WARREN COUNTY PCC PAVEMENT GRADE AND REPLACE STBG-SWAP-1105(608)--SG-91

LETTING DATE DEC 21, 2021

IOWA DOT

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

URBAN ROAD SYSTEM

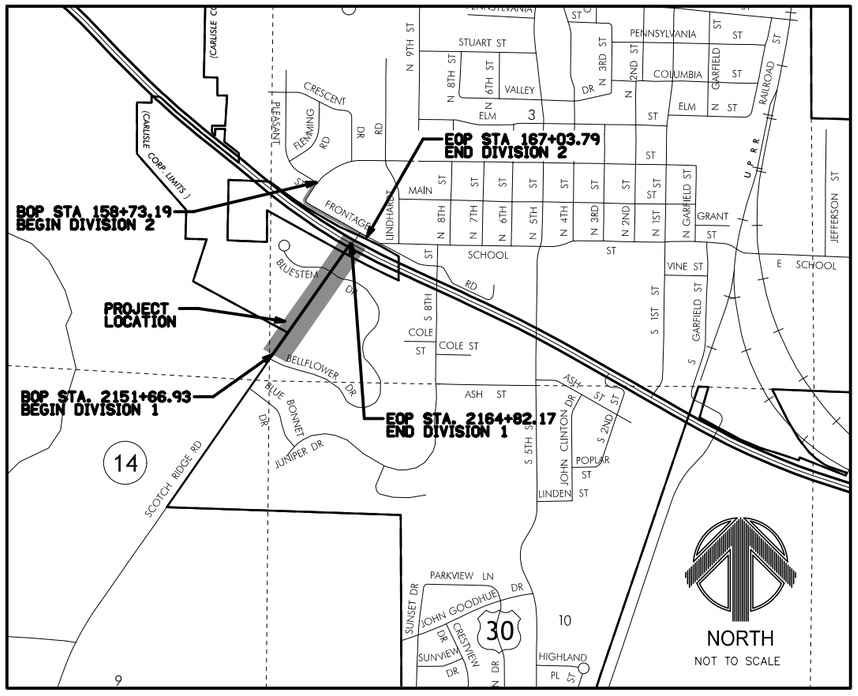
WARREN COUNTY

PCC PAVEMENT GRADE AND REPLACE

IN THE CITY OF CARLISE,
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST

SCALES: As Noted

	TOTAL
	143
PROJECT IDENTIFICATION NUMBER	
NA	
PROJECT NUMBER	
STBG-SWAP-1105(608)--SG-91	
R.O.W. PROJECT NUMBER	
NA	



Refer to the Proposal Form for list of applicable specifications.

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

For list of Standard Road Plans, refer to C sheets.

Refer to Sheet A.2 for General Legend and list of utility contacts

This project is covered by the Iowa Department of Natural Resources NPDES General Permit No. 2. The Contractor shall carry out the terms and conditions of General Permit No. 2 and storm water pollution prevention plan which is a part of these contract documents. Refer to Section 2602 of the Standard Specifications fo additional information.

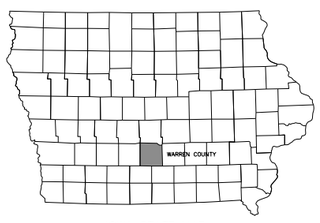
NO MILEAGE SUMMARY

INDEX OF SHEETS

CITY OF CARLISLE, IOWA

ACCEPTED FOR LETTING

MAYOR DATE



IOWA STATE MAP
NOT TO SCALE

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

NOTICE:
McClure Engineering Company waives any and all responsibility and liability for problems which arise from failure to follow these Plans, Specifications, and the engineering intent they convey, or for problems which arise from failure to obtain and/or follow the engineers guidance with respect to any errors, omissions, inconsistencies, ambiguities, or conflicts which are alleged.

CARLISLE
THE NATURAL CHOICE

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.

LICENSED PROFESSIONAL ENGINEER
MARK D. ROONEY
14661
IOWA

Mark D. Rooney DATED 10/01/2021

MARK D. ROONEY, PE NO. 14661

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022

PAGES OR SHEETS COVERED BY THIS SEAL:

ALL SHEETS

MEC# 20615007 - SCOTCH RIDGE ROAD

McCLURE ENGINEERING COMPANY

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	TITLE SHEET	SHEET NO. A.1
CHECKED BY JSS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021	.				

9/29/2021

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SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Earth Dam or Dike (Proposed)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Proposed Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Proposed Intake
- Existing Utility Access (Manhole)
- Proposed Utility Access (Manhole)
- Fire Hydrant
- WH Water Hydrant (Rural)

- Septic Tank
- C Cistern
- LP L.P. Gas Tank (No Footing)
- UST Underground Storage Tank
- L Latrine
- Luminaire
- Traffic Signal
- Traffic Signal with Luminaire
- TP Telephone Pedestal
- TVP Television Pedestal
- Telephone Pole
- Telephone Pole (Second Company)
- Telephone Pole (Third Company)
- Telephone Pole (Fourth Company)
- Telephone Pole (Fifth Company)
- Power Pole
- Power Pole (Second Company)
- Power Pole (Third Company)
- Power Pole (Fourth Company)
- Power Pole (Fifth Company)
- Electrical Highline Tower (Metal or Concrete)
- Telephone Riser Pole
- Power Riser Pole
- Telegraph Pole
- Satellite TV Dish
- WHU Water Hook Up
- RT Radio Tower
- TA Tower Anchor

- W Existing Water Line
- W2 Existing Water Line (Second Company)
- San. Existing Sanitary Sewer Line
- T Existing Telephone Line
- T2 Existing Telephone Line (Second Company)
- FO-1 Existing Fiber Optics Telephone Line
- St. S. Existing Storm Sewer Line
- G Existing Gas Line
- G-HP Existing High Pressure Gas Line
- G2 Existing Gas Line (Second Company)
- G2-HP Existing High Pressure Gas Line (Second Company)
- E Existing Power Line
- E2 Existing Power Line (Second Company)
- TV Cable Television Line
- Guardrail (Beam or Cable)
- GP Guard Post (one or two)
- Guard Post (over two)
- FP Filler Pipe
- GV Gas Valve
- WV Water Valve
- SL Speed Limit Sign
- MM Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

FO(C) CARLISLE SCHOOL FIBER	CARLISLE SCHOOL DISTRICT Contact Name : CODY MCCORMICK Contact Phone: 5152627686 Contact Email: LOCATES@GOTOCI.COM	E(C) / E1	MIDAMER-ELEC Contact Name : Craig Ranfeld Contact Phone: 5152526632 Contact Email: MECDSMDesignLocates@midamerican.com
FO(C) CARLISLE SCHOOL FIBER	WINDSTREAM COMMUNICATIONS Contact Name : LOCATE DESK Contact Phone: 8002891901 Contact Email: LOCATE.DESK@WINDSTREAM.COM	G	MIDAMER-GAS Contact Name : Craig Ranfeld Contact Phone: 5152526632 Contact Email: MECDSMDesignLocates@midamerican.com
FO(C)	CENTURYLINK Contact Name : Tom Sturmer Contact Phone: 7205788090 Contact Email: Thomas.sturmer@centurylink.com	W(B) / SS	(CRL) CITY OF CARLISLE, IOWA Contact Name : Steve Obraza Contact Phone: 5152299448 Contact Email: sobraza@aol.com
IOWA COMMUNICATIONS NETWORK	IOWA COMMUNICATIONS NETWORK Contact Name : Shannon Marlow Contact Phone: 8005723940 Contact Email: icnoutsideplantiowaonecall@iowa.gov		

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.		
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING	**Design Color No.**		
Yellow	(4)		Highlight for Critical Notes or Features
Red	(3)		Delineates Restricted Areas
Lavender	(9)		Temporary Pavement Shading
Gray, Light	(48)		Proposed Pavement Shading
Gray, Med	(80)		Proposed Granular Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)		Grading Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.		
Green	(2)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

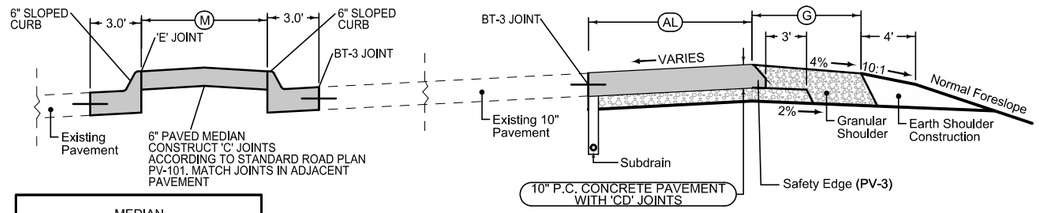
- Reference Point / Station — Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- C/A Access Control
- Property Line

EXISTING UTILITIES NOTE

THESE EXISTING UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGING THEM. PAYMENT WILL BE ALLOWED FOR UNCHARTED UTILITIES PER THE SPECIFICATIONS.



MEDIAN		
STATION TO STATION		M Feet
162+06.23	163+00.60	12.5–2.5
163+00.60	164+51.99	2.5
165+91.08	167+42.30	2.5
167+42.30	168+50.57	2.5–12.7

Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Adjacent Pavement

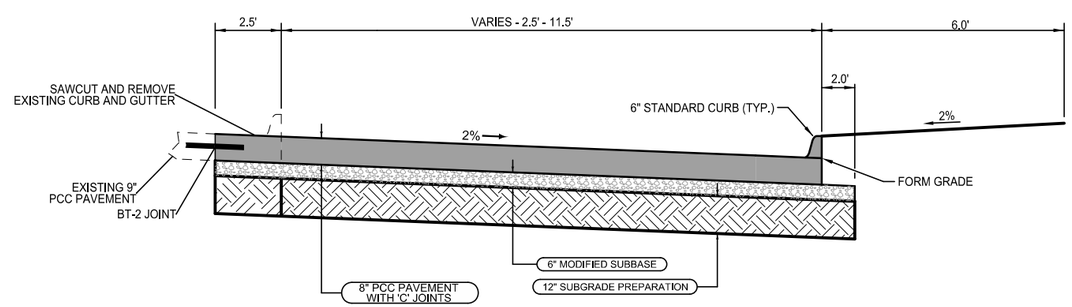
2_AuxLane_PCC_ 10-19-10		
STATION TO STATION		AL Feet
160+00.00	161+80.00	0–12.0
161+80.00	164+06.46	12.0

Granular Shoulder with Safety Edge

2_G_ 10-21-14		
STATION TO STATION		G Feet
160+00.00	161+80.00	9.8–6.0
161+80.00	164+06.46	6.0

NOTE:
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

TYPICAL CROSS SECTION
HIGHWAY 5
MEDIAN REPLACEMENT/PAVEMENT WIDENING AND GRANULAR SHOULDER



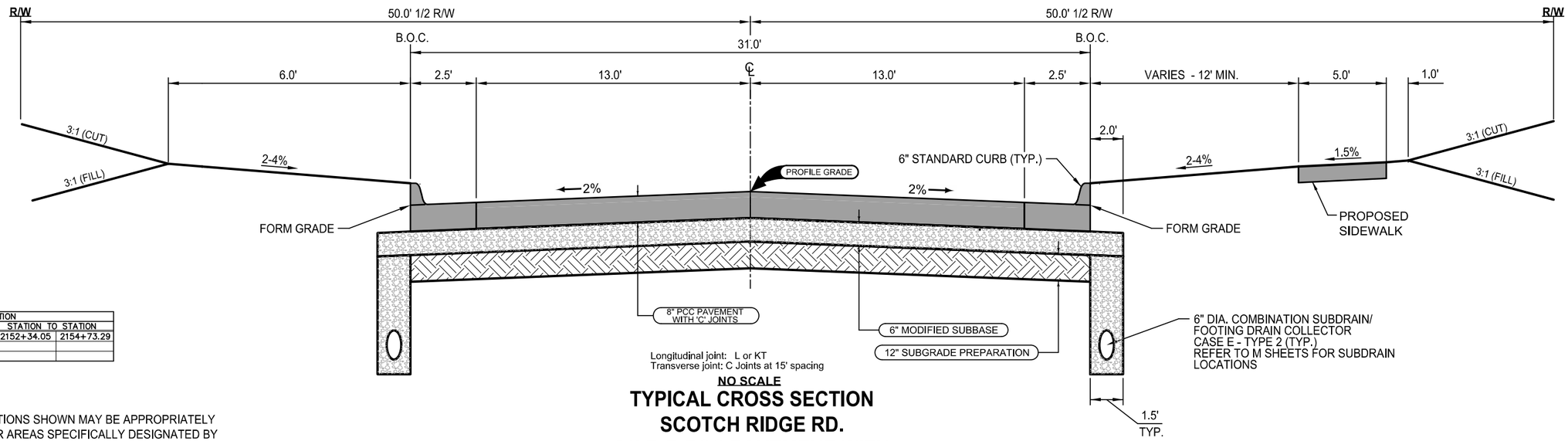
Longitudinal joint: L or KT
Transverse joint: Match Adjacent Pavement

NO SCALE

LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
BLUESTEM DRIVE	22158+40.64	22161+22.22

NOTE:
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

TYPICAL CROSS SECTION
BLUESTEM DRIVE
PAVEMENT WIDENING WITH
2.5' PCC CURB AND GUTTER



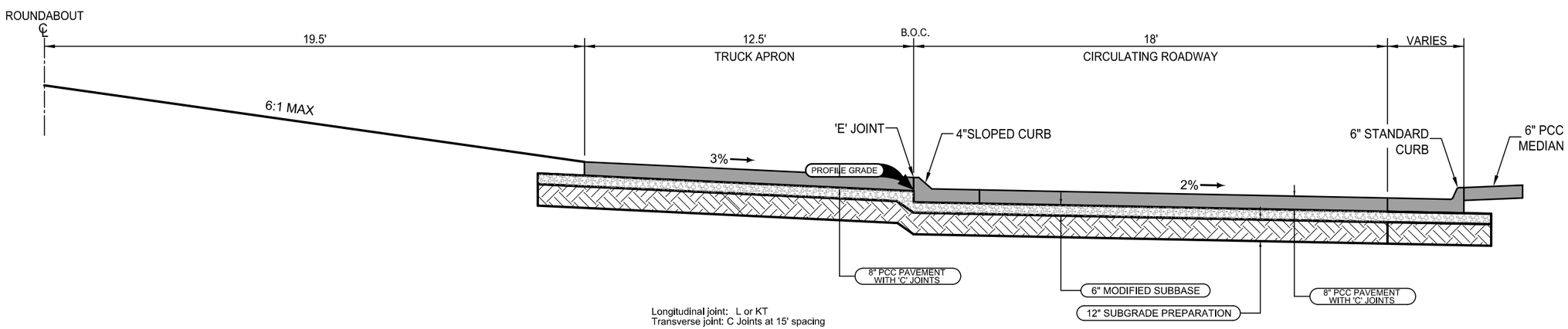
LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
SCOTCH RIDGE ROAD	2152+34.05	2154+73.29

Longitudinal joint: L or KT
Transverse joint: C Joints at 15' spacing

NO SCALE

NOTE:
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

TYPICAL CROSS SECTION
SCOTCH RIDGE RD.
31' B-B PCC PAVEMENT WITH
2.5' PCC CURB AND GUTTER



LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
SCOTCH RIDGE ROAD	2154+73.29	2156+18.68

Longitudinal joint: L or KT
Transverse joint: C Joints at 15' spacing

NO SCALE

50' RADIUS PCC PAVEMENT ROUNDABOUT WITH
12.5' PCC PAVEMENT TRUCK APRON

9/15/2021

ENGINEER	DRAWN BY	
MDR	MDR	SCOTCH RIDGE ROAD
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007
JSS	-	JULY, 2021

REVISIONS
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.

McCLURE™ making lives better.

1360 NW 121st Street
Clive, Iowa 50325
515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

TYPICAL SECTIONS AND DETAILS

SHEET NO. B.2

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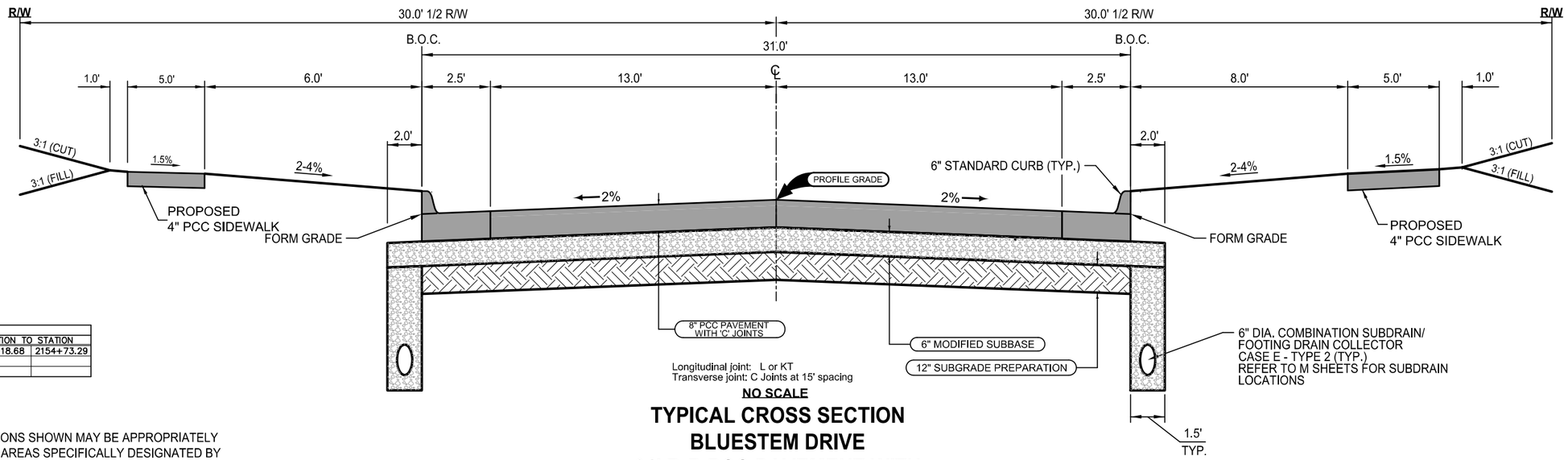


Longitudinal joint: L or KT
Transverse joint: C Joints at 15' spacing

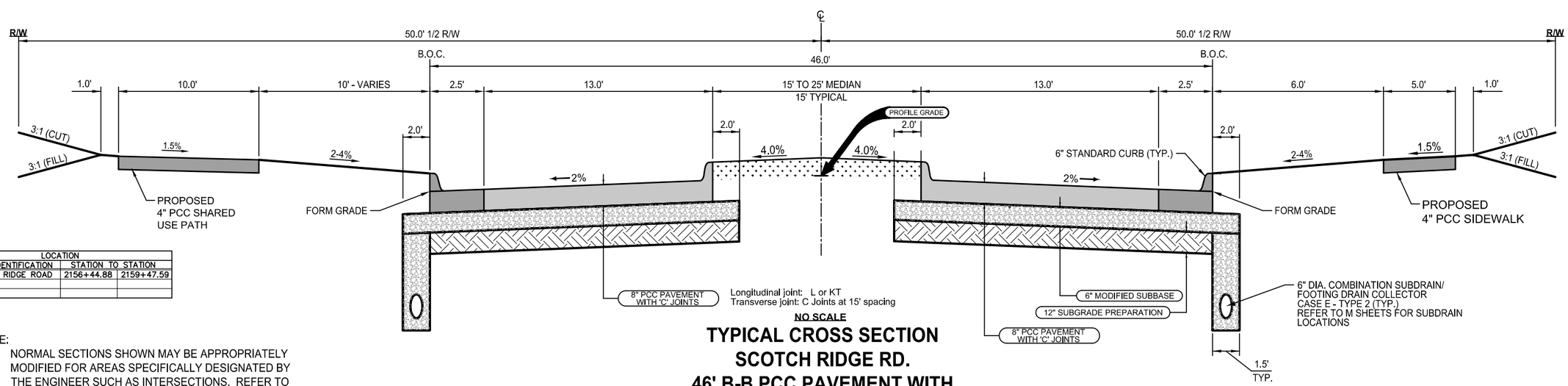
NO SCALE

LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
BLUESTEM DRIVE	2156+18.68	2154+73.29

NOTE:

1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

TYPICAL CROSS SECTION
BLUESTEM DRIVE
31' B-B PCC PAVEMENT WITH
2.5' PCC CURB AND GUTTER



Longitudinal joint: L or KT
Transverse joint: C Joints at 15' spacing

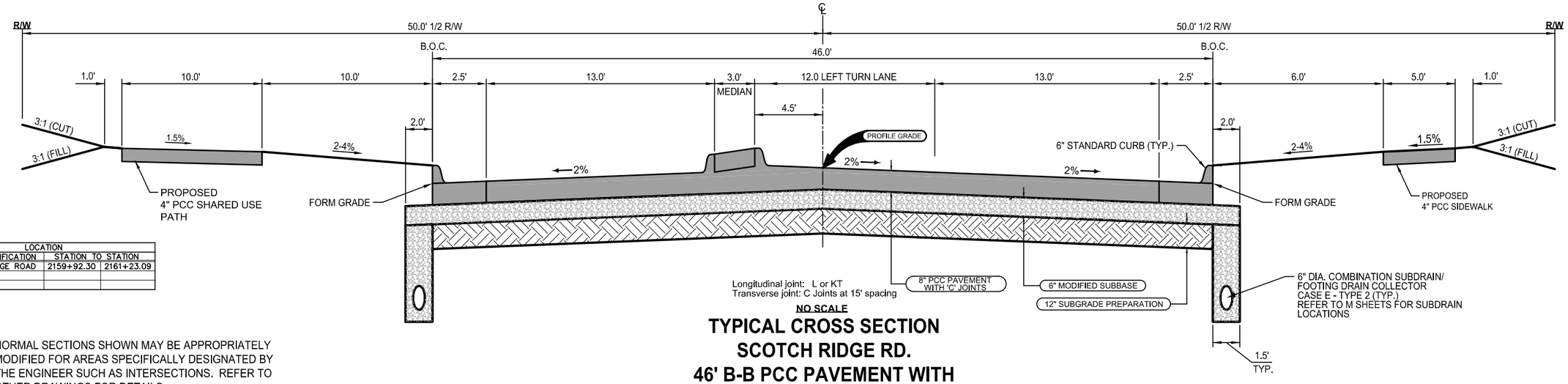
NO SCALE

LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
SCOTCH RIDGE ROAD	2156+44.88	2159+47.59

NOTE:

1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

TYPICAL CROSS SECTION
SCOTCH RIDGE RD.
46' B-B PCC PAVEMENT WITH
2.5' PCC CURB AND GUTTER



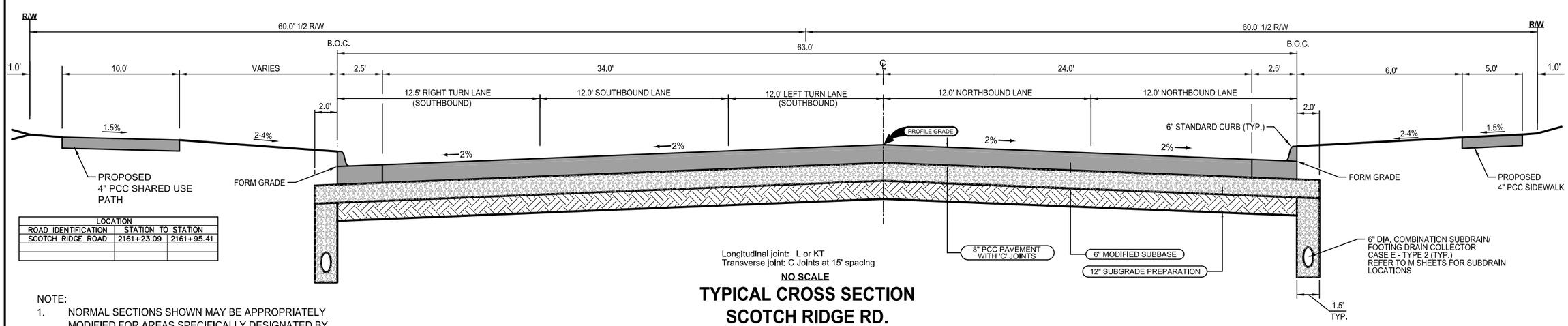
LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
SCOTCH RIDGE ROAD	2159+92.30	2161+23.09

NOTE:

1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

NO SCALE

TYPICAL CROSS SECTION
SCOTCH RIDGE RD.
46' B-B PCC PAVEMENT WITH
2.5' PCC CURB AND GUTTER



LOCATION		
ROAD IDENTIFICATION	STATION TO STATION	
SCOTCH RIDGE ROAD	2161+23.09	2161+95.41

NOTE:

1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

NO SCALE

TYPICAL CROSS SECTION
SCOTCH RIDGE RD.
63' B-B PCC PAVEMENT WITH
2.5' PCC CURB AND GUTTER

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	TYPICAL SECTIONS AND DETAILS	SHEET NO. B.4
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
JSS	-	JULY, 2021	.				
			.				

9/15/2021

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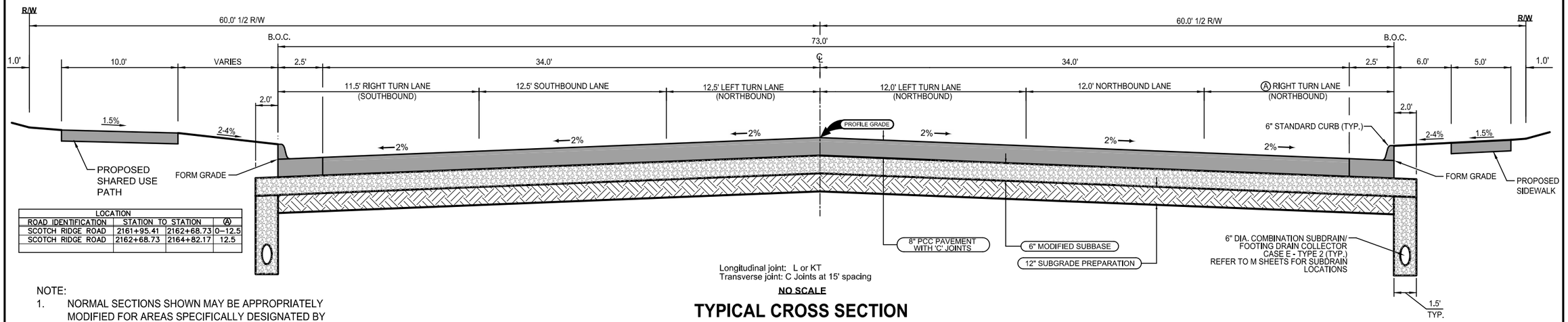


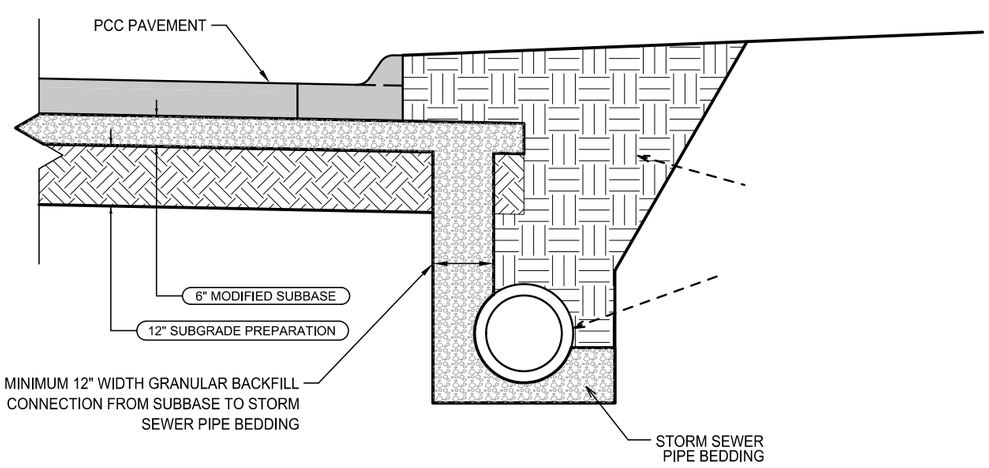
LOCATION			
ROAD IDENTIFICATION	STATION TO STATION		Ⓐ
SCOTCH RIDGE ROAD	2161+95.41	2162+68.73	0–12.5
SCOTCH RIDGE ROAD	2162+68.73	2164+82.17	12.5

Longitudinal joint: L or KT
Transverse joint: C Joints at 15' spacing

NO SCALE

NOTE:
1. NORMAL SECTIONS SHOWN MAY BE APPROPRIATELY MODIFIED FOR AREAS SPECIFICALLY DESIGNATED BY THE ENGINEER SUCH AS INTERSECTIONS. REFER TO OTHER DRAWINGS FOR DETAILS.

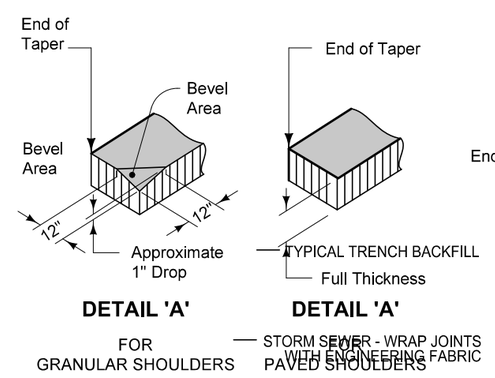
TYPICAL CROSS SECTION 73' B-B PCC PAVEMENT WITH 2.5' PCC CURB AND GUTTER



NOTES:
1. REFER TO M SHEETS FOR STORM SEWER LOCATIONS.
2. GRANULAR BACKFILL CONNECTION FROM STORM SEWER PIPE BEDDING TO SUBBASE SHALL BE CONSIDERED INCIDENTAL.

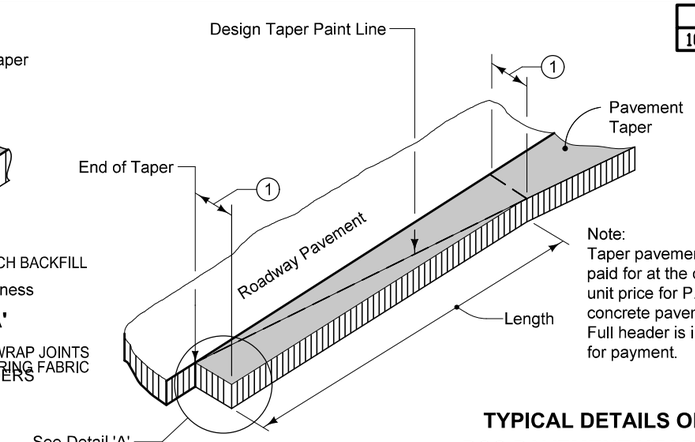
STORM SEWER FOR SUBSURFACE DRAINAGE DETAIL

7101
10-19-10



DETAIL 'A' FOR GRANULAR SHOULDERS

DETAIL 'A' FOR PAVED SHOULDERS



Note:
Taper pavement to be paid for at the contract unit price for P.C. concrete pavement. Full header is included for payment.

(1) Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).

TYPICAL DETAILS OF PCC PAVEMENT HEADER

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	TYPICAL SECTIONS AND DETAILS	SHEET NO. B.5
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021	. . .					

9/15/2021

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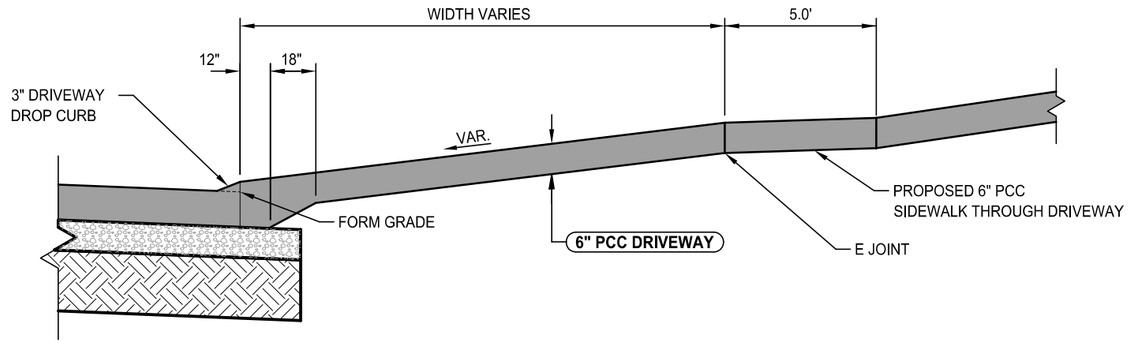


NO SCALE

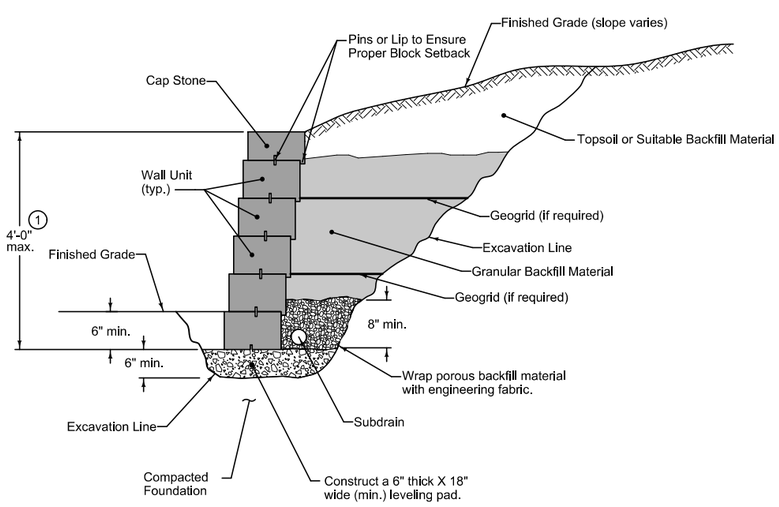
TYPICAL CROSS SECTION
RESIDENTIAL DRIVEWAY

Exact dimensions, wall batter, backfill limits, reinforcement, and leveling pad materials and dimensions will be specified by the wall manufacturer.

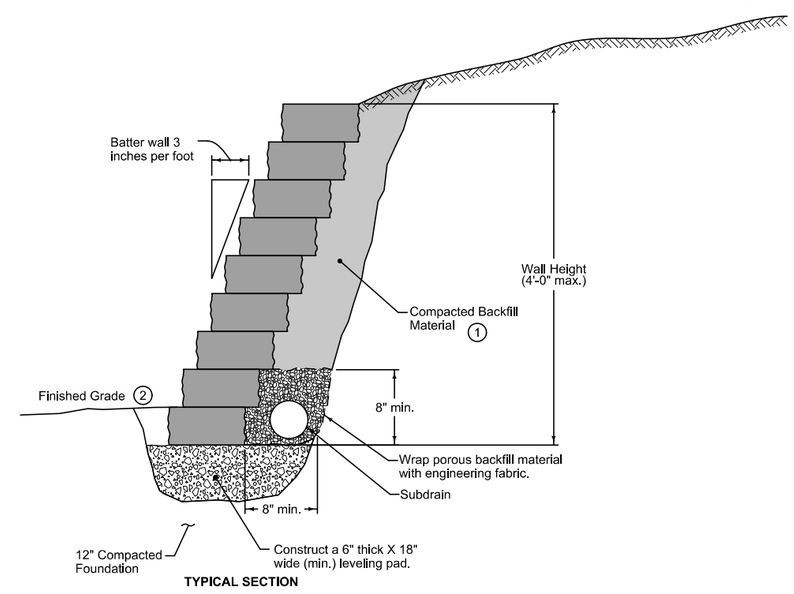
(1) For walls higher than 4 feet, use segmental block retaining wall.

(1) Compact backfill material as wall construction progresses.

(2) Construct entire first course of limestone below finished grade.



TYPICAL SECTION
MODULAR BLOCK RETAINING WALL



TYPICAL SECTION

LIMESTONE RETAINING WALL

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	TYPICAL SECTIONS AND DETAILS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					B.6
JS	-	MAY 18, 2021	.					

