

PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
Cerro Gordo COUNTY
HMA Paved Shoulder - New
Eisenhower Ave Interchange to 1.5 mi E of US 65 (EB/WB)

SEE SHEET A.2 FOR LOCATION MAP

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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

MILEAGE SUMMARY			
			105-1 09-27-94
Div.	Location	Lin. Ft.	Miles
	Sta. 149+82.800 to 216+31.500	21,813.28	4.13
	* Metric Stations		
	Total	21,813.28	4.13



INDEX OF SHEETS	
* A.1-A.2	Title Sheet and Location Map
B.1-B.3	Typical Cross Sections and Details
* C.1	Estimate of Quantities and General Notes
C.2-C.11	Tabulations
D.1-D.10	As-Built Information Sheets
J.1-J.4	Traffic Control, Staging, and Coordinated Operations
* Denotes Color Sheets	

DESIGN DATA RURAL			
20 24	AADT	9,200	V.P.D.
20	AADT		V.P.D.
20	DHV		V.P.H.
TRUCKS		30 %	
Total			
Design ESALs		8,059,200	

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Dusten D. Rolando	Primary Signature Block

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.

Signature: *D. Rolando* Date: 4/28/2026

Printed or Typed Name: Dusten D. Rolando, P.E.

My license renewal date is December 31, 2027.

Pages or sheets covered by this seal: A.1-A.2, B.1-B.3, C.1-C.11, D.1-D.10, J.1-J.4

REVISIONS

TOTAL

30

PROJECT IDENTIFICATION NUMBER

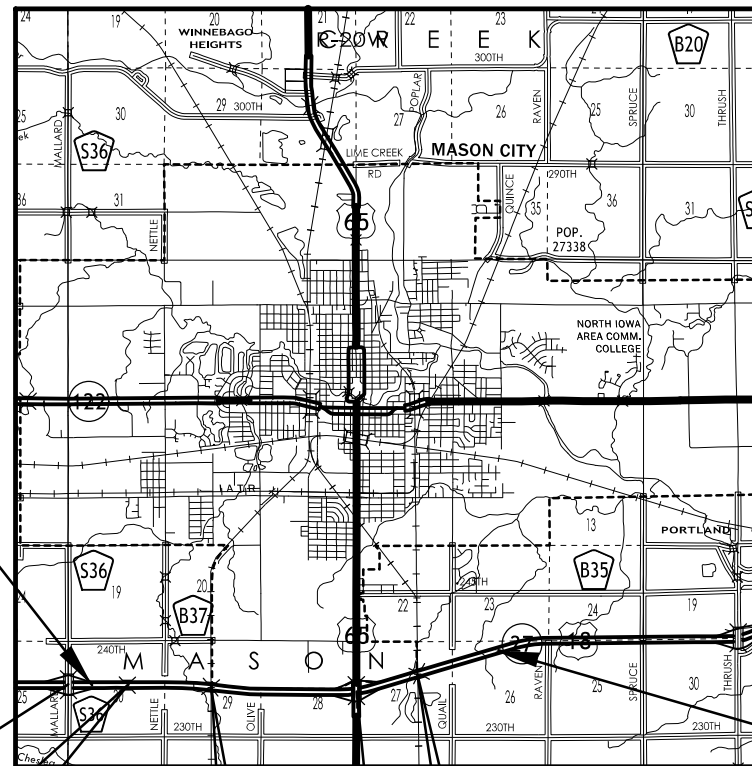
25-34-018-010

PROJECT NUMBER

HSIPX-018-5(157)--3L-17

R.O.W. PROJECT NUMBER

R-20W



T-96N

STA. 149+82.800
BEGIN PROJECT

STA. 216+31.500
END PROJECT

STA. 144+15.667
Bridge FWA: 606655
Maint# 1783.00018

STA. 154+13.408
Bridge FWA: 606570
Maint# 1783.6R018

STA. 154+13.408
Bridge FWA: 606565
Maint# 1783.6L018

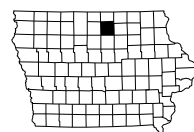
STA. 168+20.063
Bridge FWA: 601925
Maint# 1784.5L018

STA. 168+20.063
Bridge FWA: 601920
Maint# 1784.5R018

STA. 203+36.531
Bridge FWA: 606555
Maint# 1786.7R018

STA. 203+36.531
Bridge FWA: 606550
Maint# 1786.7L018

STA. 192+65.858
Bridge FWA: 601930
Maint# 1793.1S065



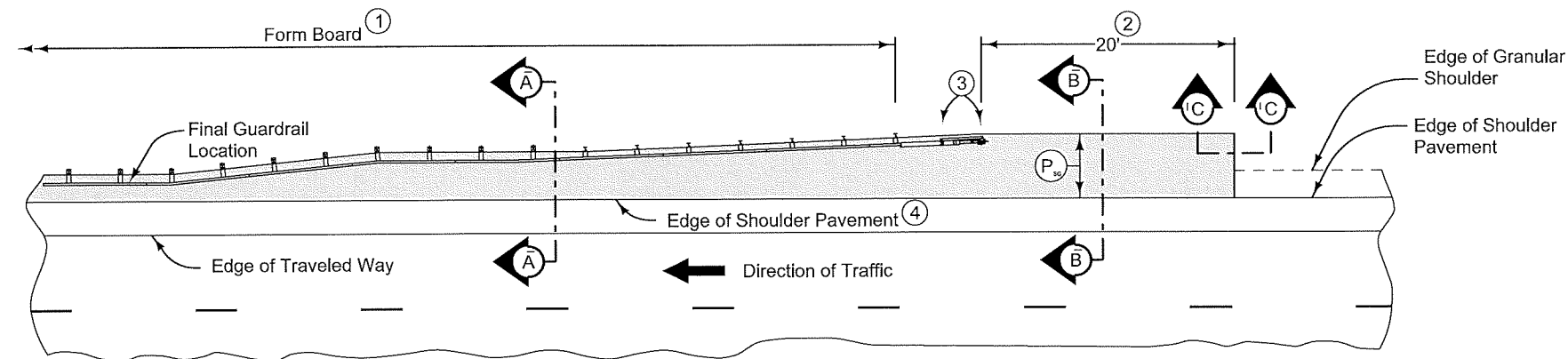


Section shown in the direction of travel

See Tabulation 112-9 for shoulder information.

- ① 4' will be paid for under Div. 1 and
2' will be paid for under Div. 2.

TYPICAL CROSS SECTION MAINLINE 4-LANE DIVIDED HIGHWAY HMA PAVED SHOULDERS



PLAN VIEW

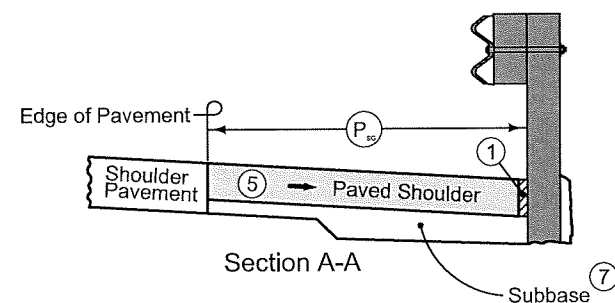
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at $P/2$ from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

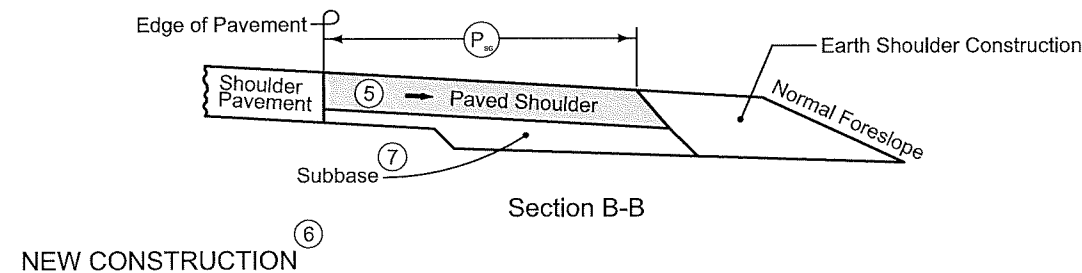
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'BT' (per PV-101) joint for PCC shoulder.
'B' (per PV-101) joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.

