

Story County
Board of Supervisors Meeting
Agenda
1/14/20

1. CALL TO ORDER: 10:00 A.M.
2. PLEDGE OF ALLEGIANCE:
3. ADOPTION OF AGENDA:
4. PUBLIC COMMENT #1:
This comment period is for the public to address topics on today's agenda
5. Consideration Of Proclamation Declaring January As "Slavery And Human Trafficking Prevention And Awareness Month - George Belitsos

Department Submitting Board of Supervisors

Documents:

[PROCLAMATION FOR SLAVERY AND HUMAN TRAFFICKING PREVENTION AND AWARENESS WEEK.PDF](#)

6. AGENCY REPORTS:
7. CONSIDERATION OF MINUTES:
 - I. 1/2/20 & 1/7/20 Minutes

Department Submitting Auditor

8. CONSIDERATION OF PERSONNEL ACTIONS:

- I. Action Forms

1)pay adjustment, effective 1/19/20, in a)Attorney's Office for David Fountain @ \$2,693.81/bw; b)Community Services for Jennifer Kerns @ \$18.60/hr; c)Facilities Management for Matthew Miller @ \$22.55/hr; d)Sheriff's Office for Riley Auld @ \$1,780.00/bw; Dillon Combs @ \$2,930.17/bw; Marcene Hunter-Montgomery @ \$2,164.00/bw; Michael Peck @ \$2,355.20/bw

Department Submitting HR

9. CONSENT AGENDA:

(All items listed under the consent agenda will be enacted by one motion. There will be no separate discussion of these items unless a request is made prior to the time the Board votes on the motion.)

- I. Consideration For The Sheriff's Office To Decrease The Mileage Fee Charged From \$.58 To \$.575 Per Mile To Remain In Line With The Allowable Fees Permitted By The IRS

Department Submitting Sheriff

Documents:

[IRS MILEAGE CHANGE.PDF](#)

II. Consideration Of Quarterly Reports: Auditor, Recorder, Sheriff

Department Submitting Auditor

Documents:

[QTR RPT.PDF](#)

III. Consideration Of Final Design Plans For Bridge Replacement-RCB Culvert, Section 26, Collins Township, L-C26--73-85

Department Submitting Engineer

Documents:

[BRIDGE REPLACEMENT RCB CULVERT.PDF](#)

IV. Consideration Of Final Design Plans For Bridge Replacement-Twin Box, Section 20, Lincoln Township, L-LIN20--73-85

Department Submitting Engineer

Documents:

[BRIDGE REPLACEMENT TWIN BOX.PDF](#)

V. Consideration Of Final Design Plans For Culvert Replacement, Section 21, Indian Creek Township, L-(IC21)--73-85

Department Submitting Engineer

Documents:

[CULVERT REPLACEMENT.PDF](#)

VI. Consideration Of Final Design Plans For HMA Pavement - Grade And New, Section27, Palestine Township, L-P27--73-85

Department Submitting Engineer

Documents:

[HMA PAVEMENT PALENSTINE.PDF](#)

VII. Consideration Of Final Design Plans For HMA Resurfacing, Section 24, Nevada Township, L-HG2--73-85

Department Submitting Engineer

Documents:

[HMA RESURFACING HICKORY GROVE.PDF](#)

- VIII. Consideration Of Final Design Plans For HMA Pavement-Grade And New, Section 27, Palestine Township, L-P27--73-85

Department Submitting Engineer

Documents:

[HMA PAVEMENT GRADE AND NEW.PDF](#)

- IX. Consideration Of Final Design Plans For HMA Resurfacing, Sections 13/24, Nevada Township And Section 18/19, New Albany Township, LFM-C085(HG)--7X-85

Department Submitting Engineer

Documents:

[HMA RESURFACING 680TH AVE HG.PDF](#)

- X. Consideration Of License Fees Between Story County And Skillsets Online For IT Training, Effective 12/23/19-12/22/22 For \$4,995.00

Department Submitting Information Technology

Documents:

[SKILLSETS TRAINING.PDF](#)

- XI. Consideration Of Resolution #20-58, Setting A Public Hearing On Tuesday, February 11th, 2020 To Receive Comments On The Paving Projects L-P27--73-85: 535th Ave. And L-U30--73-85: 560th Ave With In Story County

Department Submitting Engineer

Documents:

[PAVING PROJECTS.PDF](#)

- XII. Consideration Of Renewal Of Class A Liquor License (LA)(Private Club) For Indian Creek Country Club, 63012 260th St., Nevada, Ia., Effective 3/19/20-3/18/21 Including Outdoor Service And Sunday Sales

Department Submitting Auditor

Documents:

[ICCC LIC.PDF](#)

- XIII. Consideration Of Contract For Highway Right Of Way With Dawn M Bovenmyer, Daniel R Knaphus, Kistopher M Knaphus, Deborah C Raines, And George & Marie Knaphus Trust For The Purchase Of Permanent Easement For \$304.36 (L-LIN20--73-85)

Department Submitting Engineer

Documents:

[CTR KNAPHUS REC TRUST.PDF](#)

- XIV. Consideration Of Contract For Highway Right Of Way With Jack E Titus And Ann M Titus For The Purchase Of Permanent Easement For \$211.24 (L-C26--73-85)

Department Submitting Engineer

Documents:

[CTR JACK E TITUS AND ANN M TITUS.PDF](#)

- XV. Consideration Of Contract For Highway Right Of Way With Barbara Darlene Marshall For The Purchase Of Permanent Easement For \$434.73 (L-IC21--73-85)

Department Submitting Engineer

Documents:

[CTR ROW MARSHALL.PDF](#)

- XVI. Consideration Of Utility Permit(S): #20-4661; 20-4662; 20-4664 Consent

Department Submitting Engineer

Documents:

[UT 20 4661.PDF](#)
[UT 20 4662.PDF](#)
[UT 20 4664.PDF](#)

10. PUBLIC HEARING ITEMS:

- I. Bid Opening For Justice Center Jail Housing HVAC- Joby Brogden & Jeff Harris, RMH Architects

Department Submitting Facilities Management

11. ADDITIONAL ITEMS:

- I. Discussion And Consideration Of Hearing Conservation Program For Story County - Todd Lundvall

Department Submitting Board Of Supervisors

Documents:

[HEARINGCONSERVATIONPROGRAM.PDF](#)

12. DEPARTMENTAL REPORTS:

I. Engineer Quarterly Report - Darren Moon

Department Submitting Auditor

Documents:

[ENGINEER QTR.PDF](#)

13. OTHER REPORTS:

I. Story County FY20 Quarterly Financial Report - Lisa Markley

Department Submitting Auditor

Documents:

[QUARTERLY STORY COUNTY FINANCIAL REPORT FY20.PDF](#)

14. UPCOMING AGENDA ITEMS:

15. PUBLIC FORUM #2:

Comments from the Public on Items not on this Agenda. The Board may not take any Action on the Comments due to the Requirements of the Open Meetings Law, but May Do So In the Future.

16. LIAISON ASSIGNMENTS, COMMITTEE MEETINGS UPDATES, AND ANNOUNCEMENTS FROM THE SUPERVISORS:

17. ADJOURNMENT:

Story County strives to ensure that its programs and activities do not discriminate on the basis of race, color, national origin, sex, age or disability. Persons requiring assistance, auxiliary aids or services, or accommodation because of a disability may contact the county's ADA coordinator at (515) 382-7204.

PROCLAMATION

Proclamation for Slavery and Human Trafficking Prevention and Awareness Week

Whereas, the United States was founded upon the principle that all people are created with the unalienable right to freedom, and added the 13th Amendment to the Constitution making slavery illegal;

Whereas slavery within the United States today is most often found in the form of forced labor and sex trafficking, which weakens our social fabric, increases violence in organized crime, and debases our humanity;

Whereas this heinous crime is found within our own community;

Whereas the Iowa Network Against Human Trafficking has been working for 10 years to abolish all forms of human trafficking through education, volunteerism, advocacy and collaboration.

Whereas every business, community organization, faith community, family and individual can make a difference by choosing products that are not made by forced labor; by working to protect our young people from sexual exploitation; by addressing the problem of internet sex trafficking and pornography; and by becoming more aware of the problem and possible solutions;

NOW, THEREFORE, BE IT RESOLVED THAT We, the Story County Board of Supervisors, do hereby proclaim the week of January 12-18, 2020, as Slavery and Human Trafficking Prevention and Awareness Week, and encourage all our citizens to become more informed on this growing problem, to be vigilant and report suspicious activity, and to work towards solutions to end trafficking in all its forms in our community.

If you see something that doesn't look right, take action and call the National Human Trafficking Hotline at 888-373-7888.

SIGNATURE DATE

SIGNATURE DATE

SIGNATURE DATE





Sheriff's Office

Story County
PAUL H. FITZGERALD, Sheriff



Emergency 911 • Office: 515-382-6566 • Fax #: 515-382-7479 • 1315 S. B Ave. Nevada, Iowa 50201

January 3, 2020

Linda Murken, Chair
Story County Board of Supervisors
Lauris Olson
Lisa Heddens

Dear Board of Supervisors:

It has come to the attention of my office, effective January 1, 2020 the IRS decreased their mileage rate from \$.58 to \$.575. As you are aware the Sheriff's mileage fee is governed by the Code of Iowa, Chapter 331.655(1)(j). Code of Iowa, Chapter 70A.9 states we may charge a mileage fee up to the maximum allowed under federal internal revenue service rules. To remain in line with the allowable fees permitted by the IRS, we would like to change our current \$.58 per mile to \$.575 per mile.

Therefore, we request your approval to decrease the current mileage fee charged to the rate of \$.575 to be effective immediately.

Respectfully,

A handwritten signature in blue ink that reads "Paul H. Fitzgerald".

Paul H. Fitzgerald
Story County Sheriff

Jan 2, 2020 4:12:10 PM

Printed By: PRUD4779 from: S851

APSH.

ATTN ALL STATE OF IOWA SHERIFF'S OFFICES CIVIL DIVISIONS

IRS ALLOWABLE MILEAGE RATE HAS BEEN CHANGED TO 57.5 CENTS PER MILE EFFECTIVE
JANUARY 1ST, 2020.

AUTHORITY SGT ROWLAND 57-5
LINN CO SHERIFFS OFFICE
S571/AB

;202001021610/202001021610
S851 143
MESSAGE FROM S571
230971

COUNTY AUDITOR'S REPORT OF FEES COLLECTED

STATE OF IOWA }
STORY COUNTY }

TO THE BOARD OF SUPERVISORS OF STORY COUNTY:

Pursuant to the Code of Iowa, Chapter 331.902, Collection and Disposition of Fees collected, I, Lucy Martin, Auditor of the above named County and State, do hereby certify that the following is a true and correct statement of fees collected by me in my office for the quarter ending December 31, 2019 and the same has been paid to the Story County Treasurer.

For Elections for Other Entities Elections		\$ 58,500.41
Misc Elections	145.00	
City/School Elections	41,457.11	
Special Elections	16,898.30	
For Other Office Fees		\$ 3,756.16
Plat Books	110.00	
Computer Lists		
Fiscal Agent Fees	3,630.66	
Map Copies		
Copies	15.50	
Miscellaneous		
	TOTAL	\$ 62,256.57

Treasurer's Receipts for the above are attached.



LUCY MARTIN
Story County Auditor
January 3, 2020

COUNTY RECORDER'S REPORT OF FEES COLLECTED FOR 2nd QUARTER
FISCAL YEAR 2019-2020

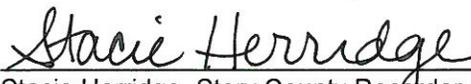
STATE OF IOWA}
COUNTY OF STORY}

TO: THE STORY COUNTY BOARD OF SUPERVISORS

Pursuant to the Code of Iowa, Chapter 331.902, Collection and Disposition of Fees, I, Stacie Herridge, Recorder of the above-named County and State do hereby certify that the following is a true and correct statement of the fees collected by me in my office for the 2nd Fiscal Quarter ending Dec. 31, 2019, and the same has been paid to the County Treasurer.

Change of Title Fees	01000-08000-4100-07	\$3,930.00
Records Management Fees	27000-08000-4140-07	\$3,519.00
Electronic Transaction Fees	56000-08000-4160-07	\$3,519.00
Real Estate Transfer Tax	01000-08000-4040-07	\$31,756.94
Recording Fees	01000-08000-4000-07	\$80,213.00
Snowmobile Fees	01000-08000-4010-07	\$586.25
Boat Fees	01000-08000-4020-07	\$110.00
Hunting & Fishing Fees	01000-08000-4030-07	\$18.00
UCC Fees	01000-08000-4050-07	\$0.00
Copy Fees	01000-08000-4060-07	\$757.50
ATV Fees	01000-08000-4070-07	\$735.00
Vital Records Fees	01000-08000-4130-07	\$5,936.00
Passport Fees	01000-08000-4150-07	\$10,185.00
Boat Title Fees	01000-08000-4120-22	\$80.00
Interest	01000-00054-6000-07	\$53.65
Overages	01000-00055-8220-07	\$252.10
DNR Fees	01000-08000-4080-07	\$0.00
Total paid to Story County Treasurer		\$141,651.44

All of which is respectfully submitted this 6th day of January, 2020.



Stacie Herridge, Story County Recorder

Subscribed and sworn to before me, the undersigned, and filed in my office this 6th day of January, 2020.



Lucy Martin, Story County Auditor

**Story County Sheriff's Report
Total Income Earned
For the Quarter Ending December 31, 2019**

Civil Fees (01000-01000-4400-05)	\$28,124.82
Civil Fees (Credit Card)	1,362.82
Permits to Carry Concealed Weapon (01000-01000-4410-05)	\$4,540.00
Permits to Carry Concealed Weapon (Credit Card)	\$3,800.00
Interest (01000-00054-6000-05)	\$59.51
Work Release (01000-01000-4400-05)	\$2,849.00

Total **\$40,736.15**

Total Paid to Story County Treasurer **\$40,736.15**



Paul H. Fitzgerald, Sheriff

Dated 12/31/2019
PHF:kan

BRIDGE REPLACEMENT-RCB CULVERT

Proj. No. L-C26--73-85

STORY COUNTY

Letting Date Feb. 25, 2020

PROJECT TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.

UTILITIES INFORMATION

UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR SHOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE AND SUBSEQUENT WORK IN THE AREA.

IOWA REGIONAL UTILITIES: 641-792-7011
CONSUMERS ENERGY: 641-754-1642

CONTRACTOR SHALL CALL ONE CALL AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. ONE CALL 1-800-292-8989

IOWA
DEPARTMENT OF TRANSPORTATION

Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE

LOCAL ROAD SYSTEM
STORY COUNTY
BRIDGE REPLACEMENT-RCB CULVERT

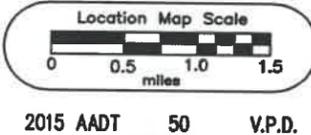
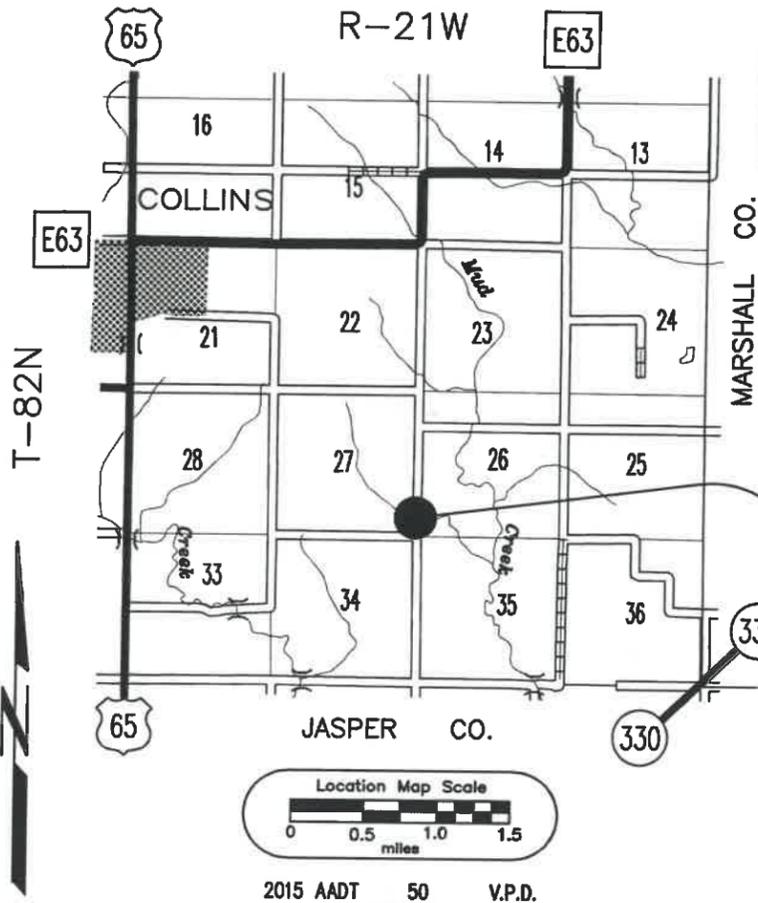
On 720th Ave. over a small stream on
the West Line of Section 26 of T82N-R21W.

Refer to Proposal Form for a list of applicable specifications.

Scales: As Noted

CORPS OF ENGINEERS PERMIT

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS Nationwide Permit No. 14. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (<http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx>). THE U.S. ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT



Project No. L-C26--73-85

INDEX OF SHEETS

No.	Description
A.01	TITLE SHEET
C.01	QUANTITY INFORMATION SHEET
C.02	GENERAL NOTES SHEET
C.03	TABULATION SHEET
C.04	CULVERT DETAIL SHEET
D.01	PLAN AND PROFILE SHEET
W.01-W.03	CROSS SECTION SHEETS

MILEAGE SUMMARY

Div.	Location	Lin. Ft.	Miles
I	STA. 5+50.00 TO STA. 7+50.00	200.00	0.038
Total		200.00	0.038

STANDARD ROAD PLANS

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

Number	Date	Title
DR-101	04-18-17	PIPE CULVERT (BEDDING AND BACKFILL)
DR-102	04-21-15	PIPE CULVERT (COVER AND CAMBER)
DR-103	04-21-15	PIPE CULVERT (INSTALLATION DETAILS)
DR-104	04-19-18	DEPTH OF COVER TABLES FOR CONCRETE AND CORRUGATED PIPE
EC-301	10-18-16	ROCK EROSION CONTROL (REC)
EW-101	10-17-17	EMBANKMENT AND REBUILDING EMBANKMENTS
TC-252	04-19-16	ROUTES CLOSED TO TRAFFIC

SEND SHOP DRAWINGS TO:

STORY COUNTY ENGINEER
837 N AVE.
NEVADA, IOWA 50201

Accepted by

Daren Mom 1-7-2020
Story County Engineer Date

PROJECT LOCATION
STA. 6+44.50
ON 720TH AVE. OVER A
SMALL STREAM ON THE
WEST LINE OF SECTION 26
OF T82N-R21W.

DESIGN FOR:
SINGLE 12'X6'X36' PRE-CAST
CONCRETE BOX CULVERT
ON 0° SKEW.



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.

Signed: *Tyler Sparks* Date: 1-7-20
Tyler Sparks, P.E. 21419
My license renewal date is December 31, 2020

Pages or sheets covered by this seal:
(Entire submission unless specified here)

Approved Story County
Board of Supervisors

PROJ No. L-C26---73-85

**ESTIMATED PROJECT QUANTITIES OF QUANTITIES
(1 DIVISION PROJECT)**

100-1A
07-15-97

ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.3
2	2102-2710070	EXCAVATION, CL 10, ROADWAY AND BORROW	CY	189.0
3	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	14.0
4	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1.0
5	2401-6750001	REMOVALS, AS PER PLAN	LS	1.0
6	2402-2720000	EXCAVATION, CLASS 20	CY	86.3
7	2415-2111206	PRECAST CONCRETE BOX CULVERT, 12 FT. X 6 FT.	LF	42.0
8	2415-2201206	PRECAST CONCRETE BOX CULVERT END SECTION, 12 FT. X 6 FT.	EACH	1.0
9	2507-3250005	ENGINEER FABRIC	SY	53.3
10	2507-6800061	REVTMENT, CLASS E	TON	46.7
11	2518-6910000	SAFETY CLOSURE	EACH	4.0
12	2528-8445110	TRAFFIC CONTROL	LS	1.0
13	2533-4980005	MOBILIZATION	LS	1.0
14	2599-9999003	REVTMENT, REMOVE STOCKPILE AND DISPOSE	CY	63.3

GENERAL NOTES

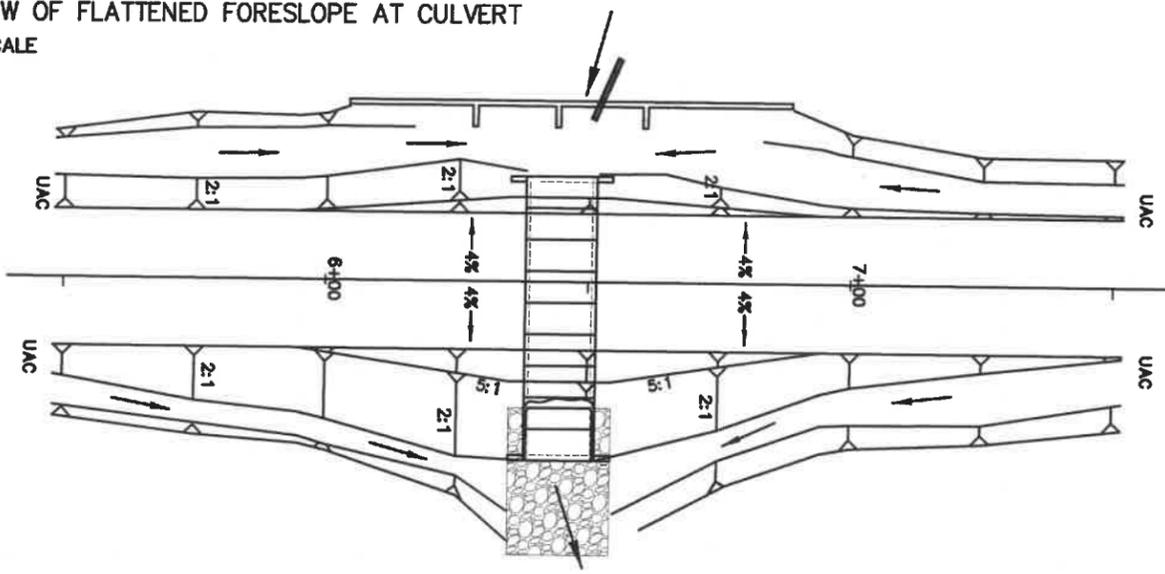
Story County to stake culvert control and right-of-way, maintain detour signing, furnish and place granular surfacing on roadway, apply seeding and mulching, and place erosion control measures.

ESTIMATE REFERENCE INFORMATION

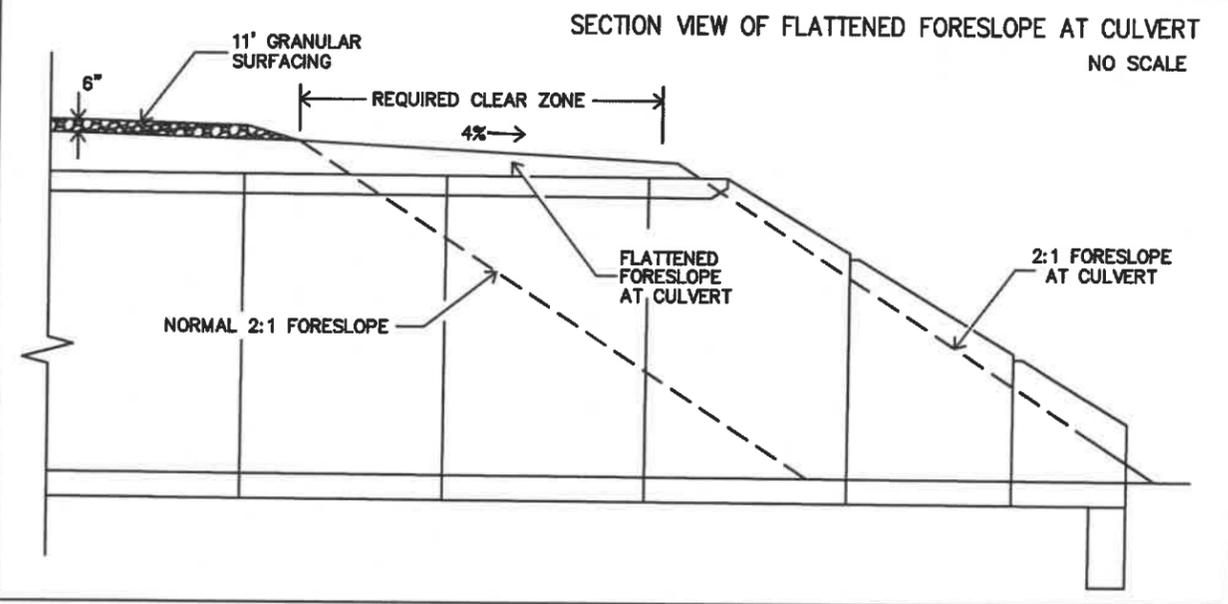
ITEM NO.	DESCRIPTION
1.	Entire project to be cleared and grubbed from BOP to EOP and from ROW line to ROW line.
2.	Plan quantity is based on approximately 189.0 CY of roadway fill (30% shrink factor) and 150.5 CY of roadway cut. Contractor shall supply 38.5 CY of borrow material to achieve dirt balance. Type A compaction required. No payment for overhaul will be made. This item includes stripping, stockpiling, and spreading topsoil. Topsoil to be spread to a minimum 4" on all disturbed areas from catch points to edge of road. Slopes to be finished smooth to allow for seeding.
3.	Item for the excavation for the outlet splash basin. Quantity estimated at 14.0 cy for excavating a basin 16'x10'x2' on the outlet. Suitable excavated material may be used to supplement the Class 10 Roadway quantity, with the approval of the Engineer.
4.	The existing structure is a single span 15'x24' treated timber beam bridge with timber abutments, wingwalls and piling, on a 0' skew. Materials from the old structure shall become the property of the Contractor according to article 1104.08 of the Standard Specifications, and removed from the site. Burying removal materials on site will not be allowed.
5.	It shall be necessary to sawcut the floor of the existing concrete retaining wall and remove that piece in order to place the last section at the inlet. This item includes all costs associated with sawcutting, removing, and disposing of the concrete floor.
6.	Item for excavation for culvert. Suitable material may be used to backfill culvert and supplement Class 10 roadway quantity with approval from the Engineer.
7.-8.	Precast RCB culvert shall be a single 12'x6'x42' culvert with a straight end section on the outlet, but no end section on the inlet to fit with existing concrete retaining wall. See Culvert Detail Sheet for section view. The culvert shall be supplied by the Contractor as per plan, which will include dropwalls. See Tabulation 104-4 on Sheet C.03 for details. All joints shall be tied flush with tie bars. Culvert requires approximately 32 Tons of 1" material for culvert bedding. Bedding material shall be incidental to this item.
9.-10.	Items for the construction of a rock splash basin, and wing armoring, at outlet. See Tabulation 100-23 on Sheet C.03 for stationing and quantities, and Typical 4404 on Sheet C.04 for details.
11.	See Tabulation 108-13A on Sheet C.02 for stationing and quantities.
12.	See Standard Road Plan TC-252 for details.
14.	Item for the removal, stockpiling, and disposal of existing broken concrete and stone revetment. Preliminary survey shows numerous pieces of broken concrete lying under the bridge, in the streambed, and on the stream banks. Quantity is an estimate only. Contractor shall be paid actual quantity by measuring the stockpile and computing its volume. Basis of Payment shall be in cubic yards as computed by measurements.

QUANTITY INFORMATION SHEET

PLAN VIEW OF FLATTENED FORESLOPE AT CULVERT
NO SCALE



SECTION VIEW OF FLATTENED FORESLOPE AT CULVERT
NO SCALE



GENERAL NOTES

GENERAL NOTES:

Contractor to construct a single 12'x6'x42' pre-cast concrete box culvert on a 0° skew on 720th Ave. over an unnamed field drainage and grade approaches.

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

Construction activities, equipment, and materials shall be kept out of the streams, wetlands, or other bodies of water to the maximum extent practicable.

CONTRACTOR'S WORK AREA:

The Contractor's work and material storage area shall be defined by the Contractor and noted to the Engineer. Any area outside the Contractor's work and material storage area that is disturbed by the Contractor shall be repaired to its original condition by the Contractor and no additional payment shall be made for this work.

UTILITY NOTES:

The Contractor shall call One Call at least 48 hours prior to beginning work. Utility companies found to be located within the construction area are listed on the title sheet of these plans. See Section 1107.15 of the Iowa DOT Standard Specifications For Highway And Bridge Construction, Series 2012, regarding utility related responsibilities.

EMERALD ASH BORER NOTE:

Dispose of all wood material generated as a result of clearing and/or grubbing according to the Iowa Department of Agriculture and Land Stewardship's Emerald Ash Borer (EAB) Quarantine Order. For more information refer to http://www.iowatreepests.com/eab_regulations.html.

INDIANA BAT HABITAT:

See Iowa DOT Specification 2101.01 for tree removal.

TABULATION OF SAFETY CLOSURES			108-13A
Refer to Section 2518 of the Standard Specifications			08-01-08
STATION	CLOSURE TYPE		REMARKS
	ROAD QTY.	HAZARD QTY.	
5+00.0	1		
5+50.0		1	
7+50.0		1	
8+00.0	1		
	2	2	TOTAL = 4.00

PRE-CAST CULVERT NOTES

INSTALLATION NOTES:

The culvert shall be a single 12'x6' pre-cast culvert with a straight end section at the outlet. Note that the inlet has no end section assembly to fit with existing concrete-lined ditch bottom. It shall be necessary to sawcut this concrete and remove a piece to facilitate placement of the last barrel section at the inlet. See Culvert Detail Sheet for section view. Costs of sawcutting and removing the floor shall be included in Removals As Per Plan bid item.

Precast concrete box culvert sections shall be laid with the groove end of each section up-grade, and the sections shall be tightly joined. Joint openings between sections should be as tight as practicable and limited to a maximum of ¼ inch openings. The joint on the bottom of the culvert shall be sealed with a flexible water tight 1 inch butyl rope gasket as per Materials I.M. 491.09. Butyl rope gasket shall be installed in accordance with the recommendations of the manufacturer and shall extend vertically 6 inches above the bottom fillet. All joints shall be trimmed clean on the inside after sealing. The contractor shall also place a 2 foot wide piece of engineering fabric around the top and sides of each precast joint. The fabric shall be centered with 1 foot on each side of the joint. The fabric shall be attached to the walls and top of each section to prevent the fabric from slipping off the joint during backfilling operations. Attachment methods shall be approved by the engineer.

All costs including material and labor associated with providing the engineering fabric and installing it as required shall be included in the bid item Precast Concrete Box Culvert. The engineering fabric shall meet the material requirements as set forth in 4196.01c of the Iowa DOT Standard Specifications. During backfilling the compaction adjacent to the bottom corner radii shall be accomplished with a mechanical hand compactor. The contractor shall furnish and install lifting hole plugs for each section. Lifting holes shall be plugged with a precast concrete plug, sealed and covered with mastic or mortar.

DESIGN REQUIREMENTS:

The precast culvert sections shall meet the minimum requirements of ASTM C 1577, Table 1 sections that are designed for combined earth dead load and AASHTO HL-93 live load conditions. Any precast box culvert designs submitted that vary from the ASTM C 1577 standard, shall be designed and sealed by a professional engineer, currently registered in the State of Iowa. Minimum length of precast sections shall be 4.0 feet. Minimum culvert wall thickness shall be 8 inches.

PRE-CONSTRUCTION NOTES:

The Contractor shall submit details of the proposed precast box sections to the Story County engineers office for approval. These details shall include a situation plan, culvert barrel cross sections showing steel, and end section details. The length in linear feet of precast concrete box culvert will be based on the plan quantity.

For the number of linear feet given on the plan, the Contractor will be paid the contract unit price per linear foot. The payment shall be full compensation for furnishing all materials, labor and equipment necessary to complete the work except for items in end sections and Class 20 Excavation.

For each precast box culvert end section installed the Contractor will be paid the contract price for each. The payment shall be full compensation for furnishing all materials (including dropwalls), labor and equipment necessary to complete the work except for items in precast concrete box culvert and Class 20 Excavation.

Dropwalls shall be precast.

The Contractor shall furnish culvert ties for all joints. The main section joints will have one tie on each side of the barrel and the last barrel section will be attached to the end sections with two ties per side. Culvert ties shall be included in the cost for precast concrete box culvert. Tie rods will be 1 inch in diameter steel and shall meet requirements of ASTM A 709 grade 36 or equal. Culvert tie assemblies shall be galvanized or painted according to 2408.30 of the Iowa DOT Standard Specifications. Acrylic topcoat not required.

PROJ No. L-C26--73-85

GENERAL NOTES SHEET

PROJ No. L-C26--73-85

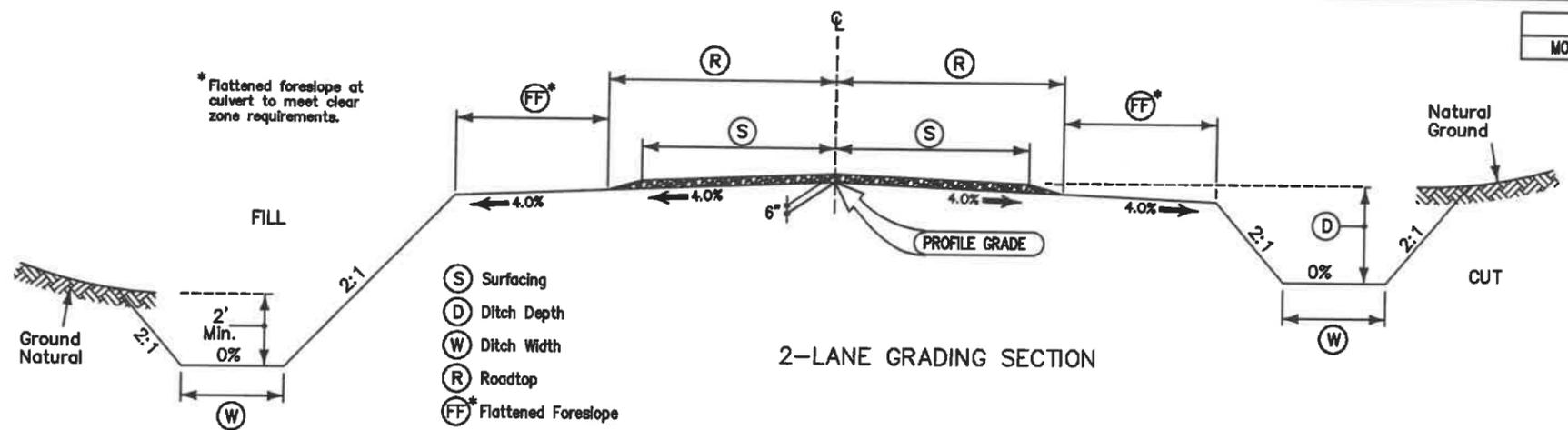
TABULATIONS SHEET

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backlopes.

MODIFIED

LOCATION			DIMENSIONS					
ROAD IDENTIFICATION	SIDE	STATION TO STATION	FF* Feet	D Feet	W Feet	R Feet	S Feet	
720th Ave.	Lt.	5+50.0	5+95.9	0	var.	4	13	11
720th Ave.	Lt.	5+95.9	6+35.9	var.	var.	4	13	11
720th Ave.	Lt.	6+35.9	6+51.4	4	var.	4	13	11
720th Ave.	Lt.	6+51.4	6+93.4	var.	var.	4	13	11
720th Ave.	Lt.	6+93.4	7+50.0	0	var.	4	13	11
720th Ave.	Rt.	5+50.0	5+95.9	0	var.	4	13	11
720th Ave.	Rt.	5+95.9	6+35.9	var.	var.	4	13	11
720th Ave.	Rt.	6+35.9	6+51.4	8	var.	4	13	11
720th Ave.	Rt.	6+51.4	6+93.4	var.	var.	4	13	11
720th Ave.	Rt.	6+93.4	7+50.0	0	var.	4	13	11



DRAINAGE STRUCTURES BY CULVERT CONTRACTOR

104-4
10-20-09

Location	Size Ft.	Type	Length New Const. Lin. Ft.	No. of Aprons	Flow Line Elevation				Dimensions - Lin. Ft.		Skew Ahead		By Road Contractor				Floodable* Backfill (A) Cu. Yds.	Porous* Backfill (B) Cu. Yds.	Flooded Backfill (A+B) Cu. Yds.	REMARKS	
					Flow Line Elevation				Total		Extensions		Degrees		Dike						Comp. Backfill Cu. Yds.
					Left	Right	Other	Other	Left	Right	Left	Right	Left	Right	Rt.	Location Station					
6+44.50	12X8	Single RCB	42.0	2	960.80	959.80			21.4	20.6								86.3 cy Class 20 Excav.			

ROCK EROSION CONTROL

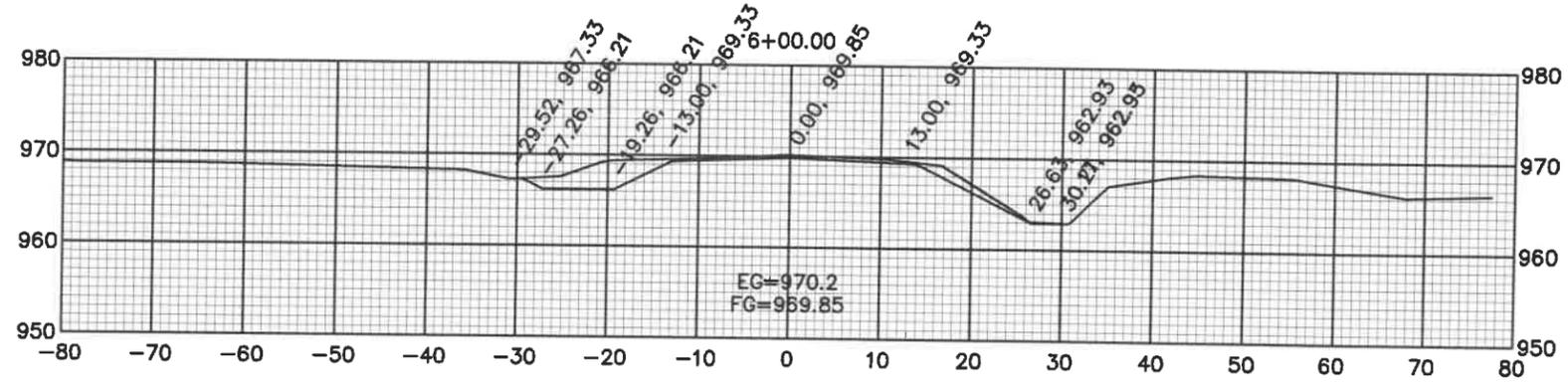
Refer to EC-301

100-23
04-21-15

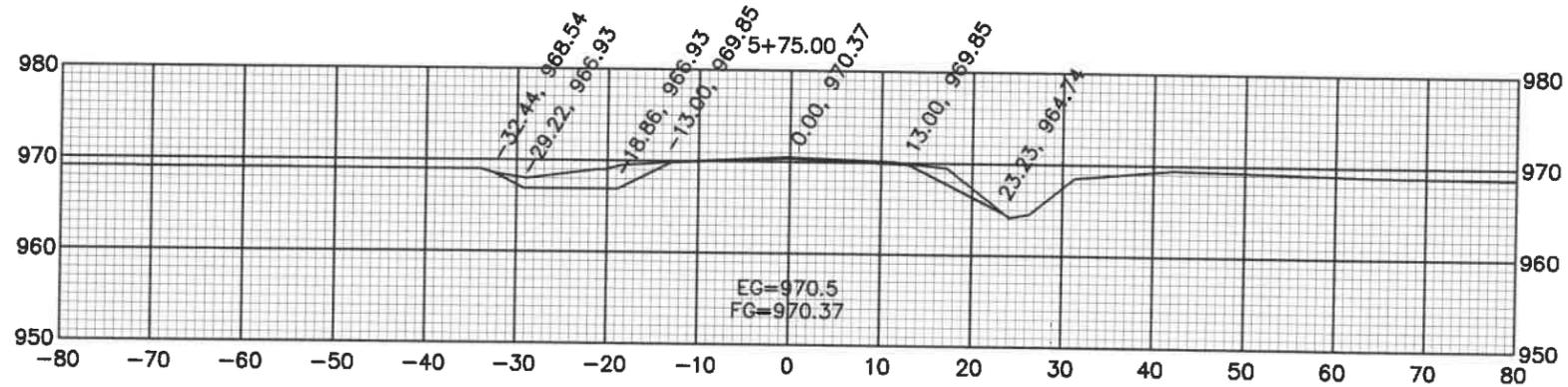
Location				L FT	W FT	Rock Erosion Control (REC)					Material Bid Quantities			Remarks
Road Identification	Begin Station	End Station	Side Lt./Rt.			Type 1 Rock Ditch Check	Type 2 Rock Ditch	Type 3 Rock Flume	Type 4 Rock Splash Basin	Type 5 Rock Slope Protection	Erosion Stone TON	Class E Revetment TON	Eng. Fabric SY	
720th Ave.	6+34.6	6+54.6	39.0' Rt.	20	16				X		46.7	53.3	Placed at RCB outlet.	

PROJ No. L-C26--73-85

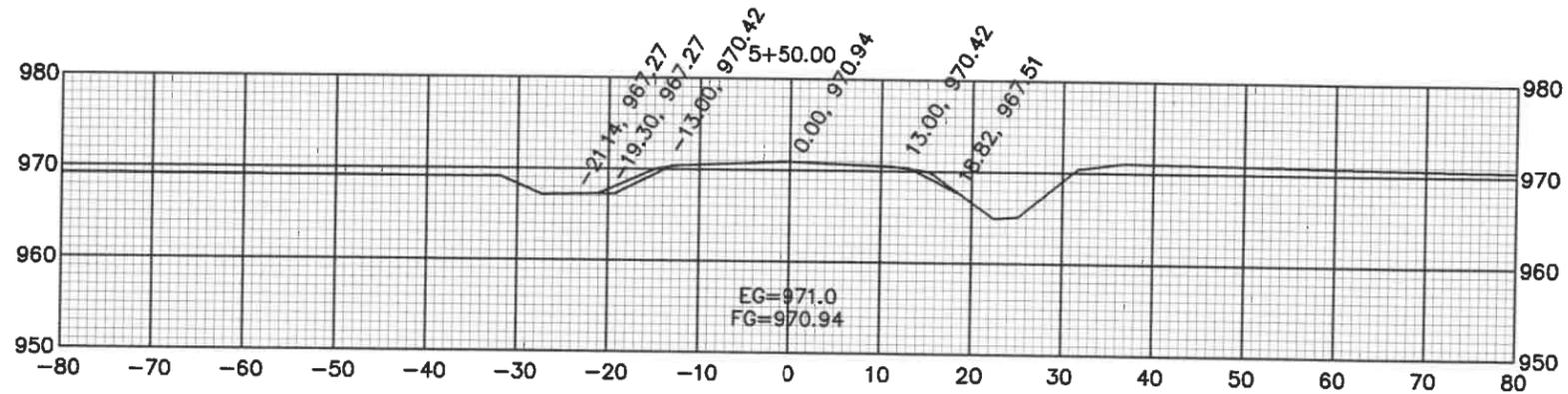
CROSS SECTIONS SHEET



Sta. 6+00.00	
Cut Area	46.84
Fill Area	0.00
Cut Vol	40.32
Fill Vol	0.00



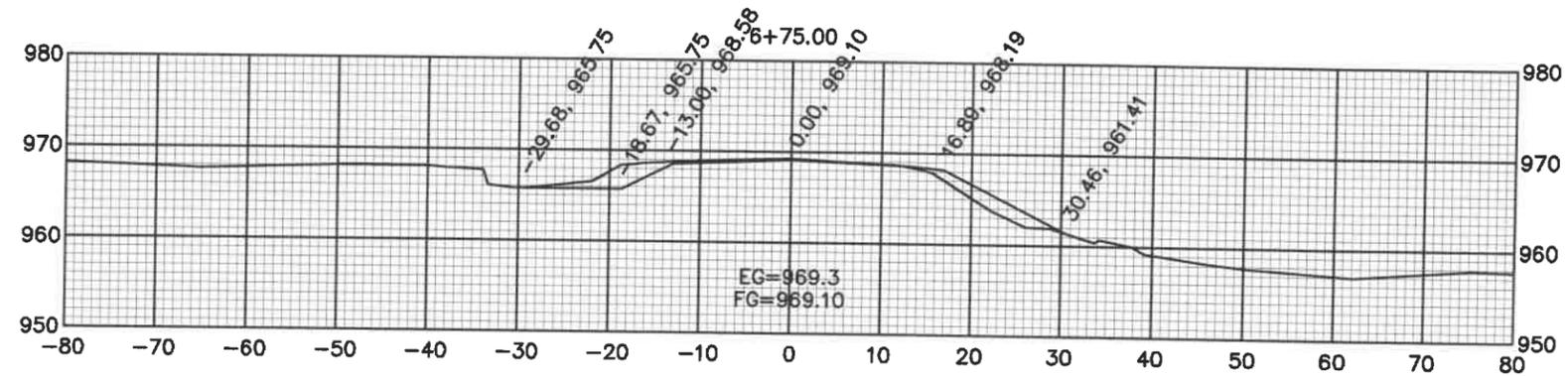
Sta. 5+75.00	
Cut Area	40.24
Fill Area	0.00
Cut Vol	21.86
Fill Vol	0.08



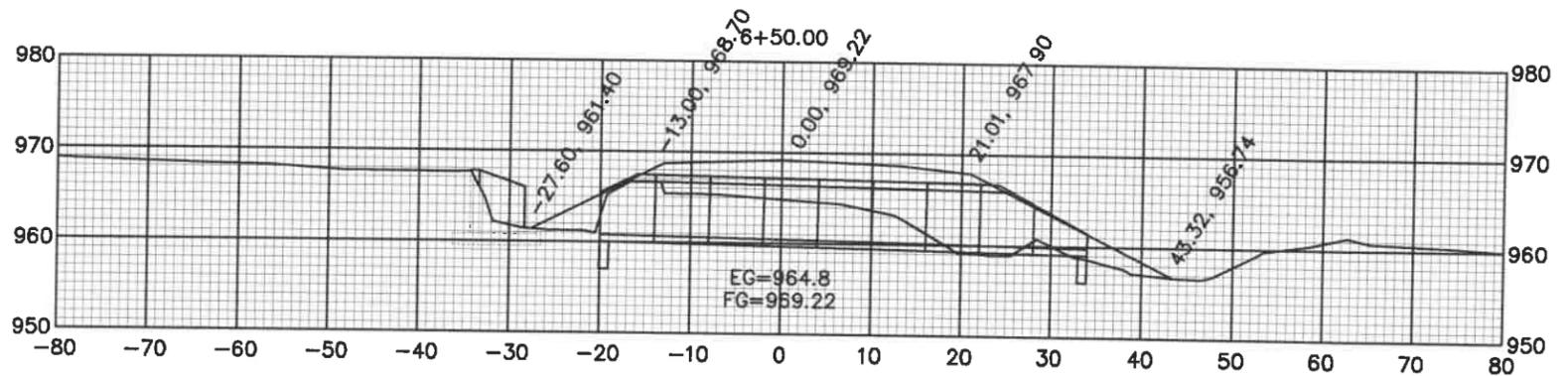
Sta. 5+50.00	
Cut Area	6.97
Fill Area	0.14
Cut Vol	0.00
Fill Vol	0.00

PROJ No. L-C26---73-85

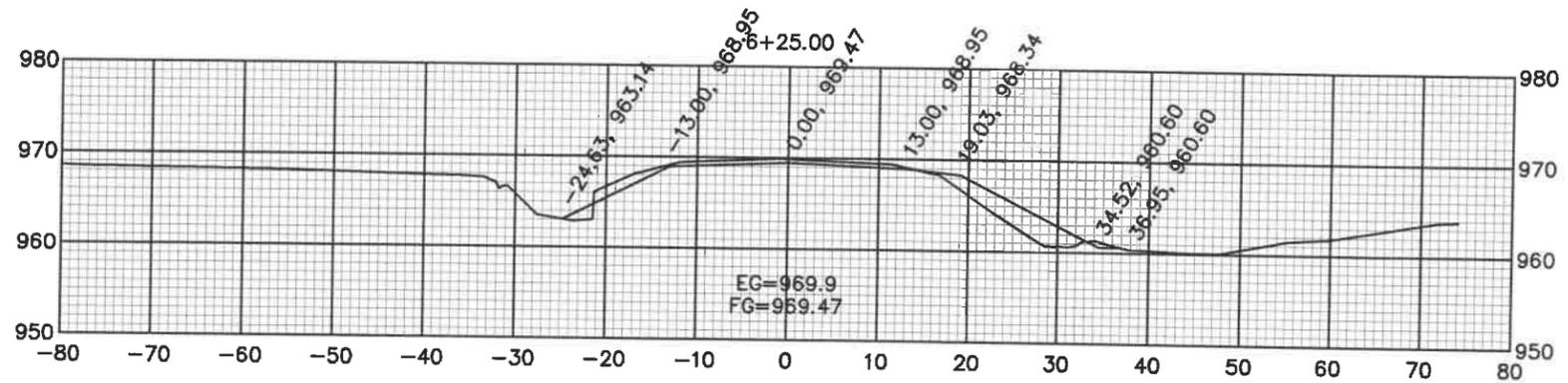
CROSS SECTIONS SHEET



Sta. 6+75.00	
Cut Area	20.59
Fill Area	18.92
Cut Vol	9.25
Fill Vol	61.37



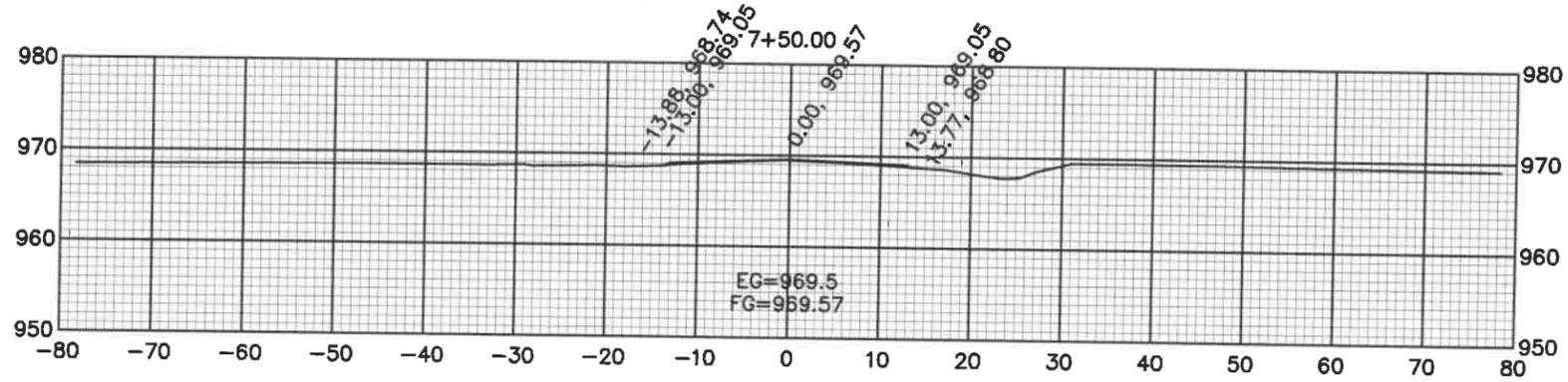
Sta. 6+50.00	
Cut Area	0.00
Fill Area	0.00
Cut Vol	0.00
Fill Vol	0.00



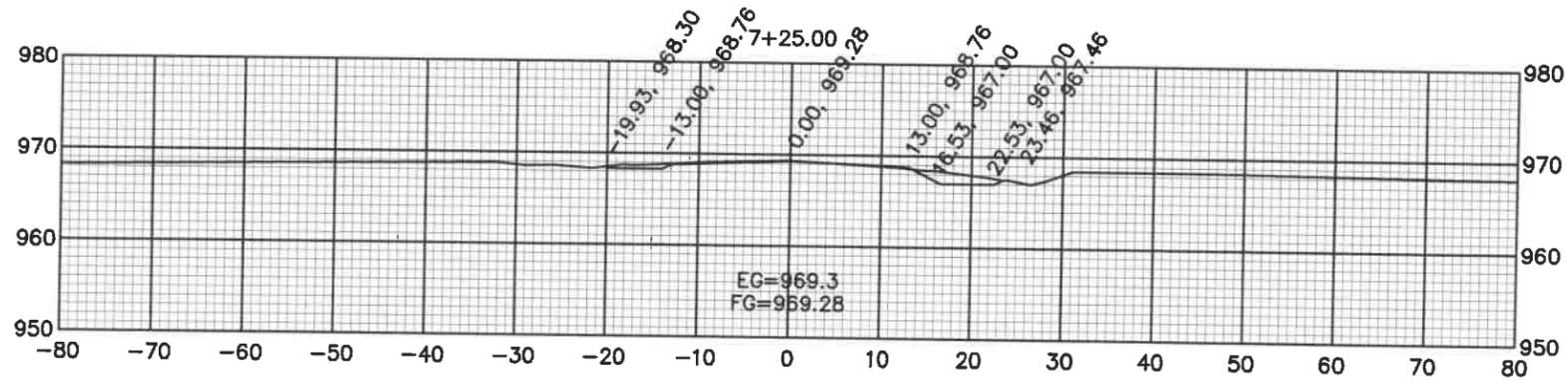
Sta. 6+25.00	
Cut Area	20.18
Fill Area	35.33
Cut Vol	31.03
Fill Vol	21.27

PROJ No. L-C26--73-85

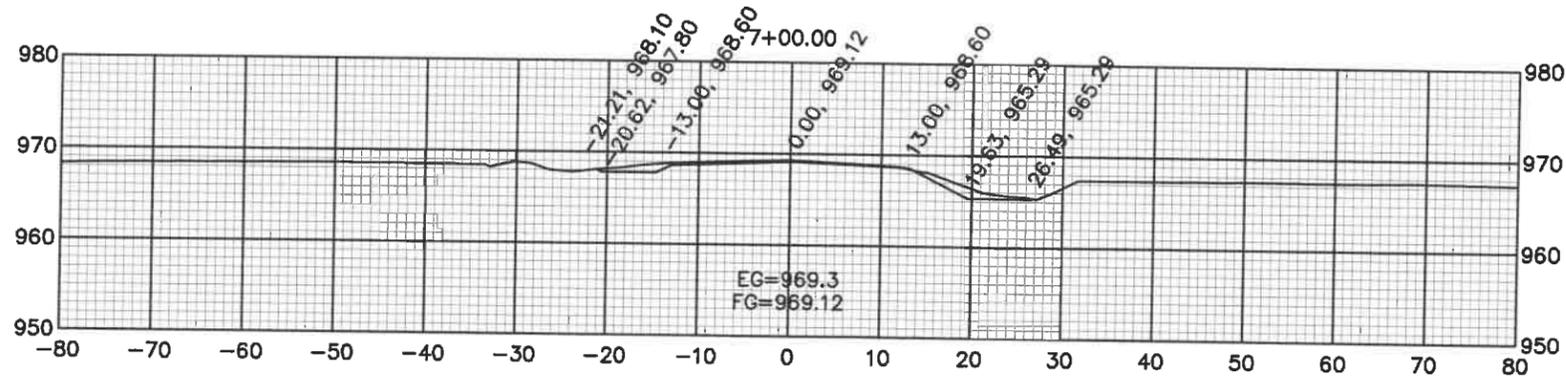
CROSS SECTIONS SHEET



Sta. 7+50.00	
Cut Area	0.01
Fill Area	3.35
Cut Vol	5.89
Fill Vol	2.28



Sta. 7+25.00	
Cut Area	12.72
Fill Area	0.44
Cut Vol	13.94
Fill Vol	0.32



Sta. 7+00.00	
Cut Area	17.40
Fill Area	0.09
Cut Vol	17.59
Fill Vol	11.44

BRIDGE REPLACEMENT-TWIN BOX

Proj. No. L-LIN20--73-85

STORY COUNTY

Letting Date Feb. 25, 2020

PROJECT TRAFFIC CONTROL PLAN
 THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.
 ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.

