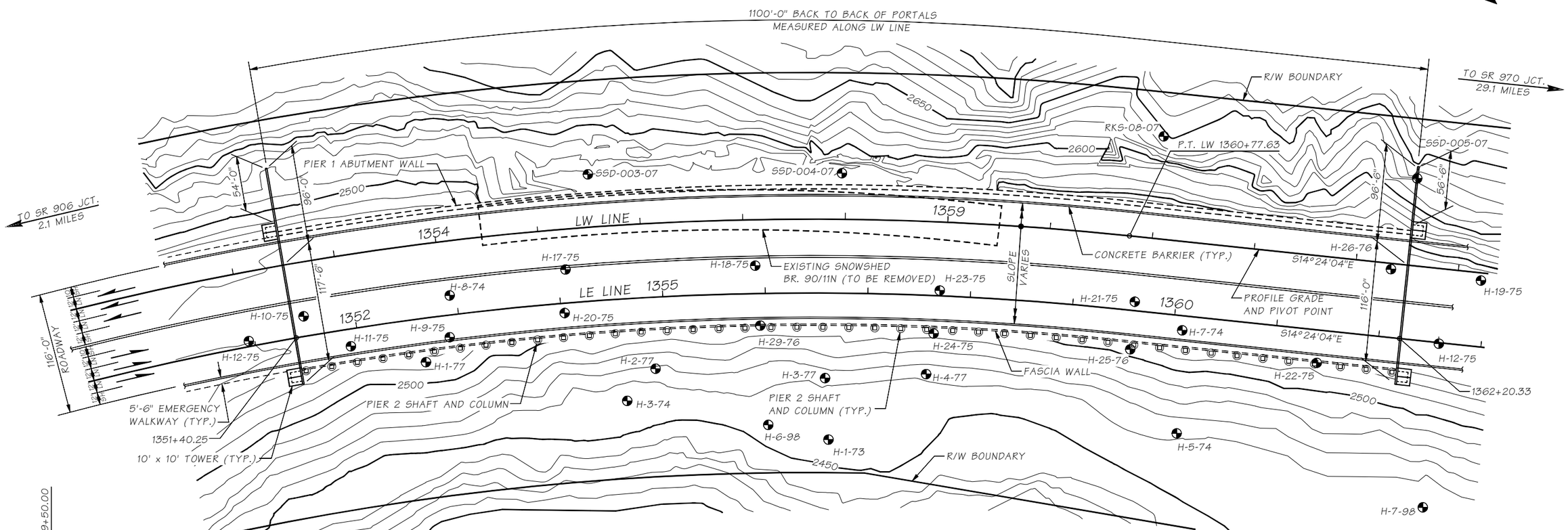
APPENDIX G
Selected Preliminary Design Drawings

APPENDIX G.1
Snowshed

LW LINE CURVE DATA					
P.I. STA.	Δ	RADIUS	TANGENT	LENGTH	BACK TANGENT BEARING
LW 1288+12.53	31°47'43" LT.	2920.00'	1620.40'	831.65'	S 2°08'03" E

SEC. 23, T.22N., R.11E., W.M.
KITTITAS COUNTY

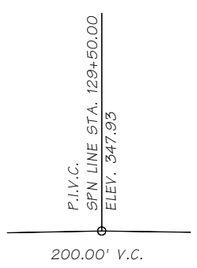
I-90



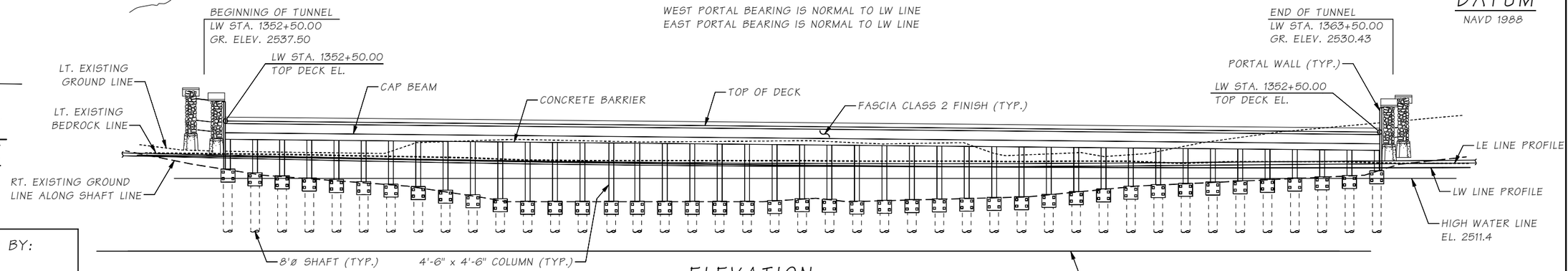
PLAN

WEST PORTAL BEARING IS NORMAL TO LW LINE
EAST PORTAL BEARING IS NORMAL TO LW LINE

DATUM
NAVD 1988



LW LINE PROFILE



ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF ROADWAY SLAB ON LW LINE AND ARE EQUAL TO PROFILE GRADE.

P.C. GIRDERS (W95G)

STRUCTURE WITH FILL
W95G CONCRETE GIRDERS
8'-7" SUPERSTRUCTURE DEPTH (NOMINAL)
DECK PROTECTIVE SYSTEM 1 (EPOXY COATED REBARS)
CAST-IN-PLACE CONCRETE STRENGTH SHALL BE 4000 PSI

COAST GUARD LIAISON GAW
COAST GUARD PERMIT NOT REQ'D. NO
PERMIT TARGET DATE

PLAN APPROVED BY:

BRIDGE & STRUCTURES ENGINEER

ENGINEERING MANAGER

Bridge Design Engr.			M:\X-Team\I-90 Snoqualmie Pass\PRELIMINARY SNOW SHED\Window files\LAYOUT.WND							
Supervisor										
Designed By	Tran, L.	01/09								
Checked By	Moore, T.	01/09								
Detailed By	Lemcke, D.	01/09								
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist			DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR
STATE OF WASHINGTON
25400
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

Washington State Department of Transportation

I-90
SNOQUALIMIE PASS EAST
HYAK TO KEECHELUS DAM
SNOW SHED

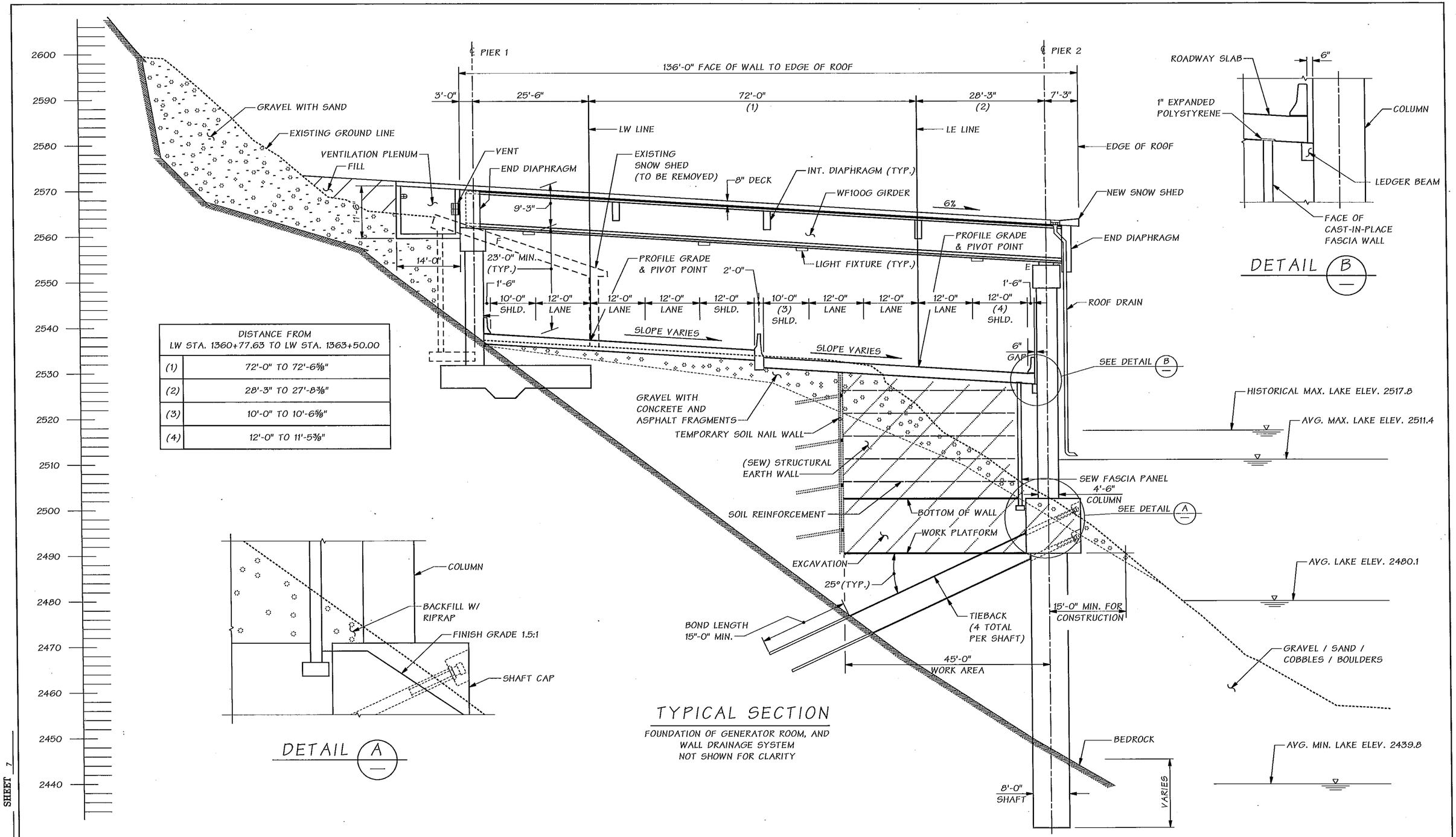
PRELIMINARY PLAN

BRIDGE SHEET NO. 1
SHEET OF SHEETS

I-90 FILE NO. SHEET 1

C. S. 1901 ~ PROJ. NO. XL2779 ~ SOUTH CENTRAL REGION ~ I-90 ~ MP 57.99 TO MP 58.08 ~ LAKE KEECHEEUS SNOWSHED ~ BR. NO. 90/110N

Tue Feb 24 12:49:21 2009



DISTANCE FROM LW STA. 1360+77.63 TO LW STA. 1363+50.00	
(1)	72'-0" TO 72'-6⅝"
(2)	28'-3" TO 27'-8⅜"
(3)	10'-0" TO 10'-6⅝"
(4)	12'-0" TO 11'-5⅜"

TYPICAL SECTION

FOUNDATION OF GENERATOR ROOM, AND WALL DRAINAGE SYSTEM NOT SHOWN FOR CLARITY

SR ___ FILE NO. ___ SHEET 7

Bridge Design Engr.	Khaleghi, B	
Supervisor		
Designed By		
Checked By	Moore, T / Tran, L	11/09
Detailed By	Lemcke, D	11/09
Bridge Projects Engr.	Lewis, R	11/09
Prelim. Plan By	Tran, L / Moore, T	11/09
Architect/Specialist	Kinderman, P / Aldrich B	

M:\PRELIMINARY PLANS\I-90 SNOQUALIMIE PASS EAST\Window files\TYPICAL SECTION.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR — STATE OF WASHINGTON — 25400 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

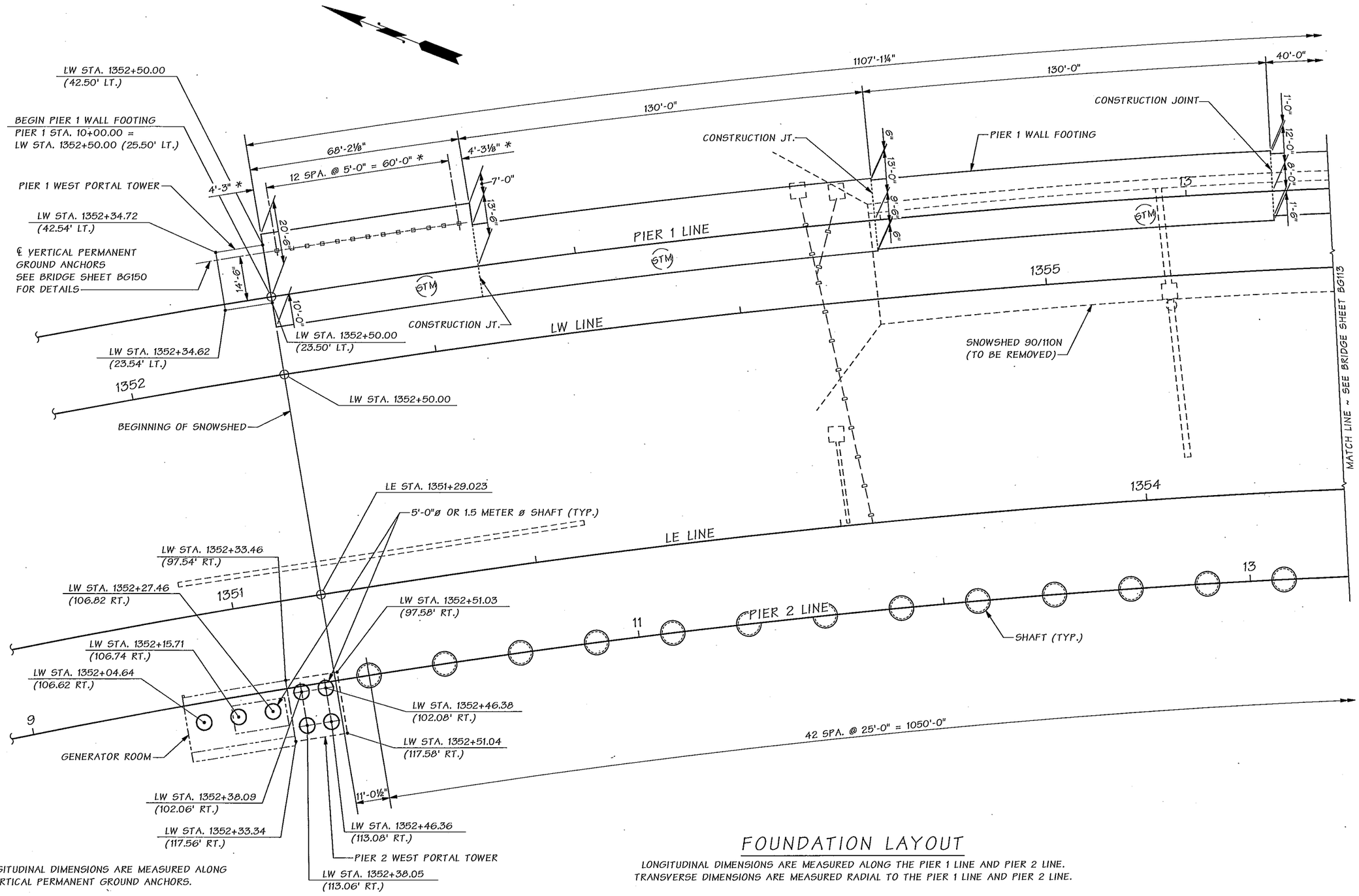
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C
REPLACE SNOWSHED AND ADD LANES

PRELIMINARY PLAN
TYPICAL SECTION

BRIDGE SHEET NO. 7

SHEET OF SHEETS

Tue Jan 12 08:05:19 2010



FOUNDATION LAYOUT

LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE PIER 1 LINE AND PIER 2 LINE.
TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE AND PIER 2 LINE.

* LONGITUDINAL DIMENSIONS ARE MEASURED ALONG ℄ VERTICAL PERMANENT GROUND ANCHORS.

SR 90 FILE NO. 7268 SHEET BG112

Bridge Design Engr.	Khaleghi, B	
Supervisor	Stoddard, RB	
Designed By	Tran, LH	01/10
Checked By		
Detailed By	DJM/JMA	10/10
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\13 FOUNDATION LAY 1.WNO

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

Fri Feb 04 08:41:36 2011

LIUONG HUU TRAN — STATE OF WASHINGTON — 22938 — REGISTERED PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

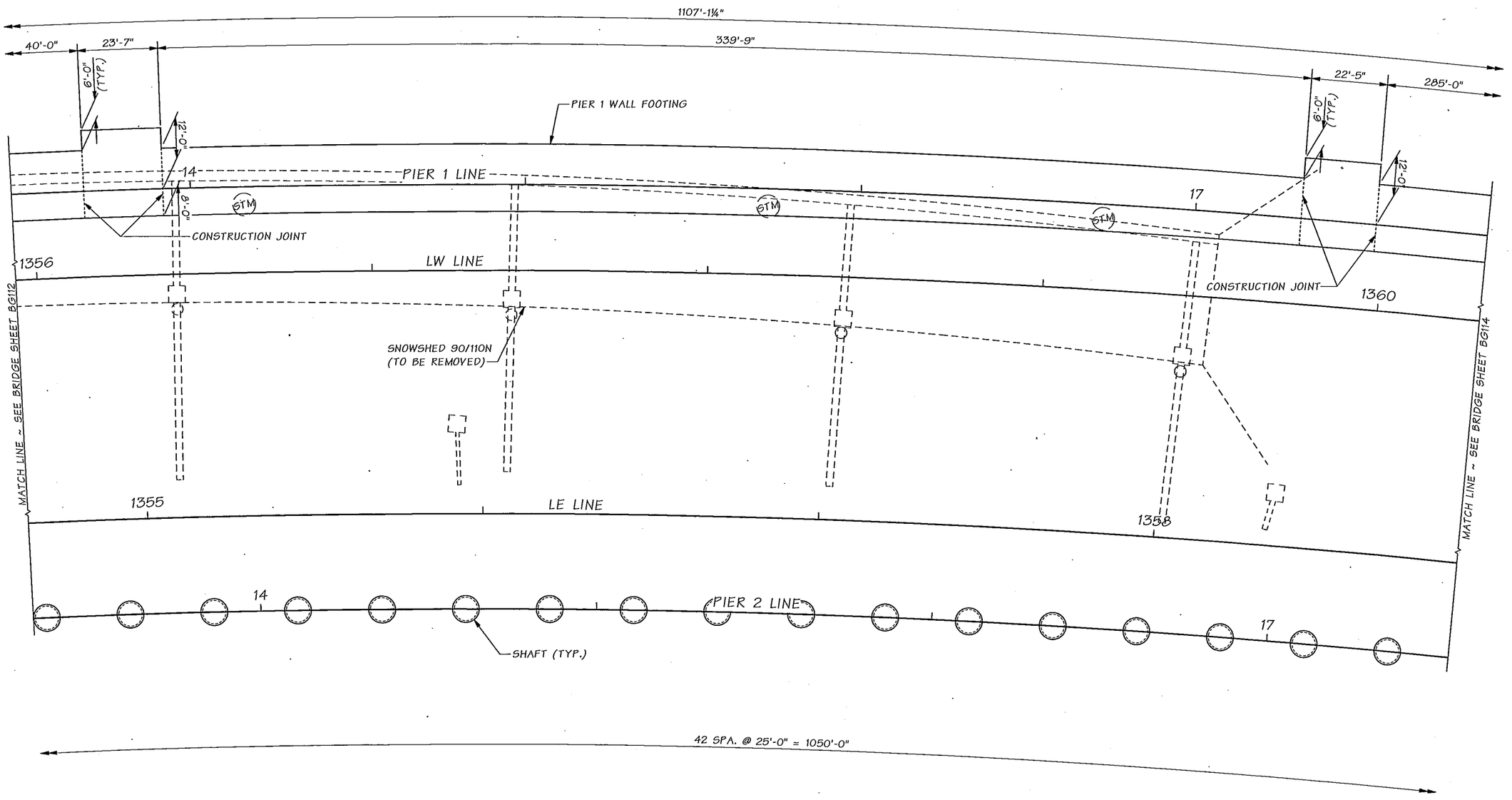
RICHARD B. STODDARD — STATE OF WASHINGTON — 16207 — REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

FOUNDATION LAYOUT 1 OF 3

BRIDGE SHEET NO. BG112
SHEET OF SHEETS



FOUNDATION LAYOUT

LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE PIER 1 LINE AND PIER 2 LINE.
TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE AND PIER 2 LINE.

SR 90 FILE NO. 7268 SHEET BG113

Bridge Design Engr.	Khaleghi, B	
Supervisor	Stoddard, RB	
Designed By	Tran, LH	12/10
Checked By		
Detailed By	Andersen, JM	12/10
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\14 FOUNDATION LAY 2.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 10Y018

LUONG HUU TRAN — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

RICHARD B. STODDARD — STATE OF WASHINGTON — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

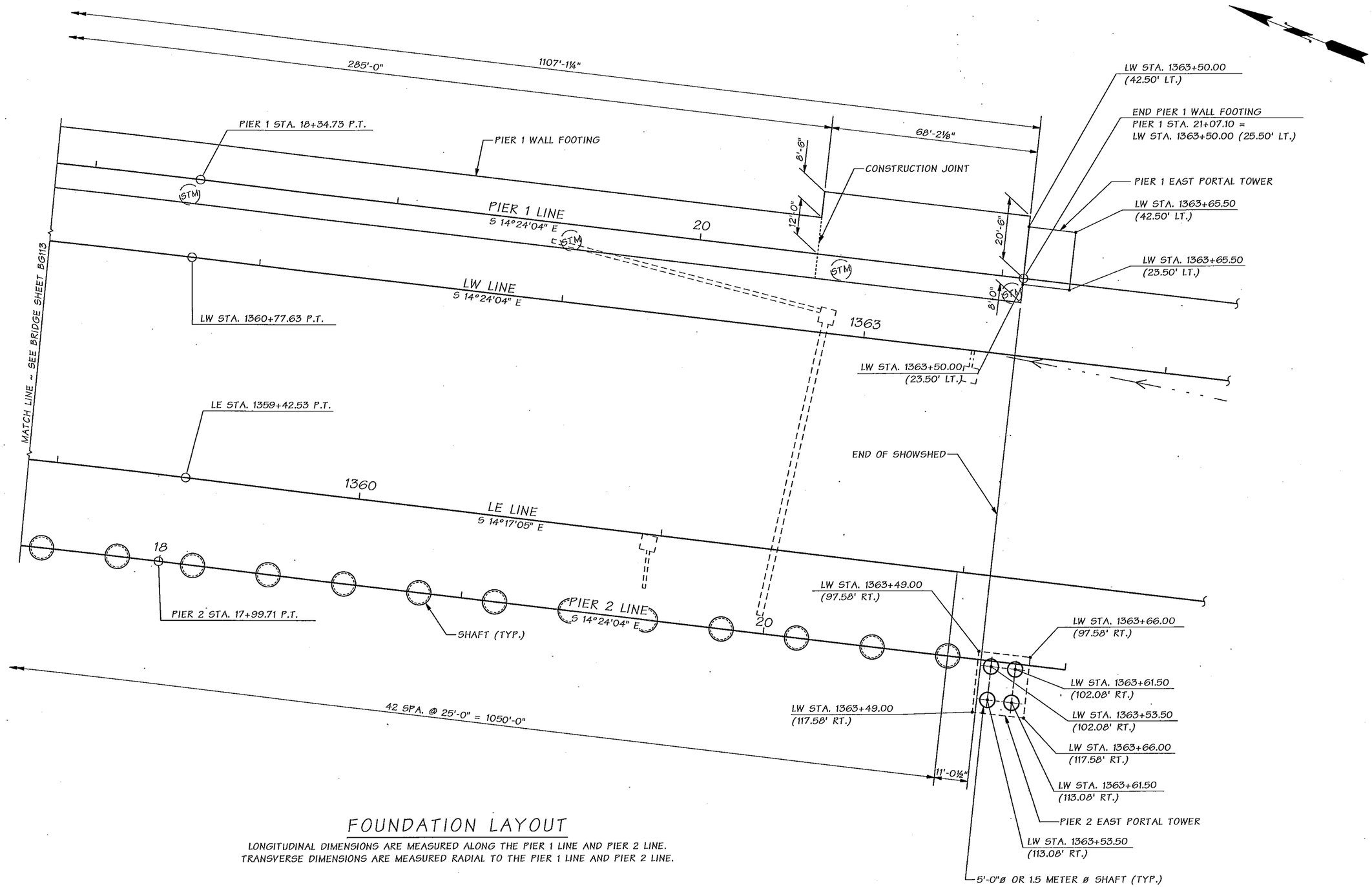
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

FOUNDATION LAYOUT 2 OF 3

BRIDGE SHEET NO. BG113

SHEET OF SHEETS

Fri Feb 04 08:41:39 2011



FOUNDATION LAYOUT

LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE PIER 1 LINE AND PIER 2 LINE.
TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE AND PIER 2 LINE.