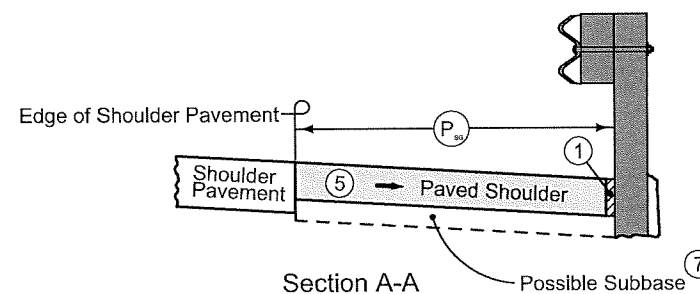


Section A-A

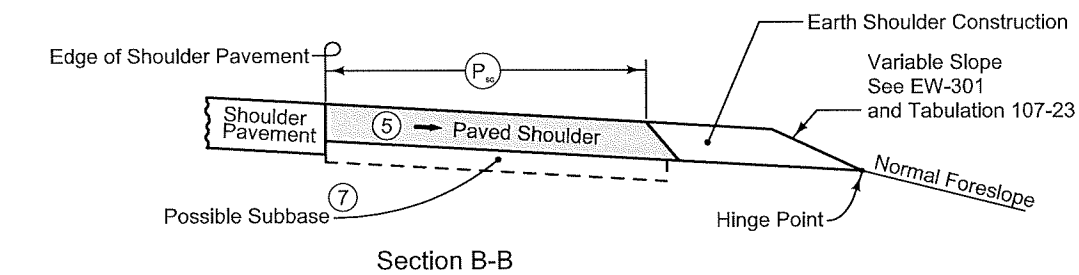


Section B-B

NEW CONSTRUCTION

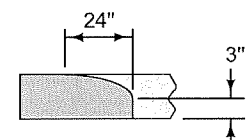


Section A-A



Section B-B

EXISTING SHOULDER



Section C-C

Roll down at granular shoulder or earth.

PAVED SHOULDER AT GUARDRAIL
(ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : Division 1: HSIP funds
Division 2 : Division 2: 3R funds

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
1	2102-2625000	EMBANKMENT-IN-PLACE	CY	112.4		112.4	Quantity to be used for construction of guardrail blisters. Refer to Tab. 107_23. Material shall be provided by the Contractor.
2	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	6,467.3	1,616.8	8,084.1	Refer to Tab. 112_09 and Typ. DR-1. Class 13 excavation material shall become property of the contractor.
3	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	1,440.1		1,440.1	Refer to Tab. 112_09, Typ. DR-1, and Typ. 7135.
4	2122-5500090	PAVED SHOULDER, HOT MIX ASPHALT MIXTURE, 9 IN.	SY	135		135	Refer to Tab. 112_09.
5	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE	TON	12,611.6	3,152.9	15,764.5	Refer to Tab. 112_09 and Typ. DR-1.
6	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	756.7	189.2	945.9	Refer to Tab. 112-09.
7	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	368.8		368.8	Refer to Tab. 110-07A.
8	2505-4008300	STEEL BEAM GUARDRAIL	LF	50		50	Refer to Tab. 108-08A
9	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	2		2	
10	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	2		2	
11	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	2		2	
12	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	1,016.1		1,016.1	Refer to Tab. 108_22.
13	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	1,016.1		1,016.1	
14	2528-8445110	TRAFFIC CONTROL	LS	1		1	See Proposal.
15	2528-8445113	FLAGGERS	EACH	0		0	
16	2533-4980005	MOBILIZATION	LS	1		1	Refer to Tab. 112_10.
17	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	872.52		872.52	
18	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	945.2		945.2	

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_03B
9/28/22

EROSION CONTROL (URBAN 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 as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,4 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 not be paid for separately.

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.

100_01D
8/15/22

PROJECT DESCRIPTION

This project is located on US 18 in Cerro Gordo County, beginning at the east exit an entrance ramps at the Eisenhower Avenue interchange. Extending east to one and one-half miles east of the US 65 interchange. Construct 6-foot wide HMA paved shoulders along inside lanes and 4-foot wide HMA paved shoulders along outside lanes. Milled shoulder rumble strips, edge and centerline pavement markings, and granular shoulders will be constructed.

102_05 9/29/23																					
EXISTING PAVEMENT																					
Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Cerro Gordo	US 18	Both	178.31	184.49	1999		NHS-18-5(69)--19-17	PCC	10.0	GSB	10.0					PORTLAND WEST	C.LST.	I		
2.0	Cerro Gordo	US 19	Both	184.49	186.15	1999		NHS-18-5(123)--19-17	PCC	10.0	GSB	10.0					PORTLAND WEST	C.LST.	I		
3.0	Cerro Gordo	US 20	Both	186.15	190.83	1999		NHS-18-5(71)--19-17	PCC	10.0	GSB	10.0					PORTLAND WEST	C.LST.	I		

<div>105_04 4/21/26</div> <div>STANDARDS</div> <div>The following Standards apply to construction work on this project.</div>		
Number	Date	Title
BA-200	4/21/2026	Steel Beam Guardrail Components
BA-201	10/18/2022	Steel Beam Guardrail Barrier Transition Section (MASH TL-3)
BA-202	4/15/2025	Steel Beam Guardrail Bolted End Anchor
BA-205	10/17/2023	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-221	10/18/2022	Steel Beam Guardrail Barrier Transition Section (MASH TL-2)
BA-250	10/21/2025	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
EW-301	4/16/2024	Guardrail Grading
PM-110	10/15/2024	Line Types
PM-115	4/15/2025	Grooving for Line Types
PM-310	04/15/25	Entrance and Exit Ramps
PM-560	10/15/2024	Divided Multi-Lane Roadway with no Turn Lanes
PV-12	4/16/24	Milled Shoulder Rumble Strips
PV-203	4/21/2020	HMA Base Widening
SI-173	4/19/2016	Object Markers
SI-211	10/18/2022	Object Marker and Delineator Placement with Guardrail
TC-1	10/15/2019	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-402	4/18/2023	Work Within 15 ft of Traveled Way
TC-416	10/15/2019	Partial Lane Closure on Ramps
TC-418	4/18/2023	Lane Closure on Divided Highway
TC-432	10/17/2017	Shoulder Rumble Strip Operations
TC-433	10/17/2017	Pavement Marking Operations

107_23

8/15/22

GRADING FOR GUARDRAIL INSTALLATIONS

Refer to EW-301.

(1) Lane(s) to which the installation is adjacent.

Line No.	Direction of Traffic (1)	Station	Side	Foreslope at Guardrail	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	X3 (FT)	Y3 (FT)	X4 (FT)	Y4 (FT)	Z (FT)	Excavation Class 10 (CY)	Embankment-in-Place (CY)	Remarks
1.0	WB	203+72.15	Left	4	53.1	5.0					234.4	7.5	47.0		56.2	metric sta.
2.0	WB	203+70.15	Right	4	53.1	5.0					234.4	7.5	47.0		56.2	metric sta.
Total:															112.4	

108_08A
4/25/25

STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION

Possible Standards: BA-200, BA-201, BA-202, BA-205, BA-206, BA-209, BA-210, BA-211, BA-221, BA-225, BA-250, BA-260, LS-625, LS-626, LS-630, LS-635, SI-172, SI-173 and SI-211.