UTILITIES INFORMATION
 UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THESE PLANS OR SHOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE AND SUBSEQUENT WORK IN THE AREA.
 MIDLAND POWER COOPERATIVE: 515-386-4111
 MINERVA VALLEY TELEPHONE: 641-487-7399
 IOWA REGIONAL UTILITIES: 641-792-7011

IOWA DEPARTMENT OF TRANSPORTATION

Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE

LOCAL ROAD SYSTEM STORY COUNTY BRIDGE REPLACEMENT - TWIN BOX

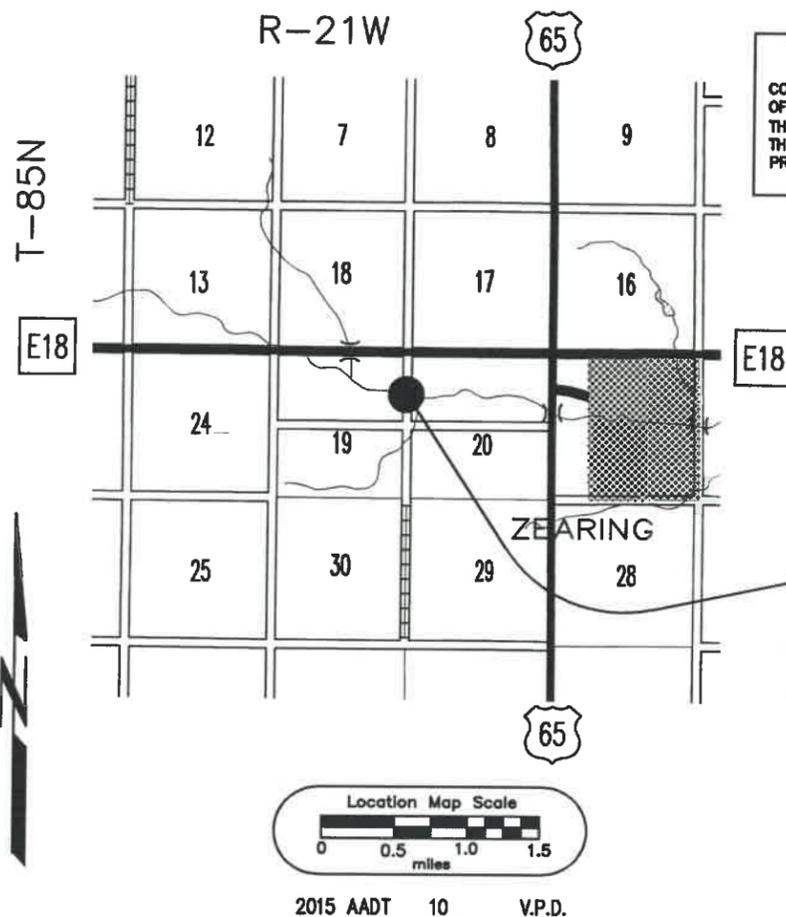
On 690th Ave.; Section 20-85-21.

Refer to Proposal Form for a list of applicable specifications.

Project No. L-LIN20--73-85
FHWA #315780

INDEX OF SHEETS	
No.	Description
A.01	TITLE SHEET
C.01	QUANTITY INFORMATION SHEET
C.02	GENERAL NOTES SHEET
C.03	TABULATIONS SHEET
C.04	CULVERT DETAIL SHEET
D.01	PLAN AND PROFILE SHEET
W.01 to W.04	CROSS SECTIONS

MILEAGE SUMMARY			
		105-1	
		09-27-84	
Div.	Location	Lin. Ft.	Miles
1	STA. 11+00.00 TO STA. 13+50.00	250.00	0.047
Total		250.00	0.047



Scales: As Noted

CORPS OF ENGINEERS PERMIT

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS Nationwide Permit No. 14. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (<http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx>). THE U.S. ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.



PROJECT LOCATION
 STA 12+18.50; ON 690TH AVE.;
 OVER MIDDLE MINERVA CREEK;
 0.23 MI. NORTH OF W¼ CORNER,
 SECTION 20-85-21.

DESIGN FOR:
 TWIN 12'X8'X42' PRE-CAST
 CONCRETE BOX CULVERT
 ON 7° SKEW

STANDARD ROAD PLANS		
		105-4
		10-18-11
The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
DR-101	04-18-17	PIPE CULVERT (BEDDING AND BACKFILL)
DR-102	04-21-15	PIPE CULVERT (COVER AND CAMBER)
DR-103	04-21-15	PIPE CULVERT (INSTALLATION DETAILS)
DR-104	04-19-16	DEPTH OF COVER TABLES FOR CONCRETE AND CORRUGATED PIPE
EC-301	10-18-18	ROCK EROSION CONTROL (REC)
EW-101	10-17-17	EMBANKMENT AND REBUILDING EMBANKMENTS
TC-252	04-19-16	ROUTES CLOSED TO TRAFFIC

SEND SHOP DRAWINGS TO:
 STORY COUNTY ENGINEER
 837 N AVE.
 NEVADA, IOWA 50201

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.

Signed: Tyler Sparks Date: 1-7-20
 Tyler Sparks, P.E. 21419
 My license renewal date is December 31, 2020

Pages or sheets covered by this seal:
 (Entire submission unless specified here)



Accepted by:
Dan Mar 1-7-2020
 Story County Engineer Date

Approved Story County Board of Supervisors

PROJ No. L-LIN20--73-85

**ESTIMATED PROJECT QUANTITIES OF QUANTITIES
(1 DIVISION PROJECT)**

100-1A
07-15-97

ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.5
2	2102-2710070	EXCAVATION, CL 10, ROADWAY AND BORROW	CY	254.0
3	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	46.7
4	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1.0
5	2402-2720000	EXCAVATION, CLASS 20	CY	239.3
6	2415-2100000	PRECAST CONCRETE BOX CULVERT, TWIN 12'X8'	LF	42.0
7	2415-2200000	PRECAST CONCRETE BOX CULVERT END SECTION, TWIN 12'X8'	EACH	2.0
8	2507-3250005	ENGINEER FABRIC	SY	113.8
9	2507-6800061	REVTMENT, CLASS E	TON	66.0
10	2518-6910000	SAFETY CLOSURE	EACH	4.0
11	2528-8445110	TRAFFIC CONTROL	LS	1.0
12	2533-4980005	MOBILIZATION	LS	1.0
13	2599-9999003	REMOVAL OF EXISTING BROKEN CONCRETE REVTMENT	CY	37.4

GENERAL NOTES

Story County to stake culvert control and right-of-way, maintain detour signing, furnish and place granular surfacing on roadway, apply seeding and mulching, and place erosion control measures.

INDIANA BAT HABITAT:

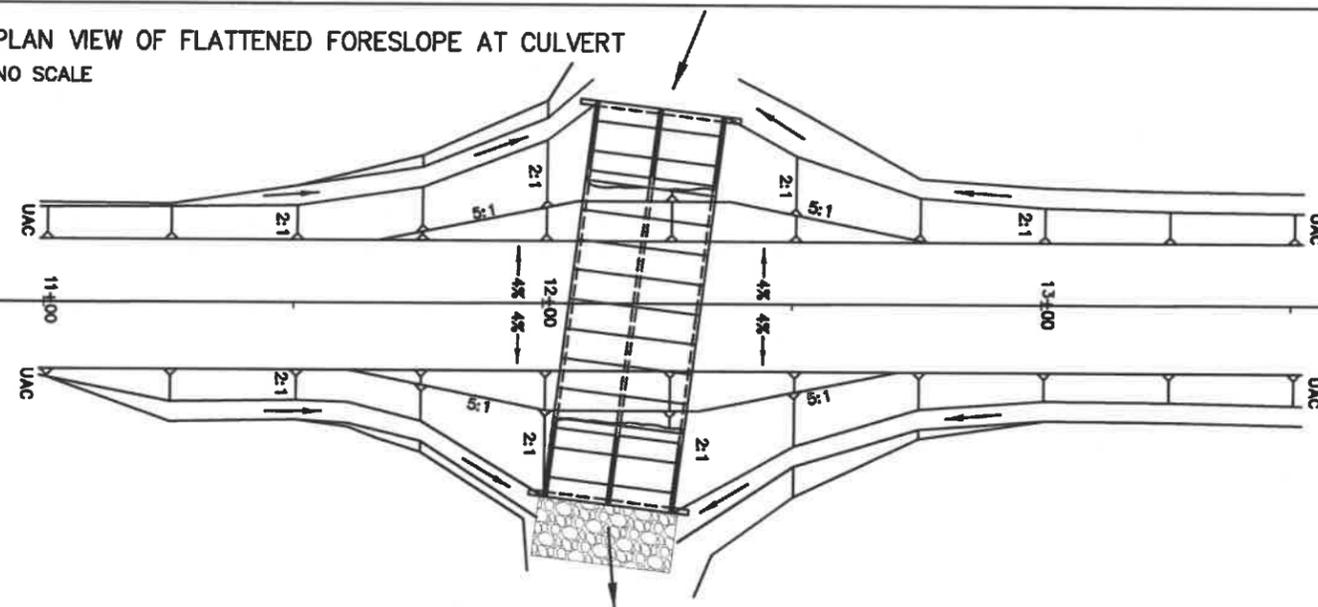
See Iowa DOT Specification 2101.01 for tree removal.

ESTIMATE REFERENCE INFORMATION

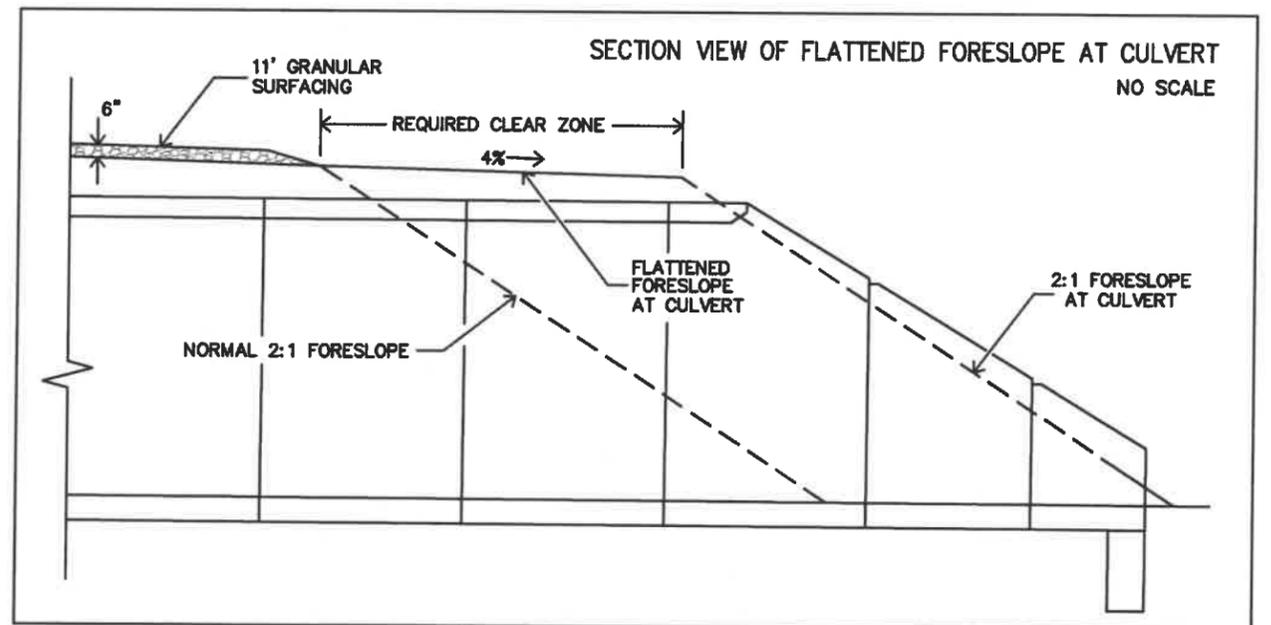
ITEM NO.	DESCRIPTION
1.	Entire project to be cleared and grubbed from BOP to EOP and from ROW line to ROW line.
2.	Plan quantity is based on approximately 164.9 CY of roadway fill (30% shrink factor) and approximately 254.0 CY of roadway cut. Type A compaction required. No payment for overhaul will be made. This item includes any stripping, stockpiling, and spreading topsoil. Topsoil is to be spread to a minimum 4" on all disturbed areas from catch points to edge of road. Slopes are to be finished smooth to allow for seeding. Seeding done by county.
3.	Item for the excavation for the outlet splash basin and matching the stream at the inlet. Quantity estimated at 26.7 cy for excavating a basin 28'x12'x2' on the outlet and 20.0 cy for inlet matching. Suitable excavated material may be used to supplement the Class 10 Roadway quantity, with the approval of the Engineer.
4.	The existing structure is a single span 20'x18' steel beam bridge on a 0° skew with reinforced concrete deck, abutments, and wingwalls. Materials from the old structure shall become the property of the Contractor according to article 1104.08 of the Standard Specifications, and removed from the site. Burying removal materials on site will not be allowed. See Hazardous Materials notes on Sheet C.02 for scratch test results.
5.	Item for excavation for culvert. Suitable material may be used to backfill culvert and supplement Class 10 roadway quantity with approval from the Engineer.
6.-7.	Precast RCB culvert shall be a twin 12'x8'x42' culvert with straight end sections. The culvert shall be supplied by the Contractor as per plan, which includes dropwalls. See Tabulation 104-4 on Sheet C.03 for details. All joints shall be tied flush with tie bars. Culvert requires approximately 98 Tons of 1" material for culvert bedding. Bedding material shall be incidental to this item.
8.-9.	Items for the construction of a rock splash basin with wing armoring at the outlet, and wing armoring at the inlet. See Tabulation 100-23 on Sheet C.03 for stationing and quantities, and Typical 4404 on Sheet C.04 for details.
10.	See Tabulation 108-13A on Sheet C.03 for stationing and quantities.
11.	See Standard Road Plan TC-252 for details.
13.	Item for the removal and disposal of existing broken concrete revetment. Contractor shall remove and stockpile broken concrete so it can be measured. Contractor shall be paid actual measured quantity for this item. Once measured, the stockpile shall be removed from site. See Sheet D.01 for details of removal areas.

QUANTITY INFORMATION SHEET

PLAN VIEW OF FLATTENED FORESLOPE AT CULVERT
NO SCALE



SECTION VIEW OF FLATTENED FORESLOPE AT CULVERT
NO SCALE



PROJ No. L-LIN20--73-85
GENERAL NOTES SHEET

GENERAL NOTES

GENERAL NOTES:

Contractor to construct a twin 12'x8'x42' pre-cast concrete box culvert on a 7' skew on 690th Ave. over Middle Minerva Creek and grade approaches.

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

Construction activities, equipment, and materials shall be kept out of the streams, wetlands, or other bodies of water to the maximum extent practicable.

CONTRACTOR'S WORK AREA:

The Contractor's work and material storage area shall be defined by the Contractor and noted to the Engineer. Any area outside the Contractor's work and material storage area that is disturbed by the Contractor shall be repaired to its original condition by the Contractor and no additional payment shall be made for this work.

UTILITY NOTES:

The Contractor shall call One Call at least 48 hours prior to beginning work. Utility companies found to be located within the construction area are listed on the title sheet of these plans. See Section 1107.15 of the Iowa DOT Standard Specifications For Highway And Bridge Construction, Series 2012, regarding utility related responsibilities.

HAZARDOUS MATERIALS NOTES:

A scrape sample was taken from one area of this bridge to get an indication of the existence of the level of total Chromium and total Lead. Analysis of total Lead on this sample was 81,000 parts per million (PPM). Analysis of total Chromium on this sample was 290 PPM. These analyses show the existence of these two toxic constituents. Levels indicated by these tests could create conditions above regulatory limits for health and safety requirements. No other constituents were analyzed. The bidder should not rely on the Department's testing and analysis for any purpose other than as an indication of the existence of these two toxic constituents.

The Contractor shall exercise care during the removal of existing structures to prevent any paint from coming off of painted surfaces. Should any paint come off, the Contractor shall collect and dispose of the paint according to Section 2508 of the Standard Specifications.

Before delivery of any salvaged materials that may contain toxic constituents, the Contractor shall provide a written notice to the receiving facility. This written notice shall contain at least:

- a copy of the lab results of the scrape sample
- a signature block for the receiving facility to confirm their receipt of this information
- notification that salvaged materials include paint that may contain toxic constituents at levels that may be hazardous to employees or the environment

A copy of this notice, signed by the receiving facility, shall be returned to the Engineer before any hazardous material is removed from the site.

All costs associated with removal and disposal of hazardous materials shall be incidental to the "Removal of Existing Bridge" bid item.

An asbestos survey was conducted and found no asbestos at this site. However, should the occasion arise that asbestos is still found at the time of bridge demolition, the County will contract with a licensed asbestos contractor to remove any remaining asbestos during the bridge's demolition.

EMERALD ASH BORER NOTE:

Any living, dead, cut or fallen material of the ash (*Fraxinus* spp.) including trees, nursery stock, logs, firewood, stumps, roots, branches, and composted or uncomposted ash chips can be freely moved within the yellow areas of the most recent Federal EAB Quarantine & Authorized Transit.

https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab_quarantine_map.pdf.

Obtain appropriate Compliance Agreements from USDA APHIS PPQ prior to moving any of the above listed ash articles to areas outside the yellow zone on the map.

For questions, concerns, and general assistance, contact:

USDA APHIS PPQ, Iowa office, 515-414-3295

Or

Iowa Department of Agriculture & Land Stewardship
515-725-1470
Entomology@IowaAgriculture.gov

PRE-CAST CULVERT NOTES

INSTALLATION NOTES:

The culvert shall be a twin 12'x8' pre-cast culvert with straight end sections.

Precast concrete box culvert sections shall be laid with the groove end of each section up-grade, and the sections shall be tightly joined. Joint openings between sections should be as tight as practicable and limited to a maximum of ¼ inch openings. The joint on the bottom of the culvert shall be sealed with a flexible water tight 1 inch butyl rope gasket as per Materials I.M. 491.09. Butyl rope gasket shall be installed in accordance with the recommendations of the manufacturer and shall extend vertically 6 inches above the bottom fillet. All joints shall be trimmed clean on the inside after sealing. The contractor shall also place a 2 foot wide piece of engineering fabric around the top and sides of each precast joint. The fabric shall be centered with 1 foot on each side of the joint. The fabric shall be attached to the walls and top of each section to prevent the fabric from slipping off the joint during backfilling operations. Attachment methods shall be approved by the engineer.

All costs including material and labor associated with providing the engineering fabric and installing it as required shall be included in the bid item Precast Concrete Box Culvert. The engineering fabric shall meet the material requirements as set forth in 4196.01c of the Iowa DOT Standard Specifications. During backfilling the compaction adjacent to the bottom corner radii shall be accomplished with a mechanical hand compactor. The contractor shall furnish and install lifting hole plugs for each section. Lifting holes shall be plugged with a precast concrete plug, sealed and covered with mastic or mortar.

DESIGN REQUIREMENTS:

The precast culvert sections shall meet the minimum requirements of ASTM C 1577, Table 1 sections that are designed for combined earth dead load and AASHTO HL-93 live load conditions. Any precast box culvert designs submitted that vary from the ASTM C 1577 standard, shall be designed and sealed by a professional engineer, currently registered in the State of Iowa. Minimum length of precast sections shall be 4.0 feet. Minimum culvert wall thickness shall be 8 inches.

PRE-CONSTRUCTION NOTES:

The Contractor shall submit details of the proposed precast box sections to the Story County engineers office for approval. These details shall include a situation plan, culvert barrel cross sections showing steel, and end section details. The length in linear feet of precast concrete box culvert will be based on the plan quantity.

For the number of linear feet given on the plan, the Contractor will be paid the contract unit price per linear foot. The payment shall be full compensation for furnishing all materials, labor and equipment necessary to complete the work except for items in end sections and Class 20 Excavation.

For each precast box culvert end section installed the Contractor will be paid the contract price for each. The payment shall be full compensation for furnishing all materials (including dropwalls), labor and equipment necessary to complete the work except for items in precast concrete box culvert and Class 20 Excavation.

Dropwalls shall be precast.

The Contractor shall furnish culvert ties for all joints. The main section joints will have one tie on each side of the barrel and the last barrel section will be attached to the end sections with two ties per side. Culvert ties shall be included in the cost for precast concrete box culvert. Tie rods will be 1 inch in diameter steel and shall meet requirements of ASTM A 709 grade 36 or equal. Culvert tie assemblies shall be galvanized or painted according to 2408.30 of the Iowa DOT Standard Specifications. Acrylic topcoat not required.

PROJ No. L-LIN20--73-85

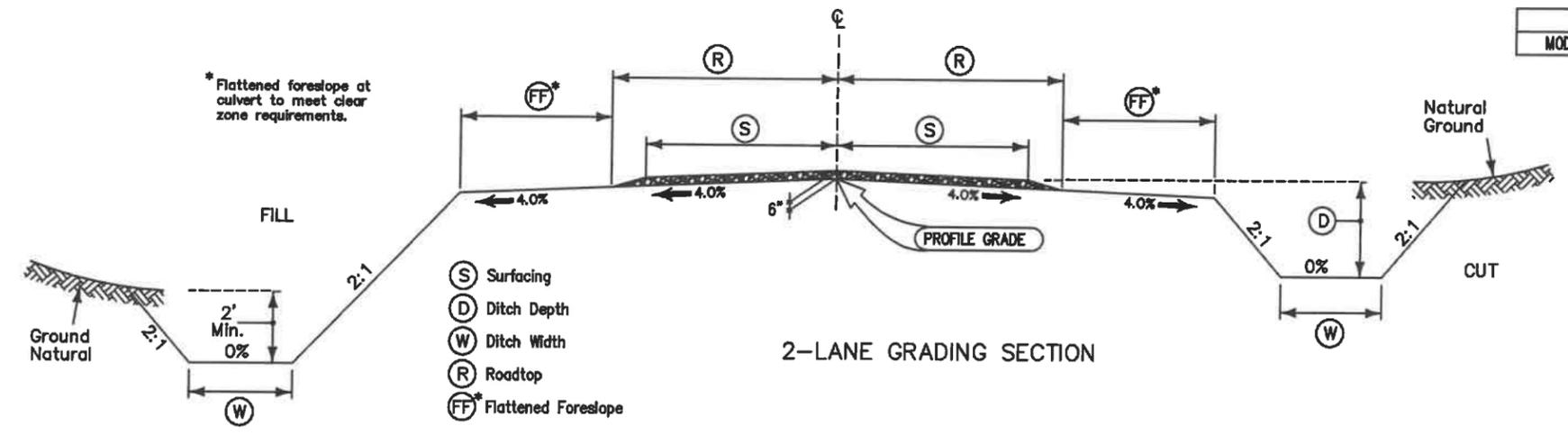
TABULATIONS SHEET

Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

MODIFIED

LOCATION				DIMENSIONS				
ROAD IDENTIFICATION	SIDE	STATION TO STATION		FF*	D	W	R	S
				Feet	Feet	Feet	Feet	Feet
690th Ave.	Lt.	11+00.0	11+78.7	0	var.	6	13	11
690th Ave.	Lt.	11+78.7	12+03.8	var.	var.	6	13	11
690th Ave.	Lt.	12+03.8	12+36.3	8	var.	6	13	11
690th Ave.	Lt.	12+36.3	12+61.2	var.	var.	6	13	11
690th Ave.	Lt.	12+61.2	13+50.0	0	var.	6	13	11
690th Ave.	Rt.	11+00.0	11+74.4	0	var.	6	13	11
690th Ave.	Rt.	11+74.4	11+99.3	var.	var.	6	13	11
690th Ave.	Rt.	11+99.3	12+31.8	8	var.	6	13	11
690th Ave.	Rt.	12+31.8	12+56.9	var.	var.	6	13	11
690th Ave.	Rt.	12+56.9	13+50.0	0	var.	6	13	11



DRAINAGE STRUCTURES BY CULVERT CONTRACTOR

104-4
10-20-09

Location	Size Ft.	Type	Length New Const. Lin. Ft.	No. of Aprons	Flow Line Elevation				Dimensions - Lin. Ft.		Skew Ahead		By Road Contractor				Floodable* Backfill (A) Cu. Yds.	Porous* Backfill (B) Cu. Yds.	Flooded Backfill (A+B) Cu. Yds.	REMARKS	
					Left	Right	Other	Other	Left	Right	Left	Right	Degrees	Rt.	Dike						
															Location Station	Top. Elev.					Type
12+18.50	12x8	Twin RCB	42.0	2	1047.00	1046.75			20.8	21.2								239.3 cy Class 20 Excav.			

ROCK EROSION CONTROL

Refer to EC-301

100-23
04-21-15

Location				L FT	W FT	Rock Erosion Control (REC)					Material Bid Quantities			Remarks
Road Identification	Begin Station	End Station	Side Lt./Rt.			Type 1 Rock Ditch Check	Type 2 Rock Ditch	Type 3 Rock Flume	Type 4 Rock Splash Basin	Type 5 Rock Slope Protection	Erosion Stone TON	Class E Revetment TON	Eng. Fabric SY	
690th Ave.	11+98.3	12+26.1	43.0' Rt.	32	12				X		48.0	64.0	Splash Basin at RCB outlet.	
690th Ave.	11+98.3	12+26.1	43.0' Rt.	3	12					X	9.0	24.9	Wing Armoring at outlet.	
690th Ave.	11+98.3	12+26.1	36.7' Lt.	3	12					X	9.0	24.9	Wing Armoring at Inlet.	

TABULATION OF SAFETY CLOSURES

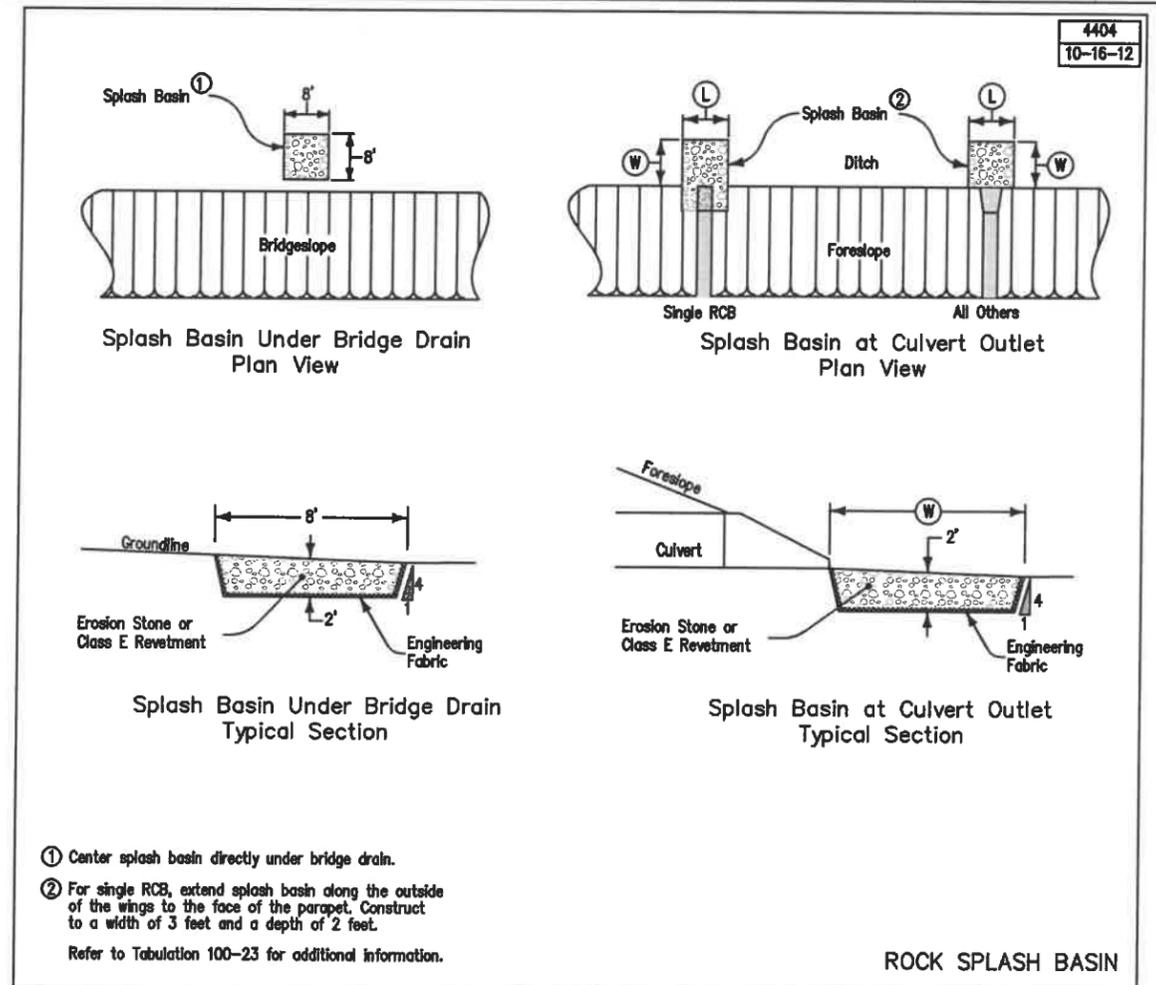
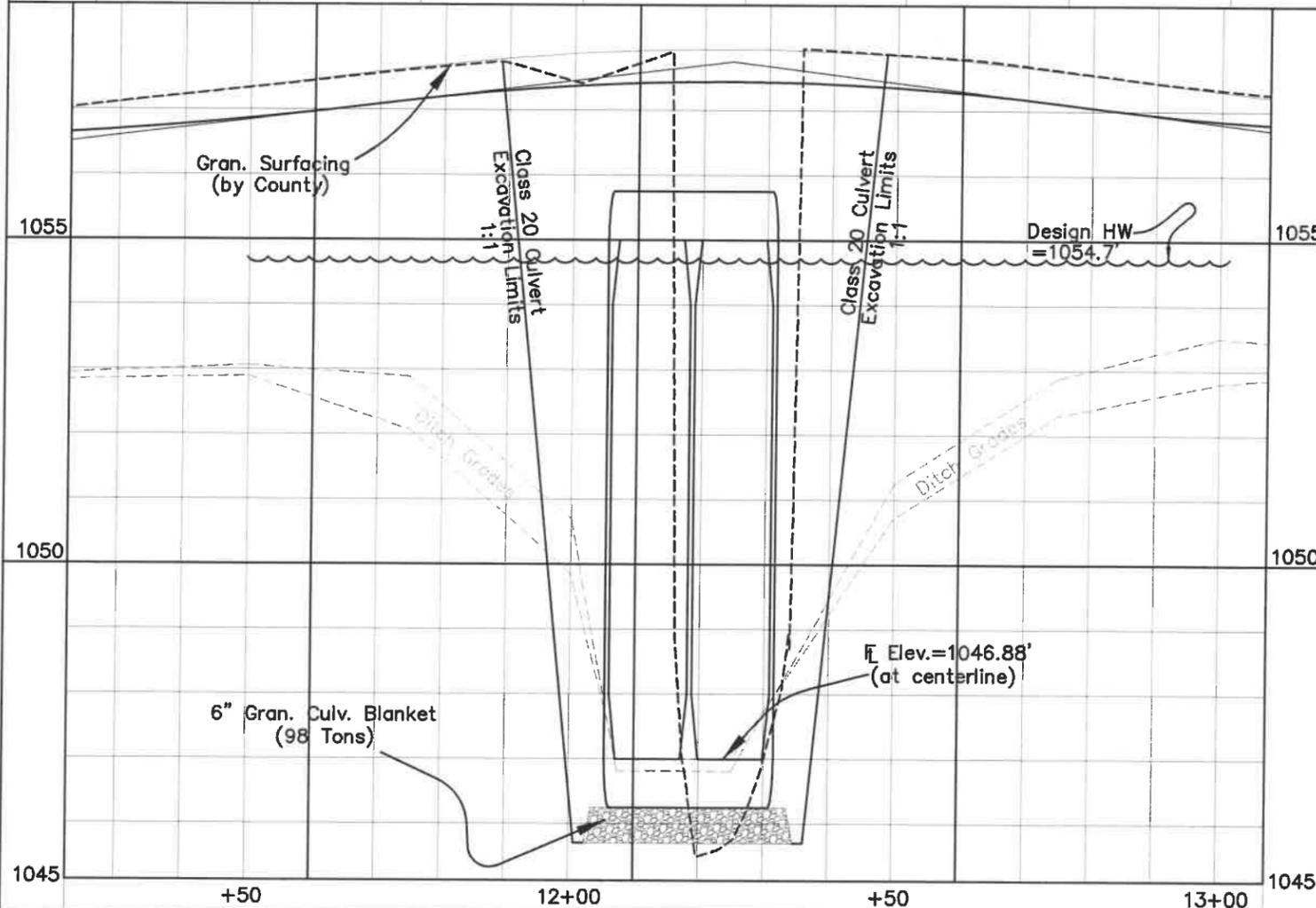
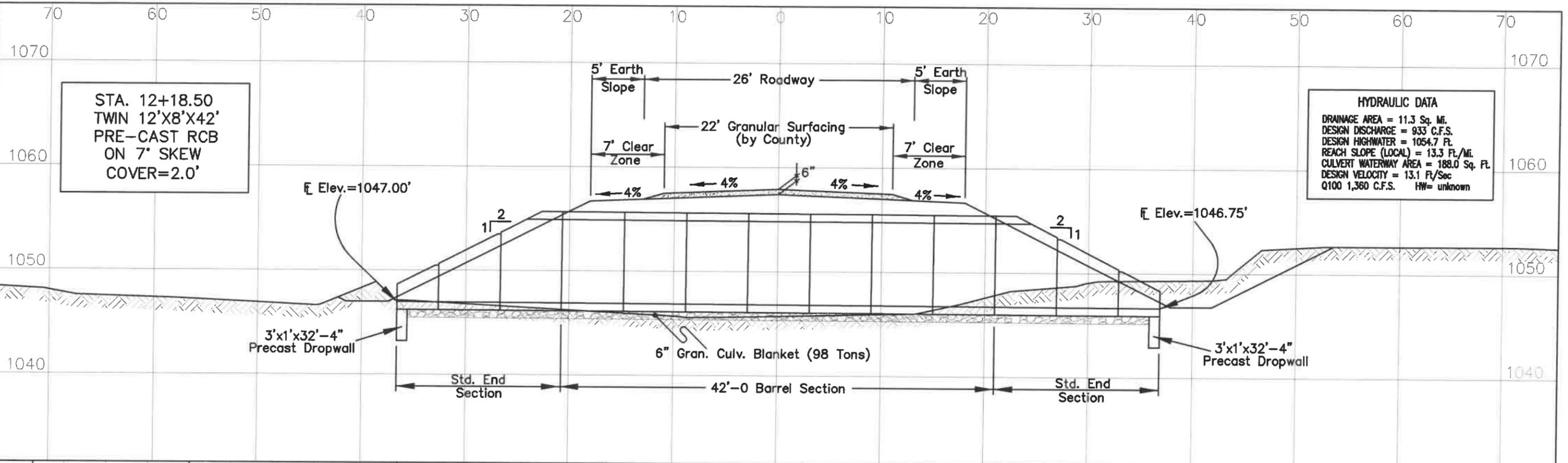
Refer to Section 2518 of the Standard Specifications

108-13A
08-01-08

STATION	CLOSURE TYPE		REMARKS
	ROAD QTY.	HAZARD QTY.	
10+75	1		
11+00		1	
13+50		1	
13+75	1		
	2	2	TOTAL = 4.00

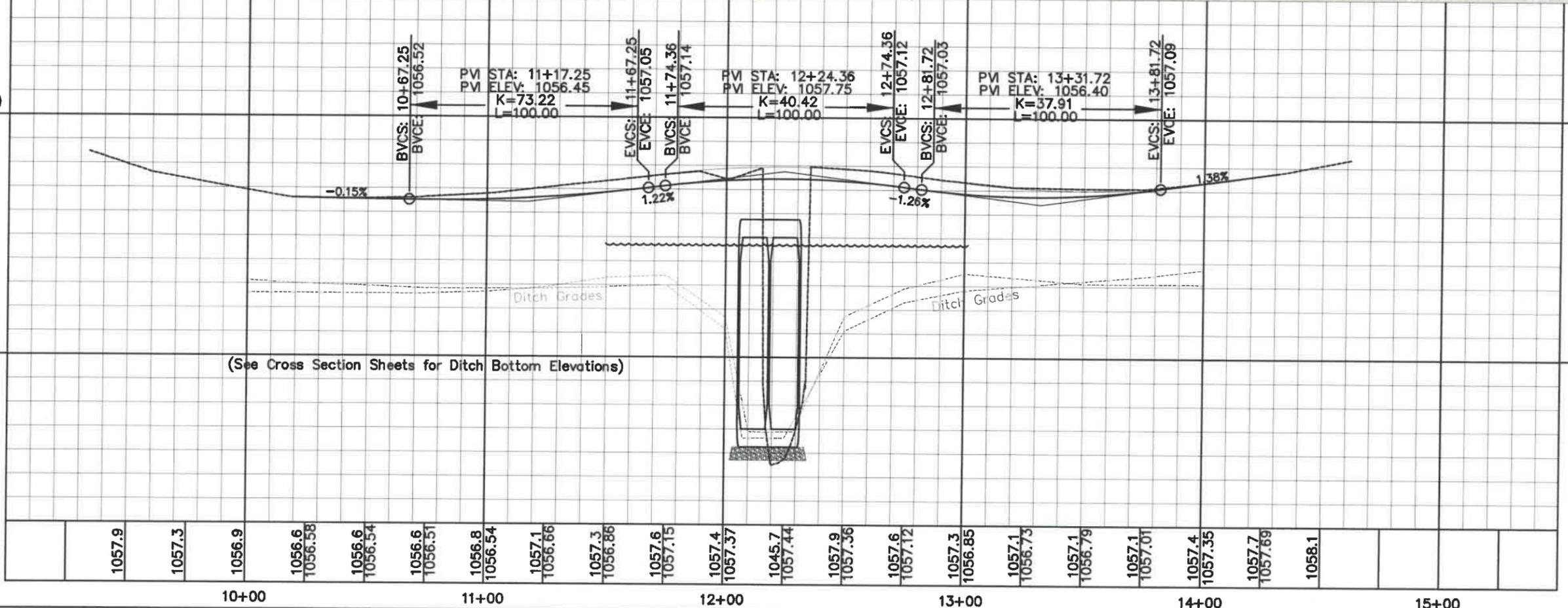
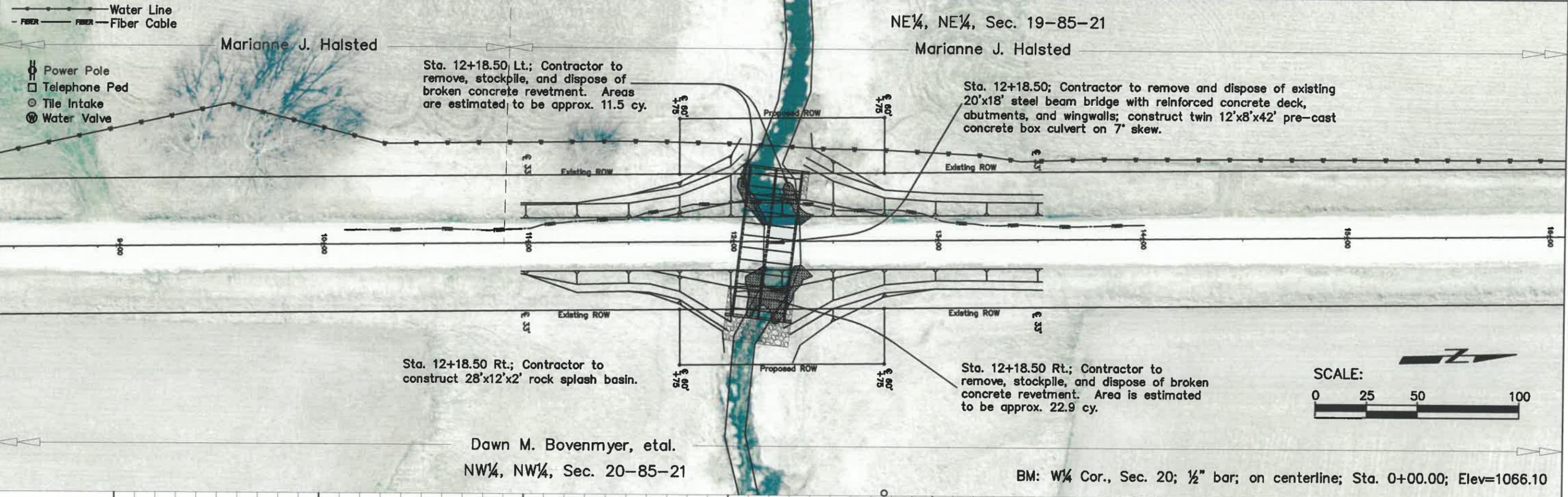
PROJ No. L-LIN20--73-85

CULVERT DETAIL SHEET

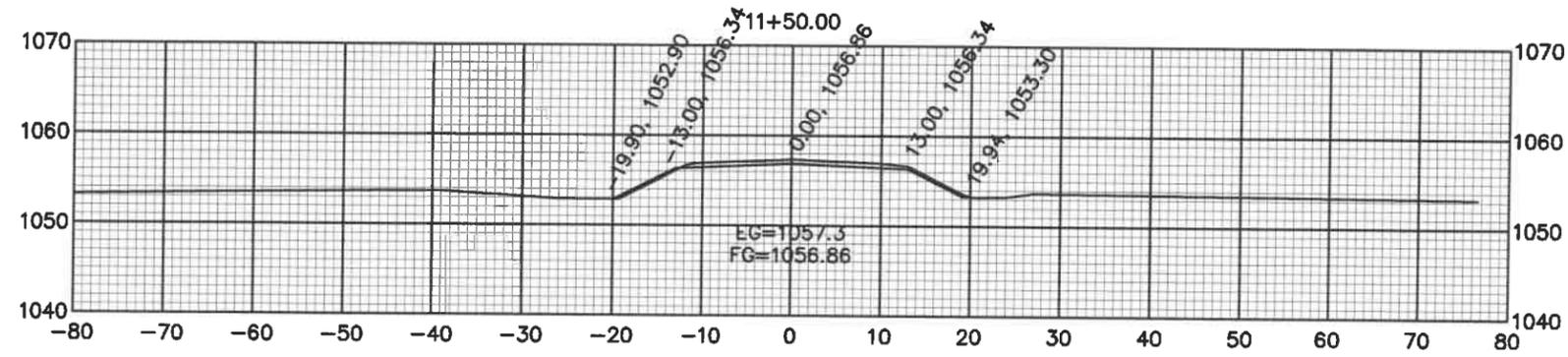


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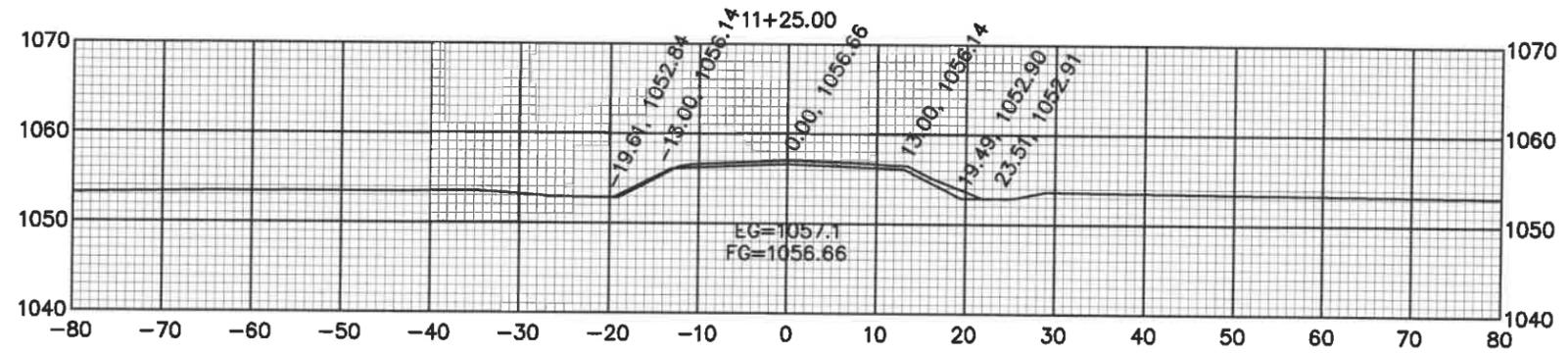
PLAN AND PROFILE SHEET



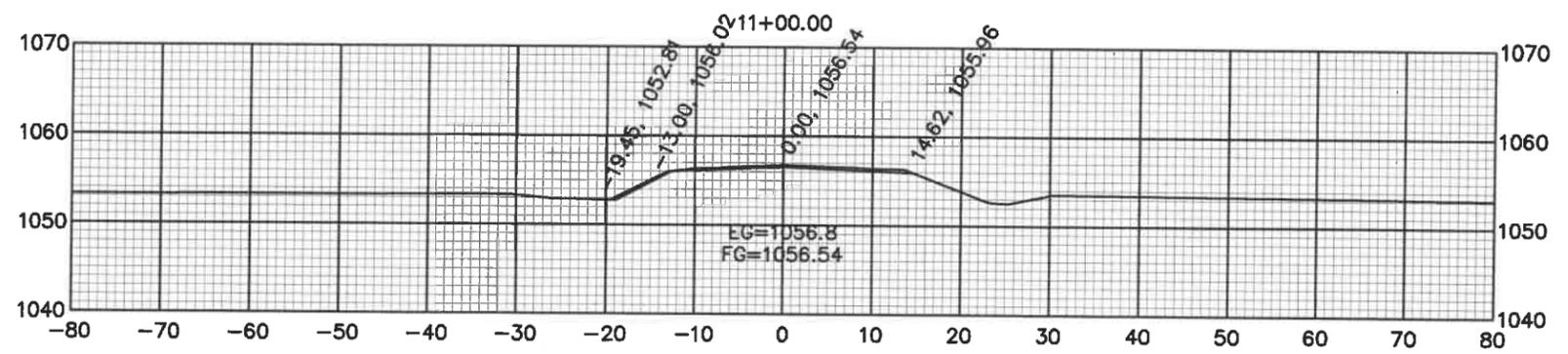
1057.9	1057.3	1056.9	1056.6	1056.58	1056.6	1056.54	1056.6	1056.51	1056.8	1056.54	1057.1	1056.66	1057.3	1056.86	1057.6	1057.15	1057.4	1057.37	1045.7	1057.44	1057.9	1057.36	1057.6	1057.12	1057.3	1056.85	1057.1	1056.73	1057.1	1056.79	1057.1	1057.01	1057.4	1057.35	1057.7	1057.69	1058.1													
																				10+00						11+00						12+00						13+00						14+00						15+00



Sta. 11+50.00	
Cut Area	14.15
Fill Area	1.79
Cut Vol	13.63
Fill Vol	1.95



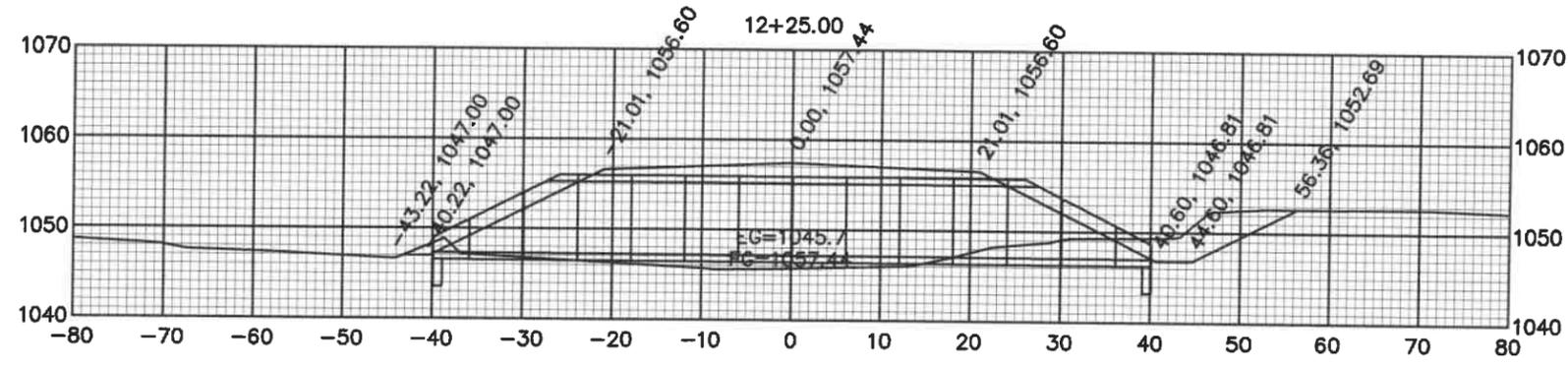
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Fill Area	1.46
Cut Vol	10.03
Fill Vol	1.72



