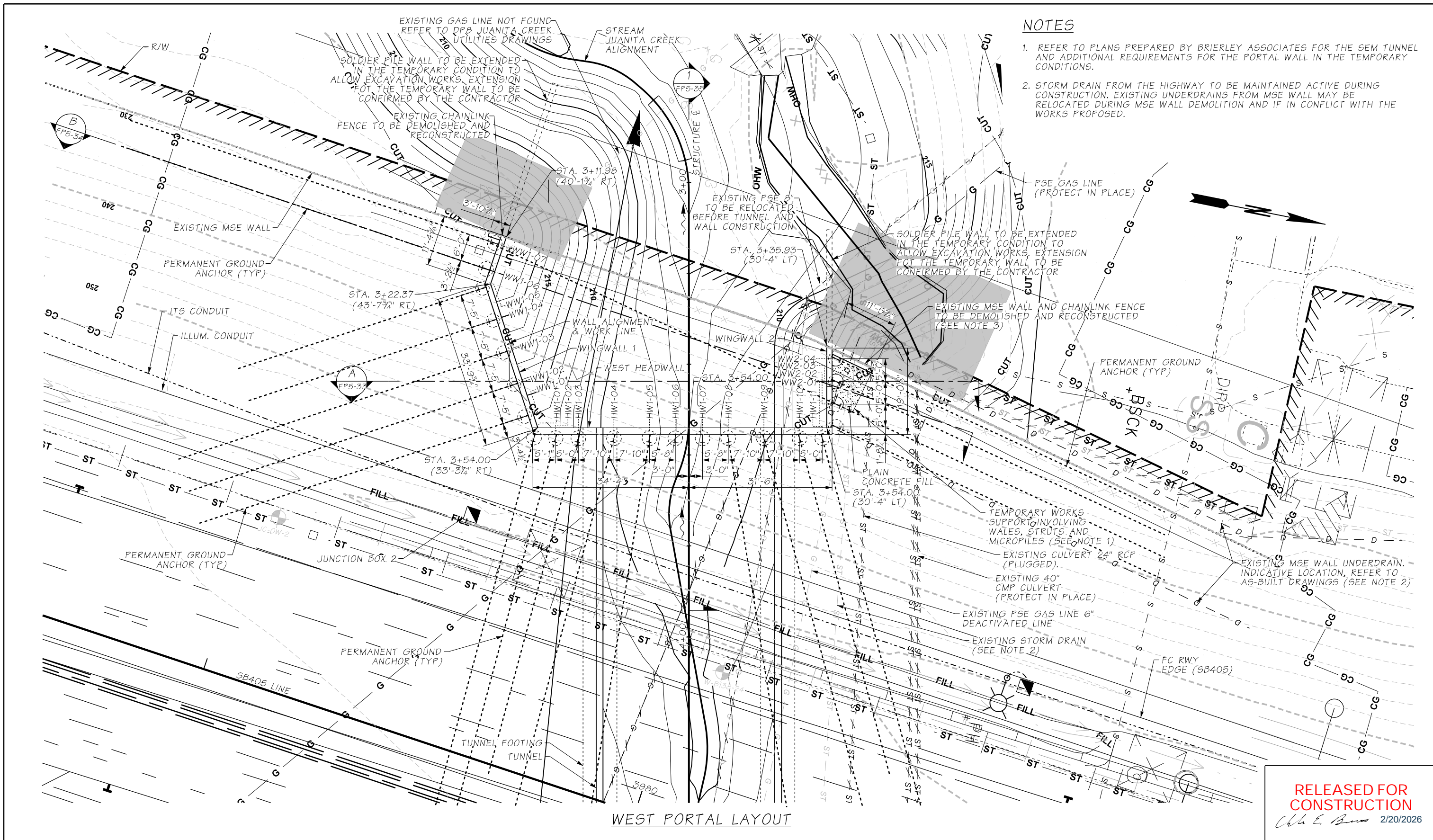


SR FILE NO. SHEET



NOTES

1. REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE SEM TUNNEL AND ADDITIONAL REQUIREMENTS FOR THE PORTAL WALL IN THE TEMPORARY CONDITIONS.
2. STORM DRAIN FROM THE HIGHWAY TO BE MAINTAINED ACTIVE DURING CONSTRUCTION. EXISTING UNDERDRAINS FROM MSE WALL MAY BE RELOCATED DURING MSE WALL DEMOLITION AND IF IN CONFLICT WITH THE WORKS PROPOSED.

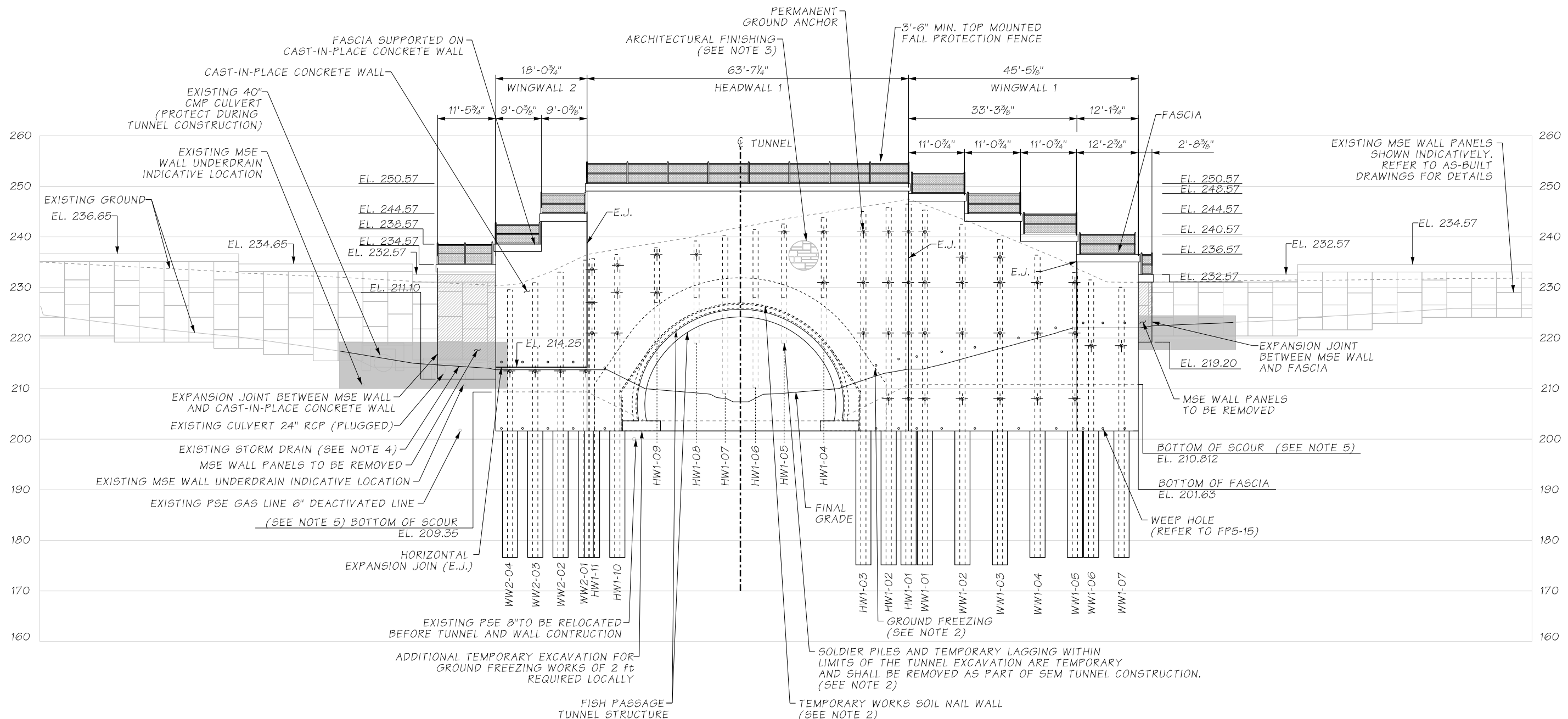
WEST PORTAL LAYOUT

RELEASED FOR CONSTRUCTION

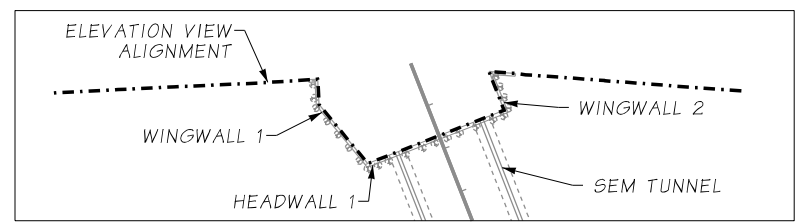
Ch E. B... 2/20/2026

FILE NAME: c:\pwworking\uswaldms06730\C9727_DE_FP5_25.dgn		REGION NO. STATE		FED.AID PROJ.NO.					I-405 BRICKYARD TO SR527 IMPROVEMENT PROJECT	PLAN REF NO.
TIME: 9:31:37	DATE: 03/02/2026	10	WASH							FP5-25
DESIGNED BY: I RIVERO	ENTERED BY: S SANCHEZ	JOB NUMBER: 22AB17	CONTRACT NO.:	LOCATION NO.:					SHEET XX OF SHEETS	
PROJ. ENGR. J SLAVICEK	REVISION: REV 0 - DESIGN PACKAGE #8	DATE: 02/03/2026	BY: MW	9727	XL5446					

C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61



ELEVATION - WEST PORTAL



KEY PLAN
N.T.S.

