

RECOMMENDED BY:

FOREST ENGINEER _____ DATE _____

REGIONAL STRUCTURES ENGINEER _____ DATE _____

APPROVED BY:

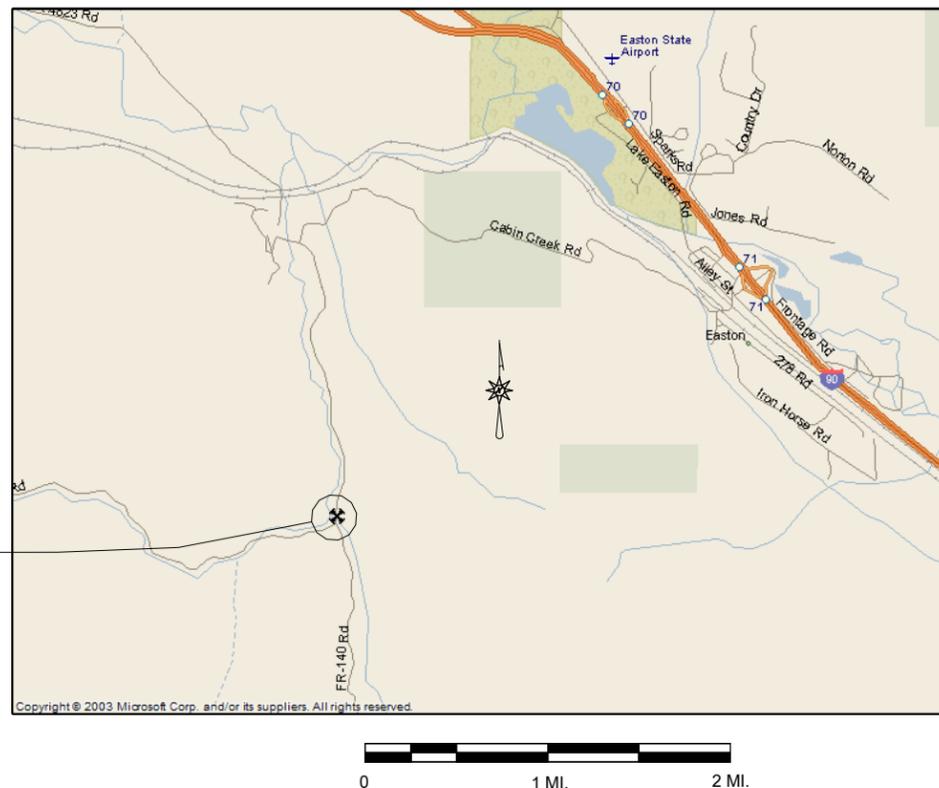
DIRECTOR OF ENGINEERING _____ DATE _____

DISTRICT RANGER _____ DATE _____

**KITTITAS CO CDS
RECEIVED
07/28/2025**

CLE ELUM RANGER DISTRICT OF THE OKANOGAN-WENATCHEE NATIONAL FOREST
CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT

VICINITY MAP



COLE CREEK BRIDGE
PROJECT LOCATION



7-1-25

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PROJECT LOCATION
N 47.21741°
W 121.22186°

GENERAL NOTES:

THIS PROJECT IS TO BE COMPLETED BY AMERICAN FOREST MANAGEMENT (AFM); THE ROAD IS ADMINISTERED BY THE USFS; THE UNDERLYING LANDOWNER IS THE WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW). ALL WORK SHALL BE IN ACCORDANCE WITH APPROVED HPA ISSUED BY WDFW.

USFS WILL SUPPLY THE 14' X 50' BRIDGE AND ABUTMENT SYSTEM, AFM CONTRACTOR SHALL INSTALL THE BRIDGE AS SHOWN IN THE PLANS. THE BRIDGE INSTALLATION AND REVISED ROAD SHALL BE CONSTRUCTED USING "BEST MANAGEMENT PRACTICES" AND IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

BRIDGE IS AN EXISTING USFS STRUCTURE, MANUFACTURED BY ROSCOE STEEL IN 2005. AFM CONTRACTOR SHALL BE RESPONSIBLE FOR LOADING BRIDGE AND ABUTMENTS FROM USFS LOCATION, THEN HAULING AND UNLOADING BRIDGE AND ASSOCIATED MATERIALS TO PROJECT SITE. CONTRACTOR SHALL ALSO MAKE ANY REPAIRS (OR ADDITIONS) TO THE BRIDGE DECK AS NEEDED TO COMPLY WITH SPECIFICATIONS OUTLINED IN THE PLANS.

THE USFS WILL RETAIN OWNERSHIP/CONTROL OF THE BRIDGE AND WILL BE RESPONSIBLE FOR FHWA REPORTING PER SNBI GUIDELINES AND LONG-TERM BRIDGE MAINTENANCE.

CONTRACTOR SHALL HAUL AND PLACE ALL REQUIRED RIP-RAP, BALLAST, SURFACING (1 1/2"-MINUS) AND ALL OTHER MATERIALS AS REQUIRED FOR THE PROJECT. SUCH MATERIAL MAY BE OBTAINED FROM AFM CONTROLLED LANDS OR COMMERCIAL SOURCES. SUCH SOURCES MUST BE DESIGNATED AS "WEED-FREE".

TREES REQUIRED TO BE REMOVED FROM THE RIPARIAN ZONE TO FACILITATE BRIDGE INSTALLATION SHALL BE PLACED IN THE CHANNEL DOWNSTREAM OF THE NEW BRIDGE. LWD (LOGS) SHALL CONTAIN ROOTWADS WHENEVER FEASIBLE.

THE EXISTING CABIN CREEK ROAD SHALL BE BLOCKED TO VEHICULAR ACCESS SIMILAR TO AS SHOWN IN THE PLANS. EXISTING ECO-BLOCKS ADJACENT TO ROAD SHALL BE RELOCATED TO ELIMINATE VEHICULAR ACCESS INTO CABIN CREEK SIMILAR TO AS SHOWN IN THE PLANS.

ALL EXCESS MATERIAL SHALL BE END-HAULED TO A STABLE WASTE SITE AS APPROVED BY THE REQUISITE LANDOWNER(S). ALL DISTURBED SOILS SHALL BE SEEDED AND MULCHED (OR HYDROSEEDING) TO PREVENT SEDIMENT FROM ENTERING THE WATERWAY.

PROJECT DESCRIPTION:

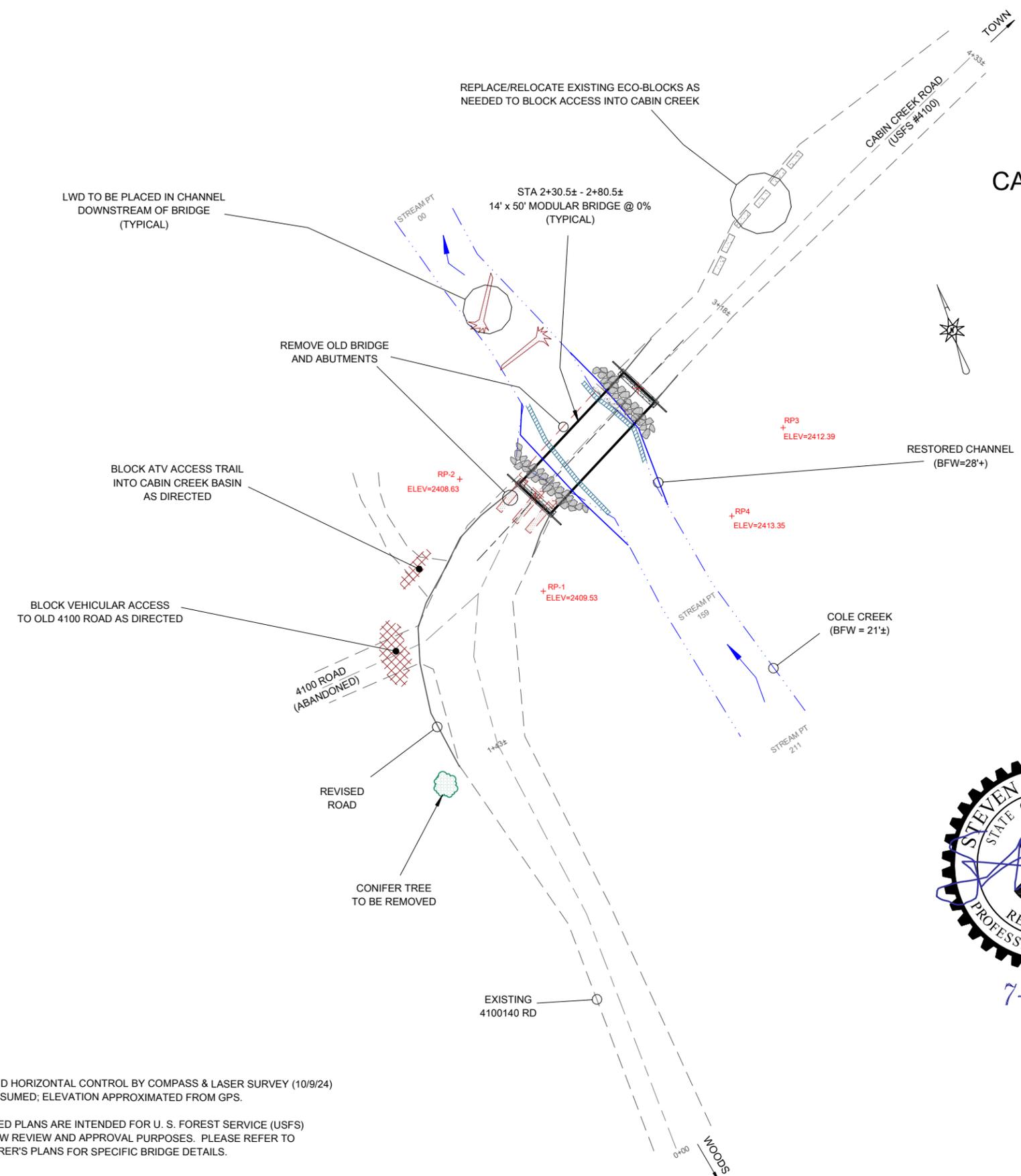
THIS PROJECT IS FOR THE REPLACEMENT OF A FAILED WOODEN BRIDGE WITH A 14' X 50' STEEL BRIDGE WITH FULL-WIDTH (TREATED-TIMBER OR PAVED WITH HOT-MIX-ASPHALT) RUNNING SURFACE.

THE COMPLETED PROJECT WILL PROVIDE VEHICULAR ACCESS ABOVE COLE CREEK ON THE 41 ROAD SYSTEM.

<p>CABIN CREEK ROAD - FOREST ROAD 4100 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7 STRUCTURE # 061703000037206 - PLAN #R34906</p>		
<p>AMERICAN FOREST MANAGEMENT WA DEPT of FISH & WILDLIFE</p>		
DATE MAY 19, 2025	DRAWN PACIFIC FOREST RESOURCES ENUMCLAW, WA	REV 7/1/2025
SCALE 1" = 1 MILE	NE 1/4 NE 1/4 SEC 21, T20N, R13E, W.M., KITTITAS COUNTY, WASHINGTON	SHEET 1 of 7

CLE ELUM RANGER DISTRICT /
 OKANOGAN-WENATCHEE NATIONAL FOREST
 CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT

GENERAL SITE PLAN



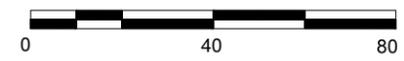
ESTIMATE OF QUANTITIES:

EXCAVATION (BANK-RUN)	300± CY
ROAD FILL (COMPACTED)	150± CY
WASTE (END-HAUL)	90± CY
RIP-RAP (18"±)	30± CY
BASE REINFORCEMENT (12"-)	40± CY
GEOTEXTILE	150± YD
1½"- CRUSHED SURFACING	80± CY
¾" ABUTMENT BEDDING	10± CY
SEED/MULCH	0.2± AC

NOTE: THIS QUANTITY LIST IS INTENDED MERELY AS A TOOL FOR ESTIMATING PURPOSES AND SHOULD NOT BE CONSIDERED EXACT. PROSPECTIVE BIDDERS ARE ENCOURAGED TO VERIFY QUANTITIES.