SR 90 FILE NO. 7268 SHEET BG114

Bridge Design Engr.	Khaleghi, B		
Supervisor	Stoddard, RB		
Designed By	Tran, LH	12/10	
Checked By			
Detailed By	Andersen, JM	12/10	
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\15 FOUNDATION LAY 3.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

LUONG HUU TRAN — STATE OF WASHINGTON — 32908 — REGISTERED PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

RICHARD B. STODDARD — STATE OF WASHINGTON — 16407 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

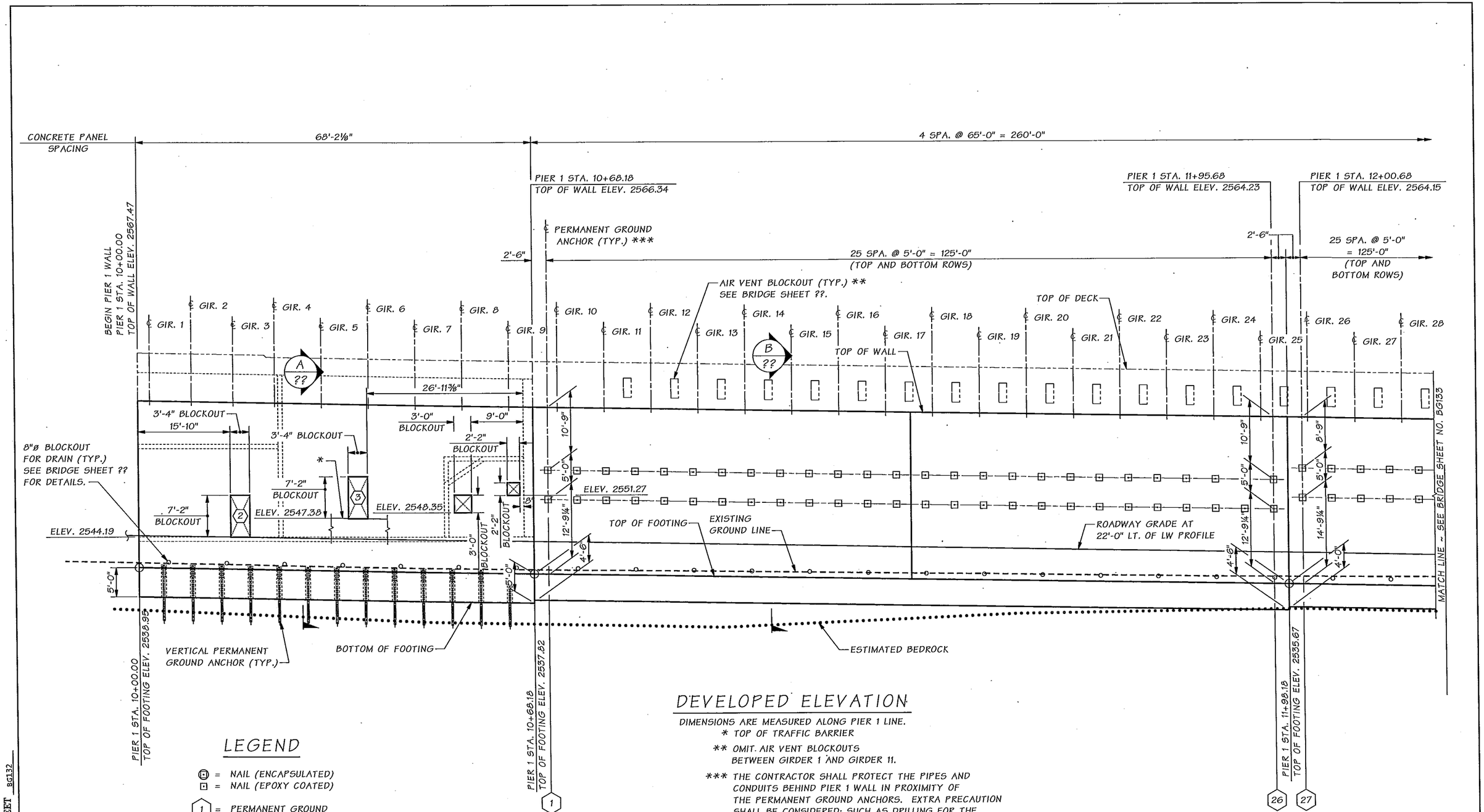
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

FOUNDATION LAYOUT 3 OF 3

BRIDGE SHEET NO. BG114
SHEET OF SHEETS

Fri Feb 04 08:41:43 2011



DEVELOPED ELEVATION

DIMENSIONS ARE MEASURED ALONG PIER 1 LINE.

* TOP OF TRAFFIC BARRIER

** OMIT. AIR VENT BLOCKOUTS BETWEEN GIRDER 1 AND GIRDER 11.

*** THE CONTRACTOR SHALL PROTECT THE PIPES AND CONDUITS BEHIND PIER 1 WALL IN PROXIMITY OF THE PERMANENT GROUND ANCHORS. EXTRA PRECAUTION SHALL BE CONSIDERED; SUCH AS DRILLING FOR THE PERMANENT GROUND ANCHORS PRIOR TO PIER 1 CONSTRUCTION OR PROVIDING CASINGS FOR THE PERMANENT GROUND ANCHORS.

LEGEND

⊡ = NAIL (ENCAPSULATED)

⊡ = NAIL (EPOXY COATED)

(1) = PERMANENT GROUND ANCHOR COLUMN

(2) DOOR ~ SEE BRIDGE SHEET BG700 AND SPECIAL PROVISIONS.

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL ELEV 1.WND
Supervisor	Stoddard, RB		
Designed By	Sawahata, D	10/10	
Checked By			
Detailed By	Andersen, JM	10/10	
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

RICHARD B. STODDARD — STATE OF WASHINGTON — 16307 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BLAAN KHALEGHI — STATE OF WASHINGTON — 27696 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

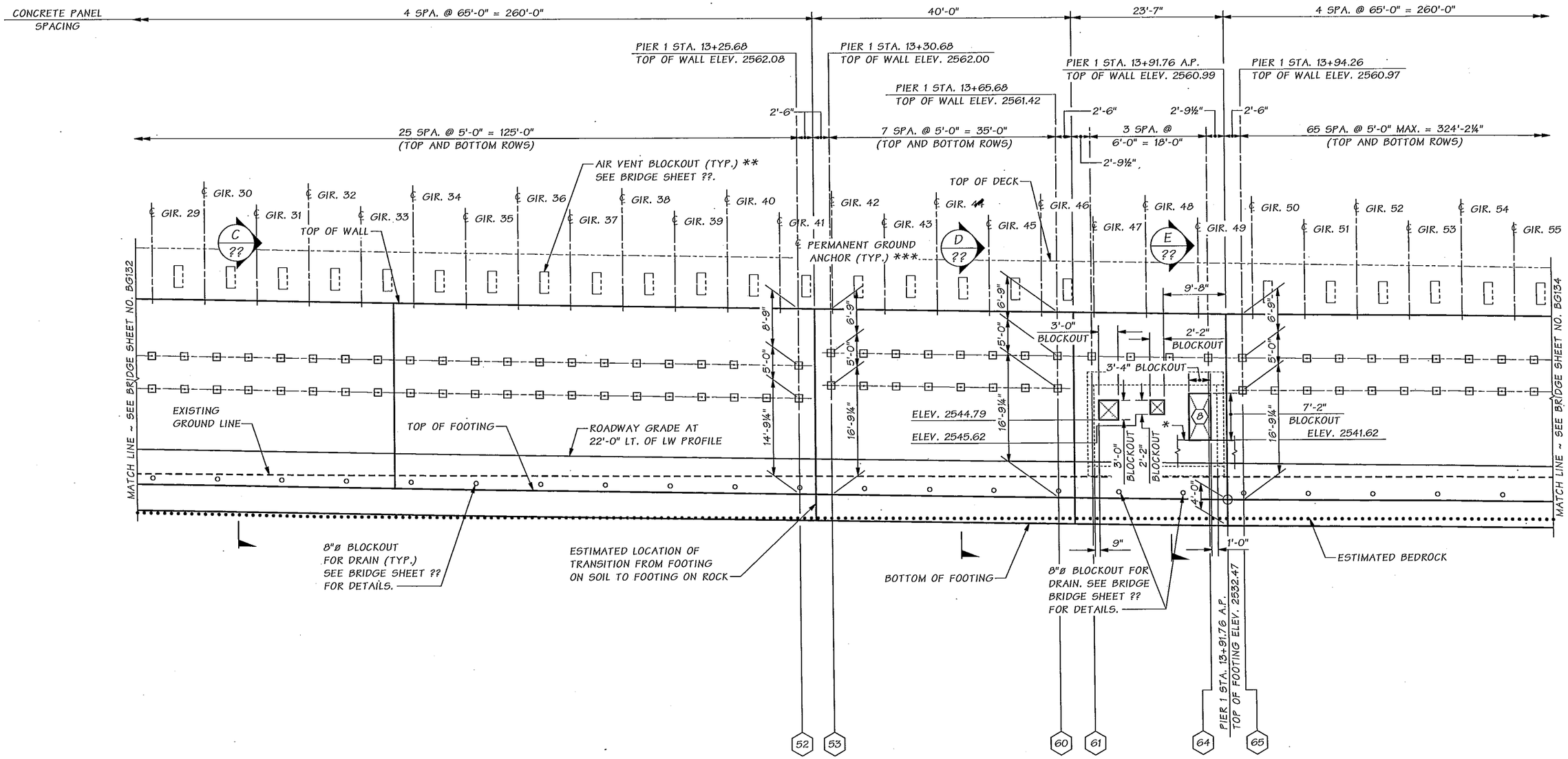
PIER 1 WALL ELEVATION
1 OF 5

BRIDGE SHEET NO. BG132

SHEET OF SHEETS

SR 90 FILE NO. 7268 SHEET BG132

Fri Feb 04 08:42:15 2011



DEVELOPED ELEVATION

DIMENSIONS ARE MEASURED ALONG PIER 1 LINE.

* TOP OF TRAFFIC BARRIER

** OMIT AIR VENT BLOCKOUTS BETWEEN GIRDER 47 AND GIRDER 50.

*** THE CONTRACTOR SHALL PROTECT THE PIPES AND CONDUITS BEHIND PIER 1 WALL IN PROXIMITY OF THE PERMANENT GROUND ANCHORS. EXTRA PRECAUTION SHALL BE CONSIDERED; SUCH AS DRILLING FOR THE PERMANENT GROUND ANCHORS PRIOR TO PIER 1 CONSTRUCTION OR PROVIDING CASINGS FOR THE PERMANENT GROUND ANCHORS.

LEGEND

(H) = NAIL (ENCAPSULATED)
[H] = NAIL (EPOXY COATED)

(1) = PERMANENT GROUND ANCHOR COLUMN

(2) DOOR ~ SEE BRIDGE SHEET BG700 AND SPECIAL PROVISIONS.

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL ELEV 2.WND								
Supervisor	Stoddard, RB									
Designed By	Sawahata, D 10/10									
Checked By										
Detailed By	Andersen, JM 10/10									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

Fri Feb 04 08:42:20 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 19237 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27635 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

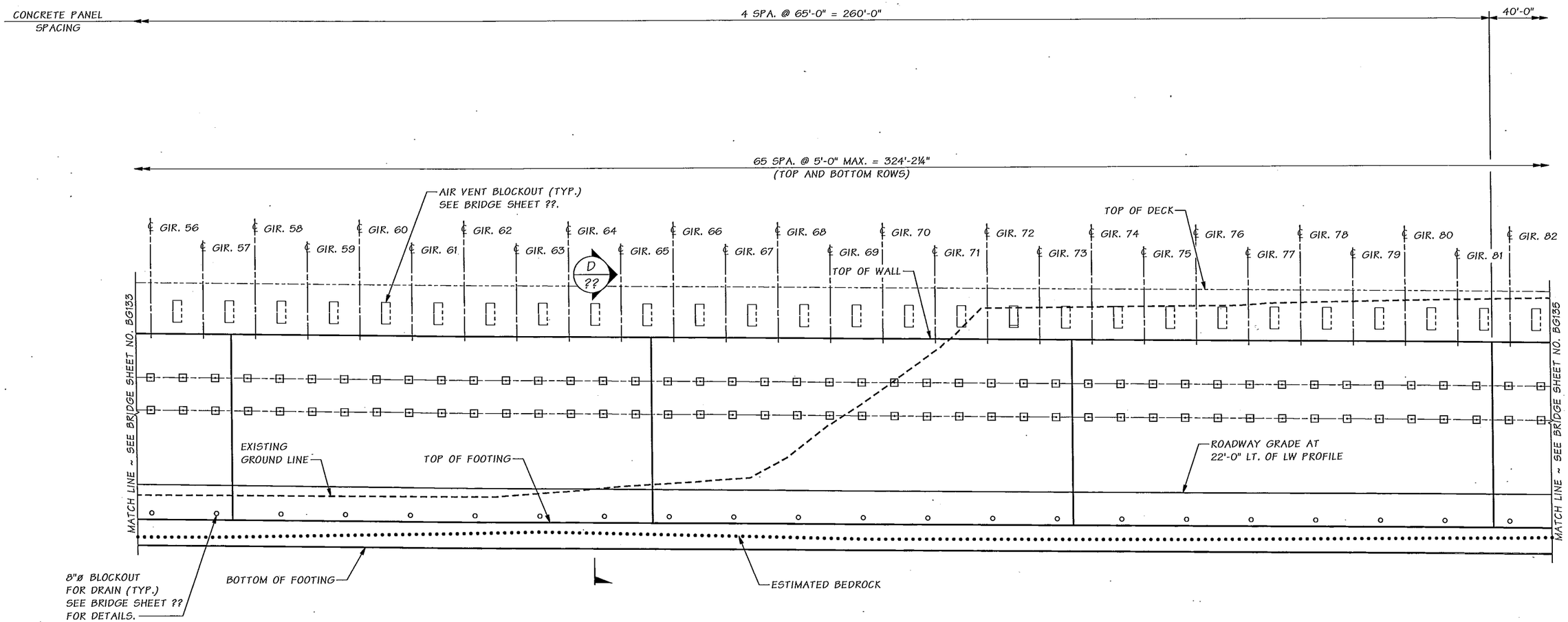
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL ELEVATION
2 OF 5

BRIDGE SHEET NO. BG133

SHEET OF SHEETS

SR 90 FILE NO. 7268 SHEET BG133



LEGEND

⊡ = NAIL (ENCAPSULATED)
⊡ = NAIL (EPOXY COATED)

(1) = PERMANENT GROUND ANCHOR COLUMN

DEVELOPED ELEVATION

DIMENSIONS ARE MEASURED ALONG PIER 1 LINE.

SR 90 FILE NO. 7268 SHEET BG134

Bridge Design Engr.	Khaleghi, B		
Supervisor	Stoddard, RB		
Designed By	Sawahata, D	10/10	
Checked By			
Detailed By	Andersen, JM	10/10	
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL ELEV 3.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

Fri Feb 04 08:42:25 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 19207 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27595 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

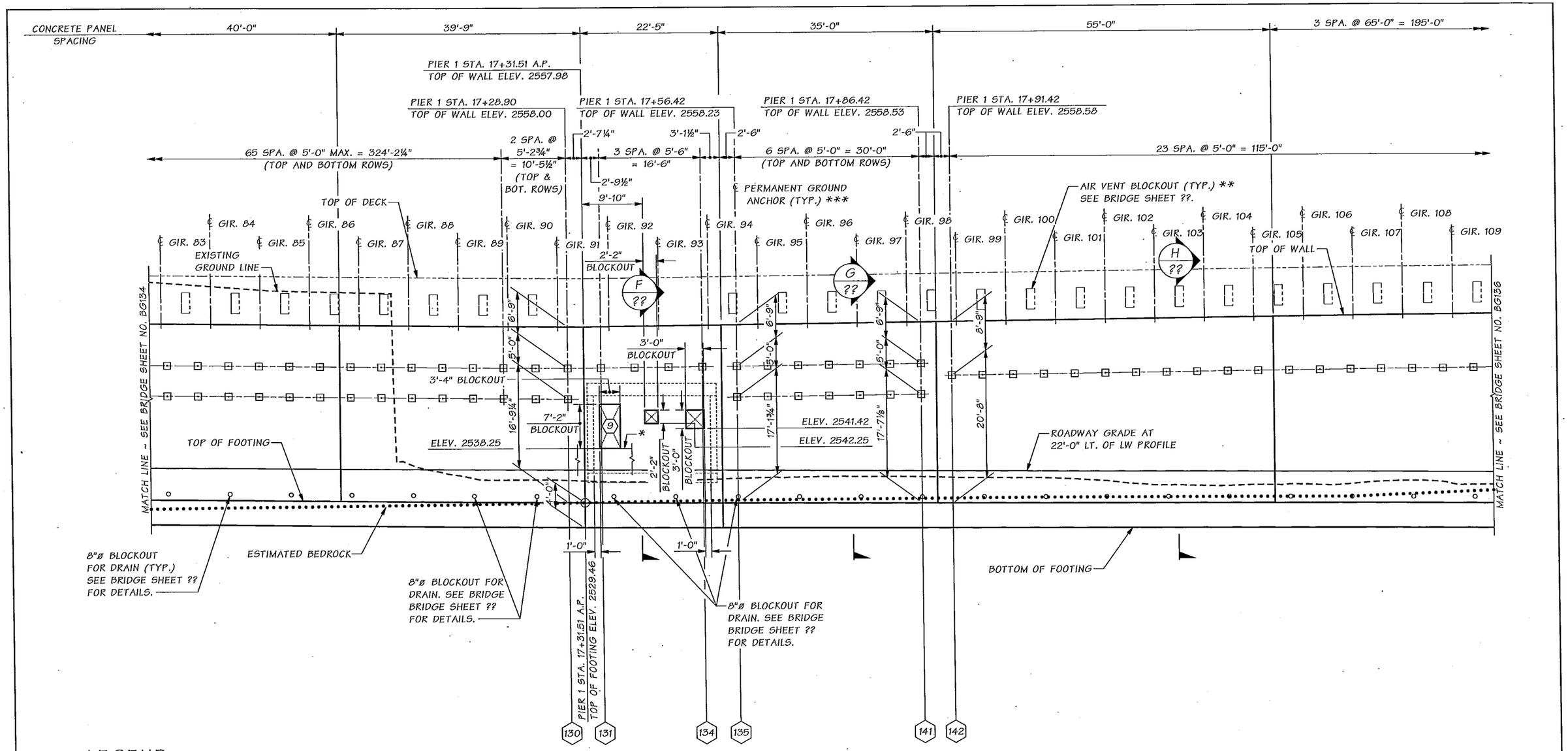
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL ELEVATION
3 OF 5

BRIDGE SHEET NO. BG134

SHEET OF SHEETS



LEGEND

⊡ = NAIL (ENCAPSULATED)
⊡ = NAIL (EPOXY COATED)

(1) = PERMANENT GROUND ANCHOR COLUMN

(2) DOOR ~ SEE BRIDGE SHEET BG700 AND SPECIAL PROVISIONS.

DEVELOPED ELEVATION

DIMENSIONS ARE MEASURED ALONG PIER 1 LINE.

* TOP OF TRAFFIC BARRIER

** OMIT AIR VENT BLOCKOUTS BETWEEN GIRDER 91 AND GIRDER 94.

*** THE CONTRACTOR SHALL PROTECT THE PIPES AND CONDUITS BEHIND PIER 1 WALL IN PROXIMITY OF THE PERMANENT GROUND ANCHORS. EXTRA PRECAUTION SHALL BE CONSIDERED; SUCH AS DRILLING FOR THE PERMANENT GROUND ANCHORS PRIOR TO PIER 1 CONSTRUCTION OR PROVIDING CASINGS FOR THE PERMANENT GROUND ANCHORS.

