ENGINEERING CONSTRUCTION CONTRACTING SECTION
MONTANA DEPARTMENT OF TRANSPORTATION

As-Built Drawings

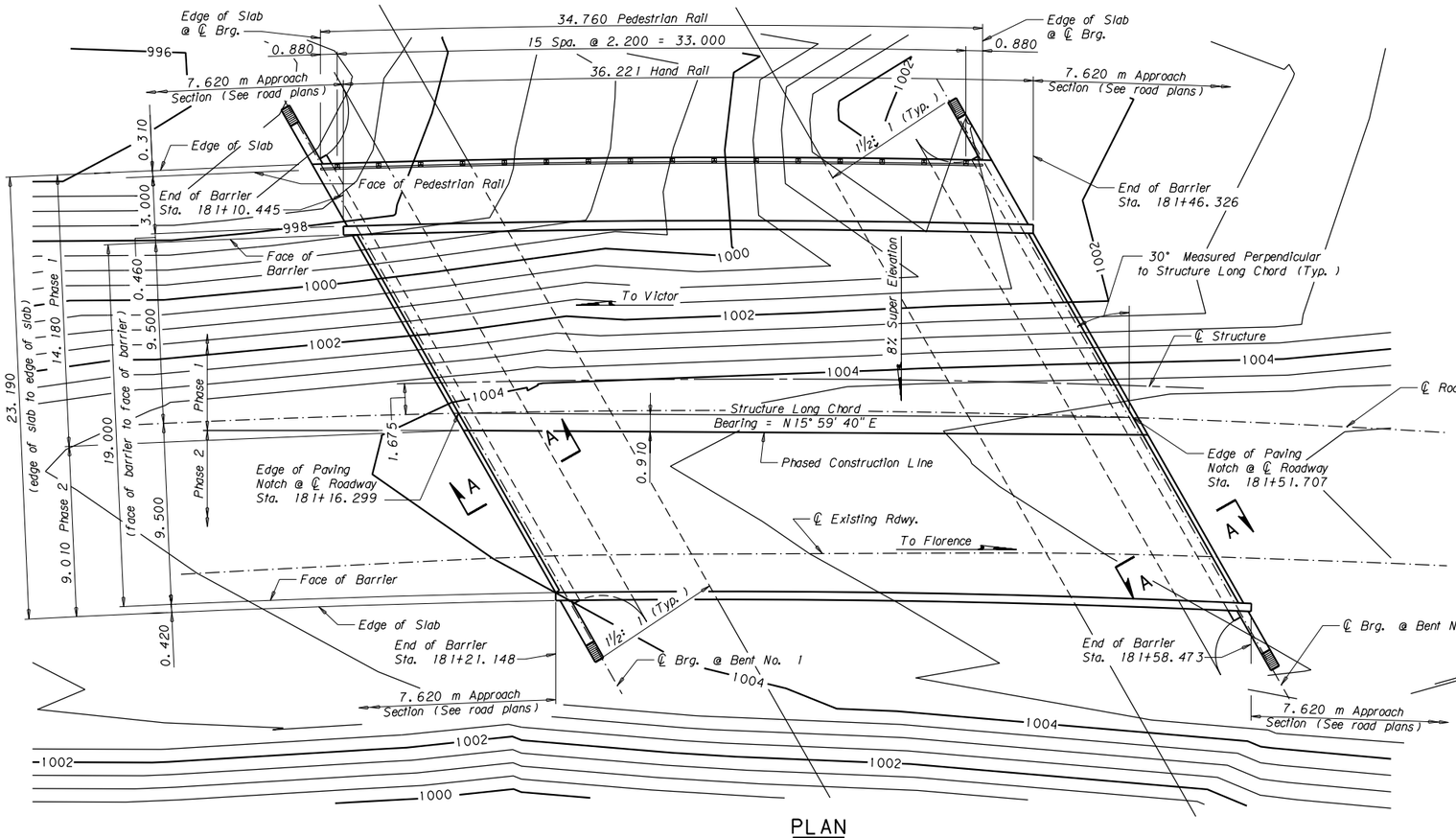
The following are as-built drawings for the structures. MDT provides them for informational purposes only. They do not include drawings for modifications to the structures, such as joint replacements and guardrail revisions and may not completely represent current conditions. Thus, some of the information contained in these documents may be out of date or not applicable with regard to the advertised project. The contractor should not rely solely on the as-built drawings provided for bidding purposes nor does any data in these files supersede the data in the contract documents.