BRIDGE HANDLING WEIGHTS

STEEL SUPERSTRUCTURE (2 PIECES)	17,700± LBS EACH
PRECAST SILLS (2 PIECE)	9,300± LBS EACH
STEEL BACKWALLS (2 PIECES)	900± LBS EACH



7-1-25

NOTE: VERTICAL AND HORIZONTAL CONTROL BY COMPASS & LASER SURVEY (10/9/24)
 MERIDIAN ASSUMED; ELEVATION APPROXIMATED FROM GPS.

THE ATTACHED PLANS ARE INTENDED FOR U. S. FOREST SERVICE (USFS)
 AND/OR WDFW REVIEW AND APPROVAL PURPOSES. PLEASE REFER TO
 MANUFACTURER'S PLANS FOR SPECIFIC BRIDGE DETAILS.

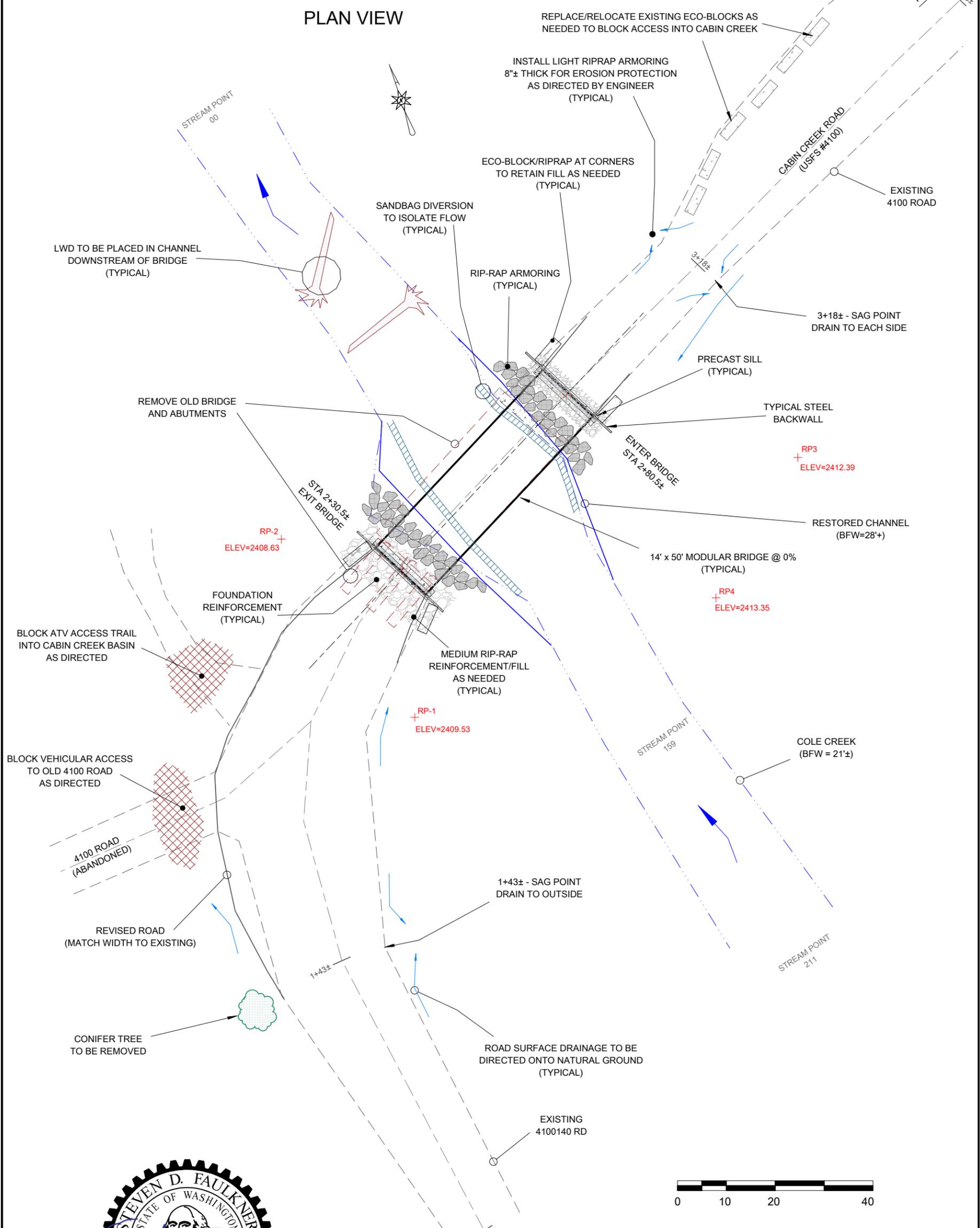
CABIN CREEK ROAD - FOREST ROAD 4100
 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7
 STRUCTURE # 061703000037206 - PLAN #R34906

AMERICAN FOREST MANAGEMENT
 WA DEPT of FISH & WILDLIFE

DATE MAY 19, 2025	DRAWN PACIFIC FOREST RESOURCES ENUMCLAW, WA	REV 7/1/2025
SCALE 1" = 40'	NE½NE½ SEC 21, T20N, R13E, W.M., KITITITAS COUNTY, WASHINGTON	SHEET 2 of 7

**CLE ELUM RANGER DISTRICT /
OKANOGAN-WENATCHEE NATIONAL FOREST
CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT**

PLAN VIEW

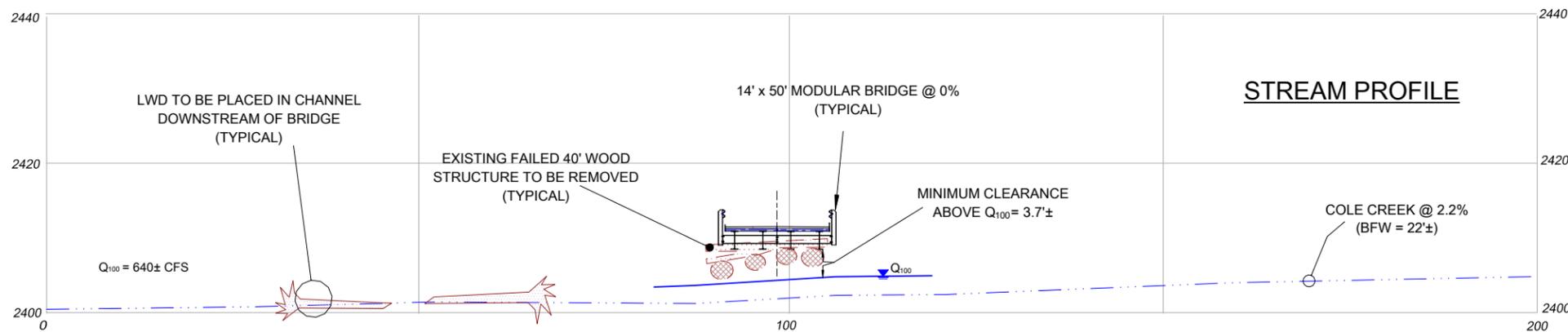
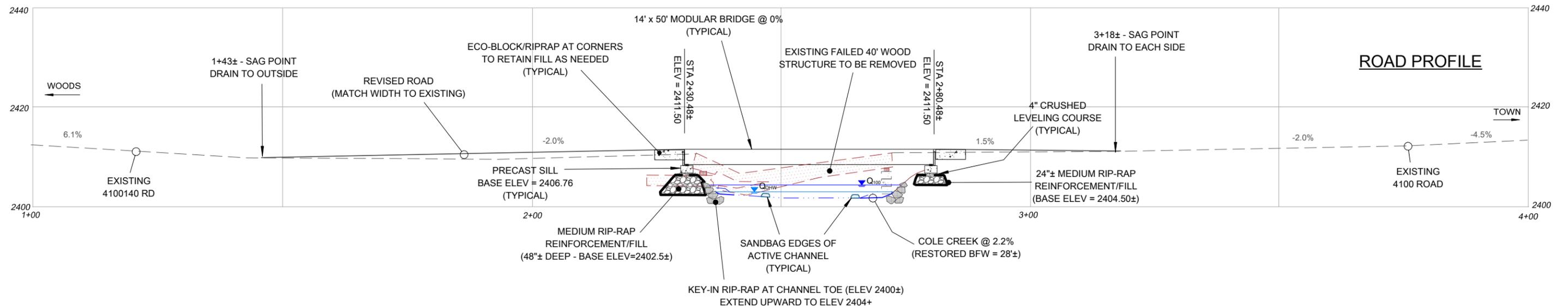


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<p align="center">CABIN CREEK ROAD - FOREST ROAD 4100 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7 STRUCTURE # 061703000037206 - PLAN #R34906</p>			
<p align="center">AMERICAN FOREST MANAGEMENT WA DEPT of FISH & WILDLIFE</p>			
DATE	DRAWN	REV	
MAY 19, 2025	PACIFIC FOREST RESOURCES ENUMCLAW, WA	7/12/2025	
SCALE	SHEET		
1" = 20'	3 of 7		

CLE ELUM RANGER DISTRICT OF THE OKANOGAN-WENATCHEE NATIONAL FOREST CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT

