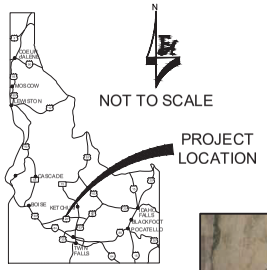
LEADING IDAHO LOCAL BRIDGE PROGRAM

200 S ROAD OVER CAMAS CREEK
CAMAS COUNTY, IDAHO
BRIDGE KEY NUMBER 23801



VICINITY MAP

SHEET INDEX

ADT: 45
DESIGN SPEED: 30 MPH

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

COVER SHEET

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 1 OF 47

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_COVER SHEET & NOTES.dwg - ---- - 3/23/2026 6:21 PM

GENERAL NOTES

1. ALL WORK TO CONFORM TO THE 2023 EDITION, 2025 SUPPLEMENTAL SPECIFICATIONS, OF THE IDAHO TRANSPORTATION DEPARTMENT SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND MODIFIED SPECIAL PROVISIONS. THE CONTRACTOR TO HAVE SET OF PRINTED ITD SPECIFICATIONS ONSITE FOR REFERENCE DURING CONSTRUCTION AT ALL TIMES.
2. IF THERE ARE CONTRADICTIONS BETWEEN THE CODES AND STANDARDS, THE MOST STRINGENT REQUIREMENTS TO GOVERN.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE STARTING WORK AND TO IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES.
4. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
5. DRAWINGS INDICATE THE FINISHED PRODUCT. THEY DO NOT INDICATE A METHOD OF CONSTRUCTION. CONTRACTOR TO TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH PRECAUTIONS TO INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, ETC.
6. TEMPORARY SHORING AND BRACING TO BE PROVIDED WHEREVER NECESSARY TO TAKE CARE OF ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED INCLUDING WIND. SUCH BRACING TO BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY OR UNTIL ALL THE STRUCTURAL ELEMENTS ARE COMPLETE. WHERE SHORING IS REQUIRED, A SHORING PLAN SHALL BE SUBMITTED TO THE ENGINEER. EACH SHORING PLAN TO BE PREPARED AND STAMPED BY AN ENGINEER LICENSED IN THE STATE OF THIS PROJECT.
7. OBSERVATION VISITS TO THE JOB SITE BY A FIELD REPRESENTATIVE OF THE ENGINEER ARE NOT AN INSPECTION NOR APPROVAL FOR CONSTRUCTION.
8. CONTRACTOR TO COORDINATE WORK SCHEDULES WITH THE OWNER'S REPRESENTATIVE TO PREVENT ANY CONFLICTING WORK CONDITIONS.
9. ANY EXCAVATION AND/OR EXPLORATION NECESSARY FOR THE COMMENCEMENT OF WORK SUCH AS LOCATING UNDERGROUND FACILITIES ETC., UNLESS OTHERWISE SPECIFIED ON THE PLANS, IS CONSIDERED INCIDENTAL TO THE PROJECT, AND TO BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICT WITH THE EXISTING UTILITIES, UNFORESEEN CONDITIONS, OR DESIGN ISSUES UPON DISCOVERY.
11. CONTRACTOR TO PREPARE AND FURNISH TO THE OWNER A SET OF RECORD DRAWINGS AT THE COMPLETION OF THE PROJECT.
12. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING WITH OSHA REQUIREMENTS DURING CONSTRUCTION FOR TRENCH EXCAVATION AND OTHER SAFETY STANDARDS REQUIRED DURING CONSTRUCTION.
13. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT AND ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK AND AVOIDING DAMAGE TO THEM.
14. CONTRACTOR IS FULLY RESPONSIBLE FOR TRAFFIC CONTROL AND SITE SAFETY IN ACCORDANCE WITH MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES), OSHA, ETC.
15. WHERE WORK IS PERFORMED ON OFF-STREET EASEMENTS, THE CONTRACTOR TO TAKE EVERY PRECAUTION TO ELIMINATE ANY ADVERSE EFFECTS ON THE ADJACENT PROPERTY. ALL TOPSOIL TO BE STOCKPILED AND REPLACED.
16. WORK SHOWN ON THE PLANS BUT NOT SPECIFIED IN BID ITEMS IS CONSIDERED INCIDENTAL TO THE PROJECT.

CONSTRUCTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING.

ENVIRONMENTAL CONSTRAINTS

1. POLLUTION: COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. PROTECT AGAINST THE CONTAMINATION OF SOIL, WATER, OR AIR BY OIL, FUEL, FLUID SPILLS, CHEMICALS, GARBAGE, DEBRIS, OR OTHER WASTES AT ALL TIMES.
2. EQUIPMENT: EQUIPMENT IS TO BE SERVICED ONLY IN DESIGNATED AREAS. TAKE MEASURES TO PREVENT SPILLS OF OIL OR OTHER FLUIDS.
3. SANITARY: PROVIDE SANITARY FACILITIES FOR ALL WORKERS AND THE ENGINEER, AND SERVICE SO THAT CONTAMINANTS WILL NOT BE DISCHARGED FROM THE FACILITIES.
4. DUST CONTROL: HAVE AVAILABLE AT ALL TIMES ADEQUATE SPRINKLER EQUIPMENT TO ABATE ANY DUST NUISANCE, OR AIR POLLUTION THAT MAY ARISE DUE TO CONSTRUCTION OPERATIONS. NO EXTRA PAYMENT WILL BE MADE FOR SPRINKLING OPERATIONS. FAILURE TO CONTROL DUST MAY RESULT IN TEMPORARY SHUTDOWN OF THE PROJECT AND NO ADDITIONAL TIME WILL BE ALLOWED. PROVIDE ALL WATER NECESSARY FOR SPRINKLING OPERATIONS.
5. HAULING SPILLS: PREVENT SPILLAGE OR SPREADING OF MATERIALS ALONG HAUL ROADS OR ANY NON-DESIGNATED AREA. CLEAN UP AND PROPERLY DISPOSE OF ANY SPILLS.

UTILITY

1. UTILITY PLANS WERE DEVELOPED OFF THE INFORMATION PROVIDED BY THE UTILITY COMPANY TO THE ENGINEER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THEIR LOCATION AND TO RETAIN AND PROTECT THE UTILITY, UNLESS OTHERWISE DIRECTED BY THESE PLANS.
2. CONTRACTOR TO FIELD VERIFY UTILITY DEPTHS AND LOCATIONS.
3. ALL UTILITIES SHALL BE PROTECTED FROM DAMAGE AS A RESULT OF THE WORK. THE CONTRACTOR SHALL RELOCATE, REPAIR OR REPLACE ANY UTILITY TO THE SATISFACTION OF THE UTILITY COMPANY AND THE OWNER. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM THE PERFORMANCE OF THE WORK. REPAIR AND REPLACEMENT OF DAMAGED FACILITIES SHALL BE PERFORMED IN A TIMELY MANNER AT NO ADDITIONAL COST TO THE OWNER.
4. ALL EXISTING UTILITY SERVICES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.

ONE-DIRECTIONAL TRAFFIC DATA

YEAR OF ADT 2022
ADT 30
CADT 10
33.0%

FUTURE YEAR (CONSTRUCTION + 20 YRS) 2042
ADT 45
CADT 15
33.0%

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

NOTES (1 0F 2)

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 2 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_COVER SHEET & NOTES.dwg - ---- - 3/23/2026 6:21 PM

FOOTING DESIGN LOADS

STRENGTH LIMIT STATE			
BEARING	ABUT. 1	PIER	ABUT. 2
NOMINAL BEARING RESISTANCE [q.n]	40 ksf	40 ksf	40 ksf
EFFECTIVE FOOTING WIDTH B'	7.51 ft	8.86 ft	6.74 ft
EFFECTIVE FOOTING LENGTH L'	1 ft	1 ft	1 ft
RESISTANCE FACTOR [Φ.b]	0.45	0.45	0.45
FACTORED BEARING RESISTANCE [Φ.b*q.n]	18 ksf	18 ksf	18 ksf
FACTORED APPLIED LOAD [γQ/B'L']	12.05 ksf	10.29 ksf	9.61 ksf
SLIDING	ABUT. 1	PIER	ABUT. 2
NOMINAL SLIDING RESISTANCE [R.n]	30.87 klf	34.86 klf	23.62 klf
RESISTANCE FACTOR Φ	1.00	1.00	1.00
FACTORED SLIDING RESISTANCE [ΦR.n]	30.87 klf	34.86 klf	23.62 klf
FACTORED APPLIED LOAD [γV]	19.43 klf	2.76 klf	11.11 klf
SERVICE LIMIT STATE			
BEARING	ABUT. 1	PIER	ABUT. 2
PRESUMPTIVE BEARING CAPACITY [q.p]	10 ksf	10 ksf	10 ksf
BASED UPON FOOTING SETTLEMENT	0.5 inches OR LESS		
EFFECTIVE FOOTING WIDTH B'	6.88 ft	7.97 ft	6.13 ft
EFFECTIVE FOOTING LENGTH L'	1 ft	1 ft	1 ft
RESISTANCE FACTOR Φ	1.00	1.00	1.00
FACTORED PRESUMPTIVE BEARING RESISTANCE [Φq.p]	10 ksf	10 ksf	10 ksf
FACTORED APPLIED LOAD [γQ/B'L']	9.58 ksf	9.24 ksf	7.81 ksf
EXTREME LIMIT STATE			
BEARING	ABUT. 1	PIER	ABUT. 2
NOMINAL BEARING RESISTANCE [q.n]	40 ksf	40 ksf	40 ksf
EFFECTIVE FOOTING WIDTH B'	6.07 ft	3.49 ft	5.38 ft
EFFECTIVE FOOTING LENGTH L'	1 ft	1 ft	1 ft
RESISTANCE FACTOR Φ	1.00	1.00	1.00
FACTORED PRESUMPTIVE BEARING RESISTANCE [Φq.p]	40 ksf	40 ksf	40 ksf
FACTORED APPLIED LOAD [γQ/B'L']	9.17 ksf	17.53 ksf	7.05 ksf
SLIDING	ABUT. 1	PIER	ABUT. 2
NOMINAL SLIDING RESISTANCE [R.n]	25.82 klf	30.95 klf	18.28 klf
RESISTANCE FACTOR Φ	1.00	1.00	1.00
FACTORED SLIDING RESISTANCE [ΦR.n]	25.82 klf	30.95 klf	18.28 klf
FACTORED APPLIED LOAD [γV]	14.16 klf	9.34 klf	8.43 klf

DESIGN NOTES

DESIGN SPECIFICATIONS:
IN ACCORDANCE WITH : "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" 10th EDITION AND DECEMBER 2024 ITD BRIDGE DESIGN LRFD MANUAL.

DESIGN PROCEDURES

DESIGN SPEED IS 30 mph.

PROPRIETARY COMPUTER SOFTWARE PROGRAMS USED TO FACILITATE THE DESIGN:

NAME	VERSION	RELEASE DATE
PTC MATHCAD	PRIME 8.0.0.0	MARCH 15, 2022
EXCEL	2501, BUILD 18429.20132	JANUARY 30, 2025
PSBEAM	4.81	2021

DESIGN LOADS:

PERMANENT LOADS:

DC	UNIT WEIGHT OF REINFORCED CONCRETE	0.150 kcf
	42" SINGLE SLOPE CONCRETE PARAPET	0.518 klf/side
DW	INITIAL SURFACING	0.047 ksf
	FUTURE WEARING SURFACE	0.028 ksf
EV	UNIT WEIGHT OF SOIL	0.125 kcf
EH	ACTIVE PRESSURE	0.034 kcf
	AT REST PRESSURE	0.053 kcf

TRANSIENT LOADS:

LL	HL-93	
IM	DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM	
LS	LIVE LOAD SURCHARGE AT ABUTMENT 1.	2 feet
	LIVE LOAD SURCHARGE AT ABUTMENT 2.	2.6 feet
	LIVE LOAD SURCHARGE AT WING WALL	2 feet
TU	UNIFORM TEMPERATURE RANGE	0° F TO 80° F
	BASE SETTING TEMPERATURE	60° F

QUANTITIES

ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT
203-020A	REMOVAL OF BRIDGE - FULL (Bridge Key # 23795)	1	EA
210-005A	STRUCTURE EXCAVATION SCH. NO. 1 - SOIL AND GRAVEL	550	CY
210-005B	STRUCTURE EXCAVATION SCH. NO. 1 - ROCK	356	CY
210-015A	COMPACTING BACKFILL	679	CY
301-010A	GRANULAR SUBBASE	1,145	TON
502-140A	CONCRETE CLASS 40A SCH. NO. 1	316	CY
502-310A	CONCRETE CLASS 40AF SCH. NO. 2	200.4	CY
502-380A	PRESTRESS WF GIRDER (50" DEPTH)	816	FT
502-430A	CONCRETE PARAPET (TYPE SINGLE SLOPE, HEIGHT 42")	476	FT
503-010A	METAL REINFORCEMENT SCH. NO. 1	40,024	LB
503-015A	METAL REINFORCEMENT SCH. NO. 2	15,358	LB
503-020A	EPOXY-COATED METAL REINFORCEMENT	28,534	LB
507-010A	ELASTOMERIC BEARINGS LAMINATED (1.25" x 8" x 32")	16	EA
509-005A	NON-STRUCTURAL CONCRETE CLASS 15	111	CY
511-005A	CONCRETE WATERPROOFING SYSTEM TYPE D	637.3	SY
560-005A	DEWATERING FOUNDATION	1	LS
566-010A	COMPRESSION EXPANSION JOINT	62	FT
S501-20A	SP BRIDGE, COURSE AGGREGATE DRAIN	16	EA

DESIGN NOTES CONTINUED:

CONSTRUCTION SPECIFICATIONS:
MATERIALS, CONSTRUCTION AND WORKMANSHIP IN ACCORDANCE WITH THE STATE OF IDAHO TRANSPORTATION DEPARTMENT: 2023 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2025 SUPPLEMENTAL SPECIFICATIONS, SPECIAL PROVISIONS, AND THE PROJECT PLANS.

MATERIAL:

CONCRETE :

ABUTMENTS, WINGWALLS, AND SPREAD FOOTINGS
- CLASS 40A . . . . . f'c= 4.00 ksi
DECK AND CURB - CLASS 40AF . . . . . f'c= 4.00 ksi
LEVELING PADS - CLASS 15 . . . . . f'c= 1.50 ksi
PRESTRESS GIRDERS. . . . . f'c = 8.50 ksi

METAL REINFORCEMENT :
AASHTO M31, GRADE 60 TYPE S . . . . . fy= 60.00 ksi

PRESTRESSING REINFORCEMENT :
0.6" ASTM M203 GRADE 270 LOW RELAXATION . . . . . fpu= 270.00 ksi

PLAN DIMENSIONS AND ELEVATIONS:
BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.
DIMENSIONS TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS NOTED OTHERWISE.

PROVIDE 2" CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

PROVIDE REINFORCING STEEL SPLICE LENGTHS IN ACCORDANCE WITH AASHTO SPECIFICATIONS.

CONSTRUCTION:
PROVIDE CONSTRUCTION JOINTS ONLY AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED.

EPOXY-COATED REINFORCEMENT IS DESIGNATED BY AND (E) AFTER THE BAR MARK.

DO NOT EXCEED A DIFFERENCE OF 2 FEET IN ELEVATION OF THE BACKFILL MATERIAL ON BOTH SIDES OF THE STRUCTURE DURING BACKFILL OPERATIONS.
SET THE ROLLER IN THE STATIC MODE FOR COMPACTING THE ASPHALT WEARING SURFACE, WHEN THE DEPTH OF FILL IS LESS THAN 3'.

ELEVATIONS ARE BASED ON NAVD 88 DATUM.

CONTRACTOR TO SUBMIT METHODS AND EQUIPMENT USED FOR THE BRIDGE REMOVAL FOR ENGINEERS REVIEW AND APPROVAL AT LEAST 4 WEEKS PRIOR TO COMMENCING WORK.

INCIDENTAL ITEMS:
WORK NECESSARY TO FULFILL THE CONTRACT THAT IS NOT MEASURED OR PAID FOR SEPARATELY.

SPREAD FOOTING DESIGN DATA FOR SCOUR

TOP OF FOOTING ELEVATION ABUTMENT 1 . . . . . 4979.40 feet
TOP OF FOOTING ELEVATION PIER . . . . . 4980.72 feet
TOP OF FOOTING ELEVATION ABUTMENT 2 . . . . . 4988.00 feet
SPRED FOOTINGS FOUNDED ON ROCK, SCOUR NOT EVALUATED.

ELASTOMERIC BEARINGS

DESIGN PROCEDURE: METHOD B
SHEAR MODULUS 130 PSI
GRADE 4 POLYISOPRENE
DESIGN LOADS: (SERVICE I) . . . . . 287.6 kips

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

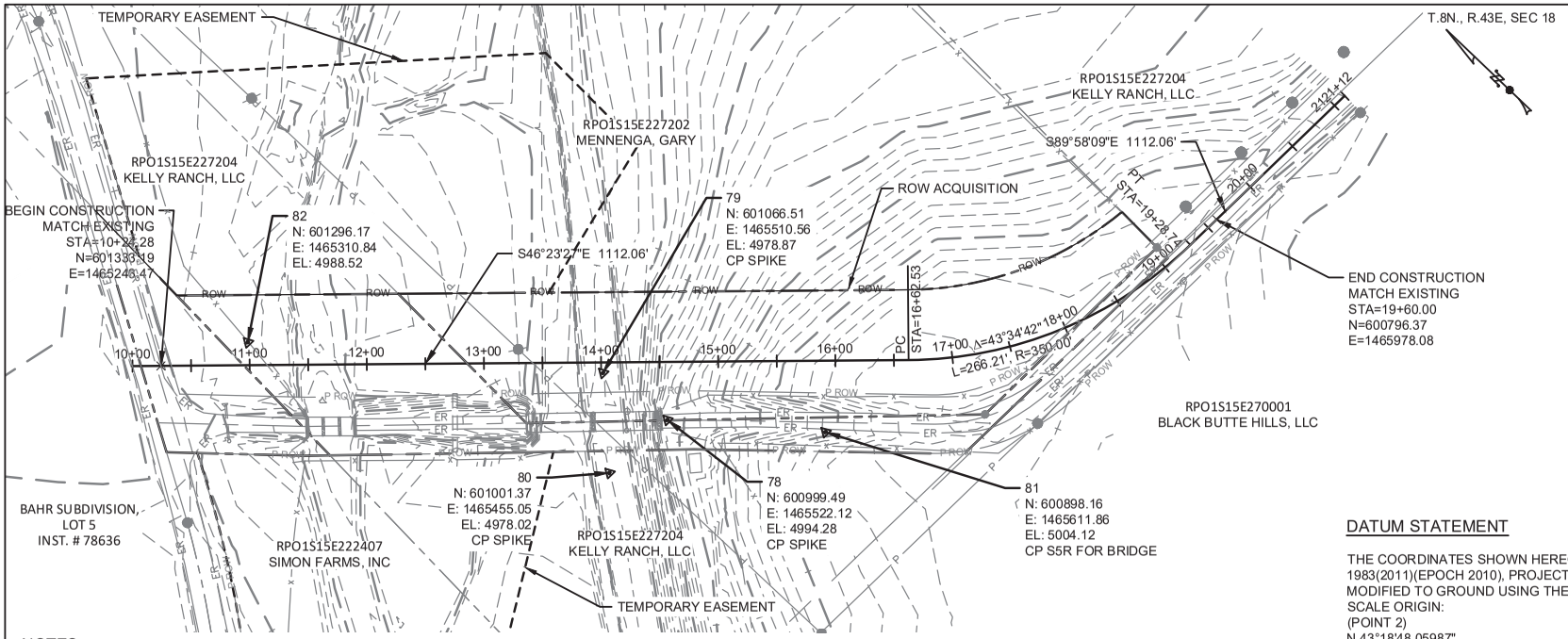
Ihtact2 Serving Idaho Since 1994

NOTES (2 0F 2)

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 3 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_COVER SHEET & NOTES.dwg - ---- - 3/23/2026 6:21 PM



NOTES

1) CONTOURS ARE SHOWN THROUGH THE CHANNEL FOR DESIGN PURPOSES ONLY. THE EXISTING ROAD CONTINUES ACROSS THE CHANNEL.

2) ANY MONUMENTS SHOWN HEREON WERE RECOVERED USING RECORD INFORMATION AND SEARCHES AT OR NEAR POSSESSION LINES. NO SURVEY TO RECOVER PARCEL, PLSS, EASEMENT, OR RIGHT-OF-WAY LINES WAS PERFORMED AS PART OF THIS PROJECT.

3) 200 SOUTH ROAD IS WITHIN THE CAMAS COUNTY ROAD AND BRIDGE DEPARTMENT (CCREB) AND HAS BEEN CONTINUOUSLY MAINTAINED SINCE AT LEAST 1992. IDAHO CODE 40-2312(2) STATES IN PART "WHERE NO WIDTH IS ESTABLISHED AS PROVIDED FOR IN SUBSECTION (1)"... ROADS ..."SHALL BE NOT LESS THAN FIFTY (50) FEET WIDE". 200 SOUTH ROAD (SHOWN ON THIS MAP) IS GENERALLY CENTERED UPON THE EXISTING ROAD CENTER LINE. TED STRICKLER OF THE CAMAS COUNTY ROAD AND BRIDGE DEPARTMENT MAINTAINS THE DISTRICT HAS A 50' RIGHT-OF-WAY CENTERED ON THE EXISTING TRAVELED WAY CENTERLINE. THE DISTRICT MAY HAVE ADDITIONAL RIGHT-OF-WAY BEYOND THE CLAIMED 50' RIGHT-OF-WAY LINE DEPICTED HEREON BASED UPON EXISTING ROADWAY MAINTENANCE USES SUCH AS, DITCHES, SLOPES, PIPES, ETC.

DATUM STATEMENT

THE COORDINATES SHOWN HEREON ARE REFERENCED TO NAD 1983(2011)(EPOCH 2010), PROJECTED TO IDAHO CENTRAL ZONE(1102), MODIFIED TO GROUND USING THE FOLLOWING PARAMETERS:
SCALE ORIGIN:
(POINT 2)
N 43°18'48.05987"
W 114°40'28.47628"
(N 600817.623)
(E 1460881.282)
1/CSF = 1.0002520000
CONVERGENCE ANGLE AT POINT 2 = 00°27'45.9"
ELEVATIONS ARE NOMINAL NAVD (88) DERIVED FROM REDUNDANT OPUS SOLUTIONS AND COMPUTED USING GEOID 18(CONUS)

GRAPHIC SCALE
0' 25' 50' 100' 150'
Scale: 1"=100'

FORSGREN CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
78	600999.49	1465522.12	4994.28	CP SPIKE
79	601066.51	1465510.56	4978.87	CP SPIKE
80	601001.37	1465455.05	4978.02	CP SPIKE
81	600898.16	1465611.86	5004.12	CP S5R FOR BRIDGE
82	601296.17	1465310.84	4988.52	CP S5R FOR BRIDGE

LEGEND

- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- EXISTING PARCEL LINE
- PERSPECTIVE RIGHT-OF-WAY LINE (P ROW)
- EASEMENT LINE
- FLOW LINE
- PROPOSED ALIGNMENT
- EDGE OF DIRT ROAD (ER)
- EXISTING FENCE LINE
- OVERHEAD POWER LINE (P)
- EXISTING PIPE
- INDEX CONTOUR LINE, INTERVAL=5' (4000)
- INTERMEDIATE CONTOUR LINE, INTERVAL=1'
- CONCRETE
- FOUND ALUMINUM CAP ON? (AS NOTED)
- FOUND 5/8" REBAR (AS NOTED)
- FOUND 1/2" REBAR (AS NOTED)
- SET 5/8"X24" REBAR W/ PLASTIC CAP MARKED, "PLS XXXXX"
- CALCULATED POINT, NOT FIELD LOCATED
- CONTOL POINT SET X/X" REBAR "FORSGREN CONTROL"
- POWER POLE
- GUY ANCHOR
- SIGN

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

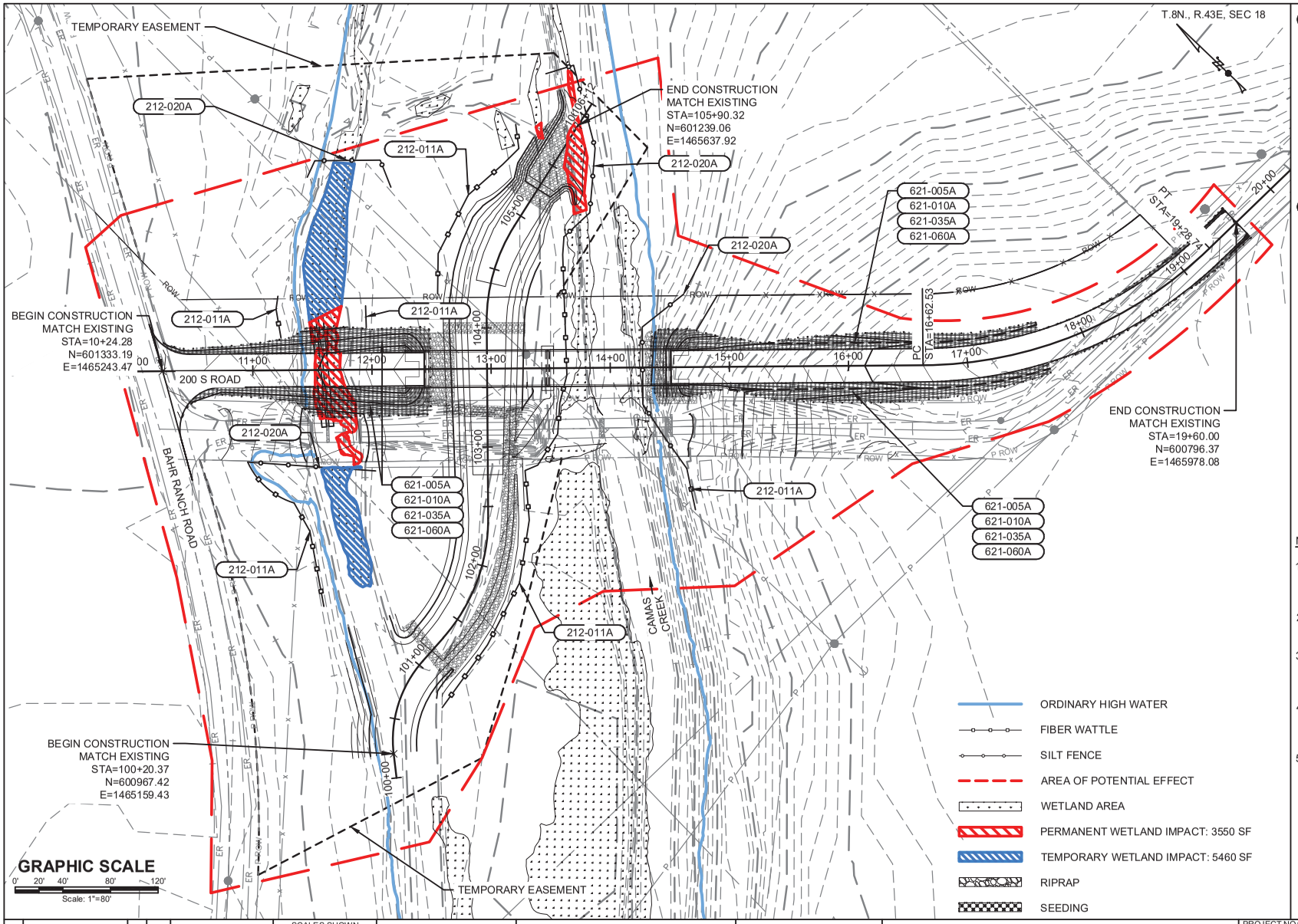
SURVEY CONTROL PLAN

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 4 OF 47

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_SURVEY CONTROL PLAN.dwg - ---- 3/23/2026 6:21 PM



212-011A FIBER WATTLE
- 145 FT., STA. 10+95, 77' RT TO STA. 11+58, 199' RT
- 36 FT., STA. 11+22, 62' LT TO STA. 11+24, 27' LT
- 19 FT., STA. 11+95, 53' LT TO STA. 11+95, 35' LT
- 168 FT., STA. 12+55, 64' LT TO STA. 13+23, 205' LT
- 428 FT., STA. 12+57, 285' RT TO STA. 13+61, 110' LT
- 36 FT., STA. 14+63, 86' RT TO STA. 14+71, 120' RT

212-020A SILT FENCE
- 108 FT., STA. 10+95, 77' RT TO STA. 12+03, 85' RT
- 95 FT., STA. 11+46, 162' LT TO STA. 12+17, 153' LT
- 181 FT., STA. 13+47, 248' LT TO STA. 13+62, 110' LT
- 175 FT., STA. 14+62, 61' LT TO STA. 14+63, 86' RT

621-005A SEED BED PREPARATION
621-010A SEEDING
621-035A FERTILIZING
621-060A MULCH PLUS TACKIFIER
- 0.08 ACRE, STA. 10+25 LT TO STA. 12+49 LT
- 0.08 ACRE, STA. 10+39 RT TO STA. 12+49 RT
- 0.10 ACRE, STA. 14+34 LT TO STA. 19+60 LT
- 0.11 ACRE, STA. 14+34 RT TO STA. 19+60 RT

NOTES:

1. FIBER WATTLES TO BE PLACED TO PROTECT WATERS AND WETLAND AREAS.
2. NO WORK SHALL TAKE PLACE OUTSIDE THE AREA OF POTENTIAL EFFECT.
3. DEWATERING TO MEET SPECIFICATIONS FOR PAY ITEM 560-005A DEWATERING FOUNDATION.
4. FOR OTHER APPLICABLE NOTES, SEE SHEET 2 ENVIRONMENTAL CONSTRAINTS.
5. TEMPORARY IMPACTS TO WETLANDS SHOULD BE AVOIDED/MINIMIZED TO THE EXTENT POSSIBLE BY THE CONTRACTOR. FOLLOW ISSUED USACE/IDWR/IDEQ PERMITS.

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

POLLUTION PREVENTION PLAN

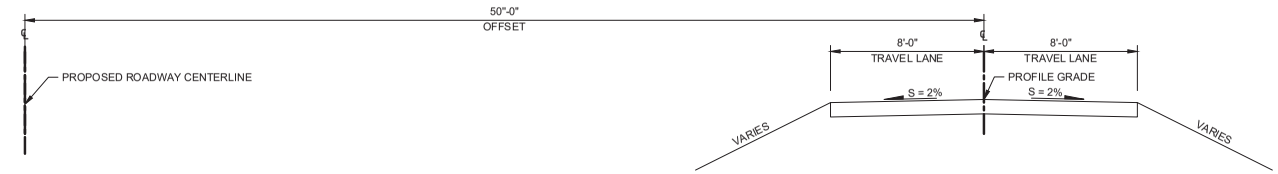
200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 5 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_EROSION & SEDIMENT CONTROL PLAN.dwg - ---- - 3/23/2026 6:21 PM

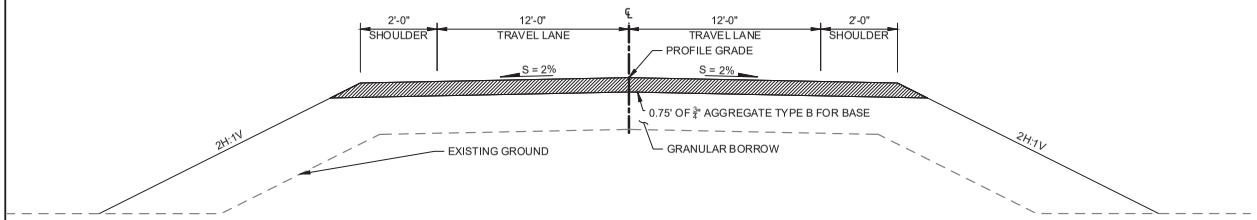
200 S ROAD EXISTING

N.T.S.



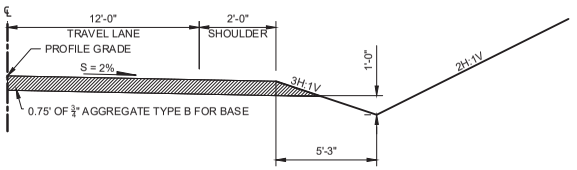
200 S ROAD

N.T.S.
STA 10+24.28 TO STA 12+43.95
STA 14+50.95 TO STA 19+60.00



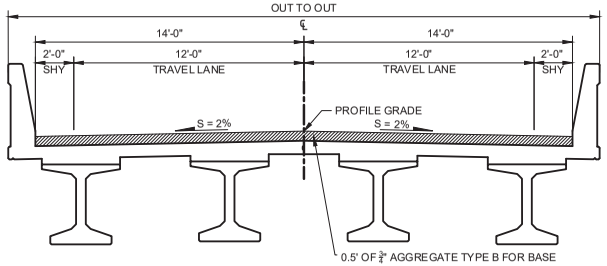
200 S ROAD - BORROW DITCH DETAIL

N.T.S.
STA 14+97.76 TO STA 17+65.00



200 S BRIDGE

N.T.S.
STA 12+43.95 TO STA 14+50.95
30'-10"
OUT TO OUT



NOTE: STRUCTURAL BRIDGE DETAILS SHOWN IN PLANS ARE NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

TYPICAL SECTIONS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

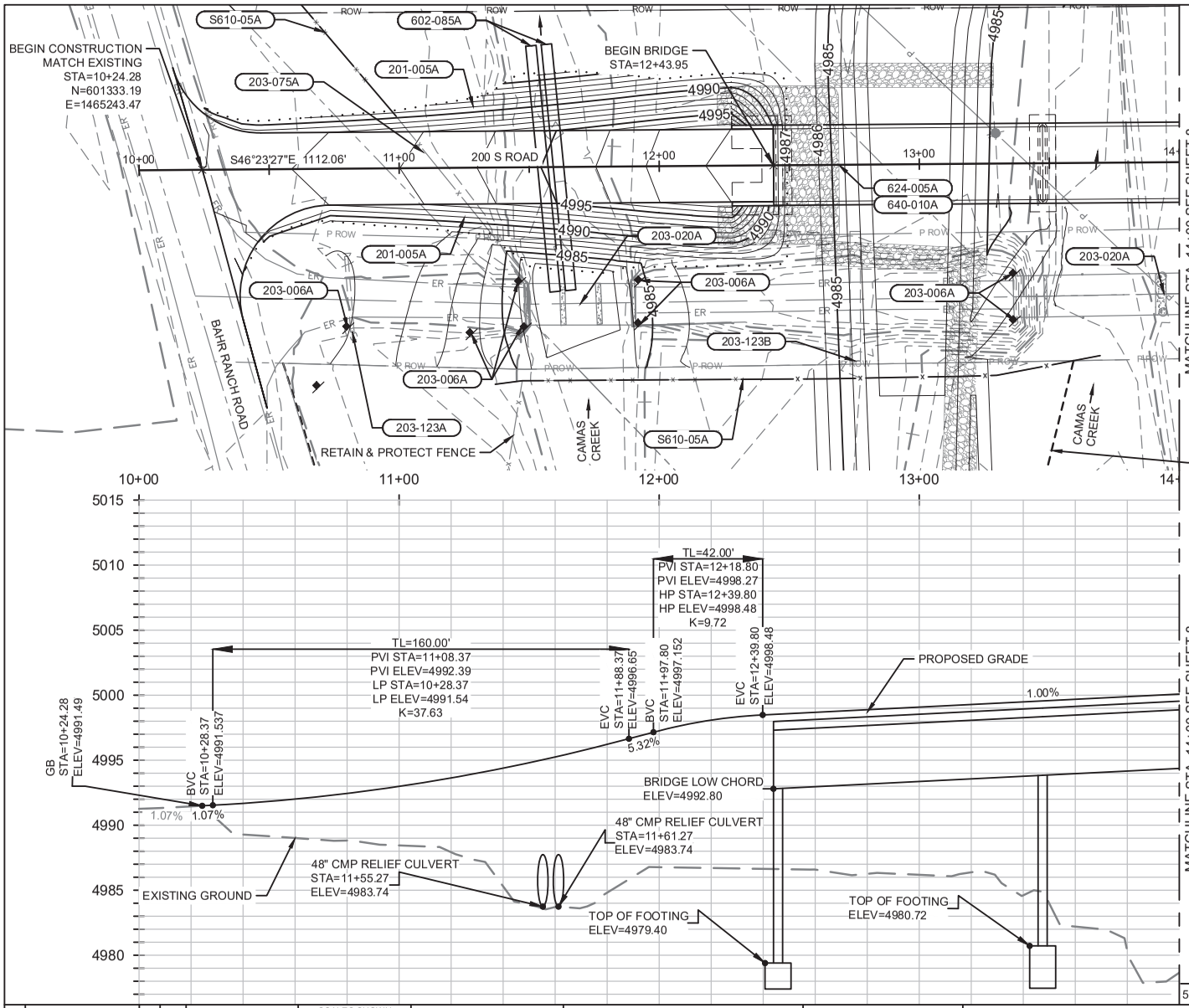
PROJECT NO: 02-23-0135

DRAWING NO. 18294

DATE: 3/23/26

SHEET NO: 6 OF 47

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026



201-005A CLEARING & GRUBBING
0.08 ACRE, STA. 10+25 TO 12+49 LT
0.08 ACRE, STA. 10+25 TO 12+49 RT

203-006A REMOVAL OF SIGN
1 EACH, STA. 10+79.95, 64.11' RT
1 EACH, STA. 11+27.36, 64.11' RT
1 EACH, STA. 11+46.17, 44.46' RT
1 EACH, STA. 11+48.15, 62.02' RT
1 EACH, STA. 11+92.04, 60.88' RT
1 EACH, STA. 11+92.24, 44.36' RT
1 EACH, STA. 13+36.25, 60.77' RT
1 EACH, STA. 13+36.35, 42.88' RT