(1) Lane(s) to which the obstacle is adjacent.
(2) Not a bid item. Incidental to guardrail installation.

Line No.	Direction of Travel (1)	Side	Station	Offset (FT)	Barrier Transition Section	Barrier Transition Section (EA)	End Terminal	End Terminal Count (EA)	VT1 (LF)	VF (LF)	VT2 (LF)	ET (LF)	BA-211 Station	BA-211 (Type)	SI-211 (Type) (2)	Delineator SI-172 Type 1 (EA) (2)	Object Marker Type 2 (EA) (2)	Object Marker Type 3 Lt (EA)(2)	Object Marker Type 3 Rt (EA)(2)	Bolted End Anchor BA-202 (Type)	Bolted End Anchor BA-202 (EA)	Post Adapter BA-210 (EA)	Steel Beam Guardrail BA-200 (LF)	Remarks
1.0	WB	Left	203+70.15	21.5	BA-201	1	BA-205	1	53.125	25.00	156.25	47.70		2	2		11		1	C	1		25.0	
2.0	WB	Median	203+72.18	19.7	BA-201	1	BA-205	1	53.125	25.00	118.75	47.70		2	2		8	1		C	1		25.0	

<div>108_22 11/25/25</div> <div>PAVEMENT MARKING LINE TYPES</div> <div>Line factors based on 6-inch wide continuous line. *BCY4 - Place on the same side of the roadway to match existing markings near the project. **NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field. ***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area. BCY4: Broken Centerline (Yellow) @ 0.17 BCY6: Broken Centerline (Yellow) @ 0.25 BLC6: Broken Line Contrast (White/Black) @ 0.50 BLW4: Broken Lane Line (White) @ 0.17 BLW6: Broken Lane Line (White) @ 0.25 CBW6: Crosswalk Bar (White) @ 10.00 CHW8: Channelizing Line (White) @ 1.33 CHW10: Channelizing Line (White) @ 1.67 CHY8: Channelizing Line (Yellow) @ 1.33 CHY10: Channelizing Line (Yellow) @ 1.67 CLW6: Crosswalk Line (White) @ 2.00 DCY4: Double Centerline (Yellow) @ 1.34 DCY6: Double Centerline (Yellow) @ 2.00 DDY4: Double Dotted Line (Yellow) @ 0.44 DDY6: Double Dotted Line (Yellow) @ 0.67 DLW4: Dotted Line (White) @ 0.22 DLW6: Dotted Line (White) @ 0.33 DLY4: Dotted Line (Yellow) @ 0.22 DLY6: Dotted Line (Yellow) @ 0.33 ELW4: Edge Line Right (White) @ 0.67 ELW6: Edge Line Right (White) @ 1.00 ELY4: Edge Line Left (Yellow) @ 0.67 ELY6: Edge Line Left (Yellow) @ 1.00 LDW8: Lane Drop (White) @ 0.33 LDW10: Lane Drop (White) @ 0.42 MNY6: Median Nose (Yellow) @ 1.00 NPY4: No Passing Zone Line (Yellow) @ 0.84 NPY6: No Passing Zone Line (Yellow) @ 1.25 RLW4: Ramp Edge Line Right (White) @ 0.67 RLW6: Ramp Edge Line Right (White) @ 1.00 RLY4: Ramp Edge Line Left (Yellow) @ 0.67 RLY6: Ramp Edge Line Left (Yellow) @ 1.00 SLW2: Stop Line (White) @ 4.00 SLW4: Solid Lane Line (White) @ 0.67 SLW6: Solid Lane Line (White) @ 1.00 SPW4: Sloped Curb 4" (White) @ 2.16 SPW6: Sloped Curb 6" (White) @ 2.28 SPY4: Sloped Curb 4" (Yellow) @ 2.16 SPY6: Sloped Curb 6" (Yellow) @ 2.28 STW6: Standard Curb 6" (Yellow) @ 2.03 STY6: Standard Curb 6" (Yellow) @ 2.03 YLW2: Yield Line (White) @ 1.15</div>															
Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	BLW6 Factored (STA)	CHW10 Factored (STA)	DLW6 Factored (STA)	ELW6 Factored (STA)	ELY6 Factored (STA)	Remarks
															Stations in Metric/ Bid Quantities in English
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint	x		x	Yes	436.26				218.13	218.13	
US 18	149+82.80	216+31.50	EB	Waterborne/Solvent Paint	x		x	Yes	436.26				218.13	218.13	
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint		x		Yes	54.53	54.53					
US 18	149+82.80	216+31.50	EB	Waterborne/Solvent Paint		x		Yes	54.53	54.53					
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint		x		Yes	8.06		7.43	0.63			To be used at US 65 WB off ramp
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint		x		Yes	9.10		9.10				To be used at US 65 WB on ramp
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint		x		Yes	8.19		7.43	0.76			To be used at US 65 EB off ramp
US 18	149+82.80	216+31.50	WB	Waterborne/Solvent Paint		x		Yes	9.17		9.17				To be used at US 65 EB on ramp
Total:									1016.1	109.06	33.13	1.39	436.26	436.26	

110 07A
8/15/22

REMOVAL OF STEEL BEAM GUARDRAIL						
(1) Lane(s) to which the installation is adjacent.						
(2) Includes length of End Terminals and End Anchors.						
Line No.	No.	Direction of Traffic (1)	Station From	Station To	Side	Removal of Guardrail (2) (LF)
1.0		WB	203+72.18	203+93.15	Left	68.8
2.0			203+64.27	203+70.00	Median	300.0

