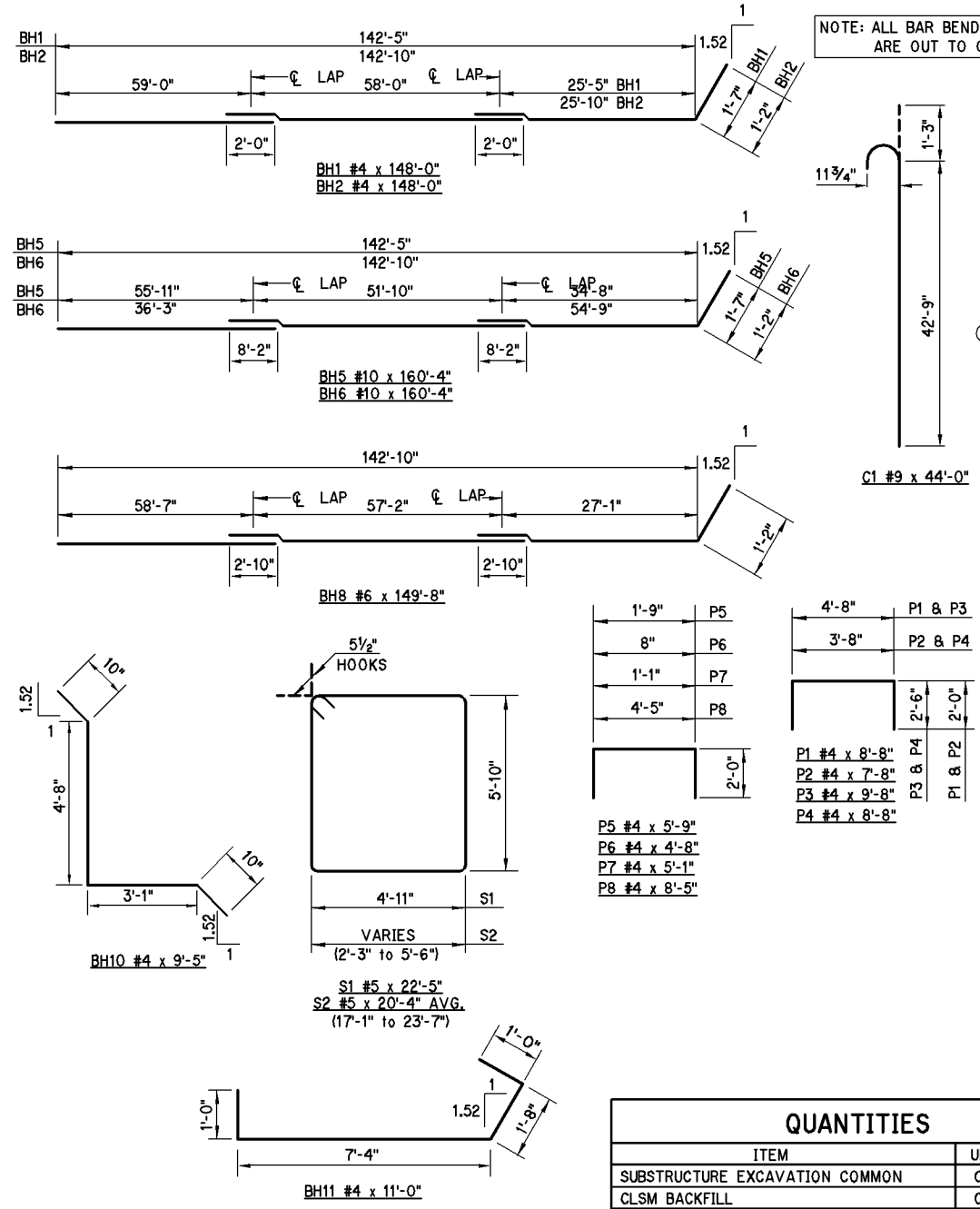
SPIRAL REINFORCING SPLICE DETAIL
 NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT DETAIL



BAR LIST - EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH
BI	7	#4	STR.	AS SHOWN	5'-10"
BH1	7	#4	BNT.	AS SHOWN	148'-0"
BH2	7	#4	BNT.	AS SHOWN	148'-0"
BH3	4	#10	STR.	AS SHOWN	165'-8"
BH4	4	#10	STR.	AS SHOWN	163'-9" AVG.
BH5	2	#10	BNT.	AS SHOWN	160'-4"
BH6	2	#10	BNT.	AS SHOWN	160'-4"
BH7	6	#6	STR.	EQUAL	154'-11"
BH8	6	#6	BNT.	EQUAL	149'-8"
BH9	2	#4	STR.	AS SHOWN	10'-0"
BH10	5	#4	BNT.	AS SHOWN	9'-5"
BH11	8	#4	BNT.	AS SHOWN	11'-0"
BH12	1	#4	STR.	AS SHOWN	9'-3"
BH13	1	#4	STR.	AS SHOWN	8'-1"
BV1	47	#4	STR.	12" C/C	12'-6 1/2" AVG.
BV2	48	#4	STR.	12" C/C	12'-6 1/2" AVG.
BV3	89	#4	STR.	12" C/C	12'-11" AVG.
BV4	88	#5	STR.	12" C/C	12'-11" AVG.
BV5	10	#4	STR.	12" C/C	13'-0 1/2" AVG.
BV6	9	#5	STR.	12" C/C	13'-0 1/2" AVG.
BV7	4	#4	STR.	AS SHOWN	5'-1"
C1	99	#9	BNT.	EQUAL	44'-0"
H1	9	W-20	BNT.	6" PITCH	529'-5"*
P1	31	#4	BNT.	EQUAL	8'-8"
P2	34	#4	BNT.	EQUAL	7'-8"
P3	10	#4	BNT.	EQUAL	9'-8"
P4	12	#4	BNT.	EQUAL	8'-8"
P5	1	#4	BNT.	AS SHOWN	5'-9"
P6	1	#4	BNT.	AS SHOWN	4'-8"
P7	1	#4	BNT.	AS SHOWN	5'-1"
P8	1	#4	BNT.	AS SHOWN	8'-5"
S1	145	#5	BNT.	12" C/C	22'-5"
S2	6	#5	BNT.	12" C/C	20'-4" AVG.

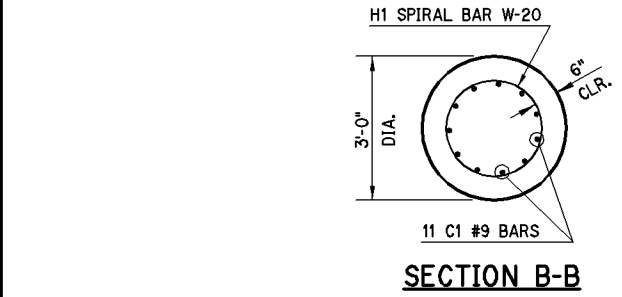
- ① LENGTH VARIES:
 BH4 - 163'-5" to 164'-1"
 BV1/BV2 - 12'-0" to 13'-1"
 BV3/BV4 - 12'-9" to 13'-1"
 BV5/BV6 - 13'-0" to 13'-1"
 S2 - 17'-1" to 23'-7"
- ② LENGTH INCLUDES LAP:
 BH1 - 2 at 2'-0"
 BH2 - 2 at 2'-0"
 BH3 - 2 at 8'-2"
 BH4 - 2 at 8'-2"
 BH5 - 2 at 8'-2"
 BH6 - 2 at 8'-2"
 BH7 - 2 at 2'-10"
 BH8 - 2 at 2'-10"
- ③ STAGGER LAPS 20'-0"
- ④ NON-EPOXY COATED

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT

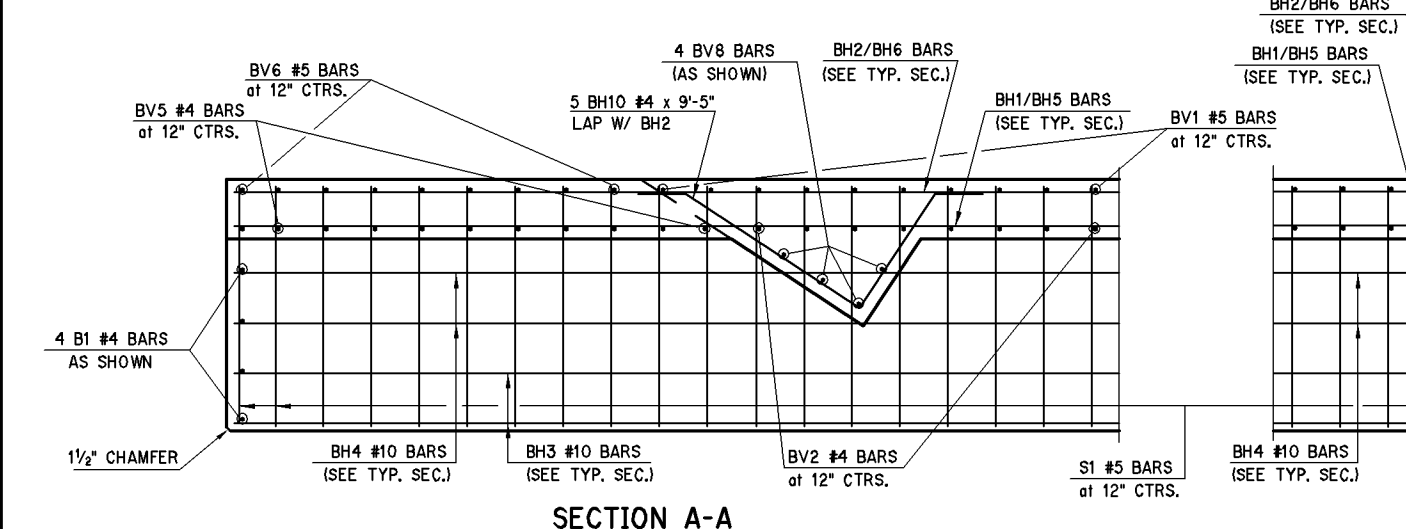
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED, ADD 3'-8" FOR EACH SPLICE.

ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	180
CLSM BACKFILL	C.Y.	618.7
ELASTOMERIC COATING	S.F.	810
CLASS A CONCRETE	C.Y.	232.6
EPOXY REINFORCING STEEL	LB.	19,930
DRILLED SHAFT 36" DIAMETER	L.F.	369
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	161
6" PERF. PIPE UNDERDRAIN RND.	L.F.	136
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	18

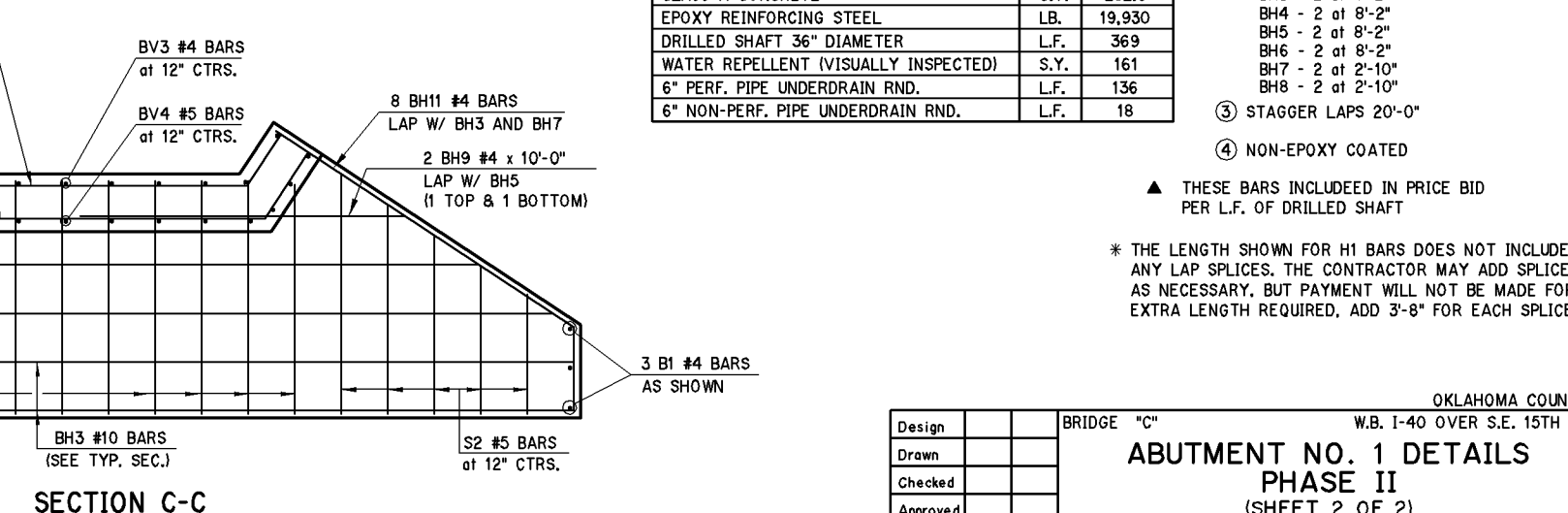
QUANTITIES



SECTION B-B



SECTION A-A

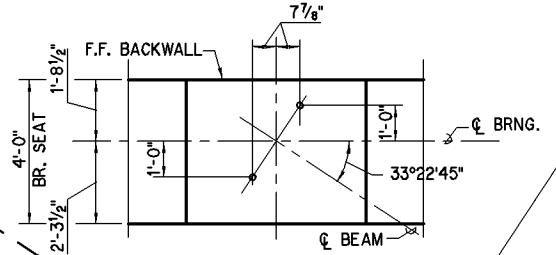


SECTION C-C

DESCRIPTION	REVISIONS	DATE

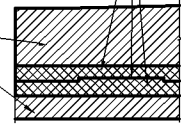
PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ELEVATION	1209.21	1209.85	1210.48	1211.12	1211.76	1212.29	1212.50	1212.69
DIM "A"	3 1/2"	5 7/8"	8 3/16"	10 1/16"	11 1/8"	11 3/8"	11 3/8"	8 3/8"
DIM "B"	2"	4 3/8"	6 3/16"	9 3/16"	11 3/8"	11 3/8"	9 7/8"	6 7/8"

ANCHOR BOLT LAYOUT

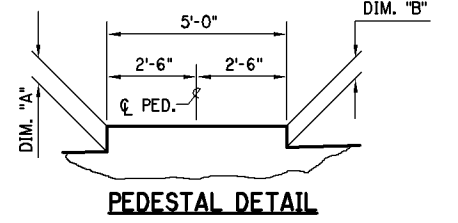


ELASTOMERIC COATING ON BOTTOM 6" OF BACKWALL, TOP OF SEAT AND PEDESTALS AND TOP 6" OF FACE OF SEAT.

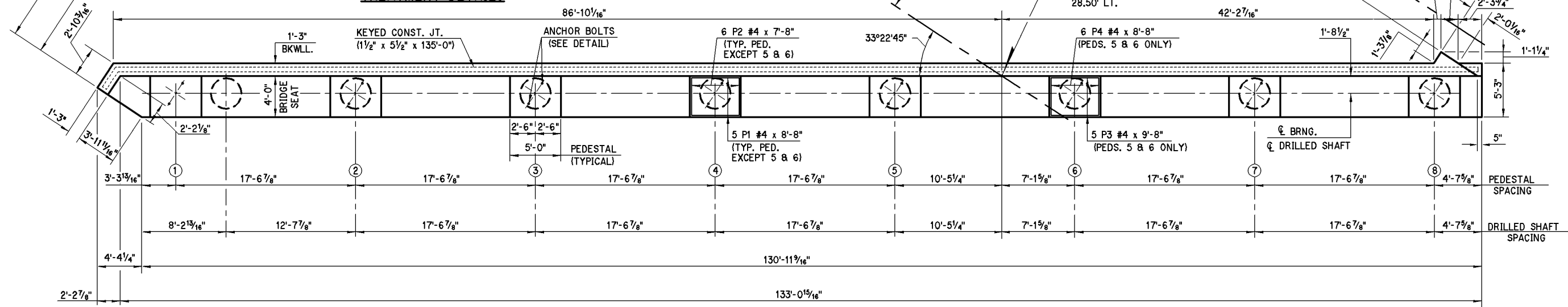
WATER REPELLANT TREATMENT ON BACKWALL AND EXPOSED FACE OF SEAT.



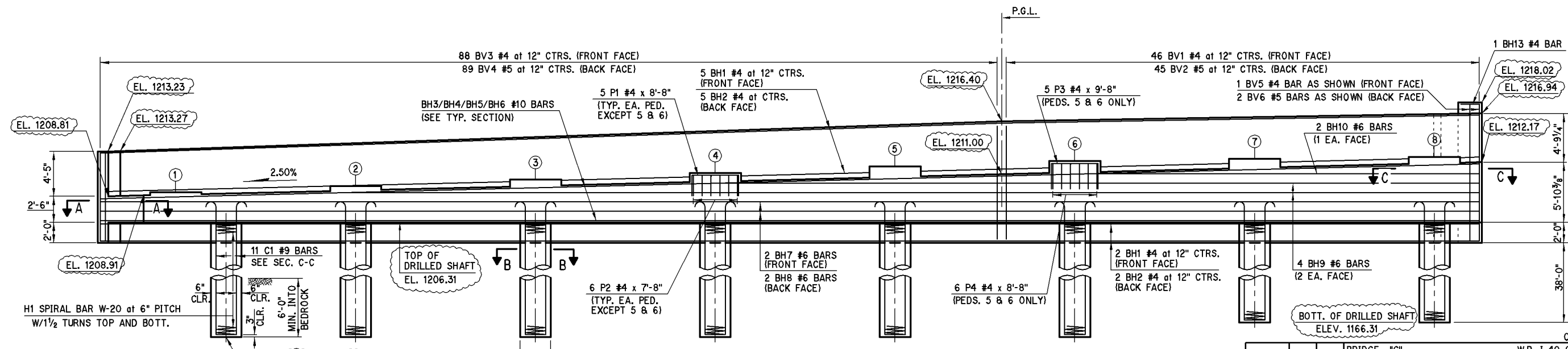
WATER REPELLANT AND ELASTOMERIC COATING TREATMENT DETAILS



PEDESTAL DETAIL



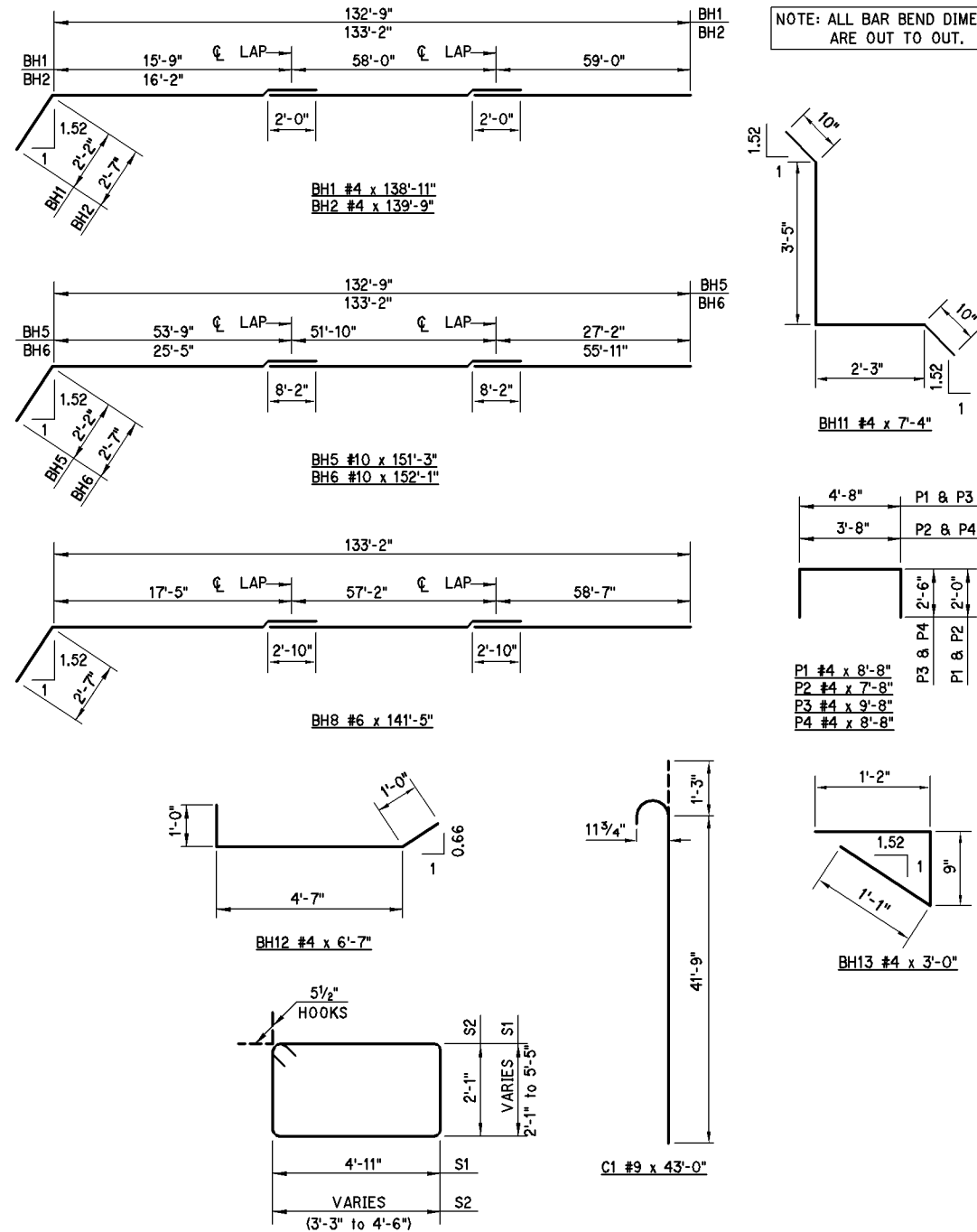
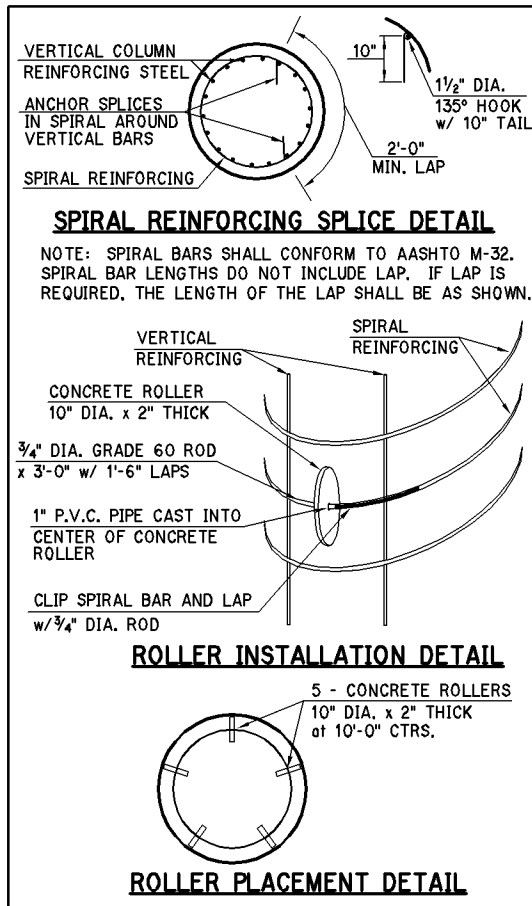
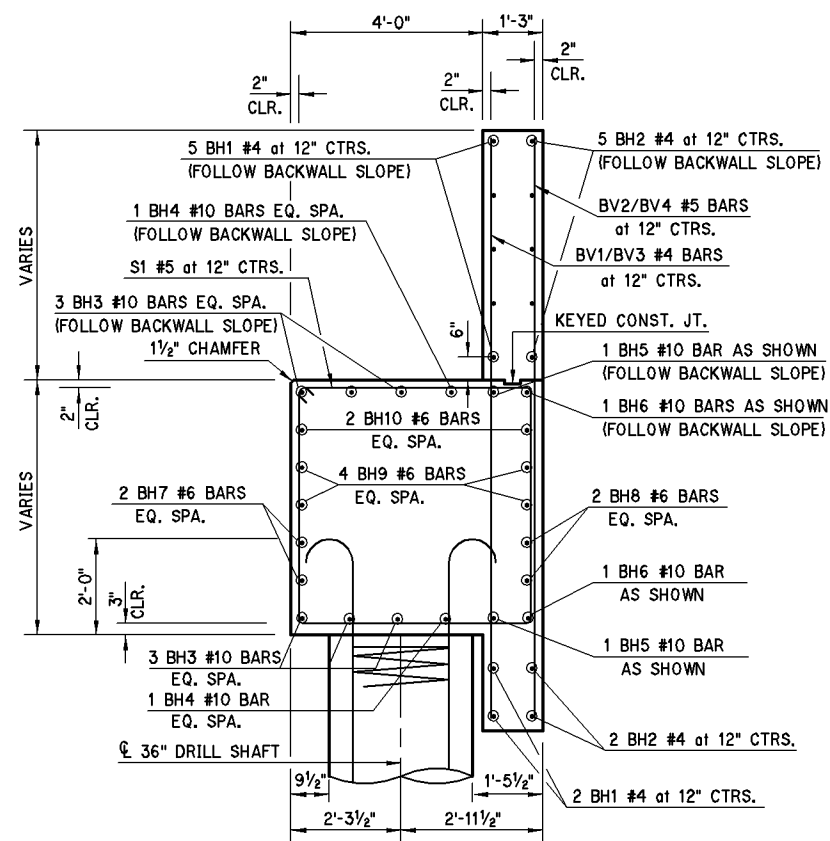
PLAN



ELEVATION

(SEE SHT. B105 FOR SEC. A-A, B-B & C-C)

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 1 OF 2)	
		State Job No. 23310(04)	Sheet No. B104

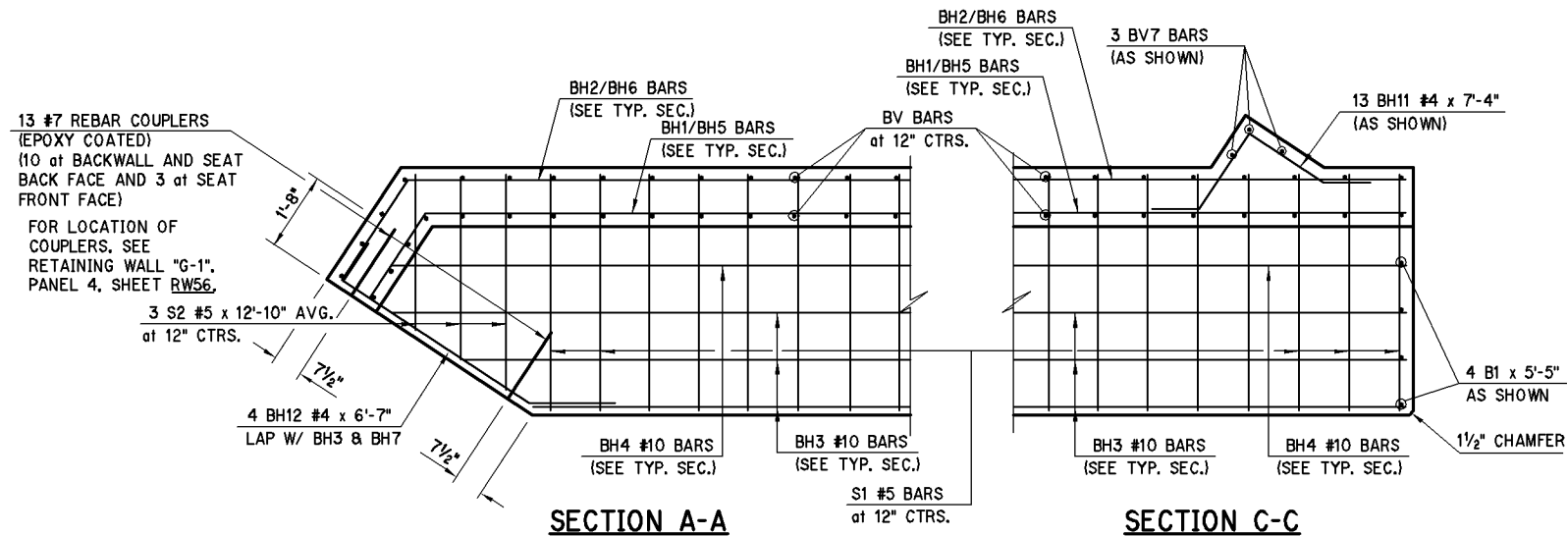
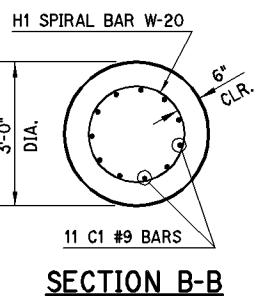


NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

BAR LIST - EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH
B1	4	#4	STR.	AS SHOWN	5'-5"
BH1	7	#4	BNT.	AS SHOWN	138'-11"
BH2	7	#4	BNT.	AS SHOWN	139'-9"
BH3	6	#10	STR.	AS SHOWN	148'-7" AVG.
BH4	2	#10	STR.	AS SHOWN	149'-8"
BH5	2	#10	BNT.	AS SHOWN	151'-3"
BH6	2	#10	BNT.	AS SHOWN	152'-1"
BH7	2	#6	STR.	EQUAL	125'-5"
BH8	2	#6	BNT.	EQUAL	141'-5"
BH9	4	#6	STR.	EQUAL	87'-1" AVG.
BH10	2	#6	STR.	EQUAL	31'-8"
BH11	13	#4	BNT.	AS SHOWN	7'-4"
BH12	4	#4	BNT.	AS SHOWN	6'-7"
BH13	1	#4	BNT.	AS SHOWN	3'-0"
BV1	46	#4	STR.	12" C/C	11'-9" AVG.
BV2	45	#5	STR.	12" C/C	11'-9" AVG.
BV3	88	#4	STR.	12" C/C	10'-0 1/2" AVG.
BV4	89	#5	STR.	12" C/C	10'-0 1/2" AVG.
BV5	1	#4	STR.	AS SHOWN	13'-4"
BV6	2	#5	STR.	AS SHOWN	13'-4"
BV7	3	#4	STR.	AS SHOWN	12'-3"
C1	88	#9	BNT.	EQUAL	43'-0"
H1	8	W-20	BNT.	6" PITCH	516'-10"*
P1	30	#4	BNT.	EQUAL	8'-8"
P2	36	#4	BNT.	EQUAL	7'-8"
P3	10	#4	BNT.	EQUAL	9'-8"
P4	12	#4	BNT.	EQUAL	8'-8"
S1	83	#5	BNT.	12" C/C	18'-3" AVG.
S2	3	#5	BNT.	EQUAL	12'-10" AVG.

TYPICAL SECTION THRU BR. SEAT



QUANTITIES

ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	170
CLSM BACKFILL	C.Y.	479.1
ELASTOMERIC COATING	S.F.	819
CLASS A CONCRETE	C.Y.	158.0
EPOXY REINFORCING STEEL	LB.	15,170
DRILLED SHAFT 36" DIAMETER	L.F.	320
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	112
6" PERF. PIPE UNDERDRAIN RND.	L.F.	137
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	14

- ① LENGTH VARIES:
BH3 - 147'-1" to 150'-1"
BH9 - 69'-6" to 104'-8"
BV1/BV2 - 11'-7" to 12'-3"
BV3/BV4 - 8'-6" to 11'-7"
S1 - 14'-11" to 21'-7"
S2 - 11'-7" to 14'-1"
- ② LENGTH INCLUDES LAP:
BH1 - 2 at 2'-0"
BH2 - 2 at 2'-0"
BH3 - 2 at 8'-2"
BH4 - 2 at 8'-2"
BH5 - 2 at 8'-2"
BH6 - 2 at 8'-2"
BH7 - 2 at 2'-10"
BH8 - 2 at 2'-10"
BH9 - 1 at 2'-10"

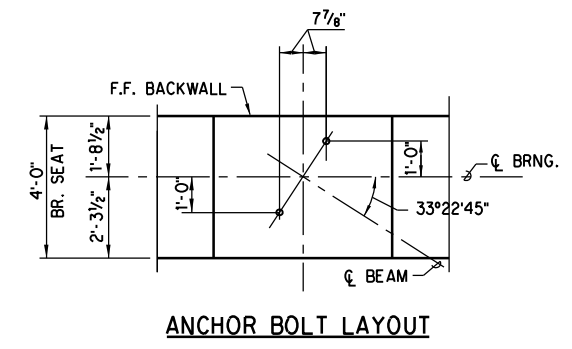
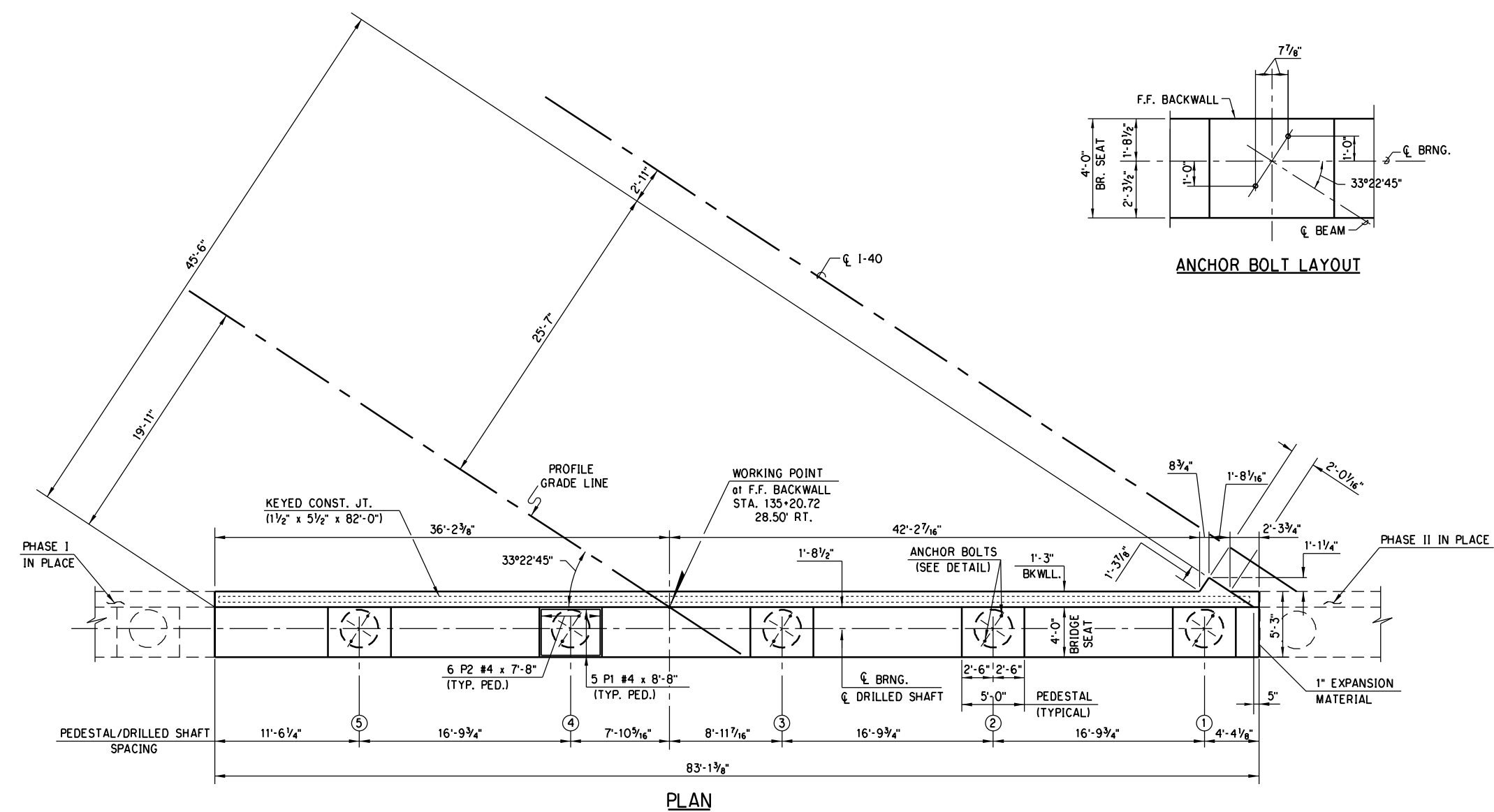
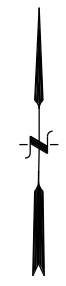
③ STAGGER LAPS 20'-0"

④ NON-EPOXY COATED

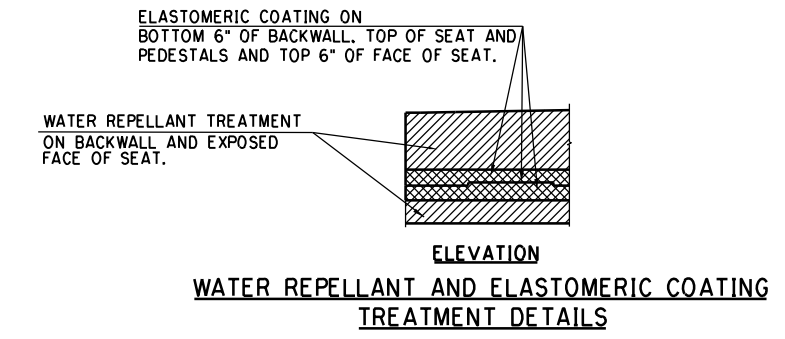
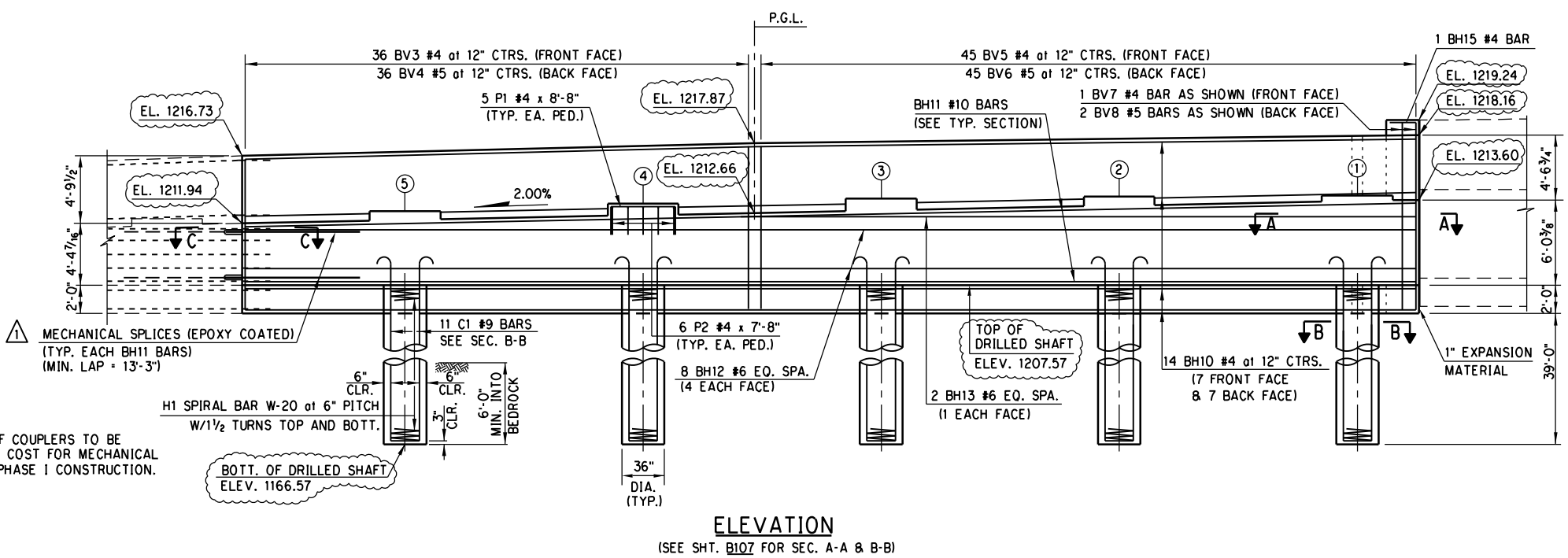
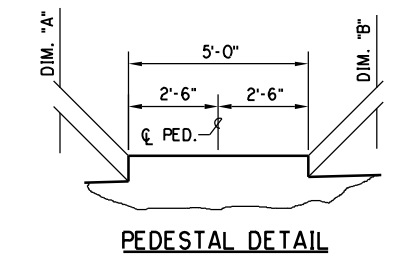
▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "C"		OKLAHOMA COUNTY
Drawn				W.B. I-40 OVER S.E. 15TH ST
Checked				ABUTMENT NO. 2 DETAILS
Approved				PHASE II
Squad	POE			(SHEET 2 OF 2)
		State Job No. 23310(04)		Sheet No. _B105

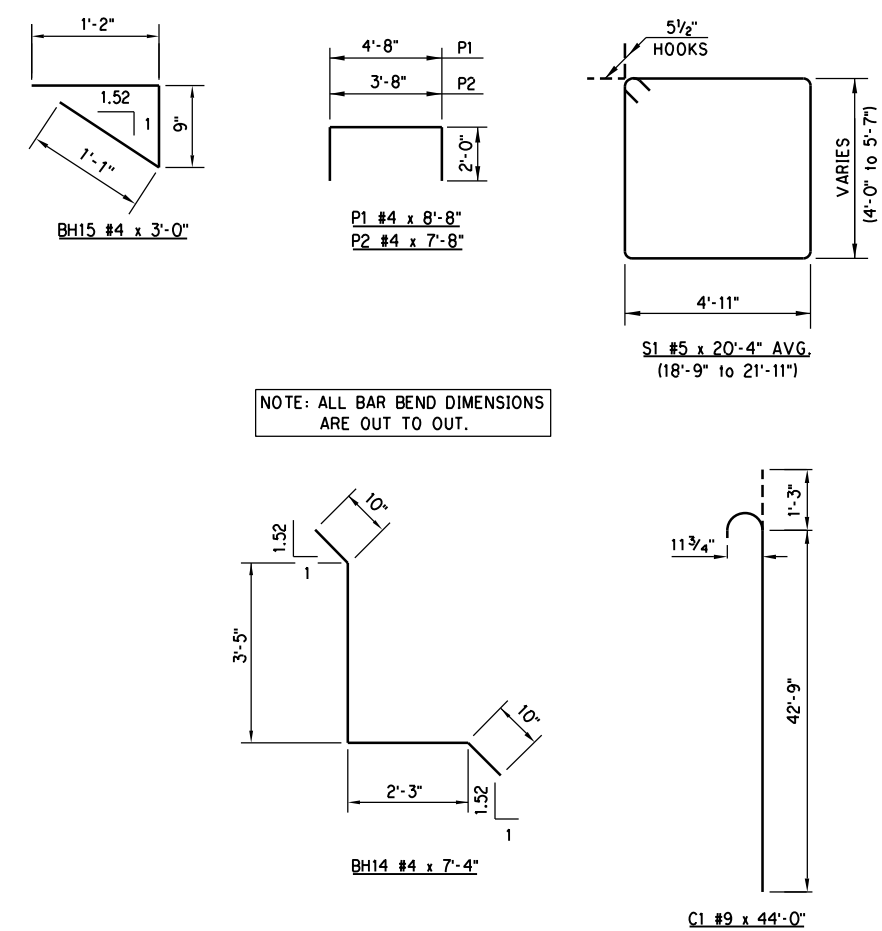
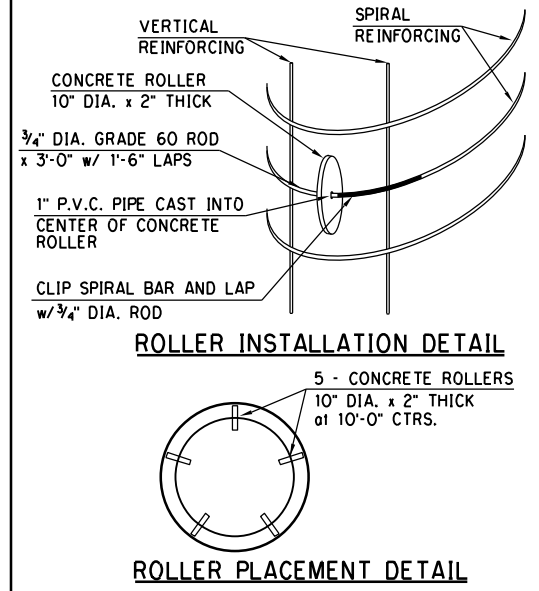
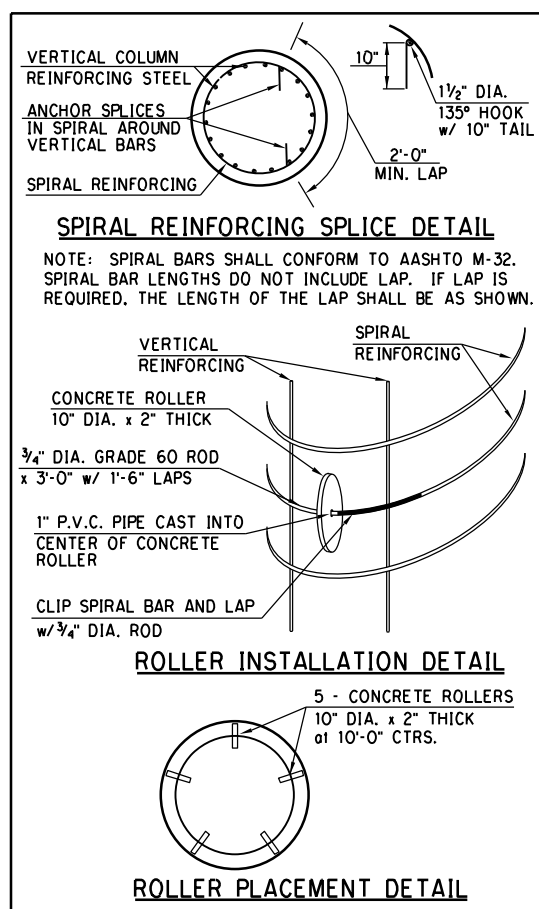
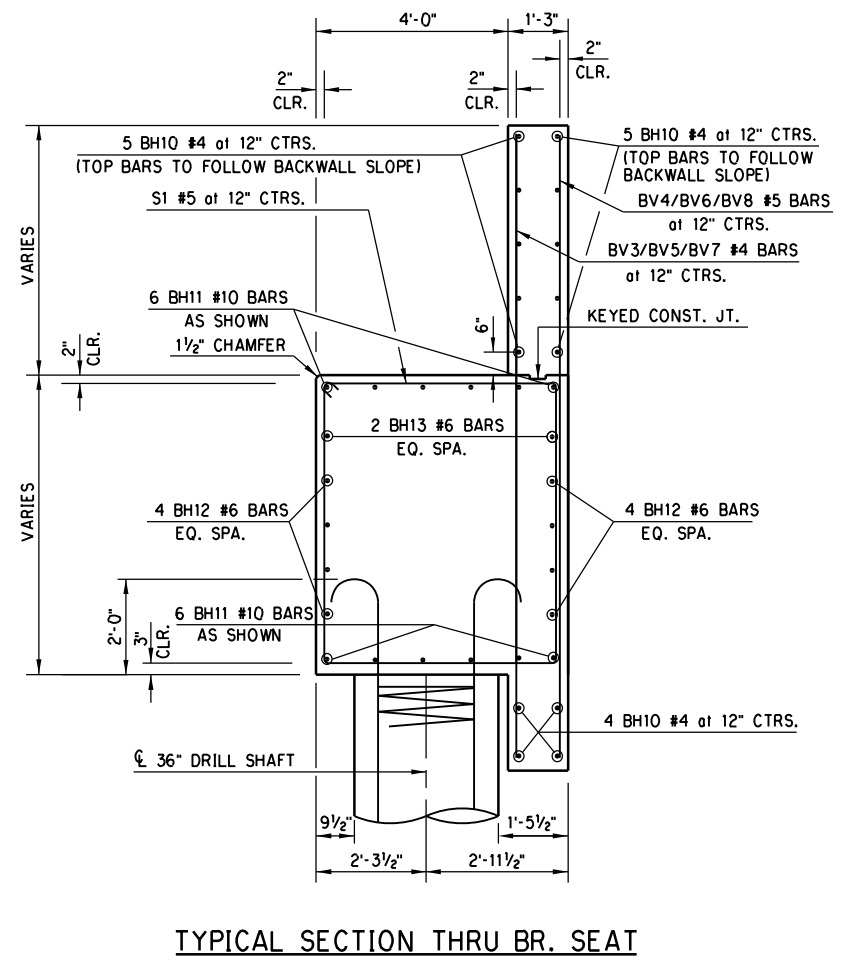


PEDESTAL	⑤	④	③	②	①
ELEVATION	1212.83	1213.36	1213.72	1213.83	1213.92
DIM "A"	8"	10 1/16"	10 1/16"	7 7/8"	4 1/16"
DIM "B"	6 3/4"	9 1/8"	9 1/2"	6 3/4"	3 3/4"



NOTE: ALL COST OF COUPLERS TO BE INCLUDED IN COST FOR MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

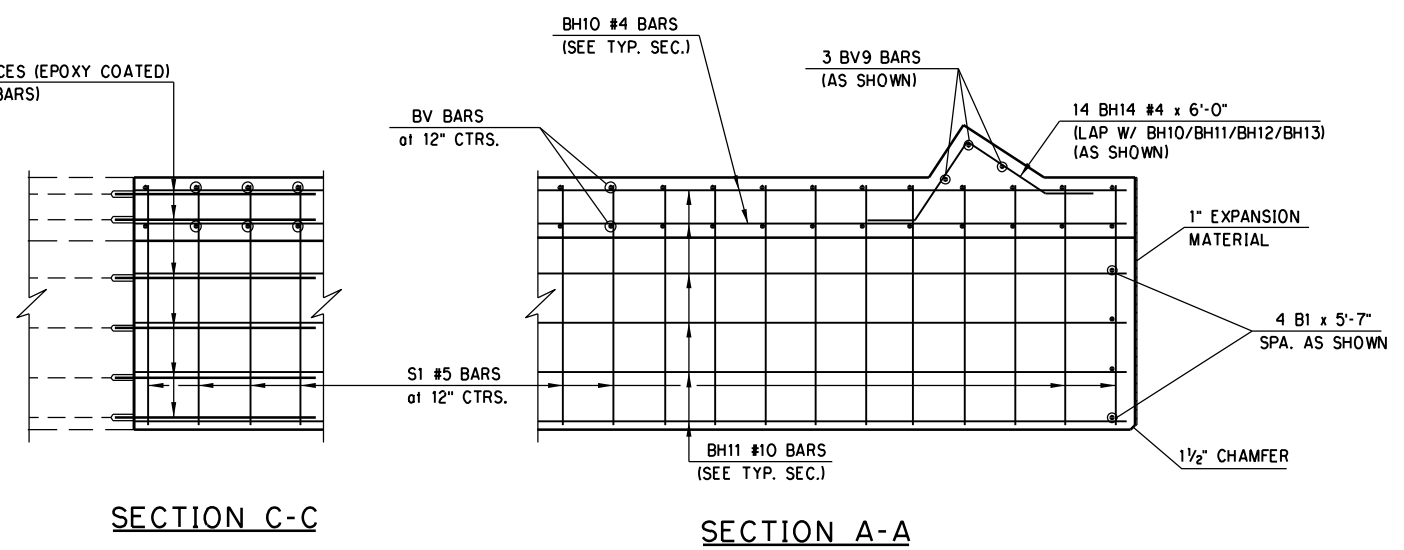
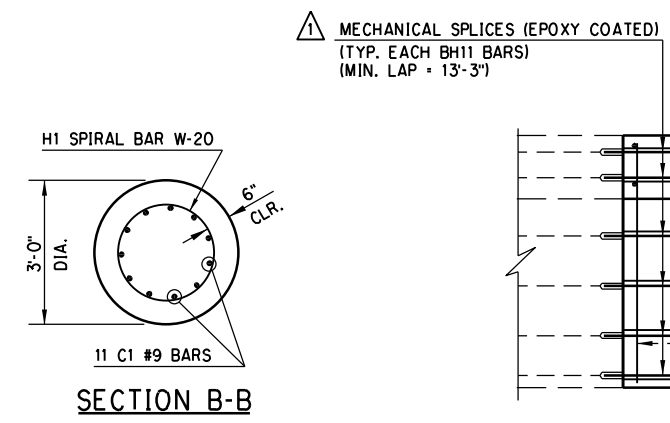
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 1 OF 2)	
		State Job No. 23310(04)	Sheet No. B106



BAR LIST - EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH
B1	4	#4	STR.	AS SHOWN	5'-7"
BH10	14	#4	STR.	12" C/C	85'-1"
BH11	12	#10	STR.	AS SHOWN	91'-0"
BH12	8	#6	STR.	AS SHOWN	83'-11"
BH13	2	#6	STR.	12" C/C	37'-7"
BH14	14	#4	BNT.	AS SHOWN	7'-4"
BH15	1	#4	BNT.	AS SHOWN	3'-0"
BV3	36	#4	STR.	12" C/C	11'-4" AVG.
BV4	36	#5	STR.	12" C/C	11'-4" AVG.
BV5	46	#4	STR.	12" C/C	12'-0 1/2" AVG.
BV6	45	#5	STR.	12" C/C	12'-0 1/2" AVG.
BV7	1	#4	STR.	AS SHOWN	13'-3"
BV8	2	#5	STR.	AS SHOWN	13'-3"
BV9	3	#5	STR.	AS SHOWN	12'-2"
C1	55	#9	BNT.	EQ. SPA.	44'-0"
H1	5	W-20	BNT.	6" PITCH	529'-6" *
P1	25	#4	BNT.	EQ. SPA.	8'-8"
P2	30	#4	BNT.	EQ. SPA.	9'-8"
S1	83	#5	BNT.	12" C/C	20'-4" AVG.

- ① LENGTH VARIES:
BV3/BV4 - 10'-9" to 11'-11"
BV5/BV6 - 11'-11" to 12'-2"
S1 - 18'-9" to 21'-11"
- ② LENGTH INCLUDES LAP:
BH10 - 1 at 2'-0"
BH11 - 1 at 8'-2"
BH12 - 1 at 3'-0"
- ③ STAGGER LAPS 15'-0"
- ④ NON-EPOXY COATED
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT
- * THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

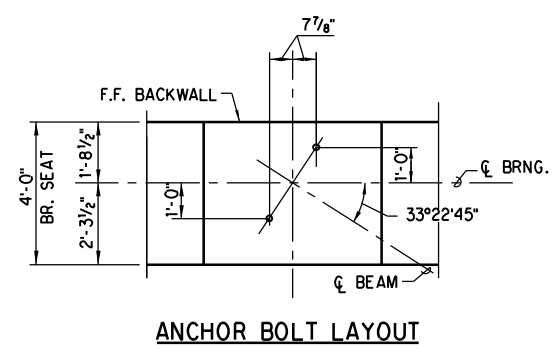
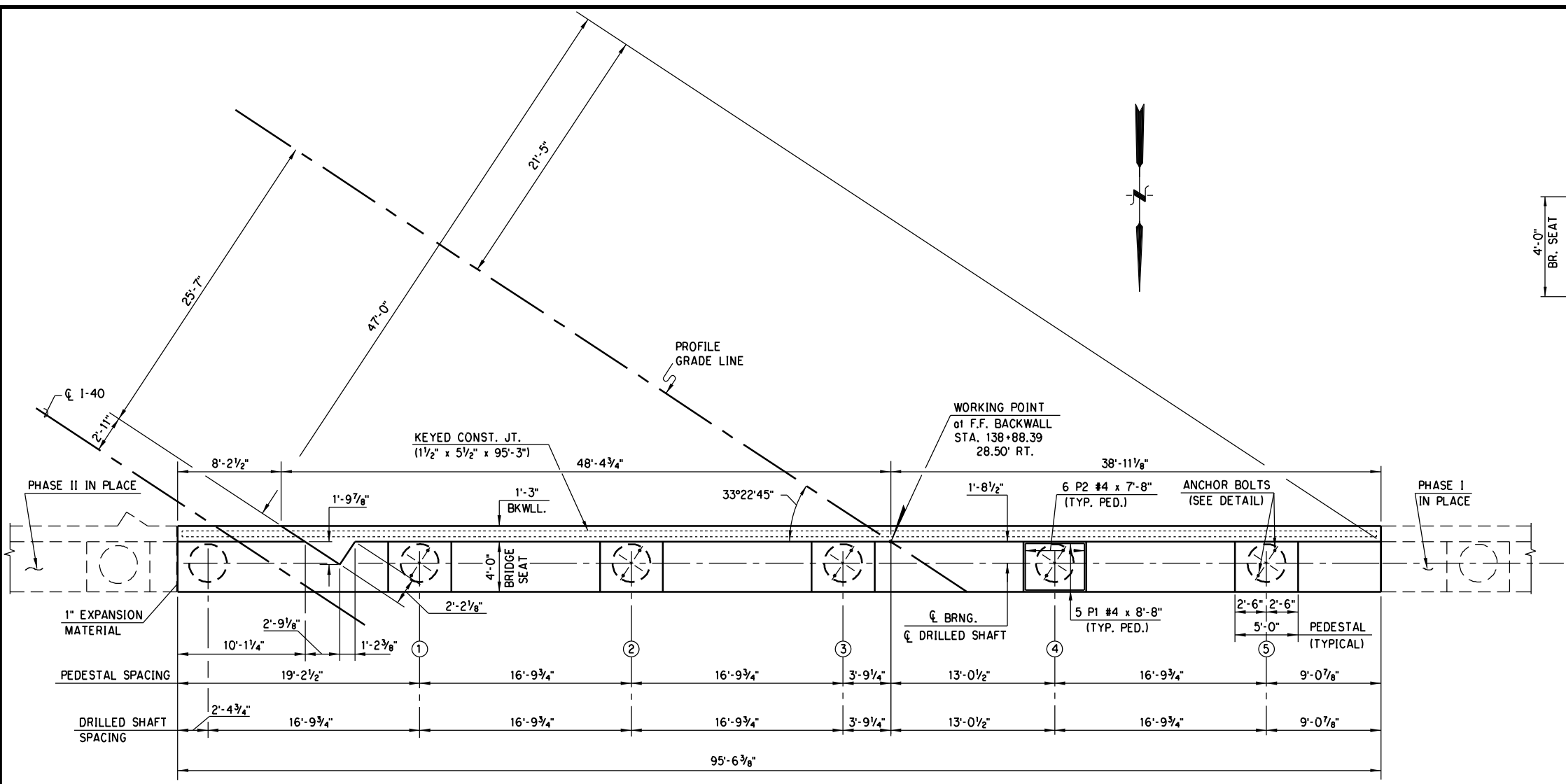


QUANTITIES

ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	105
CLSM BACKFILL	C.Y.	382.9
ELASTOMERIC COATING	S.F.	450
CLASS A CONCRETE	C.Y.	113.3
EPOXY REINFORCING STEEL	LB.	10,510
DRILLED SHAFT 36" DIAMETER	L.F.	205
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	79
6" PERF. PIPE UNDERDRAIN RND.	L.F.	84

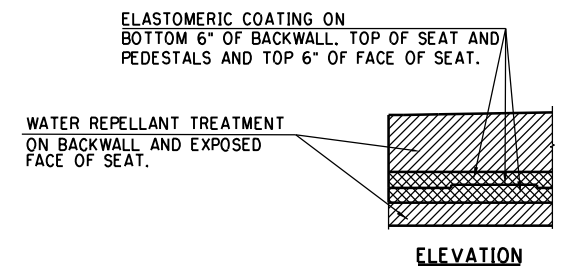
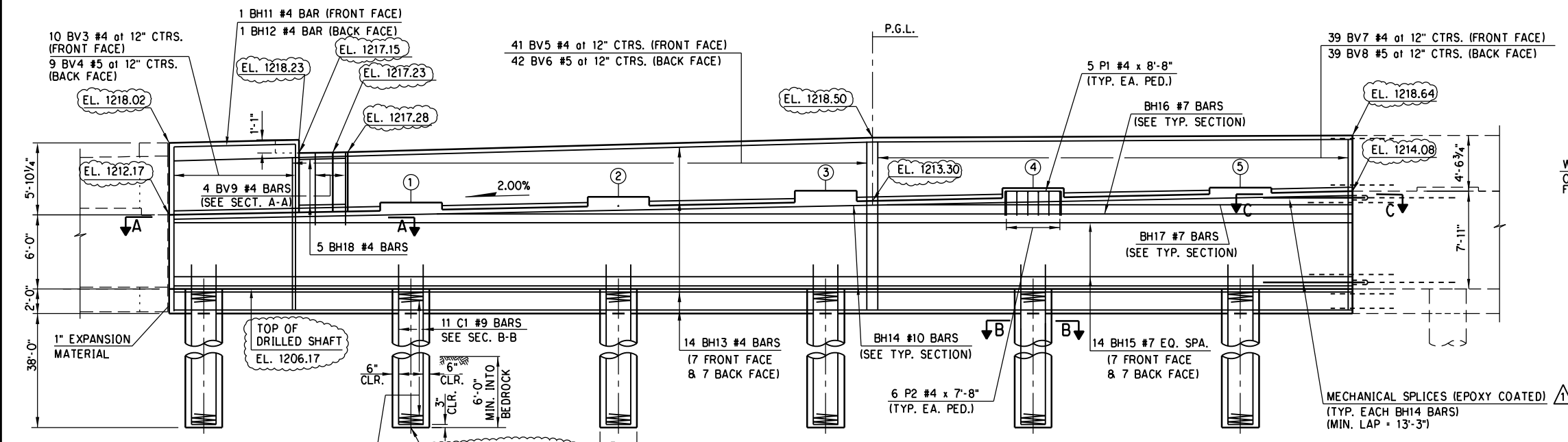
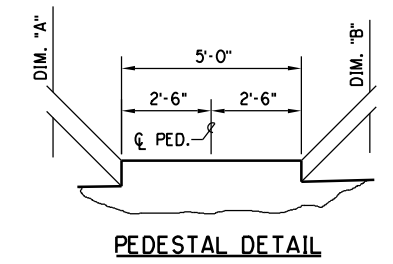
NOTE: ALL COST OF COUPLERS TO BE INCLUDED IN COST FOR MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 1 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 2 OF 2)	
		State Job No. 23310(04)	Sheet No. B107



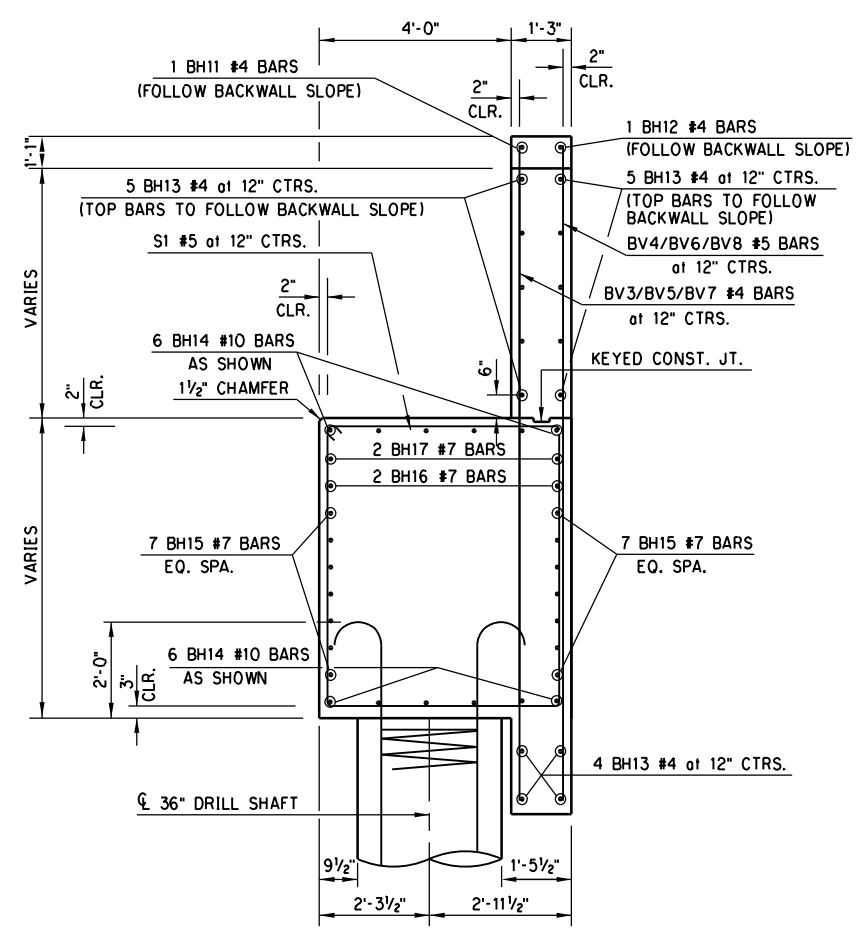
PEDESTAL ELEVATION SCHEDULE

PEDESTAL	①	②	③	④	⑤
ELEVATION	1213.16	1213.65	1214.13	1214.64	1214.40
DIM "A"	7 7/8"	9 3/4"	11 3/8"	9 9/16"	6 3/8"
DIM "B"	6 1/16"	8 9/16"	10 3/16"	8 3/4"	5 3/8"

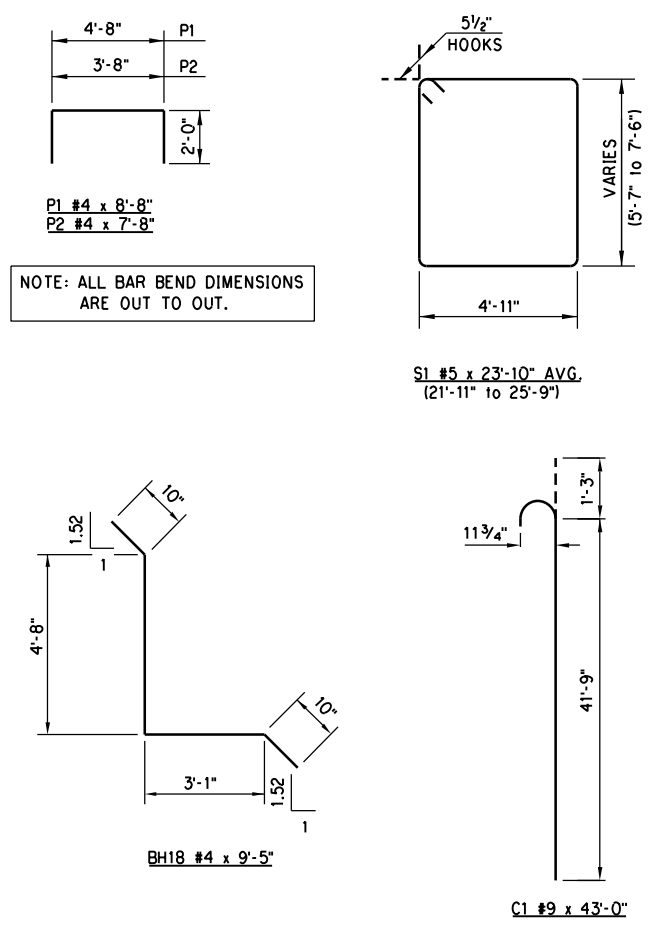
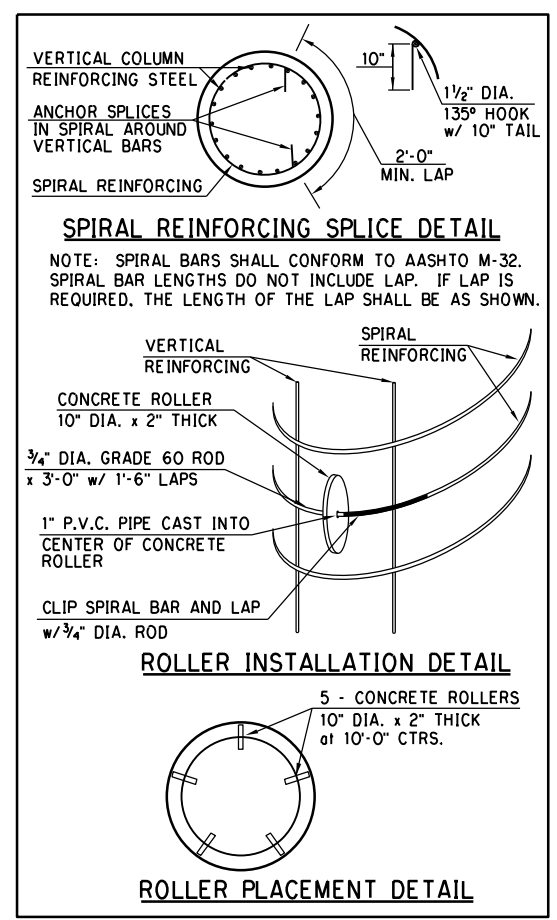


Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH ST	
Checked		ABUTMENT NO. 2 DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 1 OF 2)	
		State Job No. 23310(04)	Sheet No. B108

NOTE: ALL COST OF COUPLERS TO BE INCLUDED IN COST FOR MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

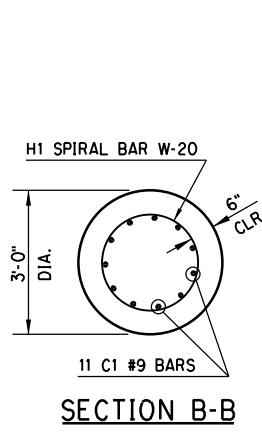


TYPICAL SECTION THRU BR. SEAT

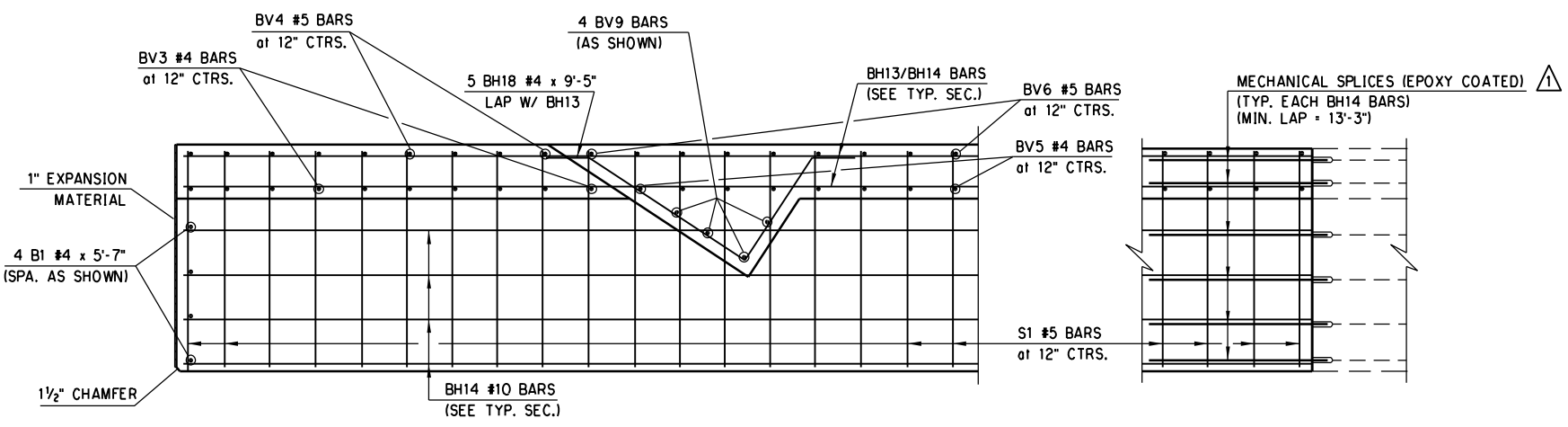


BAR LIST - EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
B1	4	#4	STR.	AS SHOWN	5'-7"
BH11	1	#4	STR.	AS SHOWN	9'-3"
BH12	1	#4	STR.	AS SHOWN	8'-1"
BH13	14	#4	STR.	AS SHOWN	97'-3"
BH14	12	#10	STR.	AS SHOWN	103'-7"
BH15	14	#7	STR.	EQUAL	99'-1"
BH16	2	#7	STR.	EQUAL	72'-8"
BH17	2	#7	STR.	EQUAL	32'-4"
BH18	5	#4	BNT.	AS SHOWN	9'-5"
BV3	10	#4	STR.	12\"/>	

- ① LENGTH VARIES:
BV3/BV4 - 13'-5" to 13'-7"
BV5/BV6 - 12'-7" to 13'-11"
BV7/BV8 - 13'-11" to 14'-1"
S1 - 21'-11" to 25'-9"
- ② LENGTH INCLUDES LAP:
BH13 - 1 at 2'-0"
BH14 - 1 at 8'-2"
BH15 - 1 at 3'-10"
BH16 - 1 at 3'-10"
- ③ STAGGER LAPS 15'-0"
- ④ NON-EPOXY COATED
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT
- * THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.



SECTION B-B



SECTION A-A

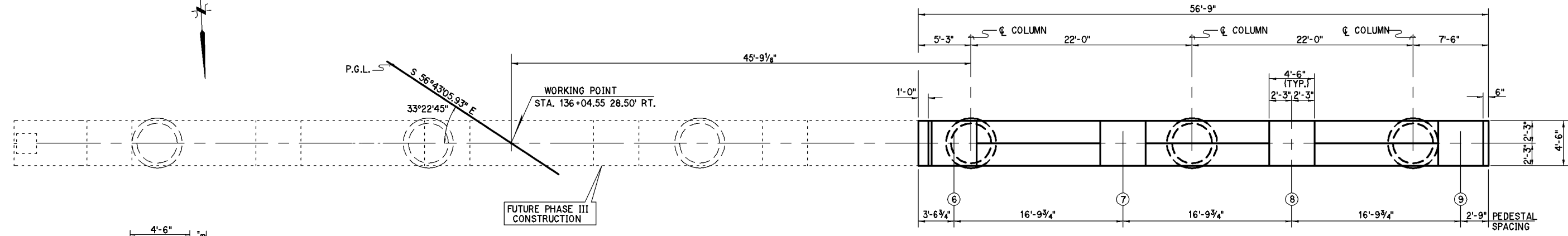
SECTION C-C

NOTE: ALL COST OF COUPLERS TO BE INCLUDED IN COST FOR MECHANICAL SPLICES IN PHASE I CONSTRUCTION.

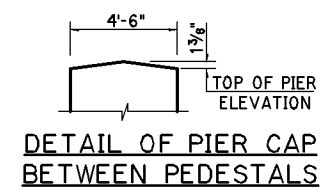
QUANTITIES		
ITEM	UNIT	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	120
CLSM BACKFILL	C.Y.	369.2
ELASTOMERIC COATING	S.F.	513
CLASS A CONCRETE	C.Y.	164.1
EPOXY REINFORCING STEEL	LB.	14,280
DRILLED SHAFT 36" DIAMETER	L.F.	240
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	112
6" PERF. PIPE UNDERDRAIN RND.	L.F.	96

Design		BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST ABUTMENT NO. 2 DETAILS PHASE III (SHEET 2 OF 2) State Job No. 23310(04) Sheet No. B109
Drawn		
Checked		
Approved		
Squad	POE	

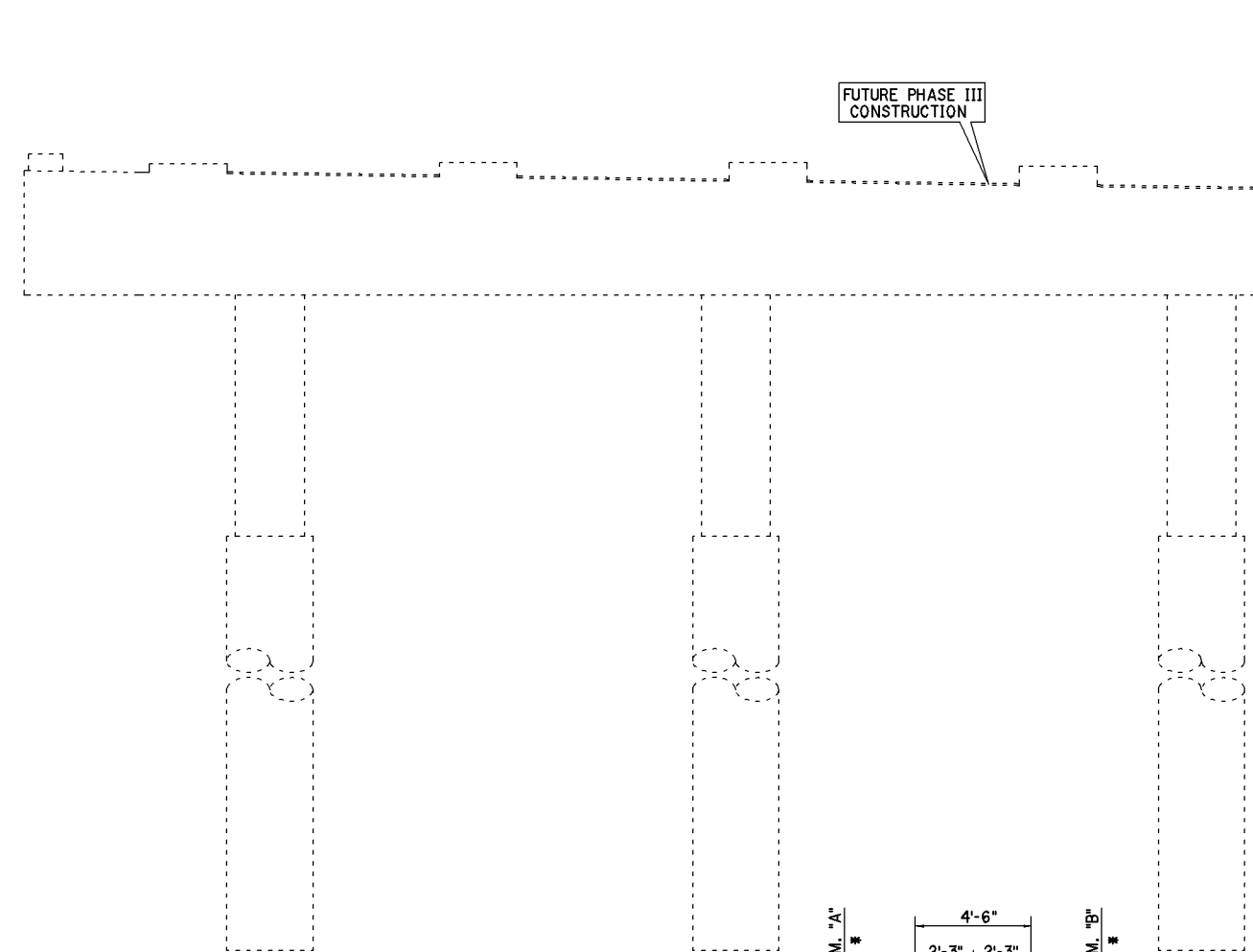
DESCRIPTION	REVISIONS	DATE



PLAN

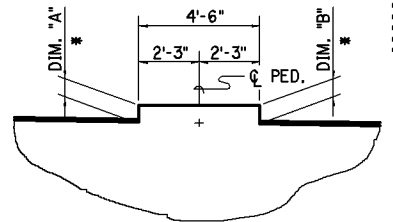


DETAIL OF PIER CAP BETWEEN PEDESTALS



ELEVATION

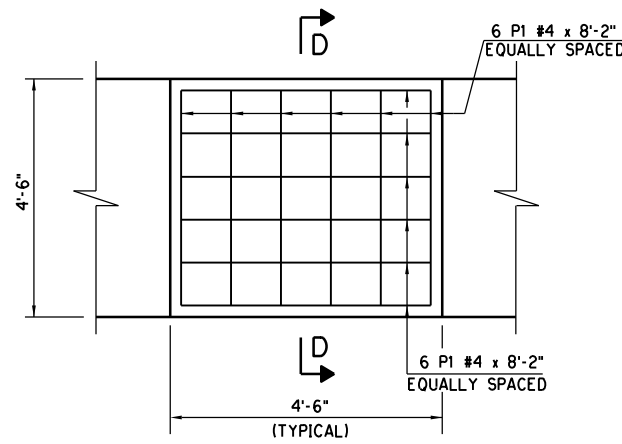
PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	⑥	⑦	⑧	⑨
ELEVATION	1214.07	1213.63	1213.17	1212.68
DIM. "A"*	9 ⁹ / ₁₆ "	7 ⁵ / ₁₆ "	4 ¹³ / ₁₆ "	2"
DIM. "B"*	10 ³ / ₈ "	8 ¹ / ₈ "	5 ⁵ / ₈ "	2 ³ / ₁₆ "



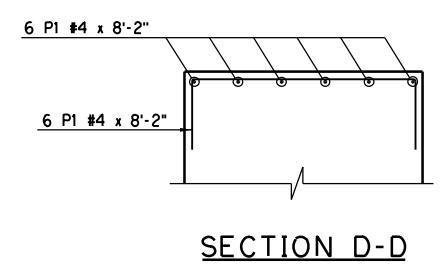
PEDESTAL DETAIL
* DIMENSIONS ARE TO FACE OF PIER CAP.

FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A". SEE SHEET B111.

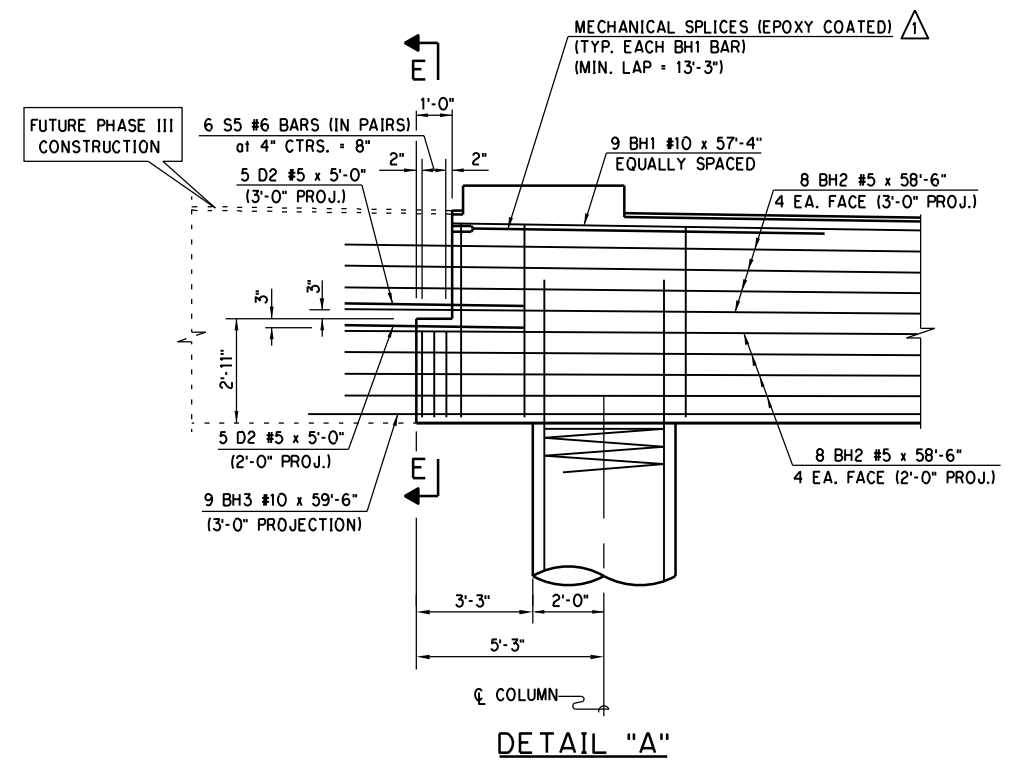
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15TH ST
Checked			PIER 1 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 1 OF 3)
		State Job No. 23310(04)	Sheet No. B110



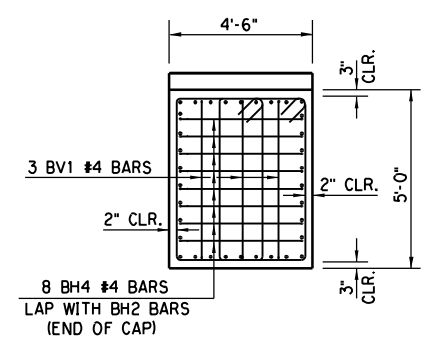
PEDESTAL REINFORCING DETAIL



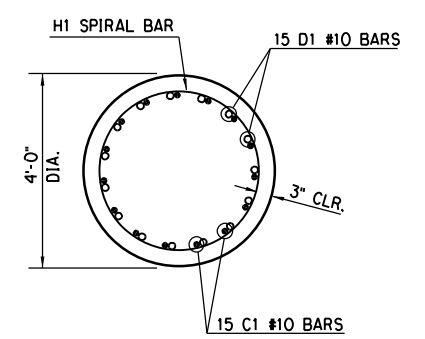
SECTION D-D



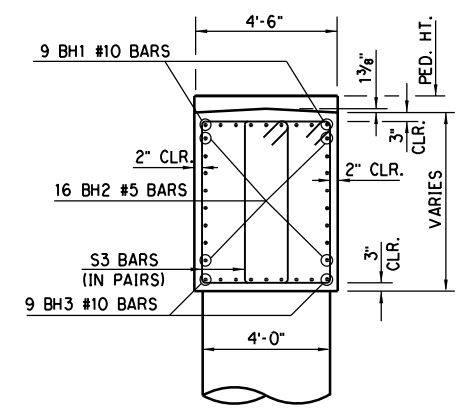
DETAIL "A"



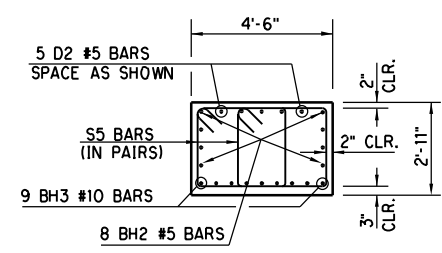
PIER CAP WEST END VIEW



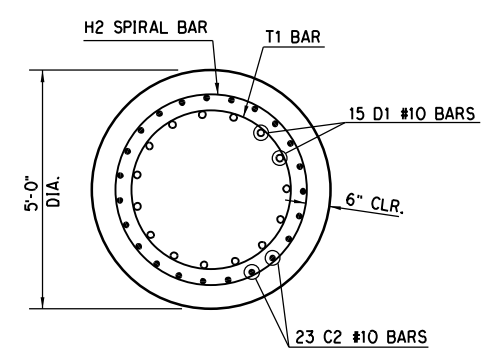
SECTION B-B



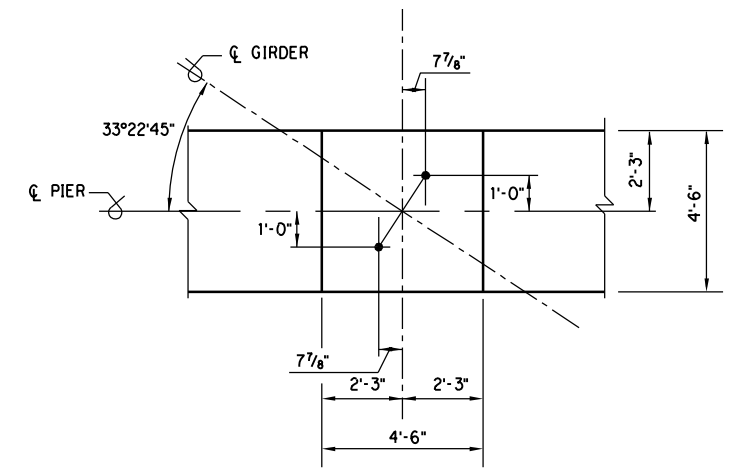
SECTION A-A



SECTION E-E



SECTION C-C



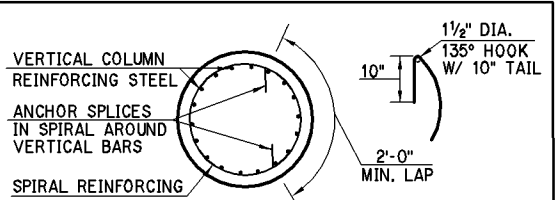
ANCHOR BOLT LAYOUT

NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B162.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	73.2
MECHANICAL SPLICES	EA.	9
REINFORCING STEEL	LB.	680
EPOXY COATED REINF. STEEL	LB.	11,300
DRILLED SHAFTS 60" DIAMETER	L.F.	90
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	108

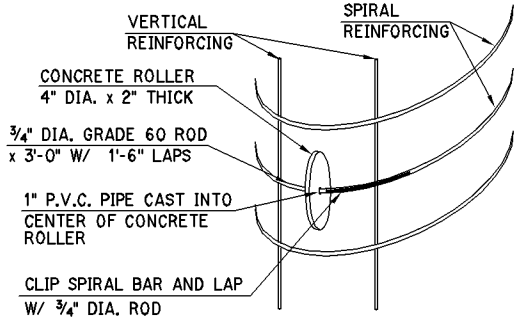
TOP AND SIDES OF PIER CAP AND PEDESTALS. BOTTOM AND END OF EXTERIOR CANTILEVER.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15TH ST
Checked			PIER 1 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 2 OF 3)
		State Job No. 23310(04)	Sheet No. B111

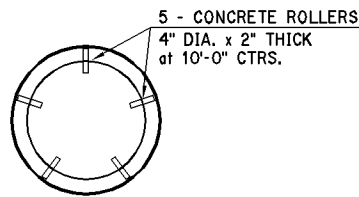


SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

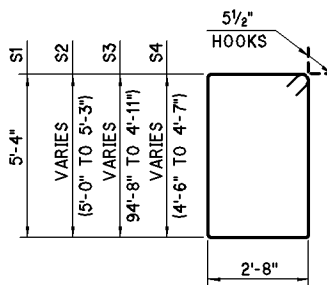
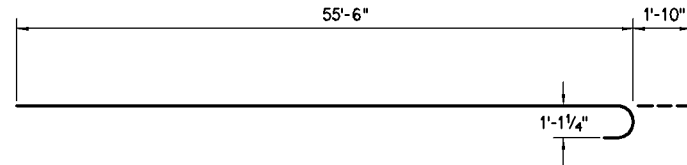


ROLLER INSTALLATION DETAIL



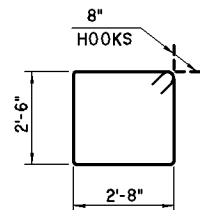
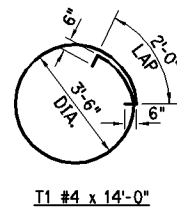
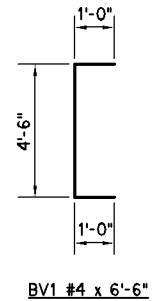
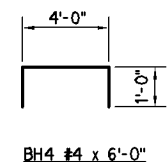
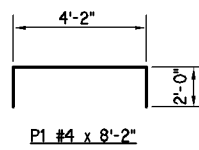
ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



- S1 #5 x 16'-11"
- S2 #5 x 16'-6" AVG. (16'-3" TO 16'-9")
- S3 #5 x 15'-10" AVG. (15'-7" TO 16'-1")
- S4 #5 x 15'-4" AVG. (15'-3" TO 15'-5")

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



BAR LIST

MARK	NO.	SIZE	FORM	SPACING	LENGTH
BH1	9	#10	BNT.	EQUAL	57'-4"
BH2	16	#5	STR.	AS SHOWN	58'-6"
BH3	9	#10	STR.	EQUAL	59'-6"
BH4	8	#4	BNT.	AS SHOWN	6'-0"
BV1	3	#4	BNT.	AS SHOWN	6'-6"
C1	45	#10	STR.	EQUAL	18'-6"
D2	10	#5	STR.	EQUAL	5'-0"
H1	3	W-20	BNT.	6" PITCH	332'-0"
S1	8	#5	BNT.	EQUAL	16'-11"
S2	42	#5	BNT.	10 1/2" C/C	16'-6" AVG.
S3	42	#5	BNT.	10 1/2" C/C	15'-10" AVG.
S4	12	#5	BNT.	12" C/C	15'-4" AVG.
S5	6	#6	BNT.	4" C/C	11'-8"
P1	48	#4	BNT.	EQUAL	8'-2"

THREE DRILLED SHAFTS

C2	69	#10	STR.	EQUAL	29'-6"
D1	45	#10	STR.	EQUAL	14'-10"
T1	18	#4	BNT.	12" C/C	14'-0"
H2	3	W-20	BNT.	6" PITCH	783'-4"

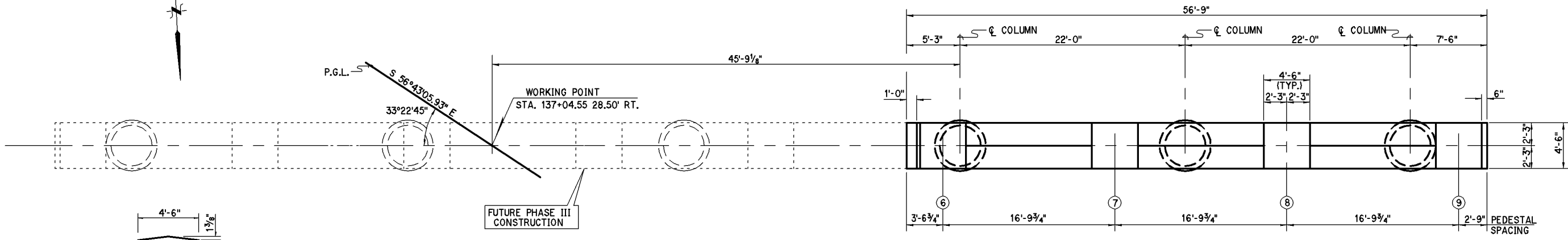
- ① EPOXY COATED
- ② LENGTH VARIES:
 - S2 - 16'-3" TO 16'-9"
 - S3 - 15'-7" TO 16'-1"
 - S4 - 15'-3" TO 15'-5"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

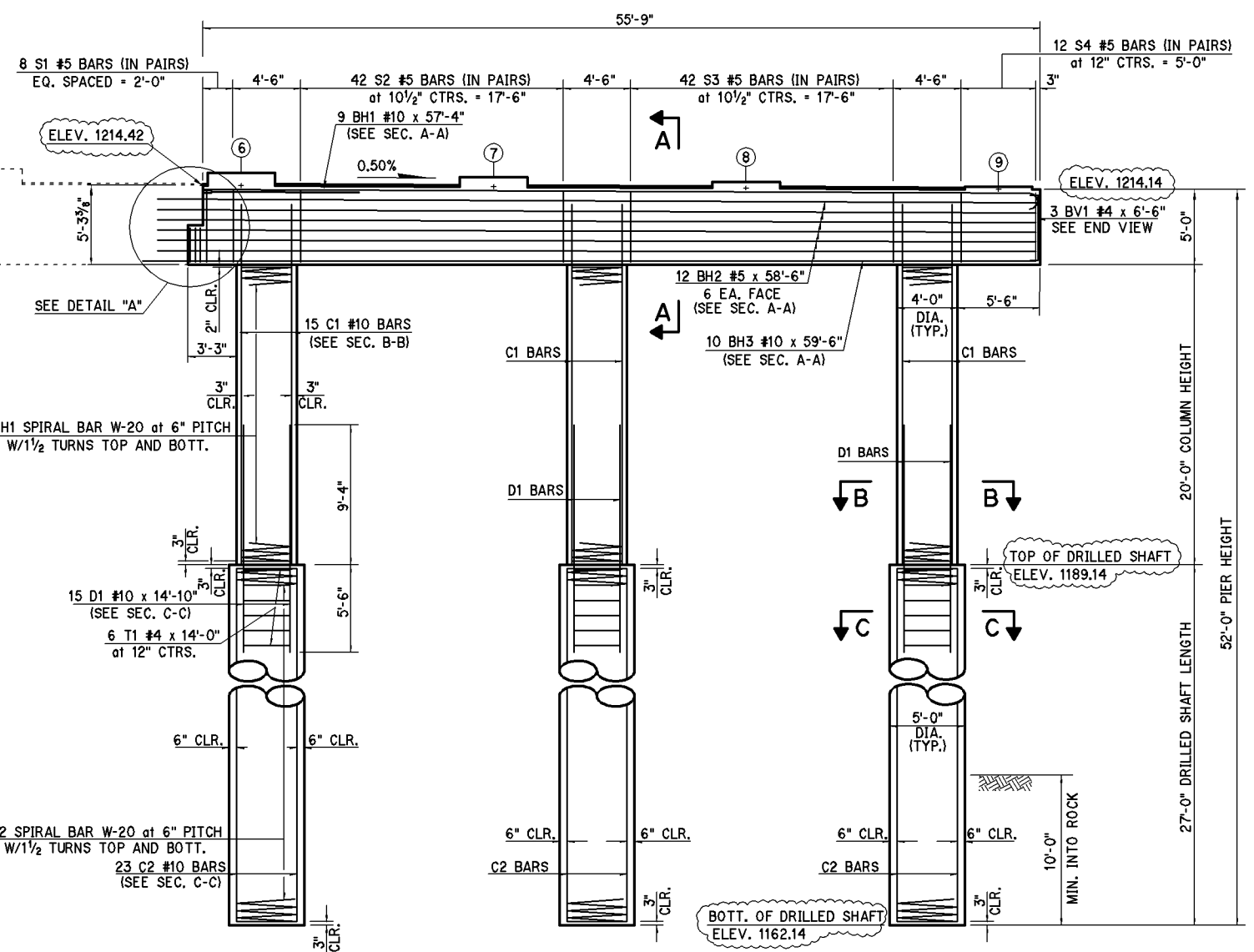
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15TH ST
Checked			PIER 1 DETAILS
Approved			PHASE I
Squad	POE		(SHEET 3 OF 3)
			State Job No. <u>23310(04)</u> Sheet No. <u>B112</u>

DESCRIPTION	REVISIONS	DATE



PLAN

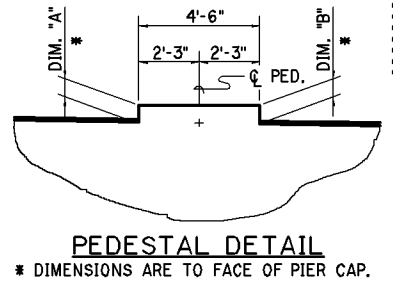
DETAIL OF PIER CAP BETWEEN PEDESTALS



ELEVATION

FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A". SEE SHEET B114.

PEDESTAL	⑥	⑦	⑧	⑨
ELEVATION	1215.24	1214.96	1214.65	1214.33
DIM. "A"*	9 7/8"	7 1/2"	4 7/8"	2"
DIM. "B"*	10 1/8"	7 3/4"	5 9/16"	2 1/4"

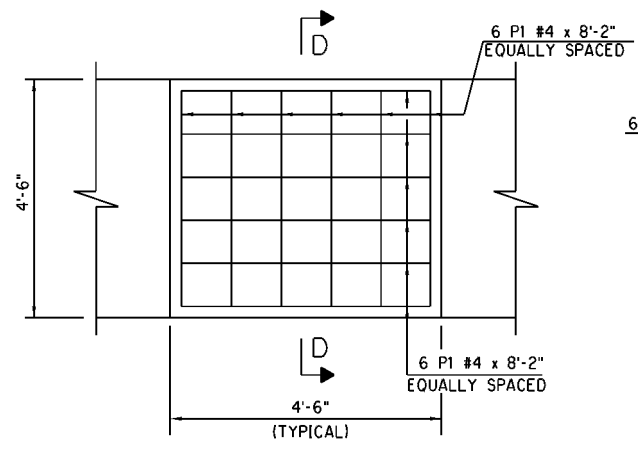


PEDESTAL DETAIL
* DIMENSIONS ARE TO FACE OF PIER CAP.

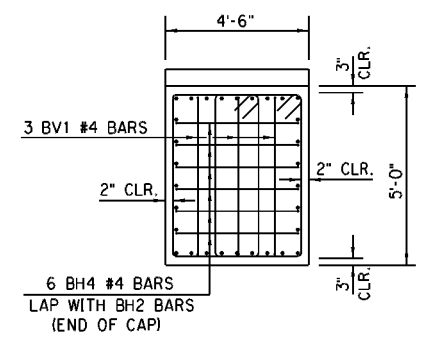
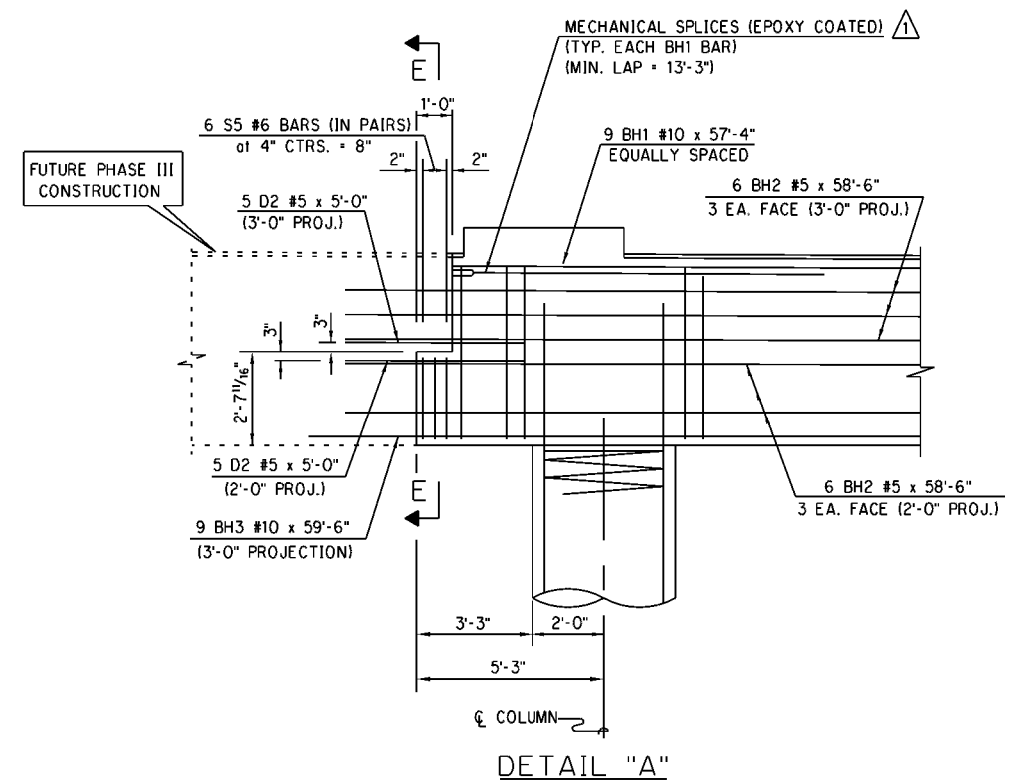
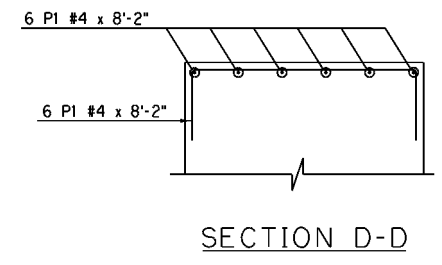
OKLAHOMA COUNTY
BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST

Design	
Drawn	
Checked	
Approved	
Squad	POE

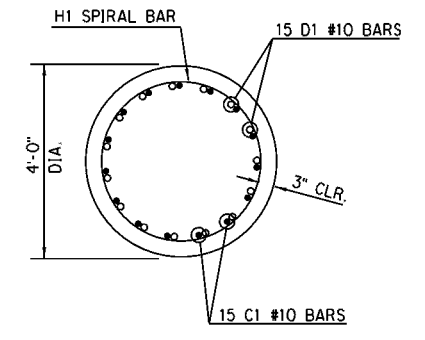
PIER 2 DETAILS
PHASE I
(SHEET 1 OF 3)
State Job No. 23310(04) Sheet No. B113



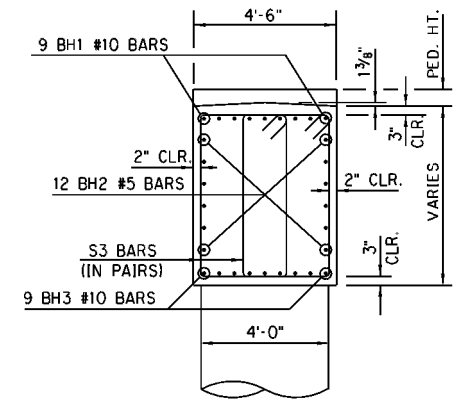
PEDESTAL REINFORCING DETAIL



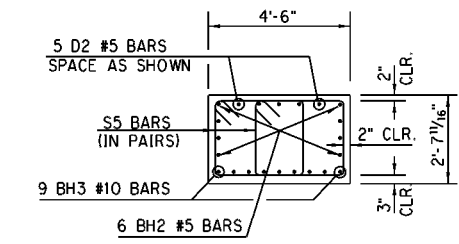
PIER CAP WEST END VIEW



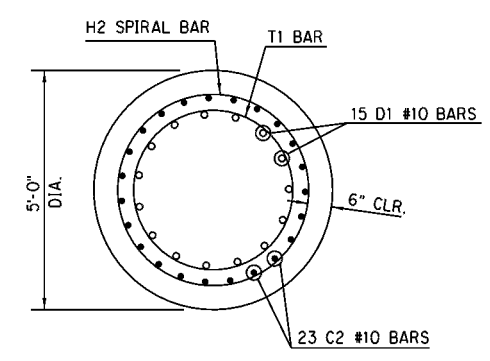
SECTION B-B



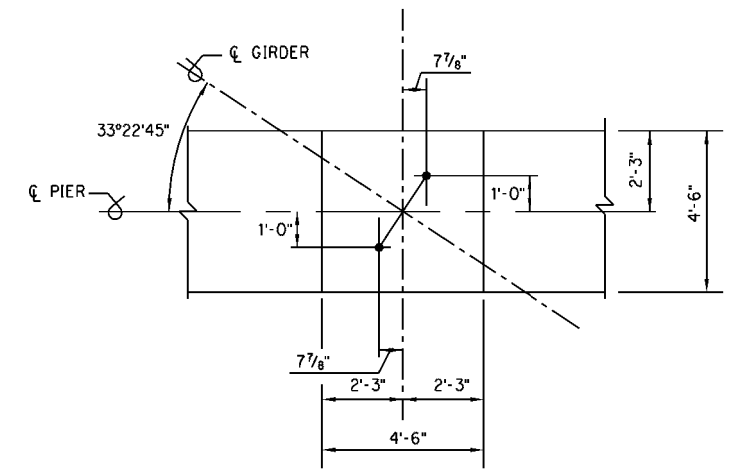
SECTION A-A



SECTION E-E



SECTION C-C

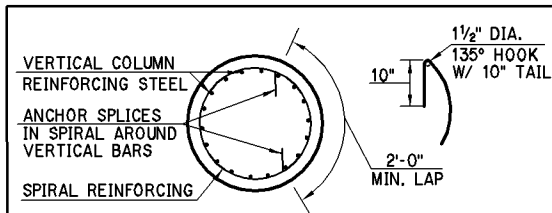


ANCHOR BOLT LAYOUT
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B163.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	79.0
MECHANICAL SPLICES	EA.	9
REINFORCING STEEL	LB.	950
EPOXY COATED REINF. STEEL	LB.	12,140
DRILLED SHAFTS 60" DIAMETER	L.F.	81
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	104

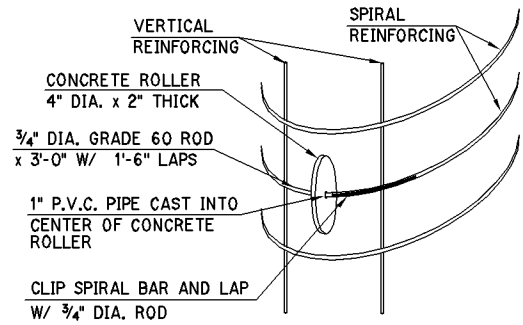
TOP AND SIDES OF PIER CAP AND PEDESTALS.
BOTTOM AND END OF EXTERIOR CANTILEVER.

		OKLAHOMA COUNTY	
		BRIDGE "D"	E.B. I-40 OVER S.E. 15TH ST
Design		PIER 2 DETAILS PHASE I (SHEET 2 OF 3) State Job No. 23310(04) Sheet No. B114	
Drawn			
Checked			
Approved			
Squad	POE		

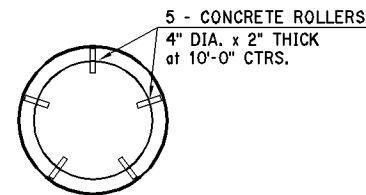


SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

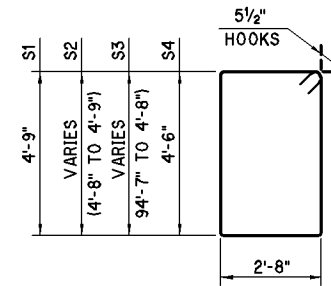
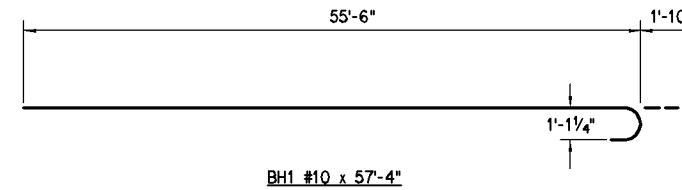


ROLLER INSTALLATION DETAIL

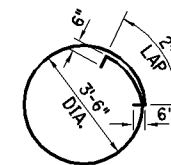
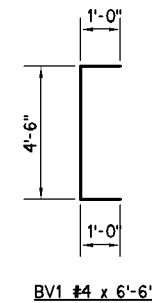
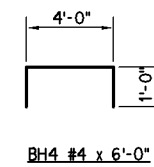
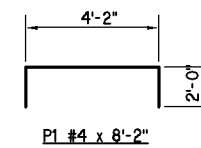


ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

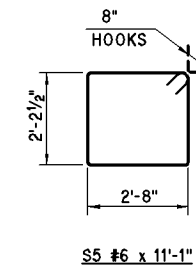


- S1 #5 x 15'-9"
- S2 #5 x 15'-8" AVG. (15'-7" TO 15'-9")
- S3 #5 x 15'-6" AVG. (15'-5" TO 15'-7")
- S4 #5 x 15'-3"



T1 #4 x 14'-0"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



S5 #6 x 11'-1"

BAR LIST					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
①	BH1	9 #10	BNT.	EQUAL	57'-4"
①	BH2	12 #5	STR.	AS SHOWN	58'-6"
①	BH3	9 #10	STR.	EQUAL	59'-6"
①	BH4	6 #4	BNT.	AS SHOWN	6'-0"
①	BV1	3 #4	BNT.	AS SHOWN	6'-6"
①	C1	45 #10	STR.	EQUAL	24'-6"
①	D2	10 #5	STR.	EQUAL	5'-0"
*	H1	3 W-20	BNT.	6" PITCH	464'-1"
①	S1	8 #5	BNT.	EQUAL	15'-9"
②①	S2	42 #5	BNT.	10 1/2" C/C	15'-8" AVG.
②①	S3	42 #5	BNT.	10 1/2" C/C	15'-6" AVG.
①	S4	12 #5	BNT.	12" C/C	15'-3"
①	S5	6 #6	BNT.	4" C/C	11'-1"
①	P1	48 #4	BNT.	EQUAL	8'-2"

THREE DRILLED SHAFTS

▲	C2	69 #10	STR.	EQUAL	26'-6"
①▲	D1	45 #10	STR.	EQUAL	14'-10"
▲	T1	18 #4	BNT.	12" C/C	14'-0"
*▲	H2	3 W-20	BNT.	6" PITCH	704'-3"

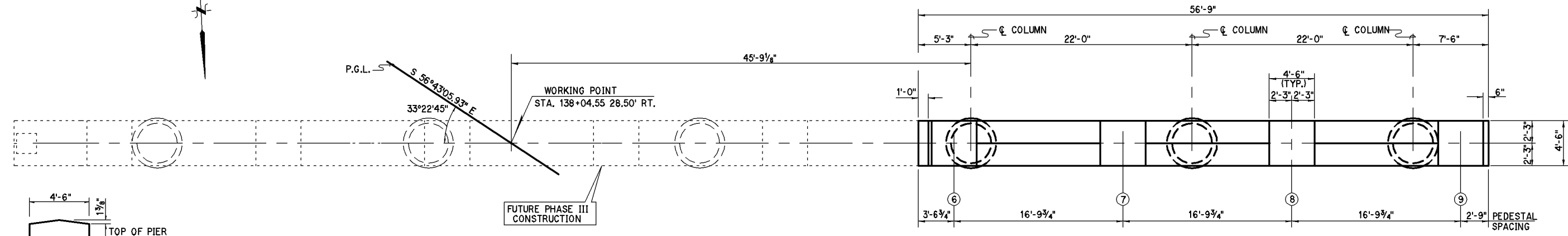
- ① EPOXY COATED
- ② LENGTH VARIES:
S2 - 15'-7" TO 15'-9"
S3 - 15'-5" TO 15'-7"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

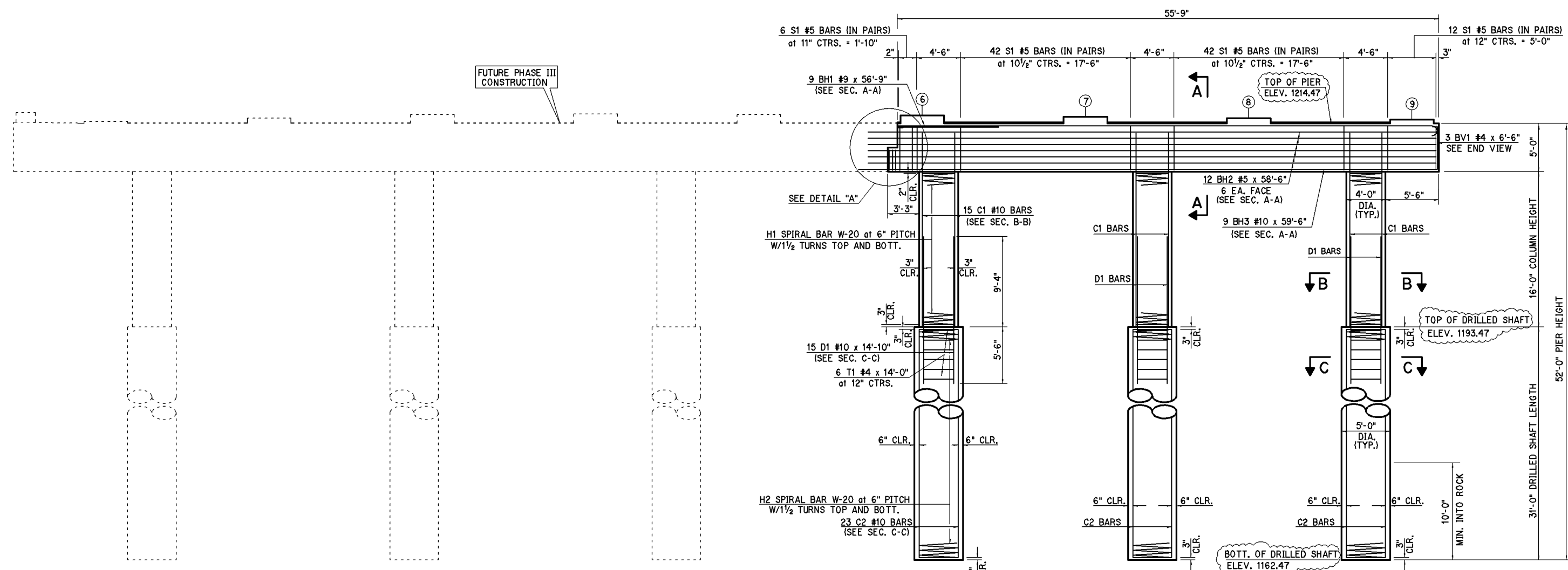
Design		OKLAHOMA COUNTY BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST PIER 2 DETAILS PHASE I (SHEET 3 OF 3) State Job No. 23310(04) Sheet No. B115
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



PLAN

DETAIL OF PIER CAP BETWEEN PEDESTALS



ELEVATION

PEDESTAL ELEVATION SCHEDULE				
PEDESTAL	⑥	⑦	⑧	⑨
ELEVATION	1215.26	1215.14	1215.00	1214.83
PED. HEIGHT	9 1/2"	8 1/16"	6 3/8"	4 3/8"

FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A", SEE SHEET B117.

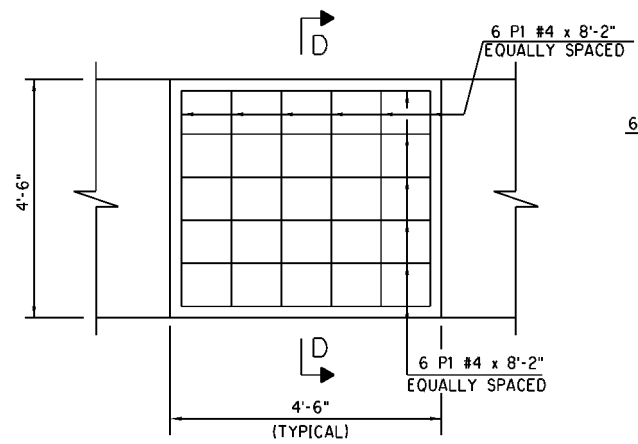
OKLAHOMA COUNTY

BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST

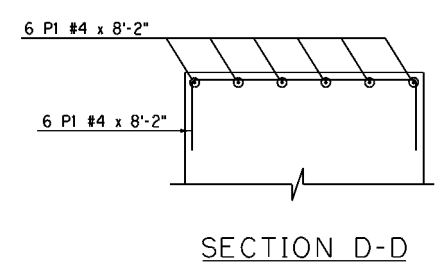
PIER 3 DETAILS
PHASE I
(SHEET 1 OF 3)

State Job No. 23310(04) Sheet No. B116

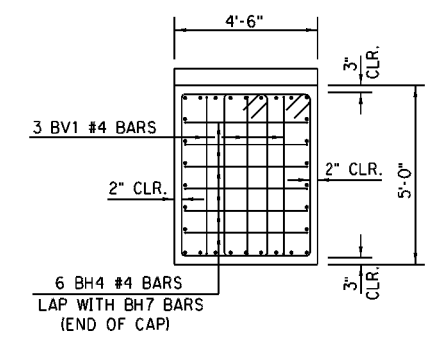
Design	
Drawn	
Checked	
Approved	
Squad	POE



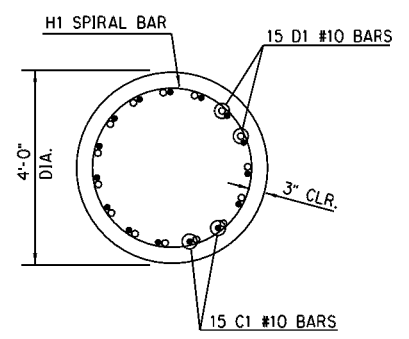
PEDESTAL REINFORCING DETAIL



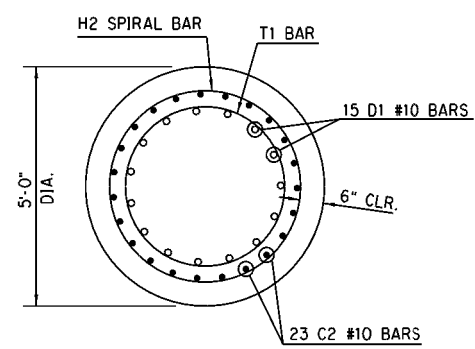
SECTION D-D



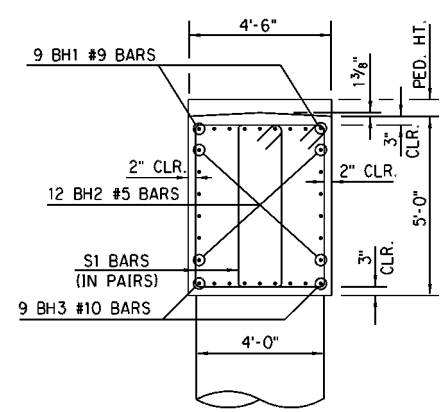
PIER CAP WEST END VIEW



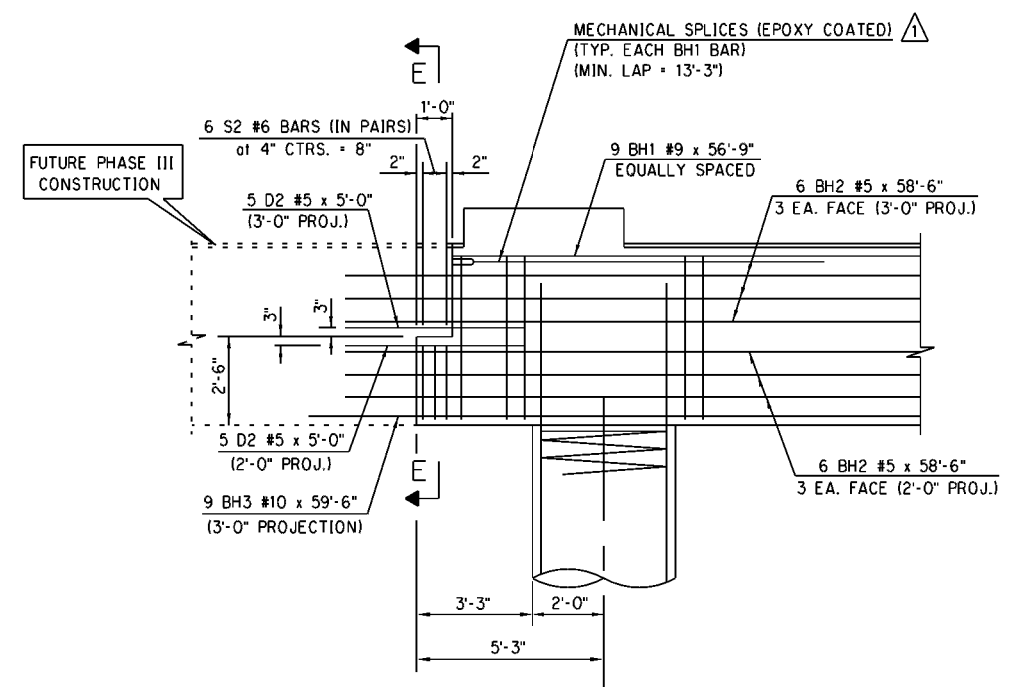
SECTION B-B



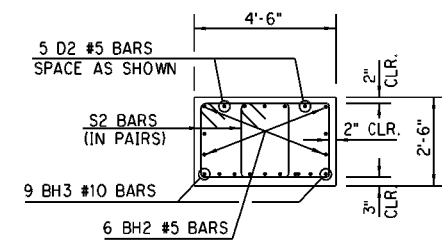
SECTION C-C



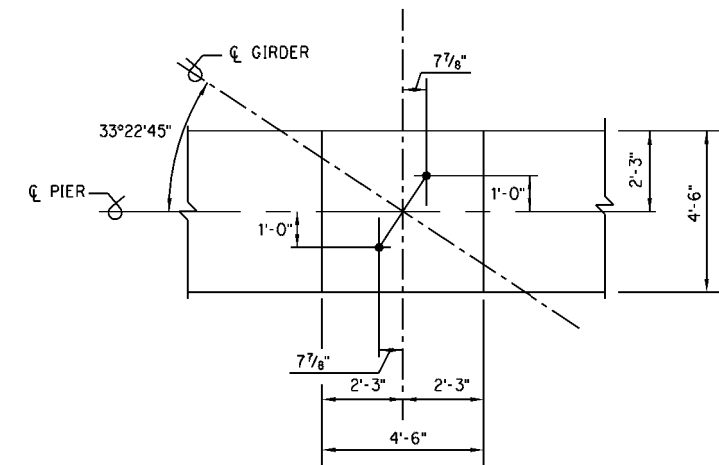
SECTION A-A



DETAIL "A"



SECTION E-E



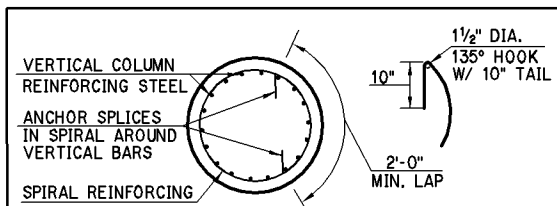
ANCHOR BOLT LAYOUT

NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B162.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	72.2
MECHANICAL SPLICES	EA.	9
REINFORCING STEEL	LB.	770
EPOXY COATED REINF. STEEL	LB.	10,790
DRILLED SHAFTS 60" DIAMETER	L.F.	93
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	103

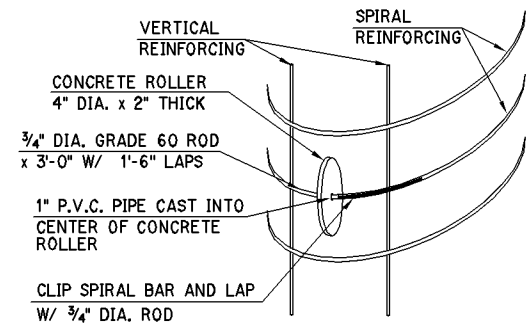
TOP AND SIDES OF PIER CAP AND PEDESTALS.
BOTTOM AND END OF EXTERIOR CANTILEVER.

		OKLAHOMA COUNTY	
		BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST	
Design		PIER 3 DETAILS PHASE I (SHEET 2 OF 3) State Job No. 23310(04) Sheet No. B117	
Drawn			
Checked			
Approved			
Squad	POE		

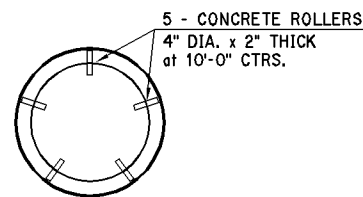


SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

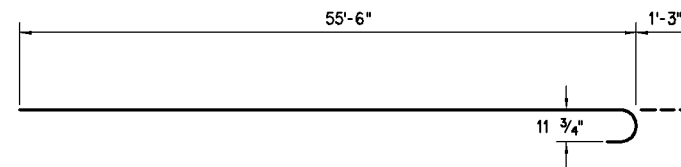


ROLLER INSTALLATION DETAIL

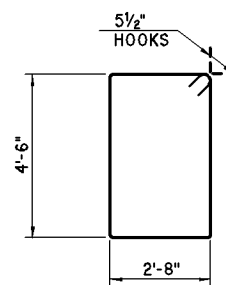


ROLLER PLACEMENT DETAIL

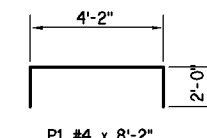
NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



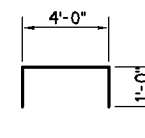
BH1 #9 x 56'-9"



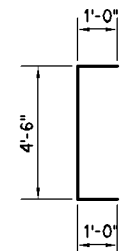
S1 #5 x 15'-3"



P1 #4 x 8'-2"

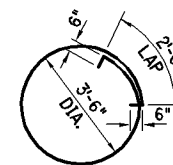


BH4 #4 x 6'-0"

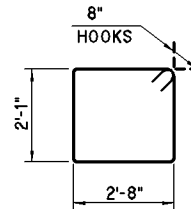


BV1 #4 x 6'-6"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



T1 #4 x 14'-0"



S2 #6 x 10'-10"

BAR LIST					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
① BH1	9	#9	BNT.	EQUAL	56'-9"
① BH2	12	#5	STR.	AS SHOWN	58'-6"
① BH3	9	#10	STR.	EQUAL	59'-6"
① BH4	6	#4	BNT.	AS SHOWN	6'-0"
① BV1	3	#4	BNT.	AS SHOWN	6'-6"
① C1	45	#10	STR.	EQUAL	20'-6"
① D2	10	#5	STR.	EQUAL	5'-0"
* H1	3	W-20	BNT.	6" PITCH	376'-1"
① S1	102	#5	BNT.	AS SHOWN	15'-3"
① S2	6	#6	BNT.	4" C/C	10'-10"
① P1	48	#4	BNT.	EQUAL	8'-2"
THREE DRILLED SHAFTS					
▲ C2	69	#10	STR.	EQUAL	30'-6"
① ▲ D1	45	#10	STR.	EQUAL	14'-10"
▲ T1	18	#4	BNT.	12" C/C	14'-0"
* ▲ H2	3	W-20	BNT.	6" PITCH	808'-6"

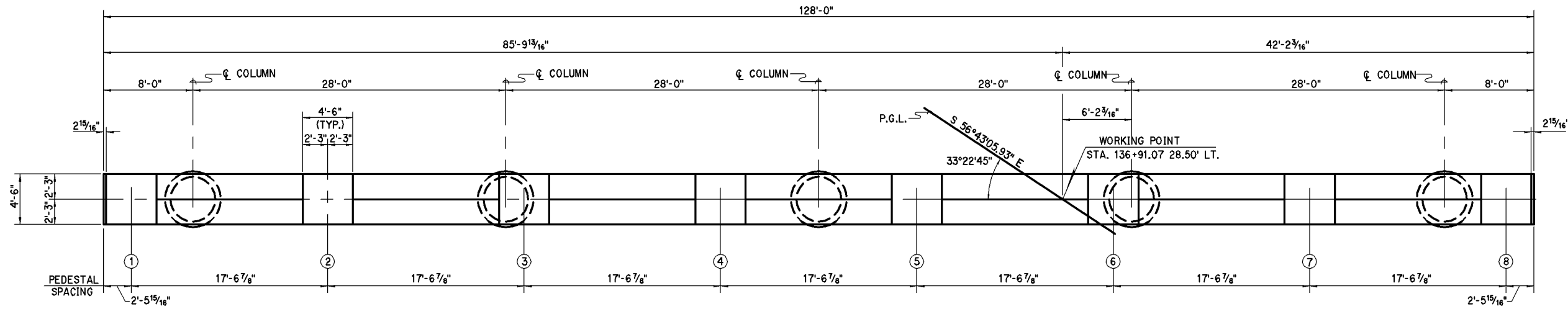
① EPOXY COATED

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

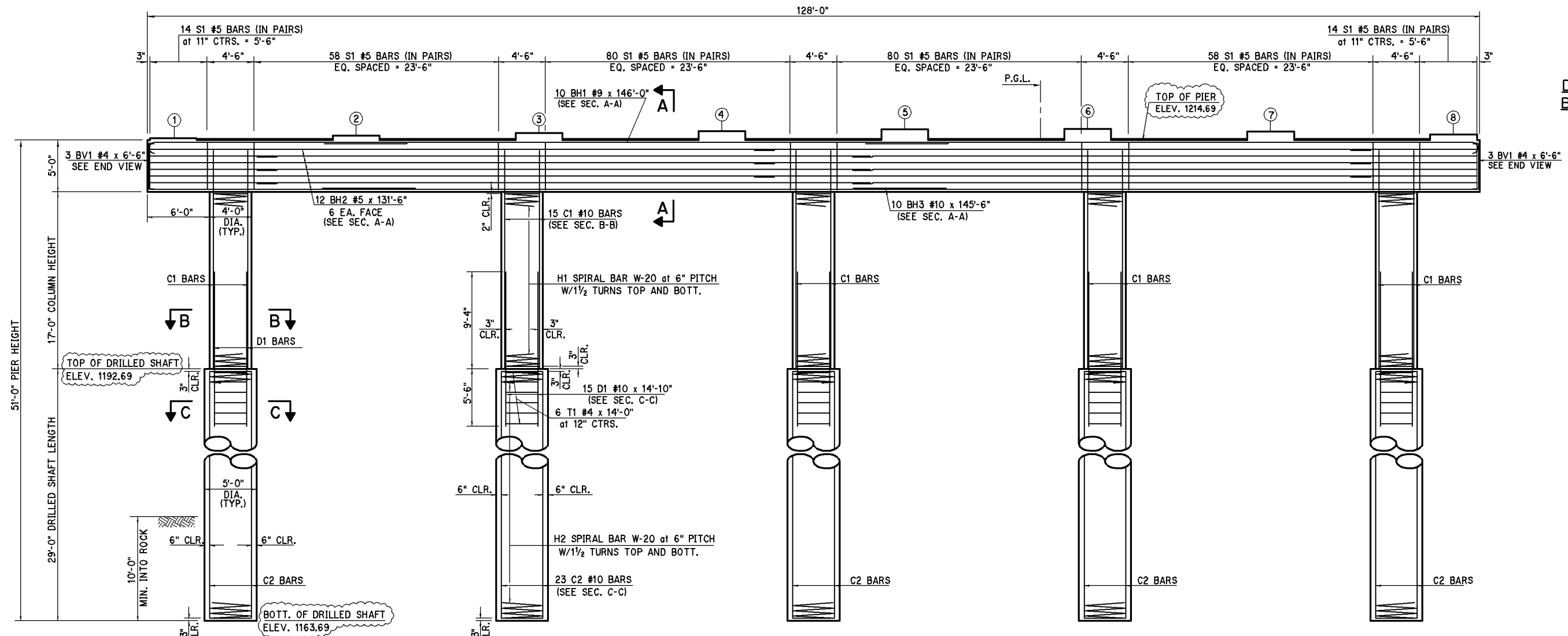
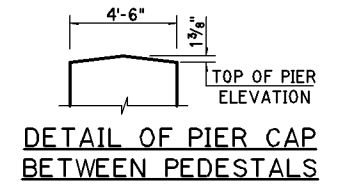
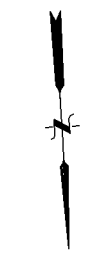
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "D" OKLAHOMA COUNTY E.B. I-40 OVER S.E. 15TH ST PIER 3 DETAILS PHASE I (SHEET 3 OF 3) State Job No. 23310(04) Sheet No. B118
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



PLAN

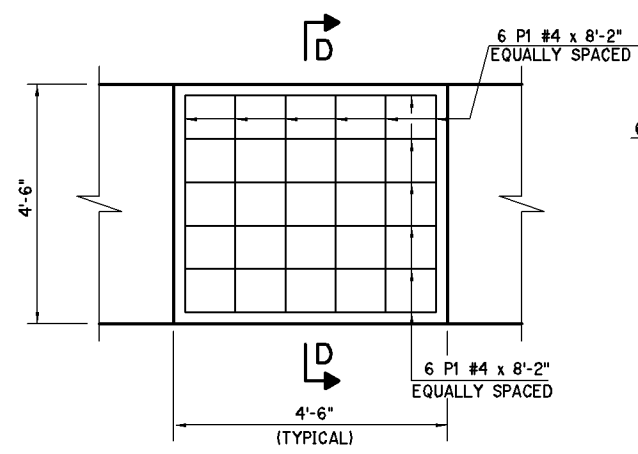


ELEVATION

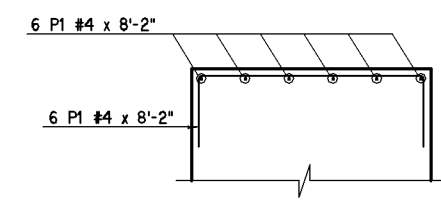
PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	①	②	③	④	⑤	⑥	⑦	⑧
ELEVATION	1214.86	1215.11	1215.33	1215.53	1215.70	1215.76	1215.50	1215.22
PED. HEIGHT	2"	5"	7 11/16"	10 1/8"	1'-0 1/8"	1'-0 15/16"	9 3/4"	6 5/16"

FOR SECTION A-A, B-B, C-C, AND END VIEW. SEE SHEET B120.

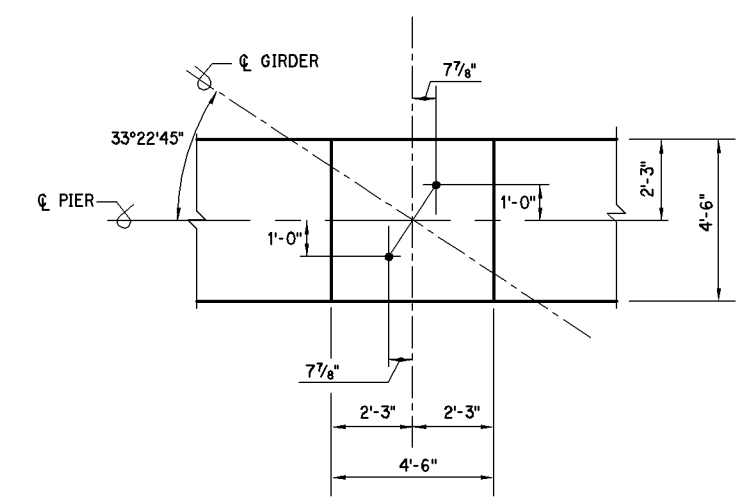
Design		BRIDGE "C" PIER 1 DETAILS PHASE II (SHEET 1 OF 3) State Job No. 23310(04) Sheet No. B119
Drawn		
Checked		
Approved		
Squad	POE	



PEDESTAL REINFORCING DETAIL

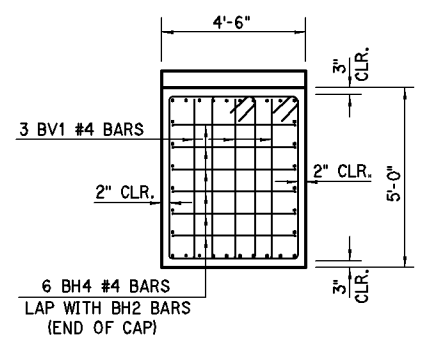


SECTION D-D

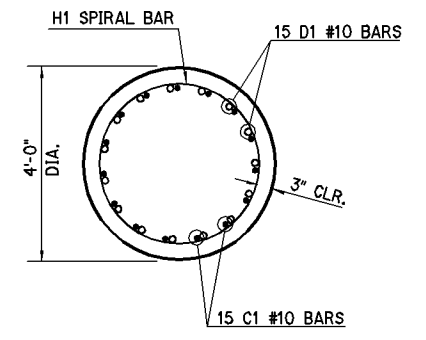


ANCHOR BOLT LAYOUT

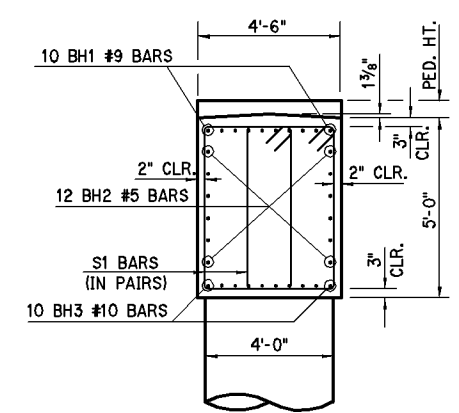
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B163.



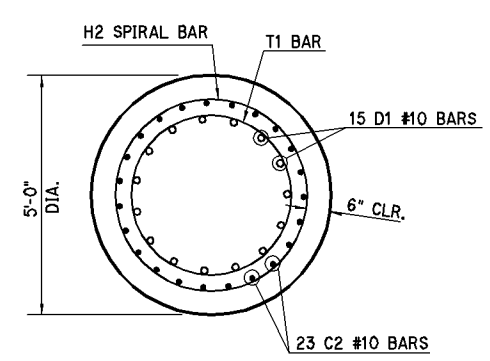
**PIER CAP
END VIEW
(EACH END)**



SECTION B-B



SECTION A-A



SECTION C-C

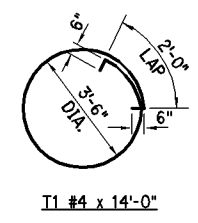
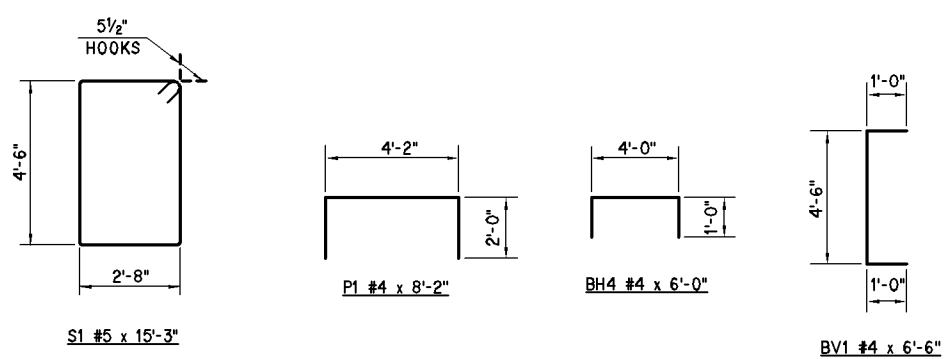
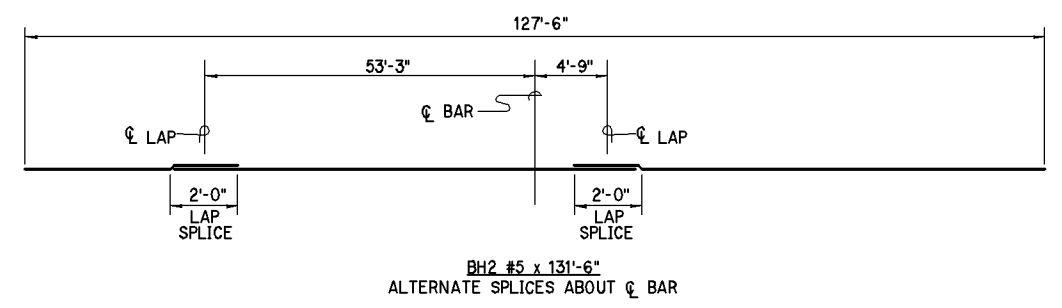
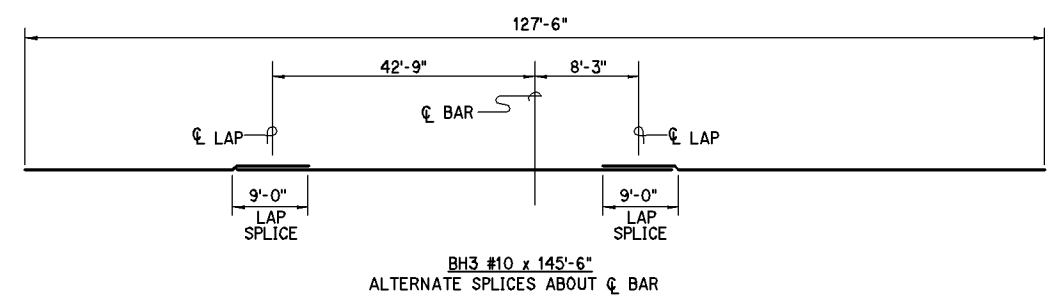
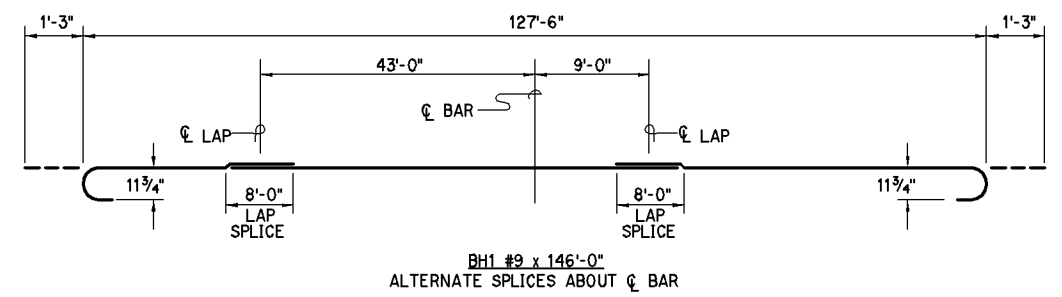
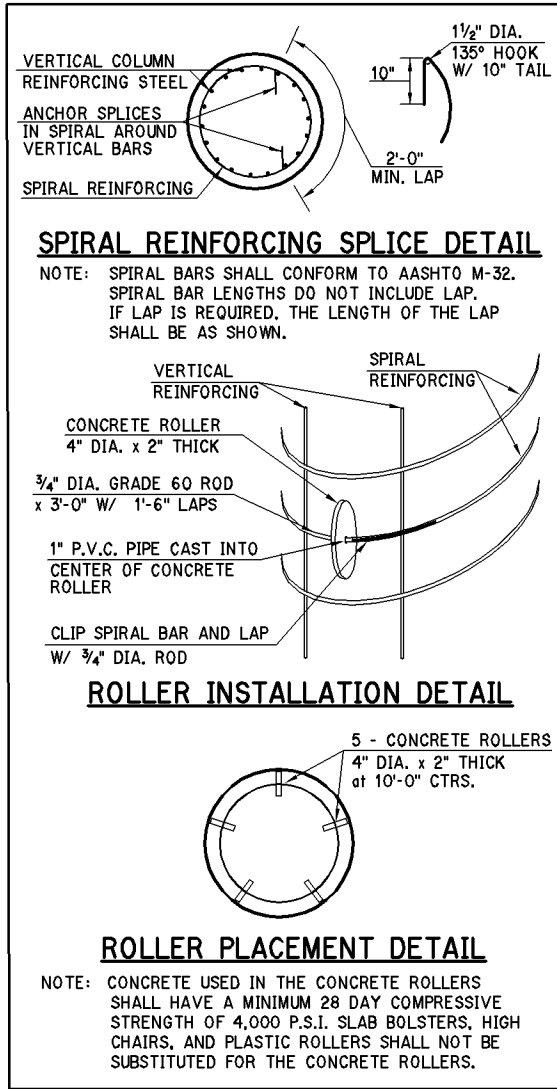
QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	151.4
REINFORCING STEEL	LB.	1,360
EPOXY COATED REINF. STEEL	LB.	25,250
DRILLED SHAFTS 60" DIAMETER	L.F.	145
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	229

TOP AND SIDES OF PIER CAP AND PEDESTALS,
BOTTOM AND END OF EXTERIOR CANTILEVER.

Design		BRIDGE "C" OKLAHOMA COUNTY W.B. I-40 OVER S.E. 15TH ST
Drawn		
Checked		
Approved		
Squad	POE	

**PIER 1 DETAILS
PHASE II
(SHEET 2 OF 3)**

State Job No. 23310(04) Sheet No. B120



ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

BAR LIST					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
② ①	BH1	10 #9	BNT.	EQUAL	146'-0"
② ①	BH2	12 #5	STR.	AS SHOWN	131'-6"
② ①	BH3	10 #10	STR.	AS SHOWN	145'-6"
①	BH4	12 #4	BNT.	AS SHOWN	6'-0"
①	BV1	6 #4	BNT.	AS SHOWN	6'-6"
①	C1	75 #10	STR.	EQUAL	21'-6"
*	H1	5 W-20	BNT.	6" PITCH	398'-1"
①	S1	304 #5	BNT.	AS SHOWN	15'-3"
①	P1	96 #4	BNT.	EQUAL	8'-2"
FIVE DRILLED SHAFTS					
▲	C2	115 #10	STR.	EQUAL	28'-6"
① ▲	D1	75 #10	STR.	EQUAL	14'-10"
▲	T1	30 #4	BNT.	12" C/C	14'-0"
* ▲	H2	5 W-20	BNT.	6" PITCH	758'-3"

① EPOXY COATED

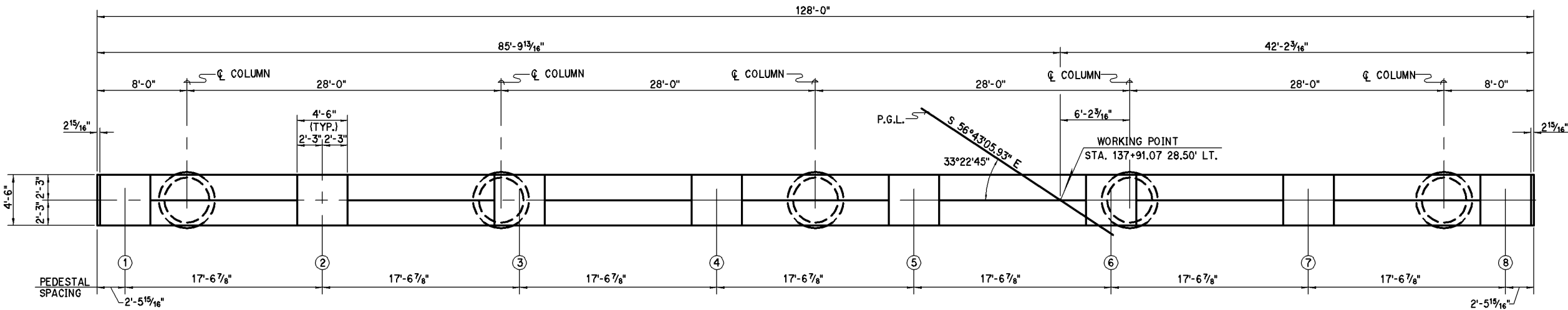
② LENGTH INCLUDES LAP:
BH1 - 2 at 8'-0"
BH2 - 2 at 2'-0"
BH3 - 2 at 9'-0"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

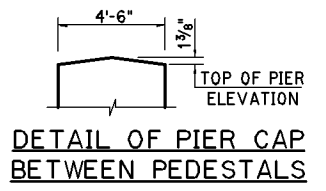
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER S.E. 15TH ST
Checked			PIER 1 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 3 OF 3)
			State Job No. 23310(04) Sheet No. B121

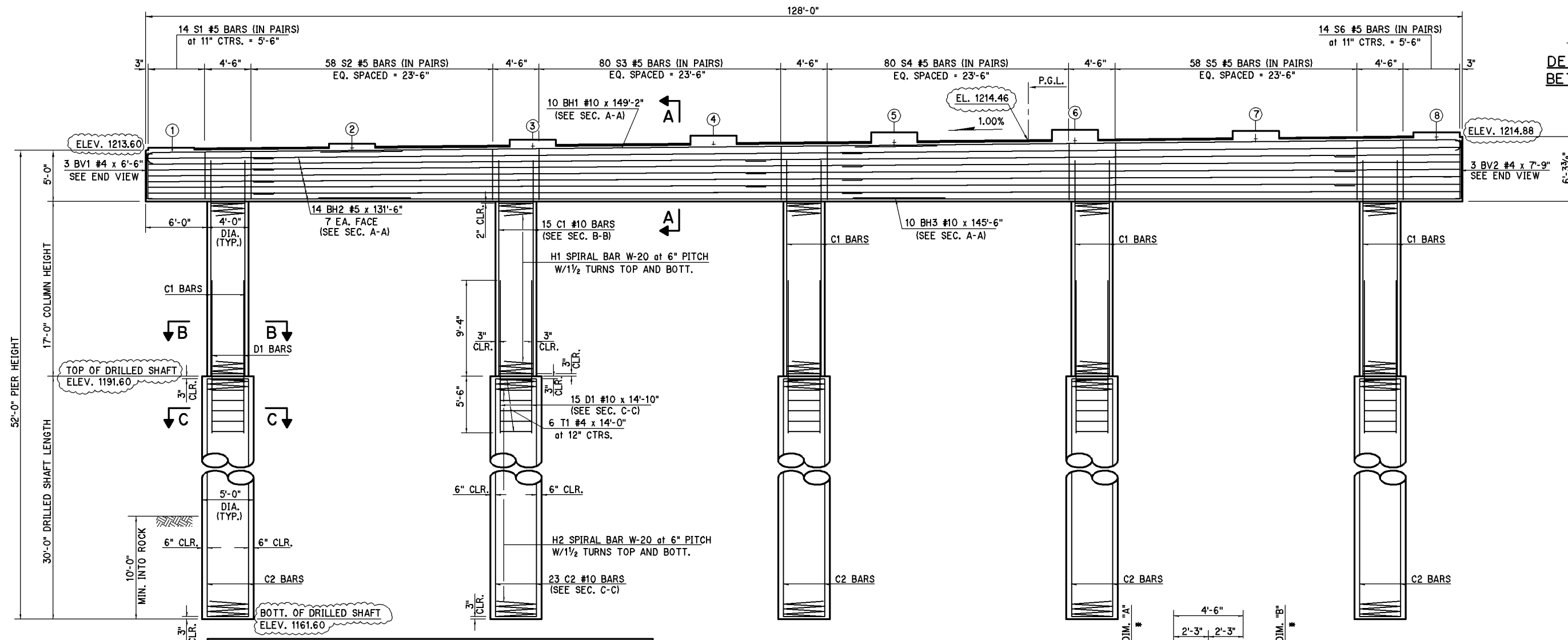
DESCRIPTION	REVISIONS	DATE



PLAN

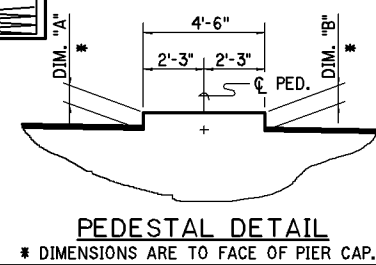


DETAIL OF PIER CAP BETWEEN PEDESTALS



ELEVATION

FOR SECTION A-A, B-B, C-C, AND END VIEW. SEE SHEET B123.



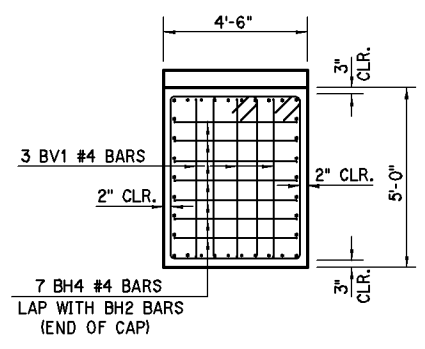
PEDESTAL DETAIL
* DIMENSIONS ARE TO FACE OF PIER CAP.

PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	①	②	③	④	⑤	⑥	⑦	⑧
ELEVATION	1213.81	1214.23	1214.62	1214.99	1215.33	1215.55	1215.46	1215.34
DIM. "A"*	2 7/16"	5 7/16"	8 1/16"	10 3/8"	1'-0 3/8"	1'-0 15/16"	9 1/16"	6 3/16"
DIM. "B"*	2"	4 15/16"	7 1/2"	9 15/16"	11 7/8"	1'-0 3/8"	9 3/16"	5 1/16"

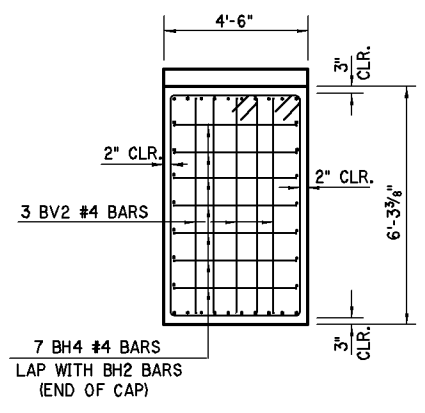
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "C"
W.B. I-40 OVER S.E. 15TH ST
PIER 2 DETAILS
PHASE II
(SHEET 1 OF 3)
State Job No. 23310(04) Sheet No. B122

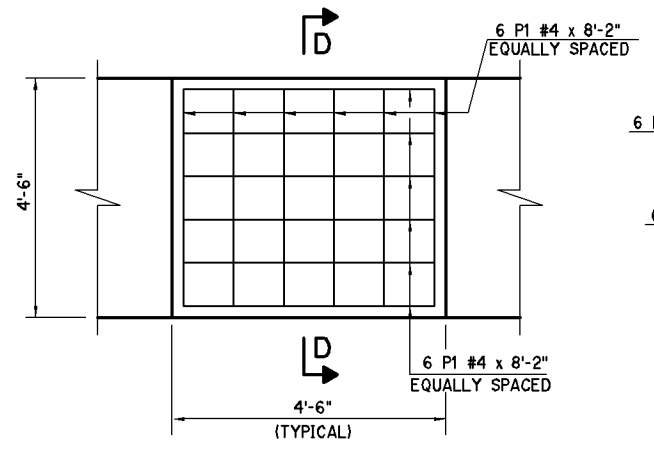
DESCRIPTION	REVISIONS	DATE



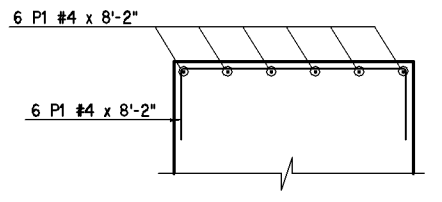
PIER CAP EAST END VIEW



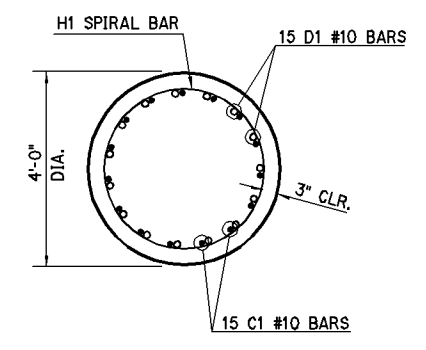
PIER CAP WEST END VIEW



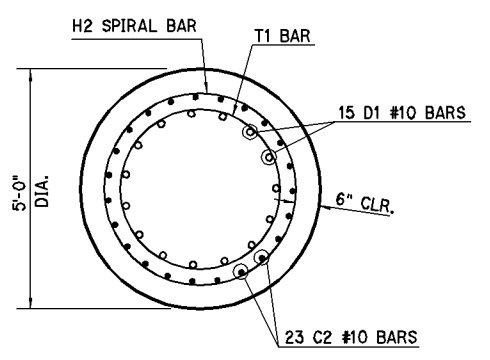
PEDESTAL REINFORCING DETAIL



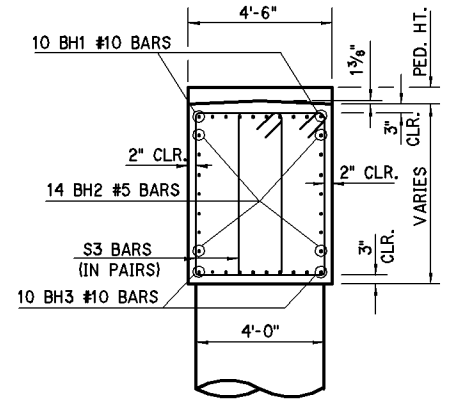
SECTION D-D



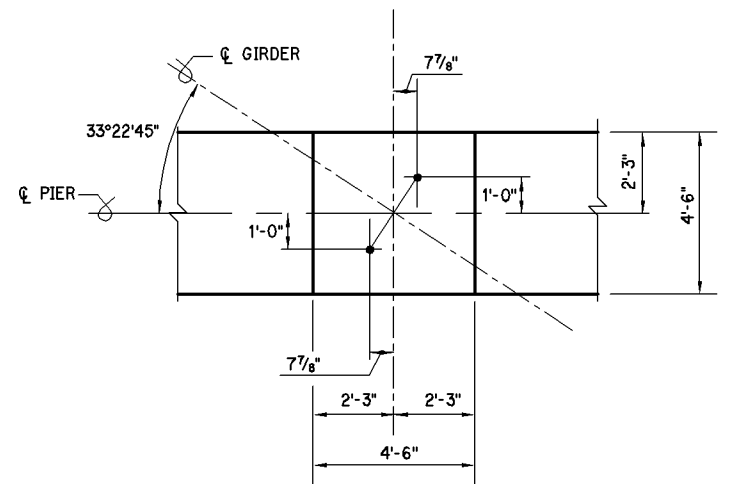
SECTION B-B



SECTION C-C



SECTION A-A



ANCHOR BOLT LAYOUT

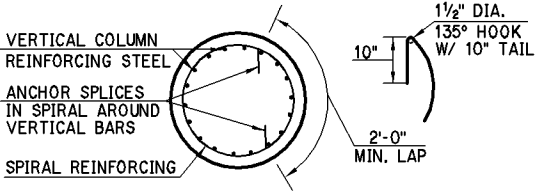
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B163.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	164.9
REINFORCING STEEL	LB.	1,360
EPOXY COATED REINF. STEEL	LB.	27,980
DRILLED SHAFTS 60" DIAMETER	L.F.	150
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	247

TOP AND SIDES OF PIER CAP AND PEDESTALS, BOTTOM AND END OF EXTERIOR CANTILEVER.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "C" W.B. I-40 OVER S.E. 15TH ST
PIER 2 DETAILS PHASE II
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B123



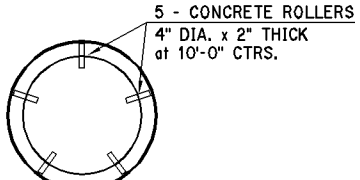
SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

VERTICAL REINFORCING STEEL
ANCHOR SPLICES IN SPIRAL AROUND VERTICAL BARS
SPIRAL REINFORCING
1 1/2" DIA. 135° HOOK W/ 10" TAIL
10"
2'-0" MIN. LAP

ROLLER INSTALLATION DETAIL

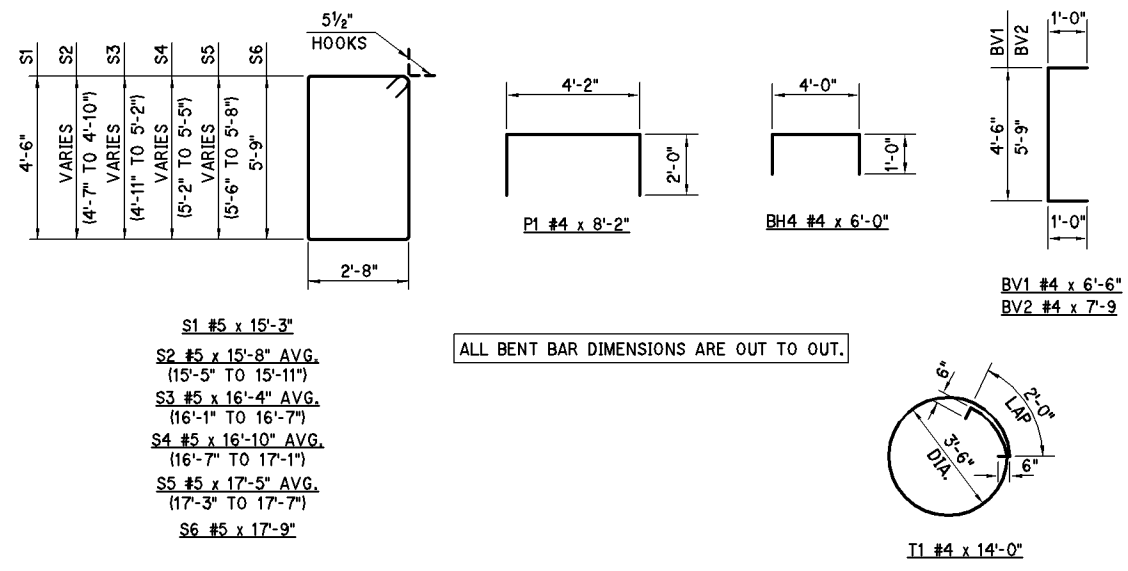
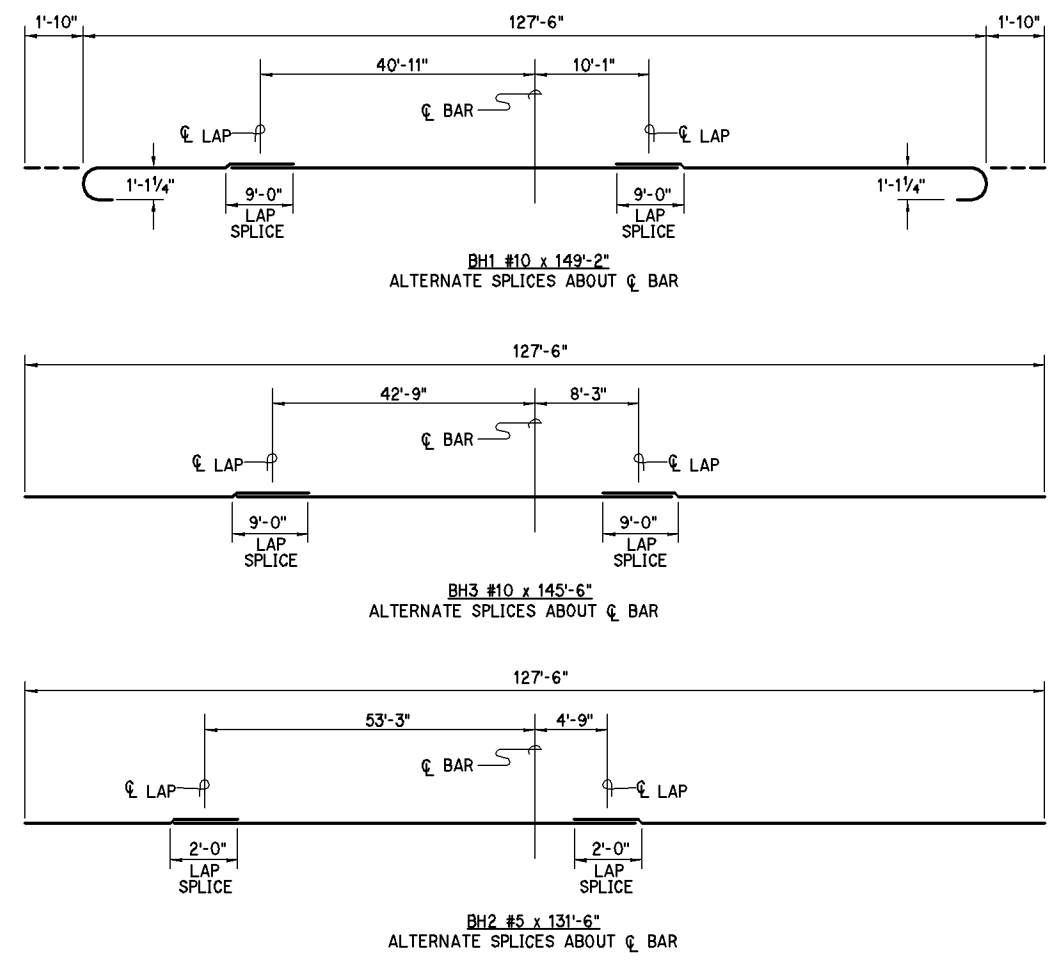
VERTICAL REINFORCING
SPIRAL REINFORCING
CONCRETE ROLLER 4" DIA. x 2" THICK
3/4" DIA. GRADE 60 ROD x 3'-0" W/ 1'-6" LAPS
1" P.V.C. PIPE CAST INTO CENTER OF CONCRETE ROLLER
CLIP SPIRAL BAR AND LAP W/ 3/4" DIA. ROD



ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

5 - CONCRETE ROLLERS
4" DIA. x 2" THICK
at 10'-0" CTRS.



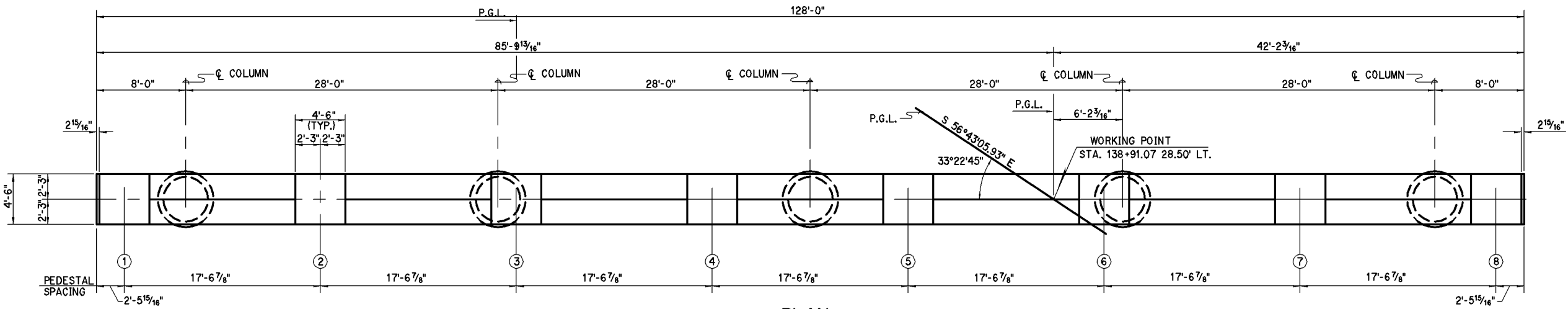
- S1 #5 x 15'-3"
- S2 #5 x 15'-8" AVG.
(15'-5" TO 15'-11")
- S3 #5 x 16'-4" AVG.
(16'-1" TO 16'-7")
- S4 #5 x 16'-10" AVG.
(16'-7" TO 17'-1")
- S5 #5 x 17'-5" AVG.
(17'-3" TO 17'-7")
- S6 #5 x 17'-9"

BAR LIST

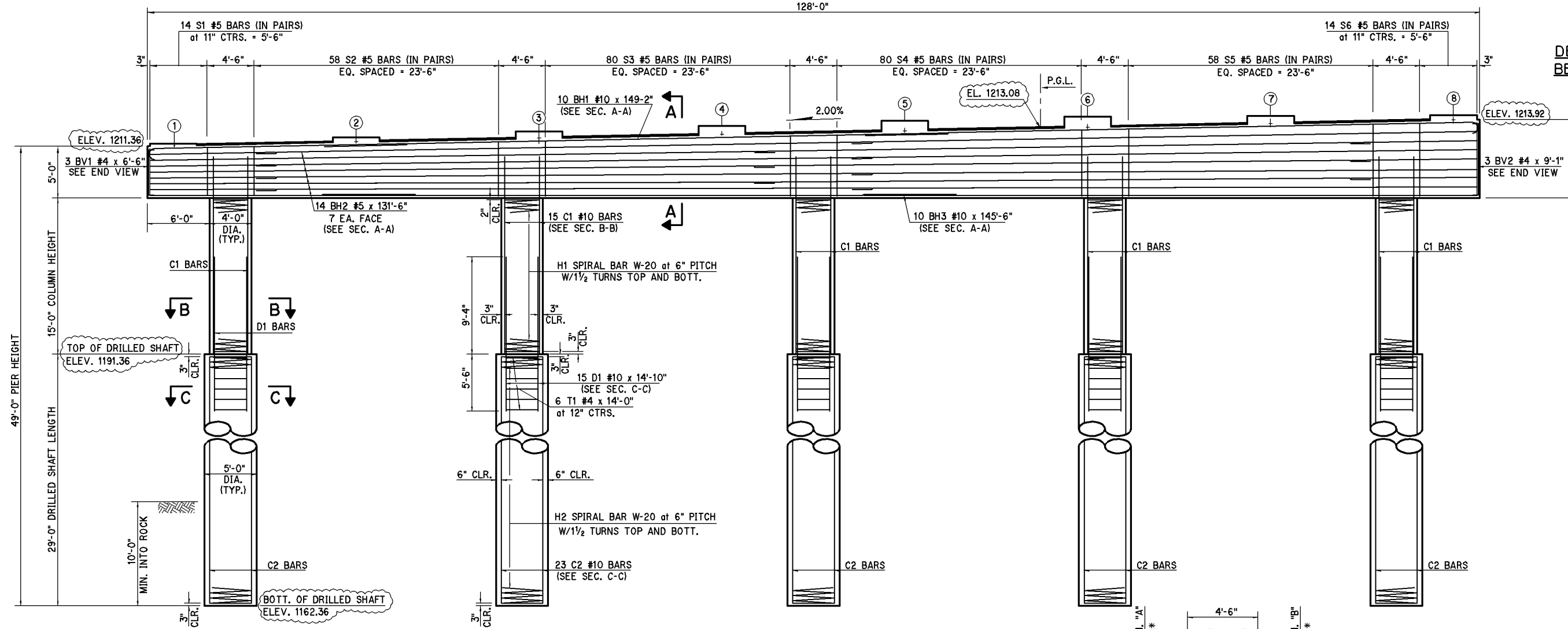
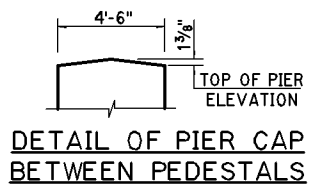
MARK	NO.	SIZE	FORM	SPACING	LENGTH
②①	BH1	10 #10	BNT.	EQUAL	149'-2"
②①	BH2	14 #5	STR.	AS SHOWN	131'-6"
②①	BH3	10 #10	STR.	AS SHOWN	145'-6"
①	BH4	14 #4	BNT.	AS SHOWN	6'-0"
①	BV1	3 #4	BNT.	AS SHOWN	6'-6"
①	BV2	3 #4	BNT.	AS SHOWN	7'-9"
①	C1	75 #10	STR.	EQUAL	21'-6"
*	H1	5 W-20	BNT.	6" PITCH	398'-1"
①	S1	14 #5	BNT.	11" C/C	15'-3"
③①	S2	58 #5	BNT.	EQUAL	15'-8" AVG.
③①	S3	80 #5	BNT.	EQUAL	16'-4" AVG.
③①	S4	80 #5	BNT.	EQUAL	16'-10" AVG.
③①	S5	58 #5	BNT.	EQUAL	17'-5" AVG.
①	S6	14 #5	BNT.	11" C/C	17'-9"
①	P1	96 #4	BNT.	EQUAL	8'-2"

- ① EPOXY COATED
- ② LENGTH INCLUDES LAP:
BH1 - 2 at 9'-0"
BH2 - 2 at 2'-0"
BH3 - 2 at 9'-0"
- ③ LENGTH VARIES:
S2 - 15'-5" TO 15'-11"
S3 - 16'-1" TO 16'-7"
S4 - 16'-7" TO 17'-1"
S5 - 17'-3" TO 17'-7"
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.
- * THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

DESCRIPTION	REVISIONS	DATE



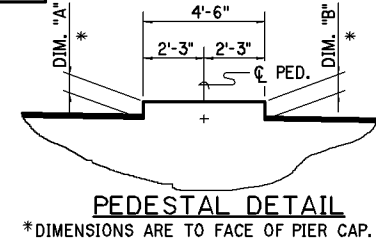
PLAN



ELEVATION

FOR SECTION A-A, B-B, C-C, AND END VIEW. SEE SHEET B126.

PEDESTAL ELEVATION SCHEDULE								
PEDESTAL	①	②	③	④	⑤	⑥	⑦	⑧
ELEVATION	1211.62	1212.21	1212.77	1213.31	1213.82	1214.20	1214.28	1214.33
DIM. "A"*	3 1/16"	5 7/8"	8 7/16"	10 9/16"	1'-0 9/16"	1'-1"	9 1/16"	6 1/16"
DIM. "B"*	2"	4 13/16"	7 5/16"	9 9/16"	11 1/2"	11 15/16"	8 9/8"	5"



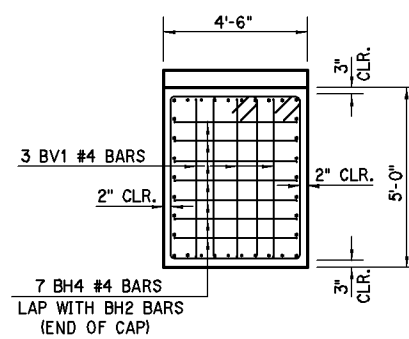
PEDESTAL DETAIL

*DIMENSIONS ARE TO FACE OF PIER CAP.

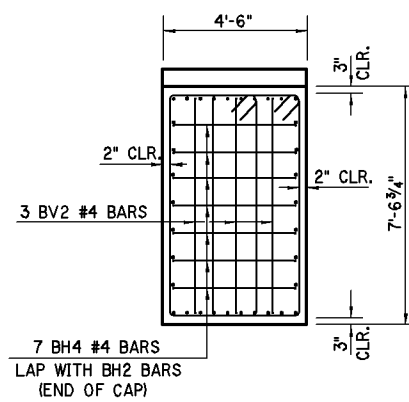
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 BRIDGE "C"
 W.B. I-40 OVER S.E. 15TH ST
PIER 3 DETAILS
PHASE II
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B125

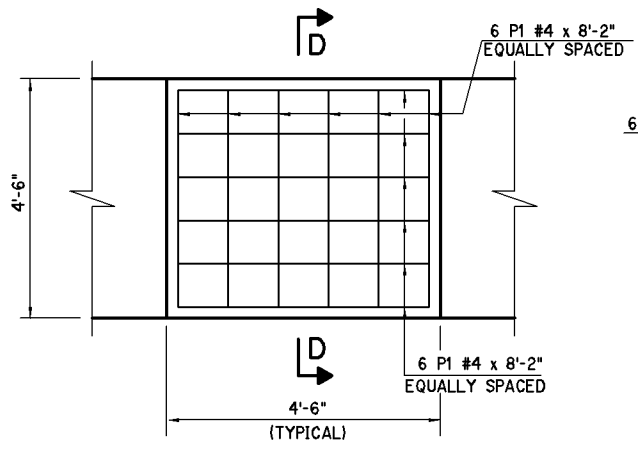
DESCRIPTION	REVISIONS	DATE



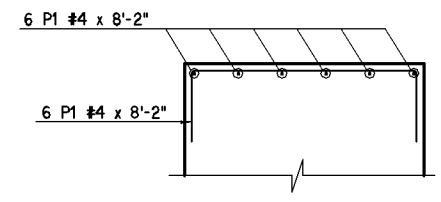
**PIER CAP
EAST END VIEW**



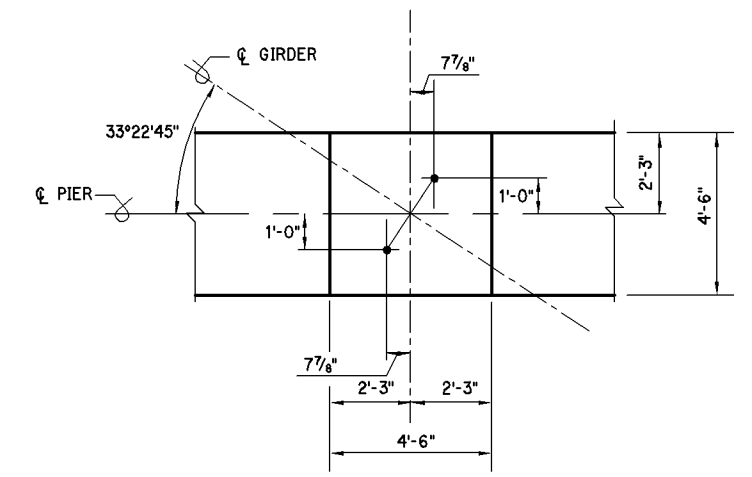
**PIER CAP
WEST END VIEW**



PEDESTAL REINFORCING DETAIL

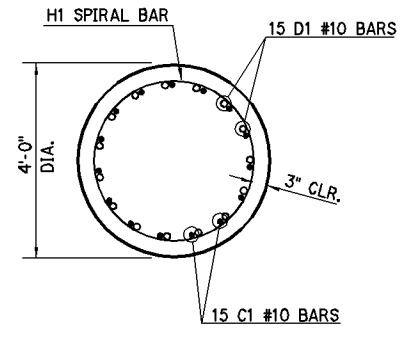


SECTION D-D

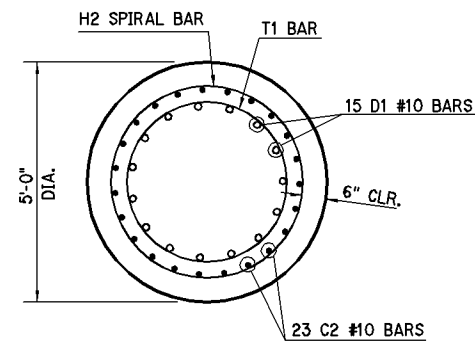


ANCHOR BOLT LAYOUT

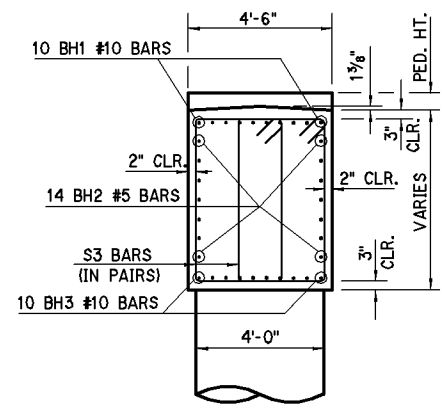
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B163.



SECTION B-B



SECTION C-C



SECTION A-A

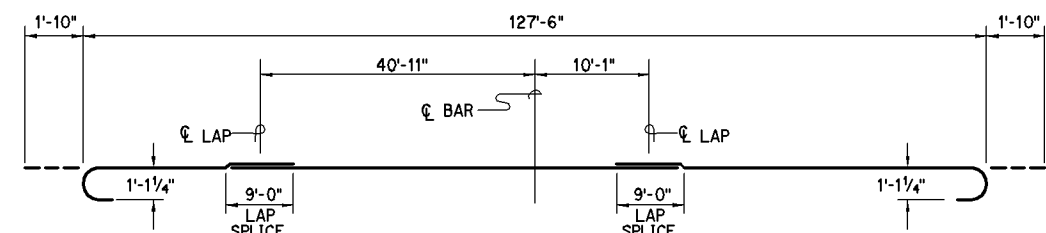
QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	173.9
REINFORCING STEEL	LB.	1,360
EPOXY COATED REINF. STEEL	LB.	27,810
DRILLED SHAFTS 60" DIAMETER	L.F.	145
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	266

TOP AND SIDES OF PIER CAP AND PEDESTALS, BOTTOM AND END OF EXTERIOR CANTILEVER.

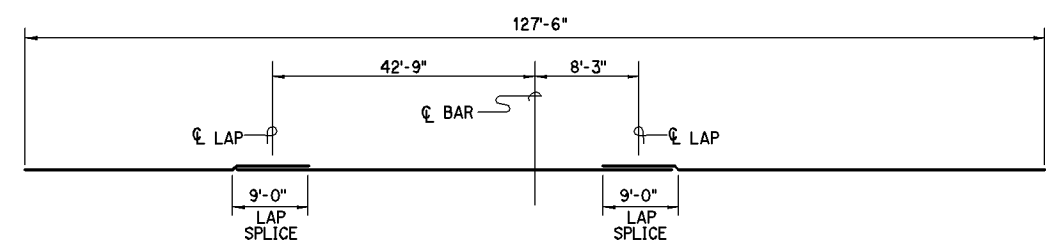
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "C" W.B. I-40 OVER S.E. 15TH ST
**PIER 3 DETAILS
PHASE II**
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B126

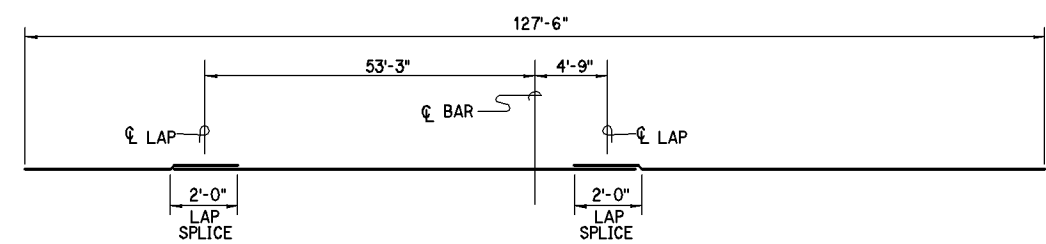
DESCRIPTION	REVISIONS	DATE



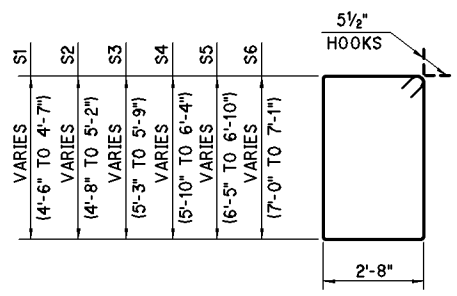
BH1 #10 x 149'-2"
ALTERNATE SPLICES ABOUT \bar{C} BAR



BH3 #10 x 145'-6"
ALTERNATE SPLICES ABOUT \bar{C} BAR

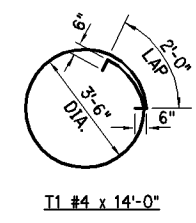


BH2 #5 x 131'-6"
ALTERNATE SPLICES ABOUT \bar{C} BAR

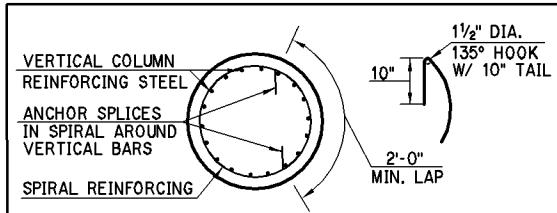


- S1 #5 x 15'-4" AVG. (15'-3" TO 15'-5")
- S2 #5 x 16'-1" AVG. (15'-7" TO 16'-7")
- S3 #5 x 17'-3" AVG. (16'-9" TO 17'-9")
- S4 #5 x 18'-5" AVG. (17'-11" TO 18'-11")
- S5 #5 x 19'-6" AVG. (19'-1" TO 19'-11")
- S6 #5 x 20'-4" AVG. (20'-3" TO 20'-5")

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

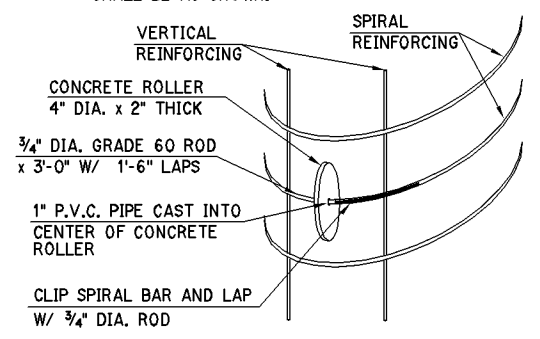


T1 #4 x 14'-0"

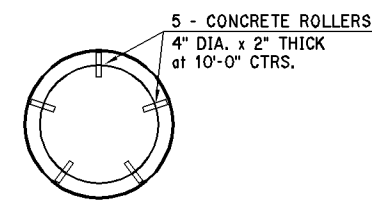


SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

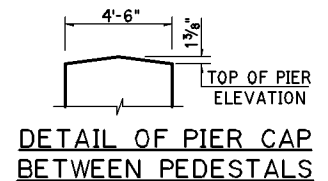
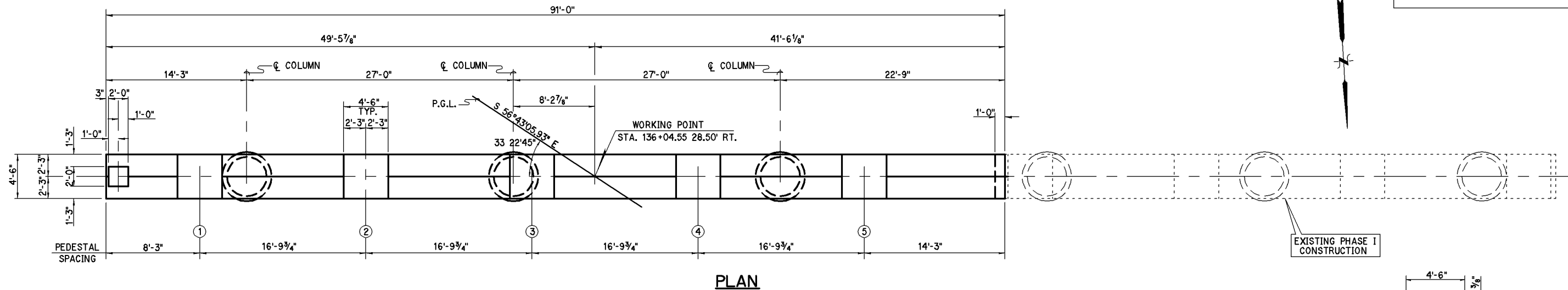
BAR LIST					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
② ①	BH1	10	#10	BNT. EQUAL	149'-2"
② ①	BH2	14	#5	STR. AS SHOWN	131'-6"
② ①	BH3	10	#10	STR. AS SHOWN	145'-6"
①	BH4	14	#4	BNT. AS SHOWN	6'-0"
①	BV1	3	#4	BNT. AS SHOWN	6'-6"
①	BV2	3	#4	BNT. AS SHOWN	9'-1"
①	C1	75	#10	STR. EQUAL	19'-6"
*	H1	5	W-20	BNT. 6" PITCH	354'-0"
③ ①	S1	14	#5	BNT. 11" C/C	15'-4" AVG.
③ ①	S2	58	#5	BNT. EQUAL	16'-1" AVG.
③ ①	S3	80	#5	BNT. EQUAL	17'-3" AVG.
③ ①	S4	80	#5	BNT. EQUAL	18'-5" AVG.
③ ①	S5	58	#5	BNT. EQUAL	19'-6" AVG.
③ ①	S6	14	#5	BNT. 11" C/C	20'-4" AVG.
①	P1	96	#4	BNT. EQUAL	8'-2"

FIVE DRILLED SHAFTS					
▲	C2	115	#10	STR. EQUAL	28'-6"
① ▲	D1	75	#10	STR. EQUAL	14'-10"
▲	T1	30	#4	BNT. 12" C/C	14'-0"
* ▲	H2	5	W-20	BNT. 6" PITCH	758'-3"

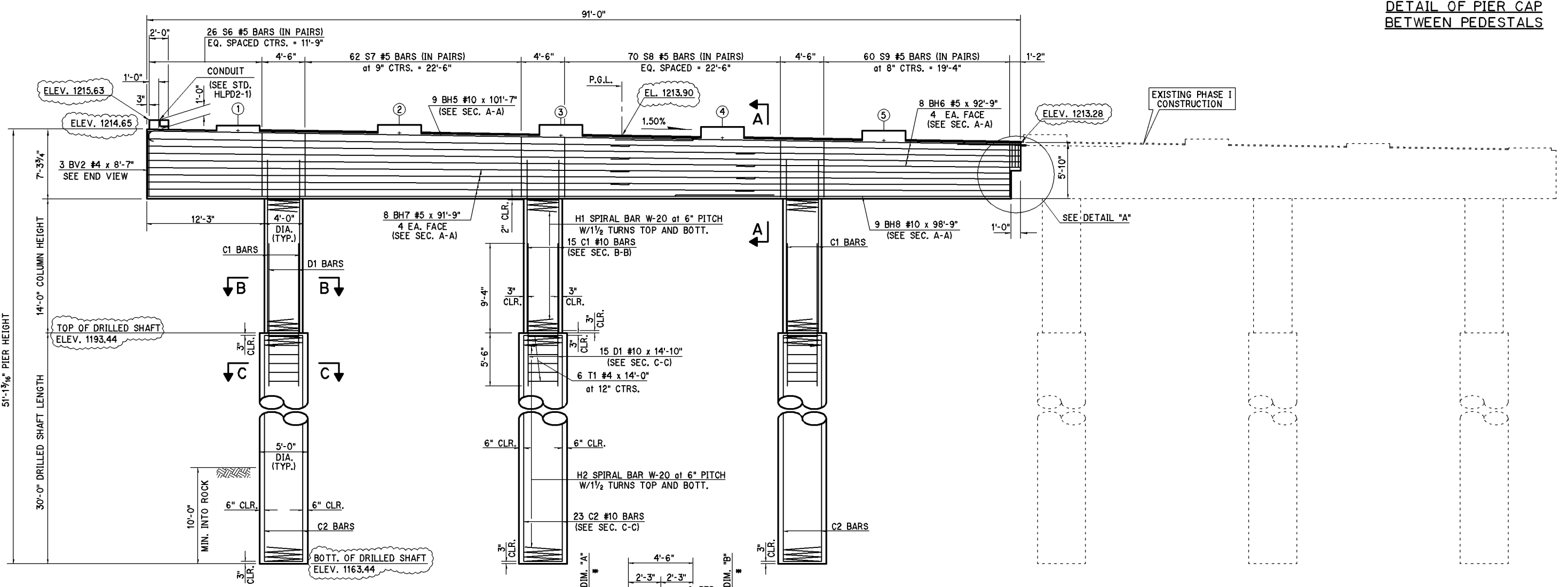
- ① EPOXY COATED
- ② LENGTH INCLUDES LAP:
BH1 - 2 at 9'-0"
BH2 - 2 at 2'-0"
BH3 - 2 at 9'-0"
- ③ LENGTH VARIES:
S1 - 15'-3" TO 15'-5"
S2 - 15'-7" TO 16'-7"
S3 - 16'-9" TO 17'-9"
S4 - 17'-11" TO 18'-11"
S5 - 19'-1" TO 19'-11"
S6 - 20'-3" TO 20'-5"
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.
- * THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER S.E. 15TH ST
Checked			PIER 3 DETAILS
Approved			PHASE II
Squad	POE		(SHEET 3 OF 3)
		State Job No. 23310(04)	Sheet No. B127

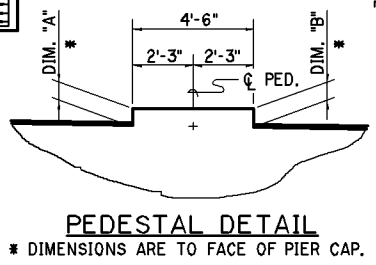
DESCRIPTION	REVISIONS	DATE



PLAN



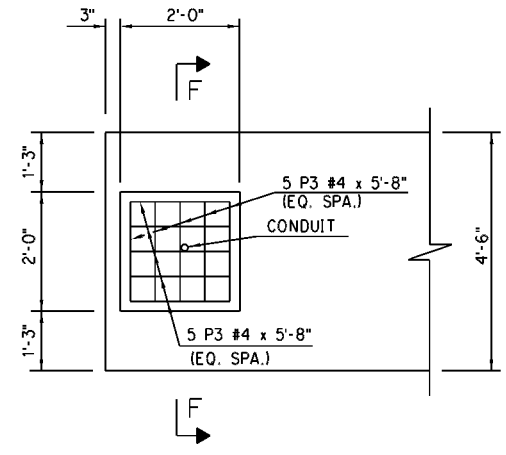
PEDESTAL ELEVATION SCHEDULE					
PEDESTAL	①	②	③	④	⑤
ELEVATION	1215.05	1215.10	1215.12	1214.88	1214.49
DIM. "A"*	6 1/4"	9 5/16"	1'-1 1/16"	1'-1 9/16"	11 9/16"
DIM. "B"*	7 1/16"	10 5/8"	1'-1 7/8"	1'-2 1/8"	1'-0 3/8"



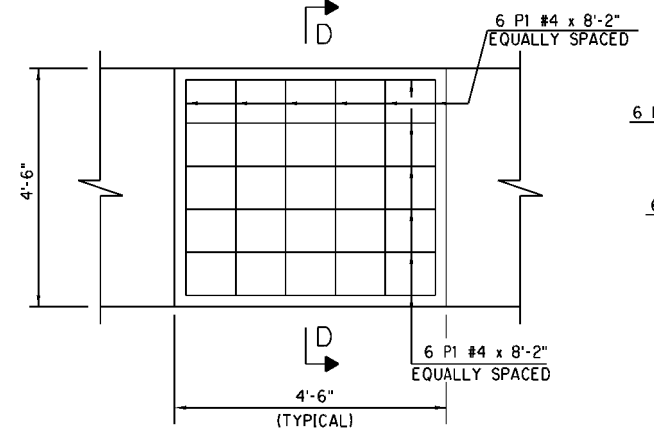
ELEVATION

FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A". SEE SHEET B129.

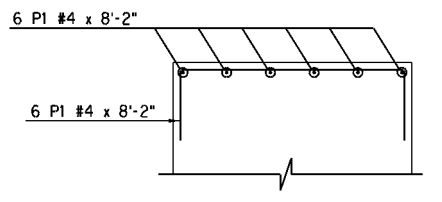
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15TH ST
Checked			PIER 1 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 1 OF 3)
		State Job No. 23310(04)	Sheet No. B128



LIGHT POLE PEDESTAL
(SEE STD. HLBPI-1 FOR ANCHOR BOLT DETAILS)

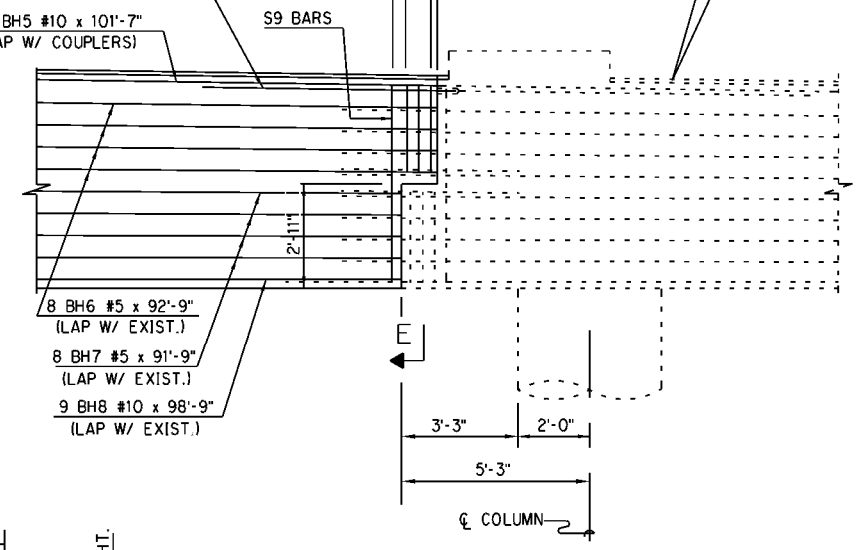


PEDESTAL REINFORCING DETAIL

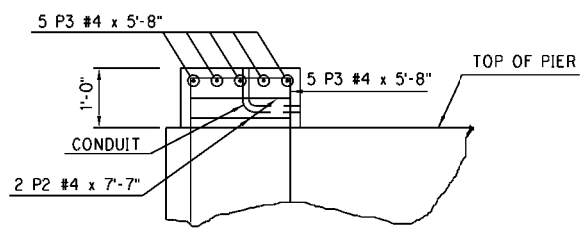


SECTION D-D

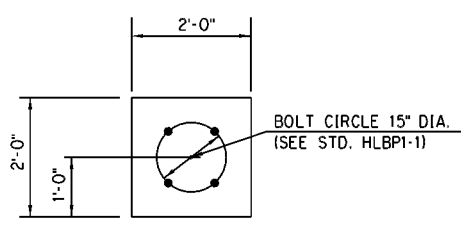
MECHANICAL SPLICES (EPOXY COATED)
(TYP. EACH BH5 BAR) ALL COST OF COUPLERS TO BE INCLUDED IN COST OF MECHANICAL SPLICES IN PHASE I CONSTR. (MIN. LAP = 13'-3")



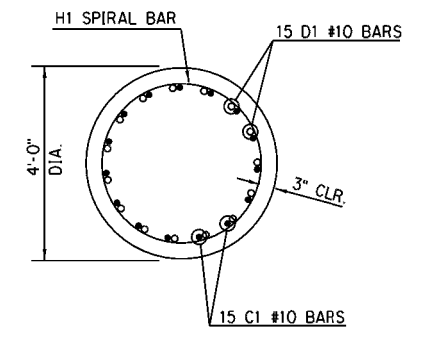
DETAIL "A"



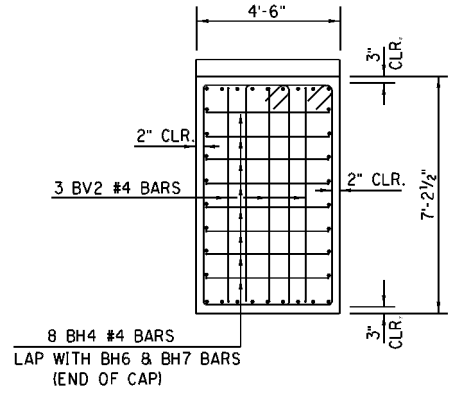
SECTION F-F
(ANCHOR BOLTS NOT SHOWN FOR CLARITY)



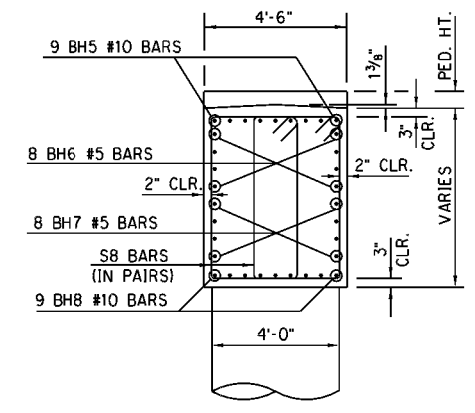
LIGHT POLE BOLT PATTERN



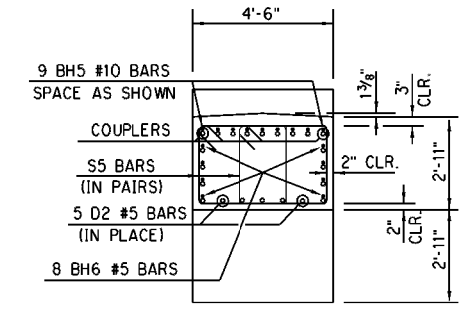
SECTION B-B



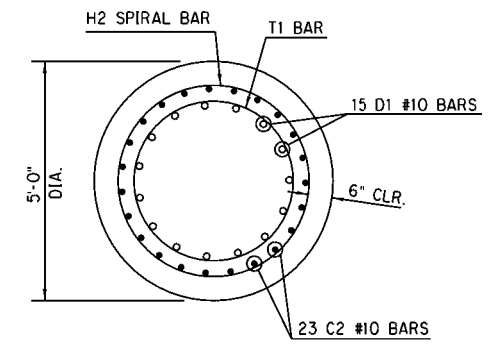
PIER CAP EAST END VIEW



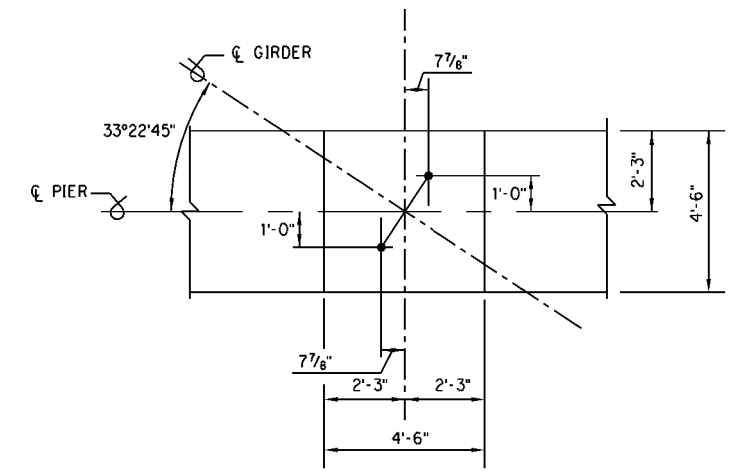
SECTION A-A



SECTION E-E



SECTION C-C

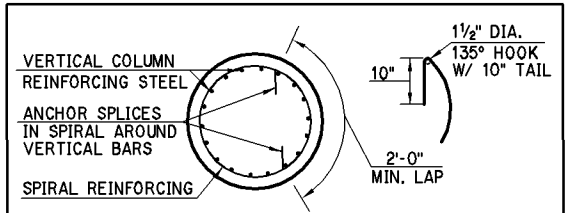


ANCHOR BOLT LAYOUT
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B162.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	123.0
REINFORCING STEEL	LB.	680
EPOXY COATED REINF. STEEL	LB.	18,240
DRILLED SHAFTS 60" DIAMETER	L.F.	90
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	200

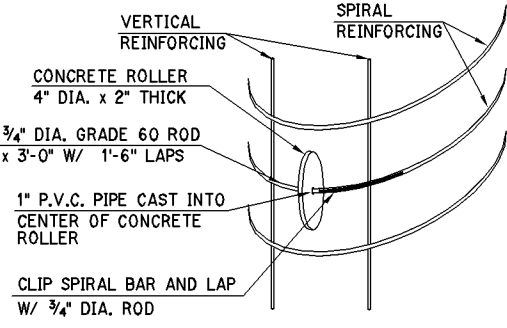
≠ TOP AND SIDES OF PIER CAP AND PEDESTALS.
BOTTOM AND END OF EXTERIOR CANTILEVER.

		OKLAHOMA COUNTY	
Design		BRIDGE "D"	E.B. I-40 OVER S.E. 15TH ST
Drawn		PIER 1 DETAILS PHASE III (SHEET 2 OF 3)	
Checked			
Approved			
Squad	POE	State Job No. 23310(04)	Sheet No. B129

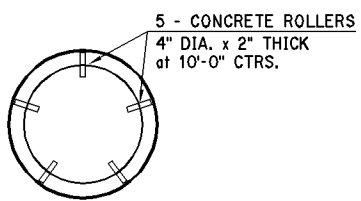


SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

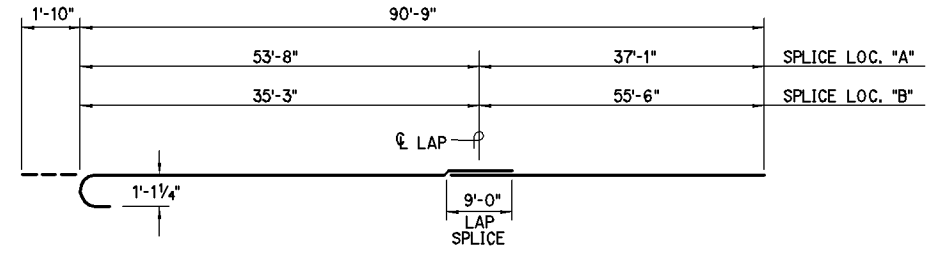


ROLLER INSTALLATION DETAIL

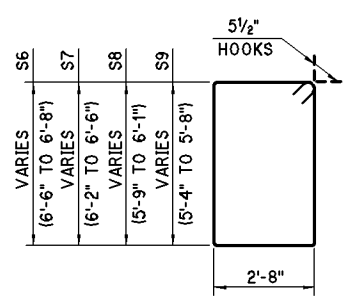


ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

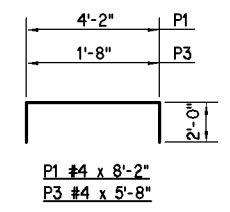


BH5 #10 x 101'-7"
ALTERNATE SPLICE LOCATIONS A AND B.

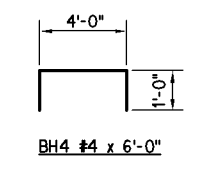


- S6 #5 x 19'-5" AVG. (19'-3" TO 19'-7")
- S7 #5 x 18'-11" AVG. (18'-7" TO 19'-3")
- S8 #5 x 18'-1" AVG. (17'-9" TO 18'-5")
- S9 #5 x 17'-3" AVG. (16'-11" TO 17'-7")

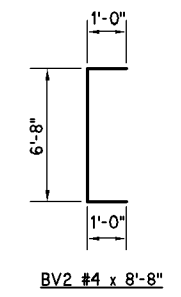
ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



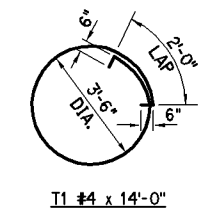
P1 #4 x 8'-2"
P3 #4 x 5'-8"



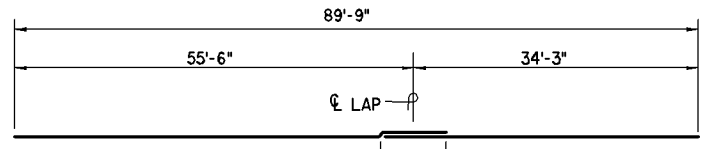
BH4 #4 x 6'-0"



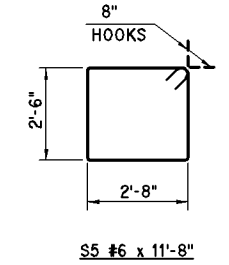
BV2 #4 x 8'-8"



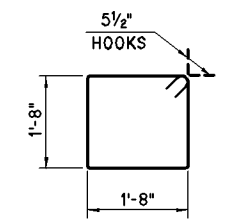
T1 #4 x 14'-0"



BH8 #10 x 98'-9"
ALTERNATE LAP SPLICE ABOUT C BAR.



S5 #6 x 11'-8"



P2 #4 x 7'-7"

BAR LIST

MARK	NO.	SIZE	FORM	SPACING	LENGTH
①	BH4	8 #4	BNT.	AS SHOWN	6'-0"
②	BH5	9 #10	BNT.	EQUAL	101'-7"
③	BH6	8 #5	STR.	AS SHOWN	92'-9"
④	BH7	8 #5	STR.	AS SHOWN	91'-9"
⑤	BH8	9 #10	STR.	EQUAL	98'-9"
①	BV2	3 #4	BNT.	AS SHOWN	8'-7"
①	C1	45 #10	STR.	EQUAL	18'-6"
*	H1	3 W-20	BNT.	6" PITCH	332'-0"
①	S5	6 #6	BNT.	4" C/C	11'-8"
③	S6	26 #5	BNT.	EQUAL	19'-5" AVG.
③	S7	62 #5	BNT.	9" C/C	18'-11" AVG.
③	S8	70 #5	BNT.	EQUAL	18'-1" AVG.
③	S9	60 #5	BNT.	8" C/C	17'-3" AVG.
①	P1	60 #4	BNT.	EQUAL	8'-2"
①	P2	2 #4	BNT.	EQUAL	7'-7"
①	P3	10 #4	BNT.	EQUAL	5'-8"
THREE DRILLED SHAFTS					
▲	C2	69 #10	STR.	EQUAL	29'-6"
①	D1	45 #10	STR.	EQUAL	14'-10"
▲	T1	18 #4	BNT.	12" C/C	14'-0"
*	H2	3 W-20	BNT.	6" PITCH	783'-4"

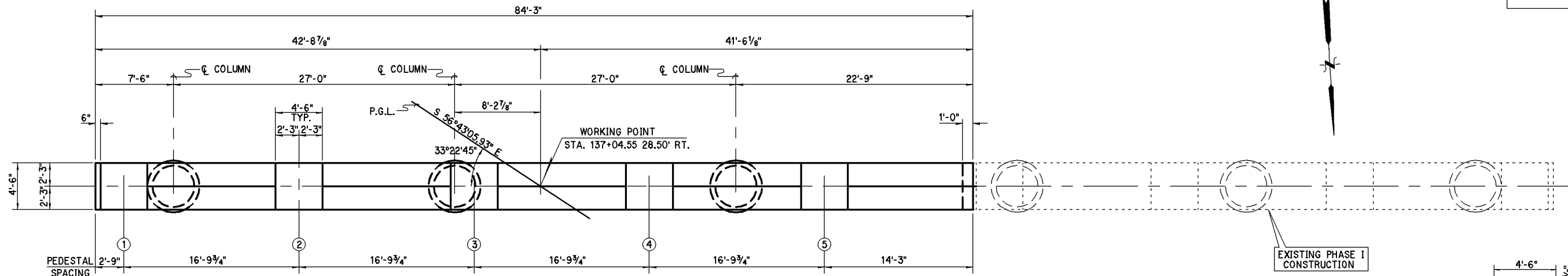
- ① EPOXY COATED
- ② LENGTH INCLUDES LAP:
BH5 - 1 at 9'-0"
** BH6 - 1 at 2'-0"
** BH7 - 1 at 2'-0"
BH8 - 1 at 9'-0"
** OFFSET LAP SPLICES
- ③ LENGTH VARIES:
S6 - 19'-3" TO 19'-7"
S7 - 18'-7" TO 19'-3"
S8 - 17'-9" TO 18'-5"
S9 - 16'-11" TO 17'-7"

▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

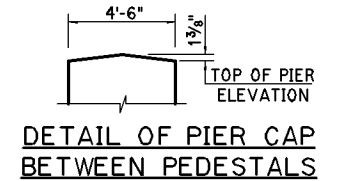
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		OKLAHOMA COUNTY BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST PIER 1 DETAILS PHASE III (SHEET 3 OF 3) State Job No. 23310(04) Sheet No. B130
Drawn		
Checked		
Approved		
Squad	POE	

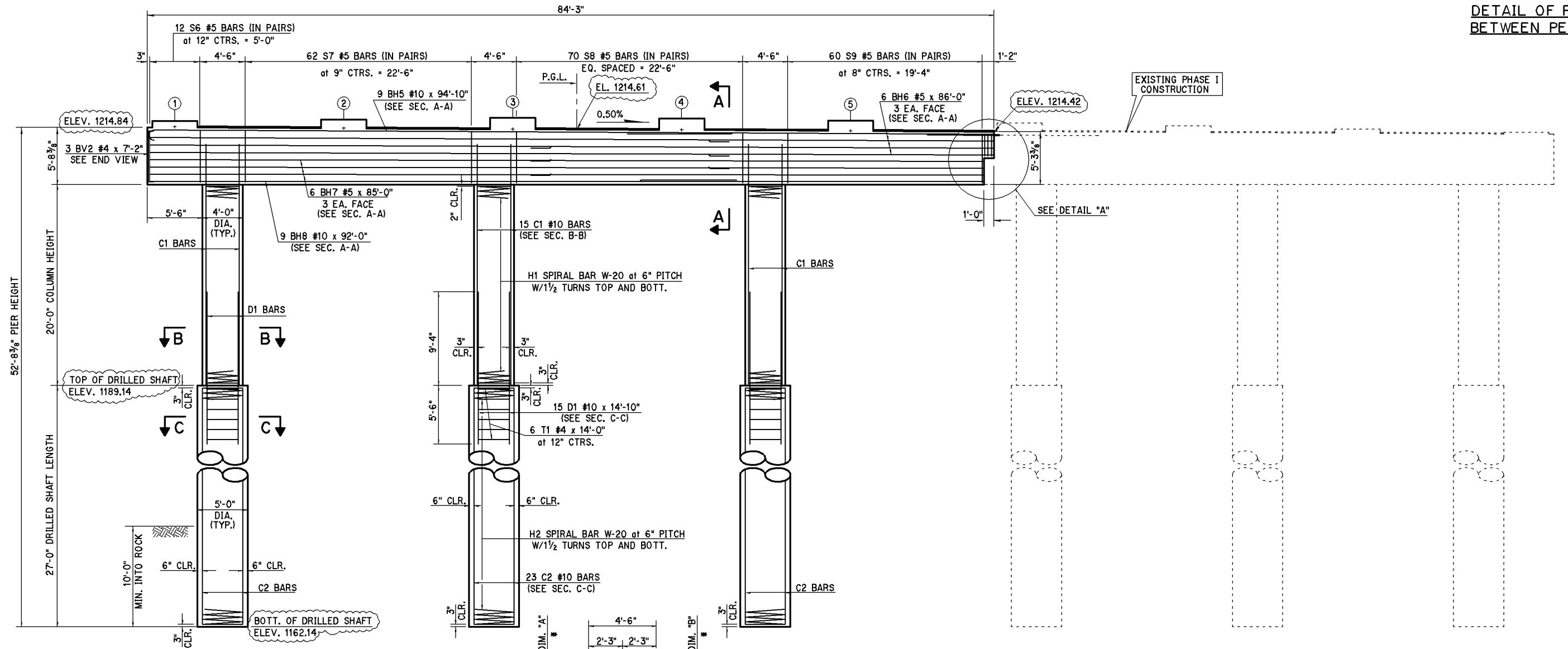
DESCRIPTION	REVISIONS	DATE



PLAN

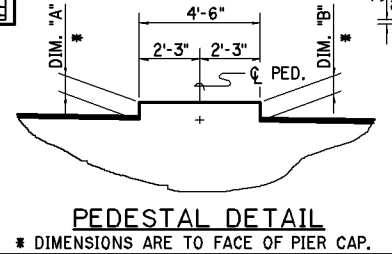


DETAIL OF PIER CAP BETWEEN PEDESTALS



ELEVATION

FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A", SEE SHEET B132.

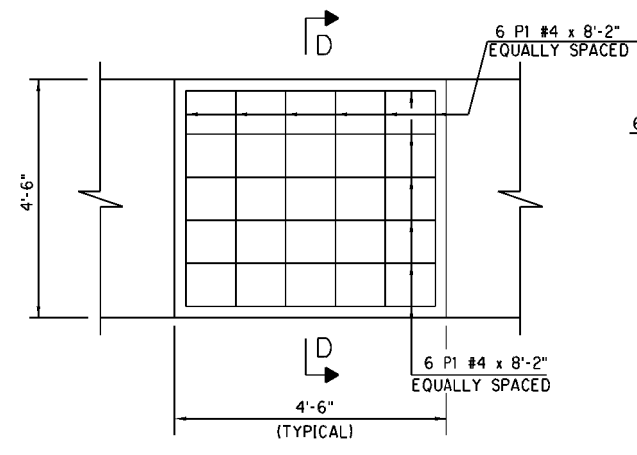


PEDESTAL DETAIL
* DIMENSIONS ARE TO FACE OF PIER CAP.

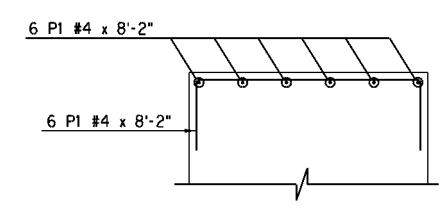
PEDESTAL ELEVATION SCHEDULE					
PEDESTAL	①	②	③	④	⑤
ELEVATION	1215.42	1215.62	1215.80	1215.73	1215.49
DIM. "A"*	7 3/4"	10 7/16"	1'-1 1/8"	1'-1 3/4"	11 15/16"
DIM. "B"*	8"	10 11/16"	1'-1 7/8"	1'-2"	1'-0 3/16"

Design		BRIDGE "D" PIER 2 DETAILS PHASE III (SHEET 1 OF 3) State Job No. 23310(04) Sheet No. B131
Drawn		
Checked		
Approved		
Squad	POE	

OKLAHOMA COUNTY
E.B. I-40 OVER S.E. 15TH ST

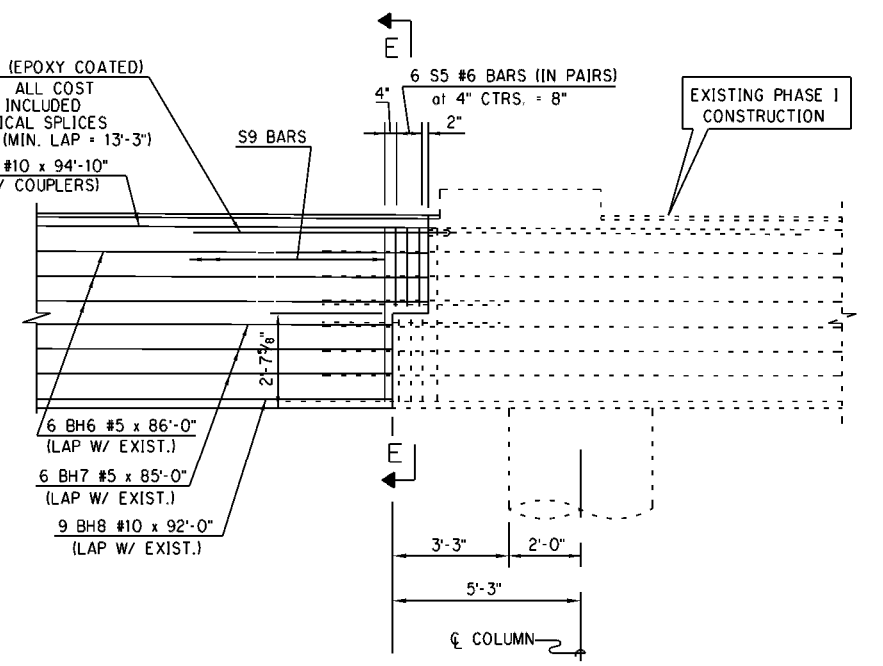


PEDESTAL REINFORCING DETAIL

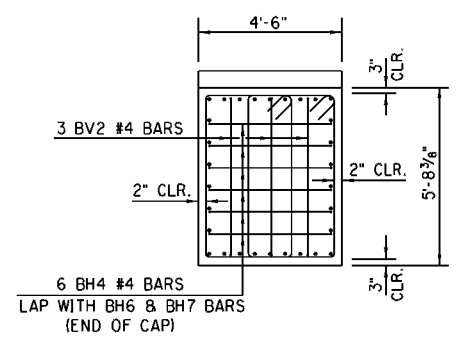


SECTION D-D

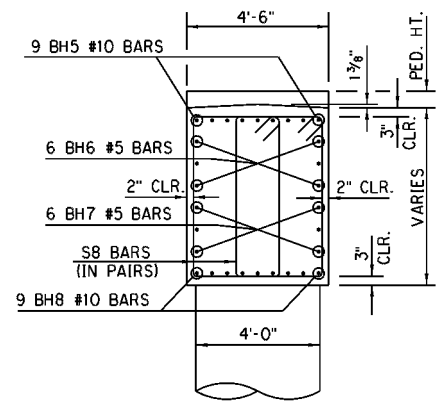
MECHANICAL SPLICES (EPOXY COATED)
 (TYP. EACH BH5 BAR) ALL COST OF COUPLERS TO BE INCLUDED IN COST OF MECHANICAL SPLICES IN PHASE I CONSTR. (MIN. LAP = 13'-3")



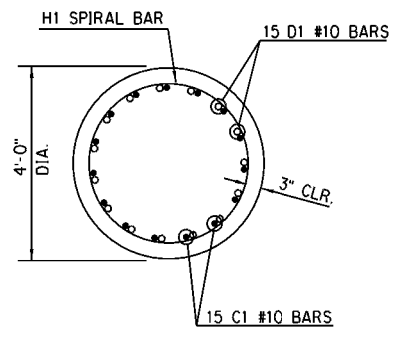
DETAIL "A"



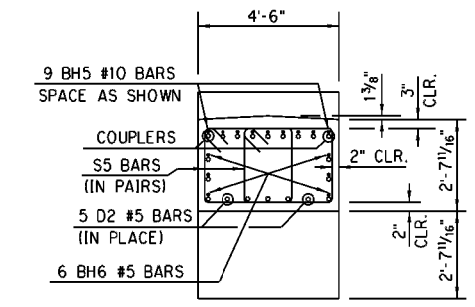
PIER CAP EAST END VIEW



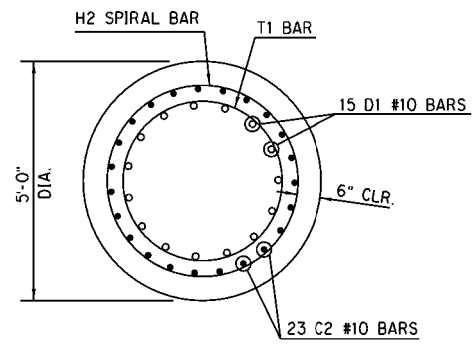
SECTION A-A



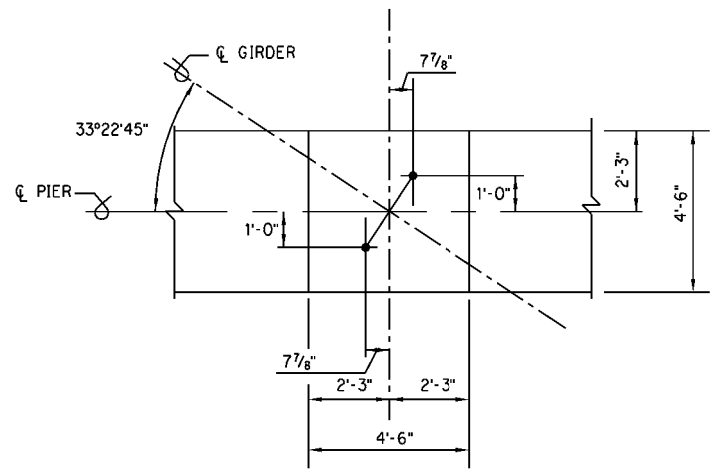
SECTION B-B



SECTION E-E



SECTION C-C

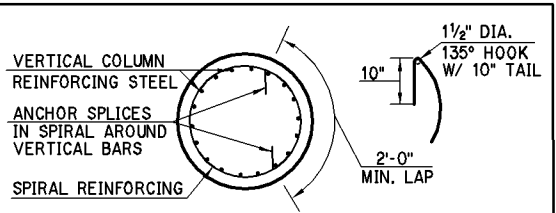


ANCHOR BOLT LAYOUT
 NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS, SEE SHEET NO. B162.

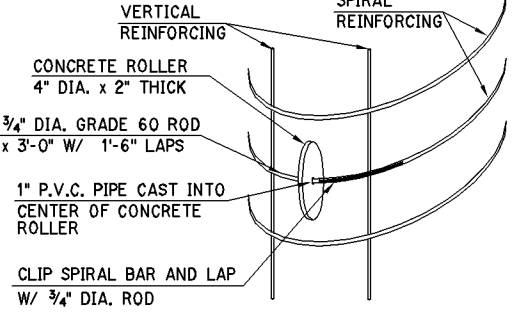
QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	108.7
REINFORCING STEEL	LB.	950
EPOXY COATED REINF. STEEL	LB.	17,390
DRILLED SHAFTS 60" DIAMETER	L.F.	81
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	162

TOP AND SIDES OF PIER CAP AND PEDESTALS.
 BOTTOM AND END OF EXTERIOR CANTILEVER.

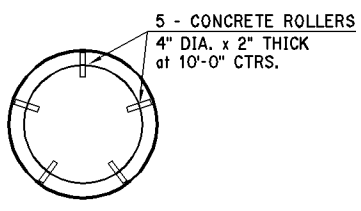
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15TH ST
Checked			PIER 2 DETAILS
Approved			PHASE III
Squad	POE		(SHEET 2 OF 3)
		State Job No. 23310(04)	Sheet No. B132



SPIRAL REINFORCING SPLICE DETAIL
 NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

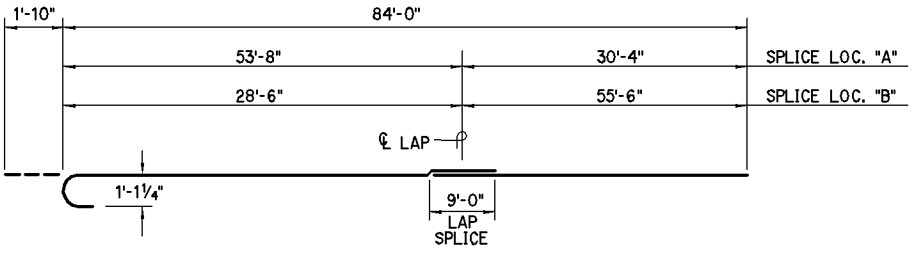


ROLLER INSTALLATION DETAIL

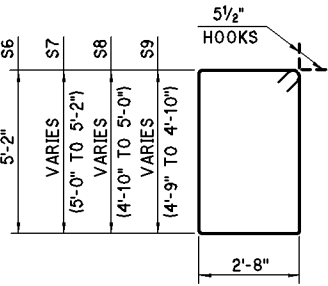


ROLLER PLACEMENT DETAIL

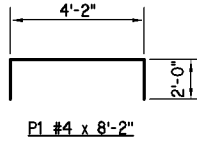
NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



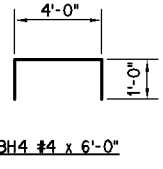
BH5 #10 x 94'-10"
ALTERNATE SPLICE LOCATIONS A AND B.



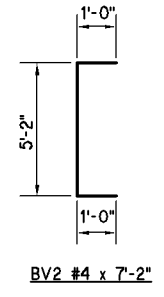
S6 #5 x 16'-7"
 S7 #5 x 16'-5" AVG. (16'-3" TO 16'-7")
 S8 #5 x 16'-1" AVG. (15'-11" TO 16'-3")
 S9 #5 x 15'-10" AVG. (15'-9" TO 15'-11")



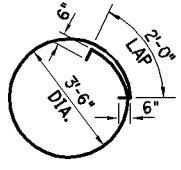
P1 #4 x 8'-2"



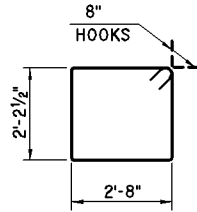
BH4 #4 x 6'-0"



BV2 #4 x 7'-2"

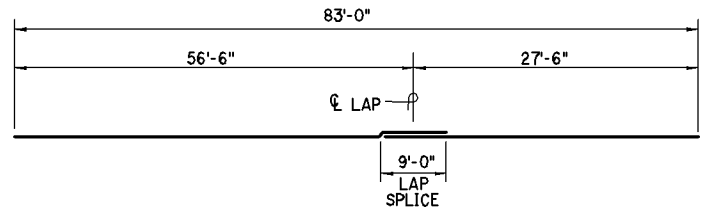


T1 #4 x 14'-0"



S5 #6 x 11'-1"

ALL BENT BAR DIMENSIONS ARE OUT TO OUT.



BH8 #10 x 92'-0"
ALTERNATE LAP SPLICE ABOUT Q BAR.