9/15/2021

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100-1D
10-18-05

PROJECT DESCRIPTION

This project includes full reconstruction of Scotch Ridge Road in Carlise, Iowa beginning just north of Bellflower Drive and ending at the intersection of Scotch Ridge Road and Iowa Highway 5. The project includes a new roundabout at the intersection of Scotch Ridge Road and the Carlisle Middle School entrance. Includes new sidewalk and storm sewer construction along Scotch Ridge Road and Highway 5. Project also includes new traffic signalization and median reconstruction at the Scotch Ridge Road and Highway 5 intersection.

100-1C
04-17-12

ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

Division 1: Federal Aid SWAP
Division 2: City of Carlisle

Item No.	Item Code	Item	Unit	Quantities										
				Estimated						As Built				
				Division 1	Division 2	Division 3	Division 4	Division 5	Total	Division 1	Division 2	Division 3	Division 4	Division 5
1	2101-0850001	CLEARING AND GRUBBING	ACRE	2.3										
2	2102-2625000	EMBANKMENT-IN-PLACE	CY	3268										
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY	4321										
4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY	2116										
5	2107-0875000	COMPACTION WITH MOISTURE AND DENSITY CONTROL	CY	3268										
6	2115-0100000	MODIFIED SUBBASE	CY	1658										
7	2121-7425010	GRANULAR SHOULDERS, TYPE A	TON	66.5										
8	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA	4.1										
9	2123-7450020	SHOULDER FINISHING, EARTH	STA	3.4										
10	2213-6745500	REMOVAL OF CURB	STA	3.4										
11	2213-7100400	RELOCATION OF MAIL BOXES	EACH	1										
12	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C,	SY	8538.3										
		CLASS 3 DURABILITY, 8 IN.												
13	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C,	SY	225										
		CLASS 3 DURABILITY, 8 IN. COLORED PC CONCRETE - ROUNDABOUT												
14	2301-4875006	MEDIAN, P.C. CONCRETE, 6 IN.	SY	880										
15	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1										
16	2302-1200080	PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 8 IN.	SY	293.6										
17	2302-1200100	PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 10 IN.	SY	428.5										
18	2315-8275055	SURFACING, DRIVEWAY	TON	40										
19	2401-6745830	REMOVAL OF P.C CONCRETE MEDIAN BARRIER	LF	581										
20	2401-6745910	REMOVAL OF SIGN	EACH	16										
21	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	CY	10										
22	2416-0100015	APRONS, CONCRETE, 15 IN. DIA.	EACH	3										
23	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.	EACH	2										
24	2416-0100024	APRONS, CONCRETE, 24 IN. DIA	EACH	2										
25	2416-0102242	APRONS, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 42 IN.	EACH	2										
26	2416-1160015	CULVERT, CONCRETE ENTRANCE PIPE, 15 IN DIA.	LF	28										
27	2416-1180018	CULVERT, CONCRETE ROADWAY PIPE, 18 IN. DIA	LF	18										
28	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF	32										
29	2431-0000100	SEGMENTAL BLOCK RETAINING WALL	SF	900										
30	2435-0140148	MANHOLE, STORM SEWER, SW-401, 48 IN.	EACH	4										
31	2435-0140172	MANHOLE, STORM SEWER, SW-401, 72 IN.	EACH	1										
32	2435-0140196	MANHOLE, STORM SEWER, SW-401, 96 IN.	EACH	1										
33	2435-0250100	INTAKE, SW-501	EACH	1										
34	2435-0250500	INTAKE, SW-505	EACH	8										
35	2435-0250600	INTAKE, SW-506	EACH	5										
36	2435-0250704	INTAKE, SW-507, TOP ONLY	EACH	1										
37	2435-0250900	INTAKE, SW-509	EACH	1										
38	2435-0250910	INTAKE, SW-509 MODIFIED	EACH	1										
39	2435-0251224	INTAKE, SW-512, 24 IN. TYPE 3B CASTING	EACH	1										
40	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH	2										
41	2435-0600120	INTAKE ADJUSTMENT, MAJOR	EACH	2										
42	2502-8212306	SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN	LF	1589.6										
43	2502-8221006	SUBDRAIN RISER, 6 IN., AS PER PLAN	EACH	5										
44	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	11										
45	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP),	LF	621										
		2000D (CLASS III), 15 IN.												
46	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP),	LF	216										
		2000D (CLASS III), 18 IN.												
47	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP),	LF	274										
		2000D (CLASS III), 24 IN.												
48	2503-0114230	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP),	LF	113										
		2000D (CLASS III), 30 IN.												
49	2503-0116342	STORM SEWER GRAVITY MAIN, TRENCHED, 2000D LOW CLEARANCE	LF	204										
		CONCRETE PIPE, EQUIVALENT DIAMETER 42 IN.												
50	2503-0200236	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	355										
51	2503-0200336	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.	LF	89										
52	2510-6745850	REMOVAL OF PAVEMENT	SY	5900										
53	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES	EACH	5										
54	2511-6745900	REMOVAL OF SIDEWALK	SY	122										
55	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.	SY	1587.8	562.9									
56	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY	97.7	45.2									
57	2511-7528101	DETECTABLE WARNINGS	SF	214	110									

ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)

Division 1: Federal Aid SWAP
Division 2: City of Carlisle

Item No.	Item Code	Item	Unit	Quantities										
				Estimated						As Built				
				Division 1	Division 2	Division 3	Division 4	Division 5	Total	Division 1	Division 2	Division 3	Division 4	Division 5
58	2512-1725256	CURB AND GUTTER, P.C. CONCRETE, 2.5 FT.	LF	2507.1	15									
59	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	97										
60	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	91										
61	2524-9100010	OBJECT MARKER, TYPE 1	EACH	2										
62	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	429										
63	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BASE ASSEMBLY	EACH	23										
64	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	231										
65	2524-9325150	INSTALL TYPE A SIGN	EACH	3										
66	2525-0000100	TRAFFIC SIGNALIZATION	LS	1										
67	2526-8285000	CONSTRUCTION SURVEY	LS	0.9	0.1									
68	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	59.81										
69	2527-9263155	PRE-CUT SYMBOLS AND LEGENDS, PREFORMED THERMOPLASTIC MARKING MATERIAL	EACH	42										
70	2528-2518000	SAFETY CLOSURE	EACH	3										
71	2528-8445110	TRAFFIC CONTROL	LS	1										
72	2528-8445113	FLAGGERS	EACH	5										
73	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	56										
74	2533-4980005	MOBILIZATION	LS	0.9	0.1									
75	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS	LS	1										
76	2599-9999005	('EACH' ITEM) CONNECT TO EXISTING PIPE	EACH	1										
77	2599-9999005	('EACH' ITEM) FIRE HYDRANT RELOCATION	EACH	3										
78	2599-9999005	('EACH' ITEM) YARD HYDRANT REMOVAL AND ABANDONMENT	EACH	1										
79	2599-9999010	('LUMP SUM' ITEM) 2 IN. DIA. TRENCHED ELECTRICAL CONDUIT AND HANDHOLE.	LS	-	1									
80	2599-9999010	('LUMP SUM' ITEM) CARLISLE MIDDLE SCHOOL SIGN REMOVAL	LS	1										
81	2601-2634100	MULCHING	ACRE	2.2										
82	2601-2636044	SEEDING AND FERTILIZING (URBAN)	ACRE	2.3										
83	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN)	ACRE	2.3										
84	2602-0000020	SILT FENCE	LF	2023										
85	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	1011.5										
86	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	202.3										
87	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG	EACH	18										
88	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	18										
89	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	18										
90	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1										
91	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1										

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2101-0850001	CLEARING AND GRUBBING
		REFER TO D SHEETS FOR LOCATIONS. TREES AND OTHER VEGETATION
		WITHIN THE EXISTING ROW WILL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
		THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER PRIOR TO ANY CLEARING AND GRUBBING BEYOND THE EXISTING ROW.
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2	2102-2625000	EMBANKMENT-IN-PLACE
3	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW
5	2107-0875000	COMPACTION WITH MOISTURE AND DENSITY CONTROL
		DENSITY WITH MOISTURE AND DENSITY CONTROL IS REQUIRED FOR ALL FILL. VOLUME INCLUDES 4,321 CY OF CUT
		(0% SHRINKAGE) AND 7,589 CY FILL (0% SHRINKAGE).
		NO SEPARATE PAYMENT FOR OVERHAUL WILL BE ALLOWED. REFER TO T SHEETS.
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4	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD
		ITEM INCLUDES STRIPPING AND STOCKPILING A MINIMUM OF 1 FOOT OF TOPSOIL FROM THE EXISTING FORESLOPES,
		AND RE-SPREAD OF TOPSOIL ON ALL DISTURBED AREAS TO A MINIMUM DEPTH OF 4 INCHES. NO OVERHAUL WILL BE
		CONSIDERED FOR TOPSOIL, AND NO TOPSOIL WILL BE REMOVED FROM THE PROJECT. 40% SHRINKAGE ASSUMED FOR TOPSOIL.
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6	2115-0100000	MODIFIED SUBBASE
		REFER TO TAB. 100-24 IN THE C SHEETS AND TO TYPICAL SECTIONS IN THE B SHEETS FOR LOCATIONS AND DETAILS.
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7	2121-7425010	GRANULAR SHOULDERS, TYPE A
		REFER TO B SHEETS AND TAB 112-9 FOR DETAILS AND LOCATION.
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8	2123-7450000	SHOULDER CONSTRUCTION, EARTH
		INCLUDES 4.1 STA. OF 6.0 FT. WIDE GRANULAR SHOULDERS ADJACENT TO NEW HIGHWAY 5 SOUTHBOUND RIGHT TURN LANE.
		REQUIRES 240 CU YD. OF CLASS 10 FOR EARTH SHOULDER FILL.
9	2123-7450020	SHOULDER FINISHING, EARTH
		INCLUDES 3.4 STA OF SHOULDER FINISHING ADJACENT TO NEW CURB ON BLUESTEM DRIVE WEST OF SCOTCH RIDGE ROAD.
		REFER TO B SHEETS AND E SHEETS FOR LOCATIONS AND DETAILS.
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10	2213-6745500	REMOVAL OF CURB

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
		INCLUDES 3.4 STA OF CURB REMOVAL FOR PAVEMENT WIDENING ON BLUESTEM DRIVE WEST OF SCOTCH RIDGE ROAD. REFER
		TO B SHEETS AND E SHEETS FOR LOCATIONS AND DETAILS.
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11	2213-7100400	RELOCATION OF MAIL BOXES
		ITEM IS INCLUDED FOR RELOCATION OF MAILBOX AT STA. 2156+96.05, 17.67' LT TO STA 2156+34.62, 26' RT.
		MEASUREMENT FOR RELOCATION OF MAILBOXES WILL BE BY COUNT OF EACH SATISFACTORILY RELOCATED.
		PAYMENT FOR RELOCATION OF MAILBOXES SHALL INCLUDE ALL MATERIAL, EQUIPMENT, LABOR, AND STORAGE
		NECESSARY FOR REMOVAL AND RELOCATION OF EXISTING MAILBOXES. ANY DAMAGE CAUSED TO MAILBOXES BY THE CONTRACTOR
		DURING CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT EXPENSE OF THE CONTRACTOR.
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12	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 8 IN.
13	2301-1033080	STANDARD OR SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLA SS C, CLASS 3 DURABILITY, 8 IN. COLORED PC CONCRETE
		ROUNDABOUT. REFER TO SPECIAL PROVISION FOR COLORED PC CONCRETE.
		REFER TO B SHEETS FOR TYPICAL SECTIONS AND TABULATION 100-24 IN C SHEETS FOR DETAILS AND LOCATIONS. REFER TO
		L SHEETS FOR JOINTING AND STAKING INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CERTIFIED PLANT
		INSPECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PAVEMENT CORES WILL BE REQUIRED FOR THICKNESS
		INCENTIVE/DISINCENTIVE.
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14	2301-4875006	MEDIAN, P.C. CONCRETE, 6 IN.
		QUANTITY SHALL BE MEASURED BY THE ENGINEER TO THE NEAREST SQUARE YARD. BASIS OF PAYMENT WILL BE CONTRACT
		UNIT PRICE PER SY. PAYMENT IS FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EQUIPMENT, AND LABOR TO
		RECONSTRUCT THE HIGHWAY 5 MEDIAN ACCORDING TO THE CONTRACT DOCUMENTS AND SPLITTER ISLANDS FOR THE ROUNDABOUT.
		THE CONTRACTOR SHALL BE RESPONSIBLE FOR CERTIFIED PLANT INSPECTION IN ACCORDANCE WITH THE STANDARD
		SPECIFICATIONS.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
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15	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES
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16	2302-1200080	PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 8 IN.
17	2302-1200100	PORTLAND CEMENT CONCRETE PAVEMENT WIDENING, 10 IN.
		REFER TO E SHEETS FOR LOCATIONS. 10 IN. WIDENING BID ITEM IS FOR WIDENING FOR SOUTHBOUND TURN LANE ON HIGHWAY 5
		AND 8 IN. WIDENING BID ITEM FOR WIDENING ON BLUESTEM DRIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CERTIFIED
		PLANT INSPECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PAVEMENT CORES WILL BE REQUIRED FOR THICKNESS
		INCENTIVE/DISINCENTIVE.
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18	2315-8275055	SURFACING, DRIVEWAY
		REFER TO SHEET D.1 FOR LOCATION.
		GRANULAR SURFACING SHALL CONSIST OF MINIMUM 6 INCH OF CLASS A CRUSHED STONE. ITEM INCLUDES GRANULAR SURFACING
		FOR TEMPORARY ACCESS DRIVEWAY FROM APPROXIMATE STA. 2154+44.00 TO 2155+69.13 ON THE THOMPSON PROPERTY.
		BID PRICE TO INCLUDE FURNISHING, DELIVERY, AND PLACING. QUANTITIES ARE BASED ON A DENSITY OF 140 PCF.
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19	2401-6745830	REMOVAL OF P.C CONCRETE MEDIAN BARRIER
		REFER TO C SHEETS AND E SHEETS FOR LOCATIONS. BID ITEM IS FOR REMOVAL OF EXISTING CONCRETE MEDIAN BARRIER
		ALONG HIGHWAY 5.
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20	2401-6745910	REMOVAL OF SIGN
		REFER TO C SHEETS FOR LOCATIONS AND DETAILS. MEASUREMENT FOR REMOVAL OF SIGNS WILL BE BY COUNT OF
		EACH REMOVED. THE PAYMENT FOR REMOVAL OF SIGNS IS FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EQUIPMENT, AND
		LABOR; FOR PERFORMANCE OF ALL WORK NECESSARY FOR REMOVAL OF THE SIGN, INCLUDING REMOVAL AND DISPOSAL OF THE
		SUPPORT STRUCTURES AND FOUNDATIONS; AND PLACEMENT OF ANY BACKFILL MATERIAL MADE NECESSARY BY THESE OPERATIONS.
		SIGNS ALONG SCOTCH RIDGE ROAD ARE TO BECOME THE PROPERTY OF AND TO BE DELIVERED TO THE CITY OF CARLISLE.
		SIGNS ALONG HIGHWAY 5 ARE TO BECOME THE PROPERTY OF AND TO BE DELIVERED TO THE IOWA DOT MAINTAINENCE SHOP.
		SEE TAB 110-13 IN B SHEETS FOR DELIVERY INFORMATION.
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21	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT
		REFER TO IOWA DOT STANDARD ROAD PLAN DR-101, TAB 104-3 ON THE C SHEETS AND D AND E SHEETS FOR DETAILS AND
		LOCATIONS. QUANTITY IS BASED ON THE ASSUMPTION THAT AT THE START OF CULVERT CONSTRUCTION, EXISTING GROUND
		SURFACE HAS REMAINED UNDISTURBED AND NO ROADWAY FILL HAS BEEN PLACED.
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22	2416-0100015	APRONS, CONCRETE, 15 IN. DIA.
23	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.
24	2416-0100024	APRONS, CONCRETE, 24 IN. DIA
25	2416-0102242	APRONS, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 42 IN.
26	2416-1160015	CULVERT, CONCRETE ENTRANCE PIPE, 15 IN DIA.
27	2416-1180018	CULVERT, CONCRETE ROADWAY PIPE, 18 IN. DIA
28	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.
		REFER TO TAB 104-3 IN THE C SHEETS AND TAB 104-5B IN THE M SHEETS FOR LOCATION AND DETAILS.
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29	2431-0000100	SEGMENTAL BLOCK RETAINING WALL
		ITEM IS INCLUDED FOR SEGMENTAL BLOCK RETAINING WALL FROM STA. 2162+25.00 LT TO STA 2163+75.00 LT. REFER TO
		V SHEET FOR LOCATION AND DETAILS.
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30	2435-0140148	MANHOLE, STORM SEWER, SW-401, 48 IN.
31	2435-0140172	MANHOLE, STORM SEWER, SW-401, 72 IN.
32	2435-0140196	MANHOLE, STORM SEWER, SW-401, 96 IN.
33	2435-0250100	INTAKE, SW-501
34	2435-0250500	INTAKE, SW-505
35	2435-0250600	INTAKE, SW-506
		REFER TO TAB 104-5B IN THE M SHEETS FOR LOCATION AND DETAILS.
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36	2435-0250704	INTAKE, SW-507, TOP ONLY
		ITEM IS INCLUDED TO REPLACE THE OPEN-THROAT CURB INTAKE TOP AT STA. 168+02.94, 4.67' RT IN THE MEDIAN ON
		IA HIGHWAY 5. REFER TO TAB. 110-15 IN THE C SHEETS FOR REMOVAL LOCATION AND DETAILS. REMOVAL OF THE OPEN-THROAT
		CURB INTAKE TOP IS INCLUDED IN THE REMOVAL OF INTAKES AND UTILITY ACCESSES BID ITEM.
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37	2435-0250900	INTAKE, SW-509
38	2435-0250910	INTAKE, SW-509 MODIFIED
39	2435-0251224	INTAKE, SW-512, 24 IN.
		REFER TO TAB 104-5B IN THE M SHEETS FOR LOCATION AND DETAILS.
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40	2435-0600010	MANHOLE ADJUSTMENT, MINOR
		REFER TO C AND D SHEETS FOR LOCATIONS AND DETAILS.
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41	2435-0600120	INTAKE ADJUSTMENT, MAJOR
		REFER TO C AND D AND M SHEETS FOR LOCATIONS AND DETAILS.
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42	2502-8212306	SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN
43	2502-8221006	SUBDRAIN RISER, 6 IN., AS PER PLAN
44	2502-8221303	SUBDRAIN OUTLET, DR-303
		REFER TO C SHEETS AND M SHEETS FOR LOCATIONS.

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
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45	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.
46	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.
47	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.
48	2503-0114230	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 30 IN.
49	2503-0116342	STORM SEWER GRAVITY MAIN, TRENCHED, 2000D LOW CLEARANCE CONC. RET. PIPE, EQUIVALENT DIAMETER 42 IN.
		REFER TO TAB 104-5B IN THE M SHEETS FOR LOCATION AND DETAILS.
		USE RCP WITH FLEXIBLE O-RING GASKETED JOINTS WHEN STORM SEWER CROSSES OVER WATER MAIN OR IS LESS THAN 18-INCHES
		BELOW WATER MAIN AND SUPPLY. CONNECTION BETWEEN GASKETED JOINTS AND NON-GASKETED RCP JOINTS SHALL BE CONNECTED
		WITH A CONCRETE COLLAR AS NECESSARY. CONCRETE COLLARS SHALL BE CONSIDERED INCIDENTAL.
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50	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.
51	2503-0200136	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.
		REFER TO C SHEETS AND D SHEETS FOR LOCATIONS.
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52	2510-6745850	REMOVAL OF PAVEMENT
		REFER TO THE C SHEETS FOR LOCATIONS OF PAVEMENT REMOVAL AND INFORMATION REGARDING
		EXISTING PAVEMENT.
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53	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES
		REFER TO D SHEETS FOR LOCATIONS.
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54	2511-6745900	REMOVAL OF SIDEWALK
		REFER TO TAB 110-5 IN THE C SHEETS FOR LOCATIONS AND DETAILS.
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55	2511-7526004	SIDEWALK, P.C. CONCRETE, 4 IN.
56	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.
		REFER TO THE S SHEETS AND TO TYPICAL IN B SHEETS FOR LOCATIONS AND DETAILS. SIDEWALK THROUGH
		DRIVEWAYS IS INCLUCED IN BID ITEM DRIVEWAY, P.C CONCRETE, 6 IN. CERTIFIED PLANT INSPECTION SHALL BE
		PROVIDED BY THE CONTRACTOR.
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57	2511-7528101	DETECTABLE WARNINGS
		REFER TO TAB 113-1A IN THE C SHEETS AND S SHEETS FOR LOCATIONS AND DETAILS.
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58	2512-1725256	CURB AND GUTTER, P.C. CONCRETE, 2.5 FT.
		REFER TO TAB 112-4 ON C SHEETS AND D SHEETS FOR LOCATIONS. BID ITEM IS FOR CURB AND GUTTER ADJACENT TO
		SPLITTER ISLANDS AT ROUNDABOUT LOCATIONS.
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59	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.
		REFER TO TAB 102-3 IN THE C SHEETS FOR LOCATIONS AND DETAILS. CERTIFIED PLANT INSPECTION SHALL BE
		PROVIDED BY THE CONTRACTOR.
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60	2515-6745600	REMOVAL OF PAVED DRIVEWAY
		REFER TO TAB 110-8 IN THE C SHEETS FOR LOCATIONS AND DETAILS. EXISTING DRIVEWAY PAVEMENT ASSUMED TO BE 6" THICK.
		IF REMOVAL LIMITS ARE WITHING 2 FEET OF AN EXISTING JOINT, EXTEND REMOVAL TO THAT JOINT. REPLACE PAVEMENT
		DAMAGED BY THE CONTRACTOR BEYOND THE REMOVAL LIMITS AT NO ADDITIONAL COST TO THE OWNER.
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61	2524-9100010	OBJECT MARKER, TYPE 1
		BID ITEM FOR OBJECT MARKERS TO BE PLACED AT RELOCATED MEDIAN NOSE LOCATIONS ON HIGHWAY 5. PAYMENT IS FULL
		COMPENSATION FOR FURNISHING AND INSTALLATION OF OBJECT MARKERS INCLUDING POSTS,FITTINGS AND LABOR NECESSARY TO
		COMPLETE THE INSTALLATION. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR EACH.
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62	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS
63	2524-9276027	PERFORATED SQUARE STEEL TUBE POST ANCHOR, TRIANGULAR SLIP BA SE ASSEMBLY
		REFER TO TAB 190-51 IN THE C SHEETS FOR LOCATIONS AND DETAILS.
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64	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM
		REFER TO TAB 190-66 IN THE C SHEETS FOR LOCATIONS AND DETAILS.
65	2524-9325150	INSTALL TYPE A SIGN
		REFER TO TAB 190-62 IN THE C SHEETS FOR LOCATIONS AND DETAILS.
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66	2525-0000100	TRAFFIC SIGNALIZATION
		REFER TO N SHEETS. BID ITEM INCLUDES REMOVAL OF EXISTING TRAFFIC SIGNALS, TRAFFIC MANHOLES
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67	2526-8285000	CONSTRUCTION SURVEY
		THIS BID ITEM SHALL BE CONSIDERED FULL COMPENSATION FOR ALL CONSTRUCTION STAKING REQUIRED FOR THE PROJECT.
		STAKING SIDEWALK AS DEFINED IN THE S SHEETS IS INCIDENTAL TO CONSTRUCTION SURVEY. THIS STAKING WILL BE DEFINED
		AS VERIFYING SLOPES OF THE FORM WORK BY USING A LEVEL, OR OTHER MEANS, AT THE QUADRANTS
		IDENTIFIED IN THE S SHEETS. THIS SERVES AS AN ADDITIONAL CHECK TO VERIFY SLOPES ARE WITHIN
		TOLERANCES PRIOR TO PLACING CONCRETE. REFER TO G SHEETS FOR BENCHMARK INFORMATION.
--	----------	----------
68	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
		REFER TO TAB 108-22 IN THE C SHEETS FOR LOCATIONS AND DETAILS .
--	----------	----------
69	2527-9263155	PRE-CUT SYMBOLS AND LEGENDS, PREFORMED THERMOPLASTIC MARKING MATERIAL
		REFER TO TAB 108-29 IN THE C SHEETS FOR LOCATIONS AND DETAILS. ALSO REFER TO SPECIAL PROVISIONS SPECIFICATIONS.

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
--	----------	----------
70	2528-2518000	SAFETY CLOSURE
		REFER TO C SHEETS FOR LOCATIONS AND DETAILS.
--	----------	----------
71	2528-8445110	TRAFFIC CONTROL
		REFER TO J SHEETS FOR TRAFFIC CONTROL PLANS.
--	----------	----------
72	2528-8445113	FLAGGERS
--	----------	----------
73	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)
		PLACE PDMS 7 DAYS PRIOR TO EACH STAGE CONSTRUCTION ALONG SCOTCH RIDGE ROAD AND HIGWAY 5, AT BEGIN AND END OF
		PROJECT LIMITS.
--	----------	----------
74	2533-4980005	MOBILIZATION
		- -
--	----------	----------
75	2555-0000010	DELIVER AND STOCKPILE SALVAGED MATERIALS
		REFER TO TAB 110-13 IN THE C SHEETS FOR LOCATIONS AND DETAILS.
--	----------	----------
76	2599-9999005	('EACH' ITEM) CONNECT TO EXISTING PIPE
		REFER TO TAB 104-5B IN THE M SHEETS FOR LOCATIONS AND DETAILS. THIS BID ITEM SHALL INCLUDE ALL MATERIALS AND
		WORK NECESSARY TO CUT EXISTING PIPE, REMOVE EXISTING PIPE OR CONNECTION, AND CONNECT TO EXISTING STORM SEWER
		PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING STORM SEWER ELEVATIONS AND LOCATIONS AT
		TIE-IN LOCATIONS PRIOR TO CONNECTING TO EXISTING PIPE. MEASUREMENT AND PAYMENT SHALL BE BY COUNT OF EACH
		CONNECTION AS SHOWN IN THE PLANS.
--	----------	----------
77	2599-9999005	('EACH' ITEM) FIRE HYDRANT RELOCATION
		REFER TO TAB 104-10 IN THE C SHEETS FOR LOCATIONS AND DETAILS. MEASURMENT FOR FIRE HYDRANT RELOCATION WILL BE BY
		COUNT OF EACH SATISFACTORILY RELOCATED HYDRANT. PAYMENT FOR FIRE HYDRANT RELOCATION SHALL BE FULL COMPENSATION
		FOR ALL MATERIAL, EQUIPMENT, LABOR, AND STORAGE NECESSARY FOR REMOVAL AND RELOCATION OF EXISTING FIRE HYDRANT.
		ANY DAMAGE CAUSED TO FIRE HYDRANTS BY THE CONTRACTOR DURING CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT THE
		EXPENSE OF THE CONTRACTOR.
--	----------	----------
78	2599-9999005	('EACH' ITEM) YARD HYDRANT REMOVAL
		REFER TO D SHEETS FOR LOCATIONS. PAYMENT IS FULL COMPENSATION FOR ADANDONMENT AND REMOVAL OF EXISTING YARD
		HYDRANT.
--	----------	----------
79	2599-9999010	('LUMP SUM' ITEM) 2 IN. DIA. TRENCHED ELECTRICAL CONDUIT AND HANDHOLE.
		REFER TO D SHEETS FOR LOCATION. THIS ITEM IS FOR THE INSTALLATION OF A 2 IN. DIA PVC CONDUIT AND HANDHOLE
		FOR ELECTRICAL LINE (BY OTHERS) FROM STA 22158+77.93 (BLUESTEM), 59.3' RT TO STA 22160+76.69 (BLUESTEM),
		75.5' RT. PAYMENT SHALL BE FULL COMPENSATION FOR CONDUIT, PULL WIRE, HANDHOLE, EQUIPMENT AND LABOR NECESSARY
		FOR INSTALLATION OF CONDUIT, PULL WIRE AND HANDHOLE.
--	----------	----------
80	2599-9999010	('LUMP SUM' ITEM) CARLISLE MIDDLE SCHOOL SIGN REMOVAL
		ITEM IS INCLUDED FOR REMOVAL AND DISPOSAL OFF-SITE OF THE BRICK CARLISLE MIDDLE SCHOOL SIGN AND ASSOCIATED
		LANDSCAPING AND LIGHTING AT AT STA 2156+01.63, 21.73 Lt. PAYMENT FOR REMOVAL OF THE BRICK SIGN SHALL BE BY LUMP
		SUM, AND SHALL INCLUDE ALL MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR REMOVAL OF EXISTING SIGN,
		SIGN FOUNDATION, LIGHT FIXTURES AND LANDSCAPING ITEMS.
--	----------	----------
81	2601-2634100	MULCHING
		PERFORM MULCHING ACCORDING TO THE STANDARD SPECIFICATIONS. ANCHOR MULCH INTO THE
		SOIL USING MULCH ANCHORING EQUIPMENT WITH A MINIMUM OF TWO PASSES.
		ITEM IS INCLUDED FOR AREAS REQUIRING RESHAPING AND SEEDBED PREPARATION. USE MULCH THAT IS CERTIFIED
		NOXIOUS WEED SEED FREE MULCH AS CERTIFIED BY THE IOWA CROP IMPROVEMENT ASSOCIATIO OR ADJACENT STATES
		CROP IMPROVEMENT ASSOCIATIONS.
		MULCH RATE: 1 1/2 TONS OF DRY CEREAL STRAW OR NATIVE GRASS STRAW PER ACRE.
--	----------	----------
82	2601-2636044	SEEDING AND FERTILIZING (URBAN)
		FOR ALL AREAS DESIGNATED BY THE ENGINEER.
		PREPARE SEEDBED, FERTILIZE AND SEED ACCORDING TO THE STANDARD SPECIFICATIONS.
		USE GROUND DRIVEN EQUIPMENT.
--	----------	----------
83	2601-2642120	STABILIZING CROP - SEEDING AND FERTILIZING (URBAN)
		ITEM IS INCLUDED FOR DISTUBED AREAS AS DIRECTED BY THE ENGINEER.
		SEED AND FERTILZE ALL DISTURBED AREAS ACCORDING TO THE STANDARD SPECIFICATIONS.
--	----------	----------
84	2602-0000309	SILT FENCE
		REFER TO TAB 100-17 ON THE C SHEETS. THE TABULATION INCLUDES ESTIMATED LOCATIONS FOR PLACEMENT OF SILT FENCE
		TO ADDRESS EROSION TO BE ENCOUNTERED DURING CONSTRUCTION. VERIFY THE SPECIFIC LOCATIONS WITH THE ENGINEER
		PRIOR TO BEGINNING PLACEMENT. BID ITEM INCLUDES 25% ADDITIONAL QUANTITY FOR FIELD ADJUSTMENTS AND REPLACEMENTS
--	----------	----------
85	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS
		THIS ITEM IS INCLUDED FOR SILT FENCE REMOVAL REQUIRED FOR STAGING REASONS, FOR REPLACEMENT (REPLACEMENT TO BE
		PAID SEPARATELY), OR FOR AREAS THAT HAVE ACHIEVED 705 PERMANENT GROWTH.
--	----------	----------
86	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
		THIS ITEM IN INCLUDED FOR CLEAN-OUT AND REPAIR TO THE SILT FENCE DURING THE PROJECT
--	----------	----------
87	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG
		BASIS OF PAYMENT IS FOR EACH GRATE INTAKE SEDIMENT FILTER BAG INSTALLED. PAYMENT IS FULL COMPENSATION FOR
		FURNISHING EQUIPMENT, LABOR, AND MATERIALS REQUIRED TO INSTALL THE GRATE INTAKE SEDIMENT FILTER BAG.
88	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG
		BASIS OF PAYMENT IS FOR EACH OCCURANCE. PAYMENT IS FULL COMPENSATION FOR CLEAN OUT AND DISPOSAL OF MATERIAL
		WHEN SEDIMENT ACCUMULATION DEPTH REACHES 2 INCHES, AND FOR ANY OTHER REPAIR NEEDED DURING THE PROJECT.
89	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG
		BASIS OF PAYMENT IS FOR EACH. PAYMENT IS FULL COMPENSATION FOR ALL LABOR AND EQUIPMENT REQUIRED FOR REMOVAL.
		REFER TO C SHEETS AND M SHEETS FOR LOCATIONS. PAYMENT FOR GRATE INTAKE
--	----------	----------
90	2602-0010010	MOBILIZATIONS, EROSION CONTROL
91	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL
		- -

INDEX OF TABULATIONS

105-4
10-18-11

STANDARD ROAD PLANS

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

Number	Date	Title
DR-102	04-21-15	Pipe Culvert (Cover and Camber)
DR-104	04-19-16	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-121	10-17-17	Connected Pipe Joints
DR-141	04-18-17	Pipe Bends
DR-201	04-21-20	Concrete Aprons
DR-213	04-21-20	Pipe Apron Guard
DR-303	10-17-17	Subdrains (Longitudinal)
DR-305	04-17-18	Subdrain Outlets (Standard Subdrain, Pressure Release and Special)
DR-626	10-15-19	Pipe Extension - Adding Lanes
EC-201	04-20-21	Silt Fence
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
MI-210	10-20-15	PCC Driveways and Alleys
MI-220	10-20-15	Detectable Warnings and Pedestrian Ramp
PM-110	04-21-20	Line Types
PM-111	04-21-20	Symbols and Legends
PM-120	10-21-14	Stop Lines and Islands
PM-211	10-19-21	Separation in Four-Lane Roadway
PM-521	10-15-19	Two-Lane Roadway with Right Turn Lanes
PM-561	10-15-19	Divided Multi-Lane Roadway with Right Turn Lanes
PV-20	10-21-14	Paved Islands
PV-101	04-21-20	Joints
PV-102	04-21-20	PCC Curb Details
PV-103	04-21-20	Manhole Boxouts in PCC Pavement
PV-104	04-21-20	Ramped Median Nose
PV-105	10-21-14	PCC Pavement Widening
PV-121	04-21-15	Jointing PCC Pavement Widening
SI-101	04-19-16	Locations - Type 'A' Signs
SI-102	04-19-16	Locations - Type 'B' Signs
SI-111	04-19-16	Support Structures - Wood Posts
SI-131	10-18-16	Installation - Type 'A' Signs
SI-132	04-17-18	Installation - Type 'B' Signs
SI-173	04-19-16	Object Markers
SW-101	04-17-18	Trench Bedding and Backfill Zones
SW-102	04-20-21	Rigid Gravity Pipe Trench Bedding
SW-211	04-17-18	Storm Sewer Pipe Connections
SW-401	04-20-21	Circular Storm Sewer Manhole
SW-501	04-21-20	Single Grate Intake
SW-505	04-21-20	Double Grate Intake
SW-506	04-21-20	Double Grate Intake with Manhole
SW-507	04-21-20	Single Open-Throat Curb Intake, Small Box
SW-509	04-21-20	Double Open-Throat Curb Intake, Small Box
SW-512	04-21-20	Circular Area Intake
SW-514	04-17-18	Boxouts for Grate Intakes
SW-546	04-17-18	Single Open-Throat Barrier Intake
SW-602	04-21-20	Castings for Storm Sewer Manholes
SW-603	10-16-18	Castings for Grate Intakes
SW-604	04-21-20	Castings for Area Intakes
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-283	10-15-19	Surveying Operations
TC-402	10-19-21	Work Within 15 ft of Traveled Way
TC-418	04-21-20	Lane Closure on Divided Highway
TS-102	04-21-20	Traffic Signal Pole Foundation
WM-201	04-20-21	Fire Hydrant Assembly

104-10
08-01-08

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
1	2154+32.61, 41.79' LT	Fire Hydrant	Relocate.
2	2154+32.61, 41.79' LT	Water Valve	Replace and relocate.
3	2158+41.73, 42.20' LT	Fire Hydrant	Relocate.
4	2158+42.05, 43.64' LT	Water Valve	Replace and relocate.
5	22159+34.36, 20.39' RT	Sanitary Manhole	Adjust to finished grade.
6	22160+87.26, 21.08' RT	Sanitary Manhole	Adjust to finished grade.
7	2161+97.32, 44.75' LT	Fire Hydrant	Relocate.
8	2161+97.54, 46.12' LT	Water Valve	Replace and relocate.
9	2161+99.67, 47.57' LT	Water Valve	Replace and relocate.
		Totals	
		Valve Box Replacement	**4**
		Fire Hydrant Relocation	**3**
		Manhole Adjustment, Min	**2**

100-17
04-20-10

TABULATION OF SILT FENCES

Refer to EC-201

Location			Length	Remarks
Begin Station	End Station	Side	LF	
2152+39.58	2155+69.50	RT	336.0	SCOTCH RIDGE ROAD
2158+00.00	2161+38.00	LT	338.0	SCOTCH RIDGE ROAD
2160+25.00	2161+65.93	RT	141.0	SCOTCH RIDGE ROAD
2164+00.00	2164+98.28	RT	98.0	SCOTCH RIDGE ROAD
160+00.00	164+05.46	RT	443.0	HWY 5 WIDENING
22158+40.64	22160+98.20	RT	262.0	BLUESTEM WIDENING
	TOTAL		**1618.0**	
	TOTAL + 25%		**2023.0**	

100-37
04-18-17

GRATE INTAKE SEDIMENT FILTER BAG

Possible Detail: 570-7

Location Station	Side	Installation	Maintenance	Removal	Remarks
		EACH	EACH	EACH	
2157+47.05	LT	2	2	2	
2157+47.05	RT	2	2	2	
2158+00.00	LT	2	2	2	
2158+00.00	RT	2	2	2	
2161+05.00	LT	2	2	2	
2161+05.00	RT	2	2	2	
2163+90.82	LT	2	2	2	
2163+90.82	RT	2	2	2	
22160+98.00	RT	2	2	2	BLUESTEM
TOTAL		**18**	**18**	**18**	

102-3
10-16-18

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.
(1) Refer to MI-210
(2) Refer to EW-501.
(3) Refer to EW-501 or EW-502.
*Predetermined for access point not constructed with this project.

