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 DATE 2/15/23  
 FILE 00070-A1-Title.dwg

# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

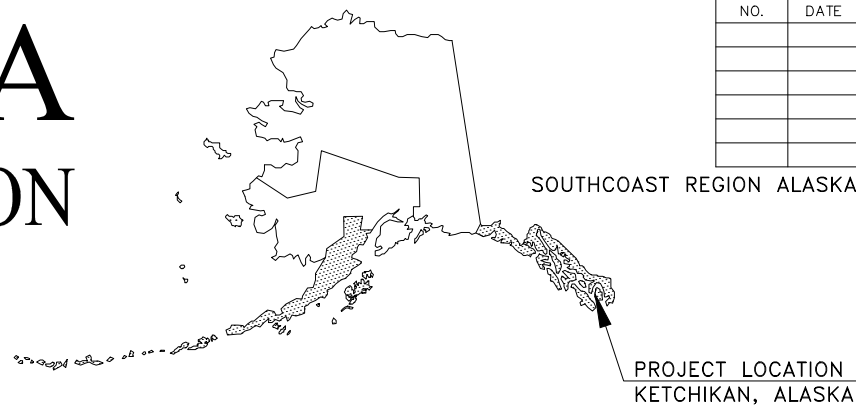
### PROPOSED HIGHWAY PROJECT

# KTN: SAYLES/GORGE ST. VIADUCT (1841)

## IMPROVEMENTS

## PROJECT NO. 0003225/SFHWHY00070

GRADING, BRIDGE, DRAINAGE, PAVING, AND UTILITIES

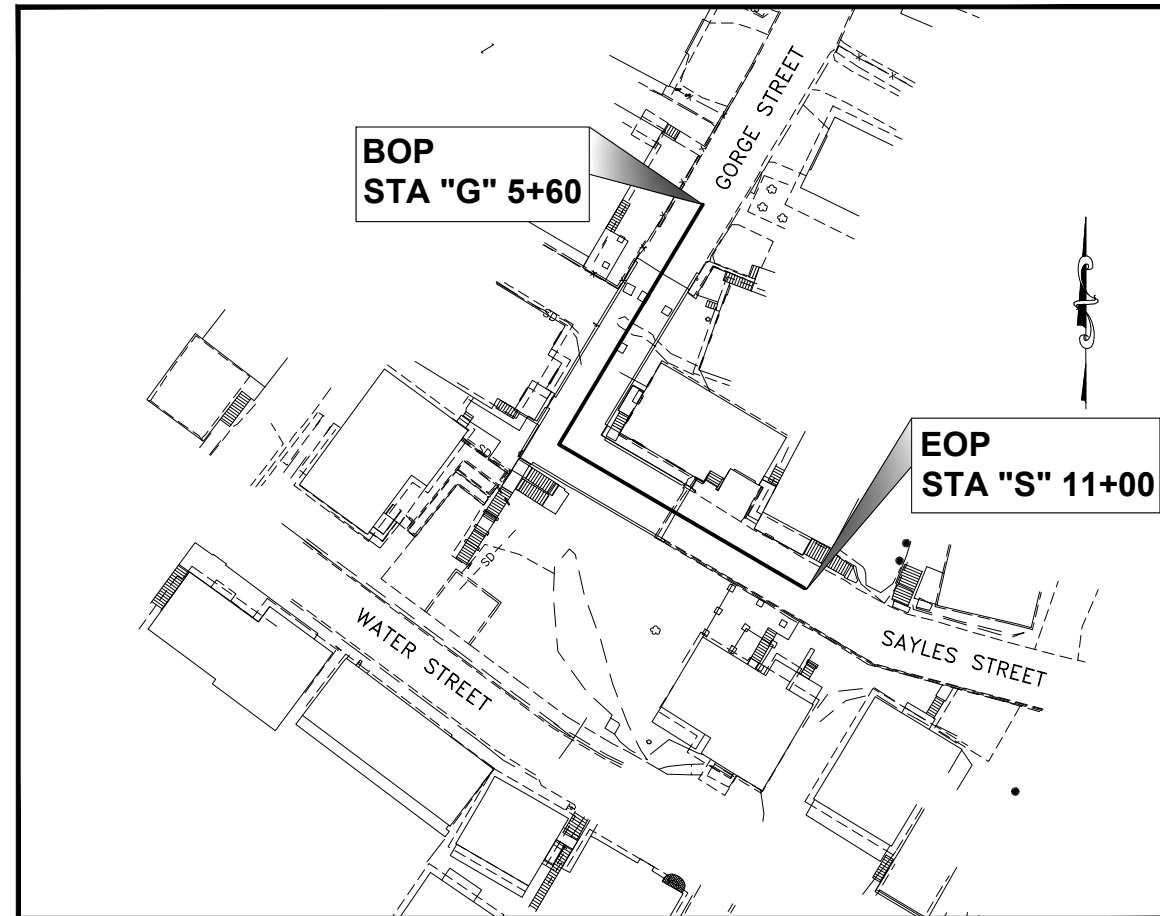


NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2022	A1	90
				CDS ROUTE: 4041222, 4041223	MILEPOINT: 0.069, 0.077		
				LATITUDE: 55.346278	LONGITUDE: -131.659411		

PROJECT SUMMARY	
SAYLES STREET WIDTH OF PAVEMENT	17 FT 6 IN
GORGE STREET WIDTH OF PAVEMENT	17 FT 6 IN
LENGTH OF PAVING	36 FT
LENGTH OF PROJECT	179 FT

DESIGN DESIGNATIONS	
FUNCTIONAL CLASS	LOCAL ROAD
ADT (2021)	430
ADT (2044)	455
DHV (2021)	46
DHV (2044)	49
PERCENT TRUCKS (T)	1.47%
DIRECTIONAL SPLIT (D)	54%
DESIGN SPEED (V)	20 MPH
DESIGN ESALs	200,000

ALIGNMENT DESIGNATIONS			
NAME	DESIGNATION	BEGIN	END
GORGE STREET	"G"	"G" STA 5+60.00	"G" STA 6+49.61
SAYLES STREET	"S"	"S" STA 10+10.42	"S" STA 11+00.00



VICINITY MAP

## PLANS IN HAND SET

PLANS DEVELOPED BY: R&M Consultants, Inc.  
 9101 Vanguard Drive - Anchorage, Alaska 99507  
 907 522-1707 voice - 907 522-3404 fax  
 www.rmconsult.com - Cert. of Auth. No. AECC111

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020 EDITION AND THE PROJECT SPECIAL PROVISIONS.

**STATE OF ALASKA**  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99811  
 (907) 465-1763

APPROVED:

\_\_\_\_\_  
 KIRK MILLER, P.E.  
 REGIONAL PRECONSTRUCTION ENGINEER      DATE

CONCUR:

\_\_\_\_\_  
 D. LANCE MEARIG, P.E.  
 DIRECTOR, SOUTHCOAST REGION      DATE

PIH:  
 FEBRUARY 2023

FILE 00070-A2.dwg DATE 2/15/23 LAYOUT SHEET LAYOUT INDEX DRAFT GENERAL NOTES CHECKED DRAFTED AB

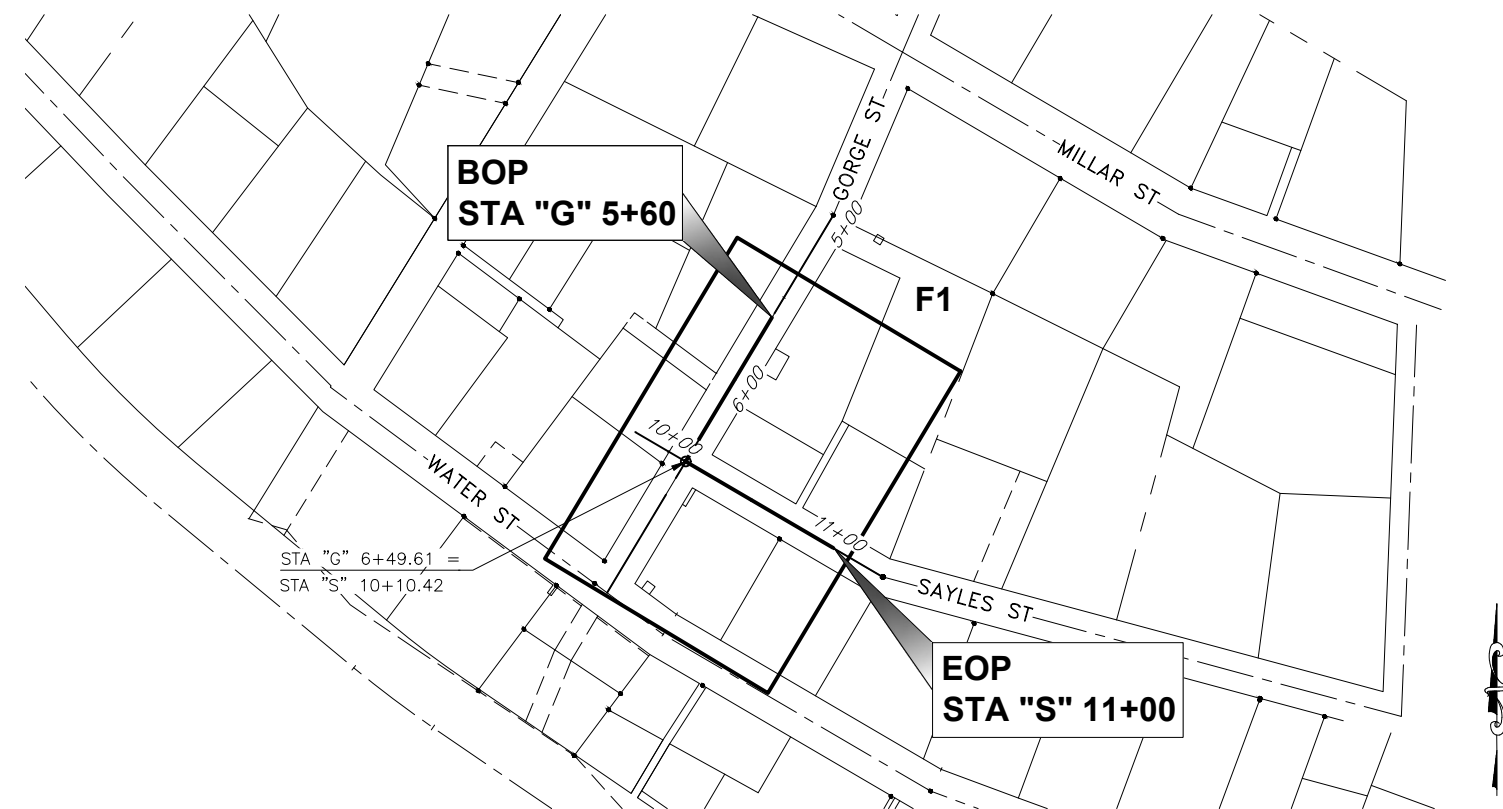
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHwy00070	2023	A2	A4

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL PROTECT IN PLACE FEATURES ON PRIVATE PROPERTIES IDENTIFIED IN THE PLANS, AND TO THE GREATEST EXTENT POSSIBLE, MINIMIZE IMPACTS TO PRIVATE PROPERTY IMPROVEMENTS.
2. CONTAIN ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY OR TEMPORARY CONSTRUCTION EASEMENTS. DO NOT DISPOSE OF EXCESS MATERIAL WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
3. THE DESIGN SURVEY WAS PERFORMED APRIL 2019 TO ESTABLISH GROUND AND TOPOGRAPHIC FEATURES. FIELD CONDITIONS MAY HAVE CHANGED THAT ARE NOT REPRESENTED IN THIS PLANSET.
4. UTILITY LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE. SOME UTILITIES HAVE BEEN LOCATED FROM AS-BUILT DRAWINGS. FIELD CONDITIONS MAY NOT BE ACCURATELY REPRESENTED AND/OR MAY HAVE CHANGED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY COMPANY FIELD LOCATES PRIOR TO EXCAVATION.
5. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR ANY NECESSARY SHORING OF UTILITY POLES DUE TO STORM DRAIN INSTALLATION.
6. ALL WORK IN CLOSE PROXIMITY TO EXISTING UNDERGROUND ELECTRICAL AND TELECOMMUNICATION LINES SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, CODES AND GUIDELINES, AND THE ELECTRICAL FACILITY CLEARANCE REQUIREMENTS OF THE GOVERNING UTILITY. HAND DIGGING IS REQUIRED WITHIN TWO FEET OF BURIED ELECTRICAL UTILITIES.
7. ALL STORM DRAIN STRUCTURES INCLUDE 18" SUMP EXCEPT FOR STORM STRUCTURE INLET, TYPE D.
8. WHEN PAVING ADJACENT TO CURB & GUTTER, THE CONTRACTOR SHALL ENSURE THAT THE ASPHALT SURFACE BE 1/8"-1/4" HIGHER THAN THE LIP OF THE GUTTER PAN FOR CATCH CURB AND 1/8"-1/4" LOWER THAN THE LIP OF THE GUTTER PAN FOR SPILL CURB.
9. INVASIVE PLANT SPECIES LOCATIONS WILL BE SHOWN IN P SHEETS.

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	SHEET INDEX, LAYOUT SCHEMATIC, GENERAL NOTES
A3	LEGEND / SYMBOLS
A4	SURVEY CONTROL SHEET
B1-B3	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
D1-D4	SUMMARY TABLES
E1-E11	DETAILS
F1	DEMOLITION PLAN
F2-F3	PLAN & PROFILE
N1-N40	BRIDGE DETAILS
S1-S4	CONSTRUCTION PHASING
T1-T2	TRAFFIC CONTROL PLANS
U1-U13	UTILITY SHEETS
V1-V5	TELECOM

ABBREVIATIONS			
AADT	ANNUAL AVERAGE DAILY TRAFFIC	NTS	NOT TO SCALE
ADEC	ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION	OC	ON CENTER
ADT	AVERAGE DAILY TRAFFIC	OD	OUTER DIAMETER
AWWA	AMERICAN WATER WORKS ASSOCIATION	OH	OVERHEAD UTILITY
BMP	BEST MANAGEMENT PRACTICE	OHE	OVERHEAD ELECTIC
BOP	BEGINNING OF PROJECT	PG	PROFILE GRADE
C&G	CURB & GUTTER	PGL	PROFILE GRADE LINE
CI	CAST IRON	PSI	POUNDS PER SQUARE INCH
CL, CL	CENTERLINE	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	R	RADIUS
CONT	CONTINUOUS	REF	REFERENCE
CPEP	CORRUGATED POLYETHYLENE PIPE	REINF	REINFORCING
CY	CUBIC YARD	ROW	RIGHT-OF-WAY
DI	DUCTILE IRON	RT	RIGHT
DIP	DUCTILE IRON PIPE	SCH	SCHEDULE
EA	EACH	SDMH	STORM DRAIN MANHOLE
EG	EXISTING GROUND	SHLD	SHOULDER
EL, ELEV	ELEVATION	SPA	SPACING
EOP	END OF PROJECT, EDGE OF PAVEMENT	SS	SANITARY SEWER
FG	FINISHED GRADE	ST	STREET
FT	FEET, FOOT	STA	STATION
GV	GATE VALVE	STD	STANDARD
HDPE	HIGH DENSITY POLYETHYLENE	SY	SQUARE YARD
HMA	HOT MIX ASPHALT	TYP	TYPICAL
IN	INCH	VB	VALVE BOX
INV	INVERT	VPC	VERTICAL POINT OF CURVATURE
KPU	KETCHIKAN PUBLIC UTILITIES	VPI	VERTICAL POINT OF INTERSECTION
LF	LINEAR FOOT	VPT	VERTICAL POINT OF TANGENCY
LONGIT	LONGITUDINAL	W	WATER
LT	LEFT		
LVC	LENGTH OF VERTICAL CURVE		
MAX	MAXIMUM		
ME	MATCH EXISTING		
MIN	MINIMUM		
MJ	MECHANICAL JOINT		



**THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:**

D-24.00	D-26.04	I-20.20
M-20.15	M-23.13	S-05.02
S-20.11	S-30.05	

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 6860 GLACIER HIGHWAY, JUNEAU, AK 99801  
 (907) 465-1763  
**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**  
 SHEET INDEX, LAYOUT SCHEMATIC,  
 GENERAL NOTES

FILE 00070-A3.dwg  
 DATE 2/15/23  
 LAYOUT A3  
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	A3	A4

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MICELLANEOUS CENTERLINE		
STATION EQUATION		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING EASEMENT LINE		
PROPOSED EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE		
MEANDER LINE		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
FUEL LINE		
GAS LINE		
WATER LINE		
METER, VALVE, FIRE HYDRANT		
STORM DRAIN (FLOW DIRECTION →)		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		
SPECIAL DITCH CENTERLINE		
HIGH TIDE LINE		
GRAVEL EDGE		
DRIVEWAY REGRADING		
RIPRAP		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		
RIGID METAL CONDUIT		

H = HOUSE  
 G = GARAGE  
 M = MERCHANT/STORE  
 B = BARN  
 S = SHED  
 P = PRIVY  
 SS = SERVICE STATION  
 W = WAREHOUSE

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 KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS  
 LEGEND / SYMBOLS

FILE 00070-A2.dwg DATE 2/15/23 LAYOUT A4 DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHwy00070	2023	A4	A4

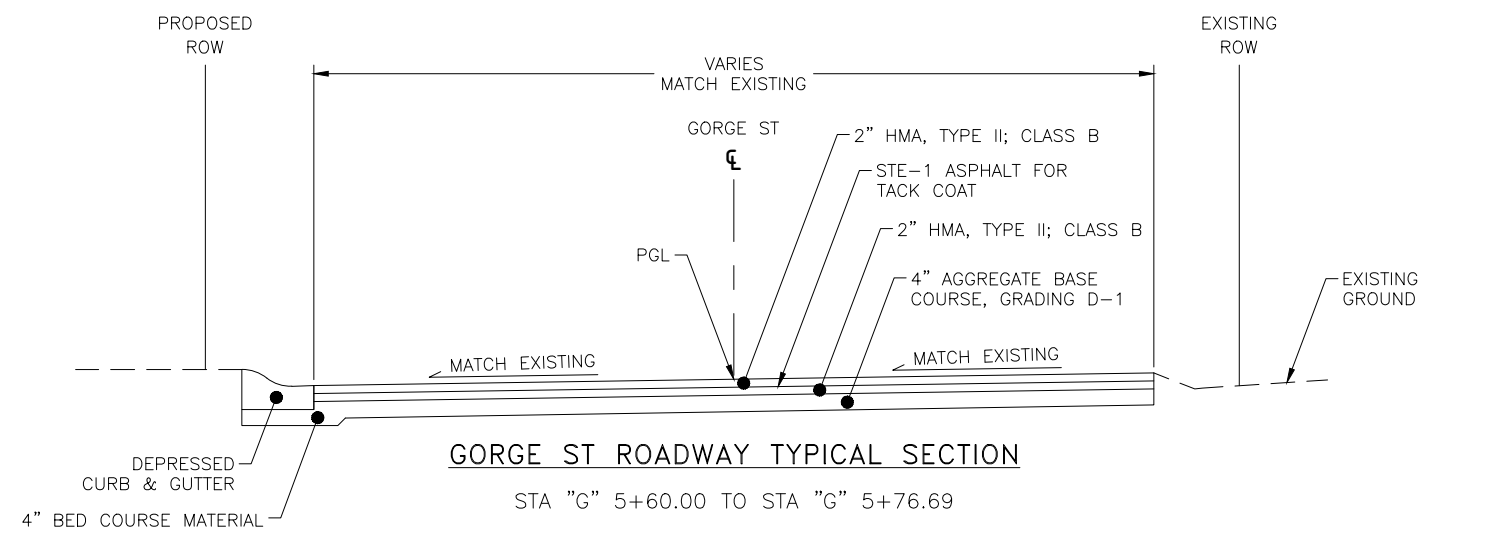
SURVEY CONTROL SHEET TO BE INCLUDED WITH FINAL PS&E SUBMITTAL

<p>PLANS DEVELOPED BY: R&amp;M Consultants, Inc. 9101 Vanguard Drive Anchorage, Alaska 99507 907 522-1707 voice 907 522-3404 fax www.rmconsult.com Cert. of Auth. No. AECC111</p>		<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 6860 GLACIER HIGHWAY, JUNEAU, AK 99801 (907) 465-1763</p> <p>KTN: SAYLES/GORGE ST. VIADUCT (1841) IMPROVEMENTS</p> <p>SURVEY CONTROL SHEET</p>
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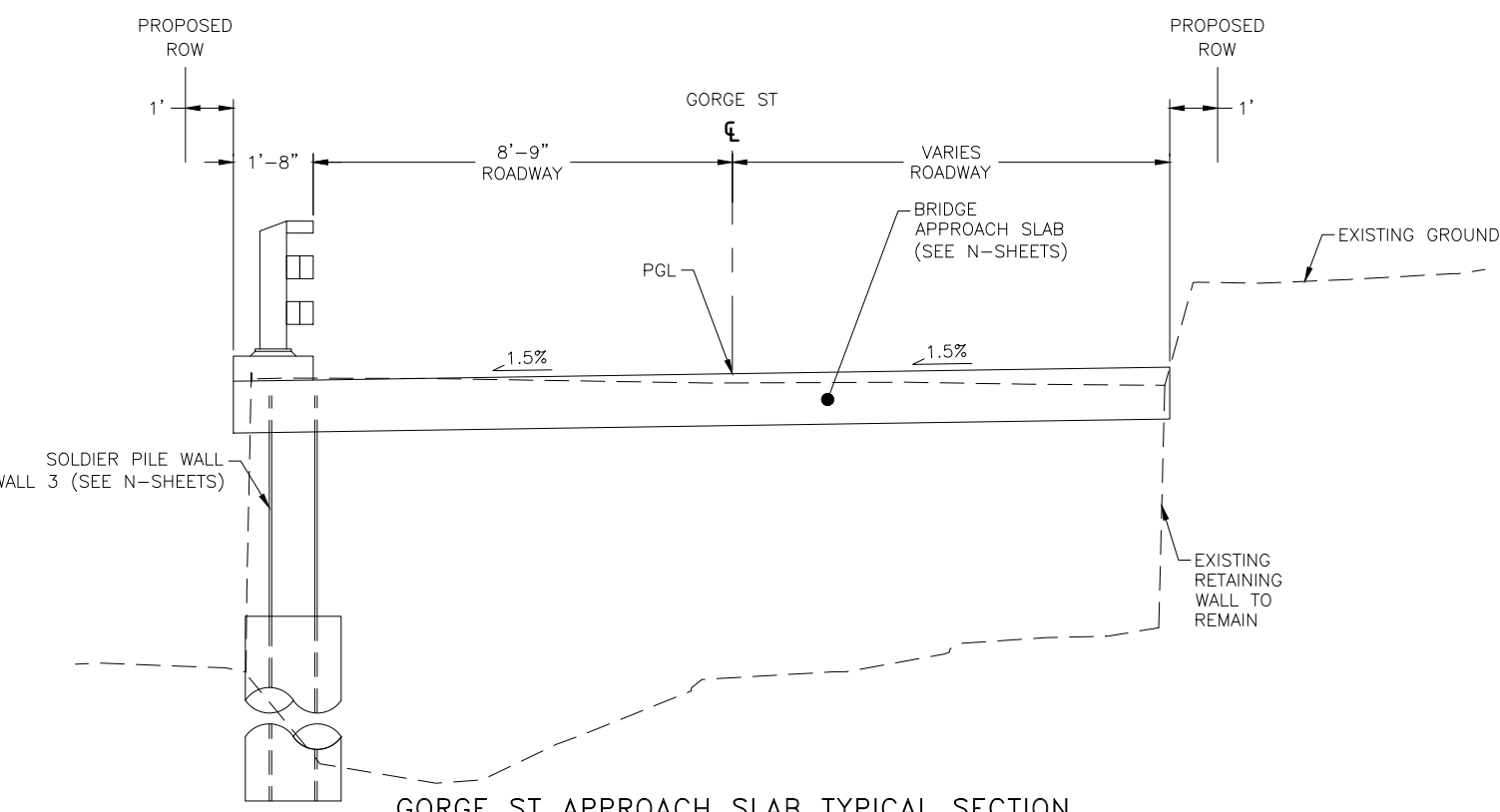


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	B1	B3

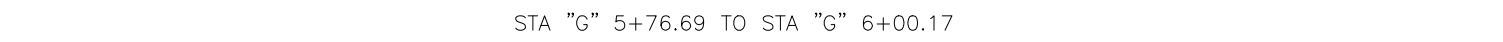
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**GORGE ST ROADWAY TYPICAL SECTION**  
STA "G" 5+60.00 TO STA "G" 5+76.69



**GORGE ST BRIDGE TYPICAL SECTION**  
STA "G" 6+00.17 TO STA "G" 6+49.61



**GORGE ST APPROACH SLAB TYPICAL SECTION**  
STA "G" 5+76.69 TO STA "G" 6+00.17

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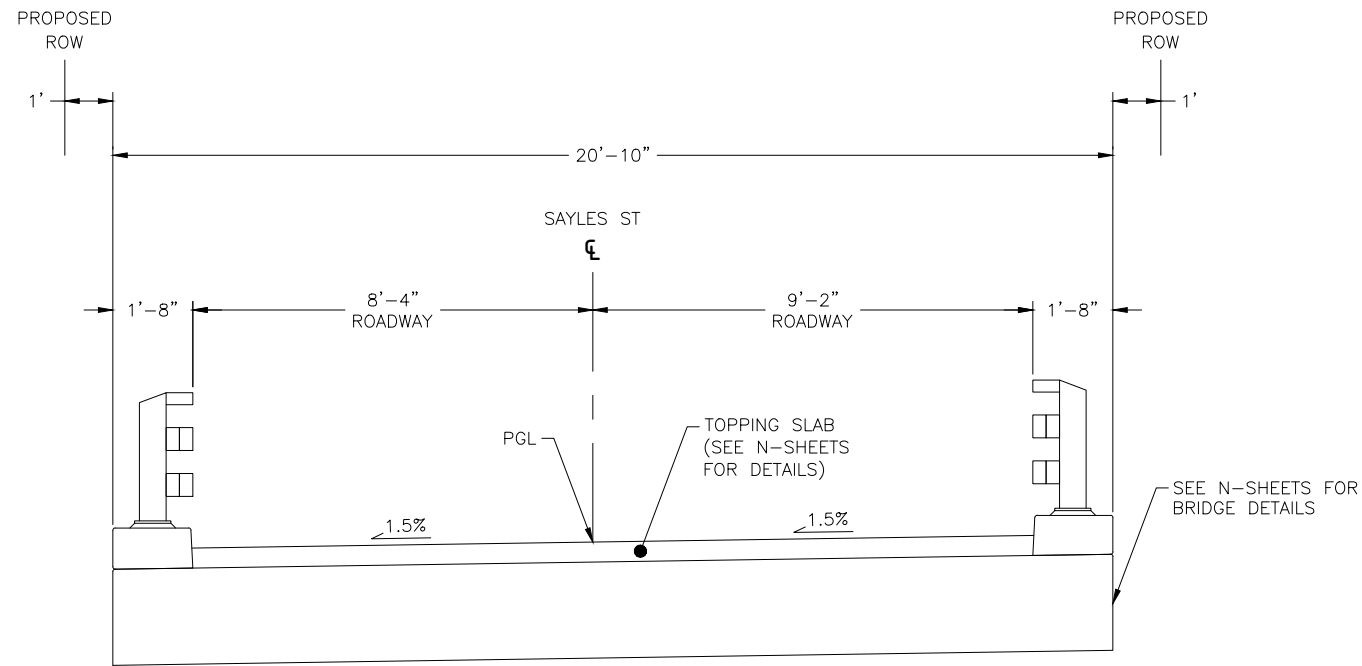


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(1841) IMPROVEMENTS**

TYPICAL SECTIONS

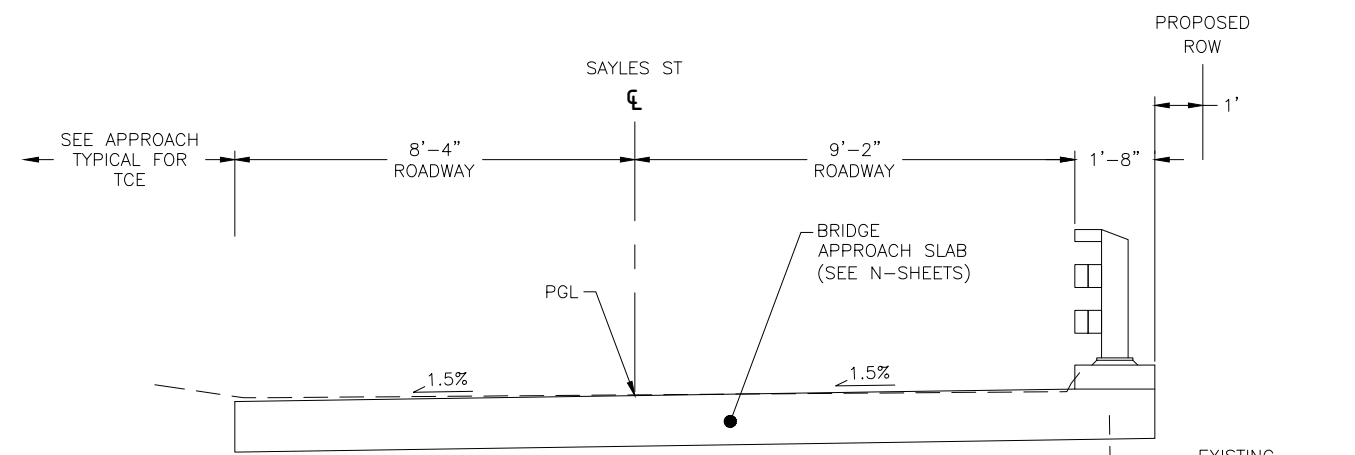
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			ALASKA	0003225/SFHwy00070	2023	B2	B3

FILE 00070-B1.dwg | DATE 2/15/23 | LAYOUT B2 | DESIGNED | CHECKED | DRAFTED | AB



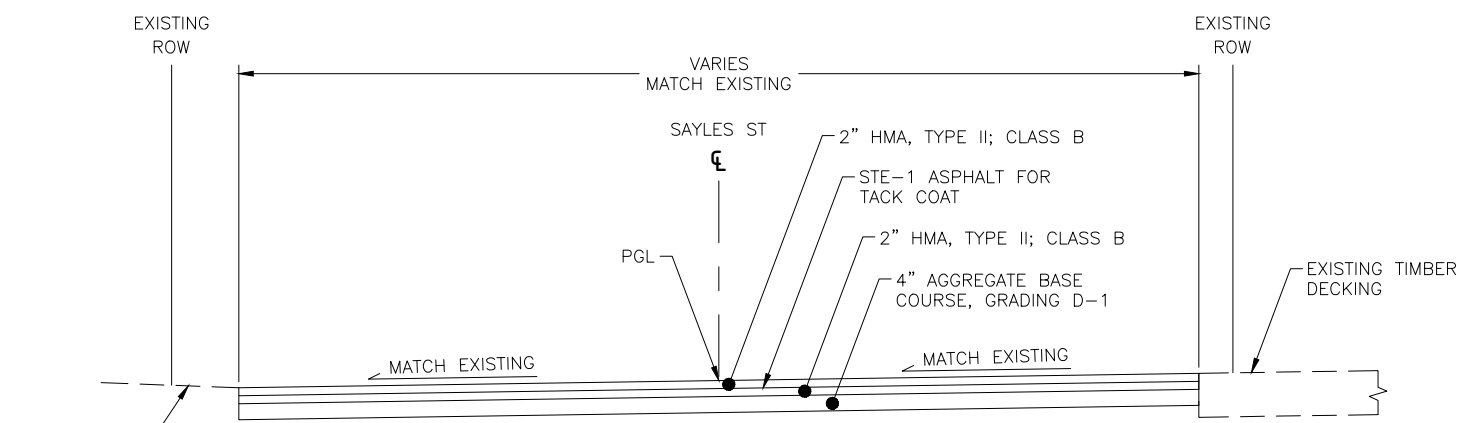
**SAYLES ST BRIDGE TYPICAL SECTION**

STA "S" 10+10.42 TO STA "S" 10+48.91



**SAYLES ST APPROACH SLAB TYPICAL SECTION**

STA "S" 10+48.91 TO STA "S" 10+79.31



**SAYLES ST ROADWAY TYPICAL SECTION**

STA "S" 10+79.31 TO STA "S" 11+00.00

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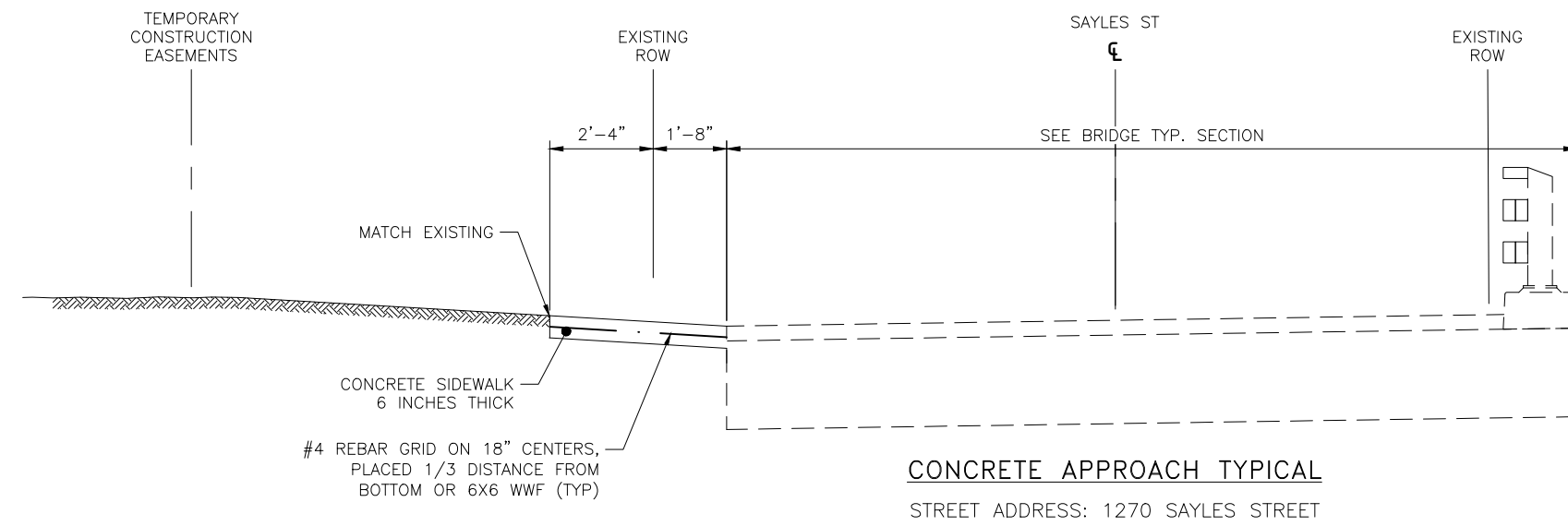


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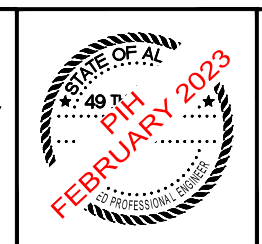
TYPICAL SECTIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	B3	B3



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 (1841) IMPROVEMENTS  
 TYPICAL SECTIONS

FILE 00070-C1.dwg DATE 2/15/23 LAYOUT C1 DESIGNED CHECKED DRAFTED AB

ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
201.0009.0000	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED
201.2001.0000	INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL	SQUARE YARD	70
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
202.0002.0000	REMOVAL OF PAVEMENT	SQUARE YARD	150
202.0009.0000	REMOVAL OF CURB AND GUTTER	LINEAR FOOT	18
202.0010.0000	SINGLE MAIL BOX INSTALLATION	EACH	3
202.0020.0000	REMOVAL OF SINGLE MAIL BOX	EACH	3
202.0023.0000	REMOVAL OF BRIDGE NO. 1841	LUMP SUM	ALL REQUIRED
202.2040.0000	RESTORATION OF PRIVATE AND PUBLIC PROPERTY	CONTINGENT SUM	ALL REQUIRED
203.0019.0000	UNCLASSIFIED EXCAVATION	LUMP SUM	ALL REQUIRED
205.0001.0000	EXCAVATION FOR STRUCTURES	CUBIC YARD	50
205.0004.0000	POROUS BACKFILL MATERIAL	CUBIC YARD	50
205.0006.0000	STRUCTURAL FILL	CUBIC YARD	60
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	20
401.0001.002B	HMA, TYPE II; CLASS B	TON	20
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	TON	1
501.0001.0000	CLASS A CONCRETE	LUMP SUM	ALL REQUIRED
501.0002.0000	CLASS A-A CONCRETE	LUMP SUM	ALL REQUIRED
501.0007.0000	PRECAST CONCRETE MEMBER, 19'-10" VOIDED SLAB	EACH	5
501.0007.0000	PRECAST CONCRETE MEMBER, 26'-3" VOIDED SLAB	EACH	5
501.0007.0000	PRECAST CONCRETE MEMBER, 38'-0" VOIDED SLAB	EACH	5
501.0009.0000	CLASS DS CONCRETE, 36" SHAFT	LINEAR FOOT	132
503.0001.0000	REINFORCING STEEL	LUMP SUM	ALL REQUIRED
503.0002.0000	EPOXY-COATED REINFORCING STEEL	LUMP SUM	ALL REQUIRED
504.0002.0000	STRUCTURAL STEEL	POUND	26,500
505.0005.0001	FURNISH STRUCTURAL STEEL H-PILES, W12X154	LINEAR FOOT	240
505.2006.0000	INSTALL STRUCTURAL STEEL H-PILES, W12X154	EACH	12
506.0001.0000	TREATED TIMBER STAIRS	LUMP SUM	ALL REQUIRED
507.0001.0003	STEEL BRIDGE RAILING, 3-TUBE	LINEAR FOOT	227
515.0001.0000	DRILLED SHAFT (36 INCH DIAMETER)	LUMP SUM	ALL REQUIRED
516.0001.0002	EXPANSION JOINT, COMPRESSION SEAL	LINEAR FOOT	42
603.0021.0018	CORRUGATED POLYETHYLENE PIPE 18 INCH	LINEAR FOOT	131
603.2023.0006	PVC PIPE, 6" SCH40	LINEAR FOOT	87
604.0001.0001	STORM SEWER MANHOLE, TYPE I	EACH	2
604.0002.0000	SANITARY SEWER MANHOLE	EACH	2
604.0005.000A	INLET, TYPE A	EACH	4
604.0005.000D	INLET, TYPE D	EACH	2
604.0010.0000	RECONSTRUCT INLET	EACH	1
609.0002.0001	CURB AND GUTTER, TYPE 1	LINEAR FOOT	17
615.0001.0000	STANDARD SIGN	SQUARE FOOT	7.5
620.0001.0000	TOPSOIL	SQUARE YARD	390
626.0001.0008	SANITARY SEWER CONDUIT, 8 INCH PVC C900	LINEAR FOOT	45
626.0001.0008	SANITARY SEWER CONDUIT, 8 INCH PVC C900, INSULATED	LINEAR FOOT	75
626.0002.0000	SANITARY SEWER SERVICE CONNECTION	EACH	2

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ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
627.0003.0000	INSTALL VALVE BOX	EACH	2
627.0008.0000	WATER SERVICE CONNECTION	EACH	5
627.0009.0008	GATE VALVE, 8 INCH	EACH	2
627.2012.0008	HDPE WATER CONDUIT, 8-INCH, SDR 11	LINEAR FOOT	60
627.2012.0008	HDPE WATER CONDUIT, 8-INCH, SDR 11, INSULATED	LINEAR FOOT	109
635.0002.0000	INSULATION BOARD	SQUARE FOOT	190
639.0001.0000	DRIVEWAY	EACH	1
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CONTINGENT SUM	ALL REQUIRED
643.2005.0000	PUBLIC INFORMATION PROGRAM	LUMP SUM	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644.0006.0000	VEHICLE	LUMP SUM	ALL REQUIRED
644.2004.0000	ENGINEERING COMMUNICATIONS	CONTINGENT SUM	ALL REQUIRED
644.2008.0000	WEB-BASED SUBMITTALS	LUMP SUM	ALL REQUIRED
646.0001.0000	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
658.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL WITHOUT CGP COVERAGE	LUMP SUM	ALL REQUIRED
658.0002.0000	ESCP CHANGES BY DIRECTIVE	CONTINGENT SUM	ALL REQUIRED
680.2000.0000	TELECOMMUNICATIONS UTILITY RELOCATION - PERMANENT INSTALLATION	LUMP SUM	ALL REQUIRED
680.2000.0000	TELECOMMUNICATIONS UTILITY RELOCATION - TEMPORARY INSTALLATION	LUMP SUM	ALL REQUIRED
684.2000.0000	TELEVISION UTILITY RELOCATION - PERMANENT INSTALLATION	LUMP SUM	ALL REQUIRED
684.2000.0000	TELEVISION UTILITY RELOCATION - TEMPORARY INSTALLATION	LUMP SUM	ALL REQUIRED
687.2000.0000	POWER UTILITY RELOCATION - PERMANENT INSTALLATION	LUMP SUM	ALL REQUIRED
687.2000.0000	POWER UTILITY RELOCATION - POLE FOUNDATION	LUMP SUM	ALL REQUIRED
687.2000.0000	POWER UTILITY RELOCATION - TEMPORARY INSTALLATION	LUMP SUM	ALL REQUIRED

TABLE OF ESTIMATING FACTORS		
ITEM NO.	ITEM	ESTIMATING FACTOR
205.0004.0000	POROUS BACKFILL MATERIAL	120 LB/CF
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	145 LB/CF
401.0001.002B	HMA, TYPE II; CLASS B	150 LB/CF
401.0004.5240	ASPHALT BINDER, GRADE PG 52-40	5% OF 401.0001.002B
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.000334 TON/SY

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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**

FILE 00070-D1.dwg DATE 2/15/23 LAYOUT D1 DESIGNED DT CHECKED AB DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	D1	D4

201.0009.0000 CLEARING AND GRUBBING					
SHEET	START STATION	END STATION	OFFSET	AREA (SY)	REMARKS
F2-F3	BOP	EOP	RT/CL	390.0	

202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS							
SHEET	START STATION	OFFSET	END STATION	OFFSET	LENGTH (LF)	AREA (SF)	REMARKS
F1	"G" 5+65.8	2.6 RT	"G" 5+87.2	0.5 RT	21.6	-	WATER
F1	"G" 5+66.0	3.4 LT	"G" 6+79.9	4.5 LT	52.3	-	SANITARY SEWER
F1	"G" 5+69.2	13.9 RT	"G" 5+69.5	2.3 RT	11.7	-	WATER
F1	"G" 5+85.3	0.8 RT	"G" 5+94.8	6.6 LT	11.9	-	STORM DRAIN
F1	"G" 5+85.3	0.8 LT	-	-	-	-	STORM DRAIN INLET
F1	"G" 5+87.2	6.7 LT	"G" 6+42.7	6.1 LT	55.6	-	STORM DRAIN
F1	"G" 6+08.6	10.0 RT	"G" 6+12.4	4.4 LT	14.9	-	SANITARY SEWER
F1	"G" 6+21.8	LT	"S" 10+53.0	LT	-	172.1	BOARDWALK, DECK, STAIRS
F1	"G" 6+24.7	6.9 RT	"G" 6+61.4	2.3 LT	39.3	-	STORM DRAIN
F1	"G" 6+36.7	RT	"G" 6+65.6	RT	-	348.9	DECK
F1	"G" 6+38.7	1.2 LT	"G" 6+40.3	1.0 RT	2.7	-	DECK DRAIN
F1	"G" 6+38.9	7.1 LT	"G" 6+40.3	3.4 LT	5.3	-	DECK DRAIN
F1	"G" 6+38.9	7.1 LT	"G" 6+61.4	2.8 LT	23.0	-	STORM DRAIN
F1	"G" 6+38.8	7.7 LT	"G" 6+40.5	7.9 LT	1.7	-	DECK DRAIN
F1	"G" 6+38.8	7.7 LT	"G" 6+61.4	3.4 LT	23.1	-	STORM DRAIN
F1	"G" 6+42.0	10.9 LT	"G" 6+61.4	3.9 LT	22.4	-	DECK DRAIN
F1	"G" 6+60.6	-	"G" 6+96.6	-	-	272.4	STAIRS
F1	"S" 10+36.8	9.2 LT	"S" 10+37.5	12.8 LT	3.6	-	WATER
F1	"S" 10+52.8	0.9 LT	"S" 10+85.5	CL	32.8	-	WATER
F1	"S" 10+56.5	0.7 LT	-	-	-	-	WATER VALVE

202.0020.0000 REMOVAL OF SINGLE MAIL BOX			
SHEET	STATION	OFFSET	REMARKS
F1	"G" 5+76.0	11.8 LT	
F1	"G" 6+37.4	11.1 RT	
F1	"G" 6+37.4	11.1 RT	
TOTAL:		3 EA	

202.0002.0000 REMOVAL OF PAVEMENT				
SHEET	START STATION	END STATION	AREA (SY)	REMARKS
F2	"G" 5+60.0	"G" 5+87.2	54.3	
F3	"S" 10+52.8	"S" 11+00.0	89.6	
TOTAL:			143.9 SY	
ROUNDED TOTAL:			150 SY	

202.0009.0000 REMOVAL OF CURB AND GUTTER					
SHEET	START STATION	END STATION	OFFSET	LENGTH (LF)	REMARKS
F1	"G" 5+60.0	"G" 5+77.3	LT	17.3	
TOTAL:				17.3 LF	
ROUNDED TOTAL:				18 LF	

202.0010.0000 SINGLE MAIL BOX INSTALLATION			
SHEET	STATION	OFFSET	REMARKS
F2	"G" 5+76.0	11.8 LT	
F2	"G" 6+37.4	11.1 RT	
F2	"G" 6+37.4	11.1 RT	
TOTAL:		3 EA	

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SUMMARY TABLES

FILE 00070-D1.dwg DATE 2/15/23 LAYOUT D2 DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	D2	D4

**603.0021.0018, 603.2023.0006 STORM DRAIN PIPE SUMMARY**

SHEET	NAME	INLET			OUTLET			SLOPE	603.0021.0018	603.2023.0006	REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT		CORRUGATED POLYETHYLENE PIPE 18 INCH	PVC PIPE, 6" SCH40	
U4	P1-1	"G" 5+71.7	9.5 LT	116.1	"G" 5+71.7	6.9 RT	111.6	27.5%	17.0		
U4	P1-2	"G" 5+71.7	6.9 RT	111.5	"G" 6+24.7	6.9 RT	95.8	29.7%	55.2		
U4	P1-3	"G" 6+24.7	6.9 RT	95.7	"G" 6+40.4	2.3 RT	90.8	30.0%	17.1		
U4	P1-4	"G" 6+39.9	7.0 LT	105.0	"G" 6+39.9	0.6 LT	104.9	1.6%		6.4	
U4	P1-5	"G" 6+39.9	0.6 LT	104.9	"G" 6+39.9	2.4 RT	90.6			14.6	DOWN DRAIN
U4	P1-6	"G" 6+41.4	10.0 LT	105.0	"G" 6+41.0	0.8 LT	104.9	1.1%		9.3	
U4	P1-7	"G" 6+41.0	0.8 LT	104.9	"G" 6+40.9	2.2 RT	90.6			14.6	DOWN DRAIN
U4	P1-8	"G" 6+40.4	2.3 RT	90.7	"G" 6+53.8	0.8 RT	86.7	29.5%	14.1		
U4	P1-9	"G" 6+53.9	31.4 RT	90.1	"G" 6+53.8	0.8 RT	86.7	10.8%		31.7	
U4	P1-10	"G" 6+53.8	0.8 RT	86.6	"G" 6+70.6	1.1 LT	81.5	30.2%	17.7		
U4	P1-11	"G" 6+69.7	8.7 RT	81.7	"G" 6+70.6	1.1 LT	81.5	2.0%		9.8	
U4	P1-12	"G" 6+70.6	1.1 LT	81.4	"G" 6+79.5	2.1 LT	78.7	30.2%	9.4		
TOTAL:									130.5 LF	86.4 LF	
ROUNDED TOTAL:									131 LF	87 LF	

**604.0001.0001, 604.0005.000A, 604.0005.000D STORM DRAIN STRUCTURES**

SHEET	NAME	604.0001.0001	604.0005.000A	604.0005.000D	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
		STORM SEWER MANHOLE, TYPE 1	INLET, TYPE A	INLET, TYPE D					
U4	S1-1		X		"G" 5+71.7	9.5 LT	121.4		
U4	S1-2		X		"G" 5+71.7	6.9 RT	120.8		
U4	S1-3	X			"G" 6+24.7	6.9 RT	100.6	MANHOLE	
U4	S1-4	X			"G" 6+40.4	2.3 RT	95.6	MANHOLE	
U4	S1-5			X	"G" 6+53.9	32.3 RT	92.6		
U4	S1-6		X		"G" 6+53.8	0.8 RT	92.1		
U4	S1-7			X	"G" 6+69.7	8.7 RT	84.0		
U4	S1-8		X		"G" 6+70.6	1.1 LT	86.3		
TOTAL:		2 EA	4 EA	2 EA					

**604.0002.0000, 626.0002.0000 SANITARY SEWER MANHOLE, SANITARY SEWER SERVICE CONNECTION**

STATION	OFFSET	604.0002.0000	626.0002.0000	REMARKS
		SANITARY SEWER MANHOLE	SANITARY SEWER SERVICE CONNECTION	
5+66.0	3.3 LT	X		
6+08.5	2.5 LT		X	
6+20.5	2.8 LT		X	
6+79.9	4.5 LT	X		
TOTAL:		2 EA	2 EA	

**604.0010.0000 RECONSTRUCT INLET**

SHEET	STATION	OFFSET	REMARKS
U4	"G" 6+79.5	2.1 LT	
TOTAL:		1 EA	

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SUMMARY TABLES



FILE 00070-D1.dwg DATE 2/15/23 LAYOUT D3 DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	D3	D4

609.0002.0001 CURB AND GUTTER, TYPE 1					
SHEET	START STATION	END STATION	OFFSET	LENGTH (LF)	REMARKS
F2	"G" 5+60.0	"G" 5+76.7	LT	16.6	
TOTAL:				16.6	
ROUNDED TOTAL:				17 LF	

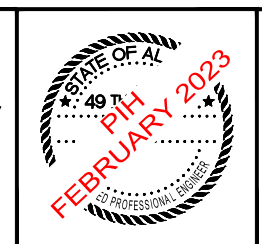
615.0001.0000 STANDARD SIGN SUMMARY												
SIGN POST NO	LEGEND	STATION	OFFSET	ASDS CODE	WIDTH (IN)	HEIGHT (IN)	BRACED	FRAMED	AREA (SF)	POST	SIGN FACING	REMARKS
1	24 HR PARKING	"G" 5+83.2	9.6 LT	R7-108	12	18			1.5	2.5 PT	NW	
2	SAYLES STREET	"S" 10+00.8	8.5 RT	D3-1	30	8		X	1.67	2.5 PT	NE	
	GORGE STREET			D3-1	24	8		X	1.33		SE	
	NO PARKING			R7P-103 (CUSTOM)	12	18			1.5		SE	
3	NO PARKING	"S" 10+50.4	9.2 LT	R7P-102 (CUSTOM)	12	18			1.5	2.5 PT	SE	
TOTAL:									7.5 SF			

626.0001.0008 SANITARY SEWER PIPE SUMMARY											
SHEET	NAME	INLET			OUTLET			SLOPE	626.0001.0008	626.0001.0008	REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT		SANITARY SEWER CONDUIT, 8 INCH PVC C900 (LF)	SANITARY SEWER CONDUIT, 8 INCH PVC C900, INSULATED (LF)	
U3	SSP01	5+66.0	3.4 LT	112.7	5+87.2	3.3 LT	111.0	7.8	21.3		
U3	SSP02	5+87.2	3.3 LT	111.0	6+08.5	3.6 LT	104.3	31.3		22.3	
U3	SSP03	6+08.5	3.6 LT	104.3	6+20.1	3.7 LT	100.6	32.2		12.3	
U3	SSP04	6+20.1	3.7 LT	100.6	6+55.2	4.2 LT	82.3	52.2		39.5	
U3	SSP05	6+55.2	4.2 LT	82.3	6+78.4	4.5 LT	78.2	17.8	23.6		
TOTAL:									44.9 LF	74.1 LF	
ROUNDED TOTAL:									45 LF	75 LF	

627.0003.0000 INSTALL VALVE BOX			
SHEET	STATION	OFFSET	REMARKS
U1	"G" 5+65.8	2.6 RT	CONNECTING POINTS OF EXISTING AND DESIGN PIPES
U1	"S" 10+85.4	CL	CONNECTING POINTS OF EXISTING AND DESIGN PIPES
TOTAL:		2 EA	

627.0008.0000 WATER SERVICE CONENCTION			
SHEET	STATION	OFFSET	REMARKS
U1	"G" 5+68.1	2.4 RT	
U1	"G" 5+95.0	2.3 RT	
U1	"G" 6+38.3	2.3 RT	
U1	"S" 10+37.0	2.7 RT	
U1	"S" 10+79.5	2.7 RT	
TOTAL:		5 EA	

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FILE 00070-D1.dwg DATE 2/15/23 LAYOUT D4 DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	D4	D4

627.0009.0008 GATE VALVE, 8 INCH			
SHEET	STATION	OFFSET	REMARKS
U1	"G" 5+65.8	2.6 RT	
U1	"S" 10+85.4	CL	
TOTAL:		2 EA	

627.2012.0008 WATER PIPE SUMMARY											
SHEET	NAME	INLET			OUTLET			SLOPE	627.2012.0008		REMARKS
		STATION	OFFSET	INVERT	STATION	OFFSET	INVERT		HDPE WATER CONDUIT, 8-INCH, SDR 11 (LF)	HDPE WATER CONDUIT, 8-INCH, SDR 11, INSULATED (LF)	
U1	WP01	"G" 5+62.4	2.9 RT	117.9	"G" 5+69.4	2.2 RT	116.6	18.5%	7.2		
U1	WP02	"G" 5+69.4	2.2 RT	116.6	"G" 5+72.2	2.0 RT	116.1	19.3%	2.8		
U1	WP03	"G" 5+72.2	2.0 RT	116.1	"G" 5+87.2	2.0 RT	113.2	19.4%	15.3		
U1	WP04	"G" 5+87.2	2.0 RT	113.2	"G" 5+95.0	2.0 RT	111.7	19.4%		8.0	
U1	WP05	"G" 5+95.0	2.0 RT	111.7	"G" 6+39.2	2.0 RT	103.1	19.4%		45.0	
U1	WP06	"G" 6+39.2	2.0 RT	103.1	"G" 6+49.2	2.0 RT	103.1	0.0%		10.0	
U1	WP07	"S" 10+08.4	0.4 LT	103.1	"S" 10+25.1	0.4 LT	103.1	0.0%		16.7	
U1	WP08	"S" 10+25.1	0.4 LT	103.1	"S" 10+28.2	2.7 RT	103.1	0.0%		4.4	
U1	WP09	"S" 10+28.2	2.7 RT	103.1	"S" 10+52.8	2.7 RT	104.7	-6.5%		24.6	
U1	WP10	"S" 10+52.8	2.7 RT	104.7	"S" 10+82.8	2.7 RT	106.7	-6.5%	30.1		
U1	WP11	"S" 10+82.8	2.7 RT	106.7	"S" 10+85.4	CL	106.7	0.0%	3.7		
TOTAL									59.1 SF	108.7 SF	
ROUNDED TOTAL									60 LF	109 LF	

635.0002.0000 INSULATION BOARD				
SHEET	START STATION	END STATION	AREA (SF)	REMARKS
U1	"S" 10+52.8	"S" 10+86.4	139.1	ABOVE WATER CONDUIT
U2	"G" 5+65.8	"G" 5+75.3	43.4	ABOVE WATER CONDUIT
TOTAL:			182.5 SF	
ROUNDED TOTAL:			190 SF	

639.0001.0000 DRIVEWAY							
SHEET	START STATION	OFFSET	END STATION	OFFSET	LENGTH (LF)	WIDTH	REMARKS
F1	"G" 6+59.5	6.5 RT	6+96.6	7.4 RT	37.1	4	WOODEN STAIRS
TOTAL:						1 EA	

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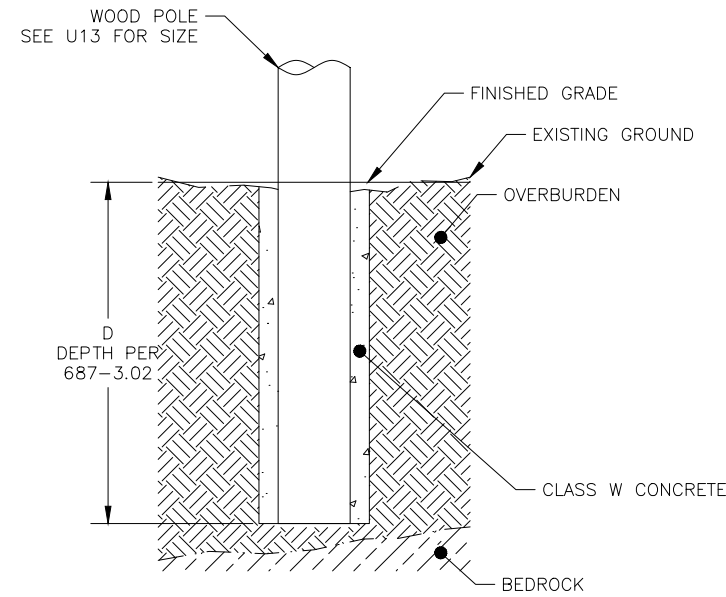
SUMMARY TABLES

FILE 00070-E1.dwg | DATE | 2/15/23 | LAYOUT | E1 | DESIGNED | CHECKED | DRAFTED | AB

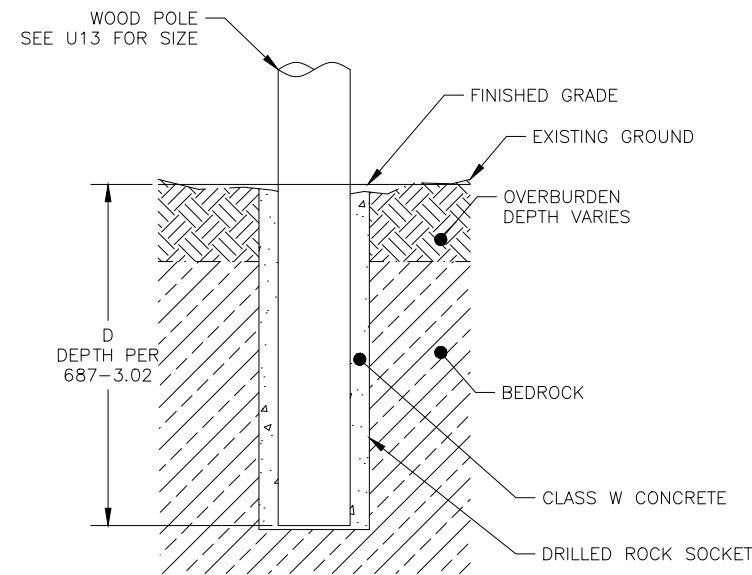
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E1	E11

### POLE PW-2 FOUNDATION AND INSTALLATION NOTES:

1. THE CONTRACTOR SHALL HAVE ALL THE EQUIPMENT, MATERIALS AND LABOR TO CONSTRUCT THE NEW POLE FOUNDATION TO THE EMBEDMENT DEPTH DESCRIBED IN SUBSECTION 687-3.02. CONTRACTOR SHALL FIELD DETERMINE FOUNDATION CASE TO BE CONSTRUCTED BASED ON DEPTH FROM FINISHED GRADE TO BEDROCK.
2. FOUNDATION CONSTRUCTION WILL BE PAID UNDER PAY ITEM 687.2000.0000 POWER UTILITY RELOCATION FOUNDATION.



1 FOUNDATION CASE 1 - UTILITY POLE IN SOIL  
E1 NTS



2 FOUNDATION CASE 2 - DRILLED ROCK SOCKET  
E1 NTS

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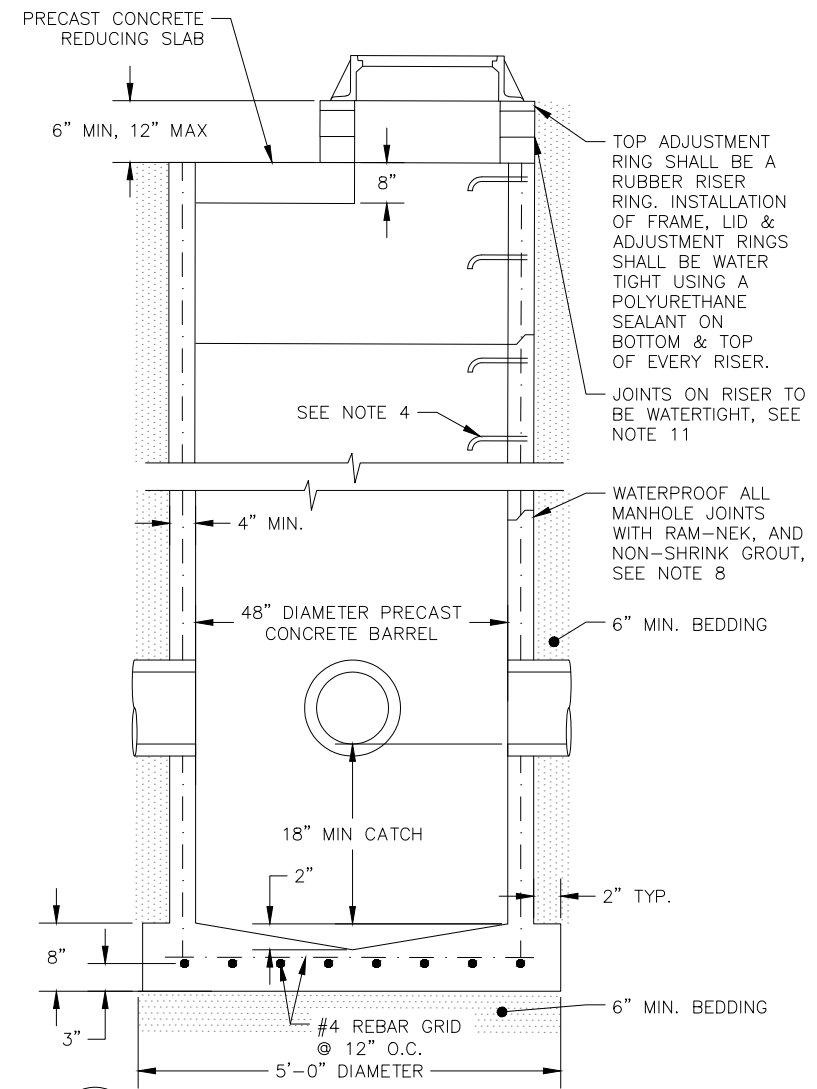
POLE FOUNDATION DETAILS

DRAFTED AB  
 CHECKED  
 DESIGNED  
 LAYOUT E2  
 DATE 2/15/23  
 FILE 00070-ET.dwg

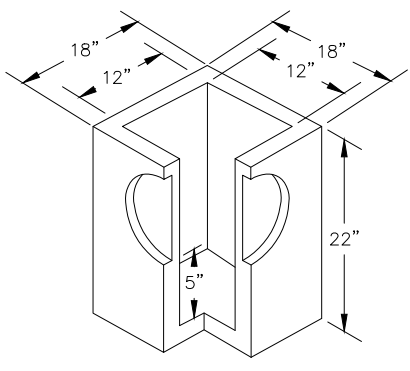
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	E2	E11

### STORM DRAIN MANHOLE NOTES:

- ALL MANHOLE SECTIONS SHALL CONFORM TO ASTM C-478, LATEST EDITION, INCLUDING MINIMUM STEEL REQUIREMENTS. THE BASE SECTION SHALL BE A 5' TALL UNIT AND STEEL SHALL BE EMBEDDED IN BASE SO THAT FIRST RISER SECTION IS CONNECTED TO BASE.
- SEAL ALL PIPE PENETRATIONS WITH A-LOK WATERSTOP GASKET (OAE) AND NON-SHIRNKABLE GROUT MIXED WITH POTABLE WATER IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. SEE DETAIL 5/E6.
- BLOCKOUTS SHALL BE FORMED.
- PLACE RUNGS 12" ON-CENTER ON UNOBSTRUCTED SIDE OF MANHOLE 18" MAX. FROM BOTTOM OF MANHOLE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, BOTTOM RUNG TO BE PLACED 6" OVER SMALLEST PIPE.
- MANHOLE SHALL HAVE ONE 6" RUBBER RISER RING.
- STRUCTURE SHALL BE BACKFILLED WITH 6" MINIMUM BEDDING.
- CATCH BASIN LEADS SHALL ENTER THE MANHOLE AT LEAST ONE PRIMARY LEAD DIAMETER ABOVE THE TOP OF THE PRIMARY LEAD UNLESS MINIMUM PIPE SLOPES CANNOT BE ACHIEVED.
- ALL JOINTS SHALL INCLUDE A PRE-MOLDED RUBBER GASKET SUCH AS "RAM-NEK", OR EQUAL.
- PRIMARY LEADS NOT TO EXCEED 24" CPEP OR HDPE WITH INCLUDED ANGLE BETWEEN LEADS GREATER THAN OR EQUAL TO 135 DEGREES; OR PRIMARY LEADS NOT TO EXCEED 18" CPEP OR HDPE WITH INCLUDED ANGLE LESS THAN 135 DEGREES.
- ADJUSTMENT RISER RINGS SHALL BE INSTALLED IN A FULL MORTAR BED ONTO THE EXISTING PRECAST CONE, FLAT TOP MANHOLE SECTION, OR OTHER COMPETENT STRUCTURAL COMPONENT AS DETERMINED BY THE ENGINEER. CONTRACTOR SHALL THEN STACK ALTERNATING LAYERS OF BUTYL ROPE AND RISER RINGS UP TO BOTTOM ELEVATION OF NEW MANHOLE FRAME AND COVER.
- ADJUSTMENT RISER RINGS SHALL BE PROPERLY SIZED FOR EXISTING CONE OR FLAT TOP OPENING.
- INSTALLATION OF FRAME AND ADJUSTMENT RISER RINGS ONTO THE PRE-CAST STRUCTURE SHALL BE WATER-TIGHT.



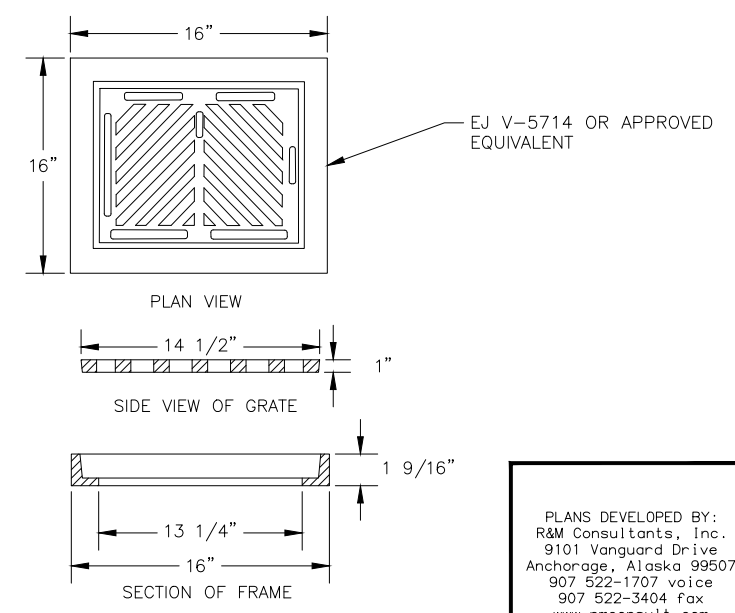
1  
E2  
48" STORM DRAIN MANHOLE (TYPE I)  
NTS



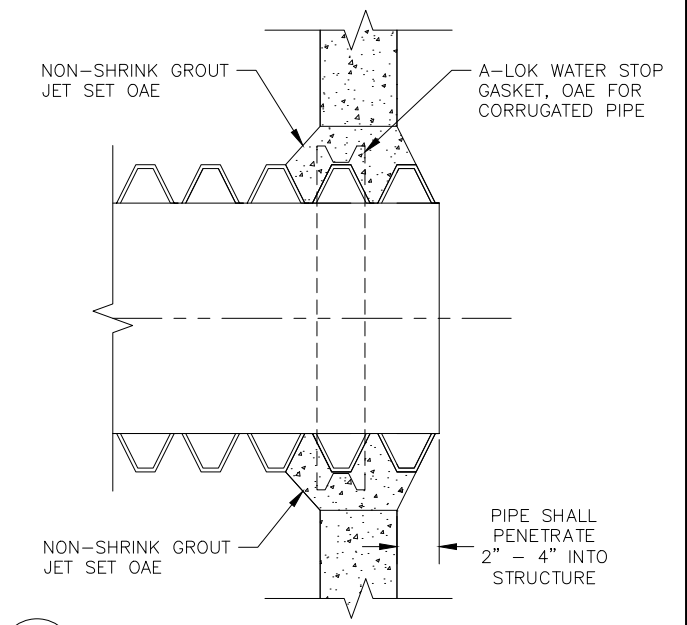
2  
E2  
INLET, TYPE D  
NTS

### INLET, TYPE D NOTES:

- INLET HAS 10" KNOCKOUTS ON FOUR SIDES TO ACCOMMODATE 6" PIPE SIZE.
- EXTENSION RISERS AVAILABLE IN 6" AND 12" HEIGHTS.
- GROUT INLET, OUTLET, AND PICK HOLE PENETRATIONS WITH "JET-SET" OR OTHER APPROVED NON-SHRINK GROUT.
- INLET SHALL BE SET ON A MINIMUM OF 6" THICK BEDDING THAT IS LEVEL, AND COMPACTED TO 95%, AND ORIENTED TO THE AXIS OF THE ROAD. OFF-AXIS OR OFF-LEVEL INLETS SHALL BE REMOVED AND ADJUSTED BEFORE BACKFILLING.
- INLETS SHALL BE BACKFILLED WITH A MINIMUM OF 6 INCHES OF BEDDING PLACED IN MAXIMUM LIFTS OF 6" AND COMPACTED TO 95% OF DRY DENSITY.
- CONTRACTOR SHALL REMOVE KNOCKOUTS AS PER MANUFACTURES RECOMMENDATIONS. DAMAGE INCURRED TO THE STRUCTURE DURING KNOCKOUT REMOVAL SHALL BE EVALUATED BY THE ENGINEER TO DETERMINE WHETHER INTEGRITY OF STRUCTURE HAS BEEN COMPROMISED. STRUCTURES DAMAGED BY THE CONTRACTOR AND DEEMED UN-USABLE BY THE ENGINEER SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- CONNECT ALL PIPES IN CONFORMANCE WITH "WATERTIGHT STRUCTURE CONNECTION" DETAIL



3  
E2  
FLAT GRATE AND FRAME ASSEMBLY  
NTS



4  
E2  
WATERTIGHT STRUCTURE CONNECTION  
NTS

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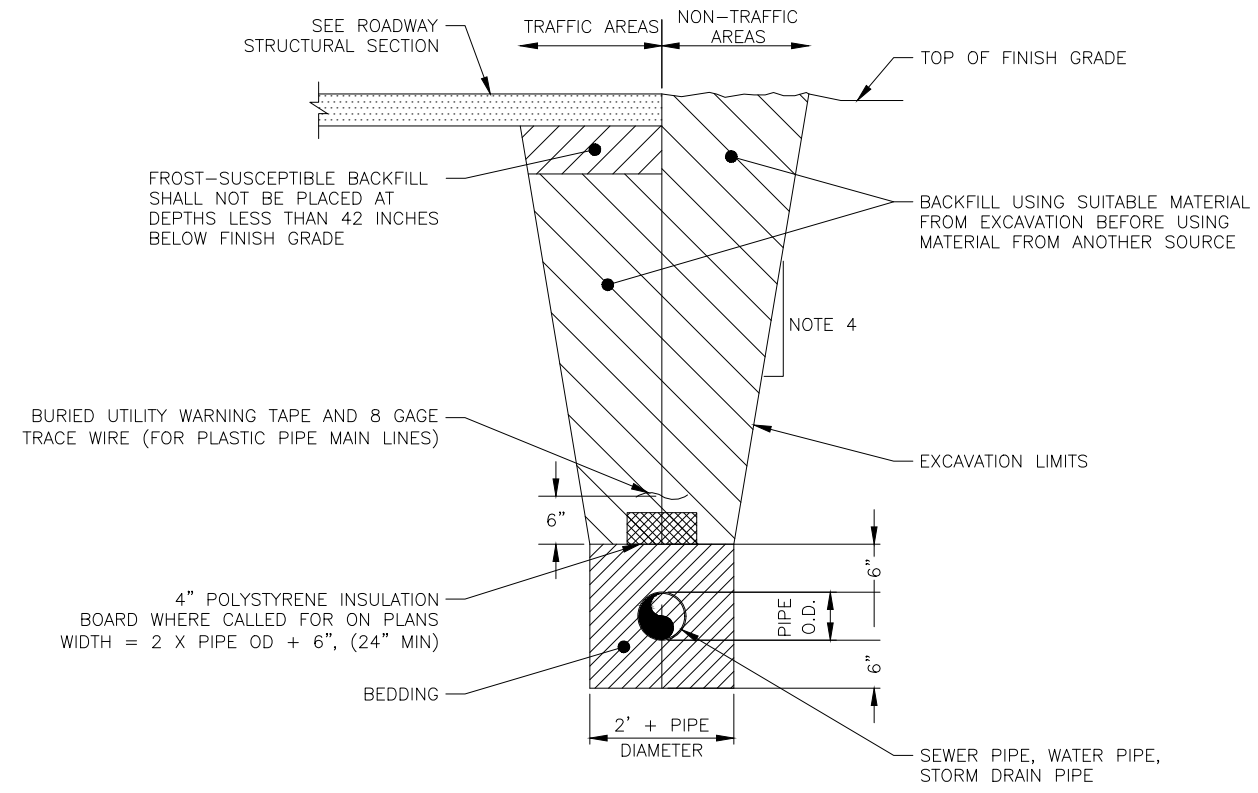


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INLET DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E3	E11



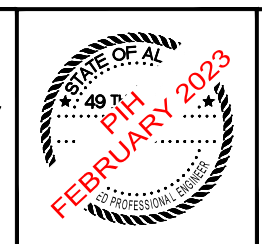
1 TYPICAL BURIED WET UTILITY TRENCH SECTION  
E3 NTS

UTILITY TRENCH SECTION NOTES:

1. TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS.
2. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.
3. TRENCH SECTION APPLICABLE FOR SEWER, WATER, AND STORM PIPE.
4. SLOPE OF TRENCH WALL TO BE DETERMINED BY CONTRACTOR, MEETING ALL APPLICABLE SAFETY REQUIREMENTS.
5. INSULATION BOARD JOINTS SHALL BE INSTALLED WITH STAGGERED JOINTS. JOINTS SHALL BE OVERLAPPED 1 FOOT.

