



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
JASPER COUNTY
REVTMENT
Mud Creek 4.5 mi N of US 65 (NB)

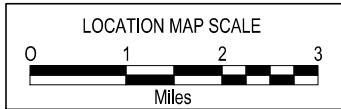
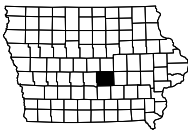
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



M.P. 4.6
Project Location
FHWA 030851



REVISIONS

TOTAL

25

PROJECT IDENTIFICATION NUMBER

26-50-330-010

PROJECT NUMBER

NHSN-330-1(034)--2R-50

R.O.W. PROJECT NUMBER

INDEX OF SHEETS

No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet and Location Map
C Sheets	Estimate of Quantities and General Notes
C.1	Estimated Project Quantities & Reference Notes
C.2	Index of Tabulations
C.3 - C.6	Tabulations
G Sheets	Survey Sheets
* G.1-G.3	Survey Information
J Sheets	Traffic Control and Staging Sheets
J.1 - J.4	Traffic Control Plan, Staging Notes and Tabulations
R Sheets	Erosion Control Sheets
RC.1 - RC.2	Estimated Quantities
RC.3 - RC.6	Erosion Control Tabulations, General Notes & Tabulations
* RR.1	Erosion Control Legend & Symbol Information
* RR.2-RR.3	Erosion Control Plan Sheets
V Sheets	Ditch Protection
* V.1-V.2	Ditch Protection
	* Color Plan Sheets

IA 330 (NB)			
DESIGN DATA RURAL			
2024	AADT	4900	V.P.D.
20	- AADT	-	V.P.D.
20	- DHV	-	V.P.H.
TRUCKS		11.6	%
Total			
Design ESALs		-	



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Randall M.L. Friend 07/28/2026

Signature Randall M.L. Friend, PE Date

Printed or Typed Name

My license renewal date is December 31, 2026

Pages or sheets covered by this seal:
RR.1-RR.3, V.1-V.2

A.1,C.1-C.6, G.1-G.3, J.1-J.4, RC.1-RC.6,

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Roadway Items : Roadway Items

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Roadway Items	
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.2	Refer to Table 110_17 in the C Sheets.
2	2528-8445110	TRAFFIC CONTROL	LS	1	Refer to Traffic Control Plan in J Sheets.
3	2528-8445113	FLAGGERS	EACH	0	See Proposal.
4	2533-4980005	MOBILIZATION	LS	1	--

111_25
4/21/26

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110_17	CLEARING AND GRUBBING	C.5
262_06	UTILITIES (NOT A POINT 25 PROJECT)	C.6
281_01	SECTION 404 PERMIT AND CONDITIONS	C.6
	J Sheets	
108_23A	TRAFFIC CONTROL PLAN	J.1
108_25	511 TRAVEL RESTRICTIONS	J.2
108_26A	STAGING NOTES	J.3
111_01	COORDINATED OPERATIONS	J.4
	RC Sheets	
100_10	FLOATING SILT CURTAINS	RC.2
100_19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	RC.3
100_22	ROLLED EROSION CONTROL	RC.4
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232_03A	EROSION CONTROL (RURAL SEEDING)	RC.6
232_03C	EROSION CONTROL (NATIVE GRASS SEEDING)	RC.6
232_11	EROSION CONTROL (STABILIZING CROP SEEDING)	RC.6
281_03	STORM WATER BEST MANAGEMENT PRACTICES	RC.6

105_04
4/21/26

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
EC-103	04-21-15	Wood Excelsior Mat for Slope Protection
EC-104	04-17-18	Turf Reinforced Mat (TRM)
EC-202	10-21-14	Floating Silt Curtain
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-303	10-19-21	Stabilized Construction Entrance
EC-502	04-21-15	Seeding in Rural Areas
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-418	04-18-23	Lane Closure on Divided Highway
EW-401	10-20-15	Temporary Stream Crossing, Causeway, or Equipment Pad

100_01D
8/15/22

PROJECT DESCRIPTION

This project involves the construction of Rock Chute to Mud Creek adjacent to IA 330 approximately 4.5 miles north of US 65.