PROFILE VIEWS



7-1-25

GENERAL CONSTRUCTION NOTES

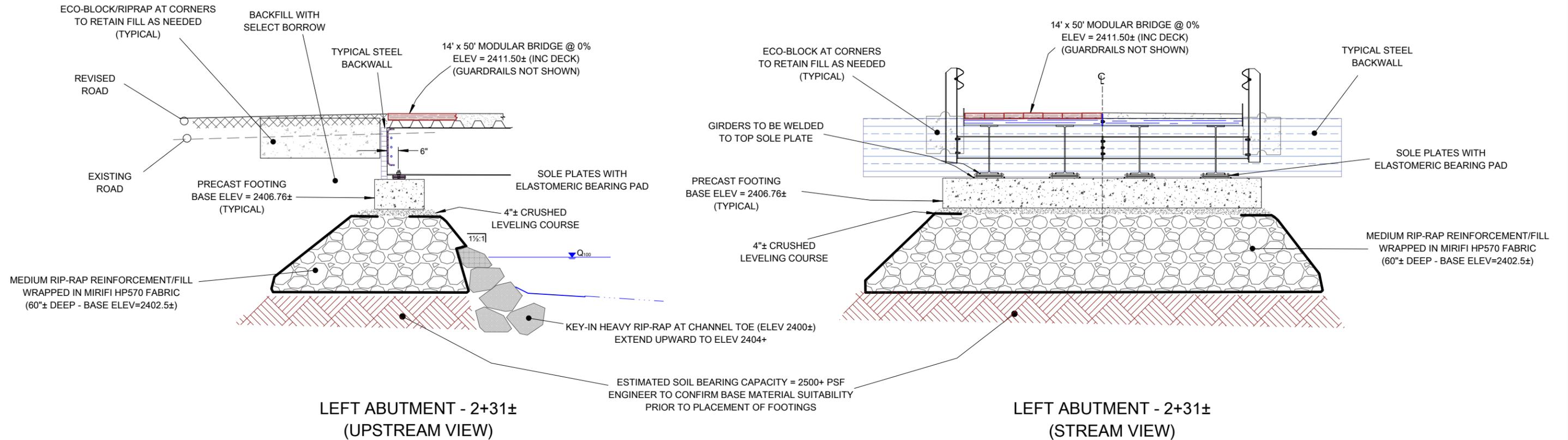
- 1) THE 14' x 50' MODULAR BRIDGE WAS MANUFACTURED BY ROSCOE STEEL AND SHALL HAVE A FULL-WIDTH HARD RUNNING SURFACE (HOT-MIX-ASPHALT OR TREATED TIMBER) WHEN INSTALLED. THE BRIDGE IS TO BE FOUNDED ON PRECAST SILLS SIMILAR TO AS SHOWN. BRIDGE LIVE-LOAD DESIGN IS U-80. GUARDRAILS AND CURBS NOT SHOWN FOR SIMPLICITY. REFER TO SHEETS 5 AND 6 FOR ADDITIONAL ABUTMENT DETAILS.
- 2) ACTIVE STREAMFLOW SHALL BE ISOLATED FROM WORK AREA BY SANDBAG DIVERSION OR AS OTHERWISE ALLOWED BY WDFW AND/OR USFS.
- 3) ROAD WIDTH TO REMAIN AS EXISTING PLUS CURVE-WIDENING AS NEEDED; SURFACE SHALL BE CROWNED AT 2%; FILLSLOPES SHALL NOT EXCEED 1½:1. ROAD DRAINAGE TO BE DIRECTED ONTO NATURAL GROUND. IMPORTED SURFACING TO BE 1½" MINUS CRUSHED MATERIAL FROM COMMERCIAL SOURCE(S).
- 4) LIGHT RIPRAP (8" MINUS) TO BE PLACED ON OUTSIDE EDGE OF ROAD FILL AT SAG POINT (STATION 3+18±) AS DIRECTED BY THE ENGINEER FOR EROSION PROTECTION.
- 5) STREAMBANK RIP-RAP SHALL BE MINIMUM 18-INCH MATERIAL, DESCRIBED AS WSDOT CLASS-A, PER DIVISION 9-13.4(2); RIP-RAP SHALL BE FOUNDED AT LEAST 24-INCHES BELOW CHANNEL BED (ELEV = 2400±) AND EXTEND UPWARD TO AT LEAST ELEVATION 2404.
- 6) ALL WORK SHALL BE IN ACCORDANCE WITH WSDOT CONSTRUCTION STANDARDS AND IN COMPLIANCE WITH WASHINGTON STATE FOREST PRACTICE STANDARDS.
- 7) SOIL CONDITION ASSUMPTION OF 2500+ PSF BENEATH BOTH ABUTMENT FOUNDATIONS SHALL BE CONFIRMED BY PROJECT ENGINEER PRIOR TO PLACEMENT OF GRAVEL BEARING/LEVELING PADS AND/OR FOOTINGS.
- 8) THE STREAM WIDTH UNDER THE BRIDGE SHALL BE RESTORED TO 28± FEET SIMILAR TO AS SHOWN. THE RESTORED CHANNEL BANKS SHALL BE SLOPED AT 1½:1.
- 9) ALL OTHER EXPOSED SOILS TO BE COVERED WITH AT LEAST 2-INCHES OF CERTIFIED, WEED-FREE STRAW MULCHED AND SEEDED WITH GRASS MIX FROM LOCAL SUPPLIERS IN SUCH A MANNER SO AS TO PREVENT DELIVERY OF SEDIMENT TO TYPED WATERS OF THE STATE.
- 10) THE ESTIMATED 100-YEAR FLOW OF 640± CFS IS BASED ON THE USGS REGRESSION FOR UNGAGED STREAMS (1974) PER AGREEMENT WITH WDFW.



CABIN CREEK ROAD - FOREST ROAD 4100 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7 STRUCTURE # 061703000037206 - PLAN #R34906		
AMERICAN FOREST MANAGEMENT WA DEPT of FISH & WILDLIFE		
DATE MAY 19, 2025	DRAWN PACIFIC FOREST RESOURCES ENUMCLAW, WA	REV 7/1/2025
SCALE 1" = 20'	NE½NE½ SEC 21, T20N, R13E, W.M., KITITAS COUNTY, WASHINGTON	SHEET 4 of 7

CLE ELUM RANGER DISTRICT OF THE OKANOGAN-WENATCHEE NATIONAL FOREST
CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT

ABUTMENT INSTALLATION DETAIL



ABUTMENT INSTALLATION NOTES

- 1) RIGHT ABUTMENT (STA 2+80±) IS SIMILAR TO LEFT AS SHOWN; REINFORCEMENT/FILL BASE ELEVATION IS 2404.5±.
- 2) PRECAST SILLS TO BE BEDDED ON APPROXIMATELY 4-INCHES OF FINE, CRUSHED MATERIAL (% MATERIAL RECOMMENDED). SUCH MATERIAL SHALL BE COMPACTED USING MULTIPLE PASSES WITH COMPACTION EQUIPMENT UNTIL THERE A FIRM AND UNYIELDING CONDITION IS ACHIEVED (OR UNLESS OTHERWISE DIRECTED BY THE ENGINEER). CRUSHED BASE MATERIAL SHALL BE SLOPED NO STEEPER THAN 1½:1.
- 3) MATERIAL USED FOR IMPORT DIRECTLY BELOW SILLS SHALL BE MEDIUM RIP-RAP (12-INCH MINUS) PLACE SIMILAR TO AS SHOWN ON PLANS. MATERIAL SHALL BE APPROXIMATELY 60" DEEP (AS NEEDED) AND WRAPPED IN GEOTEXTILE FABRIC (MIRIFI HP570 OR EQUIVALENT). RIP-RAP MATERIAL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT AS ALLOWED BY THE ENGINEER.
- 4) SPECIFIC SOIL CONDITIONS AT BASE OF SILLS SECTION TO BE CONFIRMED BY ENGINEER PRIOR TO PLACEMENT OF SILLS; FOUNDATION REINFORCEMENT OR FILL DEPTH MAY BE REVISED BASED ON ENGINEER'S DISCRETION. SUCH FOUNDATION REINFORCEMENT MATERIAL SHALL CONSIST OF MODERATE RIP-RAP MATERIAL (12"-MINUS).
- 5) BRIDGE BACKFILL SHALL BE SELECT, EXCAVATED ROAD MATERIAL AS APPROVED, PLACED AND COMPACTED IN LIFTS NO GREATER THAN 12-INCHES THICK.
- 6) ECO-BLOCKS (OR LARGE RIP-RAP) TO BE PLACED AT BRIDGE CORNERS SIMILAR TO AS SHOWN IN PLANS TO CONTAIN FILL MATERIAL AS NEEDED.
- 7) BRIDGE GIRDERS TO BE WELDED TO SOLE PLATES, AND SOLE PLATES TO BE WELDED TO PRECAST SILLS; REFER TO MANUFACTURER'S SHOP DRAWINGS FOR ADDITIONAL ASSEMBLY AND CONNECTION DETAILS.
- 8) RESTORED SLOPES DIRECTLY BELOW BRIDGE SHALL NOT EXCEED 1½:1.
- 9) FULL-WIDTH BRIDGE RUNNING SURFACE TO BE HMA OR TREATED TIMBER



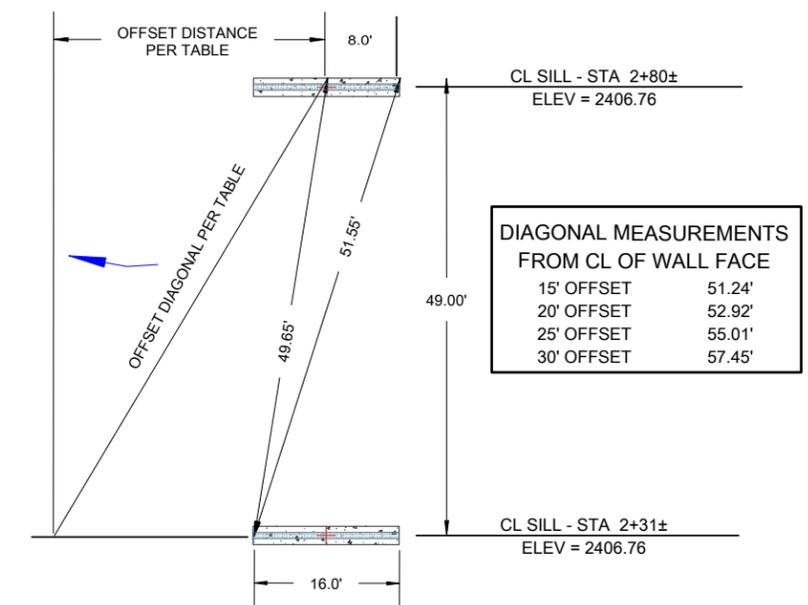
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CABIN CREEK ROAD - FOREST ROAD 4100 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7 STRUCTURE # 061703000037206 - PLAN #R34906		
AMERICAN FOREST MANAGEMENT WA DEPT of FISH & WILDLIFE		
DATE MAY 19, 2025	DRAWN PACIFIC FOREST RESOURCES ENUMCLAW, WA	REV 7/1/2025
SCALE 1" = 5'	NE½NE½ SEC 21, T20N, R13E, W.M., KITITAS COUNTY, WASHINGTON	SHEET 5 of 7