NOTES

- UNLESS OTHERWISE NOTED, THE SOLDIER PILES, TIEBACKS, AND REINFORCED CONCRETE FASCIA WALL SHOWN ON THIS SHEET REPRESENT THE PERMANENT (FINAL) CONDITION.
- REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE SEM TUNNEL AND ADDITIONAL REQUIREMENTS FOR THE PORTAL WALL IN THE TEMPORARY CONDITIONS. FREEZE PIPE LOCATIONS SHOWN ARE CONCEPTUAL AND WILL BE ADJUSTED TO AVOID SOLDIER PILES OR PERMANENT WALL ELEMENTS.
- FASCIA SHALL HAVE ARCHITECTURAL FINISH TYPE 3 AESTHETICS WITH WALL STEPPING, WALL CAP, AND ASHLAR FINISH. THE TUNNEL FINAL LINER SHALL EXTEND OUT TO THE EXTERIOR FACE OF THE HEADWALL, WHICH IS TO HAVE SMOOTH FINISH AND DOES NOT REQUIRE FORMLINER FINISH. RECONSTRUCTED MSE WALLS MUST ALSO COMPLY WITH URBAN DESIGN AESTHETIC REQUIREMENTS. FORMLINER (SINE WAVE) TO BE USED ON BACK SIDE OF WALL FACING THE HIGHWAY.
- STORM DRAIN FROM THE HIGHWAY TO BE MAINTAINED ACTIVE DURING CONSTRUCTION. EXISTING UNDERDRAINS FROM MSE WALL MAY BE RELOCATED DURING MSE WALL DEMOLITION AND IF IN CONFLICT WITH THE WORKS PROPOSED.
- BOTTOM OF SCOUR SHOWN DOES NOT CONSIDER MODIFICATIONS FROM ADDITIONAL SCOUR COUNTERMEASURES IN THE AREA.

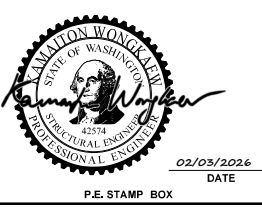
LEGEND

MSE WALL PANELS TO BE REMOVED

RELEASED FOR CONSTRUCTION
Ch E. B... 2/20/2026

SHEET NO.

FILE NAME	c:\pwworking\luswaldms06730\I-405\DE_FP5_26.dgn		
TIME	9:47:20		
DATE	03/02/2026		
PLOTTED BY	ArandaMarinM		
DESIGNED BY	I RIVERO		
ENTERED BY	S SANCHEZ		
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	IL HODGSON	REVISION	DATE BY
REGION NO.	10	STATE	WASH
JOB NUMBER	22AB17		
CONTRACT NO.	9727		
FED.AID PROJ.NO.			
LOCATION NO.	XL5446		



I-405 BRICKYARD TO SR527 IMPROVEMENT PROJECT	PLAN REF NO FP5-26
JUANITA CREEK (MP 21.94) FISH PASSAGE STRUCTURE NO. 405/61 WEST PORTAL WALL ELEVATION VIEW	SHEET XX OF SHEETS

PORTAL SOLDIER PILE SCHEDULE

PILE NO.	STA.	OFFSET (FT)	DRILL HOLE SIZE	P.G.A ARANGEMENT TYPE	SOLDIER PILE SECTION	TOP OF SOLDIER PILE ELEVATION (FT) (1)	H (FT)(2)	D (FT)(2)	TOTAL PILE LENGTH (FT)
HW1-01	3+56.32	34.42' Rt.	3'-3"	HW-A	W21X101	246.50	44'-10"	26'-6"	71'-4"
HW1-02	3+56.32	29.33' Rt.	3'-3"	HW-A	W21X101	245.76	44'-2"	26'-6"	70'-8"
HW1-03	3+56.32	24.33' Rt.	3'-3"	HW-B	W21X182	245.01	43'-5"	26'-6"	69'-11"
HW1-04	3+56.32	16.50' Rt.	3'-3"	HW-C	W21X101	243.79	-	-	24'-10" (3)
HW1-05	3+56.32	8.67' Rt.	3'-3"	HW-D	W21X101	242.55	-	-	23'-7" (3)
HW1-06	3+56.32	3.00' Rt.	3'-3"	-	W21X101	241.44	-	-	31'-3" (3)
HW1-07	3+56.32	3.00' Lt.	3'-3"	-	W21X101	240.33	-	-	31'-3" (3)
HW1-08	3+56.32	8.67' Lt.	3'-3"	HW-E	W21X101	239.18	-	-	20'-2" (3)
HW1-09	3+56.32	16.50' Lt.	3'-3"	HW-F	W21X101	237.82	-	-	18'-10" (4)
HW1-10	3+56.32	24.33' Lt.	3'-3"	HW-G	W21X182	236.54	34'-11"	25'-0"	59'-11"
HW1-11	3+56.32	29.33' Lt.	3'-3"	HW-H	W21X182	235.68	34'-1"	25'-0"	59'-1"
WW1-01	3+51.55	36.17' Rt.	3'-3"	A	W21X101	245.32	43'-8"	26'-6"	70'-2"
WW1-02	3+44.50	38.48' Rt.	3'-3"	B	W21X101	242.53	40'-11"	26'-6"	67'-5"
WW1-03	3+37.45	40.80' Rt.	3'-3"	B	W21X101	239.49	37'-10"	26'-6"	64'-4"
WW1-04	3+30.40	43.11' Rt.	3'-3"	C	W21X101	236.40	34'-9"	25'-0"	59'-9"
WW1-05	3+23.35	45.42' Rt.	3'-3"	C	W21X101	232.95	31'-4"	25'-0"	56'-4"
WW1-06	3+19.06	44.63' Rt.	3'-3"	D	W21X182	231.50	29'-10"	25'-0"	54'-10"
WW1-07	3+13.38	42.72' Rt.	3'-3"	D	W21X182	230.05	28'-4"	25'-0"	53'-4"
WW2-01	3+53.42	32.25' Lt.	3'-3"	E	W24X229	235.40	33'-9"	25'-0"	58'-9"
WW2-02	3+48.76	32.25' Lt.	3'-3"	E	W24X229	233.03	31'-5"	25'-0"	56'-5"
WW2-03	3+43.76	32.25' Lt.	3'-3"	E	W24X229	230.95	29'-4"	25'-0"	54'-4"
WW2-04	3+38.76	32.25' Lt.	3'-3"	E	W24X229	229.55	28'-4"	25'-0"	53'-4"

TIEBACK ANCHORS SCHEDULE

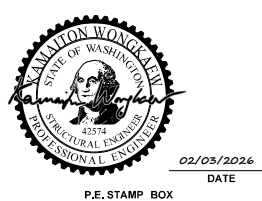
TYPE	NUMBER OF ROWS	ROW ELEVATION	INCLINATION VER. ANGLE (°)	INCLINATION HOR. ANGLE (°)	UNBONDED LENGTH (ft)	BONDED LENGTH (ft) (5)	FACTORED DESIGN LOAD (kips)	NUMBER OF STRANDS (6)	LOCKOFF LOAD (kips)
HW-A	1	241	25	15	61	36	151	4	91
	2	231	25	15	50	22	186	5	111
	3	221	30	15	37	27	225	7	150
	4	208	30	15	24	34	233	7	150
HW-B	1	241	25	15	62	24	198	5	119
	2	231	25	15	51	24	204	7	150
	3	221	30	15	38	39	331	10	200
HW-C	1	241	15	15	74	40	169	5	102
	2	231	15	15	61	38	162	4	97
HW-D	1	241	7	9	78	41	175	5	105
HW-E	1	236.5	7	9	78	39	164	5	98
HW-F	1	236.5	15	15	76	38	159	4	95
	2	229	15	15	66	18	152	4	91
HW-G	1	234.4	25	15	63	23	189	5	114
	2	229	25	15	57	22	186	6	120
	3	221	25	15	48	36	306	10	200
HW-H	1	233.6	8	15	78	22	184	5	110
	2	227	40	15	48	22	183	6	120
	3	221	40	15	42	32	266	8	200
A	1	241	20	-	46	39	140	3	85
	2	231	20	-	39	22	148	4	90
	3	221	20	-	32	28	186	5	115
	4	208	20	-	22	39	153	4	100
B	1	236	20	-	46	20	140	3	85
	2	231	20	-	39	22	148	4	90
	3	221	20	-	32	28	186	5	115
	4	208	20	-	22	39	153	4	100
C	1	231	20	-	35	16	88	3	55
	2	221	20	-	28	23	115	4	70
	3	208	20	-	21	36	141	5	85
D	1	218.5	20	-	56	34	167	5	100
E	1	213.5	20	-	49	35	232	6	143