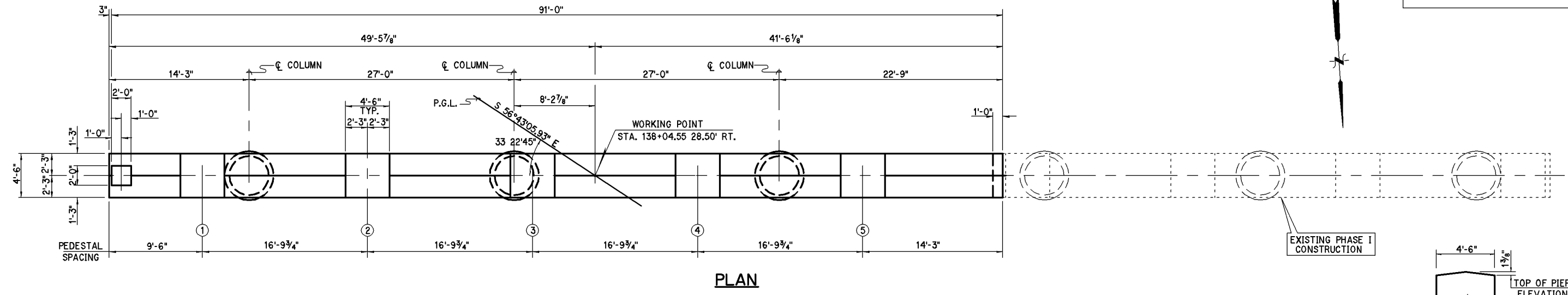
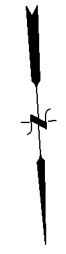
BAR LIST						
MARK	NO.	SIZE	FORM	SPACING	LENGTH	
①	BH4	#4	BNT.	AS SHOWN	6'-0"	
②	BH5	#10	BNT.	EQUAL	94'-10"	
③	BH6	#5	STR.	AS SHOWN	86'-0"	
④	BH7	#5	STR.	AS SHOWN	85'-0"	
⑤	BH8	#10	STR.	EQUAL	92'-0"	
①	BV2	#4	BNT.	AS SHOWN	7'-2"	
①	C1	45	#10	STR.	EQUAL	24'-6"
*	H1	3	W-20	BNT.	6" PITCH	464'-1"
①	S5	6	#6	BNT.	4" C/C	11'-1"
①	S6	12	#5	BNT.	12" C/C	16'-7"
③	S7	62	#5	BNT.	9" C/C	16'-5" AVG.
③	S8	70	#5	BNT.	EQUAL	16'-1" AVG.
③	S9	60	#5	BNT.	8" C/C	15'-10" AVG.
①	P1	60	#4	BNT.	EQUAL	8'-2"
THREE DRILLED SHAFTS						
▲	C2	69	#10	STR.	EQUAL	26'-6"
▲	D1	45	#10	STR.	EQUAL	14'-10"
▲	T1	18	#4	BNT.	12" C/C	14'-0"
*	H2	3	W-20	BNT.	6" PITCH	704'-3"

① EPOXY COATED
 ② LENGTH INCLUDES LAP:
 BH5 - 1 at 9'-0"
 BH6 - 1 at 2'-0"
 BH7 - 1 at 2'-0"
 BH8 - 1 at 9'-0"
 ** OFFSET LAP SPLICES
 ③ LENGTH VARIES:
 S7 - 16'-3" TO 16'-7"
 S8 - 15'-11" TO 16'-3"
 S9 - 15'-9" TO 15'-11"
 ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

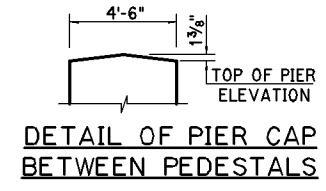
* THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		OKLAHOMA COUNTY BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST PIER 2 DETAILS PHASE III (SHEET 3 OF 3) State Job No. 23310(04) Sheet No. B133
Drawn		
Checked		
Approved		
Squad	POE	

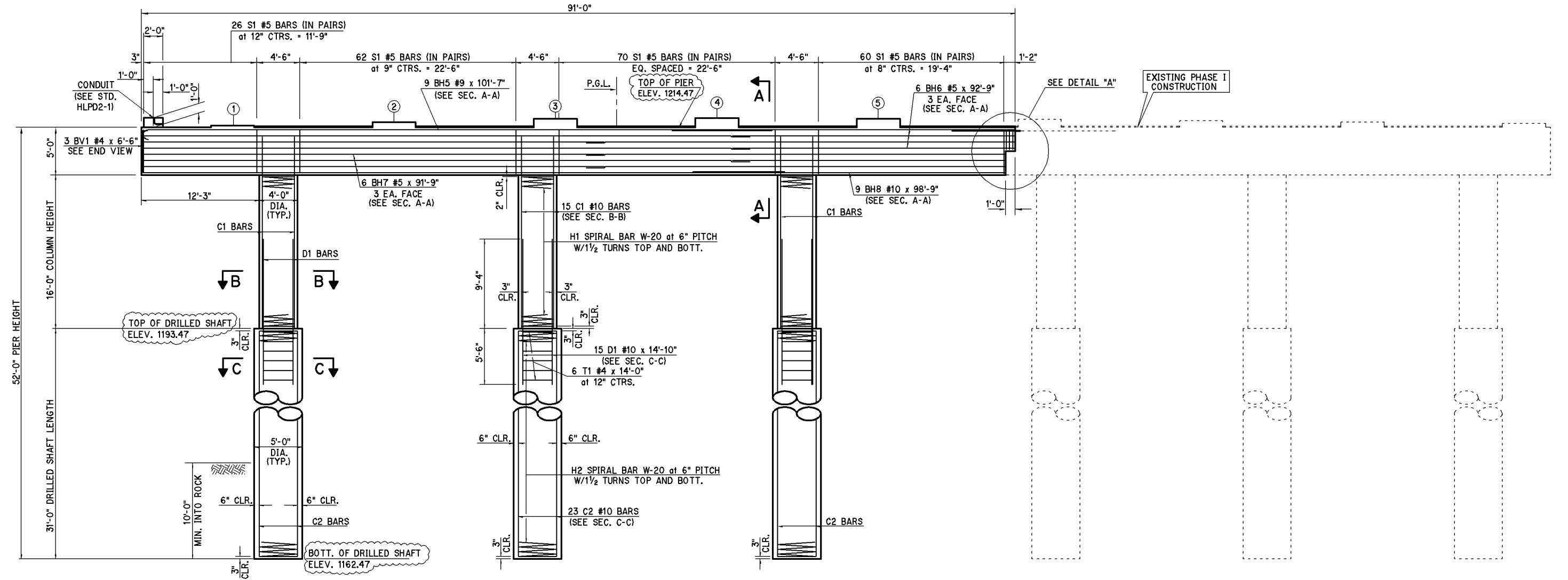
DESCRIPTION	REVISIONS	DATE



PLAN



DETAIL OF PIER CAP BETWEEN PEDESTALS



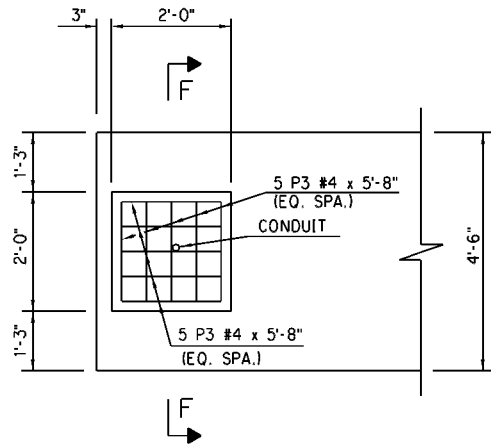
ELEVATION

PEDESTAL ELEVATION SCHEDULE					
PEDESTAL	①	②	③	④	⑤
ELEVATION	1214.64	1215.00	1215.34	1215.43	1215.36
PED. HEIGHT	2"	6 3/8"	10 7/16"	11 1/16"	10 5/8"

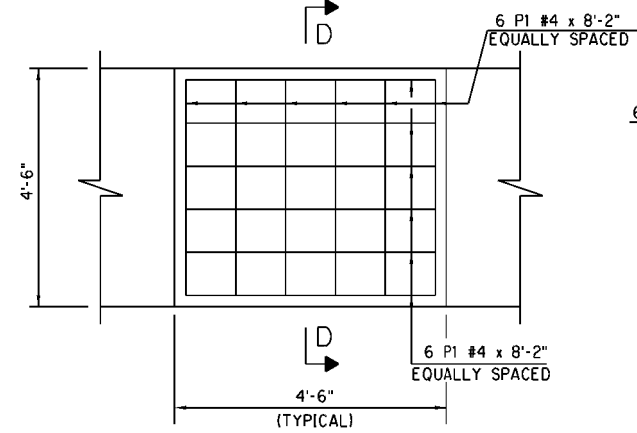
FOR SECTION A-A, B-B, C-C, END VIEW, AND DETAIL "A", SEE SHEET B135.

Design		BRIDGE "D" PIER 3 DETAILS PHASE III (SHEET 1 OF 3) State Job No. 23310(04) Sheet No. B134
Drawn		
Checked		
Approved		
Squad	POE	

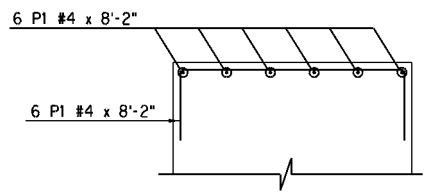
OKLAHOMA COUNTY
E.B. I-40 OVER S.E. 15TH ST



LIGHT POLE PEDESTAL
(SEE STD. HLBP1-1 FOR ANCHOR BOLT DETAILS)



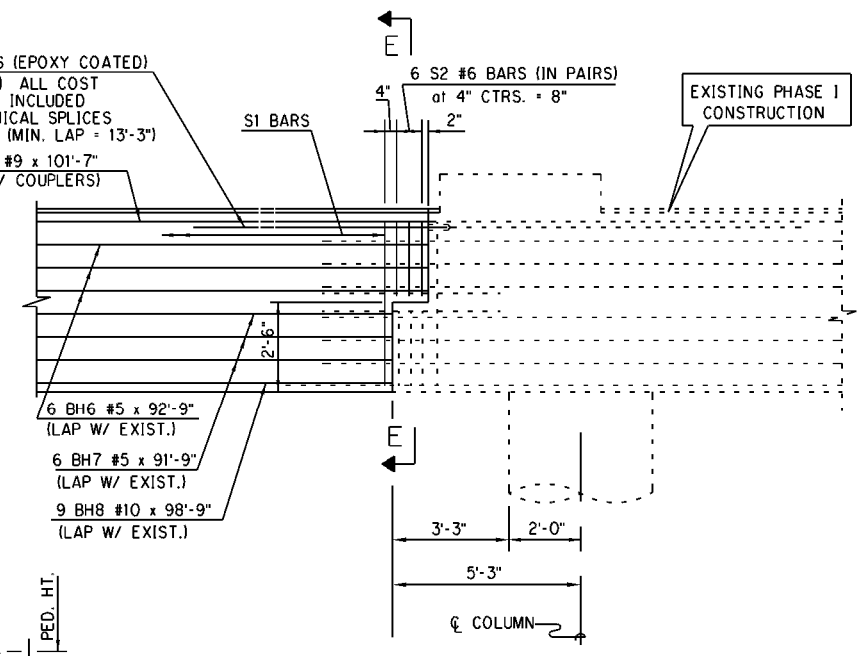
PEDESTAL REINFORCING DETAIL



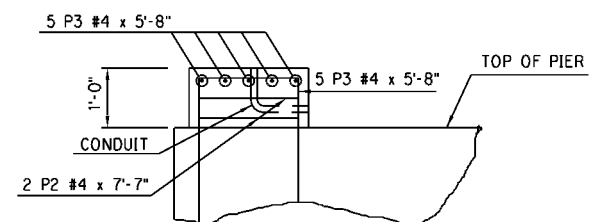
SECTION D-D

⚠ MECHANICAL SPLICES (EPOXY COATED) (TYP. EACH BH5 BAR) ALL COST OF COUPLERS TO BE INCLUDED IN COST OF MECHANICAL SPLICES IN PHASE I CONSTR. (MIN. LAP = 13'-3")

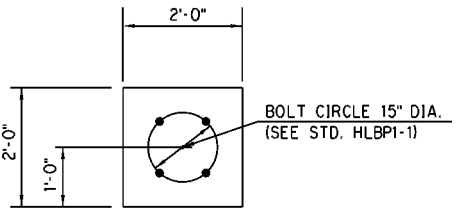
9 BH5 #9 x 101'-7" (LAP W/ COUPLERS)



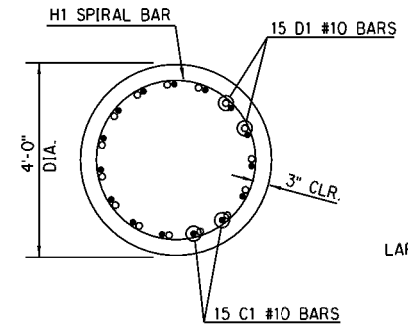
DETAIL "A"



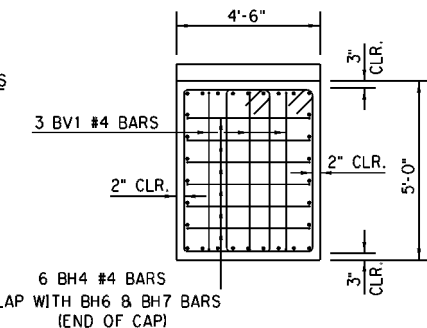
SECTION F-F
(ANCHOR BOLTS NOT SHOWN FOR CLARITY)



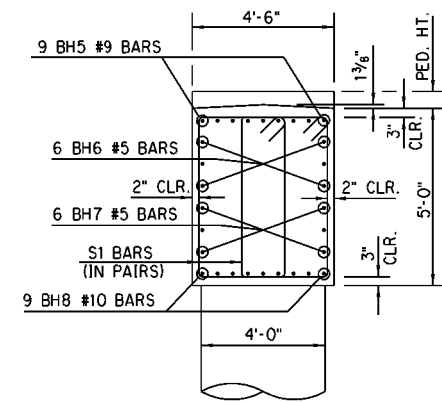
LIGHT POLE BOLT PATTERN



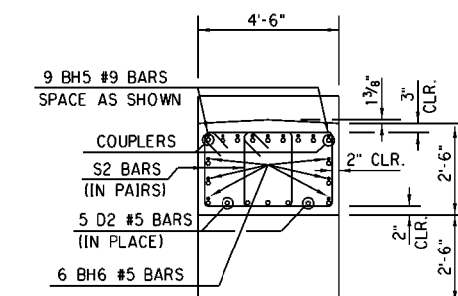
SECTION B-B



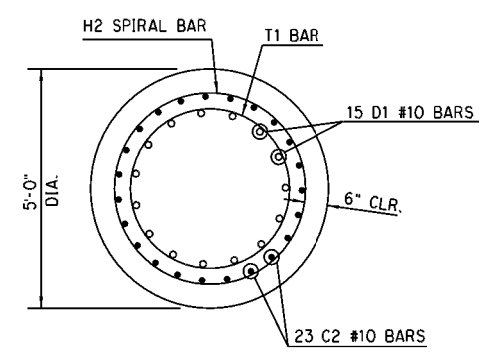
PIER CAP EAST END VIEW



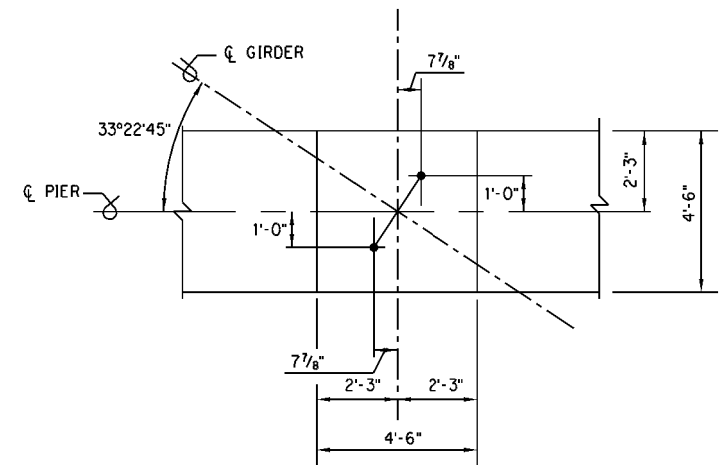
SECTION A-A



SECTION E-E



SECTION C-C



ANCHOR BOLT LAYOUT

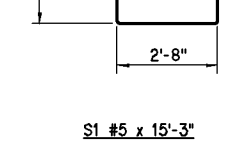
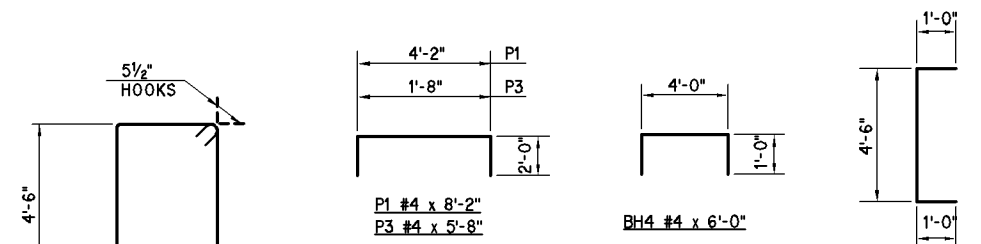
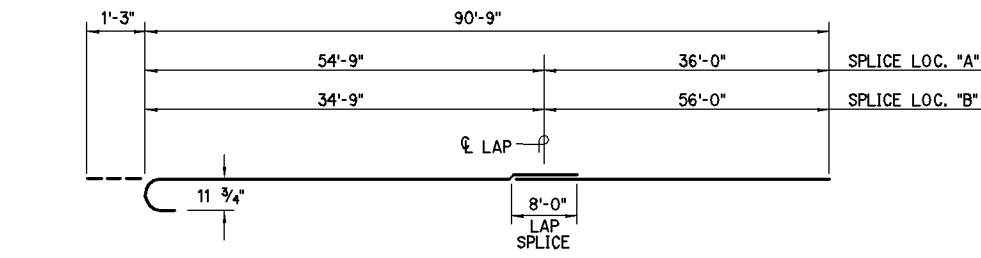
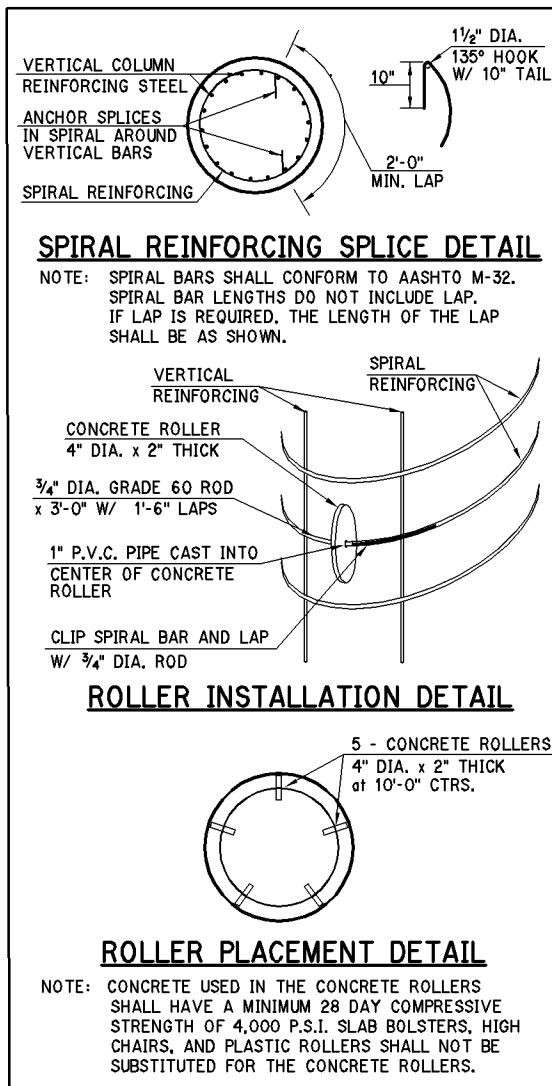
NOTE: FOR PROJECTION AND DETAIL OF ANCHOR BOLTS. SEE SHEET NO. B162.

QUANTITIES		
ITEM	UNIT	TOTAL
CLASS A CONCRETE	C.Y.	101.2
REINFORCING STEEL	LB.	770
EPOXY COATED REINF. STEEL	LB.	16,570
DRILLED SHAFTS 60" DIAMETER	L.F.	93
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	165

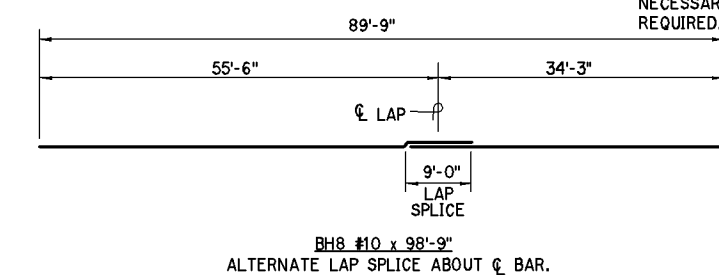
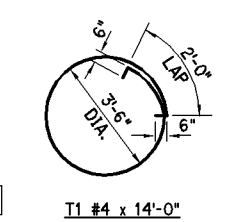
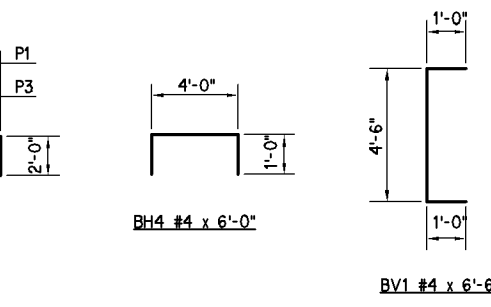
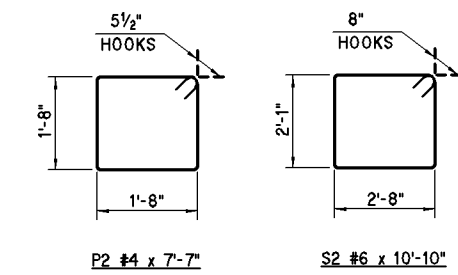
≠ TOP AND SIDES OF PIER CAP AND PEDESTALS. BOTTOM AND END OF EXTERIOR CANTILEVER.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "D" E.B. 1-40 OVER S.E. 15TH ST
PIER 3 DETAILS
PHASE III
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B135



ALL BENT BAR DIMENSIONS ARE OUT TO OUT.

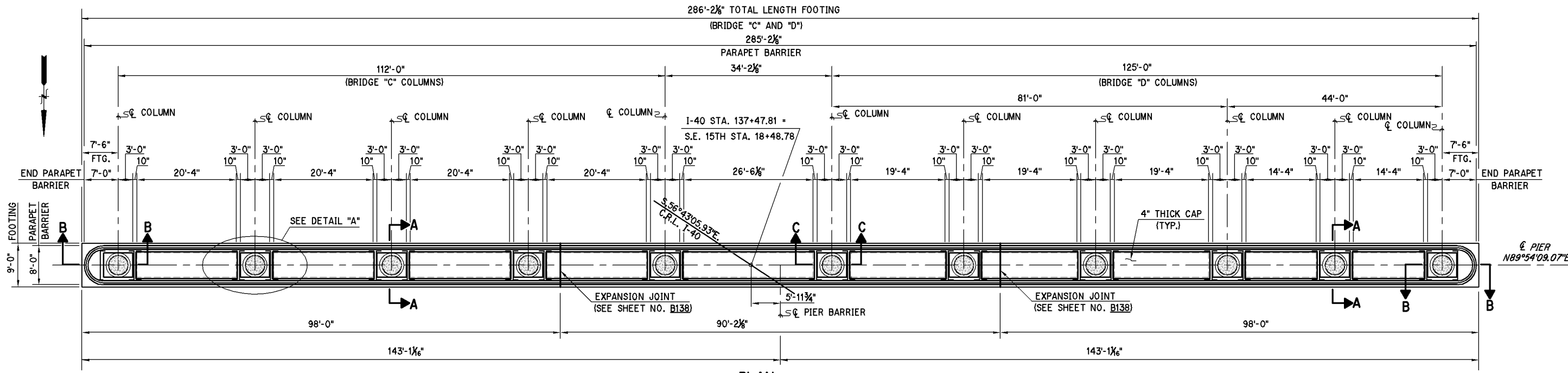


BAR LIST						
MARK	NO.	SIZE	FORM	SPACING	LENGTH	
BH4	6	#4	BNT.	AS SHOWN	6'-0"	
BH5	9	#9	BNT.	EQUAL	100'-0"	
BH6	6	#5	STR.	AS SHOWN	92'-9"	
BH7	6	#5	STR.	AS SHOWN	91'-9"	
BH8	9	#10	STR.	EQUAL	98'-9"	
BV1	3	#4	BNT.	AS SHOWN	6'-6"	
C1	45	#10	STR.	EQUAL	20'-6"	
H1	3	W-20	BNT.	6" PITCH	376'-1"	
S1	218	#5	BNT.	AS SHOWN	15'-3"	
S2	6	#6	BNT.	4" C/C	10'-10"	
P1	60	#4	BNT.	EQUAL	8'-2"	
P2	2	#4	BNT.	EQUAL	7'-7"	
P3	10	#4	BNT.	EQUAL	5'-8"	
THREE DRILLED SHAFTS						
C2	69	#10	STR.	EQUAL	30'-6"	
D1	45	#10	STR.	EQUAL	14'-10"	
T1	18	#4	BNT.	12" C/C	14'-0"	
H2	3	W-20	BNT.	6" PITCH	808'-6"	

- ① EPOXY COATED
- ② LENGTH INCLUDES LAP:
 - ** BH5 - 1 at 8'-0"
 - ** BH6 - 1 at 2'-0"
 - ** BH7 - 1 at 2'-0"
 - ** BH8 - 1 at 9'-0"
 - ** OFFSET LAP SPLICES
- ▲ THESE BARS INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.
- * THE LENGTH SHOWN FOR H1 BARS DOES NOT INCLUDE ANY LAPS FOR LAP SPLICES. THE LENGTH SHOWN FOR H2 BARS INCLUDES ONE LAP SPLICE. THE CONTRACTOR MAY ADD SPLICES AS NECESSARY BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED. ADD 3'-8" FOR EACH SPLICE.

Design		OKLAHOMA COUNTY BRIDGE "D" E.B. I-40 OVER S.E. 15TH ST PIER 3 DETAILS PHASE III (SHEET 3 OF 3) State Job No. 23310(04) Sheet No. B136
Drawn		
Checked		
Approved		
Squad	POE	

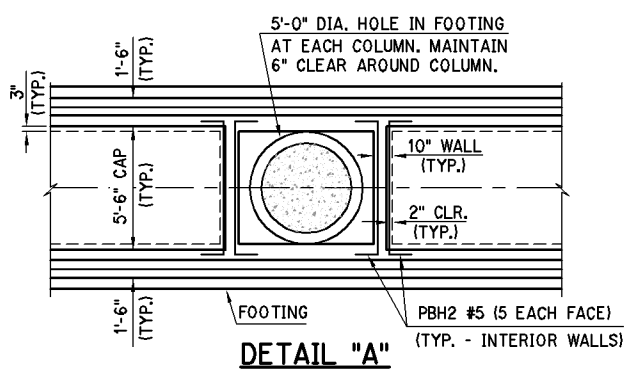
DESCRIPTION	REVISIONS	DATE



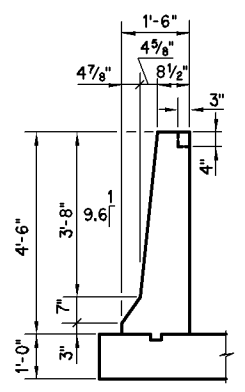
PLAN

NOTE:
SEE SHEET NO. B138 FOR SECTIONS "A-A", "B-B" AND "C-C"

NOTE:
SEE SHEET NO. B138 FOR REINFORCING PLANS AT BARRIER ENDS



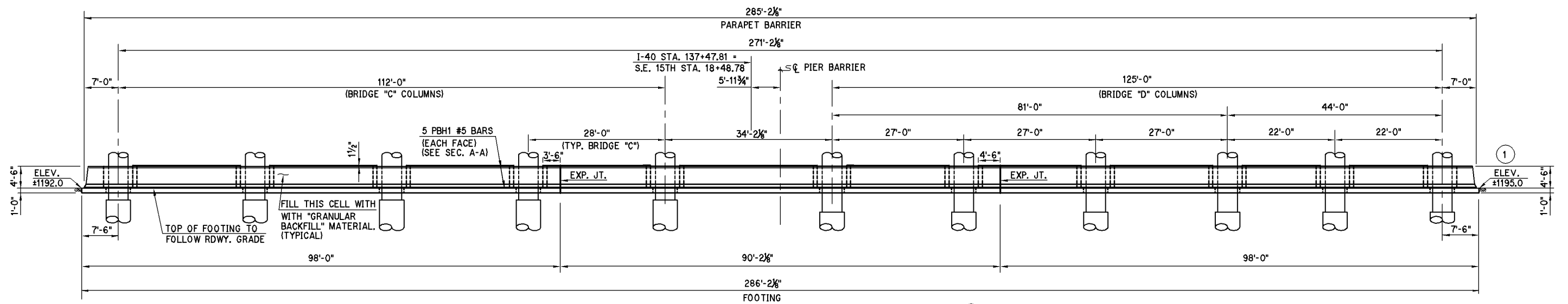
DETAIL "A"



BARRIER WALL DIMENSIONS

QUANTITIES		
ITEM	UNIT	TOTAL
GRANULAR BACKFILL	C.Y.	160
* CLASS A CONCRETE	C.Y.	202.0
REINFORCING STEEL	LB.	29,440

* NOTE: THE COST OF ANY EXCAVATION NECESSARY TO CONSTRUCT THE PIER BARRIER AND ALL OTHER LABOR, MATERIALS AND INCIDENTALS NEEDED TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE PRICE BID PER C.Y. OF "CLASS A CONCRETE".



ELEVATION

① TOP FOOTING: ELEVATIONS TO MATCH TOP ROADWAY SURFACE THROUGHOUT LENGTH OF PIER BARRIER.

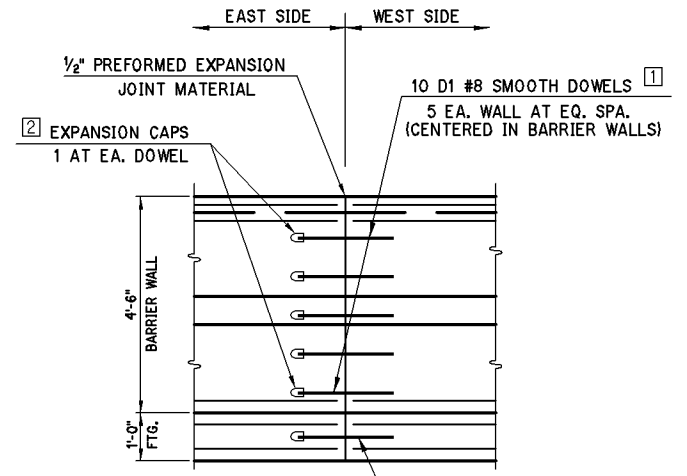
Design		BRIDGE "C" & "D"	OKLAHOMA COUNTY
Drawn		I-40 OVER S.E. 15TH ST	
Checked		PIER PROTECTION DETAILS	
Approved		(SHEET 1 OF 2)	
Squad	POE	State Job No. 23310(04)	Sheet No. B137

DESCRIPTION	REVISIONS	DATE

ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

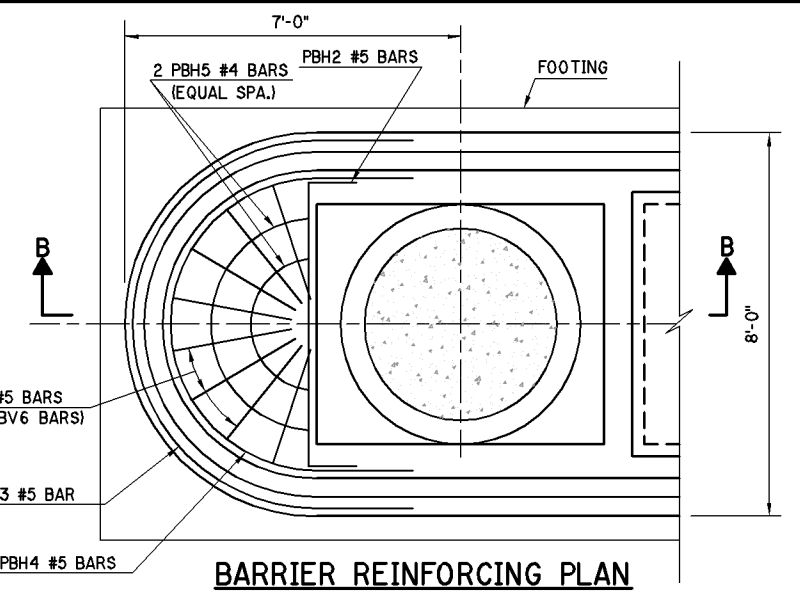
BAR LIST EPOXY COATED					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
CAP1	20	#4	BNT.	12" C/C	20'-6"
CAP2	192	#4	STR.	EQUAL	5'-2"
CAP3	5	#4	STR.	EQUAL	26'-8"
CAP4	15	#4	STR.	EQUAL	19'-6"
CAP5	10	#4	STR.	EQUAL	14'-6"
D1	40	#8	STR.	AS SHOWN	2'-0"
①					
PBF1	287	#5	STR.	12" C/C	8'-8"
PBF2	20	#5	STR.	12" C/C	295'-10"
②					
PBH1	20	#5	STR.	EQUAL	295'-10"
PBH2	210	#5	BNT.	EQUAL	7'-11"
PBH3	2	#5	BNT.	EQUAL	16'-0"
PBH4	8	#5	BNT.	EQUAL	13'-7"
PBH5	4	#5	BNT.	EQUAL	5'-3 1/2" AVG.
③					
PBV1	574	#5	BNT.	12" C/C	6'-5"
PBV2	574	#5	BNT.	12" C/C	8'-6"
PBV3	240	#5	BNT.	12" C/C	5'-9"
PBV4	120	#5	BNT.	12" C/C	3'-7"
PBV5	12	#5	BNT.	12" C/C	6'-1"
PBV6	16	#5	BNT.	12" C/C	3'-5"
PBV7	16	#5	BNT.	AS SHOWN	6'-6"

- ① FABRICATE BARS TO ACCOUNT FOR THE 5'-0" DIAMETER HOLES AROUND PIER COLUMNS.
- ② LENGTH SHOWN INCLUDES LAP (STAGGER ALL LAPS) PBV2 = 5 at 2'-0" (AS REQUIRED) PBH1 = 5 at 2'-0"
- ③ LENGTH VARIES: PBH5 4'-0" TO 6'-7"

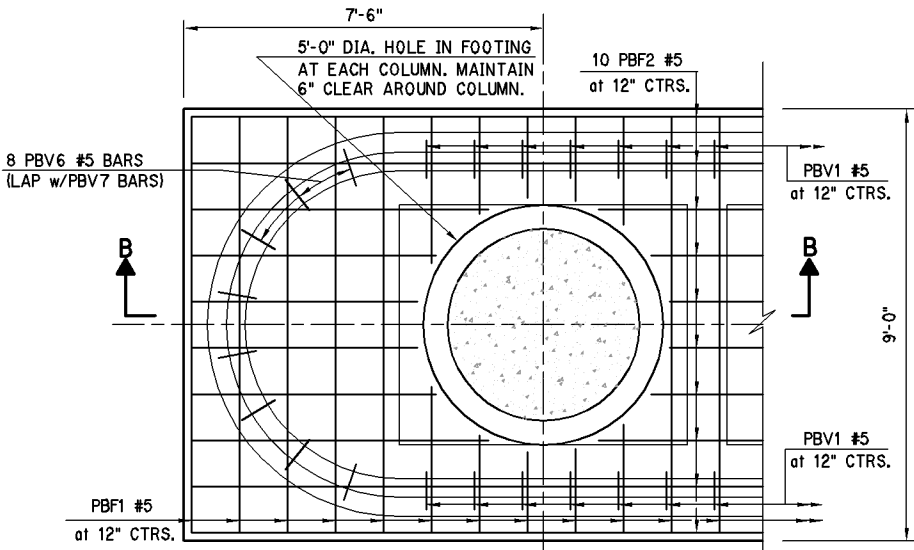
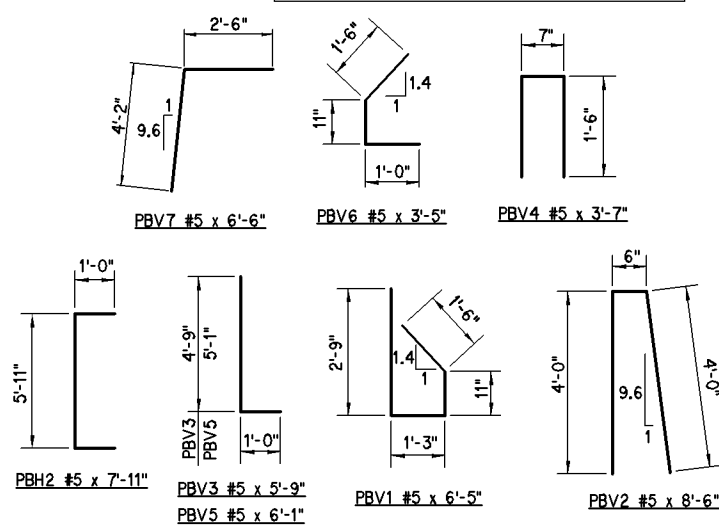


ELEVATION - EXPANSION JOINT
NOTE: ALL REINFORCING STEEL SHALL CLEAR EXPANSION JOINT 2".

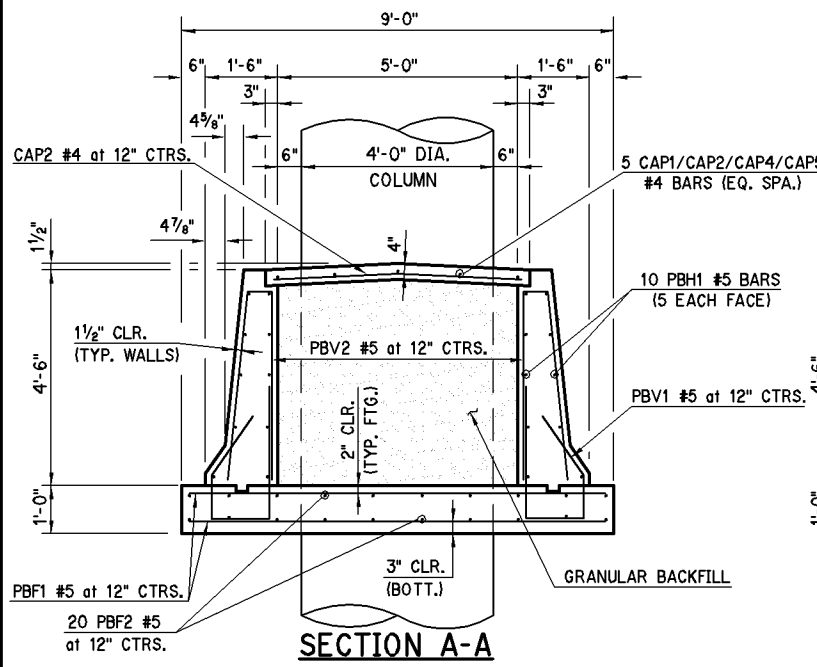
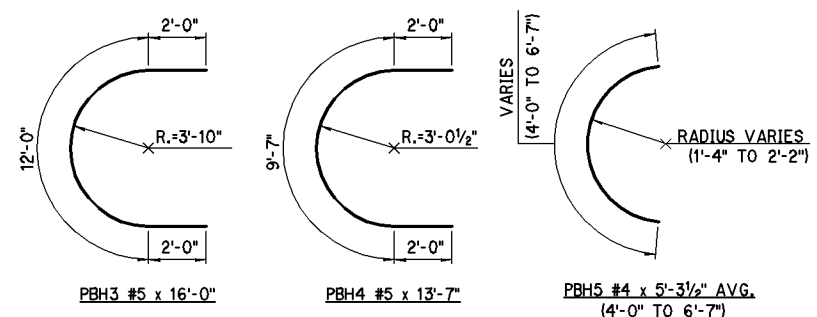
- ① DOWEL BARS SHALL HAVE A SHOP APPLIED EPOXY COATING OVER THE ENTIRE LENGTH (ENDS EXCEPTED). ADDITIONALLY, DOWELS SHALL BE COMPLETELY COATED WITH A FORM RELEASE AGENT (OR APPROVED EQUIVALENT BOND BREAKER) APPLIED IN THE FIELD. THE FORM RELEASE AGENT SHALL NOT BE ALLOWED TO EVAPORATE FROM THE BARS PRIOR TO POURING THE WALL.
- ② THE DOWEL BARS SHALL HAVE EXPANSION CAPS WITH A MINIMUM 1" AND MAXIMUM 1 5/8" AIR SPACE IN THE END OF THE EXPANSION CAPS. EXPANSION CAPS TO BE INCLUDED IN OTHER ITEMS OF WORK.



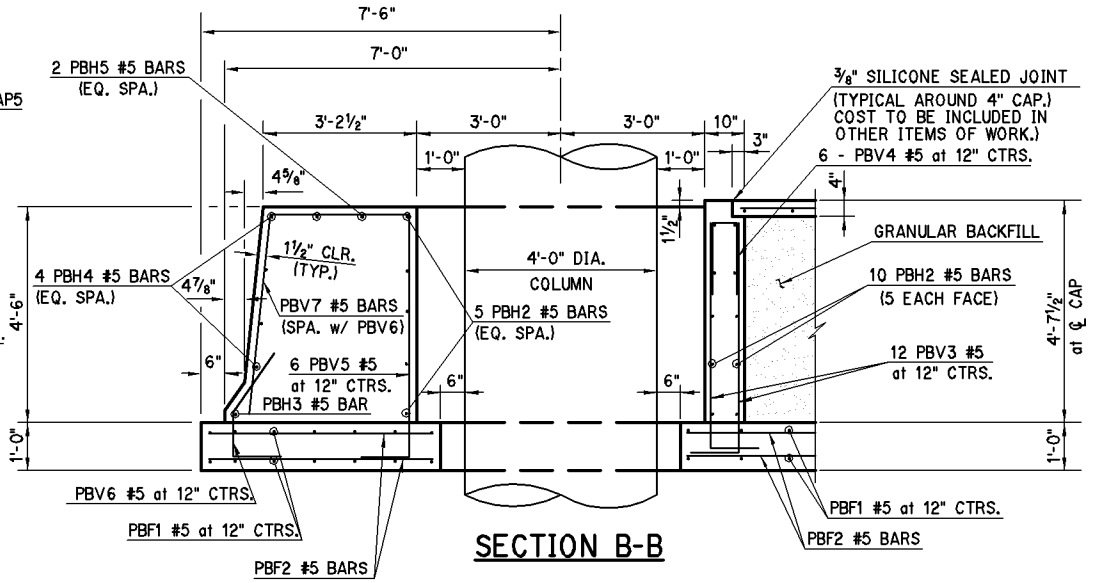
BARRIER REINFORCING PLAN AT BARRIER ENDS
(NOTE: WALL REINFORCING OMITTED FOR CLARITY)



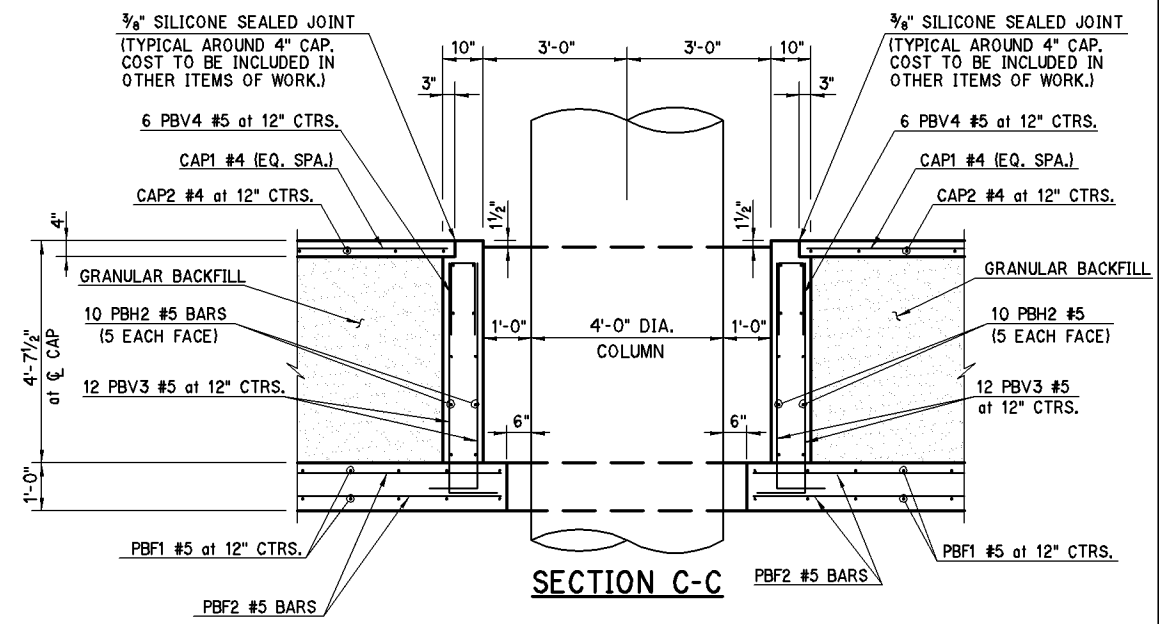
FOOTING REINFORCING PLAN AT BARRIER ENDS



SECTION A-A



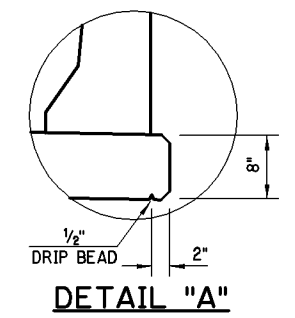
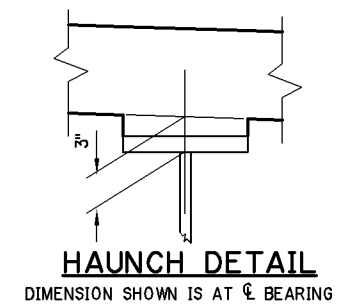
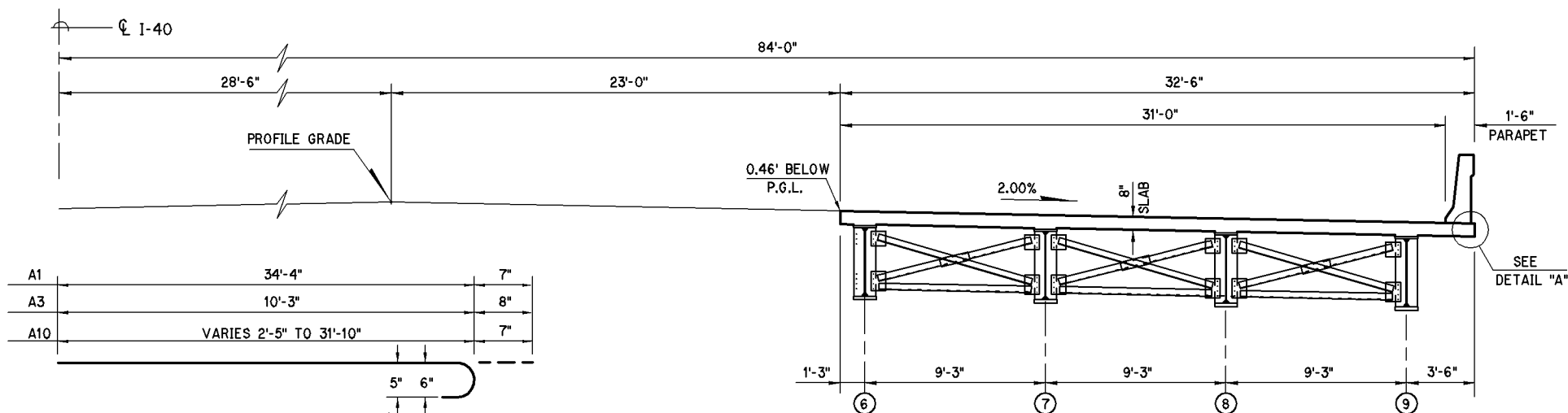
SECTION B-B



SECTION C-C

Design		BRIDGE "C" & "D"		OKLAHOMA COUNTY
Drawn		I-40 OVER S.E. 15TH ST		
Checked		PIER PROTECTION DETAILS		
Approved		(SHEET 2 OF 2)		
Squad	POE	State Job No. 23310(04)	Sheet No. B138	

DESCRIPTION	REVISIONS	DATE

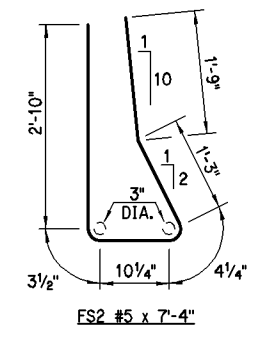
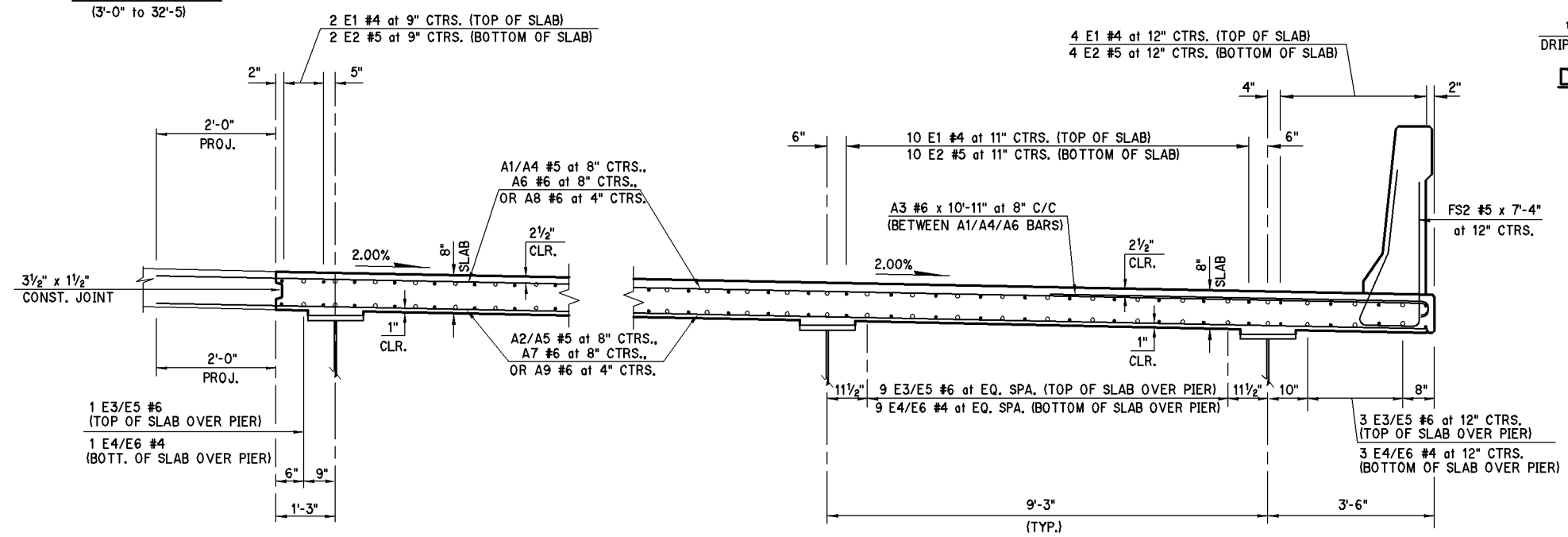


A1 #5 x 34'-11"
A3 #6 x 10'-11"
A10 #5 x 17'-8 1/2" AVG.
(3'-0" to 32'-5")

TYPICAL SECTION

BAR LIST- SUPERSTRUCTURE
EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH	
②	A1	476	#5	BNT.	8" C/C	34'-11"
②	A2	476	#5	STR.	8" C/C	34'-4"
②	A3	529	#6	BNT.	8" C/C	10'-11"
①②	A4	21	#5	BNT.	8" C/C	31'-0" AVG.
①②	A5	21	#5	STR.	8" C/C	29'-10" AVG.
①	A6	32	#6	BNT.	8" C/C	19'-6 1/2" AVG.
①	A7	32	#6	STR.	8" C/C	18'-2 1/2" AVG.
①	A8	43	#6	BNT.	4" C/C	7'-8 1/2" AVG.
①	A9	43	#6	STR.	4" C/C	6'-4 1/2" AVG.
①	A10	68	#5	BNT.	8" C/C	17'-8 1/2" AVG.
①	A11	68	#5	STR.	8" C/C	17'-1 1/2" AVG.
②	E1	36	#4	STR.	AS SHOWN	375'-6"
②	E2	36	#5	STR.	AS SHOWN	378'-6"
②	E3	70	#6	STR.	AS SHOWN	46'-6"
②	E4	70	#4	STR.	AS SHOWN	46'-6"
②	E5	35	#6	STR.	AS SHOWN	47'-6"
②	E6	77	#4	STR.	AS SHOWN	47'-6"
②	EPH1	66	#5	BNT.	AS SHOWN	7'-3"
②	EPH2	2	#5	BNT.	AS SHOWN	6'-5"
②	EPH3	4	#5	BNT.	AS SHOWN	5'-1"
①	EPT1	2	#5	BNT.	AS SHOWN	59'-11"
②	EPT2	2	#5	BNT.	AS SHOWN	62'-6 1/2" AVG.
②	EPT3	1	#5	STR.	AS SHOWN	63'-4"
②	EPT4	2	#5	BNT.	AS SHOWN	57'-0"
②	EPT5	3	#5	BNT.	AS SHOWN	56'-3" AVG.
②	FS2	368	#5	BNT.	12" C/C	7'-4"

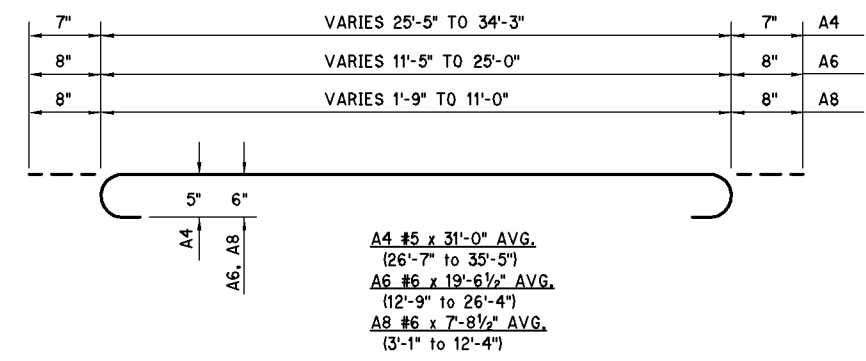


- ① LENGTH VARIES:
- A4 = 26'-7" to 35'-5"
- A5 = 25'-5" to 34'-3"
- A6 = 12'-9" to 26'-4"
- A7 = 11'-5" to 25'-0"
- A8 = 3'-1" to 12'-4"
- A9 = 1'-9" to 11'-0"
- A10 = 3'-0" to 32'-5"
- A11 = 2'-5" to 31'-10"
- EPT2 = 62'-4" to 62'-9"
- EPT5 = 55'-10" to 56'-8"
- ② LENGTH SHOWN INCLUDES LAP:
- E1 = 6 at 1'-6"
- E2 = 6 at 2'-0"
- EPT2 = 1 at 2'-0"
- EPT3 = 1 at 2'-0"

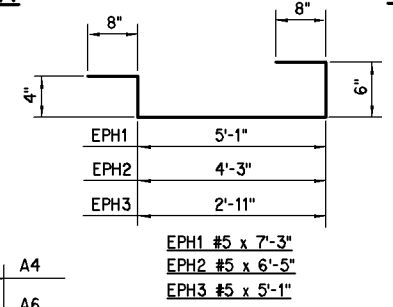
****NOTE:**
THE PLAN QUANTITY SHOWN INCLUDES 17.8 C.Y. FOR HAUNCHES OVER GIRDERS AND DIAPHRAGMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF STRUCTURAL STEEL TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES SHALL BE AS SHOWN ABOVE.

TYPICAL REINFORCING SECTION AT CENTER

TYPICAL REINFORCING SECTION

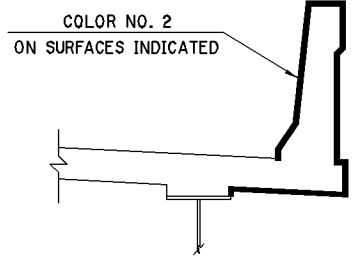


A4 #5 x 31'-0" AVG.
(26'-7" to 35'-5")
A6 #6 x 19'-6 1/2" AVG.
(12'-9" to 26'-4")
A8 #6 x 7'-8 1/2" AVG.
(3'-1" to 12'-4")



WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.



COLOR DETAIL

ALL COST ASSOCIATED WITH APPLYING COLOR FINISH TO SUPERSTRUCTURE PARAPET AND BRIDGE DECK ARE TO BE INCLUDED IN THE UNIT PRICE FOR "ITEMS BEING FINISHED".

QUANTITIES

ITEM	UNIT	TOTAL
** CLASS AA CONCRETE	C.Y.	312.2
SAW-CUT GROOVING	S.Y.	1,266.5
SEALED EXPANSION JOINT	L.F.	116.87
42" F-SHAPED PARAPET	L.F.	367.7
STRUCTURAL STEEL	LB.	327,470
EPOXY COATED REINFORCING STEEL	LB.	88,810
WATER REPELLENT	S.Y.	486
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	4
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	16
SEALER CRACK PREPARATION	L.F.	360
SEALER RESIN	GAL	4.0

Design	
Drawn	
Checked	
Approved	
Squad	POE

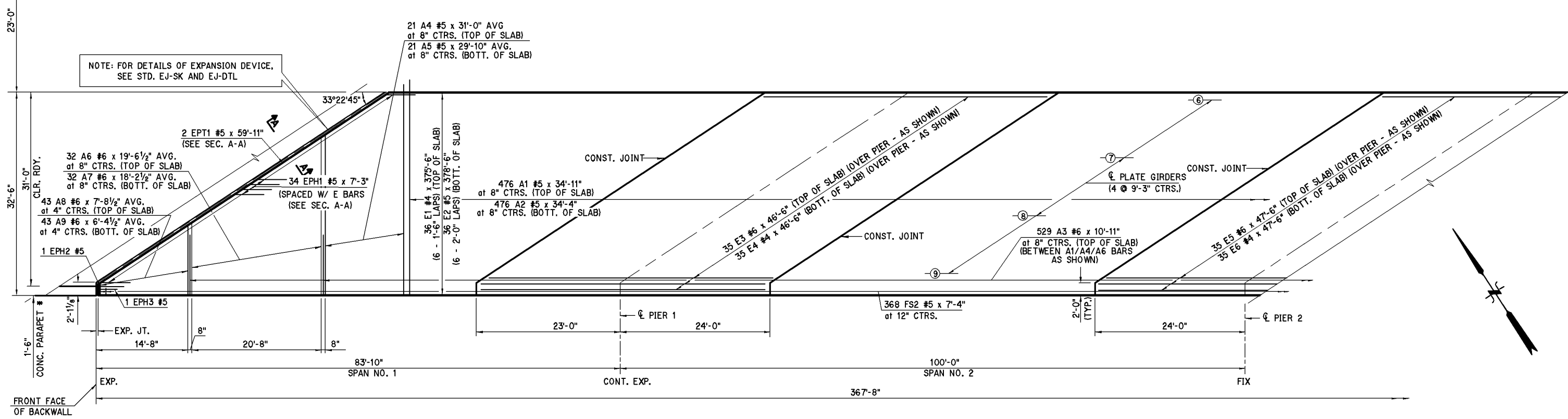
OKLAHOMA COUNTY
BRIDGE "D" E.B. I-40 OVER S.E. 15TH STREET

SUPERSTRUCTURE DETAILS
PHASE I
(SHEET 1 OF 3)

State Job No. 23310(04) Sheet No. B139

PROFILE GRADE LINE

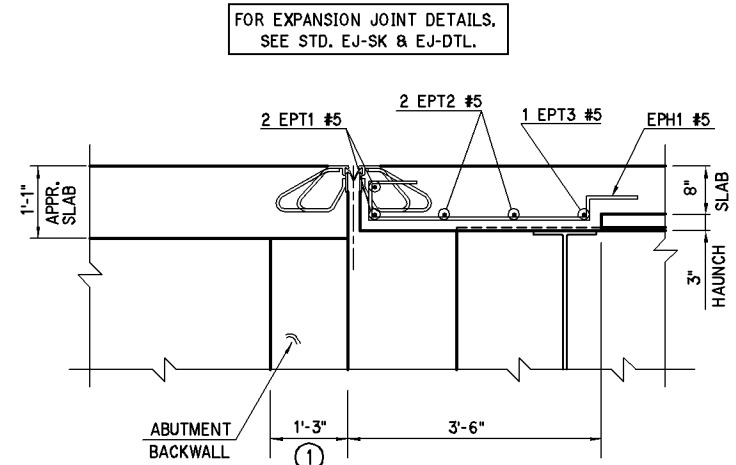
DESCRIPTION	REVISIONS	DATE



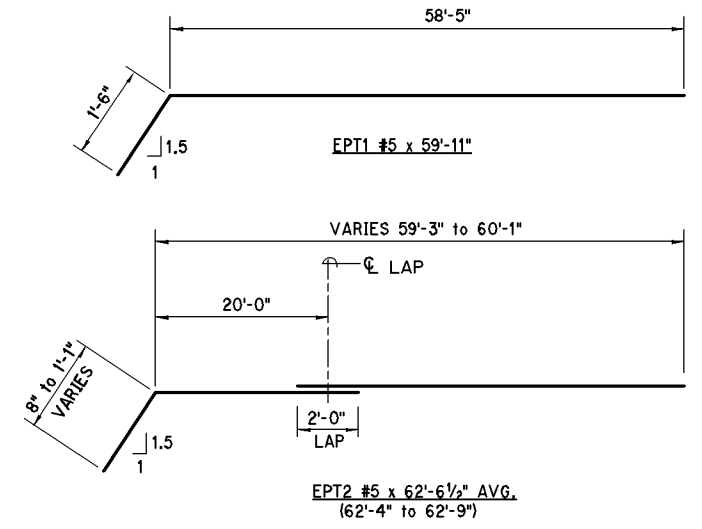
NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

SLAB REINFORCING LAYOUT - SPAN NO. 1 & 2

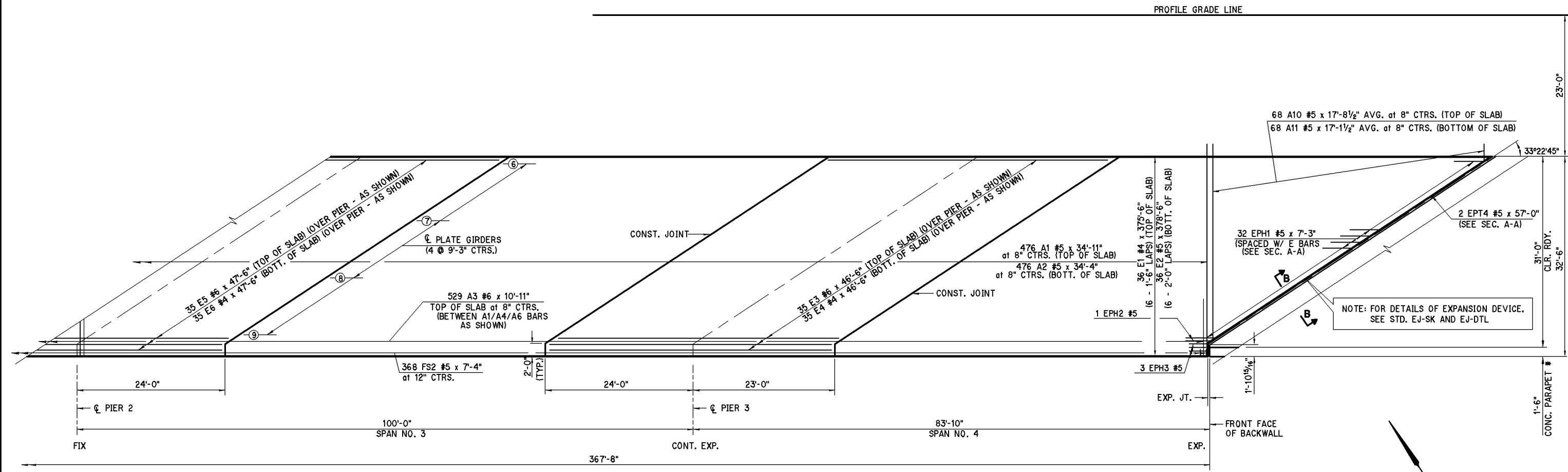


SECTION A-A ① NORMAL TO ABUTMENT
NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLARITY.



Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B140

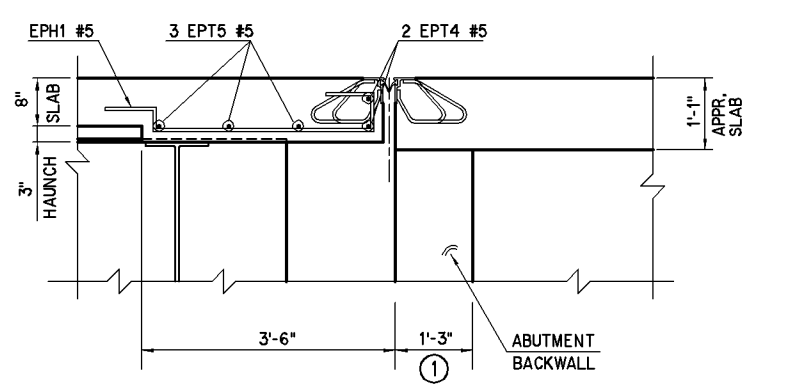
DESCRIPTION	REVISIONS	DATE



SLAB REINFORCING LAYOUT - SPAN NO. 3 & 4

*NOTE: CONCRETE PARAPET NOT SHOWN FOR CLARITY. FOR DETAILS, SEE STD. FSHP-42.

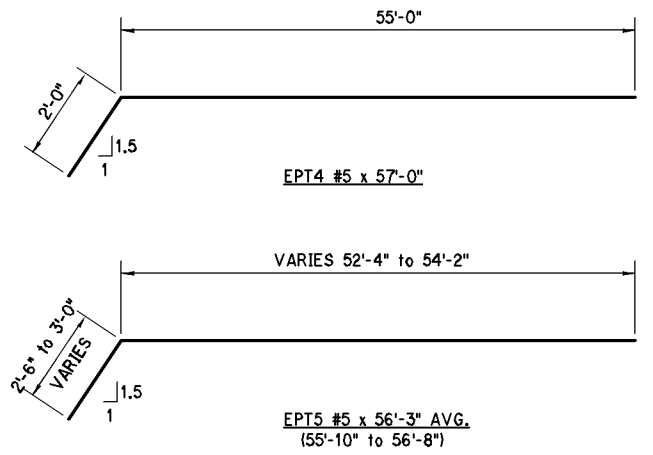
FOR EXPANSION JOINT DETAILS, SEE STD. EJ-SK & EJ-DTL.



SECTION B-B

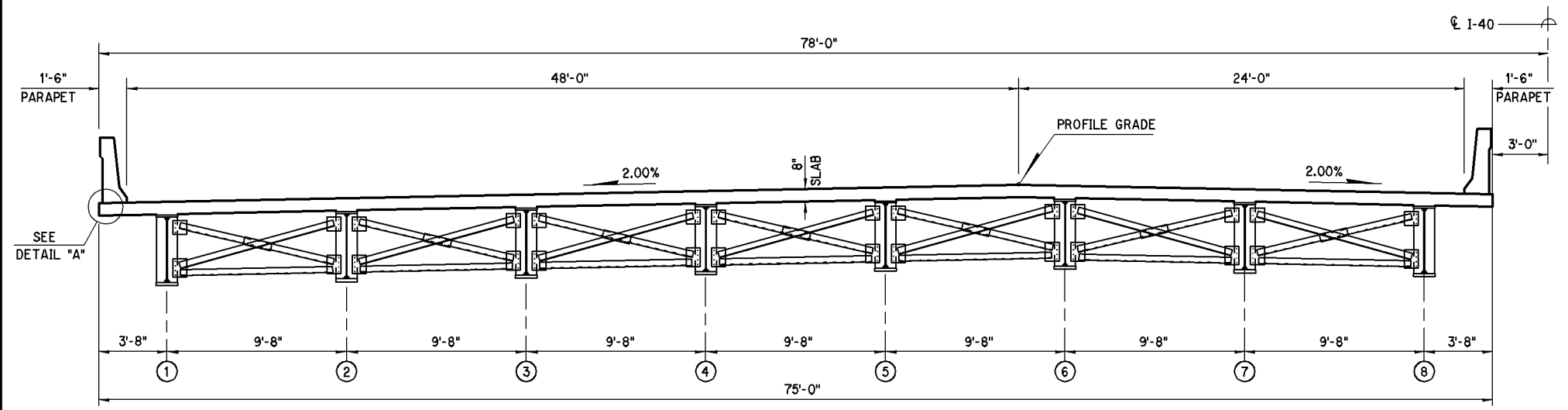
① NORMAL TO ABUTMENT

NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLARITY.



Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 3 OF 3)	
		State Job No. 23310(04)	Sheet No. B141

DESCRIPTION	REVISIONS	DATE

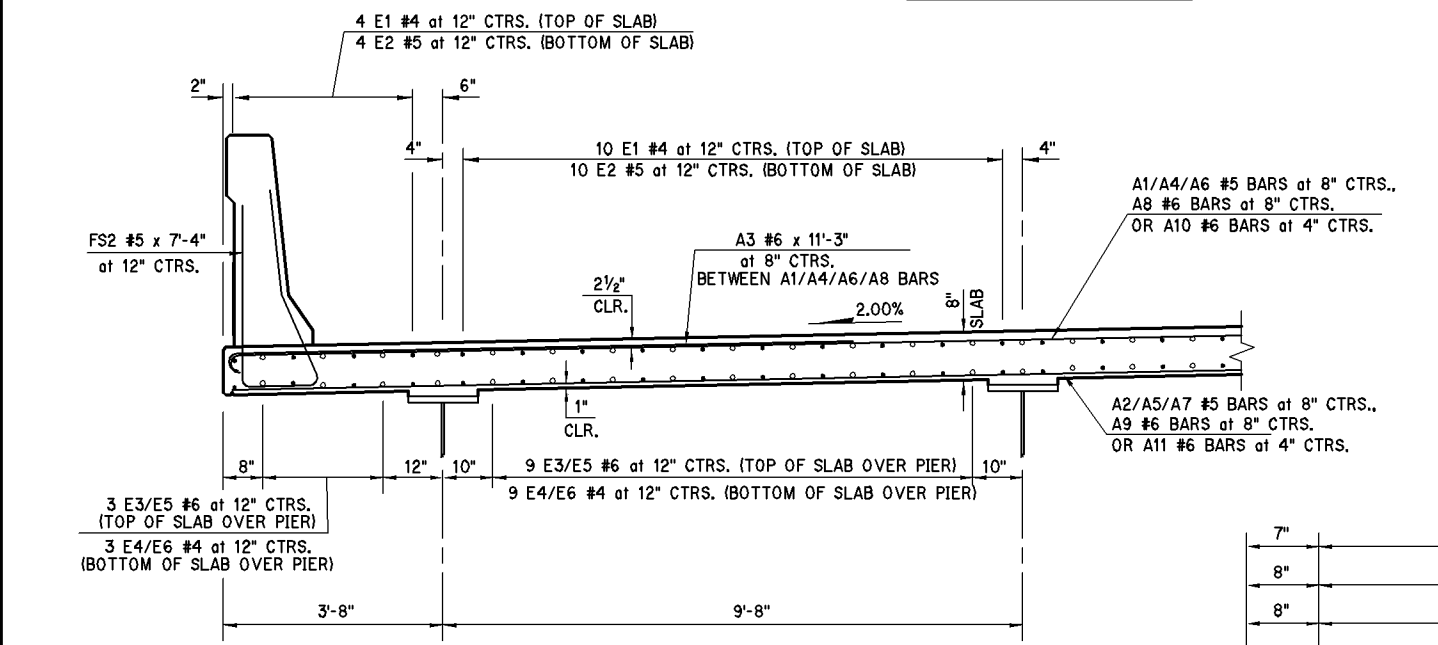


WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SEALER.

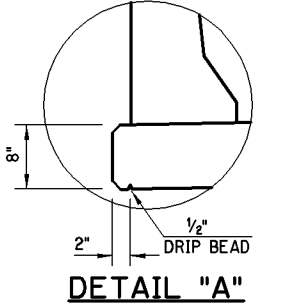
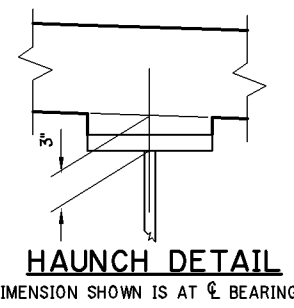
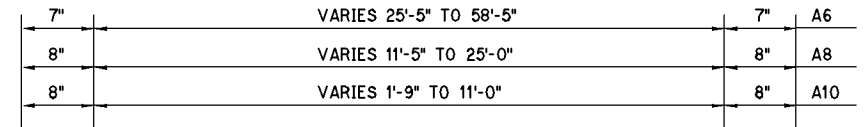
BAR LIST- SUPERSTRUCTURE EPOXY COATED

MARK	NO.	SIZE	FORM	SPACING	LENGTH
② A1	390	#5	BNT.	8" C/C	78'-4"
② A2	390	#5	STR.	8" C/C	77'-2"
A3	1058	#6	BNT.	8" C/C	11'-3"
①② A4	62	#5	BNT.	8" C/C	69'-2" AVG.
①② A5	62	#5	STR.	8" C/C	68'-0" AVG.
① A6	152	#5	BNT.	8" C/C	43'-1" AVG.
① A7	152	#5	STR.	8" C/C	42'-6" AVG.
① A8	64	#6	BNT.	8" C/C	19'-6½" AVG.
① A9	64	#6	STR.	8" C/C	18'-2½" AVG.
① A10	86	#6	BNT.	4" C/C	7'-8½" AVG.
① A11	86	#6	STR.	4" C/C	6'-4½"
② E1	78	#4	STR.	AS SHOWN	375'-6"
② E2	78	#5	STR.	AS SHOWN	378'-6"
E3	154	#6	STR.	AS SHOWN	46'-6"
E4	154	#4	STR.	AS SHOWN	46'-6"
E5	77	#6	STR.	AS SHOWN	47'-6"
E6	77	#4	STR.	AS SHOWN	47'-6"
EPH1	144	#5	BNT.	AS SHOWN	7'-3"
EPH2	4	#5	BNT.	AS SHOWN	6'-5"
EPH3	8	#5	BNT.	AS SHOWN	5'-1"
EPT1	4	#5	BNT.	AS SHOWN	136'-7"
EPT2	4	#5	BNT.	AS SHOWN	136'-8½" AVG.
EPT3	2	#5	BNT.	AS SHOWN	136'-9"
FS2	736	#5	BNT.	12" C/C	7'-4"



COLOR DETAIL

ALL COST ASSOCIATED WITH APPLYING COLOR FINISH TO SUPERSTRUCTURE PARAPET AND BRIDGE DECK ARE TO BE INCLUDED IN THE UNIT PRICE FOR "ITEMS BEING FINISHED".

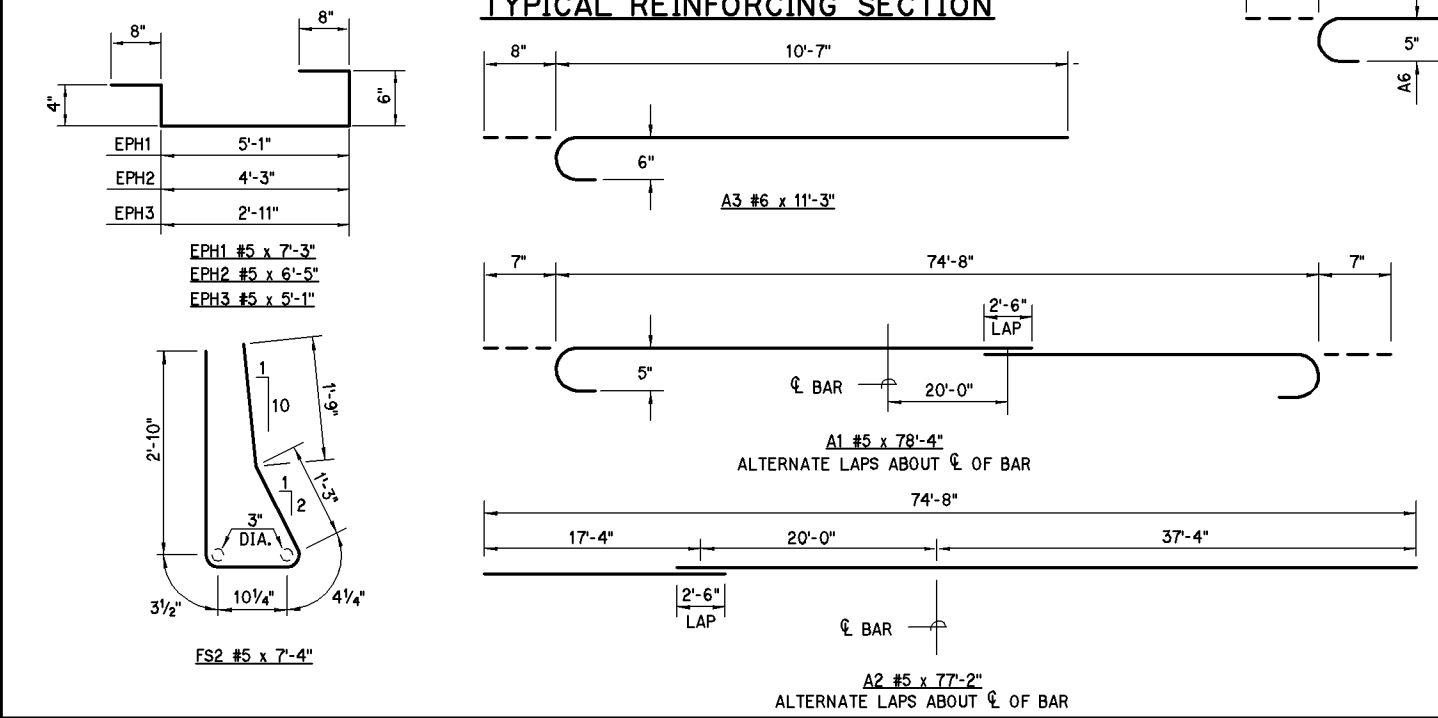


- ① LENGTH VARIES:
 A4 = 62'-7" to 75'-9"
 A5 = 61'-5" to 74'-7"
 A6 = 26'-7" to 59'-7"
 A7 = 25'-5" to 58'-5"
 A8 = 12'-9" to 26'-4"
 A9 = 11'-5" to 25'-0"
 A10 = 3'-1" to 12'-4"
 A11 = 1'-9" to 11'-0"
- ② LENGTH SHOWN INCLUDES LAP:
 A1 = 1 at 2'-6"
 A2 = 1 at 2'-6"
 A4 = 1 at 2'-6"
 A5 = 1 at 2'-6"
 E1 = 6 at 1'-6"
 E2 = 6 at 2'-0"
 EPT1 = 2 at 2'-0"
 EPT2 = 2 at 2'-0"
 EPT3 = 2 at 2'-0"

NOTE:
 THE PLAN QUANTITY SHOWN INCLUDES 27.0 C.Y. FOR HAUNCHES OVER GIRDERS AND DIAPHRAGMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF STRUCTURAL STEEL TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES SHALL BE AS SHOWN ABOVE.

QUANTITIES

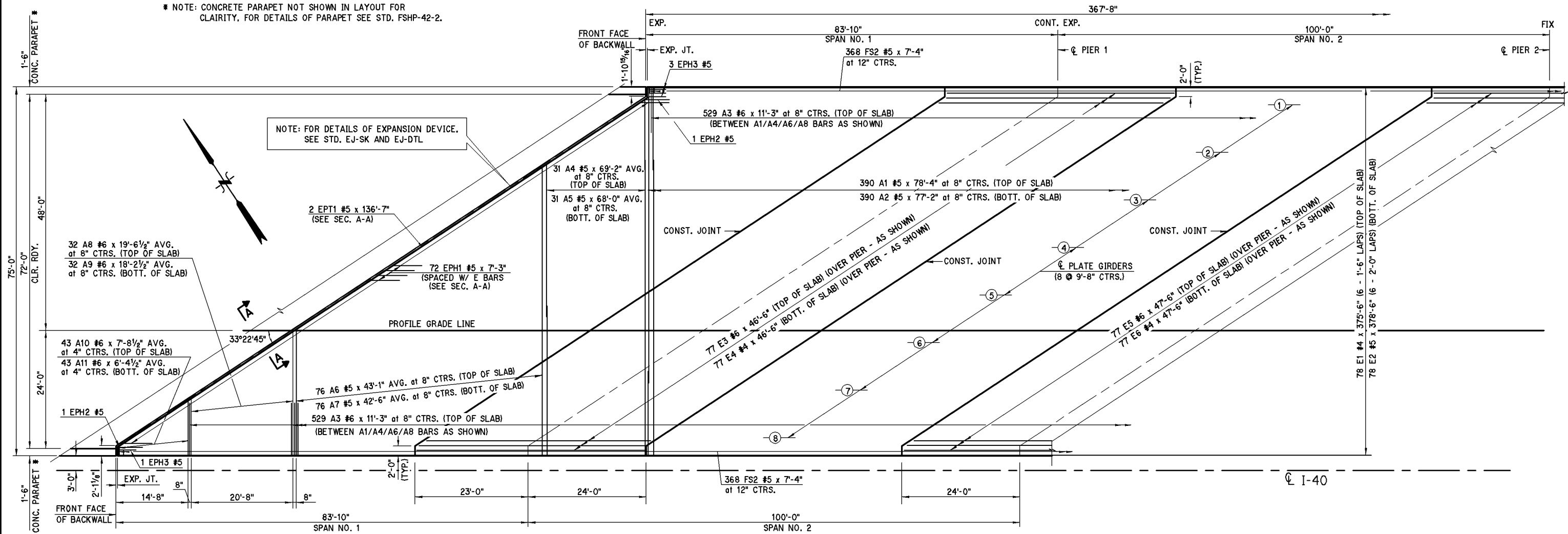
ITEM	UNIT	TOTAL
CLASS AA CONCRETE	C.Y.	716.3
SAW-CUT GROOVING	S.Y.	2,941.4
SEALED EXPANSION JOINT	L.F.	270.10
42" F-SHAPED PARAPET	L.F.	735.4
STRUCTURAL STEEL	LB.	732,600
EPOXY COATED REINFORCING STEEL	LB.	191,070
WATER REPELLENT	S.Y.	971
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	8
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	32
SEALER CRACK PREPARATION	L.F.	810
SEALER RESIN	GAL.	9.0



Design		OKLAHOMA COUNTY BRIDGE "C" SUPERSTRUCTURE DETAILS PHASE II (SHEET 1 OF 3) State Job No. 23310(04) Sheet No. B142
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE

* NOTE: CONCRETE PARAPET NOT SHOWN IN LAYOUT FOR CLARITY. FOR DETAILS OF PARAPET SEE STD. FSHP-42-2.



NOTE: FOR DETAILS OF EXPANSION DEVICE, SEE STD. EJ-SK AND EJ-DTL

2 EPT1 #5 x 136'-7" (SEE SEC. A-A)

72 EPH1 #5 x 7'-3" (SPACED W/ E BARS (SEE SEC. A-A)

PROFILE GRADE LINE

76 A6 #5 x 43'-1" AVG. at 8" CTRS. (TOP OF SLAB)

76 A7 #5 x 42'-6" AVG. at 8" CTRS. (BOT. OF SLAB)

529 A3 #6 x 11'-3" at 8" CTRS. (TOP OF SLAB) (BETWEEN A1/A4/A6/A8 BARS AS SHOWN)

368 FS2 #5 x 7'-4" at 12" CTRS.

77 E3 #6 x 46'-6" (TOP OF SLAB) (OVER PIER - AS SHOWN)

77 E4 #4 x 46'-6" (BOT. OF SLAB) (OVER PIER - AS SHOWN)

77 E5 #6 x 47'-6" (TOP OF SLAB) (OVER PIER - AS SHOWN)

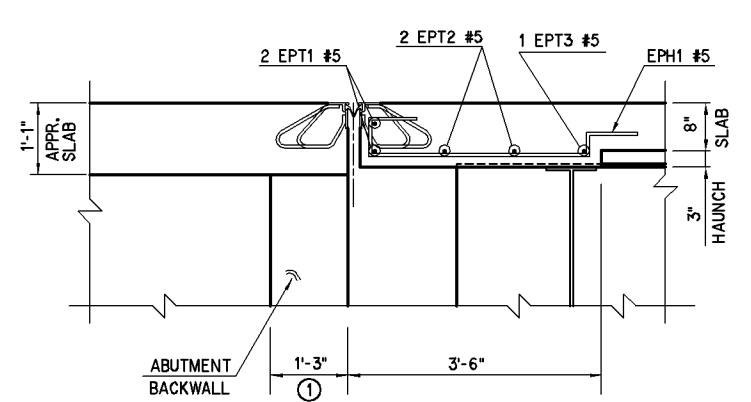
77 E6 #4 x 47'-6" (BOT. OF SLAB) (OVER PIER - AS SHOWN)

78 E1 #4 x 375'-6" (6 - 1'-6" LAPS) (TOP OF SLAB)

78 E2 #5 x 378'-6" (6 - 2'-0" LAPS) (BOT. OF SLAB)

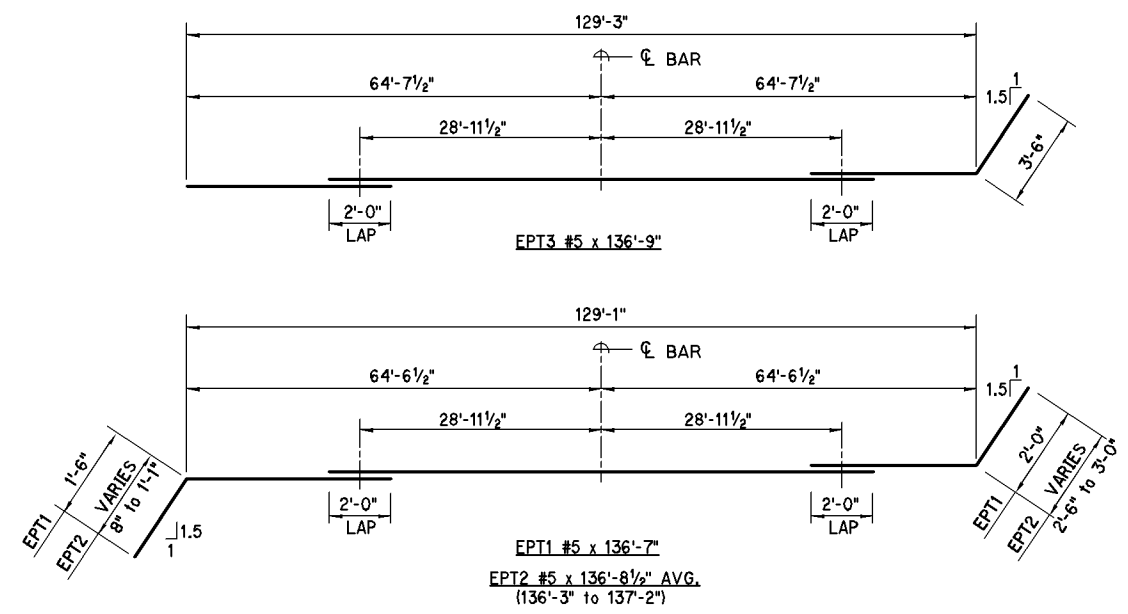
SLAB REINFORCING LAYOUT - SPAN NO. 1 & 2

FOR EXPANSION JOINT DETAILS, SEE STD. EJ-SK & EJ-DTL.



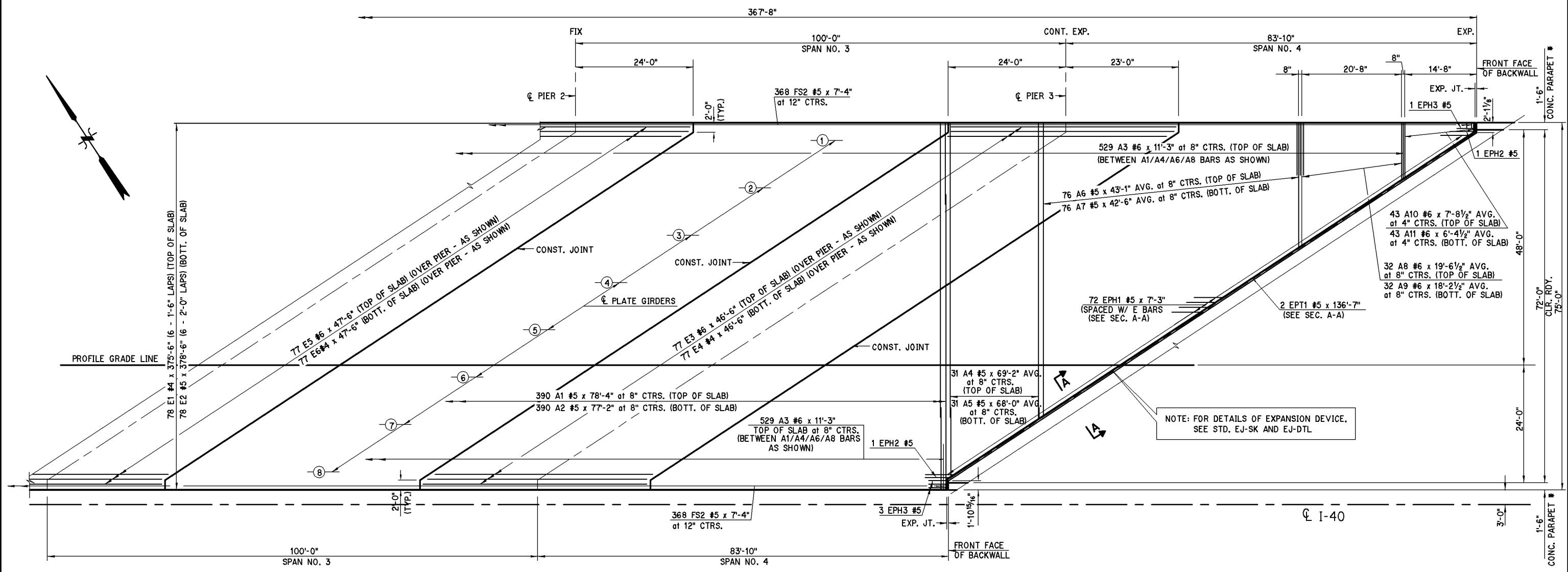
SECTION A-A

NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLARITY.



Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B143

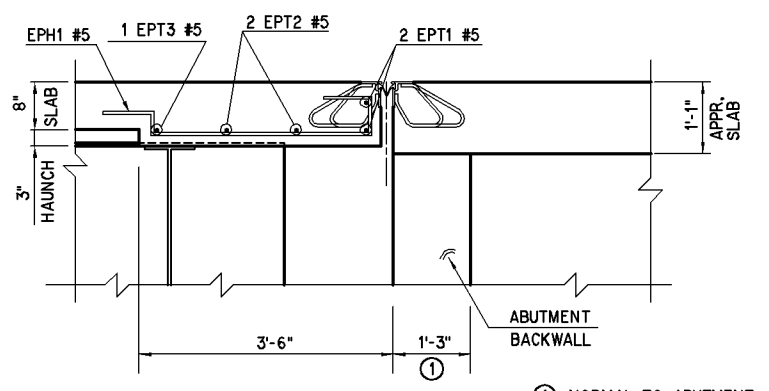
DESCRIPTION	REVISIONS	DATE



SLAB REINFORCING LAYOUT - SPAN NO. 3 & 4

FOR EXPANSION JOINT DETAILS,
SEE STD. EJ-SK & EJ-DTL.

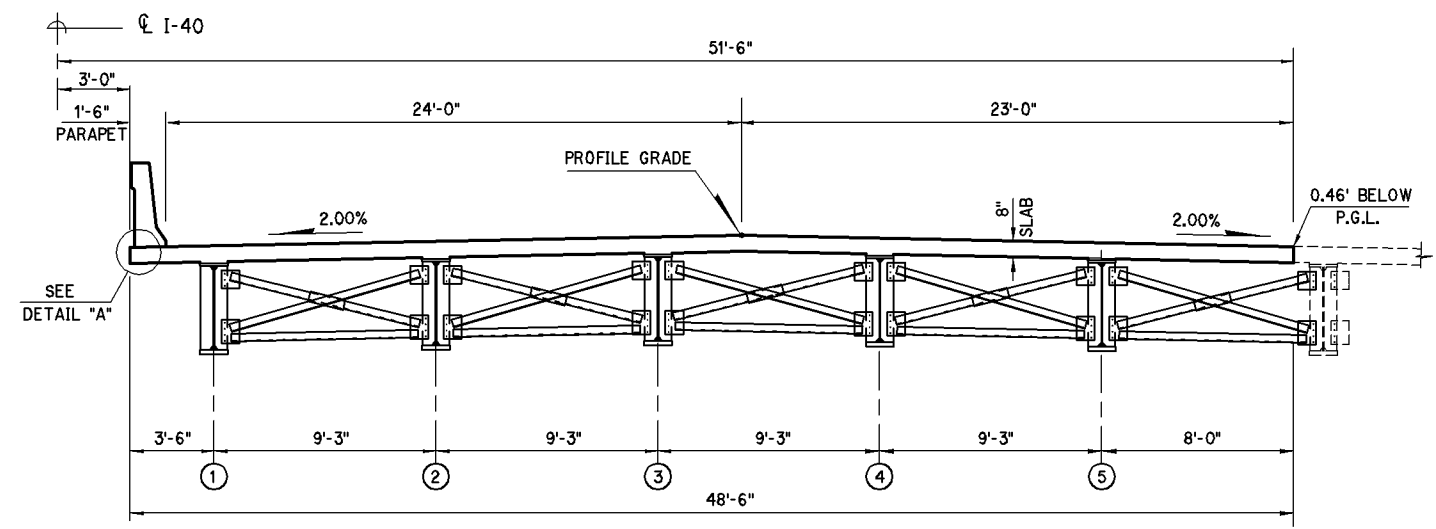
* NOTE: CONCRETE PARAPET NOT SHOWN IN LAYOUT FOR
CLARITY. FOR DETAILS OF PARAPET SEE STD. FSHP-42-2.



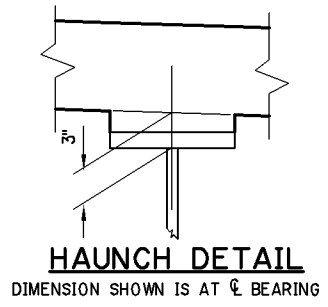
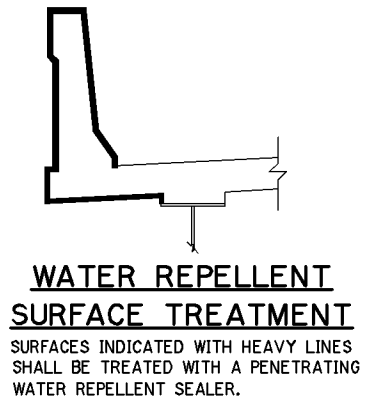
SECTION A-A

NOTE: SLAB REINFORCING OMITTED
IN SECTION FOR CLARITY.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 3 OF 3)	
		State Job No. 23310(04)	Sheet No. B144

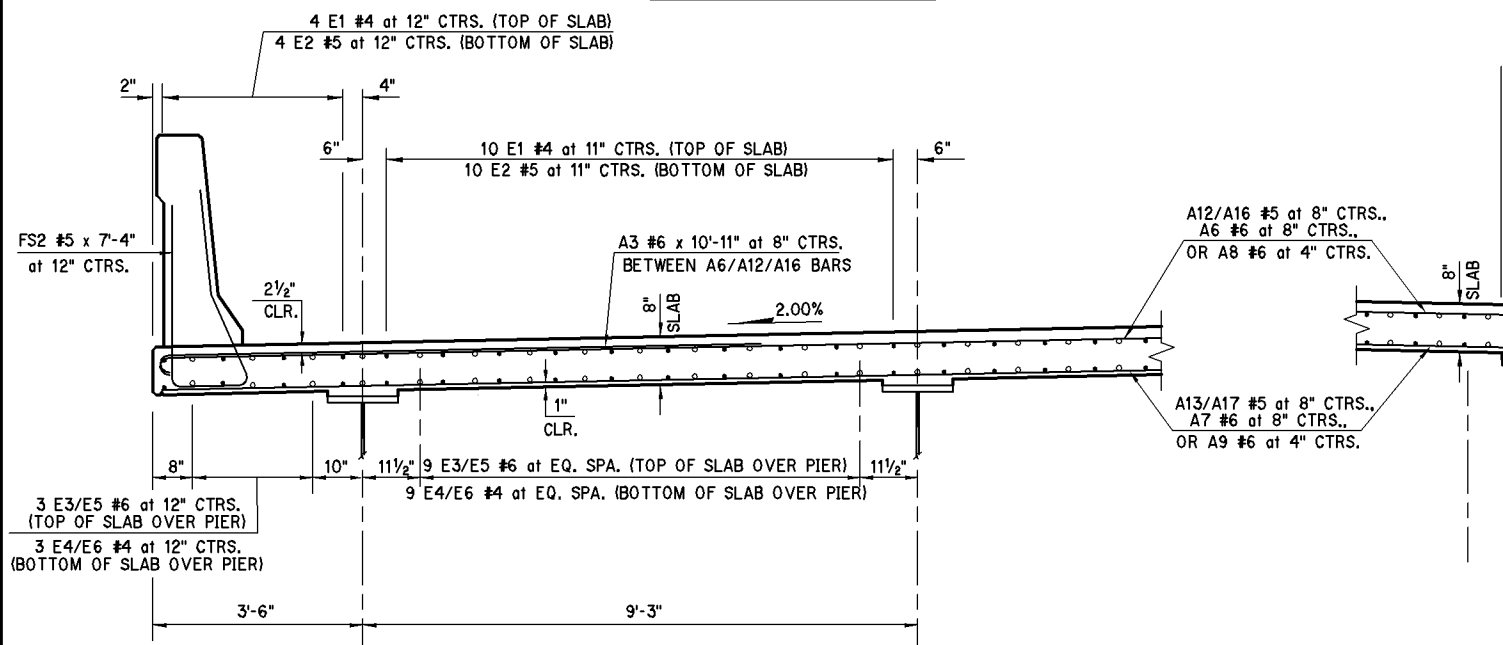


TYPICAL SECTION

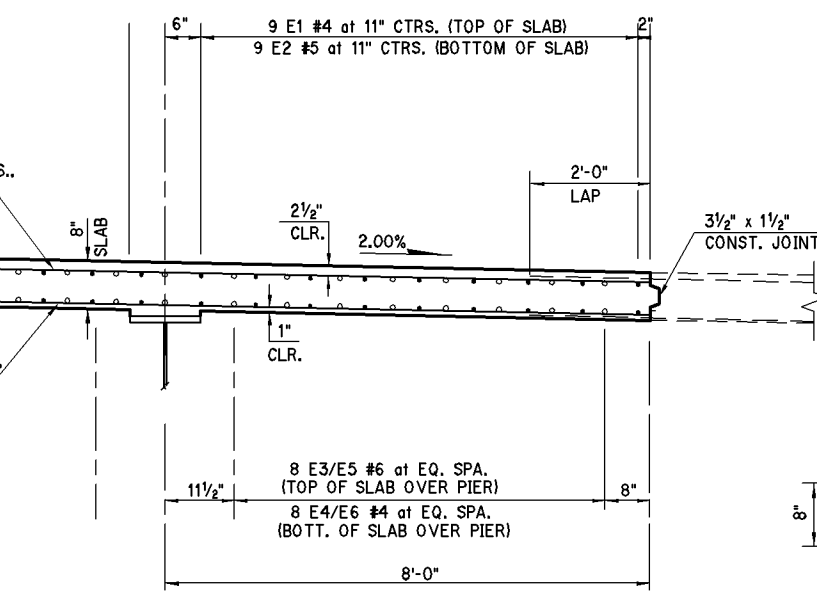


BAR LIST- SUPERSTRUCTURE
EPOXY COATED

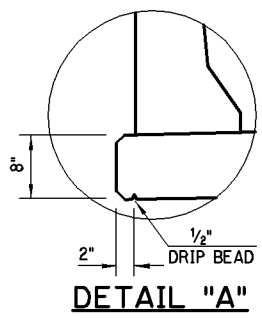
MARK	NO.	SIZE	FORM	SPACING	LENGTH
A3	529	#6	BNT.	8" C/C	10'-11"
A6	32	#6	BNT.	8" C/C	19'-6 1/2" AVG.
A7	32	#6	STR.	8" C/C	18'-2 1/2" AVG.
A8	43	#6	BNT.	4" C/C	7'-8 1/2" AVG.
A9	43	#6	STR.	4" C/C	6'-9 1/2" AVG.
A12	444	#5	BNT.	8" C/C	48'-11"
A13	444	#5	STR.	8" C/C	48'-4"
A14	100	#5	BNT.	8" C/C	24'-8" AVG.
A15	100	#5	STR.	8" C/C	24'-1" AVG.
A16	53	#5	BNT.	8" C/C	38'-1" AVG.
A17	53	#5	STR.	8" C/C	36'-11" AVG.
E1	53	#4	STR.	AS SHOWN	375'-6"
E2	53	#5	STR.	AS SHOWN	378'-6"
E3	104	#6	STR.	AS SHOWN	46'-6"
E4	104	#4	STR.	AS SHOWN	46'-6"
E5	52	#6	STR.	AS SHOWN	47'-6"
E6	52	#4	STR.	AS SHOWN	47'-6"
EPH1	100	#5	BNT.	AS SHOWN	7'-3"
EPH2	2	#5	BNT.	AS SHOWN	6'-5"
EPH3	4	#5	BNT.	AS SHOWN	5'-1"
EPT6	2	#5	BNT.	AS SHOWN	87'-11"
EPT7	3	#5	BNT.	AS SHOWN	89'-2" AVG.
EPT8	2	#5	BNT.	AS SHOWN	90'-3"
EPT9	2	#5	BNT.	AS SHOWN	90'-10 1/2" AVG.
EPT10	1	#5	STR.	AS SHOWN	91'-8"
FS2	368	#5	BNT.	12" C/C	7'-4"



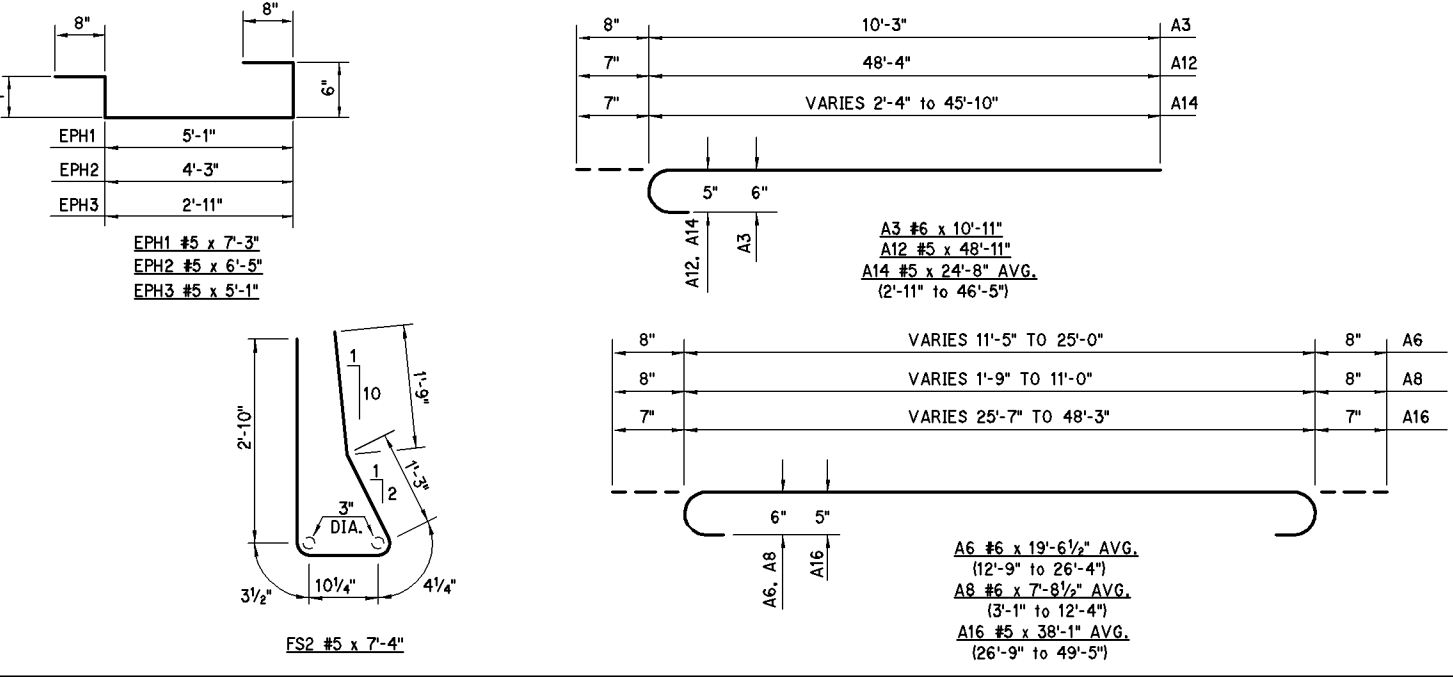
TYPICAL REINFORCING SECTION



TYPICAL REINFORCING SECTION AT CENTER



DETAIL "A"

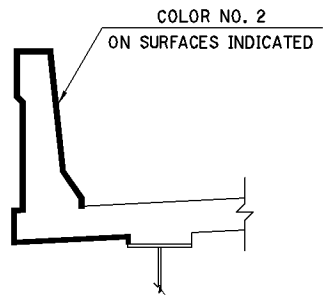


- ① LENGTH VARIES:
A6 = 12'-9" to 26'-4"
A7 = 11'-5" to 25'-0"
A8 = 3'-1" to 12'-4"
A9 = 1'-9" to 11'-0"
A14 = 2'-11" to 46'-5"
A15 = 2'-4" to 45'-10"
A16 = 26'-9" to 49'-5"
A17 = 25'-7" to 48'-3"
EPT7 = 88'-9" to 89'-7"
EPT9 = 90'-8" to 91'-1"
- ② LENGTH SHOWN INCLUDES LAP:
E1 = 6 at 1'-6"
E2 = 6 at 2'-0"
EPT6 = 1 at 2'-0"
EPT7 = 1 at 2'-0"
EPT8 = 1 at 2'-0"
EPT9 = 1 at 2'-0"
EPT10 = 1 at 2'-0"

QUANTITIES

ITEM	UNIT	TOTAL
CLASS AA CONCRETE	C.Y.	462.7
SAW-CUT GROOVING	S.Y.	1,920.1
SEALED EXPANSION JOINT	L.F.	175.04
42" F-SHAPED PARAPET	L.F.	367.7
STRUCTURAL STEEL	LB.	420,670
EPOXY COATED REINFORCING STEEL	LB.	120,310
WATER REPELLENT	S.Y.	486
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	5
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	20
SEALER CRACK PREPARATION	L.F.	896
SEALER RESIN	GAL.	9.9

****NOTE:**
THE PLAN QUANTITY SHOWN INCLUDES 16.9 C.Y. FOR HAUNCHES OVER GIRDERS AND DIAPHRAGMS. THE HAUNCH HEIGHTS WILL BE SET AFTER ERECTION OF STRUCTURAL STEEL TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY FOR HAUNCHES SHALL BE AS SHOWN ABOVE.



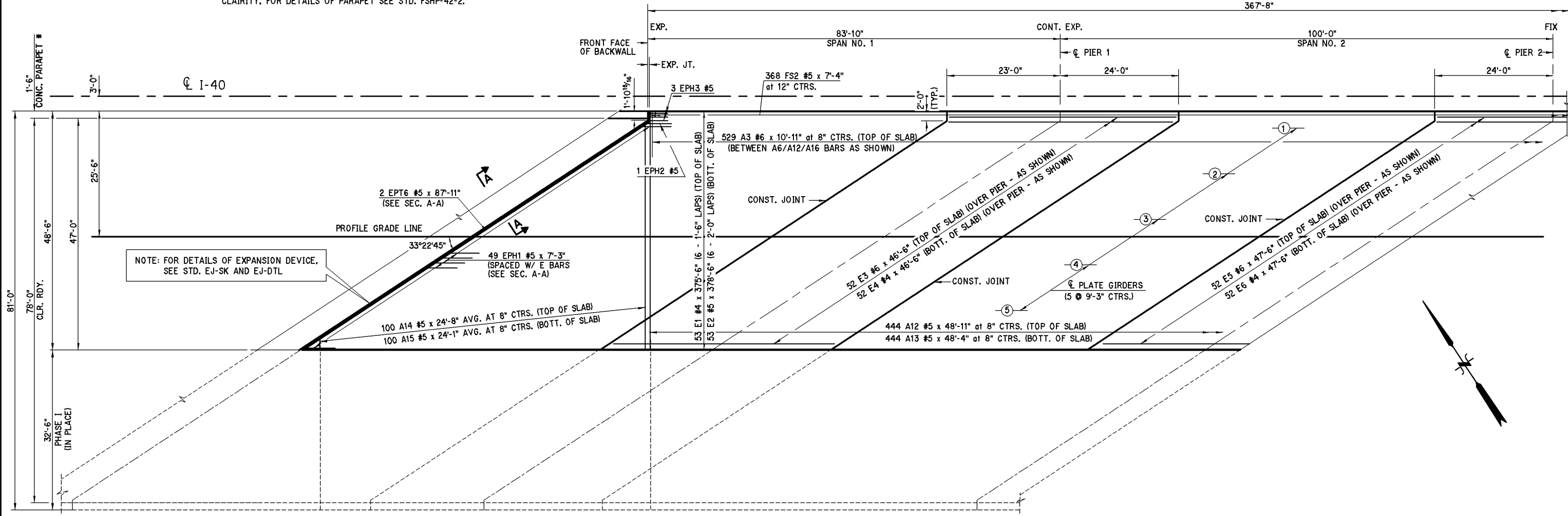
COLOR DETAIL

ALL COST ASSOCIATED WITH APPLYING COLOR FINISH TO SUPERSTRUCTURE PARAPET AND BRIDGE DECK ARE TO BE INCLUDED IN THE UNIT PRICE FOR "ITEMS BEING FINISHED".

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 1 OF 3)	
		State Job No. 23310(04)	Sheet No. B145

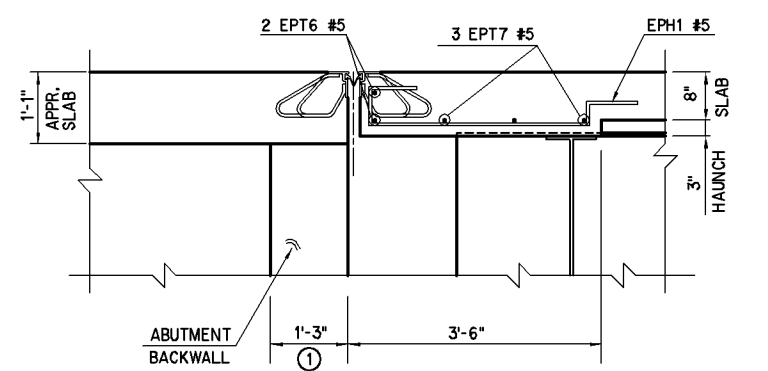
DESCRIPTION	REVISIONS	DATE

* NOTE: CONCRETE PARAPET NOT SHOWN IN LAYOUT FOR CLAIRITY. FOR DETAILS OF PARAPET SEE STD. FSHP-42-2.



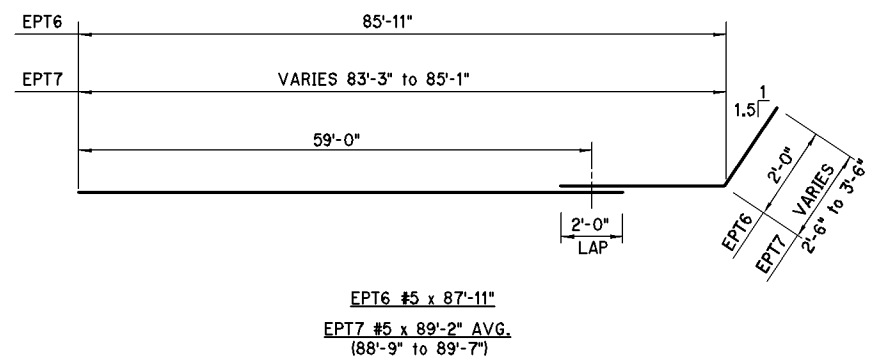
SLAB REINFORCING LAYOUT - SPAN NO. 1 & 2

FOR EXPANSION JOINT DETAILS, SEE STD. EJ-SK & EJ-DTL.



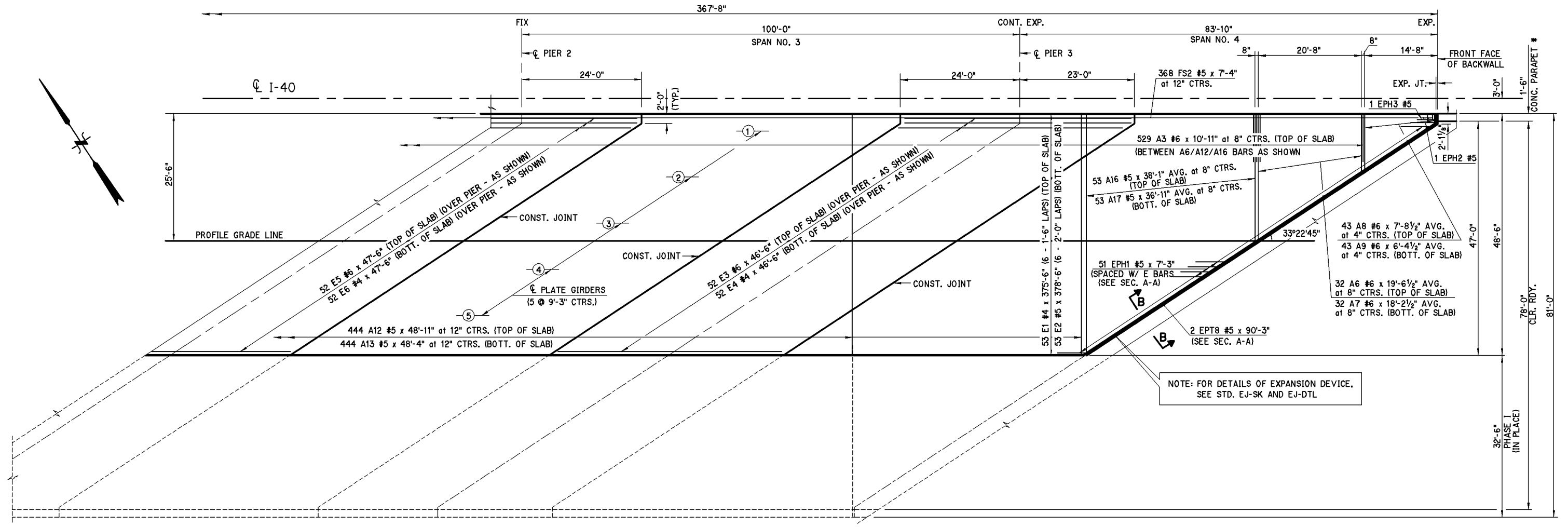
SECTION A-A

NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLAIRITY.



Design		OKLAHOMA COUNTY BRIDGE "D" E.B. I-40 OVER S.E. 15TH STEET SUPERSTRUCTURE DETAILS PHASE III (SHEET 2 OF 3) State Job No. 23310(04) Sheet No. B146
Drawn		
Checked		
Approved		
Squad	POE	

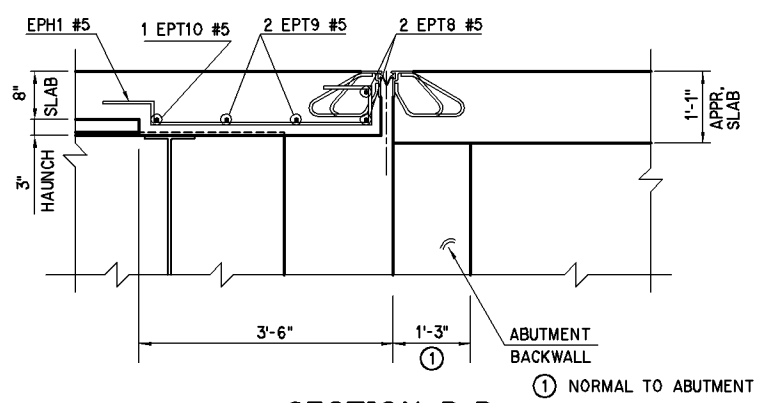
DESCRIPTION	REVISIONS	DATE



* NOTE: CONCRETE PARAPET NOT SHOWN IN LAYOUT FOR CLAIRITY, FOR DETAILS OF PARAPET SEE STD. FSHP-42-2.

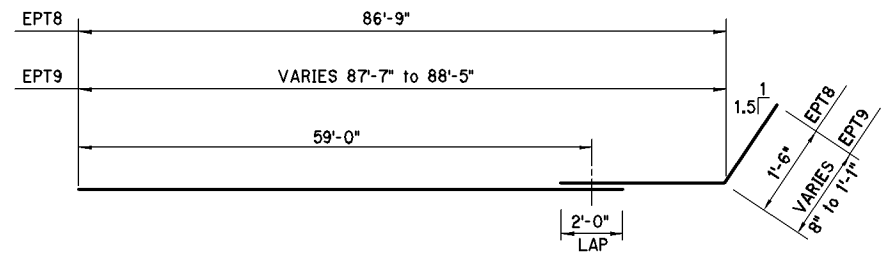
SLAB REINFORCING LAYOUT - SPAN NO. 3 & 4

FOR EXPANSION JOINT DETAILS, SEE STD. EJ-SK & EJ-DTL.



SECTION B-B

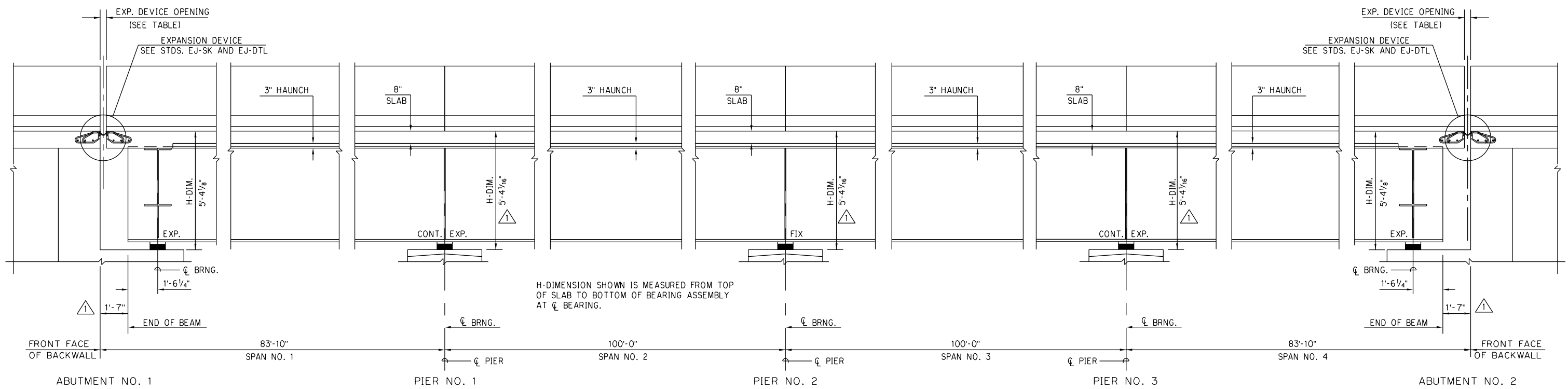
NOTE: SLAB REINFORCING OMITTED IN SECTION FOR CLAIRITY.



EPT8 #5 x 90'-3"
EPT9 #5 x 90'-10 1/2" AVG.
(90'-8" TO 91'-1")

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		SUPERSTRUCTURE DETAILS	
Approved		PHASE III	
Squad	POE	(SHEET 3 OF 3)	
		State Job No. 23310(04)	Sheet No. B147

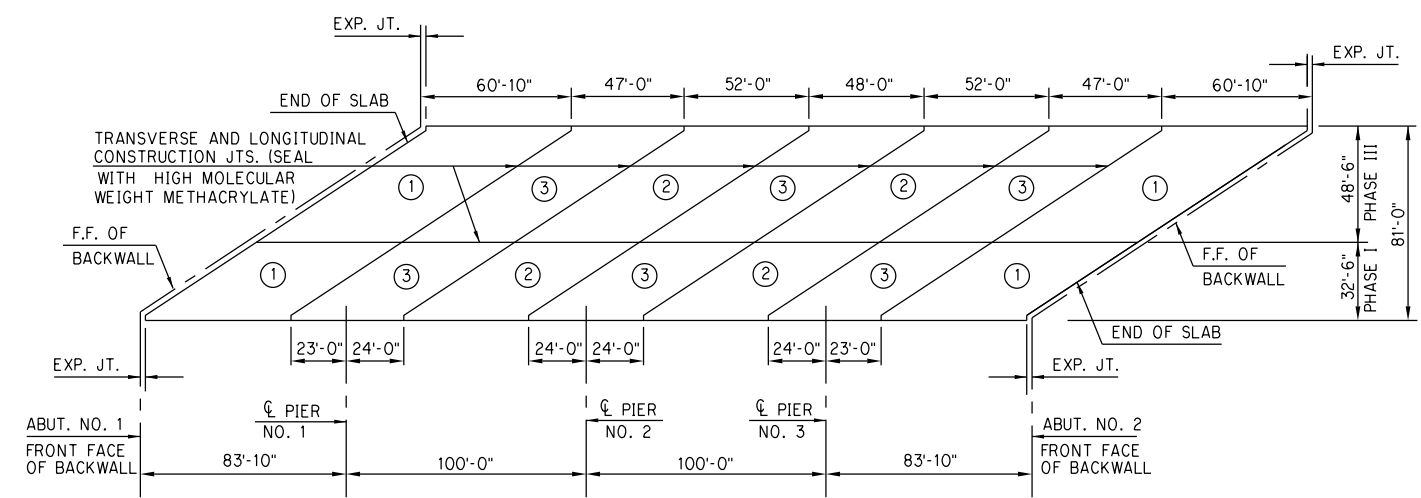
DESCRIPTION	REVISIONS	DATE
REVISION AFTER LET		9/03/20



LONGITUDINAL SECTION

TABLE OF EXPANSION JOINT OPENINGS - ABUTMENTS 1 & 2

TEMPERATURE	16°	25°	34°	43°	51°	60°	69°	77°	86°	95°	104°
OPENING	2 5/8"	2 1/2"	2 3/8"	2 1/4"	2 1/8"	2"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"



SLAB POURING SEQUENCE

SLAB POURING SEQUENCE:

THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE Poured EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.

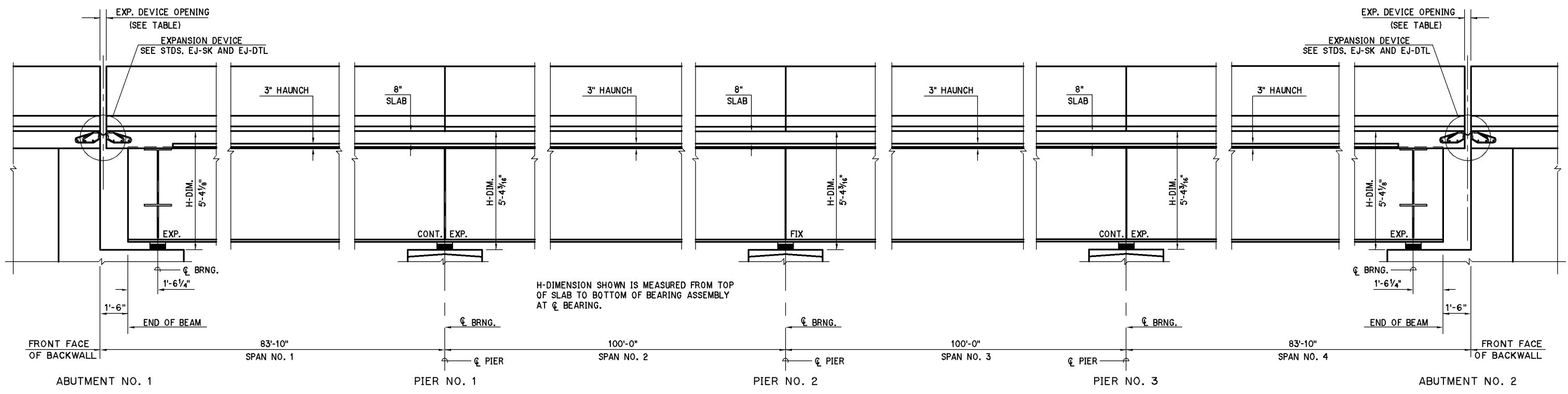
CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYPED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYPED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS, UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT. NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.

ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

REVISION AFTER LET
09/03/2020

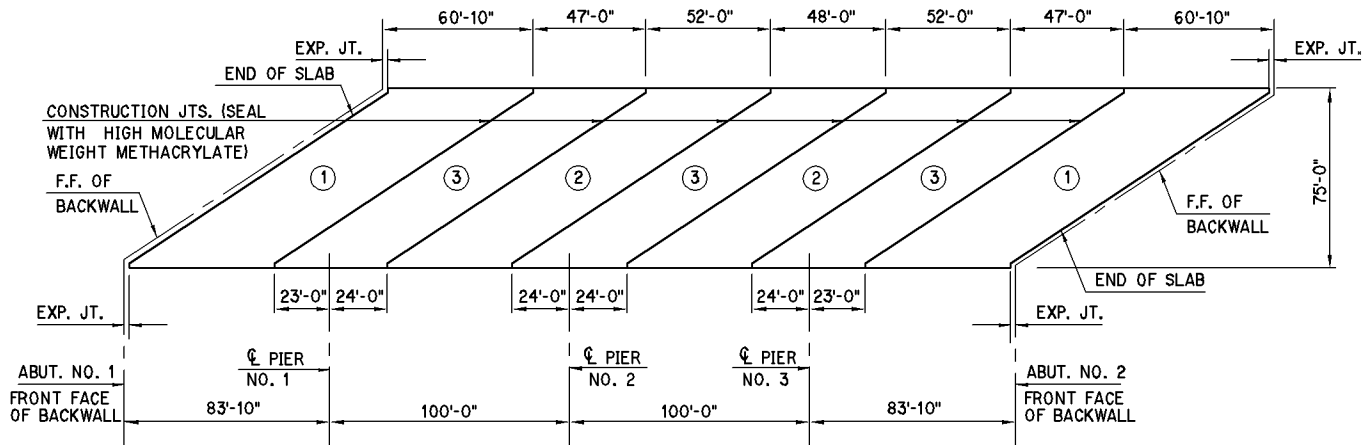
Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		LONGITUDINAL SECTION	
Approved		PHASE I & III	
Squad	POE	State Job No. 23310(04)	Sheet No. B148

DESCRIPTION	REVISIONS	DATE



LONGITUDINAL SECTION

TEMPERATURE	16°	25°	34°	43°	51°	60°	69°	77°	86°	95°	104°
OPENING	2 5/8"	2 1/2"	2 3/8"	2 1/4"	2 1/8"	2"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"

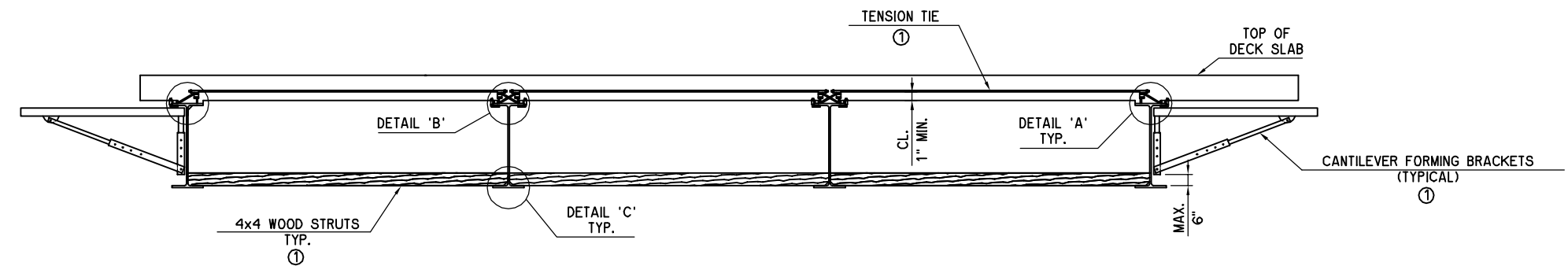


SLAB POURING SEQUENCE

SLAB POURING SEQUENCE:
 THE POURING SEQUENCE SHALL BE IN THE NUMERICAL SEQUENCE INDICATED. ALL POURS WITH THE SAME NUMBER MAY BE Poured EITHER SEPARATELY OR SIMULTANEOUSLY, BUT ALL POURS WITH THE SAME NUMBER SHALL BE COMPLETED BEFORE BEGINNING WITH THE NEXT POUR NUMBER. THERE SHALL BE A LAPSE OF AT LEAST 24 HOURS BETWEEN POURS OR WHEN THE PREVIOUS POUR REACHES A STRENGTH OF 3000 PSI. EACH POUR SHALL BE AT A MINIMUM RATE OF 25 L.F. PER HOUR.
 CONSTRUCTION JOINTS AT THE CLOSURE POURS IN THE DECK SLAB SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, POURING OF DECK SLAB MAY BE HALTED WITH A KEYED CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS DIRECTED BY THE ENGINEER. PRIMARY LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL CONSTRUCTION JOINTS. ADDITIONAL LONGITUDINAL REINFORCING WITHIN CLOSURE POURS SHALL BE CONTINUOUS THROUGH EMERGENCY CONSTRUCTION JOINTS. UNTIL THE SLAB IS IN PLACE ON BOTH SIDES OF THE CONSTRUCTION JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT, NO HEAVY EQUIPMENT WILL BE PERMITTED ON THE FINISHED DECK SLAB WITHIN 6 FEET OF ANY CONSTRUCTION JOINT.
 ALL CONSTRUCTION JOINTS WITHIN THE DECK SLAB SHALL BE SEALED USING HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE STANDARD SPECIFICATIONS. ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". ALL COST FOR EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH STREET	
Checked		LONGITUDINAL SECTION	
Approved		PHASE II	
Squad	POE	State Job No. 23310(04)	Sheet No. B149

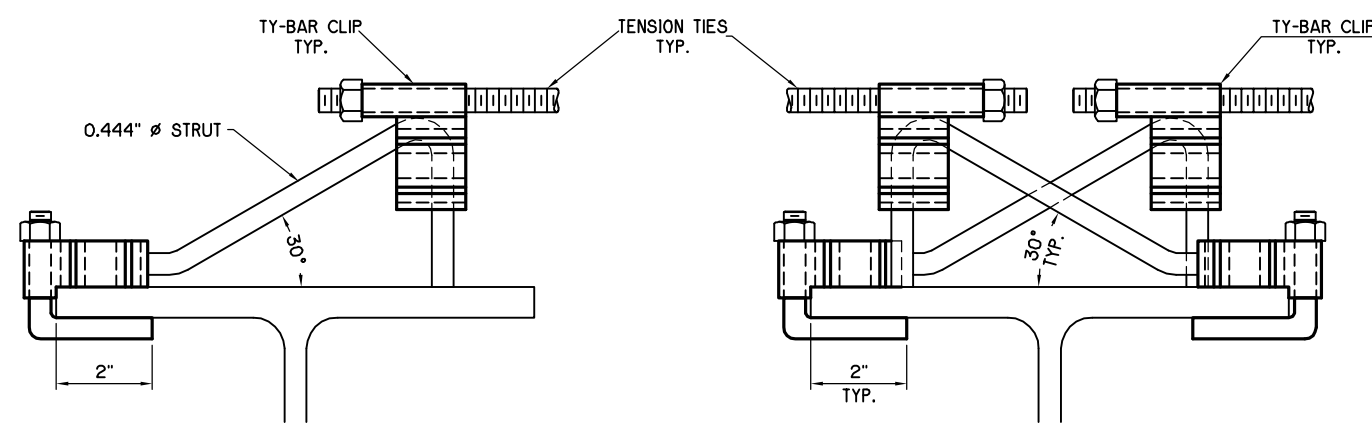
DESCRIPTION	REVISIONS	DATE



BEAM BRACING DECK SLAB PLACEMENT

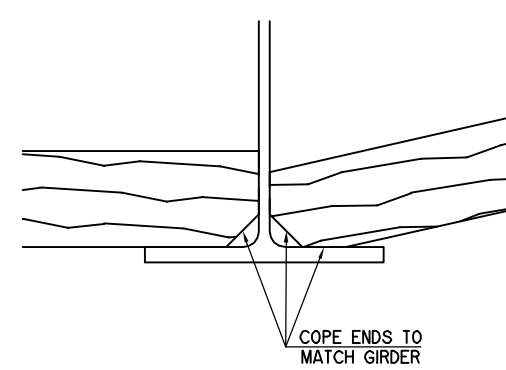
BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

① SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.

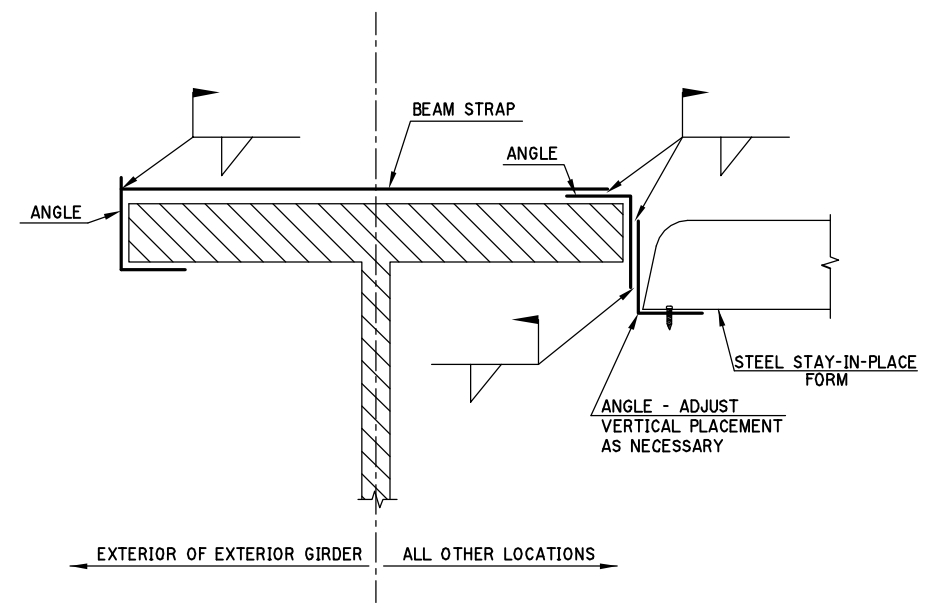


DETAIL 'A'

DETAIL 'B'



DETAIL 'C'

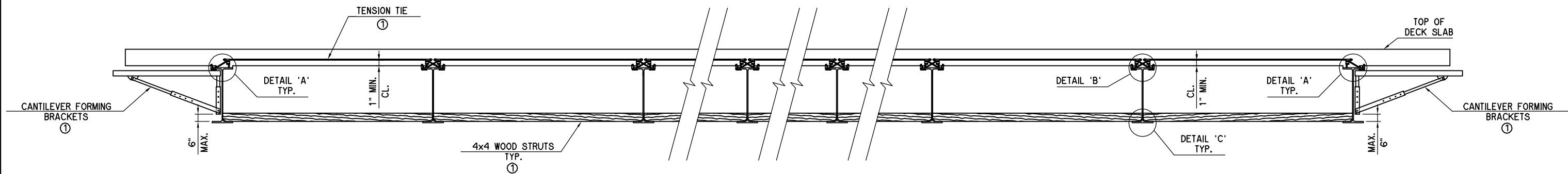


**STEEL STAY-IN-PLACE FORMS
FLANGE CONNECTION DETAIL**

REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			I-40 OVER S.E. 15TH STREET
Checked			GIRDER BRACING DETAILS PHASE I
Approved			State Job No. 23310(04) Sheet No. B150
Squad	POE		

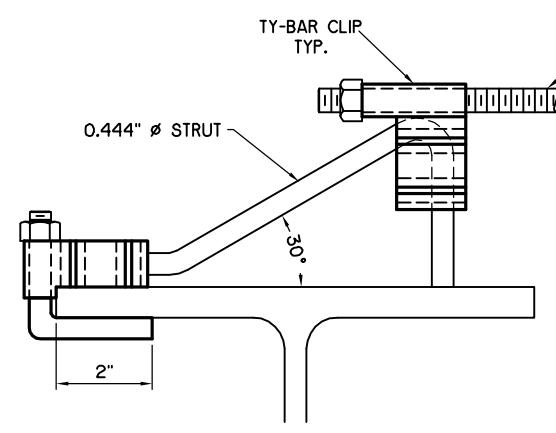
DESCRIPTION	REVISIONS	DATE



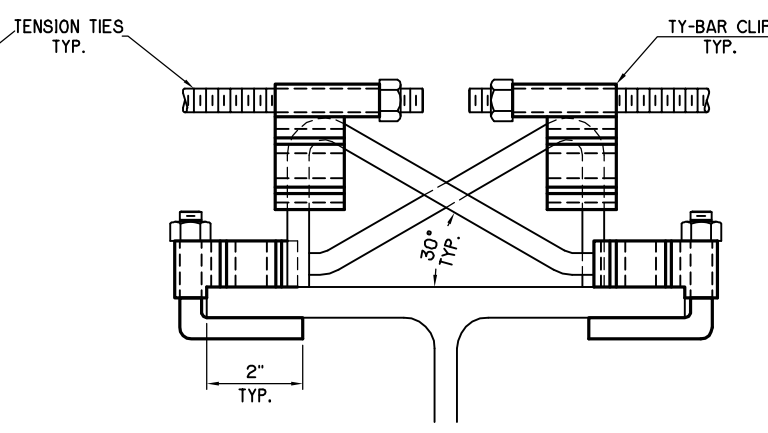
BEAM BRACING DECK SLAB PLACEMENT

BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

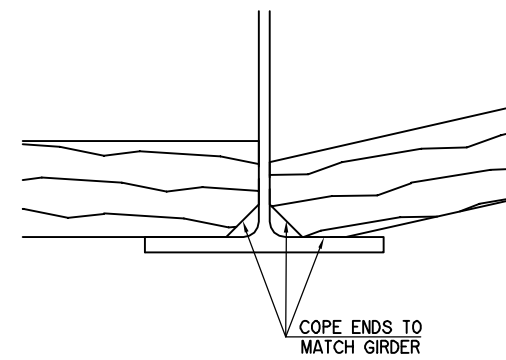
① SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.



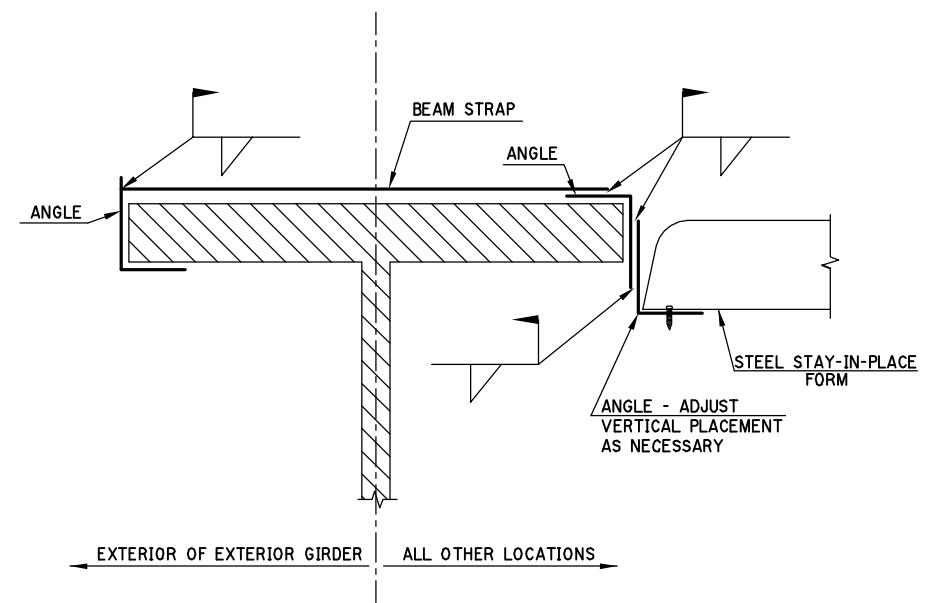
DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

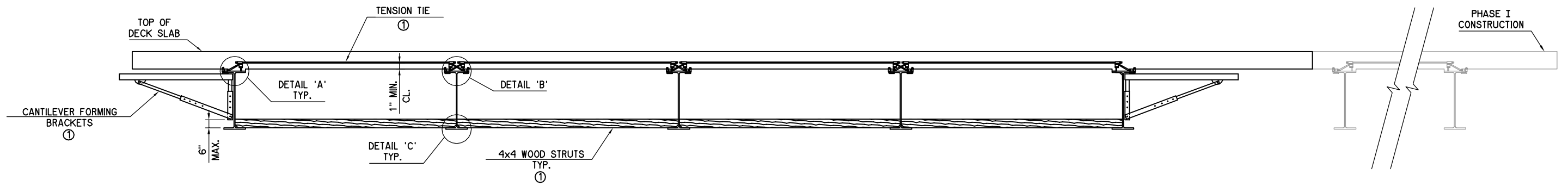


**STEEL STAY-IN-PLACE FORMS
FLANGE CONNECTION DETAIL**

REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			I-40 OVER S.E. 15TH STREET
Checked			GIRDER BRACING DETAILS PHASE II
Approved			State Job No. 23310(04) Sheet No. B151
Squad	POE		

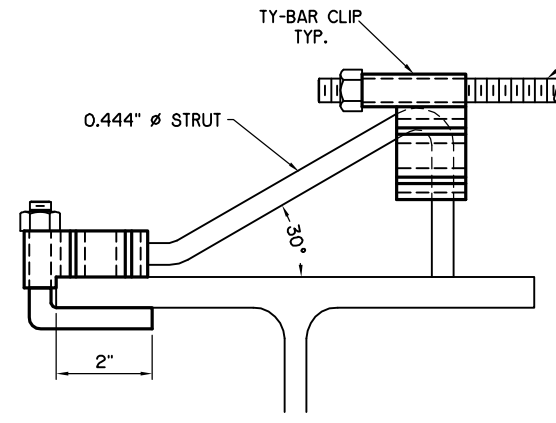
DESCRIPTION	REVISIONS	DATE



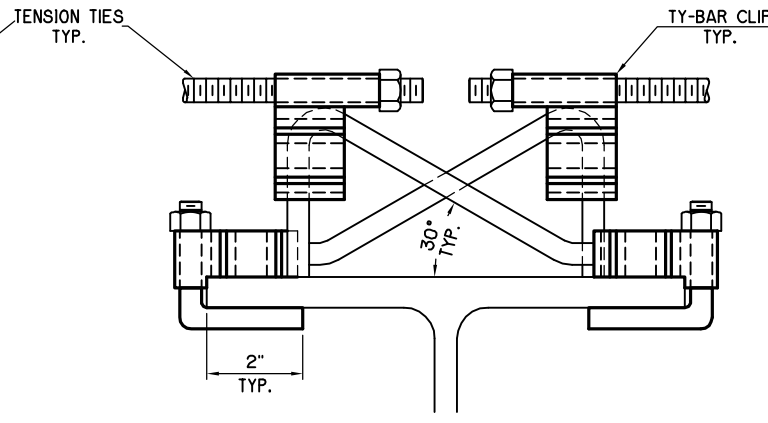
BEAM BRACING FOR PHASE III DECK SLAB PLACEMENT

BRACING SYSTEM SHOWN FOR ILLUSTRATION PURPOSES ONLY. ALTERNATIVE SYSTEMS MAY BE CONSIDERED. SEE GENERAL NOTES FOR DESIGN REQUIREMENTS AND LIMITATIONS.

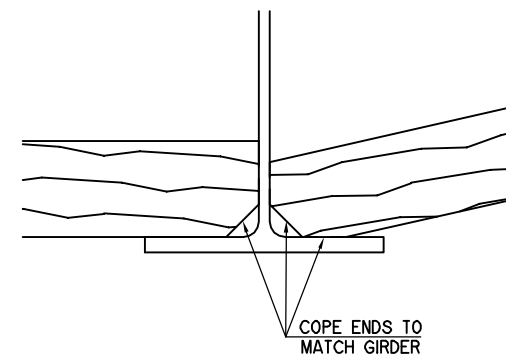
① SPACING OF FORMING BRACES, TENSION TIES, AND HARDWOOD STRUTS TO BE DETERMINED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA FOR THE LOADS ANTICIPATED DURING CONSTRUCTION. SEE GENERAL NOTES FOR ADDITIONAL DETAILS.



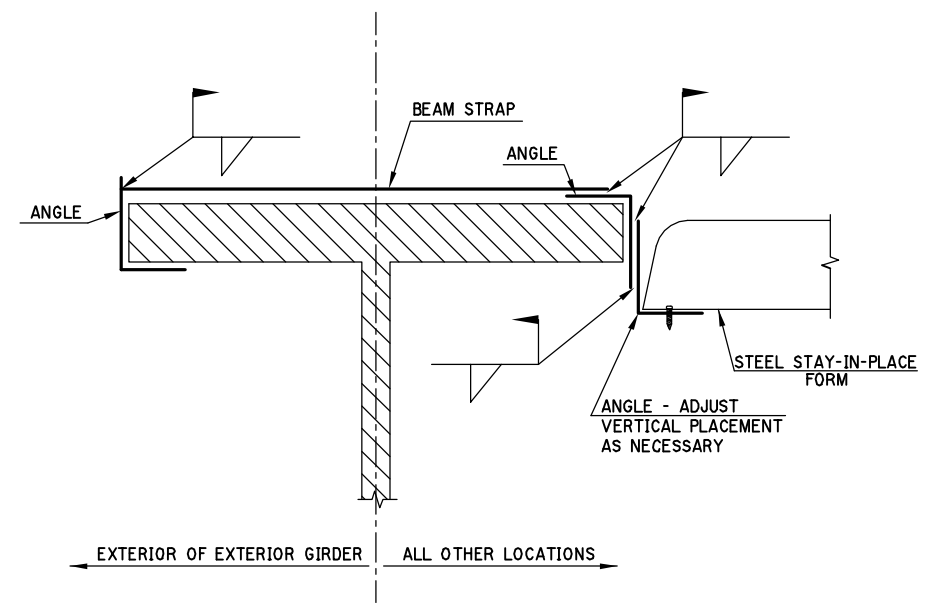
DETAIL 'A'



DETAIL 'B'



DETAIL 'C'



**STEEL STAY-IN-PLACE FORMS
FLANGE CONNECTION DETAIL**

REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			I-40 OVER S.E. 15TH STREET
Checked			GIRDER BRACING DETAILS PHASE III
Approved			State Job No. 23310(04) Sheet No. B152
Squad	POE		

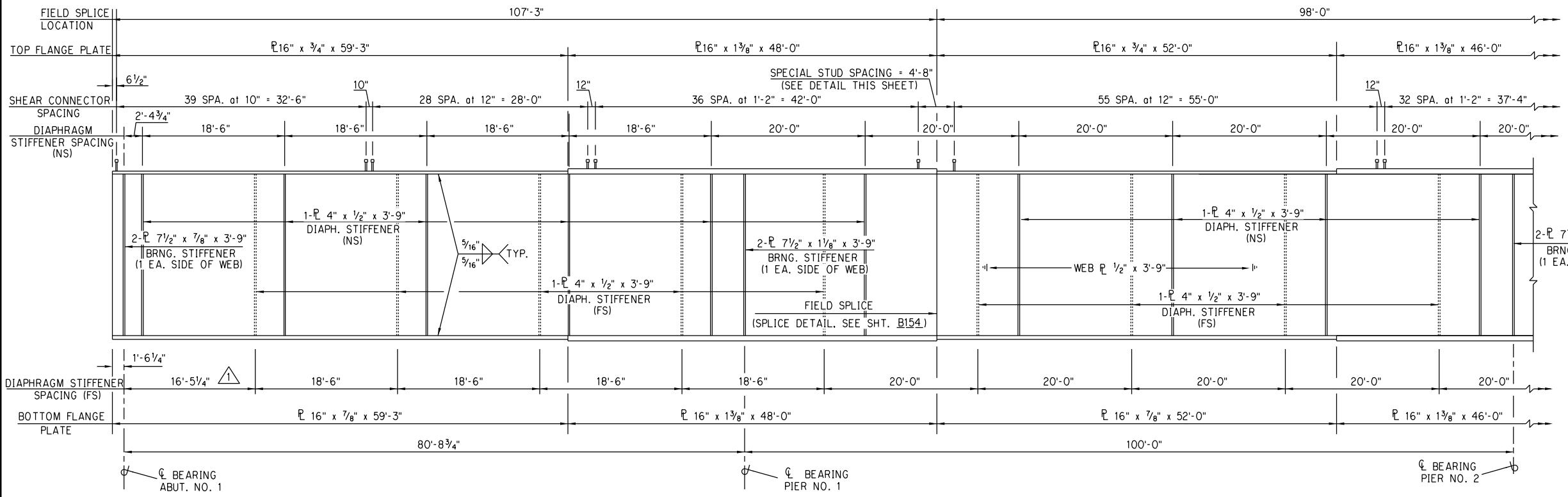


PLATE GIRDER ELEVATION - WEST HALF

REVISION AFTER LET
10/20/2020

- NOTES:
- ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50WT2.
 - ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.
 - USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.
 - PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.
 - ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.
 - SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.
 - BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

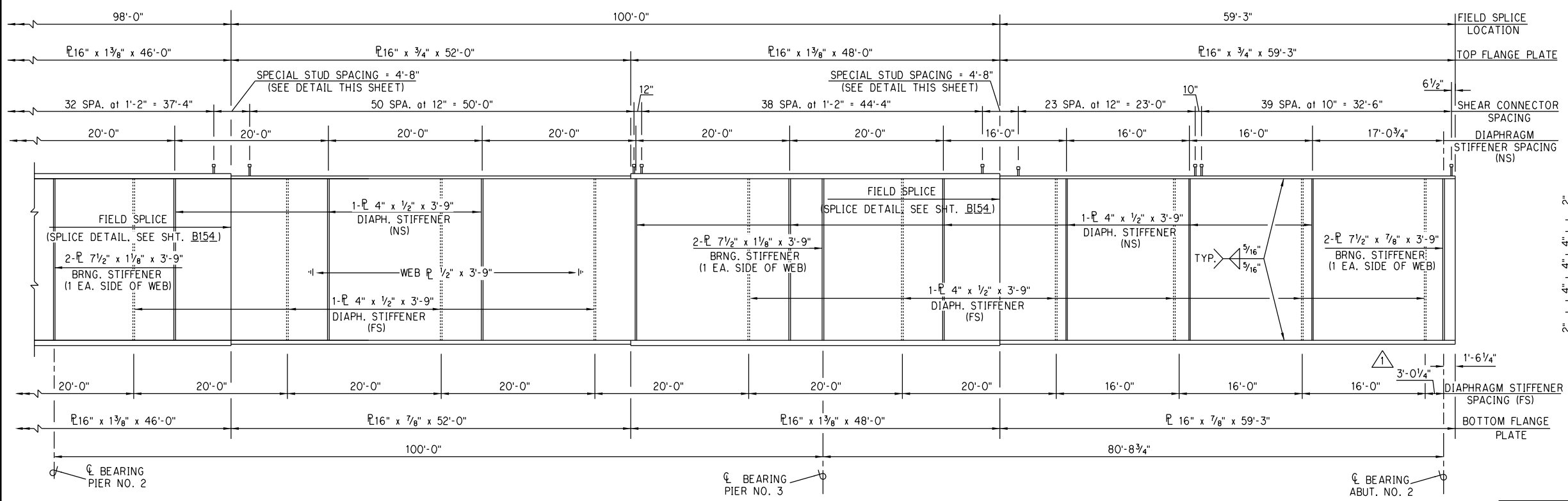
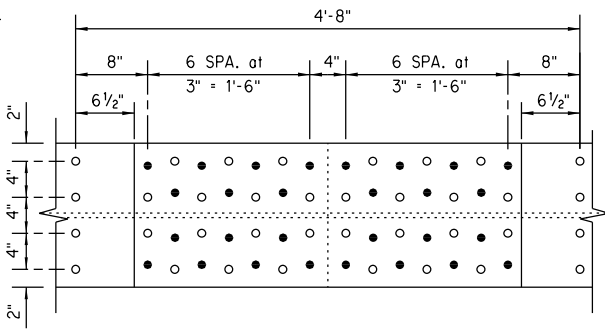


PLATE GIRDER ELEVATION - EAST HALF



STUD SPACING THROUGH FIELD SPLICE

Design	Drawn	Checked	Approved	Squad	POE

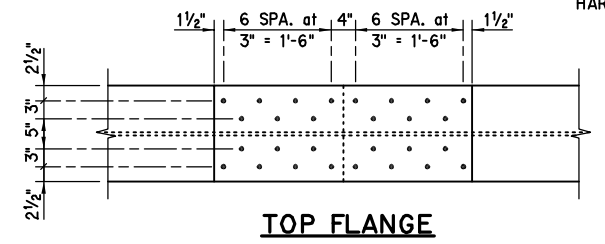
BRIDGE "D" E.B. I-40 OVER S.E. 15TH STREET

PLATE GIRDER DETAILS
PHASE I & III
(SHEET 1 OF 3)

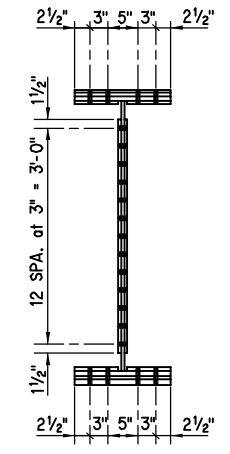
State Job No. 23310(04) Sheet No. B153

DESCRIPTION	REVISIONS	DATE

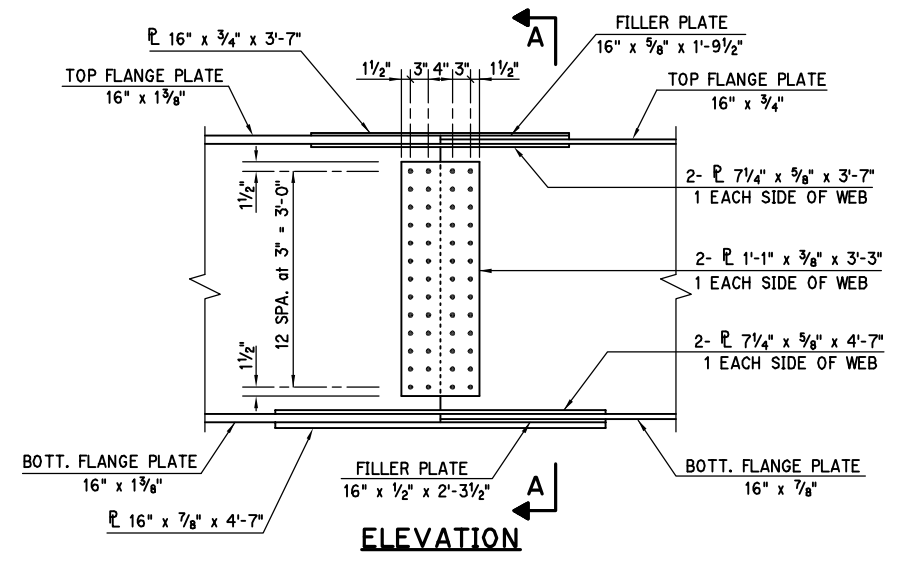
NOTE: ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.



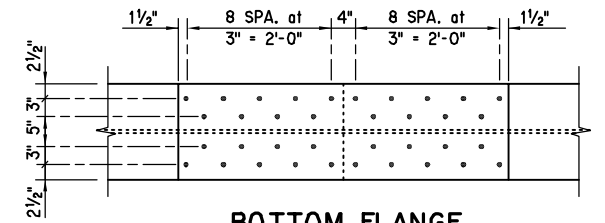
TOP FLANGE



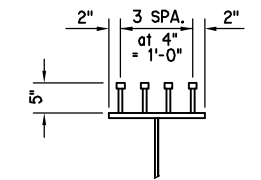
SECTION A-A



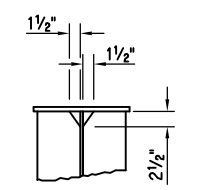
ELEVATION



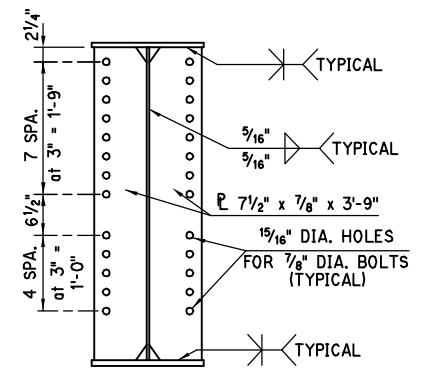
**BOTTOM FLANGE
DETAILS OF BOLTED FIELD SPLICE**



**STUD
SHEAR CONNECTORS**
(4 - 7/8" DIA. x 5" STUDS)

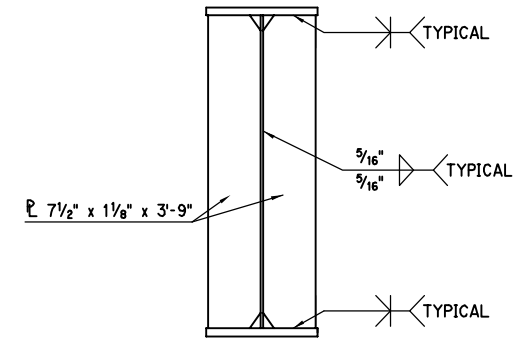


TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

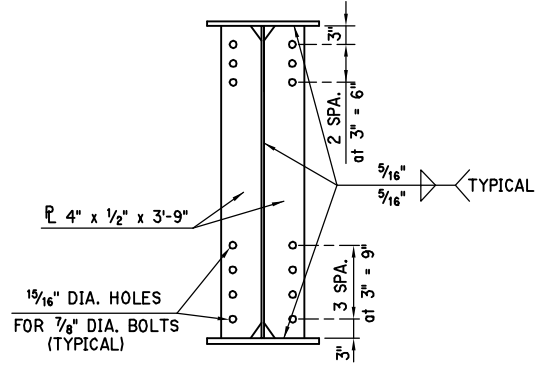


**ABUTMENT
BEARING STIFFENER**

NOTE: OMIT BOLT HOLES ON EXTERIOR STIFFENERS OF EXTERIOR GIRDERS.



**PIER
BEARING STIFFENER**



**INTERMEDIATE
DIAPHRAGM STIFFENER**

NOTE: OMIT EXTERIOR STIFFENERS OF EXTERIOR GIRDERS.

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "D" E.B. 1-40 OVER S.E. 15TH STREET
**PLATE GIRDER DETAILS
PHASE I & III**
(SHEET 2 OF 3)
State Job No. 23310(04) Sheet No. B154

DESCRIPTION	REVISIONS	DATE

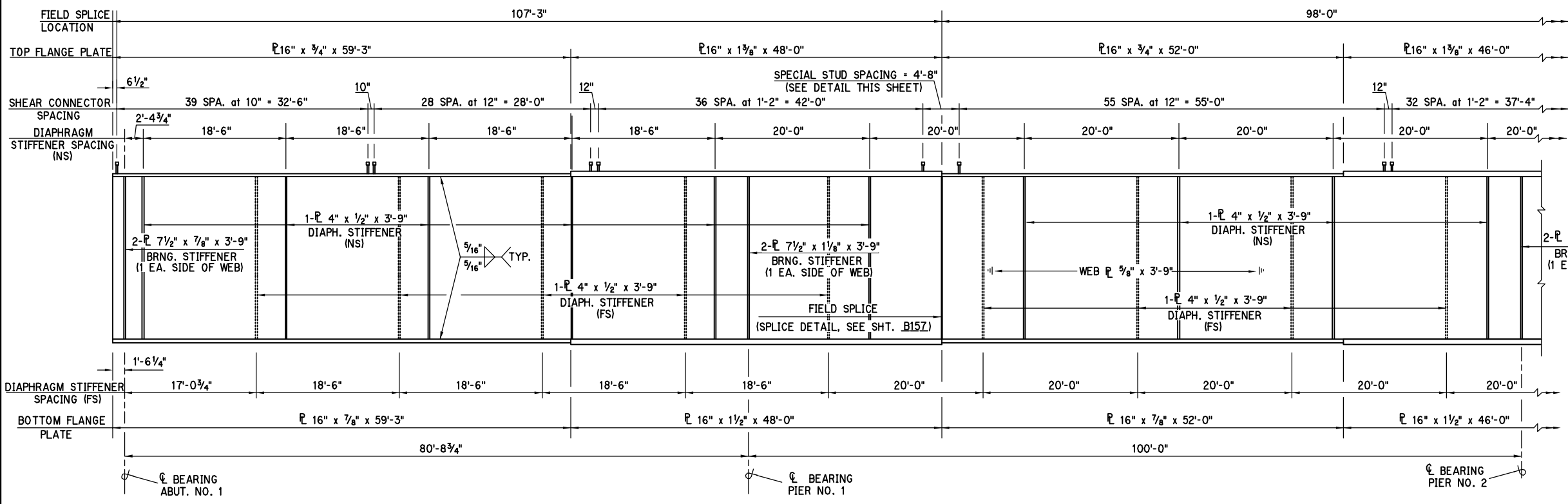


PLATE GIRDER ELEVATION - WEST HALF

- NOTES:**
- ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL BE AASHTO M270, (ASTM A709) GRADE 50WT2.
 - ALL GIRDER, STIFFENER AND SPLICE PLATES SHALL CONFORM TO THE NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2.
 - USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, 1020.
 - PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.
 - ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.
 - SPLICE BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON BOTTOM OF GIRDER FLANGES.
 - BOLT THREADS MUST BE EXCLUDED FROM FIELD SPLICE SHEAR PLANES.

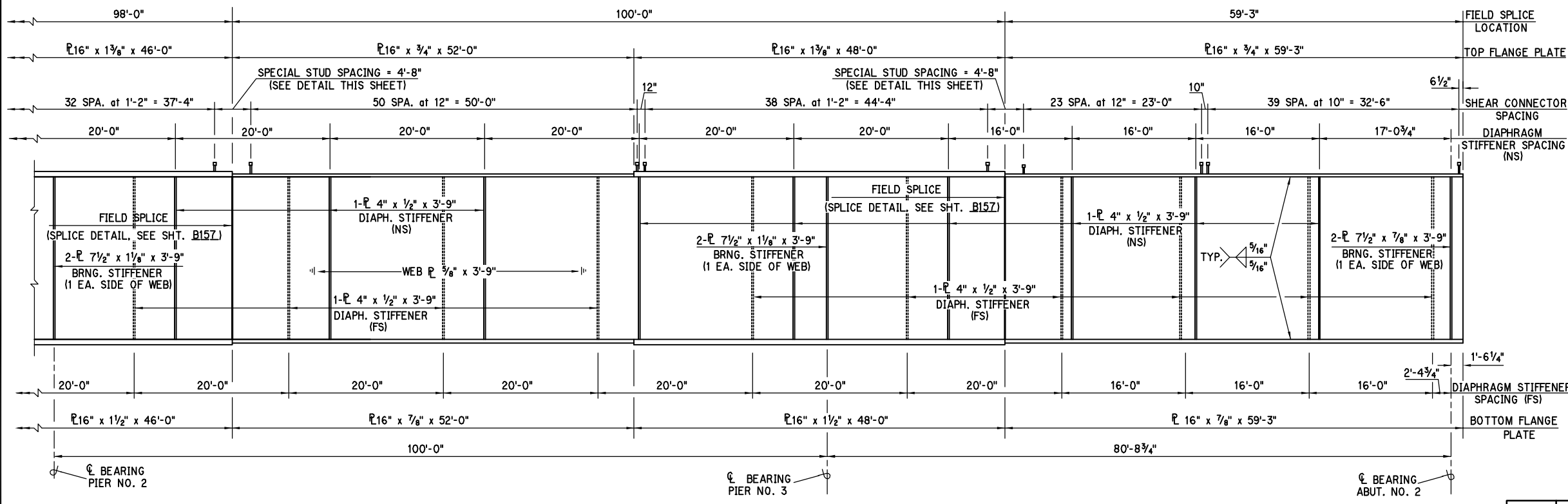
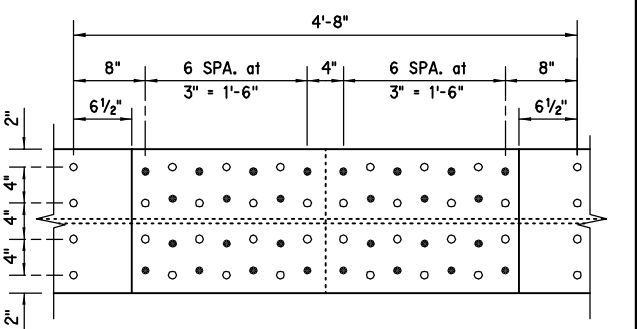


PLATE GIRDER ELEVATION - EAST HALF

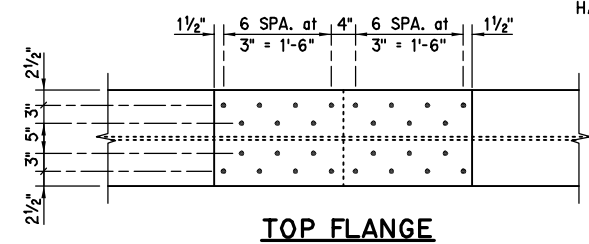


STUD SPACING THROUGH FIELD SPLICE

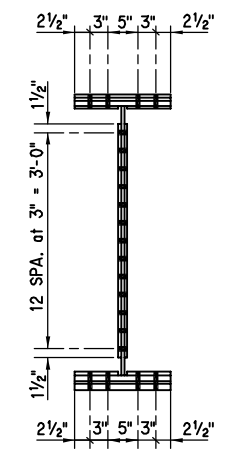
Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15TH STREET	
Checked		PLATE GIRDER DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 1 OF 3)	
		State Job No. 23310(04)	Sheet No. B156

DESCRIPTION	REVISIONS	DATE

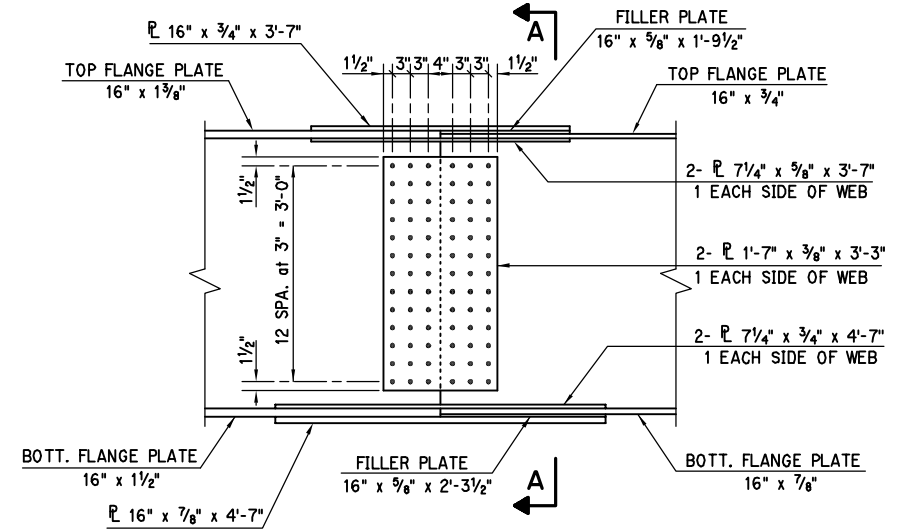
NOTE: ALL BOLTS SHALL BE 7/8" DIA. ASTM A325 TYPE 3 WITH HEAVY HEX NUTS, HARDENED CIRCULAR WASHERS, AND 15/16" DIA. HOLES, UNLESS OTHERWISE NOTED.



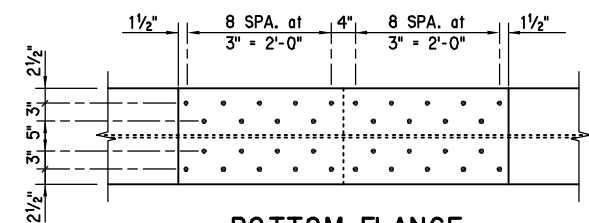
TOP FLANGE



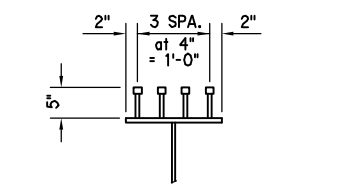
SECTION A-A



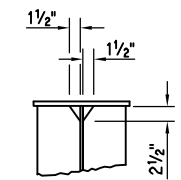
ELEVATION



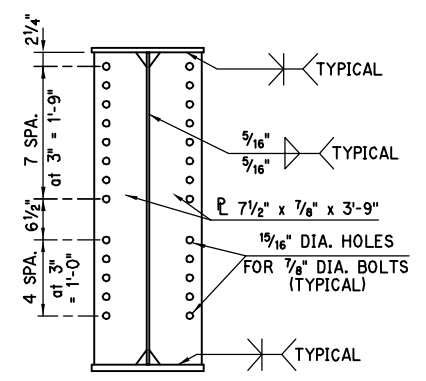
**BOTTOM FLANGE
DETAILS OF BOLTED FIELD SPLICE**



**STUD
SHEAR CONNECTORS**
(4 - 7/8" DIA. x 5" STUDS)

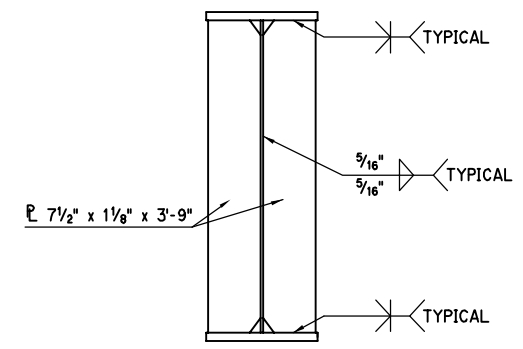


TYP. CORNER CLIP
(ALL STIFFENERS TOP AND BOTTOM)

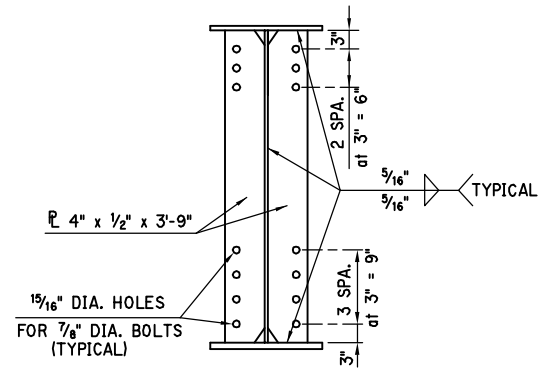


**ABUTMENT
BEARING STIFFENER**

NOTE: OMIT BOLT HOLES ON EXTERIOR STIFFENERS OF EXTERIOR GIRDERS.



**PIER
BEARING STIFFENER**



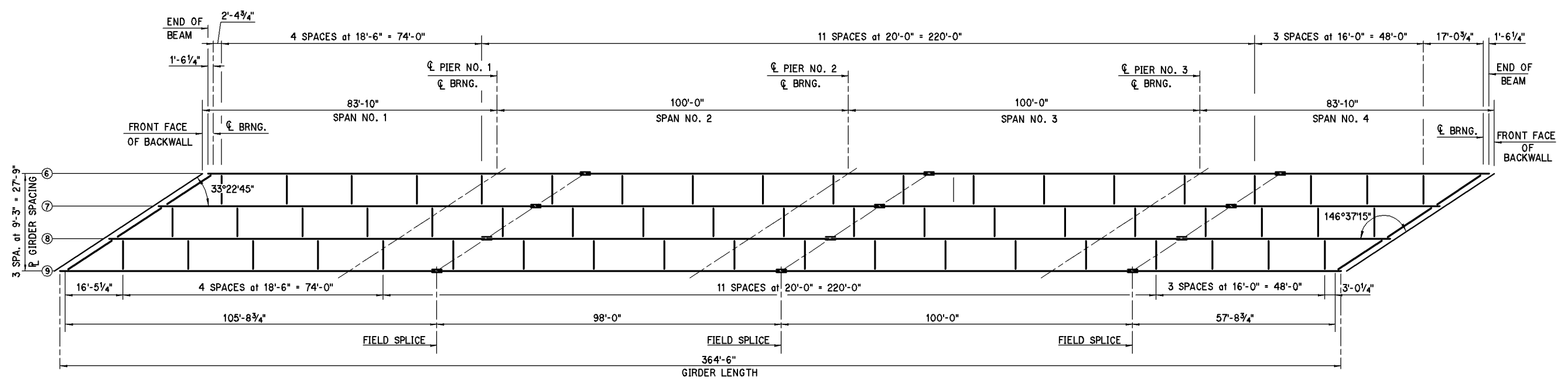
**INTERMEDIATE
DIAPHRAGM STIFFENER**

NOTE: OMIT EXTERIOR STIFFENERS OF EXTERIOR GIRDERS.

NOTE: TERMINATE FILLET WELDS 3/8" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS. WRAP FILLET WELDS AROUND NON-CLIPPED CORNERS OF BEARING STIFFENERS.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. 1-40 OVER S.E. 15TH STREET	
Checked		PLATE GIRDER DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B157

DESCRIPTION	REVISIONS	DATE

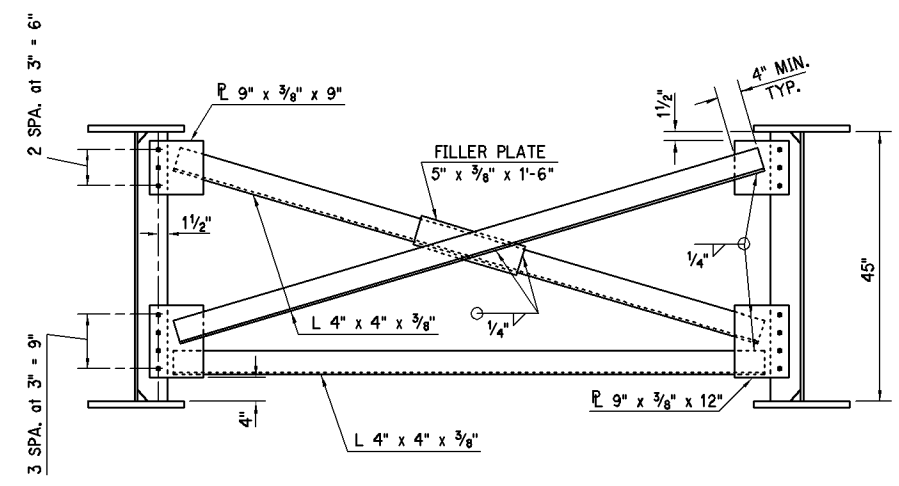


FRAMING PLAN

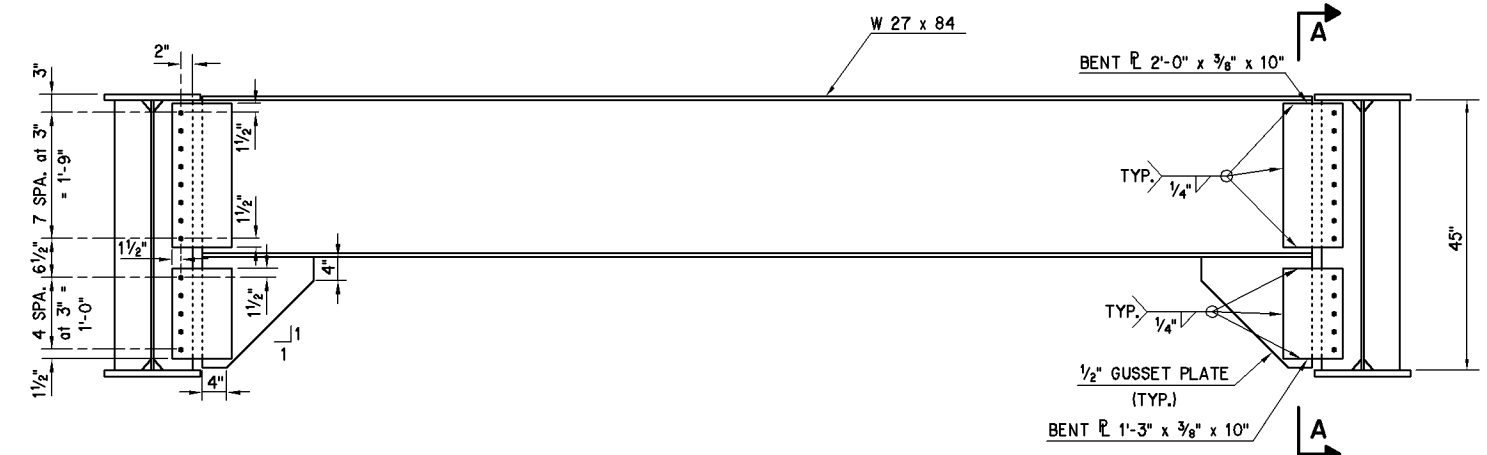
NOTE: STRUCTURAL STEEL FOR DIAPHRAGM ANGLES, STRUCTURAL TEES, CONNECTION PLATES AND FILLER PLATES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED).

USE 7/8" DIA. BOLTS CONFORMING TO AASHTO M164 (ASTM A325) AND HARDENED CIRCULAR WASHERS.

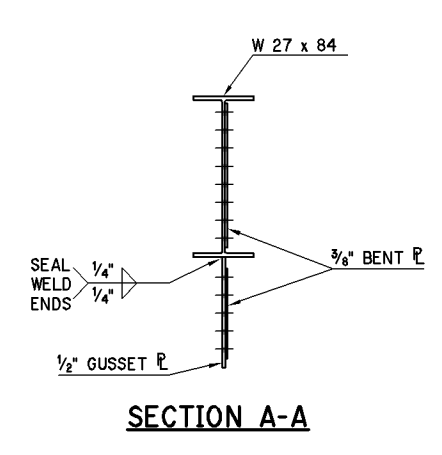
ALL NUTS, BOLTS, WASHERS, AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.



INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



ABUTMENT DIAPHRAGMS
(M270 GRADE 50W STEEL)

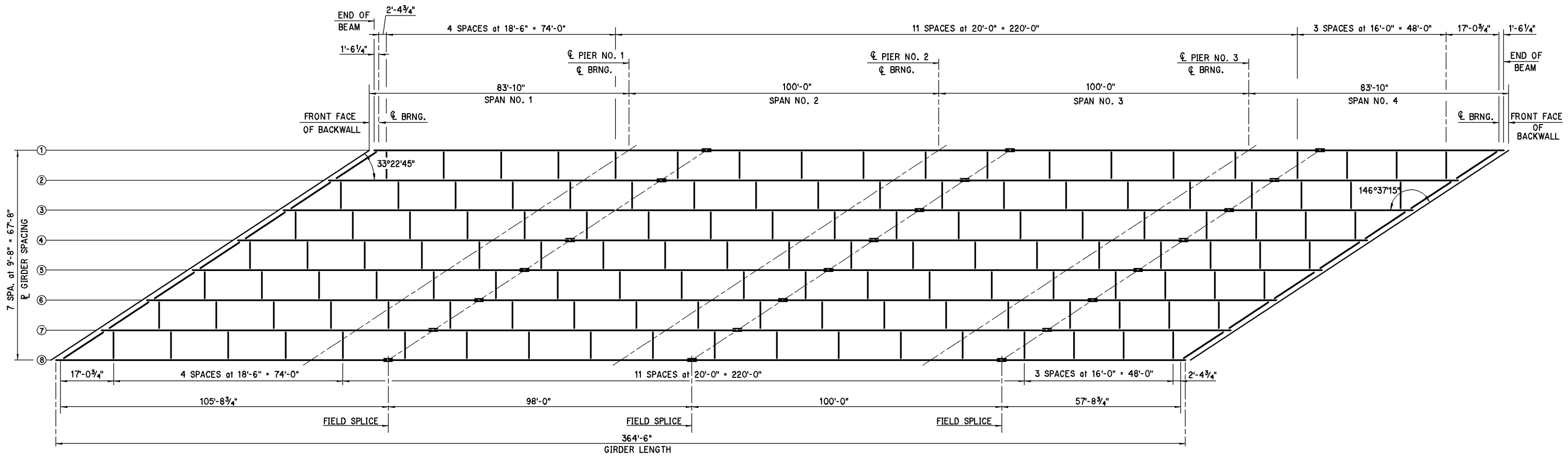


SECTION A-A

NOTE: USE 7/8" DIA. H.S. STEEL BOLTS (A325) ON ALL BOLTED CONNECTIONS.

Design		BRIDGE "D" E.B. I-40 OVER S.E. 15TH STREET PLATE GIRDER FRAMING PLAN AND DIAPHRAGM DETAILS PHASE I State Job No. 23510(04) Sheet No. B159
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE

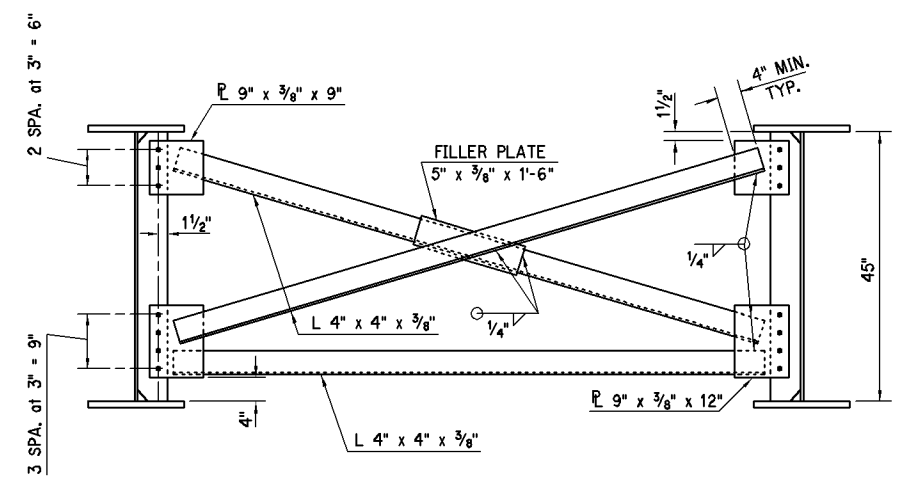


NOTE: STRUCTURAL STEEL FOR DIAPHRAGM ANGLES, STRUCTURAL TEES, CONNECTION PLATES AND FILLER PLATES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED).

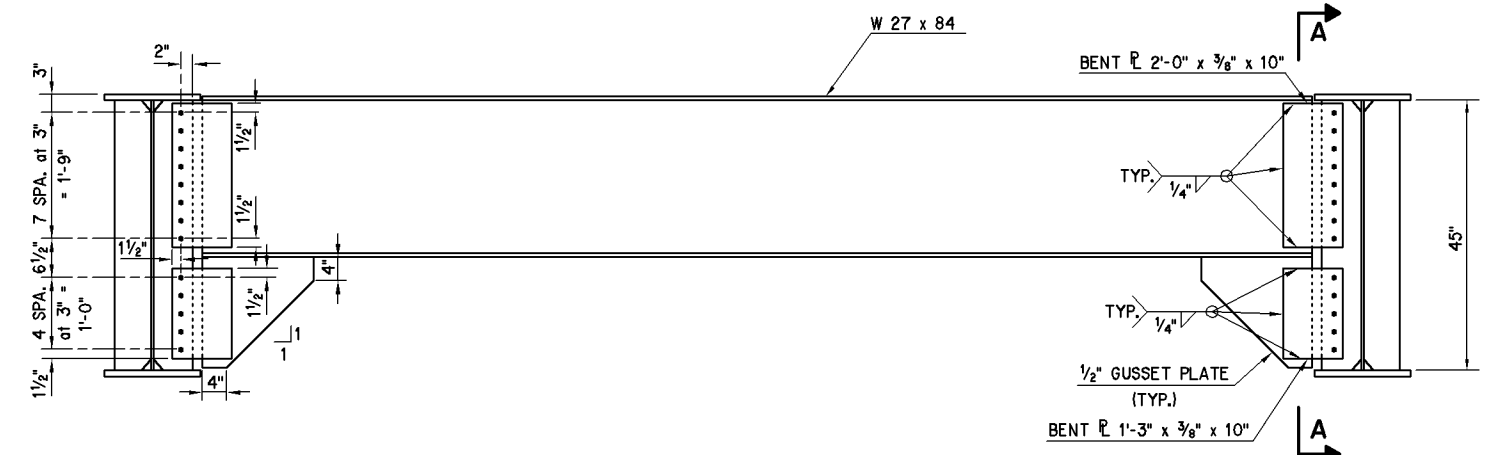
USE $\frac{7}{8}$ " DIA. BOLTS CONFORMING TO AASHTO M164 (ASTM A325) AND HARDENED CIRCULAR WASHERS.

ALL NUTS, BOLTS, WASHERS, AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

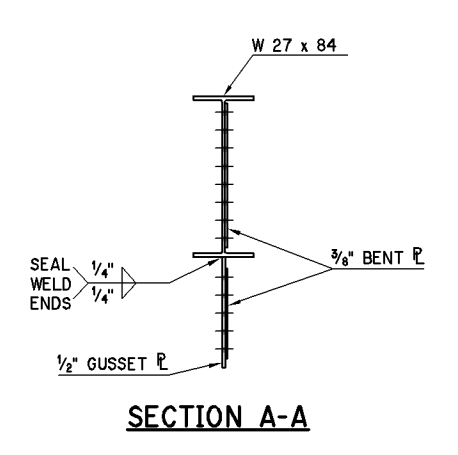
FRAMING PLAN



INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



ABUTMENT DIAPHRAGMS
(M270 GRADE 50W STEEL)

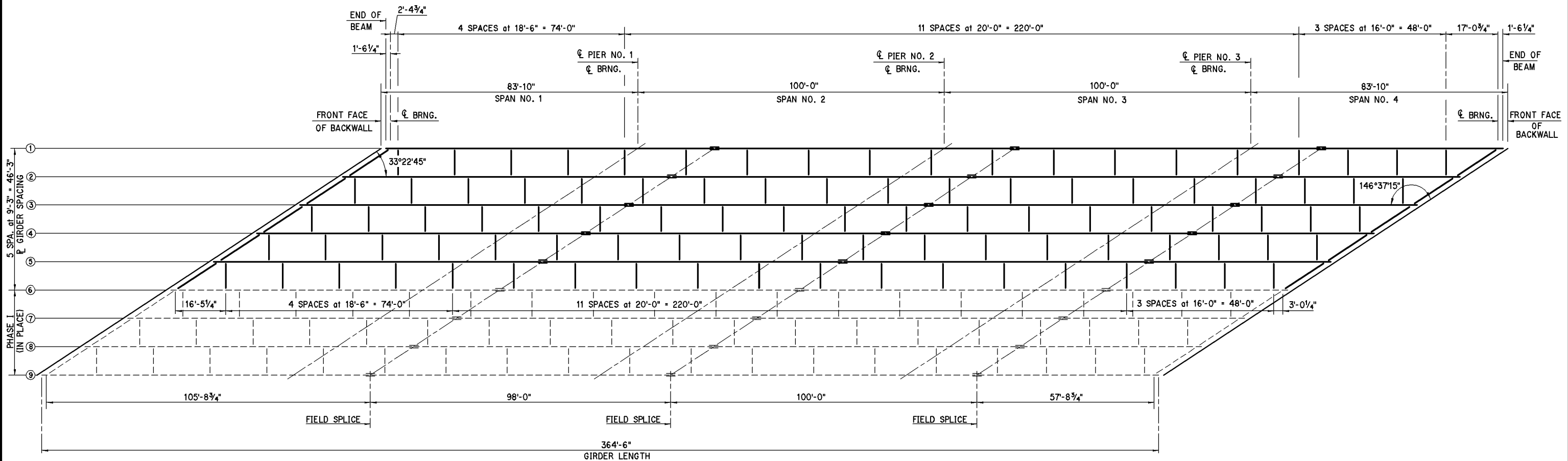


SECTION A-A

NOTE: USE $\frac{7}{8}$ " DIA. H.S. STEEL BOLTS (A325) ON ALL BOLTED CONNECTIONS.

Design		BRIDGE "C" W.B. I-40 OVER S.E. 15TH STREET PLATE GIRDER FRAMING PLAN AND DIAPHRAGM DETAILS PHASE II State Job No. 23510(04) Sheet No. B160
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



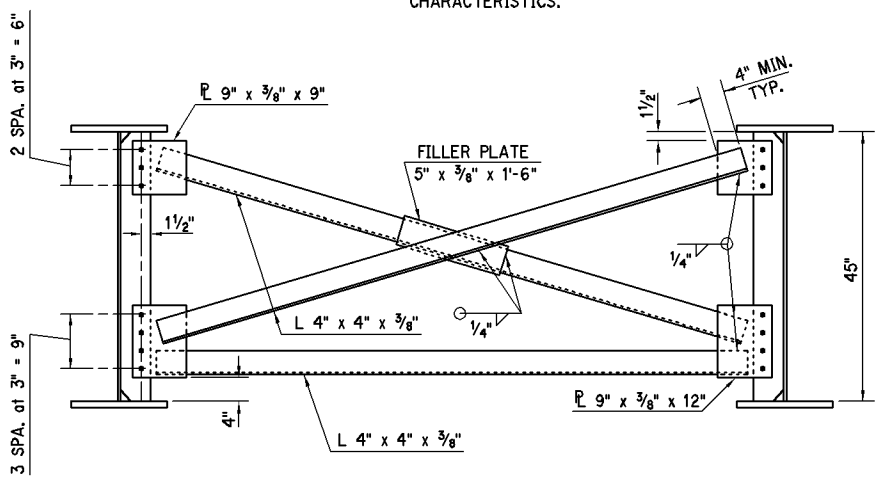
NOTE: STRUCTURAL STEEL FOR DIAPHRAGM ANGLES, STRUCTURAL TEES, CONNECTION PLATES AND FILLER PLATES SHALL CONFORM TO AASHTO M270 (ASTM A709) GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED).

USE 7/8" DIA. BOLTS CONFORMING TO AASHTO M164 (ASTM A325) AND HARDENED CIRCULAR WASHERS.

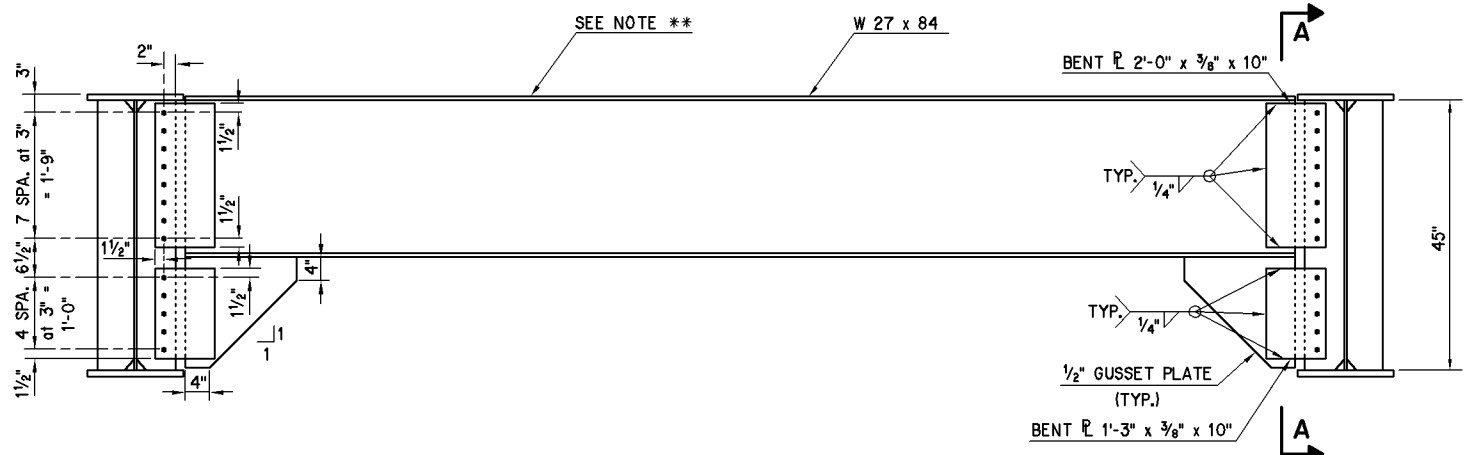
ALL NUTS, BOLTS, WASHERS, AND WELDING SHALL HAVE WEATHERING CHARACTERISTICS.

FRAMING PLAN

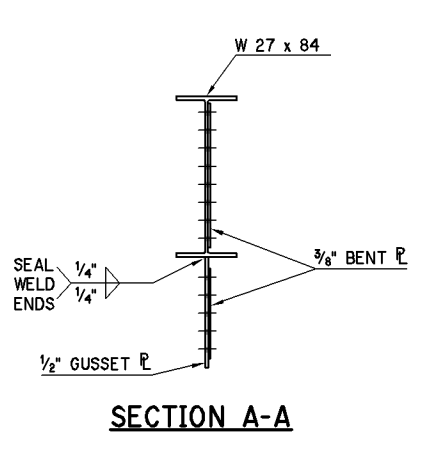
** NOTE: DURING PHASE I CONSTRUCTION, PROVIDE 1/2" GAP BETWEEN BOTTOM OF SLAB AND TOP OF PHASE III END DIAPHRAGMS. THIS WILL ALLOW THE INSTALLATION OF THE PHASE III DIAPHRAGMS. THE GAP SHALL BE FILLED WITH EPOXY CONCRETE. ALL LABOR AND MATERIALS TO COMPLETE THIS WORK SHALL BE INCLUDED IN OTHER ITEMS OF WORK.



INTERMEDIATE DIAPHRAGMS
(M270 GRADE 50W STEEL)



ABUTMENT DIAPHRAGMS
(M270 GRADE 50W STEEL)

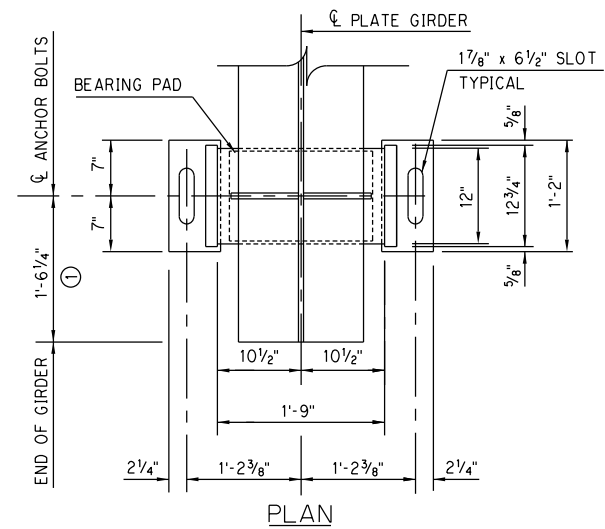


SECTION A-A

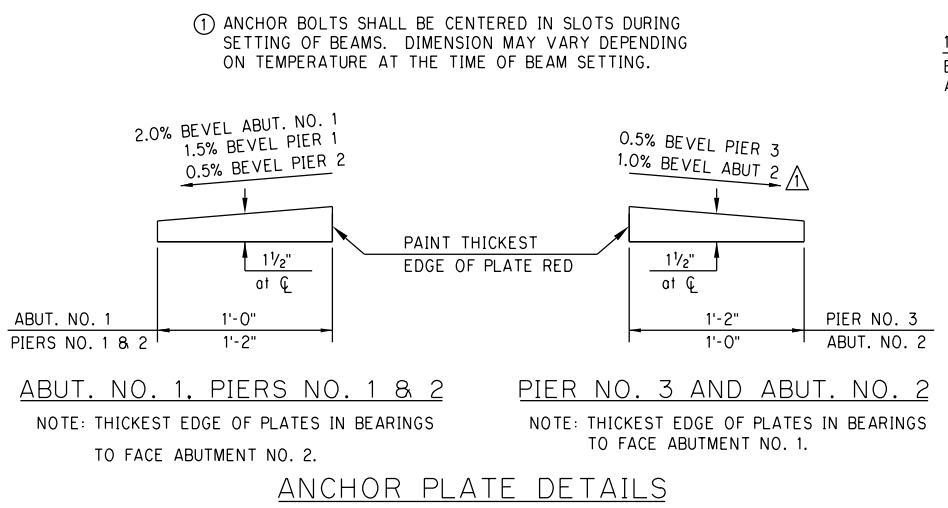
NOTE: USE 7/8" DIA. H.S. STEEL BOLTS (A325) ON ALL BOLTED CONNECTIONS.

Design		BRIDGE "D" E.B. I-40 OVER S.E. 15TH STREET PLATE GIRDER FRAMING PLAN AND DIAPHRAGM DETAILS PHASE III State Job No. 23510(04) Sheet No. B161
Drawn		
Checked		
Approved		
Squad	POE	

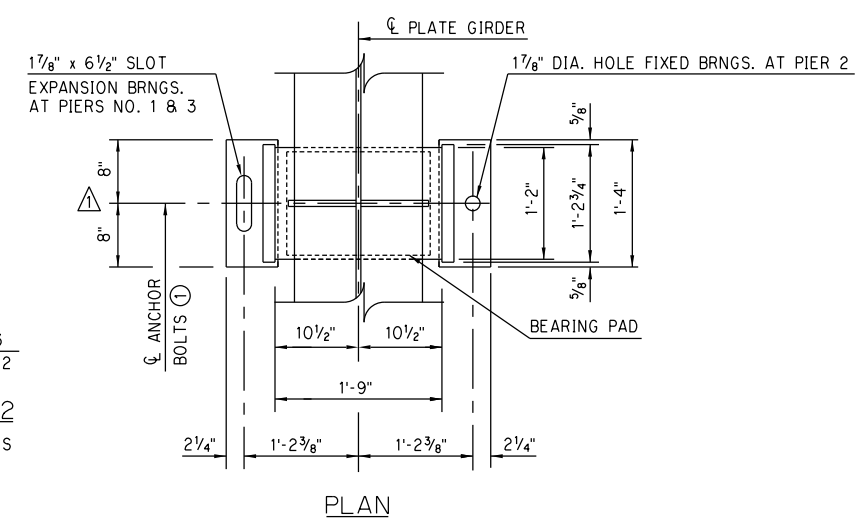
DESCRIPTION	REVISIONS	DATE
△ CORRECTED DIMS.		3/09/20
△ REVISION AFTER LET		07/29/2020



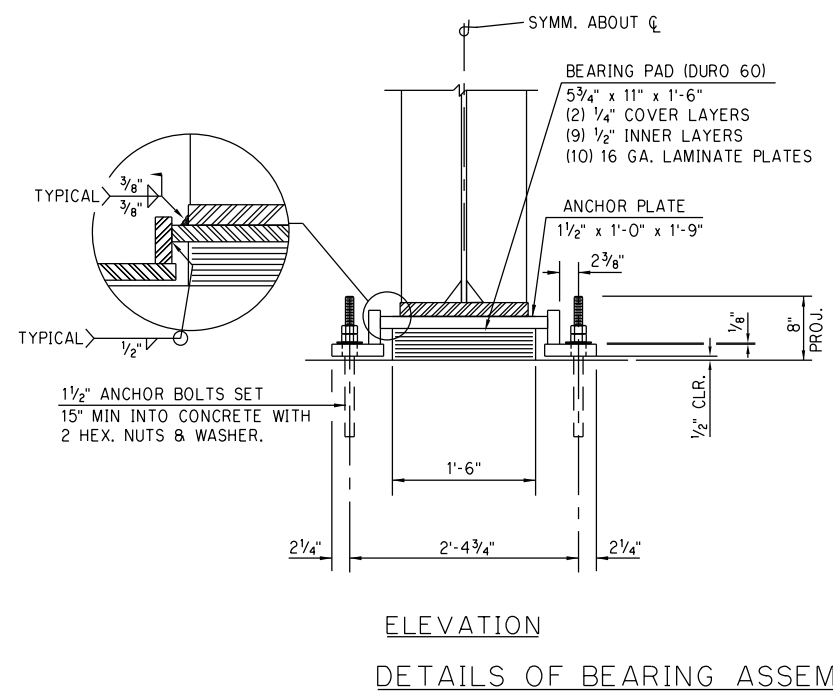
PLAN



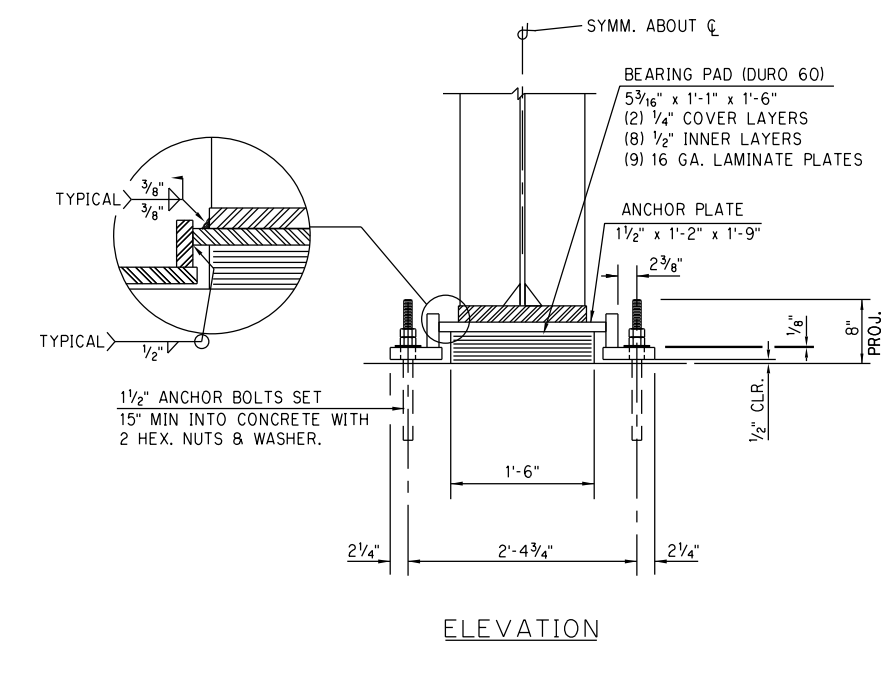
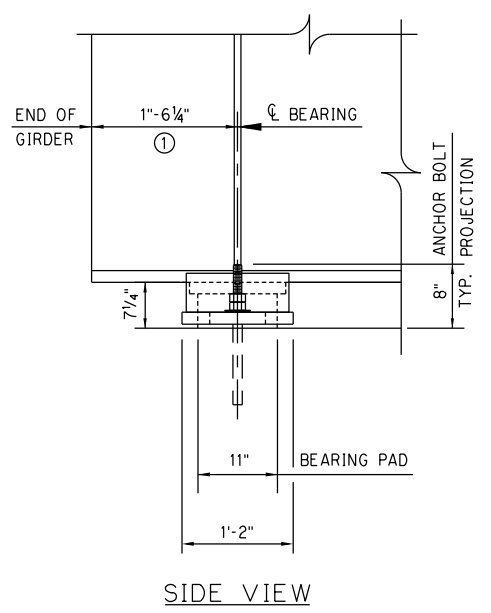
ANCHOR PLATE DETAILS



PLAN

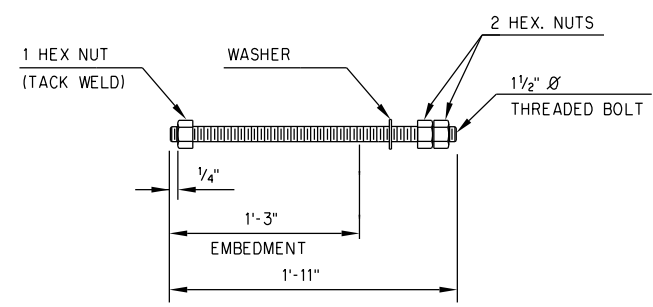


ELEVATION SIDE VIEW
DETAILS OF BEARING ASSEMBLY AT ABUTMENTS

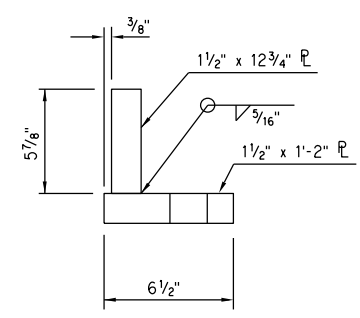


ELEVATION SIDE VIEW
DETAILS OF BEARING ASSEMBLY AT PIERS

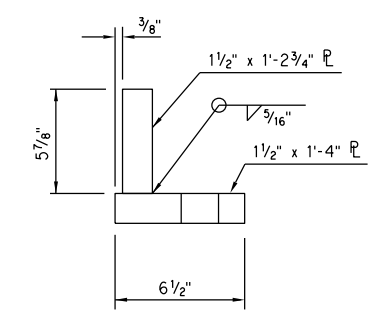
NOTE:
SEE SECTION 507.04.D OF THE STANDARD SPECIFICATIONS FOR TREATMENT OF ANCHOR BOLT ASSEMBLIES



DETAIL OF BEARING ANCHOR BOLT
(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



ABUTMENT BUILT-UP CONTACT ANGLE DETAIL



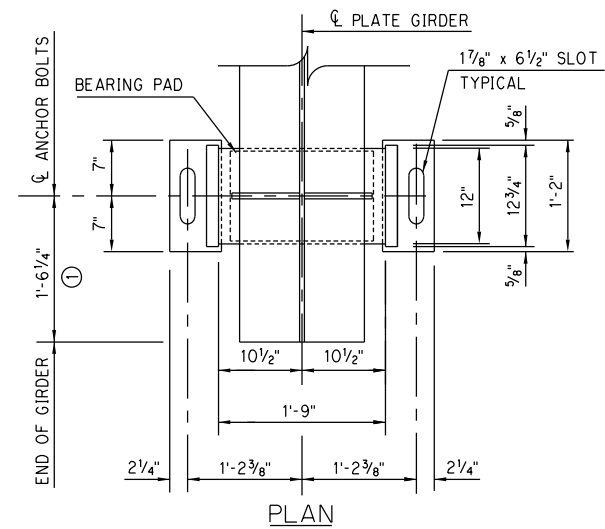
PIER BUILT-UP CONTACT ANGLE DETAIL

BEARING ASSEMBLY NOTES:
PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316. CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE B8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

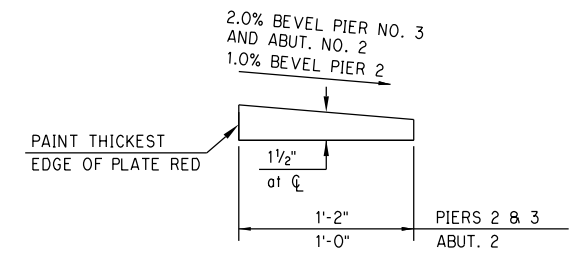
REVISION AFTER LET
07/29/2020

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15TH STREET	
Checked		BEARING ASSEMBLY DETAILS	
Approved		PHASE I & III	
Squad	POE	PLATE GIRDERS	
		State Job No. 23310(04)	Sheet No. B162

DESCRIPTION	REVISIONS	DATE
△ CORRECTED DIMS.		3/09/20
△ REVISION AFTER LET		07/29/2020

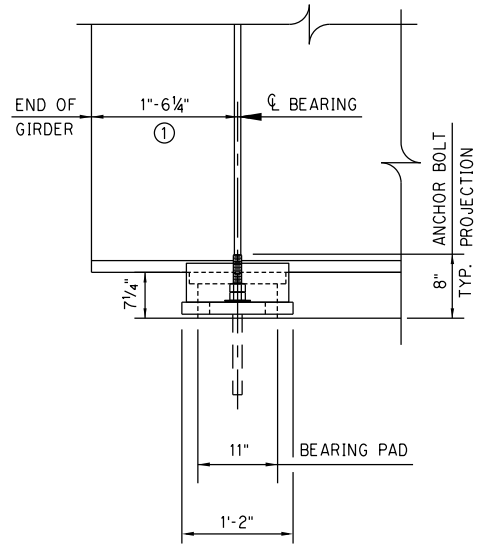
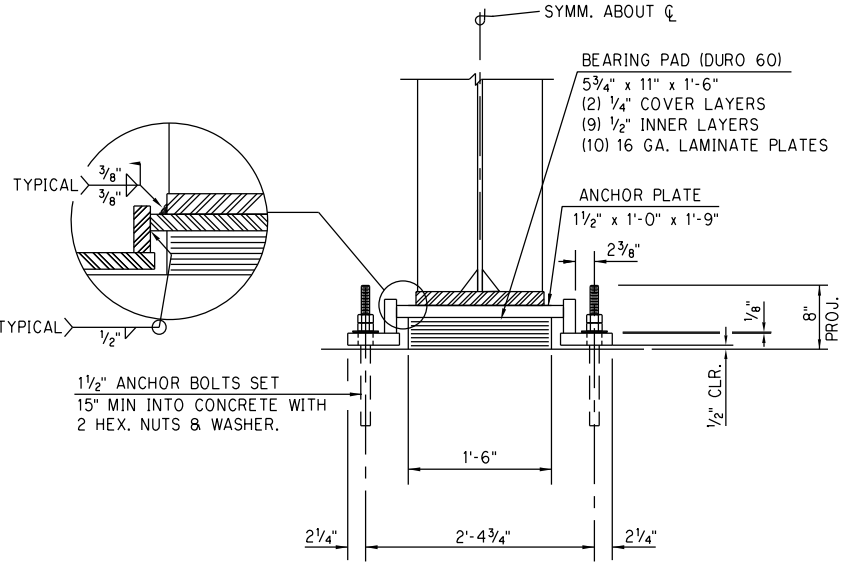
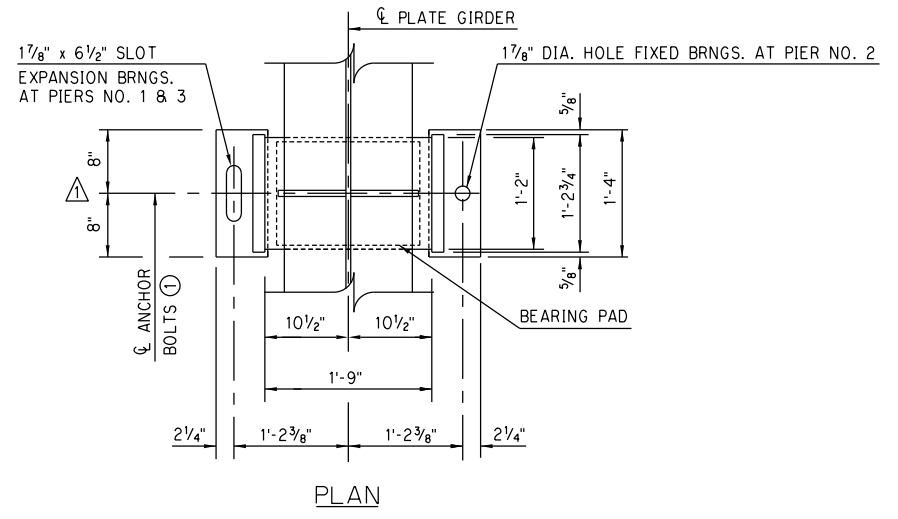


① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.

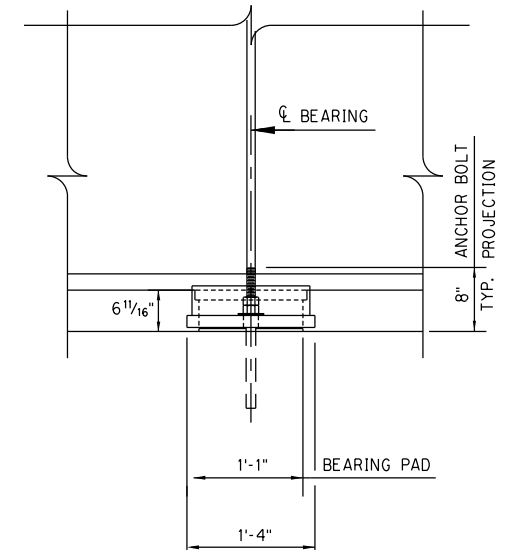
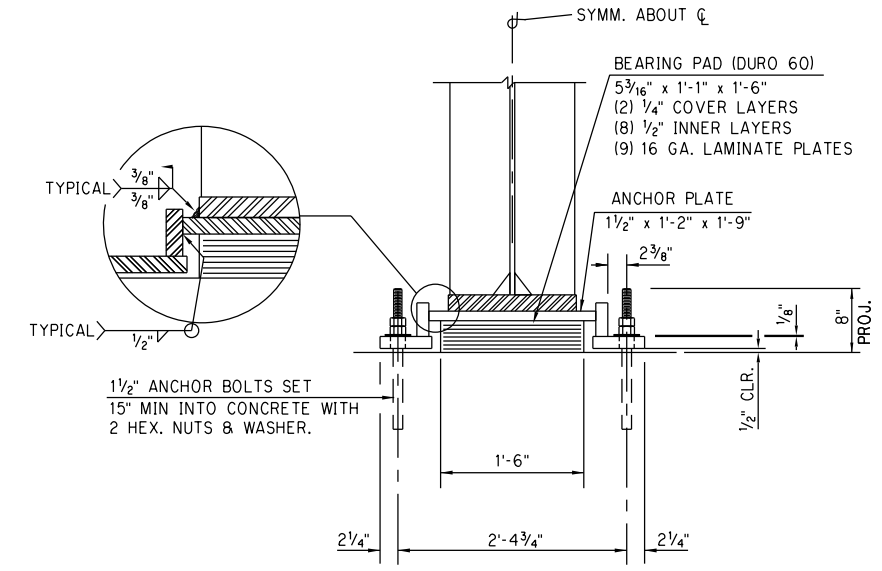


ANCHOR PLATE DETAILS

NOTE: THICKEST EDGE OF PLATES IN BEARINGS TO FACE ABUTMENT NO. 1. DO NOT BEVEL ABUTMENT NO. 1 AND PIER NO. 1 ANCHOR PLATES.

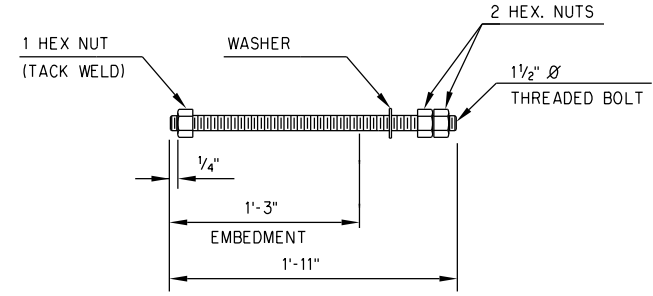


DETAILS OF BEARING ASSEMBLY AT ABUTMENTS

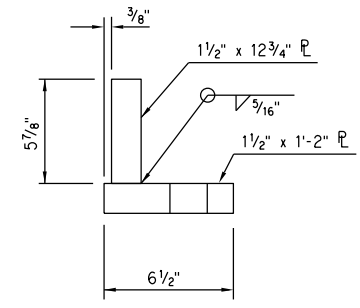


DETAILS OF BEARING ASSEMBLY AT PIERS

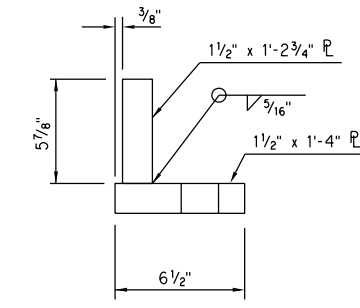
NOTE: SEE SECTION 507.04.D OF THE STANDARD SPECIFICATIONS FOR TREATMENT OF ANCHOR BOLT ASSEMBLIES



DETAIL OF BEARING ANCHOR BOLT
(SEE SEC. 724.05 OF THE STANDARD SPECIFICATIONS.)



ABUTMENT BUILT-UP CONTACT ANGLE DETAIL



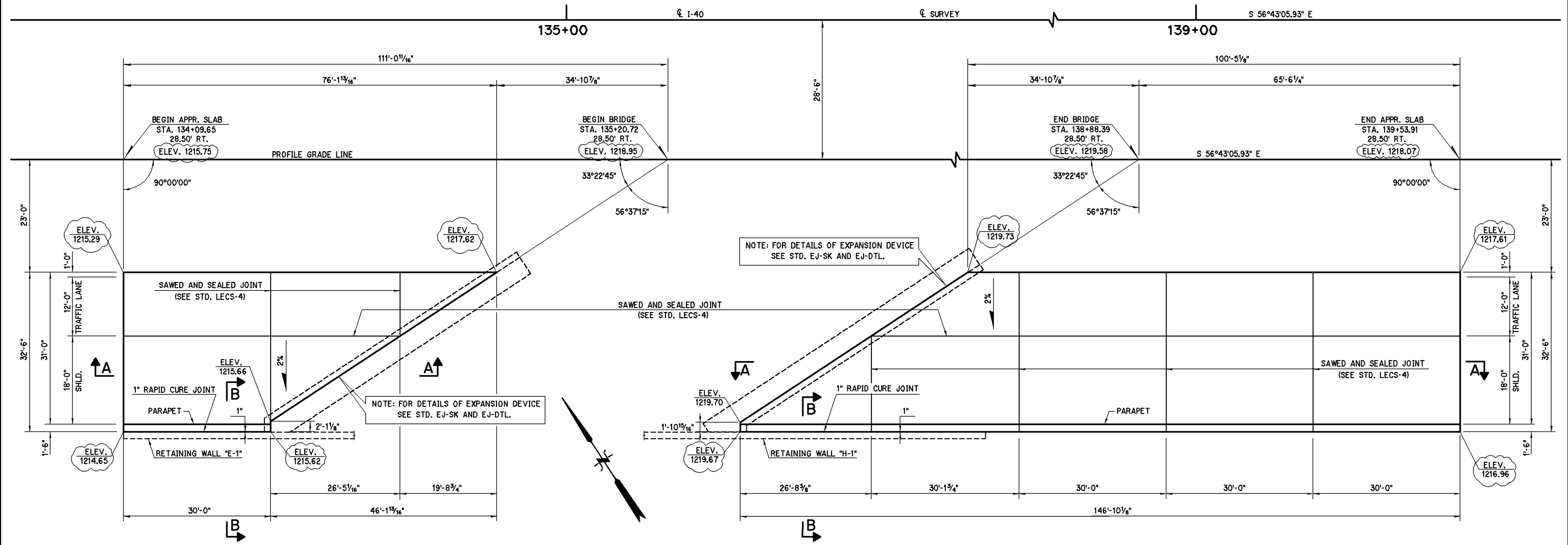
PIER BUILT-UP CONTACT ANGLE DETAIL

BEARING ASSEMBLY NOTES:
PROVIDE STRUCTURAL STEEL ANCHOR PLATES AND BUILT-UP CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL. SEE SEC 724.05 OF THE STANDARD SPECIFICATIONS.

REVISION AFTER LET
07/29/2020

Design		BRIDGE "C" W.B. 1-40 OVER S.E. 15TH STREET BEARING ASSEMBLY DETAILS PHASE II PLATE GIRDERS State Job No. 23310(04) Sheet No. B163
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1

AT ABUT NO. 2

PLAN

NOTE: FOR SECTION A-A & B-B, SEE SHEET NO. **B16Z**.

WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.

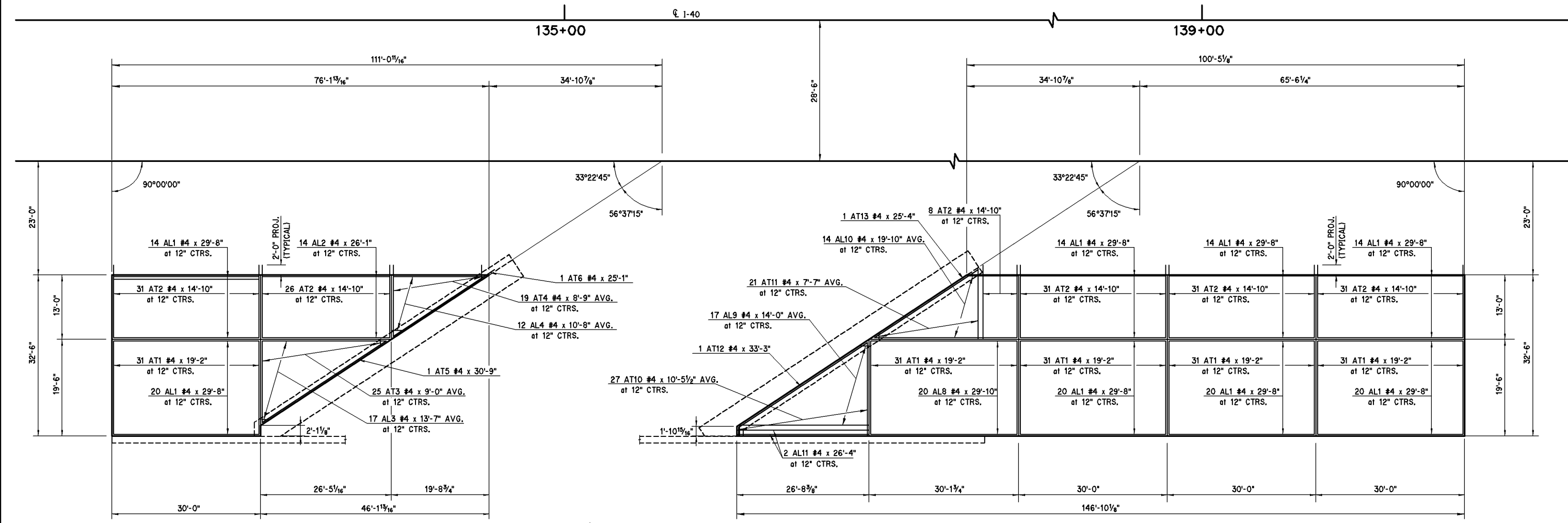
ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

QUANTITIES				
ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	186.3	451.4	637.7
SAW-CUT GROOVING	S.Y.	181.3	427.0	608.3
42" F-SHAPED PARAPET	L.F.	30.0	146.9	176.9
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	15	72	87

Design	
Drawn	
Checked	
Approved	
Squad	POE

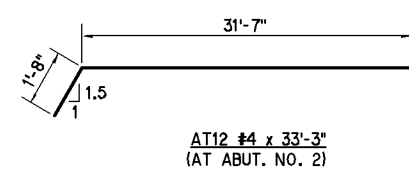
OKLAHOMA COUNTY
 BRIDGE "D" E.B. I-40 OVER S.E. 15th STREET
APPROACH SLAB DETAILS
PHASE I
 (SHEET 1 OF 4)
 State Job No. **23310(04)** Sheet No. **B164**

DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1
NOTE: TOP MAT OF REINFORCING STEEL SHOWN.

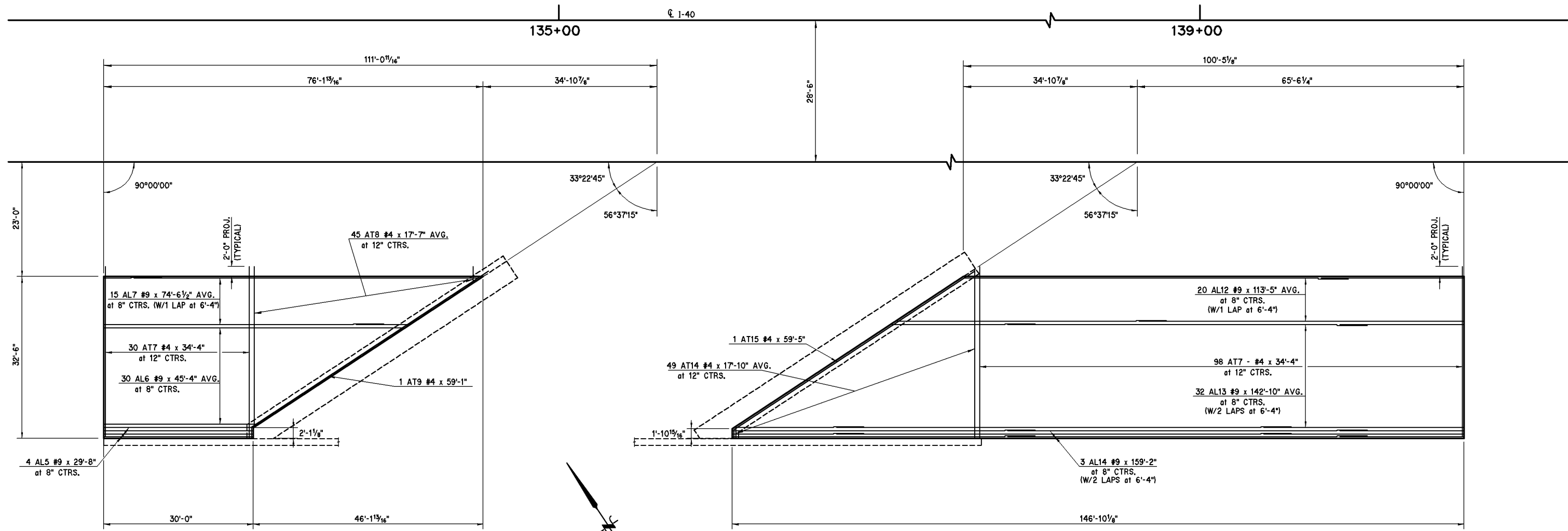
AT ABUT NO. 2
NOTE: TOP MAT OF REINFORCING STEEL SHOWN.



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design		BRIDGE "D" E.B. I-40 OVER S.E. 15th STREET APPROACH SLAB DETAILS PHASE I (SHEET 2 OF 4) State Job No. 23310(04) Sheet No. B165
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE

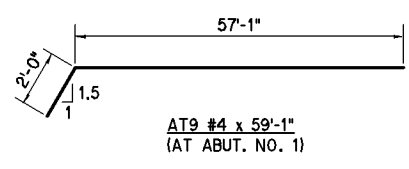
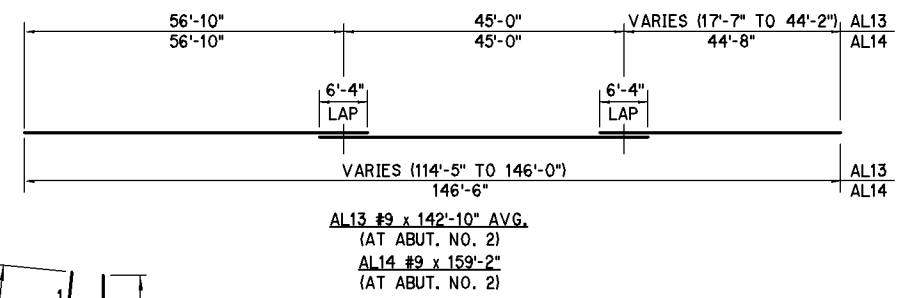
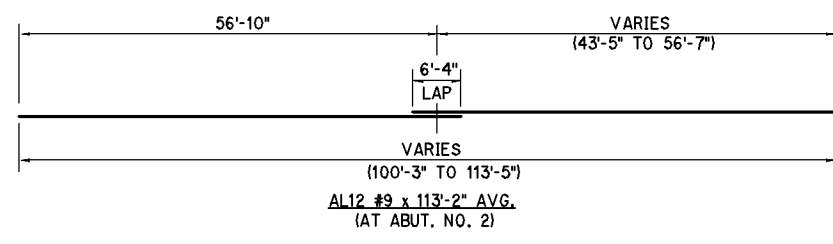
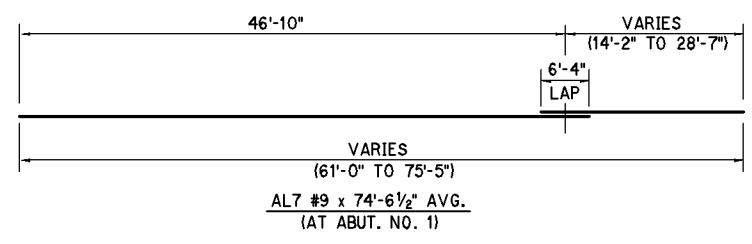


AT ABUT. NO. 1

NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN.

AT ABUT. NO. 2

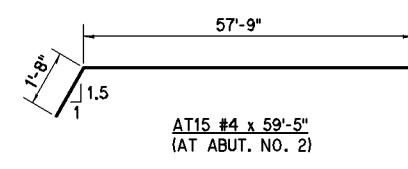
NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN.



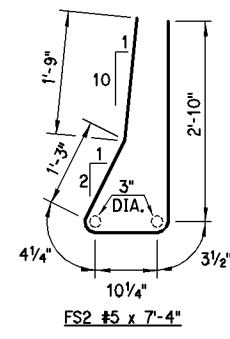
AT9 #4 x 59'-1"
(AT ABUT. NO. 1)

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

NOTE: STAGGER ALL BAR LAPS.