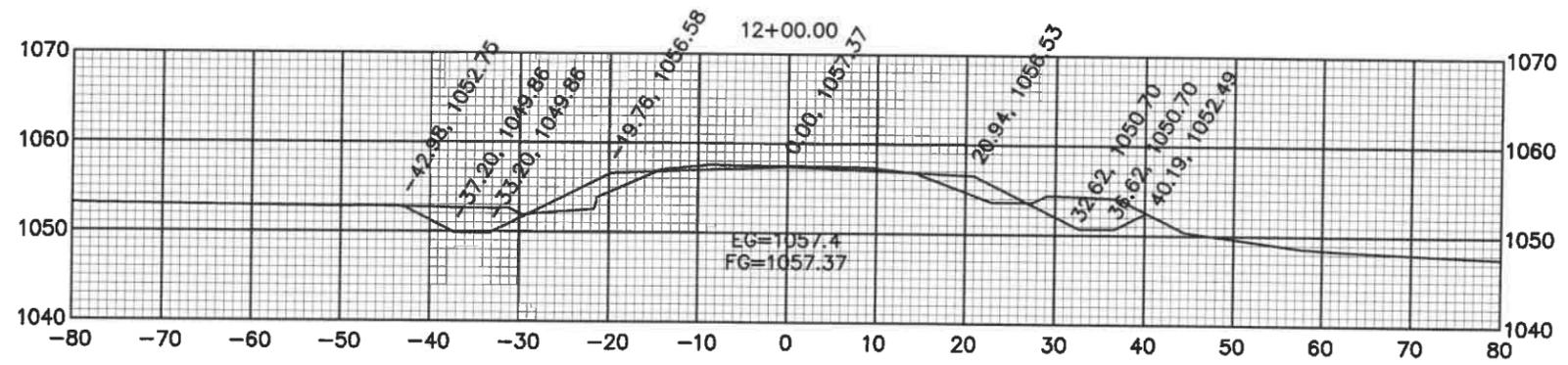
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Fill Area	1.40
Cut Vol	2.95
Fill Vol	0.84

PROJ No. L-LIN20--73-85

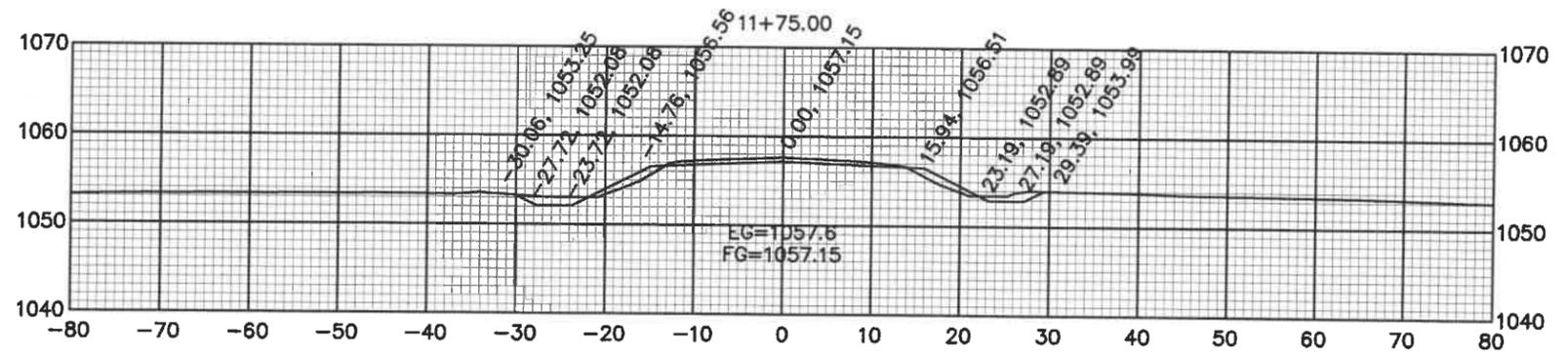
CROSS SECTIONS SHEET



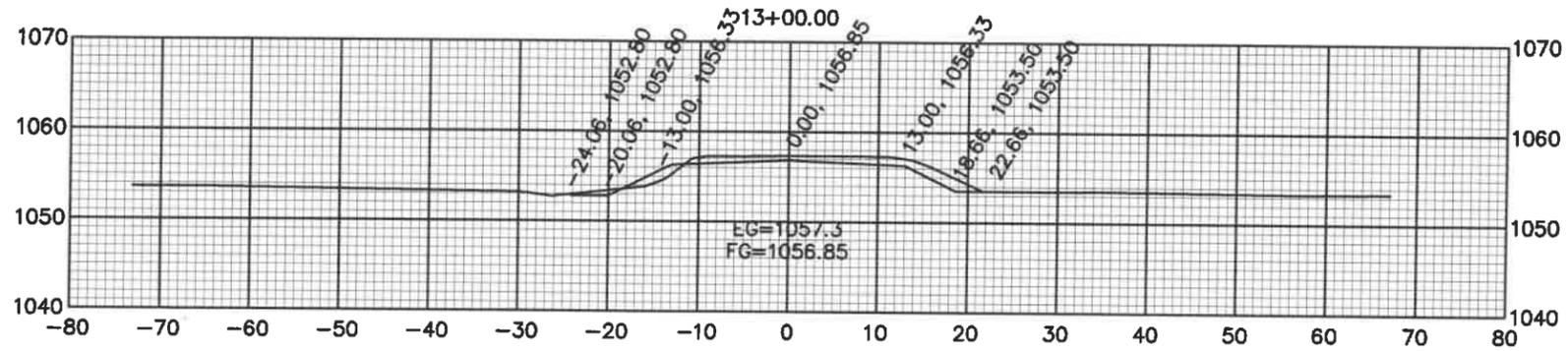
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Fill Area	0.00
Cut Vol	0.00
Fill Vol	0.00



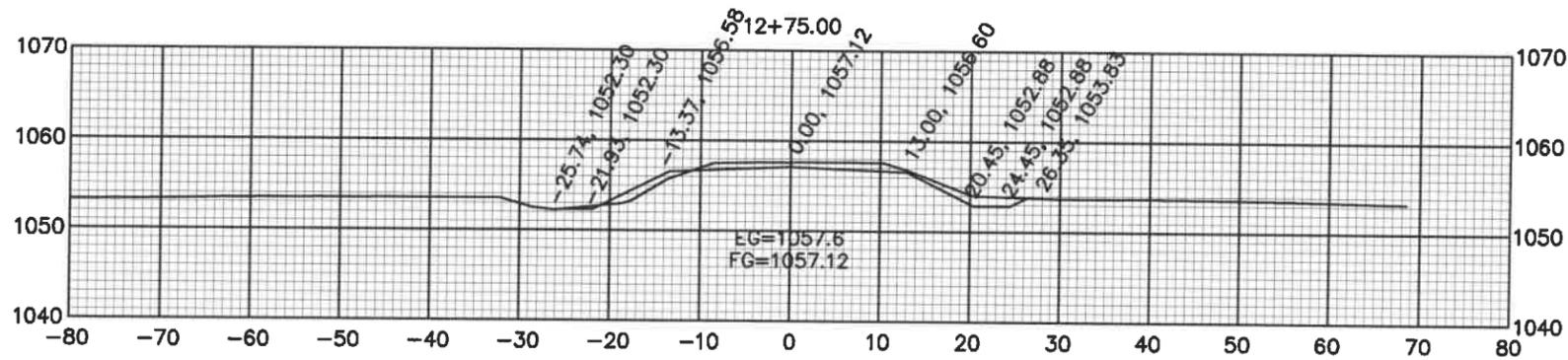
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Fill Vol	28.51



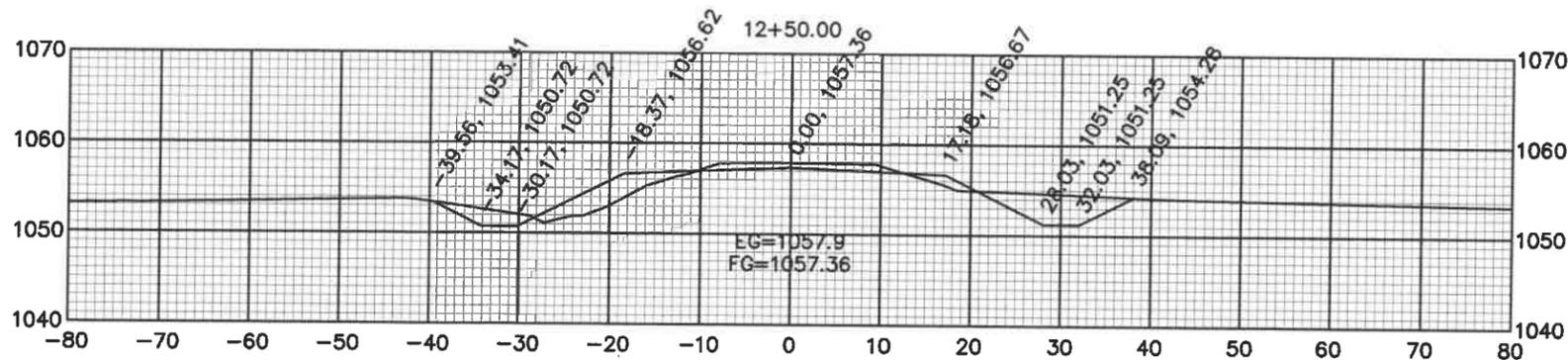
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Fill Area	11.20
Cut Vol	16.53
Fill Vol	7.82



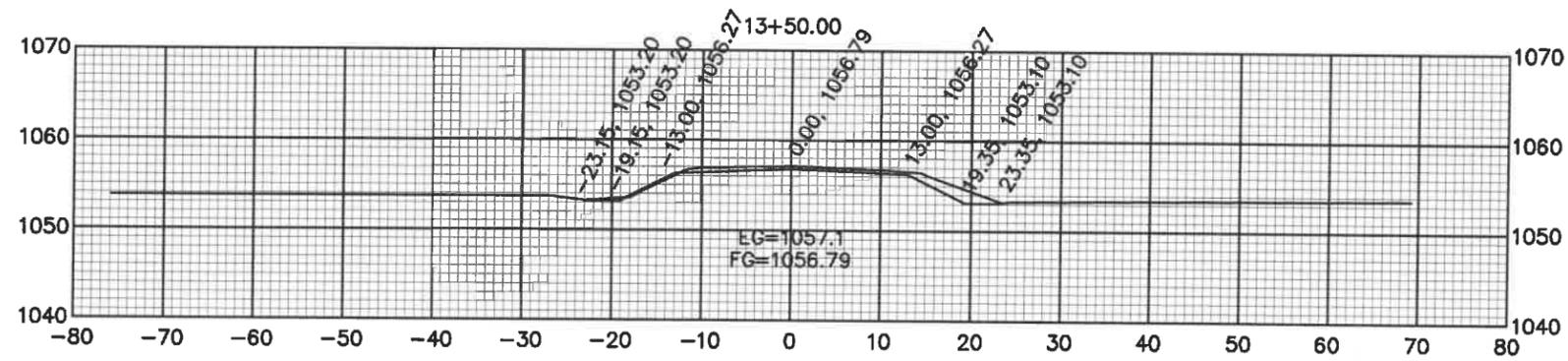
Sta. 13+00.00	
Cut Area	27.94
Fill Area	5.31
Cut Vol	25.02
Fill Vol	7.46



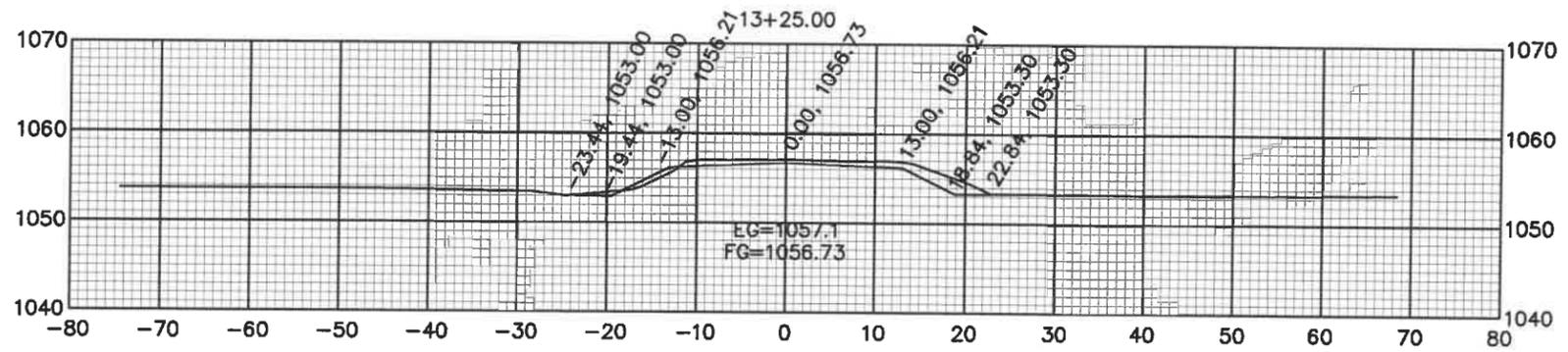
Sta. 12+75.00	
Cut Area	26.10
Fill Area	7.09
Cut Vol	41.25
Fill Vol	24.56



Sta. 12+50.00	
Cut Area	63.00
Fill Area	33.72
Cut Vol	41.01
Fill Vol	74.62



Sta. 13+50.00	
Cut Area	19.96
Fill Area	1.04
Cut Vol	21.27
Fill Vol	2.46



Sta. 13+25.00	
Cut Area	25.97
Fill Area	3.04
Cut Vol	24.96
Fill Vol	5.03

CULVERT REPLACEMENT
Proj. No. L-(IC21)--73-85

STORY COUNTY
Letting Date Feb. 25, 2020

PROJECT TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.

UTILITIES INFORMATION

UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR SHOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE AND SUBSEQUENT WORK IN THE AREA.

IOWA REGIONAL UTILITIES: 641-792-7011
WINDSTREAM COMMUNICATIONS: 800-289-1901
ALLIANT ENERGY: 319-286-1315

CONTRACTOR SHALL CALL ONE CALL AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. ONE CALL 1-800-292-8989

IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE
**SECONDARY ROAD SYSTEM
STORY COUNTY
CULVERT REPLACEMENT**

Project No. L-(IC21)--73-85

INDEX OF SHEETS

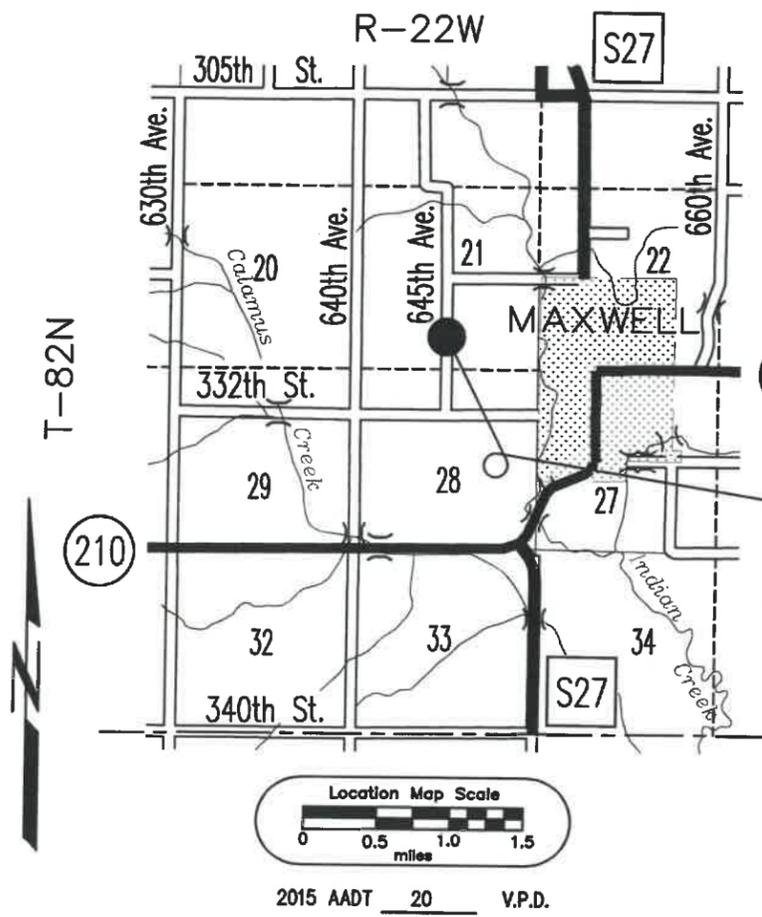
No.	Description
A.01	TITLE SHEET
C.01	QUANTITY INFORMATION SHEET
C.02	GENERAL NOTES SHEET
C.03	TABULATIONS SHEET
C.04	CULVERT DETAIL SHEET
C.05	HEADWALL DETAIL SHEET
D.01	PLAN AND PROFILE SHEET
W.01 to W.03	CROSS SECTIONS

On 645th Ave.; over small stream; Section 21-82-22.

Refer to Proposal Form for a list of applicable specifications.

MILEAGE SUMMARY 105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
I	STA. 7+25.00 TO STA. 8+75.00	150.00	0.028
Total		150.00	0.028



Scales: As Noted

CORPS OF ENGINEERS PERMIT

CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS Nationalwide Permit No. 14. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (<http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx>). THE U.S. ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.

PROJECT LOCATION
STA 8+11.70; ON 645th AVE.,
0.35 MI. SOUTH OF CENTER.,
SECTION 21-82-22.

DESIGN FOR:
SINGLE 60"X84'
METAL PIPE CULVERT
ON 3' SKEW

STANDARD ROAD PLANS 105-4
10-18-11

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

Number	Date	Title
DR-101	04-18-17	PIPE CULVERT (BEDDING AND BACKFILL)
DR-102	04-21-15	PIPE CULVERT (COVER AND CAMBER)
DR-103	04-21-15	PIPE CULVERT (INSTALLATION DETAILS)
DR-104	04-19-16	DEPTH OF COVER TABLES FOR CONCRETE AND CORRUGATED PIPE
EC-204	04-19-16	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICES
EC-301	10-18-16	ROCK EROSION CONTROL (REC)
EW-101	10-17-17	EMBANKMENT AND REBUILDING EMBANKMENTS
TC-252	04-19-16	ROUTES CLOSED TO TRAFFIC



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.

Signed: *Tyler Sparks* Date: *1-7-20*

Tyler Sparks, P.E. 21419
My license renewal date is December 31, *2020*

Pages or sheets covered by this seal:
(Entire submission unless specified here)



Accepted by
Janet Mann *1-7-2020*
Story County Engineer Date

Approved Story County
Board of Supervisors

FILE LOCATION: G:\AUTOCAD\PROJECTS\CULVERTS\2020\INDIAN CREEK 21 (645TH)\DWG\BASE.DWG

PROJ No. L-IC21--73-85

QUANTITY INFORMATION SHEET

ESTIMATED PROJECT QUANTITIES OF QUANTITIES
(1 DIVISION PROJECT)

100-1A
07-15-97

ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2101-0850001	CLEARING AND GRUBBING	ACRE	0.15
2	2102-2710070	EXCAVATION, CL 10, ROADWAY AND BORROW	CY	519.0
3	2107-0425020	COMPACT BACKFILL ADJACENT TO STRUCTURE	CY	21.0
4	2401-6745650	REMOVAL OF EXISTING STRUCTURES	LS	1.0
5	2402-2720000	EXCAVATION, CLASS 20	CY	232.2
6	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	6.7
7	2404-7775000	REINFORCING STEEL	LB	220
8	2417-1060060	CULVERT, CORRUGATED METAL ROADWAY PIPE, 60 IN. DIA.	LF	84.0
9	2506-4984000	FLOWABLE MORTAR	CY	47.0
10	2507-3250005	ENGINEERING FABRIC	SY	21.8
11	2507-6800061	REVTMENT, CLASS E	TON	12.5
12	2518-6910000	SAFETY CLOSURE	EACH	4.0
13	2528-8445110	TRAFFIC CONTROL	LS	1.0
14	2533-4980005	MOBILIZATION	LS	1.0
15	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	240.0

GENERAL NOTES

Story County to stake culvert control and right-of-way, apply seeding and mulching, and place granular surfacing on roadway.

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION
1.	Entire project to be cleared and grubbed from BOP to EOP and from ROW line to ROW line.
2.	Plan quantity is based on approximately 519.0 CY of fill (30% shrink factor) and 278.1 CY of cut. Contractor shall furnish 240.9 CY from a suitable borrow site to achieve dirt balance. Type A compaction required. No payment for overhaul will be made. This item includes stripping, stockpiling, and spreading topsoil. Topsoil to be spread to a minimum 4" on all disturbed areas from catch points to edge of road. Slopes to be finished smooth to allow for seeding. Seeding will be done by the County.
3.	Contractor shall compact backfill using methods and precautions outlined in Section 2402.03 H. Backfilling material shall meet Section 4133 specifications and shall be considered incidental to this item. See Sheet C.05 for backfilling limits and dimensions.
4.	There are three structures at this site: a 6'x3'x3½' concrete drop inlet that has a timber fence protecting it, a 36"x70' metal pipe culvert, and a 55 foot long timber plank retaining wall (with timber piling) at the outlet. Materials from all these old structures shall become the property of the Contractor according to article 1104.08 of the Standard Specifications, and removed from site.
5.	Item for shaping inlet and outlet channel, and for splash basin excavation. Excavated material may be used as fill for any channel relocation or drained and wasted on roadway foreslopes.
6.	The concrete is for tie-down headwalls at both the inlet and the outlet. See Sheet C.04 for details and dimensions.
7.	The steel reinforcing is for tie-down headwalls at both the inlet and the outlet. See Sheet C.04 for details and dimensions.
8.	The 60" metal culvert shall be fabricated and placed according to details and dimensions in these plans. Costs for all connecting bands (and associated hardware) shall be included in bid price. See Sheet C.02 for tabulation and fabrication details. Approximately 110 tons of granular material is required under the culvert for bedding (and to fill scour pool at outlet). The bedding is incidental to bid this item.
9.	Item for the filling of an existing 6'x3'x62' concrete box culvert and approx. 7' of a 6'x3' concrete drop inlet. Contractor shall clear the inside of the existing culvert of debris and sediment to ensure complete filling with flowable. Price bid shall include all materials, equipment, and labor necessary to perform this work. Flowable mortar shall meet all specifications according to Section 2506. See Tabulation 110-9 and Detail 4315 on Sheet C.02 for more information.
10.-11.	Items for the construction of a rock splash basin with wing armoring at the outlet, and wing armoring at the inlet. See Tabulation 100-23 on Sheet C.03 for stationing and quantities, and Standard Road Plan EC-301 for further details.
12.	See Tabulation 108-13A on Sheet C.02 for stationing and quantities.
13.	See Standard Road Plan TC-252 for details.
15.	Sediment Control Devices are to be installed at the earliest practicable time. These may be moved (and reset thereafter) by the Contractor to facilitate culvert construction phases.

GENERAL NOTES

SPECIFICATIONS:

Design: AASHTO LRFD, Series 2004 with Interim 2005.

Construction: Iowa Department of Transportation Standard Specifications For Highway and Bridge Construction, Series 2012, plus applicable General Supplemental Specifications, Developmental Specifications, Supplemental Specifications and Special Provisions shall apply to construction work on this project.

GENERAL NOTES:

Contractor to construct a single 60"x84" corrugated metal pipe roadway culvert on 3' skew on 645th Ave. over an unnamed field drainage and grade the approaches.

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

The prime Contractor shall be responsible for all erosion control measures and shall employ controls to reduce the erosiveness of the soils in the construction area adjacent to surface waters and wetlands, including placing and maintaining erosion control measures during and after construction.

CONTRACTOR'S WORK AREA:

The Contractor's work and material storage area shall be defined by the Contractor and noted to the Engineer. Upon project completion, the Contractor shall restore these areas to their original condition. Payment for any restorative work shall be paid for under the "Class 10 Excavation" bid item. Areas outside the Contractor's defined work and material storage areas that are disturbed by the Contractor shall be restored to their original condition by the Contractor and no additional payment shall be made for this work.

UTILITY NOTES:

The Contractor shall call One Call at least 48 hours prior to beginning work. Utility companies found to be located within the construction area are listed on the title sheet of these plans. See Section 1107.15 of the Iowa DOT Standard Specifications For Highway And Bridge Construction, Series 2012, regarding utility related responsibilities.

Contractor to use caution in working around existing power transmission lines as they will not be relocated or de-energized during construction.

EMERALD ASH BORER NOTE:

Any living, dead, cut or fallen material of the ash (*Fraxinus* spp.) including trees, nursery stock, logs, firewood, stumps, roots, branches, and composted or uncomposted ash chips can be freely moved within the yellow areas of the most recent Federal EAB Quarantine & Authorized Transit.

https://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/eab_quarantine_map.pdf.

Obtain appropriate Compliance Agreements from USDA APHIS PPQ prior to moving any of the above listed ash articles to areas outside the yellow zone on the map. For questions, concerns, and general assistance, contact:

USDA APHIS PPQ, Iowa office, 515-414-3295

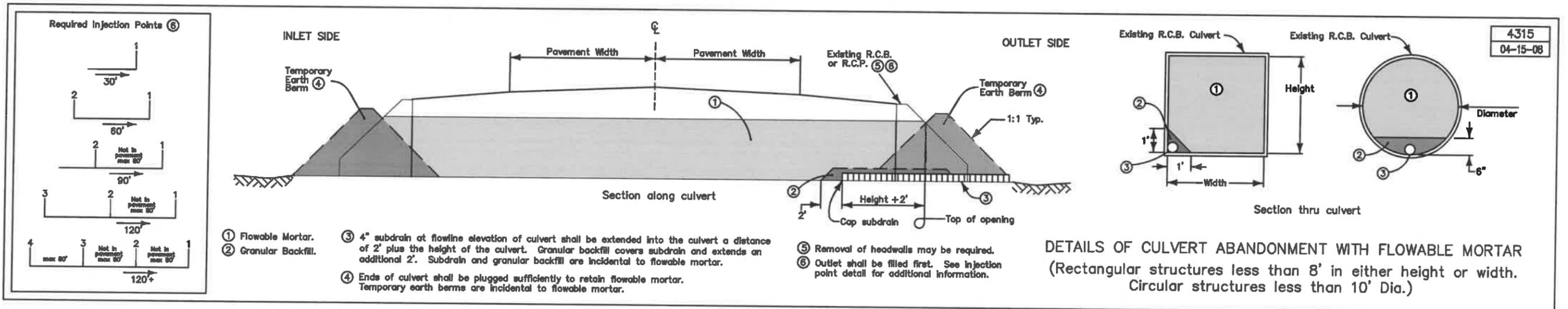
Or
Iowa Department of Agriculture & Land Stewardship
515-725-1470
Entomology@IowaAgriculture.gov

INDIANA BAT HABITAT:

See Iowa DOT Specification 2101.01 for tree removal.

CULVERT ABANDONMENT

* Not a bid item. Refer to Details 4315 and 4316					110-9 10-18-11
Location Station	Description	Fill Material		4" Perforated Subdrain LF	Remarks
		Flowable Mortar CY	Granular Backfill* TON		
8+09.00	6'x3'x82' RCB Culvert w/ 6'x3'x7' Drop Inlet	26.33	0.75	10.33	Contractor to clean culvert prior to flowable placement.



PROJ No. L-IC21--73-85

GENERAL NOTES SHEET

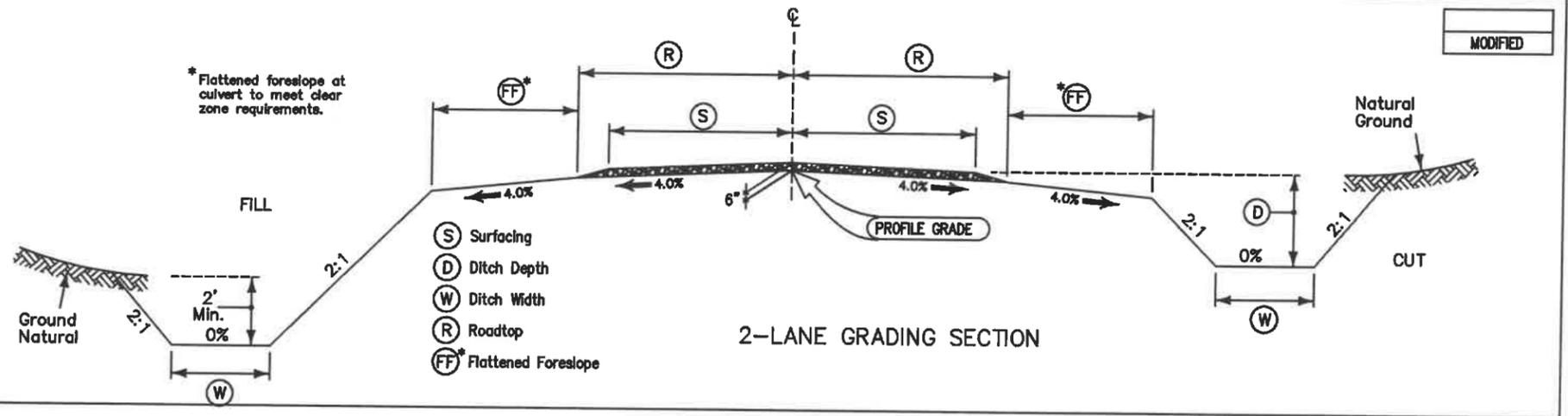
PROJ No. L-IC21--73-85

TABULATIONS SHEET

Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

See Plan & Profile sheets and cross sections for additional details of ditches and backslopes.

LOCATION				DIMENSIONS				
ROAD IDENTIFICATION	SIDE	STATION TO STATION		FF* Feet	D Feet	W Feet	R Feet	S Feet
645th Ave.	Lt.	7+25.0	7+76.2	0	var.	6	13	11
645th Ave.	Lt.	7+76.2	8+07.1	var.	var.	6	13	11
645th Ave.	Lt.	8+07.1	8+18.4	8	var.	6	13	11
645th Ave.	Lt.	8+18.4	8+48.4	var.	var.	6	13	11
645th Ave.	Lt.	8+48.4	9+00.0	0	var.	6	13	11
645th Ave.	Rt.	7+25.0	7+75.0	0	var.	6	13	11
645th Ave.	Rt.	7+75.0	8+05.0	var.	var.	6	13	11
645th Ave.	Rt.	8+05.0	8+16.2	8	var.	6	13	11
645th Ave.	Rt.	8+16.2	8+47.2	var.	var.	6	13	11
645th Ave.	Rt.	8+47.2	9+00.0	0	var.	6	13	11

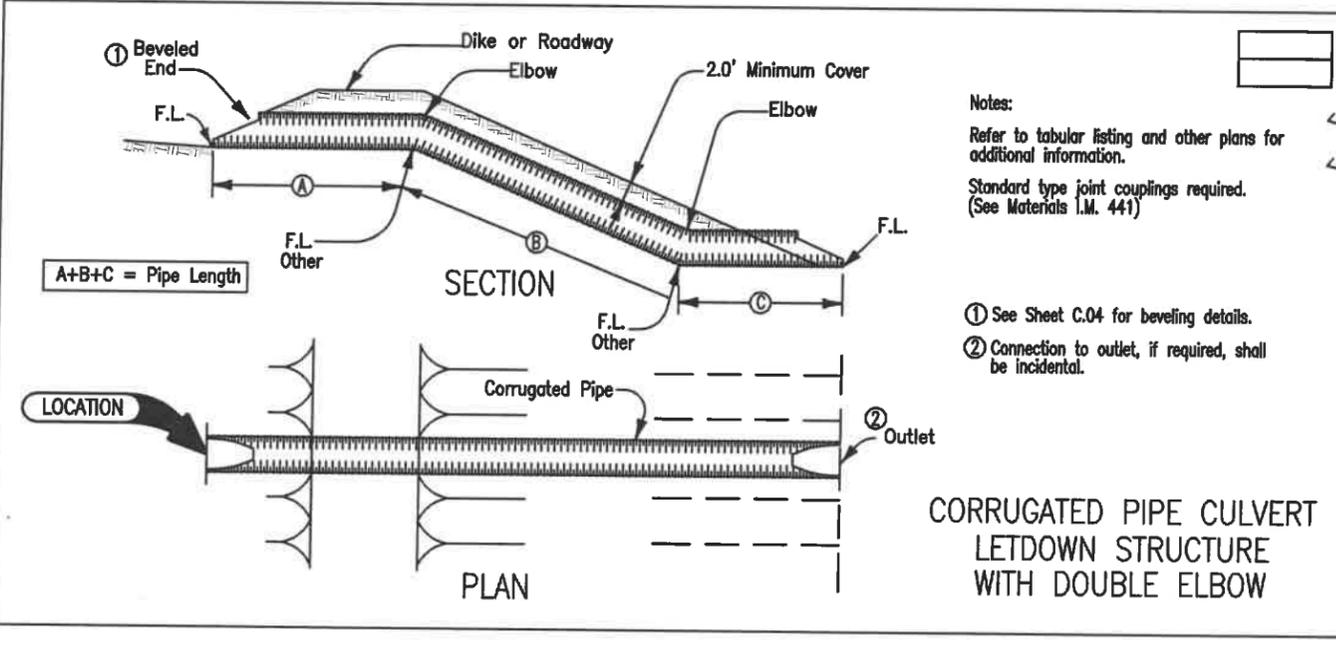


MODIFIED

DRAINAGE STRUCTURES BY CULVERT CONTRACTOR

104-4
10-20-08

Location	Design Number	Size In.	Kind	Length New Const. Lin. Ft.	No. of Aprons	Flow Line Elevation				Dimensions - Lin. Ft.		Skew Ahead		By Road Contractor				Floodable* Backfill (A) Cu. Yds.	Porous* Backfill (B) Cu. Yds.	Flooded Backfill (A+B) Cu. Yds.	REMARKS	
						Left	Right	Other	Other	Left	Right	Left	Right	Degrees	Rt.	Dike						
																Location Station	Top Elev.					Type
8+11.70		60"	Single CMP	84.0	-	923.10	917.05	922.80	917.20	35.4	48.6									232.2 cy Class 20 Excav.		



Notes:
 A = 56.75'
 B = 10.75'
 C = 13.75'
 Elbows are 30'

TABULATION OF SAFETY CLOSURES
 Refer to Section 2518 of the Standard Specifications

STATION	CLOSURE TYPE		REMARKS
	ROAD QTY.	HAZARD QTY.	
7+25	1		
7+75		1	
8+50		1	
9+00	1		
TOTAL	2	2	TOTAL = 4.00

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE
 Refer to EC-204

LOCATION				12 IN. DIA. LF	REMARKS
BEGIN STATION	END STATION	SIDE			
7+50	8+10	RT	60	SW Ditch Line	
7+50	8+10	LT	60	SE Ditch Line	
8+15	8+75	RT	60	NW Ditch Line	
8+15	8+75	LT	60	NE Ditch Line	
TOTAL			240		

ROCK EROSION CONTROL

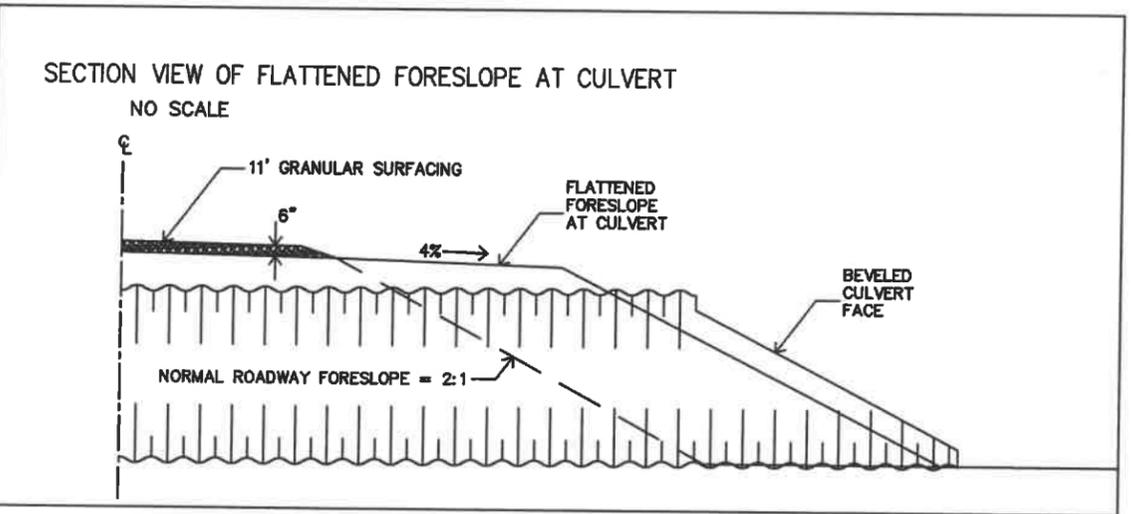
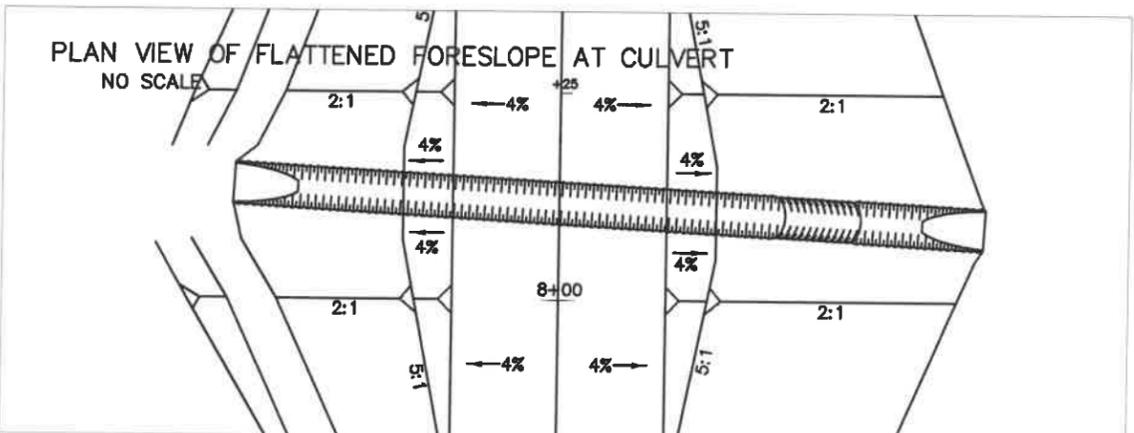
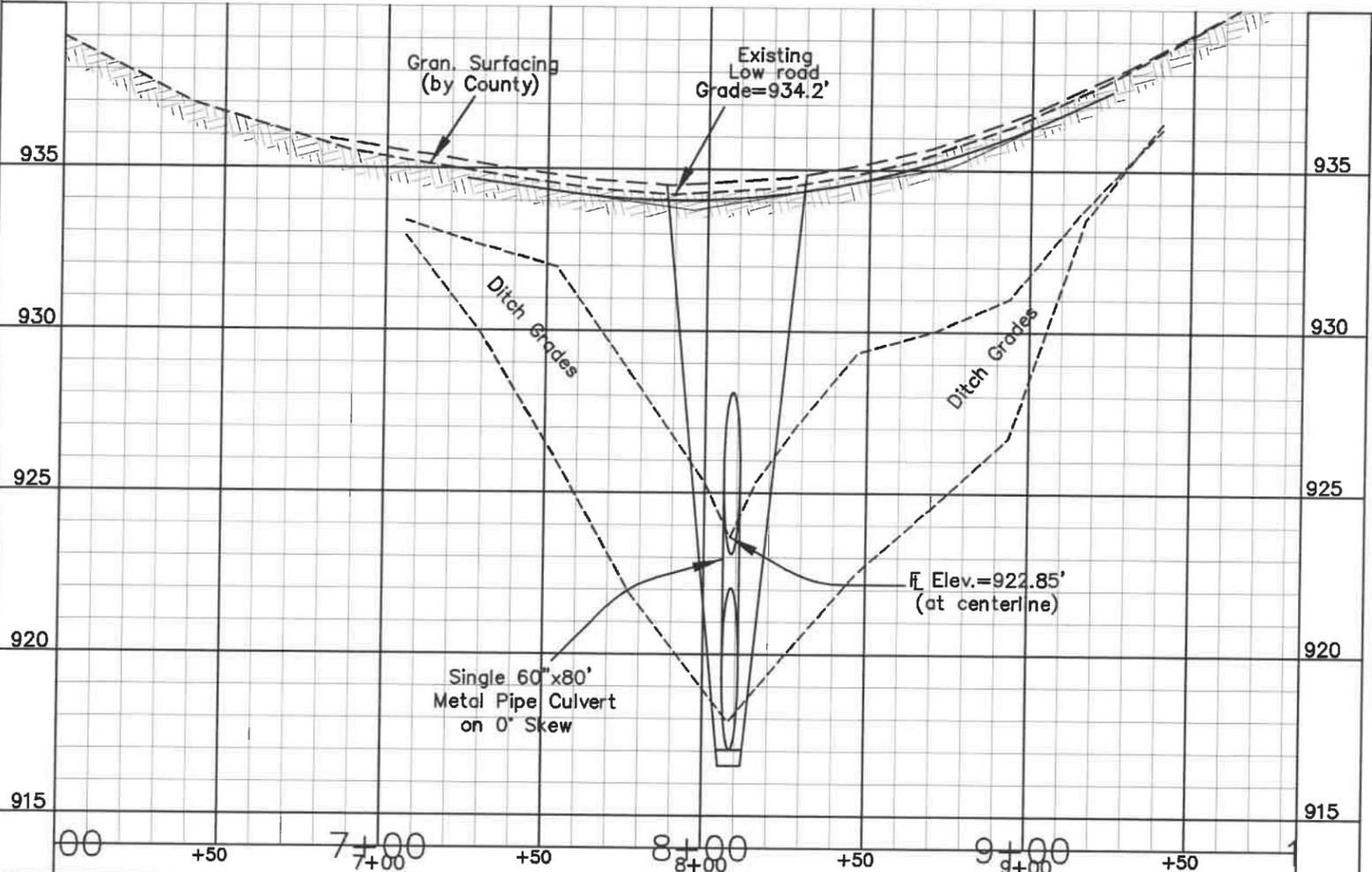
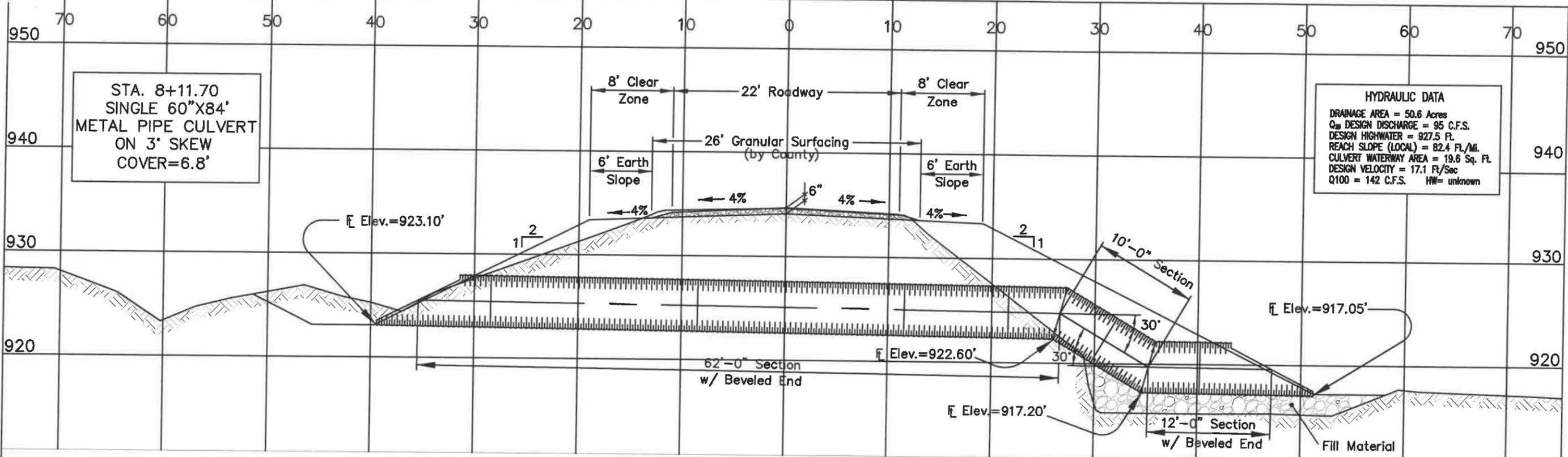
Refer to EC-301

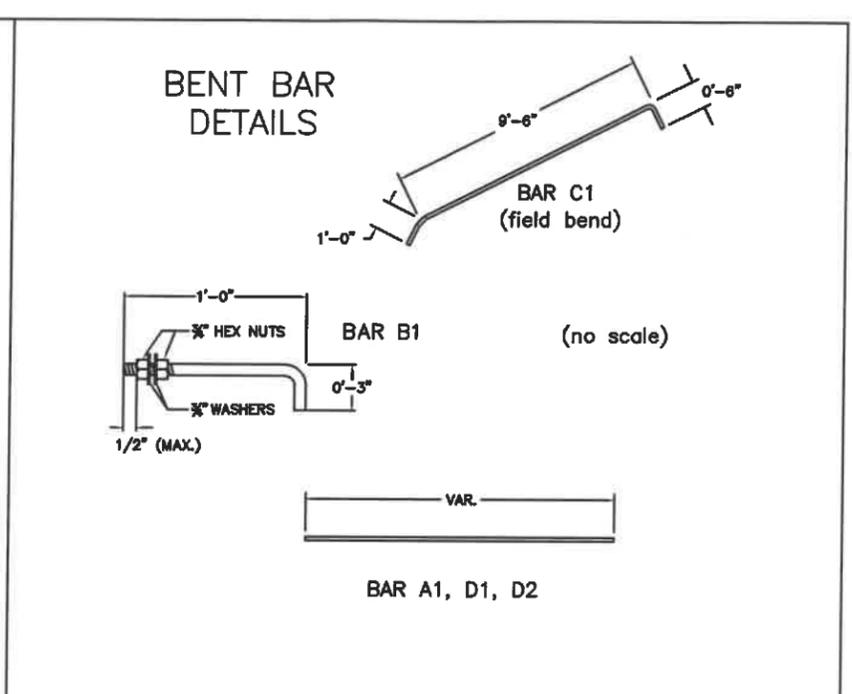
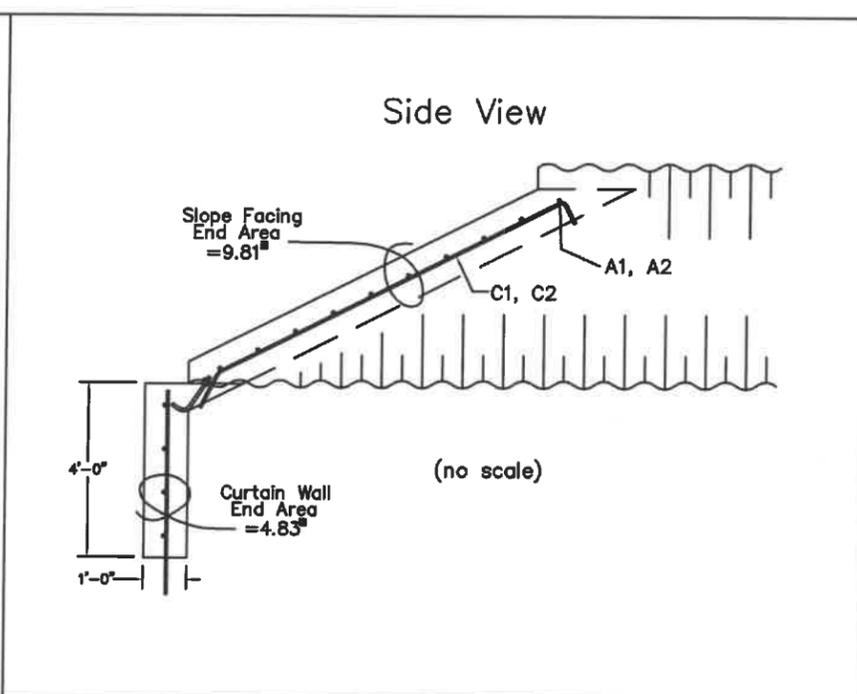
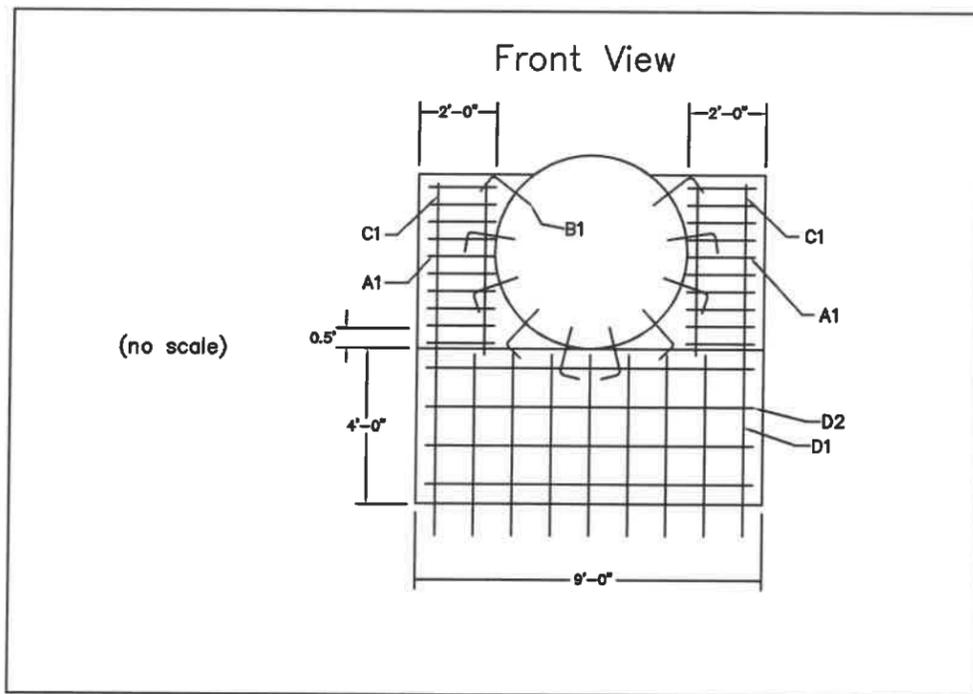
100-23
04-21-15

Road Identification	Begin Station	End Station	Side Lt./Rt.	L FT	W FT	Rock Erosion Control (REC)					Material Bid Quantities			Remarks
						Type 1 Rock Ditch Check	Type 2 Rock Ditch	Type 3 Rock Flume	Type 4 Rock Splash Basin	Type 5 Rock Slope Protection	Erosion Stone TON	Class E Revetment TON	Eng. Fabric SY	
						645th Ave.	8+03.8	8+13.8	57' Rt.	10	10			