203-020A REMOVAL OF BRIDGE-FULL
1 EACH, STA. 11+70
1 EACH, STA. 13+94

203-075A REMOVAL OF FENCE
84 FT, STA. 10+97, 22' LT TO
STA. 11+48, 45' RT

203-123A REMOVAL OF MISC. ITEMS
(14" CMP CULVERT)
31 FT, STA. 10+79, 34' RT TO
STA. 10+82, 63' RT

203-123B REMOVAL OF MISC. ITEMS
(48" CMP CULVERT)
50 FT, STA. 12+75, 25' RT TO
STA. 12+75, 75' RT

602-085A 48" PIPE CULVERT,
14 GUAGUE GALVANIZED
STEEL, 2" X 1/2" X 2 2/3"
ANNULAR CORRUGATION
95 FT, STA. 11+51.00, 46.67' LT
INV.= 4983.50' TO
STA. 11+59.60, 47.94' RT
INV. = 4983.97'
95 FT, STA. 11+56.98, 47.21' LT
INV.= 4983.50' TO
STA. 11+65.57, 47.40' RT
INV.= 4982.97'

624-005A LOOSE RIPRAP
154 CY, STA. 12+22 TO
STA. 12+69

640-010A RIPRAP/EROSION
CONTROL GEOTEXTILE
289 SY, STA. 12+22 TO
STA. 12+69

S610-05A REM & RESET FENCE
100 FT, STA. 10+39, 101' LT TO
STA. 10+97, 22' LT
234 FT, STA. 11+36, 84' RT TO
STA. 13+69, 75' RT

PROFESSIONAL ENGINEER
REGISTERED
10208
3/23/2026
STATE OF IDAHO
STEVEN R. YEARSLEY

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

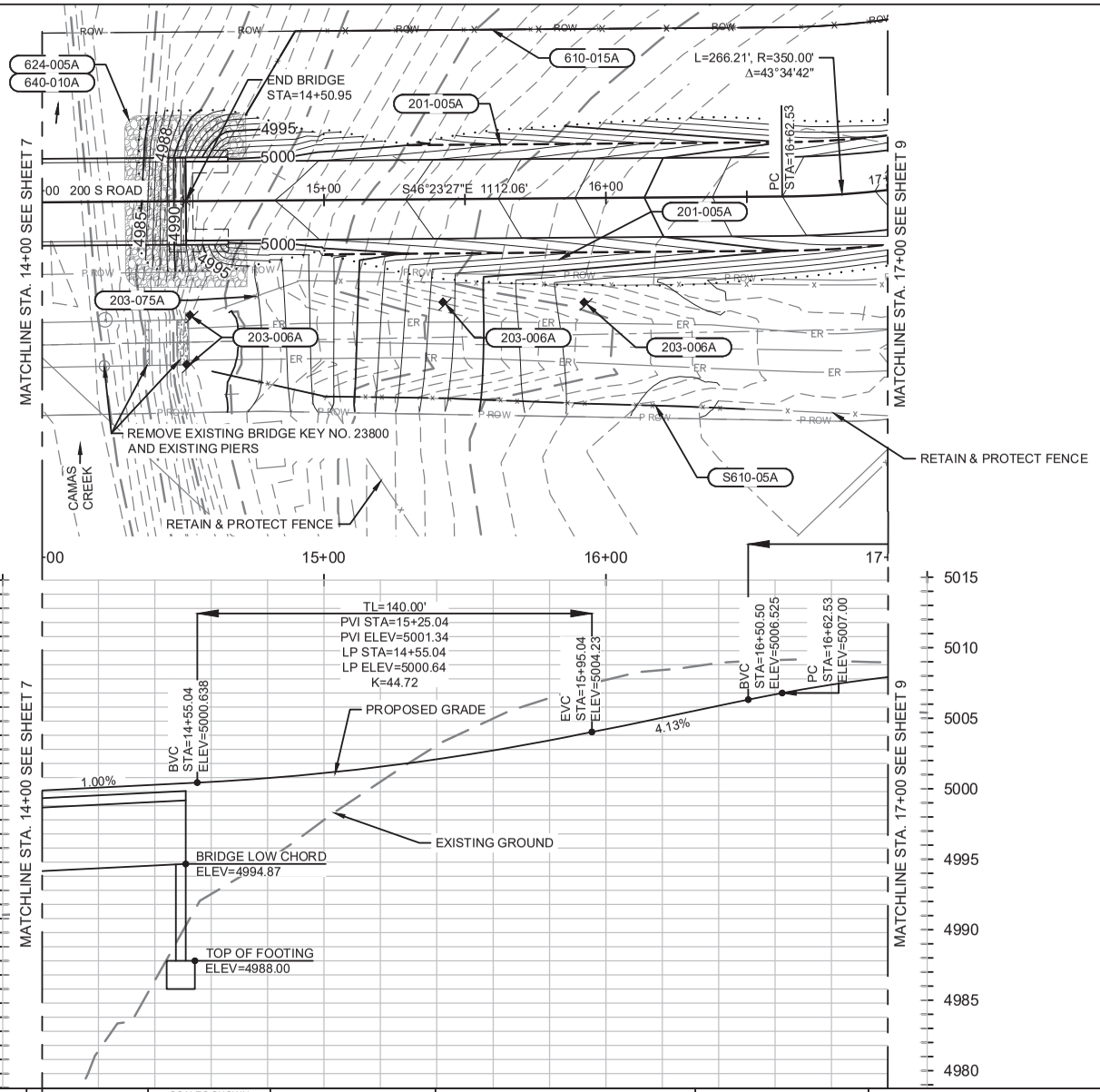
Ihtact2 Serving Idaho Since 1994

PLAN & PROFILE STA 10+24.28 TO 14+00

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 7 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_ROADWAY PLAN & PROFILE.dwg - ---- - 3/23/2026 6:21 PM



PROFILE

5:1 HORIZ. TO VERT SCALE

T.8N., R.43E, SEC 18

201-005A CLEARING & GRUBBING
0.08 ACRE, STA. 14+34 TO 17+00 LT
0.09 ACRE, STA. 14+34 TO 17+00 RT

203-006A REMOVAL OF SIGN
1 EACH, STA. 14+51.51, 58.68' RT
1 EACH, STA. 14+52.81, 41.14' RT
1 EACH, STA. 15+42.60, 37.27' RT
1 EACH, STA. 15+92.67, 37.74' RT

203-075A REMOVAL OF FENCE
246 FT, STA. 14+60, 39' RT TO
STA. 17+00, 34' RT

610-015A FENCE TYPE 1 B
238 FT, STA. 14+72, 31' LT TO
STA. 17+00, 60' LT

624-005A LOOSE RIPRAP
136 CY, STA. 12+22 TO
STA. 12+69

640-010A RIPRAP/EROSION CONTROL GEOTEXTILE
261 SY, STA. 12+22 TO
STA. 12+69

S610-05A REM & RESET FENCE
192 FT, STA. 14+60, 61' RT TO
STA. 16+49, 75' RT

GRAPHIC SCALE
0' 10' 20' 40' 60'
Scale: 1"=40'

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

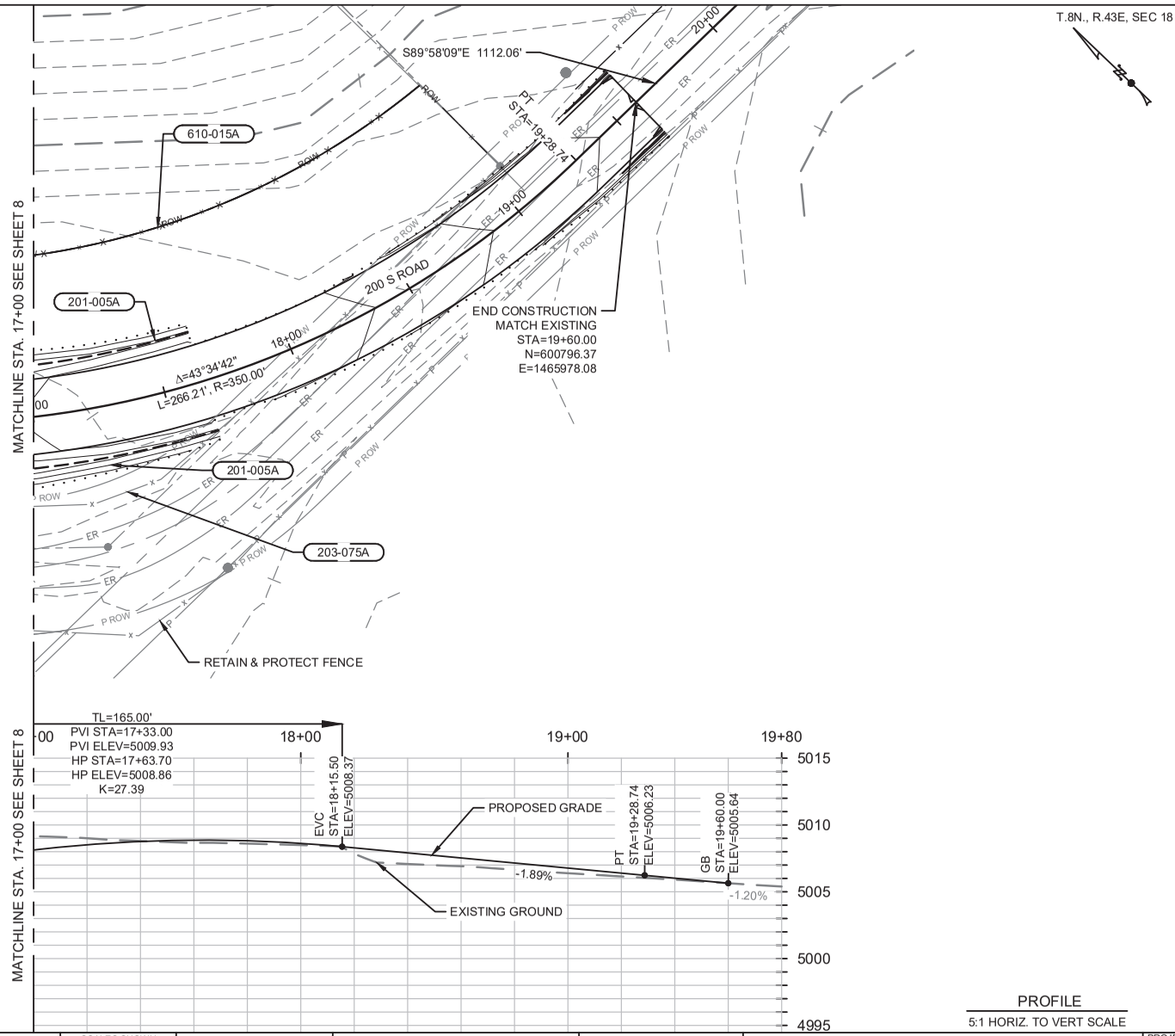
FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

PLAN & PROFILE STA 14+00 TO 17+00

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 8 OF 47



201-005A CLEARING & GRUBBING
0.03 ACRE, STA. 17+00 TO 19+60 LT
0.03 ACRE, STA. 17+00 TO 19+60 RT

203-075A REMOVAL OF FENCE
226 FT, STA. 17+00, 34' RT TO STA. 19+13, 18' LT

610-015A FENCE TYPE 1 B
167 FT, STA. 17+00, 60' LT TO STA. 19+02, 60' LT

GRAPHIC SCALE
0' 10' 20' 40' 60'
Scale: 1"=40'

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

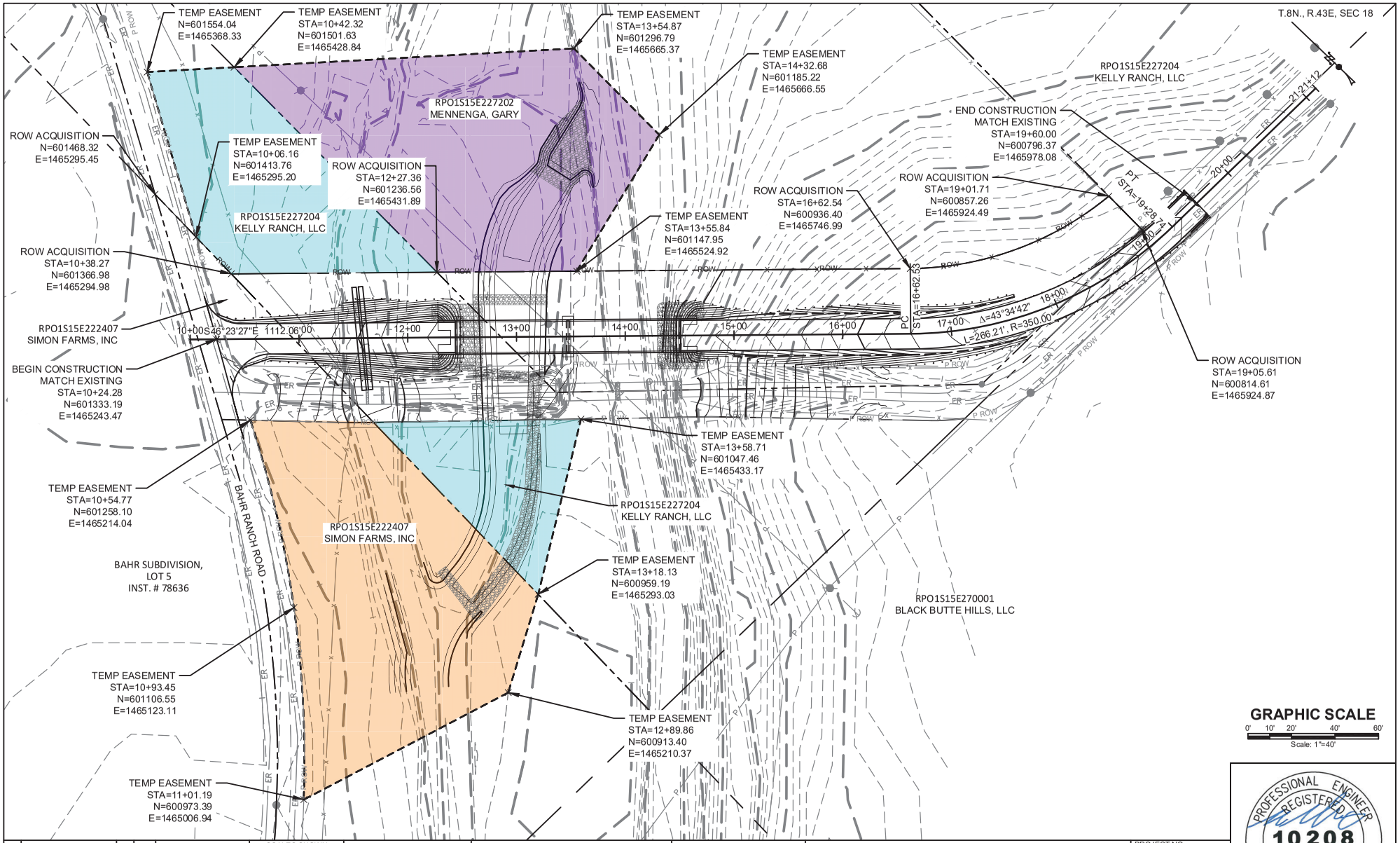
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

PLAN & PROFILE STA 17+00 TO 19+60.00

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 9 OF 47



F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_EASEMENT & ROW DETAIL.dwg — 3/23/2026 6:21 PM

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	R. BECKMAN

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

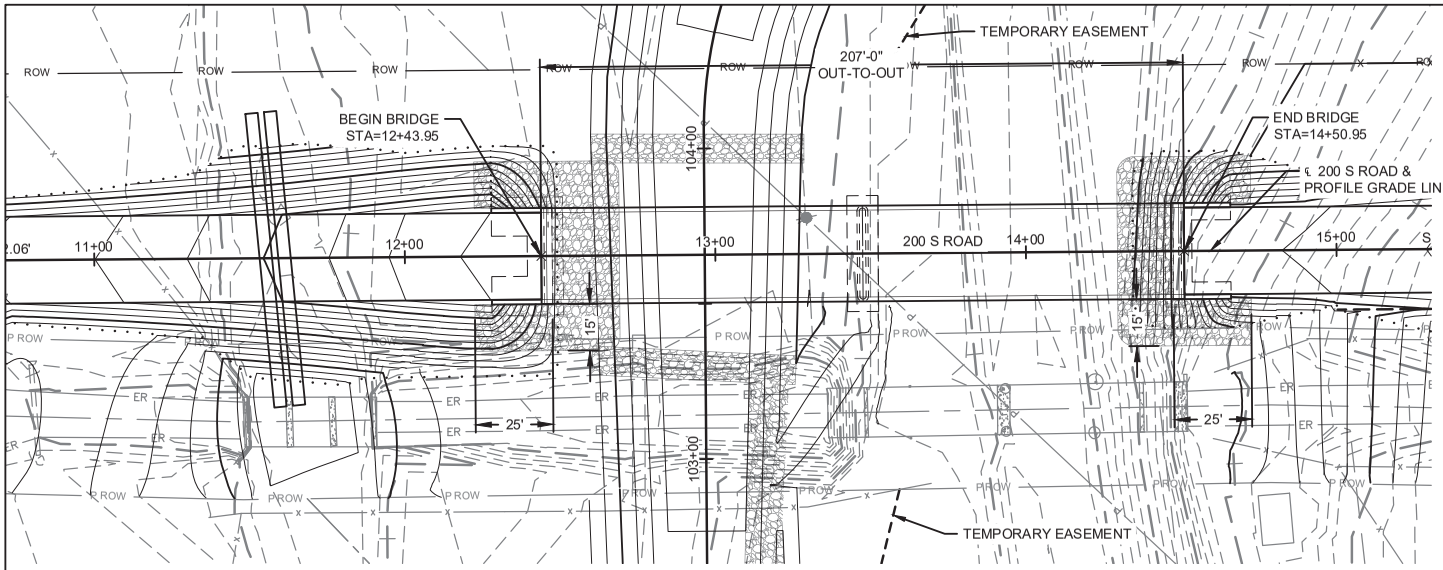
Ihtact2 Serving Idaho Since 1994

EASEMENT & ROW DETAIL

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

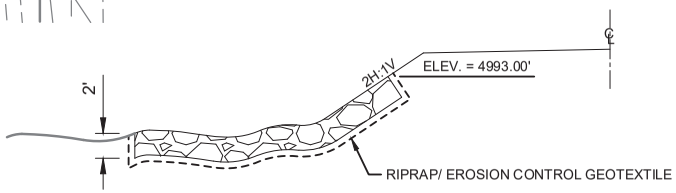
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 10 OF 47

PROFESSIONAL ENGINEER
REGISTERED
10208
3/23/2026
STATE OF IDAHO
STEVEN R. YEARSLEY

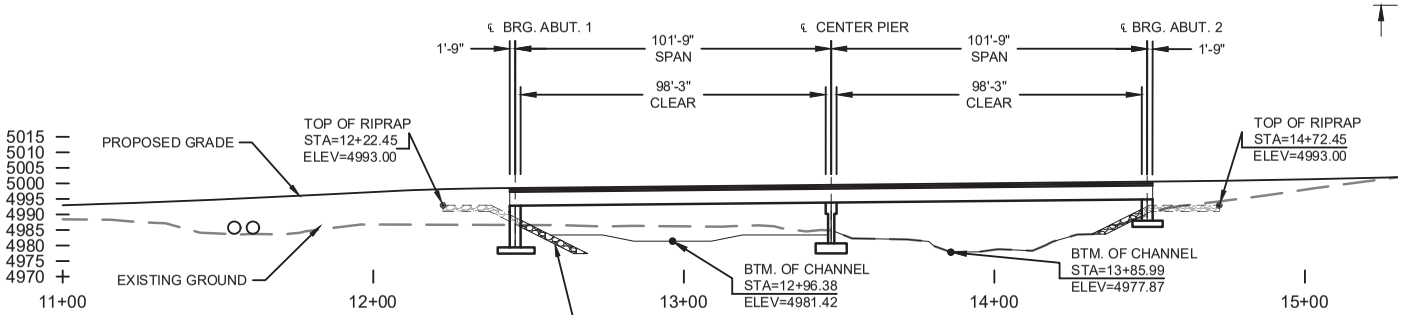


BRIDGE PLAN
SCALE: 1"=40'

T.8N., R.43E, SEC 18



TYPICAL SECTION
N.T.S.
A



BRIDGE ELEVATION
SCALE: 1"=40'

GRAPHIC SCALE
0' 10' 20' 40' 60'
Scale: 1"=40'

PROFESSIONAL ENGINEER
REGISTERED
10208
3/23/2026
STATE OF IDAHO
STEVEN R. YEARSLEY

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

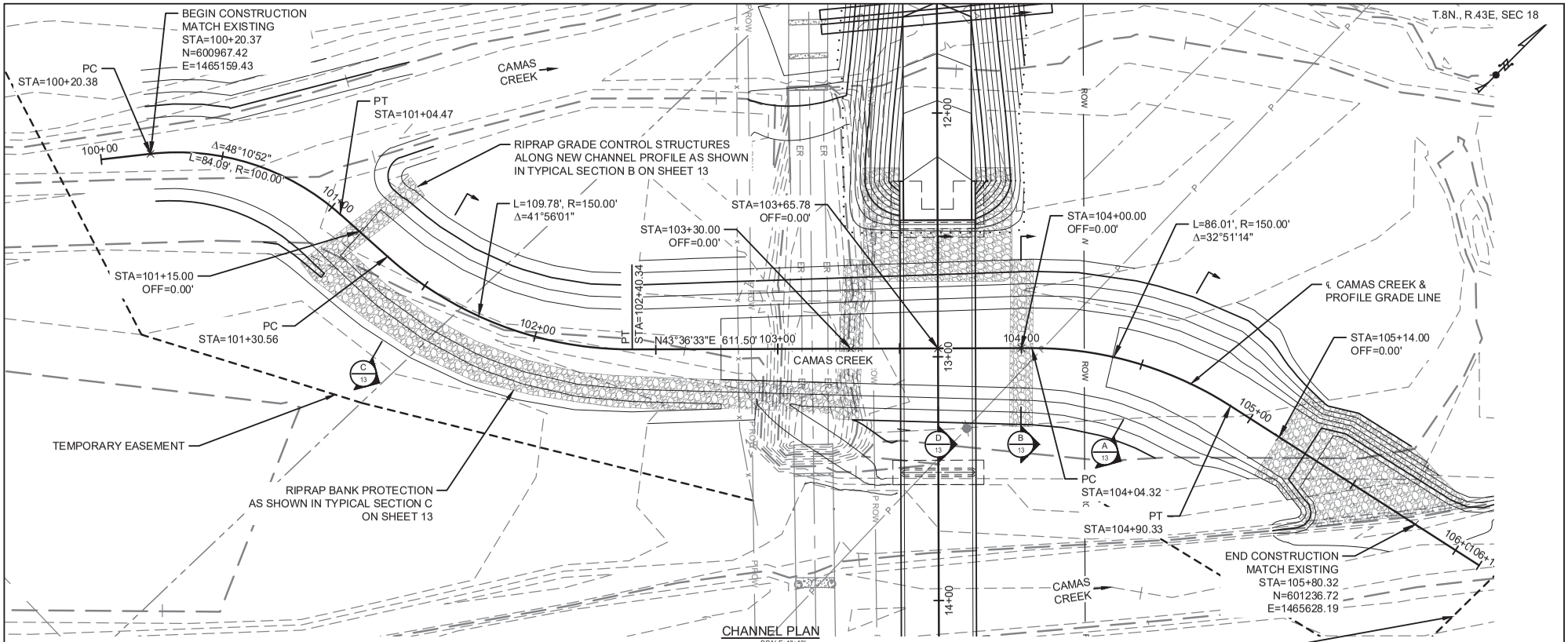
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

RIPRAP DETAIL

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO:	02-23-0135
DRAWING NO.	18294
DATE:	3/23/26
SHEET NO:	11 OF 47



F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_CHANNEL IMPROVEMENTS.dwg ---- 3/23/2026 6:21 PM

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

CHANNEL IMPROVEMENTS (1 OF 2)

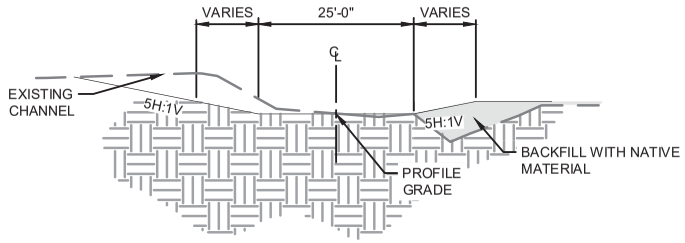
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 12 OF 47

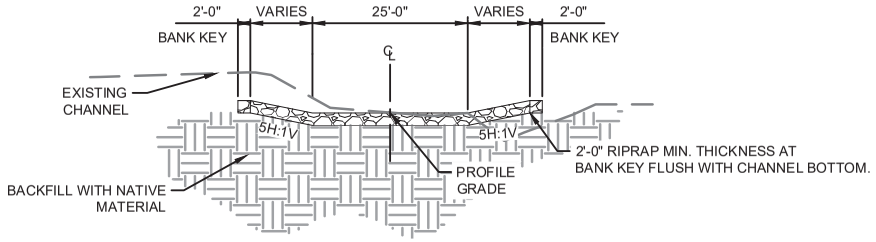
PROFESSIONAL ENGINEER
REGISTERED
10208
3/23/2026
STATE OF IDAHO
STEVEN R. YEARSLEY

CHANNEL WORK NOTES

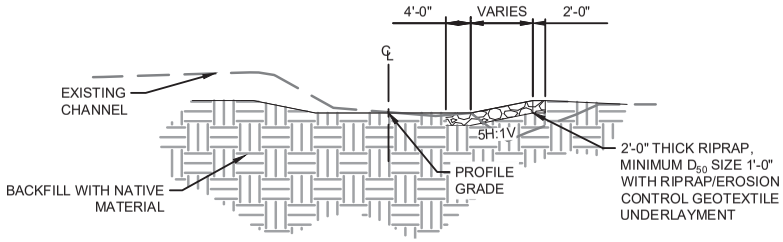
1. PAYMENT FOR CHANNEL EARTHWORK IS MADE UNDER PAY ITEM 205-005C.
2. PAYMENT FOR RIPRAP SHOWN IN THE CHANNEL ON SHEET 12 AND 13 IS MADE UNDER PAY ITEM 624-005B.
3. NO ADDITIONAL PAYMENT WILL BE MADE FOR MOVING/PLACEMENT OF MATERIAL FOR CHANNEL IMPROVEMENTS.
4. THE PREVIOUSLY LISTED ITEMS ABOVE WILL BE PAID BY SURVEYED QUANTITIES IN THE FIELD.



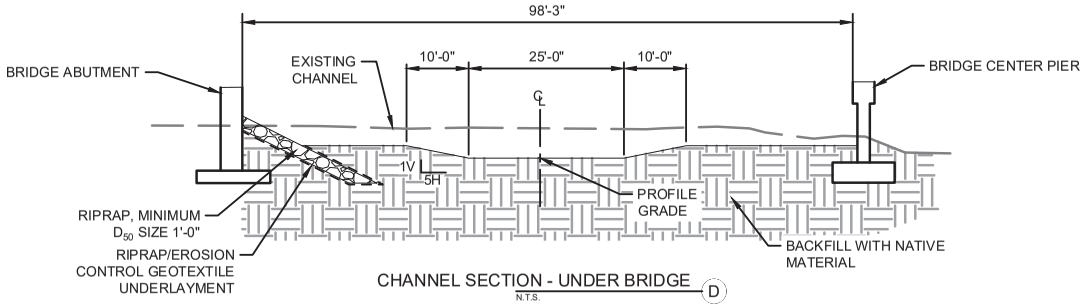
CHANNEL SECTION - NO RIPRAP (A)
N.T.S.



CHANNEL SECTION - WITH RIPRAP GRADE CONTROL STRUCTURE (B)
N.T.S.



CHANNEL SECTION - WITH RIPRAP BANK PROTECTION (C)
N.T.S.



CHANNEL SECTION - UNDER BRIDGE (D)
N.T.S.

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

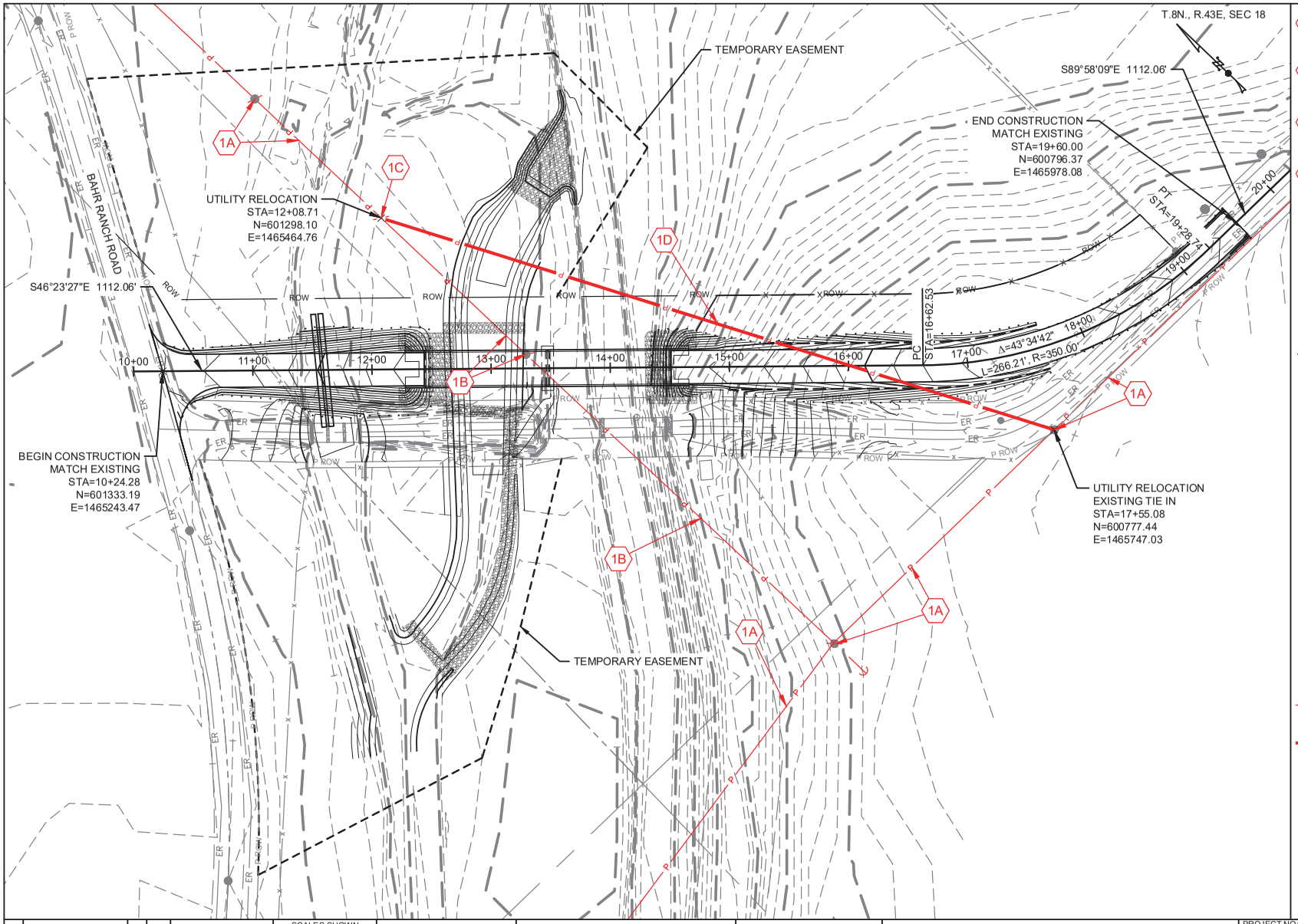
Ihtact2 Serving Idaho Since 1994

CHANNEL IMPROVEMENTS (2 OF 2)

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 13 OF 47

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026



1A RETAIN AND PROTECT IDAHO POWER

1B RELOCATE AT PROJECT EXPENSE IDAHO POWER

1C PROPOSED POWER POLE RELOCATION WORK DONE BY IDAHO POWER

1D PROPOSED OVERHEAD POWER LINE RELOCATION WORK DONE BY IDAHO POWER

NOTES:

1. CONTRACTOR TO FIELD VERIFY UTILITY DEPTH AND LOCATIONS.
2. FOR OTHER APPLICABLE NOTES, SEE SHEET 2 UTILITY.
3. RETAIN AND PROTECT EXISTING IDAHO POWER LINES UNLESS OTHERWISE STATED.
4. CONTRACTOR TO CONTACT IDAHO POWER CUSTOMER SERVICE AT 1-800-488-6151 FOR LINE FLAGGING OR PROTECTION IF NEEDED.
5. CONTRACTOR TO COORDINATE WITH THE UTILITY PURVEYOR REGARDING EXISTING OVERHEAD POWER UTILITIES.
6. MAINTAIN ADEQUATE CLEARANCE BETWEEN CONSTRUCTION AND OVERHEAD POWER LINES.

UTILITY LEGEND :

P EX. OVERHEAD POWER

P PR. OVERHEAD POWER

GRAPHIC SCALE

0' 10' 20' 40' 60'

Scale: 1"=40'

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

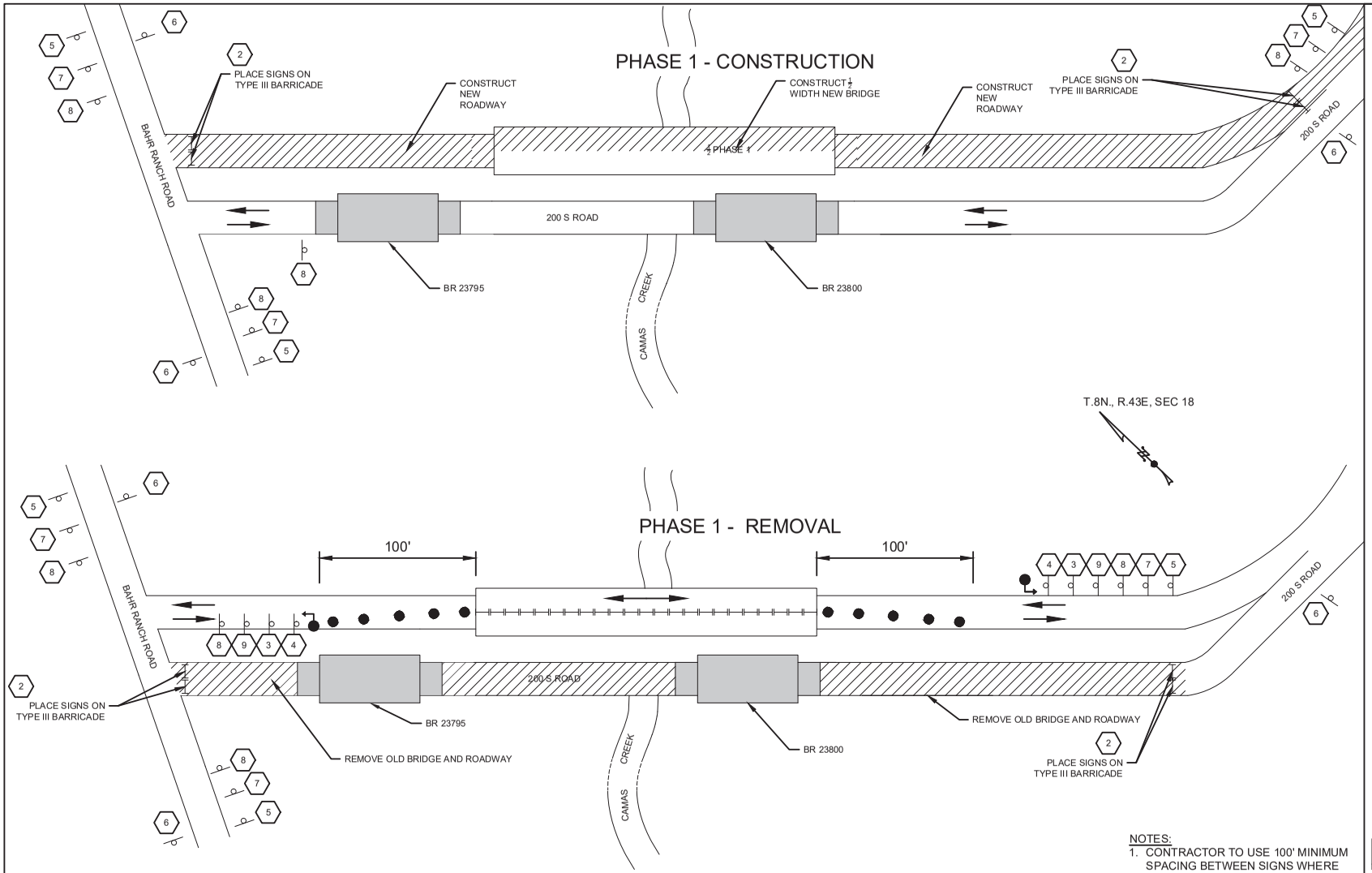
Ihtact2 Serving Idaho Since 1994

UTILITY PLAN

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 14 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Civil\23801_UTILITY PLAN.dwg — 3/23/2026 6:21 PM



1 W20-2 36"x36" — DETOUR AHEAD

2 R11-4 60"x30" ON TYPE III BARRICADE — ROAD CLOSED

3 W 3-3 (o) 48"x48"

4 R10-6 24"x36" — STOP HERE ON RED

5 W20-1 36"x36" — ROAD WORK AHEAD

6 G20-2 24"x48" — END ROAD WORK

7 W3-5(o) 36"x36" — SPEED LIMIT 10

8 R2-1 24"x30" — SPEED LIMIT 10

9 W20-4 36"x36" — ONE LANE ROAD AHEAD

LEGEND

- DRUM
- TEMPORARY SIGNAL
- SIGN
- TYPE III BARRICADE
- WORK AREA (ROAD CLOSED)

NOTES:

1. CONTRACTOR TO USE 100' MINIMUM SPACING BETWEEN SIGNS WHERE PRACTICAL.
2. ANY CHANGES TO THIS TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE ENGINEER FIRST.
3. SEE SHEET 18 FOR PHASING PLAN.