SHOULDERS

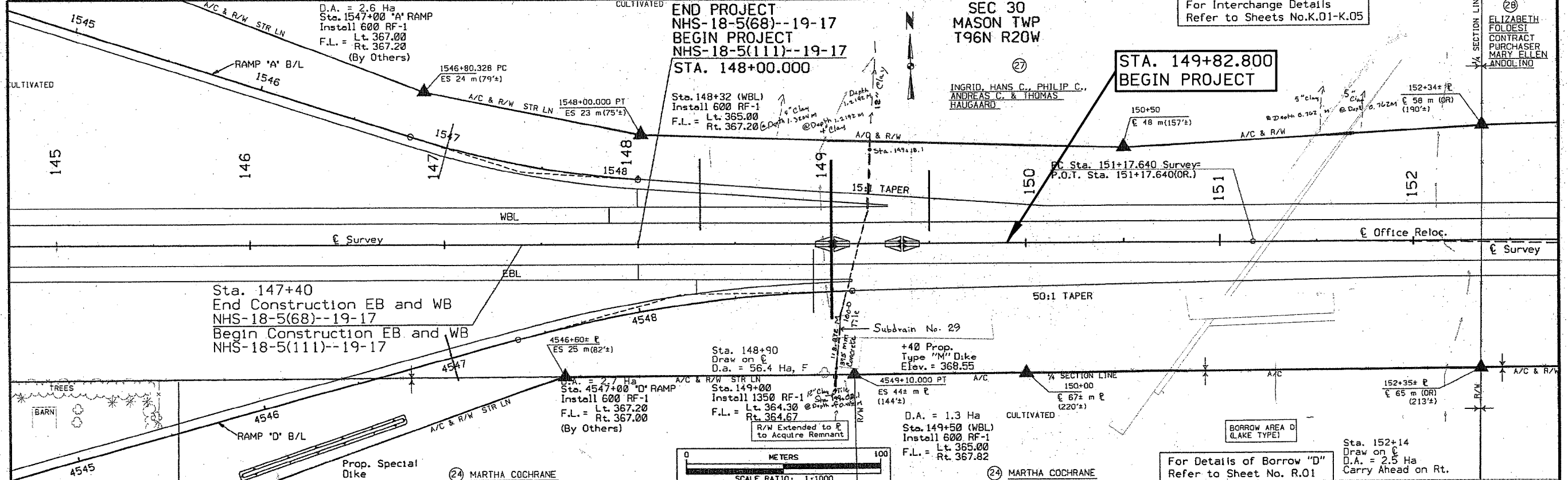
112_09
4/21/26

- (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.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Travel (1)	Station From	Station To	Side	P Width (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY) (3) (4)	Cross Section Area (SF)	HMA Unit Weight (lbs-cf)	HMA (TON)	HMA (TON/ STA)	Binder (TONS)	Shoulder at Grd rail (5) (7)	Shoulder Unit Weight (lbs-cf)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Remarks
																		Stations in Metric/ Bid Quantities in English
US 18	WB	149+82.80	153+00.00	Left	4	4	1040.70	102.8	2.67	145	201.300	19.300	12.100		140	49.000	4.690	
US 18	WB	155+32.70	167+12.46	Left	4	4	3870.60	382.3	2.67	145	748.700	19.300	44.900		140	182.000	4.690	
US 18	WB	177+60.40	184+90.00	Left	4	4	2393.70	236.4	2.67	145	463.000	19.300	27.800		140	112.300	4.690	
US 18	WB	187+90.00	196+85.00	Left	4	4	2936.40	290.0	2.67	145	567.700	19.400	34.100		140	138.000	4.690	
US 18	WB	199+00.00	203+03.13	Left	4	4	1322.60	130.6	2.67	145	255.700	19.400	15.300		140	62.000	4.690	
US 18	WB	204+49.72	216+31.50	Left	4	4	3877.20	382.9	2.67	145	749.600	19.400	45.000		140	181.800	4.690	
US 18	WB	149+82.80	153+00.00	Right	6		1040.70	154.2	4.00	145	301.900	29.000	18.100					
US 18	WB	155+39.91	167+14.06	Right	6		3852.20	570.7	4.00	145	1117.700	29.000	67.100					
US 18	WB	177+60.40	203+02.13	Right	6		8339.00	1235.5	4.00	145	2419.500	29.000	145.200					
US 18	WB	204+47.72	216+31.50	Right	6		3883.80	575.4	4.00	145	1126.900	29.000	67.600					
US 18	EB	149+82.80	152+82.85	Left	6		984.40	145.8	4.00	145	285.600	19.300	17.100					
US 18	EB	154+64.43	166+92.06	Left	6		4027.70	596.7	4.00	145	1168.600	29.000	70.100					
US 18	EB	177+60.40	201+26.50	Left	6		7762.80	1150.1	4.00	145	2252.300	29.000	135.100					
US 18	EB	204+14.58	216+31.50	Left	6		3992.50	591.5	4.00	145	1158.400	29.000	69.500					
US 18	EB	149+82.80	152+92.44	Right	4	4	1015.90	100.3	2.67	145	196.400	19.400	11.800		140	48.000	4.690	
US 18	EB	154+64.43	166+92.06	Right	4	4	4027.70	397.8	2.67	145	778.700	19.400	46.700		140	189.000	4.690	
US 18	EB	177+60.40	186+90.48	Right	4	4	3051.40	301.4	2.67	145	590.000	19.400	35.400		140	143.000	4.690	
US 18	EB	188+65.00	197+20.00	Right	4	4	2805.10	277.1	2.67	145	542.600	19.300	32.600		140	132.000	4.690	
US 18	EB	200+20.00	201+26.50	Right	4	4	349.40	34.5	2.67	145	67.600	19.300	4.100		140	16.000	4.690	
US 18	EB	204+14.58	216+31.50	Right	4	4	3992.50	394.3	2.67	145	772.300	19.300	46.300		140	187.000	4.690	
US 18	WB	203+72.18	204+46.24	Left	8.2		74.10	16.9						67.5				9 inch guardrail shoulder
US 18	WB	203+70.15	204+44.21	Right	8.2		74.10	16.9						67.5				9 inch guardrail shoulder
Total:								8084.1			15764.5		945.9	135		1440.1		

MILLED RUMBLE STRIPS											112_10 4/15/25
* Calculated at 18" width for Shoulder. ** For use with penetrating Engineered Fog Seal. Calculated at 2" wider than rumble strips.											
Road Identification	Station From	Station To	Shoulder Pavement Type	Rumble Strip Lane	Rumble Strip Type	Fog Seal Type	L (IN)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Fog Seal (SY)**	Remarks
											Stations in Metric/ Bid Quantities in English
US 18	149+82.80	216+31.50	HMA	Left Shoulder	Milled	Asphalt Emulsion	12"	218.13	236.3	2423.7	WB lanes
US 18	149+82.80	216+31.50	HMA	Right Shoulder	Milled	Asphalt Emulsion	12"	218.13	236.3	2423.7	WB lanes
US 18	149+82.80	216+31.50	HMA	Left Shoulder	Milled	Asphalt Emulsion	12"	218.13	236.3	2423.7	EB lanes
US 18	149+82.80	216+31.50	HMA	Right Shoulder	Milled	Asphalt Emulsion	12"	218.13	236.3	2423.7	EB lanes
Total:								872.52	945.2		

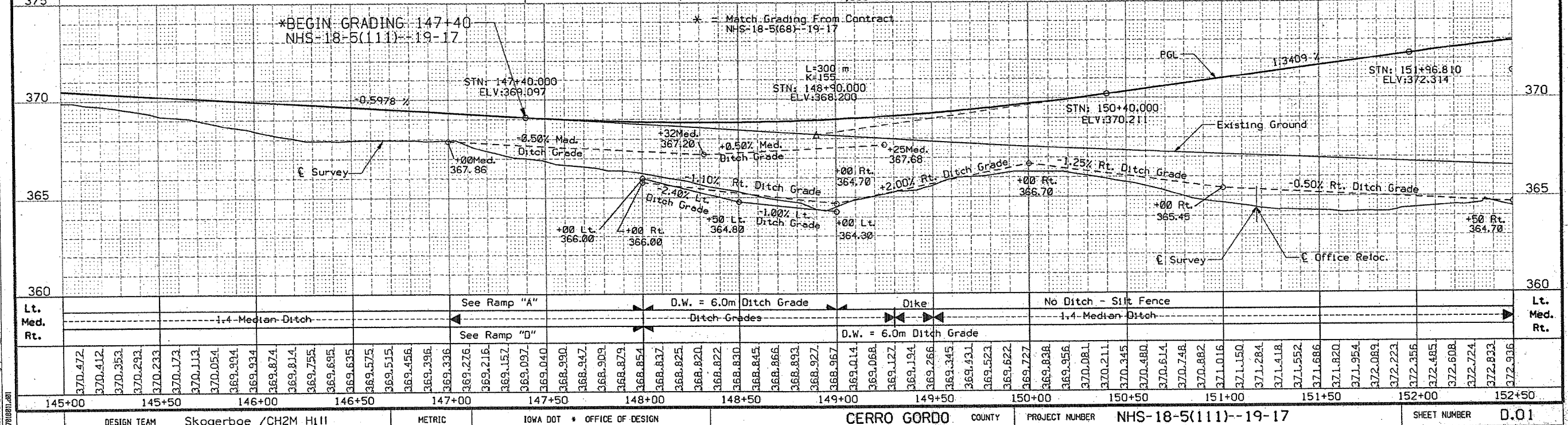
01-JUL-1997 15:07:29



RAMPS			
SUITABLE	Cut(A) = 0 m3	Fill + 30%(A) = 188 m3	From Borrow "D" = 0 m3
	Cut(D) = 638 m3	Fill + 30%(D) = 450 m3	
+40	From Borrow "D" = 6,509 m3	Fill + 25% = 6,509 m3	
UNSUITABLE	From Ramp "D" = 188 m3	To Ramp "A" = 188 m3	
	7,335 m3	7,335 m3	