CLE ELUM RANGER DISTRICT /
 OKANOGAN-WENATCHEE NATIONAL FOREST
 CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT

STAKE-OUT DETAILS



PRECAST SILL ALIGNMENT

7-1-25

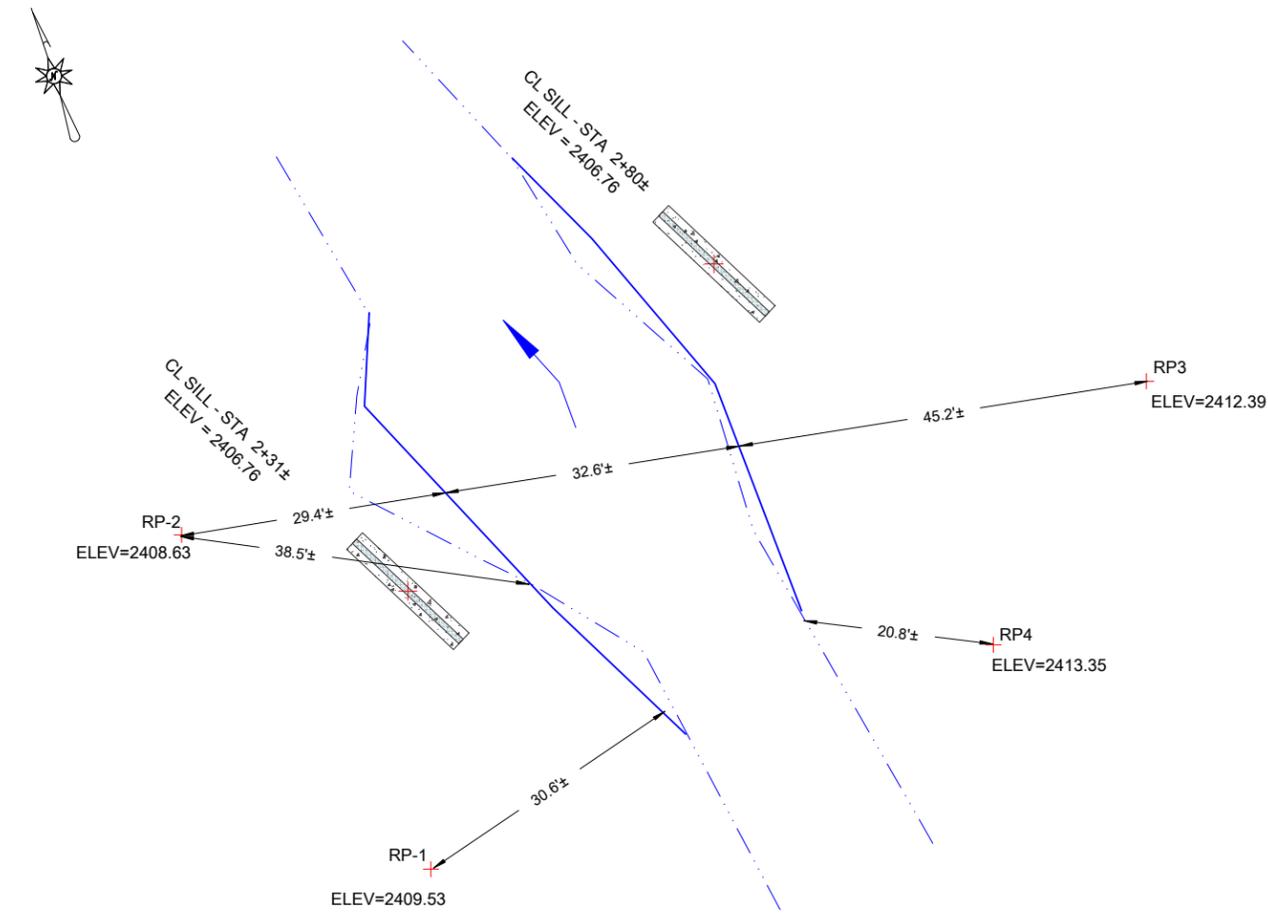


CABIN CREEK ROAD - FOREST ROAD 4100
 COLE CREEK BRIDGE REPLACEMENT M.P. 1.7
 STRUCTURE # 061703000037206 - PLAN #R34906

AMERICAN FOREST MANAGEMENT
 WA DEPT of FISH & WILDLIFE

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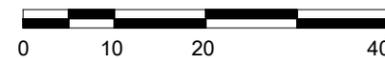
SHEET 6 of 7



ABUTMENT & STREAM STAKE-OUT SKETCH

STAKE-OUT TABLE RP TO CL OF ABUTMENT		
POINT	2+31±	2+80±
RP-1	30.48'	73.03'
RP-2	25.53'	65.38'
RP-3	84.05'	49.06'
RP-4	64.39'	51.66'

NOTE: ALL DIMENSIONS ARE HORIZONTAL.



**CLE ELUM RANGER DISTRICT OF THE OKANOGAN-WENATCHEE NATIONAL FOREST
CABIN CREEK ROAD - COLE CREEK BRIDGE REPLACEMENT
BRIDGE GENERAL NOTES**

GENERAL NOTES

BRIDGE OWNERSHIP / RESPONSIBILITIES: THE BRIDGE STRUCTURE IS BEING FURNISHED BY THE USFS AND WILL REMAIN UNDER USFS OWNERSHIP/CONTROL. USFS WILL BE RESPONSIBLE FOR FHWA REPORTING PER SNBI GUIDELINES AND LONG-TERM BRIDGE MAINTENANCE.

TIMING RESTRICTIONS: IN-STREAM WORK ASSOCIATED WITH THIS PROJECT WILL BE COMPLETED BETWEEN JULY 1 AND SEPTEMBER 30, UNLESS MODIFIED BY WDFW AND/OR USFS.

BRIDGE & ABUTMENT SPECIFICATIONS

DESIGN: STRUCTURE WAS ORIGINALLY DESIGNED BASED ON AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, 2002 (AND ALL INTERIM SPECIFICATIONS). BRIDGE STRUCTURAL PLANS FROM ROSCOE STEEL-MUTH ENGINEERING ARE INCLUDED WITH THIS PLAN SET AS SHEETS S1-S5.

STEEL FABRICATION: STRUCTURE IS EXISTING USFS BRIDGE, MANUFACTURED BY ROSCOE STEEL & CULVERT. MANUFACTURER WAS AISC CERTIFIED IN THE MAJOR STEEL BRIDGE CATEGORY (OR IBR); WELDING IN ACCORDANCE WITH AWS D1.5, SUITABLE FOR THE GRADE OF STEEL AND INTENDED USE.

CURB/GUARDRAIL: FABRICATOR DESIGNED RAIL IN ACCORDANCE WITH STANDARD PRACTICES AT TIME OF MANUFACTURE. RAIL SYSTEM DOES NOT NEED TO BE CRASH TESTED NOR CONSIDERED TO MEET CRASH TESTING REQUIREMENTS.

RUNNING SURFACE: THE BRIDGE STRUCTURE SHALL HAVE A FULL-WIDTH RUNNING SURFACE. SURFACE SHALL BE TREATED-TIMBER RUNNING OR PAVED WITH HOT-MIX-ASPHALT (HMA) PER USFS SPECIFICATIONS.

PRECAST SILLS (ABUTMENTS): STANDARD PRECAST SILLS ARE INCLUDED WITH BRIDGE MATERIALS.

BRIDGE DELINEATORS: DELINEATORS SHALL BE INSTALLED AT ALL BRIDGE ENTRANCE CORNERS AND SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TYPE III OBJECT MARKER.

DESIGN LOADS

DEAD LOADS: CONCRETE AT 150 PCF, STEEL AT 490 PCF, EARTH PRESSURE AT AN EQUIVALENT FLUID WEIGHT OF 36 PCF, EARTH AT 120 PCF, AGGREGATE SURFACING AT 120 PCF.

LIVE LOAD: THE DESIGNED LIVE LOAD IS PER AASHTO U-80 (GVW 80 TONS) AS SHOWN ON ATTACHED ROSCOE-MUTH PLANS AS SHEETS S1-S5.

MATERIALS

MATERIAL SPECIFICATIONS ARE AS DESCRIBED IN THE ATTACHED ROSCOE-MUTH PLANS (SHEETS S1-S5).

OTHER

FOUNDATION INVESTIGATION: NO FORMAL SOIL INVESTIGATION HAS BEEN COMPLETED. A CONSERVATIVE ESTIMATE OF 2.5 KSF HAS BEEN MADE BASED ON THE PREMISE THAT BECAUSE THE FOUNDATION IS AN OLD (40+ YEARS) ROADBED, LONG TERM USE AND COMPACTION WILL PROVIDE A MORE THAN ADEQUATE BASE. IN ADDITION, SOIL CONDITION ASSUMPTIONS BENEATH BOTH ABUTMENT FOUNDATIONS SHALL BE CONFIRMED BY PROJECT ENGINEER PRIOR TO PLACEMENT OF FOOTINGS.

HYDROLOGY AND HYDRAULICS: THIS BRIDGE IS DESIGNED TO PASS A TOTAL FLOW OF 640± CFS WHILE MAINTAINING AT LEAST 3 FEET OF FREEBOARD. 100-YEAR FLOOD IS BASED ON THE USGS "MAGNITUDE AND FREQUENCY OF FLOODS IN WASHINGTON, 1974" PER AGREEMENT WITH WASHINGTON DEPARTMENT OF FISH & WILDLIFE (WDFW). THIS WAS THE MOST CONSERVATIVE MODELING PROGRAM, ALL OTHER USGS PROGRAMS (I.E., STREAMSTATS) PRODUCED UNRELIABLE RESULTS.

CONSTRUCTION SPECIFICATIONS: ALL WORK SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND IN COMPLIANCE WITH WASHINGTON STATE FOREST PRACTICE STANDARDS (BOARD MANUAL).

STREAM / BANK & EROSION PROTECTION

STREAM WIDTH: THE ESTIMATED NATURAL CHANNEL WIDTH IS APPROXIMATELY 21-FEET AS DETERMINED BY THE OWNER (WDFW) DURING AN ON-SITE EVALUATION. THE REVISED CHANNEL SHALL HAVE A 28± FOOT WIDTH UNDER THE BRIDGE AS SHOWN ON THE PLANS.

STREAM & BANK PROTECTION/STABILIZATION: STREAMFLOW WILL BE ISOLATED FROM ACTIVE WORK AREA THROUGH SANDBAG PROTECTION/DIVERSION SIMILARLY TO AS SHOWN IN THE PLANS. CONTRACTOR SHALL RETAIN AS MANY OF THE EXISTING CONIFER TREES ALONG THE STREAMBANKS AND SLOPES AS POSSIBLE TO ENHANCE BANK/SLOPE STABILITY. MATERIAL USED FOR BANK PROTECTION WILL BE CLASS-A RIP-RAP (AT LEAST 18-INCHES IN SIZE) PER WSDOT 9-13.4(2), OR AS OTHERWISE APPROVED BY THE ENGINEER. RIP-RAP SHALL BE FOUNDED AT LEAST 24-INCHES BELOW STREAMBED ELEVATION AND SHALL EXTEND TO AT LEAST ELEVATION 2404.

EROSION PROTECTION: ALL NECESSARY MEASURES WILL BE TAKEN THROUGHOUT ALL PHASES OF THIS PROJECT TO MINIMIZE DELIVERY OF SILT TO THE STREAM. DISTURBANCE OF THE STREAMBED AND BANKS WILL BE LIMITED TO THAT NECESSARY TO FACILITATE THE CHANNEL MODIFICATION AS SHOWN IN THE PLANS. ALL EXPOSED OR DISTURBED AREAS WITH THE POTENTIAL TO DELIVER SEDIMENT TO THE STREAM OR ANY OTHER WATERS WILL BE PROTECTED FROM EROSION WITH A CERTIFIED WEED-FREE GRASS SEED OBTAINED FROM LOCAL SUPPLIERS AND AT LEAST 2-INCHES OF CERTIFIED WEED-FREE STRAW MULCH IMMEDIATELY UPON COMPLETION OF THE PROJECT.

WASTE EXCAVATION: EXCAVATED MATERIAL WILL BE END-HAULED TO THE STOCKPILE/DISPOSAL SITE AS OUTLINED IN THE CONTRACT DOCUMENTS AND PLACED IN A MANNER WHERE SEDIMENT CANNOT ENTER ANY WATERWAY.

BRIDGE REMOVAL: THE EXISTING BRIDGE SHALL BE REMOVED AND ALL TREATED MATERIALS HAULED TO AN ACCEPTABLE DISPOSAL SITE. UNTREATED LOG STRINGERS MAY BE INTRODUCED AS LWD DOWNSTREAM OF THE BRIDGE AS ALLOWED BY THE WDFW BASED ON CONDITION.

LARGE WOODY DEBRIS: ANY CONIFER TREES REMOVED TO FACILITATE BRIDGE INSTALLATION SHALL BE REINTRODUCED INTO COLE CREEK IMMEDIATELY DOWNSTREAM OF THE BRIDGE SIMILAR TO AS SHOWN IN THE PLANS. SUCH TREES/LWD SHALL INCLUDE ROOTWADS WHERE FEASIBLE.

