

November 5, 2020

ADDENDUM 1 – JOB 18

TO: All prospective bidders on Project BRR-0053(053), Job No. 18 scheduled for the November 13, 2020 bid opening.

The following plans and request for proposal revision shall be made:

Plan Revisions:

See attached summaries from Paul Benning, P.E. dated November 4, 2020 for an explanation.

Request for Proposal Revisions:

Remove and replace pages 5 thru 8 of 10 of the Proposal pages located at the beginning of the Request for Proposal with pages revised 11/4/2020.

Bid Item Changes are summarized in the Plan Addendum Summary and Approval.

This addendum is to be incorporated into the bidder's proposal for this project. AASHTOWare Project Bids files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> and load it into the AASHTOWare Project Bids program.



PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER

80: dch

Enclosure

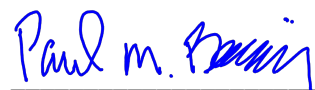
PLAN ADDENDUM SUMMARY AND APPROVAL

Project Information		
Project: BRR-0053(053)		PCN: 22771
Location: Williams County		
Date: 11/04/2020		Lead Designer: Timothy Arens, Ackerman-Estvold
Bid Opening Date: 11/13/2020		JOB#: 18 Addendum#: 1
Section	Sheet	Description of Change
8	1-2	Revised bid item 210 225 – Foundation Fill-Type 1 from TON to CY. Changed quantity from 1,942 TON to 1,230 CY.
10	1-2	Revised Foundation Fill-Type 1 from TON to CY and added 200 CY to Site #2 to account for potential subcut.
170	1-3	Changes to each sheet: • Changed Item 210 225 – Foundation Fill-Type 1 from TON to CY and updated quantity. • Added note regarding foundation fill conversion rate and comment to see basis of estimate for breakdown of foundation fill. • Added wingwall profile detail to sheet.

APPROVAL

Should the revisions described above be processed as a plan addendum?

 X Yes No



Paul Benning, P.E. – Local Government Engineer

11/4/2020

Date

BID ITEMS

Project: BRR-0053(053) (PCN-22771)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
001	103	0100	CONTRACT BOND	L SUM	1.				
002	202	0108	REMOVAL OF STRUCTURE-SITE 1	L SUM	1.				
003	202	0109	REMOVAL OF STRUCTURE-SITE 2	L SUM	1.				
004	202	0110	REMOVAL OF STRUCTURE-SITE 3	L SUM	1.				
005	202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	556.				
006	202	0153	SAW BITUMINOUS SURFACING-FULL DEPTH	LF	50.				
007	202	0312	REMOVE EXISTING FENCE	LF	453.				
008	203	0101	COMMON EXCAVATION-TYPE A	CY	920.				
009	203	0113	COMMON EXCAVATION-WASTE	CY	2,734.				
010	203	0125	REMOVE & SALVAGE TOPSOIL	CY	1,155.				
011	203	0138	COMMON EXCAVATION-SUBCUT	CY	600.				
012	210	0112	CLASS 2 EXCAVATION-SITE 1	L SUM	1.				
013	210	0113	CLASS 2 EXCAVATION-SITE 2	L SUM	1.				
014	210	0114	CLASS 2 EXCAVATION-SITE 3	L SUM	1.				
015	210	0202	FOUNDATION PREPARATION-SITE 1	L SUM	1.				
016	210	0203	FOUNDATION PREPARATION-SITE 2	L SUM	1.				

BID ITEMS

Project: BRR-0053(053) (PCN-22771)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
017	210	0204	FOUNDATION PREPARATION-SITE 3	L SUM	1.				
018	210	0209	FOUNDATION FILL	TON	3,616.				
019	210	0225	FOUNDATION FILL-TYPE 1	CY	1,230.				
020	216	0100	WATER	M GAL	152.				
021	230	0300	SUBGRADE PREPARATION-TYPE A	STA	7.400				
022	251	0200	SEEDING CLASS II	ACRE	1.700				
023	253	0201	HYDRAULIC MULCH	ACRE	1.700				
024	255	0102	ECB TYPE 2	SY	861.				
025	256	0200	RIPRAP GRADE II	CY	755.				
026	261	0112	FIBER ROLLS 12IN	LF	1,841.				
027	261	0113	REMOVE FIBER ROLLS 12IN	LF	1,581.				
028	262	0100	FLOTATION SILT CURTAIN	LF	428.				
029	262	0101	REMOVE FLOTATION SILT CURTAIN	LF	428.				
030	302	0120	AGGREGATE BASE COURSE CL 5	TON	1,421.				
031	302	0320	AGGREGATE SURFACE COURSE CL 5	TON	900.				
032	401	0050	TACK COAT	GAL	66.				

BID ITEMS

Project: BRR-0053(053) (PCN-22771)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
033	430	0041	SUPERPAVE FAA 41	TON	225.				
034	430	1000	CORED SAMPLE	EA	25.				
035	430	5803	PG 58S-28 ASPHALT CEMENT	TON	13.500				
036	606	1008	10FT X 8FT PRECAST RCB CULVERT	LF	78.				
037	606	1211	12FT X 11FT PRECAST RCB CULVERT	LF	62.				
038	606	1409	14FT X 9FT PRECAST RCB CULVERT	LF	62.				
039	606	2707	DBL 7FT X 7FT PRECAST RCB CULVERT	LF	78.				
040	606	3408	DBL 14FT X 8FT PRECAST RCB CULVERT	LF	62.				
041	606	3410	DBL 14FT X 10FT PRECAST RCB CULVERT	LF	62.				
042	606	6707	DBL 7FT X 7FT PRECAST RCB END SECTION	EA	2.				
043	606	7408	DBL 14FT X 8FT PRECAST RCB END SECTION	EA	2.				
044	606	7410	DBL 14FT X 10FT PRECAST RCB END SECTION	EA	2.				
045	702	0100	MOBILIZATION	L SUM	1.				
046	704	1000	TRAFFIC CONTROL SIGNS	UNIT	3,937.				
047	704	1052	TYPE III BARRICADE	EA	12.				
048	704	1060	DELINEATOR DRUMS	EA	20.				