110_17 1/27/25																							
CLEARING AND GRUBBING																							
Line No.	Station From	Station To	Direction of Traffic	Work and Material Type	>3"-6"	>6"-9"	>9"-12"	>12"-15"	>15"-18"	>18"-24"	>24"-30"	>30"-36"	>36"-42"	>42"-48"	>48"-60"	>60"-72"	>72"	Other Materials Length (FT)	Other Materials Width (FT)	Estimated Units	Estimated Area (Acres)	Estimated Herbicide Application (EA)	Remarks
	99+69.55	101+32.50	NB	Trees - Clearing and Grubbing																	0.200		

262_06
9/28/22

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.

281_01
9/28/22

SECTION 404 PERMIT AND CONDITIONS

Construct this project according to the requirements of U.S. Army Corps of Engineers Nationwide, Permit No. #3. A copy of this permit is available from the Iowa DOT website (<http://www.envpermits.iowadot.gov/>). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.

Survey Information

SURVEY INDEX

County: Jasper
PIN: 26-50-330-010
Project Number: NHSN-330-1(034)--2R-50
Location: Mudd Creek 4.5 miles North of US 65 (NB)
Type of Work: Slide Repair
Project Directory: 5033001026

Survey Personnel

Jeremy Leemon – Survey Party Chief
Andrew Anderson – Survey Assistant

Date(s) of Survey

Begin Date 06/09/2026
End Date 06/10/2026

General Information

This survey is for IA Hwy 330 Slide Repair at 1 location 4.5 mi N of US Hwy 65 (NB).
This project is a Full Field DTM survey.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the
Utility folder of the PrelimSurvey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal
and vertical control on primary project control points. Three five-minute observations
were taken with a minimum two-hour time span between and used in a weighted
average to obtain final coordinate values. For additional details of the control survey,
contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 9
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 9 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 9 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code-Description
305	7787912.93	19386859.20	991.49	CP FD NGS MON, 114' SE OF IA 330 CL, 114' NW OF W 100TH ST N CL
301	7786079.03	19384396.68	955.27	CP SET 5/8" X 48" REBAR 6" DEEP, 27' NW OF IA 330
303	7784038.52	19382269.43	975.83	CP SET 5/8" X 48" REBAR 6" DEEP, 33' SE OF IA 330 CL, 350' NE OF PRIVATE DR

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Through traffic shall be maintained on the project at all times.
During working hours: Close one lane as needed to access the worksite using Iowa DOT Standard TC-418.
During non-working hours: Normal traffic flow (NB two lanes) on IA 330 shall be maintained.

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
	IA 330	NB	Jasper					None					

108_26A
8/15/22

STAGING NOTES

- 1) Construct access to project site and install erosion control.
- 2) Remove, Grade and install revetment
- 3) Seed

111_01
10/14/22

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
None Provided	

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RANDALLFRIEND@IOWAID

Item no.	Item Code	Item	Unit	Quantities	Estimate Reference Notes
				Estimated	
				Erosion Control Items	
1	2601-2638352	SLOPE PROTECTION, WOOD EXCELSIOR MAT	SQ	31	Refer to Tab. 100-22 for locations. Refer to Standard Road Plan EC-103 ----- Prepare seedbed according to Article 2601.03, B, 4, of the Standard Specifications prior to seeding and fertilizing under the slope protection. Use material meeting Article 4169.10, C of the Standard Specifications.
2	2601-2643110	WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION	MGAL	6.2	Estimate for watering Special Ditch Control, Slope Protection Areas, Turf Reinforcement Mat, or Transition Mat is based on a total of four waterings at a rate of 50 gallons per square.
3	2601-2643300	MOBILIZATION FOR WATERING	EACH	3	
4	2601-2643411	TURF REINFORCEMENT MAT, TYPE 1	SQ	31	
5	2602-0000150	STABILIZED CONSTRUCTION ENTRANCE, EC-303	LF	100	Refer to Standard Road Plan EC-303 for details. Obtain the Engineer's approval for location and length of Stabilized Construction Entrances prior to constructing. Location and limits for Stabilized Construction Entrances shall be determined during construction.
6	2602-0000212	FLOATING SILT CURTAIN (HANGING)	LF	150	Refer to Table 100_10 in the RC Sheets.
7	2602-0000240	MAINTENANCE OF FLOATING SILT CURTAIN	LF	75	Refer to Table 100_19 in the RC Sheets.
8	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	340	Refer to Tab. 100-19. The tabulation includes estimated locations for placement of "Perimeter and Slope Sediment Control Device, 12 in. dia." to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
9	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	340	
10	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1	Quantity is for installation and maintenance of erosion control within the project limits.
11	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1	Quantity is for repair or reinstallation of erosion control due to events requiring emergency measures as determined by the Engineer.