SR 90 FILE NO. 7268 SHEET BG135

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL ELEV 4.WND			
Supervisor	Stoddard, RB				
Designed By	Sawahata, D 10/10				
Checked By					
Detailed By	Andersen, JM 10/10				
Bridge Projects Engr.					
Prelim. Plan By					
Architect/Specialist		DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

Fri Feb 04 08:42:29 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 18207 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

EMAN KHALEGHI — STATE OF WASHINGTON — 27006 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

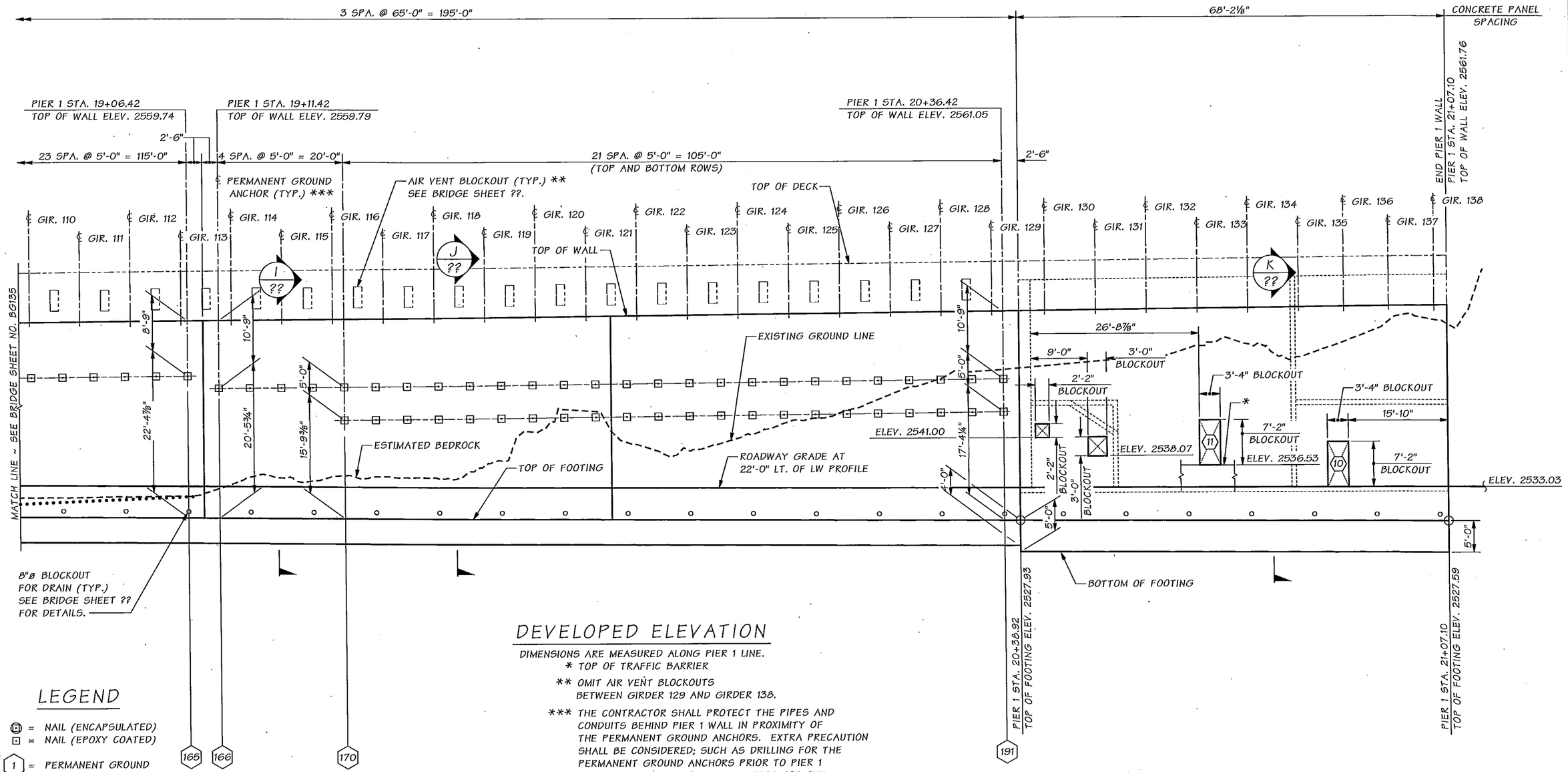
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL ELEVATION
4 OF 5

BRIDGE SHEET NO. BG135

SHEET OF SHEETS



DEVELOPED ELEVATION

DIMENSIONS ARE MEASURED ALONG PIER 1 LINE.

* TOP OF TRAFFIC BARRIER

** OMIT AIR VENT BLOCKOUTS BETWEEN GIRDER 129 AND GIRDER 138.

*** THE CONTRACTOR SHALL PROTECT THE PIPES AND CONDUITS BEHIND PIER 1 WALL IN PROXIMITY OF THE PERMANENT GROUND ANCHORS. EXTRA PRECAUTION SHALL BE CONSIDERED; SUCH AS DRILLING FOR THE PERMANENT GROUND ANCHORS PRIOR TO PIER 1 CONSTRUCTION OR PROVIDING CASINGS FOR THE PERMANENT GROUND ANCHORS.

LEGEND

⊡ = NAIL (ENCAPSULATED)

⊡ = NAIL (EPOXY COATED)

(1) = PERMANENT GROUND ANCHOR COLUMN

(2) DOOR ~ SEE BRIDGE SHEET BG700 AND SPECIAL PROVISIONS.

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL ELEV 5.WND
Supervisor	Stoddard, RB		
Designed By	Sawahata, D	10/10	
Checked By			
Detailed By	Andersen, JM	10/10	
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

RICHARD B. STODDARD — STATE OF WASHINGTON — 18207 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BRIAN KHALEGHI — STATE OF WASHINGTON — 27606 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

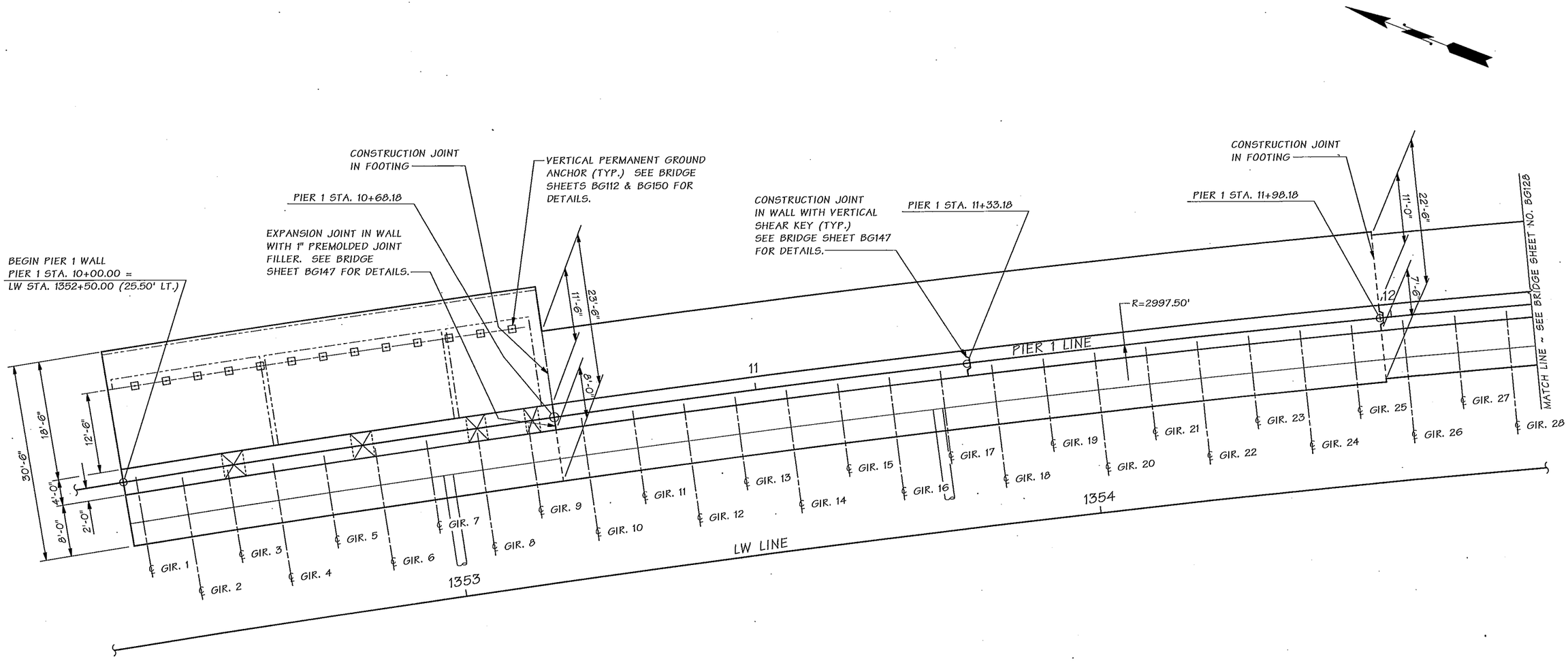
PIER 1 WALL ELEVATION
5 OF 5

BRIDGE SHEET NO. BG136

SHEET OF SHEETS

SR 90 FILE NO. 7268 SHEET BG136

Fri Feb 04 08:42:34 2011



PLAN

TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE.

SR 90 FILE NO. 7268 SHEET BG127

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL PLAN 1.WND								
Supervisor	Stoddard, RB										
Designed By	Sawahata, D	09/10									
Checked By											
Detailed By	Andersen, JM	10/10									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

RICHARD B. STODDARD — STATE OF WASHINGTON — 19207 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

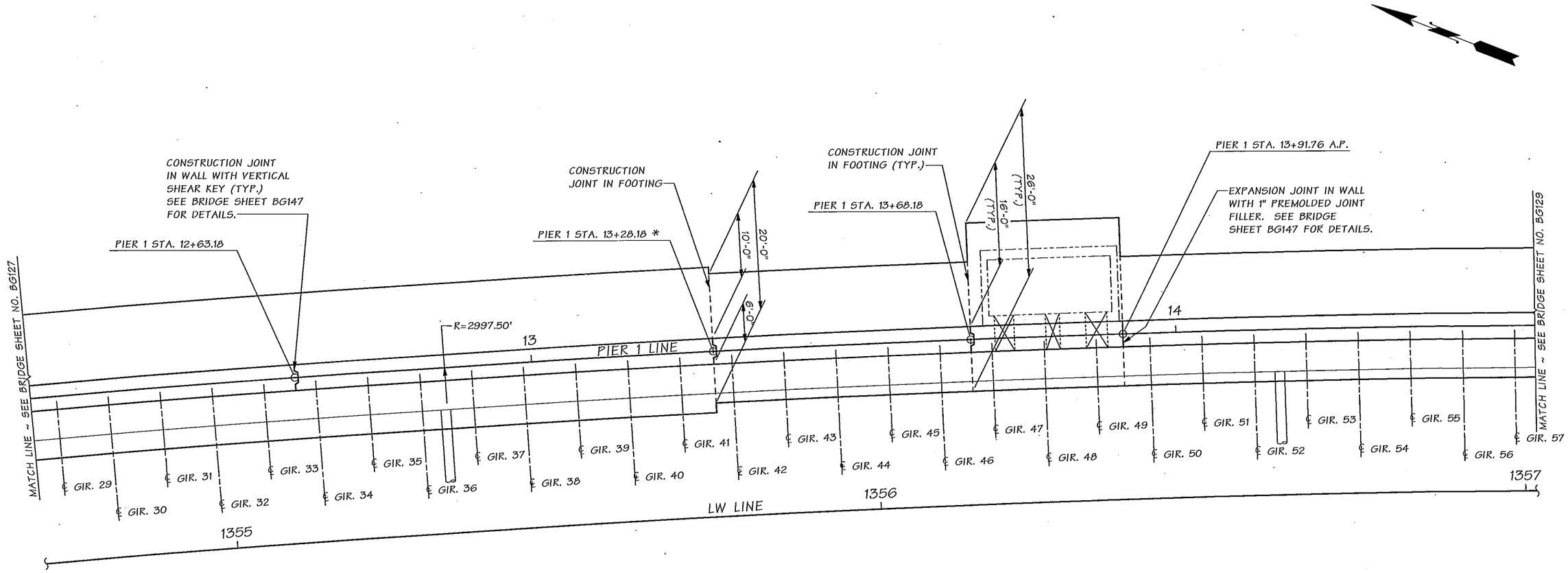
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL PLAN
1 OF 5

BRIDGE SHEET NO. BG127
SHEET OF SHEETS

Fri Feb 04 08:42:38 2011



PLAN

TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE.

* ESTIMATED LOCATION OF TRANSITION FROM FOOTING ON SOIL TO FOOTING ON ROCK.

SR 90 FILE NO. 7268 SHEET BG128

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL PLAN 2.WND				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Stoddard, RB					10	WASH.			
Designed By	Sawahata, D 09/10									
Checked By						JOB NUMBER 10Y018				
Detailed By	Andersen, JM 10/10									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Fri Feb 04 08:42:42 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 19827 — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27606 — PROFESSIONAL ENGINEER

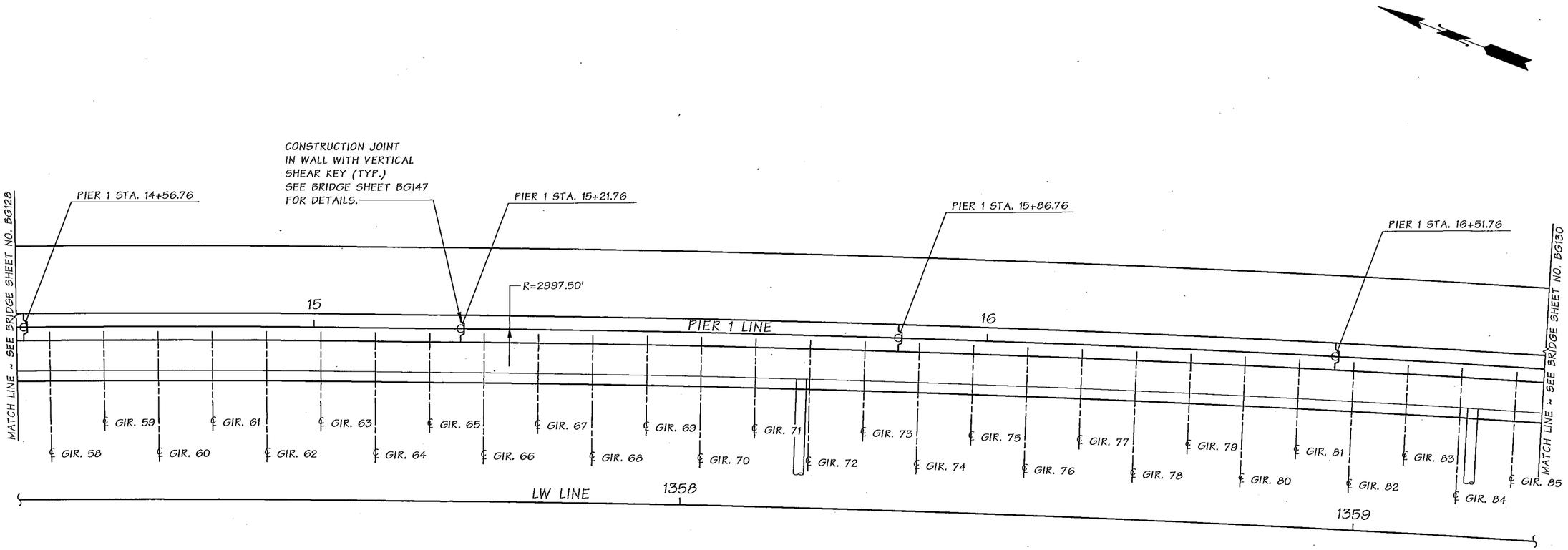
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL PLAN
2 OF 5

BRIDGE SHEET NO. BG128

SHEET OF SHEETS



PLAN

TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE.

SR 90 FILE NO. 7268 SHEET BG129

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL PLAN 3.WND									
Supervisor	Stoddard, RB					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
Designed By	Sawahata, D 09/10					10	WASH.				
Checked By											
Detailed By	Andersen, JM 10/10					JOB NUMBER 10Y018					
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Fri Feb 04 08:42:45 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 19207 — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27646 — PROFESSIONAL ENGINEER

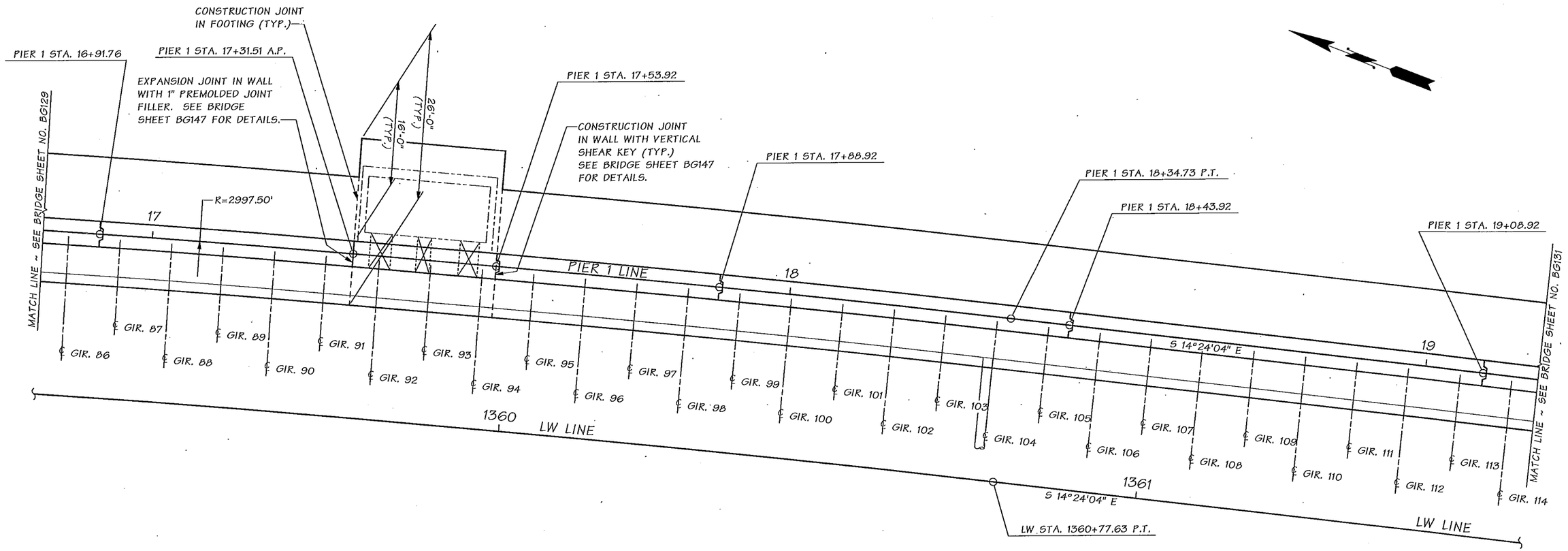
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL PLAN
3 OF 5

BRIDGE SHEET NO. BG129

SHEET OF SHEETS



PLAN

TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE.

SR 90 FILE NO. 7268 SHEET BG130

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL PLAN 4.WND								
Supervisor	Stoddard, RB					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Sawahata, D 10/10					10	WASH.			
Checked By										
Detailed By	Andersen, JM 10/10					JOB NUMBER 10Y018				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Fri Feb 04 08:42:48 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 18027 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BLAIN KHALEGHI — STATE OF WASHINGTON — 27605 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

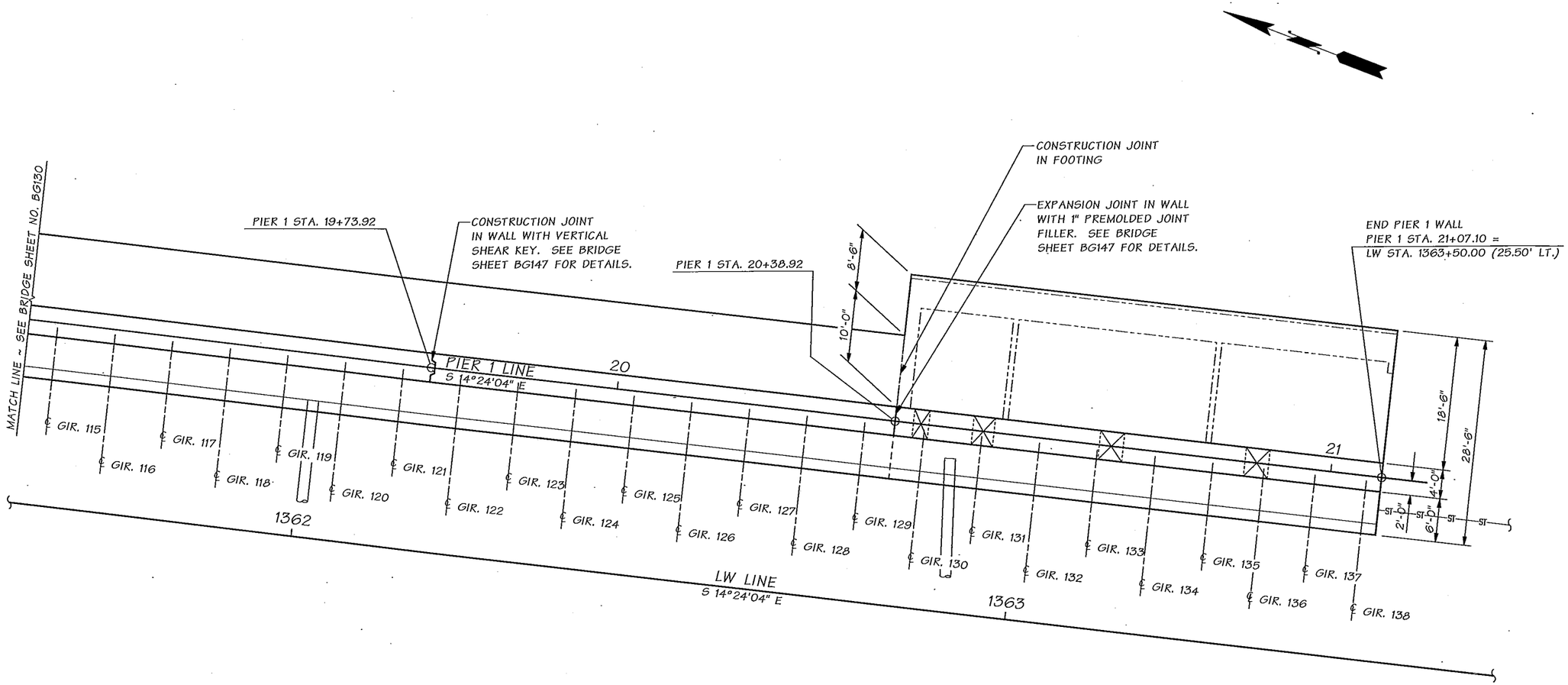
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL PLAN
4 OF 5

BRIDGE SHEET NO. BG130

SHEET OF SHEETS



PLAN

TRANSVERSE DIMENSIONS ARE MEASURED RADIAL TO THE PIER 1 LINE.