FILE 00070-E1.dwg  
 DATE 2/15/23  
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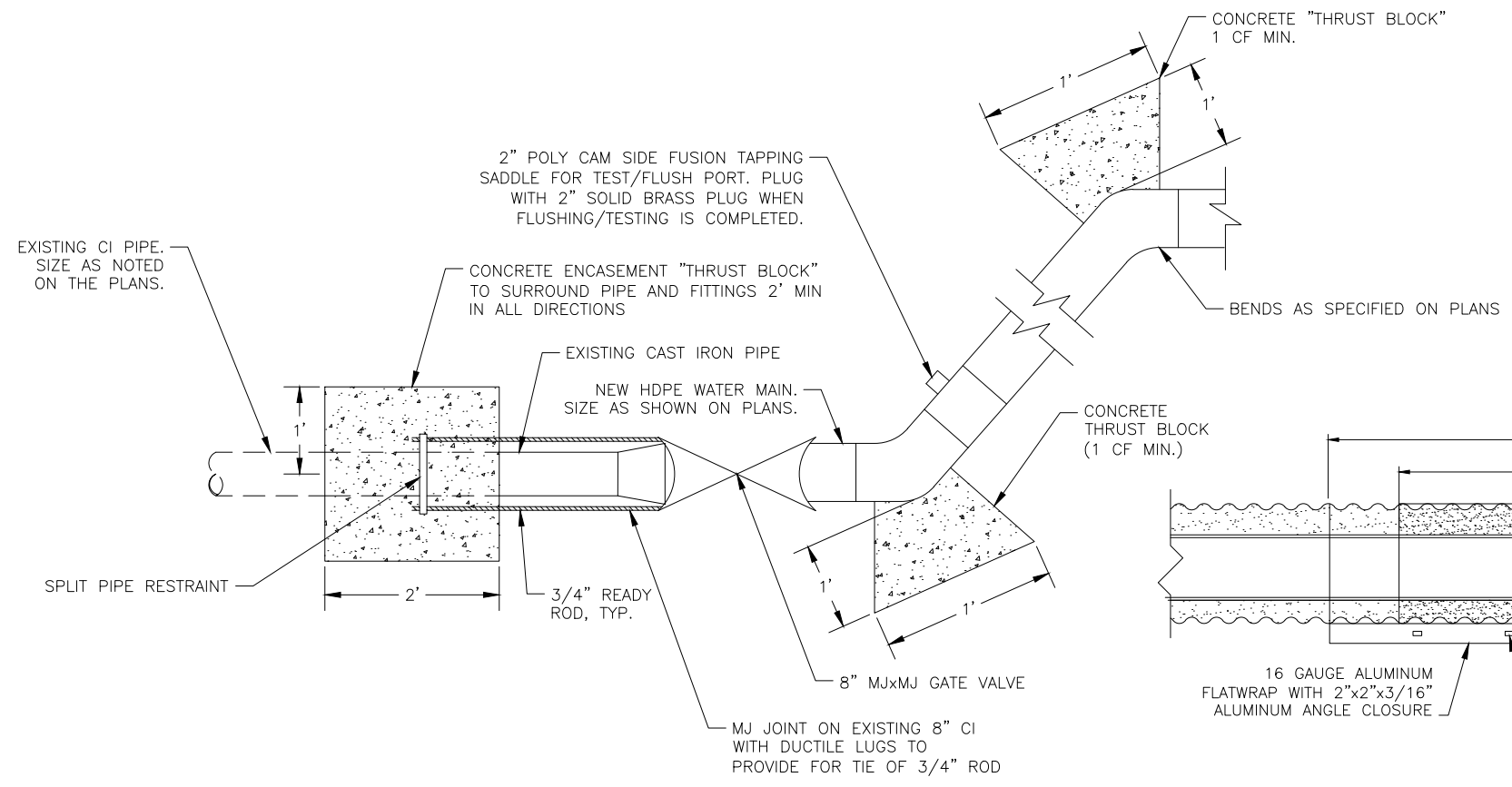


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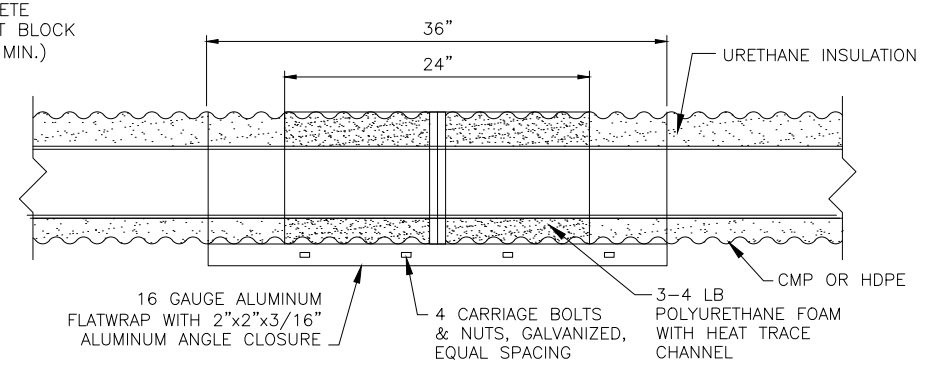
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TRENCHING DETAIL

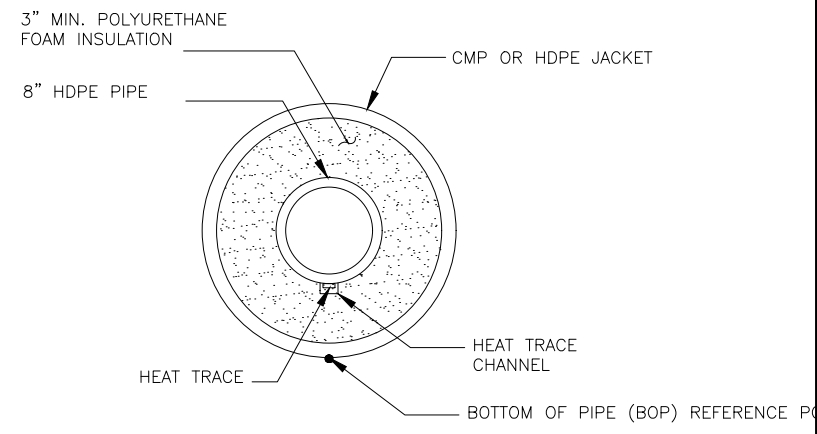
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E4	E11



1 CONNECTION TO EXISTING WATER MAIN  
E4  
NTS  
SAYLES STREET STA 10+85.6  
GORGE STREET STA 5+65.8



2 INSULATED WATER MAIN JOINT  
E4  
NTS



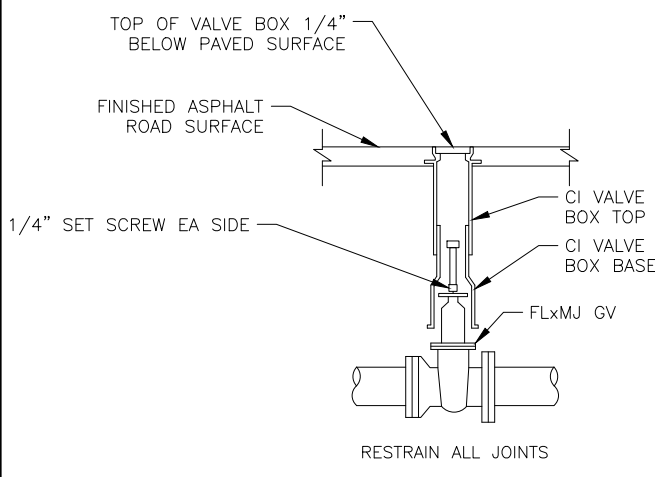
3 INSULATED HDPE WATER MAIN SECTION  
E4  
NTS

**WATER PIPE NOTES:**  
HEAT TRACING CABLE TO BE 5W/FT SELF REGULATING CHROMALUX SRL 5-1CT WITH FLOUROPOLYMER COATING. MOUNT BOX FOR END SEAL KIT ON 4"x4" AS SHOWN. SEE ELECTRICAL DRAWINGS FOR MORE DETAILS.

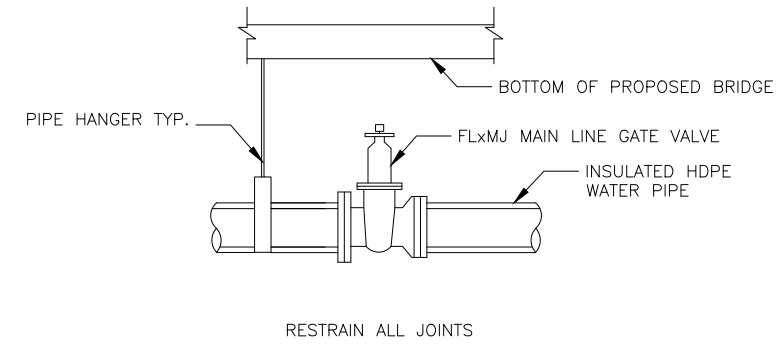
**NOTE:**  
JOINT KIT FOR HDPE WATER LINE WITH 12" CUTBACK ON THE PIPE.

**BURIED VALVE NOTES:**

1. NEW VALVE BOX TO ALLOW FOR 12" MINIMUM VERTICAL ADJUSTMENT
2. THREADED VALVE BOX SECTIONS ARE NOT ALLOWED. CONTRACTOR SHALL REMOVE THREADED PORTIONS OF THE VALVE BOX WITH CUT-OFF SAW.
3. CONTRACTOR SHALL APPLY GREASE TO ALL INTERFACES BETWEEN VALVE BOX SECTIONS.
4. COMPACTION AROUND VALVE BOX INSTALLATION IS CRITICAL. CONTRACTOR SHALL EMPLOY MECHANICAL TAMPING METHODS TO ENSURE THAT MATERIAL AROUND VALVE BOX REACHES 95% OF MAXIMUM DENSITY.
5. CONTRACTOR SHALL INSTALL A 6" MINIMUM THICKNESS OF BEDDING AROUND VALVE BOX DURING BACKFILL.
6. EXTENSION IS REQUIRED ON ALL VALVES WHERE OPERATING NUT IS 6" OR MORE BELOW FINISHED SURFACE.



4 TYPICAL BURIED MAIN LINE VALVE WITH OPERATING ROD  
E4  
NTS



5 TYP. SUSPENDED MAIN LINE VALVE AT TRESTLE  
E4  
NTS

**SUSPENDED VALVE NOTES:**

1. NEW VALVE BOX MUST ALIGN WITH THE WATER MAIN LINE VALVE BELOW.
2. VALVE BOX TOP SECTION AND LID TO BE INSTALLED AS SHOWN. VALVE BOX BOTTOM SECTION NOT REQUIRED.

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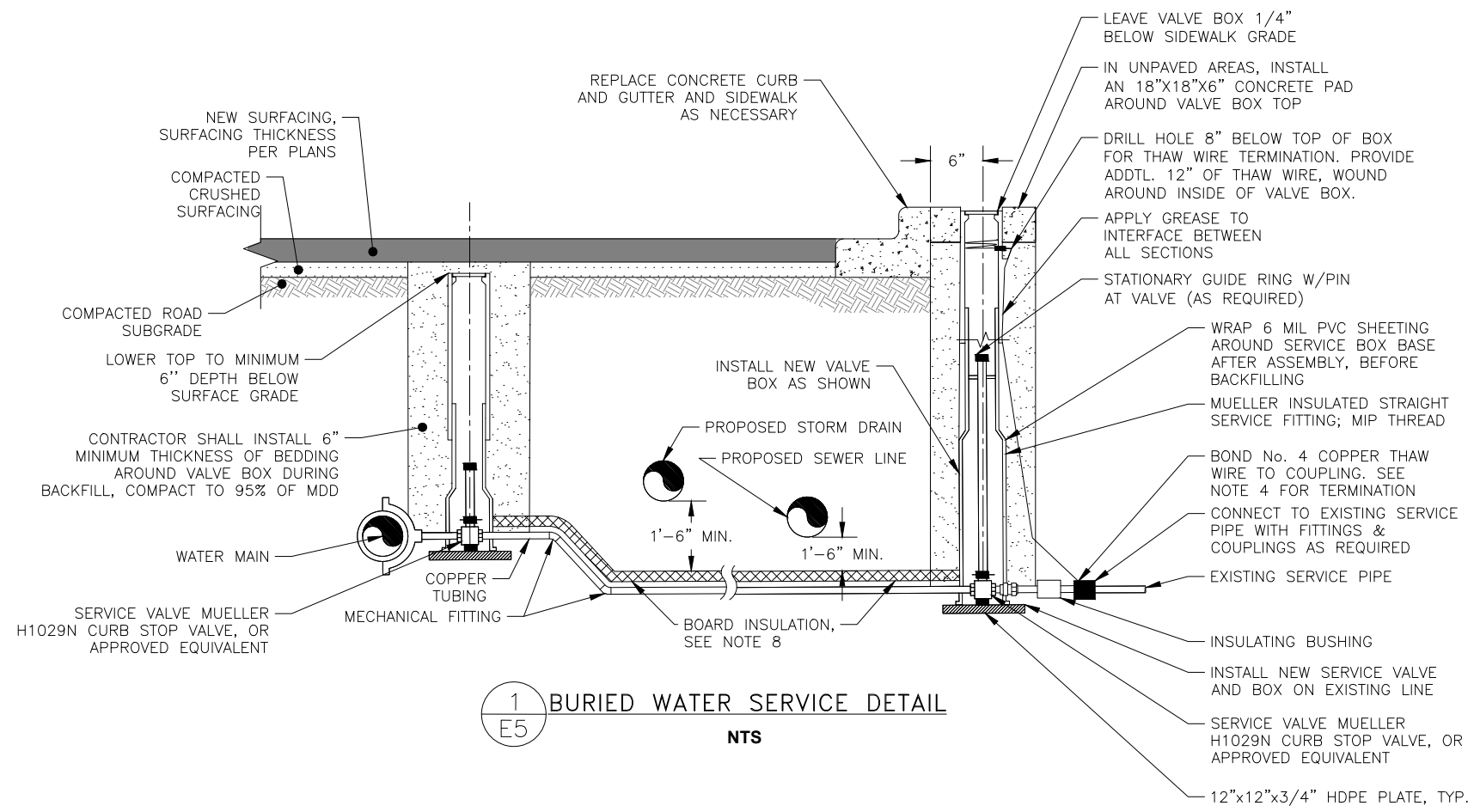
WATER CONNECTION DETAILS

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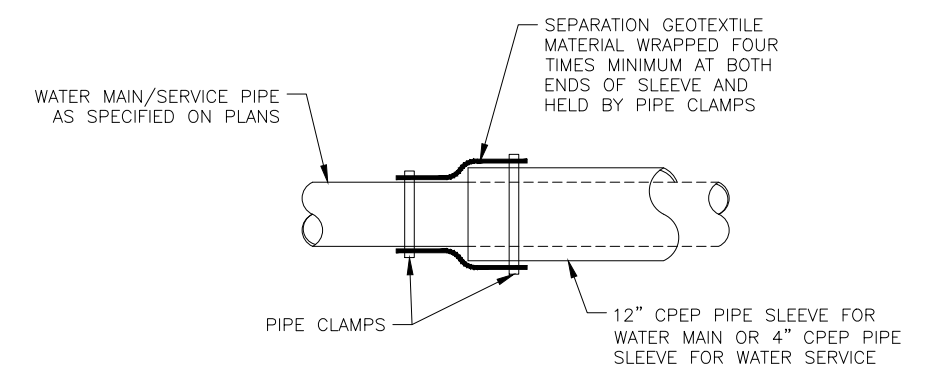
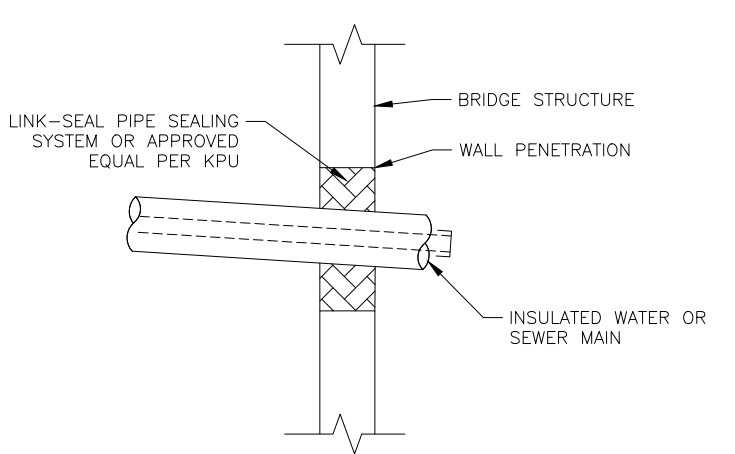
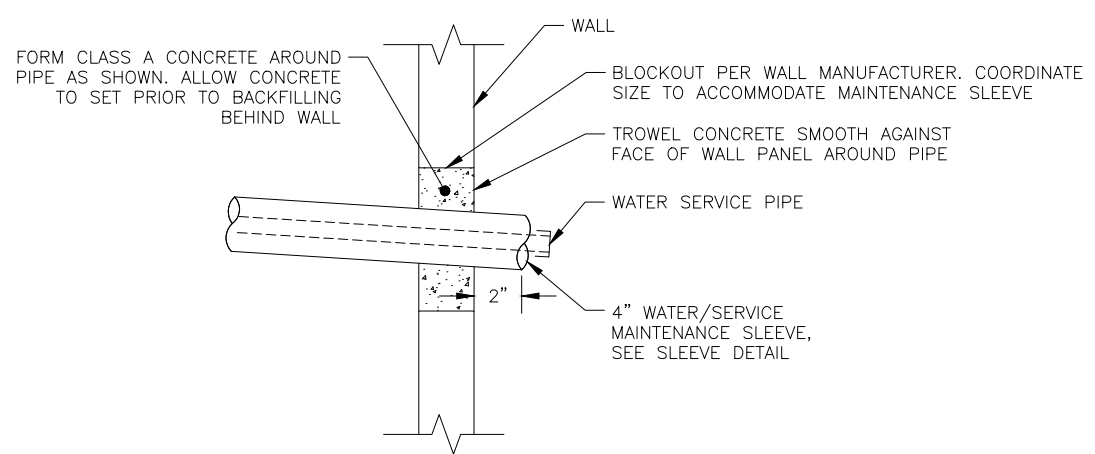
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**NOTES:**

1. INSTALL PROPERTY SERVICE BOX IN SIDEWALK, OR BEHIND CURB AS SHOWN.
2. IN AREAS WITHOUT SIDEWALK, INSTALL PROPERTY SERVICE BOX 6" BEHIND CURB, 1/4" BELOW PAVED SURFACE OR IN UNPAVED AREAS, EACH VALVE BOX SHALL BE SUPPORTED BY A 18"x18"x6" CONCRETE PAD POURED AROUND THE UPPER SERVICE BOX TOP.
3. EXTEND SERVICE PAST SERVICE VALVE TO EXISTING SERVICE PIPE AS REQUIRED TO ESTABLISH SERVICE OR AS INDICATED ON THE PLANS. WHERE SERVICE EXTENSION IS ABOVE GROUND, PIPE SHALL BE INSULATED WITH 2" OF FOAM INSULATION WITH PROTECTIVE COATING.
4. SECURE THE COPPER THAW WIRE TO THE COUPLING USING A BRASS ELECTRICAL GROUND CLAMP. ROUTE THE COPPER THAW WIRE ALONG THE OUTSIDE OF VALVE BOX AND THROUGH THE HOLE DRILLED 8" BELOW TOP OF BOX. PROVIDE ENOUGH WIRE, COILED INSIDE THE VALVE BOX, TO ALLOW IT TO BE PULLED THROUGH THE TOP OF THE LID. SECURE WIRE TO OUTSIDE OF BOX WITH BRASS ELECTRICAL GROUND CLAMP OR FIBER TAPE.
5. CONTRACTOR SHALL INSTALL 6" MIN. OF BEDDING IN 6" LIFTS AROUND VALVE BOXES AND COMPACT TO 95% OF MAX. DRY DENSITY DURING BACKFILL.
6. CONTRACTOR SHALL WRAP EXTERIOR OF ALL VALVE BOX SECTIONS WITH 6MIL PVC SHEETING.
7. THREADED VALVE BOX SECTIONS ARE PROHIBITED. CONTRACTOR SHALL REMOVE THREADED PORTIONS.
8. PLACE INSULATION BOARD W/ BURIED UTILITY WARNING TAPE ABOVE AS REQUIRED.



2 WATER SERVICE WALL PENETRATION DETAIL  
E5 NTS

3 INSULATED PIPE BRIDGE PENETRATION DETAIL  
E5 NTS

4 WATER MAIN/SERVICE MAINTENANCE SLEEVE DETAIL  
E5 NTS

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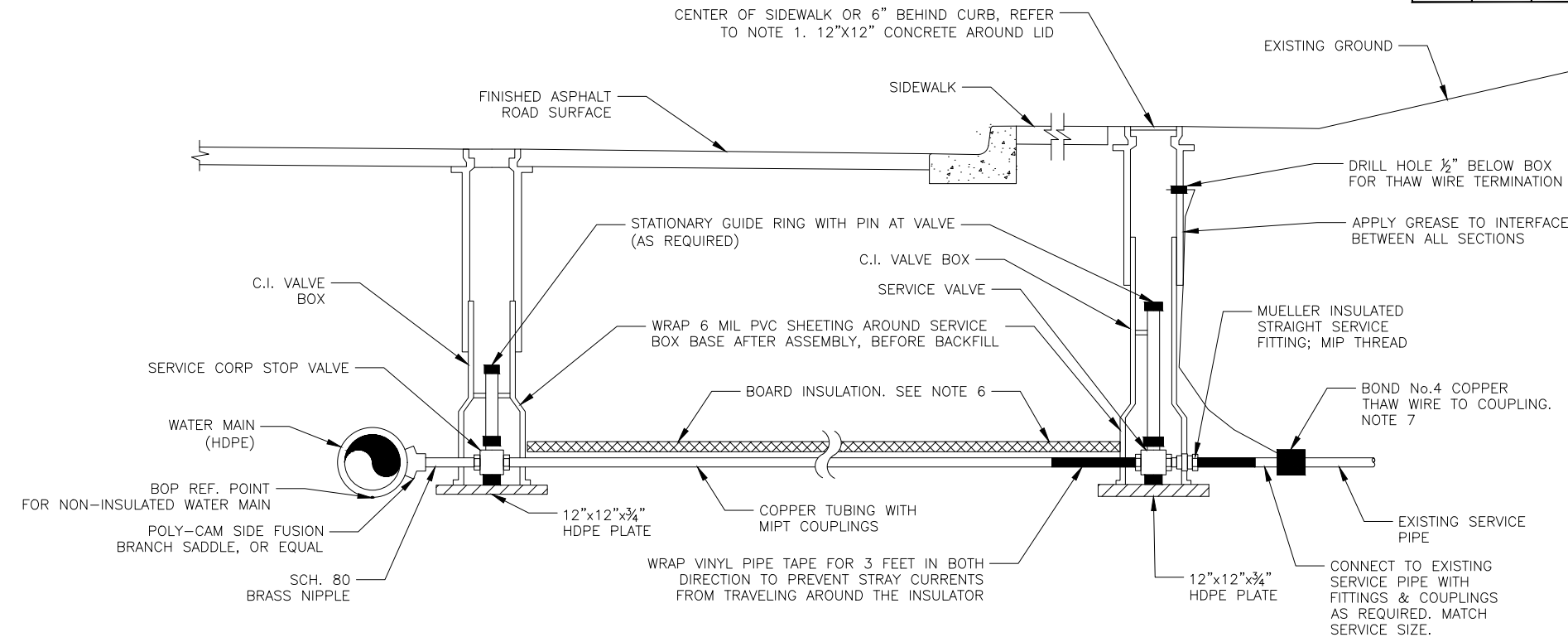


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BURIED WATER SERVICE DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E6	E11

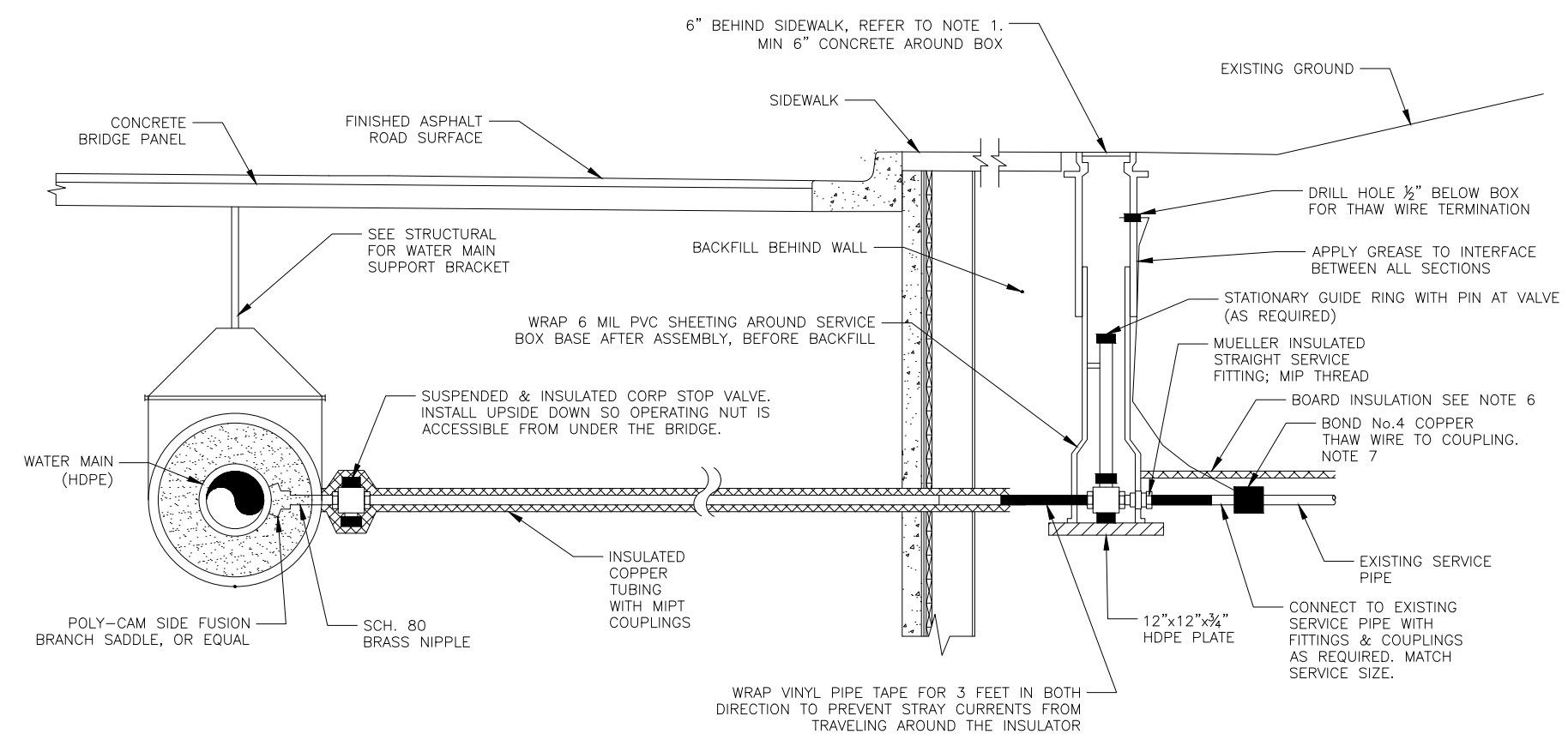


**BURIED WATER SERVICE NOTES:**

1. INSTALL TOP OF VALVE BOX BEHIND SIDEWALK AS SHOWN. 1/4" BELOW PAVED SURFACE OR 3" BELOW UNPAVED SURFACES.
2. ALLOW 12" FOR RAISING VALVE BOX. GREASE THE OVERLAPPING PORTION.
3. ENLARGED BASE IS REQUIRED FOR 1" SERVICES AND LARGER.
4. A SERVICE VALVE ROD EXTENSION IS REQUIRED ON ALL SERVICE VALVES 6' OR MORE BELOW FINISHED GRADE.
5. EXTEND SERVICE PAST SERVICE VALVE AS REQUIRED TO ESTABLISH SERVICE OR AS INDICATED ON THE PLANS.
6. PLACE INSULATION BOARD W/ BURIED UTILITY WARNING TAPE ABOVE AS REQUIRED.
7. SECURE THE COPPER THAW WIRE TO THE COUPLING USING A BRASS ELECTRICAL GROUND CLAMP, ROUTE THE COPPER THAW WIRE ALONG THE OUTSIDE OF THE VALVE BOX, THROUGH THE HOLE AT TOP. SECURE WIRE TO OUTSIDE OF BOX WITH BRASS ELECTRICAL GROUND CLAMP OR FIBER TAPE.

1 BURIED WATER SERVICE DETAIL  
E6

NTS



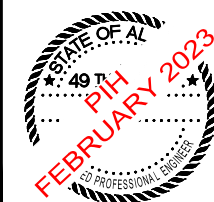
**SUSPENDED WATER SERVICE NOTES:**

1. INSTALL TOP OF VALVE BOX BEHIND SIDEWALK AS SHOWN. 1/4" BELOW PAVED SURFACE OR 3" BELOW UNPAVED SURFACES.
2. ALLOW 12" FOR RAISING VALVE BOX. GREASE THE OVERLAPPING PORTION.
3. ENLARGED BASE IS REQUIRED FOR 1" SERVICES AND LARGER.
4. A SERVICE VALVE ROD EXTENSION IS REQUIRED ON ALL SERVICE VALVES 6' OR MORE BELOW FINISHED GRADE.
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8. CLEAN SAND MUST BE PLACED AROUND ALL VALVE BOXES
9. THREADED VALVE BOX SECTIONS ARE NOT ALLOWED. CONTRACTOR SHALL REMOVE THREADED PORTIONS OF THE VALVE BOX WITH CUT-OFF SAW.

2 SUSPENDED WATER SERVICE DETAIL  
E6

NTS

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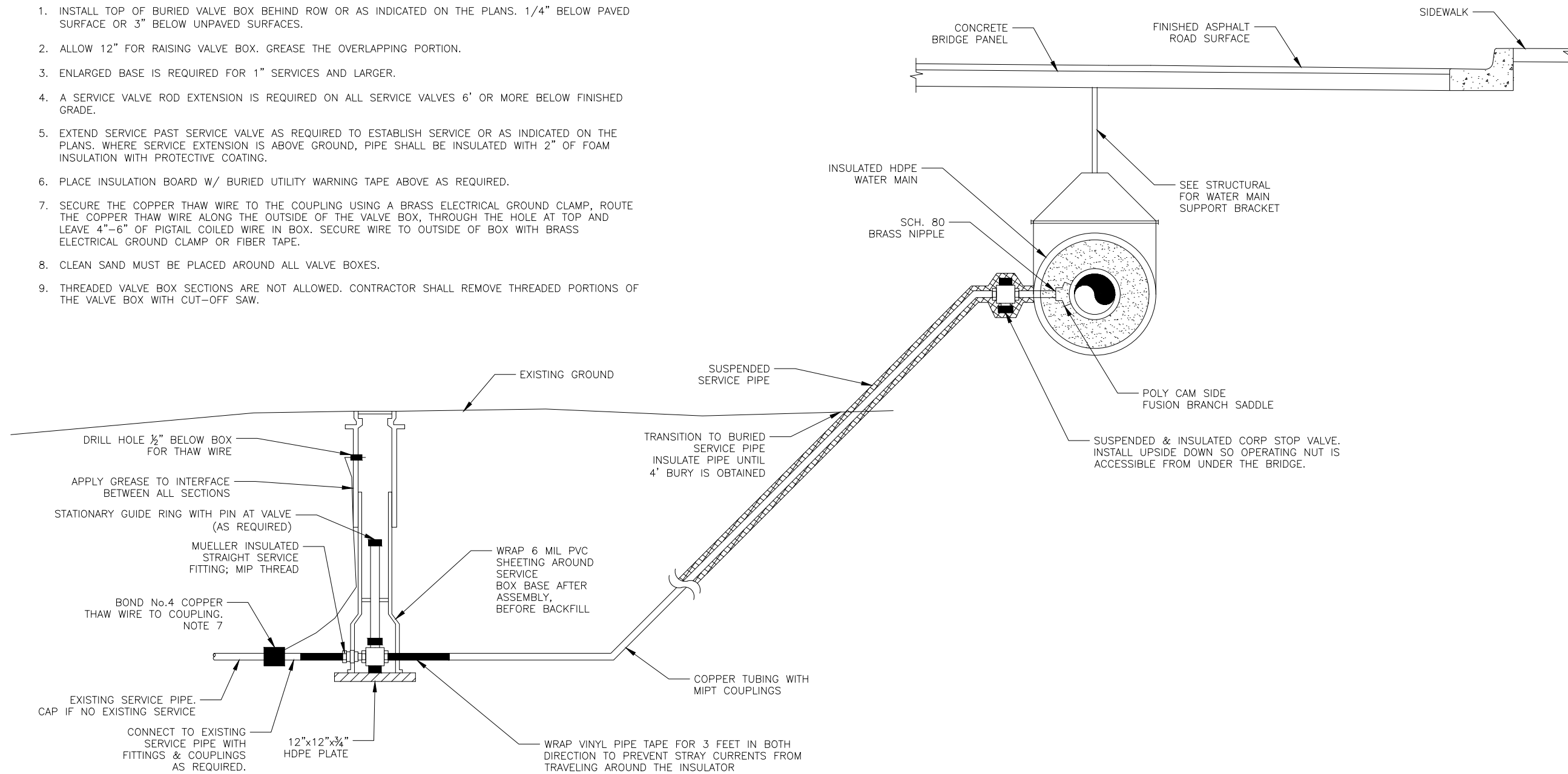
WATER SERVICE DETAILS

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### SUSPENDED WATER SERVICE NOTES:

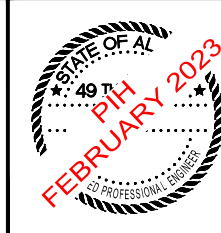
1. INSTALL TOP OF BURIED VALVE BOX BEHIND ROW OR AS INDICATED ON THE PLANS. 1/4" BELOW PAVED SURFACE OR 3" BELOW UNPAVED SURFACES.
2. ALLOW 12" FOR RAISING VALVE BOX. GREASE THE OVERLAPPING PORTION.
3. ENLARGED BASE IS REQUIRED FOR 1" SERVICES AND LARGER.
4. A SERVICE VALVE ROD EXTENSION IS REQUIRED ON ALL SERVICE VALVES 6' OR MORE BELOW FINISHED GRADE.
5. EXTEND SERVICE PAST SERVICE VALVE AS REQUIRED TO ESTABLISH SERVICE OR AS INDICATED ON THE PLANS. WHERE SERVICE EXTENSION IS ABOVE GROUND, PIPE SHALL BE INSULATED WITH 2" OF FOAM INSULATION WITH PROTECTIVE COATING.
6. PLACE INSULATION BOARD W/ BURIED UTILITY WARNING TAPE ABOVE AS REQUIRED.
7. SECURE THE COPPER THAW WIRE TO THE COUPLING USING A BRASS ELECTRICAL GROUND CLAMP, ROUTE THE COPPER THAW WIRE ALONG THE OUTSIDE OF THE VALVE BOX, THROUGH THE HOLE AT TOP AND LEAVE 4"-6" OF PIGTAIL COILED WIRE IN BOX. SECURE WIRE TO OUTSIDE OF BOX WITH BRASS ELECTRICAL GROUND CLAMP OR FIBER TAPE.
8. CLEAN SAND MUST BE PLACED AROUND ALL VALVE BOXES.
9. THREADED VALVE BOX SECTIONS ARE NOT ALLOWED. CONTRACTOR SHALL REMOVE THREADED PORTIONS OF THE VALVE BOX WITH CUT-OFF SAW.



1 SUSPENDED WATER SERVICE DETAIL  
E7

NTS

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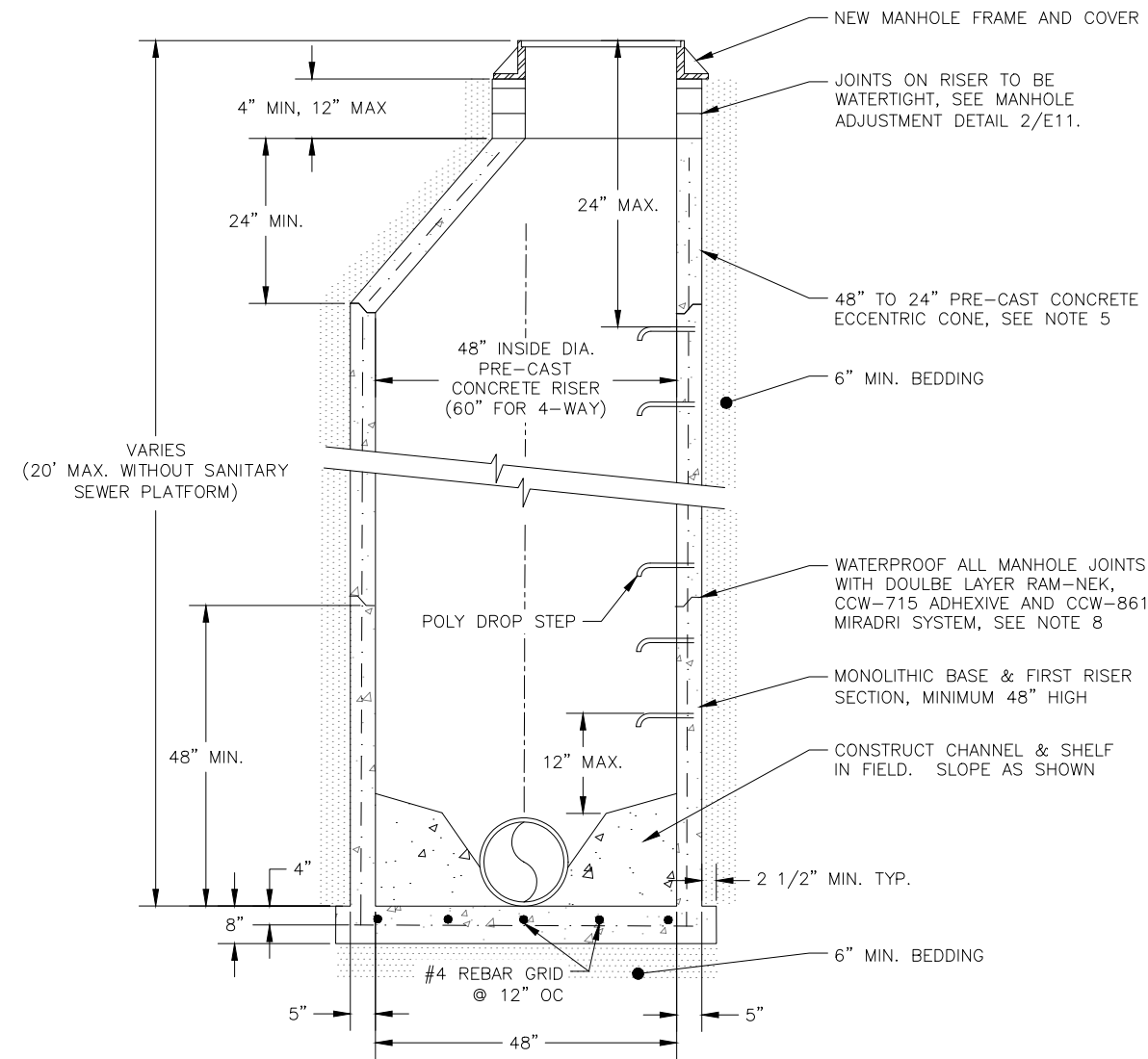
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WATER SERVICE DETAILS

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			ALASKA	0003225/SFHWHY00070	2023	E8	E11

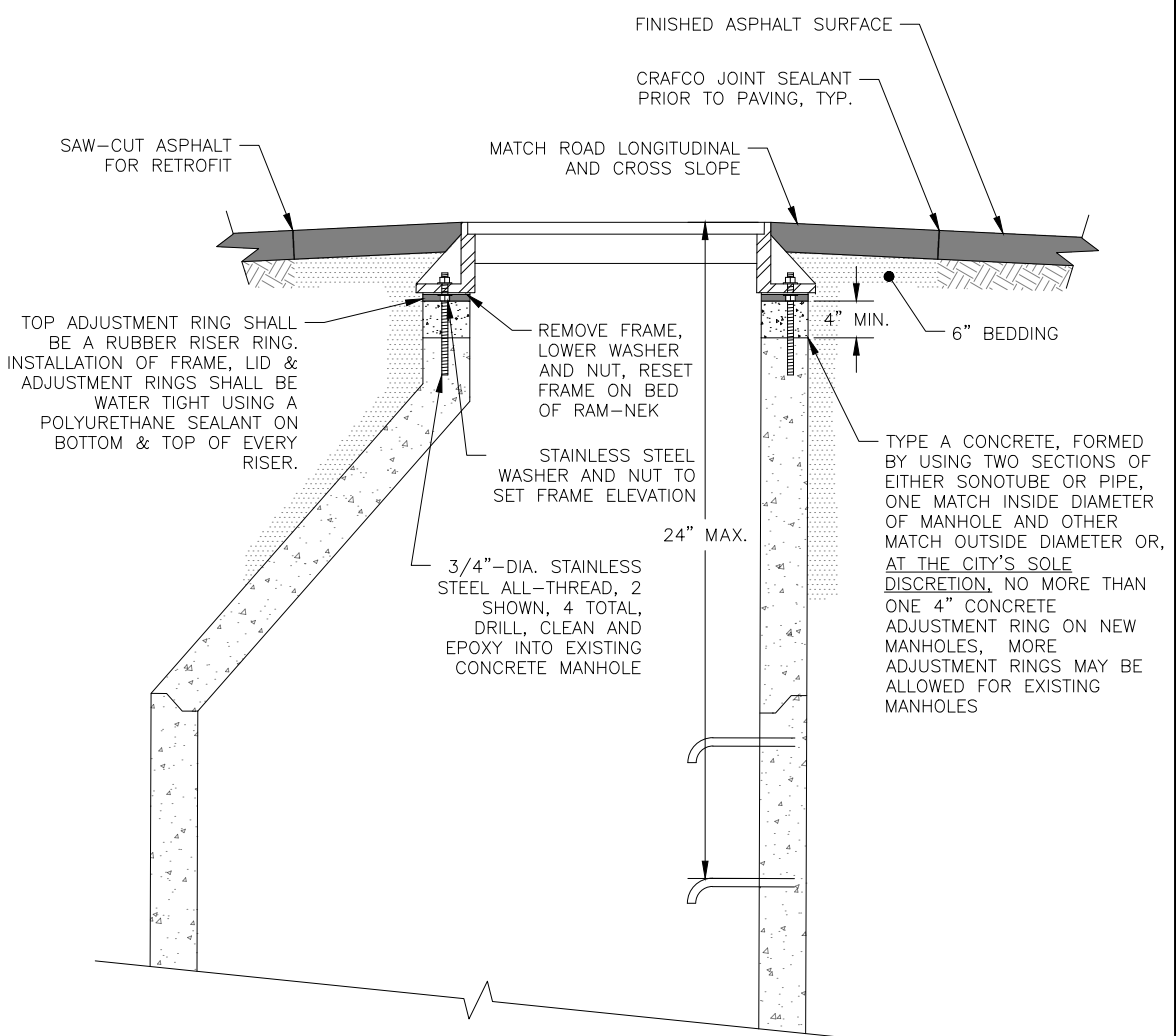


**SANITARY SEWER MANHOLE NOTES:**

- ALL MANHOLE SECTIONS SHALL CONFORM TO ASTM C-478, LATEST EDITION, INCLUDING MINIMUM STEEL REQUIREMENTS. THE BASE SECTION SHALL BE A 4' TALL UNIT AND STEEL SHALL BE EMBEDDED IN BASE SO THAT FIRST RISER SECTION IS CONNECTED TO BASE.
- CHANNEL DEPTH SHALL BE EQUAL TO THE PIPE DIAMETER OR GREATER. CHANNEL AND SHELF SHALL HAVE A SMOOTH FINISH.
- SEAL MANHOLE AT PIPE CONNECTIONS WITH WATERTIGHT Z-LOCK MANHOLE CONNECTOR WITH STAINLESS STEEL CLAMP. SEE DETAIL 2/E11.
- WHEN MANHOLE HEIGHT IS LESS THAN 7', REPLACE CONCRETE CONE SECTION WITH PRE-CAST REDUCING SLAB.
- FRAME AND LID SHALL BE ADJUSTED AS NECESSARY TO BE 1/4" BELOW THE RESTORED SURFACE AND MATCH EXISTING ROAD AND SLOPE.
- INSTALLATION OF FRAME, LID, ADJUSTMENT RINGS, ONTO THE PRE-CAST STRUCTURE SHALL BE WATER-TIGHT USING A POLYURETHANE SEALANT ON BOTTOM AND TOP OF EVERY RISER.
- NEW MANHOLE FRAME AND COVER SHALL NOT BE DIAMOND-CUT. THE MANHOLE SHALL BE PAVED THROUGH.
- ALL MANHOLE JOINTS SHALL BE WATERPROOFED USING A DOUBLE LAYER OF RAM-NEK, OR EQUAL. THE EXTERIOR OF ALL JOINTS SHALL BE SEALED WITH CCW-715 ADHESIVE AND CCW-861 MIRA-DRI SYSTEM 18" EACH SIDE OF JOINT.
- STRUCTURE SHALL BE BACKFILLED WITH 6" SELECTED MATERIAL, TYPE A.
- STEPS SHALL NOT BE ABOVE FLOW CHANNEL AND PLACED A MAXIMUM OF 12" ABOVE SHELF. STEPS SHALL BE IN ALIGNMENT AND NOT OFFSET FROM EACH OTHER.

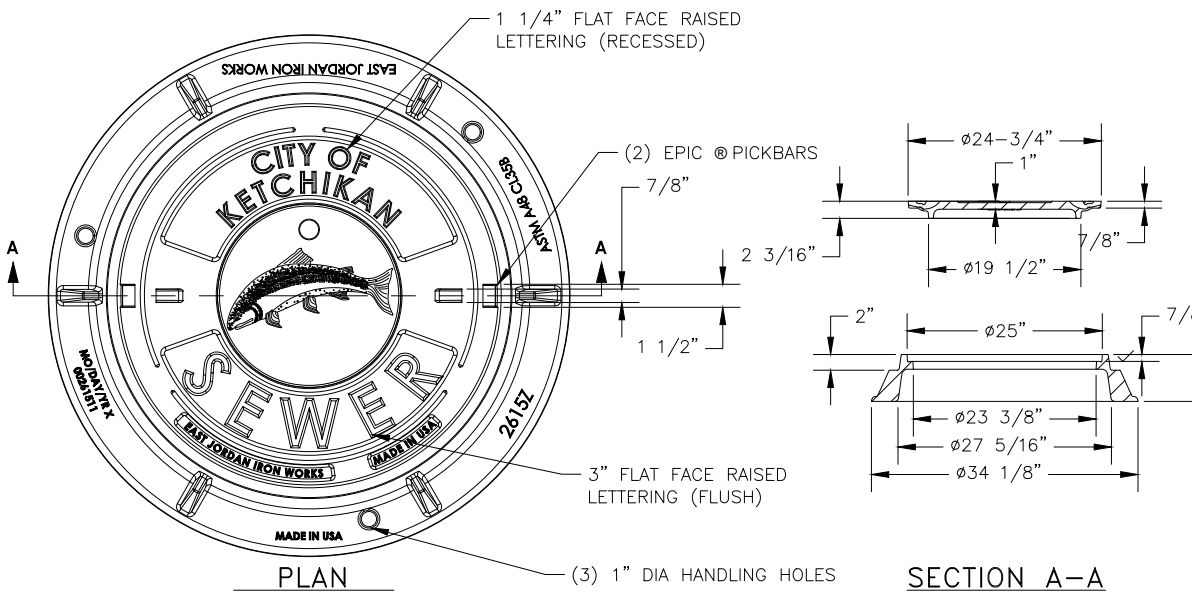
**FRAME & COVER NOTES:**

- MANHOLE FRAME AND COVER SHALL BE "EJIW 0026152W01" OR APPROVED EQUAL.
- COVER AND FRAME SHALL BE HEAVY DUTY AND RATED FOR H-20 LOADING. MINIMUM TOTAL WEIGHT SHALL BE 360 POUNDS. SEWER FRAME & COVERS SHALL BE "EON LOCK" BOLT DOWN COVERS.
- COVER AND SEALING GASKET FOR SEWER SHALL BE RUBBER GASKET RESULTING IN A SELF SEALING LID, OR APPROVED EQUAL.
- SEWER FRAMES SHALL BE MACHINED TO FIT WATERTIGHT COVER. SEWER COVERS SHALL HAVE THE WORDS "CITY OF KETCHIKAN SEWER" CAST IN, AND SHALL BE PROVIDED WITH AN INTEGRAL LIFT HANDLE.
- FRAME AND COVER DIMENSIONS SHALL BE IN ACCORDANCE WITH THE GUIDELINES INDICATED. VARIATIONS SHALL BE APPROVED BY THE ENGINEER.
- ALL FRAMES AND COVERS SHALL BE IDENTICAL FOR ALL MANHOLE INSTALLATIONS.



**NOTES:**

- MANHOLE SHALL BE INSTALLED AS PER PLANS.
- MANHOLE LID AND FRAME SHALL BE 1/4" BELOW FINAL FINISH GRADE AFTER PAVING.
- MANHOLE FRAME & COVER SHALL BE "EJIW 0026152W01" OR APPROVED EQUAL.



**1 SANITARY SEWER MANHOLE, FRAME & COVER**  
NTS

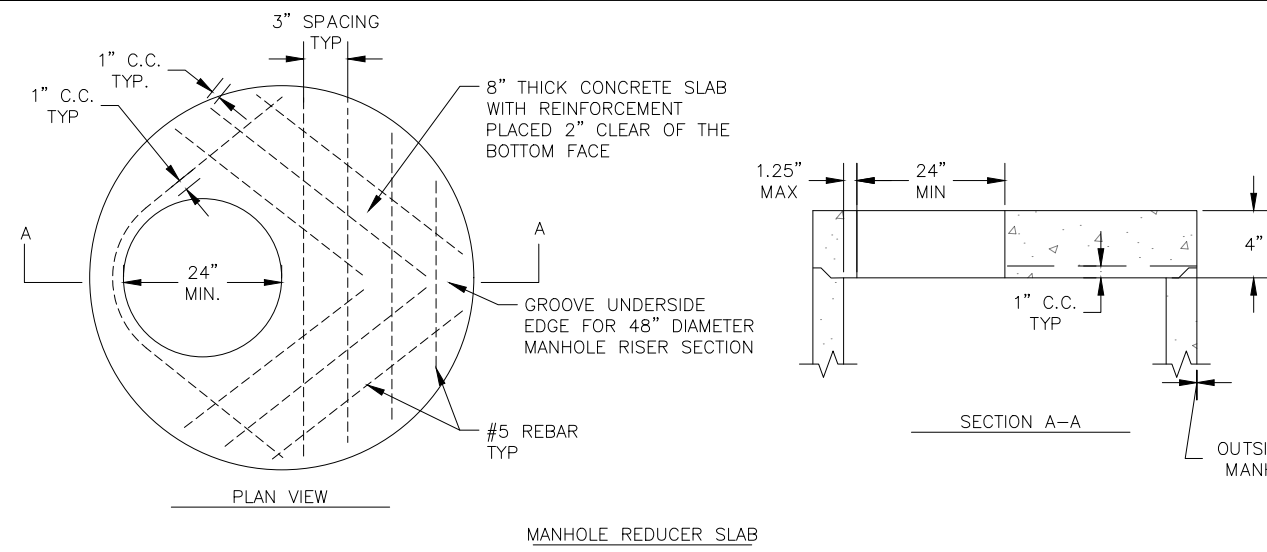
**2 MANHOLE ADJUSTMENT DETAIL**  
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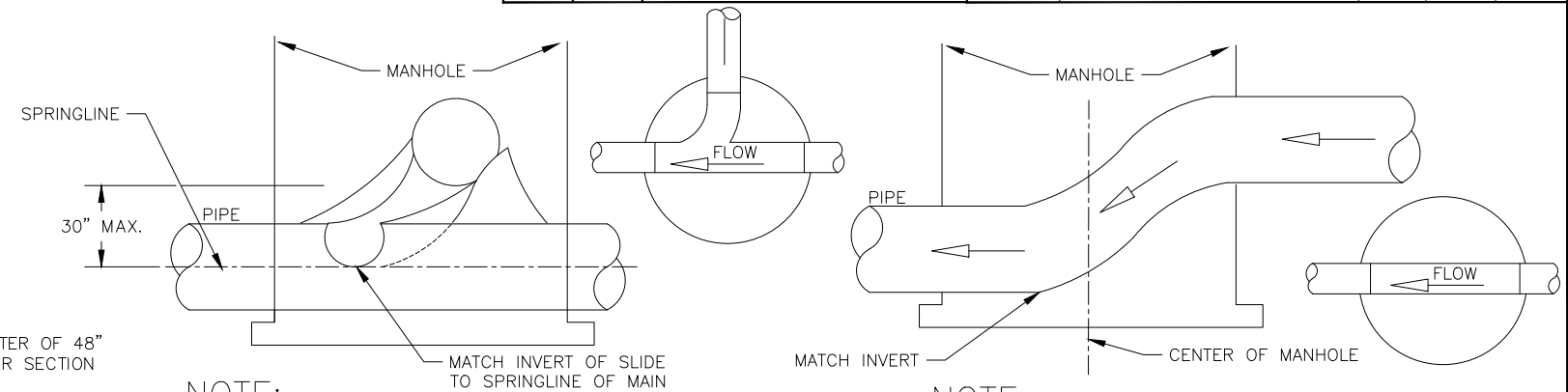


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			ALASKA	0003225/SFHWHY00070	2023	E9	E11



MANHOLE REDUCER SLAB



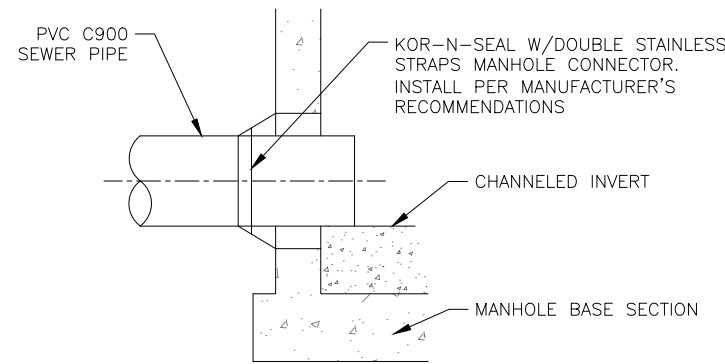
**NOTE:**

WHEN INSTALLING A BEAVER SLIDE THAT INTERCEPTS A SEWER AT A RIGHT ANGLE, THE CONNECTING INVERT OF THE SLIDE IS TO INTERCEPT THE SEWER SLIGHTLY ABOVE THE SPRINGLINE AS SHOWN. DISTANCE MEASURED FROM INVERT TO INVERT

**NOTE:**

WHEN INSTALLING A BEAVER SLIDE WHERE THE FLOW IS STRAIGHT THROUGH THE MANHOLE, THE SLIDE SHALL MATCH THE INVERT OF THE SEWER AND SHALL NOT EXTEND MORE THAN HALF WAY THROUGH THE MANHOLE. DISTANCE MEASURED IS INVERT TO INVERT.

BEAVER SLIDE

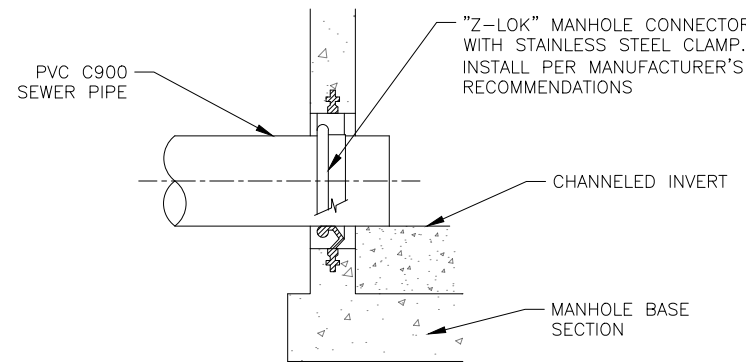


KOR-N-SEAL MANHOLE CONNECTOR

**NOTE:**

KOR-N-SEAL IS A PRESS-SEAL BOOT TO BE USED ONLY WHEN A BOOT CANNOT BE INTEGRALLY CAST INTO THE MANHOLE

PIPE CONNECTION DETAIL



Z-LOK MANHOLE CONNECTOR

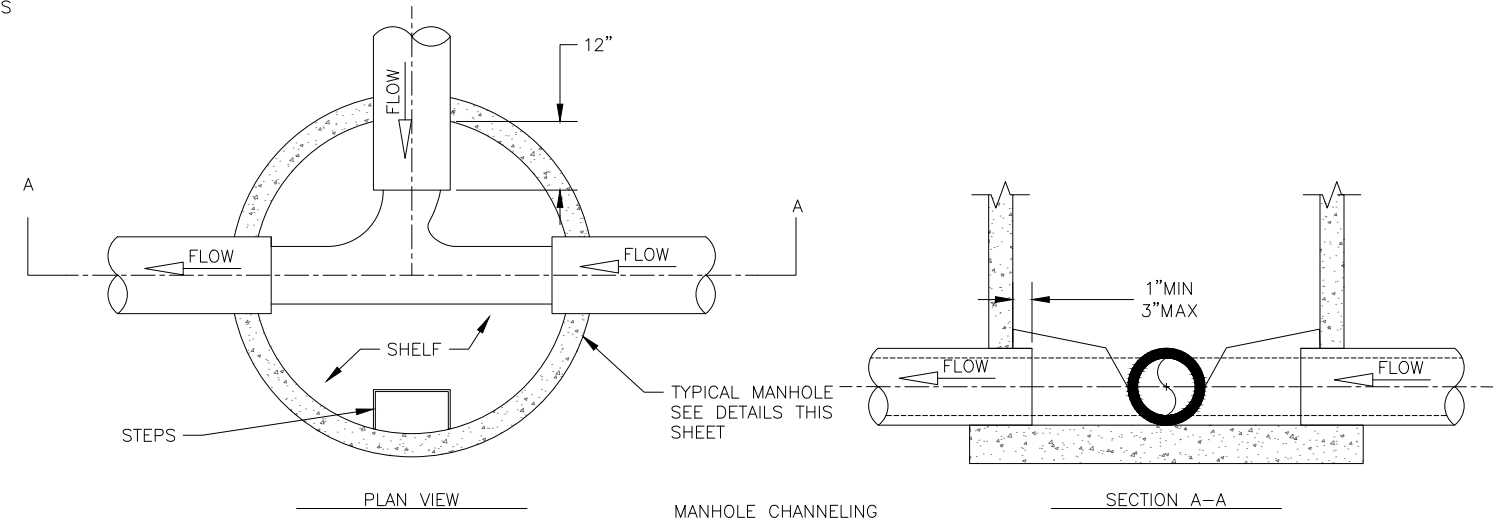
**NOTE:**

THE Z-LOK CONNECTOR SHALL BE CAST INTO THE MANHOLE AT THE TIME OF MANUFACTURE

**WASTEWATER MANHOLE REDUCER SLAB & PIPE CONNECTION DETAIL**

1  
E9

NTS



**WASTEWATER BEAVER SLIDE & MANHOLE CHANNELING DETAILS**

2  
E9

NTS

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Anchorage, Alaska 99507  
907 522-1707 voice  
907 522-3404 fax  
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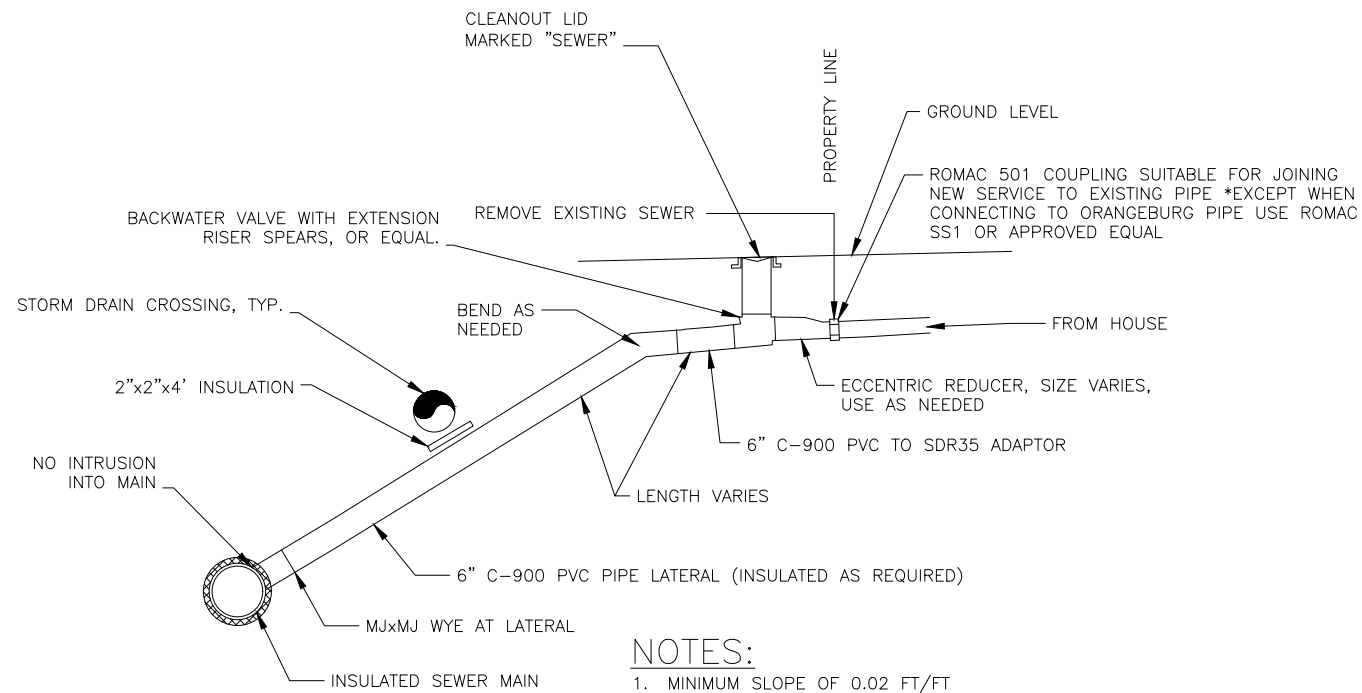


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KTN: SAYLES/GORGE ST. VIADUCT (1841) IMPROVEMENTS

SEWER MANHOLE DETAILS

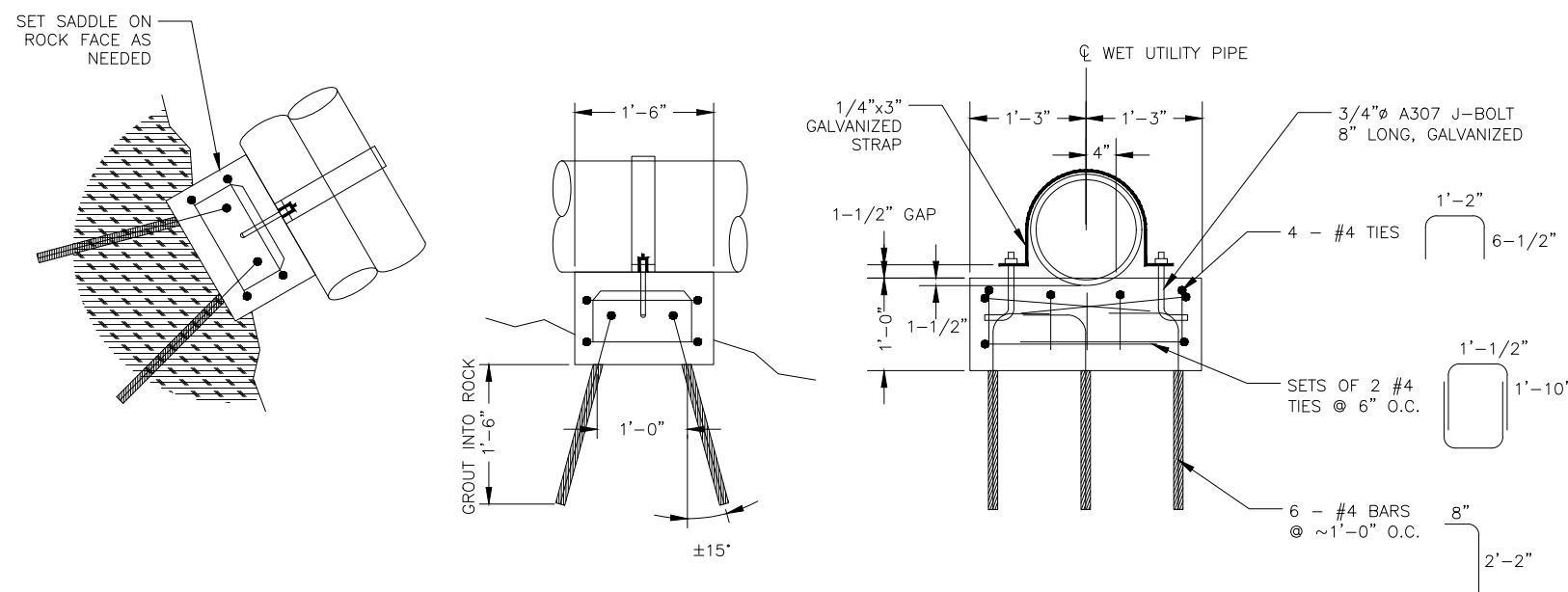
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E10	E11



**NOTES:**

1. MINIMUM SLOPE OF 0.02 FT/FT
2. CONNECTIONS FROM ROOF DOWNSPOUTS, AREA DRAINS, ETC. ARE PROHIBITED.
3. BURIED PIPE MUST BE LAID ON AND BEDDED WITH COMPACTED AND COMPETENT MATERIAL.
4. MAX 3 FITTINGS ALLOWED PER SERVICE UNLESS APPROVED BY OWNER.
5. UNDER BRIDGE SEWER SERVICES SHALL BE INSULATED PIPE WITH SAME PIPING CONFIGURATION AND WYE'S USED.
6. SUPPORT UNDER BRIDGE SEWER SERVICES WITH UTILITY HANGER SYSTEM PER STRUCTURAL. SEE N SHEETS.

1 SEWER LATERAL SERVICE CONNECTION DETAIL NTS



2 WET UTILITY PIPE SADDLE NTS

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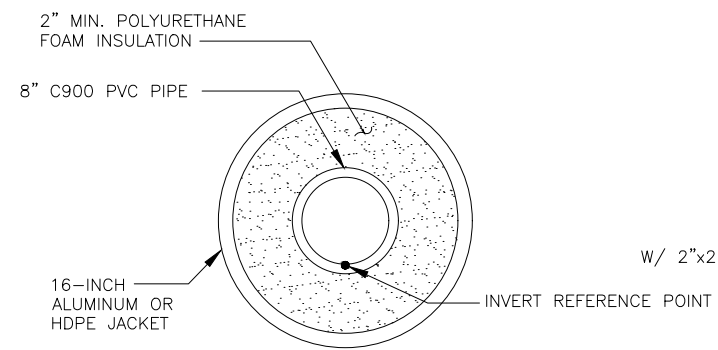
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KTN: SAYLES/GORGE ST. VIADUCT  
(1841) IMPROVEMENTS

FILE 00070-E1.dwg DATE 2/15/23 LAYOUT E10 DESIGNED CHECKED DRAFTED AB

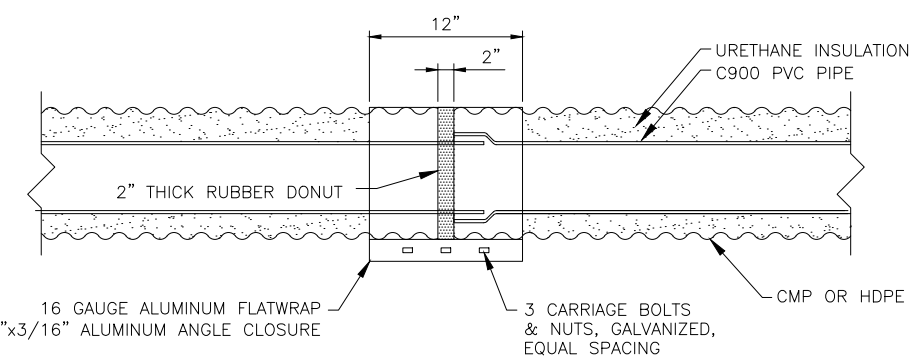


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	E11	E11

DRAFTED | AB  
 CHECKED  
 DESIGNED  
 E11  
 LAYOUT | E11  
 2/15/23  
 DATE  
 FILE | 00070-E1.dwg

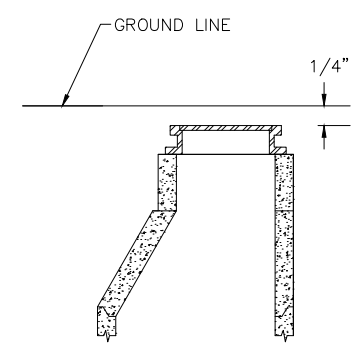


1 INSULATED C900 PVC SEWER MAIN SECTION  
E11 NTS



2 INSULATED SEWER PIPE JOINT  
E11 NTS

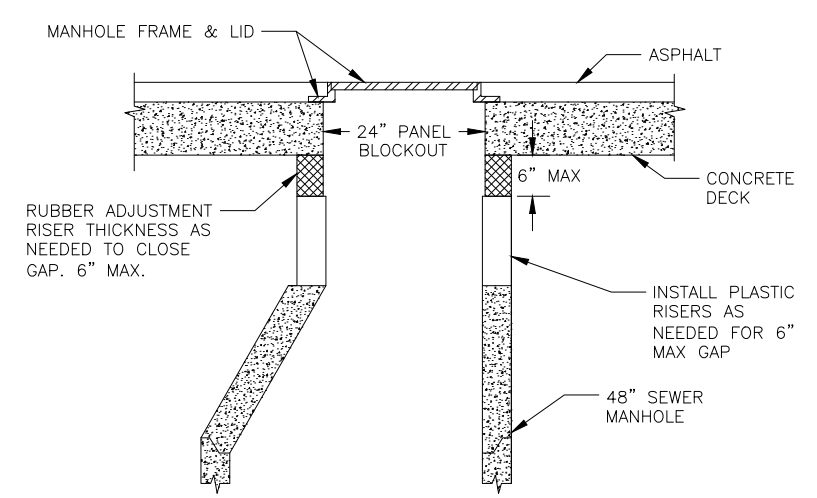
NOTE: JOINT KIT FOR C900 SEWER LINE WITH SLAB PLUS 1 3/4" CUTBACK ON THE PIPE.