BID ITEMS

Project: BRR-0053(053) (PCN-22771)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
049	706	0550	BITUMINOUS LABORATORY	EA	1.				
050	706	0600	CONTRACTOR'S LABORATORY	EA	1.				
051	709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	1,860.				
052	709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	1,073.				
053	752	0100	FENCE BARBED WIRE 3 STRAND	LF	451.				
054	752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST	EA	9.				
055	754	0803	OBJECT MARKERS - TYPE III	EA	12.				
056	760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	.100				
057	760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	.100				
058	762	1104	PVMT MK PAINTED 4IN LINE	LF	600.				
059	900	1001	TEMPORARY STREAM DIVERSION - SITE 1	EA	1.				
060	900	1002	TEMPORARY STREAM DIVERSION - SITE 2	EA	1.				
061	900	1003	TEMPORARY STREAM DIVERSION - SITE 3	EA	1.				
062	920	1500	DUST PALLIATIVE MATERIAL	GAL	30,223.				
			TOTAL SUM BID						

Estimated Quantities

REVISED	11/4/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	BRR-0053(053)	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	Site #1	Site #2	Site #3	TOTAL
103	0100	CONTRACT BOND	L SUM	0.34	0.33	0.33	1
202	0108	REMOVAL OF STRUCTURE-SITE 1	L SUM	1			1
202	0109	REMOVAL OF STRUCTURE-SITE 2	L SUM		1		1
202	0110	REMOVAL OF STRUCTURE-SITE 3	L SUM			1	1
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	556			556
202	0153	SAW BITUMINOUS SURFACING-FULL DEPTH	LF	50			50
202	0312	REMOVE EXISTING FENCE	LF	85	348	20	453
203	0101	COMMON EXCAVATION-TYPE A	CY	220	679	21	920
203	0113	COMMON EXCAVATION-WASTE	CY	565	771	1398	2734
203	0125	REMOVE & SALVAGE TOPSOIL	CY	303	485	367	1155
203	0138	COMMON EXCAVATION - SUBCUT	CY	200	200	200	600
210	0112	CLASS 2 EXCAVATION-SITE 1	L SUM	1			1
210	0113	CLASS 2 EXCAVATION-SITE 2	L SUM		1		1
210	0114	CLASS 2 EXCAVATION-SITE 3	L SUM			1	1
210	0202	FOUNDATION PREPARATION-SITE 1	L SUM	1			1
210	0203	FOUNDATION PREPARATION-SITE 2	L SUM		1		1
210	0204	FOUNDATION PREPARATION-SITE 3	L SUM			1	1
210	0209	FOUNDATION FILL	TON	908	1464	1244	3616
210	0225	FOUNDATION FILL-TYPE 1	CY	450	200	580	1230
216	0100	WATER	M GAL	53	45	54	152
230	0300	SUBGRADE PREPARATION-TYPE A	STA	2	3	2.4	7.4
251	0200	SEEDING CLASS II	ACRE	0.5	0.6	0.6	1.7
253	0201	HYDRAULIC MULCH	ACRE	0.5	0.6	0.6	1.7
255	0102	ECB TYPE 2	SY	235	357	269	861
256	0200	RIPRAP GRADE II	CY	187	274	294	755
261	0112	FIBER ROLLS 12IN	LF	625	697	519	1841
261	0113	REMOVE FIBER ROLLS 12IN	LF	505	597	479	1581
262	0100	FLOTATION SILT CURTAIN	LF	125	117	186	428
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	125	117	186	428
302	0120	AGGREGATE BASE COURSE CL 5	TON	752	372	297	1421
302	0320	AGGREGATE SURFACE COURSE CL 5	TON		500	400	900
401	0050	TACK COAT	GAL	66			66
430	0041	SUPERPAVE FAA 41	TON	225			225
430	1000	CORED SAMPLE	EA	25			25
430	5803	PG 58S-28 ASPHALT CEMENT	TON	13.5			13.5
606	1008	10FT X 8FT PRECAST RCB CULVERT	LF	78			78
606	1211	12FT X 11FT PRECAST RCB CULVERT	LF			62	62
606	1409	14FT X 9FT PRECAST RCB CULVERT	LF		62		62
606	2707	DBL 7FT X 7FT PRECAST RCB CULVERT	LF	78			78
606	3408	DBL 14FT X 8FT PRECAST RCB CULVERT	LF		62		62
606	3410	DBL 14FT X 10FT PRECAST RCB CULVERT	LF			62	62
606	6707	DBL 7FT X 7FT PRECAST RCB END SECTION	EA	2			2
606	7408	DBL 14FT X 8FT PRECAST RCB END SECTION	EA		2		2
606	7410	DBL 14FT X 10FT PRECAST RCB END SECTION	EA			2	2
702	0100	MOBILIZATION	L SUM	0.34	0.33	0.33	1
704	1000	TRAFFIC CONTROL SIGNS	UNIT	1882	732	1323	3937
704	1052	TYPE III BARRICADE	EA	5	3	4	12

Estimated Quantities					REVISED	11/4/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
							ND	BRR-0053(053)	8	2
SPEC	CODE	ITEM DESCRIPTION	UNIT	Site #1	Site #2	Site #3	TOTAL			
704	1060	DELINEATOR DRUMS	EA	7	7	6	20			
706	0550	BITUMINOUS LABORATORY	EA	1			1			
706	0600	CONTRACTOR'S LABORATORY	EA	1			1			
709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	592	614	654	1860			
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	264	389	420	1073			
752	0100	FENCE BARBED WIRE 3 STRAND	LF	50	366	35	451			
752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST	EA	1	6	2	9			
754	0803	OBJECT MARKERS - TYPE III	EA	4	4	4	12			
760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	0.1			0.1			
760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	0.1			0.1			
762	1104	PVMT MK PAINTED 4IN LINE	LF	600			600			
900	1001	TEMPORARY STREAM DIVERSION - SITE #1	EA	1			1			
900	1002	TEMPORARY STREAM DIVERSION - SITE #2	EA		1		1			
900	1003	TEMPORARY STREAM DIVERSION - SITE #3	EA			1	1			
920	1500	DUST PALLIATIVE MATERIAL	GAL	10667		19556	30223			

BASIS OF ESTIMATE

REVISED 11/4/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	BRR-0053(053)	10	1

Surfacing

Aggregate Surface Course CL 5 @ 1.875 Ton/CY
Aggregate Base Course CL 5 @ 1.875 Ton/CY
Superpave FAA 41 @ 2.000 Ton/CY
PG 58S-28 Asphalt Cement @ 5.8%
Tack Coat @ 0.05 Gal/SY (1st Lift)
Tack Coat @ 0.05 Gal/SY (2nd Lift)

Water

25 Gal/Mile for Dust Palliative
20 Gal/Ton for Aggregates
10 Gal/CY for Embankment

HMA Core Determination:

HMA Cored Samples							
	A	B	C	D			
Specification Section	Distance (Ft)÷2000	Lanes	Lifts	Sublots (A × B × C)	Quantity (D × 2)	Quantity (1 per mile)	Unit
430.04 I.2.b(1), "General"	1	2	3	6	12	N/A	EA
SP 968(14) Longitudinal Joint Density in HMA Pavements (Centerline)	1	2	3	6	12	N/A	EA
430.04 I.2.b(2),"Pavement Thickness Determination Cores"					N/A	1	EA
				Total	24	1	EA

Erosion Control Measures:

An additional 600 linear feet of 12 IN Fiber Roll has been provided to be used at the discretion of the Engineer.

Foundation Fill:

Foundation fill converted from CY to Ton @ 1.875 Ton/CY plus additional 25%

Additional Foundation Fill – Type I may be required if unsuitable material is found during box culvert excavations requiring Subcut. The depth of Subcut to be determined by Engineer during box culvert excavations.