- (1) TOP ELEVATION FOR SOLDIER PILES IN THE PERMANENT WORKS. IN THE TEMPORARY WORKS CONDITION THE PILE TOP MAY BE AT A HIGHER ELEVATION (REFER TO DRAWING FP5-26).
- (2) DIMENSIONS "H" AND "D" REFER TO DESIGN HEIGHT AND EMBEDMENT DEPTH, RESPECTIVELY. REFER TO SHEET FP5-13
- (3) PILE TOE ELEVATION TO BE CUT DURING CONSTRUCTION TO ALLOW FOR THE OTHER WORKS. PILE TO BE CUT AT EL. 228 FT.
- (4) PILE TOE ELEVATION TO BE CUT DURING CONSTRUCTION TO ALLOW FOR THE OTHER WORKS. PILE TO BE CUT AT EL. 227 FT.
- (5) BONDED LENGTH ARE PRELIMINARY, USING A 6" DIAMETER BOND IN WINGWALLS AND A 7" DIAMETER BOND IN HEADWALL, AND BASED ON AVAILABLE INFORMATION. THE GROUND ANCHORS CONTRACTOR IS TO PROVIDE THE FINAL BONDED LENGTH AND BOND DIAMETER AS PER WSDOT GDM 15-5.2.3.
- (6) STRANDS OF GRADE 270 KSI, 0.6-INCH DIAMETER.
- (7) TESTING REQUIREMENTS:
 - VERIFICATION TESTING (ON SACRIFICIAL GROUND ANCHORS):
 - 1 ANCHOR AT LEVEL AND INCLINATION OF UPPER LEVEL FROM HW-D/HW-E INTO ESU 1B
 - 2 ANCHORS AT LEVEL AND INCLINATION OF LOWER LEVEL FROM A/B/C INTO ESU 6B.
 - PERFORMANCE TESTING:
 - 3 ANCHORS PER HW1 AND WW1 (TOTAL OF 6 TESTED ANCHORS) LOCATED ON ELEVATIONS BETWEEN EL. 241 AND 236 FT.
 - 3 ANCHORS PER HW1 AND WW1 (TOTAL OF 6 TESTED ANCHORS) LOCATED ON ELEVATIONS BETWEEN EL. 231 AND 221 FT.
 - 3 ANCHORS PER WW1 AND WW2 (TOTAL OF 6 TESTED ANCHORS) LOCATED ON ELEVATIONS BETWEEN EL. 214.5 AND 208 FT.
 - REMAINDER OF PRODUCTION ANCHORS TO BE PROOF-TESTED IN ACCORDANCE WITH WSDOT GDM 15-5.2.3.

RELEASED FOR CONSTRUCTION
Ch E. B... 2/20/2026

SR FILE NO. SHEET

FILE NAME	c:\pwworking\uswaldms06730\C9727_DE_FP5_28.dgn		
TIME	16:30:43	REGION NO.	STATE
DATE	19/02/2026	10	WASH
PLOTTED BY	ArandaMarinM	JOB NUMBER	22AB17
DESIGNED BY	I RIVERO	CONTRACT NO.	9727
ENTERED BY	S SANCHEZ	LOCATION NO.	XL5446
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	L HODGSON	REVISION	DATE BY

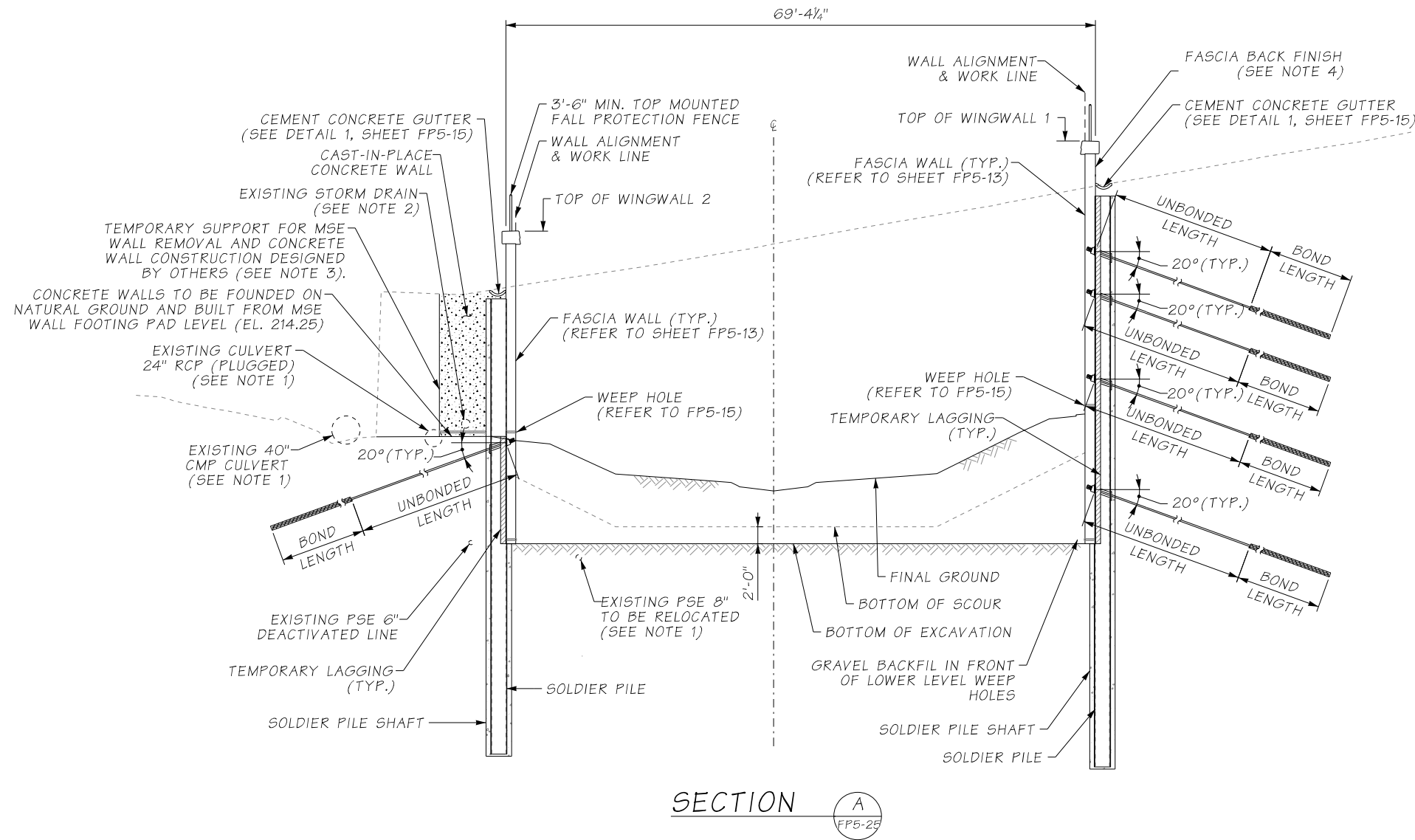


I-405	
BRICKYARD TO SR527 IMPROVEMENT PROJECT	
JUANITA CREEK (MP 21.94) FISH PASSAGE STRUCTURE NO. 405/61 WEST PORTAL WALL PILE SCHEDULE	
PLAN REF NO	FP5-28
SHEET XX OF SHEETS	

C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61

NOTES

- EXISTING UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE DECOMMISSIONED. THOSE THAT INTERSECT WITH THE WALL SHALL BE REMOVED TO THE BACK OF THE LAGGING AND PLUGGED.
- STORM DRAIN FROM THE HIGHWAY TO BE MAINTAINED ACTIVE DURING CONSTRUCTION. FOR TEMPORARY AND PERMANENT DIVERSION OF THE PIPE THROUGH THE WALLS, REFER TO DRAINAGE DESIGNER DRAWINGS.
- REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE SEM TUNNEL, SOE, AND ADDITIONAL REQUIREMENTS FOR THE TEMPORARY WORKS.
- FORMLINER FINISH (SINE WAVE) TO BE USED ON BACK SIDE OF WALL FACING THE HIGHWAY.

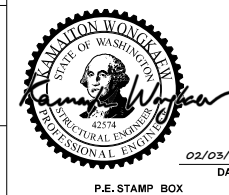


SECTION A
FP5-25

RELEASED FOR CONSTRUCTION
Ch E. B... 2/20/2026

SR FILE NO. SHEET

FILE NAME	c:\pwworking\uswaldms06730\C9727_DE_FP5_33.dgn		
TIME	9:59:27		
DATE	03/02/2026		
PLOTTED BY	ArandaMarinM		
DESIGNED BY	I RIVERO		
ENTERED BY	S SANCHEZ		
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	IL HODGSON	REVISION	DATE BY
REGION NO.	10	STATE	WASH
FED.AID PROJ.NO.			
JOB NUMBER	22AB17		
CONTRACT NO.	9727	LOCATION NO.	XL5446