ABUTMENT BEARING PADS/LEVELING COURSE

LEVELING COURSE: APPROXIMATELY 4-INCHES OF CRUSHED MATERIAL (RECOMMENDED 5/8" MINUS) SHALL BE PLACED UNDER THE ABUTMENT FOOTING/PADS SIMILAR TO AS SHOWN ON THE PLANS. SUCH MATERIAL SHALL BE SLOPED NO STEEPER THAN 1½:1.

ROAD SURFACING: IMPORTED SURFACING MATERIAL REQUIRED FOR REVISED ROADWAY SHALL BE 1¼" MINUS CRUSHED AGGREGATE OBTAINED FROM COMMERCIAL SOURCE(S).

BASE FILL/IMPORT: MATERIAL USED AS IMPORT OR REINFORCEMENT UNDER FOOTINGS FOOTING ELEVATION AS NEEDED SHALL BE MEDIUM RIP-RAP MATERIAL (12"-MINUS) OBTAINED FROM A CERTIFIED WEED-FREE SOURCE(S). SUCH MATERIAL SHALL BE SLOPED NO STEEPER THAN 1½:1 AND WRAPPED IN GEOTEXTILE FABRIC (MIRIFI HP570 OR EQUIVALENT). RIP-RAP MATERIAL SHALL BE COMPACTED WITH EXCAVATION EQUIPMENT AS ALLOWED BY THE ENGINEER.

FOUNDATION REINFORCEMENT: LEFT ABUTMENT REQUIRES ADDITIONAL FILL/REINFORCEMENT MATERIAL (DUE TO REMOVAL OF LOG CRIB) SIMILARLY TO AS SHOWN IN THE PLANS. RIGHT ABUTMENT IS NOT EXPECTED TO REQUIRE SUCH ADDITIONAL MATERIAL. IN ANY EVENT, REINFORCEMENT/FILL DEPTH MAY BE REVISED AT ENGINEER'S DISCRETION BASED ON ACTUAL SITE CONDITIONS ENCOUNTERED.



7-1-25

**CABIN CREEK ROAD - FOREST ROAD 4100
COLE CREEK BRIDGE REPLACEMENT M.P. 1.7
STRUCTURE # 061703000037206 - PLAN #R34906**

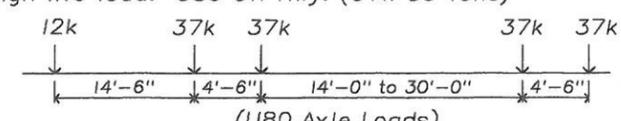
**AMERICAN FOREST MANAGEMENT
WA DEPT of FISH & WILDLIFE**

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SCALE N/A	NE½NE¼ SEC 21, T20N, R13E, W.M., KITITAS COUNTY, WASHINGTON	SHEET 7 of 7

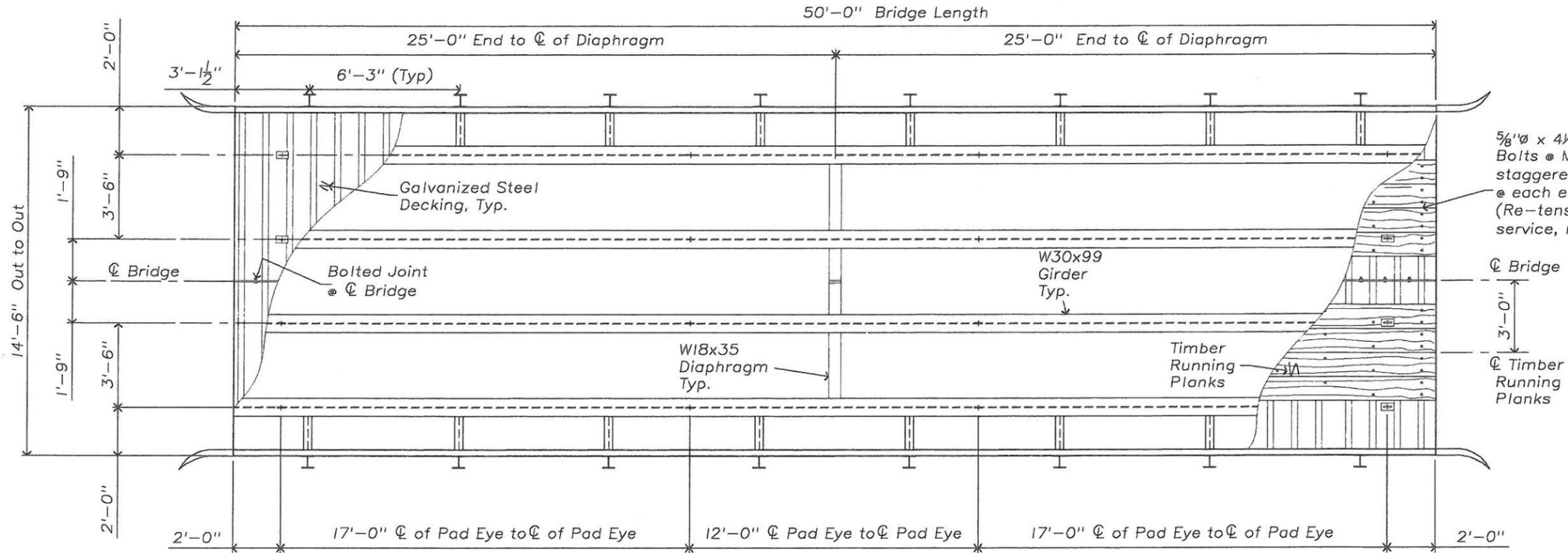
GENERAL NOTES

- 1) All structural steel shapes and plates shall conform to the requirements of AASHTO M270 Grade 50W. (A588 Weathering Steel) Unless noted otherwise.
- 2) Steel decking shall be 4.25" deep by 12" lay length by 9 gauge "Type A" rolled formed galvanized corrugated steel conforming to ASTM A609 Grade 50. Steel decking shall be installed perpendicular to the direction of the supporting girders.
- 3) All structural steel connections shall be made with high strength bolts and washer conforming to AASHTO M164 (ASTM A325 Type 3).
- 4) Certified Mill Test Reports shall be furnished for the steel stringers, structural steel plates and shapes, steel bridge decking, high strength bolts, elastomeric pads and anchor bolts.
- 5) All Welding shall be in accordance with AWS D1.5. All electrodes shall be E70XX.
- 6) Elastomeric Pads shall be 50 Durometer.
- 7) Exterior Surfaces shall be cleaned per SSPC SP7 prior to shipment to assure uniform weathering.
- 8) Timber running planks shall be 3" x 12" Douglas Fir No. 2 or better.

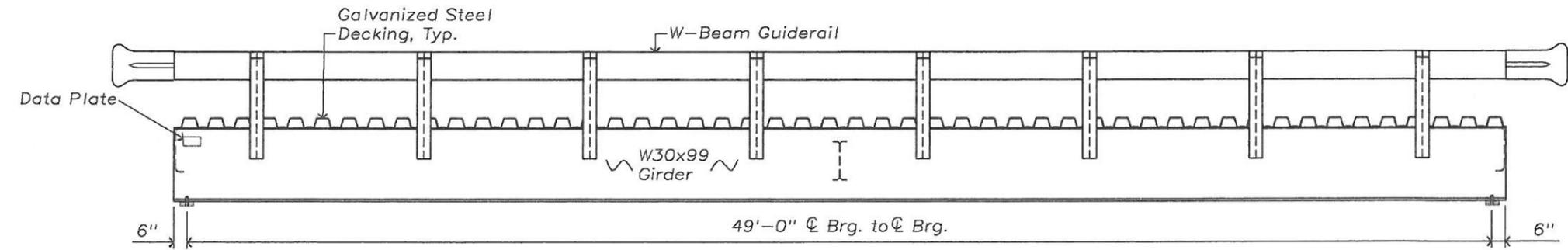
DESIGN NOTES

- 1) Design live load: U80 Off Hwy. (GVW 80 Tons)


(U80 Axle Loads)
- 2) Design is based on AASHTO Standard Specifications for Highway Bridges 17th Edition, 2002 and all interim Specifications.
- 3) Live Load Deflection at Midspan is $1.18'' = L/500$
- 4) Bridge Weight: Approx. 17.70 Tons.
 Approx. 8.85 Tons per Module
 (Bridge Weight Does Not Include Wearing Surface)



PLAN
Scale: 3/16" = 1'-0"



ELEVATION
Scale: 3/16" = 1'-0"

5/8"Ø x 4 1/2" A307 Galv. Carriage Bolts @ Max. 2'-0" o/c, staggered, w/ (2) Carriage Bolts @ each end of a Timber. (Re-tension after 3 months of service, recommended)

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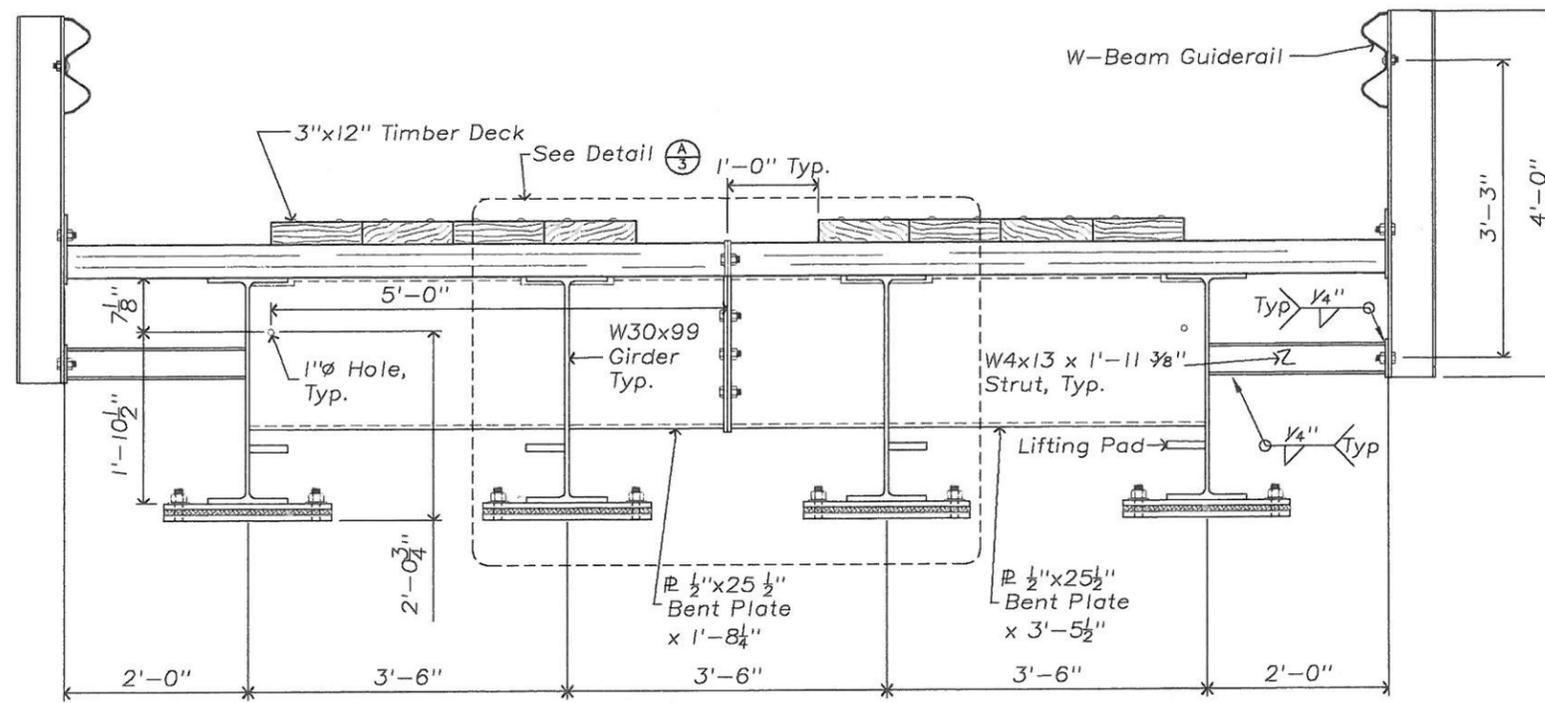