	Foundation Fill	Foundation Fill - Type I	Foundation Fill - Type I
Location	Plan Quantity (TON)	Plan Quantity (CY)	*Additional Quantity (CY)
Site #1 - CR 10, West of US 85	908	250	200
Site #2 - 78th St., West of US 85	1,464	-	200
Site #3 - CR 10, East of US 85	1,244	380	200

*Additional quantity for Foundation Fill Type I assuming 2' depth of Subcut is required during proposed excavations box culvert

Dust Palliative Material:

Dust Palliative Material (Calcium Chloride or Magnesium Chloride)					
	A	B	(A x B)/9		Pay Item
Road Section	Roadway Length (ft.)	Roadway Width (ft.)	Total (SY)	Spread Rate (GAL/SY)	Total* (GAL)
Site #1 - CR 10, West of US 85	6,000	24	5,333	0.5	10,67
Site #2 - 78th St., West of US 85	0	20	0.00	0.5	0
Site #3 - CR 10, East of US 85	11,000	26	8,667	0.5	19,556

*Dust Palliative Material to be used in front of residences along the detour route as directed by the Project Engineer

Earthwork Summary

Earthwork Summary				
	A	B	(=B)	(A-B)
Location	Total Excavation (CY)	Embankment Required* (CY)	Common Excavation - Type A (CY)	Common Excavation - Waste (CY)
Site #1 - CR 10, West of US 85	785	220	220	565
Site #2 - 78th St., West of US 85	1,450	679	679	771
Site #3 - CR 10, East of US 85	1,419	21	21	1,398

*25% additional quantity is included in Embankment Required to account for shrinkage

Box Culvert - Excavation		
Location	** Class 2 Excavation (CY)	*** Subcut (CY)
Site #1 - CR 10, West of US 85	738	200
Site #2 - 78th St., West of US 85	797	200
Site #3 - CR 10, East of US 85	981	200

**Material excavated for the “Class 2 Excavation – Box Culvert” was not included in the Total Excavation for each site. It shall be included in the price bid for Class 2 Excavation at each site and shall be disposed of offsite.

***Subcut refers to an additional 2’ of excavation underneath the proposed box culverts if unsuitable material is discovered. Depth of Subcut to be determined by the Engineer during box culvert excavations.

This document was originally issued and sealed by
Timothy Arens
Registration Number
PE - 7698
on 11/04/20 and the original document is stored at the office of Ackerman-Estvold
Minot, ND

BASIS OF ESTIMATE

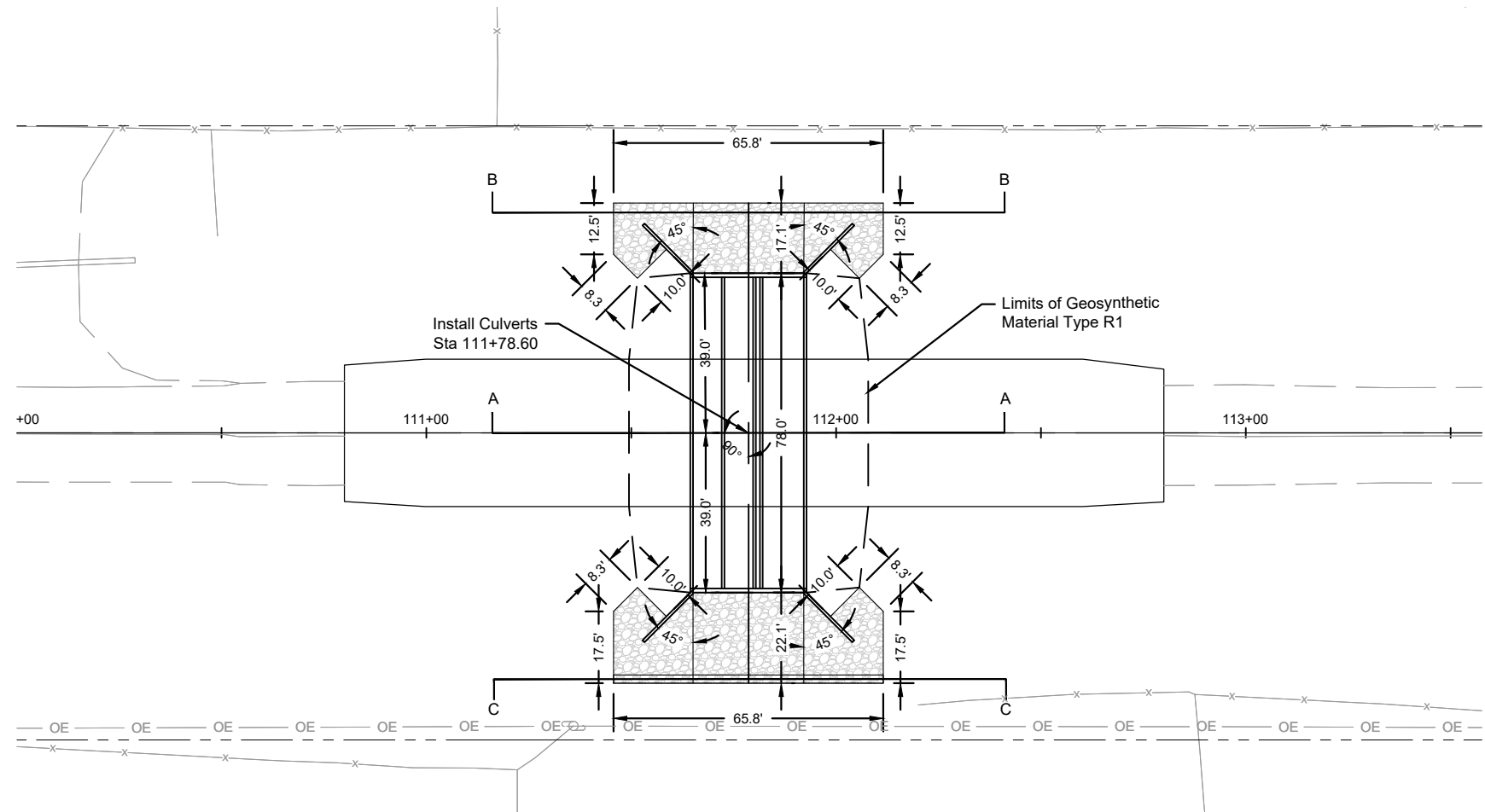
REVISED 11/4/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	BRR-0053(053)	10	2

Permanent Pavement Marking

Permanent Pavement Marking		
Location - Type	Basis	Quantity
Bridge 53-117-15 - Site #1		
Centerline – Preformed Patterned Pvmt MK 4 IN Line - Grooved	Centerline Skips 1,320 LF/mile Barrier Stripe 990 LF/mile	200 LF
Edge Lines – Epoxy Pvmt MK 4 IN Line	10,560 LF/mile	400 LF

This document was originally
issued and sealed by
Timothy Arens
Registration Number
PE - 7698
on 11/04/20 and the original
document is stored at the
office of Ackerman-Estvold
Minot, ND