AT15 #4 x 59'-5"
(AT ABUT. NO. 2)

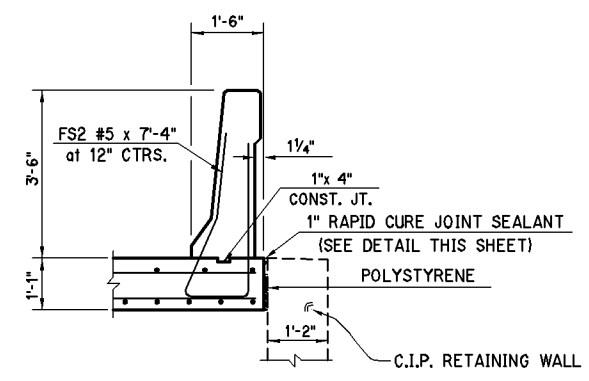


FS2 #5 x 7'-4"

NOTE: FS2 BARS SHALL BE TIED AND IN PLACE BEFORE POURING APPROACH SLABS.

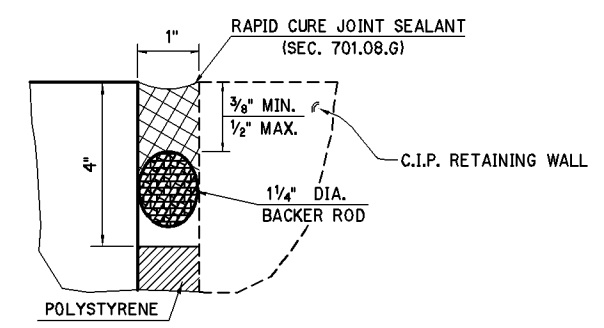
Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
BRIDGE "D" E.B. I-40 OVER S.E. 15th STREET
APPROACH SLAB DETAILS
PHASE I
(SHEET 3 OF 4)
State Job No. 23310(04) Sheet No. B166



SECTION B-B

NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42-2. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF APPROACH SLABS.



DETAIL OF RAPID CURE JOINT AT C.I.P. WALL

FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LCES-4.

BAR LIST - EPOXY COATED APPROACH SLAB AT ABUT. NO. 1 (FOR INFORMATION ONLY)

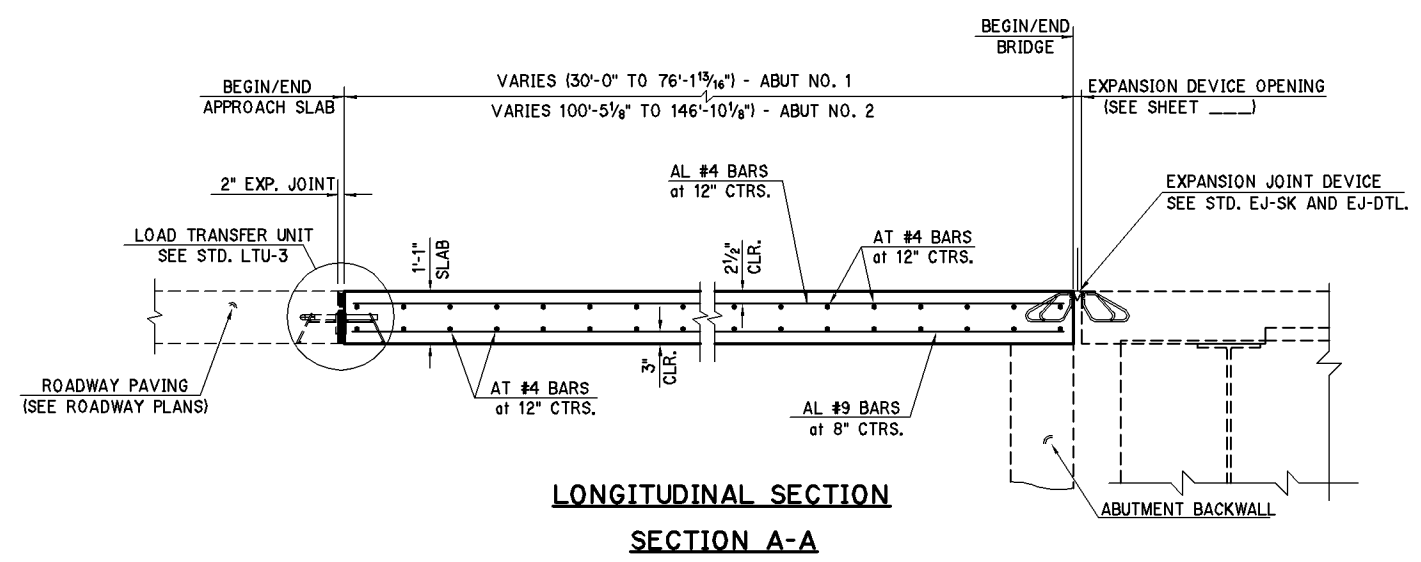
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	34	#4	STR.	12" C/C	29'-8"
AL2	14	#4	STR.	12" C/C	26'-1"
AL3	17	#4	STR.	12" C/C	13'-7" AVG.
AL4	12	#4	STR.	12" C/C	10'-8" AVG.
AL5	4	#9	STR.	8" C/C	29'-8"
AL6	30	#9	STR.	8" C/C	45'-4" AVG.
AL7	15	#9	STR.	8" C/C	74'-6 1/2" AVG.
AT1	31	#4	STR.	12" C/C	19'-2"
AT2	57	#4	STR.	12" C/C	14'-10"
AT3	25	#4	STR.	12" C/C	9'-0" AVG.
AT4	19	#4	STR.	12" C/C	8'-9" AVG.
AT5	1	#4	STR.	AS SHOWN	30'-9"
AT6	1	#4	STR.	AS SHOWN	25'-1"
AT7	30	#4	STR.	12" C/C	34'-4"
AT8	45	#4	STR.	12" C/C	17'-7" AVG.
AT9	1	#4	BNT.	AS SHOWN	59'-1"
FS2	31	#5	BNT.	12" C/C	7'-4"

- ① LENGTH VARIES:
AL3 - 1'-5" TO 25'-9" AT3 - 1'-1" TO 16'-11"
AL4 - 2'-4" TO 19'-0" AT4 - 2'-10" TO 14'-8"
AL6 - 30'-8" TO 60'-0" AT8 - 3'-1" TO 32'-1"
AL7 - 61'-0" TO 75'-5"
- ② LENGTH INCLUDES LAP:
AL7 - 1 of 6'-4"

BAR LIST - EPOXY COATED APPROACH SLAB AT ABUT. NO. 2 (FOR INFORMATION ONLY)

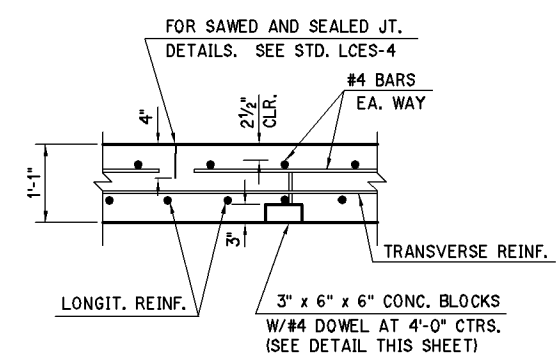
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	102	#4	STR.	12" C/C	29'-8"
AL8	20	#4	STR.	12" C/C	29'-10"
AL9	16	#4	STR.	12" C/C	14'-0" AVG.
AL10	14	#4	STR.	12" C/C	19'-10" AVG.
AL11	2	#4	STR.	12" C/C	26'-4"
AL12	14	#9	STR.	12" C/C	113'-5" AVG.
AL13	32	#9	STR.	12" C/C	142'-10" AVG.
AL14	3	#9	STR.	12" C/C	159'-2"
AT1	124	#4	STR.	12" C/C	19'-2"
AT2	101	#4	STR.	12" C/C	14'-10"
AT7	98	#4	STR.	12" C/C	34'-4"
AT10	27	#4	STR.	12" C/C	10'-5 1/2" AVG.
AT11	21	#4	STR.	12" C/C	7'-7" AVG.
AT12	1	#4	BNT.	AS SHOWN	33'-3"
AT13	1	#4	STR.	AS SHOWN	25'-4"
AT14	49	#4	STR.	12" C/C	17'-10" AVG.
AT15	1	#4	BNT.	AS SHOWN	59'-5"
FS2	148	#5	BNT.	12" C/C	7'-4"

- ① LENGTH VARIES:
AL9 - 1'-7" TO 26'-5" AT10 - 1'-11" TO 19'-0"
AL10 - 10'-3" TO 29'-5" AT11 - 1'-0" TO 14'-2"
AL11 - 106'-7" TO 119'-9" AT14 - 2'-0" TO 32'-8"
AL12 - 127'-1" TO 158'-8"
- ② LENGTH INCLUDES LAP:
AL11 - 1 of 6'-4"
AL12 - 2 of 6'-4"
AL13 - 2 of 6'-4"



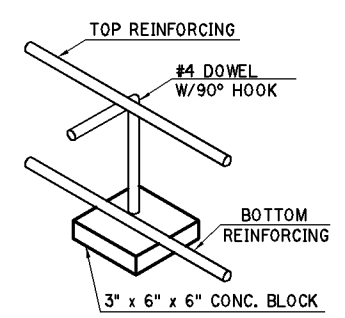
LONGITUDINAL SECTION SECTION A-A

NOTE: STAGGER ALL BAR LAPS.



DETAIL OF SAWED JOINT AND DOWEL BLOCK

NOTE: ALL REINFORCING STEEL IN THE TOP OF THE APPROACH SLAB SHALL CLEAR THE SAWED LONGITUDINAL AND TRANSVERSE JOINTS BY 2".

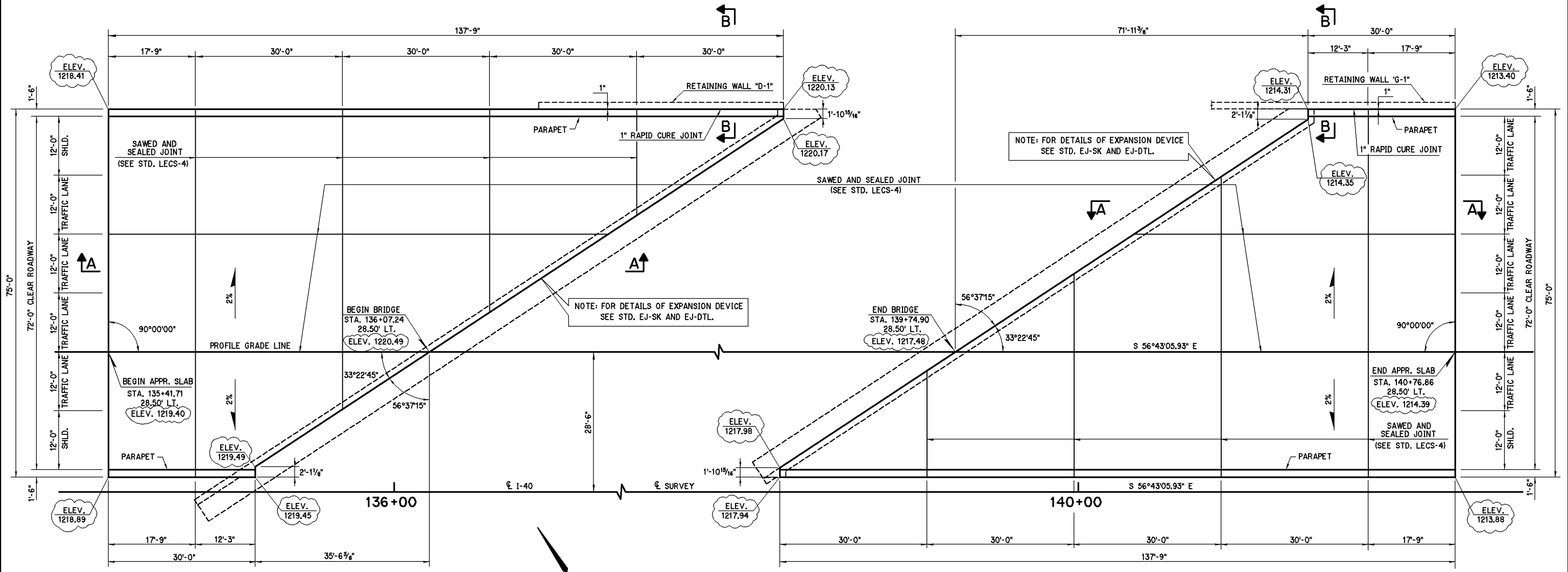


DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 3"x6"x6" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn		E.B. I-40 OVER S.E. 15th STREET	
Checked		APPROACH SLAB DETAILS	
Approved		PHASE I	
Squad	POE	(SHEET 4 OF 4)	
		State Job No. 23310(04)	Sheet No. B167

DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1

PLAN

AT ABUT NO. 2

NOTE: FOR SECTION A-A & B-B. SEE SHEET NO. B170.

WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42\"/>

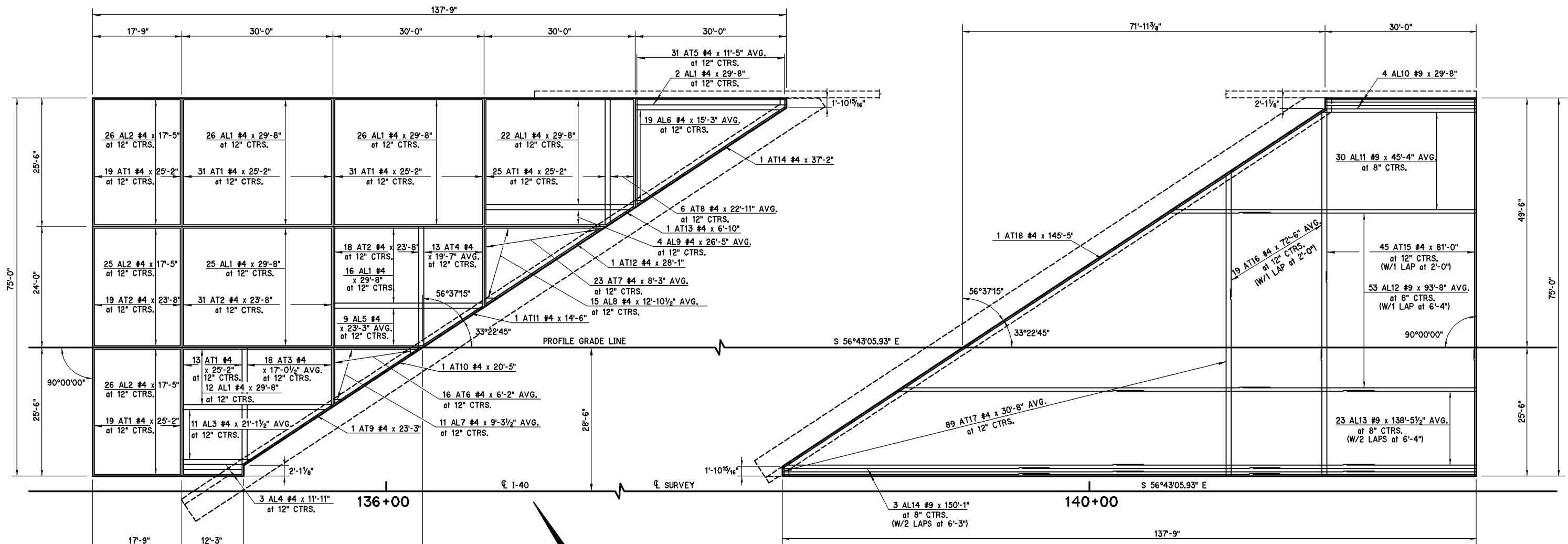
QUANTITIES

ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	697.8	697.8	1,395.6
SAW-CUT GROOVING	S.Y.	669.4	669.4	1,339.8
42" F-SHAPED PARAPET	L.F.	167.8	167.8	335.6
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	82	82	164

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
 W.B. I-40 OVER S.E. 15th STREET
APPROACH SLAB DETAILS
PHASE II
 (SHEET 1 OF 3)
 State Job No. 23310(04) Sheet No. B168

DESCRIPTION	REVISIONS	DATE

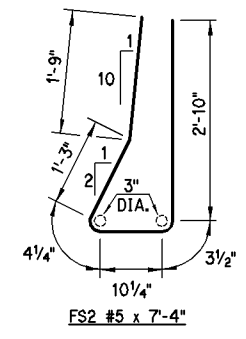
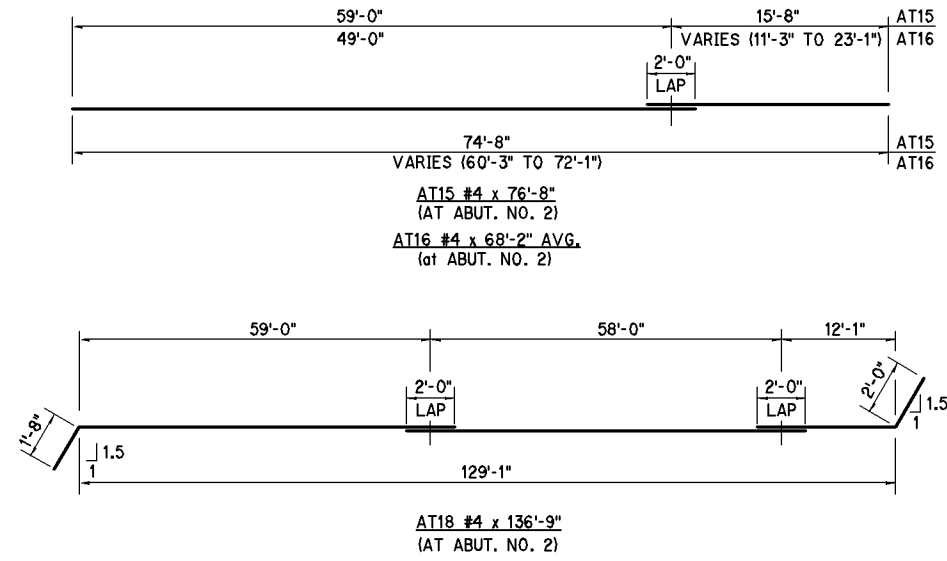
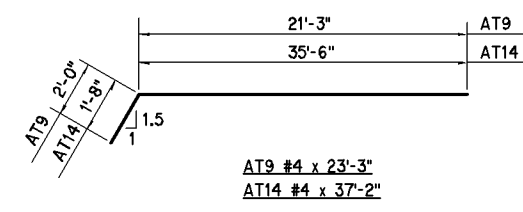


AT ABUT NO. 1
NOTE: TOP MAT OF REINFORCING STEEL SHOWN.
TYPICAL FOR EACH APPROACH SLAB

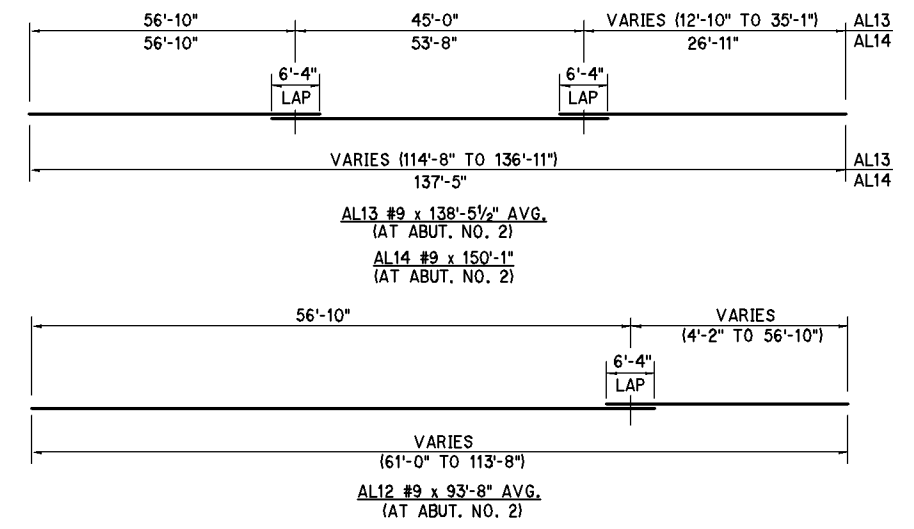
AT ABUT NO. 2
NOTE: BOTTOM MAT OF REINFORCING STEEL SHOWN.
TYPICAL FOR EACH APPROACH SLAB

NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

NOTE: STAGGER ALL BAR LAPS.

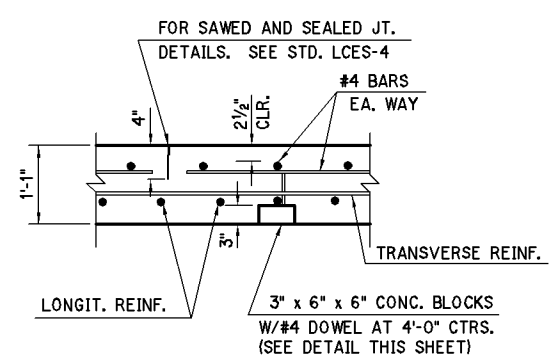


NOTE: FS2 BARS SHALL BE TIED AND IN PLACE BEFORE POURING APPROACH SLABS.



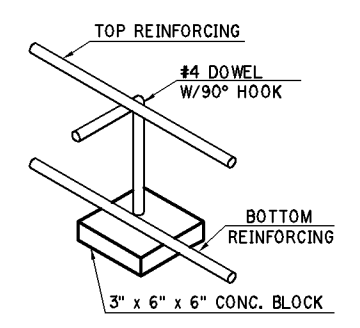
Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn		W.B. I-40 OVER S.E. 15th STREET	
Checked		APPROACH SLAB DETAILS	
Approved		PHASE II	
Squad	POE	(SHEET 2 OF 3)	
		State Job No. 23310(04)	Sheet No. B169

DESCRIPTION	REVISIONS	DATE



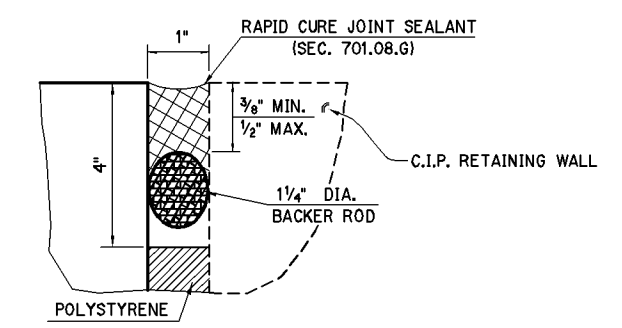
DETAIL OF SAWED JOINT AND DOWEL BLOCK

NOTE: ALL REINFORCING STEEL IN THE TOP OF THE APPROACH SLAB SHALL CLEAR THE SAWED LONGITUDINAL AND TRANSVERSE JOINTS BY 2".



DOWEL BLOCK

NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 3"x6"x6" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.



DETAIL OF RAPID CURE JOINT AT C.I.P. WALL

FOR BACKER ROD AND JOINT SEALER GENERAL NOTES REFER TO STD. LECS-4.

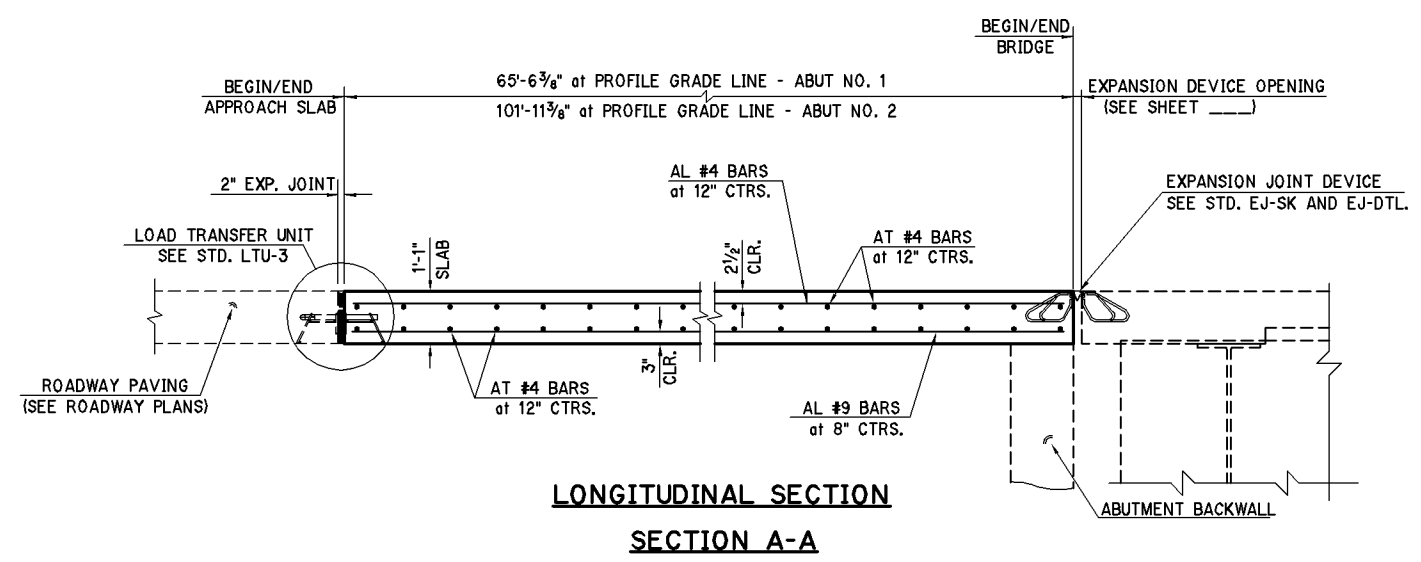
BAR LIST - EPOXY COATED (ONE APPROACH SLAB - 2 REQUIRED) FOR INFORMATION ONLY					
MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	129	#4	STR.	12" C/C	29'-8"
AL2	77	#4	STR.	12" C/C	17'-5"
AL3	11	#4	STR.	12" C/C	21'-1 1/2" AVG.
AL4	3	#4	STR.	12" C/C	11'-11"
AL5	9	#4	STR.	12" C/C	23'-3"
AL6	19	#4	STR.	12" C/C	15'-3" AVG.
AL7	11	#4	STR.	12" C/C	9'-3 1/2" AVG.
AL8	15	#4	STR.	12" C/C	12'-10 1/2" AVG.
AL9	4	#4	STR.	12" C/C	26'-5" AVG.
AL10	4	#9	STR.	8" C/C	29'-8"
AL11	30	#9	STR.	8" C/C	45'-4" AVG.
AL12	53	#9	STR.	8" C/C	93'-8" AVG.
AL13	23	#9	STR.	8" C/C	138'-5 1/2" AVG.
AL14	3	#9	STR.	8" C/C	150'-1"
AT1	138	#4	STR.	12" C/C	25'-2"
AT2	68	#4	STR.	12" C/C	23'-8"
AT3	18	#4	STR.	12" C/C	17'-0 1/2" AVG.
AT4	13	#4	STR.	12" C/C	19'-7" AVG.
AT5	31	#4	STR.	12" C/C	11'-5" AVG.
AT6	16	#4	STR.	12" C/C	6'-2" AVG.
AT7	23	#4	STR.	12" C/C	8'-3" AVG.
AT8	6	#4	STR.	12" C/C	22'-11" AVG.
AT9	1	#4	BNT.	AS SHOWN	23'-3"
AT10	1	#4	STR.	AS SHOWN	20'-5"
AT11	1	#4	STR.	AS SHOWN	14'-6"
AT12	1	#4	STR.	AS SHOWN	28'-1"
AT13	1	#4	STR.	AS SHOWN	6'-10"
AT14	1	#4	BNT.	AS SHOWN	37'-2"
AT15	45	#4	STR.	12" C/C	76'-8"
AT16	19	#4	STR.	12" C/C	68'-2" AVG.
AT17	89	#4	STR.	12" C/C	30'-8" AVG.
AT18	1	#4	BNT.	12" C/C	136'-9"
FS2	170	#5	BNT.	AS SHOWN	7'-4"

- ① LENGTH VARIES:

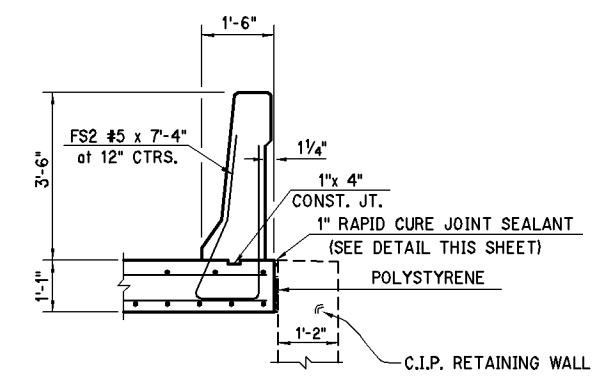
AL3 - 13'-8" TO 28'-7"	AT3 - 11'-6" TO 22'-7"
AL6 - 1'-7" TO 28'-11"	AT4 - 15'-8" TO 23'-6"
AL7 - 1'-7" TO 17'-0"	AT5 - 1'-8" TO 21'-2"
AL8 - 2'-3" TO 23'-6"	AT6 - 1'-1" TO 11'-3"
AL9 - 24'-0" TO 28'-10"	AT7 - 1'-0" TO 15'-6"
AL11 - 30'-8" TO 60'-0"	AT8 - 21'-5" TO 24'-5"
AL12 - 67'-4" TO 120'-0"	AT16 - 62'-3" TO 74'-1"
AL13 - 127'-4" TO 149'-7"	AT17 - 1'-9" TO 59'-7"
- ② LENGTH INCLUDES LAP:

AL12 - 1 at 6'-4"	AT15 - 1 at 2'-0"
AL13 - 2 at 6'-4"	AT16 - 1 at 2'-0"
AL14 - 2 at 6'-4"	AT18 - 2 at 2'-0"

NOTE: STAGGER ALL BAR LAPS.



LONGITUDINAL SECTION SECTION A-A

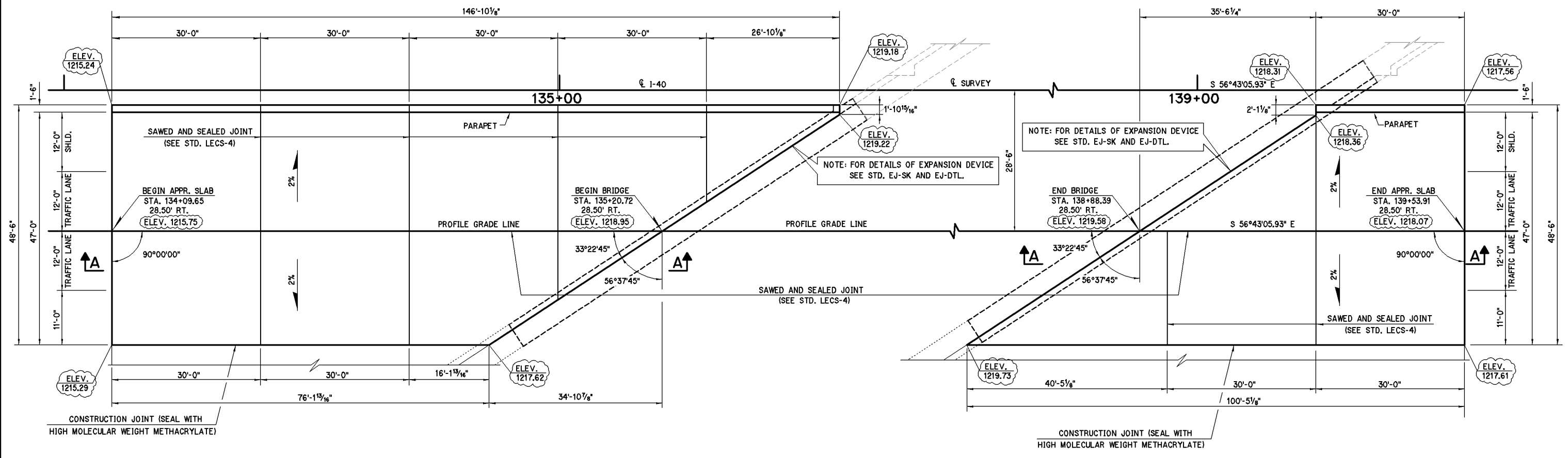


SECTION B-B

NOTE: FOR DETAILS OF PARAPET, SEE STD. FSHP-42-2. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF APPROACH SLABS.

Design		BRIDGE "C"	OKLAHOMA COUNTY
Drawn			W.B. I-40 OVER S.E. 15th STREET
Checked			APPROACH SLAB DETAILS
Approved			PHASE II
Squad	POE		(SHEET 3 OF 3)
			State Job No. <u>23310(04)</u> Sheet No. <u>B170</u>

DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1

AT ABUT NO. 2

PLAN

NOTE: FOR SECTION A-A. SEE SHEET NO. B174.

WATER REPELLENT SURFACE TREATMENT

SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES:

CONCRETE FOR APPROACH SLABS SHALL BE CLASS AA. REINFORCING STEEL SHALL BE GRADE 60.

ALL COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF APPROACH SLAB. THIS PRICE BID SHALL INCLUDE THE COST OF LOAD TRANSFER UNIT, POLYSTYRENE, RAPID CURE JOINT SEALANT, BACKER RODS, SAWING, DOWEL BLOCKS, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 PARAPET BARS) AND CLASS AA CONCRETE.

ALL COST OF PARAPET SHALL BE INCLUDED IN PRICE BID PER L.F. OF "42" F-SHAPED PARAPET". THIS PRICE SHALL INCLUDE COST OF ALL FS1, FH1 AND FH2 EPOXY COATED REINFORCING STEEL. PARAPET SHALL BE FULL HEIGHT FOR THE LENGTH OF THE APPROACH SLAB.

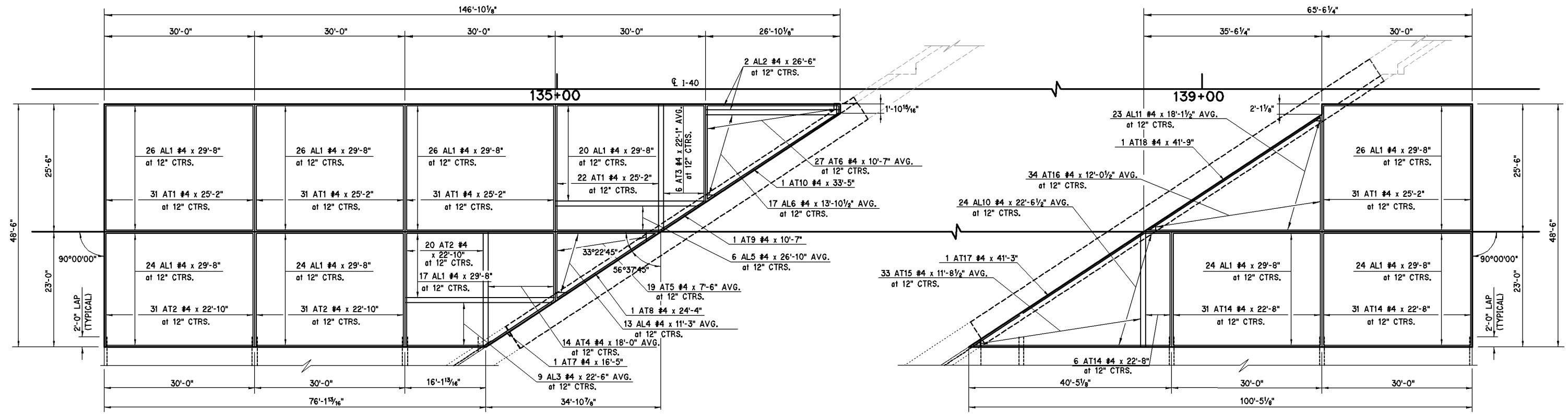
QUANTITIES

ITEM	UNIT	ABUT. 1	ABUT. 2	TOTAL
APPROACH SLAB	S.Y.	608.4	343.2	951.6
SAW-CUT GROOVING	S.Y.	583.9	338.2	922.1
42" F-SHAPED PARAPET	L.F.	146.9	30.0	176.9
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	72	15	87
SEALER CRACK PREPARATION	L.F.	77	101	178
SEALER RESIN	GAL.	0.9	1.2	2.1

Design	
Drawn	
Checked	
Approved	
Squad	POE

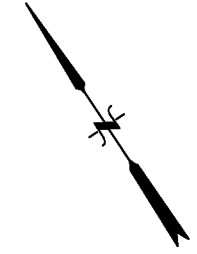
OKLAHOMA COUNTY
 BRIDGE "D" E.B. I-40 OVER S.E. 15th STREET
APPROACH SLAB DETAILS
PHASE III
 (SHEET 1 OF 4)
 State Job No. 23310(04) Sheet No. B171

DESCRIPTION	REVISIONS	DATE

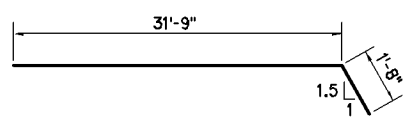


AT ABUT. NO. 1
NOTE: TOP MAT OF REINFORCING STEEL

AT ABUT. NO. 2
NOTE: TOP MAT OF REINFORCING STEEL



PLAN

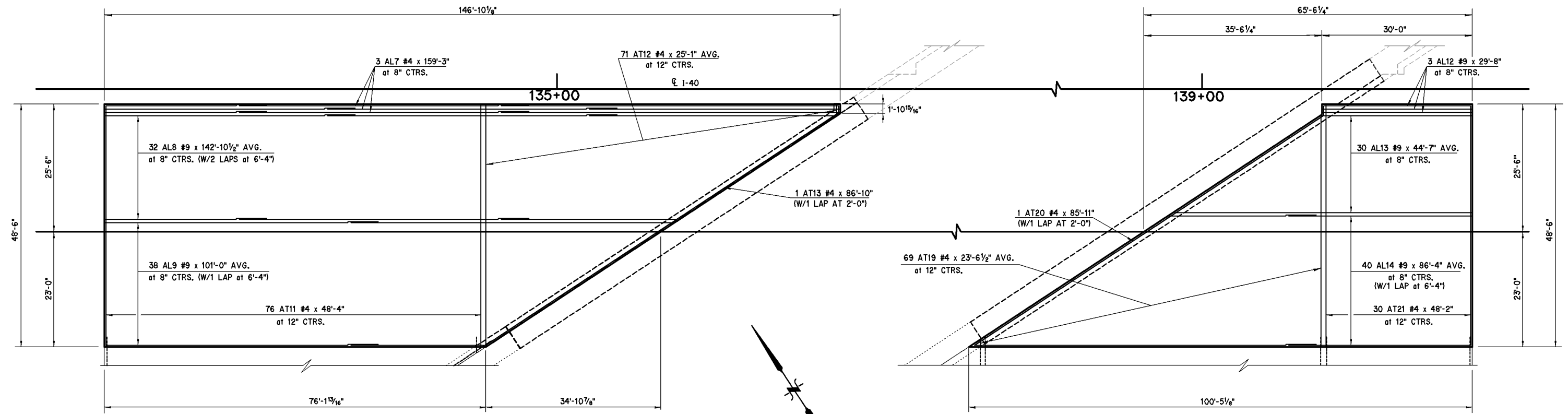


AT10 #4 x 33'-5"
(AT ABUT. NO. 1)

NOTE: ALL BAR BEND DIMENSIONS
ARE OUT TO OUT.

Design		BRIDGE "D"	OKLAHOMA COUNTY
Drawn			E.B. I-40 OVER S.E. 15th STREET
Checked			APPROACH SLAB DETAILS
Approved			PHASE III
Squad	POE		(SHEET 2 OF 4)
			State Job No. 23310(04) Sheet No. B172

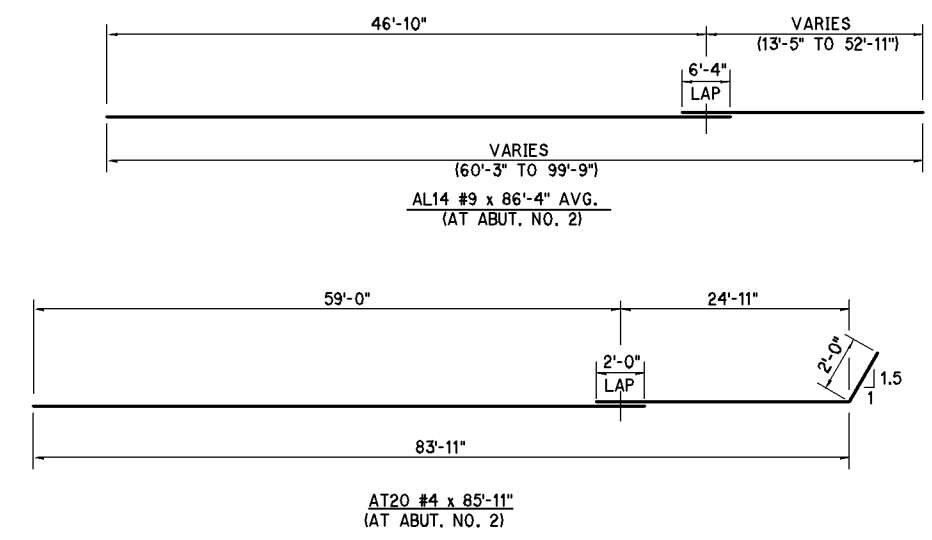
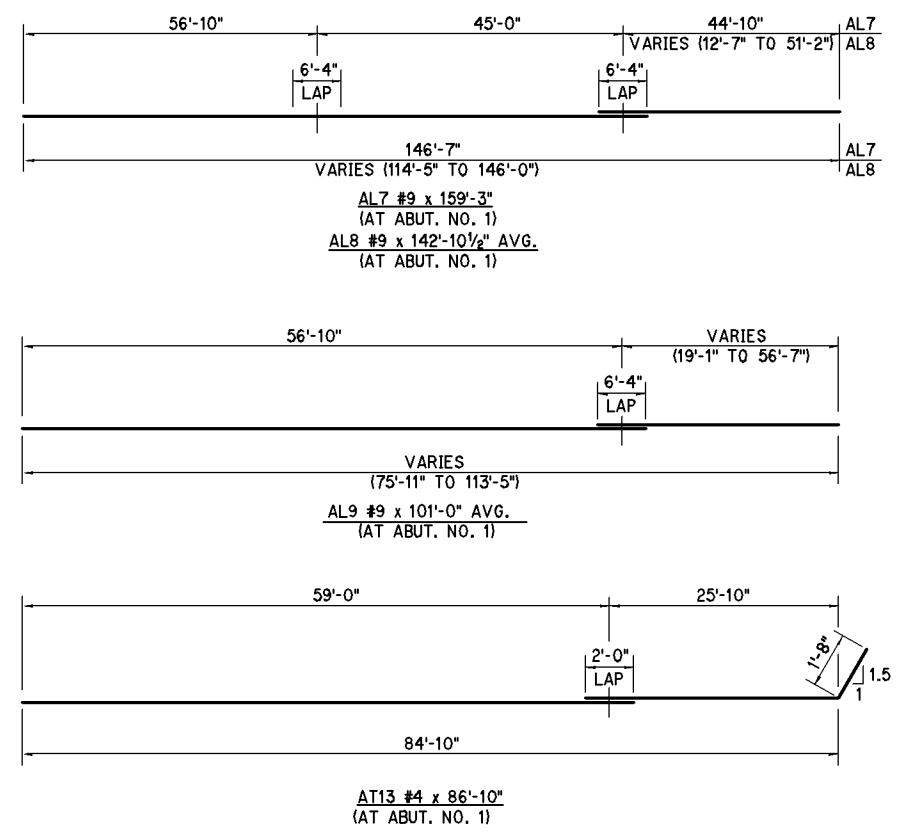
DESCRIPTION	REVISIONS	DATE



AT ABUT NO. 1
NOTE: BOTTOM MAT OF REINFORCING STEEL

AT ABUT NO. 2
NOTE: BOTTOM MAT OF REINFORCING STEEL

PLAN



NOTE: ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

NOTE: STAGGER ALL BAR LAPS.

Design		BRIDGE "D"	E.B. I-40 OVER S.E. 15th STREET
Drawn		APPROACH SLAB DETAILS PHASE III (SHEET 3 OF 4) State Job No. 23310(04) Sheet No. B173	
Checked			
Approved			
Squad	POE		

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 1 FOR INFORMATION ONLY

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	163	#4	STR.	12" C/C	29'-8"
AL2	2	#4	STR.	12" C/C	26'-6"
AL3	9	#4	STR.	12" C/C	22'-6" AVG.
AL4	13	#4	STR.	12" C/C	11'-3" AVG.
AL5	6	#4	STR.	12" C/C	24'-7½" AVG.
AL6	17	#4	STR.	12" C/C	13'-10½" AVG.
AL7	3	#9	STR.	8" C/C	159'-3"
AL8	32	#9	STR.	8" C/C	142'-10½" AVG.
AL9	38	#9	STR.	8" C/C	101'-0" AVG.
AT1	113	#4	STR.	12" C/C	25'-2"
AT2	81	#4	STR.	12" C/C	22'-10"
AT3	6	#4	BNT.	12" C/C	22'-1" AVG.
AT4	14	#4	STR.	12" C/C	18'-0" AVG.
AT5	19	#4	STR.	12" C/C	7'-6" AVG.
AT6	27	#4	STR.	12" C/C	10'-7" AVG.
AT7	1	#4	STR.	AS SHOWN	16'-5"
AT8	1	#4	STR.	AS SHOWN	24'-4"
AT9	1	#4	STR.	AS SHOWN	10'-7"
AT10	1	#4	BNT.	AS SHOWN	33'-5"
AT11	76	#4	STR.	12" C/C	48'-4"
AT12	71	#4	STR.	12" C/C	25'-1" AVG.
AT13	1	#4	BNT.	AS SHOWN	86'-10"

① LENGTH VARIES:
 AL3 - 15'-11" TO 29'-1" AT3 - 19'-4" TO 24'-10"
 AL4 - 2'-2" TO 20'-4" AT4 - 13'-8" TO 22'-4"
 AL5 - 20'-10" TO 28'-5" AT5 - 1'-7" TO 13'-5"
 AL6 - 1'-9" TO 26'-0" AT6 - 2'-0" TO 19'-2"
 AL8 - 120'-9" TO 152'-4"
 AL9 - 82'-3" TO 119'-9"

② LENGTH INCLUDES LAP:
 AL7 - 2 at 6'-4"
 AL8 - 2 at 6'-4"
 AL9 - 1 at 6'-4"
 AT13 - 1 at 2'-0"

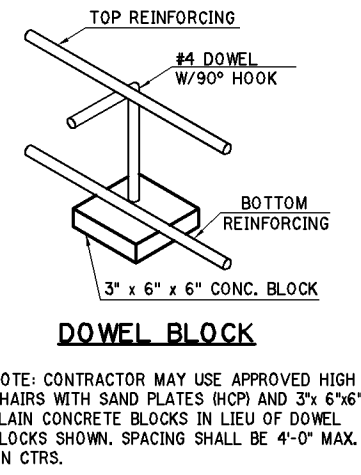
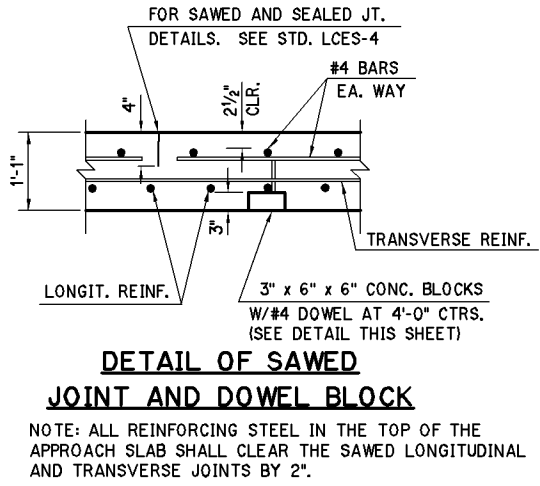
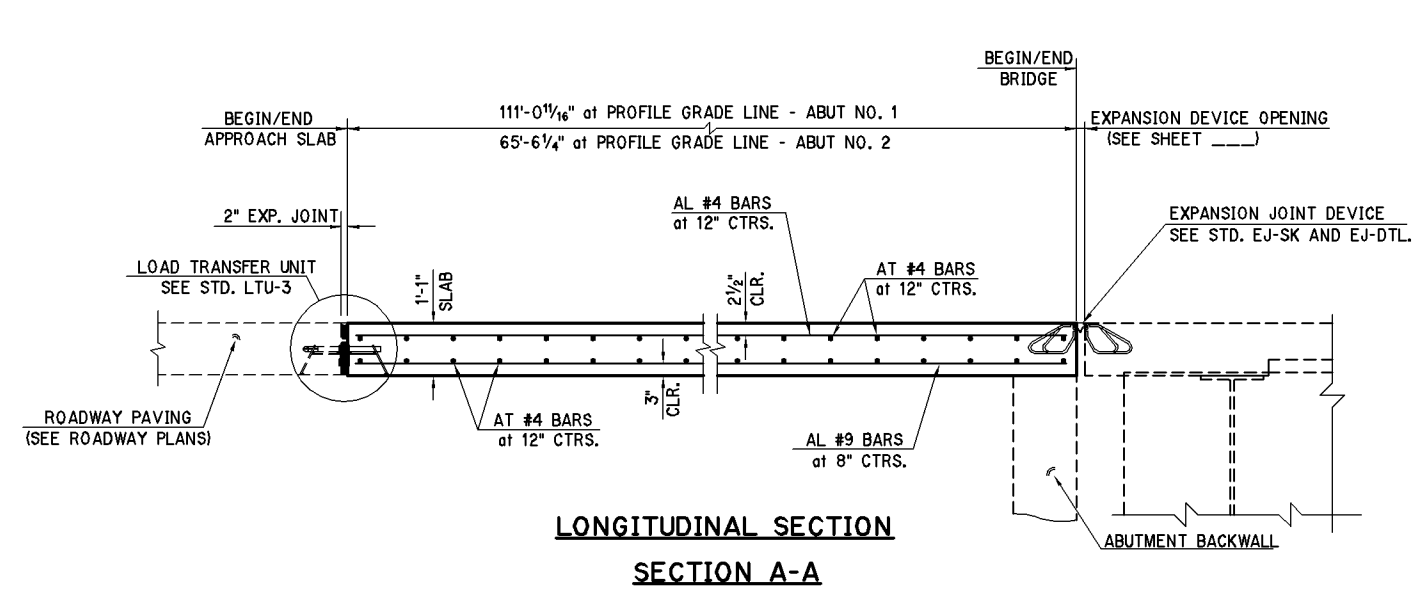
NOTE: STAGGER ALL BAR LAPS.

BAR LIST - EPOXY COATED APPROACH SLAB at ABUT. NO. 2 FOR INFORMATION ONLY

MARK	NO.	SIZE	FORM	SPACING	LENGTH
AL1	74	#4	STR.	12" C/C	29'-8"
AL10	24	#4	STR.	12" C/C	22'-6½" AVG.
AL11	23	#4	STR.	12" C/C	18'-1½" AVG.
AL12	3	#9	STR.	8" C/C	29'-8"
AL13	30	#9	STR.	8" C/C	44'-7" AVG.
AL14	40	#9	STR.	8" C/C	86'-4" AVG.
AT1	31	#4	STR.	12" C/C	25'-2"
AT14	68	#4	STR.	12" C/C	22'-8"
AT15	33	#4	STR.	12" C/C	11'-8½" AVG.
AT16	34	#4	STR.	12" C/C	12'-0½" AVG.
AT17	1	#4	STR.	AS SHOWN	41'-3"
AT18	1	#4	STR.	AS SHOWN	41'-9"
AT19	69	#4	STR.	12" C/C	23'-6½" AVG.
AT20	1	#4	BNT.	AS SHOWN	85'-11"
AT21	30	#4	STR.	12" C/C	48'-2"

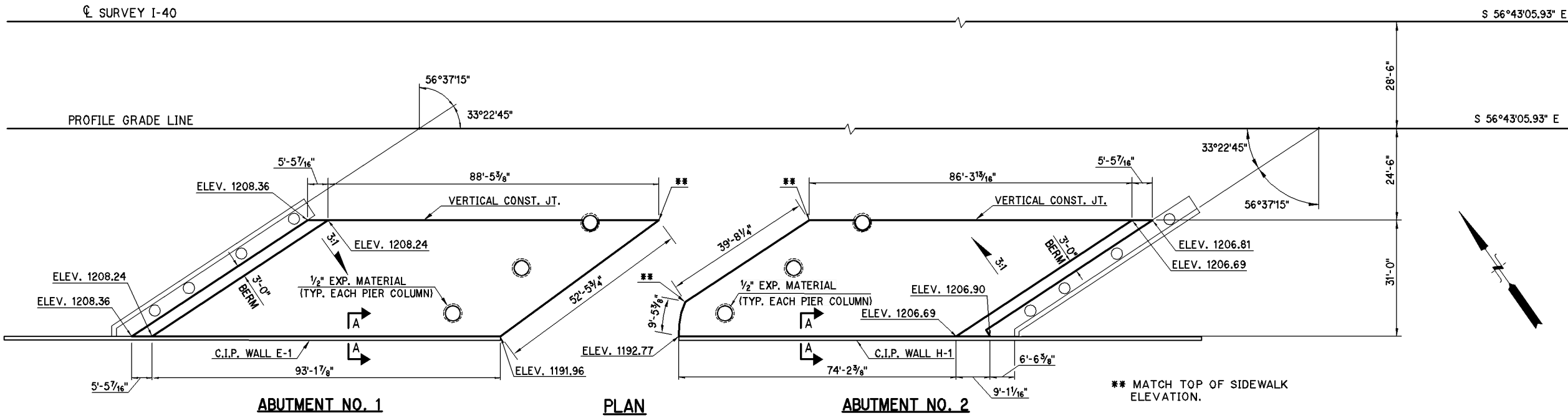
① LENGTH VARIES:
 AL10 - 5'-4" TO 39'-9" AT15 - 1'-2" TO 22'-3"
 AL11 - 1'-5" TO 34'-10" AT16 - 1'-2" TO 22'-11"
 AL13 - 29'-11" TO 59'-3" AT19 - 1'-2" TO 45'-11"
 AL14 - 66'-7" TO 106'-1"

② LENGTH INCLUDES LAP:
 AL14 - 1 at 6'-4"
 AL20 - 1 at 2'-0"



NOTE: CONTRACTOR MAY USE APPROVED HIGH CHAIRS WITH SAND PLATES (HCP) AND 3"x 6"x6" PLAIN CONCRETE BLOCKS IN LIEU OF DOWEL BLOCKS SHOWN. SPACING SHALL BE 4'-0" MAX. ON CTRS.

DESCRIPTION	REVISIONS	DATE

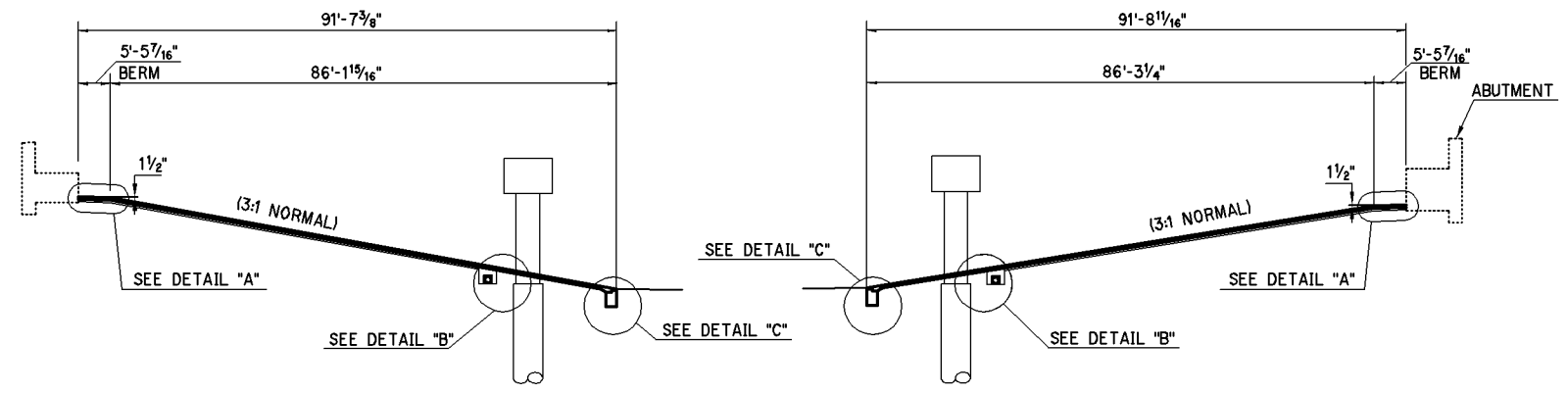


ABUTMENT NO. 1

PLAN

ABUTMENT NO. 2

FOR SECTION A-A
SEE SHEET NO. B178-B179



TYPICAL SECTION AT ABUTMENT NO. 1
(AT PROFILE GRADE LINE)

TYPICAL SECTION AT ABUTMENT NO. 2
(AT PROFILE GRADE LINE)

NOTE: FOR DETAILS A, B AND C
SEE SHEET NO. B178-B179

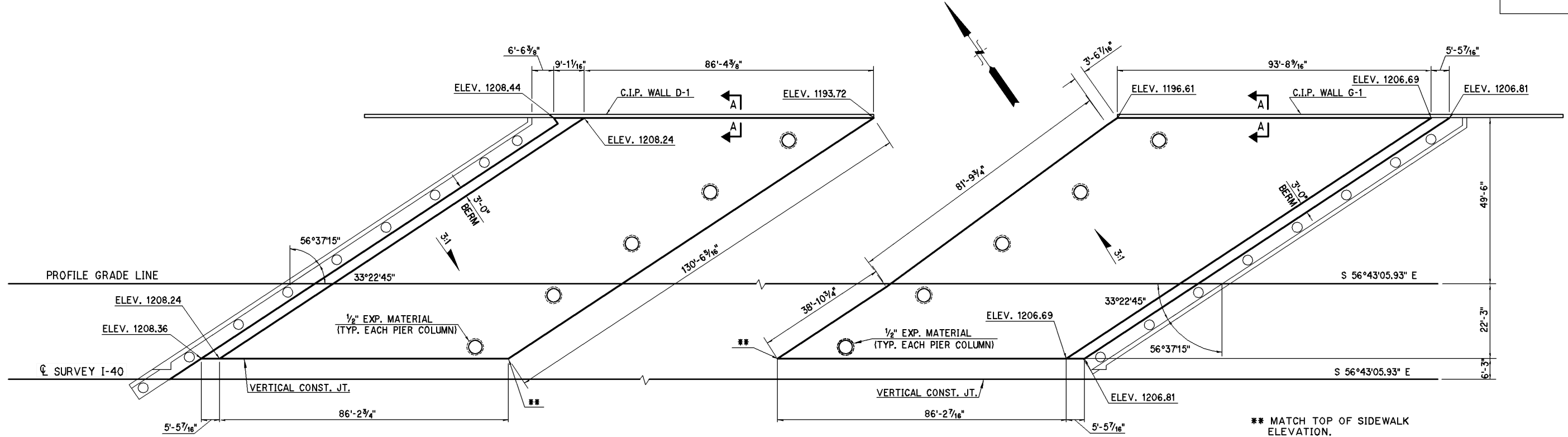
SLOPEWALL NOTES:

- ALL CONCRETE IN THE SLOPEWALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
- NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- SURFACE AREA OF TOE AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.
- ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR SLOPEWALL (5').
- ALL COST OF FILTER SAND, COARSE PIPE UNDERDRAIN COVER MATERIAL, EXCAVATION, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND.
- NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED SLOPE WALL PIPE, EXTENDED, AS DIRECTED IN THE FIELD BY THE ENGINEER AND CONNECTED TO PERFORATED PIPE IN RETAINING WALLS E-1 AND H-1.

QUANTITIES				
ITEM	UNIT	ABUT. #1	ABUT. #2	TOTAL
SLOPEWALL (5')	S.Y.	355	293	648
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	48	48	96
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	10	10	20

Design		BRIDGE "D" SLOPE WALL DETAILS PHASE I (SHEET 1 OF 5) State Job No. <u>23310(04)</u> Sheet No. <u>B175</u>
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE

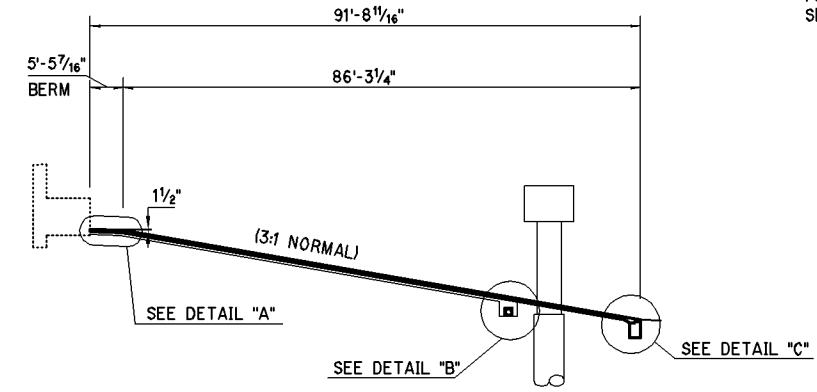


ABUTMENT NO. 1

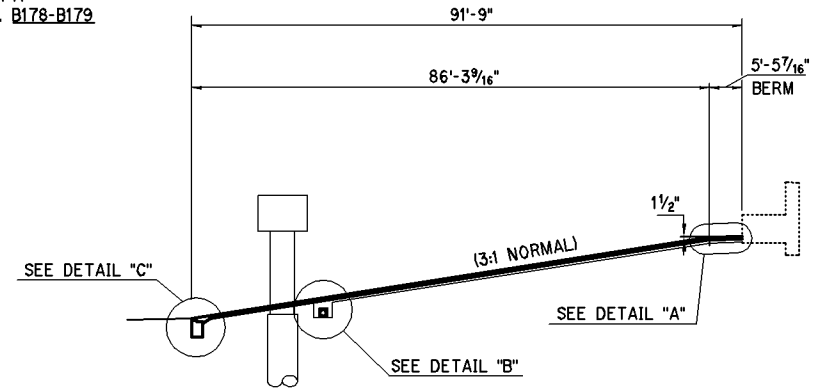
PLAN

ABUTMENT NO. 2

FOR SECTION A-A
SEE SHEET NO. B178-B179



TYPICAL SECTION AT ABUTMENT NO. 1
(AT PROFILE GRADE LINE)



TYPICAL SECTION AT ABUTMENT NO. 2
(AT PROFILE GRADE LINE)

** MATCH TOP OF SIDEWALK
ELEVATION.

SLOPEWALL NOTES:

1. ALL CONCRETE IN THE SLOPEWALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. SURFACE AREA OF TOE AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.
4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR SLOPEWALL (5").
5. ALL COST OF FILTER SAND, COARSE PIPE UNDERDRAIN COVER MATERIAL, EXCAVATION, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND.
6. NON-PERFORATED PIPE SHALL BE CONNECTED TO PERFORATED SLOPE WALL PIPE, EXTENDED, AS DIRECTED IN THE FIELD BY THE ENGINEER AND CONNECTED TO PERFORATED PIPE IN RETAINING WALLS E-1 AND H-1.

NOTE: FOR DETAILS A, B AND C
SEE SHEET NO. B178-B179

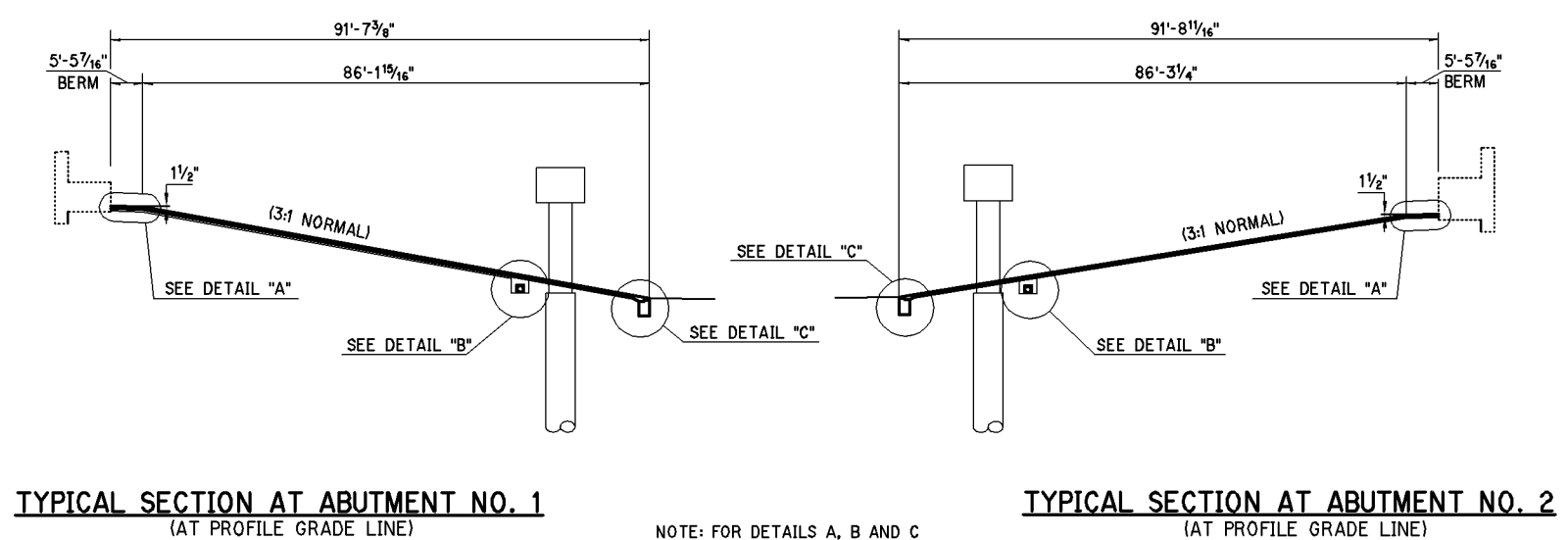
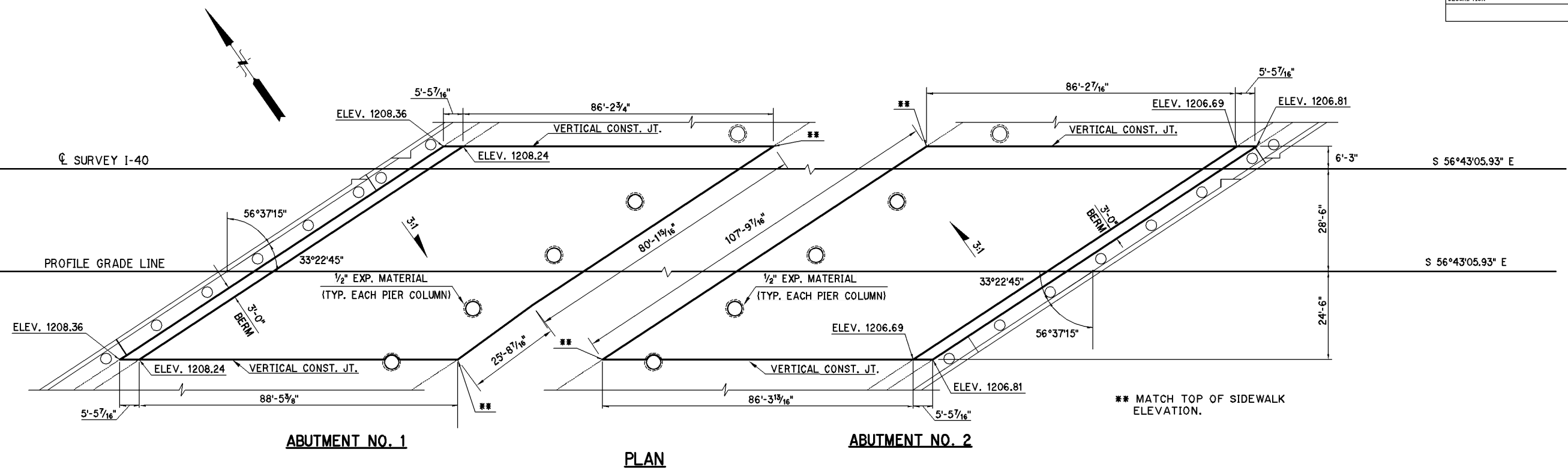
QUANTITIES				
ITEM	UNIT	ABUT. #1	ABUT. #2	TOTAL
SLOPEWALL (5")	S.Y.	744	770	1514
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	131	121	252
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	10	10	20

Design		BRIDGE "C"	I-40 OVER S.E. 15th STREET
Drawn			
Checked			
Approved			
Squad	POE		

**SLOPE WALL DETAILS
PHASE II**
(SHEET 2 OF 5)

State Job No. 23310(04) Sheet No. B176

DESCRIPTION	REVISIONS	DATE



NOTE: FOR DETAILS A, B AND C
SEE SHEET NO. B178-B179

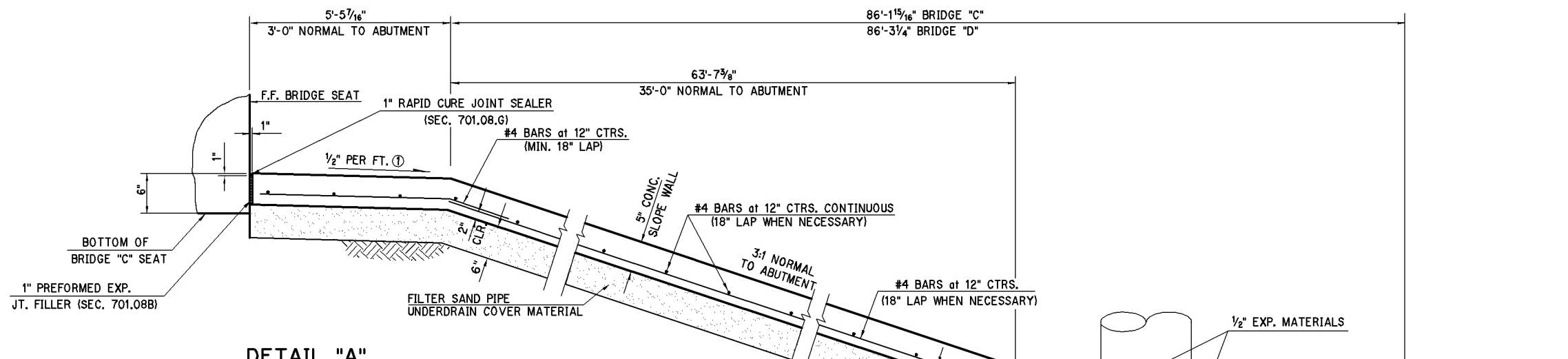
SLOPEWALL NOTES:

1. ALL CONCRETE IN THE SLOPEWALL SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS.
2. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. SURFACE AREA OF TOE AND EDGES OF SLOPE WALL INCLUDED IN PAY QUANTITY SHOWN.
4. ALL COSTS OF THE JOINT SEALER AND FILLER, REINFORCING STEEL, CONCRETE, EXCAVATION, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR SLOPEWALL (5').
5. ALL COST OF FILTER SAND, COARSE PIPE UNDERDRAIN COVER MATERIAL, EXCAVATION, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND.
6. CONNECT 6" PERFORATED PIPE TO PHASE I SLOPEWALL PERFORATED PIPE AND SLOPE TO DRAIN.

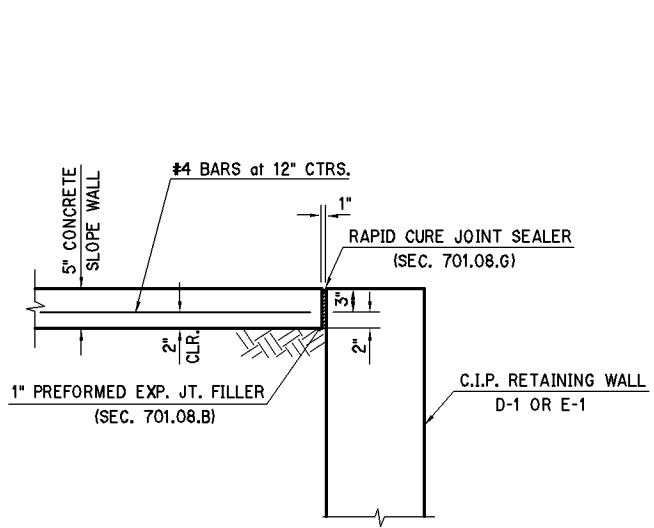
QUANTITIES				
ITEM	UNIT	ABUT. #1	ABUT. #2	TOTAL
SLOPEWALL (5')	S.Y.	635	634	1269
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	106	108	214

Design		BRIDGE "D"	I-40 OVER S.E. 15th STREET
Drawn			
Checked			
Approved			
Squad	POE		
SLOPE WALL DETAILS			
PHASE III			
(SHEET 3 OF 5)			
State Job No. 23310(04)		Sheet No. B177	

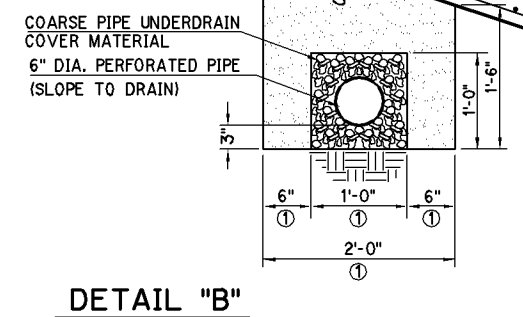
DESCRIPTION	REVISIONS	DATE



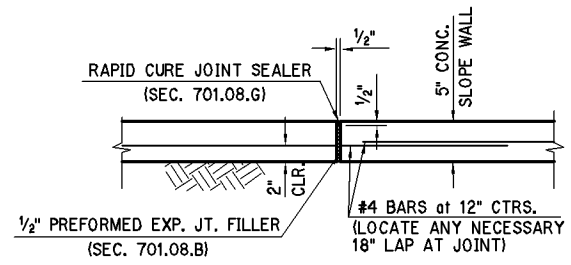
DETAIL "A"



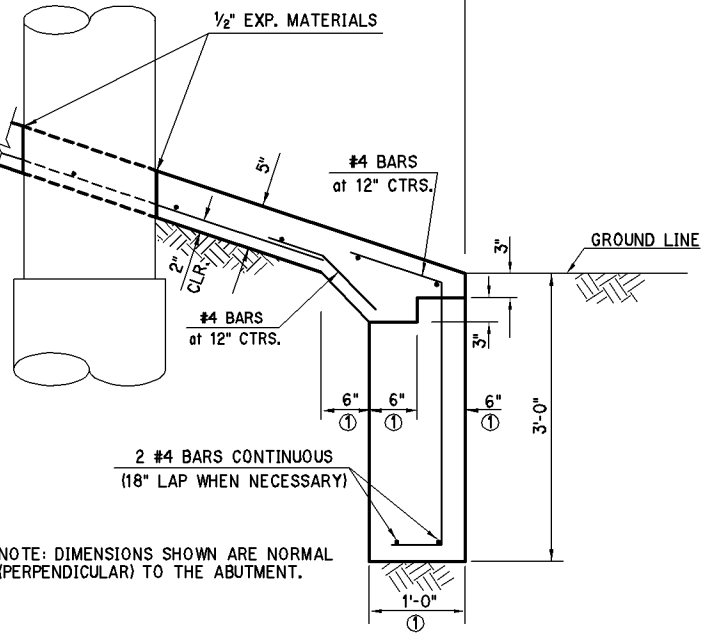
SECTION A-A (TYPICAL)



DETAIL "B"

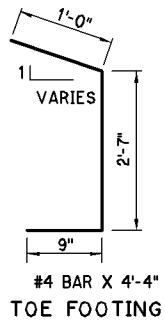
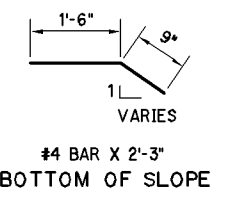
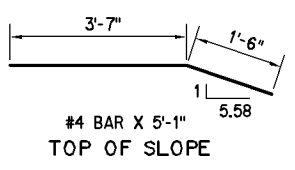


VERTICAL CONSTRUCTION JOINT DETAIL



DETAIL "C"

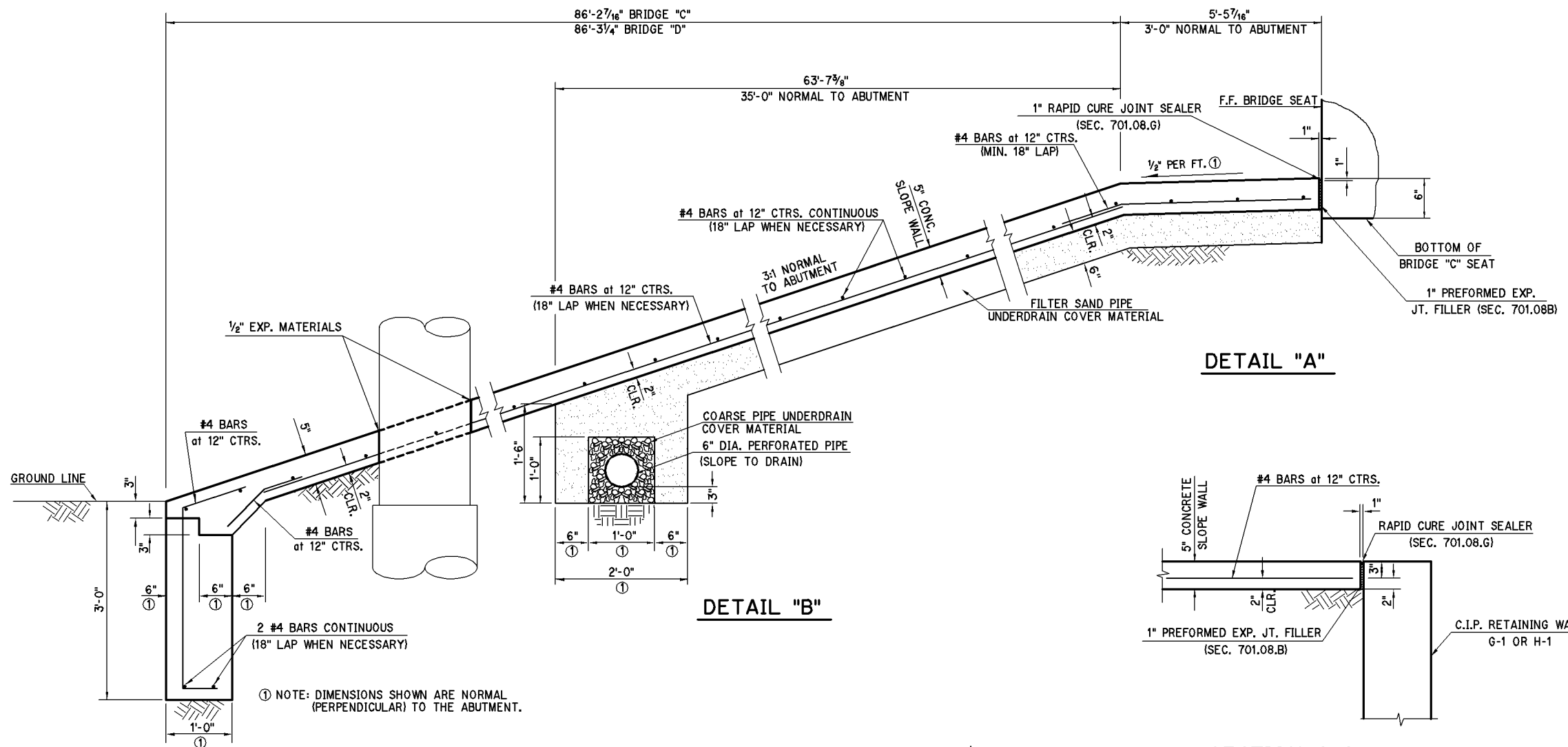
(1) NOTE: DIMENSIONS SHOWN ARE NORMAL (PERPENDICULAR) TO THE ABUTMENT.



ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design		BRIDGE "C" & "D"	OKLAHOMA COUNTY
Drawn		I-40 OVER S.E. 15th STREET	
Checked		SLOPE WALL DETAILS	
Approved		ABUTMENT NO. 1	
Squad	POE	(SHEET 4 OF 5)	
		State Job No. 23310(04)	Sheet No. B178

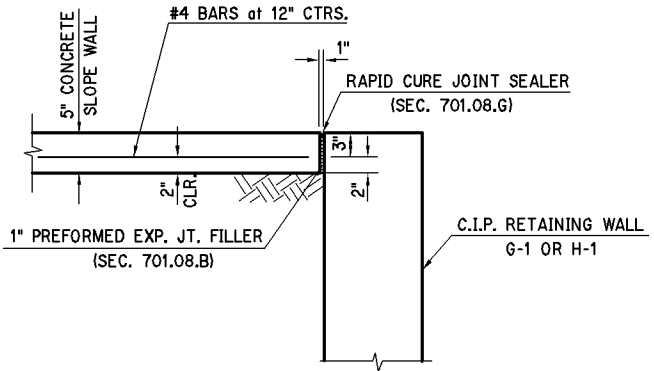
DESCRIPTION	REVISIONS	DATE



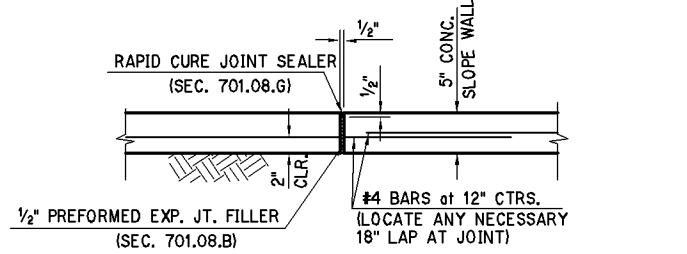
DETAIL "A"

DETAIL "B"

DETAIL "C"

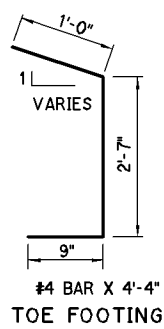
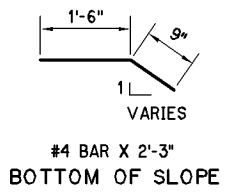
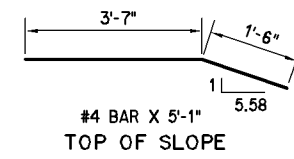


SECTION A-A (TYPICAL)



VERTICAL CONSTRUCTION JOINT DETAIL

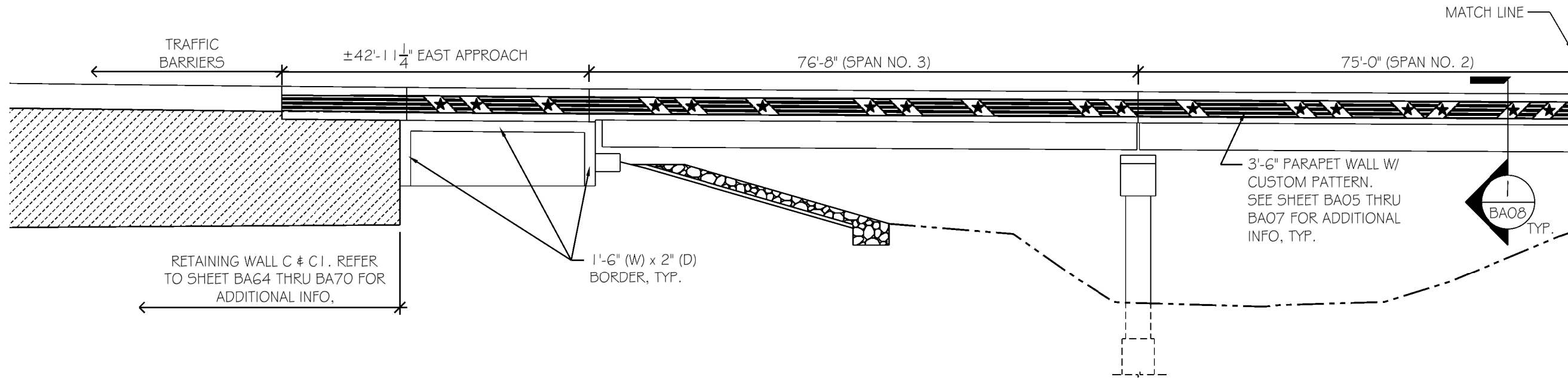
① NOTE: DIMENSIONS SHOWN ARE NORMAL (PERPENDICULAR) TO THE ABUTMENT.



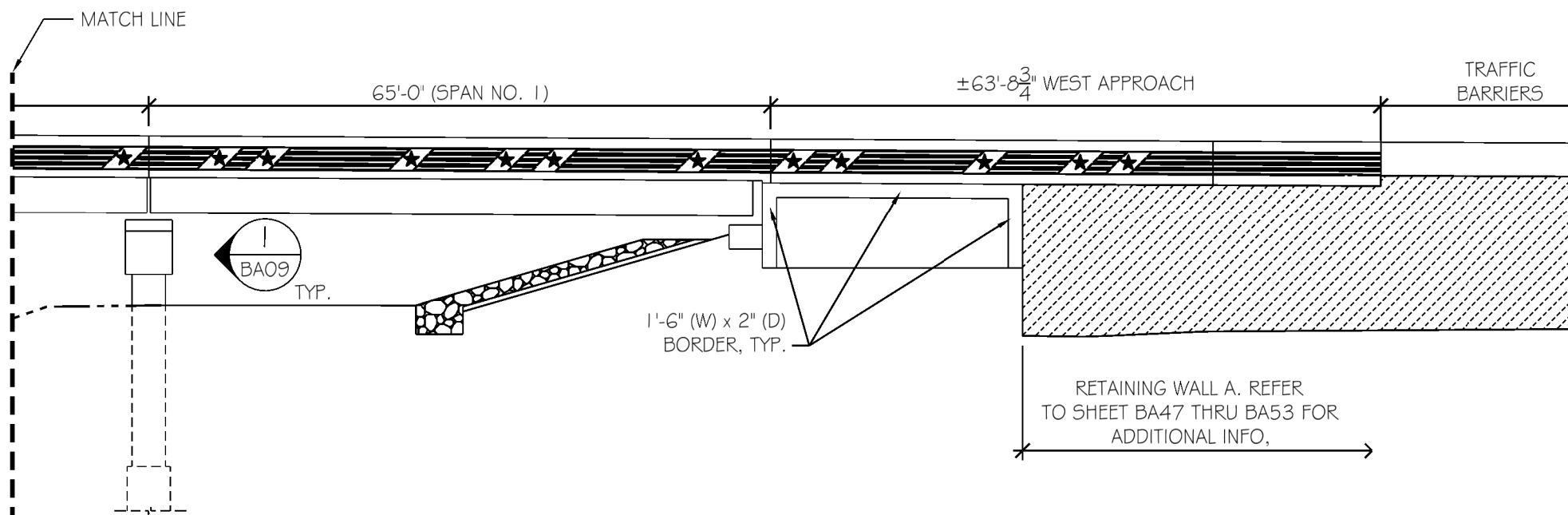
ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design		OKLAHOMA COUNTY BRIDGE "C" & "D" I-40 OVER S.E. 15th STREET SLOPE WALL DETAILS ABUTMENT NO. 2 (SHEET 5 OF 5) State Job No. 23310(04) Sheet No. B179
Drawn		
Checked		
Approved		
Squad	POE	

DESCRIPTION	REVISIONS	DATE



1
BA01
NORTH ELEVATION: BRIDGE 'A'
SCALE: 1/16" = 1'-0"



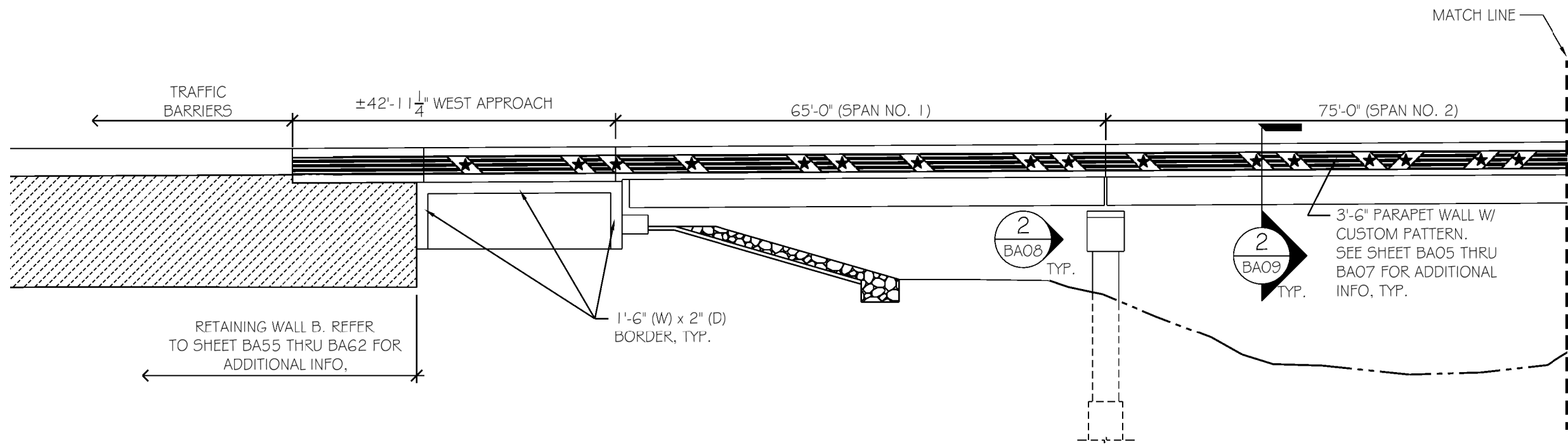
2
BA01
NORTH ELEVATION: BRIDGE 'A' CONTINUES
SCALE: 1/16" = 1'-0"

GENERAL NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. CONTRACTOR TO SEE SHEET BA03 & BA04 FOR CONCRETE PATTERN INFORMATION & DETAILS.

Design	.	BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK	OAKLAHOMA COUNTY
Drawn	.		
Checked	.		
Approved	.		
Squad	.		
		NORTH ELEVATIONS: BRIDGE 'A'	
		Job Piece No 23310(04)	Sheet No.BA01

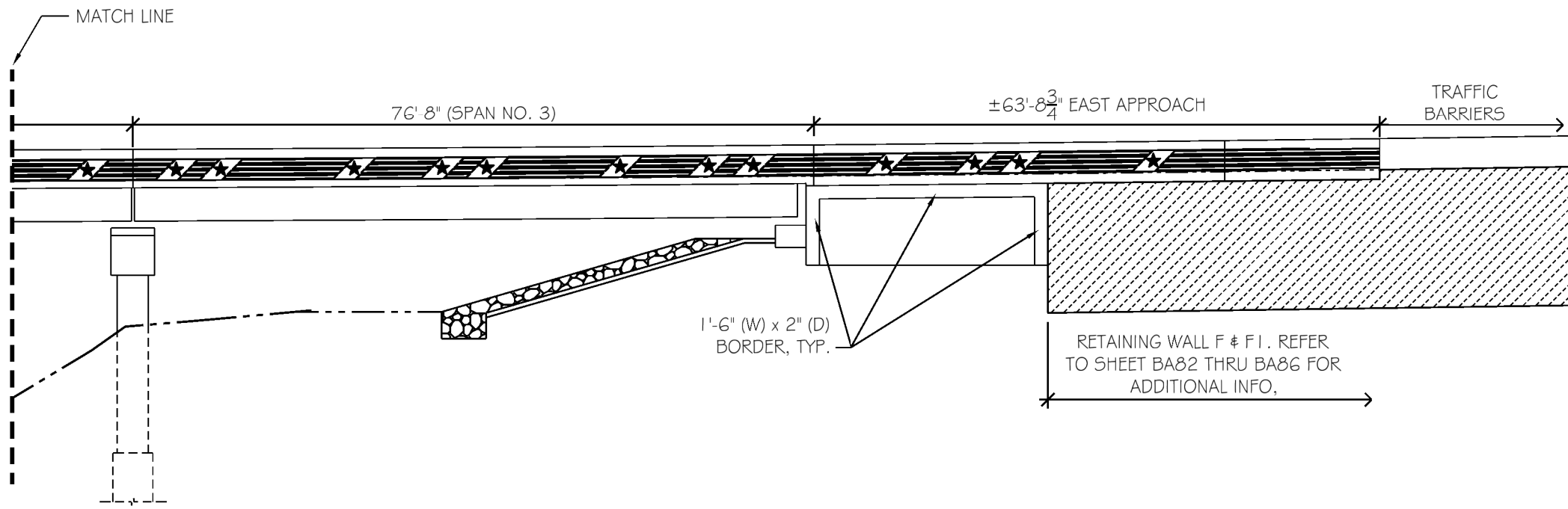
DESCRIPTION	REVISIONS	DATE



1 SOUTH ELEVATION: BRIDGE 'B'
BA02 SCALE: 1/16" = 1'-0"

GENERAL NOTE

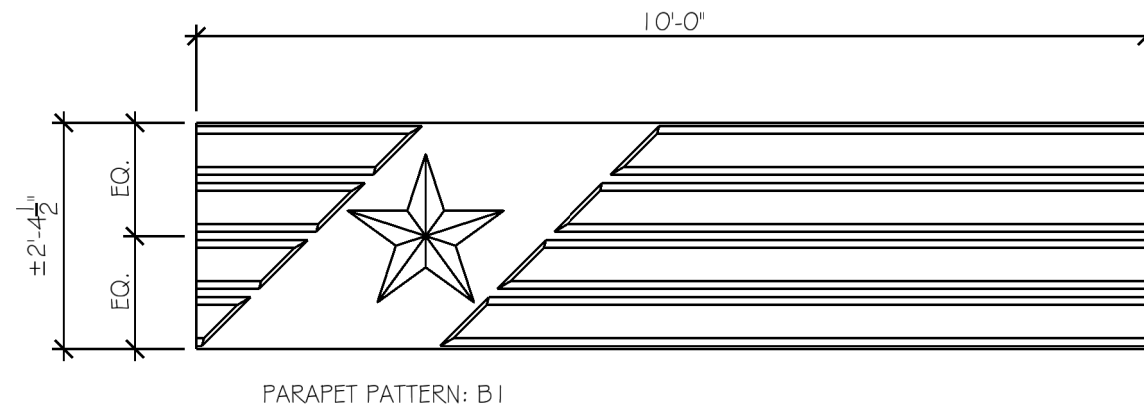
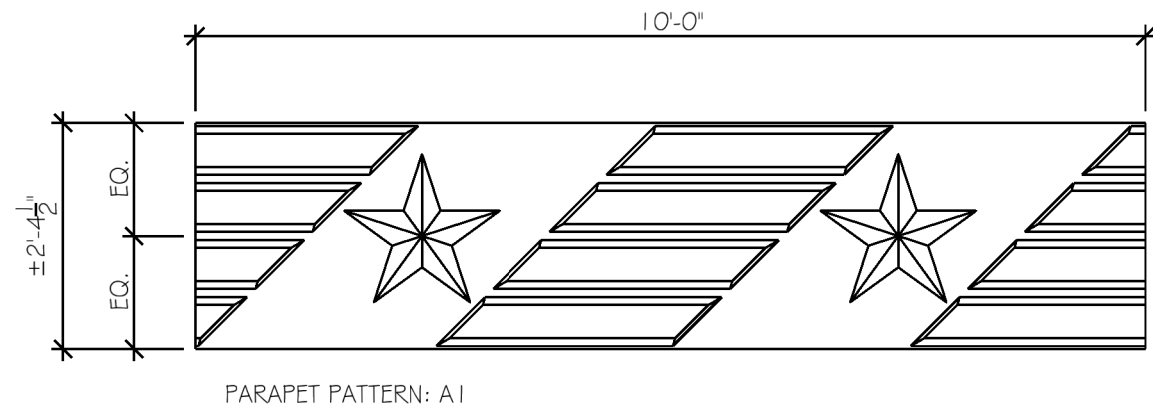
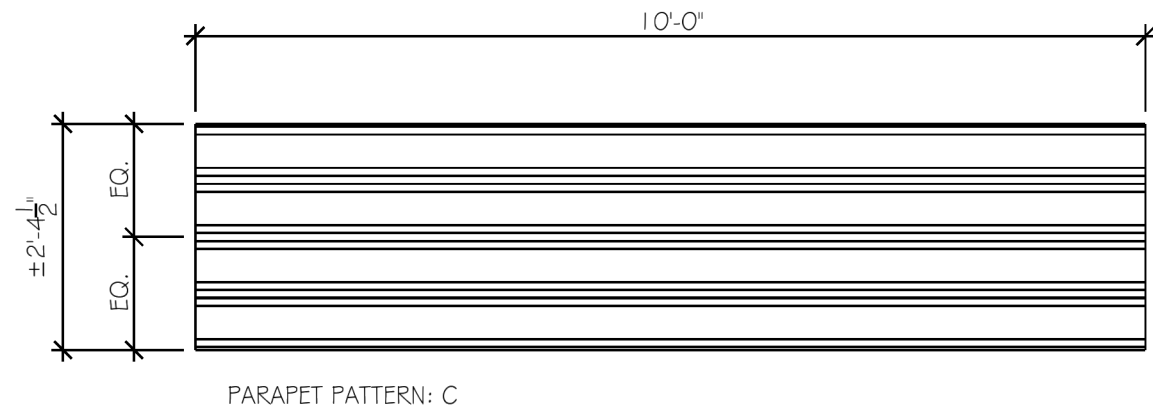
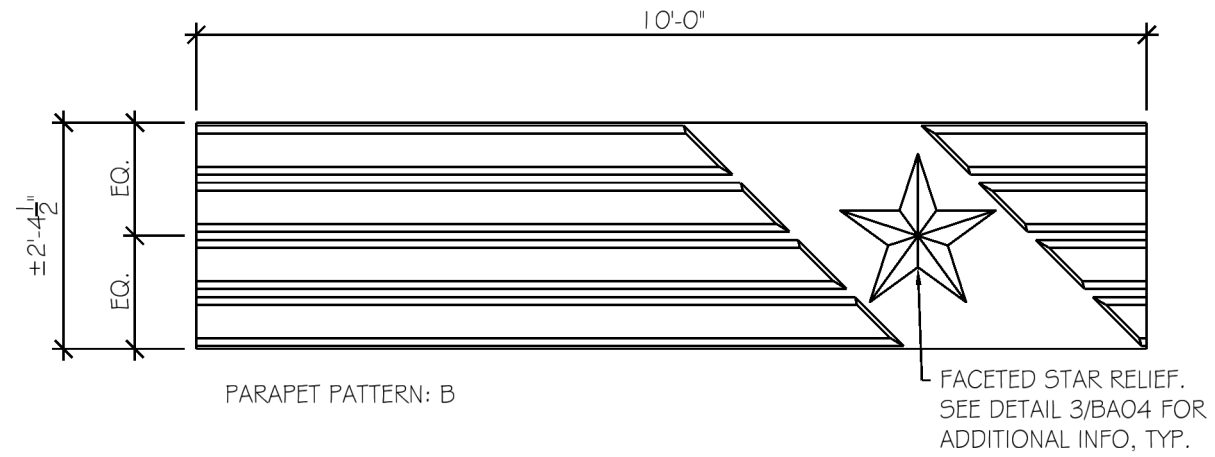
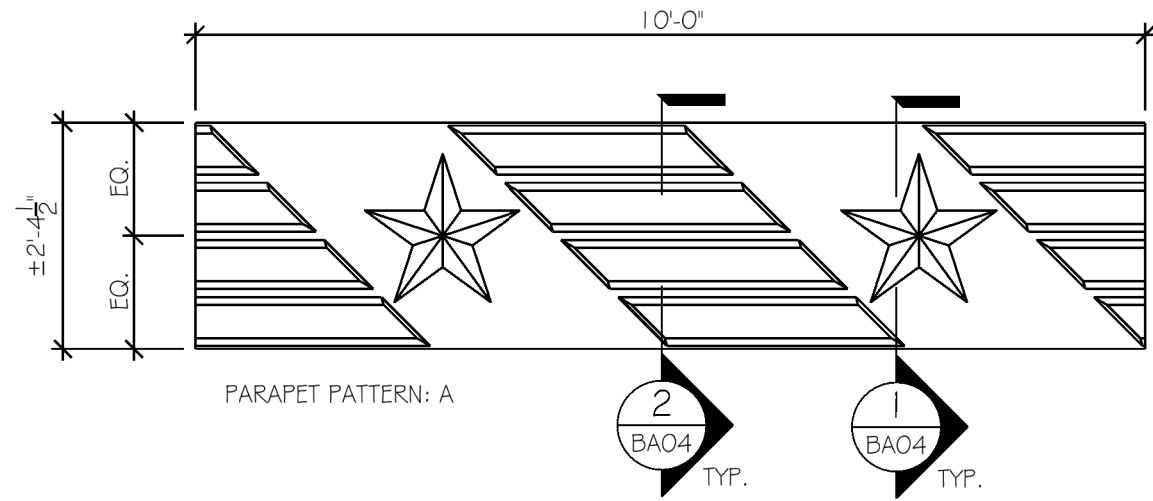
- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA03 & BA04 FOR CONCRETE PATTERN INFORMATION & DETAILS.



2 SOUTH ELEVATION: BRIDGE 'B' CONTINUES
BA02 SCALE: 1/16" = 1'-0"

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
SOUTH ELEVATIONS: BRIDGE 'B'			Job Piece No 23310(04)	Sheet No.BA02

DESCRIPTION	REVISIONS	DATE



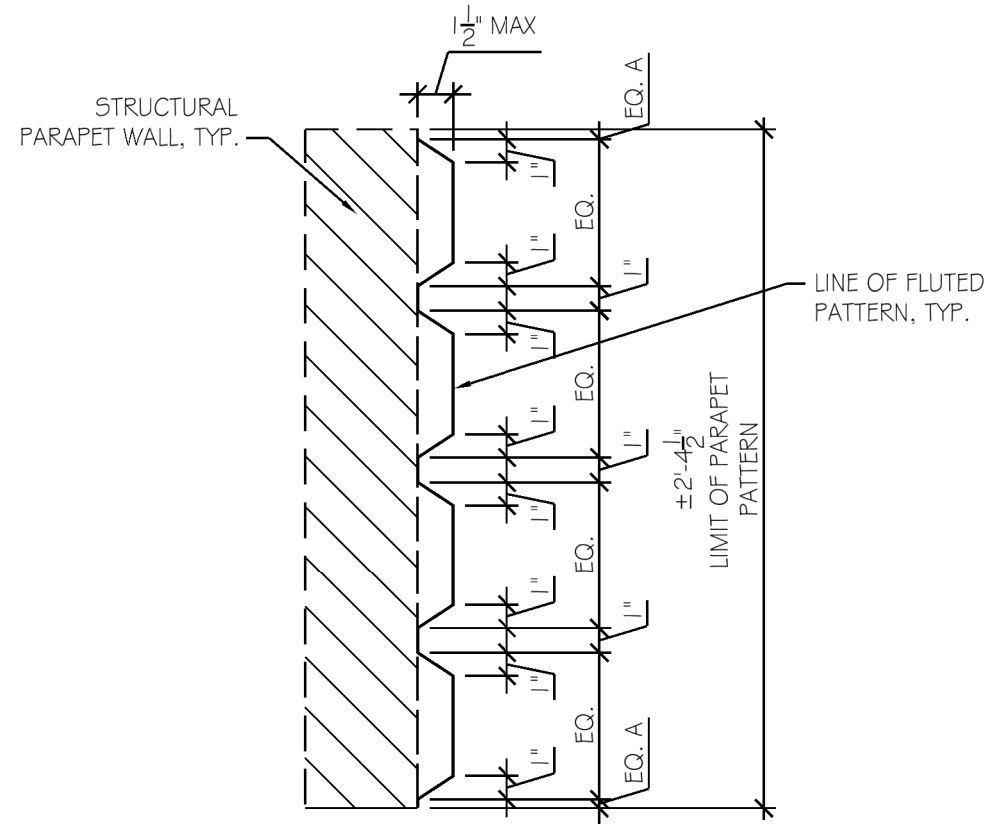
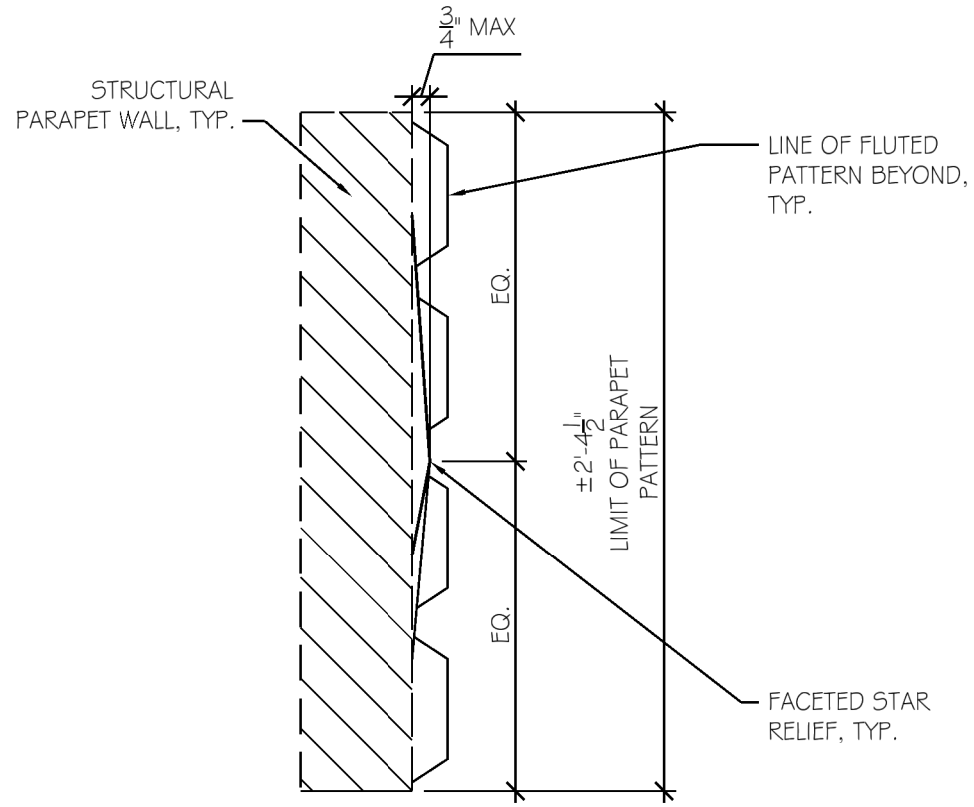
GENERAL NOTE

- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.

1 PARAPET PATTERN ELEVATIONS
BA03 SCALE: 1/2" = 1'-0"

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK PATTERN ELEVATIONS & SECTIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA03
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

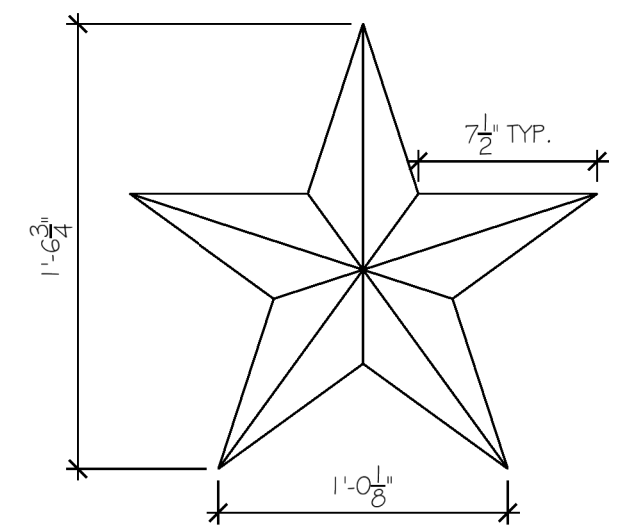
DESCRIPTION	REVISIONS	
	DATE	



- GENERAL NOTE**
- DO NOT SCALE OFF DRAWING.
 - DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.

1 TYPICAL SECTION: PARAPET PATTERN
BA04 SCALE: 1" = 1'-0"

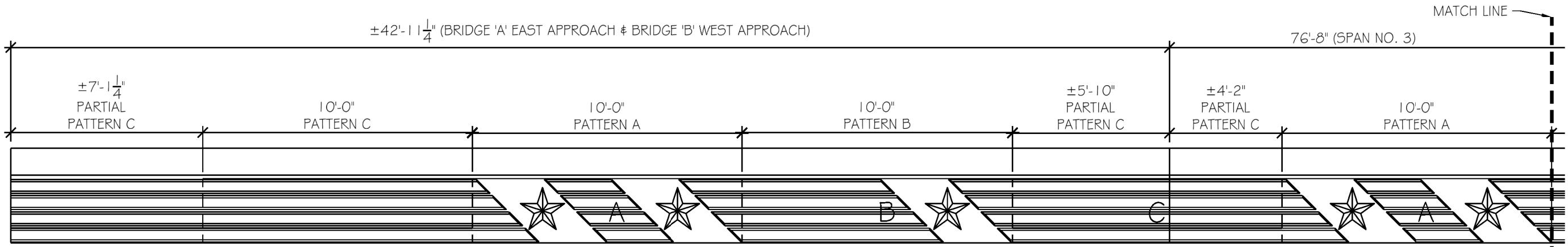
2 TYPICAL SECTION: PARAPET PATTERN
BA04 SCALE: 1 1/2" = 1'-0"



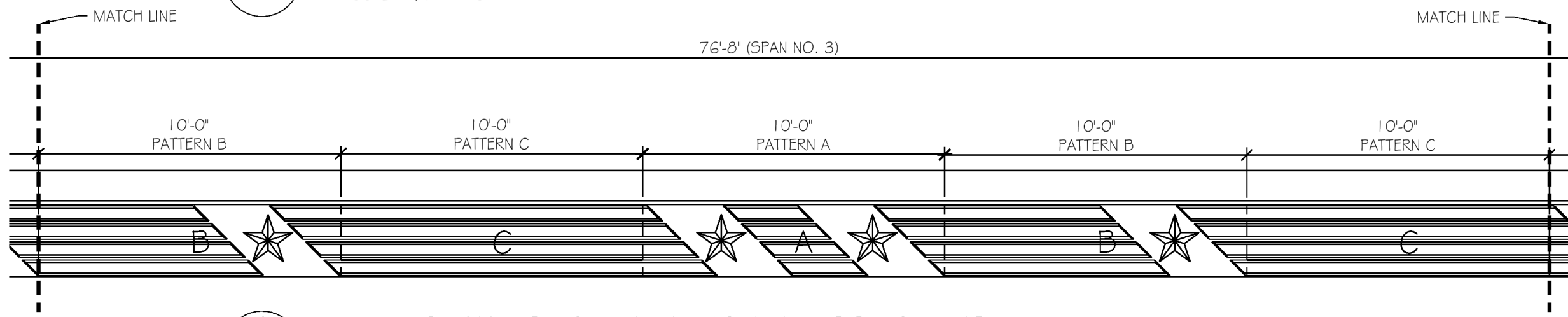
3 ENLARGED ELEVATION: FACETED STAR
BA04 SCALE: 1 1/2" = 1'-0"

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK PATTERN ELEVATIONS & SECTIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
			Sheet No. BA04	

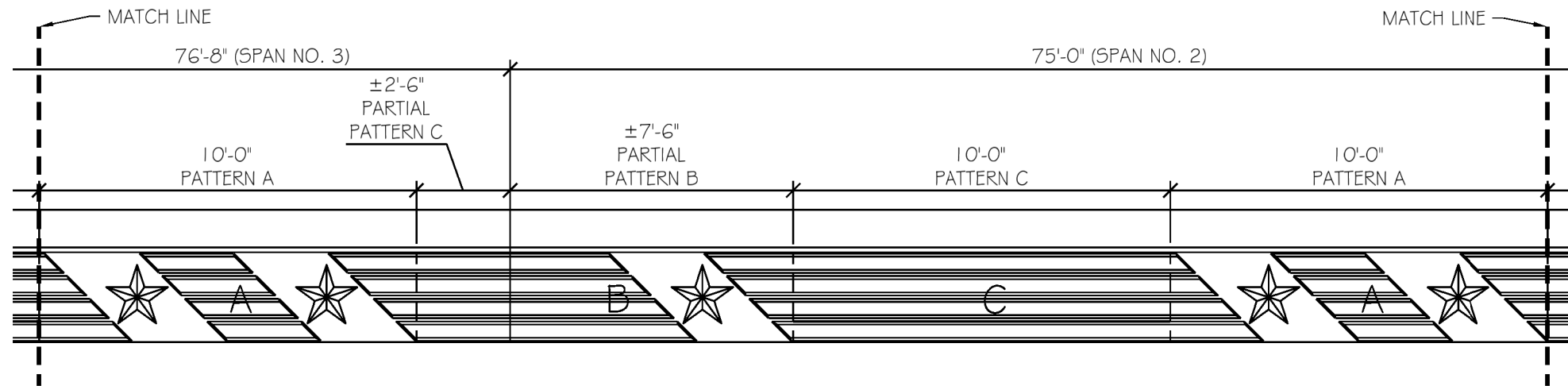
DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'A' NORTH PARAPET ELEV.
BA05 SCALE: 1/4" = 1'-0"



2 BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES
BA05 SCALE: 1/4" = 1'-0"



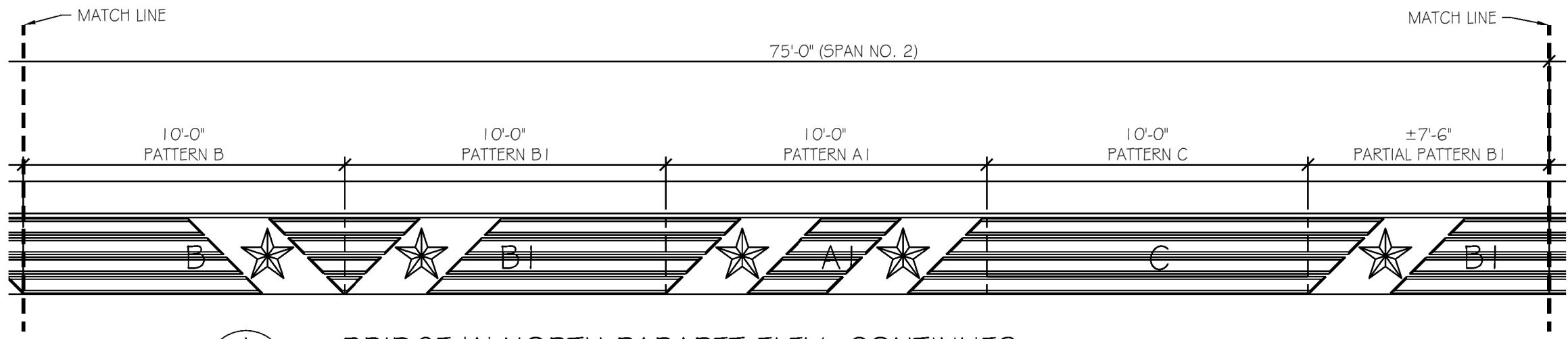
3 BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES
BA05 SCALE: 1/4" = 1'-0"

GENERAL NOTE

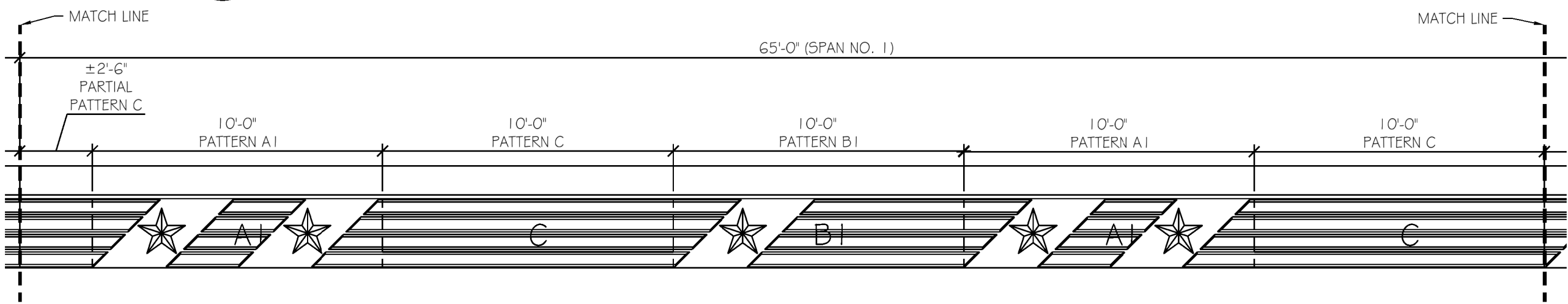
- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA03 FOR PARAPET PATTERN INFORMATION.
- SOUTH PARAPET WALL ELEVATION FOR BRIDGE 'B' IS OMITTED FOR REDUNDANCY. BRIDGE 'B' SOUTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'A' NORTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' NORTH PARAPET WALL ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA05
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

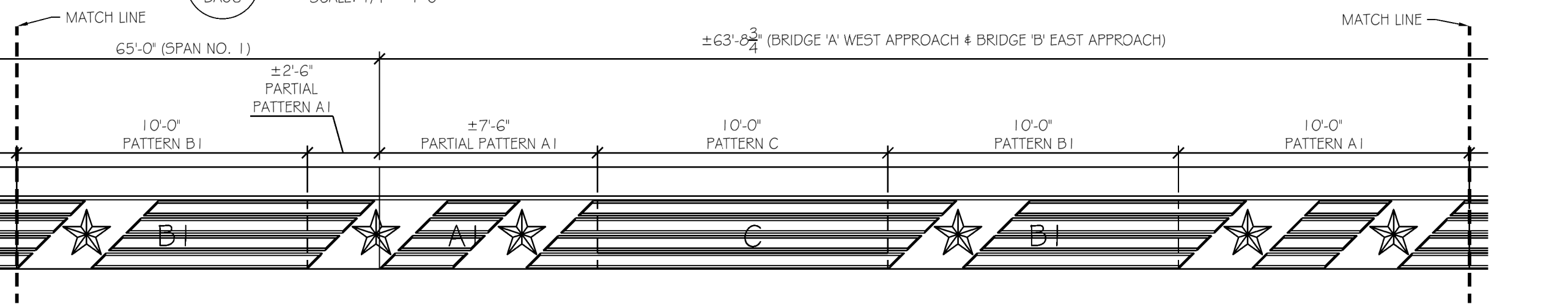
DESCRIPTION	REVISIONS	
	DATE	



1 BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES
 BA06 SCALE: 1/4" = 1'-0"



2 BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES
 BA06 SCALE: 1/4" = 1'-0"

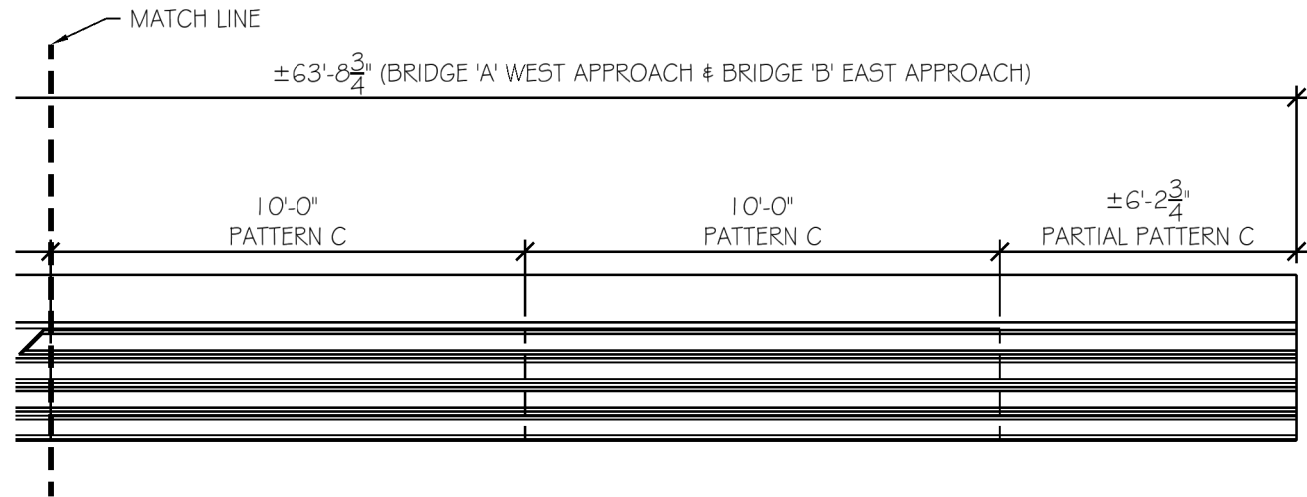


3 BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES
 BA06 SCALE: 1/4" = 1'-0"

- GENERAL NOTE
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 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
 - CONTRACTOR TO SEE SHEET BA03 FOR PARAPET PATTERN INFORMATION.
 - SOUTH PARAPET WALL ELEVATION FOR BRIDGE 'B' IS OMITTED FOR REDUNDANCY. BRIDGE 'B' SOUTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'A' NORTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design	.		BRIDGE 'A' & 'B' 1-40 OVER CRUTCHO CREEK BRIDGE 'A' NORTH PARAPET WALL ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA06
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1
BA07

BRIDGE 'A' NORTH PARAPET ELEV. CONTINUES

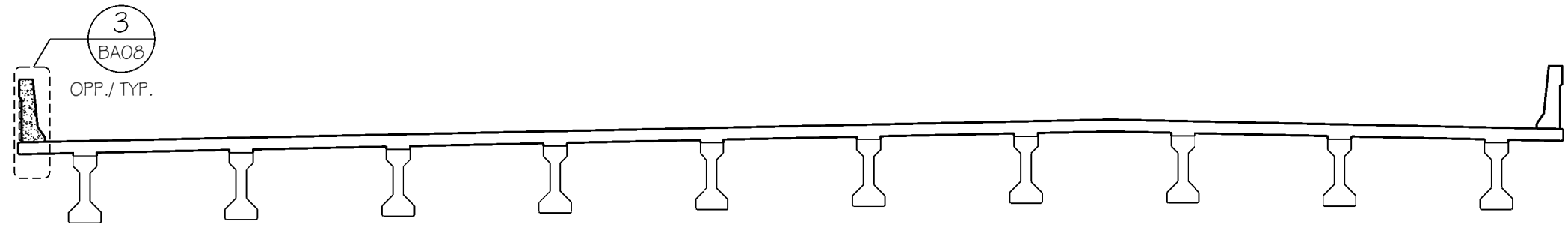
SCALE: 1/4" = 1'-0"

GENERAL NOTE

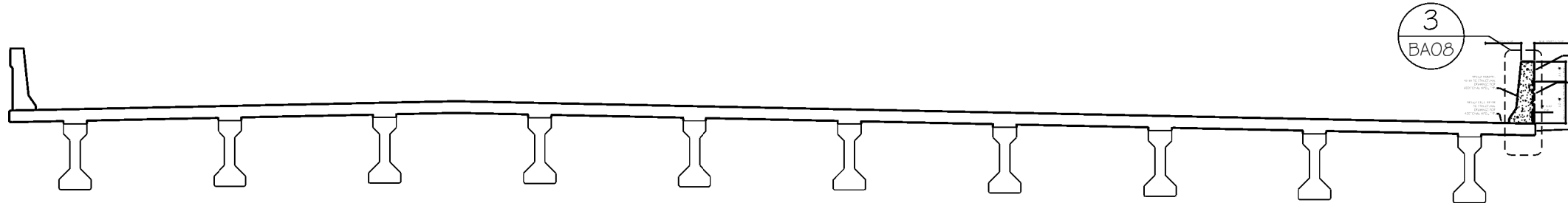
1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. CONTRACTOR TO SEE SHEET BA03 FOR PARAPET PATTERN INFORMATION.
5. SOUTH PARAPET WALL ELEVATION FOR BRIDGE 'B' IS OMITTED FOR REDUNDANCY. BRIDGE 'B' SOUTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'A' NORTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' NORTH PARAPET WALL ELEVATIONS	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
Job Piece No 23310(04)			Sheet No. BA07	

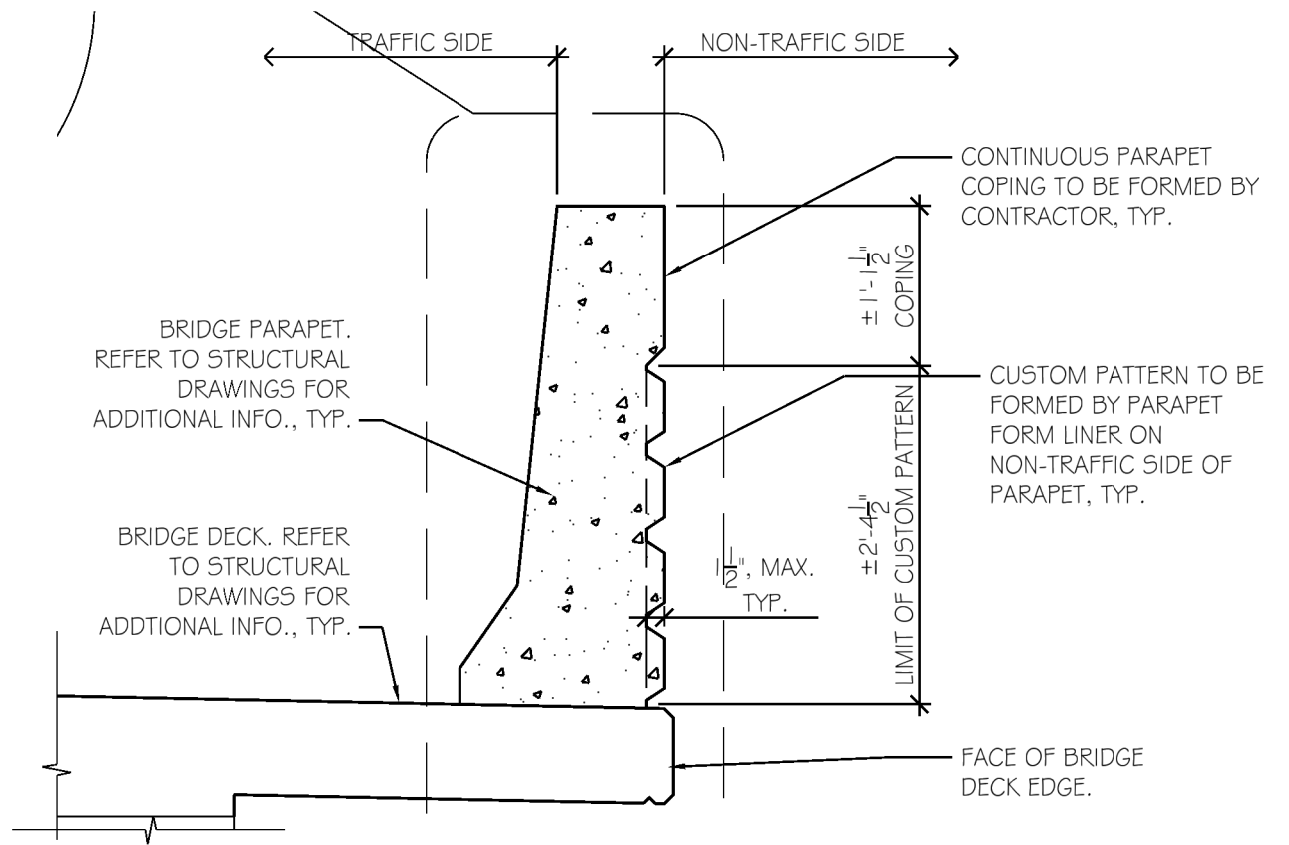
DESCRIPTION	REVISIONS	DATE



1 TYPICAL SECTION: BRIDGE 'A' DECK
 BA08 SCALE: 1/8" = 1'-0"



2 TYPICAL SECTION: BRIDGE 'B' DECK
 BA08 SCALE: 1/8" = 1'-0"



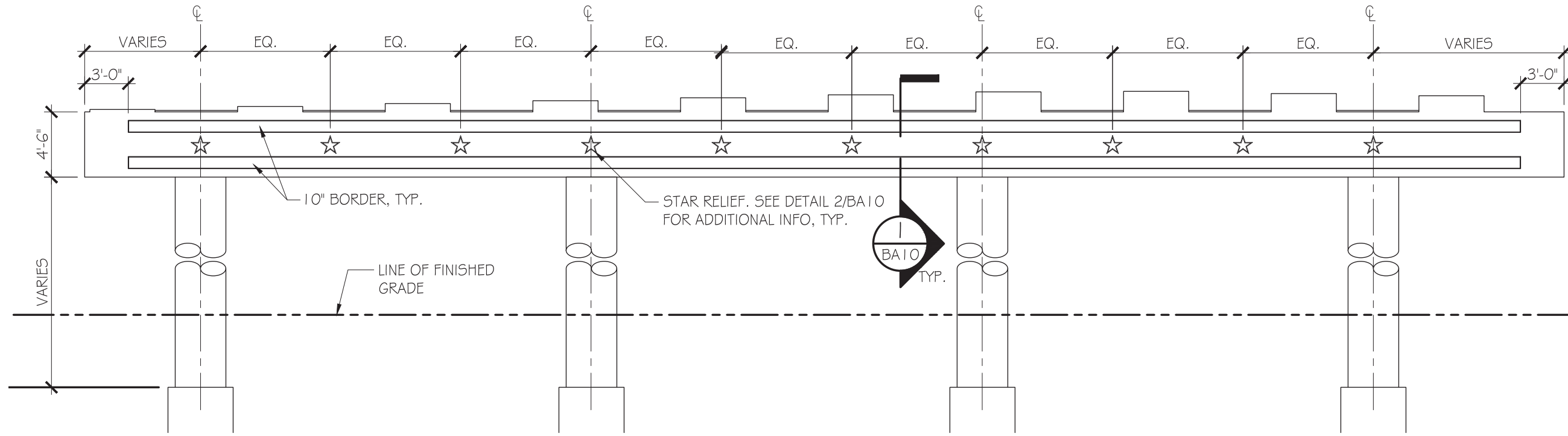
3 TYPICAL DETAIL: PARAPET WALL
 BA08 SCALE: 3/4" = 1'-0"

GENERAL NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. CONTRACTOR TO SEE SHEET BA03 FOR PARAPET CUSTOM PATTERN INFORMATION.
5. CUSTOM PATTERNS AT PARAPET WALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL BREAK OF THE PATTERN.

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' & 'B' TYPICAL PARAPET WALL DETAILS	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
Job Piece No 23310(04)			Sheet No.BA08	

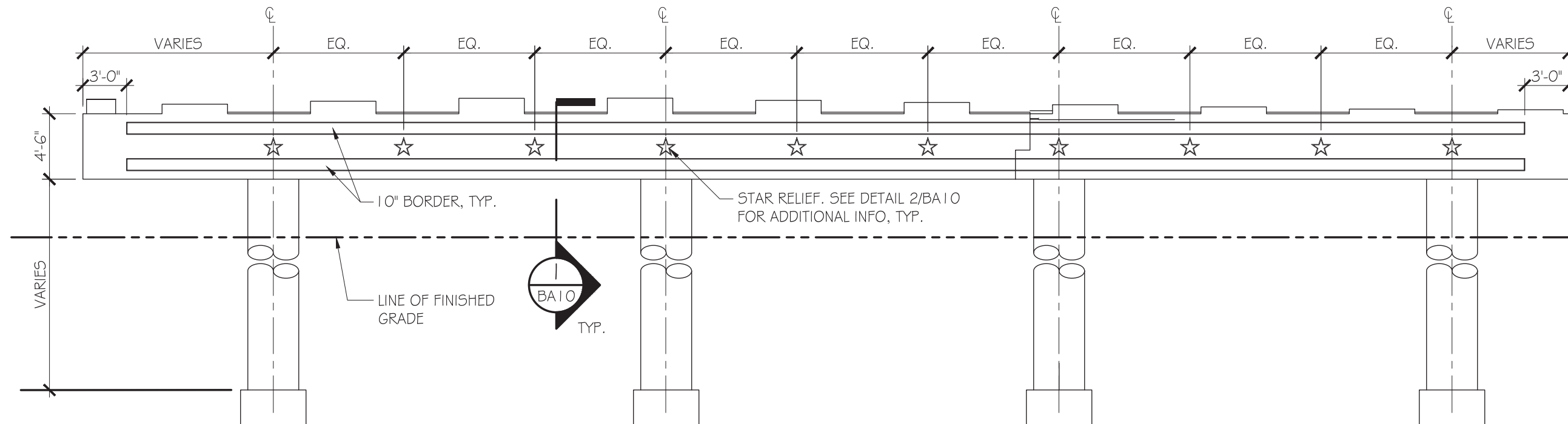
DESCRIPTION	REVISIONS	DATE



1
BA09

BRIDGE 'A' TYPICAL PIER ELEVATION: WEST FACE

SCALE: 1/8" = 1'-0"



2
BA09

BRIDGE 'B' TYPICAL PIER ELEVATION: WEST FACE

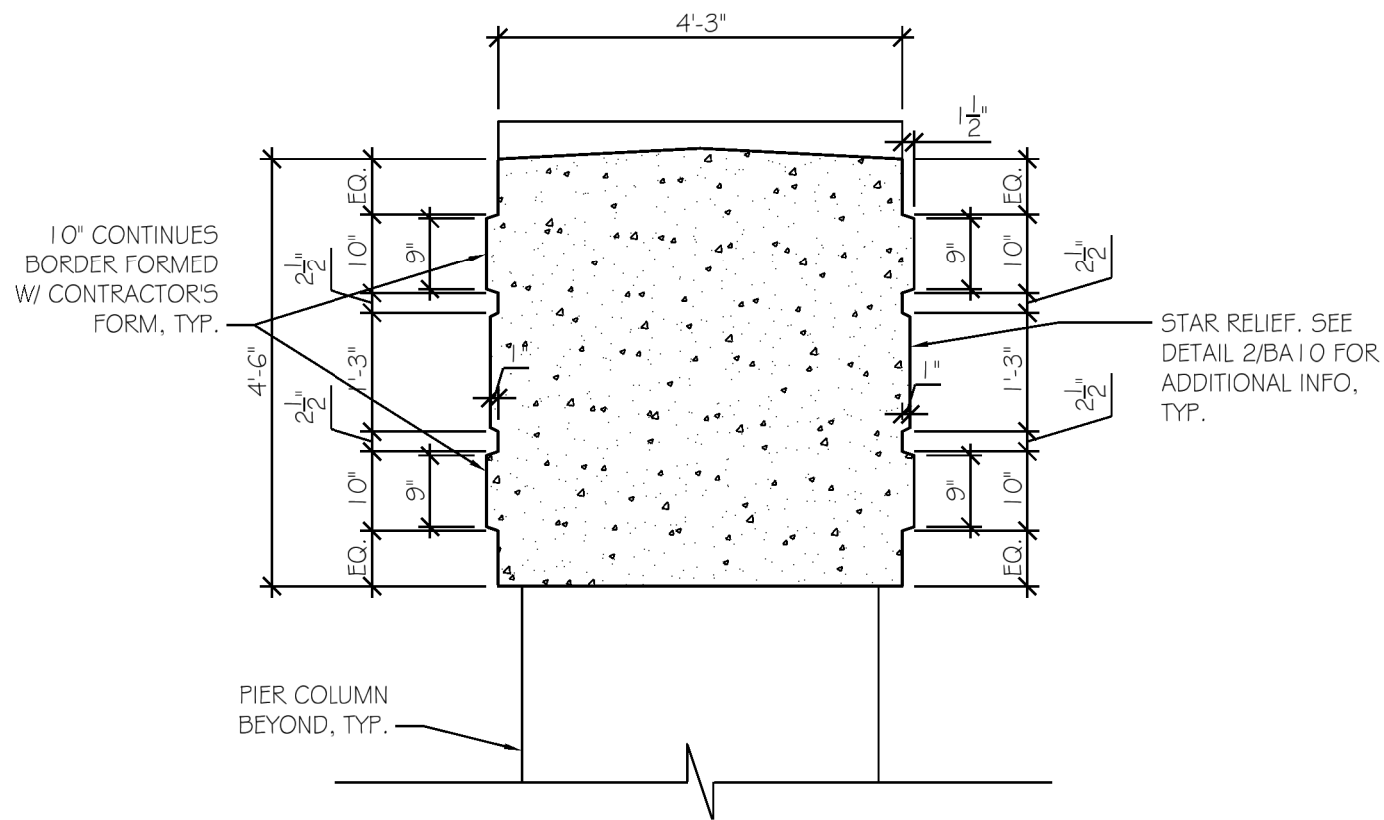
SCALE: 1/8" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- EAST FACE PIER ELEVATION IS OMITTED FOR REDUNDANCY. EAST FACE PIER ELEVATION TO BE OPPOSITE HAND & REVERSE OF WEST FACE PIER ELEVATION.

Design .		BRIDGE 'A' & 'B'	OAKLAHOMA COUNTY
Drawn .		I-40 OVER CRUTCHO CREEK	
Checked .		BRIDGE 'A' & 'B' TYPICAL PIER ELEVATIONS	
Approved .			
Squad .		Job Piece No 23310(04)	Sheet No. BA09

DESCRIPTION	REVISIONS	DATE

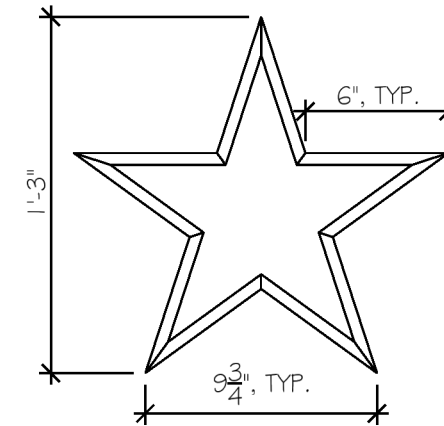


1
BA10

TYPICAL PIER SECTION: PIER CAP
SCALE: 1/2" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.

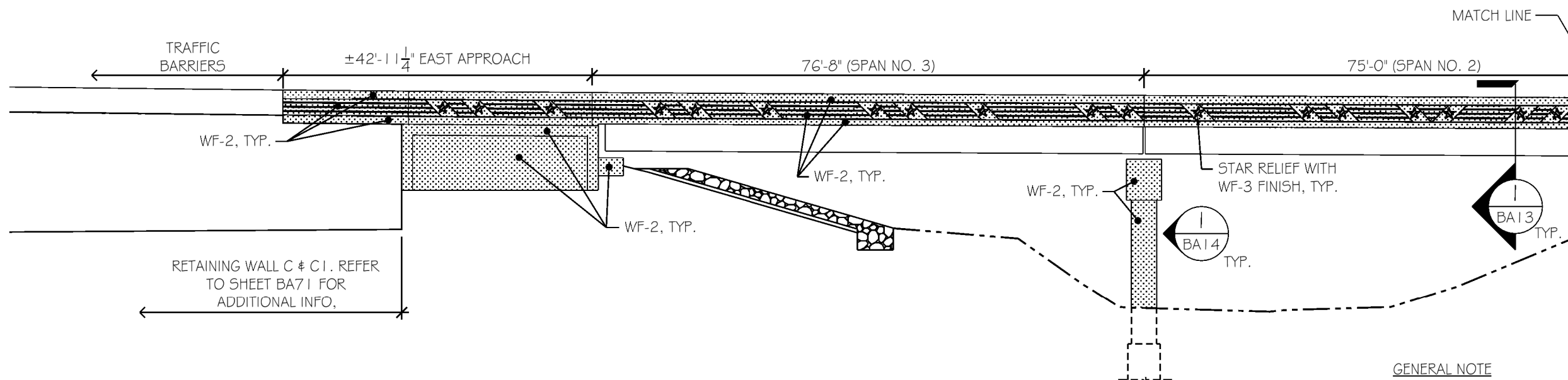


2
BA10

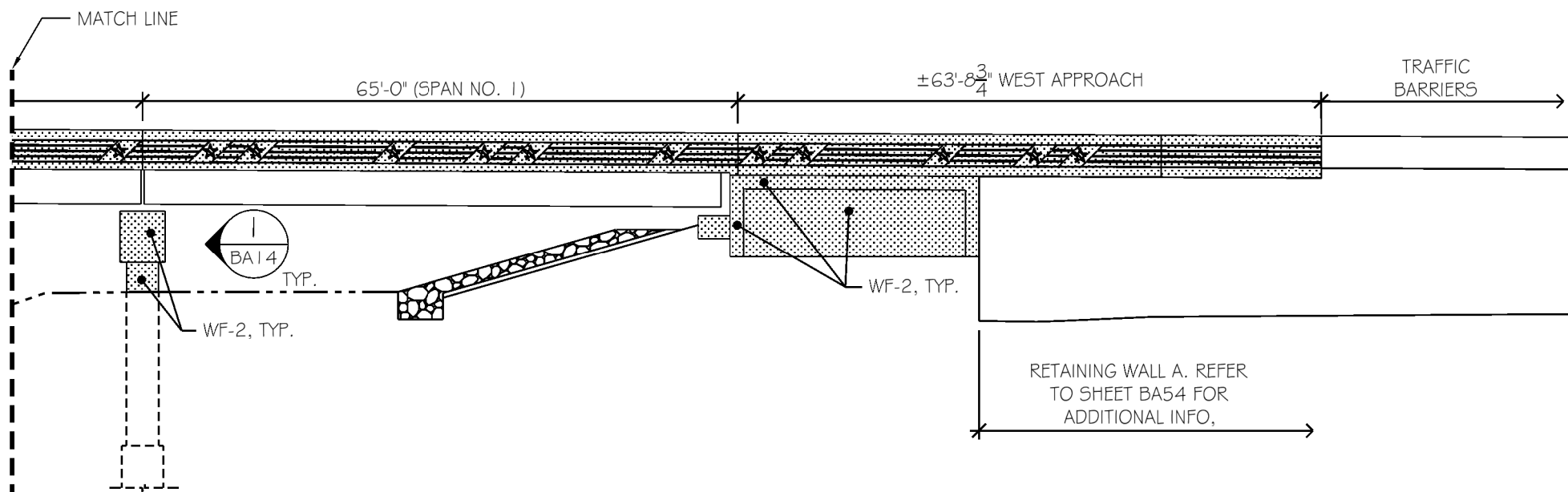
ENLARGED ELEVATION: STAR RELIEF
SCALE: 1 1/2" = 1'-0"

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' & 'B' PIER DETAILS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA10
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 NORTH ELEVATION: BRIDGE 'A'
SCALE: 1/16" = 1'-0"



2 NORTH ELEVATION: BRIDGE 'A' CONTINUES
SCALE: 1/16" = 1'-0"

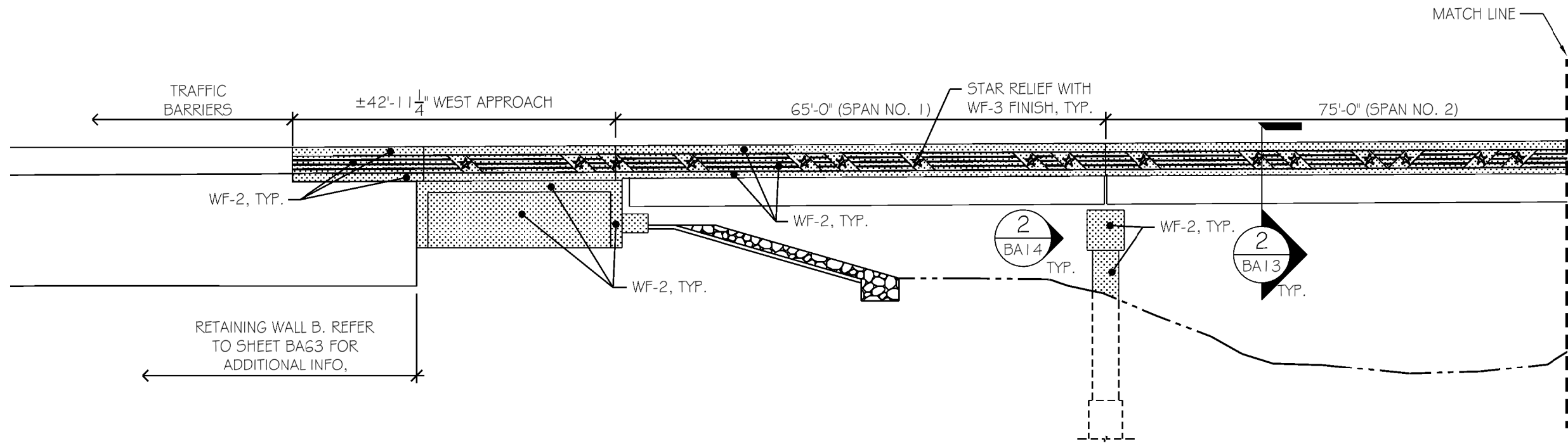
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE, RETAINING WALLS AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'A' SOUTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'A' NORTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' FINISH PLAN: NORTH ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No BA11
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

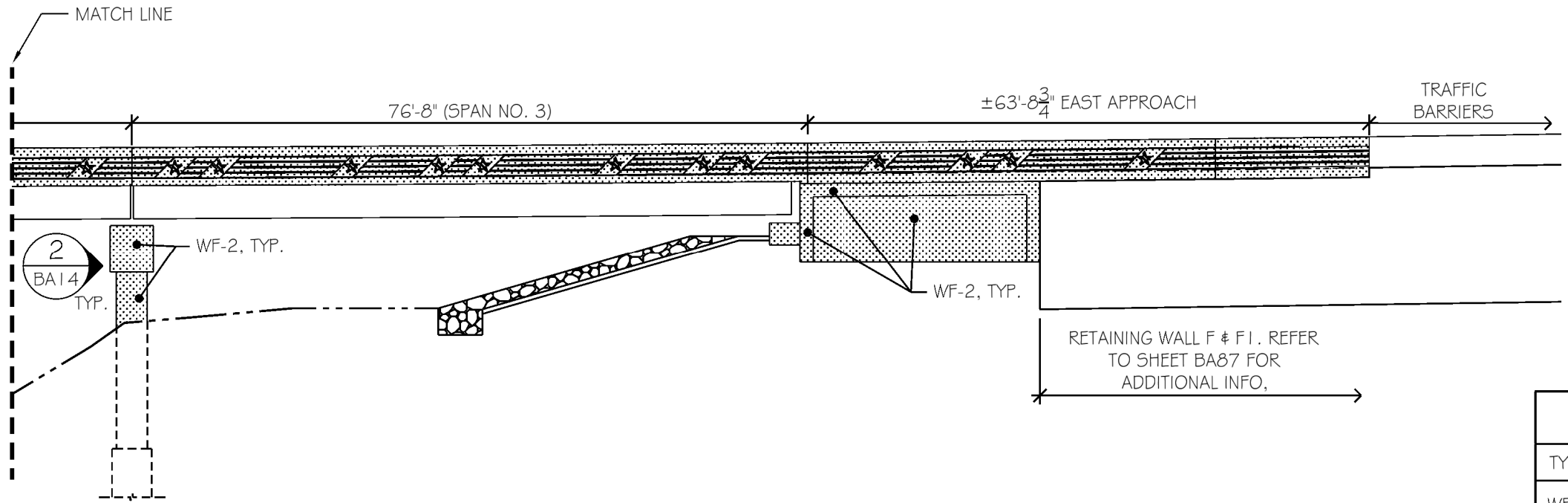
DESCRIPTION	REVISIONS	DATE



1 SOUTH ELEVATION: BRIDGE 'B'
SCALE: 1/16" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE, RETAINING WALLS AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'B' NORTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'B' SOUTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

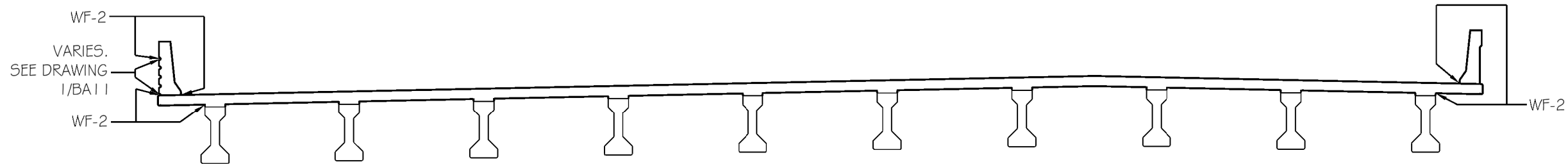


2 SOUTH ELEVATION: BRIDGE 'B' CONTINUES
SCALE: 1/16" = 1'-0"

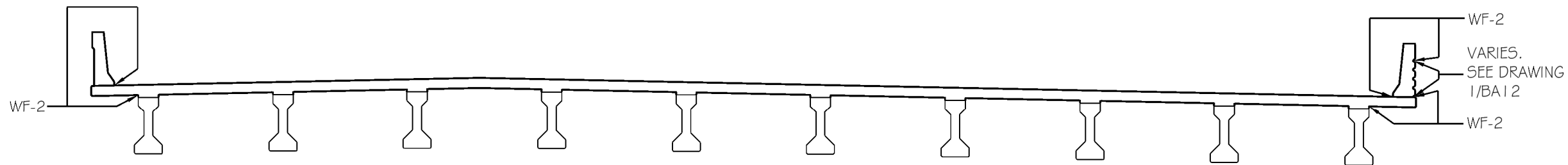
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'B' FINISH PLAN: SOUTH ELEVATIONS	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
Job Piece No 23310(04)				Sheet No.BA12

DESCRIPTION	REVISIONS	DATE



1 TYPICAL SECTION: BRIDGE 'A' DECK
 BA13 SCALE: 1/8" = 1'-0"



2 TYPICAL SECTION: BRIDGE 'B' DECK
 BA13 SCALE: 1/8" = 1'-0"

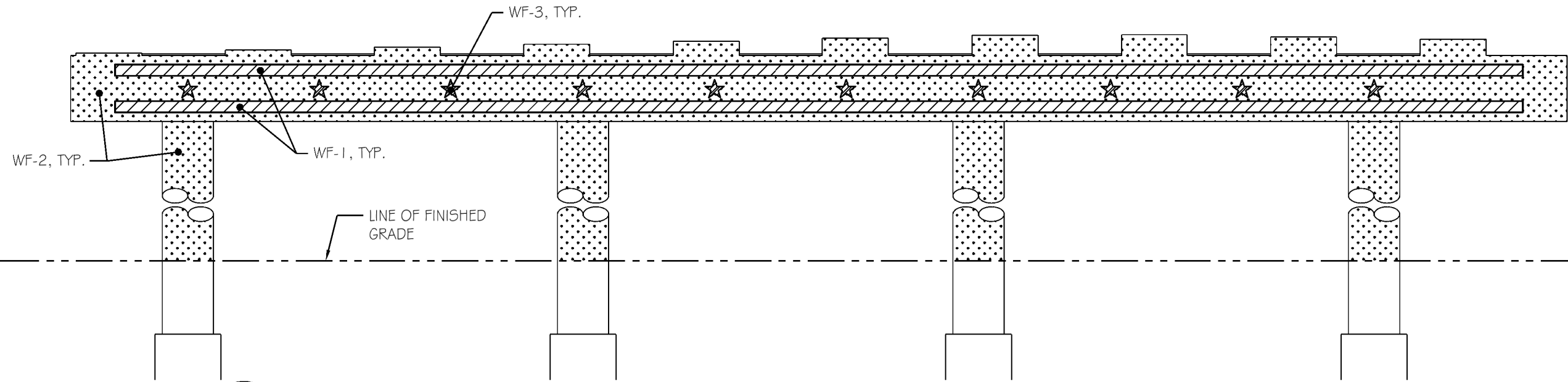
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGES AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.

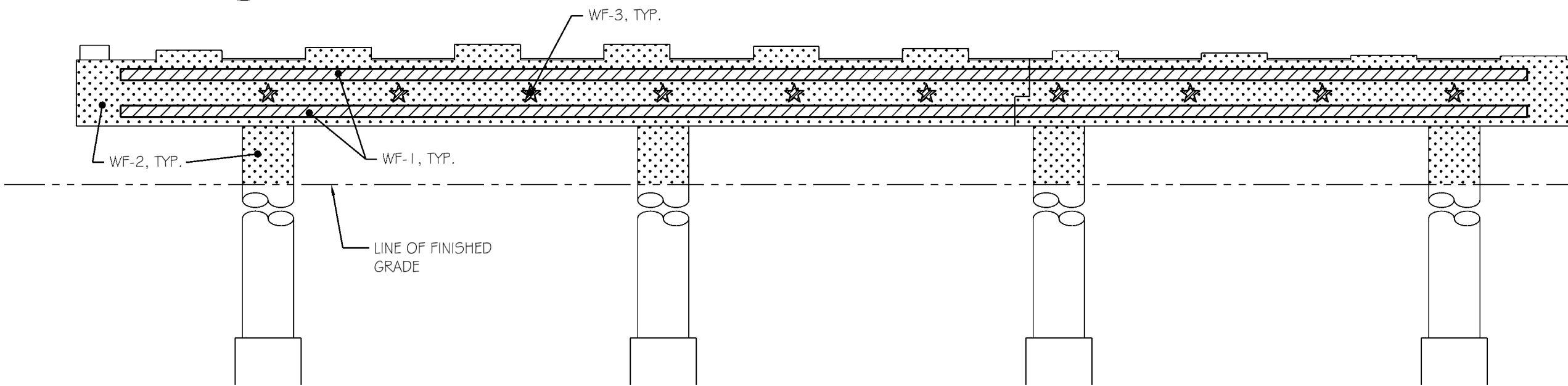
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' & 'B' TYPICAL SECTIONS: BRIDGE DECK FINISH Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA13
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'A' TYPICAL PIER ELEVATION: WEST FACE
 BA14 SCALE: 1/8" = 1'-0"



2 BRIDGE 'B' TYPICAL PIER ELEVATION: WEST FACE
 BA14 SCALE: 1/8" = 1'-0"

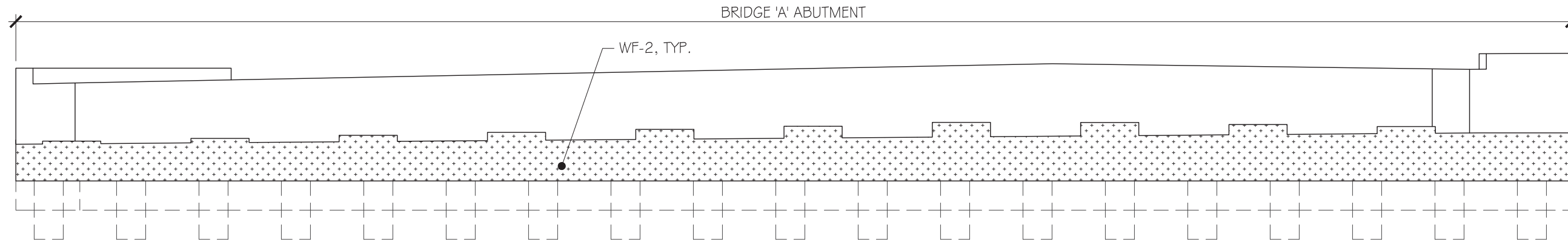
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGES AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- EAST FACE PIER ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO WEST FACE PIER ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

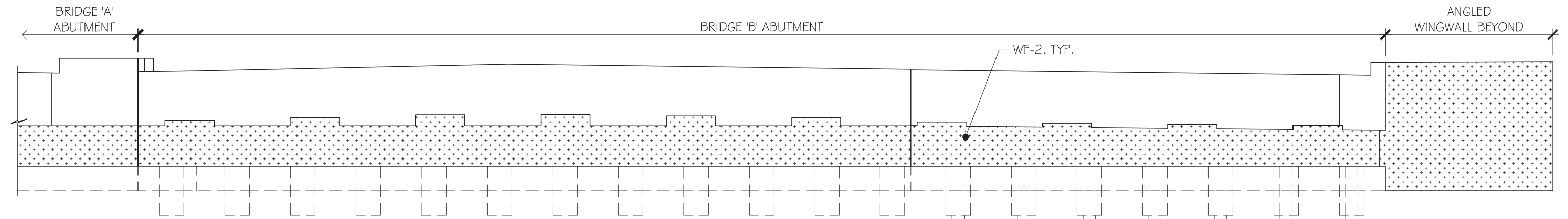
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK BRIDGE 'A' & 'B' TYPICAL PIER ELEVATIONS: PIER FINISH Job Piece No 23310(04)	OKLAHOMA COUNTY Sheet No.BA14
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1
BA15
BRIDGE 'A' ABUTMENT ELEV.: EAST
SCALE: 1/8" = 1'-0"



2
BA15
BRIDGE 'B' ABUTMENT ELEV.: EAST
SCALE: 1/8" = 1'-0"

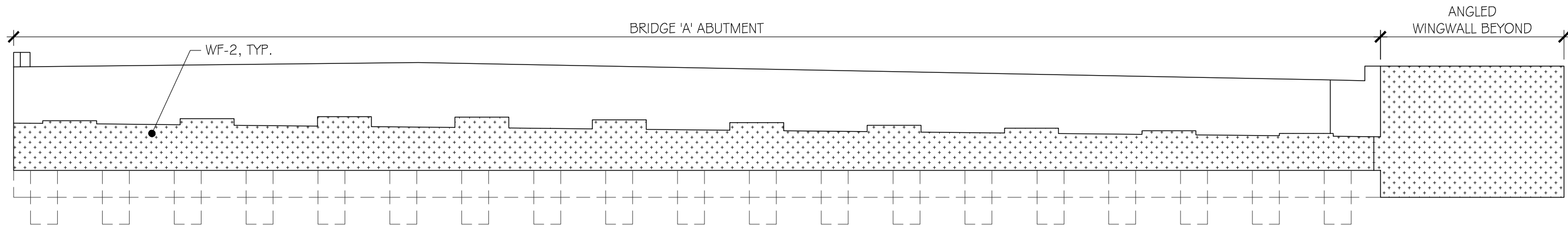
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGES AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.

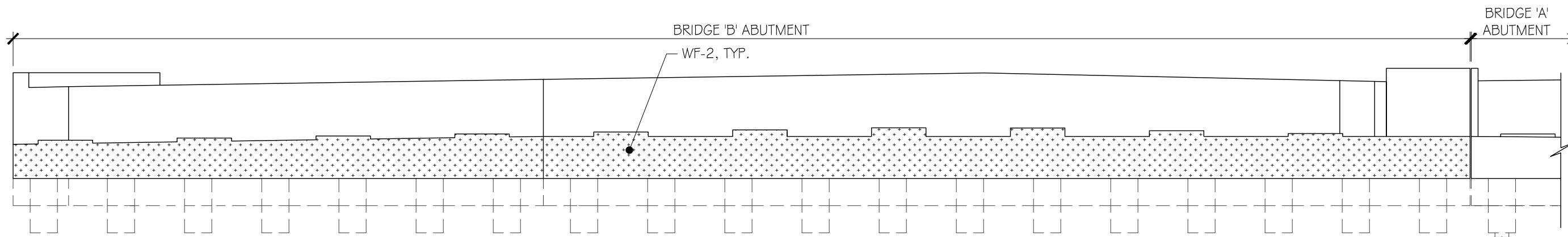
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.	BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK	OAKLAHOMA COUNTY
Drawn	.		
Checked	.		
Approved	.		
Squad	.		
BRIDGE 'A' & 'B' ELEVATIONS: EAST ABUTMENT FINISH		Job Piece No 23310(04)	Sheet No. BA15

DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'A' ABUTMENT ELEV.: WEST
 BA16 SCALE: 1/8" = 1'-0"



2 BRIDGE 'B' ABUTMENT ELEV.: WEST
 BA16 SCALE: 1/8" = 1'-0"

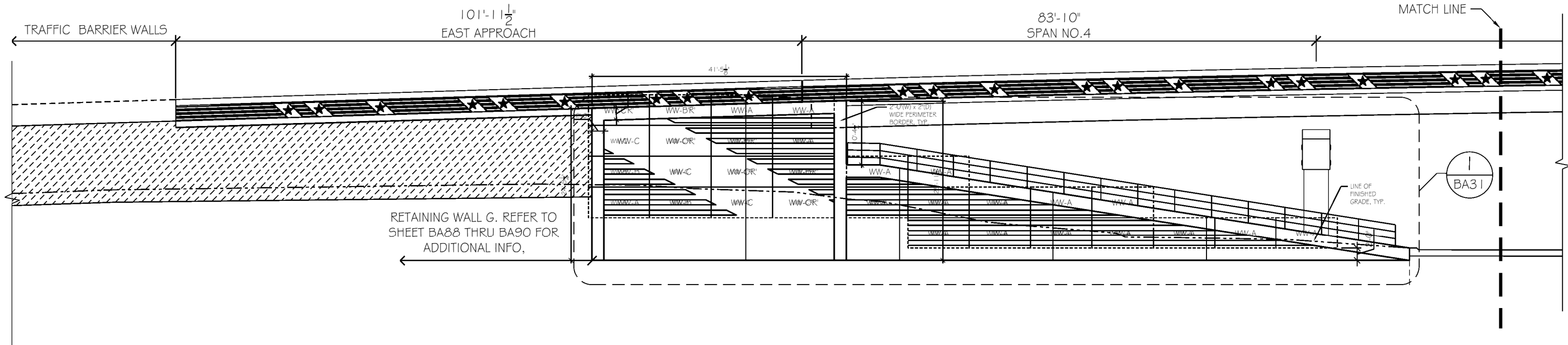
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGES AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.

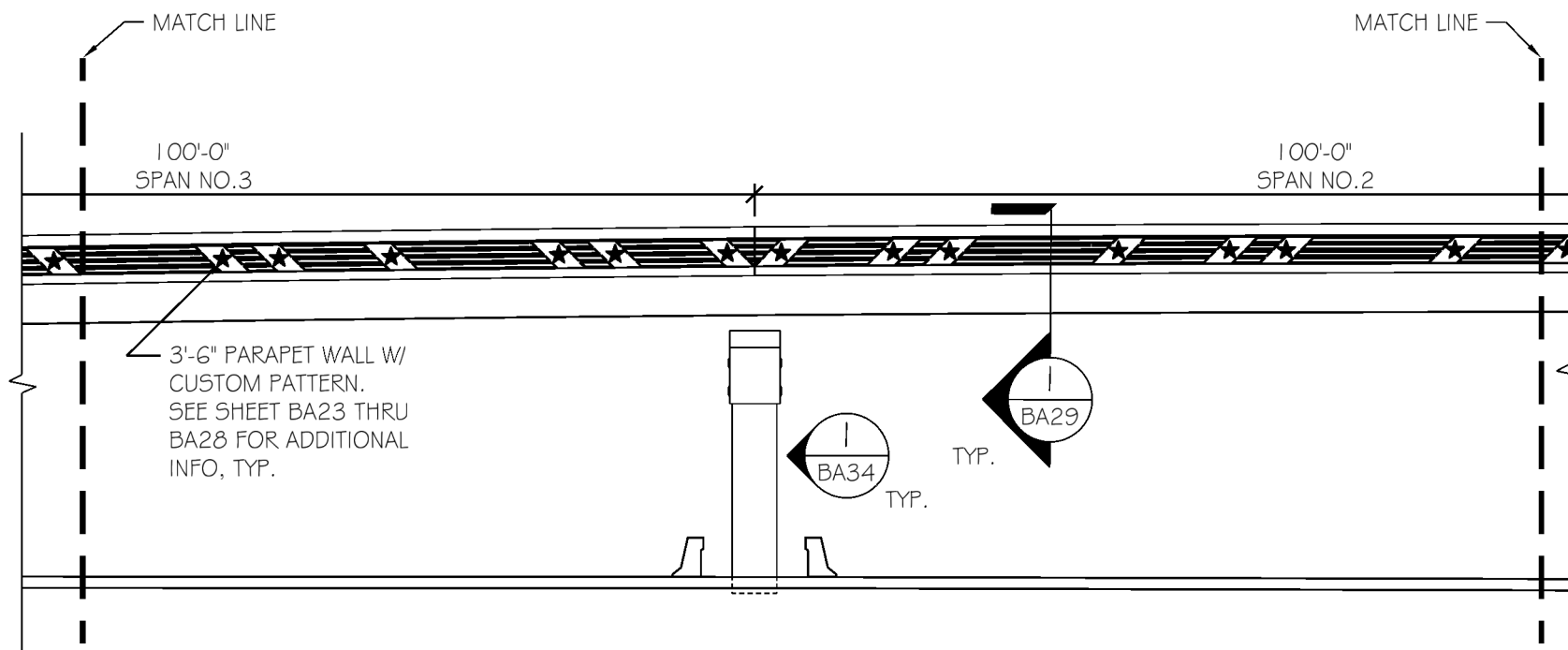
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.	BRIDGE 'A' & 'B' I-40 OVER CRUTCHO CREEK	OAKLAHOMA COUNTY
Drawn	.		
Checked	.		
Approved	.		
Squad	.		
BRIDGE 'A' & 'B' ELEVATIONS: WEST ABUTMENT FINISH			Job Piece No 23310(04)
			Sheet No. BA16

DESCRIPTION	REVISIONS	DATE



1 NORTH ELEVATION: BRIDGE 'C'
 BA17 SCALE: 1/16" = 1'-0"



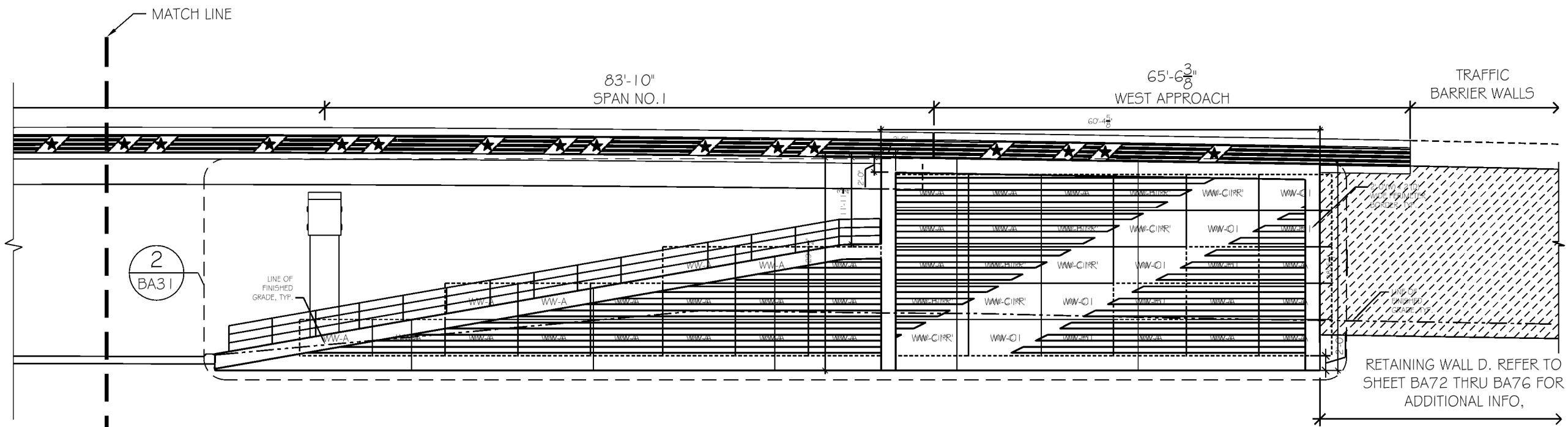
2 NORTH ELEVATION: BRIDGE 'C' CONTINUES
 BA17 SCALE: 1/16" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 & BA22 FOR CONCRETE PATTERN INFORMATION & DETAILS.

Design		BRIDGE "BRIDGE 'C' & 'D' 1-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn			
Checked			
Approved			
Squad			
		NORTH ELEVATIONS: BRIDGE 'C'	
		Job Piece No 23310(04)	Sheet No.BA17

DESCRIPTION	REVISIONS	DATE



1 NORTH ELEVATION: BRIDGE 'C' CONTINUES
 BA18 SCALE: 1/16" = 1'-0"

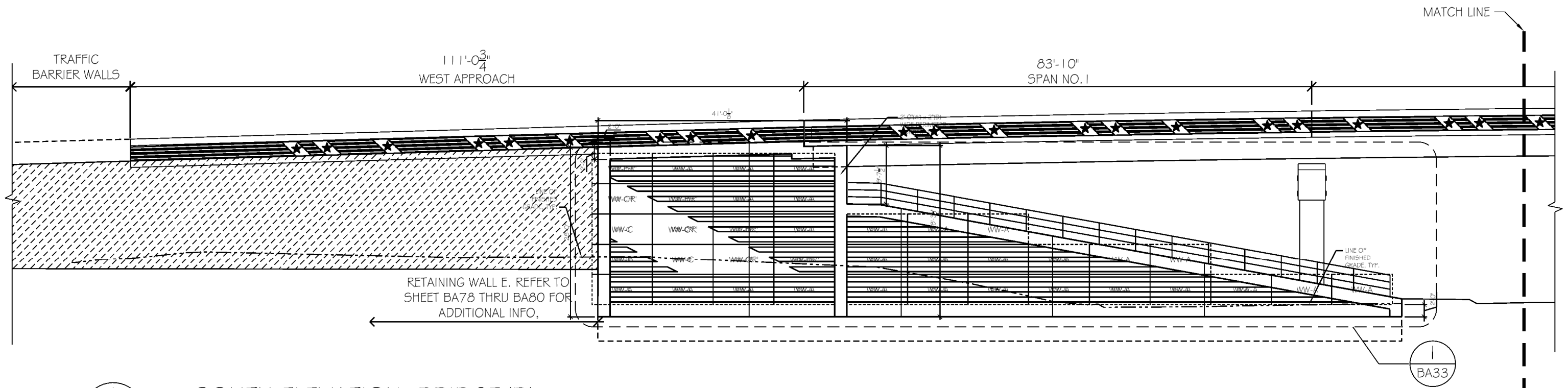
2
 BA31

GENERAL NOTE

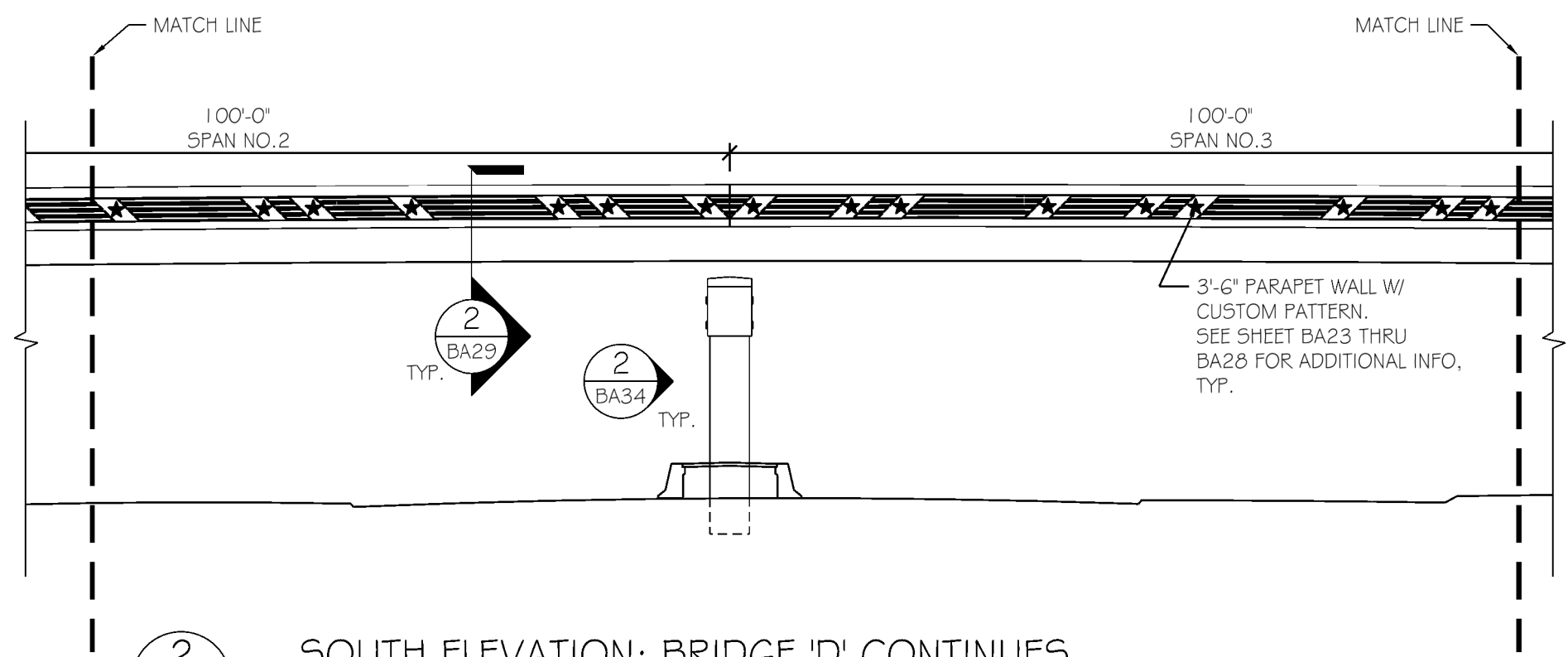
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 & BA22 FOR CONCRETE PATTERN INFORMATION & DETAILS.

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET NORTH ELEVATION: BRIDGE 'C' Job Piece No 23310(04)	OKLAHOMA COUNTY Sheet No.BA18
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 SOUTH ELEVATION: BRIDGE 'D'
 BA19 SCALE: 1/16" = 1'-0"



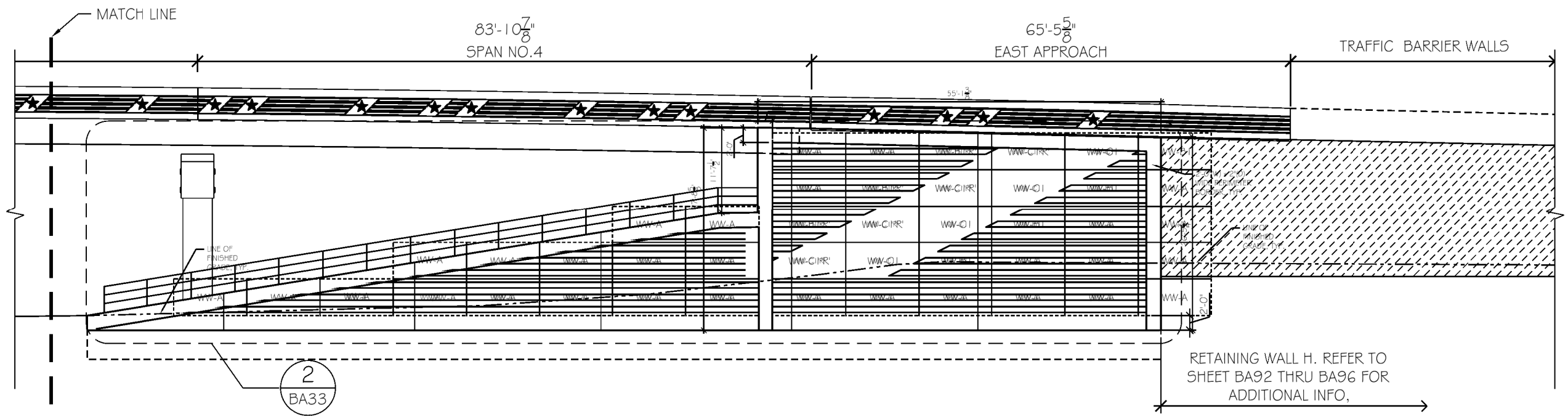
2 SOUTH ELEVATION: BRIDGE 'D' CONTINUES
 BA19 SCALE: 1/16" = 1'-0"

GENERAL NOTE

- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 & BA22 FOR CONCRETE PATTERN INFORMATION & DETAILS.

Design	.		BRIDGE "BRIDGE 'C' & 'D' 1-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
			SOUTH ELEVATIONS: BRIDGE 'D'	
			Job Piece No 23310(04)	Sheet No.BA19

DESCRIPTION	REVISIONS	DATE



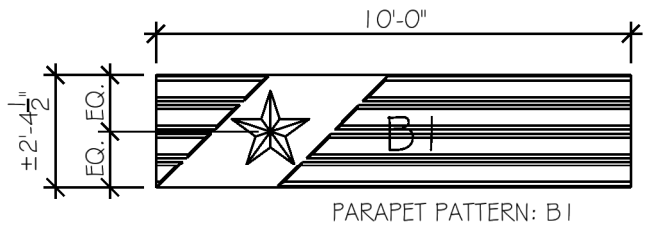
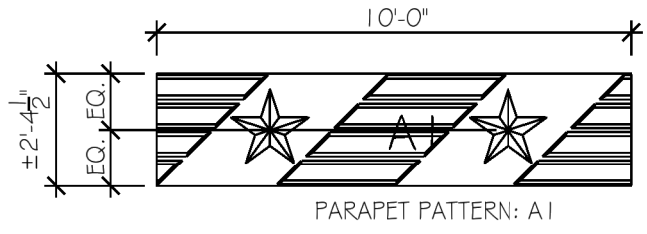
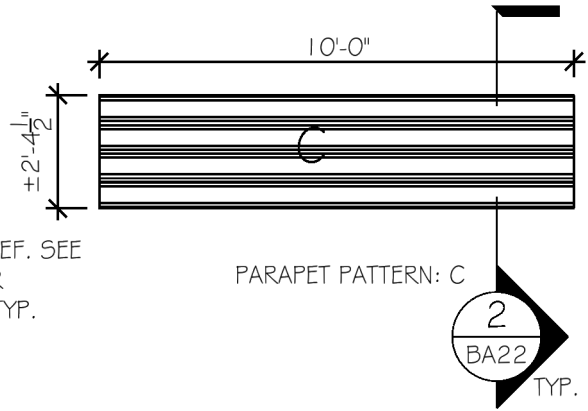
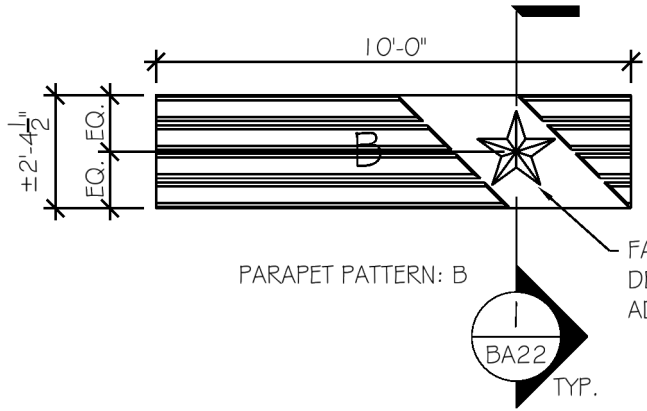
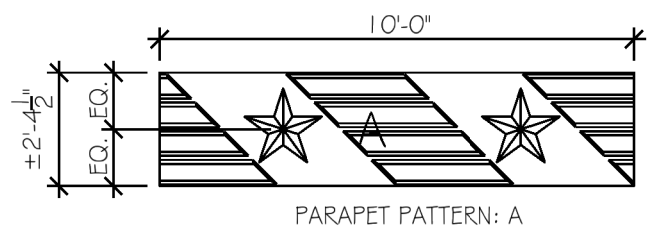
1 SOUTH ELEVATION: BRIDGE 'D' CONTINUES
 BA20 SCALE: 1/16" = 1'-0"

GENERAL NOTE

1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
3. CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
4. CONTRACTOR TO SEE SHEET BA21 & BA22 FOR CONCRETE PATTERN INFORMATION & DETAILS.

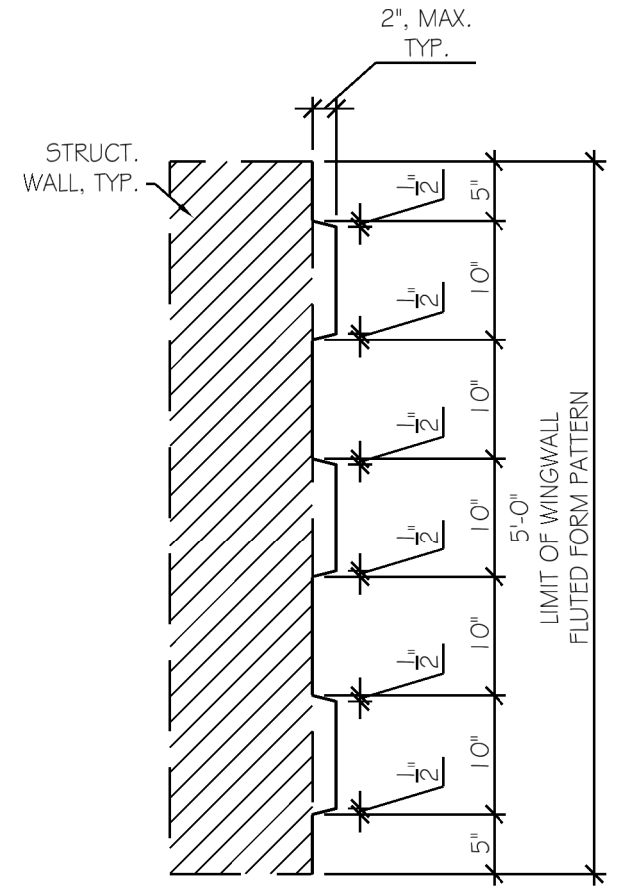
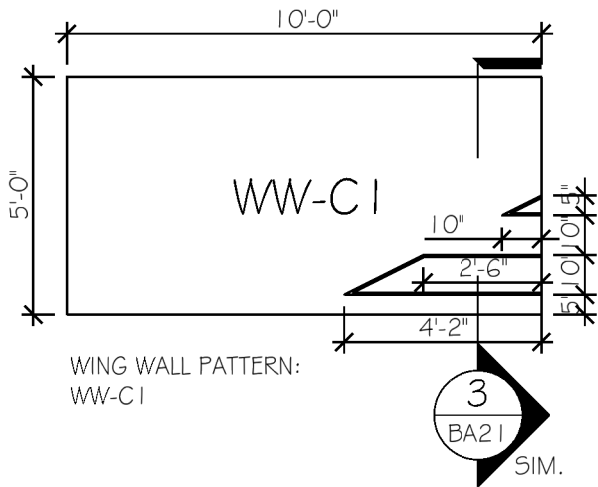
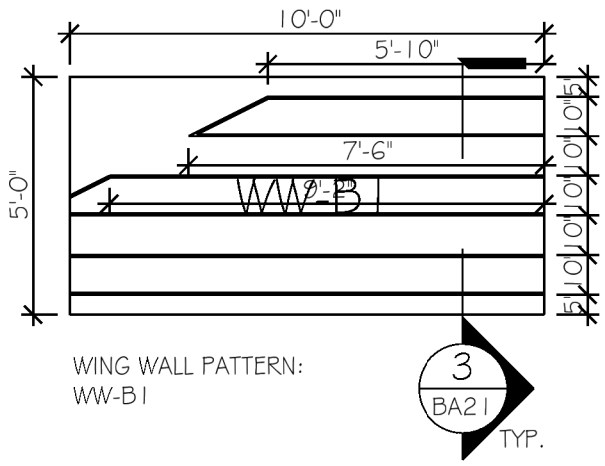
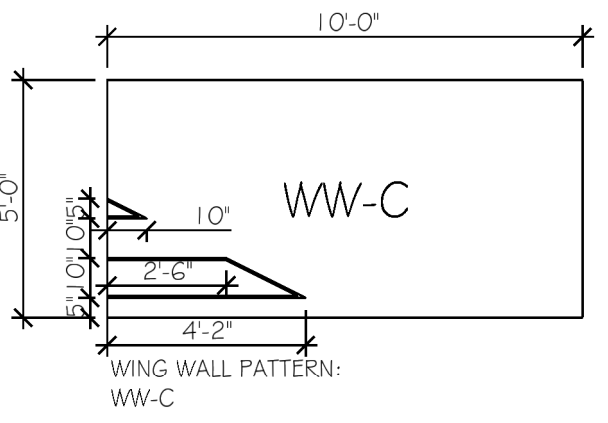
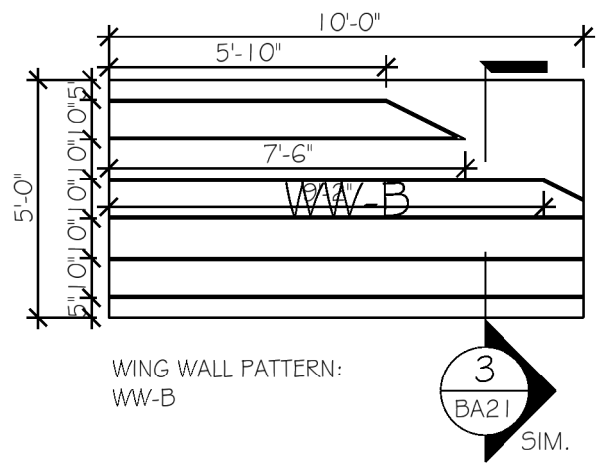
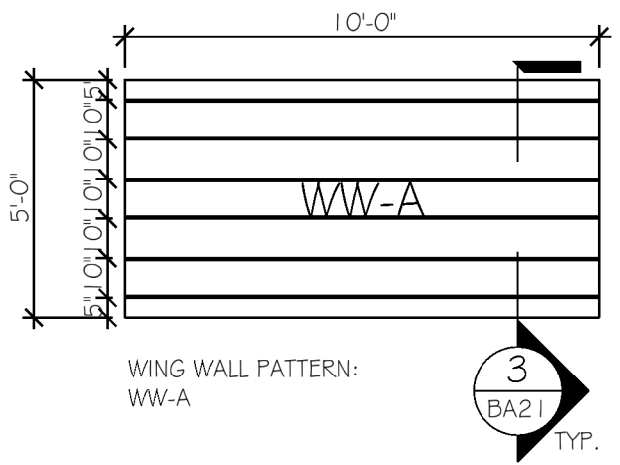
Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET SOUTH ELEVATION: BRIDGE 'D'	OKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
Job Piece No 23310(04)			Sheet NoBA20	

DESCRIPTION	REVISIONS	DATE



- GENERAL NOTE
- DO NOT SCALE OFF DRAWING.
 - DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.

1 PARAPET PATTERN ELEVATIONS
SCALE: 1/4" = 1'-0"

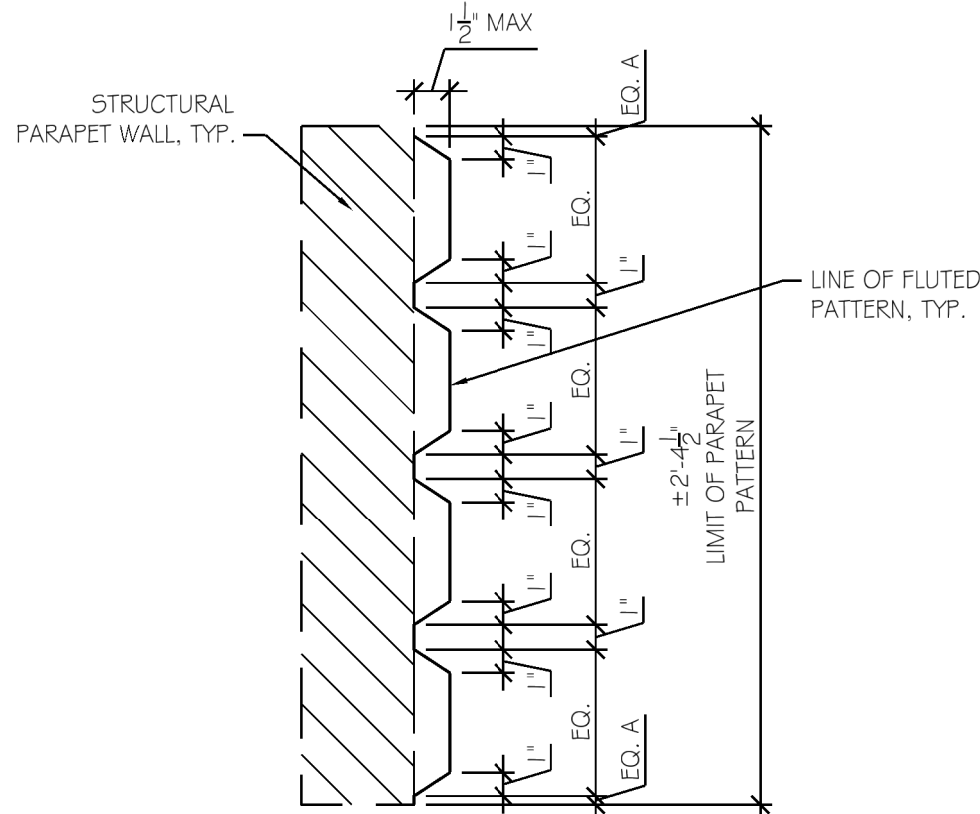
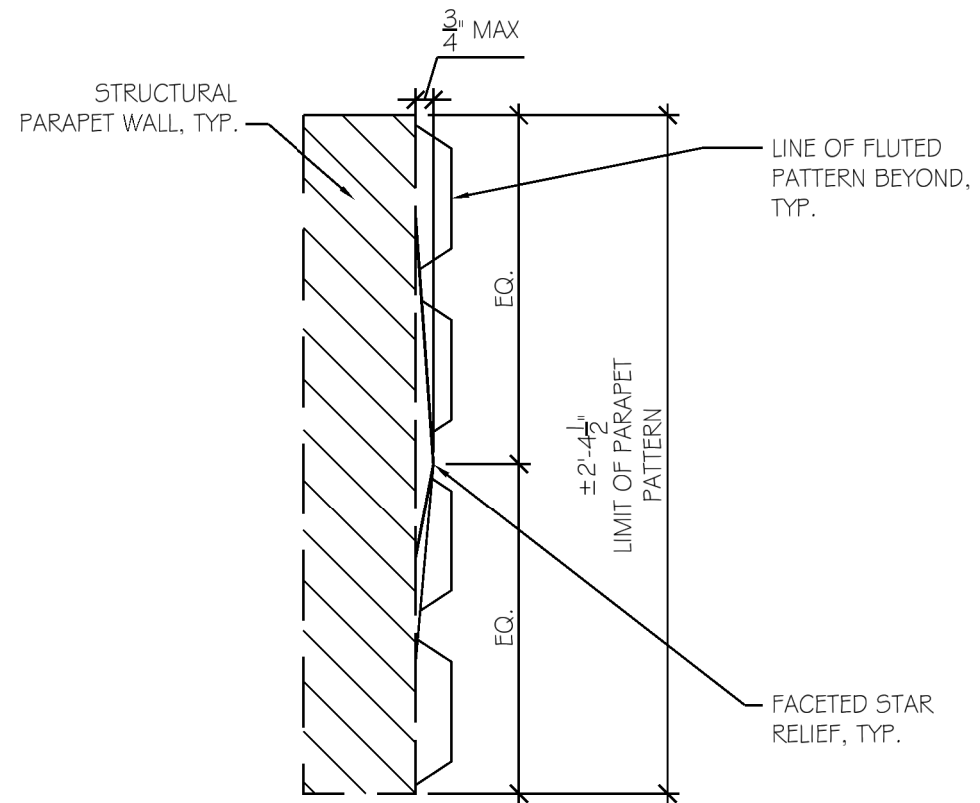


3 TYPICAL SECTION: WINGWALL FLUTED FORM PATTERN
SCALE: 3/4" = 1'-0"

2 WING WALL PATTERN ELEVATIONS
SCALE: 1/4" = 1'-0"

Design	.	BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn	.	PATTERN ELEVATIONS & SECTIONS	
Checked	.		
Approved	.		
Squad	.		
		Job Piece No 23310(04)	Sheet No.BA21

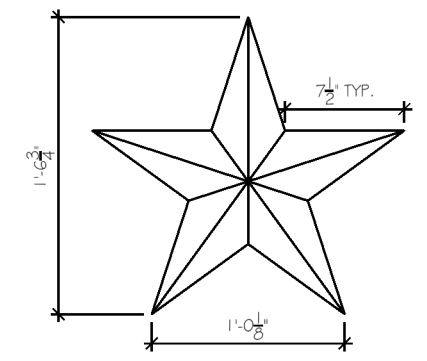
DESCRIPTION	REVISIONS	DATE



- GENERAL NOTE**
- DO NOT SCALE OFF DRAWING.
 - DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.

1 TYPICAL SECTION: PARAPET PATTERN
BA22 SCALE: 1 1/2" = 1'-0"

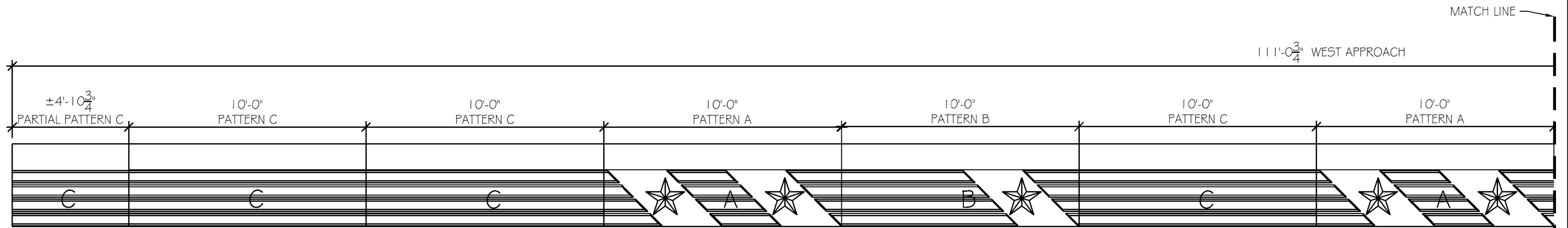
2 TYPICAL SECTION: PARAPET PATTERN
BA22 SCALE: 1 1/2" = 1'-0"



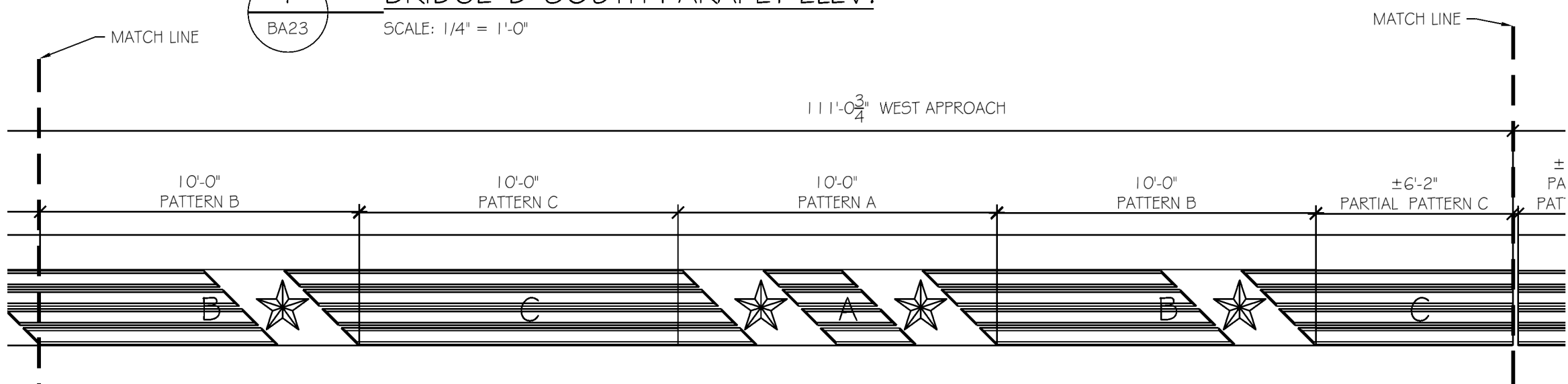
3 ENLARGED ELEVATION: FACETED STAR
BA22 SCALE: 1" = 1'-0"

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET PATTERN ELEVATIONS & SECTIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA22
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

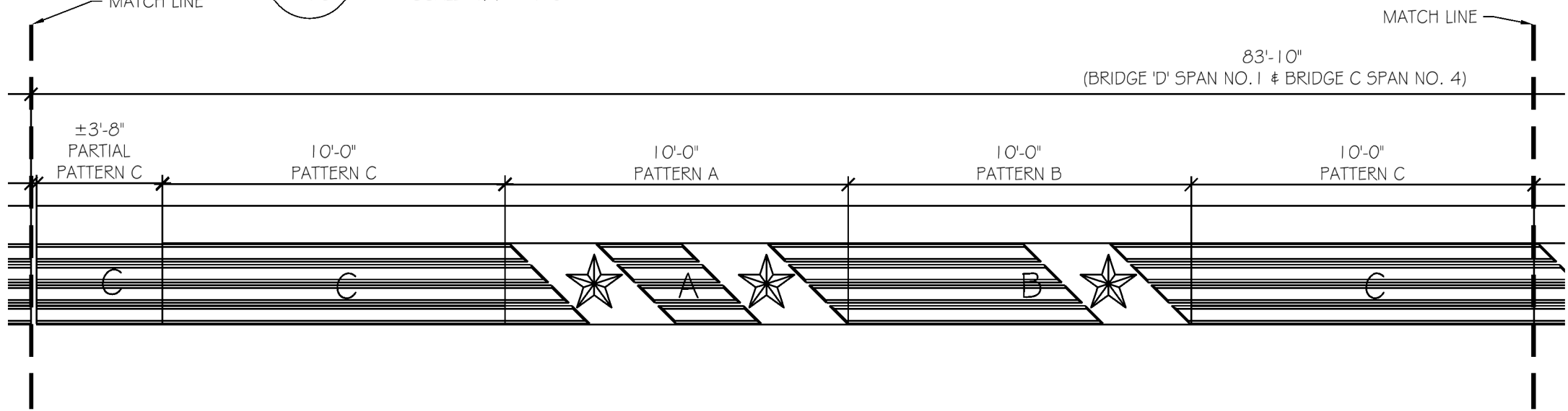
DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'D' SOUTH PARAPET ELEV.
BA23 SCALE: 1/4" = 1'-0"



2 BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
BA23 SCALE: 1/4" = 1'-0"

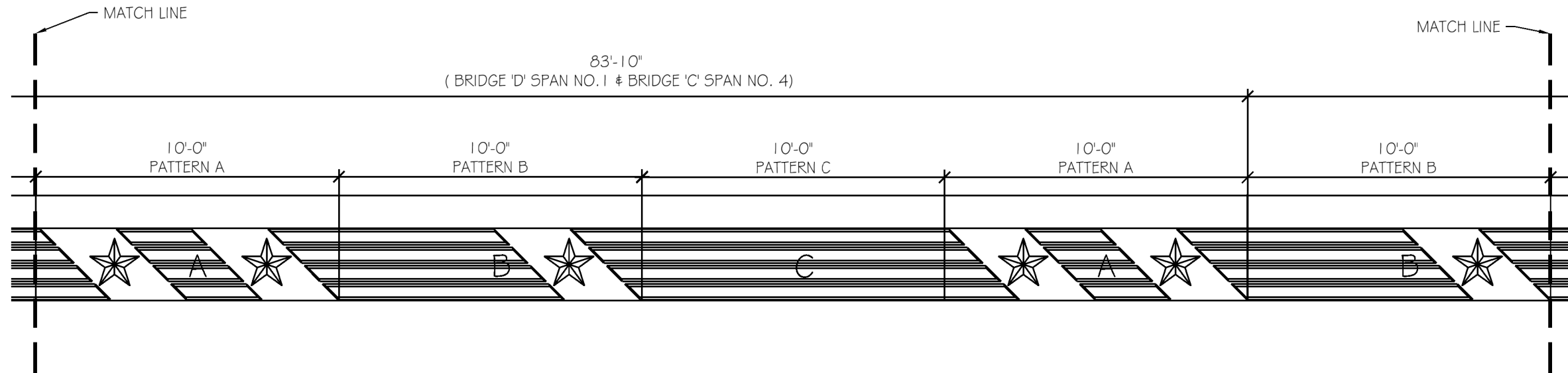


3 BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
BA23 SCALE: 1/4" = 1'-0"

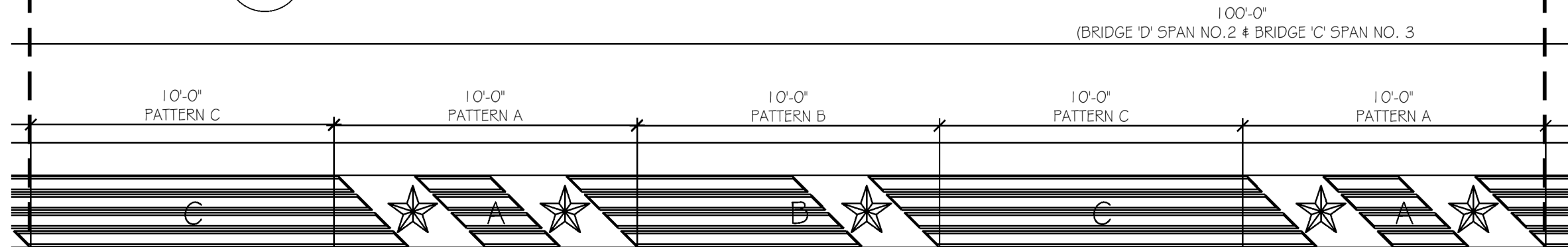
- GENERAL NOTE
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 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
 - CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.
 - NORTH PARAPET WALL ELEVATION FOR BRIDGE 'C' IS OMITTED FOR REDUNDANCY. BRIDGE 'C' NORTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'D' SOUTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
			BRIDGE 'D' SOUTH PARAPET WALL ELEVATIONS	
			Job Piece No 23310(04)	Sheet NoBA23

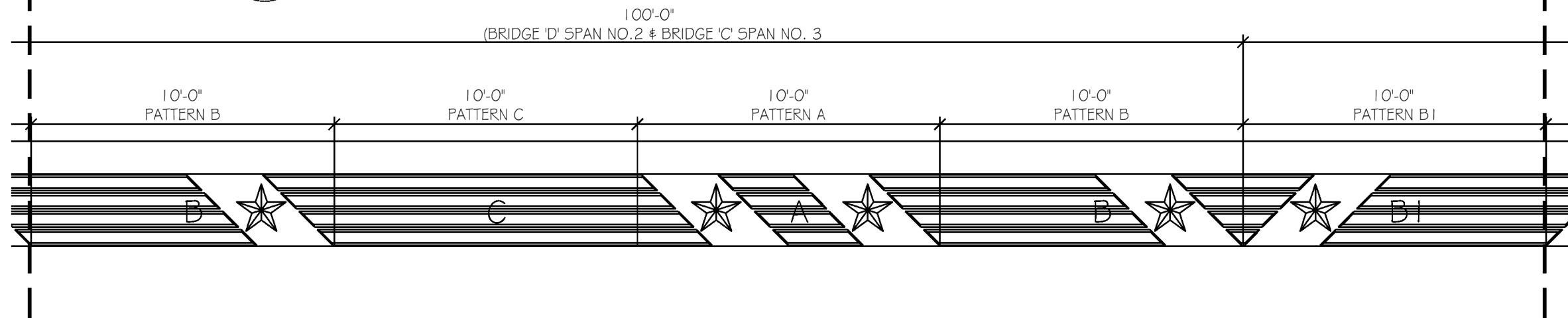
DESCRIPTION	REVISIONS	DATE



1
BA24
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"



2
BA24
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"



3
BA24
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.
- NORTH PARAPET WALL ELEVATION FOR BRIDGE 'C' IS OMITTED FOR REDUNDANCY. BRIDGE 'C' NORTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'D' SOUTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

BRIDGE "BRIDGE 'C' & 'D'
I-40 OVER 15TH STREET

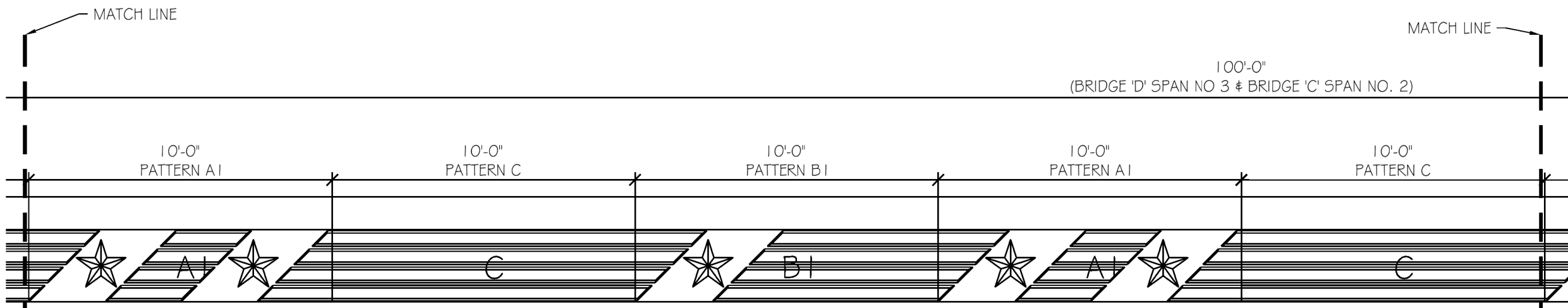
OAKLAHOMA COUNTY

BRIDGE 'D' NORTH PARAPET WALL
ELEVATIONS

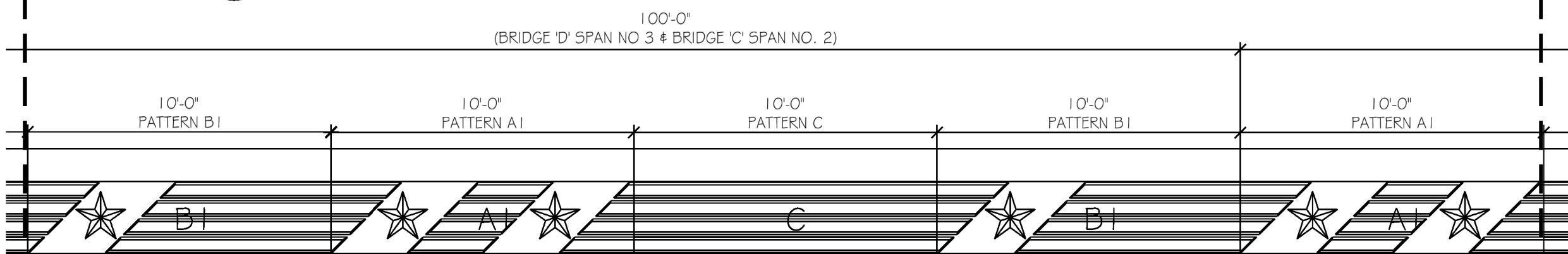
Job Piece No 23310(04)

Sheet No.BA24

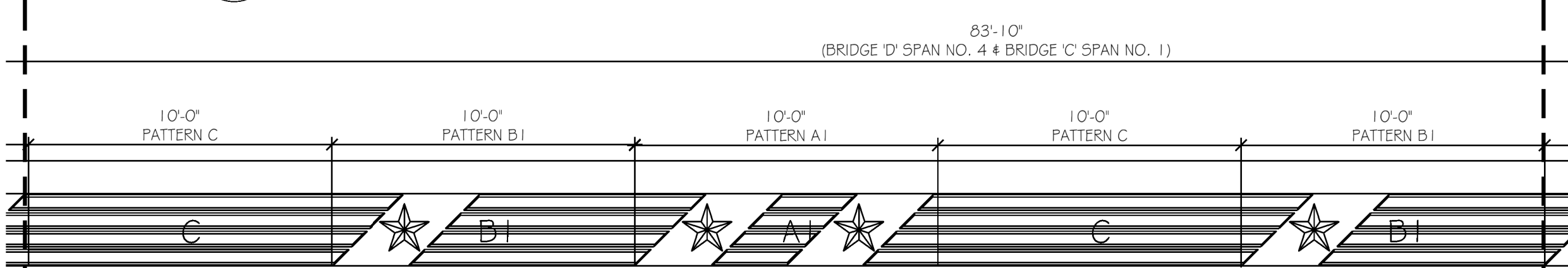
DESCRIPTION	REVISIONS	
	DATE	



1
BA25
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"



2
BA25
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"



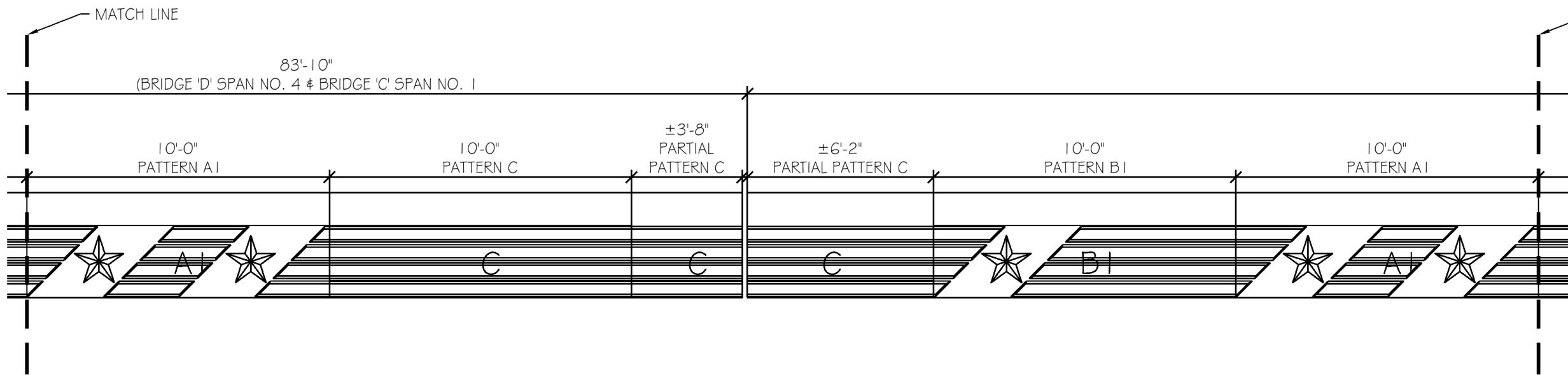
3
BA25
BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
SCALE: 1/4" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.
- NORTH PARAPET WALL ELEVATION FOR BRIDGE 'C' IS OMITTED FOR REDUNDANCY. BRIDGE 'C' NORTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'D' SOUTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.

Design		BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'D' SOUTH PARAPET WALL ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA25
Drawn			
Checked			
Approved			
Squad			

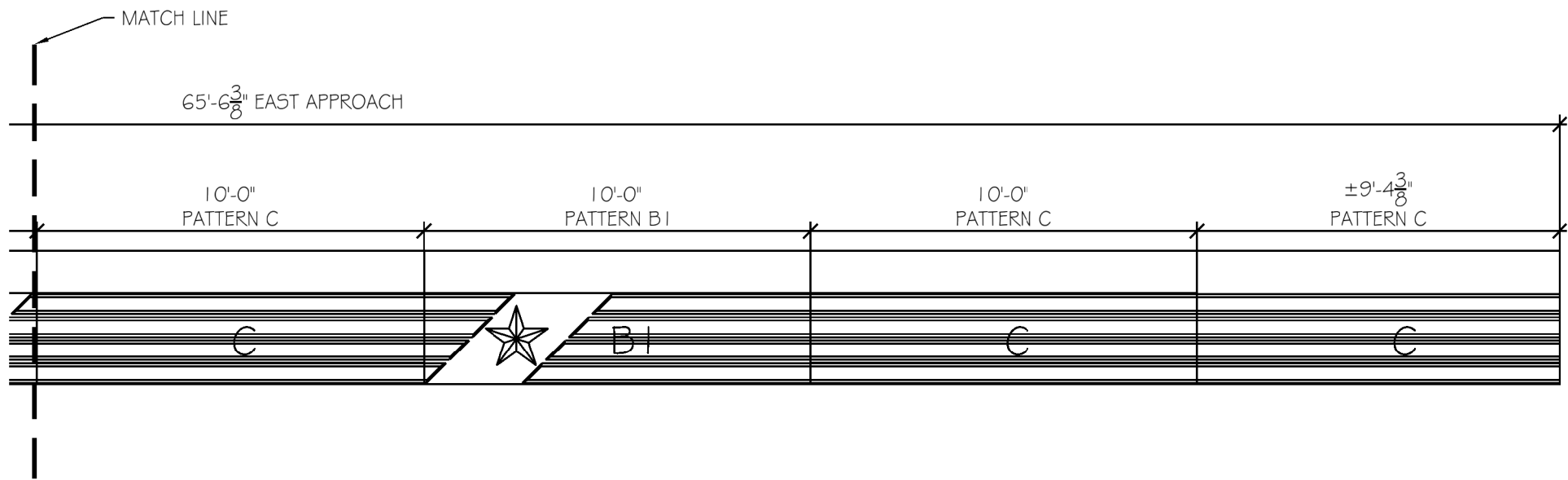
DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'D' SOUTH PARAPET ELEV. CONTINUES
 BA26 SCALE: 1/4" = 1'-0"

GENERAL NOTE

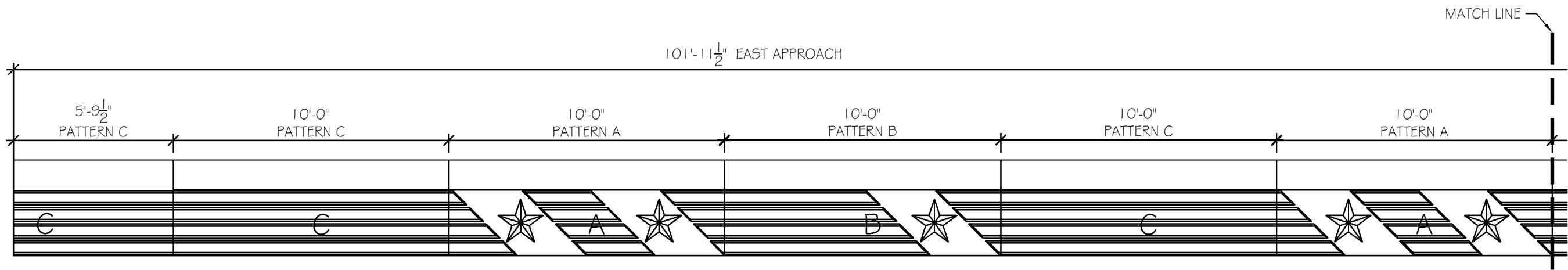
- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.
- NORTH PARAPET WALL ELEVATION FOR BRIDGE 'C' IS OMITTED FOR REDUNDANCY. BRIDGE 'C' NORTH PARAPET WALL ELEVATION TO BE OPPOSITE HAND & REVERSE OF BRIDGE 'D' SOUTH PARAPET WALL ELEVATION, UNLESS NOTED OTHERWISE.



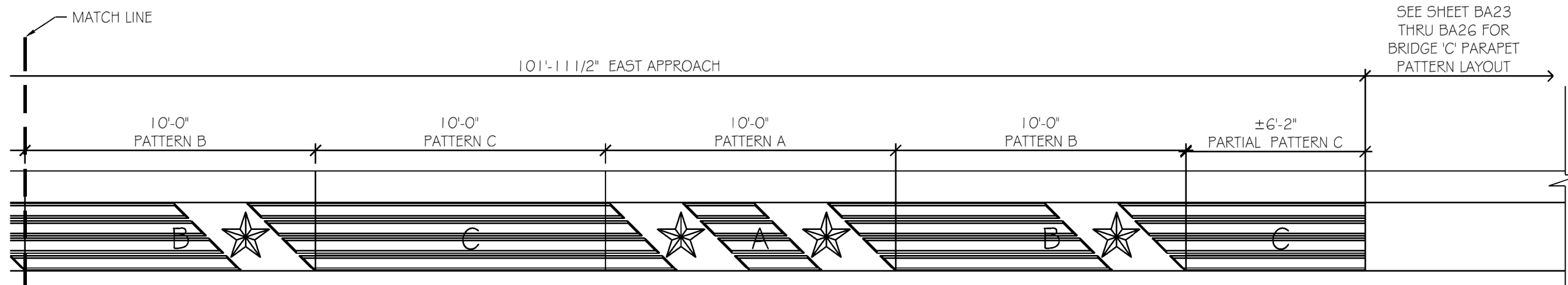
2 BRIDGE 'D' SOUTH PARAPET ELEV.
 BA26 SCALE: 1/4" = 1'-0"

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'D' SOUTH PARAPET WALL ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet NoBA26
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 PARTIAL BRIDGE 'C' NORTH PARAPET ELEV.
 BA27 SCALE: 1/4" = 1'-0"

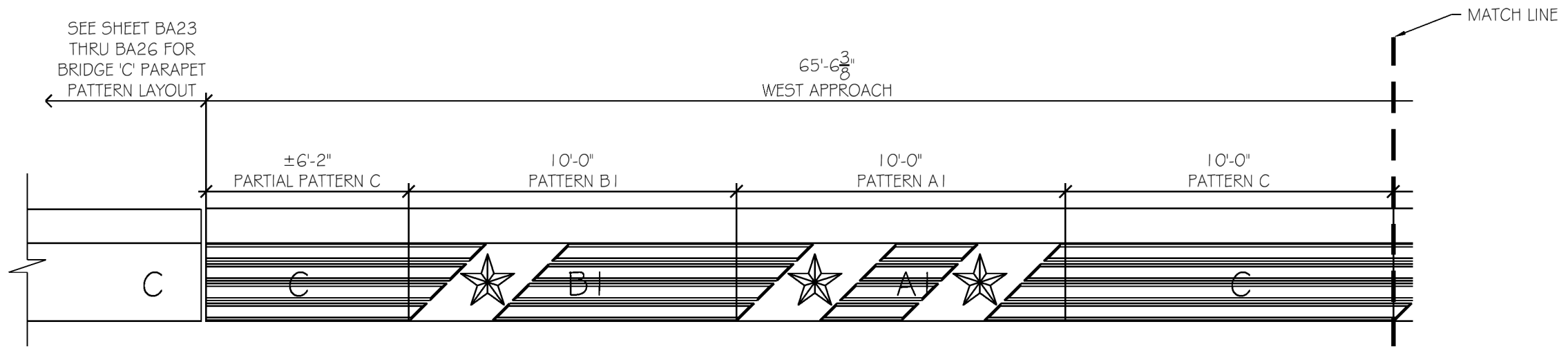


2 PARTIAL BRIDGE 'C' NORTH PARAPET ELEV. CONT.
 BA27 SCALE: 1/4" = 1'-0"

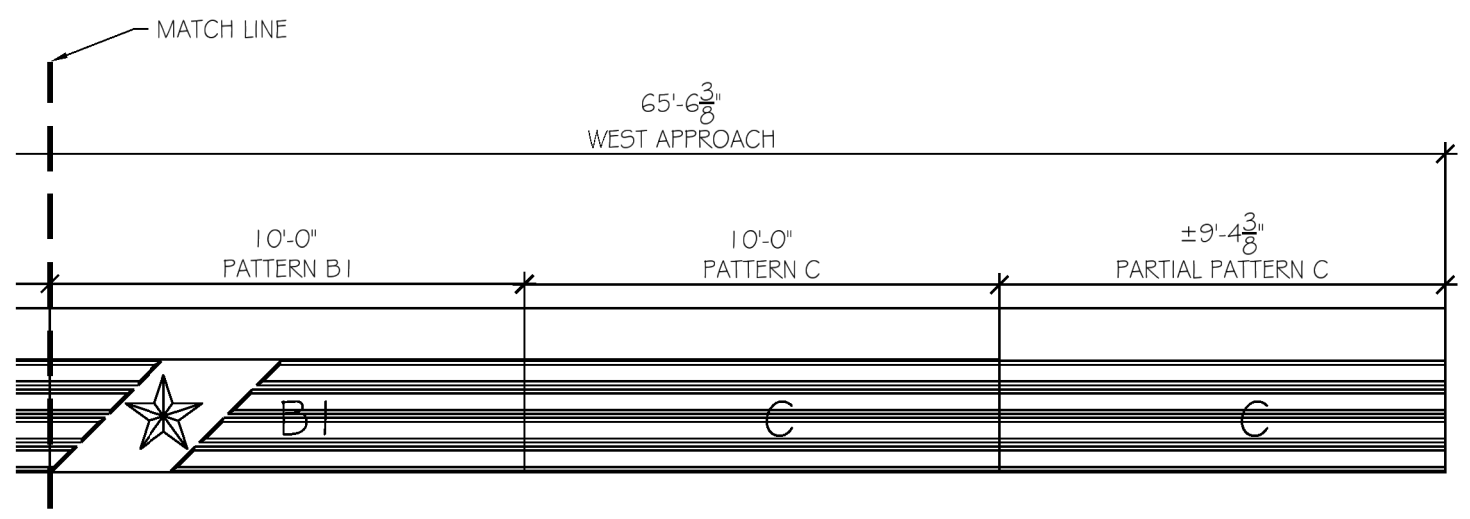
- GENERAL NOTE
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 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
 - CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' NORTH PARAPET WALL ELEVATIONS: EAST APPROACH Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No BA27
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 PARTIAL BRIDGE 'C' NORTH PARAPET ELEV.
 BA28 SCALE: 1/4" = 1'-0"



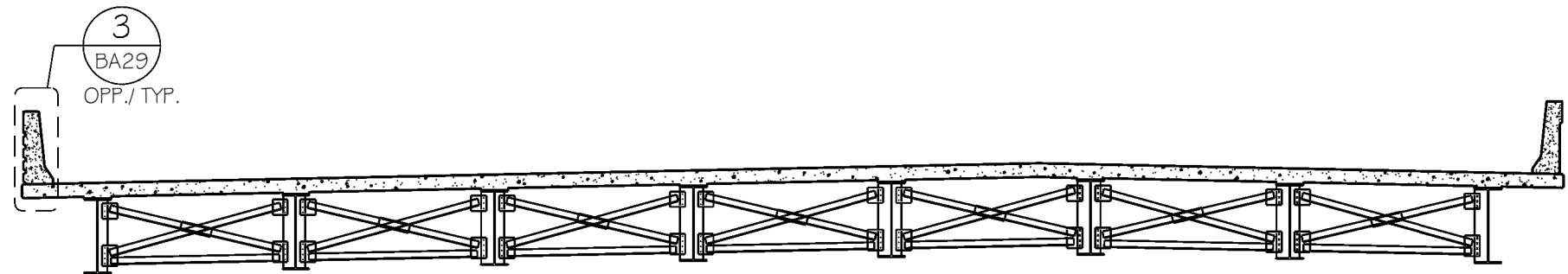
2 PARTIAL BRIDGE 'C' NORTH PARAPET ELEV. CONT.
 BA28 SCALE: 1/4" = 1'-0"

GENERAL NOTE

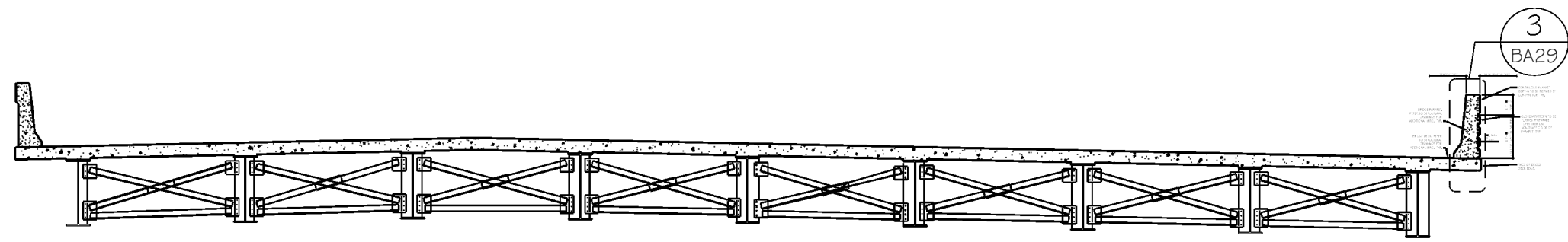
- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 FOR PARAPET PATTERN INFORMATION.

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' NORTH PARAPET WALL ELEVATIONS: WEST APPROACH Job Piece No 23310(04)	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			Sheet NoBA28

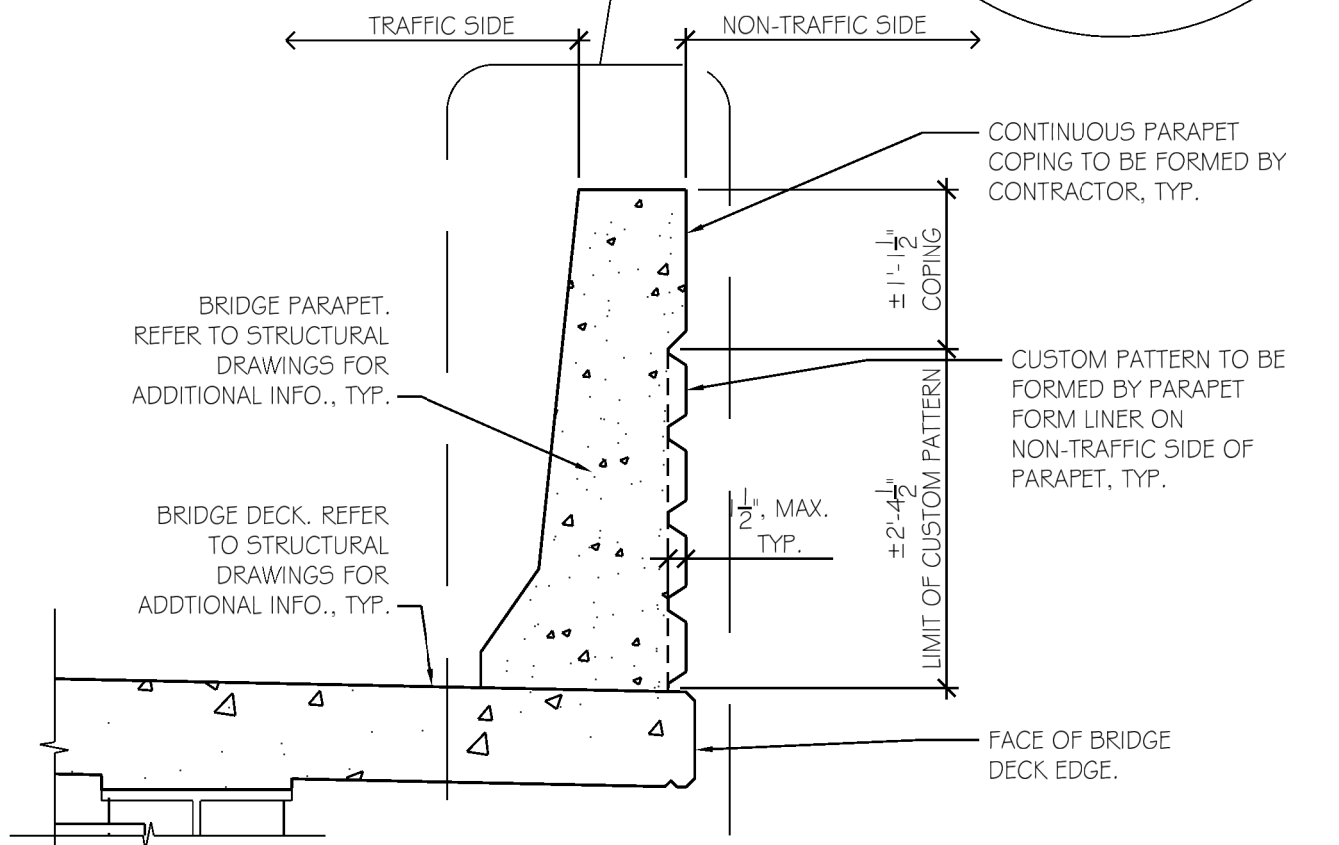
DESCRIPTION	REVISIONS	DATE



1 TYPICAL SECTION: BRIDGE 'C' DECK
BA29 SCALE: 1/8" = 1'-0"



2 TYPICAL SECTION: BRIDGE 'D' DECK
BA29 SCALE: 1/8" = 1'-0"



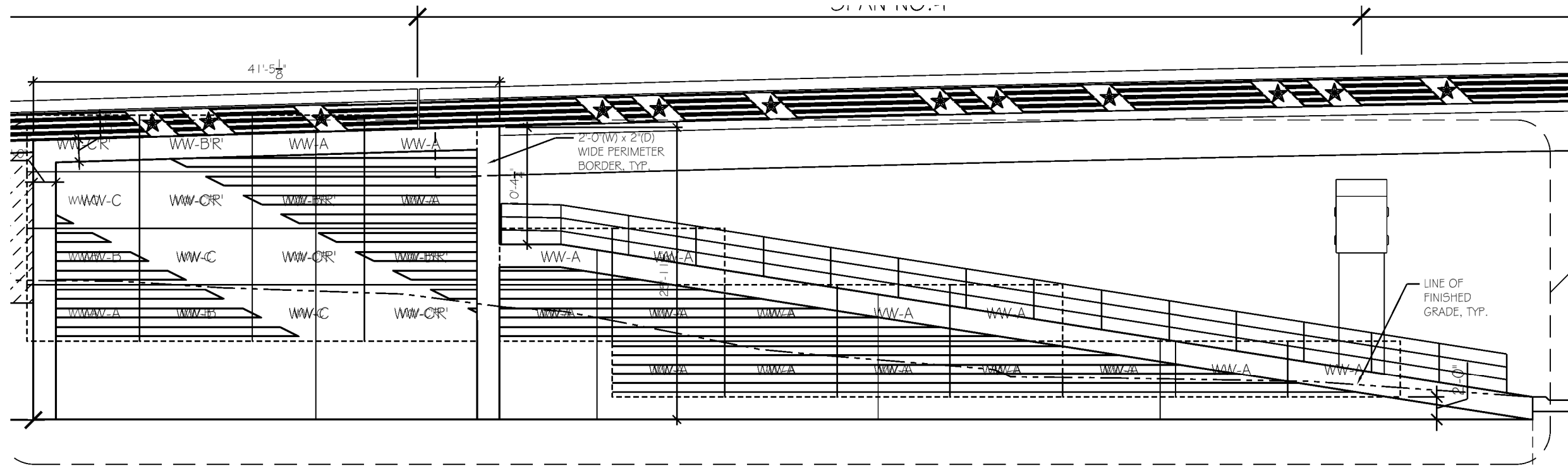
3 TYPICAL DETAIL: PARAPET WALL
BA29 SCALE: 3/4" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO SEE SHEET BA21 FOR PARAPET CUSTOM PATTERN INFORMATION.
- CUSTOM PATTERNS AT PARAPET WALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL BREAK OF THE PATTERN.

