LETTING DATE
OCT. ~~18~~ 19, 2021

HMA RESURFACING w/ MILLING
NHSX-218-9(140)--3H-34

FLOYD COUNTY

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

FLOYD COUNTY

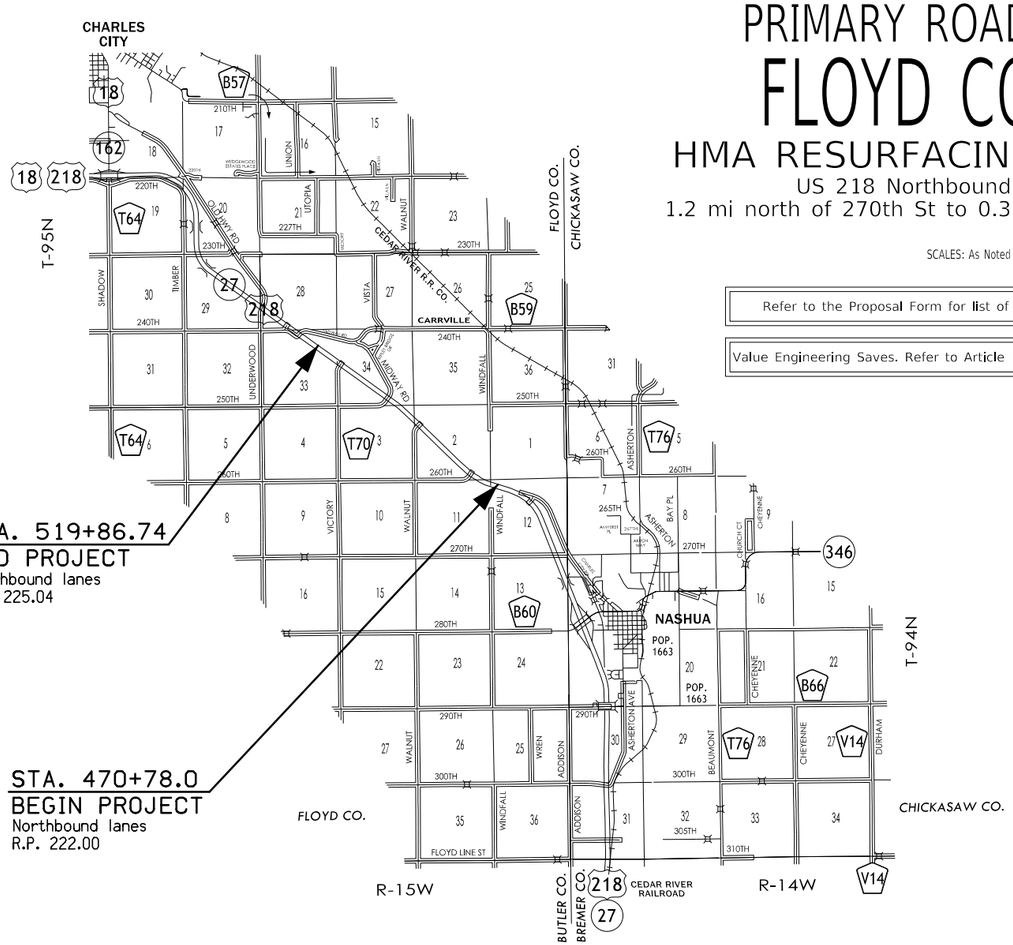
HMA RESURFACING w/ MILLING

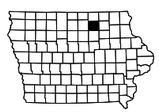
US 218 Northbound Lanes from
1.2 mi north of 270th St to 0.3 mi south of Co Rd B59

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.





LOCATION MAP SCALE
0 1 2 3
Miles

DESIGN DATA RURAL			
2023	AADT	10,900	V.P.D.
2043	AADT	15,100	V.P.D.
2043	DHV	1560	V.P.H.
TRUCKS		30	%
Total Design ESALs		13,227,600	

FE via Teams
5/7/2021
Mary Kelly
Duane Nie
Chris Suntken
Tracy Meise
Jason Dighton
Jeremy Weber
Ken Howe
Jason Ruter

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
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REVISIONS

TOTAL 21
PROJECT IDENTIFICATION NUMBER
21-34-218-010
PROJECT NUMBER
NHSX-218-9(140)--3H-34
R.O.W. PROJECT NUMBER

INDEX OF SHEETS

105-3
10-18-05

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
	Sta. 470+78.00 to Sta. 519+86.74	~~8,173.0~~ 16,104.8	~~1.548~~ 3.050

*metric stations

PRELIMINARY PLANS

Subject to change by final design.

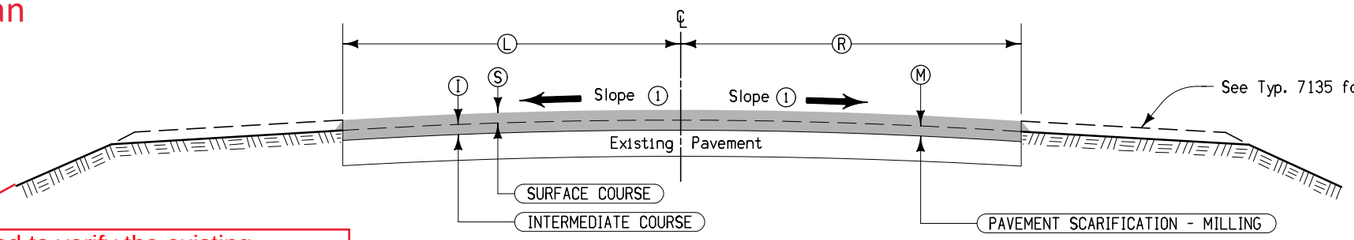
D2 PLAN – Date: May 7, 2021

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER A.1

2:35:36 PM 5/5/2021 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3421801021\DistrictDesign\34218140_A01.dgn

2618
10-15-13

CL Median



need to verify the existing shoulder slope and pave it the same. should note it on the typ cross section.

Notes:

Section shown in the direction of travel

(1) Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.

Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.

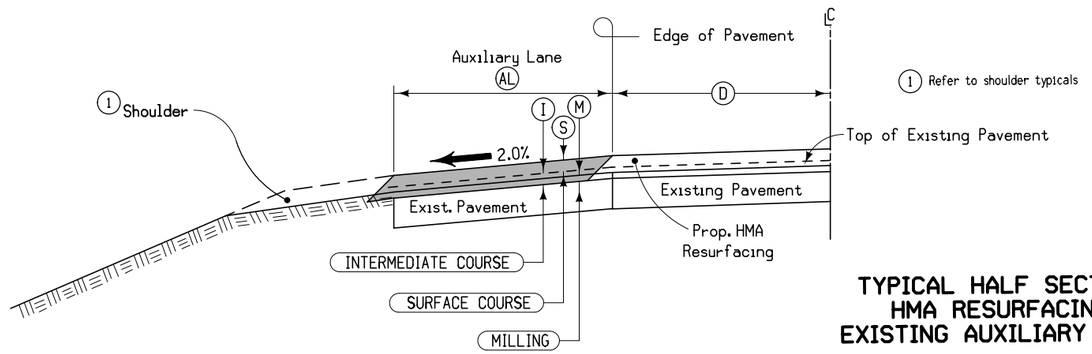
Design Quantities Per Station * Stations shown are metric

Location			(S)	(I)	(M)	(L)	(R)	Remarks
cation	Station To Station		Inches	Inches	Inches	Feet	Feet	
US 218 Northbound Lanes	470+78.00 *	520+51.00 *	1.5	1.5	1.5	16	18	

4-LANE DIVIDED ROADWAY

TYPICAL CROSS SECTION HMA RESURFACING & PAVEMENT SCARIFICATION

2619
Modified

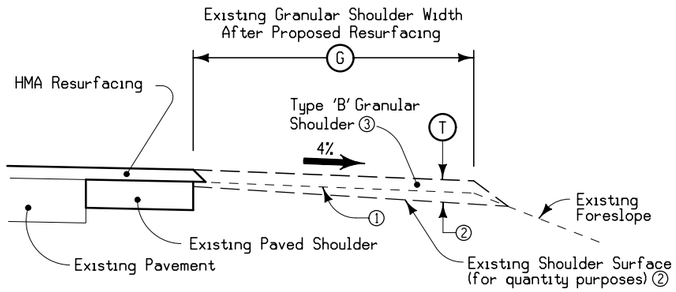


* Refer to Special Detail Sheets for locations

Location				Side	(D) Feet	(AL) Feet	(S) Inches	(I) Inches	(M) Inches
Road Identification	Direction of Travel	Station To Station							
US 218 turn lanes	Northbound left turn lane	*	*	Lt.	12	12	1.5	1.5	1.5

TYPICAL HALF SECTION HMA RESURFACING EXISTING AUXILIARY LANE

7135
modified



LOCATION				(T) (2)	(G) (4)
ROAD IDENTIFICATION	LOCATION TO LOCATION		SIDE	Inches	Feet
US 218 NBL	470+78	473+00±	Lt.	2.50	2
US 218 NBL	473+00± *	475+50±	Lt.	3.22	2
US 218 NBL	475+50±	478+50±	Lt.	2.50	2
US 218 NBL	478+50± *	480+00±	Lt.	3.22	2
US 218 NBL	480+00±	520+51	Lt.	2.50	2
US 218 NBL	470+78	473+00±	Rt.	2.75	6
US 218 NBL	473+00± *	475+50±	Rt.	3.58	6
US 218 NBL	475+50±	478+50±	Rt.	2.75	6
US 218 NBL	478+50± *	480+00±	Rt.	3.58	6
US 218 NBL	480+00±	520+51	Rt.	2.75	6
US 218 NBL	Turn lanes, See U sheets		Lt.	2.50	4
* Approximate sections of roadway in superelevation.					