REVISED	11/04/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	BRR-0053(053)	170	1



LEGEND

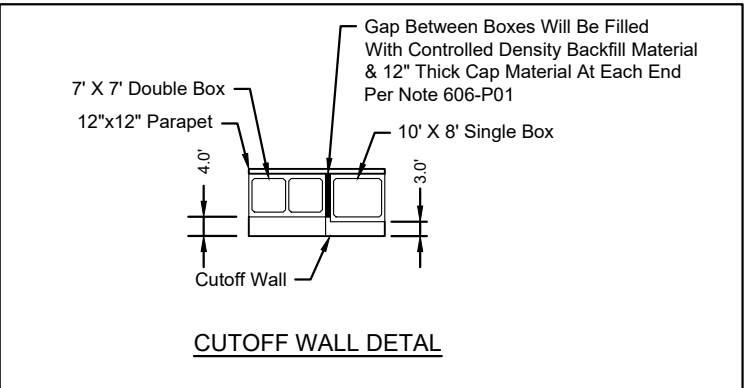
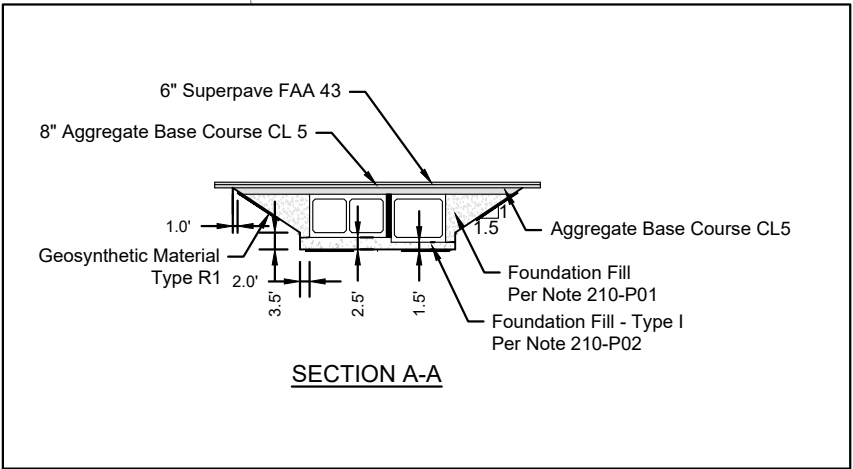
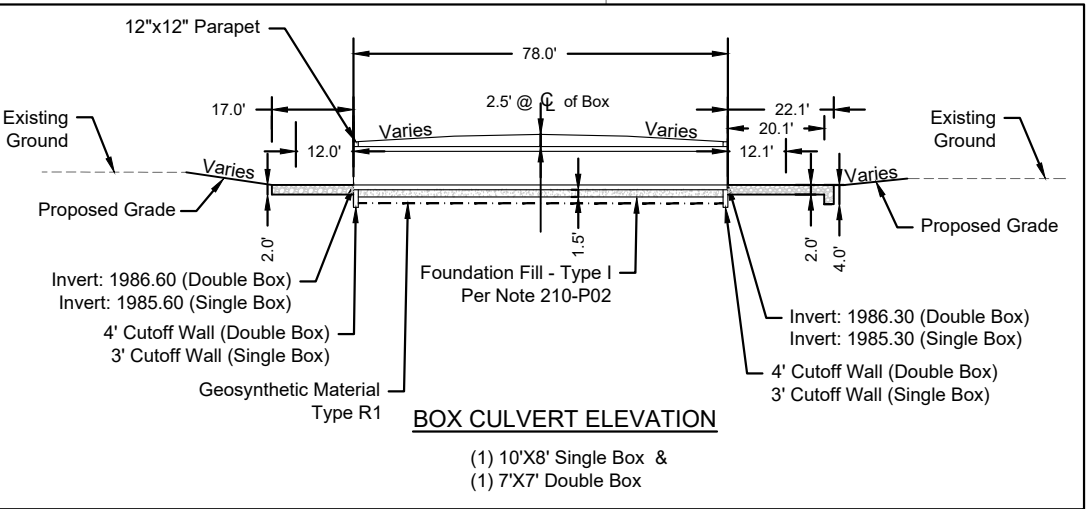
- Existing Right of Way
- - - - - Permanent Roadway Easement

HYDRAULIC DATA

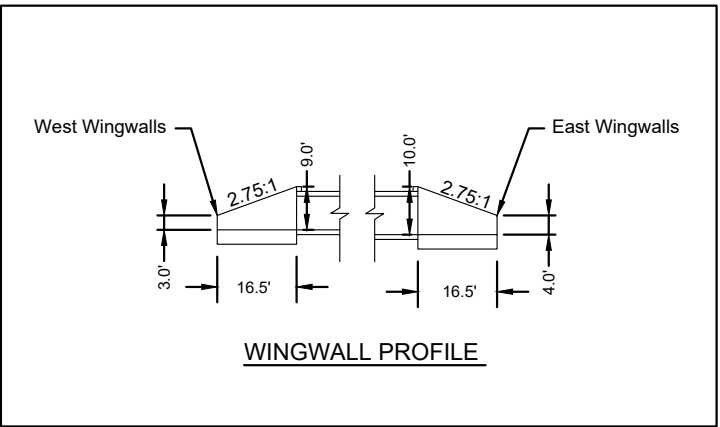
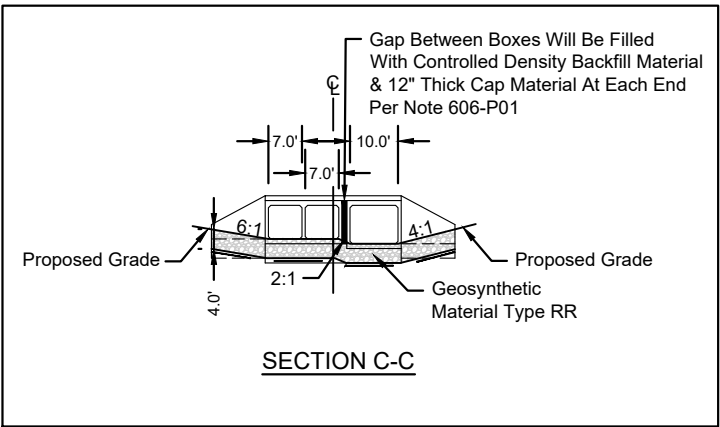
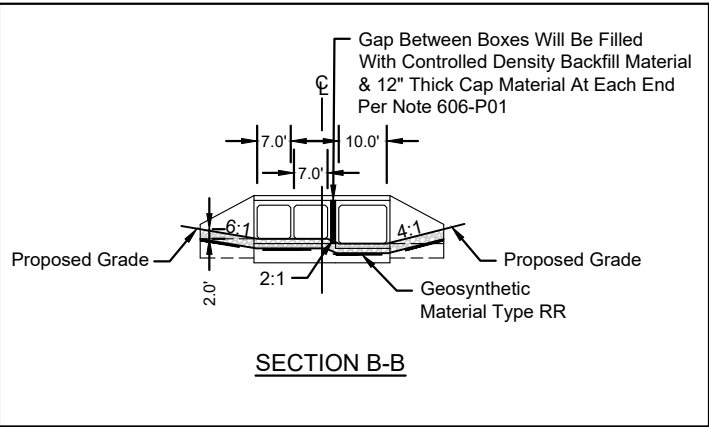
Drainage Area: 36.47 mi²
Design Frequency: 25 year
Design Discharge: 894 cfs
Design Headwater Stage: 1993.45 ft.
Design Tailwater Stage: 1992.63 ft.
Velocity Through Culvert: 6.13 fps
100-yr Frequency Discharge: 1365 cfs
100-yr Frequency Headwater: 1994.96 ft.
Overtopping Stage: 1996.83 ft.
Overtopping Discharge: 1820 cfs