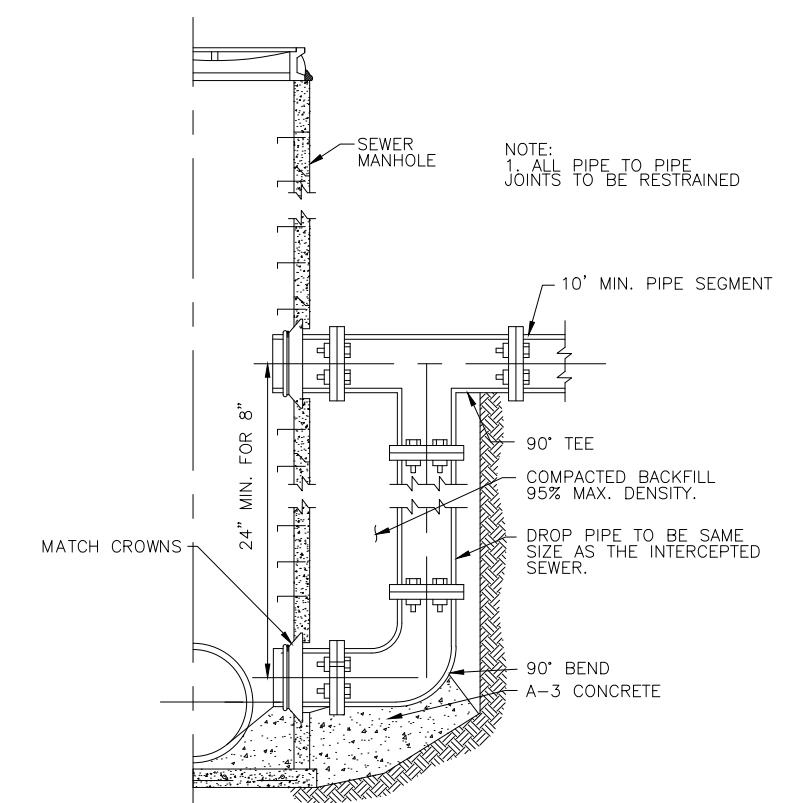
4 TYPICAL MANHOLE HEIGHTS IN PAVED ROADWAYS  
E11 NTS

**MANHOLE HEIGHT NOTES:**

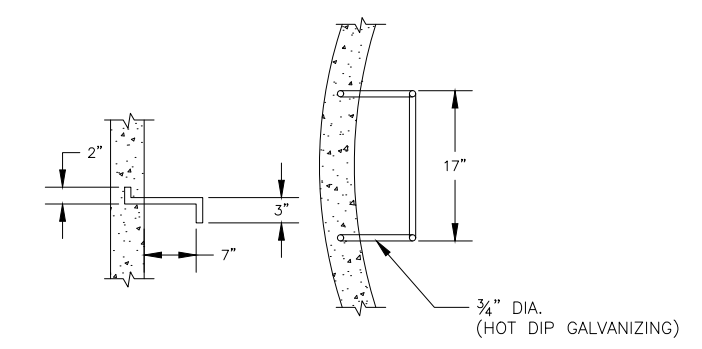
- WHERE INSTALLED IN PAVED ROADWAYS OR PAVED PARKING AREAS, MANHOLE LID SHALL CONFORM TO THE GRADE AND CROSS SLOPE OF THE PAVEMENT. DIMENSION IS TO THE TOP OF EMBOSSED LETTERING IF LETTERING IS HIGHER THAN THE FRAME.
- TYPICAL MANHOLE HEIGHTS SHALL BE APPLIED TO THE TOP OF ANY SANITARY SEWER CLEANOUT COVERS INSTALLED.



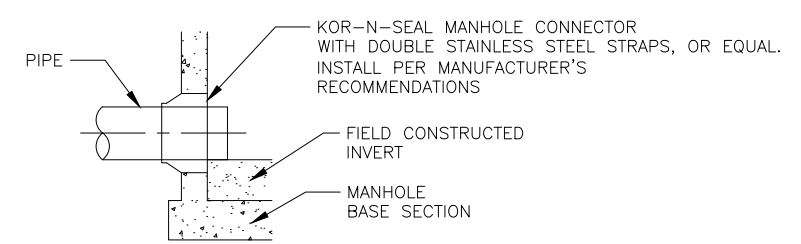
5 TYPICAL MANHOLE HEIGHTS AT TRESTLE BRIDGE PANEL  
E11 NTS



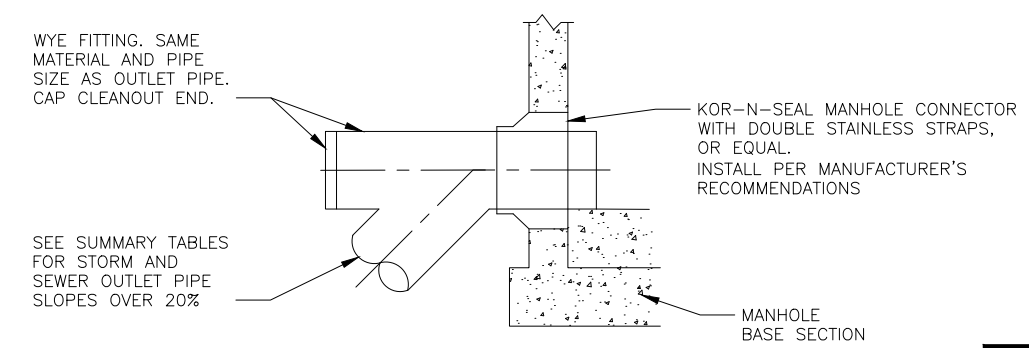
3 SEWER MANHOLE EXTERNAL DROP CONNECTION  
E11 NTS



6 MANHOLE STEP  
E11 NTS



7 MANHOLE PIPE CONNECTION  
E11 NTS



8 MANHOLE PIPE CONNECTION FOR OUTLET PIPES WITH SLOPES GREATER THAN 20%  
E11 NTS

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FILE 00070-F Sheets - Demo - Plan & Profile.dwg  
 DATE 2/15/23 LAYOUT F1 DESIGNED CHECKED DRAFTED AB

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			ALASKA	0003225/SFHwy00070	2023	F1	F3



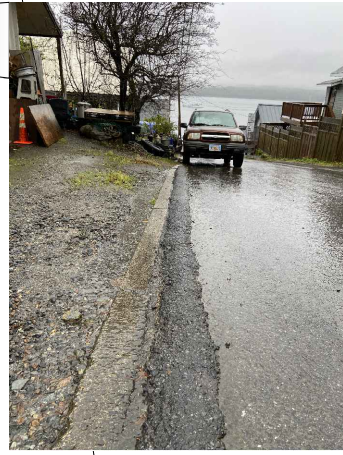
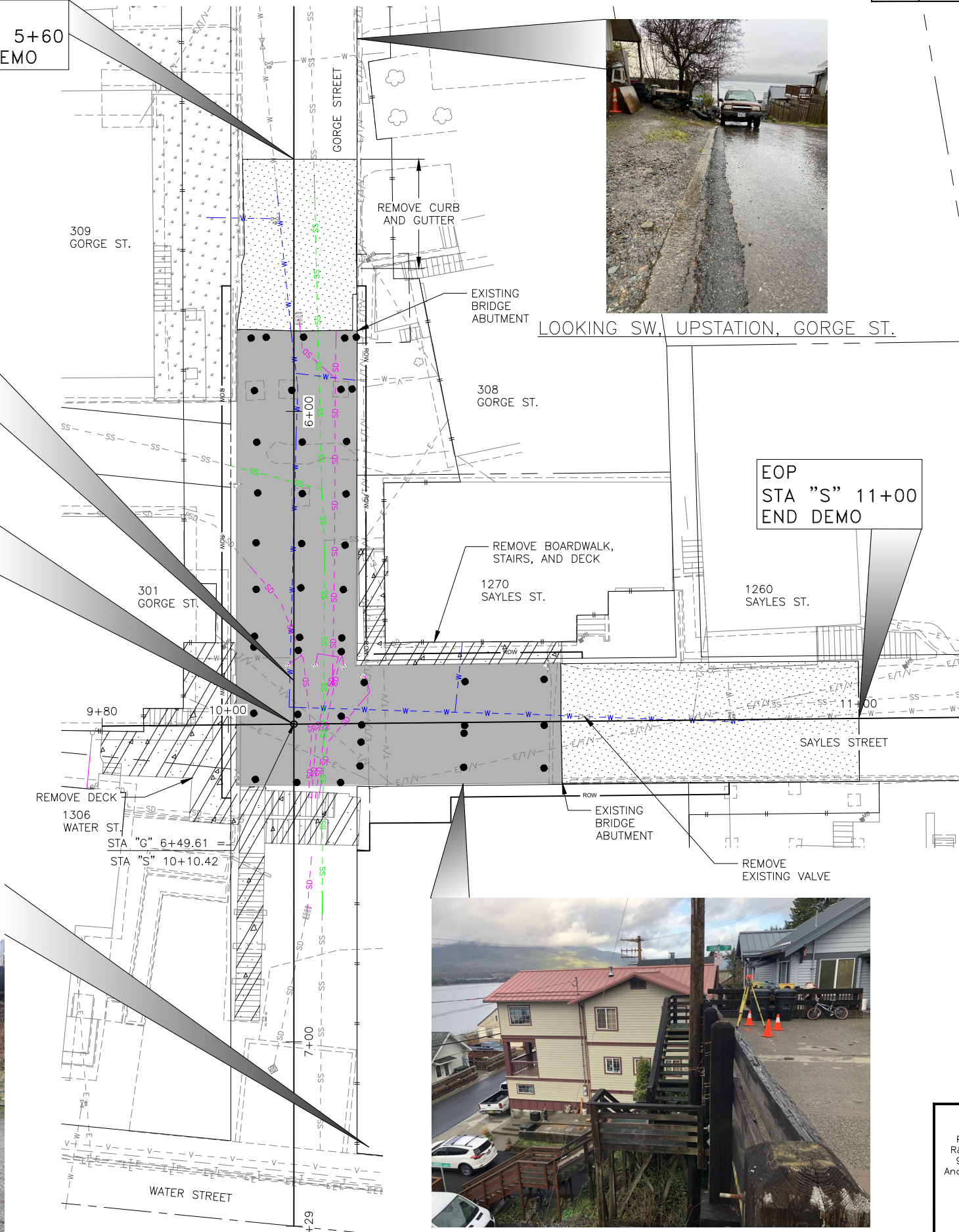
LOOKING NE, DOWNSTATION, GORGE ST.



LOOKING SE, UPSTATION, SAYLES ST.



LOOKING N, STAIRCASE FROM WATER ST. TO SAYLES ST.



LOOKING SW, UPSTATION, GORGE ST.

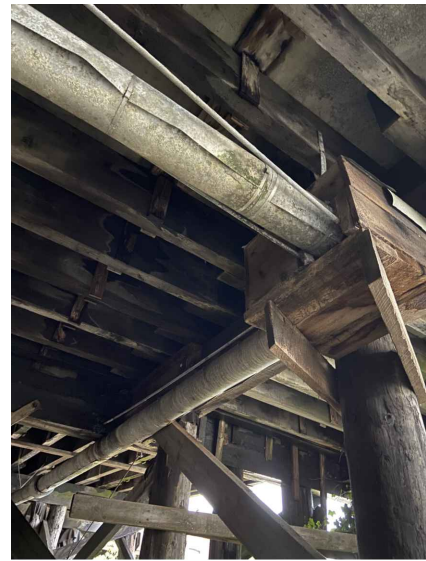


LOOKING N, STAIRCASE FROM SAYLES ST. TO WATER ST.

DEMOLITION LEGEND	
	REMOVAL OF OLD PILE
	REMOVAL OF STRUCTURES AND OBSTRUCTIONS - 202.0001.0000
	REMOVAL OF PAVEMENT - 202.0002.0000
	REMOVAL OF BRIDGE NO. 1841 - 202.0023.0000
	REMOVAL OF EXISTING WATERLINE - 202.0001.0000 SEE NOTE 1
	REMOVAL OF EXISTING SANITARY SEWER - 202.0001.0000 SEE NOTE 1
	REMOVAL OF EXISTING STORM DRAIN - 202.0001.0000 SEE NOTE 1

DEMOLITION NOTES:

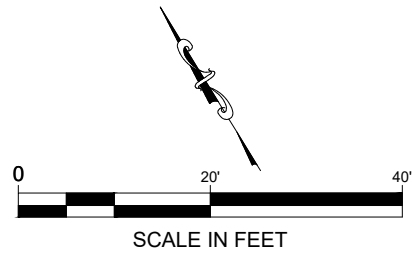
- REMOVAL OF UTILITIES ATTACHED TO THE BRIDGE STRUCTURE WILL BE PAID FOR UNDER PAY ITEM 202.0023.0000 REMOVAL OF BRIDGE NO. 1841.
- REMOVAL OF UTILITIES NOT ATTACHED TO BRIDGE WILL BE PAID FOR UNDER 202.0001.0000 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.



UNDER BRIDGE



UNDER BRIDGE



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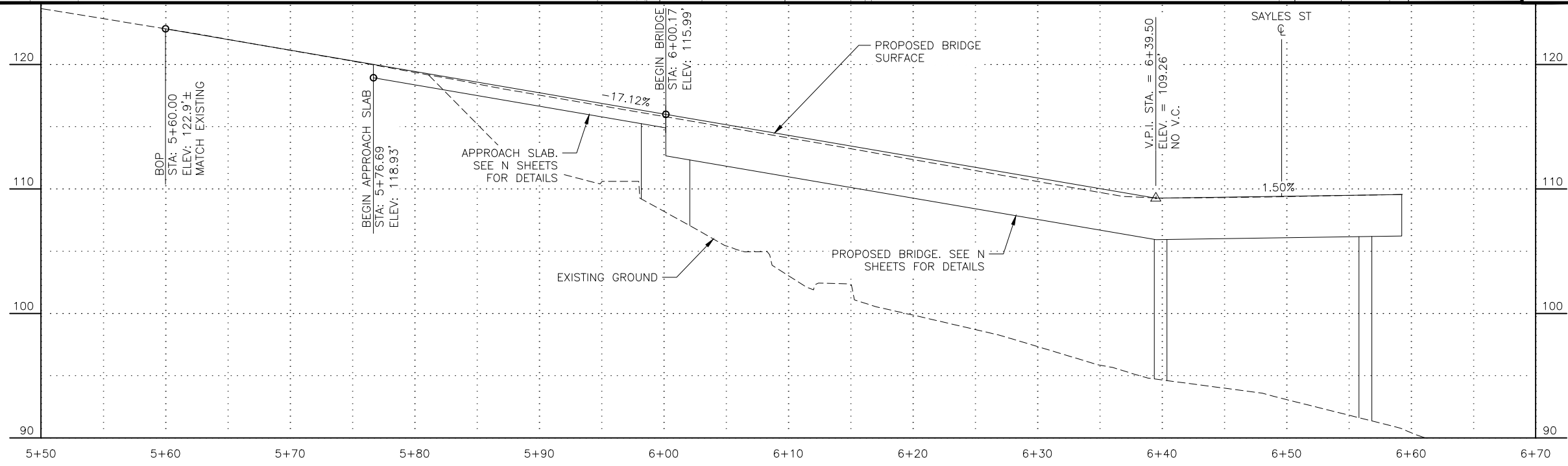
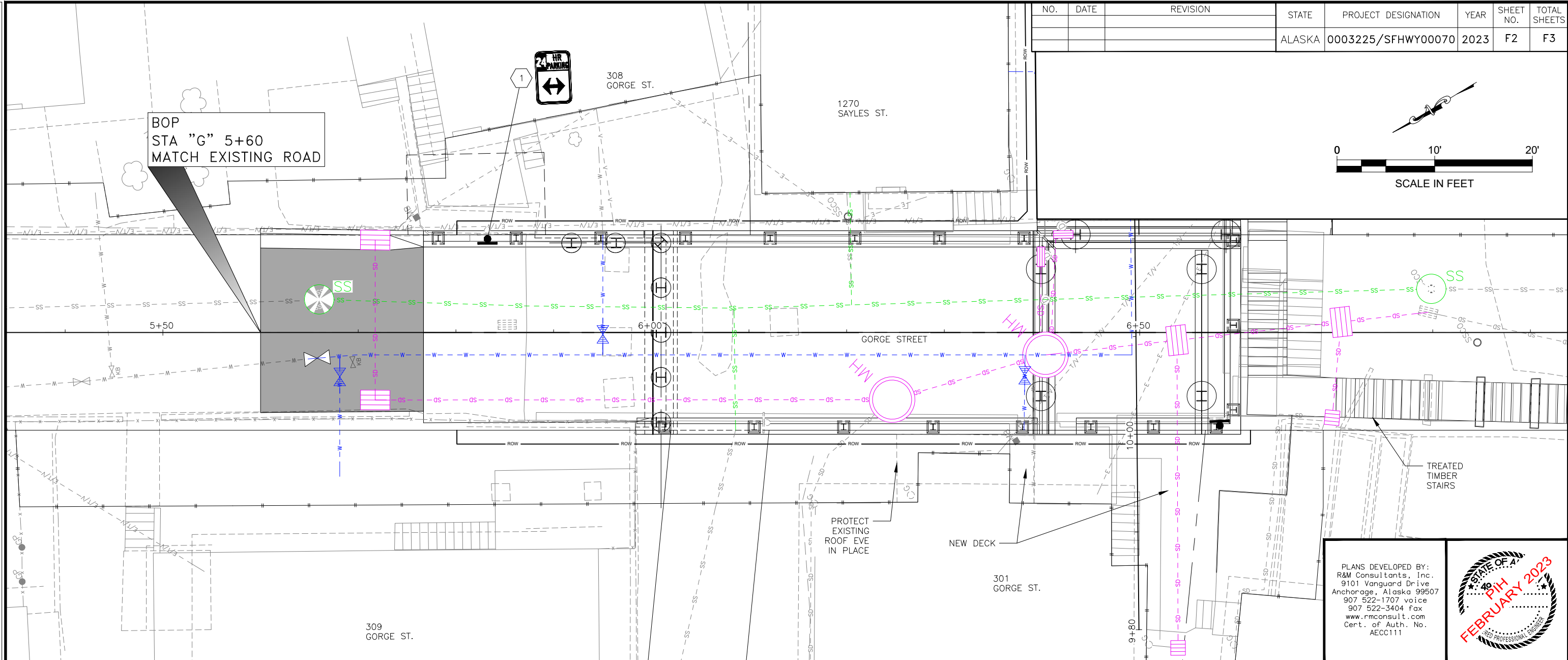
KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS

DEMOLITION PLAN



FIRM STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 ADDRESS 6860 GLACIER HWY., JUNEAU, AK 99811  
 PHONE (907) 466-1763  
 CHECKED JLO  
 DRAFTED JMH  
 FILE Z:\project\2630.00 DOT\_SC KTN Water Street Trestle and Gorge St Viaduct Design Services\Civil\BOMAB\Soyley-Gorge\2630.00 DOT\_SC KTN Water Street Trestle and Gorge St Viaduct Design Services\F2 Plan & Profile.dwg

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	F2	F3



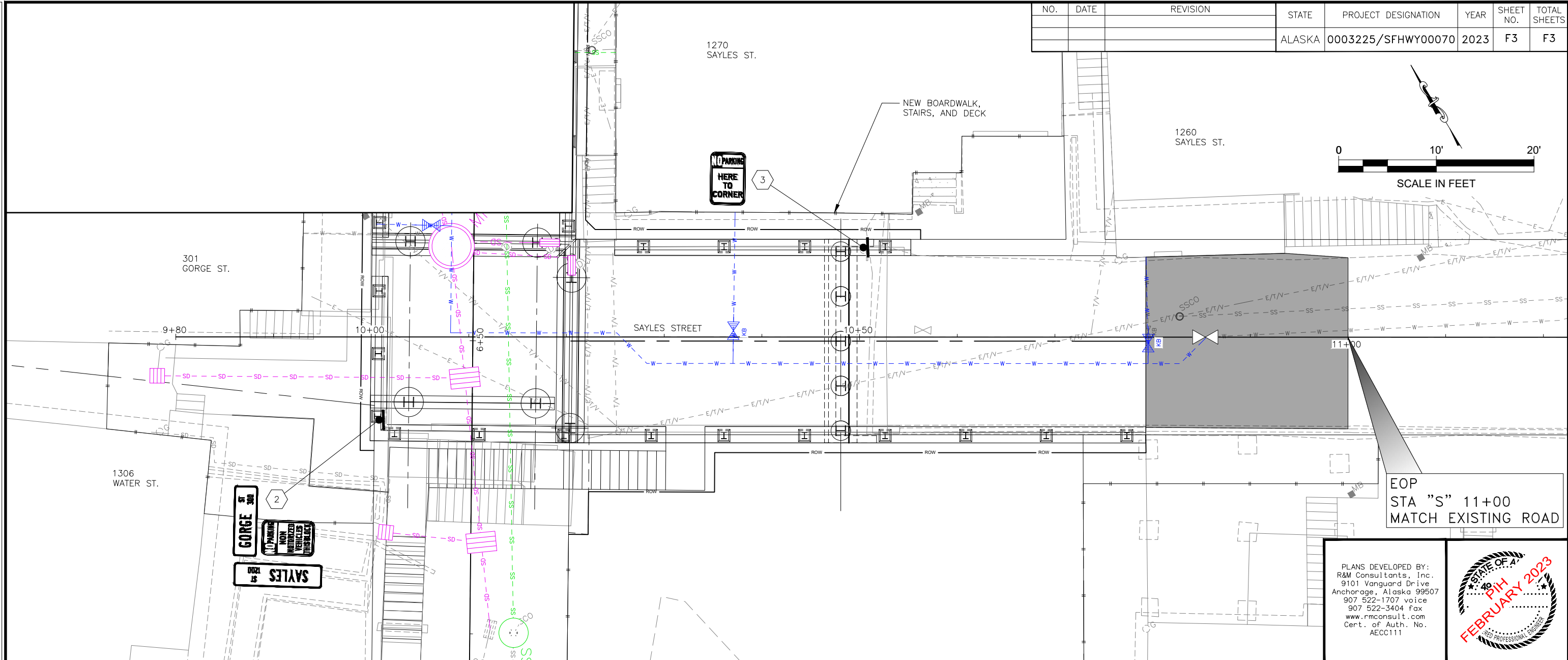
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 Cert. of Auth. No.  
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- NOTES:
- EXISTING AND PROPOSED UTILITIES NOT SHOWN IN PROFILE VIEW FOR CLARITY. SEE UTILITY SHEETS.

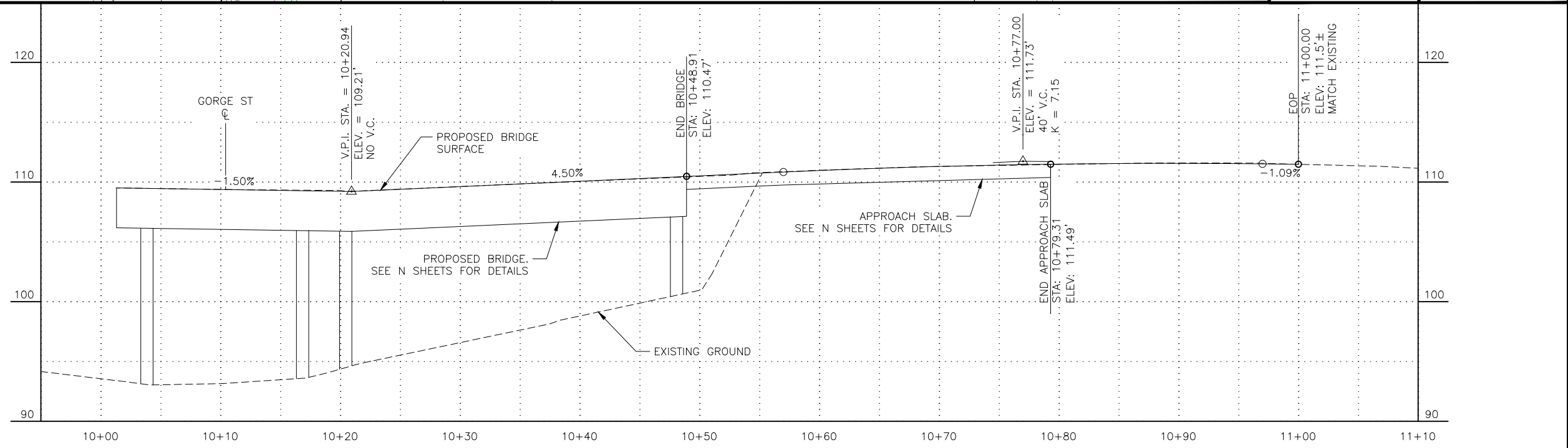
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 ADDRESS 6860 GLACIER HWY., JUNEAU, AK 99811  
 PHONE (907) 465-1763  
 CHECKED JLO  
 DRAFTED JMH  
 CERTIFICATE OF AUTH #:

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	F3	F3



EOP  
 STA "S" 11+00  
 MATCH EXISTING ROAD

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NOTES:  
 1. EXISTING AND PROPOSED UTILITIES NOT SHOWN IN PROFILE VIEW FOR CLARITY. SEE UTILITY SHEETS.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWHY00070	2023	1	40






### GENERAL STRUCTURES NOTES:

- All material and workmanship shall be in accordance with the requirements of the Alaska Department of Transportation and Public Facilities "Standard Specifications for Highway Construction", Dated 2020, Standard Modifications, Statewide Special Provisions and Project Special Provisions.
- The structure has been designed in accordance with the requirements of the AASHTO LRFD Bridge Design Specifications Ninth Edition – dated 2020.
- Seismic design of the structure has been completed using:
  - PGA = 0.10
  - A<sub>s</sub> = 0.10
  - S<sub>ps</sub> = 0.30
  - S<sub>D1</sub> = 0.22
  - SITE CLASS = B
- DESIGN LOADS:
  - DEAD LOAD:
    - CIP CONCRETE – 155 PCF
    - PRESTRESSED CONCRETE – 165 PCF
    - WEARING SURFACE – 50 PSF
  - LIVE LOAD:
    - VEHICLE – AASHTO HL93 W/IMPACT
    - SURCHARGE – 270 PSF
  - EARTH PRESSURE:
    - LATERAL K<sub>a</sub> = 0.28 @ Abutment 1
    - K<sub>AE</sub> = 0.36 @ Abutment 1
    - K<sub>a</sub> = 0.25 @ Abutment 5
    - K<sub>AE</sub> = 0.32 @ Abutment 5
- Unless otherwise shown in the plans the concrete cover measured from the face of the concrete to the face of any reinforcing steel shall be three inches at the bottom of the footings, two inches at the top of the footings, and one and one half inches at all other locations.
- All cast-in-place concrete shall be Class A, uno.
- Reinforcing steel shall be ASTM A706, Grade 60.
- All exterior corners and edges shall have a 3/4" chamfer and all interior corners shall have a 3/4" fillet uno.
- All existing dimensions and elevations shall be verified in the field by the Contractor prior to work. Contractor shall contact Project Engineer with any discrepancies.
- The Geotechnical Report provided by R&M Consultants, dated August 8, 2022 and supplementary correspondence, was used for design.
- Due to soil conditions at the site, it is expected that a temporary casing will be required for soldier pile and shaft installation.

### ABBREVIATIONS:

- CL Centerline
- CIP Cast In Place
- CJP Complete Joint Penetration
- conc. Concrete
- EL Elevation
- No. Number
- typ. Typical
- ROW Right of Way
- spec. Specification
- std. Standard
- UNO Unless Noted Otherwise
- WP Work Point

### LEGEND:

-  Identifies Section, View or Detail
-  Taken or Shown on Bridge Sheet No.
-  Denotes epoxy coated reinforcement
-  TP-1 Test Pit by R & M Consultants, 2022
-  B-1 Boring by R & M Consultants, 2022

DRAWING INDEX		
SHEET	DWG NO	TITLE
1	N1	BRIDGE DRAWING INDEX AND STRUCTURAL NOTES
2	N2	BRIDGE GENERAL LAYOUT
3	N3	BRIDGE ELEVATIONS
4	N4	BRIDGE TYPICAL SECTIONS
5	N5	FOUNDATION PLAN
6	N6	FOUNDATION DETAILS
7	N7	ABUTMENT 1 LAYOUT
8	N8	ABUTMENT 1 DETAILS 1
9	N9	ABUTMENT 1 DETAILS 2
10	N10	ABUTMENT 1 CAP DETAILS 1
11	N11	ABUTMENT 1 CAP DETAILS 2
12	N12	BENT 2 LAYOUT
13	N13	BENT 3 LAYOUT
14	N14	BENT 4 LAYOUT
15	N15	TOWER VIEW WEST
16	N16	TOWER VIEW EAST
17	N17	BENT DETAILS 1
18	N18	BENT DETAILS 2
19	N19	BENT DETAILS 3
20	N20	ABUTMENT 5 LAYOUT
21	N21	ABUTMENT 5 DETAILS 1
22	N22	ABUTMENT 5 DETAILS 2
23	N23	ABUTMENT 5 CAP DETAILS 1
24	N24	ABUTMENT 5 CAP DETAILS 2
25	N25	FRAMING PLAN
26	N26	GIRDER DETAILS 1
27	N27	GIRDER DETAILS 2
28	N28	GIRDER DETAILS 3
29	N29	BRIDGE DECK PLAN
30	N30	BRIDGE DECK DETAILS 1
31	N31	BRIDGE DECK DETAILS 2
32	N32	BRIDGE DECK DETAILS 3
33	N33	BRIDGE APPROACH SLAB LAYOUT
34	N34	BRIDGE APPROACH SLAB DETAILS
35	N35	TRAFFIC BARRIER DETAILS 1
36	N36	TRAFFIC BARRIER DETAILS 2
37	N37	TRAFFIC BARRIER DETAILS 3
38	N38	TIMBER STAIR PLAN
39	N39	TIMBER STAIR DETAILS 2
40	N40	TIMBER STAIR DETAILS 3

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**NOT FOR CONSTRUCTION**

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(206) 622-5822

02/14/23 | 12:43 PM | RICKT  
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DESIGNED BY: Andrew Gastineau	CHECKED: Josh Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Josh Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Josh Pruitt	APPROVAL RECOMMENDED BY:	

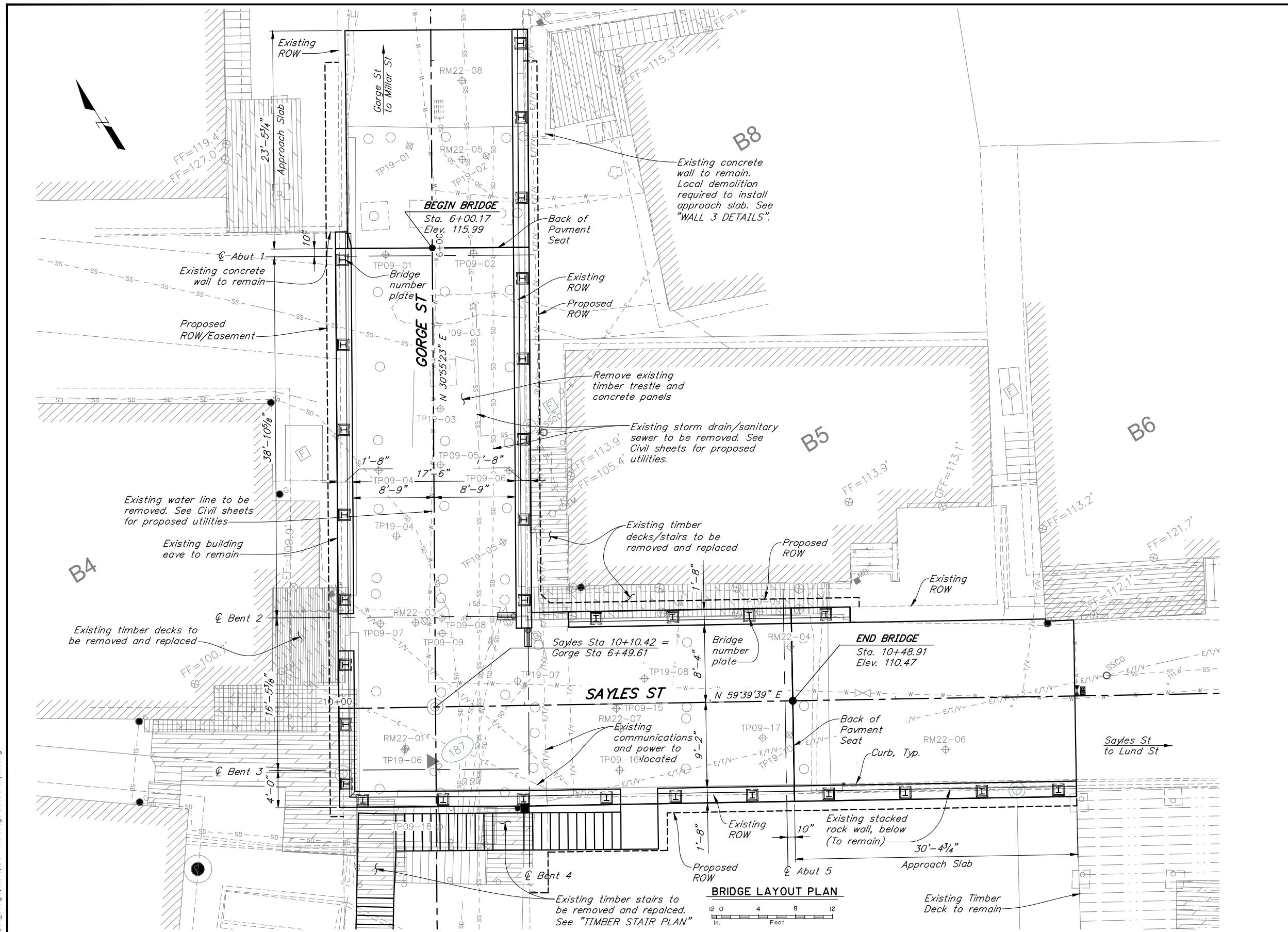
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



**SAYLES – GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**DRAWING INDEX AND STRUCTURAL NOTES**

  
BRIDGE NO. 1841  
DWG. NO. NI

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2022	2	40



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02/15/23 | 10:58 AM | RICKT  
V:\1802039 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-A02 Bridge General Layout.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



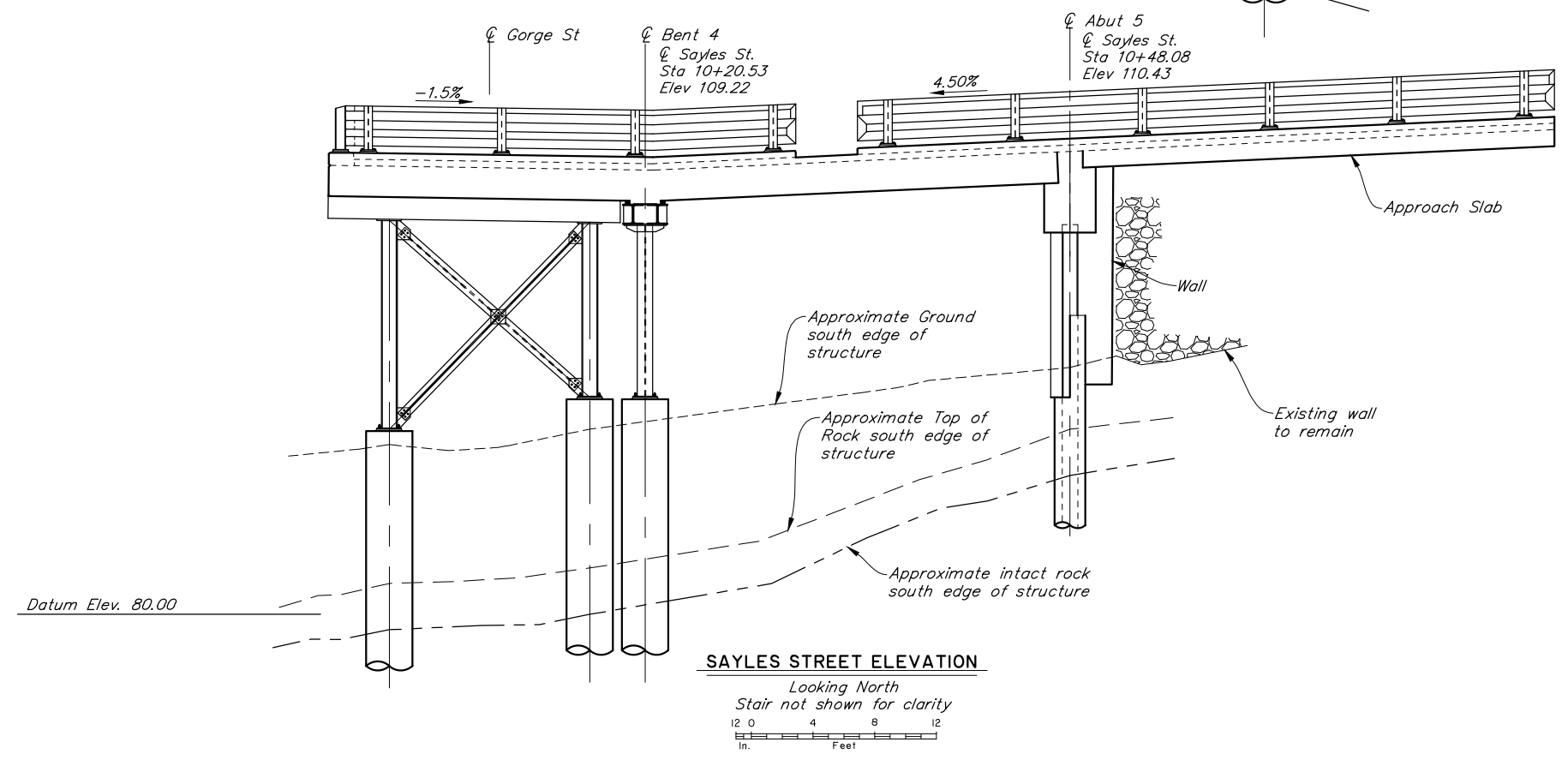
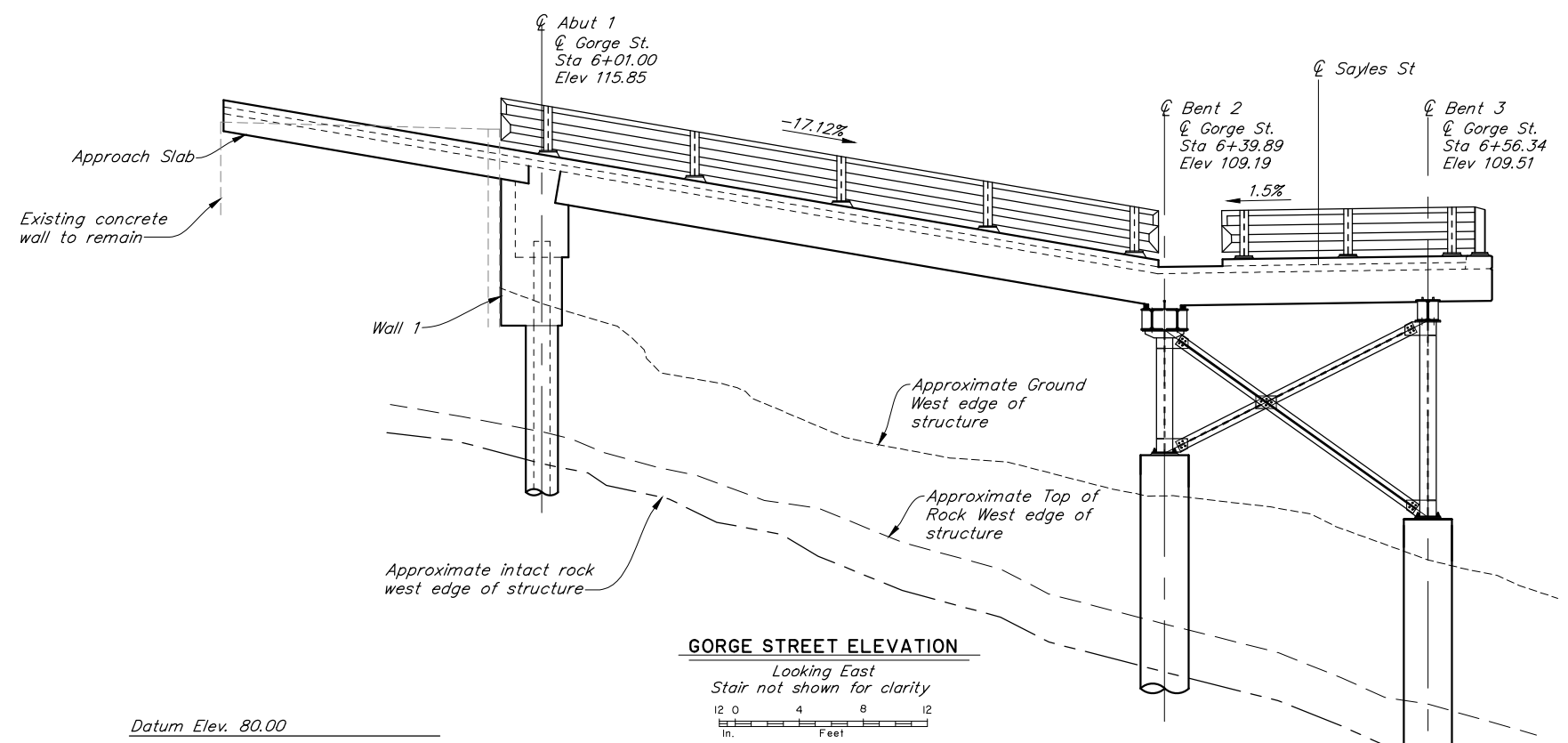
**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**BRIDGE GENERAL LAYOUT**



BRIDGE NO. 1841  
DWG. NO. N2



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2022	3	40



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(206) 622-5822

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



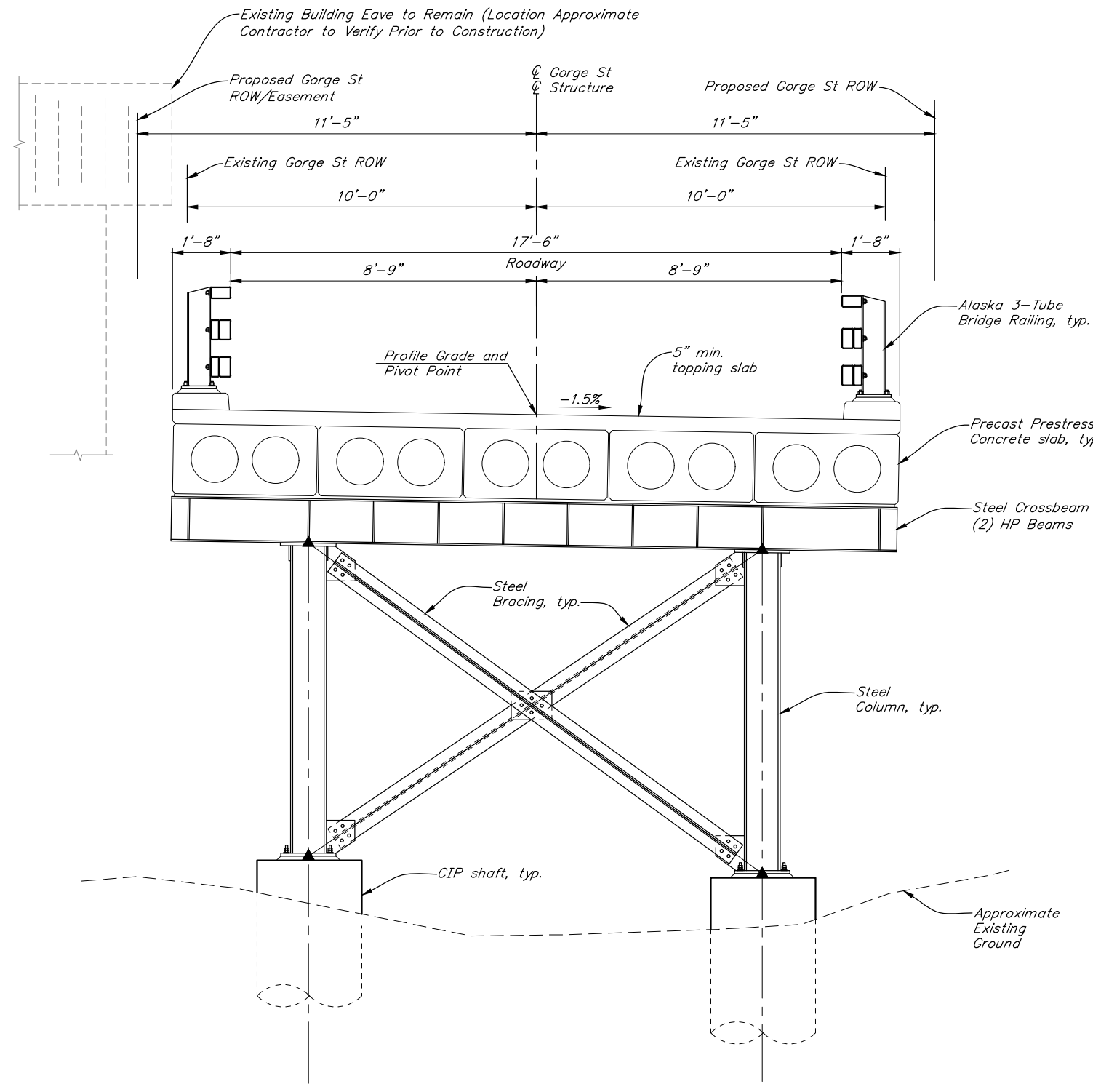
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BRIDGE ELEVATIONS**

  
BRIDGE NO. 1841  
DWG. NO. N3

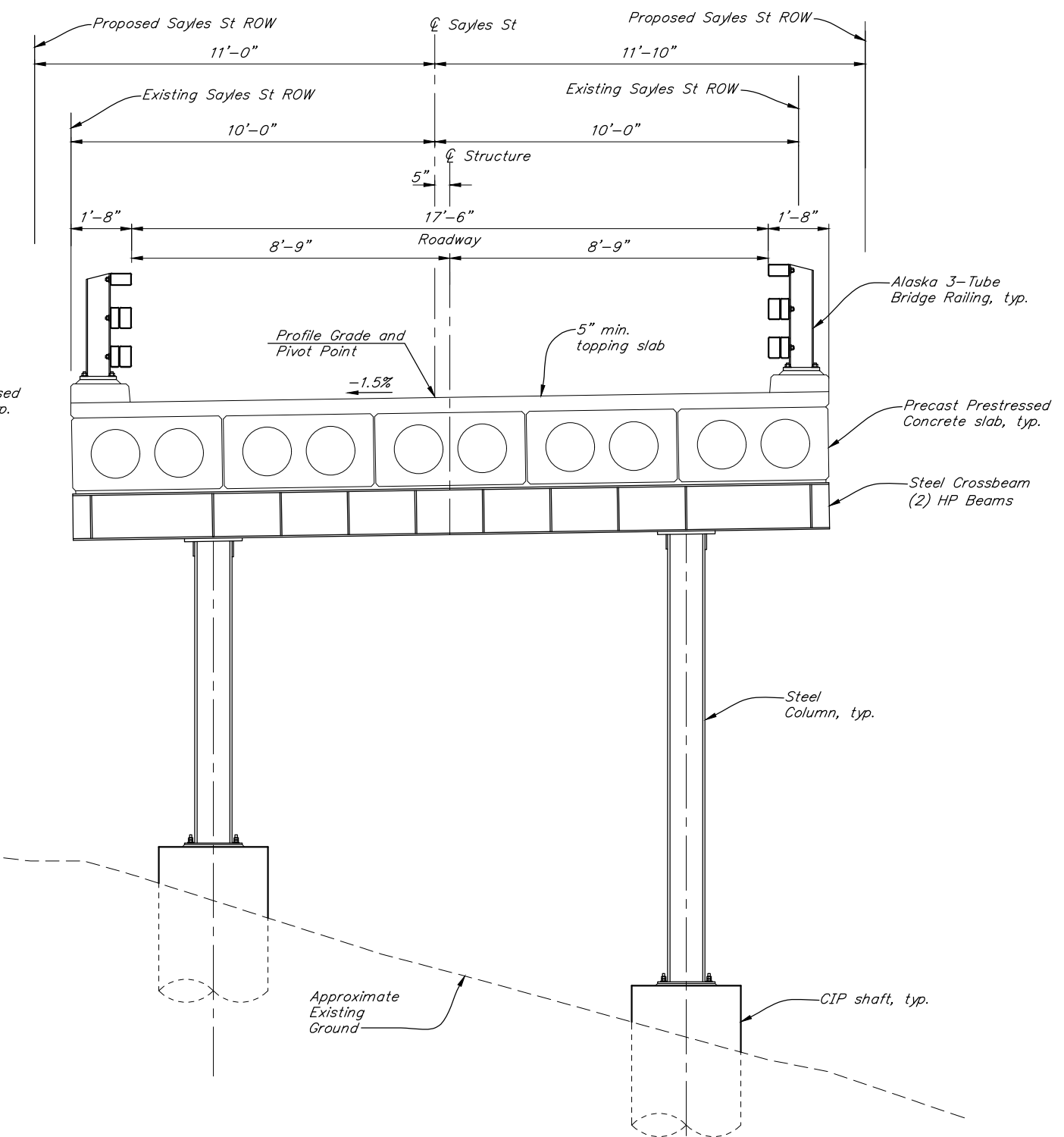
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWHY00070	2023	4	40



**TYPICAL GORGE STREET SECTION**  
Looking North



**TYPICAL SAYLES STREET SECTION**  
Looking East

Stair not shown for Clarity

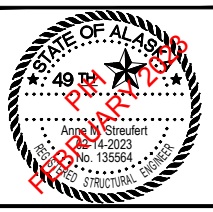
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02/14/23 | 1:36 PM | RICKT  
V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N04 Bridge Typical Sections.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

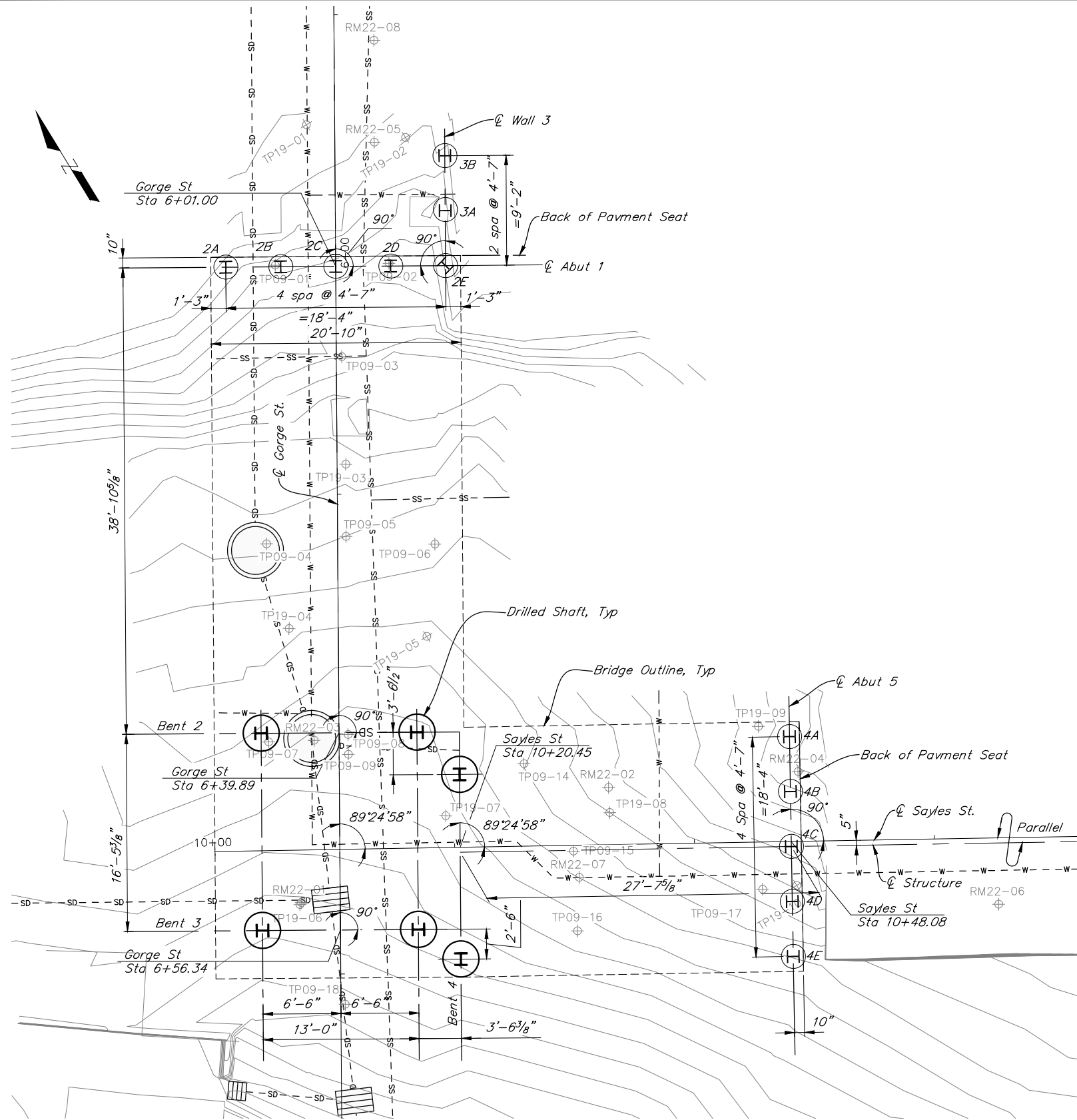
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



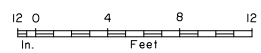
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BRIDGE TYPICAL SECTIONS**

  
BRIDGE NO. 1841  
DWG. NO. N4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	5	40



**FOUNDATION PLAN**



**PIH SUBMITTAL**  
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V:\18020239\Sayles-Gorge Viaduct\02\_Design\2019\SGV-A05 Foundation Plan.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



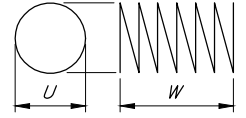
**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**FOUNDATION PLAN**



BRIDGE NO. 1841  
DWG. NO. N5

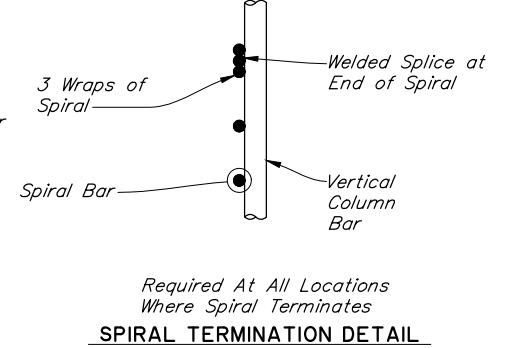
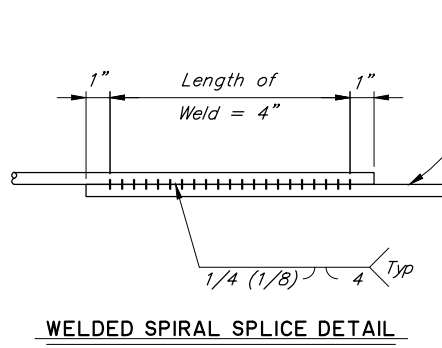
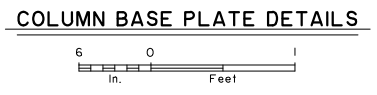
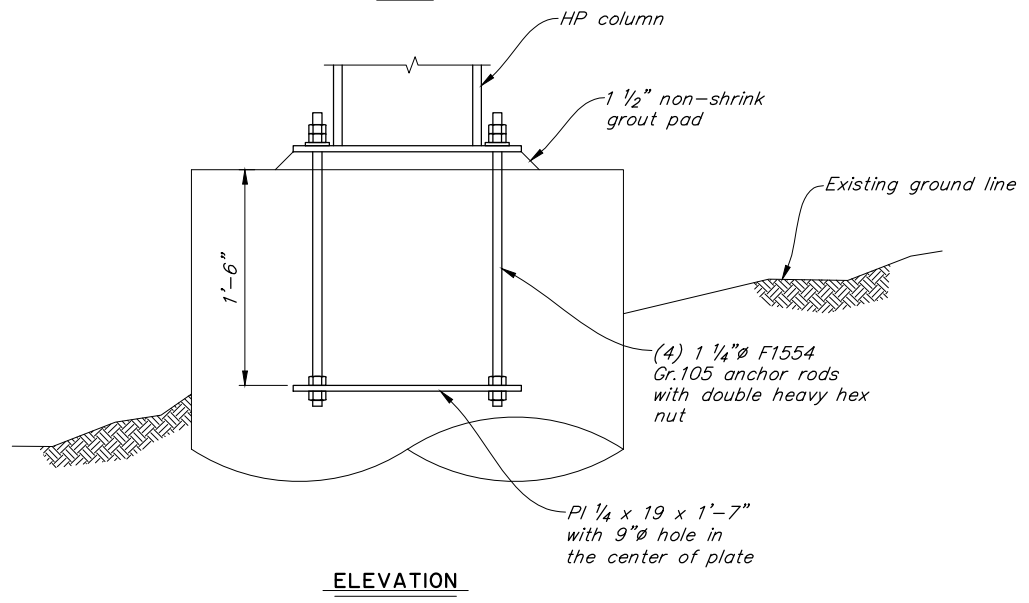
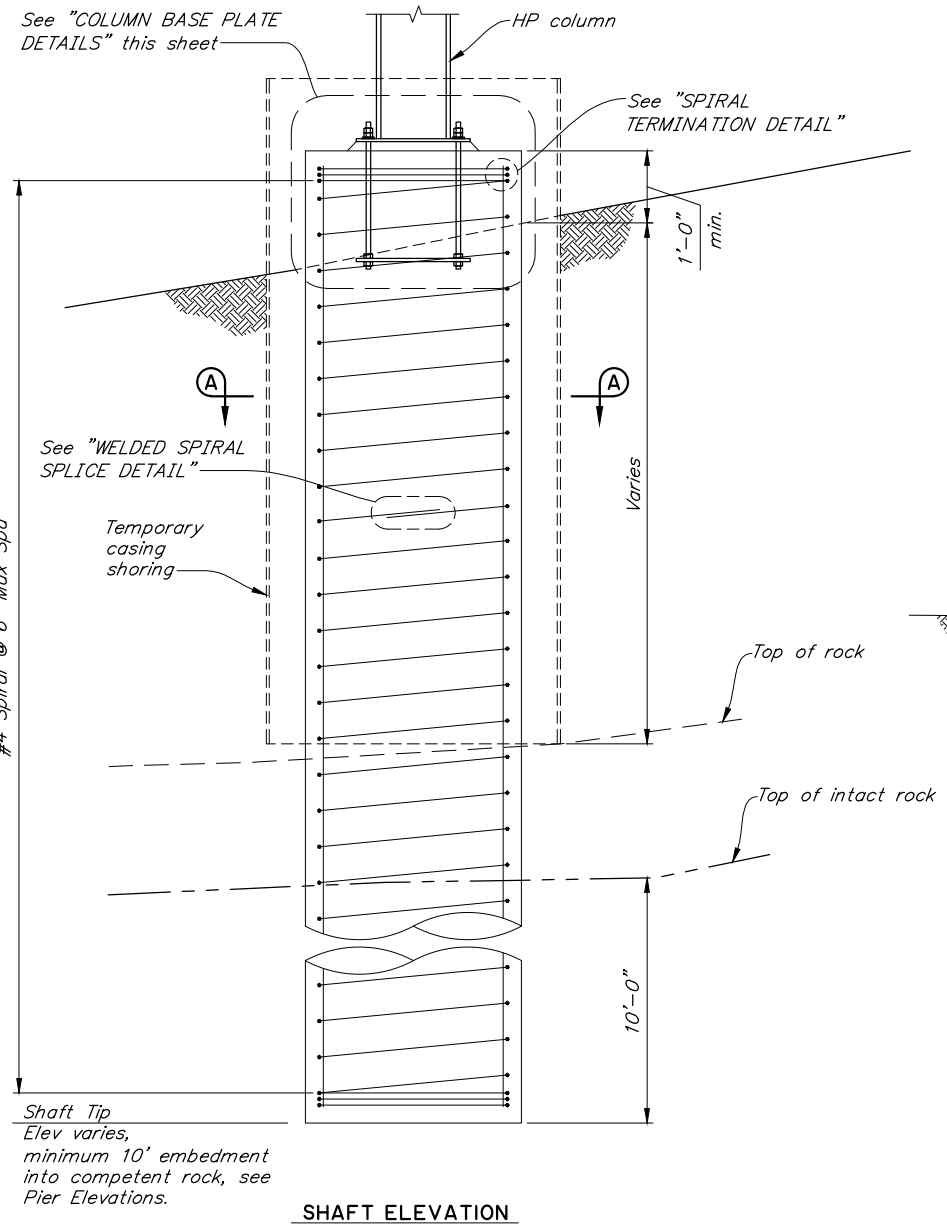
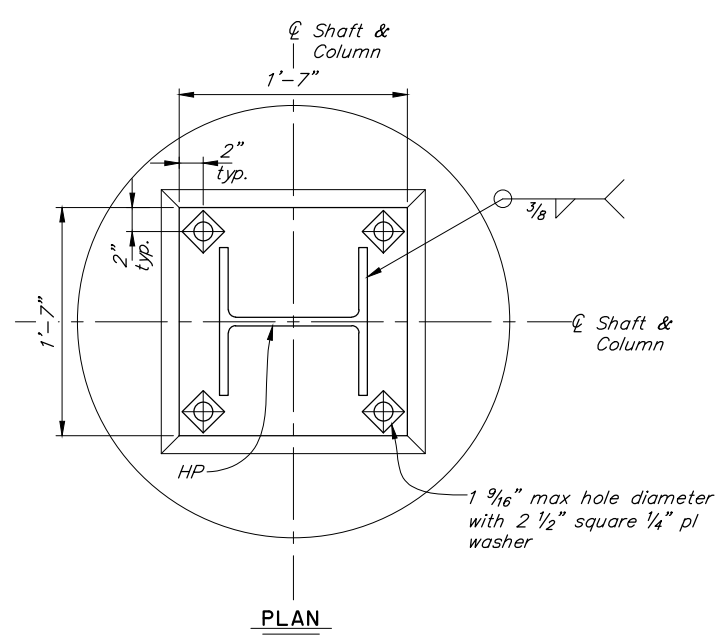
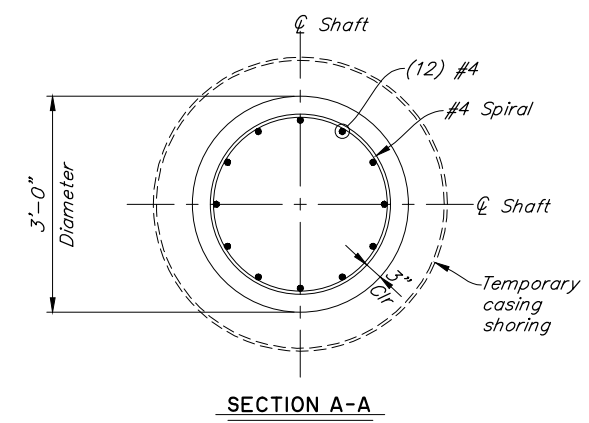
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	6	40

REINFORCING STEEL					
MARK	NOTE	SIZE	NO.	LENGTH	TYPE
WXXX		4	12	X'-XX"	-
WXXX		4	1	X'-XX"	-



**WXXX**  
Add "Y" feet for every "Z" feet of spiral length to account for splices

E = Epoxy coated reinforcing steel  
S = Spliced permitted. Length does not include splices.



Required At All Locations  
Where Spiral Terminates

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V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-A06 Foundation Details.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

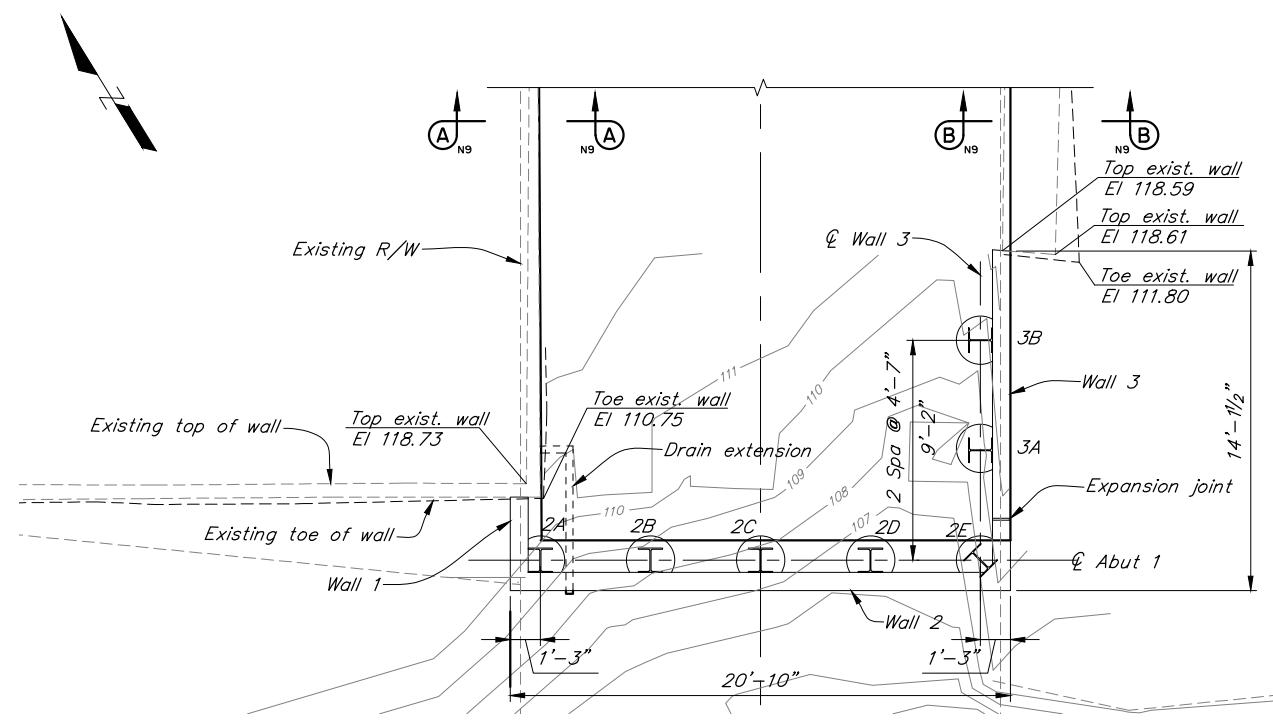
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



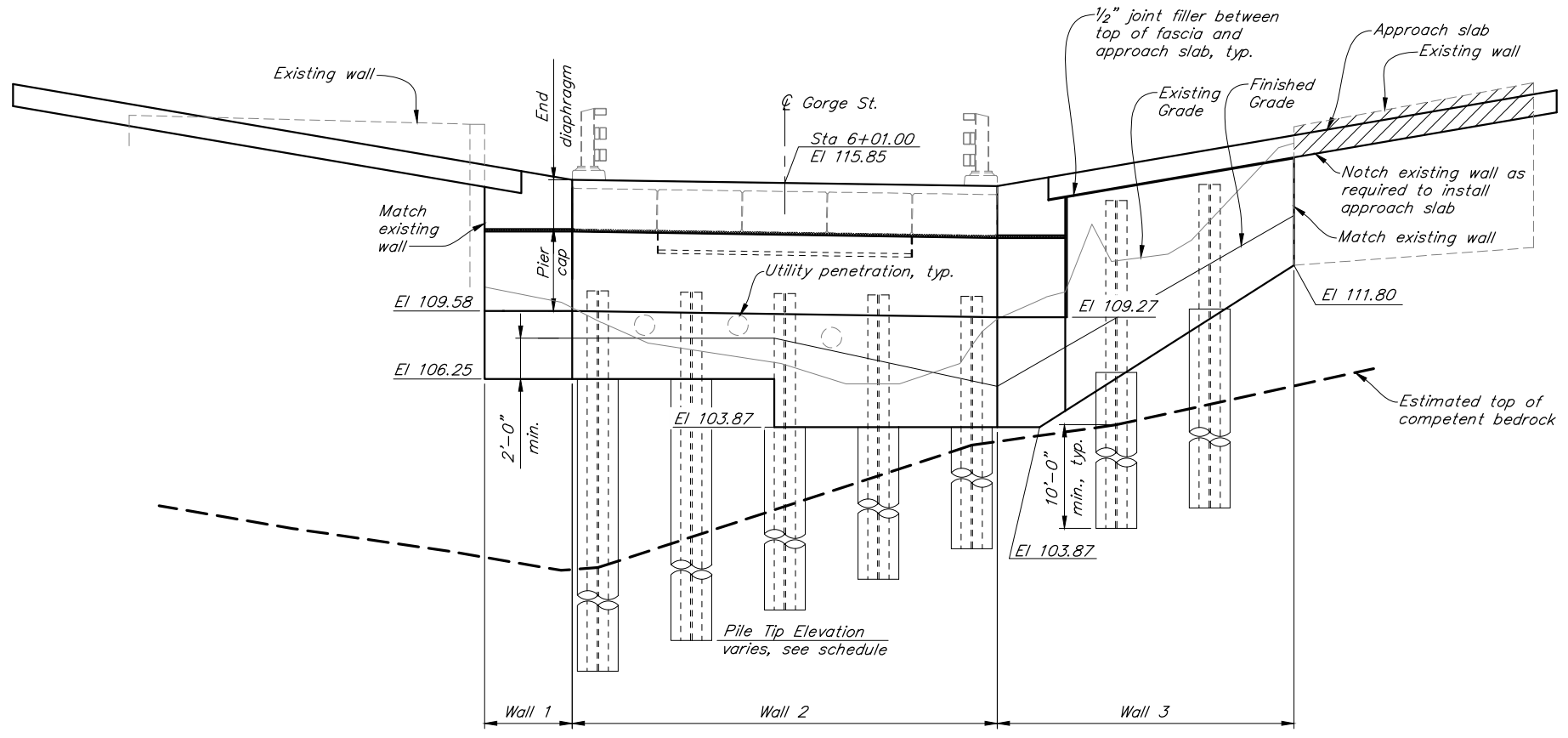
**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**FOUNDATION DETAILS**

BRIDGE NO. 1841  
DWG. NO. N6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2022	7	40



**ABUTMENT I PLAN**  
 12 0 2 4 6 8  
 In. Feet



**ABUTMENT I DEVELOPED ELEVATION**  
 12 0 2 4 6 8  
 In. Feet

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STATE OF ALASKA  
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 BRIDGE SECTION



**SAYLES - GORGE STREET VIADUCT**  
 SAYLES ST & GORGE ST  
**ABUTMENT 1 LAYOUT**



BRIDGE NO. 1841  
 DWG. NO. N7

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

02/14/23 | 1:47 PM | RICKT  
 V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N07 Abutment 1 Layout.dwg

SOLDIER PILE SCHEDULE						
Wall	Pile mark	Pile size	Shaft diameter	PILE ELEVATION		
				Top	Estimated Tip*	Estimated Top intact rock **
2	2A	W12x152	2'-0"	112.00	87.00	97.00
2	2B	W12x152	2'-0"	112.00	88.50	98.50
2	2C	W12x152	2'-0"	112.00	90.00	100.00
2	2D	W12x152	2'-0"	112.00	91.50	101.50
2	2E	W12x152	2'-0"	112.00	93.00	103.00
3	3A	W12x152	2'-0"	116.00	94.00	104.00
3	3B	W12x152	2'-0"	117.00	95.00	105.00

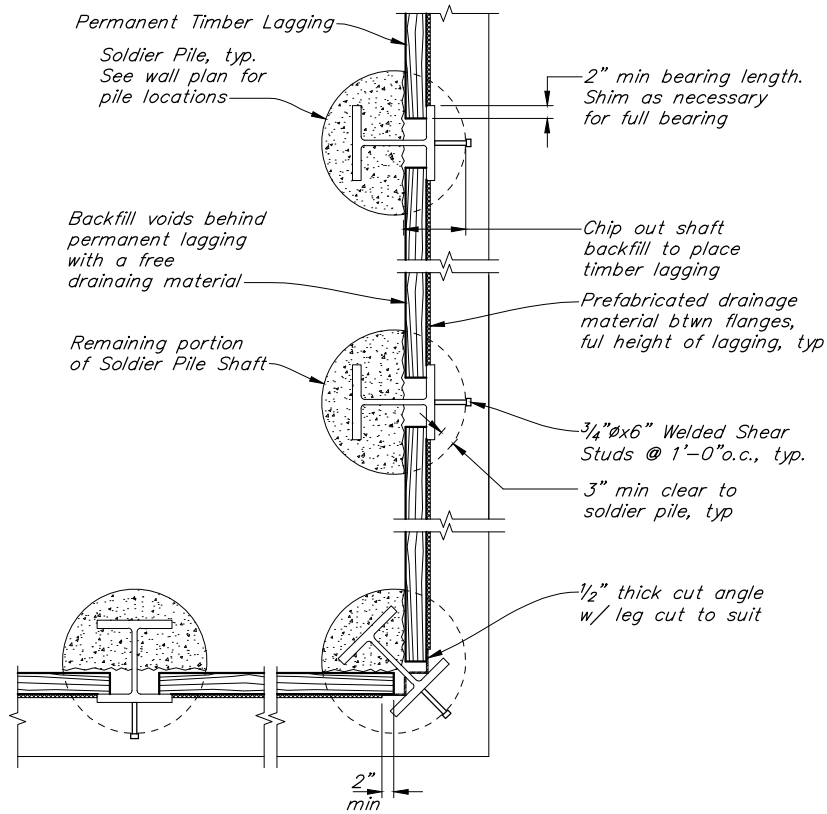
**SOLDIER PILE NOTES:**

\* Minimum embedment of 10'-0" into intact rock. Piles shall be ordered minimum 5' long to accommodate unknown rock depths.