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN H. IRVING
DESIGNED H. IRVING
APPROVED S. YEARSLEY
QA S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

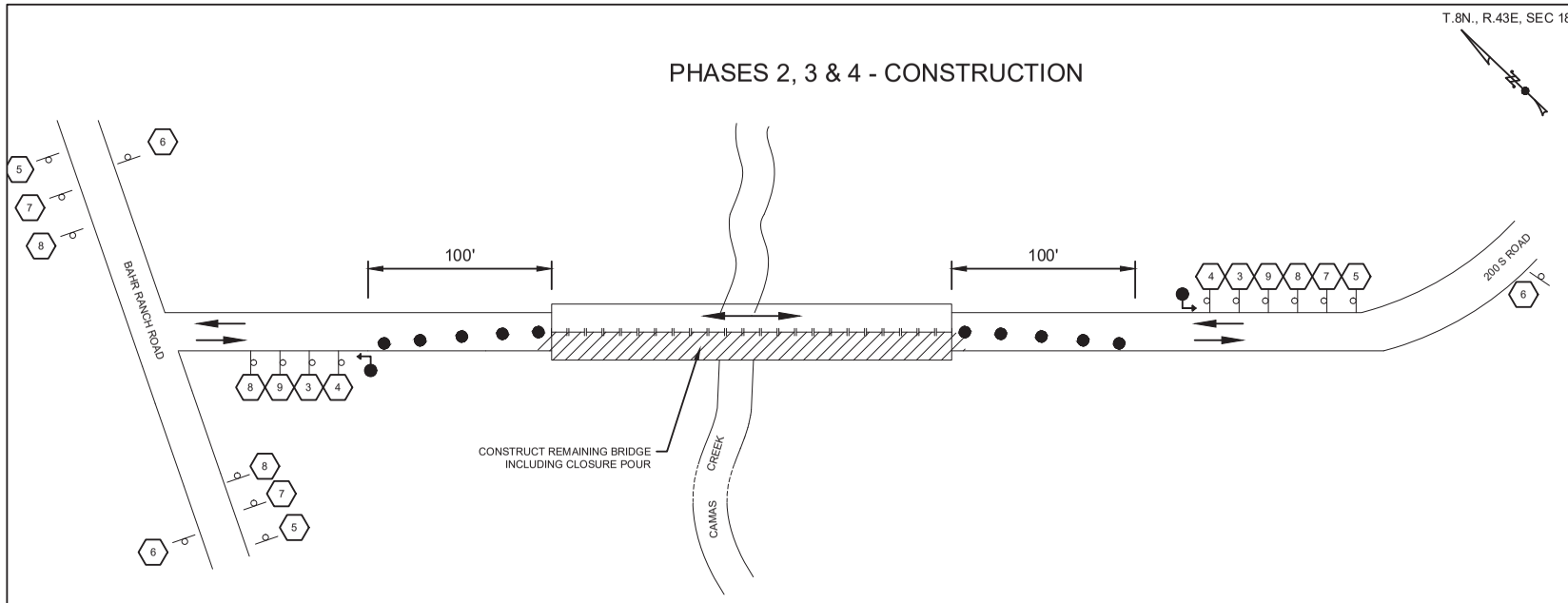
Intact2 Serving Idaho Since 1994

TRAFFIC CONTROL (1 OF 2)

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 15 OF 47

PHASES 2, 3 & 4 - CONSTRUCTION



1	W20-2 36"x36"	DETOUR AHEAD
2	R11-2 48"x30" ON TYPE III BARRICADE	ROAD CLOSED
3	W 3-3 (o) 48"x48"	
4	R10-6 24"x36"	STOP HERE ON RED
5	W20-1 36"x36"	ROAD WORK AHEAD
6	G20-2 24"x48"	END ROAD WORK
7	W3-5(o) 36"x36"	SPEED LIMIT 10
8	R2-1 24"x30"	SPEED LIMIT 10
9	W20-4 36"x36"	ONE LANE ROAD AHEAD

LEGEND

- DRUM
- TEMPORARY SIGNAL
- SIGN
- TYPE III BARRICADE
- WORK AREA (ROAD CLOSED)

NOTES:

1. CONTRACTOR TO USE 100' MINIMUM SPACING BETWEEN SIGNS WHERE PRACTICAL.
2. ANY CHANGES TO THIS TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE ENGINEER FIRST.
3. SEE SHEET 18 FOR PHASING PLAN.

PROFESSIONAL ENGINEER REGISTERED 10208 STATE OF IDAHO STEVEN R. YEARSLEY 3/23/2026

NO.	REVISIONS	BY	DATE

DRAWN	H. IRVING
DESIGNED	H. IRVING
APPROVED	S. YEARSLEY
QA	S. WALDINGER

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

TRAFFIC CONTROL (2 OF 2)

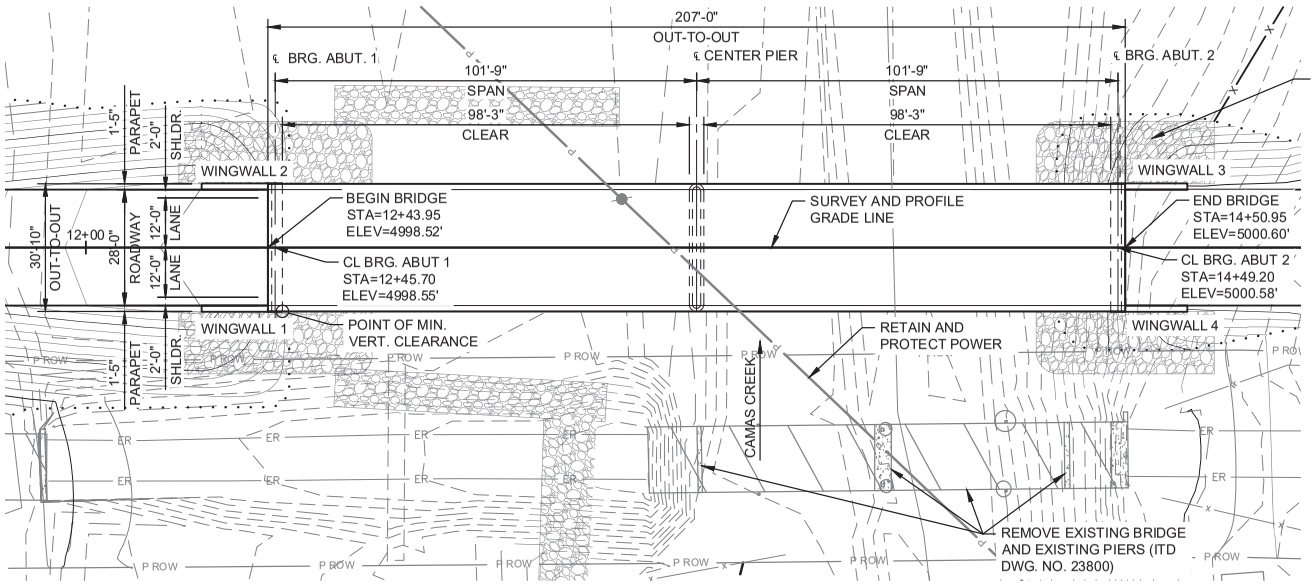
200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135

DRAWING NO. 18294

DATE: 3/23/26

SHEET NO: 16 OF 47



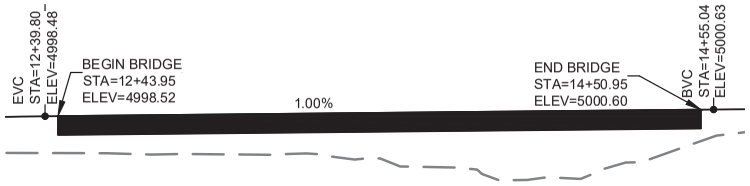
BRIDGE PLAN
1" = 30'-0"

T.8N., R.43E, SEC 18

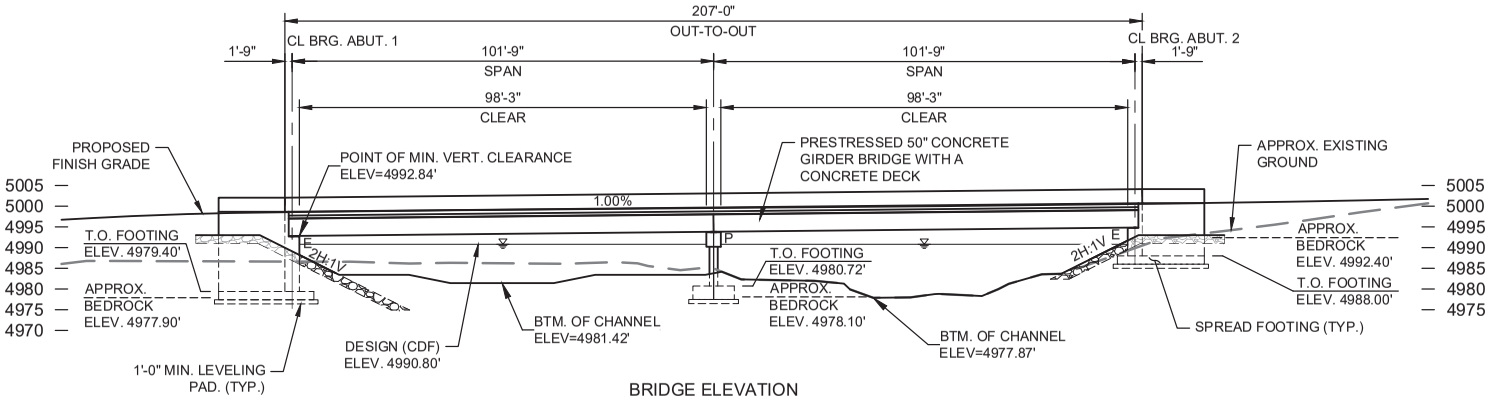
RIPRAP EXTENDS THROUGH BRIDGE (NOT SHOWN FOR CLARITY). SEE SHEET 10.

HYDRAULIC DATA

FLOOD	DISCHARGE	H.W. ELEVATION	VELOCITY
DESIGN (Q_{50})	6220 CFS	4990.78 FT	5.08 FPS
CHECK (Q_{100})	6808 CFS	4990.99 FT	5.39 FPS
SCOUR CHECK (Q_{500})	7709 CFS	4991.24 FT	5.92 FPS



PROFILE DATA
N.T.S.



BRIDGE ELEVATION
1" = 30'-0"

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

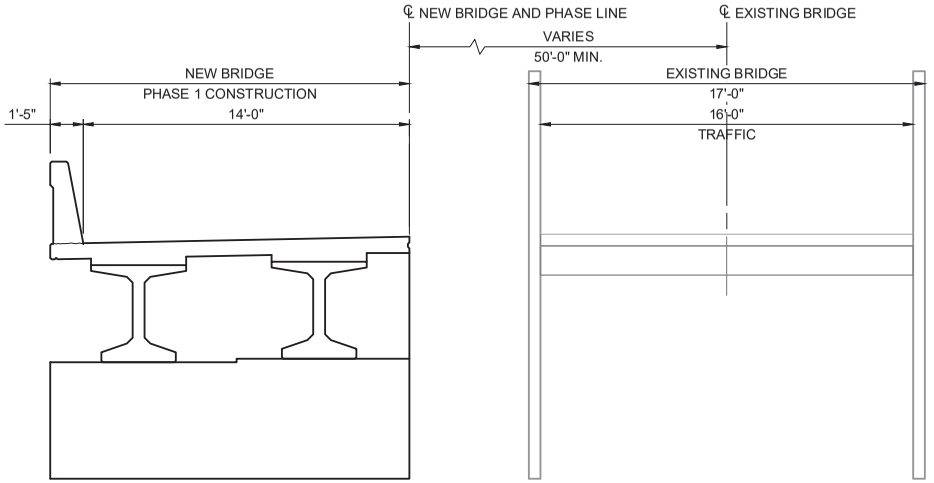
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

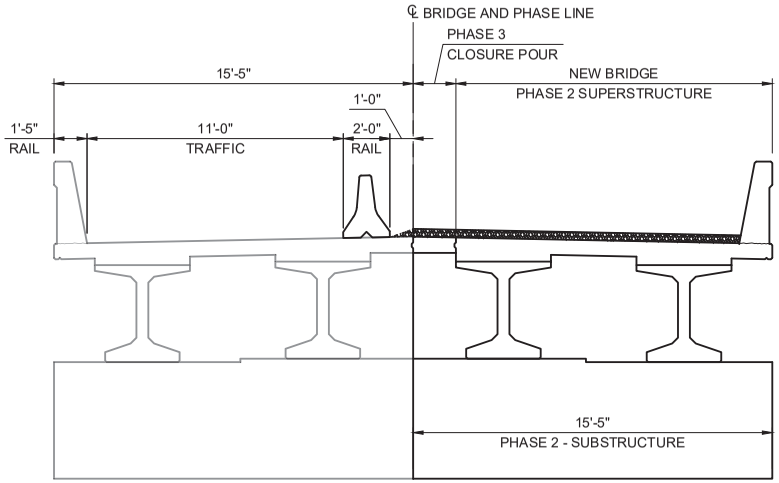
SITUATION & LAYOUT

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 17 OF 47



PHASE 1 CONSTRUCTION
3/16"=1'-0"



PHASES 2 & 3 CONSTRUCTION
3/16"=1'-0"

NOTES:
PHASE CONSTRUCTION OF THE BRIDGE NEAR THE NEW ABUTMENTS IS SHOWN. PHASE CONSTRUCTION OF BRIDGE IN OTHER AREAS IS SIMILAR:

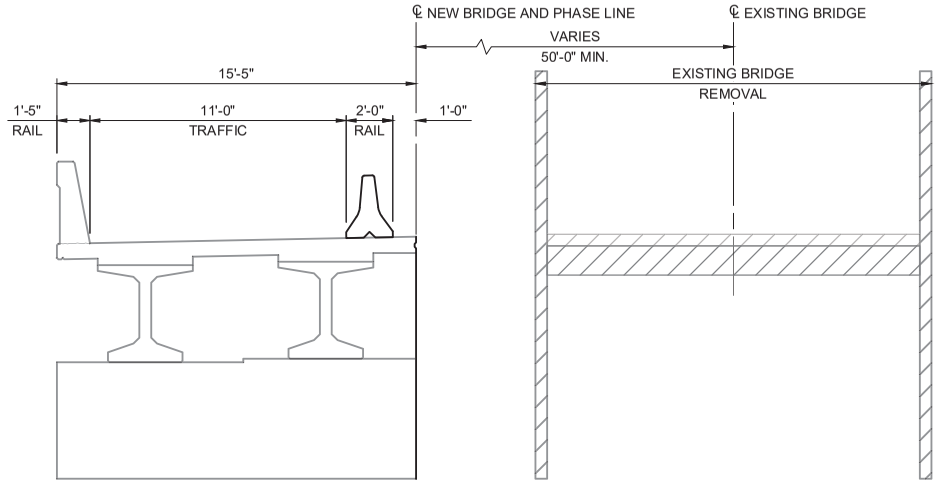
PHASE 1 CONSTRUCTION:
1. CONSTRUCT THE PHASE 1 PORTION OF THE NEW BRIDGE.

PHASE 1 REMOVAL
1. INSTALL TEMPORARY BARRIER ON NEW PHASE 1 DECK UTILIZING TEMPORARY CONCRETE BARRIER ANCHORAGE AS DETAILED ON SHEET 41.
2. ESTABLISH ONE-LANE TRAFFIC CONTROL UTILIZING TEMPORARY SIGNALS AND/OR FLAGGERS AND MOVE TRAFFIC TO THE NEW BRIDGE DECK FROM THE EXISTING BRIDGE. PROVIDE 11' MINIMUM CLEAR BETWEEN BARRIERS FOR TRAFFIC.
3. REMOVE EXISTING BRIDGE.

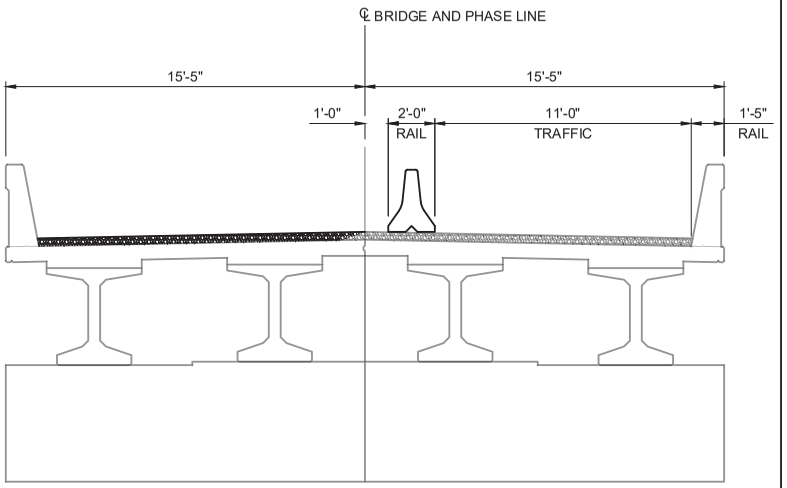
PHASE 2 CONSTRUCTION:
1. CONSTRUCT THE PHASE 2 PORTION OF THE NEW BRIDGE.

PHASE 3 CONSTRUCTION:
1. CONSTRUCT CLOSURE POUR.
2. INSTALL COURSE AGGREGATE DECK DRAIN AS SHOWN ON SHEET 39.
3. PLACE GRAVEL OVERLAY ON DECK WITHIN LIMITS OF THE PHASE 2 & 3 CONSTRUCTION.

PHASE 4 CONSTRUCTION:
1. RELOCATE TEMPORARY BARRIER AND SHIFT TRAFFIC.
2. CLEAN AND FILL DECK HOLES WITH GROUT IN ACCORDANCE WITH 705.02.
3. INSTALL COURSE AGGREGATE DECK DRAIN.
4. PLACE REMAINDER OF GRAVEL OVERLAY ON DECK.
5. REMOVE TEMPORARY BARRIER AND FULLY OPEN BRIDGE TO 2-WAY TRAFFIC.



PHASE 1 REMOVAL
3/16"=1'-0"



PHASE 4 CONSTRUCTION
3/16"=1'-0"

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

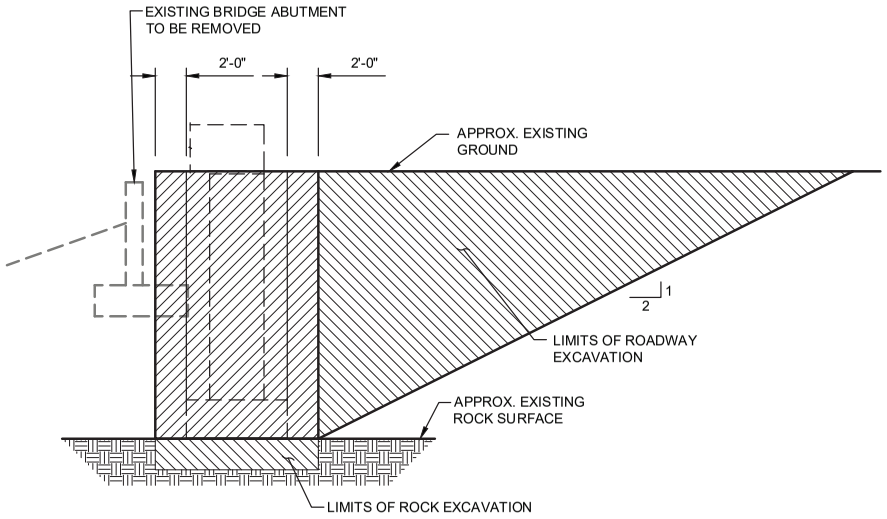
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

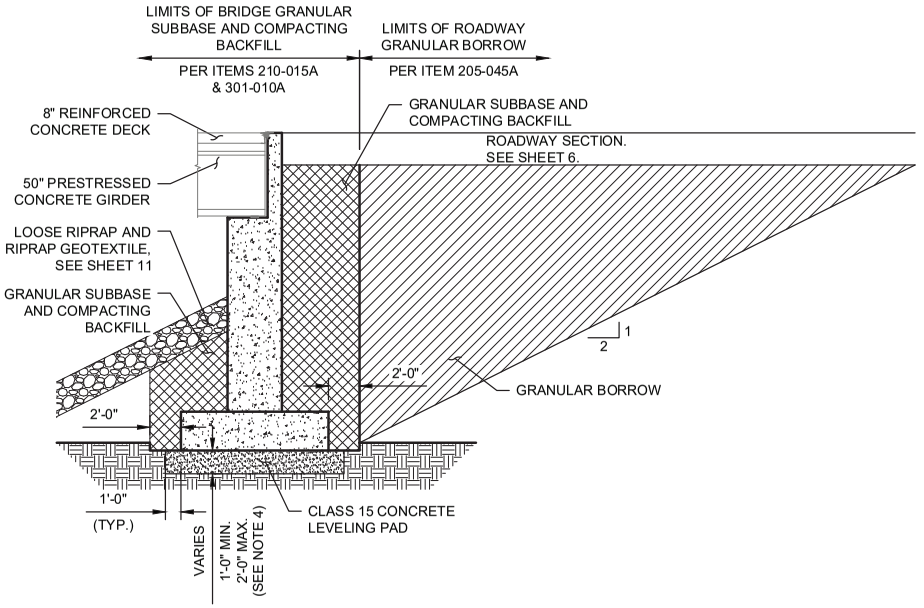
PHASING PLAN

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 18 OF 47



ABUTMENT EXCAVATION DETAIL
N.T.S.



ABUTMENT BACKFILL DETAIL
N.T.S.

NOTES:
1. EXCAVATE ROCK AS NEEDED TO OBTAIN A MINIMUM 1'-0" THICK LEVELING PAD.
2. USE CLASS 15 CONCRETE FOR LEVELING PAD UP TO 2'-0" THICK.
3. ARTIFICIALLY ROUGHEN TOP OF LEVELING PAD TO 1/4" AMPLITUDE.
4. IF SOUND ROCK IS MORE THAN 2'-0" BELOW BOTTOM OF FOOTING, CONTACT ENGINEER FOR BACKFILL DIRECTION.
5. QUANTITY SHOWN FOR BID ITEM 210-005B, STRUCTURE EXCAVATION SCH. NO. 1 - ROCK, SHOWN ON SHEET 3 IS BASED ON AN ASSUMED UNIFORM EXCAVATION DEPTH OF 1'-6" BELOW THE BOTTOM OF THE FOOTINGS.

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_EXCAVATION AND BACKFILL.dwg - ---- - 3/23/2026 11:53 AM

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

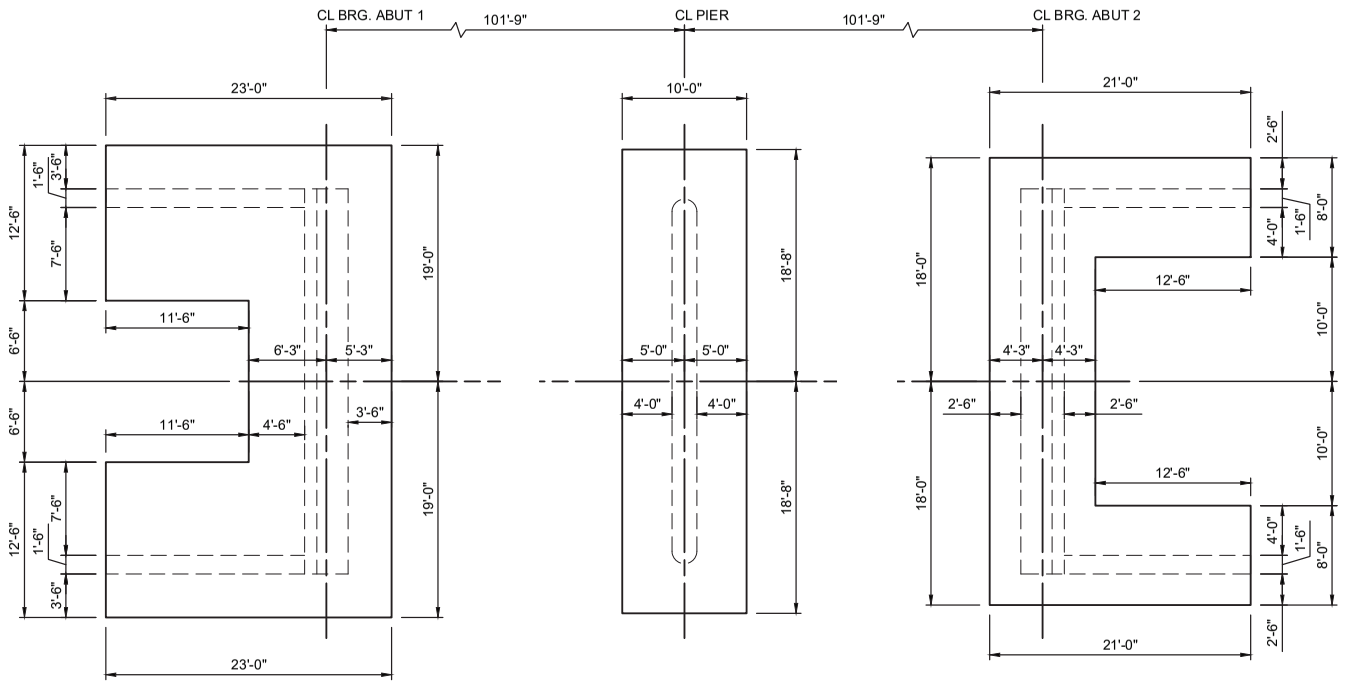
Ihtact2 Serving Idaho Since 1994

EXCAVATION AND BACKFILL

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 19 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



FOOTING LAYOUT PLAN

1" = 10'

NO.	REVISIONS	BY	DATE

This document or any part thereof in detail or design concept is the property of Forsgren Associates Inc. and shall not be copied without the written authorization of Forsgren Associates Inc.

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

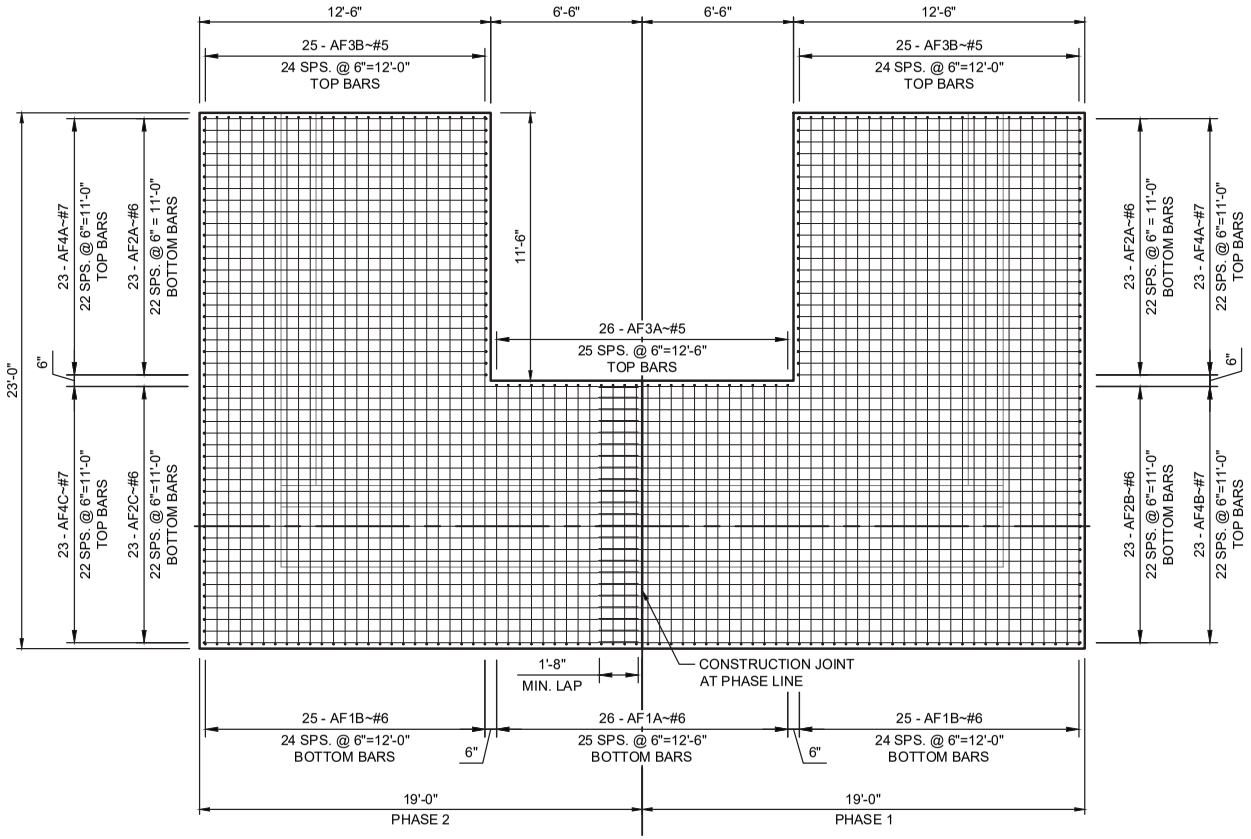
FOOTING LAYOUT

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 20 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_FOOTING LAYOUT.dwg - ---- - 3/23/2026 11:53 AM



ABUTMENT 1 FOOTING PLAN

3/16" = 1'-0"

(LOOKING BACK ON STATION)

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_ABUTMENT&PIER FOOTING DETAILS.dwg - ---- - 3/23/2026 11:54 AM

NO.	REVISIONS	BY	DATE

DRAWN	J.SCOTT
DESIGNED	J.LARKIN
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

ABUTMENT 1 FOOTING DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

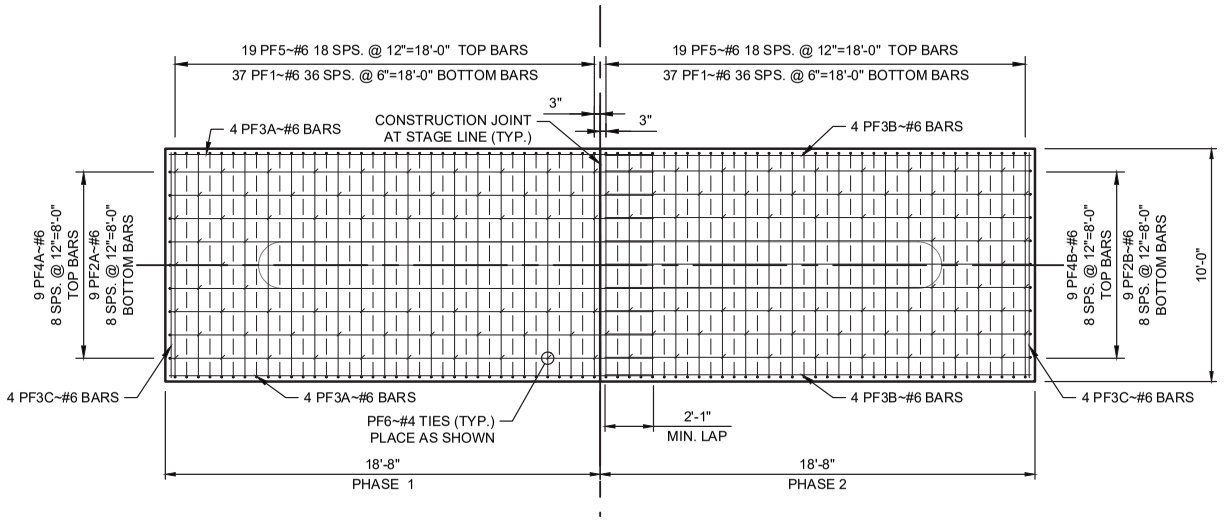
PROJECT NO: 02-23-0135

DRAWING NO. 18294

DATE: 3/23/26

SHEET NO: 21 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN



NOTE:
PF6 TIE BARS ARE NOT INCLUDED
BELOW THE PIER WALL.