AECOM



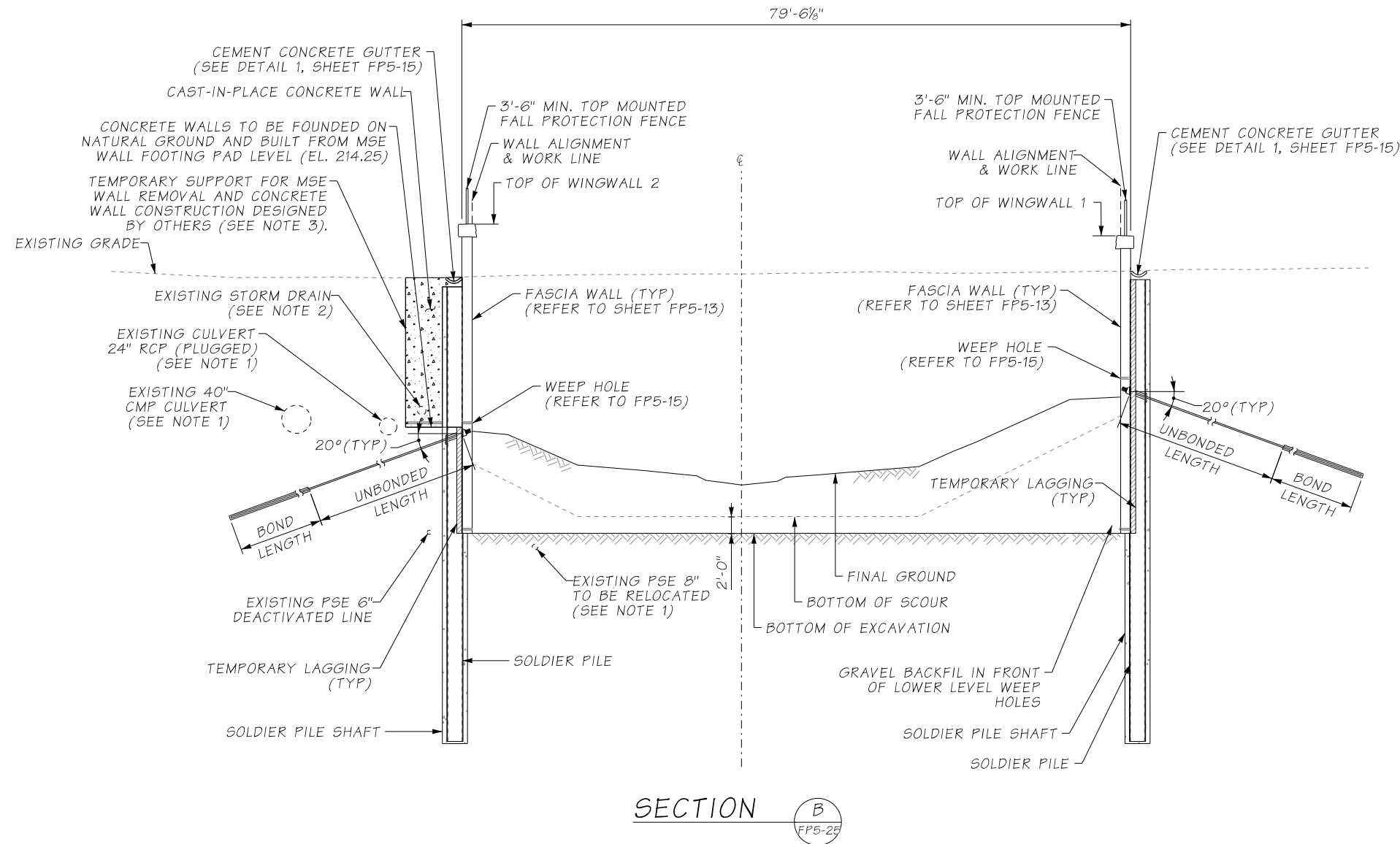
SKANSKA

I-405	PLAN REF NO.
BRICKYARD TO SR527	FP5-33
IMPROVEMENT PROJECT	SHEET XX OF SHEETS
JUANITA CREEK (MP 21.94)	
FISH PASSAGE STRUCTURE NO. 405/61	
WEST PORTAL WALL TYPICAL SECTIONS	

C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61

NOTES

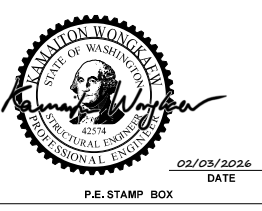
- EXISTING UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE DECOMMISSIONED. THOSE THAT INTERSECT WITH THE WALL SHALL BE REMOVED TO THE BACK OF THE LAGGING AND PLUGGED.
- STORM DRAIN FROM THE HIGHWAY TO BE MAINTAINED ACTIVE DURING CONSTRUCTION. FOR TEMPORARY AND PERMANENT DIVERSION OF THE PIPE THROUGH THE WALLS, REFER TO DRAINAGE DESIGNER DRAWINGS.
- REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE SEM TUNNEL, SOE, AND ADDITIONAL REQUIREMENTS FOR THE TEMPORARY WORKS.



RELEASED FOR CONSTRUCTION
Ch. E. B... 2/20/2026

SR FILE NO. SHEET

FILE NAME	c:\pwworking\uswaldms06730\IC9727_DE_FP5_34.dgn		
TIME	10:16:23		
DATE	03/02/2026		
PLOTTED BY	ArandaMarinM		
DESIGNED BY	I RIVERO		
ENTERED BY	S SANCHEZ		
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	IL HODGSON	REVISION	DATE BY
REGION NO.	10	STATE	WASH
FED.AID PROJ.NO.			
JOB NUMBER	22AB17		
CONTRACT NO.	9727		
LOCATION NO.	XL5446		



I-405
BRICKYARD TO SR527
IMPROVEMENT PROJECT
JUANITA CREEK (MP 21.94)
FISH PASSAGE STRUCTURE NO. 405/61
WEST PORTAL WALL TYPICAL SECTIONS

PLAN REF NO	FP5-34
SHEET XX OF SHEETS	

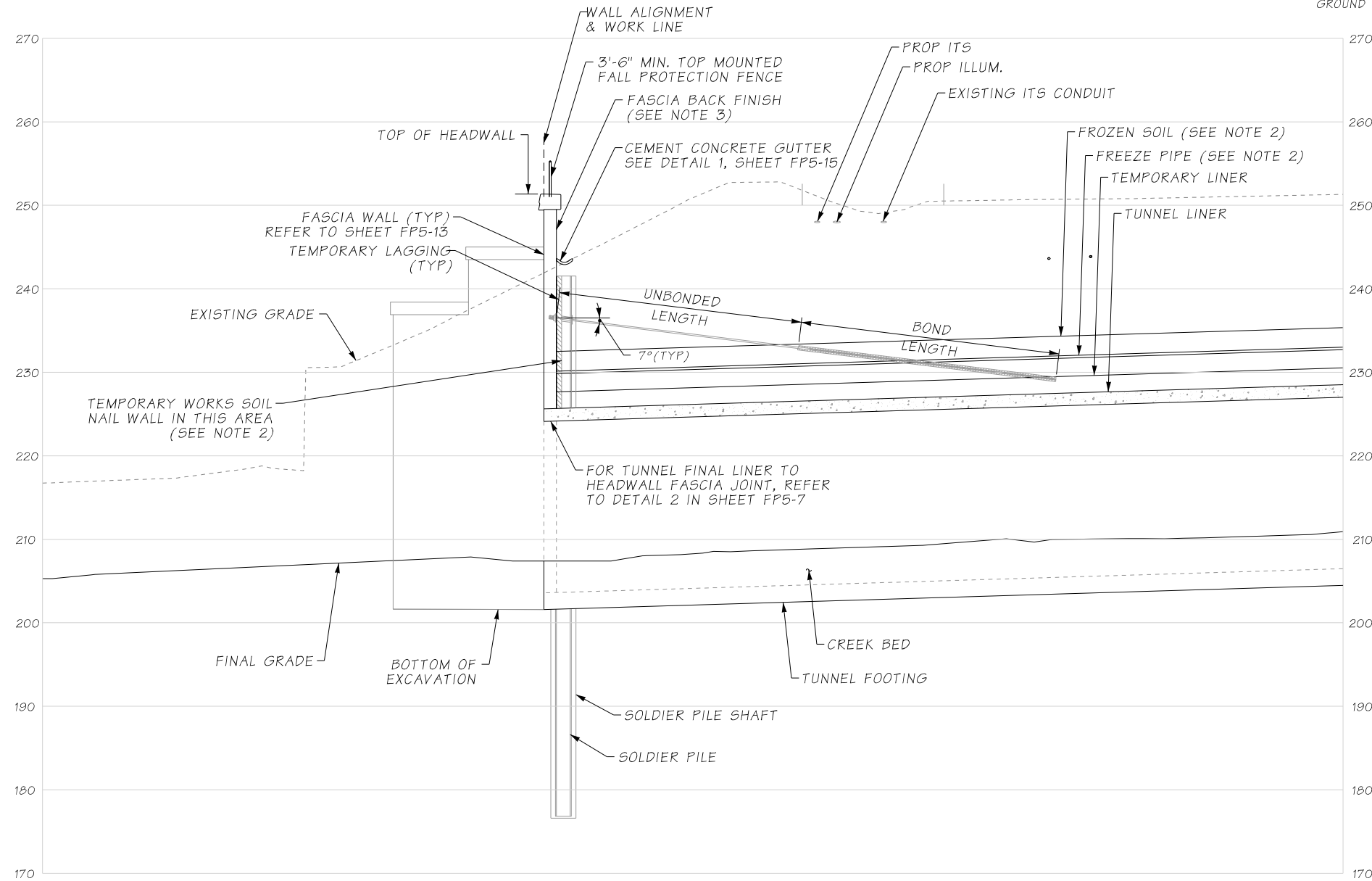
C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61

NOTES

- EXISTING UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE DECOMMISSIONED. THOSE THAT INTERSECT WITH THE WALL SHALL BE REMOVED TO THE BACK OF THE LAGGING AND PLUGGED.
- REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE SEM TUNNEL, SOE, AND ADDITIONAL REQUIREMENTS FOR THE TEMPORARY WORKS.
- FORMLINER FINISH (SINE WAVE) TO BE USED ON BACK SIDE OF WALL FACING THE HIGHWAY.
- TIEBACKS SHOWN IN THIS SECTION ONLY APPEAR TO CLASH WITH THE TUNNEL LINER DUE TO PROJECTION; THEY ARE DESIGNED CLEAR OF THE LINER AND GROUND FREEZING ARCH.