AS-BUILTS DATE SENSITIVE - FOR INFORMATION ONLY

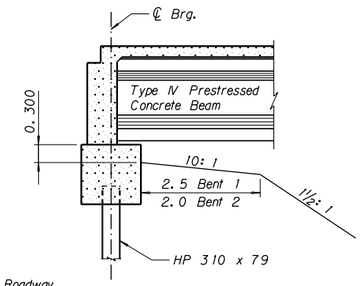
06/30/2016
Highways & Engineering Division

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	NH 7-1(93)68 F	B3

BRIDGE BUREAU



PLAN



SECTION A-A
Scale ~ 1:50

NOTES

FINISHED GRADE: Finished grade of bridge at centerline roadway is the same as the Profile Grade shown on Road Plans.

LIVE LOAD: Standard MS 22.5 loading.

SPECIFICATIONS: Montana Department of Transportation and the Montana Transportation Commission Standard Specifications for Road and Bridge Construction, 1995 edition, and any amendments thereto, and the Special Provisions govern unless otherwise noted. Design was prepared in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition - 2002, and any amendments thereto.

REINFORCING STEEL: Use new deformed type reinforcing steel meeting the requirements of AASHTO M 31M Grade 60 (420). Include all costs associated with furnishing and placing new reinforcing steel in the unit price bid for either Reinforcing Steel or Reinforcing Steel - Epoxy Coated.

CAST IN PLACE CONCRETE: Unless otherwise approved or specified, use Class DD for all substructure concrete and Class SD for all superstructure and barrier concrete.

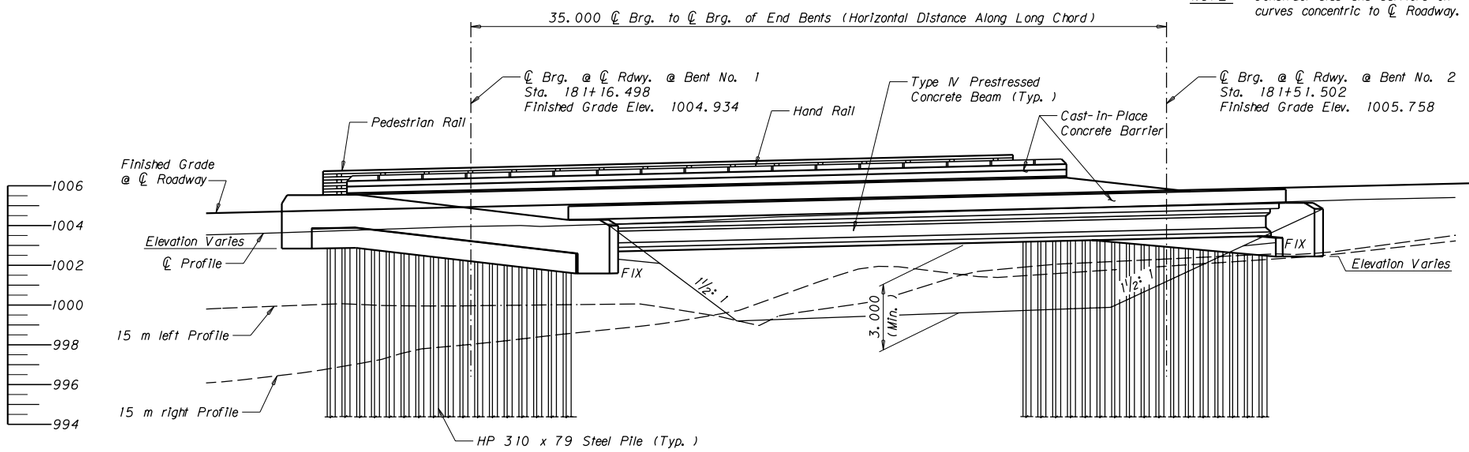
CONCRETE STRENGTH: Use f'c = 21 MPa for Class DD concrete. Use f'c = 31 MPa for Class SD concrete.