(1) Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing.

(2) Nominal thickness adjusted to account for low shoulders & existing slopes greater than 4% (For quantity purposes Existing Shldrs are measured 1" low and 4% Inside & 4.7% Outside in tangent sections & 2.7% Inside & 7.0% Outside in the superelevated sections)

(3) Placing granular shoulder material in advance of Class 13 Excavation for widening and base widening shall be performed as part of the 'Granular Shoulders, Type 'B' bid item.

(4) Outside Design Shoulder width is 10' (6' paved and 4' granular) Inside Design Shoulder width is 6' (4' paved and 2' granular)

(5) Refer to Tabulation 112-9 for additional information.

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER

ADJACENT TO HOT MIX ASPHALT RESURFACING

ESTIMATED ROADWAY QUANTITIES
(1 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2102-2625000	EMBANKMENT-IN-PLACE	CY	74.0	
2	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	544.0	
3	2214-5145150	PAVEMENT SCARIFICATION	SY	65,593.5	
4	2303-1052500	HOT MIX ASPHALT VERY HIGH TRAFFIC, INTERMEDIATE COURSE 1/2 I N. MIX	TON	5,687.80	
5	2303-1053502	HOT MIX ASPHALT VERY HIGH TRAFFIC, SURFACE COURSE, 1/2 IN. M IX,	TON	5,377.30	
		FRICTION L-2			
6	2303-1258285	ASPHALT BINDER, PG 58-28V, VERY HIGH TRAFFIC	TON	663.90	
7	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1.00	
8	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY	EACH	3597	
		VOIDS (FORMULA - BY PAY FACTOR)			
9	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD	EACH	3597	
		VOIDS (FORMULA - BY PAY FACTOR)			
10	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT	EACH	10440	
		SMOOTHNESS (BY SCHEDULE)			
11	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	1	
12	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH	4	
13	2416-0100042	APRONS, CONCRETE, 42 IN. DIA.	EACH	2	
14	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36	EACH	1	
		IN.			
15	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN .	EACH	1	
16	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN.	LF	12	
17	2416-1541136	REMOVE AND REINSTALL RIGID PIPE CULVERT GREATER THAN 36 IN.	LF	6	
18	2507-3250005	ENGINEERING FABRIC	SY	578.2	
19	2507-6800061	REVETMENT, CLASS E	TON	380.5	
20	2520-3350010	FIELD LABORATORY	EACH	1	
21	2526-8285000	CONSTRUCTION SURVEY	LS	1.00	
22	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	352.42	
23	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS	STA	113.39	
24	2528-8445110	TRAFFIC CONTROL	LS	1.00	
25	2533-4980005	MOBILIZATION	LS	1.00	
26	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	99.5	
27	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	107.8	
28	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	360.0	
29	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL	LF	360.0	
		DEVICE			

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2102-2625000	EMBANKMENT-IN-PLACE
		Refer to tabulation 104-13 for additional information.
-	-	-
2	2121-7425010	GRANULAR SHOULDERS, TYPE A
		Refer to typical 7135 and tabulation 112-9 for additional information.
-	-	-
3	2214-5145150	PAVEMENT SCARIFICATION
		Refer to typicals 2618 & 2619 MK-1 tabulations 100-25, 102-16 & 102-5A for additional information.
		An additional 56 SY has been added for entrance fillets outside of the mainline milling
-	-	-
4	2303-1052500	HOT MIX ASPHALT VERY HIGH TRAFFIC, INTERMEDIATE COURSE 1/2 IN. MIX
5	2303-1053502	HOT MIX ASPHALT VERY HIGH TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-2
6	2303-1258285	ASPHALT BINDER, PG 58-28V, VERY HIGH TRAFFIC
7	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES
		Refer to typicals 2618 & 2619 and tabulation 100-25 for additional information.
		Includes an additional 5 tons of intermediate and 5 tons of surface for entrance fillets outside of
		mainline typical. Intermediate quantities have been increased by 5% to account for irregularities.
-	-	-
8	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LA BORATORY VOIDS (FORMULA - BY PAY FACTOR)
		- -
-	-	-
9	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FI ELD VOIDS (FORMULA - BY PAY FACTOR)
		- -
-	-	-
10	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT S MOOTHNESS (BY SCHEDULE)
		- -
-	-	-
11	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.
12	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.
13	2416-0100042	APRONS, CONCRETE, 42 IN. DIA.
14	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.
15	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN.
16	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN.
17	2416-1541136	REMOVE AND REINSTALL RIGID PIPE CULVERT GREATER THAN 36 IN.
		Refer to tabulation 104-13 for additional informtion.
-	-	-
18	2507-3250005	ENGINEERING FABRIC
19	2507-6800061	REVETMENT, CLASS E
		Refer to tabulation 100-23 for additional information.
-	-	-
20	2520-3350010	FIELD LABORATORY
		- -
-	-	-
21	2526-8285000	CONSTRUCTION SURVEY
		- -
-	-	-
22	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
23	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS
		Refer to tabulation 108-22 for additional information.
-	-	-
24	2528-8445110	TRAFFIC CONTROL
		Refer to tabulation 108-23A for additional information.
-	-	-
25	2533-4980005	MOBILIZATION
		- -
-	-	-
26	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE
27	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)
		Refer to tabulation 112-10 for additional information.
-	-	-
28	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.
29	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE
		Refer to tabulation 100-19 for additional information.
-	-	-

102-5
04-18-17

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth IN	Type	Depth IN	Type	Depth IN	Type	Depth IN	Source	Type	Durability Class	Type	
1	34	218	NB	222	225.03	2005		NHSN-218-9(117)--2R-19	AAC	1.5	AAC	4									
						1992		FN-218-9(61)--21-1	AAC	2	AAC	2					Bunn Quarry	C. Lst			
						1960		FN-279	PCC	10							Tracy	C. Lst	2		

102-5A
10-20-15

EXISTING HMA PAVEMENT FOR RECYCLING

For informational purposes only. When designed RAP is specified, process the RAP to control the uniformity of the final mixture.

Route No.	Location	Year Placed	Layer	Thickness	Asphalt Binder		Mix									
					Grade	Content	Description	Quality Type	Size	Content	% of -4 that is Type 2	% of +4 that is Type 2	% of +4 that is Type 3	% of +4 that is Type 4	% Crushed	% Limestone
218	NBL from MP 222.0 to MP 225.03	2005	surface	1.5	58-28	0.066		A	1/2"				0.46	0.53	0.82	0