PROJ No. L-IC21--73-85

CULVERT DETAIL SHEET



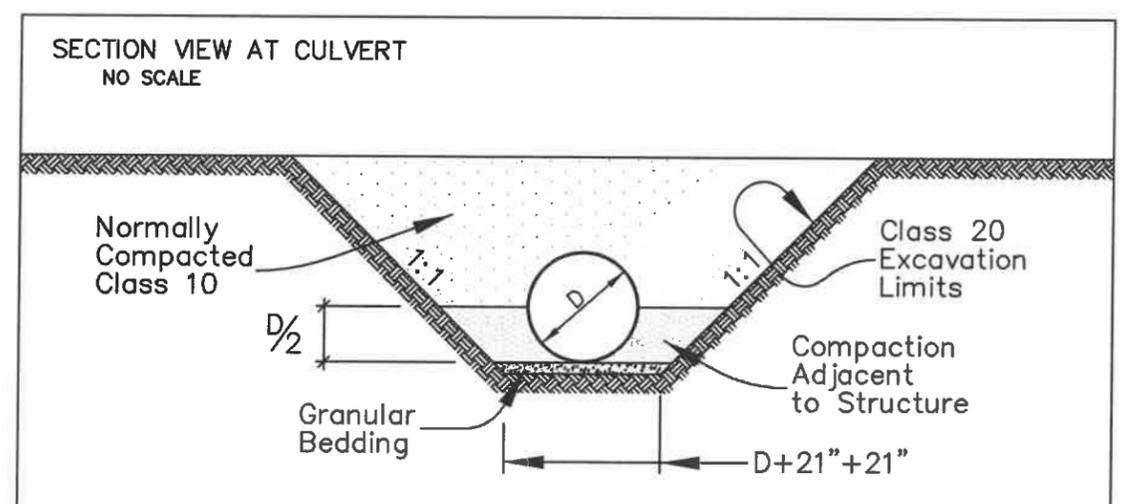
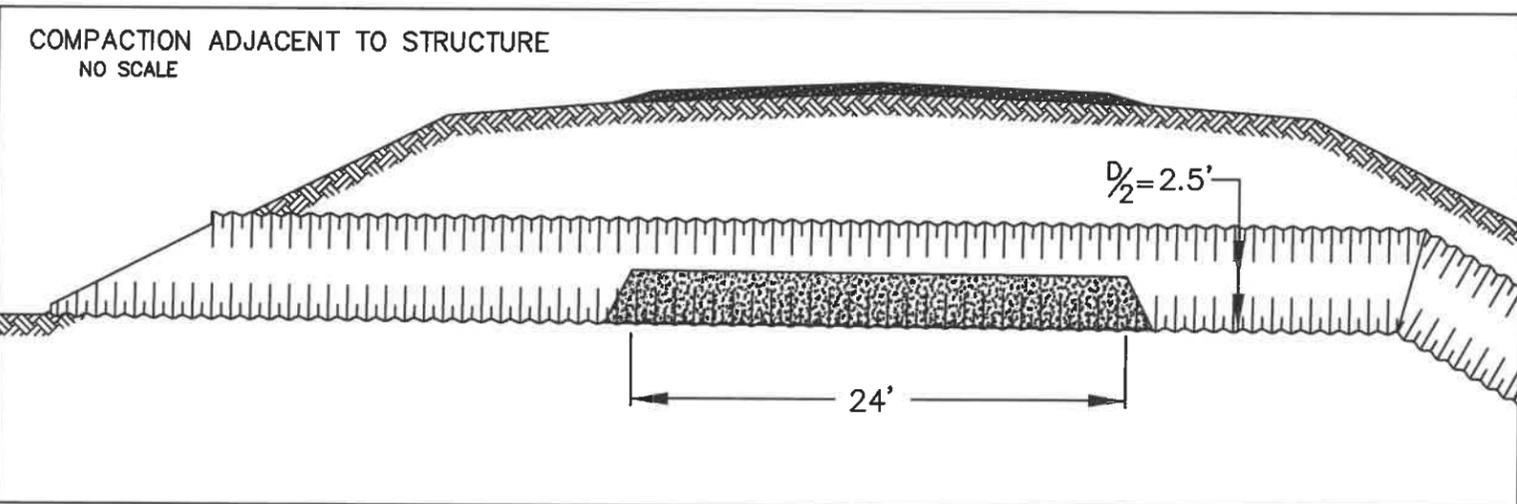
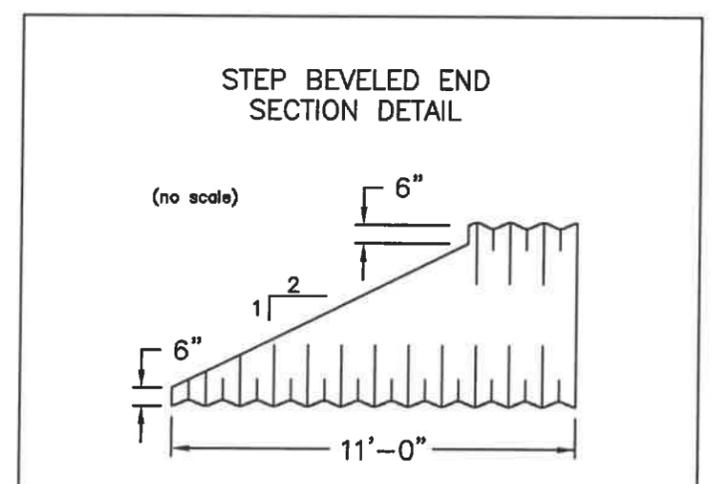


CONCRETE QUANTITY ITEMIZATION

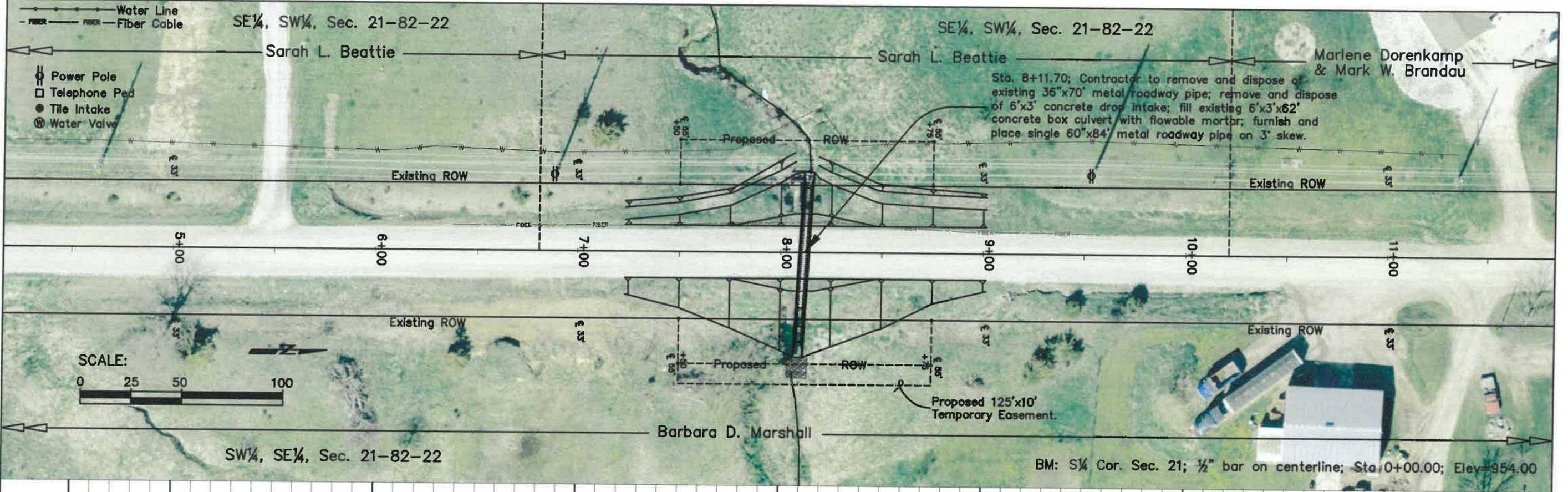
Slope Facing Concrete Quantity	
$9.81' \times 9' \times 27 = 3.27 \text{ cy}$ (less pipe area) $- 1.53 \text{ cy}$ <u>1.74 cy</u>	
Curtain Wall Concrete Quantity	
$4.83' \times 9' \times 27 = 1.61 \text{ cy}$	
Total = $(1.74 + 1.61) = 3.35 \text{ cy}$ $\times 2 = \underline{6.70 \text{ cy}}$	

REINFORCING STEEL ITEMIZATION

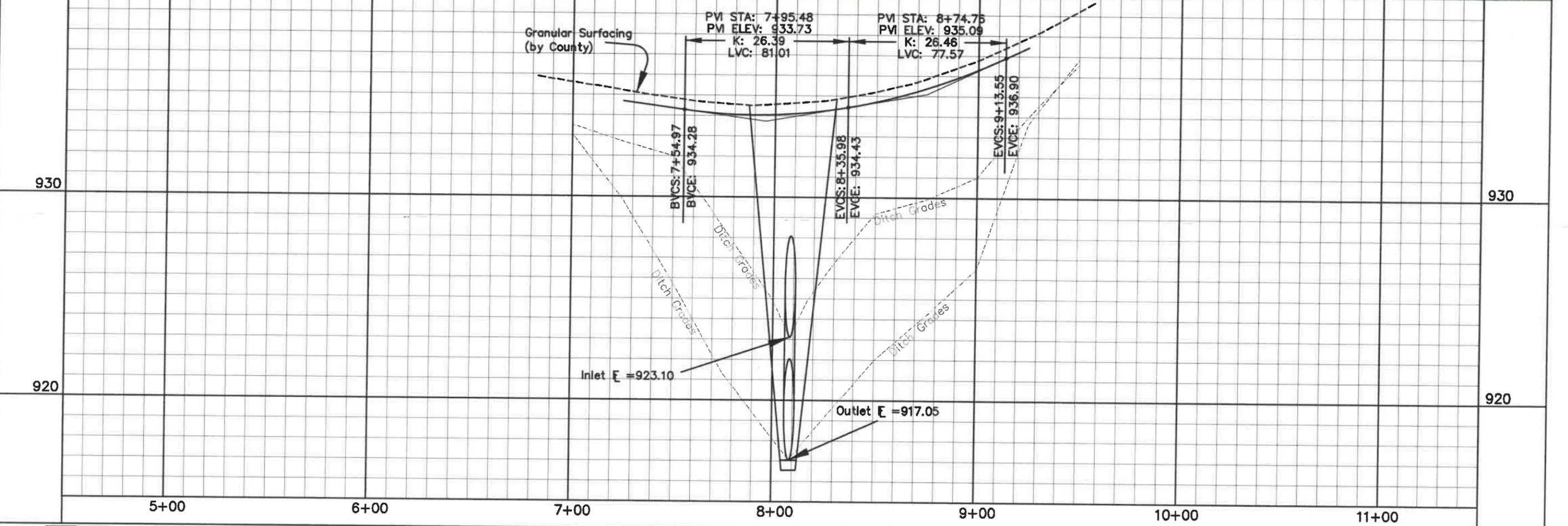
LOCATION	MARK	NO.	SIZE	SPACING	LENGTH	WEIGHT
CURTAIN WALL						
vertical	D1	18	#4	1'-0"	4'-6"	54.1
horizontal	D2	8	#4	1'-0"	8'-6"	45.4
SLOPE COLLAR						
transverse	A1	40	#4	1'-0"	1'-6"	40.1
longitudinal	C1	8	#4	1'-0"	11'-0"	58.8
HOOK BOLTS	B1	20	3/4"	1'-0"	1'-3"	16.7
HEX NUTS		80	3/4"			3.5
WASHERS		80	3/4"			1.5
(for both headwalls) TOTAL:						220.1



PROJ No. L-IC21--73-85

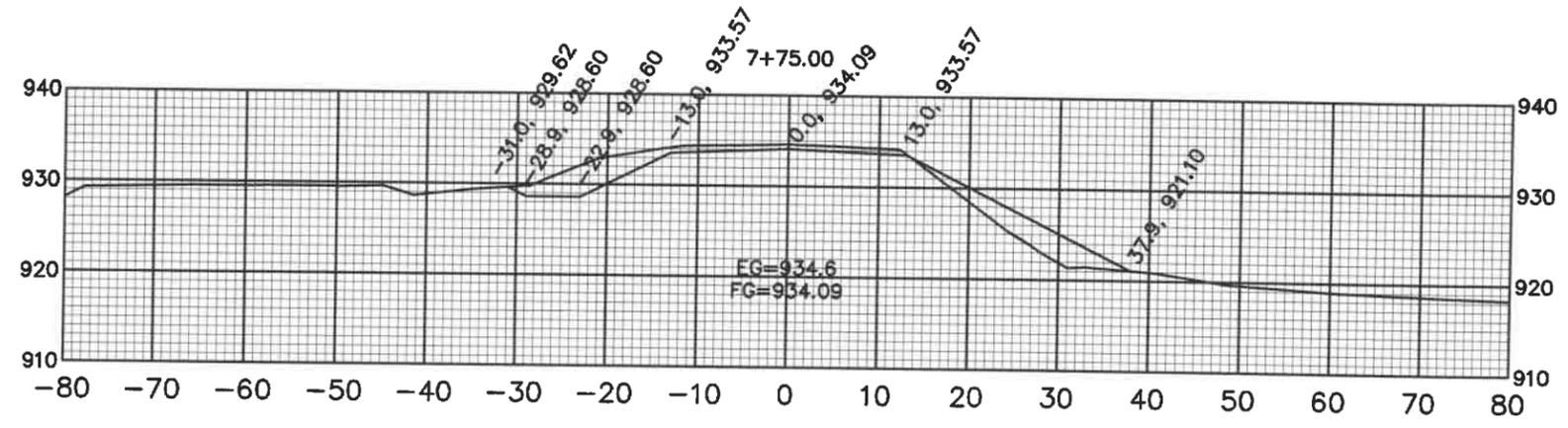


PLAN AND PROFILE SHEET

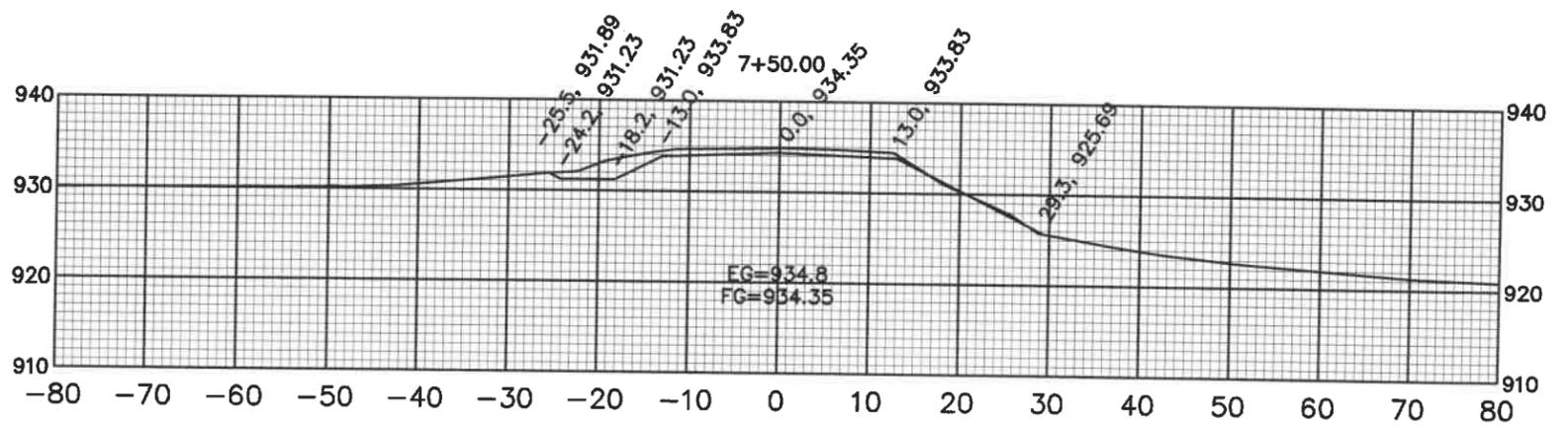


PROJ No. L-IC21--73-85

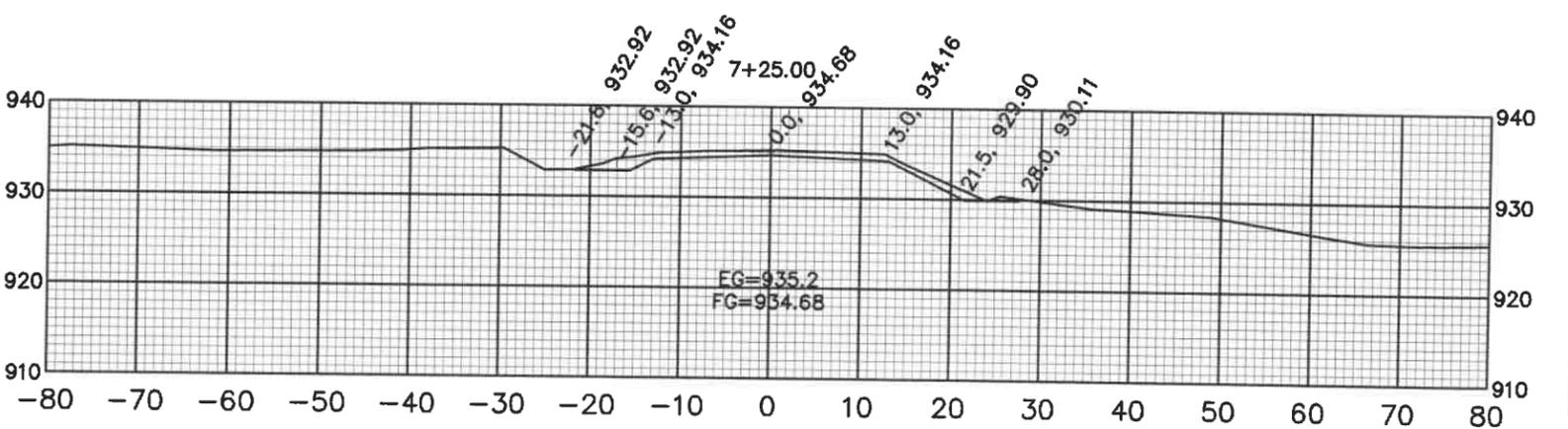
CROSS SECTION SHEETS



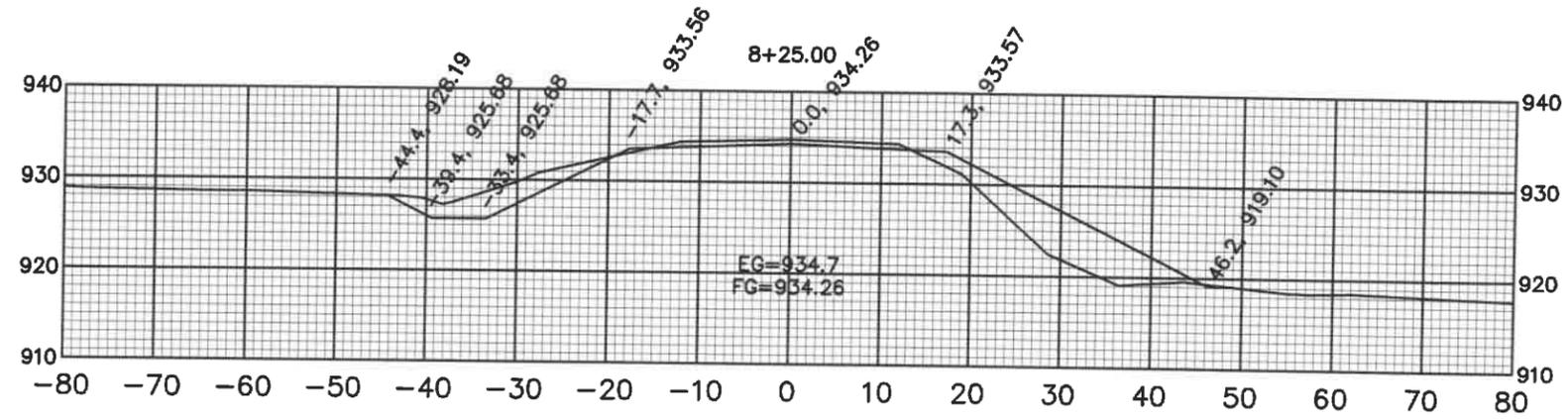
Sta. 7+75.00	
Cut Area	52.56
Fill Area	44.09
Cut Vol	40.01
Fill Vol	26.92



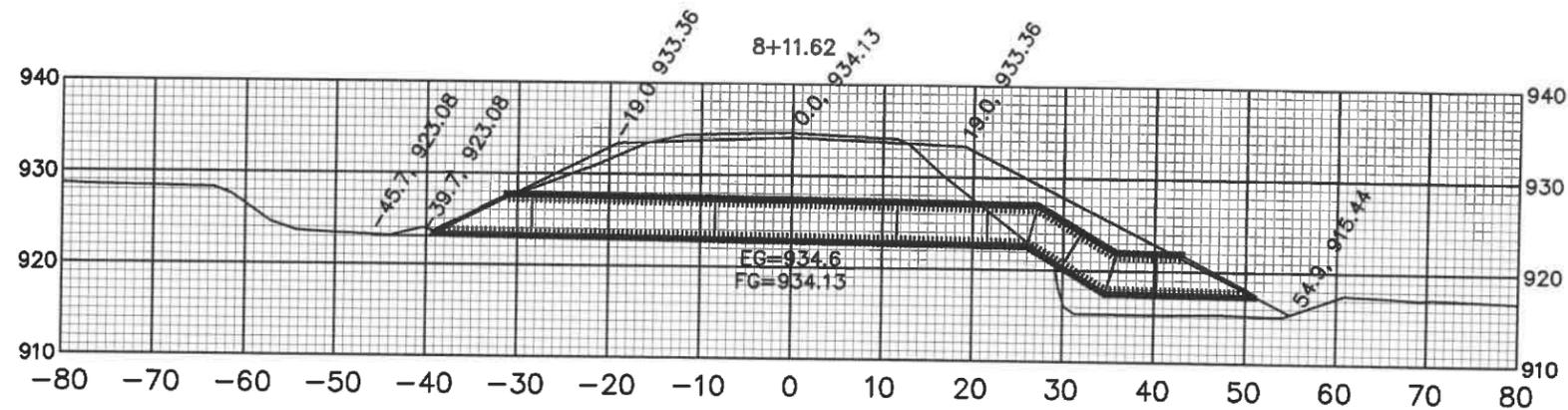
Sta. 7+50.00	
Cut Area	33.86
Fill Area	0.63
Cut Vol	31.31
Fill Vol	0.38



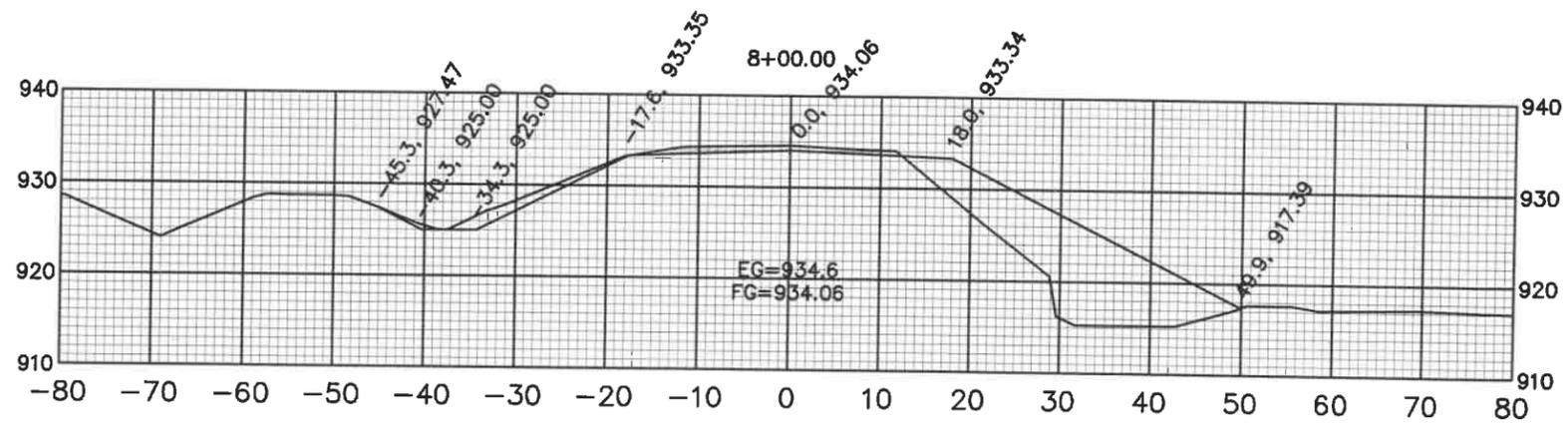
Sta. 7+25.00	
Cut Area	33.77
Fill Area	0.00
Cut Vol	0.00
Fill Vol	0.00



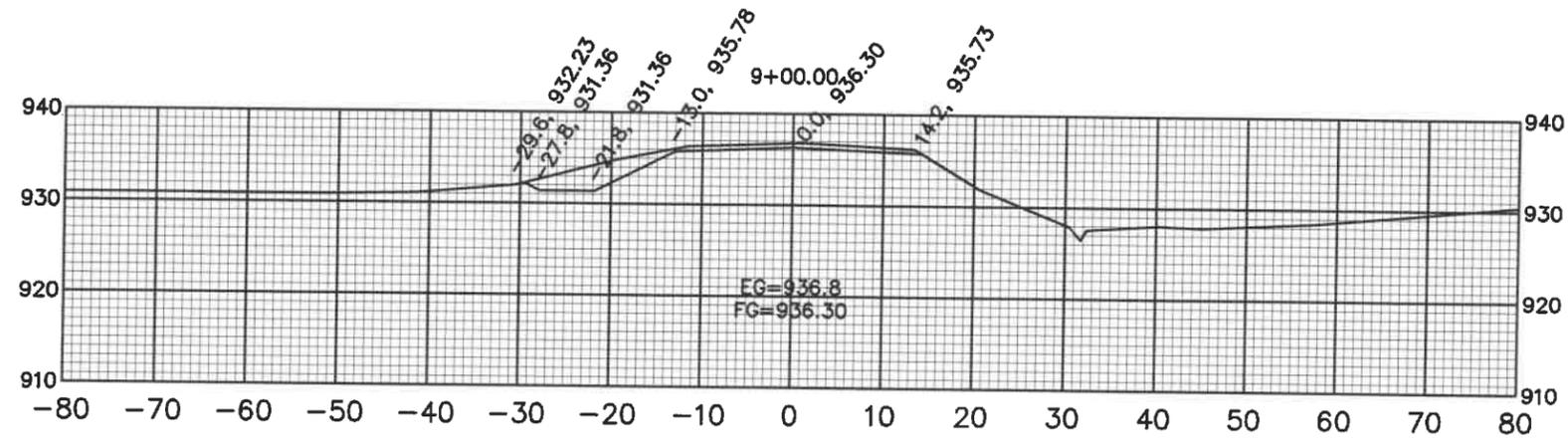
Sta. 8+25.00	
Cut Area	56.49
Fill Area	103.21
Cut Vol	17.77
Fill Vol	117.66



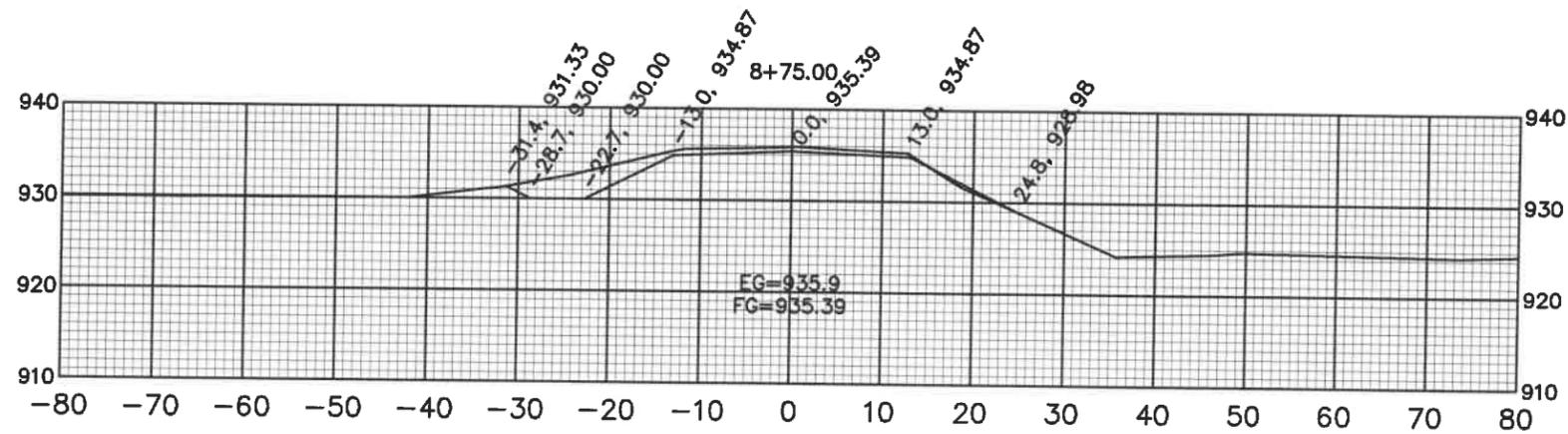
Sta. 8+11.62	
Cut Area	15.19
Fill Area	261.96
Cut Vol	10.39
Fill Vol	134.87



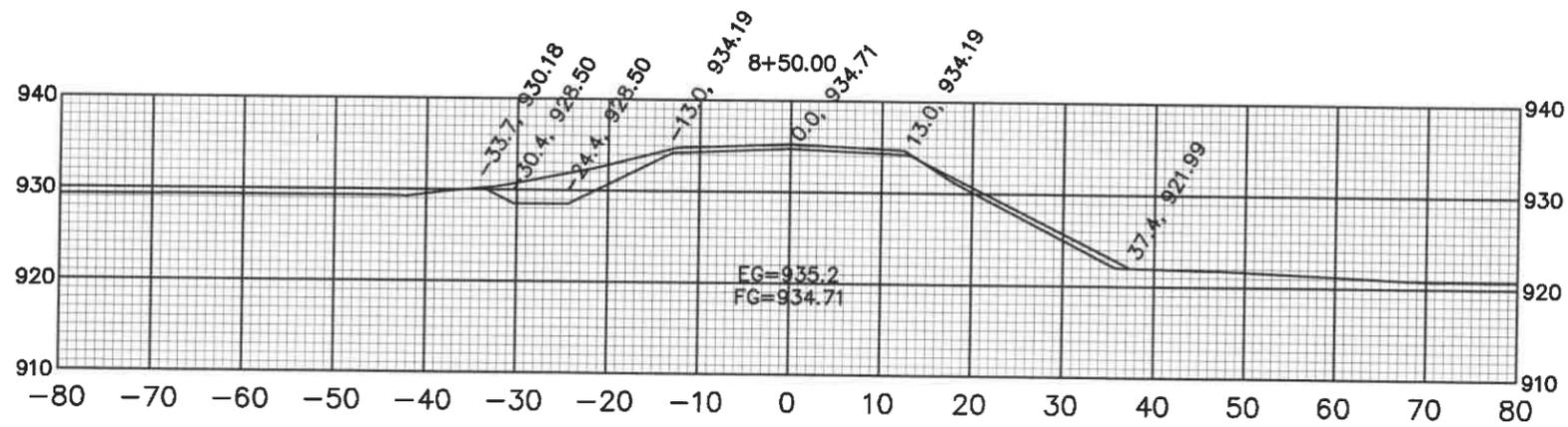
Sta. 8+00.00	
Cut Area	33.11
Fill Area	220.32
Cut Vol	39.66
Fill Vol	159.13



Sta. 9+00.00	
Cut Area	41.25
Fill Area	0.00
Cut Vol	40.94
Fill Vol	1.11



Sta. 8+75.00	
Cut Area	47.19
Fill Area	1.85
Cut Vol	46.85
Fill Vol	8.96



Sta. 8+50.00	
Cut Area	54.00
Fill Area	13.04
Cut Vol	51.15
Fill Vol	69.96

PROJ No. L-P27--73-85

QUANTITY INFORMATION SHEET

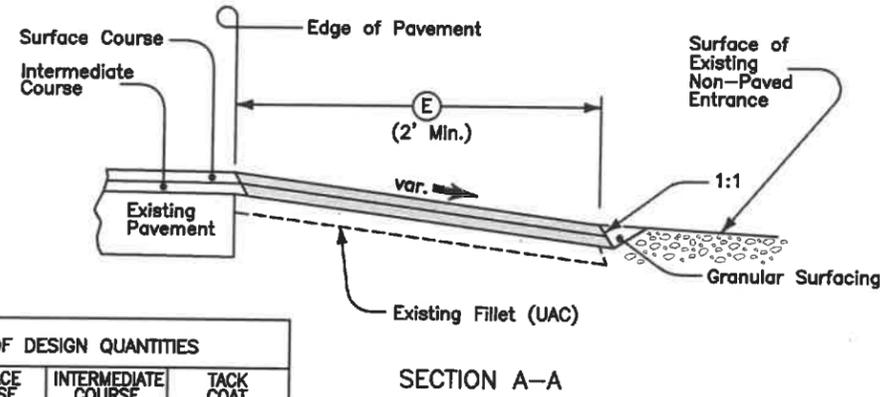
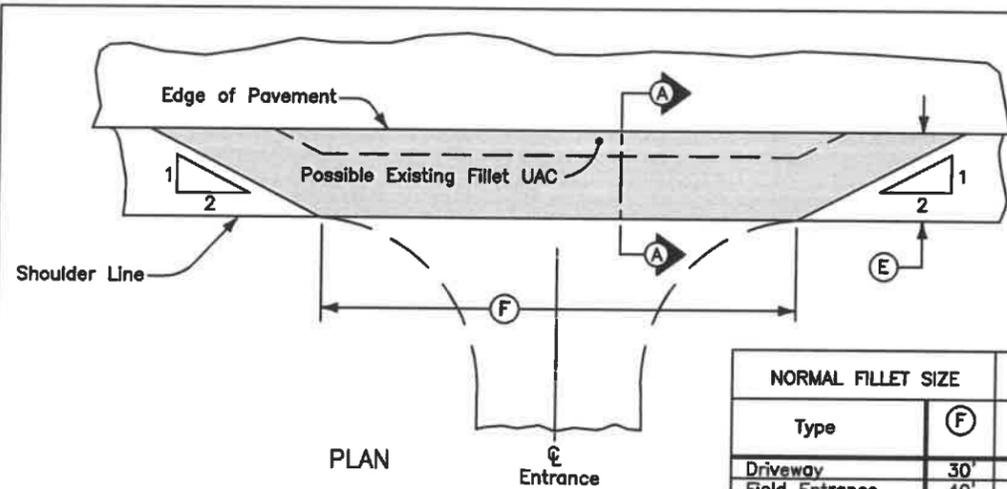
ESTIMATED PROJECT QUANTITIES OF QUANTITIES (1 DIVISION PROJECT)				
				100-1A
ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	215.0
2	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	142.0
3	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	482.1
4	2303-1031500	HMA, ST, BASE COURSE, 1/2 IN. MIX	TON	1,058.1
5	2303-1032500	HMA, ST, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	317.4
6	2303-1033500	HMA, ST, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION	TON	317.4
7	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	101.6
8	2303-7000610	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (LABORATORY VOIDS)	EACH	1.0
9	2303-7000620	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (FIELD VOIDS)	EACH	1.0
10	2518-6910000	SAFETY CLOSURE	EACH	4.0
11	2528-8445110	TRAFFIC CONTROL	LS	1.0
12	2533-4980005	MOBILIZATION	LS	1.0

GENERAL NOTES

Story County will place and maintain detour signing.

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1.	Plan quantity is based on approximately 73.0 cy of fill (30% shrink factor) and 215.0 cy of cut. Type A compaction required. No payment for overhaul will be made. See earthwork tables on Sheet R.01 for details. Grading work is limited to the roadway and shoulders only.
2.	Item for the removal of excess Class 10 material.
3.	Item for 2' wide shoulders. See shoulder typical on Sheet C.02 for details. Granular material quantity estimated using a unit weight of 125 lbs./ft. ³ Item quantity includes 36.6 tons for field entrances. Item includes all material, equipment and labor necessary to furnish, place and finish granular shoulders.
4.-6.	QMA shall apply. Quantity is for multi-lift 8" thick (Standard Traffic design) paving-on-grade with 11' wide lanes. Item includes 1,617.1 Tons (total) for mainline, and 75.8 Tons (total) for intersection radii. Quantity was estimated using 148 lbs./ft. ³ unit weight. Tack coat is incidental to this item.
7.	Binder was estimated at 6% for all lifts.
10.	See Tabulation 108-13A on this sheet for stationing.

TABULATION OF SAFETY CLOSURES			108-13A
Refer to Section 2518 of the Standard Specifications			08-01-08
STATION	CLOSURE TYPE		REMARKS
	ROAD QTY.	HAZARD QTY.	
0+00.0	1		Project closure at BOP
13+87.9	1		Project closure at EOP
	2		TOTAL = 2.0



NORMAL FILLET SIZE		TABLE OF DESIGN QUANTITIES			
Type	F	E	SURFACE COURSE	INTERMEDIATE COURSE	TACK COAT
		Feet	Tons ①	Tons ①	Gal. ②
Driveway	30'	2'	0.3	0.3	0.7
Field Entrance	40'	2'	0.5	0.5	0.9
Commercial Ent.	80'	2'	1.0	1.0	1.8
Gravel Road	100'	2'	1.2	1.2	2.2

Notes:

Construct uniform thickness fillets at non-paved entrances to farm dwellings and other residences where practical, and at commercial entrances, and sideroads.

Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.

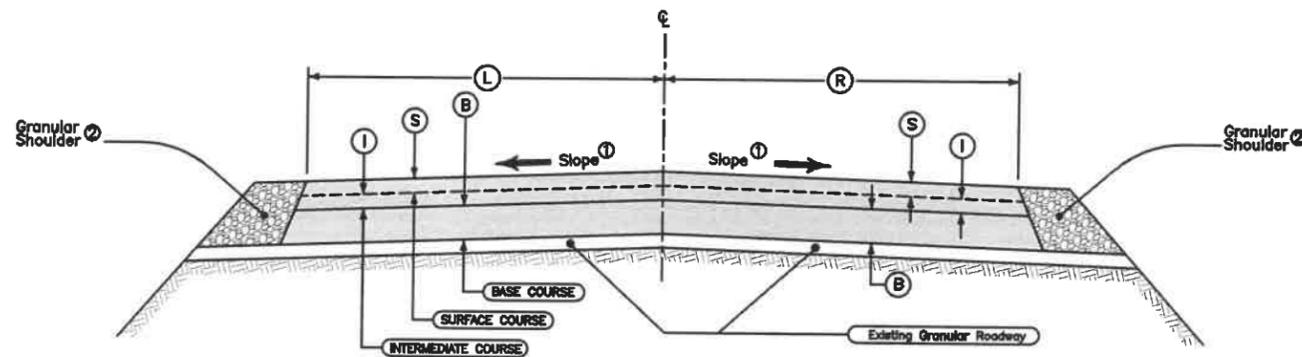
Fillet sizes as listed in the table are recommended and shall be used for design and estimating purposes. The Engineer shall establish the size of each individual fillet to accommodate conditions at the site.

HMA quantities included with mainline quantities.

① Estimated at 148 lbs./cu. ft.

② Estimated for 2 applications at 0.05 gal./sq. yd. The tack coat for entrance fillets may be eliminated when so directed by the Engineer.

FILLET FOR NON-PAVED ENTRANCES
(HMA Resurfacing Project)



LOCATION		B	I	S	L	R
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Inches	Feet	Feet
535th Ave.	0+00.00 13+87.90	5	1 1/2	1 1/2	11.0	11.0

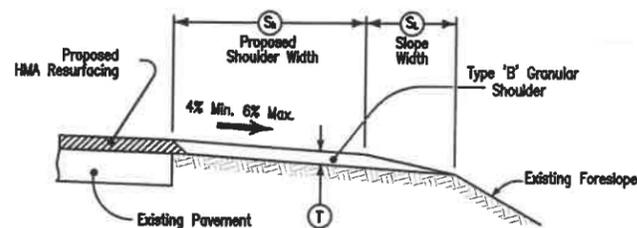
Notes:

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 superelevation curves and Standard Road Plans for additional requirements through superelevated curves.

② Refer to shoulder typicals.

TYPICAL CROSS SECTION
HMA RESURFACING



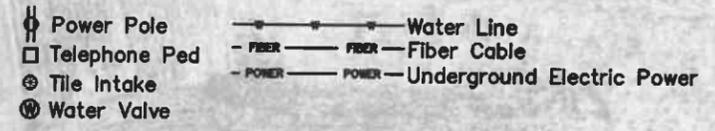
Notes:
Quantities have been determined on the basis of a design weight of 125 lbs. per cubic foot.

LOCATION		T	S	S	
ROAD IDENTIFICATION	STATION TO STATION	Side	Inches	Feet	Feet
535th Ave.	0+00.00 13+87.90	Lt.	8.0	2	1
535th Ave.	0+00.00 13+87.90	Rt.	8.0	2	1

TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT
RESURFACING

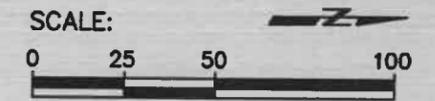
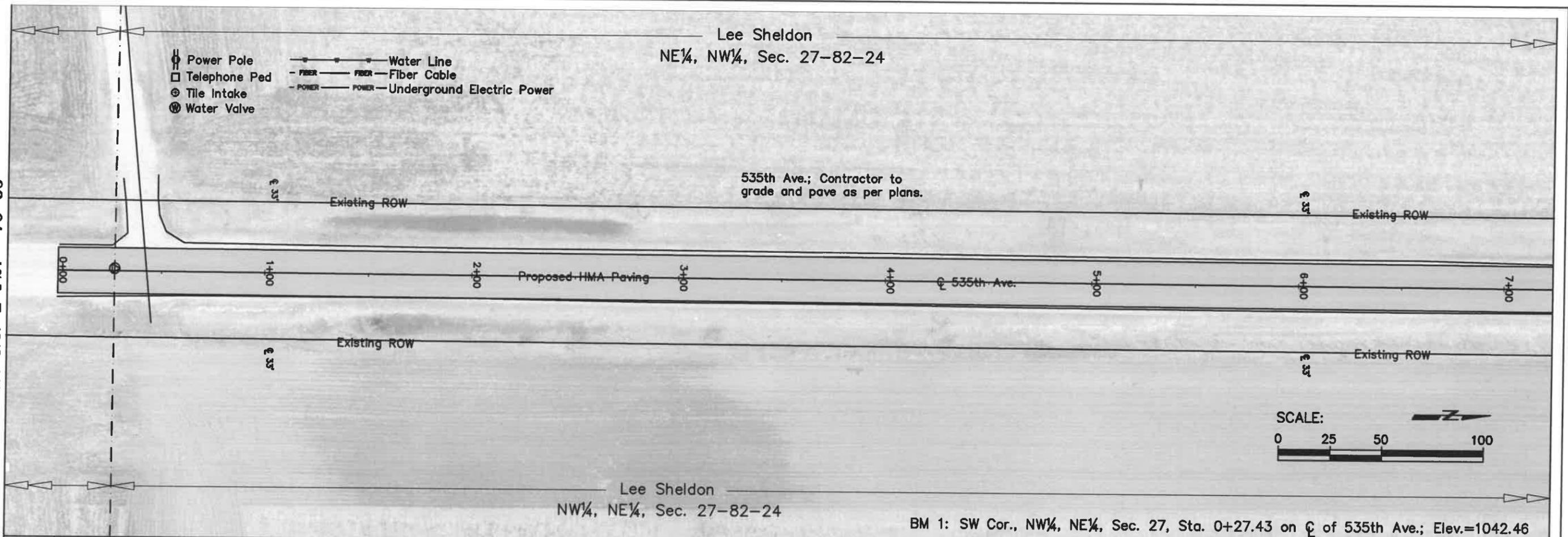
PROJ No. L-P27---73-85

PLAN AND PROFILE SHEET



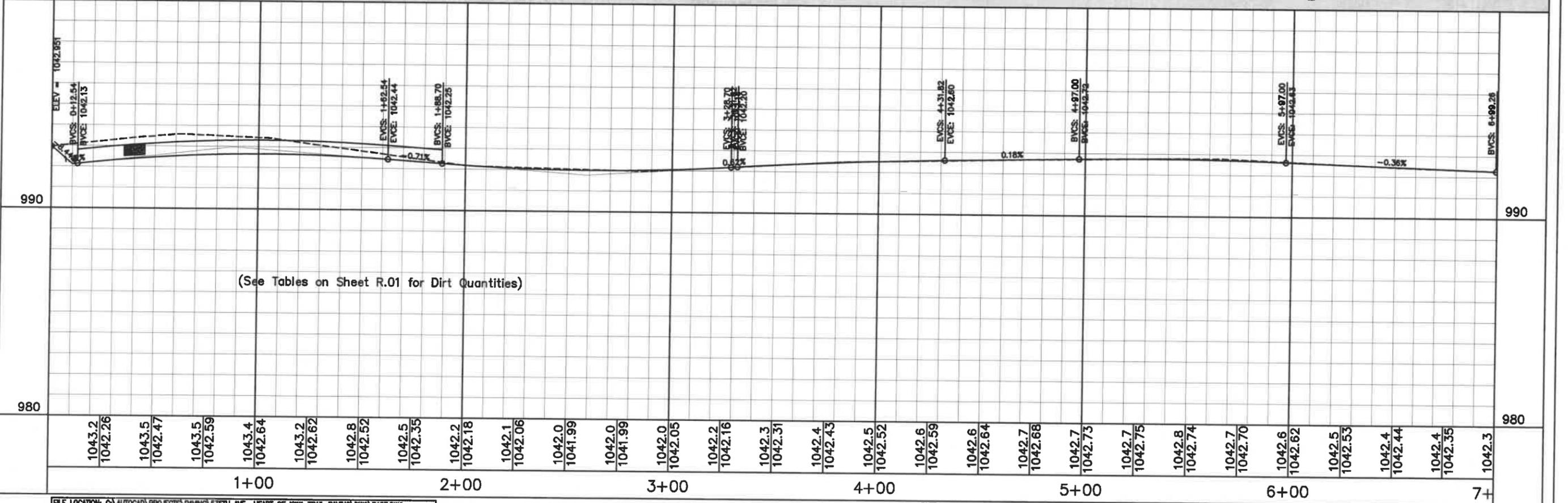
Lee Sheldon
NE¼, NW¼, Sec. 27-82-24

535th Ave.; Contractor to grade and pave as per plans.



Lee Sheldon
NW¼, NE¼, Sec. 27-82-24

BM 1: SW Cor., NW¼, NE¼, Sec. 27, Sta. 0+27.43 on C of 535th Ave.; Elev.=1042.46



(See Tables on Sheet R.01 for Dirt Quantities)

1043.2	1043.5	1043.4	1043.2	1042.8	1042.5	1042.2	1042.0	1042.2	1042.3	1042.4	1042.5	1042.6	1042.7	1042.7	1042.8	1042.7	1042.6	1042.5	1042.4	1042.4	1042.3
1042.26	1042.47	1042.64	1042.62	1042.52	1042.35	1042.18	1042.06	1042.0	1042.31	1042.43	1042.52	1042.64	1042.68	1042.75	1042.74	1042.70	1042.62	1042.53	1042.44	1042.35	1042.3
1+00			2+00			3+00			4+00			5+00			6+00			7+			

FILE LOCATION: G:\AUTOCAD\PROJECTS\PAVING\535TH AVE HEART OF IOWA TRAIL PAVING\DWG\BASE.DWG

STORY COUNTY

DATE	DATE	DATE	DATE	DATE
1/20	7/20	7/20	7/20	7/20
1/20	7/20	7/20	7/20	7/20
1/20	7/20	7/20	7/20	7/20

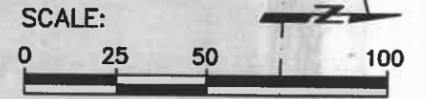
PROJ No. L-P27---73-85

PLAN AND PROFILE SHEET

- ⊕ Power Pole
- Telephone Ped
- ⊙ Tile Intake
- ⊙ Water Valve
- Water Line
- FIBER — FIBER — Fiber Cable
- POWER — POWER — Underground Electric Power

Lee Sheldon
NE¼, NW¼, Sec. 27-82-24

535th Ave.; Contractor to grade and pave as per plans.

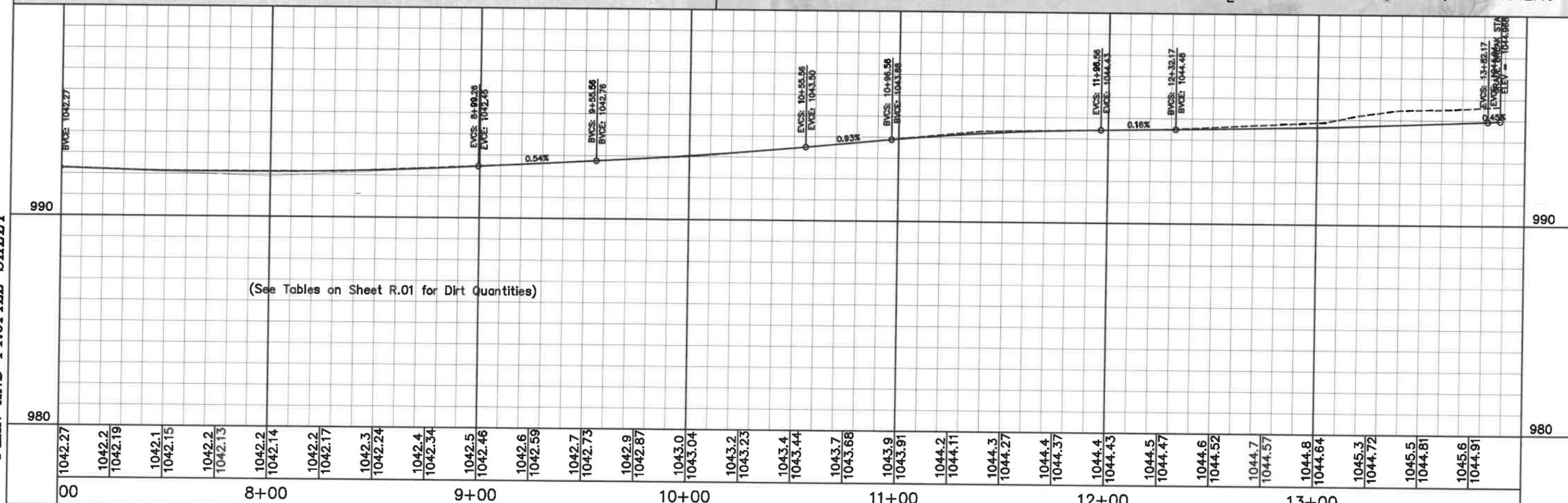


Lee Sheldon

NW¼, NE¼, Sec. 27-82-24

Connor L. Anderson

BM 1: SW Cor., NW¼, NE¼, Sec. 27, on C of 535th Ave. Sta. 0+27.43; Elev.=1042.46



FILE LOCATION: G:\AUTOCAD\PROJECTS\PAVING\535TH AVE HEART OF IOWA TRAIL PAVING\DWG\BASE.DWG

STORY COUNTY

DATE	DATE	DATE	DATE	DATE
2020	2020	2020	2020	2020
7	7	7	7	7
0.02	0.02	0.02	0.02	0.02
6	6	6	6	6

PROJ No. L-P27--73-85

EARTHWORK TABULATIONS SHEET

Total Volume Table

Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	Net Volume
0+00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0+25.00	0.00	28.02	0.00	12.97	0.00	12.97	12.97
0+50.00	0.00	30.90	0.00	27.28	0.00	40.25	40.25
0+75.00	0.00	30.54	0.00	28.45	0.00	68.70	68.70
1+00.00	0.00	26.17	0.00	26.25	0.00	94.95	94.95
1+25.00	0.00	17.56	0.00	20.24	0.00	115.19	115.19
1+50.00	0.00	9.69	0.00	12.61	0.00	127.81	127.81
1+75.00	0.09	4.25	0.06	6.45	0.06	134.26	134.20
2+00.00	1.44	0.08	0.92	2.00	0.98	136.26	135.29
2+25.00	0.35	0.67	1.08	0.35	2.05	136.61	134.56
2+50.00	0.47	0.70	0.49	0.63	2.55	137.24	134.69
2+75.00	1.58	0.12	1.24	0.38	3.79	137.63	133.84
3+00.00	2.30	0.01	2.34	0.06	6.12	137.69	131.56
3+25.00	2.01	0.06	2.60	0.03	8.72	137.72	129.00
3+50.00	2.46	0.02	2.69	0.03	11.42	137.76	126.34
3+75.00	2.20	0.05	2.80	0.03	14.22	137.79	123.57
4+00.00	2.01	0.07	2.53	0.06	16.75	137.85	121.10
4+25.00	1.66	0.11	2.20	0.09	18.95	137.93	118.98
4+50.00	1.17	0.37	1.70	0.22	20.66	138.16	117.50
4+75.00	0.89	0.45	1.24	0.38	21.90	138.54	116.63
5+00.00	1.40	0.00	1.38	0.21	23.28	138.74	115.47
5+25.00	1.69	0.00	1.86	0.00	25.14	138.74	113.61
5+50.00	1.05	0.17	1.65	0.08	26.79	138.83	112.04
5+75.00	0.84	0.58	1.14	0.35	27.92	139.17	111.25
6+00.00	1.16	0.31	1.20	0.41	29.13	139.59	110.46
6+25.00	1.24	0.38	1.44	0.32	30.57	139.91	109.34
6+50.00	1.29	0.54	1.53	0.42	32.10	140.33	108.23
6+75.00	1.22	0.65	1.51	0.55	33.61	140.88	107.27
7+00.00	1.17	0.71	1.43	0.63	35.04	141.50	106.46
7+25.00	1.39	0.54	1.54	0.58	36.58	142.09	105.50

Total Volume Table

Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	Net Volume
7+50.00	2.05	0.25	2.07	0.37	38.65	142.45	103.80
7+75.00	1.62	0.66	2.21	0.42	40.86	142.88	102.02
8+00.00	1.69	0.68	1.99	0.62	42.85	143.49	100.64
8+25.00	2.37	0.32	2.44	0.46	45.29	143.96	98.66
8+50.00	5.06	0.65	4.47	0.45	49.76	144.41	94.64
8+75.00	2.21	1.00	4.38	0.76	54.14	145.17	91.03
9+00.00	2.58	0.97	2.88	0.91	57.02	146.08	89.05
9+25.00	2.80	0.89	3.24	0.86	60.26	146.94	86.68
9+50.00	1.50	1.07	2.59	0.91	62.85	147.85	85.00
9+75.00	1.17	1.31	1.60	1.10	64.45	148.95	84.50
10+00.00	1.49	1.59	1.60	1.35	66.05	150.30	84.25
10+25.00	1.03	1.43	1.51	1.40	67.57	151.70	84.13
10+50.00	0.79	1.27	1.10	1.25	68.66	152.95	84.28
10+75.00	0.82	1.37	0.97	1.22	69.63	154.17	84.54
11+00.00	0.82	1.49	0.99	1.33	70.62	155.50	84.88
11+25.00	0.45	2.09	0.76	1.66	71.38	157.16	85.77
11+50.00	0.34	2.21	0.47	1.99	71.85	159.14	87.29
11+75.00	0.47	1.28	0.49	1.61	72.34	160.76	88.42
12+00.00	0.27	1.20	0.44	1.15	72.78	161.91	89.12
12+25.00	0.05	1.47	0.19	1.23	72.98	163.14	90.16
12+50.00	0.01	2.79	0.04	1.97	73.02	165.11	92.10
12+75.00	0.00	4.14	0.01	3.21	73.03	168.33	95.30
13+00.00	0.00	5.59	0.00	4.51	73.03	172.83	99.80
13+25.00	0.00	12.21	0.00	8.24	73.03	181.07	108.04
13+50.00	0.00	19.12	0.00	14.51	73.03	195.58	122.54
13+75.00	0.00	22.84	0.00	19.42	73.03	215.00	141.97

NOTE:

A shrink factor of 30% has been applied to these tables.