Location		Type	Length of Opening (1)			W	PR (1)(2)	SR (2)	Pipe Culvert (3)					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks
Station	Side	A, B, C, Safety Ramp, or Predetermined*	Case	1½" Dropped Curb	3" Dropped Curb				H	Size	Pipe Length	Lt.	Rt.		HMA	PCC		
			1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF	No.	SY	SY	TON	
2153+80.23	LT	C	1						2.0	15.0	28.0	14.8	13.2	2		37.6		
2155+75.64	RT	C	1													59.4		
															TOTAL	96.9		

ENGINEER	DRAWN BY	
MDR	JCH	CARLISLE, IOWA
CHECKED BY	FIELD BOOK NO.	MEC #20615007
BDS	-	DECEMBER 2020

REVISIONS

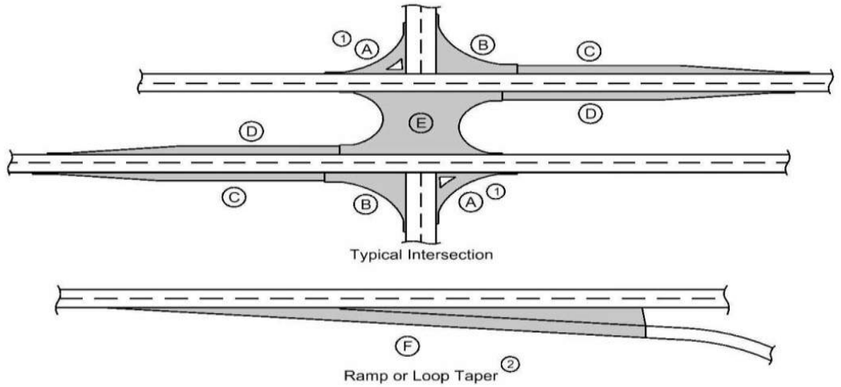
McCLURE™ making lives better
1360 NW 121st Street, Ste
Clive, IA 50325
515-964-1229
fax 515-964-2370

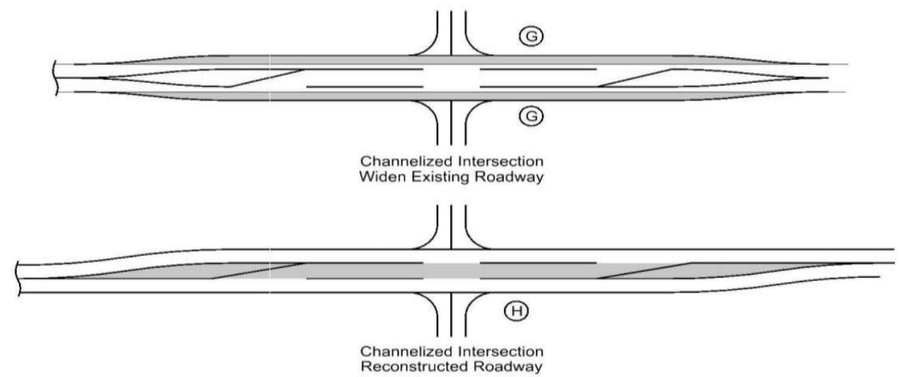
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

ESTIMATE OF QUANTITIES

SHEET NO.
C.5

PCC PAVEMENT





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

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

(3) Quantity includes Pavement Header.

Location				Mainline			Area (3)								Total Area By Pavement Thickness SY		Special Backfill	Modified Subbase	Granular Subbase	Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A (1)	B	C	D	E	F (2)	G	H						
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	8 IN	10 IN	TONS	CY	SY	
Scotch Ridge Rd	BOTH	2152+39.58	2157+00.00	Varies	460.4	2673.6									2673.6			601.4		Includes 1219.2 LF - 6 IN. curb. Includedes 201 LF
																				of 4" curb for roundabout truck apron.
	NB	2157+00.00	2158+73.24	15.5	173.2	300.9									300.9			63.0		Includes 173.2 LF - 6 IN. curb
	NB	2158+73.24	2159+92.50	Varies	119.3	284.4									284.4			51.8		Includes 119.3 LF - 6 IN. curb
	NB	2159+92.50	2161+23.09	27.5	130.6	399.1									399.1			71.4		Includes 130.6 LF - 6 IN. curb
	NB	2161+23.09	2162+68.72	Varies	145.6	445.2									445.2			79.6		Includes 145.6 LF - 6 IN. curb
	NB	2162+68.72	2164+22.44	36.5	153.7	623.4									623.4			79.6		Includes 153.7 LF - 6 IN. curb
	NB	2164+22.44	2164+98.26	Varies	75.8	423.8									423.8			76.0		Includes 75.8 LF - 6 IN. curb
	SB	2157+00.00	2157+45.07	Varies	45.1	482.9									482.9			91.4		Includes 143.5 LF - 6 IN. curb
	SB	2157+45.07	2161+23.09	17.5	378.0	479.5									479.5			91.3		Includes 378.0 LF - 6 IN. curb
	SB	2161+23.09	2162+18.63	Varies	95.5	344.3									344.3			57.4		
	SB	2162+18.63	2163+89.75	36.5	171.1	694.0									694.0			122.0		Includes 171.1 LF - 6 IN curb
Bluestem Drive	EB	22162+04.41	22162+71.57	Varies	67.2	260.0									260.0			48.9		Includes 174.5 LF - 6 IN. curb
Bluestem Drive	WB	22158+40.64	22159+30.64	Varies	90.0	90.1									90.1			18.7		Includes 90.0 LF - 6 IN. curb
Bluestem Drive	WB	22159+30.64	22160+93.78	13.5	163.1	203.5									203.5			39.8		Includes 163.1 LF - 6 IN. curb
Bluestem Drive	WB	22160+93.78	22161+46.58	Varies	52.8	269.9									269.9			49.5		
IA Highway 5	EB	160+00.00	164+06.92	Varies	406.9	424.1										424.1		93.5		IA Highway 5 Pavement Widening
	EB	162+05.80	163+51.81	Varies	146.0	46.8										46.8		7.8		Median Removal Area
	WB	166+95.75	168+50.57	Varies	154.8	51.6										51.6		8.6		Median Removal Area
	MEDIAN	164+50.73	164+91.00	Varies	40.3	19.2										19.2		3.2		Median Nose Removal Area
	MEDIAN	165+54.17	165+92.40	Varies	38.2	18.6										18.6		3.1		Median Nose Removal Area
														Totals:	**8538.3**	**560.2**		**1657.9**		

104-3
10-17-17

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
* Not a bid item
(1) Diameter or equivalent diameter
(2) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
(3) Backfill according to DR-101

Drainage Area	Location	Type	Size (1)	Kind Of Pipe (2)	Length New Const.	Bedding Class	Design Cover (H)	Camber* (DR-102)	Apron No.		Apron Guard* (DR-213)	Elbow* (DR-141)	Diaphragm* (DR-501)	Tee Section* (DR-142)	"D" Section* (DR-141)	Reducer*	Type 'C' Connections* (DR-122)		Connected Pipe Joint* (DR-121)	4" Perforated Subdrain*	Flow Line Elevations				Dimensions Lin. Ft. Total		Dimensions Lin. Ft. Extensions		Skew Ahead Degrees		Dike				Class 20	Flowable Mortar	Floodable* Backfill	Porous* Backfill	Flooded Backfill (3)	Remarks
																															Rt. \ Lt.	Location Station	Top Elevation	Type			(A)	(B)	(A+B)	
ACRE			IN		LF		FT	FT	IN	OUT	No.	No.	No.	No.	No.	No.	Type	No.	Type	FT	Lt.	Rt.	Other	Other	Lt.	Rt.	Lt.	Rt.	Lt.	Rt.					CY	CY	CY	CY	CY	
	2151+85.25		24	RCP	20	C	4.0	0.08	1		1	1							Type 3		883.02	884.10					20.0			24					3.0					PIPE EXT.
	2153+73.83		15	RCP	28	C	3.0	0.08	1	1	2										876.60	877.43																		DRIVEWAY
	162+30.29		18	RCP	8	C	2.0	0.08		1	1								Type 3		862.70	861.49													2.0					HWY 5
	164+25.52		24	RCP	10	C	2.0	0.08		-	1	1							Type 3		856.10	859.42													3.0					HWY 5
	164+29.09		18	RCP	12	C	2.0	0.08		1	1	1							Type 3		856.10	858.22													2.0					HWY 5

104-9
10-17-17

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

* Not a bid item. Bridge berm quantities assume a trench depth of 24 inches.

Location						Longitudinal Subdrain (DR-303)							Subdrain Outlet				
Line No.	Road or Lane Identification	Station to Station		Side	Depth (D)	Shoulder		Backslope		Bridge Berm (EW-203 or EW-204)			DR-303, DR-305 or DR-306		Porous* Backfill	Class "A"* Crushed Stone	Remarks
						Size	Length	Size	Length	Standard Road Plan and Type	Size	Length	Station	Standard Road Plan and Type			
					IN	IN	FT	IN	FT		IN	FT			CY	CY	
SD-1	NBL	2152+47.12	2154+19.36	RT	32.0	6.0	171.2						2152+47.12	DR-303	13.7		
SD-2	NBL	2154+19.36	2155+52.48	RT	32.0	6.0	136.2						2154+19.36	DR-303	10.9		
													2155+52.48	DR-303			
SD-3	SBL	2152+47.00	2154+10.00	LT	32.0	6.0	163.5						2152+47.00	DR-303	13.1		
SD-4	SBL	2154+10.00	2155+48.00	LT	32.0	6.0	189.3						2154+10.00	DR-303	15.2		
													2155+48.00	DR-303			
SD-5	NBL	2155+88.04	2158+00.00	LT	32.0	6.0	249.7						2158+00.00	DR-303	20.0		
SD-6	NBL	2158+00.00	2161+05.00	LT	32.0	6.0	303.5						2158+00.00	DR-303	24.4		
													2161+05.00	DR-303			
SD-7	SBL	2155+95.10	2158+00.00	RT	32.0	6.0	205.2						2158+00.00	DR-303	16.5		
SD-8	NBL	2162+80.00	2163+91.00	LT	32.0	6.0	171.0						2163+90.82	DR-303	13.7		
otals							**1589.6**							**DR-303 = 11**			

106-4
04-16-13

SHOULDERS FOR WIDENING & RESURFACING

*Not a Bid Item

Begin Station	End Station	Side	Length of Shoulder Type in Stations			
			A	B	C	D*
160+00.00	164+06.46	RT	4.10			

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
2151+83	1		Scotch Ridge Road
2155+50	1		School Entrance
2161+15	1		Scotch Ridge Road
TOTALS	**3**		

PAVEMENT MARKING LINE TYPES

See PM-110

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

BCY4: Broken Centerline (Yellow) @ 0.25
DCY4: Double Centerline (Yellow) @ 2.00
NPY4: No Passing Zone Line (Yellow) @ 1.25
BLW4: Broken Lane Line (White) @ 0.25
ELW4: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 1.00
DLW4: Dotted Line (White) @ 0.33
YLW2: Yield Line (White) @ 1.71
CLW6: Crosswalk Line (White) @ 3.00
CHW8: Channelizing Line (White) @ 2.00
SLW2: Stop Line (White) @ 6.00

Location								Length by Line Type (Unfactored)															Remarks
Road ID	Station to Station		Dir. of Travel	Marking Type	Side			BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4	DLW4	YLW2	CLW6	CHW8	SLW2					
					L	C	R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
Scotch																							
Ridge Rd	2152+39.58	2153+05.72	BOTH	Waterborne/Solvent Paint		X				0.66													
	2153+05.72	2155+22.92	NB	Waterborne/Solvent Paint			X						2.17										
	2153+05.72	2155+26.44	SB	Waterborne/Solvent Paint	X								2.21										
	2154+56.06	2155+36.52	NB	Waterborne/Solvent Paint			X					0.80											
	2155+49.02	2155+87.63	BOTH	Waterborne/Solvent Paint		X										0.39							
Roundabout																							
	2155+22.92	2155+52.22	NB	Waterborne/Solvent Paint			X								0.18								
	2155+26.44	2155+22.70	NB	Waterborne/Solvent Paint			X					0.04											
	2155+26.44	2155+70.21	SB	Waterborne/Solvent Paint			X								0.25								
	2155+70.21	2155+87.95	SB	Waterborne/Solvent Paint			X					0.31											
	2155+70.80	2155+78.72	SB	Waterborne/Solvent Paint	X								0.23										
	2155+79.27	2155+87.95	WB	Waterborne/Solvent Paint	X								0.26										
	2155+71.03	2155+87.95	SB	Waterborne/Solvent Paint			X					0.17											
	2156+14.38	2156+21.78	WB	Waterborne/Solvent Paint			X						0.13										
Scotch																							
Ridge Rd																							
	2156+14.38	2156+21.59	NB	Waterborne/Solvent Paint	X								0.51										
	2156+21.78	2156+21.59	SB	Waterborne/Solvent Paint	X								0.50										
	2159+92.30	2161+21.59	NB	Waterborne/Solvent Paint			X										0.13						
	2162+03.31	2162+08.30	BOTH	Waterborne/Solvent Paint		X										0.79							
	2162+18.63	2164+32.26	NB	Waterborne/Solvent Paint			X										2.14						
	2162+18.63	2164+32.26	BOTH	Waterborne/Solvent Paint		X			2.15														
	2162+68.72	2164+32.26	NB	Waterborne/Solvent Paint			X										1.64						
	2163+12.26	2164+32.26	NB	Waterborne/Solvent Paint			X										1.20						
	2164+32.26	2164+32.26	NB	Waterborne/Solvent Paint		X												0.50					
	2165+17.72	2165+79.90	BOTH	Waterborne/Solvent Paint		X			0.62														
	2165+17.72	2165+79.90	NB	Waterborne/Solvent Paint													0.62						
	2165+17.72	2165+79.90	SB	Waterborne/Solvent Paint													0.62						
	2165+17.72	2165+17.72	SB	Waterborne/Solvent Paint														0.26					
Scotch	165+12.10	165+18.11	SB	Waterborne/Solvent Paint		X											0.60						
Ridge Rd &	165+24.13	165+30.46	BOTH	Waterborne/Solvent Paint		X			0.62														
IA HWY 5	165+41.66	165+48.38	NB	Waterborne/Solvent Paint		X											0.64						
	164+98.00	165+24.21	SB	Waterborne/Solvent Paint		X												0.26					
Bluestem	22158+40.64	22161+19.40	BOTH	Waterborne/Solvent Paint		X			2.79														
Dr	22158+40.64	22161+04.03	EB	Waterborne/Solvent Paint		X											2.65						
	22161+19.57	22161+20.68	EB	Waterborne/Solvent Paint		X												0.26					
	22161+79.60	22161+79.60	WB	Waterborne/Solvent Paint		X												0.16					
IA HWY 5	163+51.81	164+50.70	EB	Waterborne/Solvent Paint		X											0.99						
	165+92.40	167+42.30	WB	Waterborne/Solvent Paint		X											1.50						
Pleasant St	158+70.52	158+78.64	BOTH	Waterborne/Solvent Paint		X										0.32							
				Factored Total: Waterborne/Solvent Paint				-	12.36	0.83	-	1.32	6.01	-	0.74	4.49	25.44	8.63	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							**59.81**												

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	JCH	CARLISLE, IOWA		McCLURE™ making lives better	1360 NW 121st Street, Ste Clive, IA 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	ESTIMATE OF QUANTITIES	C.8
CHECKED BY	FIELD BOOK NO.	MEC #20615007						
BDS	-	DECEMBER 2020						

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04-21-15

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location Station	Location Side	STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	EACH	Remarks
Scotch Ridge Rd	2155+02.02	NB	1																							
	2156+28.17	NB	1																							
	2159+98.68	NB	1		1																					
	2161+06.12	NB	1		1																					
	2162+47.22	NB	1		1																					
	2163+21.66	NB	1	1	2																					
	2164+03.00	NB	1	1	2																					
	2155+00.35	SB	1																							
	2156+38.07	SB	1		1																					
	2157+15.18	SB	1	1																	1					
	2162+47.50	SB	1	1	1																					
	2163+21.66	SB	1	1																						
	2164+03.00	SB	1	1																						
Bluestem Dr	22159+26.91	RT			1																					
	22159+25.02	RT				1																				
	22160+00.92	RT			1																					
	22159+98.97	RT				1																				
	22160+74.04	RT			1																					
	22160+73.48	RT				1																				
Scotch Ridge Rd/	165+34.01	LT			1																					
IA Hwy 5	165+51.78	LT		1																						
	165+06.98	LT		1																						
	165+21.12	LT				1																				
IA Hwy 5	162+25.58	RT		1																						
	163+01.90	RT		1																						
	163+76.77	RT		1																						
	Total:		**42**																							

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04-16-13

REMOVAL OF PAVEMENT

0

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area SY	Saw Cut* LF	Remarks
2152+34.05	2154+66.22	BOTH	PCC	563.5	25.0	Scotch Ridge Road - Assumed 8" Thickness
2154+66.22	2156+84.21	BOTH	PCC	1206.7	33.8	Middle School Entrance Return - Assumed 8" Thickness
2156+84.21	2160+00.08	BOTH	PCC	772.7		Scotch Ridge Road - Assumed 8" Thickness
2160+00.08	2163+39.26	BOTH	PCC	905.4		Scotch Ridge Road - Assumed 8" Thickness
2163+39.26	2164+82.17	BOTH	PCC	955.8	167.8	Scotch Ridge Road - Assumed 8" Thickness
2160+59.74	2162+87.89	BOTH	PCC	413.6	33.5	East Bluestem Drive Return - Assumed 8" Thickness
2160+84.33	2162+77.79	BOTH	PCC	488.5	31.0	West Bluestem Drive Return - Assumed 8" Thickness
22158+40.64	22161+22.22	RT	PCC	75.1	285.1	Bluestem Drive Curb and Gutter - Assumed 8" Thickness
162+05.80	164+91.00	MEDIAN	PCC	243.7	587.8	IA Highway 5 Median - Assumed 6" Thickness
165+54.17	168+50.57	MEDIAN	PCC	274.8	611.5	IA Highway 5 Median - Assumed 6" Thickness
			Totals:	**5900.0**	**1776.0**	

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10-20-15

SIDEWALK REMOVAL

* Not a bid item

Begin Station	End Station	Area SY	Saw Cut* LF	Remarks
2155+75.75	2155+90.25	64.5	9.9	4 IN. DEPTH
2161+94.83	2162+09.85	28.2	5.1	4 IN. DEPTH
2161+94.97	2162+13.52	29.2	5.0	4 IN. DEPTH
	Total:	**122.0**	**20.0**	

110-08
04-17-18

REMOVAL OF CONCRETE DRIVES

* Not a Bid Item

Location Station	Location Side	Area SY	Saw Cut* LF	Remarks
2155+78.50	RT	90.6	12.1	ASSUMED 6 IN. DEPTH

POLLUTION PREVENTION PLAN

This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).

This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.

B. Contractor:
1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.

C. Subcontractors:
1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Implement good housekeeping practices according to Paragraph III, C, 2.

D. RCE/Project Engineer:
1. Is Project Storm Water Manager.
2. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
3. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
4. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
5. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
6. Is familiar with the Project PPP and storm water site map.
7. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
8. Is signature authority on Notice of Discontinuation.
9. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
10. Makes information to determine permit compliance available to the DNR upon their request.

E. Inspector:
1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
2. Makes information to determine permit compliance available to the DNR upon their request.
3. Conducts joint required inspections of the site with the contractor/subcontractor.
4. Completes an inspection report after each inspection.
5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a PCC Pavement Grade and Replace in the City of Carlisle, Iowa.

B. This PPP covers approximately 3.64 acres with an estimated 2.1 acres being disturbed. The portion of the PPP covered by this contract has 2.1 acres disturbed.

C. The PPP is located in an area of one soil association, Sharpsburgh-Shelby-Adair. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.57.

D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage Patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – Construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Tabulations in C sheets.

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POLLUTION PREVENTION PLAN

5. Locations of Non-structural Controls – Tabulations in C sheets.
6. Locations of Stabilization Practices – Generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Project Location Map and Plan and Profile sheets.
8. Locations where Storm Water is Discharged – Plan and Profile sheets.

E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.

F. Runoff from this work will flow into existing Highway 5 roadway ditches to Middle River.

III. CONTROLS

A. The Contractor's ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
a) Permanently ceased on any portion of the site, or
b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets.
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets. Additional information may be found in Tabulations in the C or T sheets or is referenced in Section 2105 of Standard Specifications.

b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found in the B sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C sheets.

c. Storm Water Management
Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C sheets. The installation of these devices may be subject to Section 404 of the Clean Water Act.

2. OTHER CONTROLS
Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive applicable laws, rules or regulations shall apply.

a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
g. Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or

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POLLUTION PREVENTION PLAN

storm water would result in a discharge of pollutants.

j. Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES
The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS
A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site inspection reports in the amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES
This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION
Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS
A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - Base PPP amended during construcion. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
C. Fieldbook Entries – This contains the inspector's daily diary and bid item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Printed or Typed Name

Signature

Printed or Typed Name

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04-20-10

DELIVERY AND STOCKPILING

Item Description	Quantity	Units	Delivery Location	Contact Name & Number	Remarks
Type A Sign, Sheet Aluminum			Carlisle Public Works	Tommy Thompson	See Tab. 190-62 for quantity.
Signal Cabinets, Poles, Arms			195 N 1st Street	(515) 989-4012	
			Carlisle, IA 50047		
Signs removed along Highway 5			Carlisle Maintenance		Signs removed and not
			Garage		replaced
			5020 SE 64th Ave.#9511		
			Carlisle, IA 50047		

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REMOVAL OF INTAKES AND UTILITY ACCESSES

No.	Location/Description	Type	Remarks
1	Sta. 2155+80.06, 47.97' LT, Single Curb Intake	Intakes	Scotch Ridge Road
2	Sta. 22159+61.95, 15.24' RT, Single Curb Intake	Intakes	Bluestem Dr
3	Sta. 22160+87.00, 15.42' RT, Double Curb Intake	Intakes	Bluestem Dr
4	Sta. 162+35.38, 4.73' RT, Open Throat Intake	Intakes	IA Highway 5
5	Sta. 168+02.94, 4.67' RT, Open Throat Intake, Top Only	Intakes	IA Highway 5
	Total:	**5**	

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04-16-13

SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL

* Not a bid item

Location/Description	Sanitary or Storm Sewer	Abandonment, Plug Only or Abandonment, Plug and Fill or Removal	Length of Pipe ≤ 36 inch diameter (LF)	Length of Pipe > 36 inch diameter (LF)	Fill Material* Flowable Mortar or CLSM (CY)	Remarks
STA. 2152+09.24, 46.7' RT	Storm Sewer	Removal	28			Scotch Ridge Road
STA. 2153+75.39, 31.1' LT	Storm Sewer	Removal	35			Scotch Ridge Road
STA. 2160+64.31, 65.6' LT	Storm Sewer	Removal	31			Scotch Ridge Road
STA. 2161+91.11, 34.8' LT	Storm Sewer	Removal	120			Scotch Ridge Road
STA. 2161+91.11, 34.8' RT	Storm Sewer	Removal	87			Scotch Ridge Road
STA. 2163+84.48, 49.6' RT	Storm Sewer	Removal	54			Scotch Ridge Road
STA. 2164+24.71, 2.2' RT	Storm Sewer	Removal		89		
		TOTALS	**355**	**89**		

112-4
10-21-14

CURBS AND RAISED ISLANDS

Refer to , , and Detail Series.

(1) Item

Point No.	Station	Offset	Island Interior Area (1) (SY)	Curb and Gutter: Curb Type	Curb and Gutter: Gutter Width (FT)	Curb and Gutter: Length (1) (LF)	Remarks
1	2154+31.76	19.44' LT	110.6	6" Standard PCC	2.5	211.3	2' RADIUS POINT
2	2155+17.74	41.44' LT		6" Standard PCC	2.5		3' RADIUS POINT
3	2155+19.70	20.77' LT		6" Standard PCC	2.5		1' RADIUS POINT
4	2155+72.87	79.43' LT	16.2	6" Standard PCC	2.5	49.7	1' RADIUS POINT
5	2155+79.22	93.72' LT		6" Standard PCC	2.5		
6	2155+82.27	81.96' LT		6" Standard PCC	2.5		
7	2156+15.83	58.72' LT	81.3	6" Standard PCC	2.5	195.7	1' RADIUS POINT
8	2156+99.63	28.08' LT		6" Standard PCC	2.5		2.5' RADIUS POINT
9	2161+21.59	5.96' LT		6" Standard PCC	2.5		MEDIAN NOSE
10	2156+20.37	.99'LT	135.4	6" Standard PCC	2.5	1036.0	3' RADIUS POINT
11	2156+24.00	21.02 LT		6" Standard PCC	2.5		1' RADIUS POINT
12	2161+21.59	6.0' LT		6" Standard PCC	2.5		1.5' RADIUS POINT
13	2158+73.24	Varies	162.4	6" Standard PCC	2.5		
14	162+05.80	5.23' LT	177.0	6" Sloped PCC	2.5	493.1	HIGHWAY 5 MEDIAN
15	165+90.08	4.85' RT	197.1	6" Sloped PCC	2.5	521.3	HIGHWAY 5 MEDIAN
		TOTALS	**880.0**			**2507.1**	

112-5
10-20-15

CONCRETE MEDIANS

* Bid item

Begin Station	End Station	Type	Area* (SY)	Modified Subbase (CY)	Special Backfill (CY)	Remarks
2154+29.80	2155+20.69	6 inch	110.6	49.1		Scotch Ridge Road, Roundabout Median
2155+17.74	2155+85.10	6 inch	16.2	7.2		Scotch Ridge Road, Roundabout Median
2156+15.24	2157+02.09	6 inch	81.3	36.1		Scotch Ridge Road, Roundabout Median
2156+17.50	2157+00.00	6 inch	135.4	60.1		Scotch Ridge Road, Roundabout Median
2158+73.24	2161+23.09	6 inch	162.4	72.1		Scotch Ridge Road, Center Median
162+05.80	164+52.99	6 inch	177.0	78.6		IA Highway 5 Median, Incl. 494 LF of 6" sloped C&G
165+90.08	168+50.57	6 inch	197.1	87.6		IA Highway 5 Median, Incl. 521 LF of 6" sloped C&G
		TOTALS	**880.0**	**391.0**		

232-3B
10-19-21

EROSION CONTROL (URBAN SEEDING)

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

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

Place seed and fertilize according to the requirements of Article 2601.03,C,4 and Section 4169 of the Standard Specifications.

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

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

232-11
10-19-21

EROSION CONTROL (STABILIZING CROP SEEDING)

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

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

Place seed and fertilize according to the requirements of Article 2601.03,C,1 and Section 4169 of the Standard Specifications.

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

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

262-6
10-18-05

UTILITIES (NOT A POINT 25 PROJECT)

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

290-01
04-15-14

SIDEWALK CONSTRAINTS

1. Widths:
   Widths listed in the S sheets are minimums.

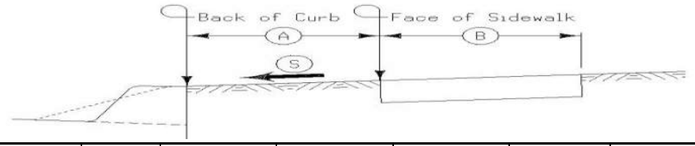
2. Cross Slopes:
   Construct all sidewalks, curb ramps, and landings/turning spaces at a target cross slope of 1.5%. Cross slopes exceeding 2.0% will not be allowed, except for areas tying into existing pavement. In these areas, transition from existing pavement cross slope to a cross slope of less than 2.0% within one panel at a rate not to exceed 1.0% per foot.

3. Longitudinal Slopes:
   a. Sidewalk:
      i. Roadway slope exceeds 5.0%: Sidewalk longitudinal slope exceeding the roadway slope by more than 2.0% will not be allowed.
      ii. Roadway slope 5.0% or less: Sidewalk longitudinal slope exceeding 5.0% will not be allowed.
   b. Ramps:
      i. Ramps 15.0’ in length or less: Longitudinal slope exceeding 8.3% will not be allowed.
      ii. Ramps greater than 15.0’ in length: Construct with the longitudinal slope necessary to conform to the design.

4. Landing/Turning Spaces:
   Longitudinal slopes exceeding 2.0% will not be allowed.

SIDEWALKS

See MI-220 and S Sheets



Road Identification	Station	to Station	Side	A	B	S	4" PCC Sidewalk	6" PCC Sidewalk	8" PCC Sidewalk	10" PCC Sidewalk	Detectable Warnings	Remarks
				FT	FT	%	SY	SY	SY	SY	SF	
Scotch Ridge Road	2151+72.45	2151+83.57	RT		Varies			2.9			10	Ramp
Division 1	2151+83.57	2151+88.57	RT		5.00		2.8					Landing
	2151+88.57	2155+61.87	RT		5.00		207.4					
	2155+85.34	2156+38.91	RT		5.00		31.0					
	2156+38.91	2156+43.91	RT		5.00		2.8					Landing
	2156+38.91	2156+43.91	RT		5.00			3.9			10	Ramp
	2156+73.91	2161+58.42	RT		5.00		297.2					
	2161+58.42	2161+64.45	RT		5.00			4.0			10	Ramp
	2161+95.43	2162+03.40	RT		5.00			5.3			10	Ramp
	2162+03.40	2162+08.40	RT		5.00		2.8					
	2162+03.40	2162+08.40	RT		5.00		2.8					Landing
	2162+03.30	2162+08.30	RT		5.00		7.7					
	2162+03.30	2162+08.30	RT		5.00		2.8					Landing
	2162+03.30	2162+08.30	RT		Varies			2.8			10	Ramp
	2154+09.56	2155+40.11	LT		Varies		137.1					Tie to existing shared use path
	2155+40.11	2155+53.24	LT		10.00			13.9			10	Ramp
	2155+85.16	2155+96.99	LT		Varies			14.7			30	Ramp
	2155+95.94	2156+59.03	LT		10.00		108.2					
	2156+59.03	2156+65.85	LT		10.00		5.6					Landing
	2156+59.03	2156+65.85	LT		5.00			6.6			10	Ramp
	2156+47.57	2156+55.46	MEDIAN		5.00			4.0			20	Median Crossing
	2156+38.91	2156+46.39	MEDIAN		5.00			9.8			20	Median Crossing
	2156+65.85	2161+35.06	LT	10.00	10.00		526.4					
	2161+35.05	2161+44.14	LT		Varies			6.7			20	Ramp
	2161+95.51	2162+09.19	LT		Varies			8.5			30	Ramp
	2162+01.70	2162+06.57	LT		10.00		5.6					Landing
	2161+94.97	2162+04.28	LT		5.00		10.8					Ramp
	2162+06.57	2162+25.00	LT		10.00		22.0					Ramp
	2162+25.00	2163+95.86	LT		10.00		189.8					
	2163+95.86	2164+08.50	LT		10.00		14.0					
	2164+08.50	2164+18.50	LT		10.00		11.1					Landing
	2164+18.50	2164+37.36	LT		Varies			14.7			24	Ramp
						Totals:	**1587.8**	**97.7**			**214**	
IA Highway 5 Frontage Road	164+56.09	164+66.16	LT		Varies			13.2			20	Ramp
Division 2	164+56.10	164+66.18	LT		10.00		11.1					Landing
	164+56.10	164+66.21	LT		Varies		8.3					
	163+98.49	164+63.69	LT		5.00		54.1					
	163+93.40	163+98.49	LT		5.00		2.8					Landing
	163+93.25	163+98.35	LT		Varies			5.5			10	Ramp
	158+73.76	163+93.40	LT		5.00		386.7					
	158+73.76	158+79.02	LT		5.00		2.8					Landing
	158+73.47	158+78.73	LT		Varies			2.7			10	Ramp
	158+70.45	158+75.72	LT		Varies			5.4			10	Ramp
	158+69.75	158+75.05	LT		5.00		2.8					Landing
	163+92.31	163+97.45	LT		Varies			5.1			10	Ramp
	163+92.09	163+97.23	LT		5.00		2.8					Landing
	163+97.23	164+24.02	LT		5.00		14.5					
	164+24.02	164+29.15	LT		5.00		2.8					Landing
	164+29.15	164+31.21	LT		Varies			2.0			10	Ramp
	164+98.31	165+05.50	LT		Varies			4.6			10	Ramp
	165+05.50	165+10.64	LT		5.00		2.8					Landing
	165+10.64	165+69.89	LT		5.00		32.0					
	165+69.89	165+75.03	LT		5.00		2.8					Landing
	165+75.03	165+80.52	LT		Varies			2.2			10	Ramp
	166+27.82	166+33.77	LT		Varies			2.3			10	Ramp
	166+33.77	166+38.91	LT		5.00		2.8					Landing
	166+38.91	166+93.40	LT		5.00		31.2					
	166+93.40	166+98.55	LT		5.00		2.8					Landing
	166+98.55	167+03.79	LT		Varies			2.1			10	Ramp
						Totals:	**562.9**	**45.2**			**110**	

MATERIALS FOR TYPE 'A' SIGNS

TYPE A SIGNING TYPICALS	SIGN NUMBER	DIR OF TRAVEL	SIGN LOCATION	WOOD POSTS			PERFORATED SQUARE STEEL TUBE						Steel Rect. Tube			TYPE A SIGN MOUNTING BRACKETS						INSTALLATION			REMARKS
				NO. OF POSTS	4 x 6								NO. OF POSTS	POST LENGTH	ANCHORS	ONE POST BRACKET	TWO POST	AUXILIARY	(H)	(F)	(F1)	TYPE	DIM 'X' FT	SEE SIGNING NOTES	
			STATION		LEG 1	LEG 2	LEG 1	LEG 2	LEG 3	ANCHOR															
					FT	FT	FT	FT	FT	CONC	SOIL	SLIPBASE		FT	EACH										
W2-6	ROUNDABOUT	SB	2152+53				13					1													
W13-1	ADVISORY SPEED	SB																							
R6-4	CHEVRON	SB	2155+59				13					1													
R6-4	CHEVRON	NB	2155+64				13					1													
R6-4	CHEVRON	WB	2155+80				13					1													
R6-4	CHEVRON	NB	2155+85				13					1													
R1-2	YIELD	SB	2155+12				13					1													
R1-2	YIELD	SB	2155+16				13					1													
R1-2	YIELD	SB	2155+46				13					1													
R1-2	YIELD	SB	2155+76				13					1													
R1-2	YIELD	NB	2156+25				13					1													
R1-2	YIELD	NB	2156+32				13					1													
S1-1	SCHOOL XING	SB	2156+68																						
W16-7pL	LEFT DIAG. ARR	SB																							
S1-1	SCHOOL XING	NB	2156+34				13					1													
	ADOPT A HIGHWA	SB	2160+18																						REUSE SIGN
W16-7pL	LEFT DIAG. ARR	NB																							
W2-6	ROUNDABOUT	SB	2160+49				13					1													
W13-1	ADVISORY SPEED	SB																							
M1-6	ROUTE G16	SB	2160+78				13					1													REUSE SIGN
R1-1	STOP	EB	22161+80				13					1													BLUESTEM DR.
R2-1	SPEED LIMIT 25	SB	2163+06				13					1													
	CITY SNOW ORDI	NB	2163+25				13					1													REUSE SIGN
R6-1R	ONE-WAY	NB	2164.32				13					1													
S5-1	SPEED LIMIT 30	EB	162+15				13					1													HIGHWAY 5
D10-2	MILE MARKER 89	EB	163+57				13					1													HIGHWAY 5
OM1-2	OBJECT MARKER	WB	164+50				13					1													HIGHWAY 5
OM1-2	OBJECT MARKER	EB	165+92				13					1													HIGHWAY 5
	STREET SIGN	NB	158+77				13					1													CORNER OF
	NO PARKING SIG	DETOUR					130					0													FRONTAGE ROAD
							429					**23**													**AND PLEASANT**
																									REUSE SIGN

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) Bid Item
(3) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(4) Does not include shrink.