100_10 8/15/22					
FLOATING SILT CURTAINS					
Refer to EC-202					
Station	Hanging (LF)	Containment (LF)	Clean-out (Containment) (LF)	Maintenance of Floating Silt Curtain (LF)	Remarks
101+41.45	150.0			75.0	

100_19 10/15/24							
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE							
Possible Standards: EC-204							
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
	100+00.00	101+14.00	Right	Perimeter and Slope	12 inch	120.00	
	100+00.00	101+22.86	Left	Perimeter and Slope	12 inch	140.00	
260							

100_22											100_22
8/15/22											8/15/22
ROLLED EROSION CONTROL											
Refer to EC-101, EC-103 and EC-104.											
Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	TRM Type (EC-104)	TRM Quantity (Squares)	Slope Protection (EC-103) (Squares)	Special Ditch Control (EC-101) (Squares)	Remarks
1.0		100+00.00	101+14.00	Right			Type 1	14.0	14.0		
2.0		100+00.00	101+22.86	Left			Type 1	18.0	18.0		
								32	32		

Line No.	Basin No.	Station From	Station To	Direction of Traffic	Side	Discharge Station	Discharge Direction	Total Disturbed Area (ACRES)	Disturbed Area with Storage Provided (ACRES)	Disturbed Area without Storage Provided (ACRES)	Best Management Practice	Total Storage Volume Provided (CF)	Total Storage Volume Required (CF)	Storage Volume Met	Remarks
	1	99+69.55	101+32.50	NB	Right	10132.50	NE	0.2		0.2	Vegetated Buffer		576.0	No	

232_03A
9/28/22

EROSION CONTROL (RURAL SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

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_11
6/21/23

EROSION CONTROL (STABILIZING CROP SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

If outside of permanent seeding dates in Section 2601 of the Standard Specifications, or if required by a storm water permit, place stabilizing crop, fertilizer, and mulch on the disturbed area as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,1 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 incidental to mobilization and will will not be paid for separately.

232_03C
8/28/24

EROSION CONTROL (NATIVE GRASS SEEDING)

Area to be seeded is estimated to be less than 1 acre. If the Contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.

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 debarred 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.

281_03
11/9/23

STORM WATER BEST MANAGEMENT PRACTICES

When the following best management practices are used, they are intended to account for disturbed areas where storage volume cannot be provided: Perimeter & Slope Sediment Control Device and Vegetated Buffer.

LINE STYLE LEGEND OF LANDSCAPE SHEETS	
LINESTYLE	Design Element
-----	Living Snow Fence Single Row
-----	Living Snow Fence Double Row
-----	Mechanical Edge

CELL LEGEND OF LANDSCAPE SHEETS		
CELL	Design Element	Plant Diameter
	Clearing	
	Proposed Shrub	6 FT
	Proposed Understory Tree	12 FT
	Proposed Conifer Tree	18 FT
	Proposed Overstory Tree	30 FT

PATTERN LEGEND OF LANDSCAPE SHEETS	
	Brush Clearing
	Clearing & Grubbing
	Spray Area

LINE STYLE LEGEND OF EROSION CONTROL SHEETS	
LINESTYLE	Design Element
	Silt Fence
	Perimeter and Slope Sediment Control Device (9")
	Perimeter and Slope Sediment Control Device (12")
	Perimeter and Slope Sediment Control Device (20")
	Open-Throat Curb Intake Sediment Filter
	Concentrated Flow
	Rock Check and Rock Check Dam
	Sheet Flow

CELL LEGEND OF EROSION CONTROL SHEETS	
CELL	Design Element
	Temporary Sediment Control basin
	Erosion Control for Circular Intake or Manhole Well
	Erosion Control for Rectangular Intake or Manhole Well
	Grate Intake Sediment Filter Bag
	Silt Basin
	Silt Fence Tail
	Stormwater Drainage Basin Discharge Point

PLAN VIEW COLOR LEGEND OF EROSION CONTROL SHEETS				
LINEWORK	Design Color No.			
Green	(2)		Existing Topographic Features and Labels	
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation	
Magenta	(5)		Existing Utilities	
Black	(0)		Permanent Erosion Control Features	
Blaze Orange	(222)		Temporary Erosion Control Features	
SHADING	Design Color No.		Transparency	
Citron	(234)		Mulching, All Types	50%
Light Brown	(238)		Special Ditch Control, Wood Excelsior Mat	0%
Grass Green	(233)		8FT Mow Strip	50%
Red	(3)		Delineates Restricted Areas	0%