UTILITIES

Jason Nock	Steve Parker	William Schierbrock
Utility Construction Planner	Manager of Engineering & Construction	Manager, High Voltage Engineering
Black Hills Energy (Gas Distrib. & Transm.)	Lumen/Centurylink	MidAmerican Energy Co. (Electric Trans.)
801 14th Ave E	(Teleph. & Fiber Distrib. & Transmission)	106 East Second Street
Spencer, IA 51301	2103 E. University Ave.	Davenport, IA 52801
(712) 580-6028 Cell: (712) 260-4498	Des Moines, IA 50317	(563) 333-8155
jason.nock@blackhillscorp.com	(515) 265-0968 Cell: (507) 358-1978	wjschierbrock@midamerican.com
	Steven.Parker4@lumen.com	
Mark Siefken		Brian Recker
Engineering Manger	Kent Studer	Telecom Engineer 3
Butler County REC (Electric Distribution)	Construction Supervisor	MidAmerican Energy Company (Fiber Distrib.)
521 N Main St	Mediacom Communications Corp. (Cable TV)	2351 East County Line Road
Allison, IA 50602	12251 265th St.	Des Moines, IA 50320
(319) 267-2726 Cell: (319) 240-9333	Mason City, IA 50401	(515) 242-4377 Cell: (515) 802-5794
sief@butlerrec.coop	(641) 430-4048 Ext. 354	Brian.Recker@midamerican.com
	kstuder@mediacomcc.com	
Stuart Dietz		William Barry
Plant Manager	Molly Brower	Mgr Gas Projects
Butler-Bremer Communications (Fiber Distrib)	Gas Engineering Tech	MidAmerican Energy Company (Gas Transm.)
715 Main Street	MidAmerican Energy Company (Gas Distrib.)	602 D Ave NW
Plainfield, IA 50666	212 S. Main St.	Cedar Rapids, IA 52405
(319) 276-4458	Clarksville, IA 50619	(319) 298-5146 Cell: (319) 350-4952
stuart@butler-bremer.biz	(319) 291-4737 Cell: (319) 231-7606	WEBarry@midamerican.com
	mcbrouwer@midamerican.com	
Jason Dale		Terry Burke
TEA - Office Of Traffic Operations	David Kline	Manager OSP Engineering
Iowa DOT (Fiber Distribution & Transmission)	Sr. Distribution Engineer, P.E.	Windstream Communications
800 Lincoln Way	MidAmerican Energy Company (Electr. Distrib.)	(Telephone & Fiber Distribution)
Ames, IA 50010	260 Fairview Ave	641 West Street South
(515) 239-1995	Waterloo, IA 50703	Grinnell, IA 50112
Jason.Dale@iowadot.us	(319) 231-4726 Cell: (319) 230-2781	(641) 787-2259 Cell: (641) 218-0198
	dkline@midamerican.com	Terry.r.burke@windstream.com
Luke Niles		
Analyst II-Permitting	Jason Godwin	
Windstream Communications	Right of Way Agent	
(Cable TV & Fiber Transmission)	Northern Natural Gas Company	
4001 N. Rodney Parham Rd	(Gas Transmission & Gas Distribution)	
Little Rock, AR 72212	1120 Centre Pointe Dr., Ste. 400	
(501) 748-5893 Cell: (682) 554-6784	Mendota Heights, MN 55120	
luke.t.niles@windstream.com	(651) 456-1711 Cell: (651) 236-7501	
	jason.godwin@nngco.com	

232-3A
04-16-19

EROSION CONTROL (RURAL SEEDING)

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.

232-3C
04-16-19

EROSION CONTROL (NATIVE GRASS SEEDING)

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed and mulch on the disturbed area lying 8 feet or more beyond the shoulder as follows:

SEED MIX:

Big bluestem (Andropogon geradii)	6 lbs. PLS/Acre (7.0 kg/ha)
Indiangrass (Sorghastrum nutans)	6 lbs. PLS/Acre (7.0 kg/ha)
Little bluestem (Schizachyrium scoparium)	6 lbs. PLS/Acre (7.0 kg/ha)
Partridge Pea (Chamaecrista fasciculata)	4 lbs. PLS/Acre (4.5 kg/ha)
Sideoats grama (Bouteloua curtipendula)	4 lbs. PLS/Acre (4.5 kg/ha)
Canada wildrye (Elymus canadensis)	2 lbs. PLS/Acre (2.2 kg/ha)
Switchgrass (Panicum virgatum)	1 lbs. PLS/Acre (1.1 kg/ha)
Oats (Avena sativa)	32 lbs./Acre (36.0 kg/ha)

Furnish Big bluestem, Indiangrass, Canada wildrye and Little bluestem that is debearded or equal to facilitate the application of seed.

Furnish seed certified as Source Identified Class (Yellow Tag) Source G0-Iowa. Oats are excluded from this requirement.

Place seed according to the requirements of Article 4169.02 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed and mulch are incidental to mobilization and will not be paid for separately.

111-25
10-18-11

INDEX OF TABULATIONS

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
DR-201	04-21-20	Concrete Aprons
EC-204	04-20-21	Perimeter, Slope and Ditch Check Sediment Control Devices
PM-110	04-21-20	Line Types
PM-120	10-21-14	Stop Lines and Islands
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-12	10-20-20	Milled Shoulder Rumble Strips
PV-202	04-21-20	Hot Mix Asphalt Resurfacing
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-21-15	Work Within 15 ft of Traveled Way
TC-418	04-21-20	Lane Closure on Divided Highway
TC-432	10-17-17	Shoulder Rumble Strip Operations

DITCH RESHAPING

Refer to Typical MK-__ for additional information

LOCATION	FEATURE	LENGTH	DIRECTION	LENGTH (Sta.)	LENGTH 0	Remarks

104-13
04-18-17

FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)

Refer to Standard Road Plans DR-121, DR-122, and DR-213.

* Not a bid item

Existing Information		New Information		Length of New Const.	Flow Line Elevations		Dimensions				Removal and Reinstallation of Culvert Aprons and Pipes						New Apron No.		Apron Guard* (DR-213)	Type 'C' Connections* (DR-122)		Connected Pipe Joint* (DR-121)	Embank.-In-Place	Class 20	Remarks
							Total (LF)		Extensions (LF)		Aprons		Culvert Sections Left Side		Culvert Sections Right Side										
Location	Size and Type of Culvert	Size	Type of Culvert										NO.*	FT	NO.*	FT	IN	OUT	NO.	TYPE	NO.	TYPE	CY	CY	
		IN		LF	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT													
474+15	4' x 5' x 55' RCB w/ 48" RCP ext																								A, U.A.C.
477+20	7' x 3' x 46.5' RCB w/ RCB ext.																								U.A.C.
480+50	12' x 5' x 36' RCB w/ RCB ext.																								A, U.A.C.
486+06	2' x 2' x 33' RCB w/ 30" RCP ext.	30	DR-201		U.A.C.	U.A.C.							1	?	1	?	1	1					25.0		A
490+62	2' x 2' x 36 RCB w/ 30" RCP ext.	30	DR-201		U.A.C.	U.A.C.							?	?	?	?	?	1	d apron						A
493+15	37" x 23" RCP																								U.A.C.
493+18	37" x 23" RCP																								U.A.C.
494+40	2' x 2' x 32 RCB w/ 30" RCP ext.																								U.A.C.
497+30	10' x 9' x 17' Arch culv w/ RCB ext.																								U.A.C.
497+43	10' x 10' RCB																								U.A.C.
499+85	5' x 5' x 79' RCB w/ RCB ext.																								U.A.C.
505+90	48" x 72' RCP					U.A.C.						1			1	?									A
507+62	30" x 96' RCP	30	DR-201		U.A.C.	U.A.C.					1							1					12.0		B
509+93	24" x 96' RCP	24	DR-201			U.A.C.											?	1					12.0		B
515+20	42" x 126' RCP	42	DR-201		U.A.C.	U.A.C.							1	?			1	1					25.0		A
515+87	6' x 4' x 65' RCB w/ ext.																								A, U.A.C.
	Totals																						74.0		
A	Refer to tabulation 100-23																								
B	Refer to Ditch Reshaping tab																								

100-23
04-17-18

ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

Location				L	W	Rock Erosion Control (REC)					Material Bid Quantities			Remarks
						Type 1	Type 2	Type 3	Type 4	Type 5				
Road Identification	Begin Station	End Station	Side			Rock Ditch Check	Rock Ditch	Rock Flume	Rock Splash Basin	Rock Slope Protection	Eng. Fabric	Class E Revetment	Erosion Stone	
			Lt./Rt.	FT	FT						SY	TON	TON	
US 218 NBL	474+15		Rt	6	10				X		15.6	6.3		
US 218 NBL	486+06		Lt	11.5	16		X				34.5	19.3		A, Grade to drain
US 218 NBL	486+06		Rt	11.5	10				X		24.1	12.1		
US 218 NBL	490+62		Lt	Apron or			X							A, Grade to drain
US 218 NBL	490+62		Rt	11.5	10				X		24.1	12.1		
US 218 NBL	505+90		Rt	13	15				X		35.9	20.5		
US 218 NBL	507+75		Lt	30	11		X				56.7	34.7		A, Grade to drain
US 218 NBL	515+20		Lt	11	13		X				26.4	15.0		A, Grade to drain
US 218 NBL	515+20		Rt	185	13		X				350.0	252.5		Rt ditch
US 218 NBL	515+87		Rt	13	20				X		45.4	27.3		
Totals											612.7	399.8		
A	Install between SBL outlet and NBL inlet													
Note:	Incorporate existing rip rap, if present, into work													

262-6
10-18-05

UTILITIES
(NOT A POINT 25 PROJECT)

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

It was decided to do nothing at the cable guardrail. Maintenance indicated if there is washing they may go and spray it with the durapatcher.

100-19
Modified

PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Possible Standards: EC-204

Location			Perimeter and Slope Length of Installation			Ditch Check Length of Installation		Remarks
Begin Station	End Station	Side	9 inch Dia LF	12 inch Dia LF	20 inch Dia LF	12 inch Dia LF	20 inch Dia LF	
486+06.00		Lt		40				A
486+06.00		Rt		40				A
490+62.00		Lt		?				A
490+62.00		Rt		40				A
505+90.00		Rt		40				A
507+62.00		Lt		40				A
507+62.00		Rt		40				A
509+93.00		Lt		?				A
509+93.00		Rt		40				A
515+20.00		Lt		40				A
515+20.00		Rt		40				A
Totals				360				
A	Install around apron and inlet per EC-204							

102-16
10-21-14

NOTCHES AND RUNOUTS FOR RESURFACING

Refer to PR-201 and PR-202.