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

Location					Quantities																			
Road Identification	(1) Direction Of Traffic	Station to Station		Side	(P) Width	(G) Width	(L) Length	Class 13 Excavation (3)	Hot Mix Asphalt		Binder	Paved Shoulder	Reinforced Paved Shoulder	Special Backfill				Modified Subbase	Granular Shoulder		Earth Shoulder Construction Alternates			Remarks
														HMA Alternate		PCC Alternate								
					FT	FT	FT	CY (2)	TON	TON/STA	TONS	SY (2)	SY (2)	TON (2)	TON/STA	TON (2)	TON/STA	CY (2)	TON (2)	TON/STA	STA (2)	HMA CY (4)	PCC CY (4)	
HIGHWAY 5	SB	160+00.00	161+80.00	RT		0 to 6	180.0												18.900	10.500	1.8			
HIGHWAY 5	SB	161+80.00	164+06.46	RT		6.0	226.5												47.557	21.000	2.3			

190-62
10-15-13

EXISTING SIGNS TO BE REMOVED

SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	TYPE 'A' SIGN ASSEMBLY (RA) EACH	TYPE 'B' SIGN ASSEMBLY (RB) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'A' (RR) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'B' (RR) EACH	CONCRETE FOUNDATION (RF) EACH	SUPPORT STRUCTURE & FOUNDATION (RS) EACH	APPLICABLE SIGNING NOTES	REMARKS
STOP	2155+48.71	EB	1							Middle School Ent.
STOP LIGHT AHEAD	2158+75.00	NB	1							Scotch Ridge Rd
STOP LIGHT AHEAD	2158+75.03	SB	1							Scotch Ridge Rd
ADOPT A HIGHWAY/CMS	2160+18.20	SB			1					Scotch Ridge Rd
ROUTE G16	2160+78.01	SB	1							Scotch Ridge Rd
STOP	22161+79.60	EB	1							Bluestem Dr
SPEED LIMIT 25	2163+05.70	SB	1							Scotch Ridge Rd
CITY SNOW ORDINANCE	2163+25.81	NB			1					Scotch Ridge Rd
NO PASSING ZONE	2163+41.91	NB	1							Scotch Ridge Rd
OBJECT MARKER	2164+57.37	NB	1							Scotch Ridge Rd
ONE-WAY	2164+69.93	NB	1							Scotch Ridge Rd
SPEED LIMIT 30	162+15.23	EB	1							IA Highway 5
MILE MARKER 89	163+56.87	EB	1							IA Highway 5
OBJECT MARKER	164+88.16	WB	1							IA Highway 5
OBJECT MARKER	165+59.71	EB	1							IA Highway 5
STREET SIGN	158+77.28	BOTH			1					Pleasant St/Market St

190-66
10-21-14

SUMMARY OF TYPE 'A' SIGNS

Sign Number	Quantity EACH	Size IN	Total Sign Area SF
R2-1	2	24 X 30	10.0
M1-6	1	24 X 24	4.0
R1-1	1	30 X 30	6.3
S4-3	1	24 X 8	1.3
R6-1R	1	36 X 12	3.0
S5-1	1	24 X 48	8.0
D10-2	1	12 X 36	3.0
OM1-2	2	18 X 18	4.5
W2-6	2	36 X 36	18.0
W13-1	2	18 X 18	4.5
R1-2	6	48 X 48 X 48	96.0
R6-4	4	30 X 24	20.0
W11-2	2	36 X 36	18.0
W16-7pL	2	24 X 12	4.0
NO PARKING ANY TIME	10	18 X 24	30.0
		TOTALS	**230.6**

SIGNING NOTES

The following tolerances will be allowed on all signs:

Accumulation error of not greater than +/-0.50" per line of copy, not greater than +/-0.50" for spacing between lines of copy, and the margin between lines of copy and the inside edge of the sign border.

The following tolerances will be allowed on each letter or numeral:

nominal height	variation in height	variation in width
4" thru 12"	-1/8" to +3/8"	-1/4" to +1/4"
over 12"	-1/8" to +3/8"	-3/8" to +3/8"

Type B signs can be separated into two categories:
- Major Guide Signs.
- Minor Guide Signs.

Major Guide Signs include the advance and exit direction guide signs for an interchange or intersection.

Minor Guide Signs include all other guide signs such as NEXT EXIT signs, supplemental guide signs, logo signs, exit gore signs, post-interchange mileage signs, ramp destination signs, and ramp logo signs for an interchange, as well as destination signs along sideroads.

Type A signs are not separated into categories, but special consideration should be given to regulatory signs.

Do not remove Type B signs until replacement signs have been installed. If construction activities require the removal of a sign, the existing sign may be relocated to temporary posts, or a temporary plywood sign may be installed to replace the existing sign.

Existing non-regulatory Type A signs are NOT required to remain in place until installation of replacement signs. Existing regulatory Type A signs, particularly Stop signs, should not be removed until replacement signs are installed. This guideline may not apply if the traffic control plans have sufficient temporary signing.

Apply the following during the replacement or modification of signs:
- No more than one of the major guide signs for each direction of travel at an interchange out of service at any one time.
- No major guide sign out of service for more than 8 hours.
- No minor guide out of service for more than 24 hours.

Remove existing signs and posts within 24 hours following the installation of a new replacement sign.

In any case where the plans call for a new sign and posts to be installed at the same station location and offset as an existing sign, install the new posts at a minimum of either 5 ft ahead or behind the existing sign installation. Whenever posts for a replacement sign are erected directly in front of an existing sign, install the new replacement sign and remove the existing sign installation within 24 hours of the time that the new posts are erected.

Where signs are located behind guardrail, locate the near edge of the sign a minimum of 3 ft behind the guardrail posts. The Engineer may approve reducing this distance to a minimum of 1 ft where field conditions warrant.

Unless noted otherwise, leave auxiliary panels, such as exit number panels, in place or reattach to the sign using the existing mounting hardware. Also, when replacing an existing logo sign with a new logo sign, remove the business logo panel(s) from the existing sign and attach to the new sign as directed by the Engineer. Do not damage the auxiliary or logo panels when removing and reattaching them. This work is incidental to other work and no separate payment will be made.

259-1
10-15-13

SIGNING NOTES

The following notes apply to the corresponding sign installations shown on the plan sheets and listed in the tabulations.

IB INSTALL NEW TYPE B SIGN
IA INSTALL NEW TYPE A SIGN

Install new signs at the location identified in the plans.

For installation of new signs on existing posts:

- if the new sign is taller than the existing sign, furnish the necessary hardware to extend the sign above the posts. Refer to Standard Road Plan SI-132.

- if the new sign is shorter that the existing sign:

  - for wood posts and perforated square tube posts, install the sign at the proper height and cut off the excess post length.

  - for steel posts, install the sign at the top of the posts.

For installation of new signs on an existing sign support structure, refer to note (L).

Payment for installing Type A signs or Type B signs includes furnishing hardware for mounting, extending signs above existing posts, and cutting off wood posts.

MS MODIFY EXISTING SIGN

Modify the copy on the existing sign as shown in the plans.

Deliver existing copy which is removed to a DOT storage area within 50 mi, as designated by the Engineer.

Install the new copy as needed to make sign modifications.

Payment for Modification of Existing Sign includes removal of existing copy and installation of new copy.

MB INSTALL SPECIAL MOUNTING BRACKET

Install special mounting brackets at the locations identified in the plans. Refer to Tabulations 190-10, 190-51, and/or 190-65.

PW INSTALL NEW WOOD POSTS
PB INSTALL NEW BREAKAWAY STEEL POSTS AND FOOTING
PP INSTALL NEW PERFORATED SQUARE TUBE POSTS AND ANCHORS

Install new wood posts, breakaway steel posts and footings, or perforated square tube posts and anchors at the locations indicated in the plans. Refer to Tabulations 190-51 and 190-50 for post size and footing information.

If note (RR) accompanies (PW), (PB), or (PP), install an existing sign on the new posts.

RR REMOVE AND REINSTALL SIGN:

Do not remove existing major Type B guide signs on posts until the new posts are installed. Promptly remove sign and install at the new location.

Existing major Type B guide signs on overhead support structures, minor Type B guide signs, plywood signs, and Type A signs may be removed and stored. Transport the signs to a DOT storage area within 50 mi, as designated by the Engineer. Transport the signs back to the job site when ready for installation at the new location.

Replace signs damaged by the Contractor's activities at no additional cost to the Contracting Authority.

259-1
10-15-13

SIGNING NOTES

Payment for Remove and Reinstall Sign includes sign removal, delivery to the DOT storage area (if applicable), and reinstallation.

RA REMOVE TYPE A SIGN ASSEMBLY
RB REMOVE TYPE B SIGN ASSEMBLY

Type A Sign Assembly consists of one or more signs installed on one or more wood posts, either directly mounted to the post or mounted to the post with special sign mounting brackets.

Type B Sign Assembly consists of the main sign, all auxiliary signs and brackets, and the wood or steel posts.

Unless stated otherwise in the plans, remove all posts with the signs and brackets.

Remove each sign assembly identified in the plans. Sign posts removed become the property of the Contractor. All other materials removed remain the property of the DOT.

Disassemble each sign assembly removed before delivering to the DOT. For Type A sign assemblies, unbolt all signs, special mounting brackets, and posts from each other. For Type B assemblies, unbolt all extruded aluminum panels, brackets, and posts from each other. Do not damage the disassembled materials.

Place backfill in holes remaining from the removal of wood posts and restore to the normal surrounding conditions.

Deliver the removed signs, special sign mounting brackets, and extruded aluminum panels to a DOT storage area within 50 mi, as designated by the Engineer.

The concrete footings for steel posts are not considered part of the sign assembly. Refer to note RF for concrete footing removal.

Payment for Removal of Type A Sign Assembly or Removal of Type B Sign Assembly includes sign assembly removal and disassembly, post removal (if applicable), delivery to the DOT storage area, placing backfill in holes, and restoration of the surrounding conditions.

RF REMOVE EXISTING CONCRETE FOOTING FOR STEEL POST

Remove existing concrete footings to a depth of 1 ft below ground. Place backfill in holes remaining from removal and restore to the normal surrounding conditions. This work is incidental to other work and no separate payment will be made.

RS REMOVE EXISTING TYPE B SIGN SUPPORT STRUCTURE

The following are considered Type B Sign Support Structures:
- Overhead sign truss and foundation,
- Cantilevered sign truss and foundation, or
- Bridge mounted brackets.

For removal purposes, wood and steel post are not considered Type B Support Structures.

Unless stated otherwise in the plans, existing overhead trusses, cantilevered trusses, and bridge brackets which are removed become the property of the Contractor. If stated in the plans, deliver overhead trusses, cantilevered trusses, and bridge brackets to a DOT storage area within 50 mi, as designated by the Engineer.

Payment for Removal of Sign Support Structure and Foundation includes sign support structure removal, delivery to the DOT storage area (if applicable), and restoration of the surrounding conditions.

L MODIFTY SIGN SUPPORT ANGLES NEEDED TO INSTALL SIGNS ON EXISTING SIGN SUPPORTS STRUCTURES

Refer to the sign support structure details for information on the required angle brackets.

Provided all specifications are met, the existing sign support angles may be reused. Install existing sign support angles to be

259-1
10-15-13

SIGNING NOTES

reused only on the sign support structure from which they were removed.

Sign support angles removed and not reused become the property of the Contractor.

When reusing the existing sign support angles with a shorter replacement sign, the sign support angles may need to be trimmed. Refer to the sign support details to determine if and where to trim the sign support angles.

Do not use existing fasteners. Use new stainless steel bolts and nuts to install the existing or new sign support angles to the sign support structure.

Removal of existing sign support angles is incidental to removal of the sign.

Reinstalling and/or modifying existing sign support angles; furnishing and installing new sign support angles (if required); and furnishing and installing new fasteners is incidental to work associated with Type B signs.

SIGN INSTALLATION QUALITY CONTROL NOTES

Post lengths have been derived from the proposed grading cross sections. Field verify post lengths.

Slight differences between the design template and the actual conditions should be expected. These variations should be resolved by doing some localized shaping and grading. Obtain material needed to meet the site requirements of SI-113 from the footing excavation and/or the area immediately adjacent to the footing. Ensure reshaping work does not substantially change foreslopes or the drainage in the vicinity of the sign.

Significant differences between the design template and the actual field conditions need to be resolved in this manner:

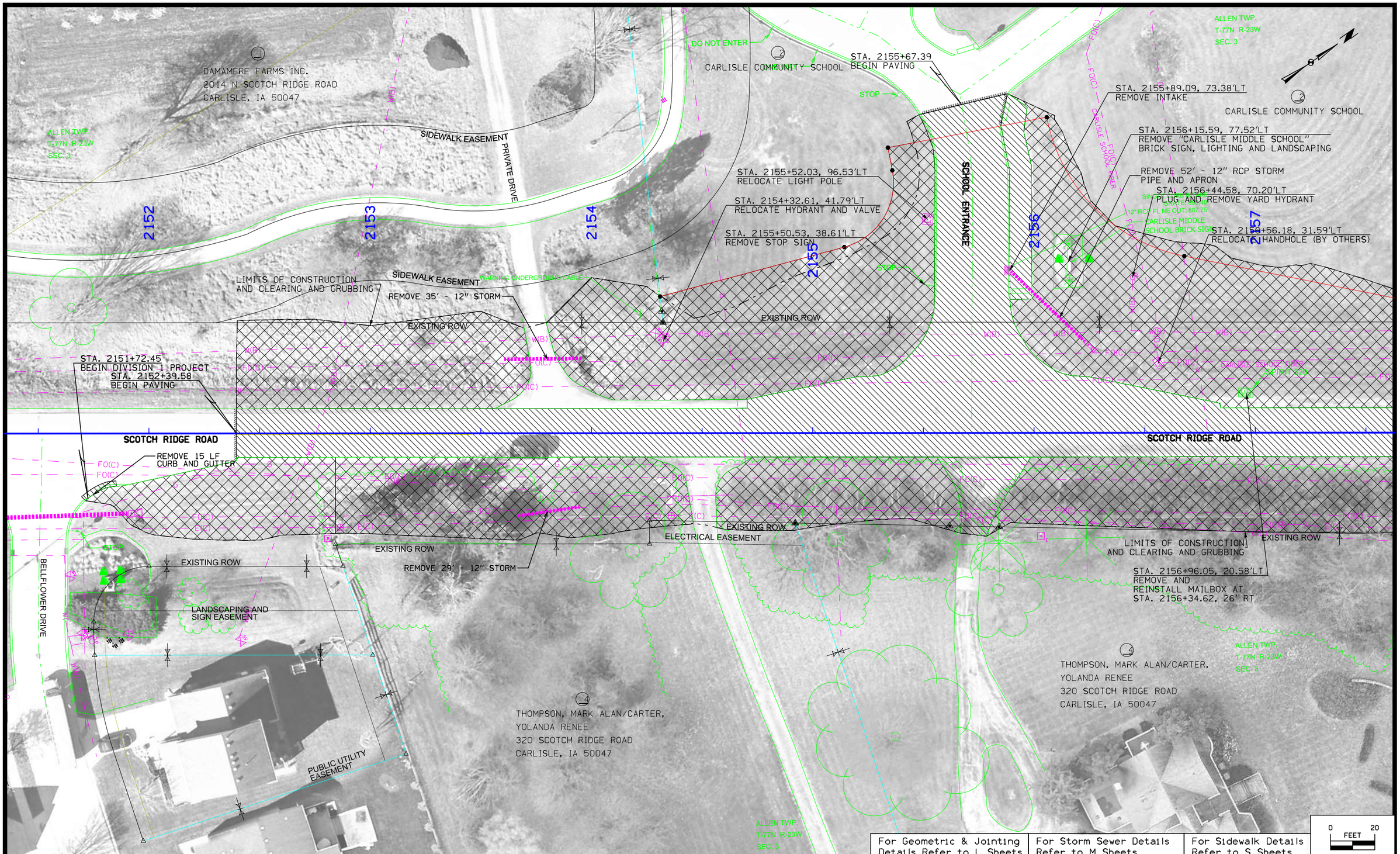
Survey the location and draw the actual template on the cross section. Recalculate each post length and compare to the maximum allowable leg length. If all of the maximum leg lengths are less than or equal to the maximum allowable leg length, then the proposed post design will be sufficient. If any leg is greater than the maximum allowable leg length, then submit the cross section with the actual template drawn (including offsets and elevation from the survey shown) to the Engineer. The Engineer may forward this information on to the design Engineer in order to complete a new post design.

Install the footings, stub posts, and posts according to the following tolerances:

-elevation difference from the edge of pavement to the bottom of the sign within 6 inches of the dimension shown.

-elevation difference of less than 2 inches between the top of the highest post and the lowest post at a site.

Footing construction is the controlling activity that substantially affects the quality of the site installation. Verify the elevation difference between the stubs is exactly the same as the elevation difference between the post lengths. If the Engineer requests, submit documentation detailing the site field shots in order to verify site installation.



ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD REMOVALS	SHEET NO. D.1
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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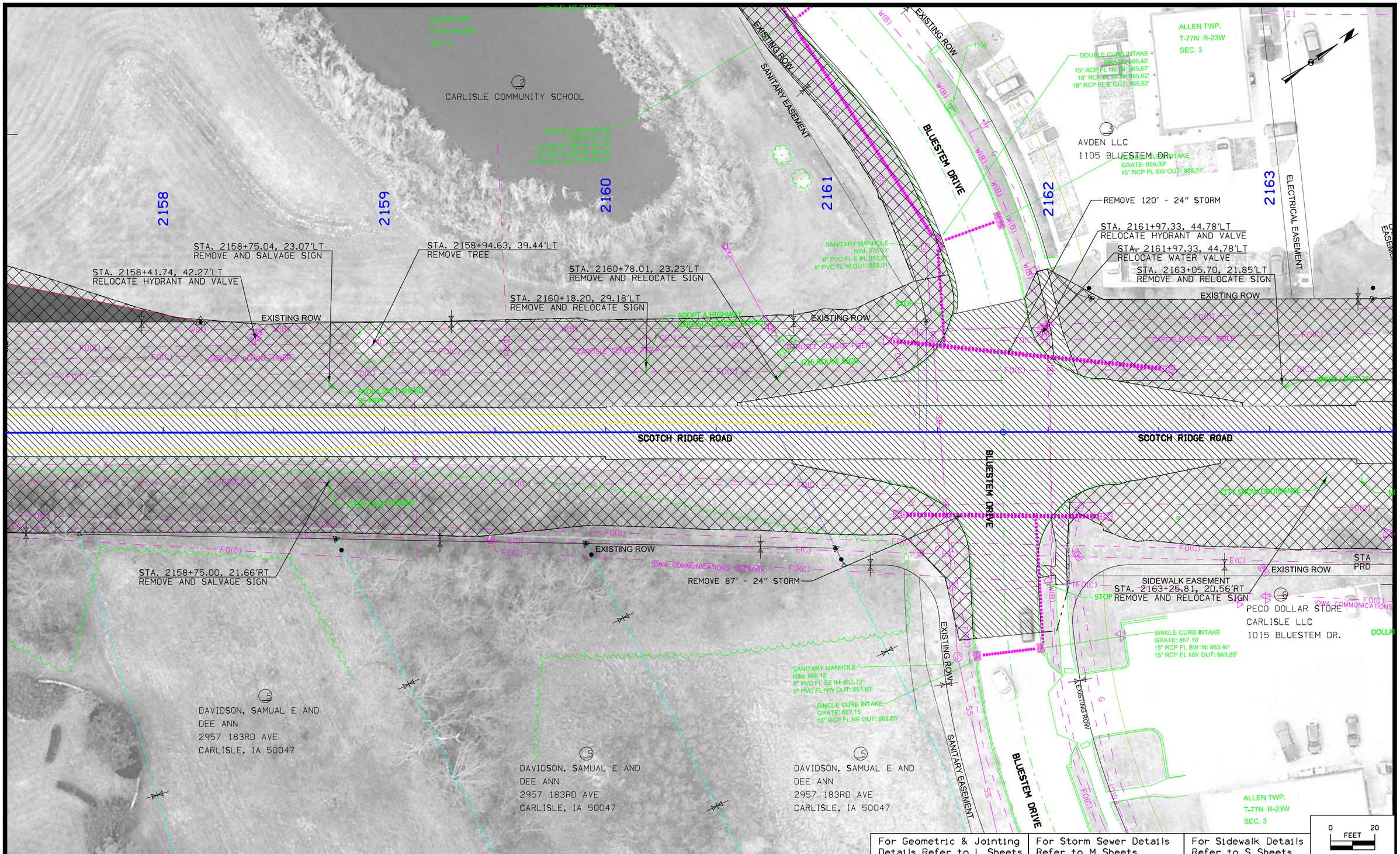

For Geometric & Jointing Details Refer to L Sheets | For Storm Sewer Details Refer to M Sheets | For Sidewalk Details Refer to S Sheets

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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JS	FIELDBOOK	JULY, 2021					

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CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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SIGNAGE AND LANDSCAPE EASEMENT

ELECTRICAL EASEMENT

AVDEN LLC
1105 BLUESTEM DR.

ALLEN TWP.
T-77N R-23W
SEC. 3

SANITARY EASEMENT

EXISTING ROW

SCOTCH RIDGE ROAD

UTILITY DRIVEWAY

UNDERPASSING ZONE

SIDEWALK EASEMENT

ENTRANCE MONUMENT EASEMENT

DOLLAR GENERAL

IOWA COMMUNICATIONS NETWORK

PECO DOLLAR STORE
CARLISLE LLC
1015 BLUESTEM DR.

Curve Data
Δ = 44° 11′ 58.48″ (RT)
T = 101.51
L = 192.86
R = 250.00
E = 19.82

STA. 22161+11.66, 22.82′ LT
PROTECT LIGHT POLE

Curve Data
Δ = 78° 22′ 02.82″ (LT)
T = 203.78
L = 341.94
R = 250.00
E = 72.53

STA. 22161+22.88, 20.64′ RT
REMOVE AND RELOCATE SIGN

STA. 22159+34.36, 20.39′ RT
ADJUST SANITARY CASTING

BLUESTEM DRIVE

Curve Data
Δ = 22° 26′ 55.00″ (LT)
T = 63.50
L = 125.38
R = 320.00
E = 6.24

STA. 22162+47.21, 19.83′ LT
PROTECT LIGHT POLE

SANITARY EASEMENT

STA. 22160+87.00, 15.50′ RT
REMOVE INTAKE GRATES

STA. 22160+87.26, 21.08′ RT
ADJUST SANITARY CASTING

STA. 22158+63.93, 22.25′ RT
ADJUST STORM CASTING

STA. 22158+40.64, 15.50′ RT
BEGIN CURB REMOVAL

STA. 22159+61.95, 15.50′ RT
REMOVE INTAKE GRATE

CARLISLE COMMUNITY SCHOOL

DAVIDSON, SAMUAL E AND
DEE ANN
2957 183RD AVE
CARLISLE, IA 50047

For Geometric & Jointing Details Refer to L Sheets	For Storm Sewer Details Refer to M Sheets	For Sidewalk Details Refer to S Sheets

0 20 FEET

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MDR	MDR	MEC JOB #: 20615007						D.4
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	JULY, 2021						

9/15/2021

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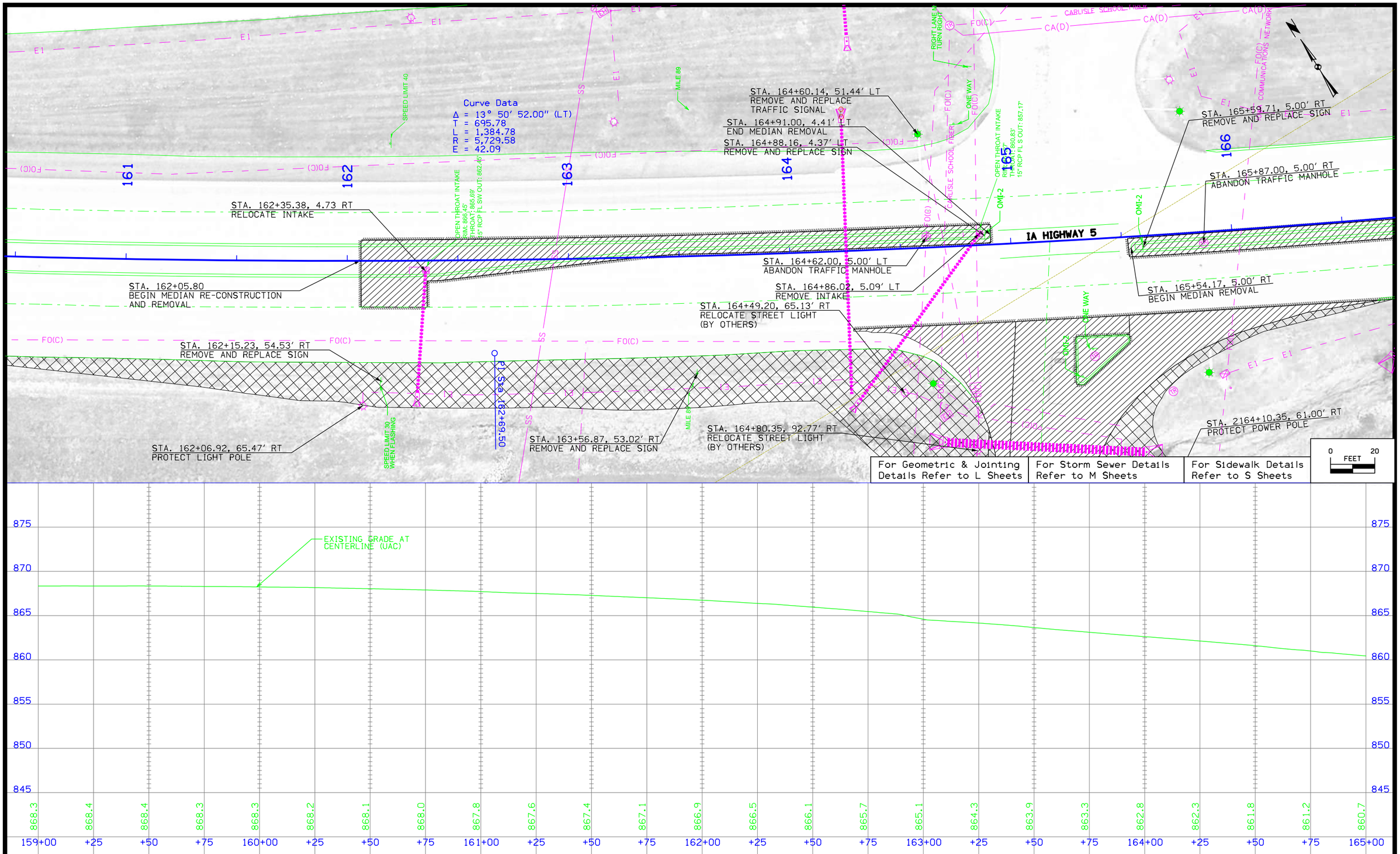

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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

IA HIGHWAY 5
REMOVALS

SHEET NO.
D.5

9/15/2021

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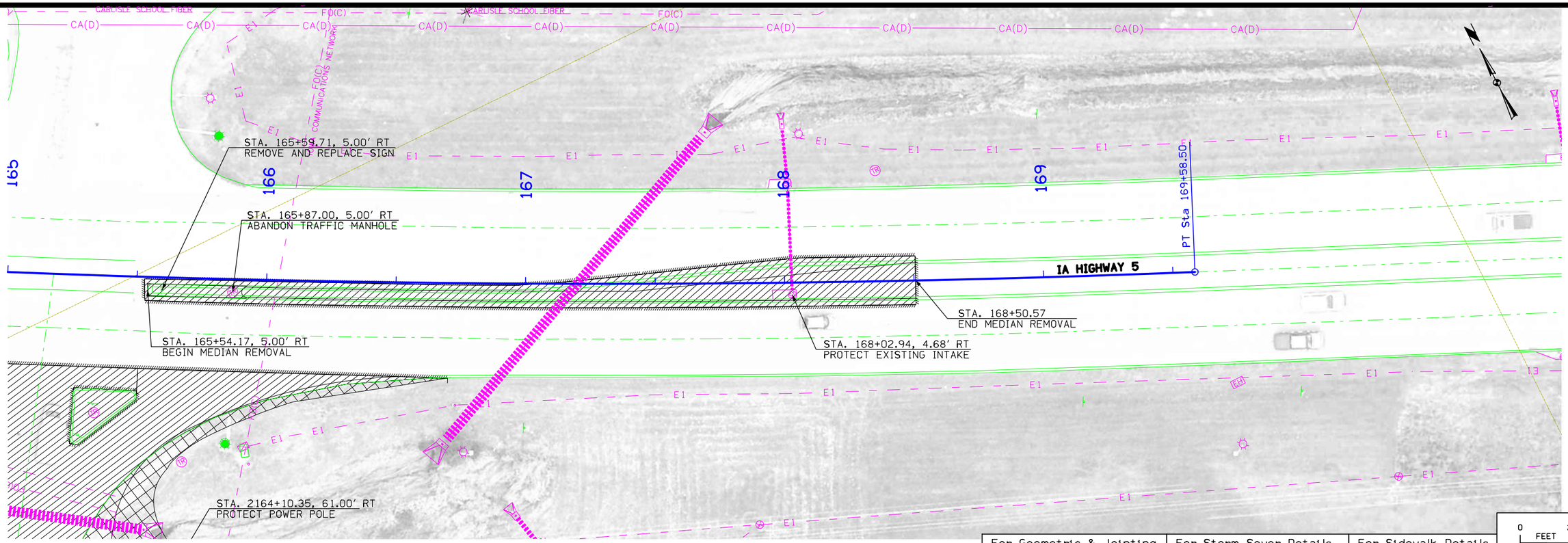

For Geometric & Jointing Details Refer to L Sheets	For Storm Sewer Details Refer to M Sheets	For Sidewalk Details Refer to S Sheets

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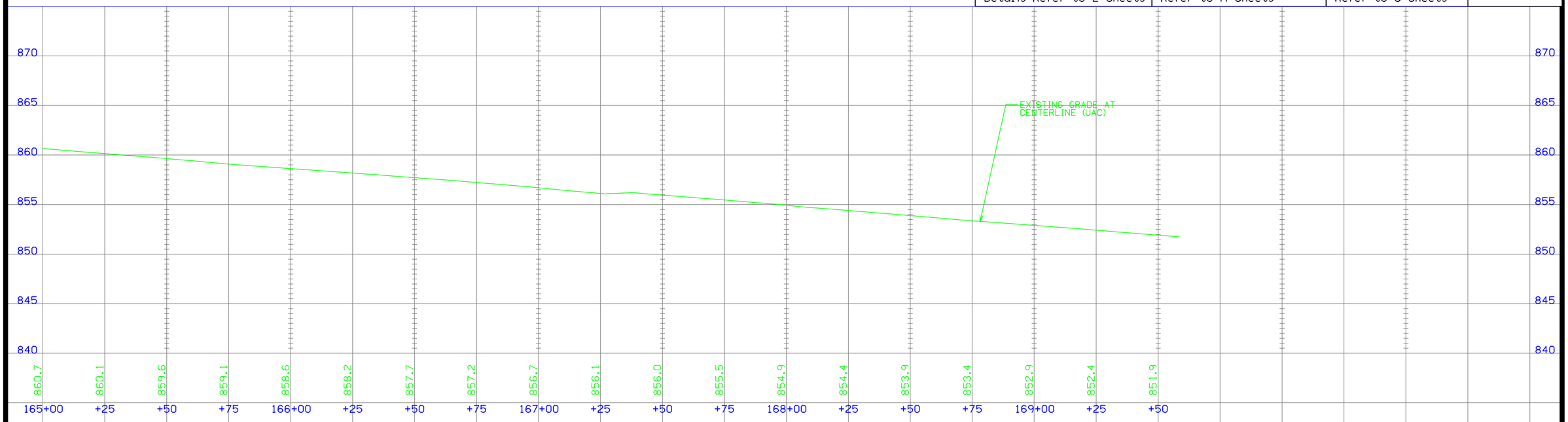

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STBG-SWAP-1105(608)–SG-91

IA HIGHWAY 5
REMOVALS

SHEET NO.
D.6

9/15/2021

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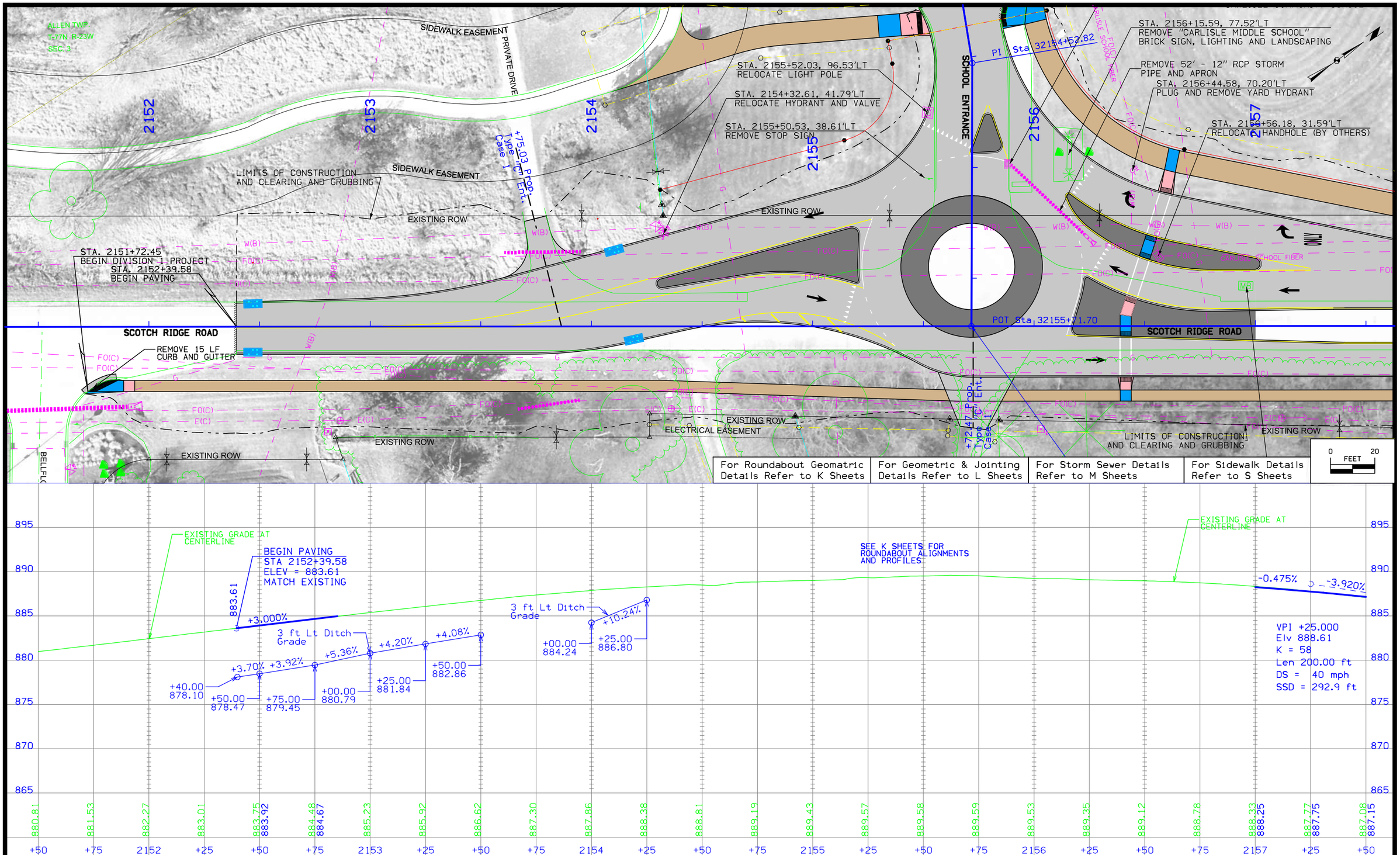