HMA RESURFACING
Proj. No. L-HG2--73-85

STORY COUNTY
Letting Date Feb. 25, 2020

PROJECT TRAFFIC CONTROL PLAN
THE ROAD WILL BE OPEN TO ONE LANE TRAFFIC DURING CONSTRUCTION HOURS AND REOPENED TO TWO LANE TRAFFIC AT THE END OF EACH WORK DAY. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.

UTILITIES INFORMATION
UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR SHOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE AND SUBSEQUENT WORK IN THE AREA.

ALLIANT ENERGY: 319-286-1315
HUXLEY COMMUNICATIONS COOP: 515-597-2281
IOWA NETWORK SERVICES: 515-830-0445
XENIA RURAL WATER DISTRICT: 515-676-2117

CONTRACTOR SHALL CALL ONE CALL AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. ONE CALL 1-800-292-8989

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE
SECONDARY ROAD SYSTEM
STORY COUNTY
HMA RESURFACING

On Hickory Grove Lake Loop; 2.54 miles; in Section 24 of T83N R22W.

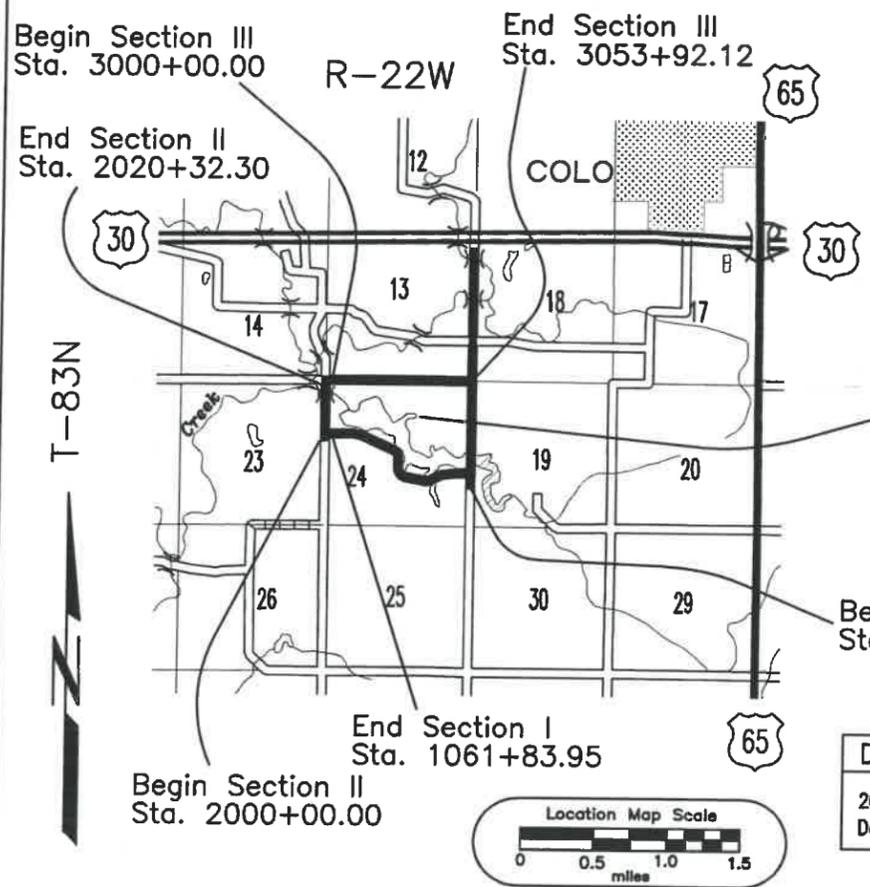
Refer to Proposal Form for a list of applicable specifications.

Project No. L-HG2--73-85

INDEX OF SHEETS	
No.	Description
A.01	TITLE SHEET
C.01	QUANTITY INFORMATION SHEET
C.02	TYPICAL SECTIONS SHEET
C.03	TABULATIONS SHEET

MILEAGE SUMMARY			
Section	Location	Lin. Ft.	Miles
I	STA. 1000+00.00 TO STA. 1061+83.95	6,183.95	1.171
II	STA. 2000+00.00 TO STA. 2020+32.30 Deduct 30.00' for Bridge At Sta. 2016+51.91	2,032.30 -30.00	0.385 -0.005
III	STA. 3000+00.00 TO STA. 3053+92.12	5,392.12	1.021
Total		13,578.37	2.572

STANDARD ROAD PLANS		
Number	Date	Title
<small>The following Standard Road Plans apply to construction work on this project.</small>		
PM-110	10-16-18	LINE TYPES
PM-120	10-21-14	STOP LINES AND ISLANDS
PM-420	04-19-11	TWO-LANE ROADWAY WITH NO TURN LANES (ONE-WAY STOP CONDITION)
PR-201	10-21-14	RUNOUTS FOR RESURFACING
PV-3	04-16-19	SAFETY EDGE
PV-202	04-16-13	HOT MIX ASPHALT RESURFACING
TC-1	04-16-13	WORK NOT AFFECTING TRAFFIC (TWO-LANE OR MULTI-LANE)
TC-213	04-17-12	LANE CLOSURE WITH FLAGGERS
TC-214	10-17-17	LANE CLOSURE WITH FLAGGERS FOR USE WITH PILOT CAR
TC-233	10-17-17	PAVEMENT MARKING OPERATIONS TWO-LANE
TC-282	04-19-11	UNEVEN LANES



Scales: As Noted



PROJECT LOCATION
ON HICKORY GROVE LAKE LOOP;
2.54 MILES; IN SECTION 24 OF
T83N R22W.

DESIGN DATA RURAL
2015 AADT 80-450 V.P.D.
Design: Standard Traffic



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.
Signed: Tyler Sparks Date: 1-7-20
Tyler Sparks, P.E. 21419
My license renewal date is December 31, 2020
Pages or sheets covered by this seal:
(Entire submission unless specified here)

Accepted by
Jarvis Moran 1-7-2020
Story County Engineer Date

Approved Story County
Board of Supervisors

FILE LOCATION: @\AUTOCAD\PROJECTS\RESURFAC\2021\HICKORY GROVE LOOP\DWG\BASE.DWG

PROJ No. L-HG2--73-85

QUANTITY INFORMATION SHEET

ESTIMATED PROJECT QUANTITIES OF QUANTITIES

100-1A

ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	2,750.6
2	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	2.6
3	2214-5145150	PAVEMENT SCARIFICATION	SY	366.7
4	2303-1032500	HMA, ST, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	3,055.9
5	2303-1033500	HMA, ST, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION	TON	3,055.9
6	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	366.7
7	2303-6911000	HMA PAVEMENT SAMPLES	LS	1.0
8	2303-7000610	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (LABORATORY VOIDS)	EACH	1.0
9	2303-7000620	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (FIELD VOIDS)	EACH	1.0
10	2527-9263109	PAINTED PAVEMENT MARKINGS, WATERBORNE/SOLVENT	STA	600.56
11	2528-8445110	TRAFFIC CONTROL	LS	1.0
12	2528-8445113	FLAGGER	EACH	37.0
13	2528-8445115	PILOT CAR	EACH	5.0
14	2533-4980005	MOBILIZATION	LS	1.0

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION
1.	Item for 4' wide shoulders (on each side). See Typical 7135 on Sheet C.02 for details. Granular material quantity estimated using a unit weight of 125 lbs./ft. ³ Item includes all material, equipment and labor necessary to furnish, place and finish granular shoulders.
3.	Refer to Road Detail 7308 on Sheet C.02 for surface runout details and scarification stationing.
4.-5.	QMA shall apply. Quantity is for 3" thick (Standard Traffic design) overlay with 11' wide lanes. Quantity was estimated using 148 lbs./ft. ³ unit weight. Quantity includes 216.2 tons for entrance fillets and intersection radii. Tack coat is incidental to this item.
6.	Binder was estimated at 6% for both intermediate and surface lifts.
10.	See Tabulation 10822 on Sheets C.03 for pavement marking types, stationing, and quantities. Quantity includes an application of yellow centerline marking for both intermediate and surface lifts.
12.	Flagger quantity is an estimate only.
13.	Pilot Car quantity is an estimate only.

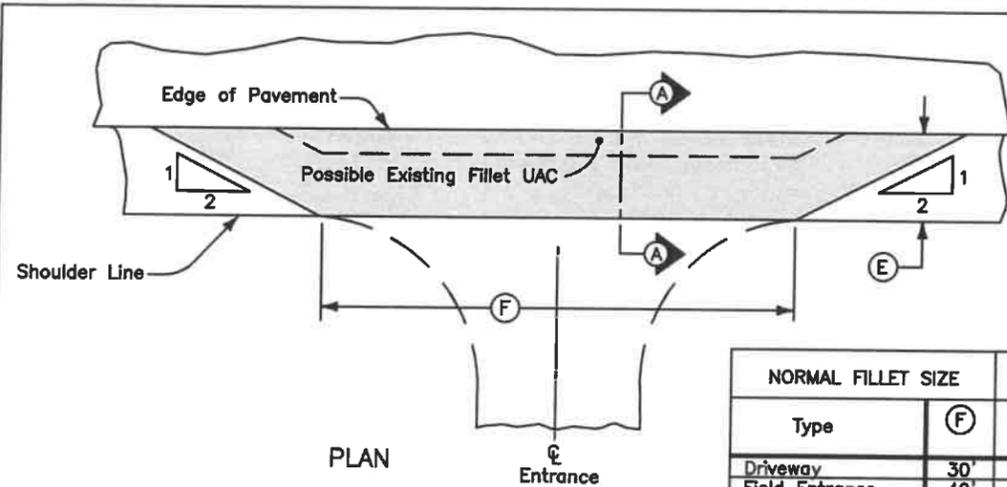
GENERAL NOTES

Story County will mark out scarification sawcuts and pavement markings.

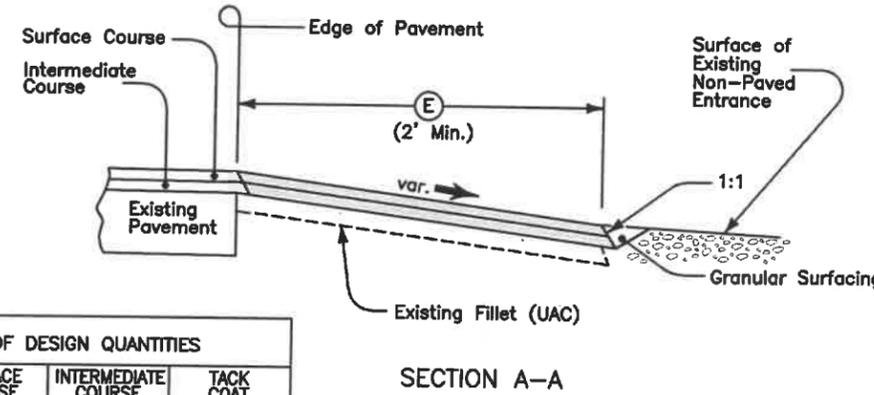
Unless otherwise directed or authorized, all hot mix asphalt and other bituminous materials which are not specifically addressed or described in the contract documents shall become the property of the Contractor.

The Contractor, in accordance with current rules and regulations of the Iowa Department of Natural Resources, may:

1. With the approval of the Engineer, blend or otherwise process the material for use with shoulder or special backfill aggregate, for use on the project.
2. With the approval of the Engineer, place with material in areas designated by the Engineer as Soil Aggregate Subbase without extra charge.
3. Remove the material from the project and stockpile for the contractor's future use.



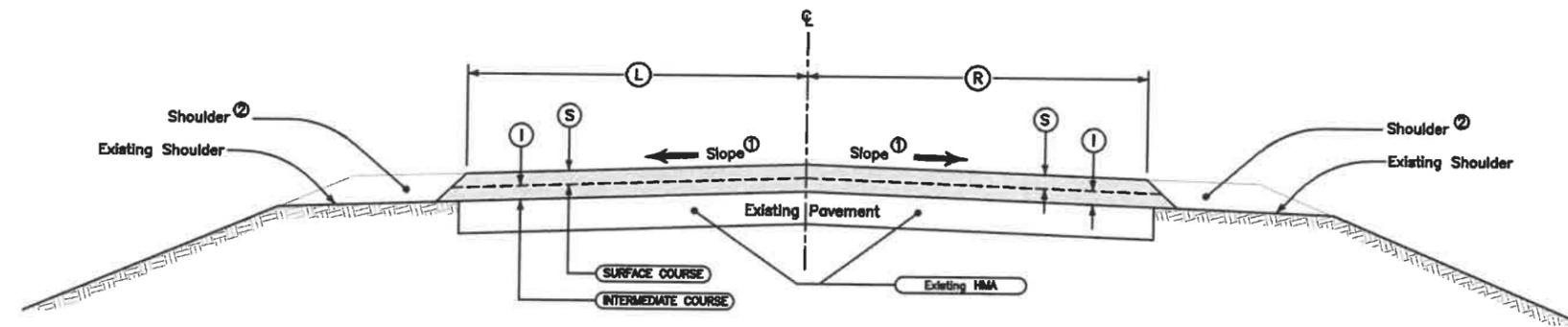
NORMAL FILLET SIZE		TABLE OF DESIGN QUANTITIES			
Type	F	E	SURFACE COURSE	INTERMEDIATE COURSE	TACK COAT
		Feet	Tons ①	Tons ①	Gal. ②
Driveway	30'	2'	0.3	0.3	0.7
Field Entrance	40'	2'	0.5	0.5	0.9
Commercial Ent.	80'	2'	1.0	1.0	1.8
Gravel Road	100'	2'	1.2	1.2	2.2



7139 Modified

Notes:
 Construct uniform thickness fillets at non-paved entrances to farm dwellings and other residences where practical, and at commercial entrances, and sideroads.
 Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.
 Fillet sizes as listed in the table are recommended and shall be used for design and estimating purposes. The Engineer shall establish the size of each individual fillet to accommodate conditions at the site.
 HMA quantities included with mainline quantities.
 ① Estimated at 148 lbs./cu. ft.
 ② Estimated for 2 applications at 0.05 gal./sq. yd. The tack coat for entrance fillets may be eliminated when so directed by the Engineer.

FILLET FOR NON-PAVED ENTRANCES (HMA Resurfacing Project)



LOCATION		S	I	L	R
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Feet	Feet
255th St.	1000+00.00 1061+83.95	1 1/2	1 1/2	11.0	11.0
670th Ave.	2000+00.00 2020+32.30	1 1/2	1 1/2	11.0	11.0
250th St.	3000+00.00 3053+92.12	1 1/2	1 1/2	11.0	11.0

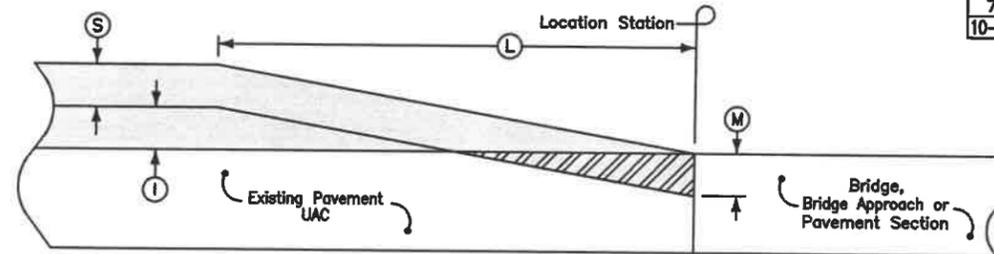
2602 Modified

Notes:
 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 superelevation curves and Standard Road Plans for additional requirements through superelevated curves.
 ② Refer to shoulder typical.

TYPICAL CROSS SECTION HMA RESURFACING

Posted Speed Limit (mph)	Runout Ratio (ft per inch)
45 or More	50
20 to 45	25
Under 20	10*

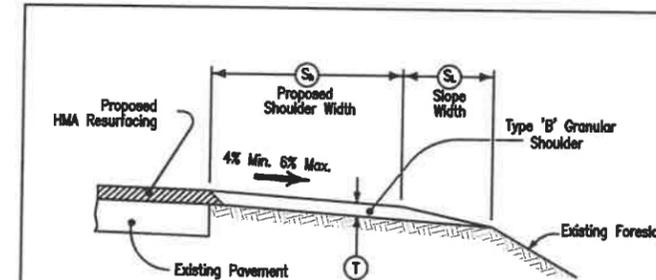
* Based on turning maneuvers at side roads and intersections.



Location Station	L	S	I	M	Remarks
	Feet	Inches	Inches	Inches	
2016+36.07	75	1 1/2	1 1/2	1 1/2	South Bridge Approach
2018+67.70	75	1 1/2	1 1/2	1 1/2	North Bridge Approach

S Surface Course
 I Intermediate Course
 M Milling

SURFACE NOTCH - INTERMEDIATE RUNOUT FOR DOUBLE COURSE RESURFACING



LOCATION		T	S _B	S _L
ROAD IDENTIFICATION	STATION TO STATION	Side	Inches	Feet
255th St.	1000+00.00 1061+83.95	WB	3.0	4
255th St.	1000+00.00 1061+83.95	EB	3.0	4
670th Ave.	2000+00.00 2020+32.30	NB	3.0	4
670th Ave.	2000+00.00 2020+32.30	SB	3.0	4
250th St.	3000+00.00 3053+92.12	EB	3.0	4
250th St.	3000+00.00 3053+92.12	WB	3.0	4

7135 Modified

Notes:
 Quantities have been determined on the basis of a design weight of 140 lbs. per cubic foot.

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER ADJACENT TO HOT MIX ASPHALT RESURFACING

PAVEMENT MARKING LINE TYPES

108-22
04-16-13

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

See PM-110

***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) ● 0.25
BLW4: Broken Lane Line (White) ● 0.25

DCY4: Double Centerline (Yellow) ● 2.00
ELW4: Edge Line Right (White) ● 1.00

NPY4: No Passing Zone Line (Yellow) ● 1.25
ELY4: Edge Line Left (Yellow) ● 1.00

SB24: Stop Bar (White) ● 6.00

PROJ No. L-HG2--73-85

TABULATIONS SHEET

Location				Length By Line Type (Unfactored)													Remarks					
Road ID	Station to Station		Dir. of Travel	Temporary Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4			SB24						
	L	C			R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA		STA	STA	STA	STA	
255th St.	1000+12.0	1038+19.8	WB	Temporary	x		x		38.078													
255th St.	1038+19.8	1039+90.8	WB	Temporary	x					1.710												
255th St.	1039+90.8	1055+66.9	WB	Temporary	x			15.761														
255th St.	1055+66.9	1061+72.7	WB	Temporary			x			6.058												
670th Ave.	2000+00.0	2007+36.5	NB	Temporary			x			7.365												
670th Ave.	2007+36.5	2007+69.3	NB	Temporary			x	0.328														
670th Ave.	2007+69.3	2014+19.7	NB	Temporary	x					6.504												
670th Ave.	2014+19.7	2015+14.9	NB	Temporary	x		x		0.952													
670th Ave.	2015+14.9	2020+54.3	NB	Temporary			x			5.394												
250th St.	3000+00.0	3000+78.3	EB	Temporary			x	0.783														
250th St.	3001+28.4	3007+97.2	EB	Temporary			x	6.688														
250th St.	3007+97.2	3017+82.3	EB	Temporary			x			9.851												
250th St.	3017+82.3	3021+62.0	EB	Temporary	x		x		3.797													
250th St.	3021+62.0	3030+27.3	EB	Temporary	x					8.653												
250th St.	3030+27.3	3047+66.4	EB	Temporary			x	17.391														
250th St.	3047+66.4	3053+81.5	EB	Temporary			x			6.151												
255th St.	1000+12.0	1000+12.0	EB	Permanent	x											0.340						
255th St.	1000+12.0	1038+19.8	WB	Permanent	x		x		38.078													
255th St.	1038+19.8	1039+90.8	WB	Permanent	x					1.710												
255th St.	1039+90.8	1055+66.9	WB	Permanent	x			15.761														
255th St.	1055+66.9	1061+72.7	WB	Permanent			x			6.058												
255th St.	1000+12.0	1061+72.7	WB	Permanent			x				61.607											
255th St.	1000+12.0	1061+72.7	EB	Permanent	x						61.607											
255th St.	1061+72.7	1061+72.7	WB	Permanent			x									0.320						
670th Ave.	2000+00.0	2007+36.5	NB	Permanent			x			7.365												
670th Ave.	2007+36.5	2007+69.3	NB	Permanent			x	0.328														
670th Ave.	2007+69.3	2014+19.7	NB	Permanent	x					6.504												
670th Ave.	2014+19.7	2015+14.9	NB	Permanent	x		x		0.952													
670th Ave.	2015+14.9	2020+54.3	NB	Permanent			x			5.394												
670th Ave.	2000+00.0	2020+54.3	NB	Permanent			x				20.205											
670th Ave.	2000+00.0	2020+54.3	NB	Permanent			x				20.205											
250th St.	3000+00.0	3000+78.3	EB	Permanent			x	0.783														
250th St.	3000+78.3	3000+78.3	EB	Permanent	x																	
250th St.	3001+28.4	3001+28.4	WB	Permanent			x									0.294						
250th St.	3001+28.4	3007+97.2	EB	Permanent			x	6.688								0.110						
250th St.	3007+97.2	3017+82.3	EB	Permanent			x			9.851												
250th St.	3017+82.3	3021+62.0	EB	Permanent	x		x		3.797													
250th St.	3021+62.0	3030+27.3	EB	Permanent	x					8.653												
250th St.	3030+27.3	3047+66.4	EB	Permanent			x	17.391														
250th St.	3047+66.4	3053+81.5	EB	Permanent			x			6.151												
250th St.	3000+00.0	3053+81.5	EB	Permanent			x				53.815											
250th St.	3000+00.0	3053+81.5	WB	Permanent	x						53.815											
250th St.	3053+81.5	3053+81.5	EB	Permanent			x									0.320						
								81.902	85.654	103.372		271.254										
								0.25	2.00	1.25	0.25	1.00	1.00				1.384					
								20.476	171.308	129.215		271.254				6.00						
															8.304							Sheet Total: 600.557

PROJ No. L-P27--73-85

QUANTITY INFORMATION SHEET

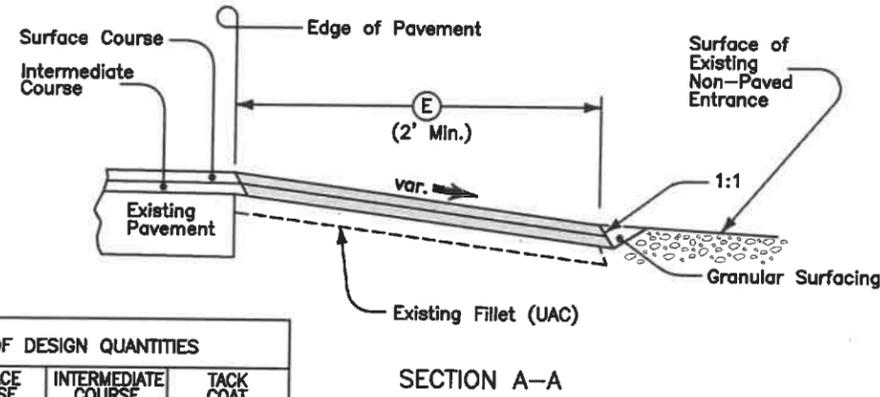
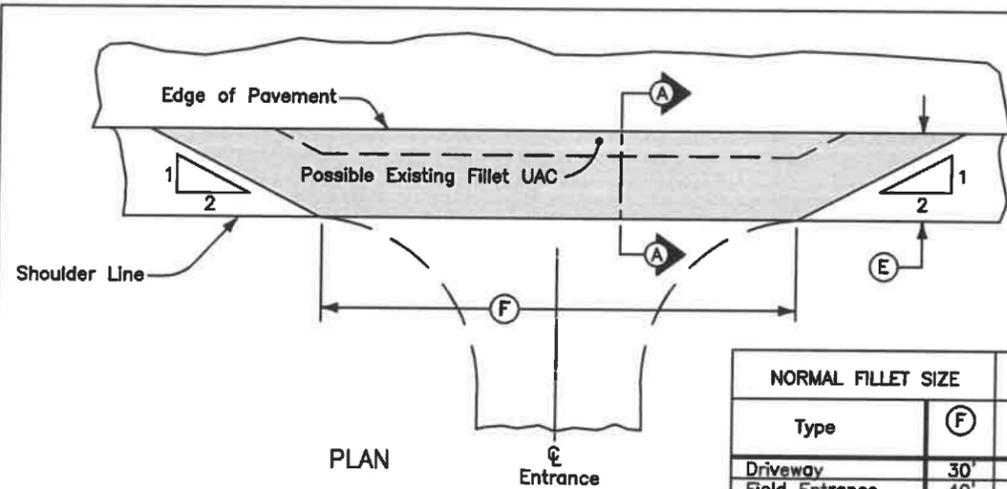
ESTIMATED PROJECT QUANTITIES OF QUANTITIES (1 DIVISION PROJECT)				
				100-1A
ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	215.0
2	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY	142.0
3	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	482.1
4	2303-1031500	HMA, ST, BASE COURSE, 1/2 IN. MIX	TON	1,058.1
5	2303-1032500	HMA, ST, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	317.4
6	2303-1033500	HMA, ST, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION	TON	317.4
7	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	101.6
8	2303-7000610	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (LABORATORY VOIDS)	EACH	1.0
9	2303-7000620	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (FIELD VOIDS)	EACH	1.0
10	2518-6910000	SAFETY CLOSURE	EACH	4.0
11	2528-8445110	TRAFFIC CONTROL	LS	1.0
12	2533-4980005	MOBILIZATION	LS	1.0

GENERAL NOTES

Story County will place and maintain detour signing.

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1.	Plan quantity is based on approximately 73.0 cy of fill (30% shrink factor) and 215.0 cy of cut. Type A compaction required. No payment for overhaul will be made. See earthwork tables on Sheet R.01 for details. Grading work is limited to the roadway and shoulders only.
2.	Item for the removal of excess Class 10 material.
3.	Item for 2' wide shoulders. See shoulder typical on Sheet C.02 for details. Granular material quantity estimated using a unit weight of 125 lbs./ft. ³ Item quantity includes 36.6 tons for field entrances. Item includes all material, equipment and labor necessary to furnish, place and finish granular shoulders.
4.-6.	QMA shall apply. Quantity is for multi-lift 8" thick (Standard Traffic design) paving-on-grade with 11' wide lanes. Item includes 1,617.1 Tons (total) for mainline, and 75.8 Tons (total) for intersection radii. Quantity was estimated using 148 lbs./ft. ³ unit weight. Tack coat is incidental to this item.
7.	Binder was estimated at 6% for all lifts.
10.	See Tabulation 108-13A on this sheet for stationing.

TABULATION OF SAFETY CLOSURES			108-13A
Refer to Section 2518 of the Standard Specifications			08-01-08
STATION	CLOSURE TYPE		REMARKS
	ROAD QTY.	HAZARD QTY.	
0+00.0	1		Project closure at BOP
13+87.9	1		Project closure at EOP
	2		TOTAL = 2.0



NORMAL FILLET SIZE		TABLE OF DESIGN QUANTITIES			
Type	(F)	(E) Feet	SURFACE COURSE Tons ①	INTERMEDIATE COURSE Tons ①	TACK COAT Gal. ②
Driveway	30'	2'	0.3	0.3	0.7
Field Entrance	40'	2'	0.5	0.5	0.9
Commercial Ent.	80'	2'	1.0	1.0	1.8
Gravel Road	100'	2'	1.2	1.2	2.2

Notes:

Construct uniform thickness fillets at non-paved entrances to farm dwellings and other residences where practical, and at commercial entrances, and sideroads.

Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.

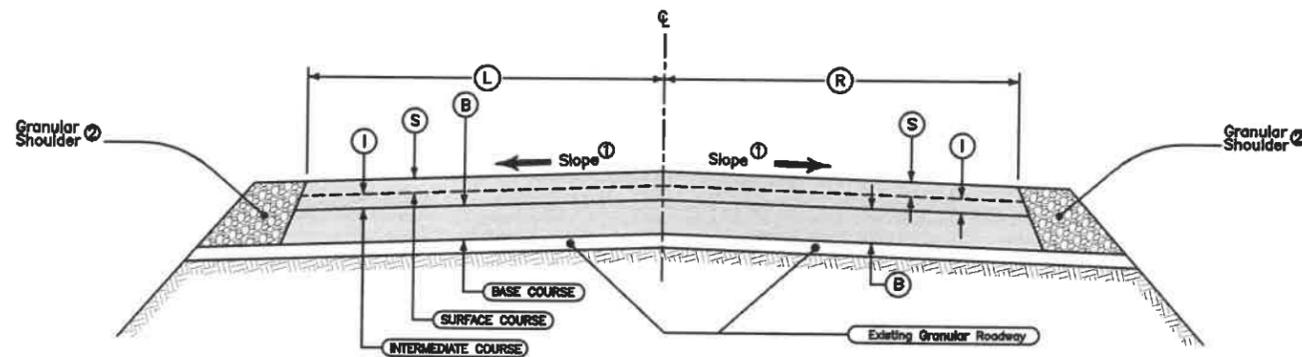
Fillet sizes as listed in the table are recommended and shall be used for design and estimating purposes. The Engineer shall establish the size of each individual fillet to accommodate conditions at the site.

HMA quantities included with mainline quantities.

① Estimated at 148 lbs./cu. ft.

② Estimated for 2 applications at 0.05 gal./sq. yd. The tack coat for entrance fillets may be eliminated when so directed by the Engineer.

FILLET FOR NON-PAVED ENTRANCES
(HMA Resurfacing Project)



LOCATION		(B)	(I)	(S)	(L)	(R)
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Inches	Feet	Feet
535th Ave.	0+00.00 13+87.90	5	1½	1½	11.0	11.0

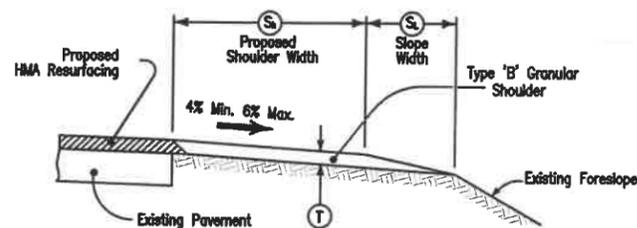
Notes:

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 superelevation curves and Standard Road Plans for additional requirements through superelevated curves.

② Refer to shoulder typical.

TYPICAL CROSS SECTION
HMA RESURFACING



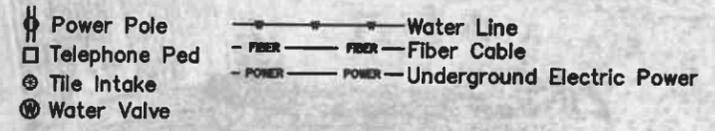
Notes:
Quantities have been determined on the basis of a design weight of 125 lbs. per cubic foot.

LOCATION		(T)	(S)	(S)
ROAD IDENTIFICATION	STATION TO STATION	Side	Inches	Feet
535th Ave.	0+00.00 13+87.90	Lt.	8.0	2 1
535th Ave.	0+00.00 13+87.90	Rt.	8.0	2 1

TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT
RESURFACING

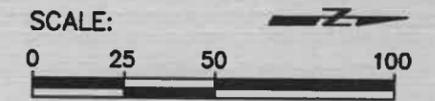
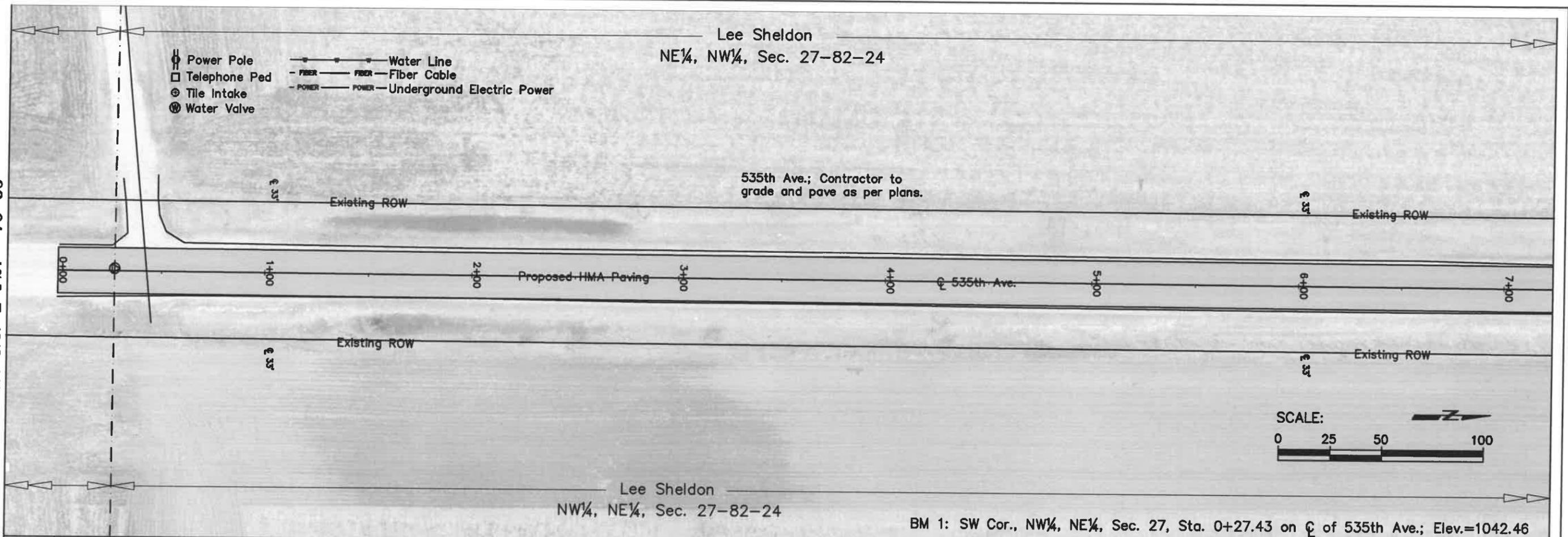
PROJ No. L-P27---73-85

PLAN AND PROFILE SHEET



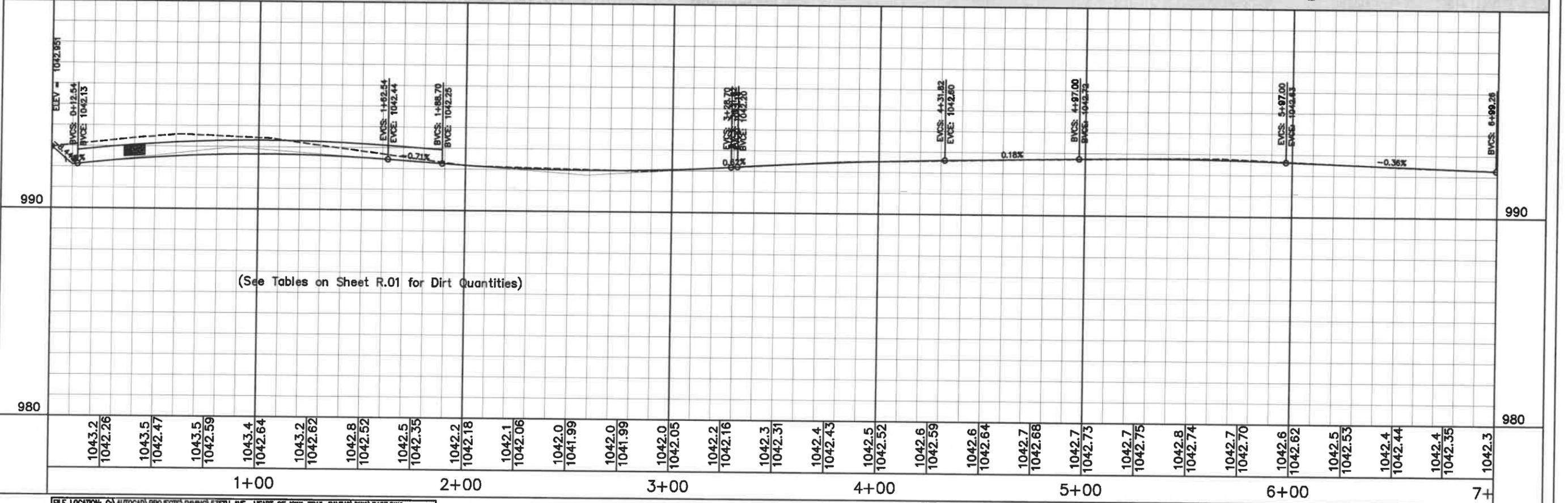
Lee Sheldon
NE¼, NW¼, Sec. 27-82-24

535th Ave.; Contractor to grade and pave as per plans.



Lee Sheldon
NW¼, NE¼, Sec. 27-82-24

BM 1: SW Cor., NW¼, NE¼, Sec. 27, Sta. 0+27.43 on C of 535th Ave.; Elev.=1042.46



(See Tables on Sheet R.01 for Dirt Quantities)

FILE LOCATION: G:\AUTOCAD\PROJECTS\PAVING\535TH AVE HEART OF IOWA TRAIL PAVING\DWG\BASE.DWG

STORY COUNTY

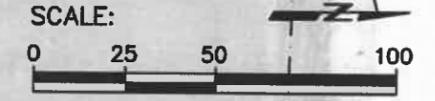
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1/20	7/20	7/20	7/20	7/20
1/20	7/20	7/20	7/20	7/20

PROJ No. L-P27---73-85

Lee Sheldon
NE¼, NW¼, Sec. 27-82-24

- ⊕ Power Pole
- ☐ Telephone Ped
- ⊙ Tile Intake
- ⊙ Water Valve
- Water Line
- FIBER — FIBER — Fiber Cable
- POWER — POWER — Underground Electric Power

535th Ave.; Contractor to grade and pave as per plans.



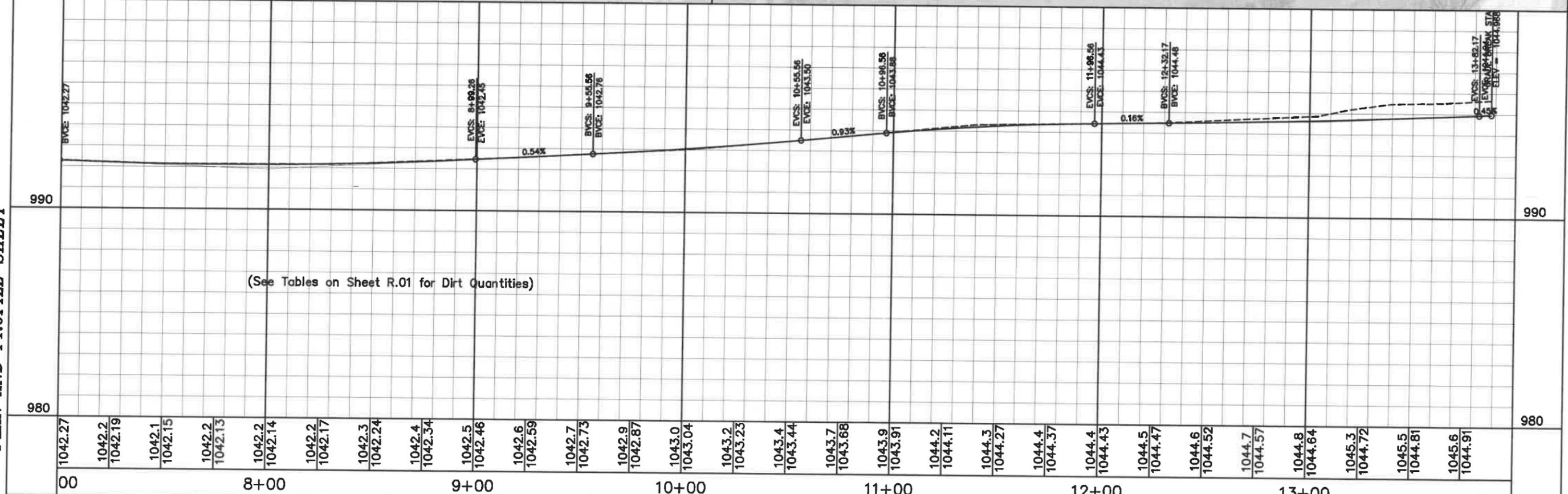
Lee Sheldon

NW¼, NE¼, Sec. 27-82-24

Connor L. Anderson

BM 1: SW Cor., NW¼, NE¼, Sec. 27, on C of 535th Ave. Sta. 0+27.43; Elev.=1042.46

PLAN AND PROFILE SHEET



FILE LOCATION: G:\AUTOCAD\PROJECTS\PAVING\535TH AVE HEART OF IOWA TRAIL PAVING\DWG\BASE.DWG

STORY COUNTY

DATE	DATE	DATE	DATE	DATE
2020	2020	2020	2020	2020
7	7	7	7	7
0.02	0.02	0.02	0.02	0.02
6	6	6	6	6

PROJ No. L-P27--73-85

EARTHWORK TABULATIONS SHEET

Total Volume Table

Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	Net Volume
0+00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0+25.00	0.00	28.02	0.00	12.97	0.00	12.97	12.97
0+50.00	0.00	30.90	0.00	27.28	0.00	40.25	40.25
0+75.00	0.00	30.54	0.00	28.45	0.00	68.70	68.70
1+00.00	0.00	26.17	0.00	26.25	0.00	94.95	94.95
1+25.00	0.00	17.56	0.00	20.24	0.00	115.19	115.19
1+50.00	0.00	9.69	0.00	12.61	0.00	127.81	127.81
1+75.00	0.09	4.25	0.06	6.45	0.06	134.26	134.20
2+00.00	1.44	0.08	0.92	2.00	0.98	136.26	135.29
2+25.00	0.35	0.67	1.08	0.35	2.05	136.61	134.56
2+50.00	0.47	0.70	0.49	0.63	2.55	137.24	134.69
2+75.00	1.58	0.12	1.24	0.38	3.79	137.63	133.84
3+00.00	2.30	0.01	2.34	0.06	6.12	137.69	131.56
3+25.00	2.01	0.06	2.60	0.03	8.72	137.72	129.00
3+50.00	2.46	0.02	2.69	0.03	11.42	137.76	126.34
3+75.00	2.20	0.05	2.80	0.03	14.22	137.79	123.57
4+00.00	2.01	0.07	2.53	0.06	16.75	137.85	121.10
4+25.00	1.66	0.11	2.20	0.09	18.95	137.93	118.98
4+50.00	1.17	0.37	1.70	0.22	20.66	138.16	117.50
4+75.00	0.89	0.45	1.24	0.38	21.90	138.54	116.63
5+00.00	1.40	0.00	1.38	0.21	23.28	138.74	115.47
5+25.00	1.69	0.00	1.86	0.00	25.14	138.74	113.61
5+50.00	1.05	0.17	1.65	0.08	26.79	138.83	112.04
5+75.00	0.84	0.58	1.14	0.35	27.92	139.17	111.25
6+00.00	1.16	0.31	1.20	0.41	29.13	139.59	110.46
6+25.00	1.24	0.38	1.44	0.32	30.57	139.91	109.34
6+50.00	1.29	0.54	1.53	0.42	32.10	140.33	108.23
6+75.00	1.22	0.65	1.51	0.55	33.61	140.88	107.27
7+00.00	1.17	0.71	1.43	0.63	35.04	141.50	106.46
7+25.00	1.39	0.54	1.54	0.58	36.58	142.09	105.50

Total Volume Table

Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol	Net Volume
7+50.00	2.05	0.25	2.07	0.37	38.65	142.45	103.80
7+75.00	1.62	0.66	2.21	0.42	40.86	142.88	102.02
8+00.00	1.69	0.68	1.99	0.62	42.85	143.49	100.64
8+25.00	2.37	0.32	2.44	0.46	45.29	143.96	98.66
8+50.00	5.06	0.65	4.47	0.45	49.76	144.41	94.64
8+75.00	2.21	1.00	4.38	0.76	54.14	145.17	91.03
9+00.00	2.58	0.97	2.88	0.91	57.02	146.08	89.05
9+25.00	2.80	0.89	3.24	0.86	60.26	146.94	86.68
9+50.00	1.50	1.07	2.59	0.91	62.85	147.85	85.00
9+75.00	1.17	1.31	1.60	1.10	64.45	148.95	84.50
10+00.00	1.49	1.59	1.60	1.35	66.05	150.30	84.25
10+25.00	1.03	1.43	1.51	1.40	67.57	151.70	84.13
10+50.00	0.79	1.27	1.10	1.25	68.66	152.95	84.28
10+75.00	0.82	1.37	0.97	1.22	69.63	154.17	84.54
11+00.00	0.82	1.49	0.99	1.33	70.62	155.50	84.88
11+25.00	0.45	2.09	0.76	1.66	71.38	157.16	85.77
11+50.00	0.34	2.21	0.47	1.99	71.85	159.14	87.29
11+75.00	0.47	1.28	0.49	1.61	72.34	160.76	88.42
12+00.00	0.27	1.20	0.44	1.15	72.78	161.91	89.12
12+25.00	0.05	1.47	0.19	1.23	72.98	163.14	90.16
12+50.00	0.01	2.79	0.04	1.97	73.02	165.11	92.10
12+75.00	0.00	4.14	0.01	3.21	73.03	168.33	95.30
13+00.00	0.00	5.59	0.00	4.51	73.03	172.83	99.80
13+25.00	0.00	12.21	0.00	8.24	73.03	181.07	108.04
13+50.00	0.00	19.12	0.00	14.51	73.03	195.58	122.54
13+75.00	0.00	22.84	0.00	19.42	73.03	215.00	141.97

NOTE:

A shrink factor of 30% has been applied to these tables.

HMA RESURFACING
Proj. No. LFM-C085(HG)--7X-85

STORY COUNTY
Letting Date Feb. 25, 2020

PROJECT TRAFFIC CONTROL PLAN
THE ROAD WILL BE OPEN TO ONE LANE TRAFFIC DURING CONSTRUCTION HOURS AND REOPENED TO TWO LANE TRAFFIC AT THE END OF EACH WORK DAY. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR.

UTILITIES INFORMATION
UTILITY COMPANIES WHOSE FACILITIES ARE SHOWN ON THE PLANS OR SHOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE AND SUBSEQUENT WORK IN THE AREA.

ALLIANT ENERGY: 319-286-1315
HUXLEY COMMUNICATIONS COOP: 515-597-2281
IOWA NETWORK SERVICES: 515-830-0445
XENIA RURAL WATER DISTRICT: 515-676-2117

CONTRACTOR SHALL CALL ONE CALL AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. ONE CALL 1-800-292-8989

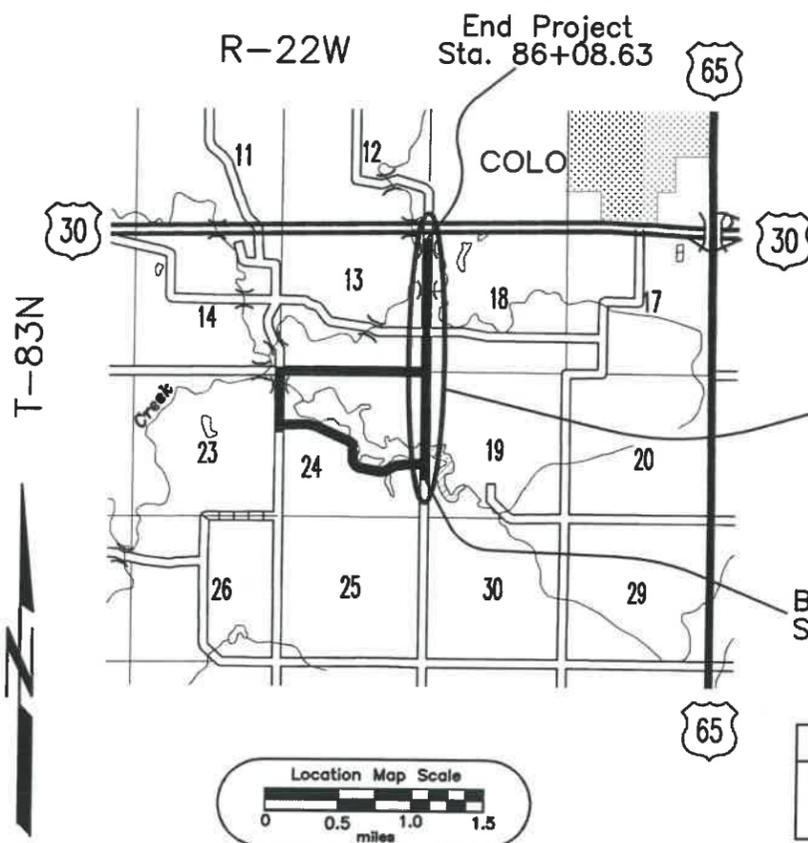
It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. These areas shall not impact wetlands or "Waters Of The U.S." No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

IOWA
DEPARTMENT OF TRANSPORTATION
Highway Division
PLANS OF PROPOSED IMPROVEMENT ON THE
FARM-TO-MARKET SYSTEM
STORY COUNTY
HMA RESURFACING

On 680th Ave., from 255th St., North 1.6 miles to Highway 30.

Refer to Proposal Form for a list of applicable specifications.

Scales: As Noted



PROJECT LOCATION
ON 680TH AVE., FROM 255TH ST.,
NORTH 1.6 MILES TO HIGHWAY 30;
IN SECTIONS 18 AND 19 OF T83N R22W.

Begin Project
Sta. 0+00.00

DESIGN DATA RURAL
2015 AADT 170-500 V.P.D.
Design: Standard Traffic

Project No. LFM-C085(HG)--7X-85

INDEX OF SHEETS	
No.	Description
A.01	TITLE SHEET
C.01	QUANTITY INFORMATION SHEET
C.02	TYPICAL SECTIONS SHEET
C.03	TABULATIONS SHEET

MILEAGE SUMMARY			
Div.	Location	Lin. Ft.	Miles
I	STA. 0+00.00 TO STA. 86+08.63	8,608.63	1.630
Total		8,608.63	1.630

STANDARD ROAD PLANS		
Number	Date	Title
PM-110	10-16-18	LINE TYPES
PM-120	10-21-14	STOP LINES AND ISLANDS
PM-420	04-19-11	TWO-LANE ROADWAY WITH NO TURN LANES (ONE-WAY STOP CONDITION)
PR-201	10-21-14	RUNOUTS FOR RESURFACING
PV-3	04-16-19	SAFETY EDGE
PV-202	04-16-13	HOT MIX ASPHALT RESURFACING
TC-1	04-16-13	WORK NOT AFFECTING TRAFFIC (TWO-LANE OR MULTI-LANE)
TC-213	04-17-12	LANE CLOSURE WITH FLAGGERS
TC-214	10-17-17	LANE CLOSURE WITH FLAGGERS FOR USE WITH PILOT CAR
TC-233	10-17-17	PAVEMENT MARKING OPERATIONS TWO-LANE
TC-282	04-19-11	UNEVEN LANES

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.