PATTERN LEGEND OF EROSION CONTROL SHEETS	
	Seeding and Fertilizing
	Seeding and Fertilizing (Rural)
	Seeding and Fertilizing (Urban)
	Native Grass Seeding
	Salt Tolerant Seeding
	Wetland Grass Seeding
	Wildflower Seeding
	Sodding
	Turf Reinforcement Mat Type 1
	Turf Reinforcement Mat Type 2
	Turf Reinforcement Mat Type 3
	Turf Reinforcement Mat Type 4
	Slope Protection, Wood Excelsior Mat
	Transition Mat
	Rock Features, Permanent
	Rock Features, Temporary

EROSION CONTROL
LEGEND AND SYMBOL
INFORMATION SHEET

(COVERS SHEET SERIES R)



Clear Creek TWP.
T-81N R-21W
SEC. 1

MUD CREEK

Utilities Note:

Utilities shown on this sheet are for information only.

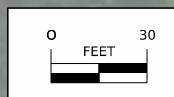
General Utility Symbols:

E - Electric Line	FO - Fiber Optic Line
G - Gas Line	GHP - Gas High Pressure
SAN. - Sanitary Sewer	ST S - Storm Sewer
T - Telephone Line	TV - TV
W - Water Line	- Power Poles

IA 330 SB

IA 330 NB

Install Floating Silt Curtain



FILE NO. **32963**

ENGLISH

DESIGN TEAM **HNTB**

JASPER COUNTY

PROJECT NUMBER **NHSN-330-1(034)--2R-50**

SHEET NUMBER **RR.2**

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Clear Creek TWP.
T-81N R-21W
SEC. 1

MUD CREEK

Utilities Note:

Utilities shown on this sheet are for information only.

General Utility Symbols:

E - Electric Line	FO - Fiber Optic Line
G - Gas Line	GHP - Gas High Pressure
SAN. - Sanitary Sewer	ST S - Storm Sewer
T - Telephone Line	TV - TV
W - Water Line	- Power Poles

IA 330 SB

IA 330 NB

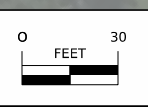
00+00

100+00

Basin 1
0.16 acre

POB 99+54.21

POE 101+61.12



FILE NO. **32963**

ENGLISH

DESIGN TEAM **HNTB**

JASPER COUNTY

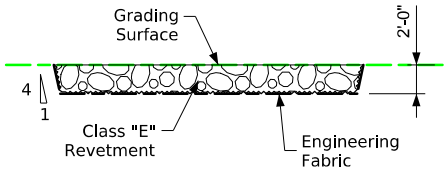
PROJECT NUMBER **NHSN-330-1(034)--2R-50**

SHEET NUMBER **RR.3**

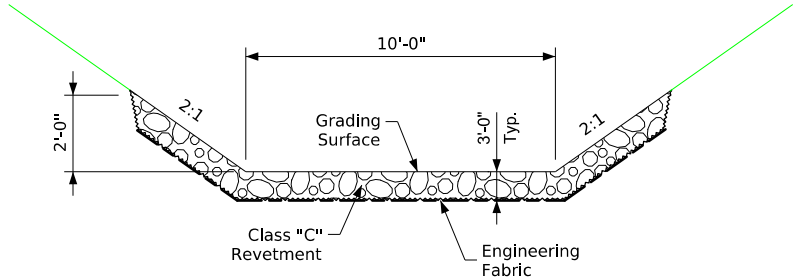
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Estimate Project Quantities and Reference Notes - Design #0527					
Item No.	Item Code	Item	Unit	Quantities Estimated Design No. 0527	Estimate Reference Notes
1	2102-2713090	Excavation, Class 13, Waste	CY	1348	Dispose of excess material according to Article 1106.07 of the current specifications.
2	2401-6745650	Removal of Existing Structures	LS	1	The intent of this work is to remove the existing wooden piers and any erosion protection structures currently located within the project area. Method of Measurement: Measurement will be in Lump Sum. Basis of Payment: Payment will be at the contract unit price per Lump Sum. Payment includes all labor, equipment, and materials required to remove existing wooden piers and existing erosion protections structures.
3	2507-3250005	Engineering Fabric	SY	472	Engineering Fabric Shall be Material as Specified for Embankment Erosion Control in Accordance With Article 4196.01.B,3, of the Standard Specifications.
4	2507-6800032	Revetment, Class C	TON	640	Estimated at 1.6 TON/CY.
5	2507-6800061	Revetment, Class E	TON	72	Estimated at 1.5 TON/CY.
6	2526-8285040	Construction Survey, Location Survey	LS	1	
7	2533-4980005	Mobilization	LS	1	