LEGEND

CONCRETE

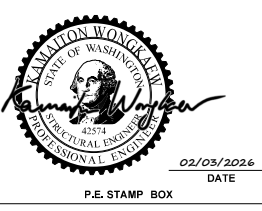


SECTION 1
FP5-25

RELEASED FOR CONSTRUCTION
Ch E. B... 2/20/2026

SR FILE NO. SHEET

FILE NAME	c:\pwworking\uswaldms06730\IC9727_DE_FP5_35.dgn		
TIME	10:20:19		
DATE	03/02/2026		
PLOTTED BY	ArandaMarinM		
DESIGNED BY	I RIVERO		
ENTERED BY	S SANCHEZ		
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	IL HODGSON	REVISION	DATE BY
REGION NO.	10	STATE	WASH
FED.AID PROJ.NO.			
JOB NUMBER	22AB17		
CONTRACT NO.	9727		
LOCATION NO.	XL5446		



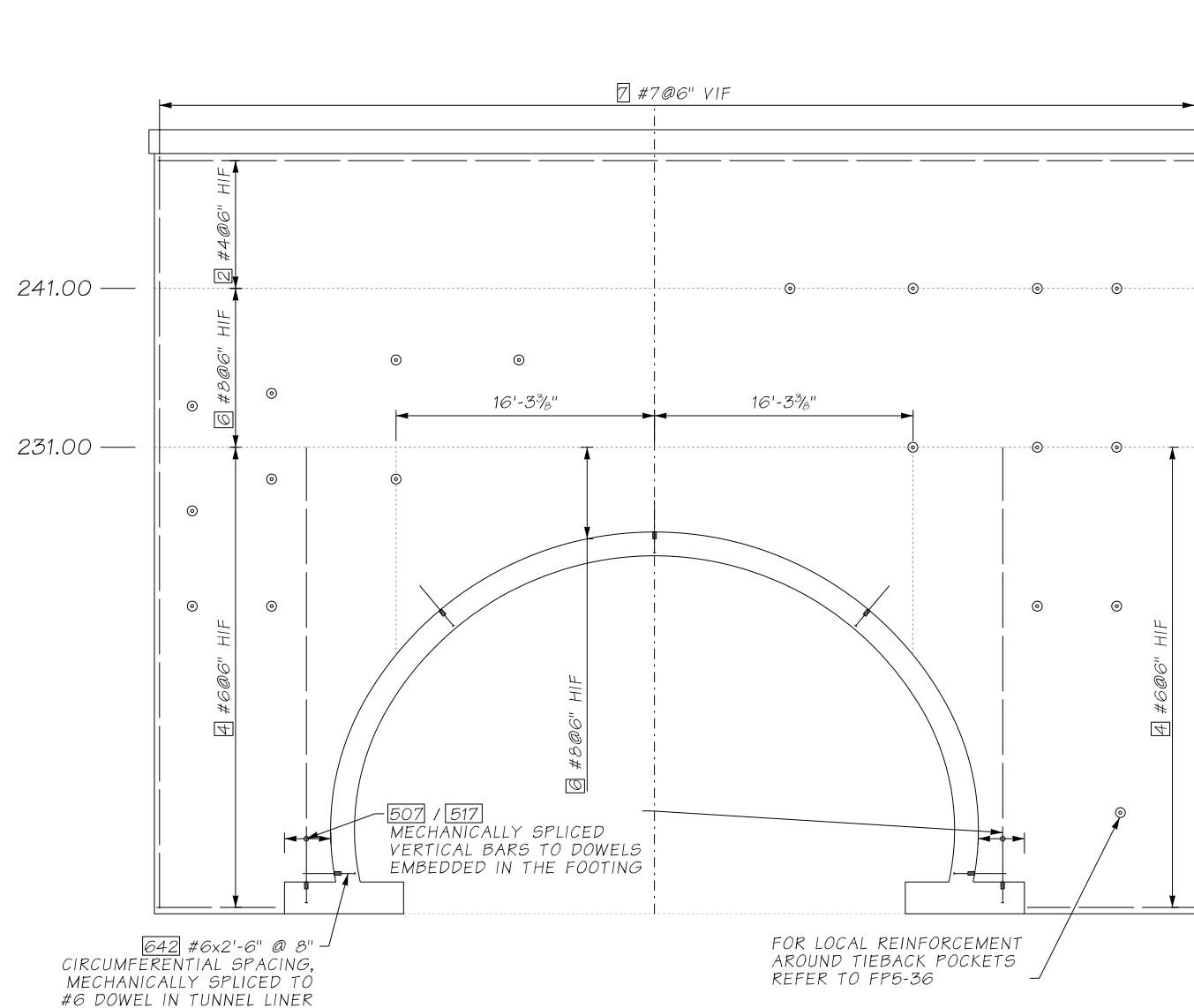
I-405
BRICKYARD TO SR527
IMPROVEMENT PROJECT
JUANITA CREEK (MP 21.94)
FISH PASSAGE STRUCTURE NO. 405/61
WEST PORTAL WALL TYPICAL SECTIONS

PLAN REF NO	FP5-35
SHEET	XX
OF	
SHEETS	

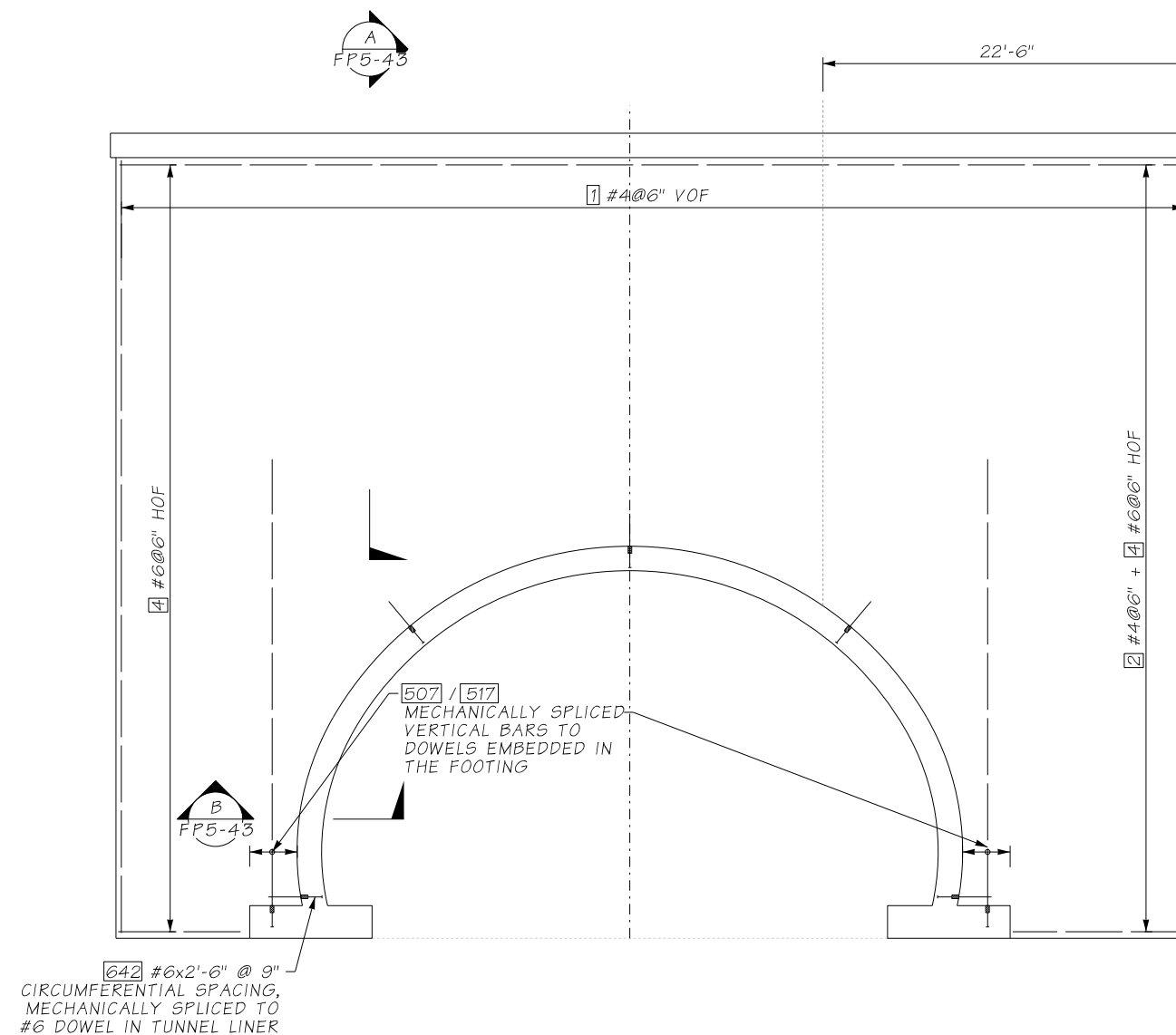
C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61

NOTES

- FOR DETAILS ON REINFORCEMENT BETWEEN EL. 231 ft AND 241 ft REFER TO FP5-40. THE VERTICAL REINFORCEMENT [1] ABOVE AND BELOW EL. 231 ft AND EL. 241 ft IS PLACED AT DIFFERENT STAGES AND REQUIRES COUPLER CONNECTIONS (OR SIMILAR). REFER TO PLANS PREPARED BY BRIERLEY ASSOCIATES FOR THE HEADWALL CONSTRUCTION SEQUENCE.