Signed: Tyler Sparks Date: 1-7-20
Tyler Sparks, P.E. 21419
My license renewal date is December 31, 2020

Pages or sheets covered by this seal:
(Entire submission unless specified here)

Accepted by
Dan Moore 1-7-2020
Story County Engineer Date

Approved Story County
Board of Supervisors

PROJ No. LFM-C085(HG)--7X-85

QUANTITY INFORMATION SHEET

ESTIMATED PROJECT QUANTITIES OF QUANTITIES (1 DIVISION PROJECT)				
				100-1A
ITEM	ITEM CODE	ITEM	UNIT	TOTAL
1	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	1,740.0
2	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	1.6
3	2214-5145150	PAVEMENT SCARIFICATION	SY	9,000.0
4	2303-1032500	HMA, ST, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	1,881.0
5	2303-1033500	HMA, ST, SURFACE COURSE, 1/2 IN. MIX, NO SPECIAL FRICTION	TON	1,881.0
6	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	225.7
7	2303-6911000	HMA PAVEMENT SAMPLES	LS	1.0
8	2303-7000610	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (LABORATORY VOIDS)	EACH	1.0
9	2303-7000620	PAYMENT ADJUSTMENT I/D FOR HMA MIXTURE (FIELD VOIDS)	EACH	1.0
10	2527-9263109	PAINTED PAVEMENT MARKINGS, WATERBORNE/SOLVENT	STA	381.39
11	2528-8445110	TRAFFIC CONTROL	LS	1.0
12	2528-8445113	FLAGGER	EACH	22.0
13	2528-8445115	PILOT CAR	EACH	5.0
14	2533-4980005	MOBILIZATION	LS	1.0

GENERAL NOTES

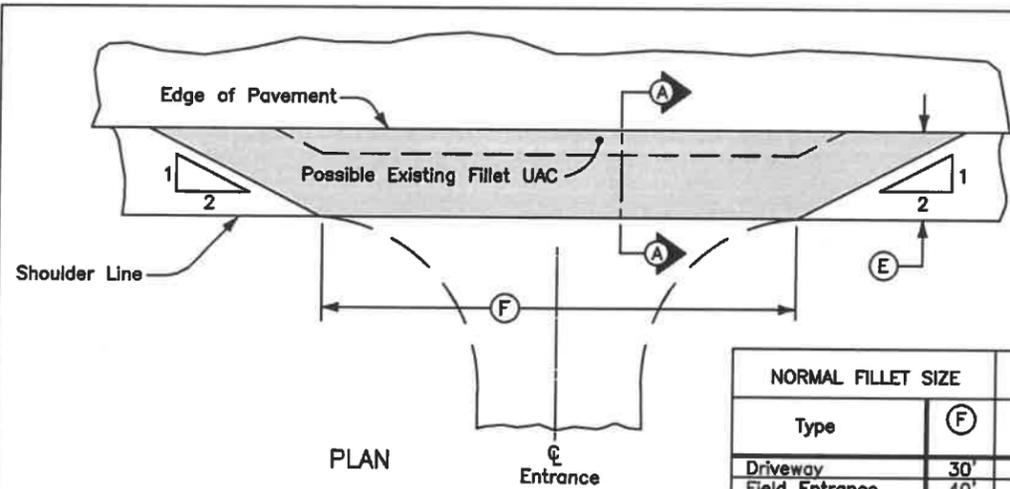
Story County will mark out scarification sawcuts and pavement markings.

Unless otherwise directed or authorized, all hot mix asphalt and other bituminous materials which are not specifically addressed or described in the contract documents shall become the property of the Contractor.

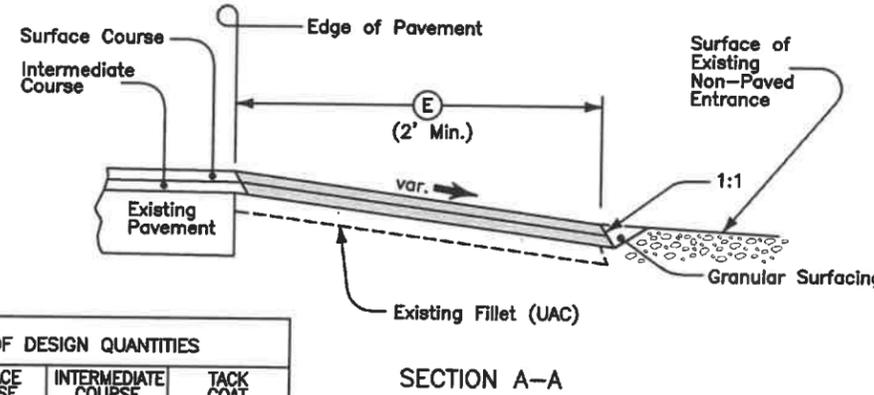
The Contractor, in accordance with current rules and regulations of the Iowa Department of Natural Resources, may:

1. With the approval of the Engineer, blend or otherwise process the material for use with shoulder or special backfill aggregate, for use on the project.
2. With the approval of the Engineer, place with material in areas designated by the Engineer as Soil Aggregate Subbase without extra charge.
3. Remove the material from the project and stockpile for the contractor's future use.

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1.	Item for 5' wide shoulders (on each side). See Typical 7135 on Sheet C.02 for details. Granular material quantity estimated using a unit weight of 125 lbs./ft. ³ . Item includes all material, equipment and labor necessary to furnish, place and finish granular shoulders.
3.	Item for at milling EOP and milling 22' width from Sta. 49+26.6 to Sta. 86+08.6 to remove existing bumps and lightly profile roadway.
4.-5.	QMA shall apply. Quantity is for 3" thick (Standard Traffic design) overlay with 11' wide lanes. Quantity was estimated using 148 lbs./ft. ³ unit weight. Quantity includes 38.3 tons for entrance fillets and sideroad intersections. Tack coat is incidental to this item.
6.	Binder was estimated at 6% for both intermediate and surface lifts.
10.	See Tabulation 10822 on Sheets C.03 for pavement marking types, stationing, and quantities. Quantity includes an application of yellow centerline marking for both intermediate and surface lifts.
12.	Flagger quantity is an estimate only.
13.	Pilot Car quantity is an estimate only.



Type	TABLE OF DESIGN QUANTITIES				
	(F)	(E)	SURFACE COURSE	INTERMEDIATE COURSE	TACK COAT
		Feet	Tons ①	Tons ①	Gal. ②
Driveway	30'	2'	0.3	0.3	0.7
Field Entrance	40'	2'	0.5	0.5	0.9
Commercial Ent.	80'	2'	1.0	1.0	1.8
Gravel Road	100'	2'	1.2	1.2	2.2



Notes:

Construct uniform thickness fillets at non-paved entrances to farm dwellings and other residences where practical, and at commercial entrances, and sideroads.

Special shaping of existing surface prior to placement of fillet may be required by the Engineer and is incidental to other work on the project.

Fillet sizes as listed in the table are recommended and shall be used for design and estimating purposes. The Engineer shall establish the size of each individual fillet to accommodate conditions at the site.

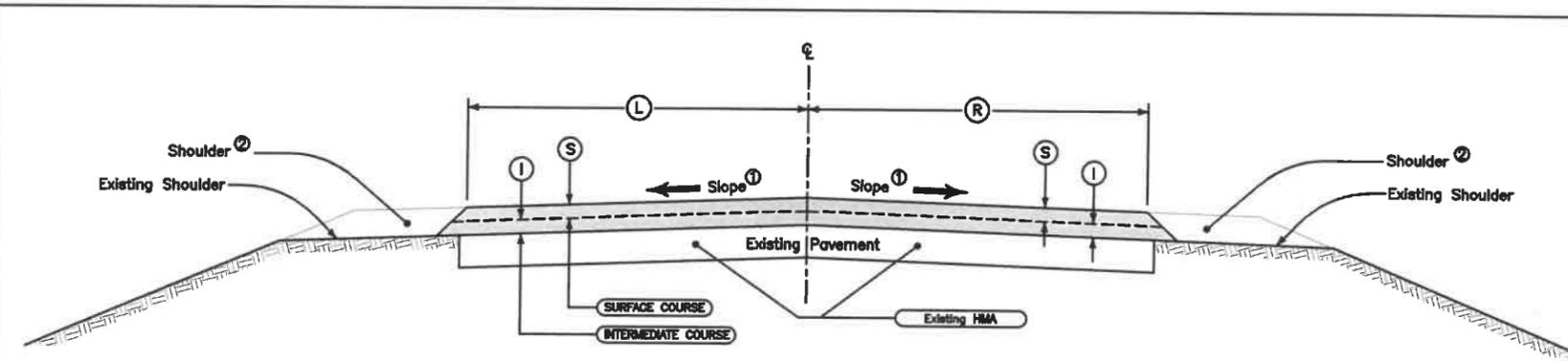
HMA quantities included with mainline quantities.

① Estimated at 148 lbs./cu. ft.

② Estimated for 2 applications at 0.05 gal./sq. yd. The tack coat for entrance fillets may be eliminated when so directed by the Engineer.

7139
Modified

FILLET FOR NON-PAVED ENTRANCES
(HMA Resurfacing Project)



Notes:

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 superelevation curves and Standard Road Plans for additional requirements through superelevated curves.

② Refer to shoulder typicals.

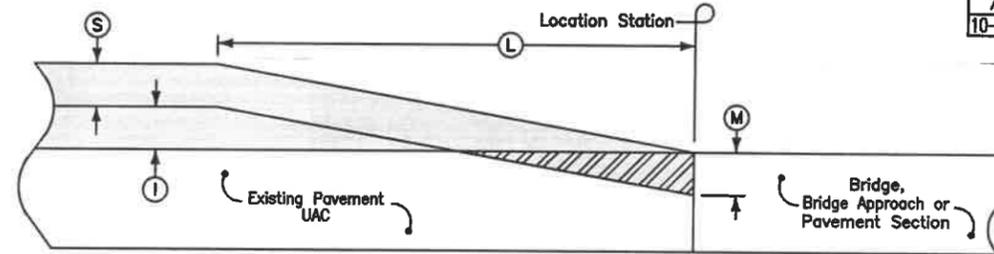
2602
Modified

TYPICAL CROSS SECTION
HMA RESURFACING

LOCATION		(S)	(I)	(L)	(R)
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Feet	Feet
680th Ave.	0+00.00 86+08.63	1 1/2	1 1/2	11.0	11.0

Posted Speed Limit (mph)	Runout Ratio (ft per inch)
45 or More	50
20 to 45	25
Under 20	10*

* Based on turning maneuvers at side roads and intersections.

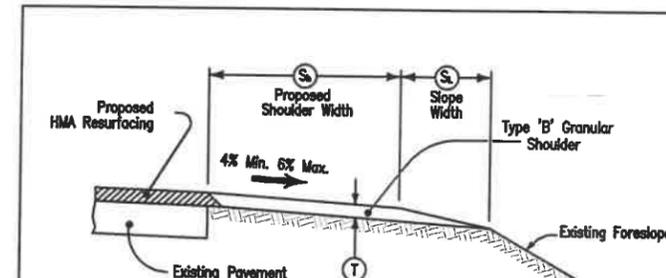


7308
10-15-13

Location Station	(L)	(S)	(I)	(M)	Remarks
	Feet	Inches	Inches	Inches	
86+08.63	50	1 1/2	1 1/2	1 1/2	Project EOP

(S) Surface Course
(I) Intermediate Course
(M) Milling

SURFACE NOTCH - INTERMEDIATE
RUNOUT FOR DOUBLE COURSE RESURFACING



Notes:

Quantities have been determined on the basis of a design weight of 140 lbs. per cubic foot.

7135
Modified

LOCATION		(T)	(S)	(S)
ROAD IDENTIFICATION	STATION TO STATION	Side	Inches	Feet
680th Ave.	0+00.00 86+08.63	NB	3.0	4
680th Ave.	0+00.00 86+08.63	SB	3.0	4

TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT
RESURFACING



SKILLSETS
of
SILICON VALLEY

3 Crow Canyon Court, San Ramon, CA 94583
P: 925-964-0531 FED ID: 611547538
www.SkillSetsOnline.com

QUOTE# BLACKFRIDAY-3YR-1986
Your SkillSets Contact: Jon Hougey / 925-389-2559
Jon.Hougey@skillsetsonline.com

Barbara Steinback/ 515-382-7302
bsteinback@storycounty.com



or



December 16, 2019

BILL TO:

Barbara Steinback
Story County
900 6th St
Nevada, IA 50201-2052

SHIP TO:

Barbara Steinback
Story County
900 6th St
Nevada, IA 50201-2052

SkillSets Online BLACK FRIDAY SPECIAL “Buy 1 Year / Get 2 Years Free” Package Includes:

- License to courses from December 23, 2019 through December 22, 2022 (3 years).
- 3-Year License to all Skillsets Online courses-UNLIMITED people and UNLIMITED titles (normally \$4,995/year).
- 3-Year License to all Hands-On Labs-UNLIMITED people and UNLIMITED labs (normally \$4,995/year).
- 3-Year License to all StreetWise titles-UNLIMITED people and UNLIMITED titles (normally \$4,995/year)..
- Includes New Self-Enrollment Upgrade.
- Creation of unlimited student/manager dashboards from the Student Dashboard Roster you will be providing to us.
- **ACTUAL PAYMENT FOR THIS SPECIAL** due no later than **FRIDAY DECEMBER 20, 2019.**

TOTAL: \$ 4,995

Details Related To This Package:

- Customer must provide SkillSets Online with their student dashboard roster before license can be activated. Once order is received please allow 5 business days for your account to be set up.
- We communicate with students directly via their individual dashboards and also via email. This is how we alert students about new course releases, new tools and any other relevant information.
- SkillSets Online does not guarantee accuracy of content nor assume any responsibility that may arise from information derived from the online content. Over time, SkillSets Online will likely modify, add, remove or substitute content in our menus as we deem necessary.
- To get the 2 extra years free in this package, payment must be received on time.
- At any time, customer can choose to order our standard permanent Individual Annual Licenses if they wish (\$995/person per year). This would include all our titles and labs assigned only to that named individual. This is suggested for individuals who do a significant amount of training and require their own personal license.
- For credit card orders, please allow 2-3 days for payment processing.
- Customer is responsible to pay any applicable Federal, State or Local taxes.
- Customer agrees to keep the terms of this package confidential.
- Customer wishing to order through their existing SHI or CDW Contract can do so but there is a mark up.
- Your PO is confirmation of your order and all sales are final.

WHAT TO EXPECT AFTER YOU PLACE YOUR ORDER (VERY IMPORTANT):

Once you make your payment, you will be sent a Student Dashboard Roster form that you need to complete (takes about 30 minutes). Once we receive this from you, we will build and deploy to each student and manager their personal dashboards. This happens about 5 days after we receive your roster back. At that point all students, managers and SkillSets Online personnel are linked together via our Dashboard EcoSystem. Through this unique EcoSystem we communicate directly with your students and managers. We also communicate with them via email to provide any and all relevant information as noted above. We will include instructions for both your students and managers regarding how to use our overall system correctly so that you maximize your value.



Rev12-6-19

STORY COUNTY, IOWA
RESOLUTION OF THE BOARD OF SUPERVISORS
RESOLUTION #20-58

Setting a Date and Time for a Public Hearing
for Paving Projects

WHEREAS, Story County is proposing the following paving projects:

- L-P27-73-85: 535th Avenue Paving—to pave the existing gravel road 535th Avenue from E63 (320th Street) south 0.25 miles to the Heart of Iowa Nature Trail (HOINT)
- L-U30-73-85: 560th Avenue Paving—to pave the existing gravel road 560th Avenue from E63 (315th Street) south 1.0 mile to Blue Sky Boulevard; and

WHEREAS, the public may express views concerning the proposed paving projects at the public hearing or via written comments submitted no later than the beginning of the public hearing.

NOW, THEREFORE, BE IT RESOLVED by the Story County Board of Supervisors to hold a public hearing in the Board Room of Story County Administration Building in Nevada, Iowa, at 10:00 a.m. on Tuesday, February 11, 2020, to obtain public comments on the proposed Secondary Roads paving projects.

Approved this 14th day of January, 2020

_____ Attest: _____
Chair, Board of Supervisors County Auditor

ROLL CALL	Lauris Olson	Yea	___	Nay	___	Absent	___
FOR ALLOWANCE	Lisa Heddens	Yea	___	Nay	___	Absent	___
	Linda Murken	Yea	___	Nay	___	Absent	___

ALLOWED BY VOTE
OF THE BOARD

Yea ___ Nay ___ Absent ___

_____ Above tabulation made by _____
CHAIRPERSON

Applicant License Application (LA0000490)

Name of Applicant: <u>Indian Creek Country Club</u>		
Name of Business (DBA): <u>Indian Creek Country Club</u>		
Address of Premises: <u>63012 260th Street</u>		
City <u>Nevada</u>	County: <u>Story</u>	Zip: <u>5020100</u>
Business <u>(515) 382-9070</u>		
Mailing <u>PO Box 215</u>		
City <u>Nevada</u>	State <u>IA</u>	Zip: <u>50201</u>

Contact Person

Name <u>Sherry Newsome</u>
Phone: <u>(515) 382-9070</u> Email <u>golf9@netins.net</u>

Classification Class A Liquor License (LA) (Private Club)

Term: 12 months

Effective Date: 03/19/2019 *2020*

Expiration Date: 03/18/2020 *2021*

Privileges:

Class A Liquor License (LA) (Private Club)

Outdoor Service

Sunday Sales

Status of Business

BusinessType: <u>Privately Held Corporation</u>
Corporate ID Number: <u>XXXXXXXXXX</u> Federal Employer ID <u>XXXXXXXXXX</u>

Ownership

Richard Olinger

First Name: Richard **Last Name:** Olinger
City: Nevada **State:** Iowa **Zip:** 50201
Position: Treasurer
% of Ownership: 0.00% **U.S. Citizen:** Yes

Various Shareholders (approx 40, none over 10%)

First Name: Various Shareholders **Last Name:** (approx 40, none over 10%)
City: Nevada **State:** Iowa **Zip:** 50201
Position: Shareholders
% of Ownership: 100.00% **U.S. Citizen:** Yes

Mike Ellingson

First Name: Mike **Last Name:** Ellingson
City: Nevada **State:** Iowa **Zip:** 50201

Position: President

% of Ownership: 0.00%

U.S. Citizen: Yes

Insurance Company Information

Insurance Company:	<u>Nationwide Insurance Company</u>		
Policy Effective Date:	<u>03/19/2019</u>	Policy Expiration	<u>03/19/2020</u>
Bond Effective		Dram Cancel Date:	
Outdoor Service Effective		Outdoor Service Expiration	
Temp Transfer Effective		Temp Transfer Expiration Date:	

Prepared by: Darren R. Moon, Story County Engineer's Office, 837 N Ave., Nevada, IA 50201 515-382-7355

CONTRACT FOR HIGHWAY RIGHT OF WAY

PARCEL No: 04-20-100-300
PROJECT No: L-LIN20--73-85
ROAD No: (690th Ave.)

THIS AGREEMENT made and entered into this 31st day of December, A.D. 20 19 by and between

DAWN M BOVENMYER, DANIEL R. KNAPHUS, KISTOPHER M. KNAPHUS, DEBORAH C. RAINES, MARIE KNAPHUS AS TRUSTEE OF THE GEORGE AND MARIE KNAPHUS REC. TRUST AS GENERAL PARTNER OF THE KNAPHUS FAMILY LIMITED PARTNERSHIP

Seller, and the Story County Secondary Roads Department, acting for the County of Story, Buyer.

1. a SELLER AGREES to sell and Buyer agrees to buy the following real estate, hereinafter referred to as the premises, situated in parts of the following (1/4 1/4 Sec./Twp./Rge.):

The East 27.00 feet of the West 60.00 feet of the North 100.00 feet of the South 1,275.00 feet in the SW¹/₄, NW¹/₄ of Section 20, Township 85 North, Range 21 West of the 5th P.M., Story County, Iowa. Easement contains 0.14 acres of which 0.08 acres is existing R.O.W.

County of Story, State of Iowa, and more particularly described on Page 6 and which include the following buildings, improvements and other property:

See attached graphical representation

1. b SELLER ALSO GRANTS to Buyer a temporary easement as shown on the Temporary Easement Plot attached as Page ---, and as shown on the project plans for said highway improvement. Said temporary easement shall terminate upon completion of this highway project.

1. c The premises also include all estates, rights, title and interests, including all easements, and all advertising devices and the rights to erect such devices as are located thereon. SELLER CONSENTS to any change of grade of the highway and accepts payment under this contract for any and all damages arising therefrom. SELLER ACKNOWLEDGES full settlement and payment from the Buyer for all claims per the terms of this contract and discharges the Buyer from liability because of this contract and the construction of this public improvement project.

2. Possession of the premises is the essence of this contract and Buyer may enter and assume full use and enjoyment of the premises per the terms of this contract. Buyer may take immediate possession of premises upon the execution of the contract by both Seller and Buyer.

3. Buyer agrees to pay and SELLER AGREES to grant the right of possession, convey title, and to surrender physical possession of the premises as shown:

	Payment Amount	Agreed Performance
	\$ <u>304.36</u>	on right of possession
	\$	on conveyance of title
	\$	on surrender of possession
	\$	on possession and conveyance
	\$ <u>304.36</u>	TOTAL LUMP SUM

BREAKDOWN:	ac.=acres	sq.ft.=square feet	
Land by Fee Title		ac./sq.ft.	\$
Underlying Fee Title		ac./sq.ft.	\$
Permanent Easement	<u>0.06</u>	ac./sq.ft.	\$ <u>279.36</u>
Temporary Easement		ac./sq.ft.	\$
Damages for:			
		Buildings & Improvements	\$
		Fence _____ rods woven	\$
		Fence _____ rods barb	\$
			\$

Future Abstract Entry in the amount of \$25.00

4. The Seller is responsible for any and all matters relating to any tenant on the land and hereby releases the Buyer from all tenant liabilities.

SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X Dawn Boenmyer _____ X
X As general partner _____ X
X Dawn Boenmyer _____

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of 6 pages.

6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.

7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for fencing private property of maintaining the same to restrain livestock.

8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.

9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.

10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,

11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT

STATE OF IOWA: ss On this 18 day of December, 2019, before me, the undersigned, personally appeared Dawn Boenmyer as general partner of the Knapton Family Limited Partnership

Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.



Tyler Sparks
Notary Public in and for the State of IOWA

BUYER'S APPROVAL

Dawn Boenmyer _____ 1-6-2020

Recommended by: Darren Moon P.E., Story County Engineer (Date)

Approved by: Chairperson, Story County Board of Supervisors (Date)

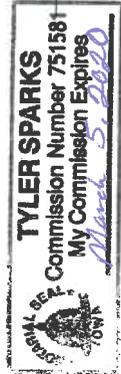
SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X David R. Knaphus X
X David R. Knaphus General Partner
X _____

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of 6 pages.
6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.
7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for fencing private property of maintaining the same to restrain livestock.
8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.
9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.
10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,
11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT
STATE OF IOWA: ss On this 18th day of December, 2019, before me, the undersigned, personally appeared David R. Knaphus and David R. Knaphus as general Partner of the Knaphus Family Limited Partnership
Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.



Tyler Sparks
Notary Public in and for the State of IOWA

BUYER'S APPROVAL
Darren Moon _____
Recommended by: Darren Moon P.E., Story County Engineer (Date) 1-6-2020

Approved by: Chairperson, Story County Board of Supervisors (Date) _____

SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X Kristopher M. Knaphus X
X _____ X
X _____ X

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of 6 pages.
6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.
7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for fencing private property of maintaining the same to restrain livestock.
8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.
9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.
10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,
11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT
STATE OF IOWA: ss On this 27th day of December, 2019, before me, the undersigned, personally appeared Kristopher M. Knaphus

Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.

BUYER'S APPROVAL

Darren Moon
Recommended by: Darren Moon P.E., Story County Engineer

(Date)

DWIGHT DOVER
Notary Public for the
State of Montana
Residing at GREAT FALLS, MT
My Commission Expires
July 5, 2021



Notary Public in and for the State of Montana

Approved by: Chairperson, Story County Board of Supervisors (Date)

SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X Deborah Raines X
X _____ X
X _____ X

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of 26 pages.

6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.

7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for feucing private property of maintaining the same to restrain livestock.

8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.

9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.

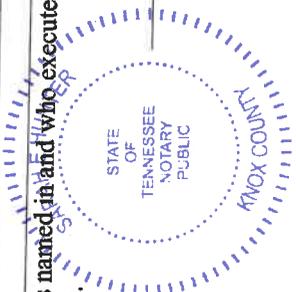
10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,

11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT
STATE OF IOWA: ss On this 31 day of Dec, 2019, before me, the undersigned, personally appeared Deborah Raines

Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.



Daryl White My Commission Expires June 6, 2023
Notary Public in and for the State of TN

BUYER'S APPROVAL
Deborah Raines

1-6-2020

Recommended by: Darren Moon P.E., Story County Engineer (Date)

Approved by: Chairperson, Story County Board of Supervisors (Date)

Prepared by: Darren R. Moon, Story County Engineer's Office, 837 N Ave., Nevada, IA 50201 515-382-7355

CONTRACT FOR HIGHWAY RIGHT OF WAY

PARCEL No: 16-26-300-345
PROJECT No: L-C26--73-85
ROAD No: (720th Ave.)

THIS AGREEMENT made and entered into this 5th day of December, A.D. 20 19 by and between

JACK E. TITUS AND ANN M. TITUS

Seller, and the Story County Secondary Roads Department, acting for the County of Story, Buyer.

1.a SELLER AGREES to sell and Buyer agrees to buy the following real estate, hereinafter referred to as the premises, situated in parts of the following (1/4 1/4 Sec./Twp./Rge.):

The East 17.00 feet of the West 50.00 feet of the North 100.00 feet of the South 700.00 feet in the SW¼, SW¼ of Section 26, Township 82 North, Range 21 West of the 5th P.M., Story County, Iowa. Easement contains 0.12 acres of which 0.08 acres is existing R.O.W.

County of Story, State of Iowa, and more particularly described on Page 3 and which include the following buildings, improvements and other property:

See attached graphical representation

1.b SELLER ALSO GRANTS to Buyer a temporary easement as shown on the Temporary Easement Plot attached as Page , and as shown on the project plans for said highway improvement. Said temporary easement shall terminate upon completion of this highway project.

1.c The premises also include all estates, rights, title and interests, including all easements, and all advertising devices and the rights to erect such devices as are located thereon. SELLER CONSENTS to any change of grade of the highway and accepts payment under this contract for any and all damages arising therefrom. SELLER ACKNOWLEDGES full settlement and payment from the Buyer for all claims per the terms of this contract and discharges the Buyer from liability because of this contract and the construction of this public improvement project.

2. Possession of the premises is the essence of this contract and Buyer may enter and assume full use and enjoyment of the premises per the terms of this contract. Buyer may take immediate possession of premises upon the execution of the contract by both Seller and Buyer.

3. Buyer agrees to pay and SELLER AGREES to grant the right of possession, convey title, and to surrender physical possession of the premises as shown:

	Payment Amount	Agreed Performance
	\$ <u>211.24</u>	on right of possession
	\$	on conveyance of title
	\$	on surrender of possession
	\$	on possession and conveyance
	\$ <u>211.24</u>	TOTAL LUMP SUM
BREAKDOWN:		
Land by Fee Title	ac.=acres	sq.ft.=square feet
Underlying Fee Title		ac./sq.ft. \$
Permanent Easement	<u>0.04</u>	ac./sq.ft. \$ <u>186.24</u>
Temporary Easement		ac./sq.ft. \$
Damages for:		
		Buildings & Improvements \$
		Fence <u> </u> rods woven \$
		Fence <u> </u> rods barb \$
		\$

Future Abstract Entry in the amount of \$25.00

4. The Seller is responsible for any and all matters relating to any tenant on the land and hereby releases the Buyer from all tenant liabilities.

SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X Jack Titus
X Ann Titus

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of 3 pages.

6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.

7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for fencing private property of maintaining the same to restrain livestock.

8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.

9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.

10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,

11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT
STATE OF IOWA: ss On this 5th day of December, 20 19, before me, the undersigned, personally appeared Jack Titus and Ann Titus

Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.



Tyler Sparks
Notary Public in and for the State of IOWA

BUYER'S APPROVAL

Darren Moon 12-9-19

Recommended by: Darren Moon P.E., Story County Engineer (Date)

Approved by: Chairperson, Story County Board of Supervisors (Date)

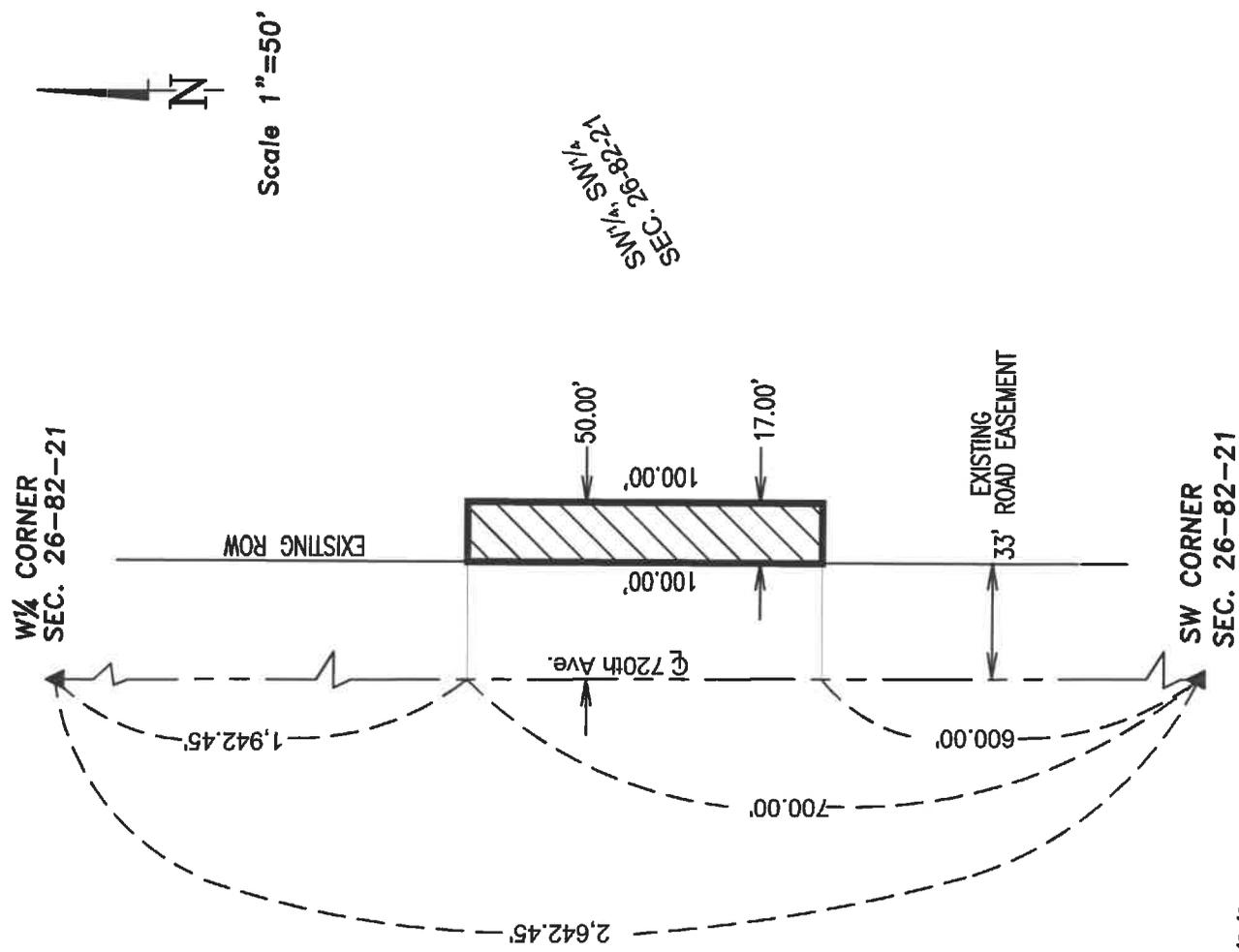
"Exhibit A"

STORY COUNTY SECONDARY ROADS EASEMENT ACQUISITION

PROJECT NO. L-C26--73-85 PARCEL NO. 16-26-300-345
SECTION 26, TOWNSHIP 82N, RANGE 21W, OF THE 5TH P.M., STORY COUNTY, IOWA.
ACQUIRED FROM JACK E. TITUS AND ANN M. TITUS

EXISTING R.O.W. 0.08 ACRES NEW R.O.W. 0.04 ACRES TOTAL R.O.W. 0.12 ACRES

The East 17.00 feet of the West 50.00 feet of the North 100.00 feet of the South 700.00 feet in the SW $\frac{1}{4}$ of Section 26, Township 82 North, Range 21 West of the 5th P.M., Story County, Iowa. Easement contains 0.12 acres of which 0.08 acres is existing R.O.W.



DATE DRAWN 11/8/2019

G:\Autocad\Projects\Culverts\2020\Collins 26 730th RCB\ROW\Titus\Titus Plat.dwg

Prepared by: Darren R. Moon, Story County Engineer's Office, 837 N Ave., Nevada, IA 50201 515-382-7355

CONTRACT FOR HIGHWAY RIGHT OF WAY

PARCEL No: 15-21-400-300
PROJECT No: L-IC21--73-85
ROAD No: 645th Ave.

THIS AGREEMENT made and entered into this 16th day of December, A.D. 20 19 by and between

BARBARA DARLENE MARSHALL

Seller, and the Story County Secondary Roads Department, acting for the County of Story, Buyer.

1.a SELLER AGREES to sell and Buyer agrees to buy the following real estate, hereinafter referred to as the premises, situated in parts of the following (1/4 1/4 Sec./Twp./Rge.):

The East 22.00 feet of the West 55.00 feet of the North 125.00 feet of the South 875.00 feet of the SW¹/₄, SE¹/₄ in Section 21, Township 82 North, Range 22 West of the 5th P.M., Story County, Iowa. Easement contains 0.16 acres of which 0.09 acres is existing R.O.W.

County of Story, State of Iowa, and more particularly described on Page 3 and which include the following buildings, improvements and other property:

See attached graphical representation

1.b SELLER ALSO GRANTS to Buyer a temporary easement as shown on the Temporary Easement Plot attached as Page 4, and as shown on the project plans for said highway improvement. Said temporary easement shall terminate upon completion of this highway project.

1.c The premises also include all estates, rights, title and interests, including all easements, and all advertising devices and the rights to erect such devices as are located thereon. SELLER CONSENTS to any change of grade of the highway and accepts payment under this contract for any and all damages arising therefrom. SELLER ACKNOWLEDGES full settlement and payment from the Buyer for all claims per the terms of this contract and discharges the Buyer from liability because of this contract and the construction of this public improvement project.

2. Possession of the premises is the essence of this contract and Buyer may enter and assume full use and enjoyment of the premises per the terms of this contract. Buyer may take immediate possession of premises upon the execution of the contract by both Seller and Buyer.

3. Buyer agrees to pay and SELLER AGREES to grant the right of possession, convey title, and to surrender physical possession of the premises as shown:

	Payment Amount	Agreed Performance
	\$ <u>434.73</u>	on right of possession
	\$	on conveyance of title
	\$	on surrender of possession
	\$	on possession and conveyance
	\$ <u>434.73</u>	TOTAL LUMP SUM
BREAKDOWN:		
Land by Fee Title	ac.=acres	sq.ft.=square feet
Underlying Fee Title	ac./sq.ft.	\$
Permanent Easement	<u>0.07</u> ac./sq.ft.	\$ <u>325.92</u>
Temporary Easement	<u>0.03</u> ac./sq.ft.	\$ <u>83.81</u>
Damages for:		
		Buildings & Improvements \$
		Fence _____ rods woven \$
		Fence _____ rods barb \$
		\$

Future Abstract Entry in the amount of \$25.00

4. The Seller is responsible for any and all matters relating to any tenant on the land and hereby releases the Buyer from all tenant liabilities.

SELLER'S SIGNATURE AND CLAIMANT'S CERTIFICATION: Upon due approval and execution by the Buyer, we the undersigned claimants certify the total lump sum payment shown herein is just and unpaid.

X Barbara Darlene Marshall

5. Each page and each attachment is by this reference made part hereof and the entire agreement consists of _____ pages.
6. In the event that said premises is burdened by the lien of a mortgage, judgement or other encumbrance, Sellers agree to fully cooperate with Buyer in securing a release of such lien from said premises, and if necessary and proper, Sellers agree that any part of the sum owing to them under this contract may be paid to the holder of such lien for such release.
7. Buyer agrees that any drain tile that is located within the premises and is damaged by highway construction shall be repaired at no expense to Seller. Where Buyer specifically agrees to construct and maintain fence, the fence shall be constructed and maintained for vehicle access control purposes only at no expense to the Seller. Buyer shall have the right of entry upon Sellers remaining property along the right of way line, if necessary, for the purpose of connecting said drain tile and constructing and maintaining said fence. Seller may pasture against said fence at his own risk. Buyer will not be liable for fencing private property of maintaining the same to restrain livestock.
8. If the Seller holds title to the premises in joint tenancy with full rights of survivorship and not as tenants in common at the time of this contract, Buyer will pay any remaining proceeds to the survivor of that joint tenancy and will accept title solely from that survivor, provided the joint tenancy has not been destroyed by operation of law or acts of the Seller.
9. These premises are being acquired for public purposes and this transfer is exempt from the requirements for the filing of a Declaration of Value by the Code of Iowa.
10. Seller states and warrants that, to the best of Seller's knowledge, there are no burial site, well, solid waste disposal site, hazardous substance, nor underground storage tank on the premises described and sought herein except,
11. This Written contract constitutes the entire agreement between Buyer and Seller and there is no agreement to do or not to do any act or deed except as specifically provided for herein.

Additional Right of Way Agreements:

SELLER'S ACKNOWLEDGMENT

STATE OF IOWA: ss On this 16 day of December, 2019, before me, the undersigned, personally appeared BARBARA DARLENE MARSHALL

Known to me to be the identical persons named in and who executed the foregoing instrument and acknowledged that they executed the same as their voluntary act and deed.

MARY P. HOWELL
NOTARIAL SEAL OF IOWA
COMMISSION NO. 1925679
MY COMMISSION EXPIRES 2-19-21

Mary P. Howell
Notary Public in and for the State of Iowa

BUYER'S APPROVAL

Darren Moon

12-19-19

Recommended by: Darren Moon P.E., Story County Engineer (Date)

Approved by: Chairperson, Story County Board of Supervisors (Date)

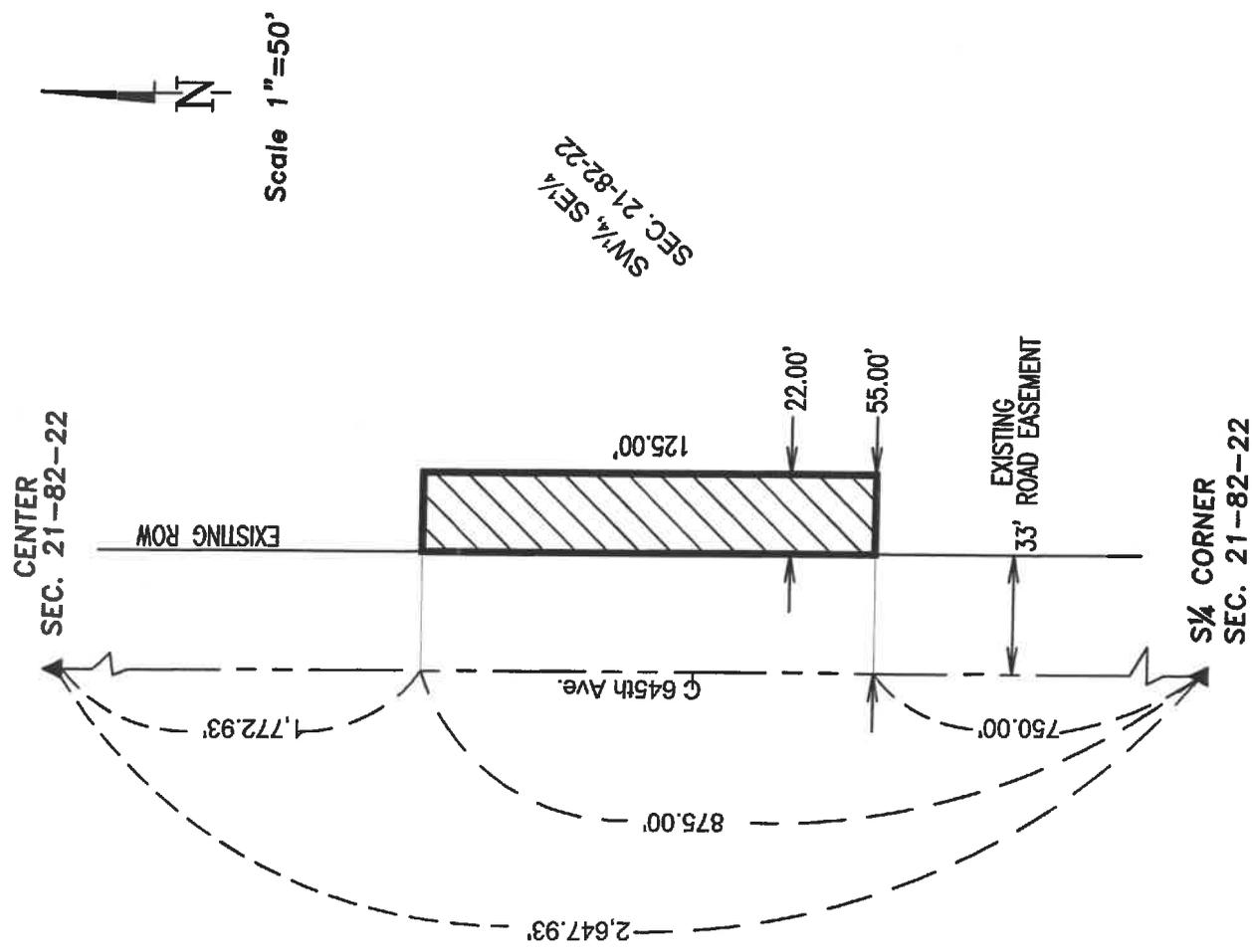
"Exhibit A"

STORY COUNTY SECONDARY ROADS EASEMENT ACQUISITION

PROJECT NO. L-IC21--73-85 PARCEL NO. 15-21-400-300
SECTION 21, TOWNSHIP 82N, RANGE 22W, OF THE 5TH P.M., STORY COUNTY, IOWA.
ACQUIRED FROM BARBARA DARLENE MARSHALL

EXISTING R.O.W. 0.09 ACRES NEW R.O.W. 0.07 ACRES TOTAL R.O.W. 0.16 ACRES

The East 22.00 feet of the West 55.00 feet of the North 125.00 feet of the South 875.00 feet of the SW $\frac{1}{4}$, SE $\frac{1}{4}$ in Section 21, Township 82 North, Range 22 West of the 5th P.M., Story County, Iowa. Easement contains 0.16 acres of which 0.09 acres is existing R.O.W.



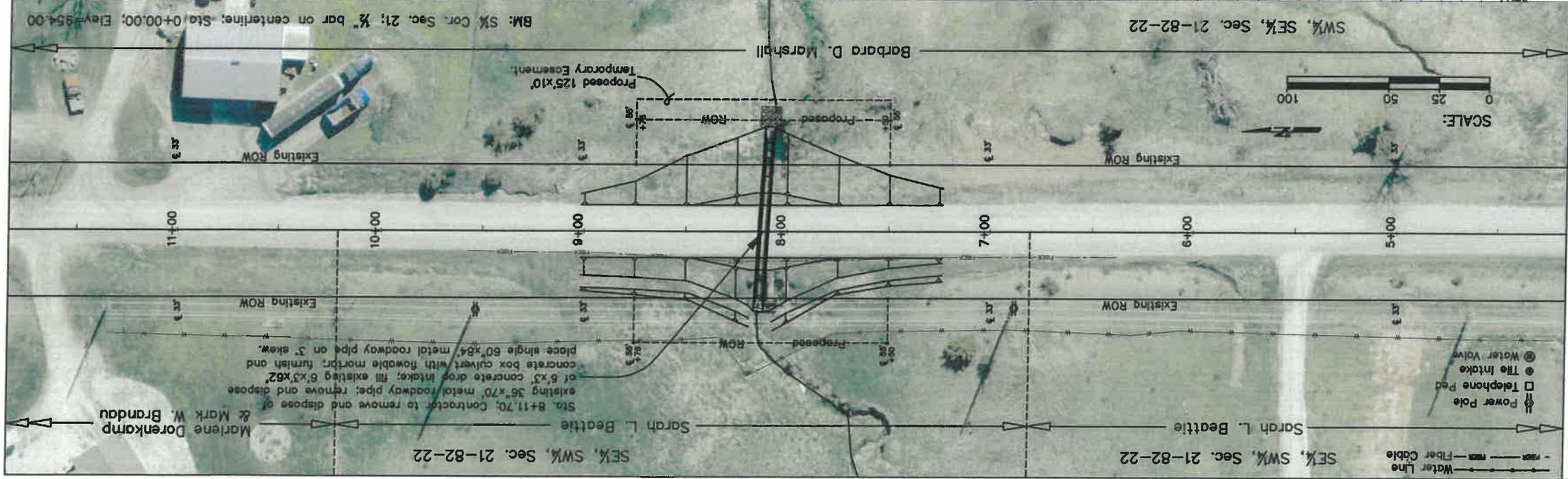
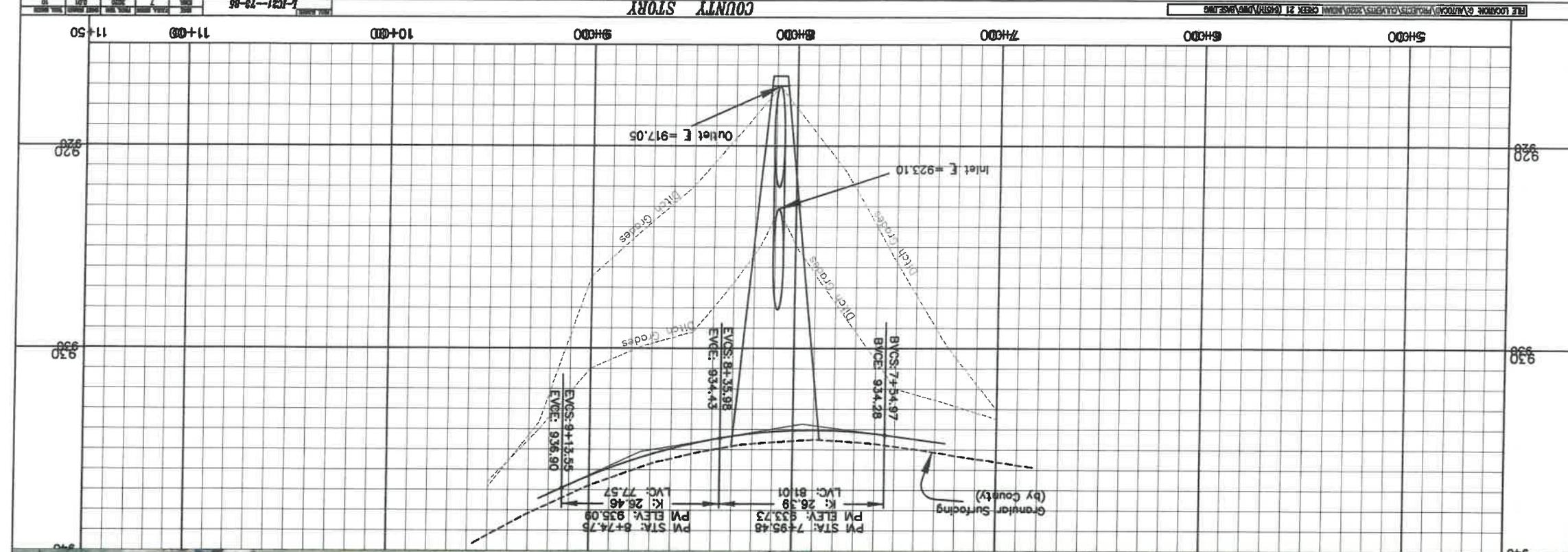
DATE DRAWN 11/07/2019

G:\Autocad\Projects\Culverts\2020\Indian Creek 21 (645th St.)\ROW\Marshall\Marshall Plat.dwg

FILE LOCATION: S:\A\A\A\PROJECTS\01\GEN\A\A\A\CREEK 21 (RSTN)\DWG\SELINE

COUNTY STORY

L-1C21--73-85

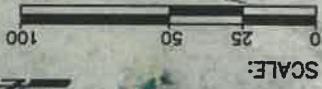


Sta. 8+11.70: Contractor to remove and dispose of existing 36"x70" metal roadway pipe; remove and dispose of 6"x3" concrete drop intake; fill existing 6"x3"x82" concrete box culvert with flowable mortar; furnish and place single 60"x84" metal roadway pipe on 3" skew.

Morlene Dorenkamp & Mark W. Brandau

Water Line
Fiber Cable

- ⊕ Water Valve
- Tie Intake
- Telephone Ped
- ⊕ Power Pole



SCALE:

SW¼, SE¼, Sec. 21-82-22

SE¼, SW¼, Sec. 21-82-22

Sarah L. Beattie

Barbara D. Marshall

BM: 5X Cor. Sec. 21; 1/2" bar on centerline; Sta 0+00.00; Elev=954.00

STORY COUNTY UTILITY PERMIT

Date 2/07/2020

To the Board of Supervisors, Story County, Iowa:

The MCC IOWA, LLC Company, incorporated under the laws of _____ authorize to do business within the State of Iowa, with its principal place of business at 2205 INGERSOLL AVE, DES MOINES, IA 50312 does hereby make application requesting permission to occupy certain portions of public right-of-way and that the County Engineer be directed to establish the location of lines of transmission of 0.625" coaxial cable on secondary route 547th Ave, from 3902 547th Ave to 3401 547th Ave, a distance of 0.388 (2051 LF) miles.

Agreements: The utility company, corporation, applicant, permittee, or licensee, (hereinafter referred to as the permittee) agrees that the following stipulations shall govern under this permit.

1. The Permittee will file a plat setting out the location of proposed line on the secondary route and that the description of the proposed installation including type, height, and spacing of poles, maximum voltage, lengths of cross arms, minimum clearance and number of wires, type, size and capacity of underground cables, conduits, tile lines, and pipe lines, maximum working pressures for pipe lines carrying gas or flammable petroleum products are described as follows:
2. The installation shall meet the requirements of county, state, and federal laws, franchise rules, and of the Iowa State Commerce Commission Regulations and Directives, Utilities Division, the Iowa State Department of Health, and any other laws or regulations applicable.
3. The Permittee shall be fully responsible for any future adjustments of its facilities within the established highway right-of-way caused by highway construction or maintenance operations.
4. Story County assumes no responsibility for damages to the Permittee's property occasioned by any construction or maintenance operations on said highways.
5. The Permittee shall take all reasonable precautions during the construction and maintenance of said installation to protect and safeguard the lives and property of the traveling public and adjacent property owners.
6. The Permittee, and its contractors, shall carry on the construction or repair of the accommodated utility with serious regard to the safety of the public. Traffic protection shall be in accordance with Part VI of the current Iowa Department of Transportation Manual on Uniform Control Devices for Streets and Highways.
7. The Permittee shall be responsible for any damage resulting to said highways because of the construction operation, or maintenance of said utility, and shall reimburse Story County for any expenditure the County may have to make on said highways because of said permittee's utility having been constructed, operated, and maintained thereon.
8. The Permittee shall indemnify and save harmless Story County from any and all causes of action, suits at law or in equity, or losses, damages, claims, or demands, and from any and all

liability and expense of whatsoever nature for, on account of or due to the acts or omissions of said Permittee's officers, members, agents, representatives, contractors, employees or assigns arising out of or in connection with its (or their) use or occupancy of the public highway under this permit.

9. Noncompliance with any of the terms of permit, or agreement, may be considered cause for shut down of utility construction operations, or revocation of the permit.

10. The following special requirements, if applicable, shall apply to this permit:

Whenever the route of the proposed cable line runs along a paved secondary highway, the location of said cable shall be constructed on top of the road shoulder so as to be within approximately two-feet of the pavement edge.

Whenever the route of the proposed cable line runs along a dirt or gravel surfaced highway, the location of said cable shall be constructed on top of the road surface and as near possible to the shoulder line

Whenever a cross road culvert or bridge is encountered along the route of the proposed cable lines, said cable shall be constructed around the ends of said cross road culvert or bridge even though this looping is not designated on the situation plans attached hereto.

The crossing of the cable line from one side of the highway to the other shall be accomplished at a near right angle rather than diagonally so as to disturb the roadbed of the traveled way as little as possible.

Whenever the route of the proposed cable line is to cross a paved highway, such crossing shall be in a bored hole rather than open cut trench.

Date 12-30-2019

MCC IOWA, LLC (MEDIACOM)

Name of Company (Applicant - Permittee)

Paul May *Paul May* 515-246-1890
by Phone no.

Recommended for Approval:

Date 1-7-2020

James Mon 515-382-7355
County Engineer Phone no.

Approved:

Date _____

Chair, Board of Supervisors
Story County, Iowa

Three (3) copies of this form will be required for each installation. A plat shall be attached to each copy submitted.