(1) Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.

Location Station	Type of Notch or Runout	(S) IN	(I) IN	(DI) IN	(L) FT	(M) IN	Pavement Scarification (1) SY	Remarks
470+78.00	Type 'N5'	1.5	1.5		150.0	1.5		BOP
520+51.00	Type 'N5'	1.5	1.5		150.0	1.5		EOP
Midway Road	Type 'N5'	1.5	1.5		37.5	1.5		

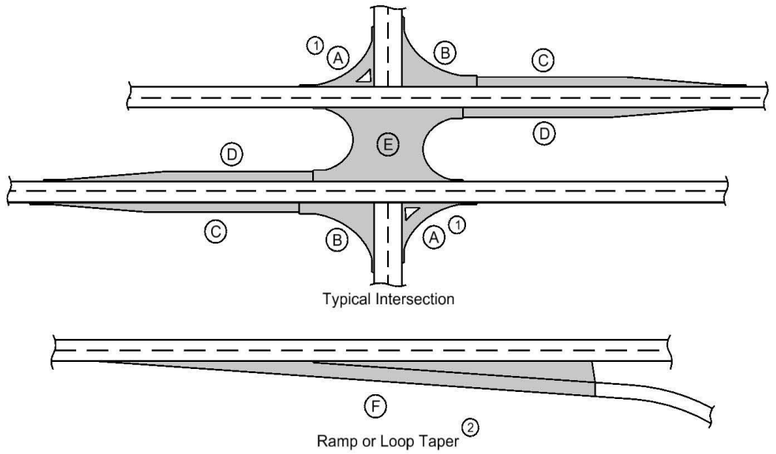
106-2
04-18-17

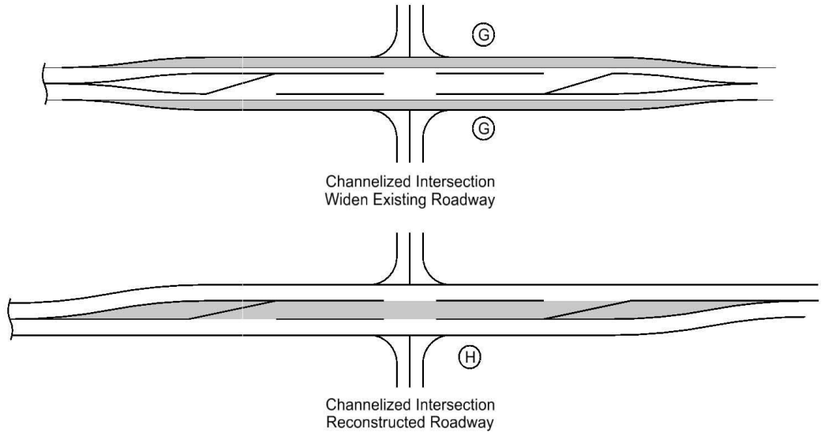
LEVELING COURSES

Location				Hot Mix Asphalt Pavement		Remarks
Begin Ref. Location Sign	End Ref. Location Sign	Begin Station	End Station	Average Thickness Inches	Tons	
		470+78.00	471+08.00	3.0	30.000	A, Dip at BOP, Mill prior to leveling
A	Nominal thickness of 3" was is used for quantity. Actual measurements shall be field verified.					

Make sure culvert dip corrections are included in the levelers.

HMA PAVEMENT





(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.

(2) Refer to PV-410, PV-411, PV-412, and PV-414

(3) Quantity includes Pavement Header.

Calculations assume a surface course unit weight (lbs/cf) of 147, an intermediate course unit weight (lbs/cf) of 147, a base course unit weight (lbs/cf) of 0, and a special backfill unit weight (lbs/cf) of 140.

Location				Mainline			Area (3)								Bid Items												
															Hot Mix Asphalt Pavement						Binder						
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H	Surface		Intermediate		Base		Surface	Intermediate	Base	Special Backfill	Modified Subbase	Granular Subbase	Pavement Scarification	Remarks
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	TONS	SY	TONS	SY	TONS	SY	TONS	TONS	TONS	TONS	CY	SY	SY	
Mainline																											
US 218	NBL	470+78.00	480+05.00	34.0	3041.3	11489.5									926.610	11489.5	950.038	11489.5			55.597	57.002					11489.5	A
US 218	NBL	480+05.00	480+90.00	38.0	278.9	1177.5									97.361	1177.5	97.361	1177.5			5.842	5.842					1177.5	A
US 218	NBL	480+90.00	520+51.00	34.0	12995.4	49093.8									4036.012	49093.8	4059.440	49093.8			242.161	243.566					49093.8	A
Left Turn Lane																											
US 218	NBL	477+04.76	477+42.03	12.0	122.3	81.5									6.741	81.5	6.741	81.5			0.404	0.404					81.5	A,B
US 218	NBL	477+42.03	478+23.99	12.0	268.9	358.5									29.645	358.5	29.645	358.5			1.779	1.779					358.5	A,B
US 218	NBL	478+23.99	478+46.52	12.0	73.9	49.3									4.075	49.3	4.075	49.3			0.244	0.244					49.3	A,B
260th St. median						368.0									30.429		30.429				1.826	1.826					368.0	B
US 218	NBL	492+15.02	492+51.02	12.0	118.1	78.7									6.511	78.7	6.511	78.7			0.391	0.391					78.7	A,C
US 218	NBL	492+51.02	493+30.09	12.0	259.4	345.9									28.604	345.9	28.604	345.9			1.716	1.716					345.9	A,C
US 218	NBL	493+30.09	493+51.95	12.0	71.7	47.8									3.953	47.8	3.953	47.8			0.237	0.237					47.8	A,C
Walnut Ave. median						240.0									19.845		19.845				1.191	1.191					240.0	C
US 218	NBL	500+97.15	501+33.15	12.0	118.1	78.7									6.511	78.7	6.511	78.7			0.391	0.391					78.7	A,D
US 218	NBL	501+33.15	502+13.66	12.0	264.1	352.2									29.122	352.2	29.122	352.2			1.747	1.747					352.2	A,D
US 218	NBL	502+13.66	502+36.06	12.0	73.5	49.0									4.052	49.0	4.052	49.0			0.243	0.243					49.0	A,D
Midway Rd. median						228.5									18.894		18.894				1.134	1.134					228.5	D
Midway intersection						775.1									64.091		56.900				3.845	3.414					775.1	D
US 218	NBL	513+22.27	513+58.10	12.0	117.5	78.3									6.478	78.3	6.478	78.3			0.389	0.389					78.3	A,E
US 218	NBL	513+58.10	514+37.94	12.0	262.0	349.3									28.882	349.3	28.882	349.3			1.733	1.733					349.3	A,E
US 218	NBL	514+37.94	514+72.86	12.0	114.6	76.4									6.315	76.4	6.315	76.4			0.379	0.379					76.4	A,E
Victory Ave. median						219.5									18.150		18.150				1.089	1.089					219.5	E
															5372.279		5411.945				322.337	324.717					65537.5	

A	Note: Stations are listed in metric. Calculations, including length, are in english units
B	Refer to Special Detail Sheet U.1
C	Refer to Special Detail Sheet U.2
D	Refer to Special Detail Sheet U.3
E	Refer to Special Detail Sheet U.4

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.

Calculations assume a HMA unit weight (lbs/cf) of 0, a Special Backfill unit weight (lbs/cf) of 140, and a Granular Shoulder unit weight (lbs/cf) of 140.

Location					Quantities																		
Road Identification	(1) Direction Of Traffic	Station to Station		Side	(P) Width	(P_{SG}) Width	(G) Width	(L) Length	Class 13 (4) Excavation	Hot Mix Asphalt		Binder	Paved Shoulder	_" Paved Shoulder at Guardrai	Reinforced Paved Shoulder	Special Backfill				_____ Subbase	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks
																HMA Alternate		PCC Alternate					STA (3)	HMA	PCC	
					FT	FT (2)	FT	FT	CY (3)	TON	TON/STA	TONS	SY (3)	SY (5)	SY (3)	TON (3)	TON/STA	TON (3)	TON/STA	CY (3)	TON (3)	TON/STA		CY (6)	CY (6)	
US 218	NBL	470+78.00	477+04.76	Lt			2.0	626.8													20.006	3.192				
US 218	NBL	477+04.76	478+46.52	Lt			6.0	141.8													15.956	11.256				A
US 218	NBL	478+46.52	492+15.02	Lt			2.0	1368.5													43.683	3.192				
US 218	NBL	492+15.02	493+51.95	Lt			6.0	136.9													15.413	11.256				B
US 218	NBL	493+51.95	500+97.15	Lt			2.0	745.2													23.787	3.192				
US 218	NBL	500+97.15	502+36.06	Lt			6.0	138.9													15.636	11.256				C
US 218	NBL	502+36.06	513+22.27	Lt			2.0	1086.2													34.672	3.192				
US 218	NBL	513+22.27	514+72.86	Lt			6.0	150.6													16.950	11.256				D
US 218	NBL	514+72.86	520+51.00	Lt			2.0	578.1													18.454	3.192				
US 218	NBL	470+78.00	480+05.00	Rt			4.0	927.0													64.371	6.944				
US 218	NBL	480+05.00	480+90.00	Rt			0.0	85.0													0.000	0.000				
US 218	NBL	480+90.00	520+51.00	Rt			4.0	3961.0													275.052	6.944				
																					543.980					