SR 90 FILE NO. 7268 SHEET BG131

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 1_WALL PLAN 5.WND								
Supervisor	Stoddard, RB						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Sawahata, D	10/10					10	WASH.			
Checked By											
Detailed By	Andersen, JM	10/10					JOB NUMBER 10Y018				
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

Fri Feb 04 08:42:52 2011

RICHARD B. STODDARD — STATE OF WASHINGTON — 19207 — PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

BIJAN KHALEGHI — STATE OF WASHINGTON — 27696 — PROFESSIONAL ENGINEER

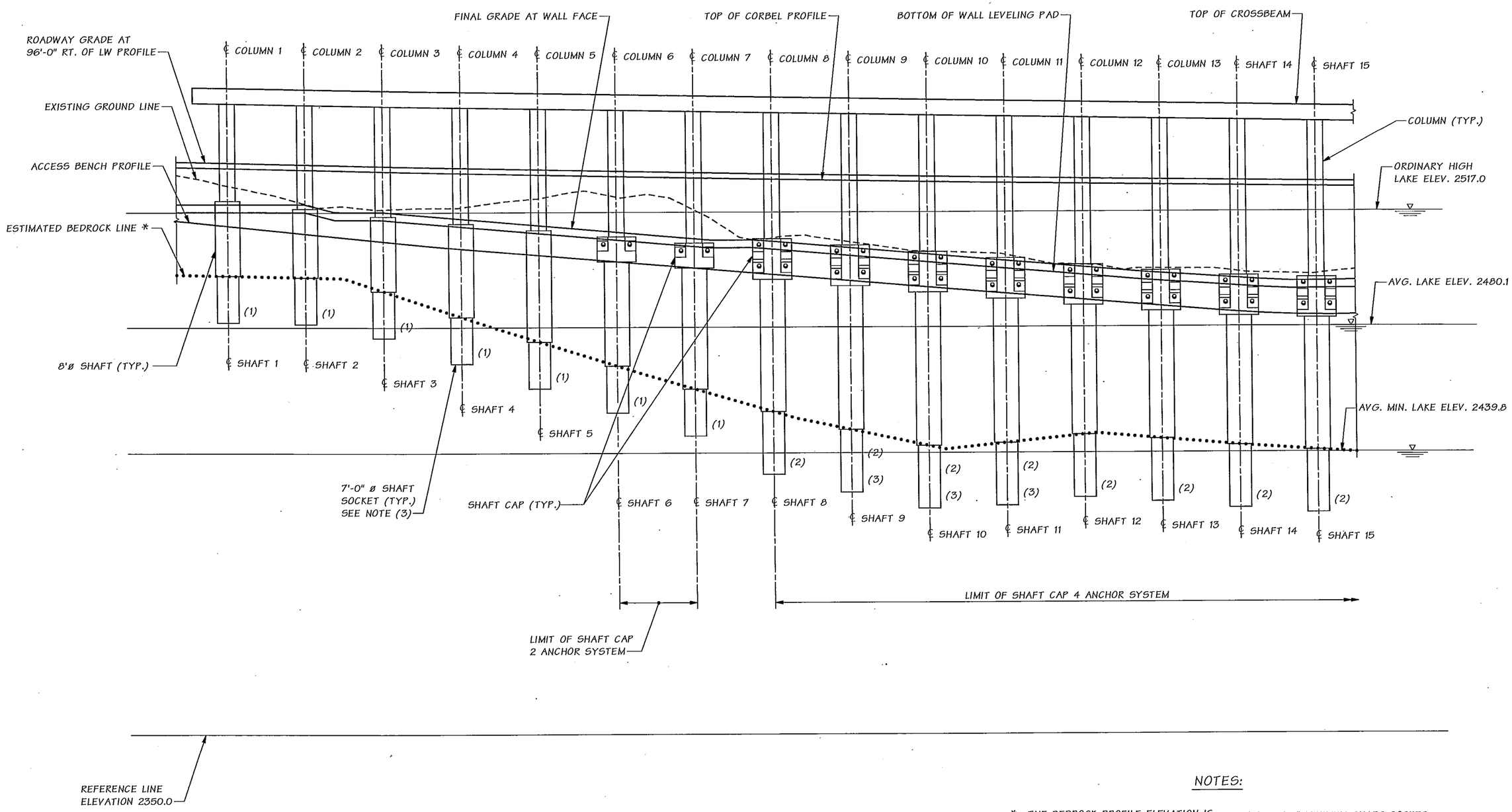
Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 1 WALL PLAN
5 OF 5

BRIDGE SHEET NO. BG131

SHEET OF SHEETS



DEVELOPED ELEVATION

SEE FOUNDATION LAYOUT FOR SHAFT LOCATION AND SPACING

NOTES:

* THE BEDROCK PROFILE ELEVATION IS TAKEN AT PIER 2 SHAFT CENTERLINE.

(1) 15'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(2) 20'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(3) 7'-6"ø SHAFT SOCKET

SR 90 FILE NO. 7268 SHEET BG182

Bridge Design Engr.	Khaleghi, B	
Supervisor	Stoddard, RB	
Designed By	Tran, LH	09/10
Checked By		
Detailed By	DJM/JMA	09/10
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 2_SUB ELEV. 1.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

LUONG HUU TRAN — STATE OF WASHINGTON — 22306 — REGISTERED PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

RICHARD B. STODDARD — STATE OF WASHINGTON — 19207 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Washington State Department of Transportation

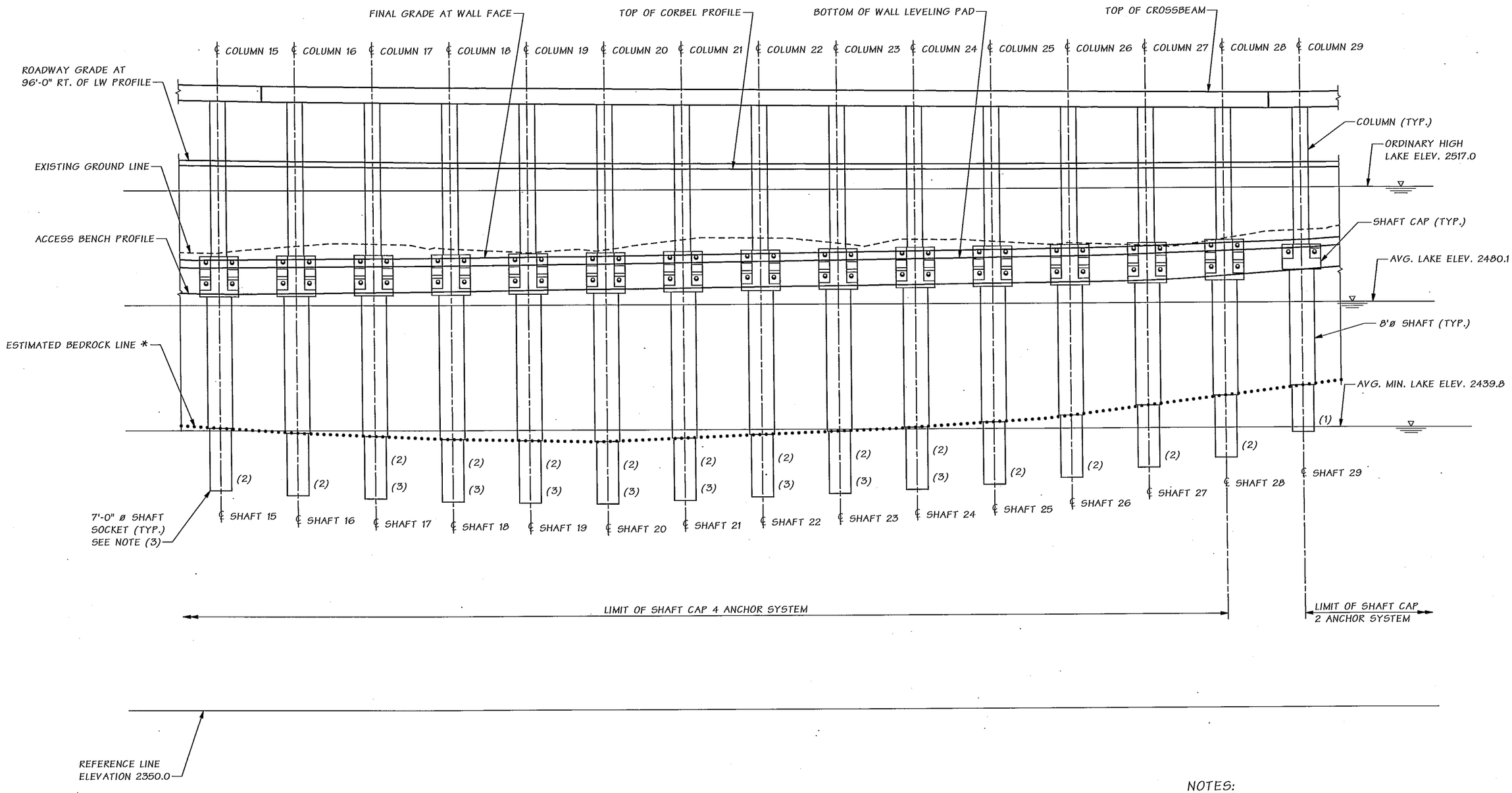
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 2 SUBSTRUCTURE ELEVATION DETAILS 1 OF

BRIDGE SHEET NO. BG182

SHEET OF SHEETS

Fri Feb 04 08:43:54 2011



DEVELOPED ELEVATION

SEE FOUNDATION LAYOUT FOR SHAFT LOCATION AND SPACING

NOTES:

* THE BEDROCK PROFILE ELEVATION IS TAKEN AT PIER 2 SHAFT CENTERLINE.

(1) 15'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(2) 20'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(3) 7'-6"ø SHAFT SOCKET

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 2_SUB ELEV. 2.WND	
Supervisor	Stoddard, RB		
Designed By	Tran, LH 09/10		
Checked By			
Detailed By	DJM/JMA 09/10		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

Fri Feb 04 08:43:58 2011

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

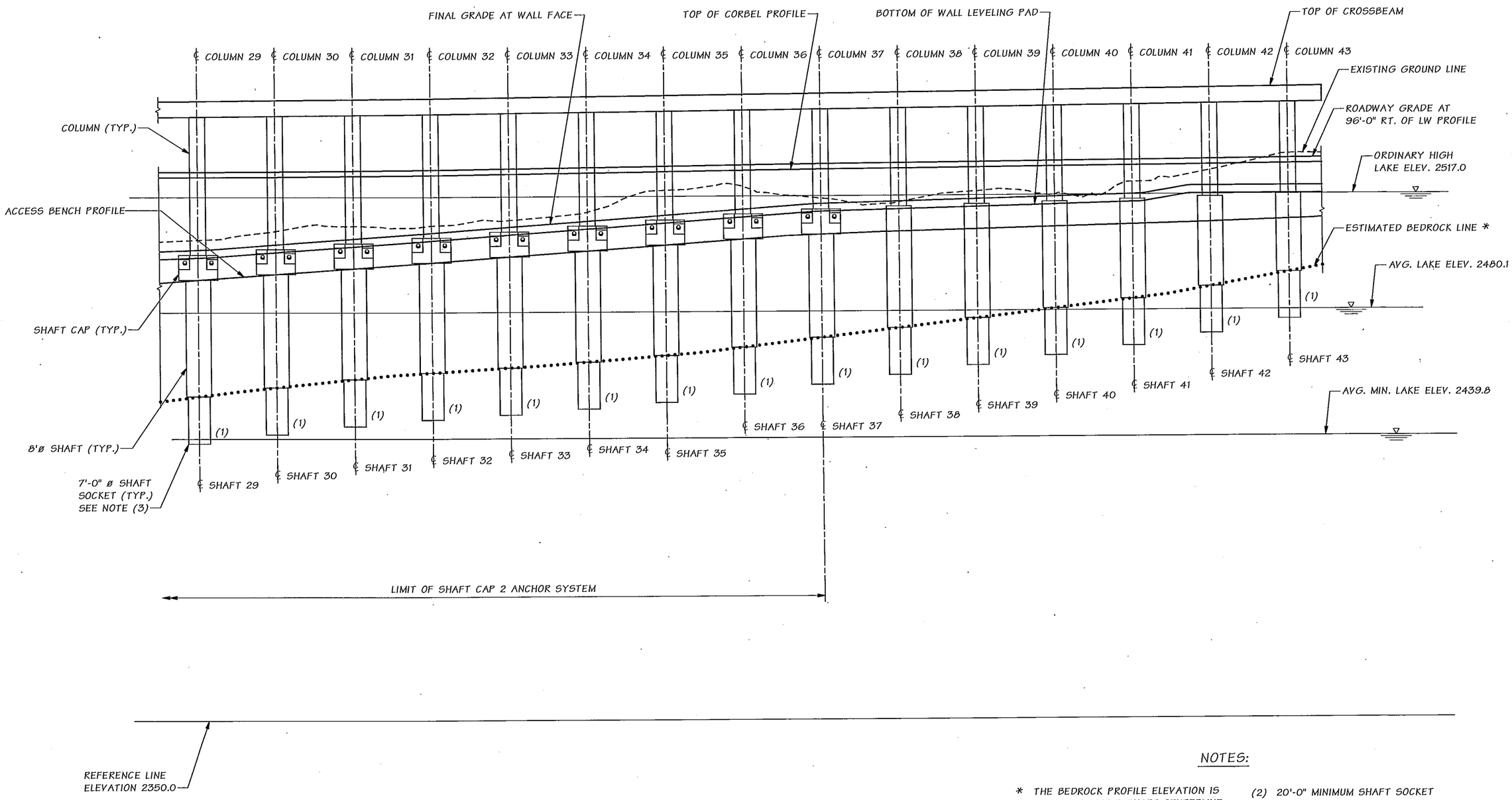
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

PIER 2 SUBSTRUCTURE ELEVATION DETAILS 2 OF

BRIDGE SHEET NO. BG183

SHEET OF SHEETS

SR 90 FILE NO. 7268 SHEET BG183



DEVELOPED ELEVATION

SEE FOUNDATION LAYOUT FOR SHAFT LOCATION AND SPACING

NOTES:

* THE BEDROCK PROFILE ELEVATION IS TAKEN AT PIER 2 SHAFT CENTERLINE.

(1) 15'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(2) 20'-0" MINIMUM SHAFT SOCKET EMBEDMENT, MEASURED FROM OUTSIDE ROCK SLOPE.

(3) 7'-6"ø SHAFT SOCKET

Bridge Design Engr.	Khaleghi, B		
Supervisor	Stoddard, RB		
Designed By	Tran, LH	09/10	
Checked By			
Detailed By	DJM/JMA	09/10	
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

M:\X-Team\I-90 SNOWSHED VIC PH 1C\SNOWSHED\BR 90-110N\window files\PIER 2_SUB ELEV. 3.WND

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 10Y018				

LUONG HUU TRAN — STATE OF WASHINGTON — 22308 — REGISTERED PROFESSIONAL ENGINEER

BRIDGE AND STRUCTURES OFFICE

RICHARD B. STODDARD — STATE OF WASHINGTON — 18907 — PROFESSIONAL ENGINEER

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C-
REPLACE SNOWSHED AND ADD LANES
LAKE KEECHELUS SNOWSHED BR. NO. 90/110N REPL.

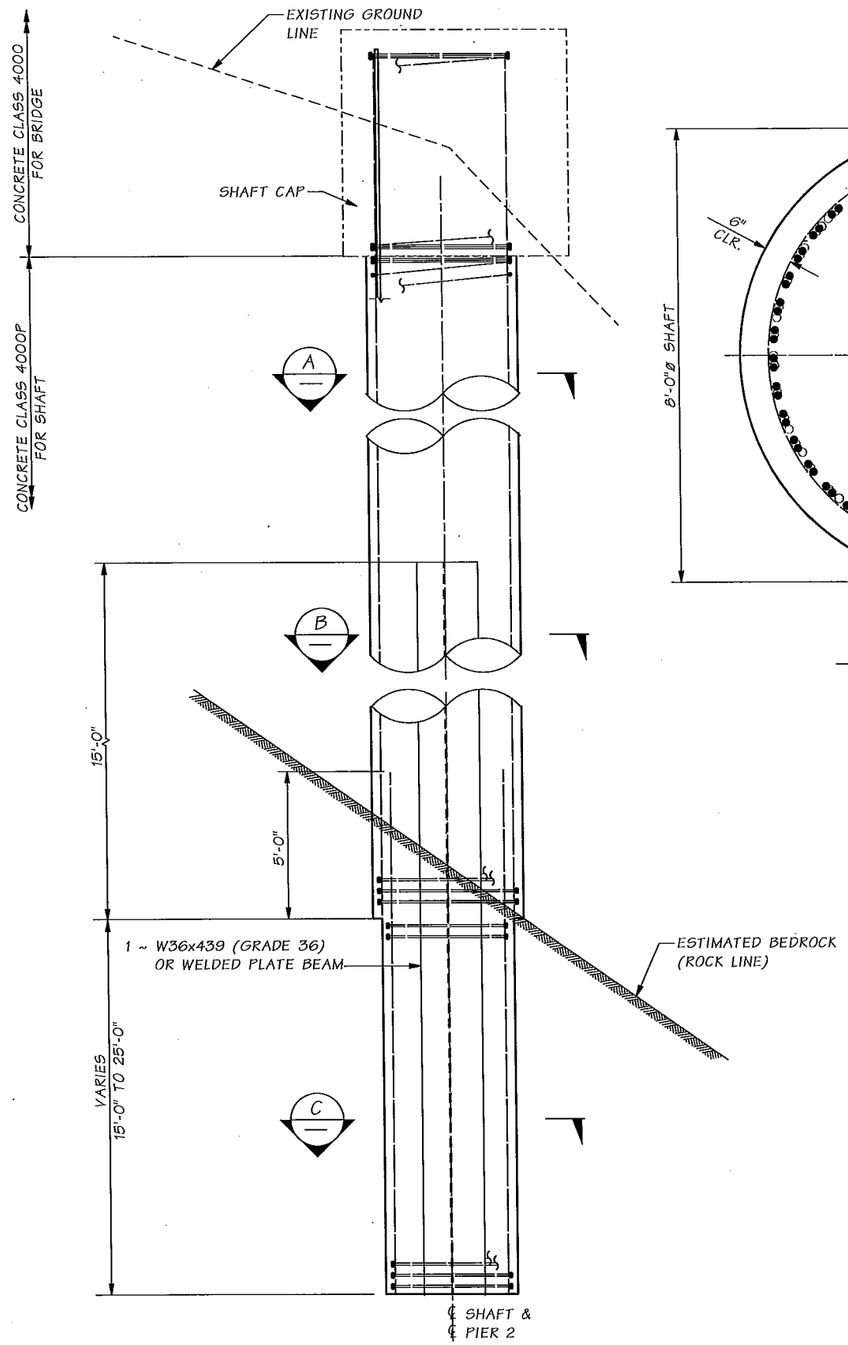
PIER 2 SUBSTRUCTURE ELEVATION DETAILS 3 OF

BRIDGE SHEET NO. BG184

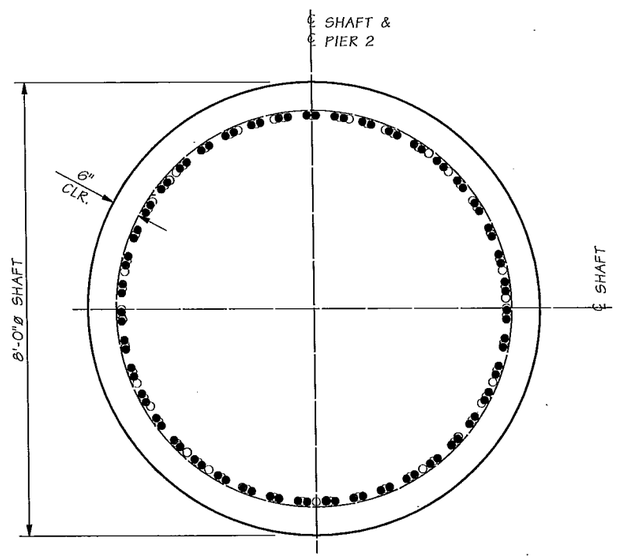
SHEET OF SHEETS

SR 90 FILE NO. 7268 SHEET BG184

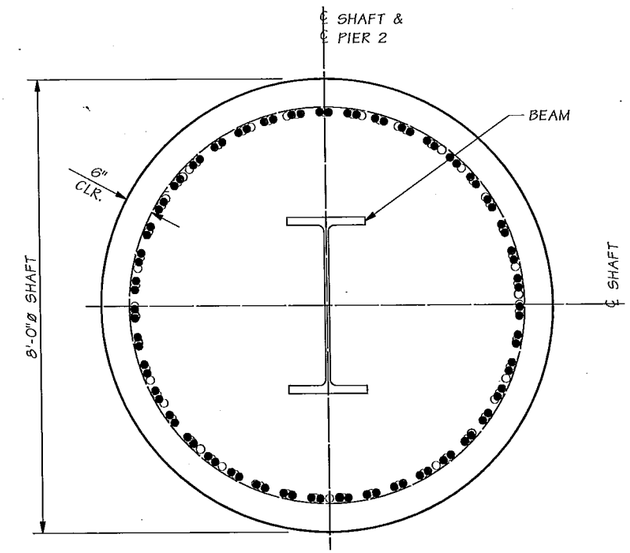
Fri Feb 04 08:44:01 2011



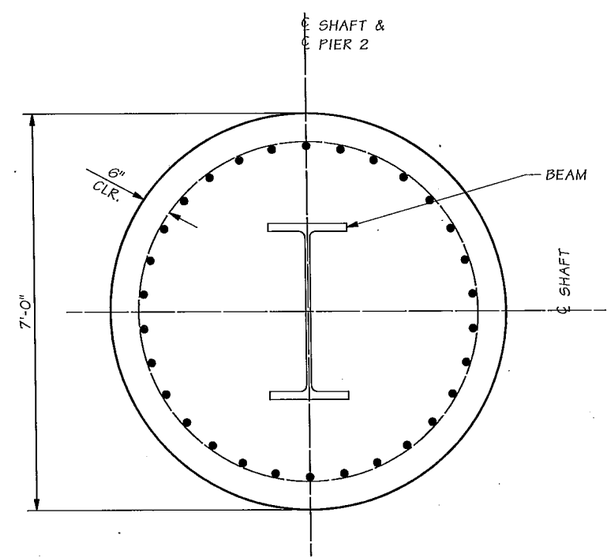
ELEVATION



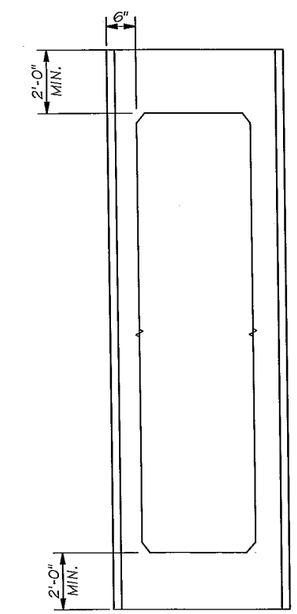
SECTION A



SECTION B



SECTION B



HOLE IN BEAM DETAIL

Bridge Design Engr. Khaleghi, B	M:\PRELIMINARY PLANS\I-90 SNOQUALIMIE PASS EAST\window files\PIER 2 SHAFT 3.WND				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By									
Checked By Moore, T / Tran, L 11/09					JOB NUMBER				
Detailed By Lemcke, D 11/09									
Bridge Projects Engr. Lewis, R 12/09									
Prelim. Plan By Tran, L / Moore, T 11/09									
Architect/Specialist Kinderman, P / Aldrich B	DATE	REVISION	BY	APP'D					

Tue Jan 12 08:18:09 2010

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR STATE OF WASHINGTON 25400 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER

Washington State Department of Transportation

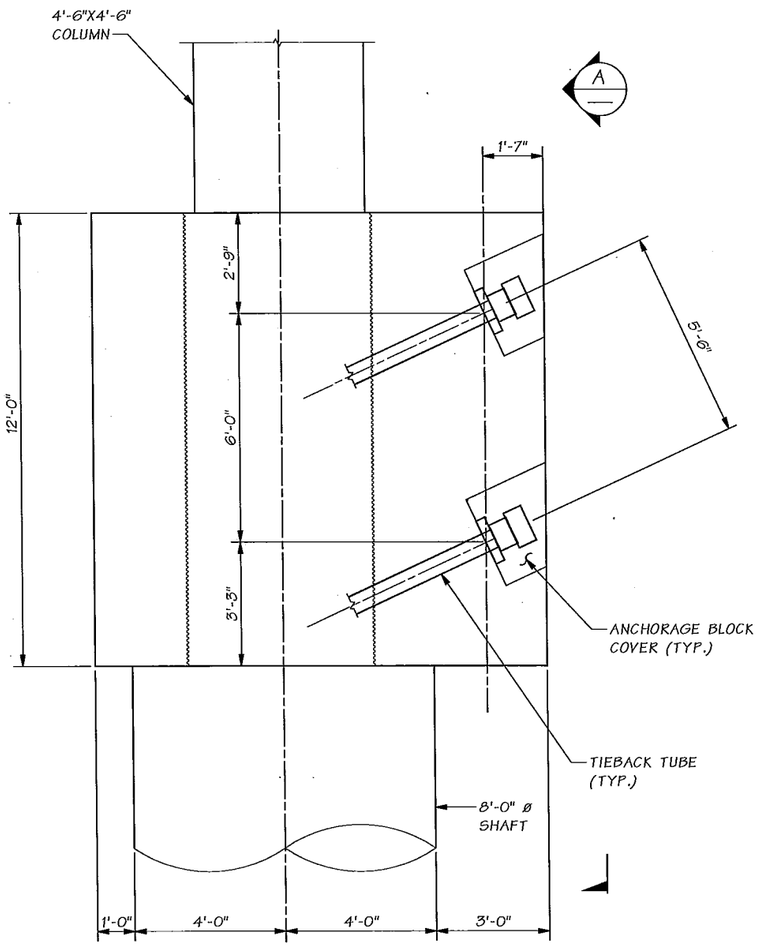
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C
REPLACE SNOWSHED AND ADD LANES

PRELIMINARY PLAN
PIER 2 SHAFT FOUNDATION

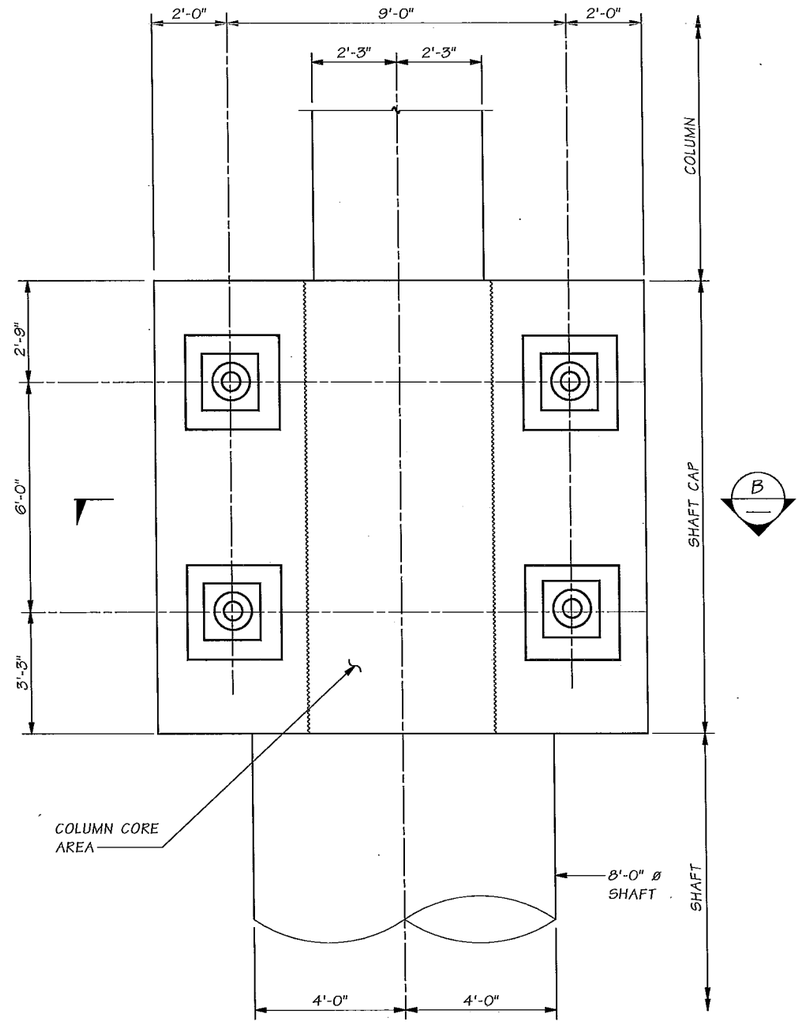
BRIDGE SHEET NO. 9

SHEET OF SHEETS

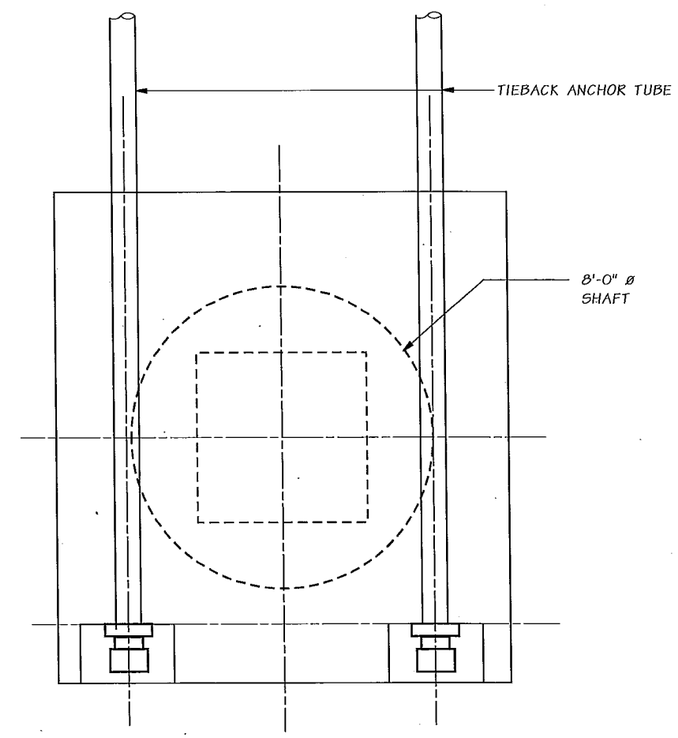
SR FILE NO. SHEET 9



ELEVATION VIEW



SECTION A



SECTION B

SR ____ FILE NO. ____ SHEET 10

Bridge Design Engr. Khaleghi, B	M:\PRELIMINARY PLANS\I-90 SNOQUALIMIE PASS EAST\Window files\PIER 2 SHAFT CAP.WND							
Supervisor				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By				10	WASH.			
Checked By Moore, T / Tran, L 11/09				JOB NUMBER				
Detailed By Lemcke, D 11/09								
Bridge Projects Engr. Lewis, R 11/09								
Prelim. Plan By Tran, L / Moore, T 12/09								
Architect/Specialist Kinderman, P / Aldrich B	DATE	REVISION	BY	APP'D				

Tue Jan 12 08:05:13 2010

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR STATE OF WASHINGTON 25400 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER

Washington State Department of Transportation

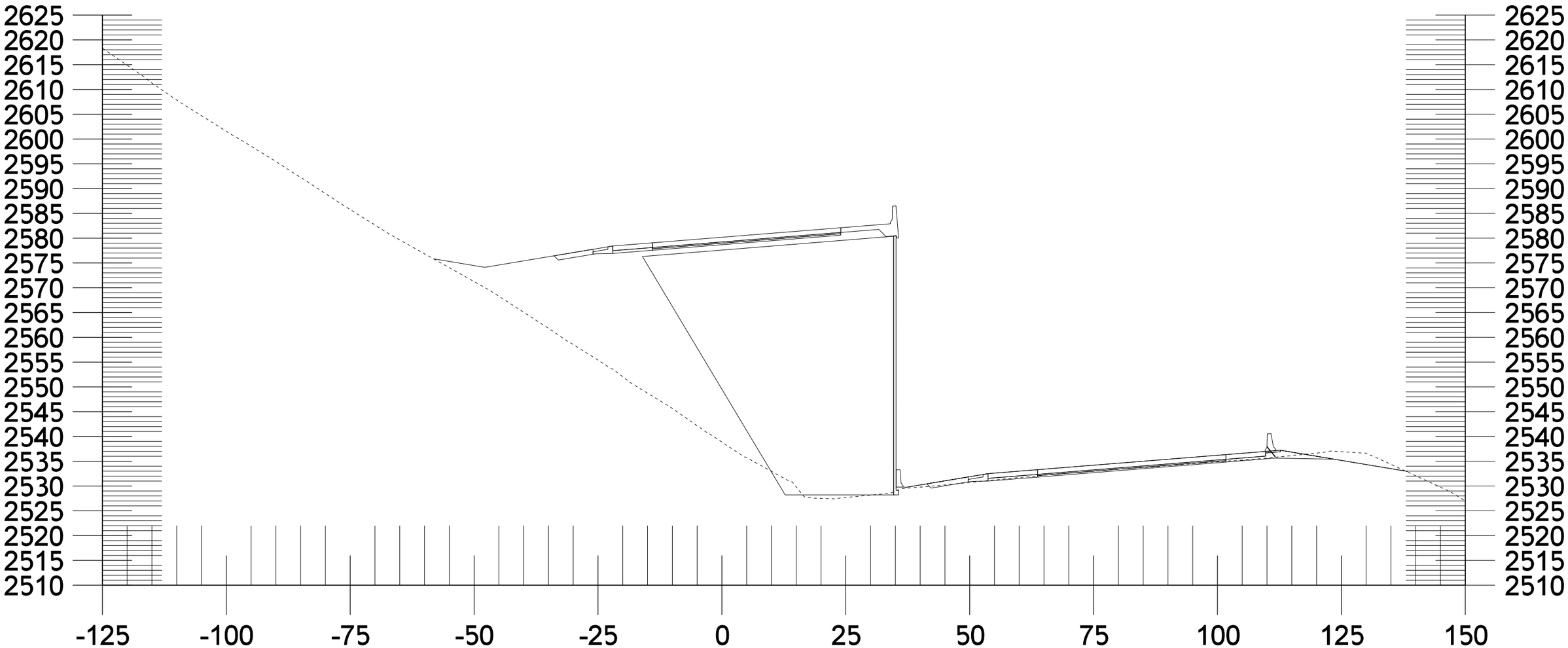
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C
REPLACE SNOWSHED AND ADD LANES

PRELIMINARY PLAN
PIER 2 SHAFT CAP SYSTEM

BRIDGE SHEET NO. 10

SHEET OF SHEETS

APPENDIX G.2
Slide Curve Median Wall


2625
2620
2615
2610
2605
2600
2595
2590
2585
2580
2575
2570
2565
2560
2555
2550
2545
2540
2535
2530
2525
2520
2515
2510
-125
-100
-75
-50
-25
0
25
50
75
100
125
150

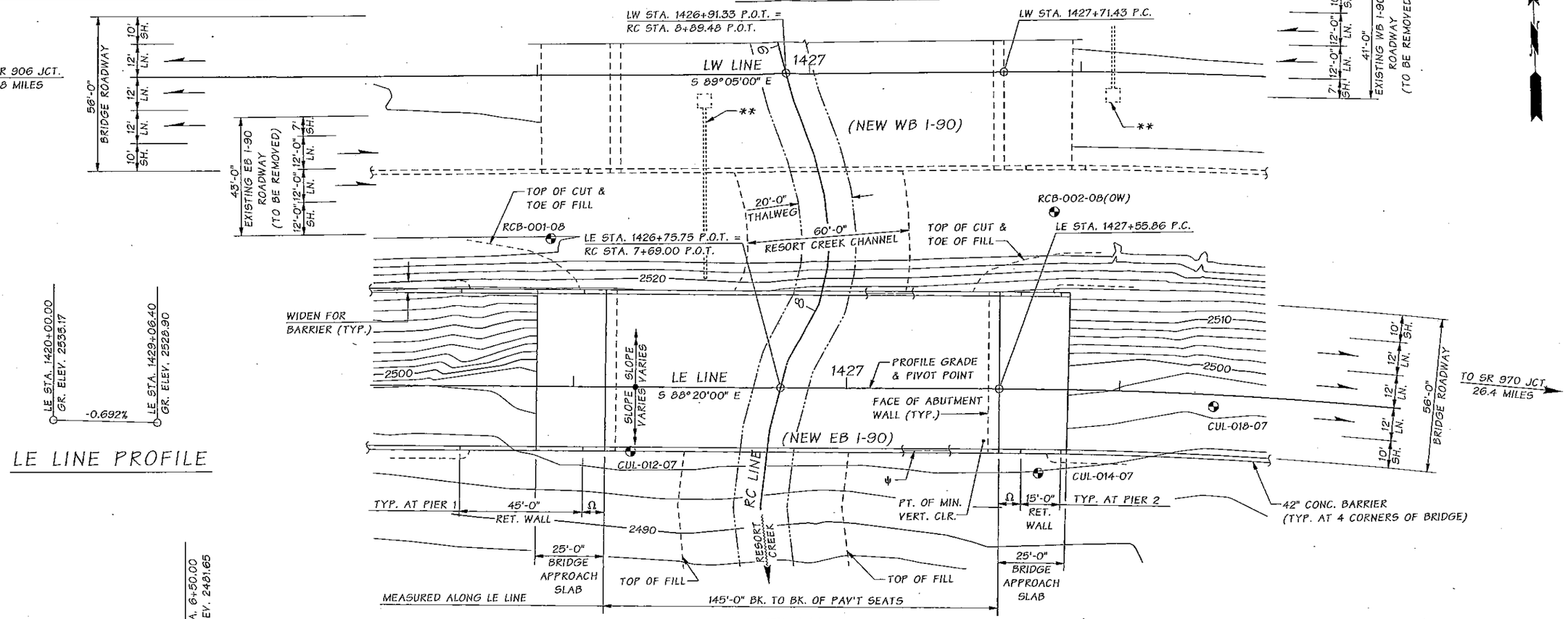
1399+00

APPENDIX G.3
Resort Creek Bridges

CURVE DATA					
P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
LE STA. 1428+31.19	5°23'27.1" RT.	1600.00'	75.33'	150.54'	S 88°20'00" E

SEC. 1, T.21N., R.11E., W.M.
KITTITAS COUNTY

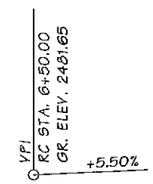
I-90



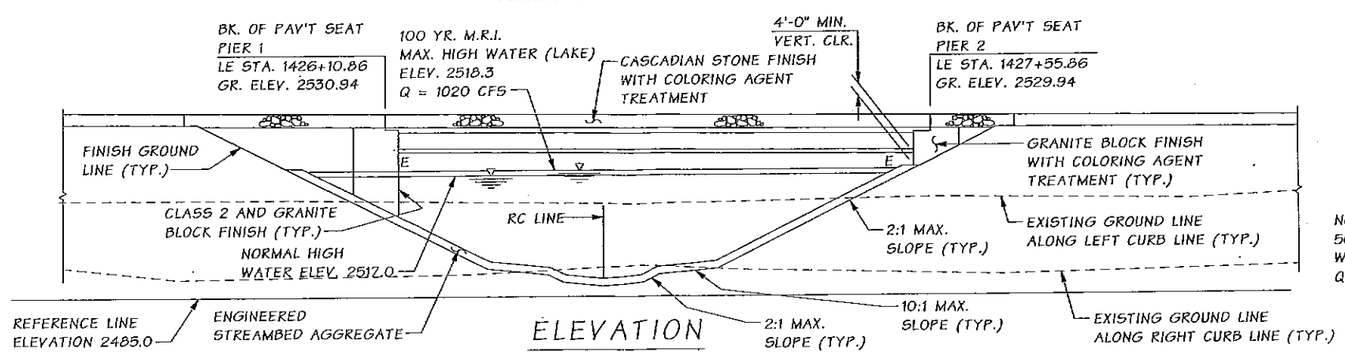
PLAN

BEARING OF ALL PIERS IS N 1°40'00" E

LE LINE PROFILE



RC LINE PROFILE



ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF BRIDGE DECK ON LE LINE AND ARE EQUAL TO PROFILE GRADE. SEE STD. PLAN A-50.20-01 FOR EMBANKMENT DETAILS AT BRIDGE ENDS.

LEGEND

- SOIL BORING LOCATIONS
- Ω 8'-0" CURTAIN WALL (TYP.)
- ψ 2 ~ 2"ø CONDUIT PIPES IN TRAFFIC BARRIER (TYP.)
- ** EXISTING CULVERT (TO BE REMOVED)

NOTE:
500 YR. M.R.I.
W.S. ELEV. 2518.6 (LAKE)
Q=1460 CFS

DATUM

NAVD 88

P.C. GIRDERS (WF66G)
LOADING: HL-93

PLAN APPROVED BY:

Kapur, J. 05/10
BRIDGE & STRUCTURES ENGINEER

White, B. 05/10
PROJECT ENGINEER

Bridge Design Engr.	Khaleghi, B.	05/10	M:\PRELIMINARY PLANS\RESORT CREEK BRIDGES\Resort Ck 4-10\EB\EB PLAN.MAN
Supervisor			
Designed By			
Checked By	Wei, J.	04/10	
Detailed By	Lemcke, D	04/10	
Bridge Projects Engr.	Lewis, R.	05/10	
Prelim. Plan By	Bressan, M	04/10	
Architect/Specialist	PDK / BSA / GAW	04/10	

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER				

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR STATE OF WASHINGTON 23400 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

PRELIMINARY PLAN

BRIDGE SHEET NO. 1 OF SHEETS

Wed Jun 02 08:10:38 2010

BRIDGE AFTER APPROACH FILLS
WF66G P.C. GIRDERS
"A" DIMENSION = 1'-0" (PRELIMINARY ~ NOT FOR DESIGN)
DECK PROTECTIVE SYSTEM 1 (EPOXY COATED REBARS)
CAST-IN-PLACE CONCRETE STRENGTH SHALL BE 4000 PSI

PT. OF MIN. VERT. CLR. TO 100 YR. MRI
LE LINE STA. 1427+55.00 (19'-6" RT.)

COAST GUARD LIAISON	GAW
COAST GUARD PERMIT NOT REQ'D	
PERMIT TARGET DATE	N/A

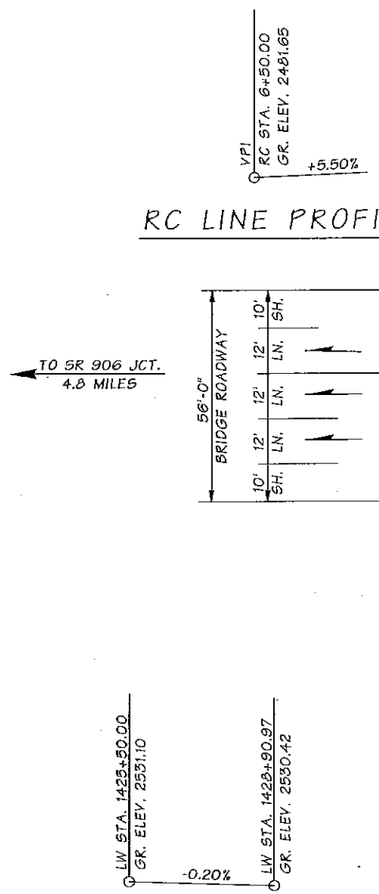
SR 5 FILE NO. 7258 SHEET 1 OF 2

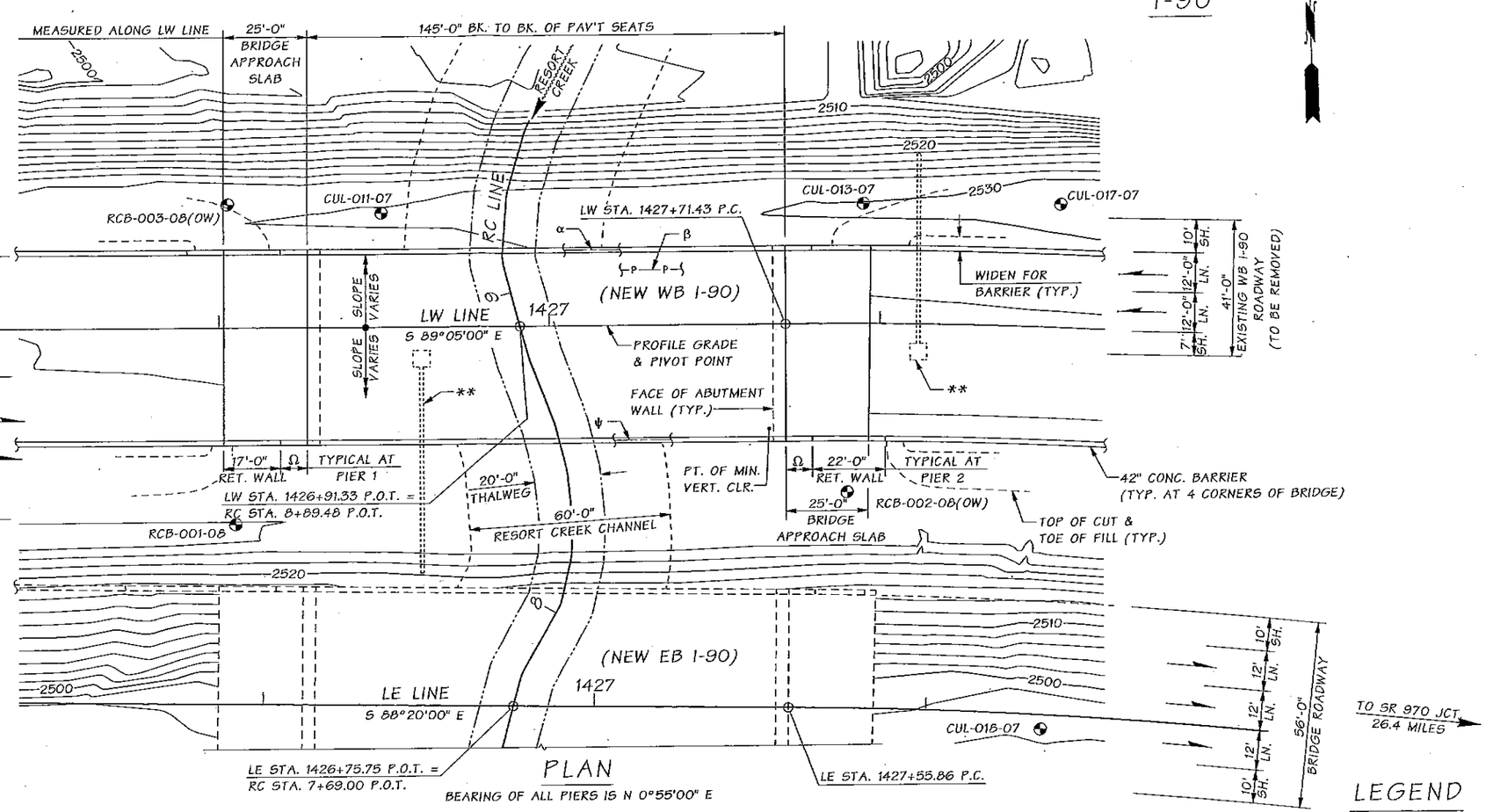
C.S. 1901 ~ PROJ. NO. XL2779M ~ SOUTH CENTRAL REGION ~ I-90 ~ MP 59.46 TO MP 59.49 ~ RESORT CR. BR. EB (NEW STRUCTURE)

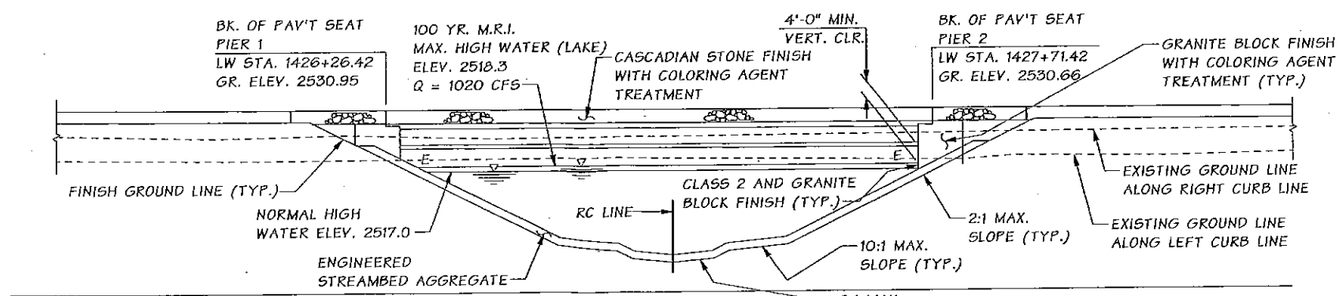
CURVE DATA					
P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
LW STA. 1428+31.22	4°01'44.4" RT.	1700.00'	59.80'	119.54'	S 89°05'00" E

SEC. 1, T.21N., R.11E., W.M.
KITTITAS COUNTY

I-90







GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF BRIDGE DECK ON LW LINE AND ARE EQUAL TO PROFILE GRADE.
SEE STD. PLAN A-50.20-01 FOR EMBANKMENT DETAILS AT BRIDGE ENDS.