CENTER PIER FOOTING PLAN

3/16" = 1'-0"
(LOOKING AHEAD ON STATION)

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

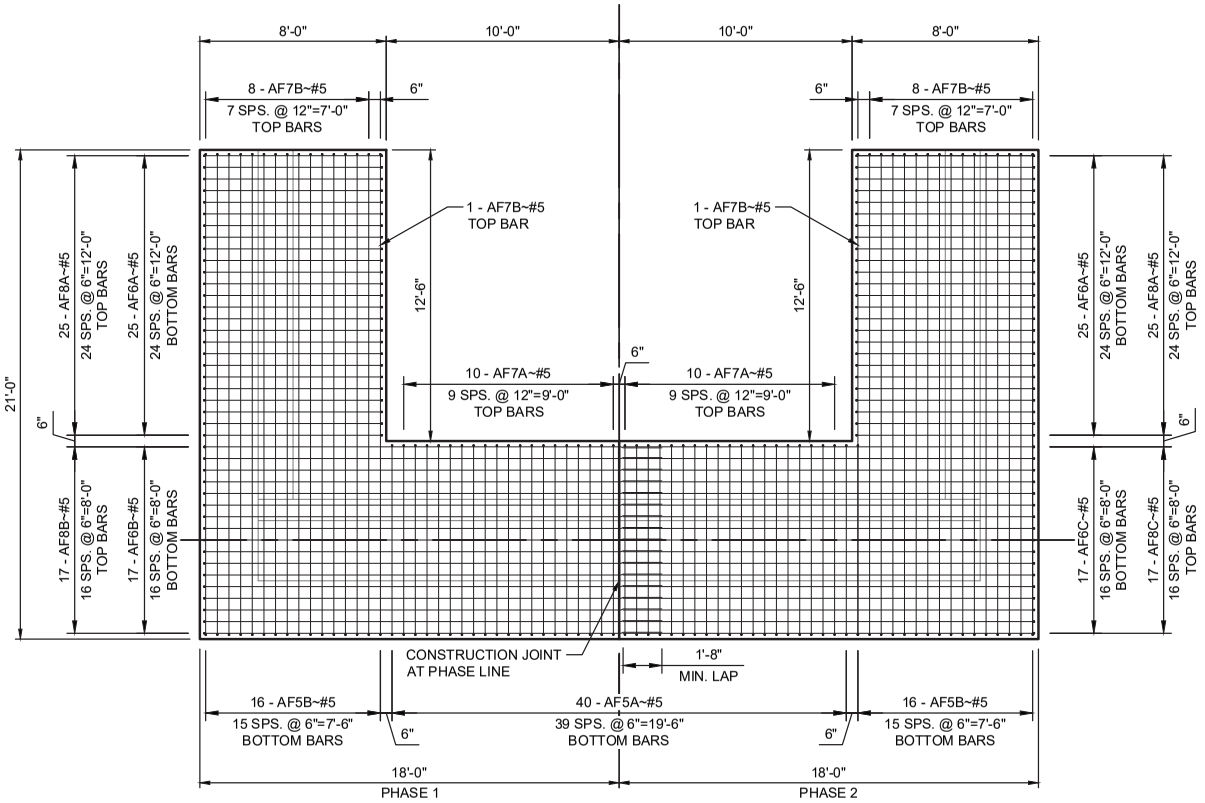
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

CENTER PIER FOOTING DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 22 OF 47



ABUTMENT 2 FOOTING PLAN
3/16" = 1'-0"
(LOOKING AHEAD ON STATION)

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_ABUTMENT&PIER FOOTING DETAILS.dwg - ---- - 3/23/2026 11:54 AM

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

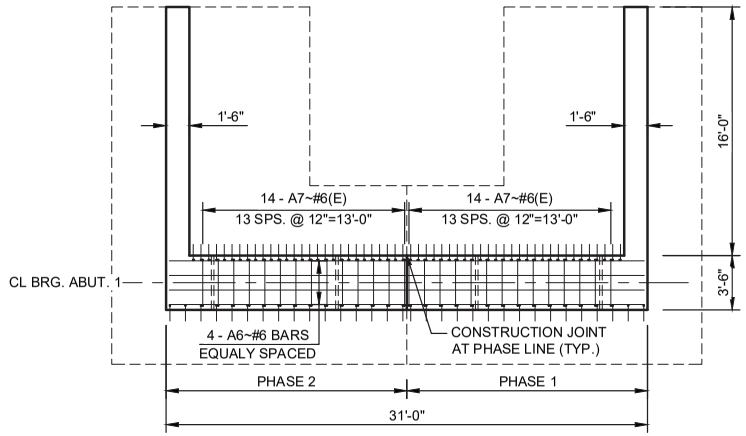
Intact2 Serving Idaho Since 1994

ABUTMENT 2 FOOTING DETAILS

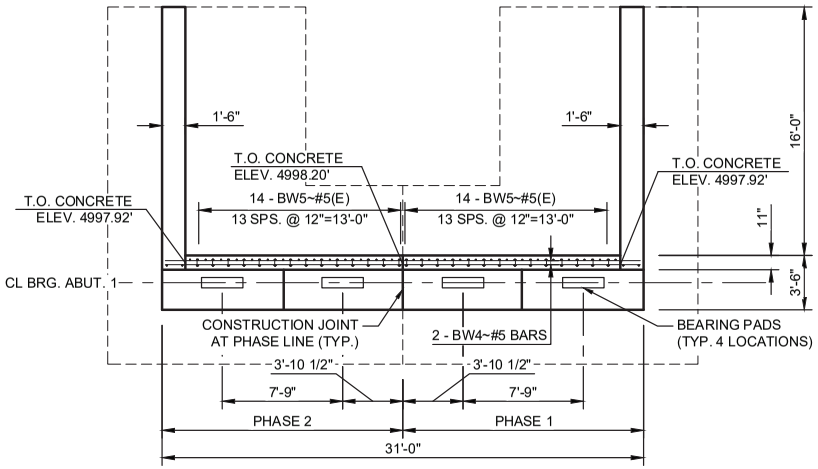
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 23 OF 47

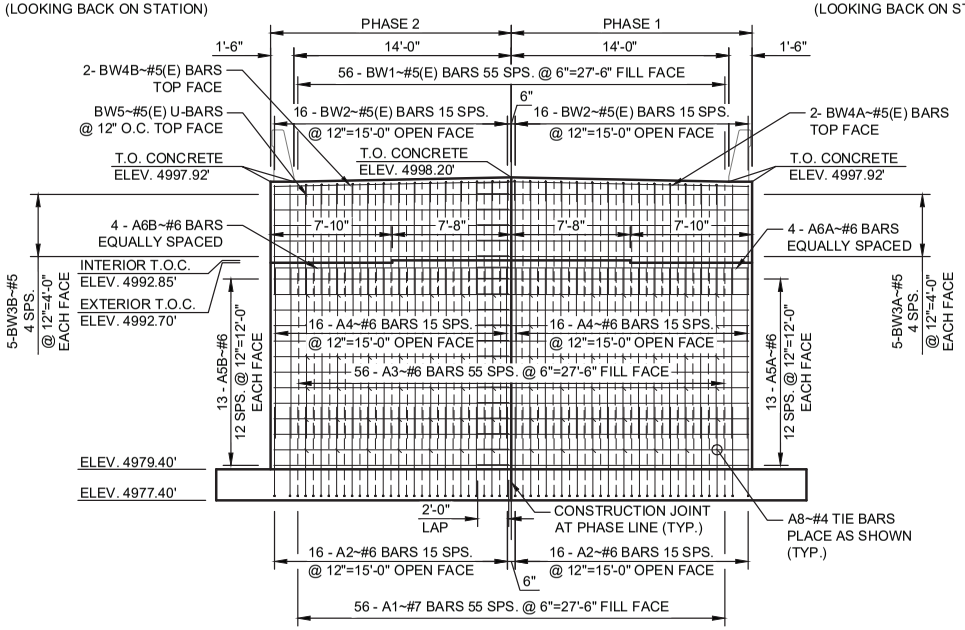
PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



ABUTMENT 1 PLAN
1/8" = 1'-0"
(LOOKING BACK ON STATION)



ABUTMENT 1 BACKWALL PLAN
1/8" = 1'-0"
(LOOKING BACK ON STATION)



ABUTMENT 1 ELEVATION
1/8" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

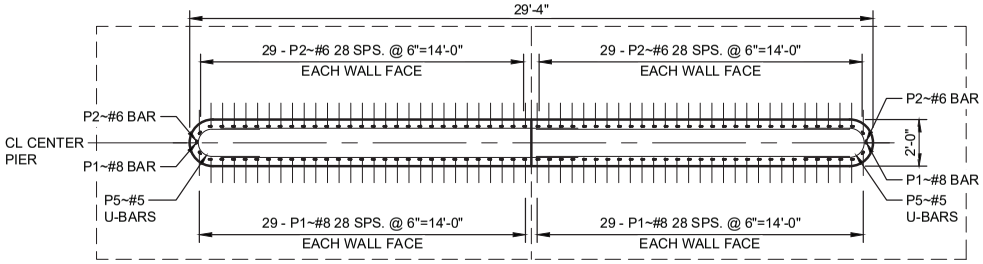
Intact2 Serving Idaho Since 1994

ABUT. 1 PLAN AND ELEVATION

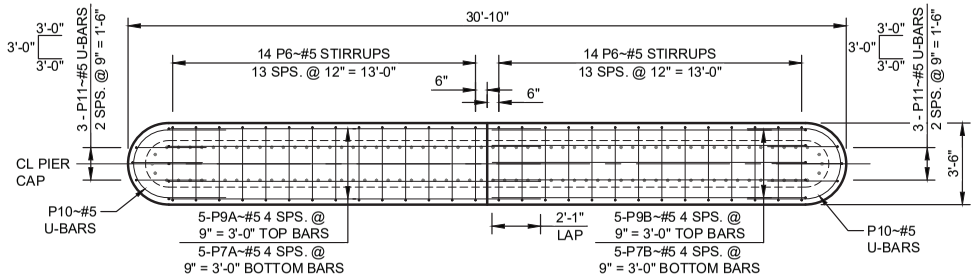
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 24 OF 47

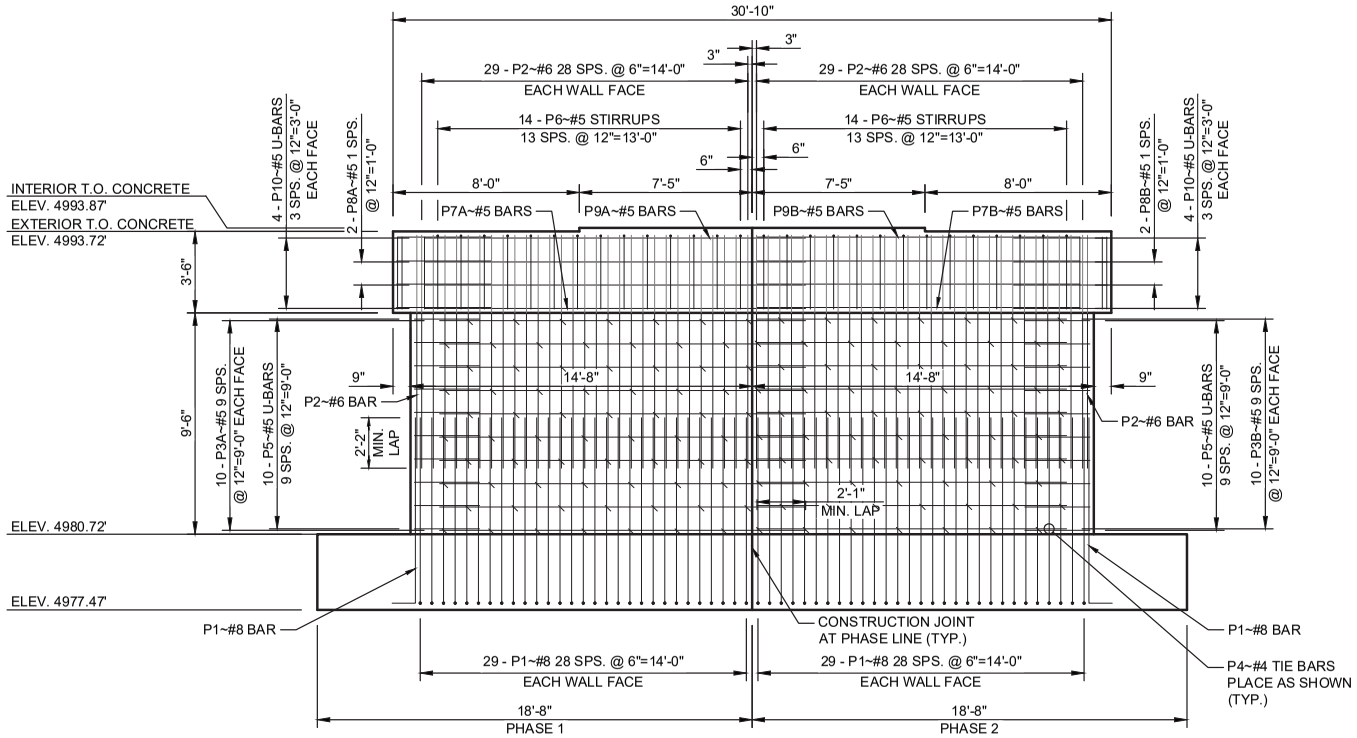
PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



CENTER PIER PLAN
3/16" = 1'-0"



CENTER PIER CAP PLAN
3/16" = 1'-0"



CENTER PIER ELEVATION
3/16" = 1'-0"
(LOOKING AHEAD ON STATION)

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

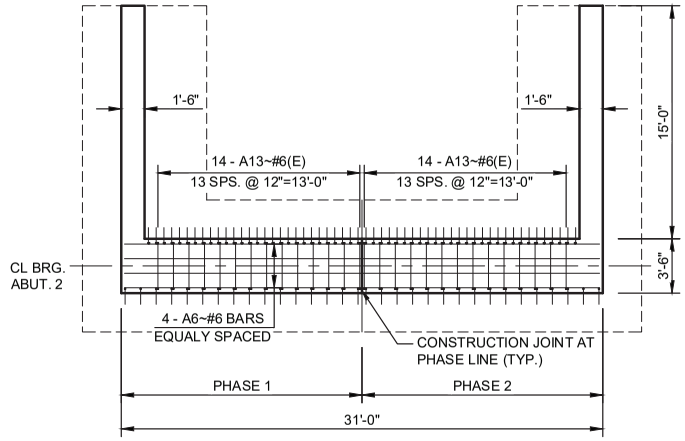
Intact2 Serving Idaho Since 1994

CENTER PIER PLAN AND ELEVATION

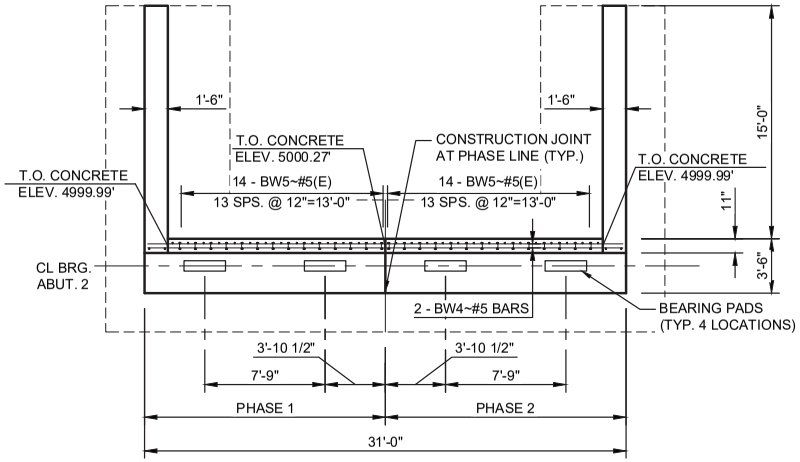
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 25 OF 47

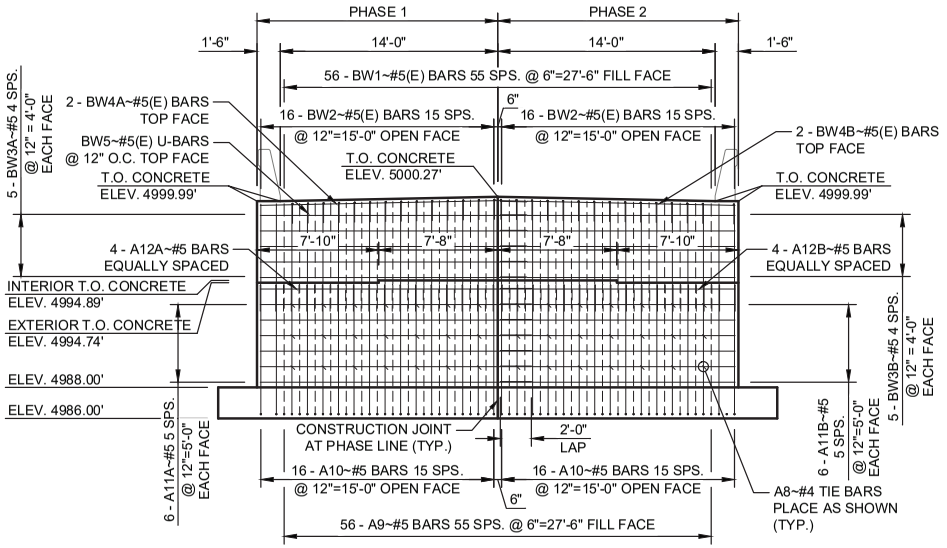
PROFESSIONAL ENGINEER REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



ABUTMENT 2 PLAN
1/8" = 1'-0"
(LOOKING AHEAD ON STATION)



ABUTMENT 2 BACKWALL PLAN
1/8" = 1'-0"
(LOOKING AHEAD ON STATION)



ABUTMENT 2 ELEVATION
1/8" = 1'-0"
(LOOKING AHEAD ON STATION)

NO.	REVISIONS	BY	DATE

DRAWN	J.SCOTT
DESIGNED	J.LARKIN
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

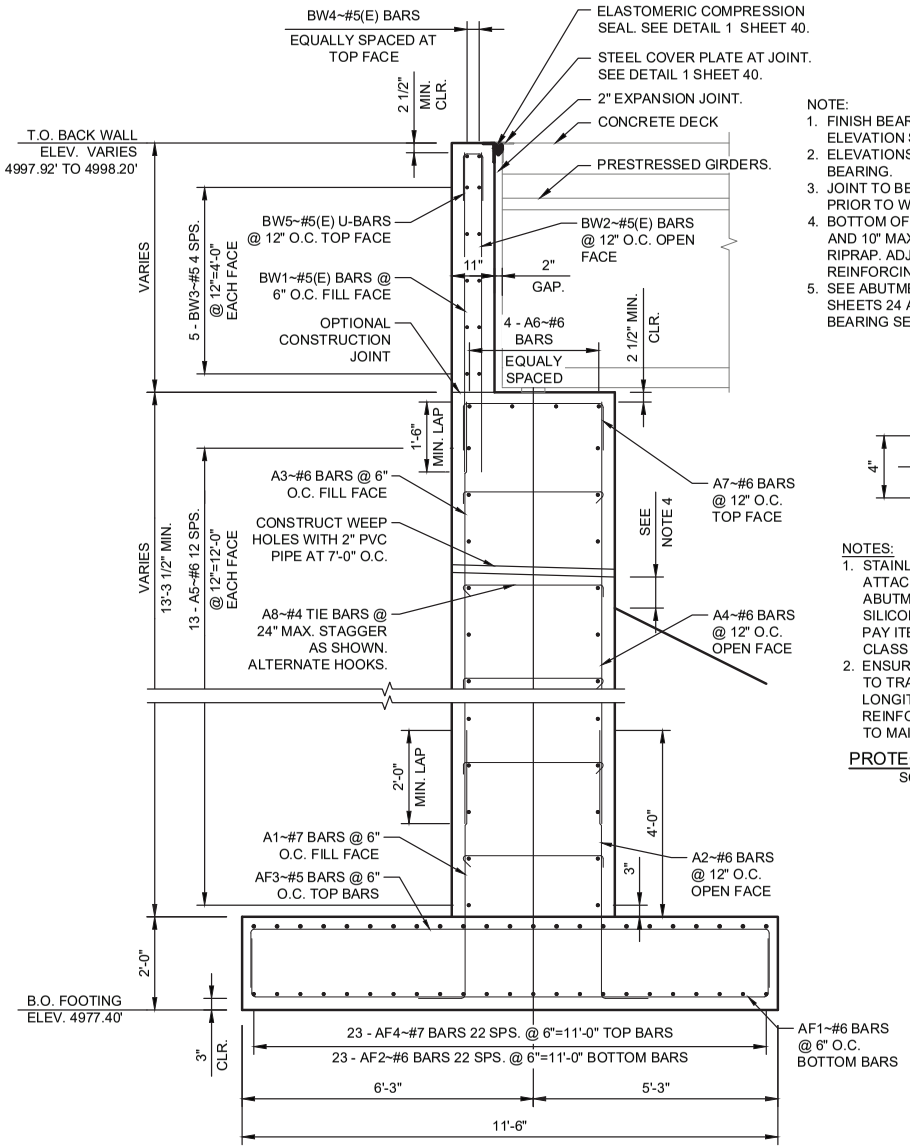
Ihtact2 Serving Idaho Since 1994

ABUT. 2 PLAN AND ELEVATION

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

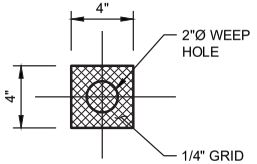
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 26 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



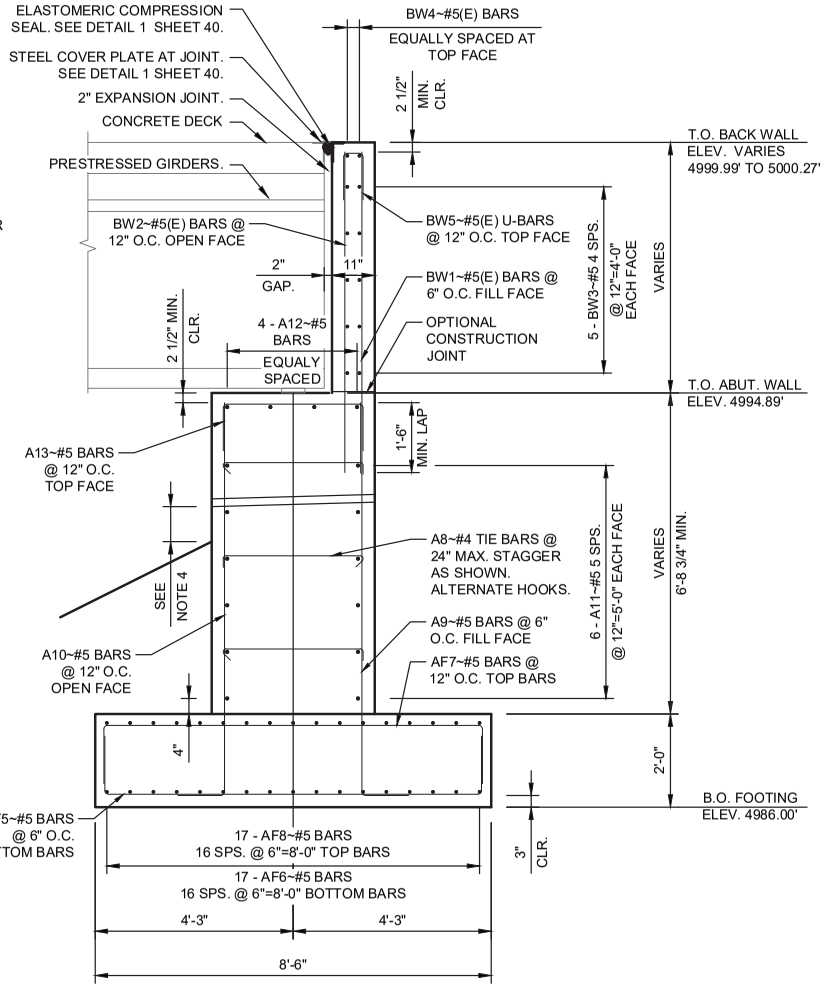
ABUTMENT 1 SECTION
SCALE: 3/8" = 1'-0"

NOTE:
1. FINISH BEARING SEAT AREA LEVEL TO ELEVATION SHOWN ± 1/8"
2. ELEVATIONS GIVEN AT CENTERLINE OF BEARING.
3. JOINT TO BE INSPECTED BY GOVERNMENT PRIOR TO WELDING COVER PLATE.
4. BOTTOM OF WEEP HOLE TO BE 8" MINIMUM AND 10" MAXIMUM ABOVE THE FINISHED RIPRAP. ADJUST SPACING AS REQUIRED FOR REINFORCING.
5. SEE ABUTMENT ELEVATION DETAILS ON SHEETS 24 AND 26 FOR TOP OF CONCRETE BEARING SEAT ELEVATIONS.



NOTES:
1. STAINLESS STEEL MESH IS TO BE ATTACHED TO EXTERIOR ABUTMENT FACE WITH APPROVED SILICONE SEALANT. INCIDENTAL TO PAY ITEM 502-140A CONCRETE CLASS 40A SCHEDULE NO. 1.
2. ENSURE MINIMUM 2" CLEARANCE TO TRANSVERSE AND LONGITUDINAL BARS. SHIFT REINFORCEMENT AS NECESSARY TO MAINTAIN MINIMUM CLEARANCE.

PROTECTIVE MESH DETAIL
SCALE: 1 1/2" = 1'-0"



ABUTMENT 2 SECTION
SCALE: 3/8" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN	J.SCOTT
DESIGNED	J.LARKIN
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

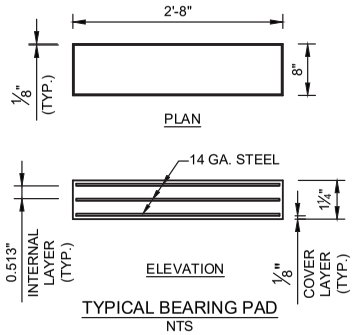
Intact2 Serving Idaho Since 1994

ABUTMENT DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 27 OF 47

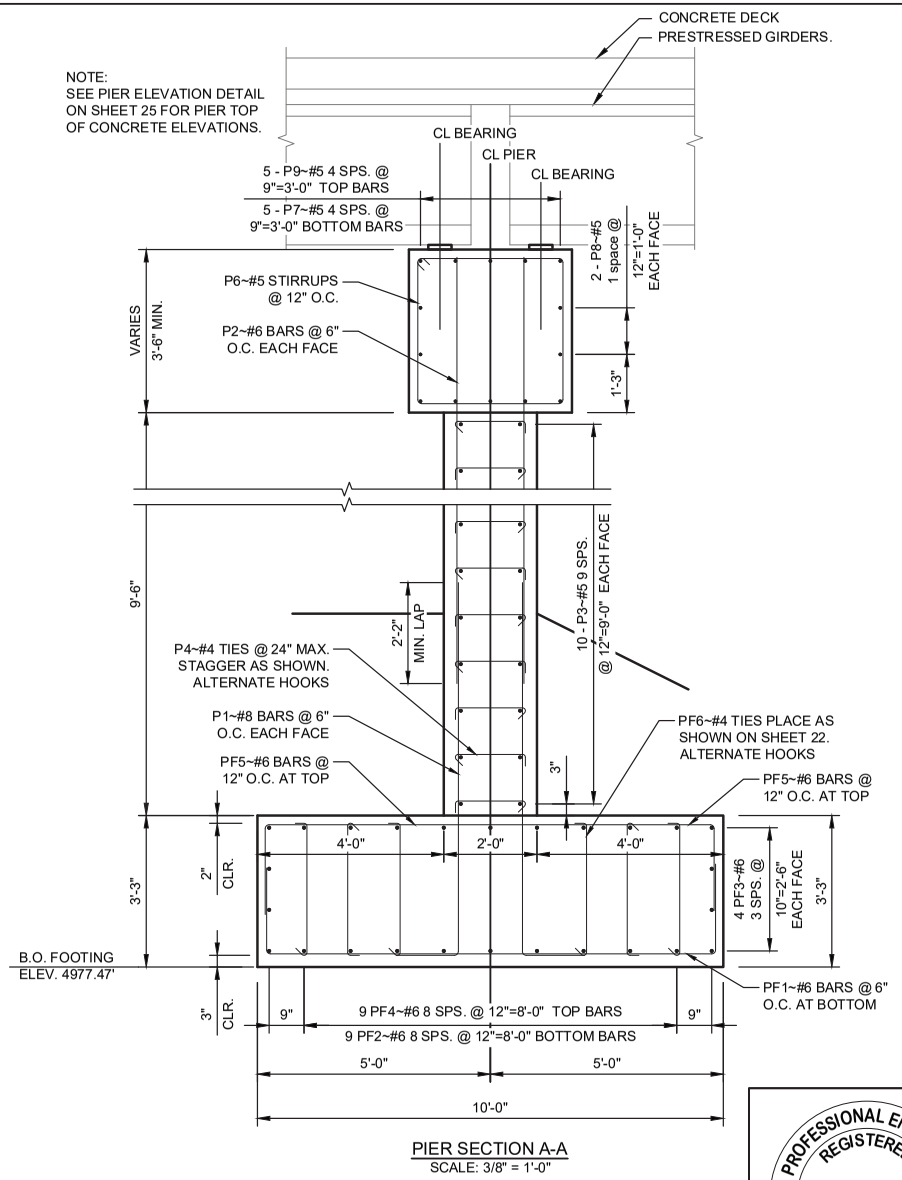
PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN



TYPICAL BEARING PAD
NTS

ELASTOMERIC BEARINGS

DESIGN PROCEDURE: METHOD B
SHEAR MODULUS 130 PSI
GRADE 4 POLYISOPRENE
DESIGN LOADS: SERVICE I = 288 KIPS PER BRG.



PIER SECTION A-A
SCALE: 3/8" = 1'-0"

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

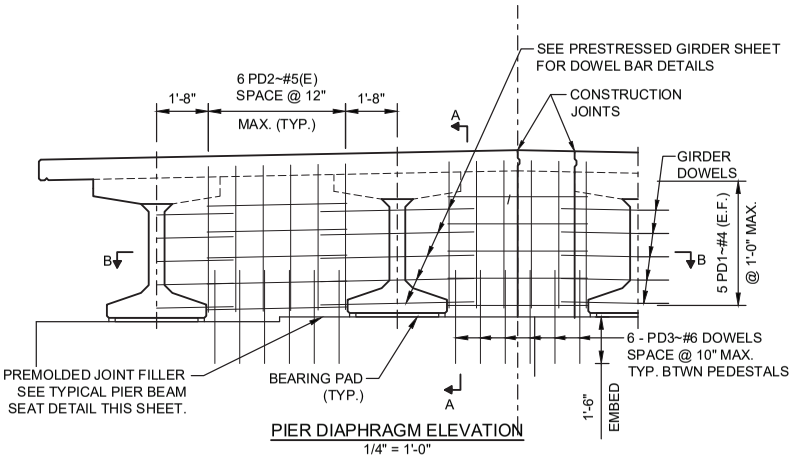
FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

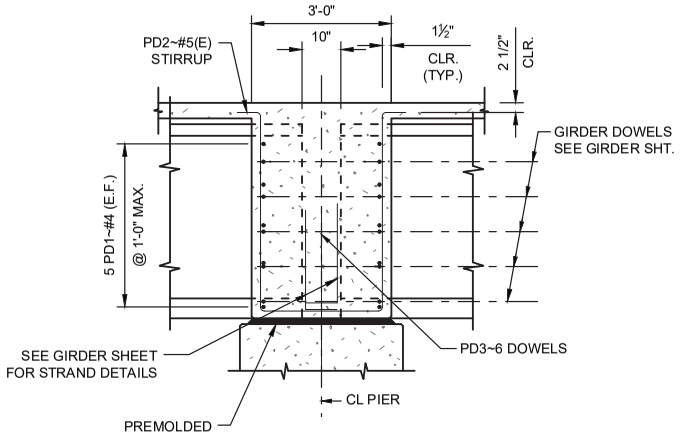
CENTER PIER DETAIL

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 28 OF 47

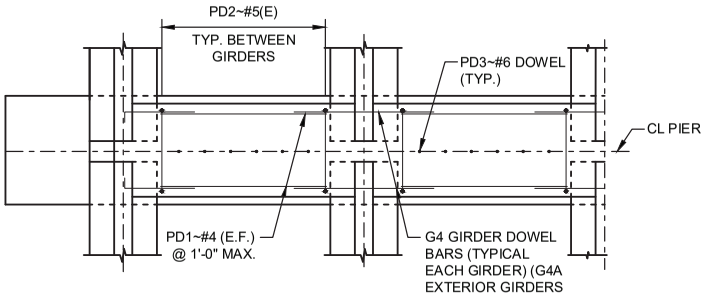


PIER DIAPHRAGM ELEVATION
1/4" = 1'-0"

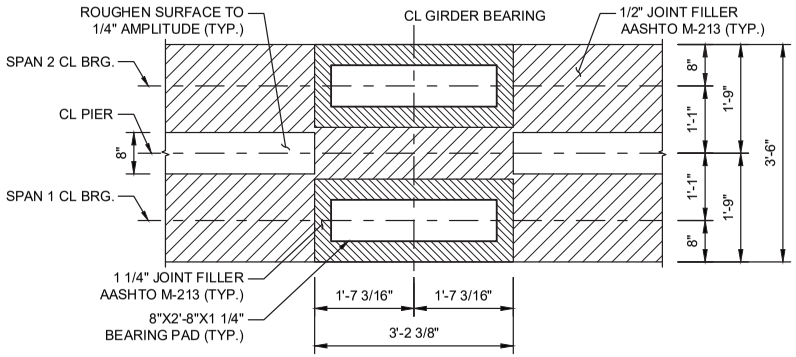


SECTION A-A
3/8" = 1'-0"

NOTE:
NO HORIZONTAL CONSTRUCTION JOINTS ALLOWED BETWEEN TOP SLAB AND PIER DIAPHRAGM



SECTION B-B
1/4" = 1'-0"



TYPICAL PIER BEAM SEAT DETAIL
1/2" = 1'-0"

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO
LOCAL BRIDGE
PROGRAM

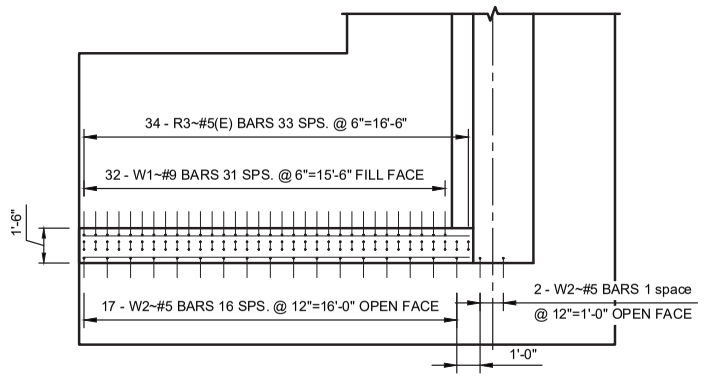
FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

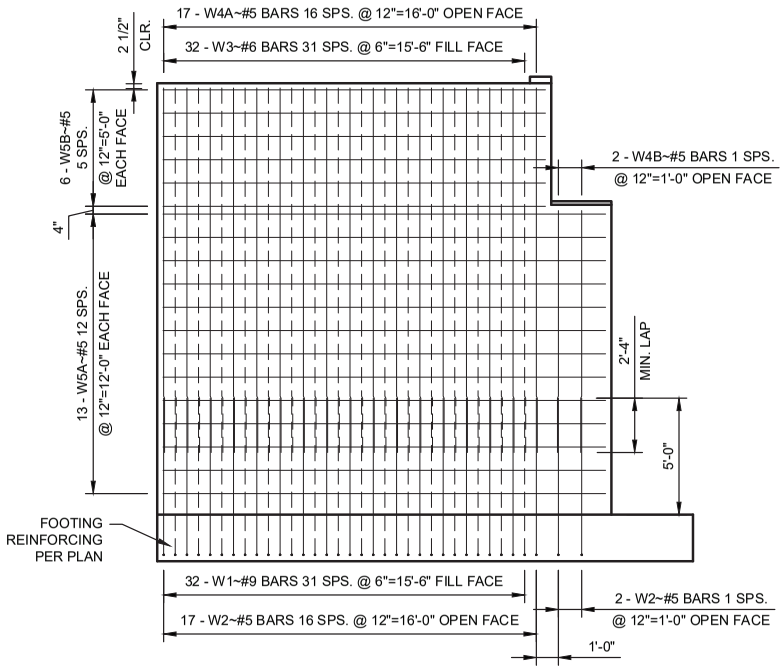
PIER DIAPHRAGM DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

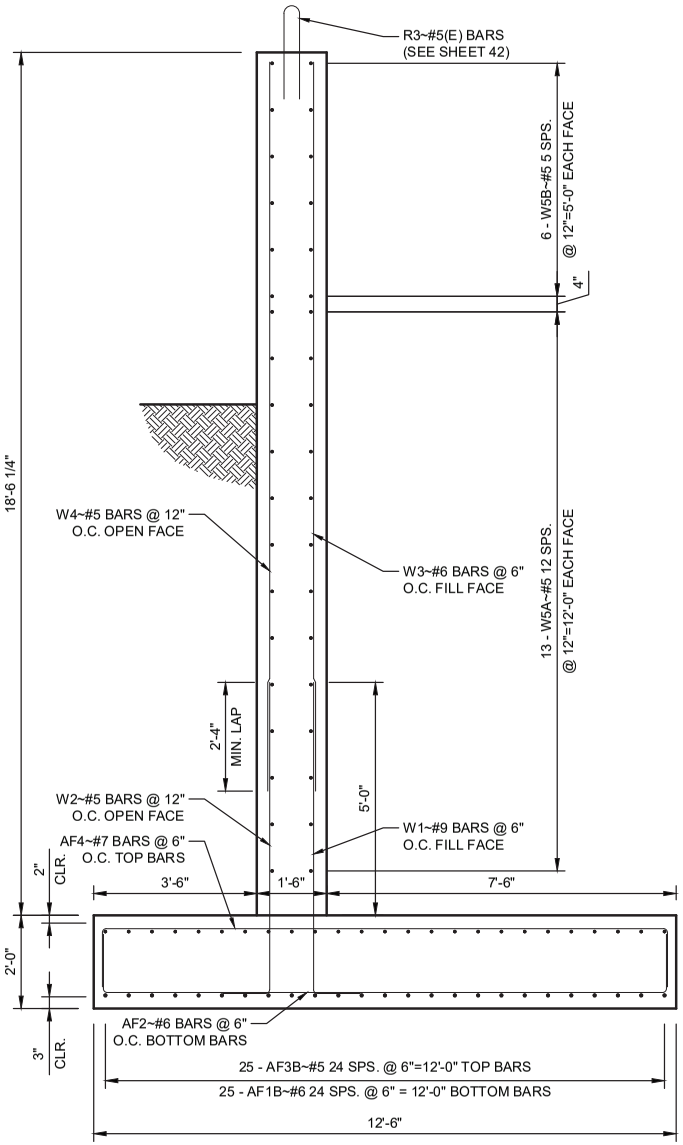
PROJECT NO:	02-23-0135
DRAWING NO.	18294
DATE:	3/23/26
SHEET NO:	29 OF 47



WING WALLS 1 & 2 PLAN
SCALE: 3/16" = 1'-0"



WING WALLS 1 & 2 ELEVATION
SCALE: 3/16" = 1'-0"



WING WALL 1 & 2 SECTION
SCALE: 3/8" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

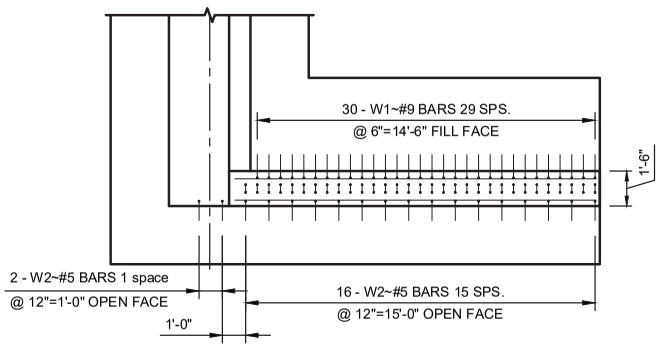
Intact2 Serving Idaho Since 1994

WING WALLS 1 & 2 DETAILS

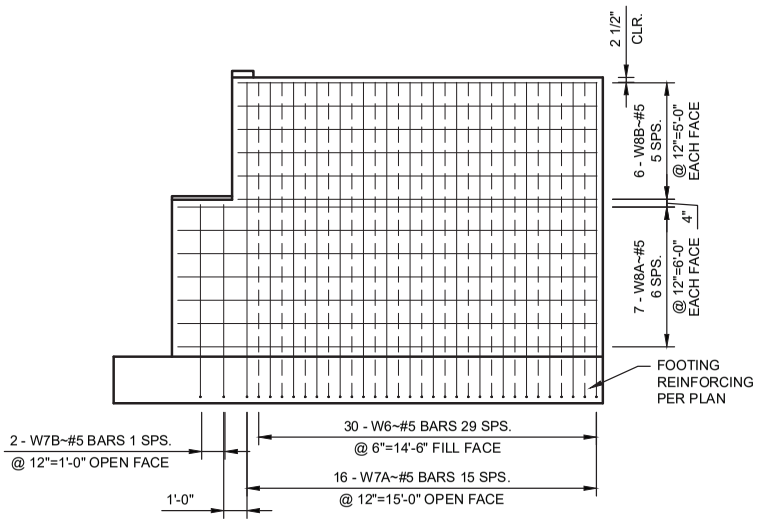
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 30 OF 47