STRUCTURE EXCAVATION: Include structure excavation in the unit price bid for Class DD concrete.

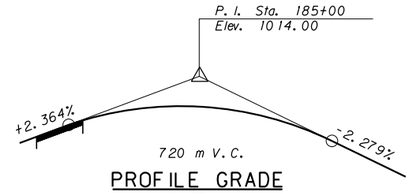
TRAFFIC CONTROL PLAN AND SEQUENCE OF OPERATIONS: See Special Provisions.

DIMENSIONS: All dimensions shown on the General Layout are in meters. All other drawings are dimensioned in millimeters except as noted. Stations and elevations are expressed in meters.

UTILITIES: Call 1-800-424-5555 for utility locates at least two working days prior to starting any construction activity that could disturb the utility.



ELEVATION



PROFILE GRADE
No Scale

CURVE DATA

PI	=	180+83.94
Δ	=	58° 54' 21" (RT)
Rc	=	625 m
Ls	=	110.00 m
θs	=	5° 02' 31'
Δc	=	48° 49' 18" (RT)
Ts	=	408.37 m
Lc	=	532.56 m
Es	=	93.69 m
S	=	8 %

MONTANA DEPARTMENT OF TRANSPORTATION

WILDLIFE CROSSING
AT STA. 181+34
FEDERAL AID PROJECT NO. NH 7-1(93)68 F
RAVALLI COUNTY
GENERAL LAYOUT

MONTANA
STEVEN D. KNEIP
8637E
REGISTERED PROFESSIONAL ENGINEER

WELLS ENGINEERS, INC.