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STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
PLAN & PROFILE

SHEET NO.
D.7

9/15/2021

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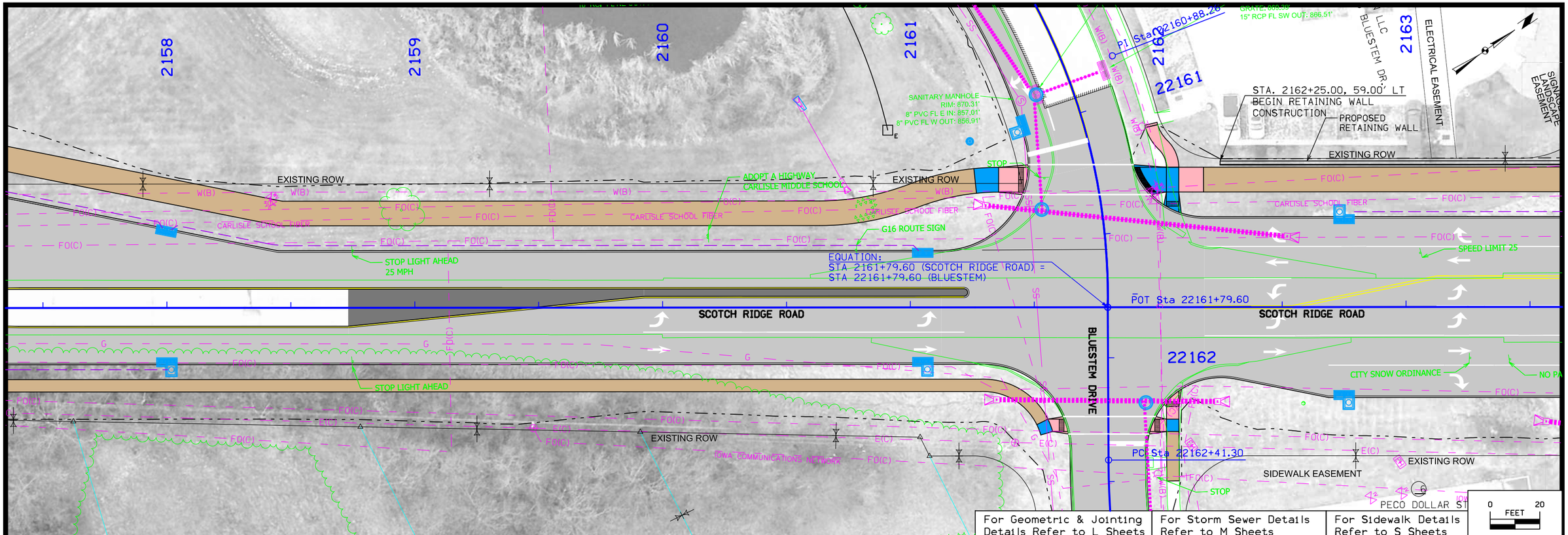

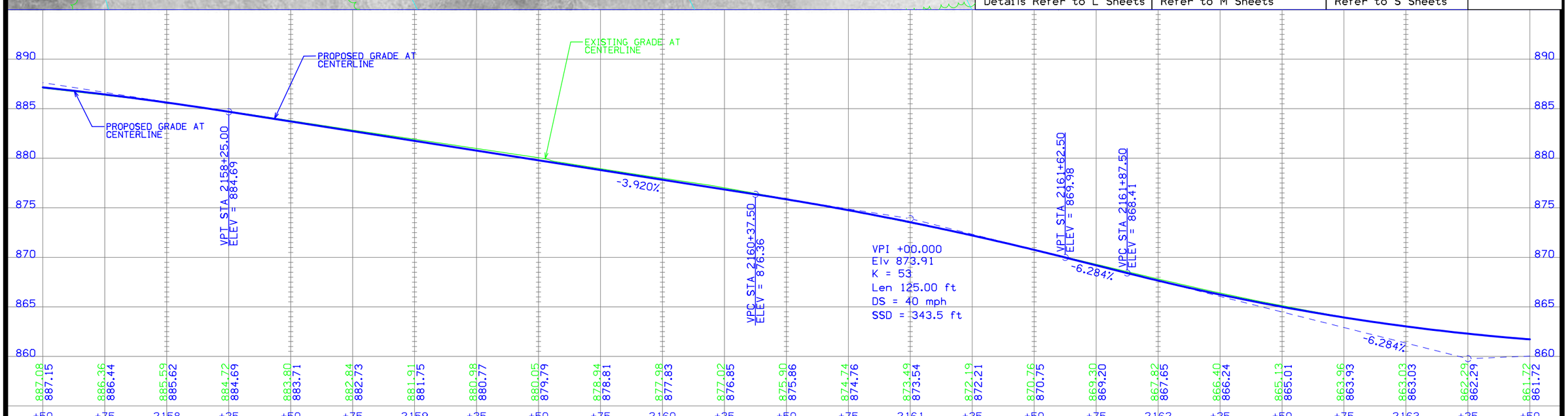

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CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

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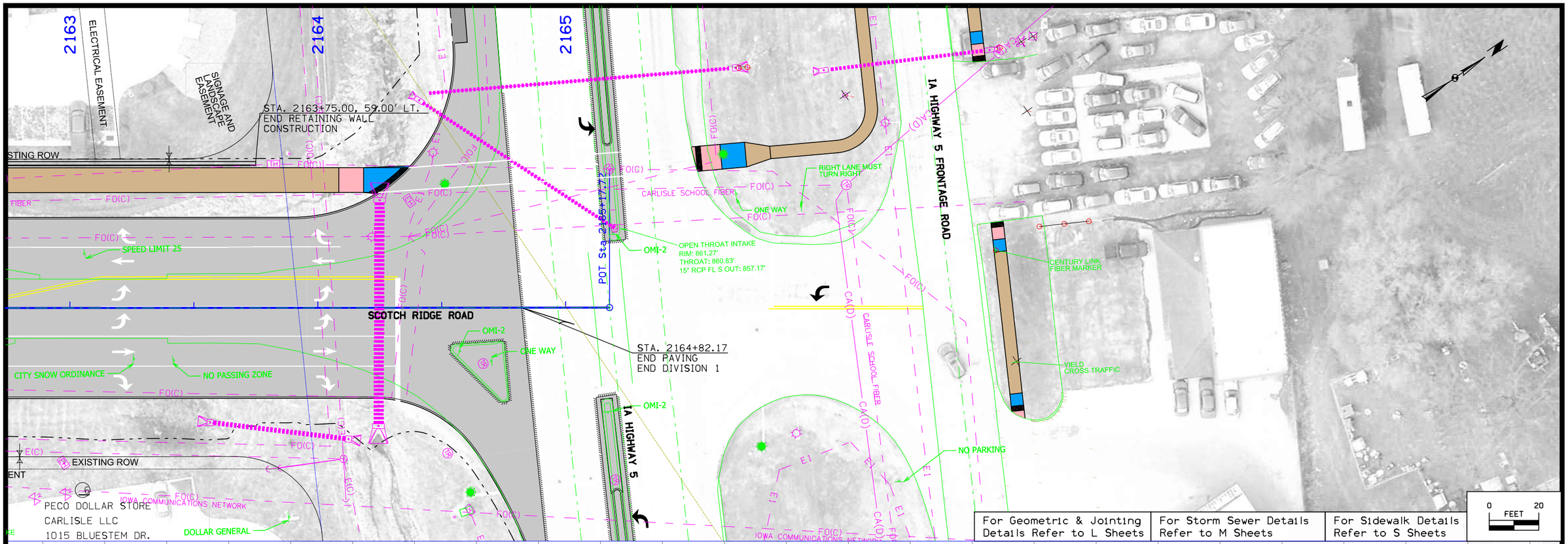

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SCOTCH RIDGE ROAD
PLAN & PROFILE

SHEET NO.
D.9

9/15/2021

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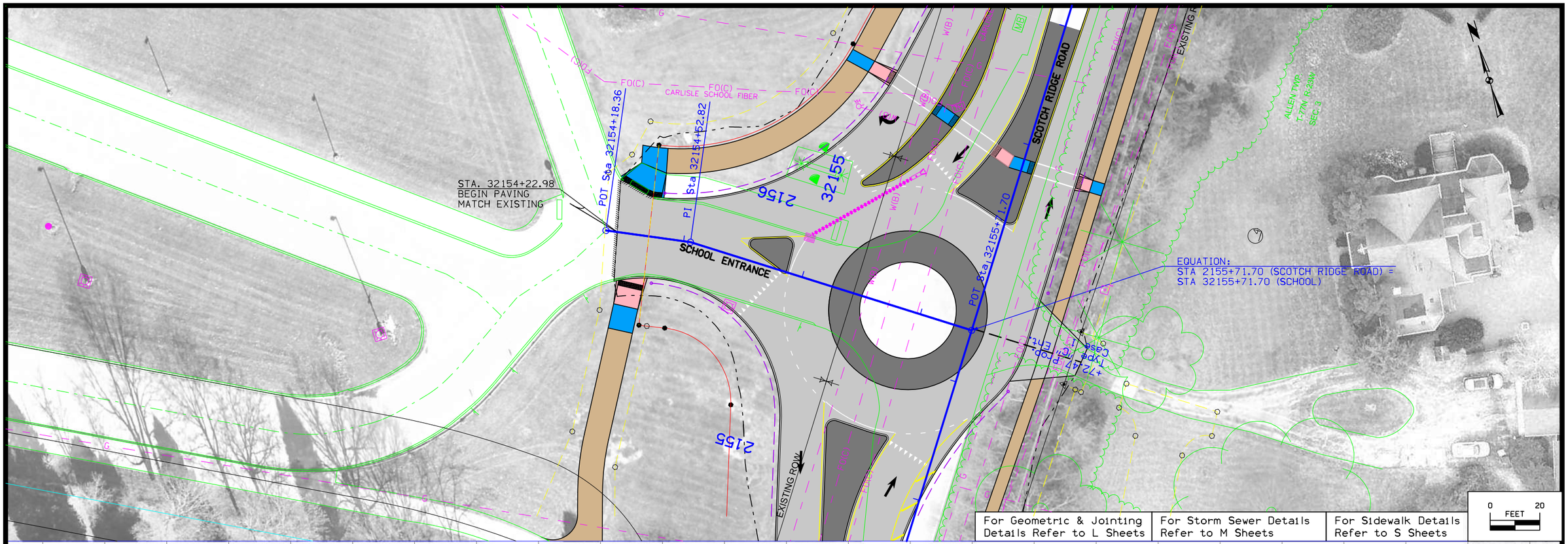

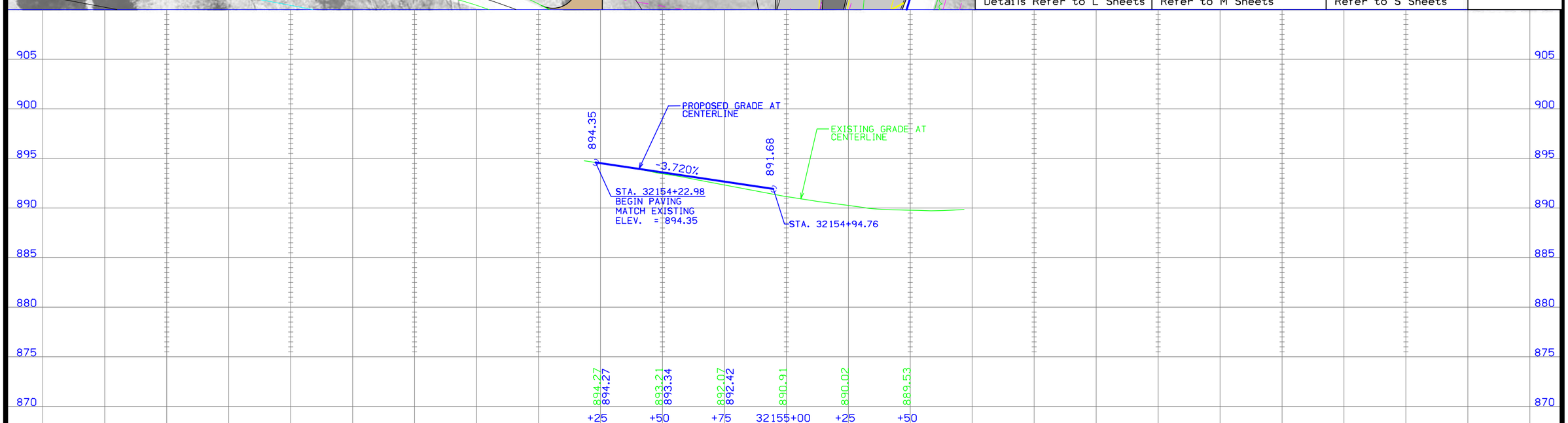

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SCHOOL ENTRANCE
PLAN & PROFILE

SHEET NO. E.1

9/15/2021

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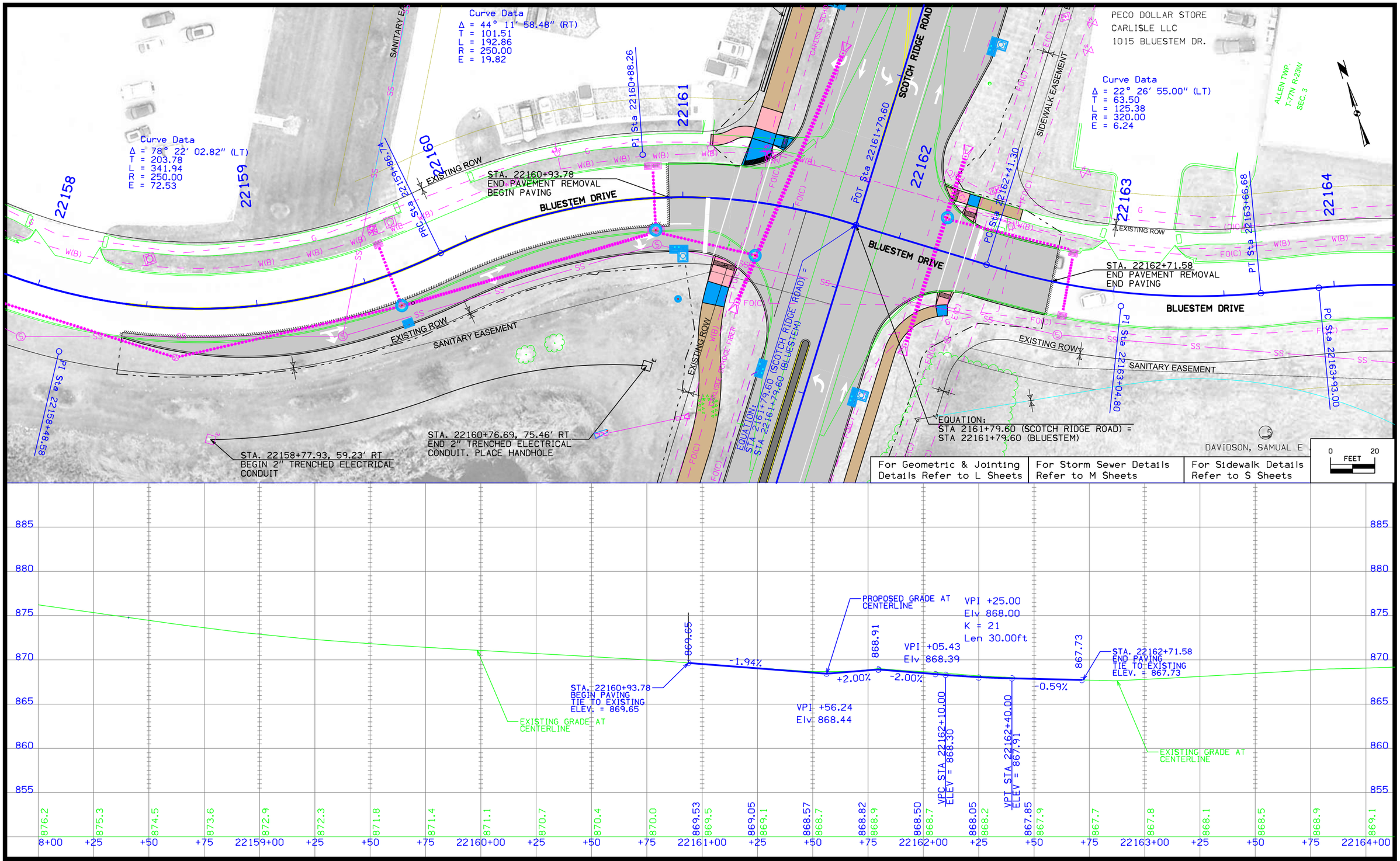

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STBG-SWAP-1105(608)–SG-91

BLUESTEM DRIVE
PLAN & PROFILE

SHEET NO.
E.2

9/15/2021

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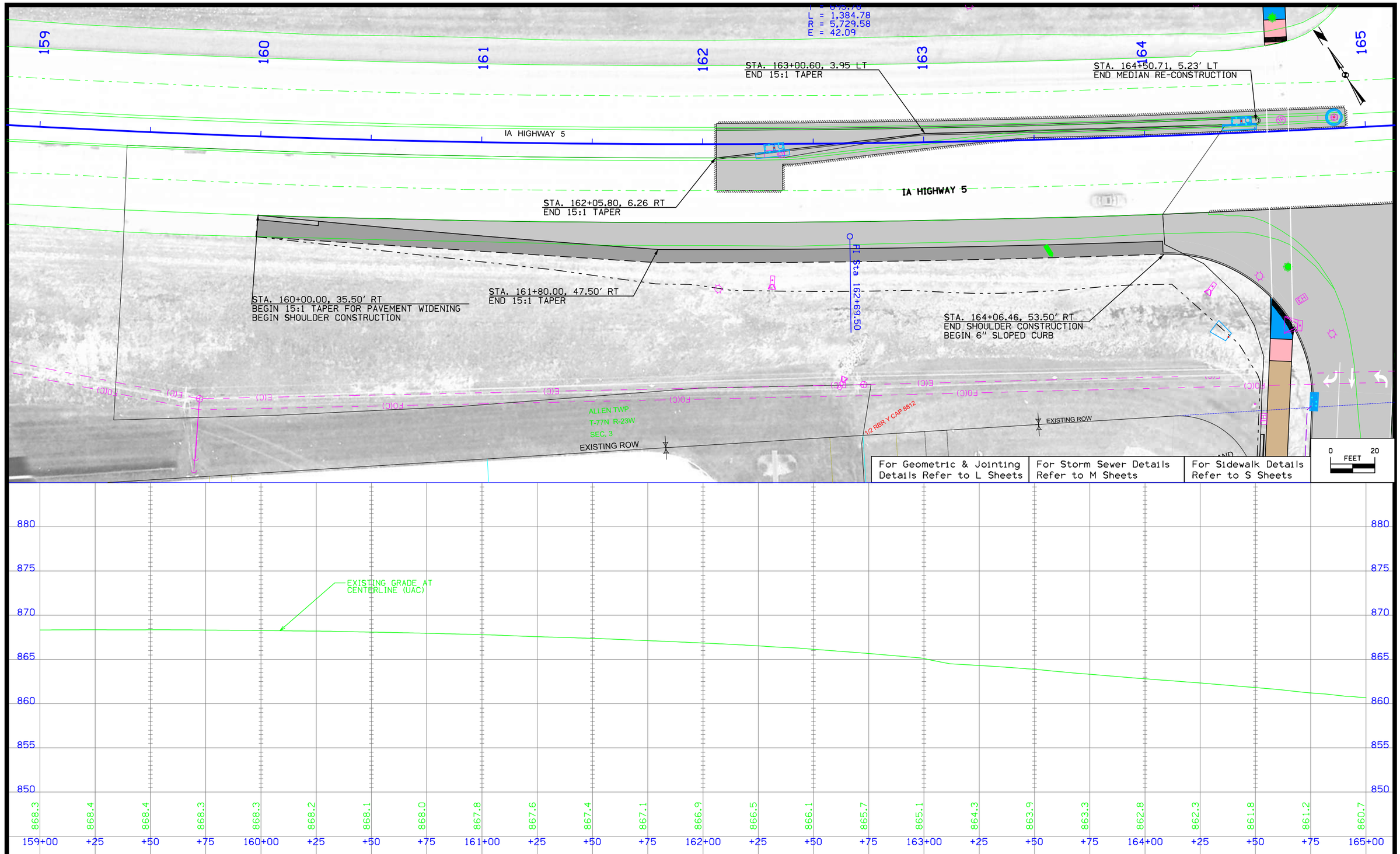

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IA HIGHWAY 5
PLAN & PROFILE

SHEET NO. E.3

9/15/2021

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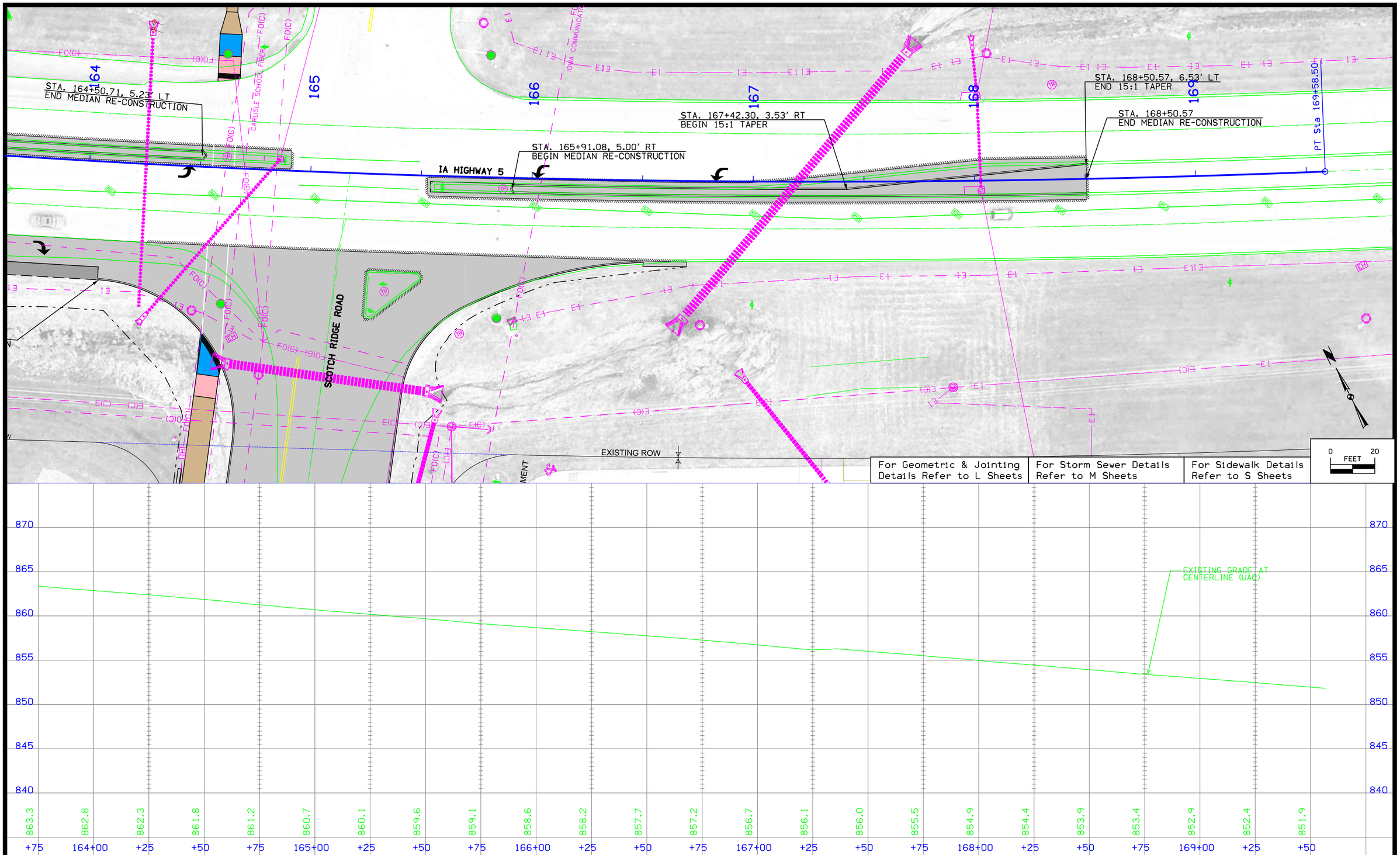

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IA HIGHWAY 5
PLAN & PROFILE

SHEET NO.
E.4

9/15/2021

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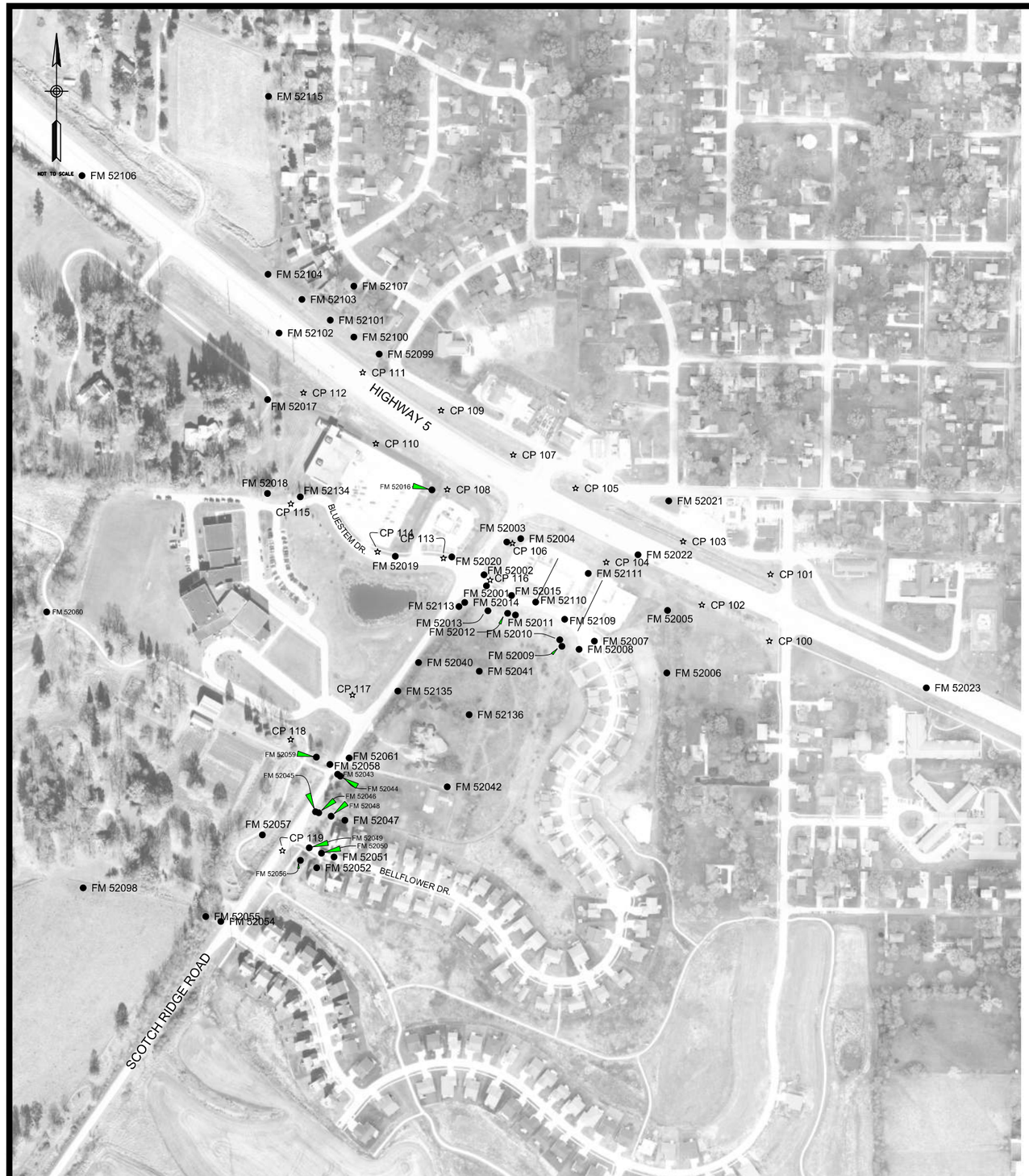

All measurments for this survey are in US survey feet.
The Highway 5 Alignment is a retrace of as-built plans: PCC Pavement - Grade/Replace Project No. STP-5-4(27)--2C-91

Horizontal Datum:
Coordinates for the project are based on the Iowa DOT RCS Zone 8.

Vertical Datum:

This survey is relative to NAVD88 datum.

CONTROL POINTS TABLE

CONTROL POINTS	DESCRIPTION	NORTHING	EASTING	ELEVATION
100	CUT X// W SIDE 8TH// TOP INTAKE	7454511.21'	18560761.67'	840.49'
101	CUT X// W SIDE 8TH// TOP INTAKE	7454729.43'	18560765.27'	840.40'
102	1/2 REBAR BLUE MEC CAP	7454629.20'	18560540.55'	851.00'
103	1/2 REBAR BLUE MEC CAP	7454837.08'	18560479.27'	848.64'
104	1/2 REBAR BLUE MEC CAP	7454769.00'	18560227.47'	861.00'
105	1/2 REBAR RED SNYDER CONTROL	7455011.27'	18560126.96'	857.02'
106	1/2 REBAR BLUE CAP	7454831.07'	18559920.08'	865.52'
107	1/2 REBAR BLUE CAP	7455120.62'	18559922.79'	861.98'
108	1/2 REBAR BLUE CAP	7455007.02'	18559706.98'	865.46'
109	1/2 REBAR BLUE CAP	7455265.88'	18559686.69'	869.39'
110	1/2 REBAR BLUE CAP	7455157.55'	18559473.12'	871.84'
111	1/2 REBAR BLUE CAP	7455389.89'	18559430.12'	866.78'
112	1/2 REBAR BLUE CAP	7455323.66'	18559236.08'	869.88'
113	CUT SE PRKING LOT @ SUBWAY	7454782.37'	18559694.37'	870.29'
114	CUT SE PRKING LOT @ FAREWAY	7454803.27'	18559478.71'	876.90'
115	CUT X HS DRVWAY// TOC // 2 E LITE POLE	7454960.20'	18559194.71'	886.59'
116	CUT X //GEN PRKING LOT SW// TOC //	7454710.69'	18559847.18'	867.43'
117	1/2 REBAR BLUE CAP// 60'N MID SCH SIGN	7454334.55'	18559396.36'	892.73'
118	CUT X // EDGE TRAIL//N 50 OF EVRGRN	7454188.73'	18559194.27'	894.99'
119	CUT X// TOW S SIDE// BELLFLOWER DR	7453824.78'	18559166.89'	880.22'
52001	FM 1/2 REBAR YELLOW CAP 15982	7454692.14'	18559835.26'	868.41'
52002	FM 1/2 REBAR YELLOW CAP 15219	7454728.13'	18559827.11'	865.58'
52003	FM 1/2 REBAR YELLOW CAP 15982	7454835.74'	18559901.90'	861.57'
52004	FM 1/2 REBAR YELLOW CAP 15982	7454846.44'	18559947.38'	862.07'
52005	FM ALUMINUM CAP DOT	7454611.69'	18560428.37'	868.25'
52006	FM IRON PIPE YELLOW CAP 11556	7454406.81'	18560426.11'	868.81'
52007	FM CUT X	7454510.85'	18560188.83'	866.66'
52008	FM MAG NAIL	7454484.20'	18560138.42'	865.88'
52009	FM 1/2 REBAR YELLOW CAP ILLEGIBLE	7454494.05'	18560082.34'	867.68'
52010	FM 1/2 REBAR YELLOW CAP 15219	7454515.64'	18560075.42'	867.76'
52011	FM 1/2 REBAR YELLOW CAP 15219	7454596.46'	18559929.97'	869.73'
52012	FM 1/2 REBAR YELLOW CAP 15219	7454602.05'	18559904.39'	869.41'
52013	FM 60D NAIL	7454610.53'	18559839.95'	866.34'
52014	FM 1/2 REBAR YELLOW CAP 15219	7454637.79'	18559764.23'	870.75'
52015	FM 1/2 REBAR YELLOW CAP 15219	7454660.50'	18559917.24'	868.97'
52016	FM 1/2 REBAR YELLOW CAP 8812	7455006.23'	18559656.62'	867.60'
52017	FM ALUMINUM CAP DOT	7455301.58'	18559118.87'	892.28'
52018	FM 1/2 REBAR NO ID	7454994.22'	18559118.10'	896.78'
52019	FM 1/2 REBAR NO ID	7454788.63'	18559536.82'	871.87'
52020	FM 1/2 REBAR YELLOW CAP 8812	7454786.71'	18559721.75'	868.29'
52021	FM 5/8 REBAR BLUE CAP ILLEGIBLE	7454970.22'	18560432.22'	847.36'
52022	FM CUT X	7454793.78'	18560331.56'	851.79'
52023	FM CUT X	7454358.22'	18561275.40'	829.95'
52040	FM 5/8 REBAR YELLOW CAP 15268	7454441.13'	18559612.89'	884.34'
52041	FM 5/8 REBAR YELLOW CAP 15268	7454412.39'	18559811.56'	878.96'
52042	FM METAL SPIKE	7454034.16'	18559706.84'	889.57'
52043	FM 5/8 REBAR YELLOW CAP 15268	7454075.21'	18559347.89'	884.94'
52044	FM 5/8 REBAR YELLOW CAP ILLEGIBLE	7454069.08'	18559356.60'	884.62'
52045	FM 5/8 REBAR YELLOW CAP 15268	7453952.54'	18559275.62'	880.57'
52046	FM 1/2 REBAR YELLOW CAP 15219	7453949.30'	18559285.94'	879.90'
52047	FM 1/2 REBAR YELLOW CAP 15219	7453924.44'	18559371.75'	873.37'
52048	FM 1/2 REBAR YELLOW CAP 15219	7453937.75'	18559326.63'	876.72'
52049	FM 1/2 REBAR BENT NO ID	7453834.57'	18559254.73'	877.49'
52050	FM 1/2 REBAR YELLOW CAP 15219	7453817.00'	18559295.21'	875.47'
52051	FM 1/2 REBAR NO ID	7453804.55'	18559336.18'	873.97'
52052	FM 1/2 REBAR NO ID BENT	7453769.19'	18559279.52'	874.80'
52054	FM CUT X	7453593.38'	18558965.38'	875.94'
52055	FM 5/8 REBAR YELLOW CAP 3754	7453609.50'	18558915.89'	875.60'
52056	FM 1/2 REBAR YELLOW CAP 15219	7453793.32'	18559226.11'	877.96'
52057	FM 1/2 REBAR YELLOW CAP ILLEGIBLE	7453876.62'	18559101.44'	874.84'
52058	FM CUT X	7454107.23'	18559322.62'	888.41'
52059	FM 1/2 REBAR ORANGE CAP 19828	7454131.13'	18559278.29'	888.28'
52060	FM 5/8 REBAR YELLOW CAP 3754	7454606.65'	18558395.29'	891.67'
52061	FM 1/2 GAS PIPE NO ID	7454128.48'	18559385.82'	888.37'
52098	FM 1/2 REBAR NO ID	7453703.27'	18558514.49'	897.41'
52099	FM 1/2 GAS PIPE NO ID	7455450.43'	18559484.08'	872.02'
52100	FM 1/2 GAS PIPE NO ID	7455506.35'	18559401.19'	867.03'
52101	FM 1/2 GAS PIPE NO ID	7455561.61'	18559323.83'	861.85'
52102	FM CUT X	7455519.61'	18559155.99'	864.95'
52103	FM BENT NAIL	7455629.60'	18559230.99'	857.59'
52104	FM RAILROAD SPIKE	7455711.73'	18559120.09'	854.49'
52106	FM CUT X	7456034.90'	18558511.05'	838.30'
52107	FM 1/2 REBAR NO ID	7455673.03'	18559400.85'	871.35'
52109	FM 1/2 REBAR YELLOW CAP 15982	7454582.34'	18560091.49'	867.97'
52110	FM 1/2 REBAR BENT NO ID	7454639.02'	18559996.47'	869.10'
52111	FM 1/2 REBAR YELLOW CAP 15982	7454732.84'	18560168.38'	863.87'
52113	FM 5/8 REBAR YELLOW CAP 15268	7454624.03'	18559745.26'	871.62'
52115	FM 5/8 REBAR BLUE CAP 19968	7456294.23'	18559121.58'	879.70'
52134	FM 1/2 REBAR YELLOW CAP 8812	7454983.23'	18559225.75'	884.26'
52135	FM 5/8 REBAR PURPLE CAP 19968	7454347.30'	18559544.85'	890.08'
52136	FM 5/8 REBAR PURPLE CAP 19968	7454270.21'	18559778.67'	886.51'