A See Special Detail sheet U.1
B See Special Detail sheet U.2
C See Special Detail sheet U.3
D See Special Detail sheet U.4

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project. ***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose a
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

BCY4: Broken Centerline (Yellow) @ 0.25 DCY4: Double Centerline (Yellow) @ 2.00 NPY4: No Passing Zone Line (Yellow) @ 1.25 BLW4: Broken Lane Line (White) @ 0.25 ELW4: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 1.00 SLW4: Solid Lane Line (White) @ 1.00 SLW2: Stop Line (White) @ 6.00

Location								Length by Line Type (Unfactored)															
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4	SLW4	SLW2								Remarks
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
US 218	470+78.00	520+51.00	NB	Waterborne/Solvent Paint	X	X	X				49.73	49.73	49.73	1.50	0.68								After milling
US 218	470+78.00	520+51.00	NB	Waterborne/Solvent Paint	X	X	X				49.73	49.73	49.73	1.50	0.68								After Intermed. Course
US 218	470+78.00	520+51.00	NB	Waterborne/Solvent Paint	X	X	X				49.73	49.73	49.73	1.50	0.68								After Surface Course
US 218	470+78.00	520+51.00	NB	Grooves Cut for Pavement Markings	X	X	X				49.73	49.73	49.73	1.50									
				Factored Total: Waterborne/Solvent Paint				-	-	-	37.30	149.19	149.19	4.50	12.24	-	-	-	-	-	-	-	
				Factored Total: Grooves Cut for Pavement Markings				-	-	-	12.43	49.73	49.73	1.50	-	-	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							352.42												
				Bid Quantity: Grooves Cut for Pavement Markings							113.39												

MILLED RUMBLE STRIPS

See PV-12 and PV-13

* Calculated at 18" width for Shoulder.

Location						Installation Length		Fog Seal* (Milled Rumble Strip)	Effective Shoulder Width			Remarks
Road Identification	Station to Station		Shoulder Pavement Type	Rumble Strip Type (Centerline, Rt or Lt Shoulder)	(L)	PCC	HMA	Shoulder	PCC Paved	HMA Paved	Granular\ Earth	
					IN	STA	STA	GAL	FT	FT	FT	
US 218	470+78.00	520+51.00	HMA	Left Shoulder	12"		49.73	53.9	4.0		2.0	
US 218	470+78.00	520+51.00	HMA	Right Shoulder	12"		49.73	53.9	6.0		4.0	
				Totals		PCC	HMA	Fog Seal				
				HMA Shoulders			99.46	107.8				
				PCC Shoulders		0.00						
				PCC or HMA Shoulders		0.00	0.00	0.0				
				HMA Centerlines			0.00					
				PCC Centerlines		0.00						
				PCC or HMA Centerlines		0.00	0.00					

For Side Road Details
Refer to Sheet No. E.05

ACCESS LOCATIONS
Sta. 471+60 Lt.& Rt.
Sta. 474+60 Lt. & Rt.
Sta. 478+06.8 Lt. & Rt.

210 A
& JUDY A. MERFELD

471+35
℄53m(174')

Sta. 471+40 - SBL
600 mm

472+64.195
℄70m (230')

Ave.

472+88.618
℄73m(240')

TS Sta 473+59.381

Sta. 474+13 - SBL
1500 mm

RIVERTON TWP.
T-94N R-15W
SEC. 11

474+72
CL 77 m (253')

213

EDWARD W. STALEY, JOAN S. STEVENS
BARBARA S. TREMAINE, JOHN H. STALEY,
KENNETH W. STALEY,
THOMAS W. STALEY

PISCS Sta 476+50.796
PI Sta 476+48.455

471 472 473 474 475 476 477 478

PI Sta 474+20.721
SC Sta 474+51.381

POT Sta. 471+60.000 (ML)
POT Sta. 4471+60.000 (SR)

600 mm

Construction

476+74.013
CL 54m (177')

477+03±EX.R/W
℄57.1m (189')

Sawcut

600 mm

+60

Type "C"

Intake

BEGIN PROJECT
STA 471+00.00

+11
18.29 m

+58
23.41 m

+95
18.22 m

APPROX. SEC. LINE

SEC. 12

SEC. 11

BRUSH & TREES

ELDON & MARY ANN PARKER

UAC

HO.

SHED

COMM. BLDG.

FARM ENT.

+60

+24
21.95 m

+77
21.39 m

TIE-IN NBL
STA. 471+00.000 (19.000m RT.)

470+60
℄62m(203')

471+20
℄37.3m±EXR/W
(122')

POND

WILLARD & LORENE WOLF

211

(U.A.C.)
Sta. 475+01.6(SURVEY)
1.22 X 1.52 X 22.23 RCB
DA=44.5 ha R

0 METERS 100

SCS PI Sta 476+50.796
Δ= 27° 34' 06.47" (RT)
Theta = 2° 38' 08.18"
Ls = 92.000 m
Ts = 291.415 m
Es = 30.017 m
P = 0.353 m
K = 45.997 m
Xc = 91.981 m
Yc = 1.410 m
LT = 61.340 m
ST = 30.673 m
LC = 91.991 m

Curve Data
Δ= 22° 17' 50.11" (RT)
R = 1,000.000 m
T = 197.074 m
L = 389.160 m
E = 19.234 m
e = 5.5%
L = 92m
X = 33m

NHSX-218-9(96)--3H-19
Sta. 476+94.50 - Des. 201
RCB 2.4m x 1.2m

152 TILE

152 TILE

214

RICHARD & PHYLLIS LEAVENS

R=15

260th

89°54'56"

+60.000

STA. 471+00.000
END PAVING NBL
TIE-IN
ELEV. 308.117

+2.67% Lt. Ditch Grade
+70 Lt. 307.12
+95 Rt. 306.70
+00 Lt. 306.32
+40 Med. 306.21
-1.75% Rt. Ditch Grade
-24.67% Rt. Ditch
+70 Rt. 303.00
+80 Rt. 303.00
+12.0%
4.0%
4.0%
4.0%
-2.5%
+60 Prop. Type "C" Ent.
+60 Prop. Type "G" Ent. Use as Safety Dike
Prop. SBL
-8.0%
+2.0%
-4.0%
+4.0%
+60
Prop. Type "G" Ent.
U.A.C. Ent.
+80 Lt. 301.39
-1.30% Lt. Ditch Grade
+00 Lt. 299.93
Existing 218
VPI +13.023
Elv 299.080
Len 270.000
-1.762%
+1.022%
-0.4% Lt. Ditch Grade
+00 Lt. 298.58
298.18
+70 Lt. 298.30
+80 Lt. 298.32
+1.30% Lt. Ditch Grade
+40 Med. 298.16
+1.30% Med. Ditch Grade
+90 Med 298.81
+90 Lt. 299.75
-5.5%

310 305 300 295

Lt.	Vari. D.G.	1.8 Ditch	Side Road		1.8 Ditch		Dt. Gr.	Vari.	Dry Ent.	1.5 Ditch		Vari.	Ditch Grade	Lt.
Med.	Ditch Grade		X Over		1.2 Ditch (From NB Lane)					1.2 Ditch (From NB Lane)			Variable	Ditch Grade X
Rt.	Dt.Gr.	Dt.Gr.Vari						Vari.						Med. Rt.
	308.769	308.616	308.456	308.290	308.117	307.941	307.765	307.589	307.413	307.236	307.060	306.884	306.708	306.532	306.356
	306.179	306.003	305.827	305.651	305.475	305.299	305.123	304.946	304.770	304.594	304.418	304.242	304.066	303.889	303.713
	303.537	303.361	303.185	303.009	302.833	302.656	302.480	302.304	302.128	301.952	301.776	301.599	301.423	301.255	301.096
	300.948	300.810	300.682	300.564	300.457	300.361	300.274	300.198	300.132	300.077	300.031	299.996	299.972	299.957	299.954
	299.960	299.976	300.003	300.041	300.088	300.146	300.214	300.293	300.382	300.481	300.580	300.672	300.758	300.837	300.909

50 471 50 472 50 473 50 474 50 475 50 476 50 477 50 478

FILE NO.	ENGLISH	DESIGN TEAM Kelly / Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER D1	REVISED

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For Side Road Details
Refer to Sheet No. E.05

ACCESS. LOCATIONS
Sta. 478+06.8 Lt. & Rt.
Sta. 482+65.4 Lt. & Rt.