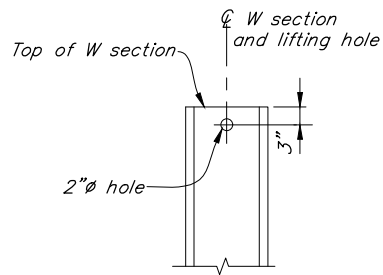
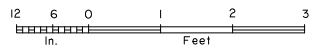
\*\* Top of intact rock may vary. Elevation estimated based on geotechnical recommendations. See construction sequence below.

**SOLDIER PILE CONSTRUCTION SEQUENCE:**

1. Drill to intact rock.
2. If intact rock elevation differs from table value by more than 2 feet, contact Engineer.
3. Drill additional 10'.
4. Cut bottom of pile to achieve top elevation per table.
5. Place pile.
6. Place shaft concrete.
7. Install lagging fascia.

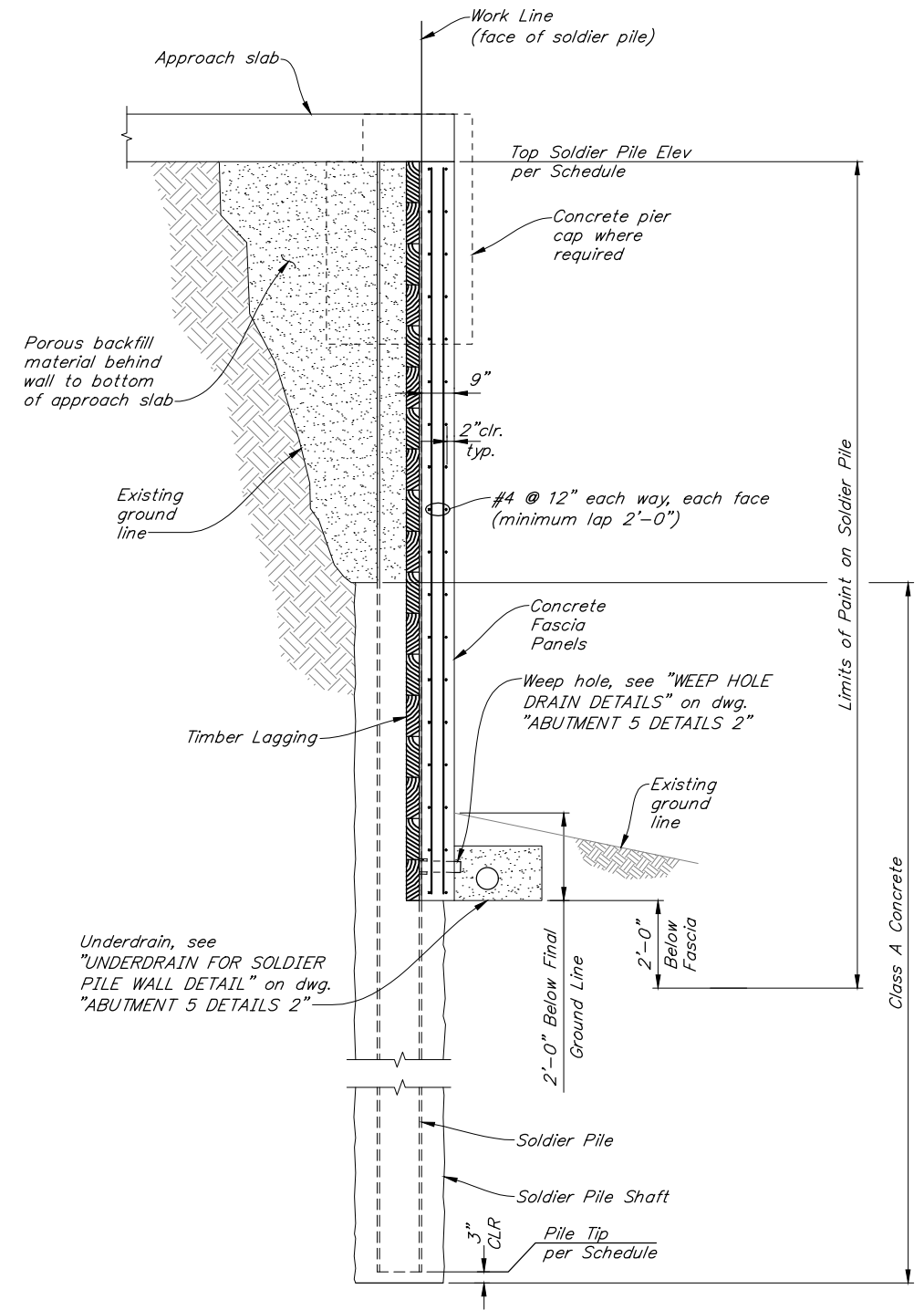
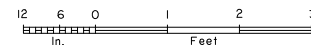


TYPICAL SOLDIER PILE WALL PLAN

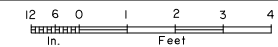


Note: Lifting hole shall be drilled in the shop prior to painting the pile.

**SOLDIER PILE LIFTING HOLE**



TYPICAL SOLDIER PILE WALL SECTION



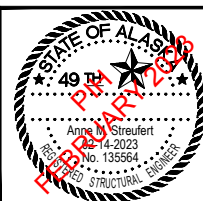
**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**

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DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



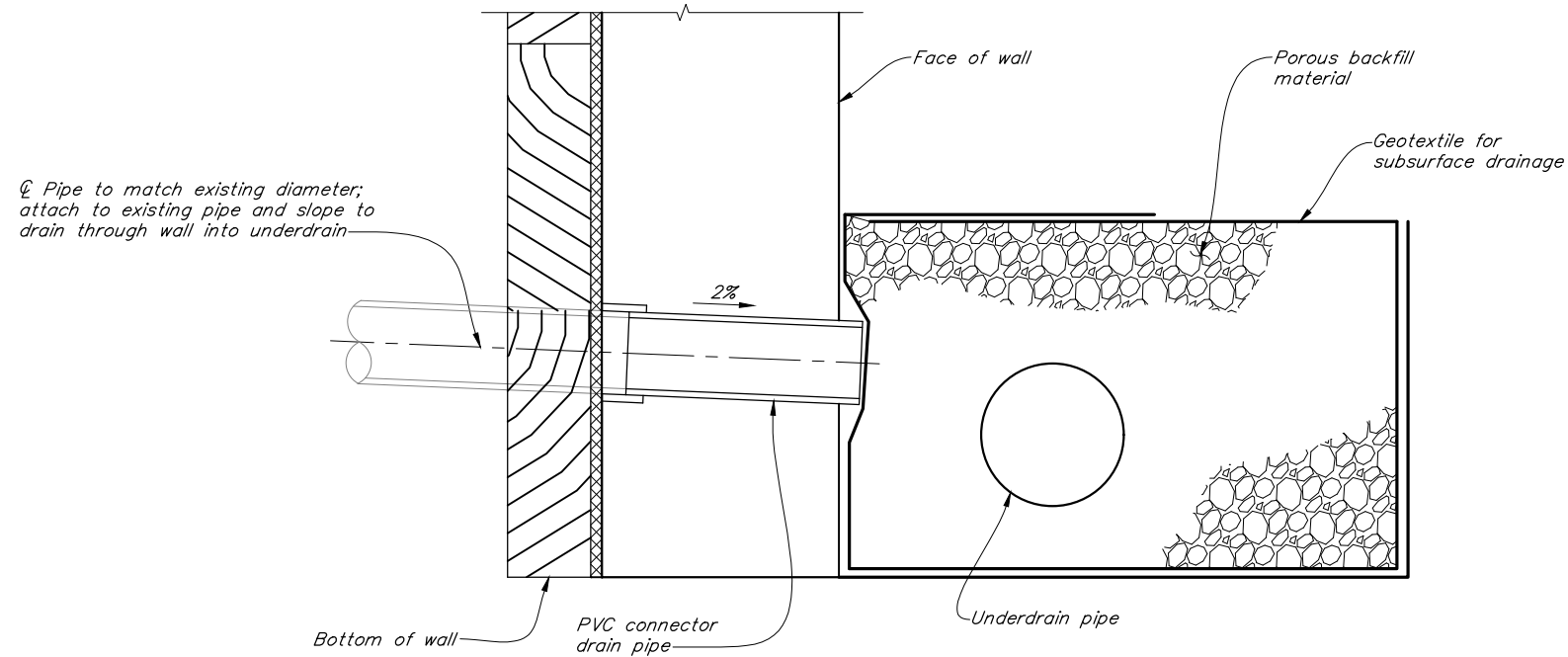
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**ABUTMENT 1 DETAILS 1**



BRIDGE NO. 1841  
DWG. NO. N8

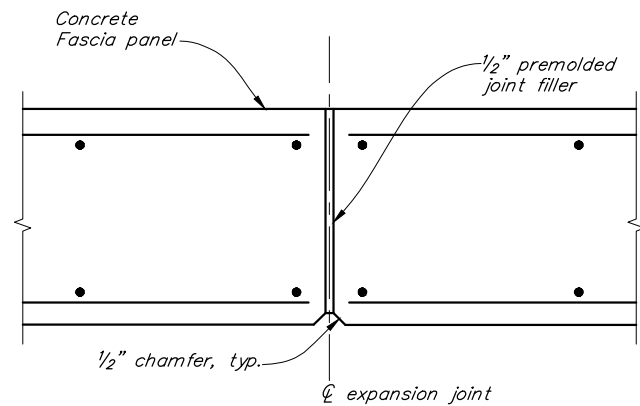
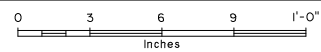


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	9	40



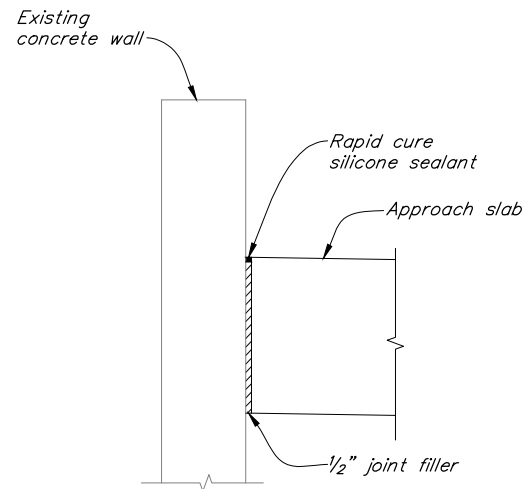
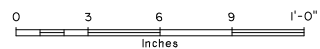
Note: See "ABUTMENT 5 DETAILS" for information not shown.

**DRAIN EXTENSION AT SOLDIER PILE WALL**

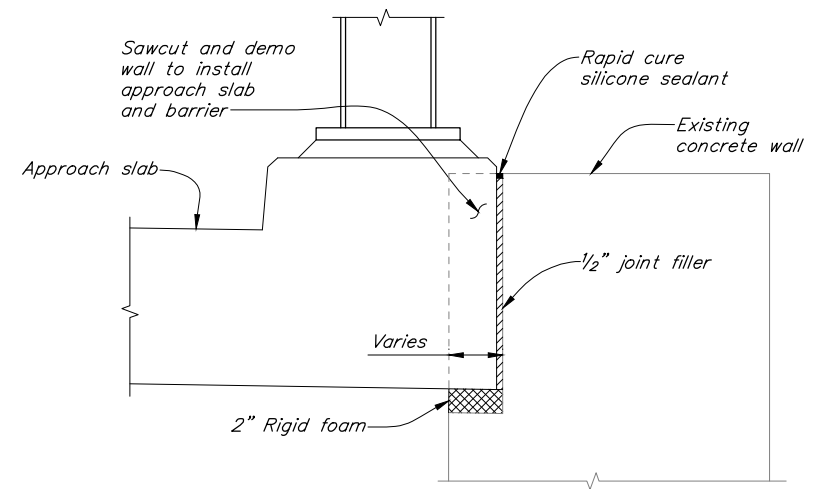
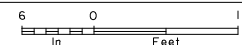


NOTES:  
1. See "ABUTMENT 1 LAYOUT" for location of expansion joints.

**TYPICAL EXPANSION JOINT DETAIL**



**WEST WALL SECTION A-A**



**EAST WALL SECTION B-B**



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V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-A08 Abutment 1 Details 2.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

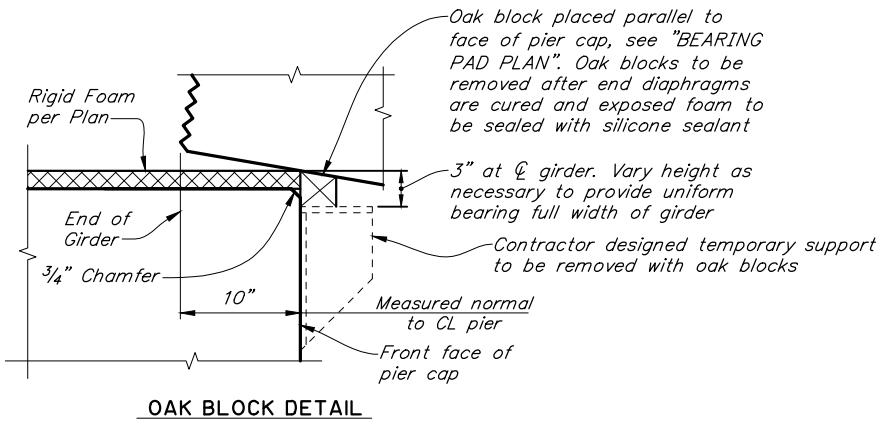
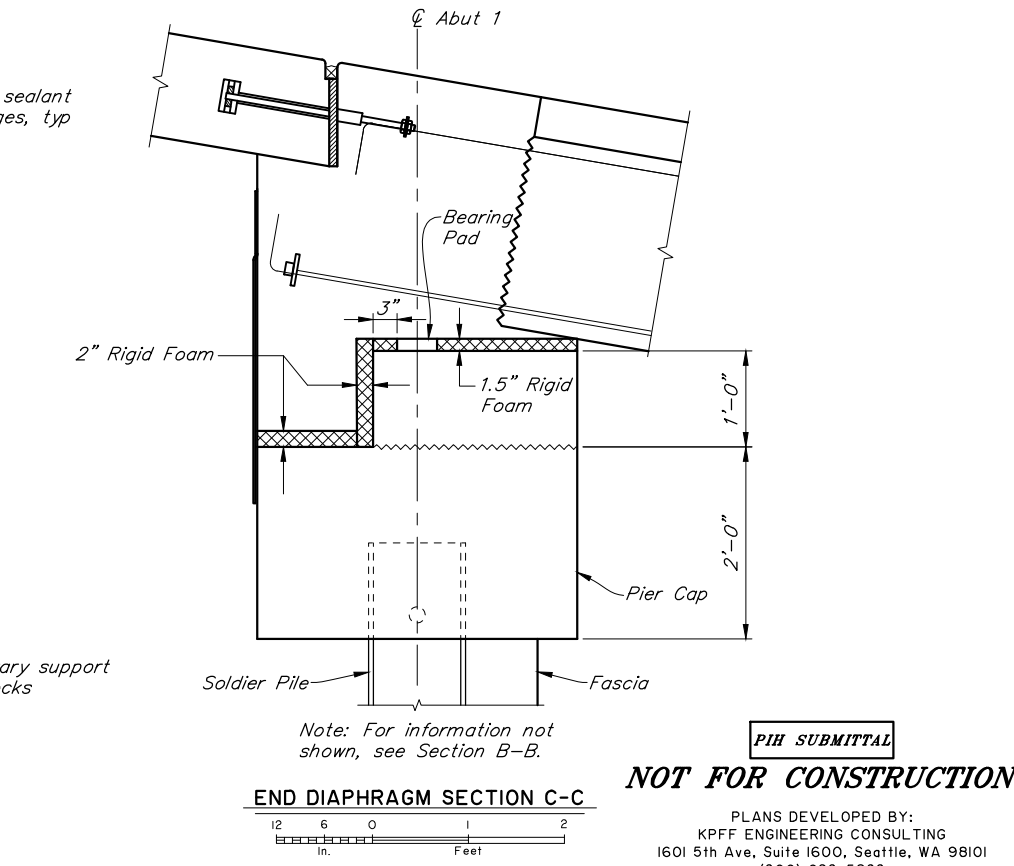
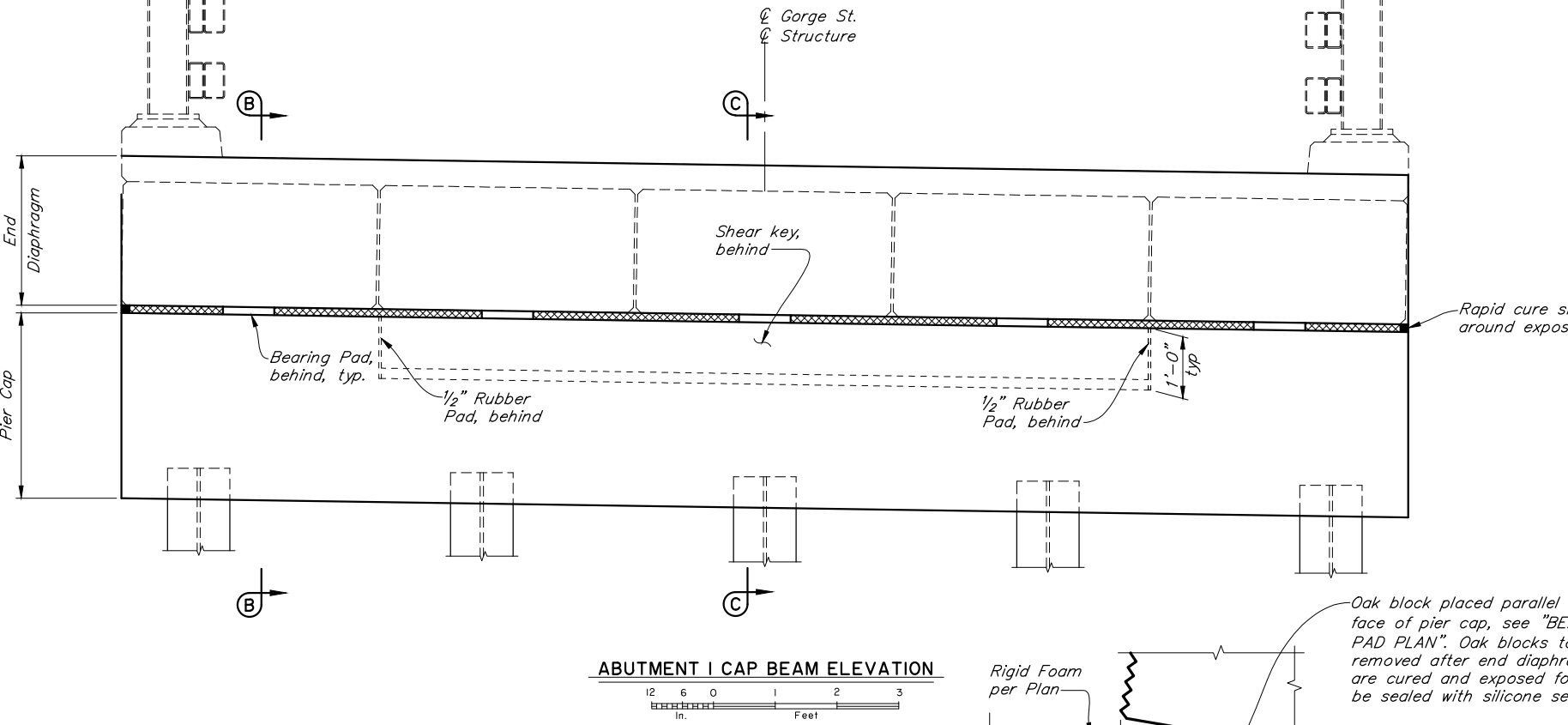
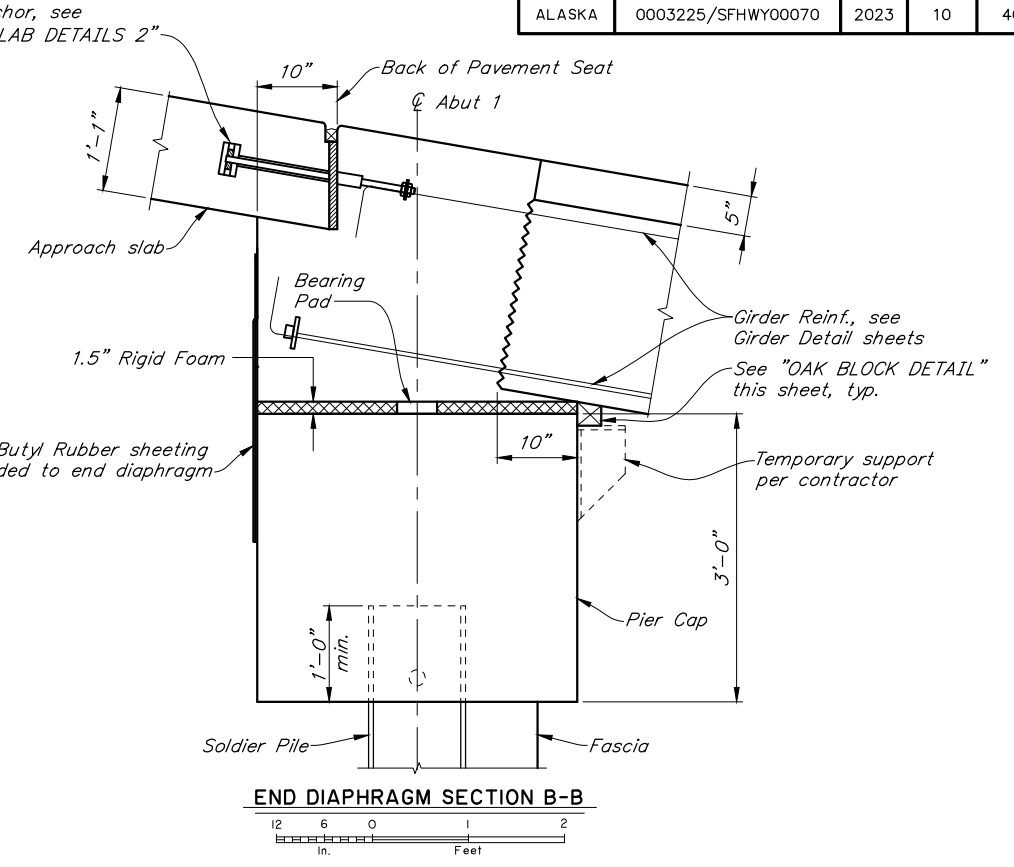
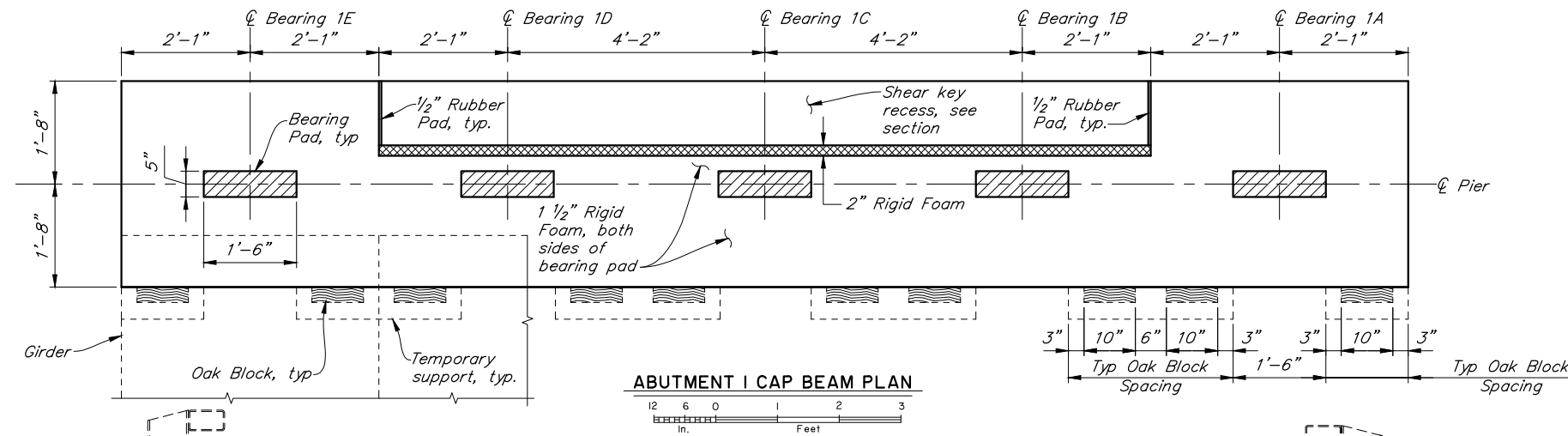


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**ABUTMENT 1 DETAILS 2**



BRIDGE NO. 1841  
DWG. NO. N9

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	10	40



GIRDER BLOCKING ELEVATIONS									
GIRDER 1E		GIRDER 1D		GIRDER 1C		GIRDER 1B		GIRDER 1A	
R	L	R	L	R	L	R	L	R	L
113.28	113.22	113.20	113.14	113.11	113.06	113.03	112.97	112.95	112.89

02/14/23 | 1:49 PM | RICKT V:\1802039\Sayles-Gorge Viaduct\02\_Design (v2019)\SGV-N10 Abutment 1 Cap Details 1.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



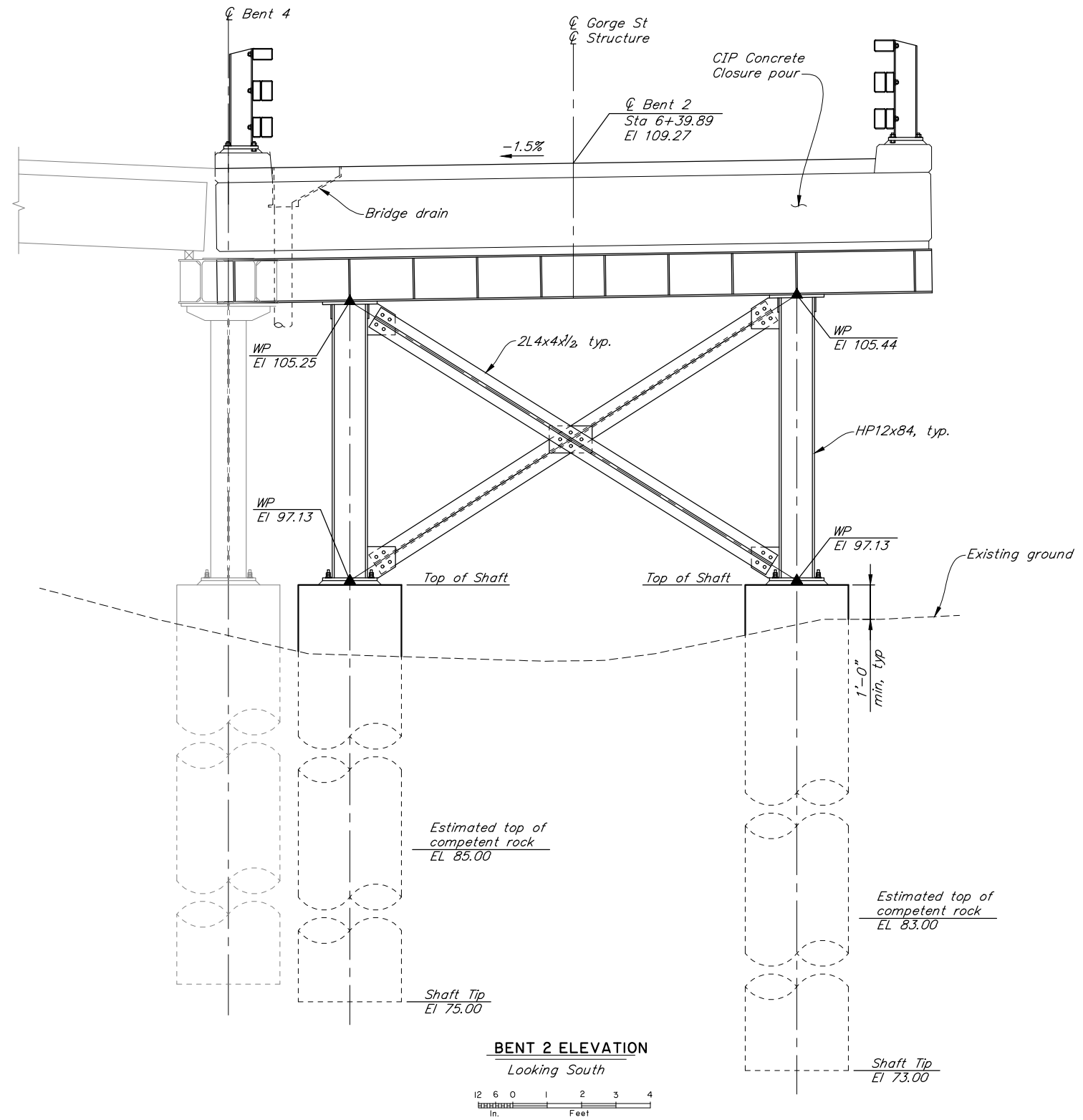
**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**ABUTMENT 1 CAP DETAILS 1**

BRIDGE NO. 1841  
DWG. NO. NIO

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHwy00070	2023	12	40



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DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION

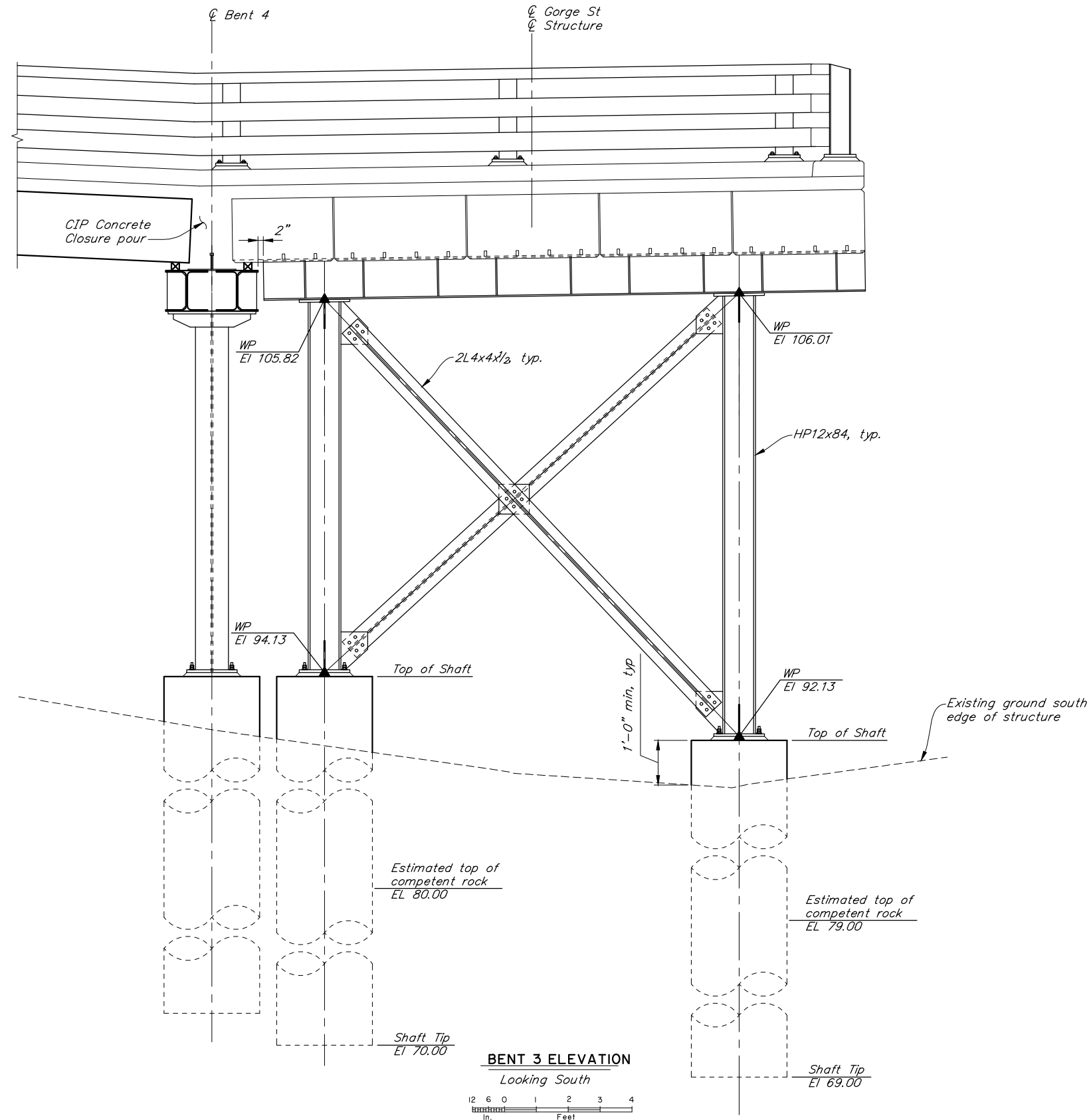


**SAYLES/GORGE ST. VIADUCT**  
 SAYLES ST & GORGE ST  
**BENT 2 LAYOUT**



BRIDGE NO. 1841  
 DWG. NO. N12

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	13	40



**BENT 3 ELEVATION**  
Looking South

12 6 0 1 2 3 4  
In. Feet

**PIH SUBMITTAL**  
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V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N13 Bent 3 Layout.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

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DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



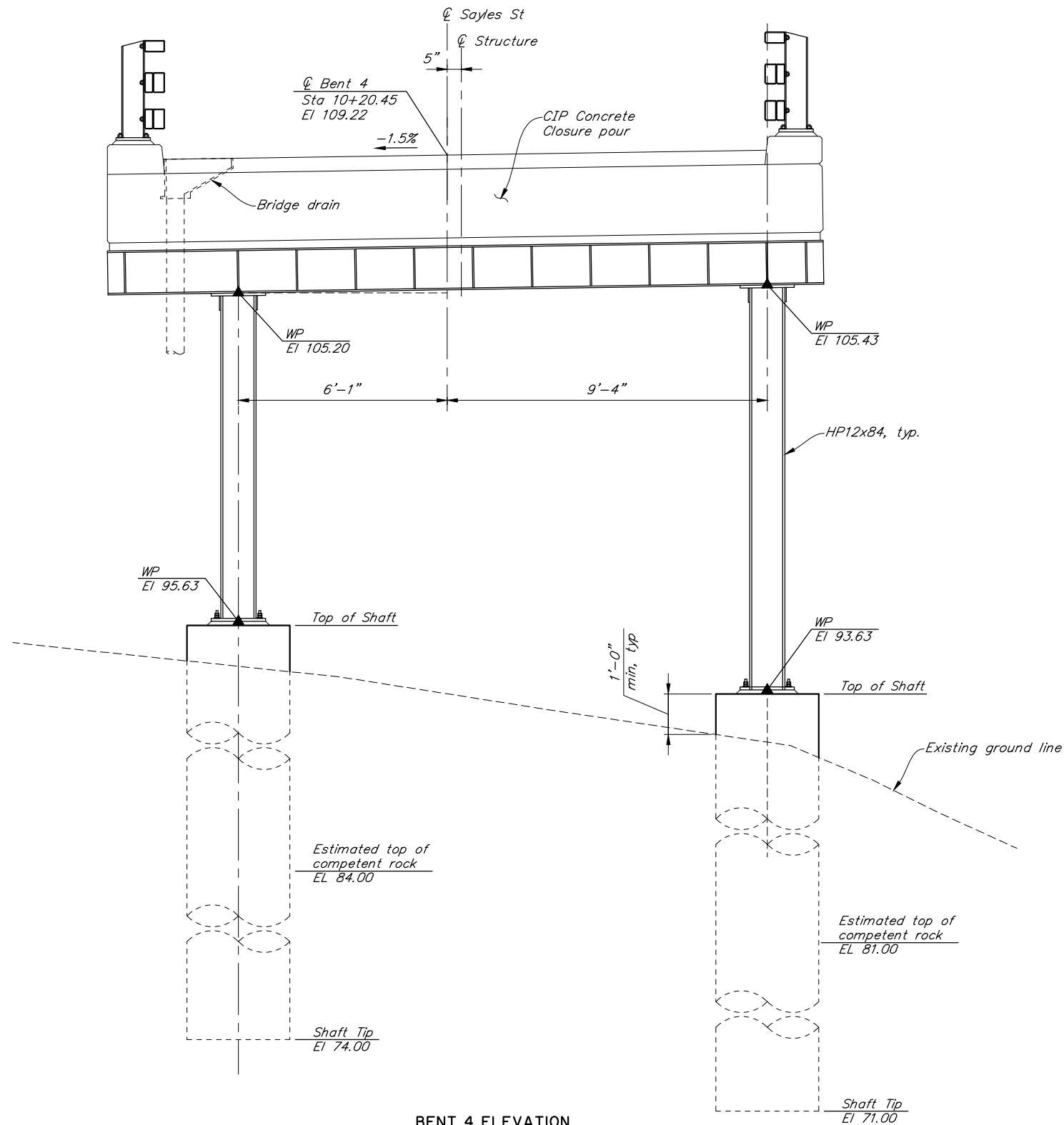
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BENT 3 LAYOUT**



BRIDGE NO. 1841  
DWG. NO. NI3



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHwy00070	2023	14	40



**BENT 4 ELEVATION**  
Looking East  
12 6 0 1 2 3 4  
In. Feet

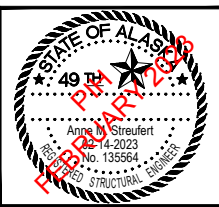
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**NOT FOR CONSTRUCTION**

PLANS DEVELOPED BY:  
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V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N14 Bent 4 Layout.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

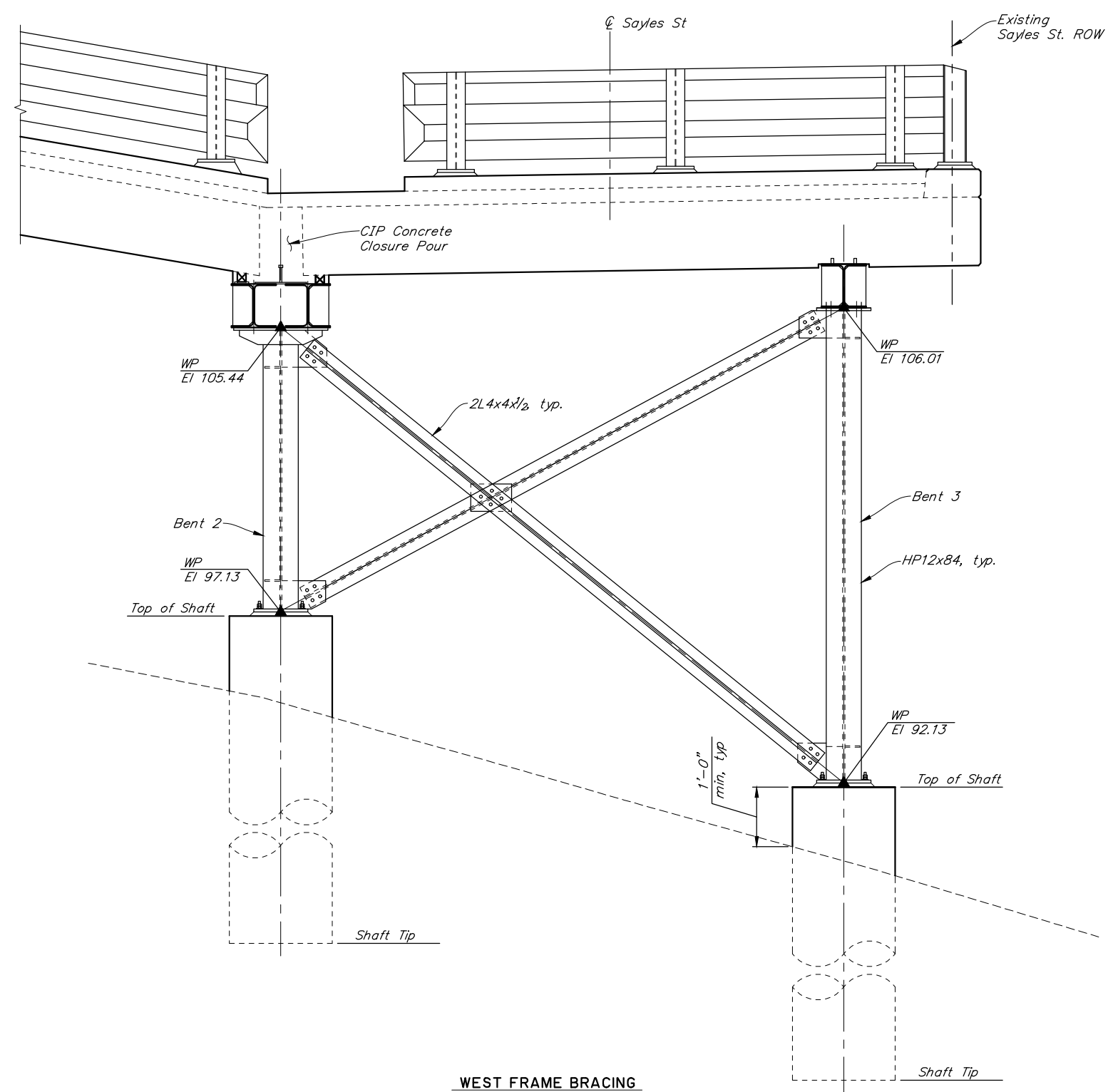
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BENT 4 LAYOUT**

  
BRIDGE NO. 1841  
DWG. NO. NI4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFH00070	2023	15	40



**WEST FRAME BRACING**  
Looking East  
12 6 0 1 2 3 4  
in. Feet

**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**

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02/14/23 | 1:51 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N15 Tower View West.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

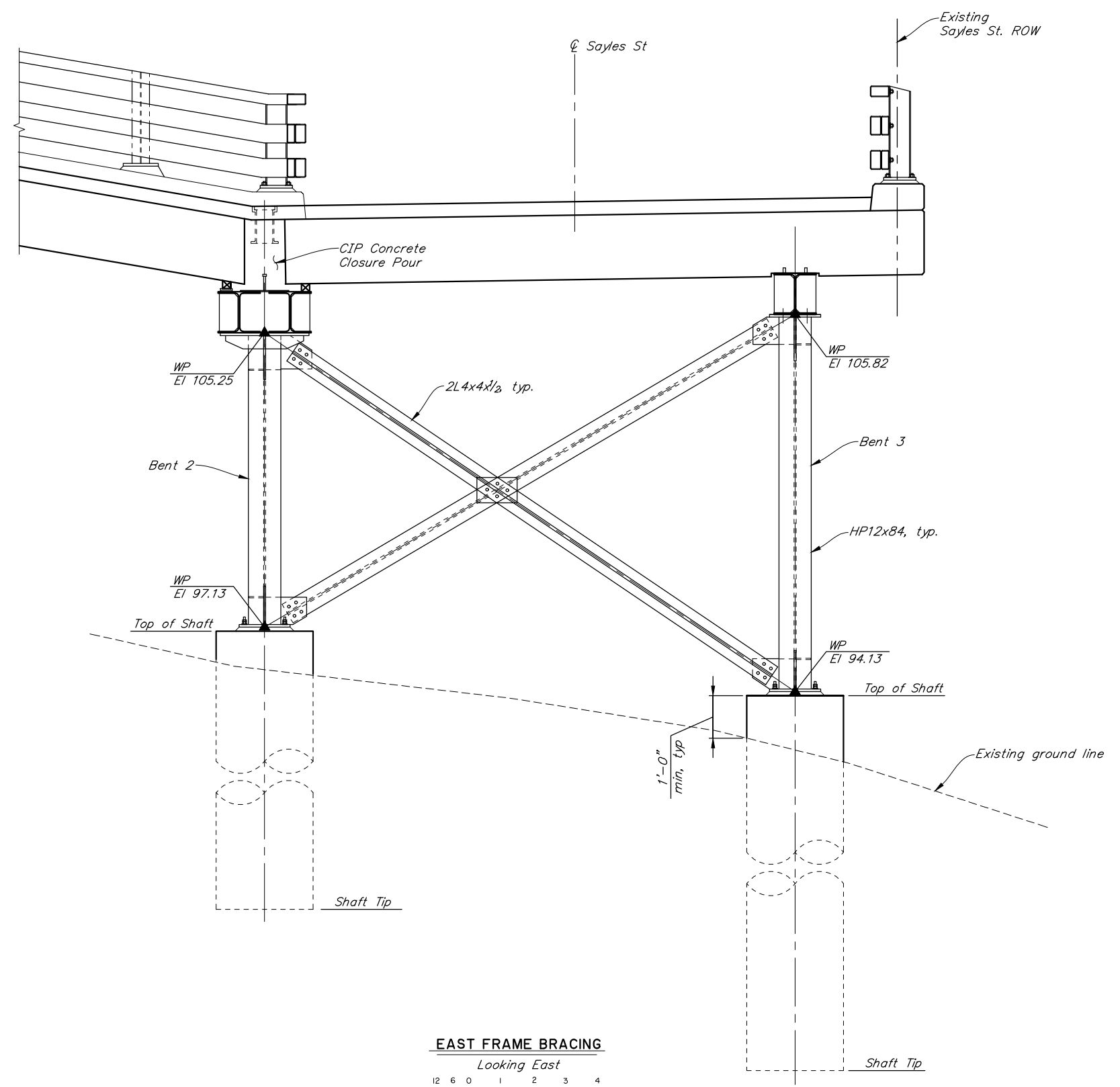


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**WEST FRAME BRACING**



BRIDGE NO. 1841  
DWG. NO. NI5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWHY00070	2023	16	40



**EAST FRAME BRACING**  
Looking East

**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**

PLANS DEVELOPED BY:  
KPFF ENGINEERING CONSULTING  
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(206) 622-5822


02/14/23 | 1:52 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N16 Tower View East.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

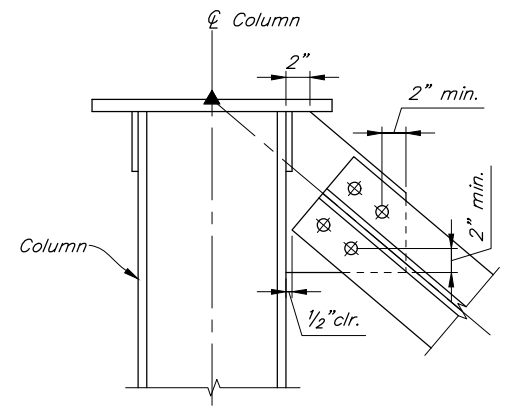
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



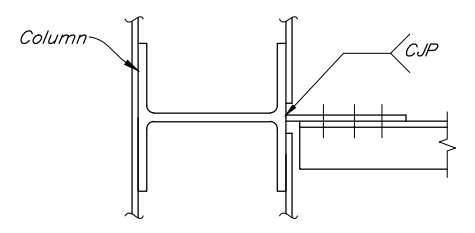
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**EAST FRAME BRACING**

  
BRIDGE NO. 1841  
DWG. NO. N16

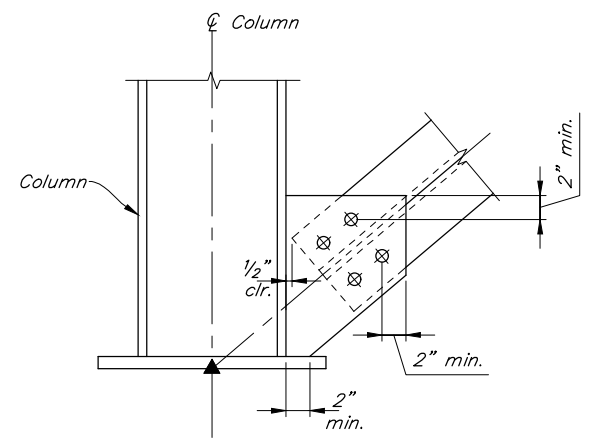
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	17	40



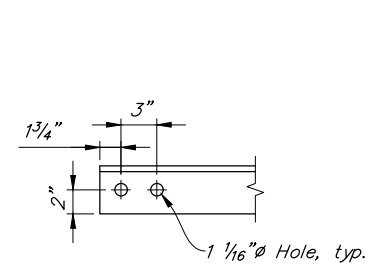
**TOP COLUMN BRACE DETAIL**



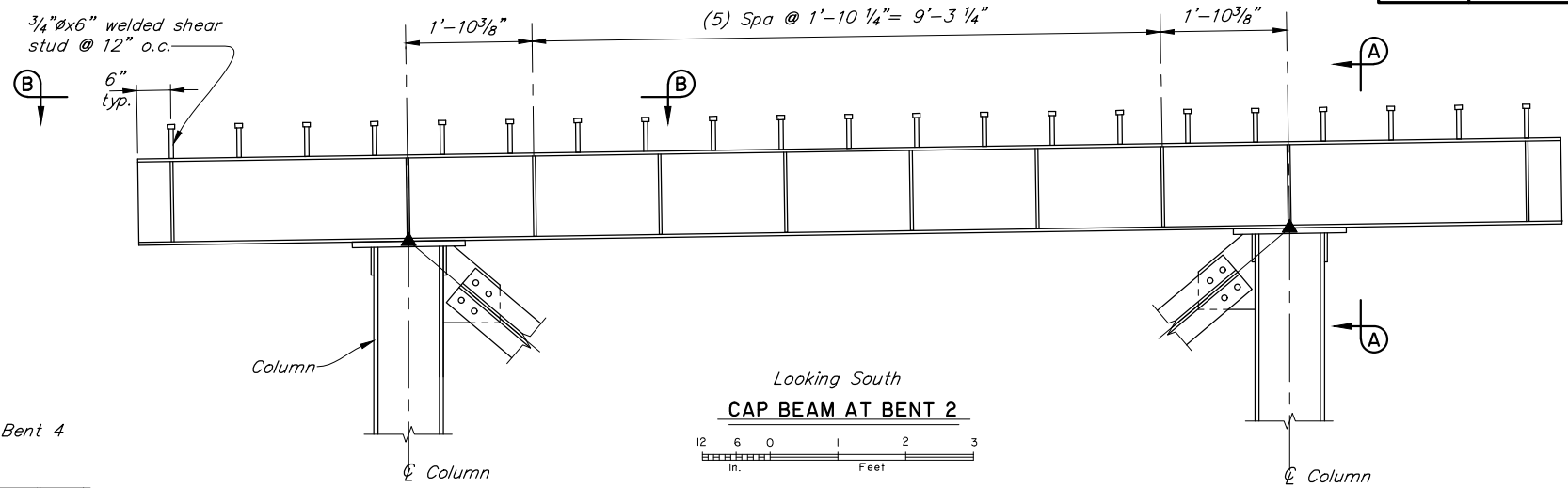
**TOP COLUMN BRACE SECTION**



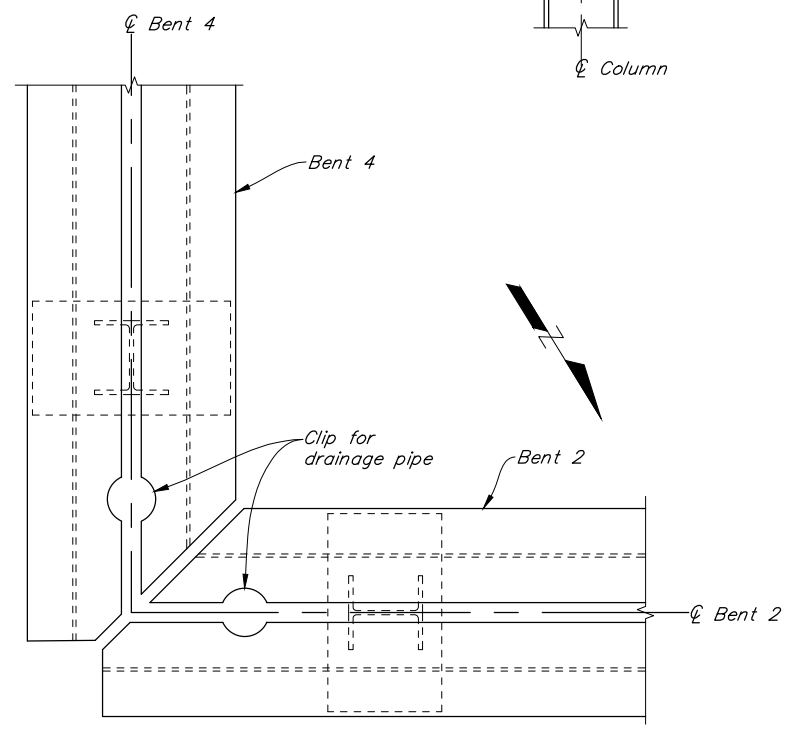
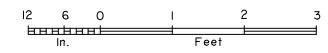
**BOTTOM COLUMN BRACE DETAIL**



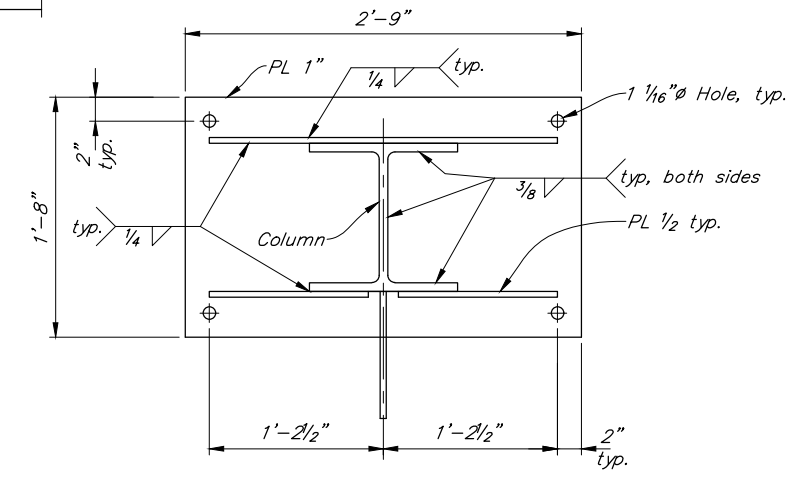
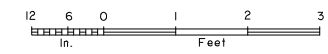
**TYPICAL ANGLE BRACE END**



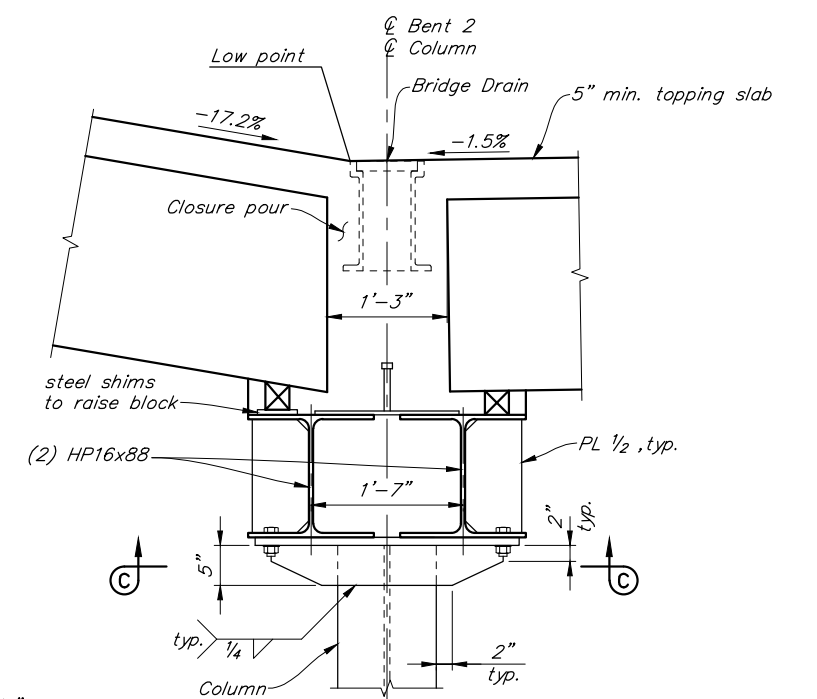
**Looking South  
CAP BEAM AT BENT 2**



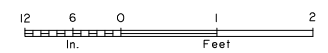
**PLAN VIEW B-B**



**SECTION C-C**



**SECTION A-A**



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NOT FOR CONSTRUCTION**

PLANS DEVELOPED BY:  
KPF ENGINEERING CONSULTING  
1601 5th Ave, Suite 1600, Seattle, WA 98101  
(206) 622-5822

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BENT DETAILS 1**

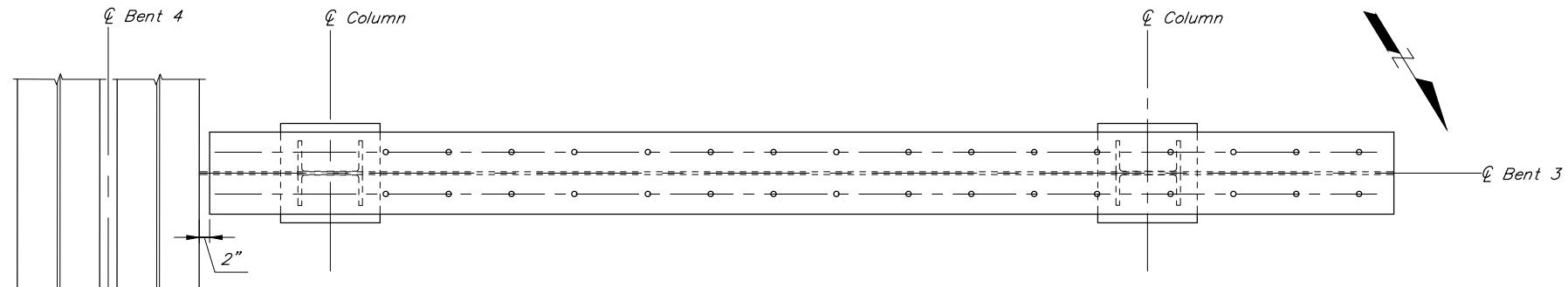


BRIDGE NO. 1841  
DWG. NO. N17

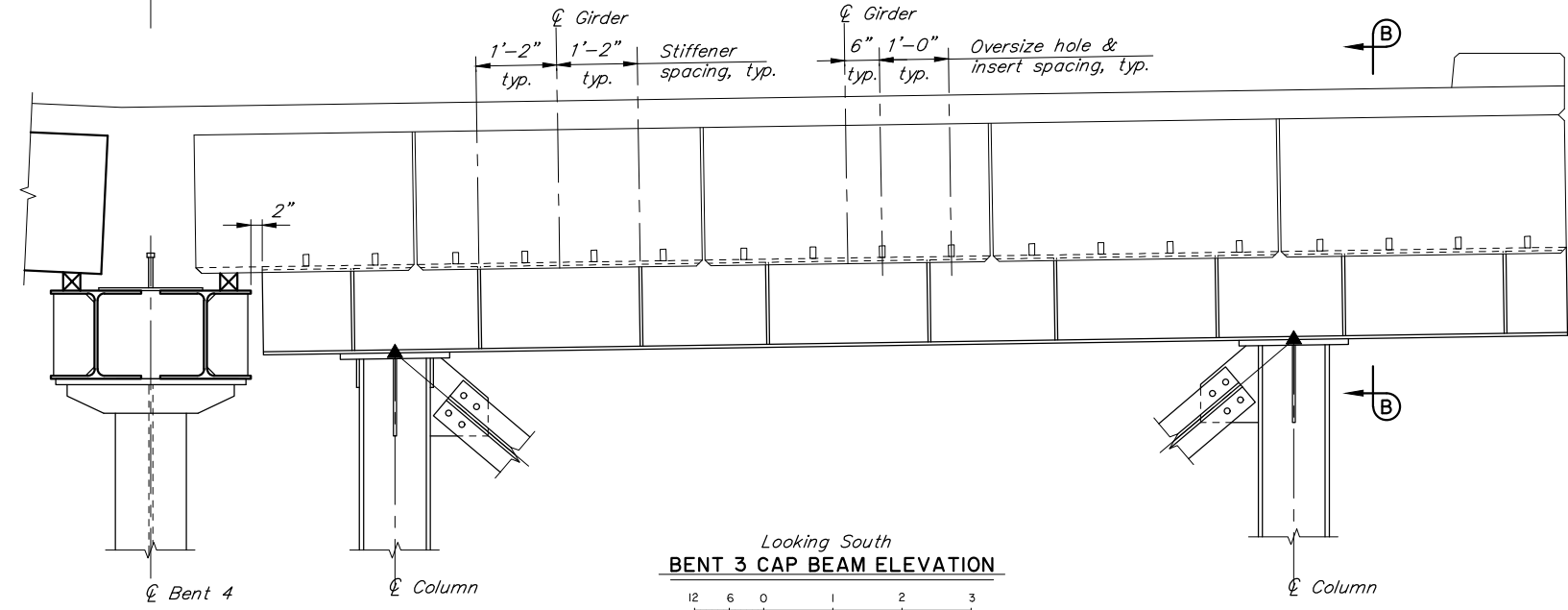
02/14/23 | 1:52 PM | RICKT  
V:\1802039 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N17 Bent Details 1.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

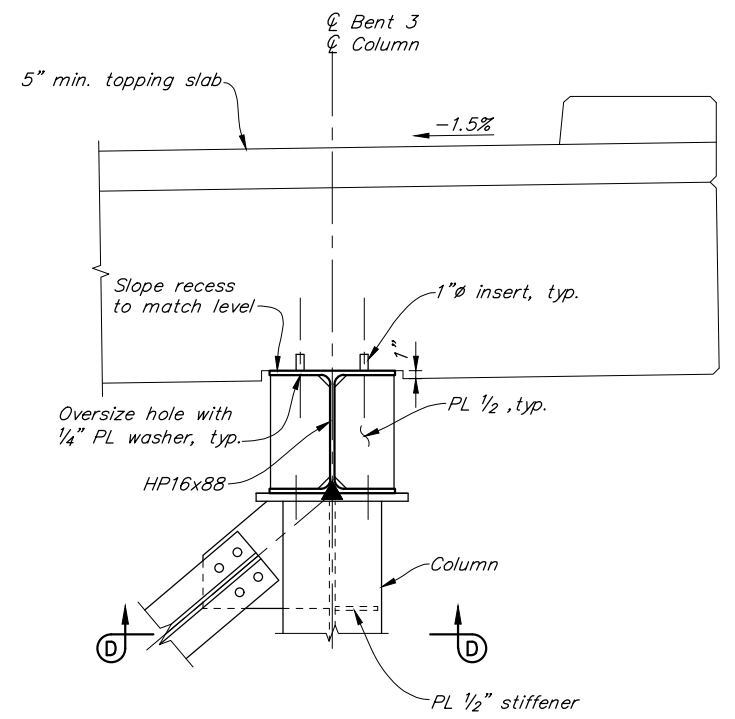
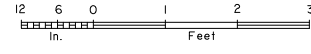
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHXY00070	2023	18	40



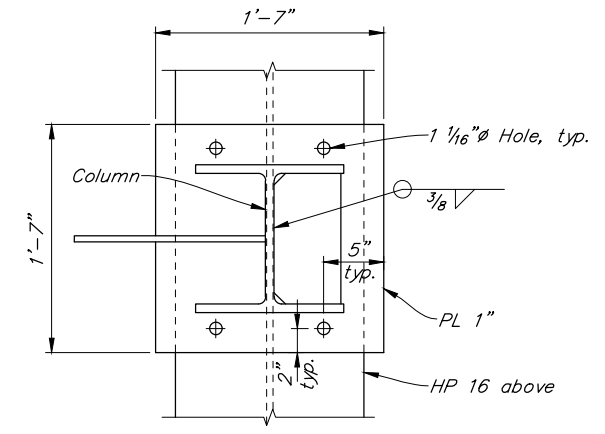
**BENT 3 CAP BEAM PLAN**



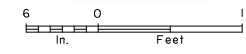
**Looking South  
BENT 3 CAP BEAM ELEVATION**



**SECTION B-B**



**SECTION D-D**



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**NOT FOR CONSTRUCTION**

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02/14/23 | 1:52 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N18 Bent Details 2.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



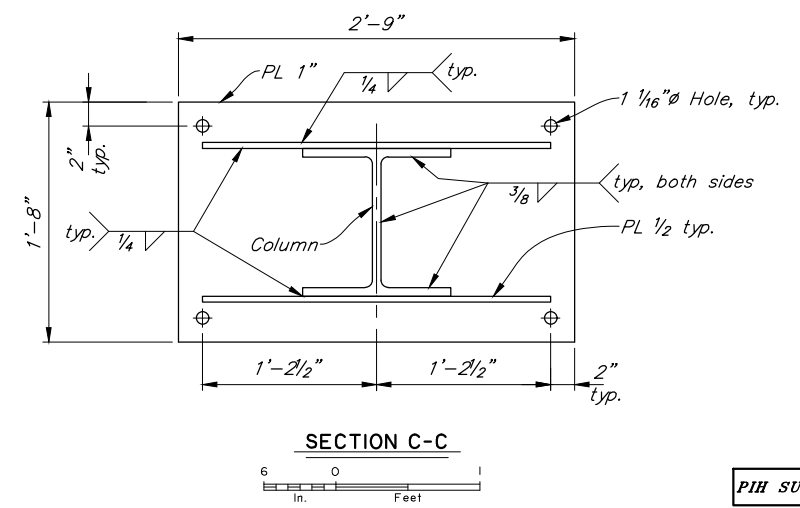
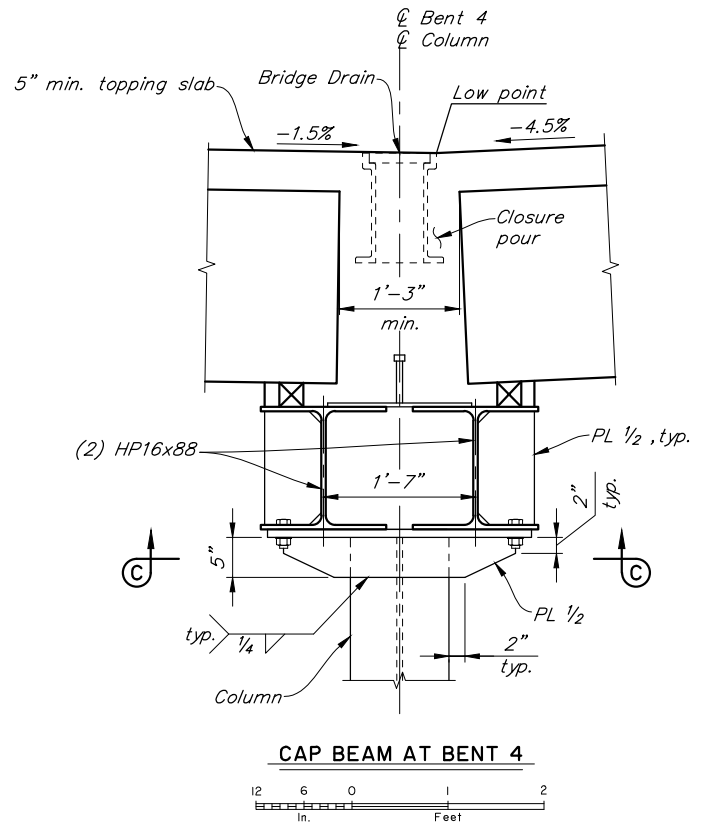
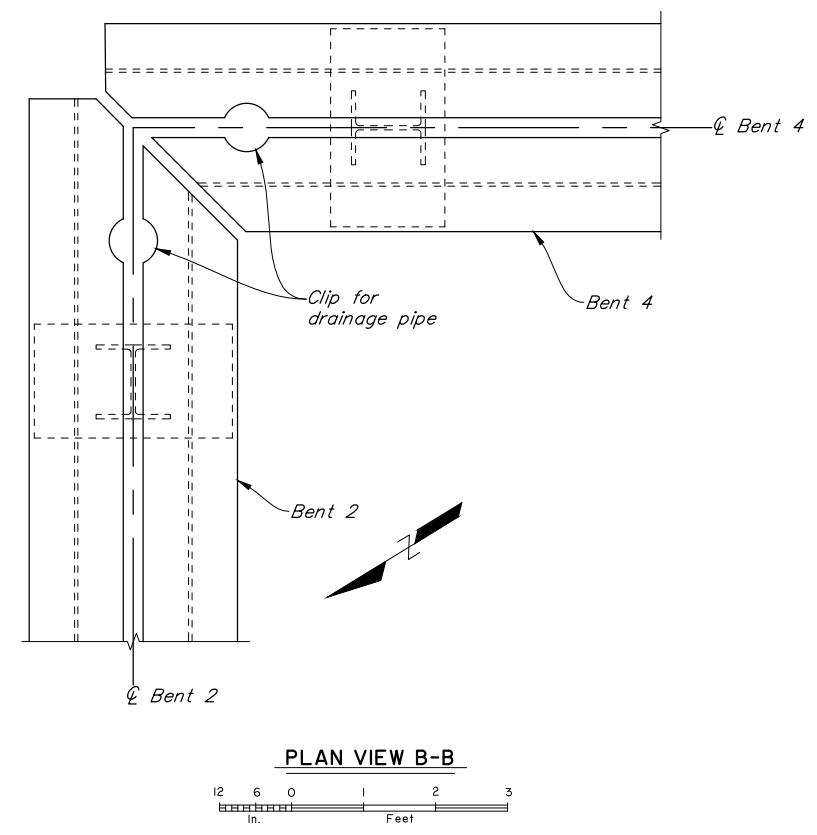
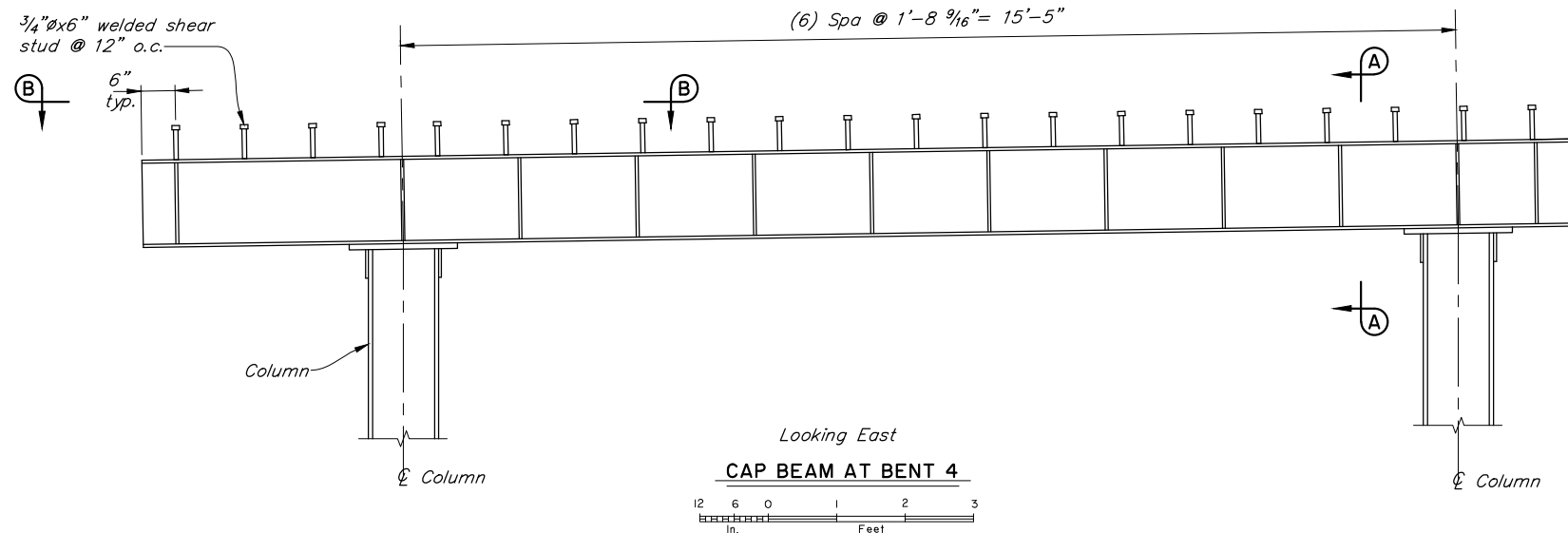
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BENT DETAILS 2**