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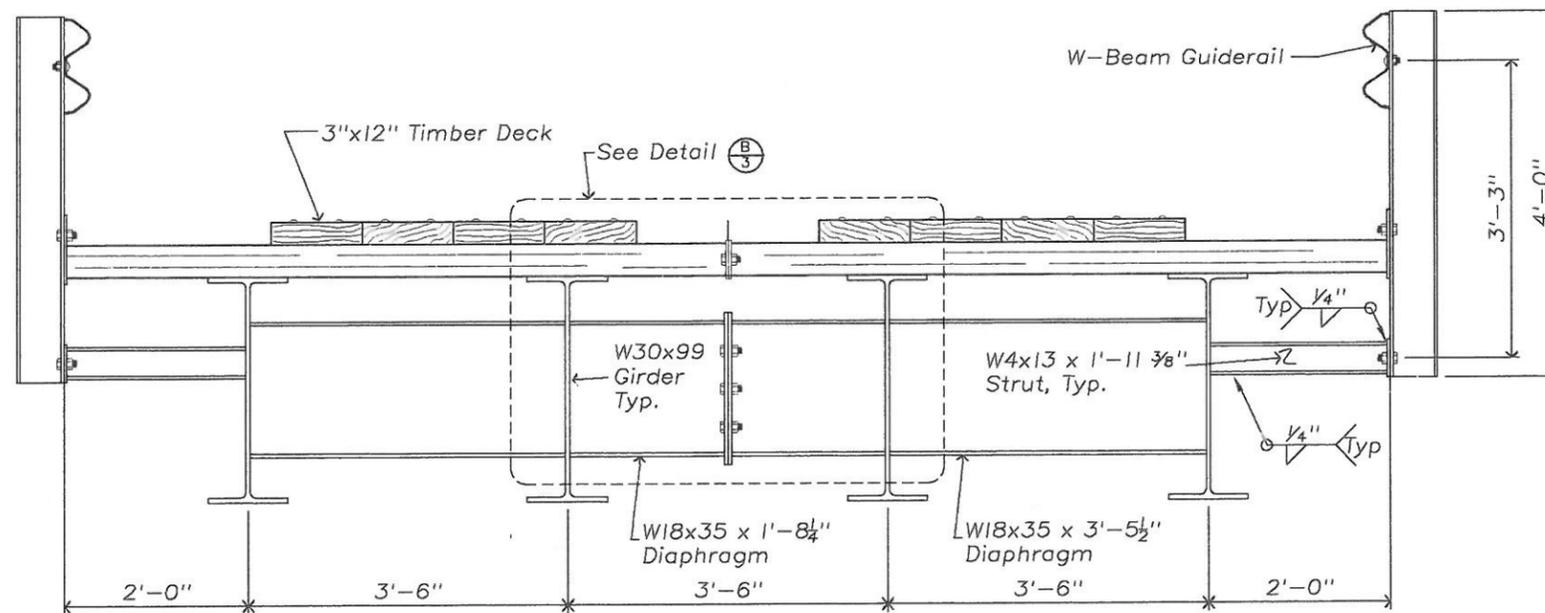
△ Date	Revised
△ Date	Revised
ROSCOE-MUTH MODULAR 50'-0" Length x 14'-0" Width Plum Creek Roslyn, WA	

Engineers' Project No. : 05-M-113	Sheet 1 of 5
Designed : BDW	Sheet Title : GENERAL LAYOUT
Drawn : FBP	
Checked : FRM	
Approved :	

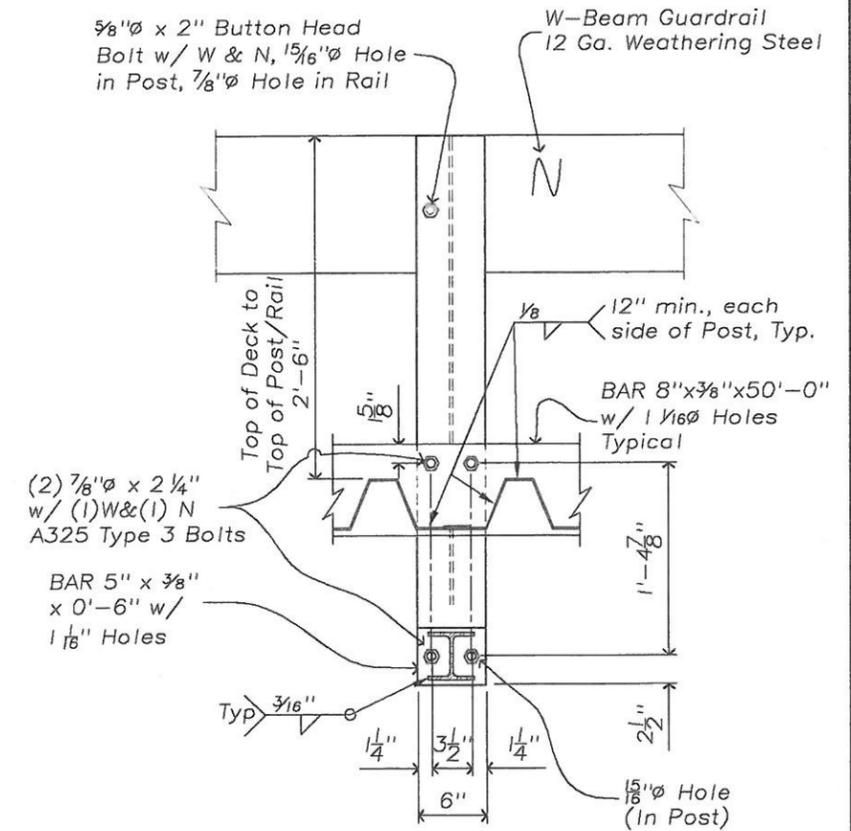
Plot Date: 11/11/2005



END SECTION
Scale: 1/2" = 1'-0"



MIDSPAN SECTION
Scale: 1/2" = 1'-0"



SECTION 1
Scale: 3/4" = 1'-0"

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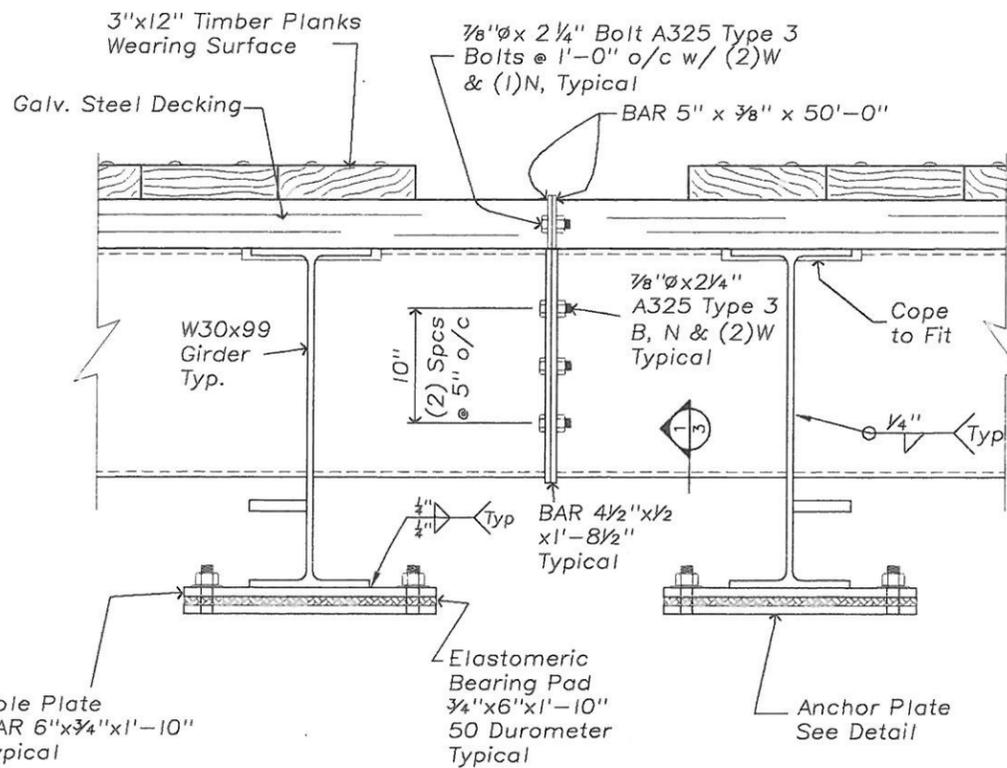
ROSCOE-MUTH MODULAR
50'-0" Length x 14'-0" Width
Plum Creek
Roslyn, WA

Engineers' Project No. : 05-M-113 Sheet 2 of 5
Designed : BDW
Drawn : FFB
Checked : FRM
Approved : _____
Sheet Title : SECTIONS