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
210	0112	Class 2 Excavation-Site 1	EA	1
210	0202	Foundation Preparation-Site 1	EA	1
210	0209	Foundation Fill	TON	908
210	0225	Foundation Fill - Type I	CY	450
256	0200	Riprap Grade II	CY	187
606	1008	10FT X 8FT Precast RCB Culvert	LF	78
606	2707	DBL 7FT X 7FT Precast RCB Culvert	LF	78
606	6707	DBL 7FT X 7FT Precast RCB End Section	EA	2
709	0151	Geosynthetic Material Type R1	SY	592
709	0155	Geosynthetic Material Type RR	SY	264

- Notes:
1. Foundation Fill quantity based on conversion rate of 1.875 TON/CY.
2. Additional quantity added to "Foundation Fill - Type I" for potential Subcut fill, see Section 10 Basis of Estimate for additional details.



This document was originally issued and sealed by
Timothy Arens
Registration Number
PE - 7698
on 11/04/20 and the original document is stored at the office of Ackerman-Estvold
Minot, ND



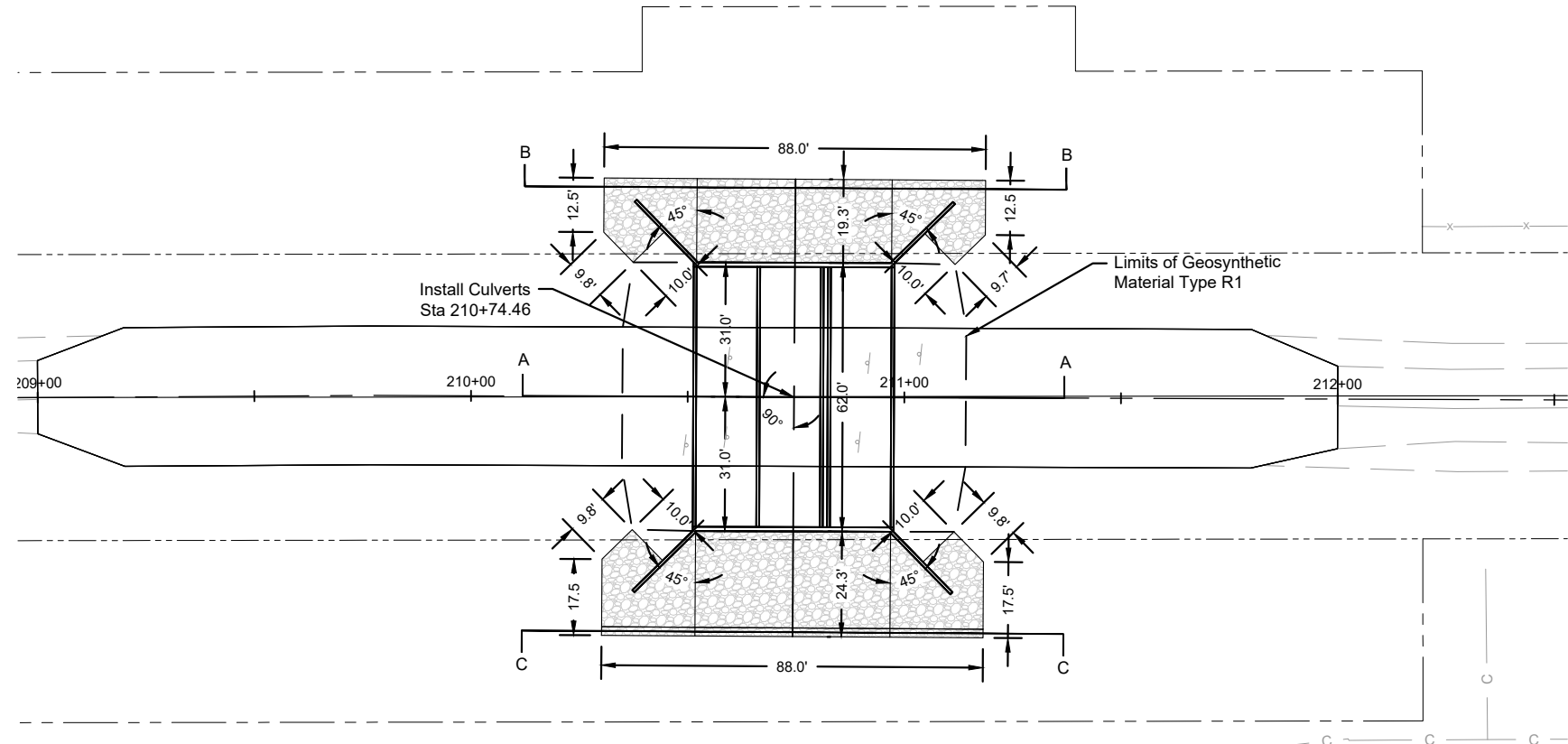
1907 17th St SE · Minot, ND 58701
701.837.8737 · www.ackerman-estvold.com
Minot, ND | Williston, ND | Boise, ID

SCALE (H): 1"=40'
SCALE (V): NA



Williams County Multiple
Bridge Replacement Project
Williams County, ND
Box Culvert Detail
Site #1 - CR 10 West of US 85

REVISED	11/04/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	BRR-0053(053)	170	2