DESIGNED	04-30-03	SDK
DRAWN	04-30-03	BAR
CHECKED	04-30-03	SRO
APPROVED		
REVISED		
REVISED		

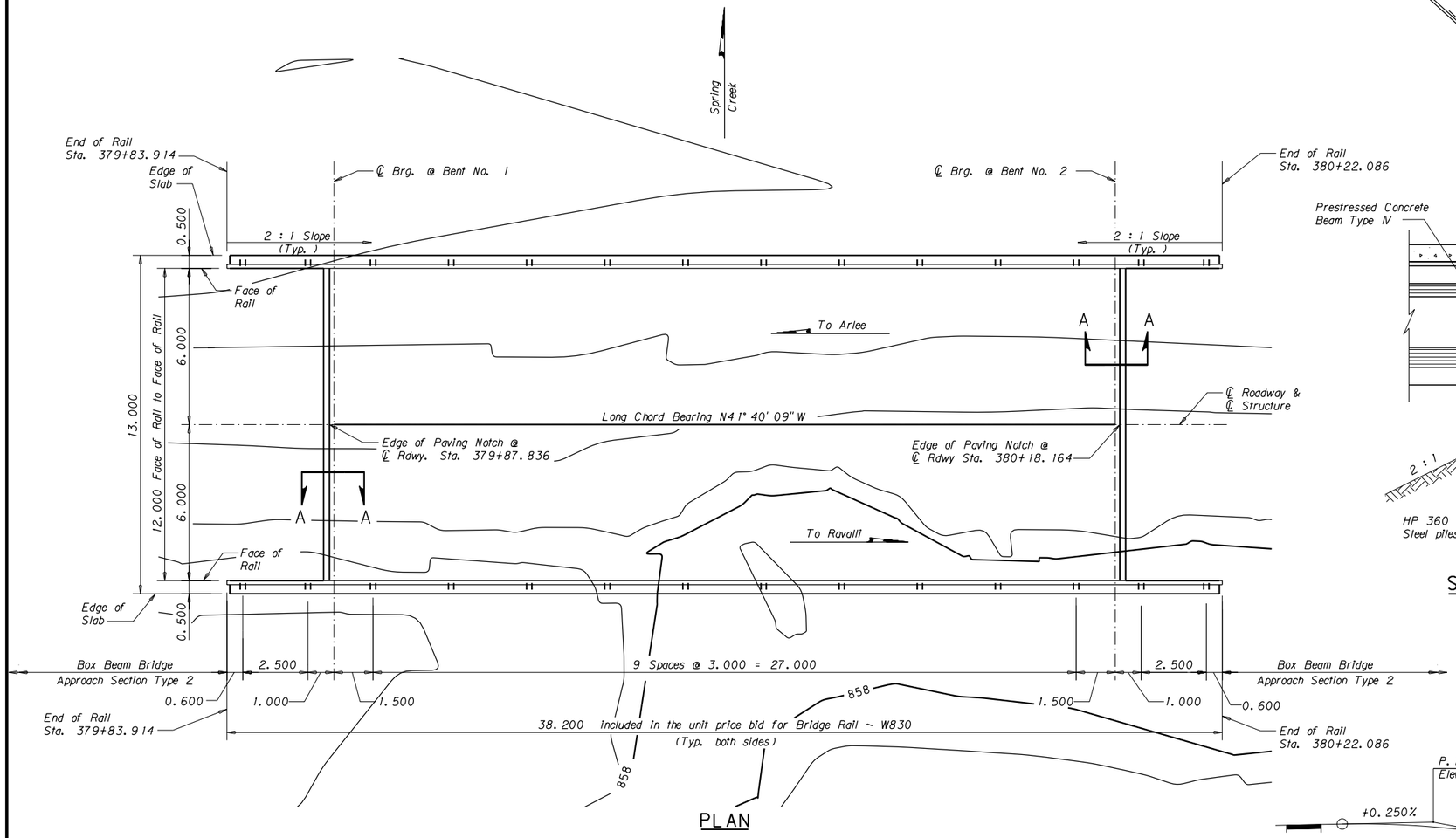
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6/30/2016
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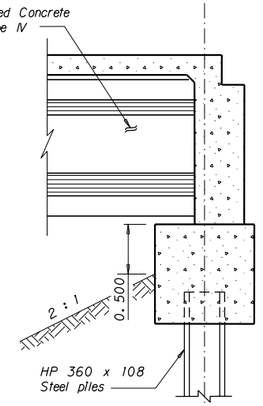
AS-BUILTS DATE SENSITIVE - FOR INFORMATION ONLY
06/08/2011
Highways & Engineering Division