BACK VIEW OF THE HEADWALL
(INNER FACE)



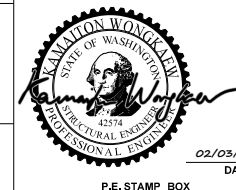
FRONT VIEW OF THE HEADWALL
(OUTTER FACE)

LEGEND

- VERTICAL REINFORCEMENT AREA DIVISION
- HORIZONTAL REINFORCEMENT AREA DIVISION

RELEASED FOR CONSTRUCTION
W. E. B... 2/20/2026

FILE NAME	c:\pwworking\luswaldms06730\C9727_DE_FP5_39.dgn			REGION NO.	STATE	FED.AID PROJ.NO.
TIME	10:22:56			10	WASH	
DATE	03/02/2026			JOB NUMBER		
PLOTTED BY	ArandaMarinM			22AB17		
DESIGNED BY	I RIVERO			CONTRACT NO.		
ENTERED BY	S SANCHEZ			9727	LOCATION NO.	
CHECKED BY	M WONGKAEW				XL5446	
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026	MW		
REGIONAL ADM.	L HODGSON	REVISION	DATE	BY		

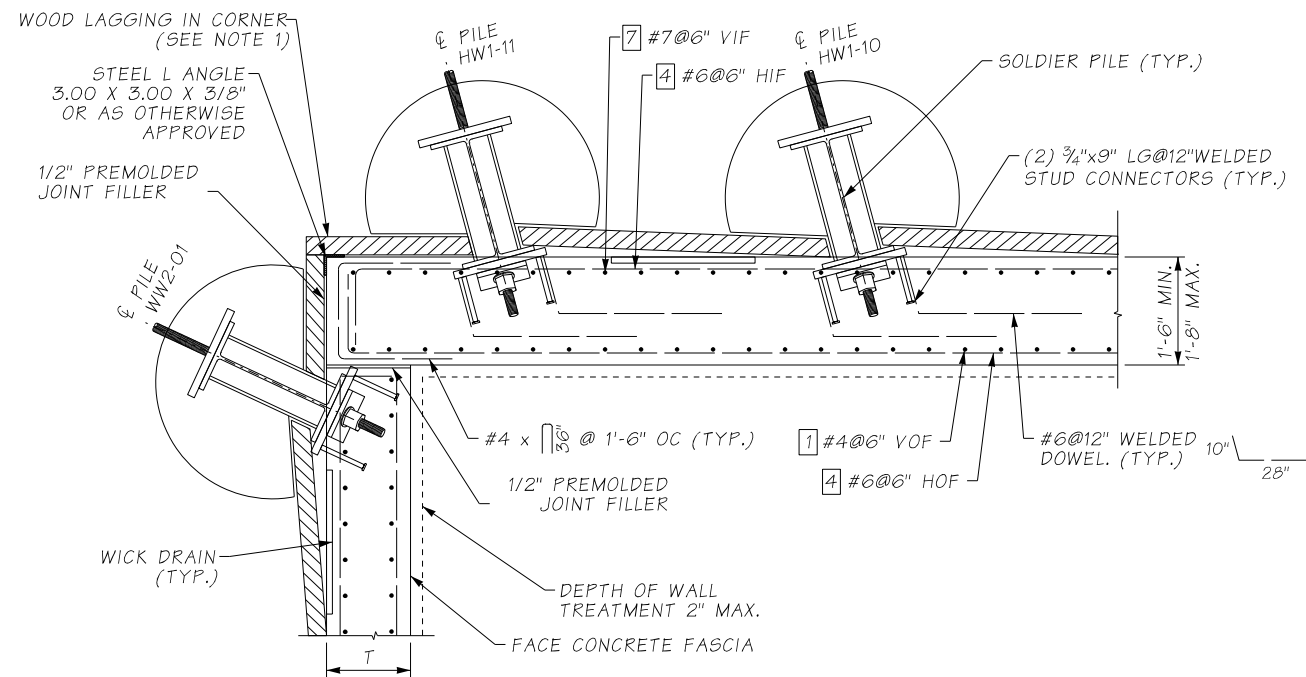


I-405
BRICKYARD TO SR527
IMPROVEMENT PROJECT
JUANITA CREEK (MP 21.94)
FISH PASSAGE STRUCTURE NO. 405/61
WEST HEADWALL REINFORCEMENT

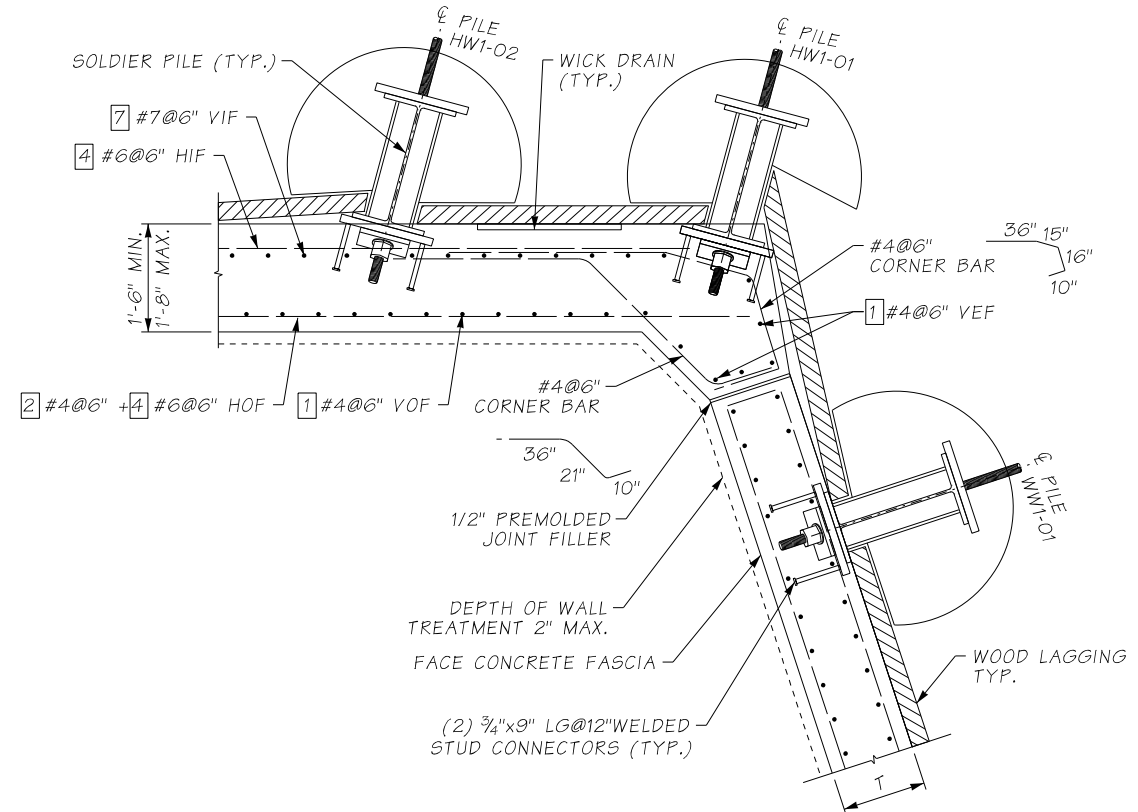
PLAN REF NO
FP5-39
SHEET
XX
OF
SHEETS

SR FILE NO. SHEET

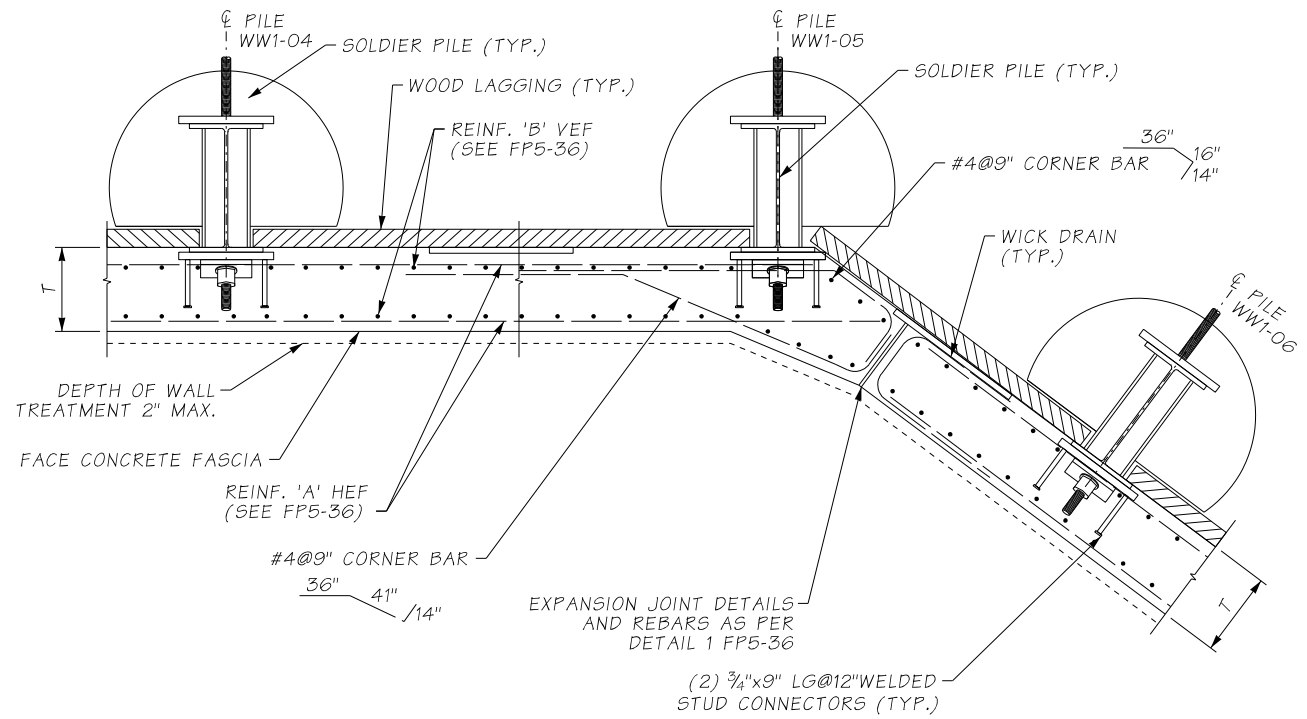
C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61