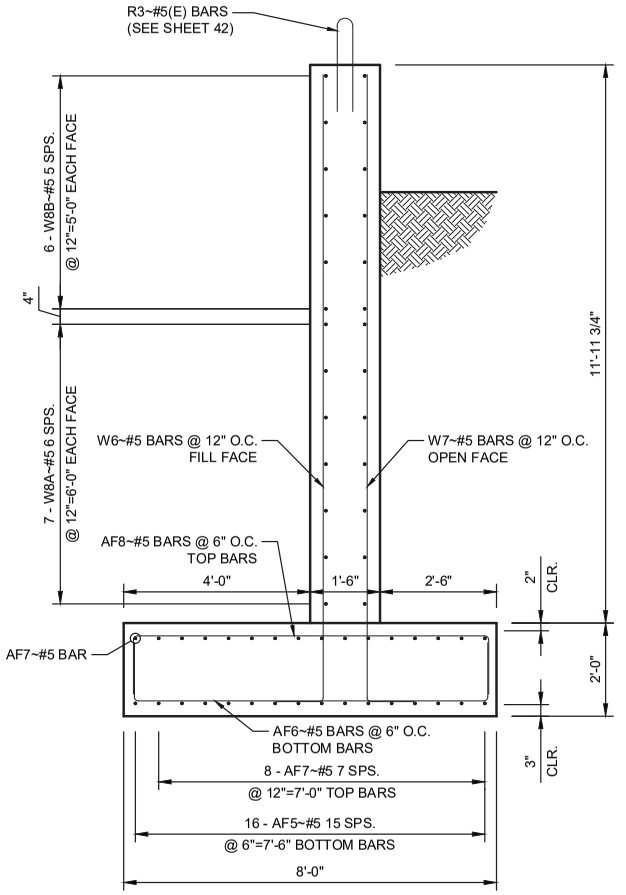
PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN



WING WALLS 3 & 4 PLAN
SCALE: 3/16" = 1'-0"



WING WALLS 3 & 4 ELEVATION
SCALE: 3/16" = 1'-0"



WING WALL 3 & 4 SECTION
SCALE: 3/8" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

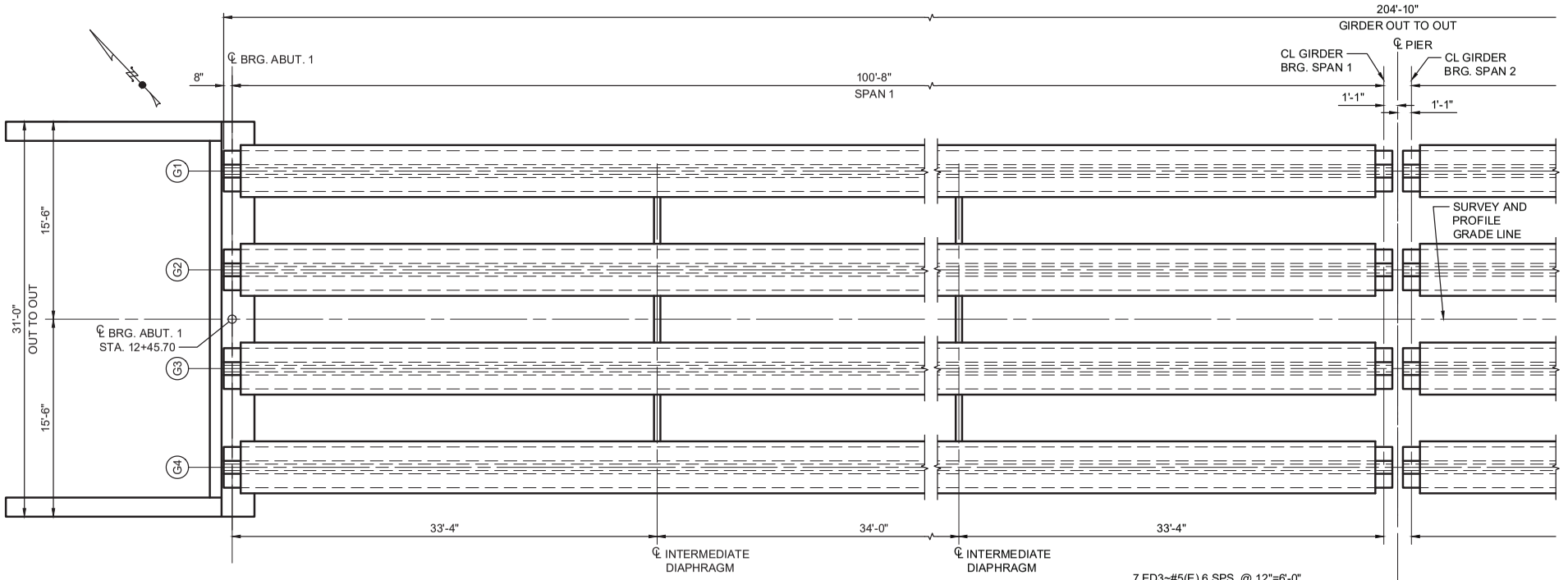
Intact2 Serving Idaho Since 1994

WING WALLS 3 & 4 DETAILS

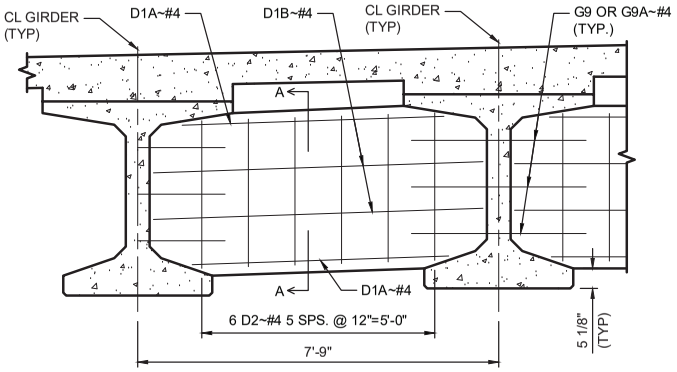
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 31 OF 47

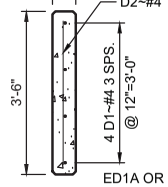
PROFESSIONAL ENGINEER REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



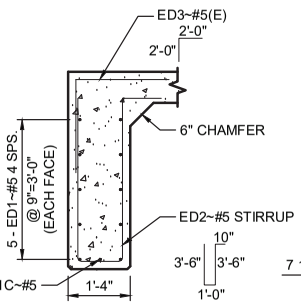
WEST GIRDER FRAMING PLAN
SCALE: 1/8" = 1'-0"



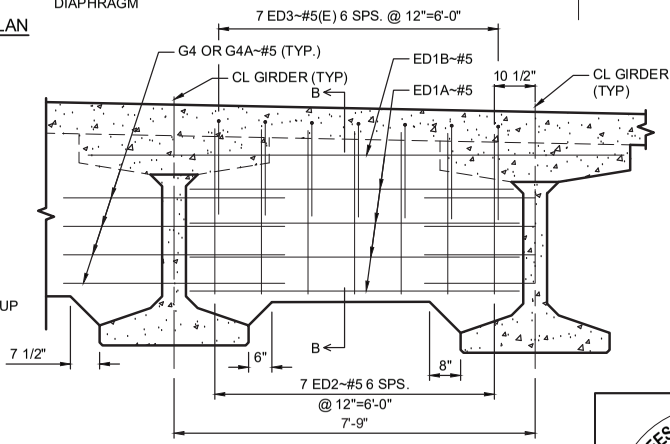
INTERMEDIATE DIAPHRAGM - ELEVATION
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 3/8" = 1'-0"



SECTION B-B
SCALE: 3/8" = 1'-0"



TYPICAL ABUTMENT END DIAPHRAGM - ELEVATION
SCALE: 3/8" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

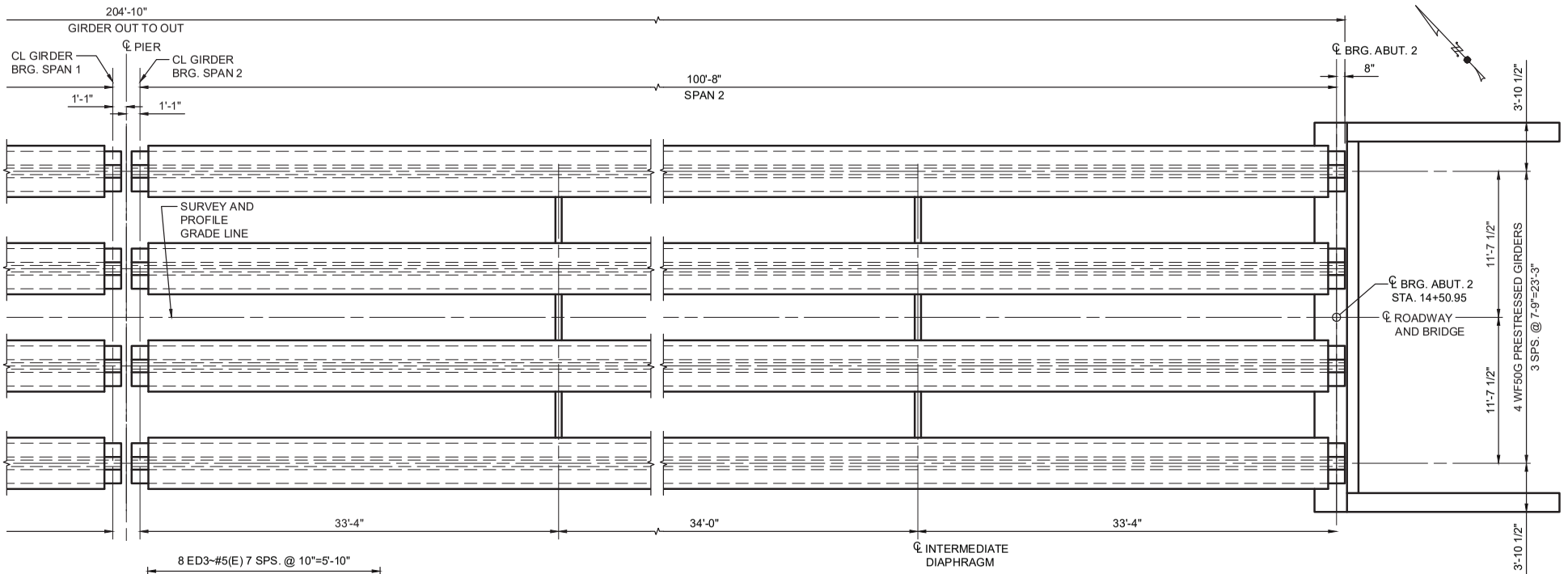
Intact2 Serving Idaho Since 1994

WEST FRAMING PLAN

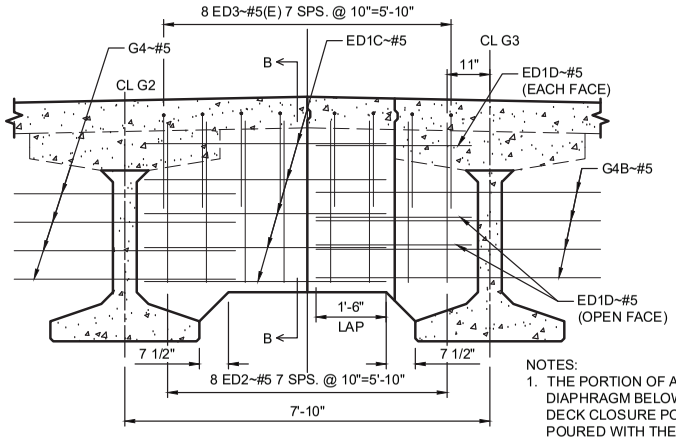
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 32 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN



EAST GIRDER FRAMING PLAN
SCALE: 1/8" = 1'-0"



ABUTMENT END DIAPHRAGM WITH CONSTRUCTION JOINT - ELEVATION
SCALE: 3/8" = 1'-0"

NOTES:
1. THE PORTION OF ABUTMENT END DIAPHRAGM BELOW THE PHASE III DECK CLOSURE POUR MAY BE POURED WITH THE PHASE II DECK.
2. SEE SECTION B-B ON SHEET 32.
3. SEE GIRDER END DETAILS ON SHEET 36 FOR GIRDER DOWEL SPACING.

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

EAST FRAMING PLAN

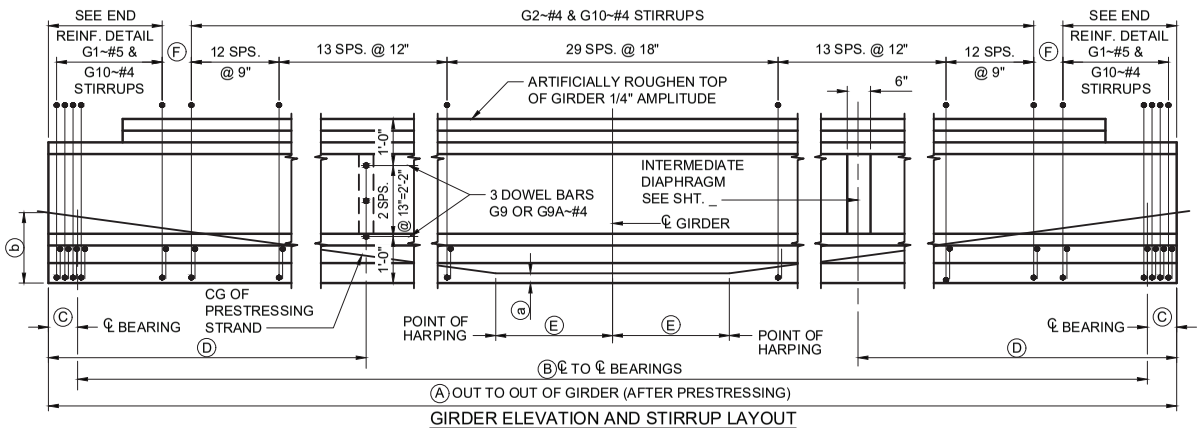
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 33 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

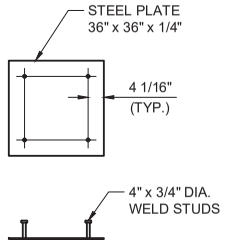
PRESTRESSED GIRDER SCHEDULE

GIRDERS		PRESTRESS FORCE ~ KIPS		PRESTRESS LOSSES ~ KSI		CONCRETE STRENGTH ~ KSI		GIRDER DIMENSIONS								END DETAIL		C.G. OF STRAND	
NO.	LOCATION	INITIAL BEFORE LOSSES	FINAL AFTER LOSSES	IMMEDIATE LOSSES	FINAL TOTAL LOSSES	AT RELEASE f'ci	AT 28 DAYS f'c	(A)	(B)	(C) LEFT	(C) RIGHT	(D) LEFT	(D) RIGHT	(E)	(F)	LEFT	RIGHT	(b) GIRDER END	(a) MID SPAN
4	SPAN 1	1757.7	1332.2	20.08	49.02	6.5	8.5	102'-0"	100'-8"	8"	8"	34'-0"	34'-0"	10'-3"	8.5"	TYPE A	TYPE C	10.000"	3.600"
4	SPAN 2	1757.7	1332.2	20.08	49.02	6.5	8.5	102'-0"	100'-8"	8"	8"	34'-0"	34'-0"	10'-3"	8.5"	TYPE C	TYPE A	10.000"	3.600"



GIRDER ELEVATION AND STIRRUP LAYOUT

NTS



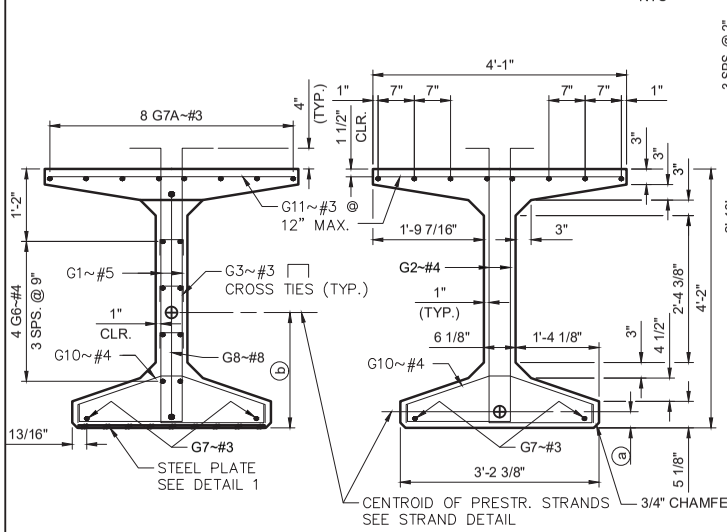
DETAIL 1

3/8"=1'-0"

REINFORCEMENT DIAGRAM

AASHTO M31 GRADE 60 TYPE S

MARK	SIZE	GRADE	SKETCH
G1*	#5	60	4'-5", 1'-8 1/4", 3 1/2"
G2*	#4	60	
G3*	#3	60	4 1/8"
G4	#5	60	4'-6"
G4A	#5	60	2'-3"
G4B	#5	60	6'-0"
G6	#4	60	6'-6"
G7	#3	60	(A) - 4"
G7A	#3	60	(A) - 2 (BLOCKOUT + 2")
G8	#8	60	3'-8", 3'-6", 1'-3"
G9	#4	60	4'-0"
G9A	#4	60	2'-0"
G10*	#4	60	3 1/2", 17", 4", 4 1/2", 13 1/8"
G11	#3	60	3'-11"

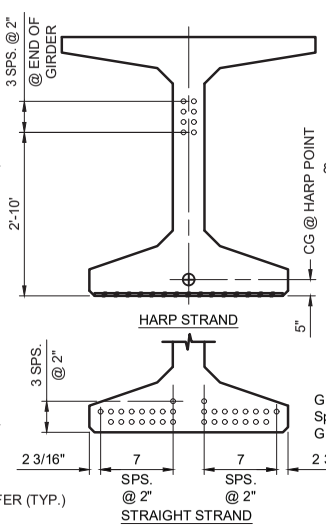


SECTION AT END OF GIRDER

1/2"=1'-0"

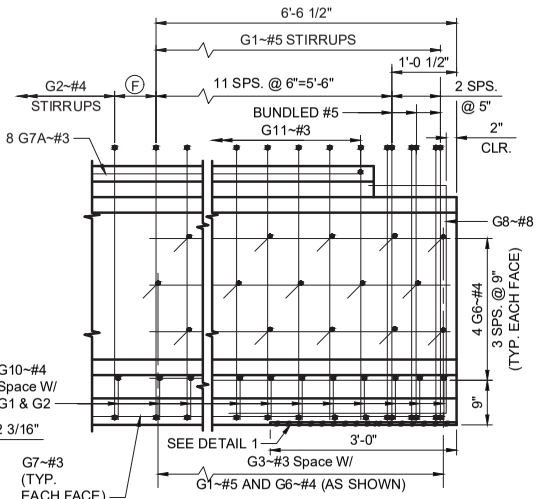
SECTION AT ℄ SPAN

1/2"= 1'-0"



STRAND DETAIL

1/2"=1'-0"



END REINFORCEMENT DETAIL

1/2"=1'-0"

NOTES

1. DIMENSIONS TO STIRRUPS AND DOWEL BARS ARE GIVEN AT CL OF GIRDER.
2. SEE PRESTRESSED GIRDERS GENERAL DETAILS AND PRESTRESSED WF GIRDER DETAILS SHEETS FOR NOTES, DIAPHRAGM DOWEL DETAILS, END DETAILS AND DEFLECTION DATA.
3. BEND DETAILS IN ACCORDANCE WITH LATEST ACI STANDARD PRACTICE.

* STIRRUP AND TIE HOOK BEND DIMENSIONS. STIRRUPS AND TIES MUST HAVE A MINIMUM 1" COVER OUTSIDE OF BARS.

GIRDER WEIGHT _____ 828 LB/FT

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

WF50 PRESTRESSED GIRDER

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135

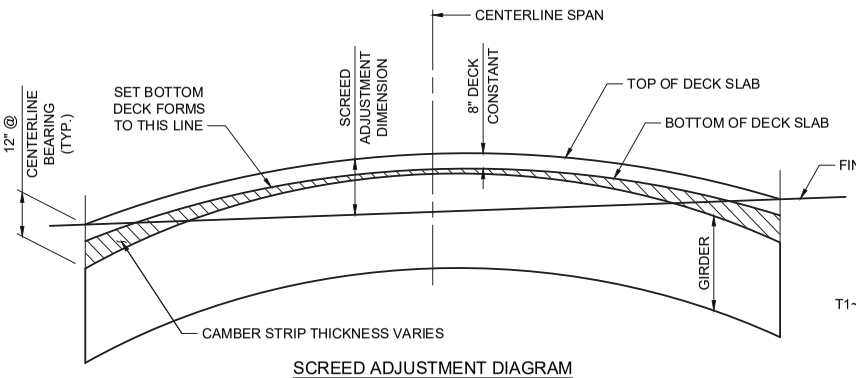
DRAWING NO. 18294

DATE: 3/23/26

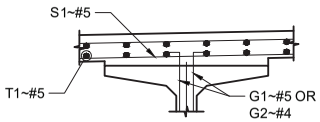
SHEET NO: 34 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

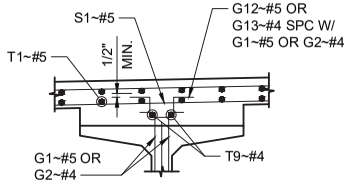
F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_WF50 PRESTRESSED GIRDER.dwg - ---- - 3/23/2026 11:54 AM



SCREED ADJUSTMENT DIAGRAM
NTS

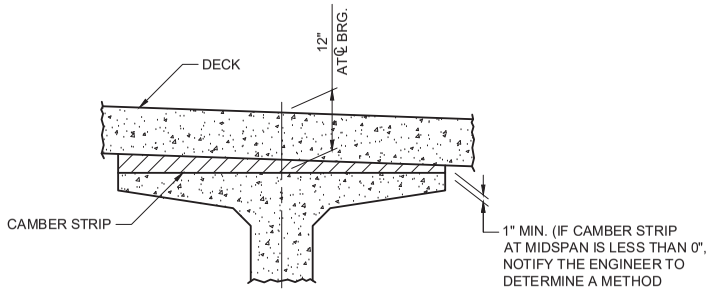


TYPICAL HAUNCH DETAIL



MODIFIED HAUNCH DETAIL

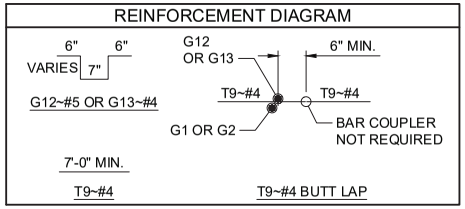
G12 & G13 ADJUSTMENT RANGE



CAMBER STRIP DETAIL
NTS

HAT BAR DETAILS

(BULB TEE GIRDERS SHOWN, AASHTO & WF GIRDERS SIMILAR)
3/4"=1'-0"



NOTES:
A. ADD HAT BARS G12, G13, AND T9 WHERE THE GIRDER STIRRUPS (G1 AND G2 BARS) DO NOT RISE ABOVE THE BOTTOM MAT OF REINFORCEMENT.
B. ADDITIONAL G12, G13, AND T9 BARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR METAL REINF. SCH. NO. 2.

NOTES

DOWELS

1. PROVIDE DOWELS BY ANY OF THE FOLLOWING METHODS:
   1.1. PROVIDE COIL ROD INSERTS AND THREADED DOWELS, IF THE ULTIMATE STRENGTH OF THE INSERT IS IN ACCORDANCE WITH THE FOLLOWING:

BAR SIZE	MINIMUM ULTIMATE TENSION CAPACITY (LBS.)
#4	12,000
#5	18,600
#6	26,400

   1.2. ON INTERIOR GIRDERS ONLY, 1½"Ø HOLES MAY BE PROVIDED DURING FABRICATION AND DOWELS GROUTED IN PLACE AFTER DELIVERY TO THE JOB SITE.
2. PLACE END DIAPHRAGM DOWELS PARALLEL TO CENTERLINE BEARING.

SHOP DRAWINGS

3. PROVIDE SHOP DRAWING DETAILS THAT CONFORM TO CURRENT AASHTO SPECIFICATIONS. SHOW DETENSIONING SEQUENCE AND GIRDER LIFT POINTS ON SHOP DRAWINGS.
4. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH 506.03 AND 105.02.
5. LATERALLY RESTRAIN THE GIRDER DURING TRANSPORTATION AND ERECTION. SHOW THE METHOD OF LATERAL RESTRAINT ON THE SHOP DRAWINGS.
6. PROVIDE DESIGN CALCULATIONS AND SHOW THE DETAILS ON THE SHOP DRAWINGS IF TEMPORARY STRANDS ARE ADDED IN THE TOP FLANGE FOR HANDLING, TRANSPORTATION, OR ERECTION. PROVIDE A REVISED DEFLECTION DATA TABLE AND SCREED ADJUSTMENT TABLE. APPROVED CHANGES AT THE CONTRACTOR'S EXPENSE.

MISCELLANEOUS GIRDER DETAILS

7. PROVIDE GIRDERS WITH ENDS THAT ARE PLUMB WHEN SET TO GRADE.
8. DIMENSION Ⓐ IN THE PRESTRESSED GIRDER SCHEDULE TABLE IS A HORIZONTAL DIMENSION. CORRECT THE FINISHED GIRDER LENGTH FOR GRADE AND PROVIDE AN ALLOWANCE FOR BEAM SHORTENING.
9. BLOCK OUT TOP FLANGE OF BULB TEE AND WF GIRDERS TO ALLOW PLACEMENT OF CONCRETE FOR THE END DIAPHRAGMS.
10. IF THE TOP FLANGE OVERHANG IS USED FOR SUPPORT OF DECK FORMS OR SCREEDS, APPROVAL OF THE METHOD TO BE USED IS REQUIRED BEFORE CASTING OF THE BEAMS. SHOW THE METHOD OF DECK FORM AND SCREED SUPPORT ON SHOP DRAWINGS, AND DESIGN THE REINFORCEMENT ACCORDINGLY.
11. GIRDER ERECTION/DECK PLACEMENT ASSUMED TO OCCUR WITHIN 60-90 DAYS AFTER GIRDER FABRICATION.
12. FABRICATE IN ACCORDANCE WITH 506.

STRAND

13. DESIGN BASED UPON 0.6" DIA. AASHTO M203 LOW RELAXATION STRAND.

GIRDER SHIPPING

14. DO NOT SHIP PRESTRESSED CONCRETE MEMBERS UNTIL TESTS ON CONCRETE CYLINDERS MANUFACTURED FROM THE SAME CONCRETE AND CURED UNDER THE SAME CONDITIONS AS THE GIRDERS INDICATE THAT THE CONCRETE OF THE PARTICULAR MEMBER HAS ATTAINED A COMPRESSIVE STRENGTH EQUAL TO THE SPECIFIED DESIGN 28 DAY COMPRESSIVE STRENGTH.

BASIS OF PAYMENT

15. PRESTRESSING CONCRETE MEMBERS IS INCIDENTAL TO THE PRECAST AND PRESTRESSED PAY ITEMS IN 502.

SCREED ADJUSTMENT DIMENSIONS AT CENTERLINE OF GIRDERS

0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	SPAN (TENTH POINTS)
0	0.73	1.30	1.70	1.94	2.02	1.94	1.70	1.30	0.73	0	SCREED ADJUSTMENT DIMENSION - INCHES

DEFLECTION DATA ~ INCHES

LOCATION	ΔP PRESTRESS	ΔG GIRDER	∑Δ * ΔP + ΔG	Δ1 ** 1.55 ΔP + 1.65 ΔG	ΔS NON COMP. DL	ΔC COMP. DL	Δ2 ΔS + ΔC
SPANS 1&2	4.33 ↑	1.38 ↓	2.95 ↑	4.44 ↑	1.42 ↓	0.78 ↓	2.02 ↓

*ESTIMATED DEFLECTION OF PRESTRESSED GIRDER AT RELEASE
**ESTIMATED DEFLECTION OF PRESTRESSED GIRDER AT GIRDER ERECTION/DECK PLACEMENT

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

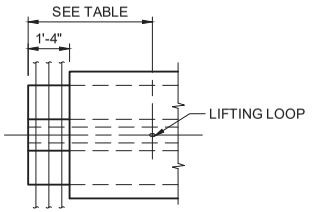
PRESTRESSED GIRDER GENERAL DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

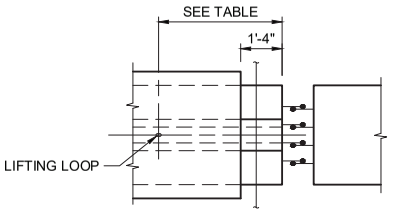
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 35 OF 47

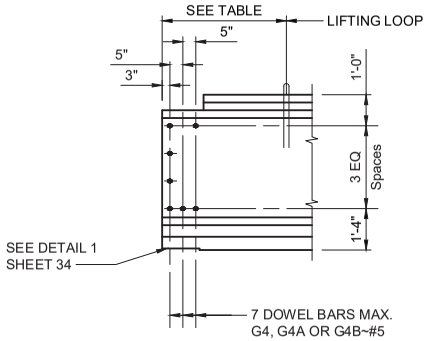
PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

F:\Boise\Projects\223135 - LILB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_PRESTRESSED GIRDER DETAILS.dwg - ---- - 3/23/2026 11:54 AM



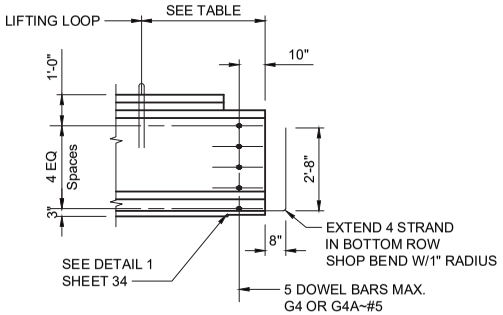
PLAN





ELEVATION

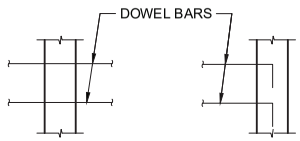
TYPE A
EXPANSION



ELEVATION

TYPE C
POSITIVE MOMENT
CONNECTION

GIRDER END DETAILS
1/4"=1'-0"



INTERIOR GIRDERS
WITH NON-STAGGERED
DIAPHRAGMS

FOR STAGGERED
DIAPHRAGMS AND
EXTERIOR GIRDERS

INTERMEDIATE DIAPHRAGM DOWEL DETAILS
NTS

	MIN.	MAX.
RELEASE	4'-0"	4'-8"
ERECTION	4'-0"	12'-0"

LIFT LOOP LOCATION

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

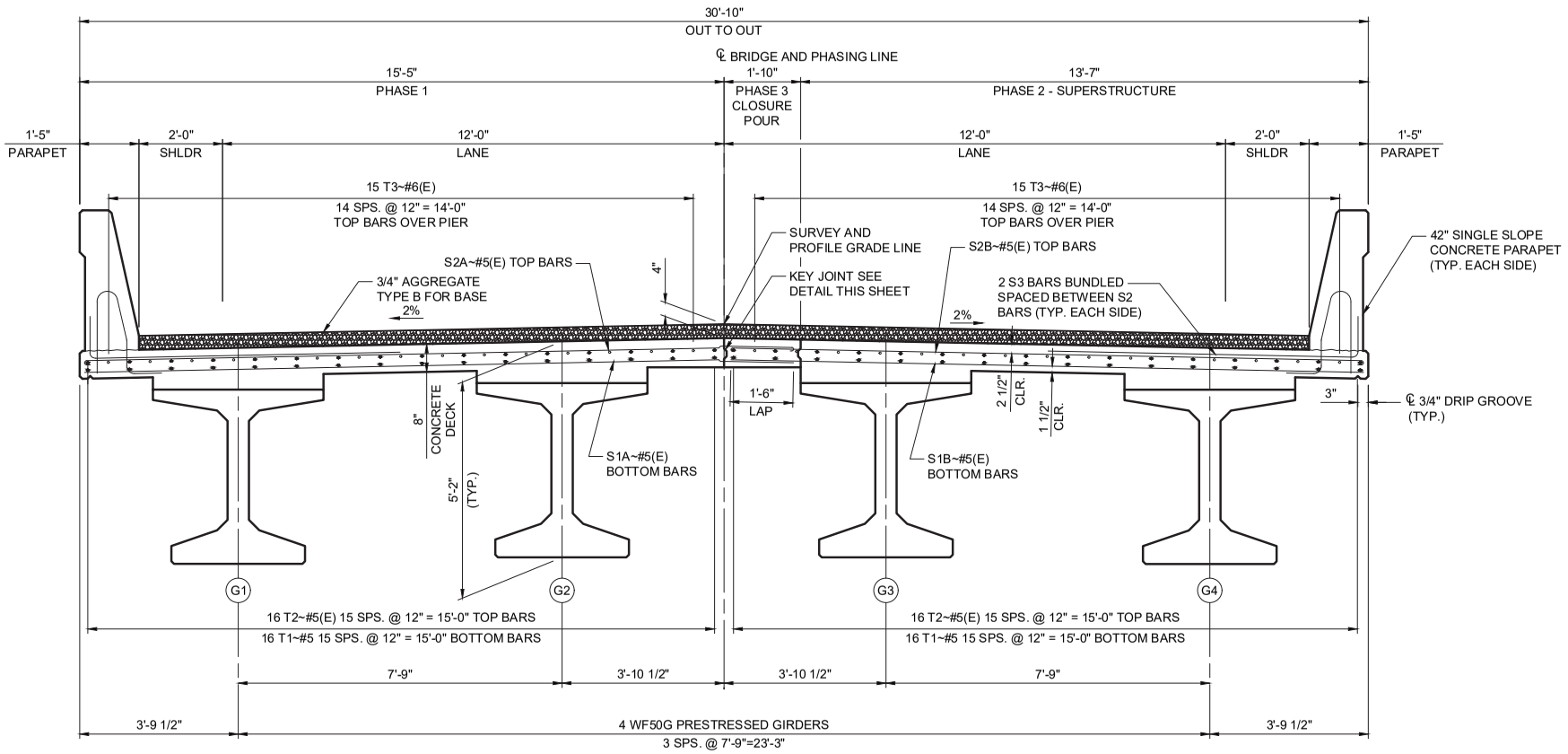
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

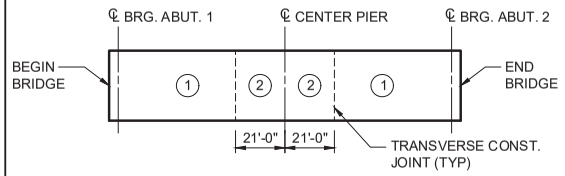
PRESTRESSED WF GIRDER DETAILS

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 36 OF 47

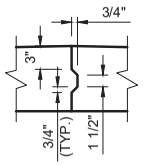


TYPICAL DECK SECTION
3/8"=1'-0"
(LOOKING AHEAD ON STATION)



DECK PLACEMENT DIAGRAM
NTS

NOTES:
1. NO DEVIATION FROM THE DECK PLACING SEQUENCE WILL BE PERMITTED WITHOUT PRIOR APPROVAL.
2. AREAS MARKED①SHALL BE PLACED BEFORE AREAS MARKED②, BUT AREAS OF THE SAME NUMBER NEED NOT BE PLACED SIMULTANEOUSLY.
3. PLACEMENT OF AREA MARKED②SHALL NOT COMMENCE UNTIL AT LEAST 48 HOURS HAVE ELAPSED AFTER THE PLACEMENT OF AREA MARKED①.
4. THE PIER DIAPHRAGMS SHALL BE PLACED SIMULTANEOUSLY WITH THE ADJACENT DECK AREA MARKED②.
5. CAST THE PARAPET AFTER THE DECK SLAB HAS OBTAINED THE COMPRESSIVE STRENGTH REQUIRED AS OUTLINED IN THE STANDARD SPECIFICATIONS.



KEY JOINT DETAIL
3/4"=1'-0"

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

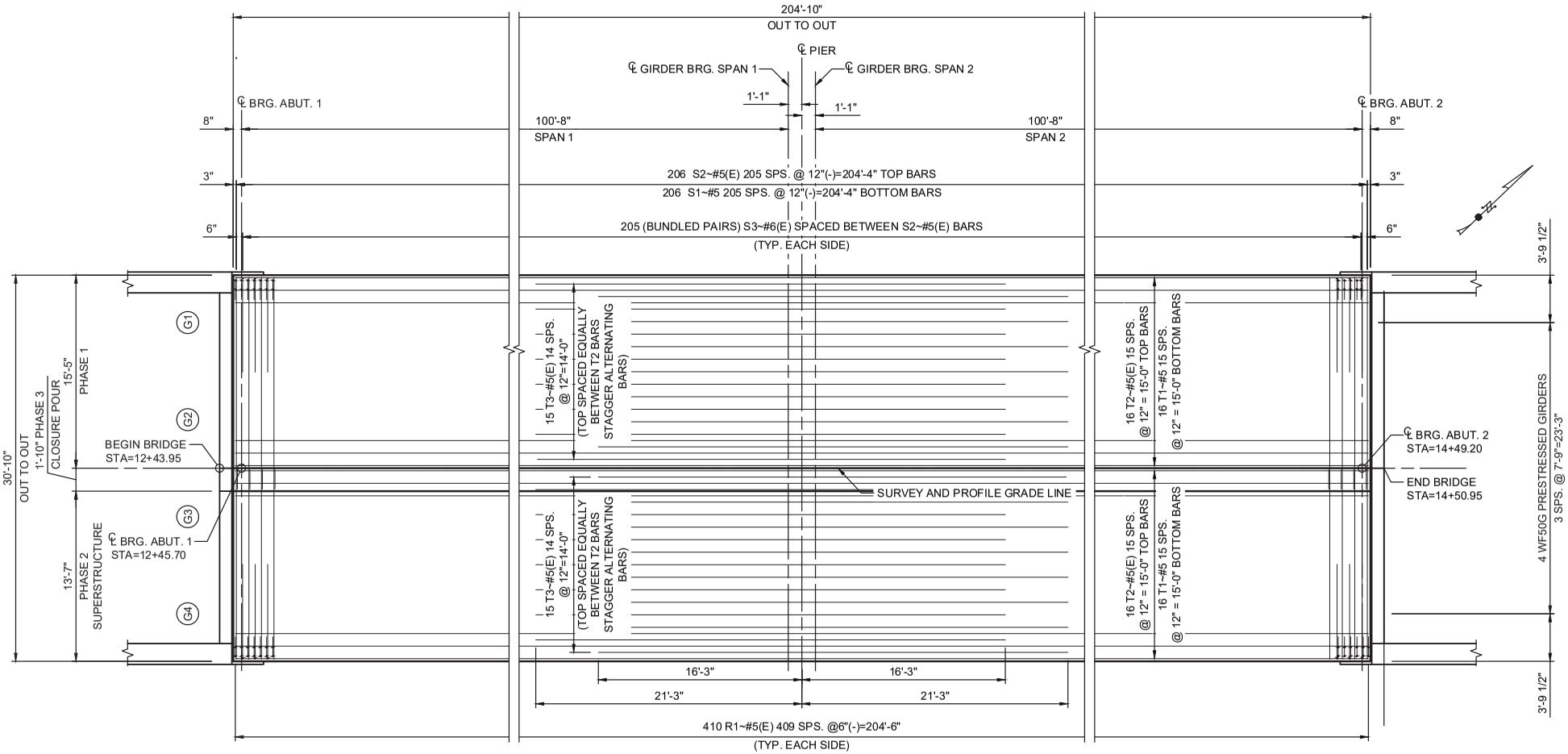
Intact2 Serving Idaho Since 1994

TYPICAL SECTION

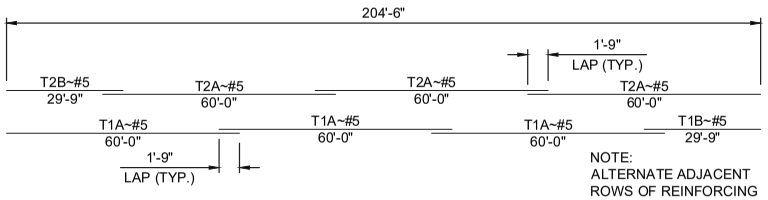
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 37 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



DECK REINFORCEMENT PLAN
1/8"=1'-0"



DECK REINFORCING SPLICE DIAGRAM
N.T.S.