RIVERTON TWP.
T-94N R-15W
SEC. 2

ST Sta 479+32.541

PI 478+71.214

479+19.763
℄65.0m (213')

480+35
℄72m(236')

482+00
℄60m(197')

482+68.207
℄62m(203')
(PropertyCorner)

482+76.186
℄54.3m (178')

81° 53' 57.0"
Tan to Curve

89°54'56.4"

R=15

R=20

152 CMP TILE

Survey

Construction

600 mm

TILE

POC Sta. 478+06.823 (ML)
POT Sta. 5478+06.823 (SR)

PI 479+89.500 (SUR)

SCS PI Sta 476+50.796
Δ = 27° 34' 06.47" (RT)
Theta = 2° 38' 08.18"
Ls = 92.000 m
Ts = 291.415 m
Es = 30.017 m
P = 0.353 m
K = 45.997 m
Xc = 91.981 m
Yc = 1.410 m
LT = 61.340 m
ST = 30.673 m
LC = 91.991 m

SCS Sta 478+40.541

Curve Data
Δ = 22° 17' 50.11" (RT)
T = 197.074 m
L = 389.160 m
E = 19.234 m
R = 1,000.000 m
e = 5.5%
L = 92
X = 33

IRON PIN +52 21.97 m
IRON PIN +35 26.33 m
+83 21.48 m
+91 21.39 m
+46 21.36 m
+34 21.38 m

RICHARD & PHYLLIS LEAVENS (214)

ARLENE CHESNUT (216)

JOHN HOLTZ

BRUSH & TREES

+65.4
Type "C"

Sta. 482+86 - SBL
600 mm

Sta. 480+37 - SBL
600 mm

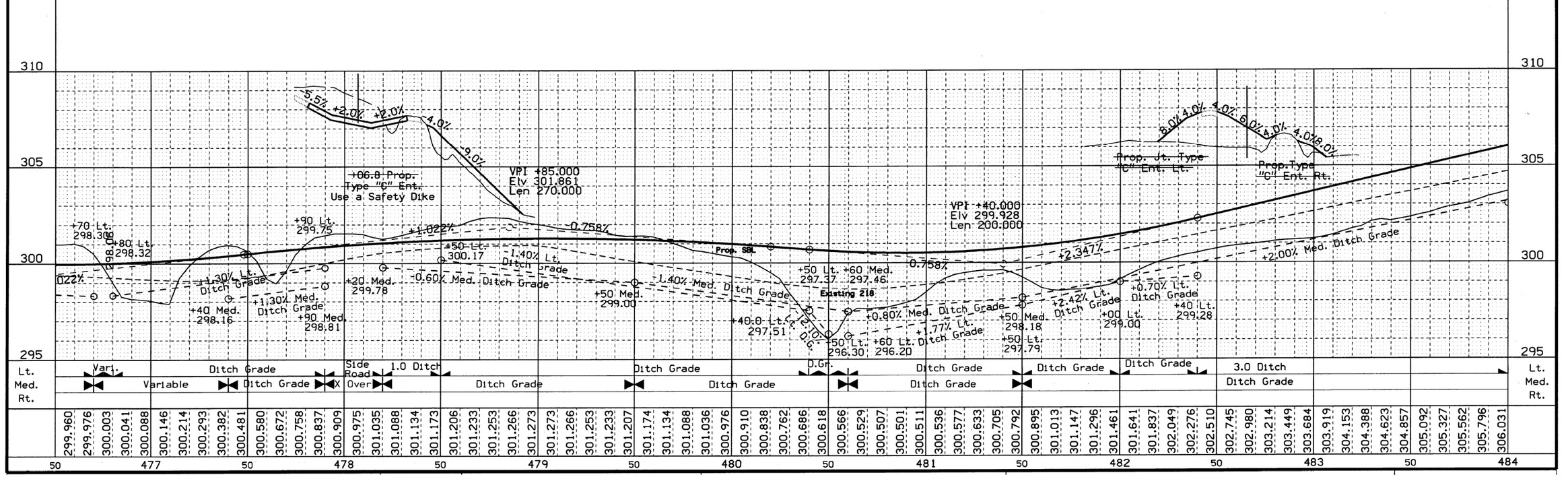
Sta. 480+63 - SBL
600 mm

NHSX-218-9(96)--3H-19
Sta. 476+94.50 - Des. 201
RCB 2.4m x 1.2m

NHSX-218-9(96)--3H-19
Sta. 480+49.0 Des. 301
RCB Ext. 3.6m x 1.8m

Sta. 478+06.3 (SURVEY)
2.13 X 0.91 X 19.43 RCB
DA=48.6 ha R Skewed
(U.A.C.)

0 METERS 100



FILE NO.	ENGLISH	DESIGN TEAM Kelly / Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER D2	REVISED

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RIVERTON TWP.
T-94N R-15W
SEC. 2

ACCESS. LOCATIONS
Sta. 488+44 Lt. & Rt.

487+00 ℄100m (328')
487+00 ℄54m (177')
490+00 ℄100m (328')
490+00 ℄54.8m (180')

Sta. 486+06 - SBL
750 mm

Sta. 490+62 - SBL
750 mm

PT Sta 489+03.841

PC Sta 488+17.190

PI Sta 488+60.517

PI 489+36.742 (SUR)

Construction

Survey

(U.A.C.)

460 CMP (REMOVE)
(CLOSE)

152 CMP TILE

152 CMP TILE

TILE

BARN

CONC.

SHED

SHED

BRUSH & TREES

+44 FARM ENT.

+32 FARM ENT.

+15 15.49 m

+45 15.32 m

+45 21.46 m

216 ARLENE CHESNUT

484 485 486 487 488 489 490 491

LTZ

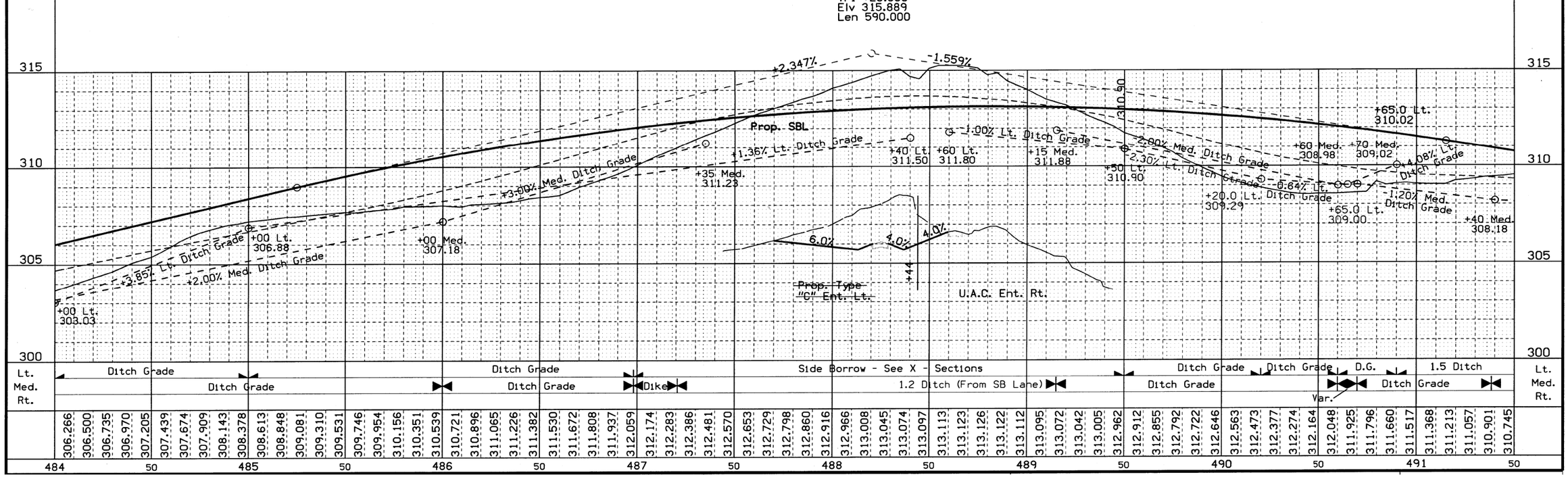
Sta. 486+82.9 (SURVEY)
0.61 X 0.61 X 10.24 RCB
WITH 762 X 1059CONC. PIPE EXT.
DA=2.0 ha R
(U.A.C.)

0 METERS 100

Curve Data
Δ = 0° 59' 34.60" (LT)
R = 5,000.000 m
T = 43.326 m
L = 86.651 m
em = 0.188 m
e = N.C.

Sta. 491+39.2(SURVEY)
0.61 X 0.61 X 11.09 RCB
WITH 762 X 10.59 CONC. PIPE EXT.
DA=4.5 ha R

VPI +20.000
Elv 315.889
Len 590.000



FILE NO.	ENGLISH	DESIGN TEAM Kelly / Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER D3	REVISED

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RIVERTON TWP.
T-94N R-15W
SEC. 3

ACCESS LOCATIONS
Sta. 493+15.9 Lt. & Rt.
Sta. 498+43 Lt. & Rt.