STORY COUNTY UTILITY PERMIT

Date 1/7/2020

To the Board of Supervisors, Story County, Iowa:

The Iowa Regional Utilities Association Company, incorporated under the laws of Iowa authorize to do business within the State of Iowa, with its principal place of business at 1351 Iowa Speedway Drive, Newton, Iowa 50208, does hereby make application requesting permission to occupy certain portions of public right-of-way and that the County Engineer be directed to establish the location of lines of transmission of Potable Water on secondary route 690th Ave., from the East side of to 30523 690th Ave., a distance of 120 feet. ~~690th Ave.~~

Agreements: The utility company, corporation, applicant, permittee, or licensee, (hereinafter referred to as the permittee) agrees that the following stipulations shall govern under this permit.

1. The Permittee will file a plat setting out the location of proposed line on the secondary route and that the description of the proposed installation including type, height, and spacing of poles, maximum voltage, lengths of cross arms, minimum clearance and number of wires, type, size and capacity of underground cables, conduits, tile lines, and pipe lines, maximum working pressures for pipe lines carrying gas or flammable petroleum products are described as follows: Directional Boring from East ROW line to West ROW line under 690th Avenue in Collins Township installing a 1" PVC Service line a minimum of 5 feet deep. See attached Plan Sheet.
2. The installation shall meet the requirements of county, state, and federal laws, franchise rules, and of the Iowa State Commerce Commission Regulations and Directives, Utilities Division, the Iowa State Department of Health, and any other laws or regulations applicable.
3. The Permittee shall be fully responsible for any future adjustments of its facilities within the established highway right-of-way caused by highway construction or maintenance operations.
4. Story County assumes no responsibility for damages to the Permittee's property occasioned by any construction or maintenance operations on said highways.
5. The Permittee shall take all reasonable precautions during the construction and maintenance of said installation to protect and safeguard the lives and property of the traveling public and adjacent property owners.
6. The Permittee, and its contractors, shall carry on the construction or repair of the accommodated utility with serious regard to the safety of the public. Traffic protection shall be in accordance with Part VI of the current Iowa Department of Transportation Manual on Uniform Control Devices for Streets and Highways.
7. The Permittee shall be responsible for any damage resulting to said highways because of the construction operation, or maintenance of said utility, and shall reimburse Story County for any expenditure the County may have to make on said highways because of said permittee's utility having been constructed, operated, and maintained thereon.
8. The Permittee shall indemnify and save harmless Story County from any and all causes of action, suits at law or in equity, or losses, damages, claims, or demands, and from any and all

liability and expense of whatsoever nature for, on account of or due to the acts or omissions of said Permittee's officers, members, agents, representatives, contractors, employees or assigns arising out of or in connection with its (or their) use or occupancy of the public highway under this permit.

9. Noncompliance with any of the terms of permit, or agreement, may be considered cause for shut down of utility construction operations, or revocation of the permit.

10. The following special requirements, if applicable, shall apply to this permit:

Whenever the route of the proposed cable line runs along a paved secondary highway, the location of said cable shall be constructed on top of the road shoulder so as to be within approximately two-feet of the pavement edge.

Whenever the route of the proposed cable line runs along a dirt or gravel surfaced highway, the location of said cable shall be constructed on top of the road surface and as near possible to the shoulder line

Whenever a cross road culvert or bridge is encountered along the route of the proposed cable lines, said cable shall be constructed around the ends of said cross road culvert or bridge even though this looping is not designated on the situation plans attached hereto.

The crossing of the cable line from one side of the highway to the other shall be accomplished at a near right angle rather than diagonally so as to disturb the roadbed of the traveled way as little as possible.

Whenever the route of the proposed cable line is to cross a paved highway, such crossing shall be in a bored hole rather than open cut trench.

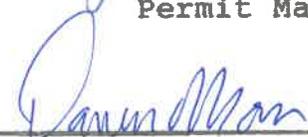
Date 1-7-2020

Iowa Regional Utilities Association
Name of Company (Applicant - Permittee)


by Gayla E. Hannagan, Phone no. 641-792-7011
Permit Manager

Recommended for Approval:

Date 1-7-2020


County Engineer Phone no. 515-382-7355

Approved:

Date _____

Chair, Board of Supervisors
Story County, Iowa

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PUBLIC R.O.W.

REX MORRISON
17-1
1919

10' W. OF FENCE,
23' E. OF C.L.



ANGLE TO BE REPAIRED AT SIGN
ANGLE TO BE REPAIRED 3' W. AND 15' W. OF C.L.
ANGLE TO BE REPAIRED 15' W. OF C.L.
ANGLE TO BE REPAIRED 15' W. OF C.L.
ANGLE TO BE REPAIRED AT SIGN
ANGLE TO BE REPAIRED TO THE WEST

County Road Crossing
1" Service Line

CL 168
3800

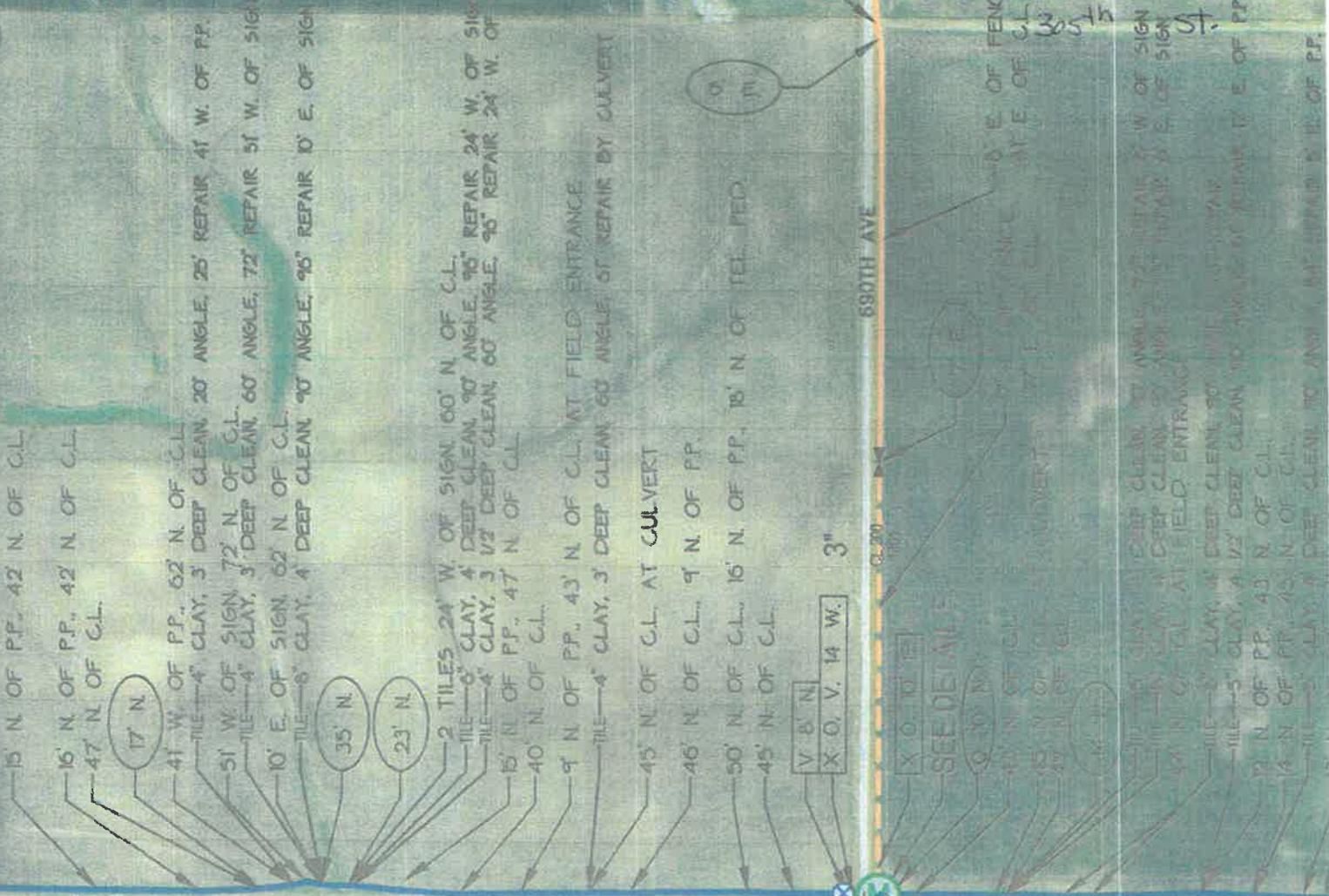
7' W.

7' W.

10' E. OF FENCE,
15' E. OF C.L.

305th St.

10' W. OF SIGN
15' E. OF SIGN



6900th AVE

3"

V 8" N
X O, V, 14 W.

X O, O, E
SEE DETAIL

3"

HENRY SANDVE
19-1
(83)

V T S, T 6 N

COUNTY ROAD KING 2002

7' W.

CL 200

LINE EXTENSION 186

STR

STORY COUNTY UTILITY PERMIT

Date 1/10/20

To the Board of Supervisors, Story County, Iowa:

The Alliant Energy IP&L Company, incorporated under the laws of Iowa, with its principal place of business at 1284 XE Place Ames, IA, does hereby make application requesting permission to occupy certain portions of public right-of-way and that the County Engineer be directed to establish the location of lines of transmission of electrical on secondary route Boone St from Boone St to Carrol Ave, a distance of 5.15 miles.

Agreements: The utility company, corporation, applicant, permittee, or licensee, (hereinafter referred to as the permittee) agrees that the following stipulations shall govern under this permit.

1. The Permittee will file a plat setting out the location of proposed line on the secondary route and that the description of the proposed installation including type, height, and spacing of poles, maximum voltage, lengths of cross arms, minimum clearance and number of wires, type, size and capacity of underground cables, conduits, tile lines, and pipe lines, maximum working pressures for pipe lines carrying gas or flammable petroleum products are described as follows:
2. The installation shall meet the requirements of county, state, and federal laws, franchise rules, and of the Iowa State Commerce Commission Regulations and Directives, Utilities Division, the Iowa State Department of Health, and any other laws or regulations applicable.
3. The Permittee shall be fully responsible for any future adjustments of its facilities within the established highway right-of-way caused by highway construction or maintenance operations.
4. Story County assumes no responsibility for damages to the Permittee's property occasioned by any construction or maintenance operations on said highways.
5. The Permittee shall take all reasonable precautions during the construction and maintenance of said installation to protect and safeguard the lives and property of the traveling public and adjacent property owners.
6. The Permittee, and its contractors, shall carry on the construction or repair of the accommodated utility with serious regard to the safety of the public. Traffic protection shall be in accordance with Part VI of the current Iowa Department of Transportation Manual on Uniform Control Devices for Streets and Highways.
7. The Permittee shall be responsible for any damage resulting to said highways because of the construction operation, or maintenance of said utility, and shall reimburse Story County for any expenditure the County may have to make on said highways because of said permittee's utility having been constructed, operated, and maintained thereon.
8. The Permittee shall indemnify and save harmless Story County from any and all causes of action, suits at law or in equity, or losses, damages, claims, or demands, and from any and all

liability and expense of whatsoever nature for, on account of or due to the acts or omissions of said Permittee's officers, members, agents, representatives, contractors, employees or assigns arising out of or in connection with its (or their) use or occupancy of the public highway under this permit.

9. Noncompliance with any of the terms of permit, or agreement, may be considered cause for shut down of utility construction operations, or revocation of the permit.

10. The following special requirements, if applicable, shall apply to this permit:

Whenever the route of the proposed cable line runs along a paved secondary highway, the location of said cable shall be constructed on top of the road shoulder so as to be within approximately two-feet of the pavement edge.

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The crossing of the cable line from one side of the highway to the other shall be accomplished at a near right angle rather than diagonally so as to disturb the roadbed of the traveled way as little as possible.

Whenever the route of the proposed cable line is to cross a paved highway, such crossing shall be in a bored hole rather than open cut trench.

Date 1-6-20

INTERSTATE POWER & LIGHT - ALLIANT ENERGY
Name of Company (Applicant - Permittee)

Matthew O. Deam (641) 754-5851
by MATTHEW O. DEAM Phone no.

Recommended for Approval:

Date 1-9-20

Dan Moran 515-382-7355
County Engineer Phone no.

Approved:

Date _____

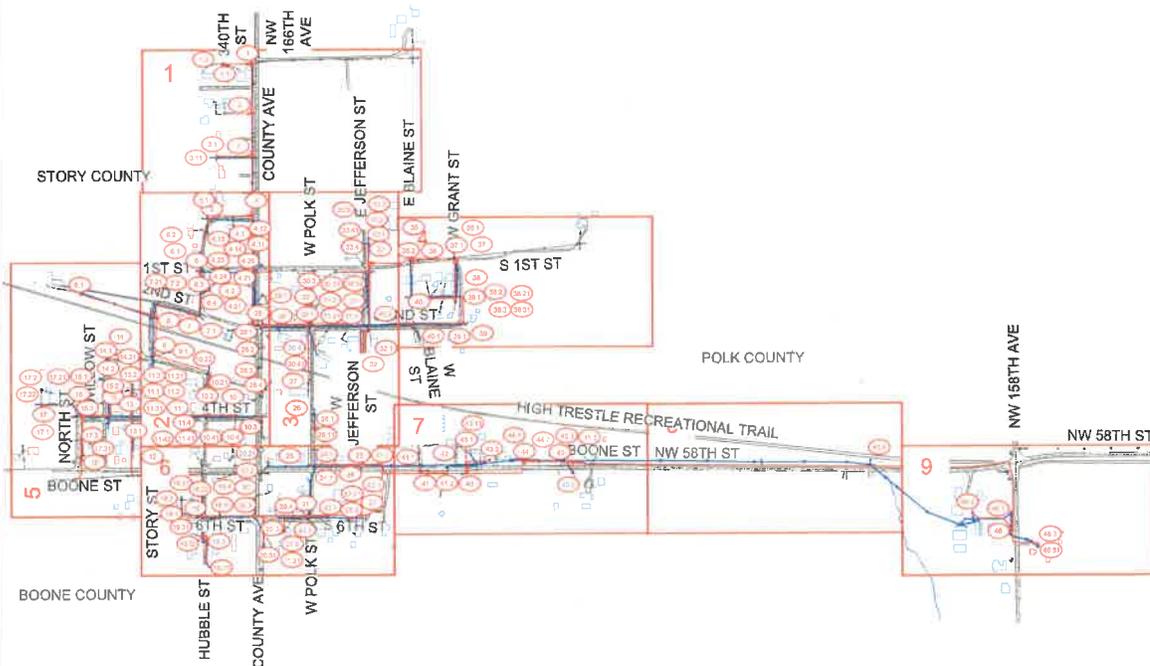
Chair, Board of Supervisors
Story County, Iowa

Three (3) copies of this form will be required for each installation. A plat shall be attached to each copy submitted.



Alliant Energy IP&L
WR#4095381
Story County Permit
Sheldahl, IA

UTILITIES SHOWN ON THIS PLAN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES FROM FIELD VERIFICATION AND CONTACT WITH UTILITY OWNERS. CONTRACTOR IS TO FOLLOW NESC CODE AND ALLIANT ENERGY IPL CONSTRUCTION STANDARDS AT ALL TIMES. GUYING, ANCHORING, POLE LOCATION AND CONDUCTOR ARE SHOWN TO REFLECT GENERAL REAL WORLD LOCATIONS AND DIRECTION, AND SHOULD NOT BE INTERPRETED AS EXACT. SOME INTENDED STRUCTURE LOCATIONS AND DIRECTIONS ARE MANIPULATED FOR DRAWING NEATNESS AND CLARITY. FIELD VERIFICATION IS REQUIRED PRIOR TO CONSTRUCTION. RIGHT OF WAY AND PARCELS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE COUNTY GIS DATA.



PROJECT CONTACTS

ALLIANT ENERGY ENGINEER: JOE LOONAN, Jr
(515) 266-3435 (OFFICE)
(515) 450-8600 (CELL)

CONTRACT DESIGNER: DYLAN VASSAR
(920) 392-2495 (CELL)

IOWA ONE CALL:
(800)-292-8888 OR 811

PERMITS REQUIRED:
BOONE COUNTY
POLK COUNTY
STORY COUNTY

ALLIANT ENERGY HAS DIRECTED THAT ENGINEERING ASSISTING TO THE LEVEL OF PROFESSIONAL ENGINEERING IS NOT REQUIRED OR INTENDED FOR THIS PLAN. A MI-TECH ENGINEER DOES NOT REVIEW THE PLAN SET, INCLUDING ALL CALCULATIONS OR ANALYSIS, FOR THE INTENT OF PROVIDING PROFESSIONAL ENGINEERING SERVICES. ALL PROFESSIONAL ENGINEERING OR DESIGN ISSUES OR QUESTIONS SHALL BE DIRECTED TO ALLIANT ENERGY. MI-TECH WILL USE INDUSTRY STANDARDS FOR REVIEWS AND COMPLETION OF THE SCOPE OF SERVICES FOR ALLIANT ENERGY.



EXISTING SECONDARY SERVICE	LINETYPES
NEW SECONDARY	EASEMENT
NEW LINE UG	GAS
EXISTING LINE UG	WATER
EXISTING LINE OH	ELECTRICAL
NEW SP4 LINE OH	STORM
NEW SP1 LINE OH	SANITARY
SPLICE NEW WITH EXISTING	CABLE TV
	TELEPHONE

SYMBOL LEGEND	
TRANSFORMATION 2PH PAD MOUNTED NEW	TRANSMISSION POLE NEW
TRANSFORMATION 2PH PAD MOUNTED EXISTING	TRANSMISSION POLE EXISTING
TRANSFORMATION 1PH PAD MOUNTED NEW	POLE EXISTING
TRANSFORMATION 1PH PAD MOUNTED EXISTING	ANCHOR NEW
TRANSFORMATION 3PH POLE MOUNTED NEW	ANCHOR EXISTING
TRANSFORMATION 3PH POLE MOUNTED EXISTING	FUSE NEW
TRANSFORMATION 2PH POLE MOUNTED NEW	FUSE EXISTING
TRANSFORMATION 2PH POLE MOUNTED EXISTING	GROUND NEW
TRANSFORMATION 1PH POLE MOUNTED NEW	GROUND EXISTING
TRANSFORMATION 1PH POLE MOUNTED EXISTING	CAPACITOR NEW
	CAPACITOR EXISTING
	SWITCH N.O. NEW
	SWITCH N.O. EXISTING
	SWITCH N.C. NEW
	SWITCH N.C. EXISTING
	NEW POLE
	POWER FED NEW
	POWER FED EXISTING
	WARNING MARKER
	METER
	PHASING
	SIGNS
	STREET LIGHT
	CONCRETE

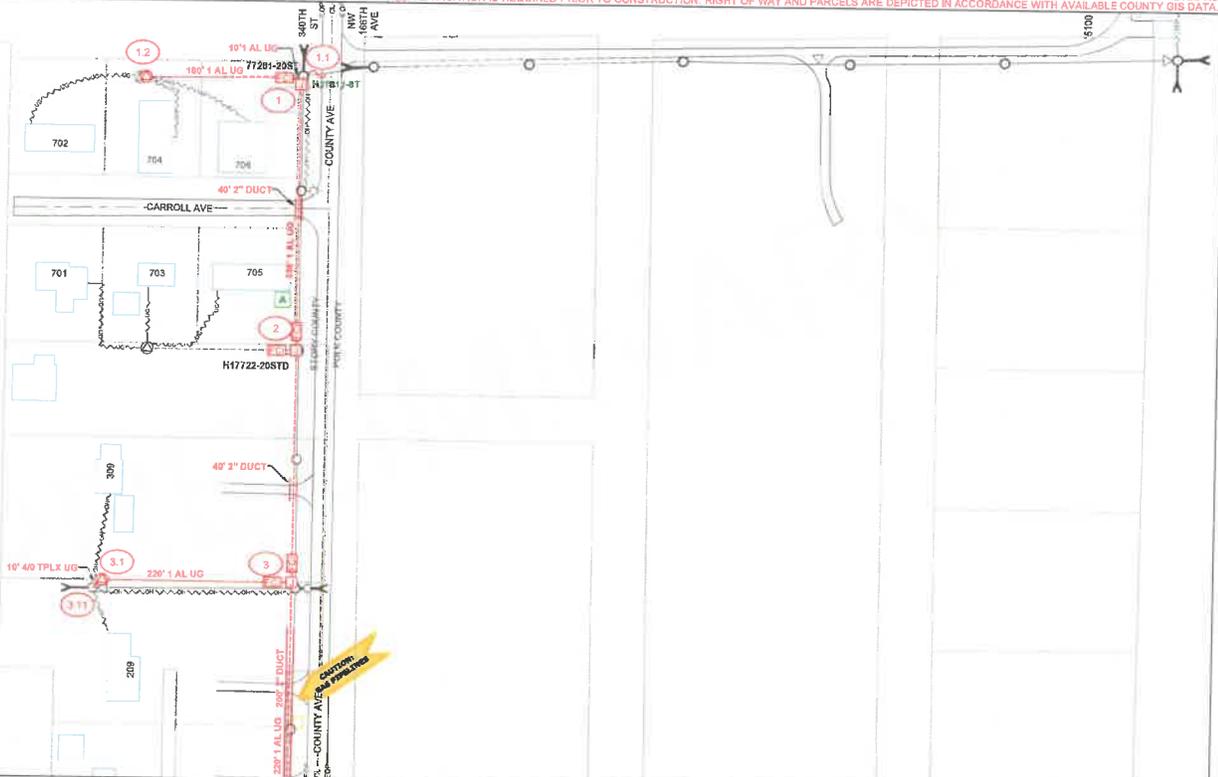


ALLIANT ENERGY WORK REQUEST #		LOCATION:
4095381		SHELD AHL, IA
FIELD BY: D.V.	DATE: 5/8/2019	
DRAWN BY: J.D.	DATE: 9/11/2019	
DESIGNED BY: D.V.	DATE: 8/6/2019	
SOVA PC:	APPROVAL DATE:	



UTILITIES SHOWN ON THIS PLAN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES FROM FIELD VERIFICATION AND CONTACT WITH UTILITY OWNERS. CONTRACTOR IS TO FOLLOW NESC CODE AND ALLIANT ENERGY I.P. CONSTRUCTION STANDARDS AT ALL TIMES. GUYING, ANCHORING, POLE LOCATION AND CONDUCTOR ARE SHOWN TO REFLECT GENERAL REAL WORLD LOCATIONS AND DIRECTION, AND SHOULD NOT BE INTERPRETED AS EXACT. SOME INTENDED STRUCTURE LOCATIONS AND DIRECTIONS ARE MANIPULATED FOR DRAWING NEATNESS AND CLARITY. FIELD VERIFICATION IS REQUIRED PRIOR TO CONSTRUCTION. RIGHT OF WAY AND PARCELS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE COUNTY GIS DATA.

CONSTRUCTION NOTE:
 POT HOLE UTILITIES AS NECESSARY FOR DEPTH VERIFICATION BURY CABLE AT A MINIMUM OF 36" DEPTH UNLESS OTHERWISE NOTED ALL SECONDARY IS 40' TPLX UG UNLESS OTHERWISE NOTED ALL PRIMARY IS 1 AL UG UNLESS OTHERWISE NOTED ALL SECONDARY RISERS ARE TO BE PLACED TO ACCOMMODATE SERVICE WIRE CONNECTIONS PLACED 1' BELOW THE TOP OF POLE



ALLIANT ENERGY HAS DIRECTED THAT ENGINEERING RISING TO THE LEVEL OF PROFESSIONAL ENGINEERING IS NOT REQUIRED OR INTENDED FOR THIS PLAN. A MI-TECH ENGINEER DOES NOT REVIEW THE PLAN SET, INCLUDING ALL CALCULATIONS OR ANALYSIS, FOR THE INTENT OF PROVIDING PROFESSIONAL ENGINEERING SERVICES. ALL PROFESSIONAL ENGINEERING OR DESIGN ISSUES OR QUESTIONS SHALL BE DIRECTED TO ALLIANT ENERGY. MI-TECH WILL USE INDUSTRY STANDARDS FOR REVIEWS AND COMPLETION OF THE SCOPE OF SERVICES FOR ALLIANT ENERGY.



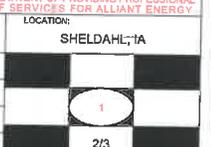
EXISTING SECONDARY/SERVICE		EASEMENT	
NEW SECONDARY	---	GAS	---
NEW LINE UG	---	WATER	---
EXISTING LINE UG	---	ELECTRICAL	---
NEW 3PH LINE OH	---	SANITARY	---
NEW 3PH LINE OH	---	CABLE TV	---
SPICE NEW WITH EXISTING	---	TELEPHONE	---

LINETYPES	
TRANSFORMER 3PH PAD MOUNTED NEW	●
TRANSFORMER 3PH PAD MOUNTED EXISTING	○
TRANSFORMER 3PH PAD MOUNTED EXISTING	○
TRANSFORMER 3PH POLE MOUNTED NEW	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲
TRANSFORMER 3PH POLE MOUNTED EXISTING	▲

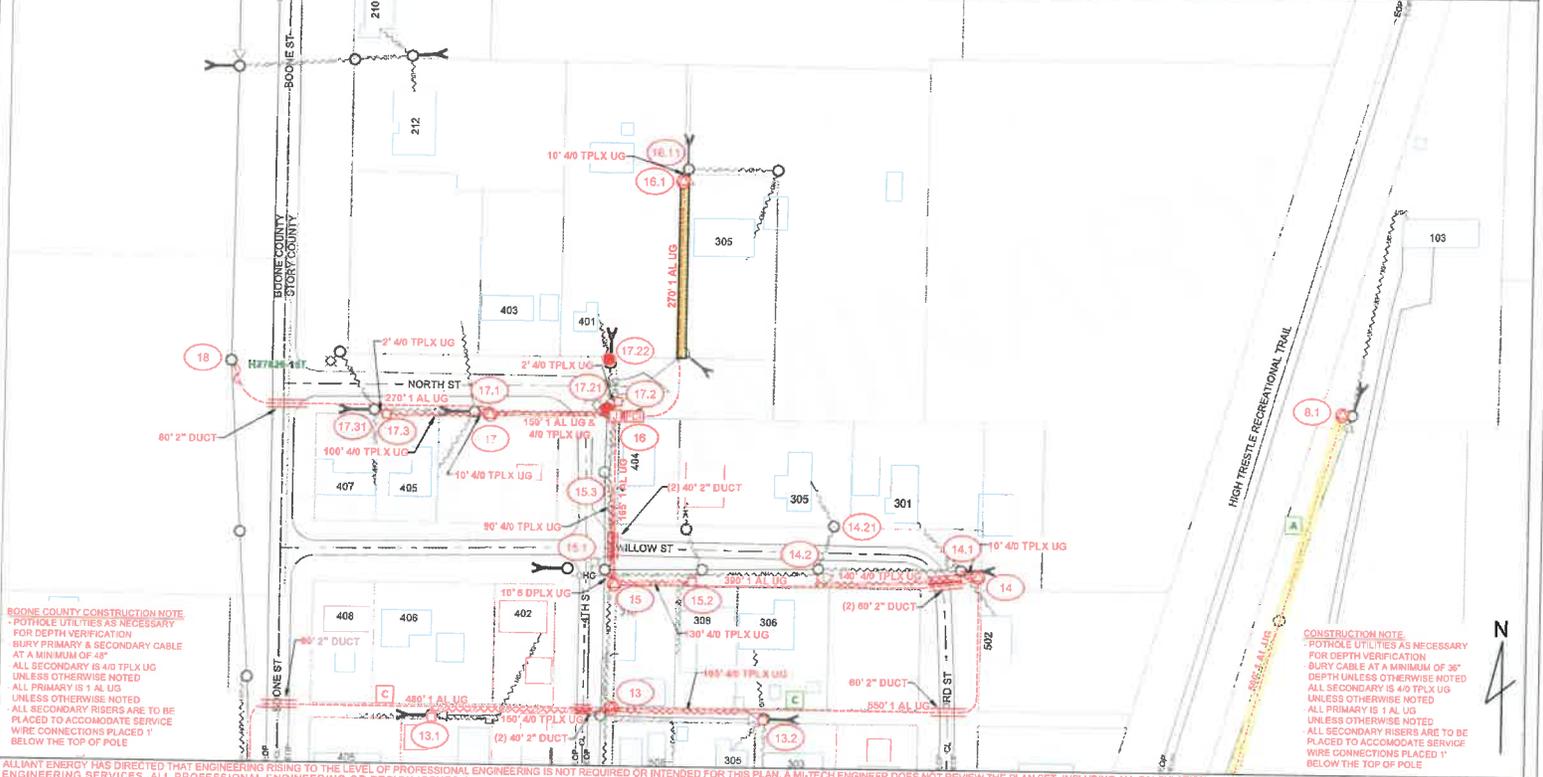
SYMBOL LEGEND	
NEW POLE	●
POWER FED NEW	○
POWER FED EXISTING	○
WARNING MARKER	⊠
METER	⊠
PHASING	⊠
3SIGNS	⊠
STREET LIGHT	⊠
COMM PEDESTAL	⊠
CAPACITOR NEW	⊠
CAPACITOR EXISTING	⊠
SWITCH N.C. NEW	⊠
SWITCH N.C. EXISTING	⊠
SWITCH N.C. NEW	⊠
SWITCH N.C. EXISTING	⊠
GROUND NEW	⊠
GROUND EXISTING	⊠



ALLIANT ENERGY WORK REQUEST #		4095381
LOCATION:		SHELDALH, IA
FILLED BY:	DATE:	
D.V.	5/8/2019	
DRAFTED BY:	DATE:	
J.D.	9/11/2019	
DESIGNED BY:	DATE:	
D.V.	8/8/2019	
IOWA PE:	APPROVAL DATE	



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BOONE COUNTY CONSTRUCTION NOTE
 - POT HOLE UTILITIES AS NECESSARY FOR DEPTH VERIFICATION
 - BURY PRIMARY & SECONDARY CABLE AT A MINIMUM OF 48"
 - ALL SECONDARY IS 4/0 TPLX UG UNLESS OTHERWISE NOTED
 - ALL PRIMARY IS 1" AL UG UNLESS OTHERWISE NOTED
 - ALL SECONDARY RISERS ARE TO BE PLACED TO ACCOMMODATE SERVICE WIRE CONNECTIONS PLACED 1' BELOW THE TOP OF POLE

CONSTRUCTION NOTE
 - POT HOLE UTILITIES AS NECESSARY FOR DEPTH VERIFICATION
 - BURY CABLE AT A MINIMUM OF 36" DEPTH UNLESS OTHERWISE NOTED
 - ALL SECONDARY IS 4/0 TPLX UG UNLESS OTHERWISE NOTED
 - ALL PRIMARY IS 1" AL UG UNLESS OTHERWISE NOTED
 - ALL SECONDARY RISERS ARE TO BE PLACED TO ACCOMMODATE SERVICE WIRE CONNECTIONS PLACED 1' BELOW THE TOP OF POLE

ALLIANT ENERGY HAS DIRECTED THAT ENGINEERING RISING TO THE LEVEL OF PROFESSIONAL ENGINEERING IS NOT REQUIRED OR INTENDED FOR THIS PLAN. A MI-TECH ENGINEER DOES NOT REVIEW THE PLAN SET, INCLUDING ALL CALCULATIONS OR ANALYSIS, FOR THE INTENT OF PROVIDING PROFESSIONAL ENGINEERING SERVICES. ALL PROFESSIONAL ENGINEERING OR DESIGN ISSUES OR QUESTIONS SHALL BE DIRECTED TO ALLIANT ENERGY. MI-TECH WILL USE INDUSTRY STANDARDS FOR REVIEWS AND COMPLETION OF THE SCOPE OF SERVICES FOR ALLIANT ENERGY.



EXISTING SECONDARY/SERVICE	NEW SECONDARY	NEW LINE UG	EXISTING LINE OH	NEW 3PH LINE OH	NEW 3PH LINE OH	SPLICE NEW WITH EXISTING
---	---	---	---	---	---	---

LINETYPES	
---	EASEMENT
---	GAS
---	WATER
---	ELECTRICAL
---	STORM
---	SANITARY
---	CABLE TV
---	TELEPHONE

⊙	TRANSFORMER 3PH PAD MOUNTED NEW	⊙	TRANSFORMER 3PH PAD MOUNTED EXISTING
⊙	TRANSFORMER 1PH PAD MOUNTED NEW	⊙	TRANSFORMER 1PH PAD MOUNTED EXISTING
⊙	TRANSFORMER 3PH POLE MOUNTED NEW	⊙	TRANSFORMER 3PH POLE MOUNTED EXISTING
⊙	TRANSFORMER 1PH POLE MOUNTED NEW	⊙	TRANSFORMER 1PH POLE MOUNTED EXISTING
⊙	TRANSFORMER 1PH POLE MOUNTED EXISTING		

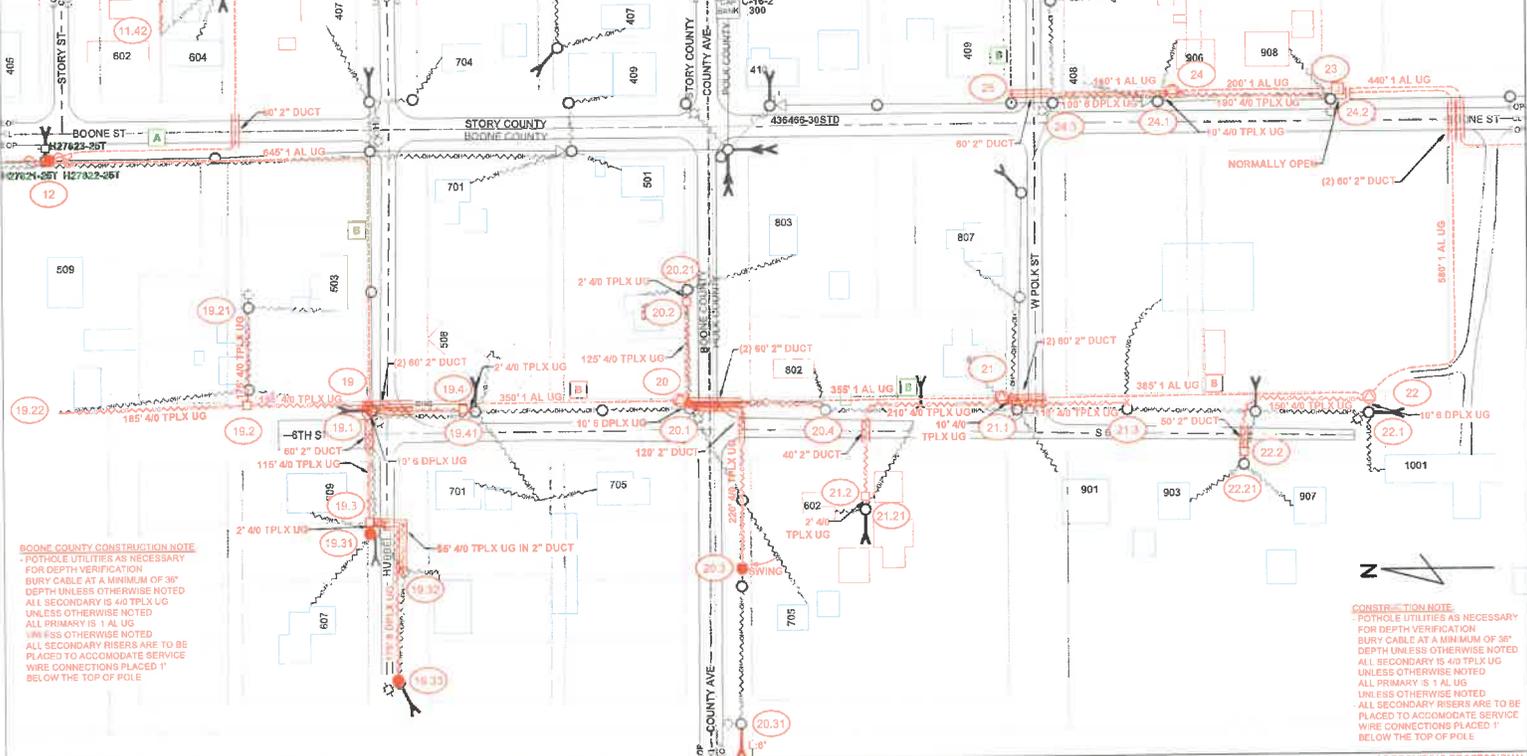
SYMBOL LEGEND			
⊙	TRANSFORMER 3PH PAD MOUNTED NEW	⊙	TRANSFORMER 3PH PAD MOUNTED EXISTING
⊙	TRANSFORMER 1PH PAD MOUNTED NEW	⊙	TRANSFORMER 1PH PAD MOUNTED EXISTING
⊙	TRANSFORMER 3PH POLE MOUNTED NEW	⊙	TRANSFORMER 3PH POLE MOUNTED EXISTING
⊙	TRANSFORMER 1PH POLE MOUNTED NEW	⊙	TRANSFORMER 1PH POLE MOUNTED EXISTING
⊙	TRANSFORMER 1PH POLE MOUNTED EXISTING		

⊙	CAPACITOR NEW	⊙	POWER FED NEW
⊙	CAPACITOR EXISTING	⊙	POWER FED EXISTING
⊙	SWITCH N.O. NEW	⊙	SWITCH N.O. EXISTING
⊙	SWITCH N.C. NEW	⊙	SWITCH N.C. EXISTING
⊙	SWITCH N.C. EXISTING		

⊙	WIRE RISE	⊙	WARNING MARKER
⊙	MILTER	⊙	PHASING
⊙	SCANS	⊙	STREET LIGHT
⊙	GROUND EXISTING	⊙	CONAN PEGESTAL
⊙	GROUND NEW		

ALLIANT ENERGY WORK REQUEST #		4095381		LOCATION:		SHELDALH, IA	
FIELD BY:	D.V.	DATE:	5/8/2019				
DRAFTED BY:	J.D.	DATE:	5/11/2019				
DESIGNED BY:	D.V.	DATE:	8/6/2019				
ISSUE BY:		APPROVAL DATE:					6/2

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BOONE COUNTY CONSTRUCTION NOTE
 - POT HOLE UTILITIES AS NECESSARY FOR DEPTH VERIFICATION BURY CABLE AT A MINIMUM OF 36" DEPTH UNLESS OTHERWISE NOTED
 ALL SECONDARY IS 4/0 TPLX UG UNLESS OTHERWISE NOTED
 ALL PRIMARY IS 1" AL UG UNLESS OTHERWISE NOTED
 ALL SECONDARY RISERS ARE TO BE PLACED TO ACCOMMODATE SERVICE WIRE CONNECTIONS PLACED 1" BELOW THE TOP OF POLE

CONSTRUCTION NOTE
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EXISTING SECONDARY/SERVICE	LINETYPES
NEW SECONDARY	EASEMENT
NEW LINE UG	GAS
EXISTING LINE UG	WATER
EXISTING LINE OH	ELECTRICAL
NEW SPIN LINE OH	STORM
NEW SPIN LINE OH	SANITARY
SPLICE NEW WITH EXISTING	CABLE TV
	TELEPHONE

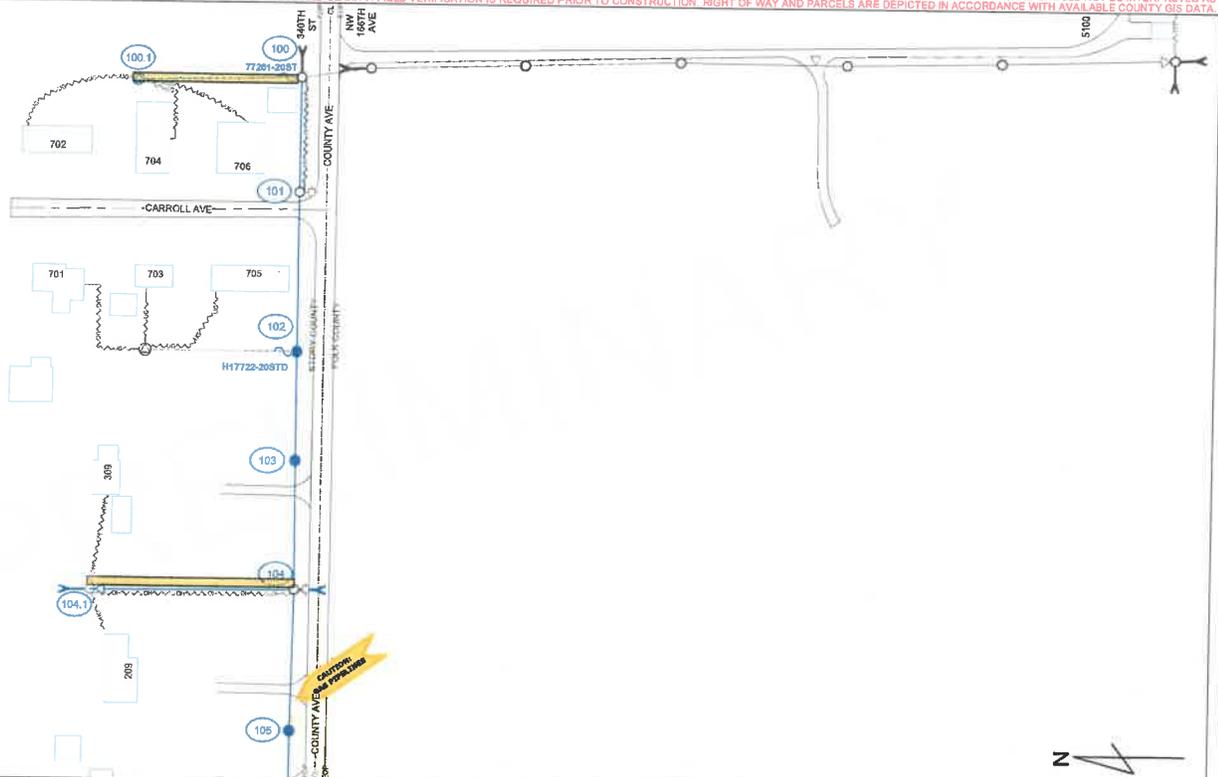
TRANSFORMER 3PH PAD MOUNTED NEW	TRANSMISSION POLE NEW
TRANSFORMER 3PH PAD MOUNTED EXISTING	TRANSMISSION POLE EXISTING
TRANSFORMER 3PH PAD MOUNTED EXISTING	POLE EXISTING
TRANSFORMER 3PH POLE MOUNTED NEW	ANCHOR EXISTING
TRANSFORMER 3PH POLE MOUNTED EXISTING	FUSE NEW
TRANSFORMER 3PH POLE MOUNTED EXISTING	FUSE EXISTING
TRANSFORMER 3PH POLE MOUNTED EXISTING	GROUND NEW
TRANSFORMER 3PH POLE MOUNTED EXISTING	GROUND EXISTING

SYMBOL LEGEND	
CAPACITOR NEW	NEW POLE
CAPACITOR EXISTING	POWER FED EXISTING
SWITCH N.G. NEW	METER
SWITCH N.G. EXISTING	PHASING
SWITCH N.C. NEW	STREET LIGHT
SWITCH N.C. EXISTING	COMB. PEDestal



ALLIANT ENERGY WORK REQUEST #		LOCATION:					
4095381		SHELD AHL, IA					
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D.V.	5/9/2019						
GRANTED BY:	DATE:						
J.D.	9/11/2019						
DESIGNED BY:	DATE:						
D.V.	8/6/2019						
IOWA PE:	APPROVAL DATE:						

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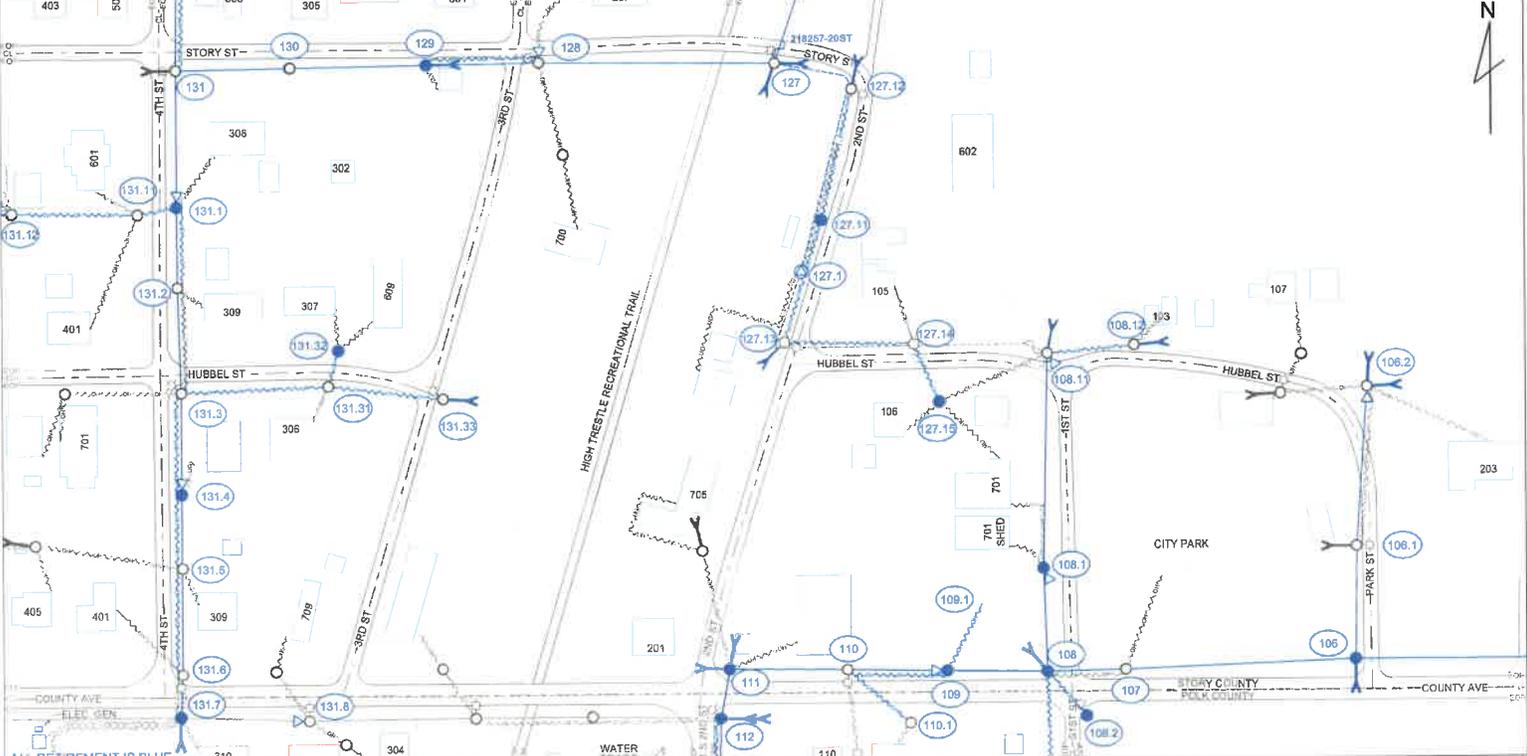
RETIREMENT LEGEND

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- ~ RETIRE SECONDARY OH
- RETIRE PRIMARY UG
- RETIRE SECONDARY UG



ALLIANT ENERGY WORK REQUEST #		4095381	LOCATION:	SHELDahl, IA
FILED BY:	D.V.	DATE:	5/6/2019	
DRAFTED BY:	J.D.	DATE:	9/11/2019	
DESIGNED BY:	D.V.	DATE:	6/6/2019	
ISSUED BY:		APPROVAL DATE:		

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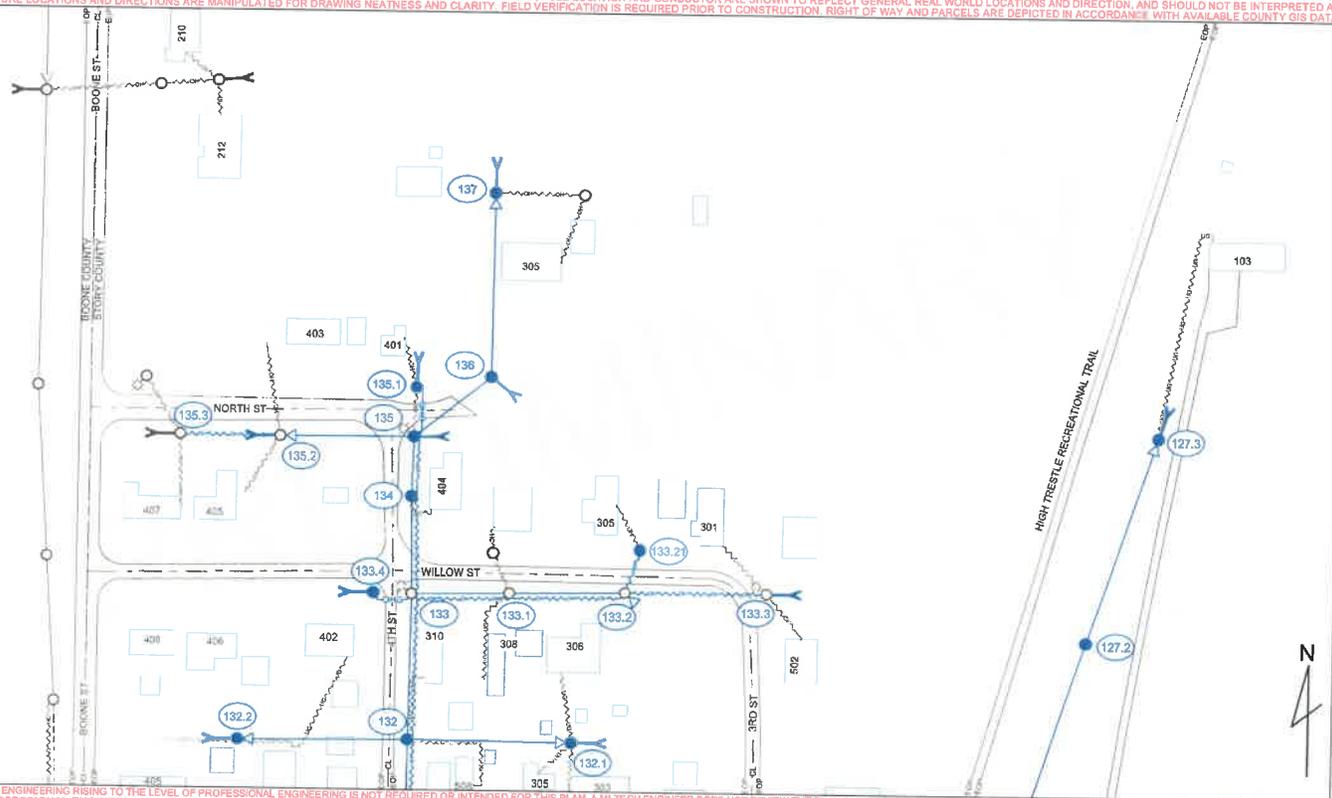


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DRAFTED BY:	J.D.	DATE:	9/11/2019				
DESIGNED BY:	D.V.	DATE:	8/6/2019				
IOWA P.C.		APPROVAL DATE:					

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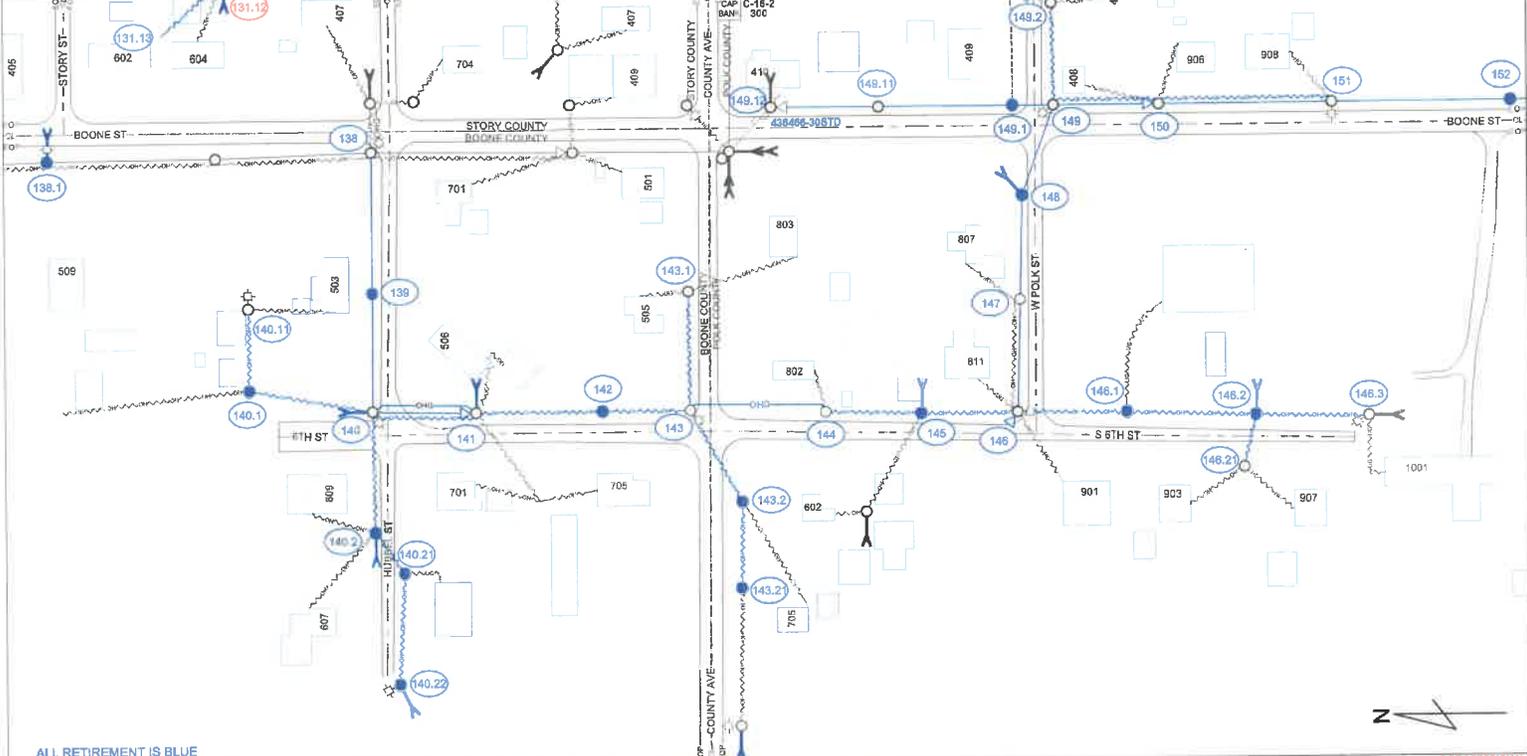
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Risk Management Revision #:
Risk Management Effective date:

(Location) Revision #:
(Location) Effective date:

(Location) Review Date:
(Location) Review Team:

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___ Revisions indicated by highlighted text
 ___ Numerous unmarked revisions throughout the text

1. Purpose and Scope

- To ensure a system is in place to manage exposures to workplace noise, including elements of a hearing conservation program (HCP) designed to protect the hearing of personnel in the workplace.
- This program applies to all sites that have personnel exposed to workplace noise at or above 75 dBA for one or more days per year.