Estimated Revetment Quantities Included With Road Plans				
Location	Revetment Class "C" (Ton)	Revetment Class "E" (Ton)	Engineering Fabric (SY)	CL. 13 Channel Excavation (CY)
Rock Ditch Protection	640	-	400	400
Splash Pad	-	72	72	48
Totals	640	72	472	448



Typical Protection



Typical Ditch Protection

General Notes:

THIS DESIGN IS FOR THE CONSTRUCTION OF A DITCH ROCK CHUTE TO MUD CREEK ADJACENT TO IA 330. PROJECT LOCATION IS APPROXIMATELY 4.5 MILES NORTH OF US 65

1. PRELIMINARY TO SITEWORK: ARRANGE FOR REVIEW OF PROPOSED REVETMENT SAMPLES BY IOWA DOT FIELD ENGINEERING STAFF TO ENSURE GRADATION IS IN ACCORDANCE WITH PLANS.
2. TRAFFIC CONTROL, ROADS, AND BRIDGE LOADS:

a. PERFORM TRAFFIC CONTROL AS NECESSARY TO ENCOURAGE THE SAFETY OF THE PUBLIC TRAVELING NEAR THE PROJECT SITE. TRAFFIC CONTROL SHALL MEET IOWADOT STANDARDS FOR THIS TYPE OF WORK SITE.

b. COORDINATE WITH FEDERAL, STATE AND LOCAL GOVERNMENT REPRESENTATIVES PRIOR TO TRANSPORTING HEAVY EQUIPMENT OVER LOCAL ROADS. HEAVY EQUIPMENT WHICH EXCEEDS THE RATED LOAD CAPACITY OF ANY BRIDGE (OR CROSSING) SHALL BE TRANSPORTED TO THE WORK SITE USING AN ALTERNATE HIGH-CAPACITY ACCESS ROUTE. AVOID ALL LOW-CAPACITY STRUCTURES.

c. AVOID DAMAGING ROADS AND ALL PRIVATE AND PUBLIC LANDS OUTSIDE OF THE DESIGNATED CONSTRUCTION LIMITS AND ACCESS ROUTES. THE CONTRACTOR SHALL PROVIDE NECESSARY MATERIALS, LABOR, AND EQUIPMENT TO MAKE REPAIRS (OR REPLACEMENT IF NEEDED) FOR DAMAGE CAUSED BY CONSTRUCTION ACTIVITY SO AS TO RETURN ALL DAMAGED ROADS AND STRUCTURES TO ORIGINAL (PRE-PROJECT) CONDITION. THE CONTRACTOR SHALL COORDINATE WITH ADJACENT LANDOWNERS AND THE AGENCY RESPONSIBLE FOR ROAD MAINTENANCE TO ENSURE AN ACCEPTABLE RESOLUTION OF SUCH DAMAGES.
3. UTILITIES: VERIFY UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY EXCAVATION WORK AND TAKE APPROPRIATE STEPS TO PROTECT ALL UTILITIES FROM DAMAGE. ADVISE AND WARN ALL CREW MEMBERS (INCLUDING SUBCONTRACTED PERSONNEL) OF THE LOCATION OF UTILITIES BEFORE ALLOWING THEM TO WORK ON-SITE. THE CONTRACTOR SHALL NOTIFY IOWA ONE CALL AT LEAST 48 HOURS BEFORE CONSTRUCTION BEGINS.
4. CLEARING AND REMOVAL: THE CONTRACTOR SHALL PROVIDE FOR PROPER OFF-SITE DISPOSAL OF ALL DEBRIS. TRANSPORT AND DISPOSE OF DEBRIS IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

a. CLEARING/REMOVAL LOCATIONS INCLUDE BUT ARE NOT LIMITED TO:

i. BANKSIDE AND STREAM BED AREAS WHERE REVETMENT CONSTRUCTION AND EXCAVATION IS SCHEDULED

ii. ACCESS LANES AND TURNAROUND AREAS.