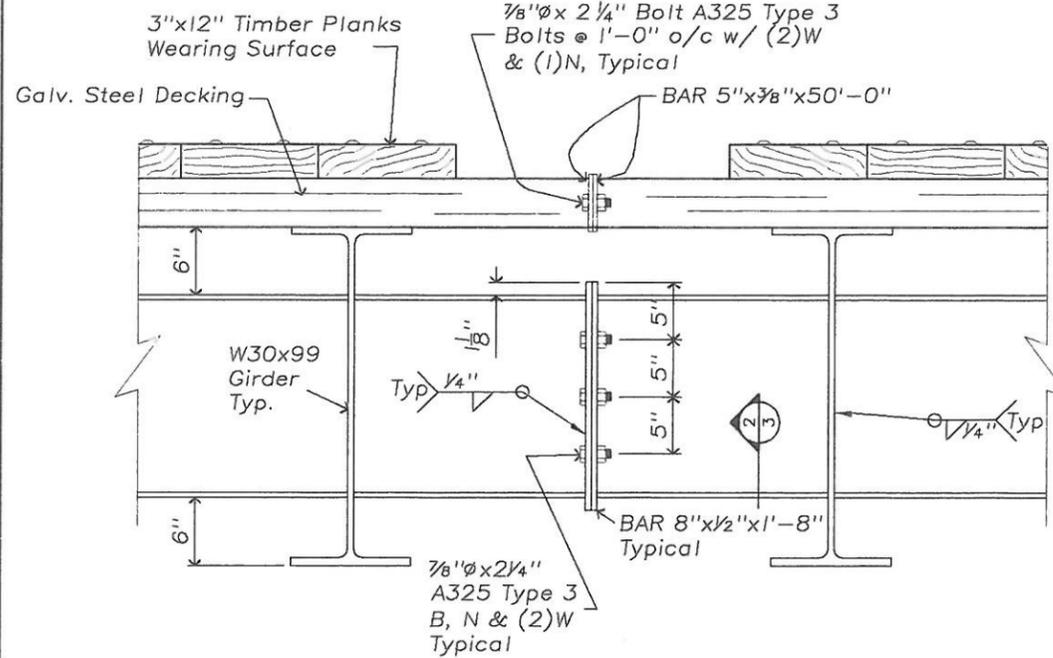
S/N 50MB14U80-61023-04

Plot Date: 1/11/2005



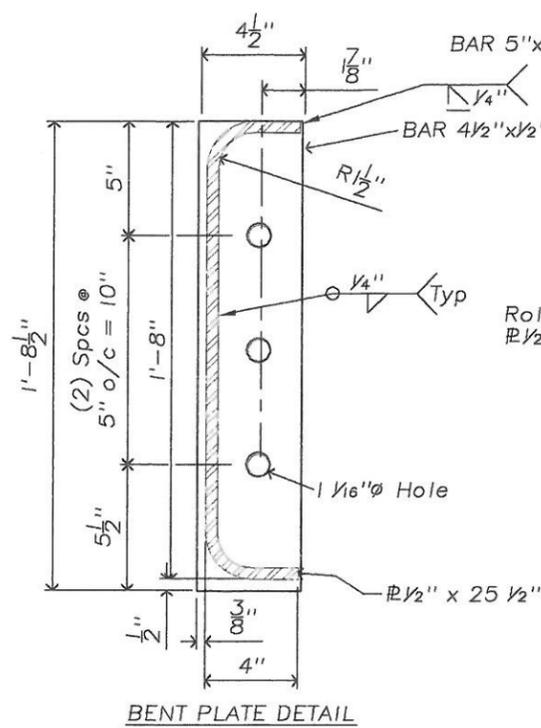
Note: All deck, railing and diaphragm connections shall utilize 1/16" oversized holes

(A) DETAIL 3 End Diaphragm
Scale: 3/4" = 1'-0"

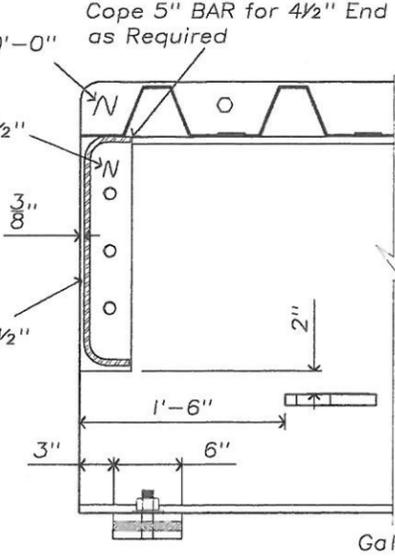


Note: All deck, railing and diaphragm connections shall utilize 1/16" oversized holes

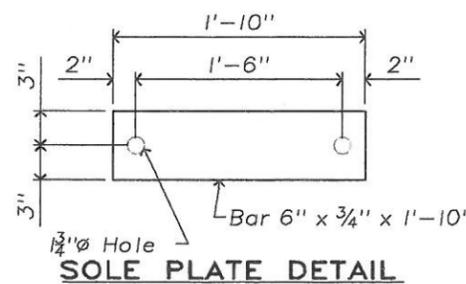
(B) DETAIL 3 Midspan Diaphragm
Scale: 3/4" = 1'-0"



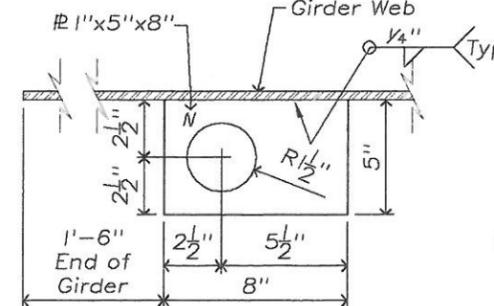
BENT PLATE DETAIL



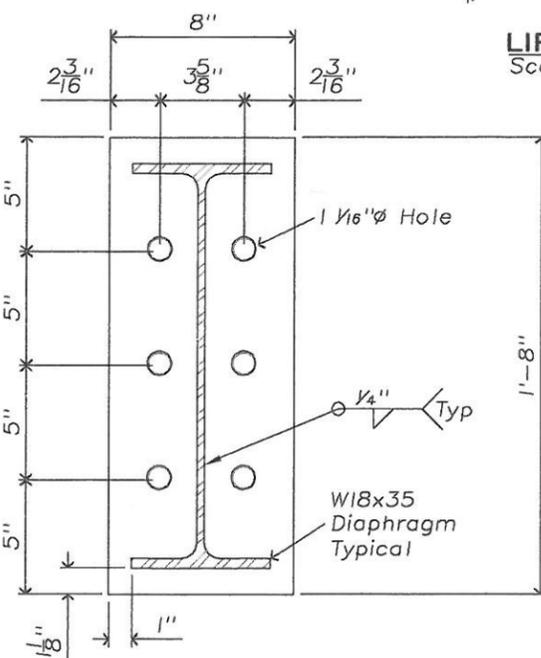
(1) SECTION 3
Scale: 3/4" = 1'-0"



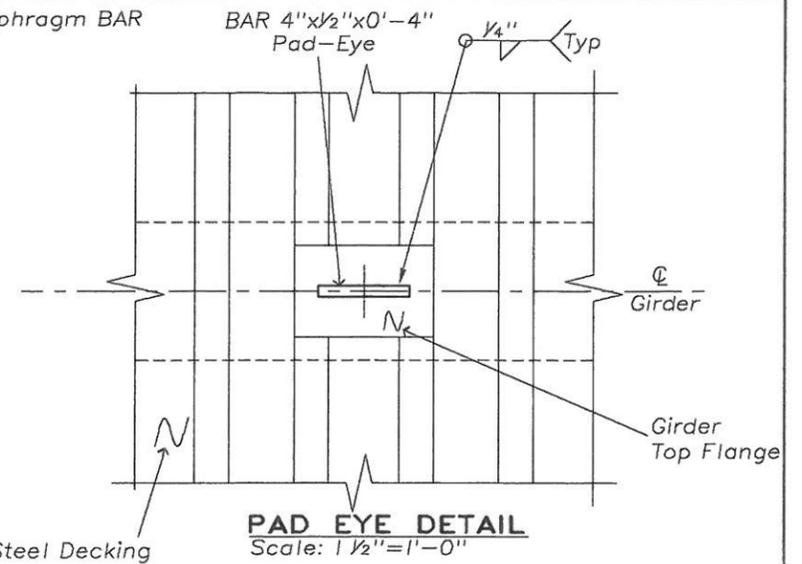
SOLE PLATE DETAIL



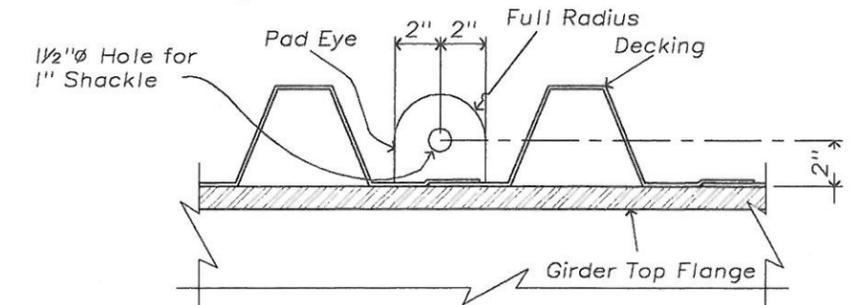
LIFTING PAD DETAIL
Scale: 1 1/2" = 1'-0"



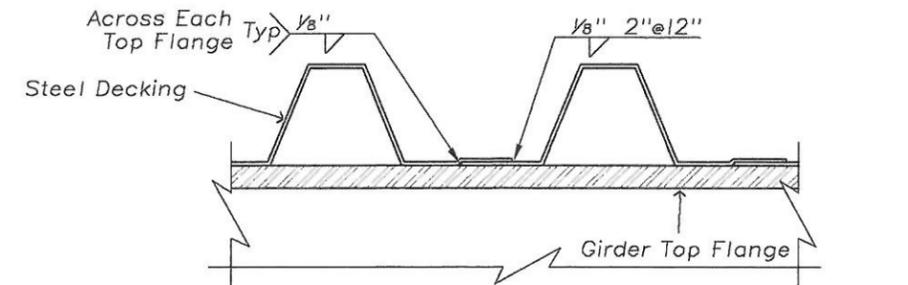
(2) SECTION 3
Scale: 1 1/2" = 1'-0"



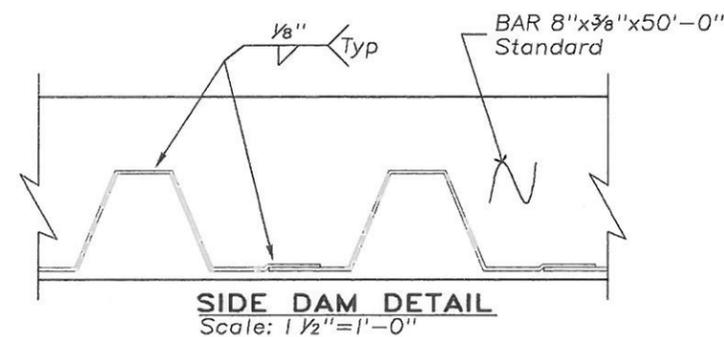
PAD EYE DETAIL
Scale: 1 1/2" = 1'-0"



PAD-EYE DETAIL
Scale: 1 1/2" = 1'-0"



TOP SECTION - Decking to Girder Conn.
Scale: 1 1/2" = 1'-0"



SIDE DAM DETAIL
Scale: 1 1/2" = 1'-0"

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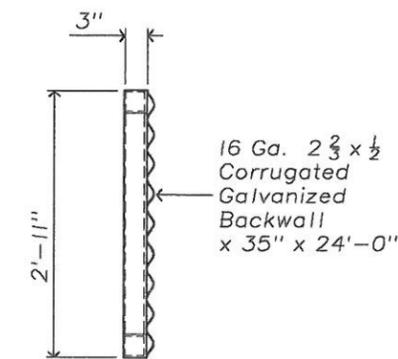
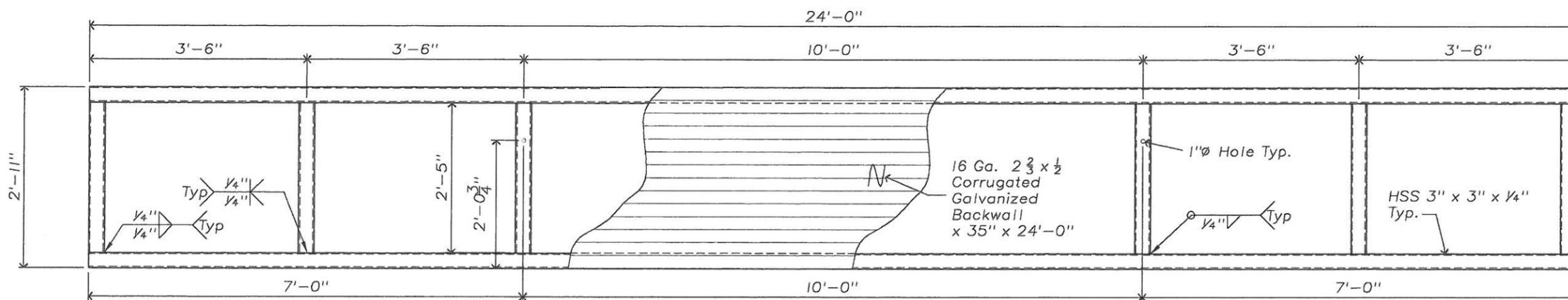
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ROSCOE-MUTH MODULAR
50'-0" Length x 14'-0" Width
Plum Creek
Roslyn, WA