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	NH 5-2(120)20	B2

BRIDGE BUREAU

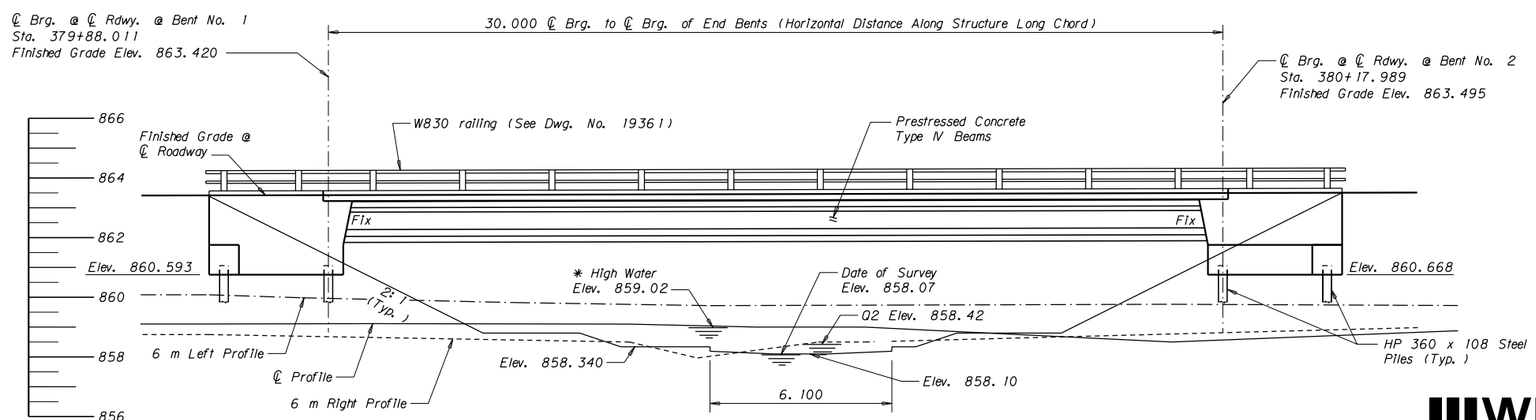


PLAN



SECTION A-A
Scale ~ 1: 30

PROFILE GRADE
No Scale



ELEVATION

NOTES

FINISHED GRADE: Finished grade of bridge at centerline roadway is the same as the Profile Grade shown on Road Plans.

LIVE LOAD: Standard MS 22.5 loading.

SPECIFICATIONS: Montana Department of Transportation and the Montana Transportation Commission Standard Specifications for Road and Bridge Construction, 1995 edition, and any amendments thereto, and the Special Provisions govern unless otherwise noted. Design was prepared in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition - 2002, and any amendments thereto.

REINFORCING STEEL: Use new deformed type reinforcing steel meeting the requirements of AASHTO M 31M Grade 420. Include all costs associated with furnishing and placing new reinforcing steel in the unit price bid for either Reinforcing Steel or Reinforcing Steel - Epoxy Coated.

CAST IN PLACE CONCRETE: Unless otherwise approved or specified, use Class DD for all substructure concrete and Class SD for all superstructure concrete.

CONCRETE STRENGTH: Use f'c = 21 MPa for Class DD concrete. Use f'c = 31 MPa for Class SD concrete.

STRUCTURE EXCAVATION: Include structure excavation in the unit price bid for Class DD concrete.

TRAFFIC CONTROL PLAN AND SEQUENCE OF OPERATIONS: See Special Provisions.

UTILITIES: Call 1-800-424-5555 for utility locates at least two working days prior to starting any construction activity that could disturb the utility.

DIMENSIONS: All dimensions shown on the General Layout are in meters. All other drawings are dimensioned in millimeters except as noted. Stations and elevations are expressed in meters.

Stations shown on the bridge plans are state plane grid stations based on state plane coordinates (NAD83-1992). Dimensions shown on the bridge plans are horizontal ground distances and not state plane grid distances. The combination scale factor (CSF) at this location is 0.99926000

Horizontal ground distance x CSF = Grid Distance
Grid Distance/CSF = Distance to stake

STREAM DATA

Drift:	Light
Contraction Scour (Q100):	0.02 m
Ice:	Light
Drainage Area:	76273 sq. km.
2-year Stage (Q2):	858.47
Base Flood Flow (Q100):	11.21 m³/sec
* Base Flood Stage:	859.02
Base Flood Velocity:	1.01 m/sec
Low Beam Elevation:	861.658

Also see Hydraulic Data Summary sheet.
* Base Flood Stage elevation includes backwater

NOTE: Water Elevation on date of survey, 11-08-02, was 858.07.