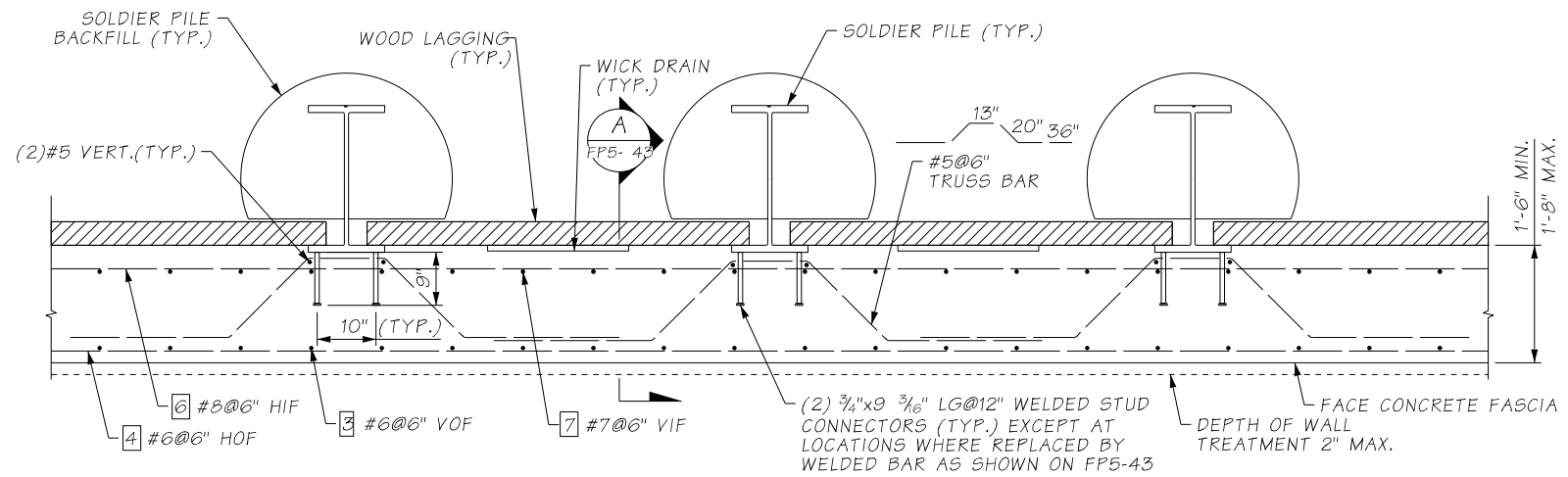
HEADWALL FASCIA (NORTH CORNER) - TYPICAL DETAIL



HEADWALL FASCIA (SOUTH CORNER) - TYPICAL DETAIL



WINGWALL 1 CORNER - TYPICAL DETAIL



HEADWALL FASCIA TYPICAL DETAIL REINFORCED AREA EL. 231 FT TO 241 FT

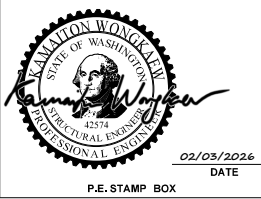
NOTES:

- LAGGING IN THE CORNER IS PLACED BY ALTERNATING THE LAGGING OVERLAP FROM EACH SIDE (LOG CABIN PLACING). WOOD LAG BOLTS TO BE USED THROUGH THE STEEL ANGLE MEMBER TO LOCK THE SYSTEM TOGETHER.
- FOR WINGWALL FASCIA THICKNESS "T" REFER TO FP5-36.

RELEASED FOR CONSTRUCTION
Ch E. B... 2/20/2026

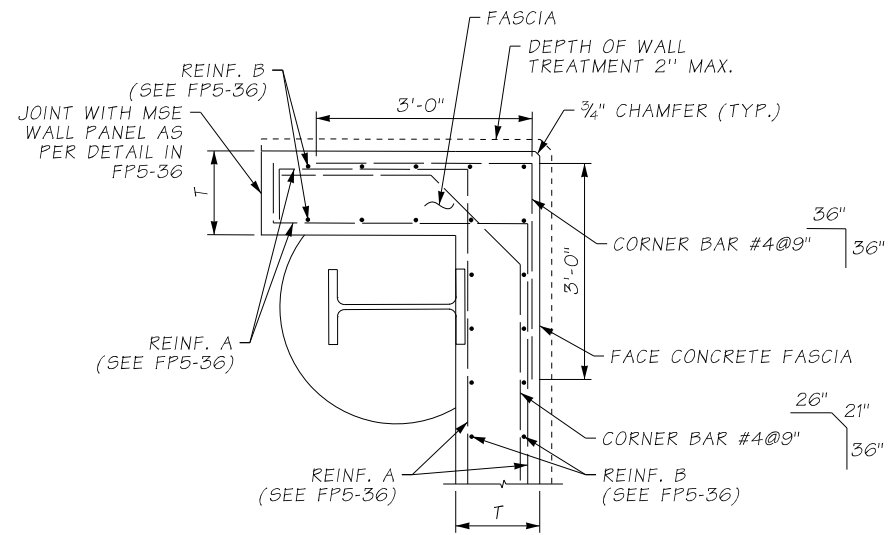
SR FILE NO. SHEET

FILE NAME	c:\pwworking\luswaldms06730\IC9727_DE_FP5_42.dgn		
TIME	10:25:58		
DATE	03/02/2026		
PLOTTED BY	ArandaMarinM		
DESIGNED BY	I RIVERO		
ENTERED BY	S SANCHEZ		
CHECKED BY	M WONGKAEW		
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026 MW
REGIONAL ADM.	L HODGSON	REVISION	DATE BY
REGION NO.	10	STATE	WASH
JOB NUMBER	22AB17		
CONTRACT NO.	9727		
FED.AID PROJ.NO.			
LOCATION NO.	XL5446		



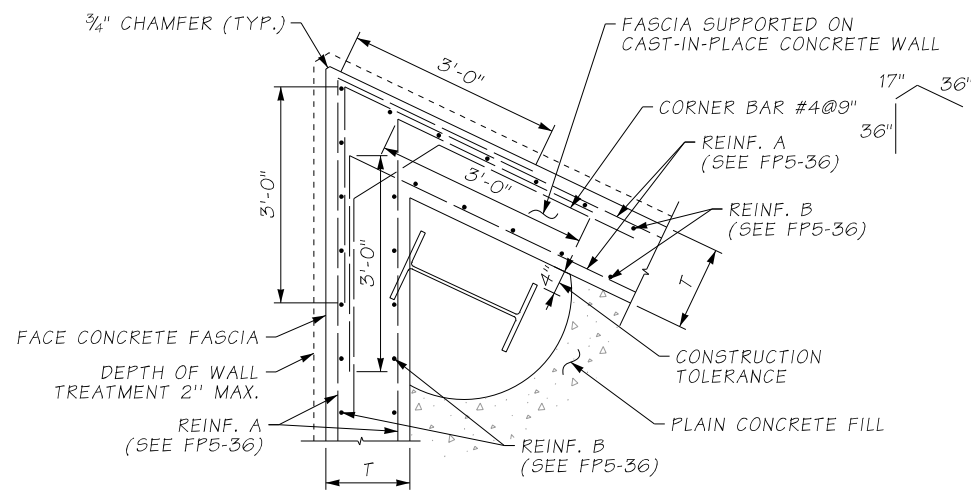
I-405
BRICKYARD TO SR527 IMPROVEMENT PROJECT
 JUANITA CREEK (MP 21.94)
FISH PASSAGE STRUCTURE NO. 405/61 WEST HEADWALL DETAILS 1 OF 2

PLAN REF NO
FP5-42
 SHEET
 XX
 OF
 SHEETS



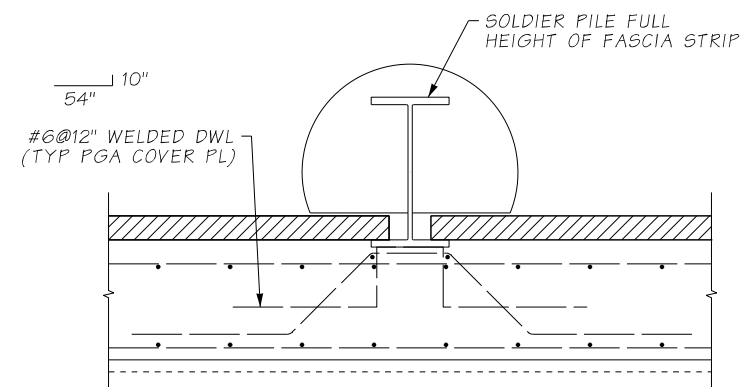
**WINGWALL 1 CORNER
TYPICAL DETAIL**

NOTE: FOR WALL THICKNESS "T" REFER TO F05-36



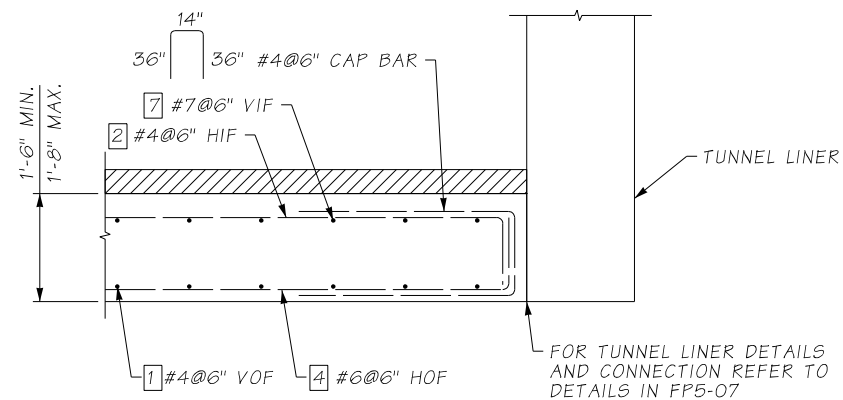
**WINGWALL 2 CORNER ON
TRANSITION TO CAST IN PLACE
CONCRETE WALL- TYPICAL DETAIL**