NOTE:
ALTERNATE ADJACENT ROWS OF REINFORCING BARS TO STAGGER SPLICES.

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY
CAMAS

BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

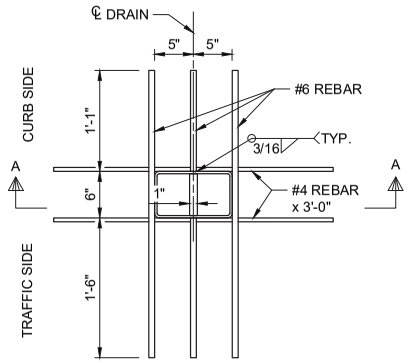
Intact2 Serving Idaho Since 1994

DECK REINFORCEMENT PLAN

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

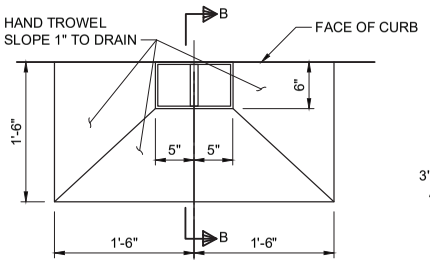
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 38 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN



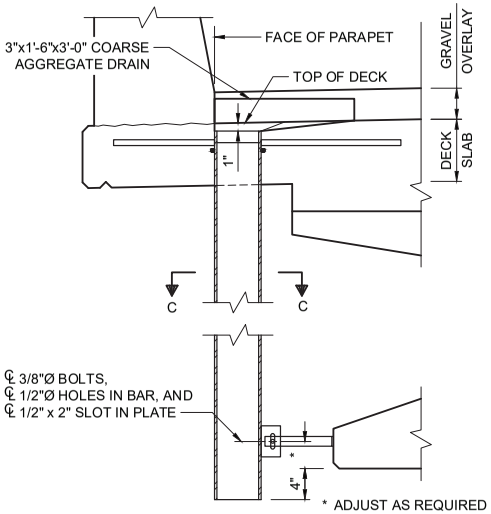
DRAIN PLAN

3/4"=1'-0"



FINISHED DECK DRAIN PLAN

3/4"=1'-0"



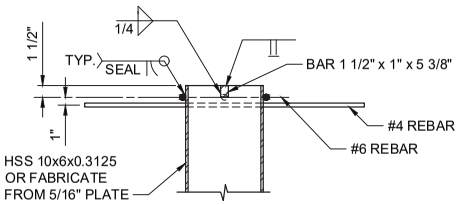
SECTION B-B

3/4"=1'-0"

* ADJUST AS REQUIRED TO CLEAR REINFORCEMENT AND STRAND.

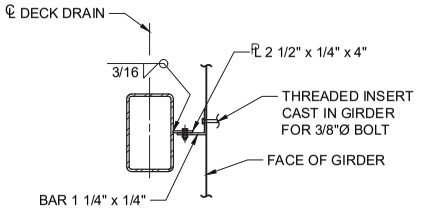
DRAIN NOTES

1. HOT DIP GALVANIZE DRAIN ASSEMBLY AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
2. SEAL WELD SEAMS NOT SHOWN WELDED.
3. GRIND SMOOTH SEAMS ON TOP OF THE DRAIN.
4. FIELD BEND OR CUT ANY BARS THAT CONFLICT WITH DRAINS.
5. PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH ASTM A709 GRADE 36.
6. PROVIDE STRUCTURAL STEEL TUBING IN ACCORDANCE WITH ASTM A500 OR A501.
7. PROVIDING AND INSTALLING THE DRAIN ASSEMBLIES IS INCIDENTAL TO PAY ITEM 502-310A.
8. PAYMENT FOR COARSE AGGREGATE DECK DRAIN IS PAY ITEM S501-20A
9. PROVIDE ONE COARSE AGGREGATE DRAIN AT EACH DECK DRAIN.
10. PLACE COARSE AGGREGAGATE DRAIN SUCH THAT THE LONGITUDINAL CENTERLINES OF THE COARSE AGGREGATE DRAIN AND DECK DRAIN ALIGN.



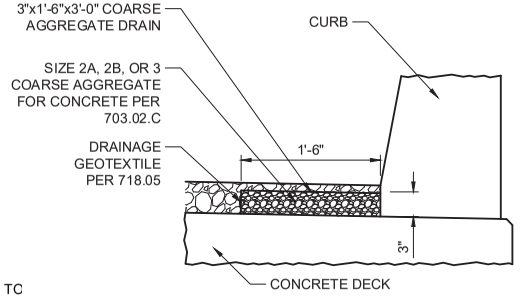
SECTION A-A

3/4"=1'-0"



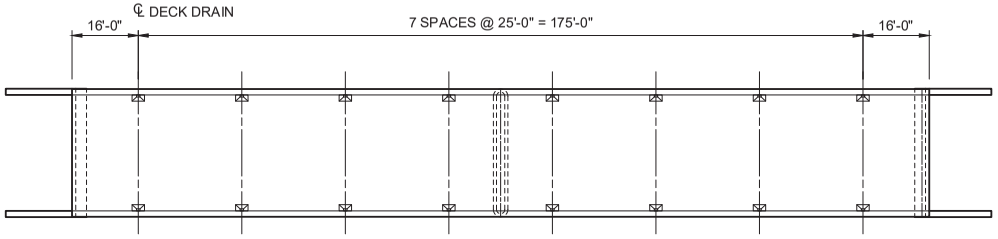
SECTION C-C

3/4"=1'-0"



COARSE AGGREGATE DRAIN DETAIL

3/4" = 1'-0"



DECK DRAIN LAYOUT

NTS

NO.	REVISIONS	BY	DATE

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

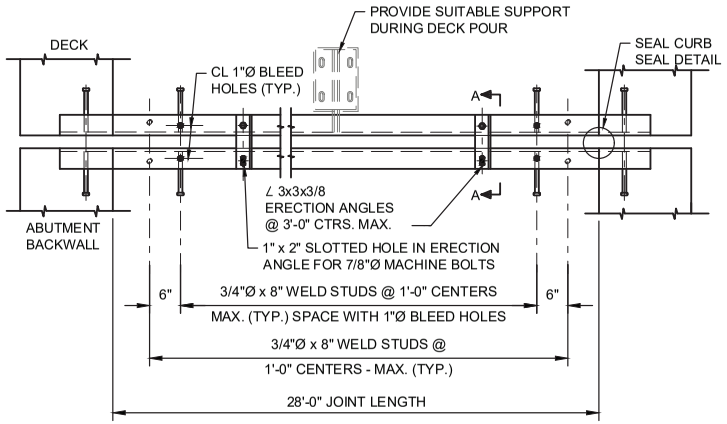
Intact2 Serving Idaho Since 1994

DECK DRAIN DETAILS

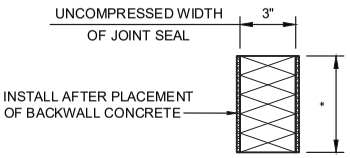
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO:	02-23-0135
DRAWING NO.	18294
DATE:	3/23/26
SHEET NO:	39 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN



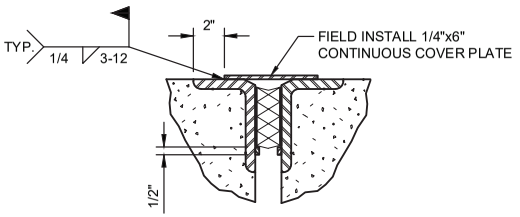
PLAN
1/2" = 1'-0"



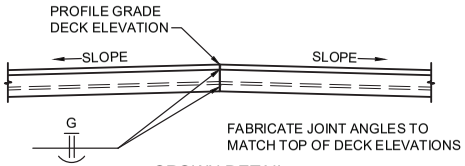
JOINT SEAL DETAIL
3" = 1'-0"

NOTES:

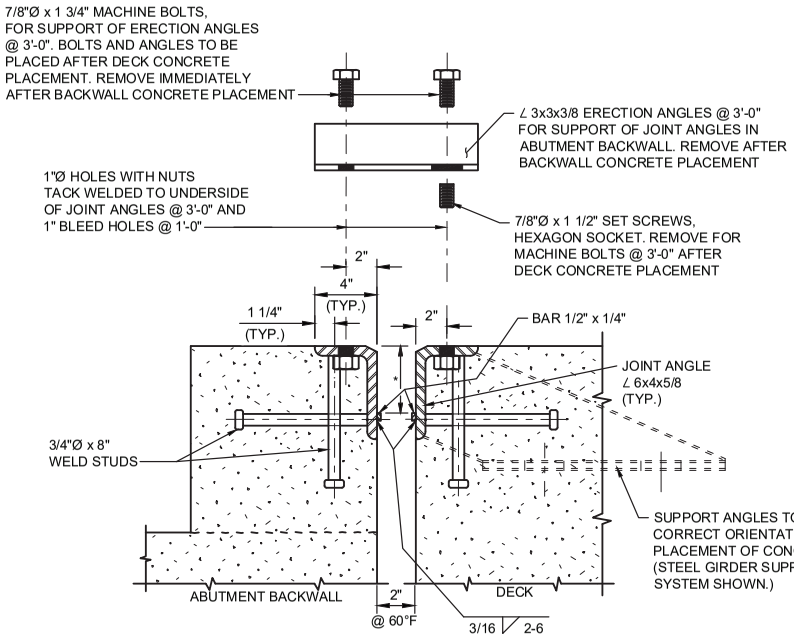
1. PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH ASTM A709 GRADE 36, AND GALVANIZE IN ACCORDANCE WITH ASTM A123.
2. INSTALL THE TOP OF THE JOINT ANGLE PARALLEL TO THE PROFILE GRADE.
3. PROVIDE JOINT ANGLES WITH A MINIMUM THICKNESS OF 3/8".
4. PROVIDE SUITABLE SUPPORT DURING DECK POUR AND INCLUDE SUPPORT SYSTEM DETAILS ON SHOP PLANS.
5. DIMENSIONS MARKED * ARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. ADJUST THE EXPANSION JOINT 0.07" FOR EVERY 10°F CHANGE IN TEMPERATURE FROM THE MEDIAN TEMPERATURE OF 60°F AT THE TIME OF INSTALLATION OF THE JOINT.
7. PROVIDE CONTINUOUS JOINT SEAL.
8. DO NOT LOCATE THE FIELD SPLICE IN THE WHEEL PATH, AND SHOW THE LOCATION ON THE SHOP DRAWINGS.
9. INSTALL THE SEAL AS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS USING AN ADHESIVE LUBRICANT. PROVIDE ADHESIVE LUBRICANT IN ACCORDANCE WITH ASTM D4070.
10. PROVIDE PREFORMED EXPANSION JOINT SEAL IN ACCORDANCE WITH AASHTO M297.
11. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH 105.02.
12. FABRICATE THE COMPLETED JOINT ASSEMBLY, INCLUDING COMPONENTS AND SUBASSEMBLIES, BY ONE MANUFACTURER.



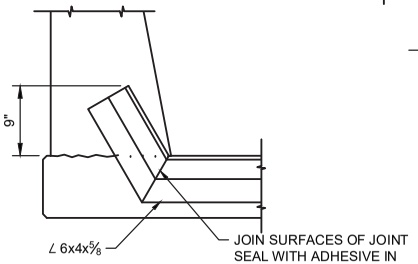
DETAIL 1
1 1/2" = 1'-0"



CROWN DETAIL
1 1/2" = 1'-0"



SECTION A-A
1 1/2" = 1'-0"



TYPICAL CURB SEAL DETAIL
3/4" = 1'-0"

APPROXIMATE STEEL WEIGHT 50 LB/FT.

RECOMMENDED MANUFACTURERS OF THE SHOWN JOINT ASSEMBLY **

LOCATION	MANUFACTURER	STYLE	NOMINAL SEAL SIZE INCHES	
			WIDTH	HEIGHT
ABUT. 1 & 2	WATSON BOWMAN ACME	WA-300	3.00	3.00
ABUT. 1 & 2	D.S. BROWN	CV-3000	3.00	3.25
ABUT. 1 & 2	LYMTAL INTERNATIONAL	C30	3.00	2.375

** OR APPROVED EQUAL

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

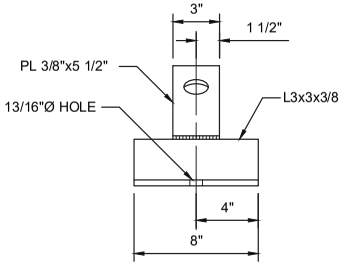
FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

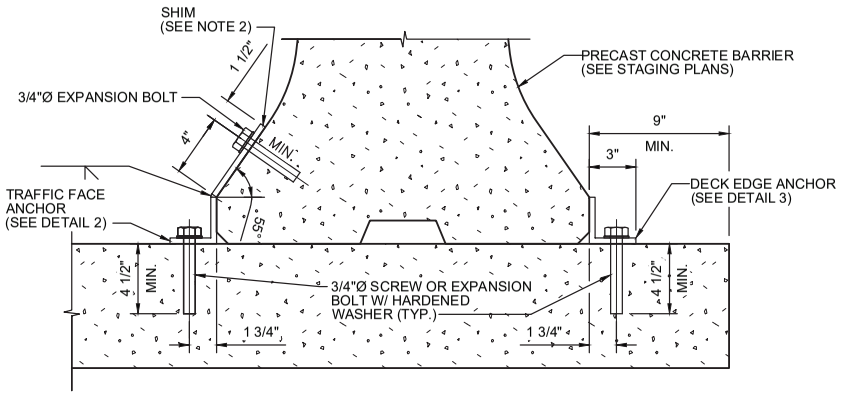
COMPRESSION SEAL EXPANSION JOINT

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

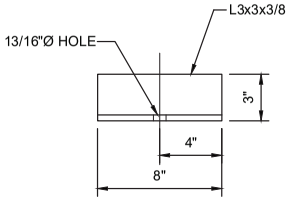
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 40 OF 47



DETAIL 2
1 1/2" = 1'-0"

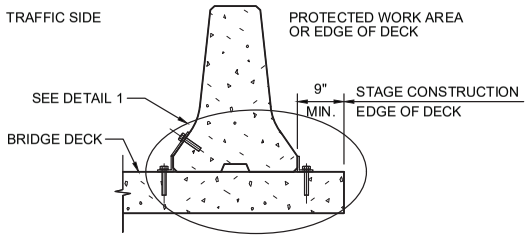


DETAIL 1
1 1/2" = 1'-0"

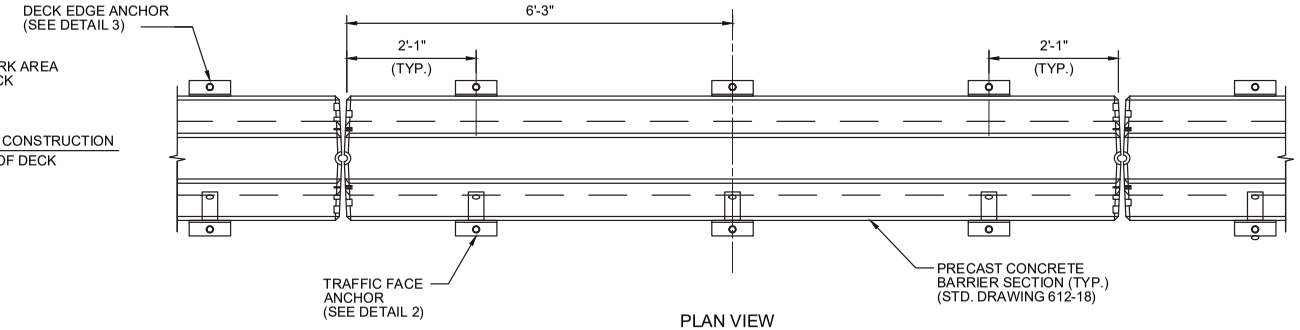


DETAIL 1
1 1/2" = 1'-0"

NOTES:
1. ADJUST THE LOCATION OF THE ANCHORS TO AVOID THE DECK
2. REINFORCMENT AND GIRDER STIRRUPS WHEN DRILLING HOLES.
3. SHIM ANCHOR PLATES FLUSH WITH BARRIER AND DECK SURFACES PRIOR TO INSTALLING BOLTS.
4. AFTER BARRIER REMOVAL, CLEAN AND FILL DECK HOLES WITH GROUT IN ACCORDANCE WITH 705.02.



TYPICAL SECTION
1/2" = 1'-0"



PLAN VIEW
1/2" = 1'-0"

NO.	REVISIONS	BY	DATE

DRAWN T. GHAN
DESIGNED B. PHOTHONG
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY
CAMAS
BRIDGE KEY NUMBER
23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

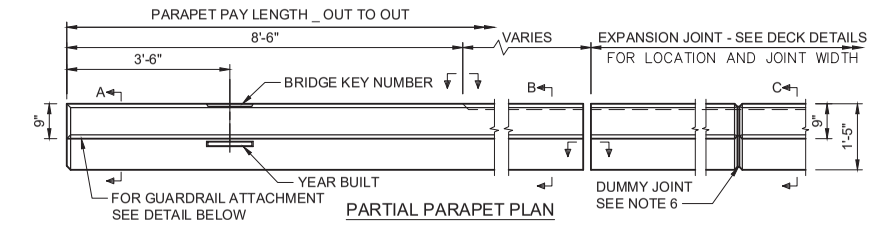
Intact2 Serving Idaho Since 1994

TEMPORARY BARRIER DETAILS

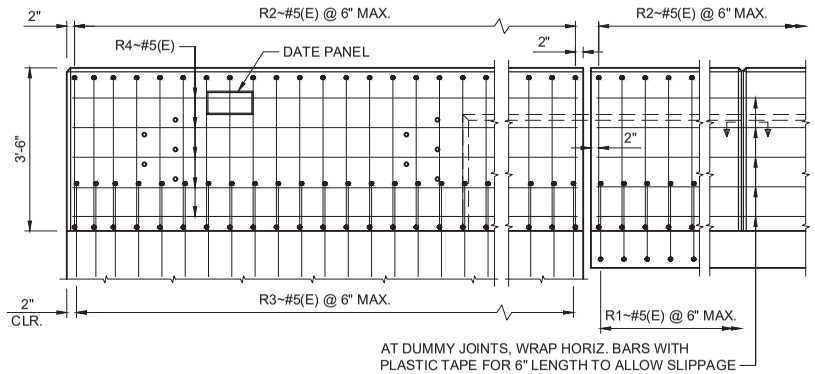
200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 41 OF 47

PROFESSIONAL ENGINEER
REGISTERED
22074
3/24/2026
STATE OF IDAHO
JARED R. LARKIN

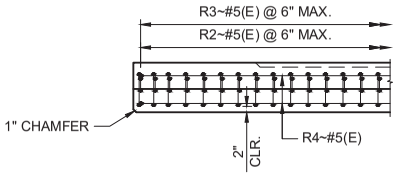


PARTIAL PARAPET PLAN



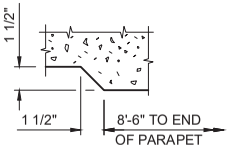
PARTIAL PARAPET ELEVATION

3/8"=1'-0"



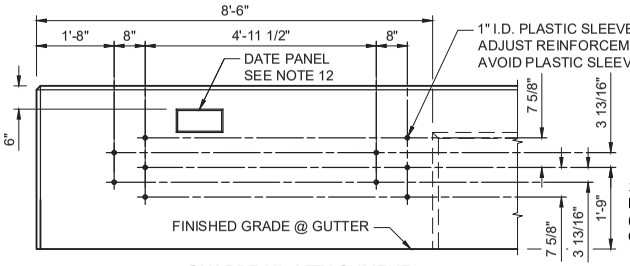
END VIEW - PLAN

NTS



SECTION F-F

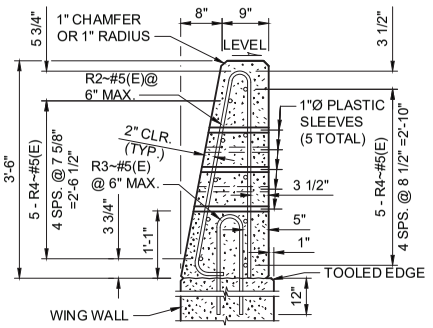
NTS



GUARDRAIL ATTACHMENT

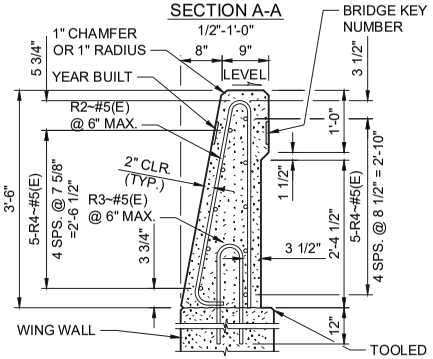
3/8"=1'-0"

(SEE NOTE 15)



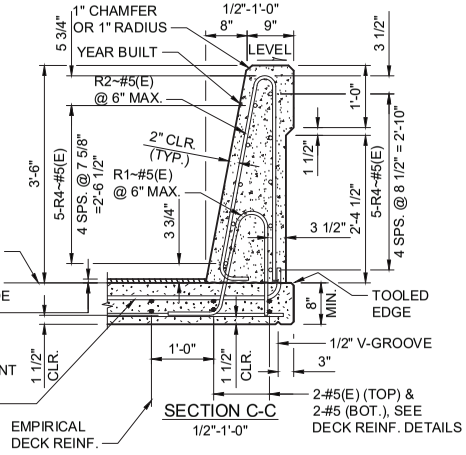
SECTION A-A

1/2"-1'-0"



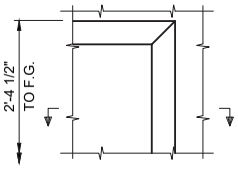
SECTION B-B

1/2"-1'-0"

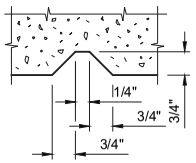


SECTION C-C

1/2"-1'-0"



VIEW D-D



SECTION E-E

NOTES

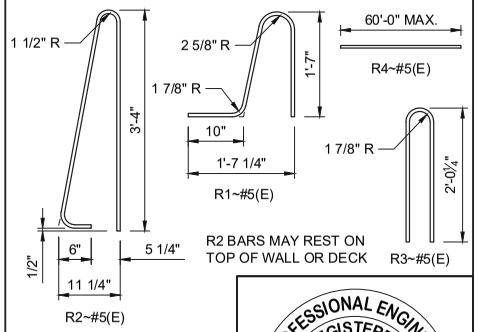
1. a. PROVIDE CLASS 40AF CONCRETE .
   b. PROVIDE EPOXY-COATED REINFORCEMENT GRADE 60 TYPE S IN ACCORDANCE WITH 708.02 .
2. CONSTRUCT PARAPET SO THAT THE OUTSIDE FACE IS PERPENDICULAR TO THE ROADWAY SLOPE. HEIGHT CONTROL IS AT THE INSIDE (TRAFFIC) FACE.
3. CONSTRUCT USING CAST-IN-PLACE METHOD. ADJUST HEIGHT OF PARAPET TO COMPENSATE FOR THE CAMBER AND LOAD DEFLECTION OF THE SUPERSTRUCTURE. CALCULATE THE AMOUNT OF ADJUSTMENT FOR APPROVAL.
4. COMPLETE PARAPET CONSTRUCTION BEFORE PLACING THE DECK OVERLAY.
5. INSTALL REINFORCEMENT BARS R3~#5 & R1~#5 BEFORE ABUTMENT, WING WALL, OR DECK SLAB CONCRETE IS PLACED.
6. SPACE INTERMEDIATE PARAPET DUMMY JOINTS UNIFORMLY THROUGHOUT THE LENGTH OF THE BRIDGE. LOCATE A DUMMY JOINT AT EVERY PIER WHERE THE DECK SLAB IS CONTINUOUS. PROVIDE INTERMEDIATE PARAPET JOINT SPACING NOT LESS THAN 6'-0" NOR GREATER THAN 12'-0".
7. SEE ROADWAY PLANS FOR LOCATION OF DELINEATORS, IF REQUIRED.
8. PLACE PARAPETS AFTER FALSEWORK OR OVERHANG DECK FORMS HAVE BEEN RELEASED. DO NOT PLACE PARAPET CONCRETE UNTIL THE BRIDGE DECK MEETS THE REQUIREMENT OF TABLE 502.03-5 PART 2.
9. CONSTRUCT END FACE, EXPANSION JOINTS AND DUMMY JOINTS PERPENDICULAR TO THE ROADWAY GRADE.
10. PLACE PARAPET IN THE SAME SEQUENCE AS THE DECK PLACEMENT.
11. WATER CURE THE CONCRETE SURFACE OF THE PARAPET IN ACCORDANCE WITH 502.03.
12. SEE DATE PANEL SHEET FOR ADDITIONAL DETAILS.
13. SEE ROADWAY PLANS FOR TERMINAL CONNECTOR AND GUARDRAIL.
14. PAYMENT FOR 42" SINGLE SLOPE CONCRETE PARAPET IS PAY ITEM 502-430A.
15. SEE ROADWAY PLANS FOR TYPE OF APPROACH RAIL.
    a. FOR THRIE-BEAM TERMINAL CONNECTION - SEE STD. DWG. 612-10 OR 612-11. PROVIDE BOTH SETS OF HOLES.
    b. FOR CONCRETE PARAPET CONNECTION - SEE STD. DWG. 612-25. PROVIDE BOTH SETS OF HOLES.

APPROXIMATE PARAPET QUANTITIES

CONCRETE:	3.45	CF/LF
EPOXY REINFORCEMENT:	35	LB/LF

NOTE: CONCRETE QUANTITY DOES NOT INCLUDE CONCRETE AT THE TEXTURED SURFACE NOR THE CONCRETE CURB.

EPOXY-COATED REINFORCEMENT



PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

NO.	REVISIONS	BY	DATE

This document or any part thereof in detail or design concept is the property of Forsgren Associates Inc. and shall not be copied without the written authorization of Forsgren Associates Inc.

DRAWN	T. GHAN
DESIGNED	B. PHOTHONG
APPROVED	R. SHERMAN
QA	B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY

COUNTY: CAMAS

BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

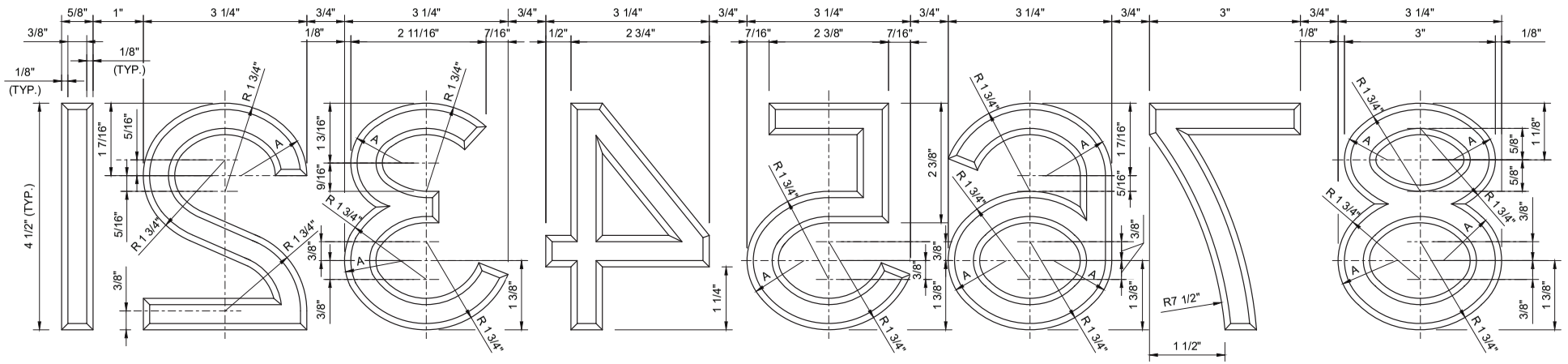
Ihtact2 Serving Idaho Since 1994

SINGLE SLOPE PARAPET

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

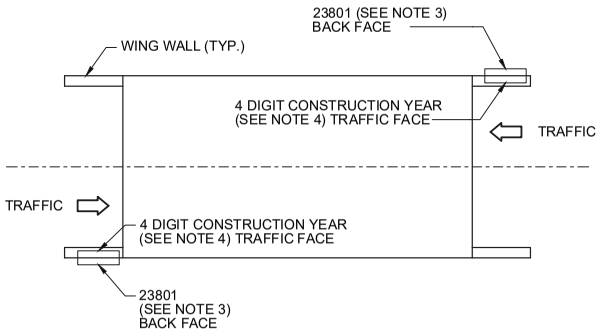
PROJECT NO:	02-23-0135
DRAWING NO.	18294
DATE:	3/23/26
SHEET NO:	42 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23801 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_42 SINGLE SLOPE PARAPET.dwg - - - - 3/23/2026 11:55 AM

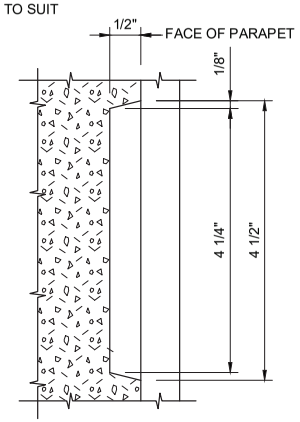


THE NUMBER "9" IS NOT SHOWN, BUT IS SIMILAR TO NUMBER "6".

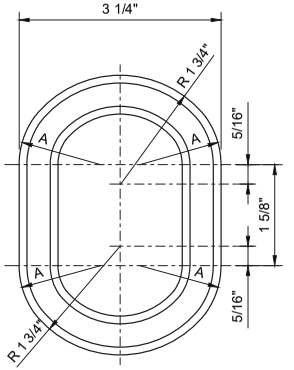
A = RADIUS TO SUIT



DATE PANEL LOCATION - BRIDGE
NTS
(SEE PARAPET SHEET FOR DETAILS)



END VIEW OF NUMERALS
SHOWING ATTACHMENT TO FORMS
NTS



GENERAL NOTES - BRIDGE

1. RECESS NUMBERS INTO THE DATE PANEL.
2. DATE PANEL IS INCIDENTAL TO THE PARAPET PAY ITEM.
3. PLACE THE 5 DIGIT BRIDGE KEY NUMBER ON BACK FACE.
4. PLACE THE 4 DIGIT YEAR CONSTRUCTION COMPLETED ON TRAFFIC FACE.
5. FIELD ADJUST LOCATION OF DATE PANEL ON BACK OF PARAPETS WITH PROTECTIVE FENCE.

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY: CAMAS
BRIDGE KEY NUMBER: 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

DATE PANEL

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

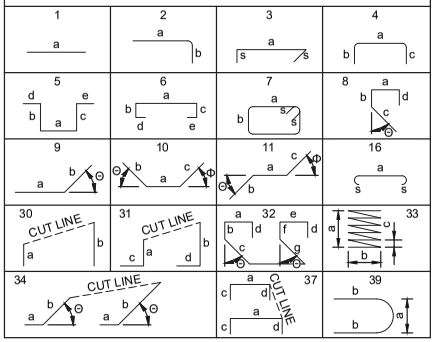
PROJECT NO: 02-23-0135
DRAWING NO: 18294
DATE: 3/23/26
SHEET NO: 43 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

SUBSTRUCTURE

	MARK	LOCATION	BAR SIZE	COAT	NO. OF BARS	BAR TYPE	BARS/ SET	LENGTH a	LENGTH b	LENGTH c	LENGTH d	LENGTH e	ANGLE θ	ANGLE Φ	TOTAL LENGTH
	AF1A	ABUT. FOOTING	#6		26	4		11' - 2"	1' - 3"	1' - 3"					355' - 4"
	AF1B	ABUT. FOOTING	#6		50	4		22' - 8"	1' - 3"	1' - 3"					1258' - 4"
	AF2A	ABUT. FOOTING	#6		46	4		12' - 2"	1' - 3"	1' - 3"					674' - 8"
	AF2B	ABUT. FOOTING	#6		23	2		20' - 8"	1' - 3"						504' - 1"
	AF2C	ABUT. FOOTING	#6		23	2		18' - 8"	1' - 3"						458' - 1"
	AF3A	ABUT. FOOTING	#5		26	4		11' - 2"	1' - 3"	1' - 3"					355' - 4"
	AF3B	ABUT. FOOTING	#5		50	4		22' - 8"	1' - 3"	1' - 3"					1258' - 4"
	AF4A	ABUT. FOOTING	#7		46	4		12' - 2"	1' - 3"	1' - 3"					674' - 8"
	AF4B	ABUT. FOOTING	#7		23	2		20' - 8"	1' - 3"						504' - 1"
	AF4C	ABUT. FOOTING	#7		23	2		18' - 8"	1' - 3"						458' - 1"
	AF5A	ABUT. FOOTING	#5		40	4		8' - 2"	1' - 3"	1' - 3"					426' - 8"
	AF5B	ABUT. FOOTING	#5		32	4		20' - 8"	1' - 3"	1' - 3"					741' - 4"
	AF6A	ABUT. FOOTING	#5		50	4		7' - 8"	1' - 3"	1' - 3"					508' - 4"
	AF6B	ABUT. FOOTING	#5		17	2		19' - 8"	1' - 3"						355' - 7"
	AF6C	ABUT. FOOTING	#5		17	2		17' - 8"	1' - 3"						321' - 7"
	AF7A	ABUT. FOOTING	#5		20	4		8' - 2"	1' - 3"	1' - 3"					213' - 4"
	AF7B	ABUT. FOOTING	#5		16	4		20' - 8"	1' - 3"	1' - 3"					370' - 8"
	AF8A	ABUT. FOOTING	#5		50	4		7' - 8"	1' - 3"	1' - 3"					508' - 4"
	AF8B	ABUT. FOOTING	#5		17	2		19' - 8"	1' - 3"						355' - 7"
	AF8C	ABUT. FOOTING	#5		17	2		17' - 8"	1' - 3"						321' - 7"
	PF1	PIER FOOTING	#6		74	4		9' - 8"	2' - 0"	2' - 0"					1011' - 4"
	PF2A	PIER FOOTING	#6		9	2		20' - 9"	2' - 0"						204' - 9"
	PF2B	PIER FOOTING	#6		9	2		18' - 4"	2' - 0"						183' - 0"
	PF3A	PIER FOOTING	#6		8	1		20' - 9"							166' - 0"
	PF3B	PIER FOOTING	#6		8	1		18' - 4"							146' - 8"
	PF3C	PIER FOOTING	#6		8	1		9' - 8"							77' - 4"
	PF4A	PIER FOOTING	#6		9	2		20' - 9"	2' - 0"						204' - 9"
	PF4B	PIER FOOTING	#6		9	2		18' - 4"	2' - 0"						183' - 0"
	PF5	PIER FOOTING	#6		38	4		9' - 8"	2' - 0"	2' - 0"					519' - 4"
*	PF6	PIER FOOTING	#4		128	3		2' - 10"							458' - 8"

BAR BEND DIAGRAMS



s = STANDARD END HOOK, STIRRUP HOOK, OR TIE HOOK DIMENSION

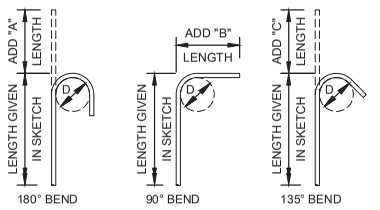
SUBSTRUCTURE BAR WEIGHT

BAR SIZE	LINEAR FEET	POUNDS PER FOOT	TOTAL WEIGHT
#3		0.376	
#4	1290' - 6"	0.668	862
#5	14001' - 5"	1.043	14603
#6	10443' - 4"	1.502	15686
#7	2024' - 2"	2.044	4137
#8	1101' - 4"	2.670	2941
#9	528' - 0"	3.400	1795
#10		4.303	
#11		5.313	
#14		7.650	
#18		13.600	
		TOTAL WEIGHT	40024

EPOXY COATED BAR WEIGHT

BAR SIZE	LINEAR FEET	POUNDS PER FOOT	TOTAL WEIGHT
#3		0.376	
#4		0.668	
#5	1506' - 0"	1.043	1571
#6		1.502	
#7		2.044	
#8		2.670	
#9		3.400	
#10		4.303	
#11		5.313	
		TOTAL WEIGHT	1571

BEND DETAILS



"L" = LENGTH GIVEN IN SKETCH

BAR SIZE	STANDARD END HOOK DIMENSIONS ALL GRADES D	A	B	STIRRUP AND TIE HOOK DIMENSIONS ALL GRADES D	B	C
#3	2¼"	5"	6"	1½"	4"	4"
#4	3"	6"	8"	2"	4½"	4½"
#5	3¾"	7"	10"	2½"	6"	5½"
#6	4½"	8"	1'-0"	4½"	1'-0"	8"
#7	5¼"	10"	1'-2"	5¼"	1'-2"	9"
#8	6"	11"	1'-4"	6"	1'-4"	10½"
#9	9½"	1'-3"	1'-7"			
#10	10¾"	1'-5"	1'-10"			
#11	1'-0"	1'-7"	2'-0"			
#14	1'-6¼"	2'-3"	2'-7"			
#18	2'-0"	3'-0"	3'-5"			

REINFORCEMENT NOTES:

1. PROVIDE BEND DETAILS IN ACCORDANCE WITH THE LATEST ACI STANDARD PRACTICE AND AASHTO SPECIFICATIONS.
2. DIMENSIONS SHOWN IN THE "BAR BEND DIAGRAMS" ARE OUT TO OUT OF BEND POINTS, HOOKS, OR BAR ENDS UNLESS NOTED OTHERWISE. PIN DIAMETER "D" IS THE SAME FOR BENDS AND HOOK ON A BAR.
3. NO DEDUCTIONS FOR CURVATURE AT BENDS ARE MADE EXCEPT FOR THE ADJUSTMENTS INCLUDED IN THE ABOVE "ADD LENGTH" DIMENSIONS.
4. * INDICATES STIRRUP OR TIE BAR.
5. PROVIDE BARS THAT CONFORM TO AASHTO M31, GRADE 60.
6. A. PROVIDE EPOXY COATED BARS DESIGNATED "E" IN THE "COAT" COLUMN.
   B. PROVIDE GLASS FIBER REINFORCED POLYMER COATED BARS DESIGNATED "G" IN THE "COAT" COLUMN.
   C. PROVIDE BAR TYPE S OR W DESIGNATED IN THE "BAR TYPE" COLUMN.
7. BAR WEIGHTS ONLY INCLUDE REINFORCING STEEL PAID FOR UNDER THE PAY ITEMS 503-010A,503-015A, & 503-020A. OTHER REINFORCING STEEL NOT LISTED IS INCIDENTAL TO OTHER PAY ITEMS.