CURVE DATA

PI = 378+12.02
Δ = 3° 01' 03" (LT)
R = 10 000 m
T = 263.39 m
Lc = 526.65 m
E = 3.47 m

MONTANA DEPARTMENT OF TRANSPORTATION

BRIDGE OVER SPRING CREEK
AT STA. 380+03
FEDERAL AID PROJECT NO. NH 5-2(120)20
LAKE COUNTY
GENERAL LAYOUT

Scale ~ 1: 100 (except as noted)

STEVEN D. KNEIP 8637E
MONTANA PROFESSIONAL ENGINEER REGISTERED

WELLS ENGINEERS, INC.

DESIGNED	06-07-05	SDK
DRAWN	06-07-05	BAR
CHECKED	06-07-05	JBR
APPROVED		
REVISED		
REVISED		

FILENAME: ~~0744brgenz01.dgn~~ O744BRGENZ01AB.DGN
DRAWING NO. 19348

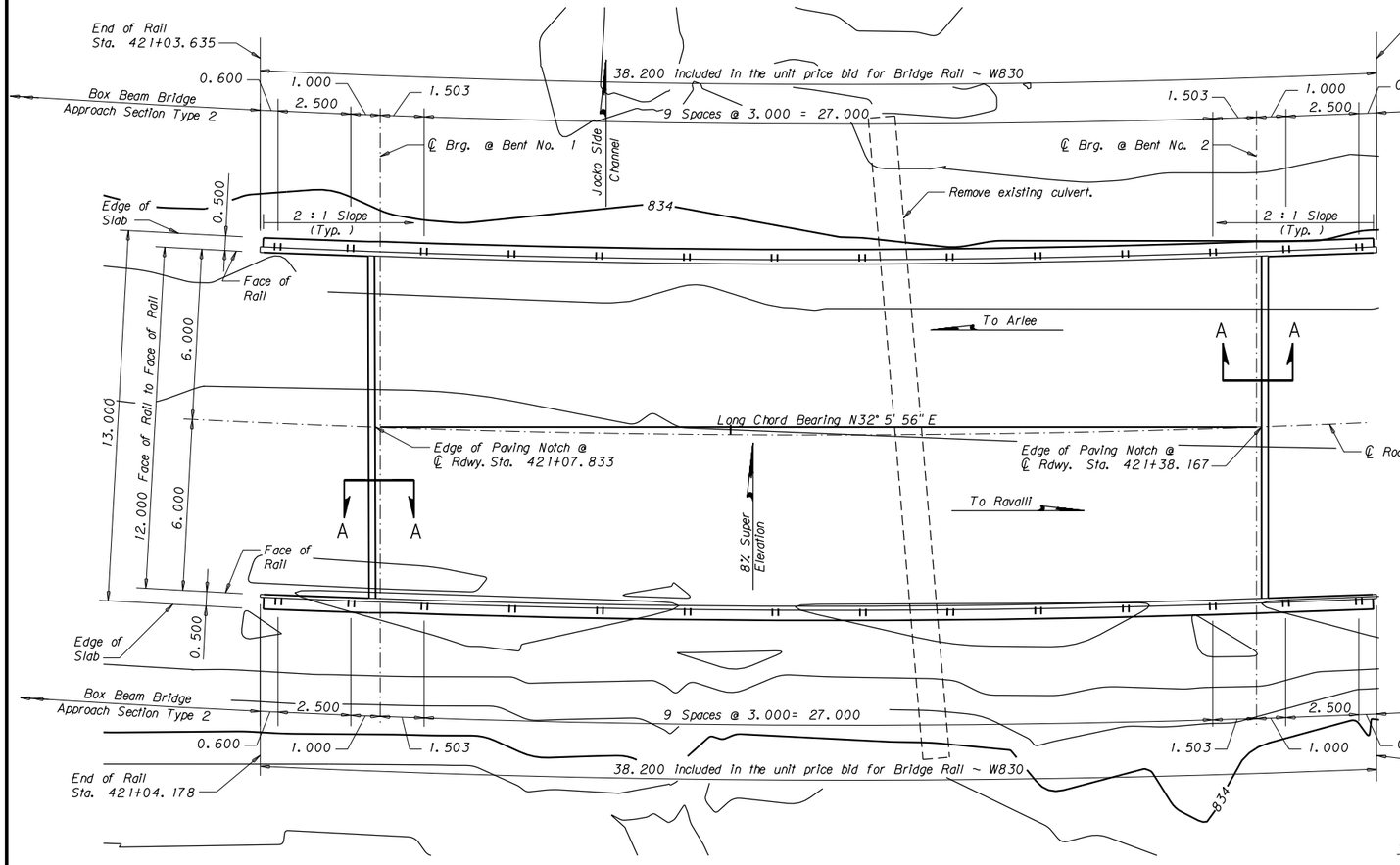
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6/8/2011
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AS-BUILTS DATE SENSITIVE - FOR INFORMATION ONLY