NHSX-218-9(96)--3H-19
Sta. 497+43.0 Des. 401
RCB 3.0m x 3.0 m

Sta. 492+95 SBL
600 mm

ACQUIRE ACCESS CONTROL TO STATION 6492 +42.7

For Side Road Details
Refer to Sheet No. E.06

Sta. 493+15.0
920 x 570 mm

Sta. 493+18.0
920 x 570 mm

216 ARLENE CHESNUT

Construction

6492+45.431
CL 17.0 m

6492+62.389
CL 17.0 m

493+96 ±EX.R/W
℄53m (174')
±EX.R/W

494+10.983
52m(171')

218 MARK E & ROSE MARIE FREIN

~~STA. 495+80.000~~
~~TEMP. (4.8 WIDE)~~
~~MEDIAN CROSSOVER~~

POT 494+26.305 (SUR) ML=
PI 6494+26.305 SR

R=15

R=15

Construction

90°00'01.

152 CMP TILE

152mm TILE

SEC. 2

600 mm

450 mm

216 ARLENE CHESNUT

493+81±P
℄56m(184')

493+58±P
℄48m(157')

493+81±P
℄50m(164')

Use As Safety Dike

216 A WILLIAM F. & BETTY J. M. WADEY

217 DUANE HANSON, MAY WILKINSON & MARY ANN PARKER

POT Sta 493+15.876 (ML)
POT Sta 6493+15.876 (SR)

494+61±P
℄56m(184')

Sta. 495+17.1 (SURVEY)
762 X 18.31 Conc Pipe
DA=7.7 Ha. R

0 METERS 100

SCS PI Sta 499+00.917
Δ = 7° 47' 03.55" (LT)
Theta = 2° 38' 08.18"
Ls = 92.000 m
Ts = 114.056 m
Es = 2.665 m
P = 0.353 m
K = 45.997 m
Xc = 91.981 m
Yc = 1.410 m
LT = 61.340 m
ST = 30.673 m
LC = 91.991 m

Curve Data
Δ = 2° 30' 47.19" (LT)
T = 21.935 m
L = 43.862 m
R = 1,000.000 m
E = 0.241 m
e = 5.5%
L = 92m
x = 33m

Sta. 498+09.3 (SURVEY)
3.05 X 2.74 X 31.24
Portion of Sructure Existing (Floor & East Wall).

Sta 497+86.861

498+78.861

498+60
50m(164')

Sta 499+22.723

152mm TILE

460 CMP UAC

PI Sta 498+48.201

497+74(ExR/WCor)
℄40.3m±ExR/W(132')

497+55
℄65m(213')

PI Sta 499+00.795

APPROX. TWP. LINE

FARM LANE

SHED

HO.

CONC.

BARN

C = 0
FROM 469+60+ = 1140
1140

F+30% = 1140

TEMP. MEDIAN X-OVER

VPI +70.000
Elv 308.875
Len 60.000

-1.55%

-0.43% Med. Ditch Grade

Existing 218

-0.60%

Prop. SBL

-0.32% Rt. Ditch Grade

+00 Med.
307.50

+30.0 Med.
307.27

+30.0 Rt.
307.00

+80.0 Rt.
306.84

-0.70%

+40.0 Med.
306.50

-0.52%

Existing 218

+05 Med.
305.6435

VPI +50.000
Elv 305.963
Len 70.000

-0.60%

-0.83% Med. Ditch Grade

+0.40%

+0.40% Med. Ditch Grade

+50 Med.
304.44

Walnut Ave.

+15.9

-2.0% +2.0% -4.0% +4.0%

Prop. Jt. Type "C" Ent. Rt.

-6.0% +4.0% -4.0% +4.0%

Prop. Type "C" Ent. Lt.

U.A.C. Ent. Rt.

315
310
305
300

| | | |

For Side Road Details
Refer to Sheet No. E.07

ACCESS LOCATIONS
Sta. 498+43 Lt. & Rt.
Sta. 502+00 Lt. & Rt.
Sta. 505+00 Lt.

RIVERTON TWP.
T-95N R-15W
SEC. 34

Sta. 498+60 - SBL
600 mm

Sta. 499+85.45
1600 mm Ext.

218 MARK E. & ROSE MARIE FREIN

+43 Type "C"

498+60
50m(164')

Sta 498+78.861

Sta 499+22.723

499+98.535
℄55m(180')

500+23.368
℄55m(180')

218S 218 MARK & ROSE MARIE FREIN

ACQUIRE ACCESS CONTROL TO STATION 7501+27.

7500+99.591
CL 15.0 m
+00 Type "C"

7501+45.810
CL 18.0 m

7501+46.078
CL 18.0 m

7500+99.591
CL 15.0 m
+00 Type "C"

600 mm

Sta. 502+25.0 - SBL
600 mm

Survey

218S 218 MARK E. & ROSE MARIE FREIN

+00
Type "C"

504+75.923
℄52m(171')

Sta. 505+20 - SBL
600 mm

220 JOHN R. & KIM A. FREIN

Sta. 505+98 - SBL
600 mm

499 500 501 502 503 504 505 506

600 mm

ST Sta 500+14.723

250TH.

R=15 R=15

Construction

89°59'59.90"

Δ= 27°57.5'

152mm TILE

152 TILE

152 TILE

152 TILE

152 TILE

152 TILE

UAC

UAC

HO.

CONC.

PI Sta 499+53.395

PI Sta 499+00.795

Sta. 500+64.4 (SURVEY)
1.52 X 1.52 X 24.09 RCB
DA=48.6 ha R

Headwall Removed
By Road Contractor

218 MARK E. & ROSE MARIE FREIN

59 m

7502+41.86
CL 25.0 m

218S 218 MARK E. & ROSE MARIE FREIN

7502+65.0
CL 20.0 m

7502+41.86
CL 26.0 m

+87
22.83 m

POT 503+65.275 (SUR) (ML)
=POT 7503+65.275 (SUR) (SR)

POT Sta 502+00.000 (ML)
POT Sta 7502+00.000 (SR)

218 218S MARK E. & ROSE MARIE FREIN

ACQUIRE ACCESS CONTROL TO STATION 7502+73.

7502+65.0
CL 21.0 m

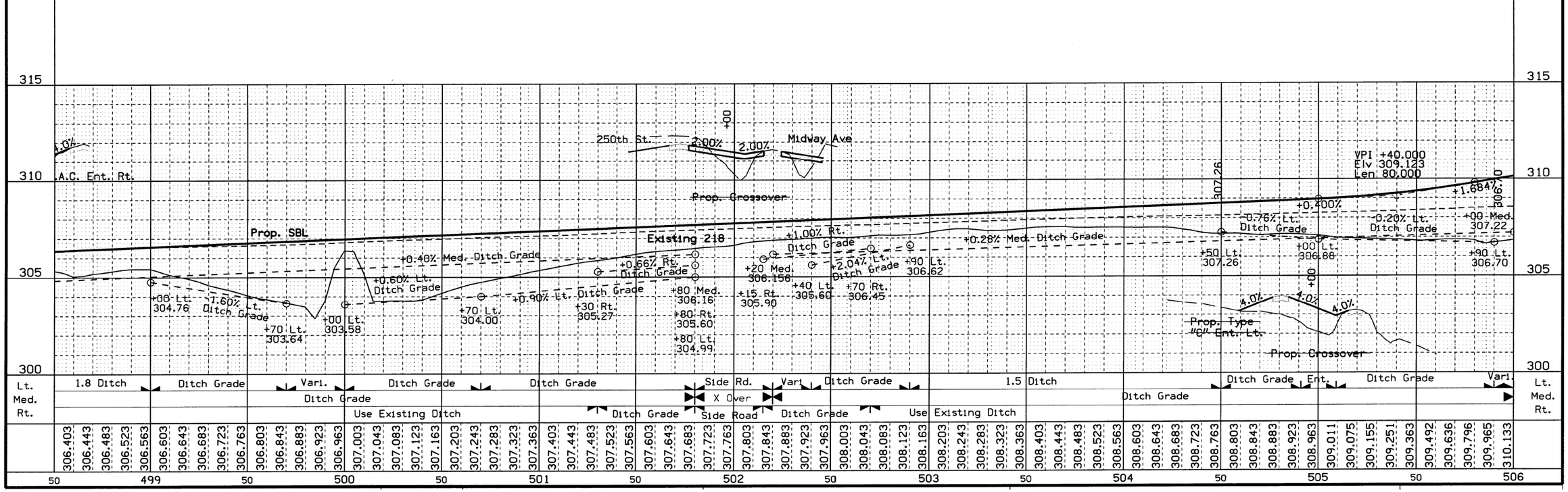
MIDWAY ROAD

0 METERS 100

BRUSH & TREES

Sta. 505+86.19
1200 mm Ext.