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

METAL REINFORCEMENT (1 OF 4)

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

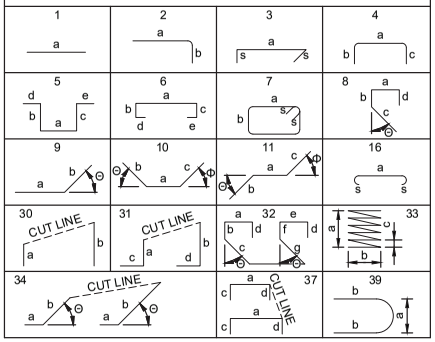
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 44 OF 47

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_METAL REINFORCEMENT.dwg - ---- - 3/23/2026 11:55 AM

SUBSTRUCTURE

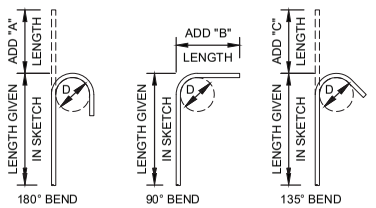
	MARK	LOCATION	BAR SIZE	COAT	NO. OF BARS	BAR TYPE	BARS/ SET	LENGTH a	LENGTH b	LENGTH c	LENGTH d	LENGTH e	ANGLE θ	ANGLE Φ	TOTAL LENGTH
	A1	ABUTMENT 1	#7		56	2		5' - 9"	1' - 2"						387' - 4"
	A2	ABUTMENT 1	#6		32	2		5' - 9"	1' - 2"						221' - 4"
	A3	ABUTMENT 1	#6		56	1		11' - 0"							616' - 0"
	A4	ABUTMENT 1	#6		32	1		11' - 0"							352' - 0"
	A5A	ABUTMENT 1	#6		26	1		17' - 6"							455' - 0"
	A5B	ABUTMENT 1	#6		26	1		15' - 2"							394' - 4"
	A6A	ABUTMENT 1	#6		4	1		17' - 6"							70' - 0"
	A6B	ABUTMENT 1	#6		4	1		15' - 2"							60' - 8"
	A7	ABUTMENT 1	#6		28	4		3' - 2"	1' - 0"	1' - 0"					144' - 8"
*	A8	ABUTMENTS	#4		126	3		3' - 2"							493' - 6"
	A9	ABUTMENT 2	#5		56	2		8' - 5"	0' - 10"						518' - 0"
	A10	ABUTMENT 2	#5		32	2		8' - 5"	0' - 10"						296' - 0"
	A11A	ABUTMENT 2	#5		12	1		17' - 6"							210' - 0"
	A11B	ABUTMENT 2	#5		12	1		15' - 2"							182' - 0"
	A12A	ABUTMENT 2	#5		4	1		17' - 6"							70' - 0"
	A12B	ABUTMENT 2	#5		4	1		15' - 2"							60' - 8"
	A13	ABUTMENT 2	#5		28	4		3' - 2"	1' - 0"	1' - 0"					144' - 8"
	BW1	ABUT. BACKWALL	#5	E	112	1		6' - 10"							765' - 4"
	BW2	ABUT. BACKWALL	#5	E	64	1		6' - 10"							437' - 4"
	BW3A	ABUT. BACKWALL	#5		20	1		17' - 6"							350' - 0"
	BW3B	ABUT. BACKWALL	#5		20	1		15' - 2"							303' - 4"
	BW4A	ABUT. BACKWALL	#5	E	4	1		17' - 6"							70' - 0"
	BW4B	ABUT. BACKWALL	#5	E	4	1		15' - 2"							60' - 8"
	BW5	ABUT. BACKWALL	#5	E	56	4		0' - 7"	1' - 3"	1' - 3"					172' - 8"

BAR BEND DIAGRAMS



s = STANDARD END HOOK, STIRRUP HOOK, OR TIE HOOK DIMENSION

BEND DETAILS



"L" = LENGTH GIVEN IN SKETCH

BAR SIZE	STANDARD END HOOK DIMENSIONS ALL GRADES D	A	B	STIRRUP AND TIE HOOK DIMENSIONS ALL GRADES D	B	C
#3	2¼"	5"	6"	1½"	4"	4"
#4	3"	6"	8"	2"	4½"	4½"
#5	3¾"	7"	10"	2½"	6"	5½"
#6	4½"	8"	1'-0"	4½"	1'-0"	8"
#7	5¼"	10"	1'-2"	5¼"	1'-2"	9"
#8	6"	11"	1'-4"	6"	1'-4"	10½"
#9	9½"	1'-3"	1'-7"			
#10	10¾"	1'-5"	1'-10"			
#11	1'-0"	1'-7"	2'-0"			
#14	1'-6¼"	2'-3"	2'-7"			
#18	2'-0"	3'-0"	3'-5"			

REINFORCEMENT NOTES:

1. PROVIDE BEND DETAILS IN ACCORDANCE WITH THE LATEST ACI STANDARD PRACTICE AND AASHTO SPECIFICATIONS.
2. DIMENSIONS SHOWN IN THE "BAR BEND DIAGRAMS" ARE OUT TO OUT OF BEND POINTS, HOOKS, OR BAR ENDS UNLESS NOTED OTHERWISE. PIN DIAMETER "D" IS THE SAME FOR BENDS AND HOOK ON A BAR.
3. NO DEDUCTIONS FOR CURVATURE AT BENDS ARE MADE EXCEPT FOR THE ADJUSTMENTS INCLUDED IN THE ABOVE "ADD LENGTH" DIMENSIONS.
4. * INDICATES STIRRUP OR TIE BAR.
5. PROVIDE BARS THAT CONFORM TO AASHTO M31, GRADE 60.
6. A. PROVIDE EPOXY COATED BARS DESIGNATED "E" IN THE "COAT" COLUMN.
   B. PROVIDE GLASS FIBER REINFORCED POLYMER COATED BARS DESIGNATED "G" IN THE "COAT" COLUMN.
   C. PROVIDE BAR TYPE S OR W DESIGNATED IN THE "BAR TYPE" COLUMN.
7. BAR WEIGHTS ONLY INCLUDE REINFORCING STEEL PAID FOR UNDER THE PAY ITEMS 503-010A,503-015A, & 503-020A. OTHER REINFORCING STEEL NOT LISTED IS INCIDENTAL TO OTHER PAY ITEMS.

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

METAL REINFORCEMENT (2 OF 4)

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

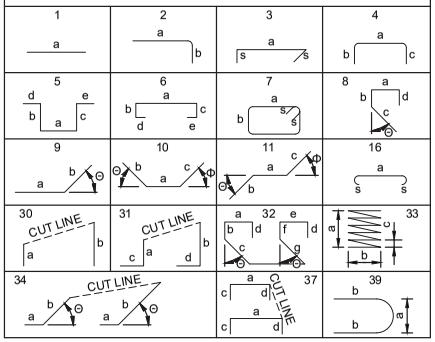
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 45 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

SUBSTRUCTURE

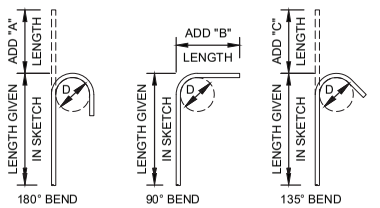
	MARK	LOCATION	BAR SIZE	COAT	NO. OF BARS	BAR TYPE	BARS/ SET	LENGTH a	LENGTH b	LENGTH c	LENGTH d	LENGTH e	ANGLE θ	ANGLE Φ	TOTAL LENGTH
	W1	WINGWALLS	#9		64	2		6' - 8"	1' - 7"						528' - 0"
	W2	WINGWALLS	#5		38	2		6' - 8"	0' - 10"						285' - 0"
	W3	WINGWALLS	#6		64	1		15' - 8"							1002' - 8"
	W4A	WINGWALLS	#5		34	1		15' - 8"							532' - 8"
	W4B	WINGWALLS	#5		4	1		10' - 5"							41' - 8"
	W5A	WINGWALLS	#5		52	1		19' - 2"							996' - 8"
	W5B	WINGWALLS	#5		24	1		16' - 7"							398' - 0"
	W6	WINGWALLS	#5		60	2		13' - 6"	0' - 10"						860' - 0"
	W7A	WINGWALLS	#5		32	2		13' - 6"	0' - 10"						458' - 8"
	W7B	WINGWALLS	#5		4	2		13' - 6"	0' - 10"						57' - 4"
	W8A	WINGWALLS	#5		28	1		18' - 2"							508' - 8"
	W8B	WINGWALLS	#5		24	1		15' - 7"							374' - 0"
	P1	PIER	#8		118	2		8' - 0"	1' - 4"						1101' - 4"
	P2	PIER	#6		118	1		10' - 0"							1180' - 0"
	P3A	PIER	#5		20	1		15' - 11"							318' - 4"
	P3B	PIER	#5		20	1		13' - 6"							270' - 0"
*	P4	PIER	#4		140	3		1' - 8"							338' - 4"
	P5	PIER	#5		20	39		1' - 6"	1' - 9"						117' - 2"
*	P6	PIER	#5		28	7		3' - 2"	3' - 2"						380' - 4"
	P7A	PIER	#5		5	1		15' - 11"							79' - 7"
	P7B	PIER	#5		5	1		13' - 6"							67' - 6"
	P8A	PIER	#5		4	1		15' - 11"							63' - 8"
	P8B	PIER	#5		4	1		13' - 6"							54' - 0"
	P9A	PIER	#5		5	1		15' - 11"							79' - 7"
	P9B	PIER	#5		5	1		13' - 6"							67' - 6"
	P10	PIER	#5		8	39		3' - 0"	1' - 9"						65' - 9"
	P11	PIER	#5		6	4		3' - 0"	3' - 0"	3' - 0"					54' - 0"

BAR BEND DIAGRAMS



s = STANDARD END HOOK, STIRRUP HOOK, OR TIE HOOK DIMENSION

BEND DETAILS



"L" = LENGTH GIVEN IN SKETCH

BAR SIZE	STANDARD END HOOK DIMENSIONS ALL GRADES D	A	B	STIRRUP AND TIE HOOK DIMENSIONS ALL GRADES D	B	C
#3	2¼"	5"	6"	1½"	4"	4"
#4	3"	6"	8"	2"	4½"	4½"
#5	3¾"	7"	10"	2½"	6"	5½"
#6	4½"	8"	1'-0"	4½"	1'-0"	8"
#7	5¼"	10"	1'-2"	5¼"	1'-2"	9"
#8	6"	11"	1'-4"	6"	1'-4"	10½"
#9	9½"	1'-3"	1'-7"			
#10	10¾"	1'-5"	1'-10"			
#11	1'-0"	1'-7"	2'-0"			
#14	1'-6¼"	2'-3"	2'-7"			
#18	2'-0"	3'-0"	3'-5"			

REINFORCEMENT NOTES:

1. PROVIDE BEND DETAILS IN ACCORDANCE WITH THE LATEST ACI STANDARD PRACTICE AND AASHTO SPECIFICATIONS.
2. DIMENSIONS SHOWN IN THE "BAR BEND DIAGRAMS" ARE OUT TO OUT OF BEND POINTS, HOOKS, OR BAR ENDS UNLESS NOTED OTHERWISE. PIN DIAMETER "D" IS THE SAME FOR BENDS AND HOOK ON A BAR.
3. NO DEDUCTIONS FOR CURVATURE AT BENDS ARE MADE EXCEPT FOR THE ADJUSTMENTS INCLUDED IN THE ABOVE "ADD LENGTH" DIMENSIONS.
4. * INDICATES STIRRUP OR TIE BAR.
5. PROVIDE BARS THAT CONFORM TO AASHTO M31, GRADE 60.
6. A. PROVIDE EPOXY COATED BARS DESIGNATED "E" IN THE "COAT" COLUMN.
   B. PROVIDE GLASS FIBER REINFORCED POLYMER COATED BARS DESIGNATED "G" IN THE "COAT" COLUMN.
   C. PROVIDE BAR TYPE S OR W DESIGNATED IN THE "BAR TYPE" COLUMN.
7. BAR WEIGHTS ONLY INCLUDE REINFORCING STEEL PAID FOR UNDER THE PAY ITEMS 503-010A,503-015A, & 503-020A. OTHER REINFORCING STEEL NOT LISTED IS INCIDENTAL TO OTHER PAY ITEMS.

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Ihtact2 Serving Idaho Since 1994

METAL REINFORCEMENT (3 OF 4)

200 S ROAD OVER CAMAS CREEK 207' PRESTRESSED CONCRETE BRIDGE

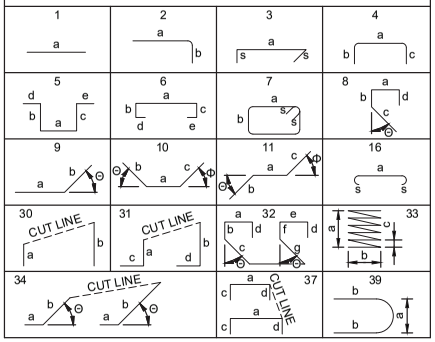
PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 46 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

SUPERSTRUCTURE

	MARK	LOCATION	BAR SIZE	COAT	NO. OF BARS	BAR TYPE	BARS/ SET	LENGTH a	LENGTH b	LENGTH c	LENGTH d	LENGTH e	ANGLE θ	ANGLE Φ	TOTAL LENGTH
	S1A	DECK - PHASE 1	#5		206	1		17' - 1"							3519' - 2"
	S1B	DECK - PHASE 2	#5		206	1		15' - 2"							3124' - 4"
	S2A	DECK - PHASE 1	#5	E	206	16		16' - 11"							3725' - 2"
	S2B	DECK - PHASE 2	#5	E	206	16		15' - 0"							3330' - 4"
	S3	DECK	#6	E	820	2		7' - 6"	1' - 0"						6970' - 0"
	T1A	DECK	#5		96	1		60' - 0"							5760' - 0"
	T1B	DECK	#5		32	1		29' - 9"							952' - 0"
	T2A	DECK	#5	E	96	1		60' - 0"							5760' - 0"
	T2B	DECK	#5	E	32	1		29' - 9"							952' - 0"
	T3	DECK	#6	E	30	1		37' - 6"							1125' - 0"
	D1A	INT. DIAPHRAGM	#4		24	1		5' - 6"							132' - 0"
	D1B	INT. DIAPHRAGM	#4		24	1		7' - 0"							168' - 0"
	D2	INT. DIAPHRAGM	#4		72	1		3' - 0"							216' - 0"
	ED1A	END DIAPHRAGM	#5		36	1		7' - 0"							252' - 0"
	ED1B	END DIAPHRAGM	#5		8	1		11' - 6"							92' - 0"
	ED1C	END DIAPHRAGM	#5		22	1		5' - 3"							115' - 6"
	ED1D	END DIAPHRAGM	#5		8	1		3' - 4"							26' - 8"
*	ED2	END DIAPHRAGM	#5		44	5		1' - 0"	3' - 6"	3' - 6"	0' - 10"	0' - 0"			388' - 8"
	ED3	END DIAPHRAGM	#5	E	44	2		2' - 0"	2' - 0"						176' - 0"
	PD1	PIER DIAPHRAGM	#4		30	1		4' - 6"							135' - 0"
*	PD2	PIER DIAPHRAGM	#5	E	18	5		2' - 9"	4' - 9"	4' - 9"	0' - 10"	0' - 10"			250' - 6"
	PD3	PIER DIAPHRAGM	#6		18	1		3' - 0"							54' - 0"

BAR BEND DIAGRAMS



s = STANDARD END HOOK, STIRRUP HOOK, OR TIE HOOK DIMENSION

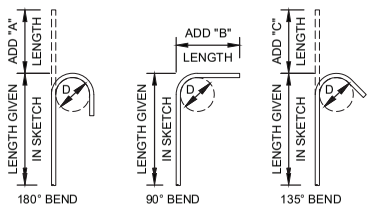
SUPERSTRUCTURE BAR WEIGHT

BAR SIZE	LINEAR FEET	POUNDS PER FOOT	TOTAL WEIGHT
#3		0.376	
#4	651' - 0"	0.668	435
#5	14230' - 5"	1.043	14842
#6	54' - 0"	1.502	81
#7		2.044	
#8		2.670	
#9		3.400	
#10		4.303	
#11		5.313	
#14		7.650	
#18		13.600	
		TOTAL WEIGHT	15358

EPOXY COATED BAR WEIGHT

BAR SIZE	LINEAR FEET	POUNDS PER FOOT	TOTAL WEIGHT
#3		0.376	
#4		0.668	
#5	14194' - 0"	1.043	14804
#6	8095' - 0"	1.502	12159
#7		2.044	
#8		2.670	
#9		3.400	
#10		4.303	
#11		5.313	
		TOTAL WEIGHT	26963

BEND DETAILS



"L" = LENGTH GIVEN IN SKETCH

BAR SIZE	STANDARD END HOOK DIMENSIONS ALL GRADES D	A	B	STIRRUP AND TIE HOOK DIMENSIONS ALL GRADES D	B	C
#3	2¼"	5"	6"	1½"	4"	4"
#4	3"	6"	8"	2"	4½"	4½"
#5	3¾"	7"	10"	2½"	6"	5½"
#6	4½"	8"	1'-0"	4½"	1'-0"	8"
#7	5¼"	10"	1'-2"	5¼"	1'-2"	9"
#8	6"	11"	1'-4"	6"	1'-4"	10½"
#9	9½"	1'-3"	1'-7"			
#10	10¾"	1'-5"	1'-10"			
#11	1'-0"	1'-7"	2'-0"			
#14	1'-6¼"	2'-3"	2'-7"			
#18	2'-0"	3'-0"	3'-5"			

REINFORCEMENT NOTES:

1. PROVIDE BEND DETAILS IN ACCORDANCE WITH THE LATEST ACI STANDARD PRACTICE AND AASHTO SPECIFICATIONS.
2. DIMENSIONS SHOWN IN THE "BAR BEND DIAGRAMS" ARE OUT TO OUT OF BEND POINTS, HOOKS, OR BAR ENDS UNLESS NOTED OTHERWISE. PIN DIAMETER "D" IS THE SAME FOR BENDS AND HOOK ON A BAR.
3. NO DEDUCTIONS FOR CURVATURE AT BENDS ARE MADE EXCEPT FOR THE ADJUSTMENTS INCLUDED IN THE ABOVE "ADD LENGTH" DIMENSIONS.
4. * INDICATES STIRRUP OR TIE BAR.
5. PROVIDE BARS THAT CONFORM TO AASHTO M31, GRADE 60.
6. A. PROVIDE EPOXY COATED BARS DESIGNATED "E" IN THE "COAT" COLUMN.
   B. PROVIDE GLASS FIBER REINFORCED POLYMER COATED BARS DESIGNATED "G" IN THE "COAT" COLUMN.
   C. PROVIDE BAR TYPE S OR W DESIGNATED IN THE "BAR TYPE" COLUMN.
7. BAR WEIGHTS ONLY INCLUDE REINFORCING STEEL PAID FOR UNDER THE PAY ITEMS 503-010A,503-015A, & 503-020A. OTHER REINFORCING STEEL NOT LISTED IS INCIDENTAL TO OTHER PAY ITEMS.

NO.	REVISIONS	BY	DATE

DRAWN J.SCOTT
DESIGNED J.LARKIN
APPROVED R. SHERMAN
QA B. BROADHEAD

SCALES SHOWN ARE FOR 11"x17" PRINTS ONLY
COUNTY CAMAS
BRIDGE KEY NUMBER 23801

LEADING IDAHO LOCAL BRIDGE PROGRAM

FORSGREN Associates Inc.

Intact2 Serving Idaho Since 1994

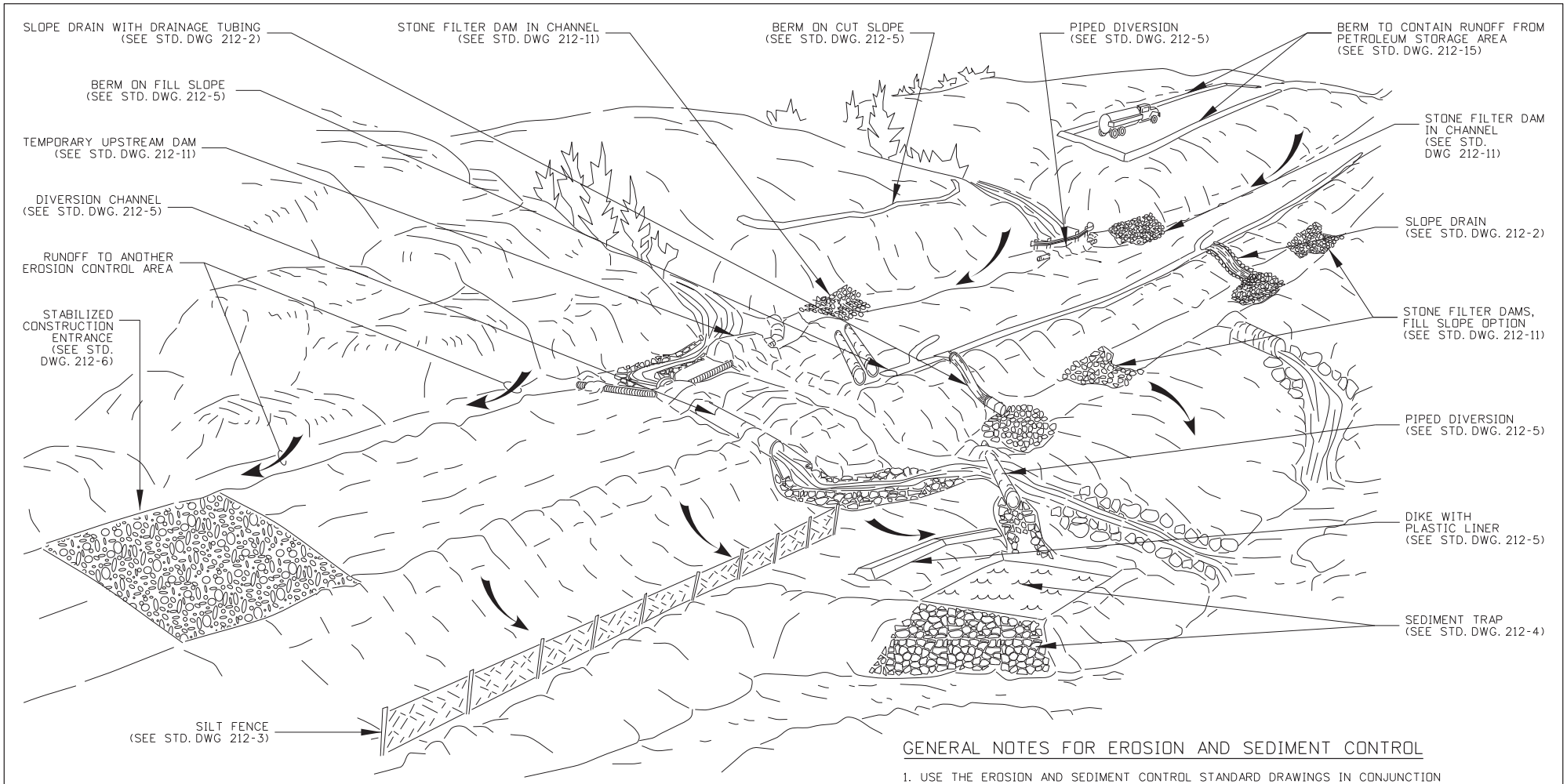
METAL REINFORCEMENT (4 OF 4)

200 S ROAD OVER CAMAS CREEK
207' PRESTRESSED CONCRETE BRIDGE

PROJECT NO: 02-23-0135
DRAWING NO. 18294
DATE: 3/23/26
SHEET NO: 47 OF 47

PROFESSIONAL ENGINEER REGISTERED 22074 3/24/2026 STATE OF IDAHO JARED R. LARKIN

F:\Boise\Projects\223135 - LLB Round 3 Bridges\Group 2 Bridges\23800 & 23795- 200 S over Camas Creek\CAD\Sheets\Structural\BR_23801_METAL REINFORCEMENT.dwg - ---- - 3/23/2026 11:55 AM



GENERAL NOTES FOR EROSION AND SEDIMENT CONTROL

1. USE THE EROSION AND SEDIMENT CONTROL STANDARD DRAWINGS IN CONJUNCTION WITH THE ITD BEST MANAGEMENT PRACTICES MANUAL.
2. THE PLACEMENT OF EROSION CONTROL MEASURES IS SITE SPECIFIC. OBTAIN THE ENGINEER'S APPROVAL OF THE EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO INSTALLATION.
3. EROSION AND SEDIMENT CONTROL MEASURES PLACEMENT AND INSTALLATION MAY BE CONTROLLED BY THE NPDES, 404 PERMIT OR CONTRACT SPECIFICATIONS.
4. DRAWING NOT TO SCALE

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED MARCH 18, 2010 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	9-93	MSM	6	12-16	RDL			
2	6-96	MSM	7	02-21	TWF			
3	10-10	KEH						
4	10-11	KEH						
5	12-12	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-01_0421.dgn

DRAWING DATE: APRIL, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

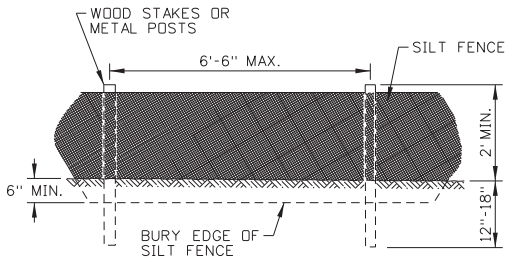
STANDARD DRAWING

EROSION AND SEDIMENT CONTROL EXAMPLE APPLICATIONS

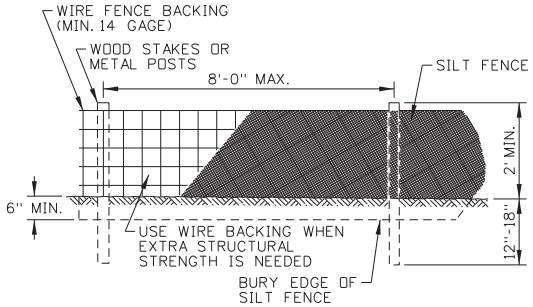
English

STANDARD DRAWING NO. 212-1

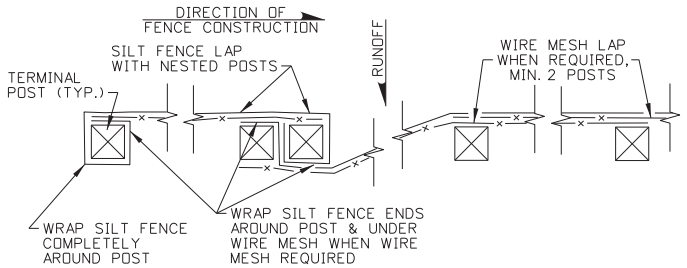
SHEET 1 OF 1



SILT FENCE (NO WIRE BACKING)



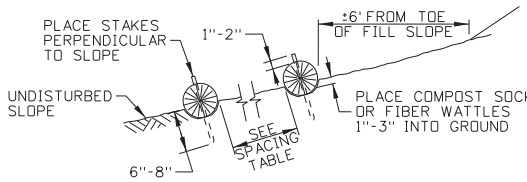
SILT FENCE (WIRE BACKING)



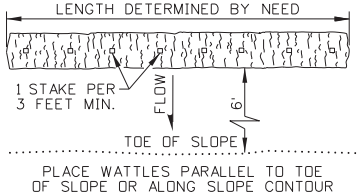
SILT FENCE LAP DETAIL

FIBER WATTLE & COMPOST SOCK SPACING TABLE				
SLOPE	WATTLE SIZE			
	6"	9"	12"	20"
1:1	5 FT	10 FT	15 FT	20 FT
2:1	10 FT	20 FT	30 FT	40 FT
3:1	15 FT	30 FT	45 FT	60 FT
4:1 OR FLATTER	20 FT	40 FT	60 FT	80 FT

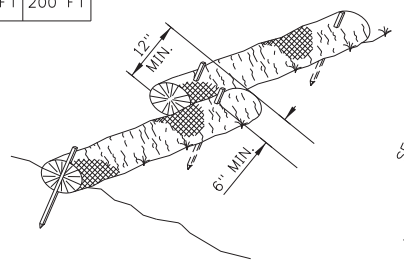
SILT FENCE SPACING TABLE			
SLOPE	SOIL TYPE		
	SILTY	CLAYS	SANDY
1:1	50 FT	75 FT	100 FT
2:1	75 FT	100 FT	125 FT
4:1	100 FT	125 FT	150 FT
10:1 OR FLATTER	125 FT	150 FT	200 FT



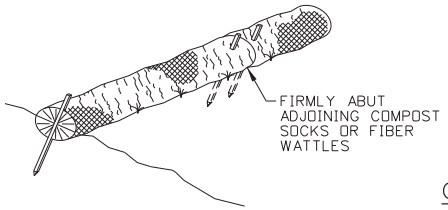
COMPOST SOCK AND FIBER WATTLE
SIDE VIEW



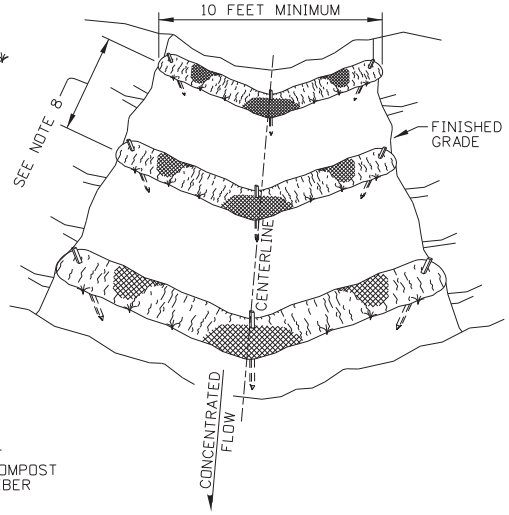
COMPOST SOCK AND FIBER WATTLE
PLAN VIEW



COMPOST SOCK AND FIBER WATTLE
OVERLAPPING DETAIL



COMPOST SOCK AND FIBER WATTLE
ABUTTING DETAIL



COMPOST SOCK AND FIBER WATTLE
TEMPORARY CHECK DAM DETAIL

NOTES

1. SEE THE GENERAL NOTES FOR EROSION CONTROL STANDARD DRAWINGS ON 212-1.
2. THE NEED FOR TEMPORARY SEDIMENT CONTROL DEVICES ARE DETERMINED BY SITE DESIGN. SPACE SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES IN ACCORDANCE WITH THE SILT FENCE SPACING TABLE AND FIBER WATTLE & COMPOST SOCK SPACING TABLE.
3. INSTALL TEMPORARY SEDIMENT CONTROL BARRIERS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND SPECIFICATIONS. THE DIMENSIONS SHOWN ARE GENERAL GUIDELINES.
4. PLACE SEDIMENT BARRIERS TO FOLLOW THE SLOPE CONTOURS. USE EITHER METAL POSTS OR WOOD STAKES.
5. ENSURE RUNOFF PASSES THROUGH THE SILT FENCE AND NOT AROUND THE FENCE.
6. GROUND SILT FENCES WITH WIRE MESH IN ACCORDANCE WITH THE GROUNDING DETAIL SHOWN ON STANDARD DRAWING 610-1.
7. EXTEND OR JOIN SILT FENCE USING SILT FENCE LAP WITH NESTED POSTS.
8. SPACE CHECK DAMS ACCORDING TO THE HEIGHT OF THE DAM AND THE SLOPE OF THE CHANNEL SO THE BACKWATER FROM THE DOWNSTREAM DAM REACHES THE TOE OF THE UPSTREAM DAM.
9. ON SLOPES, TURN THE ENDS OF EACH ROW OF COMPOST SOCKS AND FIBER WATTLES UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE SOCK OR WATTLE.
10. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES WHEN ACCUMULATION HAS REACHED ½ OF THE EFFECTIVE HEIGHT OF THE BARRIER.
11. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO ORIGINAL SIGNED MARCH 18, 2010 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	09-93	MSM	6	01-13	RDL			
2	12-94	MSM	7	03-21	TWF			
3	06-96	GFK						
4	10-10	KEH						
5	10-11	KEH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-03_0421.dgn