Cut = 70,840 m3	Fill + 30% = 70,840 m3
From Borrow "D" = 0 m3	Fill + 25% = 0 m3
70,840 m3	70,840 m3

Cut = 774 m3	Fill + 30% = 774 m3
From Borrow "D" = 30,226 m3	Fill + 25% = 30,226 m3
31,000 m3	31,000 m3



DESIGN TEAM Skogerboe /CH2M Hill

METRIC

IOWA DOT * OFFICE OF DESIGN

CERRO GORDO COUNTY

PROJECT NUMBER NHS-18-5(111)--19-17

SHEET NUMBER D.01

AS-BUILT PLANS, FOR INFORMATION ONLY 4-97

FILE NO.

ENGLISH

DESIGN TEAM Rolando/Nie

Cerro Gordo

COUNTY

PROJECT NUMBER HSI PX-018-5(157)--3L-17

SHEET NUMBER D.1

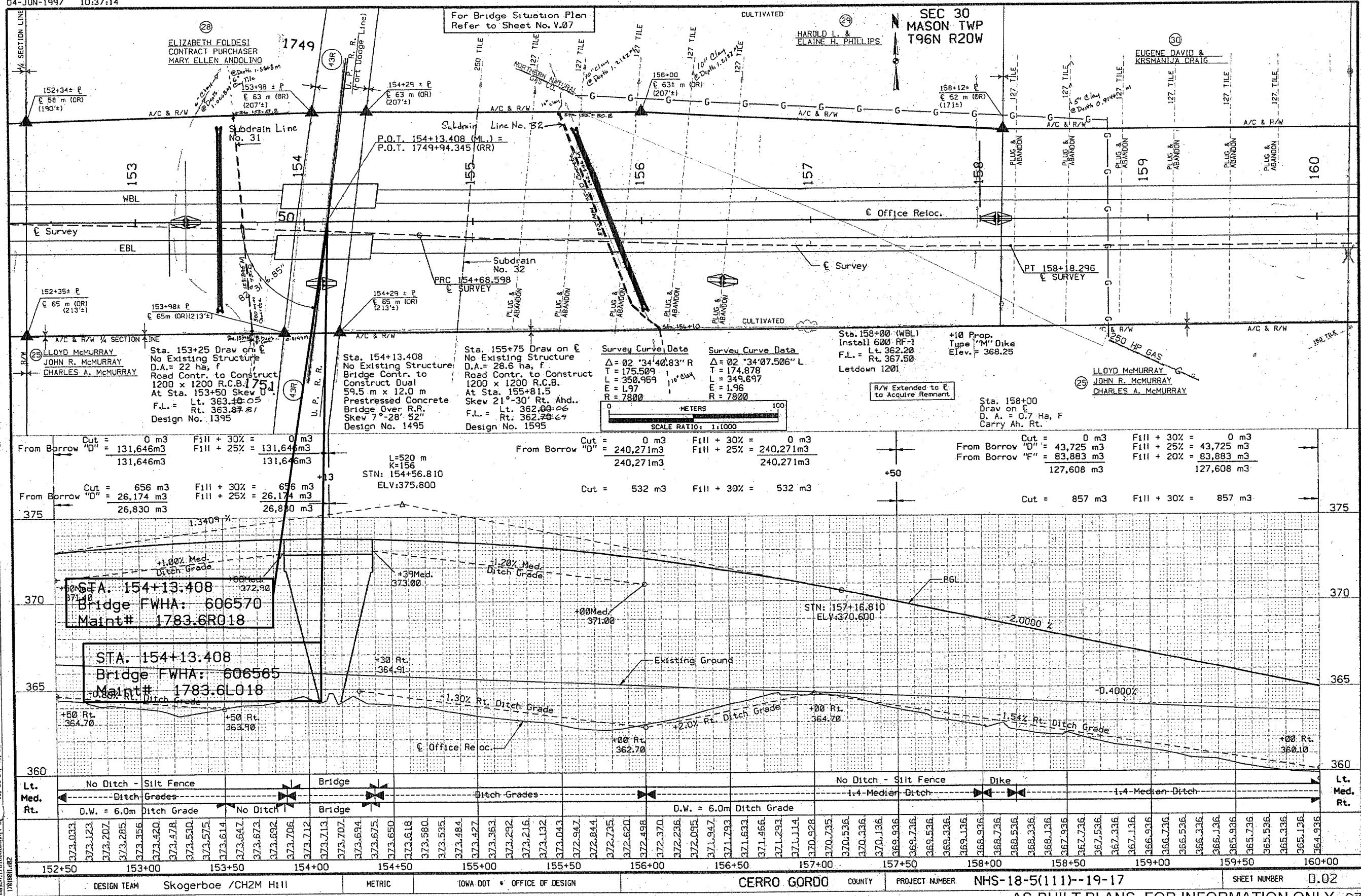
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12/30/2025

dnie

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JUL 09 1997

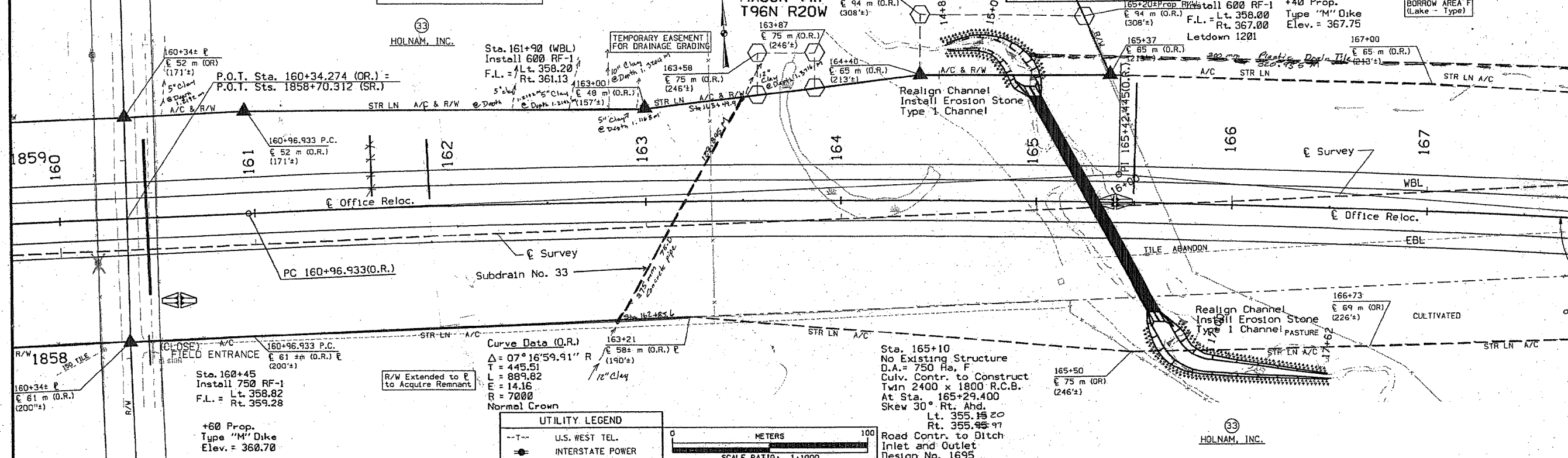


JUL 09 1997

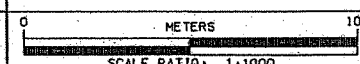
AS-BUILT PLANS, FOR INFORMATION ONLY -97-