BRIDGE NO. 1841  
DWG. NO. N18



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	19	40



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02/14/23 | 1:53 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N19 Bent Details 3.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

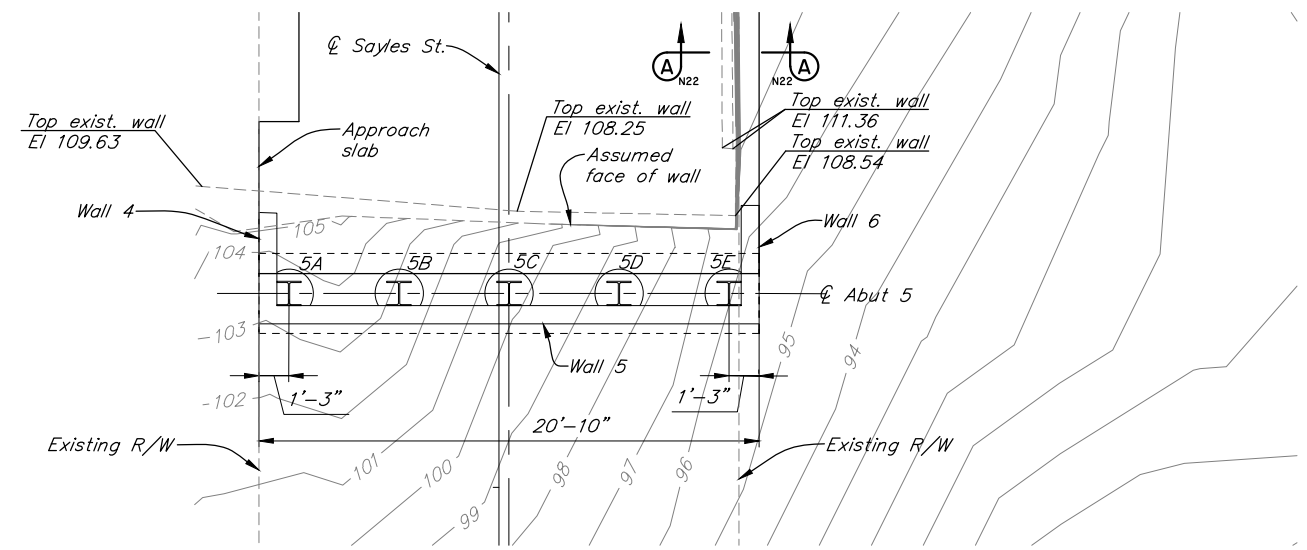
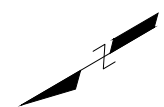


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**BENT DETAILS 3**

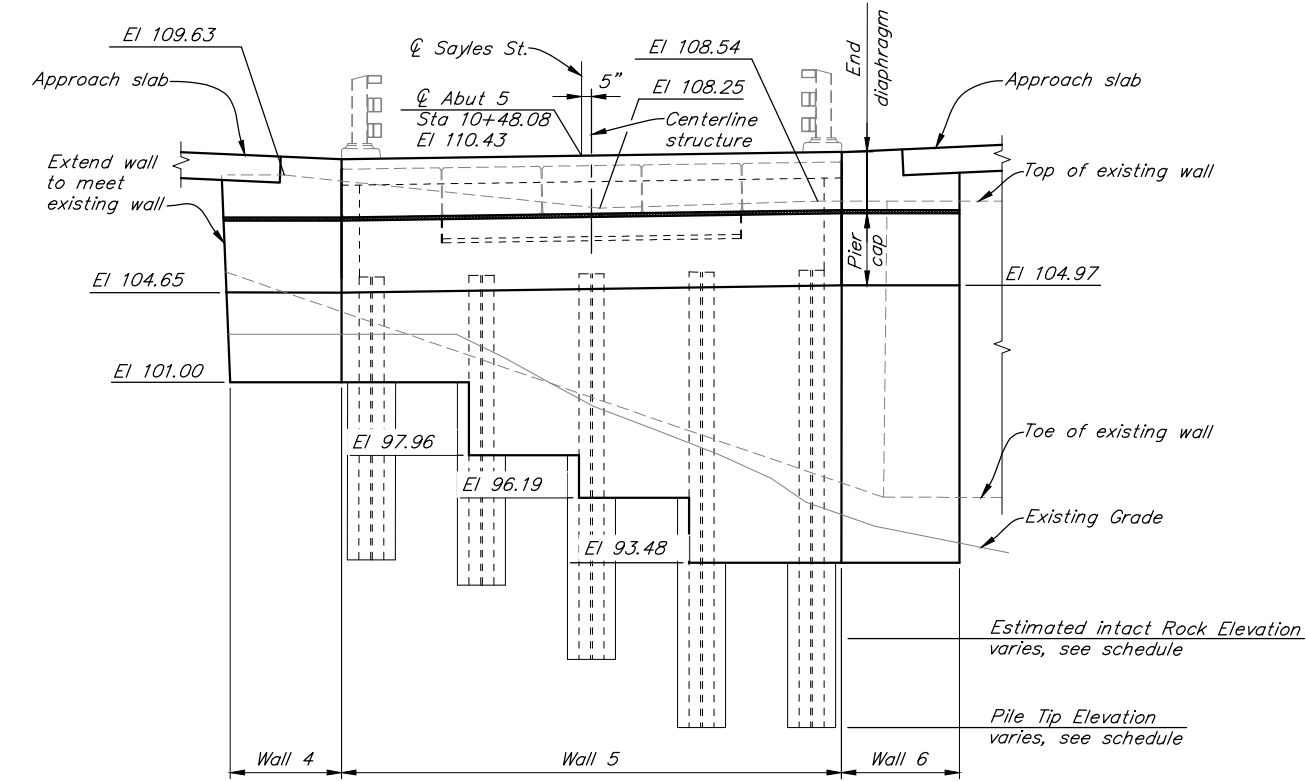


BRIDGE NO. 1841  
DWG. NO. N19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHwy00070	2023	20	40



**ABUTMENT 5 PLAN**  
 12 0 2 4 6 8  
 In. Feet



**ABUTMENT 5 DEVELOPED ELEVATION**  
 12 0 2 4 6 8  
 In. Feet

**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**

PLANS DEVELOPED BY:  
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 (206) 622-5822

02/14/23 | 1:53 PM | RICKT  
 V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N20 Abutment 5 Layout.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION



**SAYLES - GORGE STREET VIADUCT**  
 SAYLES ST & GORGE ST  
**ABUTMENT 5 LAYOUT**

  
 BRIDGE NO. 1841  
 DWG. NO. N20

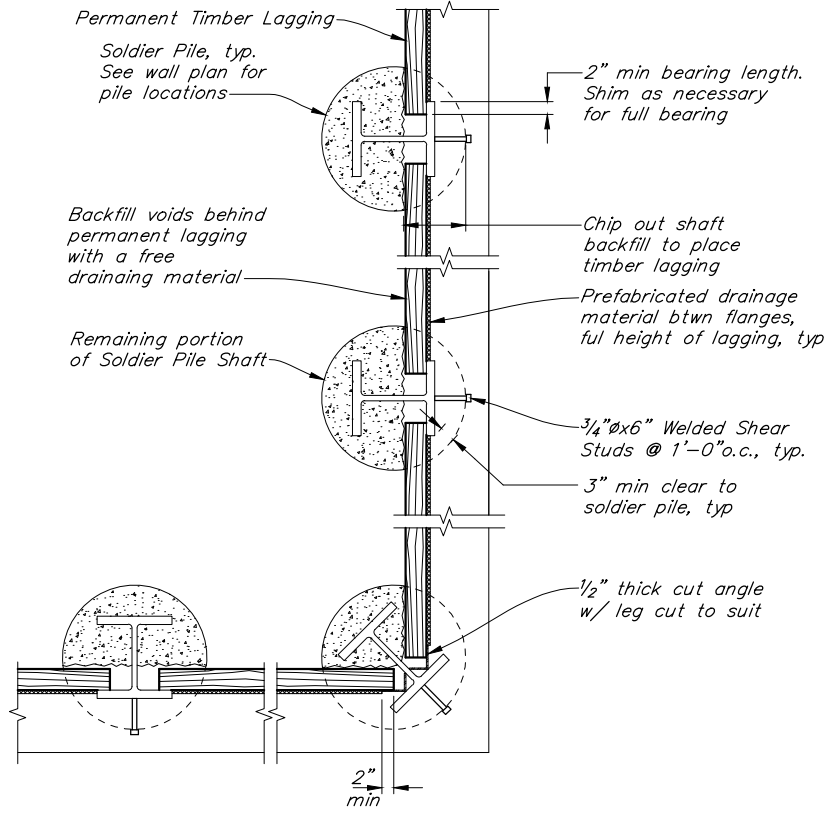
SOLDIER PILE SCHEDULE						
Wall	Pile mark	Pile size	Shaft diameter	PILE ELEVATION		
				Top	Estimated Tip*	Estimated Top intact rock
4	5A	W12x152	2'-0"	106.00	82.00	92.00
4	5B	W12x152	2'-0"	106.00	92.00	92.00
4	5C	W12x152	2'-0"	106.00	91.00	91.00
4	5D	W12x152	2'-0"	106.00	90.00	90.00
4	5E	W12x152	2'-0"	106.00	89.00	89.00

**SOLDIER PILE NOTES:**

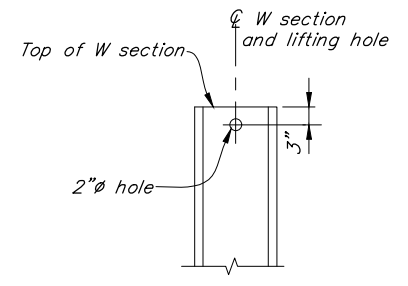
- \* Minimum embedment of 10'-0" into intact rock. Piles shall be ordered minimum 5' long to accommodate unknown rock depths.
- \*\* Top of intact rock may vary. Elevation estimated based on geotechnical recommendations. See construction sequence below.

**SOLDIER PILE CONSTRUCTION SEQUENCE:**

1. Drill to intact rock.
2. If intact rock elevation differs from table value by more than 2 feet, contact Engineer.
3. Drill additional 10'.
4. Cut bottom of pile to achieve top elevation per table.
5. Place pile.
6. Place shaft concrete.
7. Install lagging fascia.

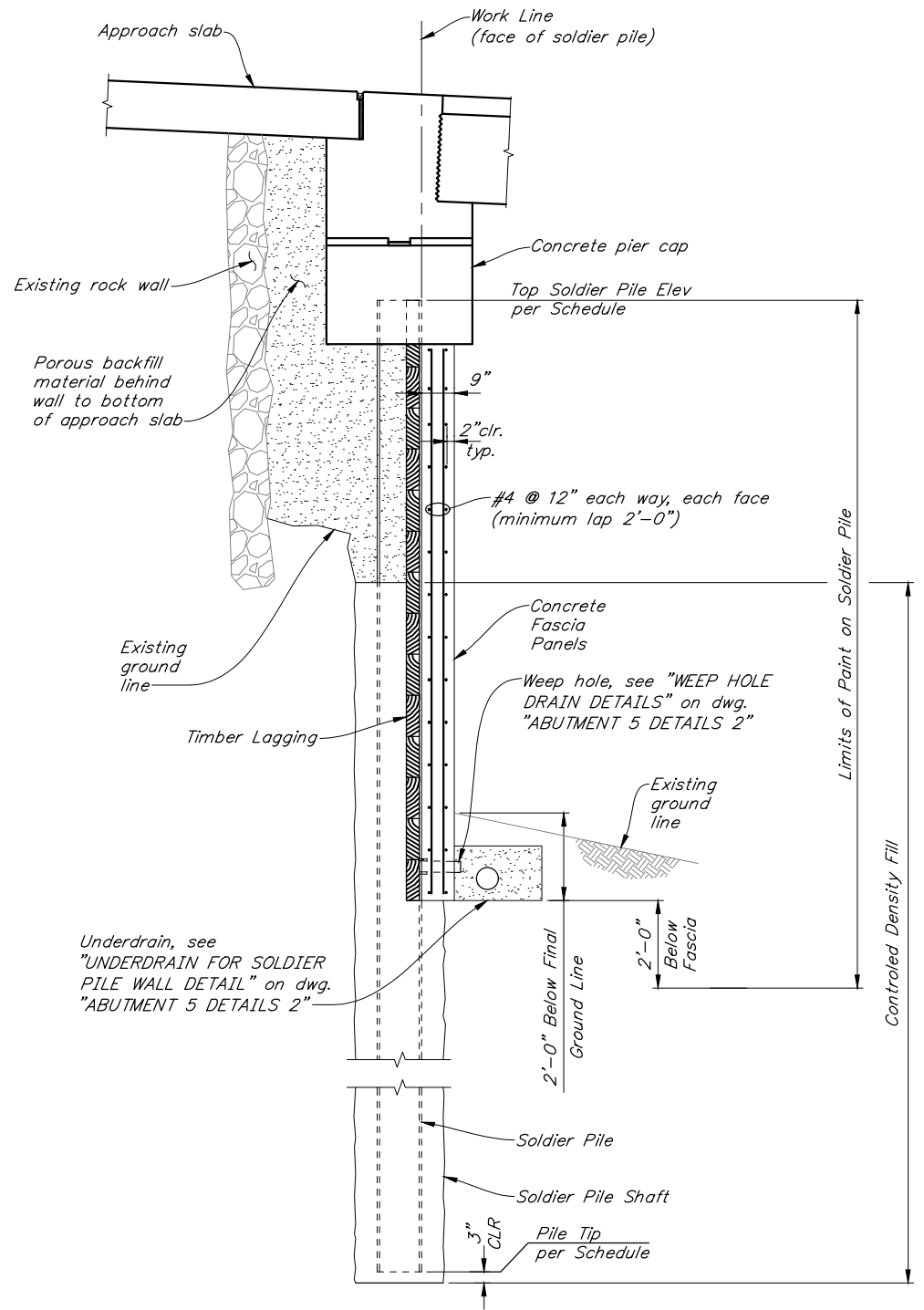


TYPICAL SOLDIER PILE WALL PLAN

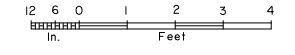


Note: Lifting hole shall be drilled in the shop prior to painting the pile.

**SOLDIER PILE LIFTING HOLE**



TYPICAL SOLDIER PILE WALL SECTION



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**NOT FOR CONSTRUCTION**

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(206) 622-5822

02/14/23 | 1:54 PM | RICKT V:\1802039\Sayles-Gorge Viaduct\02\_Design (v2019)\SGV\N21 Abutment 5 Details 1.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

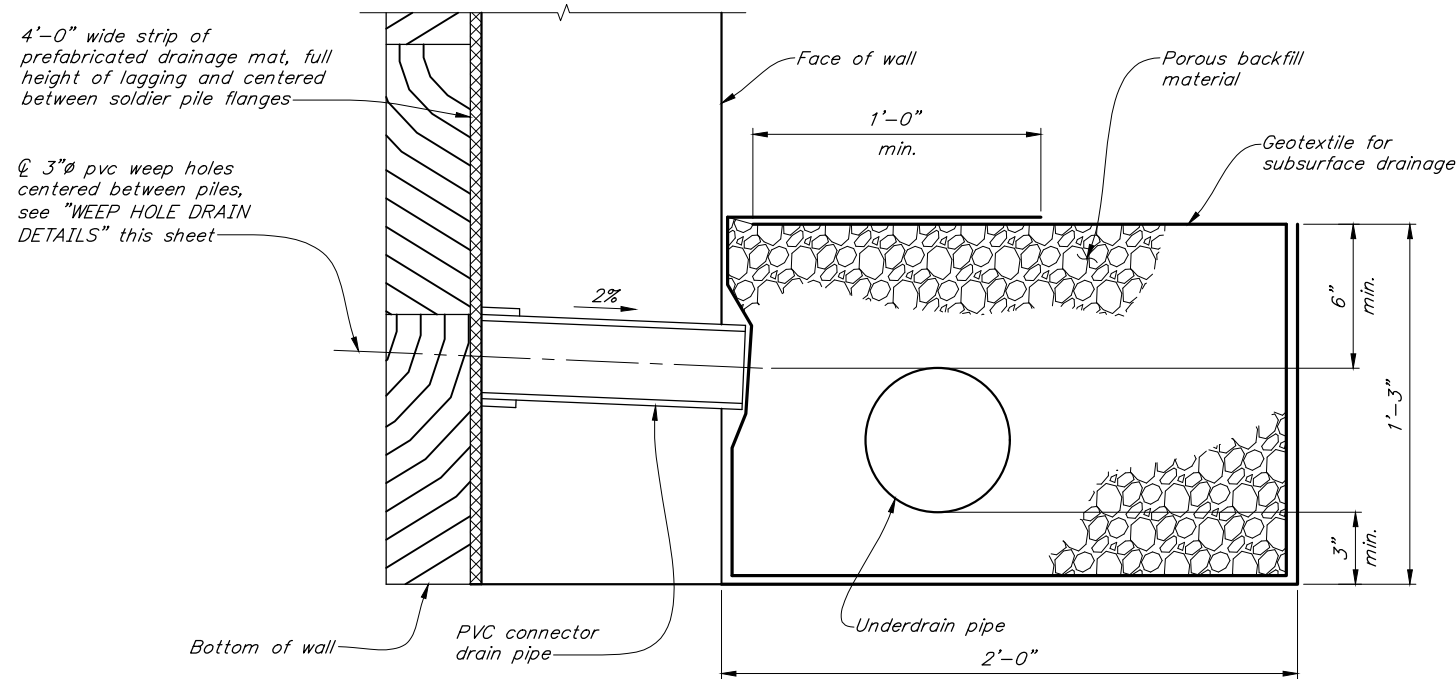


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**ABUTMENT 5 DETAILS 1**

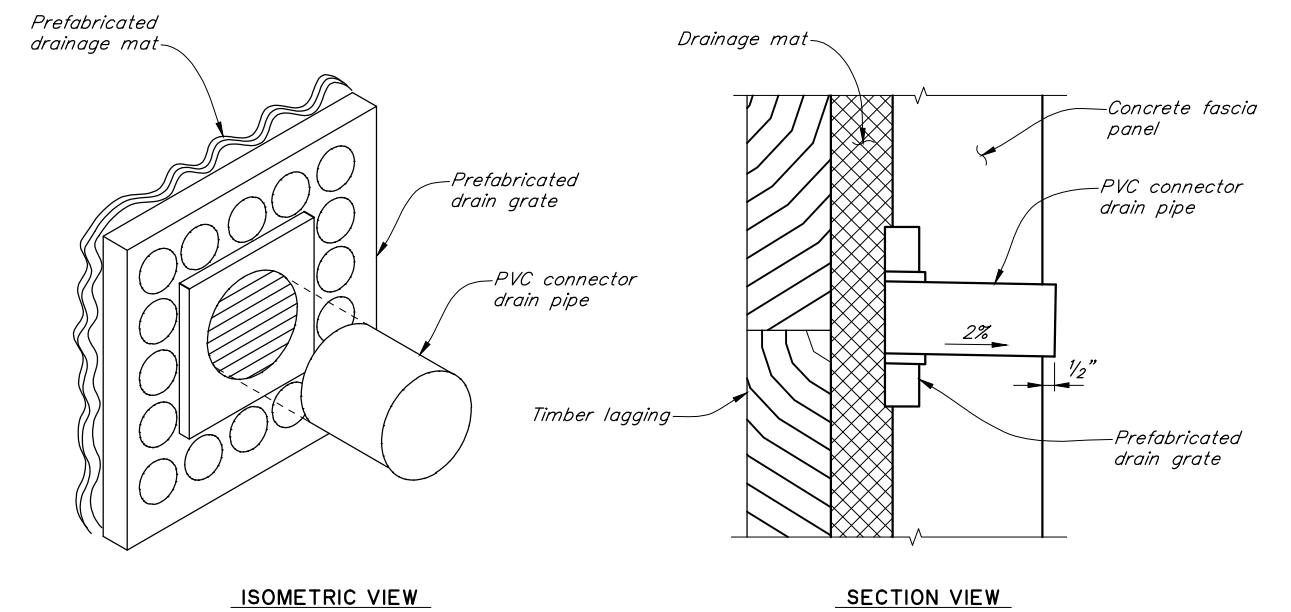
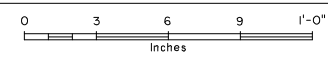


BRIDGE NO. 1841  
DWG. NO. N21

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHwy00070	2023	22	40



**UNDERDRAIN AT SOLDIER PILE WALL**

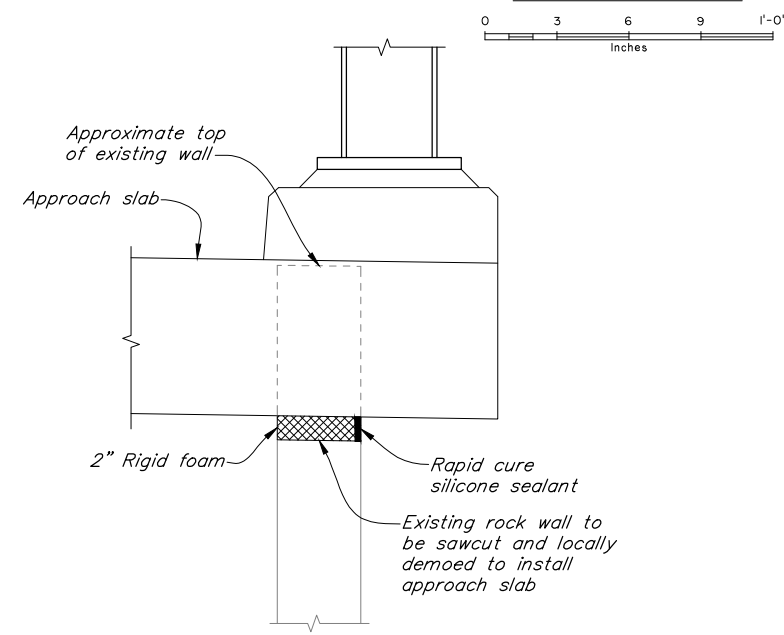


**ISOMETRIC VIEW**

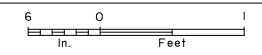
**SECTION VIEW**

**NOTES:**  
1. Drain grate installation shall not disrupt prefabricated drainage mat.

**WEEP HOLE DETAILS**



**SOUTH WALL SECTION A-A**



**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**

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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION



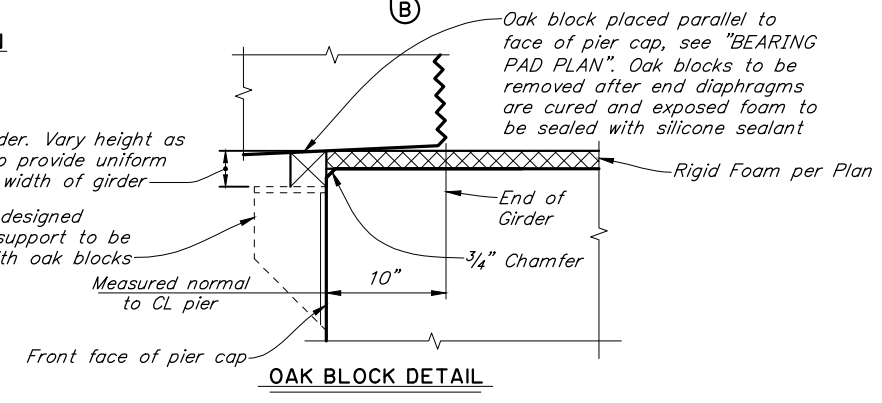
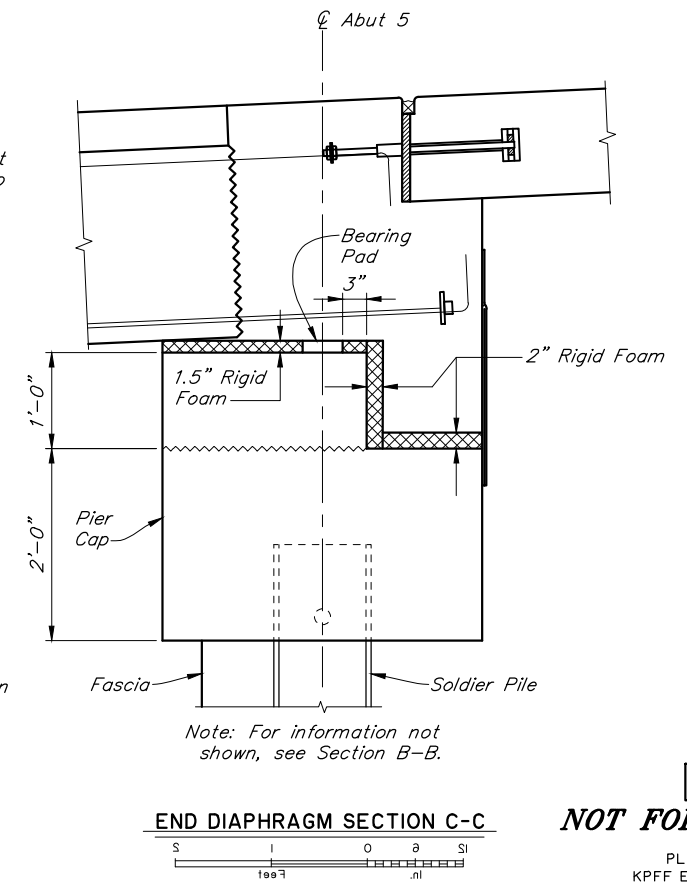
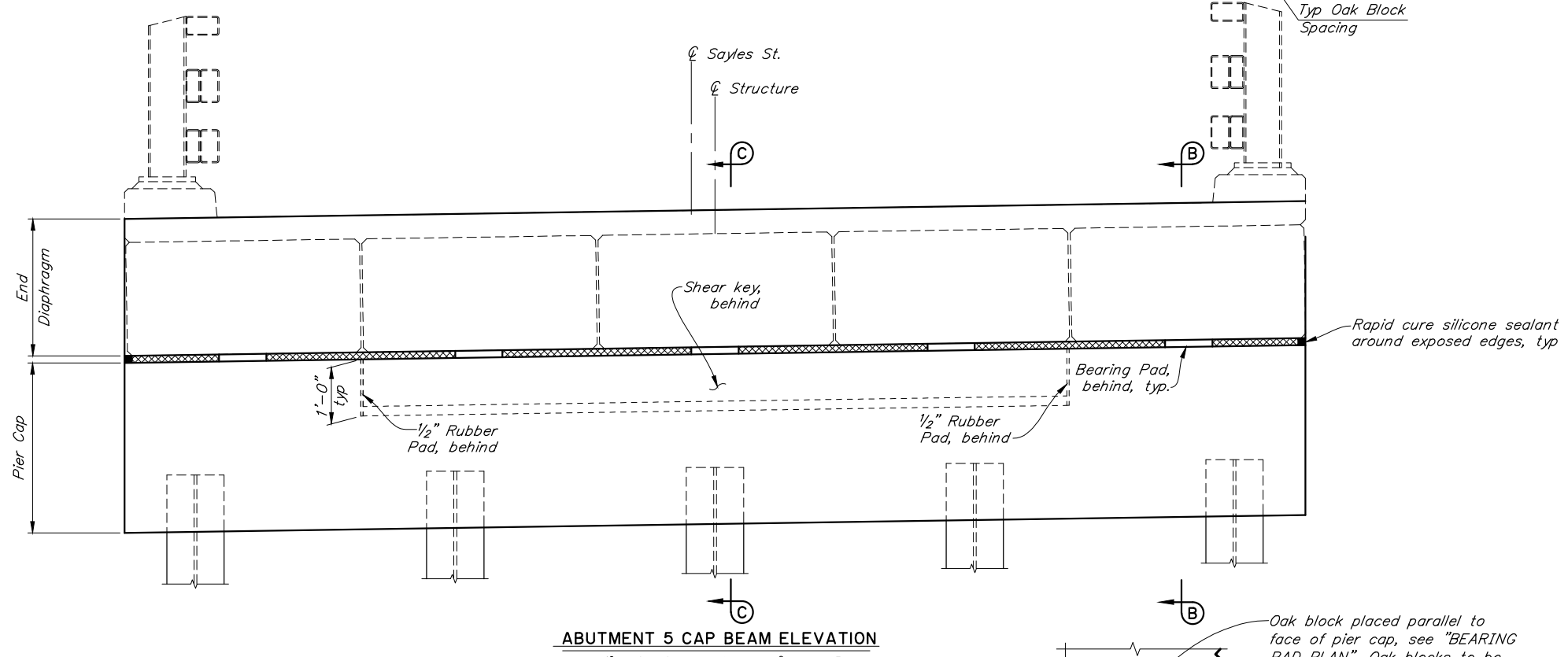
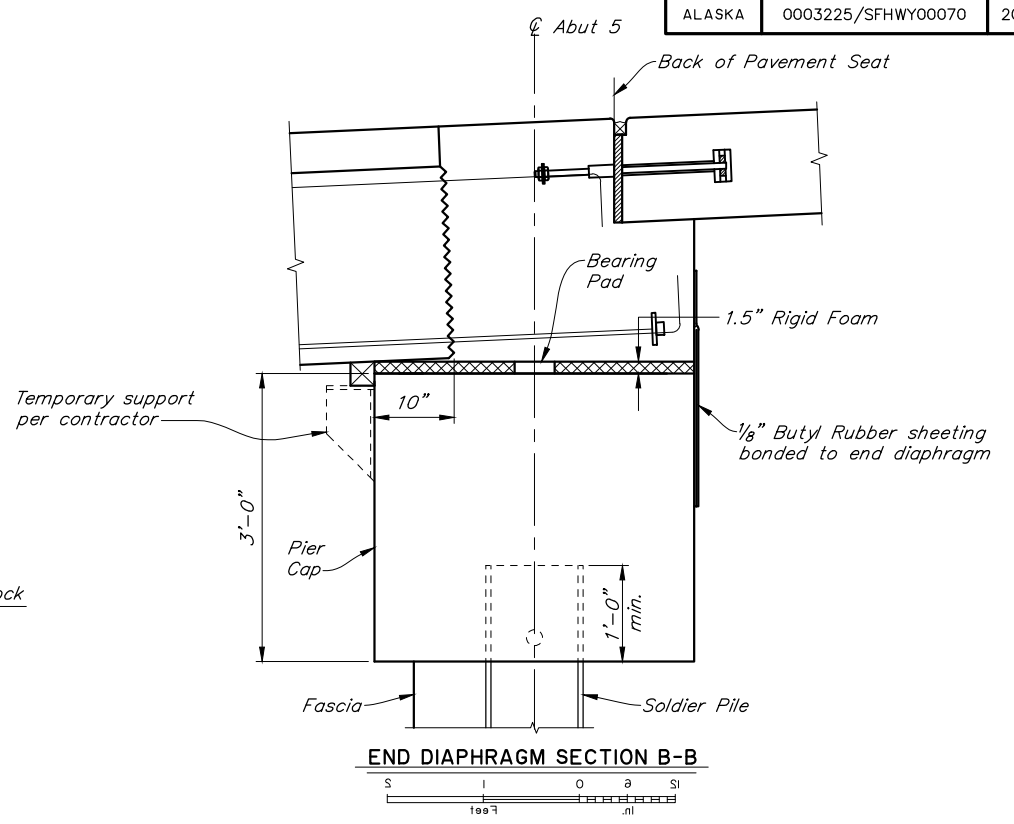
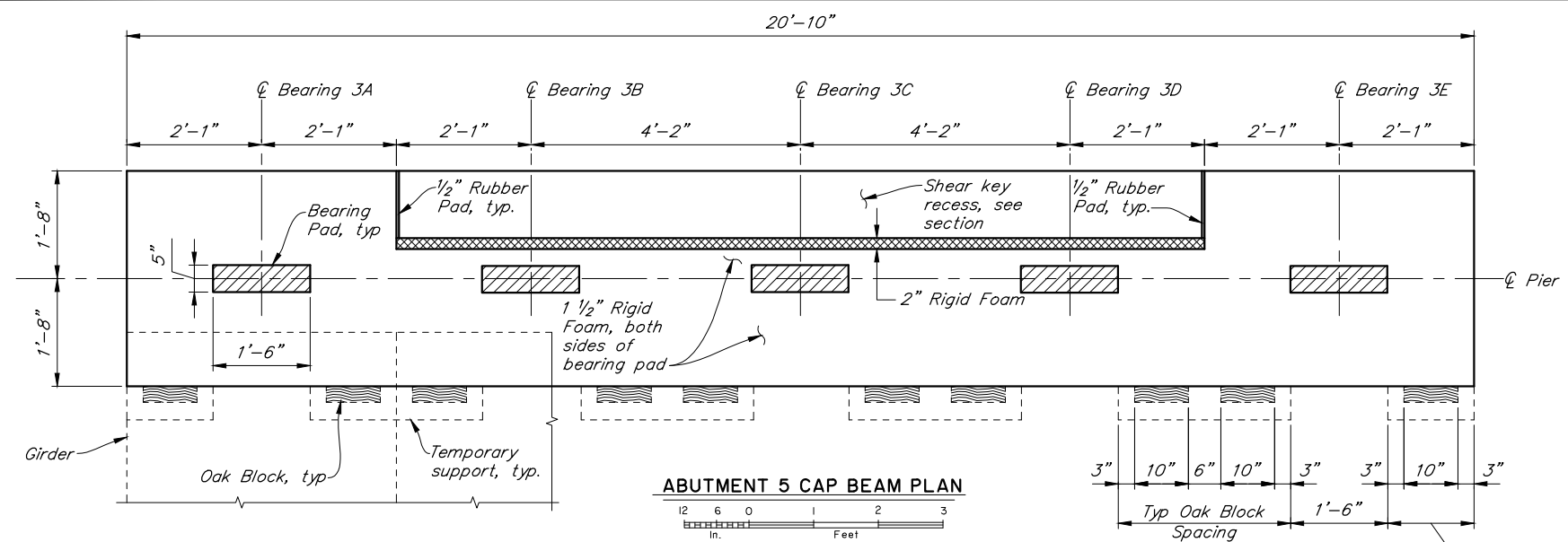
**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**ABUTMENT 5 DETAILS 2**



BRIDGE NO. 1841  
DWG. NO. N22

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

02/14/23 | 1:54 PM | RICKT  
V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N22 Abutment 5 Details 2.dwg



GIRDER BLOCKING ELEVATIONS									
GIRDER 3A		GIRDER 3B		GIRDER 3C		GIRDER 3D		GIRDER 3E	
L	R	L	R	L	R	L	R	L	R
107.70	107.75	107.78	107.84	107.86	107.92	107.95	108.00	108.03	108.09

**PIH SUBMITTAL**

**NOT FOR CONSTRUCTION**

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02/14/23 | 1:56 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N23 Abutment 5 Cap Details 1.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION



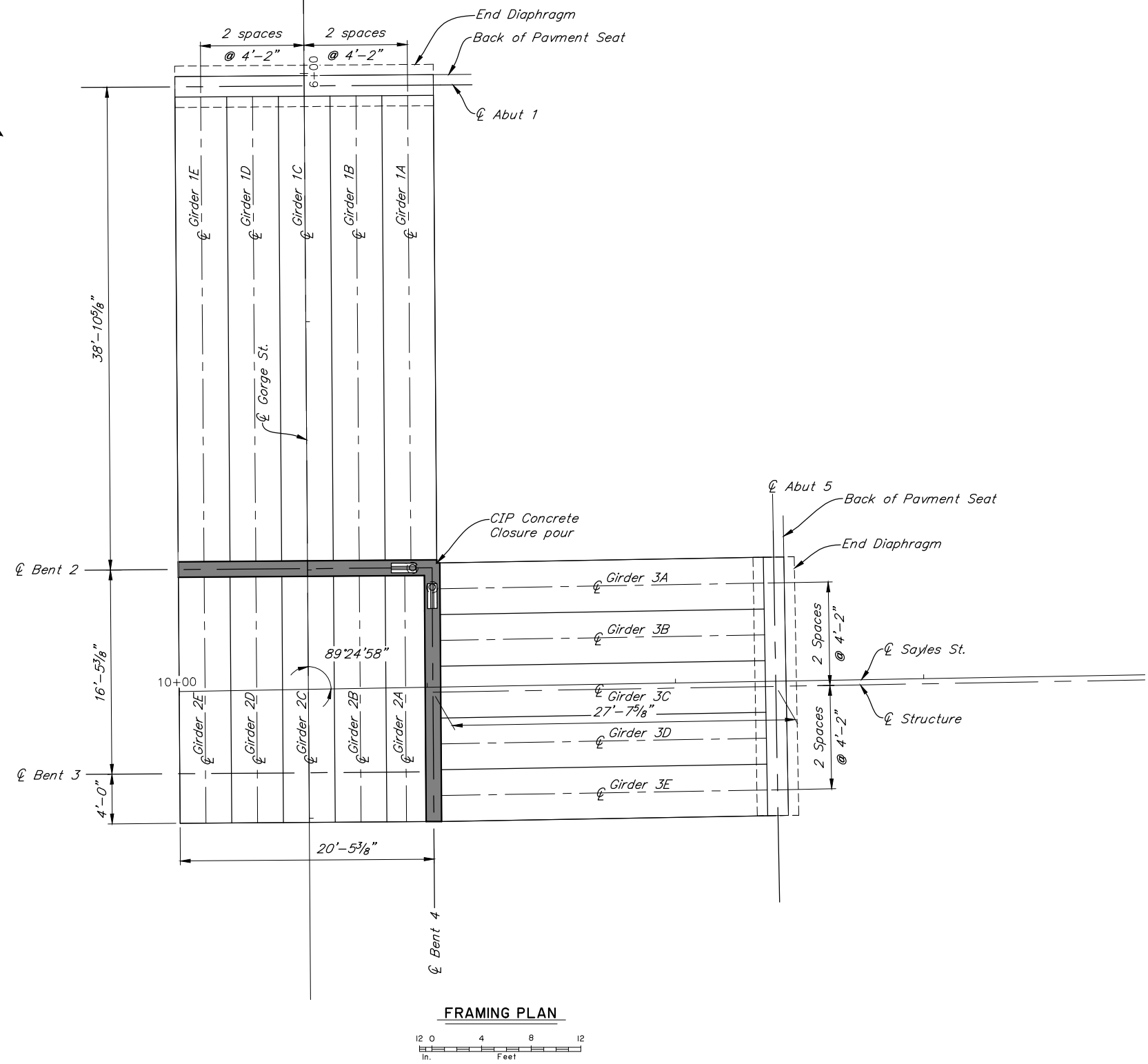
**SAYLES - GORGE STREET VIADUCT**  
 SAYLES ST & GORGE ST  
**ABUTMENT 5 CAP DETAILS 1**

BRIDGE NO. 1841  
 DWG. NO. N23





STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHwy00070	2023	25	40



**FRAMING PLAN**

PIH SUBMITTAL  
**NOT FOR CONSTRUCTION**

PLANS DEVELOPED BY:  
KPFF ENGINEERING CONSULTING  
1601 5th Ave, Suite 1600, Seattle, WA 98101  
(206) 622-5822


02/14/23 | 1:57 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N25 Framing Plan.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
**DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES**  
BRIDGE SECTION

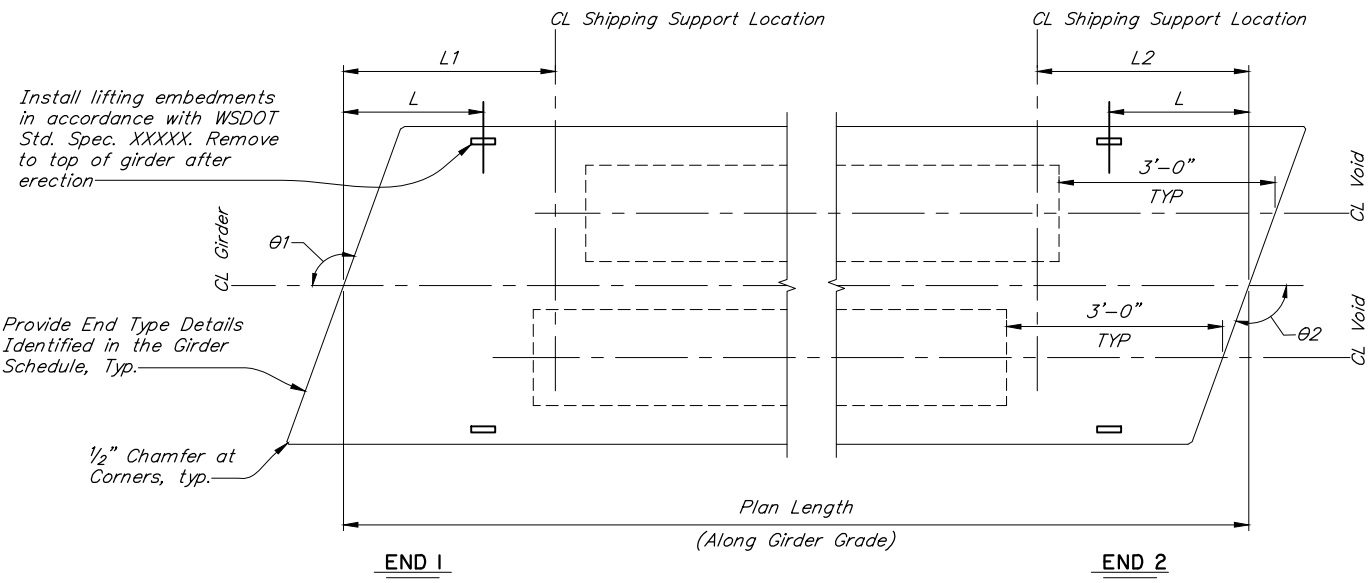


**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**FRAMING PLAN**

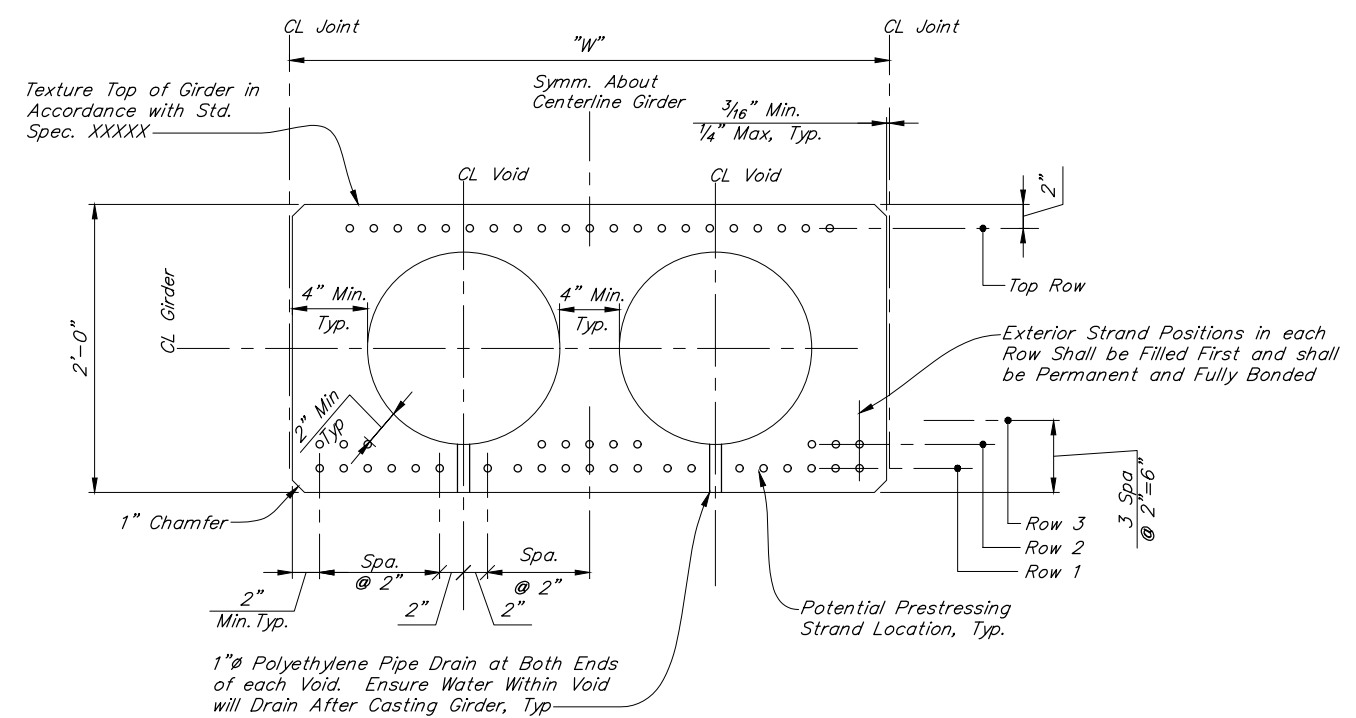
  
BRIDGE NO. 1841  
DWG. NO. N25



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	27	40

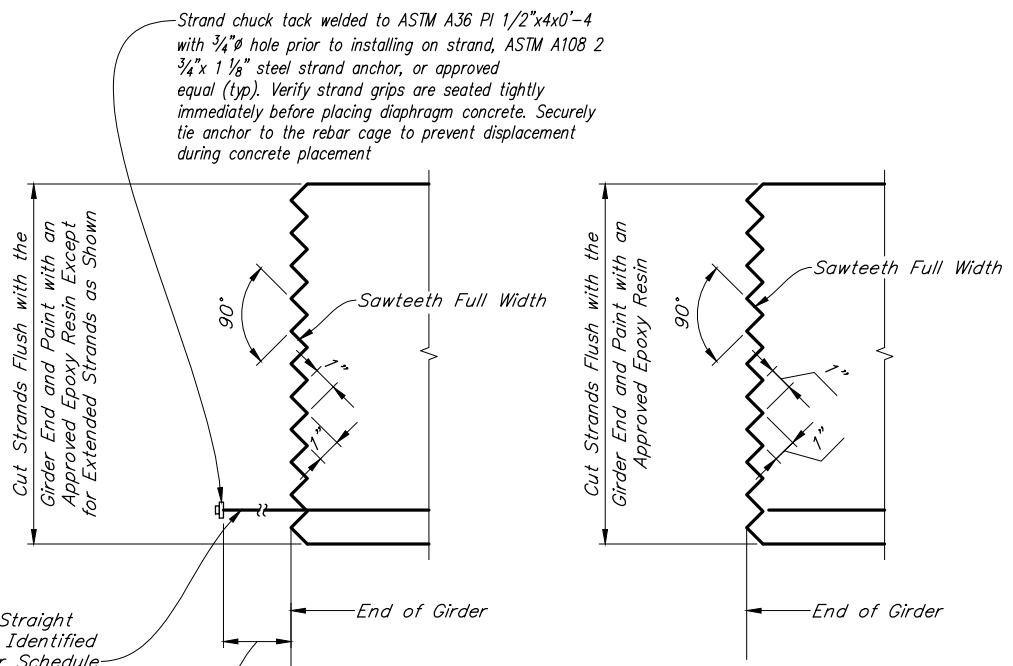


TYPICAL GIRDER PLAN

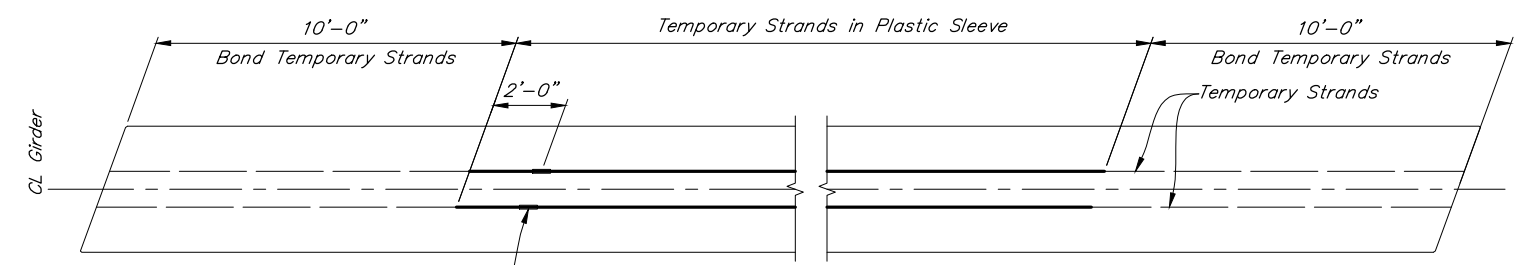


TYPICAL GIRDER SECTION

For Strand Patterns, See "GIRDER DETAILS 3"



GIRDER SAWCUT END DETAIL



PLAN - TEMPORARY STRANDS

TEMPORARY STRAND NOTES:

- See Girder Schedule for required number of temporary strands. Temporary strands shall be placed in the top row.
- For girders erected on a longitudinal grade, strand detensioning blockouts shall be placed at the low end of the girder.
- Temporary Strand Cutting Sequence:
  - Erect girders.
  - Just prior to cutting the temporary strands, remove expanded polystyrene in blockouts in top flange of girders. Once the expanded polystyrene has been removed from the strand detensioning blockout, prevent moisture from entering the blockout until the temporary top strand is cut and the blockout is filled with grout.
  - Cut strands in blockouts. Strands may be cut by using a cutting torch and moving the flame back and forth over the length of the exposed strand to let individual wires break one at a time to lessen the shock to the girder. Strand shall be released in a symmetrical manner about the girder centerline, starting with those furthest from the centerline and working inwards. For post-tensioned temporary top strands, actively restrain the strand chucks at the girder ends during cutting.
  - Within 24 hours of cutting the temporary strands, fill the blockouts with a grout conforming to Std. Spec. XXXXX. Remove all moisture in blockouts prior to filling them with grout.

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02/14/23 | 1:58 PM | RICKT V:\1800239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N27 Girder Details 2.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

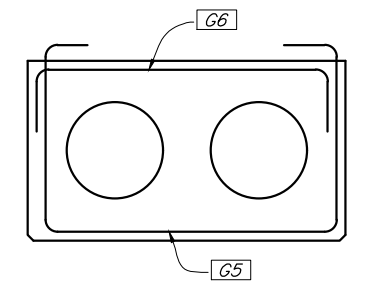
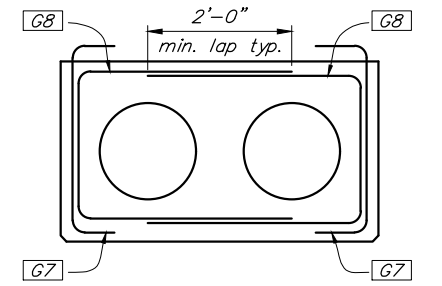
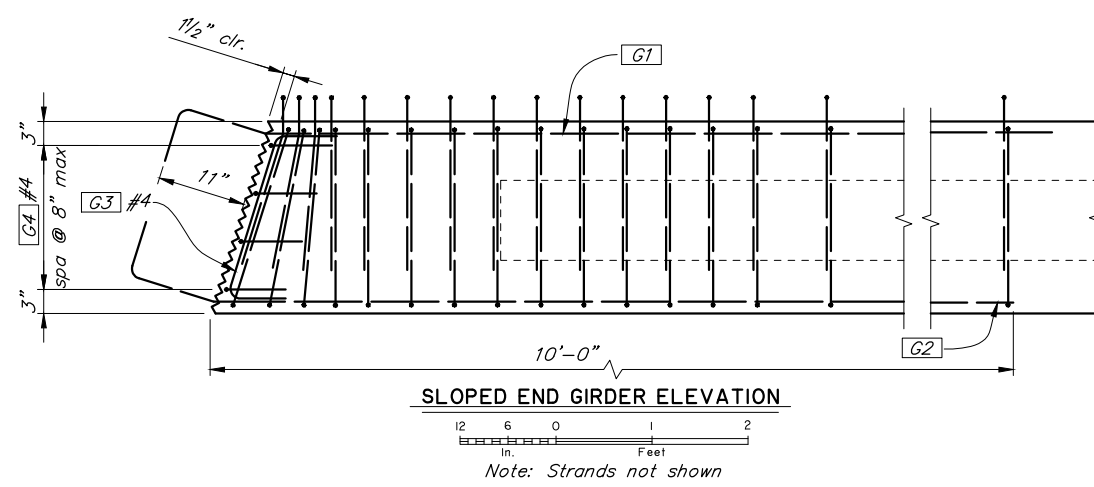
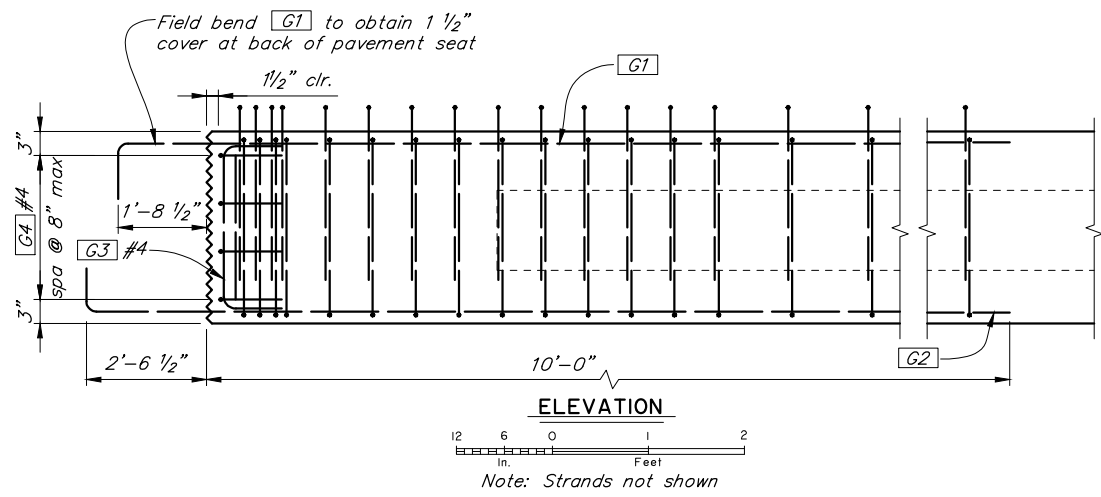


SAYLES - GORGE STREET VIADUCT  
SAYLES ST & GORGE ST  
GIRDER DETAILS 2

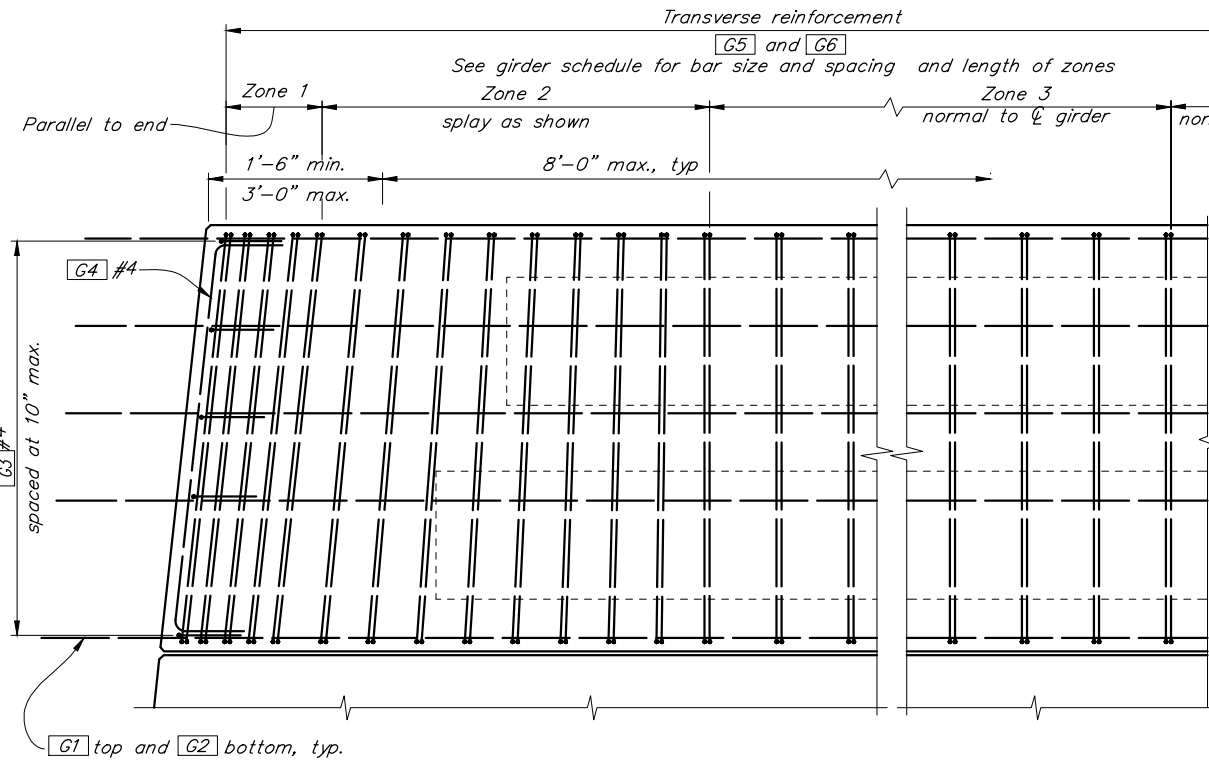
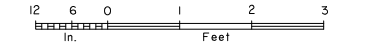


BRIDGE NO. 1841  
DWG. NO. N27

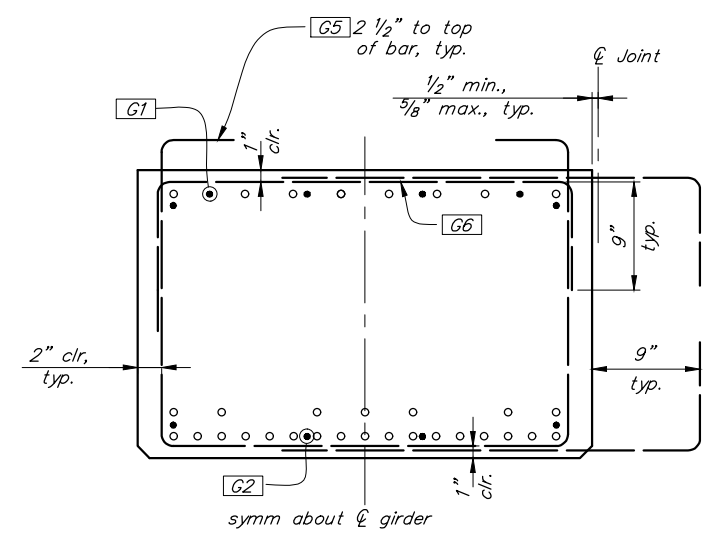
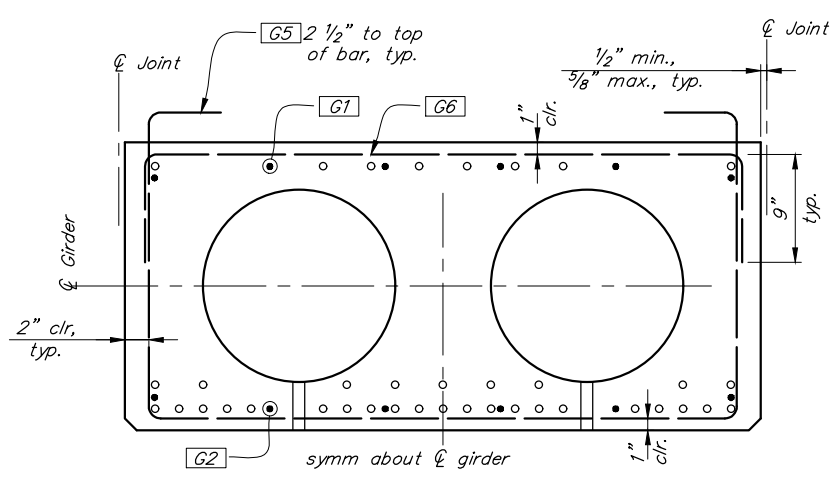
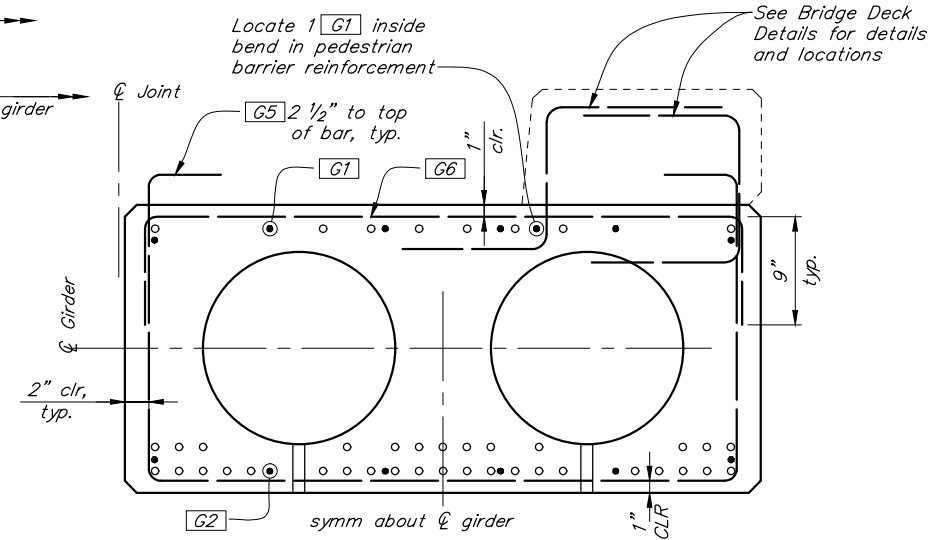
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	28	40



TRANSVERSE REINFORCEMENT OPTIONS



Traffic barrier bars not shown for clarity, see traffic barrier sheets for details and locations. Other end similar.



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02/14/23 | 1:59 PM | RICKT V:\1800239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N28 Girder Details 3.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
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BRIDGE SECTION



**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**GIRDER DETAILS 3**

BRIDGE NO. 1841  
DWG. NO. N28







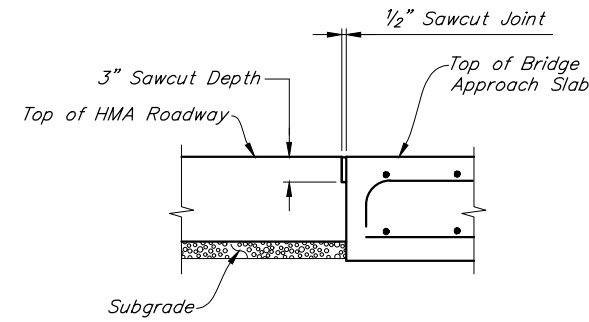






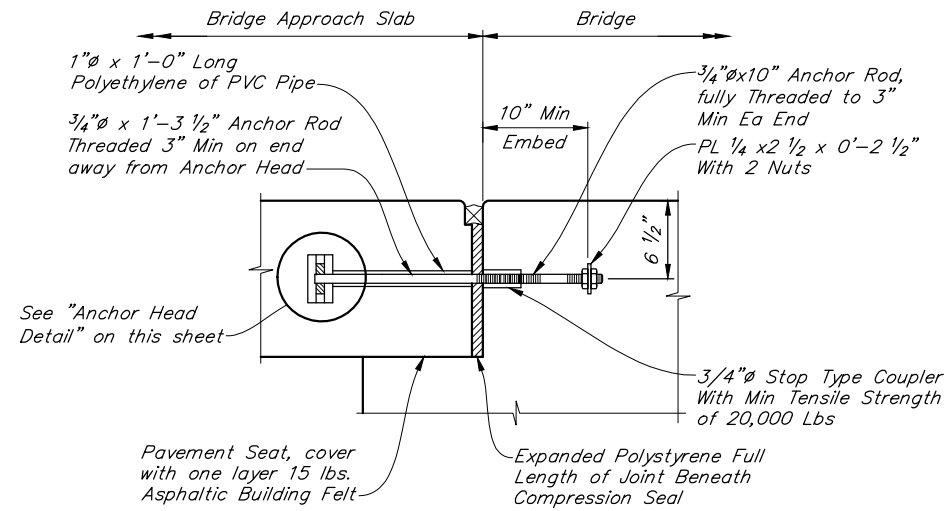


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	34	40



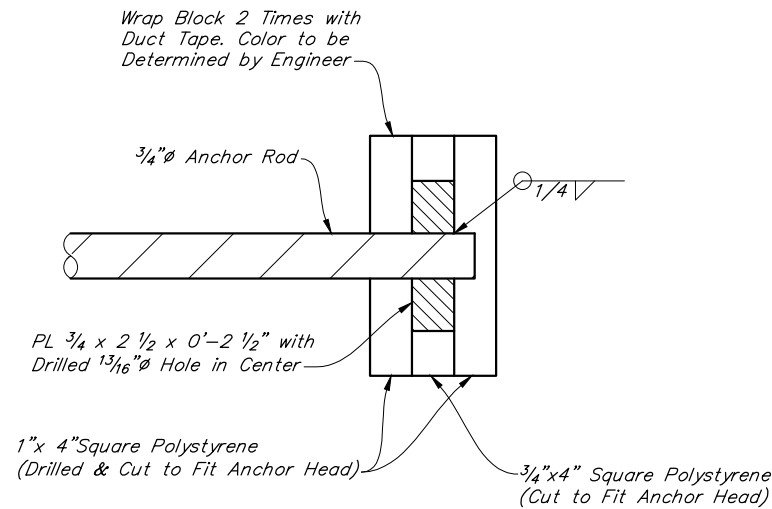
**HMA ROADWAY JOINT DETAIL**

Sawcut shall be filled with joint sealant per specification.

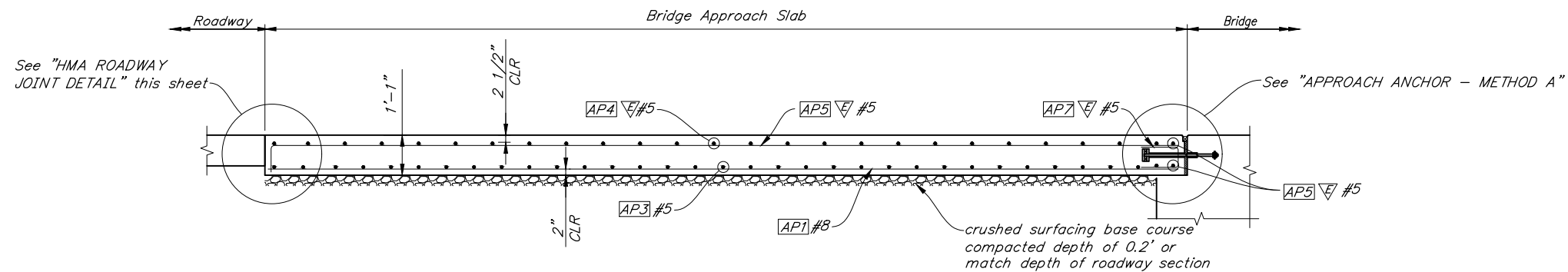


**APPROACH ANCHOR - METHOD A**

*Note:*  
All metal parts of the approach expansion anchor shall be galvanized in accordance with AASHTO M 232.