Engineers' Project No. : 05-M-113
Designed : BDW
Drawn : FBP
Checked : FRM
Approved : _____
Sheet Title :
DETAILS
Sheet 3 of 5





BACKWALL ELEVATION

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

SECTION
Scale: 1/2" = 1'-0"

Plot Date: 11/11/2005

S/N 50MB14U80-61023-04

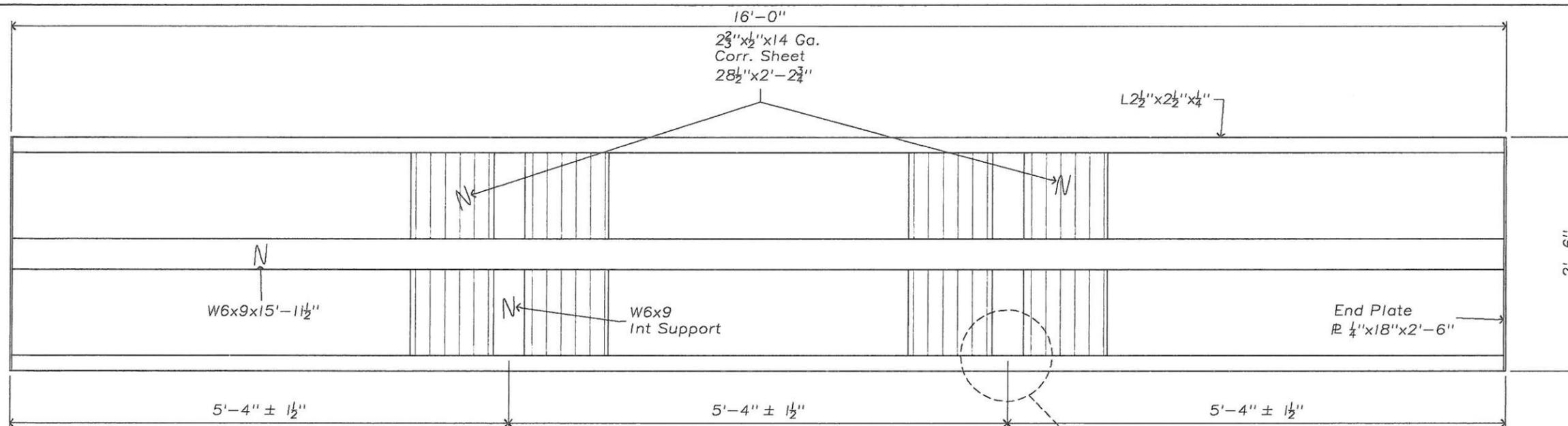
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△ Date _____ Revised _____

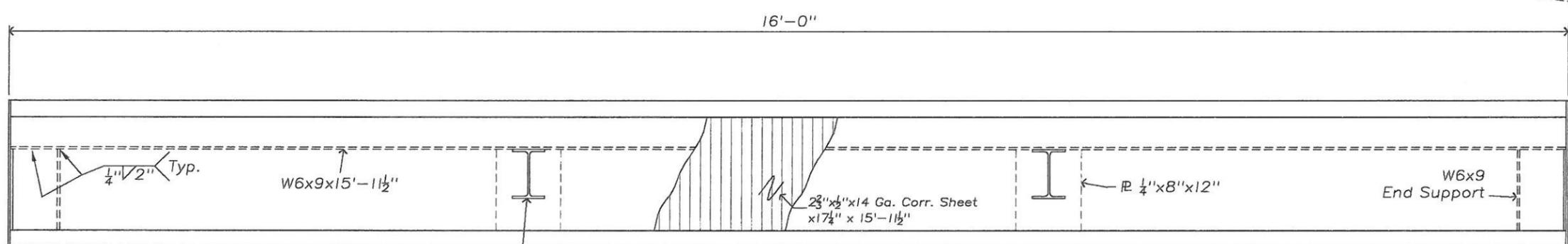
ROSCOE-MUTH MODULAR
50'-0" Length x 14'-0" Width
Plum Creek
Roslyn, WA



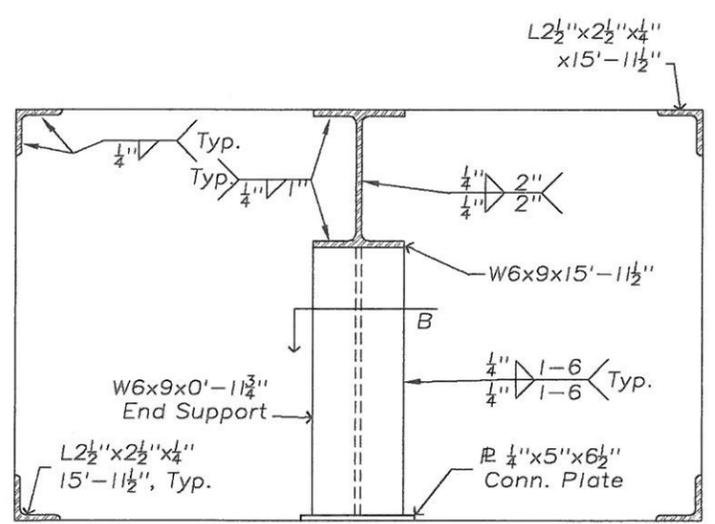
Engineers' Project No. : 05-M-113 Sheet 4 of 5
Designed : BDW
Drawn : FRM
Checked : FRM
Approved : _____
Sheet Title : CORRUGATED STEEL BACKWALL



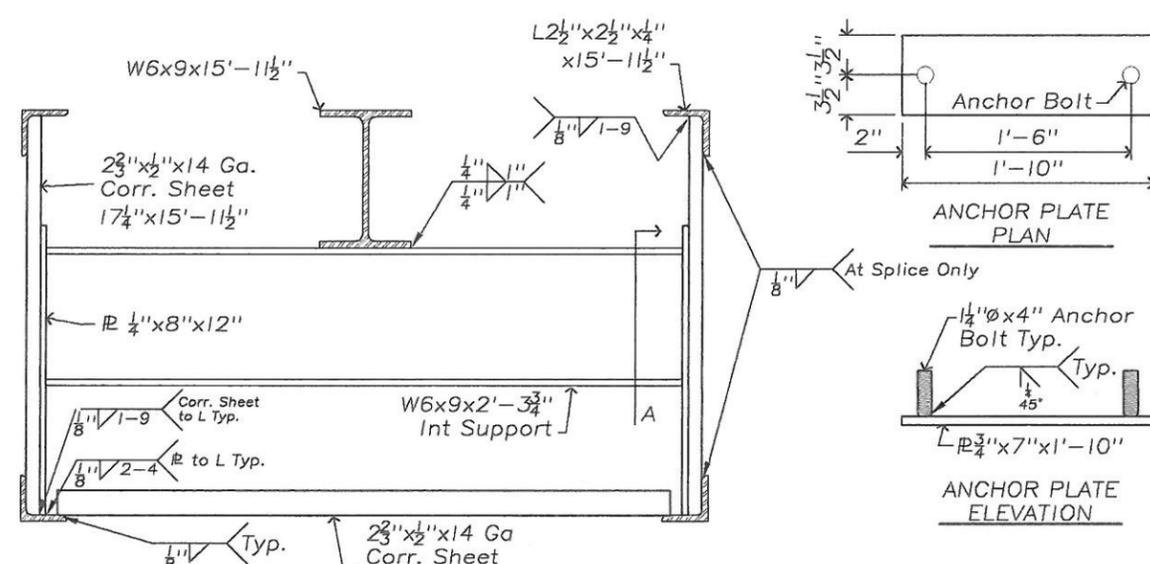
PLAN
Scale: 1/2"=1'-0"



ELEVATION
Scale: 1/2"=1'-0"

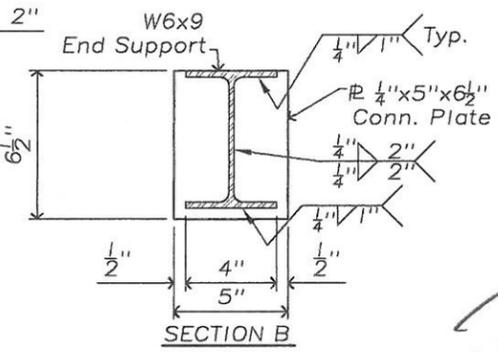
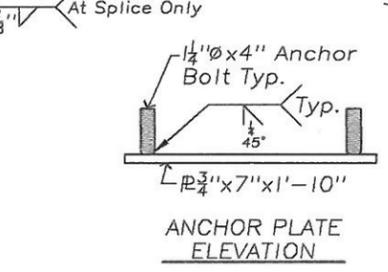
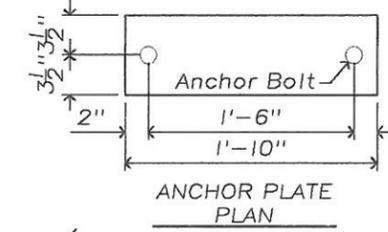
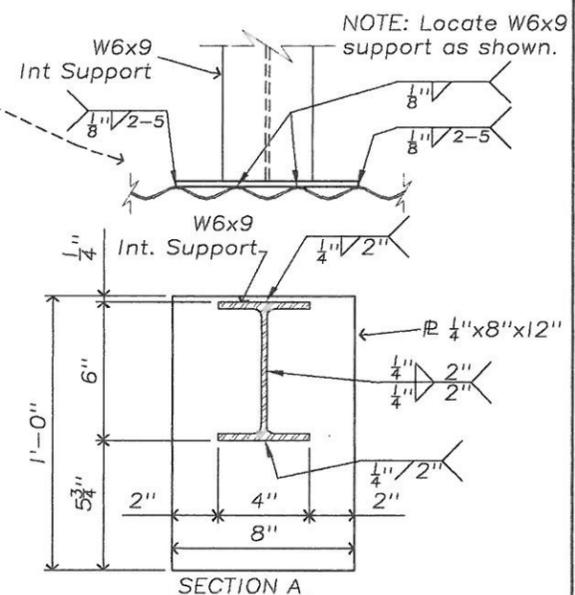


END SECTION
Scale: 1 1/2"=1'-0"



MID SECTION
Scale: 1 1/2"=1'-0"

MATERIAL LIST			
ITM	QTY.	DESC.	WEIGHT
W6x9			
1		15'-11 1/2"	143.5 lb
2		0'-11 3/4"	18.0 lb
2		2'-3 3/4"	42.0 lb
L 2 1/2" x 2 1/2" x 1/4"			
4		15'-11 1/2"	261.5 lb
R 1/4"			
2		1'-6" x 2'-6"	76.6 lb
2		5" x 6 1/2"	5.0 lb
4		8" x 12"	20.5 lb
R 3/4"			
4		7" x 1'-10"	131.0 lb
2 3/8" x 1/2" x 14 Ga. Corr. Sheet			
2		1'-5 1/4" x 15'-11 1/2"	151.5 lb
2		28 1/2" x 2'-3 3/4"	36.5 lb
1/4" dia x 4" Anchor Bolt			
8		1/4" dia x 4"	
TOTAL WEIGHT			886.1 lb



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Sheet Title :
SUPER SILL DETAILS

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