For Details of Borrow "F"
Refer to Sheet no. R.10

SEC 29
MASON TWP

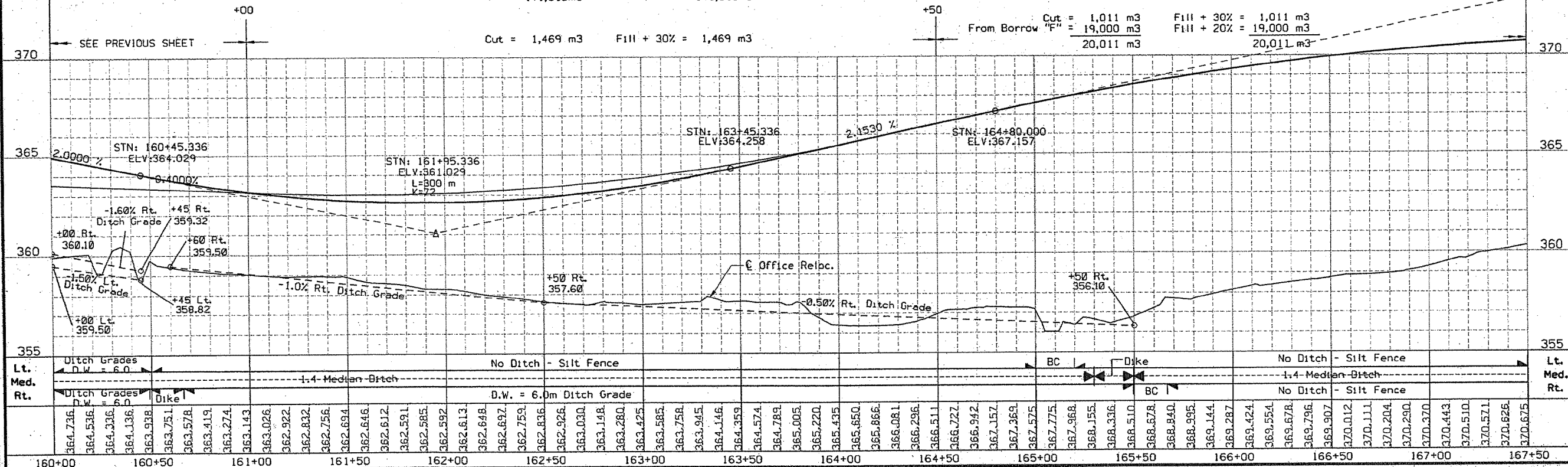


UTILITY LEGEND	
—T—	U.S. WEST TEL.
—●—	INTERSTATE POWER



From Borrow	Cut "F" =	306 m3	Fill + 30% =	306 m3
		141,007m3	Fill + 20% =	141,007m3
		<u>141.313m3</u>		<u>141.313m3</u>

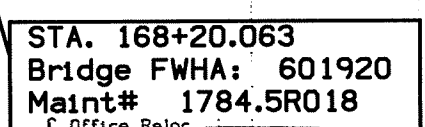
From Borrow	Cut "F" = 773 m3 = 327,468m3 328,241m3	Fill + 30% = 773 m3 Fill + 20% = 327,468m3 328,241m3
From Borrow	Cut "F" = 1,011 m3 = 19,001 m3 20,011 m3	Fill + 30% = 1,011 m3 Fill + 20% = 19,000 m3 20,011 m3



4661 6072

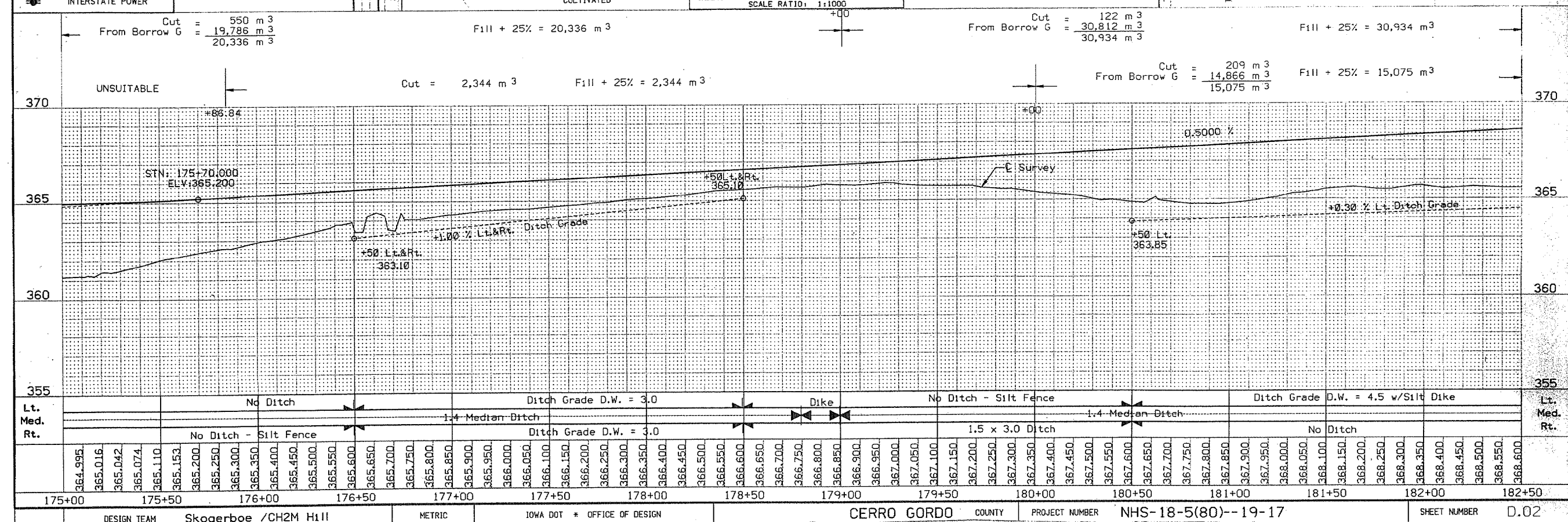
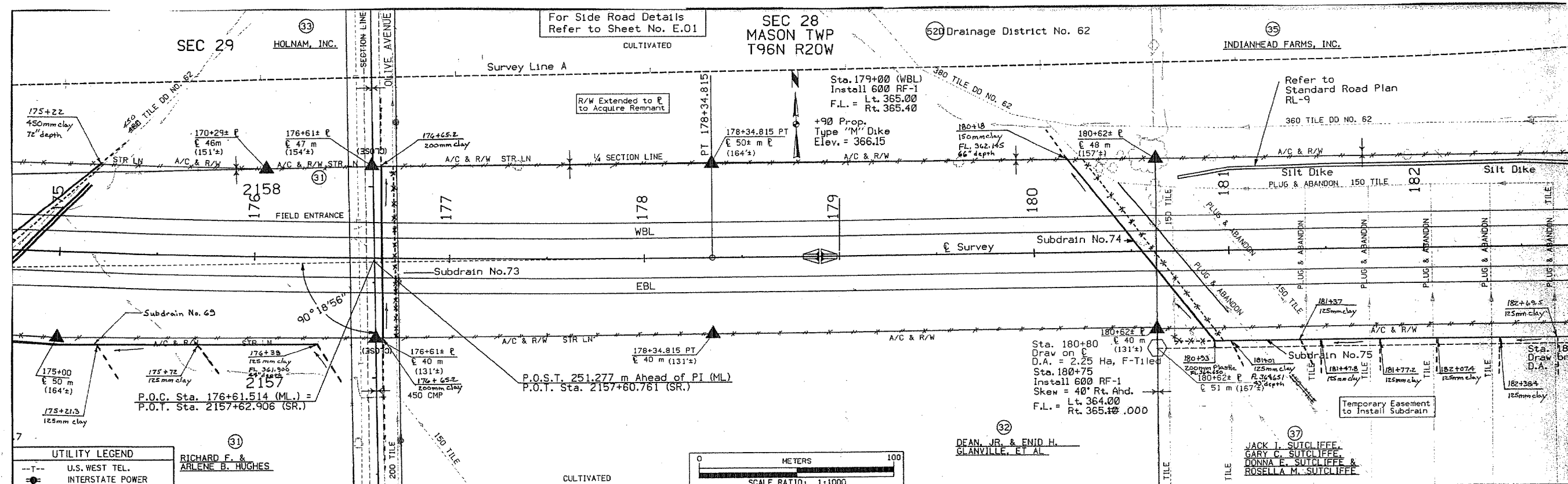
Curve Data (Survey)