ENGINEER	DRAWN BY	
MDR	MDR	SCOTCH RIDGE ROAD
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007
JSS	-	JULY, 2021

REVISIONS

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Clive, Iowa 50325
515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

CONTROL POINT AND
BENCHMARK INFORMATION

SHEET NO.
G.1

9/15/2021

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ALIGNMENT COORDINATES

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
HWY 5								155+73.72	7455519.60	18559156.12	162+69.50	7455085.34	18559699.74	169+58.50	7454793.81	18560331.50			
SCOTCH RIDGE ROAD																			
100		2148+12.34	7453593.43	18558965.33															
101		2161+79.60	7454716.08	18559754.77															
102		2165+17.72	7454993.70	18559938.77															
BLUESTEM DRIVE WEST OF SCOTCH																			
BLUESTEM_WEST1								22156+44.80	7454923.11	18559291.99	22158+48.58	7454731.54	18559361.45	22159+86.74	7454760.95	18559563.10			
BLUESTEM_WEST2								22159+86.74	7454760.95	18559563.10	22160+88.26	7454775.60	18559663.55	22161+79.60	7454716.08	18559745.77			
BLUESTEM DRIVE EAST OF SCOTCH																			
600		22161+79.60	7454716.08	18559745.77															
BLUESTEM_EAST1								22162+41.30	7454681.11	18559796.61	22163+04.80	7454644.87	18559848.76	22163+66.68	7454631.29	18559910.79			
BLUESTEM_EAST2								22163+93.00	7454625.66	18559936.50	22165+26.60	7454597.09	18560067.01	22166+46.12	7454313.07	18559138.46			
SCHOOL ENTRANCE																			
SCL1		32155+71.70	7454216.94	18559398.78															
SCL2		32156+90.58	7454285.20	18559301.45															
SCL3		32157+25.04	7454300.06	18559270.36															
ROUNDABOUT																			
RAB1																			
RAB11								12152+85.19	7453988.82	18559224.97	12153+24.67	7454021.23	18559247.51	12153+63.70	7454058.38	18559260.89			
RAB12								12155+66.71	7454249.37	18559329.70	12155+99.83	7454280.53	18559340.92	12156+25.21	7454282.35	18559373.99			
RAB13								12156+25.21	7454282.35	18559373.99	12156+69.16	7454284.76	18559417.87	12157+06.97	7454372.21	18559369.06			
RAB2		12159+58.37	7454527.26	18559586.45															
RAB2																			
RAB20		22152+85.19	7453974.55	18559245.50															
RAB21								22153+72.04	7454045.86	18559295.07	22153+93.94	7454063.84	18559307.57	22154+15.67	7454084.11	18559315.89			
RAB22								22154+46.69	7454110.03	18559326.52	22155+00.39	7454162.49	18559348.04	22155+52.11	7454187.59	18559398.88			
RAB23								22155+52.11	7454187.59	18559398.88	22155+00.39	7454162.49	18559348.04	22155+52.11	7454053.10	18559465.30			
RAB21		22156+80.68	7454288.82	18559476.66				22156+59.99	7454288.76	18559450.83	22156+86.75	7454307.00	18559470.42	22157+13.32	7454328.98	18559485.71			
RAB22		22157+45.69	7454342.20	18559513.78															
RAB3																			
RAB4-1								32155+68.62	7454350.87	18559350.59	32156+06.33	7454281.68	18559372.34	32156+24.12	7454255.21	18559399.20			
RAB4-2								32156+24.12	7454255.21	18559399.20	32156+48.89	7454237.82	18559416.84	32156+66.28	7454216.38	18559404.43			
RAB4-3								32156+66.28	7454216.38	18559404.43	32156+75.52	7454208.40	18559399.80	32156+84.26	7454204.10	18559391.63			
RAB4-4								32156+84.26	7454204.10	18559391.63	32157+09.36	7454192.41	18559369.41	32157+26.84	7454211.22	18559352.77			
RAB4-5								32157+26.84	7454211.22	18559352.77	32157+52.09	7454230.13	18559336.03	32157+69.60	7454250.80	18559350.54			

SPIRAL OR CIRCULAR CURVE DATA

Name	Location	ΔSCS	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θS	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	ΔC	T	L	R	E	
BLUESTEM DRIVE WEST OF SCOTCH RIDGE ROAD																
BLUESTEM_WEST1											78° 22' 02.82" LT	203.7768	341.9425	250.0000	72.5290	
BLUESTEM_WEST2											44° 11' 58.48" RT	101.5134	192.8570	250.0000	19.8240	
BLUESTEM DRIVE EAST OF SCOTCH																
BLUESTEM_EAST1											22° 26' 55.00" LT	63.5028	125.3767	320.0000	6.2401	
BLUESTEM_EAST2											45° 19' 16.00" RT	133.6001	253.1208	320.0000	26.7694	
RAB1																
RAB11											14° 59' 39.04" LT	39.48	78.51	300.00	2.59	
RAB12											67° 02' 34.52" RT	33.12	58.51	50.00	9.98	
RAB13											52° 02' 55.48" LT	43.94	81.76	90.00	10.15	
RAB2																
RAB21											12° 30' 00.00" LT	21.90	43.63	200.00	1.20	
RAB22											41° 24' 34.64" RT	56.69	108.41	150.00	10.36	
RAB23											28° 25' 12.87" LT	12.66	24.80	50.00	1.58	
RAB3																
RAB4-1											99° 22' 07.14" RT	37.7122	55.4979	32.0000	17.4592	
RAB4-2											75° 29' 50.03" RT	24.7758	24.7758	32.0000	8.4702	
RAB4-3											32° 11' 02.64" RT	9.2315	17.9750	32.0000	1.3050	
RAB4-4											76° 14' 00.71" RT	25.1063	42.5768	32.0000	8.6734	
RAB4-5											76° 33' 55.21" RT	25.2563	42.7621	32.0000	8.7662	
IA HIGHWAY 5											13° 50' 52.00" LT	695.7800	1,384.7800	5,729.5800	42.0900	

DAMAMERE FARMS INC.
2014 N SCOTCH RIDGE ROAD
CARLISLE, IA 50047

CARLISLE COMMUNITY SCHOOL

ALLEN TWP.
T-77N R-23W
SEC. 3

2156+83.48
157' LT+
CENTER OF 70'
RADIUS

CARLISLE COMMUNITY SCHOOL

2154+22.98
PAVING
EXISTING

2155+89.35
159' LT

2155+99.03
152' LT

2154+41.73
146' LT

2154+85.17
142' LT

2155+35.23
146' LT

2155+34.08
129' LT

2156+08.85
150' LT

2156+14.01
149' LT

2156+05.85
143' LT

2153+96.40
133' LT

SIDEWALK EASEMENT

TEMPORARY EASEMENT
TO CONTRUCT
SIDEWALK

2155+34.67
126' LT

2155+36.04
119' LT

0.1 ACRE
PERMANENT
ROADWAY EASEMENT

SCHOOL ENTRANCE

2154+76.56
121' LT

2156+69.75
89' LT

2154+06.21
100' LT

2154+31.08
62' LT

2155+14.33
84' LT

2156+67.99
80' LT

TEMPORARY EASEMENT
TO SHAPE

2154+31.84
55' LT

SIDEWALK EASEMENT

2154+32.41
50' LT

EXISTING ROW

EXISTING ROW

2152

2153

2154

2155

2156

2157

2158

W(B)

FO(C)

CARLISLE SCHOOL FIBER

MB

SCOTCH RIDGE ROAD

SCOTCH RIDGE ROAD

2155+61.87
42' RT

2154+74.64
62'

2154+61.31
45' RT

2154+26.25
39' RT

2154+26.16
44' RT

E(C)

EXISTING ROW

ELECTRICAL EASEMENT

EXISTING ROW

EXISTING ROW

EXISTING ROW

2155+61.24
47' RT

2155+84.20
42' RT

TEMPORARY EASEMENT
TO SHAPE

2154+44.17
45' RT

2154+75.18
67'

2154+71.94
76' RT

2155+60.91
50' RT

2155+83.23
47' RT

2154+82.50
83' RT

2155+50.53
76' RT

2155+82.28
52' RT

LANDSCAPING AND
SIGN EASEMENT

2155+69.56
66' RT

2154+57.66
81' RT

TEMPORARY EASEMENT
TO CONSTRUCT
TEMPORARY DRIVE

2155+59.45
66' RT

2155+69.56
104' RT

2155+48.54
96' RT

2155+59.59
105' RT

2154+94.91
102' RT

2154+86.71
116' RT

2154+72.46
121' RT

THOMPSON, MARK ALAN/CARTER,
YOLANDA RENEE
320 SCOTCH RIDGE ROAD
CARLISLE, IA 50047

THOMPSON, MARK ALAN/CARTER,
YOLANDA RENEE
320 SCOTCH RIDGE ROAD
CARLISLE, IA 50047

ALLEN TWP.
T-77N R-23W
SEC. 3

PUBLIC UTILITY
EASEMENT

ALLEN TWP.
T-77N R-23W

0 20
FEET

Right of Way Design Information

ROW Team: _____/McCLURE_____

ROW #: _____

Plan Date: 10/19/2021_____

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD ROW AND EASEMENT LAYOUT	H. 1
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JS	FIELDBOOK	JULY, 2021						

9/15/2021

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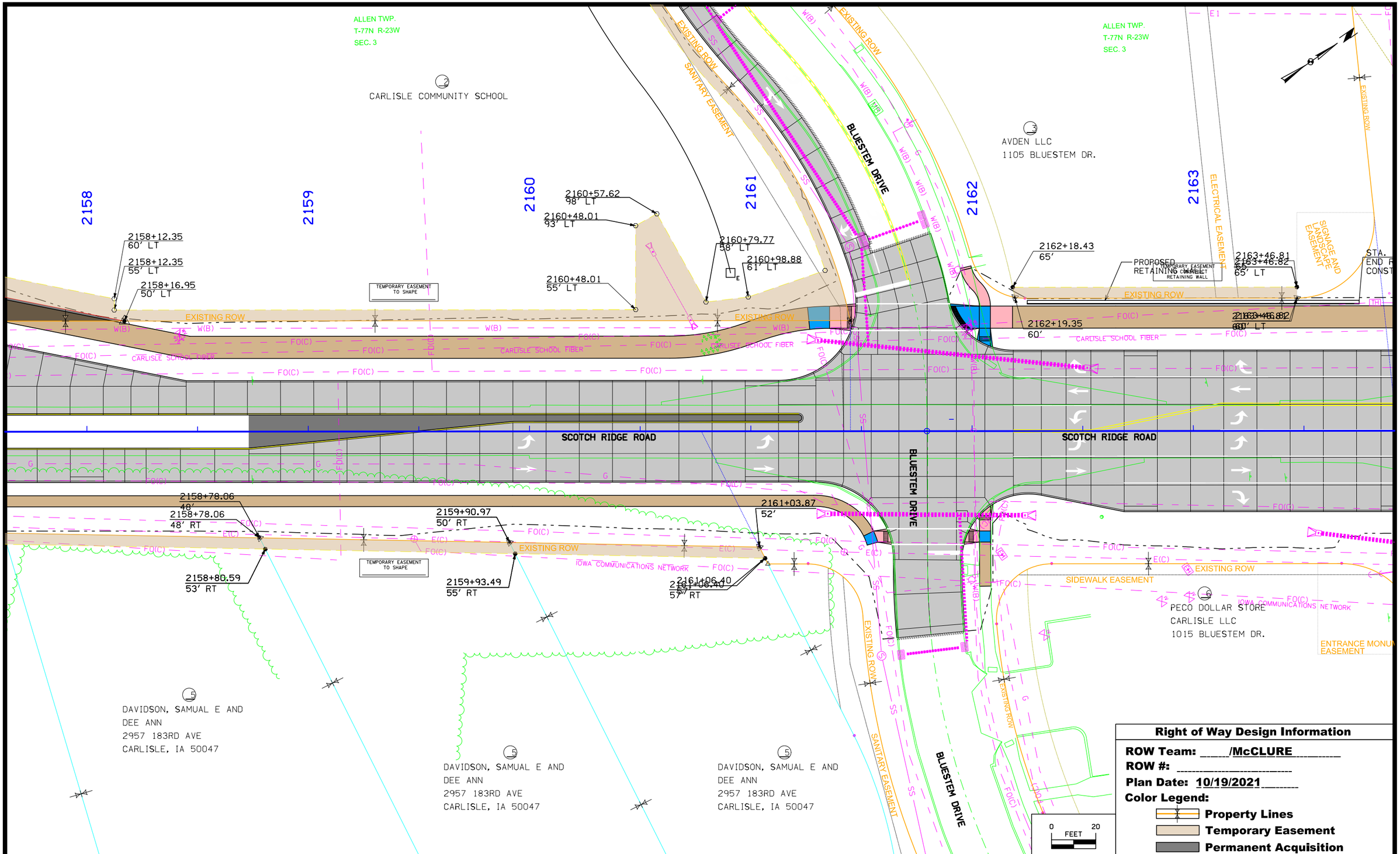

Right of Way Design Information

ROW Team: _____/McCLURE_____

ROW #: _____

Plan Date: 10/19/2021_____

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
ROW AND EASEMENT LAYOUT

SHEET NO. H.2

9/15/2021

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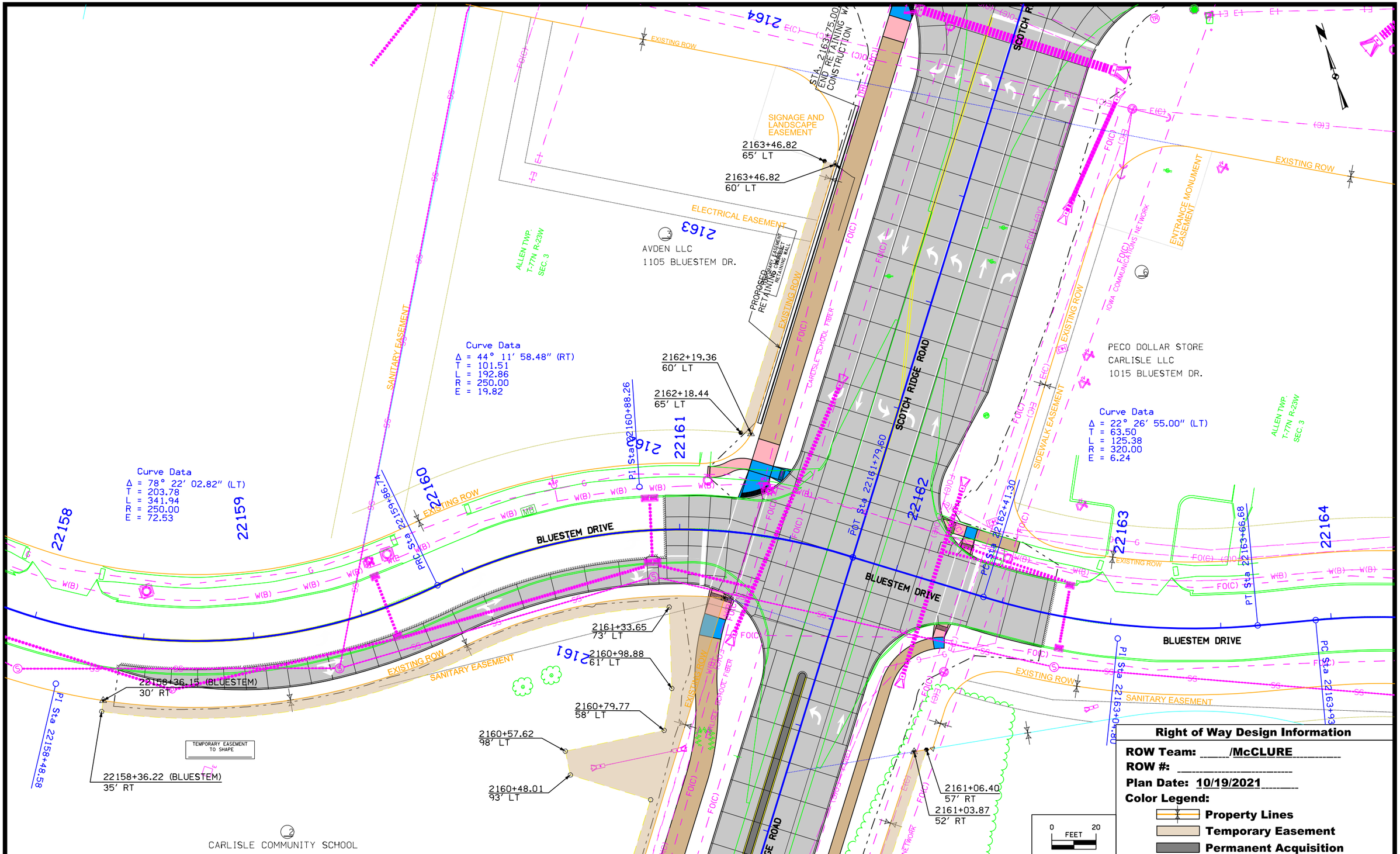

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	BLUESTEM DRIVE ROW LAYOUT	SHEET NO. H.3
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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TRAFFIC CONTROL PLAN

Refer to Tab. 108-26A for Staging Details.

IA Highway 5
Maintain one lane of traffic, both eastbound and westbound, at all times during all stages of construction. Refer to Iowa DOT Standard Road Plan TC-418.

Scotch Ridge Road
Maintain one lane of traffic, both northbound and southbound, at all times between Bluestem Drive and Highway 5. Scotch Ridge Road may be closed between Bluestem Drive and Bellflower Drive for construction of roundabout only when Carlisle Middle School is out of session for the summer. Contractor to coordinate with school representatives before closing school drive. Provide temporary access to residence accross from school drive at all times during construction. Detour thru traffic to Blue Bonnet Drive, Juniper Drive and South 8th Street to Highway 5.

Bluestem Drive
One lane northbound and one lane southbound shall be open to traffic at all times during construction in all stages.

Access for garbage and postal service must also be maintained at all times unless arranged otherwise by agreement between the Contractor and property owners. This effort shall be incidental to temporary traffic control.

Traffic control on this project shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Standard Road Plans. Where conflicts between these documents exist, the more stringent requirements shall apply.

All traffic control devices shall be furnished, erected, maintained, cleaned, and removed by the Contractor. All traffic control will remain the sole responsibility of the Contractor. The Contractor shall perform all quality control work associated with traffic control. The Contractor shall provide, prior to the start of construction, the name nad 24 hour phone number of the Contractor's respresentative in charge of traffic control.

Proposed changes in the Traffic Control Plan shall be reviewed with the Engineer at least 24 hours before changes are made in the field.

Contractor shall maintain pedestrian traffic paths at all times unless otherwise approved by Engineer.

Sidewalk closures during construction shall be in accordance with Iowa DOT Standard Road Plan TC-601 or 602.

Sidewalks open to pedestrian traffic shall maintain a minimum 4' width and be clear of all construction debris. Utility excavations within sidewalk areas, requiring temporary backfill, shall be surfaced with compacted material providing firm and level surface with surrounding pavement. Contractor shall provide pedestrian barrier adjacent to construction. Sidewalk detours and diversions shall be designated with signage, M4-9b. Temporary sidewalk materials shall be incidental to traffic control.

Existing signage that conveys a message contrary to the message for temporary signing and not applicable to the working conditions shall be covered by the Contractor or when directed by the Engineer.

Road closure shall be in accordance with Standard Road Plan TC-252. Provide 7 days notice to Engineer prior to any road closure. Contractor shall install temporary dynamic message boards on both sides of work zone to alert the public of planned closure 7 days (minimum) prior to closure.

Additional traffic control required for the Contractor's completion of work shall be in accordance with MUTCD, Iowa DOT Standard Road Plans, and current in-service conditions will be considered incidental to the Traffic Control bid item.

Exact location of Detour Signs may be adjusted as approved by the Engineer to avoid utility conflicts or sight line conflicts with trees or other roadside appurtenances.

STAGING NOTES

These staging notes are not intended to confine the Contractor's activities to the areas of suggested Stages alone. It is understood that various steps included herein may occur simultaneously. The Contractor may conduct several operations concurrently, provided that traffic is maintained and these operations do not conflict with the staging indicated herein, other portions of this project, and other construction activities.

As long as work remains on the project, the Contractor shall remain on the project. If issues exist within a Stage of the project which are beyond the Contractor's control (such as obstructions or utility issues), the City has the option to revise the Contract Staging and direct the Contractor to work on other "unaffected" Stages or areas of the project as shown within the Contract Documents, at no additional cost to the Owner. The Owner may, at the Owners discretion, provide additional days to the Contractor based upon relocation efforts and scheduling justification in accordance with the project specifications.

Once work within a Stage has commenced, the Contractor shall continue work within that Stage until all work within that Stage has been completed. If work within that Stage is not completed and the Contractor removes the "normal" size crew (and/or equipment) from the project without written authorization from the Owner, then the Contractor will be charged a day AND immediately assessed the disincentive rate for each day the Contractor's "normal" size crew and equipment are not working on the project. Disincentives will be assessed at the time of monthly pay applications covering any period during which the Contractor had unauthorized periods of wn most traffic patterns at all times.

The contractor is required to coordinate their activities with any public or private projects in the area.

Utilities within the project limits are listed on Sheet A.2. The only known conflicts with these utilities are called out in the plan sheets as relocate or removal by others. Unknown conflicts may exist and the Contractor shall work with each utility company to resolve each conflict and incorporate them into the overall construction schedule. No claims will be allowed to the Contractor for any interference or delay caused by such work.

Stage 1 Traffic
- Close eastbound to northbound turn lane at the IA Highway 5 intersection with Scotch Ridge Road.
- Close eastbound inside lane of IA Highway 5 approximately 350' west of intersection with Scotch Ridge Road.
- Close westbound inside lane of IA Highway 5 between approximately 350' west and intersection with Scotch Ridge Road.
- Shift eastbound and westbound traffic west of the intersection of IA Highway 5 and Scotch Ridge Road to the outside lanes utilizing Standard Road Plan TC-418. Maintain traffic on Scotch Ridge Road and access to Frontage Road.
- Eastbound inside lane can be utilized as an eastbound to northbound left turn lane as construction activities allow.

Stage 1 Construction
- Reconstruct existing IA Highway 5 median and storm sewer intake relocations west of the intersection.
- Contruct traffic signal improvements to IA Highway 5 intersection with Scotch Ridge Road.

Stage 2 Traffic
- Close westbound to southbound turn lane at the IA Highway 5 intersection with Scotch Ridge Road.
- Close westbound inside lane of IA Highway 5 approximately 350' east of the intersection with Scotch Ridge Road.
- Close eastbound inside lane of IA Highway 5 between intersection with Scotch Ridge Road and approximately 350' east of the intersection.
- Shift westbound and eastbound traffic east of the intersection of IA Highway 5 and Scotch Ridge road to the outside lanes utilizing Standard Road Plan TC-418. Maintain traffic access to Scotch Ridge Road.
- Westbound inside lane can be utilized as a westbound to southbound left turn lane as construction activities allow.

Stage 2 Construction
- Reconstruct existing IA Highway 5 median east of the intersection.

Stage 3 Traffic
- Shift eastbound traffic on IA Highway 5 to inside lane utilizing Standard Road Plan TC-418. Maintain traffic on Scotch Ridge Road.

Stage 3 Construction
- Construct proposed eastbound to southbound turn lane widening and aggregate shoulder on IA Highway 5.

Stage 4 Traffic
- Close shoulders of Scotch Ridge Road between IA Highway 5 intersection and Bluestem Drive. Utilize Standard Road Plan TC-202 for shoulder closure.
- Maintain two-way traffic on existing Scotch Ridge Road.
- Maintain one lane of traffic on Bluestem Drive at all times.
- During Stage 4C traffic on Scotch Ridge Road will utilize new pavement constructed in Stages 4A and 4B.

Stage 4 Construction
- Construct new pavement and storm sewer improvements between IA Highway 5 and Bluestem Drive.
- Construct new pavement in intersection of Bluestem Drive half at a time in order to maintain one lane operation.
- Construct new pavement and storm sewer improvements on Bluestem Drive West of Scotch Ridge Road.

Stage 5 Traffic
- Close Scotch Ridge Road between Bellflower Drive and Bluestem Drive. Detour thru traffic to Blue Bonnet Drive, Juniper Drive and South 8th street. Install and maintain "No Parking Any Time" signs as shown on Sheet J.3 during use of detour route.

Stage 5 Construction
- Construct remaining pavement and storm sewer improvements.

Stage 5 Restrictions
- **Construction on Stage 5 shall not begin until the end of the 2022 spring semester at Carlisle Community Schools.**
- **Stage 5 shall be substantially complete by August 12, 2022.**
- **Stage 5 shall be considered substantially complete when all new roadway pavement and underground utility construction is completed.**
- **Trail and sidewalk construction may be completed after the roadway is opened utilizing lane closures.**

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

Pavement Removal	Proposed Granular Shoulder
Proposed Granular Subbase	Temporary Shoulder
Proposed Special Backfill	Existing Shoulder Strengthening
Temporary Barrier Rail	Permanent Barrier Rail
	Channelizing Device

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

Channelizing Device	Crash Cushion (Temp or Perm)
Drum	Traffic Signal
Temporary Lane Separator	Flagger
Tubular Marker	Temporary Floodlighting
Channelizer Marker	Traffic Sign
Concrete Barrier Marker	Type III Barricade
Delineator	Type A Warning Light
Temporary Barrier Rail	Direction of Traffic
Pavement Removal	Safety Closure
Sand Barrel Layout	Lane Identification

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

Ⓐ TYPE III BARRICADE CLOSURE W/ ORANGE SAFETY FENCE

Ⓑ W20-3
48" x 48"

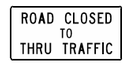
Ⓒ W20-2
48" x 48"

Ⓓ

Ⓔ

G20-2A
48" x 24"

Ⓕ



R11-4
60" x 30"

Ⓖ

Ⓗ

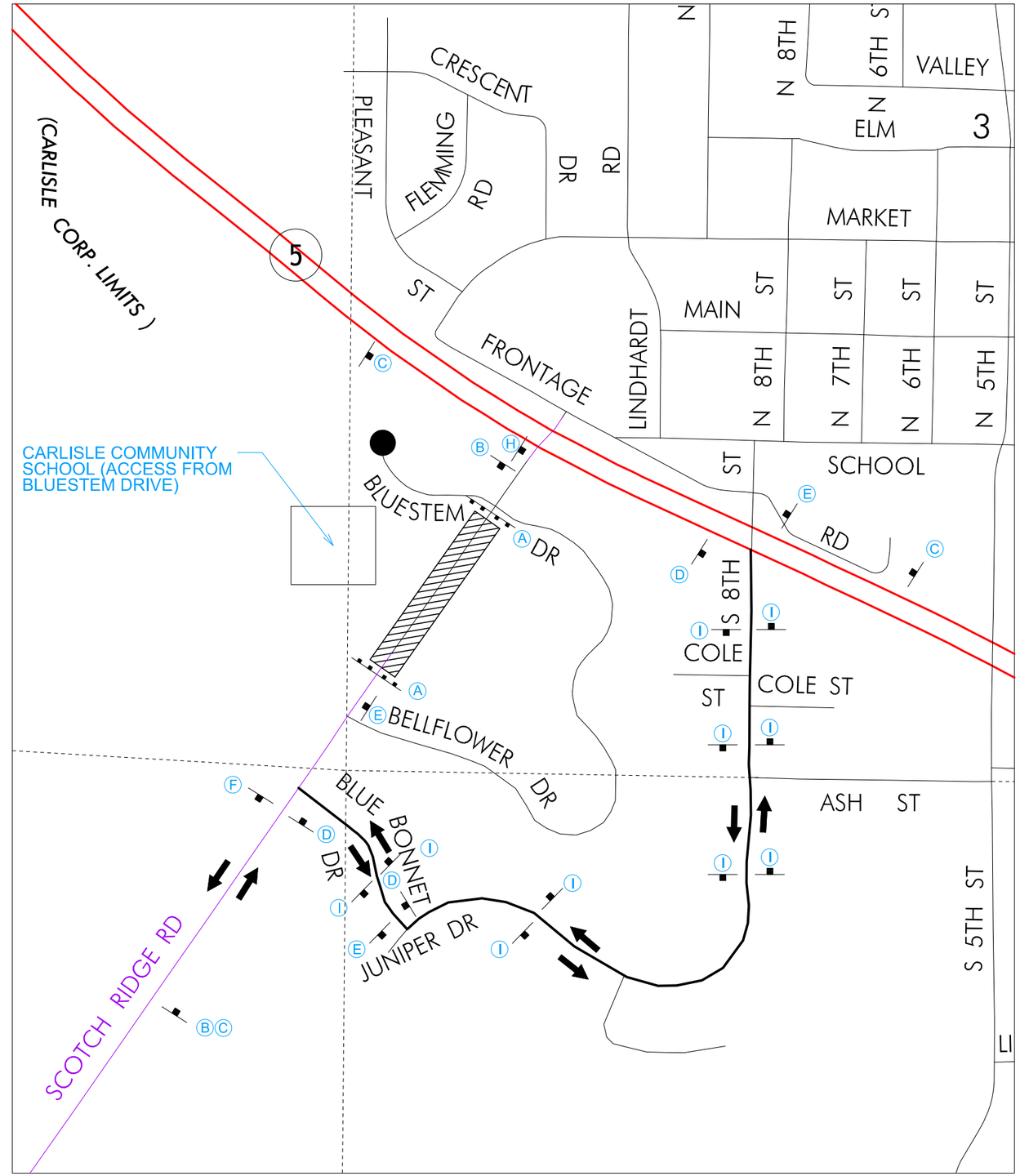
18" x 24"

Ⓘ

PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

●	Channelizing Device		Crash Cushion (Temp or Perm)
×	Drum		Traffic Signal
▪	Temporary Lane Separator		Flagger
◆	Tubular Marker		Temporary Floodlighting
♦	Channelizer Marker		Traffic Sign
△	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout	1	Lane Identification

NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.



ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™	making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	DETOUR MAP	SHEET NO. J.3
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021							

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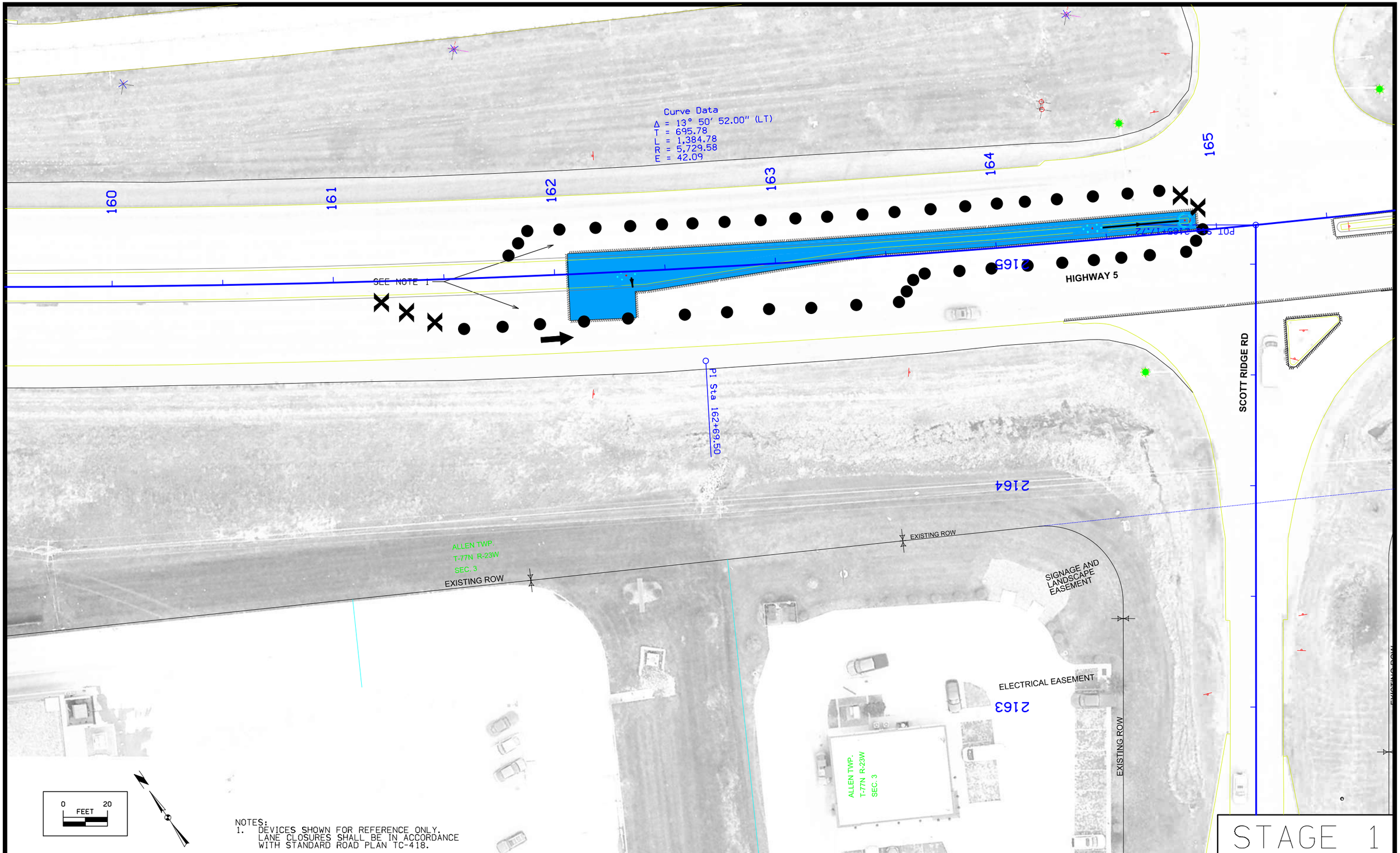
N:\Projects\CAR 20615007\Design\Plans\20615007_J03.dgn



NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. LANE CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-418.