06/08/2011
Highways & Engineering Division

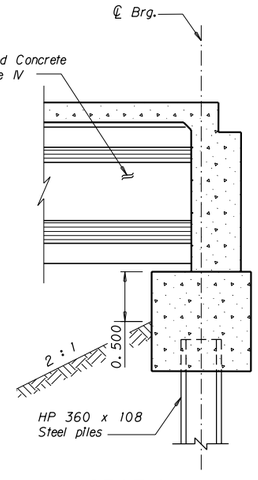
STATE	PROJECT NUMBER	SHEET NO.
MONTANA	NH 5-2(120)20	B8

BRIDGE BUREAU

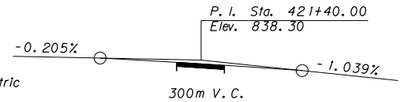


PLAN

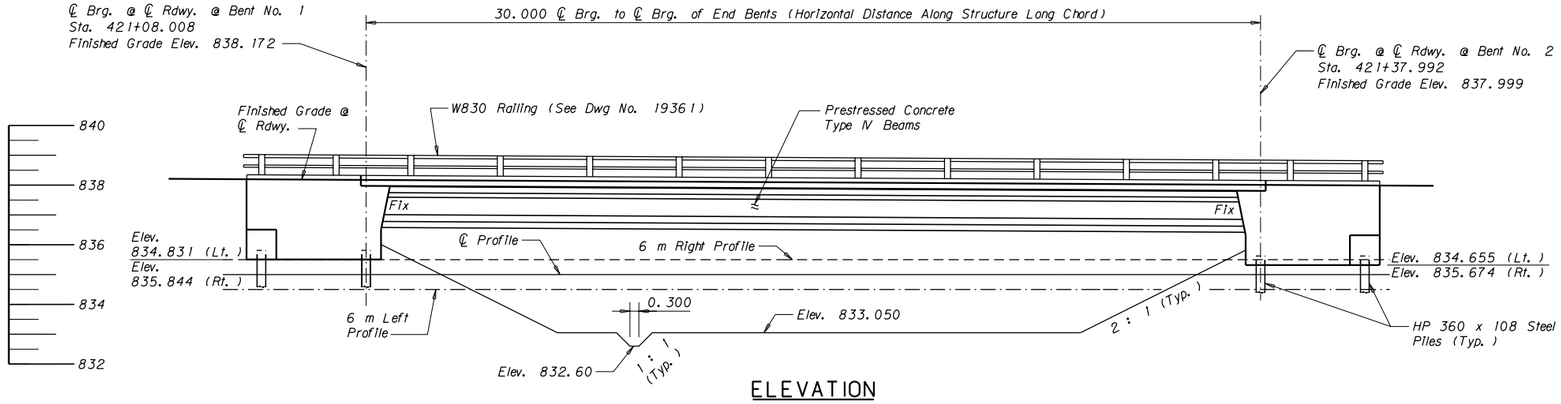
NOTE: Construct slab and rail on concentric curves parallel to ℄ of Roadway.