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' & 'D' TYPICAL PARAPET WALL DETAILS Job Piece No 23310(04)	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			Sheet No.BA29

DESCRIPTION	REVISIONS	DATE



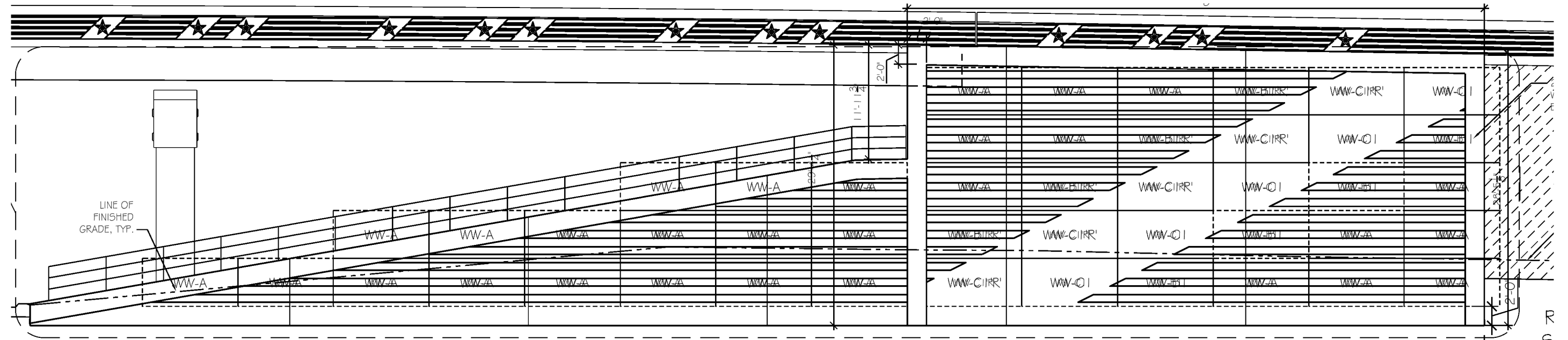
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO BLOCK OUT PORTION OF CORRESPONDING WINGWALL FORM LINER IN OCCURRENCES WHERE PARTIAL PATTERNS ARE SPECIFIED. DIMENSIONS OF ALL PARTIAL PATTERN SPECIFIED SHALL BE VERIFIED IN THE FIELD PRIOR TO BLOCKING OUT PORTIONS OF CORRESPONDING WINGWALL FORM LINER & CONCRETE FORMING.
- CONTRACTOR TO SEE SHEET BA21 FOR WINGWALL FLUTED FORM PATTERN INFORMATION.
- FLUTED FORM PATTERNS AT WINGWALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.

1
BA30

BRIDGE 'C' NORTH WINGWALL KEY ELEV.: EAST APPROACH (RW G-1)

SCALE: 3/32" = 1'-0"



2
BA30

BRIDGE 'C' NORTH WINGWALL KEY ELEV.: WEST APPROACH (RW D-1)

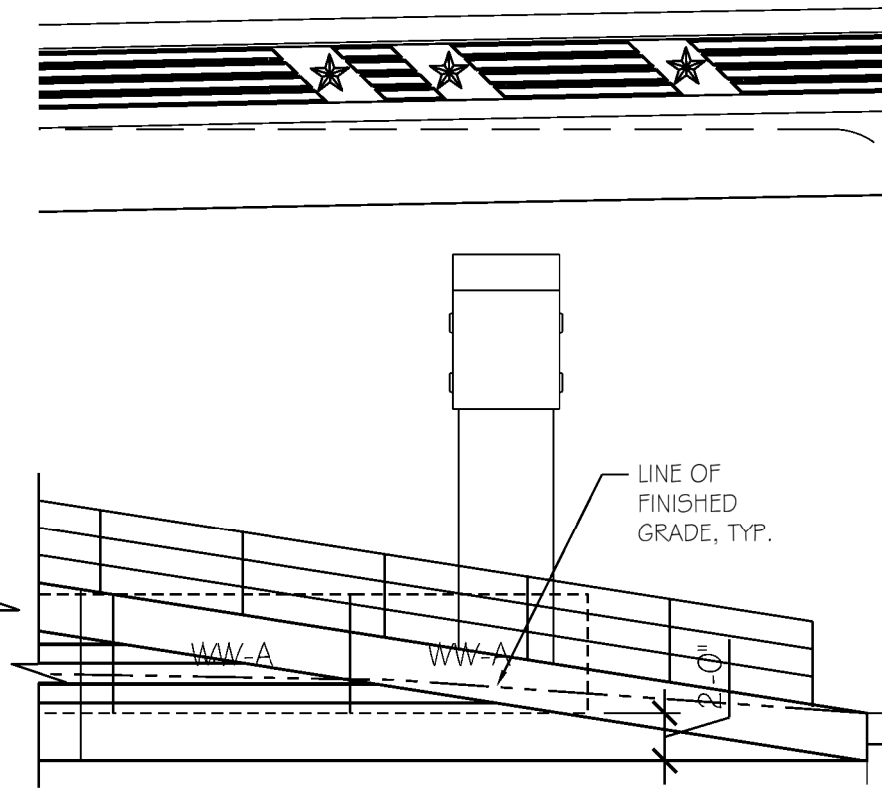
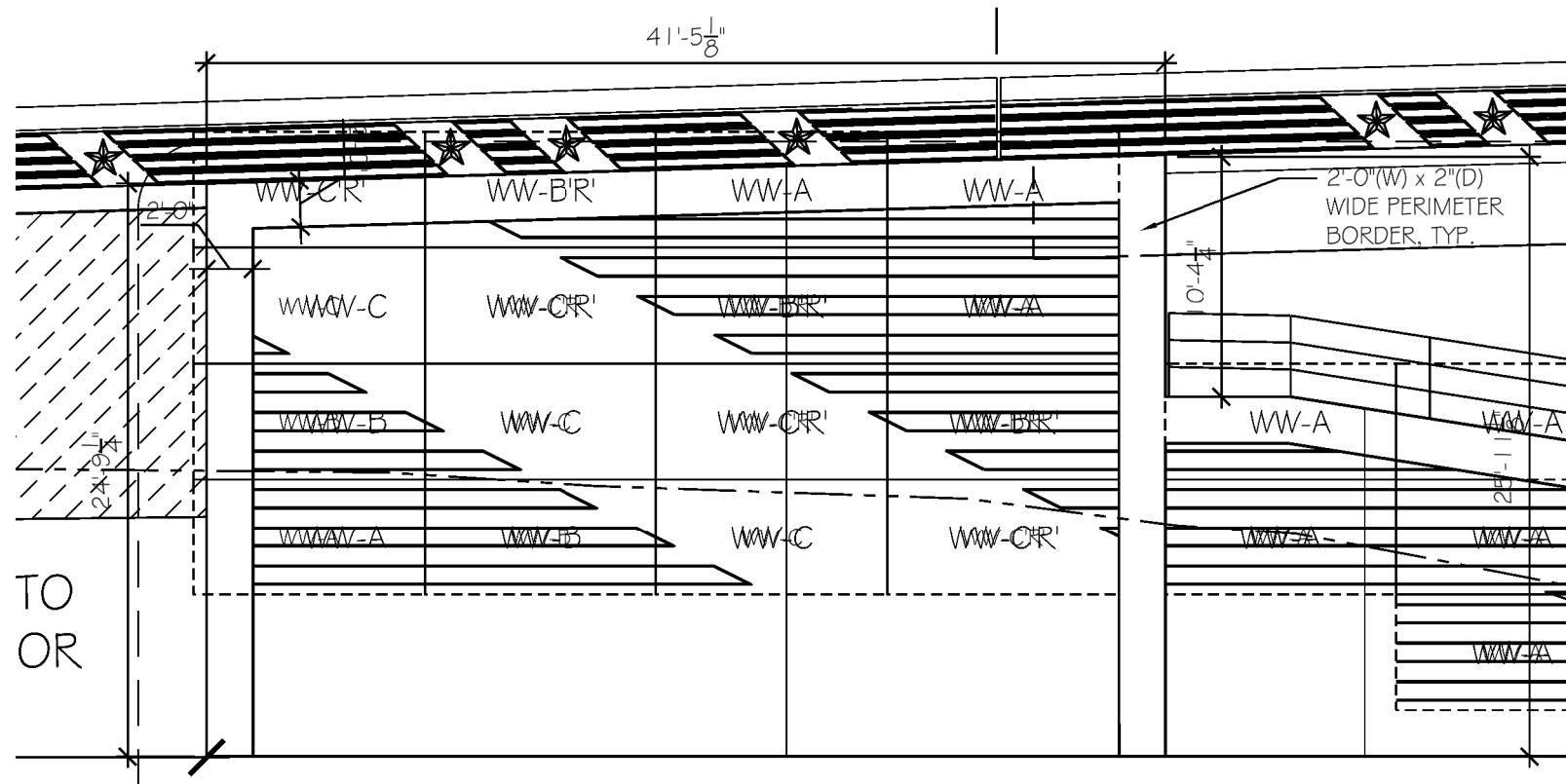
SCALE: 3/32" = 1'-0"

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
			BRIDGE 'C' WINGWALL KEY ELEVATIONS	
			Job Piece No 23310(04)	Sheet No.BA30

DESCRIPTION	REVISIONS	DATE

GENERAL NOTE

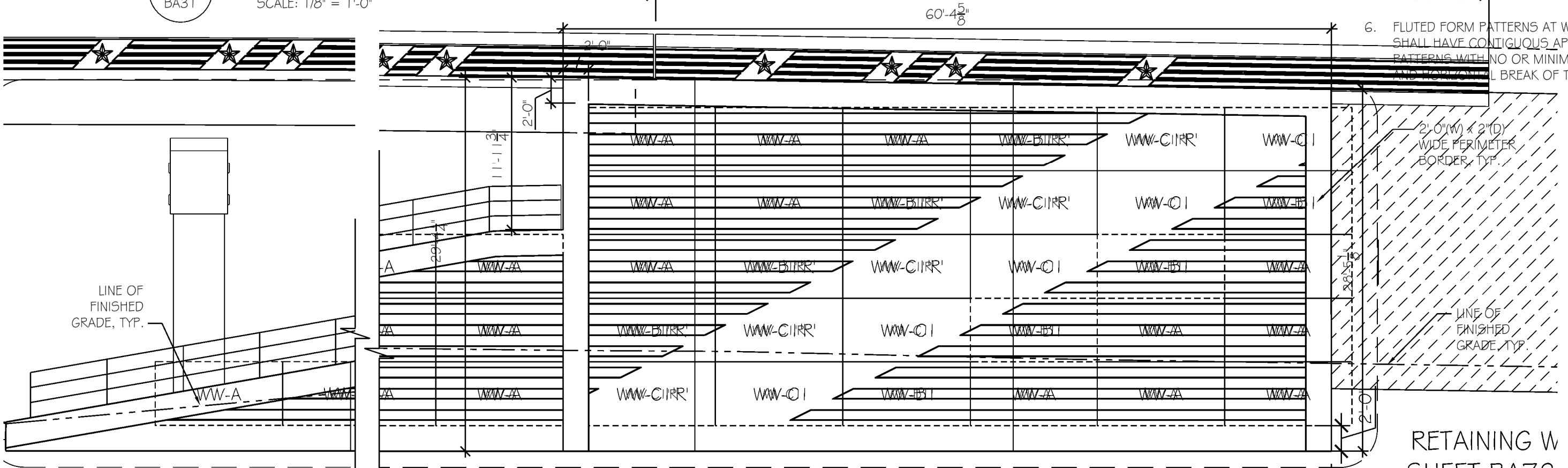
- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO BLOCK OUT PORTION OF CORRESPONDING WINGWALL FORM LINER IN OCCURRENCES WHERE PARTIAL PATTERNS ARE SPECIFIED. DIMENSIONS OF ALL PARTIAL PATTERN SPECIFIED SHALL BE VERIFIED IN THE FIELD PRIOR TO BLOCKING OUT PORTIONS OF CORRESPONDING WINGWALL FORM LINER & CONCRETE FORMING.
- CONTRACTOR TO SEE SHEET BA21 FOR WINGWALL FLUTED FORM PATTERN INFORMATION.
- FLUTED FORM PATTERNS AT WINGWALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.



1
BA31

BRIDGE 'C' NORTH WINGWALL ELEV.: EAST APPROACH (RW G-1)

SCALE: 1/8" = 1'-0"



2
BA31

BRIDGE 'C' NORTH WINGWALL ELEV.: WEST APPROACH (RW D-1)

SCALE: 1/8" = 1'-0"

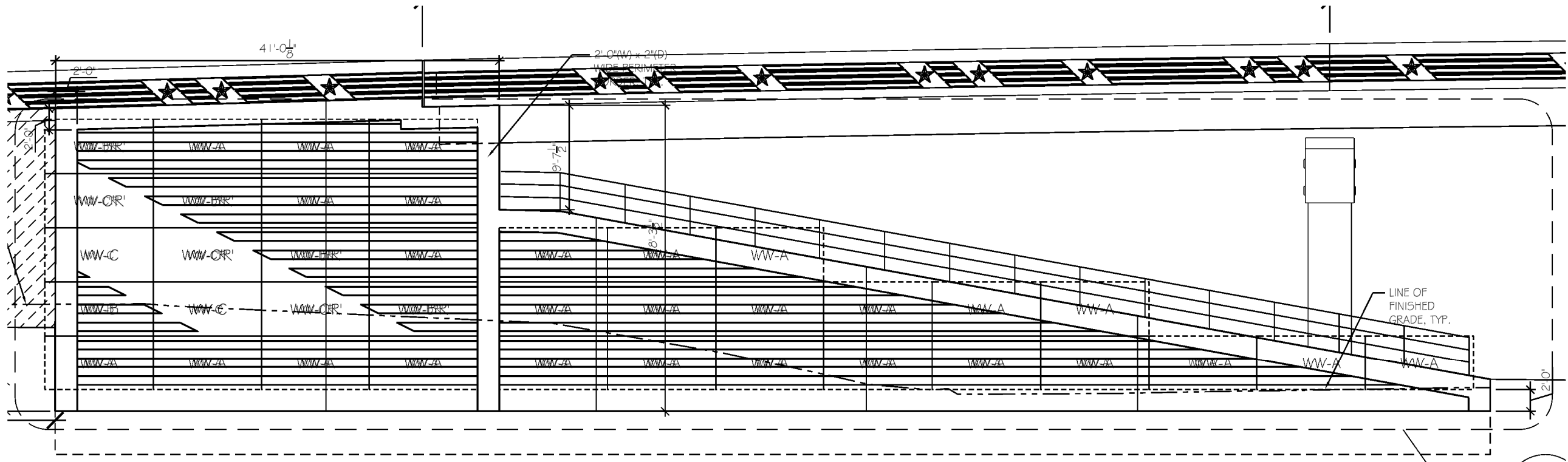
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

BRIDGE "BRIDGE 'C' & 'D'
1-40 OVER 15TH STREET
OAKLAHOMA COUNTY
BRIDGE 'C' WINGWALL
ELEVATIONS
Job Piece No 23310(04)
Sheet No.BA31

DESCRIPTION	REVISIONS	DATE

GENERAL NOTE

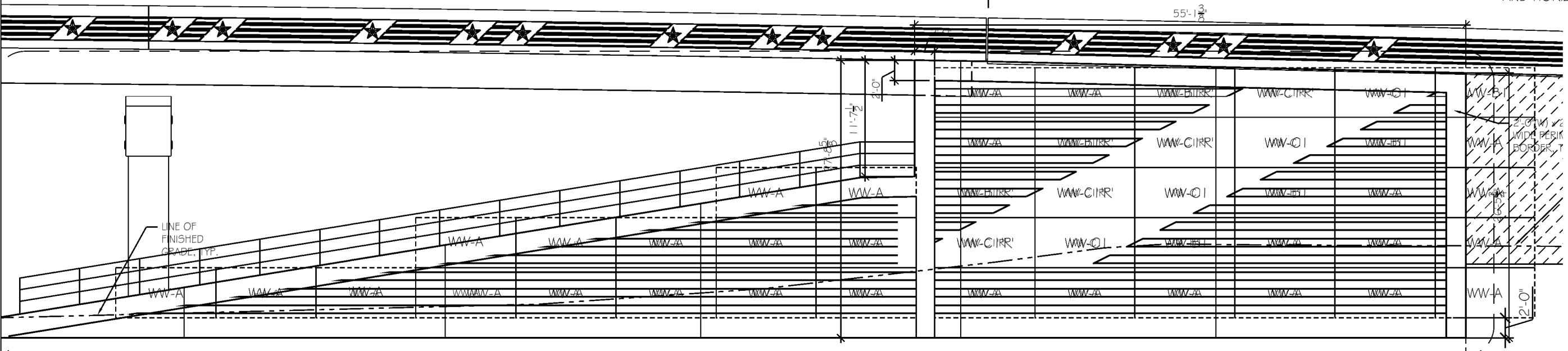
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- CONTRACTOR TO BLOCK OUT PORTION OF CORRESPONDING WINGWALL FORM LINER IN OCCURRENCES WHERE PARTIAL PATTERNS ARE SPECIFIED. DIMENSIONS OF ALL PARTIAL PATTERN SPECIFIED SHALL BE VERIFIED IN THE FIELD PRIOR TO BLOCKING OUT PORTIONS OF CORRESPONDING WINGWALL FORM LINER & CONCRETE FORMING.
- CONTRACTOR TO SEE SHEET BA21 FOR WINGWALL FLUTED FORM PATTERN INFORMATION.
- FLUTED FORM PATTERNS AT WINGWALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.



1 BRIDGE 'D' SOUTH WINGWALL KEY ELEV.: WEST APPROACH (RW E-1)
 BA32 SCALE: 1/8" = 1'-0"

SPAN NO. 4

EAST APPROACH

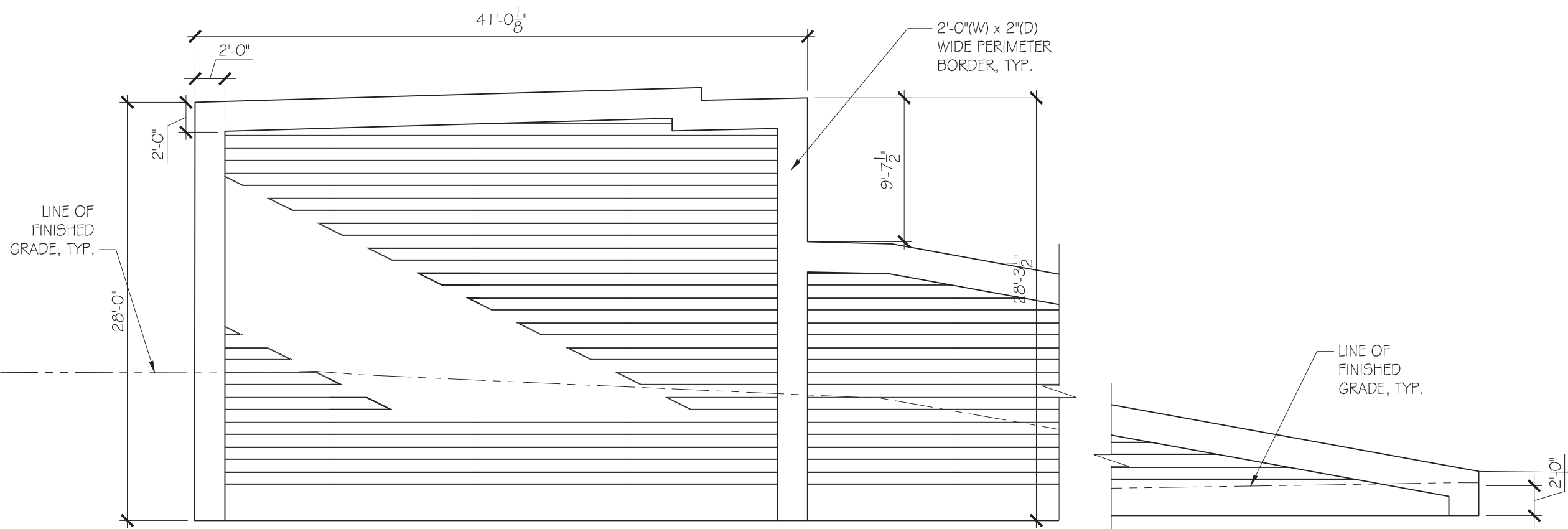


2 BRIDGE 'D' SOUTH WINGWALL KEY ELEV.: EAST APPROACH (RW H-1)
 BA32 SCALE: 1/8" = 1'-0"

RETAIN SHEET

Design	.		BRIDGE "BRIDGE 'C' & 'D' 1-40 OVER 15TH STREET	OKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
			BRIDGE 'D' WINGWALL KEY ELEVATIONS	
			Job Piece No 23310(04)	Sheet No BA32

DESCRIPTION	REVISIONS	DATE

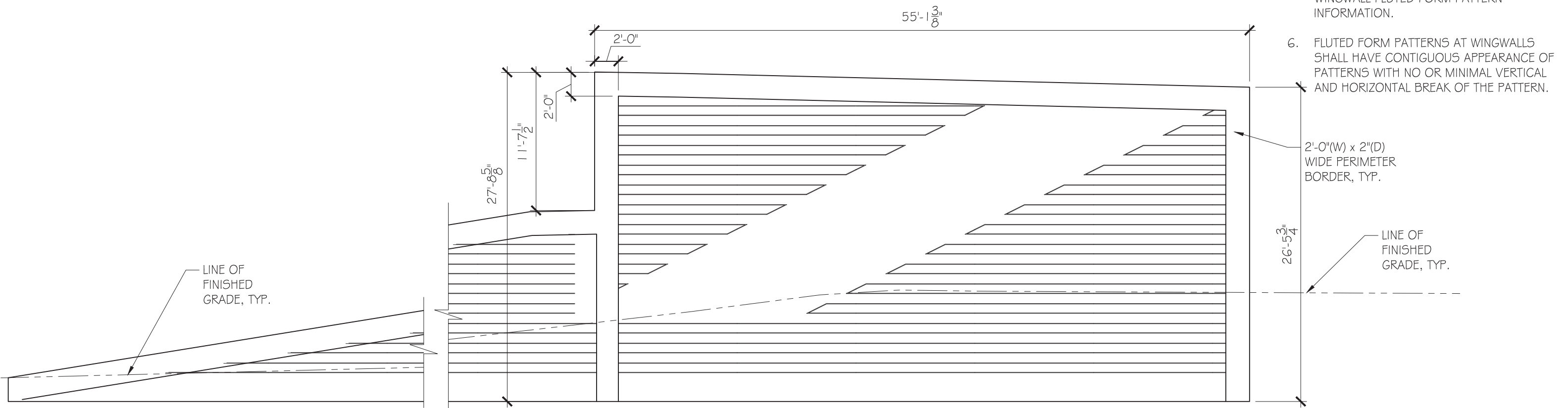


1
BA33

BRIDGE 'D' SOUTH WINGWALL ELEV.: WEST APPROACH (RW E-1)

SCALE: 1/8" = 1'-0"

- GENERAL NOTE
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 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
 - CONTRACTOR TO BLOCK OUT PORTION OF CORRESPONDING WINGWALL FORM LINER IN OCCURRENCES WHERE PARTIAL PATTERNS ARE SPECIFIED. DIMENSIONS OF ALL PARTIAL PATTERN SPECIFIED SHALL BE VERIFIED IN THE FIELD PRIOR TO BLOCKING OUT PORTIONS OF CORRESPONDING WINGWALL FORM LINER & CONCRETE FORMING.
 - CONTRACTOR TO SEE SHEET BA21 FOR WINGWALL FLUTED FORM PATTERN INFORMATION.
 - FLUTED FORM PATTERNS AT WINGWALLS SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.



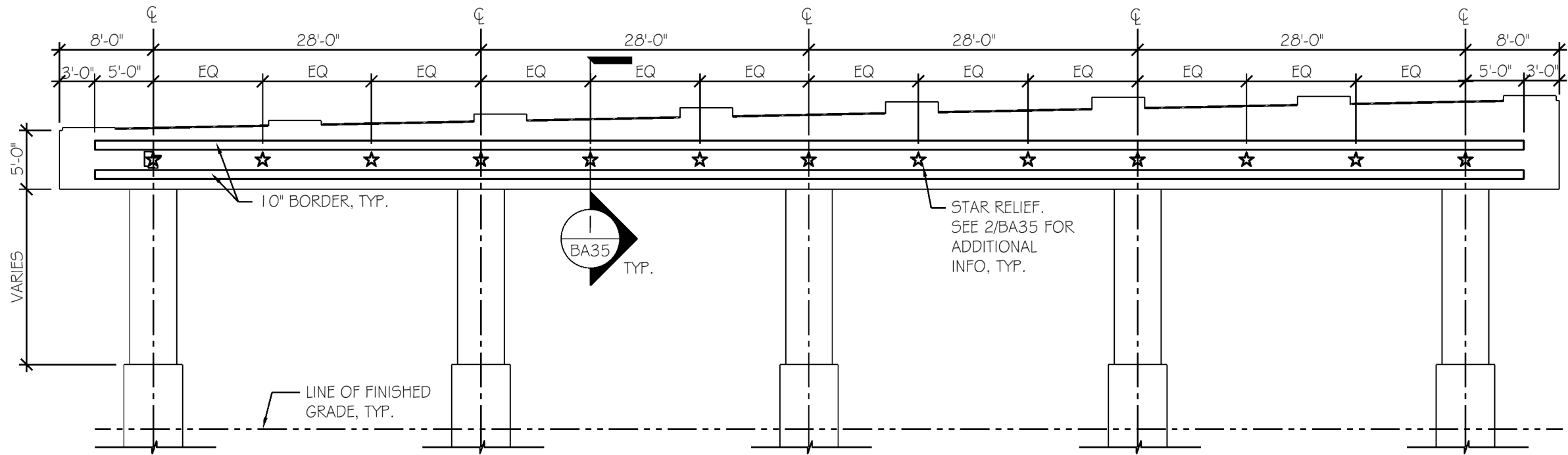
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BA33

BRIDGE 'D' SOUTH WINGWALL ELEV.: EAST APPROACH (RW H-1)

SCALE: 1/8" = 1'-0"

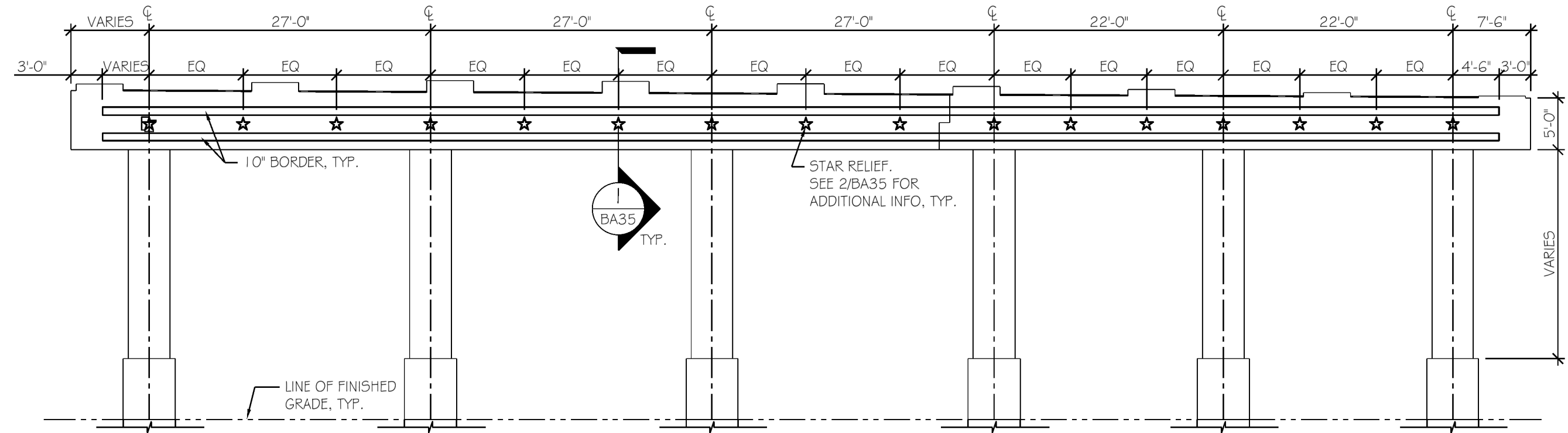
Design	.	BRIDGE "BRIDGE 'C' & 'D'	OAKLAHOMA COUNTY
Drawn	.	I-40 OVER 15TH STREET	
Checked	.		
Approved	.		
Squad	.		
		BRIDGE 'D' WINGWALL ELEVATIONS	
		Job Piece No 23310(04)	Sheet No. BA33

DESCRIPTION	REVISIONS	DATE



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 - CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
 - EAST FACE PIER ELEVATION IS OMITTED FOR REDUNDANCY. EAST FACE PIER ELEVATION TO BE OPPOSITE HAND & REVERSE OF WEST FACE PIER ELEVATION.

1 BRIDGE 'C' TYPICAL PIER ELEVATION: WEST FACE
 BA34 SCALE: 3/32" = 1'-0"



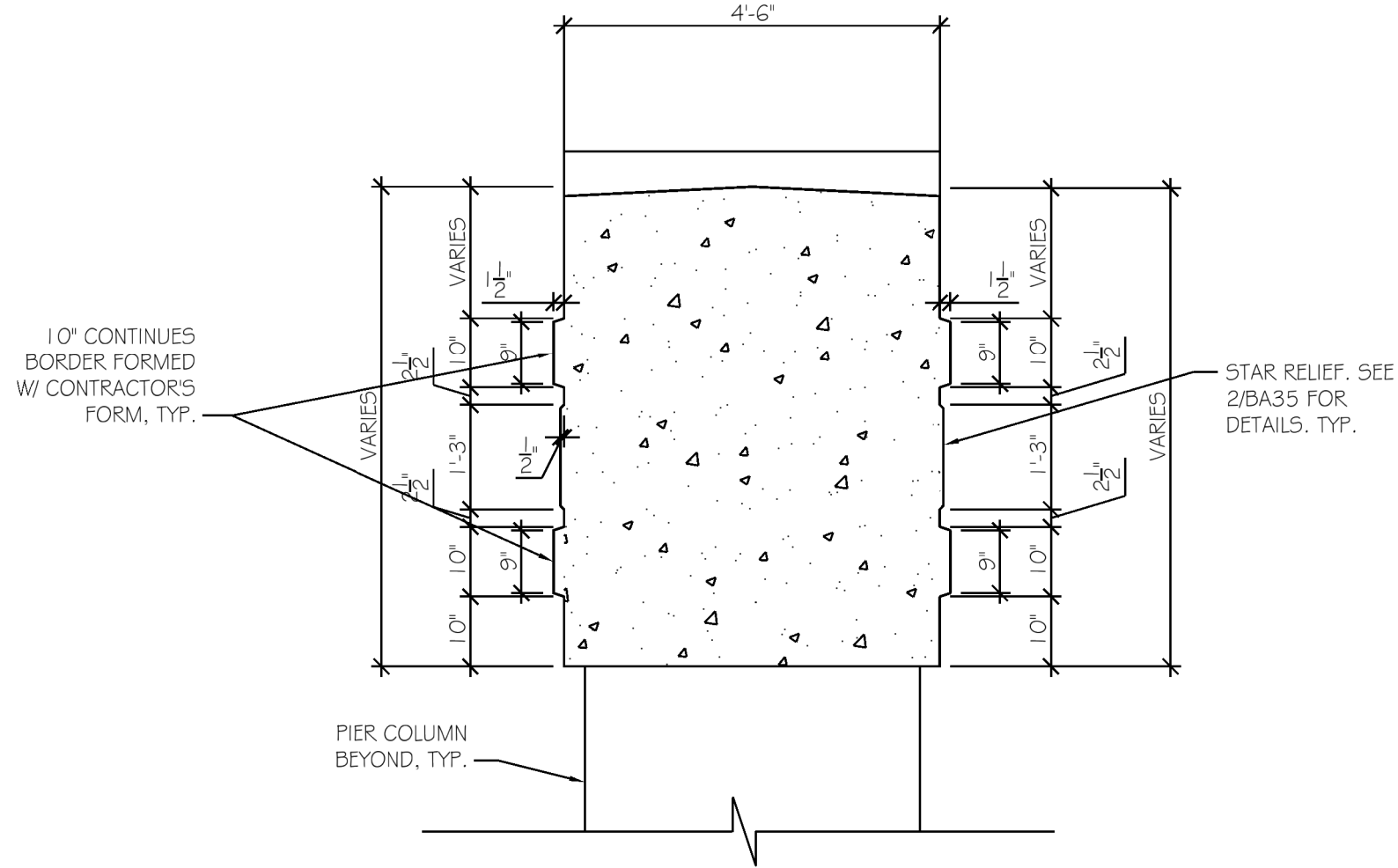
2 BRIDGE 'D' TYPICAL PIER ELEVATION: WEST FACE
 BA34 SCALE: 3/32" = 1'-0"

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET OAKLAHOMA COUNTY BRIDGE 'C' & 'D' TYPICAL PIER ELEVATIONS Job Piece No 23310(04)	Sheet No. BA34
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

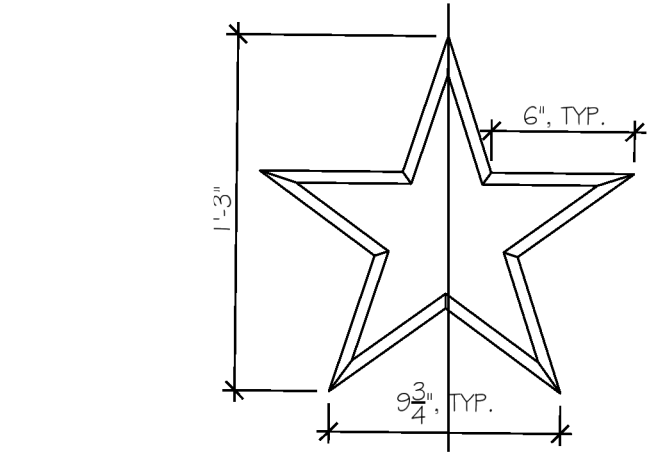
DESCRIPTION	REVISIONS	DATE

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.



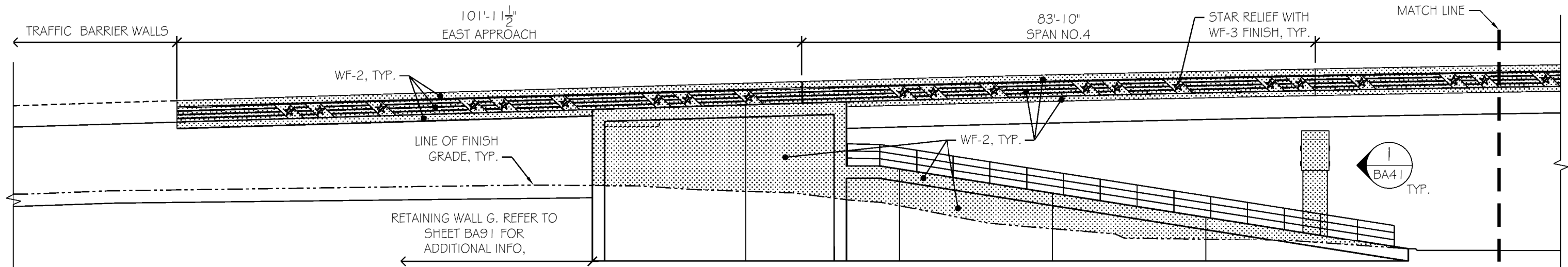
1
BA35
TYPICAL PIER SECTION: PIER CAP
SCALE: 1/2" = 1'-0"



2
BA35
ENLARGED ELEVATION: STAR RELIEF
SCALE: 1 1/2" = 1'-0"

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET	OAKLAHOMA COUNTY
Drawn	.			
Checked	.			
Approved	.			
Squad	.			
BRIDGE 'C' & 'D' PIER DETAILS			Job Piece No 23310(04)	Sheet No BA35

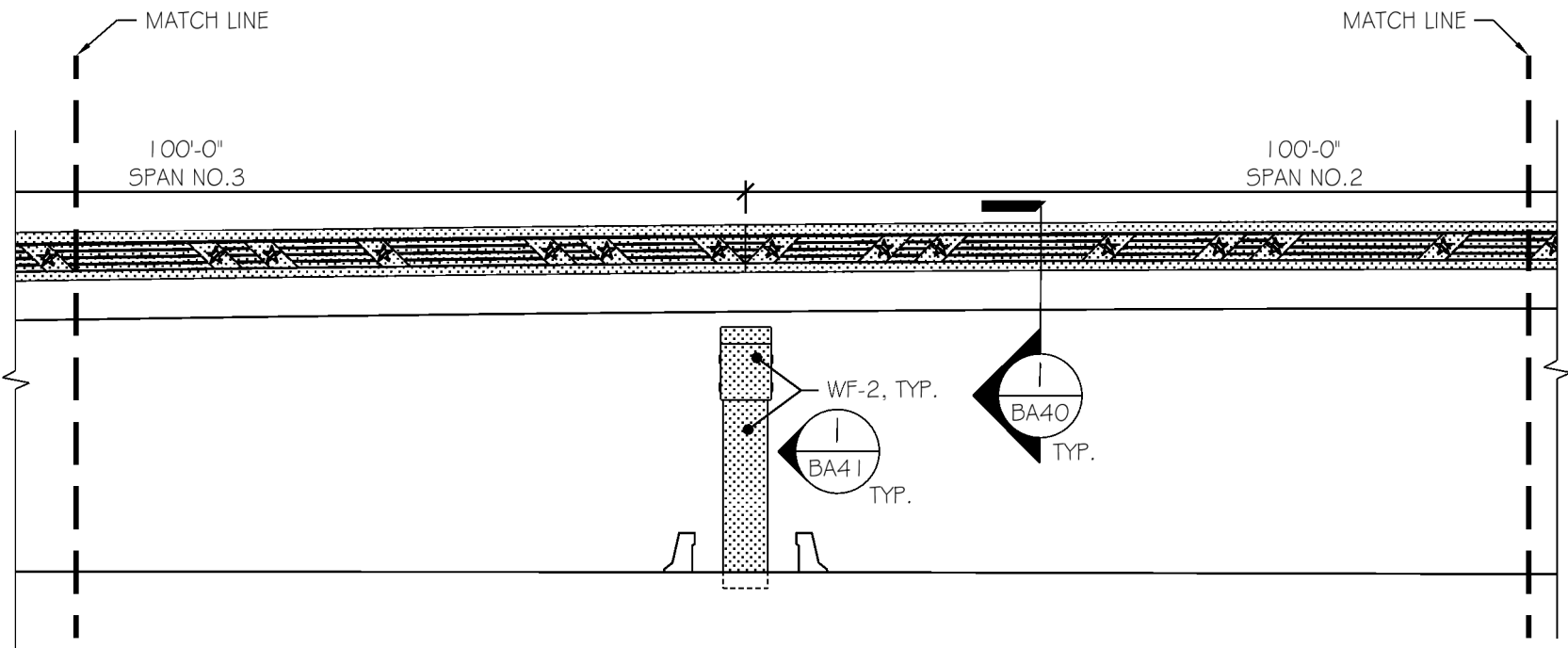
DESCRIPTION	REVISIONS	DATE



1 NORTH ELEVATION: BRIDGE 'C'
 BA36 SCALE: 1/16" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE, RETAINING WALLS AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'C' SOUTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'C' NORTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

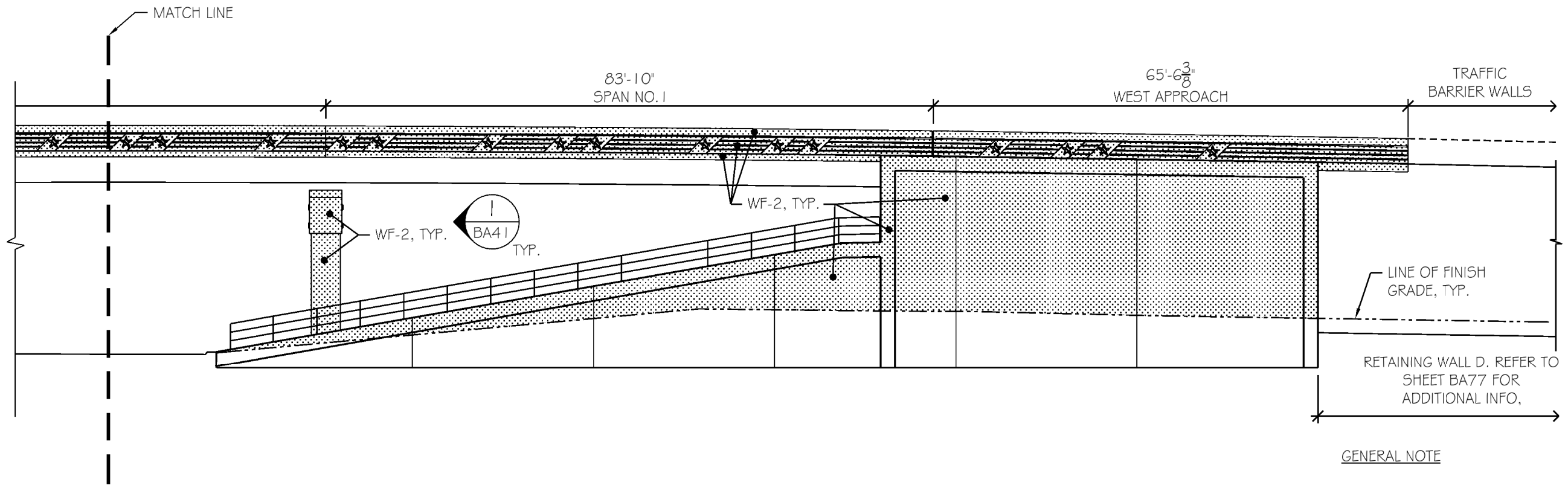


2 NORTH ELEVATION: BRIDGE 'C' CONTINUES
 BA36 SCALE: 1/16" = 1'-0"

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' FINISH PLAN: NORTH ELEVATIONS Job Piece No 23310(04)	OKLAHOMA COUNTY Sheet NoBA36
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 NORTH ELEVATION: BRIDGE 'C' CONTINUES
 BA37 SCALE: 1/16" = 1'-0"

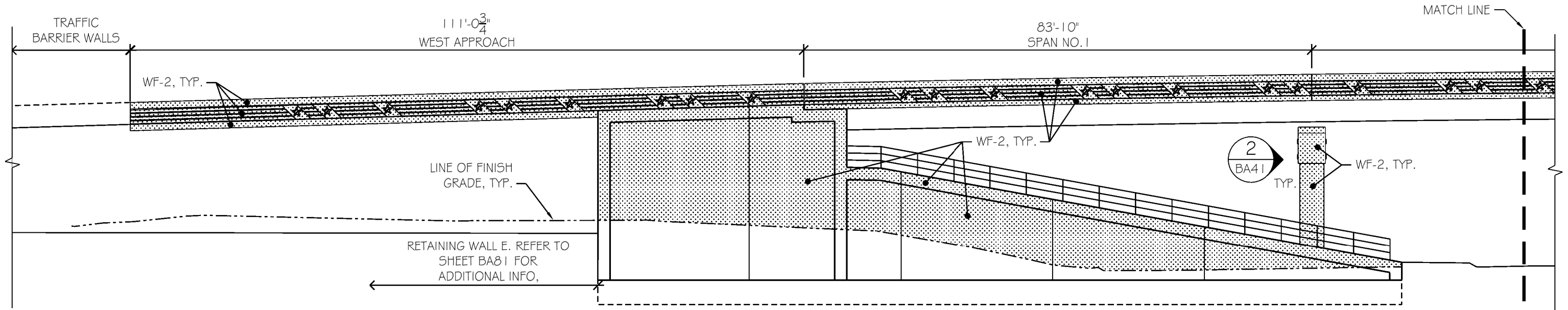
GENERAL NOTE

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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE, RETAINING WALLS AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'C' SOUTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'C' NORTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		2788G	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		2505G	AIRFORCE BLUE / ACCENT 2
WF-4		2113G	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' FINISH PLAN: NORTH ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No. BA37
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

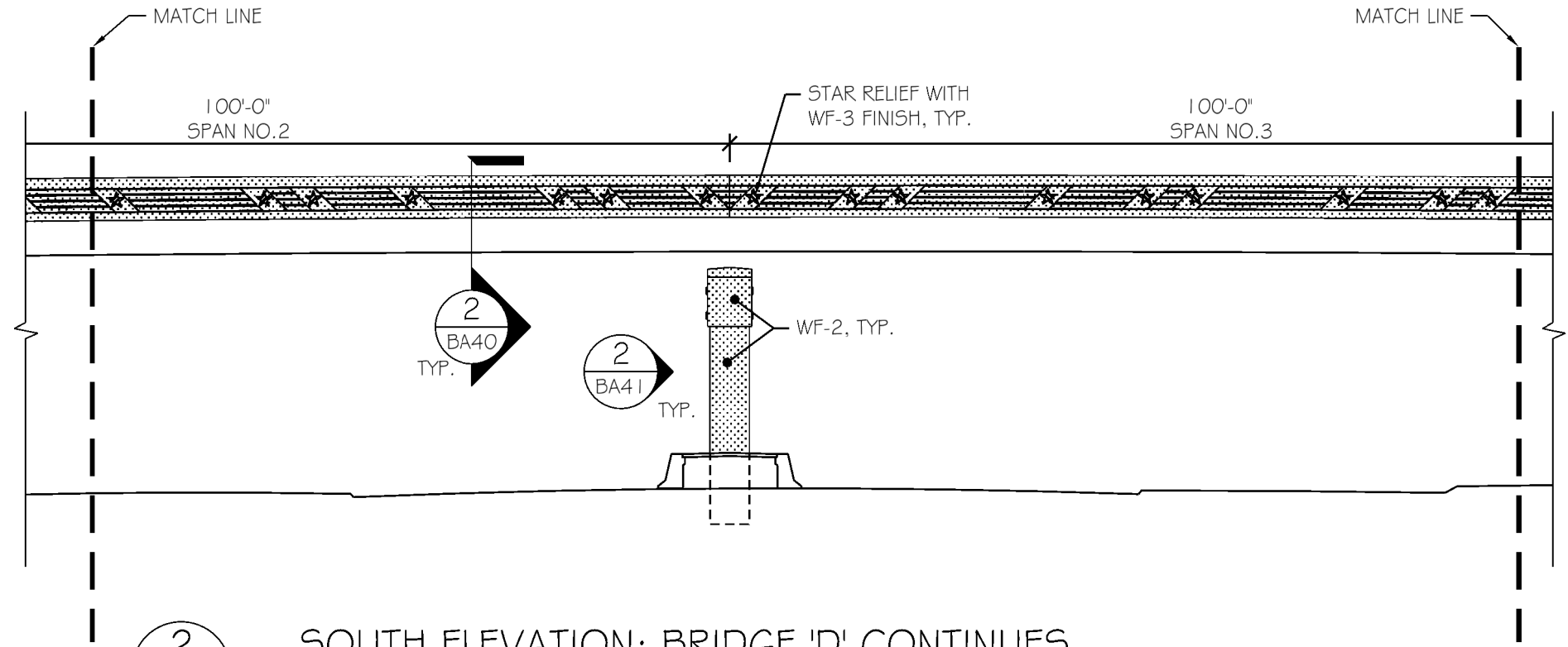
DESCRIPTION	REVISIONS	DATE



1 SOUTH ELEVATION: BRIDGE 'D'
BA38 SCALE: 1/16" = 1'-0"

GENERAL NOTE

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- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'C' SOUTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'C' NORTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

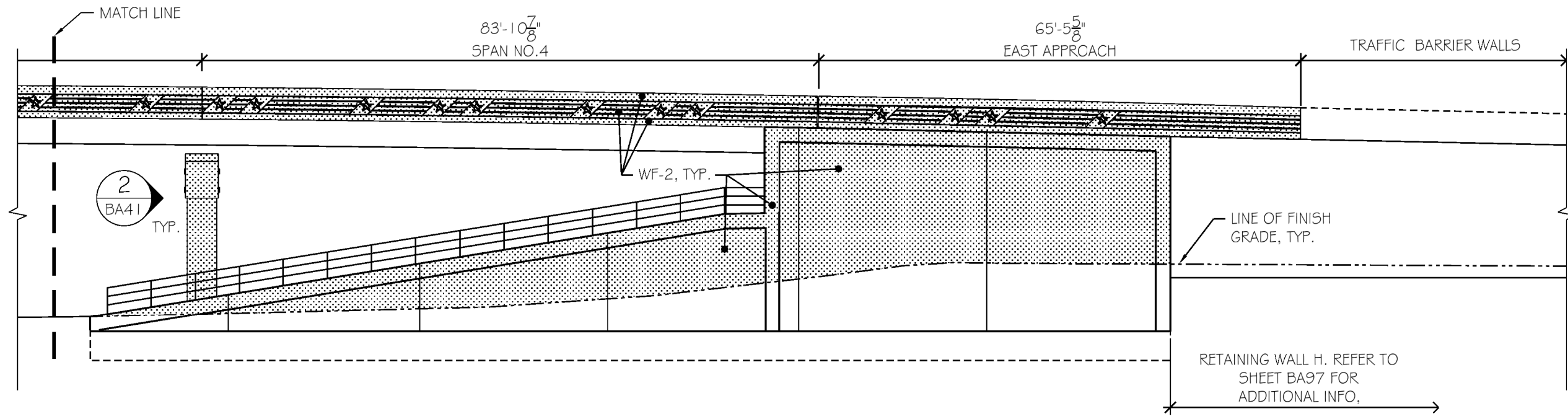


2 SOUTH ELEVATION: BRIDGE 'D' CONTINUES
BA38 SCALE: 1/16" = 1'-0"

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'D' FINISH PLAN: SOUTH ELEVATIONS Job Piece No 23310(04)	OKLAHOMA COUNTY Sheet No. BA38
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 SOUTH ELEVATION: BRIDGE 'D' CONTINUES
 BA39 SCALE: 1/16" = 1'-0"

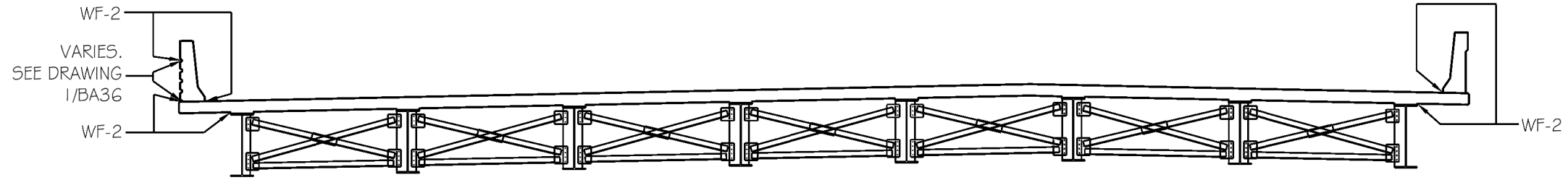
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- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- BRIDGE 'C' SOUTH ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO BRIDGE 'C' NORTH ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

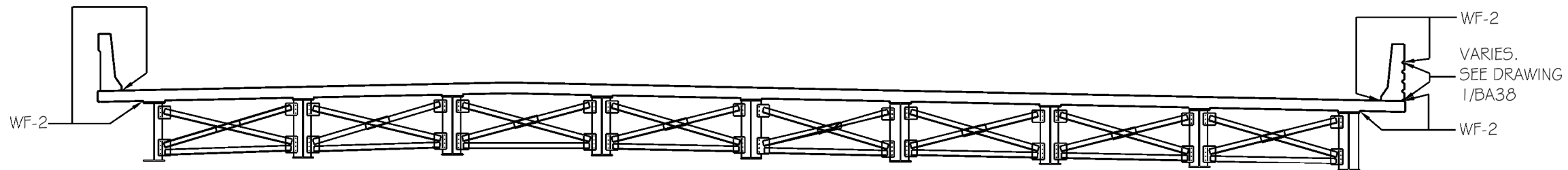
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'D' FINISH PLAN: SOUTH ELEVATIONS Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No. BA39
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1
BA40
TYPICAL SECTION: BRIDGE 'C' DECK
SCALE: 1/8" = 1'-0"



2
BA40
TYPICAL SECTION: BRIDGE 'D' DECK
SCALE: 1/8" = 1'-0"

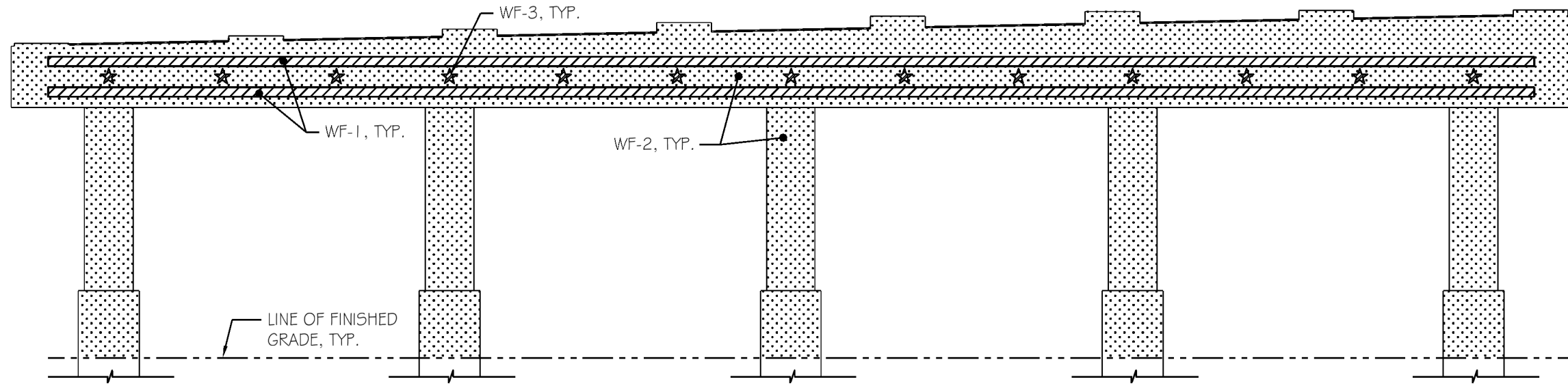
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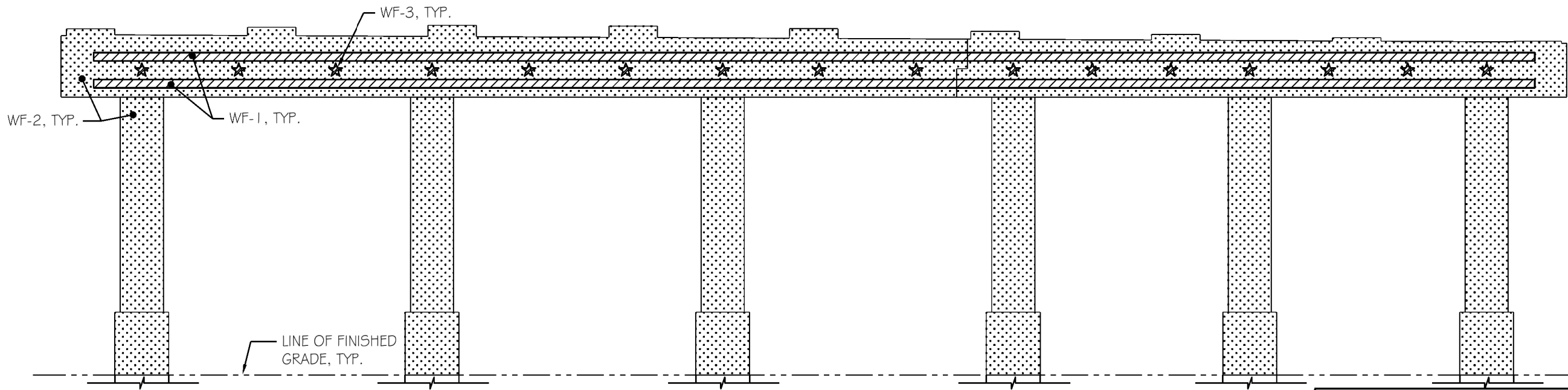
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET OAKLAHOMA COUNTY BRIDGE 'C' & 'D' TYPICAL SECTIONS: BRIDGE DECK FINISH Job Piece No 23310(04)	Sheet No. BA40
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1
BA41
BRIDGE 'C' TYPICAL PIER ELEVATION: WEST FACE
SCALE: 3/32" = 1'-0"



2
BA41
BRIDGE 'D' TYPICAL PIER ELEVATION: WEST FACE
SCALE: 3/32" = 1'-0"

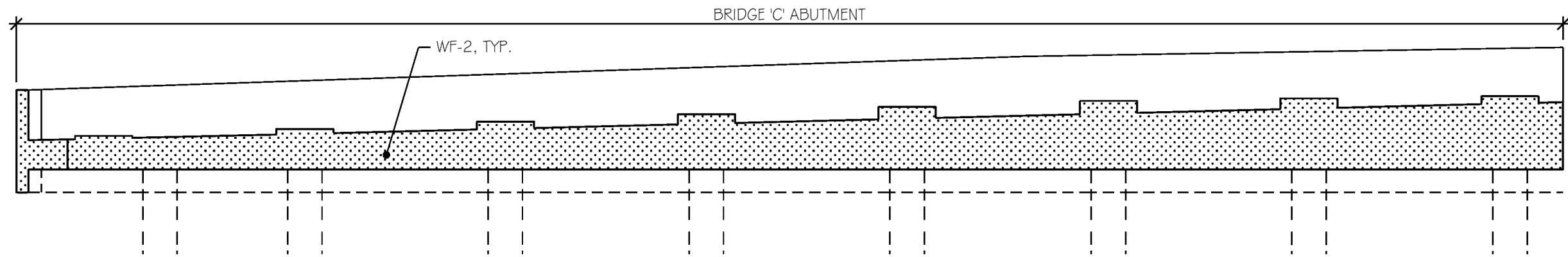
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- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- EAST FACE PIER ELEVATION IS OMITTED FOR REDUNDANCY. CONTRACTOR TO REFER TO WEST FACE PIER ELEVATION FOR STAIN COLOR OF BRIDGE COMPONENTS.

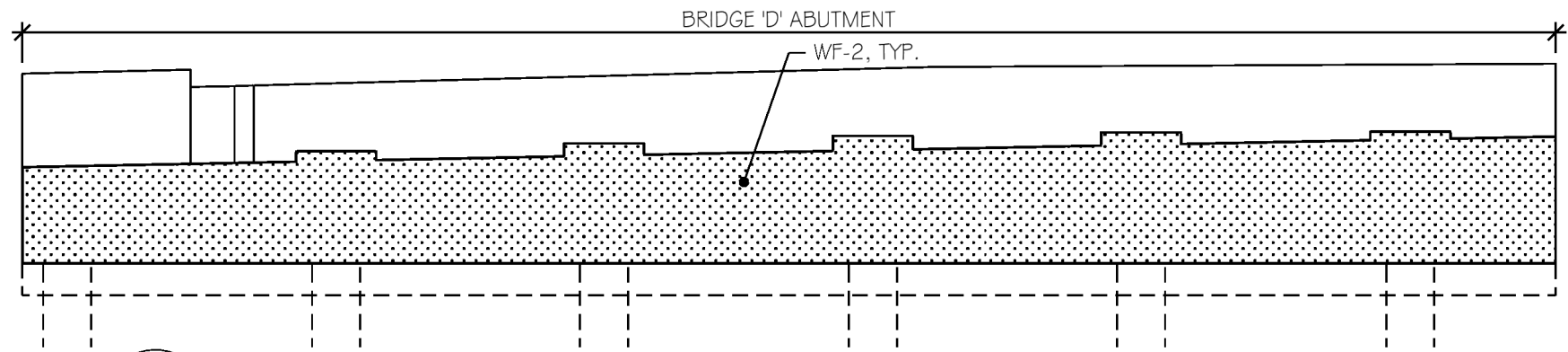
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' & 'D' TYPICAL PIER ELEVATIONS: PIER FINISH Job Piece No 23310(04)	OKLAHOMA COUNTY Sheet No.BA41
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1
BA42
BRIDGE 'C' ABUTMENT ELEV.: EAST
SCALE: 3/32" = 1'-0"



2
BA42
BRIDGE 'D' ABUTMENT ELEV.: EAST
SCALE: 3/32" = 1'-0"

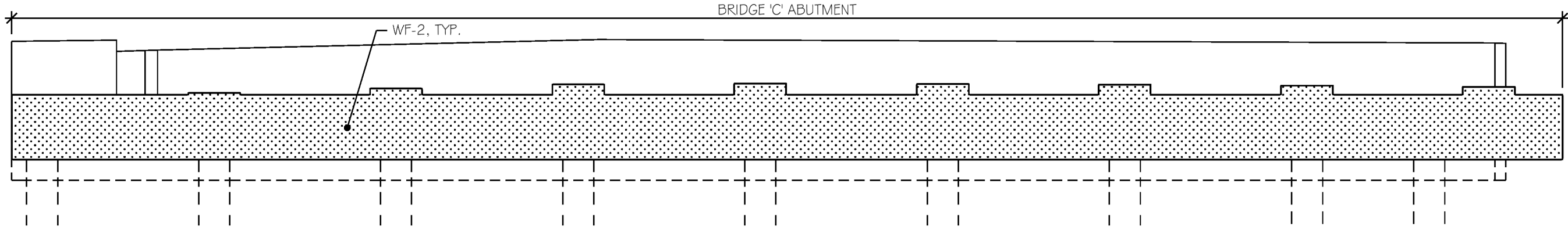
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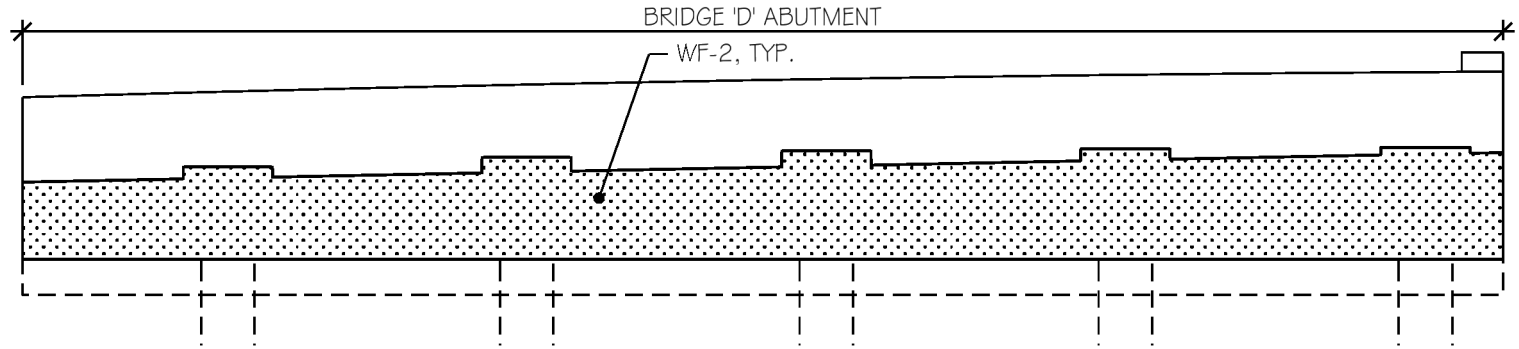
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET OAKLAHOMA COUNTY BRIDGE 'C' & 'D' ELEVATIONS: EAST ABUTMENT FINISH Job Piece No 23310(04)	Sheet No. BA42
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

DESCRIPTION	REVISIONS	DATE



1 BRIDGE 'C' ABUTMENT ELEV.: WEST
 BA43 SCALE: 3/32" = 1'-0"



2 BRIDGE 'D' ABUTMENT ELEV.: WEST
 BA43 SCALE: 3/32" = 1'-0"

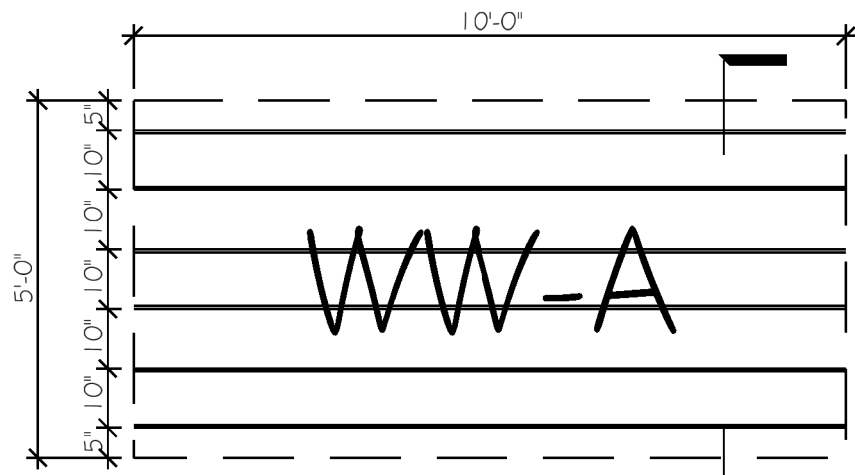
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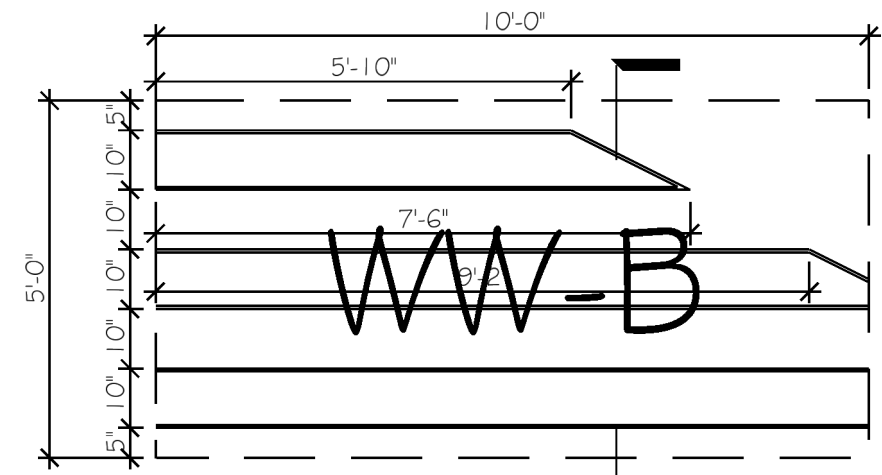
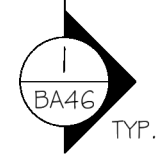
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1		27886	BEIGE / GENERAL
WF-2		20260	TAN / ACCENT 1
WF-3		25056	AIRFORCE BLUE / ACCENT 2
WF-4		21136	RED / ACCENT 3

Design	.		BRIDGE "BRIDGE 'C' & 'D' I-40 OVER 15TH STREET BRIDGE 'C' & 'D' ELEVATIONS: WEST ABUTMENT FINISH Job Piece No 23310(04)	OAKLAHOMA COUNTY Sheet No.BA43
Drawn	.			
Checked	.			
Approved	.			
Squad	.			

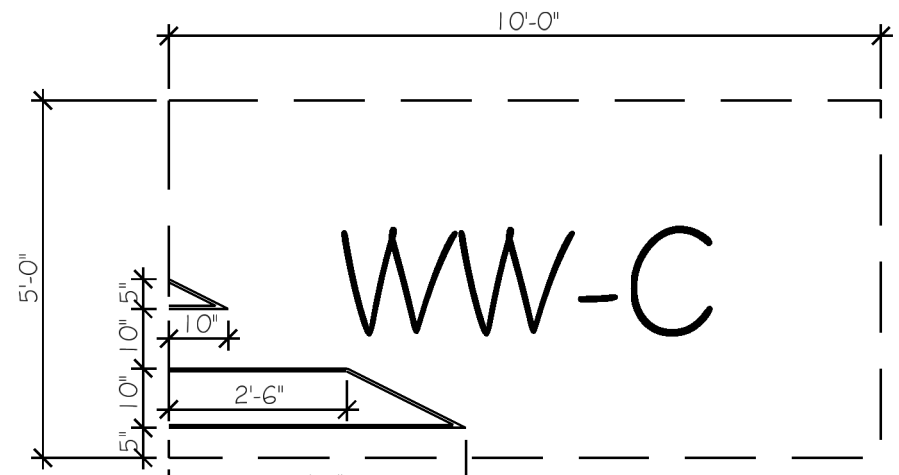
DESCRIPTION	REVISIONS	DATE



WING WALL PATTERN:
WW-A



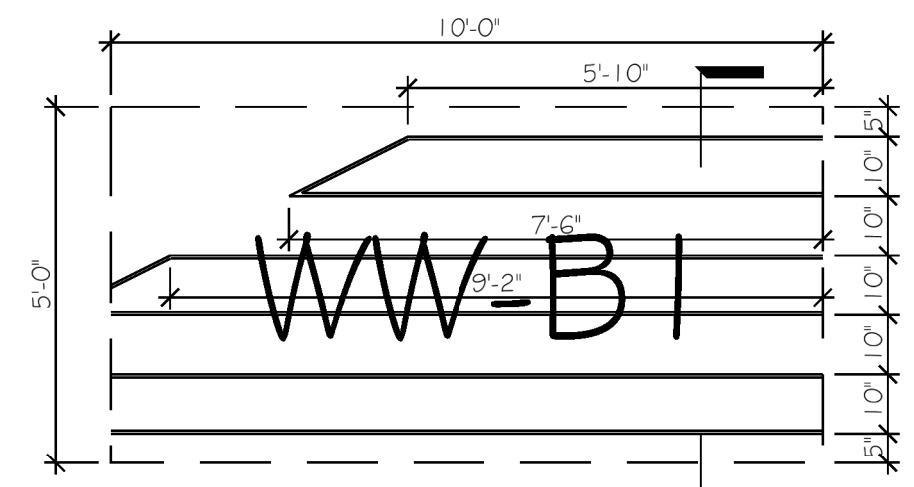
WING WALL PATTERN:
WW-B



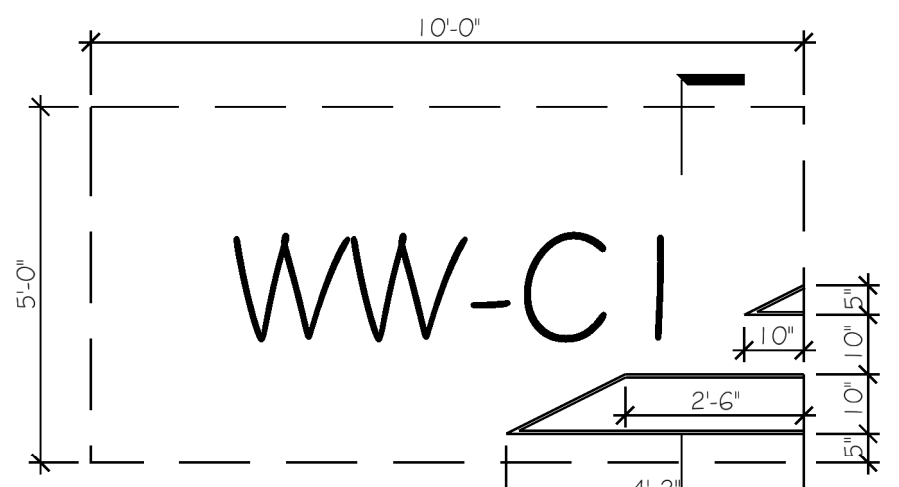
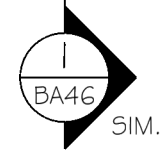
WING WALL PATTERN:
WW-C

GENERAL NOTE

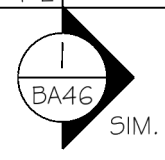
1. DO NOT SCALE OFF DRAWING.
2. DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
3. SEE PROJECT SPECIAL PROVISIONS FOR SPECIAL CASTING NOTES AND DETAIL, ETC.
4. C.I.P PATTERN KEY AND CORRESPONDING FORM LINERS SHALL ONLY BE APPLIED TO C.I.P RETAINING WALLS AS SPECIFIED THRU OUT THE PROJECT, UNLESS OTHERWISE NOTED.
5. ALL C.I.P PATTERNS AND CORRESPONDING FORM LINERS ARE MEASURED IN TRUE DIMENSIONS.
6. ALL PATTERNS ARE POSITIVE RELIEFS AND SHALL NOT ENCROACH INTO MINIMUM AND/OR CLEAR DIMENSIONS OF C.I.P. WALL DETERMINED BY STRUCTURAL DRAWING.
7. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
8. WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.



WING WALL PATTERN:
WW-B1



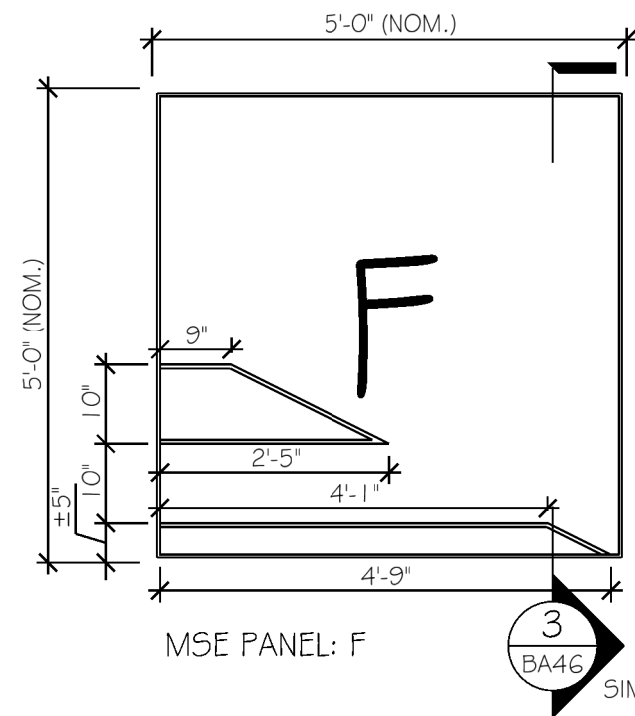
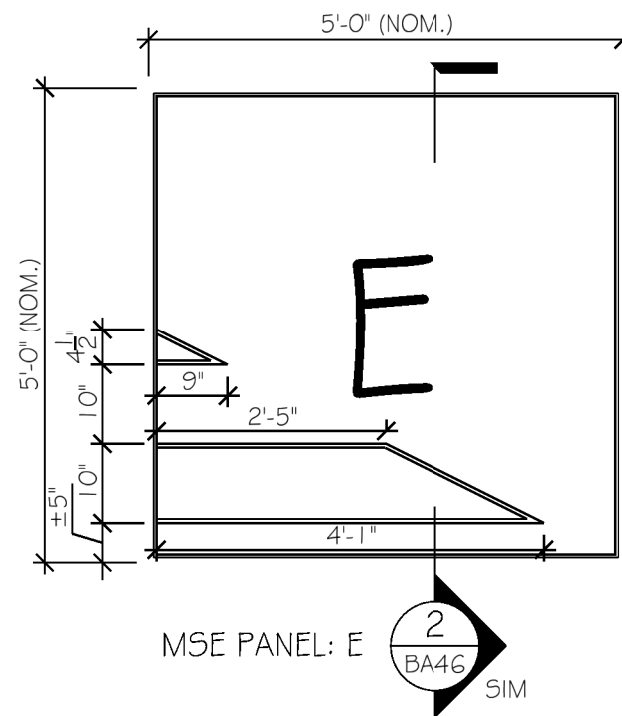
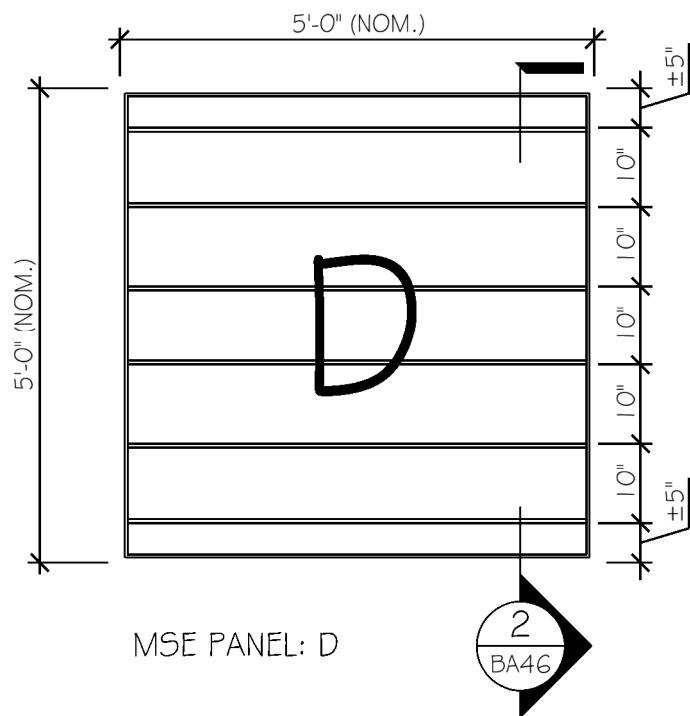
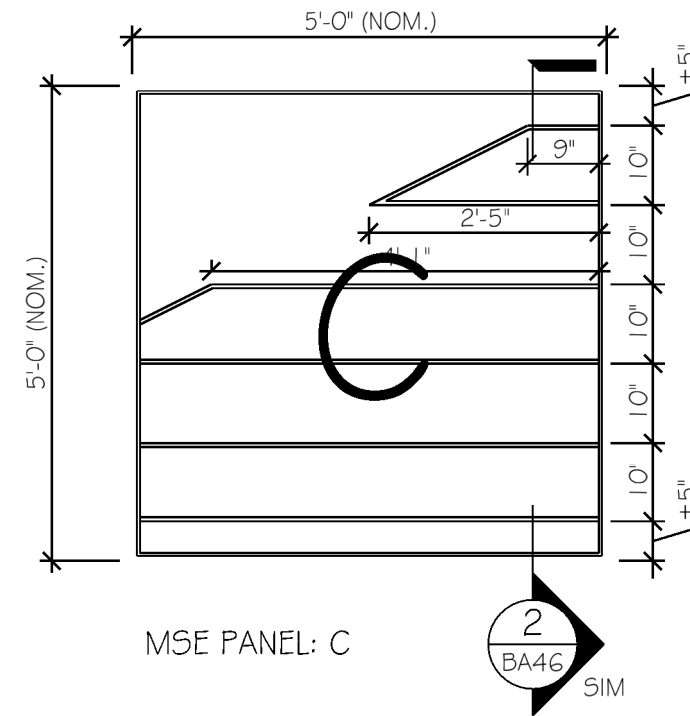
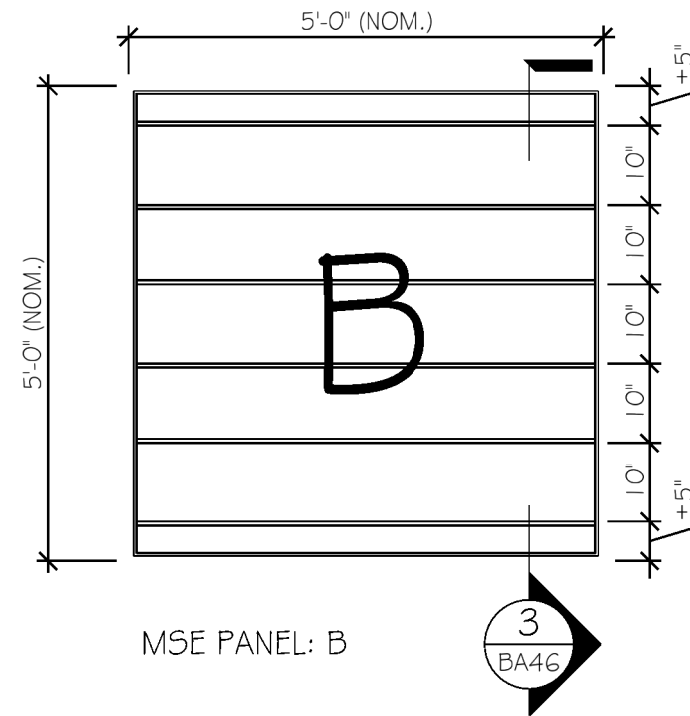
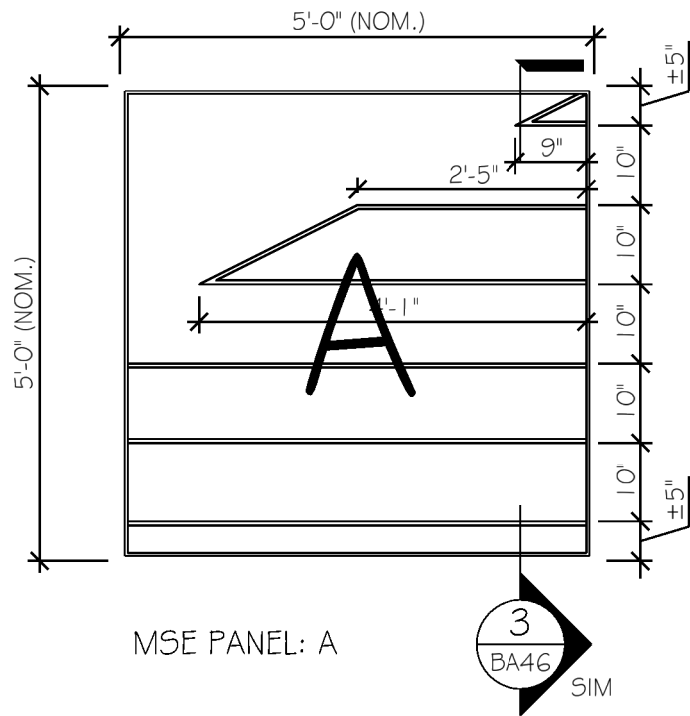
WING WALL PATTERN:
WW-C1



CIP PATTERN KEY ELEVATIONS
SCALE: 3/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



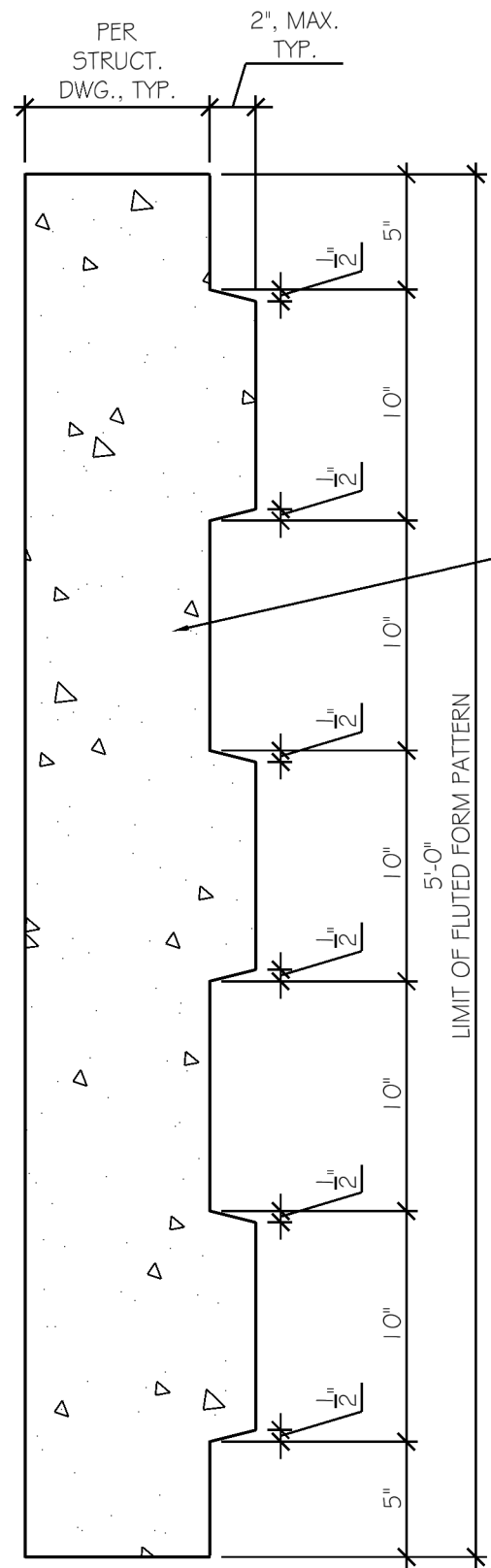
GENERAL NOTE

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- SEE PROJECT SPECIAL PROVISIONS FOR SPECIAL CASTING NOTES AND DETAIL, ETC.
- MSE PANEL KEY SHALL ONLY BE APPLIED TO MSE RETAINING WALLS AS SPECIFIED THRU OUT THE PROJECT, UNLESS OTHERWISE NOTED.
- ALL MSE PANELS ARE MEASURED IN NOMINAL DIMENSIONS. MSE PANEL MANUFACTURER SHALL MAKE REQUIRED ADJUSTMENTS TO ACHIEVE DESIGNER'S INTENDED DESIGN, PROPER FIT-UP, JOINTING, ETC.
- ALL PATTERNS ARE POSITIVE RELIEFS AND SHALL NOT ENCROACH INTO MINIMUM AND/OR CLEAR DIMENSIONS OF MSE PANEL DETERMINED BY STRUCTURAL DRAWING.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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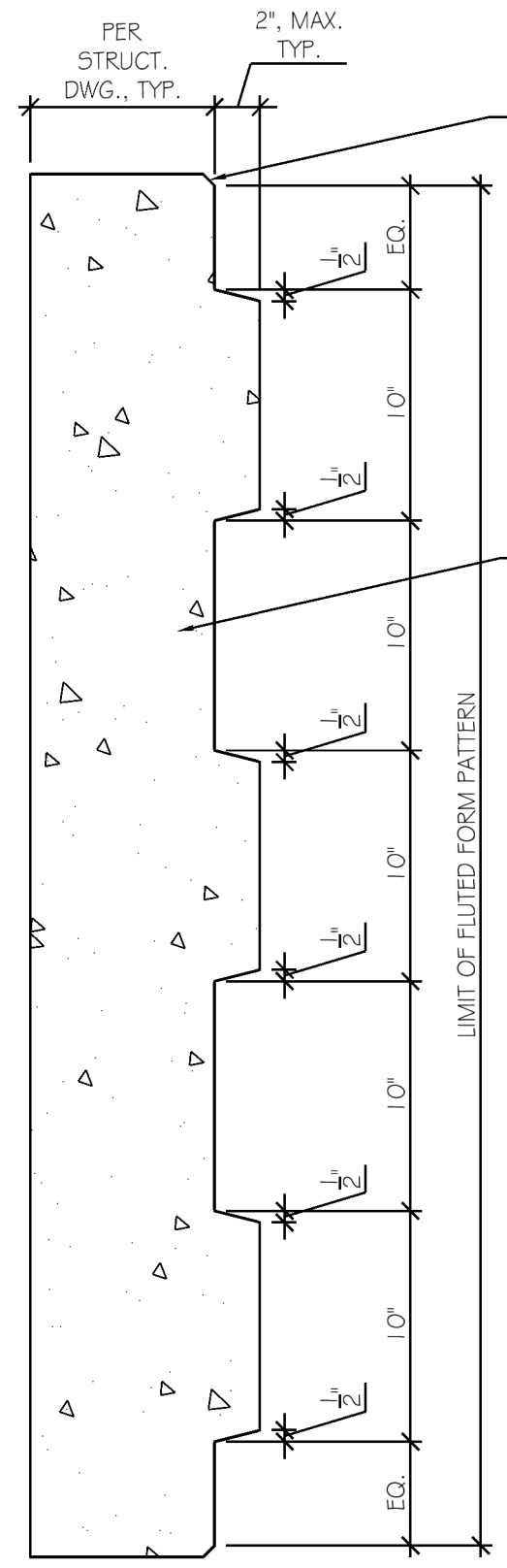
1 MSE PANEL KEY ELEVATIONS
SCALE: 1/2" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

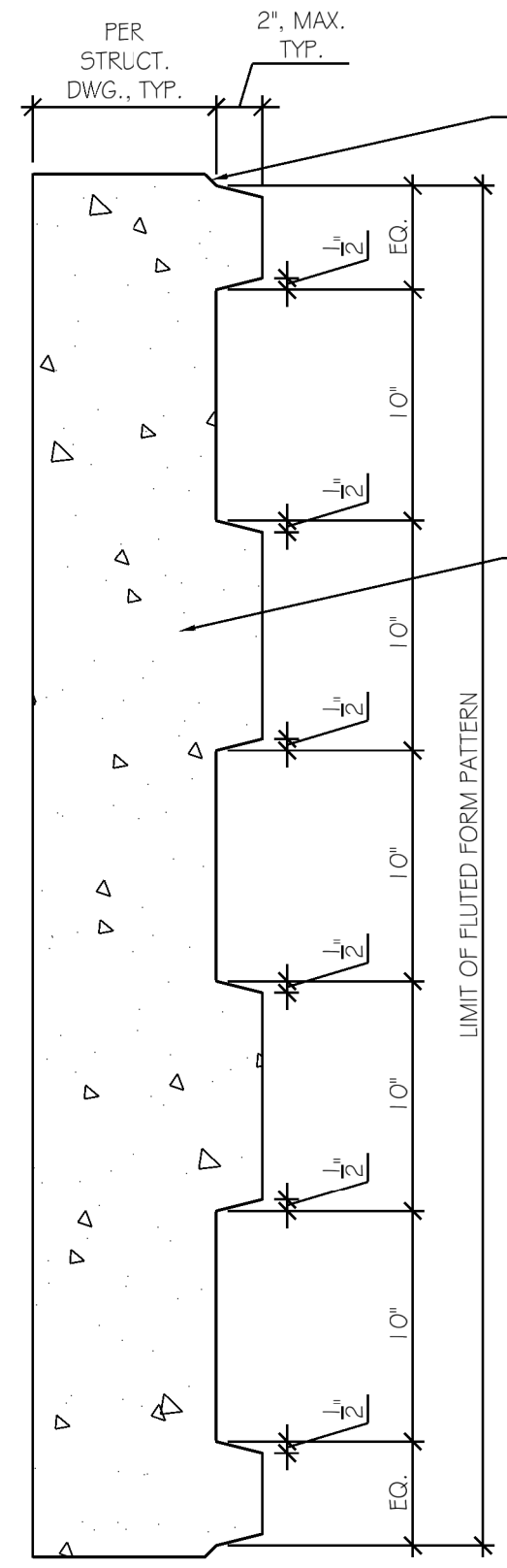
DESCRIPTION	REVISIONS	DATE



REFER TO STRUCTURAL DRAWINGS FOR MSE WALL DETAIL, TYP.



REFER TO STRUCTURAL DRAWINGS FOR MSE WALL DETAIL, TYP.



REFER TO STRUCTURAL DRAWINGS FOR MSE WALL DETAIL, TYP.

GENERAL NOTE

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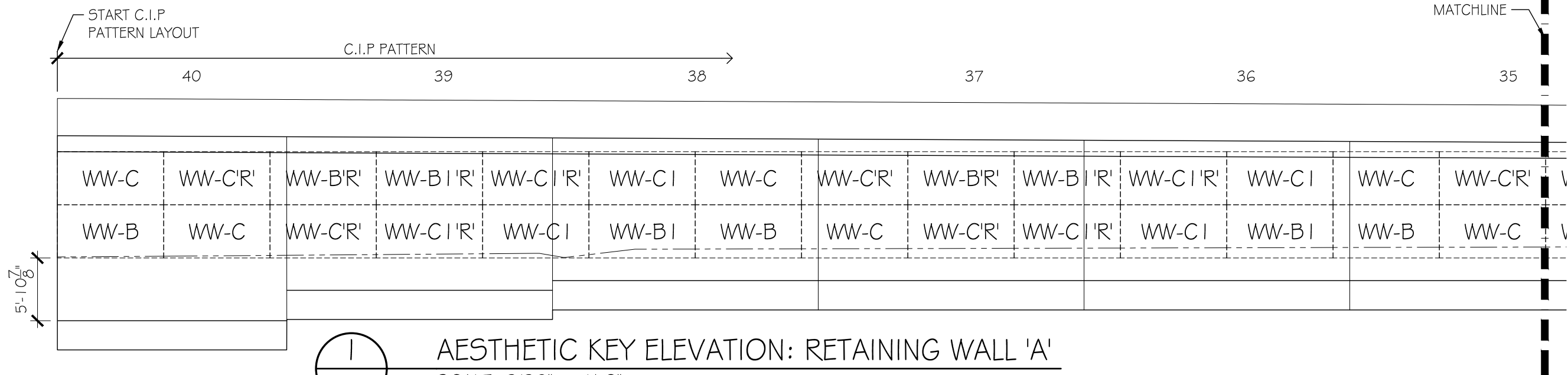
1 CIP PATTERN TYP. SECT.
BA46 SCALE: 1 1/2" = 1'-0"

2 MSE PANEL TYP. SECT.
BA46 SCALE: 1 1/2" = 1'-0"

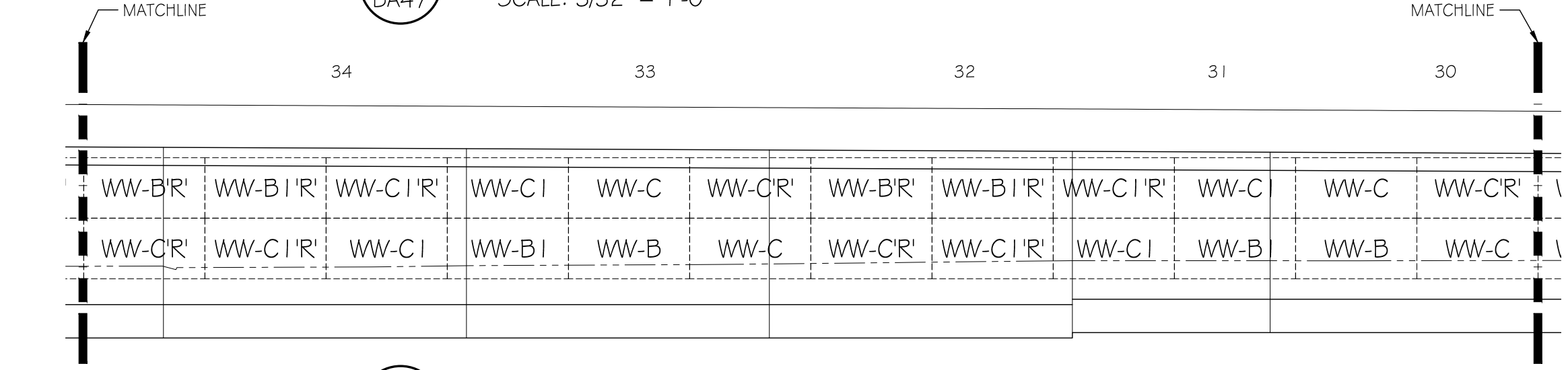
3 MSE PANEL TYP. SECT.
BA46 SCALE: 1 1/2" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

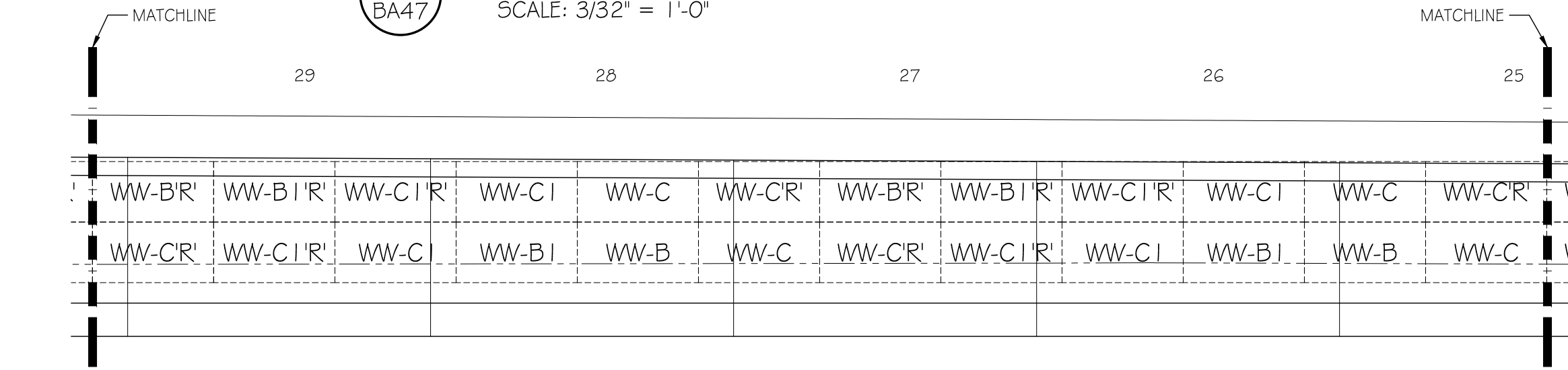
DESCRIPTION	REVISIONS	
	DATE	



1
AESTHETIC KEY ELEVATION: RETAINING WALL 'A'
SCALE: 3/32" = 1'-0"



2
AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
SCALE: 3/32" = 1'-0"



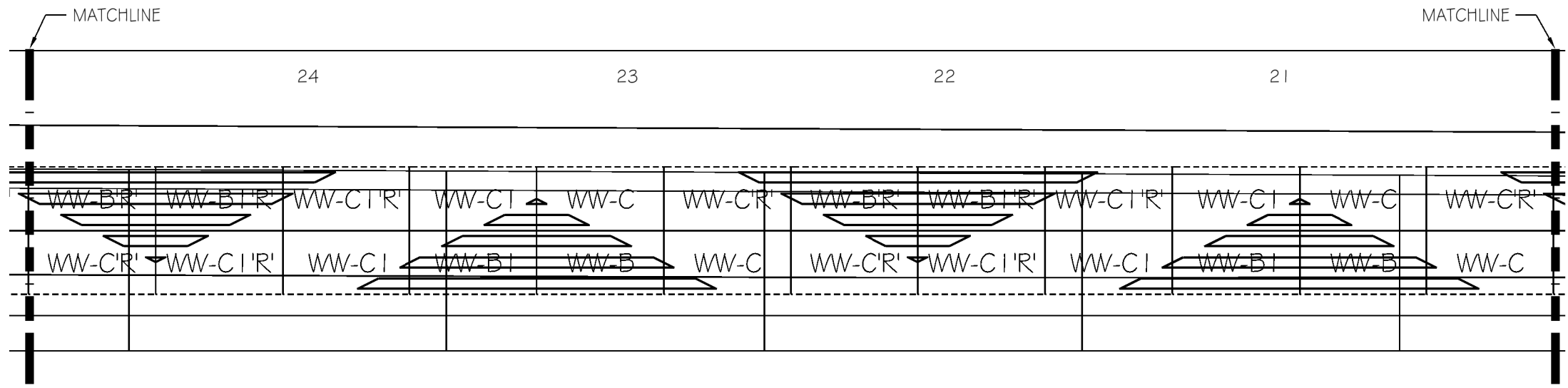
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AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
SCALE: 3/32" = 1'-0"

GENERAL NOTE

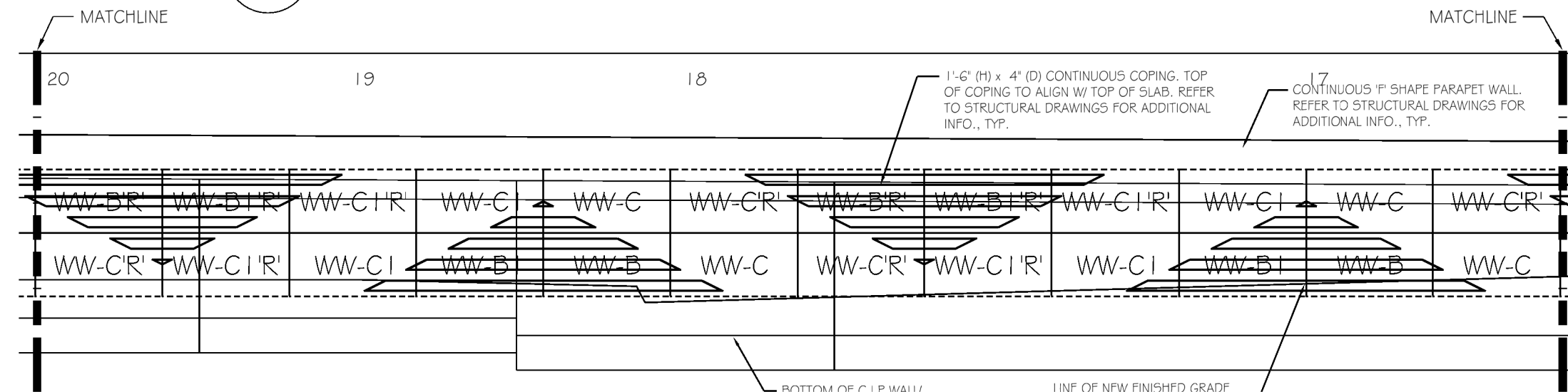
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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

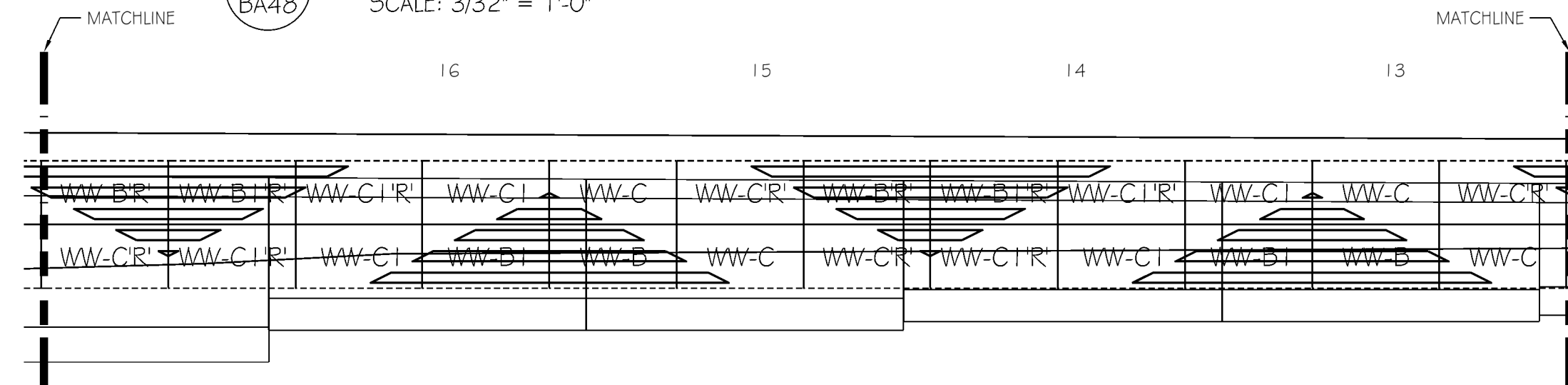
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
 BA48 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
 BA48 SCALE: 3/32" = 1'-0"



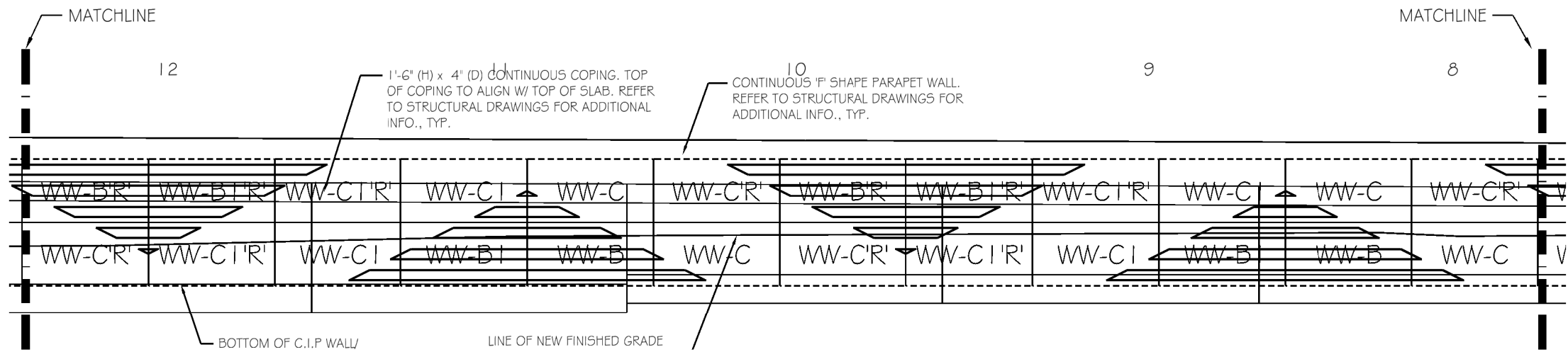
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
 BA48 SCALE: 3/32" = 1'-0"

GENERAL NOTE

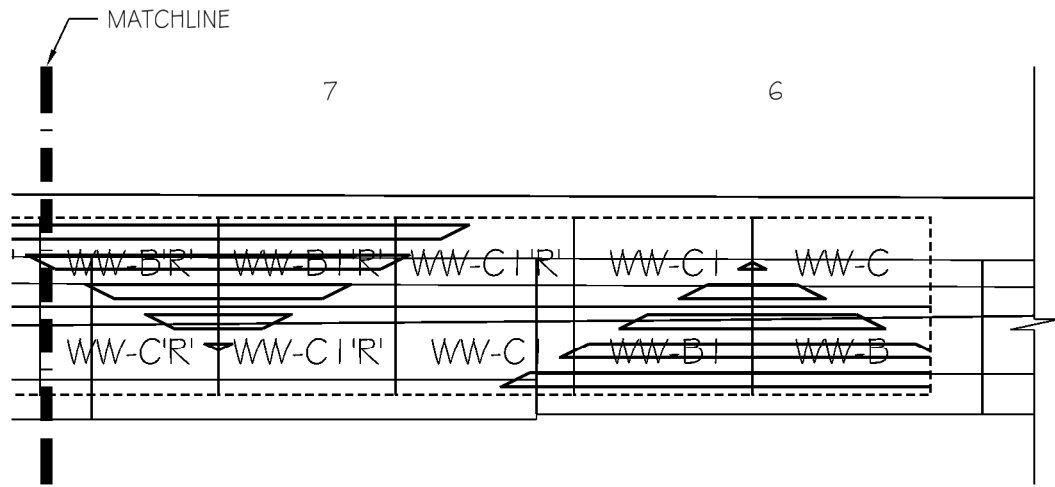
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- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
 BA49 SCALE: 3/32" = 1'-0"



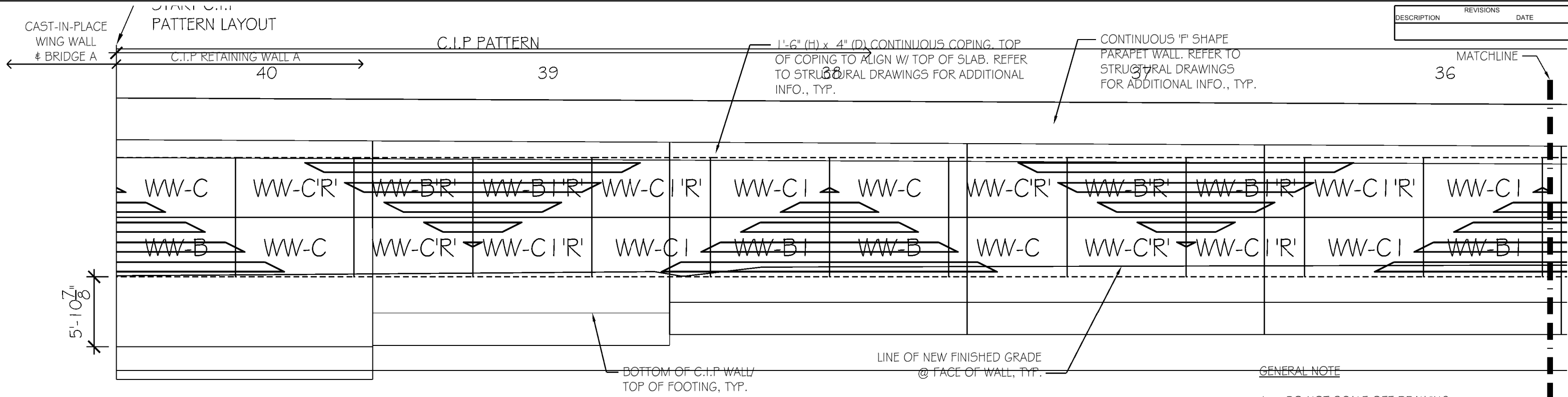
2 AESTHETIC KEY ELEVATION: RETAINING WALL 'A' CONTI.
 BA49 SCALE: 3/32" = 1'-0"

GENERAL NOTE

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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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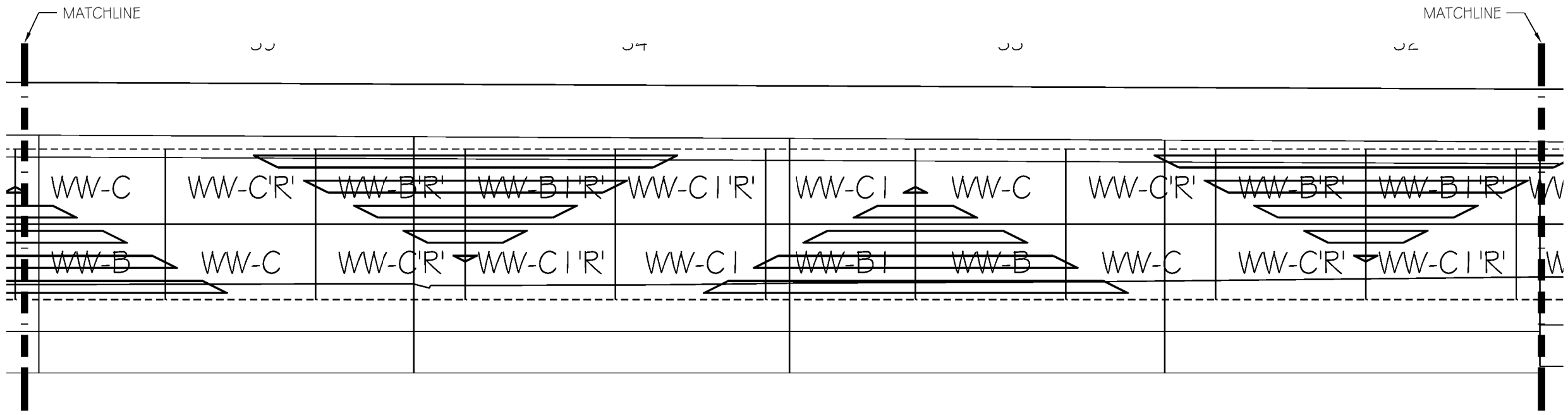
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A'
 BA50 SCALE: 1/8" = 1'-0"

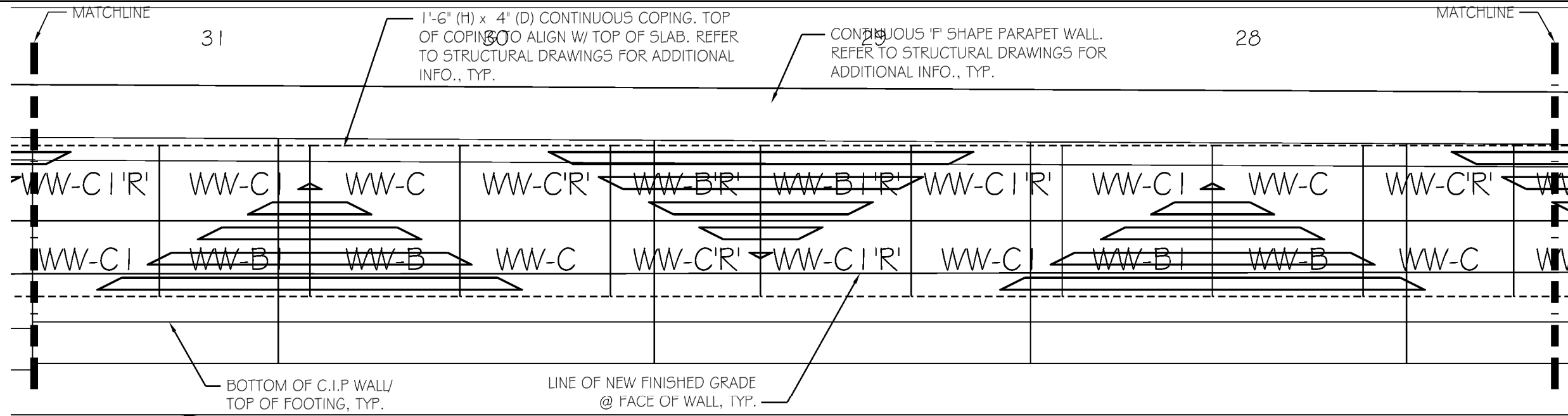
- GENERAL NOTE
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 - CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
 - ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
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2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A' CONT.
 BA50 SCALE: 1/8" = 1'-0"

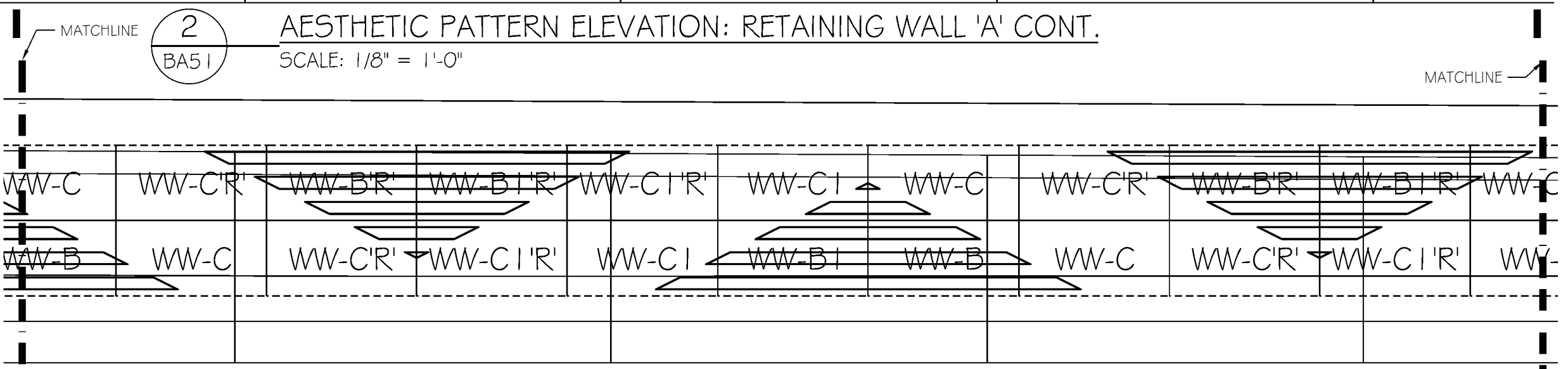
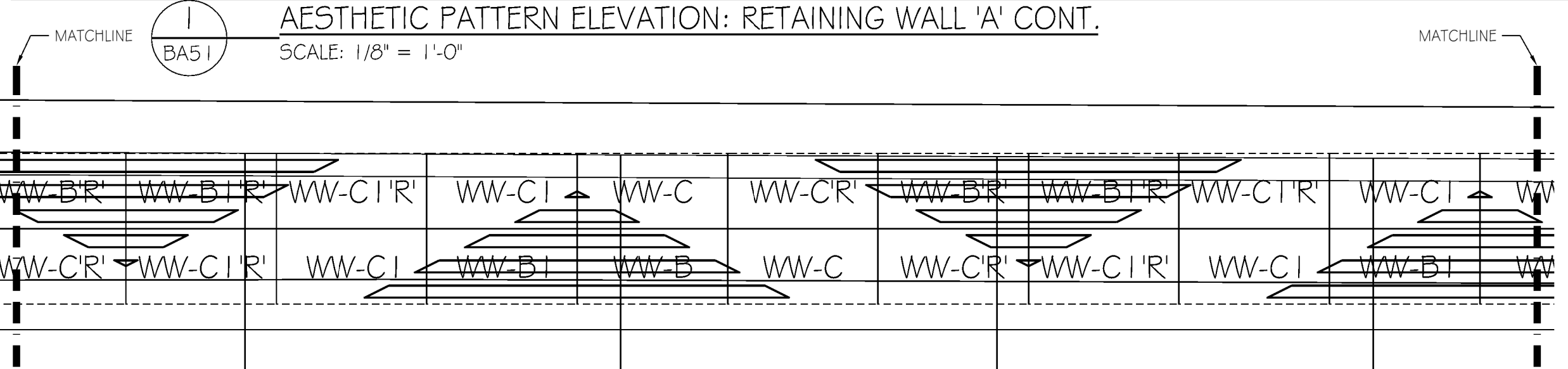
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



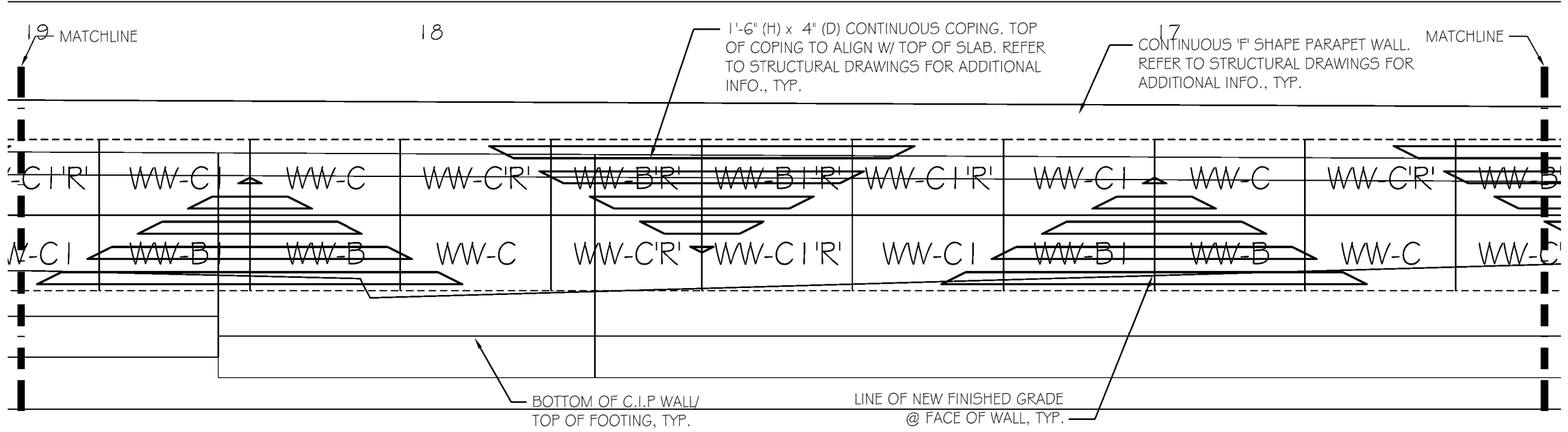
GENERAL NOTE

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3. CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
4. ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
5. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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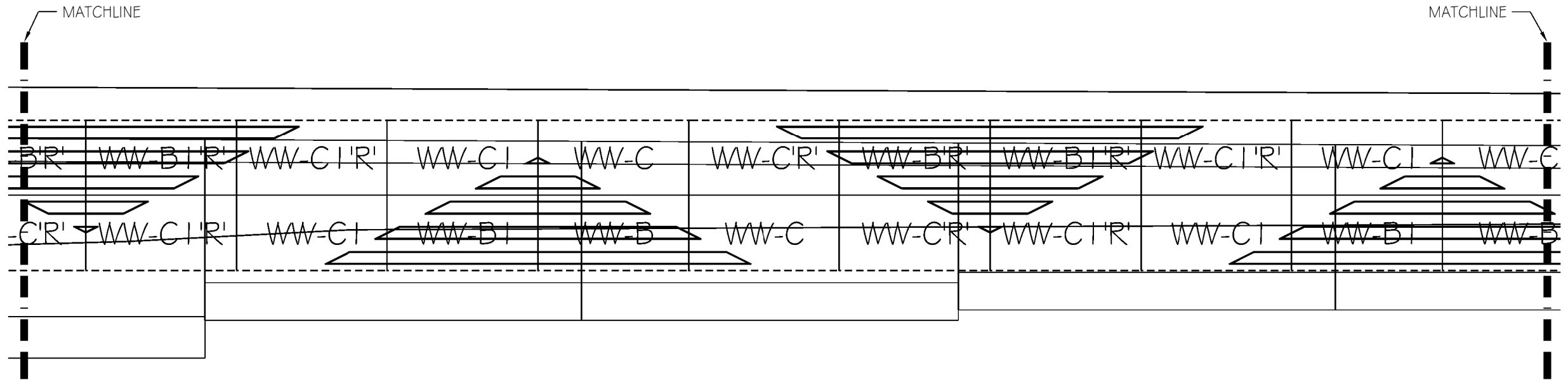


Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	
	DATE	



1
BA52 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A' CONT.
SCALE: 1/8" = 1'-0"



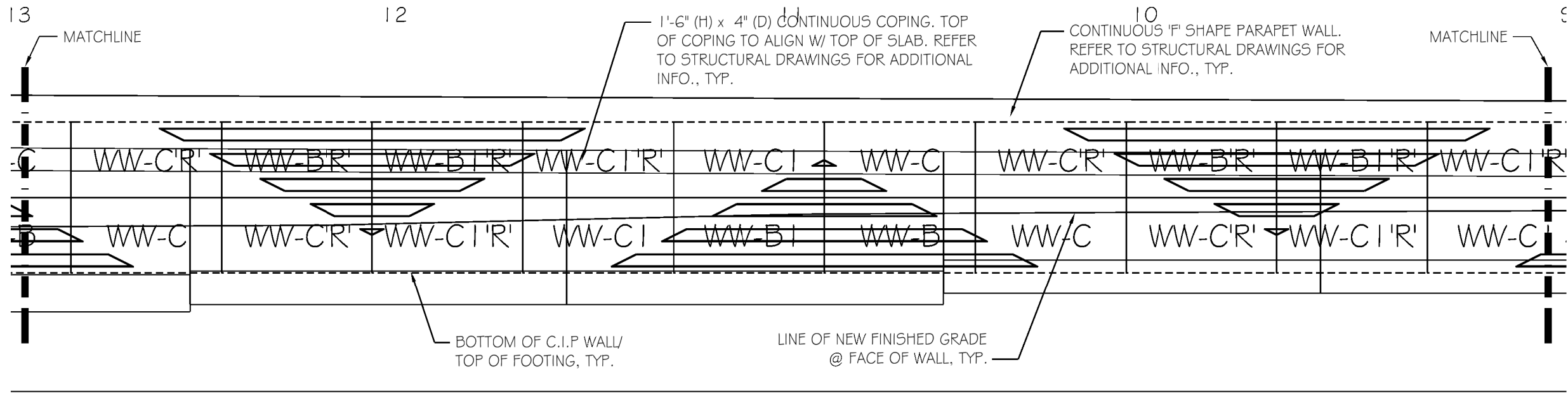
2
BA52 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A' CONT.
SCALE: 1/8" = 1'-0"

GENERAL NOTE

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

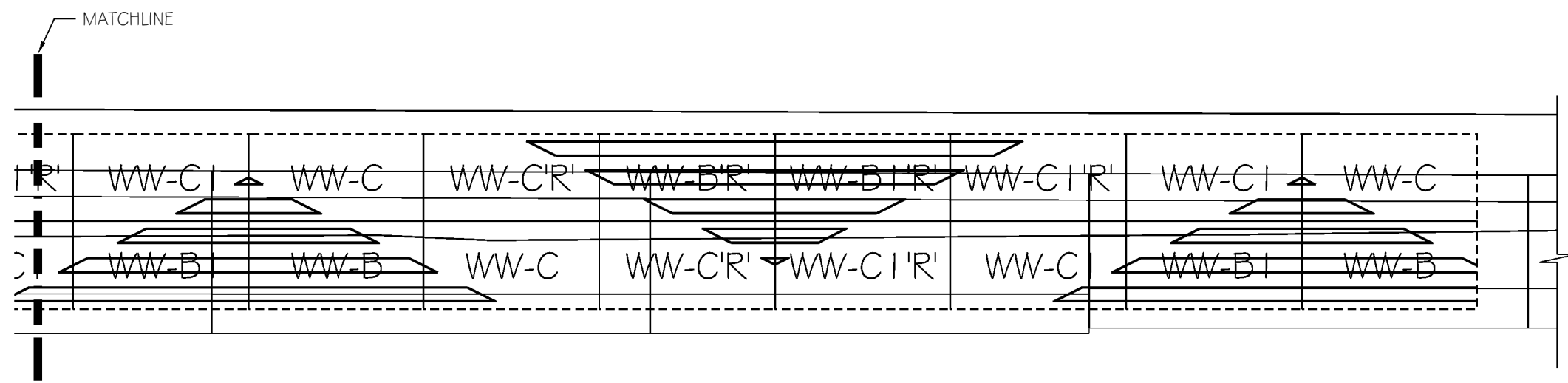
DESCRIPTION	REVISIONS	DATE



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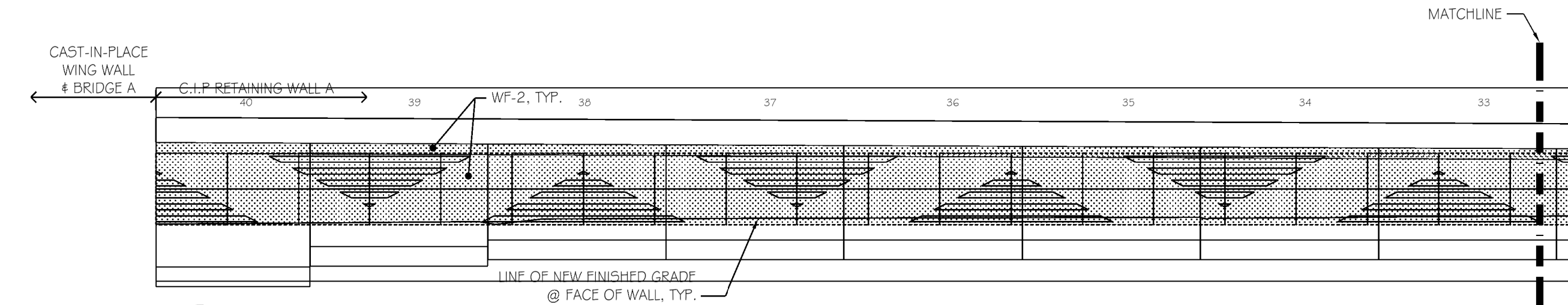
1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A' CONT.
 BA53 SCALE: 1/8" = 1'-0"



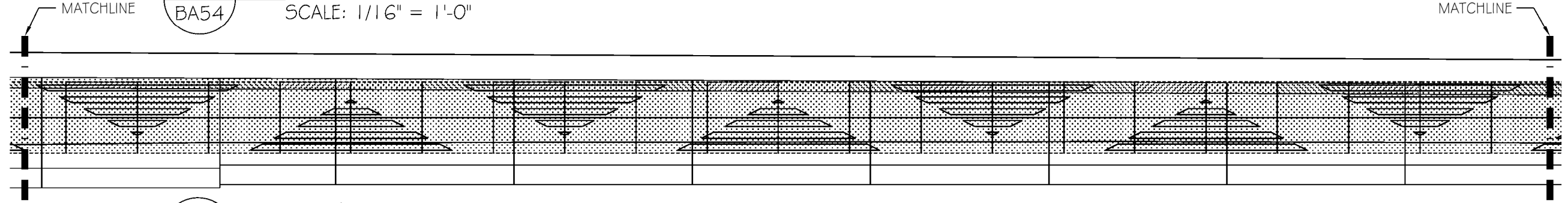
2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'A' CONT.
 BA53 SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

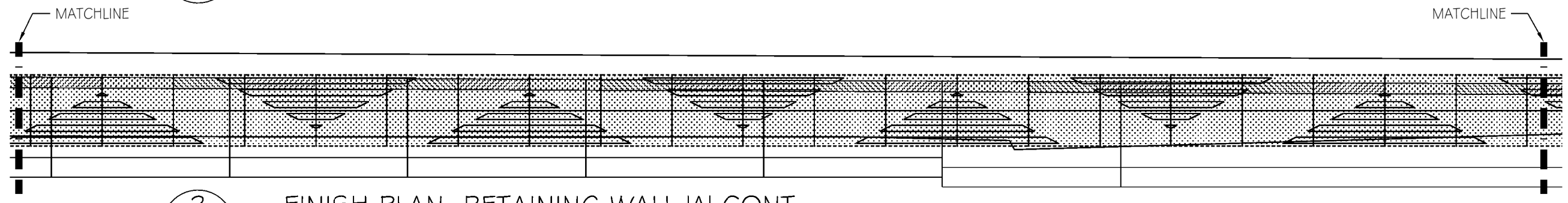
DESCRIPTION	REVISIONS	DATE



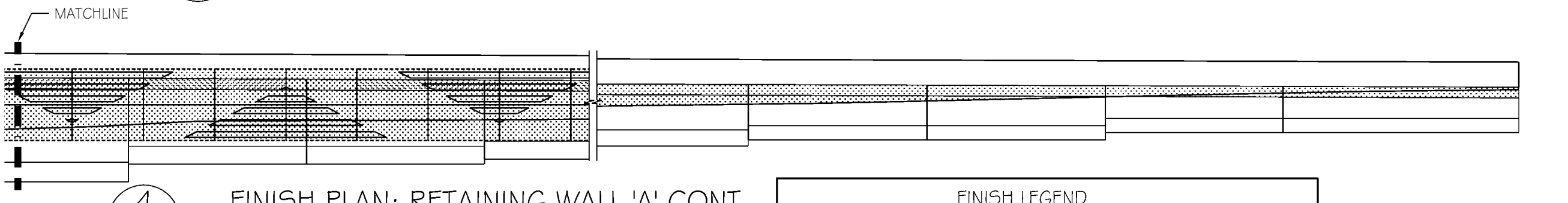
1
BA54
FINISH PLAN: RETAINING WALL 'A'
SCALE: 1/16" = 1'-0"



2
BA54
FINISH PLAN: RETAINING WALL 'A' CONT.
SCALE: 1/16" = 1'-0"



3
BA54
FINISH PLAN: RETAINING WALL 'A' CONT.
SCALE: 1/16" = 1'-0"



4
BA54
FINISH PLAN: RETAINING WALL 'A' CONT.
SCALE: 1/16" = 1'-0"

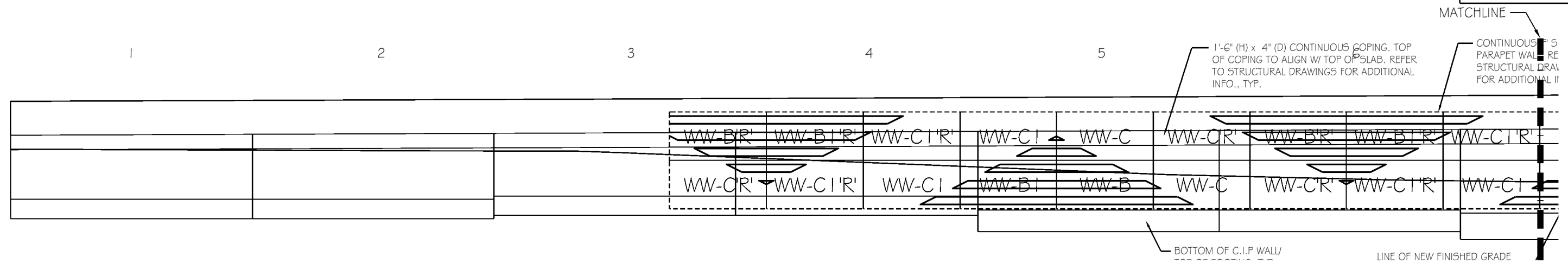
GENERAL NOTE

- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- ALL CONCRETE STAIN APPLICATION SHALL BE LIMITED TO SPECIFIED EXPOSED SURFACES ABOVE FINISHED GRADE.

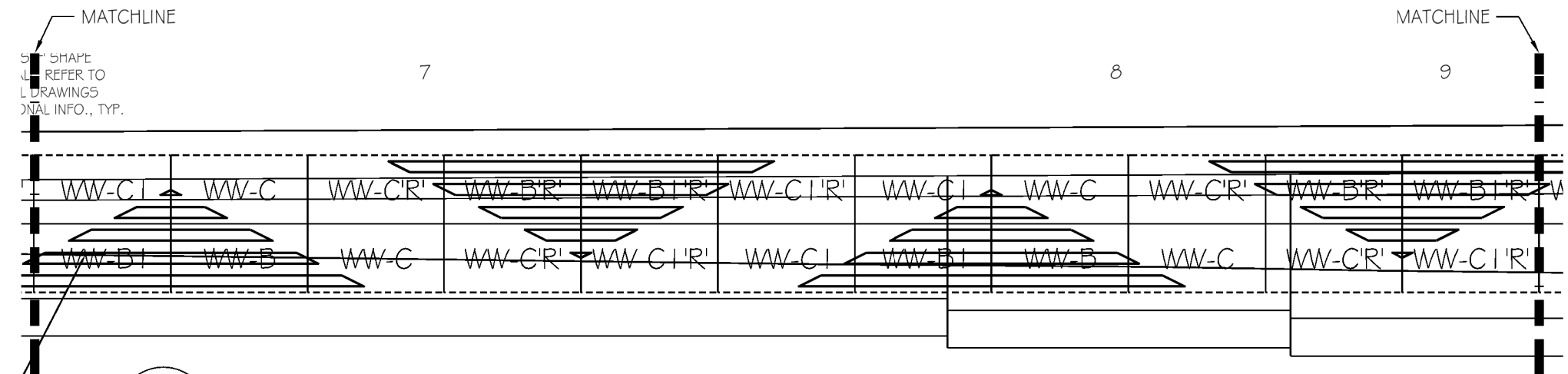
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

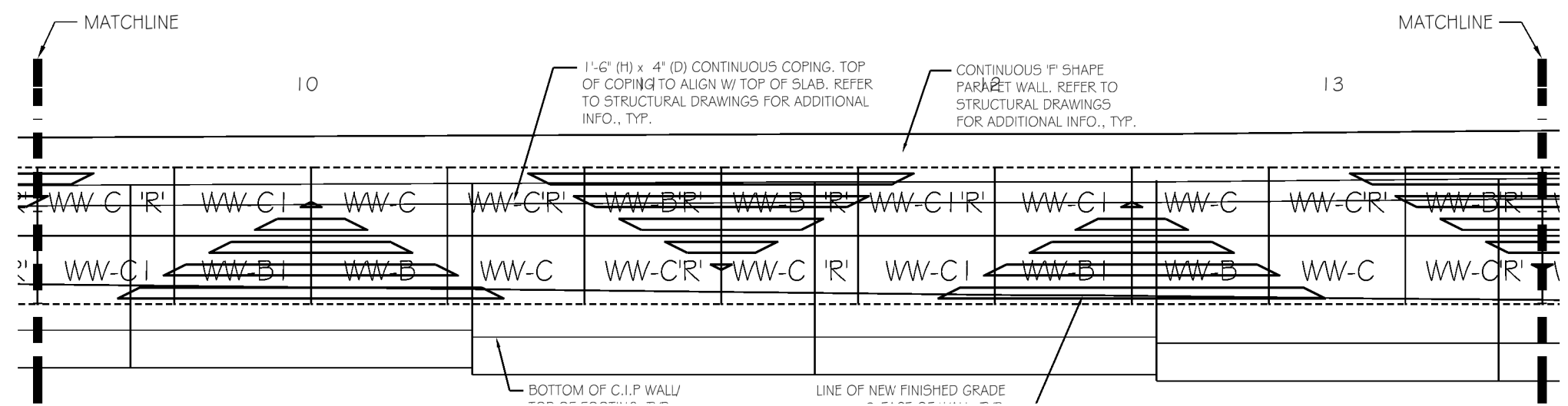
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'B'
BA55 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
BA55 SCALE: 3/32" = 1'-0"



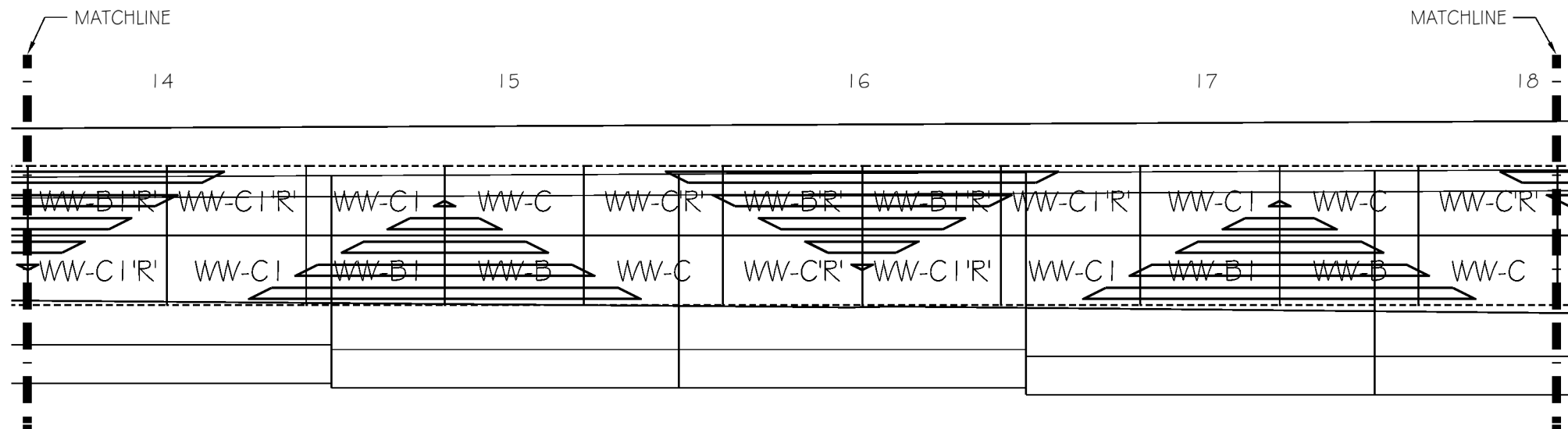
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
BA55 SCALE: 3/32" = 1'-0"

GENERAL NOTE

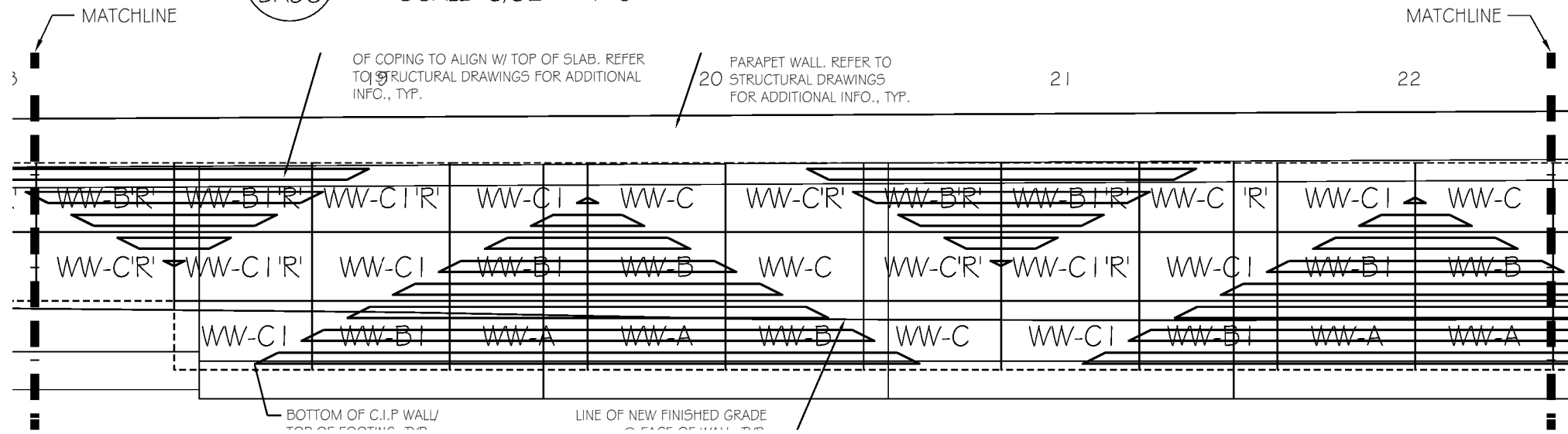
- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
- WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

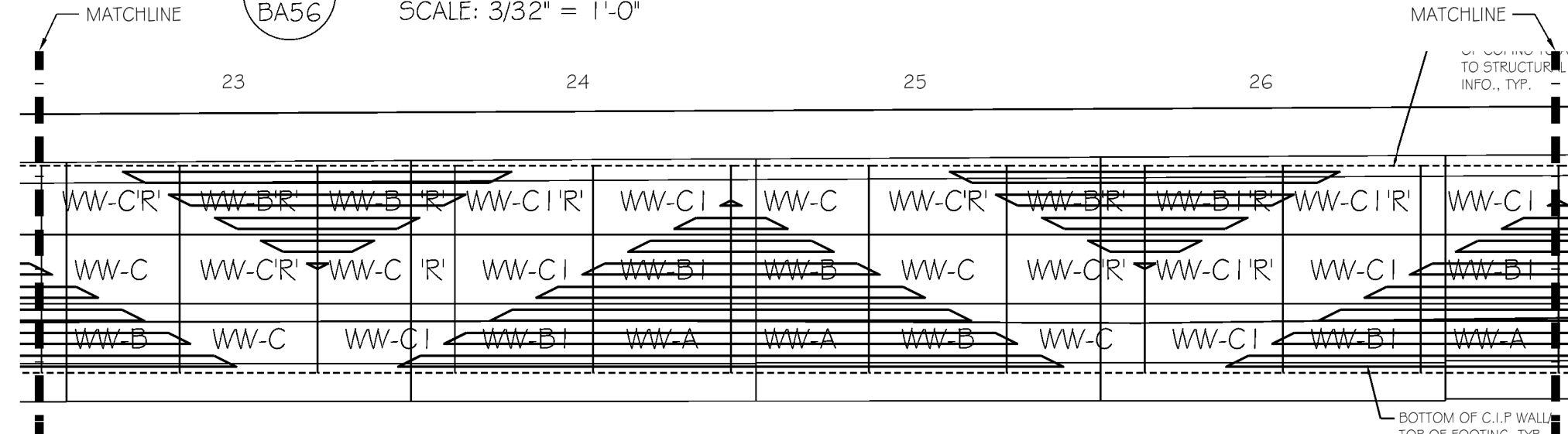
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
 BA56 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
 BA56 SCALE: 3/32" = 1'-0"



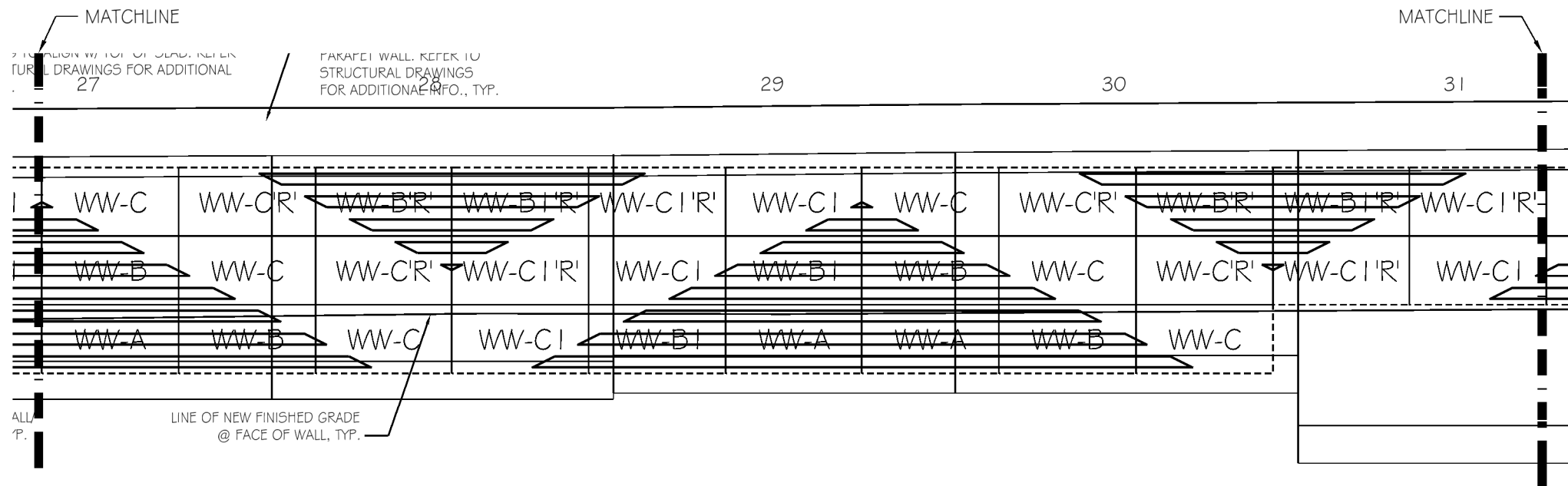
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
 BA56 SCALE: 3/32" = 1'-0"

GENERAL NOTE

- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

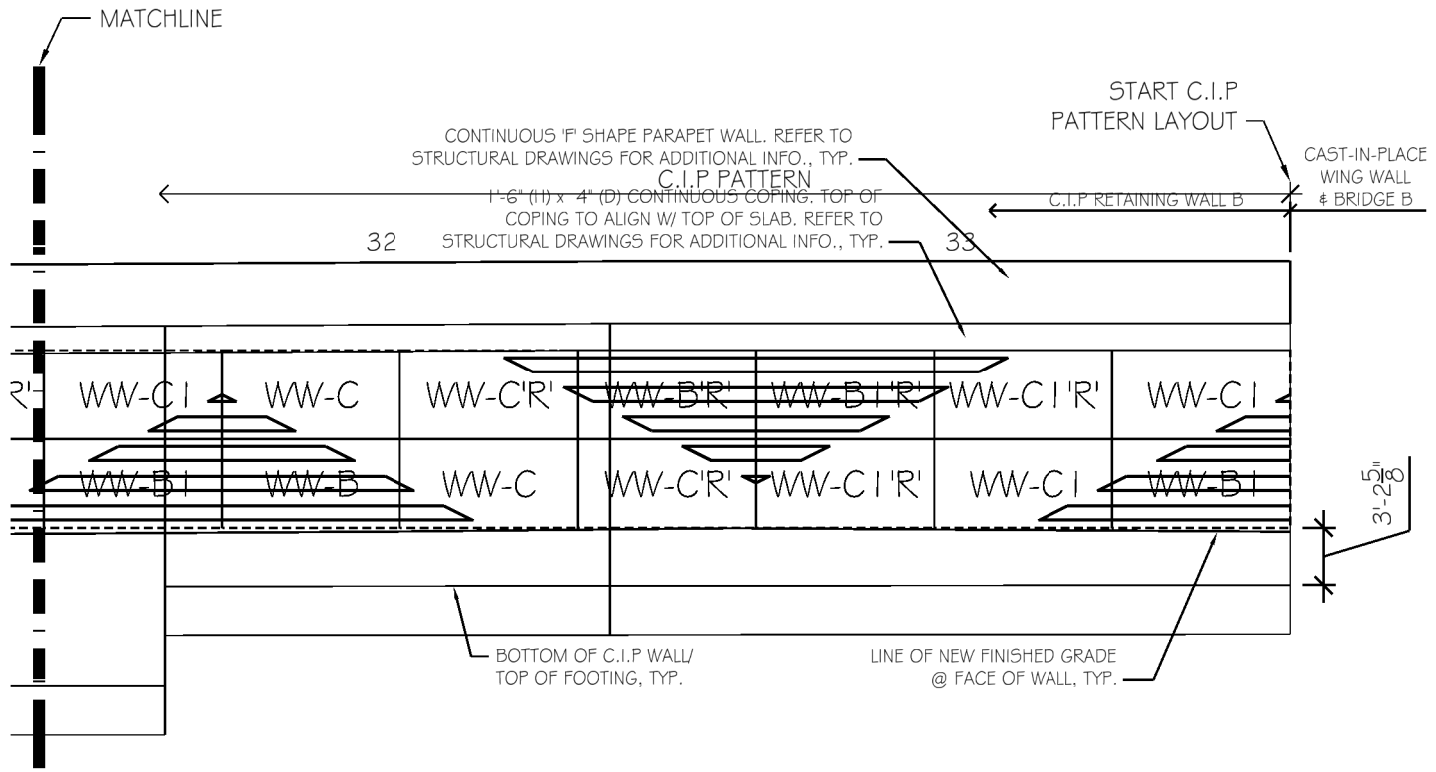
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
 BA57 SCALE: 3/32" = 1'-0"

GENERAL NOTE

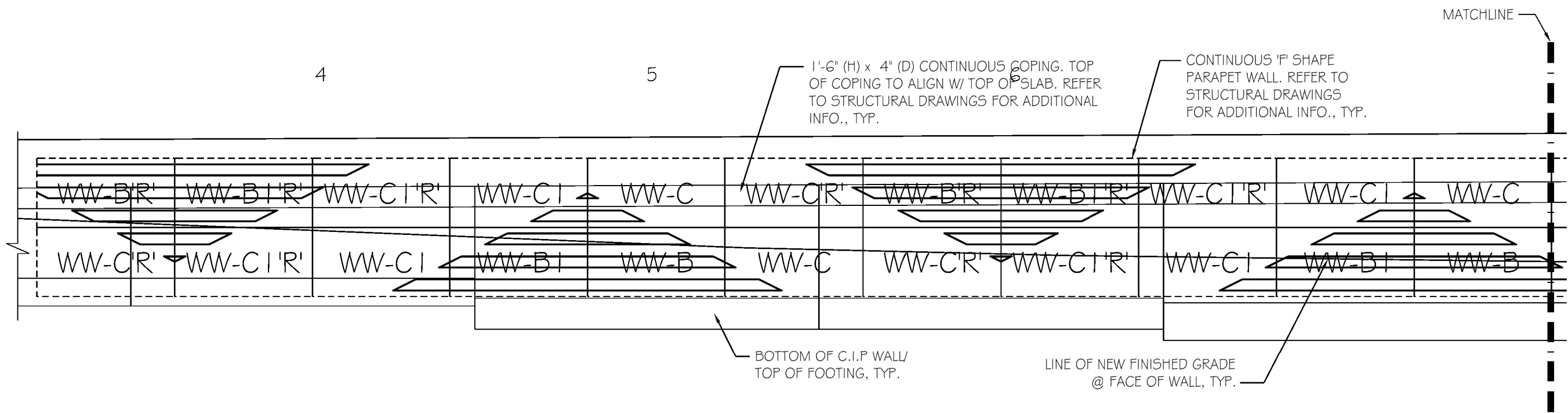
- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN.
- ALL AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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2 AESTHETIC KEY ELEVATION: RETAINING WALL 'B' CONT.
 BA57 SCALE: 3/32" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

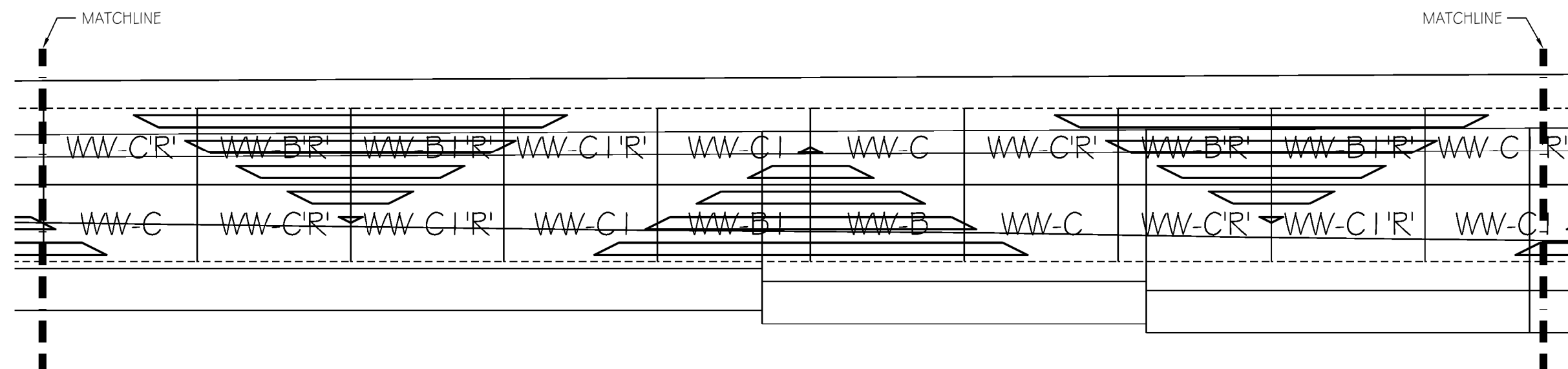
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B'
 BA58 SCALE: 1/8" = 1'-0"

GENERAL NOTE

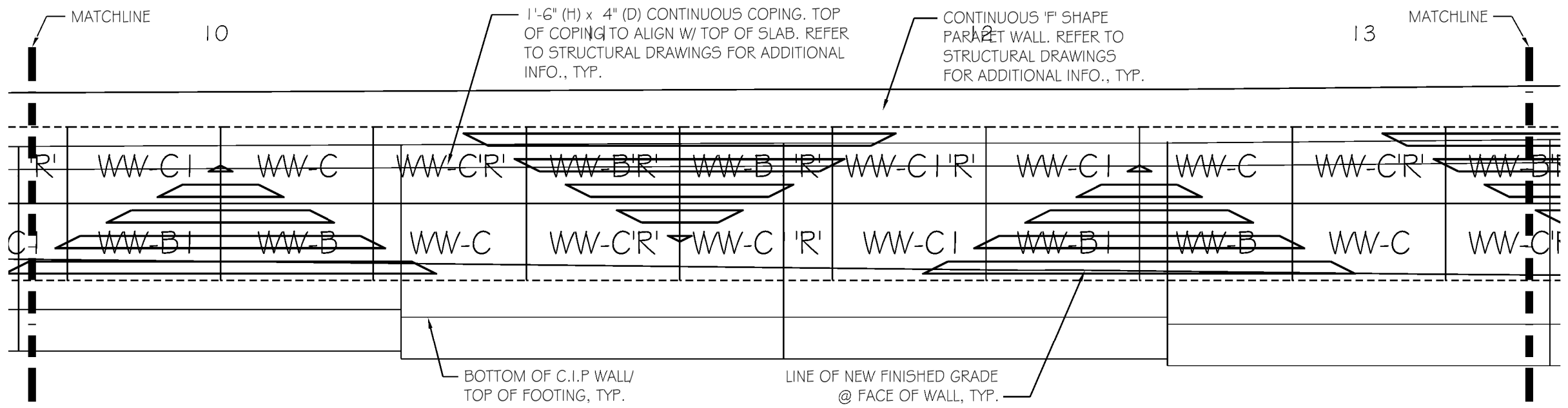
- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
- WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.



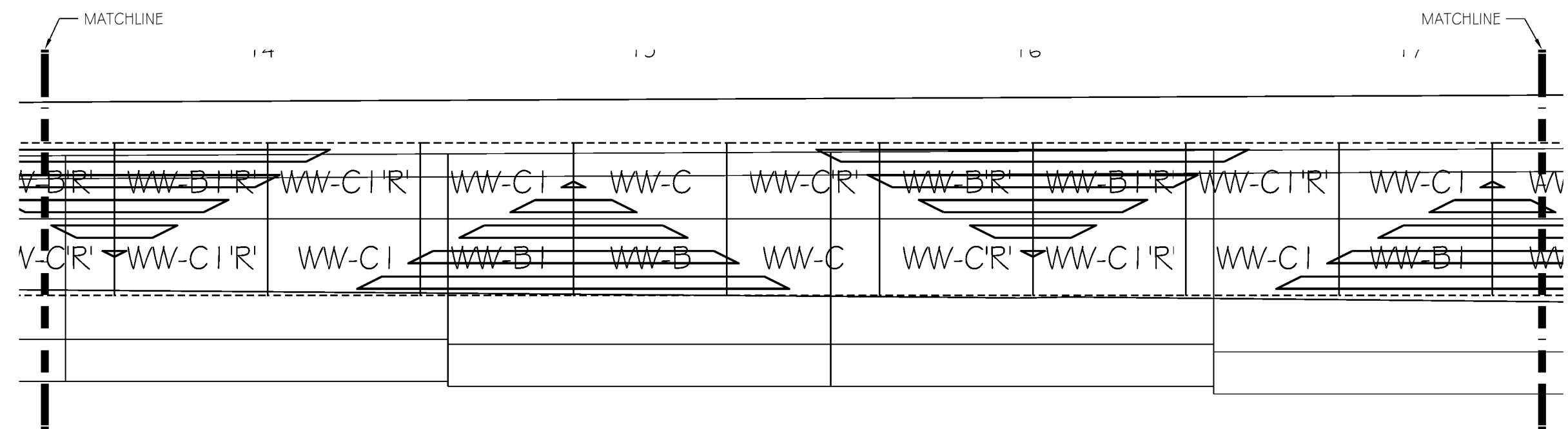
2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 BA58 SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1
BA59 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
SCALE: 1/8" = 1'-0"



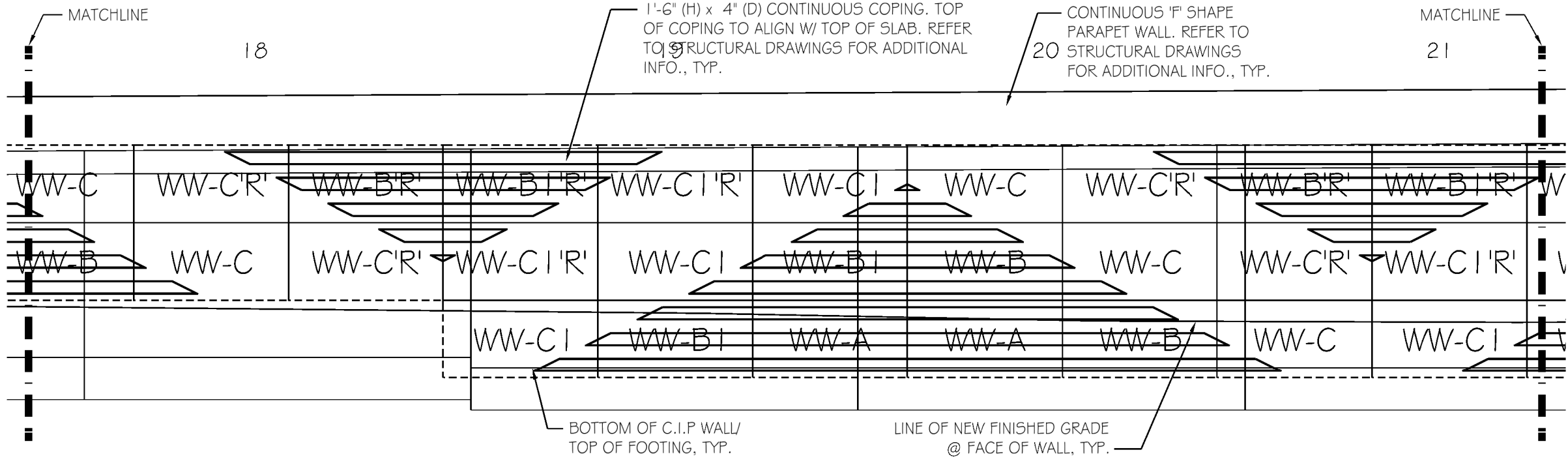
2
BA59 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
SCALE: 1/8" = 1'-0"

GENERAL NOTE

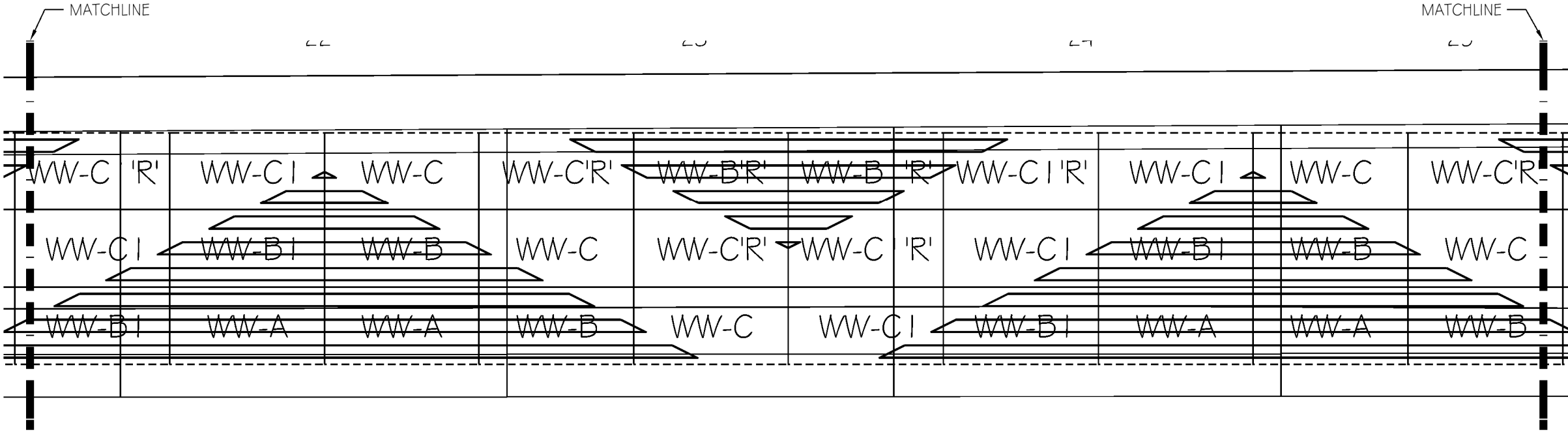
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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 SCALE: 1/8" = 1'-0"



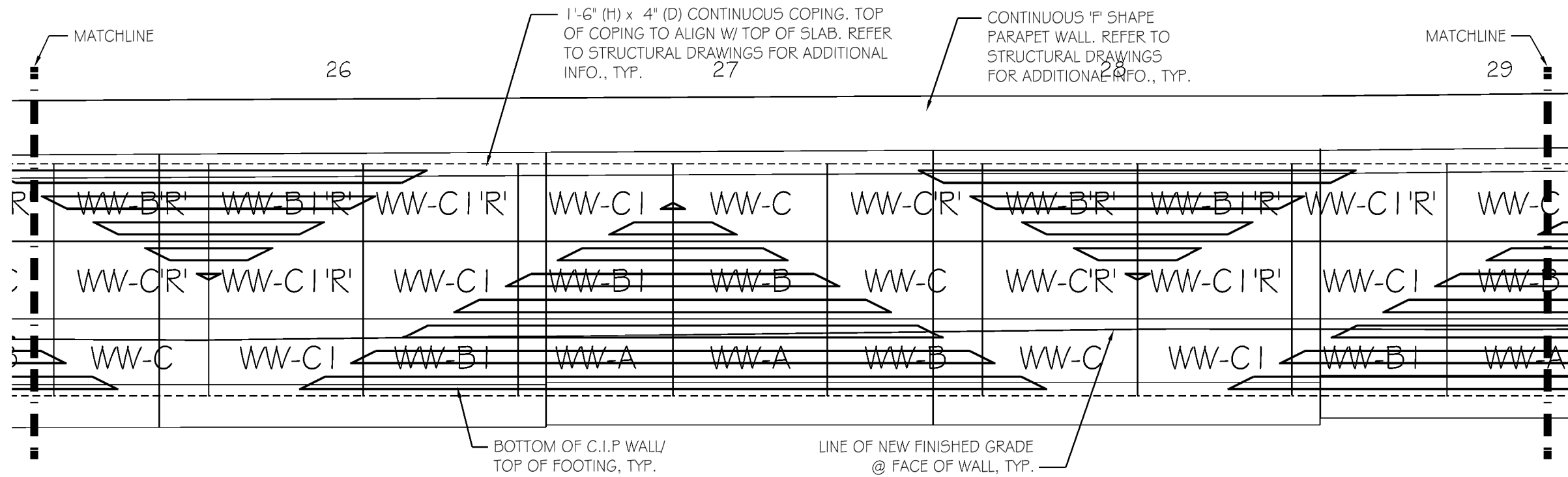
2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 SCALE: 1/8" = 1'-0"

GENERAL NOTE

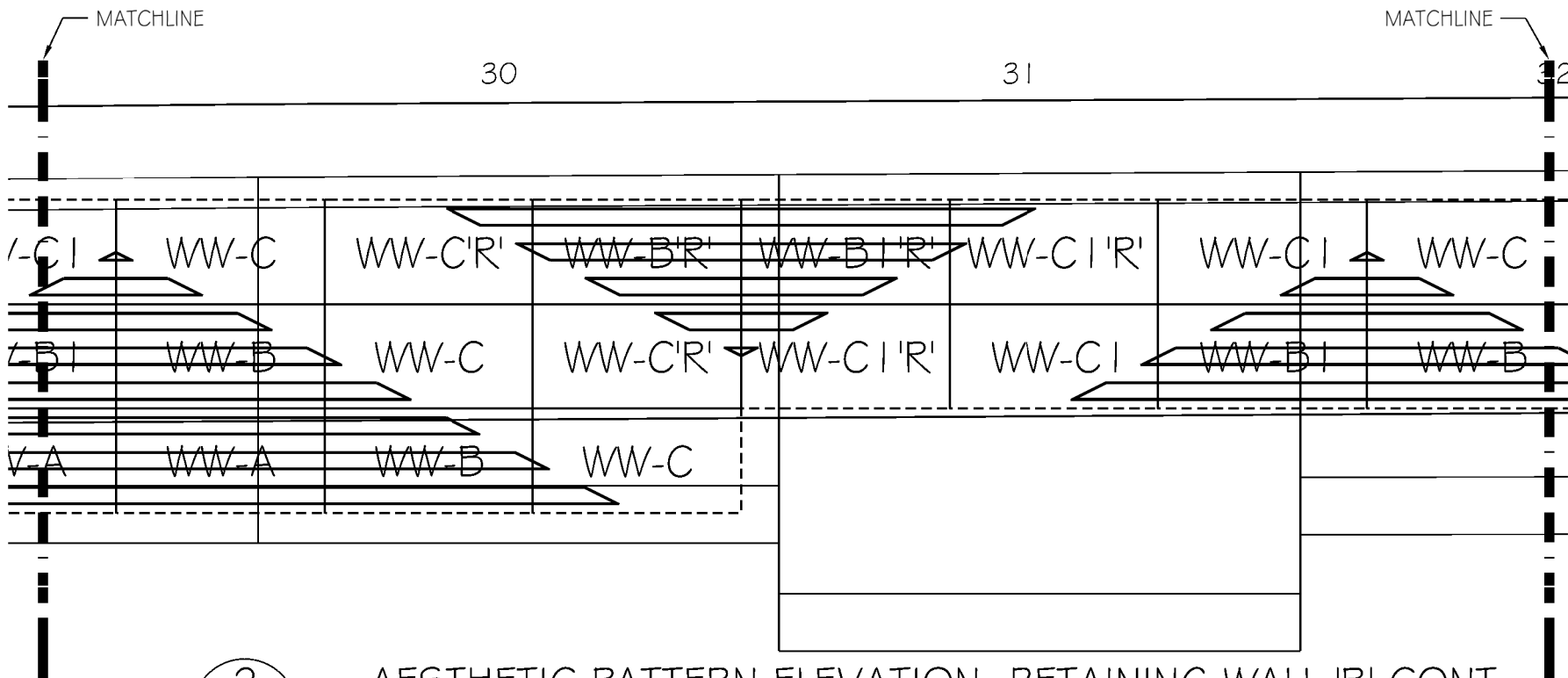
- DO NOT SCALE OFF DRAWING.
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 BA61 SCALE: 1/8" = 1'-0"



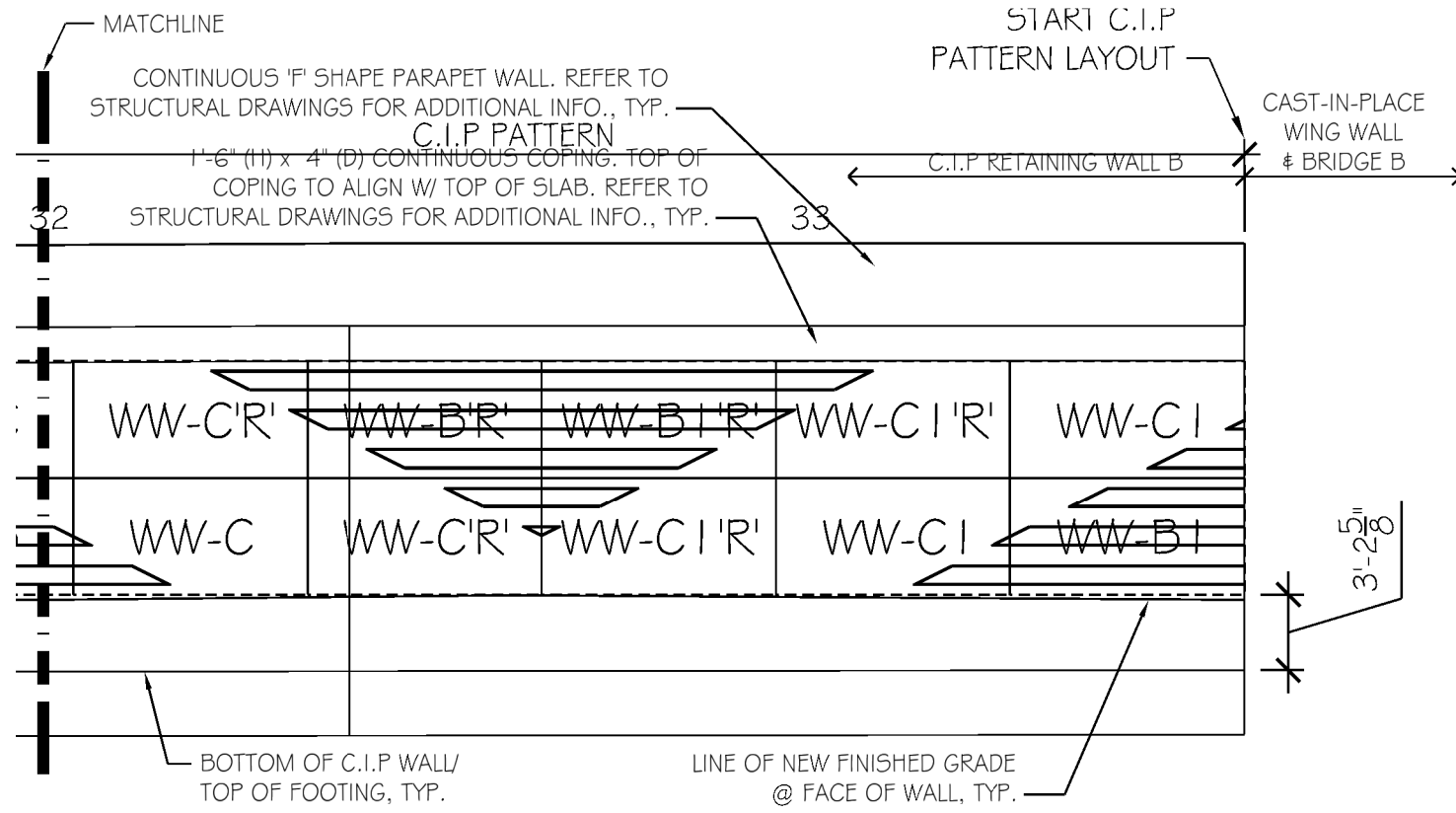
2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 BA61 SCALE: 1/8" = 1'-0"

GENERAL NOTE

- DO NOT SCALE OFF DRAWING.
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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
- WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



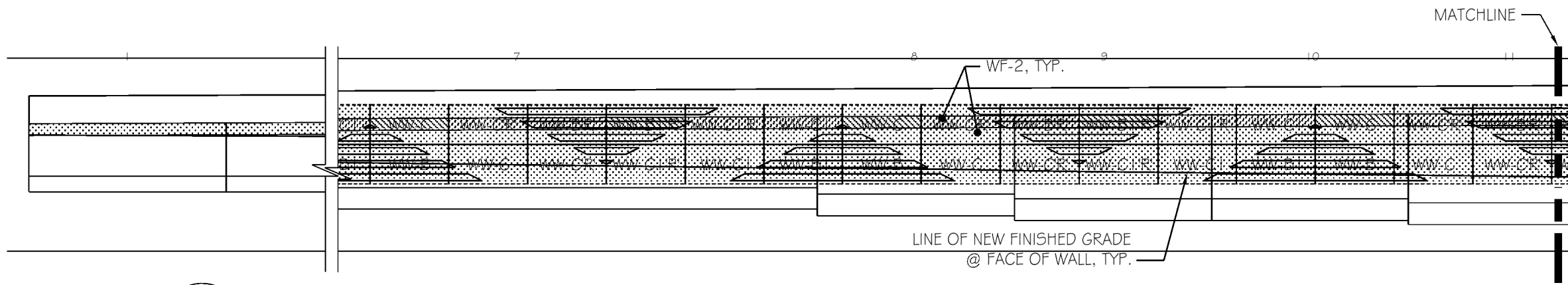
GENERAL NOTE

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- CONTRACTOR TO SEE SHEET BA44 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
- WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.

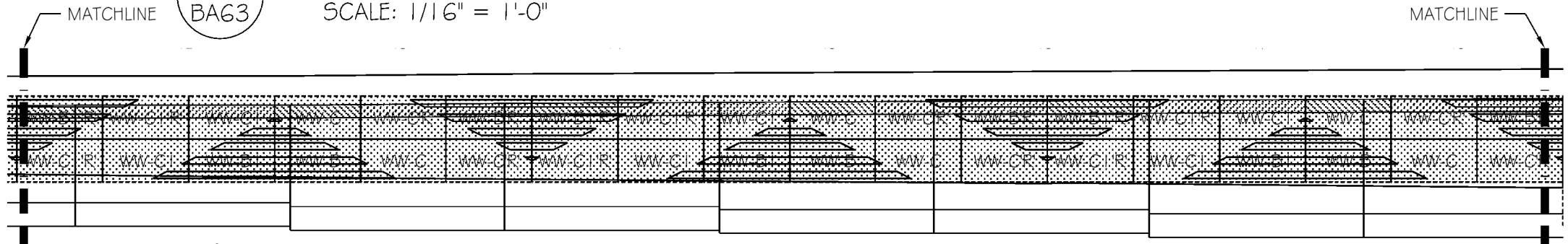
1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'B' CONT.
 BA62 SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

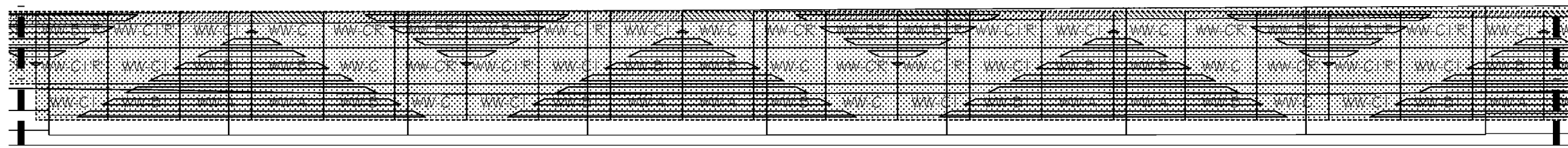
DESCRIPTION	REVISIONS	
	DATE	



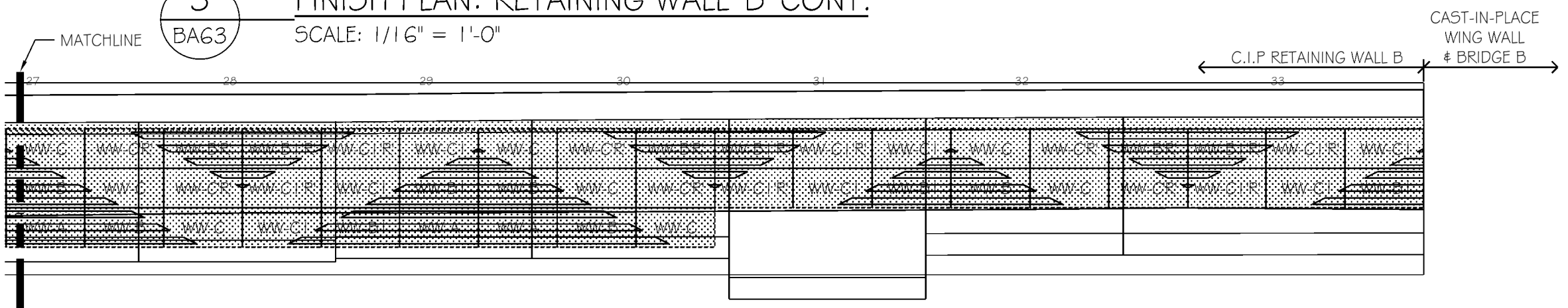
1 FINISH PLAN: RETAINING WALL 'B'
 BA63 SCALE: 1/16" = 1'-0"



2 FINISH PLAN: RETAINING WALL 'B' CONT.
 BA63 SCALE: 1/16" = 1'-0"



3 FINISH PLAN: RETAINING WALL 'B' CONT.
 BA63 SCALE: 1/16" = 1'-0"



4 FINISH PLAN: RETAINING WALL 'B' CONT.
 BA63 SCALE: 1/16" = 1'-0"

GENERAL NOTE

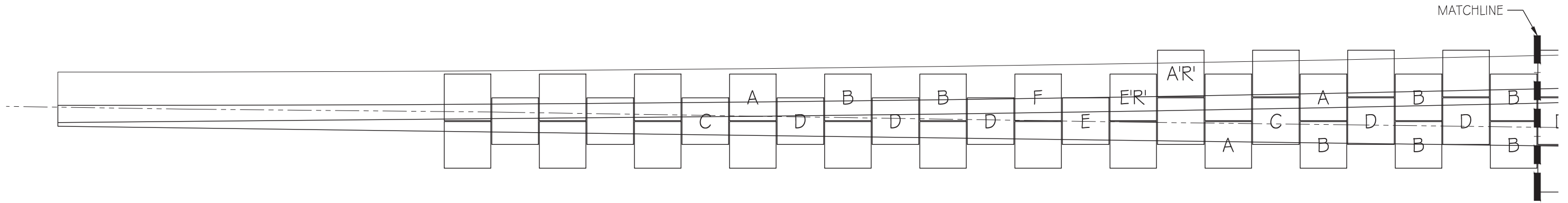
- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS.
- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- ALL CONCRETE STAIN APPLICATION SHALL BE LIMITED TO SPECIFIED EXPOSED SURFACES ABOVE FINISHED GRADE.

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

OAKLAHOMA COUNTY
**FINISHED PLANS:
 C.I.P. RETAINING WALL B**
 Job Piece No 23310(04) Sheet No.BA63

DESCRIPTION	REVISIONS	DATE



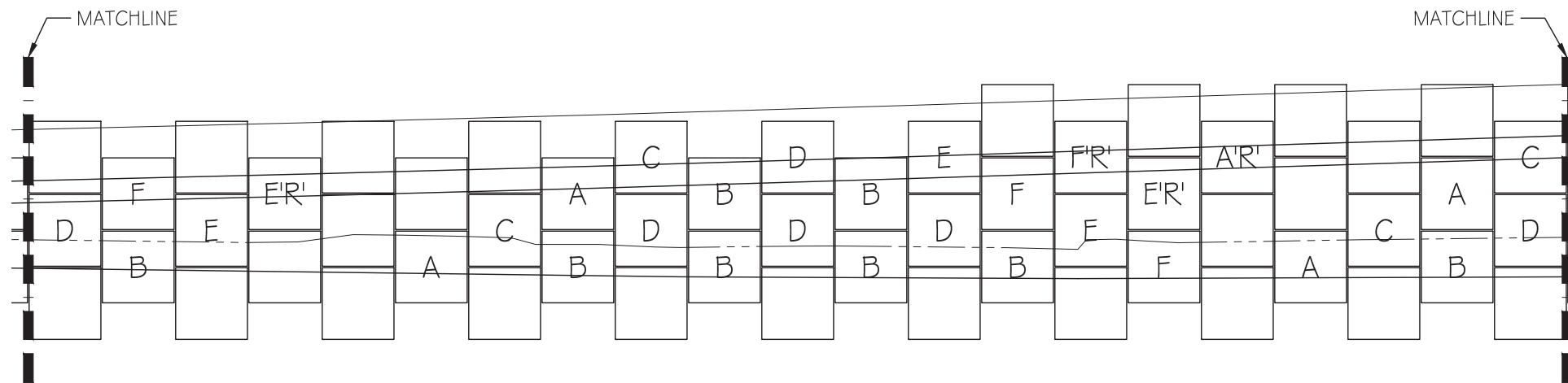
1
BAG4

AESTHETIC KEY ELEVATION: RETAINING WALL 'C1'

SCALE: 3/32" = 1'-0"

GENERAL NOTE

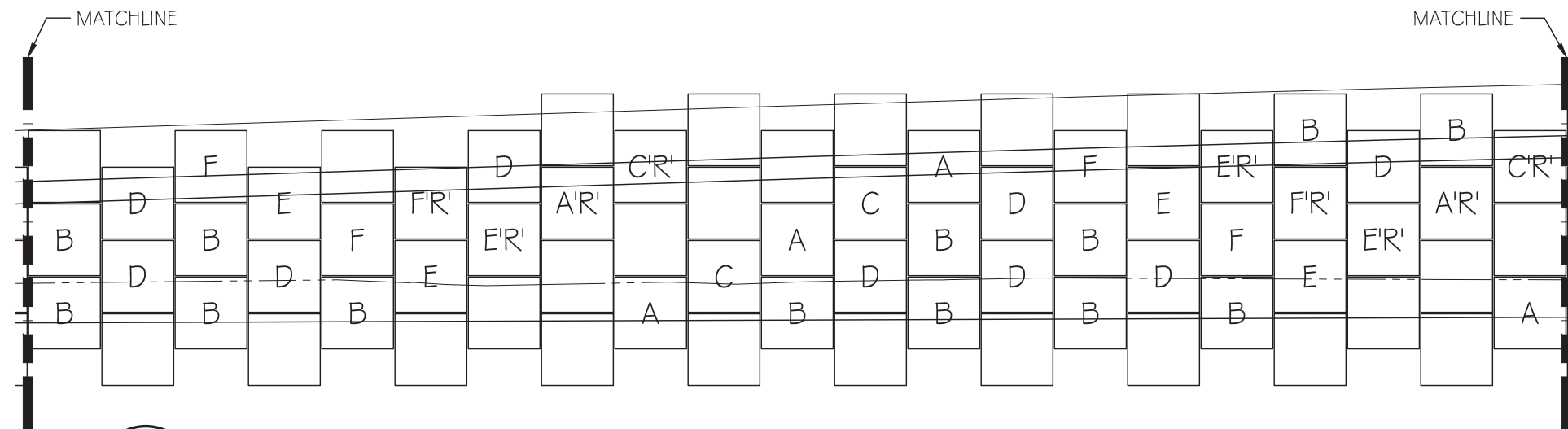
- DO NOT SCALE OFF DRAWING.
- DRAWINGS ARE ONLY A GRAPHIC REPRESENTATION. ALL REQUIRED STRUCTURAL COMPONENTS & INFORMATION ARE OMITTED AND/OR MINIMIZED FOR THE PURPOSE OF GRAPHIC CLARITY. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR INFORMATION OF ALL STRUCTURAL COMPONENTS REQUIREMENTS AND DIMENSIONS.
- CONTRACTOR TO SEE SHEET BA44 & BA45 FOR AESTHETIC PATTERN INFORMATION & DETAIL.
- ALL C.I.P. AESTHETIC PATTERNS SHALL BE ALIGNED HORIZONTALLY AND VERTICALLY AND SHALL HAVE CONTIGUOUS APPEARANCE OF PATTERNS WITH NO OR MINIMAL VERTICAL AND HORIZONTAL BREAK OF THE PATTERN..
- ALL C.I.P AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
- ALL BLANK MSE PANELS WITHOUT NOMENCLATURE SHALL BE FORMED BY CONTRACTOR W/ CONTINUOUS 1/2" CHAMFER @PERIMETER EDGES OF PANEL TO MATCH CUSTOM MSE PANEL,UNLESS OTHERWISE NOTED.
- ALL AESTHETIC MSE PANELS WITH NOMENCLATURE "R" SHALL BE ROTATED 180° CLOCKWISE.
- CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY & DETERMINE ANTICIPATED QUANTITIES OF PROJECT SPECIFIC EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS REQUIRED THRU-OUT THE PROJECT. CONTRACTOR SHALL PURCHASE NECESSARY EXTENDED AND/OR PARTIAL CUSTOM FORM LINERS FROM FORM LINER MANUFACTURER AS NEEDED PRIOR TO CONSTRUCTION
- WHEN PURCHASING FROM THE MANUFACTURER, CONTRACTOR SHALL ACKNOWLEDGE LEAD TIME REQUIRED BY THE MANUFACTURER TO PRODUCE AND DELIVER REQUESTED PARTIAL FORM LINERS AND SHALL SCHEDULE ACCORDINGLY FOR UNINTERRUPTED CONSTRUCTION.



2
BAG4

AESTHETIC KEY ELEVATION: RETAINING WALL 'C1' CONT.

SCALE: 3/32" = 1'-0"

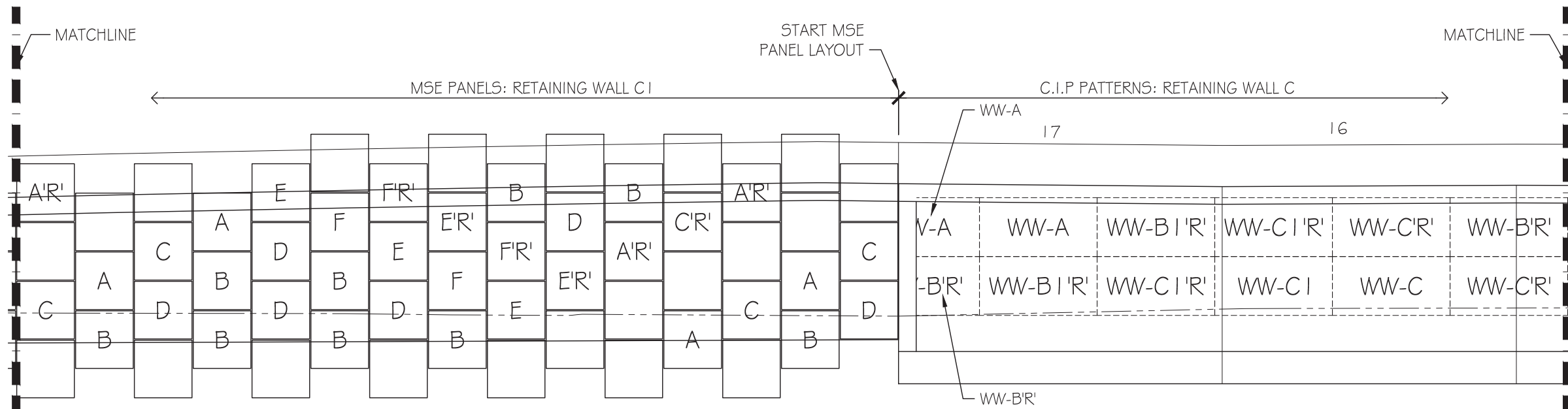


3
BAG4

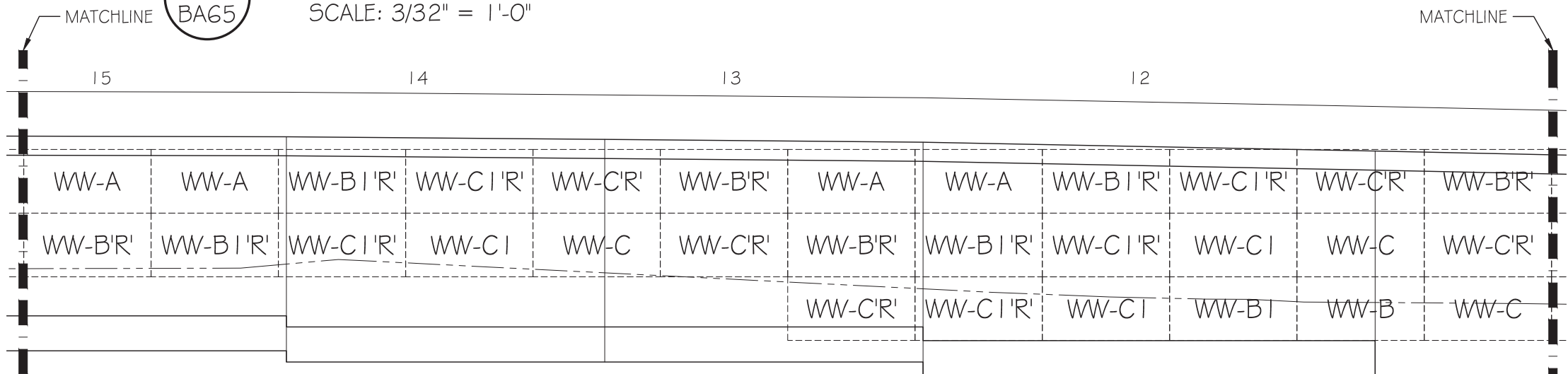
AESTHETIC KEY ELEVATION: RETAINING WALL 'C1' CONT.

SCALE: 3/32" = 1'-0"

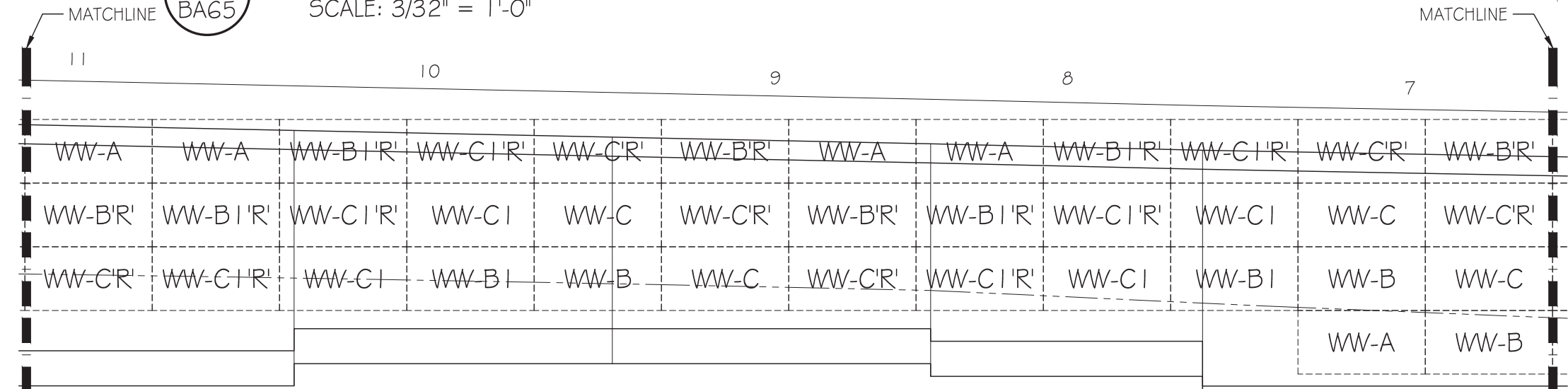
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'C' & 'C'
 BAG5 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'C' CONT.
 BAG5 SCALE: 3/32" = 1'-0"

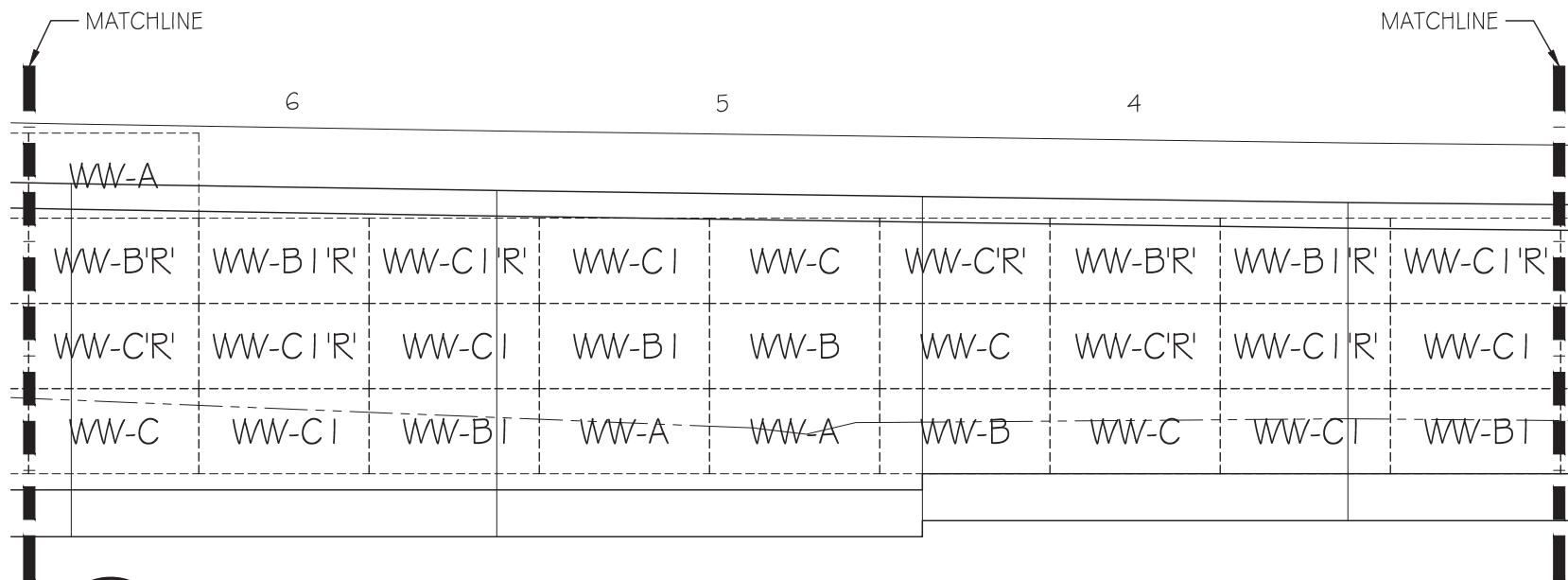


3 AESTHETIC KEY ELEVATION: RETAINING WALL 'C' CONT.
 BAG5 SCALE: 3/32" = 1'-0"

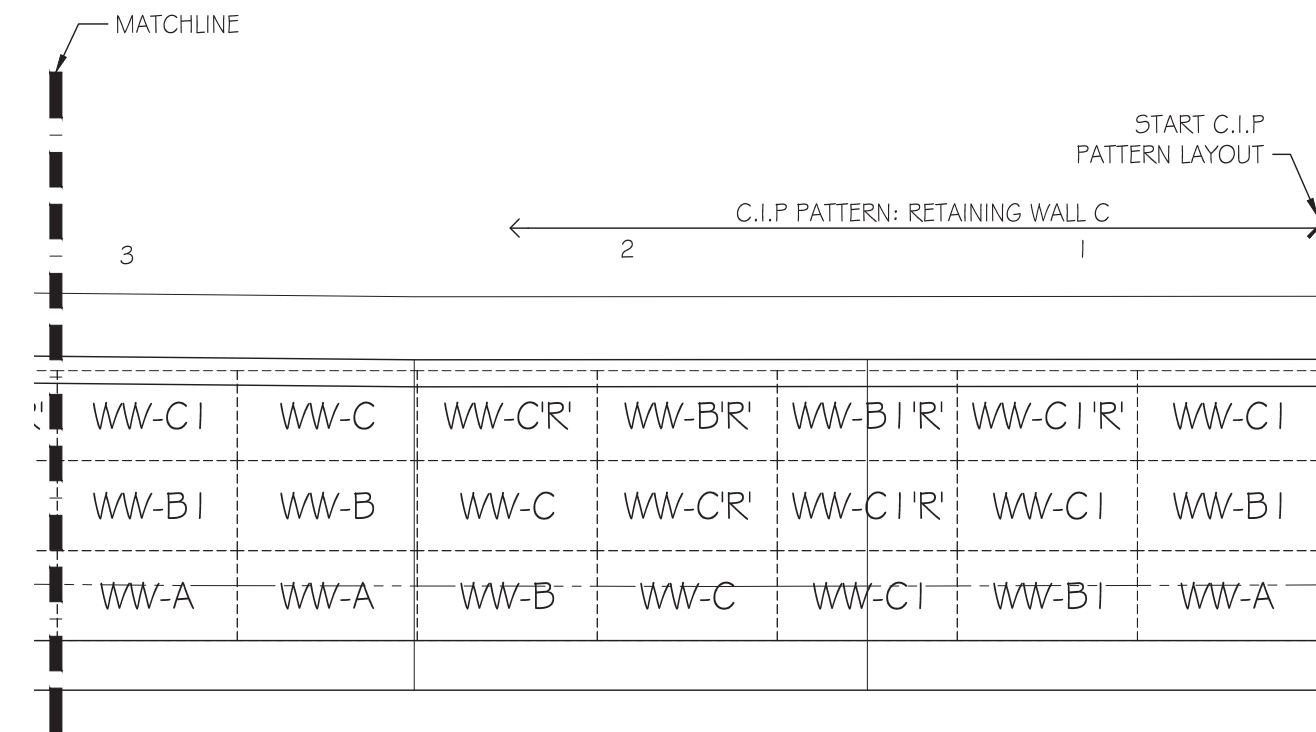
GENERAL NOTE

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- ALL C.I.P AESTHETIC PATTERNS WITH NOMENCLATURE "R" SHALL BE FORMED WITH CORRESPONDING FORM LINER ROTATED 180°.
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		



1
BAG6
AESTHETIC KEY ELEVATION: RETAINING WALL 'C' CONT.
SCALE: 3/32" = 1'-0"



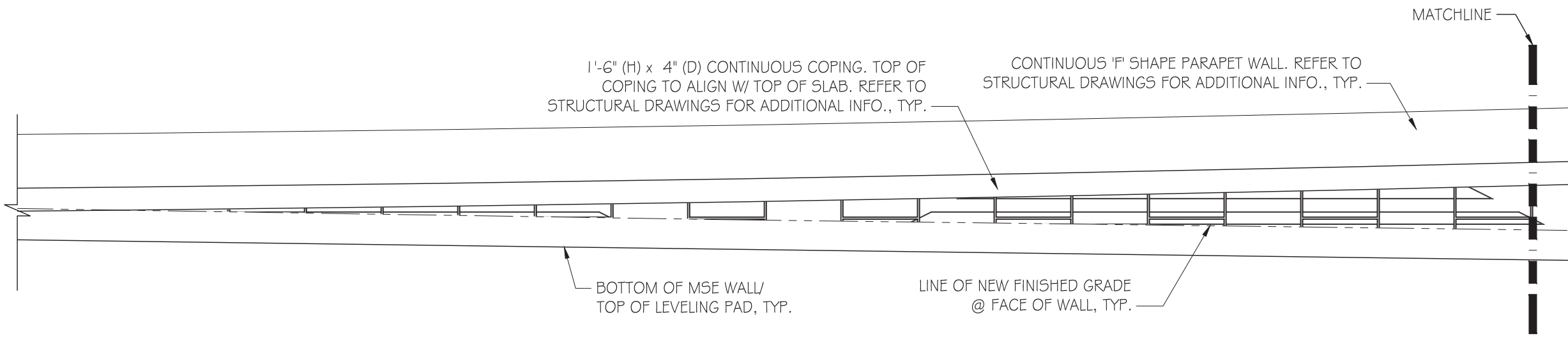
2
BAG6
AESTHETIC KEY ELEVATION: RETAINING WALL 'C' CONT.
SCALE: 3/32" = 1'-0"

GENERAL NOTE

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

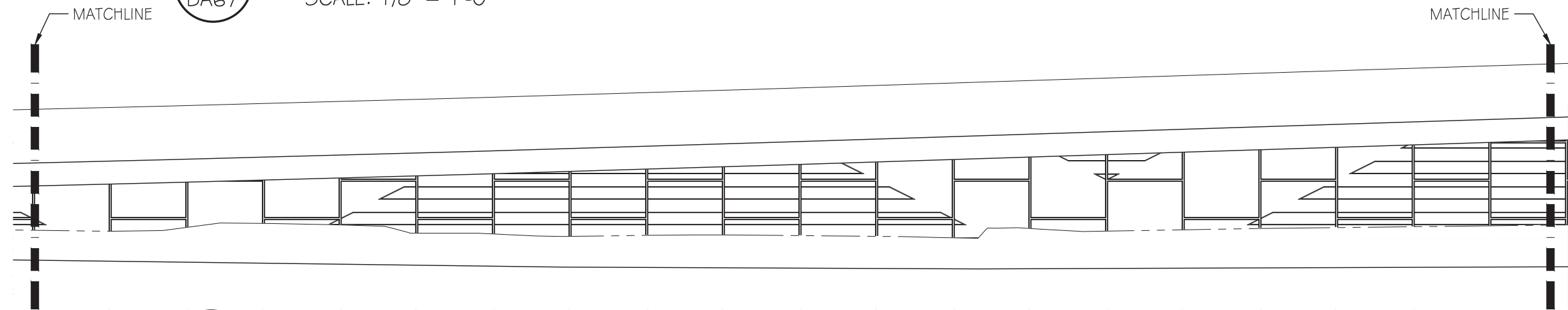
DESCRIPTION	REVISIONS	
	DATE	



1
BA67

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C1'

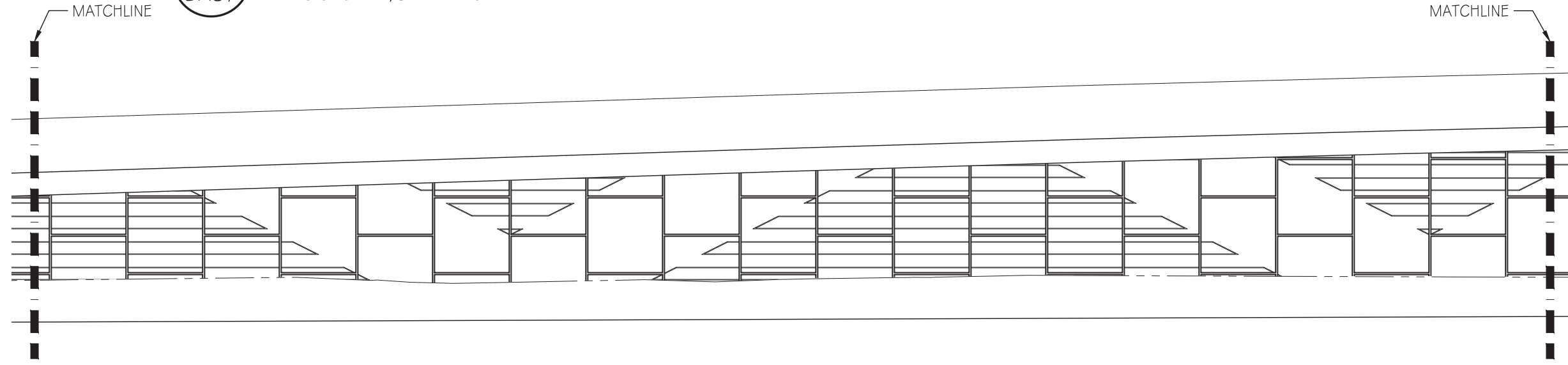
SCALE: 1/8" = 1'-0"



2
BA67

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C1' CONT.

SCALE: 1/8" = 1'-0"



3
BA67

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C1' CONT.

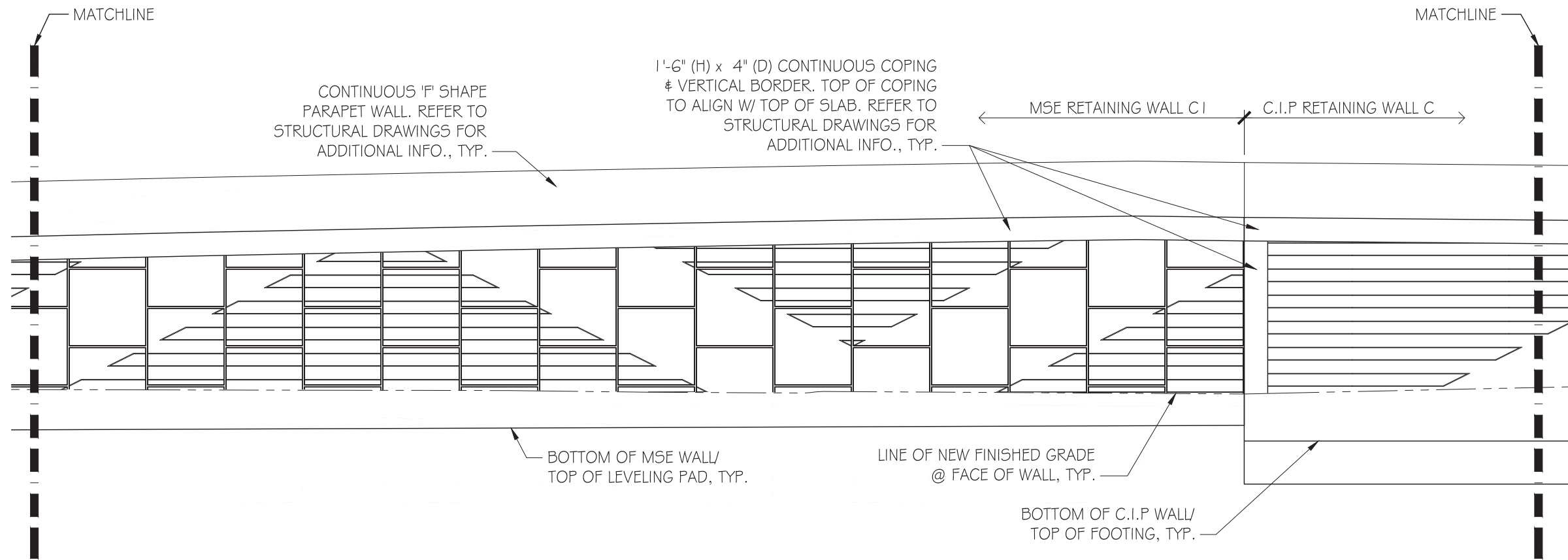
SCALE: 1/8" = 1'-0"

GENERAL NOTE

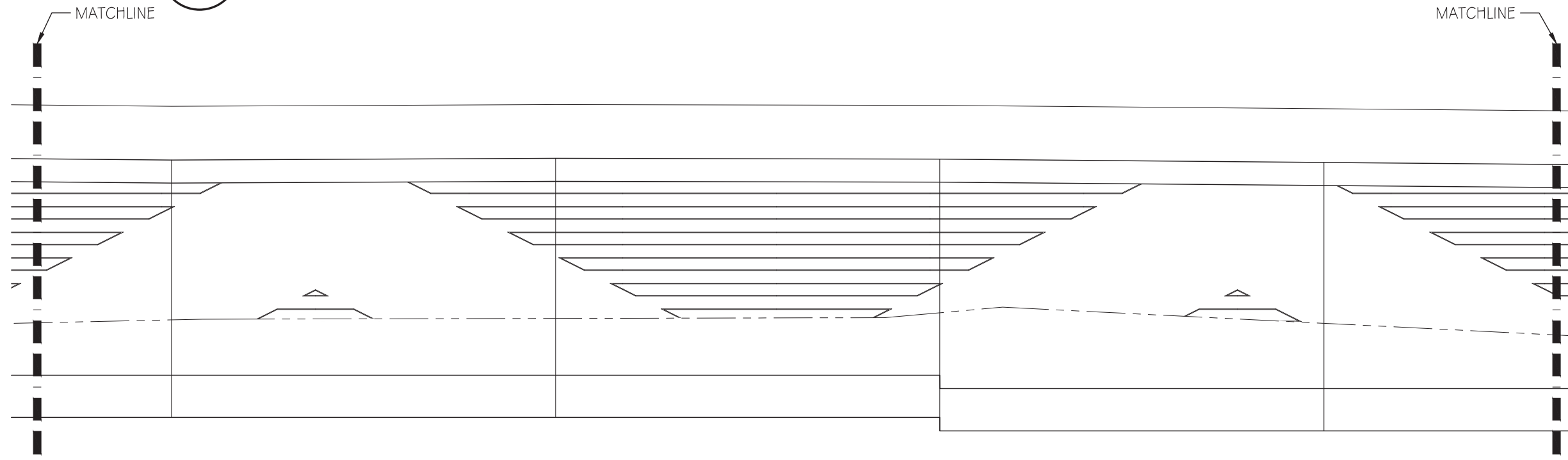
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

DESCRIPTION	REVISIONS	DATE



1
BA68
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C1' & 'C'
SCALE: 1/8" = 1'-0"



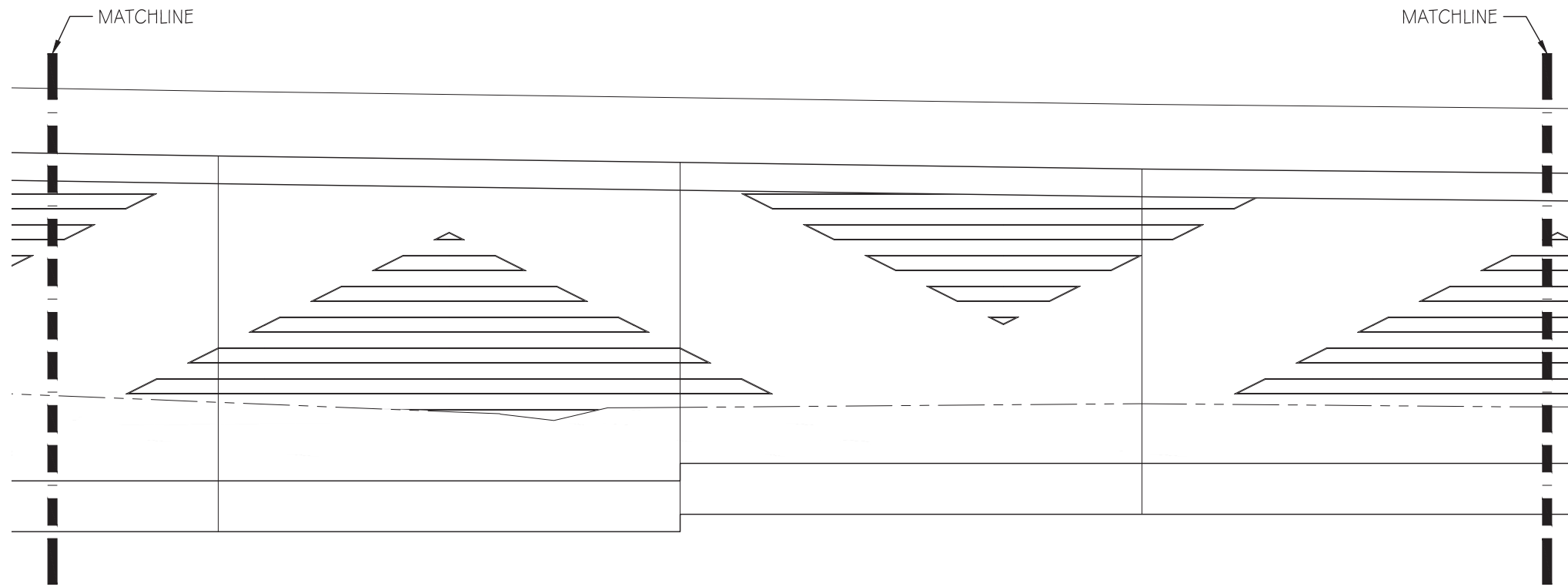
2
BA68
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C' CONT.
SCALE: 1/8" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

DESCRIPTION	REVISIONS	
	DATE	



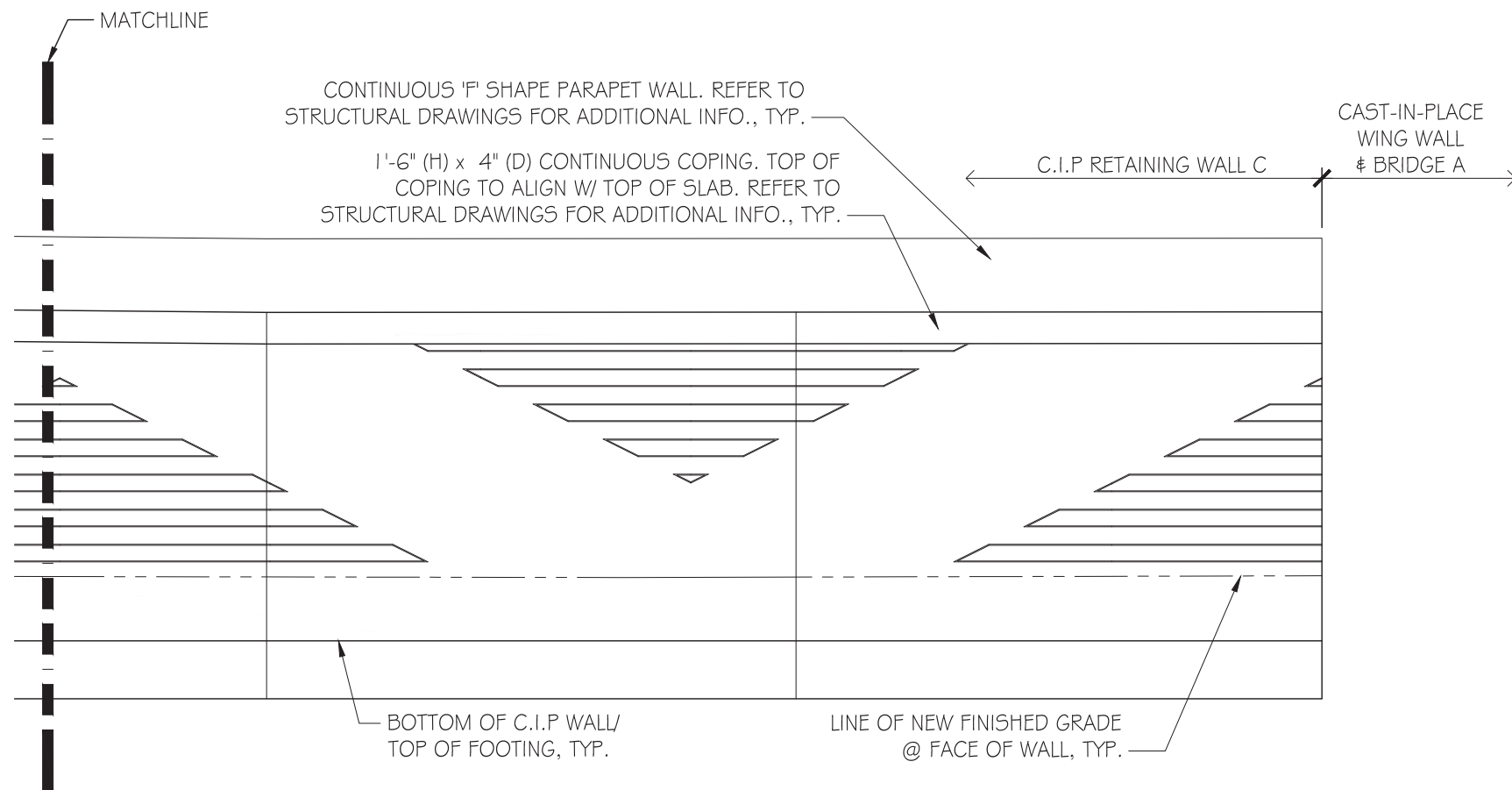
1
BA70

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C' CONT.

SCALE: 1/8" = 1'-0"

GENERAL NOTE

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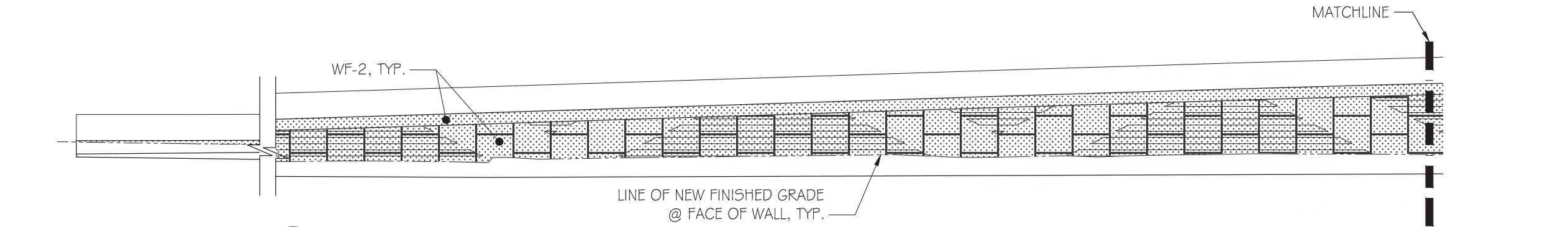
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BA70

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'C' CONT.

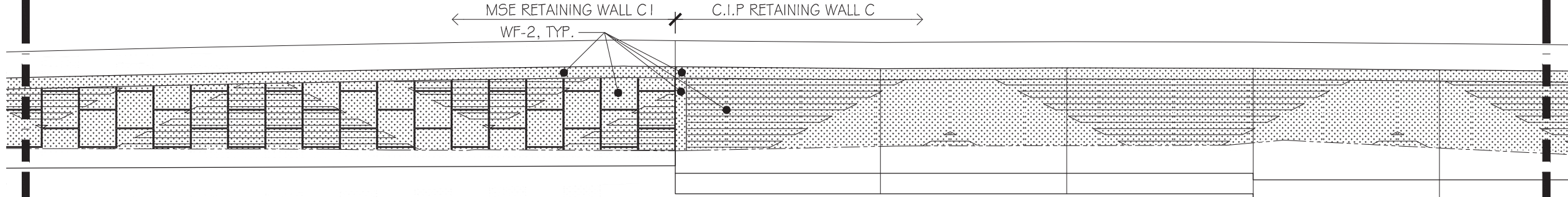
SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

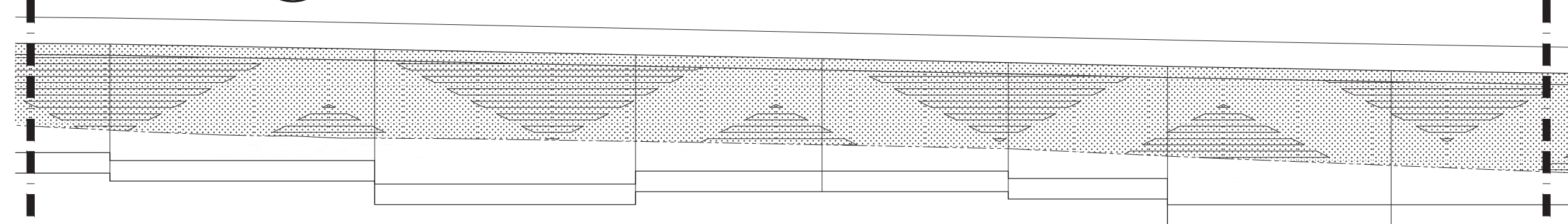
DESCRIPTION	REVISIONS	DATE



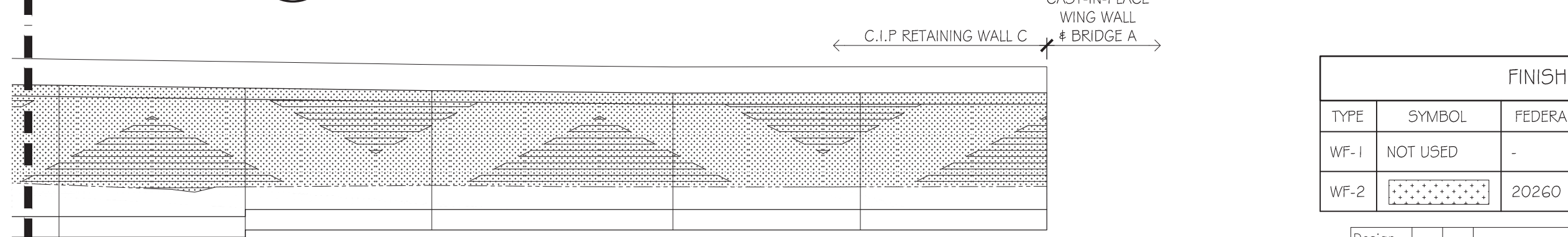
1
BA71
FINISH PLAN: RETAINING WALL 'C' & 'C1'
SCALE: 1/16" = 1'-0"



2
BA71
FINISH PLAN: RETAINING WALL 'C' & 'C1' CONT.
SCALE: 1/16" = 1'-0"



3
BA71
FINISH PLAN: RETAINING WALL 'C' & 'C1' CONT.
SCALE: 1/16" = 1'-0"



4
BA71
FINISH PLAN: RETAINING WALL 'C' & 'C1' CONT.
SCALE: 1/16" = 1'-0"

GENERAL NOTE

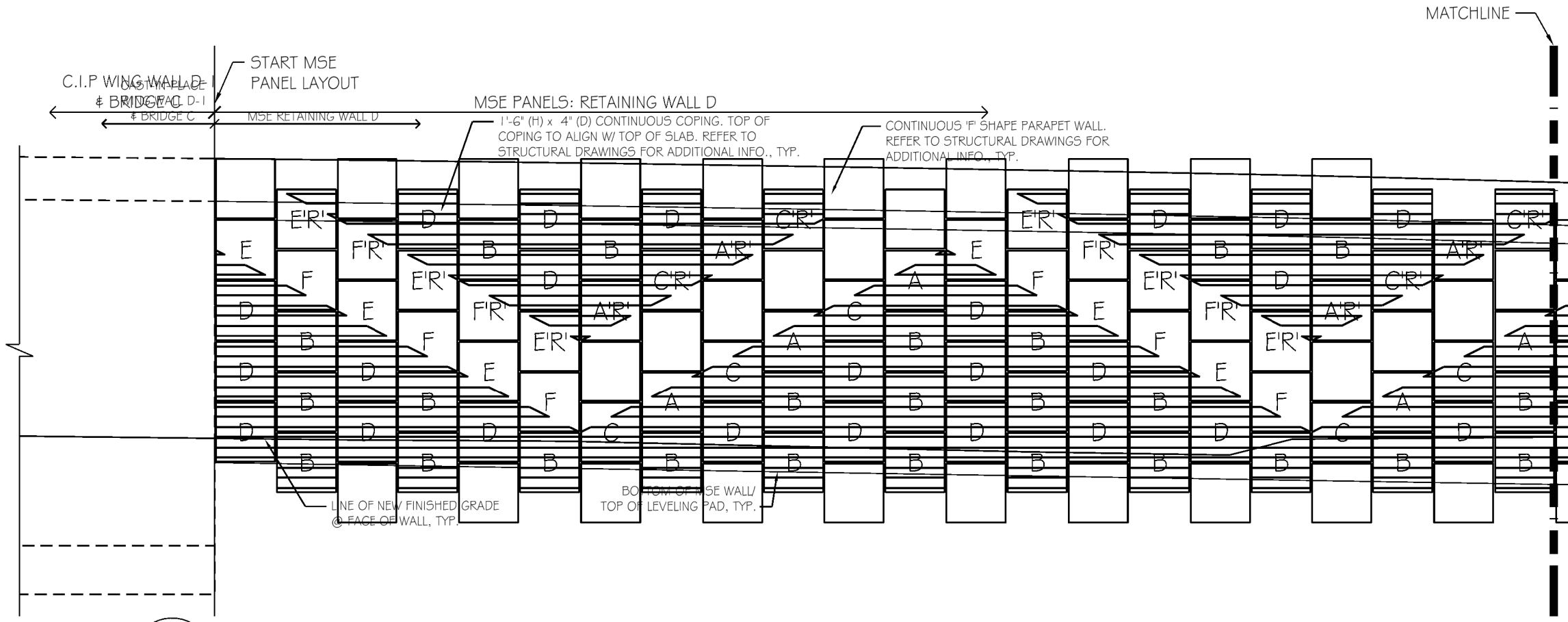
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- CONTRACTOR TO REFERENCE STRUCTURAL DRAWINGS FOR ACCURATE DIMENSIONS OF BRIDGE SPAN AND ALL ASSOCIATED COMPONENTS.
- ALL EXPOSED CONCRETE SURFACES RECEIVING STAIN SEAL SHALL BE PROPERLY PREPARED PER SPECIFICATIONS PRIOR TO ANY INSTALLATION.
- ALL CONCRETE STAIN APPLICATION SHALL BE LIMITED TO SPECIFIED EXPOSED SURFACES ABOVE FINISHED GRADE.