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD			McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 1	SHEET NO. J.4
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007							
JSS	-	JULY, 2021							

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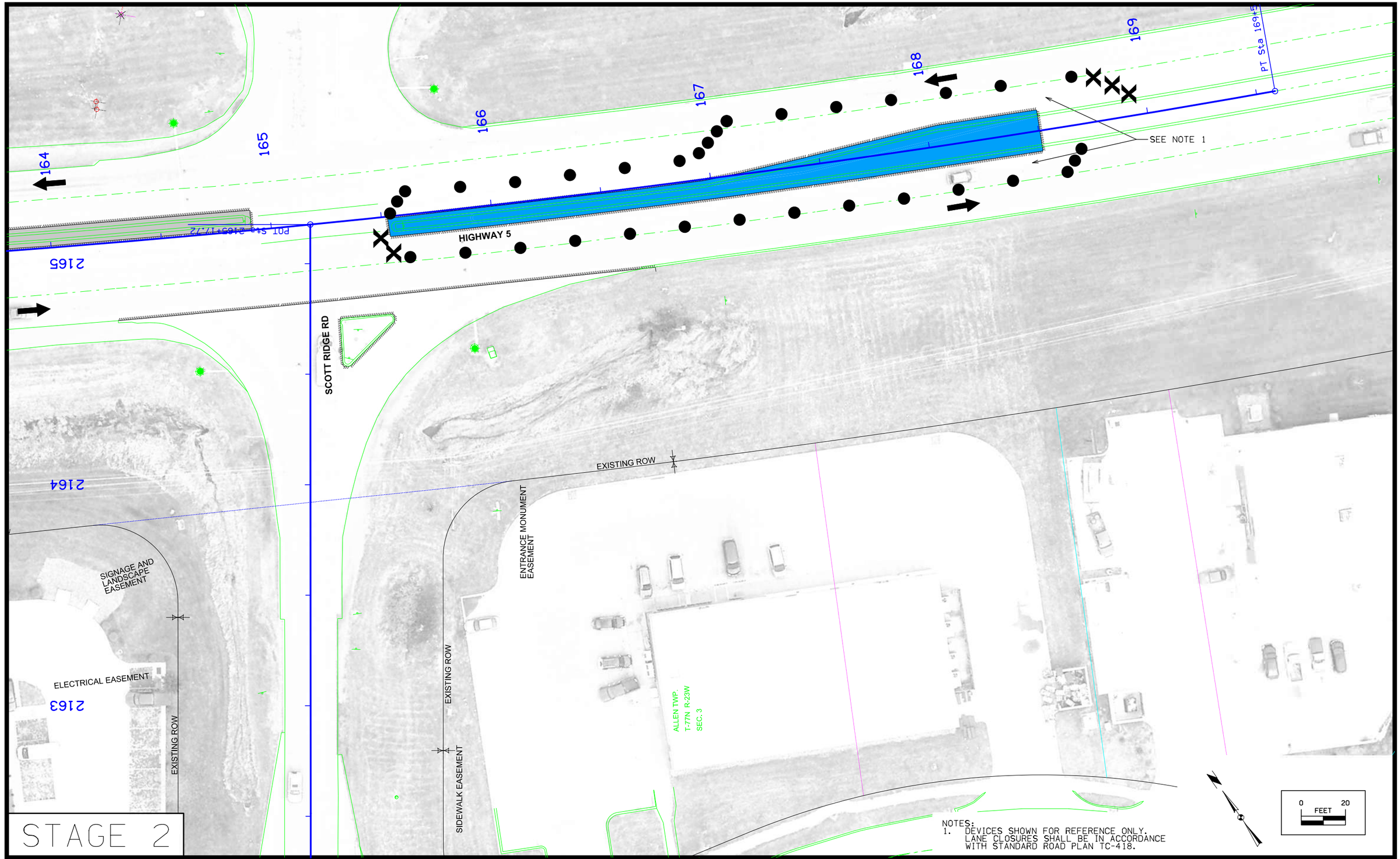

NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. LANE CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-418.

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 2	SHEET NO. J.5
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					

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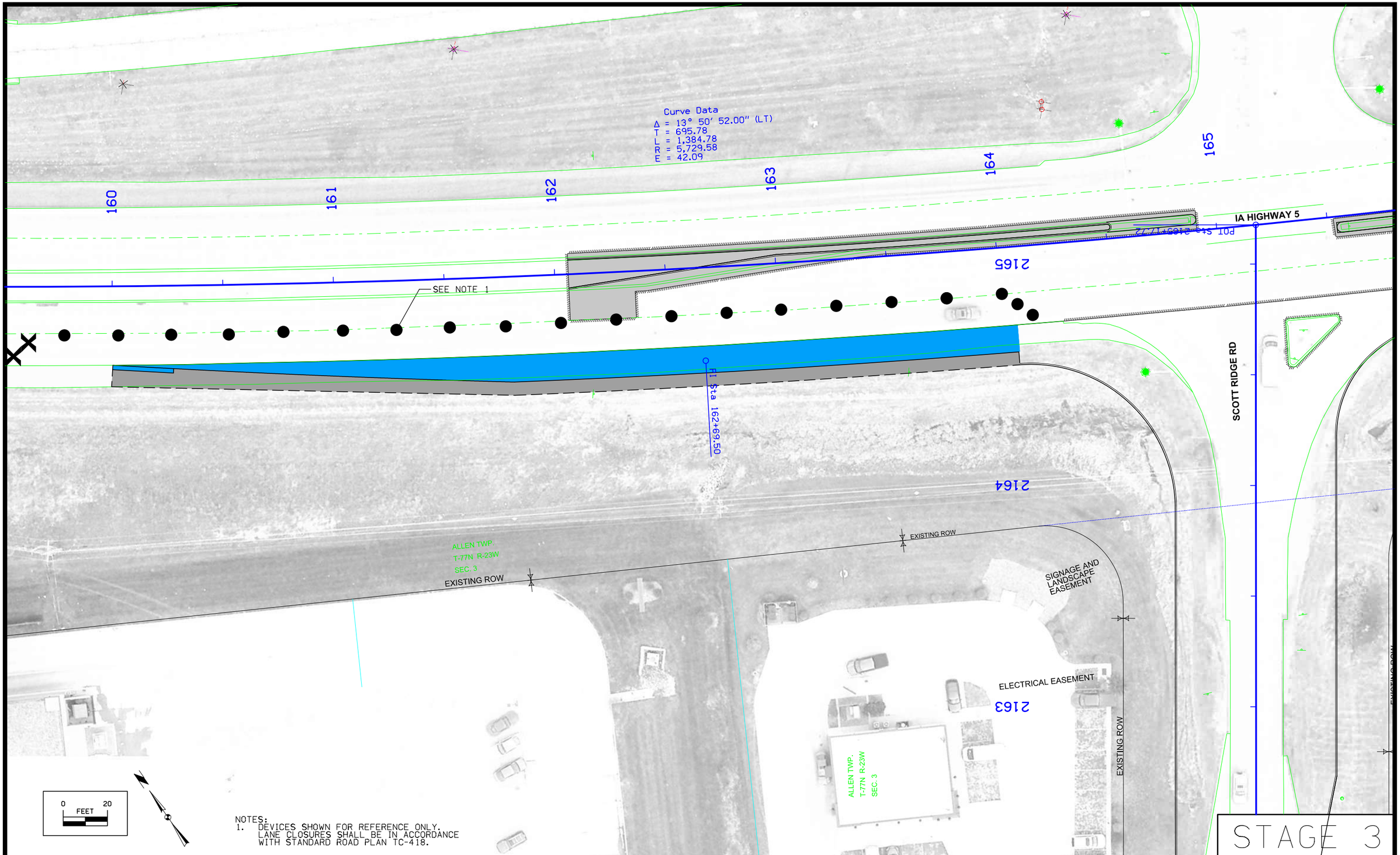

NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. LANE CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-418.

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	SCOTCH RIDGE ROAD	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JSS	-	JULY, 2021	

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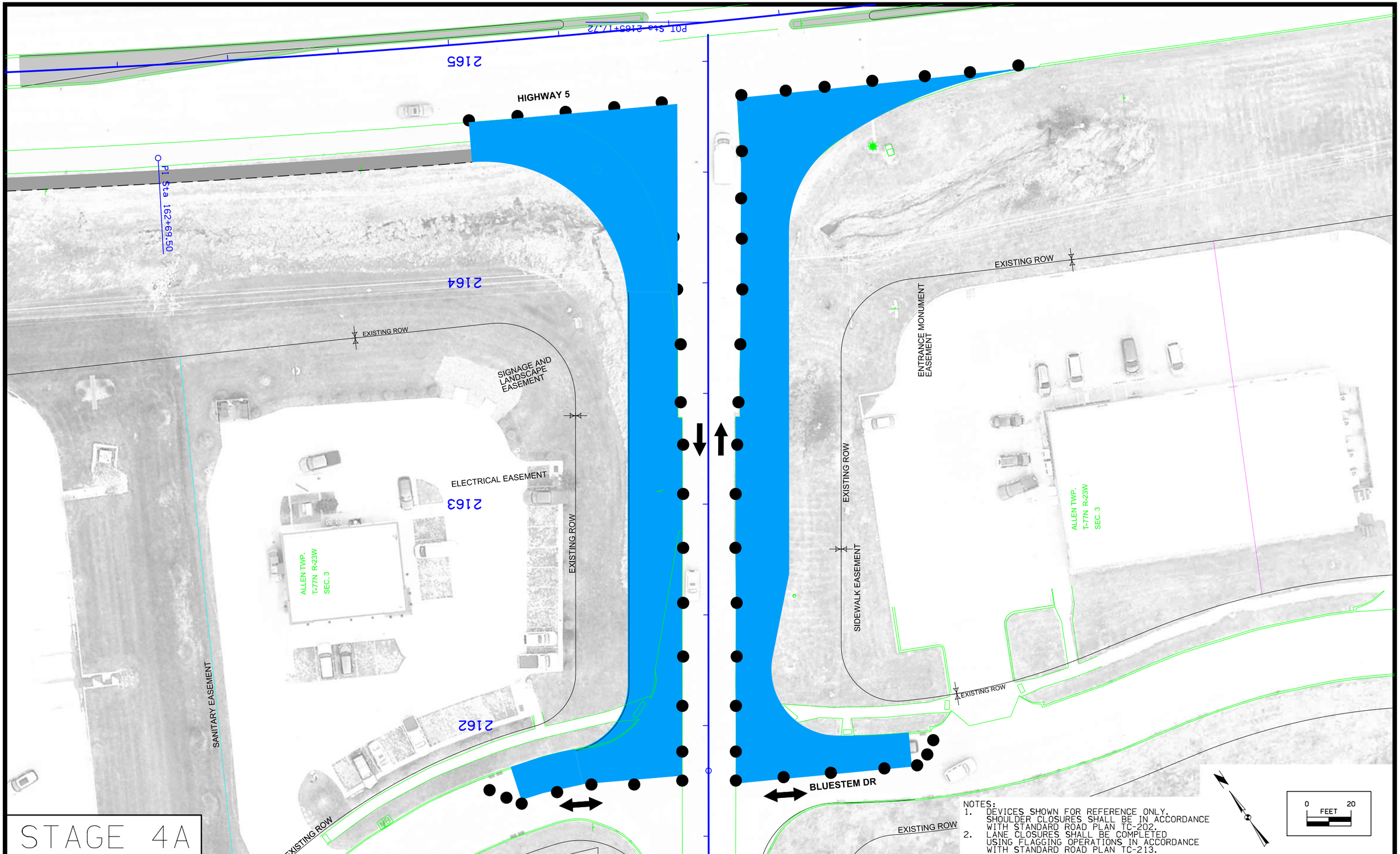
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

SCOTCH RIDGE ROAD
STAGE - 3

SHEET NO.
J.6

9/15/2021

N:\Projects\CAR 20615007\Design\Plans\20615007_J06.dgn



ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 4A	SHEET NO. J.7
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					

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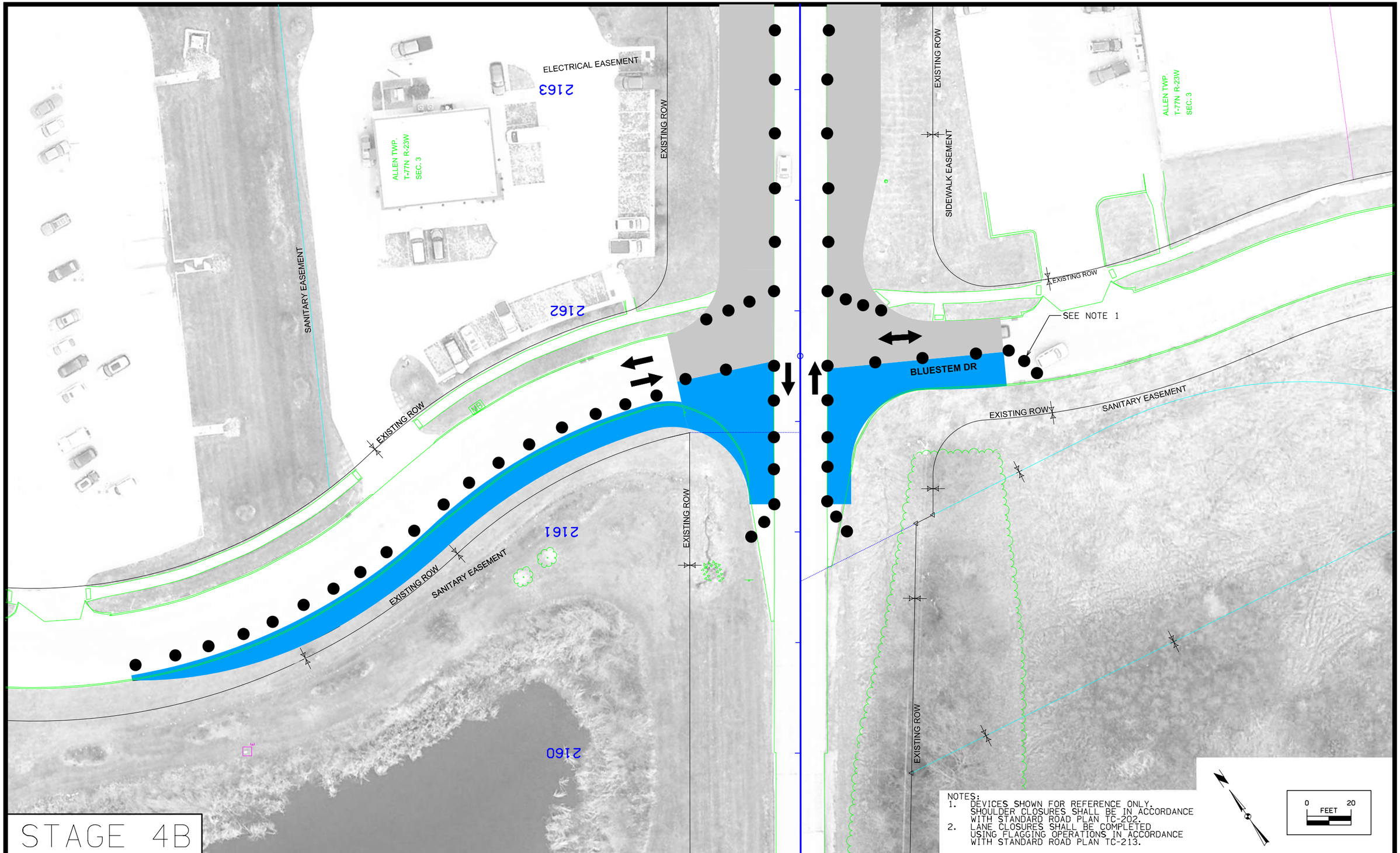
N:\Projects\CAR 20615007\Design\Plans\20615007_J07.dgn



NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. SHOULDER CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-202.
2. LANE CLOSURES SHALL BE COMPLETED USING FLAGGING OPERATIONS IN ACCORDANCE WITH STANDARD ROAD PLAN TC-213.

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 4B	SHEET NO. J.8
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JSS	-	JULY, 2021						

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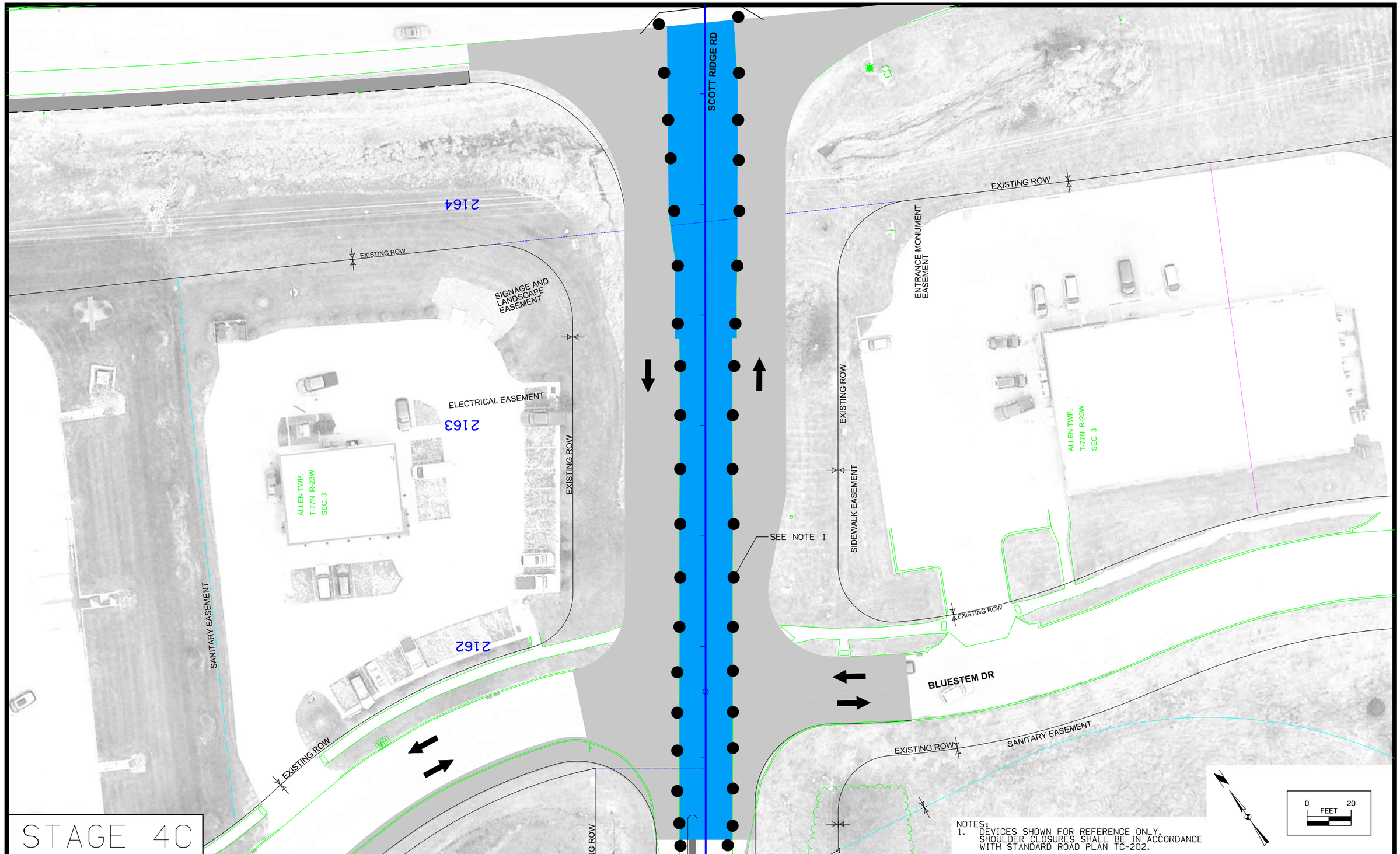

NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. SHOULDER CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLAN TC-202.

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 4C	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					J.9

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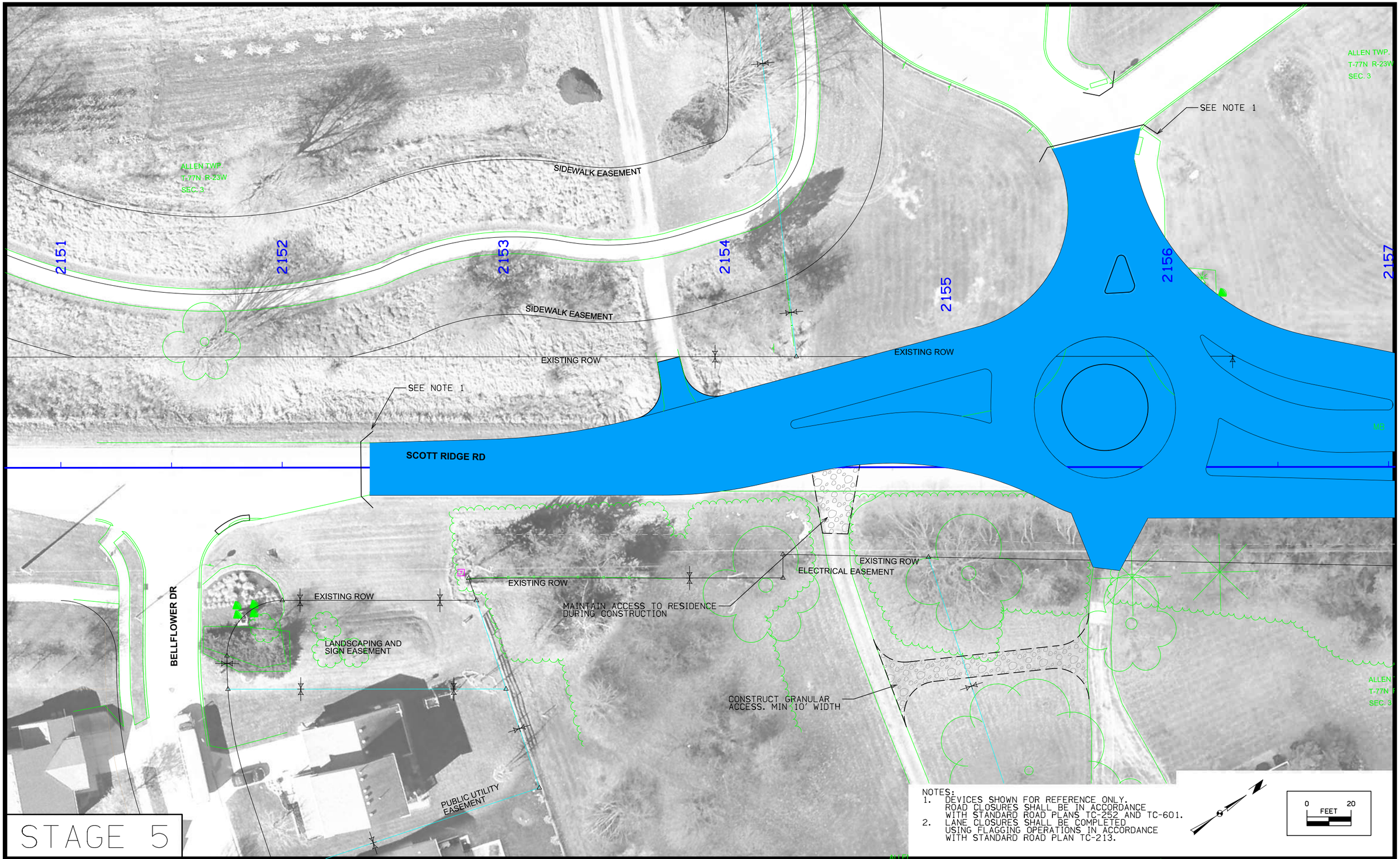

NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. ROAD CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLANS TC-252 AND TC-601.
2. LANE CLOSURES SHALL BE COMPLETED USING FLAGGING OPERATIONS IN ACCORDANCE WITH STANDARD ROAD PLAN TC-213.

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 5	SHEET NO. J.10
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					

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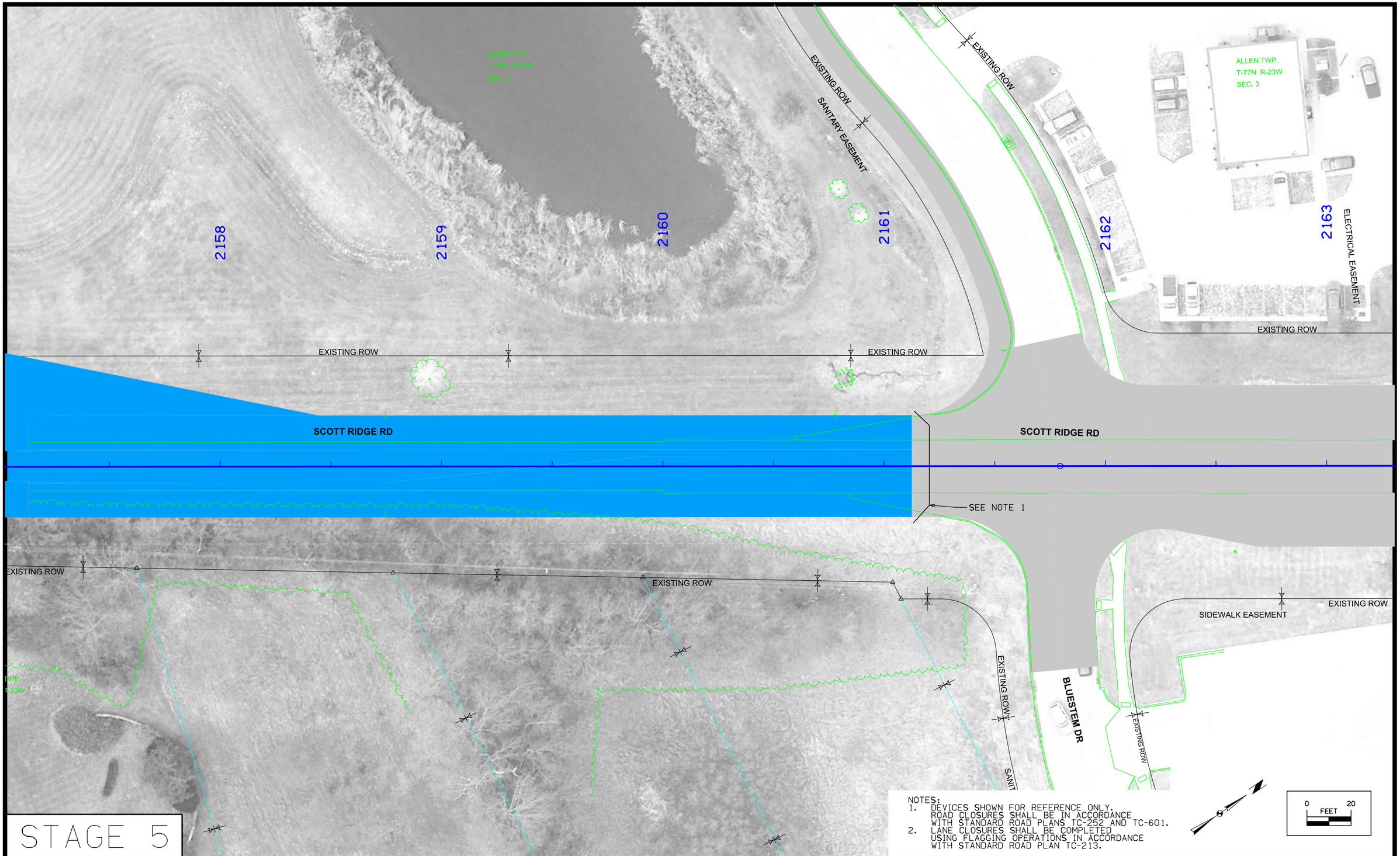
N:\Projects\CAR 20615007\Design\Plans\20615007_J10.dgn



NOTES:
1. DEVICES SHOWN FOR REFERENCE ONLY. ROAD CLOSURES SHALL BE IN ACCORDANCE WITH STANDARD ROAD PLANS TC-252 AND TC-601.
2. LANE CLOSURES SHALL BE COMPLETED USING FLAGGING OPERATIONS IN ACCORDANCE WITH STANDARD ROAD PLAN TC-213.

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD STAGE - 5	SHEET NO. J.11
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					

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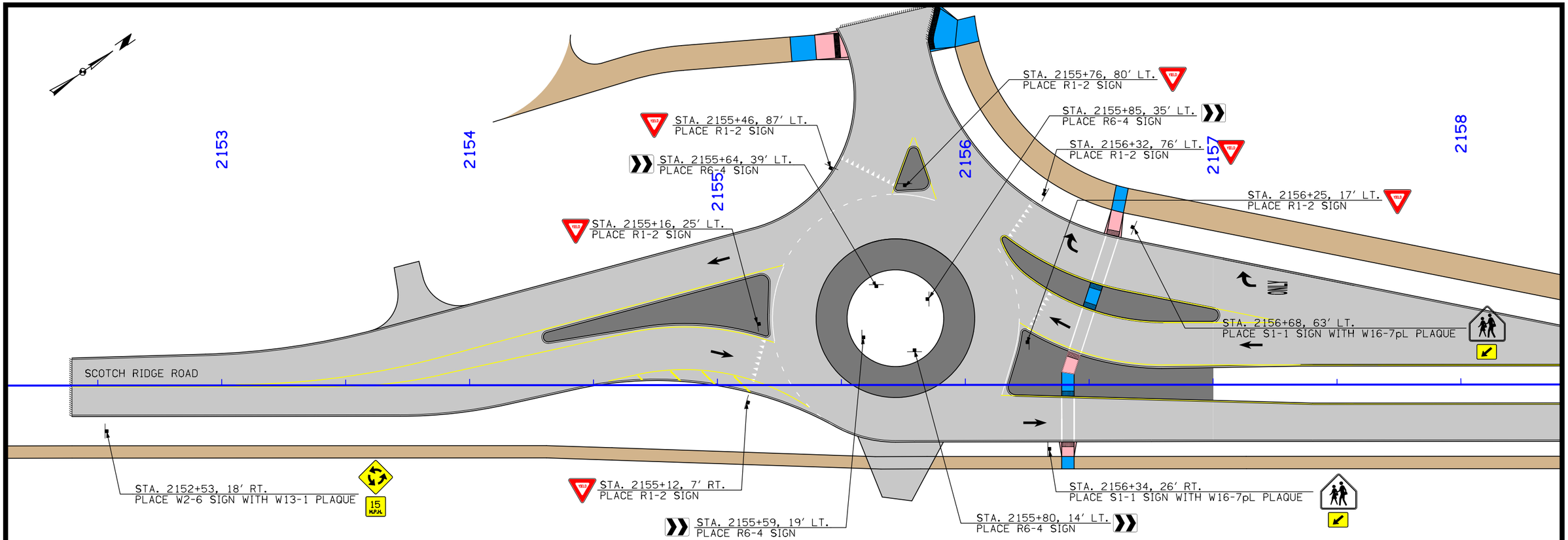
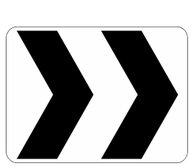




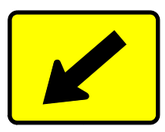
R6-4
30" x 24"

R1-2
48" x 48" x 48"

W2-6
36" x 36"

S1-1
36" x 36"

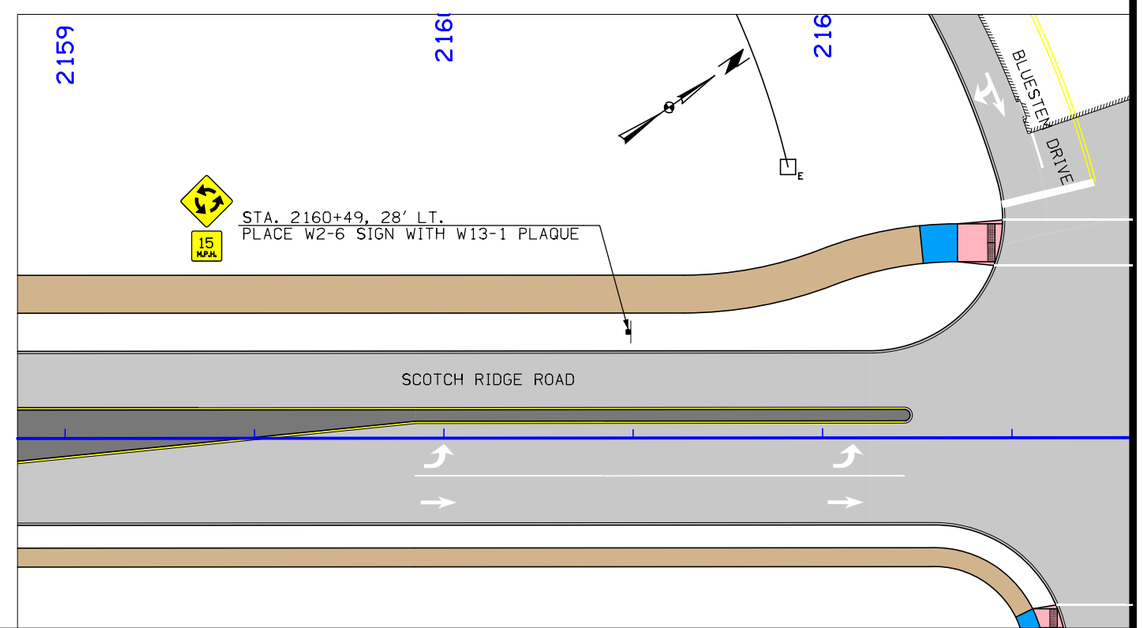
W13-1
18" x 18"



W16-7pL
24" x 12"

THIS SHEET IS INCLUDED TO SHOW PROPOSED ROUNDABOUT TRAFFIC SIGNING. FOR LOCATIONS AND DETAILS REGARDING ALL OTHER SIGNS, REFER TO TABS. 190-51, 190-62, AND 190-66 IN THE C SHEETS AND TO D SHEETS.