LEGEND

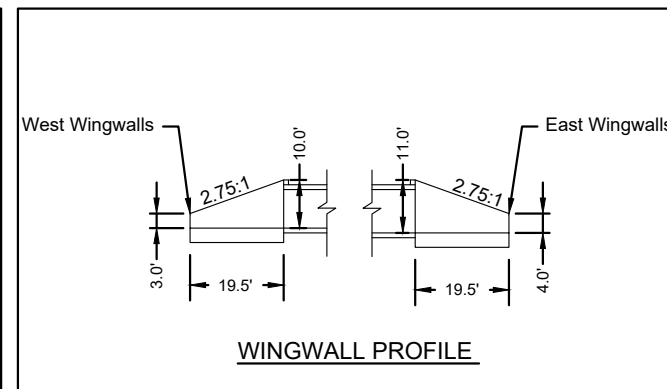
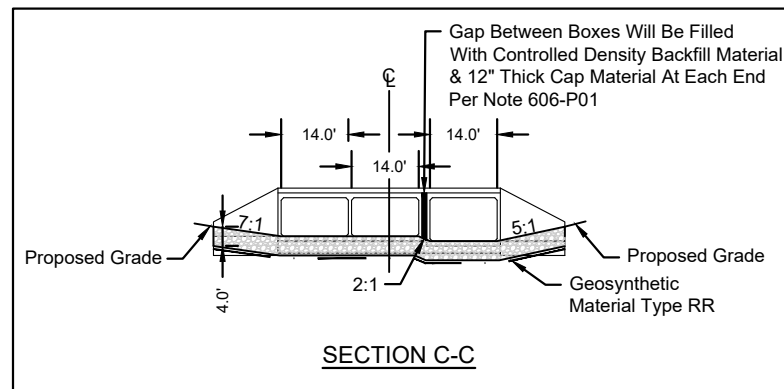
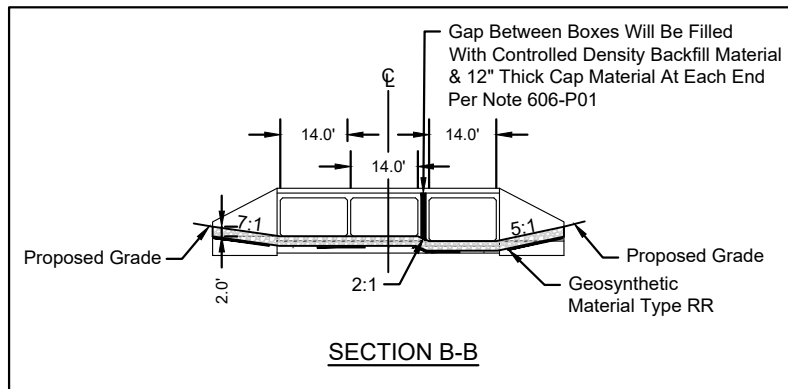
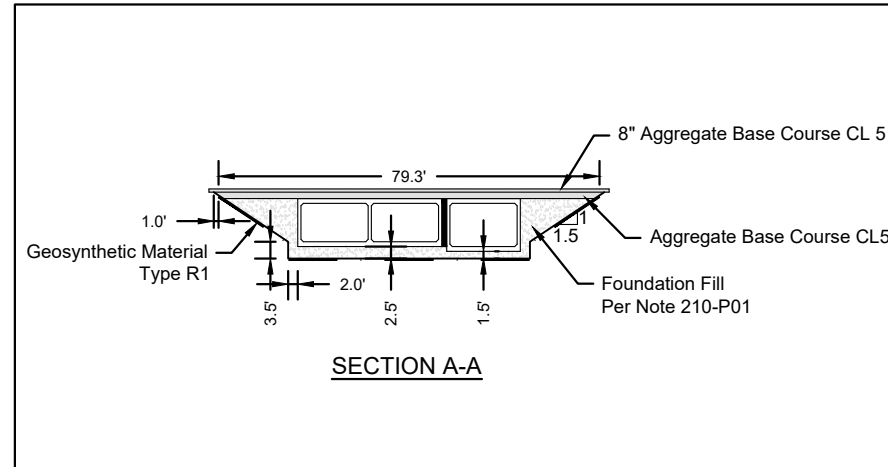
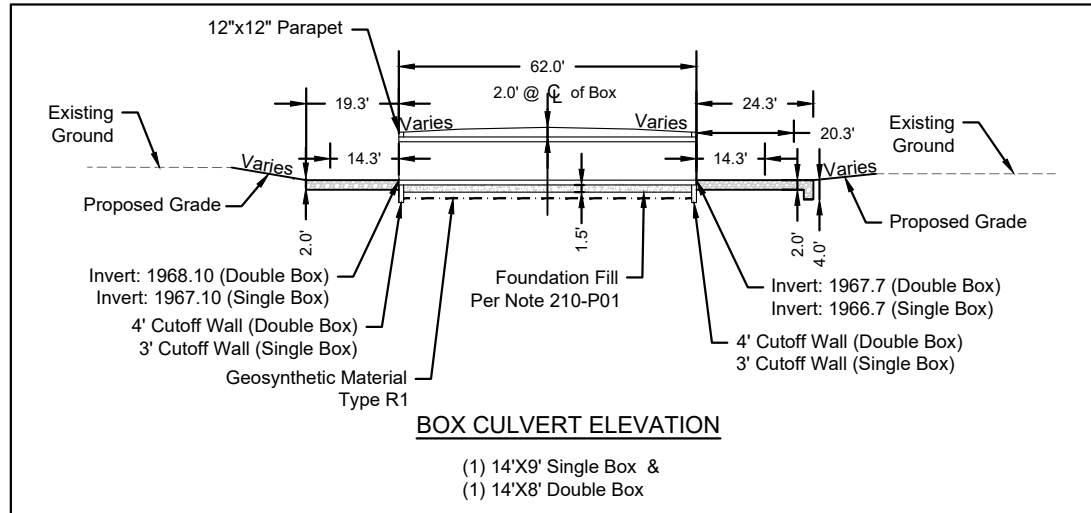
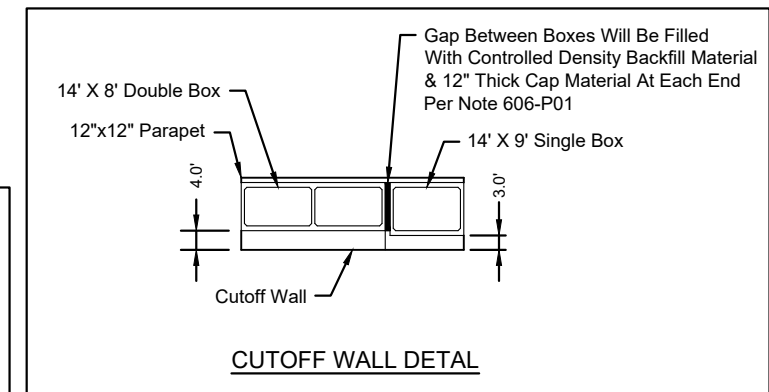
- Existing Right of Way
- Permanent Roadway Easement

HYDRAULIC DATA

Drainage Area: 210.24 mi²
Design Frequency: 25 year
Design Discharge: 2015 cfs
Design Headwater Stage: 1976.12 ft.
Design Tailwater Stage: 1975.39 ft.
Velocity Through Culvert: 6.24 fps
100-yr Frequency Discharge: 3166 cfs
100-yr Frequency Headwater: 1977.12 ft.
Overtopping Stage: 1976.31 ft.
Overtopping Discharge: 2030 cfs

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
210	0113	Class 2 Excavation-Site 2	EA	1
210	0203	Foundation Preparation-Site 2	EA	1
210	0209	Foundation Fill	TON	1,464
210	0225	Foundation Fill - Type I	CY	200
256	0200	Riprap Grade II	CY	274
606	1409	14FT X 9FT Precast RCB Culvert	LF	62
606	3408	DBL 14FT X 8FT Precast RCB Culvert	LF	62
606	7408	DBL 14FT X 8FT Precast RCB End Section	EA	2
709	0151	Geosynthetic Material Type R1	SY	614
709	0155	Geosynthetic Material Type RR	SY	389

- Notes:
- Foundation Fill quantity based on conversion rate of 1.875 TON/CY.
 - Additional quantity added to "Foundation Fill - Type 1" for potential Subcut fill, see Section 10 Basis of Estimate for additional details.