SECTION A-A
Scale ~ 1: 30



PROFILE GRADE
No Scale



ELEVATION

CURVE DATA

PI = 423+83.93
Δ = 81° 54' 48" (LT)
R_c = 420 m
L_s = 65 m
θ_c = 4° 26' 01"
Δ_c = 73° 02' 46" (LT)
T_s = 397.40 m
L_c = 535.46 m
E = 136.69 m
S = 8 %

NOTES

FINISHED GRADE: Finished grade of bridge at centerline roadway is different from Profile Grade due to superelevation transition.

LIVE LOAD: Standard MS 22.5 loading.

SPECIFICATIONS: Montana Department of Transportation and the Montana Transportation Commission Standard Specifications for Road and Bridge Construction, 1995 edition, and any amendments thereto, and the Special Provisions govern unless otherwise noted. Design was prepared in accordance with AASHTO Standard Specifications for Highway Bridges, 17th Edition - 2002, and any amendments thereto.

REINFORCING STEEL: Use new deformed type reinforcing steel meeting the requirements of AASHTO M 31M Grade 420. Include all costs associated with furnishing and placing new reinforcing steel in the unit price bid for either Reinforcing Steel or Reinforcing Steel - Epoxy Coated.

CAST IN PLACE CONCRETE: Unless otherwise approved or specified, use Class DD for all substructure concrete and Class SD for all superstructure concrete.

CONCRETE STRENGTH: Use f'c = 21 MPa for Class DD concrete. Use f'c = 31 MPa for Class SD concrete.

STRUCTURE EXCAVATION: Include structure excavation in the unit price bid for Class DD concrete.

TRAFFIC CONTROL PLAN AND SEQUENCE OF OPERATIONS: See Special Provisions.

UTILITIES: Call 1-800-424-5555 for utility locates at least two working days prior to starting any construction activity that could disturb the utility.

DIMENSIONS: All dimensions shown on the General Layout are in meters. All other drawings are dimensioned in millimeters except as noted. Stations and elevations are expressed in meters.

Stations shown on the bridge plans are state plane grid stations based on state plane coordinates (NAD83-1992). Dimensions shown on the bridge plans are horizontal ground distances and not state plane grid distances. The combination scale factor (CSF) at this location is 0.99926000

Horizontal ground distance x CSF = Grid Distance
Grid Distance/CSF = Distance to stake

EXISTING STRUCTURE: Remove the existing structure (see Road Plans sheets and Special Provisions).

STREAM DATA

Drift:	Light
Contraction Scour (Q100):	None
Ice:	None
Drainage Area:	None
2-year Stage (Q2):	n/a
Base Flood Flow (Q100):	0.52 m³/sec
✳ Base Flood Stage:	n/a
Base Flood Velocity:	1.0 m/sec
Low Beam Elevation:	835.899

Also see Hydraulic Data Summary sheet.
✳ Base Flood Stage elevation includes backwater

NOTE: Jocko Side Channel is normally dry.

MONTANA DEPARTMENT OF TRANSPORTATION

BRIDGE OVER JOCKO SIDE CHANNEL
AT STA. 421+23
FEDERAL AID PROJECT NO. NH 5-2(120)20
LAKE COUNTY
GENERAL LAYOUT

MONTANA
STEVEN D. KNEIP
8637E
REGISTERED PROFESSIONAL ENGINEER

WELLS ENGINEERS, INC.

DESIGNED	06-07-05	SDK
DRAWN	06-07-05	BAR
CHECKED	06-07-05	JBR
APPROVED		
REVISED		
REVISED		

Scale ~ 1: 100 (except as noted)
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FILENAME: ~~0744brgenz02.dgn~~ DRAWING NO. 19354

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6/8/2011
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