**ANCHOR HEAD DETAIL**



**SECTION A-A**

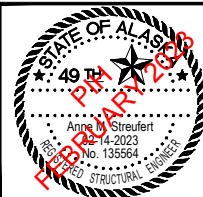
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**NOT FOR CONSTRUCTION**

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02/14/23 | 2:04 PM | RICKT  
V:\1802\39 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N34 Bridge Approach Slab Details.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
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BRIDGE SECTION

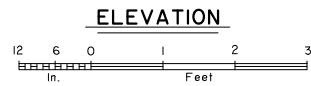
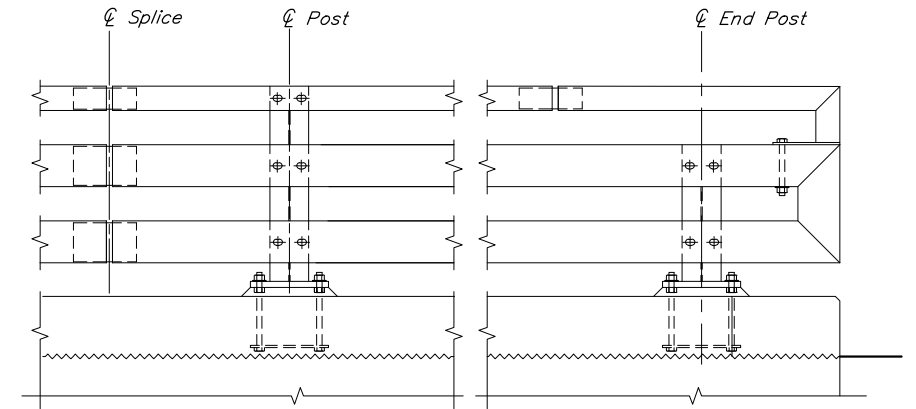
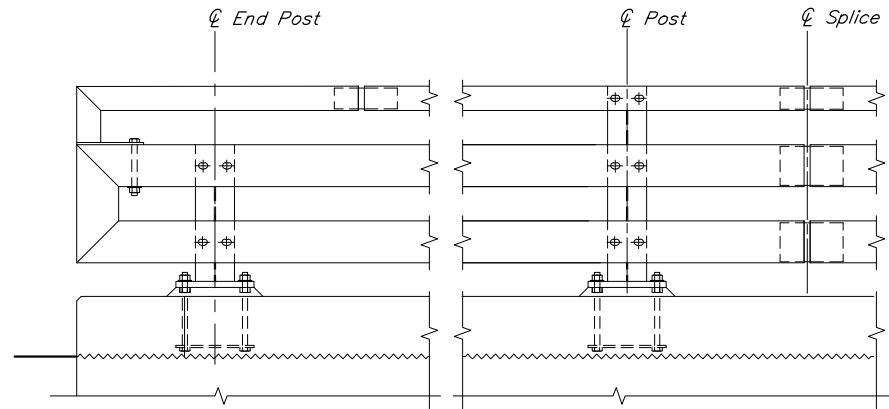
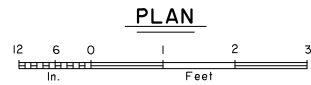
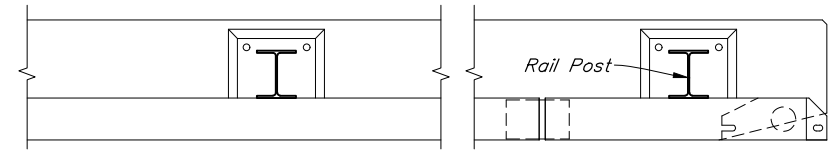
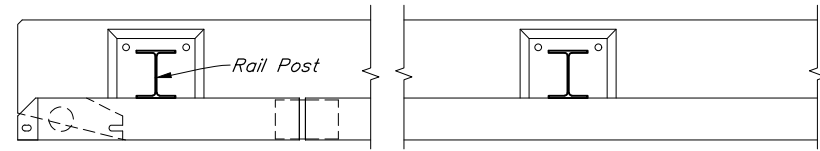


**SAYLES - GORGE STREET VIADUCT**  
SAYLES ST & GORGE ST  
**BRIDGE APPROACH SLAB DETAILS**



BRIDGE NO. 1841  
DWG. NO. N34

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWHY00070	2023	35	40



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02/14/23 | 2:04 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV-N35 Traffic Barrier Details 1.dwg

DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION

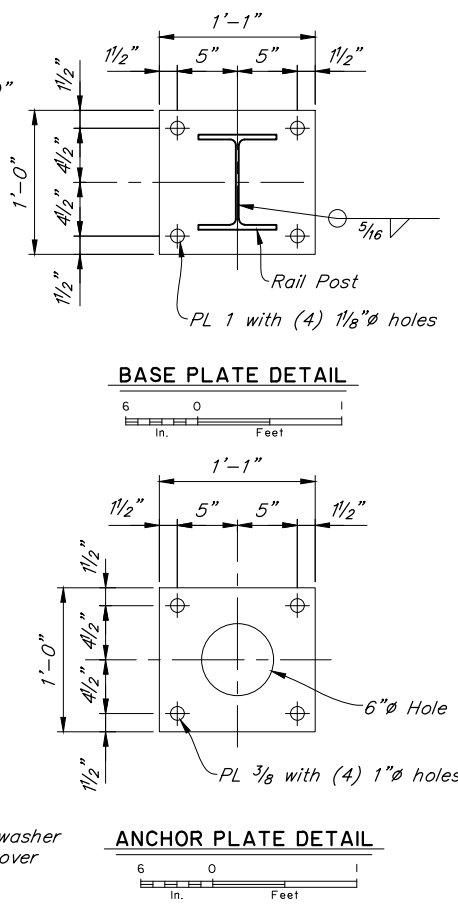
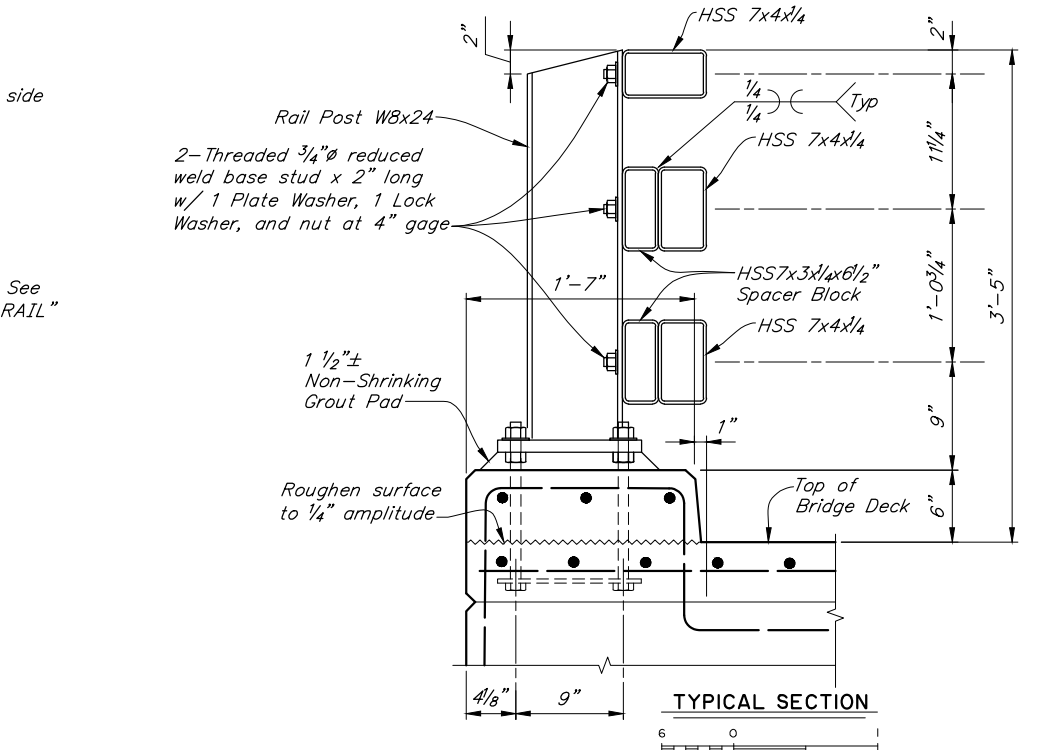
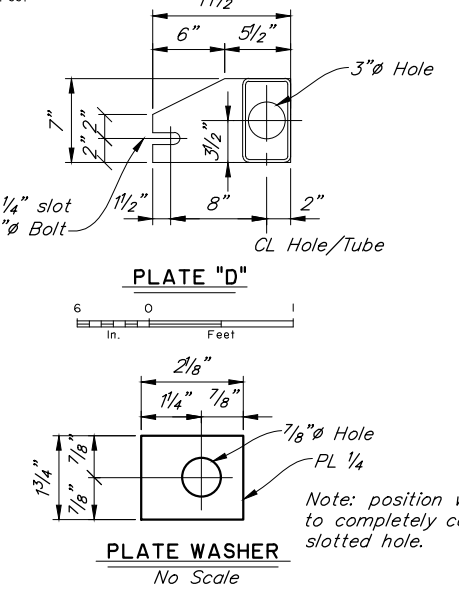
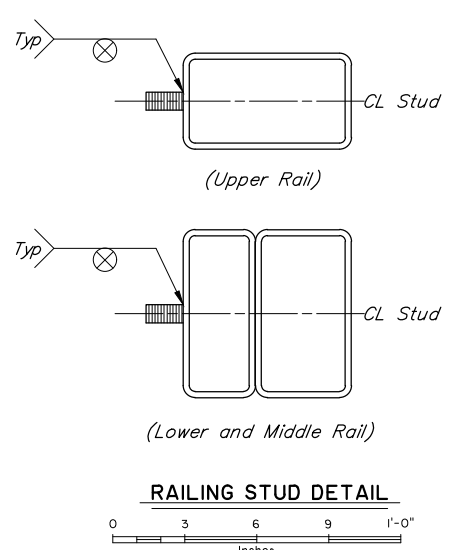
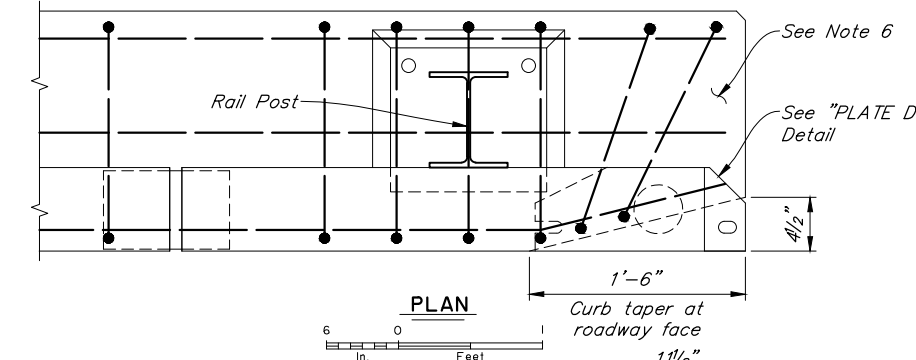
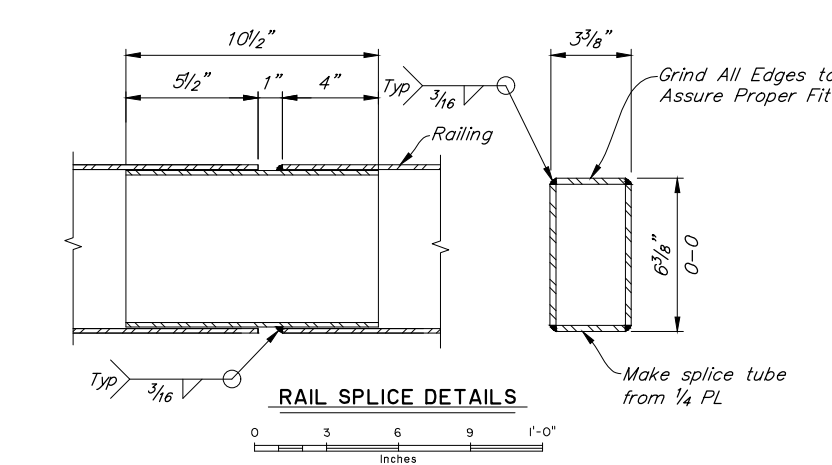
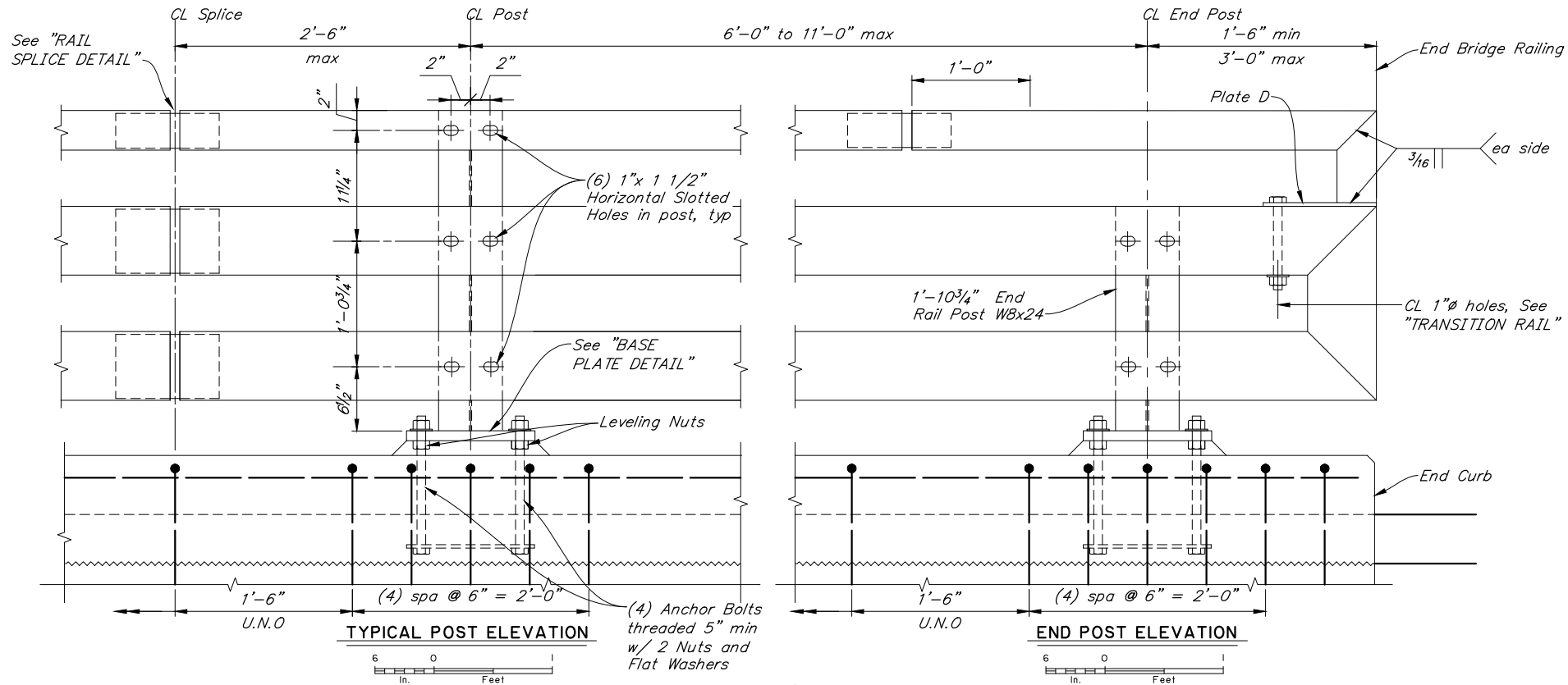


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**TRAFFIC BARRIER DETAILS 1**



BRIDGE NO. 1841  
DWG. NO. N35

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	36	40



- NOTES:**
- All plates and rolled sections shall be structural low alloy steel AASHTO A874 or A588 grade 50W.
  - Nuts, bolts, and washers shall conform to ASTM F3125 A325 Type 3.
  - Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
  - Install grout in a single placement.
  - Install bridge rail post plumb.
  - Adjust reinforcing to accommodate curb taper.

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02/14/23 | 2:05 PM | RICKT V:\1802239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N36 Traffic Barrier Details 2.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

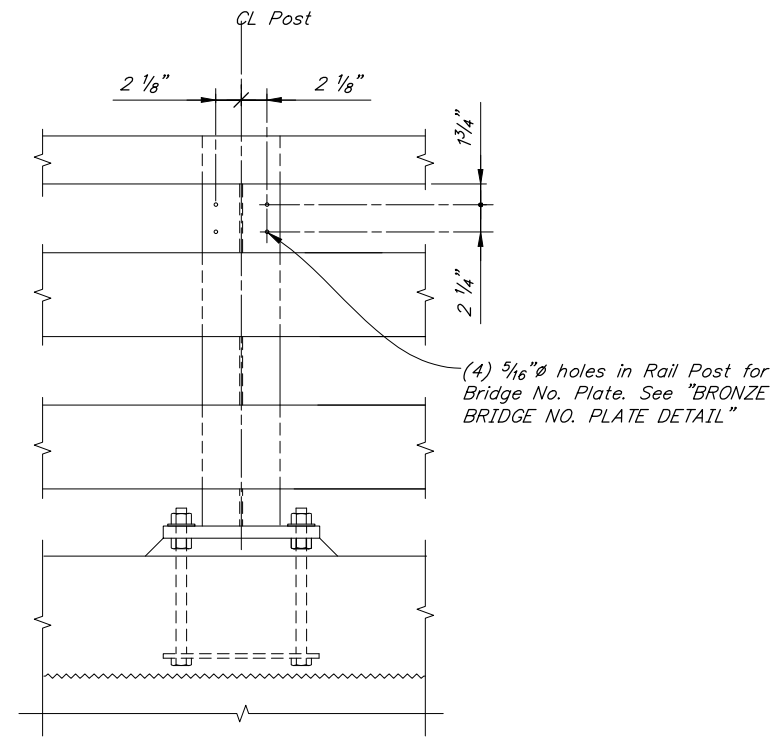
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION



**SAYLES/GORGE ST. VIADUCT**  
 SAYLES ST & GORGE ST  
**TRAFFIC BARRIER DETAILS 2**

BRIDGE NO. 1841  
 DWG. NO. N36

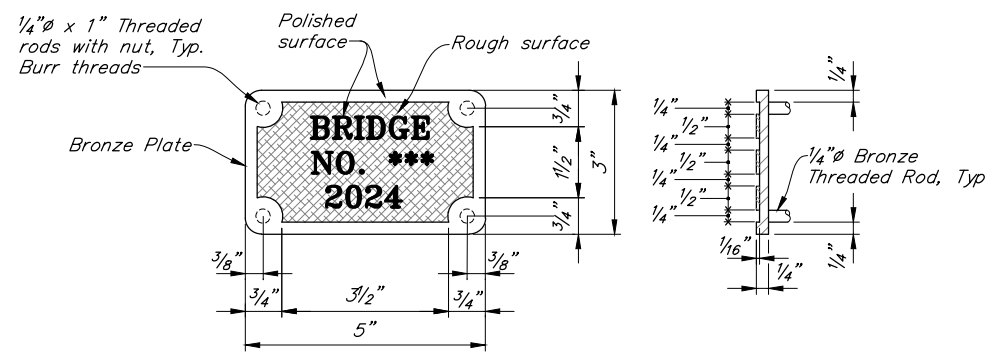
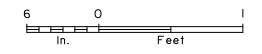
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHXY00070	2023	37	40



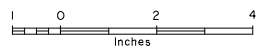
**NOTES:**

1. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
2. Furnish bridge number plates. Use "Century" type style lettering. Use studs and nuts that conform to UNS C65100 or C65500. Braze 1/4 inch dia. threaded rod to back of plate with nut - 4 required. Use tamper proof nuts.

**BRIDGE NO. PLATE LOCATION DETAIL**



**BRONZE BRIDGE NO. PLATE DETAIL**



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02/14/23 | 2:05 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\A37 Traffic Barrier Details 3.dwg

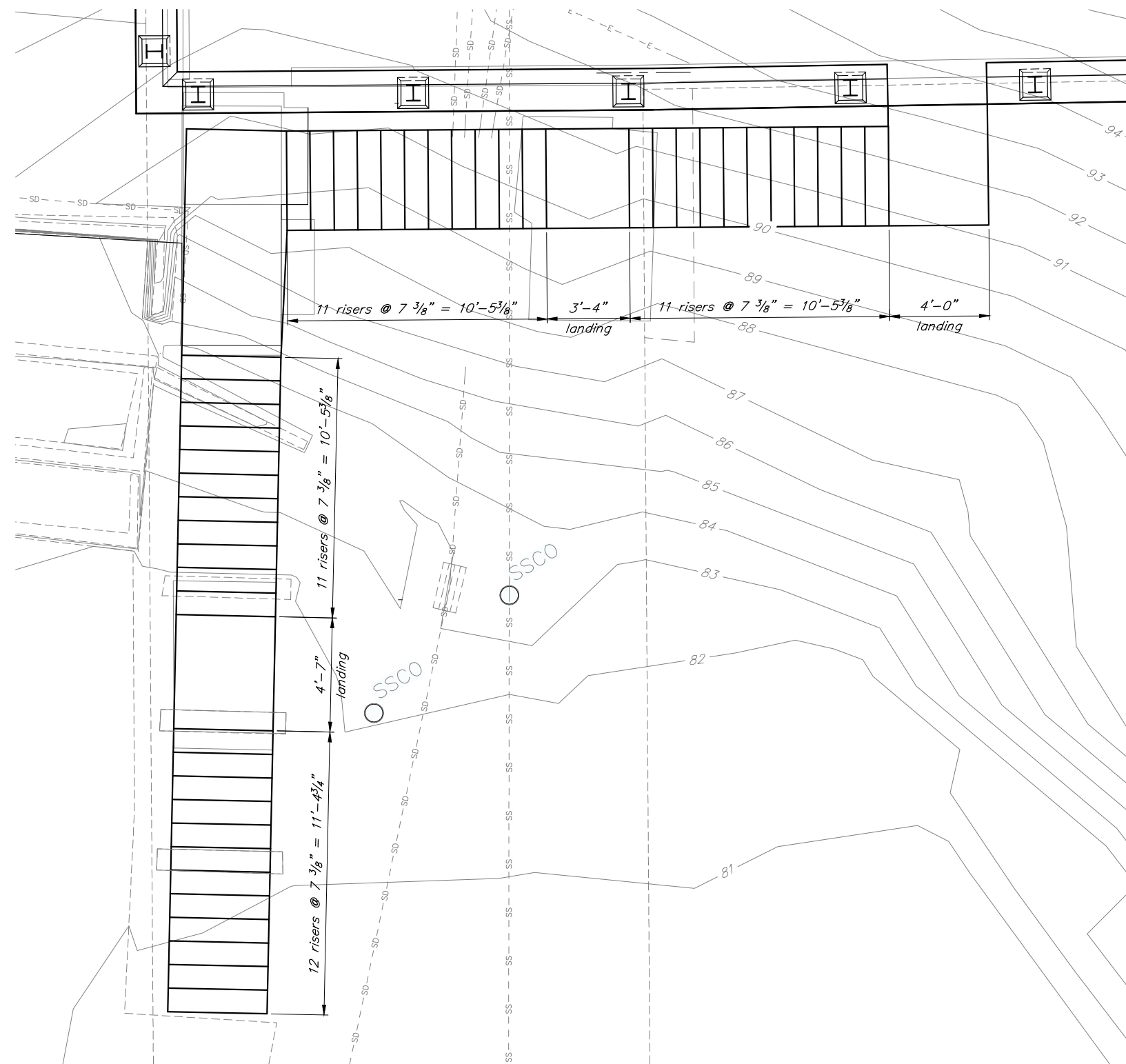
DESIGNED BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	LAYOUT BY:	CHECKED BY:
DRAWN BY: <i>Rick Torgeson</i>	CHECKED: <i>Joshua Pruitt</i>	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: <i>Andrew Gastineau</i>	CHECKED: <i>Joshua Pruitt</i>	APPROVAL RECOMMENDED BY:	

STATE OF ALASKA  
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BRIDGE SECTION

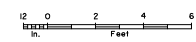


**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**TRAFFIC BARRIER DETAILS 3**

  
BRIDGE NO. 1841  
DWG. NO. N37



TIMBER STAIR PLAN



**TIMBER STAIR NOTES**

**GENERAL**  
 Stairs shall be constructed in accordance with Section 506 of the Specifications.  
 Dimensions provided in these plans are informational, except for rail height. The intent is that stairs will be constructed to fit the new as-constructed bridge elevations and existing landings that remain. Rail height shall be as shown.  
 The Contractor shall verify dimensions and elevations prior to construction of stairs.

**MATERIALS**  
 Timber: per Section 713  
 Preservatives for Timber: per Section 714  
 Steel Parts and Hardware: Hot-dip galvanize unless noted otherwise. Provide materials per Section 506 and these plans.

**INSTALLATION**  
 Stair widths shall match existing landings. Approximate stair widths between inside of rails are shown in these plans. Treads shall be constructed of single timbers. Tread depth and riser height shall not vary by more than 3/8" in any flight of stairs and shall fall within the following limits:  
 Tread depth: Min. = 11"  
 Max. = 12"  
 Riser height: Min. = 4"  
 Max. = larger of 7" or the existing riser height

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 BRIDGE SECTION



SAYLES - GORGE STREET VIADUCT  
 SAYLES ST & GORGE ST  
 TIMBER STAIR PLAN



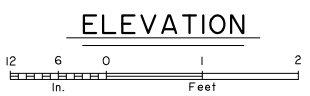
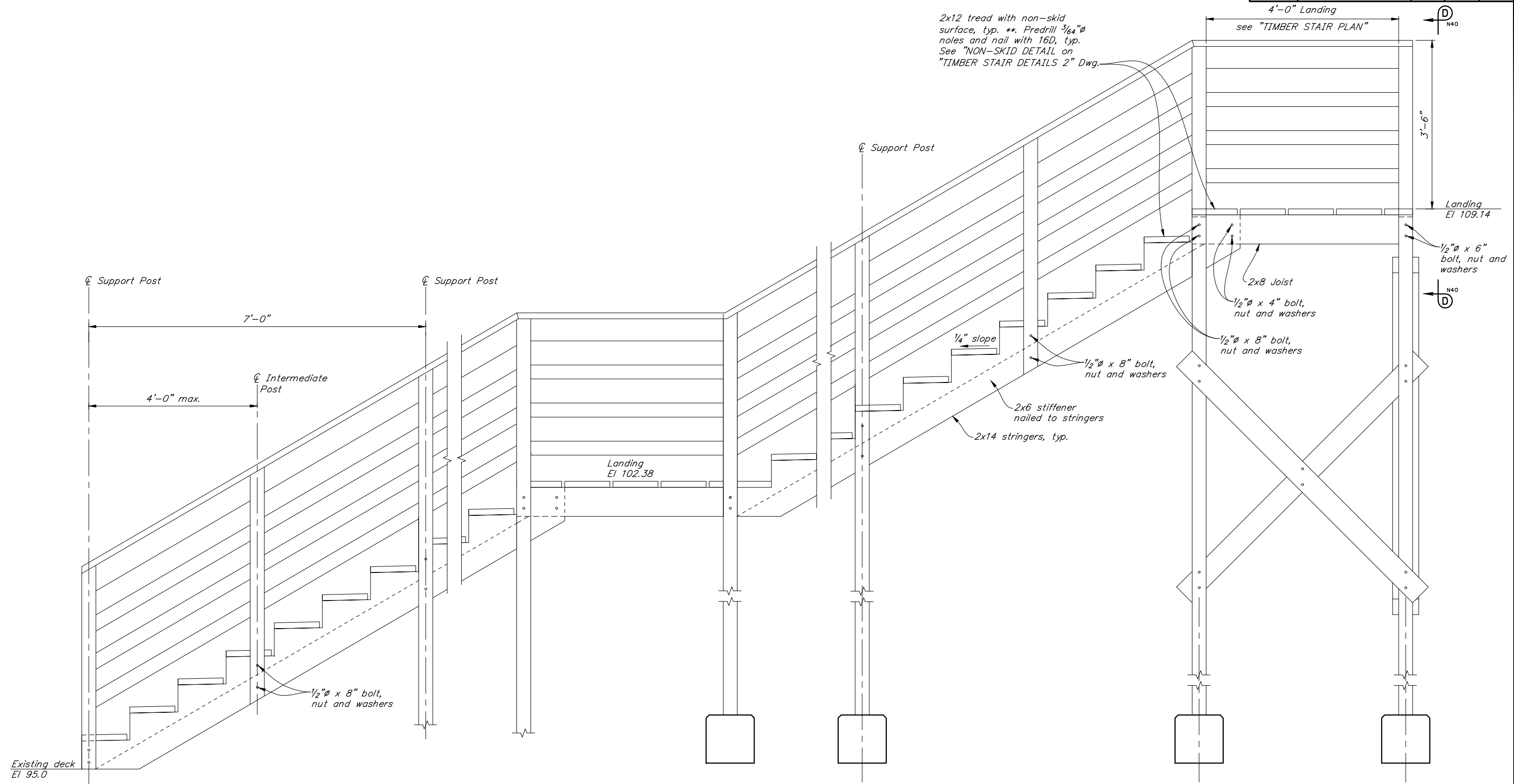
BRIDGE NO. 1841  
 DWG. NO. N38

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

02/14/23 | 2:06 PM | RICKT  
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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWHY00070	2023	39	40



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DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

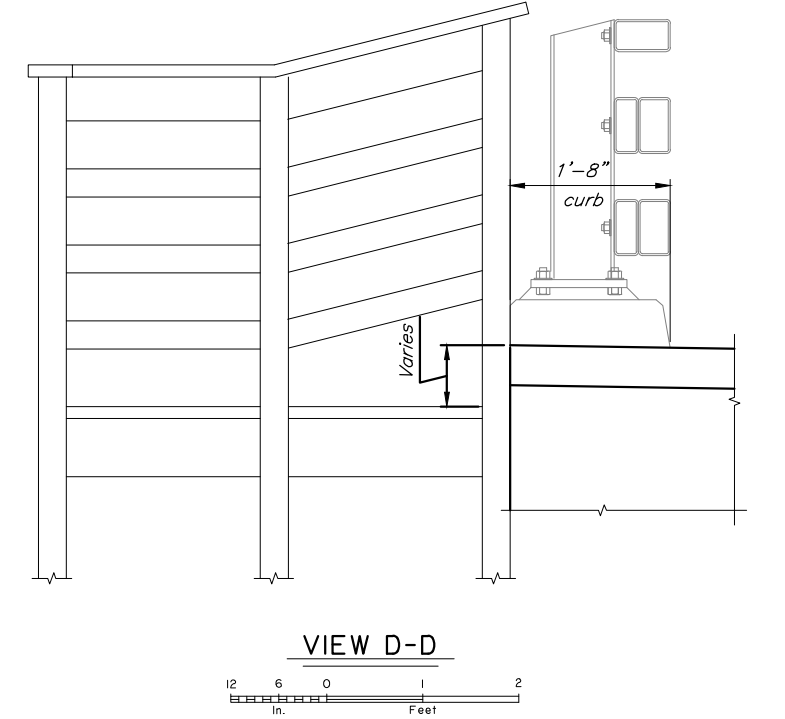
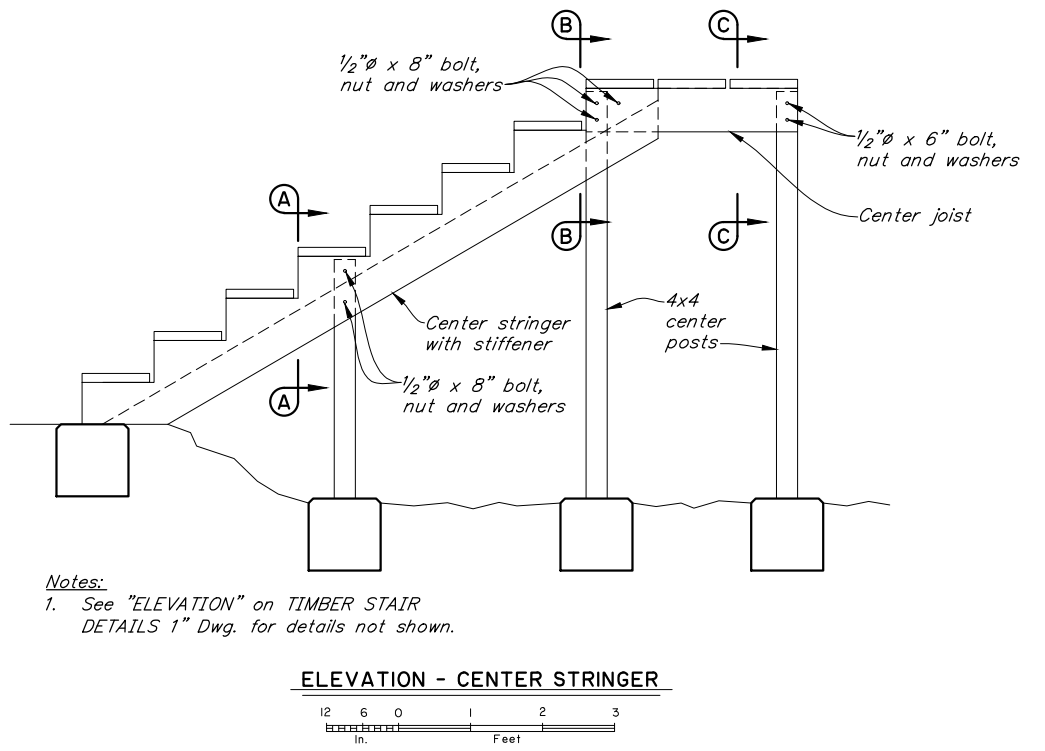
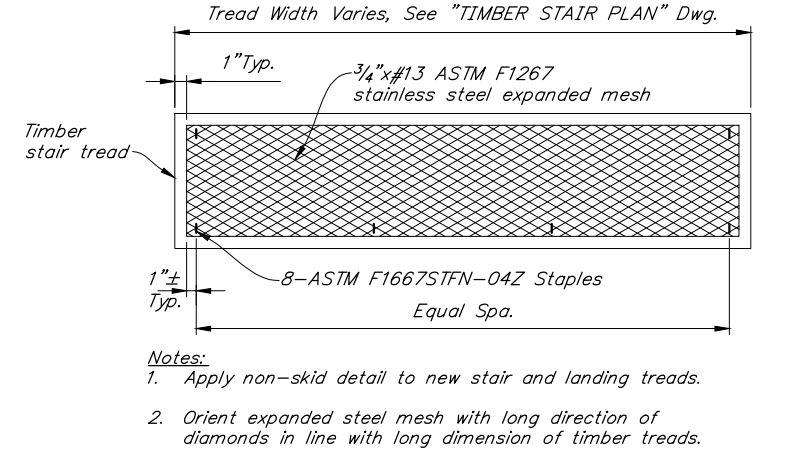
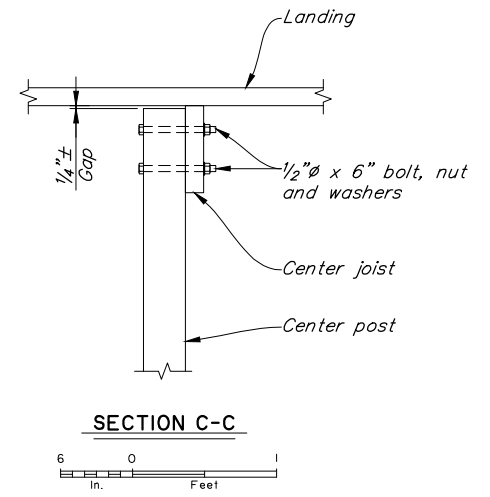
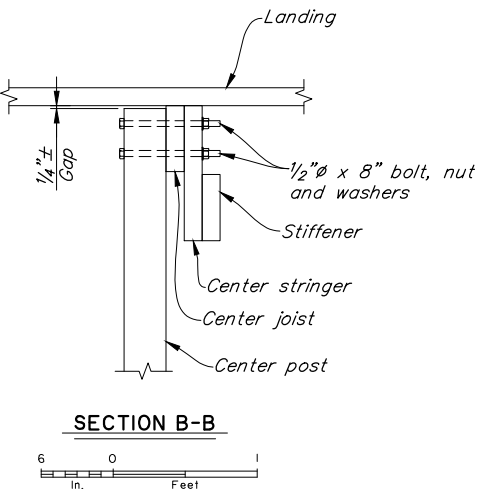
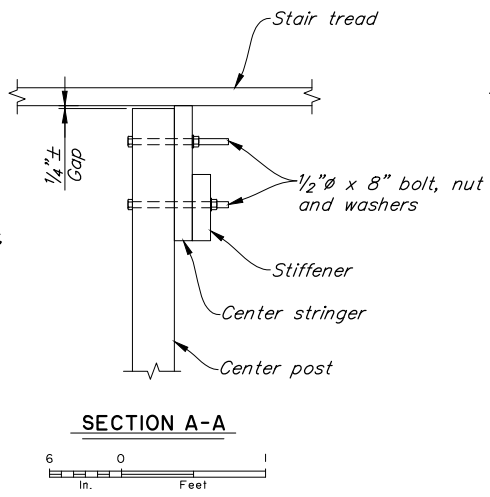
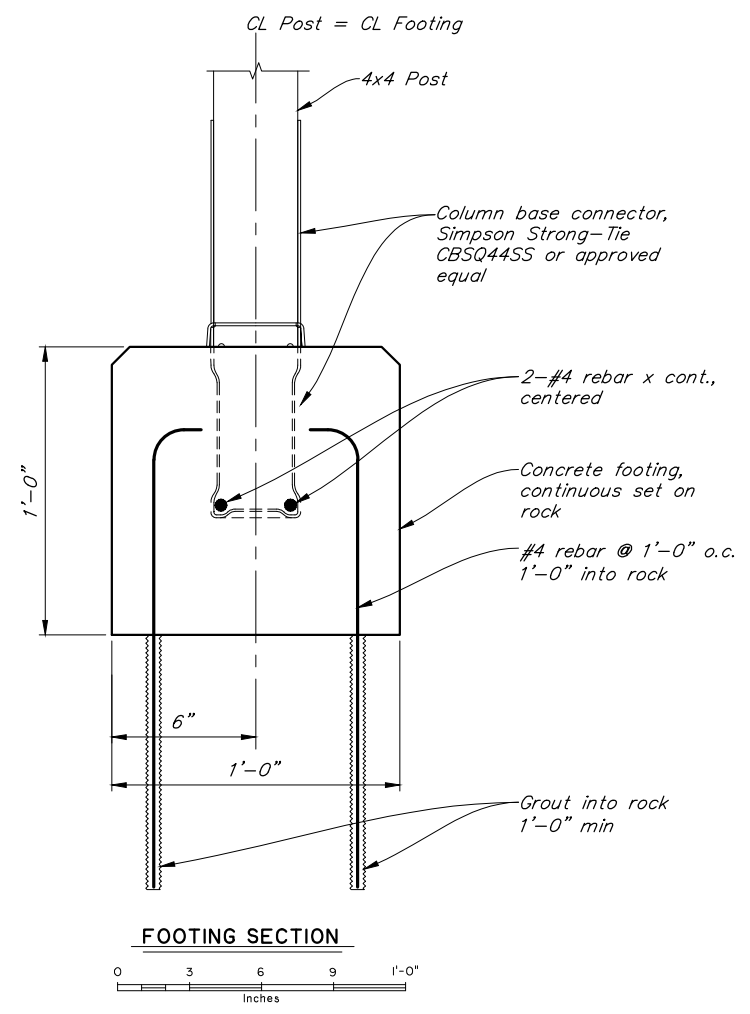
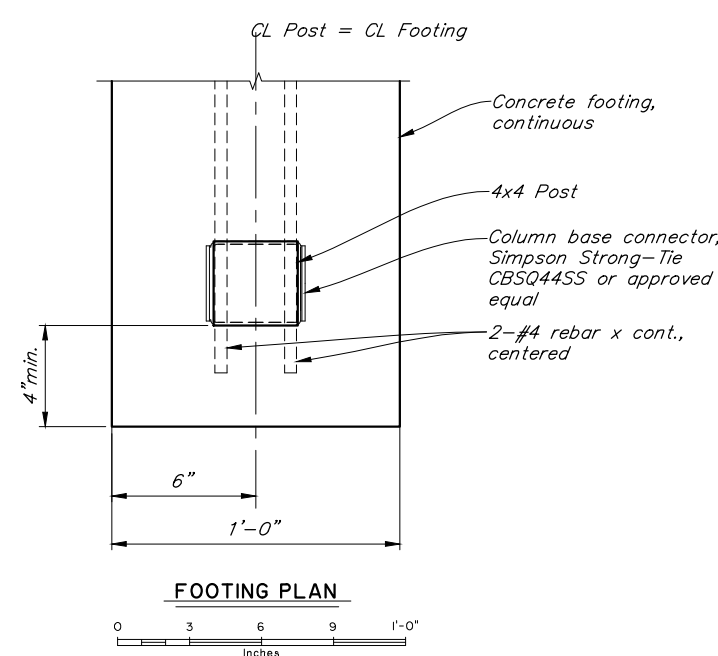
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 BRIDGE SECTION



**SAYLES/GORGE ST. VIADUCT**  
 SAYLES ST & GORGE ST  
**TIMBER STAIR DETAILS 1**

  
 BRIDGE NO. 1841  
 DWG. NO. N39

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0003225/SFHWO0070	2023	40	40



02/14/23 | 2:07 PM | RICKT V:\18020239 (Sayles-Gorge Viaduct)\02\_Design (v2019)\SGV\N40 Timber Stair Details 2.dwg

DESIGNED BY: Andrew Gastineau	CHECKED: Joshua Pruitt	LAYOUT BY:	CHECKED BY:
DRAWN BY: Rick Torgeson	CHECKED: Joshua Pruitt	SPECIFICATIONS BY:	P S & E COMPARED:
QUANTITIES BY: Andrew Gastineau	CHECKED: Joshua Pruitt	APPROVAL RECOMMENDED BY:	

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DEPARTMENT OF TRANSPORTATION  
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BRIDGE SECTION



**SAYLES/GORGE ST. VIADUCT**  
SAYLES ST & GORGE ST  
**TIMBER STAIR DETAILS 2**




BRIDGE NO. 1841  
DWG. NO. N40

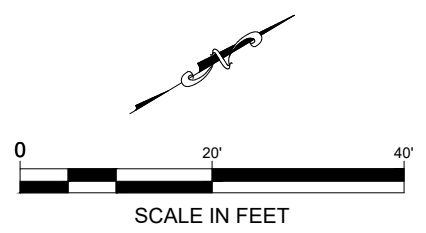
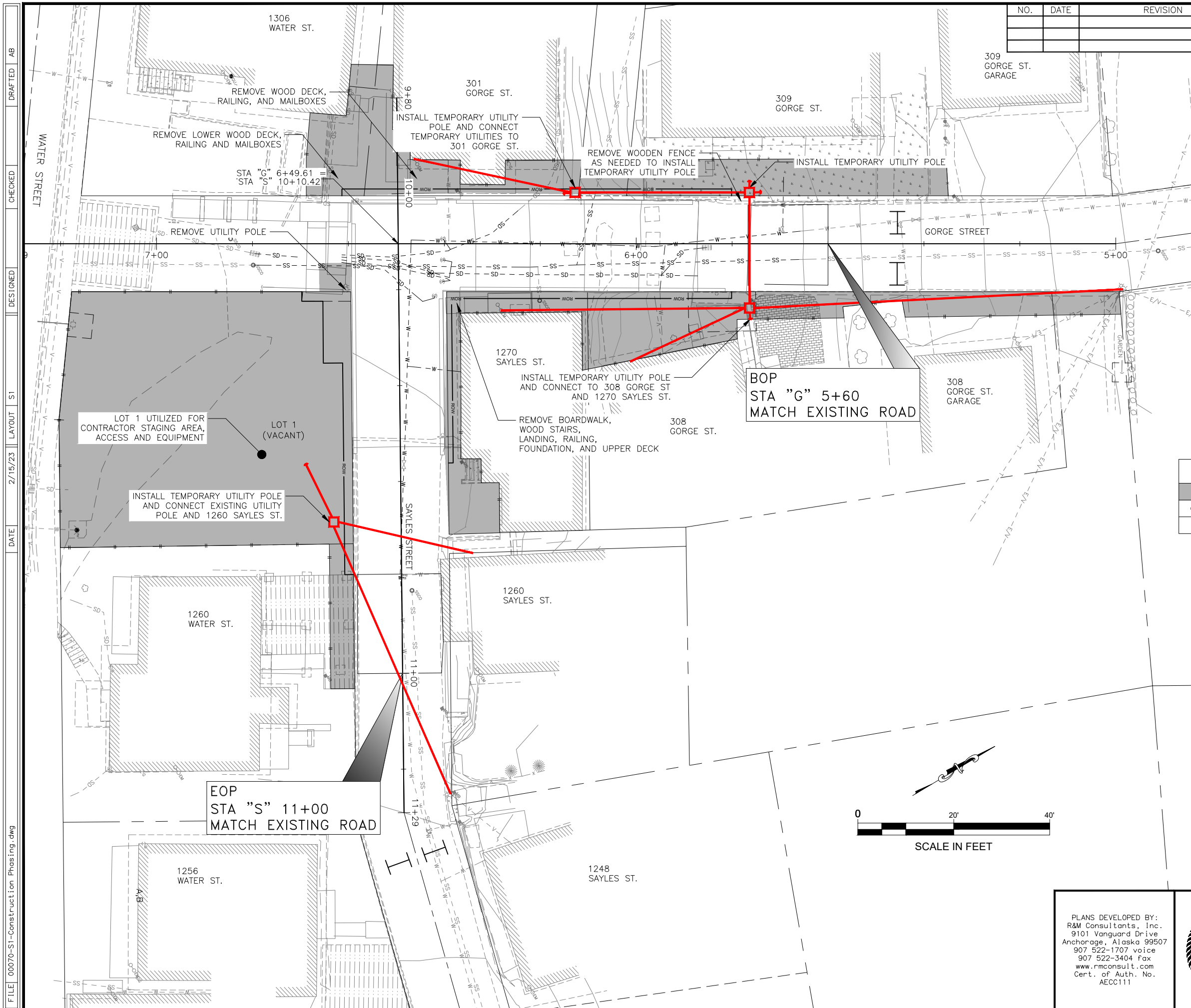
**PIH SUBMITTAL**  
**NOT FOR CONSTRUCTION**  
PLANS DEVELOPED BY:  
KPF ENGINEERING CONSULTING  
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	S1	S4

**PHASE 1 NOTES:**

1. SEE TRAFFIC CONTROL SHEETS FOR ALL ROAD CLOSURE SIGNING, MARKERS AND DEVICES.
2. MOBILIZE AND PREP LOT 1 FOR STAGING AREA, ACCESS AND EQUIPMENT STORAGE.
3. REMOVE PRIVATE PROPERTY INCLUDING BOARDWALK, WOOD DECK, RAILING, AND MAILBOXES.
4. INSTALL TEMPORARY UTILITY POLES AND RELOCATE OVERHEAD UTILITIES.
5. INSTALL TEMPORARY UTILITY SERVICES TO ALL BUILDINGS IMPACTED WITHIN PROJECT LIMITS.
6. REMOVE EXISTING UTILITY POLE.

CONSTRUCTION PHASING LEGEND	
	CONTRACTOR STAGING AND WORK AREA
	TEMPORARY OVERHEAD UTILITY RELOCATION
	TEMPORARY OVERHEAD UTILITY POLE/GUY WIRE



FILE 00070-S1-Construction Phasing.dwg  
 DATE 2/15/23  
 LAYOUT S1  
 DESIGNED  
 CHECKED  
 DRAFTED I AB

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 9101 Vanguard Drive  
 Anchorage, Alaska 99507  
 907 522-1707 voice  
 907 522-3404 fax  
 www.rmconsult.com  
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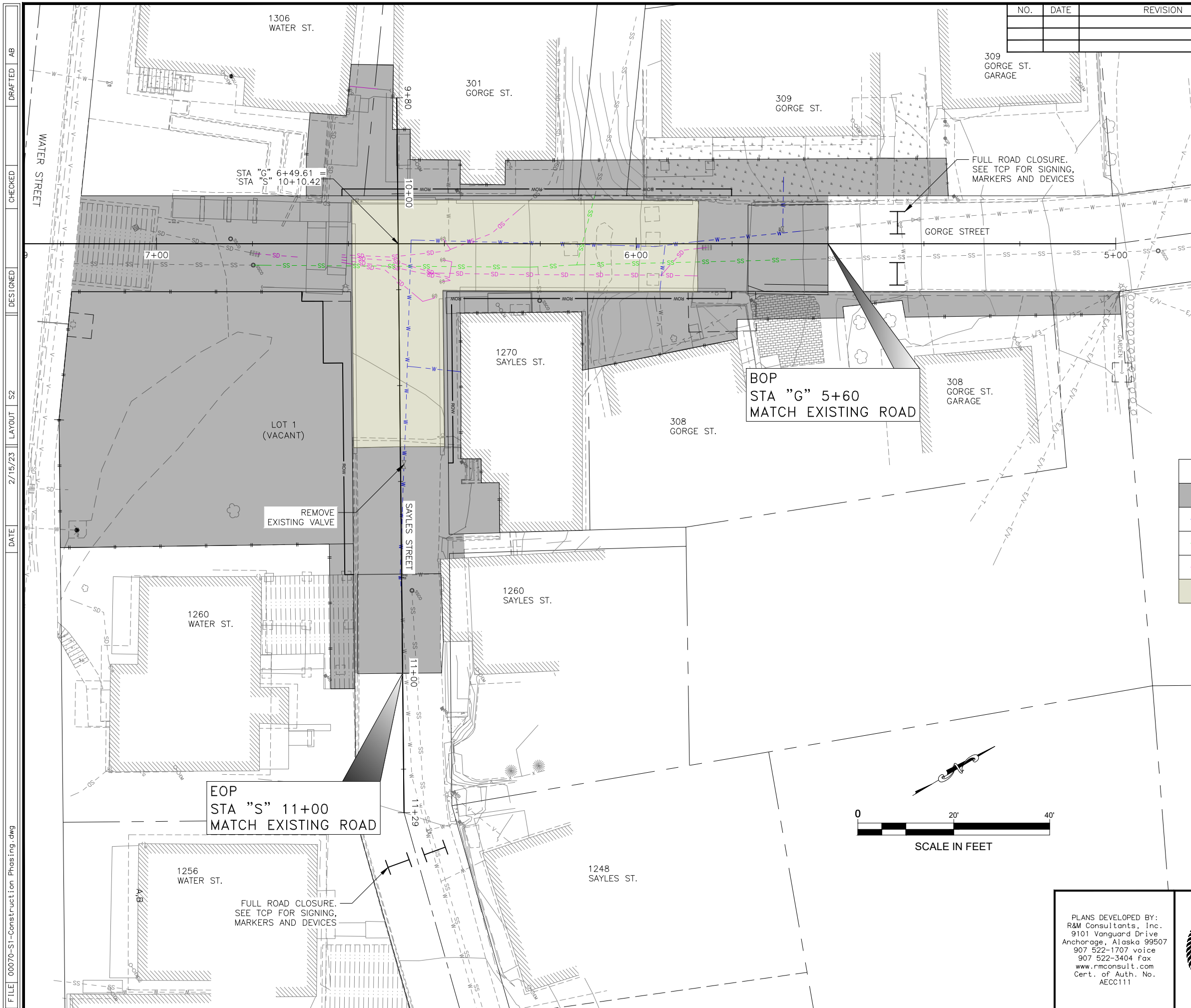


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION  
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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**

CONSTRUCTION PHASE 1

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHwy00070	2023	S2	S4



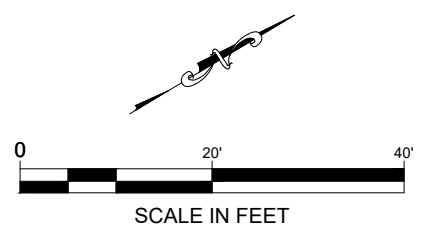
**PHASE 2A NOTES:**

1. REMOVE PAVEMENT, EXCAVATE AND EXPOSE EXISTING WATERLINE AND SEWERLINE.
2. INSTALL SHUTOFF VALVES, MANHOLES, AND APPURTENANCES BEHIND EXISTING ABUTMENT WALLS.
3. PROVIDE TEMPORARY WATER AND SANITARY SEWER SERVICES TO AFFECTED PROPERTIES.

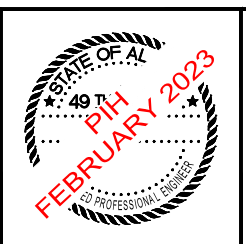
**PHASE 2B NOTES:**

1. REMOVE WOOD STAIRS TO WATER STREET. REMOVE EXISTING CURB AND GUTTER, AND ALL ELEMENTS OF THE EXISTING TIMBER TRESTLE.
2. REMOVE WATERLINE, SEWERLINE, AND EXISTING ROOF DRAIN LEADERS AND PIPING BELOW THE EXISTING BRIDGE.

CONSTRUCTION PHASING LEGEND	
WORK AREA	
REMOVAL OF EXISTING WATERLINE - 202.0001.0000	
REMOVAL OF EXISTING SANITARY SEWER - 202.0001.0000	
REMOVAL OF EXISTING STORM DRAIN - 202.0001.0000	
REMOVAL OF BRIDGE NO. 1841 - 202.0023.0000	



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KTN: SAYLES/GORGE ST. VIADUCT (1841) IMPROVEMENTS

CONSTRUCTION PHASE 2

FILE 00070-S1-Construction Phasing.dwg  
 DATE 2/15/23  
 LAYOUT S2  
 DESIGNED  
 CHECKED  
 DRAFTED AB



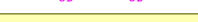
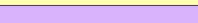





NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	S3	S4

**PHASE 3 NOTES:**

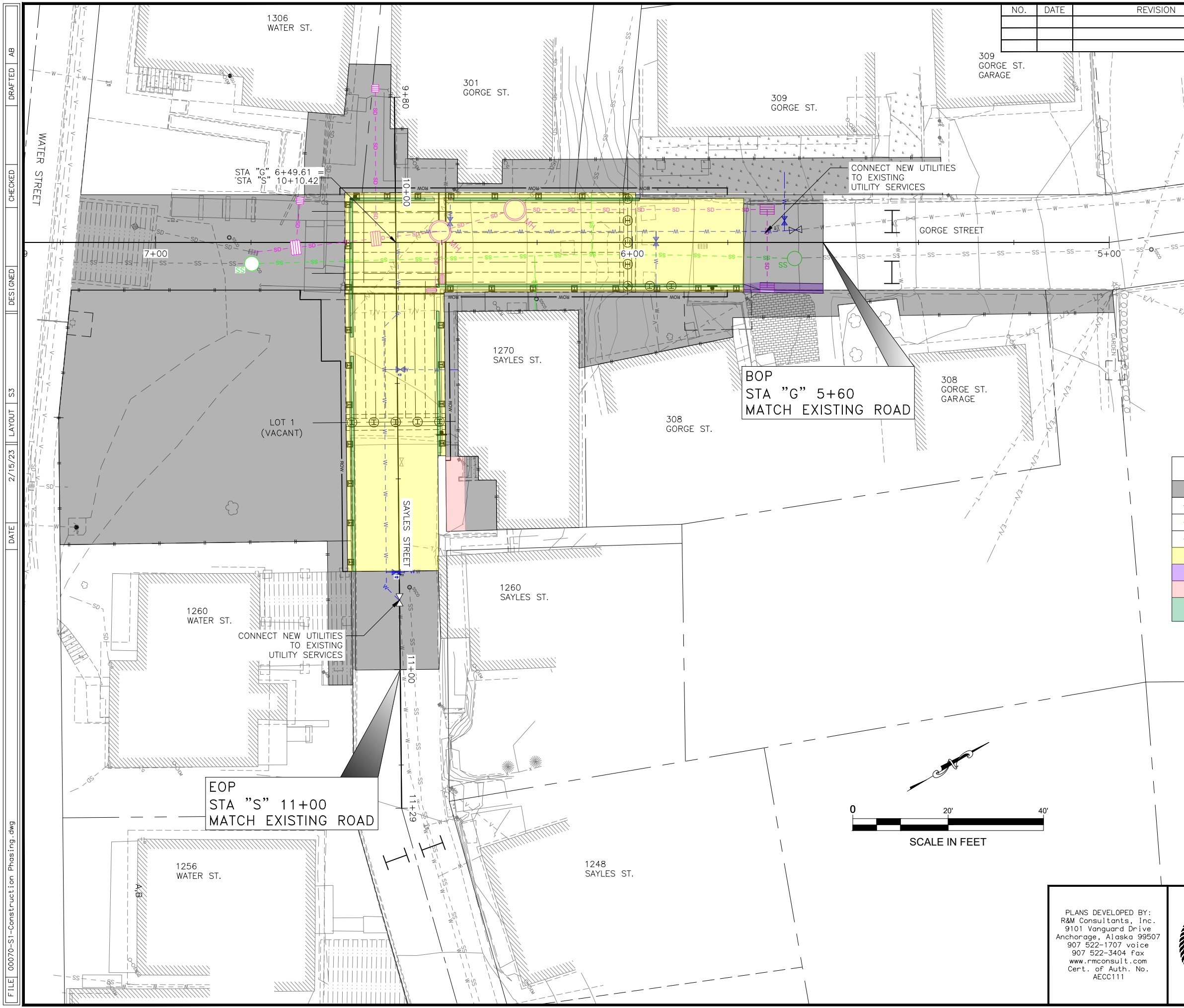
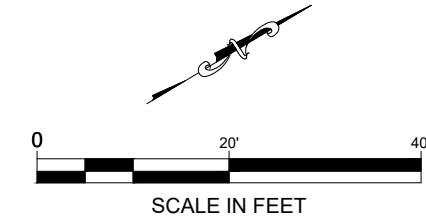
1. INSTALL DRILLED SHAFTS AND ROCK SOCKETS FOR BRIDGE FOUNDATIONS AND ABUTMENTS.
2. INSTALL H-PILES AND TIMBER LAGGING FOR NEW ABUTMENT SOLIDER PILE WALLS.
3. BACKFILL BETWEEN NEW AND EXISTING ABUTMENT WALLS.
4. DRILL AND INSTALL SHAFTS FOR BENTS 2, 3, AND 4.
5. INSTALL VOIDED SLAB GIRDERS USING TEMPORARY SUPPORTS
6. INSTALL NEW WATERLINE, SANITARY SEWERLINE, AND DRAINAGE PIPES, STRUCTURES, AND APPURTENANCES.
7. CONNECT NEW UTILITIES THROUGH ABUTMENT WALL PENETRATIONS.
8. BACKFILL BEHIND ABUTMENT WALLS TO BOTTOM OF STRUCTURAL SECTION.
9. CAST END DIAPHRAGMS WITH BRIDGE DECK SPANS 1 AND 3.
10. CAST SPAN 2 WITH BENT 4 CLOSURE POURS.
11. REMOVE TEMPORARY SUPPORTS.
12. CONSTRUCT APPROACH SLABS.

**CONSTRUCTION PHASING LEGEND**

WORK AREA	
	PROPOSED WATERLINE -- SEE U-SHEETS
	PROPOSED SANITARY SEWER -- SEE U-SHEETS
	PROPOSED STORM DRAIN -- SEE U-SHEETS
	PROPOSED BRIDGE AND APPROACH SLABS
	CURB AND GUTTER, TYPE I -- 609.0002.0001
	DRIVEWAY -- 639.0001.0000
	STEEL BRIDGE RAILING, 3-TUBE -- 507.0001.0003

**PHASE 4 NOTES:**

1. INSTALL BRIDGE CURB AND RAILING.
2. PLACE ROADWAY STRUCTURAL SECTION.
3. CONSTRUCT ROADWAY CURB AND GUTTER.
4. GRADE AND CONSTRUCT APPROACH TO 1270 SAYLES ST.
5. REMOVE TEMPORARY WATER AND SANITARY SEWER SERVICES ONCE NEW WATERLINE AND SEWERLINE IS TESTED AND OPERATIONAL.



EOP  
STA "S" 11+00  
MATCH EXISTING ROAD

BOP  
STA "G" 5+60  
MATCH EXISTING ROAD

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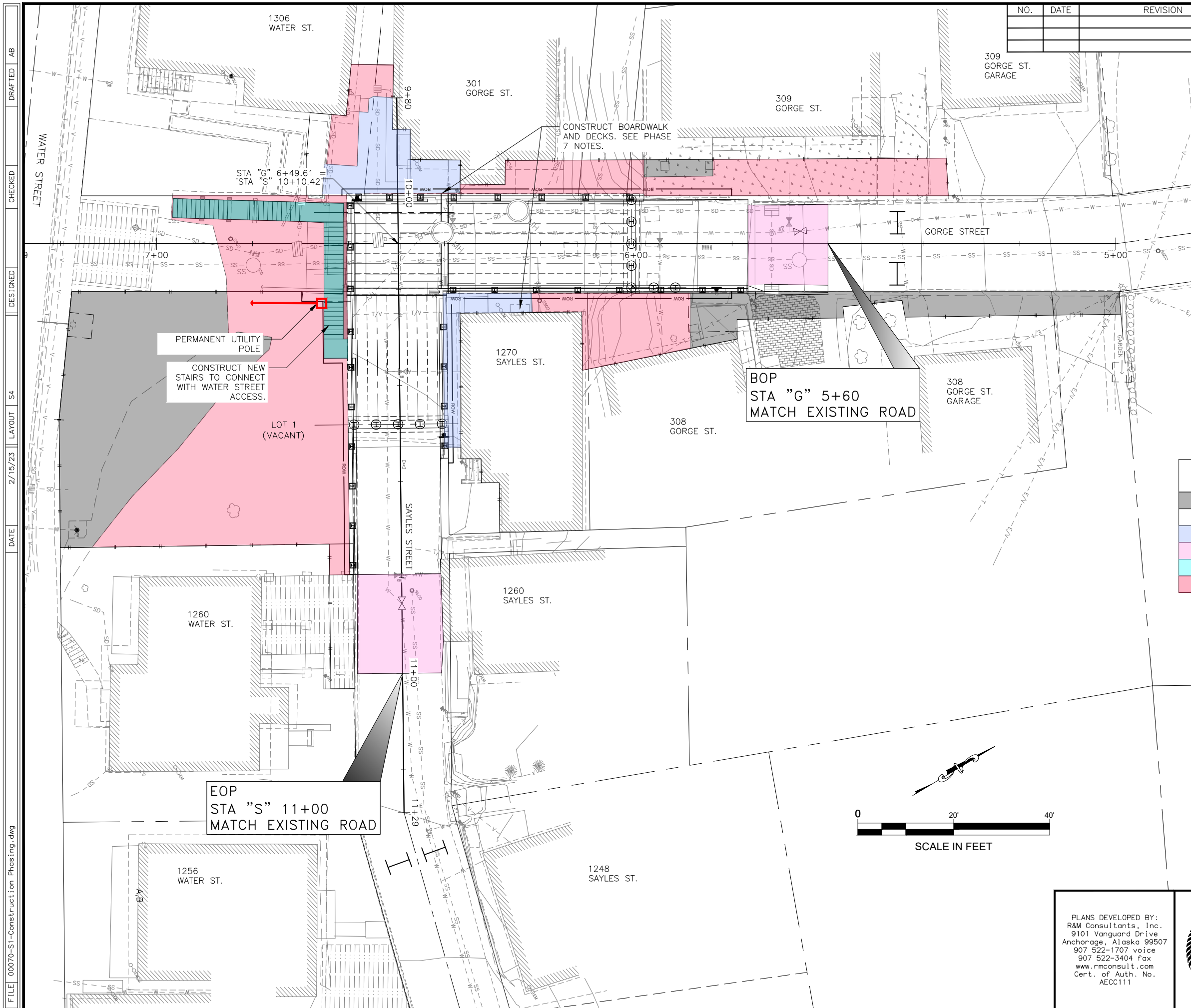
KTN: SAYLES/GORGE ST. VIADUCT  
(1841) IMPROVEMENTS

CONSTRUCTION PHASE 3&4

FILE: 00070-S1-Construction Phasing.dwg DATE: 2/15/23 LAYOUT: S3 DESIGNED: CHECKED: DRAFTED: AB



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	S4	S4



**PHASE 5 NOTES:**

1. CONSTRUCT WOOD STAIRS PROVIDING ACCESS TO WATER STREET.
2. RECONSTRUCT HOMEOWNER ACCESS INCLUDING DECKS, STAIRS, BOARDWALKS, MAILBOXES, RAILINGS, ETC.
3. PLACE ASPHALT PAVEMENT

**PHASE 6 NOTES:**

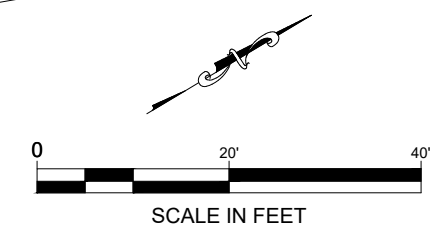
1. CONSTRUCT NEW UTILITY POLE FOUNDATION.
2. INSTALL PERMANENT OVERHEAD UTILITIES AND CONNECTIONS TO RESIDENCES.
3. REMOVE TEMPORARY POLES AND OVERHEAD UTILITIES.

**CONSTRUCTION PHASING LEGEND**

	WORK AREA
	OVERHEAD UTILITY POLE/GUY WIRE
	BOARDWALK & DECK
	HMA, TYPE II: CLASS B - 401.0001.002B
	TREATED TIMBER STAIRS - 506.0001.0000
	TOPSOIL - 620.0001.0000

**PHASE 7 NOTES:**

1. PLACE TOPSOIL AND SEED ALL DISTURBED SLOPES.
2. CLEAN UP PROJECT SITE AND DEMOBILIZE.



EOP  
STA "S" 11+00  
MATCH EXISTING ROAD

BOP  
STA "G" 5+60  
MATCH EXISTING ROAD

PERMANENT UTILITY POLE  
CONSTRUCT NEW STAIRS TO CONNECT WITH WATER STREET ACCESS.

FILE 00070-S1-Construction Phasing.dwg DATE 2/15/23 LAYOUT S4 DESIGNED CHECKED DRAFTED AB

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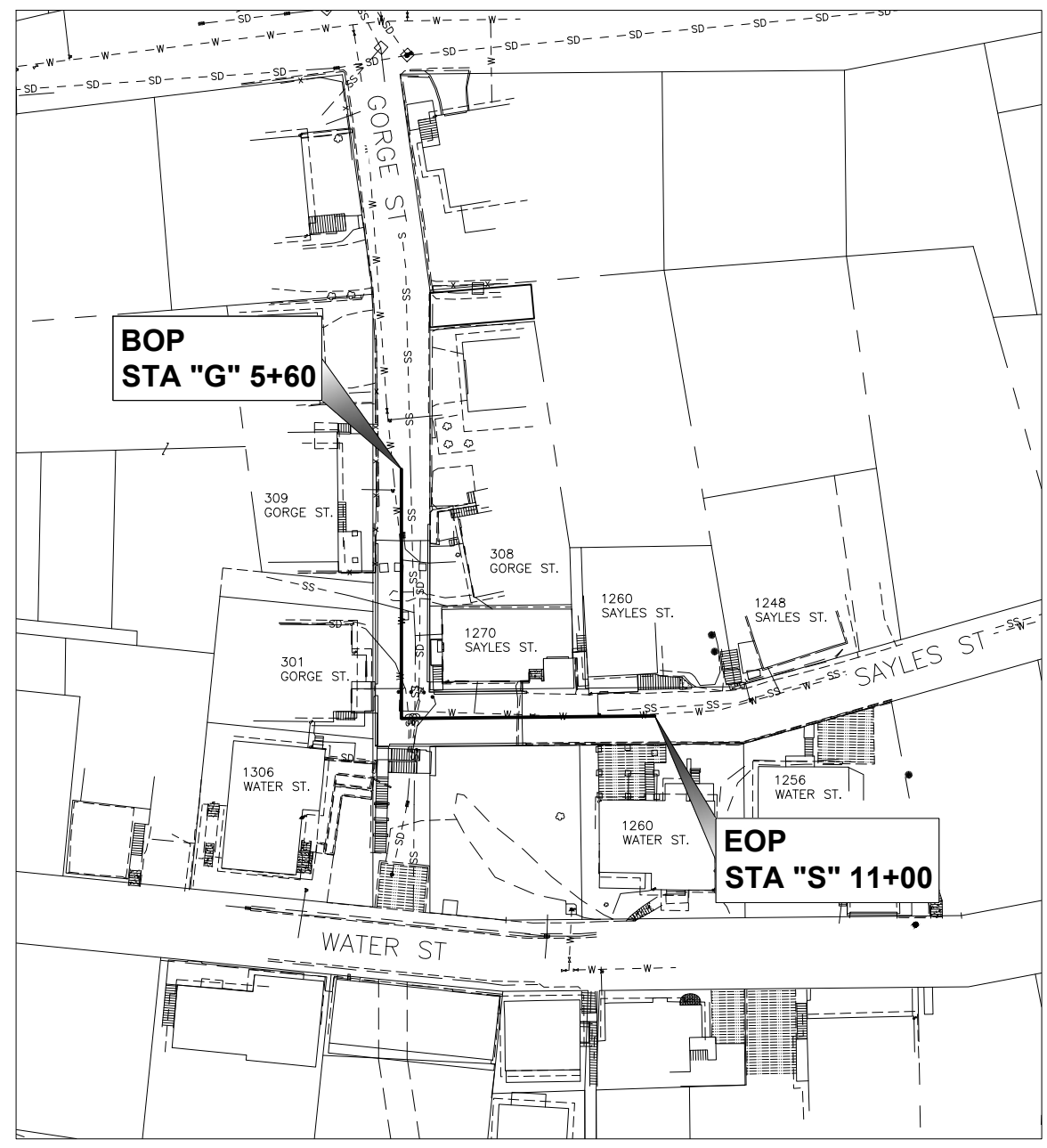
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KTN: SAYLES/GORGE ST. VIADUCT (1841) IMPROVEMENTS

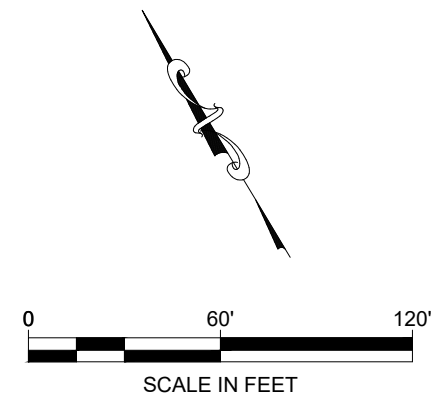
CONSTRUCTION PHASE 5-7

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	T1	T2

FILE 00070-T1-Traffic.dwg  
 DATE 2/15/23  
 LAYOUT T1  
 DESIGNED  
 CHECKED  
 DRAFTED AB



VICINITY MAP

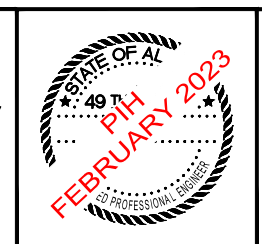


LEGEND	
DESCRIPTION	SYMBOL
SIGN	■
TYPE III BARRICADE	▤
WORK AREA	▬
ROAD CLOSURE	▨

GENERAL TRAFFIC CONTROL NOTES:

- SEE SECTION 643-3.08 FOR LIMITATIONS ON TRAFFIC RESTRICTIONS.
- IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME, BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. THE FINAL TCP ADDRESSING IN DEPTH THE VARIETY OF SITUATIONAL THAT MAY OCCUR ONCE CONSTRUCTION HAS STARTED SHALL BE COMPLETED BY THE CONTRACTOR AND SUBMITTED FOR REVIEW BY THE ENGINEER.