KAREN & JOHN T. CHROMICZ



FILE NO.	ENGLISH	DESIGN TEAM Kelly / Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER D5	REVISED

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RIVERTON TWP.
T-95N R-15W
SEC. 34

ACCESS. LOCATIONS
Sta. 509+00 Lt.

Sta. 505+86.19
1200 mm Ext.

220
JOHN R. & KIM A. FREIN

Sta. 505+98 - SBL
600 mm

506+84.313
℄50m (164')

Sta. 507+82 - SBL
750 mm

221
VINCENT & JENNIFER L. HUEGEL
TOTAL ACQUISITION

FUTURE R/W LINE

Sta. 509+20 - SBL
600 mm

+00
Type "C"

509+79.439
℄50m(164')

Sta. 510+08.18 - SBL
920mm x 570mm

222
IRMA M. KRAUSE TRUST (1/2 Int)
MARVIN A. KRAUSE TRUST (1/2 Int)
IRMA M. KRAUSE (TRUSTEE)

512+00
CL 66.0 m

Butler REC
U.G.

506 507 508 509 510 511 512 513

600 mm

Construction

152 TILE

152 TILE

509

152 TILE

513

152 TILE

BRUSH & TREES

BRUSH

+70
21.28 m

IRMA M. KRAUSE TRUST (1/2 Int)
MARVIN A. KRAUSE TRUST (1/2 Int)
IRMA M. KRAUSE (TRUSTEE)

222

Corn Belt Power

Butler REC

Corn Belt Power & Butler REC
Overhead

KAREN & JOHN T. CHROMICZ

Sta. 506+61.1
1219 X 22.32 Conc Pipe
DA=23.5 Ha. R
Skewed

(U.A.C.)
Sta. 508+41.9
762 X 29.58 Conc Pipe
DA=8.1 Ha. R
Skewed

0 METERS 100

Sta. 510+71.1
610 X 29.39 Conc Pipe
DA=4.9 Ha. R
Skewed

320
315
310
305

Prop. SBL
Existing 218

+1.00% Med. Ditch Grade
+00 Med. 307.22
+50 Med. 307.722
+1.56% Med. Ditch Grade
+00 Med. 308.502
308.50
+2.33% Med. Ditch Grade
+70 Med. 310.13
310.13
310.60
+00.0 Med. 310.60
+2.34% Med. Ditch Grade
+20 Lt. 311.03
311.03
+2.20% Ditch Grade
+00.0 Med. 313.17
+1.70% Med. Ditch Grade
+10 Med. 315.57
+00 Lt. 314.99
314.99
315.04
+1.68%
316.
+1.29%
VPI +20.000
Elv 318.890
Len 454.286
+50 Lt. 316.14
-1.38% Lt. Ditch Grade
+85.0 Med. 315.42
Prop. Type "C" Ent. Lt.
6.0% 4.0% 4.0% 4.5% 4.0%

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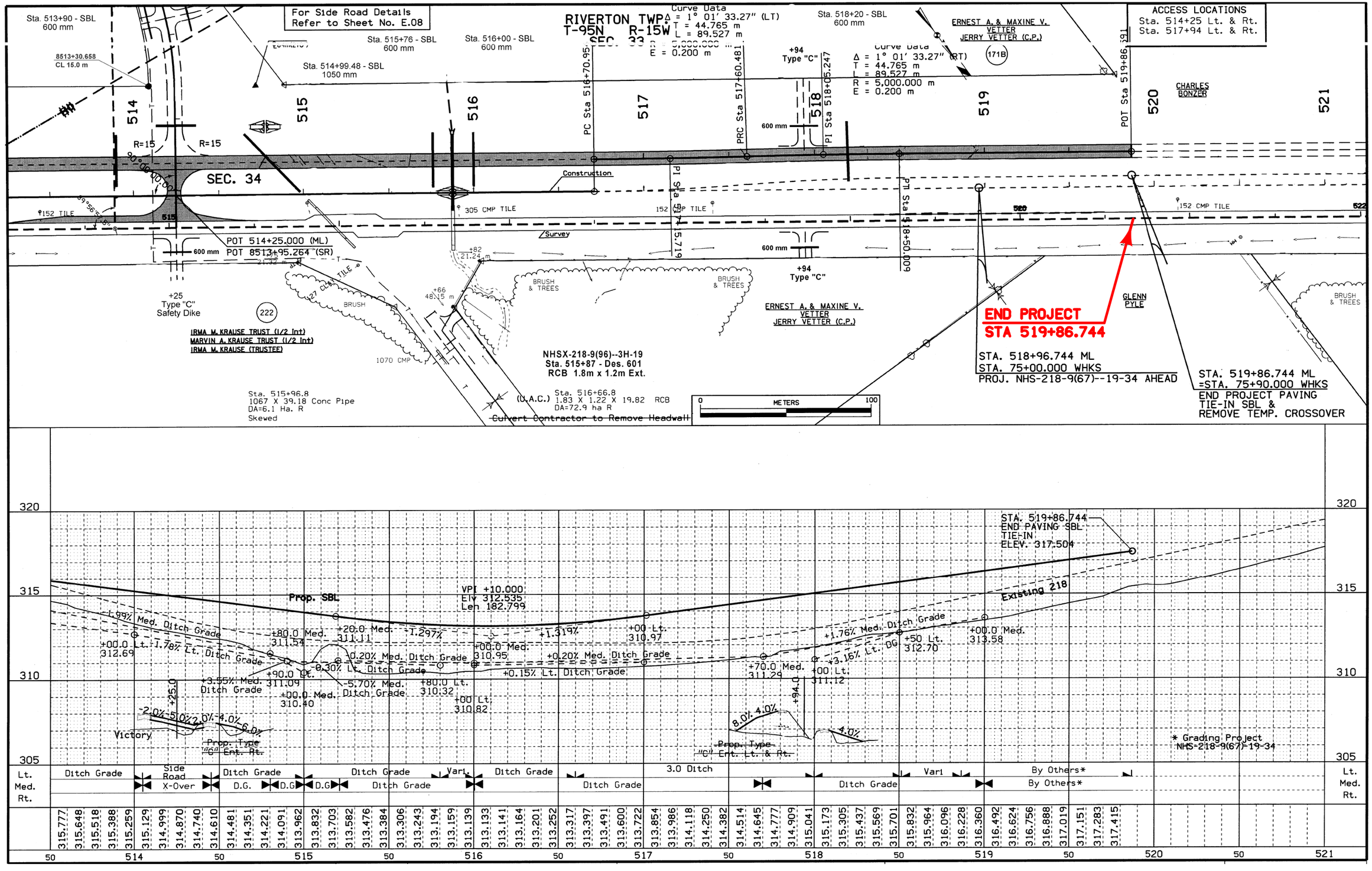

FILE NO.	ENGLISH	DESIGN TEAM Kelly / Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER D7	REVISED

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511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
No travel restrictions anticipated												

TRAFFIC CONTROL PLAN

Through traffic shall be maintained at all times.

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
NHSX-218-9(139)--3H-19	HMA resurfacing w/ Milling

Median paving will need to be coordinated with the other tied projects (139) and (141).

Median totals

368 Sq Yd of 1.5" Milling
30.4 Tons of 1.5" Surf. Course
30.4 Tons of 1.5" Interm. Course

0 20
FEET

INTERSECTION RESURFACING DETAILS AT 260th ST.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER U1	REVISED

10:27:05 AM 4/28/2021 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3421801021\DistrictDesign\34218140_U01.dgn

Median totals

240 Sq Yd of 1.5" Milling
19.8 Tons of 1.5" Surf. Course
19.8 Tons of 1.5" Interm. Course

0 20 FEET

INTERSECTION RESURFACING DETAILS AT WALNUT AVE.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER U2	REVISED

10:27:07 AM 4/28/2021 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3421801021\DistrictDesign\34218140_U01.dgn

Median totals

228.5 Sq Yd of 1.5" Milling
18.9 Tons of 1.5" Surf. Course
18.9 Tons of 1.5" Interm. Course

0 FEET 20

Median totals

775.1 Sq Yd of 1.5" Milling
64.1 Tons of 1.5" Surf. Course
56.9 Tons of 1.5" Interm. Course

INTERSECTION RESURFACING DETAILS AT MIDWAY RD.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER U3	REVISED

10:27:10 AM 4/28/2021 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3421801021\DistrictDesign\34218140_U01.dgn

Median totals

219.5 Sq Yd of 1.5" Milling
18.2 Tons of 1.5" Surf. Course
18.2 Tons of 1.5" Interm. Course

0 FEET 20

INTERSECTION RESURFACING DETAILS AT VICTORY AVE.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	FLOYD COUNTY	PROJECT NUMBER NHSX-218-9(140)--3H-34	SHEET NUMBER U4	REVISED

10:27:12 AM 4/28/2021 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\3421801021\DistrictDesign\34218140_U01.dgn