NOTE:
500 YR. M.R.I.
W.S. ELEV. 2518.6 (LAKE)
Q=1460 CFS

LEGEND

- SOIL BORING LOCATIONS
- Ω 8'-0" CURTAIN WALL (TYP.)
- ψ 2 ~ 2"ø CONDUIT PIPES IN TRAFFIC BARRIER
- ** EXISTING CULVERT (TO BE REMOVED)
- β 1 ~ 4"ø & 2 ~ 6"ø CONDUIT PIPES
- α 1 ~ 3"ø CONDUIT PIPES IN TRAFFIC BARRIER

DATUM

NAVD 88

P.C. GIRDERS (WF66G)
LOADING: HL-93

PT. OF MIN. VERT. CLR. TO 100 YR. MRI
LW LINE STA. 1427+70.0 (31'-6" RT.)

COAST GUARD LIAISON GAW
COAST GUARD PERMIT NOT REQ'D
PERMIT TARGET DATE N/A

BRIDGE AFTER APPROACH FILLS
WF66G P.C. GIRDERS
"A" DIMENSION = 1'-0" (PRELIMINARY ~ NOT FOR DESIGN)
DECK PROTECTIVE SYSTEM 1 (EPOXY COATED REBARS)
CAST-IN-PLACE CONCRETE STRENGTH SHALL BE 4000 PSI

PLAN APPROVED BY:

Kapur, J. 05/10
BRIDGE & STRUCTURES ENGINEER

White, B. 05/10
PROJECT ENGINEER

Bridge Design Engr.	Khaleghi, B.	05/10	M:\PRELIMINARY PLANS\RESORT CREEK BRIDGES\Resort Ck 4-10\WB\WB PLAN.MAN			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor						10	WASH.			
Designed By						JOB NUMBER				
Checked By	Wei, J.	04/10								
Detailed By	Lemcke, D	04/10								
Bridge Projects Engr.	Lewis, R.	05/10								
Prelim. Plan By	Bressan, M	04/10								
Architect/Specialist	PDK / BSA / GAW	04/10	DATE	REVISION	BY	APP'D				

Wed Jun 02 08:10:18 2010

BRIDGE AND STRUCTURES OFFICE

JUGESH KAPUR STATE OF WASHINGTON 25470 REGISTERED PROFESSIONAL ENGINEER

Washington State Department of Transportation

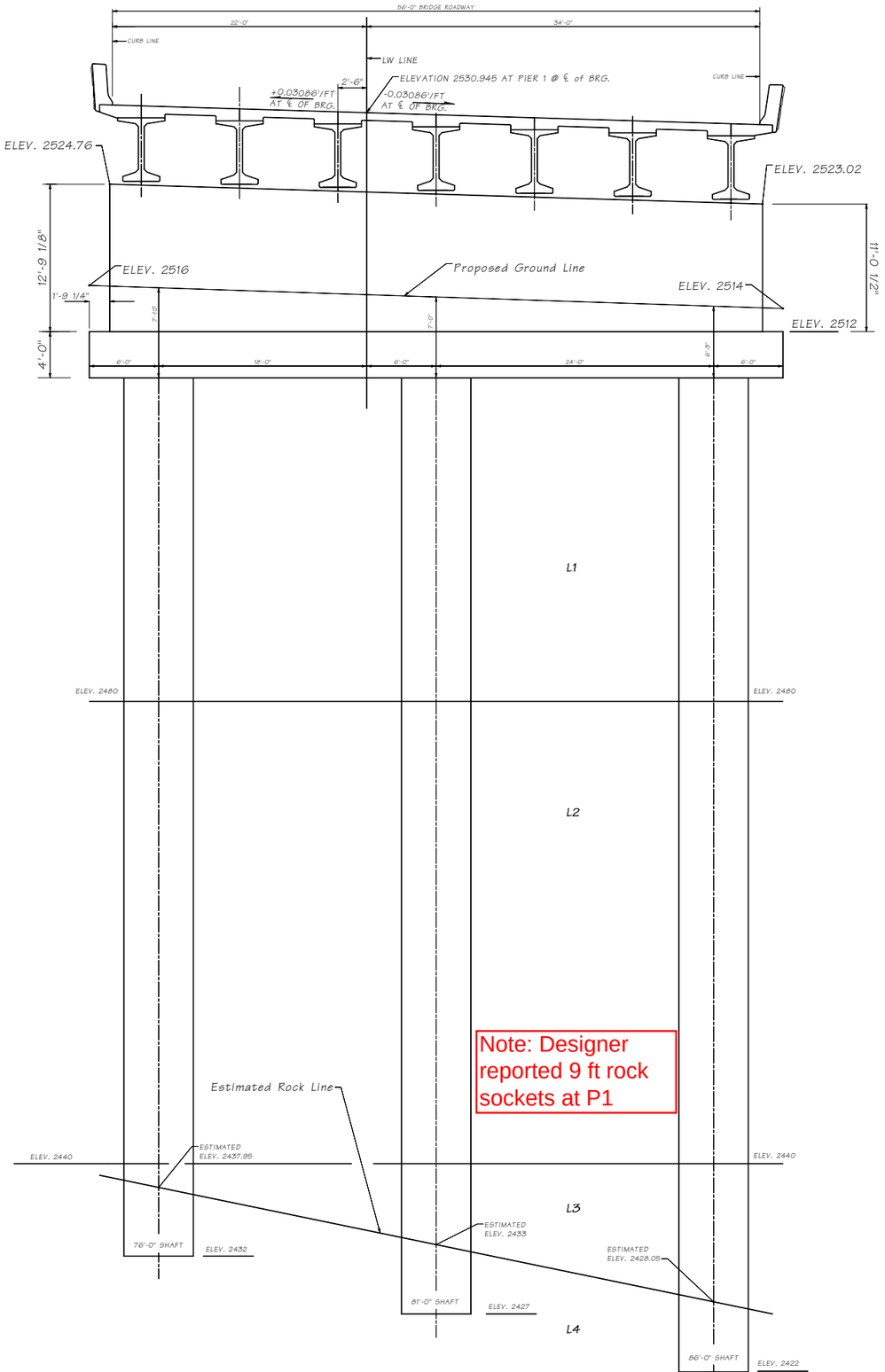
PRELIMINARY PLAN

BRIDGE SHEET NO. 1
SHEET OF SHEETS

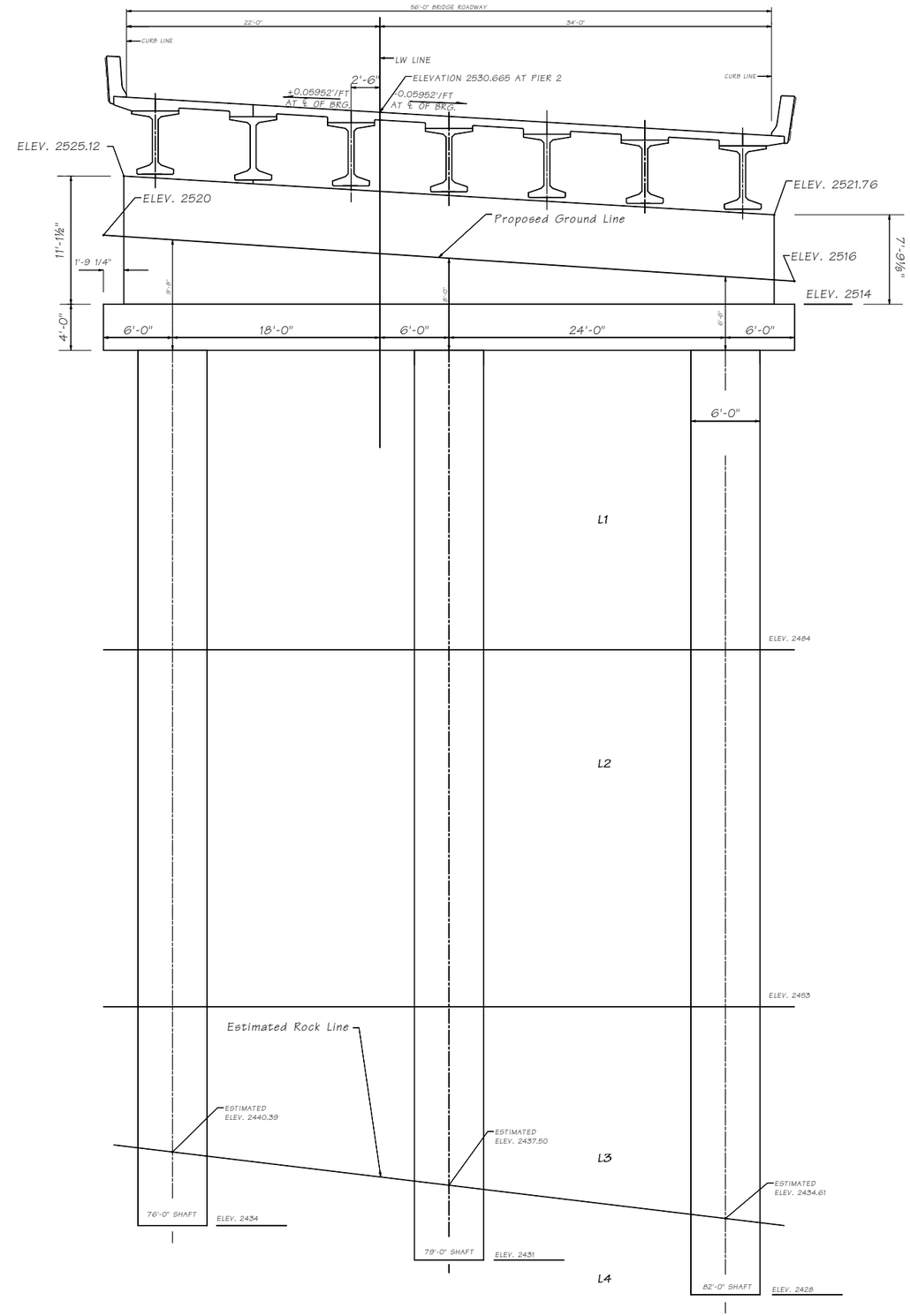
I-90 FILE NO. 7258 SHEET 1 OF 2

C. S. 1901 ~ PROJ. NO. XL2779N ~ SOUTH CENTRAL REGION ~ I-90 ~ MP 59.46 TO MP 59.49 ~ RESORT CR. BR. WB (NEW STRUCTURE)

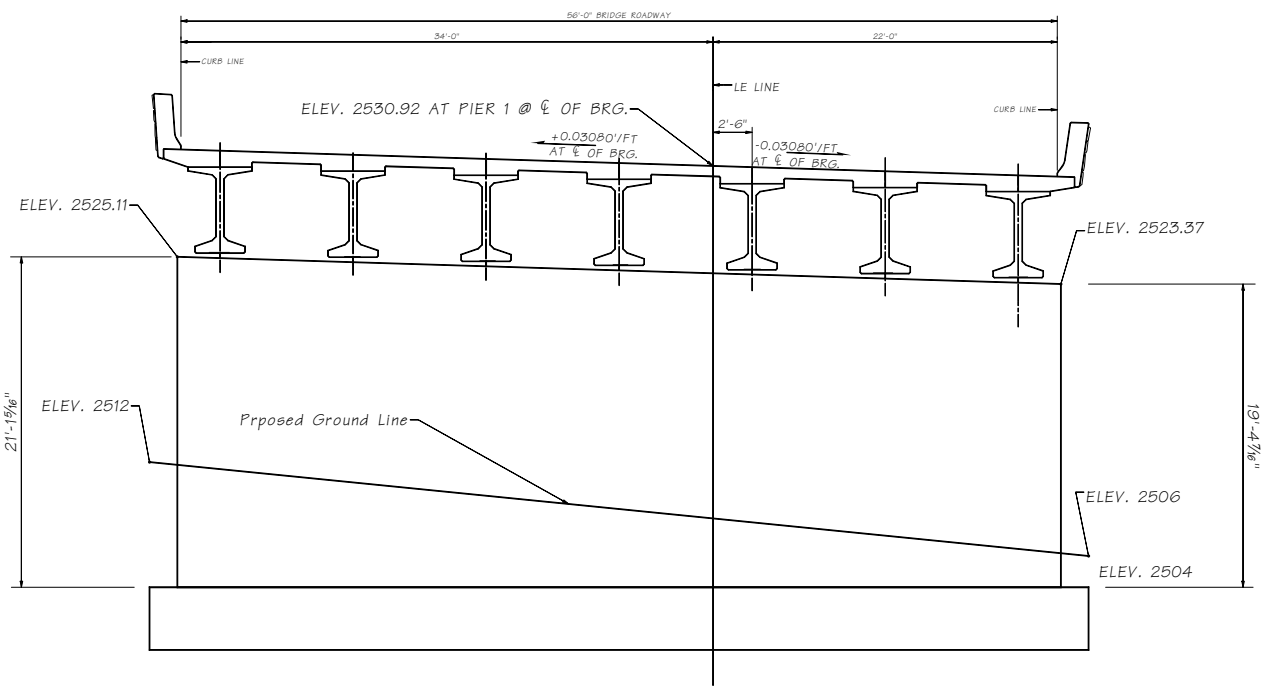
PIER 1 AT ℄ OF BRG.
LOOKING AHEAD ON STATION



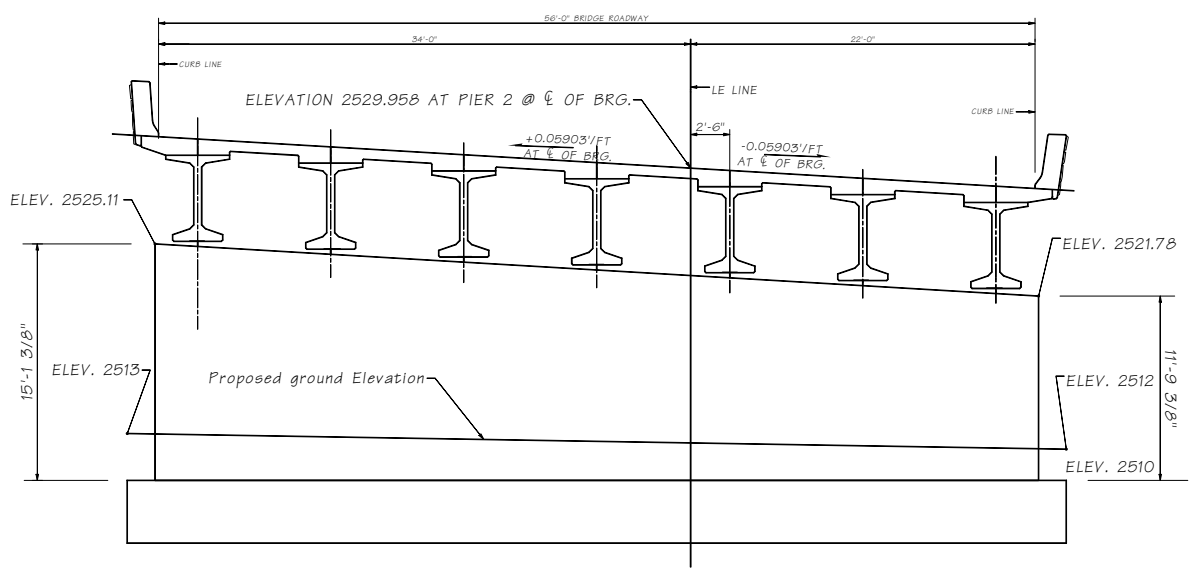
PIER 2 AT ℄ OF BRG.
LOOKING AHEAD ON STATION



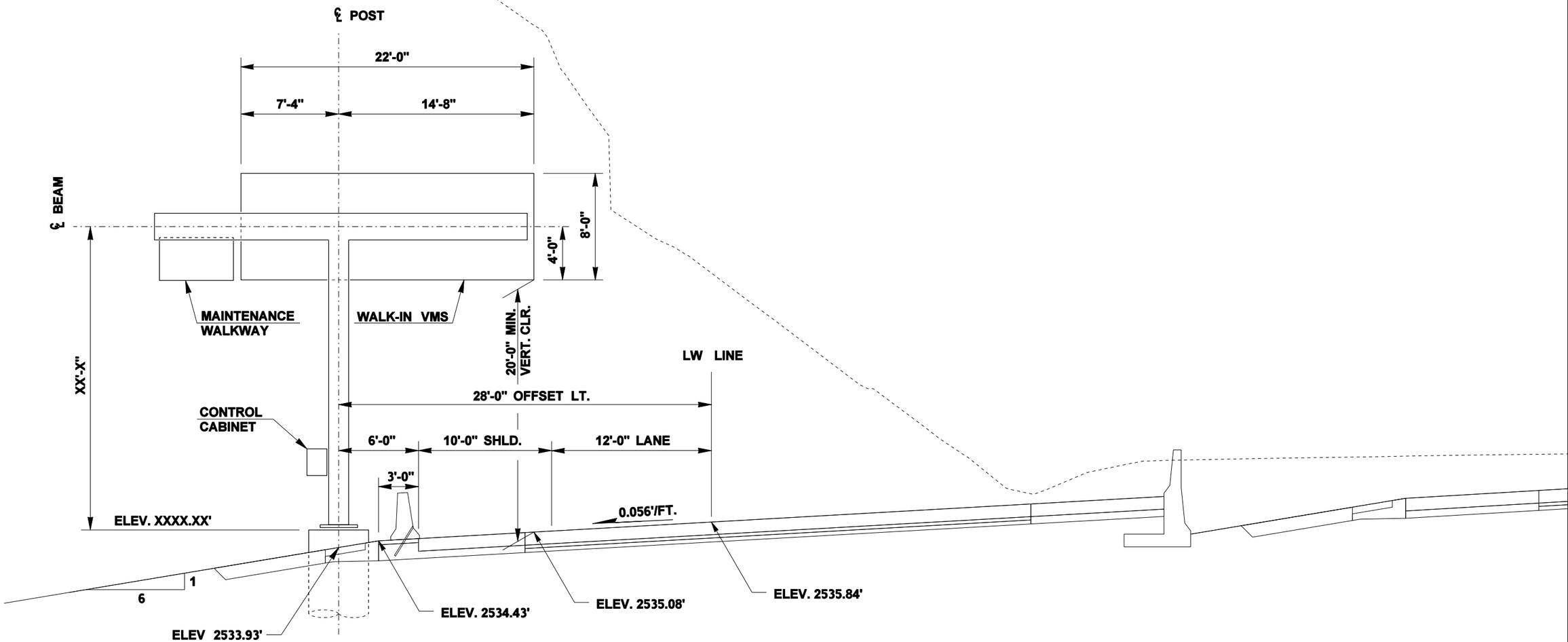
PIER 1 AT ℄ OF BRG.
LOOKING AHEAD ON STATION



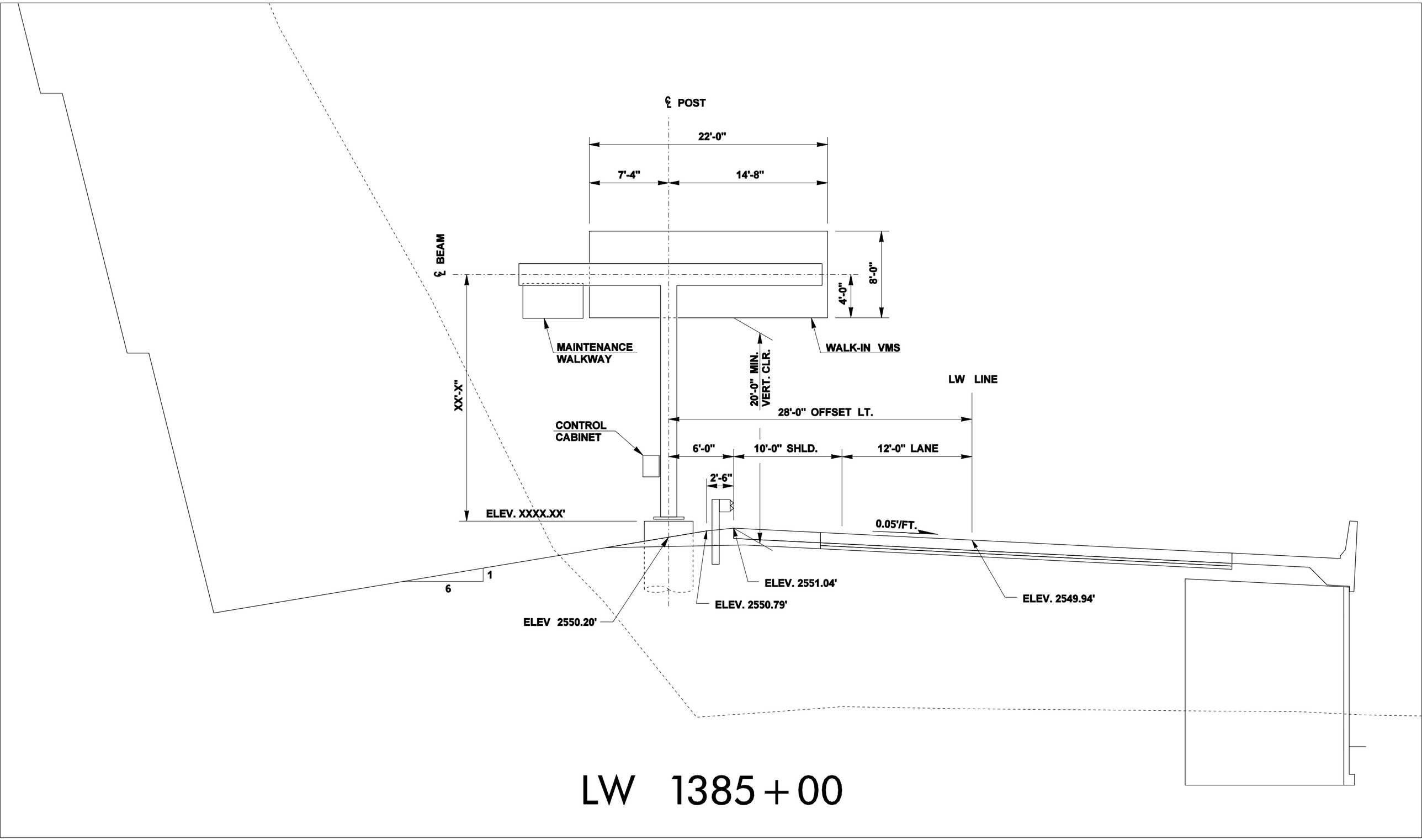
PIER 2 AT ℄ OF BRG.
LOOKING AHEAD ON STATION