1907 17th St SE · Minot, ND 58701
701.837.8737 · www.ackerman-estvold.com
Minot, ND | Williston, ND | Boise, ID

SCALE (H): 1"=40'
SCALE (V): NA



Williams County Multiple
Bridge Replacement Project
Williams County, ND
Box Culvert Detail
Site #2 - 78th St., West of US 85

This document was originally
issued and sealed by
Timothy Arens
Registration Number
PE - 7698
on 11/04/20 and the original
document is stored at the
office of Ackerman-Estvold
Minot, ND

REVISED	11/04/2020	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	BRR-0053(053)	170	3

HYDRAULIC DATA

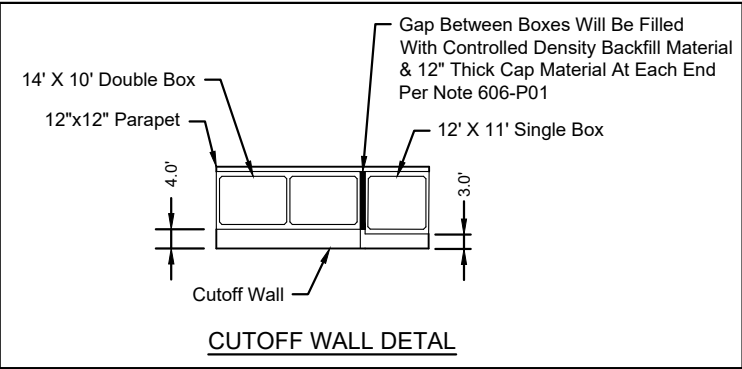
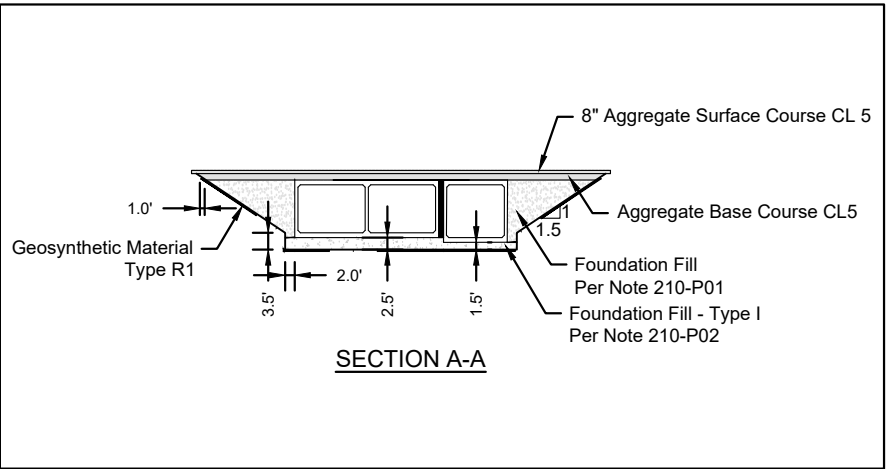
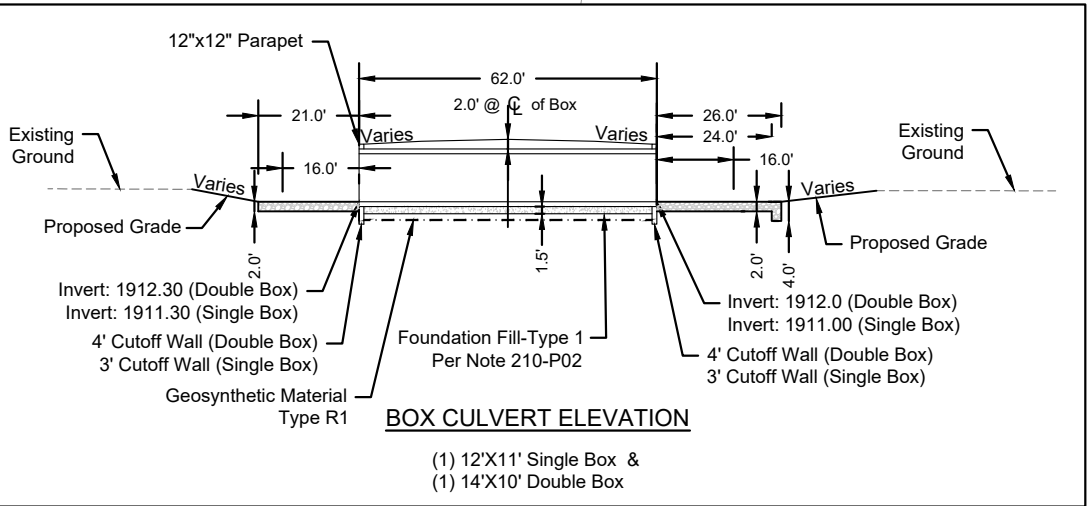
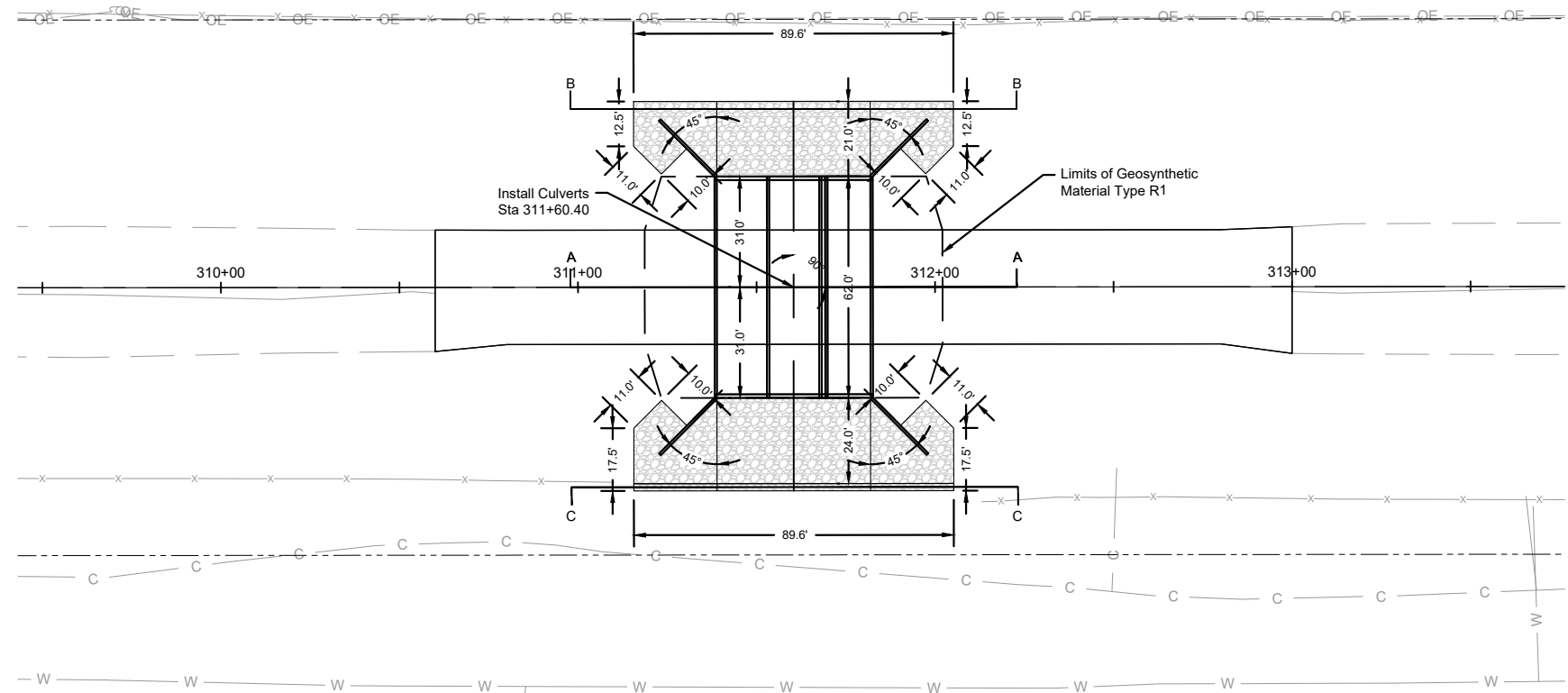
Drainage Area: 360.66 mi²
Design Frequency: 25 year
Design Discharge: 2732 cfs
Design Headwater Stage: 1923.01 ft.
Design Tailwater Stage: 1921.90 ft.
Velocity Through Culvert: 7.04 fps
100-yr Frequency Discharge: 4273 cfs
100-yr Frequency Headwater: 1924.84 ft.
Overtopping Stage: 1923.96 ft.
Overtopping Discharge: 3300 cfs