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

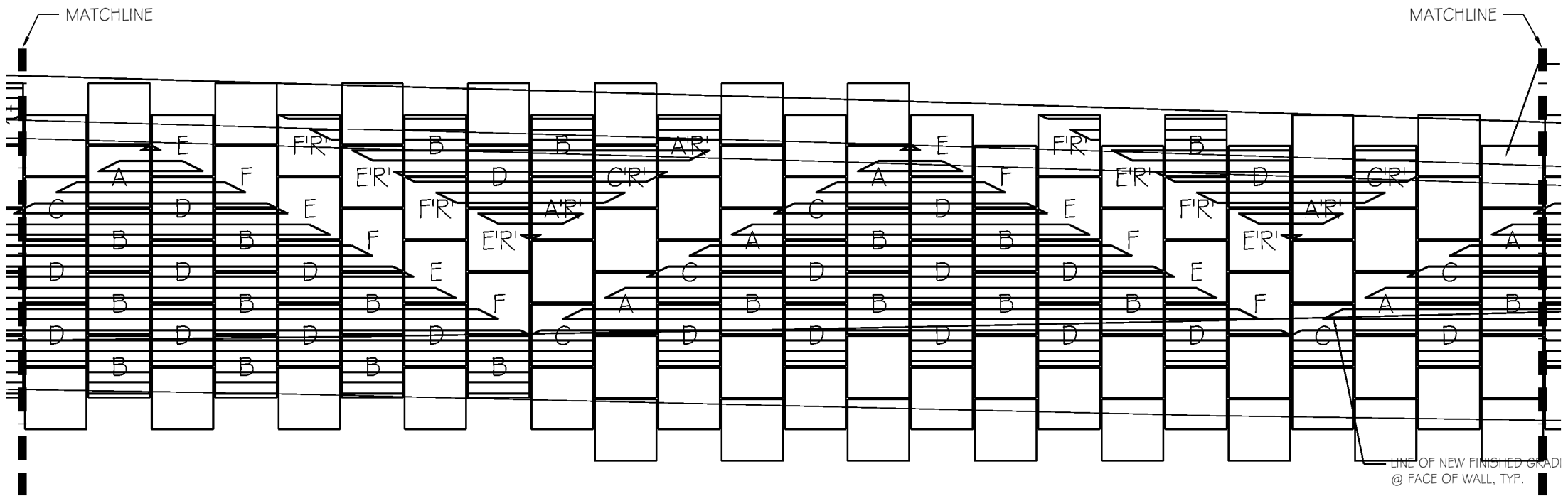
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

OAKLAHOMA COUNTY
 FINISHED PLANS:
 M.S.E & C.I.P RETAINING WALL
 C & C1
 Job Piece No 23310(04) Sheet No. BA71

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'D'
 BA72 SCALE: 3/32" = 1'-0"



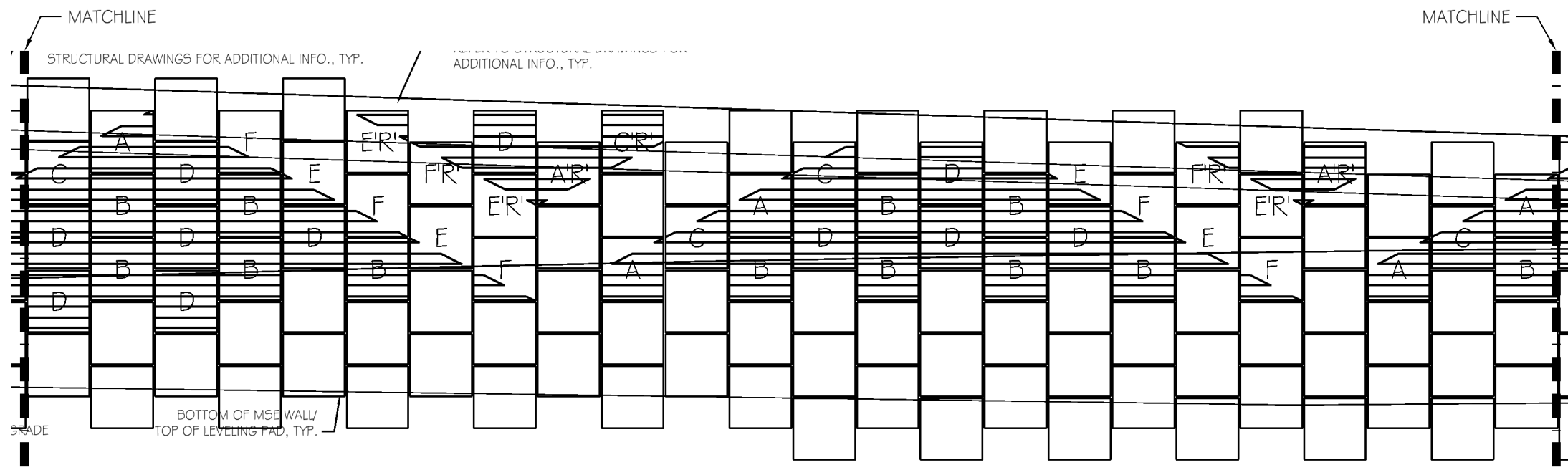
2 AESTHETIC KEY ELEVATION: RETAINING WALL 'D' CONT.
 BA72 SCALE: 3/32" = 1'-0"

GENERAL NOTE

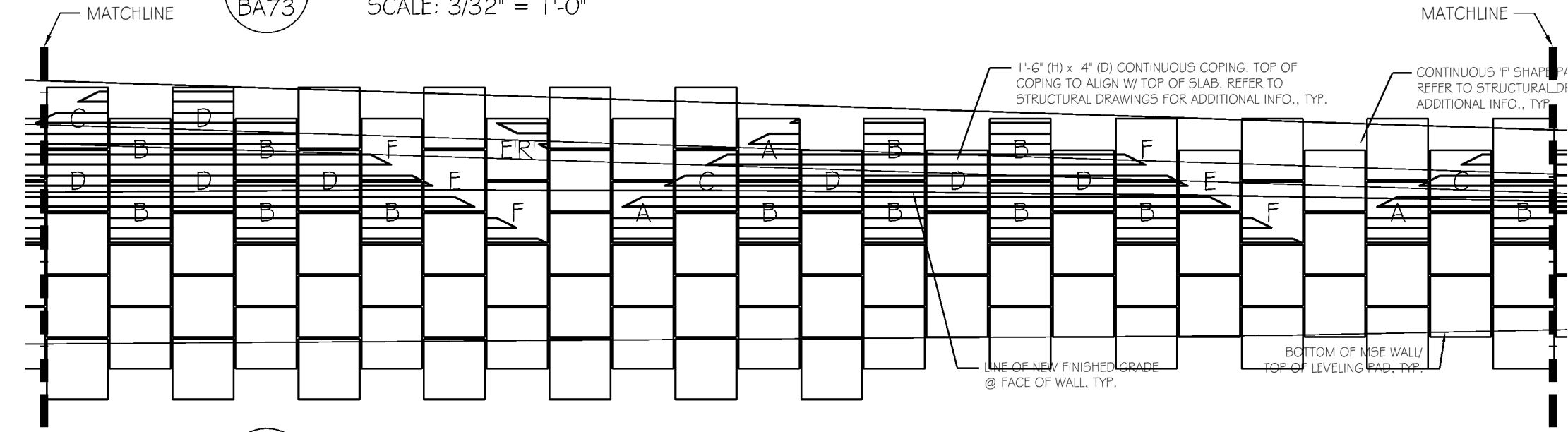
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

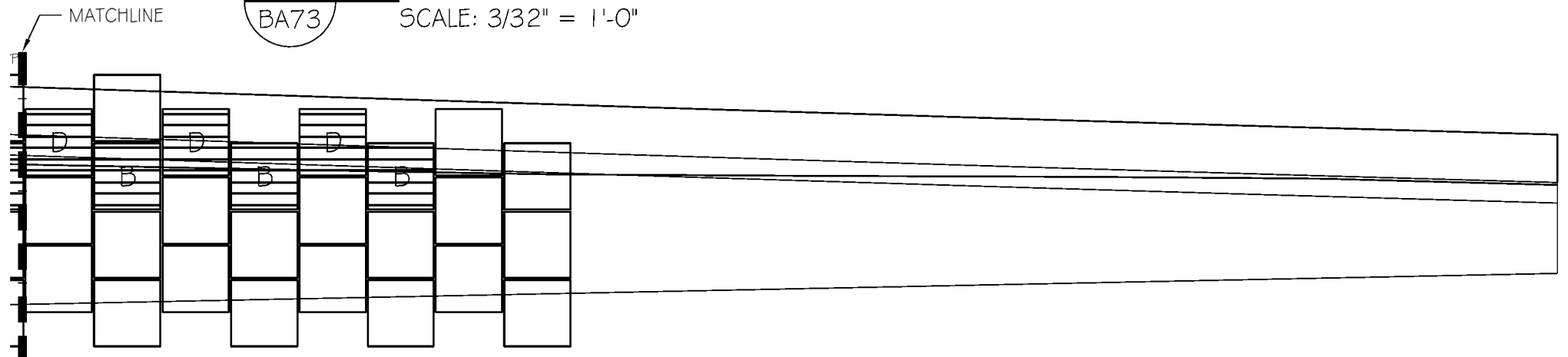
DESCRIPTION	REVISIONS	
	DATE	



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'D' CONT.
 BA73 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'D' CONT.
 BA73 SCALE: 3/32" = 1'-0"



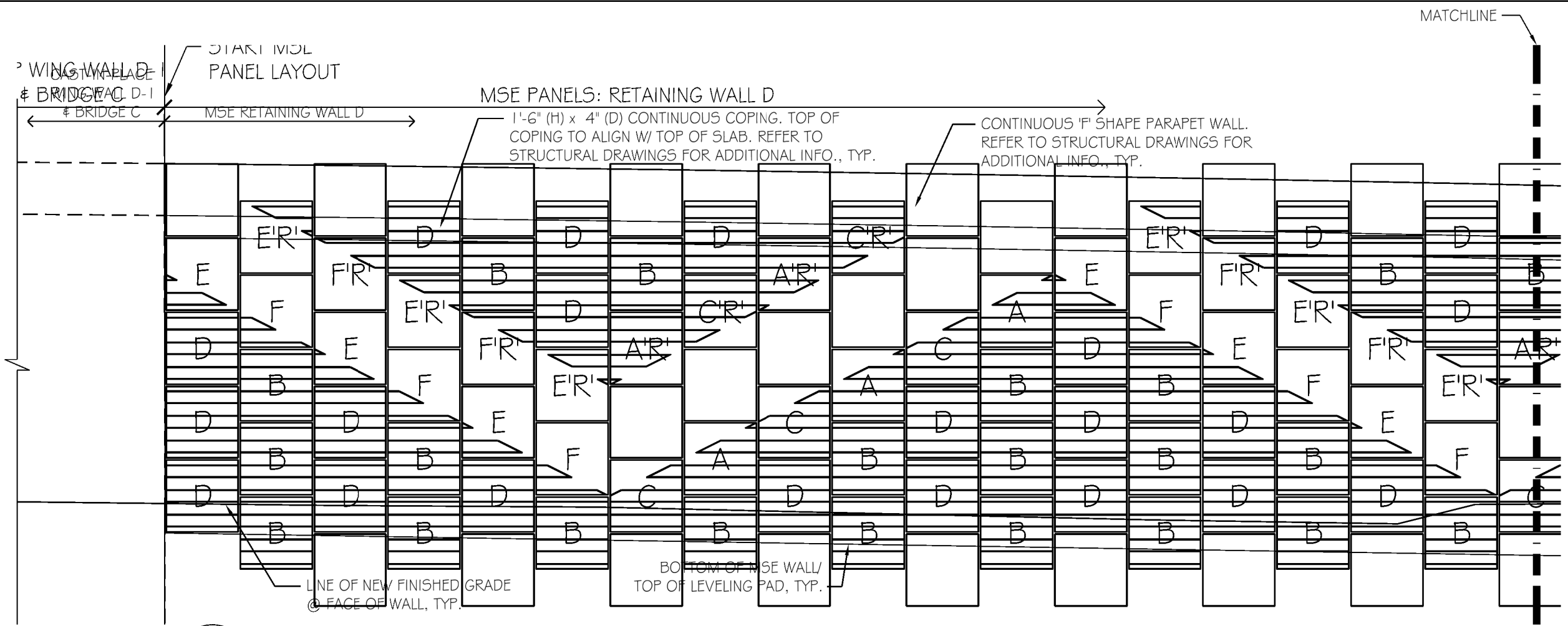
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'D' CONT.
 BA73 SCALE: 3/32" = 1'-0"

GENERAL NOTE

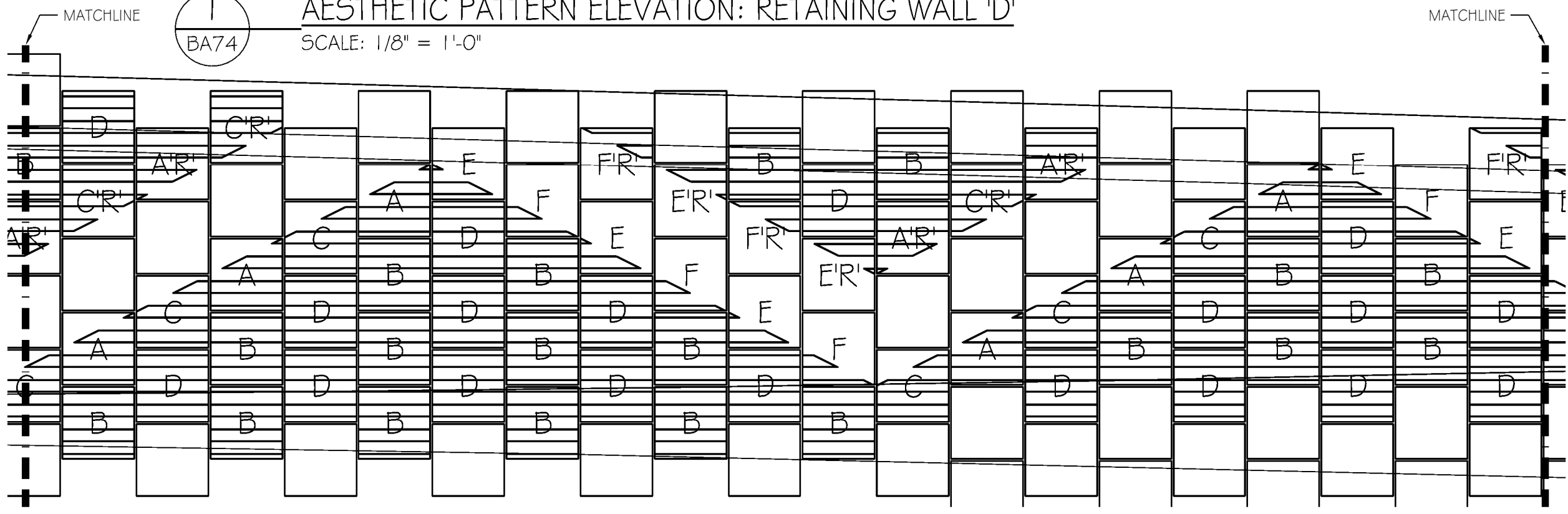
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'D'
SCALE: 1/8" = 1'-0"



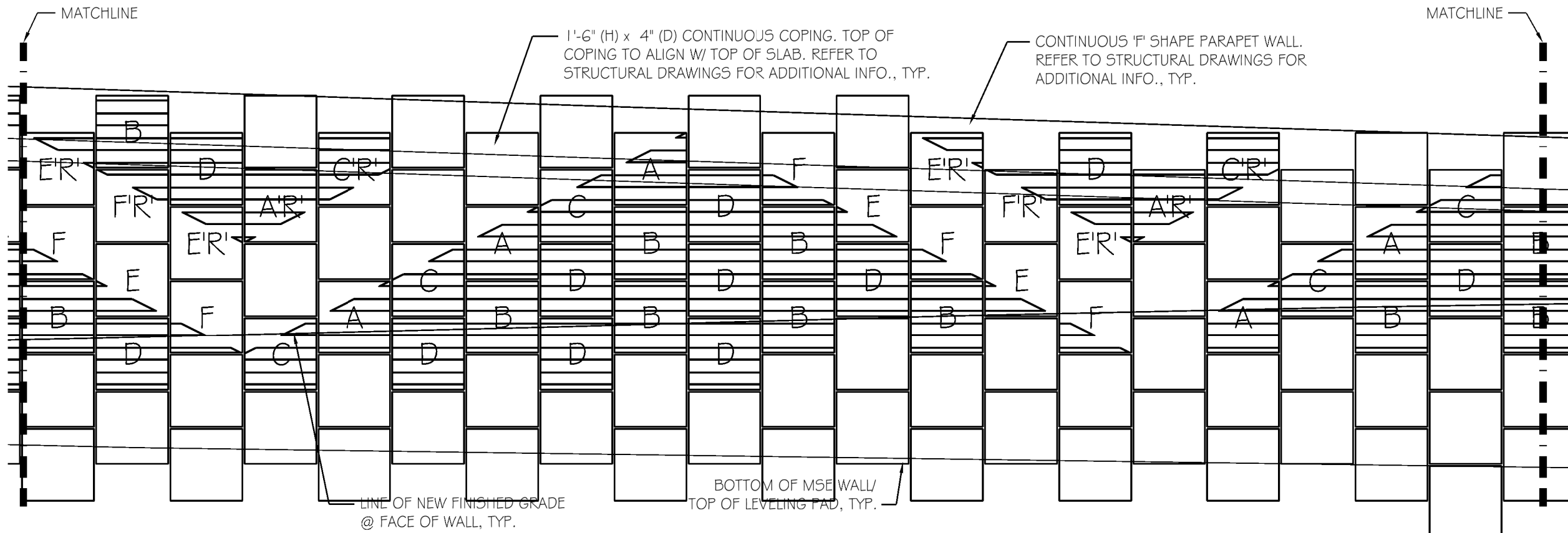
2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'D' CONT.
SCALE: 1/8" = 1'-0"

GENERAL NOTE

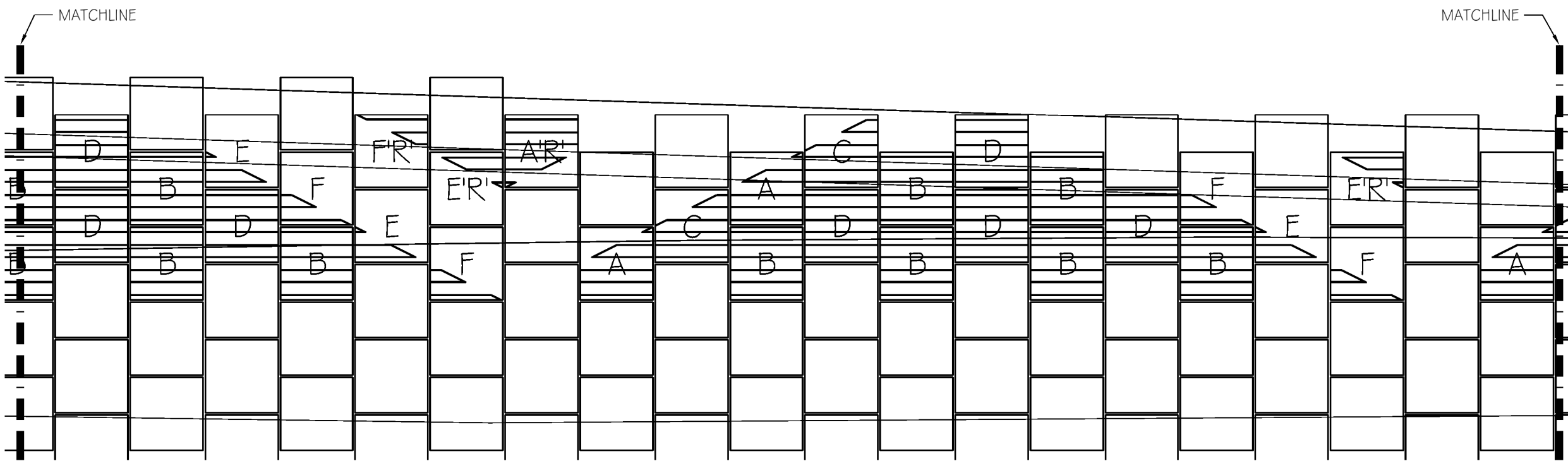
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'D' CONT.
 BA75 SCALE: 1/8" = 1'-0"

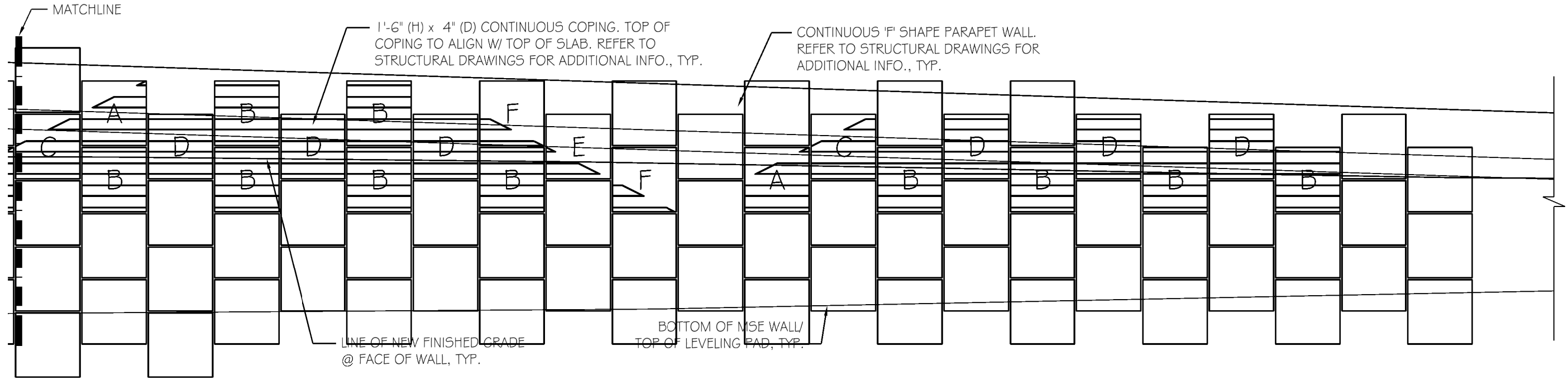


2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'D' CONT.
 BA75 SCALE: 1/8" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1
BA76

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'D' CONT.

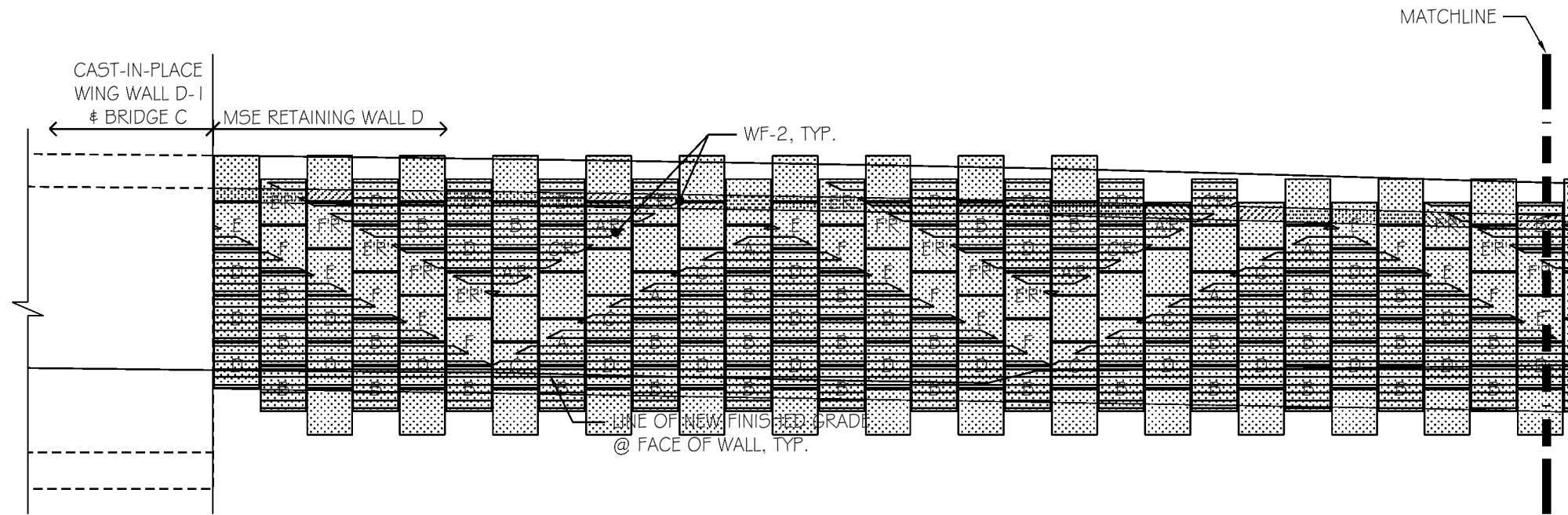
SCALE: 1/8" = 1'-0"

GENERAL NOTE

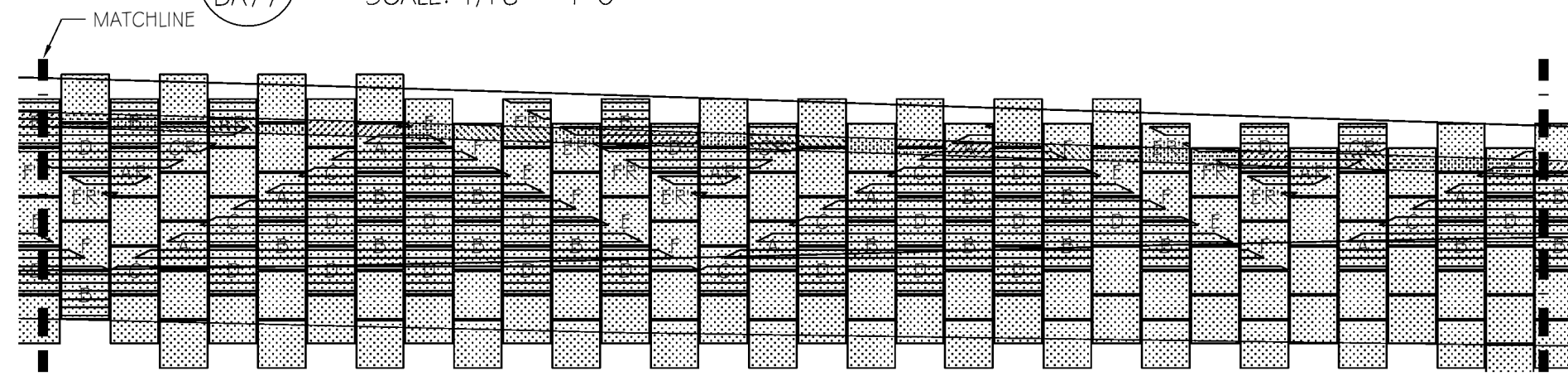
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

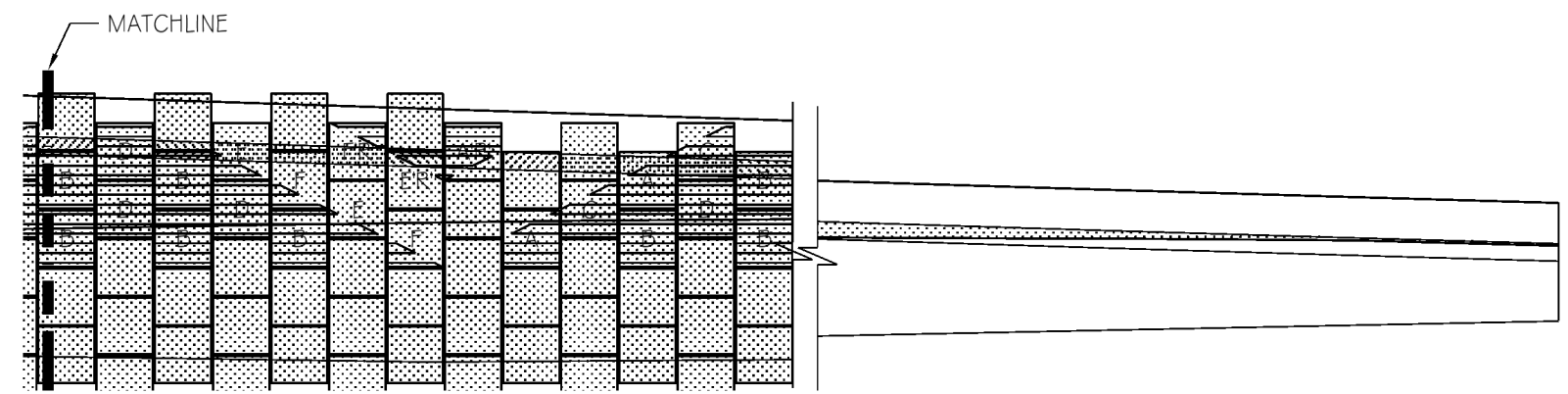
DESCRIPTION	REVISIONS	
	DATE	



1 FINISH PLAN: RETAINING WALL 'D'
BA77 SCALE: 1/16" = 1'-0"



2 FINISH PLAN: RETAINING WALL 'D' CONT.
BA77 SCALE: 1/16" = 1'-0"



3 FINISH PLAN: RETAINING WALL 'D' CONT.
BA77 SCALE: 1/16" = 1'-0"

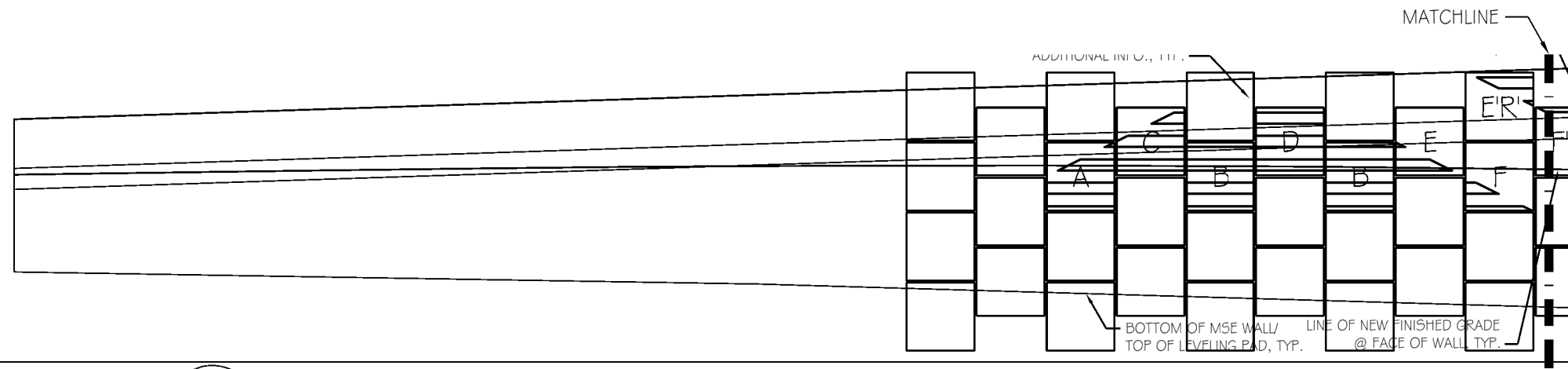
GENERAL NOTE

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- ALL CONCRETE STAIN APPLICATION SHALL BE LIMITED TO SPECIFIED EXPOSED SURFACES ABOVE FINISHED GRADE.

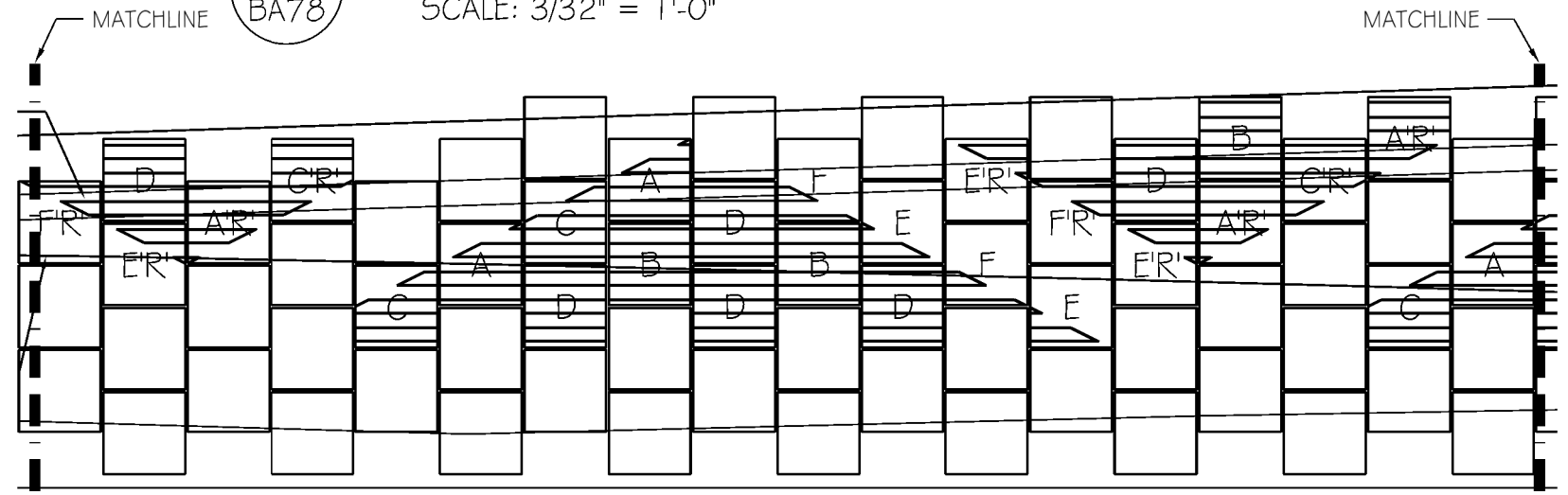
FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

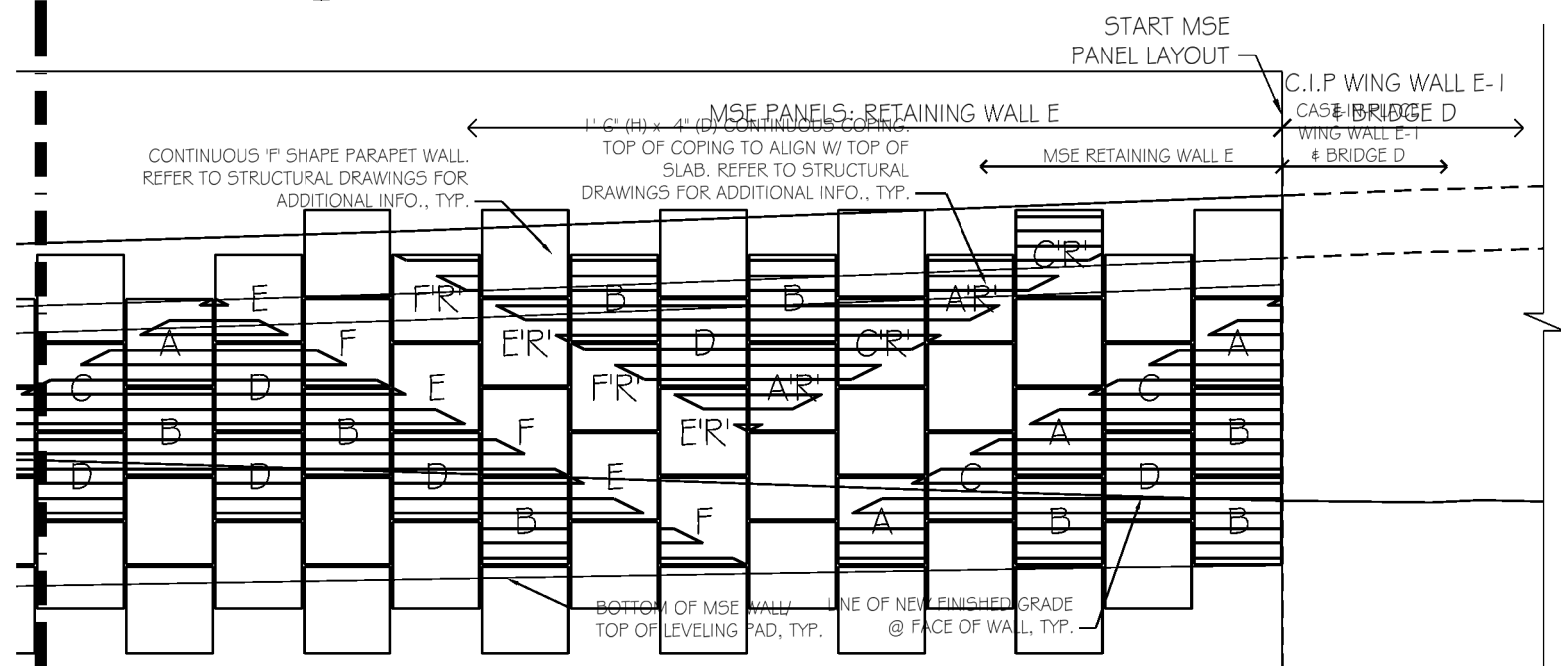
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'E'
 BA78 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'E' CONT.
 BA78 SCALE: 3/32" = 1'-0"



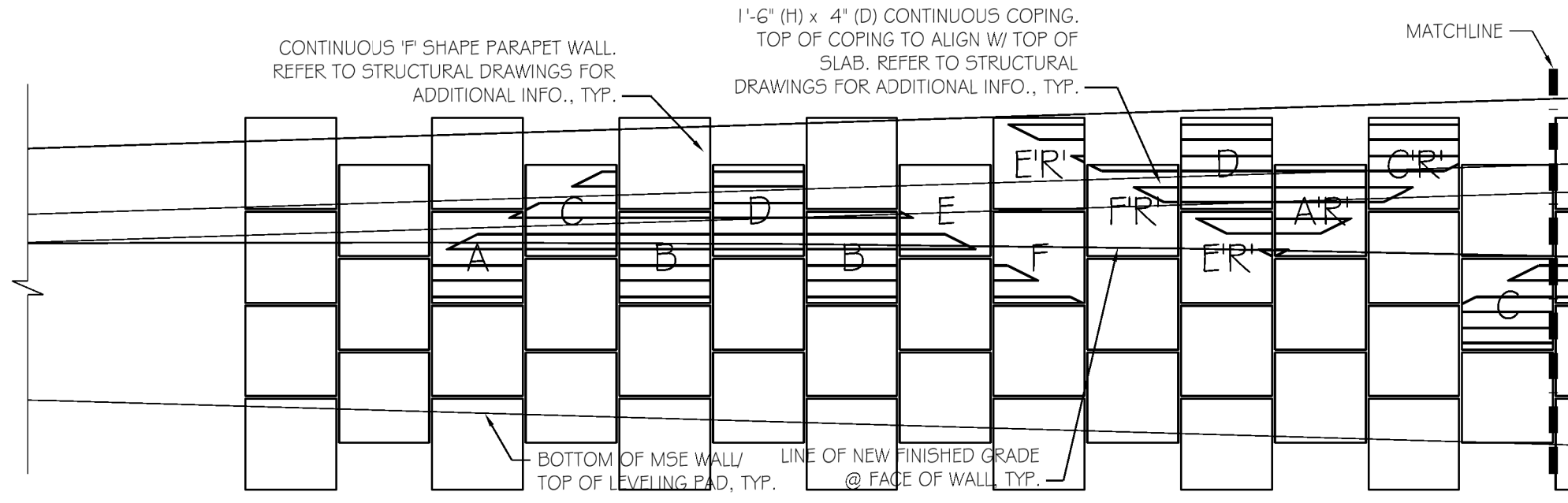
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'E' CONT.
 BA78 SCALE: 3/32" = 1'-0"

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- ALL BLANK MSE PANELS WITHOUT NOMENCLATURE SHALL BE FORMED BY CONTRACTOR W/ CONTINUOUS 1/2" CHAMFER @ PERIMETER EDGES OF PANEL, UNLESS OTHERWISE NOTED.
- ALL AESTHETIC MSE PANELS WITH NOMENCLATURE "R" SHALL BE ROTATED 180° CLOCKWISE.
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

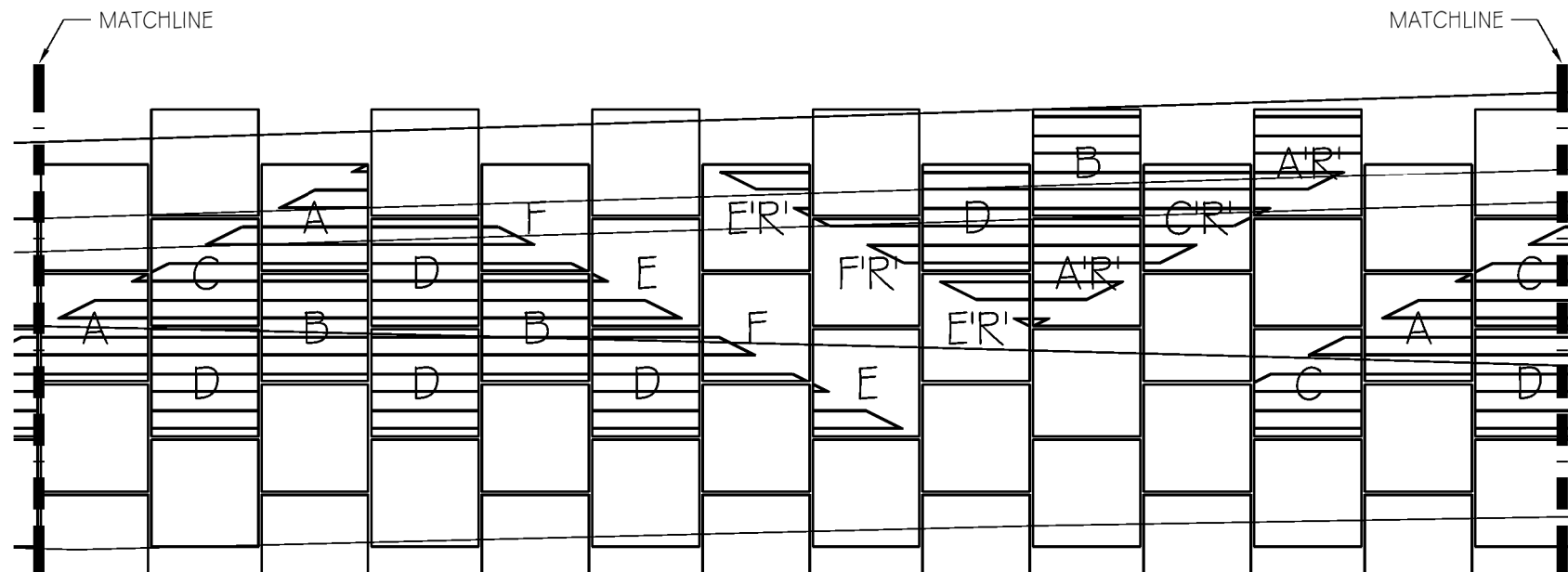
DESCRIPTION	REVISIONS	DATE



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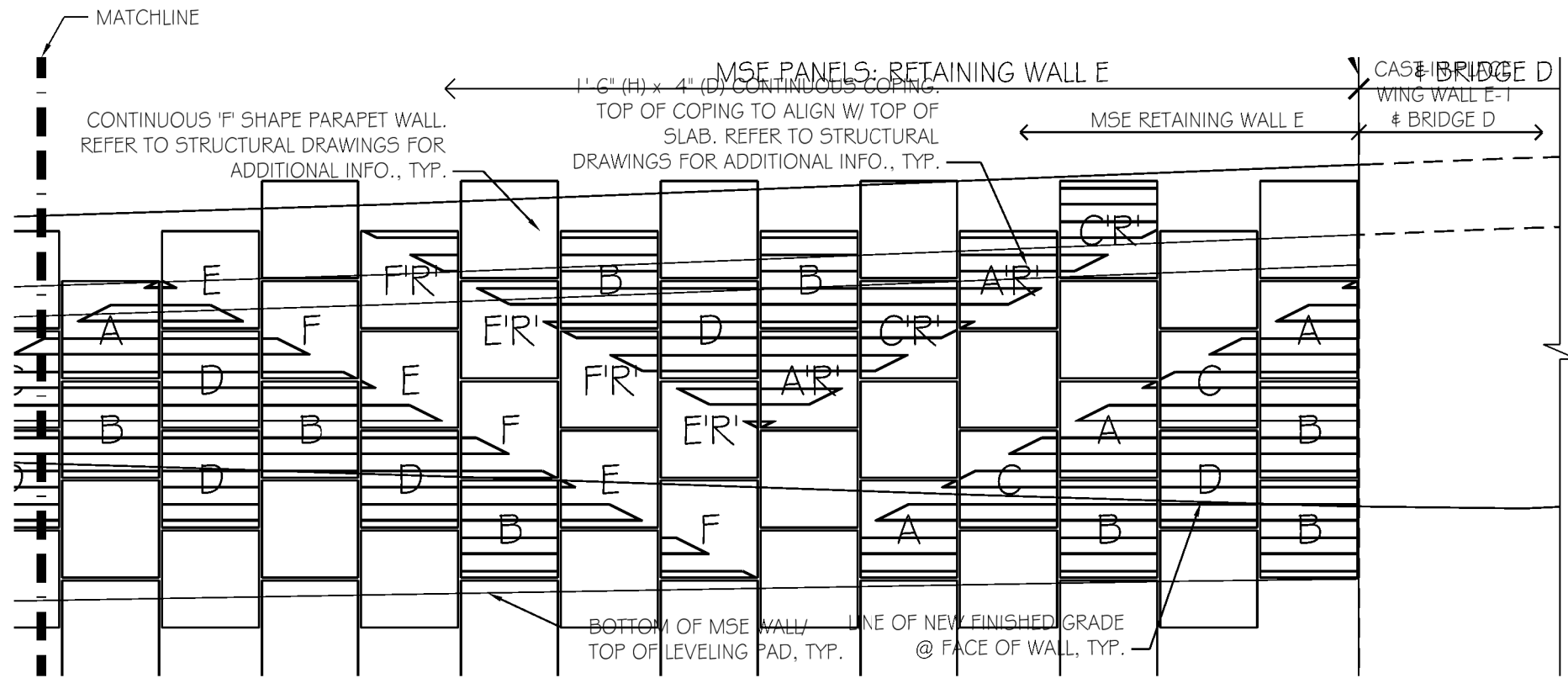
1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'E'
 BA79 SCALE: 1/8" = 1'-0"



2 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'E' CONT.
 BA79 SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	
	DATE	



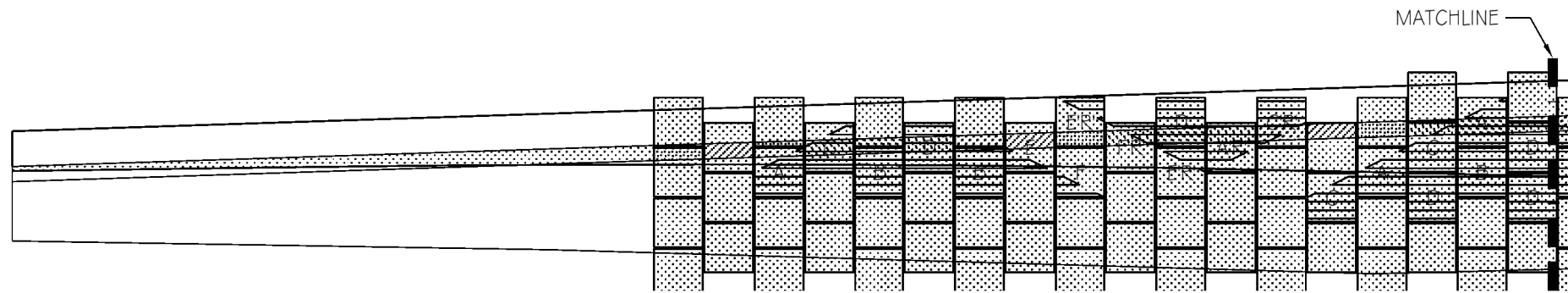
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I
BA80 **AESTHETIC PATTERN ELEVATION: RETAINING WALL 'E' CONT.**
SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

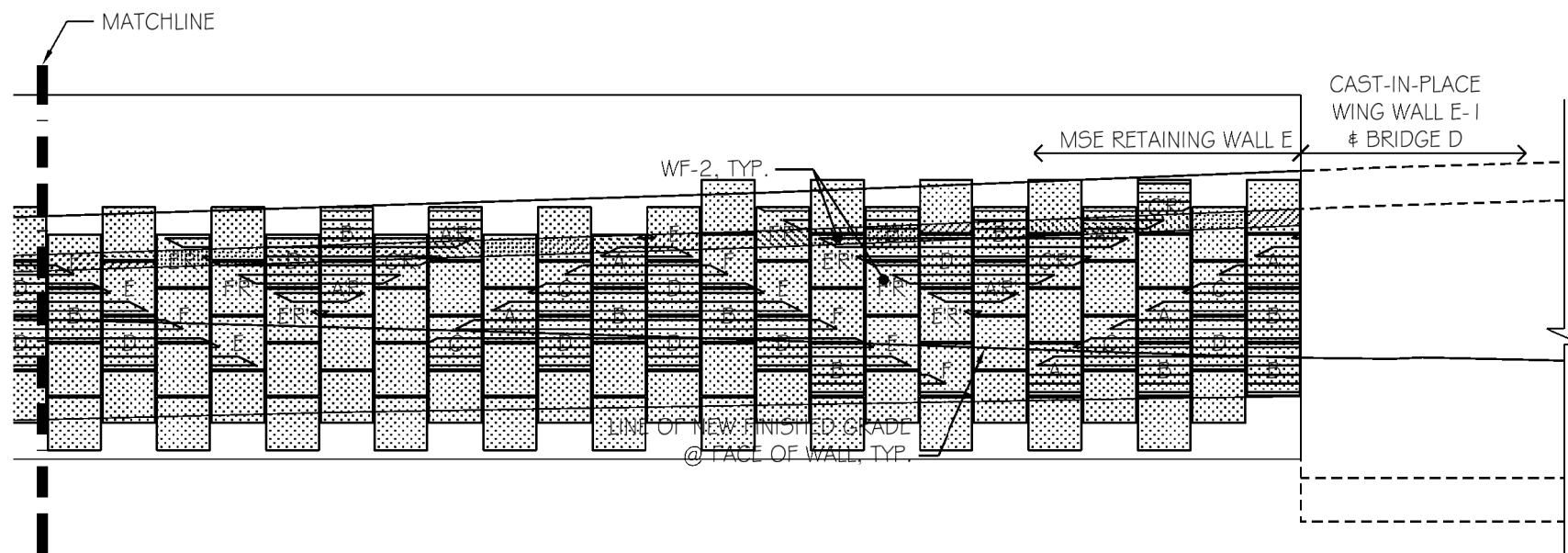
DESCRIPTION	REVISIONS	DATE




1
BA81 FINISH PLAN: RETAINING WALL 'E'
SCALE: 1/16" = 1'-0"

GENERAL NOTE

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2
BA81 FINISH PLAN: RETAINING WALL 'E' CONT.
SCALE: 1/16" = 1'-0"

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

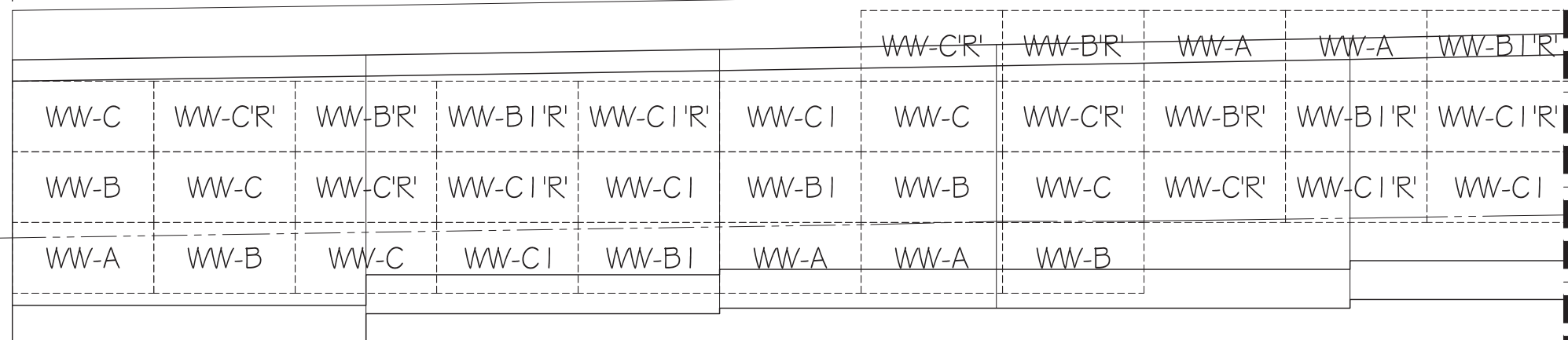
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	
	DATE	

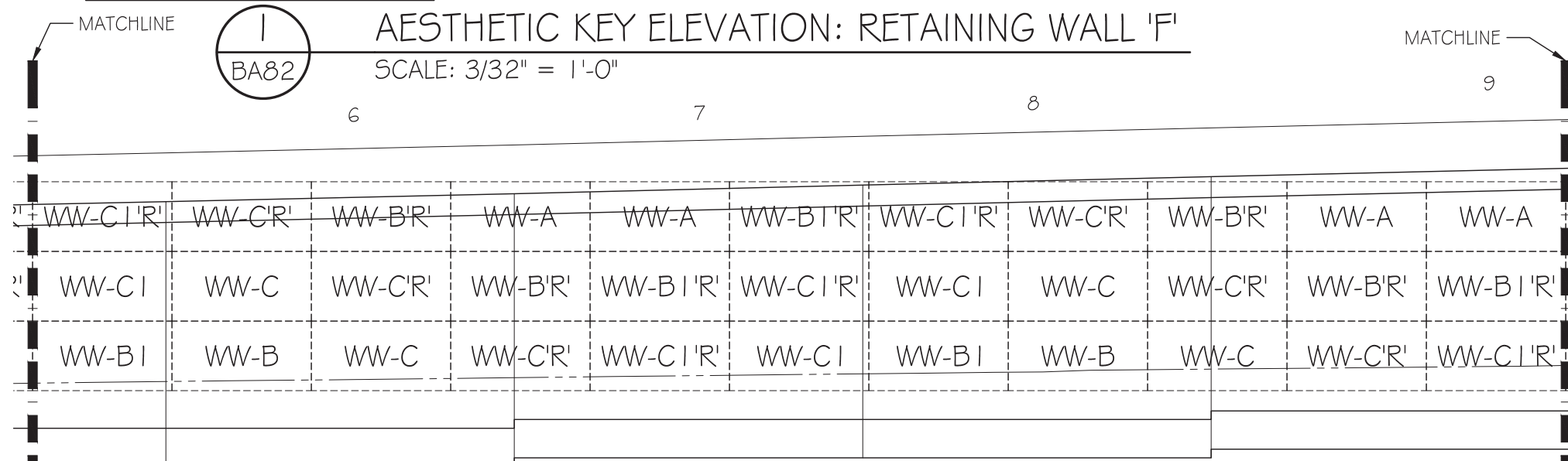
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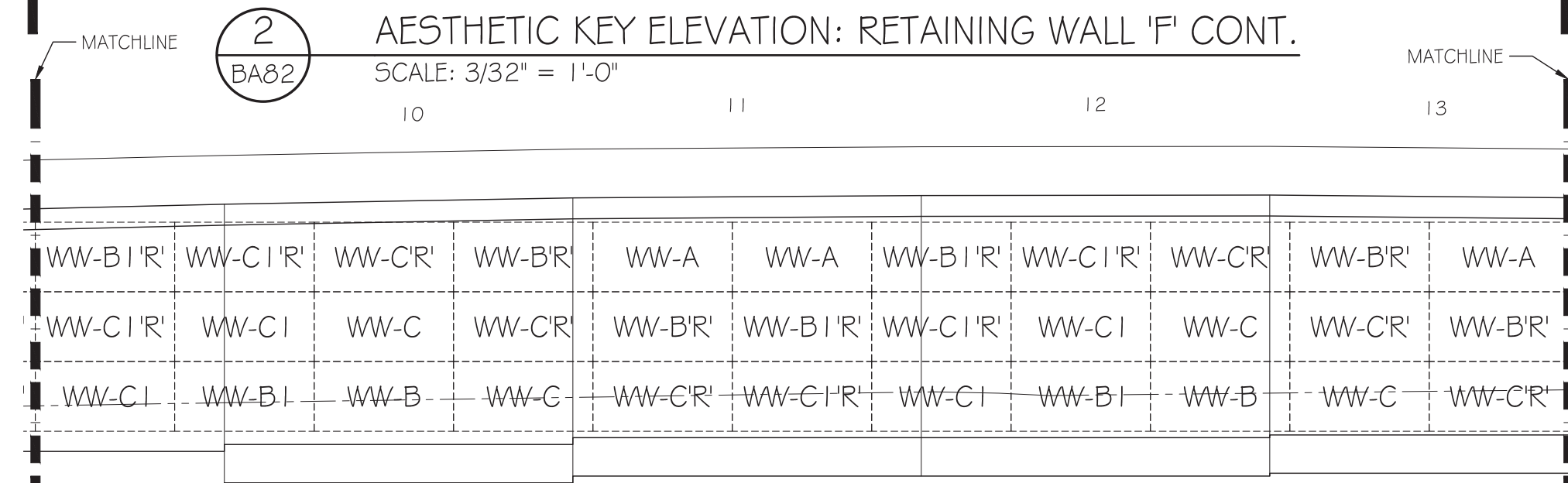
START C.I.P. PATTERN LAYOUT
C.I.P. PATTERN: RETAINING WALL F



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'F'
SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'F' CONT.
SCALE: 3/32" = 1'-0"



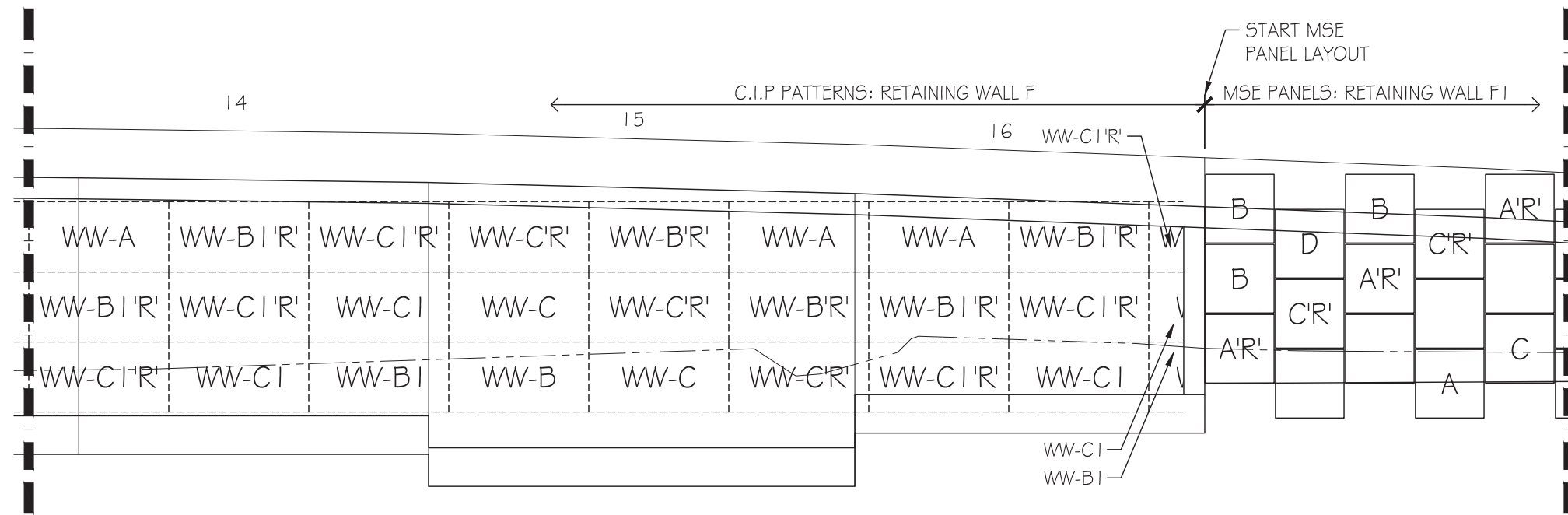
3 AESTHETIC KEY ELEVATION: RETAINING WALL 'C1' CONT.
SCALE: 3/32" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

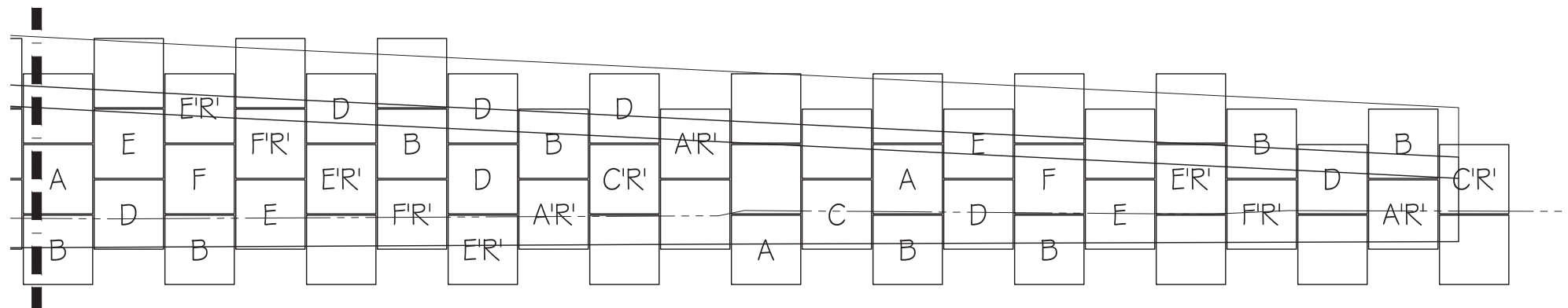
DESCRIPTION	REVISIONS	
	DATE	

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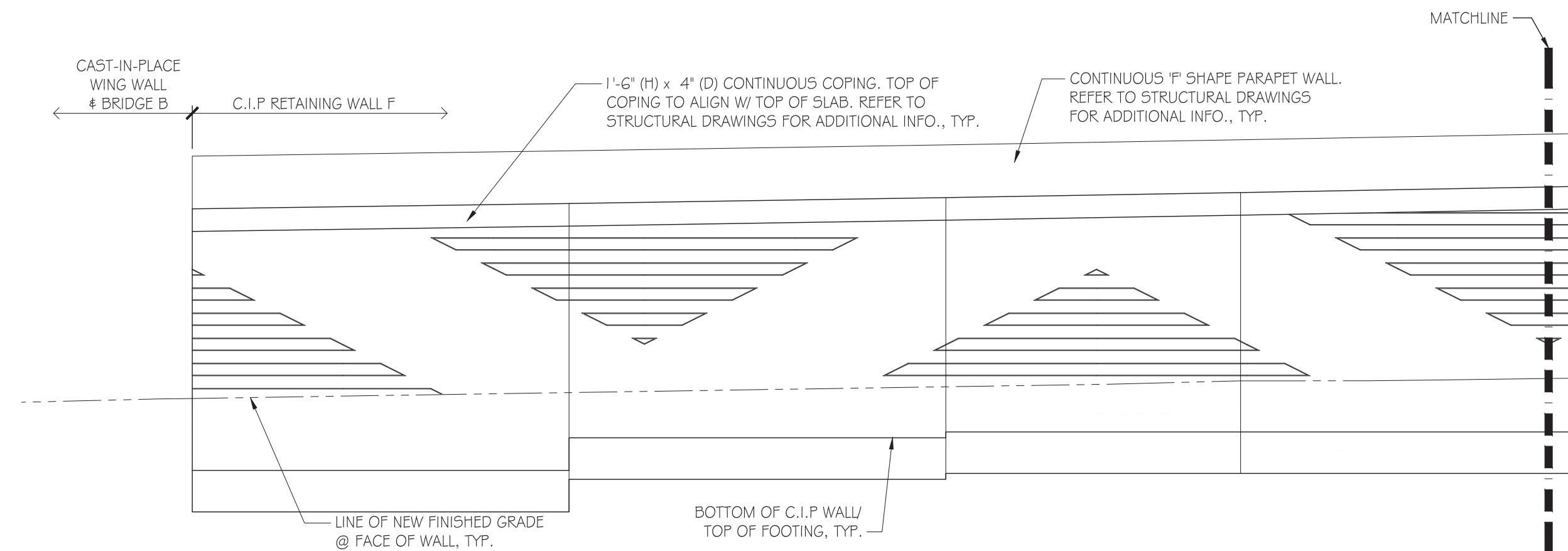
1 AESTHETIC KEY ELEVATION: RETAINING WALL 'F' & 'F1'
 BA83 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'F1' CONT.
 BA83 SCALE: 3/32" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

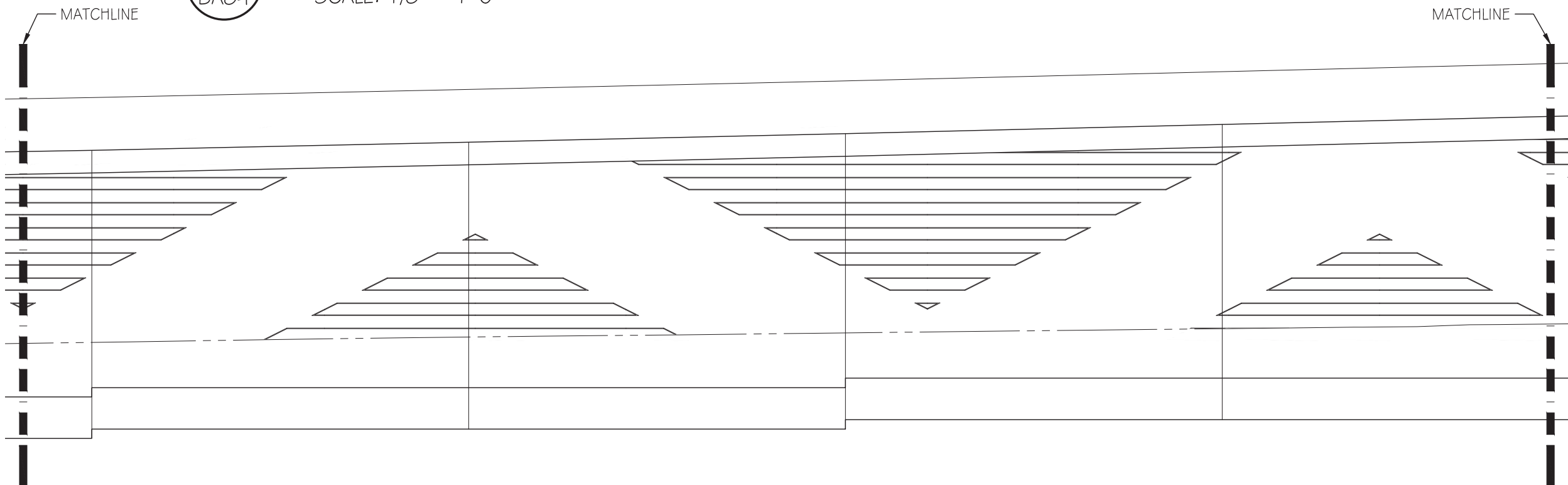
DESCRIPTION	REVISIONS	DATE



1
BA84

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F'

SCALE: 1/8" = 1'-0"



2
BA84

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F' CONT.

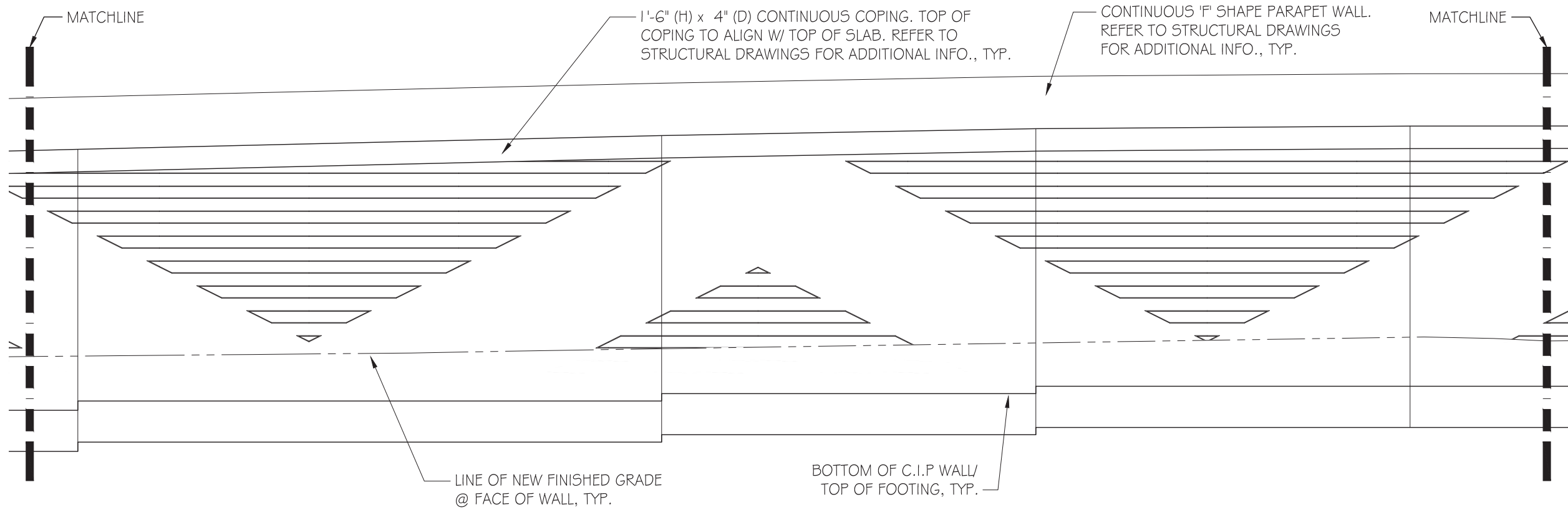
SCALE: 1/8" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

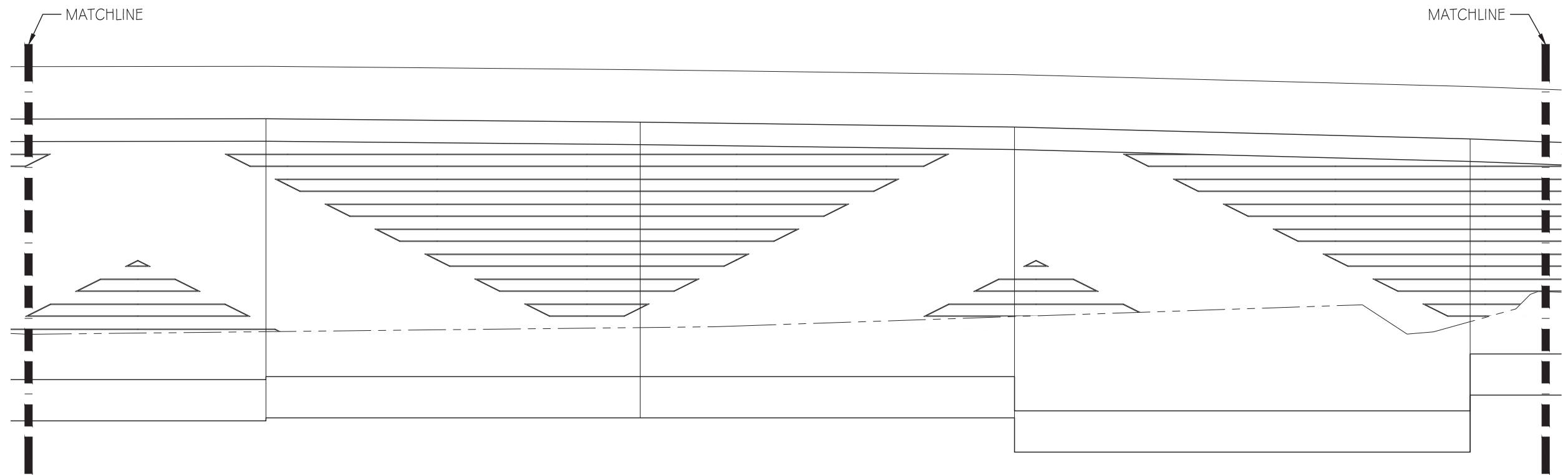
DESCRIPTION	REVISIONS	DATE



1
BA85

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F' CONT.

SCALE: 1/8" = 1'-0"



2
BA85

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F' CONT.

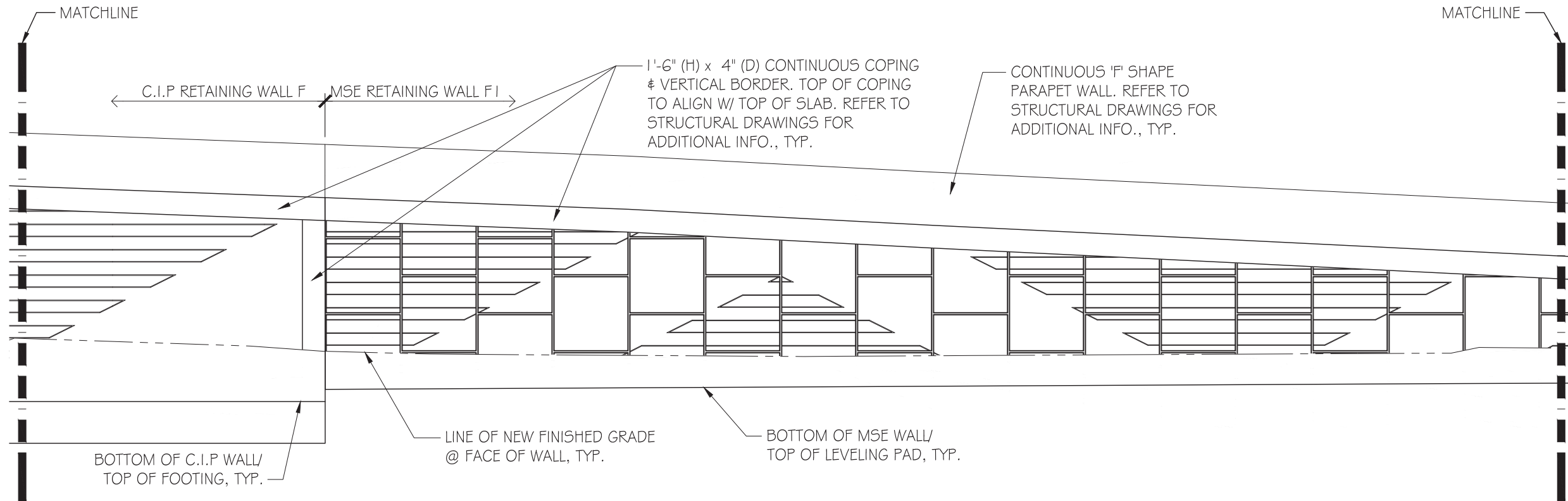
SCALE: 1/8" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

DESCRIPTION	REVISIONS	DATE



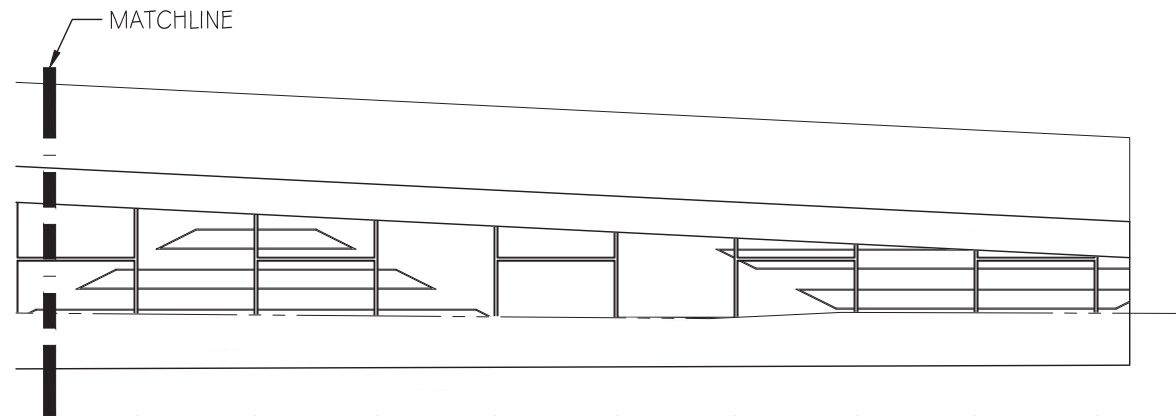
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1
BA86

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F' & 'F1'

SCALE: 1/8" = 1'-0"



2
BA86

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'F1' CONT.

SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

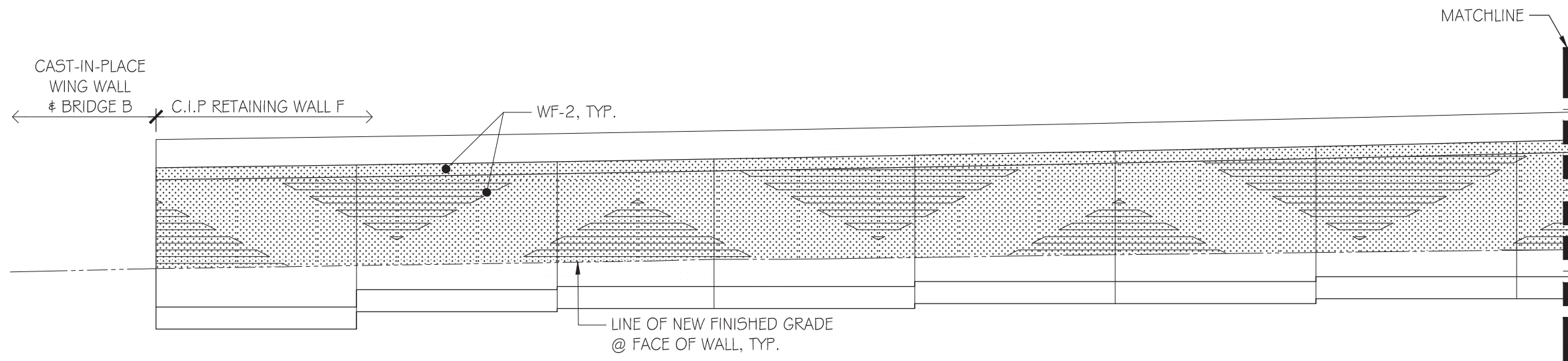
OAKLAHOMA COUNTY

ELEVATIONS:
MSE & C.I.P. RETAINING WALL
F & F1

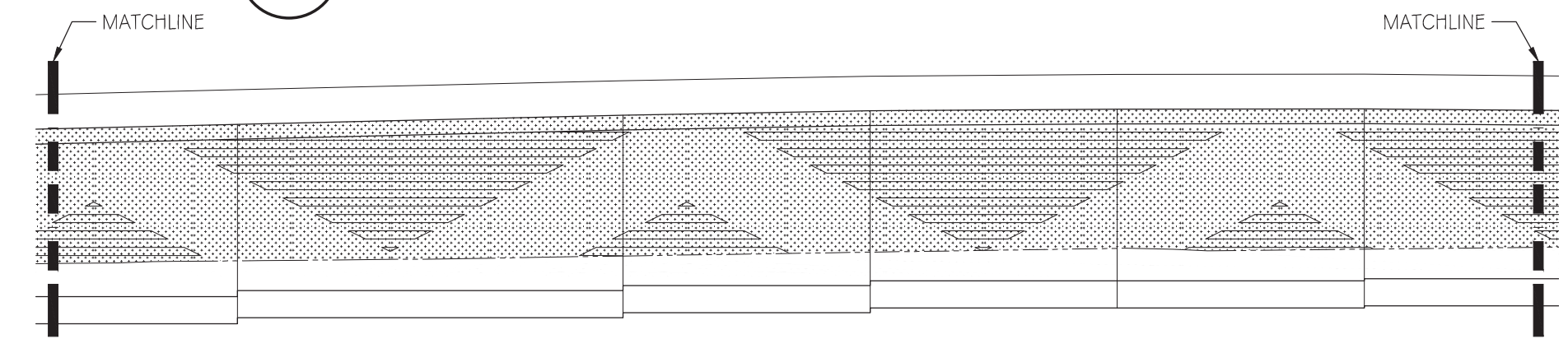
Job Piece No 23310(04)

Sheet No. BA86

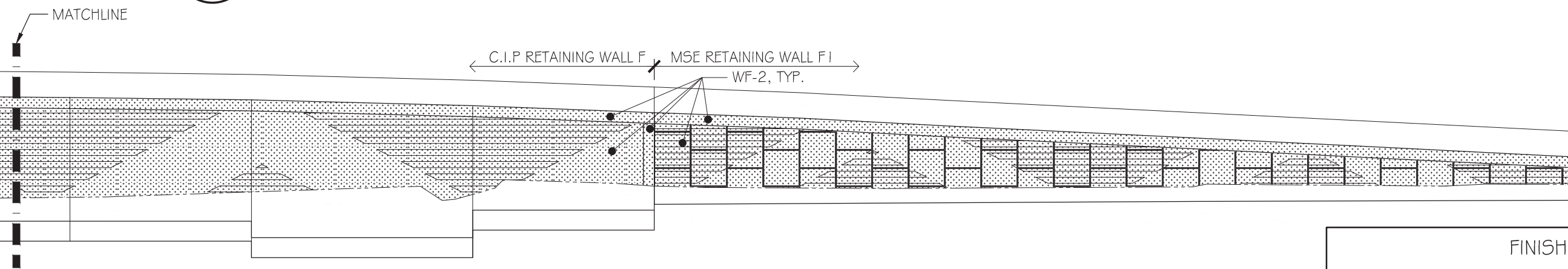
DESCRIPTION	REVISIONS	DATE



1 FINISH PLAN: RETAINING WALL 'F' & 'F1'
BA87 SCALE: 1/16" = 1'-0"



2 FINISH PLAN: RETAINING WALL 'F' & 'F1' CONT.
BA87 SCALE: 1/16" = 1'-0"



3 FINISH PLAN: RETAINING WALL 'F' & 'F1' CONT.
BA87 SCALE: 1/16" = 1'-0"

GENERAL NOTE

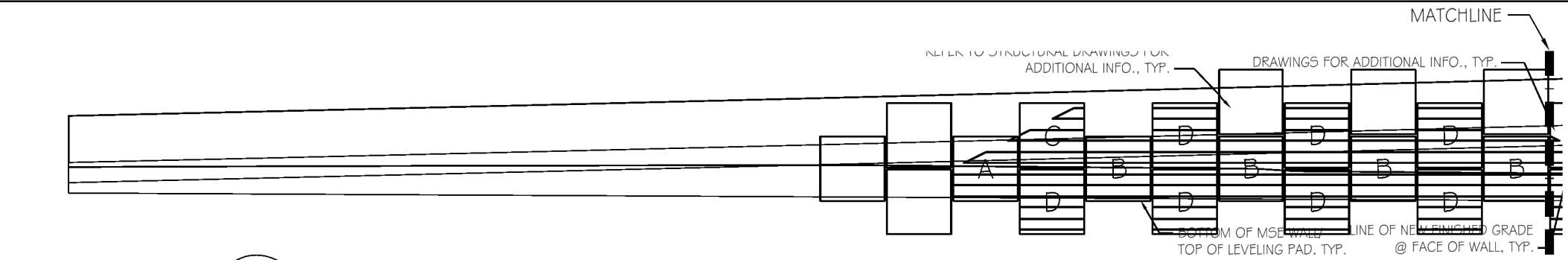
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FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

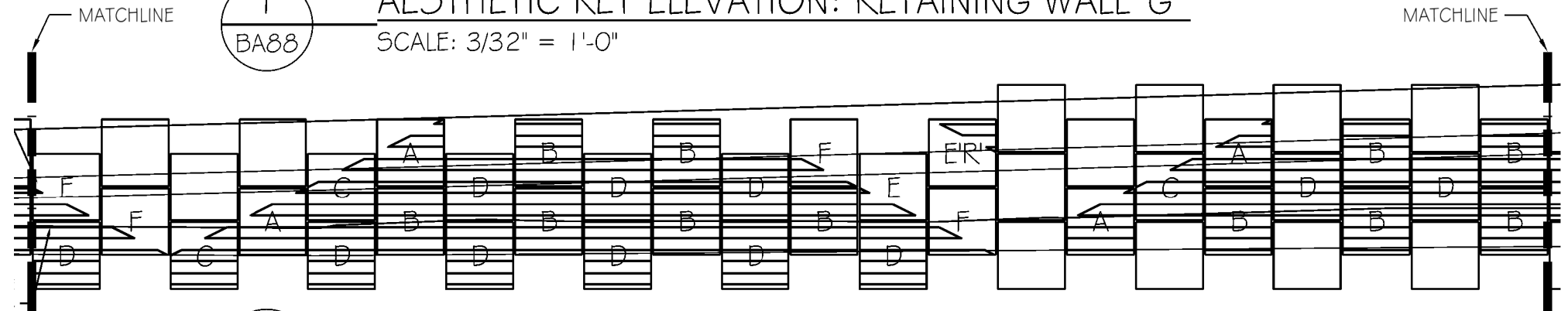
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

OAKLAHOMA COUNTY
 FINISHED PLANS:
 M.S.E & C.I.P. RETAINING WALL
 F & F1
 Job Piece No 23310(04) Sheet No. BA87

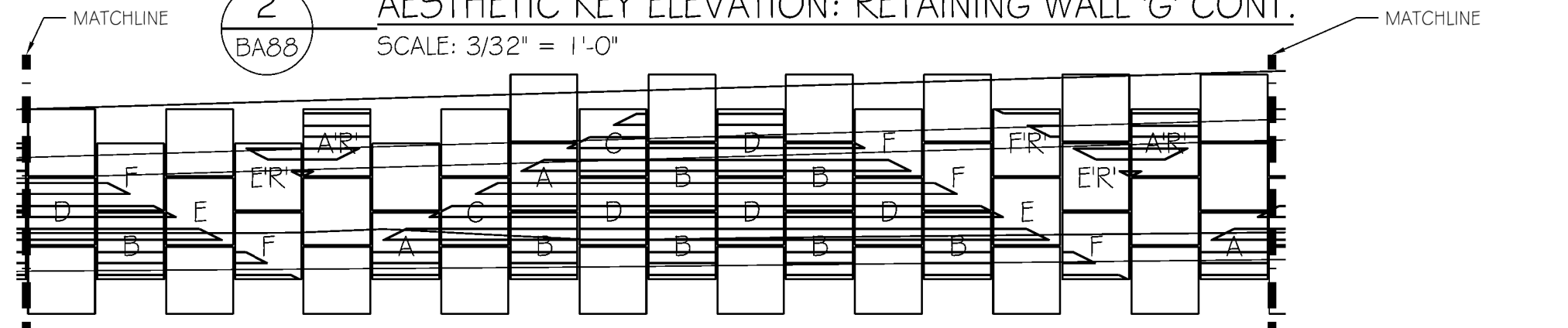
DESCRIPTION	REVISIONS	DATE



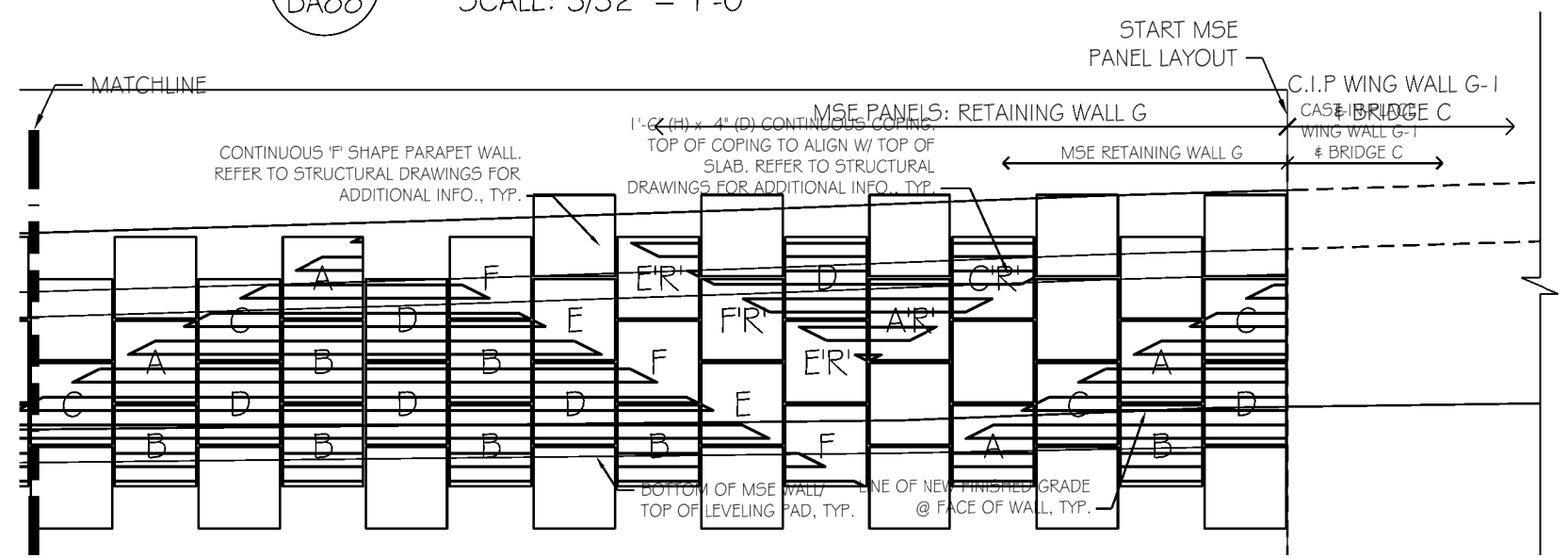
1 AESTHETIC KEY ELEVATION: RETAINING WALL 'G'
 BA88 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'G' CONT.
 BA88 SCALE: 3/32" = 1'-0"



3 AESTHETIC KEY ELEVATION: RETAINING WALL 'G' CONT.
 BA88 SCALE: 3/32" = 1'-0"

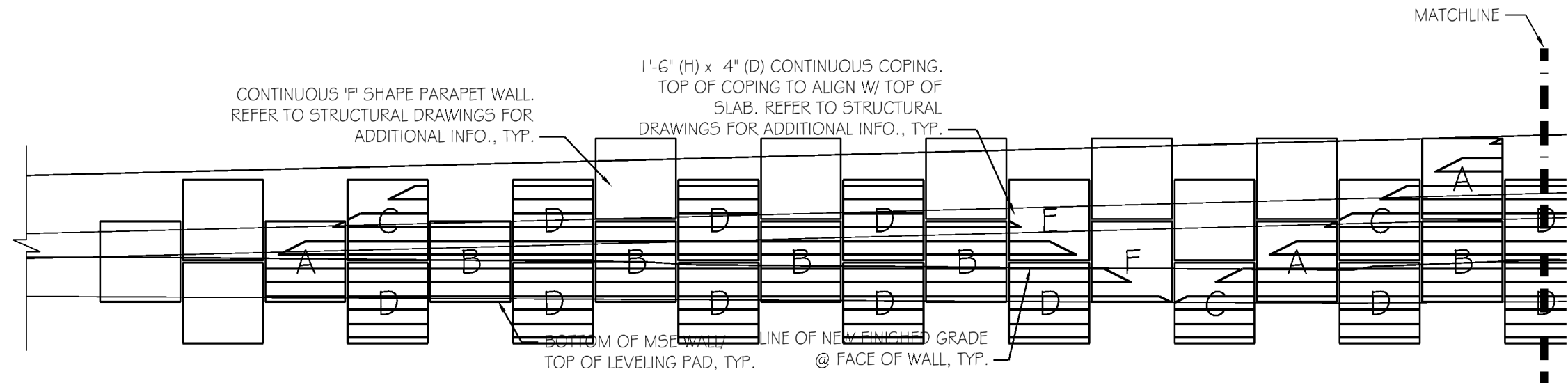


4 AESTHETIC KEY ELEVATION: RETAINING WALL 'G' CONT.
 BA88 SCALE: 3/32" = 1'-0"

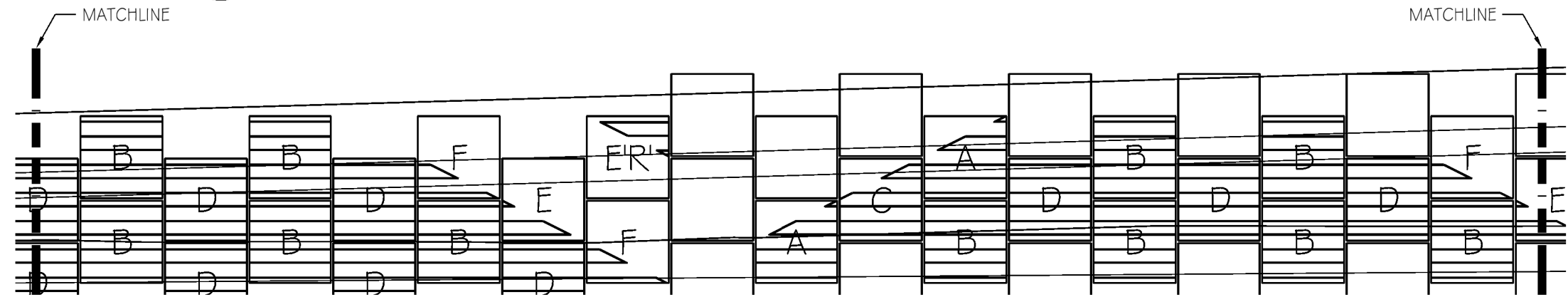
GENERAL NOTE

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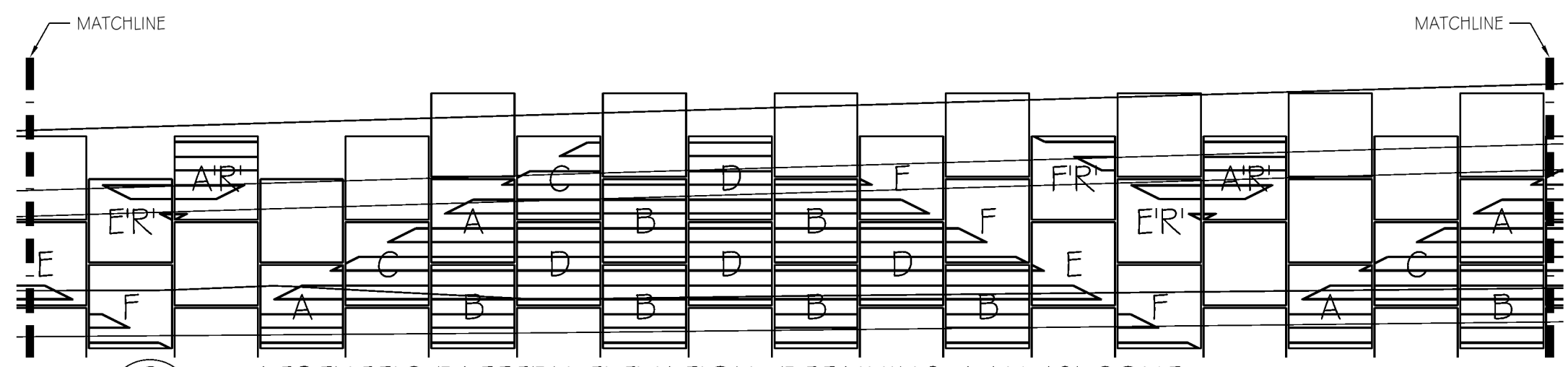
Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	



1
BA89
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'G'
SCALE: 1/8" = 1'-0"



2
BA89
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'G' CONT.
SCALE: 1/8" = 1'-0"



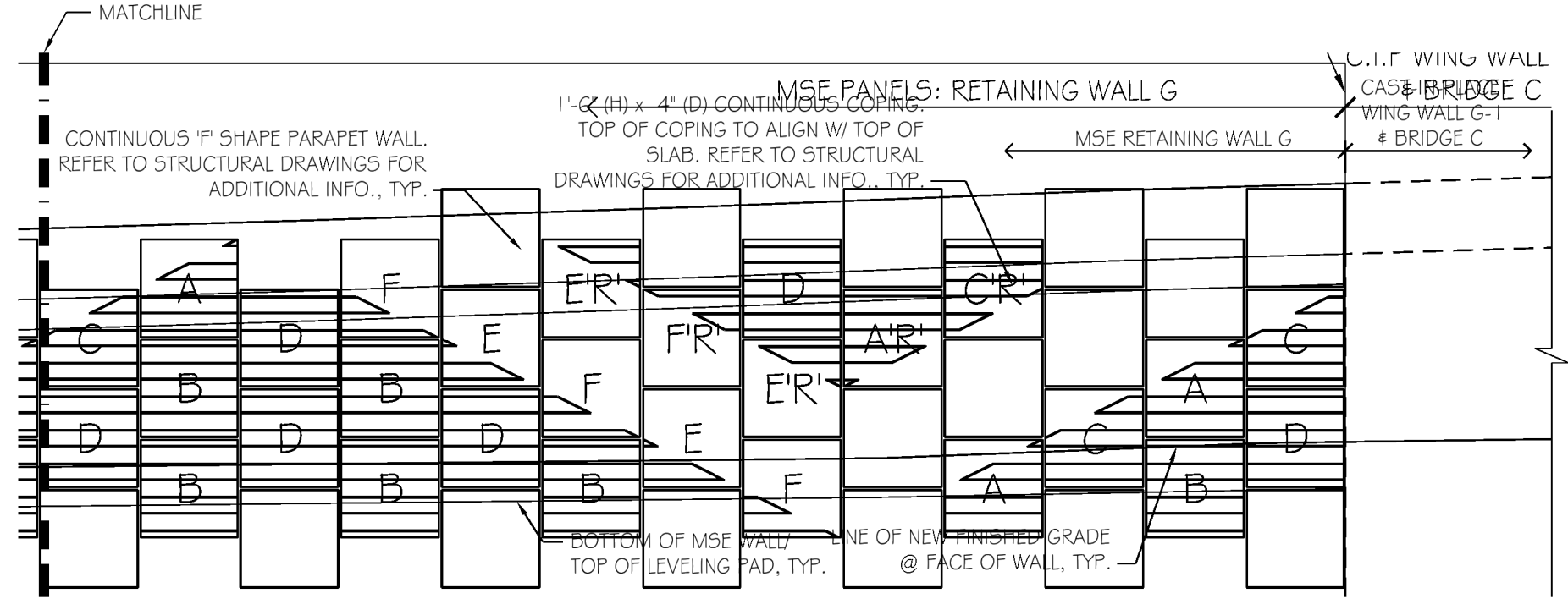
3
BA89
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'G' CONT.
SCALE: 1/8" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1
BA90

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'G'

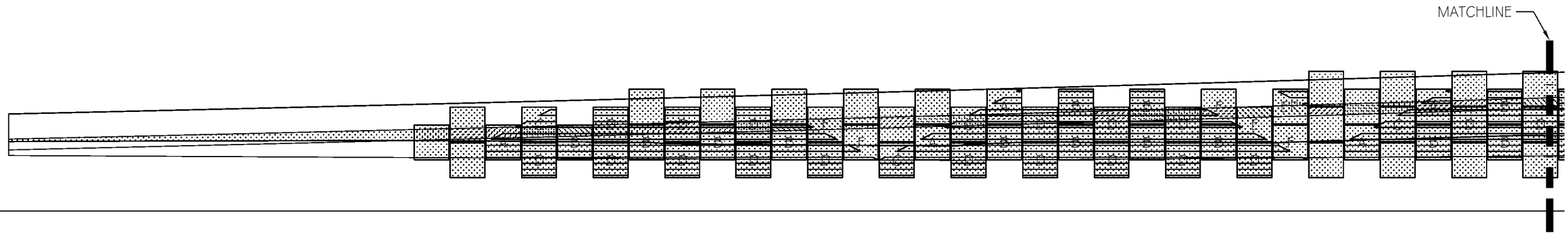
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GENERAL NOTE

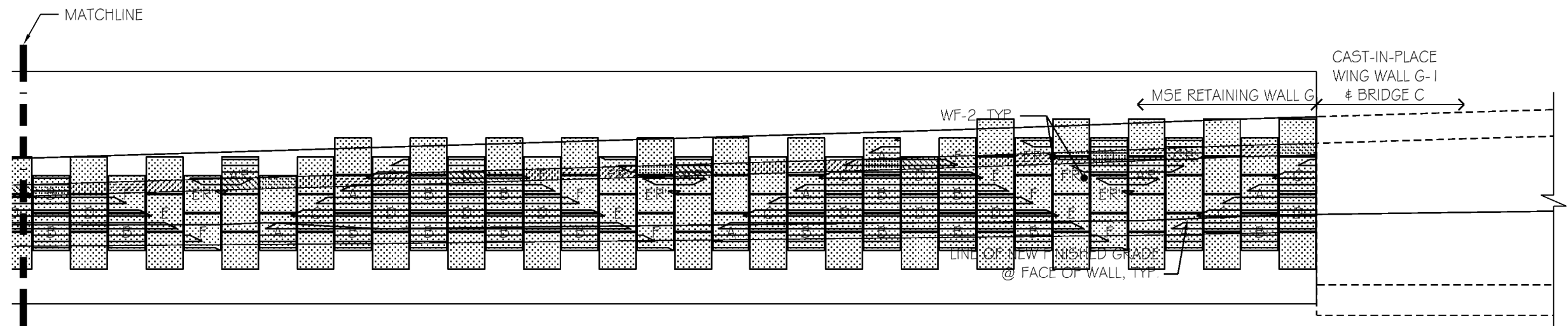
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	DATE



1
BA91 FINISH PLAN: RETAINING WALL 'G'
SCALE: 1/16" = 1'-0"



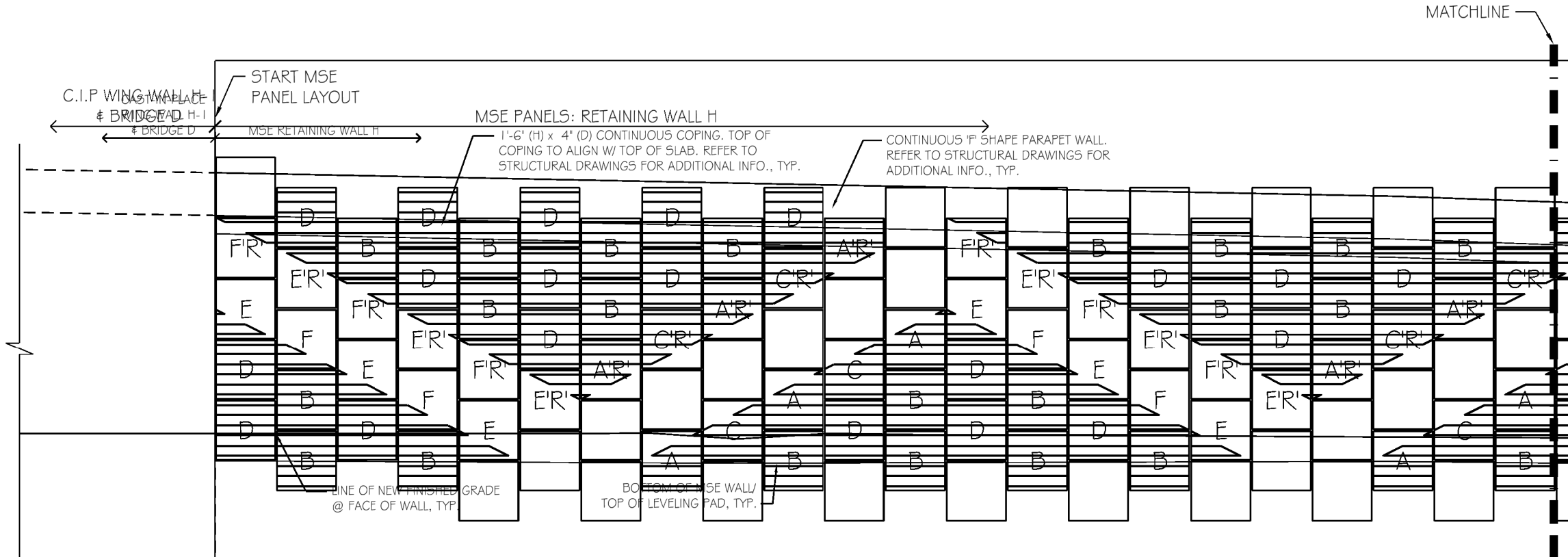
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BA91 FINISH PLAN: RETAINING WALL 'G' CONT.
SCALE: 1/16" = 1'-0"

GENERAL NOTE

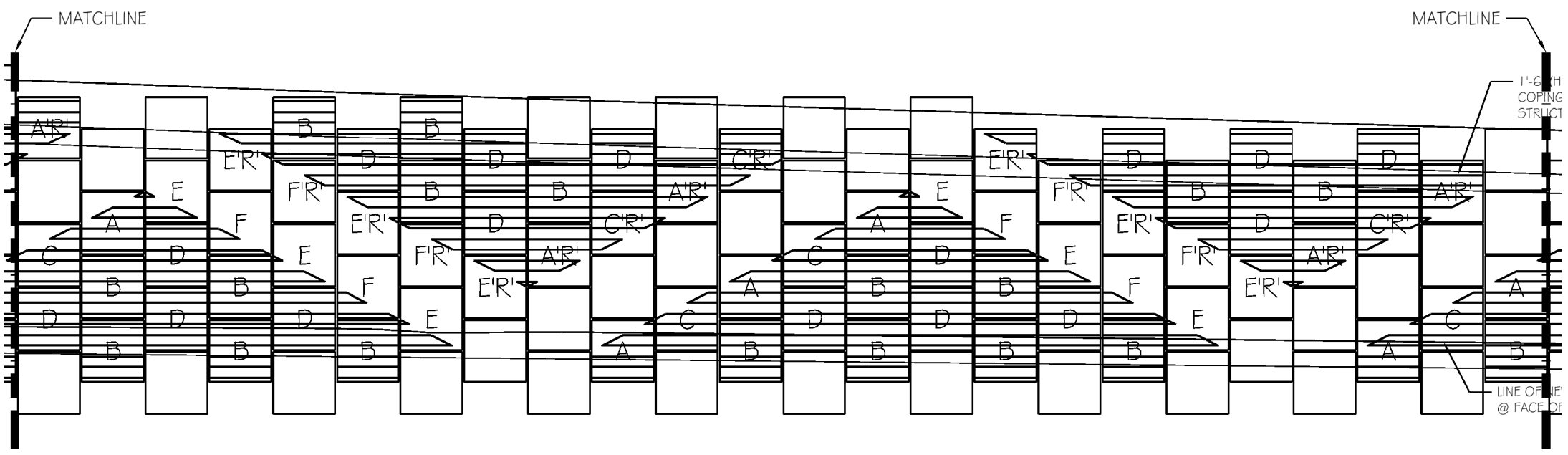
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- ALL CONCRETE STAIN APPLICATION SHALL BE LIMITED TO SPECIFIED EXPOSED SURFACES ABOVE FINISHED GRADE.

FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'H'
 BA92 SCALE: 3/32" = 1'-0"



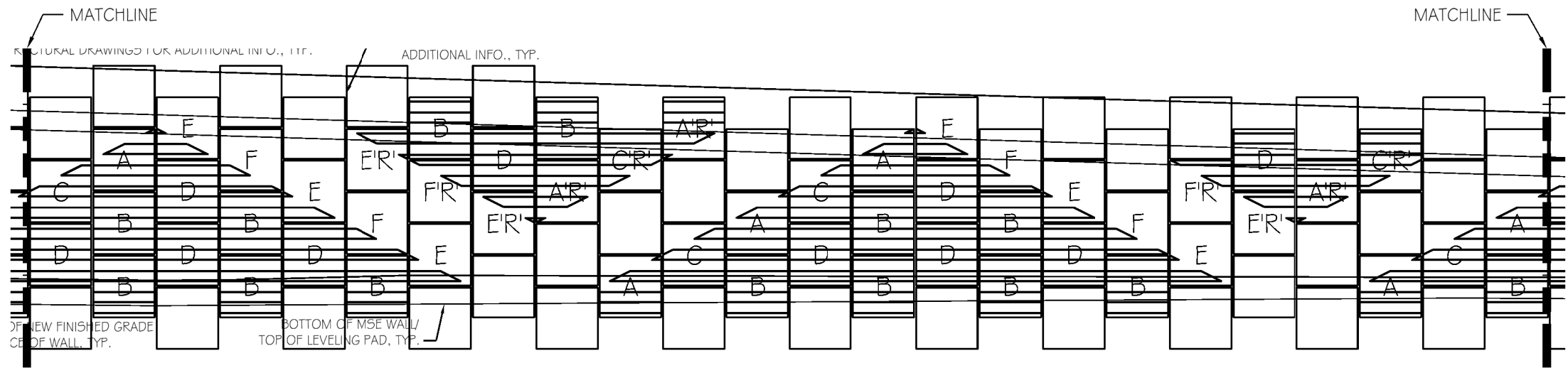
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 BA92 SCALE: 3/32" = 1'-0"

GENERAL NOTE

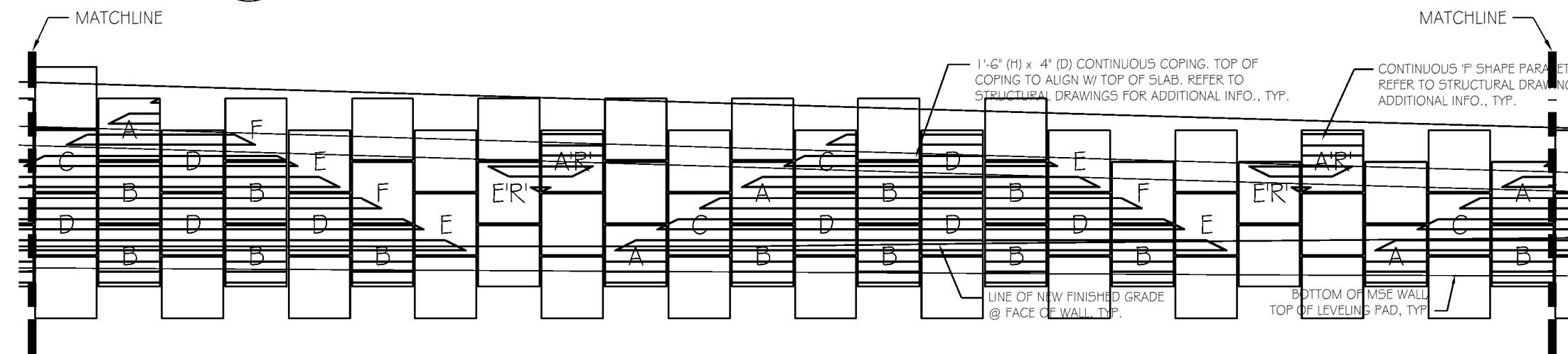
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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

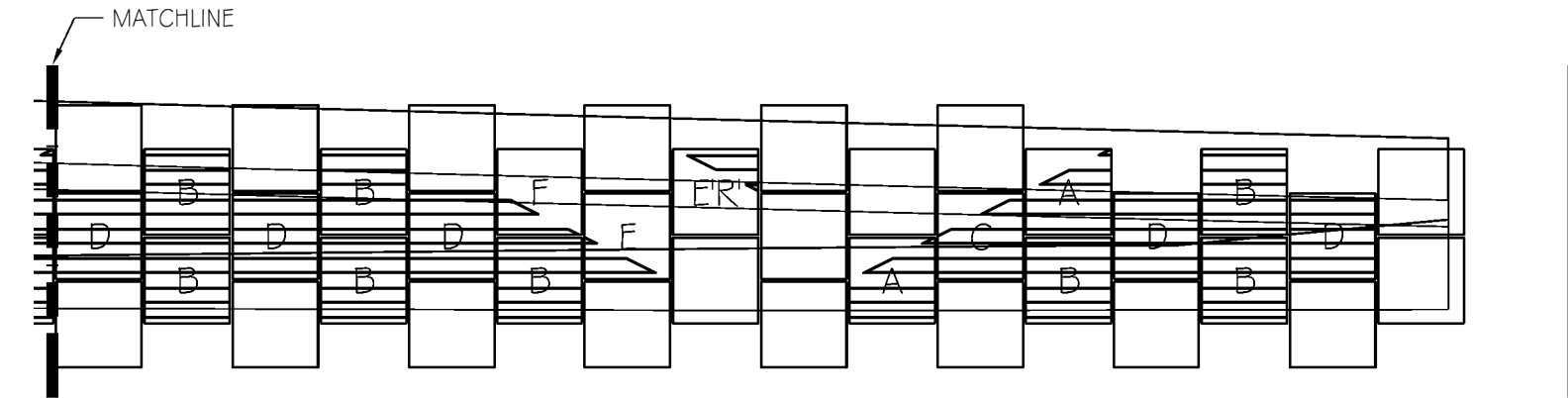
DESCRIPTION	REVISIONS	DATE



1 AESTHETIC KEY ELEVATION: RETAINING WALL 'H' CONT.
 BA93 SCALE: 3/32" = 1'-0"



2 AESTHETIC KEY ELEVATION: RETAINING WALL 'H' CONT.
 BA93 SCALE: 3/32" = 1'-0"



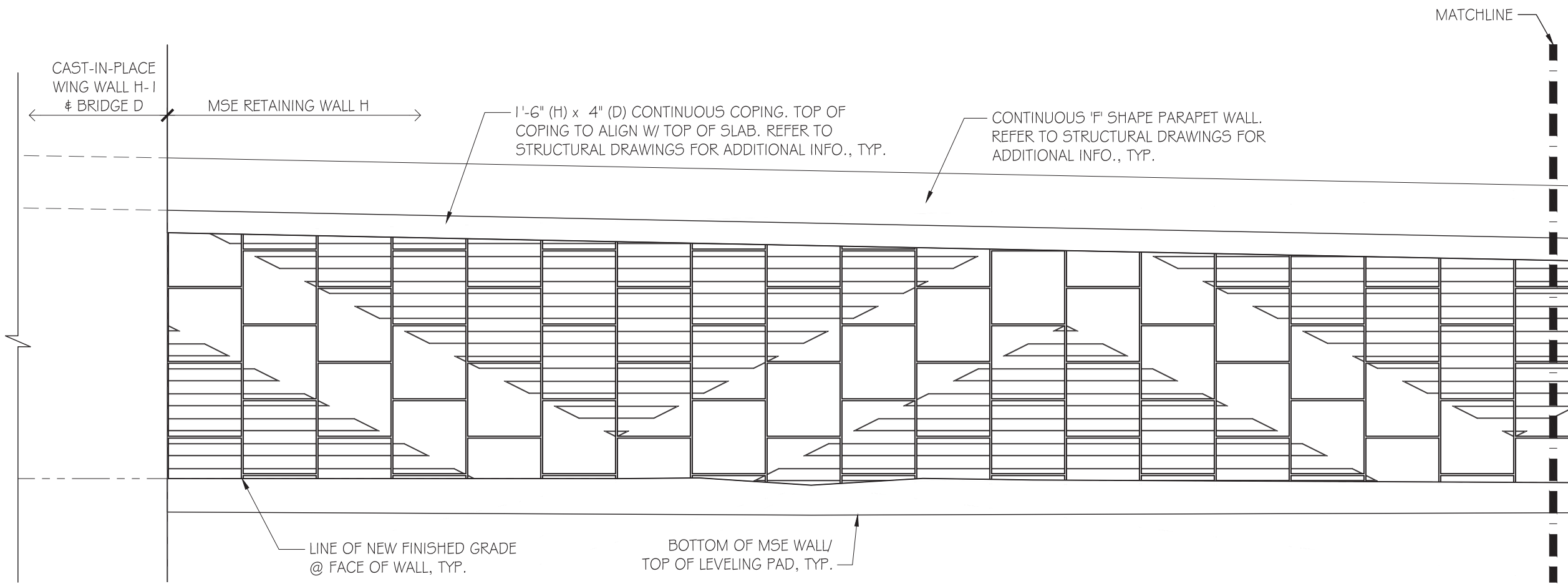
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 BA93 SCALE: 3/32" = 1'-0"

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Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

DESCRIPTION	REVISIONS	
	DATE	

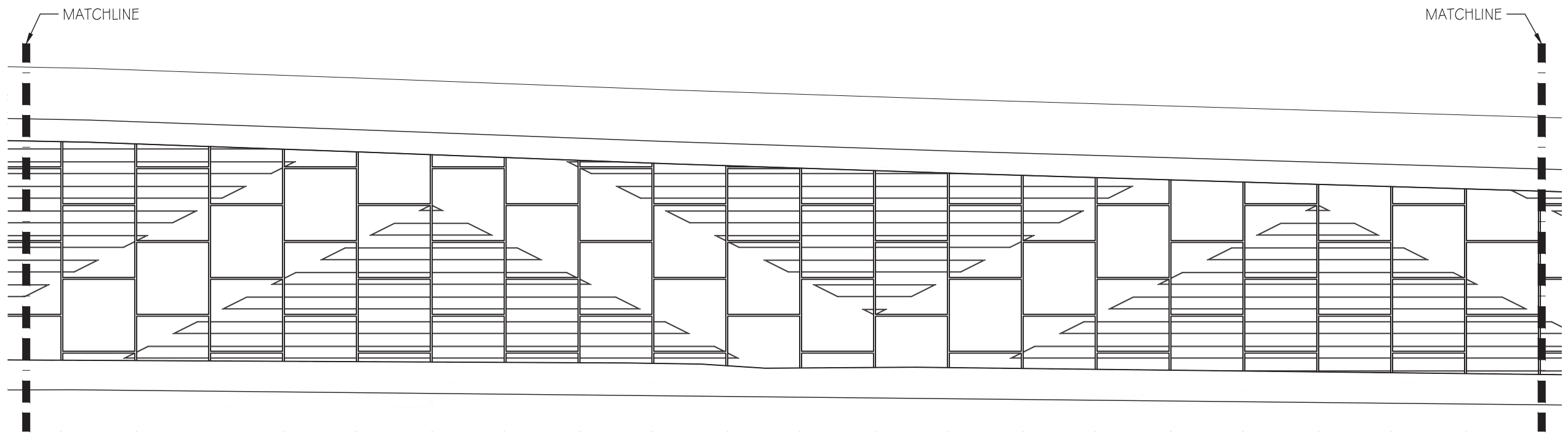


1
BA94

AESTHETIC PATTERN ELEVATION: RETAINING WALL 'H'
SCALE: 1/8" = 1'-0"

GENERAL NOTE

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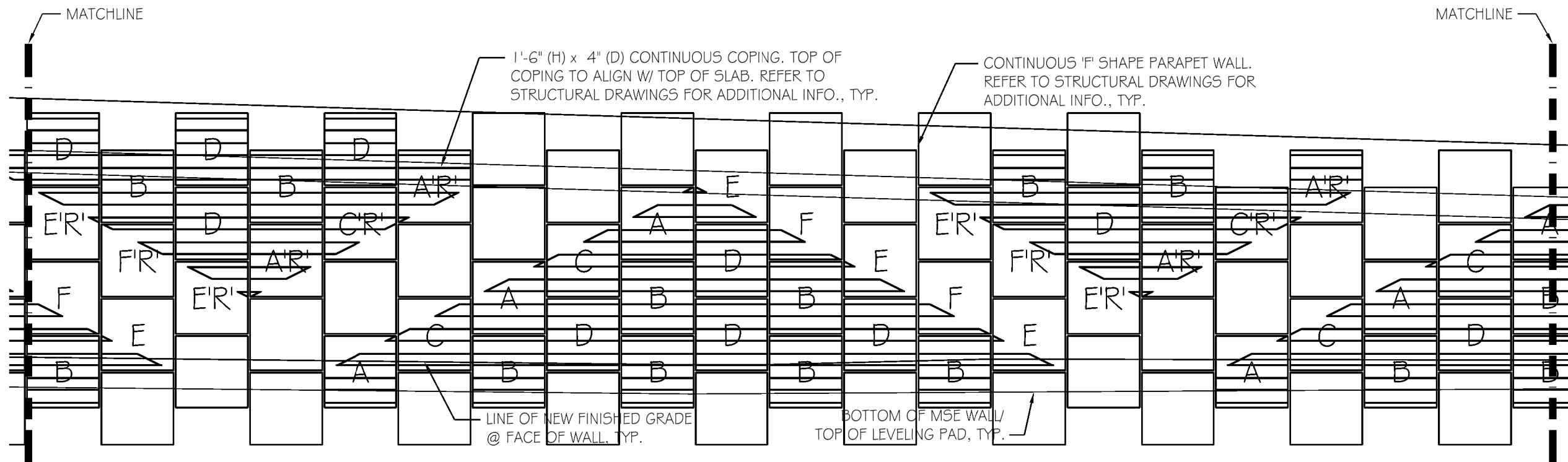


2
BA94

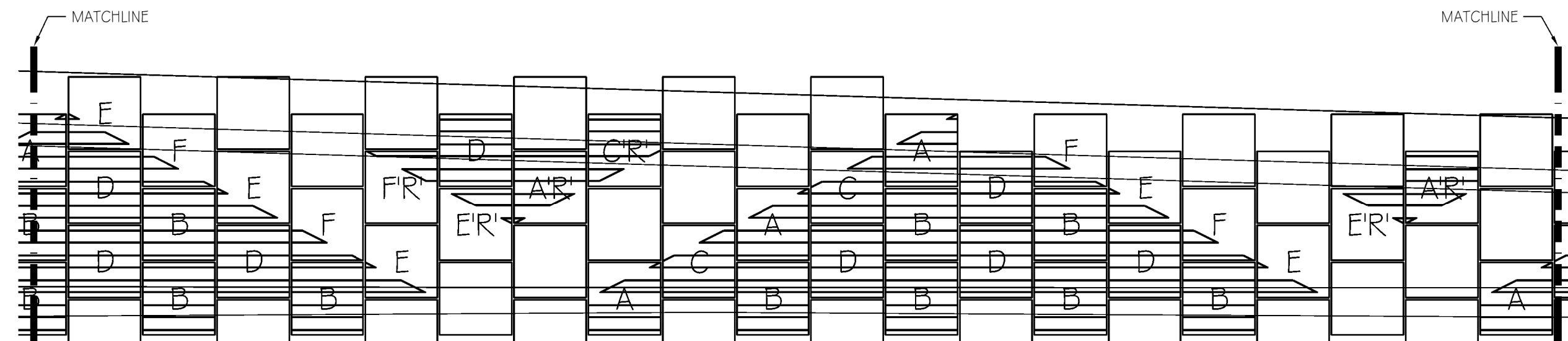
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'H' CONT.
SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad		

DESCRIPTION	REVISIONS	
	DATE	



1
BA95
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'H' CONT.
SCALE: 1/8" = 1'-0"



2
BA95
AESTHETIC PATTERN ELEVATION: RETAINING WALL 'H' CONT.
SCALE: 1/8" = 1'-0"

GENERAL NOTE

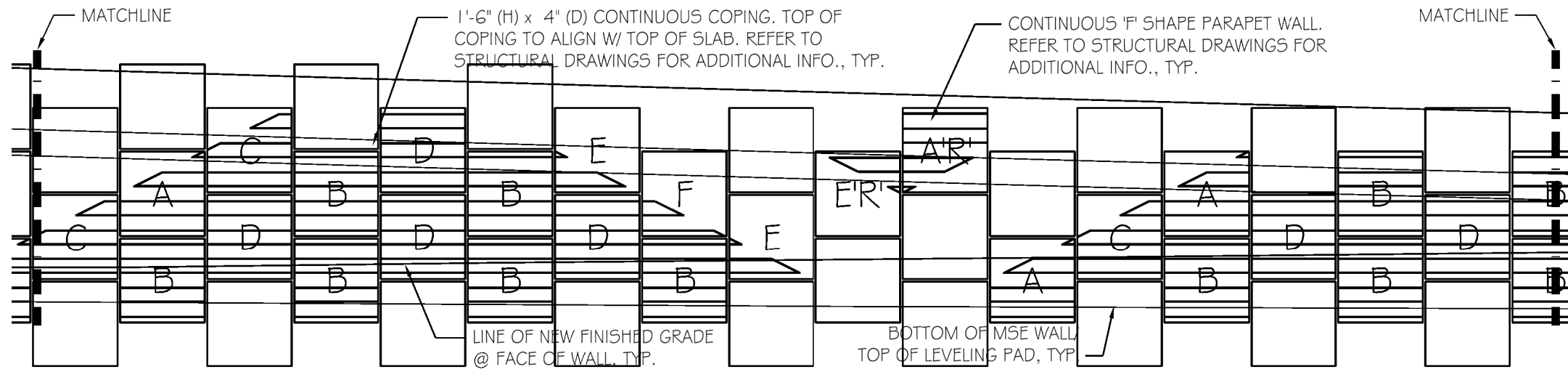
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Design		
Drawn		
Checked		
Approved		
Squad		

DESCRIPTION	REVISIONS	
	DATE	

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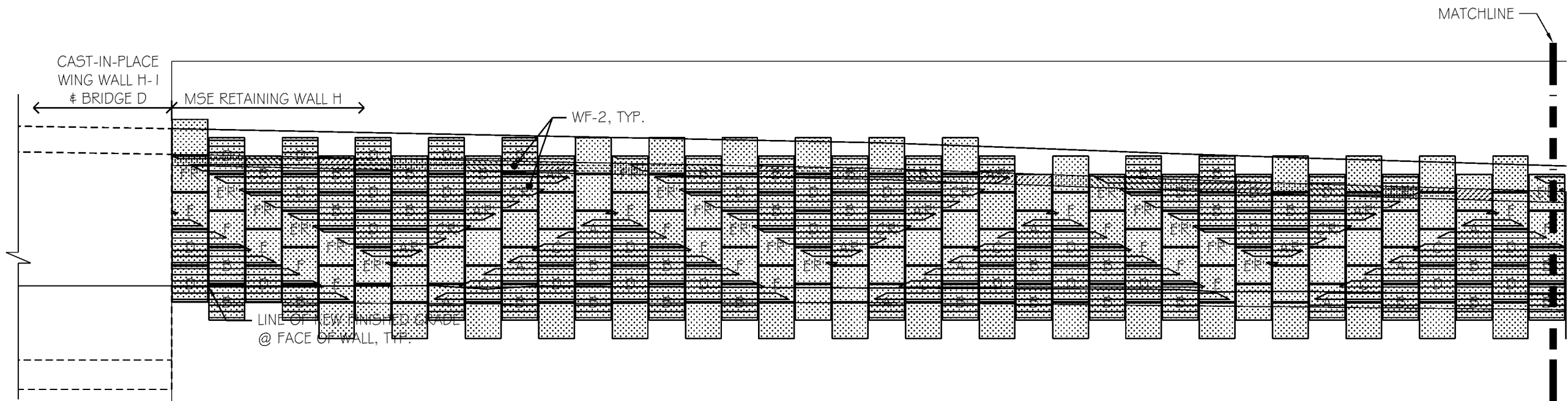
1 AESTHETIC PATTERN ELEVATION: RETAINING WALL 'H' CONT.
 BA96 SCALE: 1/8" = 1'-0"



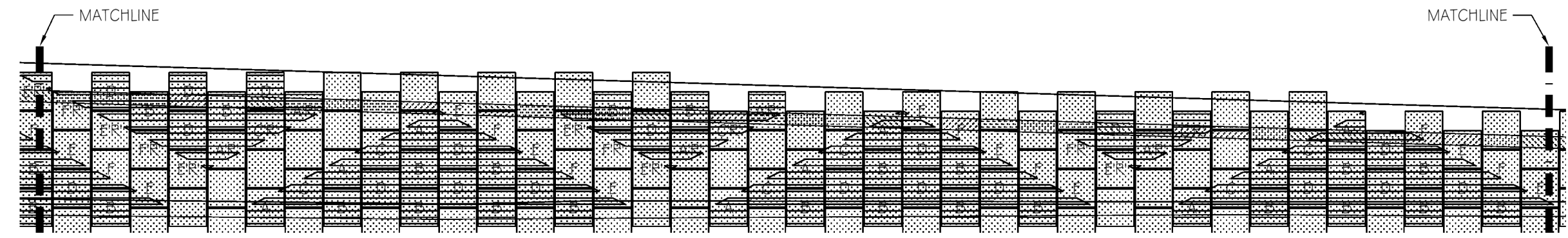
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 BA96 SCALE: 1/8" = 1'-0"

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

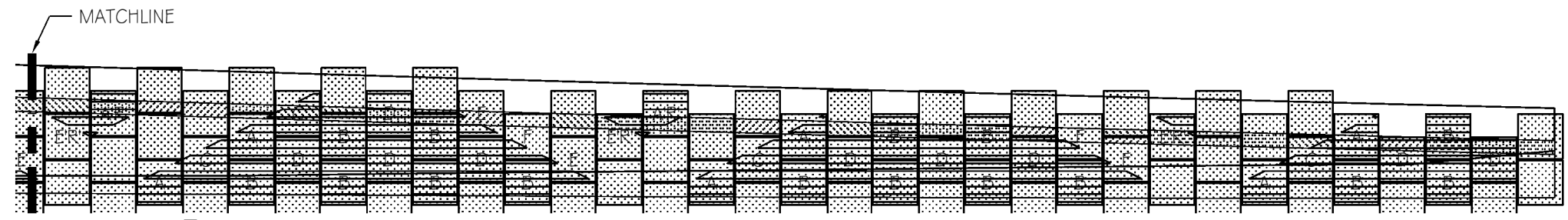
DESCRIPTION	REVISIONS	
	DATE	



1 FINISH PLAN: RETAINING WALL 'H'
BA97 SCALE: 1/16" = 1'-0"



2 FINISH PLAN: RETAINING WALL 'H' CONT.
BA97 SCALE: 1/16" = 1'-0"



3 FINISH PLAN: RETAINING WALL 'H' CONT.
BA97 SCALE: 1/16" = 1'-0"

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FINISH LEGEND			
TYPE	SYMBOL	FEDERAL COLOR ID NO.	COLOR
WF-1	NOT USED	-	-
WF-2		20260	TAN / ACCENT 1

Design	.	
Drawn	.	
Checked	.	
Approved	.	
Squad	.	

REVISIONS		
REV. NO.	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS

404 PERMIT INFORMATION

NATIONWIDE PERMIT NO. 14

TO BE PROVIDED AT A LATER DATE

SECTION 404 OF THE CLEAN WATER ACT REQUIRES PRIOR AUTHORIZATION FROM SECRETARY OF THE ARMY (CORPS) FOR THE DISCHARGE OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES.

- NO PRE-CONSTRUCTION NOTIFICATION REQUIRED: PROJECT DOES NOT REQUIRE NOTIFICATION TO THE US ARMY CORPS OF ENGINEERS (USACE) IN ORDER TO COMMENCE.
- PRE-CONSTRUCTION NOTIFICATION REQUIRED: RESIDENT ENGINEER MUST NOTIFY THE USACE WITHIN 30 DAYS OF THE START OF CONSTRUCTION AND 30 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, FORMS LOCATED IN THE CONTRACT.
- INDIVIDUAL PERMIT: WILL BE MONITORED CLOSELY BY THE USACE.
- GENERAL PERMIT: PROJECT WITHIN A DESIGNATED CRITICAL RESOURCE WATER AND WILL REQUIRE PRE-CONSTRUCTION NOTIFICATION SEE ABOVE FOR EXPLANATION OF PRE-CONSTRUCTION NOTIFICATION.
- NO PERMIT REQUIRED

SWT TRACKING NO. SWT-2013-520

SPECIAL CONDITIONS

- NAVIGABLE WATER OF THE U.S.
- ON-SITE MITIGATION
- ENDANGERED SPECIES PRESENT
- HISTORIC PROPERTIES PRESENT
- DESIGNATED CRITICAL RESOURCE WATERS

PERMIT GENERAL CONDITIONS

THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 404 PERMIT (SEE CONTRACT FOR COMPLETE LIST):

TEMPORARY FILLS:
APPROPRIATE MEASURES MUST BE TAKEN TO MAINTAIN NORMAL DOWNSTREAM FLOWS AND MINIMIZE FLOODING TO THE MAXIMUM EXTENT PRACTICABLE. WHEN TEMPORARY STRUCTURES (WORK ROADS, WORK PADS, ETC.) WORK, AND DISCHARGES, INCLUDING COFFERDAMS, ARE NECESSARY FOR CONSTRUCTION ACTIVITIES, ACCESS FILLS, OR DE WATERING OF CONSTRUCTION SITES, TEMPORARY FILLS MUST CONSIST OF MATERIALS, AND BE PLACED IN A MANNER THAT WILL NOT BE ERODED BY EXPECTED HIGH FLOWS. TEMPORARY FILLS MUST BE REMOVED IN THEIR ENTIRETY AND THE AFFECTED AREAS RETURNED TO PRE-CONSTRUCTION ELEVATIONS. THE AREAS AFFECTED BY TEMPORARY FILLS MUST BE VEGETATED, AS APPROPRIATE.

NAVIGATION:
NO ACTIVITY MAY CAUSE MORE THAN A MINIMAL ADVERSE EFFECT ON NAVIGATION WITHIN A NAVIGABLE WATER OF THE U.S. IF THIS PROJECT IS LOCATED WITHIN A NAVIGABLE WATER OF THE U.S., IT WILL BE IDENTIFIED IN THE SPECIAL CONDITIONS.

AQUATIC LIFE MOVEMENTS & ADVERSE EFFECTS FROM IMPOUNDMENTS:
NO ACTIVITY MAY LARGELY DISRUPT THE NECESSARY LIFE CYCLE MOVEMENTS OF THOSE SPECIES INDIGENOUS TO THE BODY OF WATER, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. CULVERTS WILL BE DESIGNED TO PROVIDE SUFFICIENT PASSAGE FOR AQUATIC LIFE AND INSTALLED TO MAINTAIN LOW FLOW. RATE OF FLOW CANNOT BE MADE HIGHER THAN WHAT WAS PRIOR TO THE START OF CONSTRUCTION. EROSION CONTROL MEASURES SHOULD BE UTILIZED AROUND THE PERIMETER OF NEW STRUCTURES TO AVOID SILT BUILD UP. CAUTION SHOULD BE TAKEN TO MINIMIZE HARM IF CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN A STREAM OR RIVER CHANNEL AND CREATE A CONFINED BODY OF WATER, CAUSE ADVERSE EFFECTS TO THE AQUATIC SYSTEM IN ANY WAY, AND/OR RESTRICTING ITS FLOW.

MANAGEMENT OF WATER FLOWS:
CONSTRUCTION ACTIVITIES MAY NOT IMPEDE THE PASSAGE OF NORMAL OR HIGH FLOWS. TO THE GREATEST EXTENT POSSIBLE, THE PRE- CONSTRUCTION COURSE, CONDITIONS, CAPACITY AND LOCATION OF OPEN WATERS MUST BE MAINTAINED. THIS INCLUDES STREAM CANALIZATION AND STORM WATER MANAGEMENT.

SUITABLE MATERIAL:
NO ACTIVITY MAY USE UNSUITABLE MATERIAL (E.G., TRASH, DEBRIS, CAR BODIES, ASPHALT, ETC.). MATERIALS USED FOR CONSTRUCTION OR DISCHARGED MUST BE FREE FROM TOXIC POLLUTANTS IN TOXIC AMOUNTS (SEE SECTION 307 OF CLEAN WATER ACT).

PROPER MAINTENANCE:
ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY AND COMPLIANCE WITH APPLICABLE NATION WIDE PERMIT GENERAL CONDITIONS, AS WELL AS ANY ACTIVITY- SPECIFIC CONDITIONS ADDED BY THE DISTRICT ENGINEER TO AN NATIONWIDE PERMIT AUTHORIZATION

HAZARDOUS MATERIALS:
HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS AND OTHER SUCH SUBSTANCES SHOULD BE STORED AWAY FROM ANY STREAM OR RIVERCHANNEL (SEE SECTION 307 OF CLEAN WATER ACT)

EQUIPMENT:
HEAVY EQUIPMENT WORKING IN WETLANDS OR MUDFLATS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE; FOR EXAMPLE IF WETLANDS ARE PRESENT WITHIN THE CONSTRUCTION, THE FOOTPRINT WILL BE SHOWN ON THE PLANS. MEASURES SHOULD BE TAKEN TO PREVENT DISCHARGE INTO ANY WATERS OF THE STATE (e.g. CONCRETE WASHOUT).

SOIL EROSION AND SEDIMENT CONTROLS:
APPROPRIATE SOIL EROSION AND SEDIMENT CONTROLS MUST BE USED AND MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION, AND ALL EXPOSED SOILS AND OTHER FILLS, AS WELL AS ANY WORK WITHIN STREAM OR RIVER CHANNELS OR BANKS, MUST BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE.

404 COMPLIANCE:
IN ORDER TO REMAIN COMPLIANT WITH THE 404 PERMIT, THE PROJECT MUST COMPLY WITH ALL FEDERAL ENVIRONMENTAL PROTECTION LAWS ASSOCIATED AND THE ENVIRONMENTAL COMMITMENTS AS SHOWN ON THE PLANS. THIS INCLUDES BUT IS NOT LIMITED TO COMPLIANCE WITH ALL ENVIRONMENTAL NOTES IN THE PLANS, INCLUDING CULTURAL RESOURCES, HAZARDOUS WASTE, BIOLOGICAL FOR PROTECTED SPECIES, AND DEQ STORM WATER REGULATIONS AS THEY PERTAIN TO THE SWMP SHEET WITHIN THE PLANS. ALL OF THE 404 PERMIT GENERAL AND SPECIFIC CONDITIONS MUST BE ADHERED TO. A COPY OF THESE CONDITIONS CAN BE FOUND IN THE CONTRACT WITH THE 404 PERMIT.

PERMIT GENERAL CONDITIONS

FUELING:
ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE ABOVE THE ORDINARY HIGH WATER MARK (OHWM).

MATERIAL STORAGE:
STORE MATERIAL AND FUEL OUTSIDE OF THE ORDINARY HIGH WATER MARK OR ANY AREA LIKELY TO FLOOD.

DEBRIS STORAGE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MATERIALS, DEBRIS, OR REFUSE WHICH HAS FALLEN INTO ANY STREAM OR RIVER CHANNELS RESULTING FROM THE EXECUTION OF THE PROJECT AS SOON AS POSSIBLE

SEE NATIONWIDE PERMIT 14 IN THE CONTRACT

401 CERTIFICATION CONDITIONS

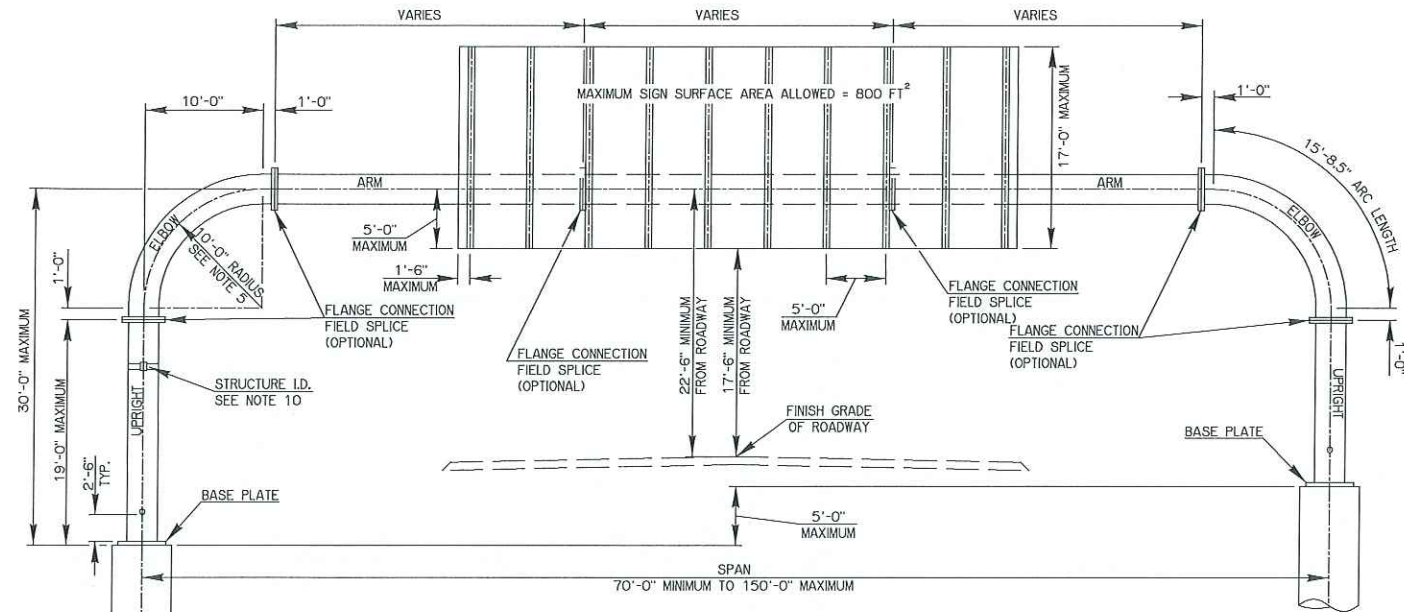
THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 401 CERTIFICATION (SEE CONTRACT FOR COMPLETE LIST):

- ALL SPILLS OF FUEL OR POLLUTANTS IN EXCESS OF FIVE GALLONS SHALL BE REPORTED TO ODEQ WITHIN 24 HRS AND REPORTED TO POLLUTION PREVENTION HOTLINE (1-800-522-0206)
- ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE OUTSIDE THE ORDINARY HIGH WATER MARK
- THE PERMITTEE SHALL PROVIDE ACCESS TO THE PROPERTY TO ODEQ FOR INSPECTIONS.
- ANY STOCKPILE SHALL BE ABOVE ORDINARY HIGH WATER MARK AND REMOVED FROM LIKELY FLOOD ZONE
- BEST MANAGEMENT PRACTICES SHOULD BE USED TO CONTROL SOIL EROSION AND MAINTAIN COMPLIANCE WITH WATER QUALITY STANDARDS.
- FOR ANY PROJECT THAT INVOLVES BANK STABILIZATION, THE PERMITTEE SHALL CONSIDER INSTALLING BIOENGINEERING PRACTICES IN PLACE OF STRUCTURAL PRACTICES (RIPRAP) TO MINIMIZE IMPACTS TO AQUATIC RESOURCES

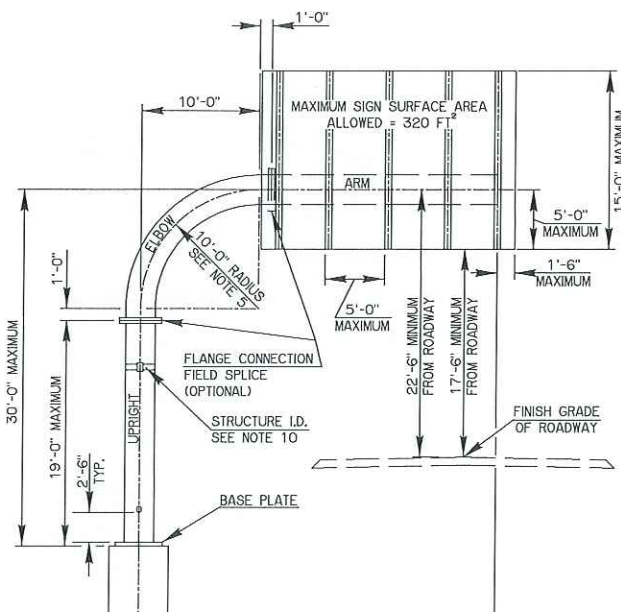
SECTION 404 PERMIT COMPLIANCE		DETAIL	
		REVIEW	
		APPROVED	
		ENVIRONMENTAL DIVISION	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION	JOB PIECE NO. 23310(X04)	SHEET NO. E001

11/20/2019 7:08:09 PM H:\PROJECTS\2890_1-40_Curto...Creek\Roadway\Drawings\2331004-Section 404 Permit Compliance.dwg

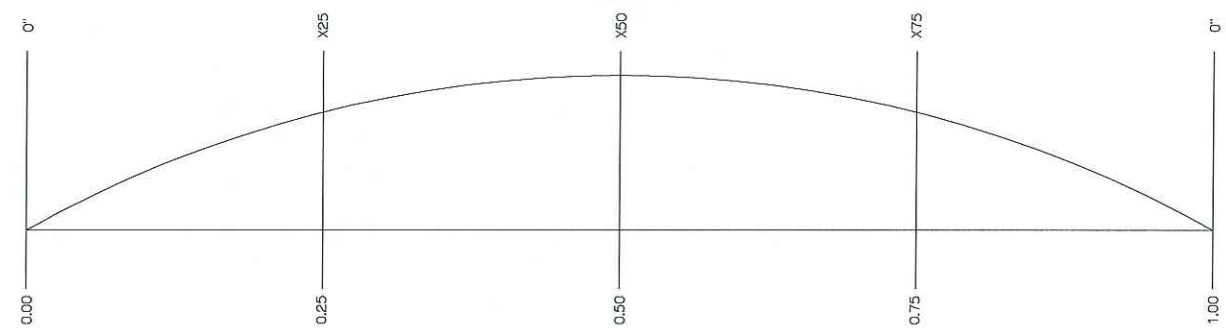
REV. NO.	DESCRIPTION	REVISIONS	DATE



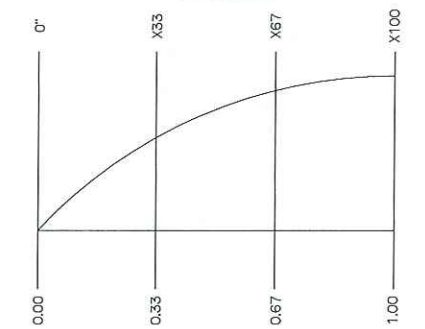
TYPE B



TYPE C



TYPE B CAMBER DIAGRAM (SEE CAMBER SCHEDULE)



TYPE C CAMBER DIAGRAM (SEE CAMBER SCHEDULE)

SPAN (FT)	X25 (IN)	X50 (IN)	X75 (IN)
70	1.08	1.27	1.08
75	1.20	1.43	1.20
80	1.32	1.61	1.32
85	1.46	1.81	1.46
90	1.61	2.03	1.61
95	1.62	1.94	1.62
100	1.77	2.22	1.77
105	1.93	2.46	1.93
110	2.10	2.72	2.10
115	2.28	3.00	2.28
120	2.48	3.31	2.48
125	2.60	3.65	2.60
130	2.92	4.01	2.92
135	3.17	4.40	3.17
140	3.43	4.83	3.43
145	3.71	5.29	3.71
150	4.02	5.78	4.02

SPAN (FT)	X33 (IN)	X67 (IN)	X100 (IN)
30	0.86	1.44	2.03

GENERAL INSTALLATION PROCEDURES

ENSURE THAT ALL ANCHOR BOLTS, BASE PLATES, AND FLANGE PLATES ARE PROPERLY ALIGNED TO PREVENT UNACCEPTABLE DISTORTION OF THE STRUCTURE UPON FINAL INSTALLATION. IN THE EVENT THAT THE DRILLED SHAFT AND ANCHOR BOLTS ARE INSTALLED PRIOR TO THE FABRICATION OF THE MONOTUBE STRUCTURE, THE MONOTUBE FABRICATOR SHOULD COORDINATE WITH THE DRILLED SHAFT CONTRACTOR TO ENSURE THAT THE BASE PLATES AND FLANGES ARE FABRICATED SO THAT PROPER ALIGNMENT OF ALL BOLT HOLES IS ACHIEVED. IN THE EVENT THAT THE MONOTUBE SIGN STRUCTURE IS FABRICATED PRIOR TO THE INSTALLATION OF THE DRILLED SHAFT AND ANCHOR BOLTS, THE DRILLED SHAFT CONTRACTOR SHOULD COORDINATE WITH THE SIGN STRUCTURE FABRICATOR TO ENSURE THAT THE ANCHOR BOLT INSTALLATION ALLOWS FOR PROPER ALIGNMENT OF ALL BOLTED CONNECTIONS. CONSTRUCTION TOLERANCES SET FORTH IN THE 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SHALL APPLY.

ERECT MONOTUBE SIGN STRUCTURE IN A MANNER APPROVED BY THE RESIDENT ENGINEER. SUPPORT ALL COMPONENTS OF THE STRUCTURE UNTIL FINAL TENSIONING OF ALL BOLTS AND FASTENERS IS COMPLETE.

INSTALLATION OF ALL FASTENERS AND BOLTS USING DIRECT TENSION INDICATORS SHALL BE IN ACCORDANCE WITH THE 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. ENSURE THAT THE MONOTUBE SIGN STRUCTURE IS PROPERLY ATTACHED TO THE ANCHOR BOLTS AND THAT ALL LEVELING NUTS ARE FLUSH WITH THE BOTTOM OF THE BASE PLATE. ENSURE THAT ALL FLANGES HAVE BEEN SECURELY FASTENED.

ITEM NO.	ITEM	UNIT
852(D)	OVHD.SN.STR., MONOTUBE TYPE B	EA
852(E)	OVHD.SN.STR., MONOTUBE TYPE C	EA

- GENERAL NOTES**
- MAXIMUM SIGN HEIGHT TO BE USED ON THE TYPE C STRUCTURE SHALL BE 15 FEET. MAXIMUM SIGN HEIGHT TO BE USED ON THE TYPE B STRUCTURE SHALL BE 17 FEET.
 - MAXIMUM SIGN AREA TO BE USED ON THE TYPE C STRUCTURE SHALL BE 320 SQUARE FEET. MAXIMUM SIGN AREA TO BE USED ON THE TYPE B STRUCTURE SHALL BE 800 SQUARE FEET.
 - FOR SIGNS LESS THAN 10'-0" TALL, SIGNS SHALL BE CENTERED ON THE SPAN. FOR SIGNS GREATER THAN OR EQUAL TO 10'-0" TALL, BOTTOM OF SIGNS SHALL BE 5'-0" BELOW \bar{C} OF THE SPAN.
 - THE LENGTH OF THE ARM MEMBERS LABELED AS 'VARIES' SHOULD BE A MINIMUM OF 30'-0" FOR TYPE 'B' MONOTUBE SIGN STRUCTURES.
 - ADJUST BEND RADIUS ACCORDING TO CAMBER DIAGRAM. ALL TRANSVERSE PLATES CONNECTING TO AN ELBOW SHALL BE PERPENDICULAR TO THE CENTERLINE OF THE ELBOW AT THE LOCATION OF THE CONNECTION.
 - STRUCTURAL STEEL TUBING USED IN THE FABRICATION OF MONOTUBES SHALL EITHER BE COLD-FORMED WELDED OR SEAMLESS TUBING CONFORMING TO THE ASTM A500, GRADE C (MEETING AASHTO M270 ZONE 2 FRACTURE CRITICAL CHARPY V-NOTCH REQUIREMENTS) OR API 5L PSL 2, GRADE X52 (MEETING AASHTO M270 ZONE 2 FRACTURE CRITICAL CHARPY V-NOTCH REQUIREMENTS).
 - BASE PLATES, FLANGE PLATES, AND FILLER PLATES TO BE STRUCTURAL STEEL CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION: A709, GRADE 50.
 - ALL FLANGE BOLTS TO CONFORM TO THE SPECIFICATIONS OF ASTM A490, TYPE 1, AND SHALL BE TIGHTENED AND INSPECTED USING DIRECT TENSION INDICATORS TO CONFORM TO THE SPECIFICATIONS OF ASTM F959, TYPE 490. ALL WASHERS TO CONFORM TO THE SPECIFICATIONS OF ASTM F436, TYPE 1. ALL NUTS USED TO FASTEN ASTM A490 BOLTS SHALL BE ASTM A563, GRADE DH. ALL ANCHOR BOLTS TO CONFORM TO THE SPECIFICATIONS OF ASTM F1554-GRADE 55 (MEETING ASTM F1554 CHARPY V-NOTCH REQUIREMENTS) AND TO BE TIGHTENED AND INSPECTED USING DIRECT TENSION INDICATORS CONFORMING TO THE SPECIFICATIONS OF ASTM F2437 (TYPE 1 GRADE 55). ALL ANCHOR BOLT NUTS TO CONFORM TO THE SPECIFICATIONS OF ASTM A563-GRADE A. ALL ANCHOR BOLT WASHERS TO CONFORM TO THE SPECIFICATIONS OF ASTM F436, TYPE 1.
 - HOT-DIP GALVANIZE ALL TUBE MEMBERS AND PLATES PER ASTM A123. COAT ASTM A490 FASTENERS PER ASTM F1136, GRADE 3. WHEN COATING ASTM A490 FASTENERS HYDROGEN EMBRITTLEMENT SHALL BE INVESTIGATED AND PREVENTED PER THE APPLICABLE ASTM SPECIFICATIONS. COAT NUTS USED WITH ASTM A490 FASTENERS PER ASTM F1136, GRADE 5. COAT WASHERS USED WITH ASTM A490 FASTENERS PER ASTM F1136, GRADE 3. COAT ANCHOR BOLTS, NUTS USED WITH ANCHOR BOLTS, AND WASHERS USED WITH ANCHOR BOLTS PER ASTM F2329.
 - STAMP STRUCTURE IDENTIFICATION ON UPRIGHT OF STRUCTURE WITH THE FOLLOWING INFORMATION: JP#, TYPE 'B' OR TYPE 'C', STRUCTURE LENGTH, MAXIMUM ALLOWABLE SIGN AREA, MAXIMUM ALLOWABLE SIGN HEIGHT, DATE MANUFACTURED, AND MANUFACTURER'S NAME.
 - MAST ARMS TO BE TEMPORARILY SUPPORTED TO TAKE ALL LOAD OFF OF THE FIELD SPLICES WHILE BOLTS ARE BEING TIGHTENED IN ORDER TO FIRMLY SEAT THE FLANGE PLATES AND BASE PLATES.
 - POSTS FOR TUBULAR SIGN STRUCTURES TO BE FORMED TO THE RADII SHOWN ON THE PLANS BY FABRICATION METHODS WHICH WILL NOT CRIMP OR BUCKLE THE INTERIOR RADIUS OF THE PIPE BEND.
 - CLIPS, EYES OR REMOVABLE BRACKETS TO BE AFFIXED TO ALL POSTS AND MAST ARMS, AS NECESSARY, TO SECURE THE SIGN DURING SHIPPING AND FOR LIFTING AND MOVING DURING ERECTION. THIS IS TO PREVENT DAMAGE TO THE FINISHED GALVANIZED OR PAINTED SURFACES. BRACKETS ON TUBULAR SIGN STRUCTURES TO BE REMOVED AFTER ERECTION. DETAILS OF SUCH DEVICES TO BE SHOWN ON THE SHOP DRAWINGS.
 - BOLTS WITH DIAMETERS EXCEEDING BY UP TO 1/4 INCH THE DIAMETER OF THE BOLTS SHOWN ON THE PLANS MAY BE USED, PROVIDED THAT THE REQUIRED CLEARANCES AND EDGE DISTANCE ARE NOT REDUCED BELOW THAT REQUIRED FOR THE LARGER BOLT.
 - FABRICATE ALL SIGN STRUCTURES TO THE LARGEST PRACTICAL SECTIONS PRIOR TO GALVANIZING. SPLICE LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND THE CONTRACTOR SHALL NOT COMMENCE FABRICATION UNTIL SUCH SPLICE LOCATIONS ARE APPROVED.
 - ALL TYPE 'C' SIGN STRUCTURES TO HAVE A REMOVABLE CAP ON THE END OF THE HORIZONTAL MEMBER OF THE STRUCTURE.
 - WELDING OF STEEL TO CONFORM TO THE REQUIREMENTS OF AWS D1.1 (LATEST REVISION). GRIND ALL AREAS TO BE WELDED TO BRIGHT METAL. COMPLETE ALL WELDING AND REQUIRED NON-DESTRUCTIVE TESTING BEFORE MATERIAL IS GALVANIZED. TEST ALL CIRCUMFERENTIAL WELDS NON-DESTRUCTIVELY USING THE ENHANCED MAGNETIC PARTICLE METHOD IN ACCORDANCE WITH ODOT STANDARD SPECIFICATION 720.03B. MAXIMUM WELD UNDERCUT SHALL BE 0.01".
 - ALL TUBE-TO-TRANSVERSE PLATE COMPLETE JOINT PENETRATION (CJP) GROOVE WELDS SHALL BE ULTRASONICALLY TESTED (UT) FOR CRACKS BEFORE AND AFTER GALVANIZATION.
 - WELD FILLER MATERIAL SHALL MEET ALL CHARPY V-NOTCH REQUIREMENTS SPECIFIED IN AWS D1.1 AT A TEMPERATURE OF 40°F.
 - ALL BASE METAL SHALL BE PREHEATED IN ACCORDANCE WITH AWS D1.1 PRIOR TO WELDING.
 - BACKING RING SHALL BE THOROUGHLY FUSED WITH THE WELD MATERIAL.
 - SMAW ELECTRODES SHALL BE THE LOW-HYDROGEN CLASSIFICATION AS DEFINED BY AWS D1.1.
 - STORAGE, HANDLING, AND USE OF LOW-HYDROGEN ELECTRODES SHALL BE IN CONFORMANCE WITH AWS D1.1.
 - THERE SHALL BE NO POST WELD HEAT TREATMENT OF THE TUBE-TO-TRANSVERSE PLATE CONNECTION.
 - THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO ODOT BRIDGE DIVISION. A WELDING PROCEDURE SPECIFICATION (WPS) SHALL BE ATTACHED TO THE SHOP DRAWINGS.
 - BACKING RING MATERIAL SHALL BE IN ACCORDANCE WITH AWS D1.1.

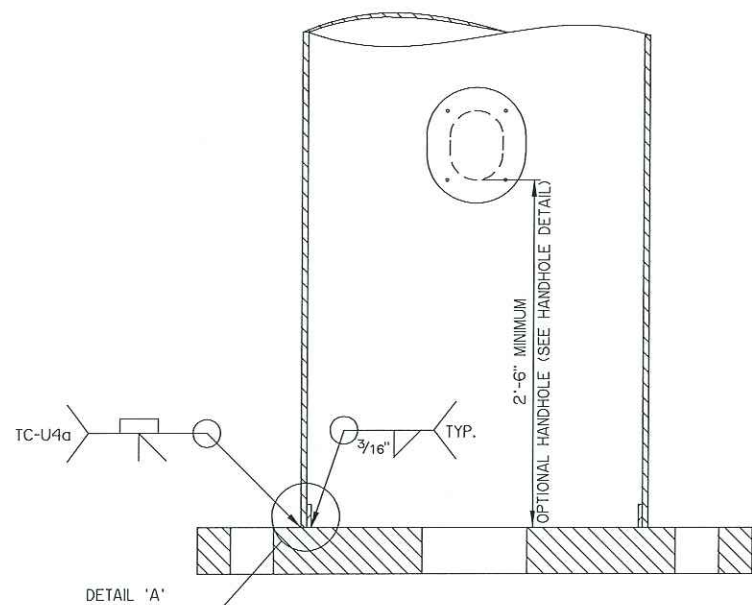
PREPARED BY:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN DIVISION
11/26/2019
DATE
JASON D. GIEBLER
OKLA. REG. NO. 24272
Signing for Monotube Sheets: M1-M7

MONOTUBE STRUCTURE (TYPE 'B' & TYPE 'C')

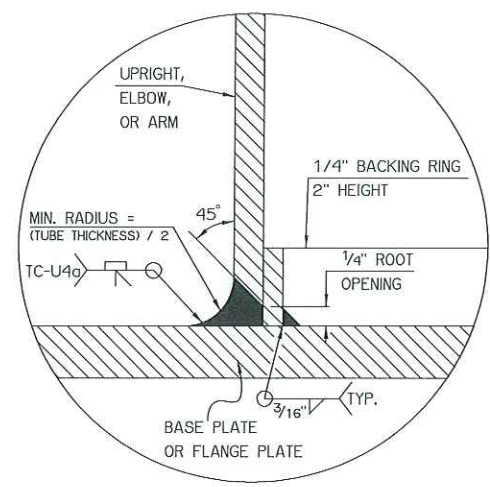
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Squad	SUPERVISOR	
Eng.	ENGINEER	

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION
JOB PECE NO. 23310(04) SHEET NO. M1

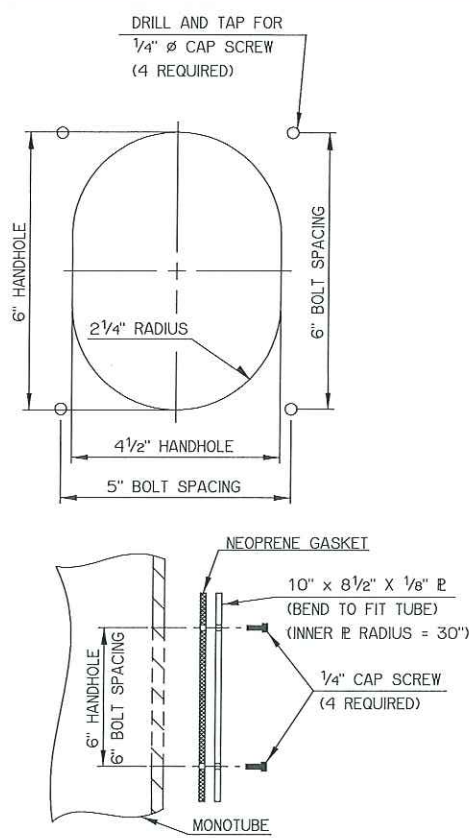
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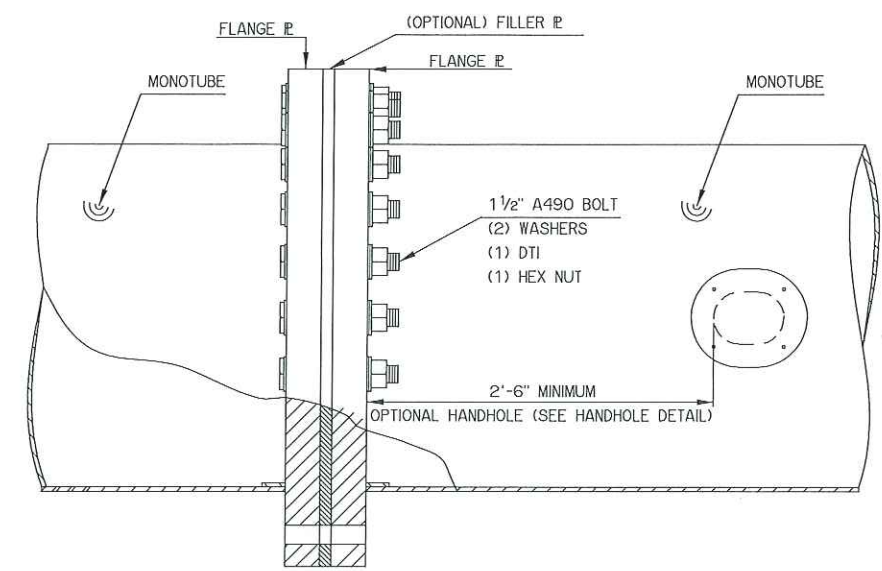
TUBE-TO-TRANSVERSE-PLATE DETAIL (TYPICAL)
(DETAIL TYPICAL FOR BASE AND FLANGE PLATES)



DETAIL 'A'



HANDHOLE DETAIL (OPTIONAL)

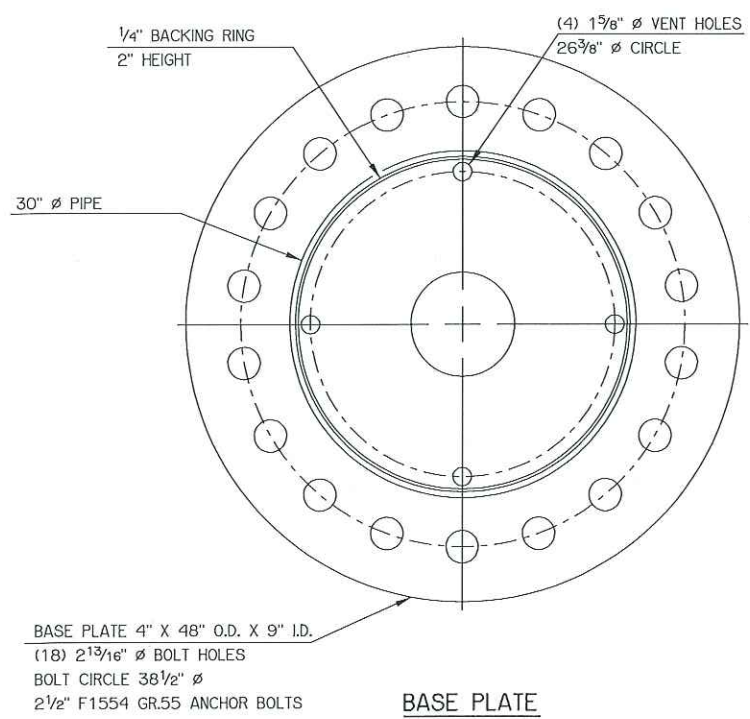


TYPICAL FLANGE CONNECTION DETAIL

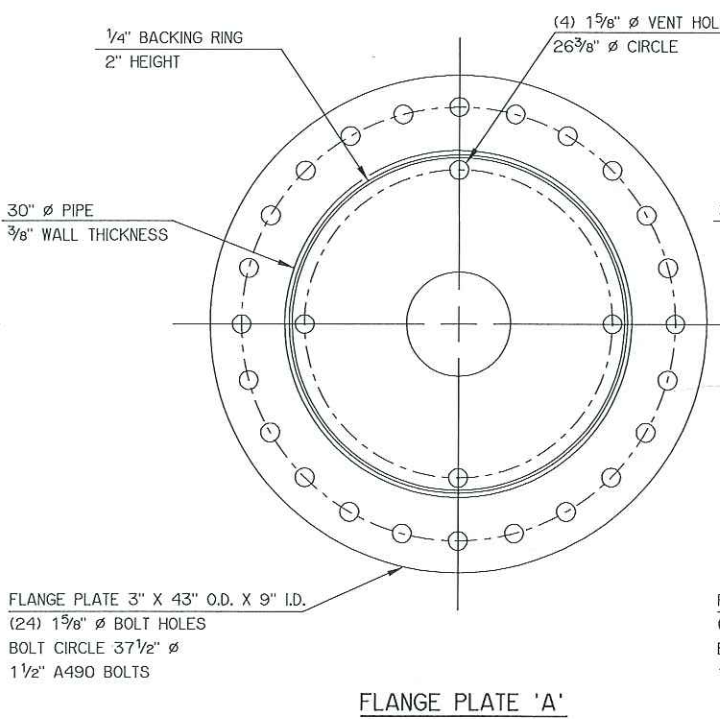
NOTE: OPTIONAL HANDHOLES FOR TYPE 'B' STRUCTURES SHOULD BE POSITIONED ON THE ROADWAY FACE OF THE TUBE.

OPTIONAL FILLER PLATE NOTE:

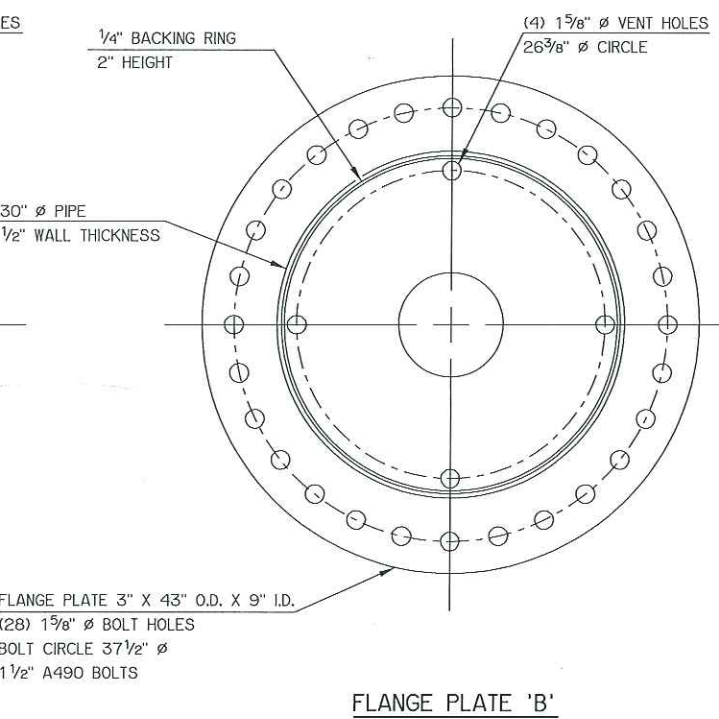
DURING ASSEMBLY OF THE FLANGE CONNECTIONS, THE TWO ADJOINING MEMBERS SHALL NOT BE PULLED TOGETHER AND TIGHTENED IF A GAP OF OVER 1/8" EXISTS. IF A GAP EXCEEDING THIS TOLERANCE IS ENCOUNTERED, THE CONTRACTOR IS PERMITTED TO USE A FILLER PLATE AT A HORIZONTAL MEMBER FLANGE CONNECTION. THE MAXIMUM THICKNESS OF A FILLER PLATE AT ANY SINGLE FLANGE CONNECTION IS 1". IF MORE THAN 1", BUT LESS THAN OR EQUAL TO 6", IS REQUIRED FOR ASSEMBLY THE REQUIRED DIMENSION SHALL BE SEPERATED INTO TWO DIFFERENT FLANGE CONNCTIONS AND THE TWO FLANGE CONNECTIONS SHALL BE LOCATED SYMMETRICALLY ALONG THE TYPE B MONOTUBE STRUCTURE. ADDITION OF FILLER PLATES SHALL BE AT THE COST OF THE CONTRACTOR.



BASE PLATE



FLANGE PLATE 'A'



FLANGE PLATE 'B'

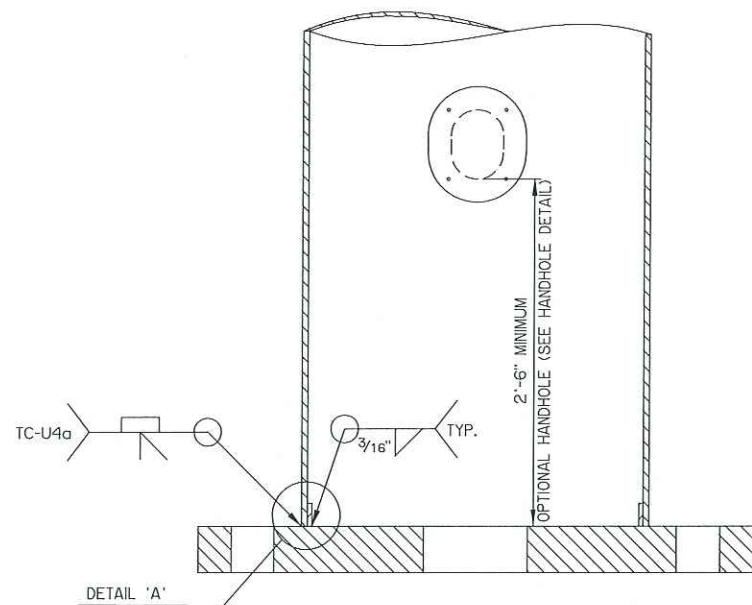
MONOTUBE SCHEDULE				
SPAN	TUBE DIAMETER (ALL TUBES)	TUBE THICKNESS (ALL TUBES)	BASE \varnothing	FLANGE \varnothing
70FT - 90FT	30"	3/8"	TYPICAL	A
95FT - 150FT	30"	1/2"	TYPICAL	B

MONOTUBE STRUCTURE (TYPE 'B' DETAIL)

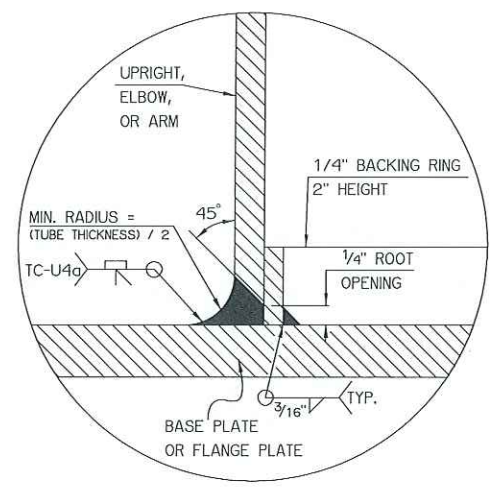
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Squad	SUPERVISOR	
Eng.	ENGINEER	

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION
JOB FILE NO. 23310(04) SHEET NO. M2

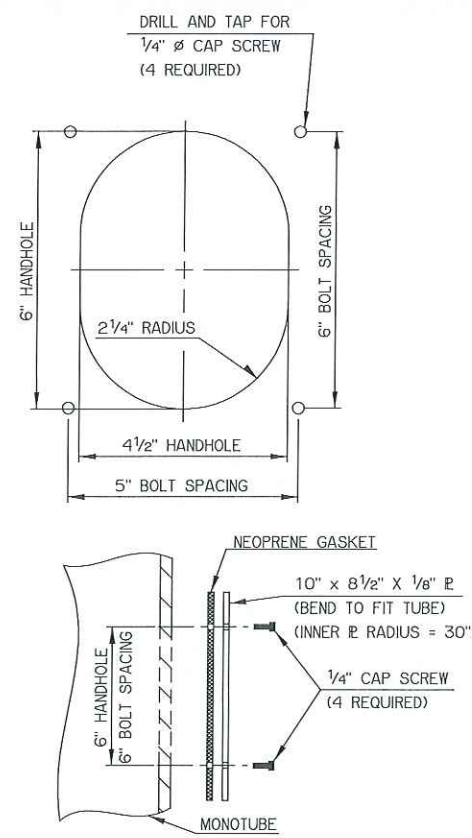
REV. NO.	DESCRIPTION	REVISIONS	DATE



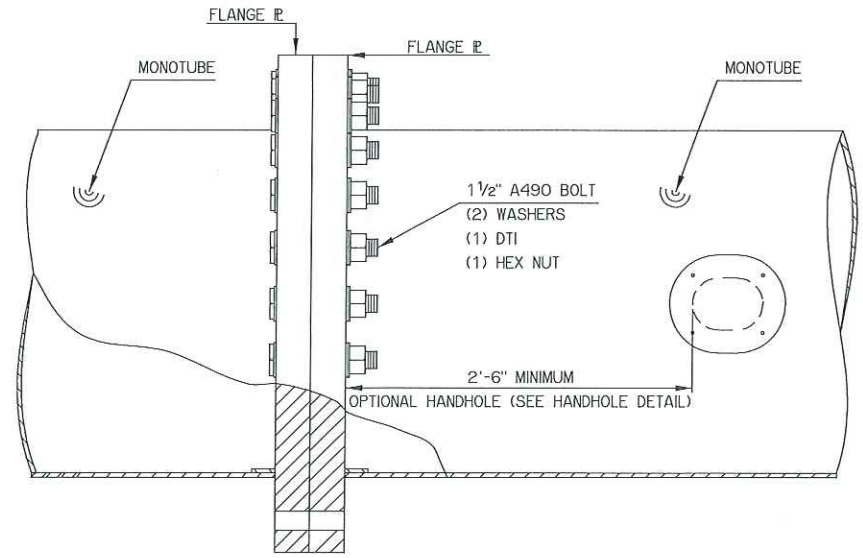
TUBE-TO-TRANSVERSE-PLATE DETAIL (TYPICAL)
(DETAIL TYPICAL FOR BASE AND FLANGE PLATES)



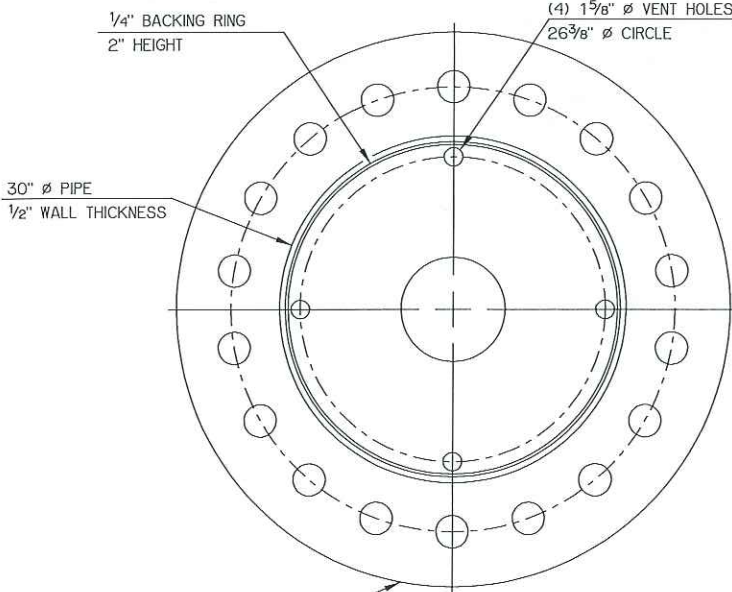
DETAIL 'A'



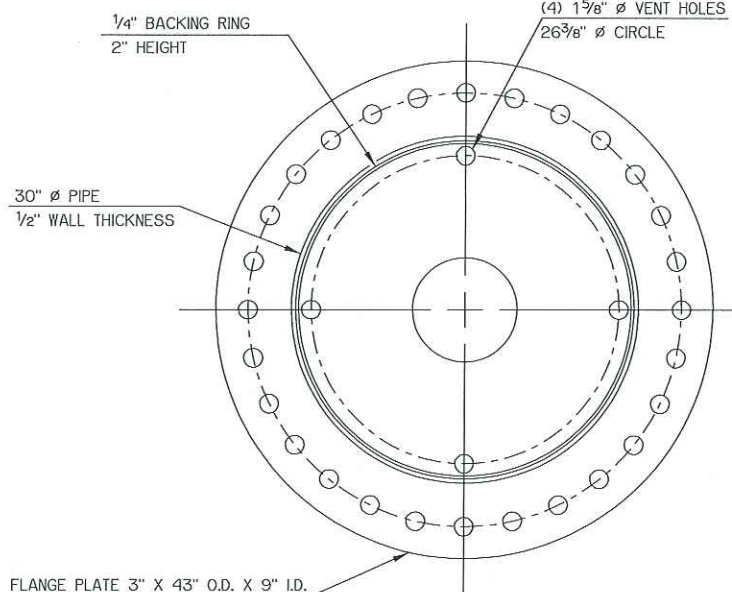
HANDHOLE DETAIL
(OPTIONAL)



TYPICAL FLANGE CONNECTION DETAIL
NOTE: OPTIONAL HANDHOLES FOR TYPE 'C' STRUCTURES SHOULD BE POSITIONED ON THE DOWN TRAFFIC FACE OF THE TUBE.



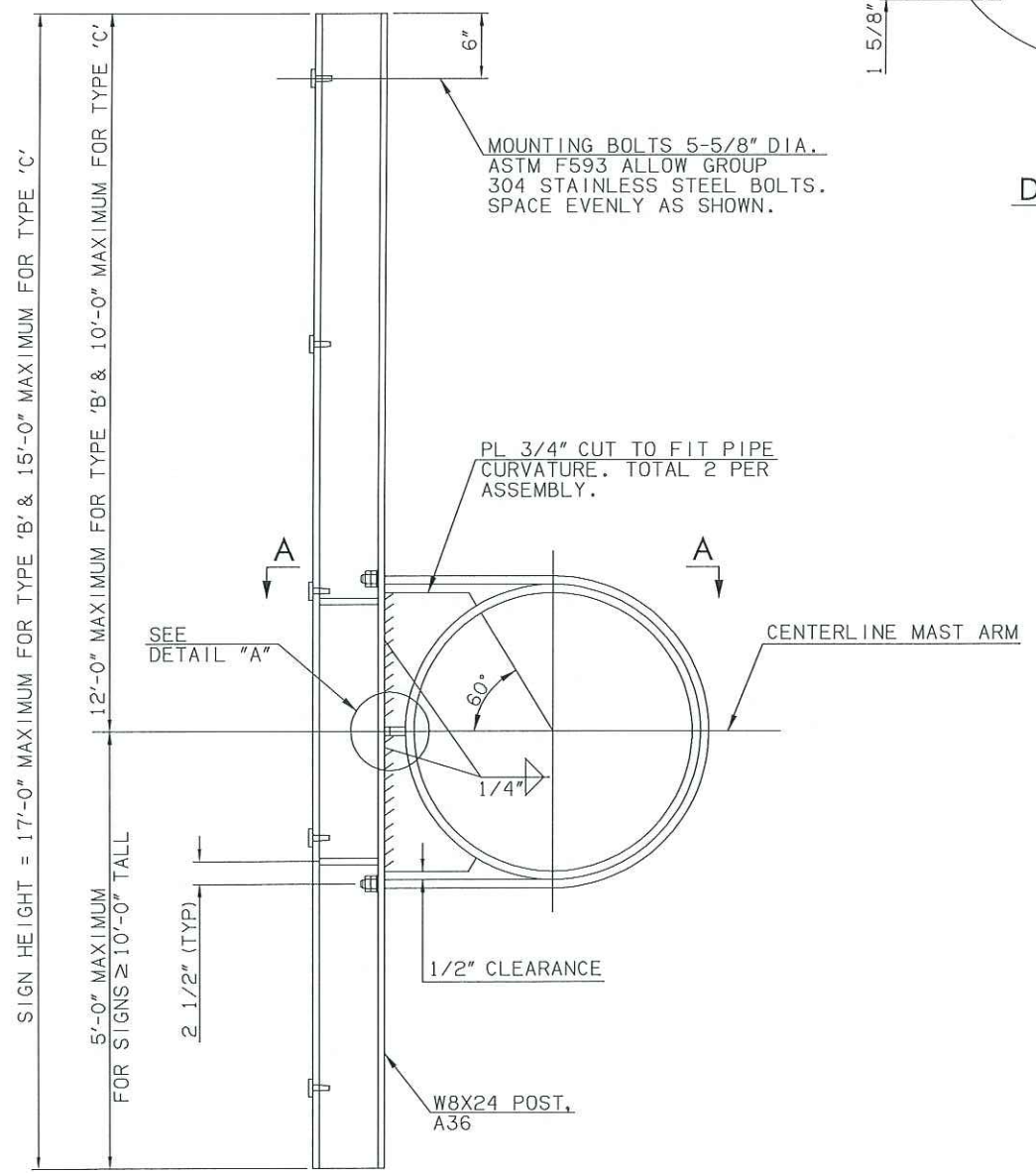
BASE PLATE
BASE PLATE 4" X 48" O.D. X 9" I.D.
(18) 2 13/16" Ø BOLT HOLES
BOLT CIRCLE 38 1/2" Ø
2 1/2" F1554 GR.55 ANCHOR BOLTS



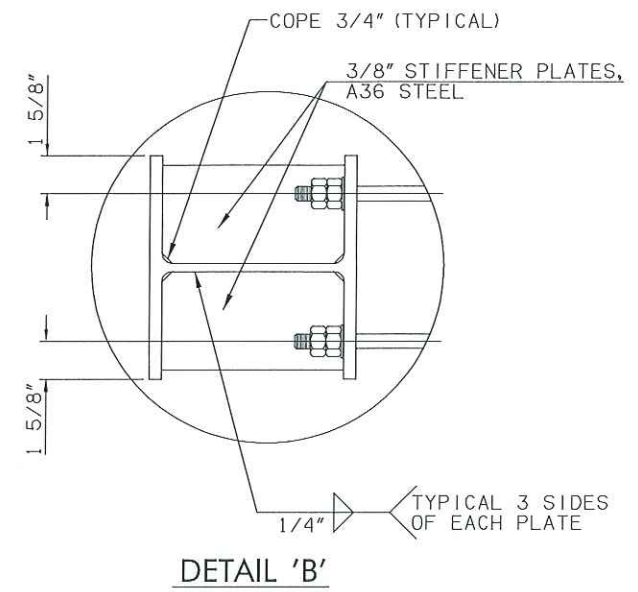
FLANGE PLATE
FLANGE PLATE 3" X 43" O.D. X 9" I.D.
(28) 1 5/8" Ø BOLT HOLES
BOLT CIRCLE 37 1/2" Ø
1 1/2" A490 BOLTS

MONOTUBE STRUCTURE (TYPE 'C' DETAILS)		Design	JG	JW
		Detail	JG	JW
Check	JG	JW		
Squad Eng.	SUPERVISOR			
	ENGINEER			

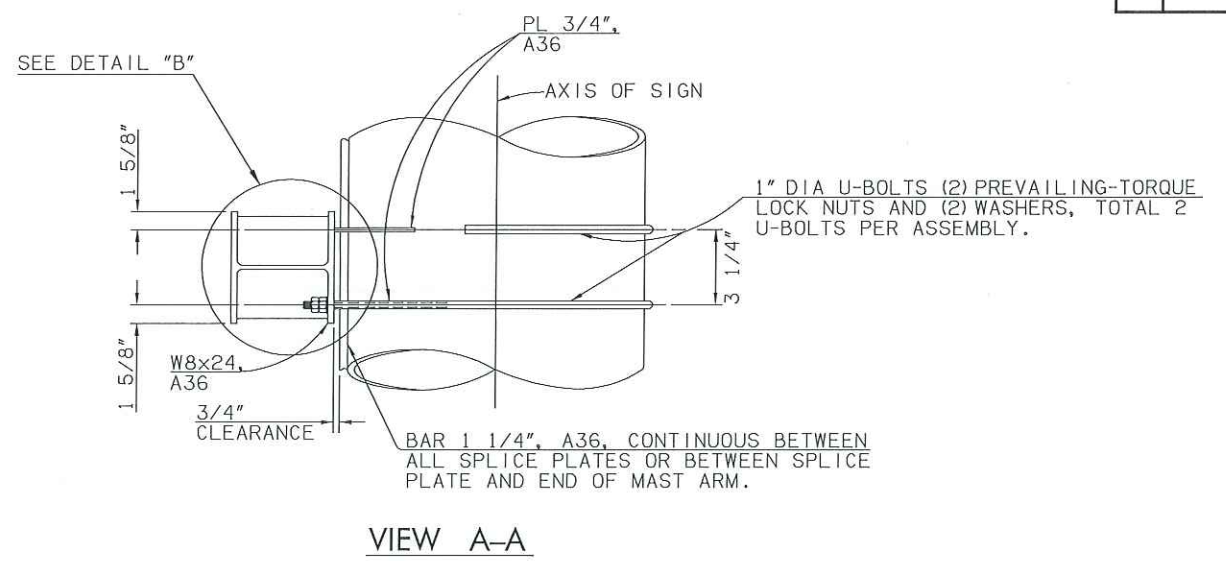
STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 23310(04) SHEET NO. M3



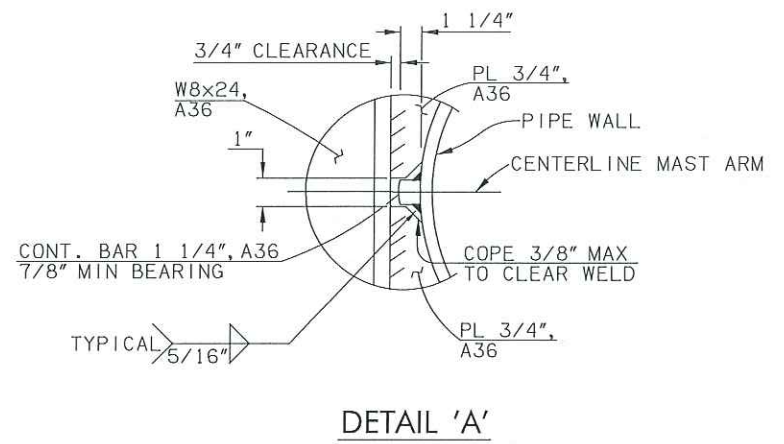
SIGN MOUNTING BRACKET



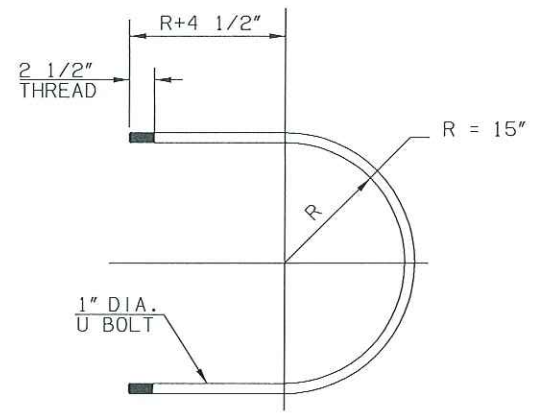
DETAIL 'B'



VIEW A-A



DETAIL 'A'



U BOLT DETAIL

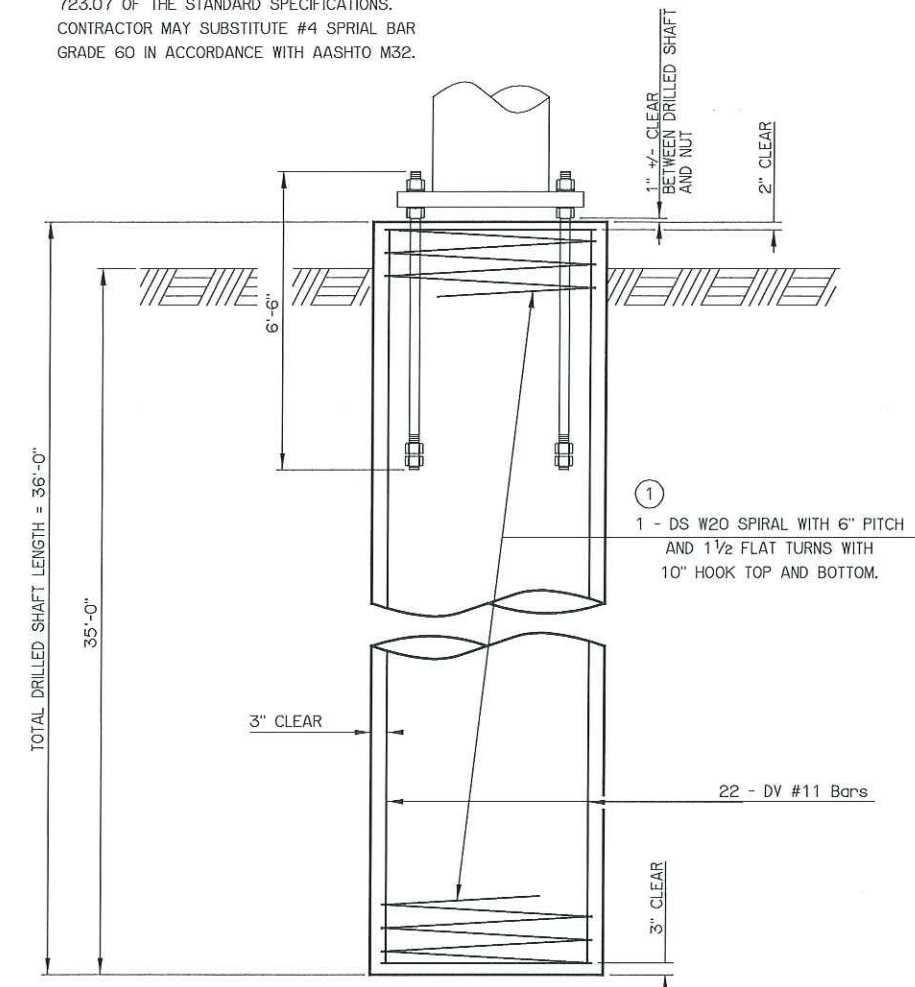
GENERAL NOTES

1. ALL U-BOLTS SHALL CONFORM TO THE MATERIAL SPECIFICATIONS OF ASTM A193-B7, AND THREADS SHALL CONFORM TO ASTM A325 SECTION 7.2. ALL U-BOLT NUTS SHALL BE PREVAILING-TORQUE LOCK NUTS AND SHALL CONFORM TO THE SPECIFICATION OF ASTM A194-2H. ALL WASHERS SHALL CONFORM TO THE SPECIFICATIONS OF ASTM F436.

MONOTUBE STRUCTURE (OVERHEAD SIGN BRACKET DETAIL)		Design	JG	JW
		Detail	JG	JW
STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION		Check	JG	JW
		Squad Engr.	SUPERVISOR ENGINEER	
JOB PIECE NO. 23310(04)		SHEET NO. M4		

REV. NO.	DESCRIPTION	REVISIONS	DATE

① USE W20 SPIRAL IN ACCORDANCE WITH 723.07 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY SUBSTITUTE #4 SPIRAL BAR GRADE 60 IN ACCORDANCE WITH AASHTO M32.



DRILLED SHAFT NOTES:

MATERIAL PROPERTIES
 CLASS 'AA' CONCRETE = 4,000 PSI
 REINFORCING STEEL = 60,000 PSI

THE DRILLED SHAFT FOR THE MONOTUBE SIGN STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING PROPERTIES:

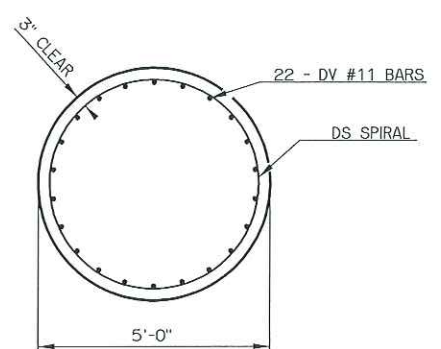
- COHESIVE SOIL
 UNIT WEIGHT = 120 PCF
 COHESION = 1000 PSF
- GRANULAR SOIL
 UNIT WEIGHT = 120 PCF
 INTERNAL FRICTION ANGLE = 28 DEGREES

IF SITE CONDITIONS ARE ENCOUNTERED THAT DIFFER FROM THOSE SPECIFIED ABOVE, THE ENGINEER SHALL BE CONTACTED. SUCH CONDITIONS ARE, BUT NOT LIMITED TO, AS FOLLOWS:

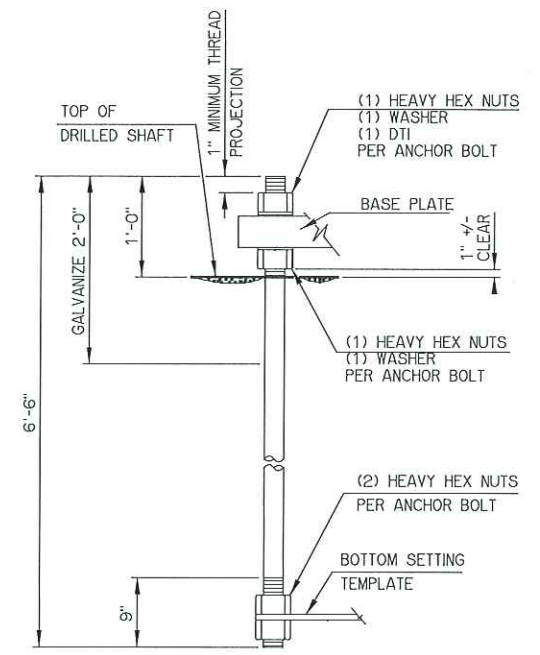
- SOIL HAS HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY.
- THE SITE WON'T SUPPORT THE WEIGHT OF THE DRILLING RIG.
- ROCK IS ENCOUNTERED.

DRILLED SHAFTS SHALL BE CONSTRUCTED ACCORDING TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND ASSOCIATED SPECIAL PROVISIONS. THE USE OF THE "DOUBLE CASING METHOD" IS NOT ALLOWED FOR THIS DESIGN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE LOCATION AND ELEVATION OF THE DRILLED SHAFT ARE AS REQUIRED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE MONOTUBE SUPPLIER TO ENSURE THAT THE ORIENTATION OF THE ANCHOR BOLTS IN THE DRILLED SHAFT ALLOW FOR PROPER ALIGNMENT OF ALL BASE PLATES AND FLANGES UPON FINAL INSTALLATION.



TYPICAL SECTION THRU 60" DRILLED SHAFT



2 1/2" Ø ANCHOR BOLT DETAIL (F1554 GR. 55)

NOTE: FOR ADDITIONAL DRILLED SHAFT DETAILS, SEE "MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 3 OF 3)". FOR DRILLED SHAFT DETAILS IN THE MEDIAN, SEE "MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 2 OF 3)".

DRILLED SHAFT BAR LIST (INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT)				
MARK	SIZE	NO.	FORM	LENGTH
PLAIN REINFORCING BARS				
DS	W20	1	BNT	1,052'-9"
DV	#11	22	STR	35'-7"

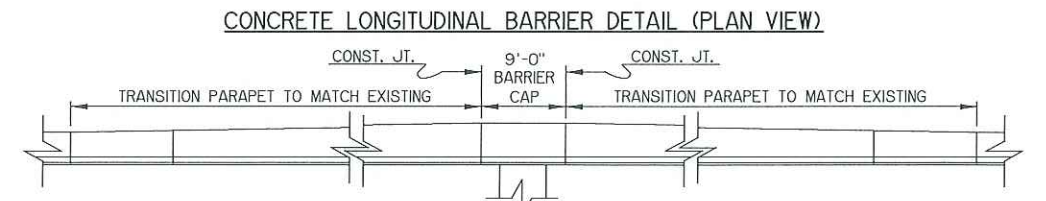
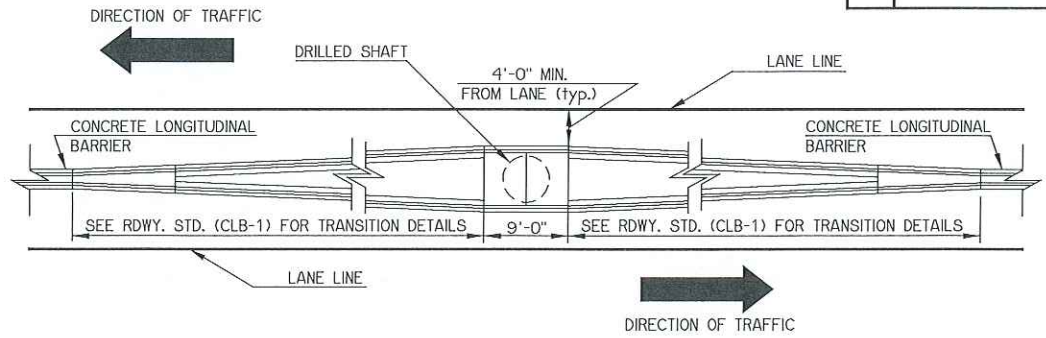
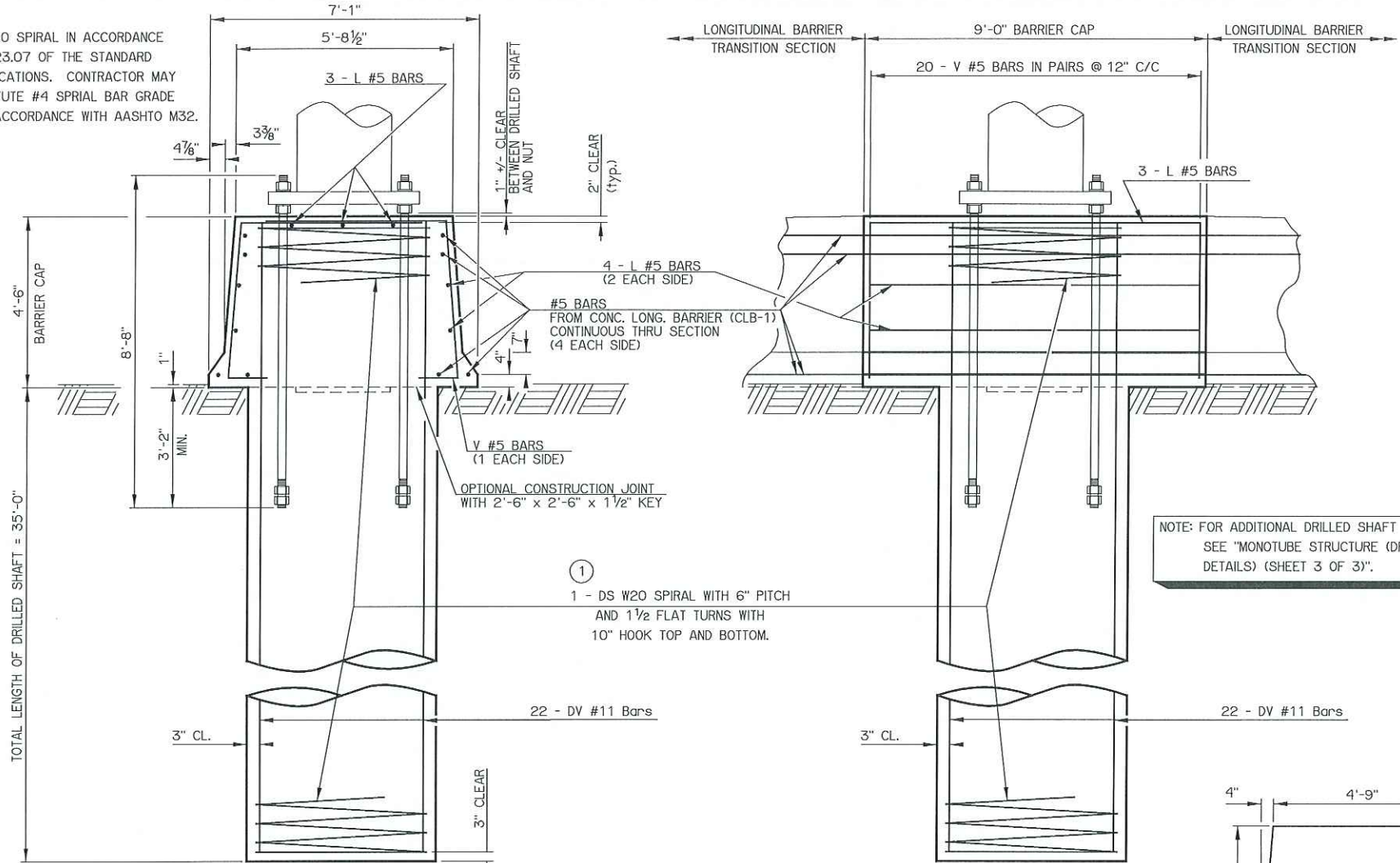
BASIS OF PAYMENT		
ITEM NO.	DESCRIPTION	UNIT
② 516(A)	DRILLED SHAFTS 60" DIAMETER	L.F.

② ALL COSTS OF CONCRETE AND REINFORCING IN DRILLED SHAFTS SHALL BE INCLUDED IN THE PRICE BID FOR "DRILLED SHAFTS 60" DIAMETER".

MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 1 OF 3)			
Design	JG	JW	
Detail	JG	JW	
Check	JG	JW	
Spot Eng.	SUPERVISOR		ENGINEER

REV. NO.	DESCRIPTION	REVISIONS	DATE

① USE W20 SPIRAL IN ACCORDANCE WITH 723.07 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY SUBSTITUTE #4 SPIRAL BAR GRADE 60 IN ACCORDANCE WITH AASHTO M32.



NOTE: FOR ADDITIONAL DRILLED SHAFT DETAILS, SEE "MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 3 OF 3)".

NOTE: CONCRETE LONGITUDINAL BARRIER SHALL BE CONSTRUCTED IN ACCORDANCE WITH ROADWAY STANDARD CLB-1 EXCEPT FOR AS SHOWN HERE.

DRILLED SHAFT NOTES:

MATERIAL PROPERTIES
 CLASS 'AA' CONCRETE = 4,000 PSI
 REINFORCING STEEL = 60,000 PSI

THE DRILLED SHAFT FOR THE MONOTUBE SIGN STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING PROPERTIES:

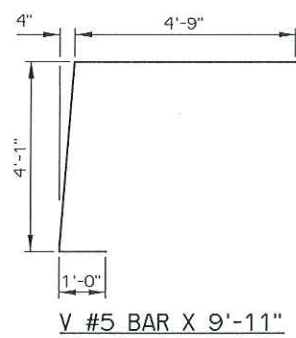
- COHESIVE SOIL
 UNIT WEIGHT = 120 PCF
 COHESION = 1000 PSF
- GRANULAR SOIL
 UNIT WEIGHT = 120 PCF
 INTERNAL FRICTION ANGLE = 28 DEGREES

IF SITE CONDITIONS ARE ENCOUNTERED THAT DIFFER FROM THOSE SPECIFIED ABOVE, THE ENGINEER SHALL BE CONTACTED. SUCH CONDITIONS ARE, BUT NOT LIMITED TO, AS FOLLOWS:

- SOIL HAS HIGH ORGANIC CONTENT OR CONSISTS OF SATURATED SILT AND CLAY.
- THE SITE WON'T SUPPORT THE WEIGHT OF THE DRILLING RIG.
- ROCK IS ENCOUNTERED.

DRILLED SHAFTS SHALL BE CONSTRUCTED ACCORDING TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND ASSOCIATED SPECIAL PROVISIONS. THE USE OF THE "DOUBLE CASING METHOD" IS NOT ALLOWED FOR THIS DESIGN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT THE LOCATION AND ELEVATION OF THE DRILLED SHAFT ARE AS REQUIRED IN THE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE MONOTUBE SUPPLIER TO ENSURE THAT THE ORIENTATION OF THE ANCHOR BOLTS IN THE DRILLED SHAFT ALLOW FOR PROPER ALIGNMENT OF ALL BASE PLATES AND FLANGES UPON FINAL INSTALLATION.



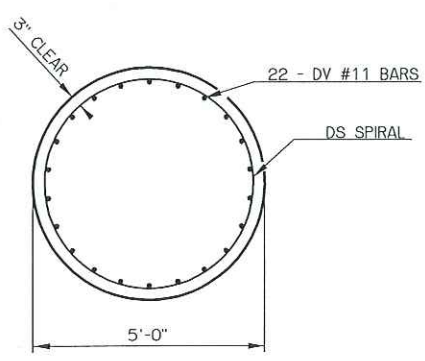
BARRIER CAP QUANTITIES (INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT)		
ITEM	UNIT	QTY.
CLASS AA CONCRETE	CY	12.50
REINFORCING STEEL	LB	270.00

BARRIER CAP BAR LIST (INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT)				
MARK	SIZE	NO.	FORM	LENGTH
PLAIN REINFORCING BARS				
L	#5	7	STR	8'-8"
V	#5	20	BNT	9'-11"

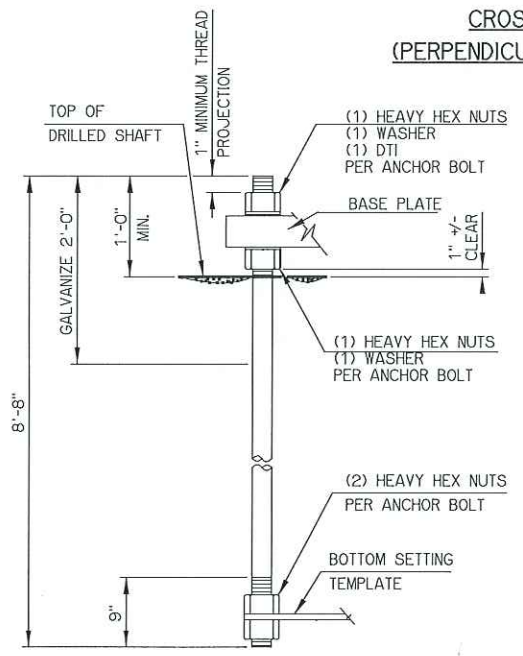
DRILLED SHAFT BAR LIST (INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT)				
MARK	SIZE	NO.	FORM	LENGTH
PLAIN REINFORCING BARS				
DS	W20	1	BNT	1,156'-6"
DV	#11	22	STR	39'-1"

BASIS OF PAYMENT		
ITEM NO.	DESCRIPTION	UNIT
②	516(A) DRILLED SHAFTS 60" DIAMETER	L.F.

② ALL COSTS OF CONCRETE AND REINFORCING IN DRILLED SHAFTS SHALL BE INCLUDED IN THE PRICE BID FOR "DRILLED SHAFTS 60" DIAMETER". ALL COSTS OF CONCRETE AND REINFORCING IN THE BARRIER CAP SHALL BE INCLUDED IN THE PRICE BID FOR "DRILLED SHAFTS 60" DIAMETER".



TYPICAL SECTION THRU 60" DRILLED SHAFT



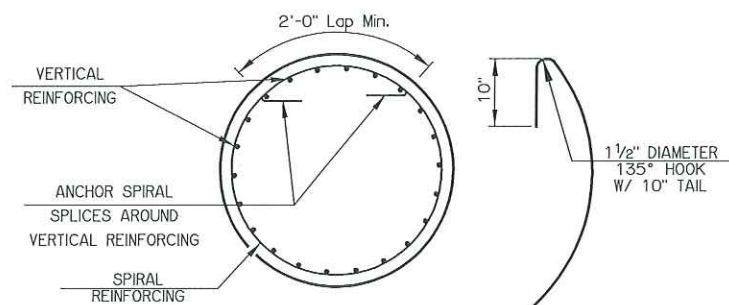
2 1/2" Ø ANCHOR BOLT DETAIL (F1554 GR. 55)

MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 2 OF 3)

Design	JG	JW
Detail	JG	JW
Check	JG	JW
Squad Eng.	SUPERVISOR ENGINEER	

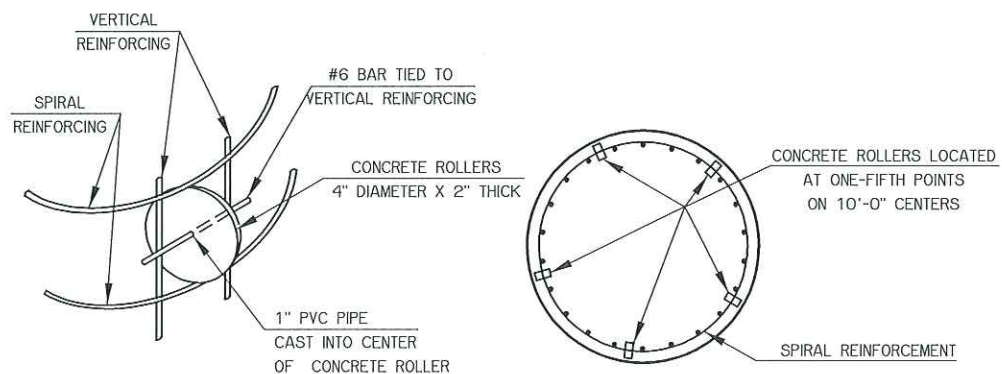
STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION
 JOB FILE NO. 23310(04) SHEET NO. MG

REV. NO.	DESCRIPTION	REVISIONS	DATE



SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BAR LENGTH QUANTITY DOES NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.

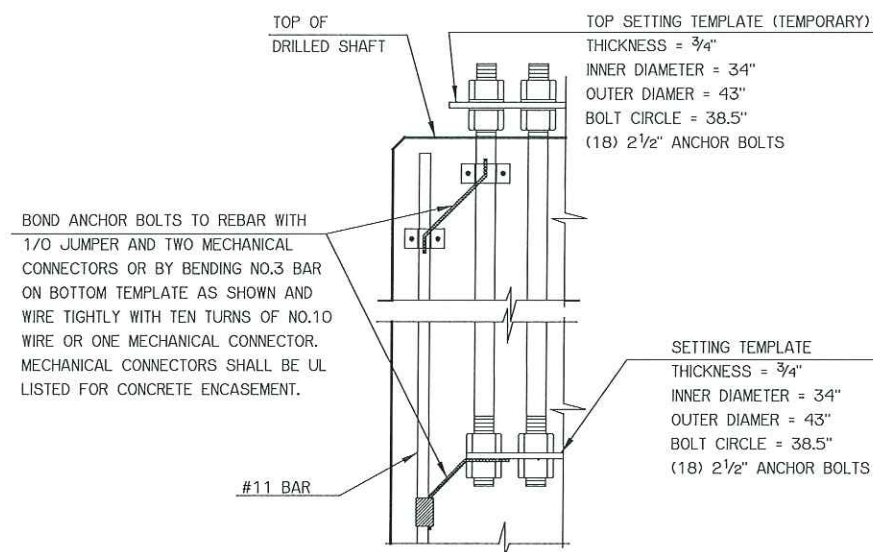


ROLLER INSTALLATION

ROLLER PLACEMENT

DETAIL OF CONCRETE ROLLERS

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



ANCHOR BOLT TEMPLATE AND LIGHTING PROTECTION SYSTEM

MONOTUBE STRUCTURE (DRILLED SHAFT DETAILS) (SHEET 3 OF 3)		Design	JG	JW
		Detail	JG	JW
		Check	JG	JW
		Squad Eng.	SUPERVISOR ENGINEER	
STATE OF OKLAHOMA		DEPARTMENT OF TRANSPORTATION		SHEET NO. M7
		JOB FILE NO. 23310(04)		

STORM WATER MANAGEMENT PLAN

REVISIONS	
DESCRIPTION	DATE

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: JP 2310(04)

PROJECT DESCRIPTION: I-40 EB and WB Bridges over Crutcho Creek and SE 15th Street.

- SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:
1. PLACE ALL TEMPORARY EROSION CONTROL DEVICE THAT WILL NOT INTERFERE WITH TOPSOIL SALAGING OPERATIONS.
 2. PERFORM TOPSOIL SALVAGE OPERATIONS, PRESERVING ANY VEGETATION NOT IMPEDING CONSTRUCTION.
 3. PLACE REMAINING TEMPORARY EROSION CONTROL DEVICE AS REQUIRED OR AS NEEDED.
 4. PERFORM GRADING AND SURFACING OPERATIONS.
 5. PLACE PERMANENT EROSION CONTROL DEVICES ON ULTIMATE SLOPES.
 6. REMOVE TEMPORARY EROSION CONTROL DEVICES.

SOIL TYPE: SILTLOAM / SANDY LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 259.5 AC.

ESTIMATED AREA TO BE DISTURBED: 20.78 AC.

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 17.26 AC.

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 22.36 AC.