$\Delta = 06^\circ 56' 29.24''$	L
$T = 424.549$	---
$L = 848.059$	
$E = 12.863$	
$R = 7000.000$	
Normal Crown	

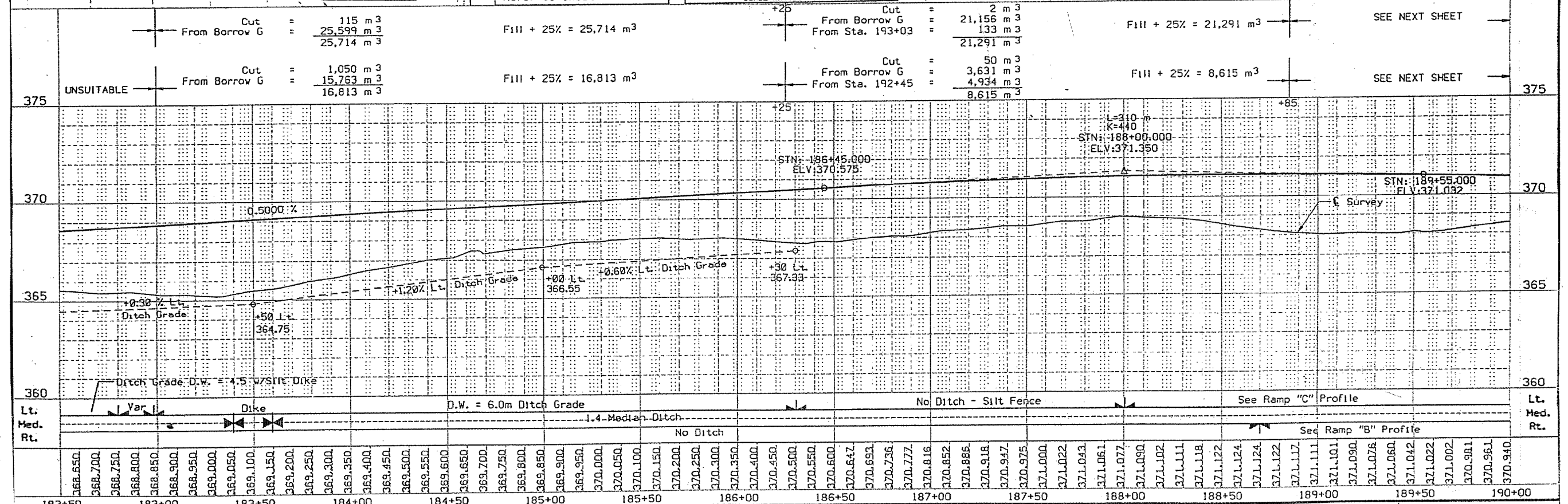


DESIGN TEAM	Skogerboe /CH2M Hill	METRIC	IOWA DOT * OFFICE OF ROAD DESIGN	CERRO GORDO	COUNTY	PROJECT NUMBER	NHS-18-5(111)--19-17	SHEET NUMBER	D.0
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AS-BUILT PLANS FOR INFORMATION ONLY



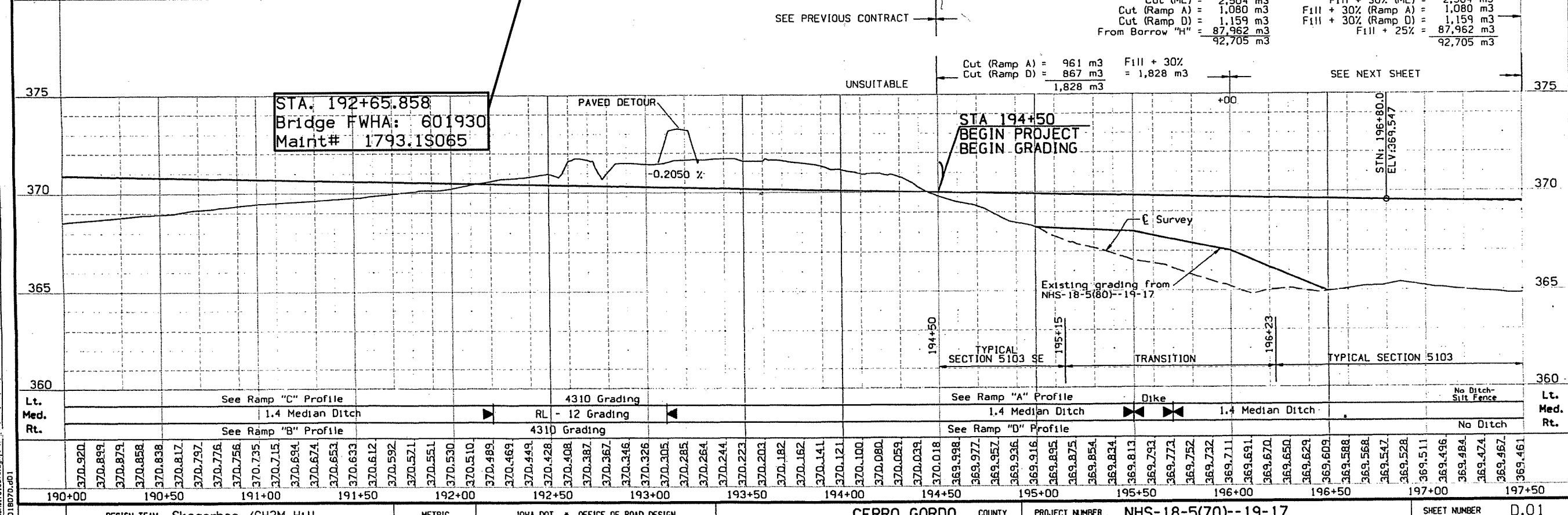
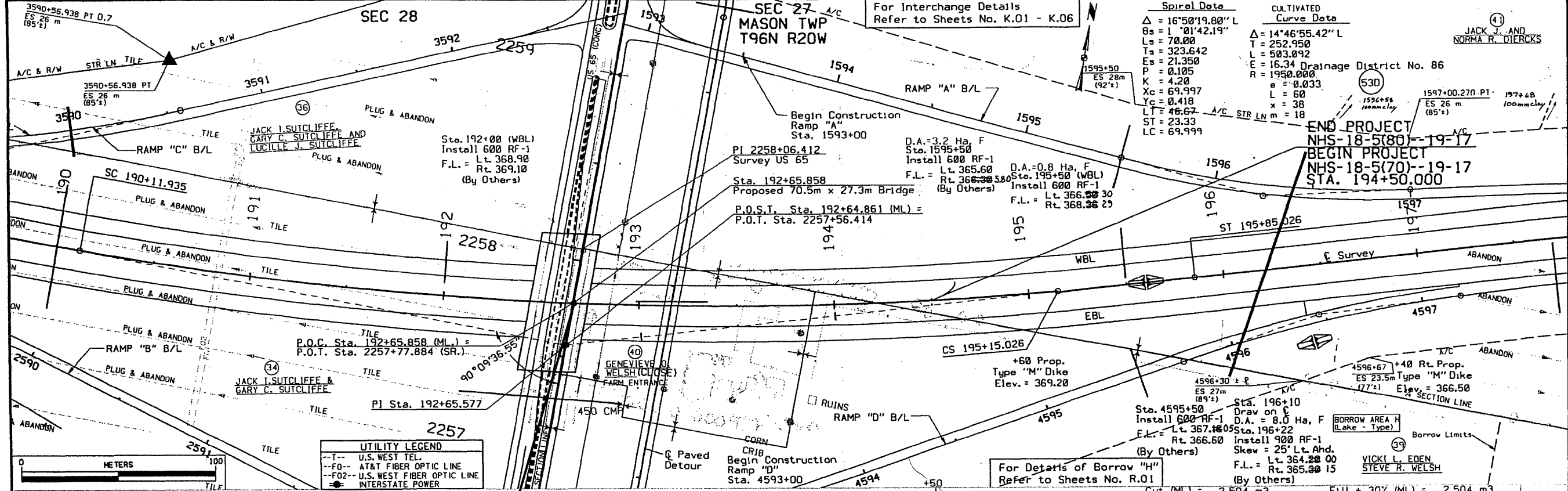
AS-BUILT PLANS, FOR INFORMATION ONLY_