DRAWING DATE: APRIL, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

TEMPORARY EROSION AND SEDIMENT CONTROL

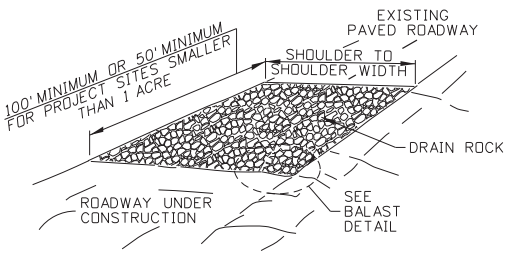
SILT FENCE, FIBER WATTLE, AND COMPOST SOCK

REQUIRES STD. DWG. 212-1

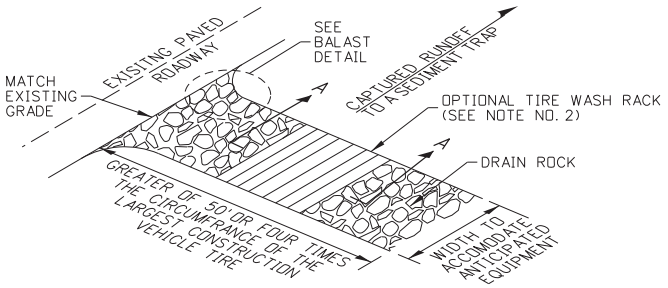
English

STANDARD DRAWING NO. 212-3

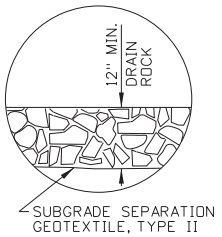
SHEET 1 OF 1



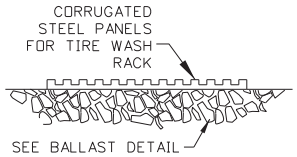
IN-LINE WITH HIGHWAY



PERPENDICULAR TO HIGHWAY

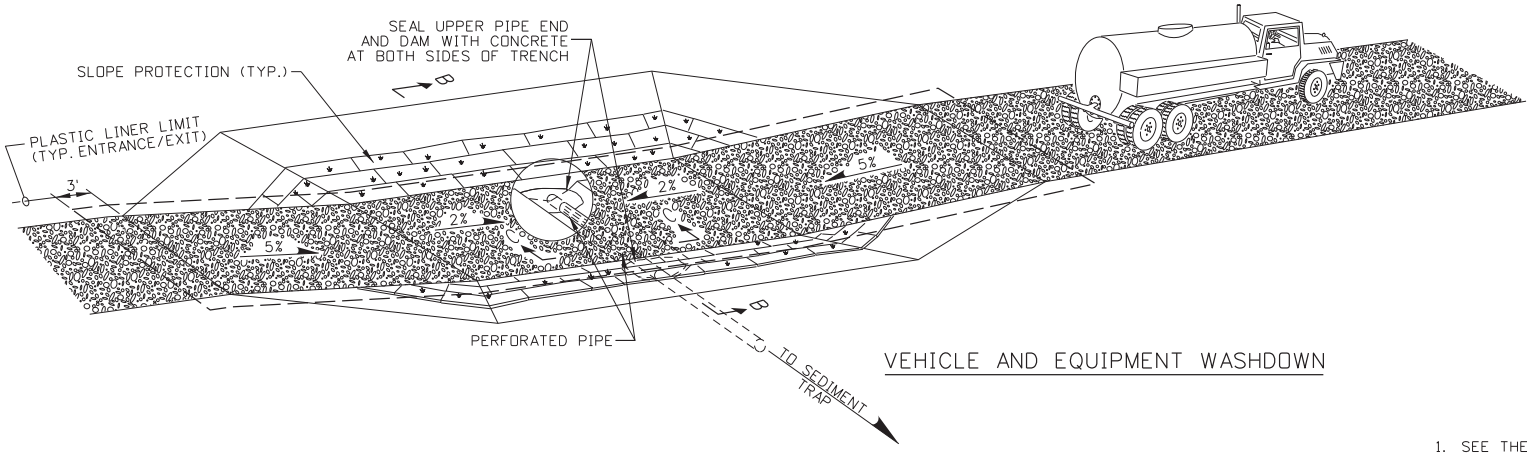


BALLAST DETAIL

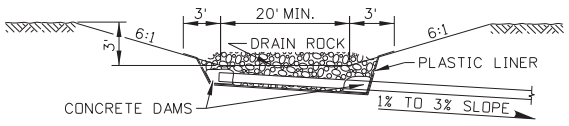


SECTION A-A

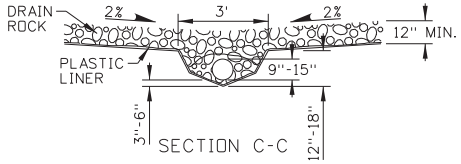
STABILIZED CONSTRUCTION ENTRANCE



VEHICLE AND EQUIPMENT WASHDOWN



SECTION B-B



SECTION C-C

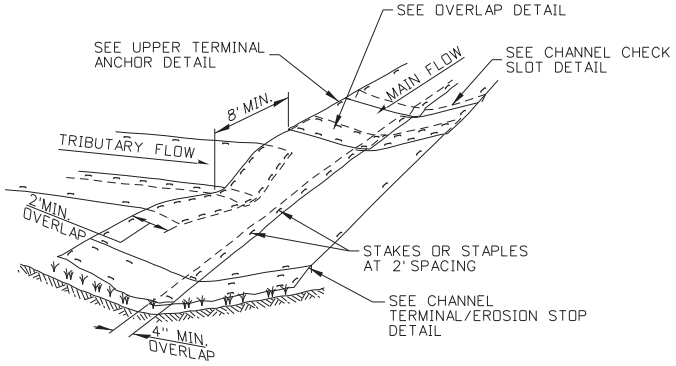
NOTES

1. SEE THE GENERAL NOTES FOR EROSION CONTROL STANDARD DRAWINGS ON 212-1.
2. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

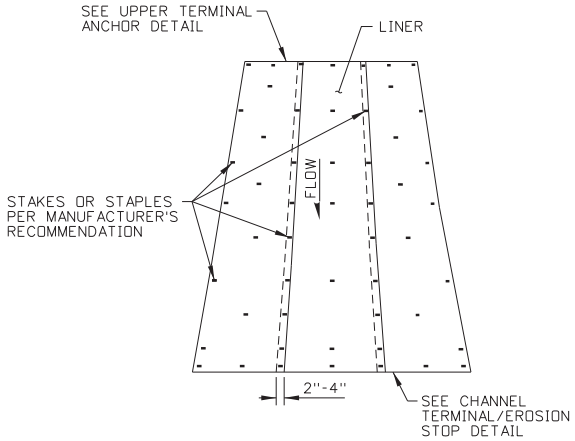
PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO ORIGINAL SIGNED MARCH 18, 2021 13683 RYAN D. LANCASTER

REVISIONS									SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT		STANDARD DRAWING	English
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	CADD FILE NAME: 212-06_0421.dgn		ORIGINAL SIGNED BY: KEVIN SABLAN	TEMPORARY EROSION AND SEDIMENT CONTROL STABILIZED CONSTRUCTION ENTRANCE AND VEHICLE WASHDOWN REQUIRES STD. DWG. 212-1	STANDARD DRAWING NO. 212-6
1	03-21	TWF							DRAWING DATE: NOVEMBER, 2016	BOISE IDAHO	DESIGN/TRAFFIC SERVICES ENGINEER		SHEET 1 OF 1



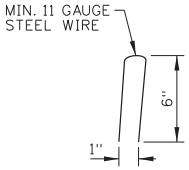
CHANNEL & INTERSECTION EXAMPLE

(SEE NOTE NO. 3)



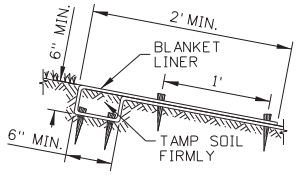
SLOPE INSTALLATION EXAMPLE

(SEE NOTE NO. 3)



WIRE STAPLE DETAIL

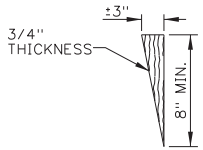
(SEE NOTE NO. 5)



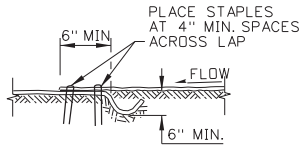
UPPER TERMINAL ANCHOR DETAIL

NOTES

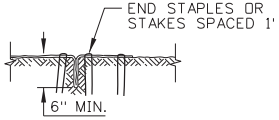
1. SEE THE GENERAL NOTES FOR PERMANENT EROSION CONTROL STANDARD DRAWINGS ON 212-10.
2. USE IN TEMPORARY OR PERMANENT APPLICATIONS.
3. THE LOCATION, SPACING, AND CONFIGURATION OF THE SLOPE AND CHANNEL PROTECTION WILL VARY FOR EACH INSTALLATION ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
4. BEGIN LINER PLACEMENT AT THE UPSTREAM END OR CREST OF THE SLOPE.
5. INSTALL WIRE STAPLES PERPENDICULAR TO THE SLOPE PLANE.
6. DRAWING NOT TO SCALE.



WOOD STAKE DETAIL



OVERLAP DETAIL



CHANNEL TERMINAL/EROSION STOP DETAIL

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO MARCH 18, 2010 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	05-95	MSM	6	03-21	TWF			
2	02-96	MSM						
3	10-10	KEH						
4	11-13	RDL						
5	11-14	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-12_0421.dgn

DRAWING DATE: DECEMBER, 1994

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

PERMANENT EROSION AND SEDIMENT CONTROL

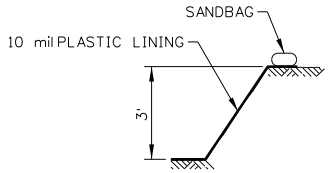
SLOPE AND CHANNEL PROTECTION

REQUIRES STD. DWG. 212-10

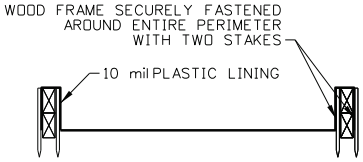
English

STANDARD DRAWING NO. 212-12

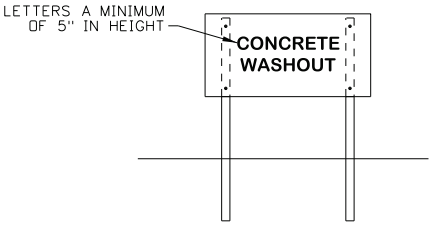
SHEET 1 OF 1



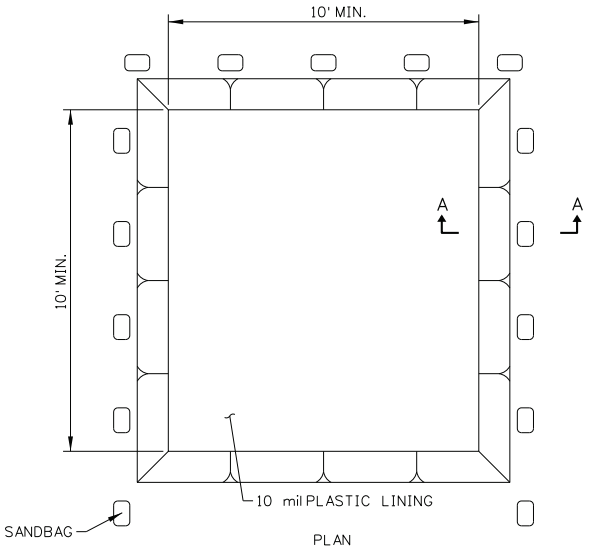
SECTION A-A



SECTION B-B

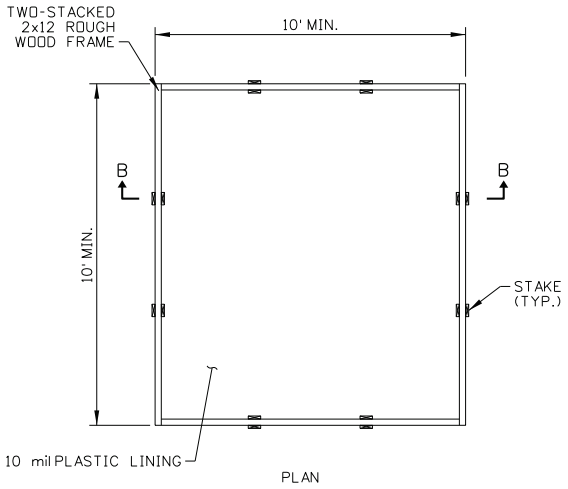


CONCRETE WASHOUT SIGN DETAIL
(SEE NOTE NO. 2)



PLAN

TYPE BELOW GRADE



PLAN

TYPE ABOVE GRADE

NOTES

1. USE THIS DRAWING IN CONJUNCTION WITH THE ITD BEST MANAGEMENT PRACTICES (BMP) MANUAL.
2. ACTUAL LAYOUT DETERMINED IN THE FIELD
3. INSTALL THE CONCRETE WASHOUT SIGN WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
4. USE OF PREFABRICATED TEMPORARY WASHOUT MAY ONLY BE USED ON APPROVAL BY THE ENGINEER.
5. NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED J. CALEB LAKEY ORIGINAL SIGNED BY: J. CALEB LAKEY NOVEMBER 20, 2013 STATE OF IDAHO 15116 J. CALEB LAKEY

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	11-13	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-16_1113.dgn

DRAWING DATE: OCTOBER, 2010

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TOM COLE *for*
HIGHWAYS PROGRAM OVERSIGHT ENGINEER

ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

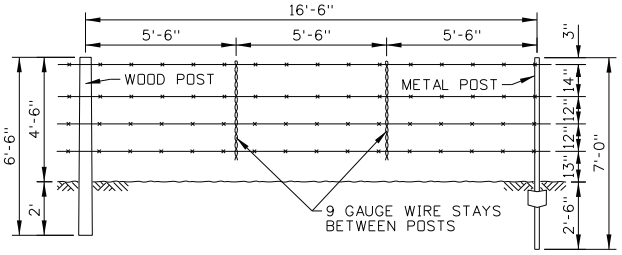
STANDARD DRAWING

TEMPORARY CONCRETE WASHOUT

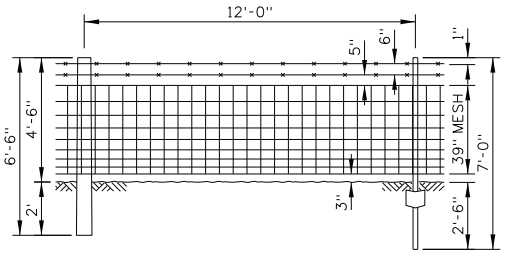
English

STANDARD DRAWING NO. 212-16

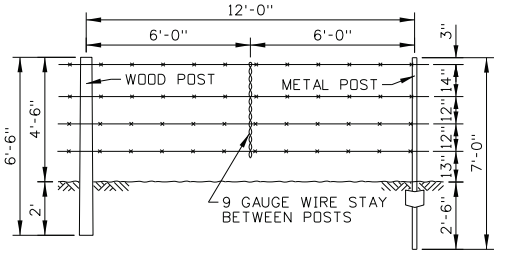
SHEET 1 OF 1



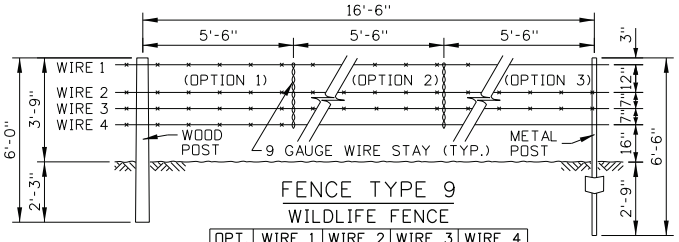
1A (WOOD) FENCE TYPE 1 1B (METAL)



3A (WOOD) FENCE TYPE 3 3B (METAL)



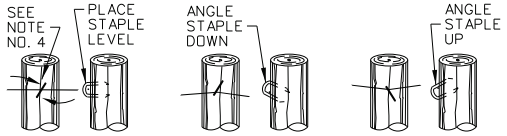
5-A (WOOD) FENCE TYPE 5 5-B (METAL)



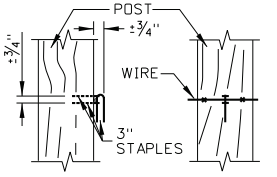
FENCE TYPE 9
WILDLIFE FENCE

OPT.	WIRE 1	WIRE 2	WIRE 3	WIRE 4
1	BARBED	BARBED	BARBED	BARBED
2	BARBED	BARBED	BARBED	SMOOTH
3	SMOOTH	BARBED	BARBED	SMOOTH

9-A (WOOD) 9-B (METAL)

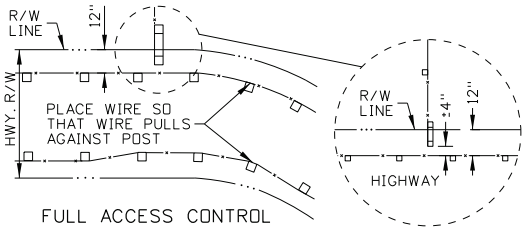


WOOD FENCE POST STAPLE DETAILS
(SEE NOTE NO. 4)

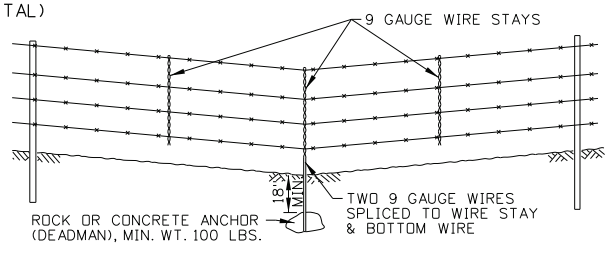


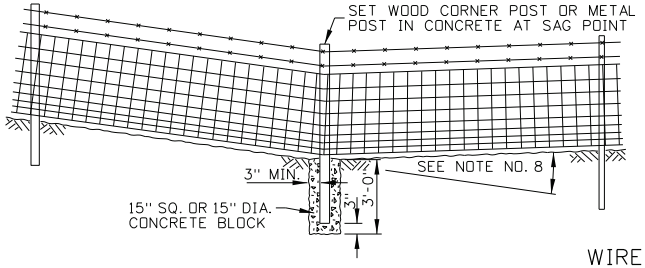
DROP FENCE STAPLE DETAIL
(SEE NOTE NO. 1)

WIRE AND WIRE MESH FENCE GROUNDING TABLE			
FENCE DIST. FROM TRANSMISSION LINE	kV	POST MATERIAL	GROUNDING INTERVAL
0' - 100'	500	ALL	200'
100' - 200'	500	ALL	500'
0' - 100'	345	ALL	400'
100' - 150'	345	ALL	1,000'
50' - 100'	230	ALL	500'

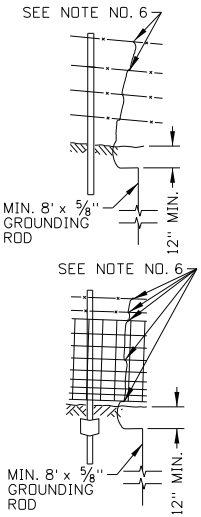


RIGHT-OF-WAY FENCE LOCATION DETAILS





SAG DETAILS



WIRE AND WIRE MESH FENCE GROUNDING DETAILS

BARBED OR WOVEN WIRE FENCE NOTES

1. DESIGNATE POST MATERIAL ON PROJECT PLANS. INDICATE WHETHER THE FENCE WILL BE A DROP FENCE AND THE LOCATION WHERE DROP FENCE STAPLES WILL BE USED.
2. DESIGNATE OPTION 1, 2, OR 3 FOR FENCE TYPE 9 - WILDLIFE FENCE - ON PROJECT PLANS.
3. ATTACH ANCHOR PLATES TO METAL POSTS UNLESS THE POST IS SET IN SOLID ROCK. GROUT DRILL HOLES WHEN METAL POSTS ARE SET IN SOLID ROCK.
4. STAPLE EACH WIRE TO EACH WOOD POST. STAPLE ALTERNATING WIRES ON MESH WIRE FENCES. USE TWO STAPLES ON BRACES AND IN SAG SECTIONS. ROTATE THE STAPLES TO STRADDLE ACROSS THE WOOD GRAIN. ALLOW ENOUGH SPACE FOR WIRE TO SLIDE THROUGH THE STAPLE.
5. ATTACH FENCE WIRE OR WIRE MESH TO STEEL POSTS WITH WIRE CLAMPS. USE ONE WIRE CLAMP PER WIRE. ON WIRE MESH, USE FOUR WIRE CLAMPS PER POST OR EIGHT WIRE CLAMPS PER POST IN SAG SECTIONS.
6. GROUND WIRE AND WIRE MESH FENCES THAT ARE NEAR POWER TRANSMISSION LINES OR THAT PASS UNDER TRANSMISSION LINES. SEE THE WIRE AND WIRE MESH FENCE GROUNDING TABLE AND WIRE AND WIRE MESH FENCE GROUNDING DETAILS. TO GROUND, CONNECT EACH FENCE WIRE TO 6 GAUGE BRAIDED GROUND CABLE WITH SPLIT BOLT CABLE CONNECTORS. FOR WIRE MESH FENCE, CONNECT THE BRAIDED GROUND CABLE EVERY 18". GROUND THE FENCE ONCE IF THE FENCE SECTION IS SHORTER THAN THE GROUNDING INTERVAL.
7. WHEN THE FENCE TERMINATES AT A BRIDGE, ENSURE THAT THE TOP OF THE FENCE DOES NOT EXTEND BEYOND THE TOP OF THE PARAPET OR RAILING.
8. ON THE SAG DETAIL, INSTALL CORNER BRACE IN ADDITION TO THE CONCRETE BASE WHEN THE ANGLE IS GREATER THAN 20°.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED DECEMBER 6, 2016 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 610-1_1216.dgn

DRAWING DATE: NOVEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TED MASON

DESIGN/TRAFFIC SERVICES ENGINEER

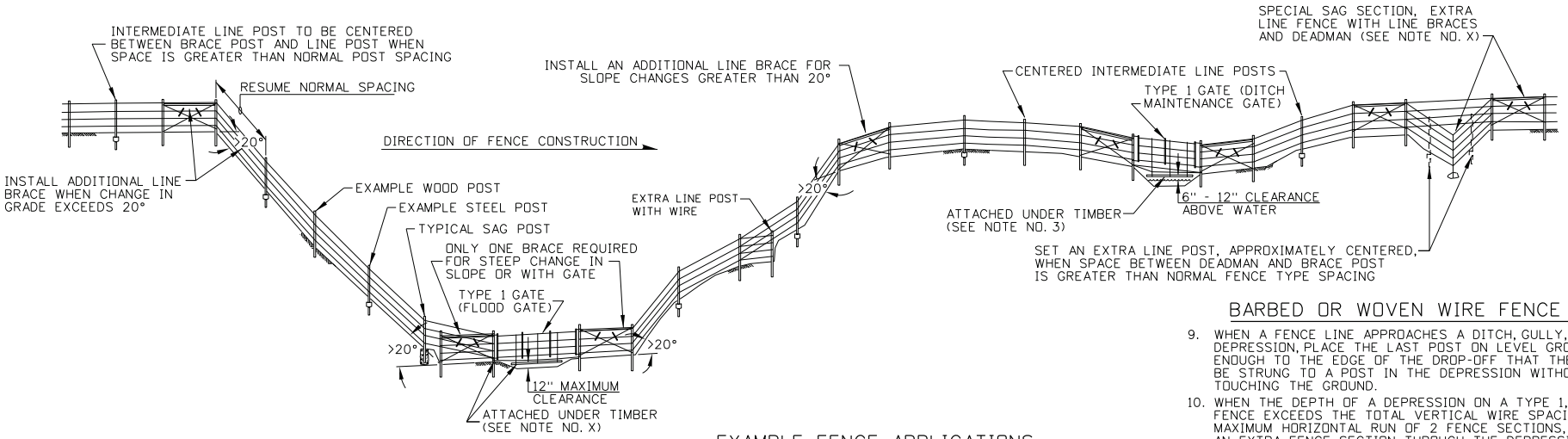
STANDARD DRAWING

FENCES

English

STANDARD DRAWING NO. 610-1

SHEET 1 OF 3

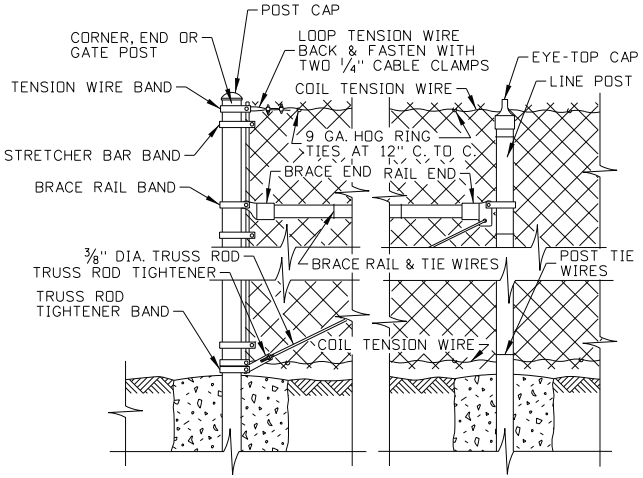


EXAMPLE FENCE APPLICATIONS

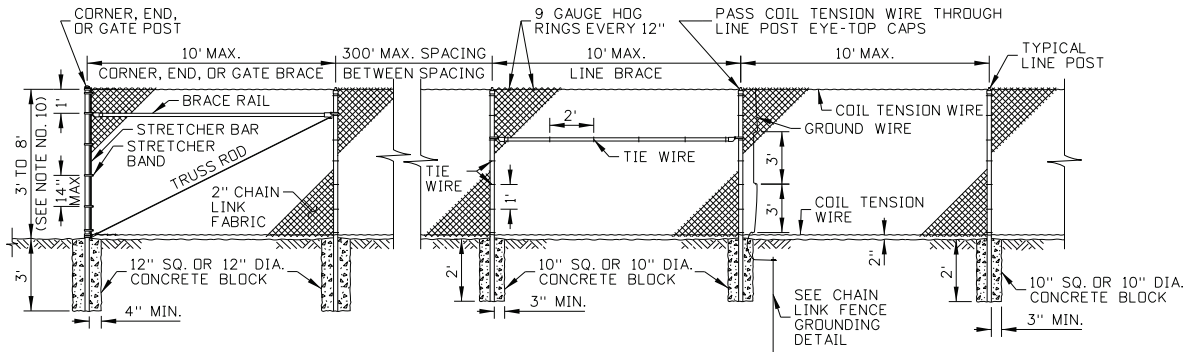
FOR FENCE TYPES 1, 3, 5, & 9

BARBED OR WOVEN WIRE FENCE NOTES

9. WHEN A FENCE LINE APPROACHES A DITCH, GULLY, OR DEPRESSION, PLACE THE LAST POST ON LEVEL GROUND CLOSE ENOUGH TO THE EDGE OF THE DROP-OFF THAT THE WIRE MAY BE STRUNG TO A POST IN THE DEPRESSION WITHOUT TOUCHING THE GROUND.
10. WHEN THE DEPTH OF A DEPRESSION ON A TYPE 1, 5, OR 9 FENCE EXCEEDS THE TOTAL VERTICAL WIRE SPACING OVER A MAXIMUM HORIZONTAL RUN OF 2 FENCE SECTIONS, CONSTRUCT AN EXTRA FENCE SECTION THROUGH THE DEPRESSION. SEE THE EXAMPLE FENCE APPLICATIONS.
11. IF THE DISTANCE BETWEEN THE GROUND AND THE BOTTOM WIRE OF A TYPE 1 GATE IS GREATER THAN 16", INSTALL AN UNDER TIMBER, ADDITIONAL WIRE, AND WIRE STAYS, AND BRACES.



FENCE TYPE 4
CHAIN LINK FENCE



FENCE TYPE 4 - CHAIN LINK FENCE DETAILS

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER ORIGINAL SIGNED DECEMBER 6, 2016 STATE OF IDAHO 13683 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 610-1_1216.dgn

DRAWING DATE: NOVEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TED MASON

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

FENCES

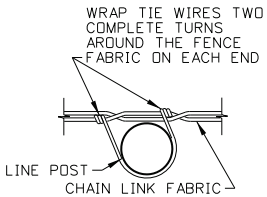
English

STANDARD DRAWING NO. 610-1

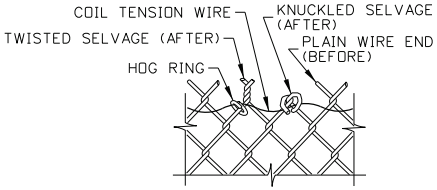
SHEET 2 OF 3

CHAIN LINK FENCE HARDWARE TABLE	
CORNER, END AND GATE POSTS	SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
LINE POST	SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
BRACE RAIL/TOP RAIL	SEE STANDARD SPECIFICATIONS FOR HIGHWAY CONST.
POST CAP	CAST NON-FERROUS ALLOY OR GALVANIZED PRESSED STEEL CAP. MUST FIT SNUGGLY ON POST.
EYE-TOP CAP	GALVANIZED PRESSED STEEL MIN. 3/32" THICKNESS OR GALVANIZED MALLEABLE FERROUS ALLOY
STRECHER BAR BAND	CLASS 1 - MIN. 1/8" x 3/4" MIN. GALVANIZED STEEL CLASS 2 - MIN. 3/32" x 5/16" MIN. GALVANIZED STEEL
TENSION WIRE/BRACE BAND	CLASS 1 - MIN. 1/8" x 3/4" MIN. GALVANIZED STEEL CLASS 2 - MIN. 3/32" x 5/16" MIN. GALVANIZED STEEL
BAND BOLT	CLASS 1 - 5/16" DIA. x 1 3/4" GALV. CARRIAGE BOLT CLASS 2 - 3/8" DIA. x 1 1/4" GALV. CARRIAGE BOLT, (LOCK WASHER & FLAT WASHER FOR EACH BAND)
RAIL END	GALVANIZED PRESSED STEEL OR GALVANIZED MALLEABLE FERROUS ALLOY MIN. 3/8" THICKNESS ON BACK BOLTING APPENDAGE
BRACE END	GALVANIZED PRESSED STEEL OR GALVANIZED MALLEABLE FERROUS ALLOY MIN. 3/8" THICKNESS ON BACK BOLTING APPENDAGE
TRUSS ROD TIGHTENER	CLASS 1 - MIN. 3/8" FORMED GALVANIZED STEEL CLASS 2 - MIN. 1/4" FORMED GALVANIZED STEEL
TRUSS ROD	3/8" GALVANIZED, NC TREADED ROD, LOCK WASHER, & FLAT WASHER WITH TWO 90° BENDS OPPOSITE OF TREADED END
TOP RAIL SLEEVE	GALVANIZED STEEL, NOT TO BE USED ON R/W FENCES, MUST MEET REQUIRED PIPE THICKNESSES
TENSION BAR	CLASS 1 - MIN. 1/8" x 3/4" GALVANIZED STEEL CLASS 2 - MIN. 1/8" x 5/16" GALVANIZED STEEL
FENCE FABRIC	2" GALVANIZED DIAMOND MESH STEEL FABRIC
TIE WIRES	MIN. 9 GAUGE ALUMINUM WITH ONE HOOKED END
COIL TENSION WIRE	MIN. 7 GAUGE
BARBED WIRE & 3-WIRE BARBARM	BARBED WIRE: 14 GAUGE SPACED GALVANIZED MEDIUM CARBON STEEL WIRE WITH BARBS SPACED AT 5" C. to C. GALVANIZING SHALL CONFORM TO APPLICABLE A.S.T.M. DES. A-121-66 FOR ZINC-COATED & AASHTO M 280 SPECIFICATIONS. 3-WIRE BARBARM: BARBWIRE ARM (ONE PIECE "Z" CUT) FITS 1 5/8" O.D. POST, 1 5/8" TOP RAIL" FITS 2" O.D. POST, 1 5/8" TOP RAIL" FITS 2 1/2" O.D. POST, 1 5/8" TOP RAIL" FITS 3" O.D. POST, 1 5/8" TOP RAIL"

CHAIN LINK FENCE GROUNDING TABLE		
FENCE DIST. FROM TRANSMISSION LINE	kV	GROUNDING INTERVAL
0' - 100'	500	200'
100' - 200'	500	500'
0' - 100'	345	400'
100' - 150'	345	1,000'
50' - 100'	230	500'

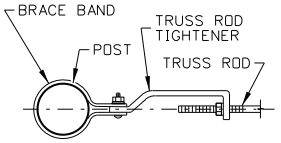


CHAIN LINK FENCE TIE DETAIL

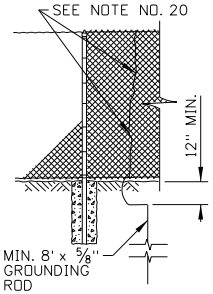


WIRE SELVAGE DETAIL

(SEE NOTE NO. 16)



TRUSS ROD TIGHTENER DETAIL



CHAIN LINK FENCE GROUNDING DETAIL

CHAIN LINK FENCE NOTES

12. THE MINIMUM FENCE HEIGHT IS 8' WHEN BARBED WIRE AND THE 3-WIRE BARBARM ARE USED. DO NOT USE RAZOR WIRE WITH THE 3-WIRE BARBARM.
13. SPACE POSTS EQUAL DISTANCES APART, 10' MAXIMUM SPACING.
14. ADJUST THE POST TOP ELEVATIONS TO PROVIDE A SMOOTH VISUAL FENCE PROFILE. INSTALL CORNER POSTS AT HORIZONTAL BREAKS IN THE FENCE OF 15° OR MORE.
15. STRETCH THE FENCE FABRIC SMOOTH SO THAT IT HAS A UNIFORM APPEARANCE.
16. SELVAGE THE PLAIN WIRE ENDS ON THE TOP AND BOTTOM OF THE CHAIN LINK FABRIC BY THE TWISTED OR KNUCKLED METHOD. SEE WIRE SELVAGE DETAIL.
17. CHAIN LINK FENCE HARDWARE MAY VARY SOMEWHAT FROM THAT SHOWN IN THE CHAIN LINK FENCE HARDWARE TABLE. ENSURE THAT HARDWARE AND MATERIALS USED ARE UNIFORM AND COMPATIBLE.
18. INSTALL A TOP RAIL WHEN BARBED WIRE AND THE 3-WIRE BARBARM ARE USED.
19. INSTALL PRIVACY FENCE SLATS IF SHOWN ON PROJECT PLANS.
20. GROUND CHAIN LINK FENCES THAT ARE NEAR POWER TRANSMISSION LINES OR THAT INTERSECT TRANSMISSION LINES. SEE THE CHAIN LINK FENCE GROUNDING TABLE AND CHAIN LINK FENCE GROUNDING DETAILS. TO GROUND, CONNECT 6 GAUGE BRAIDED GROUND CABLE TO THE CHAIN LINK FABRIC EVERY 36'. GROUND THE FENCE ONCE IF THE FENCE SECTION IS SHORTER THAN THE GROUNDING INTERVAL.
21. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED DECEMBER 6, 2016 RYAN D. LANCASTER

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 610-1_1216.dgn

DRAWING DATE: NOVEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TED MASON

DESIGN/TRAFFIC SERVICES ENGINEER

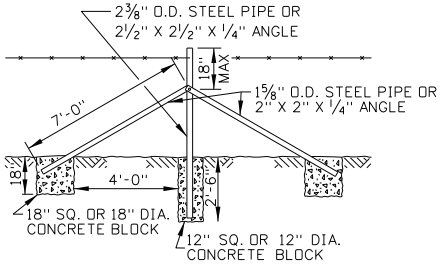
STANDARD DRAWING

FENCES

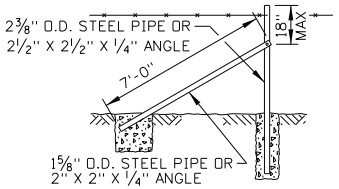
English

STANDARD DRAWING NO. 610-1

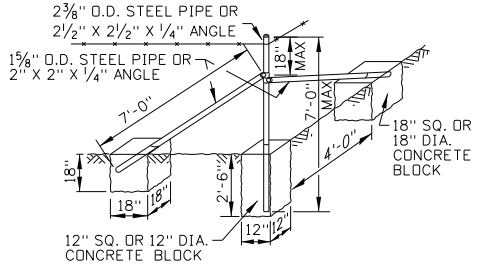
SHEET 3 OF 3



LINE BRACE



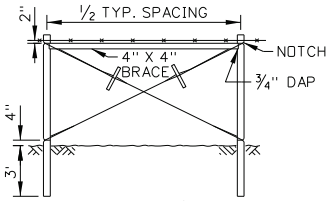
TERMINAL BRACE



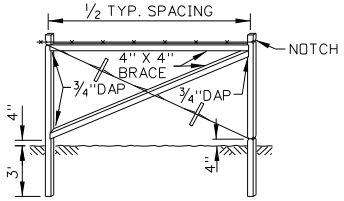
CORNER BRACE

METAL BRACES

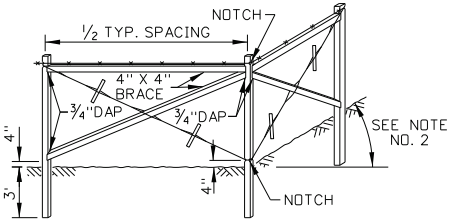
BRACE SPACING TABLE			
FENCE TYPE	DISTANCE BETWEEN BRACES	METAL BRACES	WOOD BRACES
1, 5, & 9	<66'	NONE	NONE
	66' TO 660'	SINGLE	SINGLE
	660' TO 990'	DO NOT EXCEED 660'	DOUBLE
3	<33'	NONE	NONE
	33' TO 330'	SINGLE	SINGLE
	330' TO 660'	DO NOT EXCEED 330'	DOUBLE
4	INTEGRATED INTO CHAIN LINK FENCE		



LINE BRACE

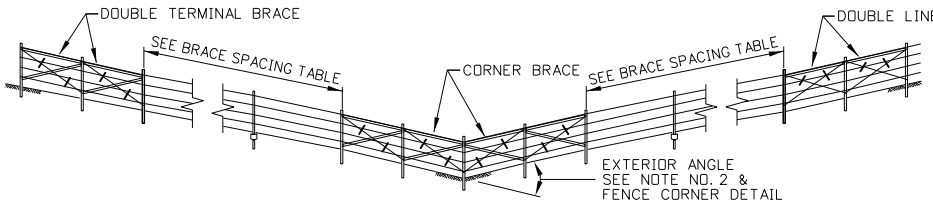


TERMINAL BRACE

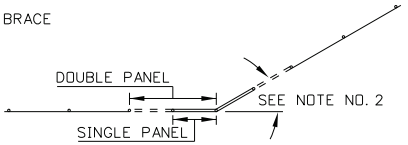


CORNER BRACE

WOOD BRACES



WOOD DOUBLE BRACE PANELS



FENCE CORNER DETAIL

NOTES

1. USE METAL BRACES WHEN METAL FENCE POSTS ARE USED. USE WOOD BRACES WHEN WOOD FENCE POSTS ARE USED.
2. USE DOUBLE WOOD CORNER BRACES WHEN THE EXTERIOR FENCE CORNER ANGLE EXCEEDS 30°. INSTALL DOUBLE LINE AND TERMINAL BRACES IN ACCORDANCE WITH THE FENCE BRACE TABLE.
3. SEE THE BRACE SPACING TABLE FOR THE MAXIMUM DISTANCES BETWEEN BRACES.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED DECEMBER 6, 2016

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 610-3_1216.dgn

DRAWING DATE: NOVEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TED MASON

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

FENCE BRACES

REQUIRES STD. DWG. 610-1

English

STANDARD DRAWING NO.

610-3

SHEET 1 OF 1