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.95

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 35 27'05" N, 97 26'05" W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: Crutcho Creek

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: ECOLI, DO

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY YES NO

IF YES, LOCATION: _____

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- _____ SOIL RETENTION BLANKET
- _____ PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- _____ TEMPORARY FIBER LOG
- _____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- _____ TEMPORARY SLOPE DRAIN
- _____ PAVED DITCH W/ DITCH LINER PROTECTION
- _____ TEMPORARY DIVERSION CHANNELS
- _____ TEMPORARY SEDIMENT BASINS
- _____ TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- _____ TEMPORARY SEDIMENT REMOVAL
- _____ RIP RAP
- INLET SEDIMENT FILTER
- _____ TEMPORARY BRUSH SEDIMENT BARRIERS
- _____ SANDBAG BERMS
- _____ TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
- 221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION
DRAWN			STORM WATER MANAGEMENT PLAN
CHECKED			
APPROVED			
SQUAD	XXXXX		
COUNTY	OKLAHOMA HIGHWAY I-40		STATE JOB NO. JP23310(04) SHEET NO. R001

H:\Projects\2017\JP23310\Storm Water Pollution Prevention Plan.dwg

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR "I" (RAINFALL)	DESIGN YEAR DISCHARGE Q _N	DESIGN DISCHARGE BYPASS Q-BYPASS	TOTAL DISCHARGE IN CONDUIT Q TOTAL	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES			
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	ELEV.	ELEV.	ELEV.	FT/SEC	ELEV.				
MANLINE (CONT'D.)																															
M26	I-40 STA. 124+38.50 84.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 16.50' LG. RCP TO STR. M27	MJB-3, MFC-4 SPI4, SPB-1	50													15.47			1195.72	1179.75	1179.24	3.09		12.44						
M27	I-40 STA. 124+38.50 104.50' LT.	CONST. 4.0' DIA. MANHOLE W/ 30" x 102.52' LG. RCP TO P.C.E.S. OUTLET	MJB-3, MFC-4, PCES-4 SPI4, SPB-1	50													26.75			1183.73	1178.74	1178.22	0.51		7.19			STA.125+43.00 106.40' LT.			
M28	I-40 STA. 117+05.00 120.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 296.00' LG. RCPA TO STR. M29	MJB-3, MFC-4 SPI4, SPB-1	50													11.28			1187.21	1180.38	1179.50	0.30		4.79						
M29	I-40 STA. 120+05.00 120.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 27.50 LG. RCPA TO P.C.E.S. OUTLET	MJB-3, MFC-4 SPI4, SPB-1	50													11.28			1184.03	1179.50	1178.89	2.22		5.38			STA. 120+05.00 149.50' LT.			
M30	DELETED																														
M31N	I-40 STA. 128+50.00 4.06' LT.	CONST. LONG. BARRIER INLET W/ 18" x 74.97' LG. RCP TO STR. C3	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13	PV	2.37	0.95	27.00	3.52	175.00	2.22	5.00	9.83	1.26	0.18	11.52	4.61		1198.82	1192.91	1190.58	3.11		11.69						
M31S	I-40 STA. 128+50.00 4.06' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.81' LG. RCP TO STR. M31N	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13	PV	2.37	0.95	27.00	3.52	195.00	2.22	5.00	9.83	1.26	0.18	1.26	4.61		1198.82	1193.01	1192.91	1.47		4.81						
M32N	I-40 STA. 130+50.00 4.06' LT.	CONST. LONG. BARRIER INLET W/ 18" x 194.62' LG. RCP TO STR. M31N	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13	PV	3.15	0.95	27.00	2.30	195.00	3.22	5.00	9.83	1.34	0.23	9.00	4.17		1203.17	1197.34	1192.91	2.28		9.82						
M32S	I-40 STA. 130+50.00 4.06' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.81' LG. RCP TO STR. M32N	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13	PV	3.15	0.95	27.00	2.70	195.00	3.22	5.00	9.83	1.34	0.23	1.34	4.17		1203.17	1197.44	1197.34	1.47		4.90						
M33N	I-40 STA. 132+50.00 4.06' LT.	CONST. LONG. BARRIER INLET W/ 18" x 194.63' LG. RCP TO STR. M32N	CLB-1 (TYPE I), SPI4, SPB-1	50	0.11	PV	2.18	0.95	29.00	1.89	292.00	2.03	5.00	9.83	1.67	0.36	6.32	4.59		1209.60	1203.75	1197.34	3.29		10.27						
M33S	I-40 STA. 132+50.00 4.06' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.80' LG. RCP TO STR. M33N	CLB-1 (TYPE I), SPI4, SPB-1	50	0.11	PV	2.18	0.95	29.00	1.89	292.00	2.03	5.00	9.83	1.67	0.36	1.67	4.59		1209.60	1203.85	1203.75	1.47		5.23						
M34	I-40 STA. 130+67.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 61.76' LG. RCP TO STR. C8	MJB-3, MFC-4 SPI4, SPB-1	50													6.87			1203.76	1197.53	1196.17	2.20		8.95						
M35	I-40 STA. 130+67.00 75.08' LT.	CONST. LONG. BARRIER INLET W/ 18" x 3.66' LG. RCP TO STR. M34	CLB-1 (TYPE I), SPI4, SPB-1	50	0.09	PV	2.95	0.95	48.00	2.50	78.00	3.23	5.00	9.83	0.94	0.10	0.94	3.57		1203.27	1197.56	1197.53	0.82		3.05						
M36	I-40 STA. 131+50.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 79.00' LG. RCP TO STR. M34	MJB-3, MFC-4 SPI4, SPB-1	50													5.93			1206.43	1200.14	1197.53	3.30		10.05						
M37	I-40 STA. 131+50.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M36	CLB-1 (TYPE I), MJB-3, MFC-4,	50	0.12	PV	3.10	0.95	48.00	2.67	95.00	3.30	5.00	9.83	1.25	0.20	1.25	3.96		1205.88	1200.17	1200.14	0.59		3.31						
M38	I-40 STA. 132+50.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 96.00' LG. RCP TO STR. M36	MJB-3, MFC-4 SPI4, SPB-1	50													4.68			1209.69	1203.39	1200.14	3.39		4.72						
M39	I-40 STA. 132+50.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M38	CLB-1 (TYPE I), SPI4, SPB-1	50	0.17	PV	2.60	0.95	48.00	2.48	145.00	2.64	5.00	9.83	1.60	0.33	1.60	4.49		1209.14	1203.42	1203.39	0.59		3.55						
M40	I-40 STA. 134+00.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 146.00' LG. RCP TO STR. M38	MJB-3, MFC-4 SPI4, SPB-1	50													3.08			1214.58	1208.29	1203.39	3.36		8.41						
M41	I-40 STA. 134+00.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M40	CLB-1 (TYPE I), SPI4, SPB-1	50	0.15	PV	2.94	0.95	48.00	2.50	130.00	3.10	5.00	9.83	1.61	0.34	1.61	4.45		1214.03	1208.32	1208.29	0.59		3.56						
M42	I-40 STA. 131+43.50 75.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 25.80' LG. RCP TO STR. D6	MJB-3, MFC-4 SPI4, SPB-1	50													4.69			1205.94	1199.11	1198.85	1.01		6.22						
M43	I-40 STA. 131+43.50 82.50' RT.	CONST. LONG. BARRIER INLET W/ 18" x 4.08' LG. RCP TO STR. M42	CLB-1 (TYPE I), SPI4, SPB-1	50	0.14	PV	3.52	0.95	54.00	2.81	101.00	3.90	5.00	9.83	1.27	0.58	1.27	6.73		1205.43	1199.13	1199.11	0.49		3.32						
M44	I-40 STA. 132+50.00 75.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 102.50' LG. RCP TO STR. M42	MJB-3, MFC-4 SPI4, SPB-1	50													3.42			1209.39	1203.17	1199.11	3.96		9.22						
M45	I-40 STA. 132+50.00 82.50' RT.	CONST. LONG. BARRIER INLET W/ 18" x 3.58' LG. RCP TO STR. M44	CLB-1 (TYPE I), SPI4, SPB-1	50	0.19	PV	3.12	0.95	54.00	1.96	146.00	3.55	5.00	9.83	1.23	0.54	1.23	6.70		1208.90	1203.19	1203.17	0.56		3.29						
M46N	I-40 STA. 141+00.00 3.72' LT	CONST. LONG. BARRIER INLET W/ 18" x 6.11' LG. RCP TO STR. M46S	CLB-1 (TYPE I), SPI4, SPB-1	50	0.25	PV	2.02	0.95	27.80	2.00	380.50	2.02	5.00	9.69	1.57	0.74	1.57	6.30		1212.85	1207.14	1207.04	1.64		5.13						
M46S	I-40 STA. 141+00.00 3.72' RT	CONST. LONG. BARRIER INLET W/ 18" x 194.66' LG. RCP TO STR. M47	CLB-1 (TYPE I), SPI4, SPB-1	50	0.25	PV	2.02	0.95	27.80	2.01	380.50	2.02	5.36	9.69	1.63	0.68	3.20	5.66		1212.85	1207.04	1200.83	3.19		8.38						
M47	I-40 STA. 143+00.00 ON CL	CONST. LONG. BARRIER INLET W/ 18" x 194.62' LG. RCP TO STR. M48	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13 N 0.13 S	PV	3.27 N 3.27 S	0.95	41.70 N 41.70 S	4.27 N 4.27 S	167.10 N 167.10 S	3.03 N 3.03 S	5.00 N 5.00 S	9.83 N 9.83 S	1.52 N 1.48 S	0.45 N 0.43 S	6.20	4.58 N 4.52 S		1206.54	1200.83	1195.83	2.57		9.32						

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DESIGN	MDB	02/12
DRAWN	MAP	02/12
CHECKED	MDB	02/12
APPROVED	HDM	02/12
SQUAD	POE	

DRAINAGE STRUCTURE DESIGN RECORD

SHEET 2 OF 8

STATE JOB NO. 23310(04) SHEET NO. R003

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR 1" (RAINFALL)	DESIGN YEAR DISCHARGE Q _N	DESIGN DISCHARGE BYPASS Q _{BYPASS}	TOTAL DISCHARGE IN CONDUIT Q _{TOTAL}	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES		
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.				
MAINLINE (CONT'D.)																														
M48	H40 STA. 145+00.00	CONST. LONG. BARRIER INLET W/ 18" x 194.62' LG. RCP TO STR. M49	CLB-1 (TYPE II), SPI4, SPB-1	50	0.13 N 0.13 S	PV	2.77 N 2.77 S	0.95	39.40 N 39.40 S	4.11 N 4.11 S	169.60 N 169.60 S	2.45 N 2.45 S	5.00 N 5.00 S	9.83 N 9.83 S	1.34 N 1.32 S	0.34 N 0.34 S	8.86	4.58 N 4.56 S		1201.54	1195.83	1194.05	0.91		8.84					
		ON CL																												
M49	H40 STA. 147+00.00	CONST. LONG. BARRIER INLET W/ 24" x 244.62' LG. RCP TO STR. M1 (J/P 28854(04))	CLB-1 (TYPE II), SPI4, SPB-1	50	0.13 N 0.13 S	PV	1.97 N 1.97 S	0.95	34.00 N 34.00 S	3.65 N 3.65 S	177.50 N 177.50 S	1.65 N 1.65 S	5.00 N 5.00 S	9.83 N 9.83 S	1.27 N 1.27 S	0.30 N 0.30 S	11.40	4.88 N 4.88 S		1198.19	1193.55	1191.83	0.70		6.91					
		ON CL																												
M54	H40 STA. 139+75.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M55	CLB-1 (TYPE I), SPI4, SPB-1	50	0.33	PV	1.59	0.95	57.00	2.00	255.50	1.50	5.76	9.54	1.87	1.16	1.87	8.20		1216.02	1210.31	1210.21	3.88		7.29					
		82.50' RT.																												
M55	H40 STA. 139+75.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 121.00' LG. RCP TO STR. M57	MJB-3, MFC-4 SPI4, SPB-1	50													1.87			1216.41	1210.21	1206.22	3.30		7.24					
		76.50' RT.																												
M56	H40 STA. 141+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M57	CLB-1 (TYPE I), SPI4, SPB-1	50	0.17	PV	3.59	0.95	88.70	3.95	57.40	3.03	5.00	9.83	1.72	1.00	1.72	7.85		1212.03	1206.32	1206.22	3.88		7.11					
		82.50' RT.																												
M57	H40 STA. 141+00.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 196.00' LG. RCP TO STR. M59	MJB-3, MFC-4 SPI4, SPB-1	50													3.59			1212.48	1206.22	1200.16	3.09		7.11					
		76.50' RT.																												
M58	H40 STA. 143+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M59	CLB-1 (TYPE I), SPI4, SPB-1	50	0.26	PV	3.42	0.95	86.80	4.00	129.90	3.03	5.00	9.83	2.07	1.37	2.07	8.68		1205.97	1200.26	1200.16	3.88		7.51					
		82.50' RT.																												
M59	H40 STA. 143+00.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 96.00' LG. RCP TO STR. M61	MJB-3, MFC-4 SPI4, SPB-1	50													5.66			1206.42	1200.16	1197.46	2.81		9.41					
		76.50' RT.																												
M60	H40 STA. 144+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M61	CLB-1 (TYPE I), SPI4, SPB-1	50	0.14	PV	3.21	0.95	69.50	3.68	56.70	2.63	5.00	9.83	1.71	0.93	1.71	8.08		1203.27	1197.56	1197.46	3.88		7.10					
		82.50' RT.																												
M61	H40 STA. 144+00.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 195.81' LG. RCP TO STR. F2	MJB-3, MFC-4 SPI4, SPB-1	50													7.37			1203.72	1197.46	1192.72	2.42		9.51					
		76.50' RT.																												
M62	H40 STA. 148+25.00	CONST. LONG. BARRIER INLET W/ 18" x 3.29' LG. RCP TO STR. M63	CLB-1 (TYPE I), SPI4, SPB-1	50	0.16	PV	1.45	0.95	59.00	2.29	96.50	0.93	5.00	9.83	1.31	0.31	1.31	8.83		1196.76	1191.07	1190.97	3.04		6.57					
		80.50' RT.																												
M63	H40 STA. 148+25.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 121.00' LG. RCP TO STR. E2 (J/P 28854(04))	MJB-3, MFC-4 SPI4, SPB-1	50													11.24			1197.11	1190.47	1189.75	0.60		6.26					
		73.80' RT.																												
M78	H40 STA. 108+50.00	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. M79	CLB-1 (TYPE I), SPI4, SPB-1	50	0.20	PV	2.01	0.95	57.00	4.00	266.00	1.59	5.31	9.71	1.49	0.36	1.49	4.95		1194.41	1188.69	1188.67	0.65		3.48					
		53.50' RT.																												
M79	H40 STA. 108+50.00	CONST. 4.0' DIA. MANHOLE W/ 18" x 76.00' LG. RCP TO STR. M5	MJB-3, MFC-4 SPI4, SPB-1	50													1.49			1194.84	1188.67	1187.43	1.63		3.48					
		47.00' RT.																												
M80	H40 STA. 111+19.53	CONST. LONG. BARRIER INLET W/ 18" x 3.07' LG. RCP TO STR. M81	CLB-1 (TYPE I), SPI4, SPB-1	50	0.16	PV	1.25	0.95	54.00	1.93	116.00	0.94	5.00	9.83	1.65	0.47	1.65	9.96		1190.54	1184.82	1184.80	0.65		3.58					
		56.77' RT.																												
M81	H40 STA. 111+19.53	CONST. 4.0' DIA. MANHOLE W/ 18" x 42.29' LG. RCP TO STR. B1	MJB-3, MFC-4 SPI4, SPB-1	50													4.64			1190.88	1184.80	1183.83	2.29		10.47					
		50.28' RT.																												
M83	H40 STA. 115+00.00	CONST. LONG. BARRIER INLET W/ 18" x 3.24' LG. RCP TO STR. M84	CLB-1 (TYPE I), SPI4, SPB-1	50	0.24	PV	0.70	0.95	52.00	1.96	195.00	0.36	6.52	9.27	2.18	0.64	2.18	11.74		1191.33	1182.13	1182.11	0.62		4.15					
		82.66' RT.																												
M84	H40 STA. 115+00.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 196.09' LG. RCP TO STR. M86	MJB-3, MFC-4 SPI4, SPB-1	50													11.36			1191.67	1181.61	1180.98	0.32		4.92					
		76.00' RT.																												
M85	H40 STA. 117+00.00	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. M86	CLB-1 (TYPE I), SPI4, SPB-1	50	0.25	PV	0.75	0.95	52.00	1.98	195.00	0.42	6.34	9.33	2.29	0.71	2.29	11.95		1192.03	1186.48	1186.44	1.30		5.04					
		88.50' RT.																												
M86	H40 STA. 117+00.00	CONST. 4.0' DIA. MANHOLE W/ 24" x 195.50' LG. RCP TO STR. M88	MJB-3, MFC-4 SPI4, SPB-1	50													13.65			1192.37	1180.98	1180.29	0.35		5.25					
		82.00' RT.																												
M87	H40 STA. 119+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M88	CLB-1 (TYPE I), SPI4, SPB-1	50	0.25	PV	0.78	0.95	52.00	1.98	195.00	0.46	6.25	9.37	2.28	0.74	2.28	11.82		1192.86	1187.31	1187.27	1.55		5.03					
		88.50' RT.																												
M88	H40 STA. 119+00.00	CONST. 5.0' DIA. MANHOLE W/ 36" x 22" x 195.00' LG. RCP TO STR. M90	MJB-3, MFC-4 SPI4, SPB-1	50													15.94			1193.20	1180.29	1179.60	0.35		5.61					
		82.00' RT.																												
M89	H40 STA. 121+00.00	CONST. LONG. BARRIER INLET W/ 18" x 2.58' LG. RCP TO STR. M90	CLB-1 (TYPE I), SPI4, SPB-1	50	0.31	PV	0.76	0.95	52.00	1.98	244.00	0.50	6.66	9.22	2.29	0.80	2.29	11.59		1193.76	1188.21	1188.17	1.55		5.04					
		88.50' RT.																												
M90	H40 STA. 121+00.00	CONST. 5.0' DIA. MANHOLE W/ 36" x 22" x 245.00' LG. RCP TO STR. M92	MJB-3, MFC-4 SPI4, SPB-1	50													18.23			1194.10	1179.60	1178.74	0.35		5.78					
		82.00' RT.																												
M91	H40 STA. 123+50.00	CONST. LONG. BARRIER INLET W/ 18" x 3.58' LG. RCP TO STR. M92	CLB-1 (TYPE I), SPI4, SPB-1	50	0.21	PV	0.85	0.95	60.00	2.00	156.00	0.40	6.11																	

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE
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DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR "1" (RAINFALL)	DESIGN YEAR DISCHARGE ON	DESIGN DISCHARGE BYPASS Q-BYPASS	TOTAL DISCHARGE IN CONDUIT Q TOTAL	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES		
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.				
MAINLINE (CONT'D.)																														
M93	I-40 STA. 139+94.10 106.40' LT.	CONST. 4.0' DIA. MANHOLE ON EXIST. 24" RCP	MJB-3, MFC-4 SPI-4, SPB-1	50													7.48			1197.18	1193.08									
M94	I-40 STA. 141+00.00 76.50' LT.	CONST. LONG. MED. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M95	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.45	PV	2.02	0.95	52.00	2.00	375.00	2.02	6.06	9.43	2.44	1.59	2.44	8.78		1212.39	1206.68	1206.65	0.59		4.02					
M95	I-40 STA. 141+00.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 96.00' LG. RCP TO STR. M97	MJB-3, MFC-4 SPI-4, SPB-1	50													2.44			1212.86	1202.86	1195.05	8.14		3.99					
M96	I-40 STA. 142+00.00 84.50' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 203.06' LG. RCP TO STR. M93	MJB-3, MFC-4 SPI-4, SPB-1	50													7.48			1201.16	1194.99	1193.08	0.94		6.33					
M97	I-40 STA. 142+00.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 5.08' LG. RCP TO STR. M98	MJB-3, MFC-4 SPI-4, SPB-1	50													5.66			1209.78	1195.05	1195.02	0.59		4.93					
M98	I-40 STA. 142+00.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.34' LG. RCP TO STR. M96	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.12	PV	2.90	0.95	48.00	2.27	95.00	3.22	5.00	9.83	1.82	0.89	7.48	7.46		1209.23	1195.02	1194.99	0.56		5.17					
M99	I-40 STA. 143+50.00 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 146.00' LG. RCP TO STR. M97	MJB-3, MFC-4 SPI-4, SPB-1	50													3.22			1205.36	1195.78	1195.05	0.50		4.30					
M100	I-40 STA. 143+50.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M99	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.18	PV	2.87	0.95	48.00	2.50	145.00	2.99	5.00	9.83	1.75	0.82	1.75	7.48		1204.81	1199.10	1199.07	0.59		3.64					
M101	I-40 STA. 144+60.75 68.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 106.75' LG. RCP TO STR. M99	MJB-3, MFC-4 SPI-4, SPB-1	50													1.47			1202.61	1196.32	1195.78	0.51		3.46					
M102	I-40 STA. 144+60.75 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. M101	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.13	PV	2.52	0.95	48.00	2.52	106.00	2.52	5.00	9.83	1.47	0.56	1.47	7.06		1202.06	1196.35	1196.32	0.59		3.46					
M121	I-40 STA. 110+00.00 53.50' RT.	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. M6	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.19	PV	2.32	0.95	54.00	3.11	145.00	2.00	5.00	9.83	1.50	0.63	1.50	8.21		1191.66	1185.95	1185.93	0.65		3.48					
M122	I-40 STA. 124+80.00 83.00' RT.	CONST. 5.0' DIA. MANHOLE W/ 36" x 22" x 17.00' LG. RCPA TO STR. M12	MJB-3, MFC-4 SPI-4, SPB-1	50													28.83			1195.95	1178.19	1178.10	0.53		7.26					
M123	I-40 STA. 135+35.00 76.50' LT.	CONST. LONG. BARRIER INLET W/ 18" x 130.55' LG. RCP TO STR. M40	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.22	PV	1.25	0.95	52.00	2.00	184.00	1.03	5.42	9.67	1.47	0.55	1.47	7.07		1218.06	1212.35	1208.29	3.11		6.62					
M124N	I-40 STA. 134+00.00 4.06' LT.	CONST. LONG. BARRIER INLET W/ 18" x 144.62' LG. RCP TO STR. M33N	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.20	PV	1.70	0.95	26.00	4.00	295.00	1.38	5.00	9.83	1.49	0.28	2.98	4.29		1214.69	1209.82	1203.75	4.20		9.05					
M124S	I-40 STA. 134+00.00 4.06' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.80' LG. RCP TO STR. M124N	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.20	PV	1.70	0.95	26.00	4.00	295.00	1.38	5.00	9.83	1.49	0.28	1.49	4.29		1214.69	1209.92	1209.82	1.47		5.06					
M125	I-40 STA. 134+00.00 82.50' RT.	CONST. LONG. BARRIER INLET W/ 18" x 145.46' LG. RCP TO STR. M44	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.42	PV	1.85	0.95	54.00	2.00	320.00	1.83	5.91	9.49	2.19	1.60	2.19	8.91		1214.08	1208.37	1203.17	3.57		7.82					

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DESIGN	MDB	02/12
DRAWN	MAP	02/12
CHECKED	MDB	02/12
APPROVED	HDM	02/12
SQUAD	POE	

**DRAINAGE STRUCTURE
DESIGN RECORD
SHEET 4 OF 8**
STATE JOB NO. 23310(04) SHEET NO. R005

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR "1" (RAINFALL)	DESIGN YEAR DISCHARGE Q _N	DESIGN DISCHARGE BYPASS Q-BYPASS	TOTAL DISCHARGE IN CONDUIT Q TOTAL	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOWLINE	OUTLET FLOWLINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER FLOW	VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES		
				N	ACRES		%	C	FT.	%	FT.	%	MN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.				
RAMP A																														
A1	BL RAMP A STA. 111+90.60 ON BL	CONST. DBL. GRATE INLET W/ 18" x 10.73' LG. RCP TO STR. A2	CH-1 (DES. 2 STD) SPI-4, SPB-1	50	0.26	PV	0.98	0.95	54.00	1.70	157.00	0.73	5.61	9.60	2.36	0.60	4.02	7.03		1189.93	1184.13	1184.00	1.20		4.55					
A2	BL RAMP A STA. 111+89.36 13.33' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 35.03' LG. RCP TO STR. LAR 9	MJB-3, MFC-4 SPI-4, SPB-1	50		PV											4.02			1190.22	1184.00	1182.30	4.85		9.99					
A3	DELETED																													
A4	BL RAMP A STA. 113+00.00 4.02' LT.	CONST. LONG. BARRIER INLET W/ 18" x 5.95' LG. RCP TO STR. A5	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.21	PV	0.66	0.95	48.00	1.94	195.00	0.35	9.46	9.29	1.88	0.59	1.88	11.17		1190.34	1186.16	1186.14	0.34		3.71					
A5	BL RAMP A STA. 113+00.00 5.35' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 196.27' LG. RCP TO STR. M16	MJB-3, MFC-4 SPI-4, SPB-1	50		PV											1.88			1190.91	1186.14	1185.35	0.40		3.43					
RAMP B																														
B1	BL RAMP B STA. 111+67.58 27.02' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 154.93' LG. RCP TO STR. B4	MJB-3, MFC-4 SPI-4, SPB-1	50													7.25			1190.75	1183.83	1182.96	0.56		5.15					
B2	BL RAMP B STA. 111+66.62 ON BL	CONST. (2) DBL GRATE INLET W/ 18" x 23.61' LG. RCP TO STR. B1	CH-1 DES. 3 (STD) SPI-4, SPB-1	50	0.31	PV	0.93	0.95	61.00	1.10	162.00	0.86	6.05	9.44	2.61	0.17	2.61	6.15		1190.17	1183.96	1183.83	0.55		3.68					
B3	BL RAMP B STA. 113+23.50 11.94' RT.	CONST. LONG. BARRIER INLET W/ 18" x 6.52' LG. RCP TO STR. B4	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.20	PV	0.87	0.95	52.00	1.82	169.00	0.58	5.81	9.52	1.93	0.52	1.93	11.13		1190.62	1182.98	1182.96	0.31		2.78					
B4	BL RAMP B STA. 113+23.50 2.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 172.39' LG. RCP TO STR. M84	MJB-3, MFC-4 SPI-4, SPB-1	50		PV											9.18			1191.01	1182.46	1181.61	0.49		5.60					
RAMP C																														
C1	BL RAMP C STA. 127+73.75 11.82' LT.	CONST. LONG. BARRIER INLET W/ 18" x 3.40' LG. RCP TO STR. C2	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.22	PV	1.68	0.95	60.00	2.68	141.00	1.25	5.00	9.83	1.83	0.41	1.83	7.10		1196.81	1191.07	1191.05	0.59		3.68					
C2	BL RAMP C STA. 127+73.75 5.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 72.14' LG. RCP TO STR. C3	MJB-3, MFC-4 SPI-4, SPB-1	50													1.83			1197.29	1191.05	1190.58	0.65		4.03					
C3	BL RAMP C STA. 128+50.00 3.90' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 46.04' LG. RCP TO STR. C5	MJB-3, MFC-4 SPI-4, SPB-1	50													13.34			1198.23	1190.08	1189.84	0.52		6.08					
C4	BL RAMP C STA. 129+00.00 7.62' LT.	CONST. LONG. BARRIER INLET W/ 28" x 18" x 38.37' LG. RCP TO P.C.E.S. OUTLET	CLB-1 (TYPE I), PCES-4 SPI-4, SPB-1	50	0.15	PV	2.44	0.95	94.00	1.90	66.00	3.20	5.00	9.83	1.37	0.19	14.71	4.39		1198.64	1181.00	1180.85	0.39		5.48				STA. 129+20 41.40' LT.	
C5	BL RAMP C STA. 129+00.00 1.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 3.19' LG. RCP TO STR. C4	MJB-3, MFC-4 SPI-4, SPB-1	50													13.34			1199.11	1189.84	1189.82	0.63		5.55					
C6	BL RAMP C STA. 130+00.00 1.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 1.58' LG. RCP TO STR. C7	MJB-3, MFC-4 SPI-4, SPB-1	50													14.15			1201.21	1185.71	1185.68	1.89		7.23					
C7	BL RAMP C STA. 130+00.00 6.00' LT.	CONST. LONG. BARRIER INLET W/ 24" x 17.97' LG. RCP TO P.C.E.S. OUTLET	CLB-1 (TYPE I), PCES-4 SPI-4, SPB-1	50	0.15	PV	1.63	0.95	29.00	3.45	117.00	1.18	5.00	9.83	1.24	0.16	15.39	3.95		1200.80	1183.90	1183.25	3.62		13.31				STA. 130+00.00 24.67' LT.	
C8	BL RAMP C STA. 130+00.00 18.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 15.00' LG. RCP TO STR. C6	MJB-3, MFC-4 SPI-4, SPB-1	50													6.87			1201.92	1186.88	1186.21	4.47		12.04					
C9	BL RAMP C STA. 131+70.25 6.00' LT.	CONST. LONG. BARRIER INLET W/ 18" x 3.08' LG. RCP TO STR. C10	CLB-1 (TYPE I), SPI-4, SPB-1	50	0.04	PV	1.42	0.95	35.00	2.69	49.00	0.51	5.00	9.83	0.34	0.03	0.34	4.70		1201.94	1196.22	1196.19	0.97		2.50					
C10	BL RAMP C STA. 131+70.25 0.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 166.24' LG. RCP TO STR. C6	MJB-3, MFC-4 SPI-4, SPB-1	50													7.35			1202.28	1187.00	1186.21	0.48		5.02					
C11	BL RAMP C STA. 133+50.00 ON BL	CONST. DBL. GRATE INLET W/ 18" X 3.08' LG. RCP TO STR. C12	CH-1 (DES. 2 STD.), SPI-4, SPB-1	50	0.18	PV	3.20	0.95	30.00	7.00	166.00	2.51	5.00	9.83	1.26	0.45	1.26	5.96		1197.96	1193.75	1193.73	0.65		3.62					
C12	BL RAMP C STA. 133+50.00 6.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 175.64' LG. RCP TO STR. C10	MJB-3, MFC-4 SPI-4, SPB-1	50													7.01			1198.13	1187.72	1187.00	0.41		4.64					
C13	BL RAMP C STA. 135+00.00 ON BL	CONST. DBL. GRATE INLET W/ 18" x 3.18' LG. RCP TO STR. C14	CH-1 (DES. 2 STD.), SPI-4, SPB-1	50	0.18	PV	3.60	0.95	42.00	6.86	144.00	2.66	5.00	9.83	1.53	0.60	1.53	7.33		1193.92	1188.33	1188.31	0.63		4.39					
C14	BL RAMP C STA. 135+00.00 6.60' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 145.94' LG. RCP TO STR. C12	MJB-3, MFC-4 SPI-4, SPB-1	50													5.75			1194.09	1188.31	1187.72	0.40		4.52					
C15	BL RAMP C STA. 135+80.80 ON BL	CONST. (2) DBL. GRATE INLET W/ 18" x 3.08' LG. RCP TO STR. C16	CH-1 (DES. 3 STD) SPI-4, SPB-1	50	0.29	PV	1.19	0.95	32.00	1.97	140.00	1.01	5.00	9.83	3.48	SUMP	3.48	8.46		1193.06	1188.65	1188.63	0.65		4.39					

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DESIGN	MDB	02/12
DRAWN	MAP	02/12
CHECKED	MDB	02/12
APPROVED	HDM	02/12
SQUAD	POE	

**DRAINAGE STRUCTURE
DESIGN RECORD
SHEET 5 OF 8**
STATE JOB NO. 23310(04) SHEET NO. R006

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR "I" (RAINFALL)	DESIGN YEAR DISCHARGE Q _N	DESIGN DISCHARGE BYPASS Q _{BYPASS}	TOTAL DISCHARGE IN CONDUIT Q _{TOTAL}	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES		
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.		
RAMP C (CONT'D.)																														
C16	BL RAMP C STA. 135+80.80 6.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 76.80' LG. RCP TO STR. C14	MJB-3, MFC-4 SPI4, SPB-1	50													4.22			1193.23	1188.63	1188.31	0.42		4.57					
C17	BL RAMP C STA. 137+25.00 ON BL	CONST. DBL. GRATE INLET W/ 18" x 3.58' LG. RCP TO STR. C18	CH-1 (DES. 2 STD) SPI4, SPB-1	50	0.11	PV	0.81	0.95	56.00	0.70	55.00	0.93	5.24	9.74	0.74	0.17	0.74	5.38		1193.66	1189.31	1189.21	2.79		5.01					
C18	BL RAMP C STA. 137+25.00 7.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 140.20' LG. RCP TO STR. C16	MJB-3, MFC-4 SPI4, SPB-1	50													0.74			1193.84	1189.21	1188.63	0.41		2.65					
RAMP D																														
D1	BL RAMP D STA. 128+27.75 10.95' RT.	CONST. LONG. BARRIER INLET W/ 24" x 8.89' LG. RCP TO STR. D13	CLB-1 (TYPE I), SPI4, SPB-1	50	0.22	PV	1.99	0.95	65.00	2.52	139.00	1.73	5.00	9.83	1.91	0.84	11.94	6.46		1197.65	1180.85	1180.49	4.05		12.39					
D2	BL RAMP D STA. 128+27.75 4.00' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 3.53' LG. RCP TO STR. D1	MJB-3, MFC-4 SPI4, SPB-1	50													10.03			1198.08	1182.93	1182.91	0.57		15.71					
D3	BL RAMP D STA. 129+50.00 8.00' RT.	CONST. LONG. BARRIER INLET W/ 18" x 4.08' LG. RCP TO STR. D4	CLB-1 (TYPE I), SPI4, SPB-1	50	0.31	PV	2.54	0.95	87.00	3.62	159.00	1.94	5.11	9.79	2.18	0.70	2.18	6.10		1199.80	1194.11	1194.08	0.77		4.30					
D4	BL RAMP D STA. 129+50.00 0.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 118.14' LG. RCP TO STR. D2	MJB-3, MFC-4 SPI4, SPB-1	50													10.03			1200.25	1183.49	1182.93	0.47		5.58					
D5	BL RAMP D STA. 131+11.75 0.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 157.70' LG. RCP TO STR. D4	MJB-3, MFC-4 SPI4, SPB-1	50													7.85			1203.25	1184.28	1183.49	0.50		5.19					
D6	BL RAMP D STA. 131+11.75 27.50' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 24.00' LG. RCP TO STR. D5	MJB-3, MFC-4 SPI4, SPB-1	50													4.69			1204.63	1198.85	1197.54	5.46		11.02					
D7	BL RAMP D STA. 132+50.00 19.00' LT.	CONST. DBL. GRATE INLET W/ 18" x 3.84' LG. RCP TO STR. D8	CH-1 (DES. 2 STD) SPI4, SPB-1	50	0.16	PV	3.07	0.95	54.00	4.50	144.00	2.53	5.00	9.83	1.34	0.15	1.34	3.12		1199.53	1193.64	1193.62	0.52		3.12					
D8	BL RAMP D STA. 132+50.00 25.50' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 136.43' LG. RCP TO STR. D5	MJB-3, MFC-4 SPI4, SPB-1	50													3.16			1200.93	1185.33	1184.78	0.40		3.94					
D9	BL RAMP D STA. 134+00.00 19.00' LT.	CONST. DBL. GRATE INLET W/ 18" x 4.34' LG. RCP TO STR. D10	CH-1 (DES. 2 STD) SPI4, SPB-1	50	0.22	PV	4.60	0.95	29.00	1.79	143.00	5.17	5.00	9.83	1.82	0.38	1.82	3.75		1192.05	1185.93	1185.91	0.46		3.40					
D10	BL RAMP D STA. 134+00.00 26.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 143.59' LG. RCP TO STR. D8	MJB-3, MFC-4 SPI4, SPB-1	50													1.82			1193.56	1185.91	1185.33	0.40		3.41					
D11	BL RAMP D STA. 134+66.18 19.00' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 3.34' LG. RCP TO STR. D12	CH-1 (DES. 3 STD) SPI4, SPB-1	50	0.23	PV/COM	0.93	0.90	36.00	2.00	102.00	5.50	5.00	9.83	2.03	SUMP	2.69	7.26		1190.51	1188.00	1187.96	1.20		5.63					
D12	BL RAMP D STA. 134+66.18 25.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 59.53' LG. RCP TO STR. S1	MJB-3, MFC-4 SPI4, SPB-1	50													2.09			1191.76	1187.96	1187.66	0.50		5.19					
D13	BL RAMP D STA. 128+27.75 22.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 89.80' LG. RCP TO P.C.E.S. OUTLET	MJB-3, MFC-4, PCES-4 SPI4, SPB-1	50													11.94			1184.57	1180.49	1179.50	1.10		6.70				I40 STA. 127+35, 96.80' RT.	
RAMP E																														
E1	BL RAMP E STA. 146+50.00 4.00' LT	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. E2	CLB-1 (TYPE I), SPI4, SPB-1	50	0.27	PV	2.09	0.95	78.00	2.62	142.00	1.80	5.13	9.78	2.08	0.99	2.08	9.11		1198.60	1192.89	1192.86	0.59		3.82					
E2	BL RAMP E STA. 146+50.00 4.50' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 146.00' LG. RCP TO STR. E4	MJB-3, MFC-4 SPI4, SPB-1	50													2.08			1199.04	1192.86	1191.22	1.12		5.09					
E3	BL RAMP E STA. 148+00.00 4.00' LT	CONST. LONG. BARRIER INLET W/ 18" x 5.08' LG. RCP TO STR. E4	CLB-1 (TYPE I), SPI4, SPB-1	50	0.18	PV	1.40	0.95	52.00	2.00	132.00	1.16	5.00	9.83	2.00	0.67	2.00	10.15		1196.96	1191.25	1191.22	0.59		3.78					
E4	BL RAMP E STA. 148+00.00 4.50' RT	CONST. 4.0' DIA. MANHOLE W/ 18" x 146.03' LG. RCP TO STR. W2 (J/P 28854(04))	MJB-3, MFC-4 SPI4, SPB-1	50													4.08			1197.34	1191.22	1190.39	0.57		4.77					
RAMP F																														
F1	BL RAMP F STA. 146+00.00 4.00 RT	CONST. LONG. BARRIER INLET W/ 18" x 4.59' LG. RCP TO STR. F2	CLB-1 (TYPE I), SPI4, SPB-1	50	0.16	PV	2.74	0.95	73.50	4.01	78.80	1.55	5.00	9.83	1.46	0.07	1.46	3.42		1199.06	1192.82	1192.72	2.18		6.78					
F2	BL RAMP F STA. 146+00.00 2.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 96.21' LG. RCP TO STR. F4	MJB-3, MFC-4 SPI4, SPB-1	50													8.83			1199.59	1192.72	1192.04	0.71		6.12					
F3	BL RAMP F STA. 147+00.00 4.00' RT.	CONST. LONG. BARRIER INLET W/ 18" x 3.28' LG. RCP TO STR. F4	CLB-1 (TYPE I), SPI4, SPB-1	50	0.13	PV	1.97	0.95	58.50	3.57	73.30	0.68	5.00	9.83	1.10	0.15	1.10	6.02		1197.88	1192.14	1192.04	3.05		6.23					

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DESIGN	MDB	02/12
DRAWN	MAP	02/12
CHECKED	MDB	02/12
APPROVED	HDM	02/12
SQUAD	POE	

**DRAINAGE STRUCTURE
DESIGN RECORD
SHEET 6 OF 8**
STATE JOB NO. 23310(04) SHEET NO. R007

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR 1" (RAINFALL)	DESIGN YEAR DISCHARGE C _N	DESIGN DISCHARGE BYPASS Q-BYPASS	TOTAL DISCHARGE IN CONDUIT Q TOTAL	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES		
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.				
RAMP F (CONT'D.)																														
F4	BL RAMP F STA. 147+00.00 2.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 24" x 121.00' LG. RCP TO STR. M63	MJB-3, MFC-4 SPI-4, SPB-1	50												9.93			1198.28	1191.54	1190.47	0.88		7.06						
LT. ACCESS RD. (LAR)																														
LAR1	LT. ACC. RD. CL STA. 109+05.33 15.05' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.28' LG. RCP TO STR. LAR2	CI-1 (DES. 3 STD.) SPI-4, SPB-1	50	0.26	PV/COM	1.55	0.83	80.00	3.55	133.00	0.35	6.30	9.35	2.43	0.09	2.43	13.83		1187.77	1183.54	1183.52	0.55		3.68					
LAR2	LT. ACC. RD. CL STA. 109+05.33 22.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 140.67' LG. RCP TO STR. LAR4	MJB-3, MFC-4 SPI-4, SPB-1	50												2.43			1188.25	1183.52	1182.95	0.41		3.68						
LAR3	LT. ACC. RD. CL STA. 110+50.00 14.92' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.42' LG. RCP TO STR. LAR4	CI-1 (DES. 3 STD.) SPI-4, SPB-1	50	0.24	PV	1.78	0.95	118.00	2.00	75.00	1.43	5.00	9.83	2.34	0.50	2.34	12.29		1188.27	1183.01	1182.95	1.36		5.41					
LAR4	LT. ACC. RD. CL STA. 110+50.00 22.00' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 136.92' LG. RCP TO STR. LAR9	MJB-3, MFC-4 SPI-4, SPB-1	50												4.77			1188.01	1182.95	1182.30	0.48		4.35						
LAR5	LT. ACC. RD. CL STA. 113+67.50 11.00' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.49' LG. RCP TO STR. LAR6	CI-1 (DES. 3 STD.) SPI-4, SPB-1	50	0.20	PV	1.52	0.95	46.00	1.68	164.00	1.43	5.00	9.83	1.72	0.15	1.72	10.81		1188.24	1184.31	1184.29	0.45		3.34					
LAR6	LT. ACC. RD. CL STA. 113+67.50 18.15' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 123.17' LG. RCP TO STR. LAR8	MJB-3, MFC-4 SPI-4, SPB-1	50												10.01			1187.49	1181.37	1181.00	0.30		4.68						
LAR7	LT. ACC. RD. CL STA. 114+94.67 11.00' LT.	CONST. (2) DBL. GRATE INLET W/ 18" x 4.09' LG. RCP TO STR. LAR8	CI-1 (DES. 3 STD.) SPI-4, SPB-1	50	0.13	PV	2.05	0.95	48.00	5.50	116.00	0.63	5.00	9.83	1.27	0.09	1.27	9.59		1187.72	1183.84	1183.82	0.49		3.07					
LAR8	LT. ACC. RD. CL STA. 114+94.67 17.75' LT.	CONST. 4.0' DIA. MANHOLE W/ 28" x 18" x 206.27' LG. RCP TO STR. M28	MJB-3, MFC-4 SPI-4, SPB-1	50												11.28			1187.89	1181.00	1180.38	0.30		4.79						
LAR9	LT. ACC. RD. CL STA. 111+90.91 20.25' LT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 172.61' LG. RCP TO STR. LAR6	MJB-3, MFC-4 SPI-4, SPB-1	50												8.29			1188.15	1182.30	1181.37	0.54		5.44						
RT. SERVICE RD. (RSR)																														
RSR1	RT. SERV. RD. BL STA. 141+02.70 BL	CONST. DBL. GRATE INLET W/ 2 ADD'L OPENINGS W/ 18" x 2.64' LG. RCP TO STR. RSR2	CI-4 (DES. 2 (B)) SPI-4, SPB-1	50	0.14	PV/COM	0.87	0.95	31.70	2.00	178.30	0.67	5.13	9.78	1.68	0.18	1.50	9.38		1196.23	1190.27	1190.17	3.79		7.15					
RSR2	RT. SERV. RD. BL STA. 141+02.70 5.30' RT.	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI-4, SPB-1	50												7.30			1197.06	1190.17										
RSR3	RT. SERV. RD. BL STA. 142+42.70 BL	CONST. (2) DBL GRATE INLET W/ 18" x 1.79' LG. RCP TO STR. RSR4	CI-4 (DES. 3 STD) SPI-4, SPB-1	50	0.34	PV	2.59	0.95	109.90	4.64	163.30	1.21	5.55	9.62	3.11	0.45	2.66	9.25		1197.84	1191.10	1191.00	5.58		9.70					
RSR4	RT. SERV. RD. BL STA. 142+42.70 4.46' RT.	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI-4, SPB-1	50												5.35			1197.99	1191.00				4.18						
RSR5	RT. SERV. RD. BL STA. A145+99.59 BL	CONST. (2) DBL GRATE INLET W/ 18" x 2.66' LG. RCP TO STR. RSR6	CI-4 (DES. 3 STD) SPI-4, SPB-1	50	0.13	PV	0.95	0.95	17.50	1.89	133.80	0.82	5.00	9.83	1.10	0.09	1.10	6.88		1199.94	1192.50	1192.40	3.76		5.89					
RSR6	RT. SERV. RD. BL STA. A145+99.59 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 145.72' LG. RCP TO STR. RSR9	MJB-3, MFC-4 SPI-4, SPB-1	50												3.03			1199.80	1192.40	1191.82	0.40		3.67						
RSR7	RT. SERV. RD. BL STA. A147+97.31 BL	CONST. (2) DBL GRATE INLET W/ 18" x 2.64' LG. RCP TO STR. RSR8	CI-4 (DES. 3 STD) SPI-4, SPB-1	50	0.21	PV	0.98	0.95	30.40	1.97	195.00	0.82	5.07	9.81	1.93	0.13	1.93	10.38		1196.90	1193.28	1193.18	3.79		6.95					
RSR8	RT. SERV. RD. BL STA. A 147+97.31 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 193.72' LG. RCP TO STR. RSR6	MJB-3, MFC-4 SPI-4, SPB-1	50												1.93			1197.04	1193.18	1192.40	0.40		3.26						
RSR9	RT. SERV. RD. BL STA. 144+50.00 5.30' RT.	CONST. 4.0' DIA. MANHOLE W/ 18" x 203.18' LG. RCP TO STR. RSR4	MJB-3, MFC-4 SPI-4, SPB-1	50												3.03			1201.26	1191.81	1191.00	0.40		3.67						
S.E. 15TH STREET																														
S1	CL S.E. 15TH STA. 15+99.60 25.31' LT	CONST. 4.0' DIA. MANHOLE ON EXIST. RCP	MJB-3, MFC-4 SPI-4, SPB-1	50												2.69			1191.15	1187.66										
S2	RT. SERV. RD. BL STA. 136+21.82 23.23' RT	CONST. (2) DBL GRATE INLET W/ 18" x 28.00' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 3 STD) SPI-4, SPB-1	50	0.75	PV	1.31	0.95	32.50	1.54	455.00	1.29	6.62	9.24	7.45	SUMP	7.45	6.17		1190.70	1186.79	1186.67	0.46		5.27					
S3	CL S.E. 15TH STA. 18+05.00 40.00' RT	CONST. DBL GRATE INLET W/ 18" x 3.40' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 2 STD) SPI-4, SPB-1	50	0.21	PV	1.27	0.95	36.00	0.56	207.00	1.40	5.82	9.52	1.62	0.66	1.62	9.47		1192.26	1188.11	1188.01	2.94		5.51					
S4	CL S.E. 15TH STA. 20+40.00 36.50' RT	CONST. (2) DBL GRATE INLET W/ 18" x 8.01' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 3 STD) SPI-4, SPB-1	50	0.27	PV	2.19	0.95	19.80	2.07	203.00	2.20	5.00	9.83	2.14	0.41	2.14	7.92		1195.36	1192.45	1192.35	1.25		4.84					

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DRAWN	MAP	02/12
CHECKED	MDB	02/12
APPROVED	HDM	02/12
SQUAD	POE	

DRAINAGE STRUCTURE DESIGN RECORD
SHEET 7 OF 8
STATE JOB NO. 23310(04) SHEET NO. R008

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

DRAINAGE STRUCTURE DESIGN RECORD

STRUCTURE NUMBER	STATION	DESCRIPTION	DESIGN	DESIGN YEAR	DRAINAGE AREA	ANTICIPATED FUTURE LAND USE	AVG. SLOPE OF WATERSHED	RUNOFF COEFFICIENT (WEIGHTED)	LENGTH OF OVERLAND FLOW	SLOPE OF OVERLAND	LENGTH OF CHANNEL FLOW	SLOPE OF CHANNEL	TIME OF CONCENTRATION	INTENSITY OF DESIGN YEAR "1" (RAINFALL)	DESIGN YEAR DISCHARGE Q _N	DESIGN DISCHARGE BYPASS Q _{BYPASS}	TOTAL DISCHARGE IN CONDUIT Q TOTAL	SPREAD	DESIGN TAILWATER	TOP OF COVER OR GRATE	STRUCTURE FLOW LINE	OUTLET FLOW LINE	STRUCTURE SLOPE	MAXIMUM ALLOWABLE HEADWATER	FLOW VELOCITY V _N	CONTROLLING HEADWATER	TYPE OF HYDRAULIC CONTROL	NOTES			
				N	ACRES		%	C	FT.	%	FT.	%	MIN.	IN/HR	CFS	CFS	CFS	FT.	FT.	ELEV.	ELEV.	ELEV.	%	ELEV.	FT/SEC	ELEV.					
S.E. 15TH STREET																															
S5	CL S.E. 15TH STA. 22+00.00 40.00' LT	CONST. (2) DBL GRATE INLET W/ 18" x 45.56' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 3 STD) SPI-4, SPB-1	50	0.43	PV	2.15	0.87	100.00	2.00	47.30	2.47	5.21	9.75	3.34	0.66	3.34	10.41		1198.79	1196.19	1196.06	0.29		3.38						
S6	CL S.E. 15TH STA. 23+00.00 37.40' LT	CONST. (2) DBL GRATE INLET W/ 18" x 46.18' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 3 STD) SPI-4, SPB-1	50	0.44	PV	0.61	0.87	129.20	0.77	95.00	0.40	7.95	8.81	3.04	0.34	3.04	10.93		1200.59	1196.83	1196.06	1.67		6.16						
S7	LT. SERV. RD. BL STA. 141+32.74 0.55' LT	CONST. DBL GRATE INLET W/ 18" x 83.49' LG. RCP TO EXIST. MANHOLE	CI-1 (DES. 2 STD) SPI-4, SPB-1	50	0.24	PV	0.91	9.95	116.00	5.04	42.00	1.67	5.00	9.83	2.24		2.24	6.50		1198.87	1194.38	1193.25	1.35		5.57						
S8	CL S.E. 15TH STA. 16+25.00 35.80 LT	CONST. (2) DBL. GRATE INLET W/ 18" X 20.33' LG. RCP TO STR. S1	CI-1 (DES. 3 STD) SPI-4, SPB-1	50	0.96	PV	2.01	0.90	38.00	10.55	555.00	1.43	6.27	9.36	8.08	1.29	6.79	9.86		1191.05	1187.88	1187.66	1.08		4.91						

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APPROVED	HDM	02/12
SQUAD	POE	

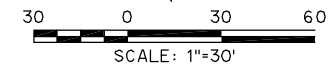
**DRAINAGE STRUCTURE
DESIGN RECORD
SHEET 8 OF 8**

STATE JOB NO. 23310(04) SHEET NO. R009

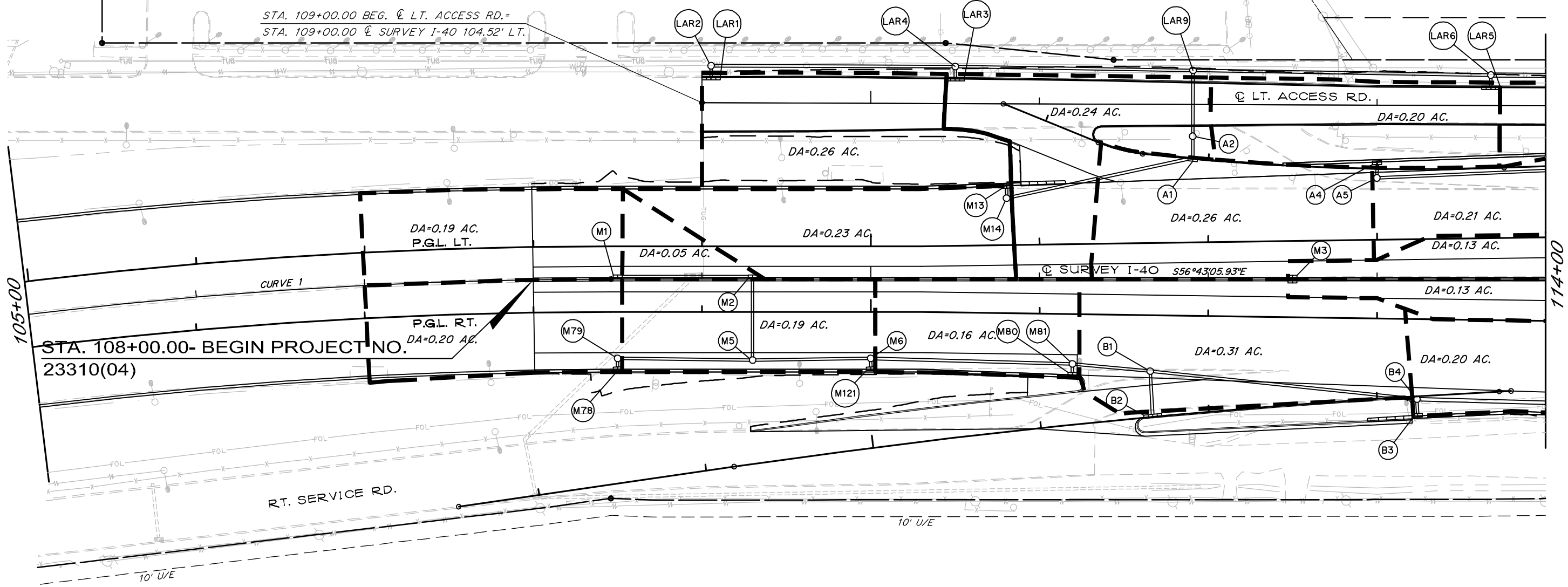
SEC.5 T-11-N R-2-W

110

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



STA. 109+00.00 BEG. \oslash LT. ACCESS RD.=
STA. 109+00.00 \oslash SURVEY I-40 104.52' LT.



STA. 108+00.00- BEGIN PROJECT NO.
23310(04)

SEC.5 T-11-N R-2-W ①

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DRAWN	KST	04/12
CHECKED	MDB	04/12
APPROVED	HDM	04/12
SQUAD	POE	

DRAINAGE AREA MAP
SHEET 1 OF 7

STATE JOB NO. 23310(04) SHEET NO. R010

SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

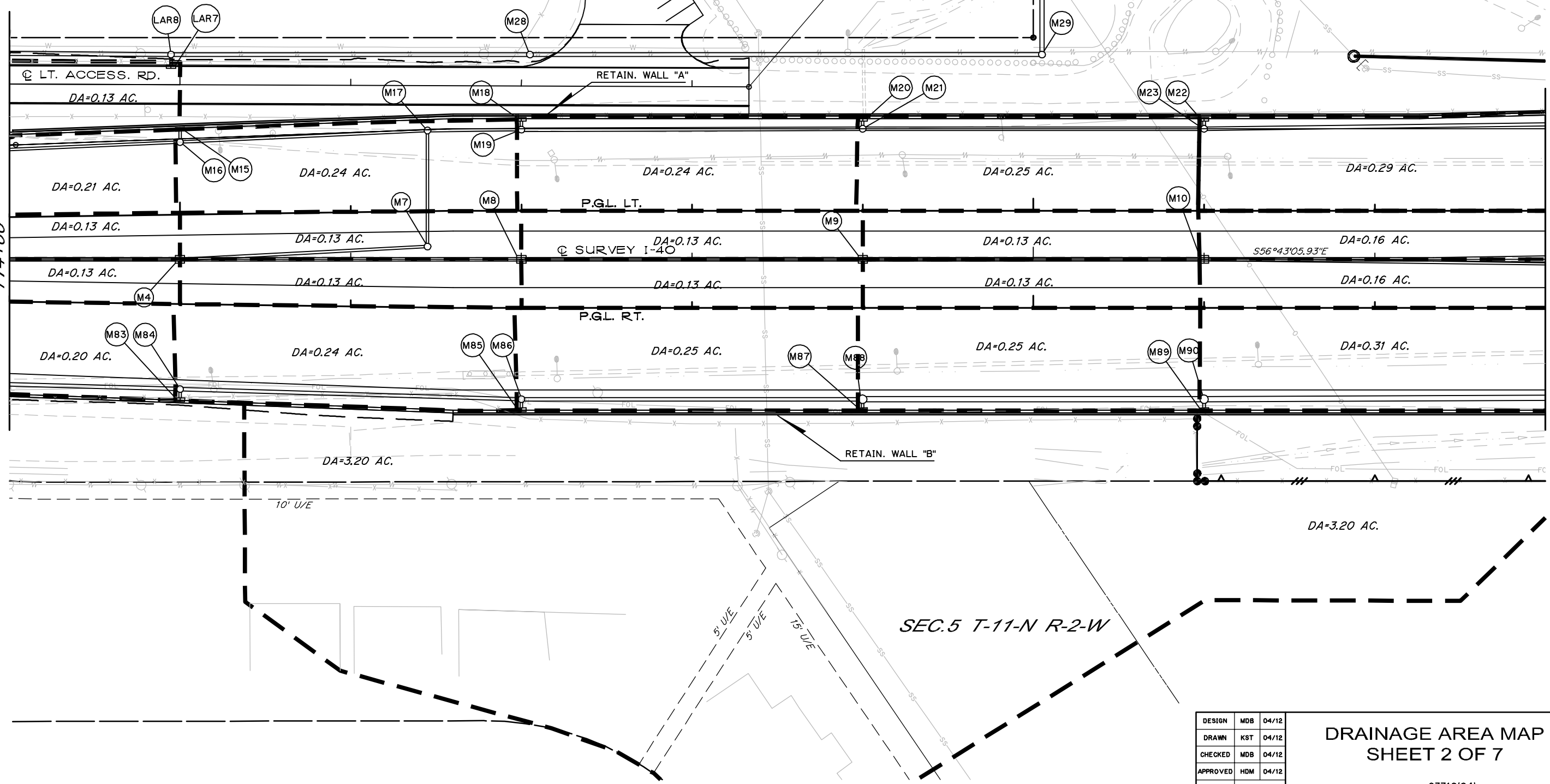
115

120

STA. 118+33.30 END @ LT. ACCESS RD.=
STA. 118+33.29 @ SURVEY I-40 101.08' LT.

114+00

123+00



SEC.5 T-11-N R-2-W

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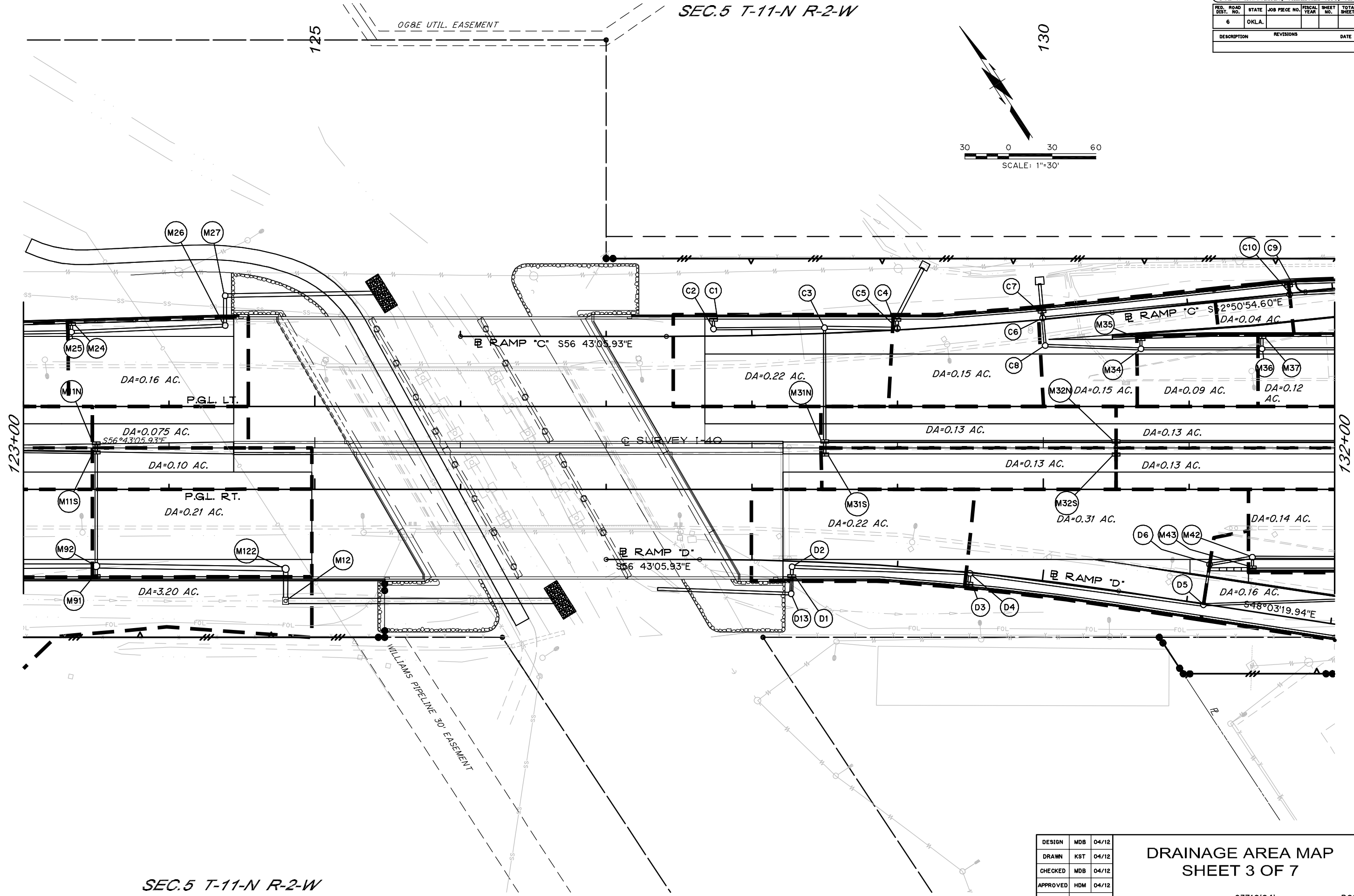
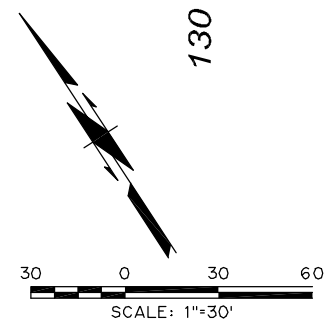
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CHECKED	MDB	04/12
APPROVED	HDM	04/12
SQUAD	POE	

DRAINAGE AREA MAP
SHEET 2 OF 7

STATE JOB NO. 23310(04) SHEET NO. R011

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.5 T-11-N R-2-W



SEC.5 T-11-N R-2-W

DESIGN	MDB	04/12
DRAWN	KST	04/12
CHECKED	MDB	04/12
APPROVED	HDM	04/12
SQUAD	POE	

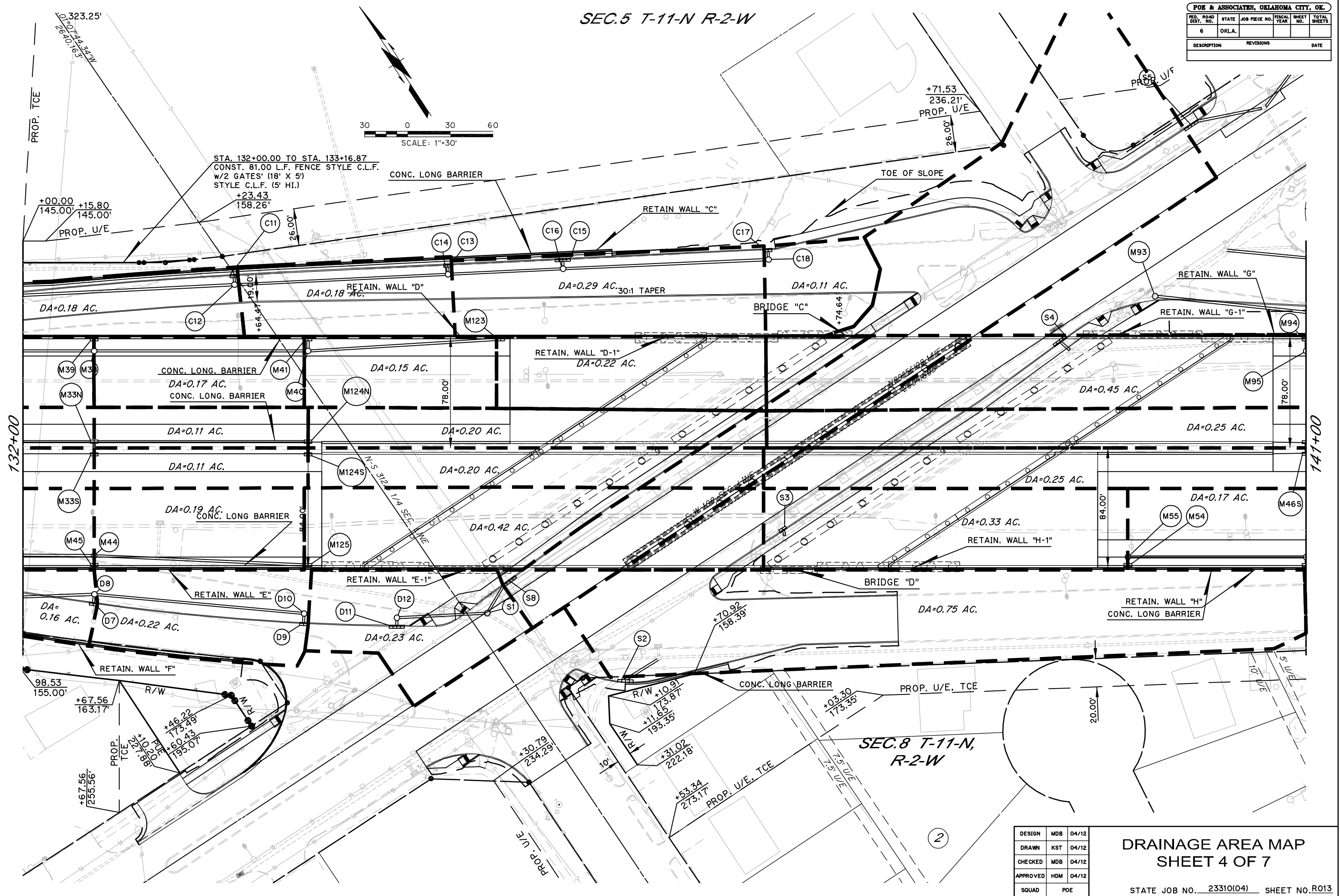
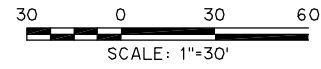
DRAINAGE AREA MAP
SHEET 3 OF 7

STATE JOB NO. 23310(04) SHEET NO. R012

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SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



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CHECKED	MDB	04/12
APPROVED	HDM	04/12
SQUAD	POE	

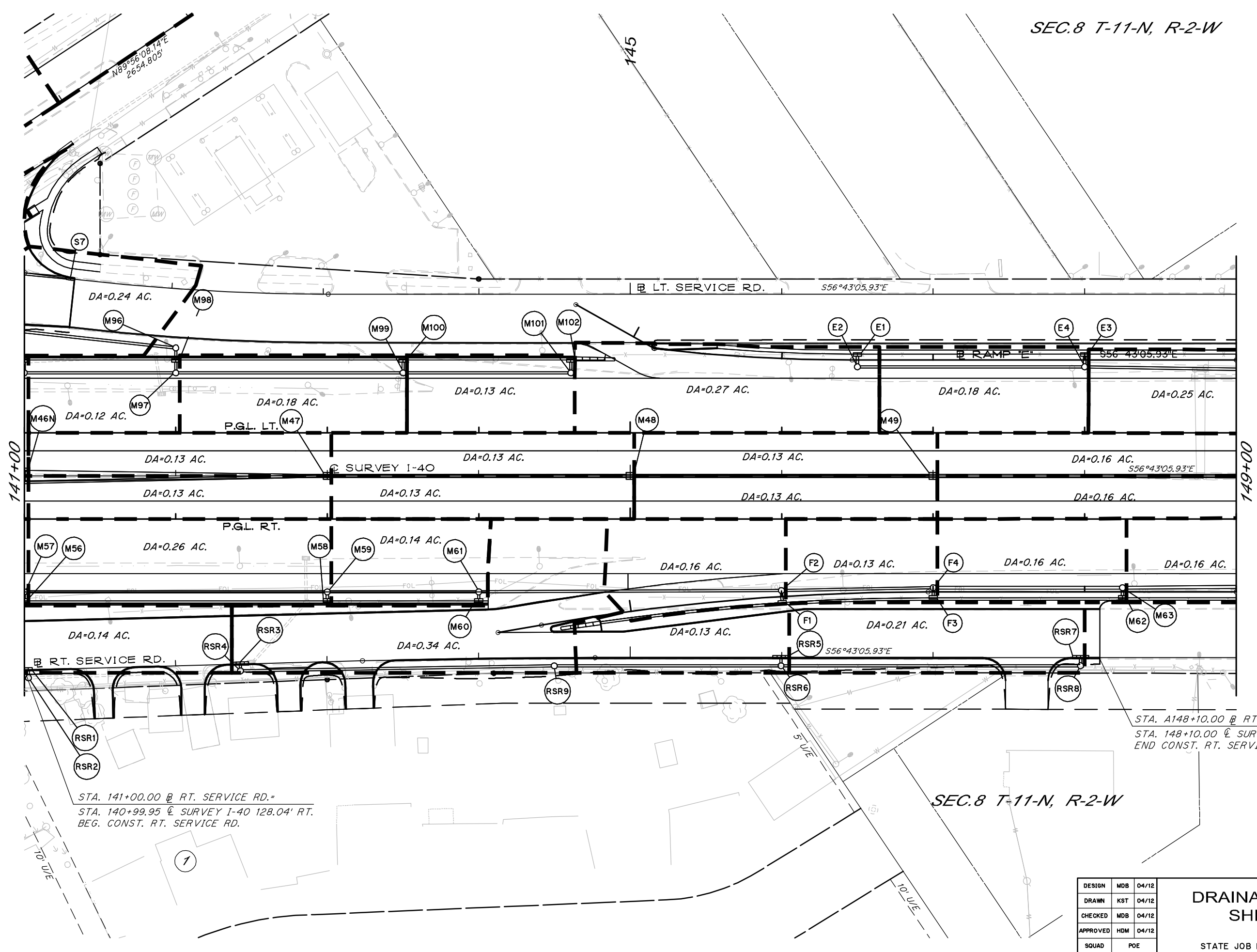
**DRAINAGE AREA MAP
SHEET 4 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R013

2

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.8 T-11-N, R-2-W



STA. 141+00.00 @ RT. SERVICE RD.=
 STA. 140+99.95 @ SURVEY I-40 128.04' RT.
 BEG. CONST. RT. SERVICE RD.

STA. A148+10.00 @ RT. SERVICE RD.=
 STA. 148+10.00 @ SURVEY I-40 120.00' RT.
 END CONST. RT. SERVICE RD.

SEC.8 T-11-N, R-2-W

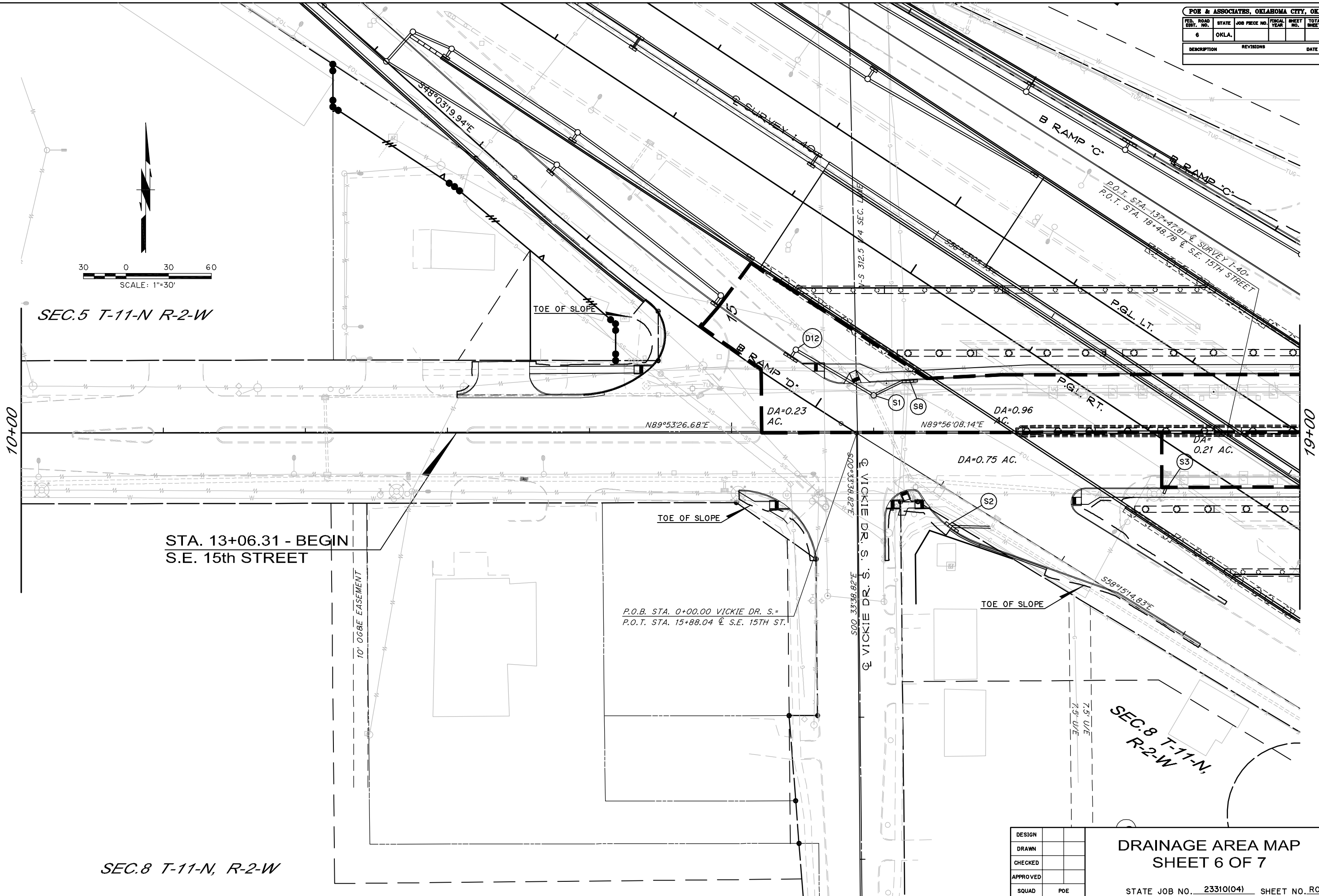
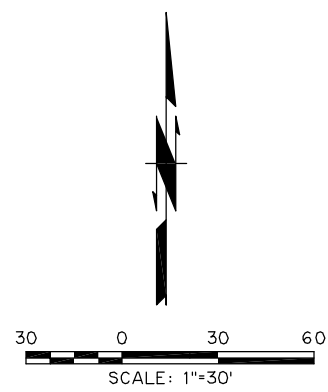
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DRAWN	KST	04/12
CHECKED	MDB	04/12
APPROVED	HDM	04/12
SQUAD	POE	

**DRAINAGE AREA MAP
 SHEET 5 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R014

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	



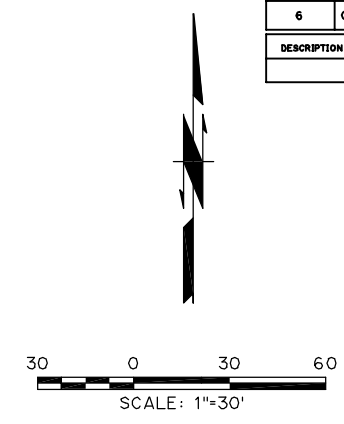
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DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

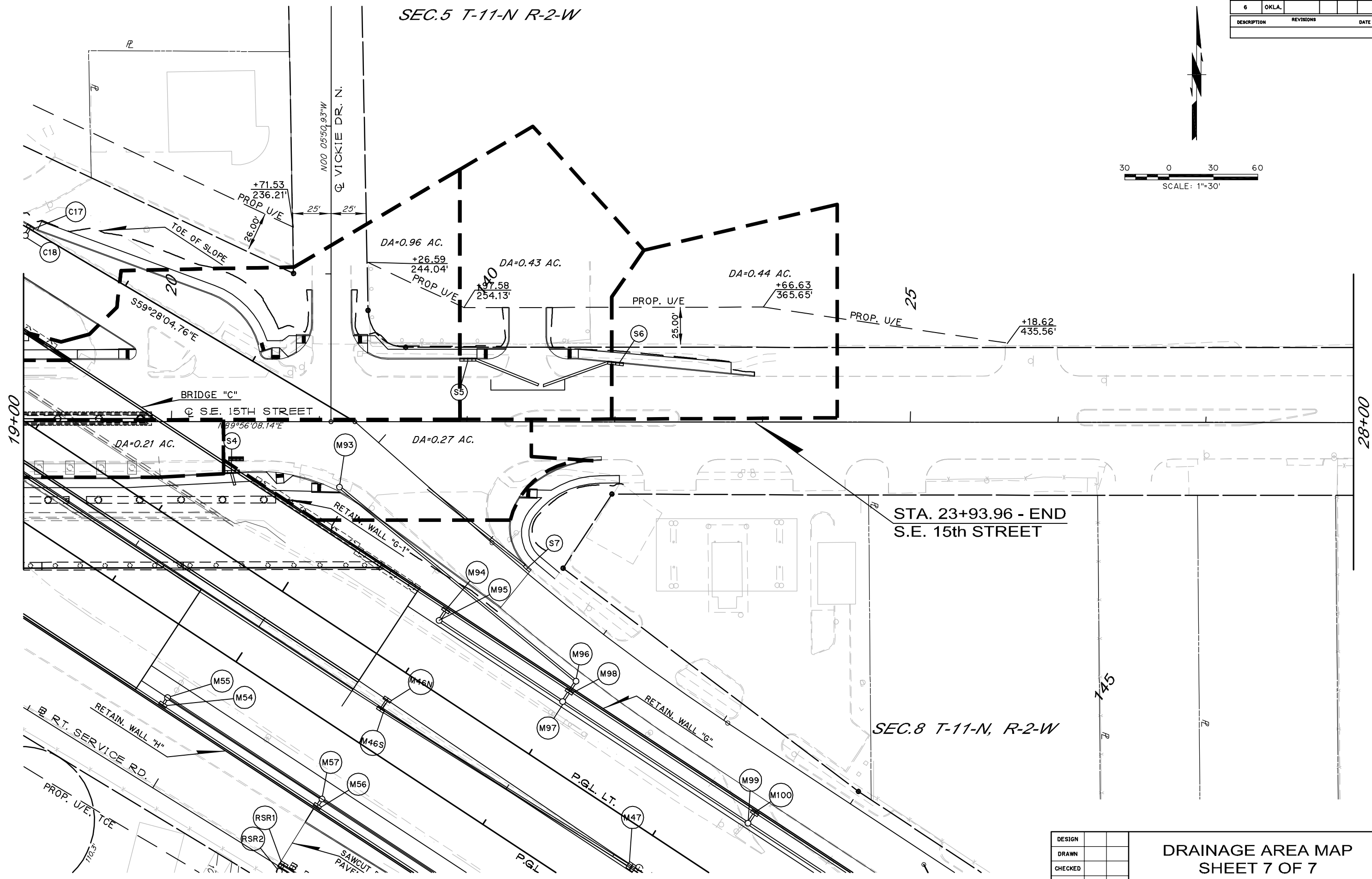
DRAINAGE AREA MAP
SHEET 6 OF 7

STATE JOB NO. 23310(04) SHEET NO. R015

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



SEC.5 T-11-N R-2-W



STA. 23+93.96 - END
S.E. 15th STREET

SEC.8 T-11-N, R-2-W

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

DRAINAGE AREA MAP
SHEET 7 OF 7

STATE JOB NO. 23310(04) SHEET NO. R016

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EXISTING COORDINATE DATA

PROPOSED COORDINATE DATA

COORDINATE DATA - C/L I-40

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
10000	166180.3371	2134420.6490	P.C.	98+30.15
10001	163388.5796	2133777.9160	C.C.	
10002	165783.4939	2135349.9851	P.T.	108+45.98
10003	164191.0983	2137775.8652	P.I.	137+47.81
10005	162460.1744	2140412.7814	P.C.	169+02.08
10006	157670.3440	2137268.6421	C.C.	
10007	161973.7805	2141051.3027	P.T.	177+05.42
10008	166065.1737	2134920.8698	P.I.	103+43.46
10009	162239.3956	2140749.1191	P.I.	173+04.41

COORDINATE DATA - VICKIE DRIVE (S)

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
70000	164190.8052	2137515.1285	P.O.B.	0+00.00
70001	163190.8531	2137524.9159	P.O.E.	10+00.00

COORDINATE DATA - C/L SOONER RD.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
80000	164193.7895	2140169.9316	P.O.B.	03+01.91
80001	161571.6484	2140197.1143	P.O.E.	29+24.19

COORDINATE DATA - B/L LT. ACCESS RD.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
90000	165841.2307	2135452.4940	P.O.B.	109+00.00
90001	165326.2023	2136230.8254	P.O.E.	118+33.30

COORDINATE DATA - C/L SUNNYLANE

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
20000	166453.2181	2134823.1615	P.O.B.	0+00.00
20001	164185.7436	2134860.7043	P.O.E.	22+67.79

COORDINATE DATA - C/L S.E. 15TH ST.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
30000	164187.7770	2135927.0924	P.O.B.	0+00.00
30001	164190.8052	2137515.1285	P.I.	15+88.04
30002	164193.7895	2140169.9316	P.O.E.	42+42.84

COORDINATE DATA - B/L LT. SERVICE RD.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
40000	164191.4078	2138051.2239	P.O.B.	139+78.62
40001	164109.7019	2138144.1713	P.C.	141+02.37
40002	165185.5277	2139089.8819	C.C.	
40003	163988.0660	2138303.8443	P.T. EQ. BACK	143+03.26
=	163988.0660	2138303.8443	EQ. AHEAD	A 143+00.61
40004	163073.4608	2139697.1679	P.C.	A 159+67.30
40005	163552.4456	2140011.5829	C.C.	
40006	163043.4820	2139748.4494	P.T.	A 160+26.73
40007	162818.2037	2140184.1918	P.O.E.	A 165+17.26
40009	164043.2763	2138219.7360	P.I.	142+02.98
40010	163057.1405	2139722.0306	P.I.	A 159+97.04

COORDINATE DATA - B/L RT. SERVICE RD.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
50000	164190.8052	2137515.1285	P.O.B.	135+29.85
50001	163773.2957	2138189.9248	P.C.	143+23.36
50002	158900.9178	2135175.2904	C.C.	
50003	163690.7482	2138319.4297	P.T. EQ. BACK	144+76.94
=	163690.7482	2138319.4297	EQ. AHEAD	A 144+76.79
50004	163239.0092	2139007.6158	P.O.E.	A 153+00.00
50005	163732.8893	2138255.2313	P.I.	144+00.16

COORDINATE DATA - VICKIE DRIVE (N)

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
60000	164191.3897	2138035.0633	P.O.B.	0+00.00
60001	164491.3892	2138034.5529	P.O.E.	3+00.00

COORDINATE DATA - P.G.L. LT.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
15000	166199.3400	2134425.0239	P.O.B.	98+23.17
15001	163388.5796	2133777.9160	C.C.	
15002	165799.7956	2135360.8858	P.T.	108+45.92
15003	165698.8111	2135514.5271	P.I.	110+29.94
15004	165360.6232	2136046.1286	P.I.	116+60.00
15005	164214.9238	2137791.5047	P.I.	137+47.81
15006	163582.6549	2138754.7128	P.O.E.	149+00.00
15010	166083.3927	2134928.6497	P.I.	103+39.97

COORDINATE DATA - P.G.L. RT.

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
25000	166161.3342	2134416.2740	P.O.B.	98+37.00
25001	163388.5796	2133777.9160	C.C.	
25002	165767.1922	2135339.2844	P.T.	108+45.92
25003	165666.2121	2135493.1191	P.I.	110+29.94
25004	165312.9722	2136014.8495	P.I.	116+60.00
25005	164167.2728	2137760.2256	P.I.	137+47.81
25006	163535.0039	2138723.4338	P.O.E.	149+00.00
25010	166046.9547	2134913.0899	P.I.	103+46.81

COORDINATE DATA - B/L RAMP 'A'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
75000	165742.6746	2135601.4368	P.O.B.	110+72.84
75001	165692.6996	2135635.9755	P.C.	111+33.59
75002	165749.5545	2135718.2404	C.C.	
75003	165672.7001	2135654.2607	P.C.C.	111+60.77
75004	166773.5584	2136570.7030	C.C.	
75005	165548.2214	2135828.8778	P.T.	113+75.42
75006	165533.5700	2135853.0788	P.O.E.	114+03.71
75007	165681.4496	2135643.7506	P.I.	111+47.26
75008	165603.9069	2135736.8972	P.I.	112+68.29

COORDINATE DATA - B/L RAMP 'B'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
85000	165720.2375	2135200.6050	P.O.B.	107+51.76
85001	165650.4882	2135350.0253	P.C.	109+16.66
85002	161183.2336	2133264.7107	C.C.	
85003	165438.8958	2135753.5335	P.T.	113+72.44
85004	165435.3056	2135759.6725	P.O.E.	113+79.55
85005	165554.0248	2135556.6733	P.I.	111+44.71

COORDINATE DATA - B/L RAMP 'C'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
35011	164884.9201	2136858.2927	P.O.B.	126+00.00
35000	164807.3953	2136976.3951	P.C.	127+41.27
35001	167202.3096	2138548.4642	C.C.	
35003	164653.2118	2137241.1325	P.T.	130+47.78
35004	164592.2831	2137359.9341	P.C.	131+81.29
35005	161576.9315	2135813.4789	C.C.	
35006	164495.8468	2137535.0488	P.T.	133+81.24
35007	164191.4078	2138051.2239	P.O.E.	139+80.50
35008	164723.2156	2137104.6358	P.I.	128+94.67
35009	164546.6487	2137448.9143	P.I.	132+81.29

COORDINATE DATA - B/L RAMP 'D'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
45009	164702.1392	2136857.9313	P.O.B.	127+00.00
45000	164666.9270	2136911.5741	P.C.	127+64.17
45001	163070.3174	2135863.5280	C.C.	
45002	164490.8576	2137140.0970	P.T.	130+52.93
45003	164370.2496	2137274.3070	P.C.	132+33.37
45004	165587.8555	2138368.5090	C.C.	
45005	164197.6048	2137504.1914	P.T.	135+21.23
45006	164190.8052	2137515.1285	P.O.E.	135+34.11
45007	164587.5467	2137032.5033	P.I.	129+08.83
45008	164273.7950	2137381.6398	P.I.	133+77.67

COORDINATE DATA - B/L RAMP 'E'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
55000	163892.5498	2138436.7575	P.O.B.	144+56.26
55001	163840.2982	2138463.8204	P.C.	145+15.10
55002	163841.2181	2138465.5963	C.C.	
55003	163839.6833	2138464.3139	P.C.C.	145+15.90
55005	164709.5596	2139191.1792	C.C.	
55006	163761.9009	2138569.1173	P.T.	146+46.48
55007	163622.7822	2138781.0530	P.O.E.	149+00.00
55008	163839.9412	2138464.0053	P.I.	145+15.51
55009	163797.7705	2138514.4731	P.I.	145+81.26

COORDINATE DATA - B/L RAMP 'F'

POINT NUMBER	NORTHING	EASTING	POINT TYPE	STATION
65000	163739.8417	2138275.0065	P.O.B.	144+11.04
65001	163728.2515	2138301.6847	P.C.	144+40.13
65002	162352.4763	2137703.9869	C.C.	
65003	163606.4505	2138527.1203	P.T.	146+96.68
65004	163494.8768	2138697.0935	P.O.E.	149+00.00
65005	163677.0137	2138419.6232	P.I.	145+68.71

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

GEOMETRIC DATA SHEET 1 OF 2

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

CURVE DATA - C/L I-40

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
10008	166065.1737	2134920.8698	103+43.46	C/L SURV. I-40	1	20°19'00.00" RT.	02°00'00.00"	2864.79'	513.31'	1015.83'	45.62'
10009	162239.3956	2140749.1191	173+04.41	C/L SURV. I-40	2	08°02'00.00" RT.	01°00'00.00"	5729.58'	402.33'	803.33'	14.11'

CURVE DATA - B/L LT. SERVICE RD.

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
40009	164043.2763	2138219.7360	142+02.98	B/L LT. SERV. RD.	SRL1	08°02'08.09" LT.	03°59'59.94"	1432.40'	100.61'	200.89'	3.53'
40010	163057.1405	2139722.0306	A 159+97.04	B/L LT. SERV. RD.	SRL2	05°56'34.00" LT.	09°59'59.86"	5729.96'	29.74'	59.43'	0.77'

CURVE DATA - B/L RT. SERVICE RD.

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
50005	163732.8893	2138255.2313	144+00.16	B/L RT. SERV. RD.	SRR1	01°32'08.90" RT.	01°00'00.00"	5729.58'	76.79'	153.58'	0.51'

CURVE DATA - P.G.L. LT.

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
15010	166083.3927	2134928.6497	103+39.97	P.G.L. LT.	P.G.L. L1	20°19'00.00" RT.	01°59'11.32"	2864.29'	516.80'	1022.75'	45.93'

CURVE DATA - P.G.L. RT.

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
25010	166046.9547	2134913.0899	103+46.81	P.G.L. RT.	P.G.L. R1	20°19'00.00" RT.	02°00'49.34"	2845.29'	509.81'	1008.92'	45.31'

CURVE DATA - B/L RAMP 'A'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
75007	165681.4496	2135643.7506	111+47.26	B/L RAMP 'A'	RA1	15°34'27.09" LT.	57°17'44.84"	100.00'	13.68'	27.18'	0.93'
75008	165603.9069	2135736.8972	112+68.29	B/L RAMP 'A'	RA2	08°35'08.79" LT.	04°00'00.00"	1432.39'	107.52'	214.64'	4.03'

CURVE DATA - B/L RAMP 'B'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
85005	165554.0248	2135556.6733	111+44.71	B/L RAMP 'B'	RB1	05°17'49.37" RT.	01°09'43.87"	4930.00'	228.05'	455.78'	5.27'

CURVE DATA - B/L RAMP 'C'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
35008	164723.2156	2137104.6358	128+94.67	B/L RAMP 'C'	RC1	06°07'48.67" LT.	02°00'00.00"	2864.79'	153.40'	306.51'	4.10'
35009	164546.6487	2137448.9143	132+81.29	B/L RAMP 'C'	RC2	03°22'49.83" RT.	01°41'26.69"	3388.79'	100.00'	199.94'	1.48'

CURVE DATA - B/L RAMP 'D'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
45007	164587.5467	2137032.5033	129+08.83	B/L RAMP 'D'	RD1	08°39'45.99" RT.	03°00'00.00"	1909.86'	144.66'	288.76'	5.47'
45008	164273.7950	2137381.6398	133+77.67	B/L RAMP 'D'	RD2	10°04'31.01" LT.	03°30'00.00"	1637.02'	144.30'	287.87'	6.35'

CURVE DATA - B/L RAMP 'E'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
55008	163839.9412	2138464.0053	145+15.51	B/L RAMP 'E'	RE1	22°44'12.31" LT.	2864°47'20.31"	2.00'	0.40'	0.79'	0.04'
55009	163797.7705	2138514.4731	145+81.26	B/L RAMP 'E'	RE2	06°36'01.14" LT.	05°03'15.77"	1133.59'	65.37'	130.59'	1.88'

CURVE DATA - B/L RAMP 'F'

POINT NUMBER	NORTHING	EASTING	P.I. STATION	ALIGNMENT	CURVE NUMBER	Δ	D	R	T	L	E
65005	163677.0137	2138419.6232	145+68.71	B/L RAMP 'F'	RF1	09°47'57.91" RT.	03°49'10.99"	1500.00'	128.59'	256.55'	5.50'

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	MAP	03/12
APPROVED	MAP	03/12
SQUAD	POE	

**GEOMETRIC DATA
SHEET 2 OF 2**

SEC.6 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS	DATE		
REV. CURVE DATA				3/9/2020		

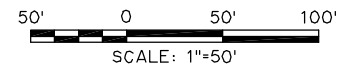
SEC.5 T-11-N R-2-W

CURVE NO. PGLL1
 P.I. STA. 103+39.97
 N: 166,083.3927
 E: 2,134,928.6497
 $\Delta = 20^\circ 19' 00.00''$ RT.
 D= 01°59'11.32"
 T= 516.80'
 L= 1,022.75'
 R= 2,884.29'
 E= 45.93'
 eMAX.=8%
 S=4.30%

CURVE NO. PGLR1
 P.I. STA. 103+46.81
 N: 166,046.9547
 E: 2,134,913.0899
 $\Delta = 20^\circ 19' 00.00''$ RT.
 D= 02°00'49.34"
 T= 509.81'
 L= 1,008.92'
 R= 2,845.29'
 E= 45.31'
 eMAX.=8%
 S=4.30%

CURVE NO. 1- & SURVEY I-40
 P.I. STA. 103+43.46
 N: 166,065.1737
 E: 2,134,920.8698
 $\Delta = 20^\circ 19' 00.00''$ RT.
 D= 02°00'00.00"
 T= 513.31'
 L= 1,015.83'
 R= 2,864.79'
 E= 45.62'

STATIONING FROM SWO 1748(2), SWO 1748(3)
 FAP I-453(1), FAP I-453(2)



SEC.6 T-11-N R-2-W

SEC.5 T-11-N R-2-W

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

GEOMETRIC LAYOUT
 SHEET 1 OF 4

STATE JOB NO. 23310(04) SHEET NO. R019

3/10/2020 7:18:54 AM
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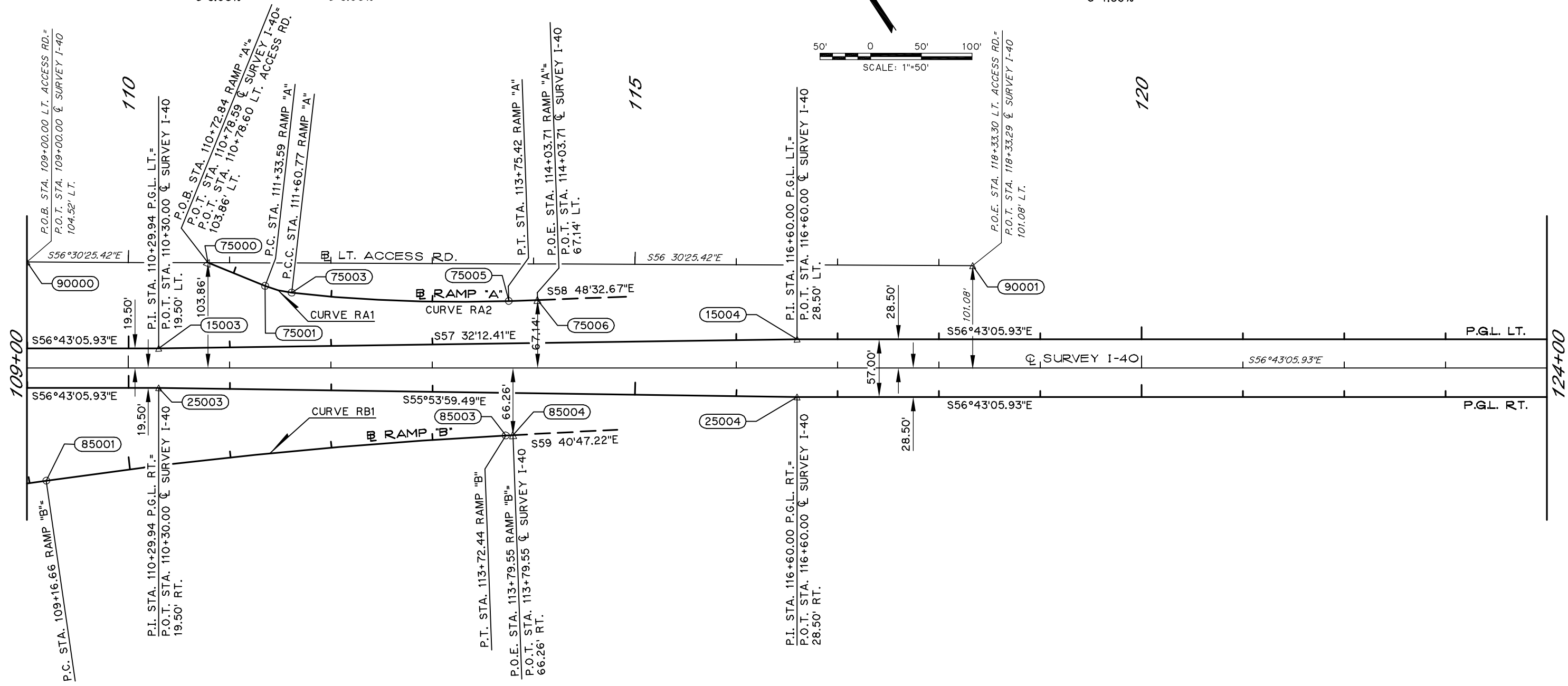
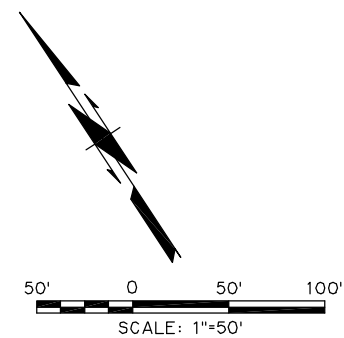
SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	
REV. CURVE DATA				3/9/2020	

CURVE NO. RA1
 P.I. STA. 111+47.26
 N: 165,681.4496
 E: 2,135,643.7506
 $\Delta = 15\ 34'27.09"$ LT.
 D= 57°17'44.84"
 T= 13.68'
 L= 27.18'
 R= 100.00'
 E= 0.93'
 eMAX=.08
 S=3.90%

CURVE NO. RA2
 P.I. STA. 112+68.29
 N: 165,603.9069
 E: 2,135,736.8972
 $\Delta = 08\ 35'08.79"$ LT.
 D= 04°00'00.00"
 T= 107.52'
 L= 214.64'
 R= 1,432.39'
 E= 4.03'
 eMAX=.08
 S=3.90%

eMAX=.08
 S=4.30%



CURVE NO. RB1
 P.I. STA. 111+44.71
 N: 165,554.0248
 E: 2,135,556.6733
 $\Delta = 05\ 17'49.37"$ RT.
 D= 01°09'43.87"
 T= 228.05'
 L= 455.78'
 R= 4,930.00'
 E= 5.27'
 eMAX=.08
 S=2.0% (NS)

SEC.5 T-11-N R-2-W

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

GEOMETRIC LAYOUT
 SHEET 2 OF 4

STATE JOB NO. 23310(04) SHEET NO. R020

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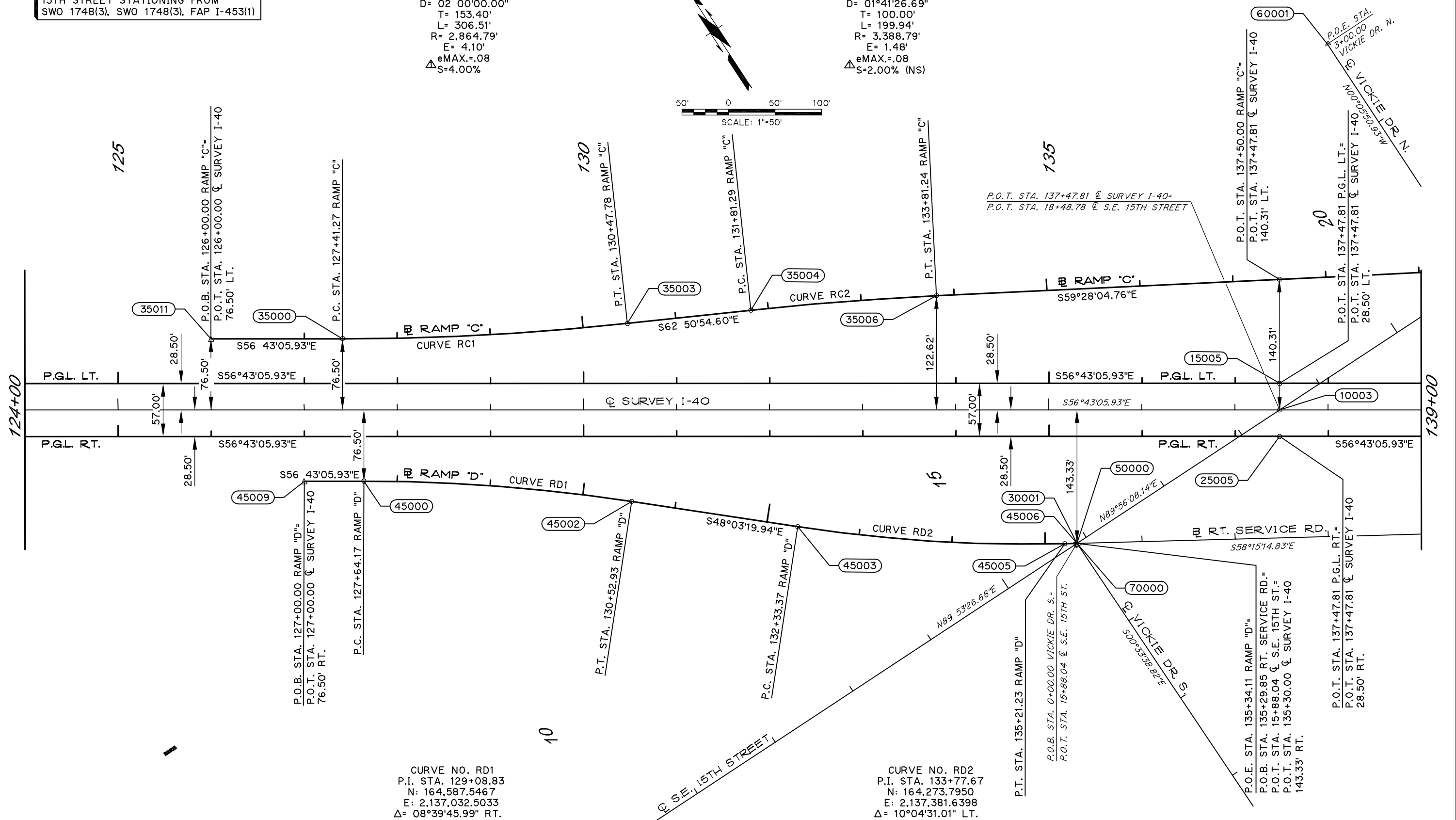
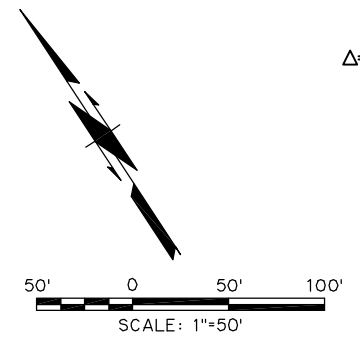
POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS	DATE		
△ REV. CURVE DATA				3/9/2020		

15TH STREET STATIONING FROM SWO 1748(3), SWO 1748(3), FAP I-453(1)

CURVE NO. RC1
P.I. STA. 128+94.67
N: 164,723.2156
E: 2,137,104.6358
Δ= 06°07'48.67" LT.
D= 02°00'00.00"
T= 153.40'
L= 306.51'
R= 2,864.79'
E= 4.10'
eMAX=.08
ΔS=4.00%

SEC.5 T-11-N R-2-W

CURVE NO. RC2
P.I. STA. 132+81.29
N: 164,546.6487
E: 2,137,448.9143
Δ= 03°22'49.83" RT.
D= 01°41'26.69"
T= 100.00'
L= 199.94'
R= 3,388.79'
E= 1.48'
eMAX=.08
ΔS=2.00% (NS)



CURVE NO. RD1
P.I. STA. 129+08.83
N: 164,587.5467
E: 2,137,032.5033
Δ= 08°39'45.99" RT.
D= 03°00'00.00"
T= 144.66'
L= 288.76'
R= 1,909.86'
E= 5.47'
eMAX=.08
ΔS=3.20%

SEC.5 T-11-N R-2-W

CURVE NO. RD2
P.I. STA. 133+77.67
N: 164,273.7950
E: 2,137,381.6398
Δ= 10°04'31.01" LT.
D= 03°30'00.00"
T= 144.30'
L= 287.87'
R= 1,637.02'
E= 6.35'
eMAX=.08
ΔS=2.20%

SEC.8 T-11-N R-2-W

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

GEOMETRIC LAYOUT SHEET 3 OF 4

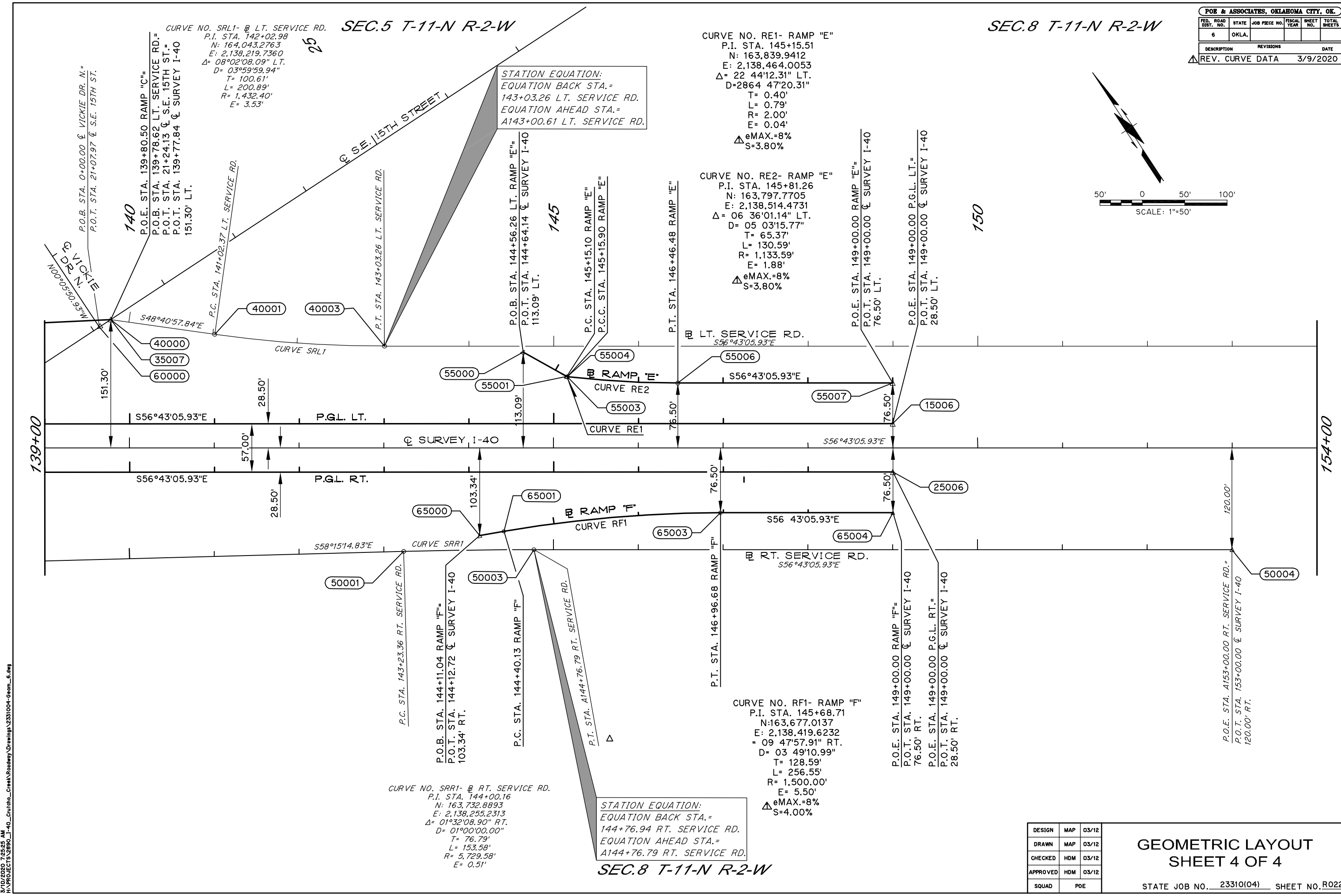
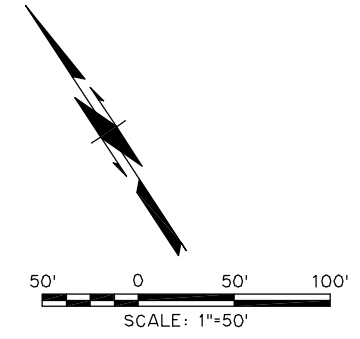
STATE JOB NO. 23310(04) SHEET NO. R021

3/10/2020 7:25:37 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	
REV. CURVE DATA				3/9/2020	

SEC.8 T-11-N R-2-W

SEC.5 T-11-N R-2-W



CURVE NO. SRL1- @ LT. SERVICE RD.
 P.I. STA. 142+02.98
 N: 164,043.2763
 E: 2,138,219.7360
 $\Delta = 08^{\circ}02'08.09''$ LT.
 D= 03^{\circ}59'59.94"
 T= 100.61'
 L= 200.89'
 R= 1,432.40'
 E= 3.53'

STATION EQUATION:
 EQUATION BACK STA.=
 143+03.26 LT. SERVICE RD.
 EQUATION AHEAD STA.=
 A143+00.61 LT. SERVICE RD.

CURVE NO. RE1- RAMP "E"
 P.I. STA. 145+15.51
 N: 163,839.9412
 E: 2,138,464.0053
 $\Delta = 22^{\circ}44'12.31''$ LT.
 D=2864 47'20.31"
 T= 0.40'
 L= 0.79'
 R= 2.00'
 E= 0.04'
 $\Delta e_{MAX}=8\%$
 S=3.80%

CURVE NO. RE2- RAMP "E"
 P.I. STA. 145+81.26
 N: 163,797.7705
 E: 2,138,514.4731
 $\Delta = 06^{\circ}36'01.14''$ LT.
 D= 05 03'15.77"
 T= 65.37'
 L= 130.59'
 R= 1,133.59'
 E= 1.88'
 $\Delta e_{MAX}=8\%$
 S=3.80%

CURVE NO. RF1- RAMP "F"
 P.I. STA. 145+68.71
 N:163,677.0137
 E: 2,138,419.6232
 $\Delta = 09^{\circ}47'57.91''$ RT.
 D= 03 49'10.99"
 T= 128.59'
 L= 256.55'
 R= 1,500.00'
 E= 5.50'
 $\Delta e_{MAX}=8\%$
 S=4.00%

CURVE NO. SRR1- @ RT. SERVICE RD.
 P.I. STA. 144+00.16
 N: 163,732.8893
 E: 2,138,255.2313
 $\Delta = 01^{\circ}32'08.90''$ RT.
 D= 01^{\circ}00'00.00"
 T= 76.79'
 L= 153.58'
 R= 5,729.58'
 E= 0.51'

STATION EQUATION:
 EQUATION BACK STA.=
 144+76.94 RT. SERVICE RD.
 EQUATION AHEAD STA.=
 A144+76.79 RT. SERVICE RD.

SEC.8 T-11-N R-2-W

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

GEOMETRIC LAYOUT
 SHEET 4 OF 4

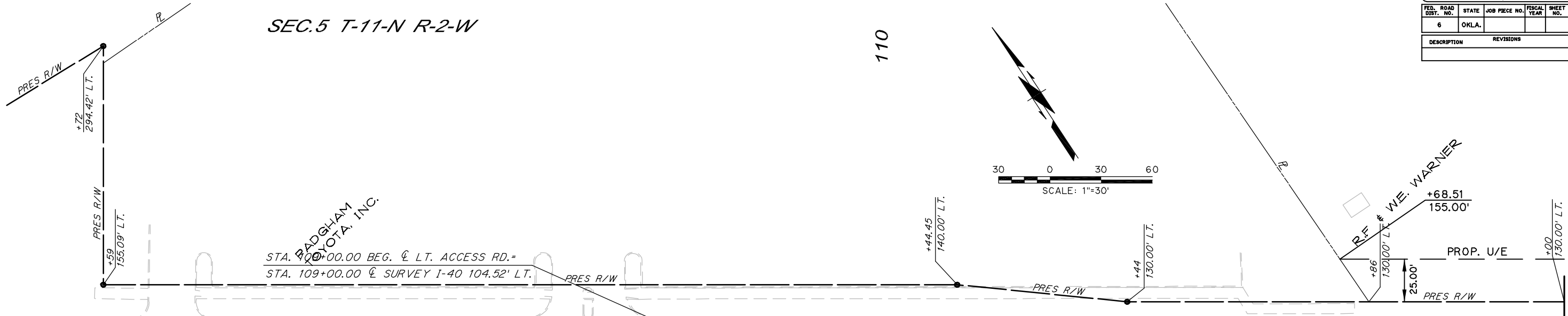
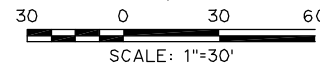
STATE JOB NO. 23310(04) SHEET NO. R022

3/10/2020 7:25:25 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS	DATE			

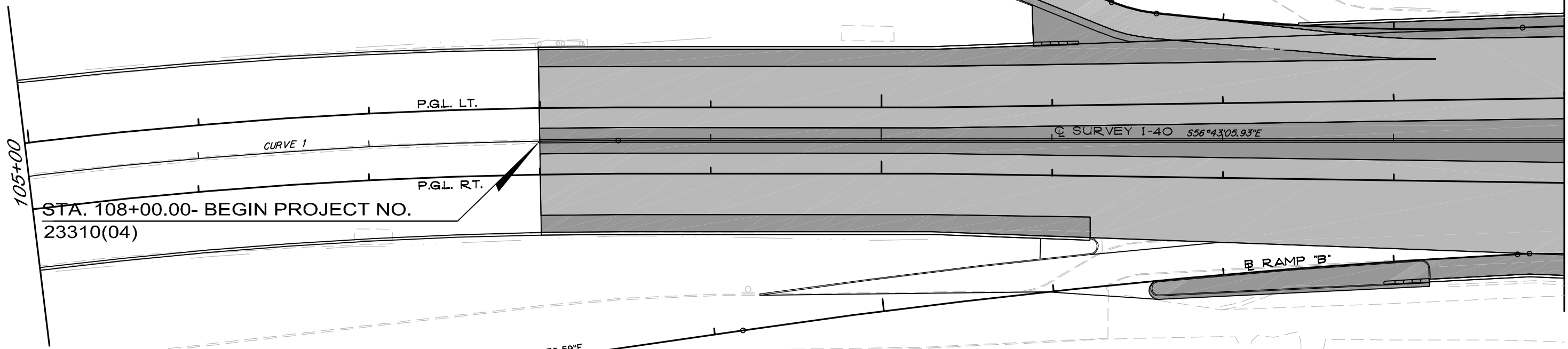
SEC.5 T-11-N R-2-W

110



STA. 100+00.00 BEG. ϕ LT. ACCESS RD.=
STA. 109+00.00 ϕ SURVEY I-40 104.52' LT.

ϕ LT. ACCESS RD.



STA. 108+00.00- BEGIN PROJECT NO. 23310(04)

105+00

114+00



SEC.5 T-11-N R-2-W

1

FOR INFORMATION ONLY

DESIGN	MAP	04/12
DRAWN	KST	07/17
CHECKED	MAP	04/12
APPROVED	HDM	04/12
SQUAD	POE	

RIGHT-OF-WAY SHEET 1 OF 5

STATE JOB NO. 23310(04) SHEET NO. R023

11/21/2019 1:07:55 PM H:\PROJECTS\23310-1-40-Crest-Creek-Roadway-Drawings\2331004-RIGHT_OF_WAY_1.dwg

SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS			DATE	

115

R.E. # WE. WARNER

30' WILLIAMS PIPELINE E.S.M.T.
+87 280.00' LT.
PRES R/W

STA. 118+33.30 END @ LT. ACCESS RD.=
STA. 118+33.29 @ SURVEY I-40 101.08' LT.

+00 280.00' LT. PRES R/W

+00 130.00' LT. PRES R/W

+00.00 155.00'

+00 130.00' LT.

PRES R/W

25.00'

PROP. U/E

PROP. U/E

PRES R/W

LT. ACCESS. RD.

P.G.L. LT.

Q SURVEY I-40

S56°43'05.93"E

P.G.L. RT.

114+00

123+00

+94.00 93.00'

+94.00 130.00'

+97 130.00' RT.

PRES R/W

+00 130.00' RT.

+00 130.00' RT.

DEL CREST ADDITION

10' U/E

PRES R/W

+86.41 130.00' RT.

5' U/E

5' U/E

15' U/E

SEC.5 T-11-N R-2-W

CITY OF DEL CITY

FOR INFORMATION ONLY

DESIGN	MAP	04/12
DRAWN	KST	07/17
CHECKED	MAP	04/12
APPROVED	HDM	04/12
SQUAD	POE	

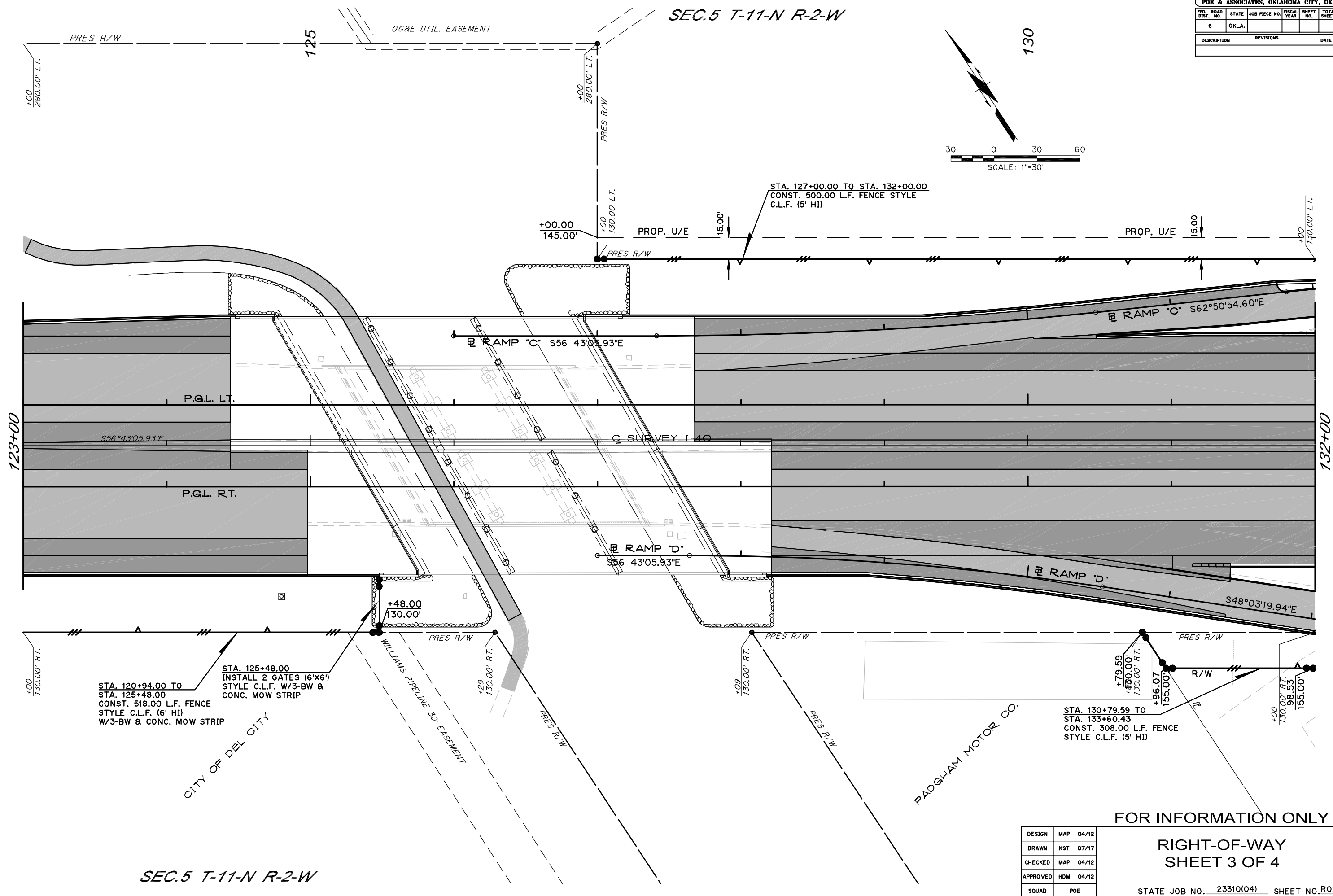
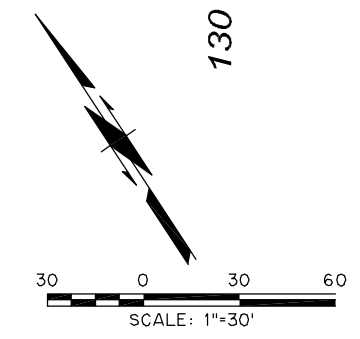
RIGHT-OF-WAY SHEET 2 OF 5

STATE JOB NO. 23310(04) SHEET NO. R024

11/21/2019 11:45:41 AM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

SEC.5 T-11-N R-2-W



STA. 120+94.00 TO STA. 125+48.00
 CONST. 518.00 L.F. FENCE
 STYLE C.L.F. (6' HI)
 W/3-BW & CONC. MOW STRIP

CITY OF DEL CITY

SEC.5 T-11-N R-2-W

STA. 127+00.00 TO STA. 132+00.00
 CONST. 500.00 L.F. FENCE STYLE
 C.L.F. (5' HI)

STA. 130+79.59 TO STA. 133+60.43
 CONST. 308.00 L.F. FENCE
 STYLE C.L.F. (5' HI)

PADGHAM MOTOR CO.

FOR INFORMATION ONLY

DESIGN	MAP	04/12
DRAWN	KST	07/17
CHECKED	MAP	04/12
APPROVED	HDM	04/12
SQUAD	POE	

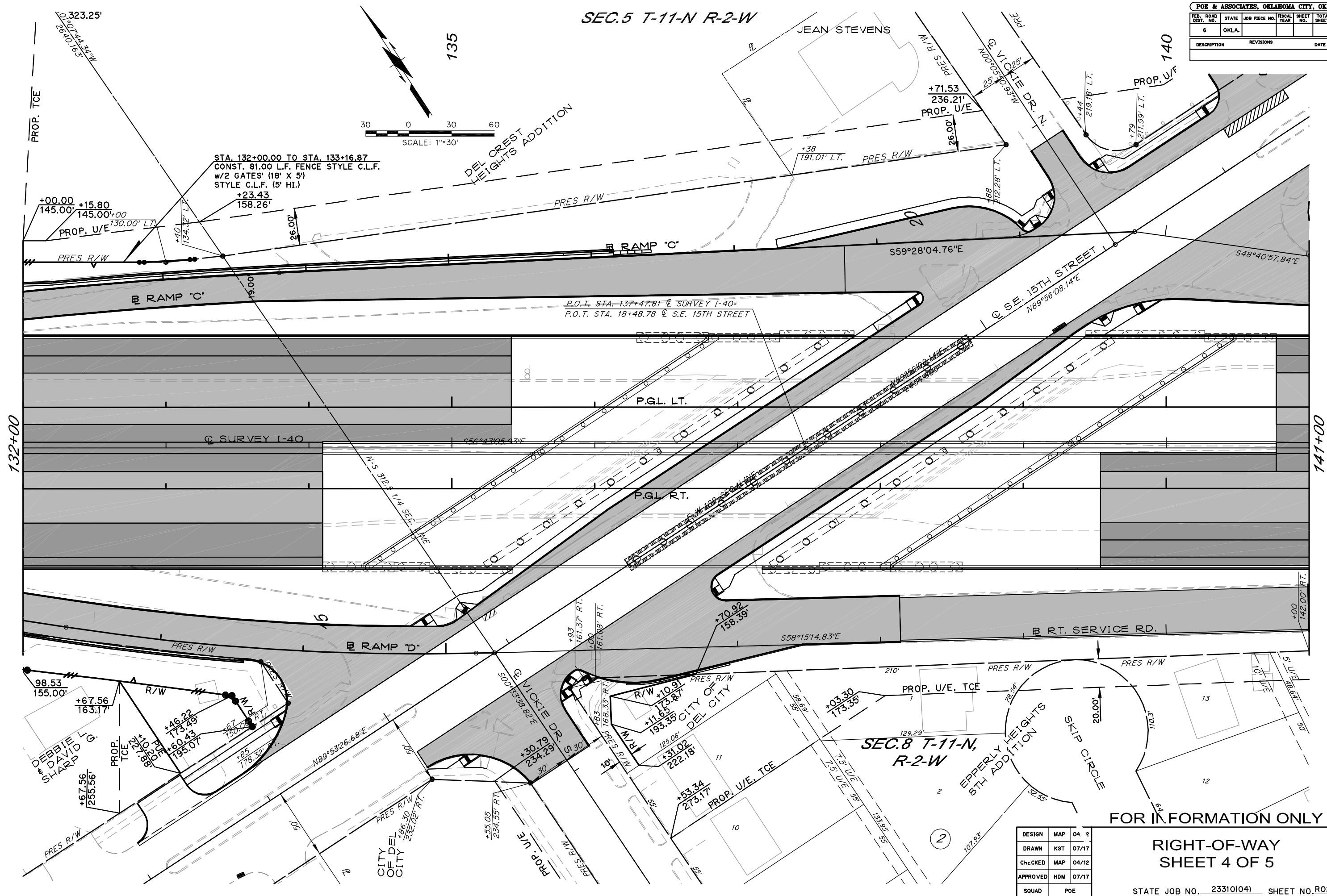
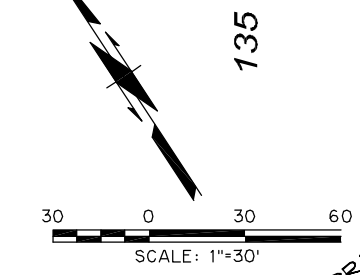
RIGHT-OF-WAY
 SHEET 3 OF 4

STATE JOB NO. 23310(04) SHEET NO. R025

11/21/2019 1:16:03 PM
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SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



132+00

141+00

FOR INFORMATION ONLY

RIGHT-OF-WAY
SHEET 4 OF 5

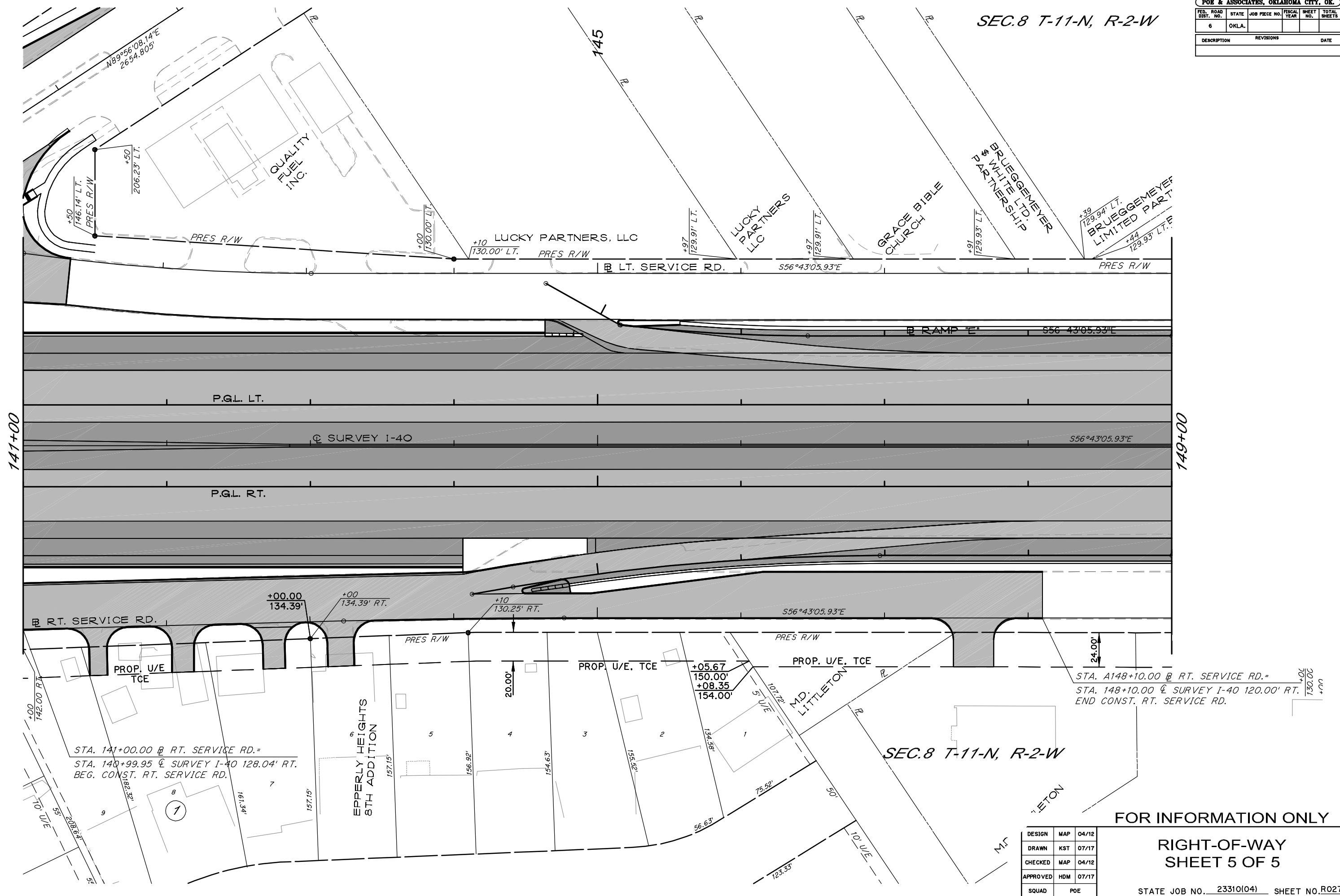
DESIGN	MAP	04.2
DRAWN	KST	07/17
CHECKED	MAP	04/12
APPROVED	HDM	07/17
SQUAD	POE	

STATE JOB NO. 23310(04) SHEET NO. R026

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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS			DATE	

SEC.8 T-11-N, R-2-W



STA. 141+00.00 @ RT. SERVICE RD. =
 STA. 140+99.95 @ SURVEY I-40 128.04' RT.
 BEG. CONST. RT. SERVICE RD.

STA. AT 148+10.00 @ RT. SERVICE RD. =
 STA. 148+10.00 @ SURVEY I-40 120.00' RT.
 END CONST. RT. SERVICE RD.

SEC.8 T-11-N, R-2-W

FOR INFORMATION ONLY

DESIGN	MAP	04/12
DRAWN	KST	07/17
CHECKED	MAP	04/12
APPROVED	HDM	07/17
SQUAD	POE	

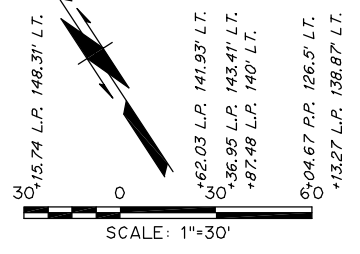
RIGHT-OF-WAY
 SHEET 5 OF 5

STATE JOB NO. 23310(04) SHEET NO. R027

11/21/2019 1:20:56 PM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS		DATE

SEC.5 T-11-N R-2-W



ASPHALT REMOVAL [Hatched pattern]

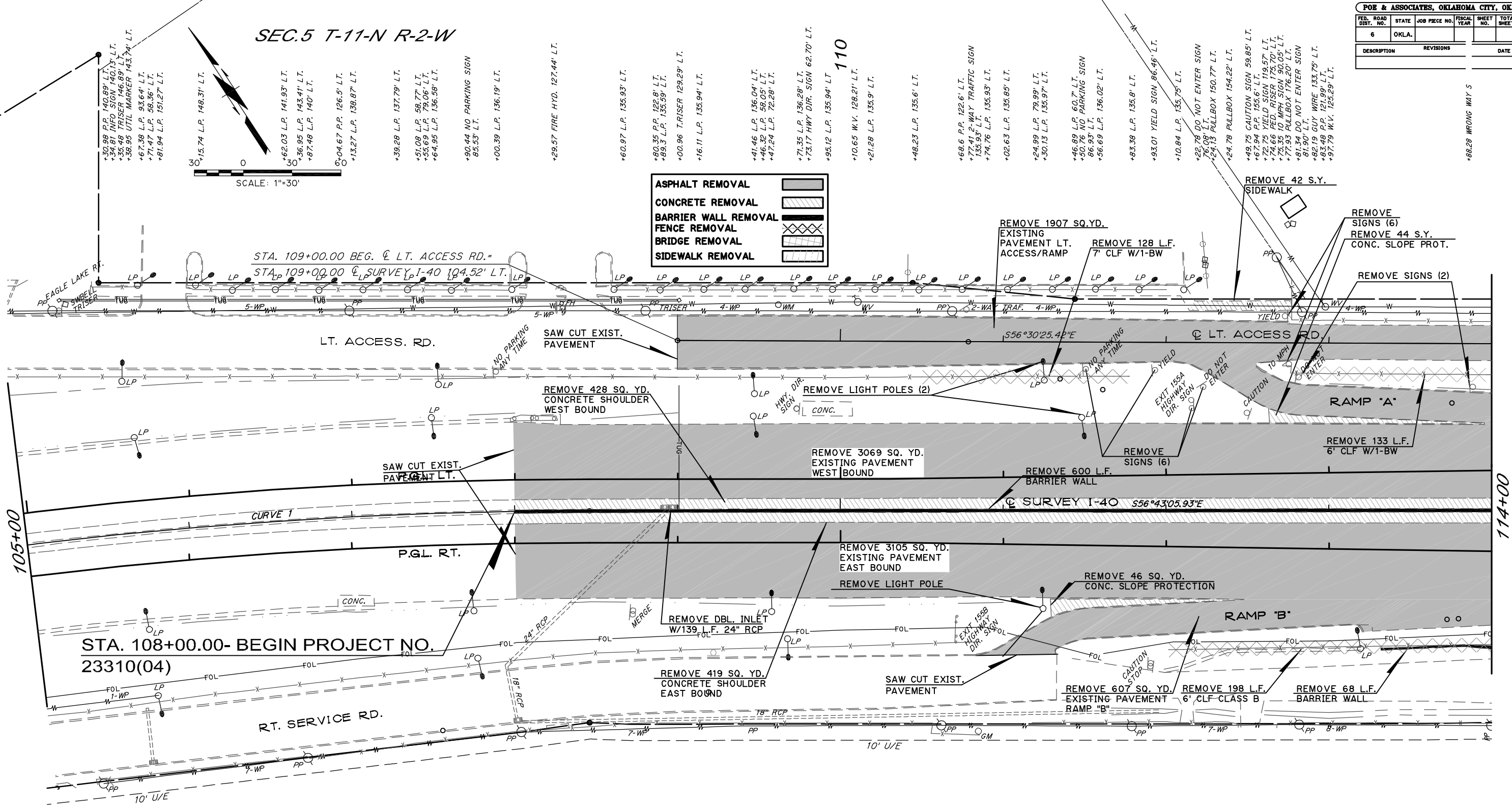
CONCRETE REMOVAL [Diagonal lines pattern]

BARRIER WALL REMOVAL [Cross-hatched pattern]

FENCE REMOVAL [Dotted pattern]

BRIDGE REMOVAL [Horizontal lines pattern]

SIDEWALK REMOVAL [Vertical lines pattern]



STA. 108+00.00- BEGIN PROJECT NO. 23310(04)

SEC.5 T-11-N R-2-W

- +01.24 GUY WIRE 149.73' RT.
- +09.86 FIRE HYD. 372.97' RT.
- +30.37 P.P. 150.93' RT.
- +69.70 L.P. 59.92' RT.
- +71.48 L.P. 100.61' RT.
- +63.65 P.P. 146.11' RT.
- +73.34 L.P. 60.37' RT.
- +75.66 L.P. 89.57' RT.
- +02.05 P.P. 135.45' RT.
- +72.52 MERGE SIGN 82.38' RT.
- +40.09 P.P. 132.04' RT.
- +57.81 L.P. 61.79' RT.
- +69 L.P. 79.08' RT.
- +62 P.P. 131.66' RT.
- +70.6 EXIT 155B SIGN 72.3' RT.
- +84.72 GAS MTR. 135.18' RT.
- +24.48 L.P. 59.88' RT.
- +78.91 P.P. 132.14' RT.
- +90.3 CAUTION SIGN 93.42' RT.
- +90.44 STOP SIGN 95.43' RT.
- +81.77 P.P. 131.22' RT.
- +21.53 L.P. 85.76' RT.
- +99.64 P.P. 131.86' RT.

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

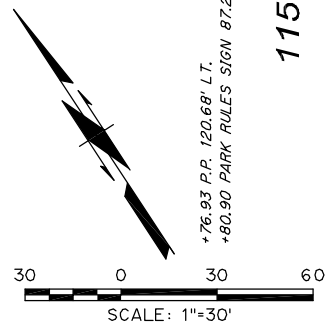
REMOVAL SHEET 1 OF 7

STATE JOB NO. 23310(04) SHEET NO. R028

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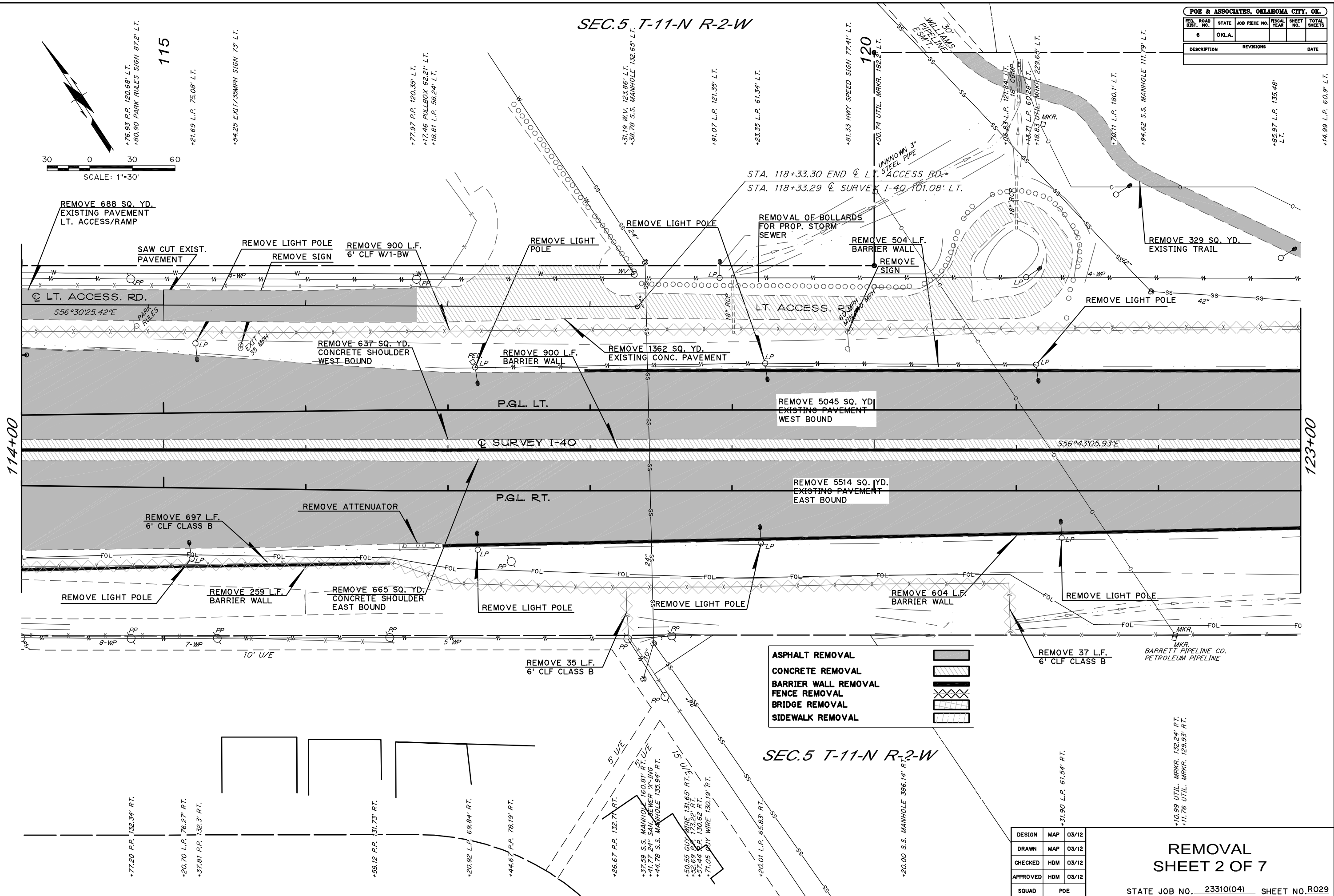
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	

SEC.5 T-11-N R-2-W



115

120



ASPHALT REMOVAL	
CONCRETE REMOVAL	
BARRIER WALL REMOVAL	
FENCE REMOVAL	
BRIDGE REMOVAL	
SIDEWALK REMOVAL	

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

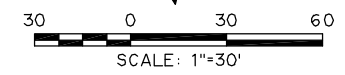
REMOVAL SHEET 2 OF 7

STATE JOB NO. 23310(04) SHEET NO. R029

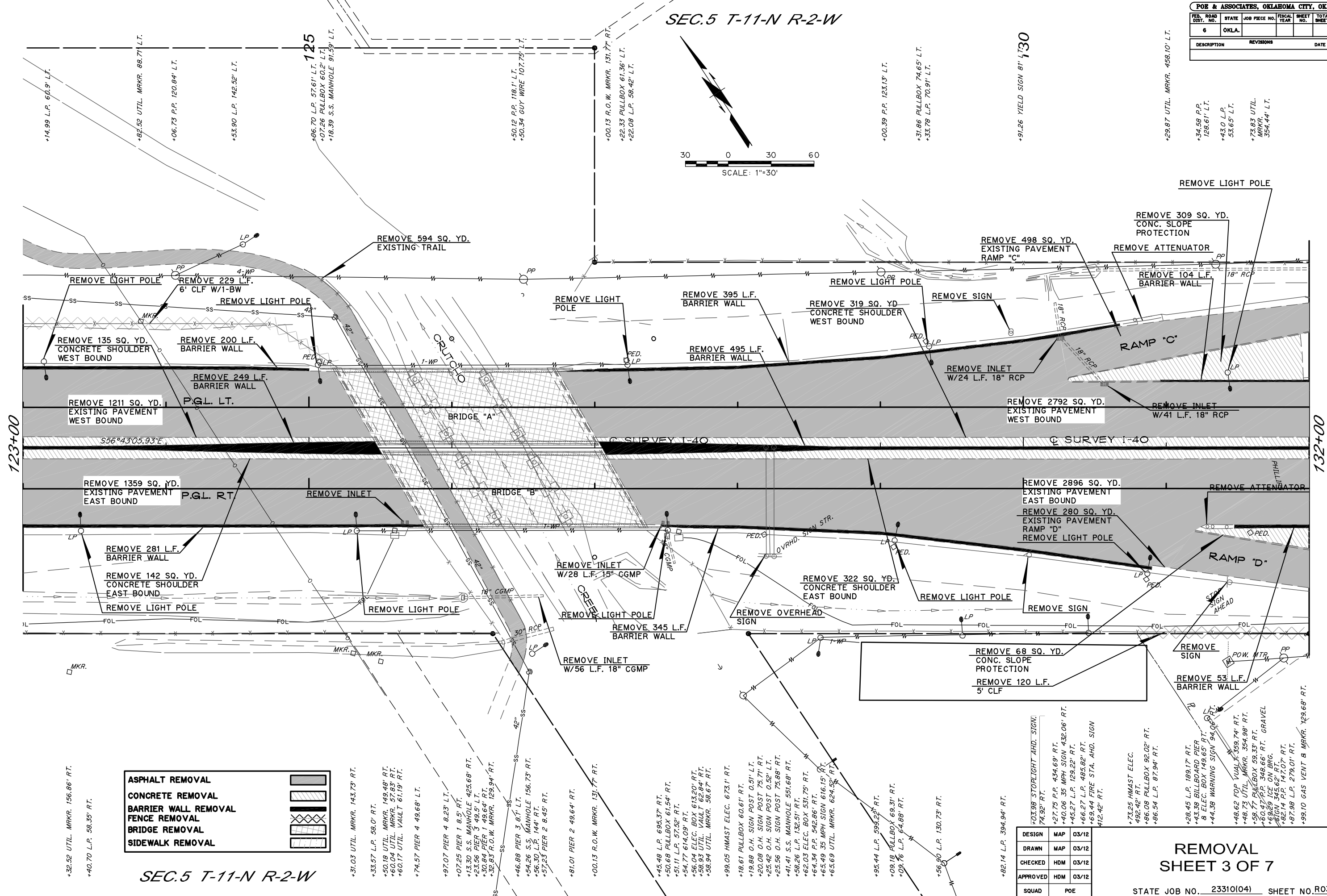
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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS		DATE	

SEC.5 T-11-N R-2-W



YIELD SIGN 81' L130



ASPHALT REMOVAL	
CONCRETE REMOVAL	
BARRIER WALL REMOVAL	
FENCE REMOVAL	
BRIDGE REMOVAL	
SIDEWALK REMOVAL	

SEC.5 T-11-N R-2-W

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

REMOVAL SHEET 3 OF 7

STATE JOB NO. 23310(04) SHEET NO. R030

11/21/2019 1:26:43 PM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FEED	STATE	JOB	FISCAL	SHEET	TOTAL
NO.	NO.	NO.	YEAR	NO.	SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SEC.5 T-11-N R-2-W

SEC.8 T-11-N, R-2-W

ASPHALT REMOVAL

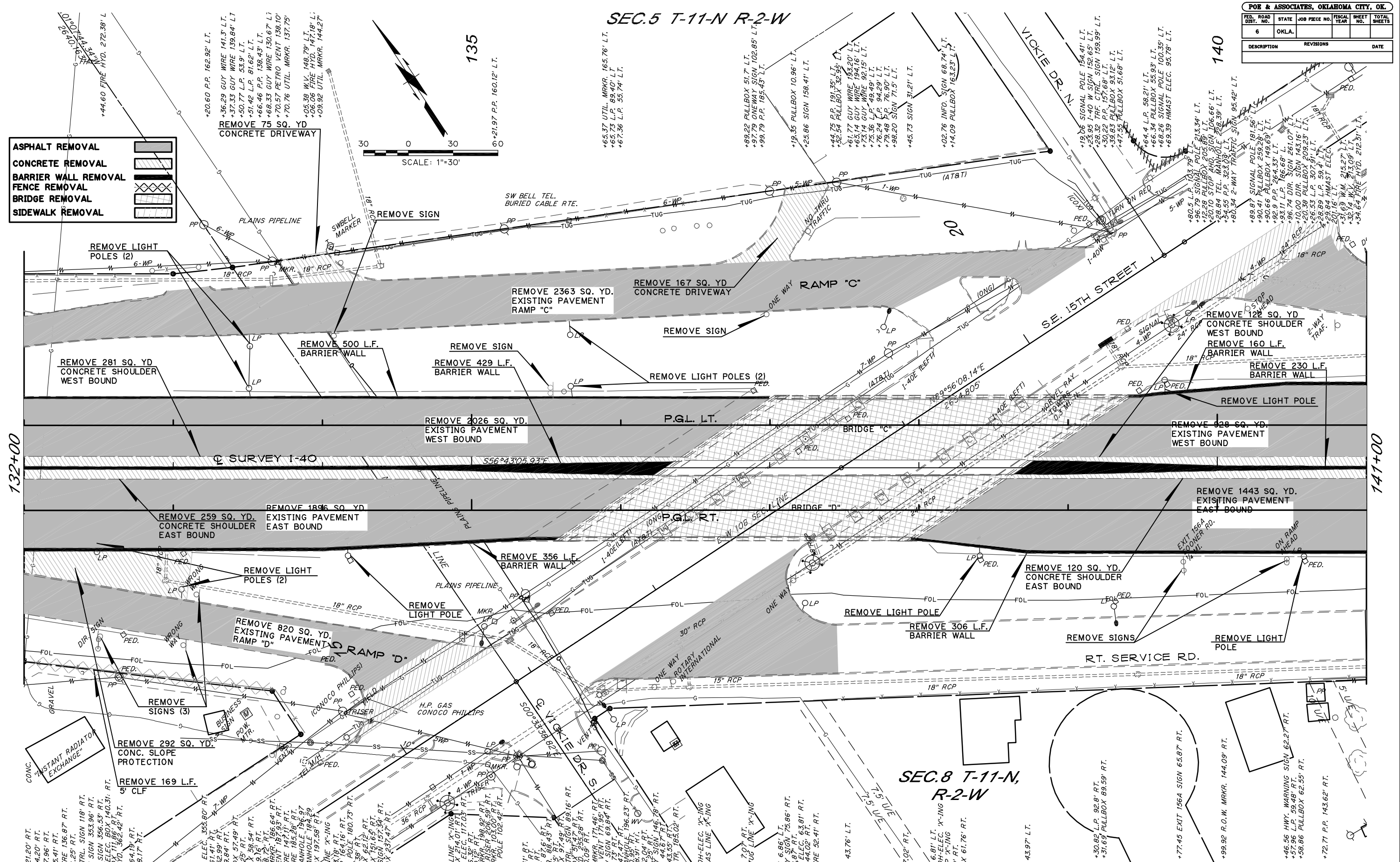
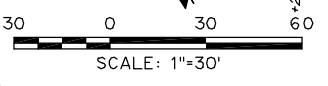
CONCRETE REMOVAL

BARRIER WALL REMOVAL

FENCE REMOVAL

BRIDGE REMOVAL

SIDEWALK REMOVAL



11/21/2019 1:27:45 PM
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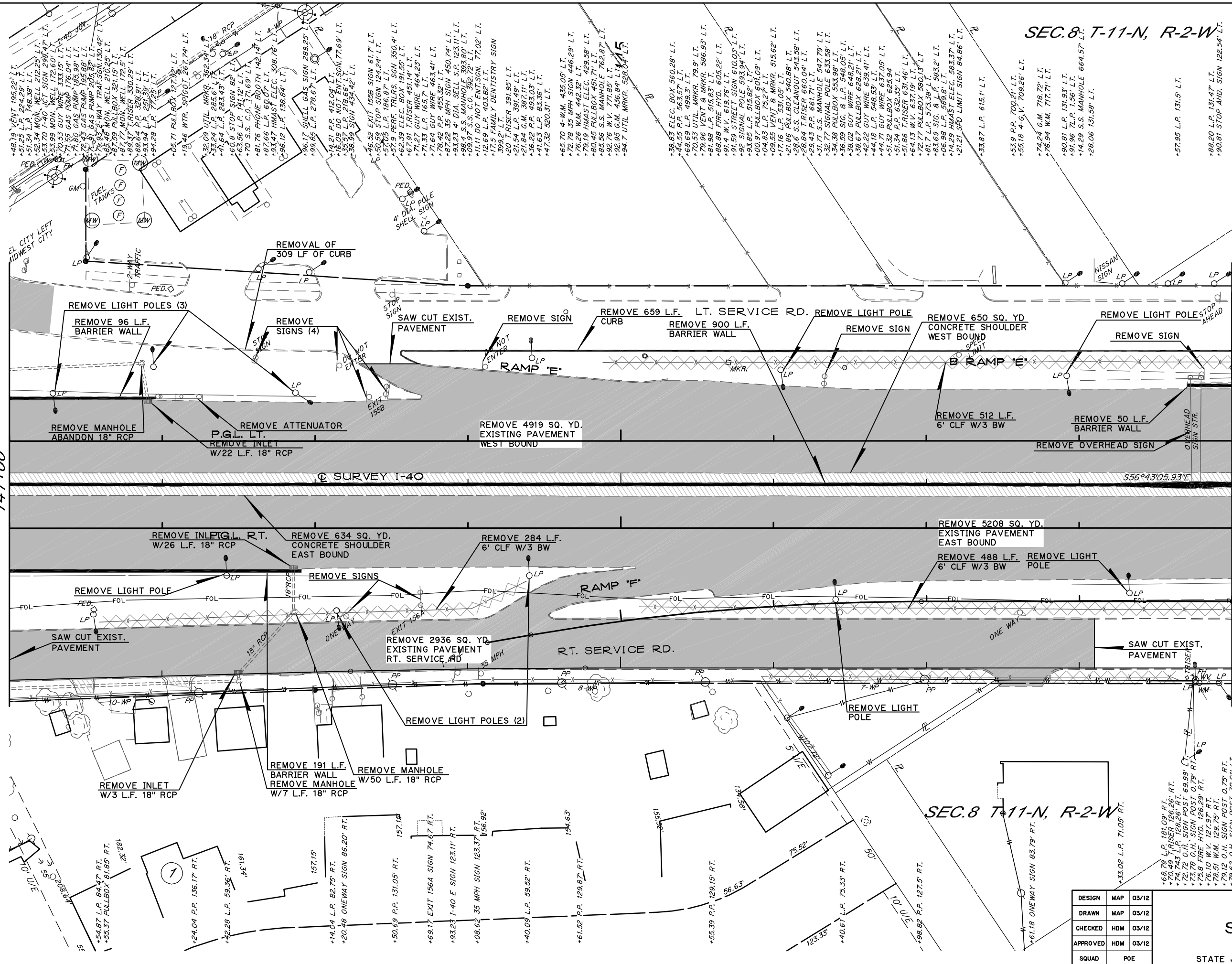
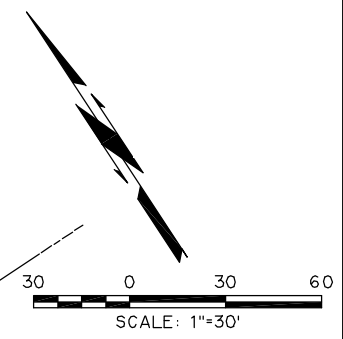
DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

REMOVAL SHEET 4 OF 7

STATE JOB NO. 23310(04) SHEET NO. R031

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	

SEC. 8 T-11-N, R-2-W



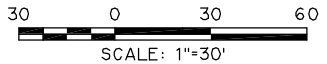
ASPHALT REMOVAL	
CONCRETE REMOVAL	
BARRIER WALL REMOVAL	
FENCE WALL REMOVAL	
BRIDGE REMOVAL	
SIDEWALK REMOVAL	

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

REMOVAL SHEET 5 OF 7

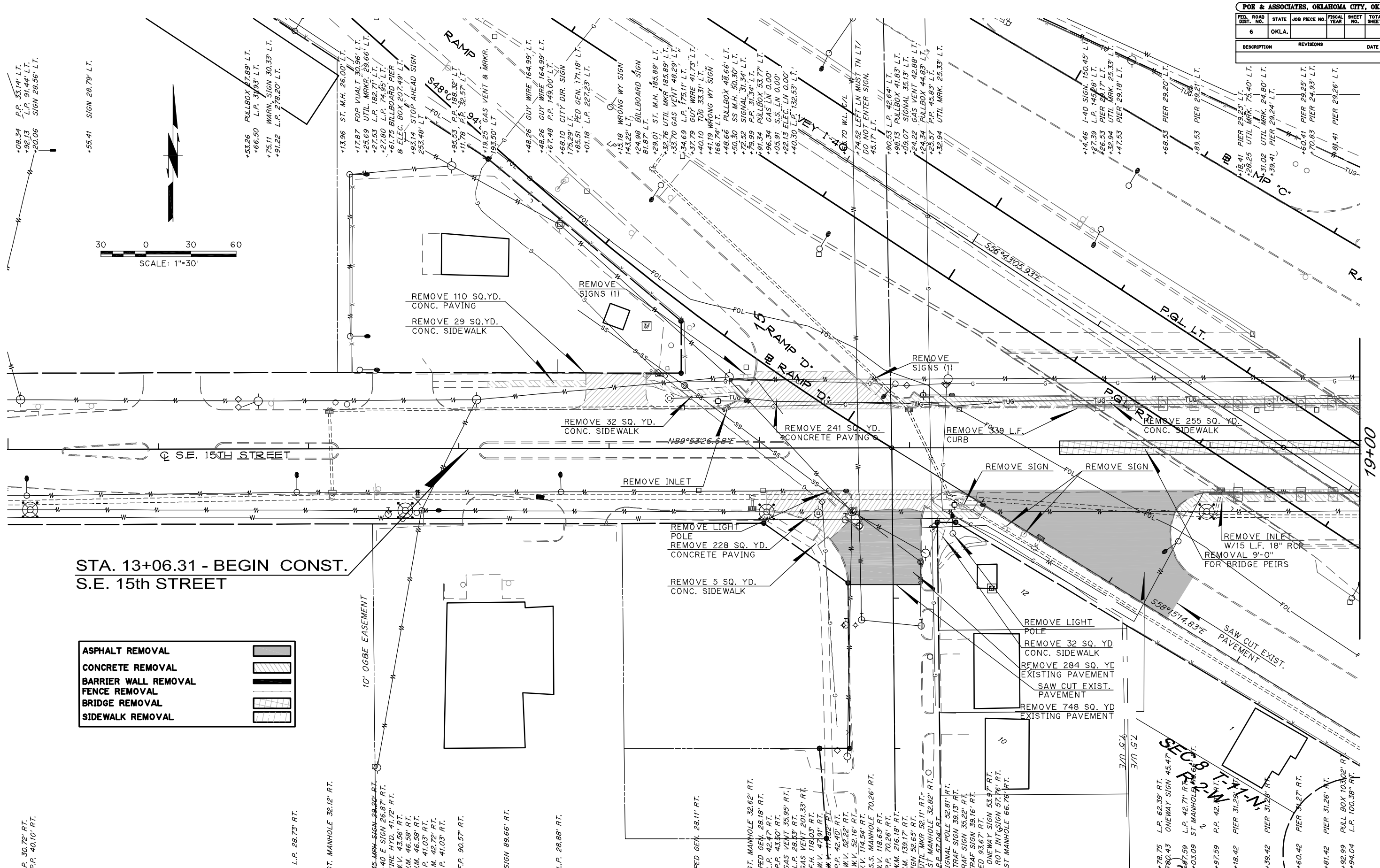
STATE JOB NO. 23310(04) SHEET NO. R032

11/21/2019 1:30:24 PM
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STA. 13+06.31 - BEGIN CONST.
S.E. 15TH STREET

ASPHALT REMOVAL	
CONCRETE REMOVAL	
BARRIER WALL REMOVAL	
FENCE REMOVAL	
BRIDGE REMOVAL	
SIDEWALK REMOVAL	

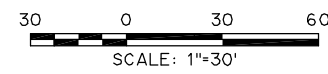
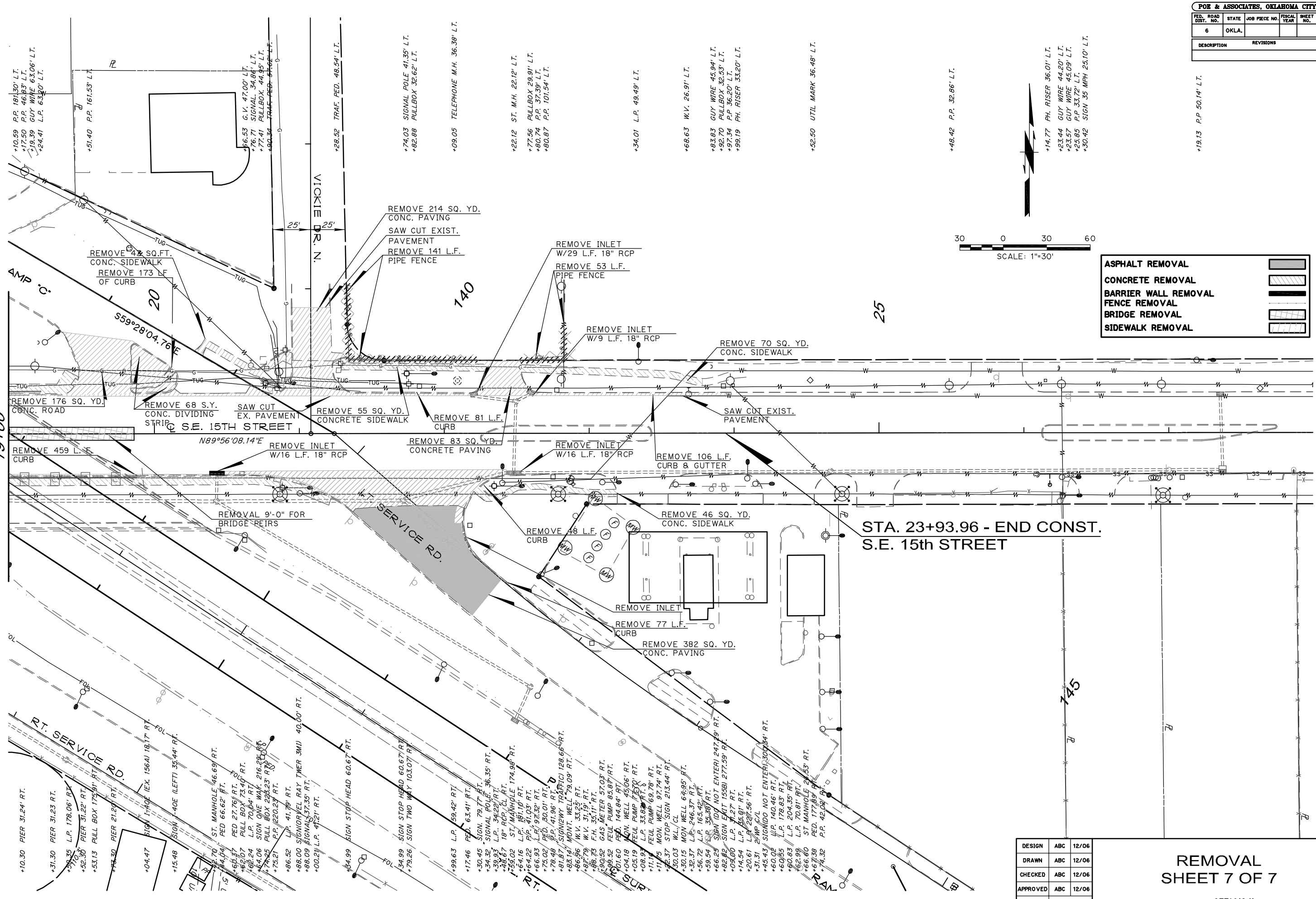


DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

REMOVAL SHEET 6 OF 7

11/21/2019 1:31:40 PM H:\PROJECTS\2896_L-40_Courtois_Creek\Roadway\Drawings\2331004-Removal_8.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



ASPHALT REMOVAL	
CONCRETE REMOVAL	
BARRIER WALL REMOVAL	
FENCE REMOVAL	
BRIDGE REMOVAL	
SIDEWALK REMOVAL	

DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

REMOVAL SHEET 7 OF 7

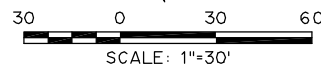
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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

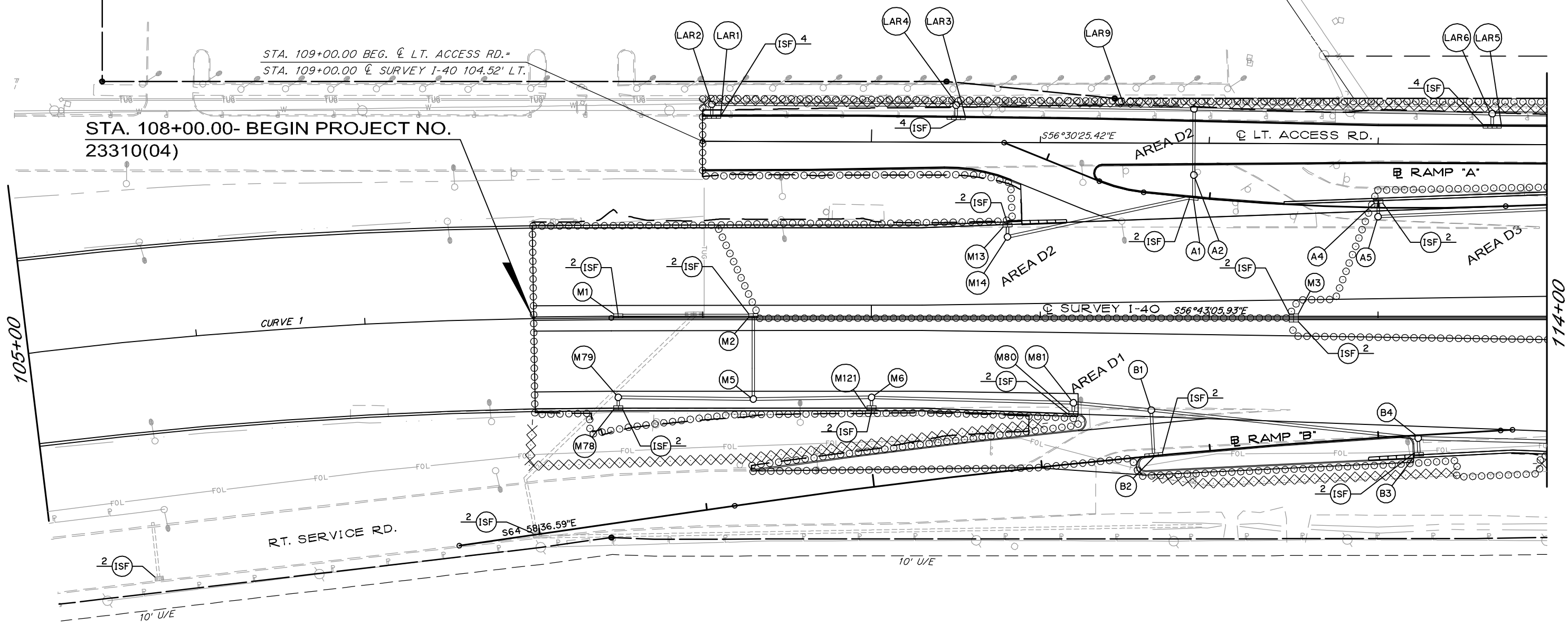
SEC.5 T-11-N R-2-W

110



STA. 109+00.00 BEG. ϕ LT. ACCESS RD. =
STA. 109+00.00 ϕ SURVEY I-40 104.52' LT.

STA. 108+00.00- BEGIN PROJECT NO.
23310(04)



SEC.5 T-11-N R-2-W

LEGEND	
SILT FENCE	XXXXXXXXXX
TEMPORARY INLET SEDIMENT FILTER	(ISF) X
DISTURBED AREA BOUNDARY	OOOOOO

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

**EROSION CONTROL
SHEET 1 OF 7**

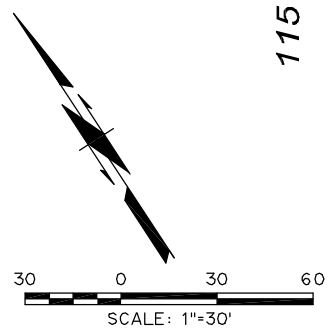
STATE JOB NO. 23310(04) SHEET NO. R035

NOTE:
SEE SHT. A05 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

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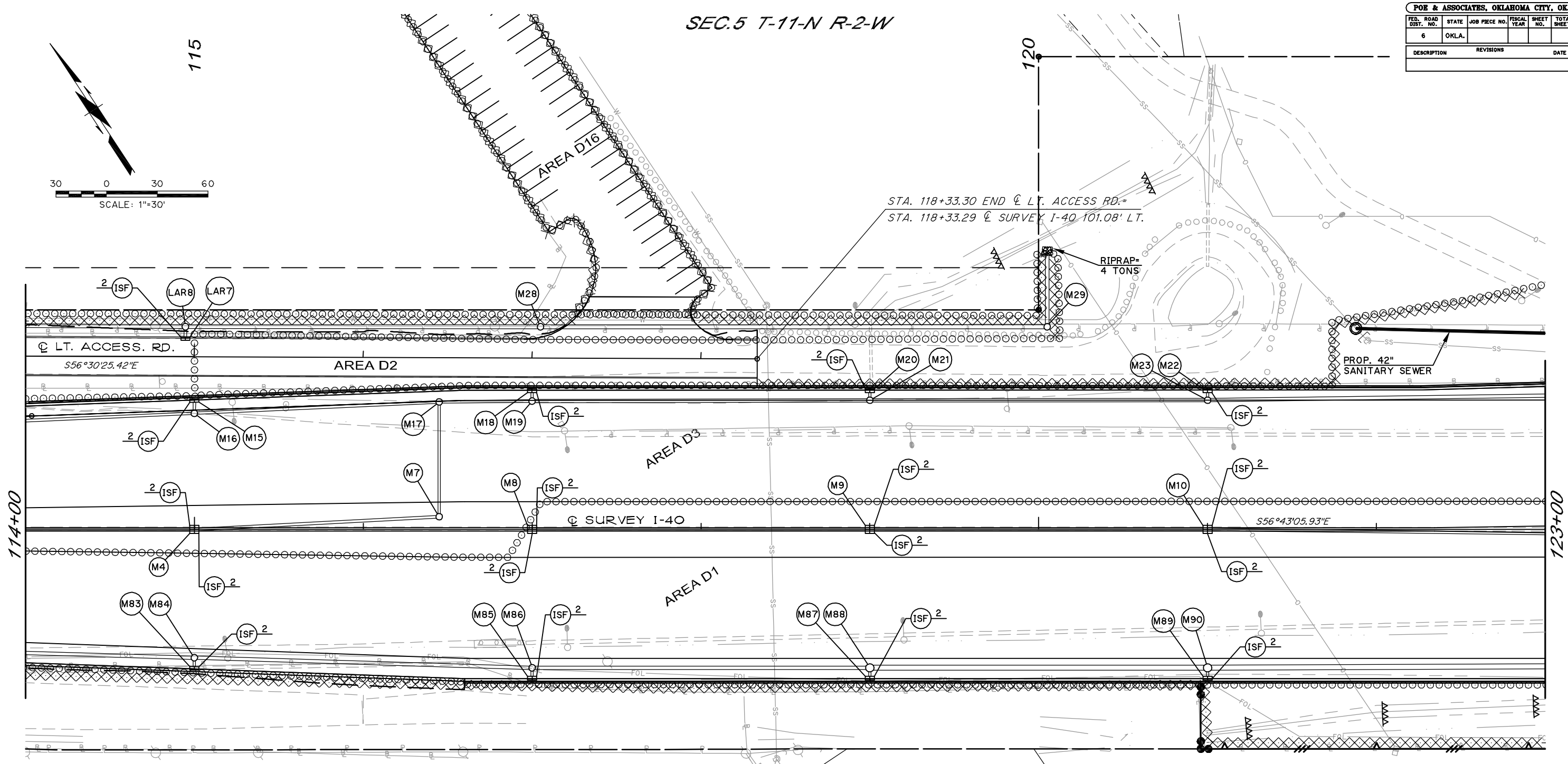
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS	DATE		

SEC.5 T-11-N R-2-W



115

120



114+00

123+00

SEC.5 T-11-N R-2-W

LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	AAAAAA
TEMPORARY INLET SEDIMENT FILTER	(ISF) X
ROCK FILTER DAM	(RFD)
DISTURBED AREA BOUNDARY	OOOOOO

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

EROSION CONTROL SHEET 2 OF 7

STATE JOB NO. 23310(04) SHEET NO. R036

NOTE:
SEE SHT. AR05 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

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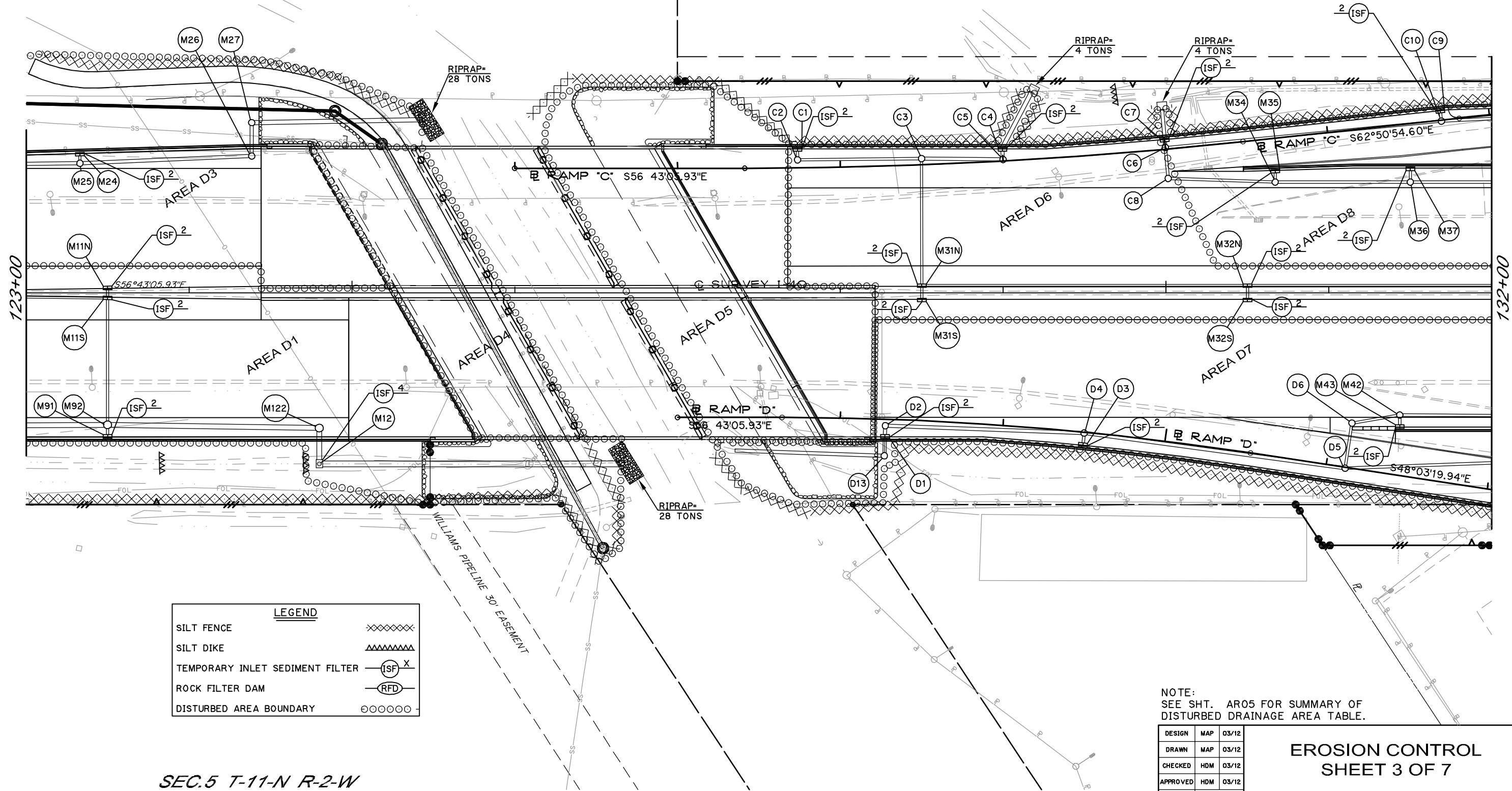
POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

SEC.5 T-11-N R-2-W

125

130

OG&E UTIL. EASEMENT



LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	~~~~~
TEMPORARY INLET SEDIMENT FILTER	ISF X
ROCK FILTER DAM	RFD
DISTURBED AREA BOUNDARY	OOOOOO

NOTE:
SEE SHT. ARO5 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

**EROSION CONTROL
SHEET 3 OF 7**

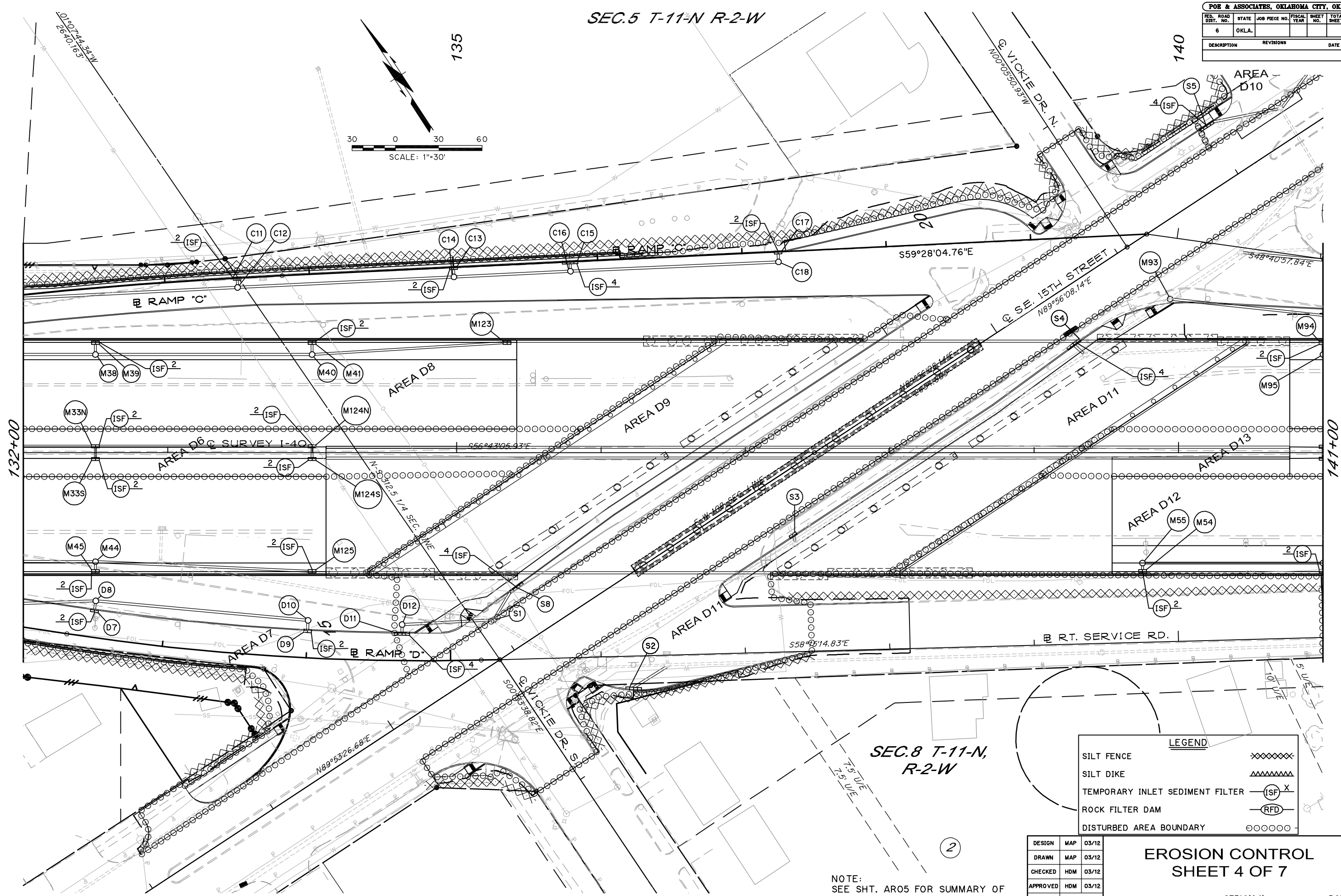
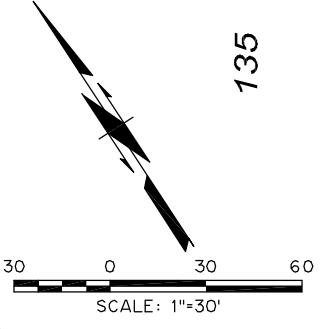
STATE JOB NO. 23310(04) SHEET NO. R037

SEC.5 T-11-N R-2-W

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SEC.5 T-11-N R-2-W

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		



LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	~~~~~
TEMPORARY INLET SEDIMENT FILTER	ISF X
ROCK FILTER DAM	RFD
DISTURBED AREA BOUNDARY	OOOOO

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

EROSION CONTROL SHEET 4 OF 7

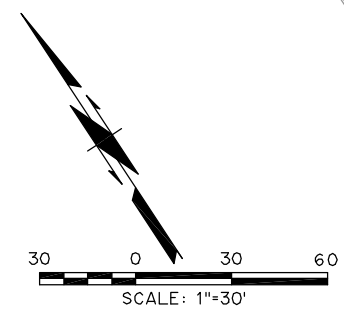
STATE JOB NO. 23310(04) SHEET NO. R038

NOTE:
SEE SHT. A05 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

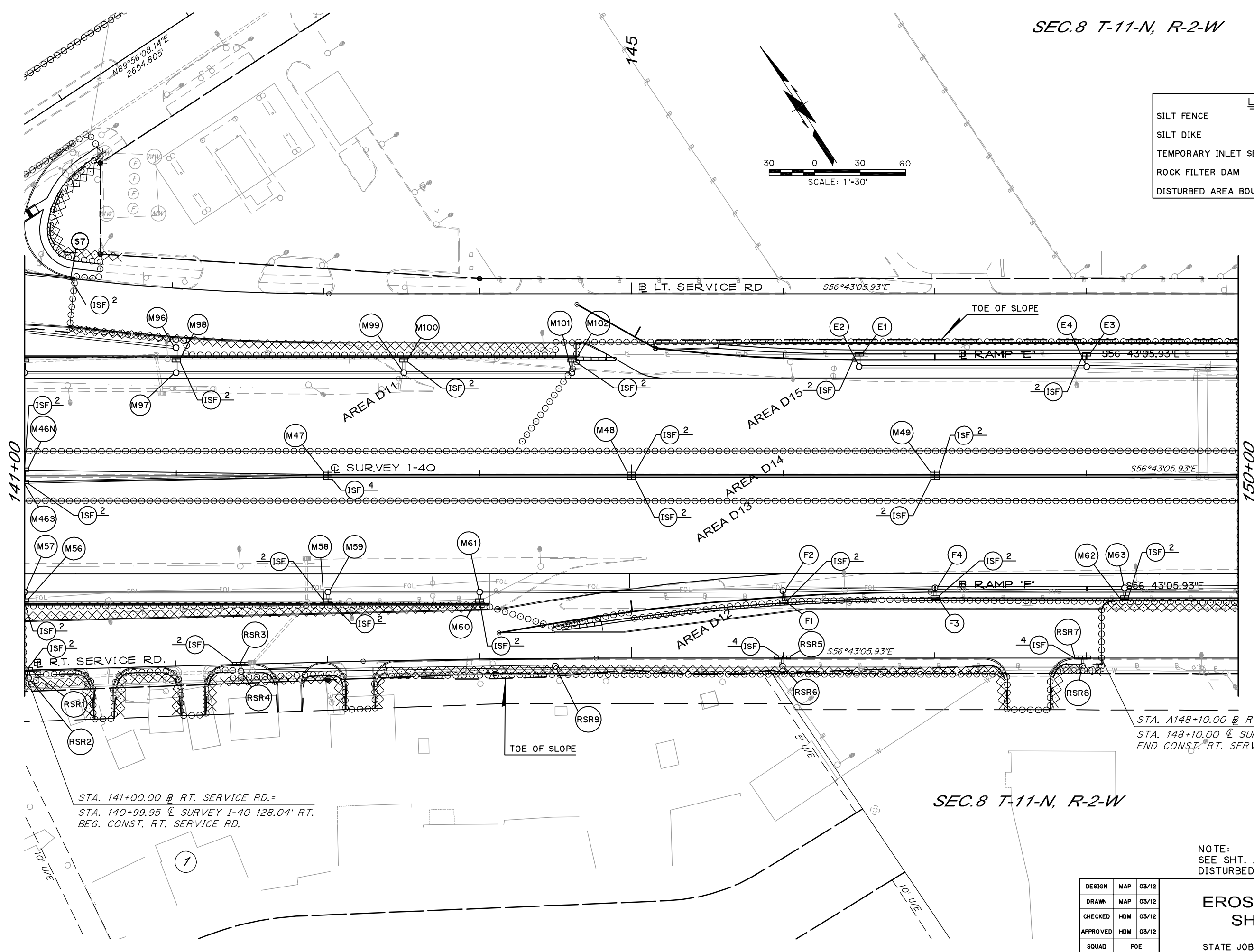
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.8 T-11-N, R-2-W



LEGEND		
SILT FENCE	XXXXXX	
SILT DIKE	AAAAAAA	
TEMPORARY INLET SEDIMENT FILTER	(ISF) X	
ROCK FILTER DAM	(RFD)	
DISTURBED AREA BOUNDARY	OOOOOO	



STA. 141+00.00 @ RT. SERVICE RD.=
 STA. 140+99.95 @ SURVEY I-40 128.04' RT.
 BEG. CONST. RT. SERVICE RD.

STA. 148+10.00 @ RT. SERVICE RD.=
 STA. 148+10.00 @ SURVEY I-40 120.00' RT.
 END CONST. RT. SERVICE RD.

SEC.8 T-11-N, R-2-W

NOTE:
 SEE SHT. AR05 FOR SUMMARY OF
 DISTURBED DRAINAGE AREA TABLE.

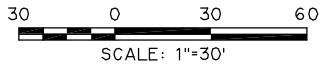
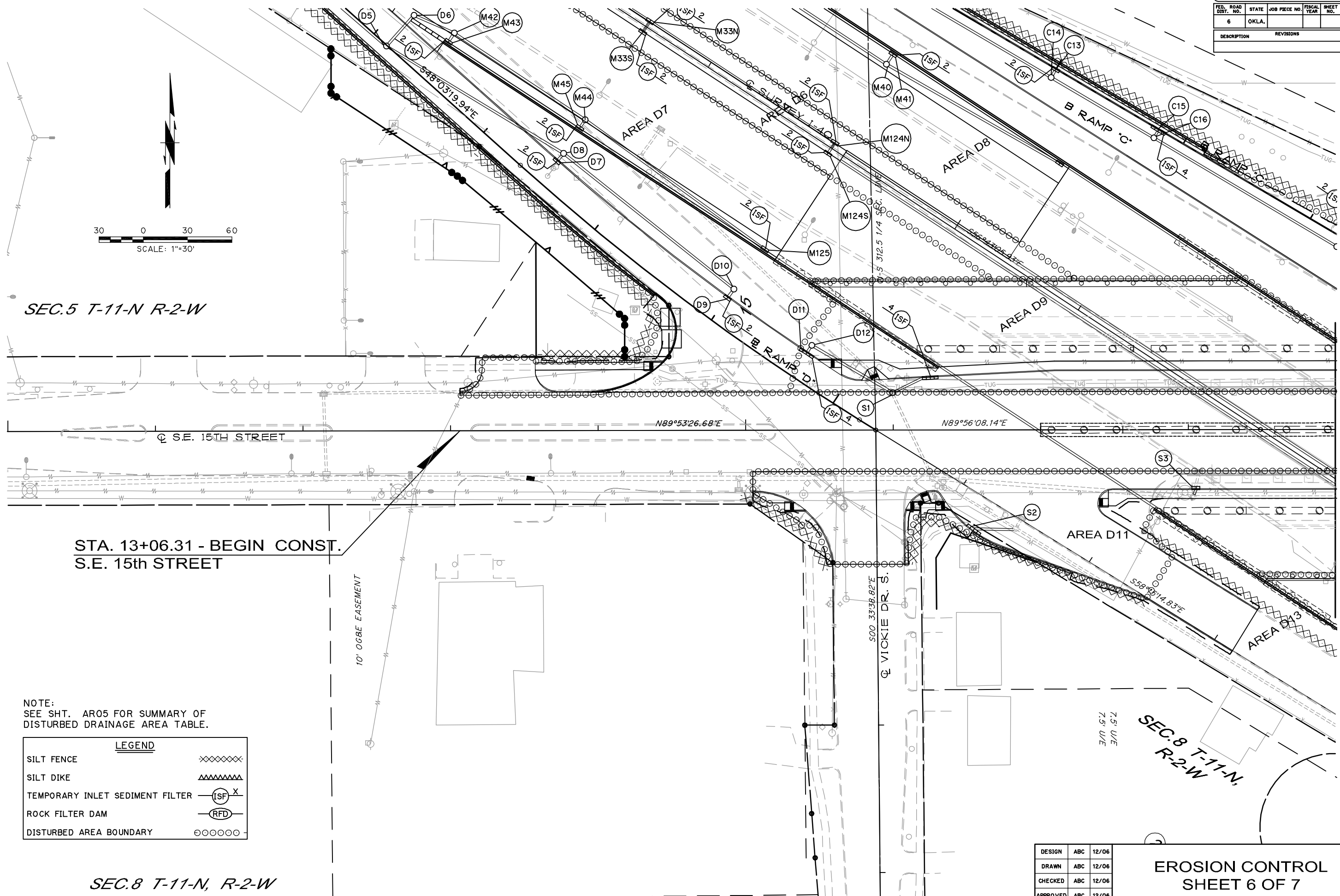
DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

**EROSION CONTROL
 SHEET 5 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R039

11/22/2010 1:30:05 PM H:\PROJECTS\2890_1-40_Culinto_Creek\Roadway_Drawings\2331004-Erosion_Control_5.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	



SEC.5 T-11-N R-2-W

STA. 13+06.31 - BEGIN CONST.
S.E. 15TH STREET

SEC.8 T-11-N, R-2-W

NOTE:
SEE SHT. AR05 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	▲▲▲▲▲▲
TEMPORARY INLET SEDIMENT FILTER	(ISF) X
ROCK FILTER DAM	(RFD)
DISTURBED AREA BOUNDARY	○○○○○○

DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

**EROSION CONTROL
SHEET 6 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R040

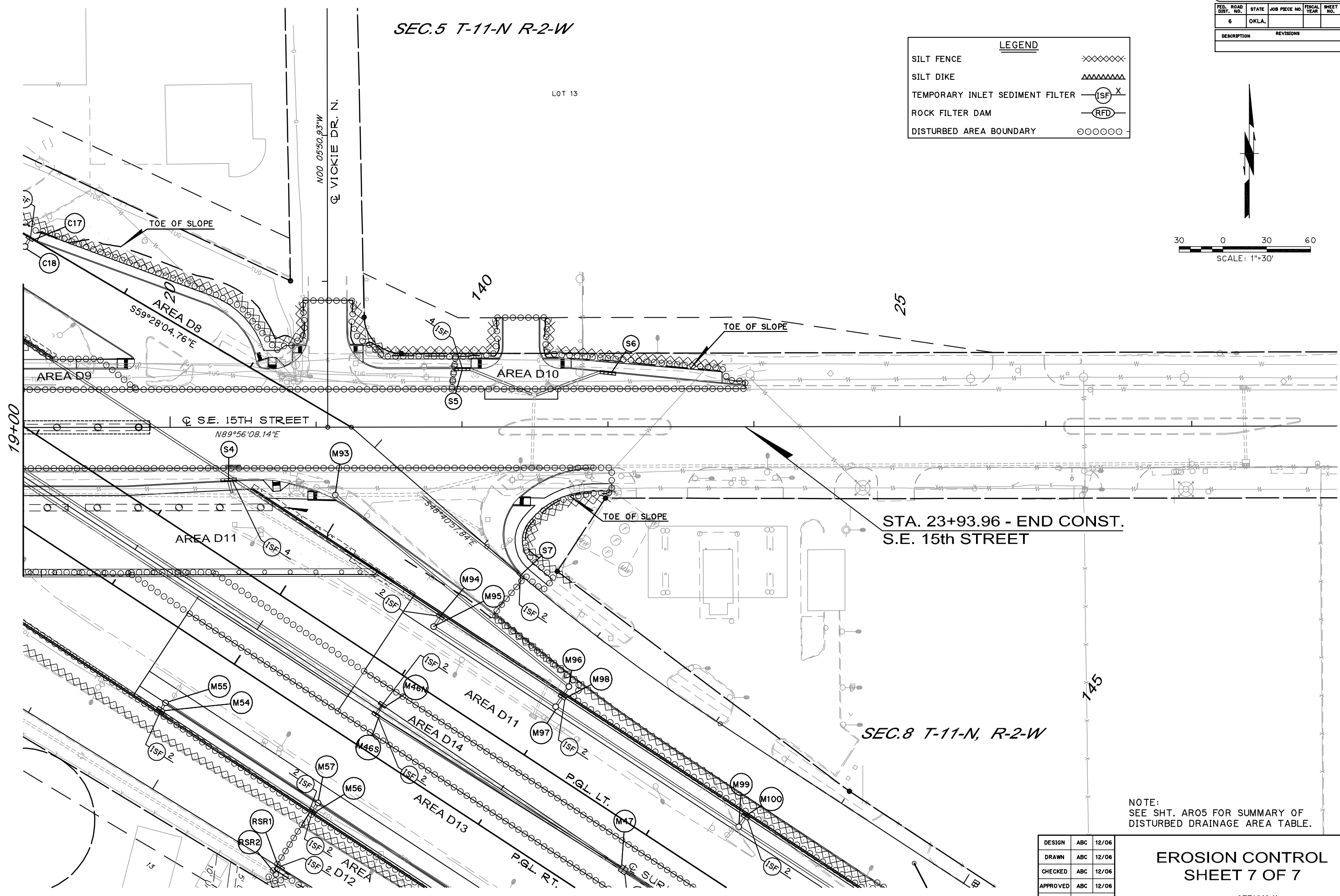
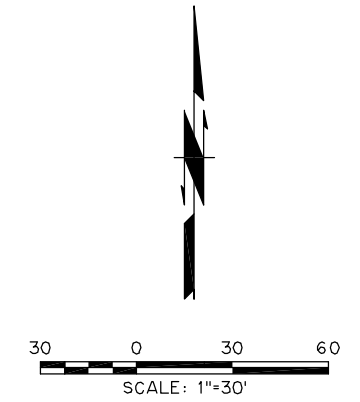
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS	DATE		

SEC.5 T-11-N R-2-W

LOT 13

LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	~~~~~
TEMPORARY INLET SEDIMENT FILTER	(ISF) X
ROCK FILTER DAM	(RFD)
DISTURBED AREA BOUNDARY	○○○○○○



STA. 23+93.96 - END CONST.
S.E. 15th STREET

SEC.8 T-11-N, R-2-W

NOTE:
SEE SHT. AR05 FOR SUMMARY OF
DISTURBED DRAINAGE AREA TABLE.

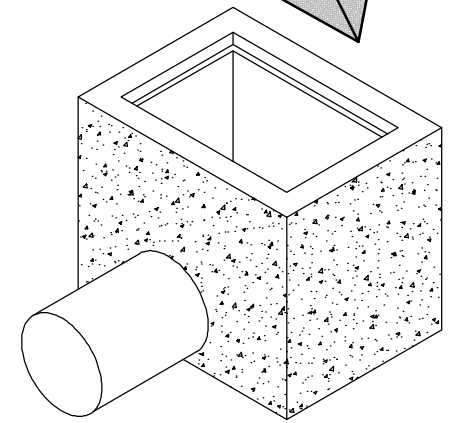
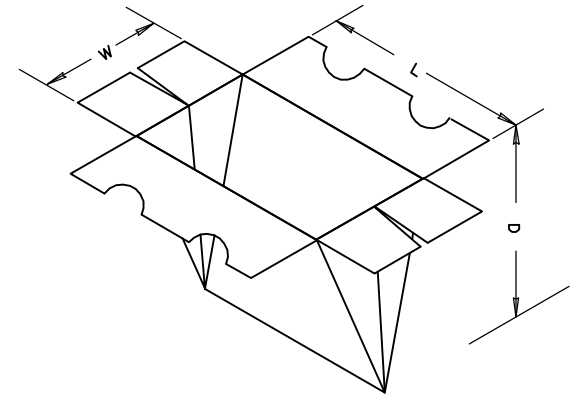
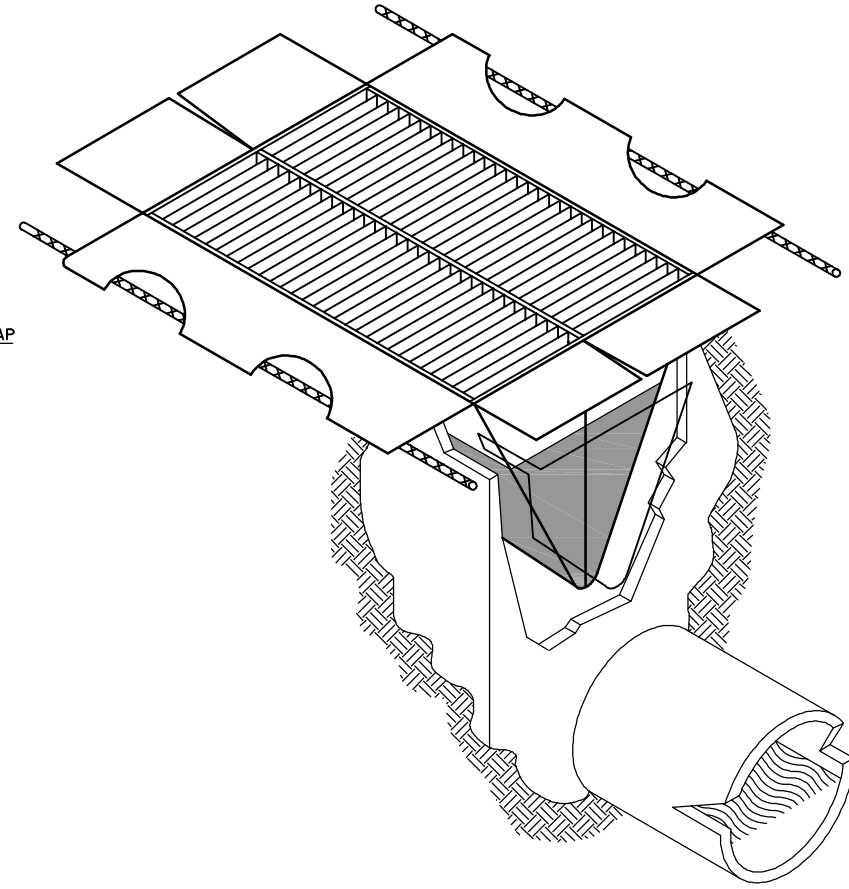
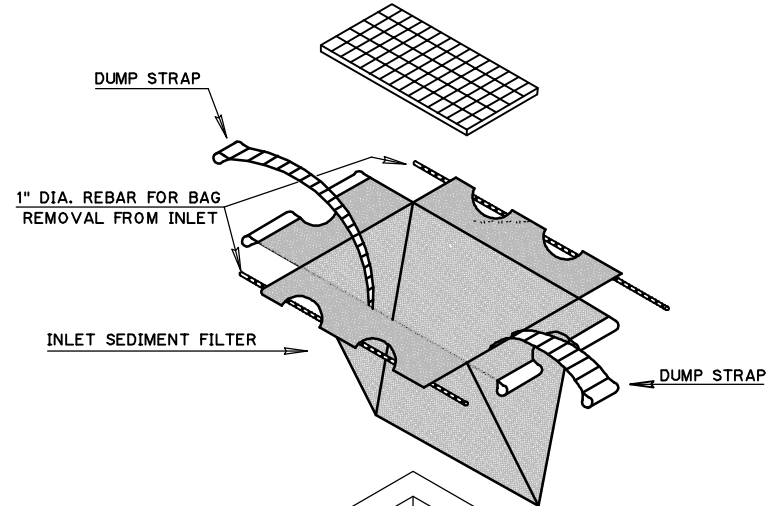
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DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

EROSION CONTROL
SHEET 7 OF 7

STATE JOB NO. 23310(04) SHEET NO. R041

11/22/2018 1:31:50 PM H:\PROJECTS\2890_1-40_Cultrac_Creek\Roadway_Drawings\2331004-Erosion_Control_8.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION				REVISIONS	DATE	



INSTALLATION DETAIL

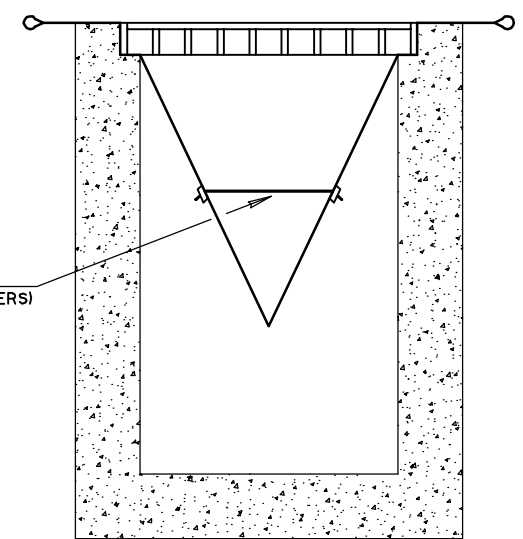
GENERAL NOTES

AN INLET SEDIMENT FILTER IS A WOVEN, POLYPROPYLENE SACK PLACED INTO UNDERGROUND DRAINS DESIGNED TO TRAP SEDIMENT BEFORE IT ENTERS THE DRAINAGE SYSTEM. THE FILTER HAS FLAP POCKETS ALONG THE TOP EDGES AND EMPTYING STRAPS ATTACHED TO THE BOTTOM THAT REMAIN ABOVE THE GROUND AND ARE HELD IN PLACE BY THE GRATE. THE FILTER MUST NEVER BE ALLOWED TO BE OVER HALF FULL OF SEDIMENT OR THE DRAINAGE SYSTEM COULD BE POLLUTED, NOT FUNCTION AT ALL OR MAKE IT VERY DIFFICULT TO REMOVE. CONSEQUENTLY, REGULAR MAINTENANCE IS MANDATORY.

WHEN IT IS DETERMINED THAT THE FILTER NEEDS TO BE CLEANED, TWO PIECES OF 1" REBAR ARE INSERTED THROUGH THE FLAP POCKETS. THE GRATE IS REMOVED AND THE LIFTING BARS ARE ATTACHED TO AVAILABLE EQUIPMENT AND REMOVED TO A DUMPING AREA. ON THE GROUND, REMOVE THE LIFTING STRAPS FROM THE LIFTING BARS AND PLACED A LIFTING BARS THROUGH THE EMPTYING STRAPS. LIFT THE FILTER OFF THE GROUND BY THE EMPTYING STRAPS AND THE FILTER WILL TURN INSIDE OUT AND BE EMPTIED. IT MAY THEN BE RINSED AND REUSED OR DISPOSED.

THE GEOTEXTILE FABRIC SHALL BE WOVEN WITH THE FOLLOWING PROPERTIES:

PROPERTY	TEST METHOD	TEST RESULT
GRAB TENSILE	ASTM D-4632	300 lb (Min.)
GRAB ELONGATION	ASTM D-4632	20% (Max.)
PUNCTURE	ASTM D-4833	120 lb (Min.)
MULLEN BURST	ASTM D-3786	800 psi (Min.)
TRAPEZOID TEAR	ASTM D-4533	120 lb (Min.)
UV RESISTANCE	ASTM D-4355	70% @ 150hrs. (Min.)
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE (Max.)
FLOW RATE	ASTM D-4491	40 Gal./min./sq.ft. (Max.)
PERMITTIVITY	ASTM D-4491	0.55 sec. ⁻¹ (Max.)



SIDE VIEW

SYMBOLOLOGY
SYMBOL TO BE USED TO DENOTE DEVICE ON PLANS.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
221(H)	(PL) TEMPORARY INLET SEDIMENT FILTER	EACH

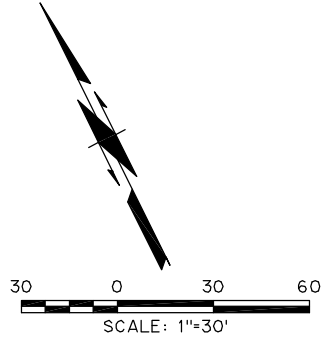
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CHECKED	ABC	03/12
APPROVED	ABC	03/12
SQUAD	POE	

TEMPORARY INLET SEDIMENT FILTER

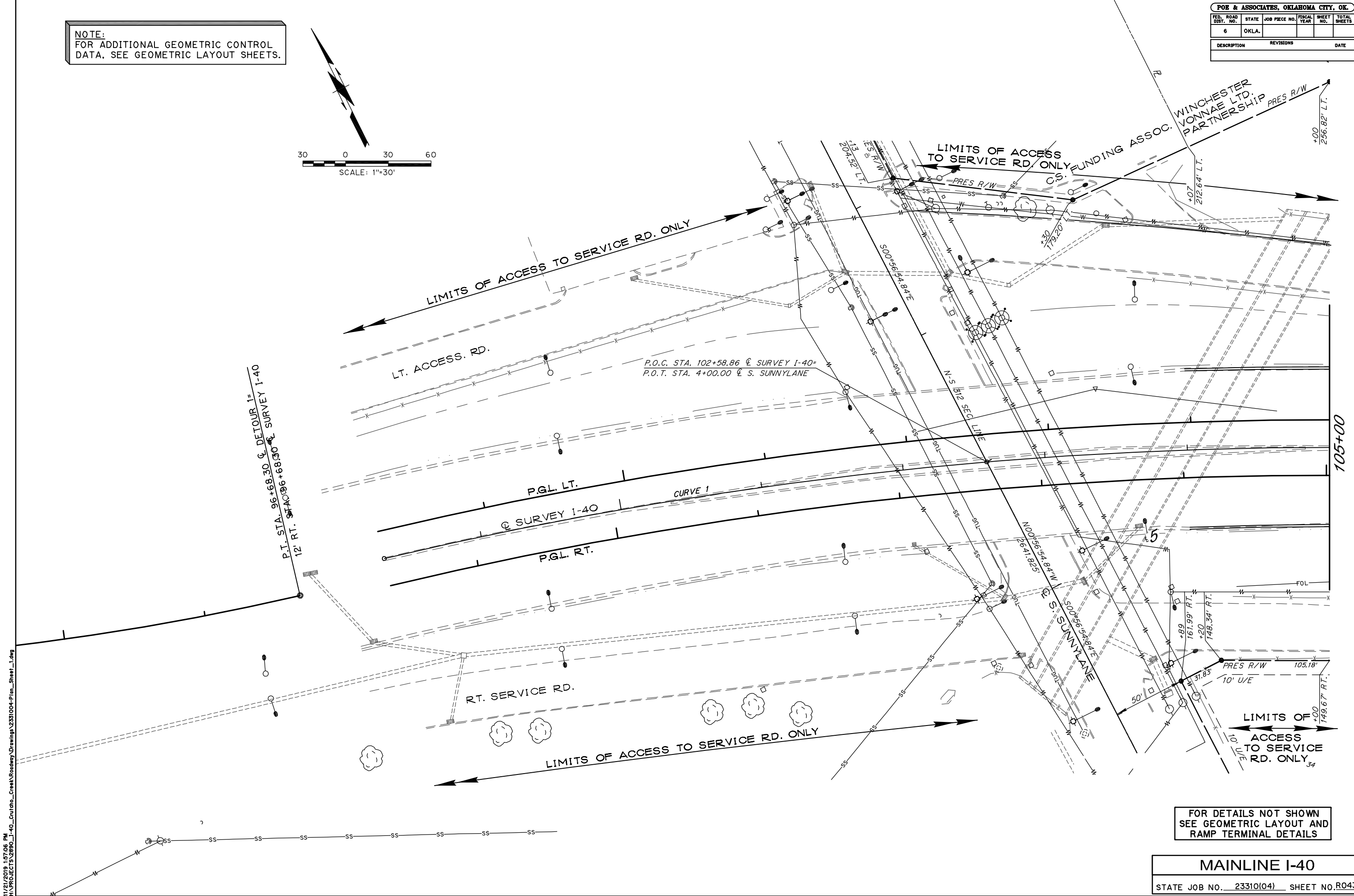
STATE JOB NO. 23310(04) SHEET NO. R042

I:\PROJECTS\23310\Drawings\23310(04)-Temporary_Inlet_Sediment_Filter_Sheet.dwg

NOTE:
FOR ADDITIONAL GEOMETRIC CONTROL
DATA, SEE GEOMETRIC LAYOUT SHEETS.



POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS		DATE	



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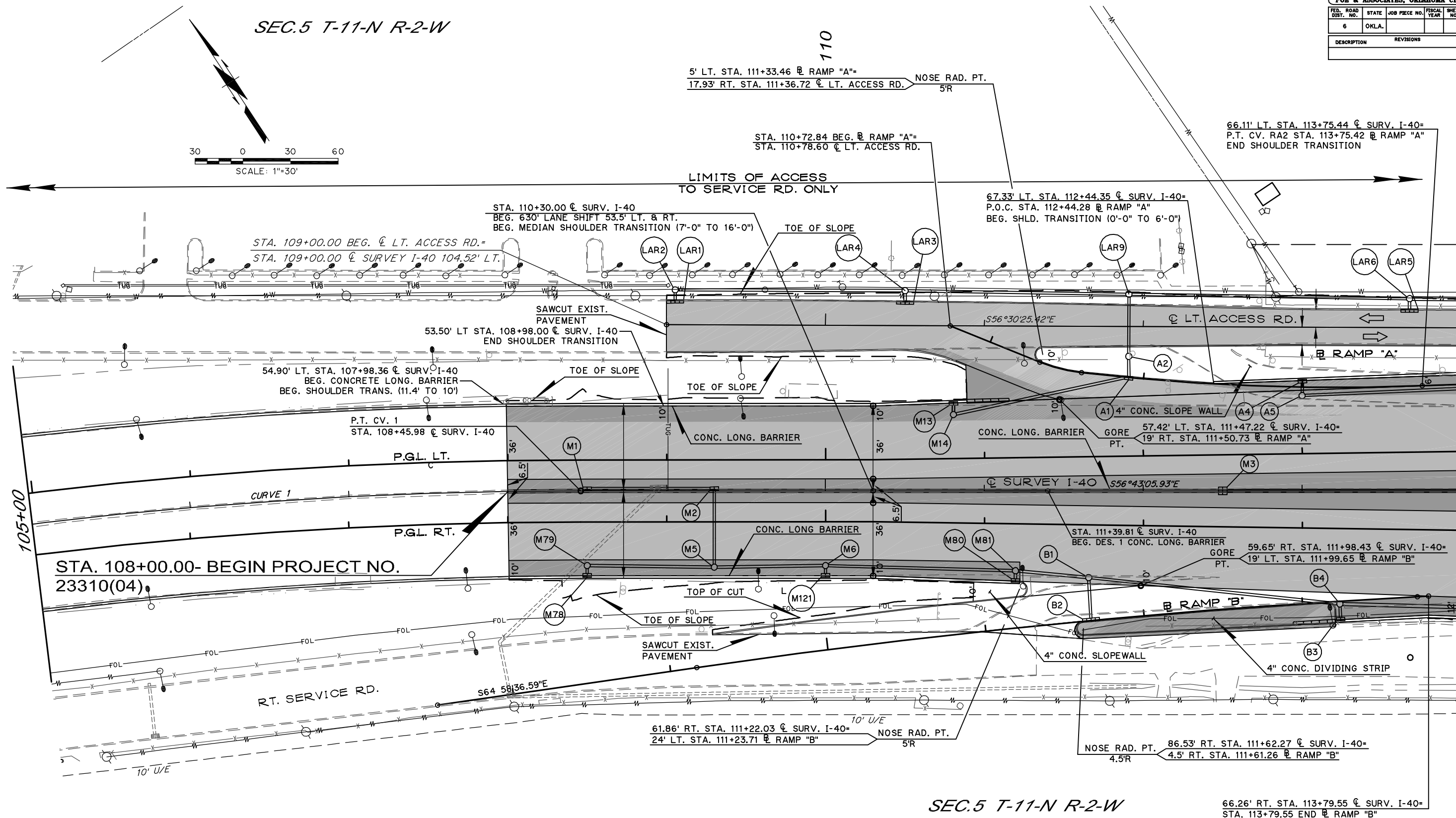
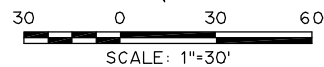
FOR DETAILS NOT SHOWN
SEE GEOMETRIC LAYOUT AND
RAMP TERMINAL DETAILS

MAINLINE I-40
STATE JOB NO. 23310(04) SHEET NO. R043

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.5 T-11-N R-2-W

110



105+00

114+00

STA. 108+00.00- BEGIN PROJECT NO. 23310(04)

SEC.5 T-11-N R-2-W

66.26' RT. STA. 113+79.55 ϕ SURV. I-40= STA. 113+79.55 END ϕ RAMP "B"

LIMITS OF ACCESS TO SERVICE RD. ONLY

FOR DETAILS NOT SHOWN SEE GEOMETRIC LAYOUT AND RAMP TERMINAL DETAILS

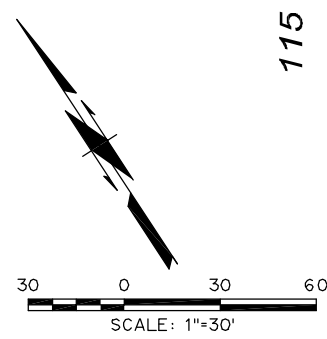
MAINLINE I-40

STATE JOB NO. 23310(04) SHEET NO. R044

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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.5 T-11-N R-2-W



REFER TO PARKING & EROSION CONTROL DETAIL SHEET ON R088.

R.E. # WE. WARNER

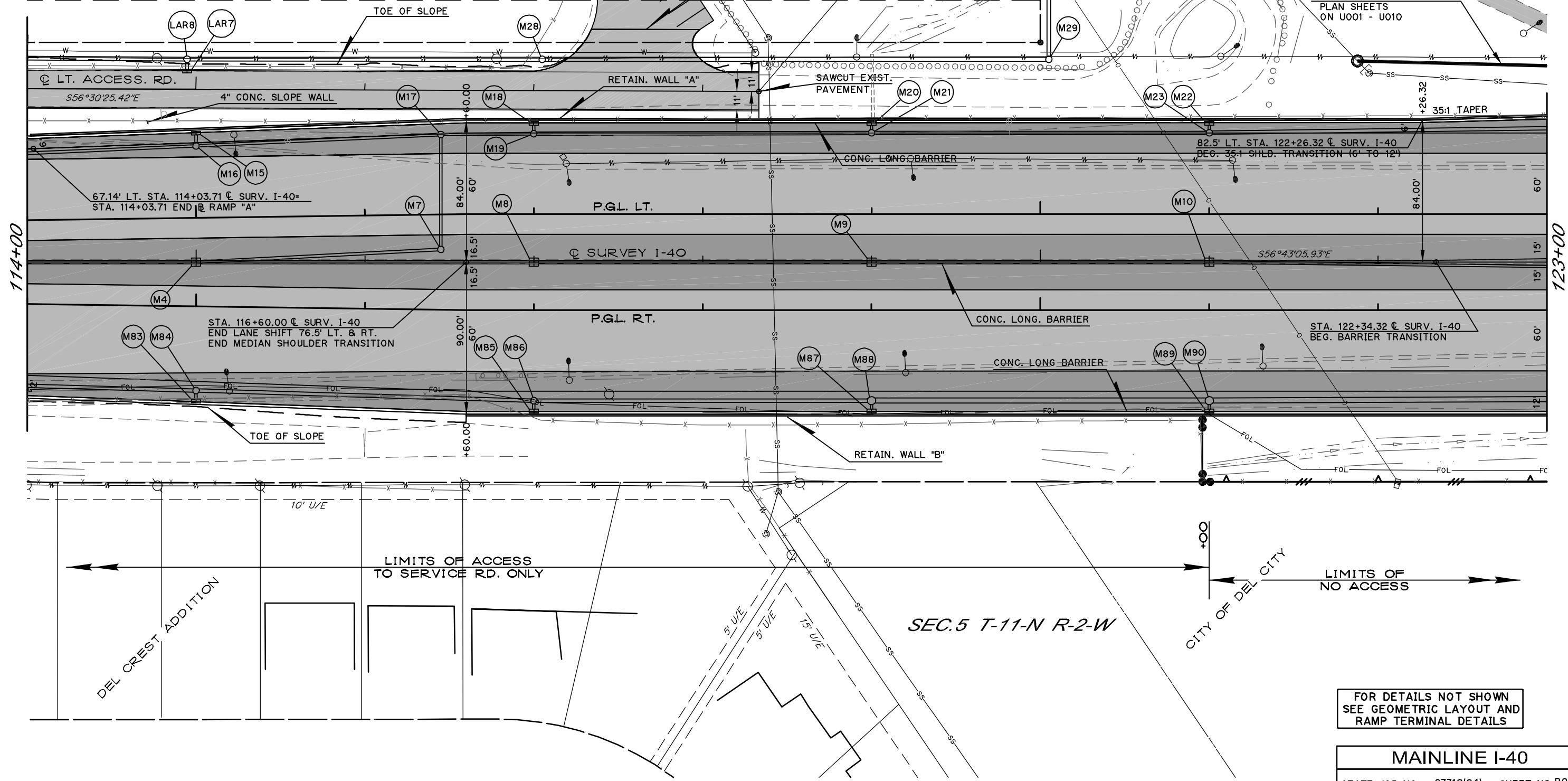
LIMITS OF ACCESS TO SERVICE RD. ONLY

120

LIMITS OF NO ACCESS

STA. 117+57.26 INST. 60' CONC. D&RT.
 STA. 118+33.30 END & LT. ACCESS RD.
 STA. 118+33.29 & SURVEY I-40 101.08' LT.

REFER TO SANITARY SEWER PLAN SHEETS ON U001 - U010



114+00

123+00

LIMITS OF ACCESS TO SERVICE RD. ONLY

LIMITS OF NO ACCESS

SEC.5 T-11-N R-2-W

CITY OF DEL CITY

FOR DETAILS NOT SHOWN SEE GEOMETRIC LAYOUT AND RAMP TERMINAL DETAILS

MAINLINE I-40
 STATE JOB NO. 23310(04) SHEET NO. R045

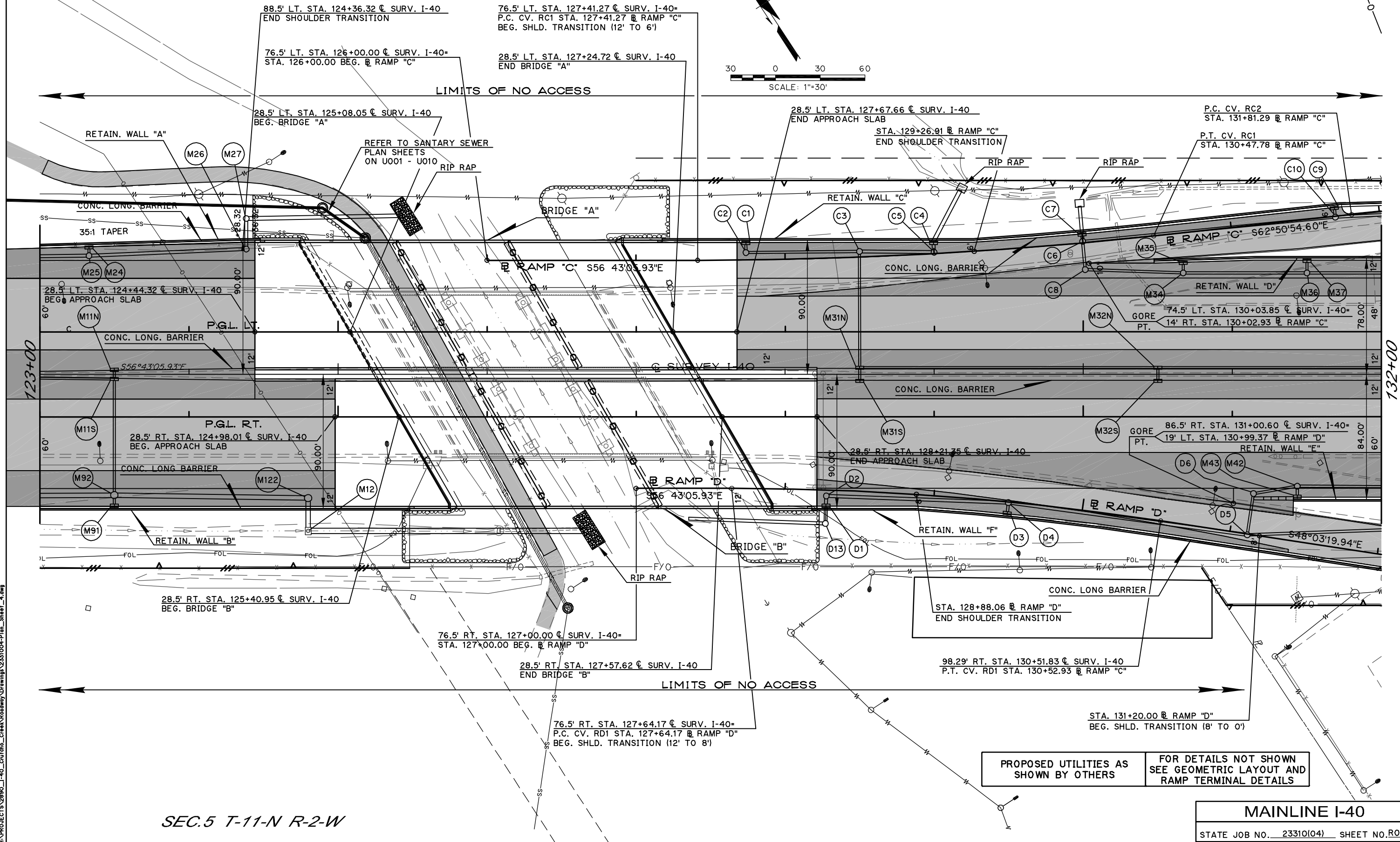
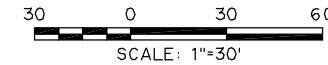
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SEC.5 T-11-N R-2-W

125

130

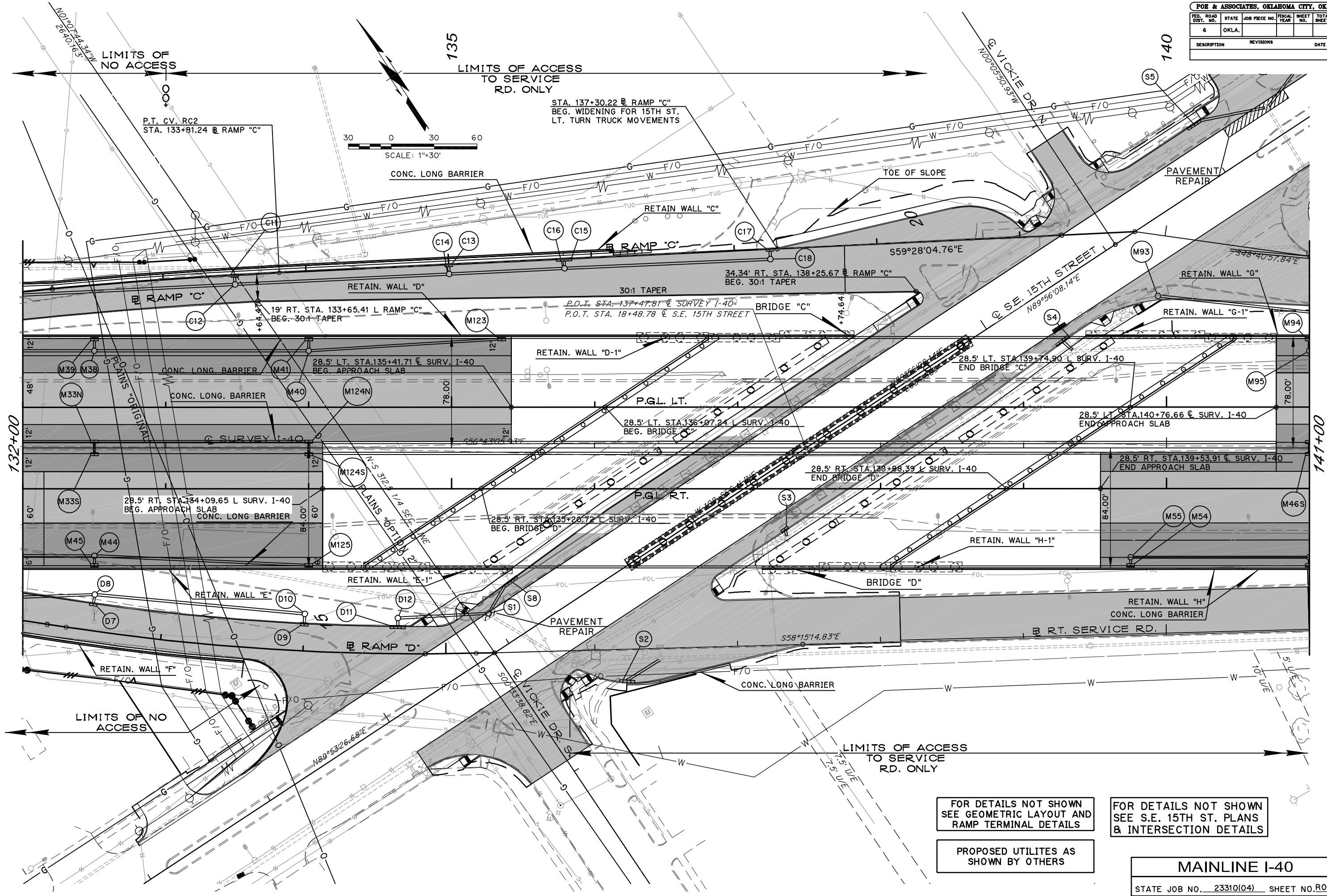


SEC.5 T-11-N R-2-W

PROPOSED UTILITIES AS SHOWN BY OTHERS
 FOR DETAILS NOT SHOWN SEE GEOMETRIC LAYOUT AND RAMP TERMINAL DETAILS

11/21/2019 1:59:57 PM H:\PROJECTS\23310\1-40_Courtesy_Creek\Roadway_Drawing\2331004-Plan_Sheet_4.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		



FOR DETAILS NOT SHOWN
SEE GEOMETRIC LAYOUT AND
RAMP TERMINAL DETAILS

FOR DETAILS NOT SHOWN
SEE S.E. 15TH ST. PLANS
& INTERSECTION DETAILS

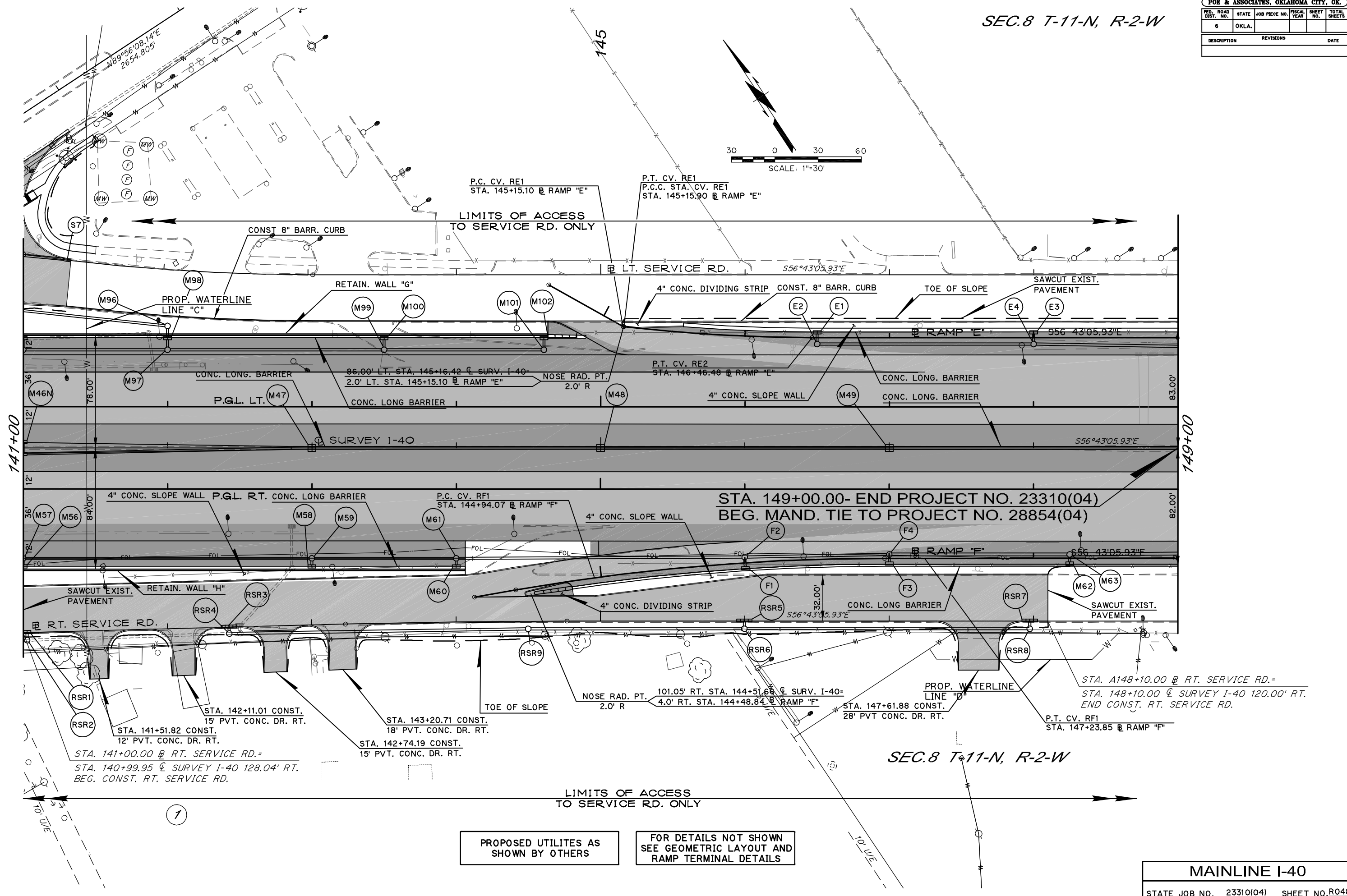
PROPOSED UTILITES AS
SHOWN BY OTHERS

MAINLINE I-40
STATE JOB NO. 23310(04) SHEET NO. R047

11/21/2019 2:00:49 PM H:\PROJECTS\2890_I-40_Courtois_Creek\Roadway_Drawing\2331004-Plan_Sheet_5.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

SEC.8 T-11-N, R-2-W



**STA. 149+00.00- END PROJECT NO. 23310(04)
BEG. MAND. TIE TO PROJECT NO. 28854(04)**

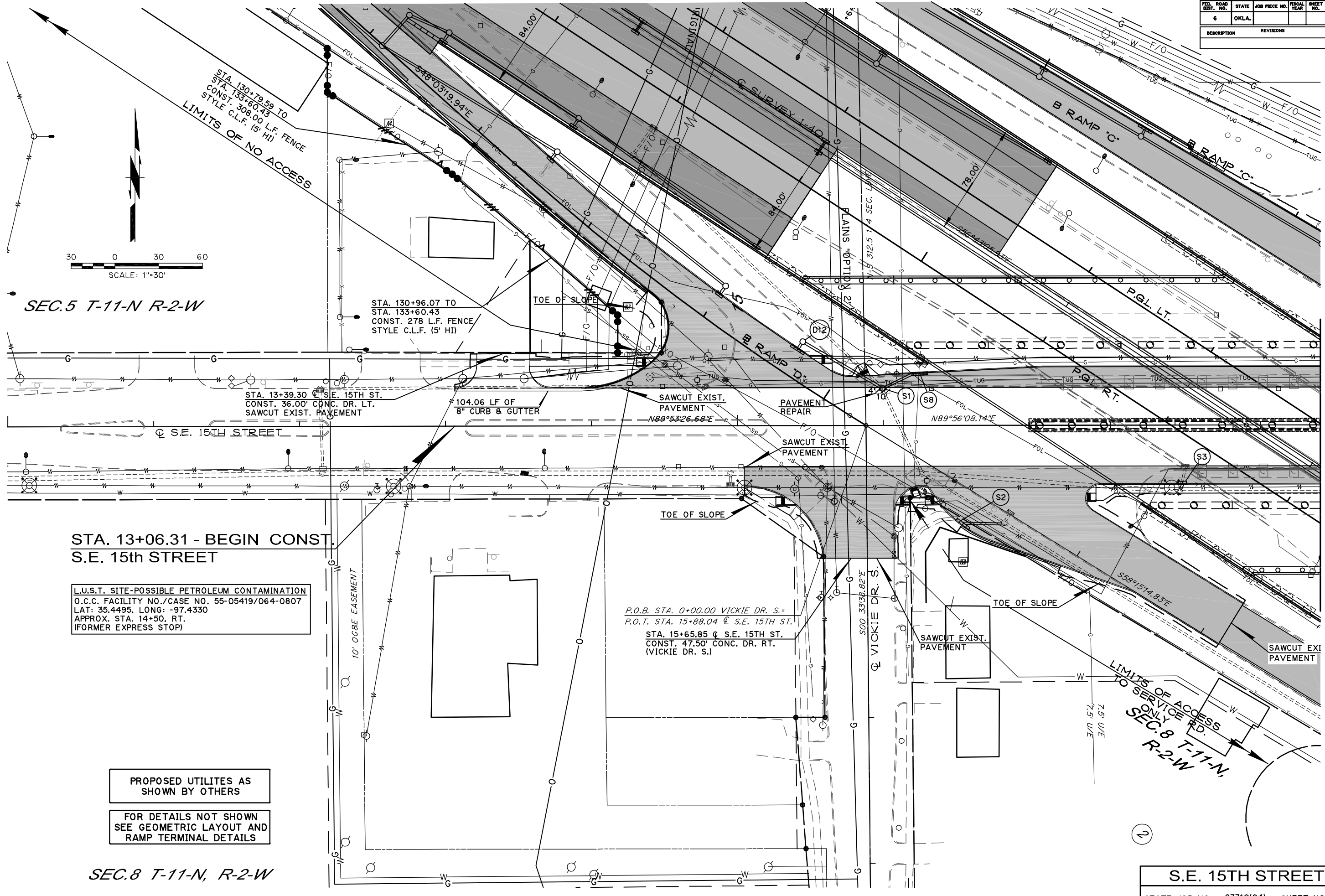
PROPOSED UTILITES AS SHOWN BY OTHERS

FOR DETAILS NOT SHOWN SEE GEOMETRIC LAYOUT AND RAMP TERMINAL DETAILS

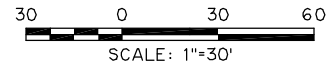
MAINLINE I-40

STATE JOB NO. 23310(04) SHEET NO. R048

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SEC. 5 T-11-N R-2-W



STA. 13+06.31 - BEGIN CONST
S.E. 15TH STREET

L.U.S.T. SITE-POSSIBLE PETROLEUM CONTAMINATION
O.C.C. FACILITY NO./CASE NO. 55-05419/064-0807
LAT: 35.4495, LONG: -97.4330
APPROX. STA. 14+50, RT.
(FORMER EXPRESS STOP)

PROPOSED UTILITIES AS SHOWN BY OTHERS

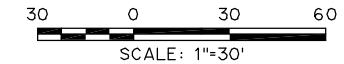
FOR DETAILS NOT SHOWN SEE GEOMETRIC LAYOUT AND RAMP TERMINAL DETAILS

SEC. 8 T-11-N, R-2-W

S.E. 15TH STREET
STATE JOB NO. 23310(04) SHEET NO. R049

11/22/2018 1:58:47 PM H:\PROJECTS\2890_1-40_Courtois_Creek\Roadway_Drawings\2331004-Plan_Sheet_9.dwg

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	



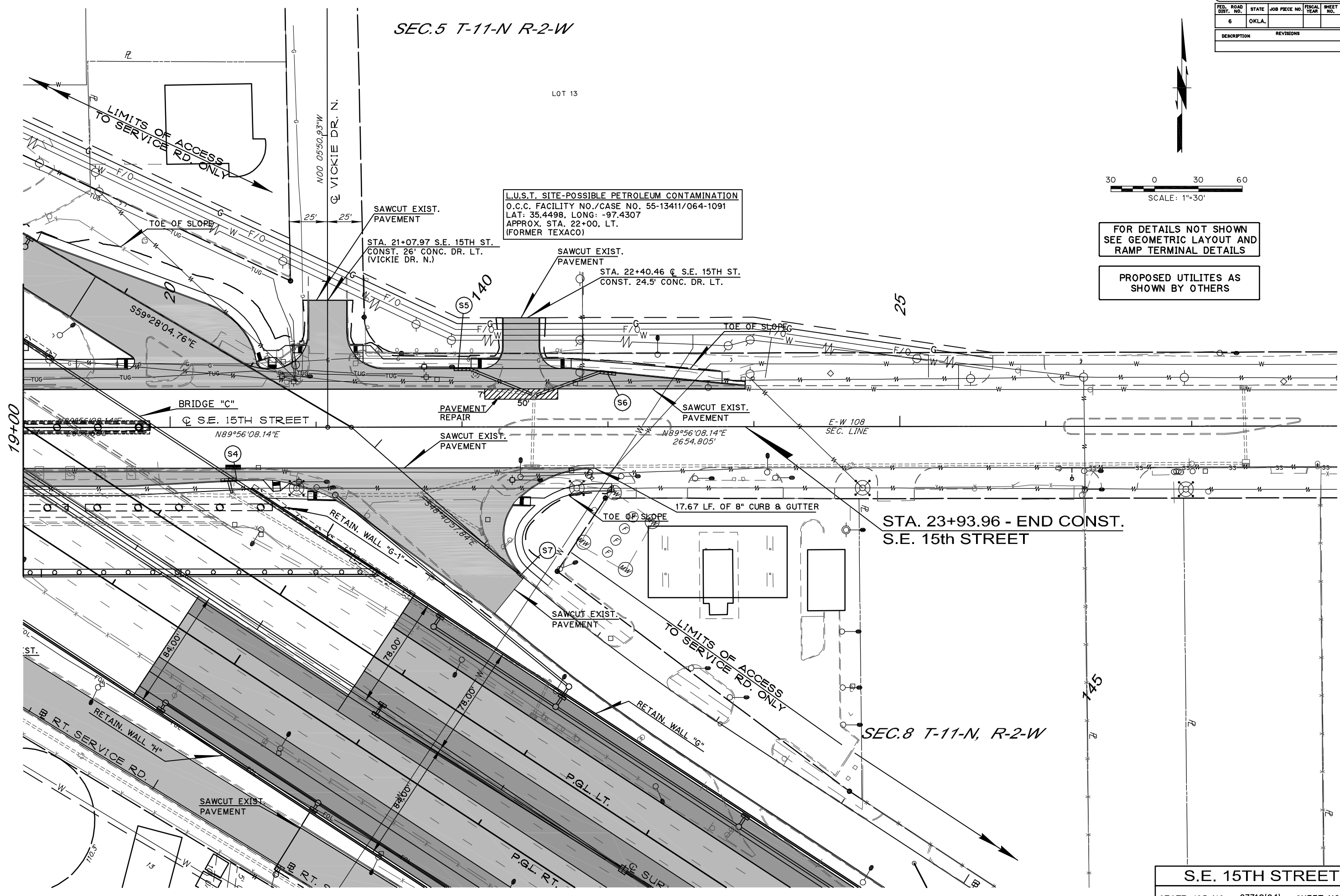
FOR DETAILS NOT SHOWN
SEE GEOMETRIC LAYOUT AND
RAMP TERMINAL DETAILS

PROPOSED UTILITES AS
SHOWN BY OTHERS

SEC.5 T-11-N R-2-W

LOT 13

L.U.S.T. SITE-POSSIBLE PETROLEUM CONTAMINATION
O.C.C. FACILITY NO./CASE NO. 55-13411/064-1091
LAT: 35.4498, LONG: -97.4307
APPROX. STA. 22+00, LT.
(FORMER TEXACO)



STA. 23+93.96 - END CONST.
S.E. 15th STREET

S.E. 15th STREET

STATE JOB NO. 23310(04) SHEET NO. R050

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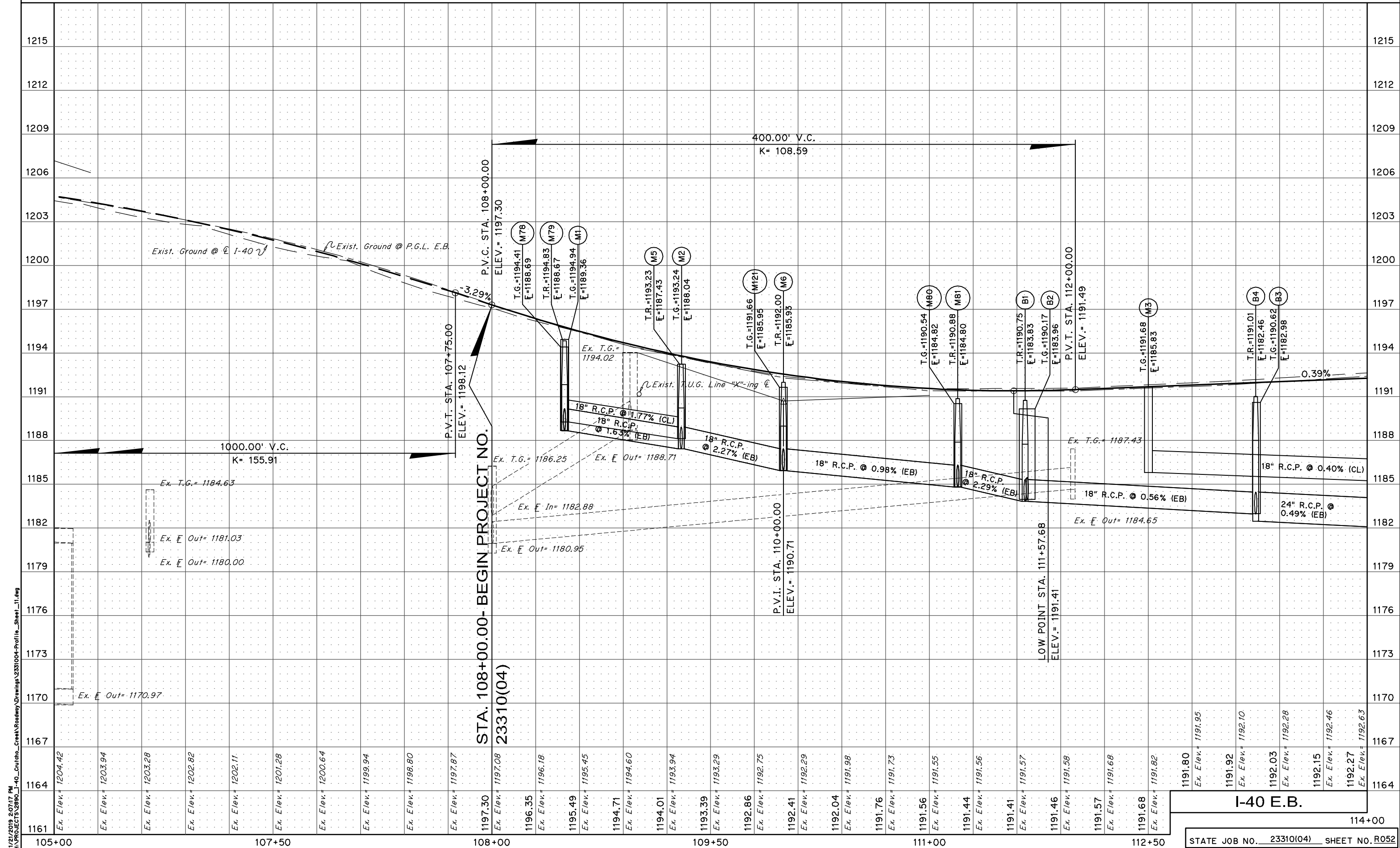
BM13 ~ □ ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN. 132.09' LT. \bar{C} I-40 STA.112+08.45 ELEV. 1187.67

BM14 ~ □ ON TOP OF S. CURB OF ON RAMP 126.42' RT. \bar{C} I-40 STA.108+43.94 ELEV. 1187.24

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT. \bar{C} I-40 STA.113+21.61 ELEV. 1190.04

SCALE
HORT. 1" = 30'
VERT. 1" = 3'

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	

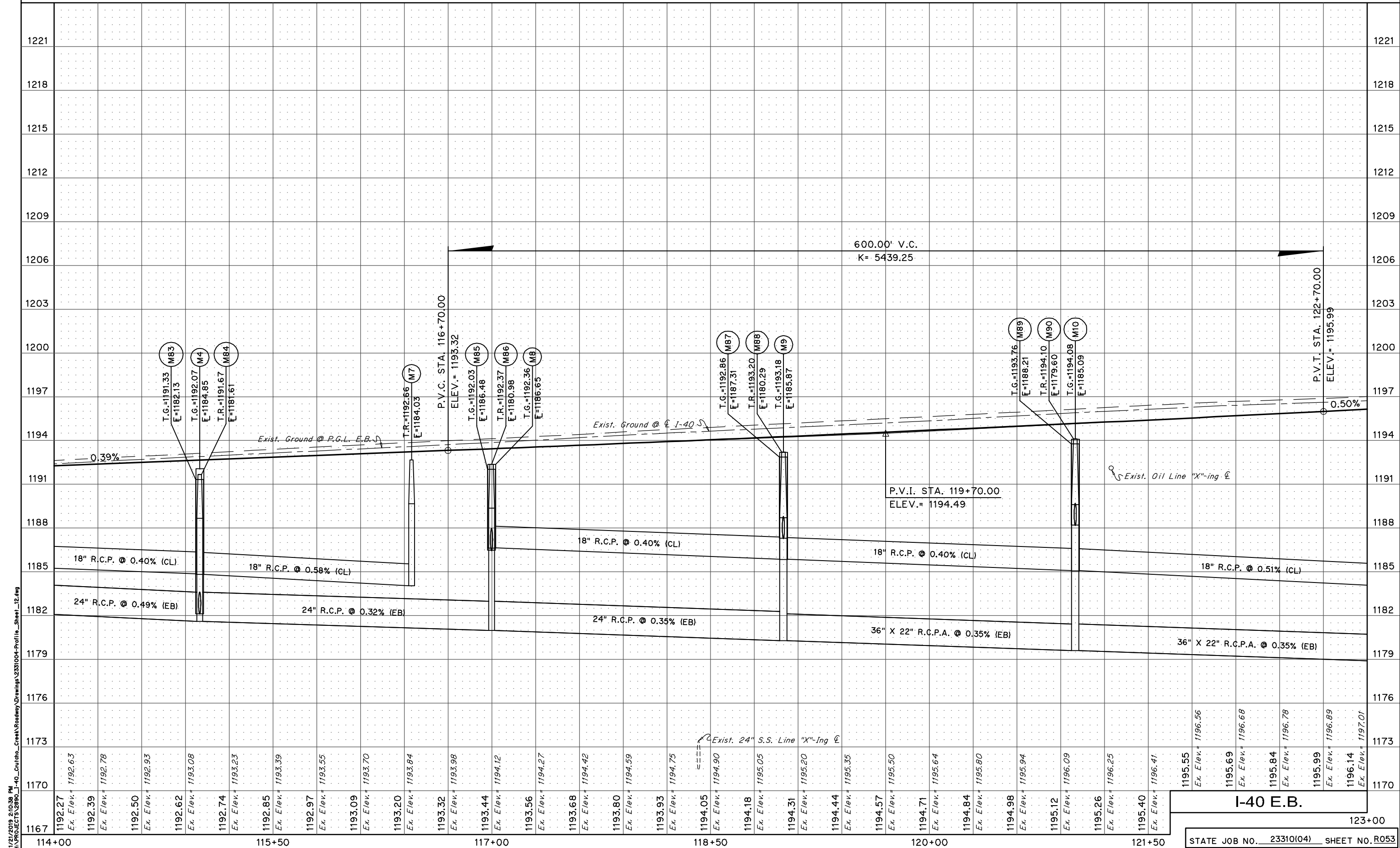


11/21/2019 2:07:17 PM H:\PROJECTS\2890_I-40_Outrigger\Drawings\2331004-Profile_Sheet_11.dwg

BM15 ~ □ ON S. HDWL OF RCP IN CENTER OF
CUL-DE-SAC E. SIDE OF RAY TRENT PARK,
155.81' LT.
℄ I-40 STA.120+99.85 ELEV. 1182.93

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SCALE
HORT. 1" = 30'
VERT. 1" = 3'



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I-40 E.B.