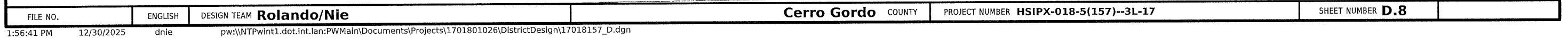
D.03

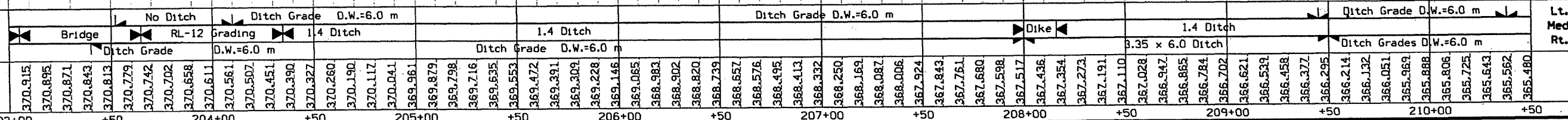
SHEET NUMBER **D.6**

08-NOV-1996 09:26:17



NOV 18 1996





26-JUL-1996 11:16:45

SEC. 26

MASON TWP.
T96N R20W
SEC. 26

STA. 216+31.500
END PROJECT

Drainage District No. 54

R & L REALTY CO.

217

R & L REALTY CO.

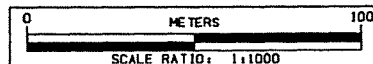
Sta. 211+53
R.R. Ditch on E
D.A. = R.R. Ditch
Carry ahd. in Rt. Ditch

Sta. 211+77
R.R. Ditch on E
D.A. = R.R. Ditch
Carry ahd. in Rt. Ditch

Sta. 212+50 EBL
Install 600 RF-1
F.L. = Rt. 361.425 Elev. = 363.10

Sta. 214+62
D.A. = 149 ha F
Sta. 214+69.0 & 214+72.8
Skew = 27° Rt. Ahd.
+69 F.L. = Rt. 358.4130
Lt. 358.5747
+72.8 F.L. Lt. 358.36
Rt. 358.51

Sta. 216+50.0 WBL EBL
Install 600 RF-1
F.L. = Lt. 359.9591
Rt. 359.8958



Cut = 3,408m3
From Borrow "A" = 40,337m3
43,755m3

Fill + 30% = 3,408m3
Fill + 25% = 40,337m3
43,755m3

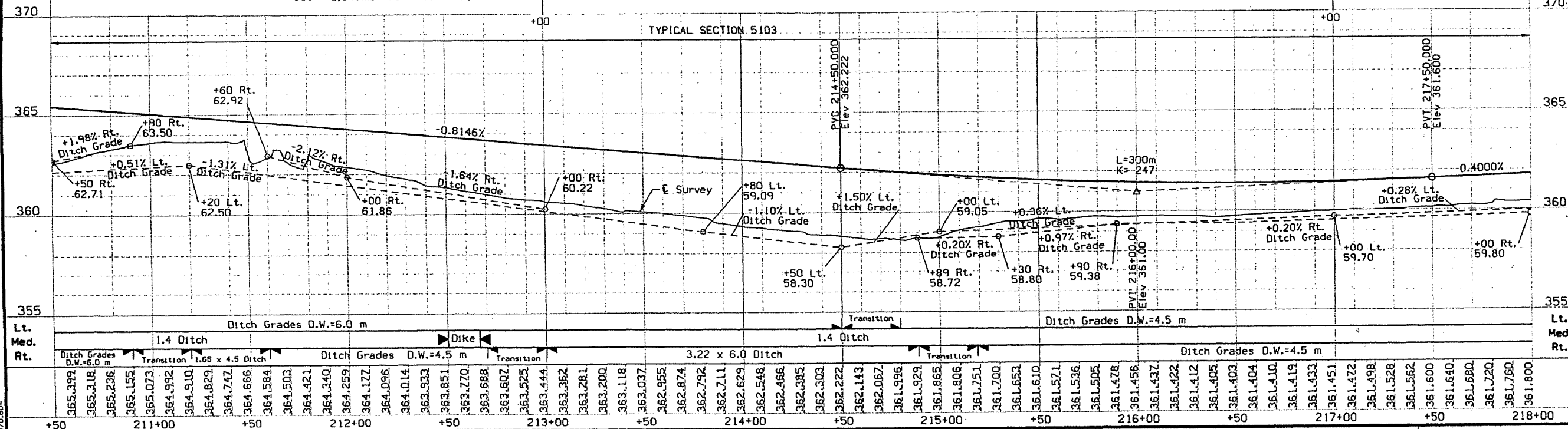
Cut = 2,318m3
From Borrow "A" = 46,535m3
48,853m3

Fill + 30% = 2,318m3
Fill + 25% = 46,535m3
48,853m3

Cut = 2,546m3 Fill +30% = 2,546m3

Cut = 1,695m3 Fill +30% = 1,695m3

SEE NEXT SHEET



DESIGN TEAM Skogerboe /CH2M Hill

METRIC

IOVA DOT * OFFICE OF ROAD DESIGN

CERRO GORDO COUNTY

PROJECT NUMBER NHS-18-5(70)--19-17

SHEET NUMBER D.04

AS-BUILT PLANS, FOR INFORMATION ONLY

FILE NO.

ENGLISH

DESIGN TEAM Rolando/Nie

Cerro Gordo COUNTY

PROJECT NUMBER HSI PX-018-5(157)--3L-17

SHEET NUMBER D.10

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12/30/2025

dnle

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NOV 13 1996

108_23A
8/15/22

TRAFFIC CONTROL PLAN

Thru traffic shall be maintained at all times.

STAGING NOTES		108_26A 8/15/22
Inside (median side) shoulder construction shall be completed for westbound lane prior to beginning outside shoulder construction.		
Inside (median side) shoulder construction shall be completed for eastbound lane prior to beginning outside shoulder construction.		

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
To be discussed at precon.	