NOTE: FOR WALL THICKNESS "T" REFER TO F05-36



**SOLDIER PILE
CONNECTION WITH #6@12"**

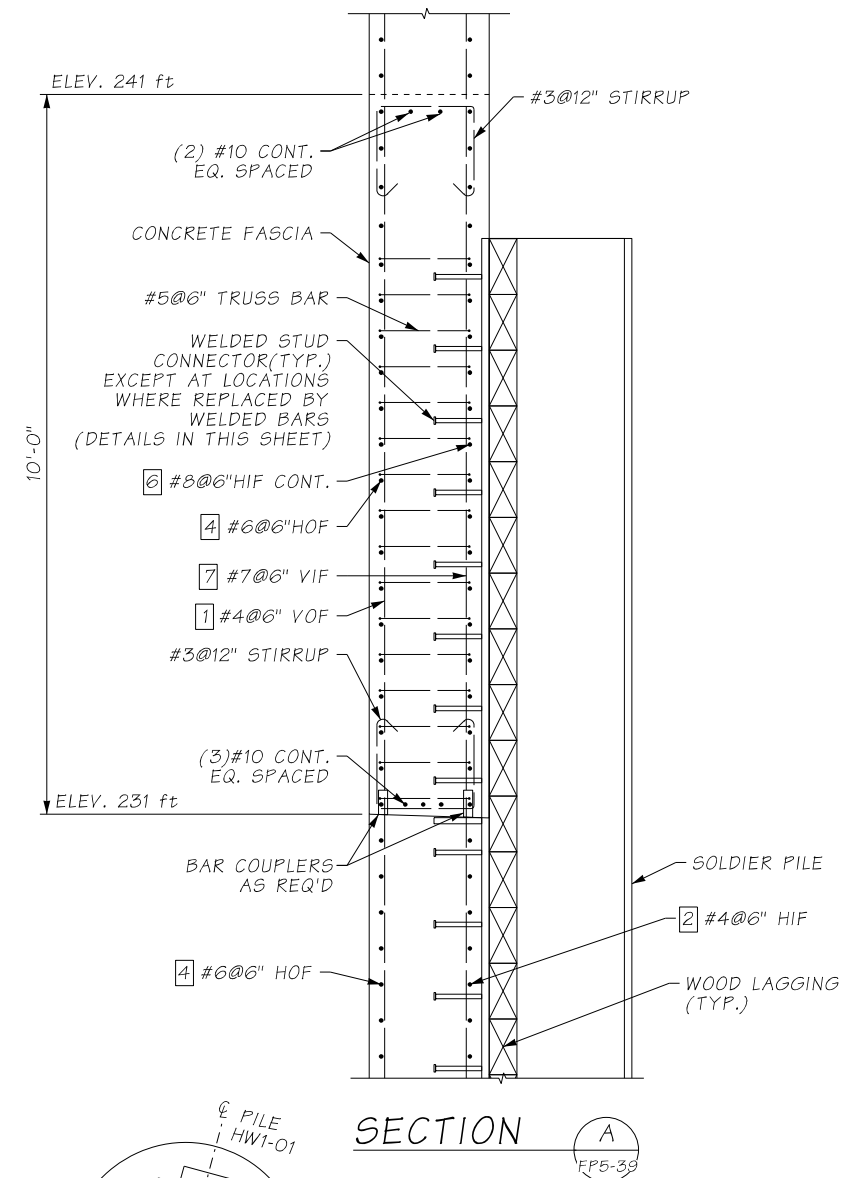
NOTE: CONNECTOR #6 DOWELS ARE USED ALONG PILES HW1-03 AND HW1-08 BETWEEN EL.231 FT TO EL. 241 FT.



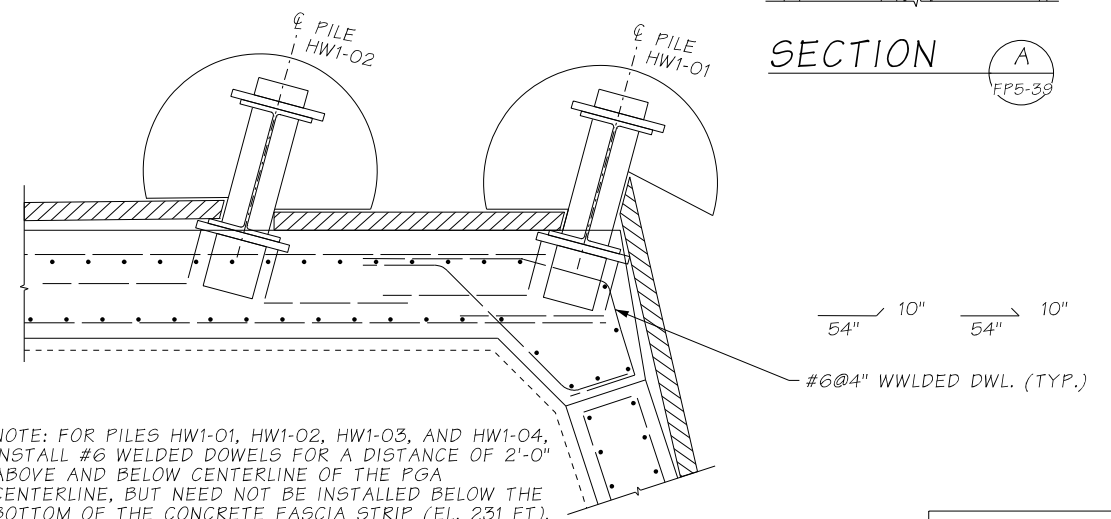
**HEADWALL FASCIA TYPICAL END
DETAIL AT TUNNEL INTERFACE**

SECTION B
FP5-39

FOR TUNNEL LINER DETAILS AND CONNECTION REFER TO DETAILS IN FP5-07



SECTION A
FP5-39



NOTE: FOR PILES HW1-01, HW1-02, HW1-03, AND HW1-04, INSTALL #6 WELDED DOWELS FOR A DISTANCE OF 2'-0" ABOVE AND BELOW CENTERLINE OF THE PGA CENTERLINE, BUT NEED NOT BE INSTALLED BELOW THE BOTTOM OF THE CONCRETE FASCIA STRIP (EL. 231 FT). FOR PILES HW1-09, HW1-10, AND HW1-11 INSTALL #6 WELDED DOWELS AT REQUIRED SPACING BETWEEN EL.231 FT AND EL.241 FT.

SOLDIER PILE CONNECTION WITH #6@4"

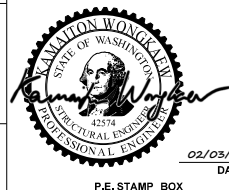
**RELEASED FOR
CONSTRUCTION**
C. E. B... 2/20/2026

NOTES:

1. WELDING HEADED STUD AND WELDED DOWEL CONNECTORS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH AWS D1.5 UTILIZING STUD WELDING GUN AND ACCESSORIES.
2. DEVELOPMENT LENGTH, LD FOR #6 DEFORMED BARS, PER BDM APPENDIX 5.1-A4 TABLE, SHALL NOT BE LESS THAN 28".

SK FILE NO. SHEET

FILE NAME	c:\pwworking\luswaldms06730\IC9727_DE_FP5_43.dgn			REGION NO.	STATE	FED.AID PROJ.NO.
TIME	10:30:15			10	WASH	
DATE	03/02/2026			JOB NUMBER		
PLOTTED BY	ArandaMarinM			22AB17		
DESIGNED BY	I RIVERO			CONTRACT NO.		
ENTERED BY	S SANCHEZ					
CHECKED BY	M WONGKAEW					
PROJ. ENGR.	J SLAVICEK	REV 0 - DESIGN PACKAGE #8	02/03/2026	MW	9727	LOCATION NO.
REGIONAL ADM.	L HODGSON	REVISION	DATE	BY		XL5446



AECOM



**I-405
BRICKYARD TO SR527
IMPROVEMENT PROJECT**

**JUANITA CREEK (MP 21.94)
FISH PASSAGE STRUCTURE NO. 405/61
WEST HEADWALL DETAILS 2 OF 2**

PLAN REF NO
FP5-43

SHEET
XX
OF
SHEETS

C.S. 1757 ~ PROJ. NO. 9727 ~ NORTHWEST REGION ~ I-405 MP 21.94 ~ JUANITA CREEK FISH PASSAGE STRUCTURE NO. 405/61