123+00

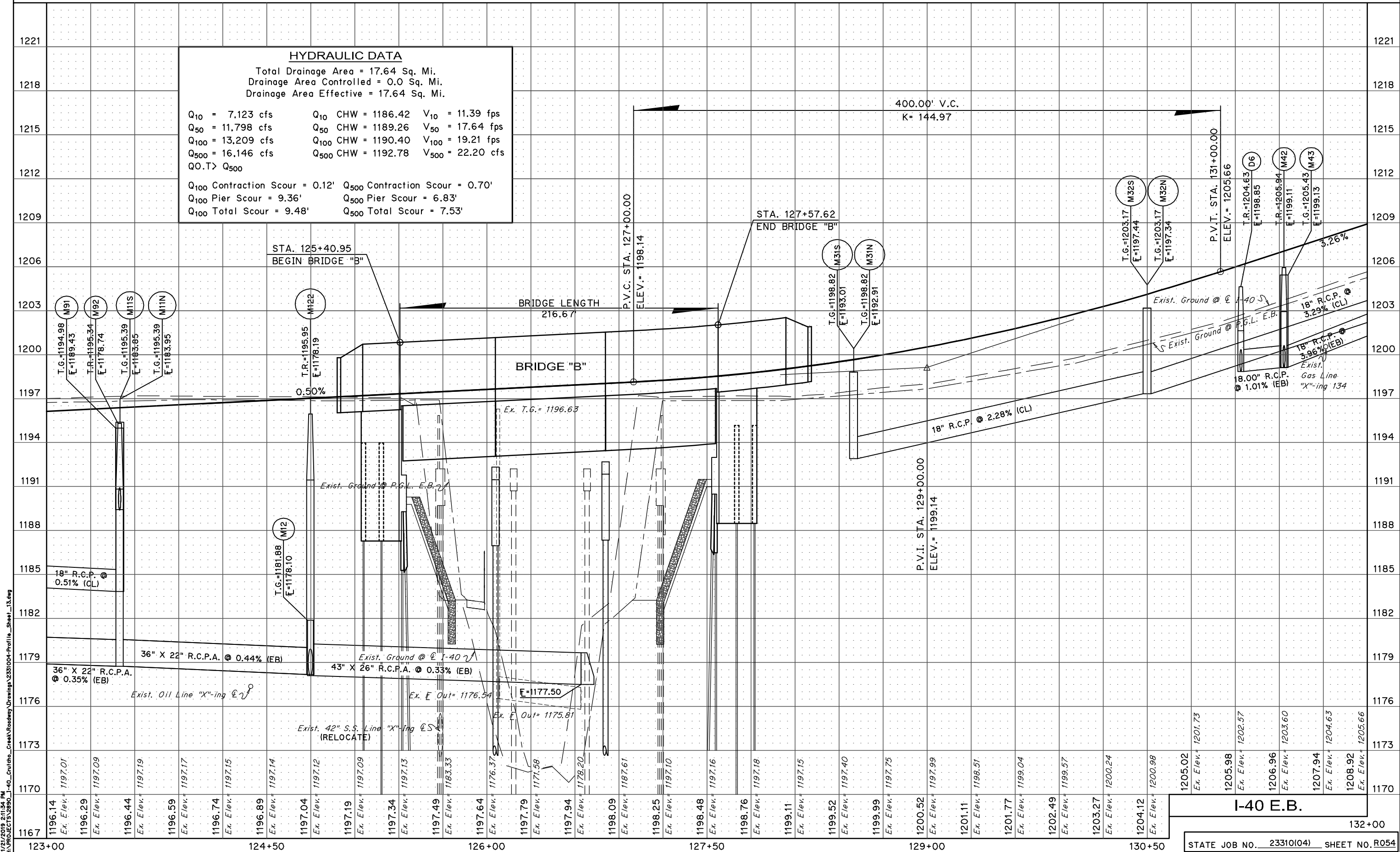
STATE JOB NO. 23310(04) SHEET NO. R053

BM18 ~ □ ON TOP OF W. HDWL OF 30" RCP
 12' W. OF ASPH. TRAIL, SW OF CRUTCHO CRK.
 BRIDGE 136.06' RT.
 @ I-40 STA. 126+35.52 ELEV. 1182.81

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'

POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

HYDRAULIC DATA					
Total Drainage Area = 17.64 Sq. Mi.					
Drainage Area Controlled = 0.0 Sq. Mi.					
Drainage Area Effective = 17.64 Sq. Mi.					
Q ₁₀ = 7,123 cfs	Q ₁₀ CHW = 1186.42	V ₁₀ = 11.39 fps			
Q ₅₀ = 11,798 cfs	Q ₅₀ CHW = 1189.26	V ₅₀ = 17.64 fps			
Q ₁₀₀ = 13,209 cfs	Q ₁₀₀ CHW = 1190.40	V ₁₀₀ = 19.21 fps			
Q ₅₀₀ = 16,146 cfs	Q ₅₀₀ CHW = 1192.78	V ₅₀₀ = 22.20 cfs			
Q _{0.T} > Q ₅₀₀					
Q ₁₀₀ Contraction Scour = 0.12'		Q ₅₀₀ Contraction Scour = 0.70'			
Q ₁₀₀ Pier Scour = 9.36'		Q ₅₀₀ Pier Scour = 6.83'			
Q ₁₀₀ Total Scour = 9.48'		Q ₅₀₀ Total Scour = 7.53'			

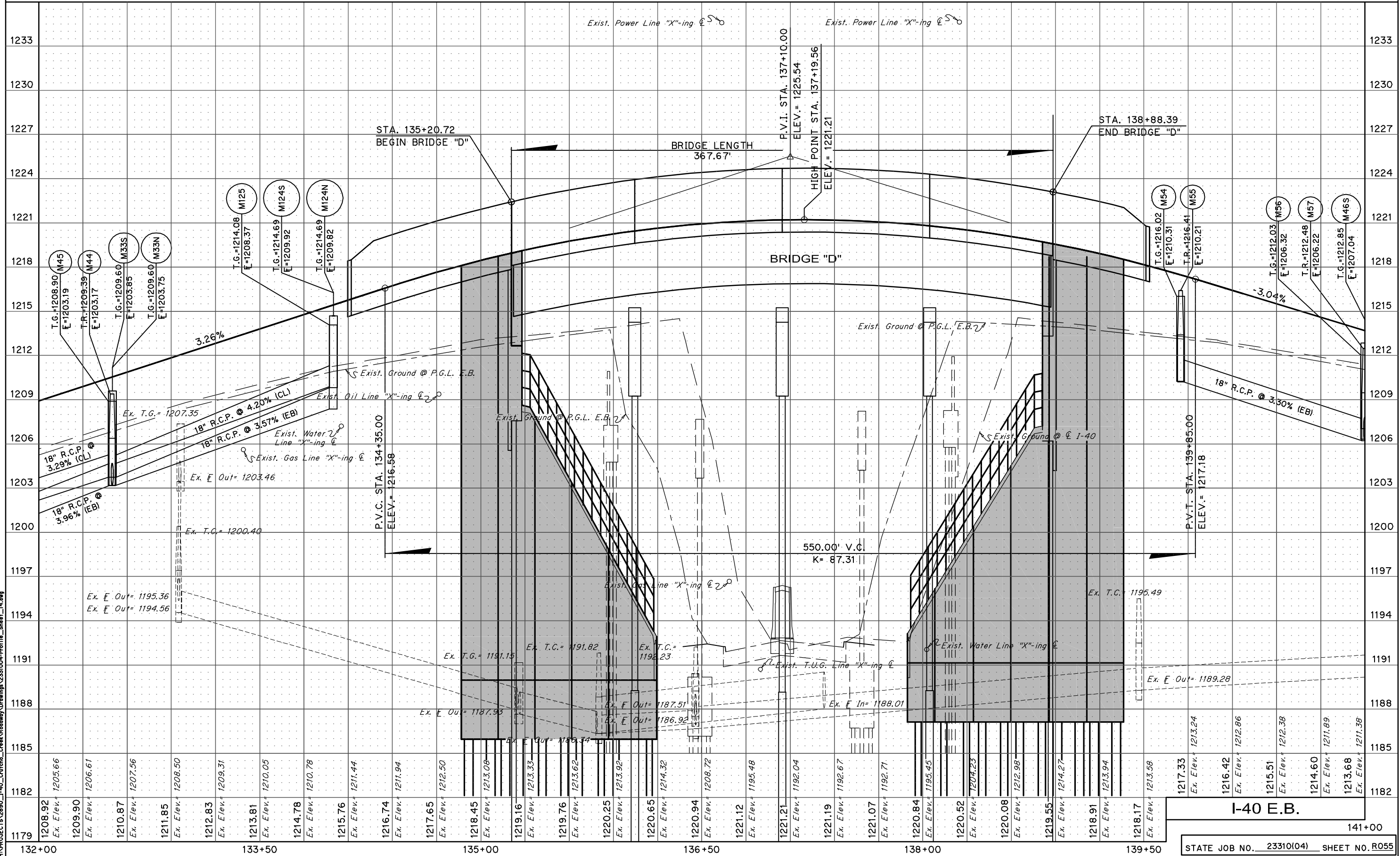


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I-40 E.B.
 132+00
 STATE JOB NO. 23310(04) SHEET NO. R054

BM17 ~ 1' ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. I-40 STA. 133+75.70 ELEV. 1193.35

SCALE
HORT. 1" = 30'
VERT. 1" = 3'



11/21/2018 2:22:55 PM H:\PROJECTS\2890_I-40_Curbside_Creek\Roadway\Drawings\2331004-Profile_Sheet_14.dwg

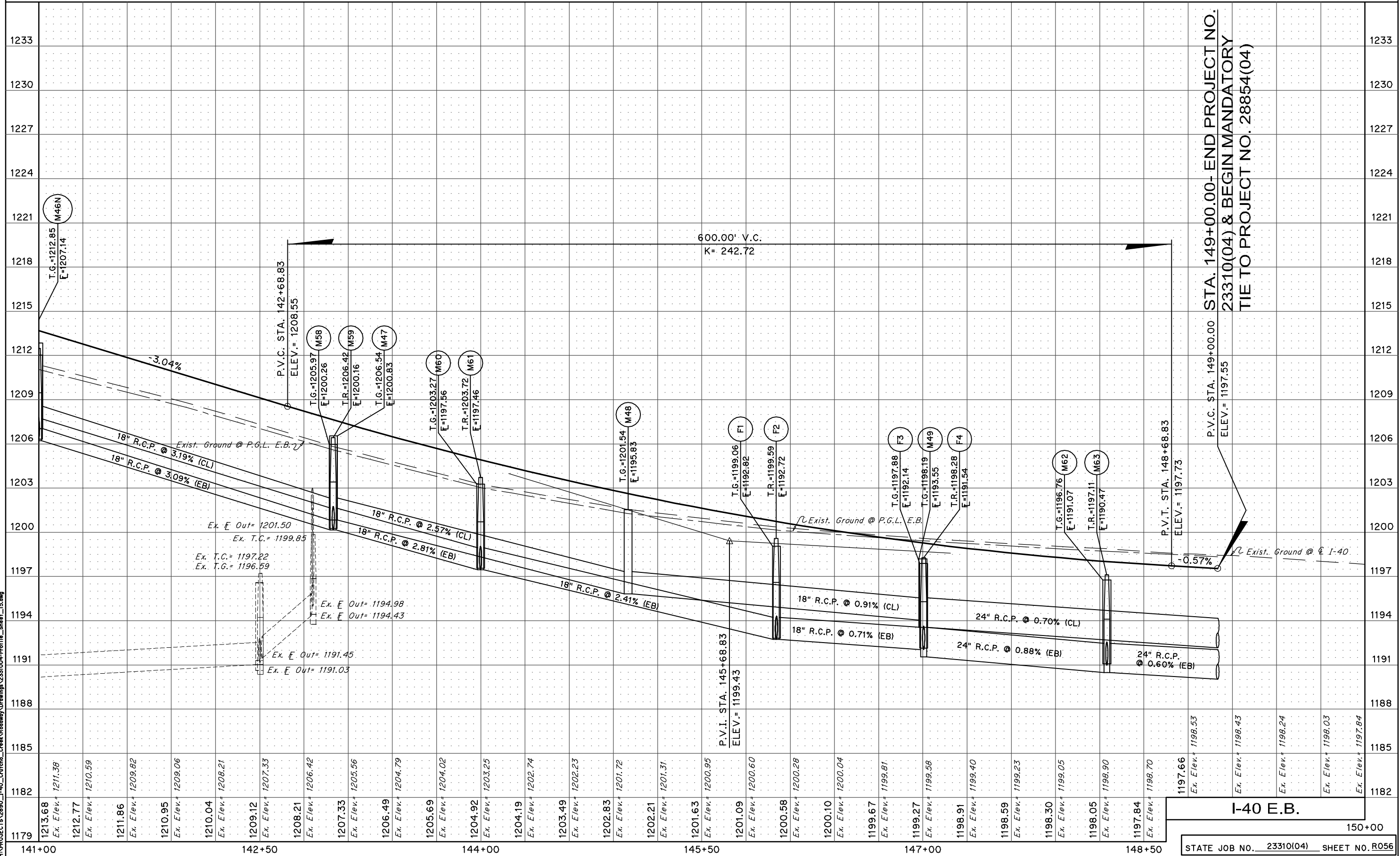
SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'

BM19 ~ □ ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. \bar{C} I-40 STA.141+49.56 ELEV. 1202.95

BM21 ~ □ ON CURB, NNW CURB RETURN, W. SIDE OF FENTON NISSAN CAR LOT. 129.70' LT. \bar{C} I-40 STA.149+23.80 ELEV. 1199.89

BM22 ~ □ ON CURB RETURN, 1ST DRIVE E. OF S.E. 15TH ST. & SERVICE RD. 127.77' RT. \bar{C} I-40 STA.141+39.36 ELEV. 1196.93

BM24 ~ □ ON N.N.W. CURB RETURN W. SIDE OF W. ENTR. TO RAY HIBDON'S CAR LOT 4920 120.83' RT. \bar{C} I-40 STA.147+31.41 ELEV. 1197.66



STA. 149+00.00- END PROJECT NO. 23310(04) & BEGIN MANDATORY TIE TO PROJECT NO. 28854(04)

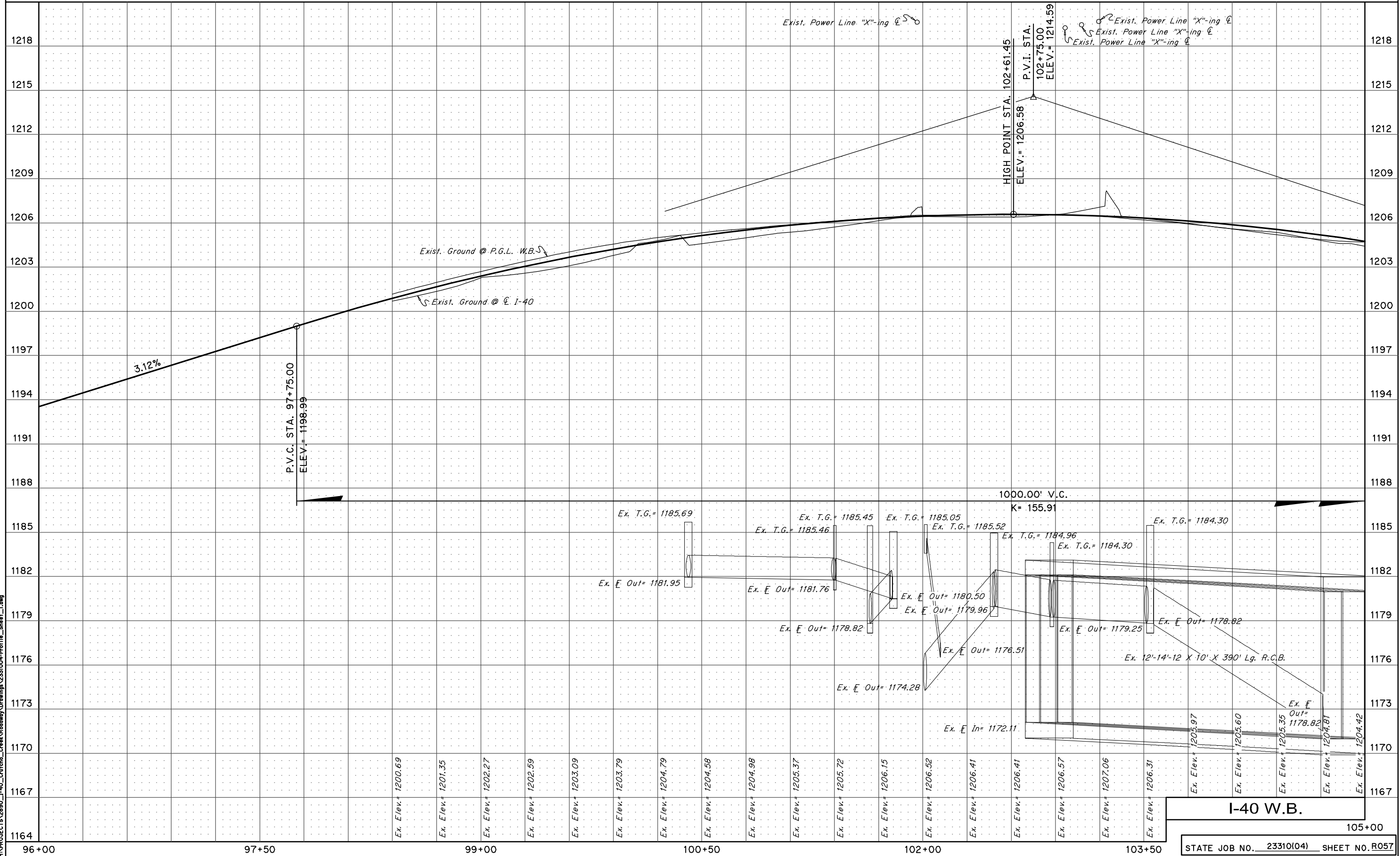
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BM10 ~ 'I' IN SSW CURB RETURN TO CAR LOT S. OF I-40 TINKER DIAG. & MATTHEWS PL.
 X=2,134,151.9990 Y=166,066.0316
 ELEV.=1189.59

BM11 ~ 'X' ON SIDEWALK, SE P.I. OF CONOCO STATION CURB & SIDEWALK, NE OF SUNNYLANE RD. & SERVICE RD. 202.09' LT.
 I-40 STA.102+31.46 ELEV. 1187.34

BM12 ~ 'I' IN CENTER OF HDWL TRPL. RCB SW OF SUNNYLANE RD. & TINKER DIAGONAL. 167.09' RT.
 I-40 STA.102+85.90 ELEV. 1184.50

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'



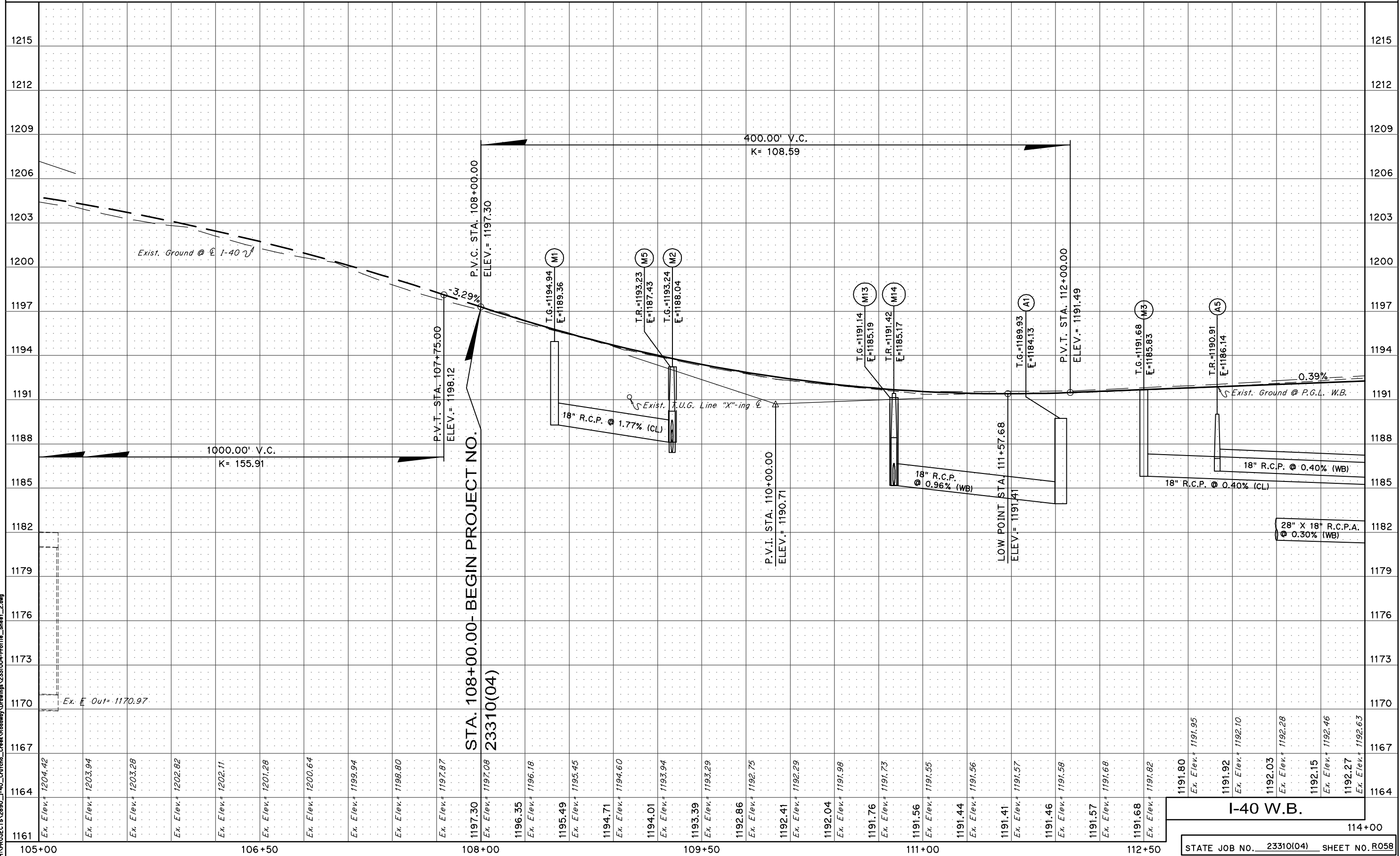
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BM13 ~ 1' ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN. 132.09' LT. \angle I-40 STA.112+08.45 ELEV. 1187.67

BM14 ~ 1' ON TOP OF S. CURB OF ON RAMP 126.42' RT. \angle I-40 STA.108+43.94 ELEV. 1187.24

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT. \angle I-40 STA.113+21.61 ELEV. 1190.04

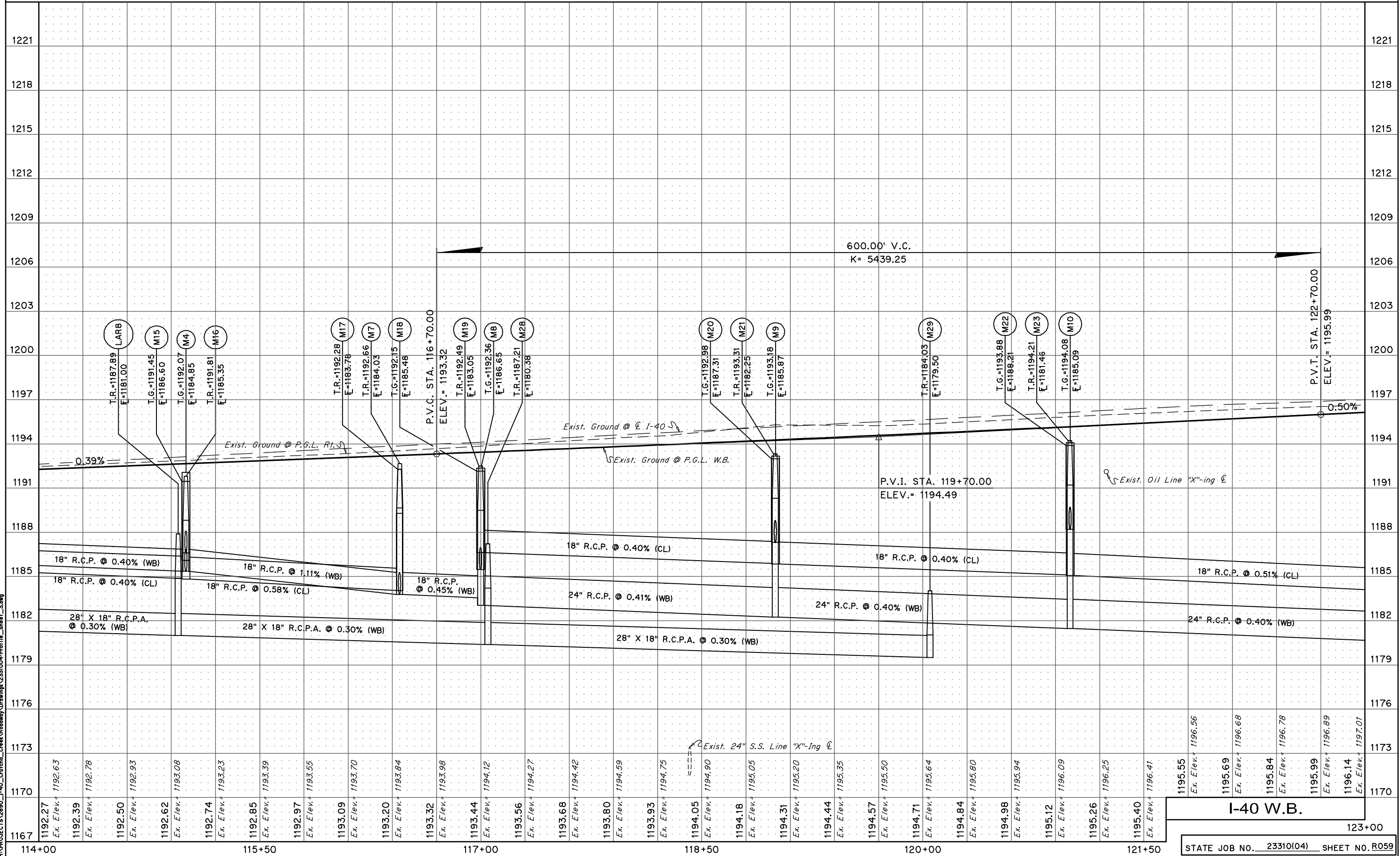
SCALE
HORT. 1" = 30'
VERT. 1" = 3'



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BM15 ~ 1' ON S. HDWL OF RCP IN CENTER OF CUL-DE-SAC E. SIDE OF RAY TRENT PARK. 155.81' LT.
 @ I-40 STA.120+99.85 ELEV. 1182.93

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'



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SCALE
HORT. 1" = 30'
VERT. 1" = 3'

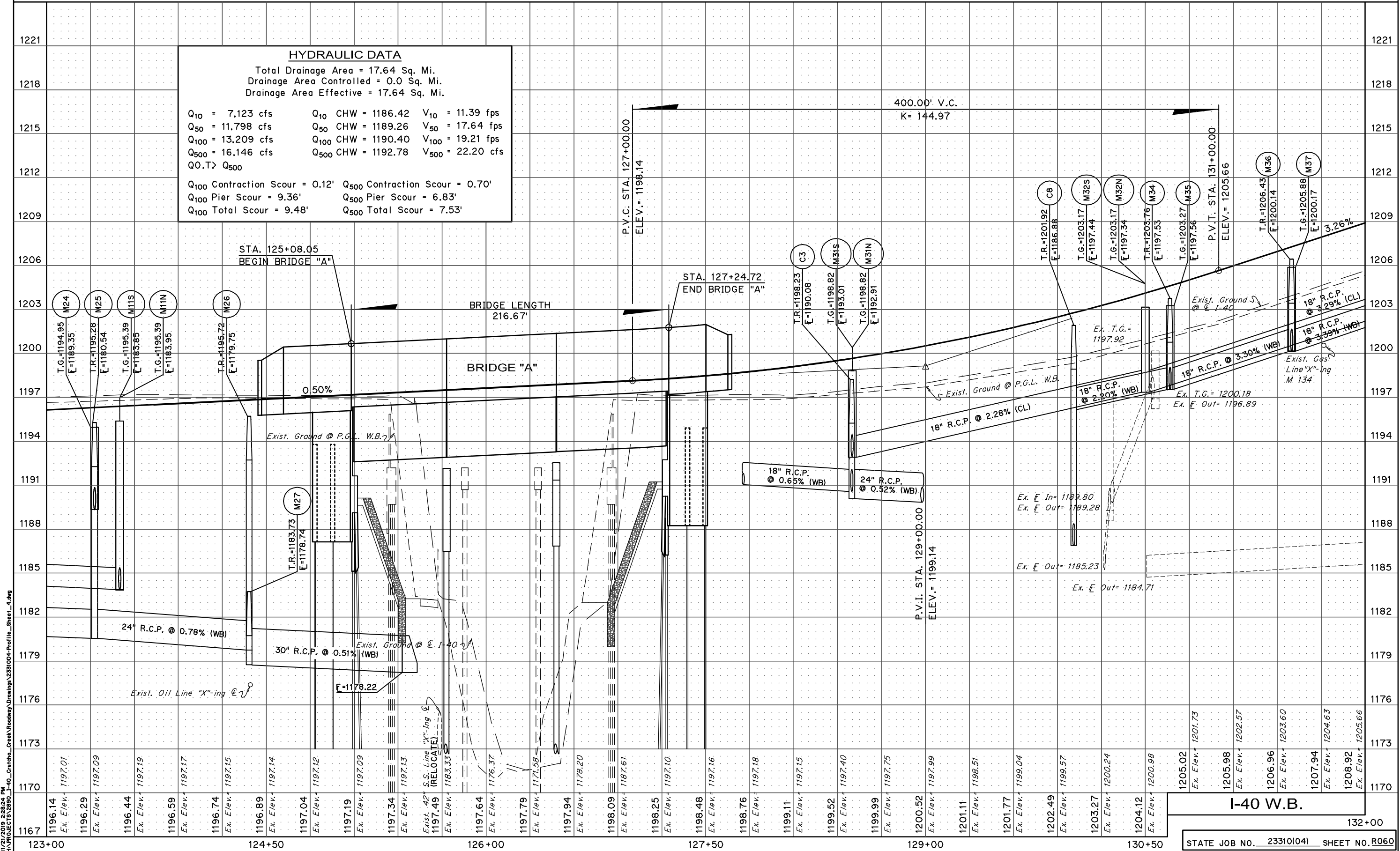
BM18 ~ 1' ON TOP OF W. HDWL OF 30" RCP
12' W. OF ASPH. TRAIL, SW OF CRUTCHO CRK.
BRIDGE 136.06' RT.
I-40 STA. 126+35.52 ELEV. 1182.81

HYDRAULIC DATA

Total Drainage Area = 17.64 Sq. Mi.
Drainage Area Controlled = 0.0 Sq. Mi.
Drainage Area Effective = 17.64 Sq. Mi.

Q ₁₀ = 7,123 cfs	Q ₁₀ CHW = 1186.42	V ₁₀ = 11.39 fps
Q ₅₀ = 11,798 cfs	Q ₅₀ CHW = 1189.26	V ₅₀ = 17.64 fps
Q ₁₀₀ = 13,209 cfs	Q ₁₀₀ CHW = 1190.40	V ₁₀₀ = 19.21 fps
Q ₅₀₀ = 16,146 cfs	Q ₅₀₀ CHW = 1192.78	V ₅₀₀ = 22.20 cfs
Q _{0.T} > Q ₅₀₀		

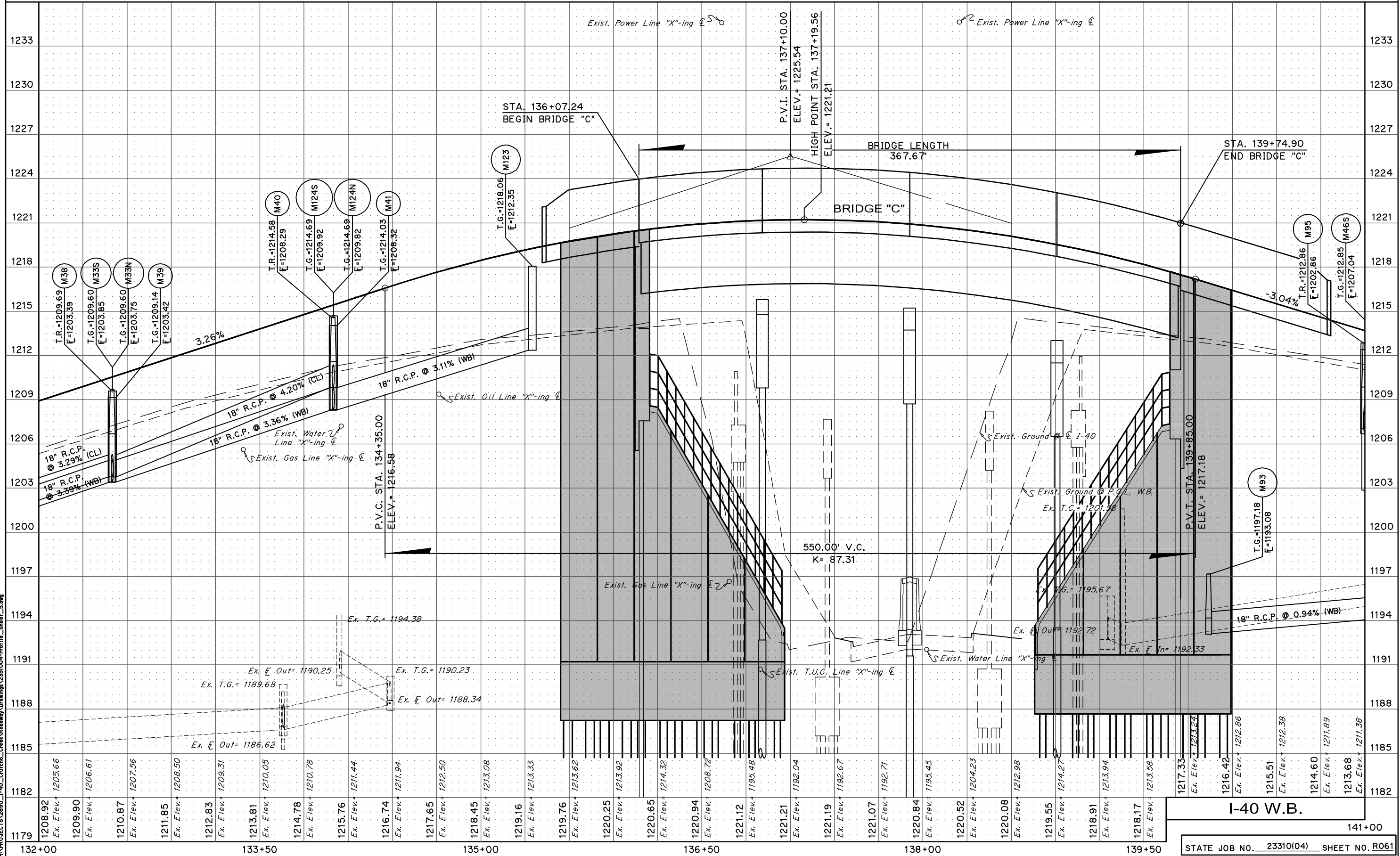
Q ₁₀₀ Contraction Scour = 0.12'	Q ₅₀₀ Contraction Scour = 0.70'
Q ₁₀₀ Pier Scour = 9.36'	Q ₅₀₀ Pier Scour = 6.83'
Q ₁₀₀ Total Scour = 9.48'	Q ₅₀₀ Total Scour = 7.53'



11/21/2018 2:58:24 PM
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BM17 ~ 'X' ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT.
 I-40 STA. 133+75.70 ELEV. 1193.35

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'



11/21/2018 2:58:07 PM
 H:\PROJECTS\233104\Drawings\233104-Profile_Sheet_5.dwg

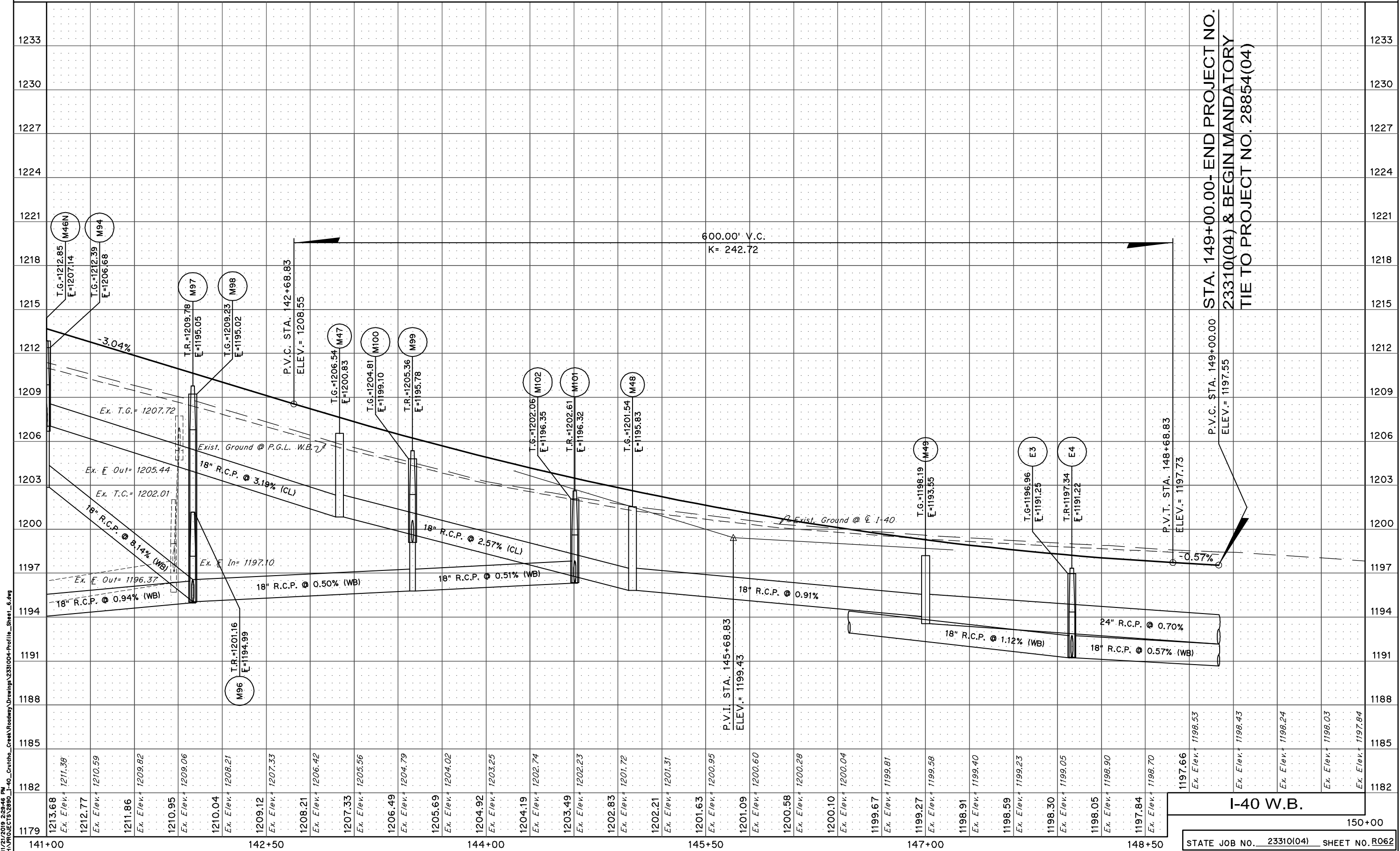
BM19 ~ 'I' ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. \bar{C} I-40 STA.141+49.56 ELEV. 1202.95

BM21 ~ 'I' ON CURB, NNW CURB RETURN, W. SIDE OF FENTON NISSAN CAR LOT. 129.70' LT. \bar{C} I-40 STA.149+23.80 ELEV. 1199.89

BM22 ~ 'I' ON CURB RETURN, 1ST DRIVE E. OF S.E. 15TH ST. & SERVICE RD. 127.77' RT. \bar{C} I-40 STA.141+39.36 ELEV. 1196.93

BM24 ~ 'I' ON N.N.W. CURB RETURN W. SIDE OF W. ENTR. TO RAY HIBDON'S CAR LOT 4920 120.83' RT. \bar{C} I-40 STA.147+31.41 ELEV. 1197.66

SCALE
HORT. 1" = 30'
VERT. 1" = 3'



STA. 149+00.00- END PROJECT NO. 23310(04) & BEGIN MANDATORY TIE TO PROJECT NO. 28854(04)

P.V.C. STA. 149+00.00 ELEV.= 1197.55

P.V.T. STA. 148+68.83 ELEV.= 1197.73

P.V.I. STA. 145+68.83 ELEV.= 1199.43

1197.66
Ex. Elev. 1198.53

1198.43
Ex. Elev. 1198.24

1198.03
Ex. Elev. 1197.84

150+00
STATE JOB NO. 23310(04) SHEET NO. R062

11/21/2019 2:28:46 PM H:\PROJECTS\28854_I-40_Curbs_Creek\Roadway\Drawings\2331004-Profile_Sheet_6.dwg

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'

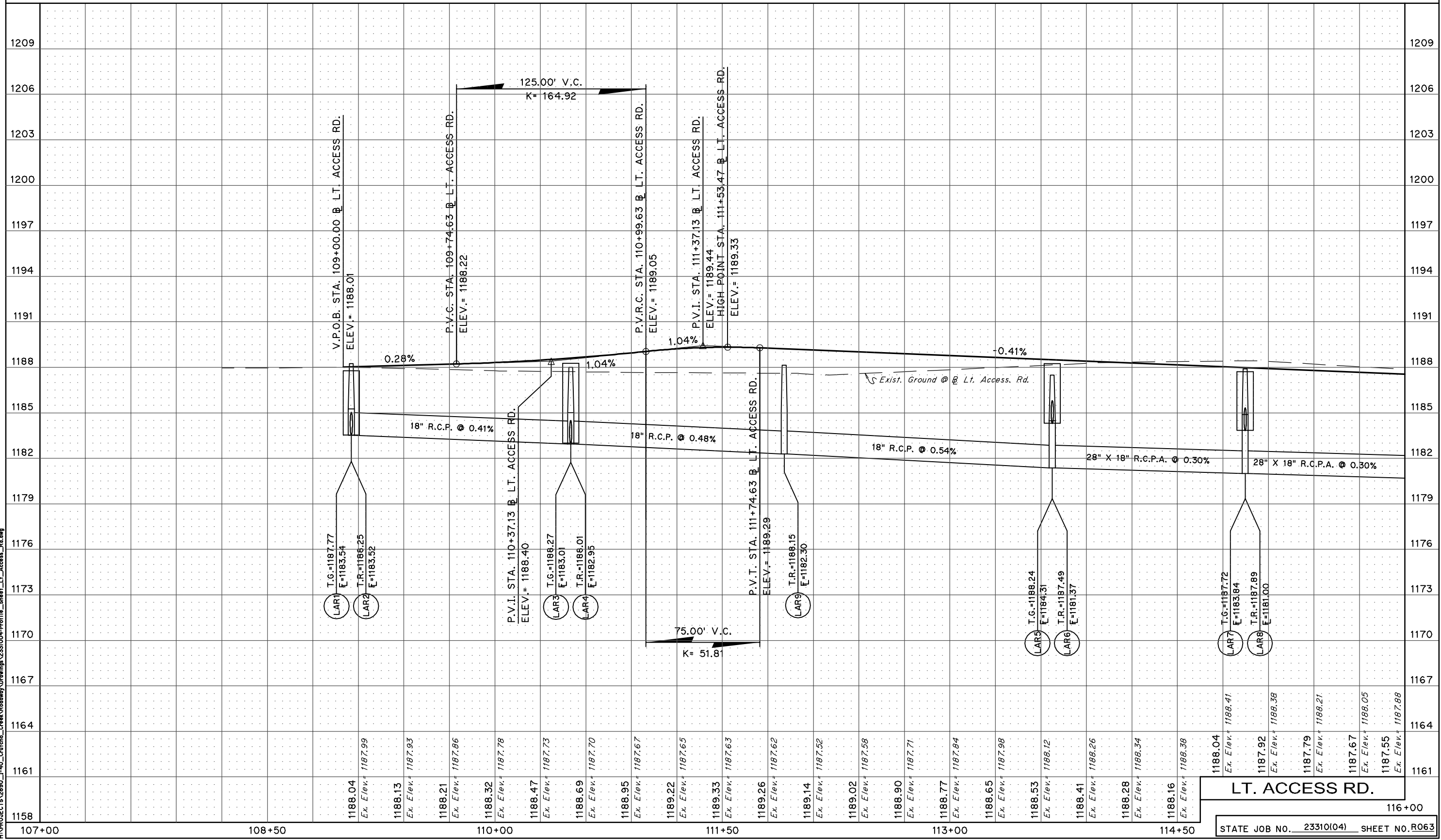
BM13 ~ 'I' ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN. 132.09' LT. \bar{C} I-40 STA.112+08.45 ELEV. 1187.67

BM14 ~ 'I' ON TOP OF S. CURB OF ON RAMP 126.42' RT. \bar{C} I-40 STA.108+43.94 ELEV. 1187.24

BM15 ~ 'I' ON S. HDWL OF RCP IN CENTER OF CUL-DE-SAC E. SIDE OF RAY TRENT PARK. 155.81' LT. \bar{C} I-40 STA.120+99.85 ELEV. 1182.93

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT. \bar{C} I-40 STA.113+21.61 ELEV. 1190.04

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LT. ACCESS RD.
 STATE JOB NO. 23310(04) SHEET NO. R063

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

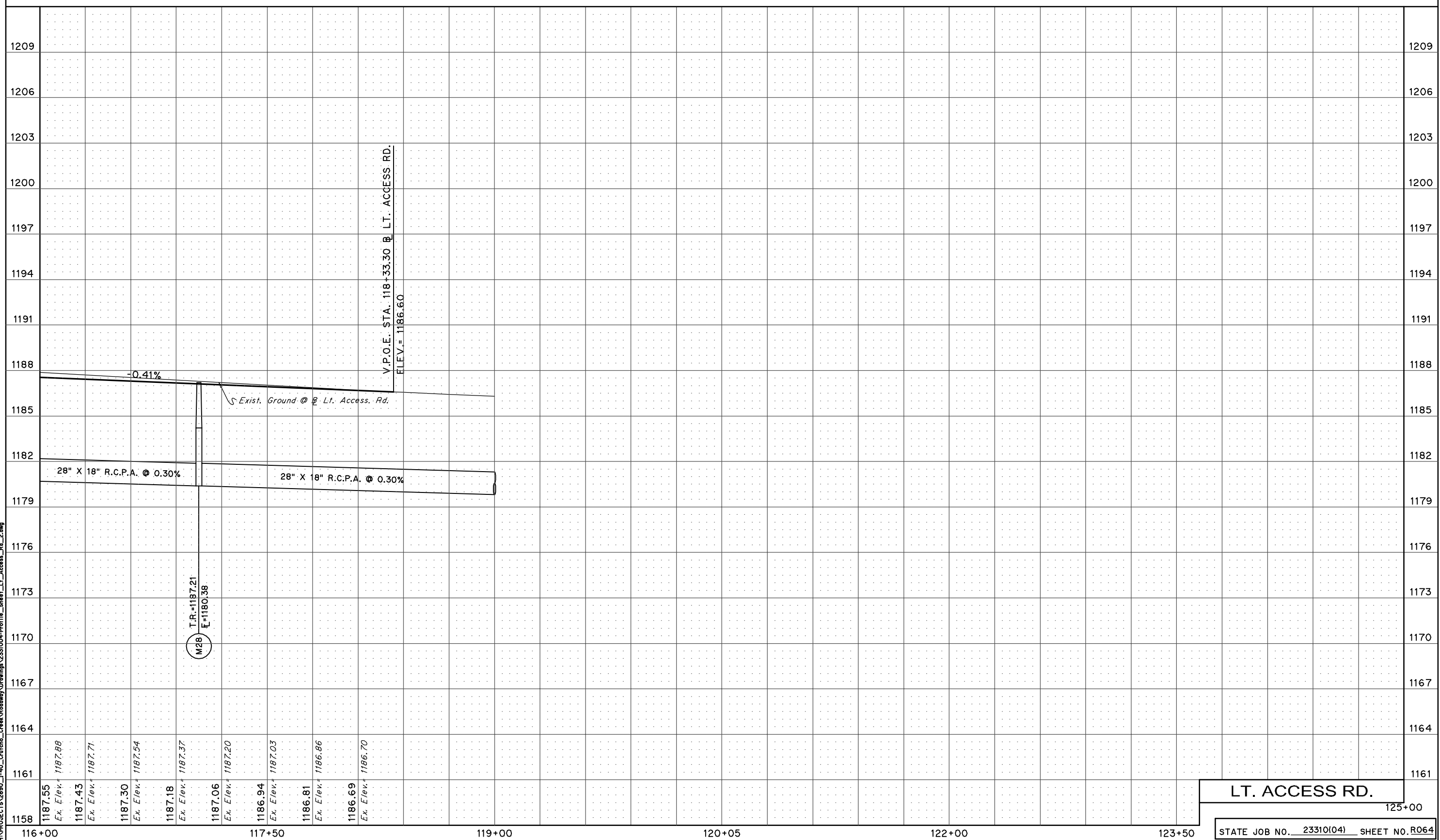
SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'

BM13 ~ 'I' ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN. 132.09' LT.
 ☉ I-40 STA.112+08.45 ELEV. 1187.67

BM14 ~ 'I' ON TOP OF S. CURB OF ON RAMP 126.42' RT.
 ☉ I-40 STA.108+43.94 ELEV. 1187.24

BM15 ~ 'I' ON S. HDWL OF RCP IN CENTER OF CUL-DE-SAC E. SIDE OF RAY TRENT PARK. 155.81' LT.
 ☉ I-40 STA.120+99.85 ELEV. 1182.93

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT.
 ☉ I-40 STA.113+21.61 ELEV. 1190.04



11/21/2018 2:31:43 PM
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LT. ACCESS RD.

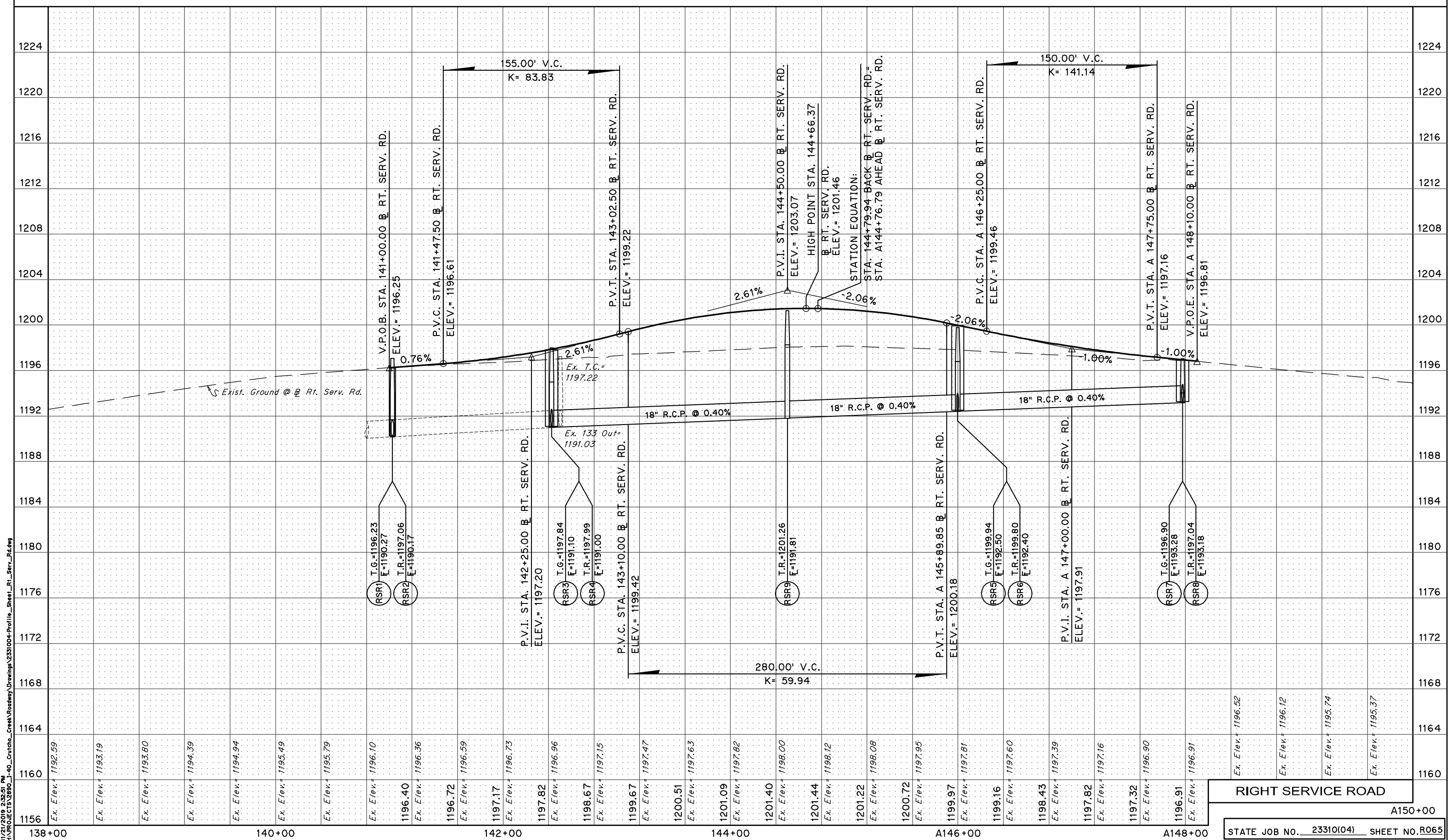
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SCALE
HORT. 1" = 40'
VERT. 1" = 4'

BM14 ~ 1' ON TOP OF S. CURB OF ON RAMP 126.42' RT.
I-40 STA.108+43.94 ELEV. 1187.24

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT.
I-40 STA.113+21.61 ELEV. 1190.04

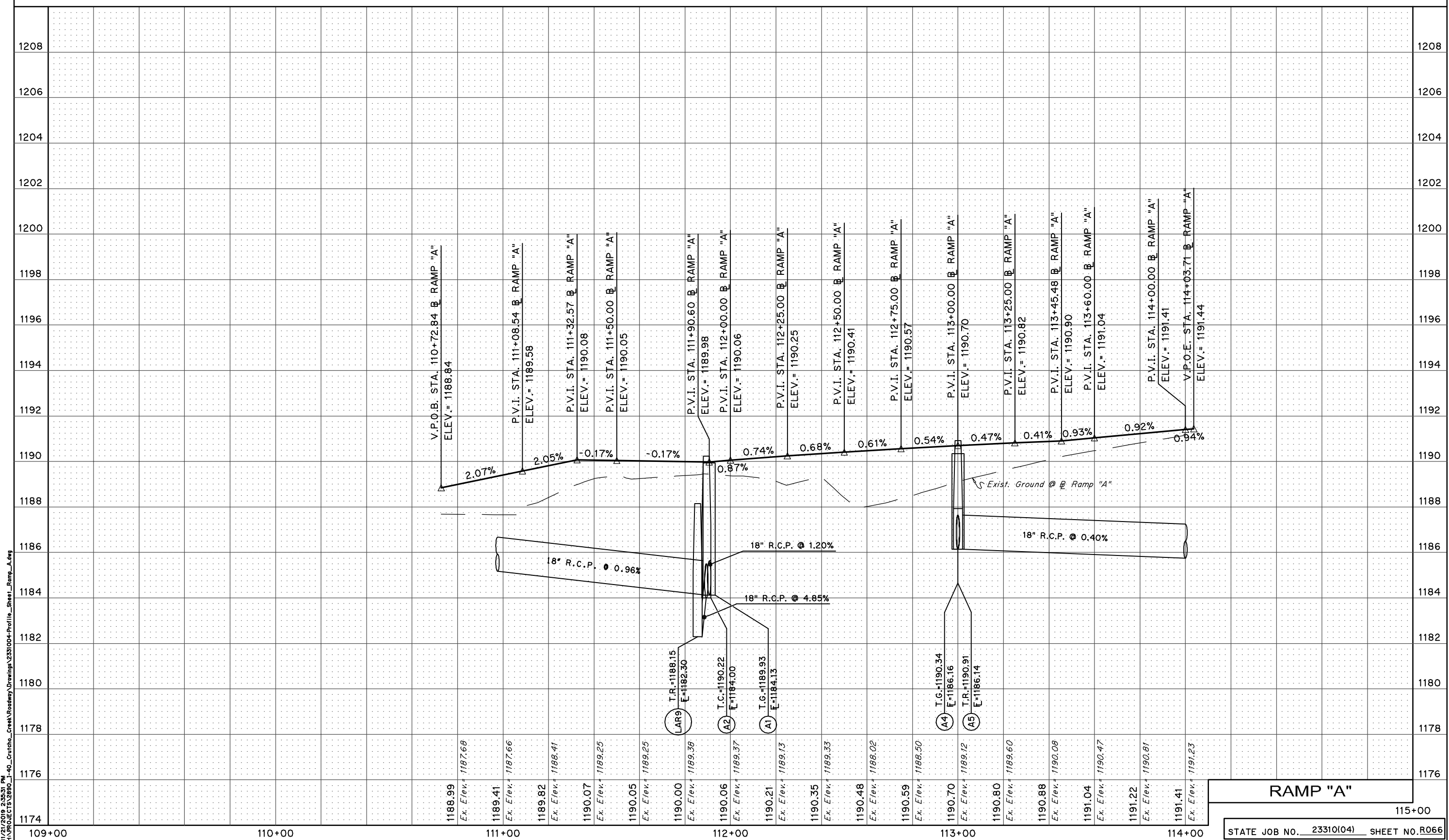


RIGHT SERVICE ROAD

11/21/2019 2:32:51 PM
H:\PROJECTS\23310_04_Crutch Creek\Roadway\Drawings\2331004-Profile_Sheet_R1_Serv_Rd.dwg

BM13 ~ 'X' ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN. 132.09' LT. \bar{C} I-40 STA. 112+08.45 ELEV. 1187.67

SCALE
HORT. 1" = 20'
VERT. 1" = 2'



RAMP "A"

115+00

11/21/2019 2:55:31 PM H:\PROJECTS\2890_I-40_Curbside_Creek\Roadway\Drawings\2331004-Profile_Sheet_Ramp_A.dwg

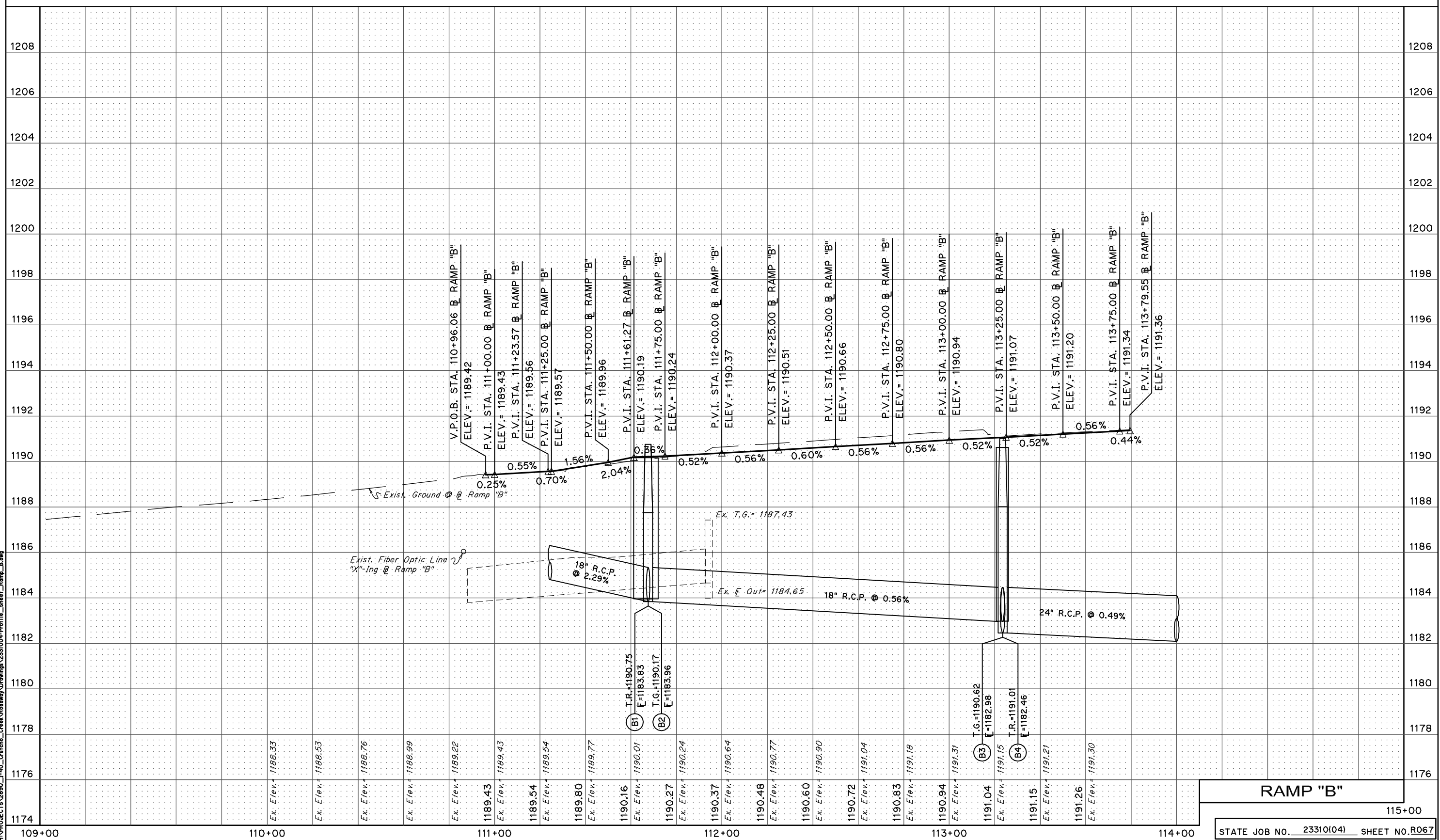
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	

SCALE
 HORT. 1" = 20'
 VERT. 1" = 2'

BM14 ~ 'X' ON TOP OF S. CURB OF ON RAMP 126.42' RT.
 @ I-40 STA.108+43.94 ELEV. 1187.24

BM16 ~ #5 REBAR APPROX. 30' S. L.P. & APPROX. 200' E. OF EDGE OF PAVEMENT FOR RAMP 155.82' RT.
 @ I-40 STA.113+21.61 ELEV. 1190.04

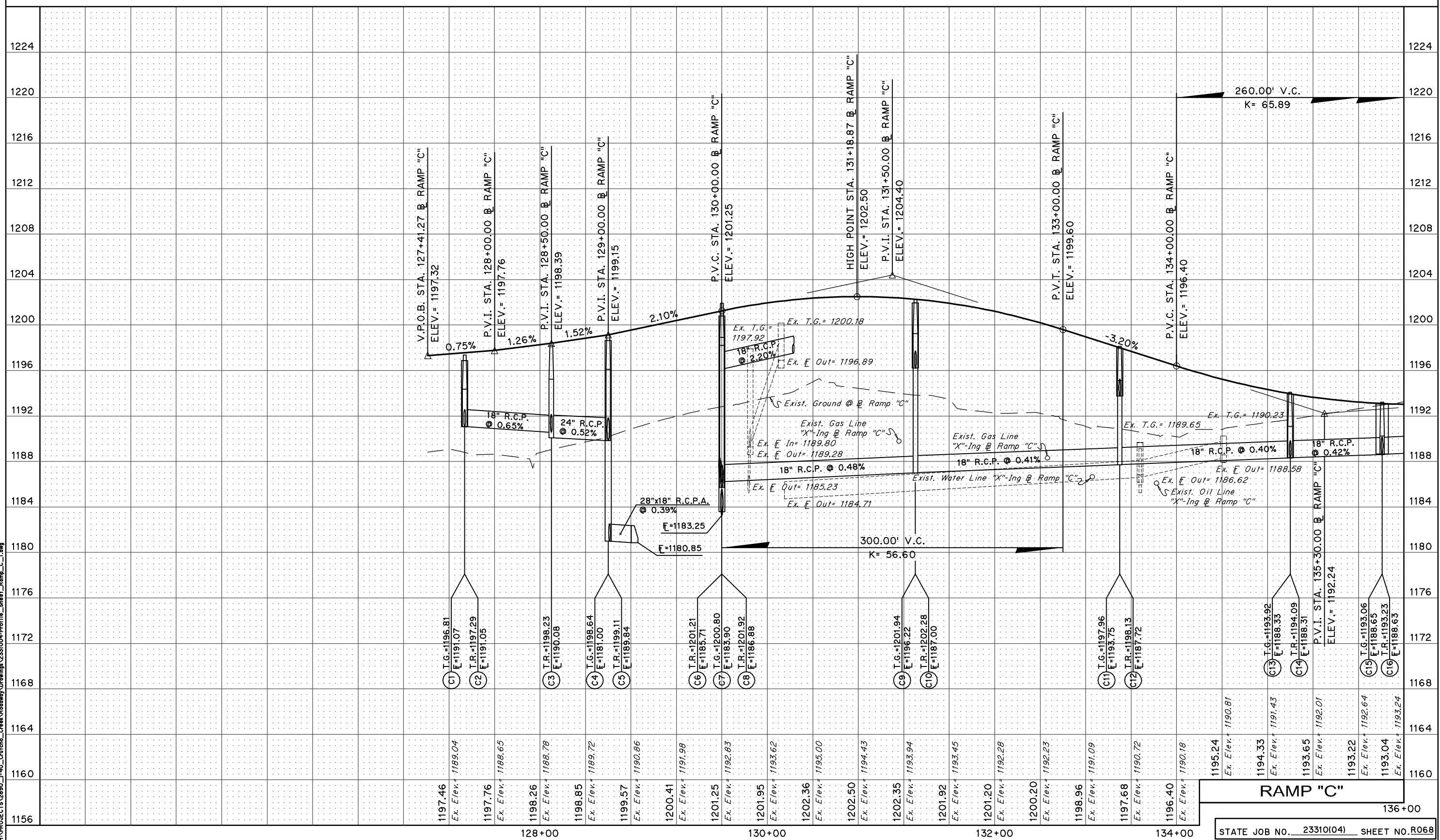
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RAMP "B"
 STATE JOB NO. 23310(04) SHEET NO. R067

BM17 ~ 'I' ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT.
 I-40 STA. 133+75.70 ELEV. 1193.35

SCALE
 HORT. 1" = 40'
 VERT. 1" = 4'



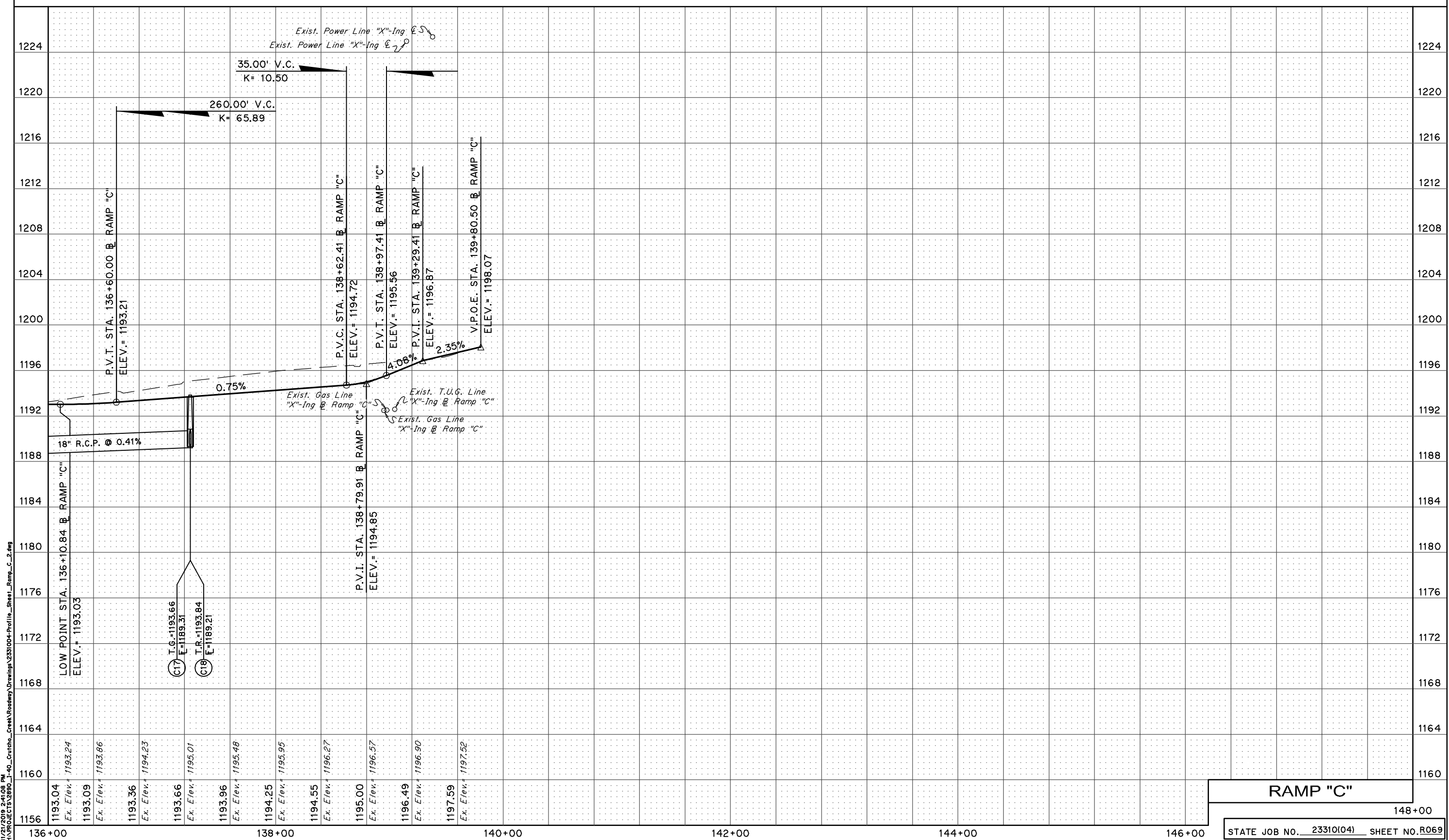
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FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

SCALE
HORT. 1" = 40'
VERT. 1" = 4'

BM17 ~ 1' ON SIDEWALK, CNTR. OF RETURN,
SW OF BLDG. 5, APT. #17 CEDAR HILLS APT.
179.41' LT.
℄ I-40 STA.133+75.70 ELEV. 1193.35

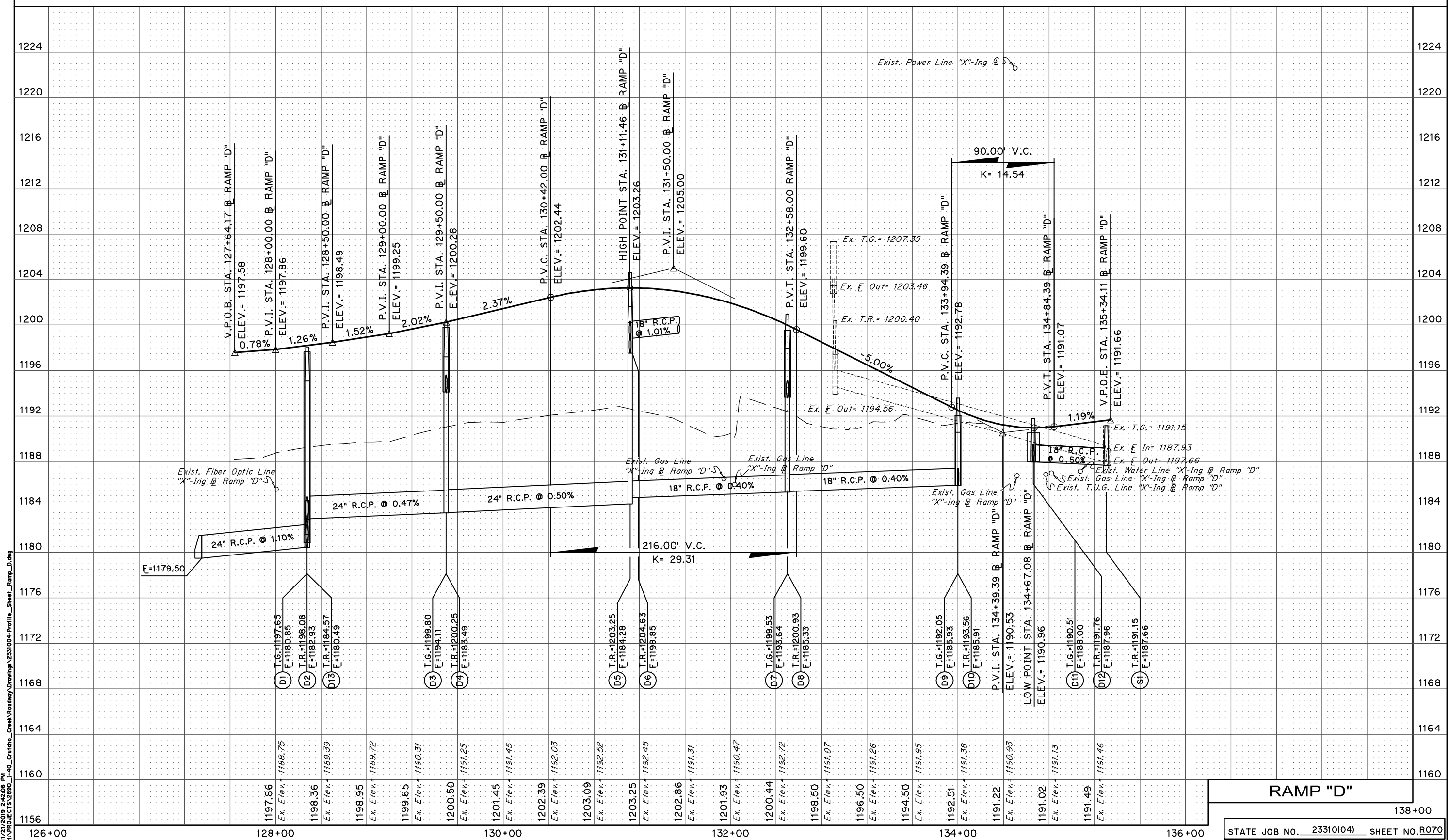


RAMP "C"
148+00
STATE JOB NO. 23310(04) SHEET NO. R069

11/21/2019 2:41:08 PM
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SCALE
HORT. 1" = 40'
VERT. 1" = 4'

BM18 ~ 'D' ON TOP OF W. HDWL OF 30" RCP
12' W. OF ASPH. TRAIL, SW OF CRUTCHO CRK.
BRIDGE 136.06' RT.
℄ I-40 STA.126+35.52 ELEV. 1182.81



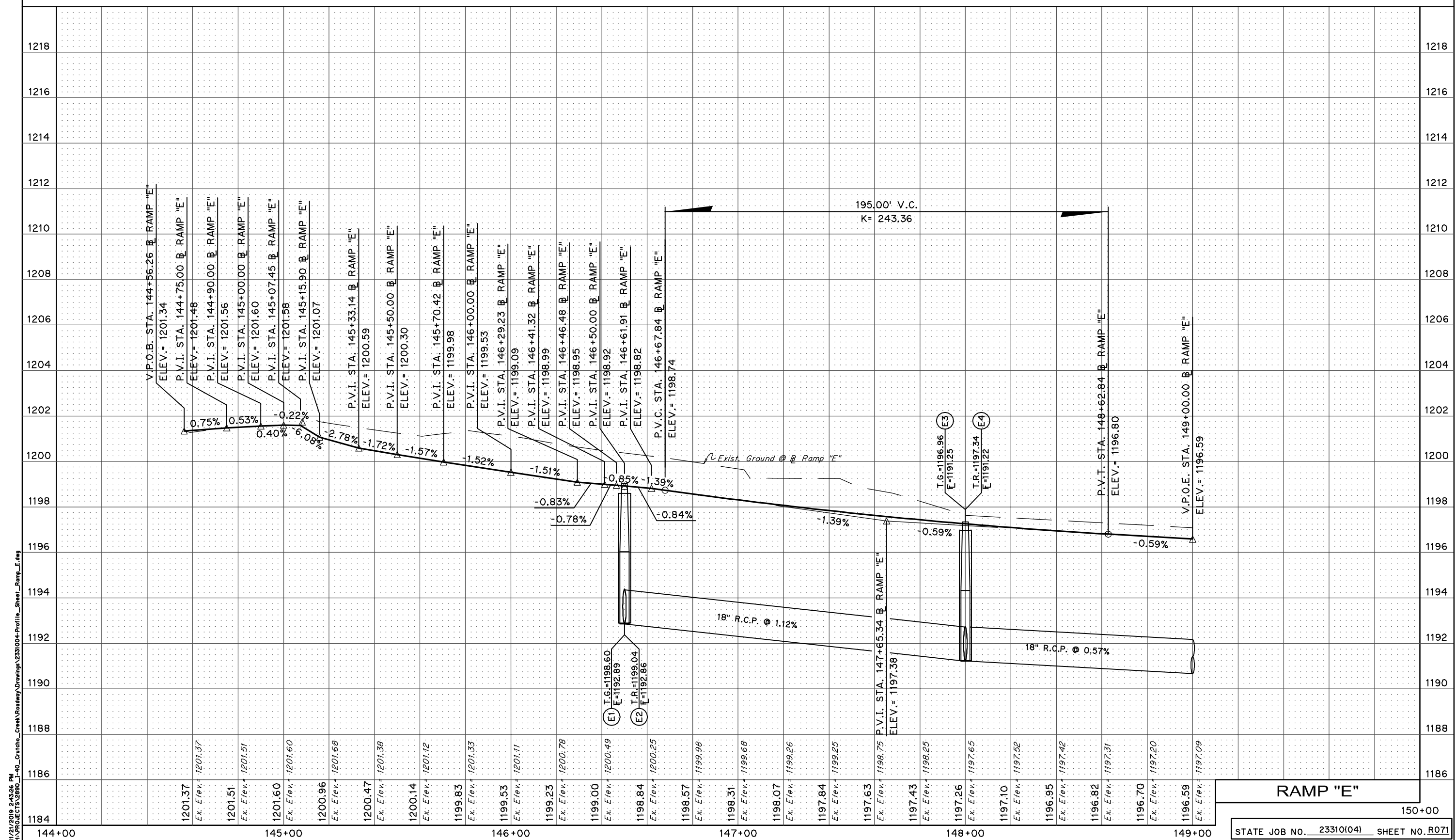
11/21/2019 2:42:08 PM H:\PROJECTS\2890_I-40_Crutcho_Creek\Roadway\Drawings\2331004_Profile_Sheet_Ramp_D.dwg

RAMP "D"

SCALE
 HORT. 1" = 20'
 VERT. 1" = 2'

BM19 ~ 'I' ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT.
 Ⓢ I-40 STA.141+49.56 ELEV. 1202.95

BM21 ~ 'I' ON CURB, NNW CURB RETURN, W. SIDE OF FENTON NISSAN CAR LOT. 129.70' LT.
 Ⓢ I-40 STA.149+23.80 ELEV. 1199.89



11/21/2019 2:43:26 PM H:\PROJECTS\2890_J-40_Curbside_Creek\Roadway\Drawings\2331004-Profile_Sheet_Ramp_E.dwg

RAMP "E"

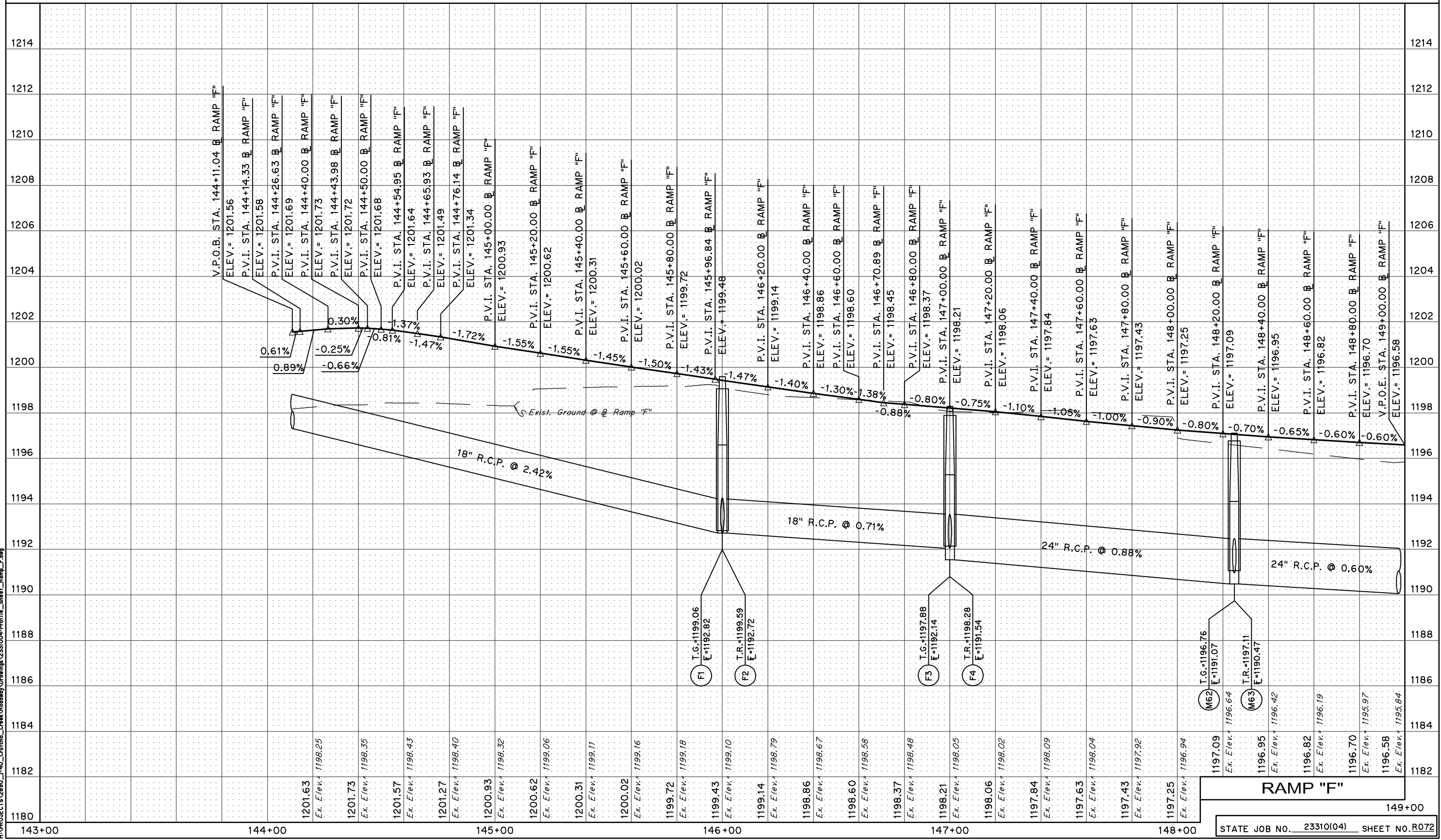
150+00

SCALE
 HORT. 1" = 20'
 VERT. 1" = 2'

BM22 ~ ∇ ON CURB RETURN, 1ST DRIVE E. OF S.E. 15TH ST. & SERVICE RD. 127.77' RT. ∇ I-40 STA.141+39.36 ELEV. 1196.93

BM24 ~ ∇ ON N.N.W. CURB RETURN W. SIDE OF W. ENTR. TO RAY HIBDON'S CAR LOT 4920 120.83' RT. ∇ I-40 STA.147+31.41 ELEV. 1197.66

11/21/2019 2:44:26 PM H:\PROJECTS\2890_I-40_Curbside_Creek\Roadway\Drawings\2331004-Profile_Sheet_Ramp_F.dwg

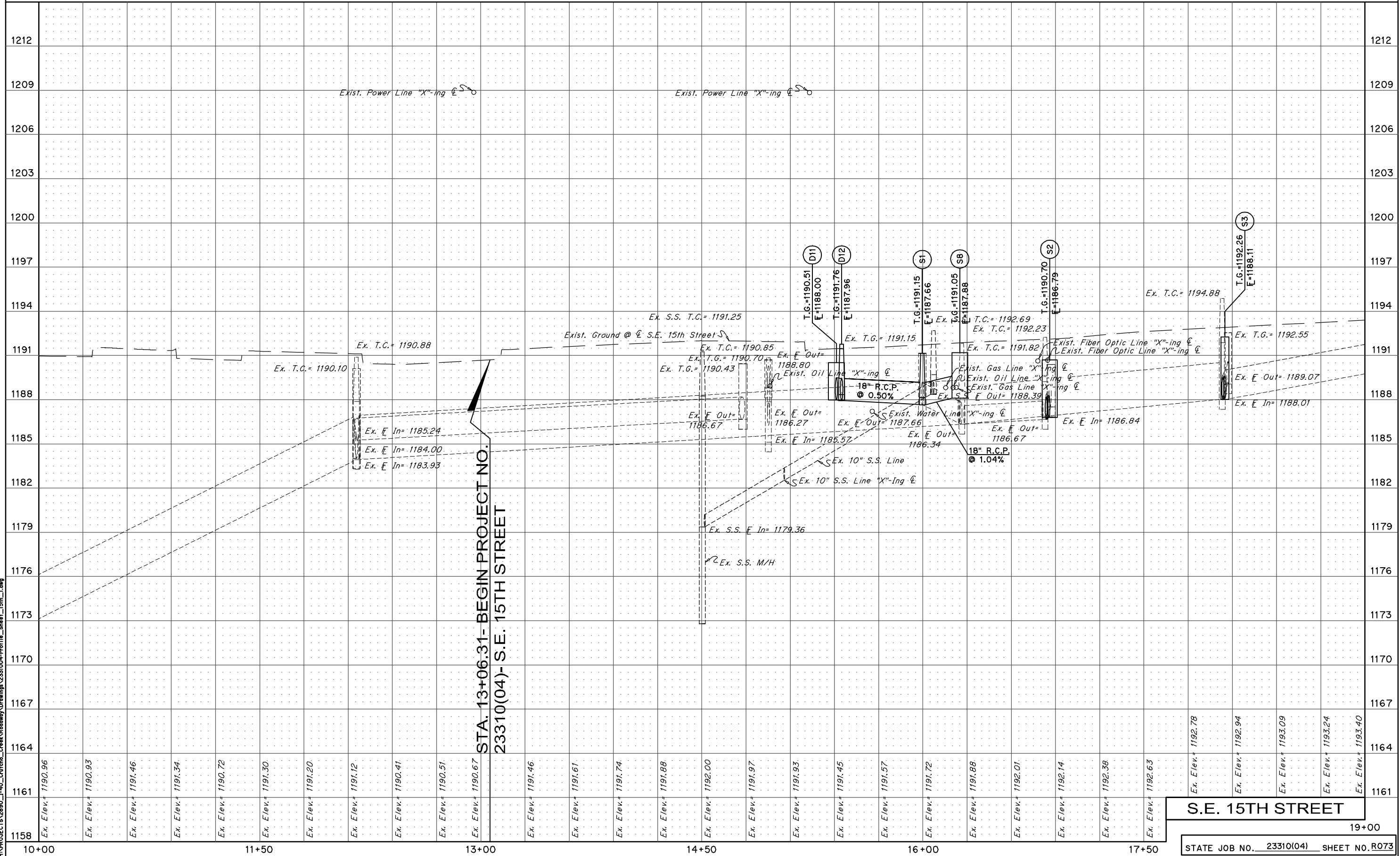


RAMP "F"
 STATE JOB NO. 23310(04) SHEET NO. R072

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

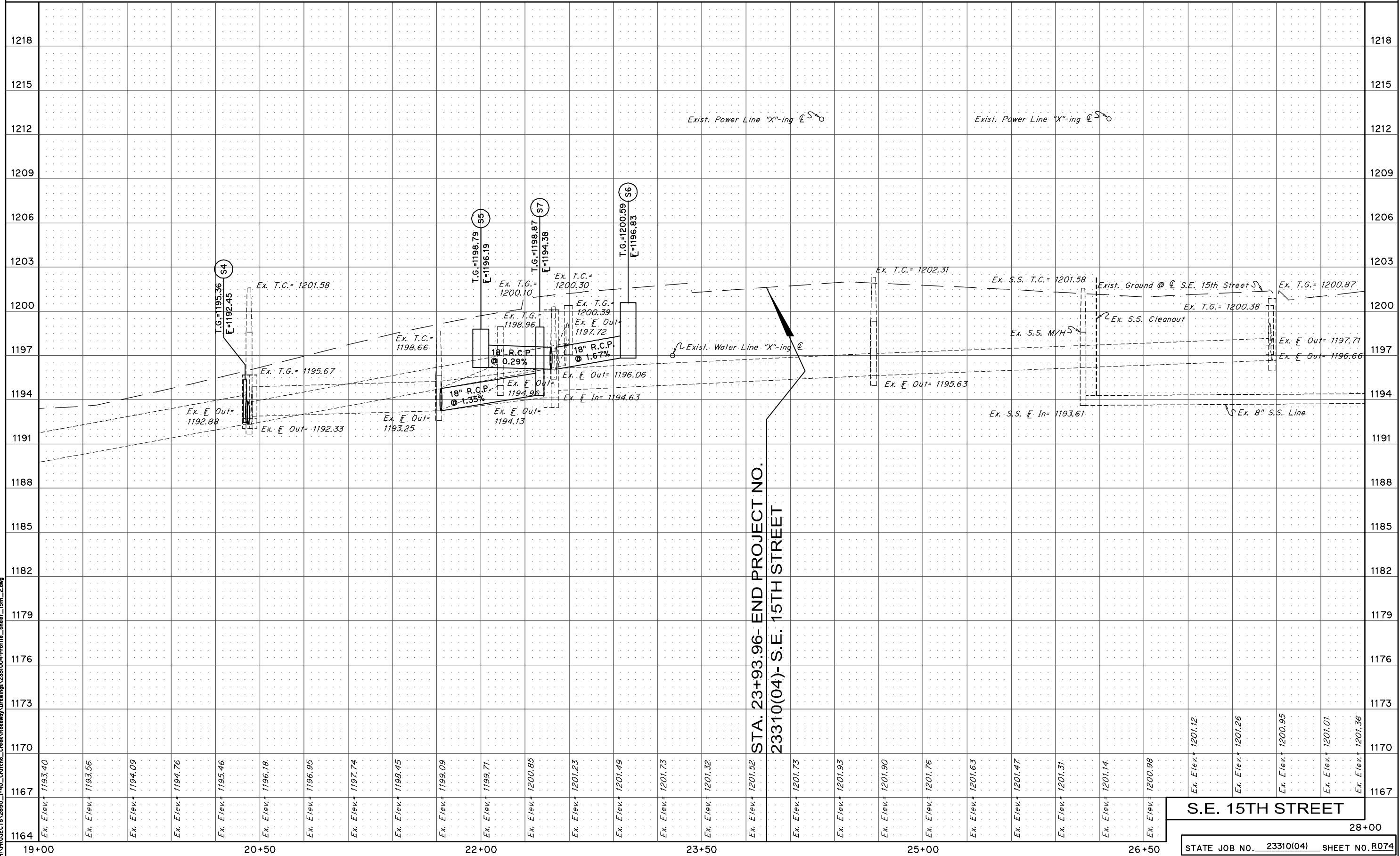
SCALE
HORT. 1" = 30'
VERT. 1" = 3'



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S.E. 15TH STREET

SCALE
 HORT. 1" = 30'
 VERT. 1" = 3'

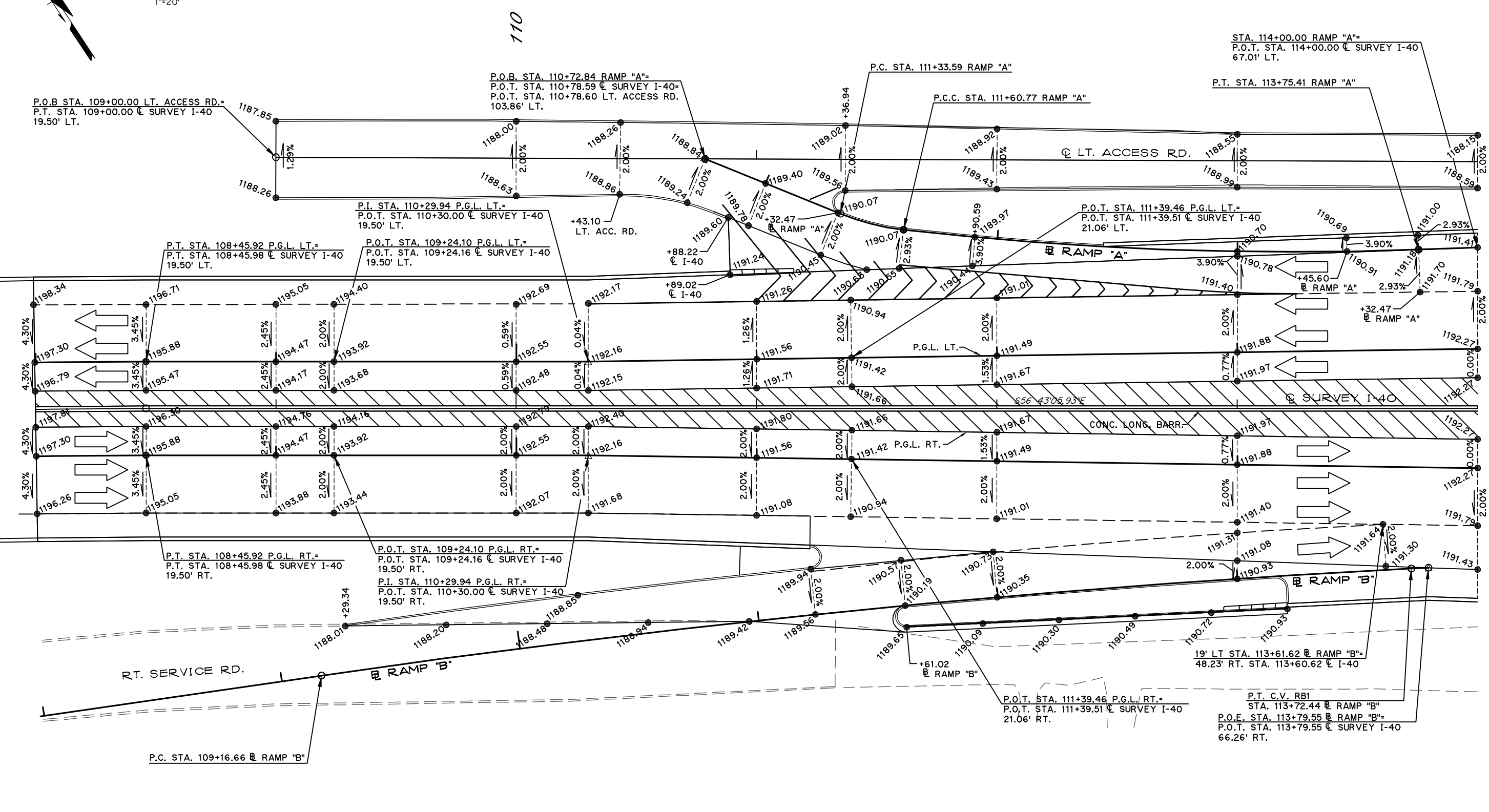
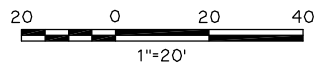


STA. 23+93.96- END PROJECT NO.
 23310(04)- S.E. 15TH STREET

S.E. 15TH STREET

11/21/2019 2:46:53 PM
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS		DATE	



11/21/2018 2:48:07 PM H:\PROJECTS\233104-RAMPS A-B.dwg

DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	MAP	07/17
APPROVED	HDM	07/17
SQUAD	POE	

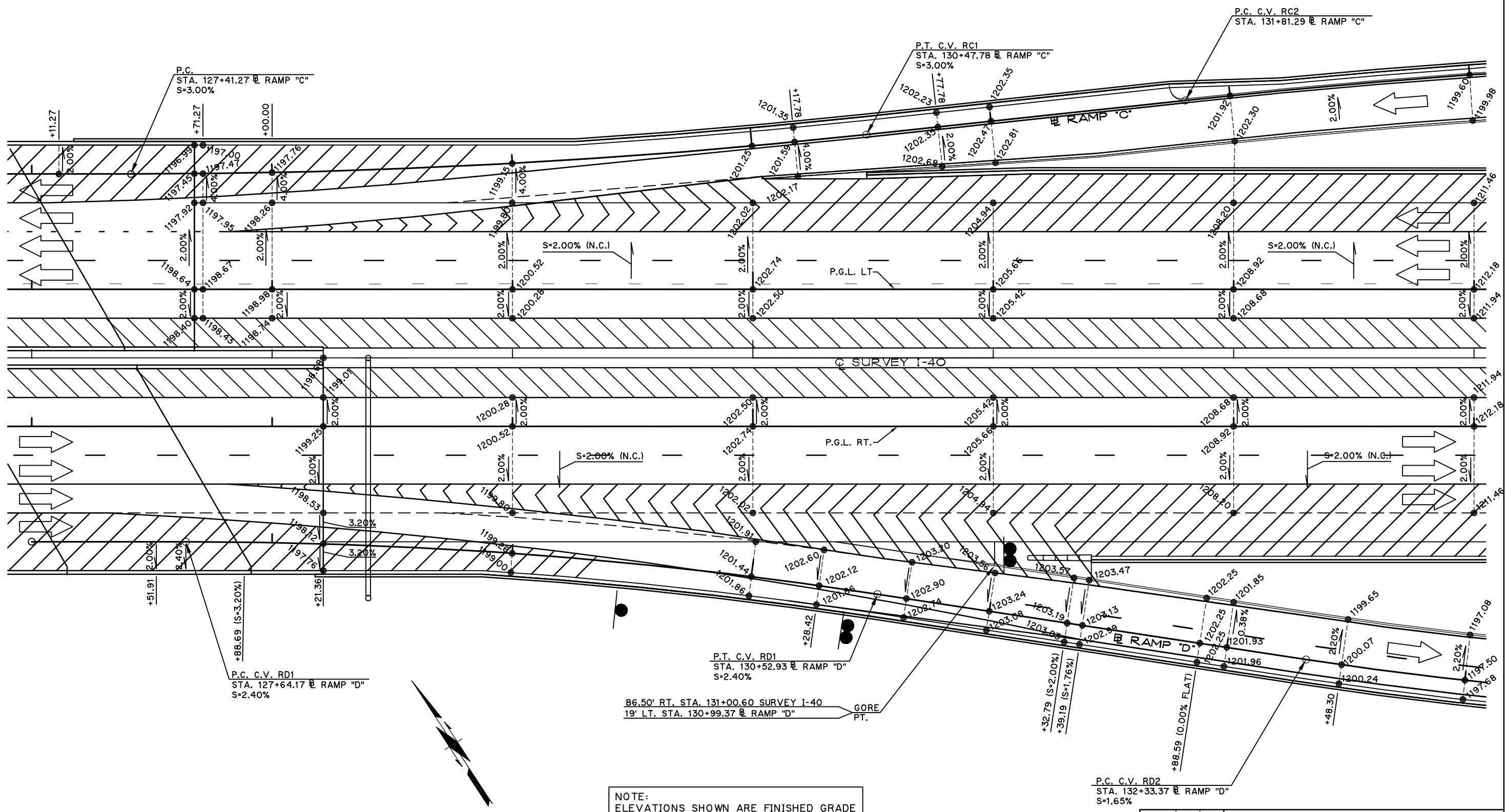
TERMINAL DETAILS RAMPS A & B

STATE JOB NO. 23310(04) SHEET NO. R075

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

130



NOTE:
ELEVATIONS SHOWN ARE FINISHED GRADE
TOP OF PAVING UNLESS OTHERWISE
NOTED.

DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	JJC	07/17
APPROVED	HDM	07/17
SQUAD	POE	

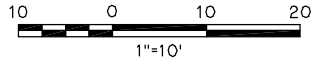
**TERMINAL DETAILS
RAMPS C & D**

STATE JOB NO. 23310(04) SHEET NO. R076

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE

145



P.O.B. STA. 144+56.26 RAMP "E"
P.O.T. STA. 144+64.14 C SURVEY I-40, 113.09' LT.

P.C. STA. 145+15.10
RAMP "E"

P.C.C. STA. 145+15.90
RAMP "E"

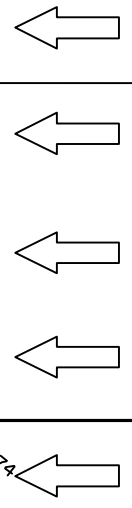
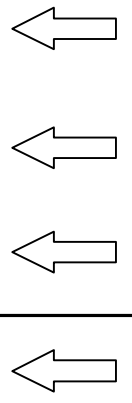
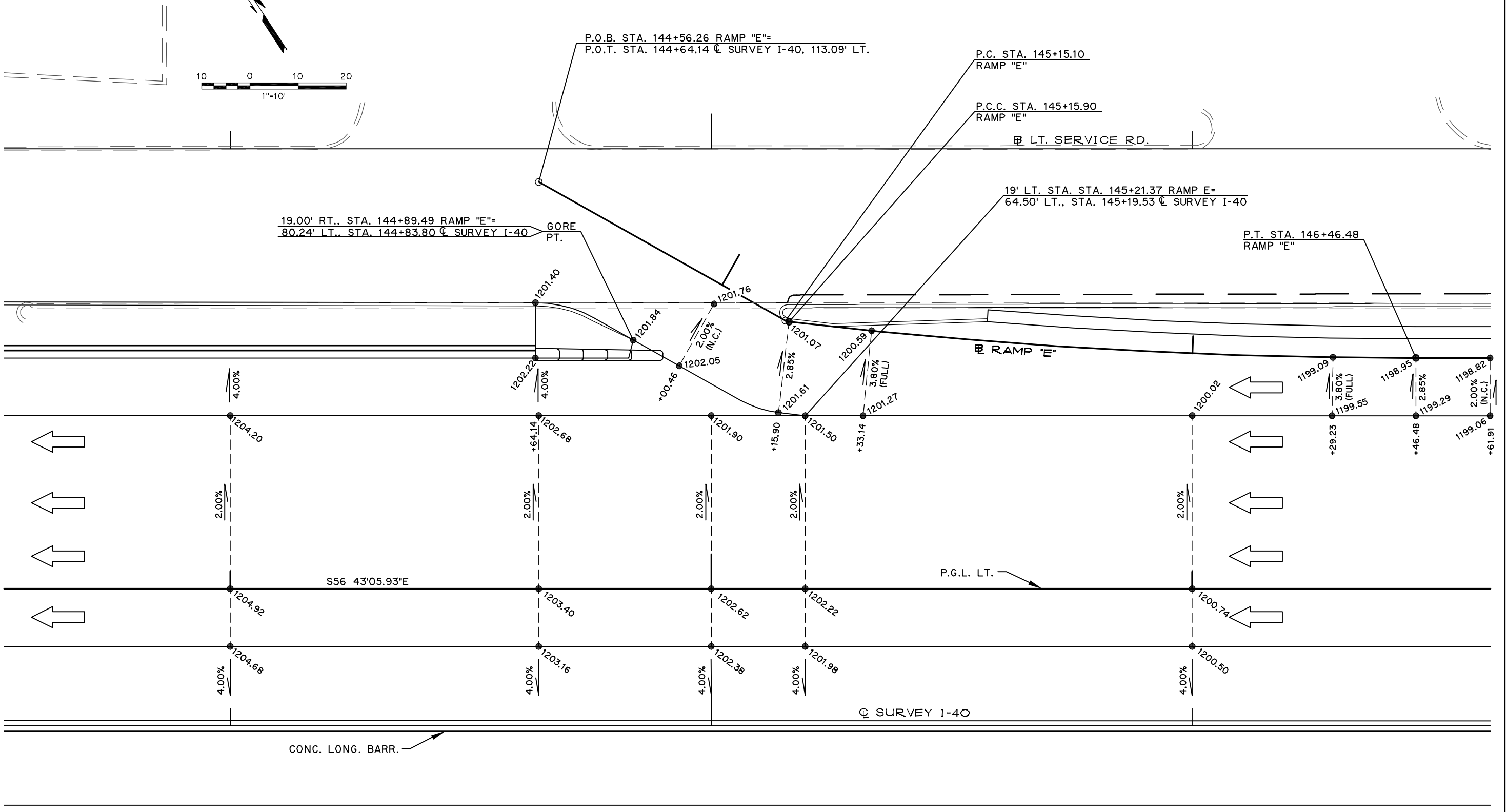
LT. SERVICE RD.

19' LT. STA. STA. 145+21.37 RAMP E=
64.50' LT., STA. 145+19.53 C SURVEY I-40

P.T. STA. 146+46.48
RAMP "E"

19.00' RT., STA. 144+89.49 RAMP "E"
80.24' LT., STA. 144+83.80 C SURVEY I-40

GORE PT.



11/21/2019 2:52:59 PM H:\PROJECTS\2890_I-40_Cutcho_Creek\Roadway\Drawings\2331004-RAMPS E.dwg

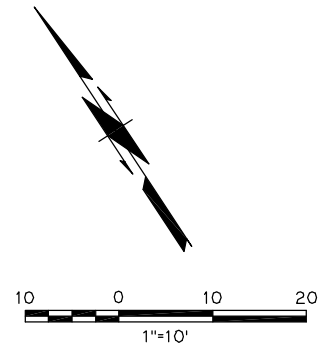
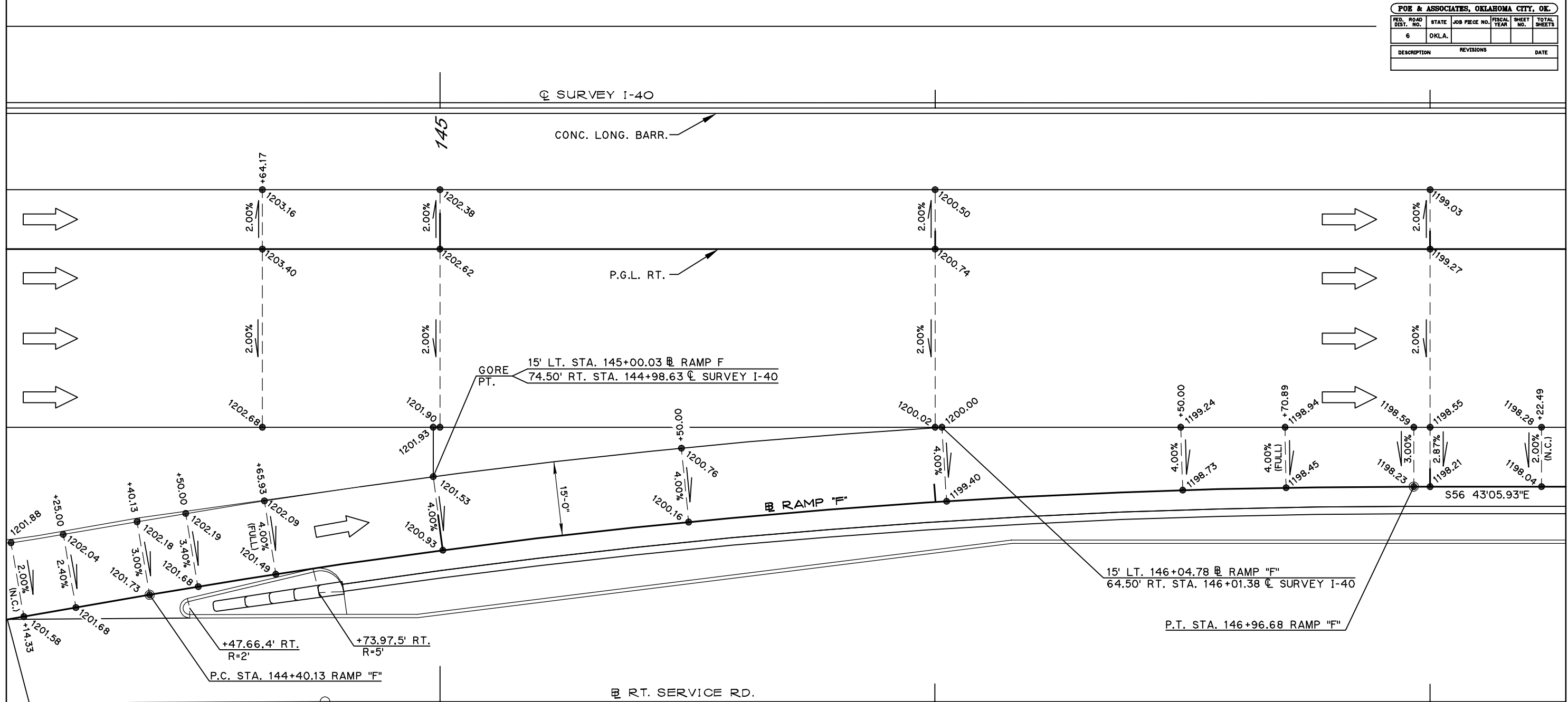
DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	JJC	09/17
APPROVED	HDM	09/17
SQUAD	POE	

TERMINAL DETAILS RAMP E

STATE JOB NO. 23310(04) SHEET NO. R077

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE



DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	JJC	09/17
APPROVED	HDM	09/17
SQUAD	POE	

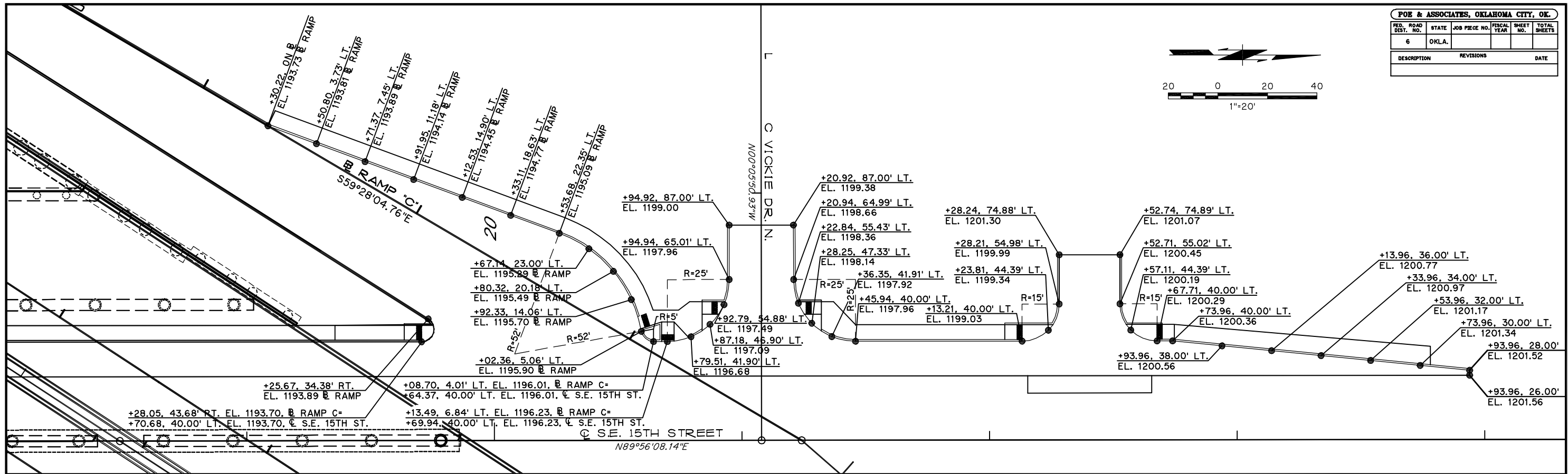
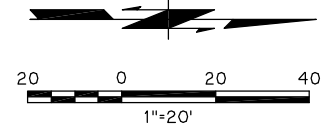
**TERMINAL DETAILS
RAMP F**

STATE JOB NO. 23310(04) SHEET NO. R078

11/21/2018 2:53:46 PM
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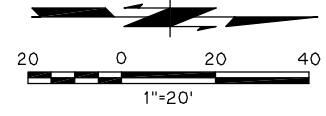
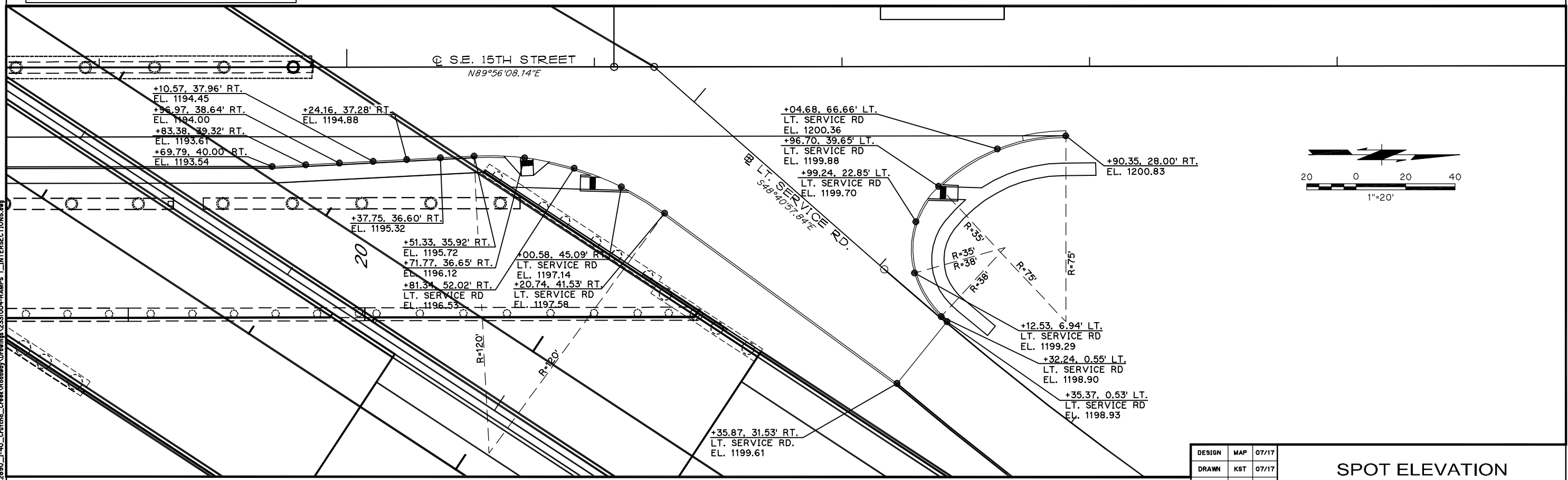
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE



ALL STATION, OFFSET & ELEVATION REFERENCE FROM S.E. 15TH STREET UNLESS OTHERWISE NOTED

RAMP "C" & S.E. 15TH STREET



LT. SERVICE RD & S.E. 15TH STREET

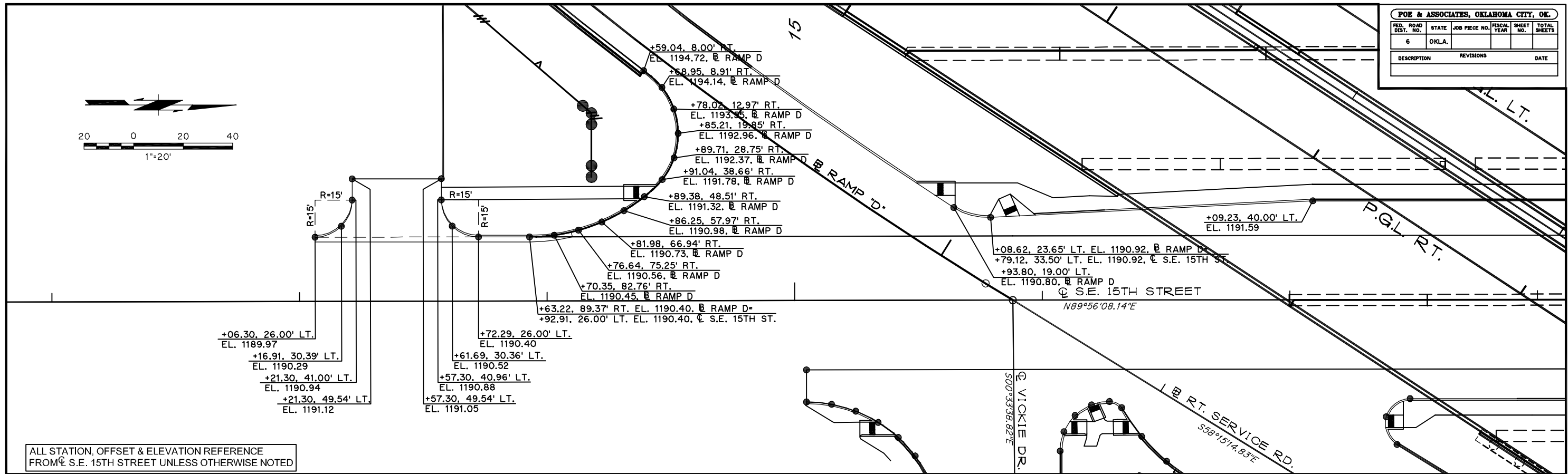
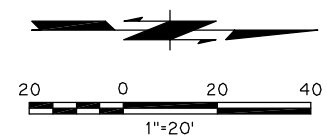
DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	JJC	07/17
APPROVED	HDM	07/17
SQUAD	POE	

SPOT ELEVATION
DETAIL SHEET 1 OF 2

STATE JOB NO. 23310(04) SHEET NO. R079

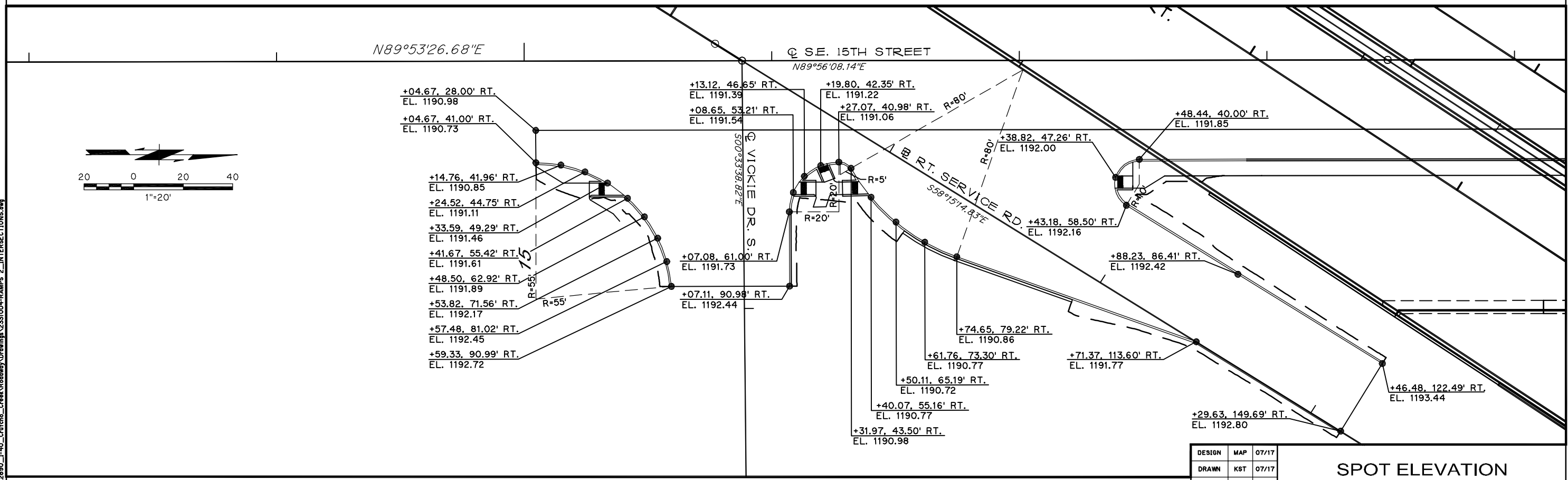
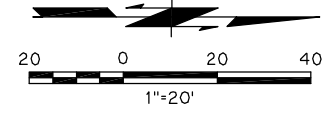
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION		REVISIONS	DATE		



ALL STATION, OFFSET & ELEVATION REFERENCE FROM $\text{C S.E. 15TH STREET}$ UNLESS OTHERWISE NOTED

RAMP "D" & S.E. 15TH STREET



RT. SERVICE RD & S.E. 15TH STREET

DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	JJC	09/17
APPROVED	HDM	09/17
SQUAD	POE	

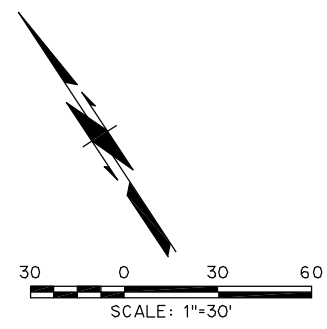
**SPOT ELEVATION
DETAIL SHEET 2 OF 2**

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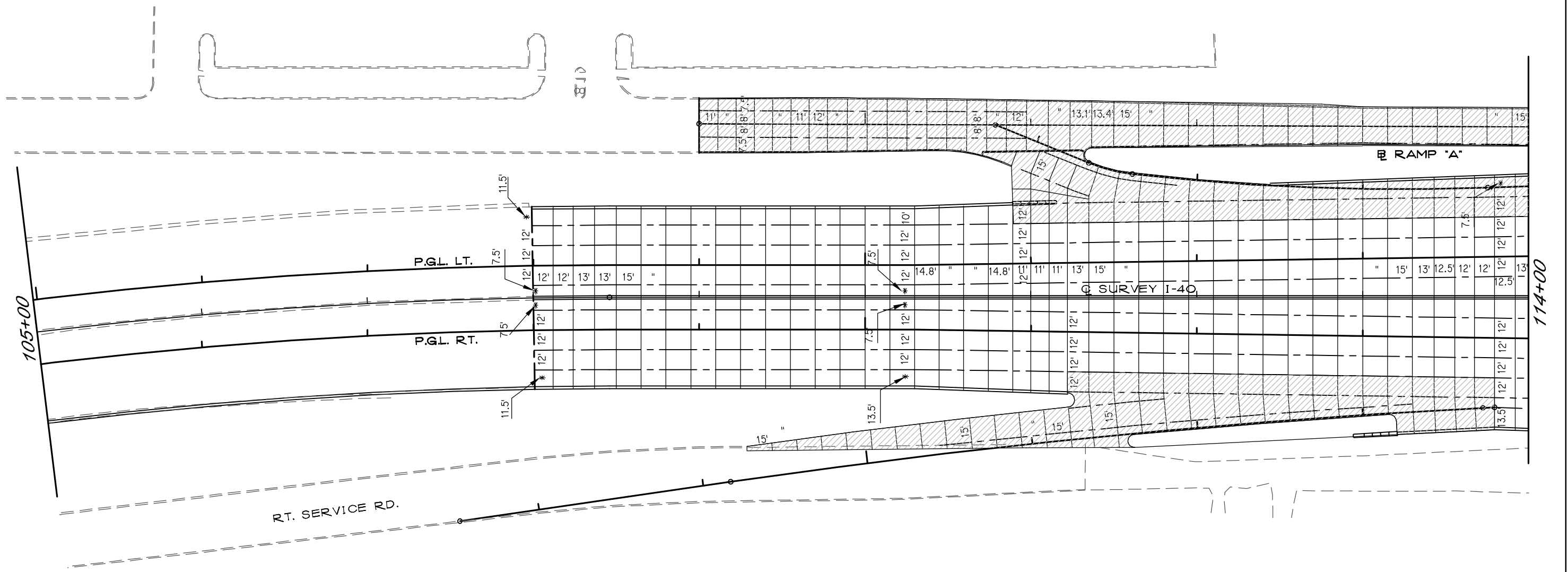
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FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE



110



PAVING LEGEND	
	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT

LEGEND	
	EXPANSION
	CONTRACTION
	LONGITUDINAL

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

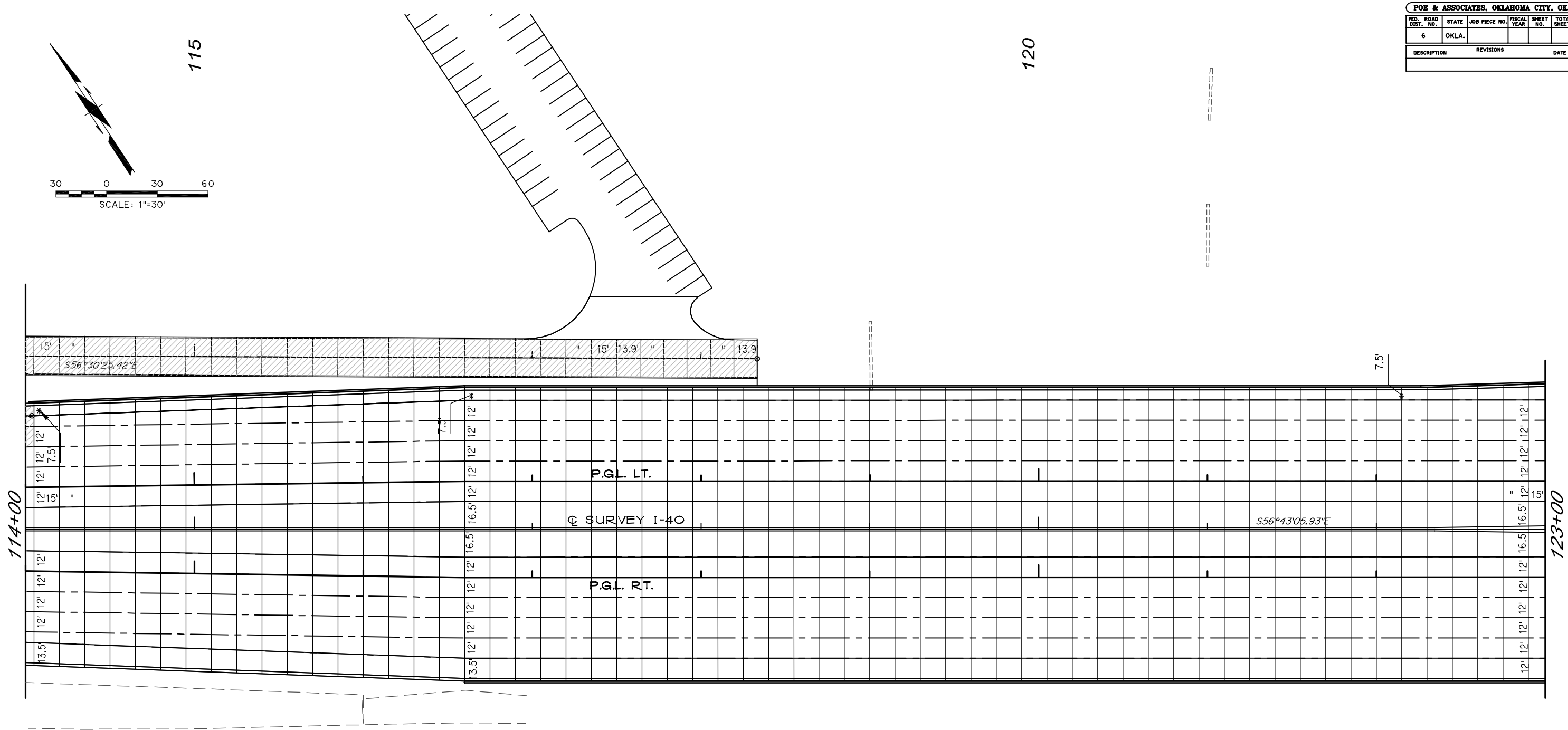
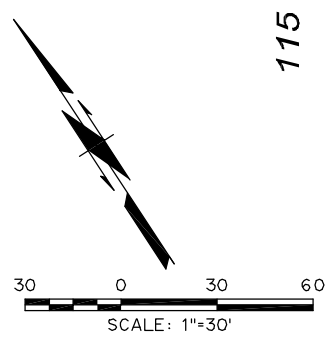
**JOINT LAYOUT
SHEET 1 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R081

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FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

DESCRIPTION	REVISIONS	DATE



PAVING LEGEND

	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT

LEGEND

	EXPANSION
	CONTRACTION
	LONGITUDINAL

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

**JOINT LAYOUT
SHEET 2 OF 7**

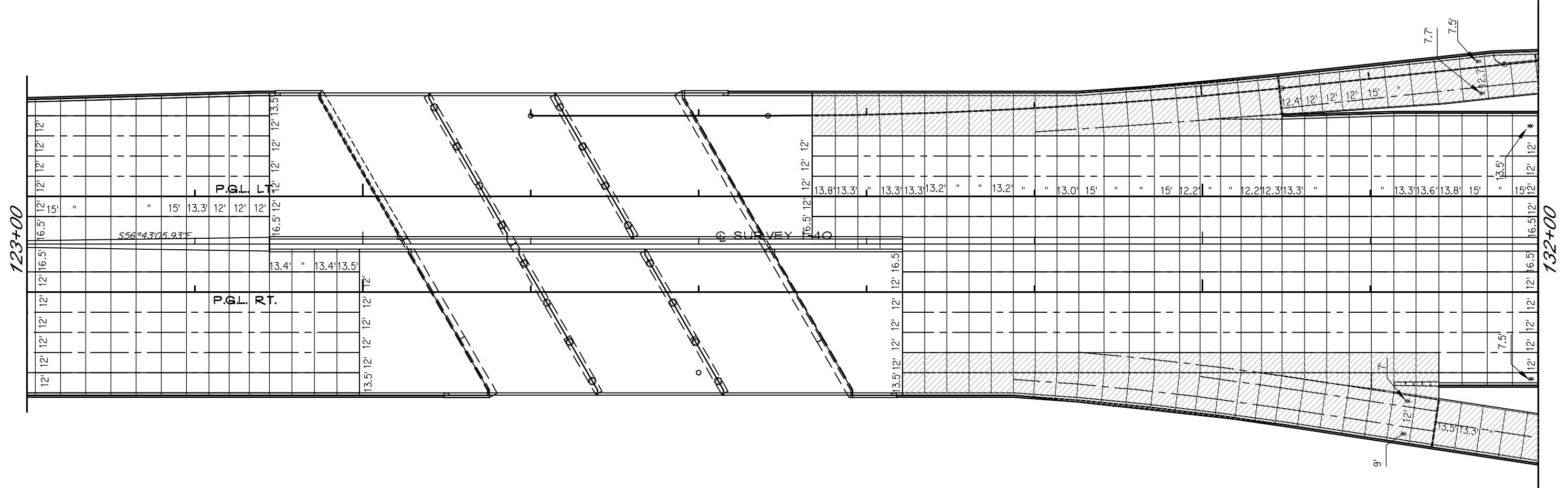
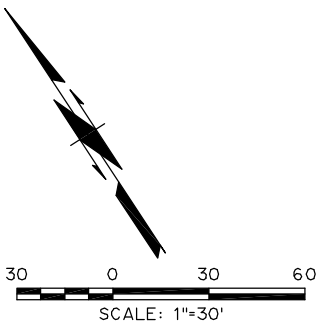
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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS			DATE	

125

130



PAVING LEGEND	
	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT

LEGEND	
	EXPANSION
	CONTRACTION
	LONGITUDINAL

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

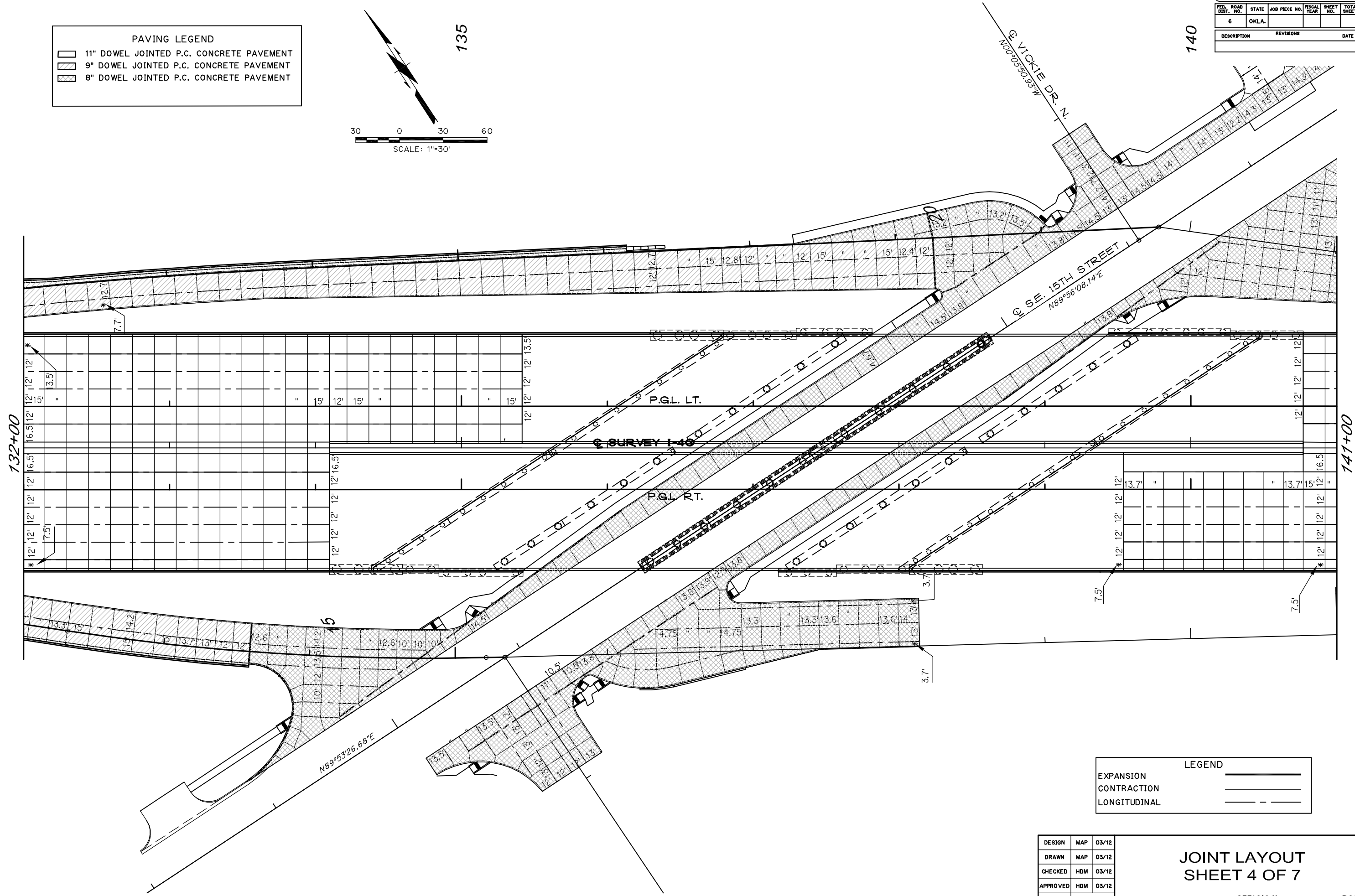
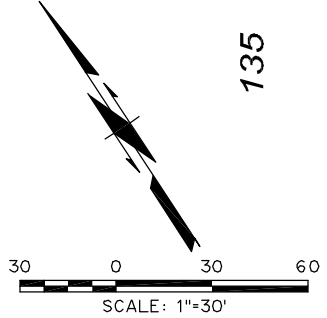
JOINT LAYOUT SHEET 3 OF 7

STATE JOB NO. 23310(04) SHEET NO. R083

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POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION		REVISIONS		DATE		

PAVING LEGEND	
	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT



LEGEND	
EXPANSION	
CONTRACTION	
LONGITUDINAL	

DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

**JOINT LAYOUT
SHEET 4 OF 7**

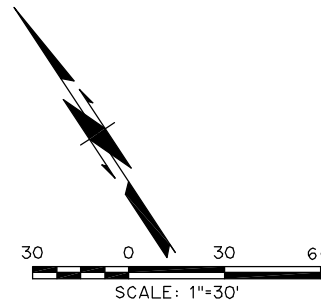
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POE & ASSOCIATES, OKLAHOMA CITY, OK.					
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6	OKLA.				
DESCRIPTION		REVISIONS	DATE		

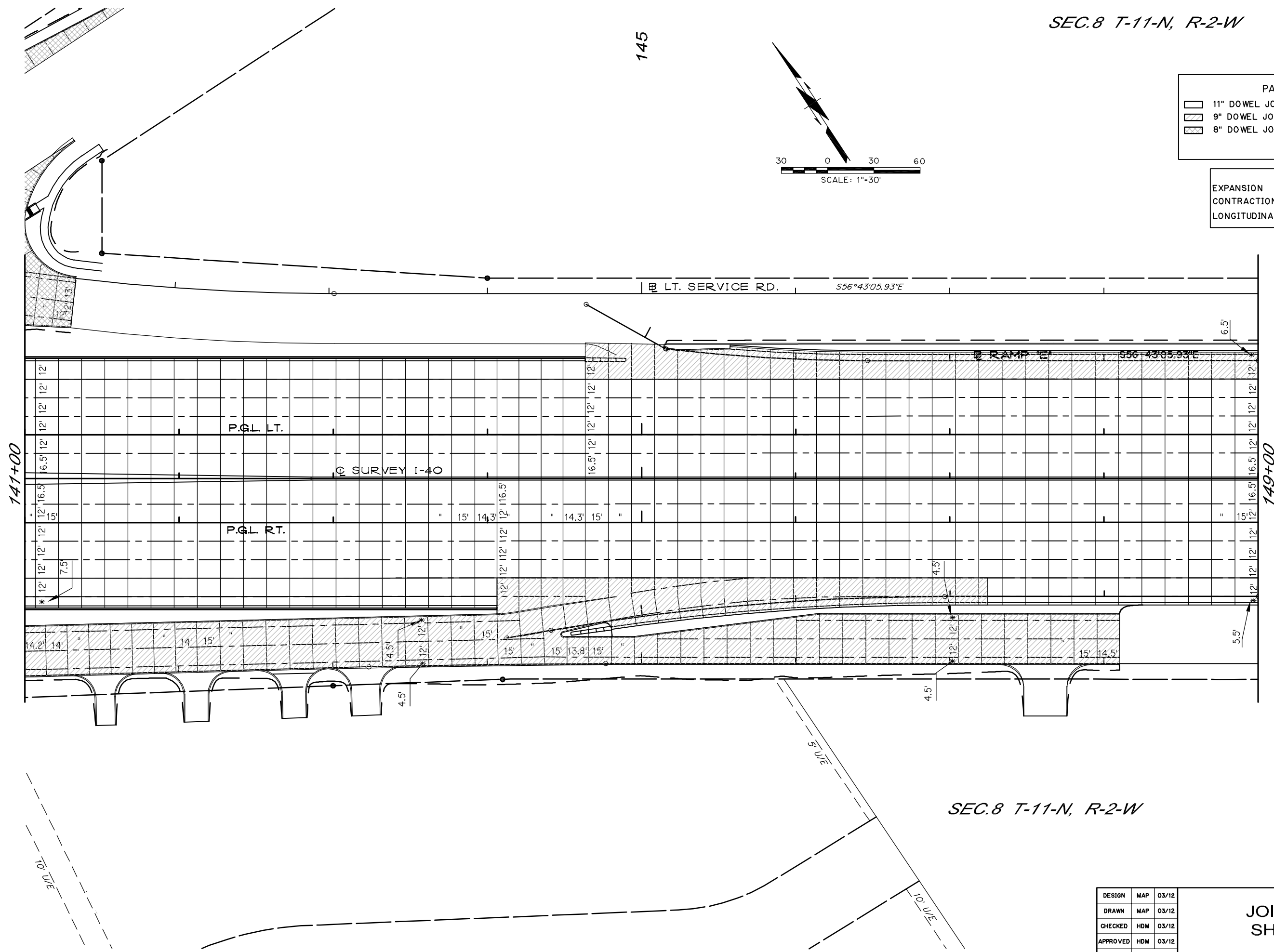
SEC.8 T-11-N, R-2-W

145



PAVING LEGEND	
	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT

EXPANSION		LEGEND	
CONTRACTION		CONTRACTION	
LONGITUDINAL		LONGITUDINAL	



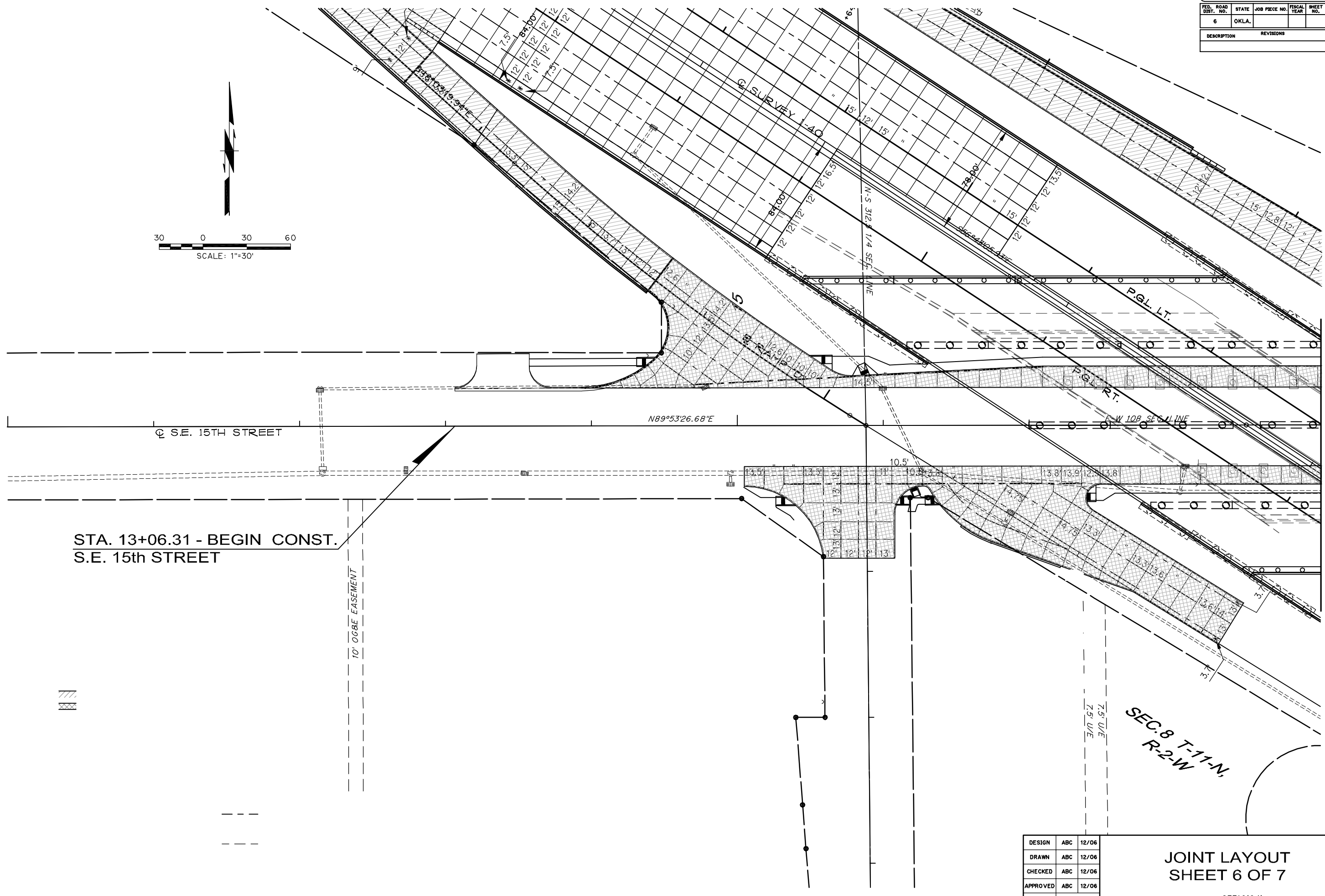
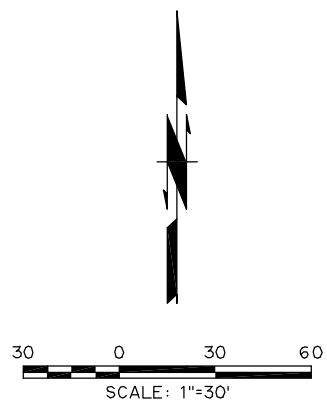
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DESIGN	MAP	03/12
DRAWN	MAP	03/12
CHECKED	HDM	03/12
APPROVED	HDM	03/12
SQUAD	POE	

JOINT LAYOUT SHEET 5 OF 7

STATE JOB NO. 23310(04) SHEET NO. R085

POE & ASSOCIATES, OKLAHOMA CITY, OK.						
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
6	OKLA.					
DESCRIPTION			REVISIONS	DATE		



STA. 13+06.31 - BEGIN CONST.
S.E. 15TH STREET



DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

JOINT LAYOUT
SHEET 6 OF 7

STATE JOB NO. 23310(04) SHEET NO. R086

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FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				

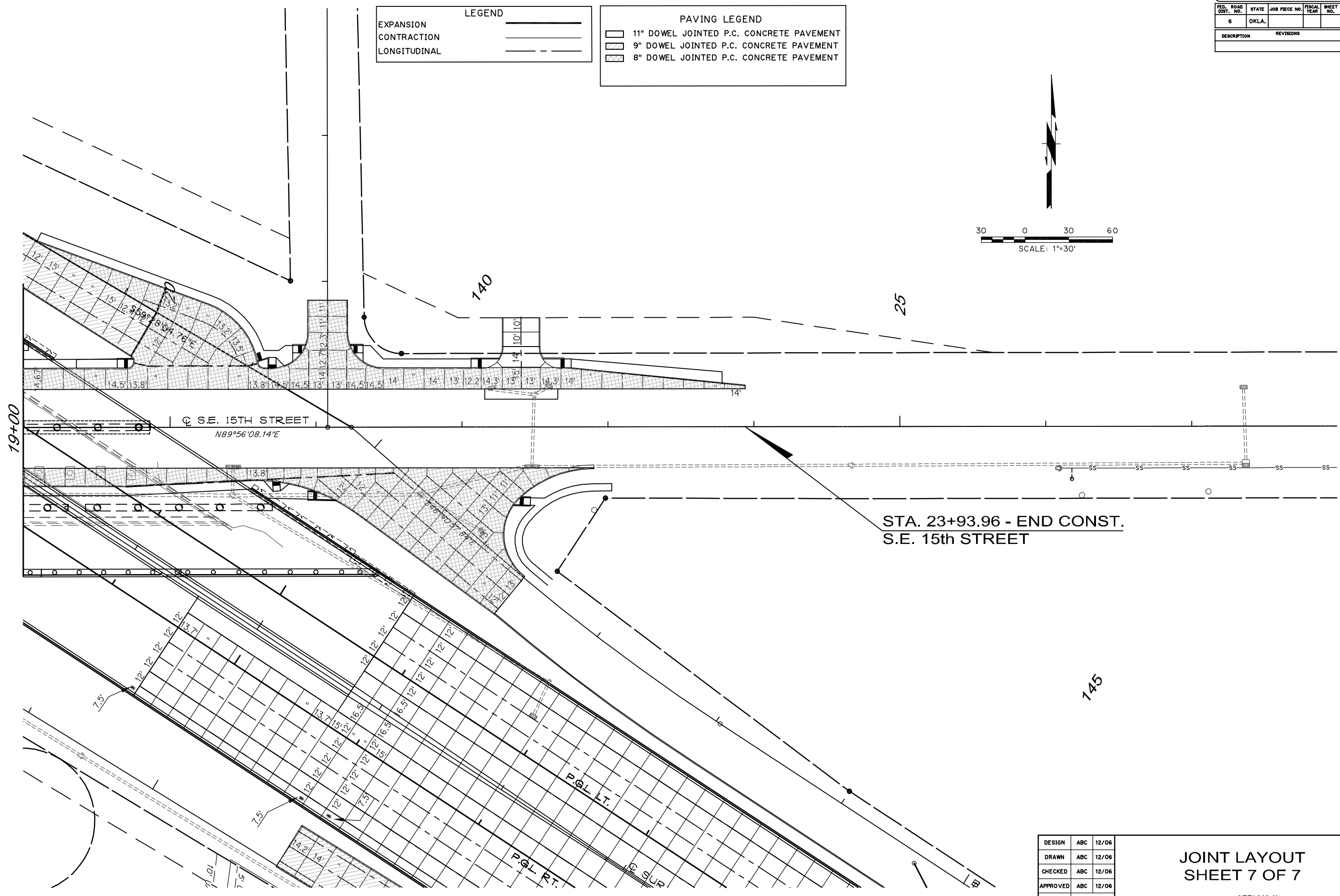
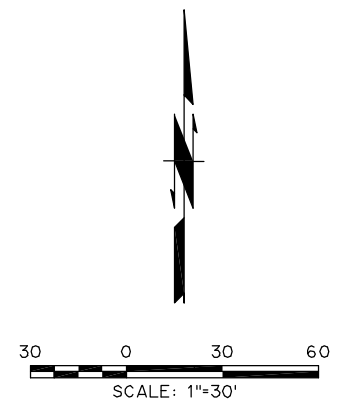
DESCRIPTION	REVISIONS	DATE

LEGEND

EXPANSION	
CONTRACTION	
LONGITUDINAL	

PAVING LEGEND

	11" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	9" DOWEL JOINTED P.C. CONCRETE PAVEMENT
	8" DOWEL JOINTED P.C. CONCRETE PAVEMENT



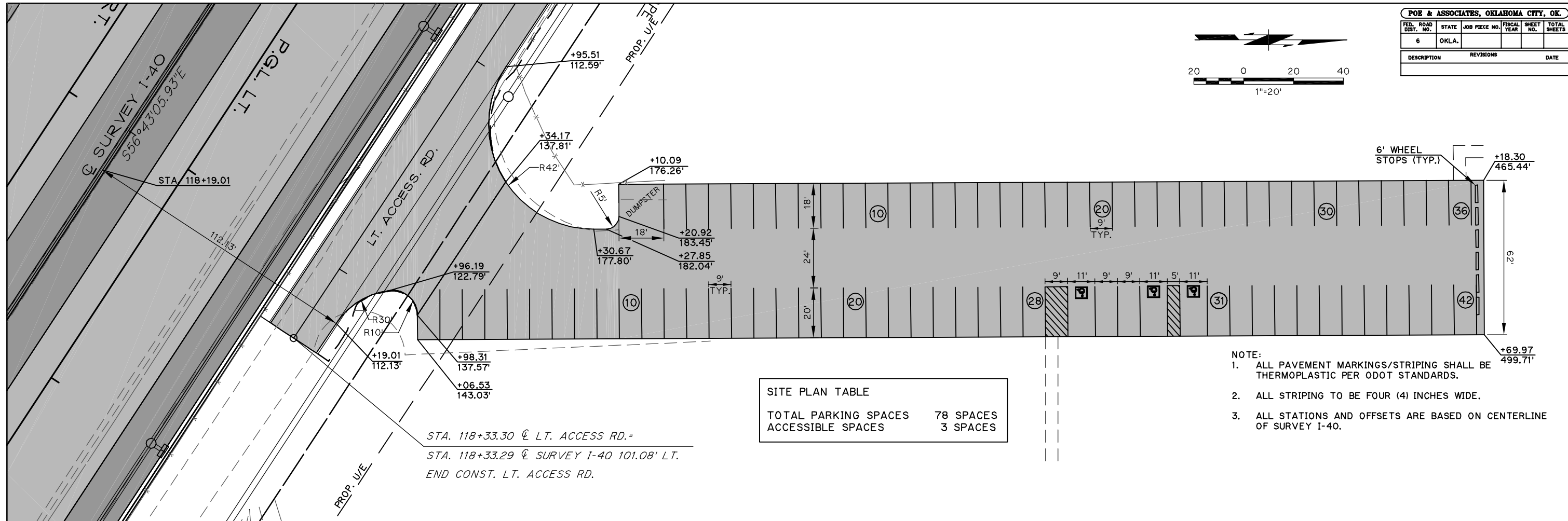
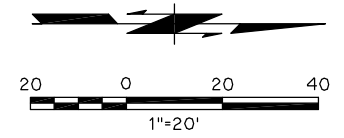
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DESIGN	ABC	12/06
DRAWN	ABC	12/06
CHECKED	ABC	12/06
APPROVED	ABC	12/06
SQUAD	POE	

**JOINT LAYOUT
SHEET 7 OF 7**

STATE JOB NO. 23310(04) SHEET NO. R087

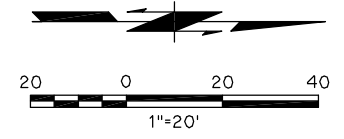
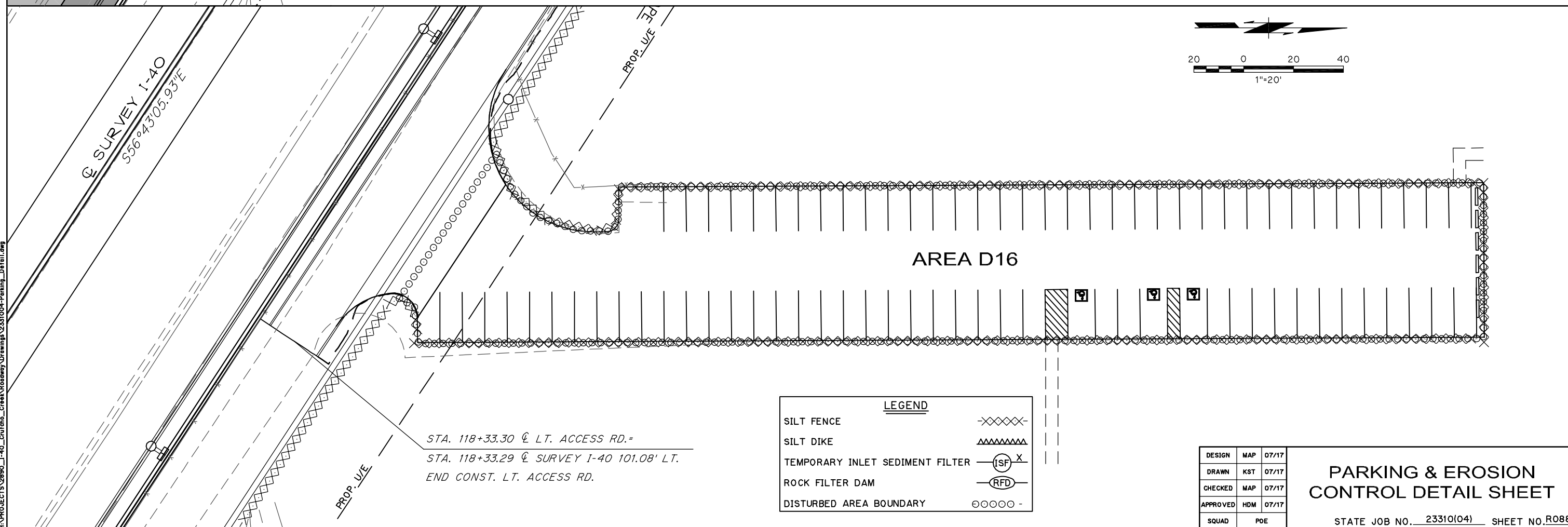
POE & ASSOCIATES, OKLAHOMA CITY, OK.					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.				
DESCRIPTION			REVISIONS	DATE	



SITE PLAN TABLE	
TOTAL PARKING SPACES	78 SPACES
ACCESSIBLE SPACES	3 SPACES

- NOTE:
1. ALL PAVEMENT MARKINGS/STRIPING SHALL BE THERMOPLASTIC PER ODOT STANDARDS.
 2. ALL STRIPING TO BE FOUR (4) INCHES WIDE.
 3. ALL STATIONS AND OFFSETS ARE BASED ON CENTERLINE OF SURVEY I-40.

STA. 118+33.30 @ LT. ACCESS RD.=
 STA. 118+33.29 @ SURVEY I-40 101.08' LT.
 END CONST. LT. ACCESS RD.



LEGEND	
SILT FENCE	XXXXXX
SILT DIKE	~~~~~
TEMPORARY INLET SEDIMENT FILTER	(ISF) X
ROCK FILTER DAM	(RFD)
DISTURBED AREA BOUNDARY	OOOOO

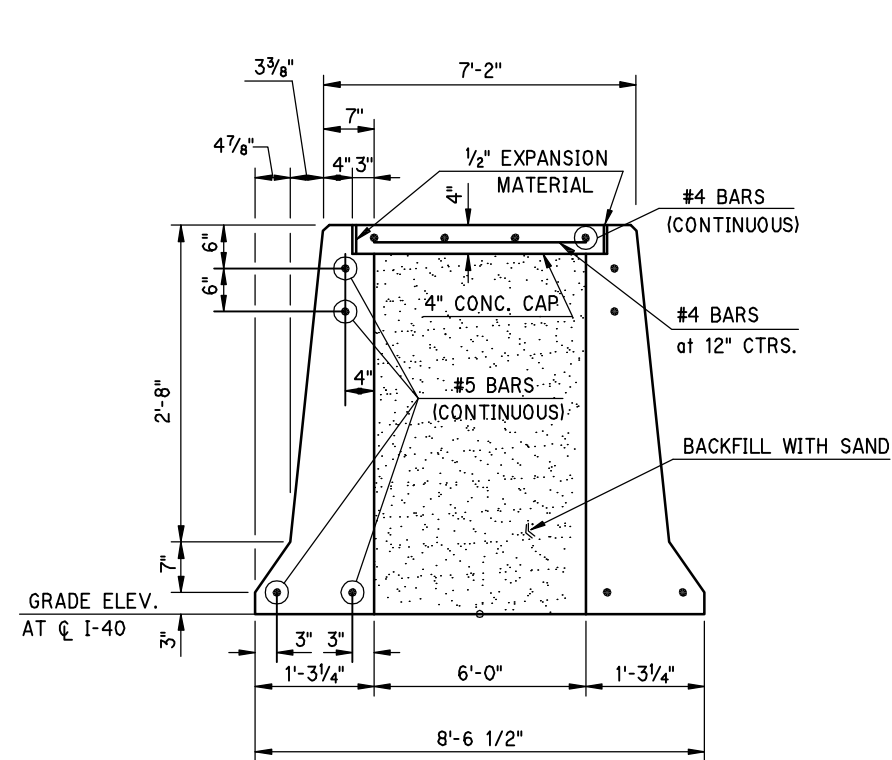
STA. 118+33.30 @ LT. ACCESS RD.=
 STA. 118+33.29 @ SURVEY I-40 101.08' LT.
 END CONST. LT. ACCESS RD.

DESIGN	MAP	07/17
DRAWN	KST	07/17
CHECKED	MAP	07/17
APPROVED	HDM	07/17
SQUAD	POE	

PARKING & EROSION CONTROL DETAIL SHEET

STATE JOB NO. 23310(04) SHEET NO. R088

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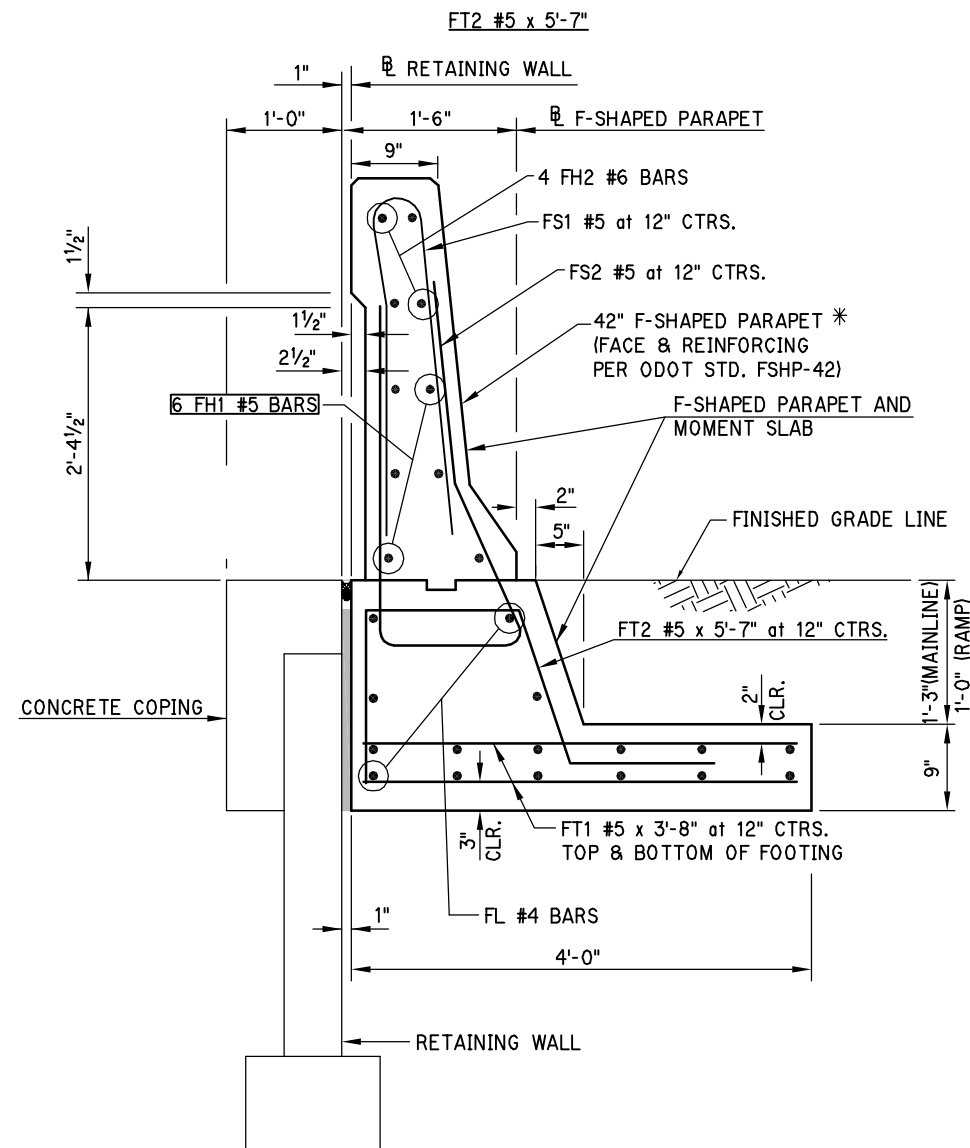


DETAIL
SP. MEDIAN BARRIER
NOT TO SCALE

SP MEDIAN BARRIER QUANTITIES / FT.		
ITEM	UNIT	TOTAL
CLASS A CONC.	CY	0.0802
REIN. STEEL	LBS	11.016

NOTE:
THE COST OF SAND BACKFILL SHALL BE INCLUDED IN THE PRICE BID PER C.Y. OF CLASS A CONCRETE.

FOR LIGHT POLE MEDIAN PLACEMENT SEE ODOT STANDARD GMF 1-2-00 FOR FOOTING DETAILS. PLACE EXPANSION MATERIAL AROUND LIGHT POLE. COST TO BE INCLUDE IN PRICE OF LIGHT POLE INSTALLATION.



DETAIL: F-SHAPED
PARAPET WITH MOMENT SLAB
W/O RETAINING WALL SIMILAR
(SEE RW64)
NOT TO SCALE

*SEE ODOT STANDARD FSHP-42-2-00E FOR EXPANSION, CONSTRUCTION, AND CONTROL CRACK JOINT LOCATIONS.

MOMENT SLAB TO BE PAID FOR AS CLASS A CONCRETE AND EPOXY COATED REINFORCING STEEL. FS2 BARS SHALL BE INCLUDED IN EPOXY COATED REINFORCING STEEL QUANTITY. SEE SUMMARY OF QUANTITIES (ROADWAY) FOR LOCATIONS AND QUANTITIES FOR THE PAY ITEMS CLASS "A" CONCRETE, EPOXY COATED REINFORCING STEEL, 42" F-SHAPED PARAPET, AND WATER REPELLENT.

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SQUAD	POE

**MISCELLANEOUS
DETAILS SHEET**

STATE JOB NO. 23310(04) SHEET NO. R089

DESCRIPTION	REVISIONS	DATE

M.S.E. NOTES

TYPICAL FORM LINER AND CONCRETE FINISH NOTES:

THE EXPOSED CONCRETE SURFACES OF THE RETAINING WALL SYSTEM SHALL HAVE THE FORM LINER SURFACE TREATMENT THAT HAS BEEN PRE-APPROVED BY THE ENGINEER FOR THE AESTHETIC THEME OF THE PROJECT. SEE BRIDGE-AESTHETIC SHEETS FOR DETAILS.

THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PRODUCT DATA FOR THE TEXTURE SURFACE TREATMENTS. SHOP DRAWINGS SHALL INDICATE FORM LINER LAYOUT, RUSTICATION, REVEAL, AND CHAMFER STRIPS. LOCATION OF JOINTS AND FORM TIES SHALL BE INCLUDED. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, FOR HIS APPROVAL, A SAMPLE PANEL OF THE APPROVED FORM LINER SURFACE TREATMENTS. THE SAMPLE PANEL SHALL BE AN 2' x 2' PANEL WITH SURFACE TREATMENTS. FOLLOWING THE APPROVAL OF THE SMALL SAMPLE PANEL.

THE CONTRACTOR SHALL PROVIDE ONE FULL SCALE MOCK-UP PANEL OF THE SURFACE TREATMENT USING PROPOSED MATERIALS, METHODS AND WORKMANSHIP. THE PANELS SHALL BE APPROVED BY THE ENGINEER ON THE SITE. THE MOCK-UP PANELS SHALL BE A MINIMUM OF 50 SQUARE FEET IN SIZE, AND MAY BE INCORPORATED INTO THE ACTUAL WALLS.

THE MOCK-UP PANEL SHALL INCORPORATE THE PROPOSED CONCRETE MIX, FORM WORK, TIES, FORM LINER, FORM RELEASE AGENTS, PLACEMENT RATE, FORM PRESSURES, JOINT SEALER, VIBRATING, AND FORM STRIPPING PRACTICES.

THE MOCK-UPS SHALL BE ACCEPTED BY THE ENGINEER PRIOR TO BEGINNING FORM WORK FOR THE PROJECT. THE ACCEPTED MOCK-UPS WILL BE THE STANDARD FOR TECHNICAL AND AESTHETIC MERIT.

FORM WORK SHALL BE DESIGNED BY THE CONTRACTOR TO COMPLY WITH ALL REQUIREMENTS BY THE FORM LINER MANUFACTURER. THIS INCLUDES, ALL REQUIREMENTS OF THE FORM LINER MANUFACTURER FOR HANDLING AND INSTALLATION OF THE FORM LINERS AS WELL AS THE APPLICATION OF RELEASE AGENTS, PLACEMENT OF CONCRETE, VIBRATING OF CONCRETE, AND REMOVAL OF FORMS SHALL BE FOLLOWED. FORM LINER BUTT JOINT SHALL BE CAREFULLY LINED UP TO PROVIDE A SURFACE FREE FROM VISIBLE SEAM LINES.

GENERAL NOTES FOR M.S.E. WALLS:

MATERIALS, DESIGN, AND METHODS USED IN CONSTRUCTION OF RETAINING WALLS SHALL BE IN ACCORDANCE WITH 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, UNLESS OTHERWISE NOTED.

THE REINFORCED ZONE MATERIALS SHALL EXTEND HORIZONTALLY FROM THE BACK OF THE PANELS TO THE END OF THE EARTH REINFORCEMENTS. THE REINFORCED ZONE MATERIAL SHALL EXTEND VERTICALLY FROM THE TOP OF THE LEVELING PAD TO THE PROPOSED GROUND LINE.

MINIMUM EARTH OR PAVEMENT COVER OF 2.0' SHALL BE PROVIDED FROM THE TOP OF THE LEVELING PAD FINISHED GRADE. LEVELING PADS SHALL BE CONSTRUCTED AT A DEPTH WITH CONSIDERATION GIVEN TO THE PROPOSED TYPICAL SECTION.

STANDARD PRECAST CONCRETE PANELS SHALL HAVE A MAXIMUM PANEL HEIGHT OF SIX (6') FEET AND A MINIMUM PANEL HEIGHT OF FOUR (4') FEET.

AN OPEN JOINT SHALL BE PROVIDED AROUND THE PERIMETER OF THE CONCRETE PANELS. THEN NOMINAL JOINT OPENING SHALL BE BETWEEN 3/8" AND 3/4". THE JOINT CONFIGURATION SHALL BE SUCH THAT THE FILTER FABRIC OR PAD MATERIALS ARE NOT EXPOSED AT THE WALL FACE.

PANELS SHALL FOLLOW THE CURVATURE OF THE WALL AS SHOWN IN THE PLANS. A ONE PIECE CORNER PANEL SHALL BE PROVIDED FOR WALL ANGLE CHANGES OF GREATER THAN 30 DEGREES, BUTTING OF CHAMFERED PANELS WILL BE ALLOWED FOR ANGLE CHANGES OF 30 DEGREES OR LESS.

A CONCRETE COPING SHALL BE PROVIDED ALONG THE TOP OF WALLS. THE JOINTS BETWEEN ALL COPING SEGMENTS SHALL BE SEALED TO PREVENT INFILTRATION OF WATER INTO THE RETAINING WALL BACKFILL. SEALING SHALL BE IN ACCORDANCE WITH SECTION 504 OF THE STANDARD SPECIFICATIONS. ALL COST FOR SEALING COPING SEGMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQ. YARD OF "(PL) M.S.E. RETAINING WALLS". IF CAST-IN-PLACE COPING IS USED, THEN JOINTS SHALL BE PLACED TO COINCIDE WITH PRECAST PANEL JOINTS. THE WALL FACE PANELS SHALL EXTEND UP INTO THE COPING A MINIMUM OF 2 INCHES.

IF COPING IS PRECAST, A SMOOTH LEVEL-UP STRIP SHALL BE PROVIDED ON TOP OF THE PRECAST PANELS PRIOR TO INSTALLATION OF THE COPING. SHIMS MAY BE USED ON TOP OF THE LEVEL-UP STRIP TO FACILITATE ALIGNMENT.

IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUARDRAIL POSTS WHICH ARE WITHIN REINFORCED SOIL VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF REINFORCING MESH AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE WHAT SOURCE OF ACTION SHOULD BE TAKEN.

DESIGN NOTES:

MECHANICALLY STABILIZED EARTH (M.S.E.) WALLS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OKLAHOMA IN ACCORDANCE WITH THE CURRENT EDITION OF THE AASHTO LRFD DESIGN SPECIFICATIONS AND CURRENT INTERIMS. DESIGN CALCULATIONS AND DRAWINGS SHALL BE SUBMITTED TO ODOT BRIDGE DIVISION FOR APPROVAL PRIOR TO CONSTRUCTION.

THERE SHALL BE NO SURCHARGE WITHIN 25 FEET OF THE CREST OF THE TEMPORARY EXCAVATION SLOPE DURING CONSTRUCTION OF THE RETAINING WALLS.

WHERE RECOMMENDED TEMPORARY EXCAVATION SLOPES WOULD RESULT IN RIGHT-OF-WAY ENCROACHMENT, OR FOR THE PURPOSES OF SOIL STABILITY DURING EXCAVATION, TEMPORARY SHORING SHALL BE REQUIRED. AT THE CONTRACTOR'S OPTION AND WITH APPROVAL OF THE ENGINEER, THE TEMPORARY SHORING MAY BE REMOVED A MINIMUM OF 2' BELOW THE GROUND LINE AND LEFT IN PLACE.

CARE SHALL BE TAKEN IN THE DESIGN AND DURING CONSTRUCTION TO DEVELOP AND MAINTAIN RAPID, POSITIVE DRAINAGE AWAY FROM THE RETAINING WALL AREA. WATER SHOULD NOT BE ALLOWED TO POND ADJACENT TO EITHER THE UP SLOPE OR DOWN SLOPE SIDES OF THE RETAINING WALL. PROPER SURFACE DRAINAGE IS NEEDED TO PREVENT WATER FROM FLOWING OVER THE FACE OF THE WALL AND SATURATING EITHER THE FILL BEHIND THE WALL OR THE SUBGRADE SOILS AT THE BASE OF THE WALL.

CONVENTIONAL DE-WATERING METHODS SHOULD BE ADEQUATE FOR TEMPORARY REMOVAL OF ANY GROUNDWATER ENCOUNTERED DURING THE SHALLOW EXCAVATION PROCESS. MORE EXTENSIVE DE-WATERING MAY BE REQUIRED FOR EXCAVATIONS TO REMOVE SOFT SOILS AND/OR IF CONSTRUCTION OCCURS DURING WET PERIODS OF THE YEAR.

DESIGN PARAMETERS FOR M.S.E. RETAINING WALLS:

DESIGN OF THE M.S.E. RETAINING WALLS BACKFILL SHALL BE BASED ON THE FOLLOWING DESIGN PARAMETERS:

MINIMUM UNIT WEIGHT = 120 PCF
MAXIMUM FRICTION ANGLE = 34°
COHESION = 0 PSF

FOR ANALYSIS OF ULTIMATE AND ALLOWABLE BEARING CAPACITY, IF THE WATER IS LOCATED AT OR ABOVE THE LEVELING PAD, A BUOYANT UNIT WEIGHT OF 65 POUNDS PER CUBIC FOOT SHALL BE USED. SEE GEOTECHNICAL REPORTS FOR GROUND WATER ELEVATIONS.

IN ALL AREAS, IT IS RECOMMENDED THE CONTRACTOR REVIEW THE GEOTECHNICAL REPORT AND STABILITY RESULTS IN THE REPORT THAT IS AVAILABLE FOR THE CONTRACTOR'S USE. GLOBAL STABILITY EVALUATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. GEOTECHNICAL TESTING WAS COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR GEOTECHNICAL INVESTIGATION OF BRIDGES AND RELATED STRUCTURES.

PREPARATION OF THE FOUNDATION MATERIAL FOR THE M.S.E. WALLS, WHETHER IN-SITU MATERIAL OR NEW EMBANKMENT MATERIAL, SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE STANDARD DENSITY.

WHERE NEW EMBANKMENT IS NECESSARY, IT SHALL BE PLACED AND COMPACTED IN 6" LIFTS OF LOOSE MATERIALS TO NOT LESS THAN 95% OF THE STANDARD PROCTOR DENSITY. ALL DENSITY TESTS SHALL BE TESTED IN ACCORDANCE TO SECTION 106.03 OF THE 2009 ODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF THE M.S.E. WALLS FOR:

1. INTERNAL STABILITY INCLUDING: TENSILE STRESSES, PULLOUT, FACING CONNECTION, SLIDING ALONG REINFORCEMENT, AND COMPOUND SLOPE STABILITY.
2. LOCAL STABILITY INCLUDING: BULGING AND MAXIMUM UNREINFORCED HEIGHTS.
3. DESIGN THE M.S.E. WALLS TO ACCOUNT FOR DEAD AND LIVE LOADS, SEISMIC LOADS, HORIZONTAL LOADS FROM GUARDRAILS OR BARRIERS, HYDROSTATIC LOADS, AND OTHER LOADS AS APPROPRIATE.
4. DESIGN THE M.S.E. WALL SUCH THAT THE TOE IS AT A DEPTH THAT NO SCOURING OR UNDERMINING WILL OCCUR.
5. DESIGN OF M.S.E. WALL STRAPS OR TIE-BACKS SHALL BE LOCATED BELOW THE PROPOSED F-SHAPED PARAPET AND MOMENT SLABS TO PREVENT CONFLICT. SEE M.S.E. WALL TYPICAL SECTIONS AND DETAILS.
6. GLOBAL STABILITY EVALUATION.

FOR FURTHER DESIGN INFORMATION NOT PROVIDED IN THE PLANS OR GEOTECHNICAL REPORT, REFER TO THE 2009 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

PAYMENT:

THE PAYMENT FOR M.S.E. RETAINING WALL SHALL BE BASED ON THE SURFACE AREA SHOWN ON THE PLAN AND PROFILE SHEETS FROM THE TOP OF THE RETAINING WALLS TO TOP OF LEVELING PAD NOT TO EXCEED 2 FEET BELOW FINISH GRADE AT FACE OF WALL. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR VARYING OF THE LEVELING PAD ELEVATION. THE ACTUAL TOPS OF LEVELING PADS SHALL BE DETERMINED BY THE CONTRACTOR TO PROVIDE SUPPORT FOR THE PROPOSED WALL SYSTEM AND SUBMITTED TO THE ENGINEER FOR APPROVAL.

ALL COST INCURRED DURING CONSTRUCTION OF THE M.S.E. RETAINING WALLS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "M.S.E. RETAINING WALL". THE COST SHALL INCLUDE BUT NOT LIMITED TO: EXCAVATION, BACKFILL, BACKFILL MATERIAL, DRAINAGE SYSTEMS, GEOCOMPOSITES, FILTER FABRICS, PERFORATED AND NON-PERFORATED PIPE, CONCRETE, REINFORCING STEEL, TEMPORARY SHORING, DRIVING SHOES, COPING, EARTH REINFORCEMENT, CONCRETE PANELS, CONCRETE SURFACE FORM LINERS, FINISH, LEVELING PADS, CONCRETE MOW STRIPS, AND ENGINEERING AND ASSOCIATED COSTS.

OKLAHOMA COUNTY

Design		
Drawn		
Checked		
Approved		
Squad	POE	

M.S.E. RETAINING WALL NOTES

State Job No. 23310(04) Sheet No. RW01

SUMMARY OF RETAINING WALL QUANTITIES (FOR INFORMATION PURPOSES ONLY)																	
ITEM	UNIT	C.I.P. WALL A	C.I.P. WALL B	C.I.P. WALL C	M.S.E. WALL C-1	M.S.E. WALL D	M.S.E. WALL E	C.I.P. WALL F	M.S.E. WALL F-1	M.S.E. WALL G	M.S.E. WALL H	*C.I.P. WALL D-1	*C.I.P. WALL E-1	*C.I.P. WALL G-1	*C.I.P. WALL H-1	TOTAL	
PAY ITEMS	CLASS A CONCRETE	C.Y.	206.3	165.9	80.5	87.2	97.8	53.2	81.2	25.0	76.5	89.5	--	--	--	--	963.2
	42" F-SHAPED PARAPET	L.F.	1042.4	838.0	406.7	440.6	494.3	268.8	410.5	126.4	386.6	452.2	--	--	--	--	4866.5
	EPOXY COATED REINF. STEEL	L.B.	33,170	26,680	12,938	14,019	15,737	8547	13,065	4027	12,301	14,401	--	--	--	--	154,885
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	508.8	409.0	198.5	215.0	241.2	131.2	200.3	61.7	188.7	220.7	--	--	--	--	2375.1
	HANDRAILING	L.F.	--	--	--	--	--	--	--	--	--	--	95.6	98.6	99.2	76.5	369.9
	RETAINING WALL	S.Y.	1190.0	1202.5	843.10	--	--	--	787.2	--	--	--	287.04	211.50	153.59	269.43	4944.36
	MSE RETAINING WALL	S.Y.	--	--	--	395.3	1110.7	401.2	--	131.3	317.9	823.7	--	--	--	--	3180.1
	PILES FURNISHED. (HP12x53)	L.F.	6065	5078	3012	--	--	--	3278	--	--	--	--	--	--	--	17,433
	PILES DRIVEN, (HP12x53)	L.F.	6065	5078	3012	--	--	--	3278	--	--	--	--	--	--	--	17,433
	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	1	1	1	--	--	--	1	--	--	--	--	--	--	--	4
	DRILLED SHAFT 48" DIAMETER	L.F.	--	--	--	--	--	--	--	--	--	--	92	48	168	72	380
	DRILLED SHAFT 60" DIAMETER	L.F.	--	--	--	--	--	--	--	--	--	--	92	96	112	96	396
	DRILLED SHAFT 72" DIAMETER	L.F.	--	--	--	--	--	--	--	--	--	--	92	96	--	96	284
	CROSSHOLE SONIC LOGGING	EA.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0
	** GRAFFITI TREATMENT	S.F.	8095.6	8601.6	6055.3	2676.54	8831.72	3072.92	5900.10	928.88	2087.90	6314.80	2279.07	1637.40	1115.80	2145.54	59,743.17
NON-PAY ITEMS	SUBSTR. EXCAV. COMMON	C.Y.	4480	4085	3999	--	--	--	2733	--	--	--	1800.98	1435.75	1618.03	2014.49	22,167
	CLASS A CONCRETE	C.Y.	1283.91	1231.37	890.00	--	--	--	815.69	--	--	--	319.06	258.38	190.74	297.59	5286.74
	REINFORCING STEEL	L.B.	124,459	119,337	97,729	--	--	--	89,469	--	--	--	44,253	35,831	22,807	43,297	577,182
	6" PERF. PIPE UNDERDRAIN	L.F.	1046	888	457	--	--	--	414	--	--	--	152.1	132.6	133.2	139.8	3362.7
	PIPE UNDERDRAIN COVER MAT'L.	C.Y.	207	176	89	--	--	--	82	--	--	--	45	39.3	39.4	41.4	719.1
	GRANULAR BACKFILL	C.Y.	494	544	488	--	--	--	414	--	--	--	476.34	330.2	217.2	459.2	3422.94
	UNCLASSIFIED BACKFILL	C.Y.	1661	1493	1406	--	--	--	966	--	--	--	--	--	--	--	5529
	SELECT BACKFILL	C.Y.	5717	6470	6190	--	--	--	5723	--	--	--	--	--	--	--	24,100
	1½" CONC. SURFACE TREATMENT	S.F.	8095.6	8601.6	6055.3	2676.54	8831.72	3072.92	5900.10	928.88	2087.90	6314.80	2279.07	1637.40	1115.80	2145.54	59,743.17

NOTE: C.I.P. WALLS: GRAFFITI TREATMENT AND SURFACE TREATMENT ARE MEASURED 2'-6" ABOVE THE TOP OF FOOTINGS TO TOPS OF C.I.P. WALLS. (EXCEPT WALL "C" PANELS 7 AND 11, AND WALL "F" PANEL 1 WILL BE MEASURED 9'-0" ABOVE THE TOP OF FOOTINGS TO TOP OF WALLS AT THOSE PANELS)

M.S.E. WALLS: GRAFFITI TREATMENT AND SURFACE TREATMENT ARE MEASURED 2'-0" ABOVE THE BOTTOM OF WALLS TO TOPS OF M.S.E. WALLS.

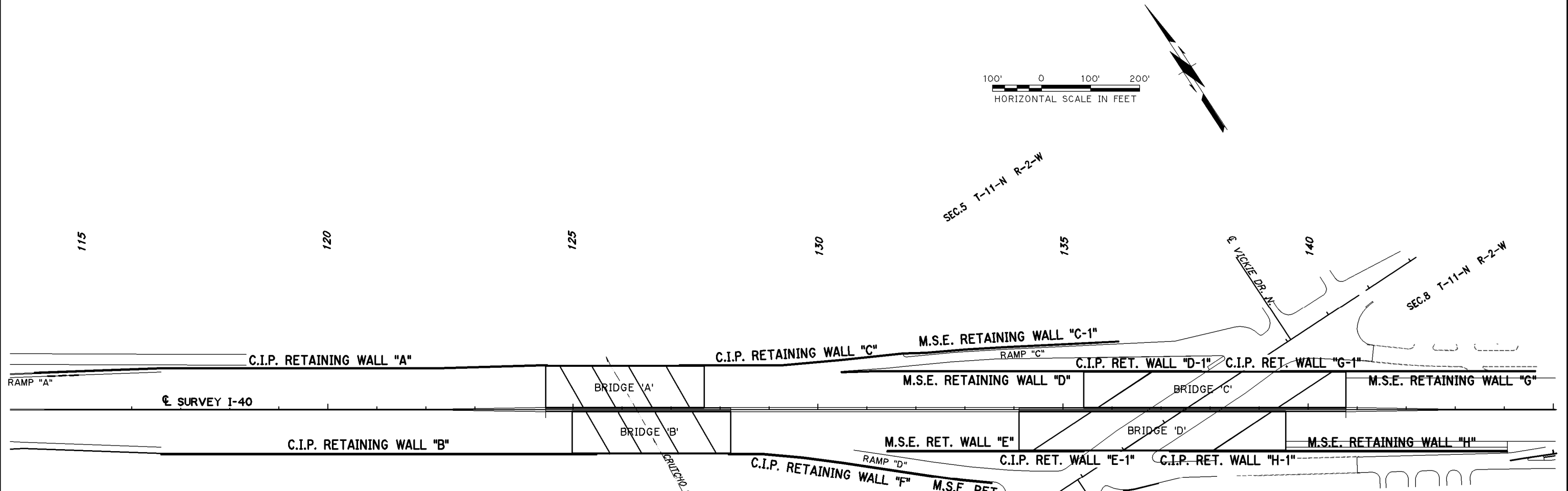
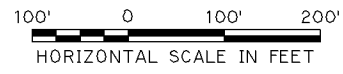
* QUANTITIES FOR THESE C.I.P. RETAINING WALLS (EXCEPT GRAFFITI TREATMENT) ARE INCLUDED IN BRIDGE "C" AND "D" PAY QUANTITIES, SHEET AB03.

QUANTITIES FOR ALL OTHER WALLS ARE INCLUDED IN ROADWAY PAY QUANTITIES, SHEET AR01.

** ENTIRE GRAFFITI TREATMENT PAY QUANTITIES FOR ALL WALLS ARE INCLUDED IN ROADWAY PAY QUANTITIES, SHEET AR01.

Design			M.S.E. & C.I.P. RETAINING WALL SUMMARY OF QUANTITIES
Drawn			
Checked			
Approved			
Squad	POE		

State Job No. 23310(04) Sheet No. RW02



INDEX OF SHEETS

SHT. NO.	DESCRIPTION
RW01	M.S.E. RETAINING WALL NOTES
RW02	M.S.E. & C.I.P. RETAINING WALL SUMMARY OF QUANTITIES
RW03	RETAINING WALL LOCATION MAP
RW04	C.I.P. RETAINING WALL 'A' ~ PLAN & ELEVATION
RW05-RW07	FOUNDATION REPORT - RETAINING WALL 'A'
RW08	C.I.P. RETAINING WALL 'B' ~ PLAN & ELEVATION
RW09-RW11	FOUNDATION REPORT - RETAINING WALL 'B'
RW12	C.I.P. RETAINING WALL 'C'/M.S.E. RETAINING WALL 'C-1' ~ PLAN & ELEVATION
RW13-RW15	FOUNDATION REPORT - RETAINING WALL 'C'
RW16	M.S.E. RETAINING WALL 'D' ~ PLAN & ELEVATION
RW17	C.I.P. RETAINING WALL 'D-1' ~ PLAN & ELEVATION
RW18	M.S.E. RETAINING WALL 'E' ~ PLAN & ELEVATION
RW19	C.I.P. RETAINING WALL 'E-1' ~ PLAN & ELEVATION
RW20	C.I.P. RETAINING WALL 'F'/M.S.E. RETAINING WALL 'F-1' ~ PLAN & ELEVATION
RW21-RW22	FOUNDATION REPORT - RETAINING WALL 'F'
RW23	M.S.E. RETAINING WALL 'G' ~ PLAN & ELEVATION
RW24	C.I.P. RETAINING WALL 'G-1' ~ PLAN & ELEVATION
RW25	FOUNDATION REPORT - RETAINING WALL 'G'
RW26	M.S.E. RETAINING WALL 'H' ~ PLAN & ELEVATION
RW27	C.I.P. RETAINING WALL 'H-1' ~ PLAN & ELEVATION
RW28	FOUNDATION REPORT - RETAINING WALL 'H'
RW29	C.I.P. RETAINING WALLS 'D-1','E-1','G-1' & 'H-1' ~ DESIGN DATA & MISC. DETAILS
RW30-RW31	C.I.P. RETAINING WALL SUBSTRUCTURE LAYOUT ~ WALLS 'D-1','E-1','G-1' & 'H-1'
RW32	C.I.P. RETAINING WALL EXCAVATION AND UNDERDRAIN DETAILS
RW33	C.I.P. RETAINING WALLS 'A','B','C' & 'F' ~ DESIGN DATA & MISC. DETAILS
RW34-RW35	C.I.P. RETAINING WALL DETAILS ~ WALL 'A'
RW36-RW37	C.I.P. RETAINING WALL DETAILS ~ WALL 'B'
RW38-RW39	C.I.P. RETAINING WALL DETAILS ~ WALL 'C'
RW40-RW41	C.I.P. RETAINING WALL DETAILS ~ WALL 'F'
RW42-RW47	C.I.P. RETAINING WALL DETAILS ~ WALL 'D-1'
RW48-RW52	C.I.P. RETAINING WALL DETAILS ~ WALL 'E-1'
RW53-RW57	C.I.P. RETAINING WALL DETAILS ~ WALL 'G-1'
RW58-RW63	C.I.P. RETAINING WALL DETAILS ~ WALL 'H-1'
RW64	RETAINING WALL F-SHAPED PARAPET AND MOMENT SLAB DETAILS
RW65	M.S.E. RETAINING WALL DETAILS
RW66	STEEL HANDRAIL DETAILS ~ WALLS 'D-1','E-1','G-1' & 'H-1'

OKLAHOMA COUNTY

Design	
Drawn	
Checked	
Approved	
Squad	POE

**RETAINING WALL
LOCATION MAP**

State Job No. 23310(04) Sheet No. RW03

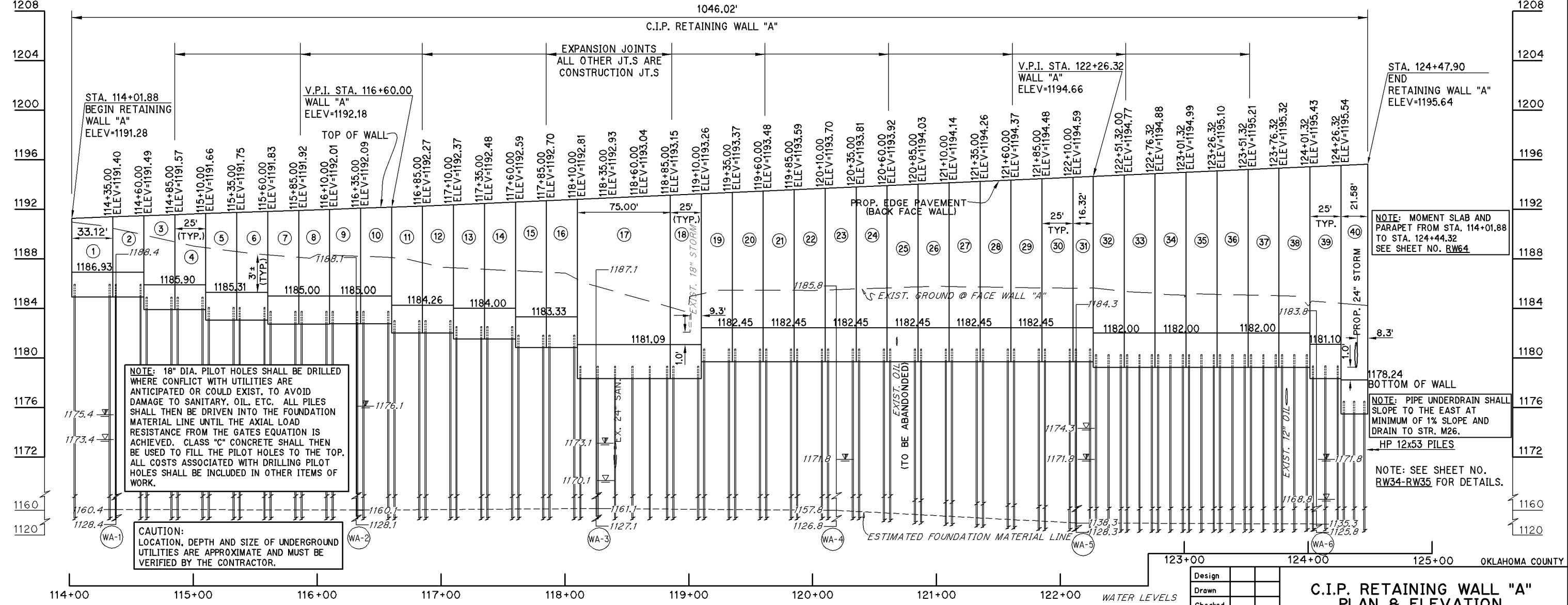
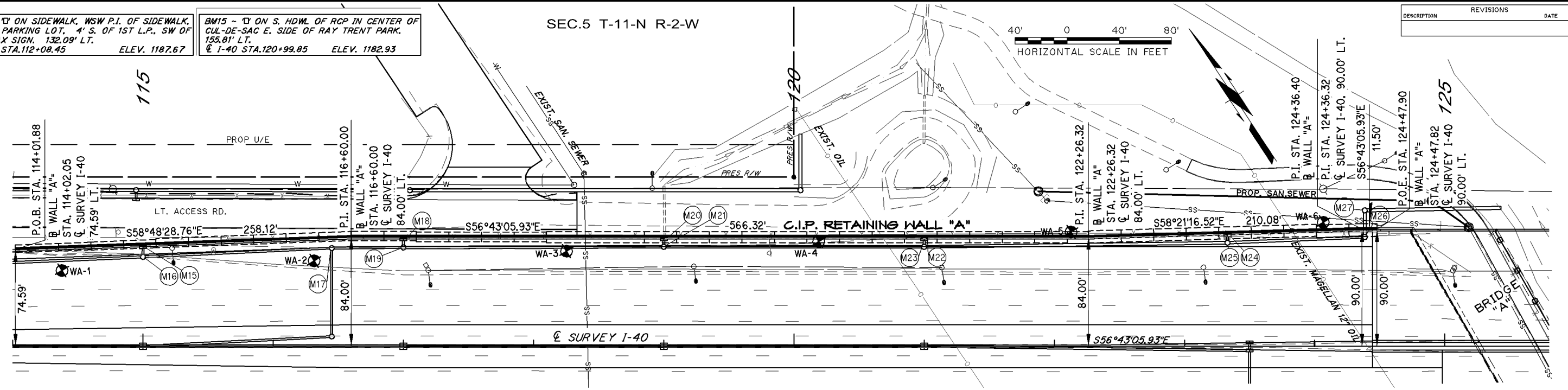
BM13 - ∇ ON SIDEWALK, WSW P.I. OF SIDEWALK, SSE OF PARKING LOT, 4' S. OF 1ST L.P., SW OF AUTOMAX SIGN, 132.09' LT. ELEV. 1187.67
 I-40 STA. 112+08.45

BM15 - ∇ ON S. HDWL OF RCP IN CENTER OF CUL-DE-SAC E. SIDE OF RAY TRENT PARK, 155.81' LT. ELEV. 1182.93
 I-40 STA. 120+99.85

SEC.5 T-11-N R-2-W



DESCRIPTION	REVISIONS	DATE



NOTE: 18" DIA. PILOT HOLES SHALL BE DRILLED WHERE CONFLICT WITH UTILITIES ARE ANTICIPATED OR COULD EXIST, TO AVOID DAMAGE TO SANITARY, OIL, ETC. ALL PILES SHALL THEN BE DRIVEN INTO THE FOUNDATION MATERIAL LINE UNTIL THE AXIAL LOAD RESISTANCE FROM THE GATES EQUATION IS ACHIEVED. CLASS "C" CONCRETE SHALL THEN BE USED TO FILL THE PILOT HOLES TO THE TOP. ALL COSTS ASSOCIATED WITH DRILLING PILOT HOLES SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

CAUTION: LOCATION, DEPTH AND SIZE OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR.

NOTE: MOMENT SLAB AND PARAPET FROM STA. 114+01.88 TO STA. 124+44.32 SEE SHEET NO. RW64

NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE EAST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. M26.

NOTE: SEE SHEET NO. RW34-RW35 FOR DETAILS.

Design	
Drawn	
Checked	
Approved	
Squad	POE

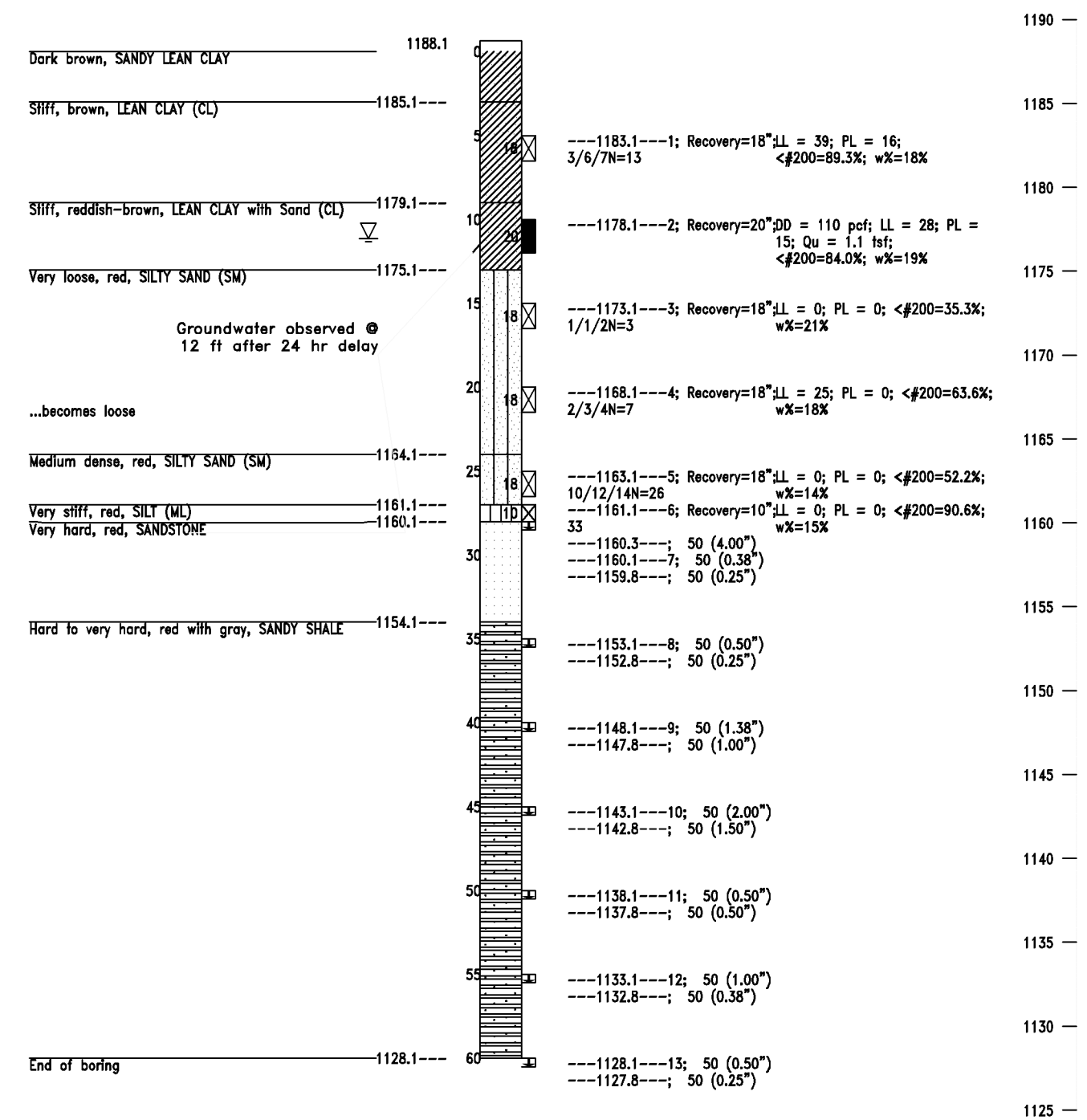
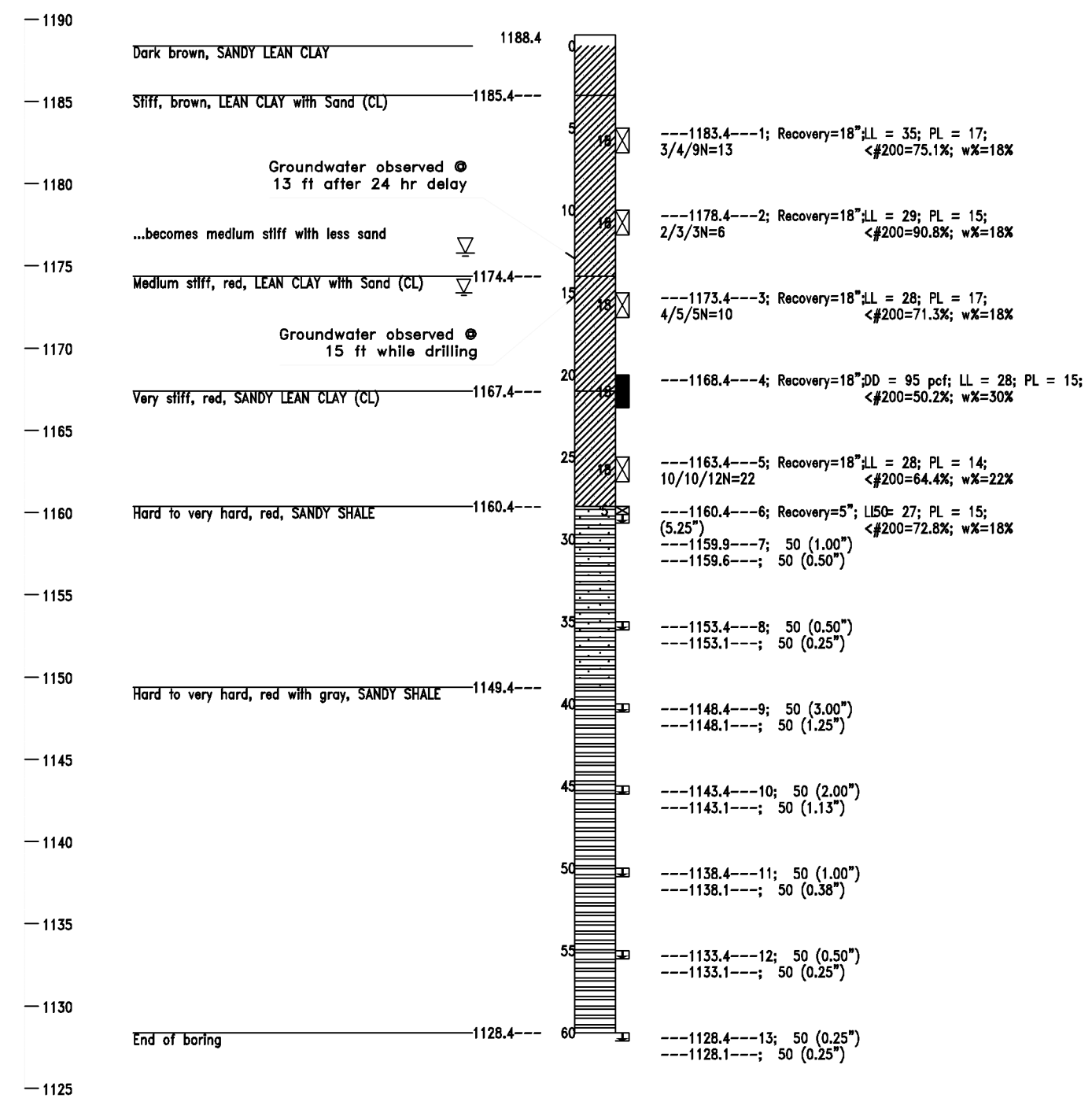
C.I.P. RETAINING WALL "A"
 PLAN & ELEVATION

State Job No. 23310(04) Sheet No. RW04

DESCRIPTION	REVISIONS	DATE

Boring Number WA-1
I-40 Station: 114+37.73
Offset: 58.32 LT.

Boring Number WA-2
I-40 Station: 116+31.51
Offset: 65.72 LT.



NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

OKLAHOMA COUNTY

Design		
Detail	AAW	1/13
Checked		
Approved		
Squad	PSI	

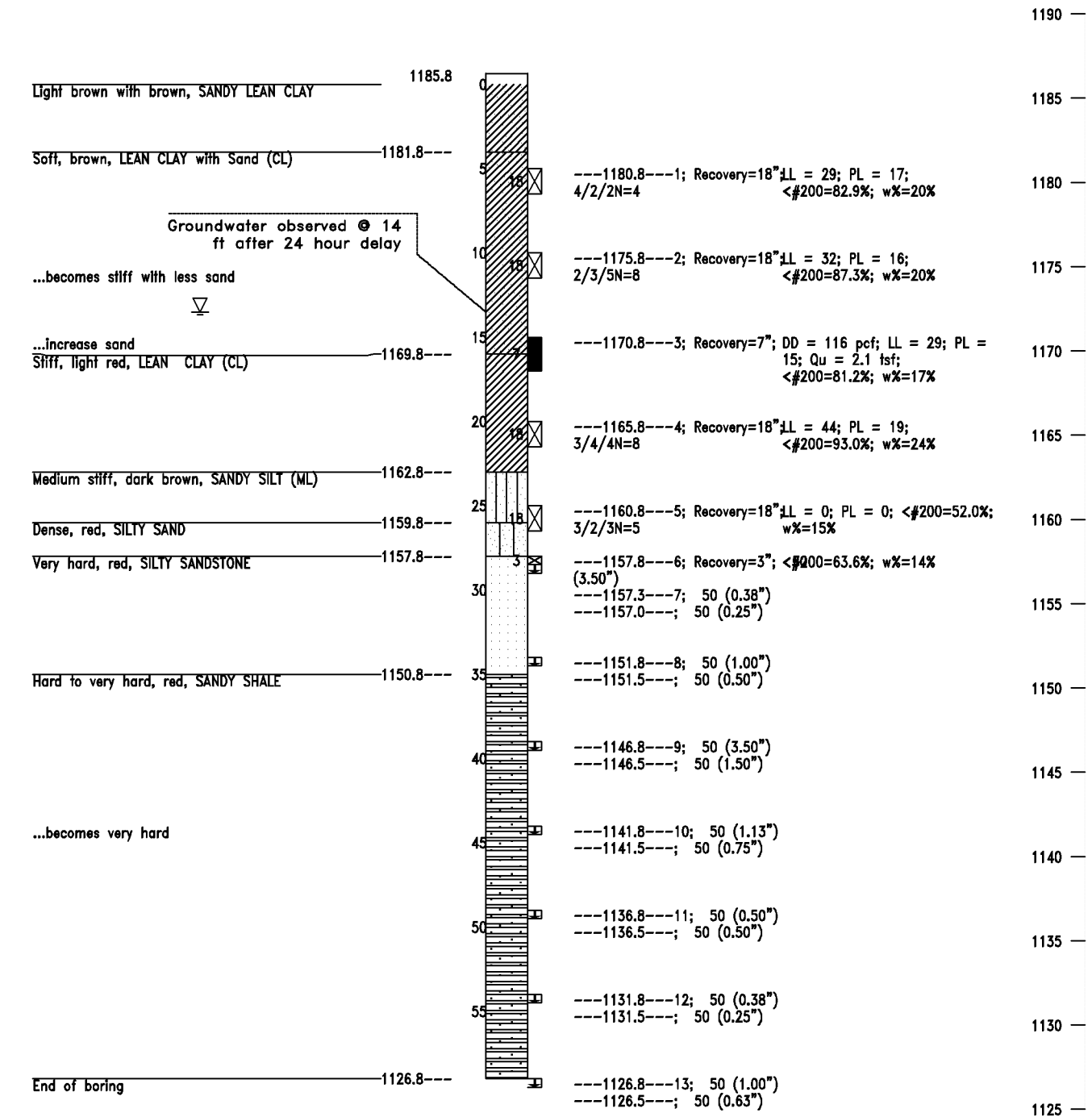
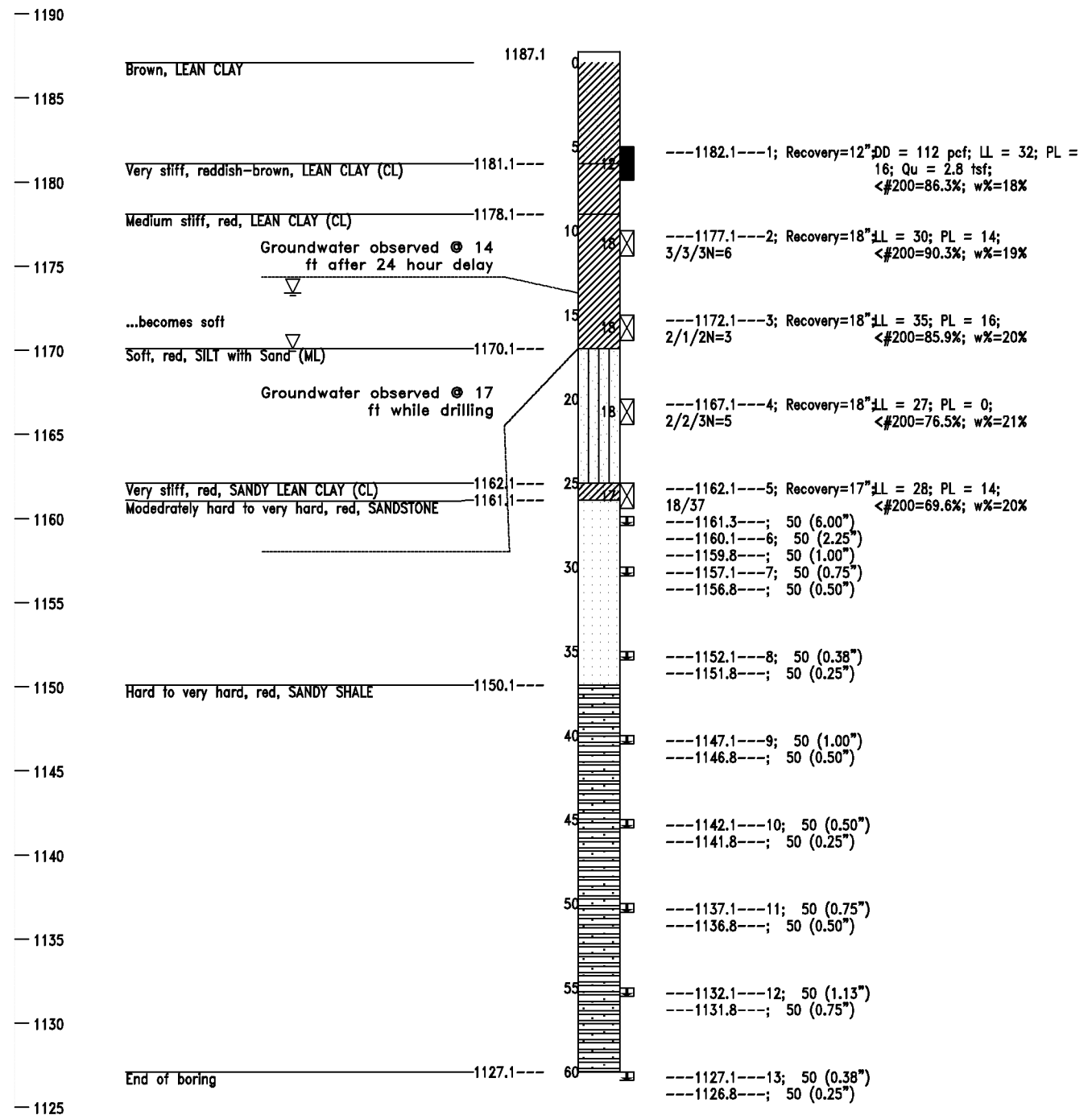
**FOUNDATION REPORT
RETAINING WALL "A"
1 of 3**

State Job No. 23310(04) Sheet No. RW05

DESCRIPTION	REVISIONS	DATE

Boring Number WA-3
I-40 Station: 118+25.29
Offset: 73.11 LT.

Boring Number WA-4
I-40 Station: 120+19.07
Offset: 80.51 LT.



NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

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OKLAHOMA COUNTY

Design		
Detail	AAW	1/13
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Approved		
Squad	PSI	

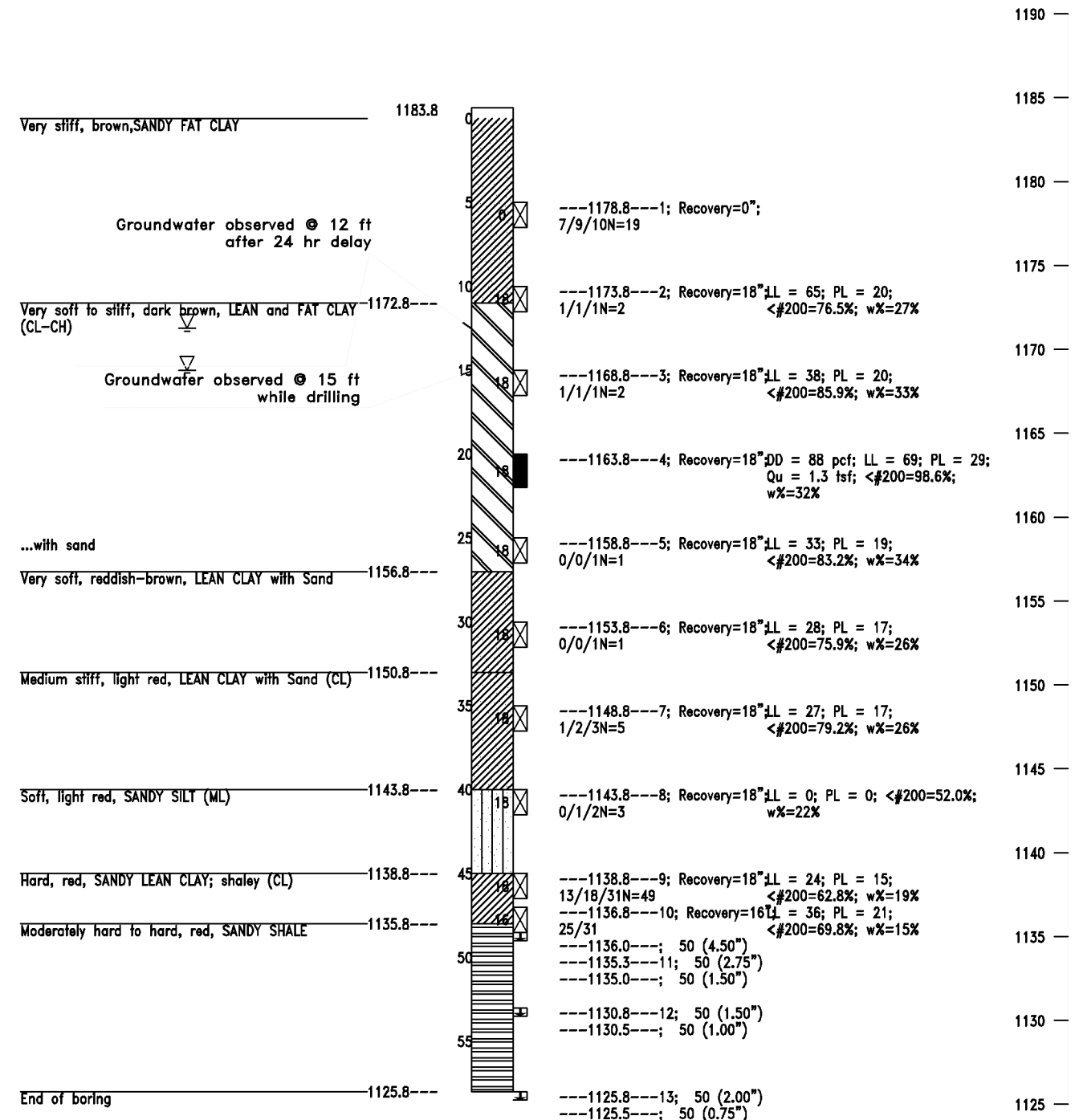
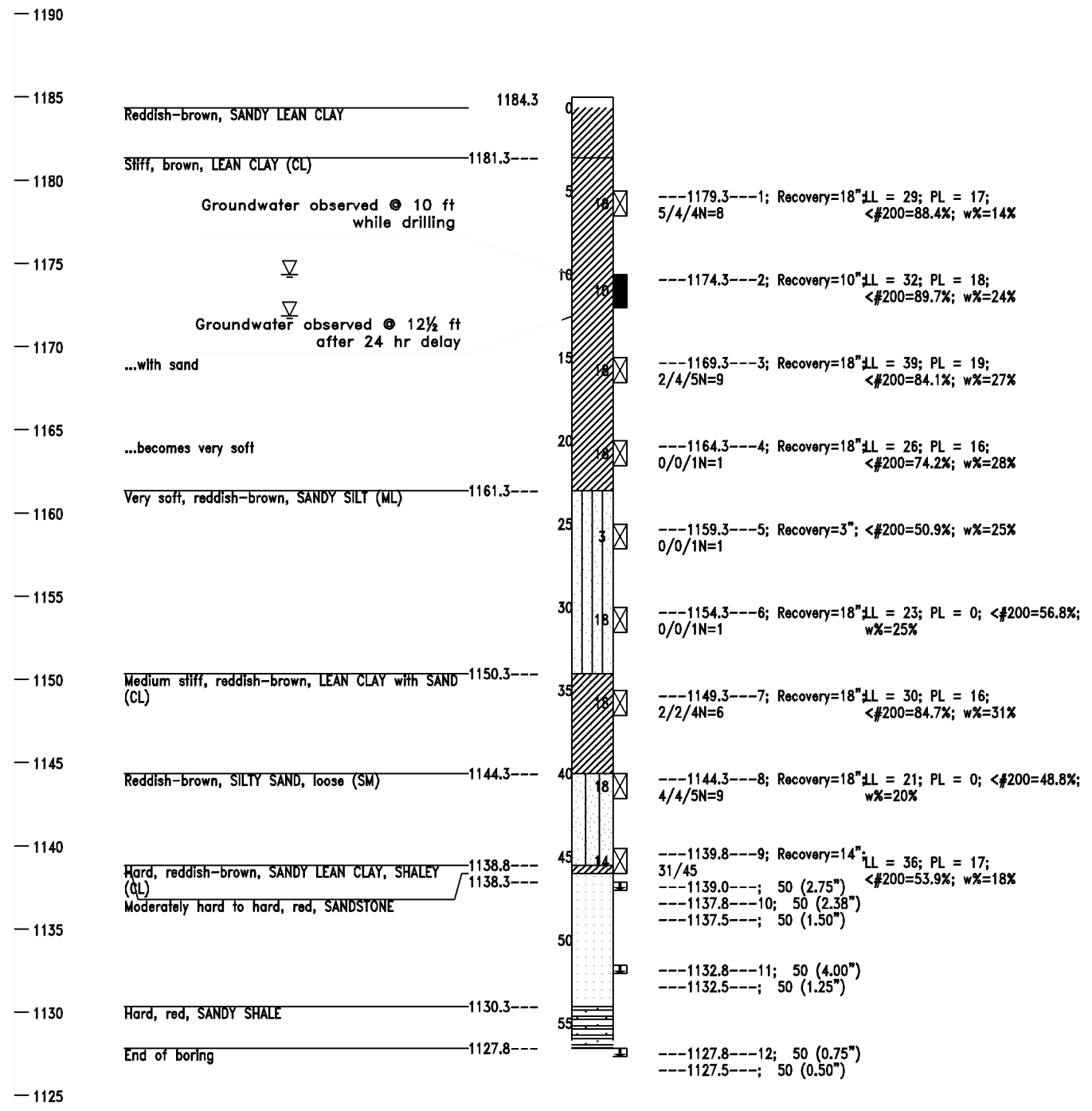
FOUNDATION REPORT
RETAINING WALL "A"
2 of 3

State Job No. 23310(04) Sheet No. RW06

DESCRIPTION	REVISIONS	DATE

Boring Number WA-5
I-40 Station: 122+12.85
Offset: 87.91 LT.

Boring Number WA-6
I-40 Station: 124+06.63
Offset: 95.30 LT.



NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

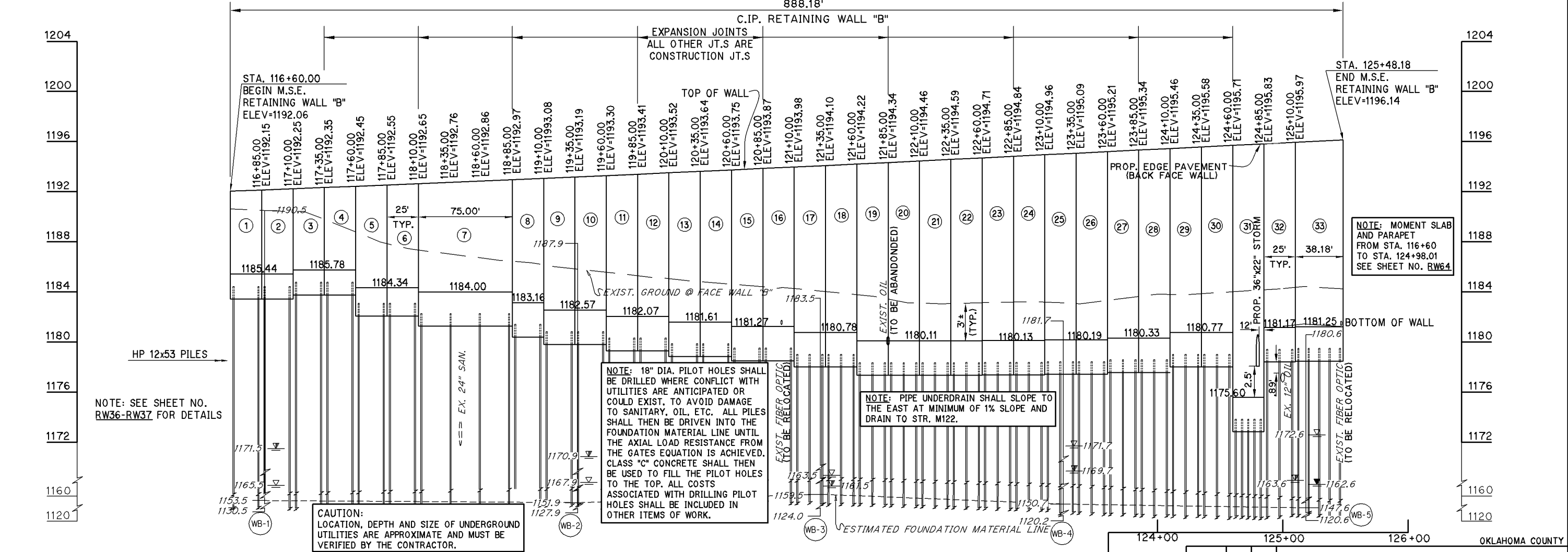
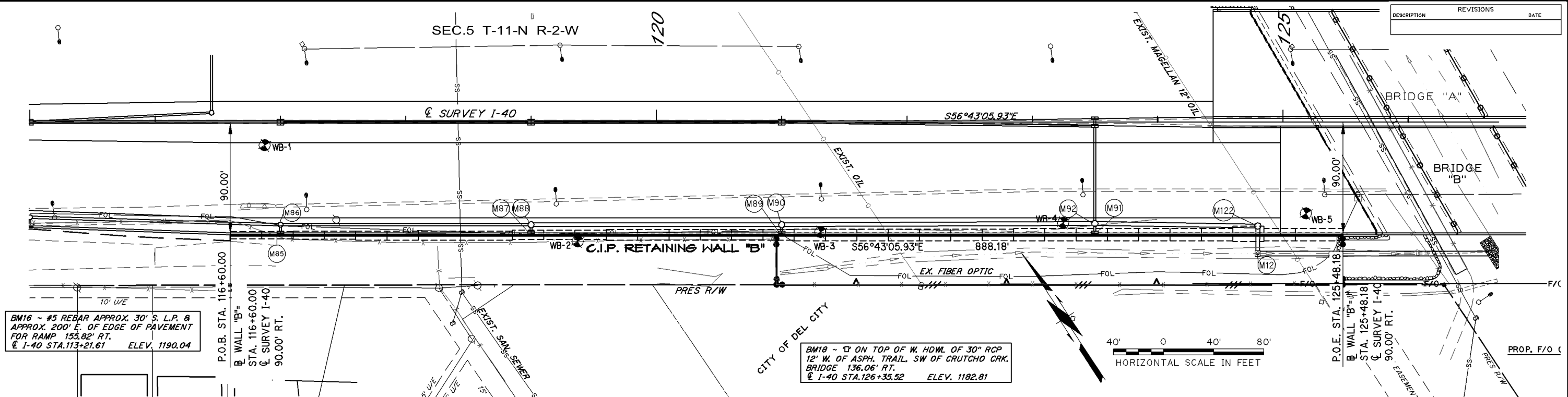
OKLAHOMA COUNTY

Design	
Detail	AAW 1/13
Checked	
Approved	
Squad	PSI

**FOUNDATION REPORT
RETAINING WALL "A"
3 of 3**

State Job No. 23310(04) Sheet No. RW07

DESCRIPTION	REVISIONS	DATE



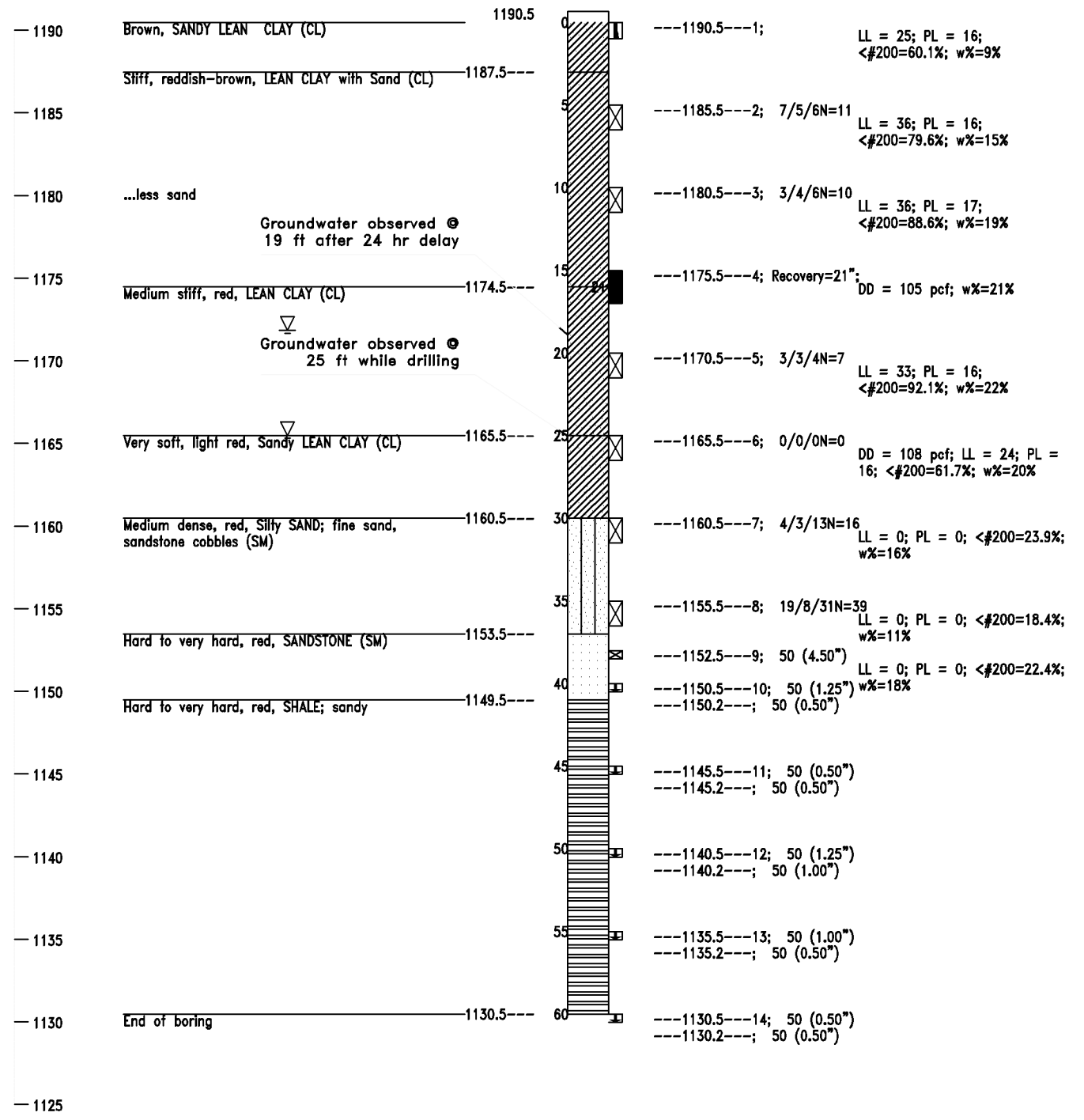
Design	
Drawn	
Checked	
Approved	
Squad	POE

**C.I.P. RETAINING WALL "B"
PLAN & ELEVATION**

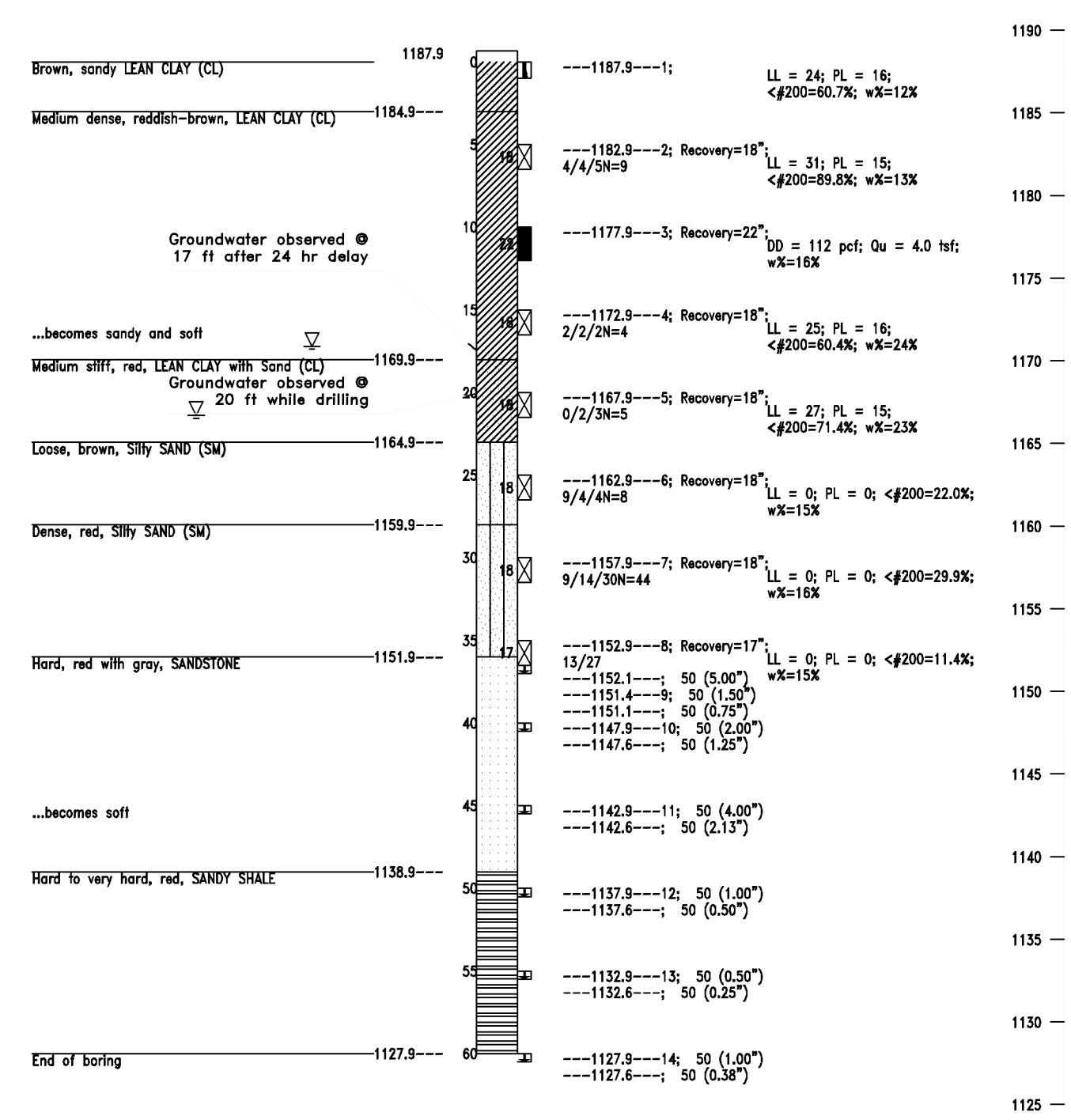
State Job No. 23310(04) Sheet No. RW08

DESCRIPTION	REVISIONS	DATE

Boring Number WB-1
I-40 Station: 116+87.49
Offset: 18.50 RT.