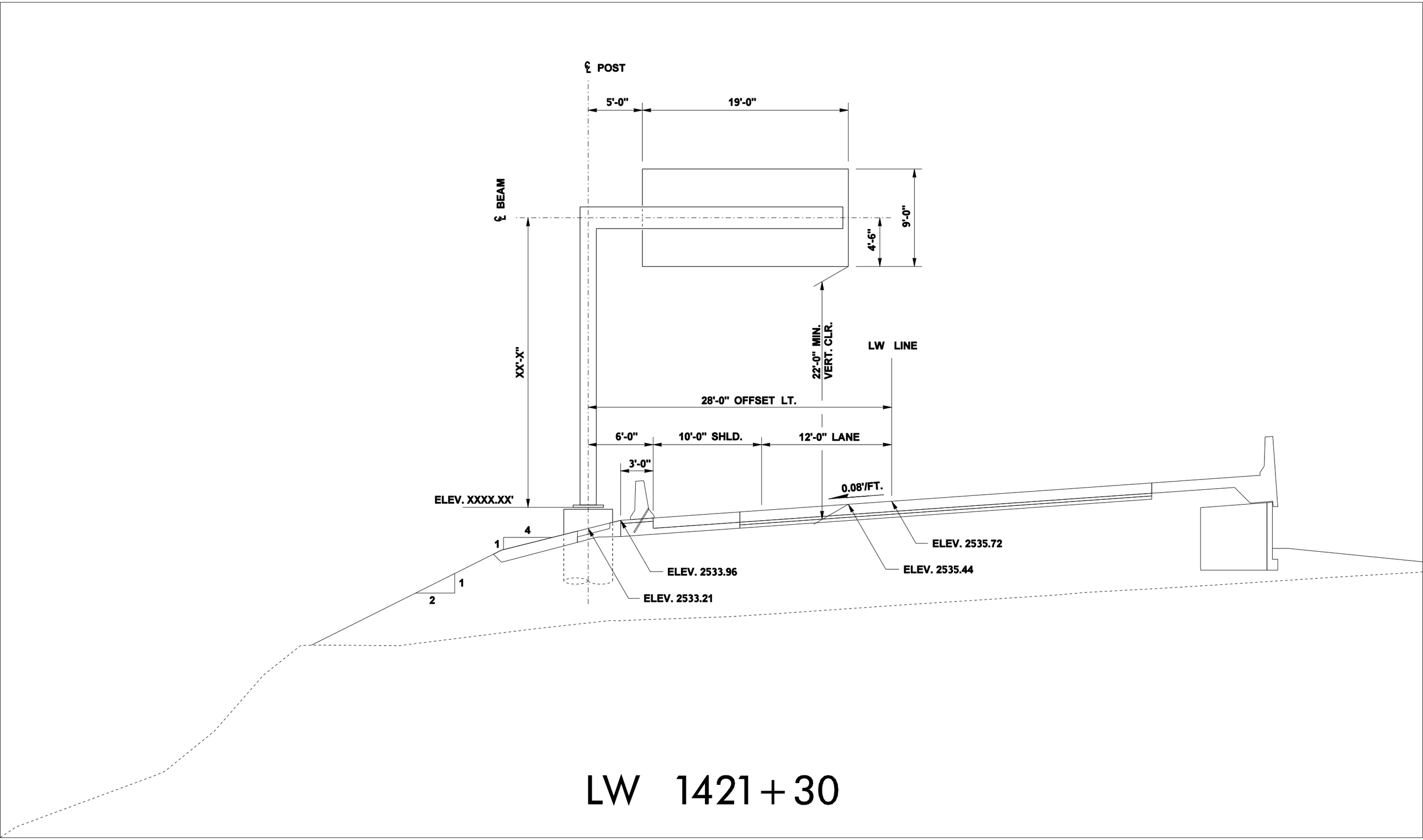


APPENDIX G.4
Sign Structures

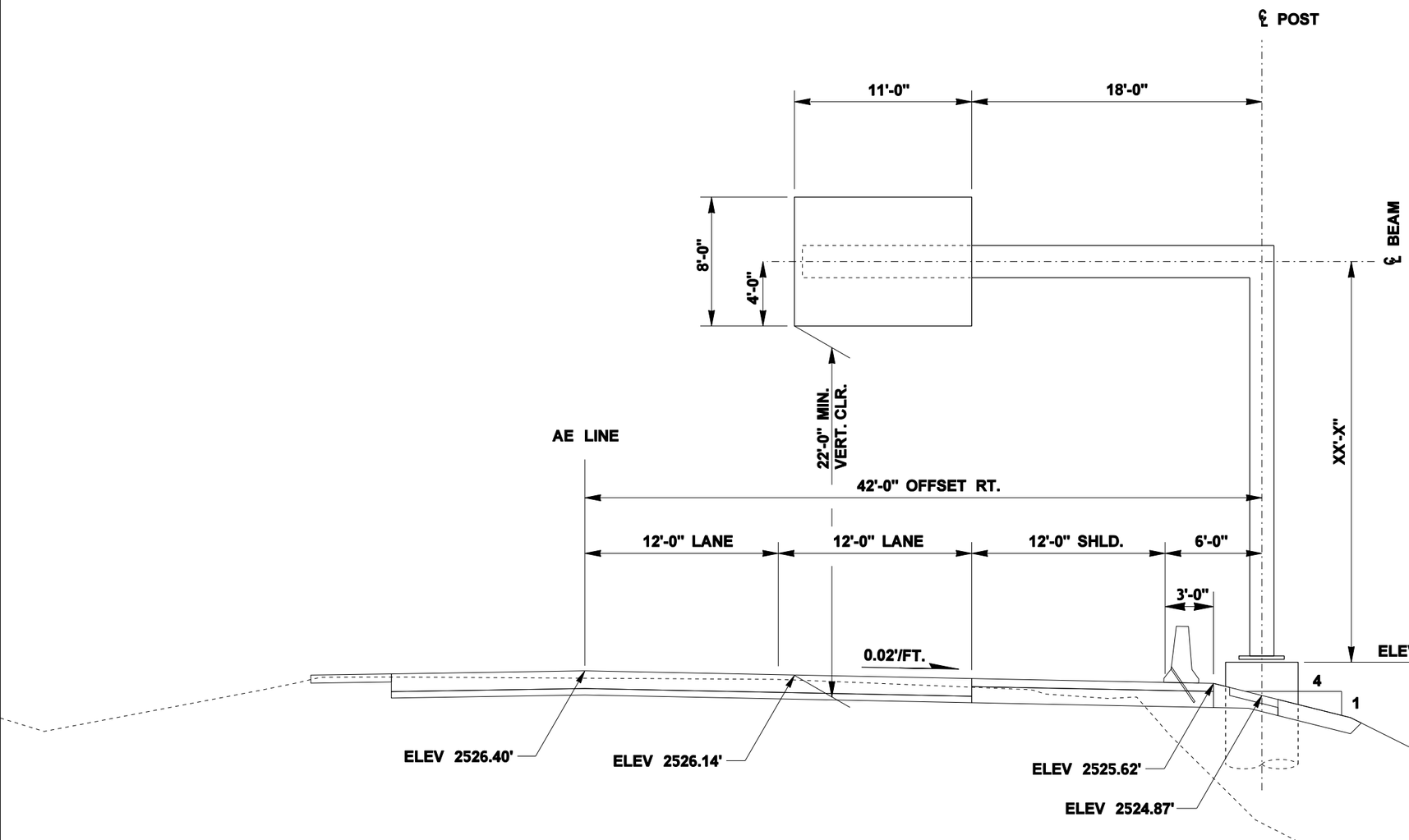

℄ POST
22'-0"
7'-4"
14'-8"
℄ BEAM
8'-0"
4'-0"
MAINTENANCE WALKWAY
WALK-IN VMS
20'-0" MIN. VERT. CLR.
XX'-X"
LW LINE
28'-0" OFFSET LT.
CONTROL CABINET
6'-0"
10'-0" SHLD.
12'-0" LANE
3'-0"
0.056'/FT.
ELEV. XXXX.XX'
1
6
ELEV 2533.93'
ELEV. 2534.43'
ELEV. 2535.08'
ELEV. 2535.84'

LW 1338+00


℄ POST
22'-0"
7'-4"
14'-8"
℄ BEAM
8'-0"
4'-0"
MAINTENANCE WALKWAY
WALK-IN VMS
20'-0" MIN. VERT. CLR.
XX'-X"
LW LINE
28'-0" OFFSET LT.
CONTROL CABINET
6'-0"
10'-0" SHLD.
12'-0" LANE
2'-6"
ELEV. XXXX.XX'
0.05'/FT.
1
6
ELEV. 2551.04'
ELEV. 2550.79'
ELEV. 2549.94'
ELEV 2550.20'
LW 1385+00

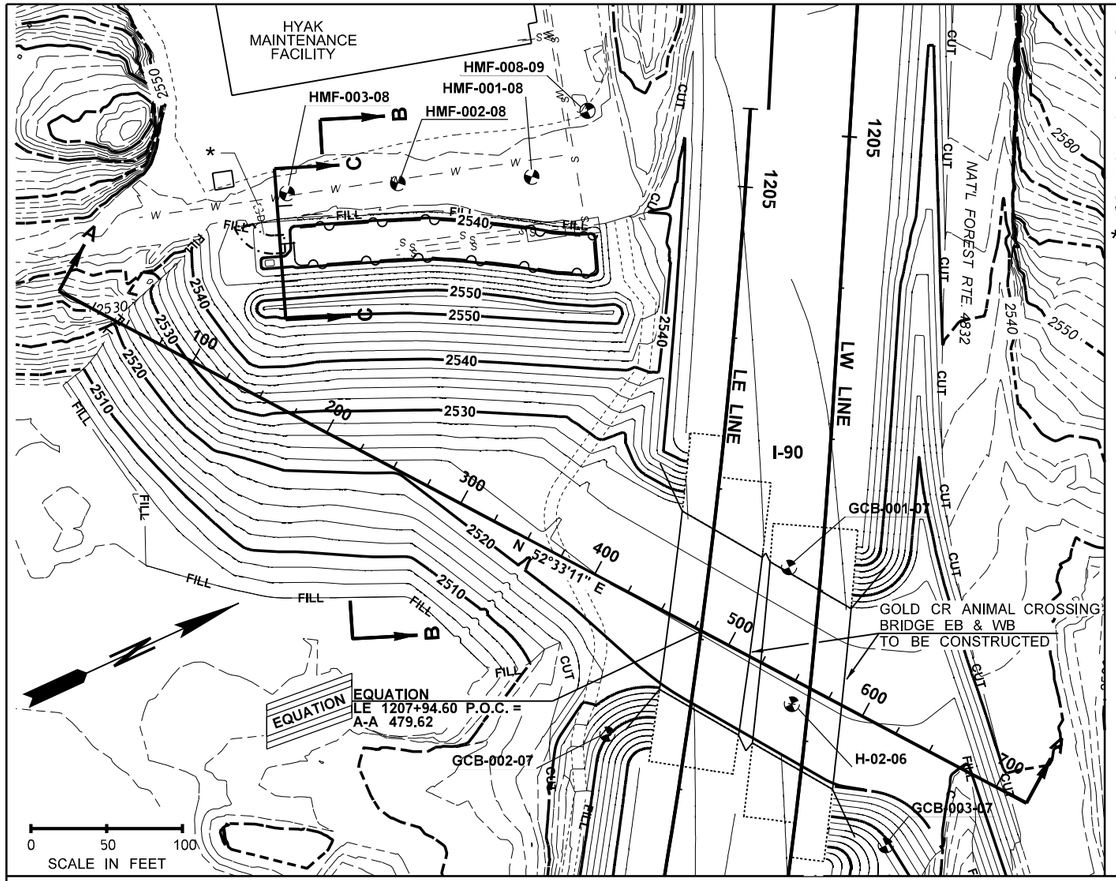

℄ POST
5'-0"
19'-0"
℄ BEAM
9'-0"
4'-6"
22'-0" MIN.
VERT. CLR.
LW LINE
XX'-X"
28'-0" OFFSET LT.
6'-0"
10'-0" SHLD.
12'-0" LANE
3'-0"
0.08'/FT.
ELEV. XXXX.XX'
4
1
1
2
ELEV. 2535.72
ELEV. 2533.96
ELEV. 2535.44
ELEV. 2533.21

LW 1421+30


℄ POST
11'-0"
18'-0"
℄ BEAM
8'-0"
4'-0"
22'-0" MIN.
VERT. CLR.
XX'-X"
AE LINE
42'-0" OFFSET RT.
12'-0" LANE
12'-0" LANE
12'-0" SHLD.
6'-0"
3'-0"
0.02'/FT.
ELEV. XXXX.XX'
4
1
ELEV 2526.40'
ELEV 2526.14'
ELEV 2525.62'
ELEV 2524.87'
1
2

AE 116 + 30

APPENDIX G.5
Stormwater Mitigation Facilities



NOTES: UPPER KEECHELUS LAKE NEAR SHORE HABITAT QUANTITIES ARE INCLUDED IN MAIN LINE QUANTITIES.

PLACE 0.25' CRUSHED SURFACING BASE COURSE WITHIN ACCESS ROAD LIMITS. ALL DEPTHS SHOWN ARE COMPACTED DEPTHS.

SEE ROADSIDE RESTORATION PLANS FOR BIOINFILTRATION DETAIL, SWALE SEEDING, AND FOR LIMITS OF TOPSOIL TYPE B.

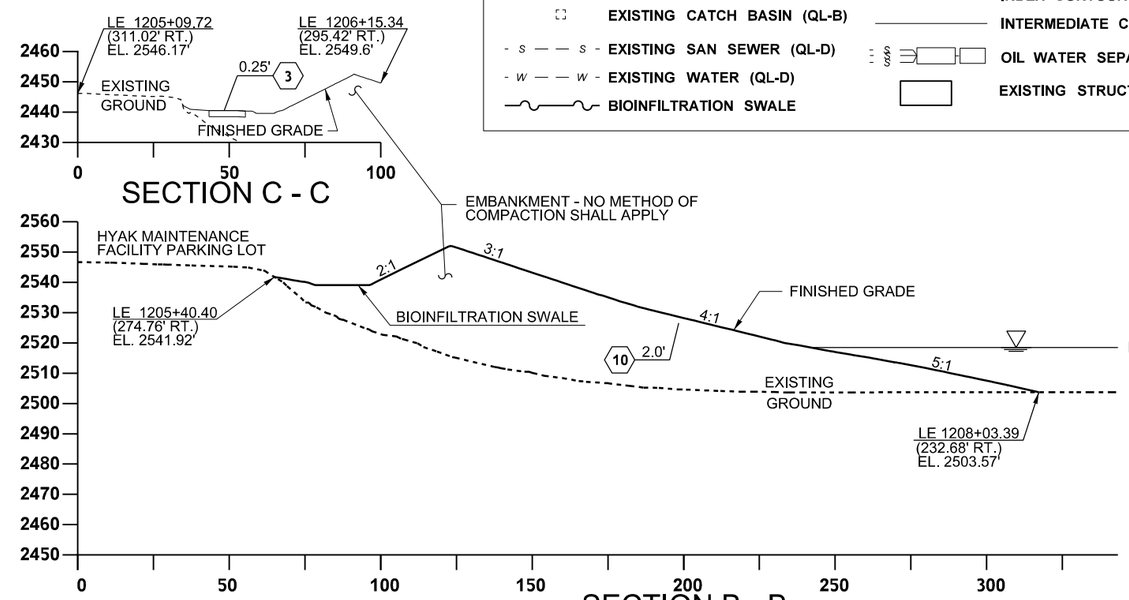
SEE UTILITIES MANUAL FOR SUBSURFACE UTILITY ENGINEERING (SUE) QUALITY LEVELS QL-B & QL-D.

CONTRACTOR SHALL PROTECT EXISTING OIL WATER SEPARATOR WHILE PLACING EMBANKMENT.

* SEE SPECIAL PROVISION "REMOVAL OF OBSTRUCTION".

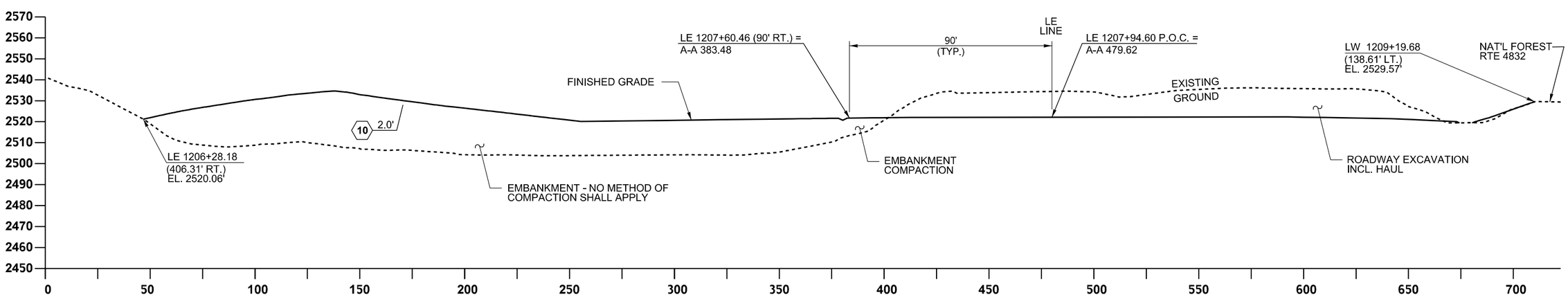
LEGEND

- NON-IMPROVED ACCESS ROAD LIMITS
- ACCESS ROAD LIMITS
- SAW — SAWCUT
- CUT — CUT LINE
- FILL — FILL LINE
- EXISTING STORM DRAIN (QL-B)
- EXISTING CATCH BASIN (QL-B)
- S — S — EXISTING SAN SEWER (QL-D)
- W — W — EXISTING WATER (QL-D)
- BIOINFILTRATION SWALE
- TEST BORING LOCATION
- 10 TOPSOIL TYPE B
- 3 CRUSHED SURFACING BASE COURSE
- 2530 EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- 2530 INDEX CONTOUR
- INTERMEDIATE CONTOUR
- OIL WATER SEPARATOR
- EXISTING STRUCTURE



SECTION C - C

SECTION B - B



SECTION A - A

FILE NAME	K:\Engineering_L2779\L2779_PS&E_PH1B\003_PS&E_Sheets\Grading Plans\Sheets and Basemap\L2779B_PS_GR.dgn						
TIME	1:13:04 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	9/21/2009						
PLOTTED BY	Sequeil				JOB NUMBER 09Y019		
DESIGNED BY	R. SQUARE-BRIGGS						
ENTERED BY	H. ZIMCHEK						
CHECKED BY	J. TRUDEAU				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. GOLBEK						
REGIONAL ADM.	D. WHITEHOUSE	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

I-90
HYAK TO SNOWSHED VICINITY PHASE 1B - ADD LANES AND BRIDGES

UKLNSH GRADING & SITE PREP. PLAN

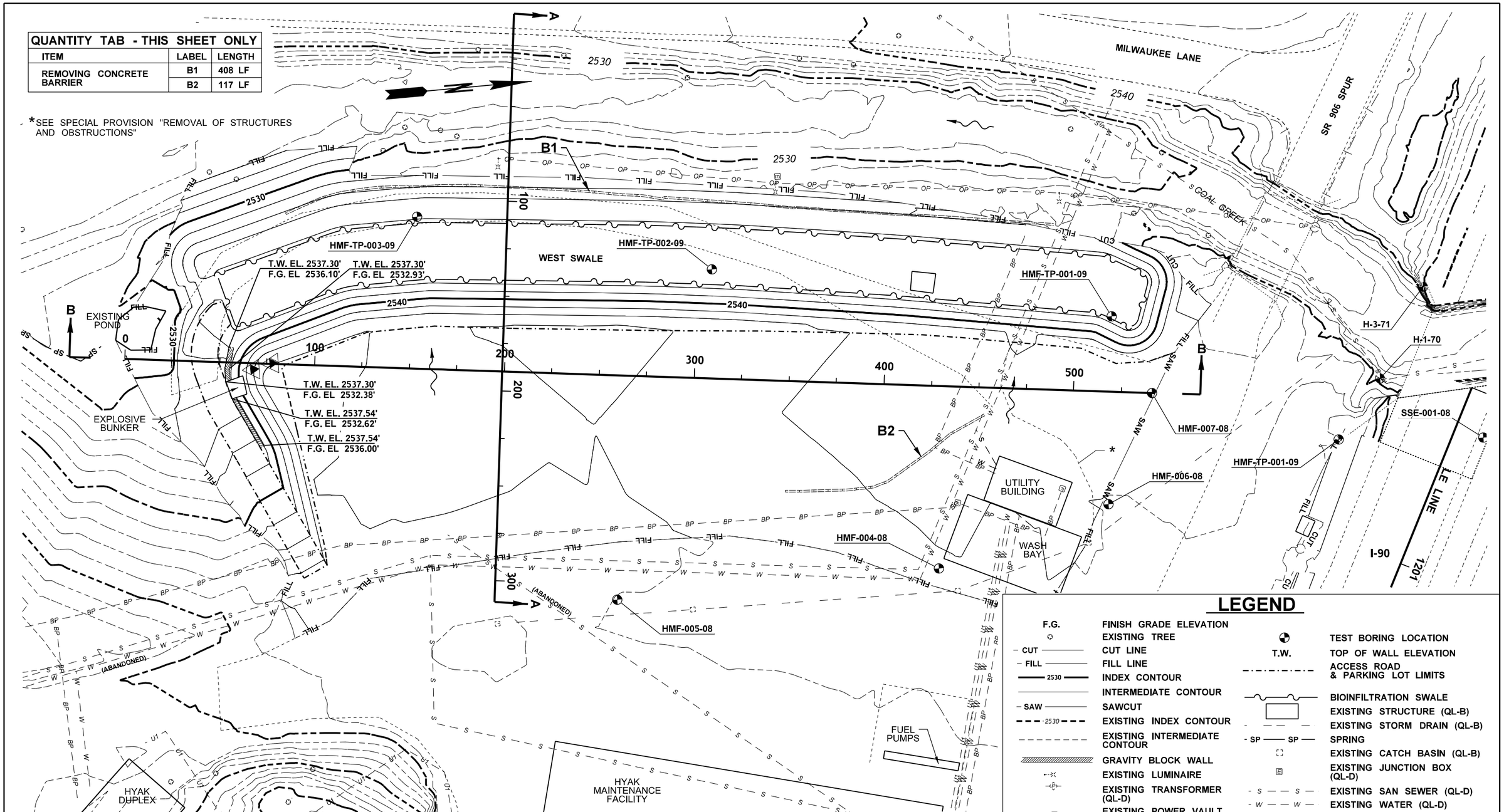
Plot 3

PLAN REF NO G3

SHEET OF SHEETS

QUANTITY TAB - THIS SHEET ONLY		
ITEM	LABEL	LENGTH
REMOVING CONCRETE BARRIER	B1	408 LF
	B2	117 LF

*SEE SPECIAL PROVISION "REMOVAL OF STRUCTURES AND OBSTRUCTIONS"



LEGEND

F.G.	FINISH GRADE ELEVATION		TEST BORING LOCATION
	EXISTING TREE	T.W.	TOP OF WALL ELEVATION
CUT	CUT LINE		ACCESS ROAD & PARKING LOT LIMITS
FILL	FILL LINE		BIOINFILTRATION SWALE
2530	INDEX CONTOUR		EXISTING STRUCTURE (QL-B)
	INTERMEDIATE CONTOUR		EXISTING STORM DRAIN (QL-B)
SAW	SAWCUT	SP	SPRING
2530	EXISTING INDEX CONTOUR		EXISTING CATCH BASIN (QL-B)
	EXISTING INTERMEDIATE CONTOUR		EXISTING JUNCTION BOX (QL-D)
	GRAVITY BLOCK WALL	S	EXISTING SAN SEWER (QL-D)
	EXISTING LUMINAIRE	W	EXISTING WATER (QL-D)
	EXISTING TRANSFORMER (QL-D)	BP	EXISTING UNDERGROUND POWER (QL-D)
	EXISTING POWER VAULT (QL-D)	U1	EXISTING UNDERGROUND UNKNOWN LINE (QL-D)
	EXISTING VENT (QL-B)	OP	EXISTING ABOVE GROUND POWER
	EXISTING SAN MANHOLE (QL-D)		EXISTING CONCRETE BARRIER
	EXISTING UTILITY POLE		

NOTES:
HYAK WEST SWALE EARTHWORK QUANTITIES ARE INCLUDED IN MAIN LINE QUANTITIES.