Mandatory requirements in this program are noted in italics.

No changes are permitted to the core document(s) except by Risk Manager. Sections 4 and 10 are provided for individual site program information.

2. Responsibilities

2.1 *Location Management shall ensure:*

- *A site program leader is identified.*
- *HCP elements (e.g., noise assessments, training, audiometric testing) are completed.*
- *When necessary, feasibility studies for engineering controls are conducted, documented, and implemented according to the plan.*
- *Corrective actions are prioritized based upon the hierarchy of noise controls.*
- *Engineering noise controls are put in place and maintained.*
- *Tools and equipment requiring the use of hearing protection are identified.*
- *Employees use appropriate site and/or facility approved hearing protection devices (HPDs) when required.*
- *Areas where hearing protection must be used are posted.*
- *Abnormal audiograms are investigated for work relationship.*
- *The overall effectiveness of the HCP is assessed and documented.*
- *Local regulatory standards are monitored for changes that may affect the hearing conservation and noise control program and inform management of these changes to facilitate improvements in the hearing conservation and noise control programs.*
- *Noise assessments and/or dosimetry studies are completed.*
- *Appropriate types of HPDs offered by the site are acceptable options for the types of noise involved.*
- *Appropriate auditing for compliance is conducted.*

2.2 *Program Leader at the location shall be responsible for:*

- *Administering the hearing conservation and noise control programs*
- *Monitoring regulatory standards for changes that may affect the hearing conservation and noise control programs and informing management of these changes to facilitate improvements in the hearing conservation and noise control programs.*
- *Helping ensure that noise surveys and/or dosimetry studies are completed.*
- *Helping ensure that appropriate training is developed and made available to all personnel identified to receive training.*
- *Determining when hearing protectors shall be used by the location.*
- *Specifying types of HPDs that are to be considered by the location as options for the types of noise involved.*
- *Auditing for compliance.*

- 2.3 *Employees **shall** help ensure:*
- *Risk Manager and management are made aware of changes in noise levels of existing equipment, and the purchase, rental, lease, or acquisition of equipment with noise-producing potential.*
 - *They use appropriate location and/or facility approved Hearing Protection Devices (HPDs) properly when specified.*
 - *They participate in the audiometric testing program.*
- 2.4 *Risk Manager is the Process Owner and **shall**:*
- *Ensure that updates to the core program documents are provided to all locations as they become updated or available.*
 - *Ensure appropriate training is developed and made available to all personnel identified to receive training.*
 - *Assist with investigations of abnormal audiograms.*
 - *Administer the hearing conservation and noise control programs.*
 - *Ensure the HCP is audited.*

3. Action Steps

3.1 **Implementation Summary:**

- Understand the key noise levels (from the table below) that initiate action from the site

dBA	Duration	Audiometric testing	Evaluation Methods / Key Actions	HPD Required
≥75 but <80	Any	No	Annual noise assessments / Create Records 8.1 & 8.2	No
≥80 but <85	8 hour TWA	Yes	Annual noise assessments + Noise Monitoring / Create Record 8.4; Implement audiograms	No
≥85 but <90	8 hour TWA	Yes	Annual noise assessments + Noise Monitoring / HPDs required	Yes
≥90	8 hour TWA	Yes	Annual noise assessments + Noise Monitoring / Engineering control feasibility study (refer to Section 3.10)	Yes

- Assess the location for noise exposure to employees/workers and identify the potential action level areas (refer to Section 3.2 – Noise Exposure Assessment)
- Conduct noise monitoring to confirm Action Level Areas and identify affected employees/workers (refer to Section 3.3 – Noise Monitoring)
- Provide Hearing Protection Devices (HPDs) and ensure employees/workers wear them when required (refer to Section 3.4 – Hearing Protection Devices)
- Label or mark all areas, equipment, and tools that require hearing protection with appropriate signage (refer to Section 3.5 – Hearing Protection Signage)

- Identify employees that must be participants in the Hearing Conservation Program (refer to Section 3.6 – Hearing Conservation Program (HCP))
- Ensure all participants receive hearing conservation training (refer to Section 5 - Training)
- Develop a process to ensure all required participants receive an audiometric test at the prescribed intervals (refer to Section 3.7 – Audiometric Testing and Frequency)
- Select a qualified testing service to provide the audiometric tests and develop the process for conducting the tests (refer to Section 3.8 - Audiometric Testing Services)
- Know and understand what to do when an employee has a Standard Threshold Shift (refer to Section 3.9 – Standard Threshold Shifts(STS))
- Evaluate and implement (when feasible) engineering controls when noise exposure is ≥ 90 dBA (refer to Section 3.10 – Engineering Control Feasibility Studies)
- Develop a process to conduct periodic evaluations of this program at least annually (refer to Section 3.11 – Program Evaluation)

3.2 **Noise Exposure Assessment:**

- 3.2.1 *The site **shall** assess noise exposure by conducting a walk around survey to identify all areas, tasks, and equipment that have a sound level in excess of 75 dB (refer to Exhibit 9.1 – Conducting Noise Monitoring for details on how to conduct a walk around survey).*
- a) *The location **shall** also refer to any Job Safety Analyses (JSAs) or Safe Work Procedures (SWPs) created through the Hazard Recognition program to ensure that a complete list of tasks with potential noise hazards is developed.*
 - b) *Measurements **shall** be made with a calibrated sound level meter (SLM) by a person competent and skilled in the use of the instrument (i.e. reading the operator's manual should suffice to become competent).*
 - c) *For locations that own SLMs (including dosimeters) - The location **shall** develop and outline a process in [Section 10.1](#) to ensure the SLM(s) are calibrated as per manufacturer's recommendations on recertification or recalibration (or both).*
 - *A separate instrument called an acoustical calibrator is available from the instrument manufacturer and **shall** be used to check calibration before and after each day's SLM usage.*
 - *Acoustical calibrators **shall** be recalibrated at least annually by the instrument manufacturer or an acoustical test laboratory qualified to perform the calibration.*
- 3.2.2 *All assessed areas, tasks, and equipment with noise levels over 75 dB **shall** be listed on Record 8.1 - Potential Action Level Areas (or equivalent).*
- a) *The location **shall** determine which items on Record 8.1 exceed the Action Level (i.e. 80 dBA for an 8 hour Time Weighted Average (TWA), 85 dBA for 4 hours, 90 dBA for 2 hours, etc.) by conducting noise monitoring (refer to Section 3.3 for information to conduct area and personnel noise monitoring).*
 - b) *The location **shall** document all noise monitoring results on Record 8.1.*
- 3.2.3 *Locations identifying noise levels that exceed the Action Level **shall** post a copy of Reference 7.1 - OSHA Occupational Noise Standard 1910.95 in the workplace. This posting **shall** remain in place as long as this program is in place at the location.*
- 3.2.4 *The location **shall** repeat steps 3.2.1 - 3.2.3 annually, and whenever a change in production, process, equipment, or controls increases noise exposures to the extent that employees may be exposed at or above the action level (80 dBA), or the reduction provided by hearing protectors being used by employees may be rendered inadequate.*
- a) *Assessments may be changed to every 2 years if the location has at least 2 years of data showing consistent noise levels (± 2 dBA).*
- 3.2.5 *The location **shall** conduct an inventory of tools over 75 dB and document these tools on Record 8.2 – Tool Inventory List. The U.S. National Institute for Occupational Safety and Health*

(NIOSH) has developed a Tool Table that lists numerous tools and their associated noise levels (refer to Reference 7.2 – NIOSH Tool Table).

- a) The location **shall** use the NIOSH tool table to determine noise levels of tools or conduct a sound level reading of the tools using a calibrated sound level meter while the tool is powered on and in use. Note: When using the NIOSH tool table identify the Sound Power Level in the Details section for the most accurate sound level reading.
- b) The location **shall** identify which tools listed on Record 8.2 exceed 80 dBA.
- c) The location **shall** then either require hearing protection when the tool is in use or manage the tool use to ensure it does not exceed the exposure limits outlined in the table to the right (refer to Section 3.5 for labeling requirements).

Length of exposure in hours	Noise level requiring HPDs
¼ or less	110 dBA*
½	105 dBA*
1	100 dBA*
1-1/2	97 dBA
2	95 dBA
3	92 dBA
4	90 dBA
6	87 dBA
8	85 dBA
10	83 dBA
12	82 dBA
16	80 dBA

3.2.6 The location **shall** repeat step 3.2.5 annually.

3.3 **Noise Monitoring:**

3.3.1 Noise dosimeter monitoring **shall** be made with a calibrated (refer to Section 3.2.1 b for calibrator requirements) dosimeter by a competent person to conduct either area or personnel monitoring (refer to Exhibit 9.1 - Conducting Noise Monitoring and Exhibit 9.2 – Noise Dosimeter Use for details).

- Check with the manufacturer for calibration requirements.

3.3.2 When monitoring personnel, sampling of employees is the preferred method for noise exposure assessment.

- a) If the location needs to sample contract agency workers to ensure that all job tasks and areas of high noise are adequately tested, the site **shall** notify the Contract Agency (preferably in the written contract and in the affected position descriptions or affected scope of work) that workers performing those tasks may be included in a sampling program to determine exposure to noise.

b) Participation by contract agency workers is voluntary.

3.3.3 Monitoring information and results **shall** be documented on Record 8.3 – IH Data Form.

- a) For personnel monitoring, a copy of the IH data form results **shall** be supplied to the employee that was sampled or their representative.

- b) If a contract agency worker is sampled, the site **shall** notify the worker of the sample result and send a copy of the result to the Contract Agency for their records.

3.3.4 If personnel dosimetry shows an 8-hour TWA noise exposure ≥ 85 dBA, the location **shall** notify the employee/contract agency worker of the result and document the notification (i.e. employee/worker signature) on the IH Data Form.

- a) If hearing protection was being used at the time of the over-exposure, the site **shall** document the Noise Reduction Rating (NRR) of the protection being worn on the IH Data Form.

- b) If the result is for a contract agency worker the site **shall** send a copy of the result to the Contract Agency for their records and the site **shall** notify the agency that:

- They should establish a hearing conservation program for their employee based on the results; and
- They are responsible for the audiometric testing of their employee.

3.3.5 Area monitoring **shall** be kept for 30 years and personnel monitoring **shall** be kept end of employment plus 30 years. (refer to Reference 7.3 – OSHA Recordkeeping Standard 1904.



3.4 **Hearing Protection Devices (HPD):**

3.4.1 The location **shall** utilize feasible administrative or engineering controls when necessary to reduce sound levels of all areas, tasks, and equipment to within the noise levels of the table at the right, without regard to the use of hearing protection. If those controls do not reduce sound levels sufficiently, hearing protection devices (HPDs) **shall** be provided and used.

Length of exposure in hours	Noise level requiring HPDs
¼ or less	110 dBA*
½	105 dBA*
1	100 dBA*
1-1/2	97 dBA
2	95 dBA
3	92 dBA
4	90 dBA
6	87 dBA
8	85 dBA
10	83 dBA
12	82 dBA
16	80 dBA

3.4.2 The location **shall** ensure that HPDs are worn by any employee/worker:

- Working in a Hearing Protection Required area; or
- Working in any area, task, equipment, or with tools where they exceed the time/noise level criteria in the table to the right; or
- Exposed to an 8-hour TWA of 80 dBA or greater who has not yet had a baseline audiogram established or has experienced a Standard Threshold Shift; or
- Working unscheduled extended shifts (e.g., holdovers, doubles, and call-ins) in areas above 80 dBA, at least for the extended portion of the shift.

3.4.3 Employees/workers **shall** be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors in the work area provided by the county at no cost to the employee/worker.

3.4.4 Selected hearing protectors **shall** attenuate (i.e. reduce) exposure to below the exposure limits in the table to the right. Attenuation formula is: Area dBA - (NRR- 7) = attenuation (e.g. Area noise level is 98 dBA. The NRR (noise reduction rating) of the selected earplug is 25. 98 - (25-7) = 80 dBA. The selected earplug attenuates an employee's noise exposure to 80 dBA for that area).

Scheduled shift length (hours)	Noise level
8	85 dBA
10	83 dBA
12	82 dBA
16	80 dBA

- a) When the noise exposure reaches or exceeds 100 dBA, double protection (i.e., ear plugs under earmuffs) **shall** be used, unless it can be shown that single protection provides adequate attenuation. To determine noise exposure, first determine the laboratory-based NRR for the higher rated protector. Second, subtract 7 dB from the NRR. Third, add 5 dB to account for the use of the second hearing protector (e.g. TWA=110 dB, plug NRR=29, and muff NRR=25 dB. Estimated Exposure = 110 - [(29 - 7) + 5] = 83 dBA).
- b) The adequacy of hearing protector attenuation **shall** be re-evaluated after noise assessments are conducted or whenever employee noise exposures increase to the extent that the hearing protectors provided might no longer provide adequate attenuation, or when an employee has had a threshold shift.
- c) More effective hearing protectors **shall** then be provided if necessary.

- 3.4.5 *Use of AM/FM/CD/MP3 radio headsets **shall** not be allowed in areas where noise levels exceed 85 dBA, or where their use could cause a safety hazard. The only exception to this policy is the use of radio communication type headsets that utilize an earmuff that has been rated for the appropriate Noise Reduction Rating (NRR) for the areas where it will be used.*
- 3.5 **Hearing Protection Areas Signage:**
- 3.5.1 *All areas, equipment or tools requiring Hearing Protection per the table in Section 3.1, Record 8.1 - Potential Action Level Areas, and Record 8.2 – Tool Inventory List **shall** be signed/labeled as “Hearing Protection Required” or equivalent language.*
- a) *Areas **shall** be properly labeled or marked outside the area, preferably at the entrance(s) leading into the space.*
 - b) *Where no doors exist, another type of warning **shall** be in place (e.g., chains to mark the noise boundary or a line on the floor consistent with company standards regarding signs and marking).*
 - c) *Areas that contain equipment that is portable or sporadically operated, but exceeds 85 dBA over an 8 hour TWA when the equipment is operational, **shall** be signed with “Hearing Protection Required in this area when equipment is running” or equivalent.*
 - d) *All warnings **shall** be outside the noise area.*
- 3.5.2 *Personnel **shall** wear HPDs within the boundaries of posted noise areas.*
- 3.6 **Hearing Conservation Program (HCP):**
- 3.6.1 *All county employees exposed to area or equipment noise levels of 80 dBA and above (regardless of the exposure time) **shall** be assigned to the HCP and be identified on Record 8.4 – Hearing Conservation Program Participants – unless they meet the exceptions detailed in Section 3.6.3.*
- 3.6.2 *There are two types of employees in the program:*
- a) *Annual Audiometric Testing (AAT) Employees - Those exposed to 85 dBA or above for an 8 hour TWA.*
 - *Testing requirements that **shall** be followed: a baseline audiogram before assignment, annual audiograms, and annual training.*
 - b) *Periodic Audiometric Testing (PAT) Employees - Those exposed to 80-85 dBA for an 8 hour shift, no more than 85 dBA for 2 hours or 90 dBA for 1 hour, and no other exposure above 75 dBA for the rest of that same shift.*
 - *Testing requirements that **shall** be followed: an initial (baseline) audiogram within 6 months, and annual training.*
- 3.6.3 *Employees can be excluded from the program if one or more of the following criteria is met:*
- *They are not routinely assigned to areas with noise levels ≥ 80 dBA and use hearing protection only infrequently;*
 - *They are assigned to jobs or equipment with noise levels ≥ 80 dBA; however, their exposure is intermittent (i.e. not daily) and represents less than 20% of the work shifts in a year, and they do not receive over 99% dose (meaning no exposure to over 84 dBA for an 8 hour TWA);*
 - *Their 8-hour TWA exposures are less than the Action Level (80 dBA)*
 - *The rationale for excluding these personnel from the HCP **shall** be documented on Record 8.4 – Hearing Conservation Program Participants. Dosimetry or time studies **shall** be used to justify exclusion.*
- 3.7 **Audiometric Testing and Frequency:**
- 3.7.1 *All employees **shall** be required to wear hearing protection in all Action Level areas until a baseline audiogram is completed.*

- 3.7.2 The site **shall** ensure that the hearing test provider performs a fit test on employees using insert-type hearing protectors during their baseline audiogram and after a confirmed standard threshold shift (STS).
- 3.7.3 Employees **shall** be instructed to avoid noise of 85 dBA or above for 14 hours before taking baseline audiograms or repeat audiometric tests following an STS. Hearing protection can be used during the 14-hour period to achieve the desired “quiet” level.
- 3.7.4 AAT employees **shall** have a baseline audiogram done before initial assignment to an area or job with noise levels ≥ 85 dBA and annually thereafter.
- a) Additional testing should be conducted at the following intervals:
- Three to six months after initial assignment to a noisy area;
 - Three to six months after confirming an STS (in addition to the annual test);
 - On termination of employment if no audiogram has been performed in the last six months.
- 3.7.5 PAT employees should have a baseline audiogram done within six months of the employee’s first exposure, unless using a mobile test van for audiometric testing – then the baseline is required within one year of the first exposure.
- a) Participation in audiometric testing is voluntary for PAT employees, but **shall** be offered every three years.
- b) The location **shall** develop and outline a process in [Section 10.2](#) for how it plans to track and offer audiometric tests to PAT employees.
- 3.7.6 Noise-sensitive individuals may develop hearing threshold shifts as a result of noise levels between 80 dBA and 84 dBA TWA. If identified, they **shall** use hearing protection at 80 dBA and above regardless of time of exposure. If you believe an employee has noise-sensitive issues, contact the Risk Manager for guidance.
- 3.7.7 Seasonal employees on site less than six months during a calendar year are not required to have audiometric testing but **shall** wear hearing protection when required.
- 3.7.8 Locations may use Record 8.5 – Employee Audiometric Testing Schedule or equivalent to expedite test sessions.
- 3.8 **Audiometric Testing Services:**
- 3.8.1 Audiometric testing **shall** be conducted and results interpreted by an individual trained and qualified to do so in the county in which the testing is performed. McFarland Clinic
- 3.8.2 Audiometric testing and evaluations as outlined in Exhibit 9.3 – Audiometric Testing Service Requirements is used as guidelines.
- 3.8.3 All testing costs **shall** be paid for by the Dept./Office or the County.
- 3.8.4 Locations can use McFarland Clinic Audiology Department which provides testing services at their Ames location.
- a) Each location that chooses to use McFarland Clinic **shall** contact them to schedule their employees..
- b) A McFarland Clinic audiologist will review the audiometric test report within 2-3 weeks of the test to verify that the testing results were valid.
- c) McFarland Clinic will supply the County with an Audiometric Test report that identifies employees with a Standard Threshold Shift (STS) or an OSHA Recordable STS, completed Audiogram Test records for each employee tested, Employee Audiometric Testing Results Notification reports for employees with STS or OSHA Recordable STS, and Audiometer Calibration records.
- The individual employee’s Audiometric Test Record (Audiogram) **shall** be filed in the employee’s permanent medical file.
 - All other records **shall** be stored in a secure file for the time periods specified in Section 8.
- d) When using a local provider, the following requirements **shall** be met:
- Audiometer **shall** be able to test at 500, 1000, 2000, 3000, 4000, and 6,000 Hz; and
 - The audiometric test technician **shall** be licensed.

- The medical clinic or audiologist should be instructed to contact an audiologist at McFarland Clinic prior to testing to determine what additional records (if any) are to be provided to McFarland Clinic Audiology Department 515-239-4421.
- *After the audiogram is completed, the vendor McFarland Clinic **shall** fill in the test data and the employee **shall** bring that form back to the site.*

McFarland Clinic
Attn: Audiology Department
1215 Duff Ave
Ames, IA 50010

- McFarland Clinic will process the audiogram results as outlined in d) and e) above.

3.9 **Standard Threshold Shifts (STS) & Recordable STS (RSTS):**

3.9.1 If an audiogram shows that an employee has experienced a potential STS (*i.e.* 10dB or more loss of hearing) or a potential RSTS (*i.e.* total hearing level is 25dB or more above audiometric zero), the location may obtain a retest within 30 days of the initial test and consider the results of the retest as the annual (or periodic) audiogram. Note: Testing services, like McFarland Clinic will generally notify the site of a potential STS or RSTS at the time of testing. The department/office should use this information to determine if a retest will be conducted. Waiting for confirmation of a STS or RSTS may take time and cause the location to miss the 30 day window to retest.

3.9.2 *If the STS or RSTS is confirmed with the retest or if a retest is not conducted, the following actions **shall** be taken:*

- The site **shall** report any assumed or confirmed work-related STS or RSTS to the Risk Manager within 24 hours of the location's knowledge of confirmation. If the confirmation is not received within 6 calendar days of the retest date, the location **shall** enter the hearing loss STS as a non-recordable occupational illness by the 7th calendar day from the retest date and change it to a recordable case upon confirmation of a RSTS. Note: Noise-induced hearing loss is the result of prolonged, persistent exposure to noise and therefore, is classified as an occupational illness.*
 - *An STS **shall** be classified as a non-recordable hearing loss case.*
 - *An RSTS **shall** be classified as a recordable hearing loss case.*
 - *Other causes of occupational hearing loss from acute exposures, which may or may not be accompanied by an STS (e.g., loss that is secondary to barotrauma or acoustic trauma), **shall** be reported to the Risk Manager within 24 hours of the location's knowledge of the event.*
- The employee **shall** be informed of the confirmed STS/RSTS in writing, within 21 days of the determination. Note: Testing services, like McFarland Clinic, generally provide a report to the employer called an Employee Audiometric Testing Results Notification Report. This report (or equivalent) provides a place for signatures and may be used as the written notification.*
 - *The location **shall** develop and outline a process for notifying employees of confirmed STS/RSTS in [Section 10.3](#).*
- As the notification step is taking place, the site **shall** utilize one of the following two options to proceed with the confirmed STS/RSTS:*
 - *Option 1 – Assume that the shift is work-related and proceed to Sections 3.9.2 d) & e) for further actions; or*
 - *Option 2 – Determine if the STS/RSTS is work-related by working with a physician, audiologist, or other licensed health care professional to conduct a work-relatedness determination. The site **shall** follow the requirements of Exhibit 9.6 – Conducting a Work Relatedness Determination and then proceed to Sections 3.9.2 d) & e) for further actions.*
- If a hearing loss case is deemed 'work-related', the site **shall** complete the following actions:*

- Ensure the case is classified and sufficiently documented correctly.
- If the case involved a work-relatedness determination, file the written letter or report in the employee's medical file;
- Proceed to Section 3.9.2 e) for further actions.

If the hearing loss case is deemed 'not work-related', the site **shall** complete the following actions:

- Ensure the case is classified and sufficiently documented correctly as a non-recordable occupational illness in the business incident reporting database.
 - If the case involved a work-relatedness determination, file the written letter or report in the employee's medical file.
 - Work with the Risk Manager to ensure the incident is lined out on the location's OSHA 300 log.
- e) Employees with assumed or confirmed work-related STS/RSTS **shall** be retrained per Section 5.1.2, refitted in hearing protection devices, and **shall** wear hearing protection in all areas where noise levels are at or above the action level of 80 dBA.
- If subsequent audiometric testing is conducted and the results of that testing shows that the STS/RSTS is not persistent, then the employee **shall** be informed of that fact in writing and that employee may discontinue the use of hearing protectors in areas where noise levels are less than 85 dBA for an 8-hour TWA.

3.10 **Engineering Control Feasibility Studies:**

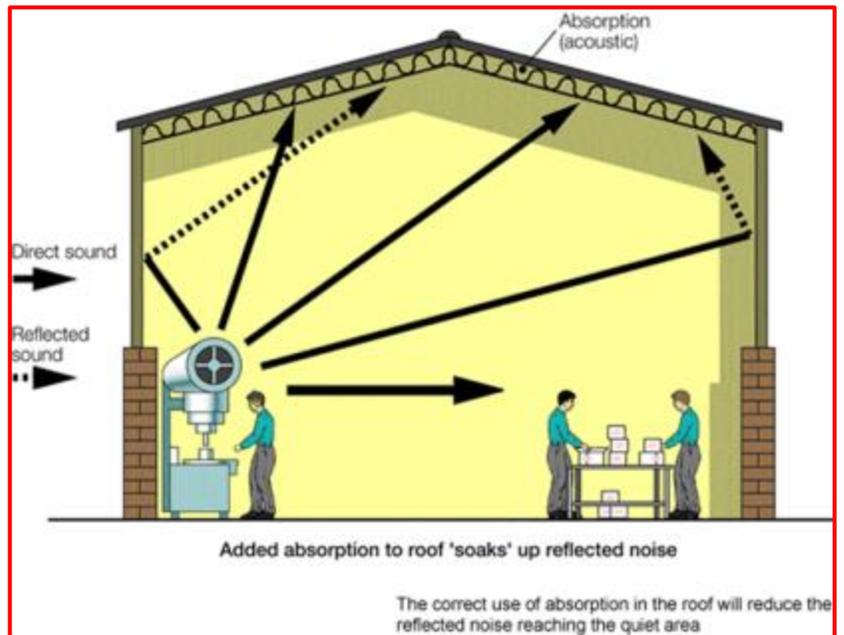
3.10.1 When employees are exposed to sound exceeding 90 dBA for an 8 hour TWA, an Engineering Control Feasibility study **shall** be conducted (refer to Exhibit 9.7 – Feasibility Studies Guidance).

3.10.2 HPDs **shall** be used while engineering controls are being investigated, developed, and implemented or where such controls are not feasible and where exposure to noise is infrequent.

3.10.3 Technologically and economically feasible engineering controls **shall** be implemented according to a documented compliance plan schedule.

3.10.4 Administrative controls **shall** not be used in lieu of feasible engineering controls or HPDs for areas and/or jobs that are demarked as high noise.

3.10.5 The location **shall** reassess areas where engineering controls have been implemented using the noise assessment and monitoring processes outlined in sections 3.2 and 3.3 to verify effectiveness of controls to below a 90 dBA TWA.



a) All changes to the area(s) **shall** be documented on Record 8.1 – Potential Action Level Areas.

3.10.6 If the location cannot feasibly control noise to below 90 dBA through engineering, the site **shall** document why and what controls are in place (administrative, HPD, etc.) on Record 8.1.

3.11 **First Party Audit:**

- 3.11.1 *The HCP **shall** be audited as a part of the site first-party audits and a program review **shall** be completed at least annually to ensure that all aspects of the program are being followed.*
- a) Adding the date of the review and the names of the review team to the title page of the program will suffice as documentation of the review.

4. Definitions

- 4.1 Action level – An 8-hour time-weighted average (TWA) sound level above which participation in the hearing conservation program (HCP) is required. The Action Level is equal to 80 dBA for an 8 hour TWA measured on the A-scale, slow response, or equivalently, a dose of fifty percent with a 5 dB doubling rate (i.e. 8 hours at 80 dBA is equivalent to 4 hours at 85 dBA, 2 hours at 90 dBA, etc.).
- 4.2 Acoustical Calibrator – A separate instrument called an acoustical calibrator is available from the instrument manufacturer and is generally used to check calibration before and after each day's Sound Level Meter (SLM) usage.
- 4.3 Administrative Controls – Efforts by management to limit noise exposure to personnel by modifying their schedules or locations or by modifying the operating schedule of noisy equipment.
- 4.4 Annual audiometric testing (AAT) employees – Individuals who have annual audiometric testing and medical clearance, under fitness-for-duty, to continue to work in high noise areas, jobs, or assignments as defined in Section 3.6.2.
- 4.5 Area Noise Monitoring – Measuring noise levels within an area of facility or building.
- 4.6 Attenuate – To lessen or reduce; to weaken.
- 4.7 Audiogram – A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
- 4.8 Audiologist – A professional specializing in the study and rehabilitation of hearing that is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners (or country equivalent for locations outside of the U.S.).
- 4.9 Audiometer – The hearing testing device that generates audiograms.
- 4.10 Audiometric Test – Hearing test.
- 4.11 Baseline Audiogram – The audiogram against which future audiograms are compared.
- 4.12 Calibrate – Correlate the readings of an instrument with those of a standard in order to check the instrument's accuracy.
- 4.13 Competent Person – A person skilled in the use of acoustic measurement instruments. Examples of some ways in which a person can become competent: being taught by an experienced person already familiar with this equipment, reading and properly using owner's manual, or a certification in Industrial Hygiene processes that covers this type of equipment.
- 4.14 Decibel (dB) – A unit for measuring sound pressure. The higher the decibel number, the louder the sound.
- 4.15 dBA – Decibel level measured using the "A" weighted scale (the weighting scale that most closely approximates the response of the human ear). It is a single number reading obtained from a sound level meter that is weighted to approximate the frequency response of the human ear.
- 4.16 Dose monitoring – Noise readings that are integrated over time, providing an average noise exposure reading for a given amount of time (e.g., an 8-hour workday).
- 4.17 Dosimeter – See Noise Dosimeter.
- 4.18 Doubling rate – Number used to adjust exposure limit for exposures longer or shorter than 8 hours, and to calculate average noise exposure when sound level varies. The doubling rate is equivalent to the exchange rate. For this program, the doubling rate is 5 dB (i.e. 8 hours at 80 dBA is equivalent to 4 hours at 85 dBA, etc.).
- 4.19 Effective Date – Date that the safety program becomes the official document for the business (i.e. Risk Management Effective Date) and the official document for a specific location (i.e.

- Location Effective Date). The “Risk Management effective date” reflects when the program was posted on the Risk website. The “Location Effective Date” should reflect the date the program becomes site policy (meaning all site employees are required to abide by the contents of the program).
- 4.20 Engineering controls – Any use of engineering methods to reduce or control the sound level of a noise source by modifying or replacing equipment, or by making any physical changes at the noise source, or along the transmission path (with the exception of hearing protectors).
- 4.21 Exposure limit – TWA sound level above which exposure without hearing protection is not permitted. It is equal to 85 dBA 8-hour TWA with a 5 dB doubling rate.
- 4.22 Feasibility Study – A study to show how technological and economic feasibility of noise control and reduction can be achieved. Engineering control at the source is the first consideration. Control of workplace noise by original equipment design or modification should be investigated. This includes purchasing new, low-noise-level equipment for initial installations or as a replacement for existing equipment. If source control is not cost effective, the next step is to investigate the feasibility of retrofit engineering controls.
- 4.23 Fit test (hearing protectors) – An audiometric test performed with insert-type ear plugs in place to document the approximate protection of the inserts for the individual. The insert-type ear plugs should generally provide 10 to 15 dB of protection at each frequency.
- 4.24 Hearing conservation program (HCP) – A management system with elements that are designed to help prevent hearing loss in personnel.
- 4.25 Hearing Protection Devices (HPDs) – Devices designed to protect hearing from damaging loud noise.
- 4.26 Hearing Protection Required Areas – Areas or activities that have been measured at an 8-hour TWA of 85 dBA or greater.
- 4.27 Hertz (Hz) – A unit of measure for sound frequency. One Hz = one cycle per second. The more cycles per second, the higher the sound pitch.
- 4.28 Noise dose – Noise exposure expressed as a percentage of the noise exposure limit where 8 hours at 85 dB is equal to 100% or some other equivalent combination of time and noise level.
- 4.29 Noise Dosimeter – An instrument that measures sound levels over a specified interval, stores the measurements, calculates the sound as a function of sound level and sound duration, and then describes the results in terms of dose, TWA, and other parameters (e.g., peak level, equivalent sound level, and sound exposure level).
- 4.30 Noise-induced hearing loss – Diminution of hearing due to prolonged, habitual exposure to high-intensity noise.
- 4.31 NRR (Noise Reduction Rating) – Rating number assigned to hearing protection devices. The higher the number, the better protection provided by the device. The NRR is usually stated on the device’s box or instruction sheet.
- 4.32 Noise-Sensitive Individual - One who is unusually susceptible to noise-induced hearing effects and develops a hearing threshold shift as a result of noise levels between 80 dBA and 85 dBA TWA.
- 4.33 Periodic audiometric testing (PAT) employees – Individuals who are exposed only occasionally to noise (as described in Section 3.6.2) who are offered PAT as a wellness and/or prevention activity.
- 4.34 Personnel Noise Monitoring – Placing a noise dosimeter on an employee to measure noise exposure, typically for an entire work shift.
- 4.35 Presbycusis—a change in hearing thresholds thought to be related to physiological changes that occur with age.
- 4.36 Process Owner – The individual or group who is responsible for a program and the creation, update, and approval of core documents supporting that program.
- 4.37 Program Leader – The person having site responsibility for ensuring that the requirements of this program are met.

- 4.38 Recordable Standard Threshold Shift (RSTS) – A standard threshold shift that results in a total 25 dBA or more loss of hearing in either ear (as related to audiometric zero).
- 4.39 Reportable Occupational Hearing Loss – Work-related standard threshold shift (STS).
- 4.40 Representative Noise Exposure – Measurements of an employee’s noise dose or 8-hour TWA sound level that the employer deems to be representative of the exposures of other employees in the work place as measured by either Area Noise Monitoring or Personnel Noise Monitoring.
- 4.41 Retrofit engineering controls – Controls put in place after the installation of equipment to control noise exposure in the workplace.
- 4.42 Revision # – Number used to track different versions of the same safety program.
- 4.43 Shall – When used in a Risk Management safety program, “shall” denotes a required action.
- 4.44 Should – When used in a Risk Management safety program, “should” denotes a recommended action.
- 4.45 Sound Level Meter – A device that measures sound intensity and provides a readout of the resulting measurement.
- 4.46 Sound Level Assessment – Compilation of data acquired from sound level meter used to show area noise levels.
- 4.47 Standard Threshold Shift (STS) – A change in hearing threshold relative to the baseline audiogram of an average of 10 dBA or more at 2,000, 3,000, and 4,000 Hz in either ear. In determining whether an STS has occurred, an allowance may be made for the contribution of aging (i.e. presbycusis) to the change in hearing level.
- 4.48 Time-Weighted Average (TWA) – The constant or average sound level exposure for an extended period (typically 8 hours).
- 4.49 Weighted sound level (dBA) – see dBA.
- 4.50

5. Training

5.1 Classroom/Web-based Training Requirements:

5.1.1 *All company employees/workers exposed at or above the Action Level (i.e. listed on Record 8.4 – Hearing Conservation Program Participants), all line management that manage program participants, and the Safety Committee Member(s) **shall** be trained on the following criteria:*

- *The effects of noise on hearing, including non-occupational noise exposure;*
- *The purpose of hearing protection – initial fitting, how to properly wear, care, and store HPDs;*
- *The advantages, disadvantages, and noise attenuation provided by various types of HPDs;*
- *Instructions on how to select, fit, use, and care for HPDs;*
- *The purpose of audiometric testing and explanation of the test procedure.*

Note: Employees not listed on Record 8.4 - Hearing Conservation Program Participants may receive Hearing Conservation Training at the location's discretion as part of a wellness program.

5.1.2 *Employees with assumed or confirmed work-related STS/RSTS **shall** be retrained on the following information:*

- *Refresher training on all of the information listed in section 5.1.1;*
- *The expectation for them to wear hearing protection in all areas at or above the Action Level (80 dBA); and*
- *A reminder to wear hearing protection in non-occupational noise areas to prevent further hearing loss.*
-

5.2 **Hands-on/Location Specific Training Requirements:**

5.2.1 *The location **shall** supplement the classroom/web-based training outlined in Section 5.1.1 with the following hands-on/location-specific information:*

- *A review of location's areas, tasks, equipment, and tools that require hearing protection. The location's walk around survey, Record 8.1 - Potential Action Level Areas, and Record 8.2 – Tool Inventory List should be used for this review.*
- *A review of the specific types of HPDs available at the location, how to properly use them, and how and where employees can obtain them.*

5.3 **Skill Demonstration Requirements:**

5.3.1 There are no skill demonstration requirements for the Hearing Conservation Program.

5.4 **Training Frequency, Documentation Requirements & Retention Periods:**

5.4.1 *Training outlined in Sections 5.1.1 and 5.2.1 **shall** be conducted at least annually.*

a) *The training **shall** be documented on Record 8.6 – Hearing Conservation Program Training Record (or equivalent) and **shall** be retained for three years.*

5.4.2 *Training outlined in Section 5.1.2 **shall** be conducted with affected employees within 30 days of the site receiving knowledge of the shift.*

a) *The training **shall** be documented on the Audiometric Test Report (or equivalent) that showed the STS/RSTS and **shall** be retained permanently in the employee's medical file.*

6. **Action Steps Geographical, Functional, and Local Requirements**

- Section 6 is reserved for location use to document specific requirements that are more stringent than the base action steps within this program. More stringent requirements may originate from country/province/state regulations, a functional group within the business or the location itself.

6.1 Reserved for location use...

7. **References**

7.1 Reference 7.1 – [U.S. OSHA Occupational Noise Standard 1910.95](#)

7.2 Reference 7.2 – [NIOSH Tool Table](#)

7.3 Reference 7.3 – [U.S. OSHA Recordkeeping Standard 1904](#)

7.4 Reference 7.4 – [CDC Information](#)

8. **Records**

8.1 Record 8.1 – [Make A Map of Your Noise Areas \(Shop\)](#)

- **Shall** be retained for 30 years.

8.2 Record 8.2 – [Tool Inventory List](#)

- **Shall** be retained for 30 years.

8.3 Record 8.3 – [IH Data Form](#)

- **Shall** be retained for 30 years for area monitoring.
- **Shall** be retained permanently in the employee's medical file for personnel monitoring.

- 8.4 Record 8.4 – [Hearing Conservation Program Participants](#)
- **Shall** be retained for 30 years.
- 8.5 Record 8.5 – [Employee Audiometric Testing Schedule](#)
- **Shall** be retained for 3 years.
- 8.6 Record 8.6 – [Hearing Conservation Program Training Record](#)
- **Shall** be retained for 3 years.
- 8.7 Audiometric Test Record (Audiogram)
- **Shall** be retained permanently in the employee's medical file.

Records **shall** be retained in compliance with the business Records Management schedule (refer to Reference 7.3 – OSHA Recordkeeping Standard).

9. Exhibits

- 9.1 [Exhibit 9.1 – Conducting Noise Monitoring](#)
- 9.2 [Exhibit 9.2 – Noise Dosimeter Use](#)
- 9.3 [Exhibit 9.3 – Audiometric Testing Provider Requirements](#)
- 9.4 [Exhibit 9.4 – Conducting a Work Relatedness Determination](#)
- 9.5 [Exhibit 9.5 – Feasibility Studies Guidance](#)

10. Location Processes

- 10.1 Referenced from [Section 3.2.1 c](#)) – Location **shall** answer the following questions to outline its local process:
- Who at the site is responsible for maintaining the sound level meter(s)?
 - How will the Department/Office ensure the SLM(s) are recalibrated as per manufacturer's recommendations?
 - How will the Department/Office ensure acoustical calibrators are recalibrated annually?
 - What is the name and contact information of the instrument manufacturer or acoustical test laboratory used to perform the calibration?
- 10.2 Referenced from [Section 3.7.5 b](#)) – Location **shall** answer the following questions to outline its local process:
- Who at the location is responsible for ensuring PAT employees are offered audiometric testing initially and at least every three years thereafter?
 - How will the audiometric tests be offered to the PAT employees?
 - How will the location keep track of who needs to be offered the tests?
- 10.3 Referenced from [Section 3.9.2 a](#)) – Location **shall** answer the following questions to outline its local process:
- Who at the location is responsible for notifying an employee of a confirmed STS within 21 days of determination?
 - How is the responsible person notified of a confirmed STS from the testing provider?
 - What document will the site use to notify the employee in writing?



Secondary Road Department
Darren R. Moon, P.E. County Engineer

Road Department
Quarterly Board Report
1-14-2020

Maintenance Work Update:

Winter overtime and salt usage has been a bit lower than normal this year but this can change quickly in January and February like last year. The warmer weather this fall has allowed us to complete more culvert repair, ditch cleaning, and tile repair work orders. Our crews have mostly transitioned over to brush cutting for the rest of the winter. There is some concern that the wet fall may be setting us up for some of the same spring thaw issues that we experienced last year. The extra moisture in the ground could freeze deeper again leading to more frost boils. We are proposing that we increase our rock budget to get more rock on our gravel roadways.

Construction Project Updates:

Eleven projects this year:

	<u>Cost</u>	<u>Letting Date</u>
Hickory Grove Lake Asphalt Overlay	\$ 825,000	Feb.
Lincoln 20 Box Culvert	\$ 140,000	Feb.
Lincoln 1 Bridge	\$ 450,000 - FM	Jan-DOT
Union 17 Bridge	\$ 578,425 - SWAP	Done
Indian Creek 21 Pipe Culvert	\$ 75,000	Feb.
535 th Ave. Paving (for H.O.I. bike trail)	\$ 225,000	Feb.
13 th St. Paving	\$ 2,250,000 - Bonding	?
560 th Ave. Paving (Huxley)	\$ 1,000,000 - Bonding	March
Timberland Drive (Story City)	\$ 200,000 - Bonding	?
Collins 26 Bridge	\$ 130,000 - Bonding	Feb.
New Albany 18 Pipe Culvert	\$ 75,000 - Bonding	?

-Board can now authorize the County Engineer to sign contracts electronically.

Construction Project Design:

- 220th St. (13th St.) paving plans completed, start r.o.w. negotiations but we have not come to an agreement with the landowner that owns the majority of the land, may have to delay the project a year. City of Nevada currently has no plans to pave 600th Ave.
- 560th Ave. paving: City of Huxley has hired a consultant to design paving plans. Public meeting held on Jan 2nd in Huxley. Possible 2020 construction.
- Started design work on 530th Ave. (University Ave.) paving project, started utility coordination and the costs are more than expected to move power lines and rural water line.

Five-Year Construction Program Workshop:

-Proposed date of Tuesday, February 25th in the afternoon.

Upcoming Hearings:

- Paving point hearings for 560th Ave. paving and 535th Ave. paving on Feb. 11th
- Road vacation hearing for Iowa Center, TBD.

Federal Bridge Bundling Grant:

Grant will fund 55% of construction costs for E18 bridge just east of S14, (Approx. \$330,000). Our bridge will be bundled with a Franklin County bridge and the projects are scheduled for a November 2020 letting through the DOT. Story County will be the lead county so we will be the contract administrator for both projects. The Iowa DOT is drafting a 28E agreement for us to use to make this happen.

Out-Shop Update:

The new salt bin at the Kelley shed has been completed but we are keeping salt off of the new concrete slab this winter until concrete has fully cured.

The McCallsburg shed east wall and door repairs have been completed and the shed is being occupied again.

NextEra: Turbine Blade Replacements:

Issued around 500 oversize hauling permits this fall. Hauling is complete and Blattner has removed most of the road widening. Work continues on turbine blade replacement.

Level B Road Issues:

720th Ave. south of Hwy 30, landowner blocked road with large rocks but they have been removed. Our level B roadways are really only there for legal property access purposes but we do blade them when they are dry enough but we do not add rock.

Radios:

Our new radios have been ordered and we will discuss the funding options at our budget session. Approximately \$150,000 cost for our radios.

Ames MPO Forward 2045 Metropolitan Transportation Plan:

I participated in the visioning workshop for the new plan. The city is also close to finalizing the Ames Plan 2040 which will give direction on where the city plans to grow.

Jefferson Highway:

New Jefferson Highway signs have been installed with DOT funding.

Drainage District Issues:

DD #20 -

-John Hunter tile work completed with county crews, could now vacate roadway.

DD #5 -

-Received complaints about open ditch maintenance at the south end of the district. Trustees will discuss this at their next meeting.

-City of Ames working on our permit to cross the district tile with new city utilities in the Lincoln Highway road right-of-way.

DD #115 (Huxley)-

-Basement excavation for new home hit a district tile. Huxley found that tile was rerouted when the new street was constructed. New high school may have also relocated tile, we will investigate that further.

DD #7 Boone-Story

-Weeks subdivision in Slater requesting to move tile. Kent Rode will review.

DD #35-

-Contractor replacing 400' of 18" tile in Grant Twp. Sec.10, cost under \$10,000.

New Employees:

Jeremy Barker – Assistant Road Maintenance Superintendent

Joe Pearce - Equipment Operator I

Jeff Morlan - Temporary Winter Truck Driver

-two employees currently off on FMLA with one more scheduled for February

**Story County FY20 Quarterly Report
December 31, 2019
50.00% of Year**

Expenditures:	Original Annual Budget	Amended		Oct-Nov-Dec Total	YTD Total	Percent of Budget	Amount Remaining
Board of Supervisors	\$1,027,349.00		\$197,042.27	\$288,082.91	\$485,125.18	47.22%	\$542,223.82
Auditor	\$1,312,975.00		\$243,930.64	\$534,353.86	\$778,284.50	59.28%	\$534,690.50
Treasurer	\$883,240.00		\$219,675.92	\$218,379.41	\$438,055.33	49.60%	\$445,184.67
County Attorney	\$2,671,612.00		\$639,922.48	\$736,348.62	\$1,376,271.10	51.51%	\$1,295,340.90
Sheriff	\$9,350,249.00		\$2,206,818.34	\$2,431,940.47	\$4,638,758.81	49.61%	\$4,711,490.19
Recorder	\$440,608.00	\$451,708.00	\$90,956.81	\$132,540.17	\$223,496.98	49.48%	\$228,211.02
Animal Control	\$486,794.00	\$518,574.00	\$247,510.63	\$39,609.38	\$287,120.01	55.37%	\$231,453.99
General Betterment (40% L.O.S.T.)	\$1,002,225.00	\$1,014,413.00	\$192,724.93	\$56,981.19	\$249,706.12	24.62%	\$764,706.88
Engineer	\$8,907,925.00	\$9,907,925.00	\$1,660,574.51	\$1,531,674.78	\$3,192,249.29	32.22%	\$6,715,675.71
Veteran Affairs	\$116,104.00		\$22,615.56	\$33,601.41	\$56,216.97	48.42%	\$59,887.03
Conservation Board	\$3,393,826.00	\$5,485,629.00	\$546,293.45	\$2,615,014.27	\$3,161,307.72	57.63%	\$2,324,321.28
Environmental Health	\$327,824.00		\$73,595.03	\$88,215.89	\$161,810.92	49.36%	\$166,013.08
IRVM	\$371,515.00	\$385,725.00	\$78,039.35	\$73,319.39	\$151,358.74	39.24%	\$234,366.26
Community Services	\$395,284.00		\$69,074.03	\$91,697.72	\$160,771.75	40.67%	\$234,512.25
Community Life	\$55,750.00		\$8,934.24	\$10,068.41	\$19,002.65	34.09%	\$36,747.35
Human Services Center	\$403,275.00		\$84,046.74	\$110,854.74	\$194,901.48	48.33%	\$208,373.52
Facilities Management	\$803,000.00	\$819,000.00	\$163,347.98	\$223,818.85	\$387,166.83	47.27%	\$431,833.17
Information Technology	\$1,184,980.00	\$1,202,980.00	\$198,264.07	\$392,544.00	\$590,808.07	49.11%	\$612,171.93
Planning & Development	\$293,180.00	\$305,680.00	\$53,726.56	\$104,295.25	\$158,021.81	51.70%	\$147,658.19
Justice Center Facilities	\$1,126,650.00	\$1,146,650.00	\$183,687.79	\$250,922.97	\$434,610.76	37.90%	\$712,039.24
DHS	\$66,500.00		\$11,090.34	\$9,578.92	\$20,669.26	31.08%	\$45,830.74
Mental Health	\$1,921,124.00		\$90,963.36	\$120,123.95	\$211,087.31	10.99%	\$1,710,036.69
Juvenile Court Services	\$100,050.00		\$9,616.21	\$13,738.01	\$23,354.22	23.34%	\$76,695.78
Countywide Services	\$6,907,448.00	\$9,506,073.00	\$989,727.00	\$2,530,592.06	\$3,520,319.06	37.03%	\$5,985,753.94
Total Expenditures:	\$43,549,487.00	\$49,375,693.00		\$12,638,296.63	\$20,920,474.87	42.37%	\$28,455,218.13

Fund Balance Status:		Restricted-Story Comm	Committed	Assigned	% of exp YTD
General Basic Fund	\$13,884,899.43	\$2,411,252.00	\$1,240,608.64	\$1,861,290.00	45.81%
General Supplemental Fund	\$1,520,630.96			\$150,000.00	48.21%
County Services MHDS Fund	\$1,951,075.28				10.97%
Rural Services Fund	\$1,677,635.74			\$217,529.00	45.75%
TIF Fund	\$328,131.59				22.75%
Secondary Roads Fund	\$5,502,622.43				35.84%

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50.00% of Year

Departmental Revenues:	Annual Budget	Amended	YTD Total	Percent of Budget	Amount Remaining
Auditor	\$79,100.00	\$91,100.00	\$62,725.25	68.85%	\$28,374.75
Treasurer	\$1,040,950.00		\$727,018.16	69.84%	\$313,931.84
County Attorney	\$288,996.00		\$146,992.40	50.86%	\$142,003.60
Sheriff	\$1,256,130.00		\$698,178.10	55.58%	\$557,951.90
Recorder	\$559,335.00		\$287,940.70	51.48%	\$271,394.30
Animal Control	\$40,500.00		\$63,409.72	156.57%	-\$22,909.72
Engineer	\$7,397,560.00	\$15,397,560.00	\$4,098,406.02	26.62%	\$11,299,153.98
Veteran Affairs	\$10,100.00		\$10,145.00	100.45%	-\$45.00
Conservation Board	\$1,163,470.00	\$1,525,070.00	\$601,618.26	39.45%	\$923,451.74
Environmental Health	\$71,412.00		\$44,470.90	62.27%	\$26,941.10
IRVM	\$64,070.00	\$53,670.00	\$11,038.55	20.57%	\$42,631.45
Community Services	\$1,900.00		\$0.00	0.00%	\$1,900.00
Community Life	\$135,690.00		\$76,376.91	56.29%	\$59,313.09
Human Services Center	\$5,065.00		\$0.00	0.00%	\$5,065.00
Facilities Management	\$1,700.00		\$1,807.86	106.34%	-\$107.86
Information Technology	\$9,600.00		\$8,000.00	83.33%	\$1,600.00
Planning & Development	\$43,840.00		\$170,282.28	388.42%	-\$126,442.28
DHS	\$185,600.00		\$98,700.44	53.18%	\$86,899.56
Mental Health	\$0.00		\$29.40		-\$29.40
Juvenile Court Services	\$0.00		\$0.00		\$0.00
Countywide Services	\$33,606,848.00	\$37,208,910.00	\$22,052,810.13	59.27%	\$15,156,099.87
Total Revenues:	\$45,961,866.00	57,927,128.00	\$29,159,950.08	50.34%	