LEGEND

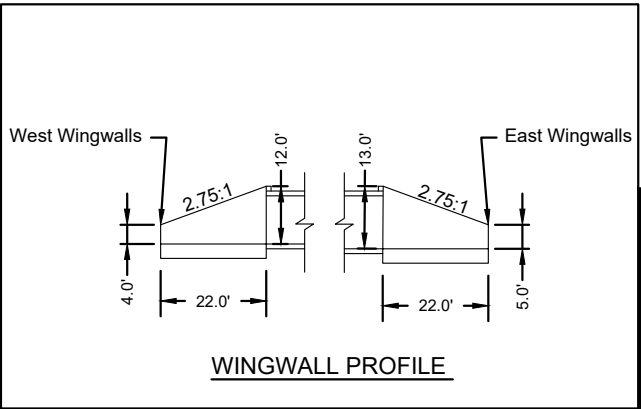
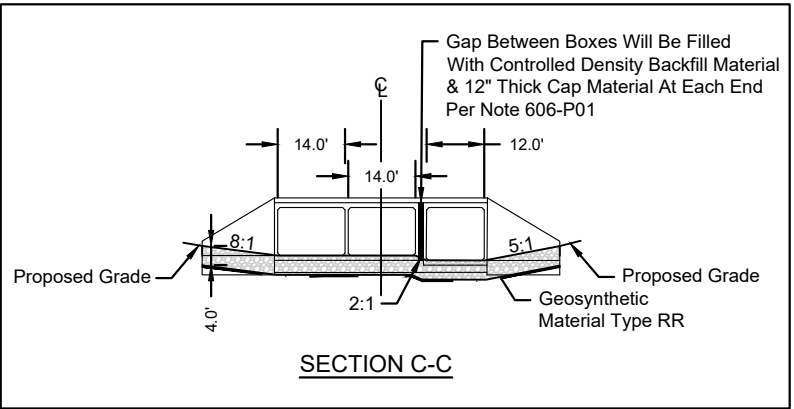
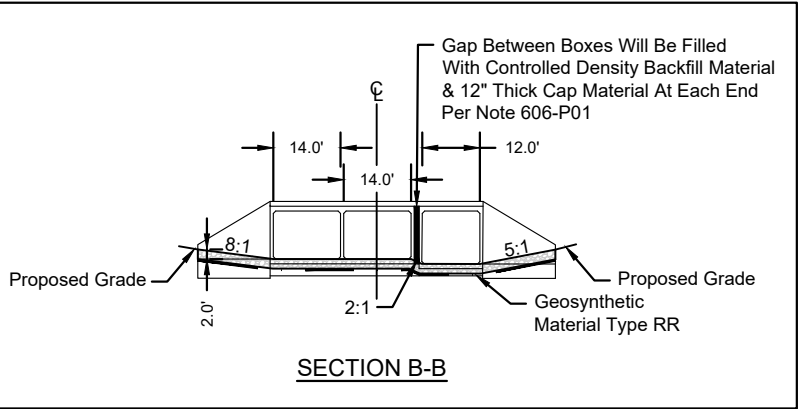
----- Existing Right of Way
- - - - - Permanent Roadway Easement

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
210	0114	Class 2 Excavation-Site 3	EA	1
210	0204	Foundation Preparation-Site 3	EA	1
210	0209	Foundation Fill	TON	1,244
210	0225	Foundation Fill - Type I	CY	580
256	0200	Riprap Grade II	CY	294
606	1211	12FT X 11FT Precast RCB Culvert	LF	62
606	3410	DBL 14FT X 10FT Precast RCB Culvert	LF	62
606	7410	DBL 14FT X 10FT Precast RCB End Section	EA	2
709	0151	Geosynthetic Material Type R1	SY	654
709	0155	Geosynthetic Material Type RR	SY	420

Notes: 1. Foundation Fill quantity based on conversion rate of 1.875 TON/CY.
2. Additional quantity added to "Foundation Fill - Type 1" for potential Subcut fill, see Section 10 Basis of Estimate for additional details



This document was originally issued and sealed by
Timothy Arens
Registration Number
PE - 7698
on 11/04/20 and the original document is stored at the office of Ackerman-Estvold
Minot, ND



1907 17th St SE · Minot, ND 58701
701.837.8737 · www.ackerman-estvold.com
Minot, ND | Williston, ND | Boise, ID

SCALE (H): 1"=40'
SCALE (V): NA



Williams County Multiple
Bridge Replacement Project
Williams County, ND
Box Culvert Detail
Site #3 - CR 10, East of US 85