Boring Number WB-2
I-40 Station: 119+37.25
Offset: 95.31 RT.



NOTE:
 Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

OKLAHOMA COUNTY

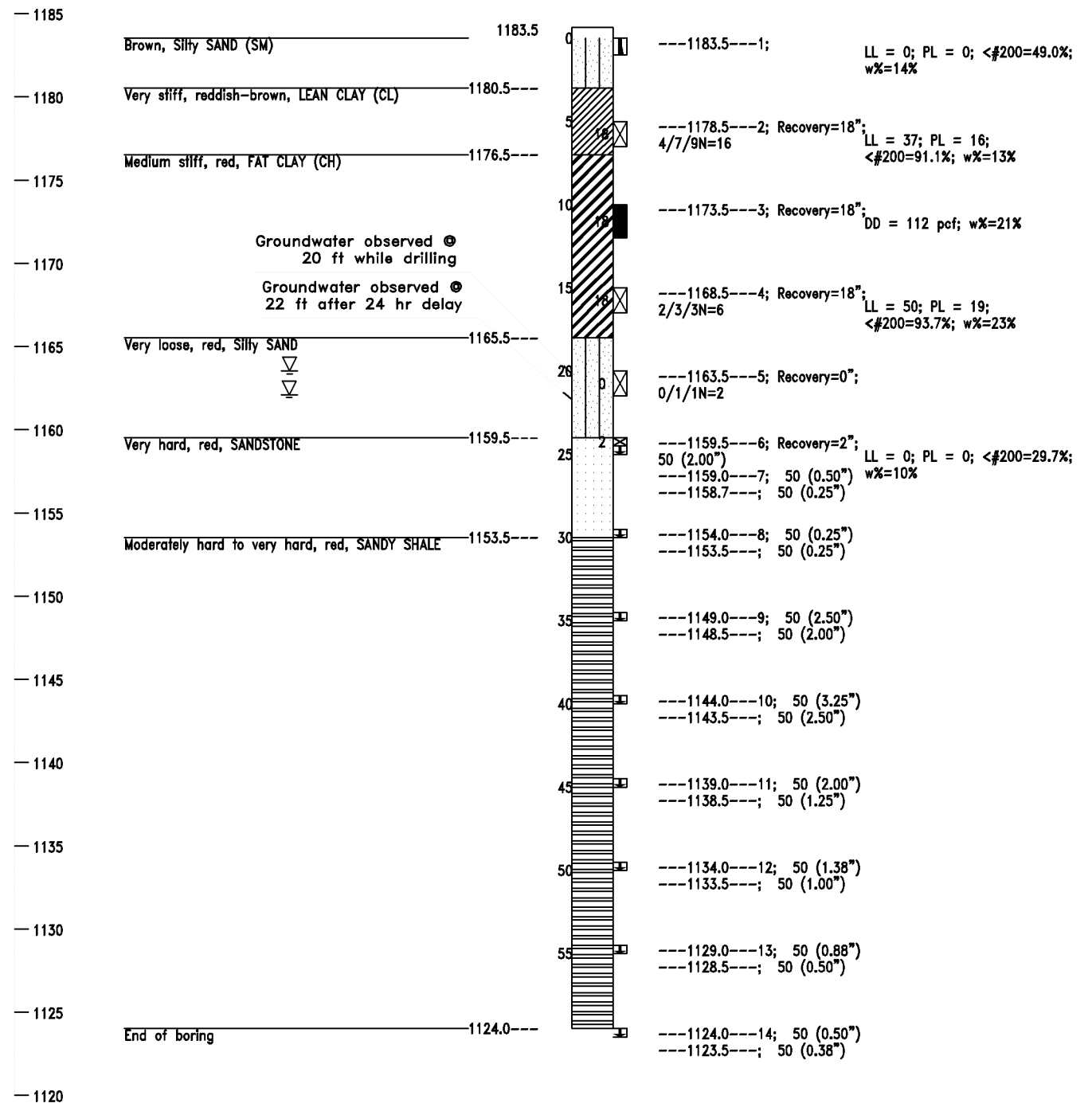
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Detail	AAW	1/13
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Approved		
Squad	PSI	

FOUNDATION REPORT
RETAINING WALL "B"
1 of 3

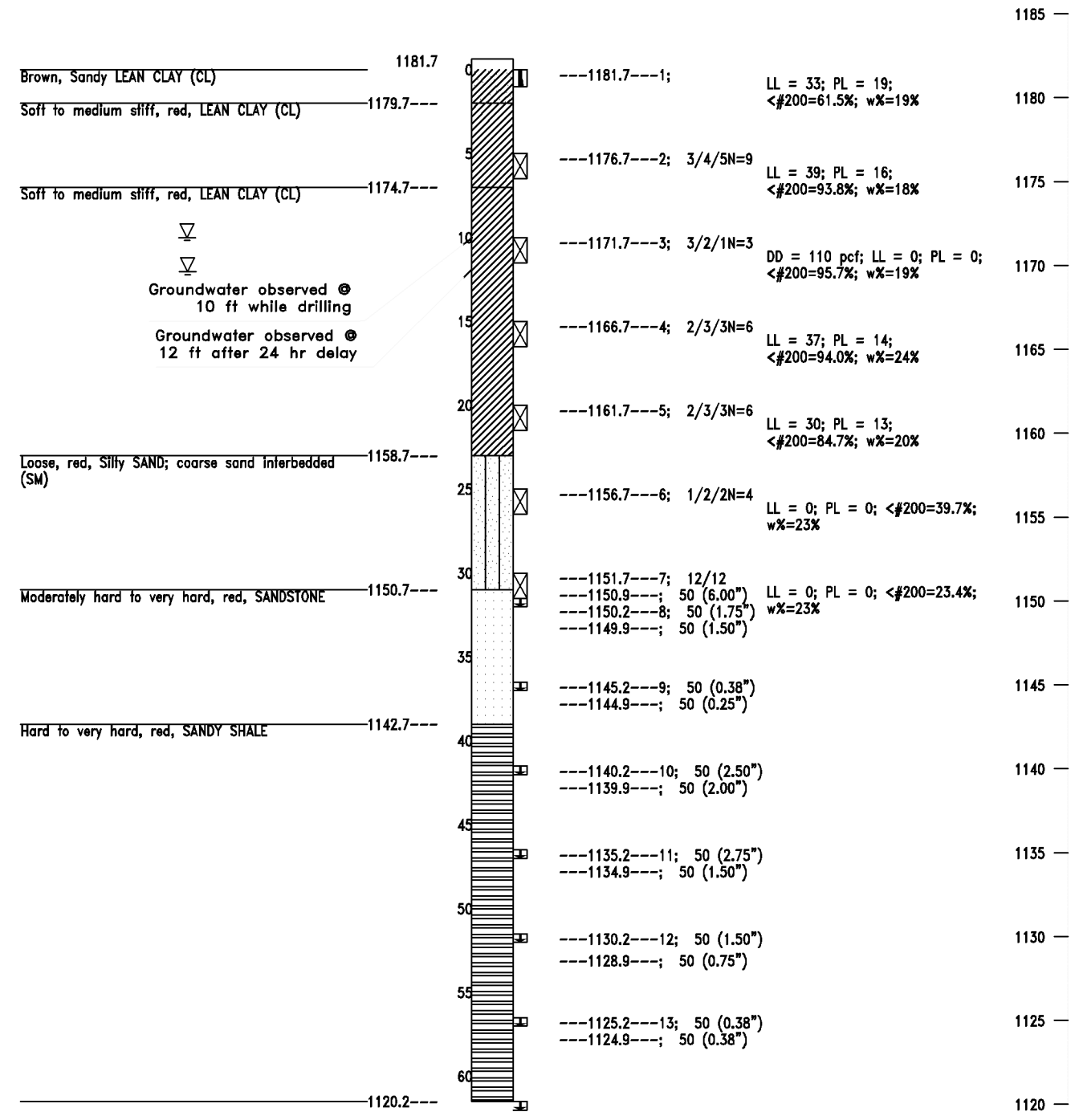
State Job No. 23310(04) Sheet No. RW09

DESCRIPTION	REVISIONS	DATE

Boring Number WB-3
I-40 Station: 121+31.03
Offset: 87.91 RT.



Boring Number WB-4
I-40 Station: 123+24.81
Offset: 80.50 RT.



NOTE:
 Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

OKLAHOMA COUNTY

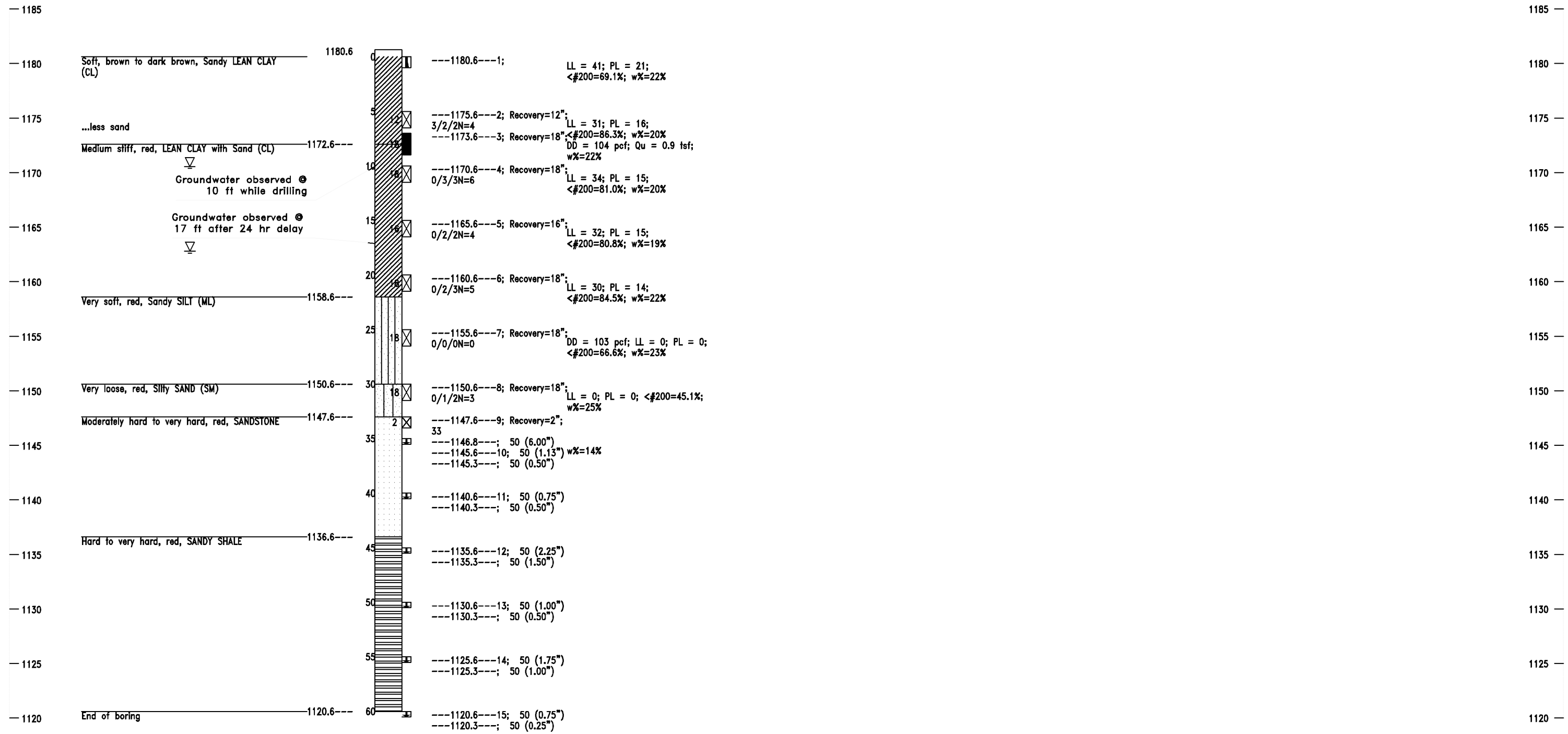
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Detail	AAW	1/13
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Approved		
Squad	PSI	

**FOUNDATION REPORT
RETAINING WALL "B"
2 of 3**

State Job No. 23310(04) Sheet No. RW10

DESCRIPTION	REVISIONS	DATE

Boring Number WB-5
I-40 Station: 125+18.59
Offset: 73.10 RT.



NOTE: Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

OKLAHOMA COUNTY

Design		
Detail	AAW	1/13
Checked		
Approved		
Squad	PSI	

FOUNDATION REPORT
RETAINING WALL "B"
3 of 3

State Job No. 23310(04) Sheet No. RW11

SEC.5 T-11-N R-2-W

DESCRIPTION	REVISIONS	DATE

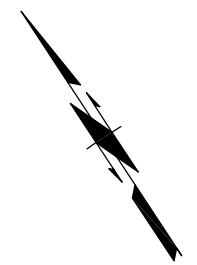
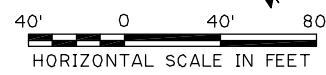
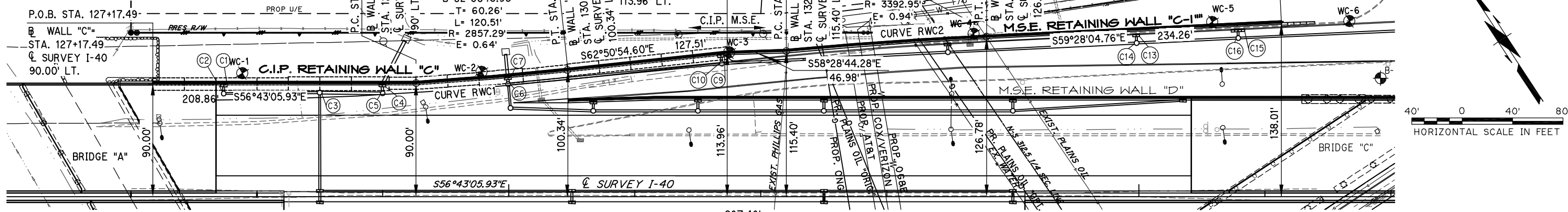
BM17 - 1" ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. I-40 STA. 133+75.70 ELEV. 1193.35

CURVE NO. RWC1
P.I. STA. 129+86.61
N: 164.687.3855
E: 2,137.190.9339
Δ=02°24'59.19" LT.
D=02°00'18.90"
T= 60.26'
L= 120.51'
R= 2857.29'
E= 0.64'

P.I. STA. 131+74.37
END @ WALL "C"=
STA. 131+73.18
SURVEY I-40
113.96' LT.

CURVE NO. RWC2
P.I. STA. 133+01.03
N: 164.539.9186
E: 2,137.468.5269
Δ=02°41'26.99" RT.
D=01°41'19.21"
T= 79.69'
L= 159.35'
R= 3392.95'
E= 0.94'

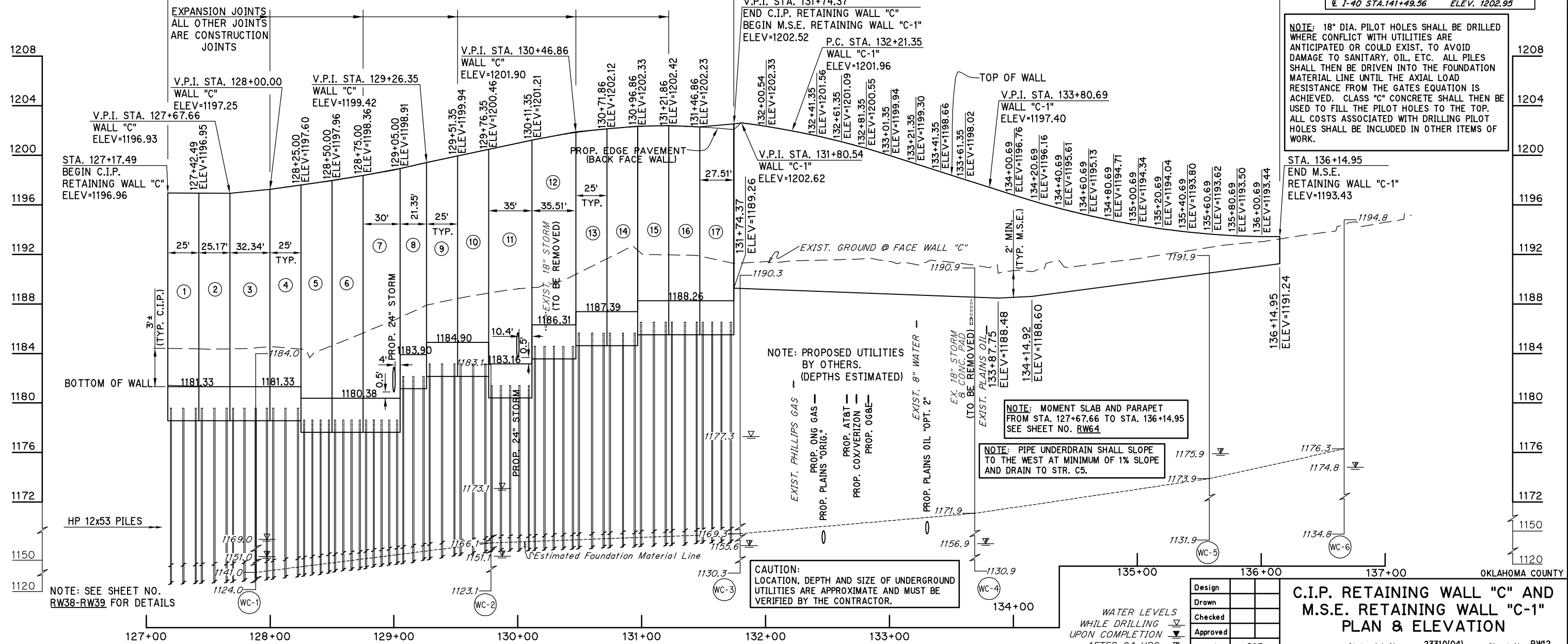
P.O.E. STA. 136+14.95:
WALL "C-1"=
STA. 136+13.05
SURVEY I-40
138.01' LT.



456.88' RETAINING WALLS "C" AND "C-1" 440.58'

BM19 - 1" ON CURB, CNTR. OF MNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. I-40 STA. 141+49.56 ELEV. 1202.95

NOTE: 18" DIA. PILOT HOLES SHALL BE DRILLED WHERE CONFLICT WITH UTILITIES ARE ANTICIPATED OR COULD EXIST. TO AVOID DAMAGE TO SANITARY, OIL, ETC. ALL PILES SHALL THEN BE DRIVEN INTO THE FOUNDATION MATERIAL LINE UNTIL THE AXIAL LOAD RESISTANCE FROM THE GATES EQUATION IS ACHIEVED. CLASS "C" CONCRETE SHALL THEN BE USED TO FILL THE PILOT HOLES TO THE TOP. ALL COSTS ASSOCIATED WITH DRILLING PILOT HOLES SHALL BE INCLUDED IN OTHER ITEMS OF WORK.



STA. 136+14.95
END M.S.E. RETAINING WALL "C-1"
ELEV=1193.43

NOTE: PROPOSED UTILITIES BY OTHERS. (DEPTHS ESTIMATED)

NOTE: MOMENT SLAB AND PARAPET FROM STA. 127+67.66 TO STA. 136+14.95 SEE SHEET NO. RW64

NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE WEST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. C5.

CAUTION: LOCATION, DEPTH AND SIZE OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR.

NOTE: SEE SHEET NO. RW38-RW39 FOR DETAILS

Design	Drawn	Checked	Approved	Squad	POE

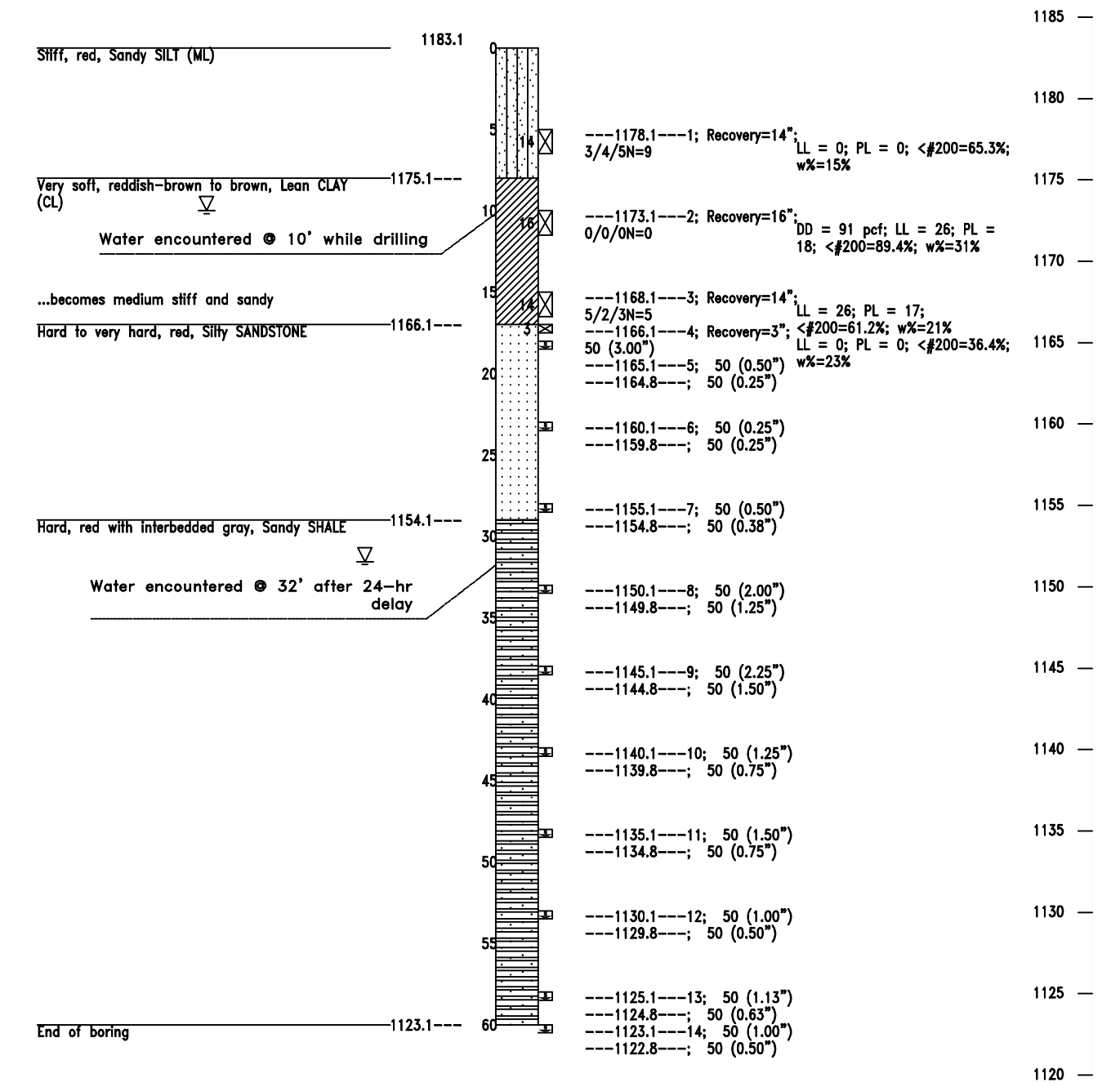
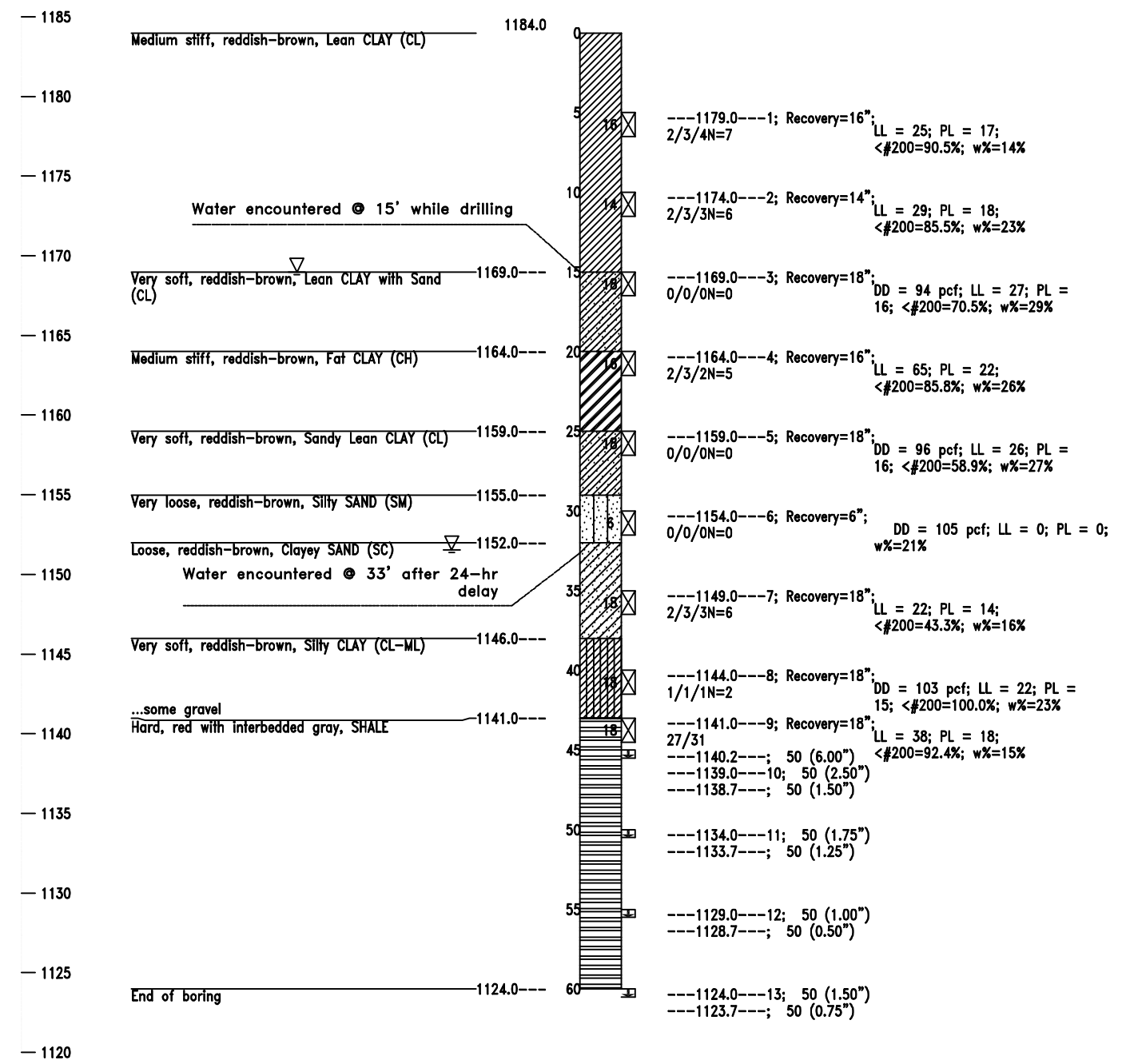
C.I.P. RETAINING WALL "C" AND M.S.E. RETAINING WALL "C-1" PLAN & ELEVATION

State Job No. 23310(04) Sheet No. RW12

DESCRIPTION	REVISIONS	DATE

Boring Number WC-1
I-40 Station: 127+88.47
Offset: 97.80 LT.

Boring Number WC-2
I-40 Station: 129+78.42
Offset: 99.02 LT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

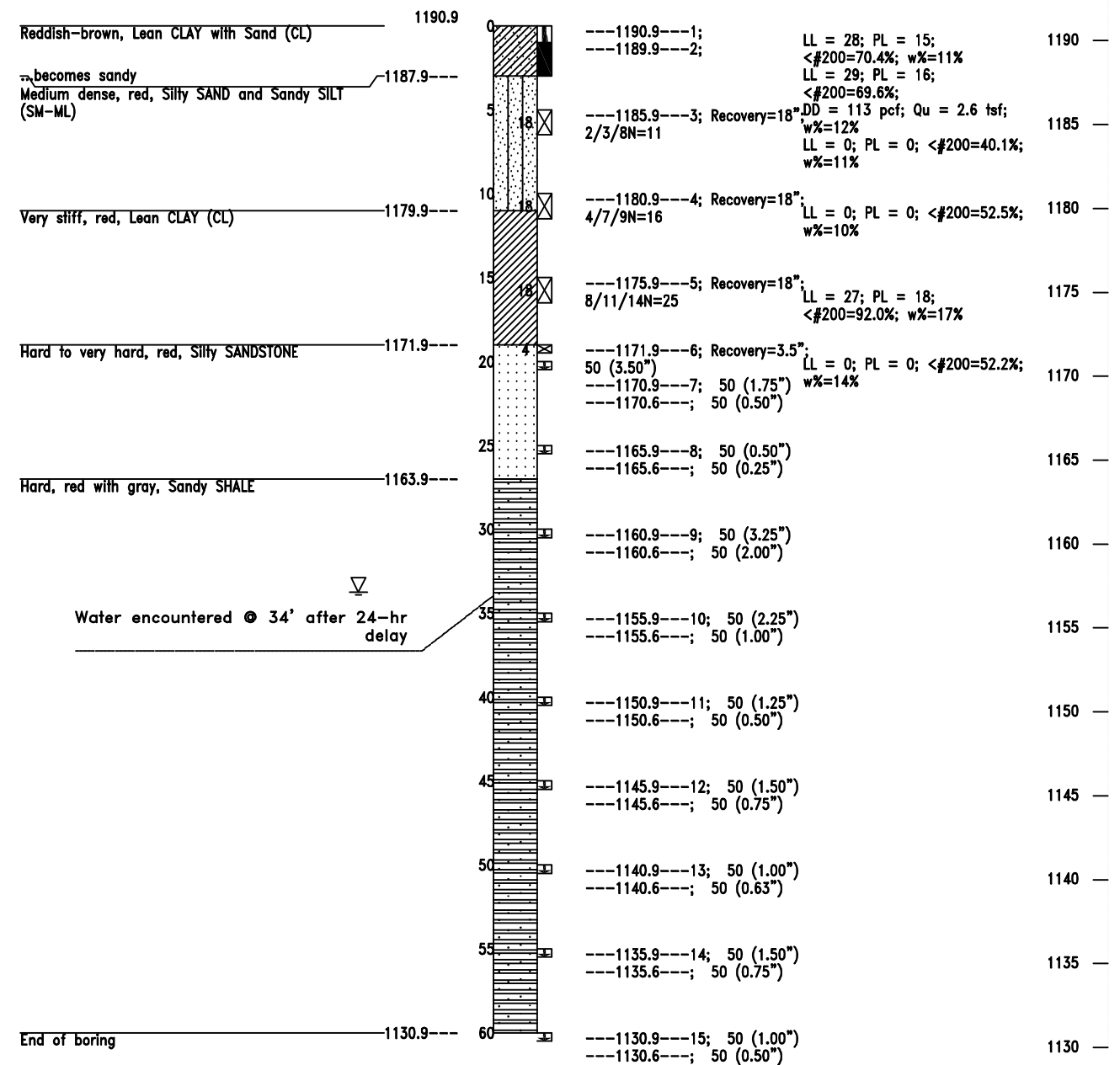
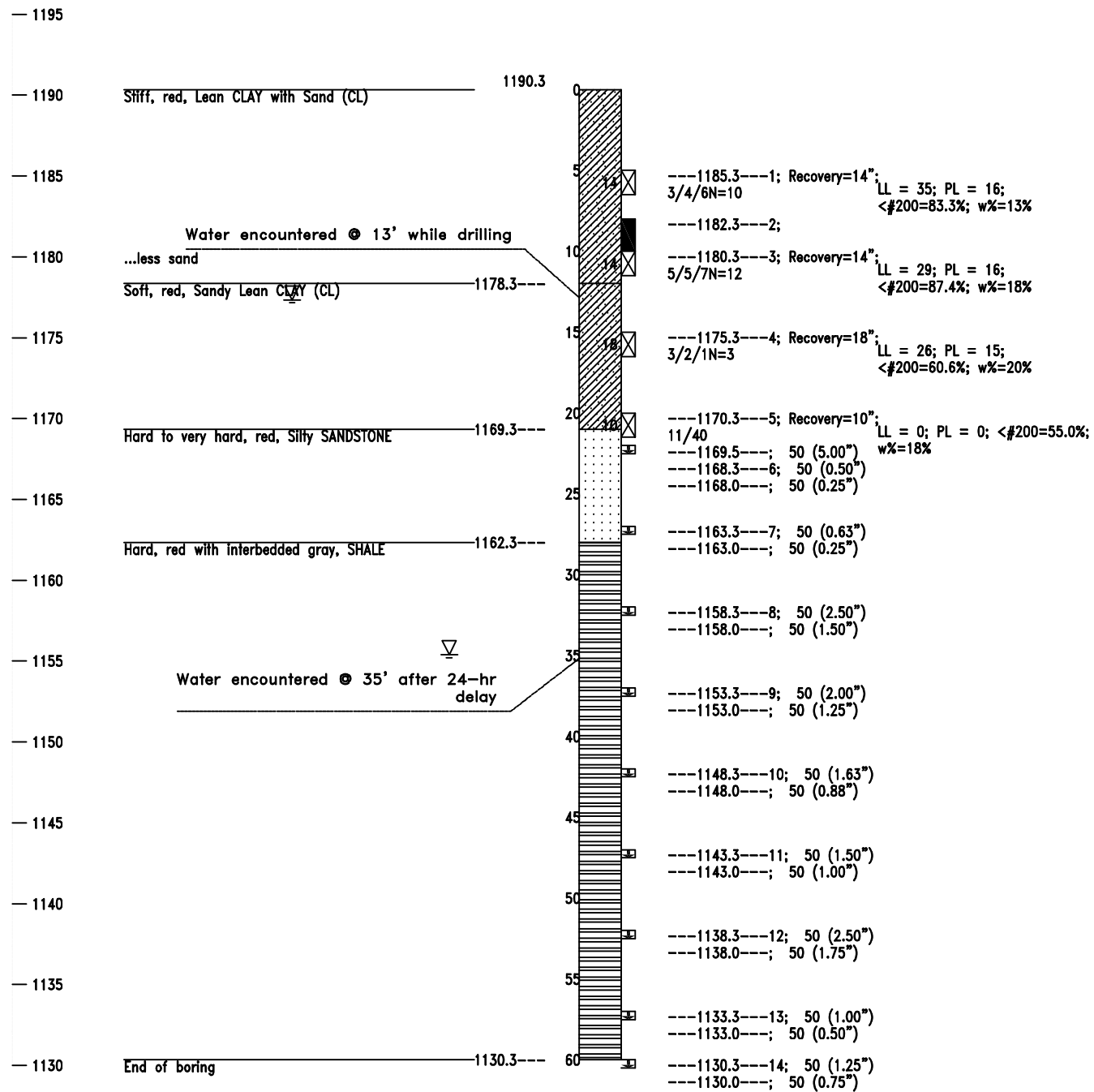
OKLAHOMA COUNTY

Design			FOUNDATION REPORT RETAINING WALL "C" 1 of 3 State Job No. 23310(04) Sheet No. RW13
Detail			
Checked			
Approved			
Squad	PSI		

DESCRIPTION	REVISIONS	DATE

Boring Number WC-3
I-40 Station: 131+79.31
Offset: 113.10 LT.

Boring Number WC-4
I-40 Station: 133+68.78
Offset: 129.05 LT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE: Denotes Split Spoon Test
 Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

OKLAHOMA COUNTY

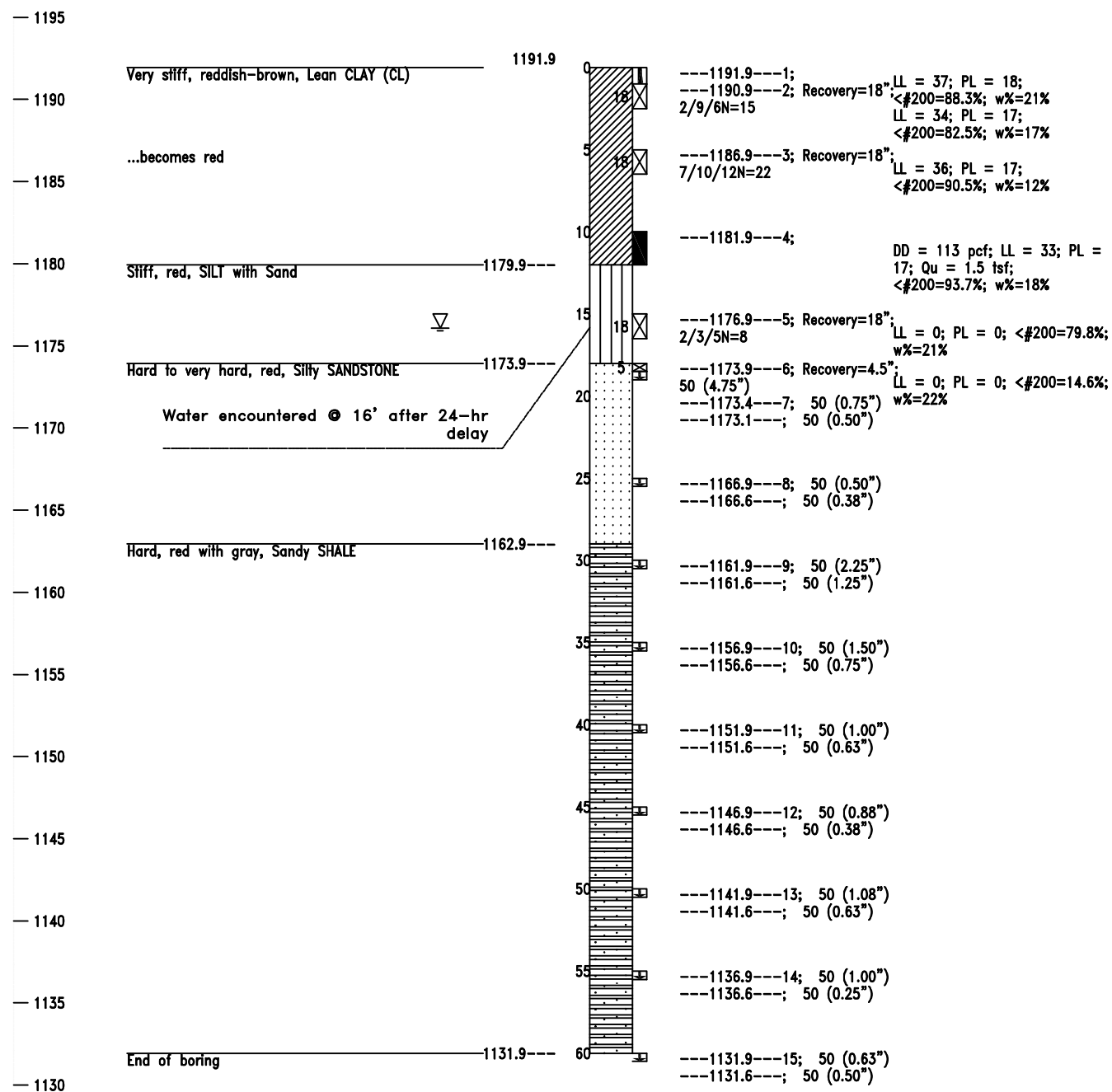
Design	
Detail	
Checked	
Approved	
Squad	PSI

**FOUNDATION REPORT
RETAINING WALL "C"
2 of 3**

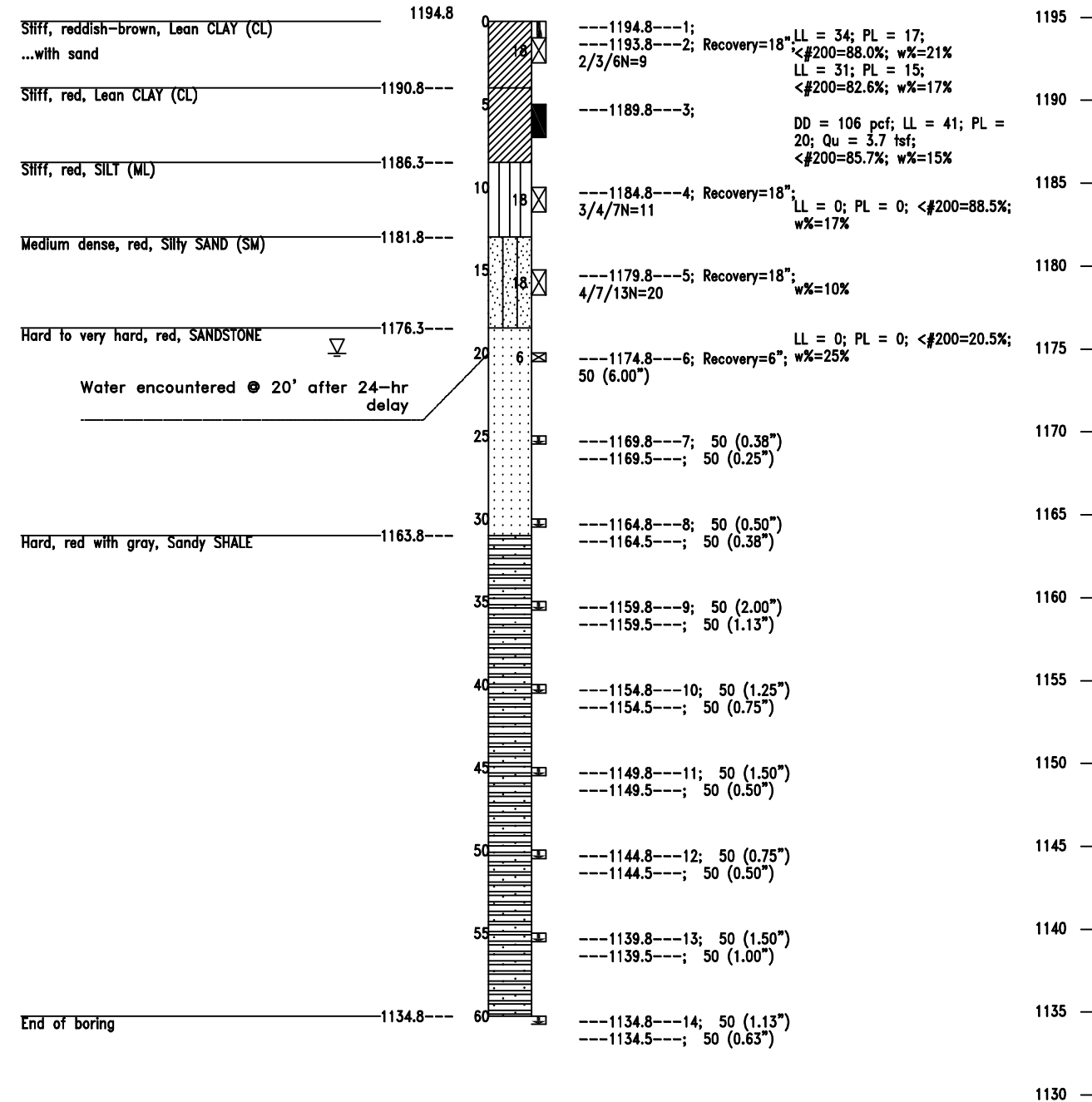
State Job No. 23310(04) Sheet No. RW14

DESCRIPTION	REVISIONS	DATE

Boring Number WC-5
I-40 Station: 135+58.26
Offset: 138.45 LT.



Boring Number WC-6
I-40 Station: 136+67.08
Offset: 139.16 LT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

OKLAHOMA COUNTY

Design	
Detail	
Checked	
Approved	
Squad	PSI

FOUNDATION REPORT
RETAINING WALL "C"
3 of 3

State Job No. 23310(04) Sheet No. RW15

BM17 - ∇ ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. ∇ I-40 STA. 133+75.70 ELEV. 1193.35

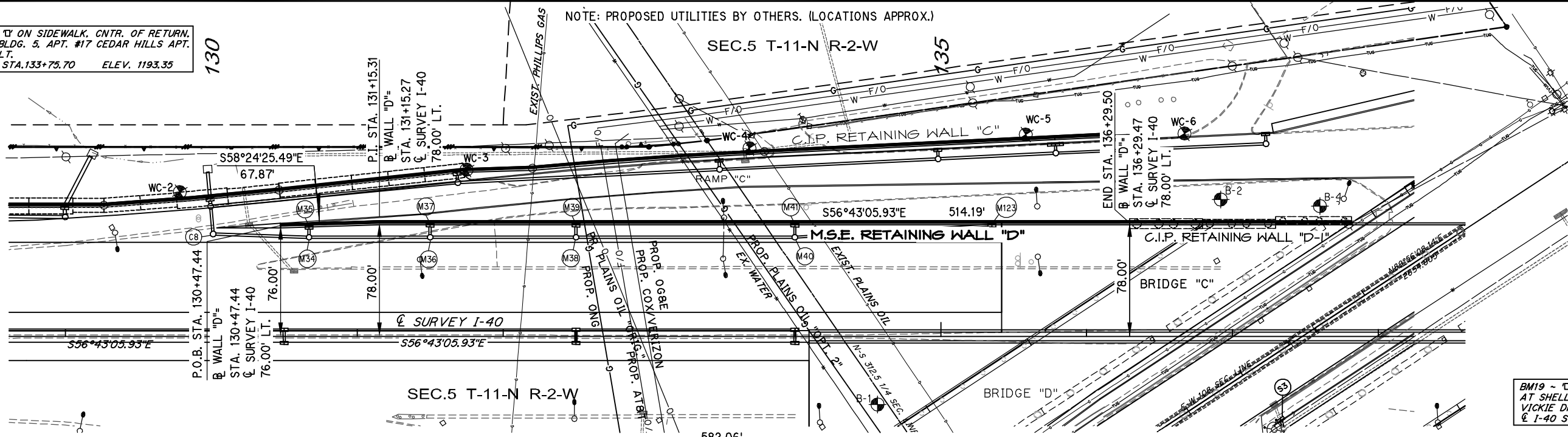
130

NOTE: PROPOSED UTILITIES BY OTHERS. (LOCATIONS APPROX.)

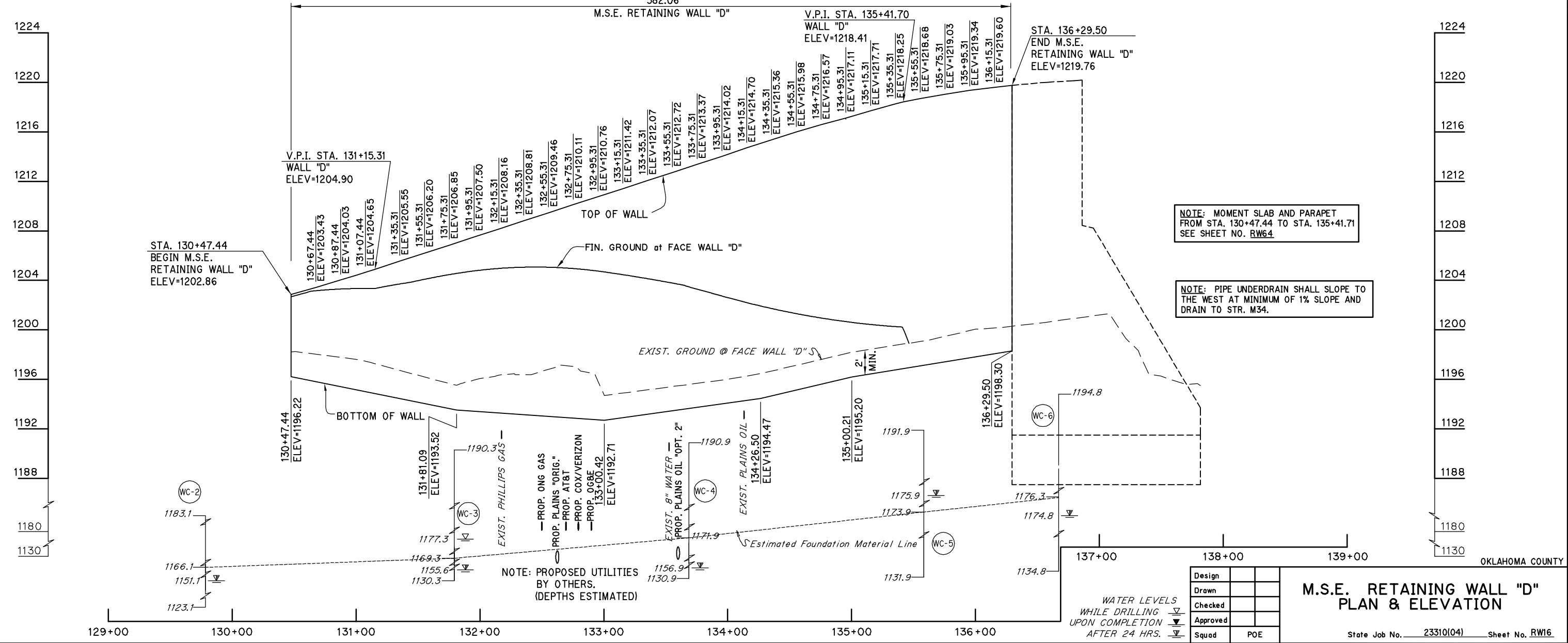
SEC.5 T-11-N R-2-W

135

DESCRIPTION	REVISIONS	DATE



BM19 - ∇ ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. ∇ I-40 STA. 141+49.56 ELEV. 1202.95



NOTE: MOMENT SLAB AND PARAPET FROM STA. 130+47.44 TO STA. 135+41.71 SEE SHEET NO. RW64

NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE WEST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. M34.

Design	
Drawn	
Checked	
Approved	
Squad	POE

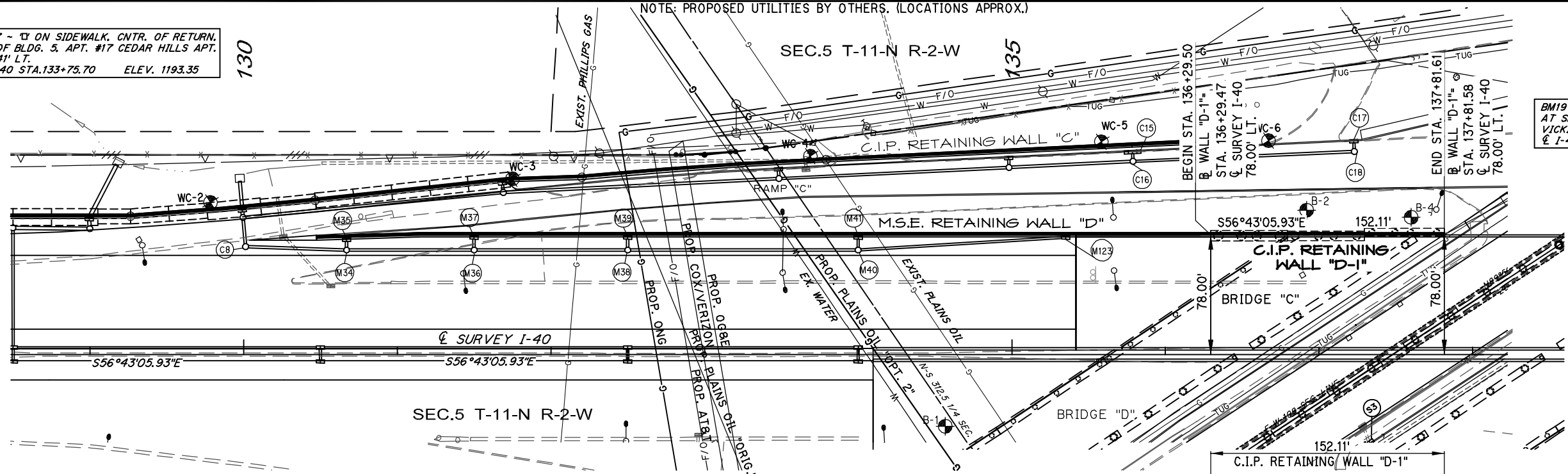
M.S.E. RETAINING WALL "D" PLAN & ELEVATION

State Job No. 23310(04) Sheet No. RW16

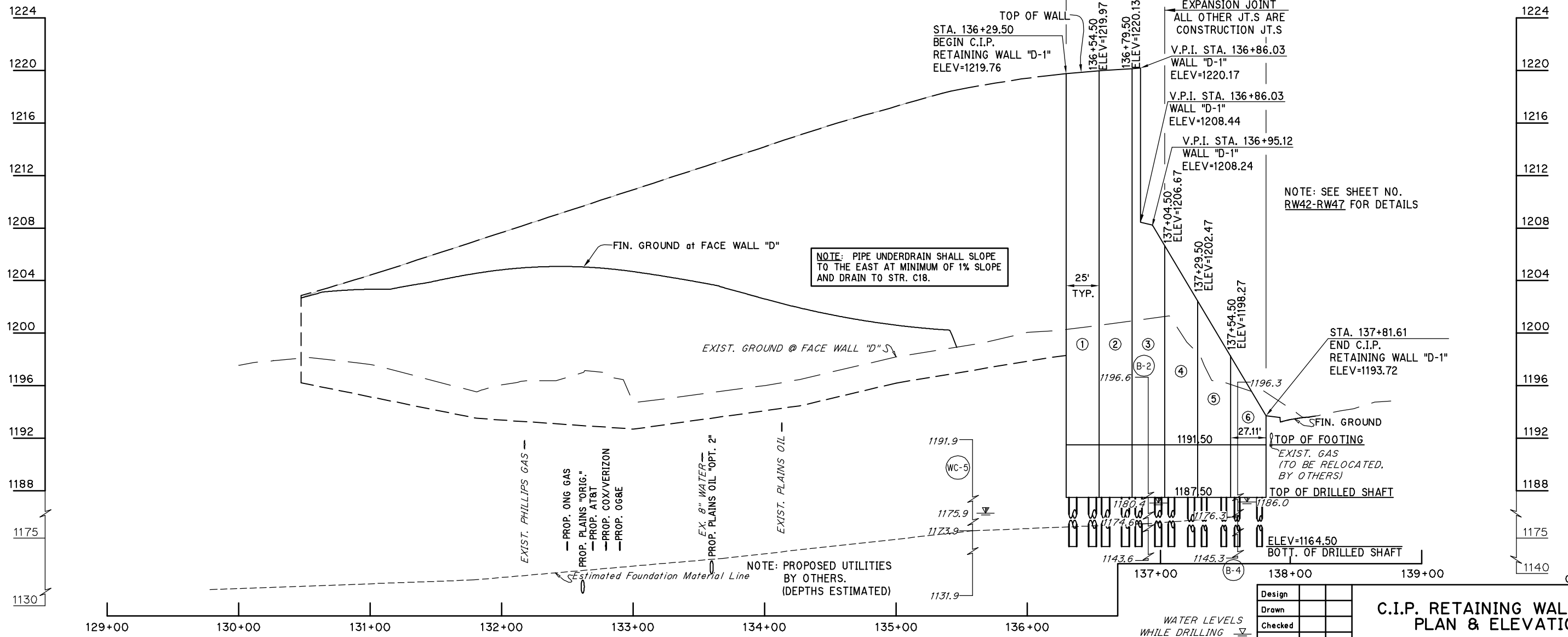
BM17 - 1" ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. I-40 STA.133+75.70 ELEV. 1193.35

NOTE: PROPOSED UTILITIES BY OTHERS. (LOCATIONS APPROX.)

DESCRIPTION	REVISIONS	DATE



BM19 - 1" ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. I-40 STA.141+49.56 ELEV. 1202.95



NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE EAST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. C18.

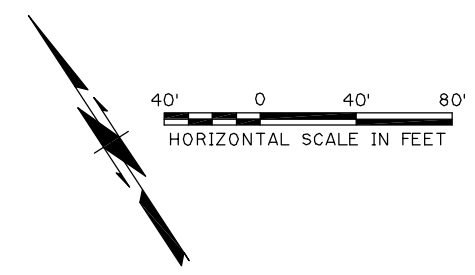
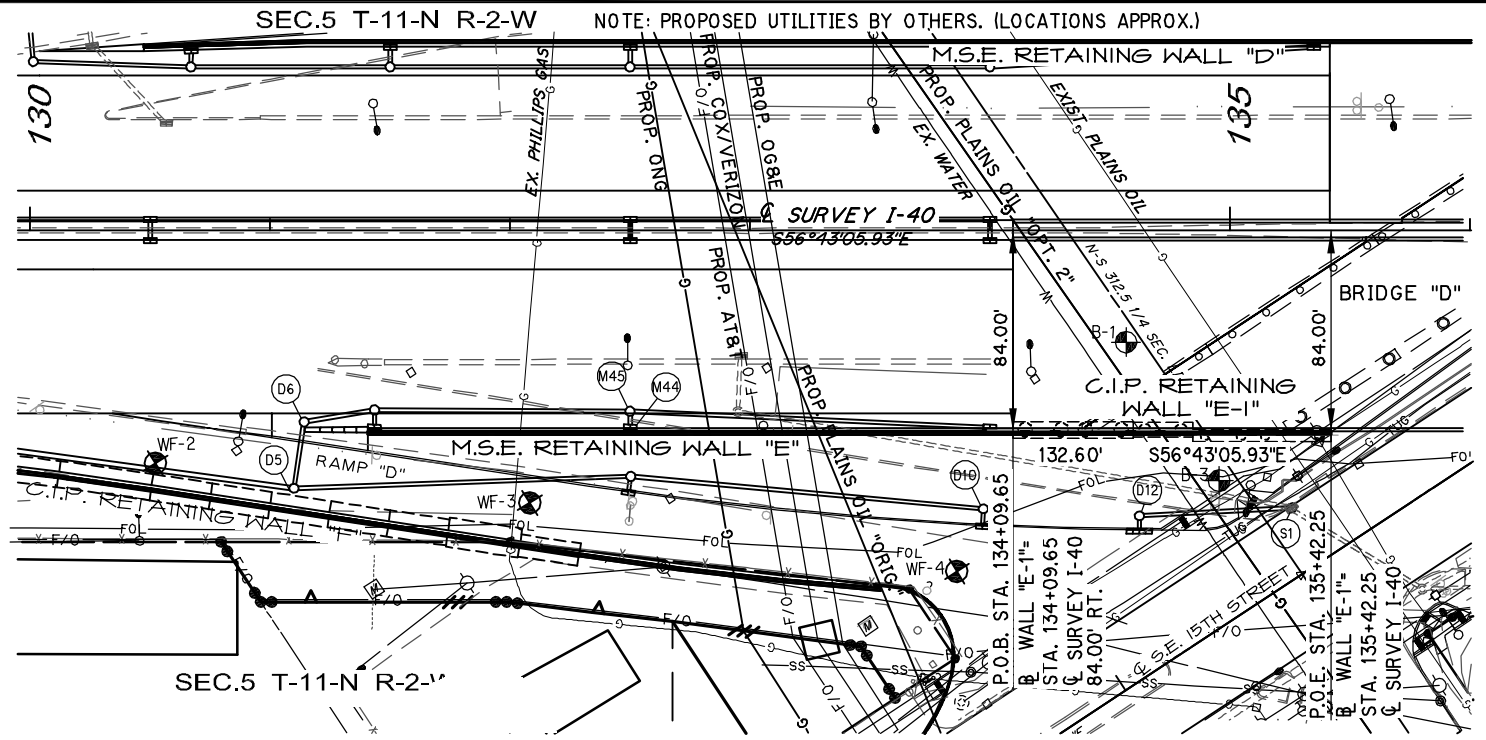
NOTE: SEE SHEET NO. RW42-RW47 FOR DETAILS

Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALL "D-1" PLAN & ELEVATION

State Job No. 23310(04) Sheet No. RW17

DESCRIPTION	REVISIONS	DATE

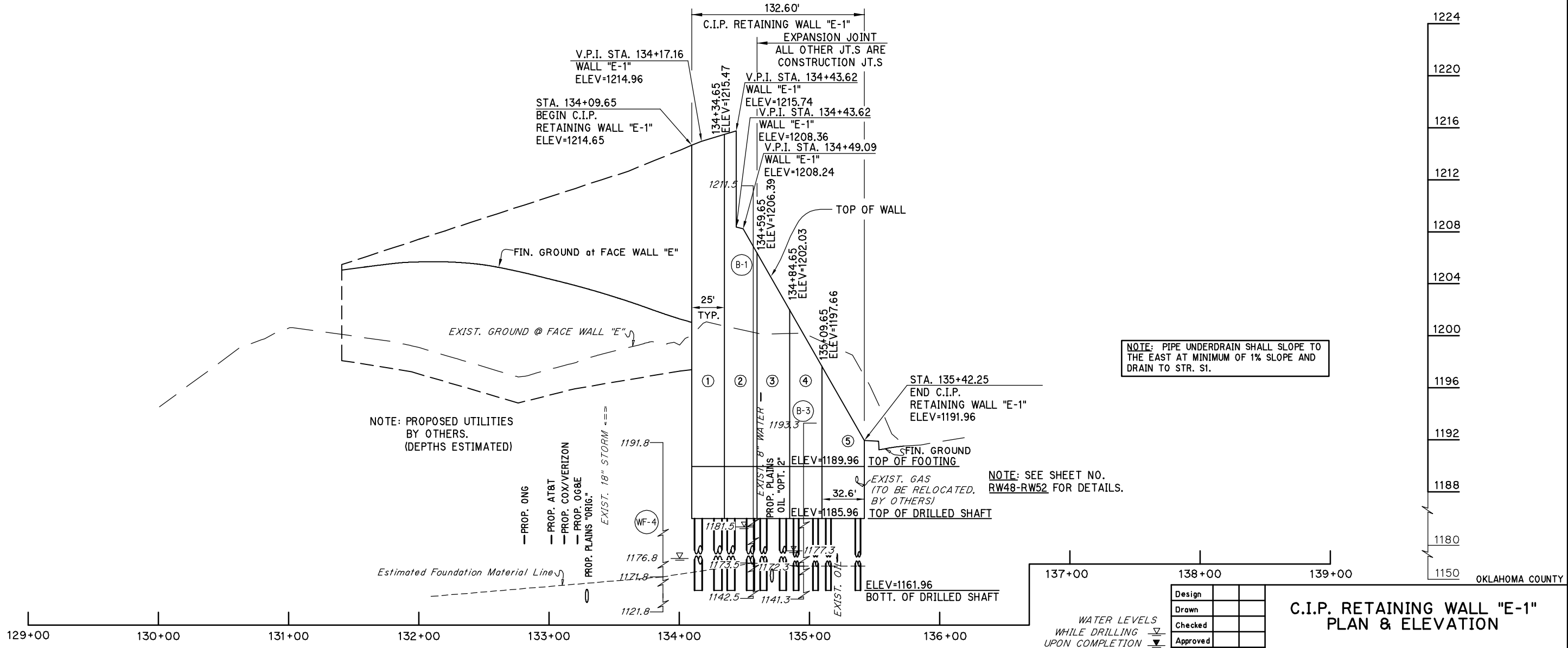


BM18 - \square ON TOP OF W. HDWL OF 30" RCP
12' W. OF ASPH. TRAIL. SW OF CRUTCHO CRK.
BRIDGE 136.06' RT.
I-40 STA. 126+35.52 ELEV. 1182.81

BM22 - \square ON CURB RETURN, 1ST DRIVE E.
OF S.E. 15TH ST. & SERVICE RD. 127.77' RT.
I-40 STA. 141+39.36 ELEV. 1196.93

1224
1220
1216
1212
1208
1204
1200
1196
1192
1188
1180
1180
1180
1120

1224
1220
1216
1212
1208
1204
1200
1196
1192
1188
1180
1180
1150



NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE EAST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. S1.

NOTE: SEE SHEET NO. RW48-RW52 FOR DETAILS.

Design	
Drawn	
Checked	
Approved	
Squad	POE

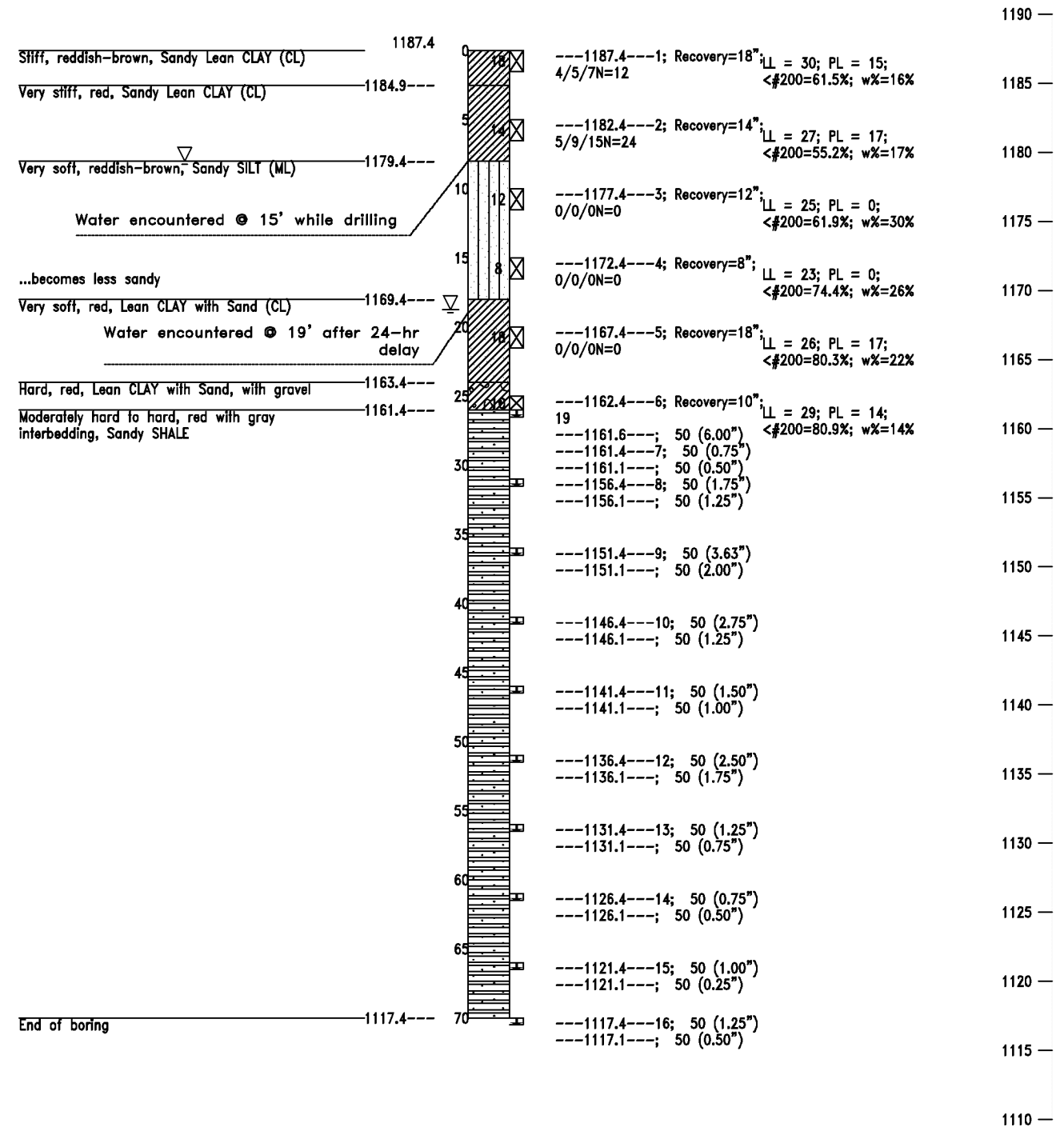
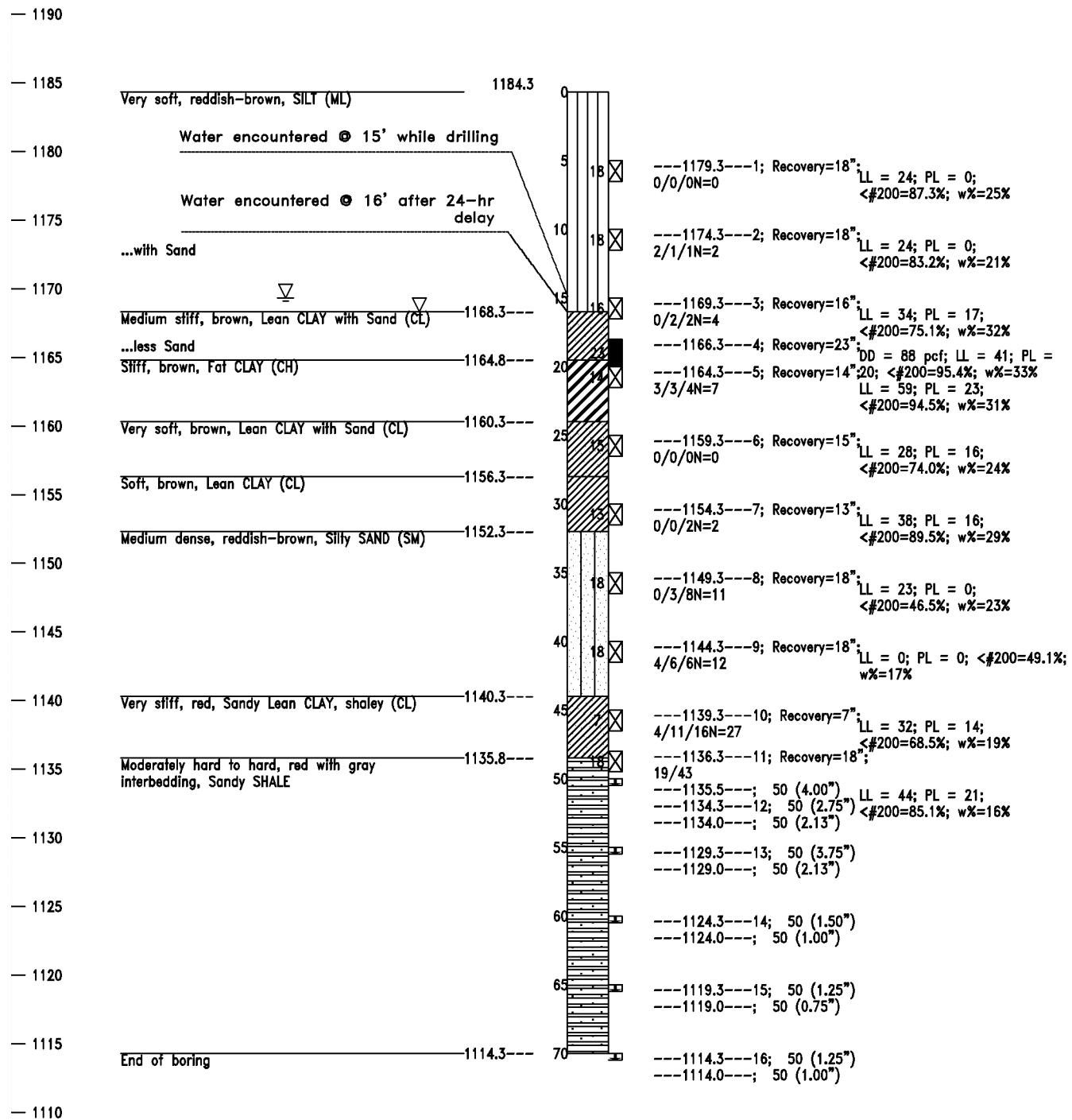
**C.I.P. RETAINING WALL "E-1"
PLAN & ELEVATION**

State Job No. 23310(04) Sheet No. RW19

DESCRIPTION	REVISIONS	DATE

Boring Number WF-1
I-40 Station: 128+86.00
Offset: 86.27 RT.

Boring Number WF-2
I-40 Station: 130+52.22
Offset: 97.18 RT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of streaks of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

OKLAHOMA COUNTY

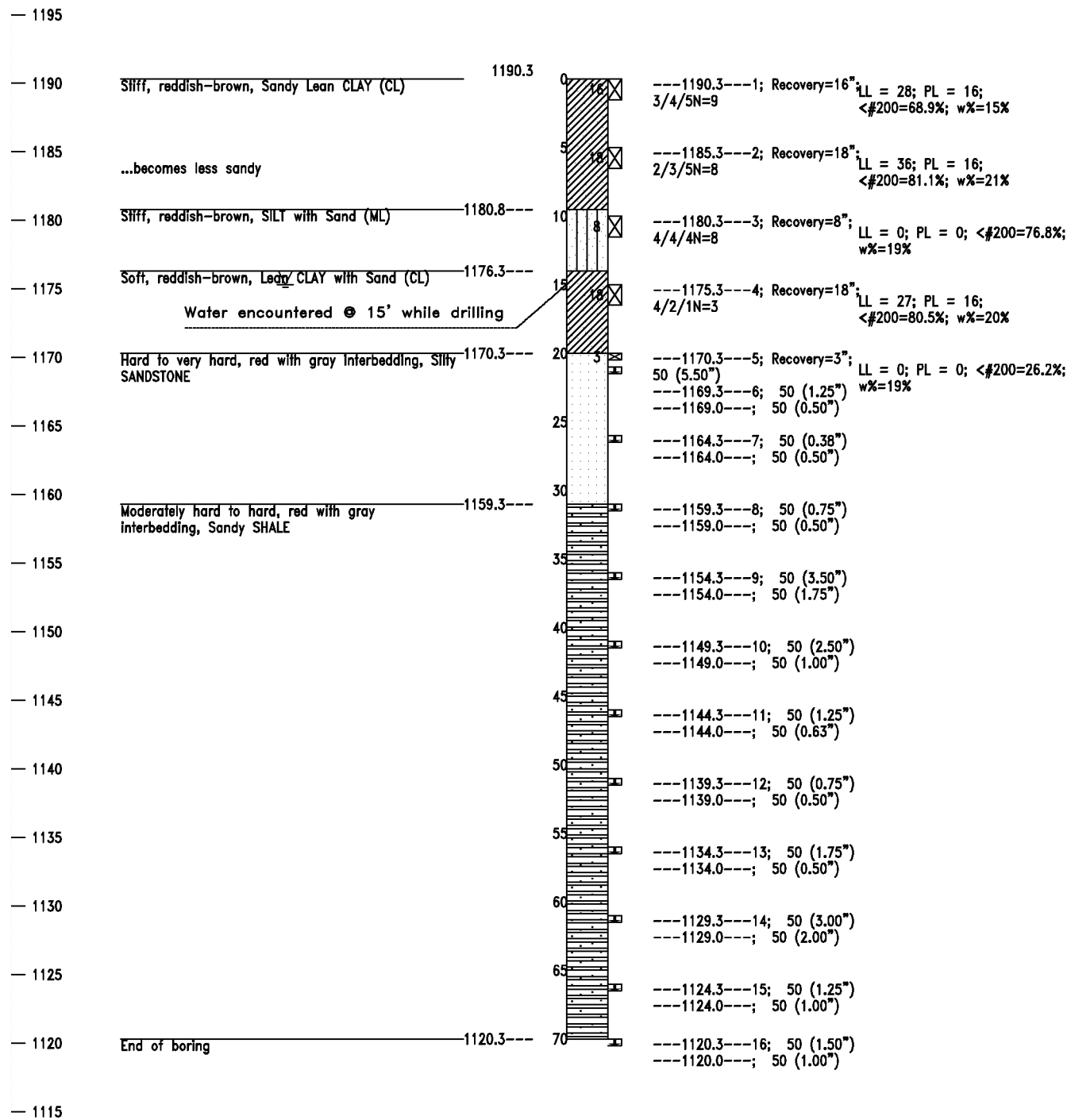
Design	
Detail	
Checked	
Approved	
Squad	PSI

**FOUNDATION REPORT
RETAINING WALL "F"
1 of 2**

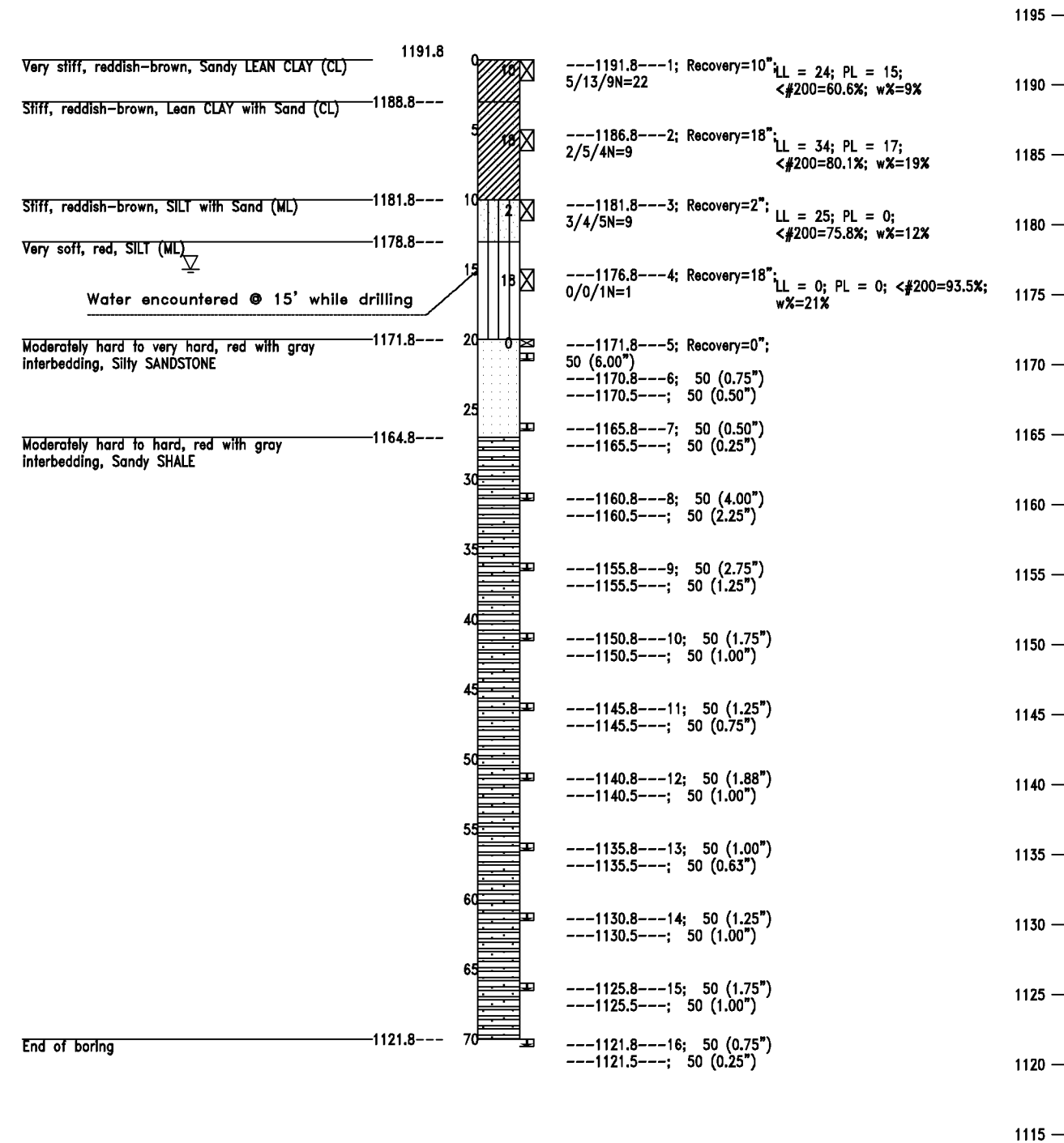
State Job No. 23310(04) Sheet No. RW21

DESCRIPTION	REVISIONS	DATE

Boring Number WF-3
I-40 Station: 132+08.24
Offset: 113.67 RT.



Boring Number WF-4
I-40 Station: 133+86.22
Offset: 142.27 RT.



GEOLOGIC STATEMENT

"Division Four" of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates that below alluvium, the site is underlain by the Hennessey Unit (Phy) in Oklahoma County. The geologic unit is described below. This unit consists of red platy to blocky clay shales and mudstone. The mudstones are hard and appear blocky. The red clay shale of the Hennessey Unit is characterized by numerous bands of white or light green color ranging from a few inches to four feet in thickness. The total thickness of the unit is about 400 feet. The Hennessey Unit outcrops in a 5 to 15 mile north-south band across Grant, Garfield, Kingfisher, Logan, Canadian, and Oklahoma Counties in Division Four. Topographically, the unit is near level to gently rolling and is generally grass covered or cultivated.

NOTE:
 ☒ Denotes Split Spoon Test
 ☐ Denotes Texas Cone Penetrator Test
 * Classification estimated from disturbed samples. Core sample and petrographic analysis may reveal other rock types.

OKLAHOMA COUNTY

Design	
Detail	
Checked	
Approved	
Squad	PSI

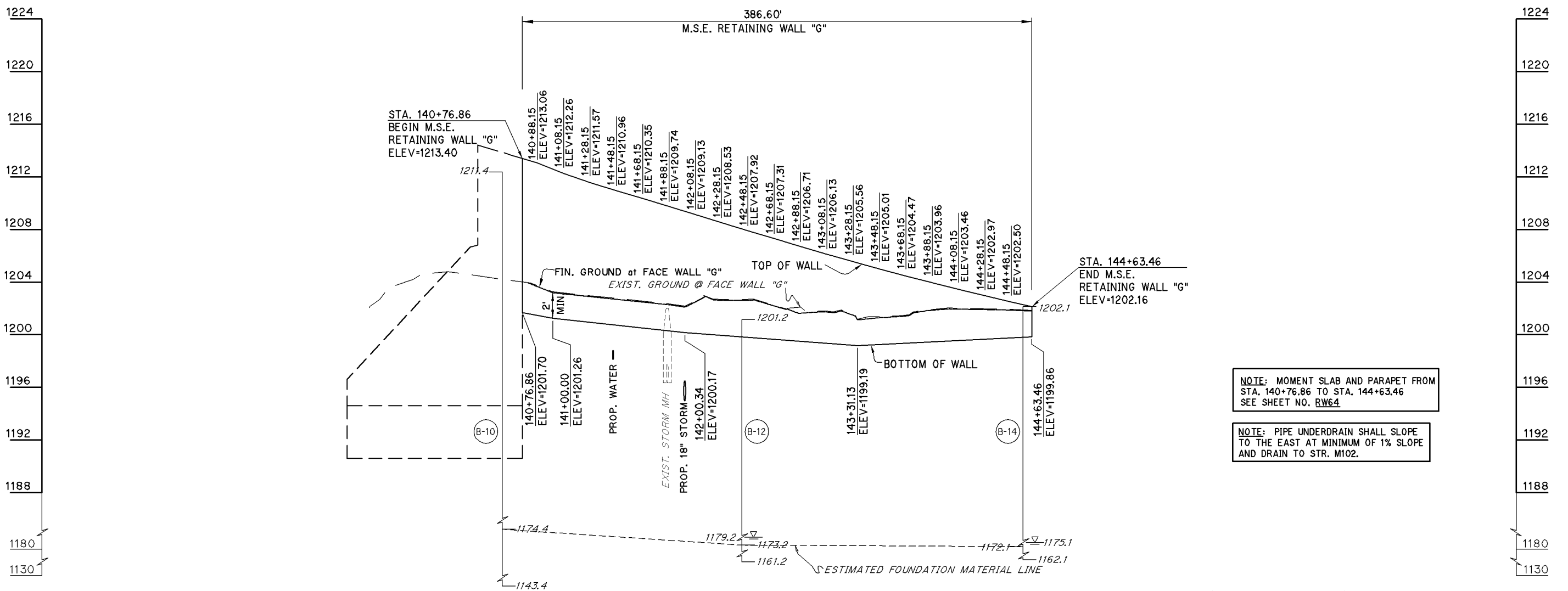
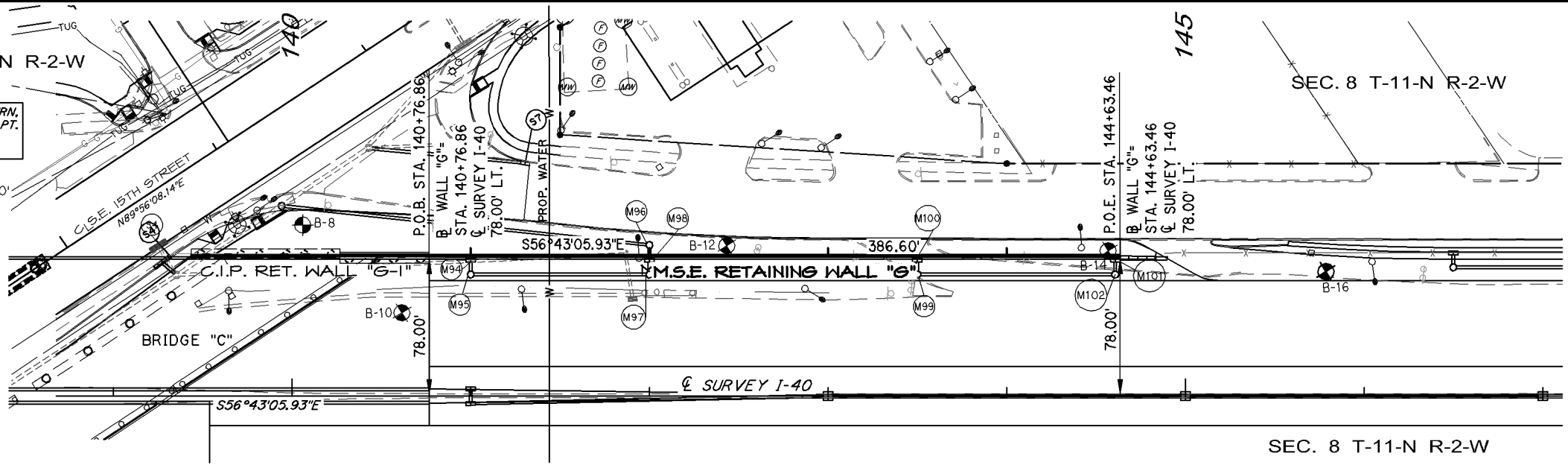
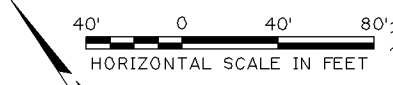
**FOUNDATION REPORT
RETAINING WALL "F"
2 of 2**

State Job No. 23310(04) Sheet No. RW22

DESCRIPTION	REVISIONS	DATE

BM17 - ∇ ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. ∇ I-40 STA. 133+75.70 ELEV. 1193.35

BM19 - ∇ ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. @ VICKIE DR. NORTH 183.46' LT. ∇ I-40 STA. 141+49.56 ELEV. 1202.95



NOTE: MOMENT SLAB AND PARAPET FROM STA. 140+76.86 TO STA. 144+63.46 SEE SHEET NO. RW64

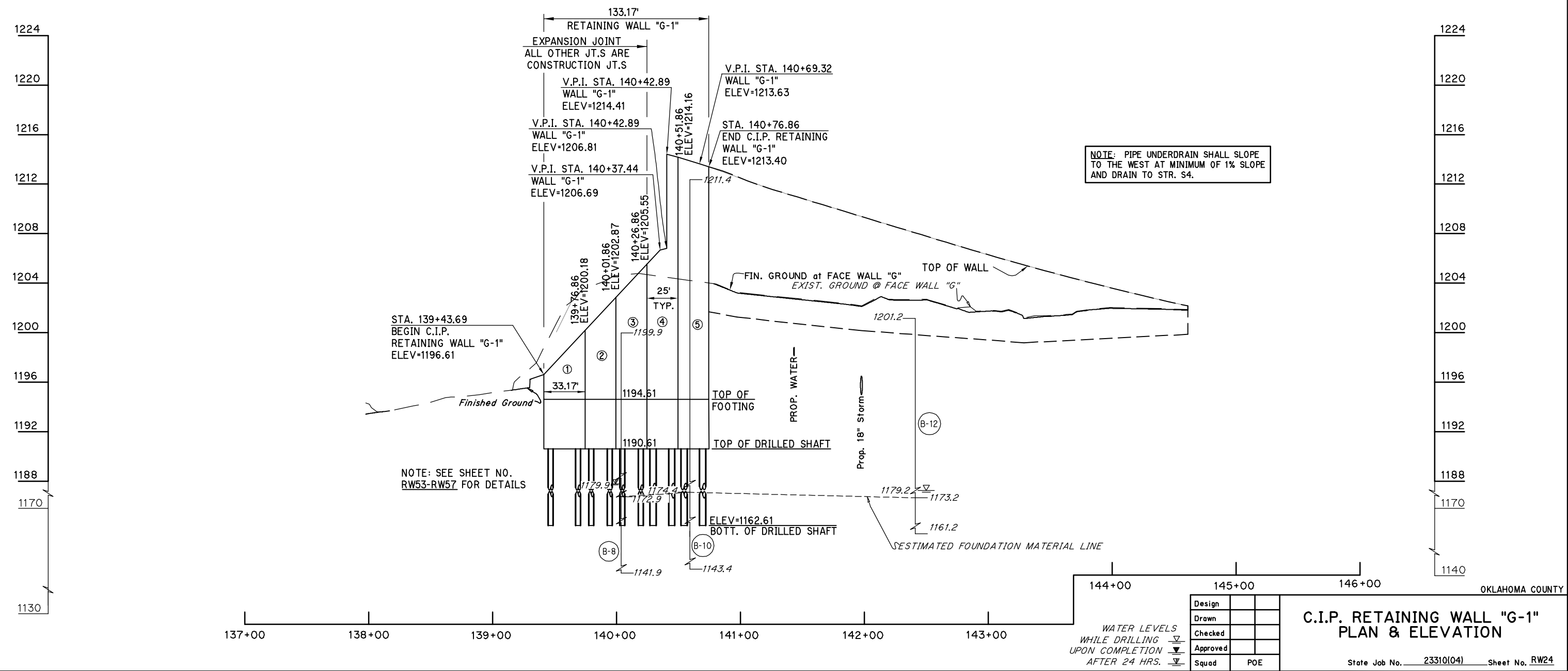
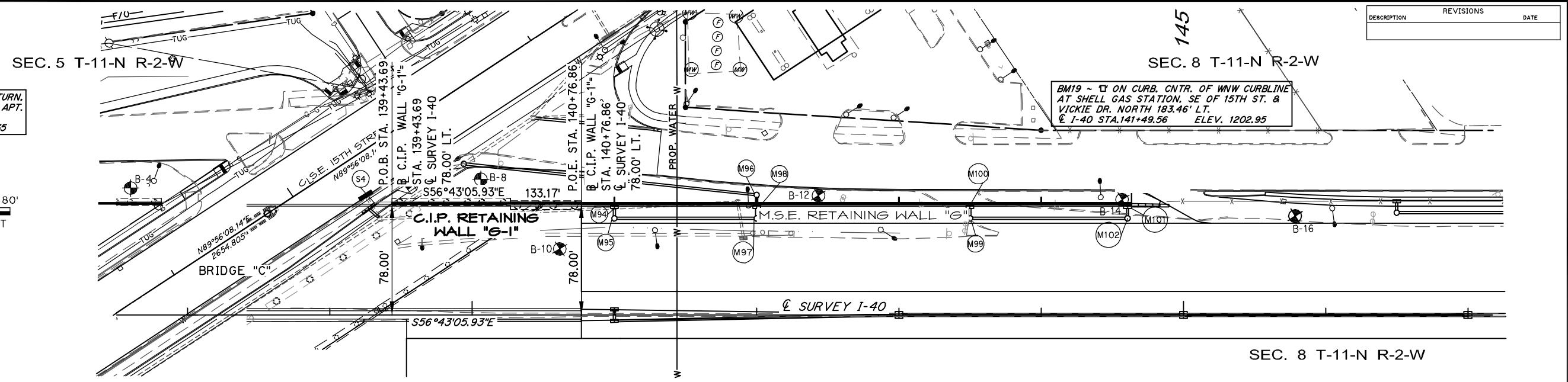
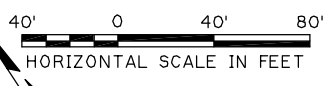
NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE EAST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. M102.

	146+00	147+00	148+00	OKLAHOMA COUNTY										
138+00	139+00	140+00	141+00	142+00										
143+00	144+00	145+00	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>Design</td><td> </td></tr> <tr><td>Drawn</td><td> </td></tr> <tr><td>Checked</td><td> </td></tr> <tr><td>Approved</td><td> </td></tr> <tr><td>Squad</td><td>POE</td></tr> </table>		Design		Drawn		Checked		Approved		Squad	POE
Design														
Drawn														
Checked														
Approved														
Squad	POE													
<p>WATER LEVELS WHILE DRILLING ∇</p> <p>UPON COMPLETION ∇</p> <p>AFTER 24 HRS. ∇</p>				<p>M.S.E. RETAINING WALL "G"</p> <p>PLAN & ELEVATION</p>										
				State Job No. <u>23310(04)</u> Sheet No. <u>RW23</u>										

DESCRIPTION	REVISIONS	DATE

BM17 - ∇ ON SIDEWALK, CNTR. OF RETURN, SW OF BLDG. 5, APT. #17 CEDAR HILLS APT. 179.41' LT. ∇ I-40 STA. 133+75.70 ELEV. 1193.35

BM19 - ∇ ON CURB, CNTR. OF WNW CURBLINE AT SHELL GAS STATION, SE OF 15TH ST. & VICKIE DR. NORTH 183.46' LT. ∇ I-40 STA. 141+49.56 ELEV. 1202.95

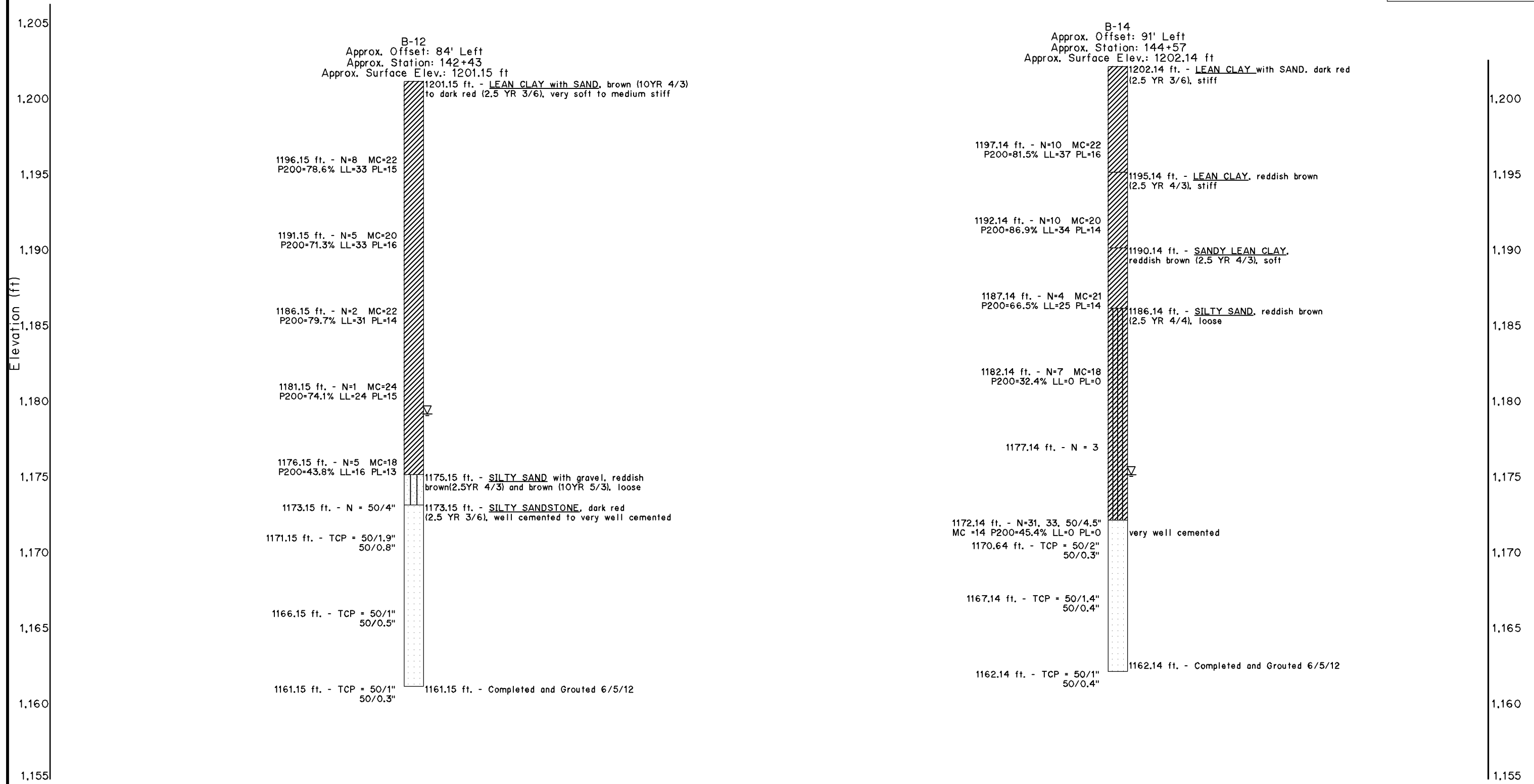


Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALL "G-1"
PLAN & ELEVATION

State Job No. 23310(04) Sheet No. RW24

DESCRIPTION	REVISIONS	DATE



SITE GEOLOGY

Division Four of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates the project site is underlain by the Garber-Wellington unit (Pgw). The upper 400 feet of the Garber-Wellington unit consists dominantly of red, massive, soft, lenticular, commonly cross-bedded, sandstone with minor amounts of red clay shale and red sandy shales. The lower 700 feet consists of red to maroon fissile to blocky shale containing some pinkish buff, massive to thin-bedded, fine-grained, lensing sandstones. The total thickness of the Garber-Wellington unit is about 1,100 feet, of which the upper 700 feet outcrops in Division Four. The unit outcrops in southeastern Oklahoma County, south of the North Canadian River. Topographically, the sandstones generally cap ridges and support blackjack oak and post oak trees. The soft sandstones are easily eroded and, locally, winds have reworked the surface to form vegetated dunes. Shales generally underlie the valleys and more gently rolling hills. The Garber-Wellington-Admire units (Pg, Pgw, Pwe, and Pwa) consist of a series of alternating sandstones and shales which may be subdivided into individual units locally; but due to the similarity of materials which are commonly known as "red beds", the boundaries are indistinguishable and two or more units are usually mapped together. According to the Geologic Map of the "Hydrologic Atlas 8 of Oklahoma," Reconnaissance of the Water Resources of The Oklahoma City Quadrangle, Central Oklahoma," by Robert B. Morton, U.S. Geological Survey, 1980, indicates that the project site located over the Garber Sandstone (pg). The geologic formation is described therein as follows: Mostly orange-brown to red-brown fine-grained sandstone, irregularly bedded with re-brown shale and some chert and mudstone conglomerate. Thickness ranges from 150 feet in the south to 400 or more in north. The Garber and underlying Wellington are major aquifers in Cleveland and Oklahoma Counties.

OKLAHOMA COUNTY

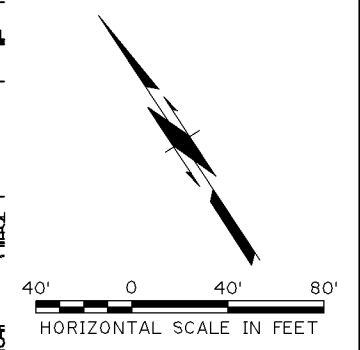
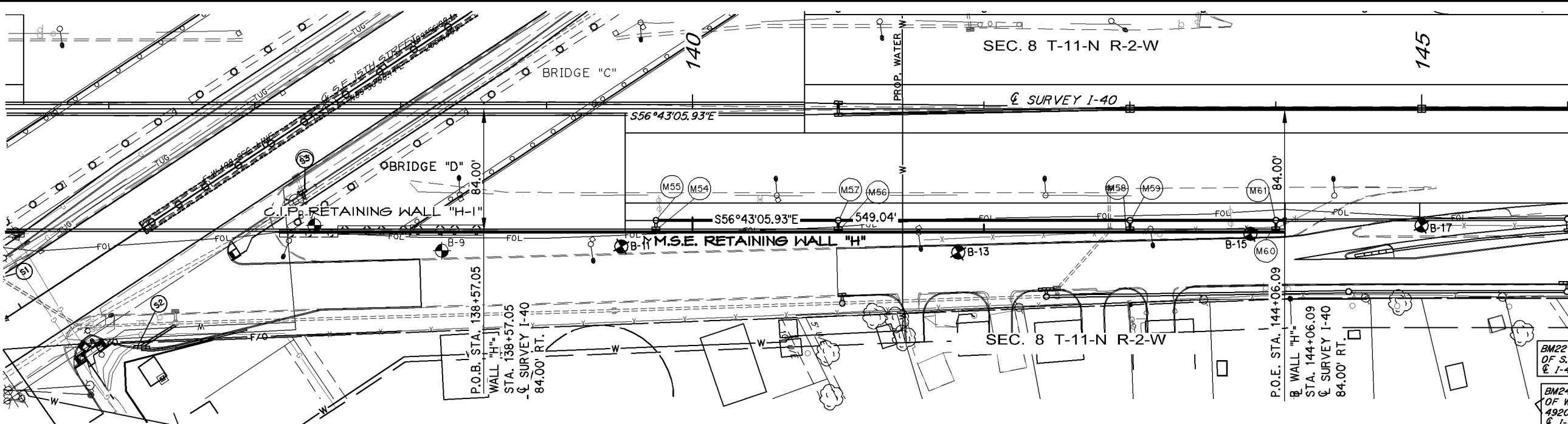
Design	
Detail	
Checked	
Approved	
Squad	RED ROCK

**FOUNDATION REPORT
RETAINING WALL "G"**

State Job No. 23310(04) Sheet No. RW25

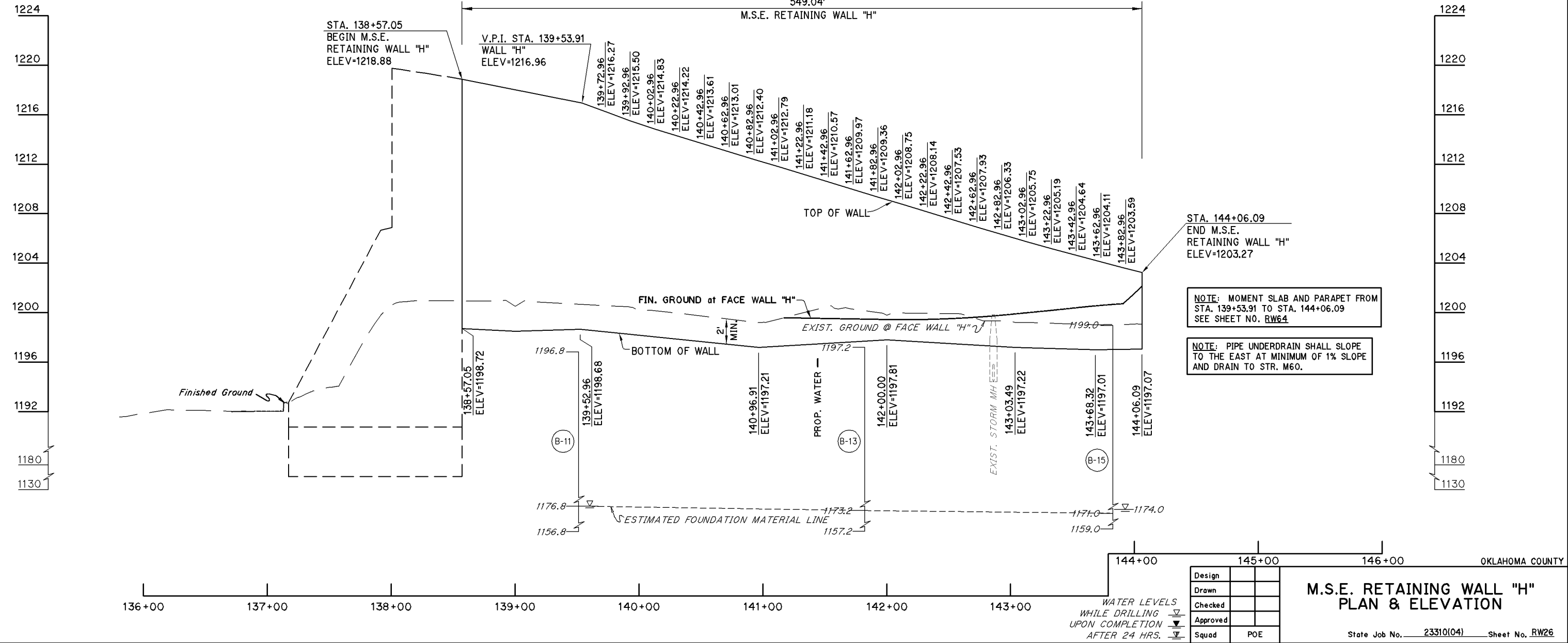
Note: TCP denotes Texas Cone Penetration Test

DESCRIPTION	REVISIONS	DATE



BM22 - 1" ON CURB RETURN, 1ST DRIVE E. OF S.E. 15TH ST. & SERVICE RD. 127.77' RT. I-40 STA. 141+39.36 ELEV. 1196.93

BM24 - 1" ON N.N.W. CURB RETURN W. SIDE OF W. ENTR. TO RAY HIBDON'S CAR LOT 4920 120.83' RT. I-40 STA. 147+31.41 ELEV. 1197.66



NOTE: MOMENT SLAB AND PARAPET FROM STA. 139+53.91 TO STA. 144+06.09 SEE SHEET NO. RW64

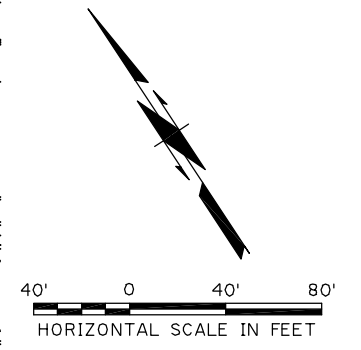
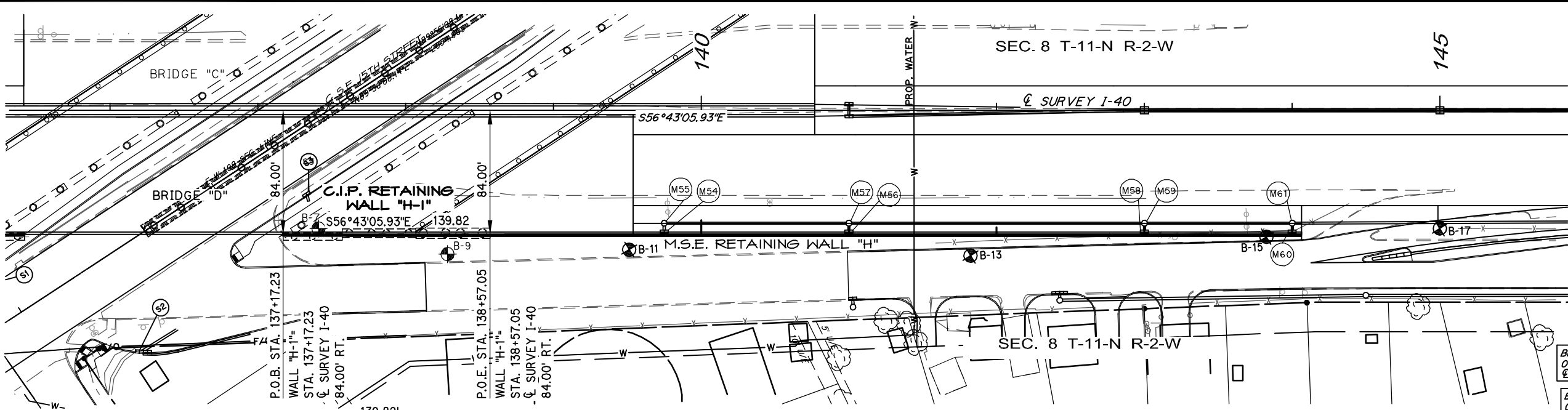
NOTE: PIPE UNDERDRAIN SHALL SLOPE TO THE EAST AT MINIMUM OF 1% SLOPE AND DRAIN TO STR. M60.

Design	
Drawn	
Checked	
Approved	
Squad	POE

M.S.E. RETAINING WALL "H" PLAN & ELEVATION

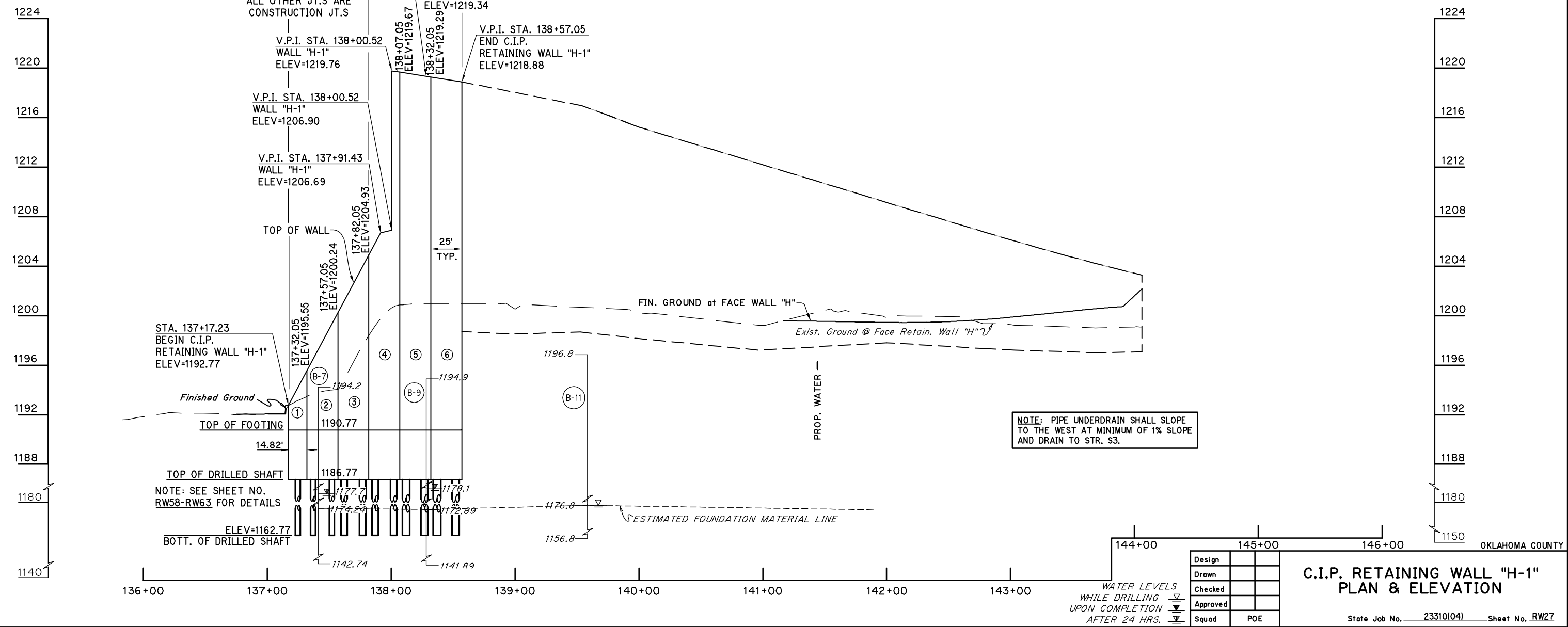
State Job No. 23310(04) Sheet No. RW26

DESCRIPTION	REVISIONS	DATE

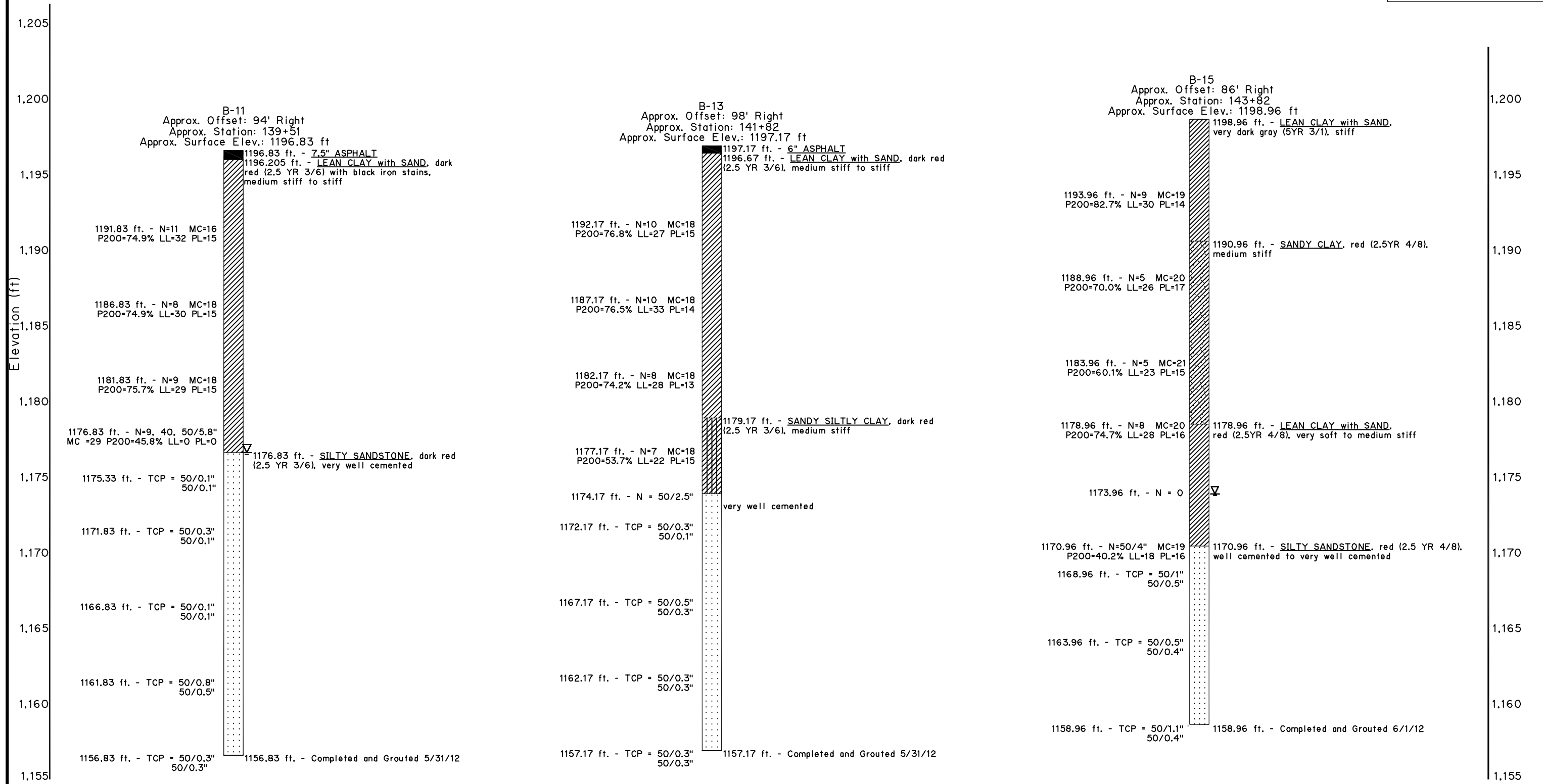


BM22 - 1" ON CURB RETURN, 1ST DRIVE E. OF S.E. 15TH ST. & SERVICE RD. 127.77' RT. CL I-40 STA. 141+39.36 ELEV. 1196.93

BM24 - 1" ON N.N.W. CURB RETURN W. SIDE OF W. ENTR. TO RAY HIBDON'S CAR LOT 4920 120.83' RT. CL I-40 STA. 147+31.41 ELEV. 1197.66



DESCRIPTION	REVISIONS	DATE



SITE GEOLOGY

Division Four of the "Engineering Classification of Geological Materials", published by the Oklahoma Department of Transportation (ODOT) indicates the project site is underlain by the Garber-Wellington unit (Pgw). The upper 400 feet of the Garber-Wellington unit consists dominantly of red, massive, soft, lenticular, commonly cross-bedded, sandstone with minor amounts of red clay shale and red sandy shales. The lower 700 feet consists of red to maroon fissile to blocky shale containing some pinkish buff, massive to thin-bedded, fine-grained, lensing sandstones.

The total thickness of the Garber-Wellington unit is about 1,100 feet, of which the upper 700 feet outcrops in Division Four. The unit outcrops in southeastern Oklahoma County, south of the North Canadian River.

Topographically, the sandstones generally cap ridges and support blackjack oak and post oak trees. The soft sandstones are easily eroded and, locally, winds have reworked the surface to form vegetated dunes. Shales generally underlie the valleys and more gently rolling hills.

The Garber-Wellington-Admire units (Pg, Pgw, Pwe, and Pwa) consist of a series of alternating sandstones and shales which may be subdivided into individual units locally; but due to the similarity of materials which are commonly known as "red beds", the boundaries are indistinguishable and two or more units are usually mapped together.

According to the Geologic Map of the "Hydrologic Atlas 8 of Oklahoma," Reconnaissance of the Water Resources of The Oklahoma City Quadrangle, Central Oklahoma," by Robert B. Morton, U.S. Geological Survey, 1980, indicates that the project site located over the Garber Sandstone (pg). The geologic formation is described therein as follows:

Mostly orange-brown to red-brown fine-grained sandstone, irregularly bedded with re-brown shale and some chert and mudstone conglomerate. Thickness ranges from 150 feet in the south to 400 or more in north. The Garber and underlying Wellington are major aquifers in Cleveland and Oklahoma Counties.

OKLAHOMA COUNTY

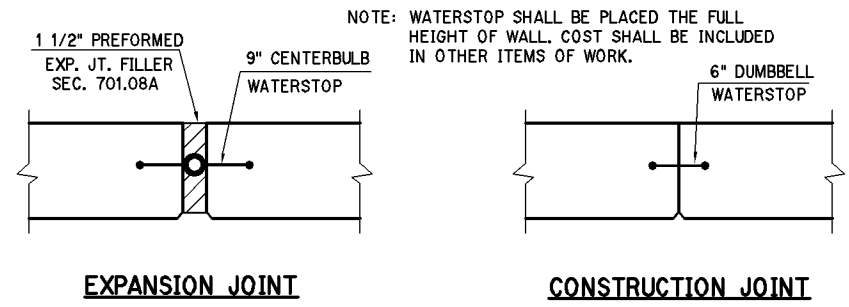
Design	
Detail	
Checked	
Approved	
Squad	RED ROCK

**FOUNDATION REPORT
RETAINING WALL "H"**

State Job No. 23310(04) Sheet No. RW28

Note: TCP denotes Texas Cone Penetration Test

DESCRIPTION	REVISIONS	DATE

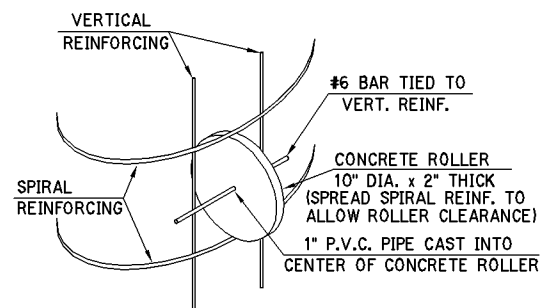


JOINT DETAILS

NOTE: WATERSTOP SHALL BE PLACED THE FULL HEIGHT OF WALL. COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

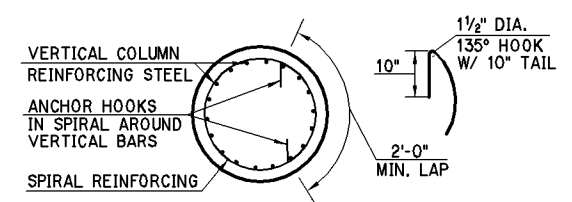
FOUNDATION CAPACITIES

PANELS:	WALL "D-1"			WALL "E-1"		
	NO. 1 & 2	NO. 3 & 4	NO. 5 & 6	NO. 1 & 2	NO. 3	NO. 4 & 5
DRILLED SHAFT DIAMETER =	72"	60"	48"	72"	60"	48"
DRILLED SHAFT MINIMUM DEPTH INTO SHALE =	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
FACTORED REACTION =	298 TONS	183 TONS	116 TONS	301 TONS	184 TONS	117 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF
BEARING RESISTANCE FACTOR =	0.70	0.70	0.70	0.70	0.70	0.70
FACTORED BEARING RESISTANCE =	1188 TONS	825 TONS	528 TONS	1188 TONS	825 TONS	528 TONS
NOMINAL UNIT FRICTION RESISTANCE =	8.35 TSF	8.35 TSF	8.35 TSF	9.44 TSF	9.44 TSF	9.44 TSF
FRICTION RESISTANCE FACTOR =	0.45	0.45	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE =	283 TONS	295 TONS	283 TONS	320 TONS	333 TONS	320 TONS
DEPTH OF SHALE NEGLECTED FOR FRICTION =	6 FT.	5 FT.	4 FT.	6 FT.	5 FT.	4 FT.
TOTAL FACTORED RESISTANCE =	1471 TONS	1120 TONS	811 TONS	1508 TONS	1158 TONS	848 TONS



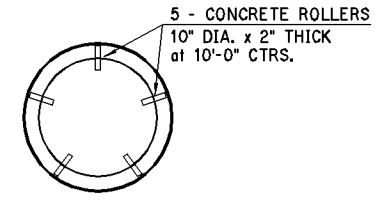
ROLLER INSTALLATION DETAIL

PANELS:	WALL "G-1"		WALL "H-1"			
	NO. 1 - 3	NO. 4 & 5	NO. 1 & 2	NO. 3	NO. 4	NO. 5 & 6
DRILLED SHAFT DIAMETER =	48"	60"	48"	60"	60"	72"
DRILLED SHAFT MINIMUM DEPTH INTO SHALE =	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"
FACTORED REACTION =	122 TONS	207 TONS	117 TONS	184 TONS	214 TONS	301 TONS
NOMINAL UNIT BEARING RESISTANCE =	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF	60.0 TSF
BEARING RESISTANCE FACTOR =	0.70	0.70	0.70	0.70	0.70	0.70
FACTORED BEARING RESISTANCE =	528 TONS	825 TONS	528 TONS	825 TONS	825 TONS	1188 TONS
NOMINAL UNIT FRICTION RESISTANCE =	9.44 TSF	9.44 TSF	9.44 TSF	9.44 TSF	9.44 TSF	9.44 TSF
FRICTION RESISTANCE FACTOR =	0.45	0.45	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE =	320 TONS	333 TONS	320 TONS	333 TONS	333 TONS	320 TONS
DEPTH OF SHALE NEGLECTED FOR FRICTION =	4 FT.	5 FT.	4 FT.	5 FT.	5 FT.	6 FT.
TOTAL FACTORED RESISTANCE =	848 TONS	1158 TONS	848 TONS	1158 TONS	1158 TONS	1508 TONS



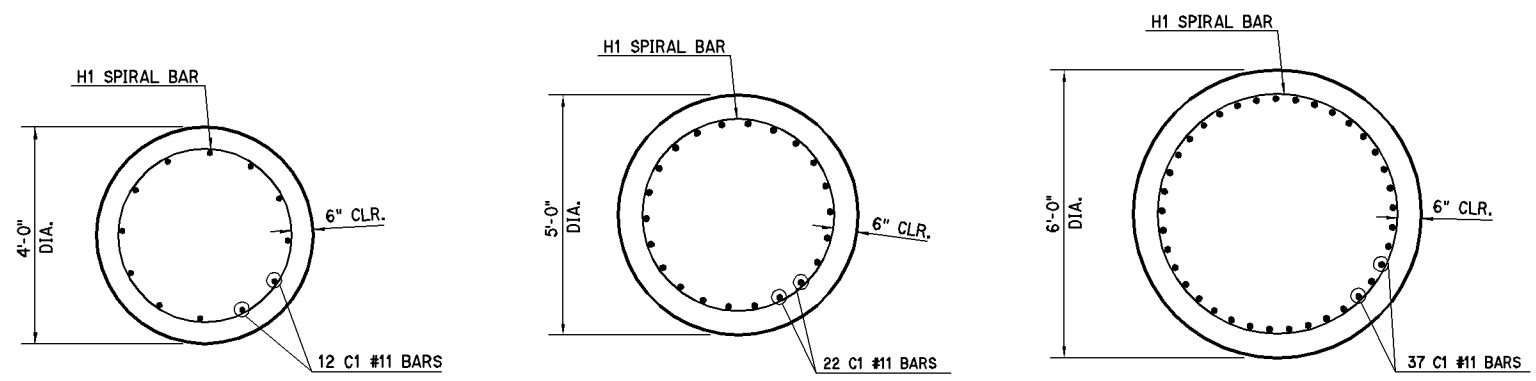
SPIRAL REINFORCING SPLICE DETAIL

NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



ROLLER PLACEMENT DETAIL

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS, AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.



48" DRILLED SHAFT 60" DRILLED SHAFT 72" DRILLED SHAFT

NOTE: FOR DETAILS OF SURFACE TREATMENT, SEE BRIDGE-AESTHETIC SHEETS.

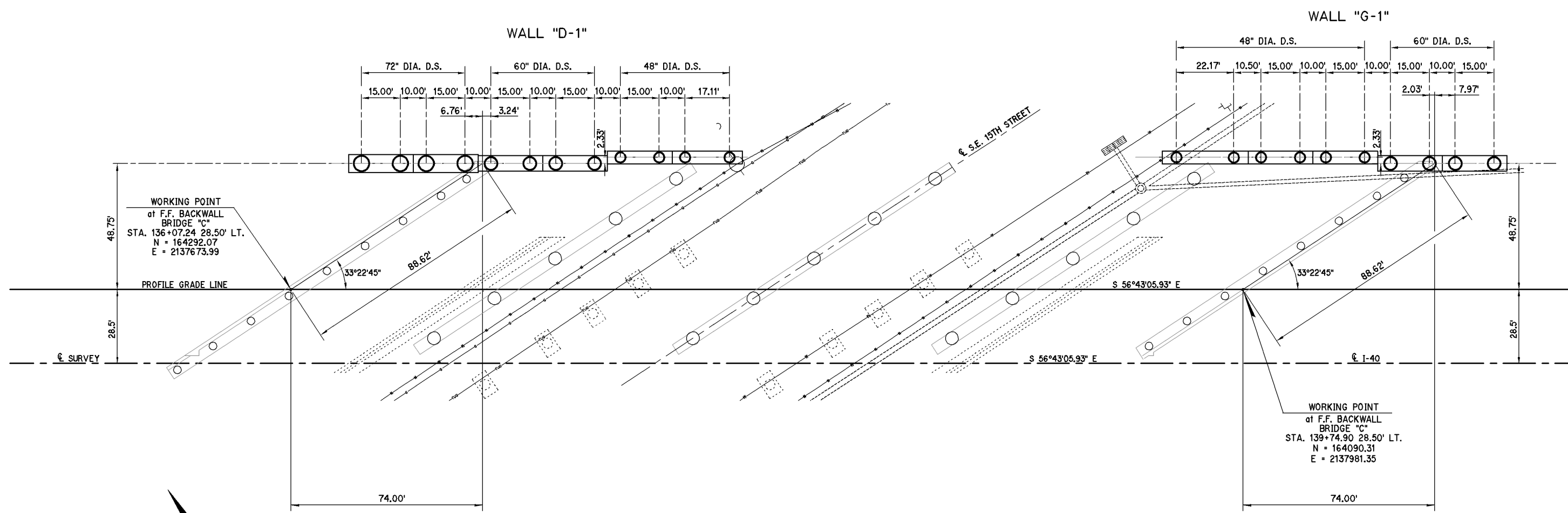
Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALLS "D-1", "E-1", "G-1" & "H-1" DESIGN DATA AND MISCELLANEOUS DETAILS

State Job No. 23310(04) Sheet No. RW29

OKLAHOMA COUNTY

DESCRIPTION	REVISIONS	DATE



C.I.P. RETAINING WALL SUBSTRUCTURE STAKING DIAGRAM

CAUTION:
CONTRACTOR TO LOCATE UTILITIES PRIOR TO DRILLING DRILLED SHAFTS TO ENSURE THE UTILITIES WILL NOT BE IMPACTED. IF UTILITIES ARE IN THE WAY OF CONSTRUCTING THE DRILLED SHAFTS, CONTACT THE ENGINEER.

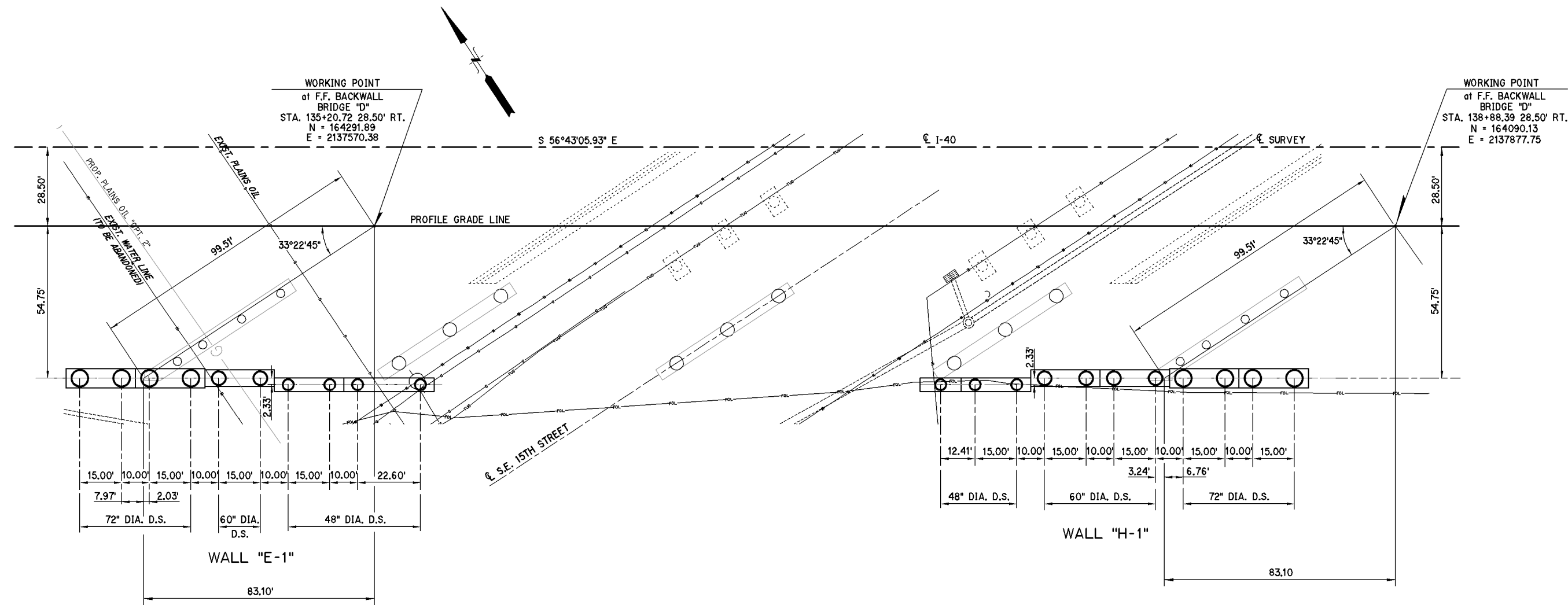
OKLAHOMA ONE-CALL SYSTEM:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:
(CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

NOTE: CONTRACTOR SHALL ALTERNATE CONSTRUCTION OF THE DRILLED SHAFTS FOR C.I.P. WALLS "D-1", "E-1", "G-1", AND "H-1" SO THAT TWO ADJACENT SHAFTS ARE NOT DRILLED AND OPENED AT THE SAME TIME. THIS IS TO AVOID ANY CAVE-INS DURING THE DRILLING AND CONSTRUCTION OF THE DRILLED SHAFTS.

Design			<p align="center">OKLAHOMA COUNTY W.B. I-40 OVER 15TH ST C.I.P. RETAINING WALL SUBSTRUCTURE LAYOUT WALL "D-1" AND "G-1" State Job No. <u>23310(04)</u> Sheet No. <u>RW30</u></p>
Drawn			
Checked			
Approved			
Squad	POE		

DESCRIPTION	REVISIONS	DATE



C.I.P. RETAINING WALL SUBSTRUCTURE STAKING DIAGRAM

CAUTION:
 CONTRACTOR TO LOCATE UTILITIES PRIOR TO DRILLING DRILLED SHAFTS TO ENSURE THE UTILITIES WILL NOT BE IMPACTED. IF UTILITIES ARE IN THE WAY OF CONSTRUCTING THE DRILLED SHAFTS, CONTACT THE ENGINEER.

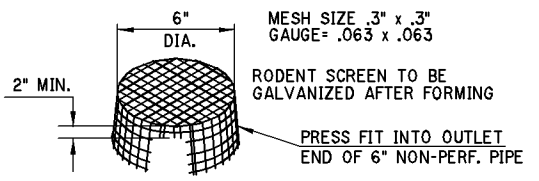
OKLAHOMA ONE-CALL SYSTEM:
 IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

UTILITIES:
 (CAUTION) THE LOCATION OF ALL UTILITIES AS SHOWN ARE APPROXIMATE DUE TO RELOCATION PLANNED OR PRESENTLY UNDER CONSTRUCTION. THERE ARE SOME UTILITIES THAT WILL BE RELOCATED AND NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL UTILITIES.
 NO PAYMENT WILL BE MADE FOR REMOVAL OF ABANDONED UTILITY PIPE LINES THAT INTERFERE WITH CONSTRUCTION. ALL COST TO BE INCLUDED IN OTHER ITEMS.

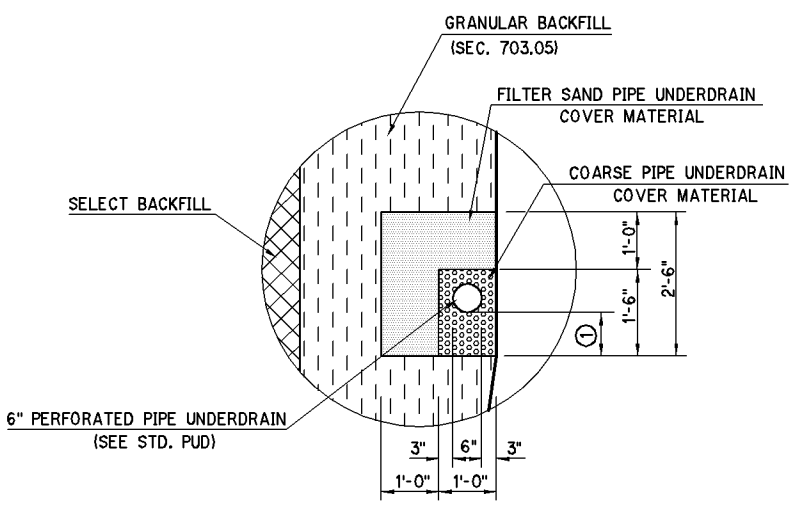
NOTE: CONTRACTOR SHALL ALTERNATE CONSTRUCTION OF THE DRILLED SHAFTS FOR C.I.P. WALLS "D-1", "E-1", "G-1", AND "H-1" SO THAT TWO ADJACENT SHAFTS ARE NOT DRILLED AND OPENED AT THE SAME TIME. THIS IS TO AVOID ANY CAVE-INS DURING THE DRILLING AND CONSTRUCTION OF THE DRILLED SHAFTS.

Design			OKLAHOMA COUNTY E.B. I-40 OVER 15TH ST C.I.P. RETAINING WALL SUBSTRUCTURE LAYOUT WALL "E-1" AND "H-1" State Job No. <u>23310(04)</u> Sheet No. <u>RW31</u>
Drawn			
Checked			
Approved			
Squad	POE		

DESCRIPTION	REVISIONS	DATE

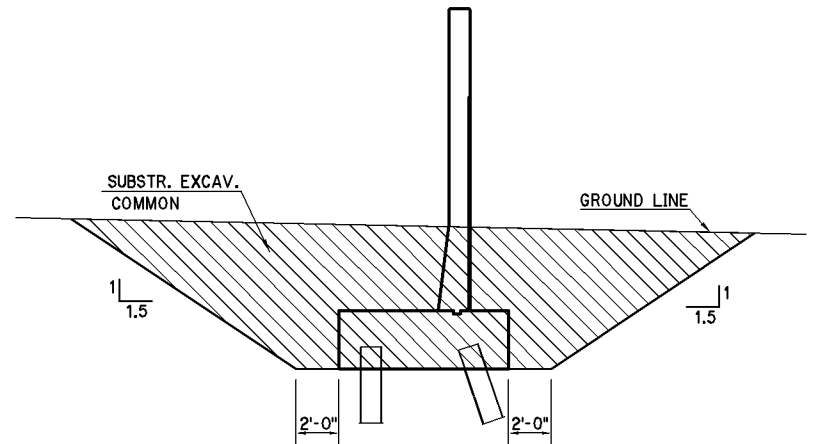


RODENT SCREEN DETAIL

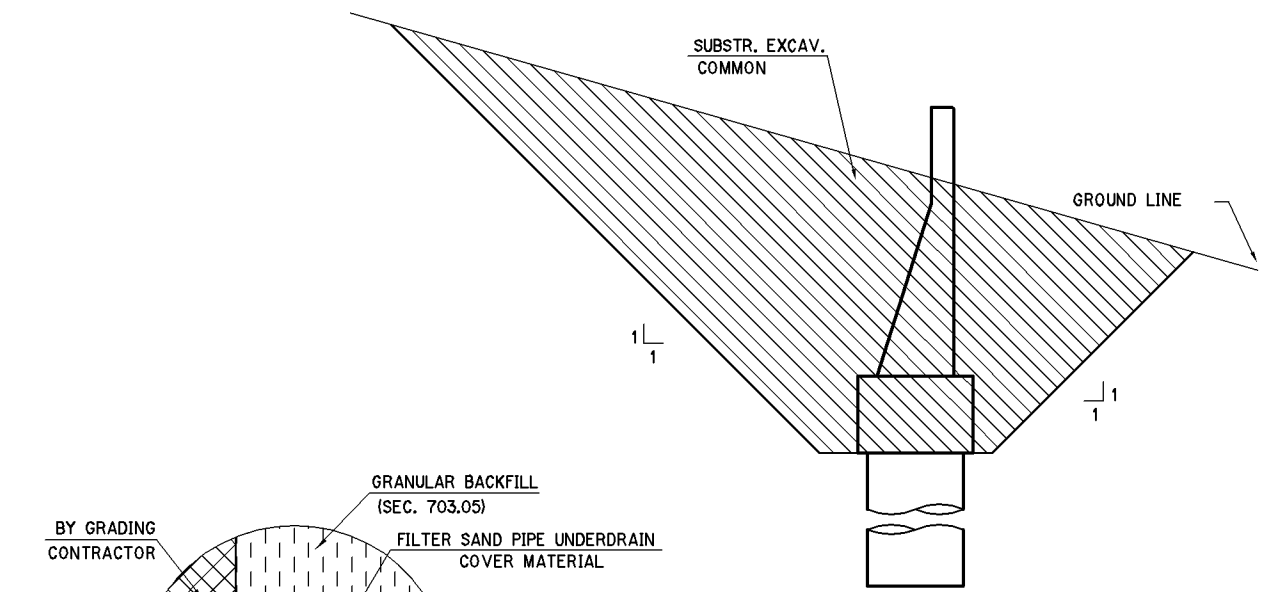


DETAIL "C" (TYPE "C" PANELS)

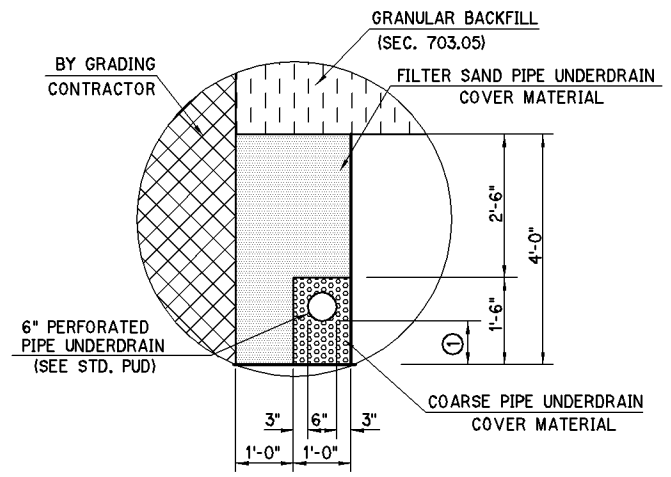
① VARIES, SLOPE 0.5% MIN. TO DRAIN.



EXCAVATION DIAGRAM PANELS ON PILE FOOTINGS

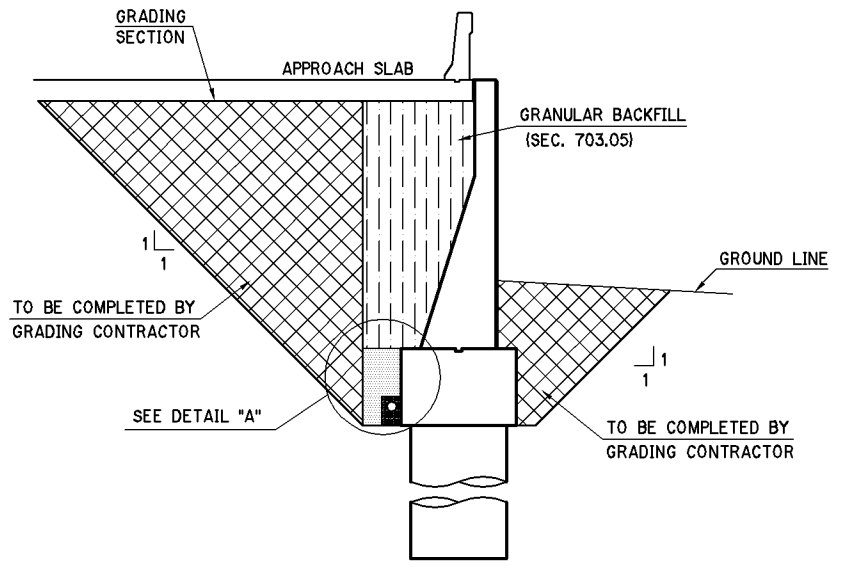


EXCAVATION DIAGRAM PANELS ON DRILLED SHAFTS

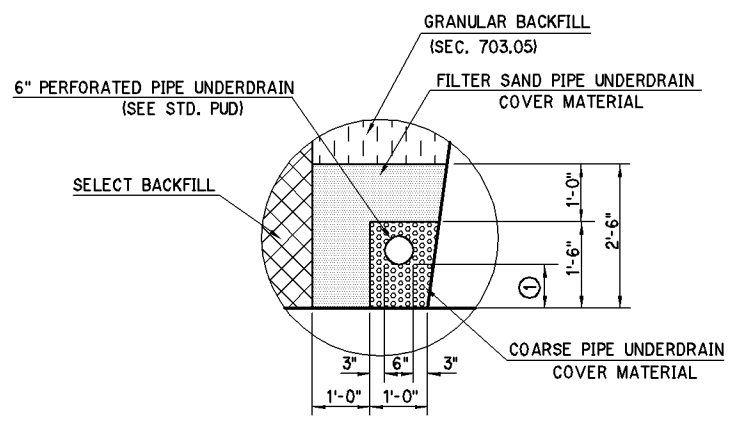


DETAIL "A"

① VARIES, 3" MIN. SLOPE 0.5% MIN. TO DRAIN.

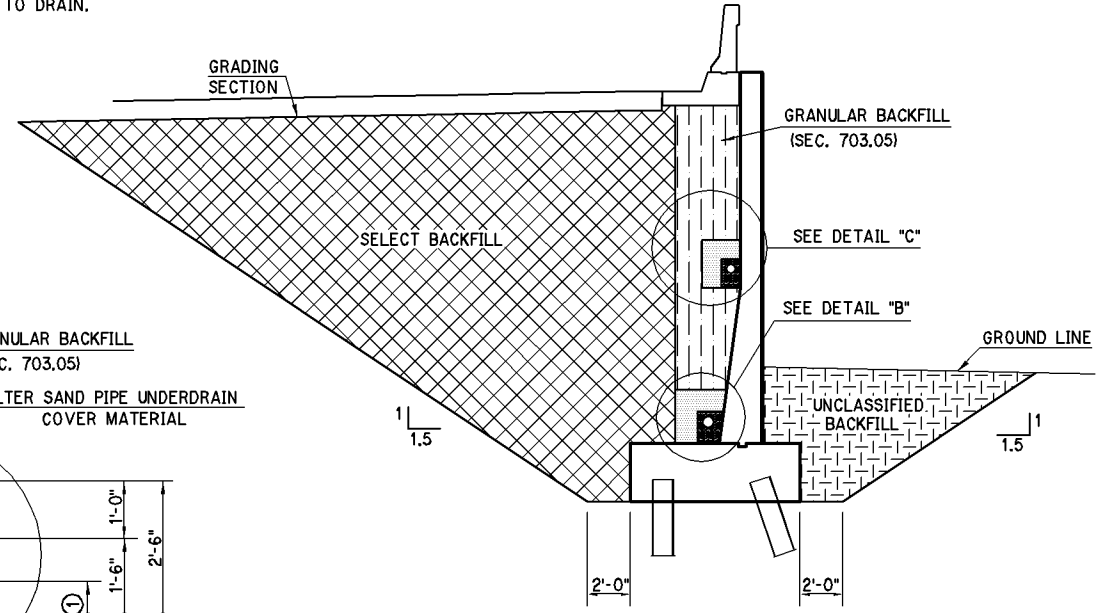


RETAINING WALL BACKFILL AND UNDERDRAIN INSTALLATION DETAILS PANELS ON DRILLED SHAFTS



DETAIL "B" (TYPE "A" AND "B" PANELS)

① VARIES, 3" MIN. SLOPE 0.5% MIN. TO DRAIN.



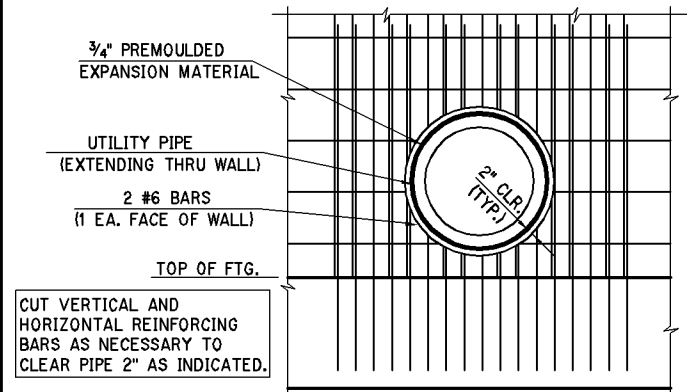
RETAINING WALL BACKFILL AND UNDERDRAIN INSTALLATION DETAILS PANELS ON PILE FOOTINGS

Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALL EXCAVATION AND UNDERDRAIN DETAILS

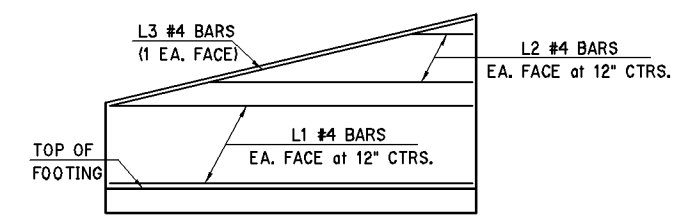
State Job No. 23310(04) Sheet No. RW32

OKLAHOMA COUNTY

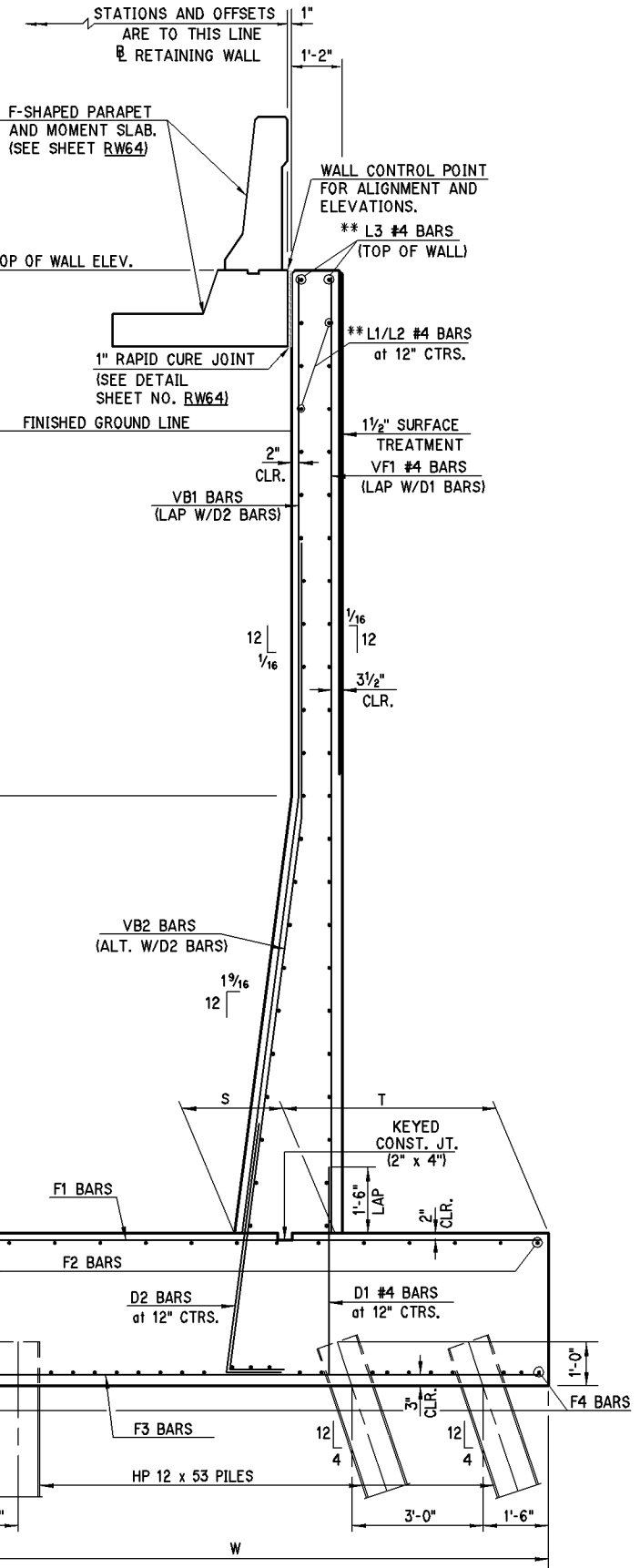


TYPICAL DETAIL OF ADD'L. REINFORCING AT PIPES EXTENDING THRU WALL

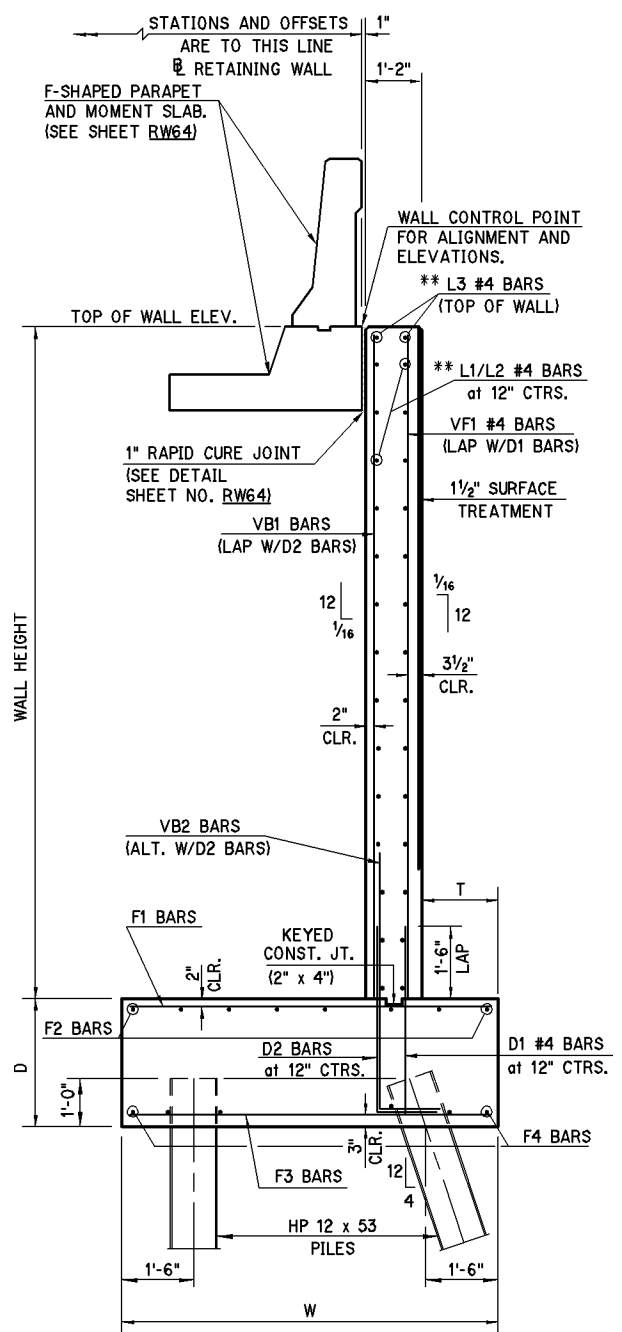
**** NOTE:** L1 BARS ARE UNIFORM LENGTH BARS, L2 BARS ARE VARIABLE LENGTH BARS TO BE PLACED IN UPPER PORTION OF WALL WHEN NECESSARY, L3 BARS ARE TO BE PLACED AT TOP OF WALL (1 EA. FACE) AND SHALL FOLLOW PROFILE OF WALL. SEE LONGIT. WALL REINFORCING DETAIL THIS SHEET.



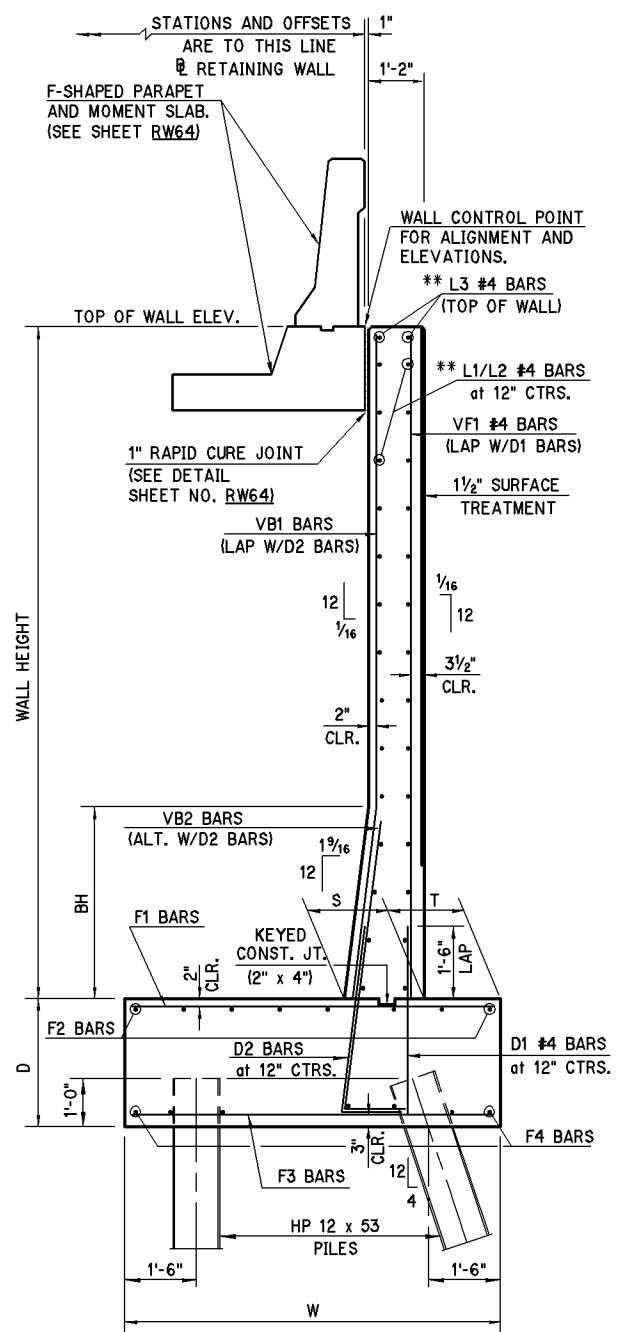
LONGIT. WALL REINF. DETAIL



TYPICAL SECTION TYPE "C" PANELS



TYPICAL SECTION TYPE "A" PANELS



TYPICAL SECTION TYPE "B" PANELS

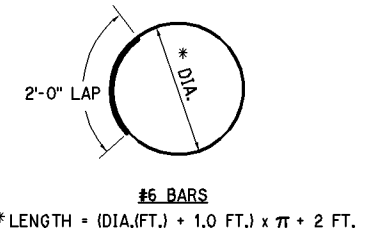
DESIGN DATA
 DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 EDITION.
 CLASS A CONCRETE: $f_c' = 3$ KSI
 REINFORCING STEEL: $f_y = 60$ KSI
 STRUCTURAL STEEL (PILING) M270 GRADE 50: $f_y = 50$ KSI

FOUNDATION DATA
 (STRENGTH 1B)
 MAXIMUM FACTORED PILE REACTION = **98.1 TONS**

STEEL PILING:
 ALL PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATION PURPOSES ONLY.

RETAINING WALL PILING CAPACITY:
 THE FACTORED REACTION FOR EACH PILE AT ABUTMENT NO. 1 IS **64.5** TONS. ABUTMENT NO. 2 IS **69.5** TONS. THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:
 AXIAL LOAD RESISTANCE = $\phi [0.875 \sqrt{E} \log_{10} (10N) - 50]$ (TONS)
 WHERE:
 ϕ = RESISTANCE FACTOR OF 0.4
 E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
 N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.
 THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:
 • THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY)
 • THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
 • THE PENETRATION IS QUICK AND UNIFORM.
 • THERE IS NO APPRECIABLE REBOUND OF THE HAMMER AND A FOLLOWER IS NOT USED.
 THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.
 IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

UTILITY LOCATIONS		
WALL	PANEL	DIAMETER/TYPE
A	17	24" S.S.
A	18	18" STORM
A	25	OIL
A	38	OIL
A	40	24" STORM
B	7	24" S.S.
B	16	FIBER OPTIC
B	19-20	OIL
B	31	36" x 22" STORM
B	32	OIL
B	33	FIBER OPTIC
C	7	24" STORM
C	11	24" STORM
C	12	18" STORM
F	1	FIBER OPTIC
F	1	24" STORM
F	13	FIBER OPTIC
F	15	GAS



CAUTION: LOCATION, DEPTH AND SIZE OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR.

NOTE: SEE WALL PLAN & ELEVATION SHEETS FOR DETAILS ON PIPE LOCATIONS.
 NOTE: FOR DETAILS OF SURFACE TREATMENT, SEE BRIDGE-AESTHETIC SHEETS.

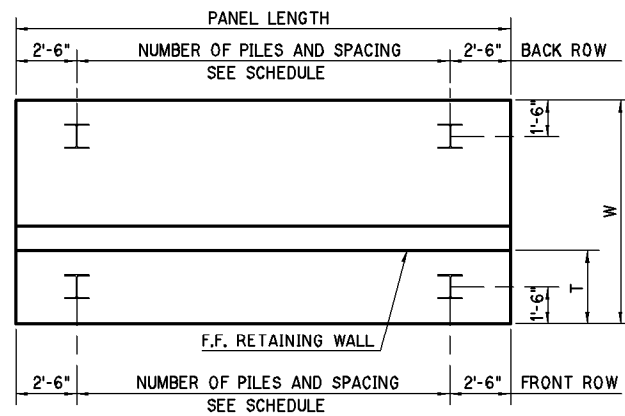
NOTE: FOR EXCAVATION AND BACKFILL DIAGRAMS, SEE SHEET NO. RW32.

Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALLS "A", "B", "C" & "F" DESIGN DATA AND MISCELLANEOUS DETAILS

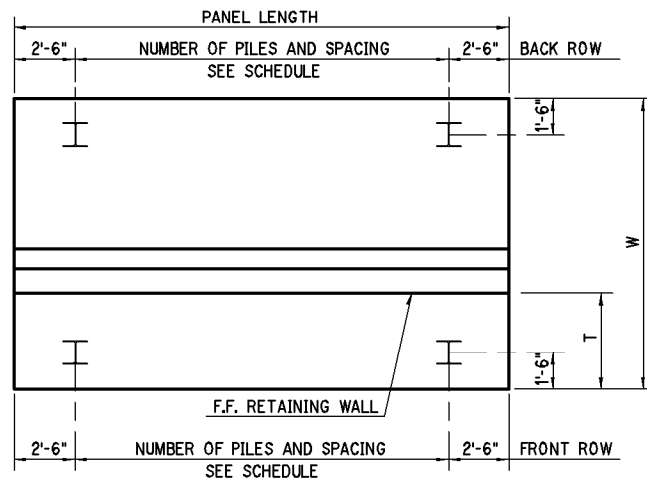
C.I.P. RETAINING WALL SCHEDULE

WALL	PANEL		DIMENSIONS								PILING (HP 12x53)						QUANTITIES												
			NO.	TYPE	PANEL LENGTH	WALL HEIGHT			FOOTING				FRONT ROW			BACK ROW			TOTAL PILES	PAY ITEMS				NON-PAY ITEMS					
	L.F.	FT.				FT.	FT.	BH	W	D	T	S	NO.	SPA.	LENGTH	NO.	SPA.	LENGTH		RETAINING WALL	GRAFFITI TREATMENT	PILES, FURNISHED (HP 12 x 53)	PILES, DRIVEN (HP 12 x 53)	CLASS A CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	6" PERFORATED PIPE UNDERDRAIN	PIPE UNDERDRAIN COVER MATERIAL	GRANULAR BACKFILL
	MIN.	MAX.	AVG.													S.Y.	S.F.	L.F.	L.F.	C.Y.	LB.	C.Y.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	
1	A	33.12	4.35	4.47	4.41	--	5'-9"	2'-0"	2'-0"	--	2	28'-1 1/2"	30'-0"	2	28'-1 1/2"	29'-0"	4	16.20	63.30	118	118	20.42	2398	127	33.12	6	2	40	52
2	A	25.00	4.47	4.56	4.52	--	5'-9"	2'-0"	2'-0"	--	2	20'-0"	30'-0"	2	20'-0"	29'-0"	4	12.50	50.40	118	118	15.53	1301	81	25	5	1	31	33
3	A	25.00	5.59	5.67	5.63	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	15.60	78.30	114	114	17.66	1683	97	25	5	3	44	39
4	A	25.00	5.67	5.76	5.72	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	15.90	80.40	114	114	17.75	1687	85	25	5	4	45	33
5	A	25.00	6.35	6.44	6.40	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	17.80	97.40	114	114	21.49	2053	97	25	5	5	56	37
6	A	25.00	6.44	6.52	6.48	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	18.00	99.50	114	114	21.58	2059	84	25	5	5	57	32
7	A	25.00	6.83	6.92	6.88	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	19.10	109.40	110	110	22.01	2121	92	25	5	6	62	35
8	A	25.00	6.92	7.01	6.97	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	19.30	111.60	110	110	22.11	2127	92	25	5	6	63	35
9	A	25.00	7.01	7.09	7.05	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	19.60	113.80	110	110	22.20	2133	92	25	5	6	65	35
10	A	25.00	7.09	7.18	7.14	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	19.80	115.90	110	110	22.29	2139	92	25	5	6	66	35
11	A	25.00	7.92	8.01	7.97	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	22.10	136.60	110	110	23.19	2230	111	25	5	8	78	44
12	A	25.00	8.01	8.11	8.06	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	22.40	139.00	110	110	23.29	2237	85	25	5	8	80	32
13	B	25.00	8.37	8.48	8.43	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	27'-0"	2	20'-0"	26'-0"	4	23.40	148.10	106	106	26.70	2248	101	25	5	9	96	38
14	B	25.00	8.48	8.59	8.54	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	27'-0"	2	20'-0"	26'-0"	4	23.70	150.90	106	106	26.82	2255	101	25	5	9	98	38
15	B	25.00	9.26	9.37	9.32	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	25.90	170.40	102	102	27.66	2343	105	25	5	10	112	40
16	B	25.00	9.37	9.48	9.43	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	26.20	173.10	102	102	27.78	2351	105	25	5	11	114	40
17	B	75.00	11.72	12.06	11.89	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	6	14'-0"	23'-0"	4	23'-4"	22'-0"	10	99.10	704.30	226	226	104.19	13,323	416	75	14	45	513	159
18	B	25.00	12.06	12.17	12.12	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	23'-0"	2	20'-0"	22'-0"	4	33.70	240.40	90	90	34.97	3173	75	25	5	13	144	25
19	B	25.00	10.81	10.92	10.87	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	30.20	209.10	102	102	33.62	3023	100	25	5	13	146	36
20	B	25.00	10.92	11.03	10.98	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	30.50	211.90	102	102	33.74	3033	100	25	5	13	149	36
21	B	25.00	11.03	11.14	11.09	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	30.80	214.60	110	110	33.86	3044	100	25	5	13	151	36
22	B	25.00	11.14	11.25	11.20	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	31.10	217.40	110	110	33.98	3054	100	25	5	13	153	36
23	B	25.00	11.25	11.36	11.31	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	31.40	220.10	110	110	34.10	3064	100	25	5	14	156	36
24	B	25.00	11.36	11.47	11.42	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	31.70	222.90	110	110	34.22	3075	100	25	5	14	158	36
25	B	25.00	11.47	11.58	11.53	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	28'-0"	2	20'-0"	27'-0"	4	32.00	225.60	110	110	34.33	3085	100	25	5	14	161	36
26	B	25.00	11.58	11.69	11.64	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	38'-0"	2	20'-0"	37'-0"	4	32.30	228.40	150	150	34.45	3128	100	25	5	14	163	36
27	B	25.00	11.69	11.81	11.75	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	38'-0"	2	20'-0"	37'-0"	4	32.60	231.30	150	150	34.58	3039	100	25	5	14	165	36
28	B	25.00	11.81	11.92	11.87	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	38'-0"	2	20'-0"	37'-0"	4	33.00	234.10	150	150	34.70	3150	100	25	5	15	168	36
29	B	25.00	11.92	12.03	11.98	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	48'-0"	2	20'-0"	47'-0"	4	33.30	236.90	190	190	34.82	3160	100	25	5	15	170	36
30	B	25.00	12.03	12.14	12.09	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	48'-0"	2	20'-0"	47'-0"	4	33.60	239.60	190	190	34.94	3170	100	25	5	15	173	36
31	B	16.32	12.14	12.21	12.18	2'-0"	9'-0"	2'-9"	3'-0"	1'-5 1/8"	2	11'-4"	48'-0"	2	11'-4"	47'-0"	4	22.10	157.90	190	190	23.70	1802	67	16.32	3	10	118	23
32	B	25.00	12.66	12.77	12.72	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	48'-0"	2	20'-0"	47'-0"	5	35.30	255.40	238	238	38.25	3759	116	25	5	16	191	41
33	B	25.00	12.77	12.88	12.83	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	48'-0"	2	20'-0"	47'-0"	5	35.60	258.10	238	238	38.37	3769	116	25	5	17	193	41
34	B	25.00	12.88	12.99	12.94	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	50'-0"	2	20'-0"	49'-0"	5	35.90	260.90	248	248	38.49	3779	116	25	5	17	195	41
35	B	25.00	12.99	13.10	13.05	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	50'-0"	2	20'-0"	49'-0"	5	36.20	263.60	248	248	38.61	3790	116	25	5	17	198	41
36	B	25.00	13.10	13.21	13.16	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	50'-0"	2	20'-0"	49'-0"	5	36.50	266.40	248	248	38.73	3800	116	25	5	17	201	41
37	B	25.00	13.21	13.32	13.27	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	50'-0"	2	20'-0"	49'-0"	5	36.80	269.10	248	248	38.85	3810	116	25	5	17	203	41
38	B	25.00	13.32	13.43	13.38	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	51'-0"	2	20'-0"	50'-0"	5	37.20	271.90	253	253	38.97	3821	116	25	5	18	206	41
39	B	25.00	14.33	14.44	14.39	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	10'-0"	50'-0"	2	20'-0"	49'-0"	5	40.00	297.10	248	248	41.97	4741	148	25	5	19	247	53
40	B	21.58	17.30	17.40	17.35	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	8'-3 1/2"	48'-0"	2	16'-7"	47'-0"	5	41.60	320.50	238	238	38.99	4502	215	21.58	4	21	288	84
TOTAL																	1190.00	8095.60	6065	6065	1283.91	124,459	4480	1046.02	207	493	5717	1661	



PILE SPACING DIAGRAM TYPE A PANELS

NOTE: ALL PILES ARE HP 12 x 53. (BATTER FRONT ROW 4:12)



PILE SPACING DIAGRAM TYPE B PANELS

NOTE: ALL PILES ARE HP 12 x 53. (BATTER FRONT ROW 4:12)

Design	
Drawn	
Checked	
Approved	
Squad	POE

C.I.P. RETAINING WALL DETAILS WALL "A"

(SHEET 1 OF 2)

State Job No. 23310(04) Sheet No. RW34

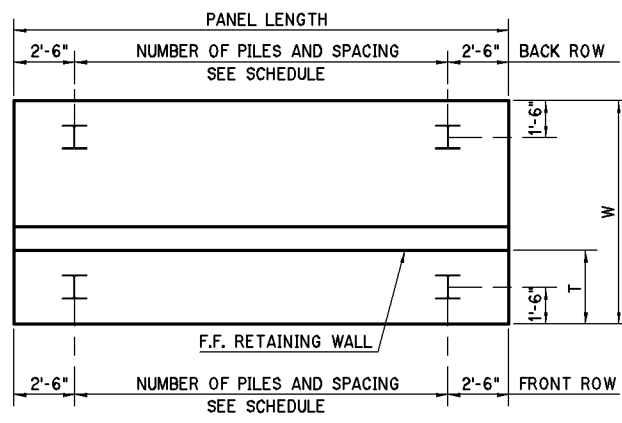
OKLAHOMA COUNTY

C.I.P. RETAINING WALL BAR LIST

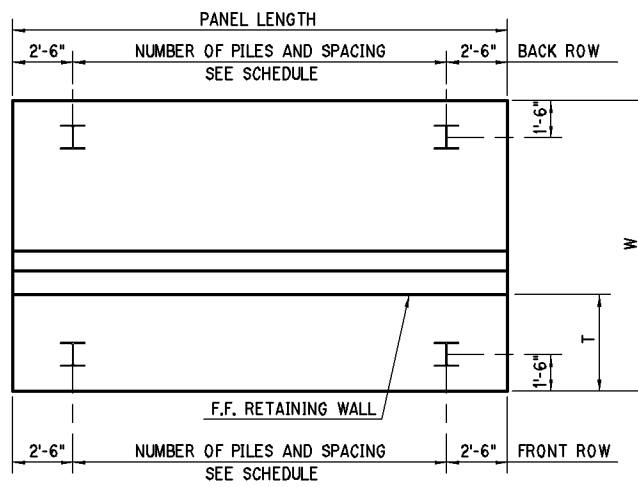
WALL	PANEL			L1 #4 BARS at 12" CTRS.		L2 #4 BARS at 12" CTRS.		L3 #4 BARS	D1 #4 BARS at 12" CTRS.	D2 BARS of 12" CTRS. (BENT BAR)				VF1 #4 BARS (LAP WITH D1 BARS)		VB1 BARS (LAP WITH D2 BARS)						VB2 BARS at 12" CTRS. (BENT BAR)				F1 BARS at 6" CTRS.			F2 BARS at 12" CTRS.			F3 BARS at 12" CTRS.			F4 BARS at 6" CTRS.													
	NO.	TYPE	LENGTH	NO.	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	LENGTH	NO.	SIZE	X	Y	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	Z	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH			
"A"	1	A	33.12'	8	32'-9"	--	--	--	2	32'-9"	34	3'-3"	34	4	1'-0"	3'-3"	4'-3"	34	4'-2 1/2"	4'-2"	TO	4'-3"	34	#4	--	--	--	4'-2 1/2"	4'-2"	TO	4'-3"	33	#4	1'-0"	3'-6"	4'-6"	66	#4	5'-5"	6	#4	32'-9"	34	#4	5'-5"	11	#9	32'-9"
	2	A	25.00'	8	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	4	1'-0"	3'-3"	4'-3"	26	4'-3 1/2"	4'-3"	TO	4'-4"	26	#4	--	--	--	4'-3 1/2"	4'-3"	TO	4'-4"	25	#4	1'-0"	3'-6"	4'-6"	50	#4	5'-5"	6	#4	24'-8"	26	#4	5'-5"	11	#6	24'-8"
	3	A	25.00'	10	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	4	1'-0"	3'-3"	4'-3"	26	5'-5 1/2"	5'-5"	TO	5'-6"	26	#4	--	--	--	5'-5 1/2"	5'-5"	TO	5'-6"	25	#4	1'-0"	4'-8"	5'-8"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	4	A	25.00'	10	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	4	1'-0"	3'-3"	4'-3"	26	5'-6 1/2"	5'-6"	TO	5'-7"	26	#4	--	--	--	5'-6 1/2"	5'-6"	TO	5'-7"	25	#4	1'-0"	4'-9"	5'-9"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	5	A	25.00'	12	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-2 1/2"	6'-2"	TO	6'-3"	26	#5	--	--	--	6'-2 1/2"	6'-2"	TO	6'-3"	25	#5	1'-0"	3'-11"	4'-11"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	6	A	25.00'	12	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-3 1/2"	6'-3"	TO	6'-4"	26	#5	--	--	--	6'-3 1/2"	6'-3"	TO	6'-4"	25	#5	1'-0"	4'-0"	5'-0"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	7	A	25.00'	14	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-8 1/2"	6'-8"	TO	6'-9"	26	#5	--	--	--	6'-8 1/2"	6'-8"	TO	6'-9"	25	#5	1'-0"	4'-5"	5'-5"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	8	A	25.00'	14	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-9 1/2"	6'-9"	TO	6'-10"	26	#5	--	--	--	6'-9 1/2"	6'-9"	TO	6'-10"	25	#5	1'-0"	4'-6"	5'-6"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	9	A	25.00'	14	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-10 1/2"	6'-10"	TO	6'-11"	26	#5	--	--	--	6'-10 1/2"	6'-10"	TO	6'-11"	25	#5	1'-0"	4'-7"	5'-7"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	10	A	25.00'	14	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	6'-11 1/2"	6'-11"	TO	7'-0"	26	#5	--	--	--	6'-11 1/2"	6'-11"	TO	7'-0"	25	#5	1'-0"	4'-7"	5'-7"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	11	A	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	7'-9 1/2"	7'-9"	TO	7'-10"	26	#5	--	--	--	7'-9 1/2"	7'-9"	TO	7'-10"	25	#5	1'-0"	4'-8"	5'-8"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	12	A	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	5	1'-0"	3'-10"	4'-10"	26	7'-10 1/2"	7'-10"	TO	7'-11"	26	#5	--	--	--	7'-10 1/2"	7'-10"	TO	7'-11"	25	#5	1'-0"	4'-8"	5'-8"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	13	B	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	5	1'-0"	4'-1"	5'-1"	26	8'-3"	8'-2"	TO	8'-4"	26	#5	2'-0"	6'-2"	6'-4"	8'-3"	8'-2"	TO	8'-4"	25	#5	1'-0"	4'-0"	5'-0"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	14	B	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	5	1'-0"	4'-1"	5'-1"	26	8'-4 1/2"	8'-4"	TO	8'-5"	26	#5	2'-0"	6'-4"	6'-5"	8'-4 1/2"	8'-4"	TO	8'-5"	25	#5	1'-0"	4'-1"	5'-1"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	15	B	25.00'	18	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	5	1'-0"	4'-1"	5'-1"	26	9'-1 1/2"	9'-1"	TO	9'-2"	26	#5	2'-0"	7'-1"	7'-2"	9'-1 1/2"	9'-1"	TO	9'-2"	25	#5	1'-0"	4'-11"	5'-11"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	16	B	25.00'	18	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	5	1'-0"	4'-1"	5'-1"	26	9'-3"	9'-2"	TO	9'-4"	26	#5	2'-0"	7'-2"	7'-4"	9'-3"	9'-2"	TO	9'-4"	25	#5	1'-0"	4'-11"	5'-11"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	17	B	75.00'	24	74'-8"	--	--	--	2	74'-8"	76	4'-0"	76	6	1'-0"	4'-9"	5'-9"	76	11'-8"	11'-6"	TO	11'-10"	76	#6	2'-0"	9'-6"	9'-10"	11'-8"	11'-6"	TO	11'-10"	75	#6	1'-0"	6'-2"	7'-2"	150	#4	8'-2"	9	#4	74'-8"	76	#4	8'-2"	17	#11	74'-8"
	18	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-11"	11'-10"	TO	12'-0"	26	#6	2'-0"	9'-10"	10'-0"	11'-11"	11'-10"	TO	12'-0"	25	#6	1'-0"	6'-4"	7'-4"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	19	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	10'-8"	10'-7"	TO	10'-9"	26	#6	2'-0"	8'-9"	8'-9"	10'-8"	10'-7"	TO	10'-9"	25	#6	1'-0"	5'-1"	6'-1"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	20	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	10'-9 1/2"	10'-9"	TO	10'-10"	26	#6	2'-0"	8'-9"	8'-10"	10'-9 1/2"	10'-9"	TO	10'-10"	25	#6	1'-0"	5'-2"	6'-2"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	21	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	10'-10 1/2"	10'-10"	TO	10'-11"	26	#6	2'-0"	8'-10"	8'-11"	10'-10 1/2"	10'-10"	TO	10'-11"	25	#6	1'-0"	5'-3"	6'-3"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	22	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-0"	10'-11"	TO	11'-1"	26	#6	2'-0"	8'-11"	9'-1"	11'-0"	10'-11"	TO	11'-1"	25	#6	1'-0"	5'-5"	6'-5"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	23	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-1 1/2"	11'-1"	TO	11'-2"	26	#6	2'-0"	9'-1"	9'-2"	11'-1 1/2"	11'-1"	TO	11'-2"	25	#6	1'-0"	5'-6"	6'-6"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	24	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-2 1/2"	11'-2"	TO	11'-3"	26	#6	2'-0"	9'-2"	9'-3"	11'-2 1/2"	11'-2"	TO	11'-3"	25	#6	1'-0"	5'-7"	6'-7"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	25	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-4"	11'-3"	TO	11'-5"	26	#6	2'-0"	9'-3"	9'-5"	11'-4"	11'-3"	TO	11'-5"	25	#6	1'-0"	5'-8"	6'-8"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	26	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-5 1/2"	11'-5"	TO	11'-6"	26	#6	2'-0"	9'-5"	9'-6"	11'-5 1/2"	11'-5"	TO	11'-6"	25	#6	1'-0"	5'-10"	6'-10"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	27	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-6 1/2"	11'-6"	TO	11'-7"	26	#6	2'-0"	9'-6"	9'-7"	11'-6 1/2"	11'-6"	TO	11'-7"	25	#6	1'-0"	5'-11"	6'-11"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	28	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-8"	11'-7"	TO	11'-9"	26	#6	2'-0"	9'-7"	9'-9"	11'-8"	11'-7"	TO	11'-9"	25	#6	1'-0"	6'-1"	7'-1"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	29	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-9 1/2"	11'-9"	TO	11'-10"	26	#6	2'-0"	9'-9"	9'-10"	11'-9 1/2"	11'-9"	TO	11'-10"	25	#6	1'-0"	6'-2"	7'-2"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	30	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	11'-10 1/2"	11'-10"	TO	11'-11"	26	#6	2'-0"	9'-10"	9'-11"	11'-10 1/2"	11'-10"	TO	11'-11"	25	#6	1'-0"	6'-3"	7'-3"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	31	B	16.32'	24	16'-0"	--	--	--	2	16'-0"	18	4'-0"	18	6	1'-0"	4'-9"	5'-9"	18	11'-11 1/2"	11'-11"	TO	12'-0"	18	#6	2'-0"	9'-11"	10'-0"	11'-11 1/2"	11'-11"	TO	12'-0"	17	#6	1'-0"	6'-4"	7'-4"	33	#4	8'-8"	10	#4	16'-0"	18	#5	8'-8"	19	#4	16'-0"
	32	B	25.00'	26	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	6	1'-0"	4'-9"	5'-9"	26	12'-6 1/2"	12'-6"	TO	12'-7"	26	#6	4'-1"	8'-5"	8'-6"	12'-6 1/2"	12'-6"	TO	12'-7"	25	#6	1'-0"	6'-4"	7'-4"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	33	B	25.00'	26	24'-8"	--	--	--	2	24'-8"																																						

C.I.P. RETAINING WALL SCHEDULE

WALL	PANEL		DIMENSIONS								PILING (HP 12x53)				QUANTITIES															
			NO.	TYPE	PANEL LENGTH L.F.	WALL HEIGHT			FOOTING				FRONT ROW			TOTAL PILES	PAY ITEMS				NON-PAY ITEMS									
	MIN. FT.	MAX. FT.				AVG. FT.	BH	W	D	T	S	NO.	SPA.	LENGTH	NO.	SPA.	LENGTH	REINFORCING WALL	GRAFFITI TREATMENT	PILES, FURNISHED (HP 12 x 53)	PILES, DRIVEN (HP 12 x 53)	CLASS A CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	6" PERFORATED PIPE UNDERDRAIN	PIPE UNDERDRAIN COVER MATERIAL	GRANULAR BACKFILL	SELECT BACKFILL	UNCLASSIFIED BACKFILL	
	FT.	FT.	FT.												S.Y.	S.F.	L.F.	L.F.	C.Y.	LB.	C.Y.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.			
"B"	1	A	25.00	6.62	6.71	6.62	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	38'-0"	2	20'-0"	37'-0"	4	18.50	104.10	150	150	18.77	1783	128	25	5	5	53	53
	2	A	25.00	6.71	6.81	6.76	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	38'-0"	2	20'-0"	37'-0"	4	18.80	106.50	150	150	18.88	1790	128	25	5	5	55	53
	3	A	25.00	6.47	6.57	6.52	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	37'-0"	2	20'-0"	36'-0"	4	18.10	100.50	146	146	18.62	1771	113	25	5	5	52	46
	4	A	25.00	6.57	6.67	6.62	--	6'-3"	2'-0"	2'-3"	--	2	20'-0"	37'-0"	2	20'-0"	36'-0"	4	18.40	103.00	146	146	18.73	1781	87	25	5	5	53	35
	5	A	25.00	8.11	8.21	8.16	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	36'-0"	2	20'-0"	35'-0"	4	22.70	141.50	142	142	23.40	2241	109	25	5	8	77	43
	6	A	25.00	8.21	8.31	8.26	--	7'-0"	2'-3"	3'-0"	--	2	20'-0"	36'-0"	2	20'-0"	35'-0"	4	22.90	144.00	142	142	23.51	2251	83	25	5	8	79	31
	7	A	75.00	8.65	8.97	8.81	--	7'-0"	2'-9"	3'-0"	--	4	23'-4"	35'-0"	4	23'-4"	34'-0"	8	73.40	473.30	276	276	82.02	9499	275	75	14	28	291	106
	8	B	25.00	9.81	9.92	9.87	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	35'-0"	2	20'-0"	34'-0"	4	27.40	184.10	138	138	28.26	2402	96	25	5	11	117	36
	9	B	25.00	10.51	10.62	10.57	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	34'-0"	2	20'-0"	33'-0"	4	29.30	201.60	134	134	29.02	2475	104	25	5	12	130	40
	10	B	25.00	10.62	10.73	10.68	2'-0"	7'-6"	2'-6"	2'-6"	1'-5 1/8"	2	20'-0"	34'-0"	2	20'-0"	33'-0"	4	29.70	204.40	134	134	29.13	2487	99	25	5	12	133	37
	11	B	25.00	11.23	11.34	11.29	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	31'-0"	2	20'-0"	30'-0"	4	31.30	219.60	122	122	34.08	3065	111	25	5	14	154	40
	12	B	25.00	11.34	11.45	11.40	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	31'-0"	2	20'-0"	30'-0"	4	31.70	222.40	122	122	34.19	3077	108	25	5	14	157	39
	13	B	25.00	11.91	12.03	11.97	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	33.30	236.80	114	114	34.82	3151	115	25	5	15	169	42
	14	B	25.00	12.03	12.14	12.08	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	29'-0"	2	20'-0"	28'-0"	4	33.60	239.60	114	114	34.94	3164	104	25	5	15	172	37
	15	B	25.00	12.48	12.60	12.54	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	34.80	251.00	102	102	35.43	3224	111	25	5	16	181	40
	16	B	25.00	12.60	12.71	12.66	2'-0"	8'-6"	2'-9"	3'-0"	1'-5 1/8"	2	20'-0"	26'-0"	2	20'-0"	25'-0"	4	35.20	253.90	102	102	35.56	3237	105	25	5	16	185	38
	17	B	25.00	13.20	13.32	13.26	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	24'-0"	2	20'-0"	23'-0"	5	36.80	269.00	118	118	38.84	3811	117	25	5	17	202	41
	18	B	25.00	13.32	13.44	13.38	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	24'-0"	2	20'-0"	23'-0"	5	37.20	272.00	118	118	38.97	3826	111	25	5	17	205	39
	19	B	25.00	14.11	14.23	14.17	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	26'-0"	2	20'-0"	25'-0"	5	39.40	291.80	128	128	39.83	3927	128	25	5	19	225	46
	20	B	25.00	14.23	14.35	14.29	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	26'-0"	2	20'-0"	25'-0"	5	39.70	294.80	128	128	39.95	3942	113	25	5	19	228	40
	21	B	25.00	14.35	14.48	14.42	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	28'-0"	2	20'-0"	27'-0"	5	40.00	297.90	138	138	40.09	3958	113	25	5	19	231	40
	22	B	25.00	14.48	14.60	14.54	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	28'-0"	2	20'-0"	27'-0"	5	40.40	301.00	138	138	40.22	3974	113	25	5	20	235	40
	23	B	25.00	14.58	14.71	14.65	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	30'-0"	2	20'-0"	29'-0"	5	40.70	303.60	148	148	40.34	3986	118	25	5	20	238	42
	24	B	25.00	14.71	14.83	14.77	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	30'-0"	2	20'-0"	29'-0"	5	41.00	306.80	148	148	41.75	4027	121	25	5	20	247	42
	25	B	25.00	14.77	14.90	14.84	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	33'-0"	2	20'-0"	32'-0"	5	41.20	308.40	163	163	41.82	4036	119	25	5	20	248	41
	26	B	25.00	14.90	15.02	14.96	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	33'-0"	2	20'-0"	32'-0"	5	41.60	311.50	163	163	41.95	4052	114	25	5	20	252	39
	27	B	25.00	14.88	15.01	14.95	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	35'-0"	2	20'-0"	34'-0"	5	41.50	311.10	173	173	41.94	4049	115	25	5	20	251	40
	28	B	25.00	15.01	15.13	15.07	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	36'-0"	2	20'-0"	35'-0"	5	41.90	314.30	178	178	42.07	4065	121	25	5	21	255	42
	29	B	25.00	14.69	14.81	14.75	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	36'-0"	2	20'-0"	35'-0"	5	41.00	306.30	178	178	41.72	4023	109	25	5	20	247	37
	30	B	25.00	14.81	14.94	14.88	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	38'-0"	2	20'-0"	37'-0"	5	41.30	309.40	188	188	41.86	4039	111	25	5	20	251	38
	31	B	25.00	20.11	20.23	20.17	6'-0"	12'-3"	2'-9"	4'-3"	1'-11 3/8"	5	5'-0"	33'-0"	3	10'-0"	32'-0"	8	56.00	441.80	261	261	55.15	6522	322	25	5	31	453	121
	32	B	25.00	14.66	14.80	14.73	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	37'-0"	2	20'-0"	36'-0"	5	40.90	305.80	183	183	41.70	4022	106	25	5	20	253	36
	33	B	38.18	14.72	14.89	14.81	4'-0"	9'-9"	2'-9"	3'-6"	1'-8 1/4"	5	8'-3 1/2"	37'-0"	3	16'-7"	36'-0"	8	62.80	469.80	293	293	63.81	5680	158	38.18	7	32	391	53
				TOTAL								TOTAL				TOTAL														



**PILE SPACING DIAGRAM
TYPE A PANELS**
NOTE: ALL PILES ARE HP 12 x 53.
(BATTER FRONT ROW 4:12)



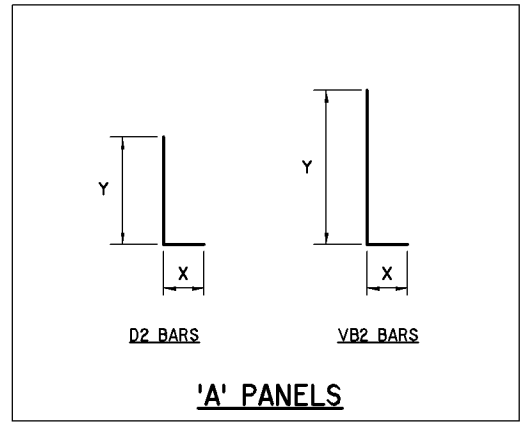
**PILE SPACING DIAGRAM
TYPE B PANELS**
NOTE: ALL PILES ARE HP 12 x 53.
(BATTER FRONT ROW 4:12)

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
**C.I.P. RETAINING WALL DETAILS
WALL "B"**
(SHEET 1 OF 2)
State Job No. 23310(04) Sheet No. RW36

C.I.P. RETAINING WALL BAR LIST

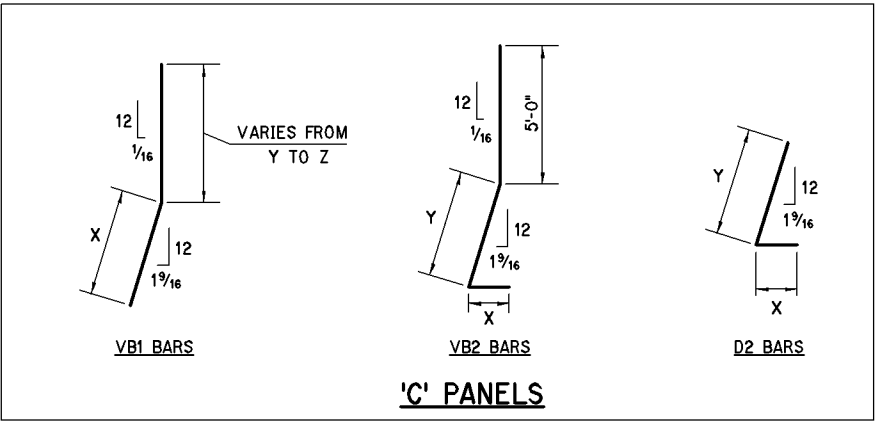
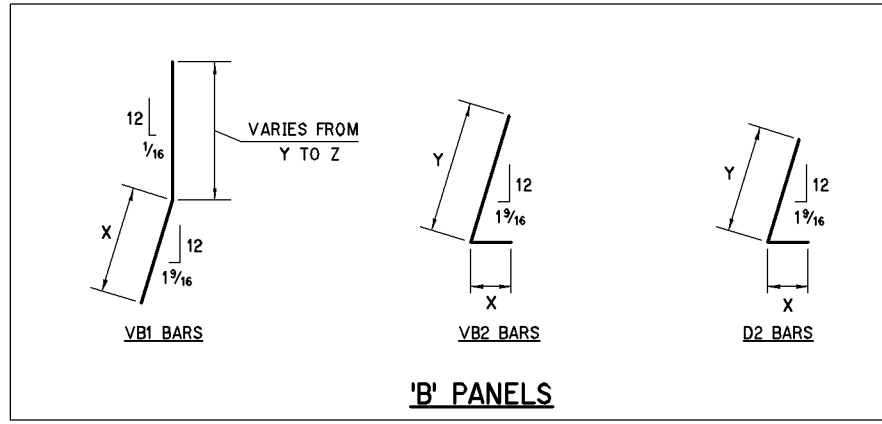
WALL	PANEL			L1 #4 BARS at 12" CTRS.		L2 #4 BARS at 12" CTRS.			L3 #4 BARS		D1 #4 BARS at 12" CTRS.			D2 BARS at 12" CTRS. (BENT BAR)				VF1 #4 BARS (LAP WITH D1 BARS)				VB1 BARS (LAP WITH D2 BARS)						VB2 BARS at 12" CTRS. (BENT BAR)			F1 BARS at 6" CTRS.			F2 BARS at 12" CTRS.			F3 BARS at 12" CTRS.			F4 BARS at 6" CTRS.				
	NO.	TYPE	LENGTH	NO.	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	LENGTH	NO.	LENGTH	NO.	SIZE	X	Y	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	Z	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH
"B"	1	A	25.00'	12	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	#4	1'-0"	3'-3"	4'-3"	26	6'-5 1/2"	6'-5" TO 6'-6"	26	#4	--	--	--	6'-5 1/2"	6'-5" TO 6'-6"	25	#4	1'-0"	5'-5"	6'-5"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	2	A	25.00'	14	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	#4	1'-0"	3'-3"	4'-3"	26	6'-6 1/2"	6'-6" TO 6'-7"	26	#4	--	--	--	6'-6 1/2"	6'-6" TO 6'-7"	25	#4	1'-0"	5'-6"	6'-6"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	3	A	25.00'	12	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	#4	1'-0"	3'-3"	4'-3"	26	6'-4"	6'-3" TO 6'-5"	26	#4	--	--	--	6'-4"	6'-3" TO 6'-5"	25	#4	1'-0"	5'-4"	6'-4"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	4	A	25.00'	12	24'-8"	--	--	--	2	24'-8"	26	3'-3"	26	#4	1'-0"	3'-3"	4'-3"	26	6'-5 1/2"	6'-5" TO 6'-6"	26	#4	--	--	--	6'-5 1/2"	6'-5" TO 6'-6"	25	#4	1'-0"	5'-5"	6'-5"	50	#4	5'-11"	7	#4	24'-8"	26	#4	5'-11"	13	#7	24'-8"
	5	A	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	#5	1'-0"	3'-10"	4'-10"	26	7'-11 1/2"	7'-11" TO 8'-0"	26	#5	--	--	--	7'-11 1/2"	7'-11" TO 8'-0"	25	#5	1'-0"	5'-6"	6'-6"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	6	A	25.00'	16	24'-8"	--	--	--	2	24'-8"	26	3'-6"	26	#5	1'-0"	3'-10"	4'-10"	26	8'-0 1/2"	8'-0" TO 8'-1"	26	#5	--	--	--	8'-0 1/2"	8'-0" TO 8'-1"	25	#5	1'-0"	5'-7"	6'-7"	50	#4	6'-8"	8	#4	24'-8"	26	#4	6'-8"	15	#7	24'-8"
	7	A	25.00'	16	74'-8"	--	--	--	2	74'-8"	76	4'-0"	76	#5	1'-0"	4'-4"	5'-4"	76	8'-7 1/2"	8'-6" TO 8'-9"	76	#5	--	--	--	8'-7 1/2"	8'-6" TO 8'-9"	75	#5	1'-0"	6'-3"	7'-3"	150	#4	6'-8"	8	#4	74'-8"	76	#4	6'-8"	15	#10	74'-8"
	8	B	25.00'	20	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	#5	1'-0"	4'-1"	5'-1"	26	9'-8"	9'-7" TO 9'-9"	26	#5	2'-0"	7'-7"	7'-9"	9'-8"	9'-7" TO 9'-9"	25	#5	1'-0"	5'-2"	6'-2"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	9	B	25.00'	20	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	#5	1'-0"	4'-1"	5'-1"	26	10'-4 1/2"	10'-4" TO 10'-5"	26	#5	2'-0"	8'-4"	8'-5"	10'-4 1/2"	10'-4" TO 10'-5"	25	#5	1'-0"	5'-10"	6'-10"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	10	B	25.00'	20	24'-8"	--	--	--	2	24'-8"	26	3'-9"	26	#5	1'-0"	4'-1"	5'-1"	26	10'-6"	10'-5" TO 10'-7"	26	#5	2'-0"	8'-5"	8'-7"	10'-6"	10'-5" TO 10'-7"	25	#5	1'-0"	6'-0"	7'-0"	50	#4	7'-2"	8	#4	24'-8"	26	#4	7'-2"	15	#7	24'-8"
	11	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	11'-1 1/2"	11'-1" TO 11'-2"	26	#6	2'-0"	9'-1"	9'-2"	11'-1 1/2"	11'-1" TO 11'-2"	25	#6	1'-0"	5'-2"	6'-2"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	12	B	25.00'	22	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	11'-2 1/2"	11'-2" TO 11'-3"	26	#6	2'-0"	9'-2"	9'-3"	11'-2 1/2"	11'-2" TO 11'-3"	25	#6	1'-0"	5'-4"	6'-4"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	13	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	11'-9 1/2"	11'-9" TO 11'-10"	26	#6	2'-0"	9'-9"	9'-10"	11'-9 1/2"	11'-9" TO 11'-10"	25	#6	1'-0"	5'-11"	6'-11"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	14	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	11'-10 1/2"	11'-10" TO 11'-11"	26	#6	2'-0"	9'-10"	9'-11"	11'-10 1/2"	11'-10" TO 11'-11"	25	#6	1'-0"	6'-0"	7'-0"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	15	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	12'-4 1/2"	12'-4" TO 12'-5"	26	#6	2'-0"	10'-4"	10'-5"	12'-4 1/2"	12'-4" TO 12'-5"	25	#6	1'-0"	6'-5"	7'-5"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	16	B	25.00'	24	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	12'-5 1/2"	12'-5" TO 12'-6"	26	#6	2'-0"	10'-5"	10'-6"	12'-5 1/2"	12'-5" TO 12'-6"	25	#6	1'-0"	6'-7"	7'-7"	50	#4	8'-2"	9	#4	24'-8"	26	#5	8'-2"	17	#7	24'-8"
	17	B	25.00'	26	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	13'-1"	13'-0" TO 13'-2"	26	#6	4'-1"	8'-11"	9'-1"	13'-1"	13'-0" TO 13'-2"	25	#6	1'-0"	5'-2"	6'-2"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	18	B	25.00'	26	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	13'-2 1/2"	13'-2" TO 13'-3"	26	#6	4'-1"	9'-1"	9'-2"	13'-2 1/2"	13'-2" TO 13'-3"	25	#6	1'-0"	5'-4"	6'-4"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	19	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-0"	13'-11" TO 14'-1"	26	#6	4'-1"	9'-10"	10'-0"	14'-0"	13'-11" TO 14'-1"	25	#6	1'-0"	6'-1"	7'-1"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	20	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-1 1/2"	14'-1" TO 14'-2"	26	#6	4'-1"	10'-0"	10'-1"	14'-1 1/2"	14'-1" TO 14'-2"	25	#6	1'-0"	6'-3"	7'-3"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	21	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-3"	14'-2" TO 14'-4"	26	#6	4'-1"	10'-1"	10'-3"	14'-3"	14'-2" TO 14'-4"	25	#6	1'-0"	6'-4"	7'-4"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	22	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-4 1/2"	14'-4" TO 14'-5"	26	#6	4'-1"	10'-3"	10'-4"	14'-4 1/2"	14'-4" TO 14'-5"	25	#6	1'-0"	6'-5"	7'-5"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	23	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-5 1/2"	14'-5" TO 14'-6"	26	#6	4'-1"	10'-4"	10'-5"	14'-5 1/2"	14'-5" TO 14'-6"	25	#6	1'-0"	6'-7"	7'-7"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"
	24	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-9"	14'-6" TO 14'-8"	26	#6	4'-1"	10'-5"	10'-7"	14'-9"	14'-6" TO 14'-8"	25	#6	1'-0"	6'-8"	7'-8"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	25	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-8"	14'-7" TO 14'-9"	26	#6	4'-1"	10'-6"	10'-8"	14'-8"	14'-7" TO 14'-9"	25	#6	1'-0"	6'-9"	7'-9"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	26	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-9 1/2"	14'-9" TO 14'-10"	26	#6	4'-1"	10'-8"	10'-9"	14'-9 1/2"	14'-9" TO 14'-10"	25	#6	1'-0"	6'-11"	7'-11"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	27	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-10 1/2"	14'-10" TO 14'-11"	26	#6	4'-1"	10'-9"	10'-10"	14'-10 1/2"	14'-10" TO 14'-11"	25	#6	1'-0"	7'-0"	8'-0"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	28	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-6 1/2"	14'-6" TO 14'-7"	26	#6	4'-1"	10'-5"	10'-6"	14'-6 1/2"	14'-6" TO 14'-7"	25	#6	1'-0"	6'-8"	7'-8"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	29	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-8"	14'-7" TO 14'-9"	26	#6	4'-1"	10'-6"	10'-8"	14'-8"	14'-7" TO 14'-9"	25	#6	1'-0"	6'-10"	7'-10"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	30	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	20'-0"	19'-11" TO 20'-1"	26	#8	6'-1"	13'-10"	14'-0"	20'-0"	19'-11" TO 20'-1"	25	#8	1'-6"	8'-2"	9'-8"	50	#6	11'-11"	13	#4	24'-8"	26	#9	11'-11"	25	#5	24'-8"
	31	B	25.00'	40	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	14'-6 1/2"	14'-6" TO 14'-7"	26	#6	4'-1"	10'-5"	10'-6"	14'-6 1/2"	14'-6" TO 14'-7"	25	#6	1'-0"	6'-11"	7'-11"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	32	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	14'-6 1/2"	14'-6" TO 14'-7"	26	#6	4'-1"	10'-5"	10'-6"	14'-6 1/2"	14'-6" TO 14'-7"	25	#6	1'-0"	6'-11"	7'-11"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	33	B	38.18'	30	37'-10"	--	--	--	2	37'-10"	39	4'-0"	39	#6	1'-0"	4'-9"	5'-9"	39	14'-7"	14'-6" TO 14'-8"	39	#6	4'-1"	10'-5"	10'-7"	14'-7"	14'-6" TO 14'-8"	25	#6	1'-0"	7'-0"	8'-0"	76	#4	9'-5"	10	#4	37'-10"	39	#6	9'-5"	19	#7	37'-10"



DESCRIPTION	REVISIONS	DATE

C.I.P. RETAINING WALL BAR LIST

WALL	PANEL			L1 #4 BARS at 12" CTRS.		L2 #4 BARS at 12" CTRS.			L3 #4 BARS		D1 #4 BARS at 12" CTRS.		D2 BARS at 12" CTRS. (BENT BAR)				VF1 #4 BARS (LAP WITH D1 BARS)		VB1 BARS (LAP WITH D2 BARS) (BENT BAR)						VB2 BARS at 12" CTRS. (BENT BAR)			F1 BARS at 6" CTRS.			F2 BARS at 12" CTRS.			F3 BARS at 12" CTRS.			F4 BARS at 6" CTRS.							
	NO.	TYPE	LENGTH	NO.	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	LENGTH	NO.	LENGTH	NO.	SIZE	X	Y	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	Z	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH
"C"	1	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-5"	--	26	#7	4'-1"	11'-5"	11'-5"	15'-6"	--	25	#7	1'-6"	6'-5"	7'-11"	50	#5	9'-8"	10	#4	24'-8"	26	#6	9'-8"	19	#8	24'-8"
	2	B	25.17'	32	24'-10"	--	--	--	2	24'-10"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-5"	--	26	#7	4'-1"	11'-5"	11'-6"	15'-5 1/2"	15'-5" TO 15'-6"	25	#7	1'-6"	6'-6"	8'-0"	50	#5	9'-8"	10	#4	24'-10"	26	#6	9'-8"	19	#8	24'-10"
	3	B	32.34'	32	32'-0"	--	--	--	2	32'-0"	33	4'-0"	33	#7	1'-6"	5'-6"	7'-0"	33	15'-7"	15'-5" TO 15'-9"	33	#7	4'-1"	11'-5"	11'-9"	15'-7"	15'-5" TO 15'-9"	32	#7	1'-6"	6'-8"	8'-2"	65	#5	9'-8"	10	#4	32'-0"	33	#6	9'-8"	19	#6	32'-0"
	4	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-11"	15'-9" TO 16'-1"	26	#7	4'-1"	11'-8"	12'-1"	16'-1 1/2"	15'-9" TO 16'-2"	25	#7	1'-6"	7'-0"	8'-6"	50	#5	9'-8"	10	#4	24'-8"	26	#6	9'-8"	19	#8	24'-8"
	5	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	17'-2 1/2"	17'-0" TO 17'-5"	26	#8	6'-1"	10'-11"	11'-4"	17'-7 1/2"	17'-0" TO 17'-5"	25	#8	1'-6"	5'-6"	7'-0"	50	#5	10'-8"	11	#4	24'-8"	26	#8	10'-8"	21	#5	24'-8"
	6	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	17'-7 1/2"	17'-5" TO 17'-10"	26	#8	6'-1"	11'-4"	11'-9"	17'-7 1/2"	17'-5" TO 17'-10"	25	#8	1'-6"	5'-11"	7'-5"	50	#5	10'-8"	11	#4	24'-8"	26	#8	10'-8"	21	#5	24'-8"
	7	C	30.00'	36	29'-8"	--	--	--	2	29'-8"	31	5'-0"	31	#9	2'-0"	8'-5"	10'-5"	31	24'-1"	23'-10" TO 24'-4"	31	#9	8'-1"	15'-9"	16'-4"	24'-1 1/2"	23'-10" TO 24'-5"	30	#9	2'-0"	11'-3"	18'-3"	60	#9	14'-8"	11	#5	29'-8"	31	#9	14'-8"	21	#4	29'-8"
	8	B	21.35'	30	21'-0"	--	--	--	2	21'-0"	22	4'-0"	22	#7	1'-6"	5'-6"	7'-0"	22	15'-1"	14'-10" TO 15'-4"	26	#7	4'-1"	10'-9"	11'-3"	15'-1"	14'-10" TO 15'-4"	21	#7	1'-6"	6'-3"	7'-9"	43	#4	9'-5"	10	#4	21'-0"	22	#6	9'-5"	19	#7	21'-0"
	9	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	14'-7"	14'-4" TO 14'-10"	26	#7	4'-1"	10'-3"	10'-9"	14'-7"	14'-4" TO 14'-10"	25	#7	1'-6"	5'-9"	7'-3"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	10	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-1"	14'-10" TO 15'-4"	26	#7	4'-1"	10'-9"	11'-3"	15'-1"	14'-10" TO 15'-4"	25	#7	1'-6"	6'-3"	7'-9"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	11	C	35.00'	34	34'-8"	--	--	--	2	34'-8"	36	5'-0"	36	#8	2'-0"	8'-5"	10'-5"	36	23'-5 1/2"	23'-1" TO 23'-10"	36	#9	8'-1"	15'-1"	15'-9"	23'-6"	23'-2" TO 23'-10"	35	#9	2'-0"	10'-8"	17'-8"	70	#9	14'-8"	11	#5	34'-8"	36	#9	14'-8"	21	#5	34'-8"
	12	B	35.51'	30	35'-2"	--	--	--	2	35'-2"	36	4'-0"	36	#7	1'-6"	5'-6"	7'-0"	36	15'-1"	14'-9" TO 15'-5"	26	#7	4'-1"	10'-8"	11'-4"	15'-1"	14'-9" TO 15'-5"	35	#7	1'-6"	6'-4"	7'-10"	71	#5	9'-8"	10	#4	35'-2"	36	#6	9'-8"	19	#6	35'-2"
	13	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	14'-5 1/2"	14'-4" TO 14'-7"	26	#7	4'-1"	10'-3"	10'-6"	14'-5 1/2"	14'-4" TO 14'-7"	25	#7	1'-6"	5'-5"	6'-11"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	14	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	14'-8"	14'-7" TO 14'-9"	26	#7	4'-1"	10'-6"	10'-8"	14'-8"	14'-7" TO 14'-9"	25	#7	1'-6"	5'-8"	7'-2"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	15	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	13'-11 1/2"	13'-11" TO 14'-0"	26	#7	4'-1"	9'-10"	9'-11"	13'-11 1/2"	13'-11" TO 14'-0"	25	#7	1'-6"	4'-10"	6'-4"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	16	B	25.00'	28	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	14'-0 1/2"	14'-0" TO 14'-1"	26	#7	4'-1"	9'-11"	10'-0"	14'-0 1/2"	14'-0" TO 14'-1"	25	#7	1'-6"	5'-0"	6'-6"	50	#4	9'-5"	10	#4	24'-8"	26	#6	9'-5"	19	#8	24'-8"
	17	B	27.51'	28	27'-2"	--	--	--	2	27'-2"	28	4'-0"	28	#7	1'-6"	5'-6"	7'-0"	28	14'-1"	--	26	#7	4'-1"	10'-0"	10'-0"	14'-1"	--	27	#7	1'-6"	5'-0"	6'-6"	55	#4	9'-5"	10	#4	27'-2"	28	#6	9'-5"	19	#9	27'-2"



ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY

C.I.P. RETAINING WALL DETAILS

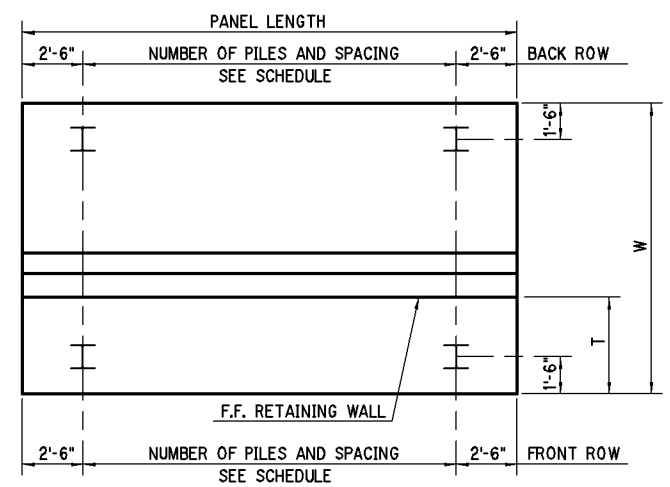
WALL "C"

(SHEET 2 OF 2)

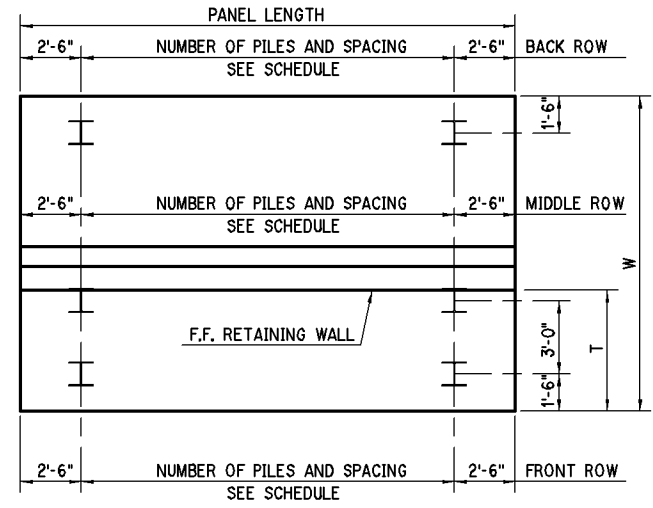
State Job No. 23310(04) Sheet No. RW39

C.I.P. RETAINING WALL SCHEDULE

PANEL NO.	PANEL TYPE	DIMENSIONS									PILING (HP 12x53)										QUANTITIES												
		WALL HEIGHT				FOOTING					FRONT ROW			MIDDLE ROW			BACK ROW				TOTAL PILES	PAY ITEMS				NON-PAY ITEMS							
		MIN.	MAX.	AVG.	BH	W	D	T	S	NO.	SPA.	LENGTH	NO.	SPA.	LENGTH	NO.	SPA.	LENGTH	RETAINING WALL	GRAFFITI TREATMENT		PILES, FURNISHED (HP 12 x 53)	PILES, DRIVEN (HP 12 x 53)	CLASS A CONCRETE	REINFORCING STEEL	SUBSTRUCTURE EXCAVATION COMMON	6" PERFORATED PIPE UNDERDRAIN	PIPE UNDERDRAIN COVER MATERIAL	GRANULAR BACKFILL	SELECT BACKFILL	UNCLASSIFIED BACKFILL		
		L.F.	FT.	FT.	FT.														S.Y.	S.F.	L.F.	L.F.	C.Y.	LB.	C.Y.	L.F.	C.Y.	C.Y.	C.Y.	C.Y.			
"F"	1	C	25.00	23.37	23.72	23.55	8'-0"	15'-0"	3'-9"	5'-0"	2'-2 1/2"	4	6'-8"	43'-0"	3	11'-0"	43'-0"	3	10'-0"	42'-0"	10	65.40	376.10	427	427	81.38	10,039	569	25	5	39	667	229
	2	B	25.00	15.55	15.94	15.75	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	10'-0"	51'-0"	--	--	--	2	20'-0"	50'-0"	5	43.70	331.10	253	253	43.44	4946	130	25	5	23	296	45
	3	B	19.55	15.56	15.90	15.73	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	7'-3"	51'-0"	--	--	--	2	14'-6"	50'-0"	5	34.20	258.60	253	253	33.95	3515	100	19.55	4	18	230	35
	4	B	25.00	15.90	16.36	16.13	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	10'-0"	51'-0"	--	--	--	2	20'-0"	50'-0"	5	44.80	340.80	253	253	43.85	5028	136	25	5	23	308	48
	5	B	25.00	15.74	16.27	16.01	4'-0"	10'-0"	2'-9"	3'-0"	1'-8 1/4"	3	10'-0"	45'-0"	--	--	--	2	20'-0"	44'-0"	5	44.50	337.60	223	223	43.72	5014	127	25	5	23	306	44
	6	B	25.00	16.27	16.84	16.56	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	39'-0"	--	--	--	3	10'-0"	38'-0"	7	46.00	351.40	270	270	48.06	5141	145	25	5	24	326	49
	7	B	25.00	16.21	16.83	16.52	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	39'-0"	--	--	--	3	10'-0"	38'-0"	7	45.90	350.50	270	270	48.03	5137	135	25	5	24	326	45
	8	B	25.00	16.83	17.43	17.13	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	32'-0"	--	--	--	3	10'-0"	31'-0"	7	47.60	365.80	221	221	48.68	5234	144	25	5	25	345	49
	9	B	39.00	16.81	17.73	17.27	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	6	6'-9 1/2"	19'-0"	--	--	--	5	8'-6"	18'-0"	11	74.80	576.00	204	204	76.18	7892	209	39	7	40	553	70
	10	B	25.00	17.24	17.70	17.47	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	19'-0"	--	--	--	3	10'-0"	18'-0"	7	48.50	374.30	130	130	49.05	5310	99	25	5	26	354	30
	11	B	25.00	17.21	17.38	17.30	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	19'-0"	--	--	--	3	10'-0"	18'-0"	7	48.00	369.90	130	130	48.86	5274	123	25	5	25	343	40
	12	B	25.00	17.38	17.41	17.40	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	19'-0"	--	--	--	3	10'-0"	18'-0"	7	48.30	372.40	130	130	48.97	5363	132	25	5	25	344	44
	13	B	25.00	16.98	17.21	17.10	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	19'-0"	--	--	--	3	10'-0"	18'-0"	7	47.50	364.90	130	130	48.65	5245	135	25	5	25	331	45
	14	B	25.00	16.66	16.98	16.82	6'-0"	11'-0"	2'-9"	3'-9"	1'-11 3/8"	4	6'-8"	19'-0"	--	--	--	3	10'-0"	18'-0"	7	46.70	358.00	130	130	48.35	5206	144	25	5	24	321	49
	15	B	30.44	18.14	18.94	18.54	6'-0"	12'-3"	2'-9"	4'-3"	1'-11 3/8"	6	5'-1"	16'-0"	--	--	--	4	8'-6"	15'-0"	10	62.70	488.30	156	156	65.01	7242	298	30.44	6	32	462	107
	16	B	25.00	13.42	14.34	13.88	4'-0"	9'-3"	2'-9"	3'-6"	1'-8 1/4"	3	10'-0"	20'-0"	--	--	--	2	20'-0"	19'-0"	5	38.60	284.50	98	98	39.51	3883	107	25	5	18	211	37
TOTAL																					787.20	5900.10	3278	3278	815.69	89,469	2733	413.99	82	414	5723	966	



**PILE SPACING DIAGRAM
TYPE B PANELS**
NOTE: ALL PILES ARE HP 12 x 53.
(BATTER FRONT ROW 4:12)



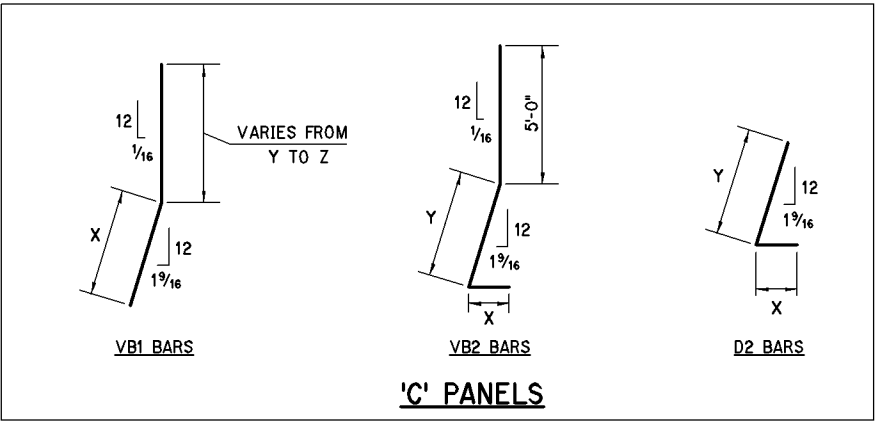
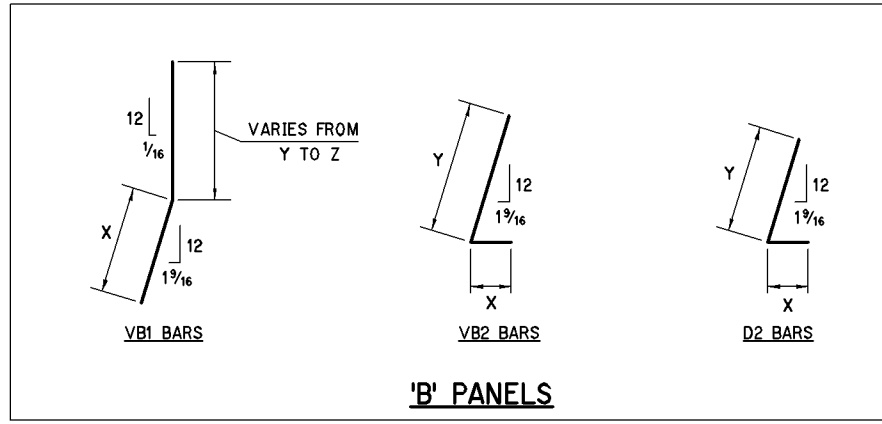
**PILE SPACING DIAGRAM
TYPE C PANELS**
NOTE: ALL PILES ARE HP 12 x 53.
(BATTER FRONT AND MIDDLE ROWS 4:12)

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
**C.I.P. RETAINING WALL DETAILS
WALL "F"**
(SHEET 1 OF 2)
State Job No. 23310(04) Sheet No. RW40

C.I.P. RETAINING WALL BAR LIST

WALL	PANEL			L1 #4 BARS at 12" CTRS.		L2 #4 BARS at 12" CTRS.		L3 #4 BARS		D1 #4 BARS at 12" CTRS.		D2 BARS at 12" CTRS. (BENT BAR)				VF1 #4 BARS (LAP WITH D1 BARS)		VB1 BARS (LAP WITH D2 BARS) (BENT BAR)						VB2 BARS at 12" CTRS. (BENT BAR)				F1 BARS at 6" CTRS.			F2 BARS at 12" CTRS.		F3 BARS at 12" CTRS.		F4 BARS at 6" CTRS.									
	NO.	TYPE	LENGTH	NO.	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	LENGTH	NO.	LENGTH	NO.	SIZE	X	Y	LENGTH	NO.	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	Z	LENGTH (AVG.)	LENGTH VAR.	NO.	SIZE	X	Y	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH
"F"	1	C	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	5'-0"	26	#9	2'-0"	8'-5"	10'-5"	26	23'-4"	23'-2" TO 23'-6"	26	#9	8'-1"	15'-1"	15'-6"	23'-4 1/2"	23'-2" TO 23'-7"	25	#9	2'-0"	10'-5"	17'-5"	50	#9	14'-8"	12	#5	24'-8"	26	#9	14'-8"	23	#5	24'-8"
	2	B	25.00'	30	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-6 1/2"	15'-4" TO 15'-9"	26	#7	4'-1"	11'-3"	11'-8"	15'-6 1/2"	15'-4" TO 15'-9"	25	#7	1'-6"	6'-8"	8'-2"	50	#5	9'-8"	11	#4	24'-8"	26	#6	9'-8"	21	#8	24'-8"
	3	B	19.55'	30	19'-2"	--	--	--	2	19'-2"	21	4'-0"	21	#7	1'-6"	5'-6"	7'-0"	21	15'-6 1/2"	15'-4" TO 15'-9"	21	#7	4'-1"	11'-3"	11'-8"	15'-6 1/2"	15'-4" TO 15'-9"	20	#7	1'-6"	6'-7"	8'-1"	39	#5	9'-8"	11	#4	19'-2"	33	#6	9'-8"	21	#6	19'-2"
	4	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-11 1/2"	15'-9" TO 16'-2"	26	#7	4'-1"	11'-8"	12'-1"	15'-11 1/2"	15'-9" TO 16'-2"	25	#7	1'-6"	7'-1"	8'-7"	50	#5	9'-8"	11	#4	24'-8"	26	#6	9'-8"	21	#8	24'-8"
	5	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#7	1'-6"	5'-6"	7'-0"	26	15'-10"	15'-7" TO 16'-1"	26	#7	4'-1"	11'-6"	12'-0"	15'-10"	15'-7" TO 16'-1"	25	#7	1'-6"	7'-0"	8'-6"	50	#5	9'-8"	11	#4	24'-8"	26	#6	9'-8"	21	#8	24'-8"
	6	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	16'-4 1/2"	16'-1" TO 16'-8"	26	#8	6'-1"	10'-0"	10'-7"	16'-4 1/2"	16'-1" TO 16'-8"	25	#8	1'-6"	4'-9"	6'-3"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	7	B	25.00'	32	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	16'-4"	16'-0" TO 16'-8"	26	#8	6'-1"	9'-11"	10'-7"	16'-4"	16'-0" TO 16'-8"	25	#8	1'-6"	4'-9"	6'-3"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	8	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	16'-11 1/2"	16'-8" TO 17'-3"	26	#8	6'-1"	10'-7"	11'-2"	16'-11 1/2"	16'-8" TO 17'-3"	25	#8	1'-6"	5'-4"	6'-10"	50	#5	10'-8"	12	#4	24'-8"	22	#8	10'-8"	23	#5	24'-8"
	9	B	39.00'	34	38'-8"	--	--	--	2	38'-8"	40	4'-0"	40	#8	1'-6"	6'-5"	7'-11"	40	17'-1"	16'-7" TO 17'-7"	40	#8	6'-1"	10'-6"	11'-6"	17'-1"	16'-7" TO 17'-7"	39	#8	1'-6"	5'-8"	7'-2"	78	#5	10'-8"	12	#4	38'-8"	40	#8	10'-8"	23	#4	38'-8"
	10	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	17'-3 1/2"	17'-1" TO 17'-6"	26	#8	6'-1"	11'-0"	11'-5"	17'-3 1/2"	17'-1" TO 17'-6"	25	#8	1'-6"	5'-7"	7'-1"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	11	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	17'-1"	17'-0" TO 17'-2"	26	#8	6'-1"	10'-11"	11'-1"	17'-1"	17'-0" TO 17'-2"	25	#8	1'-6"	5'-3"	6'-9"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	12	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	17'-2 1/2"	17'-2" TO 17'-3"	26	#8	6'-1"	11'-1"	11'-2"	17'-2 1/2"	17'-2" TO 17'-3"	25	#8	1'-6"	5'-4"	6'-10"	50	#5	10'-8"	12	#4	24'-8"	37	#8	10'-8"	23	#5	24'-8"
	13	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	16'-11"	16'-10" TO 17'-0"	26	#8	6'-1"	10'-9"	10'-11"	16'-11"	16'-10" TO 17'-0"	25	#8	1'-6"	5'-1"	6'-7"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	14	B	25.00'	34	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#8	1'-6"	6'-5"	7'-11"	26	16'-8"	16'-6" TO 16'-10"	26	#8	6'-1"	10'-5"	10'-9"	16'-8"	16'-6" TO 16'-10"	25	#8	1'-6"	4'-11"	6'-5"	50	#5	10'-8"	12	#4	24'-8"	26	#8	10'-8"	23	#5	24'-8"
	15	B	30.44'	36	30'-1"	--	--	--	2	30'-1"	31	4'-0"	31	#8	1'-6"	6'-5"	7'-11"	31	18'-4"	17'-11" TO 18'-9"	31	#8	6'-1"	11'-10"	12'-8"	18'-4"	17'-11" TO 18'-9"	30	#8	1'-6"	6'-10"	8'-4"	61	#6	11'-11"	13	#4	30'-1"	31	#9	11'-11"	25	#4	30'-1"
	16	B	25.00'	26	24'-8"	--	--	--	2	24'-8"	26	4'-0"	26	#6	1'-0"	4'-9"	5'-9"	26	13'-8 1/2"	13'-3" TO 14'-2"	26	#6	4'-1"	9'-2"	10'-1"	13'-8 1/2"	13'-3" TO 14'-2"	25	#6	1'-0"	6'-6"	7'-6"	50	#4	8'-11"	10	#4	24'-8"	26	#6	8'-11"	19	#8	24'-8"



ALL BAR BEND DIMENSIONS ARE OUT TO OUT.

Design	
Drawn	
Checked	
Approved	
Squad	POE

OKLAHOMA COUNTY
C.I.P. RETAINING WALL DETAILS
WALL "F"
(SHEET 2 OF 2)
State Job No. 23310(04) Sheet No. RW41