b. IN AREAS WHERE SOIL IS EXCAVATED OR OTHERWISE DISTURBED TO FACILITATE CONSTRUCTION, THE TOP 6 INCHES OF SOIL SHALL BE STOCKPILED AND THEN RE-SPREAD ON THESE AREAS PRIOR TO SEEDING AND PLANTING.
5. FIELD SURVEY: EXISTING SURVEY INFORMATION IS INCLUDED ON SITUATION PLANS AND IN CROSS SECTIONS AS GATHERED FROM A PROFESSIONAL SURVEY COMPLETED IN JUNE 2026. ACTUAL FIELD CONDITIONS ARE KNOWN TO VARY AS A RESULT OF ONGOING EROSION. FIELD ADJUST IN COORDINATION WITH THE IOWA DOT FIELD ENGINEERING STAFF.
6. NEW WORK: ALL ROCK-FILL STRUCTURES (E.G. REVETMENT AND KEY-INS) SHOWN ARE NEW WORK. EXCAVATE (WHERE INDICATED), PREPARE SURFACE, AND CONSTRUCT NEW REVETMENT STRUCTURES TO THE OVERALL DIMENSIONS, ELEVATIONS AND CROSS SECTIONS SHOWN AND IN ACCORDANCE WITH THE QUANTITIES AS REQUIRED BY CONSTRUCTION SCHEDULE.

a. ROCK GRADATION FOR ALL RIPRAP PLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 4130 OF THE IOWA DOT SPECIFICATIONS.

b. CLEAR, GRADE, AND SURFACE ACCESS RAMPS AND ROUTES. KEEP SAFE DISTANCE FROM ALL SLOPES AND WEAK ZONES. ACCESS RAMPS AND ROUTES SHALL PROVIDE FOR SAFE TRANSPORT OF ROCK AND EQUIPMENT. MINIMIZE SEGREGATION OF ROCK (SIZES) DURING TRANSPORT AND UNLOADING OPERATIONS. FREEFALL AND ROLLING DISTANCE FOR ROCK DUMPING OPERATIONS IS LIMITED TO 8 FT. MAXIMUM, UNLESS OTHERWISE APPROVED BY IOWA DOT.

c. USE APPROPRIATE EQUIPMENT WITH ADEQUATE REACH OR HAND PLACE ROCK WHERE NECESSARY TO OBTAIN INDICATED THICKNESS OF REVETMENT. KEEP MACHINERY OUT OF WATER AS MUCH AS POSSIBLE.

d. DO NOT ALTER CHANNEL GRADIENT. DO NOT REDUCE NOR RESTRICT CHANNEL OPENING (BEYOND FACE OF NEW REVETMENT) AT ANY TIME.

e. WATER SURFACE LEVELS CAN VARY FROM LOW / DRY (ALONG THE CONSTRUCTION FOOTPRINT) TO BANK FULL OR HIGHER DEPENDING ON WEATHER IN THE UPSTREAM BASIN. FLOODING MAY INUNDATE WORK AREA.

f. CLASS 13 CHANNEL EXCAVATION MATERIAL MAY BE USED FOR FILL MATERIAL IF DETERMINED SUITABLE BY IOWA DOT FIELD ENGINEERING STAFF. REMAINDER OF MATERIAL NOT USED FOR FILL ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

g. NO EXCAVATION OR REMOVAL OF BEDROCK MATERIAL IS INCLUDED AS PART OF THIS PROJECT. IF BEDROCK IS ENCOUNTERED DURING EXCAVATION FOR REVETMENT AND KEY-INS, HALT EXCAVATION AND CONSULT FIELD ENGINEER. DO NOT DISTURB IN-SITU BEDROCK CONDITIONS UNLESS DIRECTED BY THE FIELD ENGINEER.

h. AFTER COMPLETION OF REVETMENT, THEN GRADE THE TOP OF BANK AREA, TO PROVIDE A SMOOTH AND STABLE SLOPE FOR GRASS SEEDING, WITH THE SLOPE AS GENERALLY SHOWN ON CROSS SECTION SHEETS. RAKE, GATHER, AND DISPOSE OF ANY UNCOVERED DEBRIS IN ACCORDANCE WITH THE DEBRIS DISPOSAL NOTE. FINISH CONTOURS SHALL PROVIDE FOR EVEN SHEET FLOW ACROSS THE TOP OF BANK AND REVETMENTS UNLESS OTHERWISE INDICATED -- DO NOT ALLOW CONCENTRATED FLOW AREAS (SUCH AS A DITCH OR SWALE) UNLESS SPECIFICALLY SHOWN IN PLANS.
7. RESTORATION: AT THE CONCLUSION OF THE PROJECT, RESTORE ALL ACCESS POINTS AND HAUL ROADS TO ORIGINAL CONDITION, THEN SEED AND MULCH ALL EXPOSED DISTURBED AREAS.