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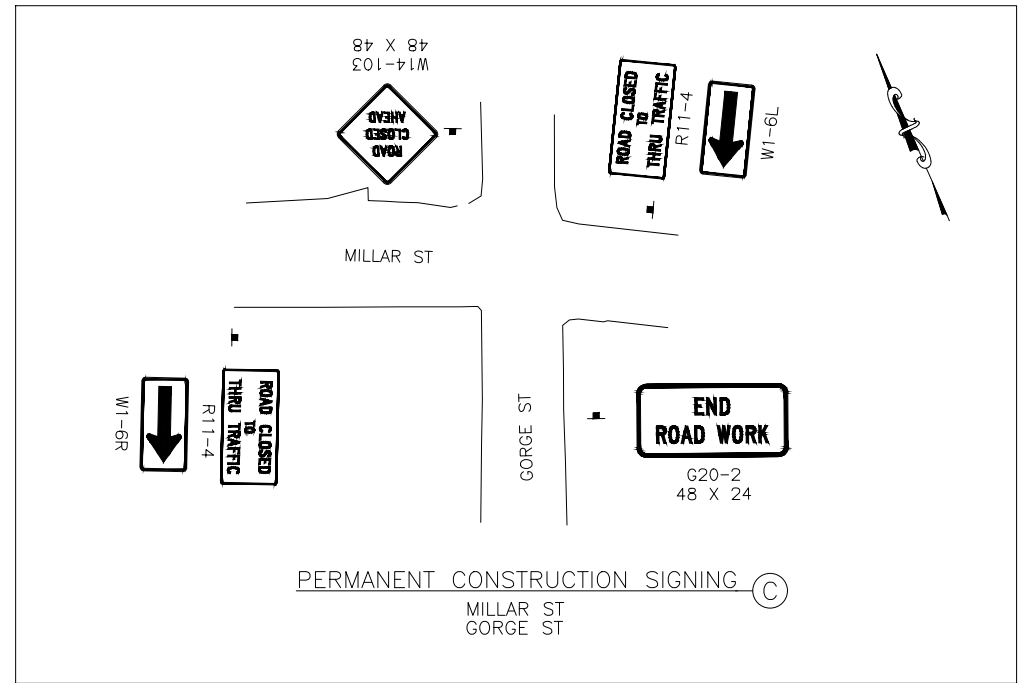
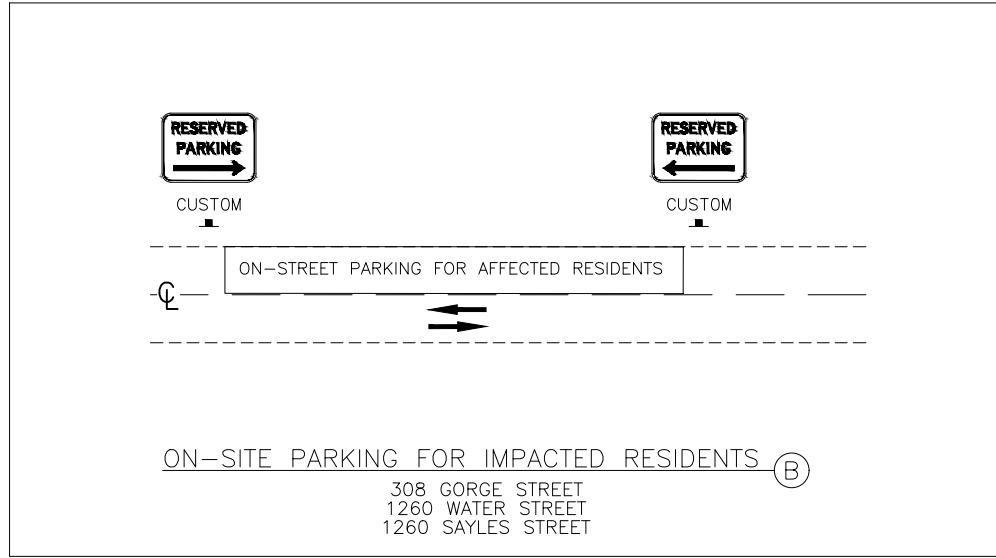
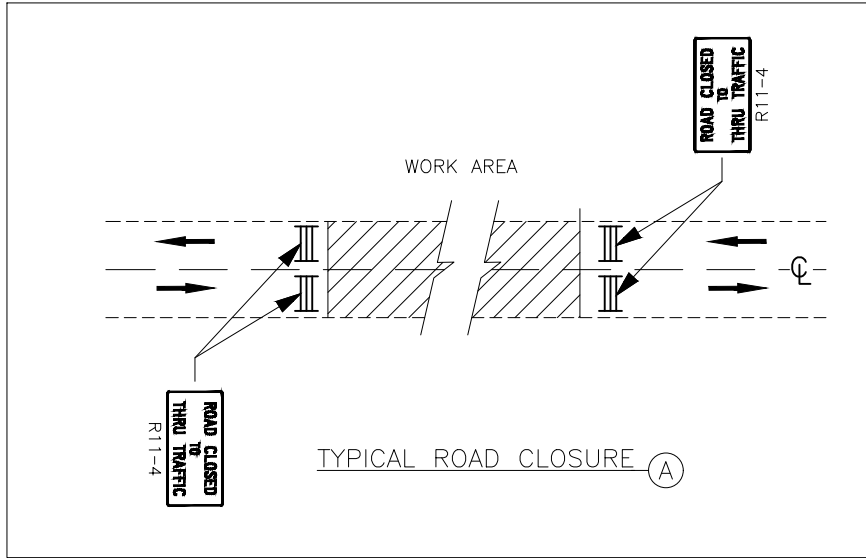


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 (1841) IMPROVEMENTS

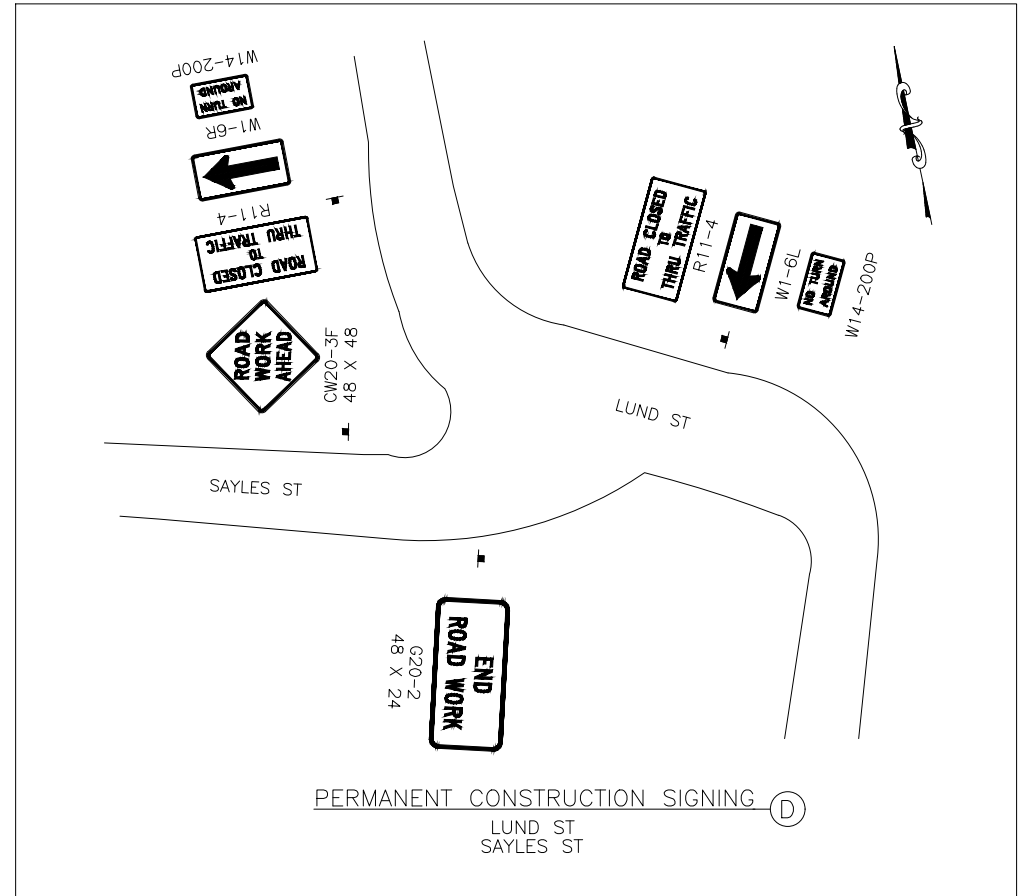
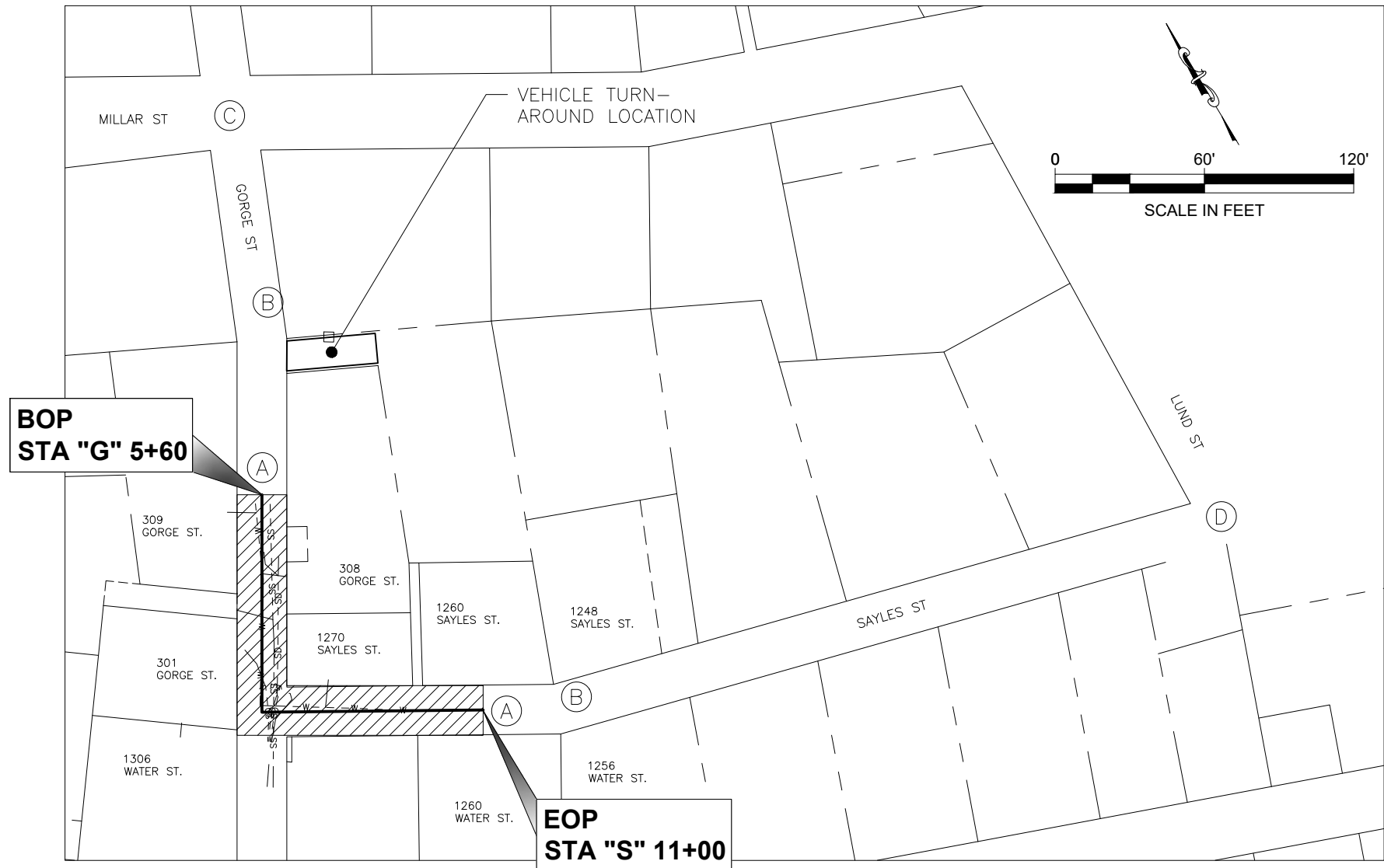
TRAFFIC CONTROL  
 LEGEND AND GENERAL NOTES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	T2	T2



**NOTES:**

1. ASSUMED THAT 301 AND 1270 WILL BE RELOCATED DURING CONSTRUCTION AND NO ON-SITE PARKING WILL BE REQUIRED.



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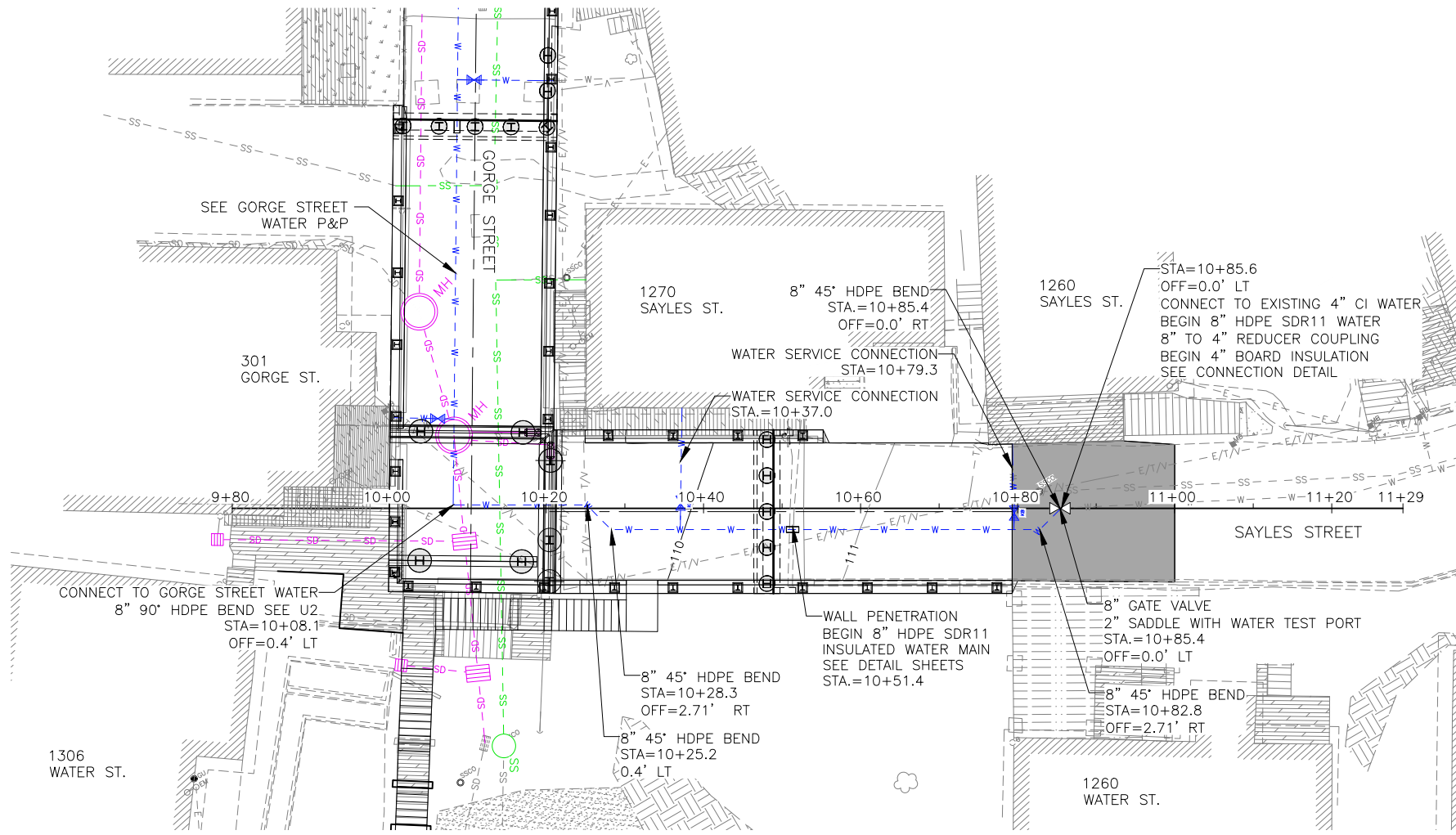


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(907) 465-1763  
**KTN: SAYLES/GORGE ST. VIADUCT  
(1841) IMPROVEMENTS**  
TRAFFIC CONTROL  
PERMANENT CONSTRUCTION SIGNING

FILE 00070-T1-Traffic.dwg DATE 2/15/23 LAYOUT T2 DESIGNED CHECKED DRAFTED AB

FILE 00070-U1 Water-Plan and Profile.dwg  
 DATE 2/15/23  
 LAYOUT UT WATER  
 DESIGNED  
 CHECKED  
 DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	U1	U13

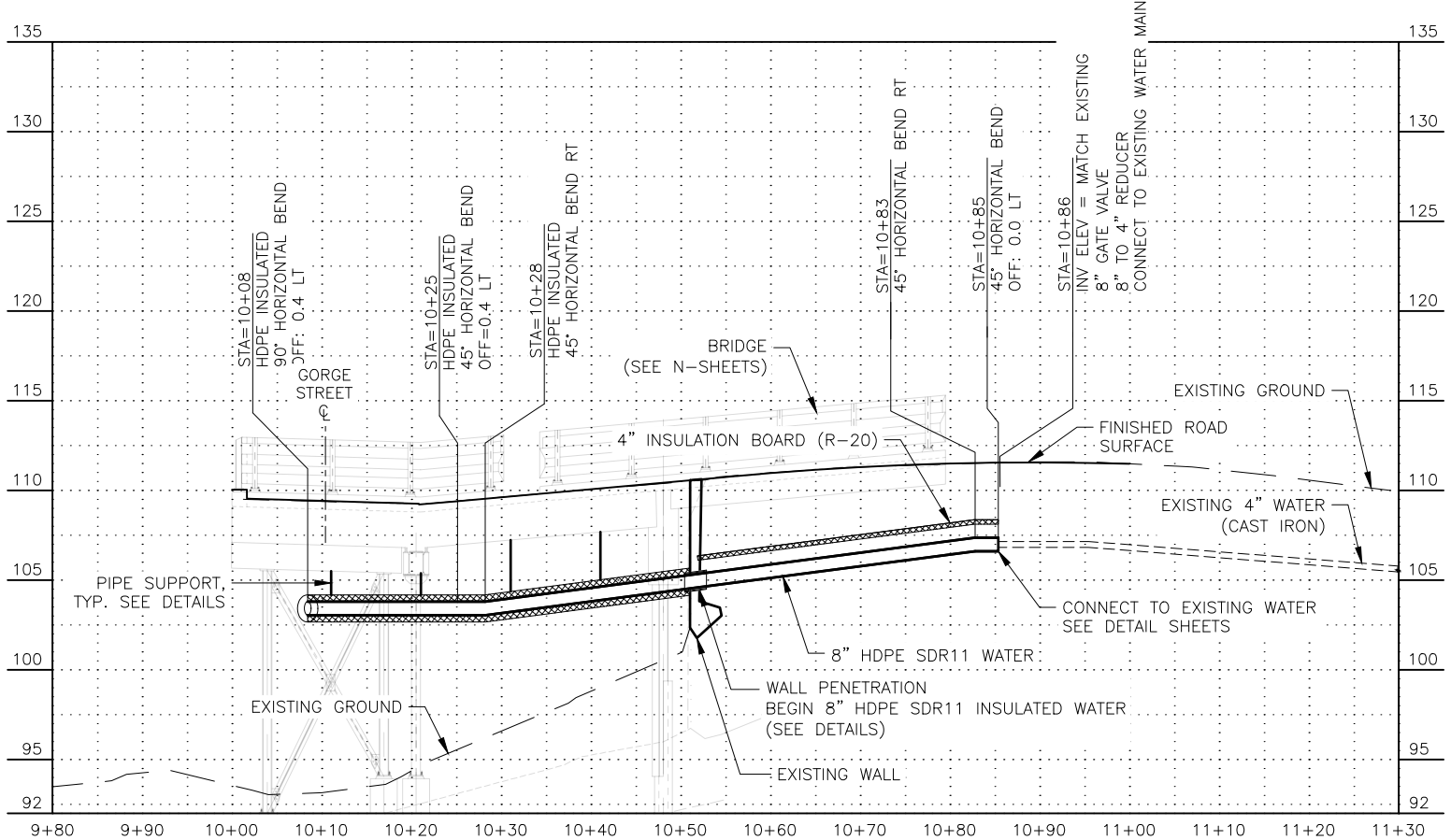


**WATER DEMOLITION & TEMPORARY SERVICE NOTES:**

- EXISTING WATER MAIN AND APPURTENANCES TO BE REMOVED AND DISPOSED OF BY CONTRACTOR. SEE DEMOLITION PLAN.
- EXISTING UTILITY LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- WATER, SANITARY SEWER, AND STORM DRAIN REMOVAL IS PAID UNDER BID ITEM 202.0001.0000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- SEE SUMMARY TABLE IN D SHEETS FOR BID ITEM 202.0001.0000 FOR ADDITIONAL INFORMATION.
- PROVIDE TEMPORARY WATER & SEWER SERVICES PRIOR TO DEMOLITION OF UTILITIES.

**WATER CONSTRUCTION NOTES:**

- CONSTRUCT WATER SYSTEM IN ACCORDANCE WITH SPECIFICATION SECTION 627.
- KPU WATER DIVISION, KETCHIKAN FIRE DEPARTMENT, AND EXISTING CUSTOMERS SHALL BE NOTIFIED SEVENTY-TWO (72) HOURS IN ADVANCE OF WATER SERVICE INTERRUPTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY WATER SERVICE TO EXISTING CUSTOMERS IF THE OUTAGE EXCEEDS 6-HOURS OR IF DEEMED NECESSARY BY THE ENGINEER. THE CONTRACTOR SHALL HAVE A TEMPORARY WATER SERVICE PLAN REVIEWED AND APPROVED BY ADEC.
- REPLACE ALL WATER SERVICES TO THE EDGE OF RIGHT-OF-WAY OR TO RESIDENCES AS SHOWN.
- REPLACE ALL WATER SERVICE VALVE BOXES.
- BURIED WATER MAINS SHALL HAVE 4' MINIMUM COVER. WHERE MINIMUM COVER IS NOT POSSIBLE, INSTALL 4" BOARD INSULATION AS SHOWN.
- TRACER WIRE SHALL BE INSTALLED 12" ABOVE BURIED WATER MAINS. USE 8 GAGE WIRE ABOVE MAINS.
- THRUST RESTRAINT SHALL BE PROVIDED BY USE OF FIELD-LOK GASKETS (OR EQUAL) OR MEG-A-LUG FITTINGS (OR EQUAL) ON ALL MECHANICAL JOINTS.
- THE CONTRACTOR SHALL OPEN BORE FLUSH THE NEWLY INSTALLED WATER MAIN PRIOR TO INSTALLATION OF WATER SERVICES. PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE.
- PIPE DEFLECTION MAY BE ACCOMPLISHED BY FUSED INSTALLATION OF PRE-FORMED ELBOWS.
- MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION BETWEEN THE WATER MAIN(S) AND SEWER/STORM DRAIN PIPING UNLESS OTHERWISE SHOWN ON THE DRAWINGS. WHEN THE 10 FEET SEPARATION REQUIREMENT CANNOT BE ACHIEVED, INSTALL WATER MAINS A MINIMUM OF 18 INCHES ABOVE THE TOP OF SEWER/STORM PIPING.
- WHERE BURIED, THE WATER LINE, SEWER LINE, AND STORM DRAIN LINE WILL BE IN SEPARATE TRENCHES.
- WATER SERVICES SHALL BE 3/4" COPPER, TYPE K, UNLESS OTHERWISE NOTED ON PLANS.



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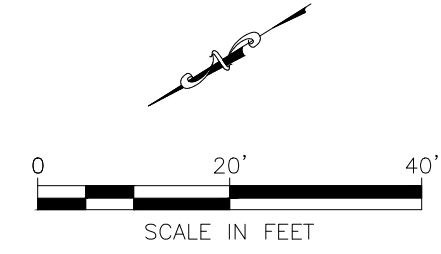
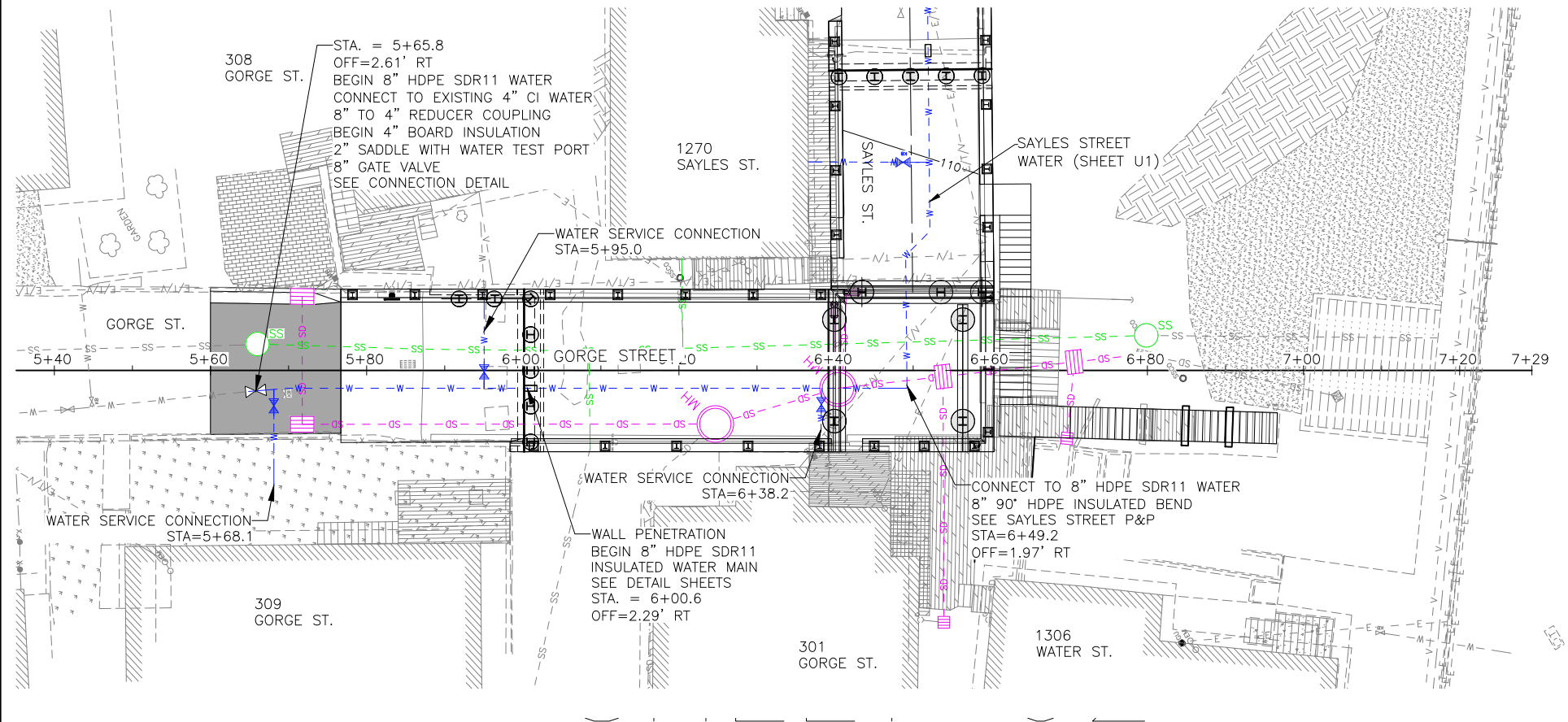


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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**  
**SAYLES STREET WATER  
 PLAN & PROFILE**



FILE 00070-U1 Water-Plan and Profile.dwg  
 DATE 2/15/23  
 LAYOUT U2 WATER  
 DESIGNED  
 CHECKED  
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2023	U2	U13

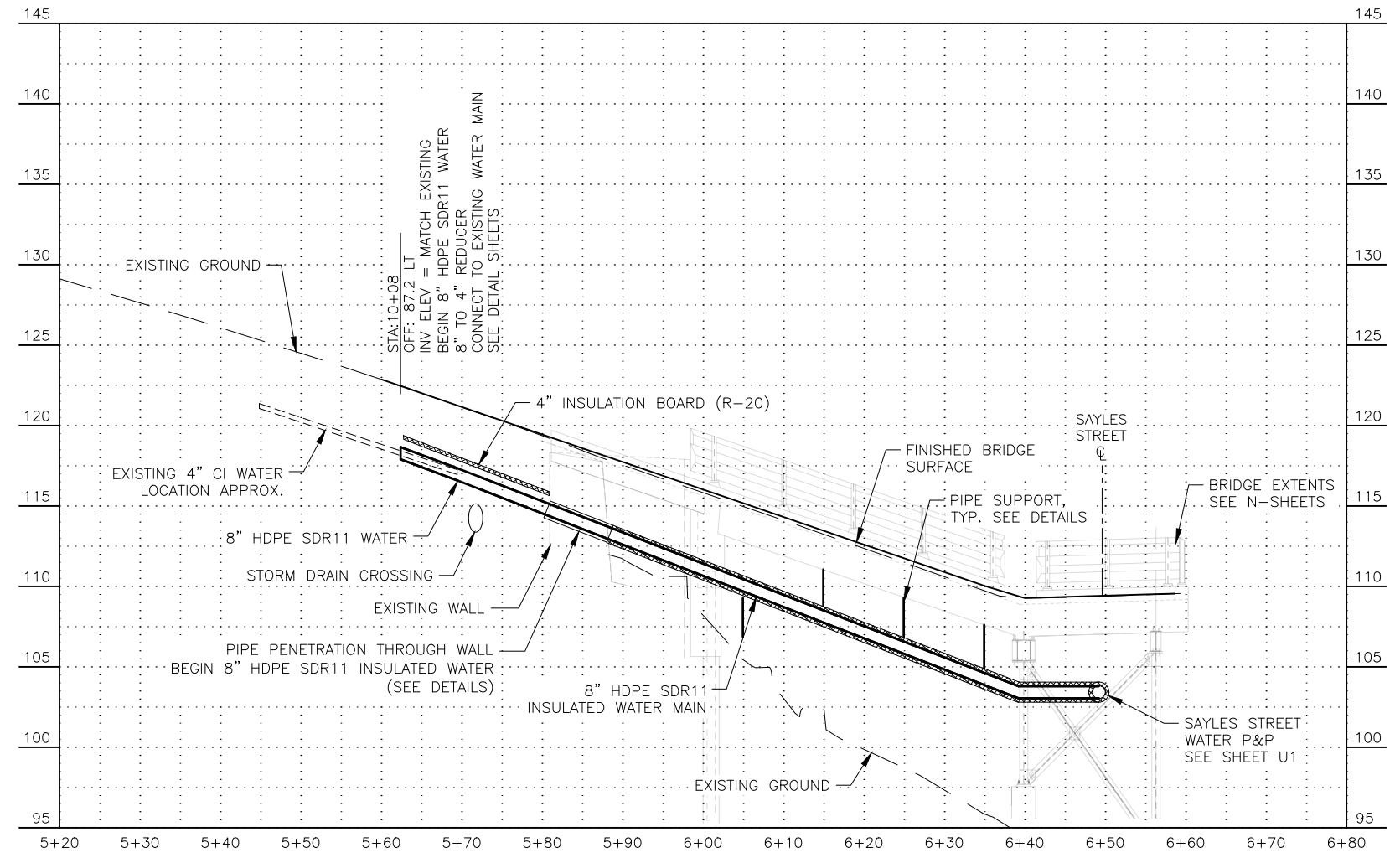


**WATER DEMOLITION & TEMPORARY SERVICE NOTES:**

- EXISTING WATER MAIN AND APPURTENANCES TO BE REMOVED AND DISPOSED OF BY CONTRACTOR. SEE F SHEETS.
- EXISTING UTILITY LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- WATER, SANITARY SEWER, AND STORM DRAIN REMOVAL IS PAID UNDER BID ITEM 202.0001.0000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- SEE SUMMARY TABLE IN D SHEETS FOR BID ITEM 202.0001.0000 FOR ADDITIONAL INFORMATION.
- PROVIDE TEMPORARY SERVICES PRIOR TO DEMOLITION OF UTILITIES.

**WATER CONSTRUCTION NOTES:**

- CONSTRUCT WATER SYSTEM IN ACCORDANCE WITH SPECIFICATION SECTION 627.
- KPU WATER DIVISION, KETCHIKAN FIRE DEPARTMENT, AND EXISTING CUSTOMERS SHALL BE NOTIFIED SEVENTY-TWO (72) HOURS IN ADVANCE OF WATER SERVICE INTERRUPTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY WATER SERVICE TO EXISTING CUSTOMERS IF THE OUTAGE EXCEEDS 6-HOURS OR IF DEEMED NECESSARY BY THE ENGINEER. THE CONTRACTOR SHALL HAVE A TEMPORARY WATER SERVICE PLAN REVIEWED AND APPROVED BY ADEC.
- REPLACE ALL WATER SERVICES TO THE EDGE OF RIGHT-OF-WAY OR TO RESIDENCE AS SHOWN.
- REPLACE ALL WATER SERVICE VALVE BOXES.
- BURIED WATER MAINS SHALL HAVE 4' MINIMUM COVER. WHERE MINIMUM COVER IS NOT POSSIBLE, INSTALL 4" BOARD INSULATION AS SHOWN.
- TRACE WIRE SHALL BE INSTALLED 12" ABOVE BURIED WATER MAINS. USE 8 GAGE WIRE ABOVE MAINS.
- NO PIPE LENGTH LESS THAN EIGHT (8') FEET SHALL BE INCORPORATED IN THE WATER SYSTEM EXCEPT FOR THOSE NECESSARY FOR FIRE HYDRANTS OR VALVE LOCATIONS.
- THRUST RESTRAINT SHALL BE PROVIDED BY USE OF FIELD-LOK GASKETS (OR EQUAL) OR MEG-A-LUG FITTINGS (OR EQUAL) ON ALL MECHANICAL JOINTS.
- THE CONTRACTOR SHALL OPEN BORE FLUSH THE NEWLY INSTALLED WATER MAIN PRIOR TO INSTALLATION OF WATER SERVICES. PROVIDE A MINIMUM OF 48 HOURS ADVANCE NOTICE.
- PIPE DEFLECTION MAY BE ACCOMPLISHED BY FUSED INSTALLATION OF PRE-FORMED ELBOWS.
- MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION BETWEEN THE WATER MAIN(S) AND SEWER/STORM DRAIN PIPING UNLESS OTHERWISE SHOWN ON THE DRAWINGS. WHEN THE 10 FEET SEPARATION REQUIREMENT CANNOT BE ACHIEVED, INSTALL WATER MAINS A MINIMUM OF 18 INCHES ABOVE THE TOP OF SEWER/STORM PIPING.
- WHERE BURIED, THE WATER LINE, SEWER LINE, AND STORM DRAIN LINE WILL BE IN SEPARATE TRENCHES.
- WATER SERVICES SHALL BE 3/4" COPPER, TYPE K, UNLESS OTHERWISE NOTED ON PLANS.



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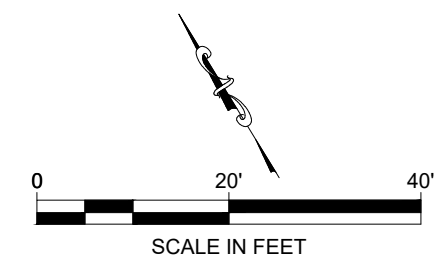
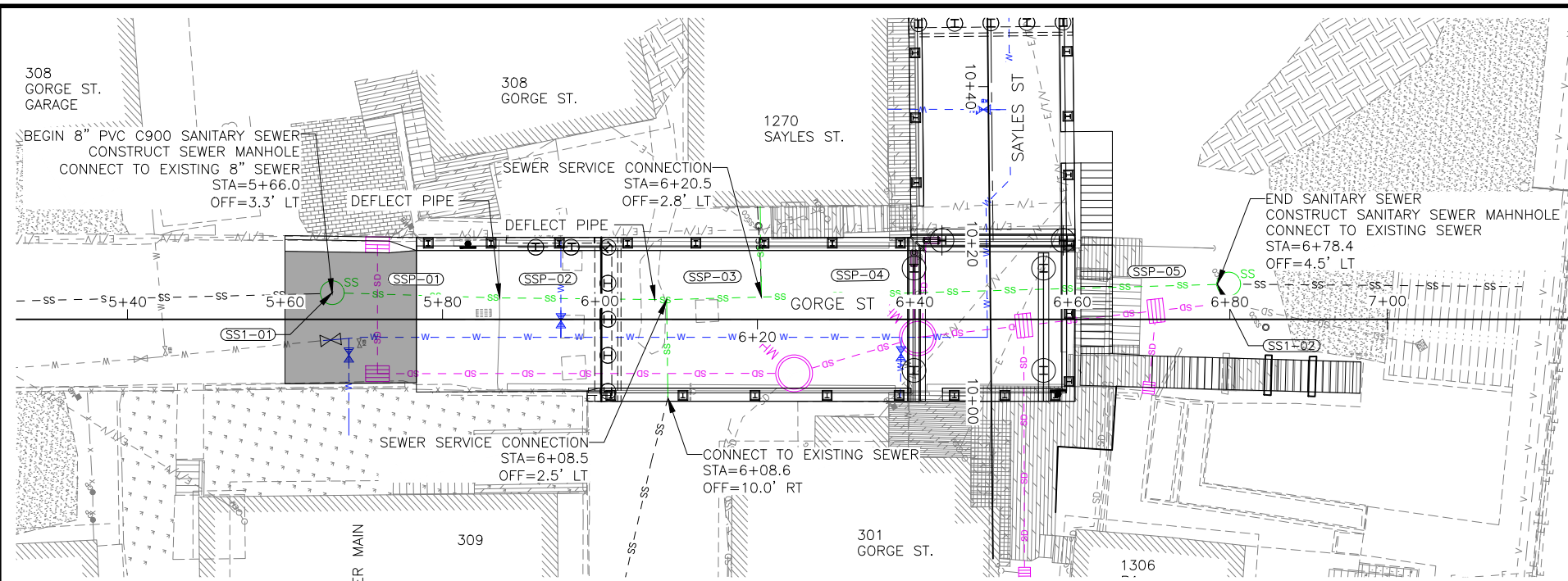
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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**

**GORGE STREET WATER  
 PLAN & PROFILE**



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2023	U3	U13

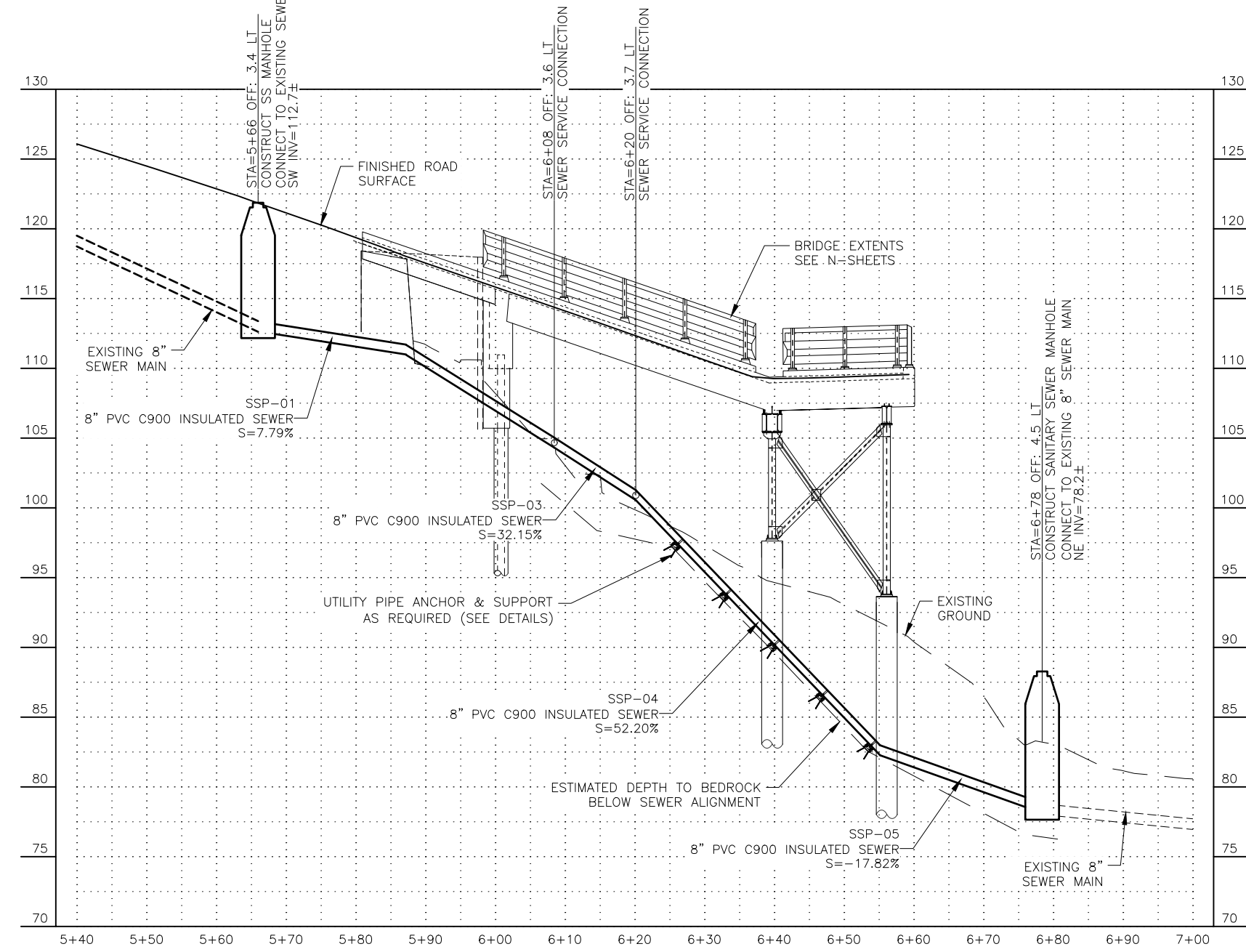


**SANITARY SEWER DEMOLITION & TEMPORARY SERVICE NOTES:**

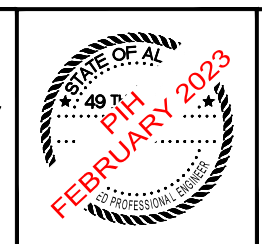
- EXISTING SEWER MAIN AND APPURTENANCES TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. SEE DEMOLITION PLAN.
- EXISTING UTILITY LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- WATER, SANITARY SEWER, AND STORM DRAIN REMOVAL IS PAID UNDER BID ITEM 202.0001.0000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- SEE SUMMARY TABLE IN D SHEETS FOR BID ITEM 202.0001.0000 FOR ADDITIONAL INFORMATION.
- PROVIDE TEMPORARY SERVICES PRIOR TO DEMOLITION OF UTILITIES.

**SANITARY SEWER CONSTRUCTION NOTES:**

- CITY OF KETCHIKAN AND EXISTING CUSTOMERS SHALL BE NOTIFIED SEVENTY-TWO (72) HOURS IN ADVANCE OF SEWER SERVICE INTERRUPTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY SEWER SERVICE TO EXISTING CUSTOMERS IF THE OUTAGE EXCEEDS 6-HOURS OR IF DEEMED NECESSARY BY THE ENGINEER. THE CONTRACTOR SHALL HAVE A TEMPORARY SEWER SERVICE PLAN REVIEWS AND APPROVED BY ADEC.
- REPLACE ALL SEWER SERVICES TO THE EDGE OF RIGHT-OF-WAY OR TO RESIDENCE AS SHOWN.
- REPLACE ALL SEWER SERVICE CLEAN OUTS.
- BURIED SEWER MAINS SHALL HAVE 4' MINIMUM COVER. WHERE MINIMUM COVER IS NOT POSSIBLE, INSTALL 4" RIGID INSULATION AS REQUIRED.
- TRACE WIRE SHALL BE INSTALLED 12" ABOVE BURIED SEWER MAINS. USE 8 GAGE WIRE ABOVE MAINS.
- ALL SEWER MAIN AND SERVICE TRENCH, BACKFILL, AND BEDDING SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.



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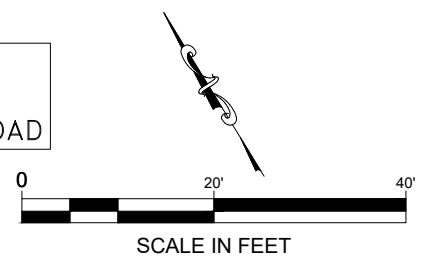
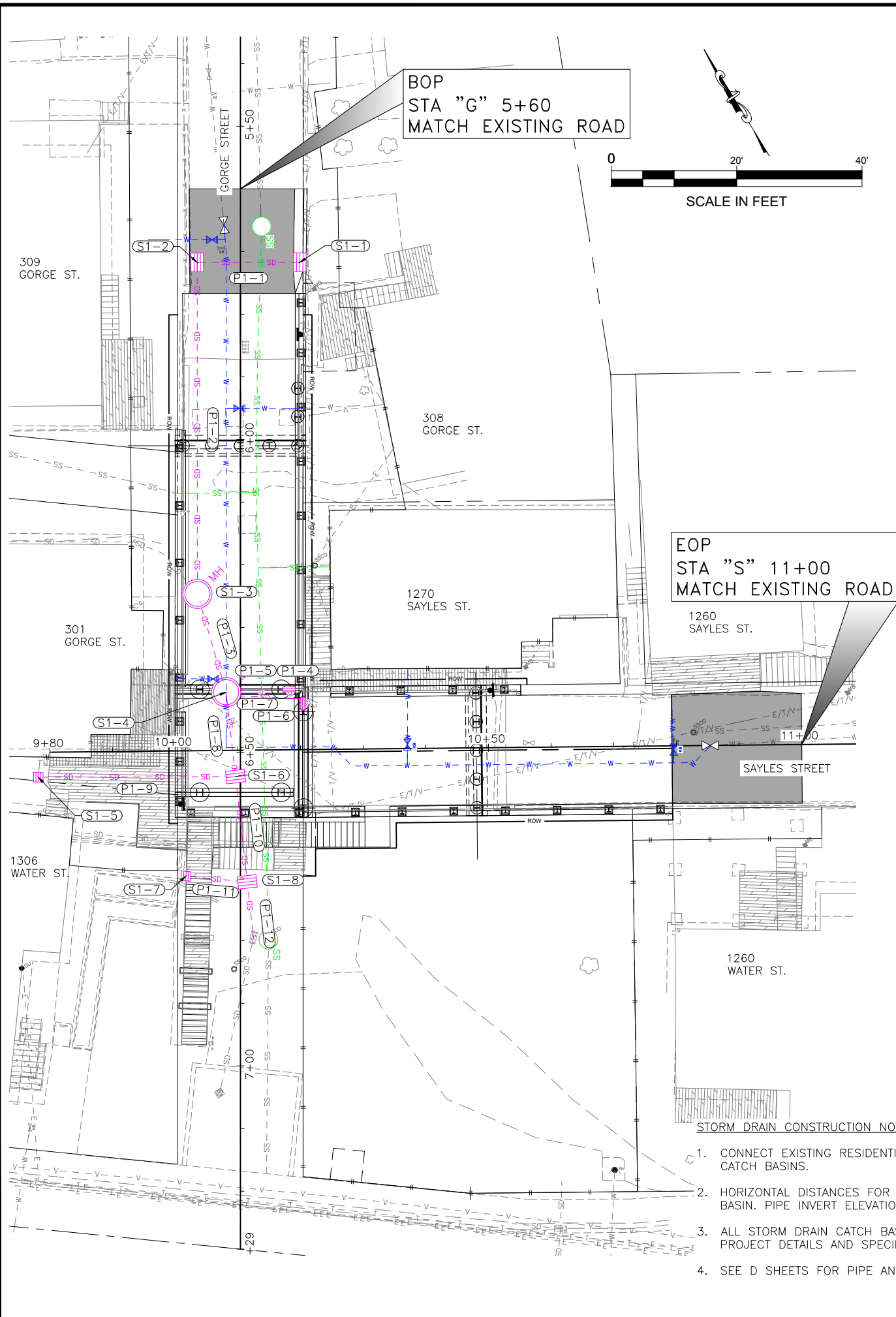
KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS

GORGE STREET SANITARY SEWER  
 PLAN AND PROFILE

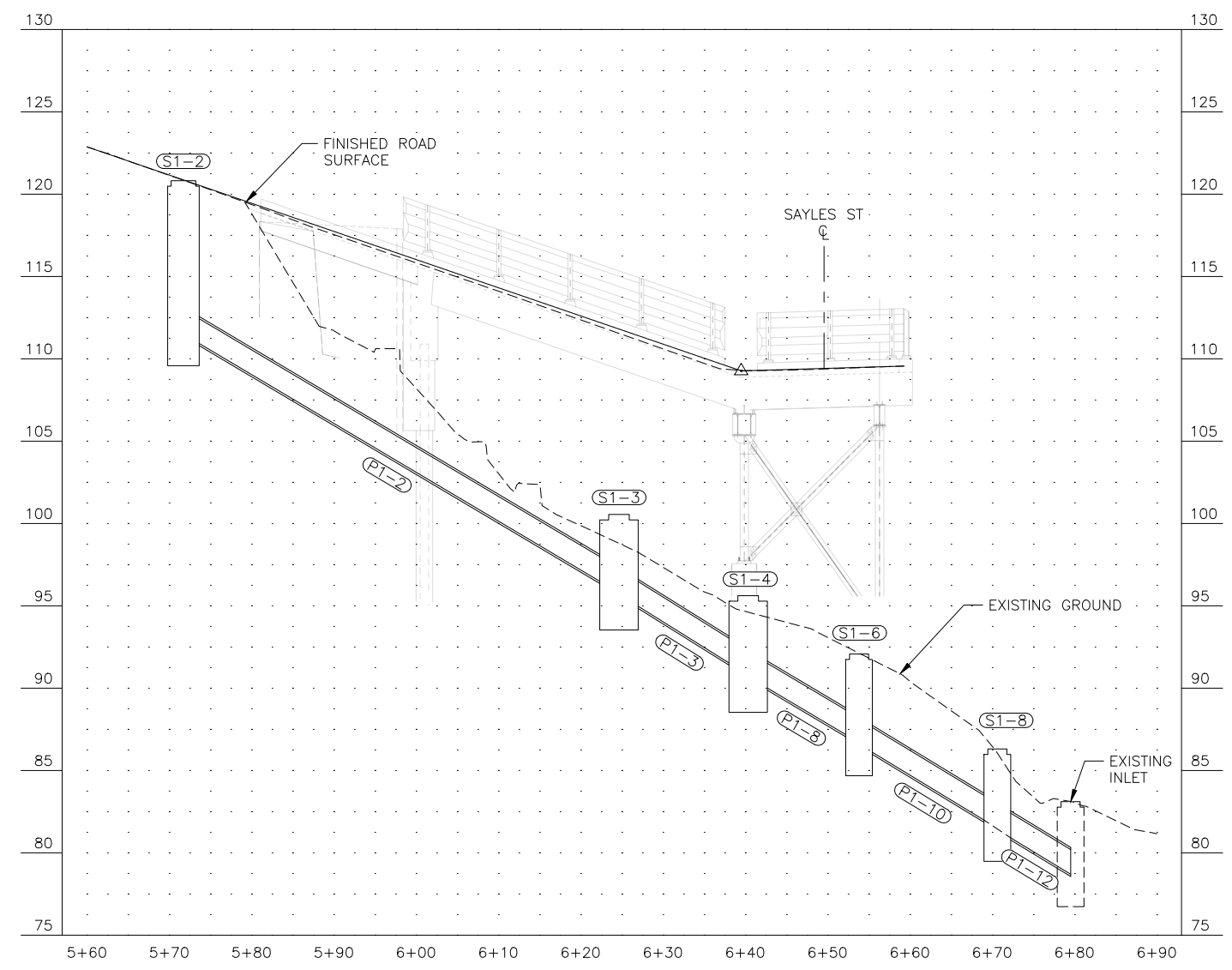
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 DATE 2/15/23  
 LAYOUT U3  
 DESIGNED  
 CHECKED  
 DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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FILE 00070-U4 Storm-Plan and Profile.DWG  
 DATE 2/15/23 LAYOUT U4  
 DESIGNED  
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GORGE STREET



**STORM DRAIN SYSTEM DEMOLITION NOTES:**

- EXISTING STORM DRAIN MAIN AND APPURTENANCES TO BE REMOVED AND DISPOSED OF BY CONTRACTOR. SEE F SHEETS.
- REMOVAL OF STORM DRAIN NOT ATTACHED TO THE EXISTING BRIDGE IS PAID UNDER BID ITEM 202.0001.0000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
- SEE SUMMARY TABLE IN D SHEETS FOR BID ITEM 202.0001.0000 FOR ADDITIONAL INFORMATION.

**STORM DRAIN CONSTRUCTION NOTES:**

- CONNECT EXISTING RESIDENTIAL STORM DRAIN SERVICES AND RAIN LEADERS TO NEW STORM DRAIN CATCH BASINS.
- HORIZONTAL DISTANCES FOR STORM DRAIN ARE MEASURED FROM CENTER OF MANHOLE OR CATCH BASIN. PIPE INVERT ELEVATIONS ARE AT THE INSIDE OF MANHOLE WALL.
- ALL STORM DRAIN CATCH BASINS AND MANHOLES SHALL BE CONSTRUCTED ACCORDING TO THE PROJECT DETAILS AND SPECIFICATIONS UNLESS OTHERWISE NOTED IN THE PLANS.
- SEE D SHEETS FOR PIPE AND STRUCTURE INFORMATION TABLES.

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STORM DRAIN PIPE  
 PLAN & PROFILE

FILE S&G-U10 PIH.dwg DATE 2/15/23 LAYOUT U5 DESIGNED CHECKED DRAFTED AB

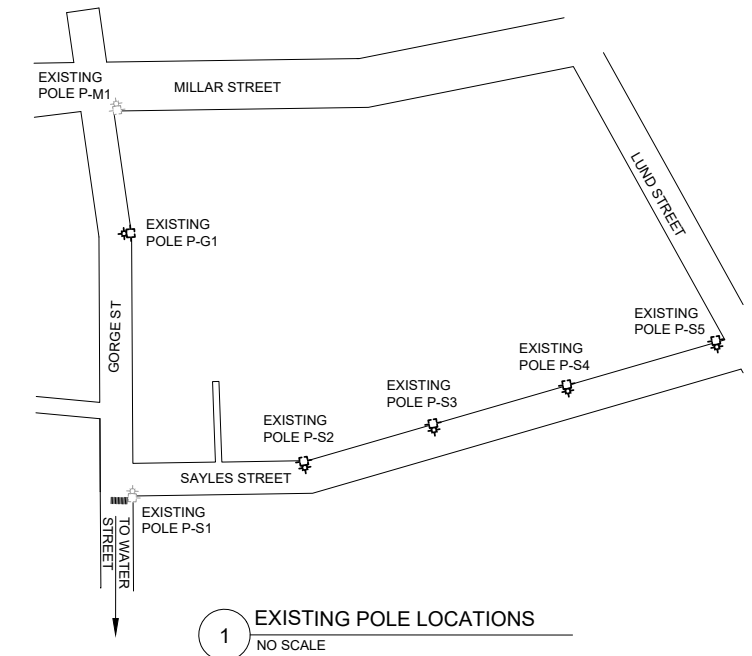
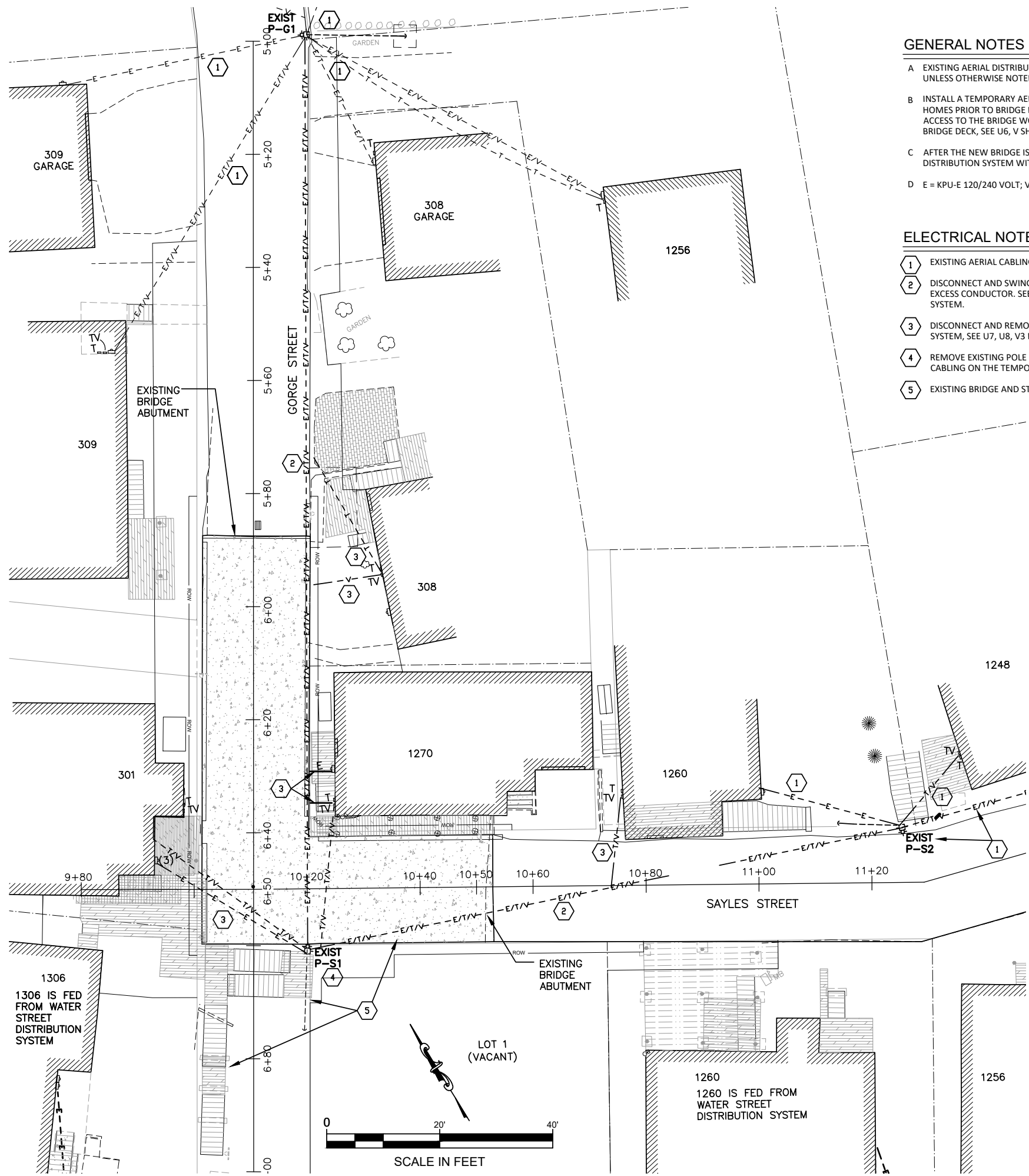
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	U5	U13

**GENERAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B INSTALL A TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM WITH SERVICE DROPS TO THE HOMES PRIOR TO BRIDGE DEMOLITION. THE TEMPORARY SYSTEM IS TO ALLOW COMPLETE ACCESS TO THE BRIDGE WORK AREA WITH NO OVERHEAD LINES CROSSING THE EXISTING BRIDGE DECK, SEE U6, V SHEETS.
- C AFTER THE NEW BRIDGE IS INSTALLED, INSTALL THE PERMANENT AERIAL POWER DISTRIBUTION SYSTEM WITH AERIAL DROPS TO THE HOMES, SEE U7, V SHEETS.
- D E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

**ELECTRICAL NOTES**

- 1 EXISTING AERIAL CABLING TO REMAIN
- 2 DISCONNECT AND SWING EXISTING AERIAL DISTRIBUTION TO TEMPORARY POLE. REMOVE EXCESS CONDUCTOR. SEE U6, U8, V2 FOR TEMPORARY SYSTEM, SEE U7, U8, V3 FOR NEW SYSTEM.
- 3 DISCONNECT AND REMOVE EXISTING SERVICE DROP. SEE U6, U8, V2 FOR TEMPORARY SYSTEM, SEE U7, U8, V3 FOR NEW SYSTEM.
- 4 REMOVE EXISTING POLE P-S1. INSTALL NEW TEMPORARY POLE P-S1-T AND LAND EXISTING CABLING ON THE TEMPORARY POLE, SEE U6, U8, V2
- 5 EXISTING BRIDGE AND STAIRS TO BE DEMOLISHED, SEE F AND N SHEETS.



1 EXISTING POLE LOCATIONS  
NO SCALE

**SYMBOLS AND LEGEND**

	OPTICAL NETWORK TERMINAL, ONT		CABLE TELEVISION LINE -GCI
	NETWORK INTERFACE DEVICE, NID		120/240V - KPU ELECTRIC
	T = TELEPHONE, TV = CABLE TV		TELEPHONE - KPU TELECOMM
	COMBINATION METER MAIN / METER PACK/METER		WATER LINE
	DISCONNECT, CIRCUIT BREAKER TYPE		HEAT TAPE CONNECTION A=BEGINNING OF H/T RUN B=END OF H/T RUN
	PANELBOARD		JUNCTION BOX
	EXISTING POWER POLE / POWER POLE W/LIGHT		RECEPTACLE (SEE 687 FOR NEMA TYPE)
	NEW WOOD POWER POLE, 50'		PILOT LIGHT SWITCH
	GUY		GROUNDING ELECTRODE CONDUCTOR
	LED STREET LIGHT		



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**EXISTING ELECTRICAL  
SITE PLAN**



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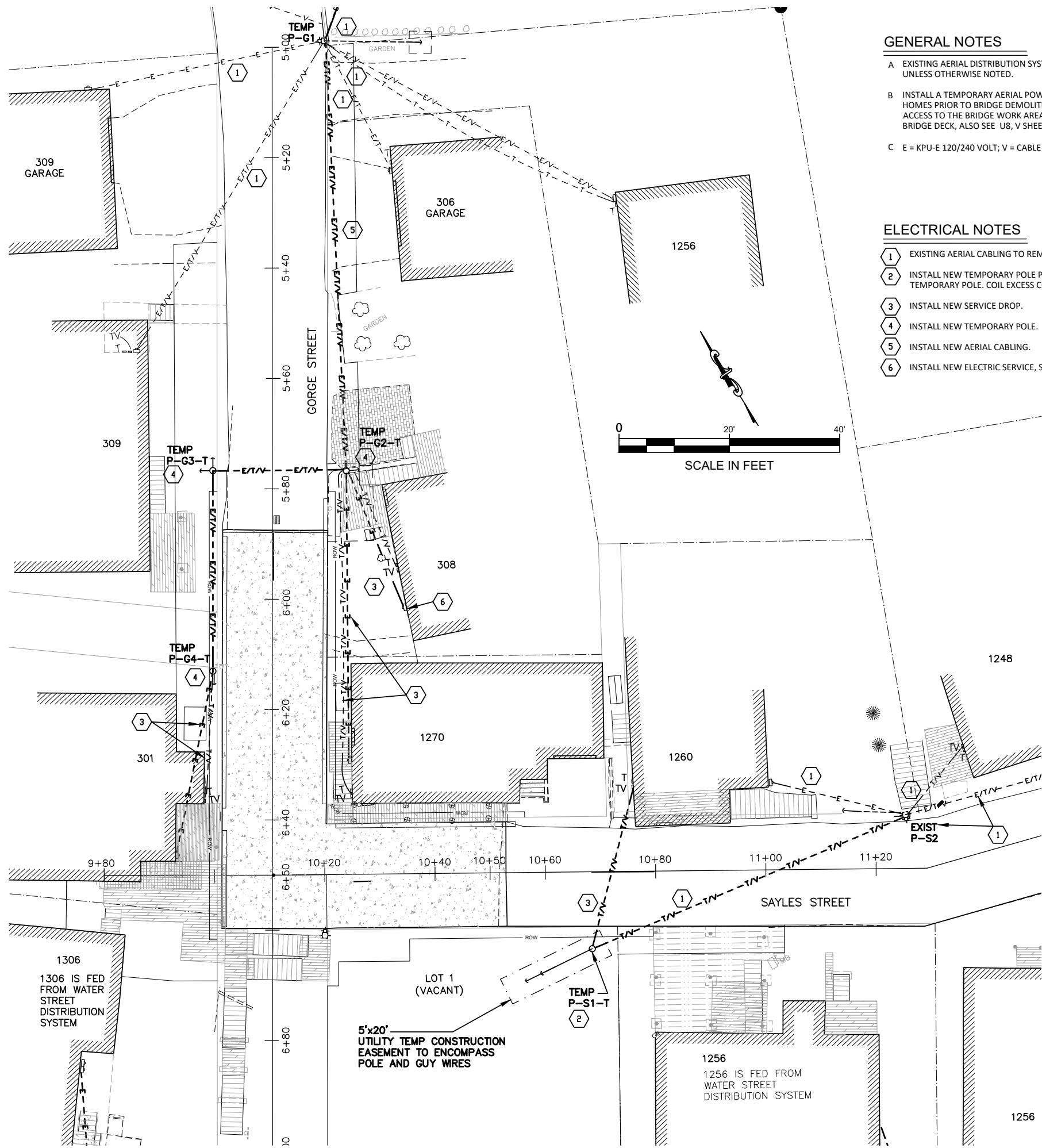
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	U6	U13

**GENERAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B INSTALL A TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM WITH SERVICE DROPS TO THE HOMES PRIOR TO BRIDGE DEMOLITION. THE TEMPORARY SYSTEM IS TO ALLOW COMPLETE ACCESS TO THE BRIDGE WORK AREA WITH NO OVERHEAD LINES CROSSING THE EXISTING BRIDGE DECK, ALSO SEE U8, V SHEETS.
- C E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

**ELECTRICAL NOTES**

- 1 EXISTING AERIAL CABLING TO REMAIN
- 2 INSTALL NEW TEMPORARY POLE P-S1-T AND LAND EXISTING AERIAL CABLING ON THE TEMPORARY POLE. COIL EXCESS CONDUCTOR.
- 3 INSTALL NEW SERVICE DROP.
- 4 INSTALL NEW TEMPORARY POLE.
- 5 INSTALL NEW AERIAL CABLING.
- 6 INSTALL NEW ELECTRIC SERVICE, SEE U11



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**ELECTRICAL SITE PLAN  
 TEMPORARY WORK**

FILE S&G-U10 PH.dwg DATE 2/15/23 LAYOUT U7 DESIGNED U7 CHECKED AB DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	U7	U13

**ELECTRICAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B AFTER THE NEW BRIDGE IS INSTALLED, INSTALL THE PERMANENT AERIAL POWER DISTRIBUTION SYSTEM WITH AERIAL DROPS TO THE HOMES, SEE U8, V SHEETS.
- C AFTER THE NEW PERMANENT AERIAL SYSTEM IS INSTALLED, DISCONNECT AND REMOVE THE TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM SHOWN ON U6.
- D E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

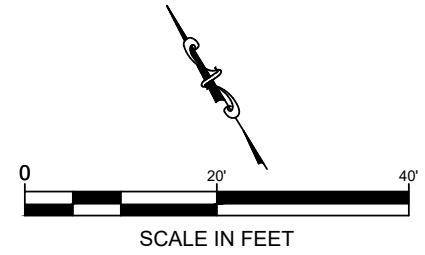
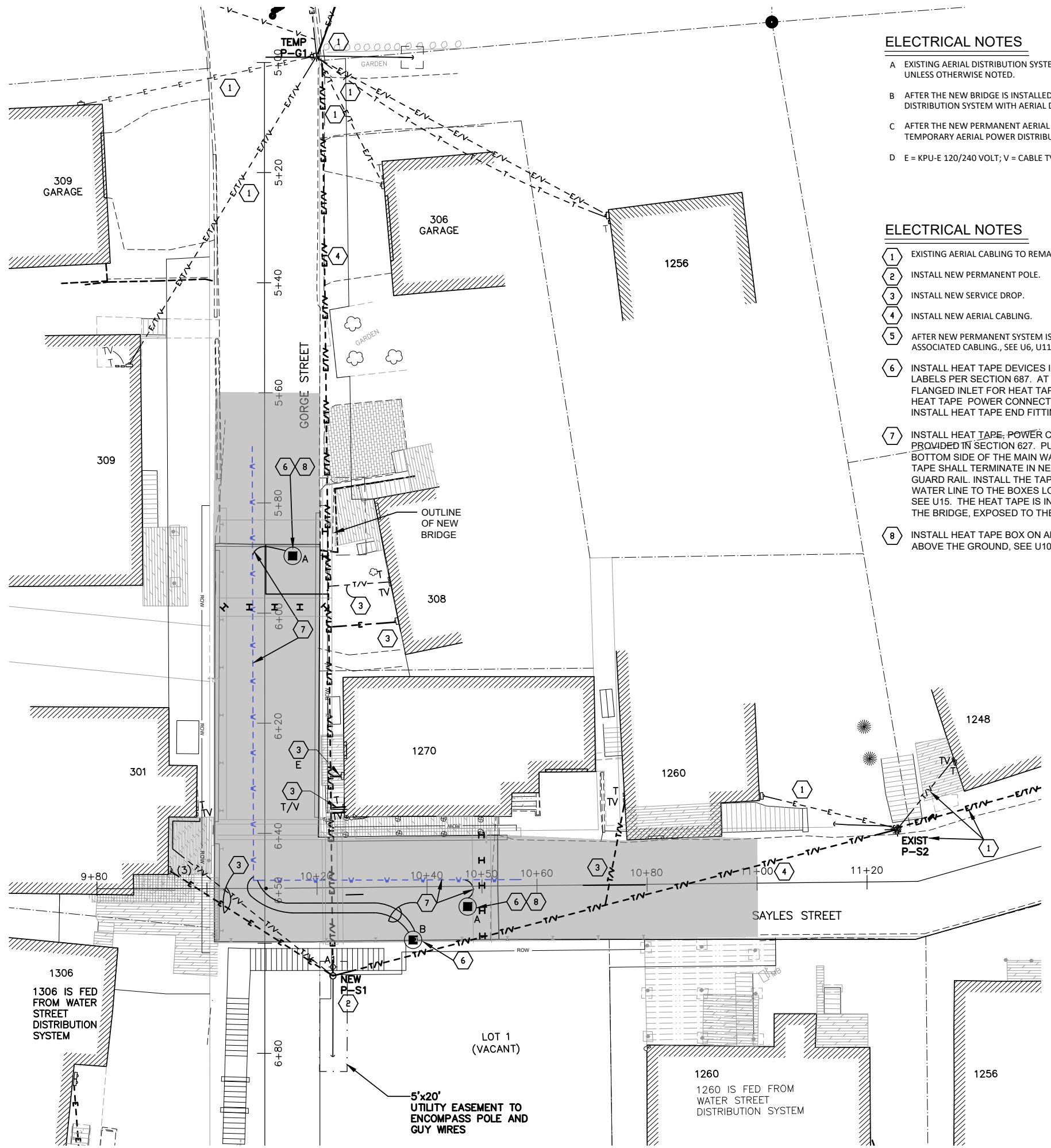
**LIGHTING FIXTURE SCHEDULE:**

TYPE	LAMPS	MOUNTING	DESCRIPTION	MANUFACTURER
A1	120-LED 8000K	WOOD POLE ROADWAY ARM	LED ROADWAY FIXTURE WITH 6 TYPE II DISTRIBUTION FULL CUTOFF, WET LABEL, GASKETED, TGIC POWDER COAT SILVER FINISH, FLAT GLASS LENS, DOUBLE FUSES & HOLDER, TILT DOWN 5°, IP66 ENCLOSURE RATING, 4G VIBRATION, TEST: 240 VOLT DRIVER, CUSTOM FAB HOUSE SIDE SHIELDS, 130MPH W/ 30% GUST, INTEGRAL PHOTOCELL	BETALED STR LMY SERIES

- NOTES:
- MANUFACTURER'S LISTED ARE TO ESTABLISH QUALITY. PRIOR TO ORDERING THE FIXTURES THE OWNER AND ENGINEER SHALL SELECT THE TYPES OF FIXTURES, MOUNTING TYPES/ACCESSORIES, COLORS AND FINISHES. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
  - PROVIDE LAMPS AND ALL MOUNTING AND OPERATING ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. ALL FIXTURES SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR INSTALLED FROM ITS BOX TO THE FIXTURE GROUND. FIXTURES SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
  - FIXTURE AND POLE SHALL HAVE FINISH SUITABLE FOR A MARINE ENVIRONMENT AND THE FINISH SHALL HAVE A 10 YEAR WARRANTY.
  - LED FIXTURE AND DRIVER SHALL BE SUITABLE FOR OUTDOOR, MARINE INSTALLATION AND RATED FOR -20F STARTING, UNDERWRITERS' LABORATORIES LISTING. BALLASTS SHALL BE SUITABLE FOR OUTDOOR INSTALLATION, HIGH POWER FACTOR, CONSTANT WATTAGE AUTOTRANSFORMER TYPE BALLAST AND RATED FOR -20F STARTING. BEAR THE SEAL OF THE CERTIFIED BALLAST MANUFACTURERS AND UNDERWRITERS' LABORATORIES, INC. IN ACCORDANCE WITH UL 1029, CLASS C SOUND RATING.
  - LUMINAIRE SHALL BE APPROVED BY DARK SKY ASSOCIATION OR SIMILAR ORGANIZATION

**ELECTRICAL NOTES**

- EXISTING AERIAL CABLING TO REMAIN
- INSTALL NEW PERMANENT POLE.
- INSTALL NEW SERVICE DROP.
- INSTALL NEW AERIAL CABLING.
- AFTER NEW PERMANENT SYSTEM IS INSTALLED REMOVE TEMPORARY POLES AND ASSOCIATED CABLING., SEE U6, U11 AND V2.
- INSTALL HEAT TAPE DEVICES IN NEMA 4X BOX WITH CIRCUIT DIAGRAM AND LABELS PER SECTION 687. AT THE BEGINNING OF HEAT TAPE RUN: INSTALL FLANGED INLET FOR HEAT TAPE CONNECTION TO CITY GENERATOR, SWITCH, HEAT TAPE POWER CONNECTION. FOR THE END OF THE HEAT TAPE RUN: INSTALL HEAT TAPE END FITTING WITH PILOT LIGHT. SEE U10.
- INSTALL HEAT TAPE, POWER CONNECTION & END FITTING - EQUIPMENT IS PROVIDED IN SECTION 627. PULL HEAT TAPE IN CHANNEL LOCATED ON THE BOTTOM SIDE OF THE MAIN WATER LINE ARCTIC PIPE. BOTH ENDS OF THE TAPE SHALL TERMINATE IN NEMA 4X BOXES THAT ARE MOUNTED TO THE GUARD RAIL. INSTALL THE TAPE IN HDPE CONDUIT FROM THE CHANNEL ON THE WATER LINE TO THE BOXES LOCATED AT THE BEGINNING AND END OF THE RUN. SEE U15. THE HEAT TAPE IS INSTALLED ON THE WATER LINE THAT IS UNDER THE BRIDGE, EXPOSED TO THE AIR.
- INSTALL HEAT TAPE BOX ON ABUTMENT STRUCTURE WITH THE CENTER BOX 4' ABOVE THE GROUND, SEE U10.