NOTES:
PLACE 0.25' CRUSHED SURFACING BASE COURSE WITHIN ACCESS ROAD AND PARKING LOT LIMITS.

NOTES:
SEE SHEET G2 FOR SECTIONS A-A, B-B AND GRAVITY BLOCK WALL DETAIL.

NOTES:
SEE ROADSIDE RESTORATION PLANS FOR BIOINFILTRATION DETAIL AND SWALE SEEDING.

0 25 50
SCALE IN FEET

NOTES:
SEE UTILITIES MANUAL FOR SUB SURFACE UTILITY ENGINEERING (SUE) QUALITY LEVELS QL-B & QL-D.

FILE NAME	K:\Engineering_L2779\L2779_PS&E_PH1B\003_PS&E_Sheets\Grading Plans\Sheets and Basemap\L2779B_PS_GR.dgn
TIME	1:13:03 PM
DATE	9/21/2009
PLOTTED BY	Sequeil
DESIGNED BY	R. SQUARE-BRIGGS
ENTERED BY	H. ZIMCHEK
CHECKED BY	J. TRUDEAU
PROJ. ENGR.	S. GOLBEK
REGIONAL ADM.	D. WHITEHOUSE

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 09Y019		
CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

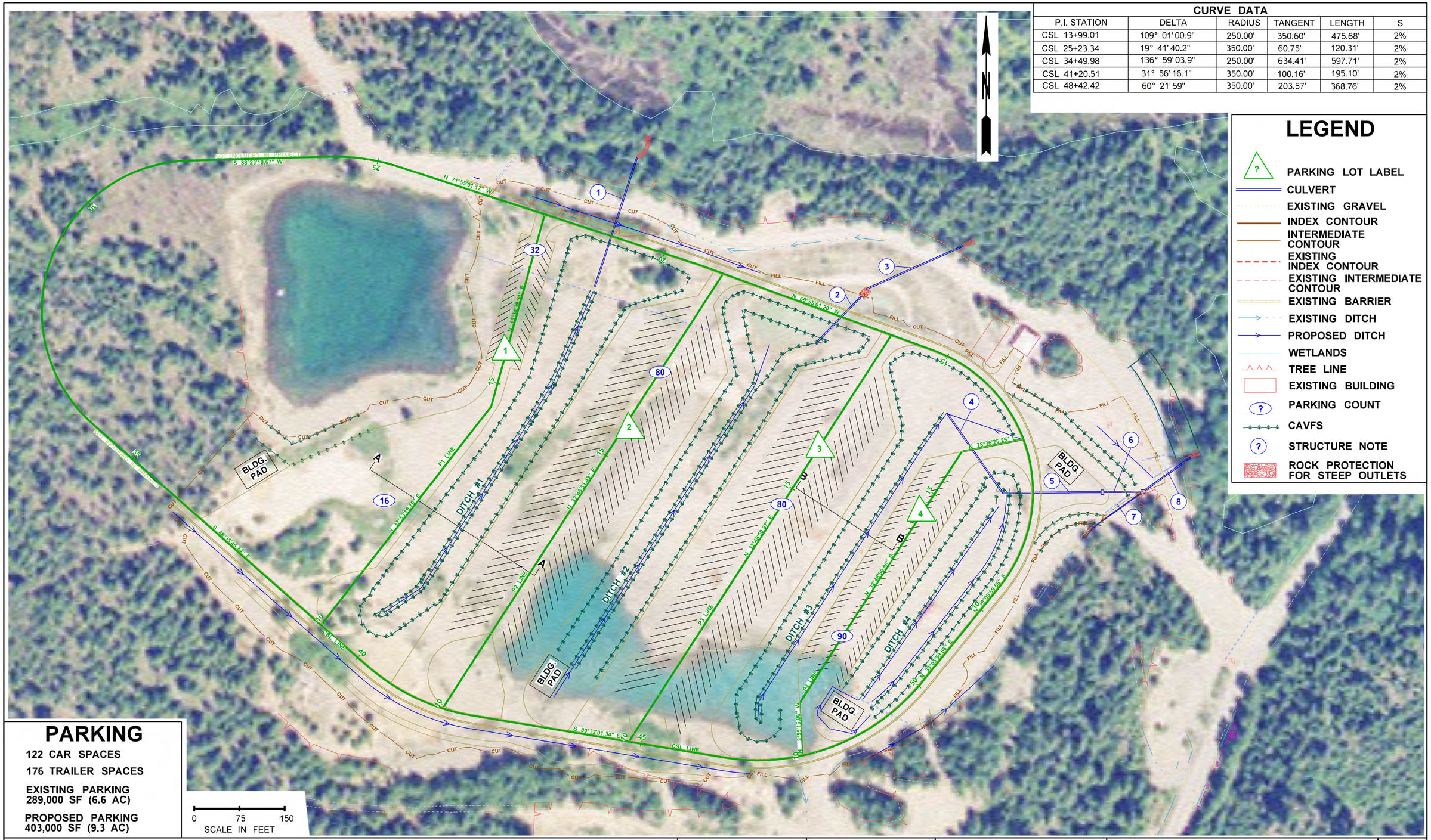
I-90
HYAK TO SNOWSHED VICINITY PHASE 1B - ADD LANES AND BRIDGES

HYAK GRADING & SITE PREP. PLAN

Plot 1
PLAN REF NO G1
SHEET OF SHEETS

CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	S
CSL 13+99.01	109° 01' 00.9"	250.00'	350.60'	475.68'	2%
CSL 25+23.34	19° 41' 40.2"	350.00'	60.75'	120.31'	2%
CSL 34+49.98	136° 59' 03.9"	250.00'	634.41'	597.71'	2%
CSL 41+20.51	31° 56' 16.1"	350.00'	100.16'	195.10'	2%
CSL 48+42.42	60° 21' 59"	350.00'	203.57'	368.76'	2%



FILE NAME	K:\456001\Engineering_L2779\L2779\WorkingFiles\Working Files - Phase 1C\Maggie\Crystal Springs\L2779_Crystal SpringsParkingExhibits.dgn						
TIME	6:20:11 AM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	7/27/2010				JOB NUMBER		
PLOTTED BY	bryantm						
DESIGNED BY	G. HORCHY				CONTRACT NO.	LOCATION NO.	
ENTERED BY	M. BRYANT						
CHECKED BY	J. TRUDEAU						
PROJ. ENGR.	R. GILES						
REGIONAL ADM.	D. WHITEHOUSE	REVISION	DATE	BY			

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

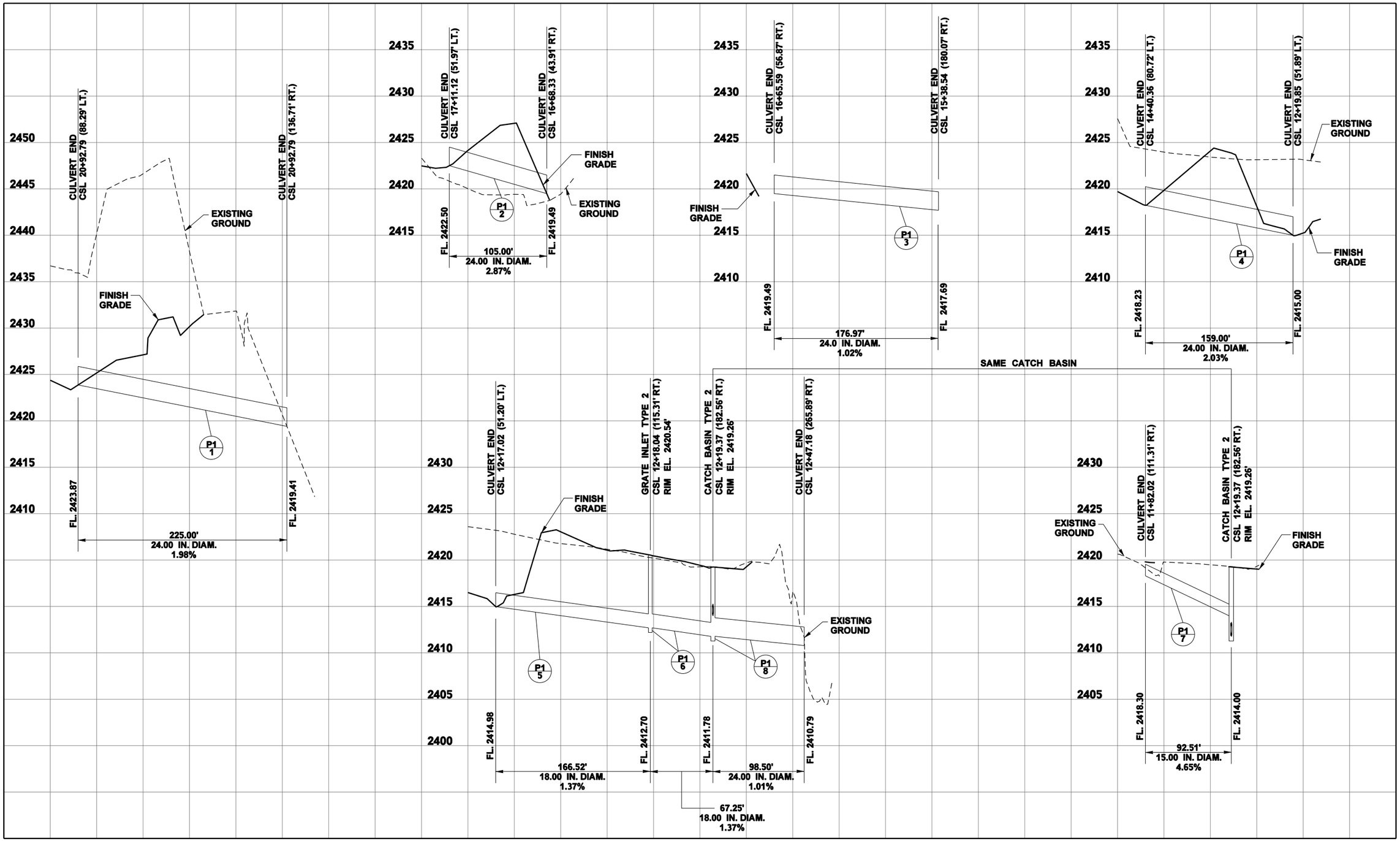
I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C - REPLACE SNOWSHED AND ADD LANES

PARKING EXHIBIT

Plot 7

PLAN REF NO C7

SHEET OF SHEETS



FILE NAME	K:\Engineering_L2779\L2779\WorkingFiles\To_Be_Deleted_on_2009-07-01\Bethany\Crystal Springs\Drawings\L2779C_PS_PR_CrystalSprings.dgn						
TIME	4:22:40 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	7/22/2010						
PLOTTED BY	pewtrer				JOB NUMBER		
DESIGNED BY	B. VERMAAS						
ENTERED BY	R. PEWTRESS						
CHECKED BY	P. WALKER				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	R GILES						
REGIONAL ADM.	D. WHITEHOUSE	REVISION	DATE	BY			

P.E. STAMP BOX DATE

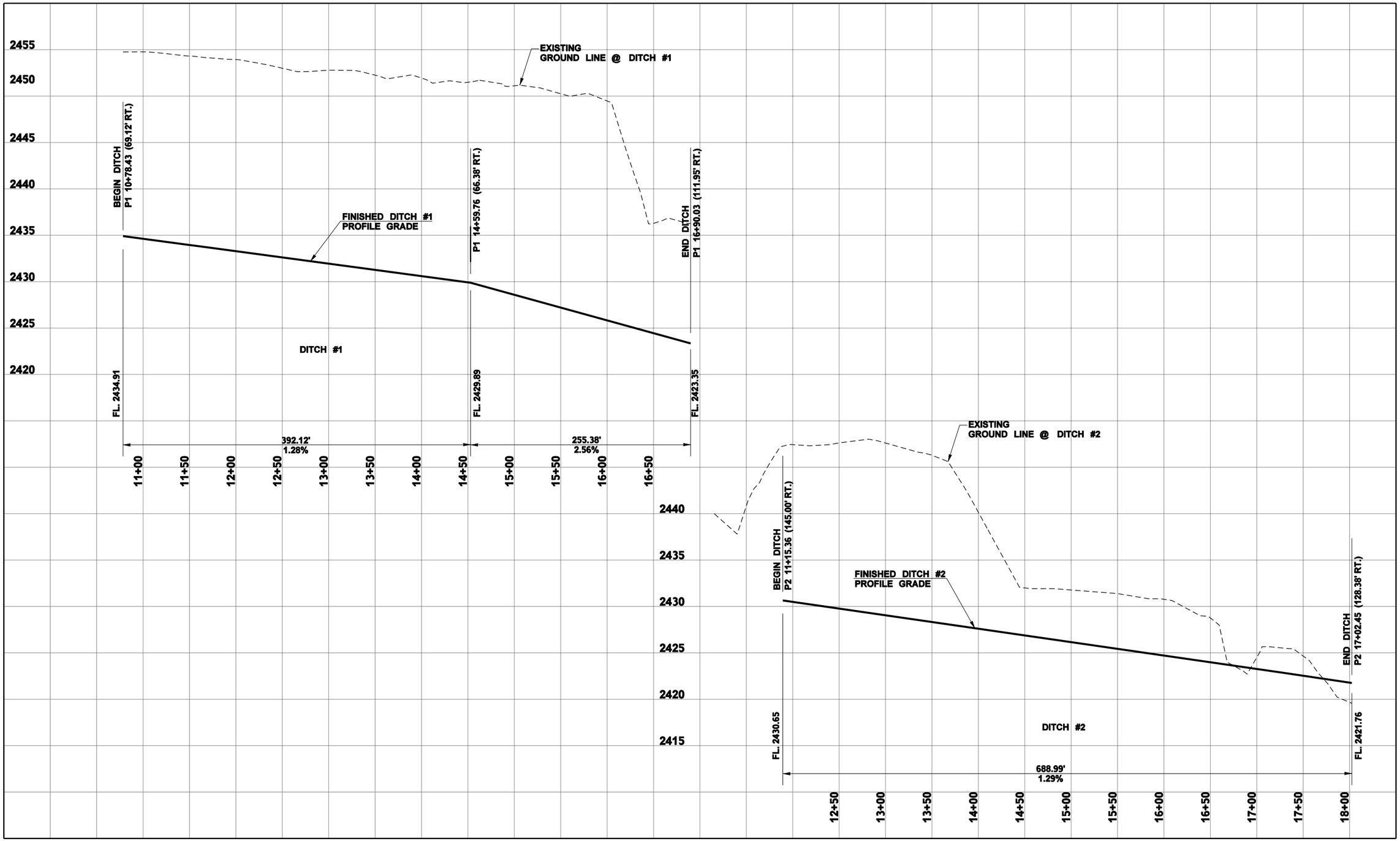
P.E. STAMP BOX DATE

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C - REPLACE SNOWSHED AND ADD LANES

CRYSTAL SPRINGS DRAINAGE PROFILES

Plot 1
PLAN REF. NO.
SHEET
OF
SHEETS



FILE NAME	K:\Engineering_L2779\L2779\WorkingFiles\To_Be_Deleted_on_2009-07-01\Bethany\Crystal Springs\Drawings\L2779C_PS_PR_CrystalSprings.dgn						
TIME	4:22:42 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	7/22/2010						
PLOTTED BY	pewtrer				JOB NUMBER		
DESIGNED BY	B. VERMAAS						
ENTERED BY	R. PEWTRESS						
CHECKED BY	P. WALKER				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	R GILES						
REGIONAL ADM.	D. WHITEHOUSE	REVISION	DATE	BY			

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

I-90

SNOWSHED TO KEECHELUS DAM PHASE 1C - REPLACE SNOWSHED AND ADD LANES

CRYSTAL SPRINGS DRAINAGE PROFILES

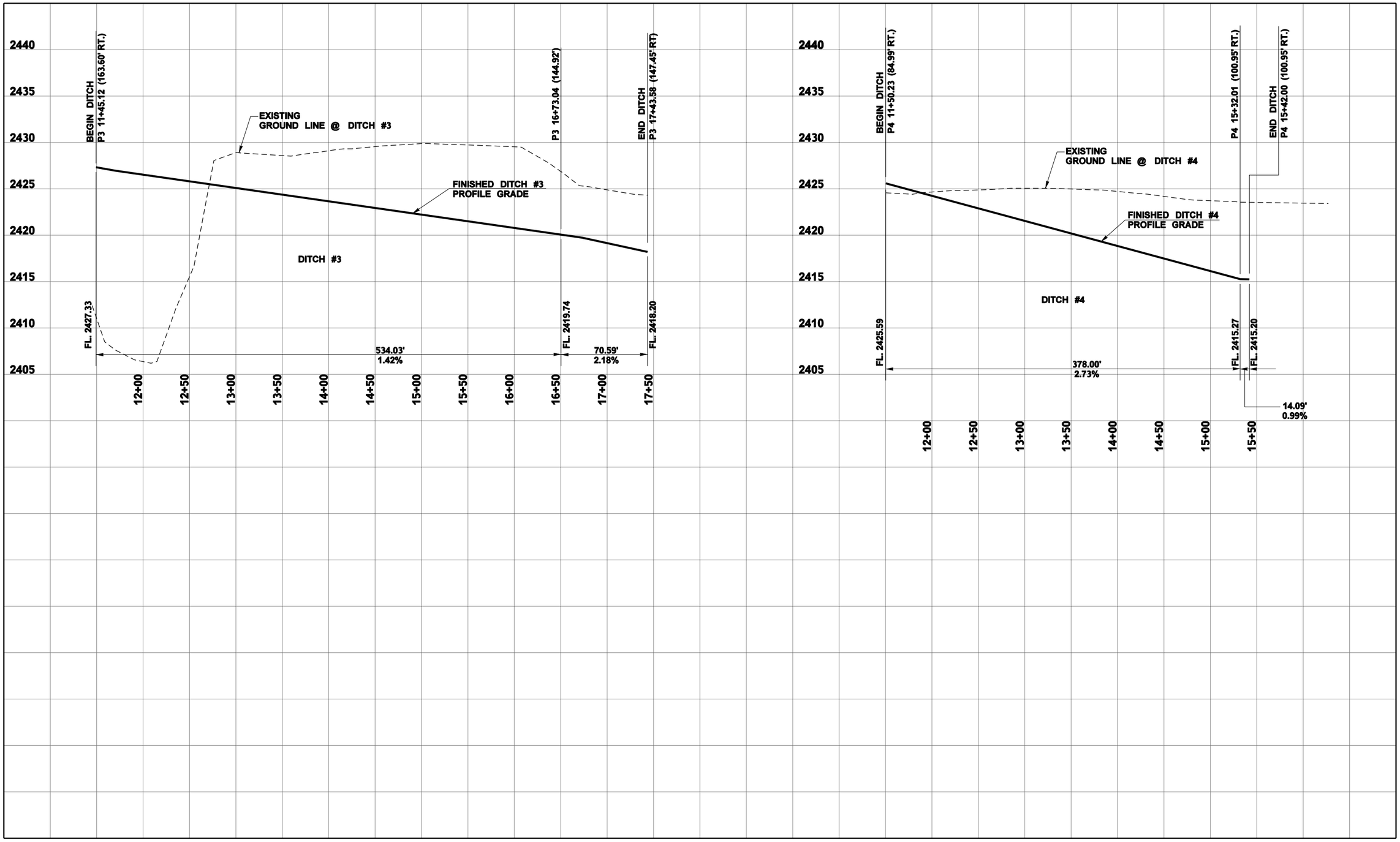
Plot 2

PLAN REF. NO.

SHEET

OF

SHEETS



FILE NAME	K:\Engineering_L2779\L2779\WorkingFiles\To_Be_Deleted_on_2009-07-01\Bethany\Crystal Springs\Drawings\L2779C_PS_PR_CrystalSprings.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	4:22:43 PM				10	WASH	
DATE	7/22/2010						
PLOTTED BY	pewtrer				JOB NUMBER		
DESIGNED BY	B. VERMAAS						
ENTERED BY	R. PEWTRESS						
CHECKED BY	P. WALKER				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	R GILES						
REGIONAL ADM.	D. WHITEHOUSE	REVISION	DATE	BY			

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

I-90
SNOWSHED TO KEECHELUS DAM PHASE 1C - REPLACE SNOWSHED AND ADD LANES

CRYSTAL SPRINGS DRAINAGE PROFILES

Plot 3

PLAN REF. NO.

SHEET OF SHEETS