Design For
Ditch Rock Chute

General Notes and Quantities

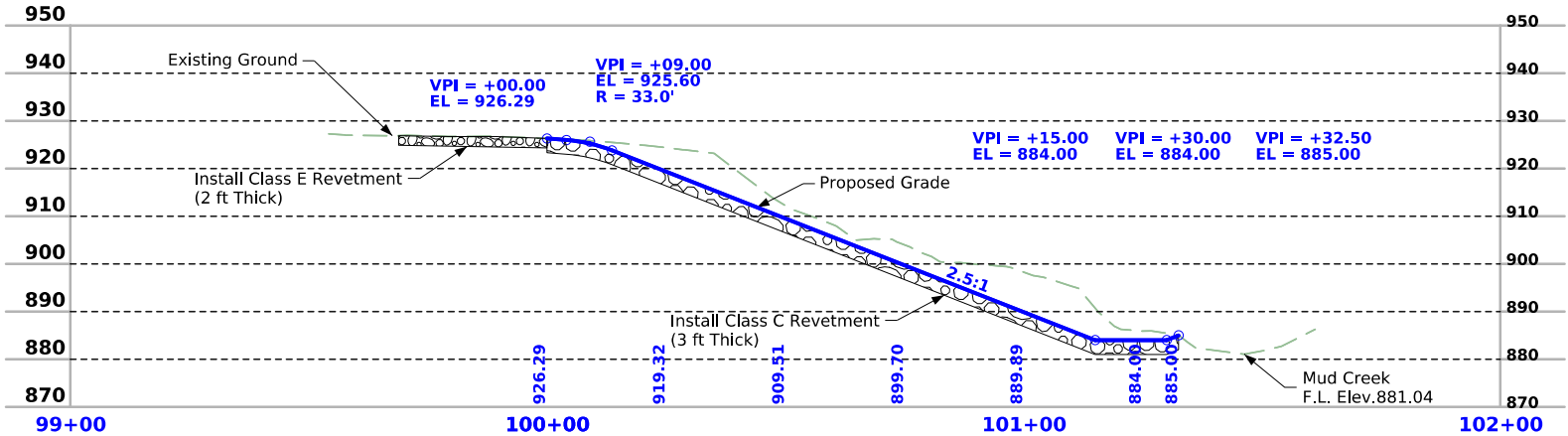
STA. 100+00.00 (Jasper Ditch Alignment) Turn-in Date: June 2026