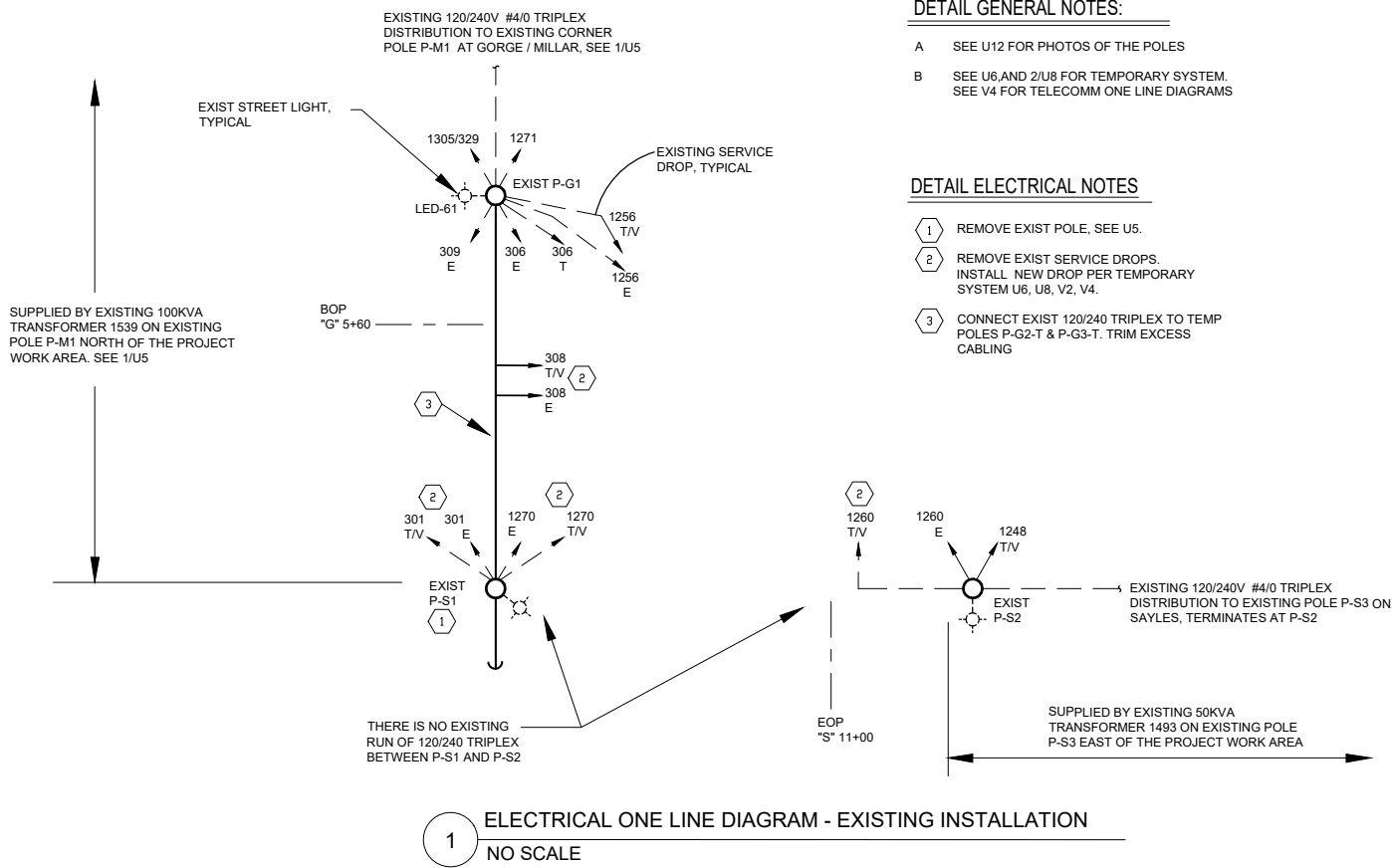
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**ELECTRICAL SITE PLAN  
 PERMANENT WORK**



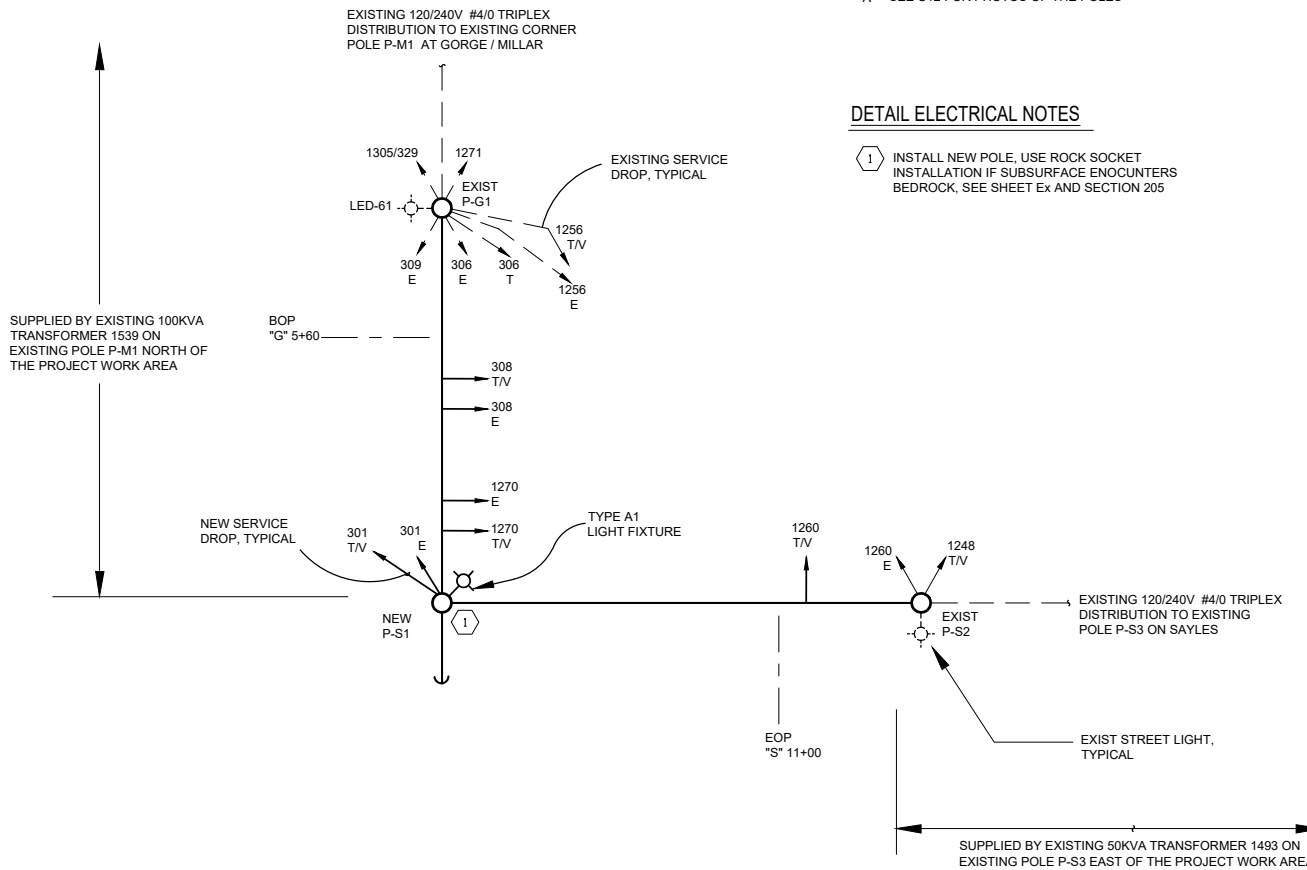
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	U8	U13



1 ELECTRICAL ONE LINE DIAGRAM - EXISTING INSTALLATION  
NO SCALE

**DETAIL GENERAL NOTES:**  
 A SEE U12 FOR PHOTOS OF THE POLES  
 B SEE U6 AND 2/U8 FOR TEMPORARY SYSTEM. SEE V4 FOR TELECOMM ONE LINE DIAGRAMS

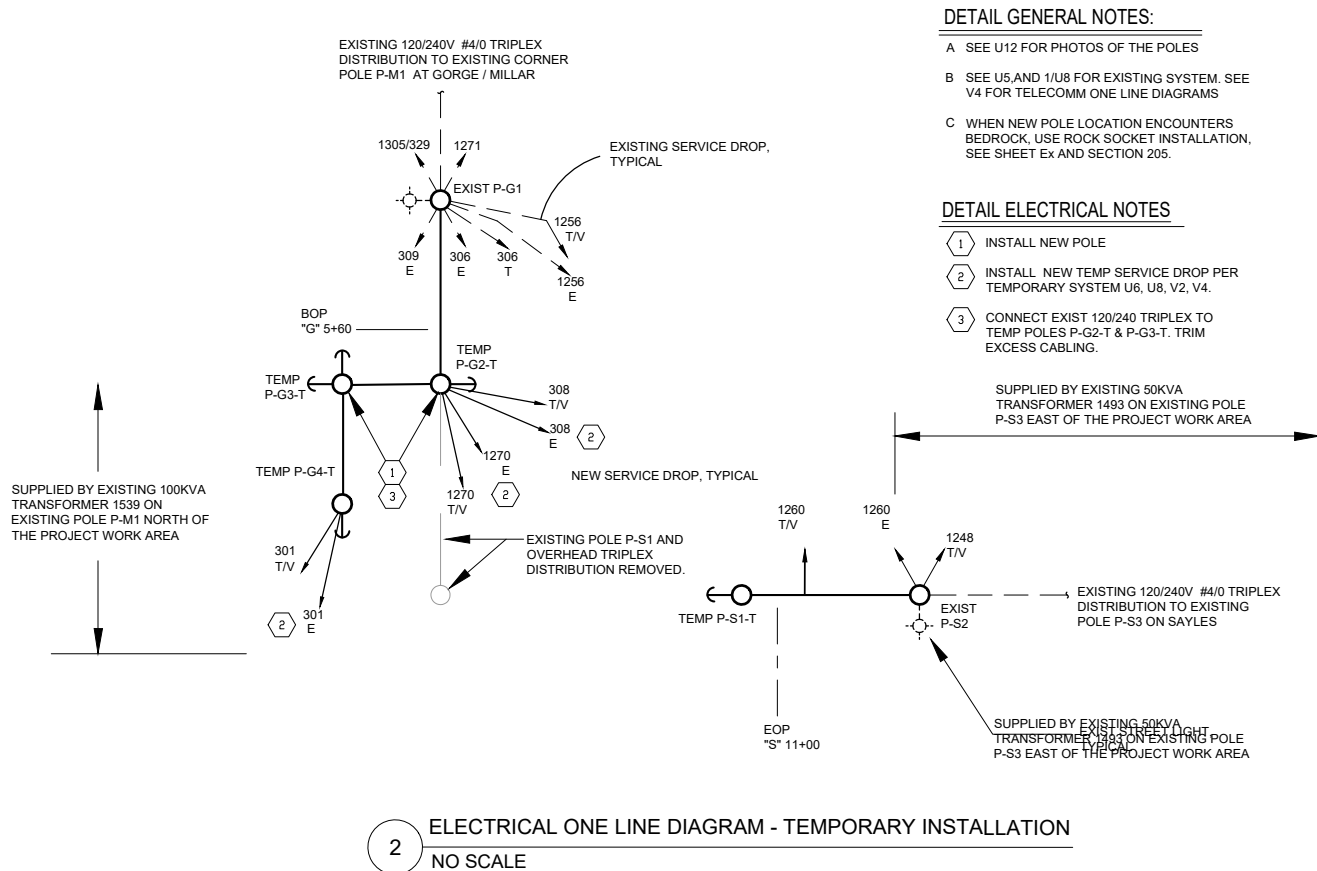
**DETAIL ELECTRICAL NOTES**  
 1 REMOVE EXIST POLE. SEE U5.  
 2 REMOVE EXIST SERVICE DROPS. INSTALL NEW DROP PER TEMPORARY SYSTEM U6, U8, V2, V4.  
 3 CONNECT EXIST 120/240 TRIPLEX TO TEMP POLES P-G2-T & P-G3-T. TRIM EXCESS CABLING



3 ELECTRICAL ONE LINE DIAGRAM - PERMANENT INSTALLATION  
NO SCALE

**DETAIL GENERAL NOTES:**  
 A SEE U12 FOR PHOTOS OF THE POLES

**DETAIL ELECTRICAL NOTES**  
 1 INSTALL NEW POLE. USE ROCK SOCKET INSTALLATION IF SUBSURFACE ENCOUNTERS BEDROCK. SEE SHEET EX AND SECTION 205



2 ELECTRICAL ONE LINE DIAGRAM - TEMPORARY INSTALLATION  
NO SCALE

**DETAIL GENERAL NOTES:**  
 A SEE U12 FOR PHOTOS OF THE POLES  
 B SEE U5 AND 1/U8 FOR EXISTING SYSTEM. SEE V4 FOR TELECOMM ONE LINE DIAGRAMS  
 C WHEN NEW POLE LOCATION ENCOUNTERS BEDROCK. USE ROCK SOCKET INSTALLATION. SEE SHEET EX AND SECTION 205.

**DETAIL ELECTRICAL NOTES**  
 1 INSTALL NEW POLE  
 2 INSTALL NEW TEMP SERVICE DROP PER TEMPORARY SYSTEM U6, U8, V2, V4.  
 3 CONNECT EXIST 120/240 TRIPLEX TO TEMP POLES P-G2-T & P-G3-T. TRIM EXCESS CABLING.

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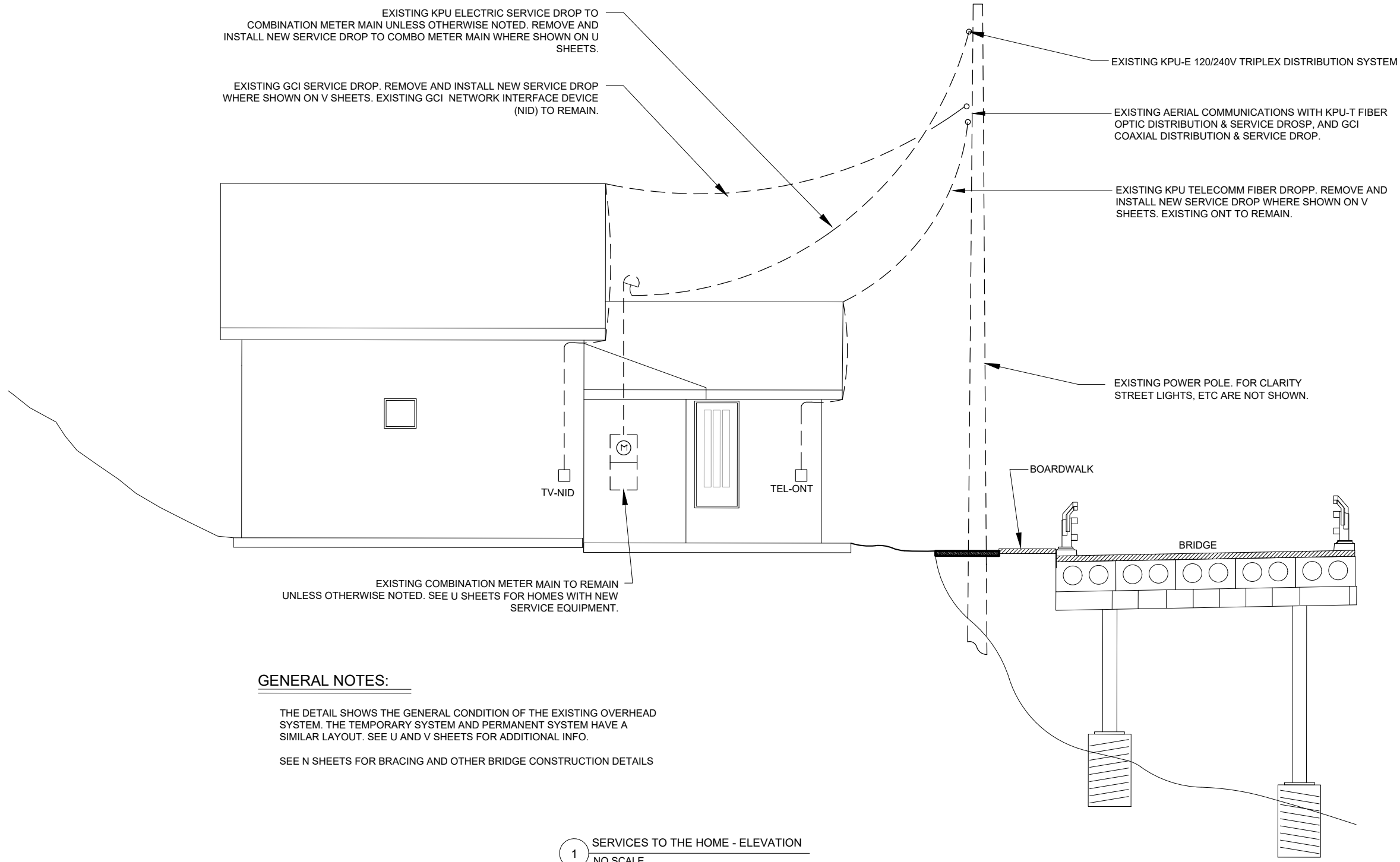
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ELECTRICAL ONE  
 LINE DIAGRAMS

FILE S&G-U10 PIH.dwg DATE 2/15/23 LAYOUT U9 ELEV DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2022	U9	U13



**GENERAL NOTES:**

THE DETAIL SHOWS THE GENERAL CONDITION OF THE EXISTING OVERHEAD SYSTEM. THE TEMPORARY SYSTEM AND PERMANENT SYSTEM HAVE A SIMILAR LAYOUT. SEE U AND V SHEETS FOR ADDITIONAL INFO.

SEE N SHEETS FOR BRACING AND OTHER BRIDGE CONSTRUCTION DETAILS

1 SERVICES TO THE HOME - ELEVATION  
NO SCALE

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ELECTRICAL  
DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHwy00070	2022	U10	U13

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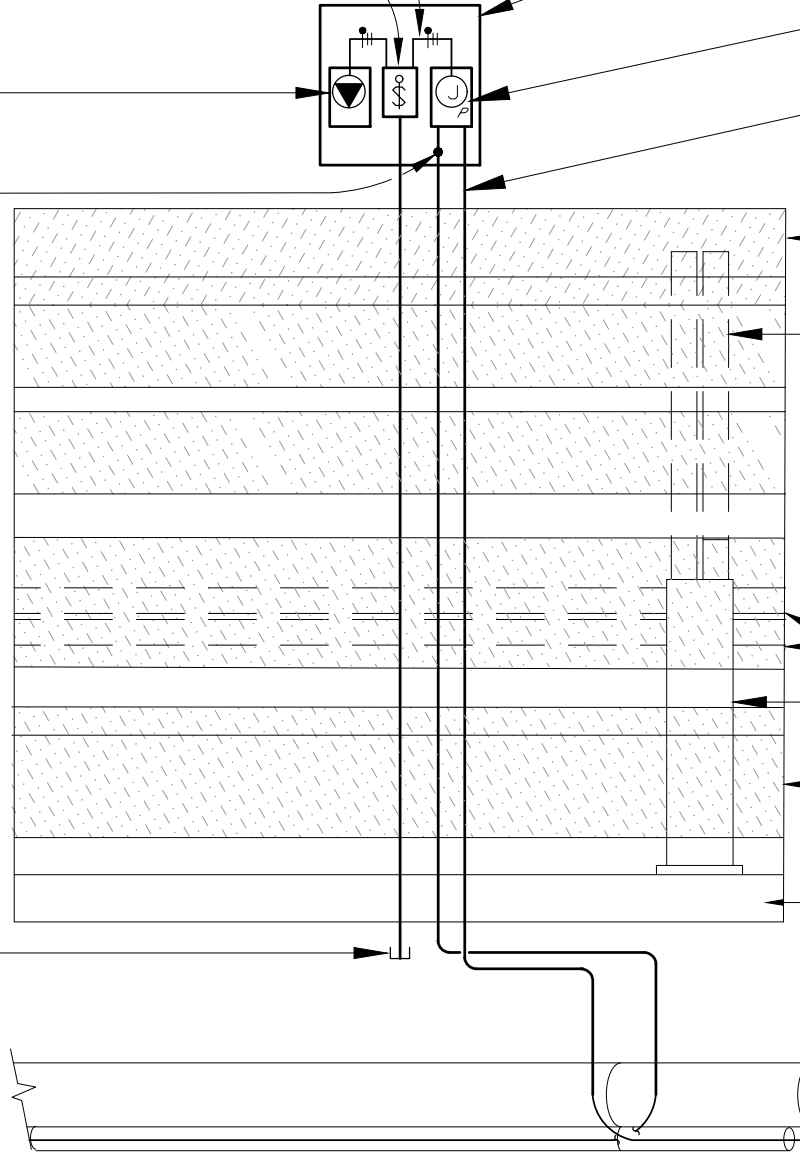
1/2" LIQUIDTIGHT FLEX CONDUIT W/ 2#10, 1#10G, TYPICAL

HEAT TAPE DISCONNECT SWITCH WITH PILOT LIGHT, INSTALL AND CONNECT HEAT TAPE.

NEMA L5-20 MALE FLANGED INLET. INSTALL IN CAST WEATHERPROOF BACK BOX. PROVIDE MATCHING CORDSET PER SECTION 687.

END OF HEAT TAPE RUN, INSTALL TAPE IN 3/4" PEX OR HDPE FROM THE LAST SECTION OF WATER LINE UP TO THE BREAKOUT BOX AND CONNECT TO END FITTING.

1" C EMPTY -STUB BELOW BRIDGE AND CAP CONDUIT. INSTALL PULL STRING WITH INSTALL LABELS ON EACH END OF STRING "FUTURE POWER CONNECTION FOR HEAT TAPE"



TYPE A BREAKOUT BOX, NEMA 4 ENCLOSURE WITH HINGED DOOR HOUSING THE HEAT TAPE DEVICES. MOUNT THE ENCLOSURE ON A UNISTRUT FRAMEWORK ATTACHED TO BACKSIDE OF THE GUARD RAIL. THE FRONT OF THE BOX SHALL FACE THE STREET AND THE DOOR SHALL FULLY OPEN UNOBSTRUCTED. SEE U7 FOR BREAKOUT BOX LOCATIONS AND DEVICE TYPES.

HEAT TAPE POWER TERMINATION BOX W/ PILOT LIGHT PROVIDED IN SECTION 627. INSTALL HEAT TAPE EQUIPMENT PROVIDED IN SECTION 687.

INSTALL 3/4" PEX OR HDPE RACEWAY FROM BREAKOUT BOX TO THE WATER LINE. INSTALL HEAT TAPE PROVIDED IN SECTION 627 FROM BREAKOUT BOX TO BREAKOUT BOX AND MAKE COMPLETE 120V CONNECTIONS.

SLOPED TOP OF 2X WOOD HANDRAIL

WOOD GUARD RAIL SUPPORT ( 4'-6" MIN TO 6'-6" MAX SPACING) SECURED TO THE STEEL GUARD RAIL POST

STEEL RAIL (BEHIND TIMBER RAIL), THE STEEL RAIL RUNS BETWEEN THE STEEL GUARD RAIL POSTS

STEEL GUARD RAIL POST ( 4'-6" MIN TO 6'-6" MAX SPACING)

TIMBER BULL RAIL

BRIDGE DECK

ARCTIC PIPE WATER LINE WITH CHANNEL FOR HEAT TAPE ON BOTTOM OF PIPE, SEE E SHEETS AND SECTION 627.

INSTALL HEAT TAPE IN CHANNEL ON BOTTOM OF WATER LINE, TYPICAL

END OF HEAT TAPE RUN, ROUTE TAPE UP TO BREAKOUT BOX  
 BEGINNING OF HEAT TAPE RUN, ROUTE TAPE FROM SWITCH IN BREAKOUT BOX

**DETAIL NOTES:**

- A HEAT TAPE, POWER CONNECTION AND END FITTINGS ARE PROVIDE IN SECTION 627.
- B THE START AND END OF EACH RUN OF HEAT TAPE SHALL BE LOCATED IN A BREAKOUT BOX MOUNTED ON THE GUARD RAIL. THE HEAT TAPE CABLE SHALL BE INSTALLED COMPLETE FROM THE POWER CONNECTION FITTING TO THE END FITTING. INSTALL HEAT TAPE IN CHANNEL LOCATED ON THE BOTTOM OF INSULATED ARCTIC WATER PIPE, SEE SECTION 627.
- C FROM THE WATER LINE TO THE BREAKOUT BOX INSTALL THE HEAT TAPE IN 3/4" PEX OR HDPE RACEWAY. ROUTE THE RACEWAY IN THE CONDUIT RACK WHEREVER POSSIBLE AND FROM UNISTRUT SUPPORTS LOCATED BETWEEN THE DECK PANELS.
- D LABEL THE RUN OF HEAT TAPE CABLE AND PROVIDE CIRCUIT DIAGRAM PER SECTION 687. LABEL COVER OF BOX: WATER LINE HEAT TAPE, PROVIDE OTHER LABELS PER SECTION 687
- E SEE N SHEETS FOR GUARD RAIL DETAILS
- F COORDINATE LOCATION OF THE BREAKOUT BOX AND INSTALLATION METHODS WITH THE ENGINEER PRIOR TO COMMENCING WITH THE ROUGH-IN WORK

**1** HEAT TAPE BREAKOUT BOX DETAIL  
NO SCALE

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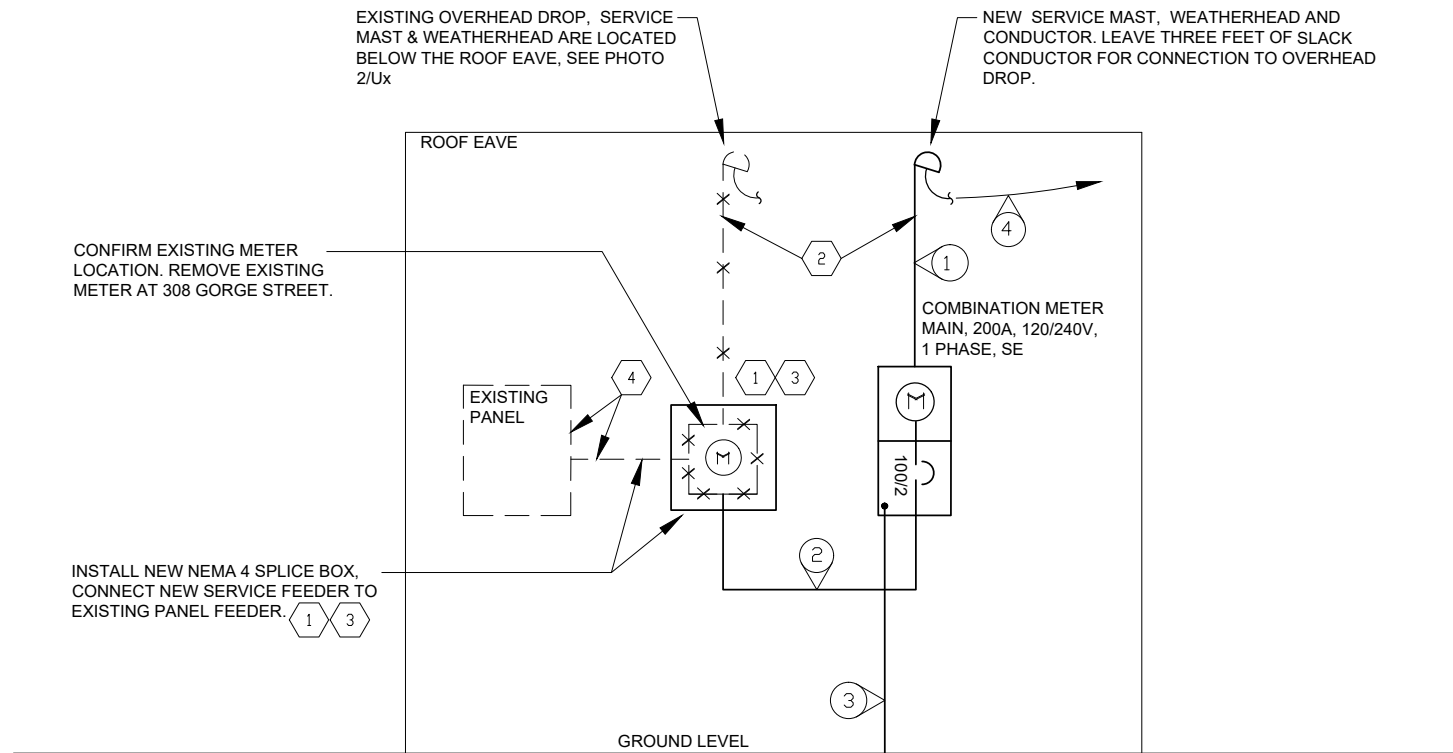


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**ELECTRICAL DETAILS**

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GROUNDING ELECTRODE SYSTEM:  
 - 3/4" DIA X 10' DRIVEN COPPER GROUND ROD  
 - EXISTING WATER PIPING WITHIN 5 FEET OF ENTERING HOUSE  
 - RECONNECT EXISTING GEC AT FOOTING IF ONE EXISTS.

FEEDER NUMBER	CONDUIT AND WIRE SIZE
1	2" C W/ 3 #2
2	2" C W/ 3 #2, 1#8G
3	#4 BARE CU GEC
4	#2 TRIPLEX DROP

NEC LOAD CALC:  
 RECONNECT EXISTING ELECTRICAL SERVICE WHICH IS 100A, 120/240V, SINGLE PHASE. THE SERVICE LOAD HAS NOT CHANGED. THE UTILITY OVERHEAD SERVICE DROP IS SIZED PER KPU ELECTRIC STANDARD SERVICE CONDUCTOR SIZE.

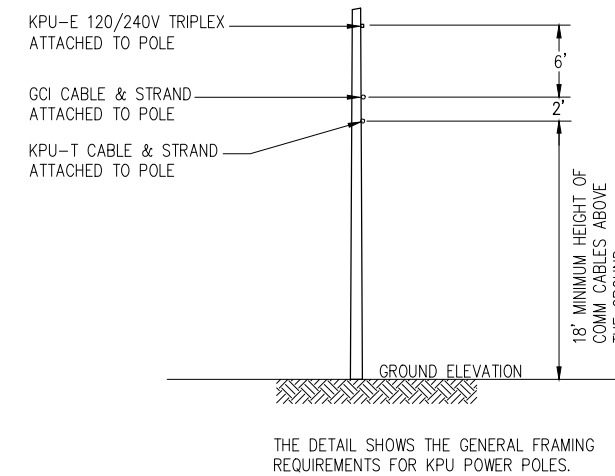
**1 SERVICE ONE LINE DIAGRAM -308 GORGE STREET**  
 NO SCALE

**ELECTRICAL NOTES:**

- 1 REMOVE THE EXISTING SURFACE MOUNTED METER CAN. INSTALL NEW NEMA 4 HINGED SPLICE BOX SIZED TO COVER THE EXISTING OPENING AND CONNECT THE NEW PANEL FEEDER TO THE EXISTING PANEL FEEDER. COORDINATE WITH THE OWNER FOR ACCESS TO THE ELECTRICAL EQUIPMENT IN THE HOUSE.
- 2 SERVICE MAST LOCATED BELOW THE 2ND FLOOR ROOF EAVE, REMOVE EXISTING SERVICE MAST AND SERVICE CONDUCTOR. INSTALL NEW RISER MAST, WEATHERHEAD, AND CONDUCTORS -CONNECT TO NEW COMBINATION METER MAIN. PATCH AND PAINT RISER CONDUIT & HOUSE SIDING TO MATCH EXISTING. COORDINATE WITH KPU TO DISCONNECT AND RECONNECT THEIR TRIPLEX OVERHEAD DROP.
- 3 SIZE THE NEW BOX TO BE AT LEAST THE NEXT NOMINAL SIZED BOX LARGER THAN THE EXISTING METER CAN(S)
- 4 FIELD CONFIRM LOCATION OF THE EXISTING PANEL WITH THE OWNER AND THAT THE EXISTING FEEDER CONDUIT AND CONDUCTORS ARE SUITABLE FOR CONNECTION TO THE NEW FEEDER CONDUCTORS AND MEETS NEC REQUIREMENTS. IF THE INSTALLATION IS NOT SUITABLE OR DOES NOT MEET CODE, REMOVE CONDUIT AND INSTALL NEW -THE INSTALLATION METHODS AND CONDUIT ROUTE SHALL BE APPROVED BY THE OWNER AND THE DEPARTMENT PRIOR TO ROUGH-IN WORK. PATCH AND PAINT ALL SURFACES TO MATCH EXISTING.

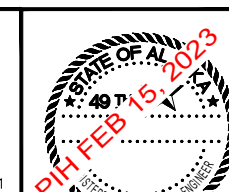
**GENERAL NOTES:**

- A SERVICE WORK SHALL COMPLY WITH THE LATEST KPU INSTALLATION STANDARDS. PRIOR TO INSTALLATION, CONFIRM THE INSTALLATION MEETS THEIR REQUIREMENTS.
- B OBTAIN PERMITS & PLAN REVIEW FROM CITY OF KETCHIKAN BUILDING DEPT.
- C PRIOR TO BEGINNING THE INSTALLATION WORK, MEET WITH THE OWNER TO COORDINATE THE WORK EFFORT INCLUDING SCHEDULING THE OUTAGES, THE NEW EQUIPMENT LOCATIONS AND CONDUIT ROUTES ON THE HOME, ROOF AND SIDING REPAIR, FINISH MATERIAL, AND PAINT COLORS.
- D THIS DETAIL ILLUSTRATES THE BASIC CONCEPT FOR INSTALLING NEW SERVICE EQUIPMENT AT 308 GORGE STREET. PATCH AND PAINT ALL EXISTING OPENINGS IN ROOFS AND WALLS TO MATCH EXISTING SURFACES. PROVIDE ALL COMPONENTS FOR A COMPLETE INSTALLATION. SEE U10-12 SHEETS FOR OVERHEAD LINE LOCATIONS. SEE PHOTO 2/Ux FOR ADDITIONAL INFO
- E FIELD CONFIRM EXISTING EQUIPMENT LAYOUT, FEEDER CONNECTIONS PRIOR TO ORDERING NEW SERVICE EQUIPMENT



**2 KPU GENERAL FRAMING GUIDE**  
 NO SCALE

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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**

**ELECTRICAL  
 DETAILS**

FILE S&G-U10 PIH.dwg DATE 2/15/23 LAYOUT U11 SVC-FRAME DESIGNED 2/15/23 CHECKED AB DRAFTED AB



FILE S&G-U10 PIH.dwg DATE 2/15/23 LAYOUT U12 FOTO DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2022	U12	U13



1 301 ELECTRIC SERVICE  
NO SCALE



2 308 SERVICE DROP  
NO SCALE



3 1270 ELECTRIC SERVICE  
NO SCALE



4 POLE P-S1  
NO SCALE



5 POLE P-S2 & 1248 COMM DROPS  
NO SCALE

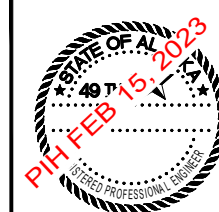


6 POLE P-S3  
NO SCALE



7 POLE P-G1  
NO SCALE

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KTN: SAYLES/GORGE ST. VIADUCT  
(1841) IMPROVEMENTS

ELECTRICAL  
PHOTOS



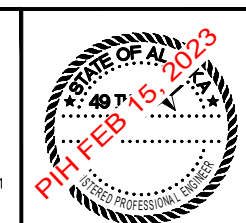
FILE S&G-U10 PH.dwg DATE 2/15/23 LAYOUT U13 ESVC DESIGNED CHECKED DRAFTED AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	U13	U13

SERVICE INFORMATION										
120/240V, Single Phase, Three Wire Distribution										
	Address	Street	#Existing Meters	Existing Triplex (Alum)	Existing Drop	New Service	GES	Comments	Existing Electric Service Equipment	KPU Meter /Mfr.
1	1305 /329	Gorge	1	#2	Pole P-M1		NA	KPU-E and KPU-T services are from Millar aerial distribution. The GCI service originates on Pole P-G1; NID located under deck, (2) splitters.	House is not involved in the project work area	House is not involved in the project work area
2	1271	Gorge	1	#2	Pole P-G1		No GEC visible		Existing service equipment remains; Meter only, no disconnect or CB	Westinghouse 9465
3	309 Garage	Gorge	1	#2	Pole P-G1		No GEC visible	Inactive Service; No Meter	Existing service equipment remains; Circle AW/ Combination meter main w/100A CB	No Meter
4	309	Gorge	1	#2	Pole P-G1		No GEC visible		Existing service equipment remains; B-Line meter main w/100A CB	
5	308 Garage	Gorge	1	#2	Pole P-G1		No GEC visible		Existing service equipment remains; Combination meter main w/CB; No Meter, CB locked closed	27099; Itron
6	308	Gorge	1	#2	Midspan Tap, P-G1 - P-S1	Y	#6G Stranded, #10G	Demo existing service. Install new service. See U16 New Service Detail	Existing service mast with conductors routed into the house; no meter or disconnect is visible	No meter is visible
7	301	Gorge	3	#1,0	Pole P-S1		#8G	Meter Pack w/3 Breakers: Top 125/2, Middle 100/2, Bottom 100/2	Existing service equipment remains; Square D 300A meter main w/(3) meters, (2) 100A & (1) 125A-(Top) CBs	21219 top; 21218 middle; 21217 bottom; Itron
8	1270	Sayles	1	#2	Midspan Tap, P-G1 - P-S1		No GEC visible		Existing service equipment remains; B-Line meter main w/100A CB	11828; Westinghouse
9	1260	Sayles	1	#2	Pole P-S2		No GEC visible		Existing service equipment remains; Meter only, no disconnect or CB	18038; Itron
10	1248	Sayles	1	#2	Midspan Tap, P-S2 - P-S3		No GEC visible	Service is fed from midspan tap P-S2 - P-S3 and remains; no work required on overhead drop	Existing service equipment remains; meter main w/??A CB, > 7AFG NEC=cannot access equipment.	14447; ABB

Information for the Existing Installation												
Pole	KPU #	Status	Height	Class	Xfm	Xfm #	Xfm Phase	RUS Xfm Detail	Street Light	Guy	120/240V Distribution	Comments
P-G1	1342-A3-3	E	?	2	N		A		Y	Y	#4/0 Triplex	Existing triplex originates at a 100kVA transformer #1539 on Pole P-M1 on the corner of Millar and Gorge.
P-S1	E00479	E	50	2	N		A		Y	Y	#4/0 Triplex	Existing triplex running along Gorge deadends at P-S1.
P-S2	E00164	E	45	2	N		C		Y	Y	#1/0 Triplex	Existing triplex originates at a 50kVA transformer on Pole P-S3 which is the next pole to the east on Sayles Street.d Gorge.

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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**  
**ELECTRICAL SERVICE &  
 POLE INFORMATION**

FILE S&G-U10 PIH.dwg | DATE 2/15/23 | LAYOUT V1 | DESIGNED | CHECKED | DRAFTED | AB

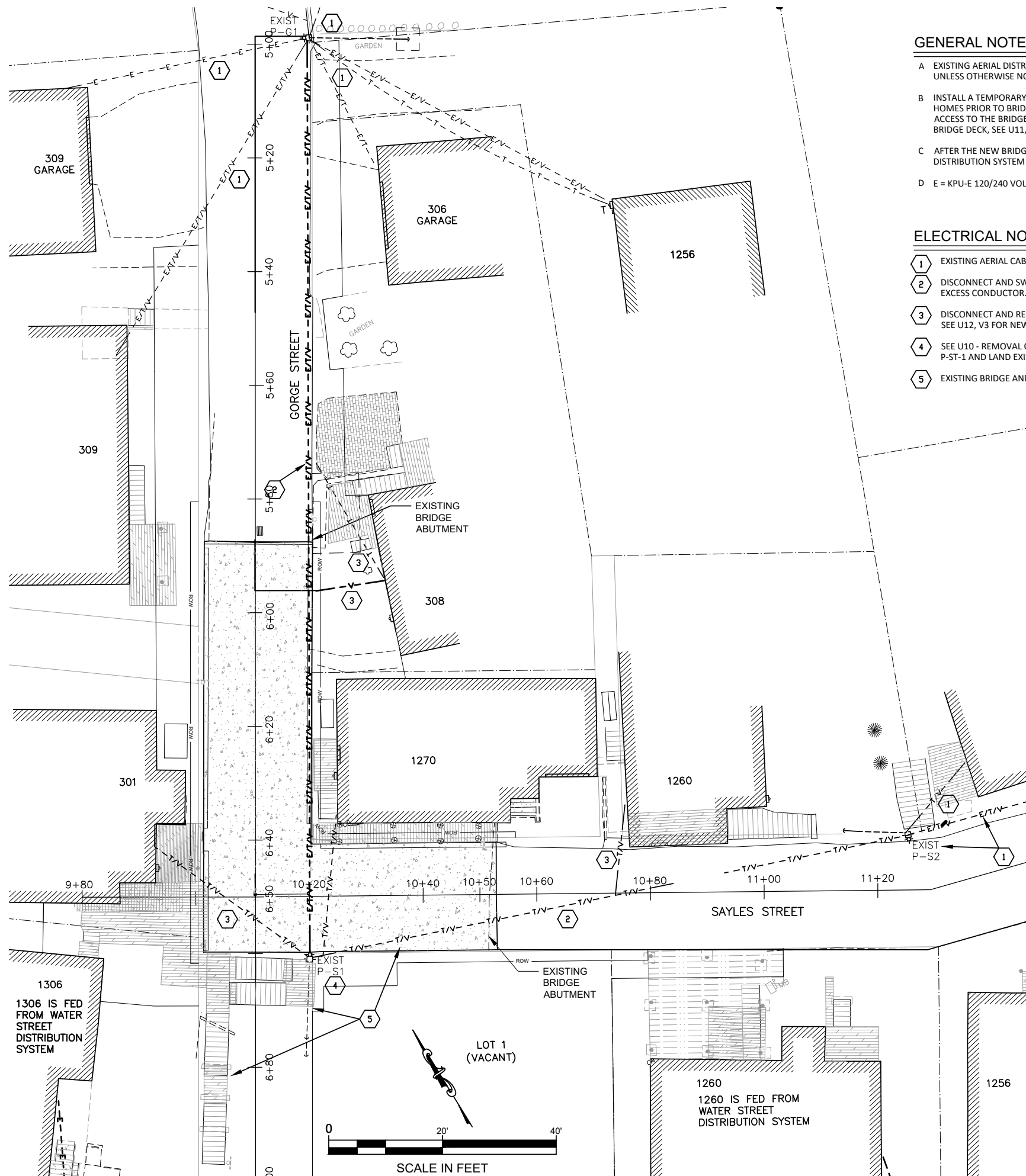
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	V1	V5

**GENERAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B INSTALL A TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM WITH SERVICE DROPS TO THE HOMES PRIOR TO BRIDGE DEMOLITION. THE TEMPORARY SYSTEM IS TO ALLOW COMPLETE ACCESS TO THE BRIDGE WORK AREA WITH NO OVERHEAD LINES CROSSING THE EXISTING BRIDGE DECK, SEE U11, V SHEETS.
- C AFTER THE NEW BRIDGE IS INSTALLED, INSTALL THE PERMANENT AERIAL POWER DISTRIBUTION SYSTEM WITH AERIAL DROPS TO THE HOMES, SEE U12, V SHEETS.
- D E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

**ELECTRICAL NOTES**

- 1 EXISTING AERIAL CABLING TO REMAIN
- 2 DISCONNECT AND SWING EXISTING AERIAL DISTRIBUTION TO TEMPORARY POLE. REMOVE EXCESS CONDUCTOR. SEE U11, V2 FOR TEMPORARY SYSTEM, SEE U12, V3 FOR NEW SYSTEM.
- 3 DISCONNECT AND REMOVE EXISTING SERVICE DROP. SEE U11, V2 FOR TEMPORARY SYSTEM, SEE U12, V3 FOR NEW SYSTEM.
- 4 SEE U10 - REMOVAL OF EXISTING POLE P-S1 AND INSTALLATION OF NEW TEMPORARY POLE P-ST-1 AND LAND EXISTING CABLING ON THE TEMPORARY POLE, SEE U11
- 5 EXISTING BRIDGE AND STAIRS TO BE DEMOLISHED, SEE F AND N SHEETS.



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 (1841) IMPROVEMENTS**  
 EXISTING TELECOMM  
 SITE PLAN

FILE S&G-U10 PIH.dwg | DATE 2/15/23 | LAYOUT V2 | DESIGNED | CHECKED | DRAFTED | AB

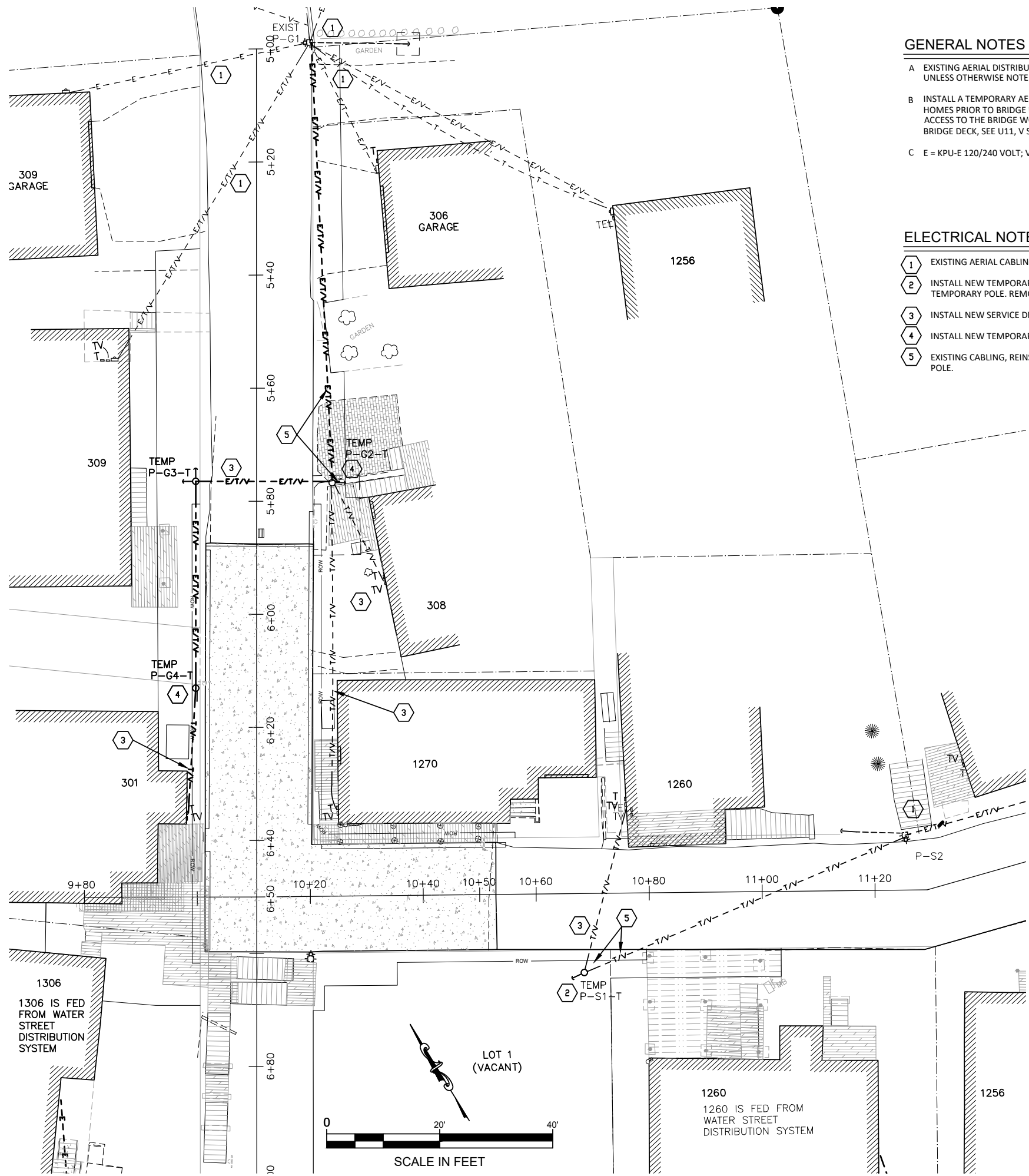
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	V2	V5

**GENERAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B INSTALL A TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM WITH SERVICE DROPS TO THE HOMES PRIOR TO BRIDGE DEMOLITION. THE TEMPORARY SYSTEM IS TO ALLOW COMPLETE ACCESS TO THE BRIDGE WORK AREA WITH NO OVERHEAD LINES CROSSING THE EXISTING BRIDGE DECK, SEE U11, V SHEETS.
- C E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

**ELECTRICAL NOTES**

- 1 EXISTING AERIAL CABLING TO REMAIN
- 2 INSTALL NEW TEMPORARY POLE P-S1-T AND LAND EXISTING AERIAL CABLING ON THE TEMPORARY POLE. REMOVE EXCESS CONDUCTOR.
- 3 INSTALL NEW SERVICE DROP.
- 4 INSTALL NEW TEMPORARY POLE.
- 5 EXISTING CABLING, REINSTALL AERIAL TERMINALS AT POLE AND COIL SPARE CABLE ON THE POLE.



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 TELECOMM SITE PLAN  
 TEMPORARY WORK



FILE S&G-U10 PIH.dwg DATE 2/15/23 LAYOUT V3 DESIGNED CHECKED DRAFTED AB

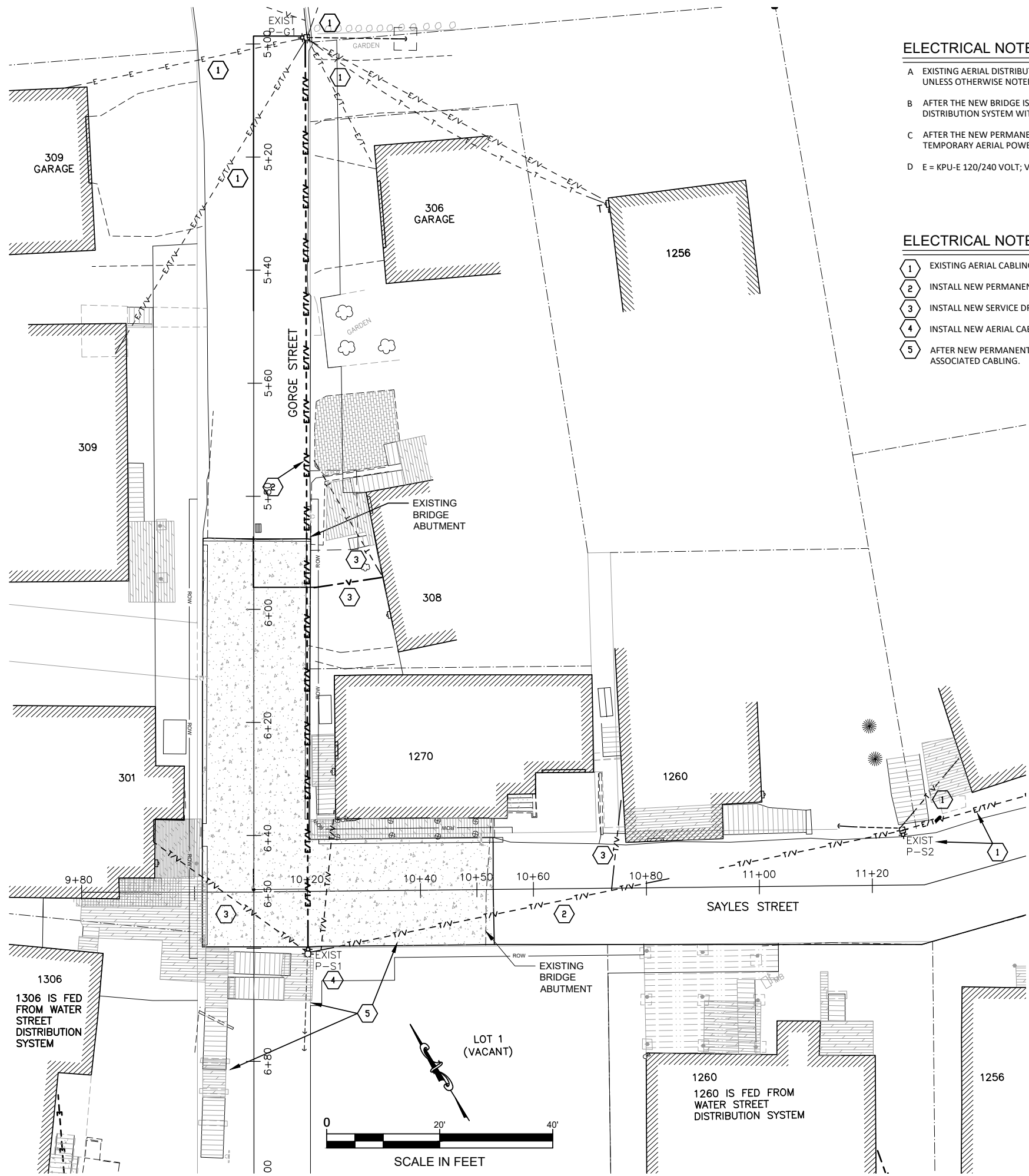
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWHY00070	2022	V3	V5

**ELECTRICAL NOTES**

- A EXISTING AERIAL DISTRIBUTION SYSTEM AND SERVICE DROPS TO THE HOMES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- B AFTER THE NEW BRIDGE IS INSTALLED, INSTALL THE PERMANENT AERIAL POWER DISTRIBUTION SYSTEM WITH AERIAL DROPS TO THE HOMES, SEE U12, V SHEETS.
- C AFTER THE NEW PERMANENT AERIAL SYSTEM IS INSTALLED, DISCONNECT AND REMOVE THE TEMPORARY AERIAL POWER DISTRIBUTION SYSTEM SHOWN ON U11.
- D E = KPU-E 120/240 VOLT; V = CABLE TV -COAXIAL CABLE, T = KPU-T FIBER OPTIC

**ELECTRICAL NOTES**

- 1 EXISTING AERIAL CABLING TO REMAIN
- 2 INSTALL NEW PERMANENT POLE.
- 3 INSTALL NEW SERVICE DROP.
- 4 INSTALL NEW AERIAL CABLING.
- 5 AFTER NEW PERMANENT SYSTEM IS INSTALLED REMOVE TEMPORARY POLES AND ASSOCIATED CABLING.



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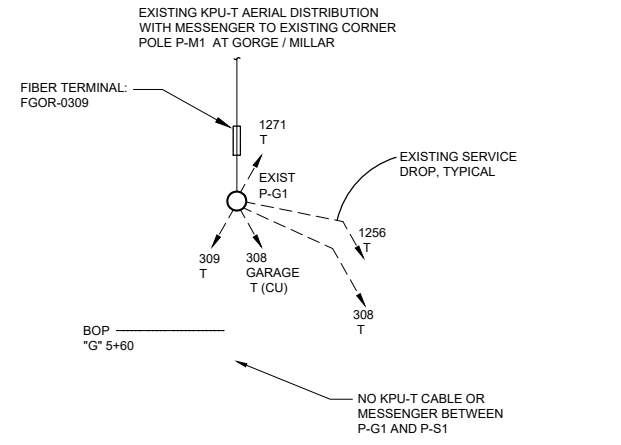
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**KTN: SAYLES/GORGE ST. VIADUCT  
 (1841) IMPROVEMENTS**

**TELECOMM SITE PLAN  
 PERMANENT WORK**

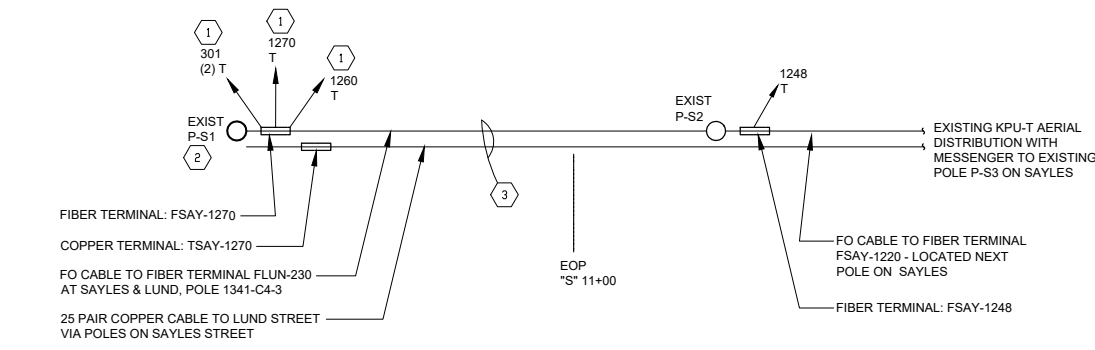
FILE S&G-U10 PIH.dwg | DATE 2/15/23 | LAYOUT V4 | DESIGNED | CHECKED | DRAFTED | AB

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0003225/SFHWY00070	2022	V4	V5

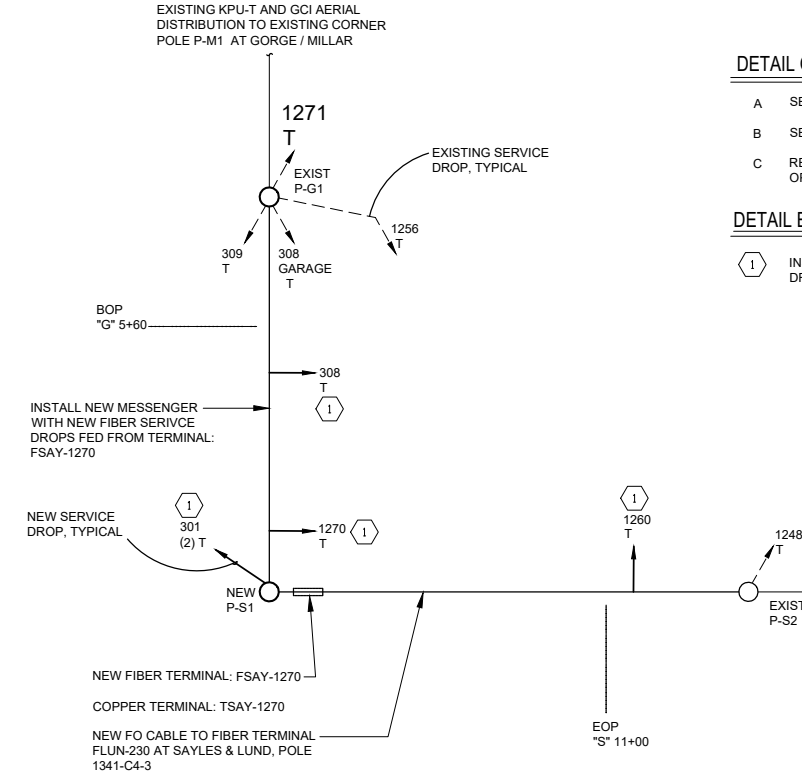


- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V2, 2/UV4, U6 FOR TEMPORARY SYSTEM. SEE U8 FOR ELECTRICAL ONE LINE DIAGRAMS

- DETAIL ELECTRICAL NOTES**
- 1 REMOVE EXIST SERVICE DROPS. INSTALL NEW DROPS INSTALLED PER TEMPORARY SYSTEM. SEE V2, 2/UV4, AND U6, U8.
  - 2 EXISTING POLE TO BE REMOVED AND NEW TEMP POLE P-S1-T INSTALLED. SEE U6, U8. TRANSFER CABLING AERIAL DISTRIBUTION TO NEW POLE P-S1-T. EXISTING KPU-T AERIAL DISTRIBUTION WITH MESSENGER DEADENDS AT POLE P-S1
  - 3 DISCONNECT EXIST KPU-T AERIAL W/ MESSENGER AND TERMINALS. CONNECT THEM TO TEMP POLE P-S1-T. COIL EXCESS CABLING. SEE 2/UV4

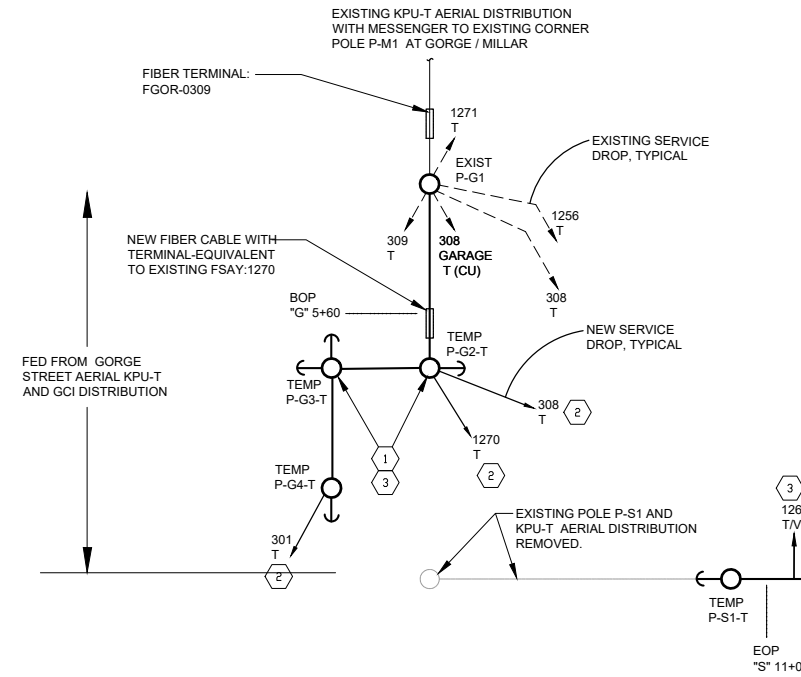


1 TELEPHONE ONE LINE DIAGRAM - EXISTING INSTALLATION  
NO SCALE



- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V1, 1/4 AND U5, 1/8 FOR EXISTING SYSTEM.
  - C REMOVE TEMPORARY SYSTEM AFTER NEW SYSTEM IS OPERATIONAL, SEE V2, 2/UV4.
- DETAIL ELECTRICAL NOTES**
- 1 INSTALL NEW PERMANENT FIBER OPTIC SERVICE DROP

3 TELEPHONE ONE LINE DIAGRAM - PERMANENT INSTALLATION  
NO SCALE



- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V1, 1/4 AND U5, 1/8 FOR EXISTING SYSTEM.

- DETAIL ELECTRICAL NOTES**
- 1 INSTALL NEW POLE. SEE U6, U8
  - 2 INSTALL NEW TEMP SERVICE DROP PER TEMPORARY SYSTEM U6, U8, V2, V4.
  - 3 NEW AERIAL MESSENGER WITH FIBER CABLE SERVICE DROPS FROM TERMINAL TO TEMP POLES P-G2-T & P-G3-T.

2 TELEPHONE ONE LINE DIAGRAM - TEMPORARY INSTALLATION  
NO SCALE

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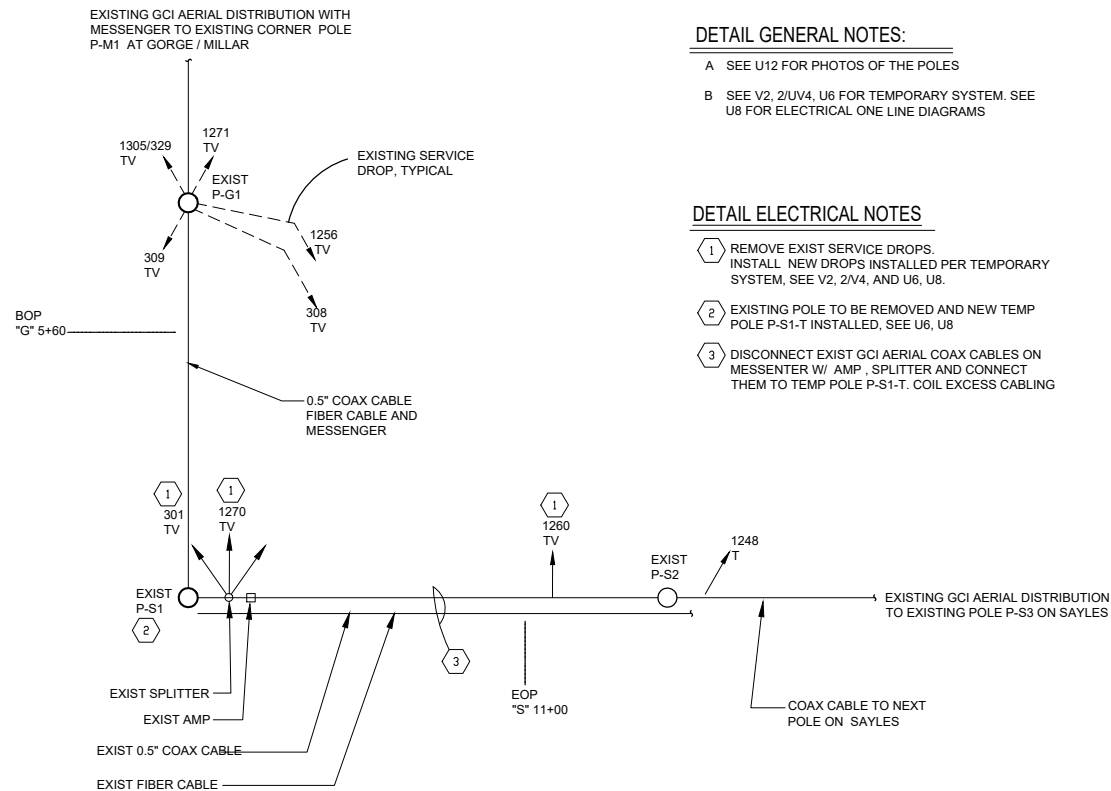
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TELEPHONE ONE LINE  
DIAGRAMS

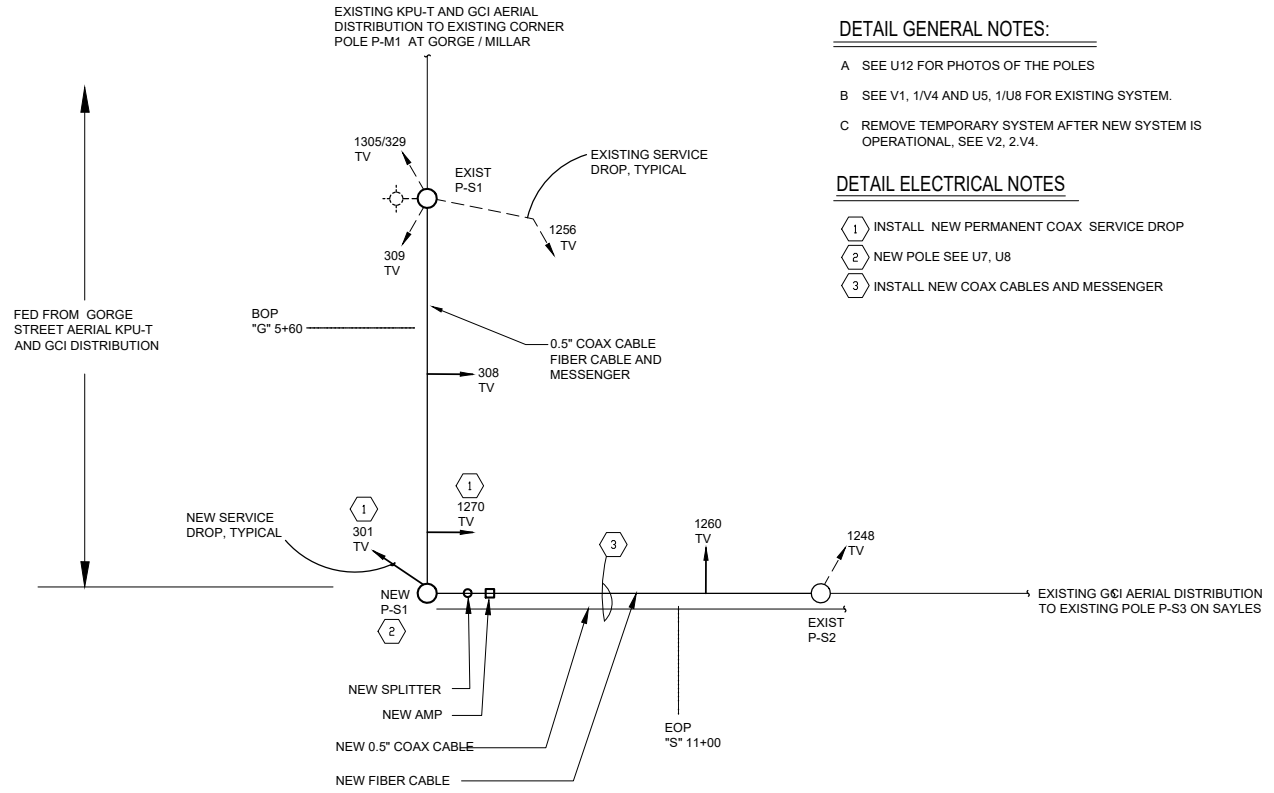


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			ALASKA	0003225/SFHWY00070	2022	V5	V5



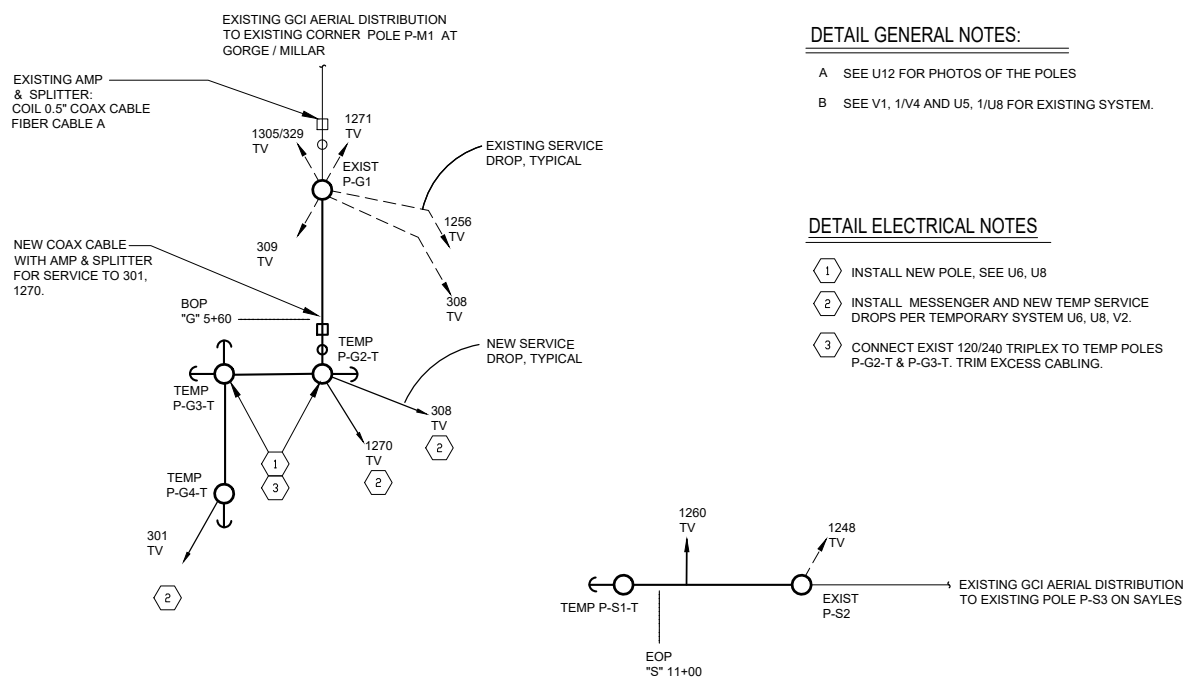
1 CABLE TV ONE LINE DIAGRAM - EXISTING INSTALLATION  
NO SCALE

- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V2, 2/U4, U6 FOR TEMPORARY SYSTEM. SEE U8 FOR ELECTRICAL ONE LINE DIAGRAMS
- DETAIL ELECTRICAL NOTES**
- 1 REMOVE EXIST SERVICE DROPS. INSTALL NEW DROPS INSTALLED PER TEMPORARY SYSTEM, SEE V2, 2/U4, AND U6, U8.
  - 2 EXISTING POLE TO BE REMOVED AND NEW TEMP POLE P-S1-T INSTALLED, SEE U6, U8
  - 3 DISCONNECT EXIST GCI AERIAL COAX CABLES ON MESSENGER W/ AMP, SPLITTER AND CONNECT THEM TO TEMP POLE P-S1-T. COIL EXCESS CABLING



3 CABLE TV ONE LINE DIAGRAM - PERMANENT INSTALLATION  
NO SCALE

- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V1, 1/U4 AND U5, 1/U8 FOR EXISTING SYSTEM.
  - C REMOVE TEMPORARY SYSTEM AFTER NEW SYSTEM IS OPERATIONAL, SEE V2, 2, V4.
- DETAIL ELECTRICAL NOTES**
- 1 INSTALL NEW PERMANENT COAX SERVICE DROP
  - 2 NEW POLE SEE U7, U8
  - 3 INSTALL NEW COAX CABLES AND MESSENGER



2 CABLE TV ONE LINE DIAGRAM - TEMPORARY INSTALLATION  
NO SCALE

- DETAIL GENERAL NOTES:**
- A SEE U12 FOR PHOTOS OF THE POLES
  - B SEE V1, 1/U4 AND U5, 1/U8 FOR EXISTING SYSTEM.
- DETAIL ELECTRICAL NOTES**
- 1 INSTALL NEW POLE, SEE U6, U8
  - 2 INSTALL MESSENGER AND NEW TEMP SERVICE DROPS PER TEMPORARY SYSTEM U6, U8, V2.
  - 3 CONNECT EXIST 120/240 TRIPLEX TO TEMP POLES P-G2-T & P-G3-T. TRIM EXCESS CABLING.

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CABLE TV ONE LINE DIAGRAMS