Jasper County

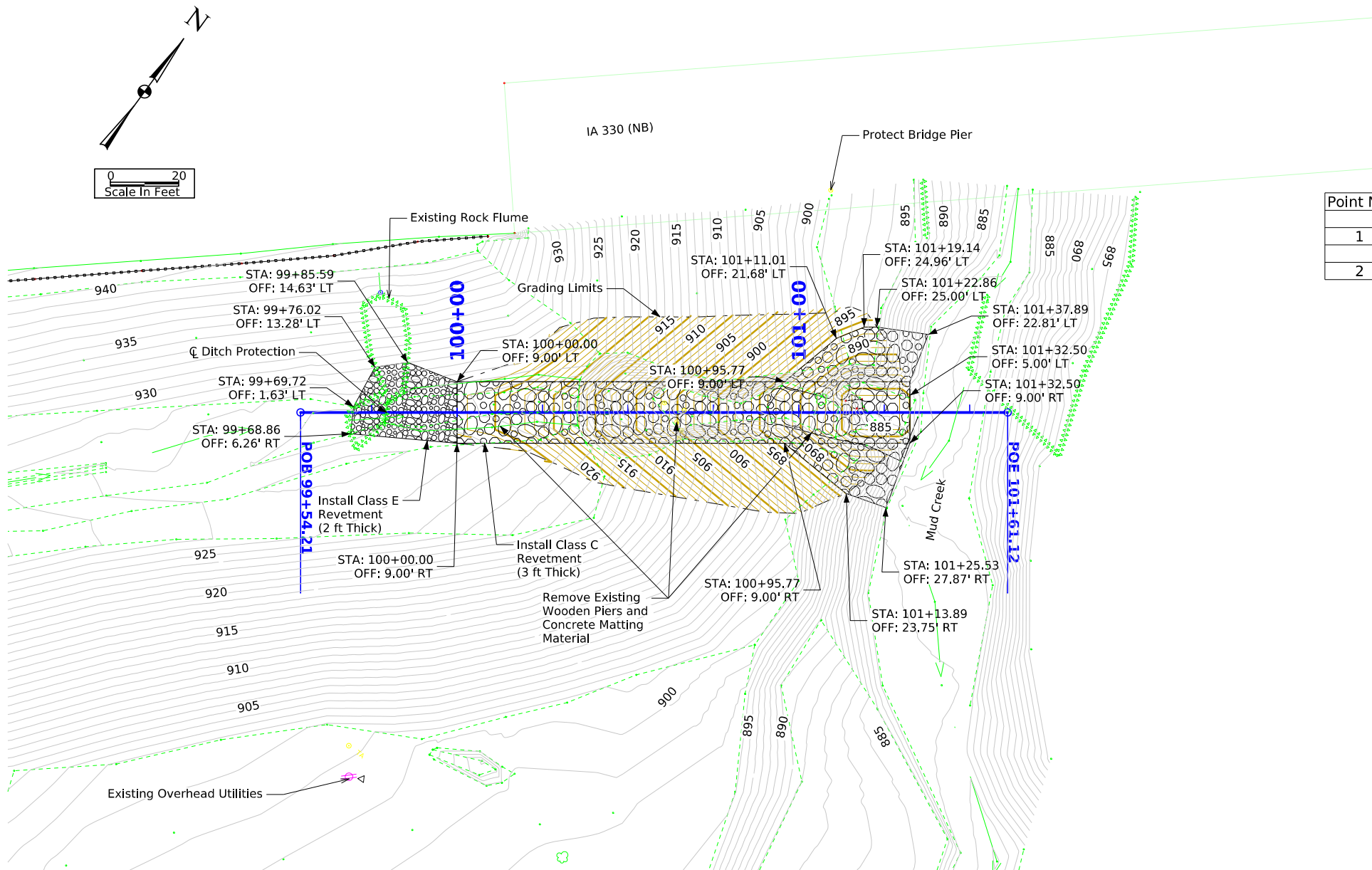
IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0527 Design Sheet No. 1 of 2 FHWA/Asset 030851

Control Point: 303,7784038.52,19382269.43,975.83,CP SET 5/8" X 48" REBAR 6" DEEP, 33' SE OF IA 330 CL, 350' NE OF PRIVATE DR



Longitudinal Section Along Centerline of Ditch



Situation Plan

Point No.	Station	Point Type	Element Data	Bearing	Northing	Easting
Jasper Ditch Alignment						
1	99+54.208	POB			7784862.438	19383276.026
			L= 206.909	N53.625°E		
2	101+61.118	POE			7784985.15	19383442.619

Location

IA 330 over Mud Creek
T-81N R-21W
Section 1
Clear Creek Township
Jasper County
FHWA No. 030851
Bridge Maint. No. 5004.6R330
Latitude 41.854556°
Longitude -93.244773°

Hydraulic Data

Drainage Area = 11.0 Acres

Q₅₀ = 46 cfs
Exit Velocity = 7.32 fps

Q₁₀₀ = 55 cfs
Exit Velocity = 7.36 fps

Utilities Note:

Utilities shown on this sheet are for information only.
See Road Design sheets for utility information.

General Utility Symbols:

- E - Electric Line

G - Gas Line

SAN. - Sanitary Sewer

T - Telephone Line

W - Water Line
- FO - Fiber Optic Line

GHP - Gas High Pressure

ST S - Storm Sewer

TV - TV

Power Poles

Design For
Ditch Rock Chute

Situation Plan

STA. 100+00.00 (Jasper Ditch Alignment) Turn-in Date: June 2026

Jasper County

IOWA DEPARTMENT OF TRANSPORTATION

Design No. 0527 Design Sheet No. 2 of 2 FHWA/Asset 030851