0 FEET 20



ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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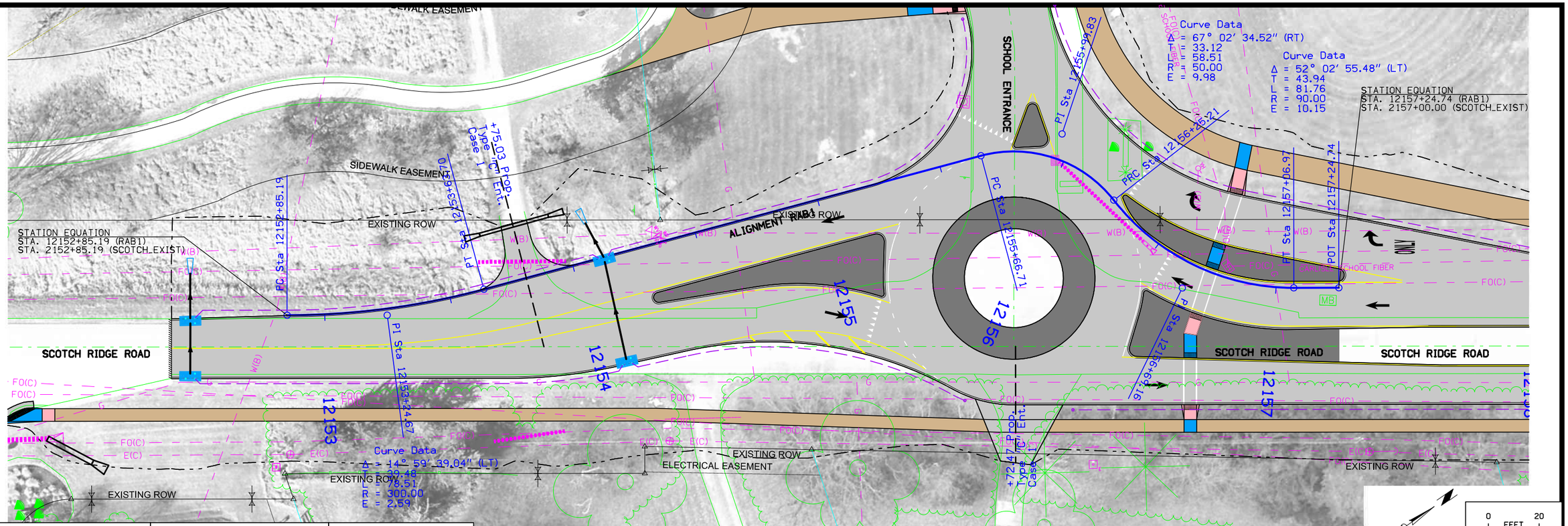
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
ROUNDABOUT SIGNING

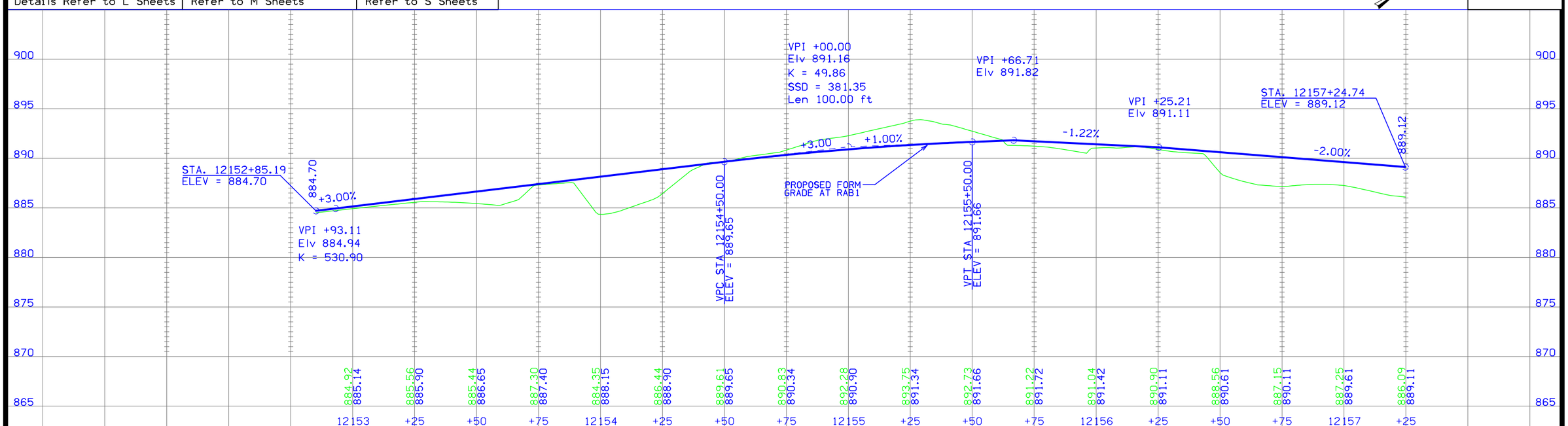
SHEET NO.
J.12

9/15/2021

N:\Projects\CAR 20615007\Design\Plans\20615007_J12.dgn



For Geometric & Jointing Details Refer to L Sheets	For Storm Sewer Details Refer to M Sheets	For Sidewalk Details Refer to S Sheets



ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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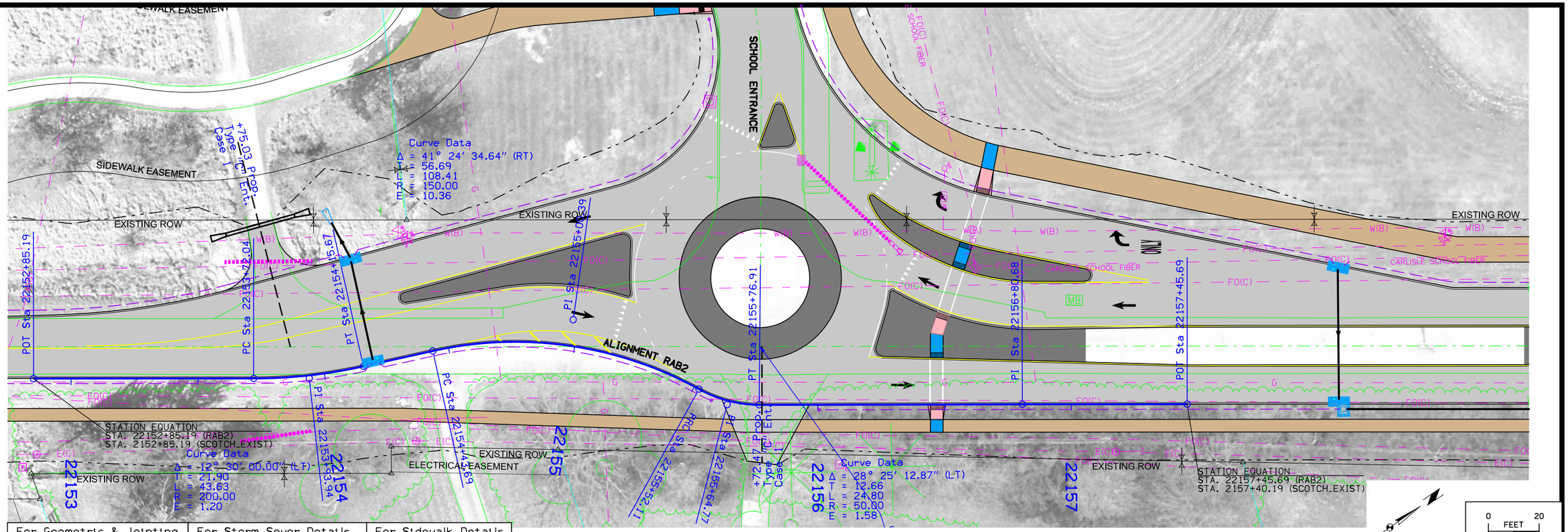
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

ROUNDABOUT ALIGNMENT RAB1
PLAN & PROFILE

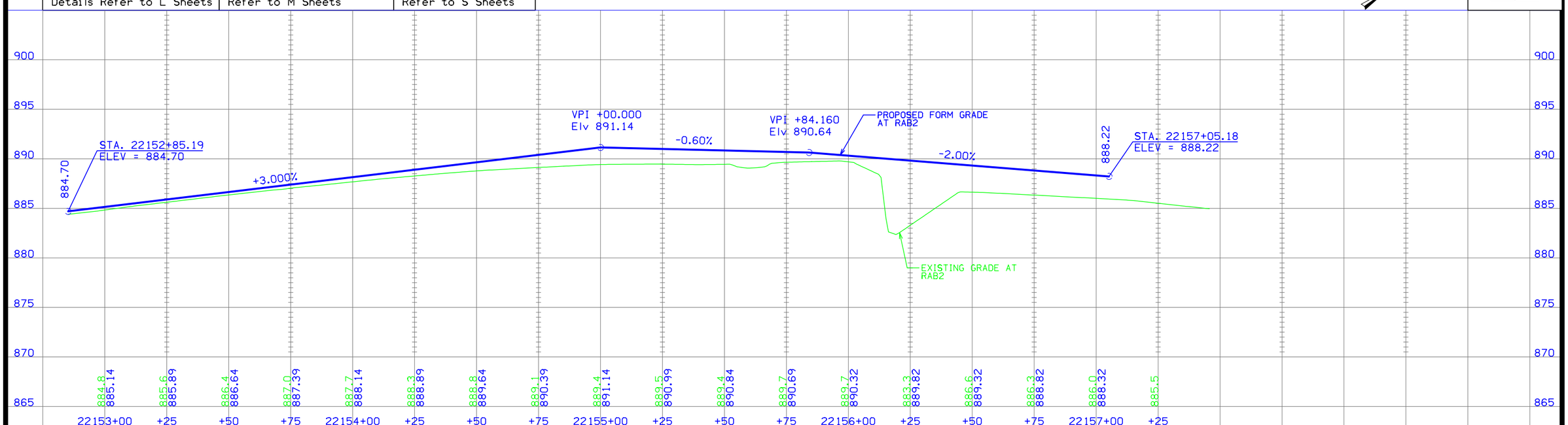
SHEET NO.
K.1

9/15/2021

N:\Projects\CAR 20615007\Design\Plans\20615007_K01.dgn



For Geometric & Jointing Details Refer to L Sheets	For Storm Sewer Details Refer to M Sheets	For Sidewalk Details Refer to S Sheets



ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	ROUNDABOUT ALIGNMENT RAB2 PLAN & PROFILE	SHEET NO. K.2
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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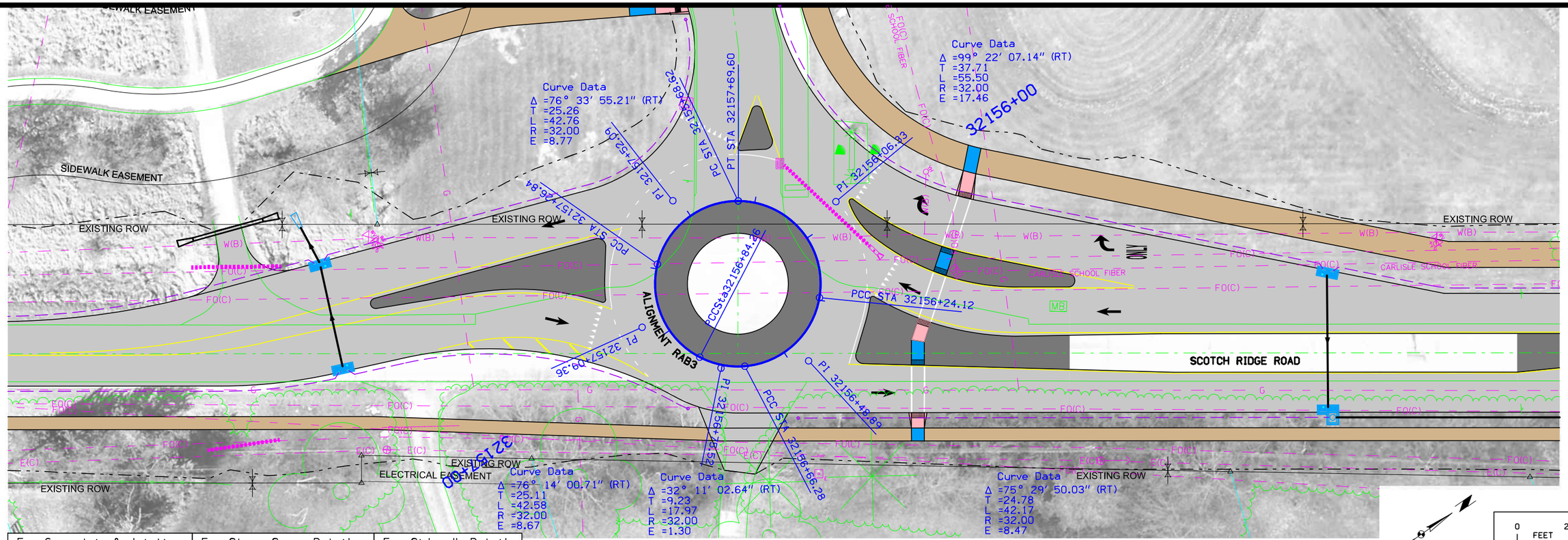
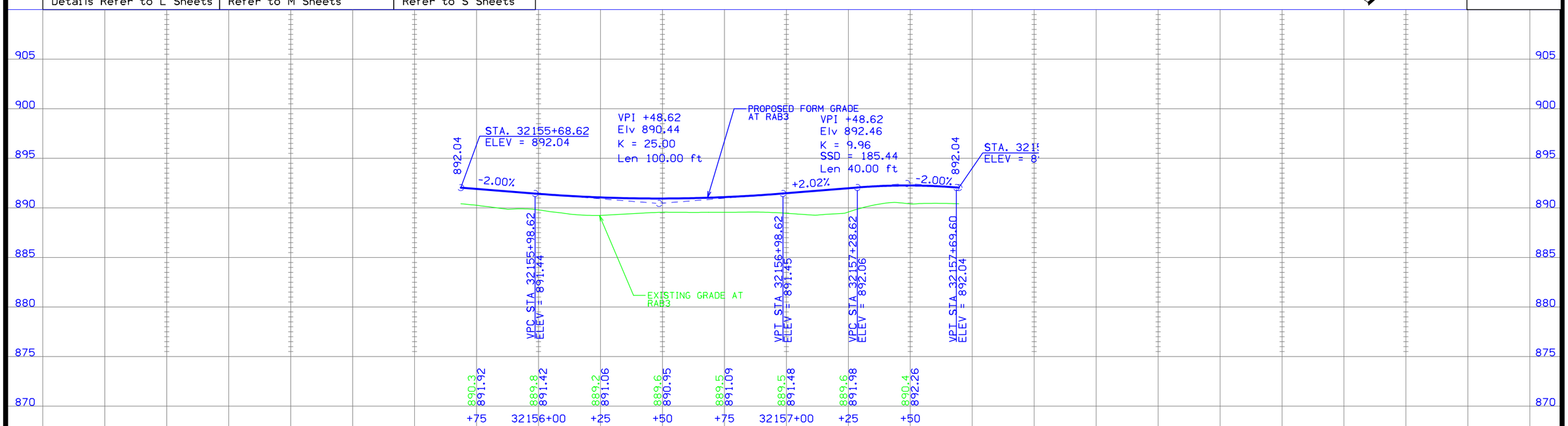


For Geometric & Jointing Details Refer to L Sheets	For Storm Sewer Details Refer to M Sheets	For Sidewalk Details Refer to S Sheets



ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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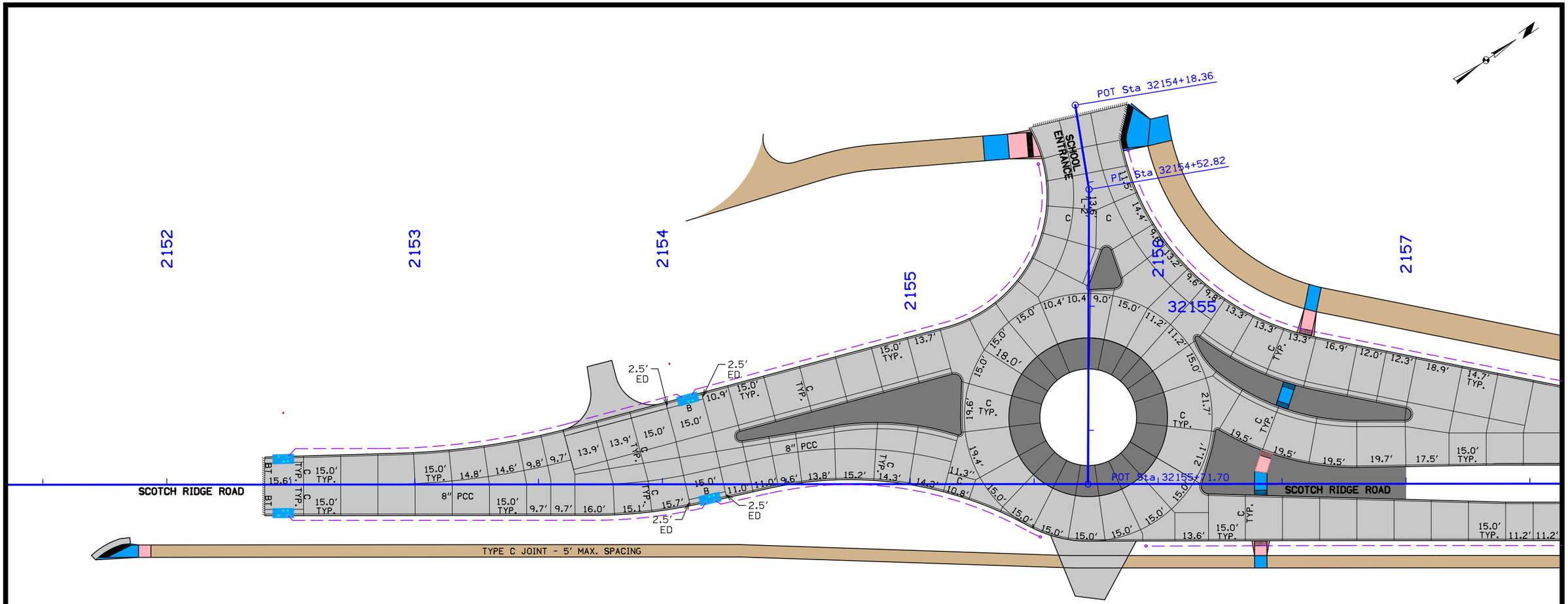
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

ROUNDABOUT ALIGNMENT RAB3
PLAN & PROFILE

SHEET NO. K.3

9/15/2021

N:\Projects\CAR 20615007\Design\Plans\20615007_K03.dgn



NOTE:
- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

For Geometric Information Refer to G Sheets

For Sidewalk Details Refer to S Sheets

0 20 FEET

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD JOINTING	L.1
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JS	FIELDBOOK	JULY, 2021						

9/15/2021

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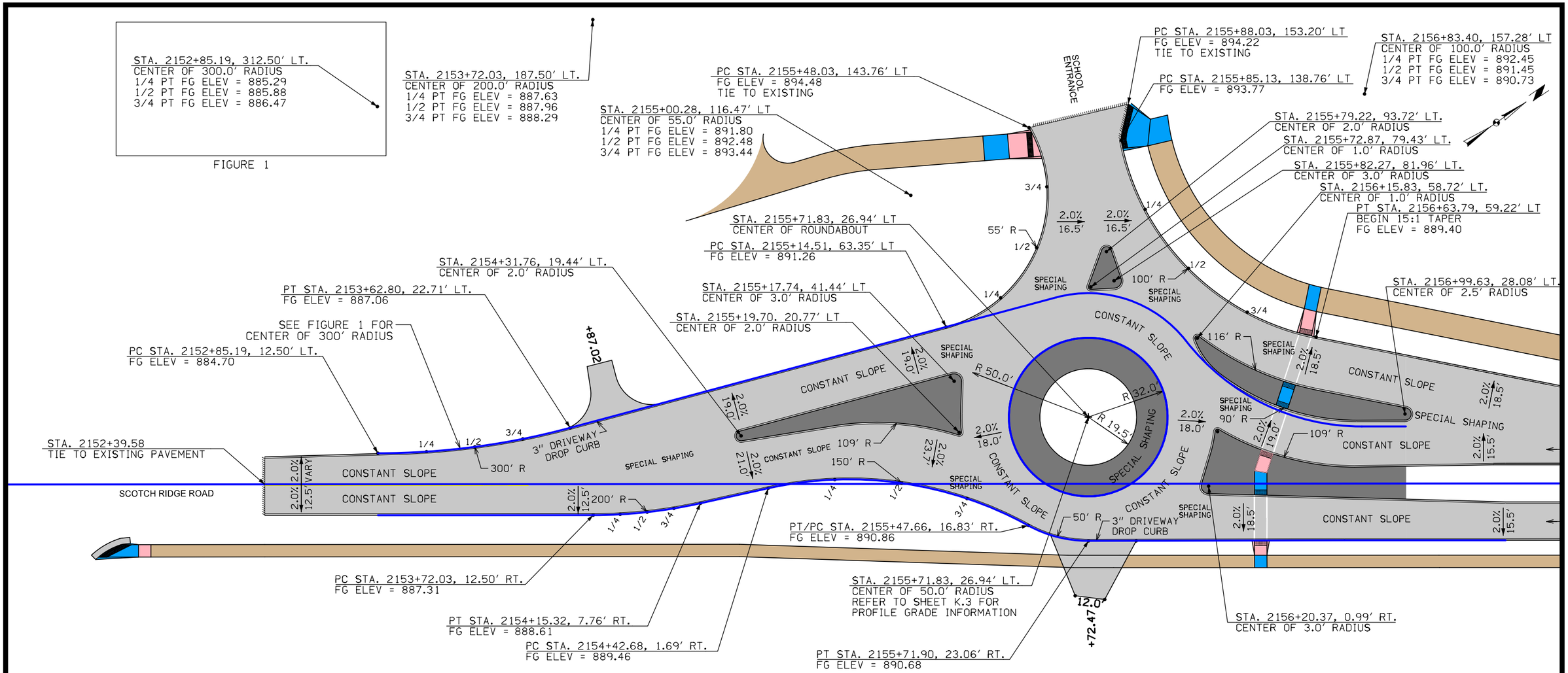


NOTE:
- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

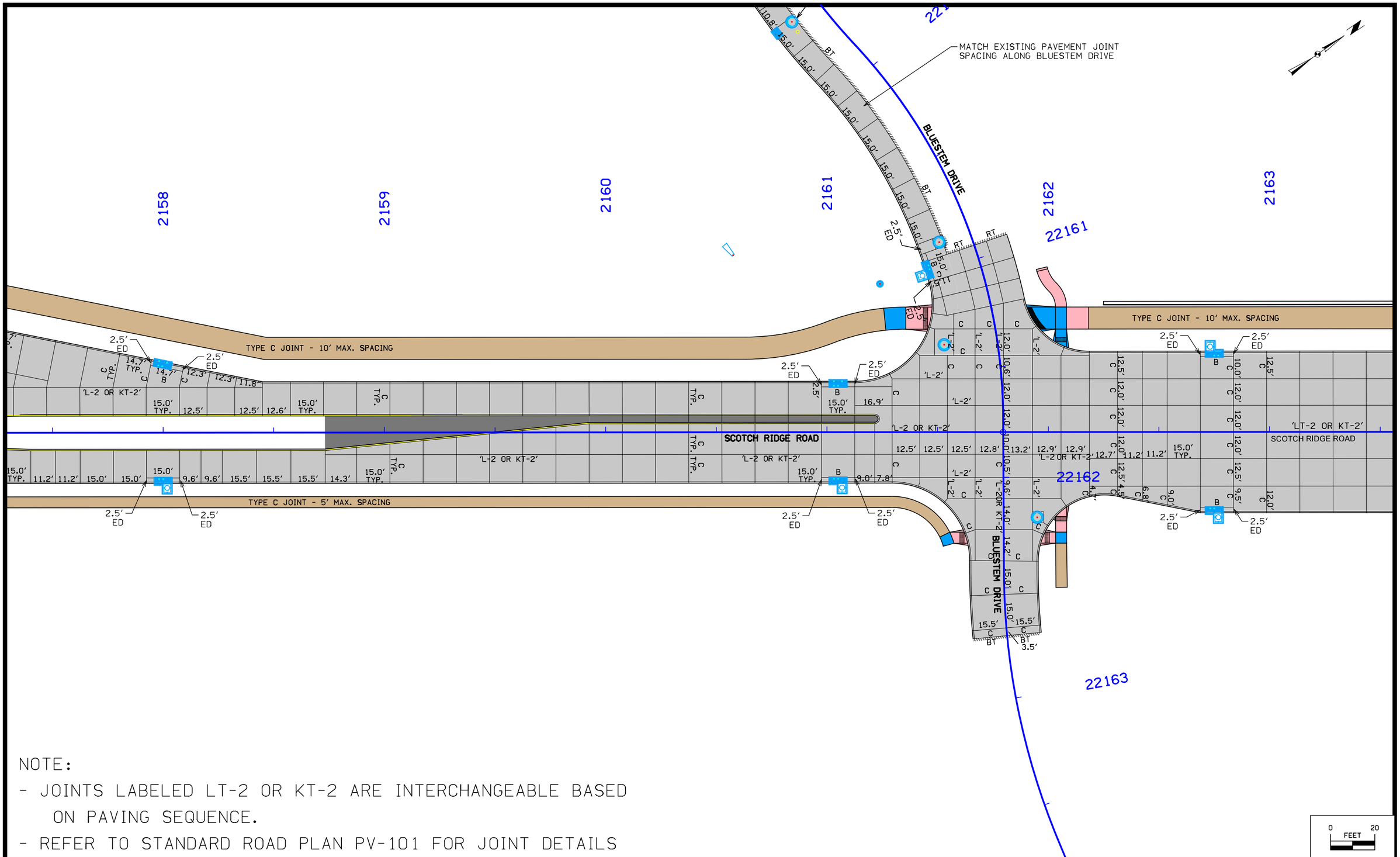
For Geometric Information Refer to G Sheets	For Sidewalk Details Refer to S Sheets

0 20 FEET

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA		McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD GEOMETRIC AND STAKING DETAILS	L.2
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JS	FIELDBOOK	JULY, 2021						

9/15/2021

N:\Projects\CAR 20615007\Design\Plans\20615007_L02.dgn



NOTE:

- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

ENGINEER MDR CHECKED BY JS	DRAWN BY MDR FIELD BOOK NO. FIELDBOOK	CARLISLE, IOWA MEC JOB #: 20615007 JULY, 2021	REVISIONS	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD JOINTING	SHEET NO. L.3

9/15/2021

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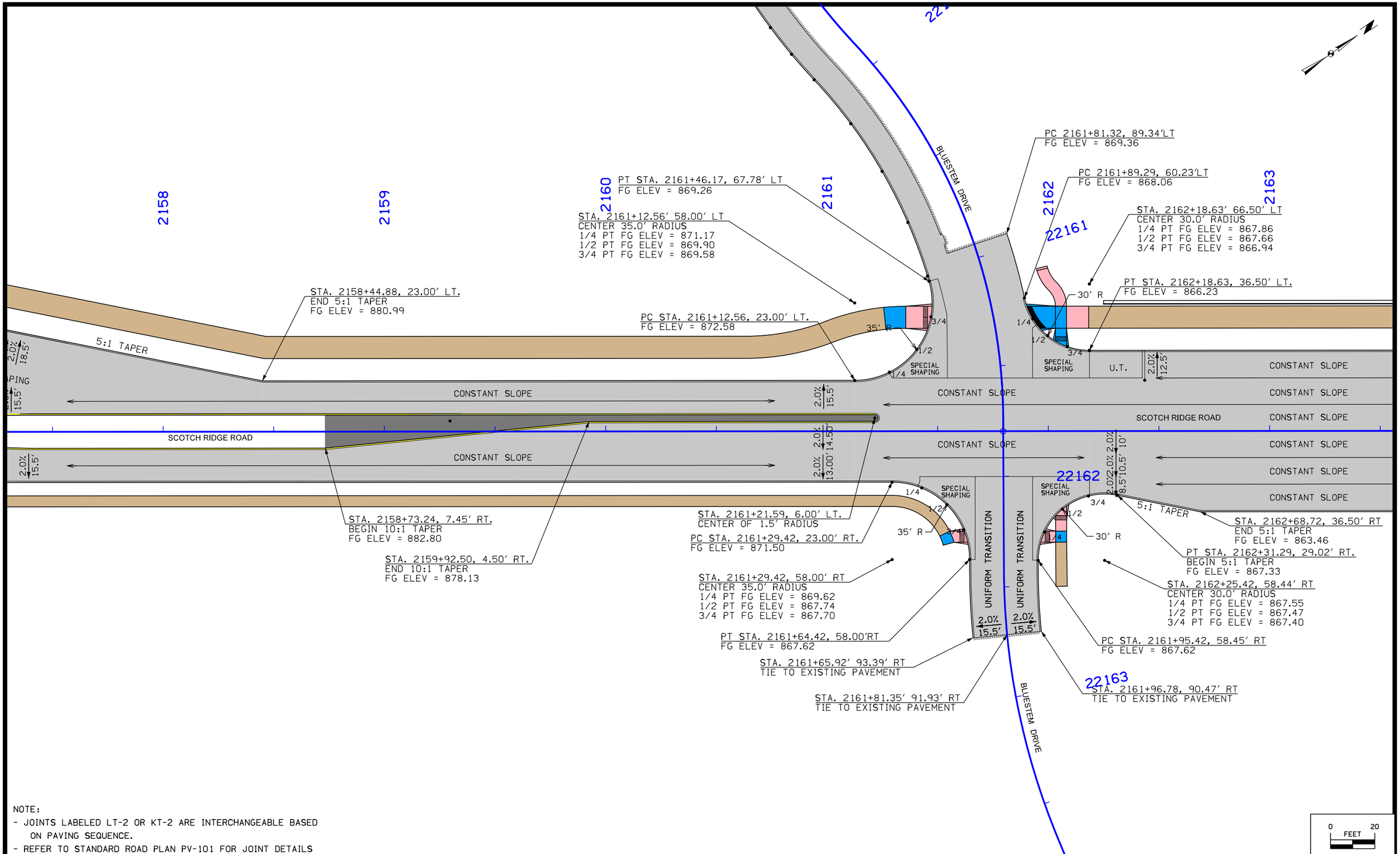

NOTE:
- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD GEOMETRIC AND STAKING DETAILS	SHEET NO. L.4
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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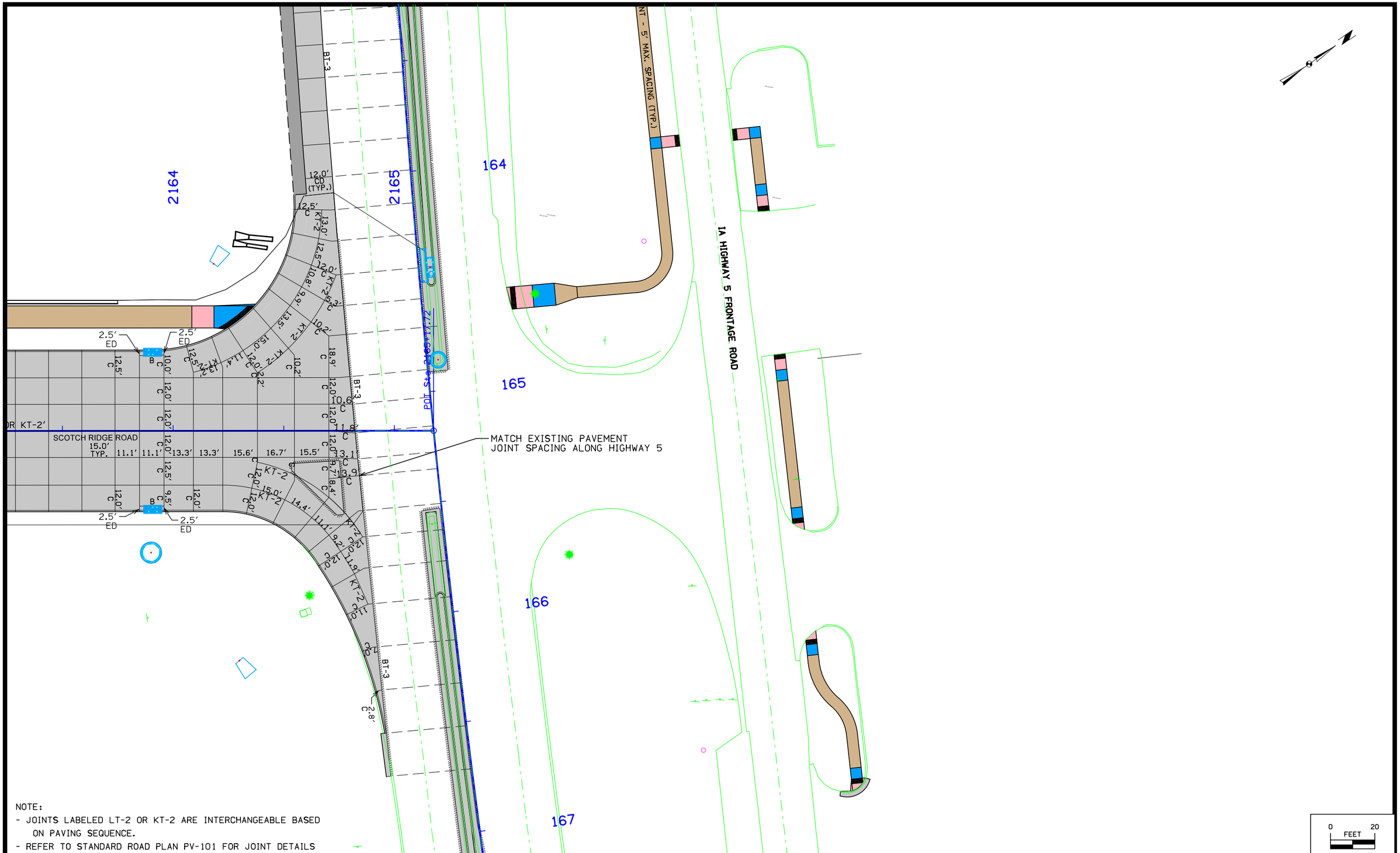

NOTE:
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- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

ENGINEER MDR CHECKED BY JS	DRAWN BY MDR FIELD BOOK NO. FIELDBOOK	CARLISLE, IOWA MEC JOB #: 20615007 JULY, 2021	REVISIONS	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD JOINTING	SHEET NO. L.5

9/15/2021

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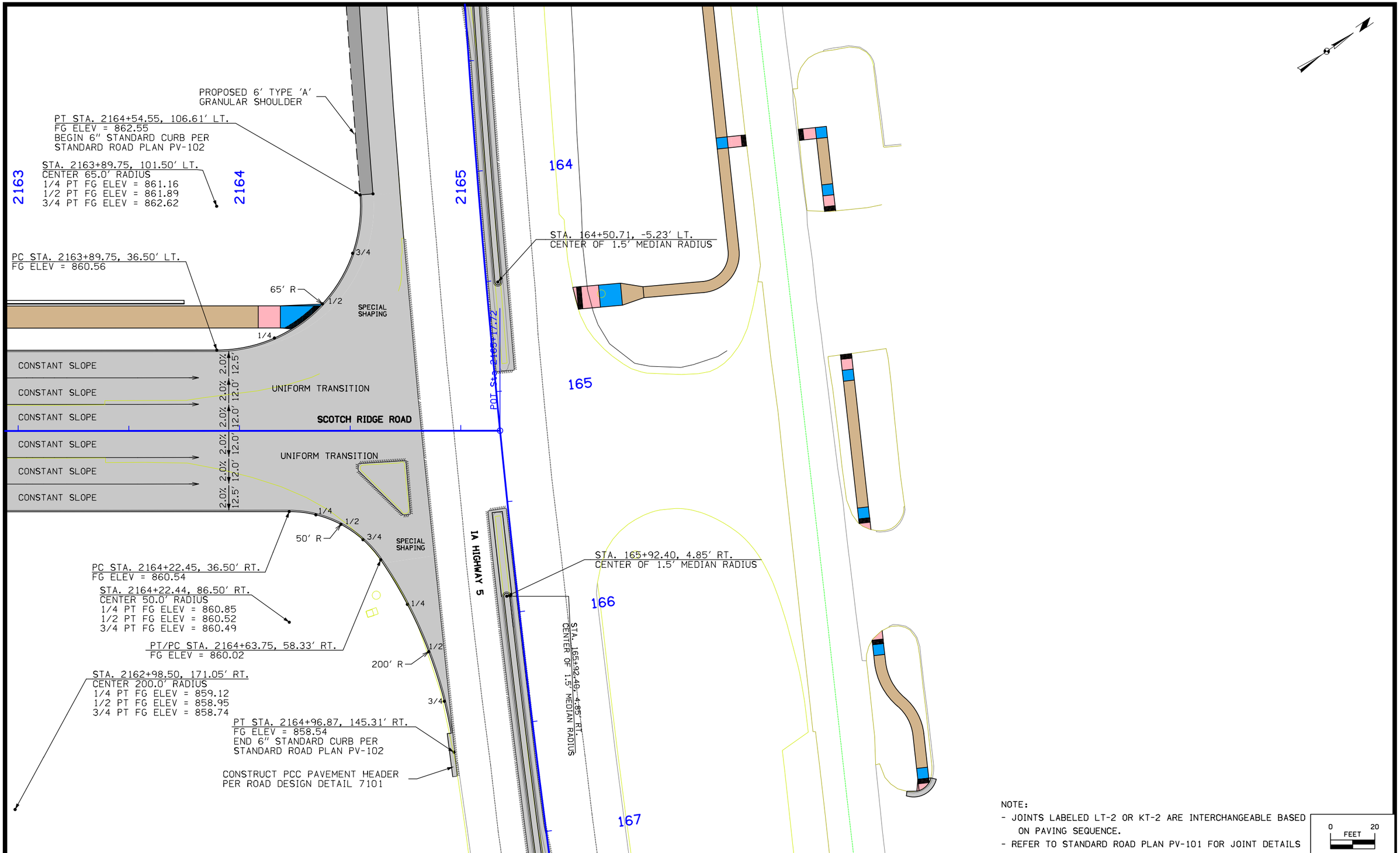

NOTE:
- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

0 FEET 20

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD GEOMETRIC AND STAKING DETAILS	SHEET NO. L.6
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

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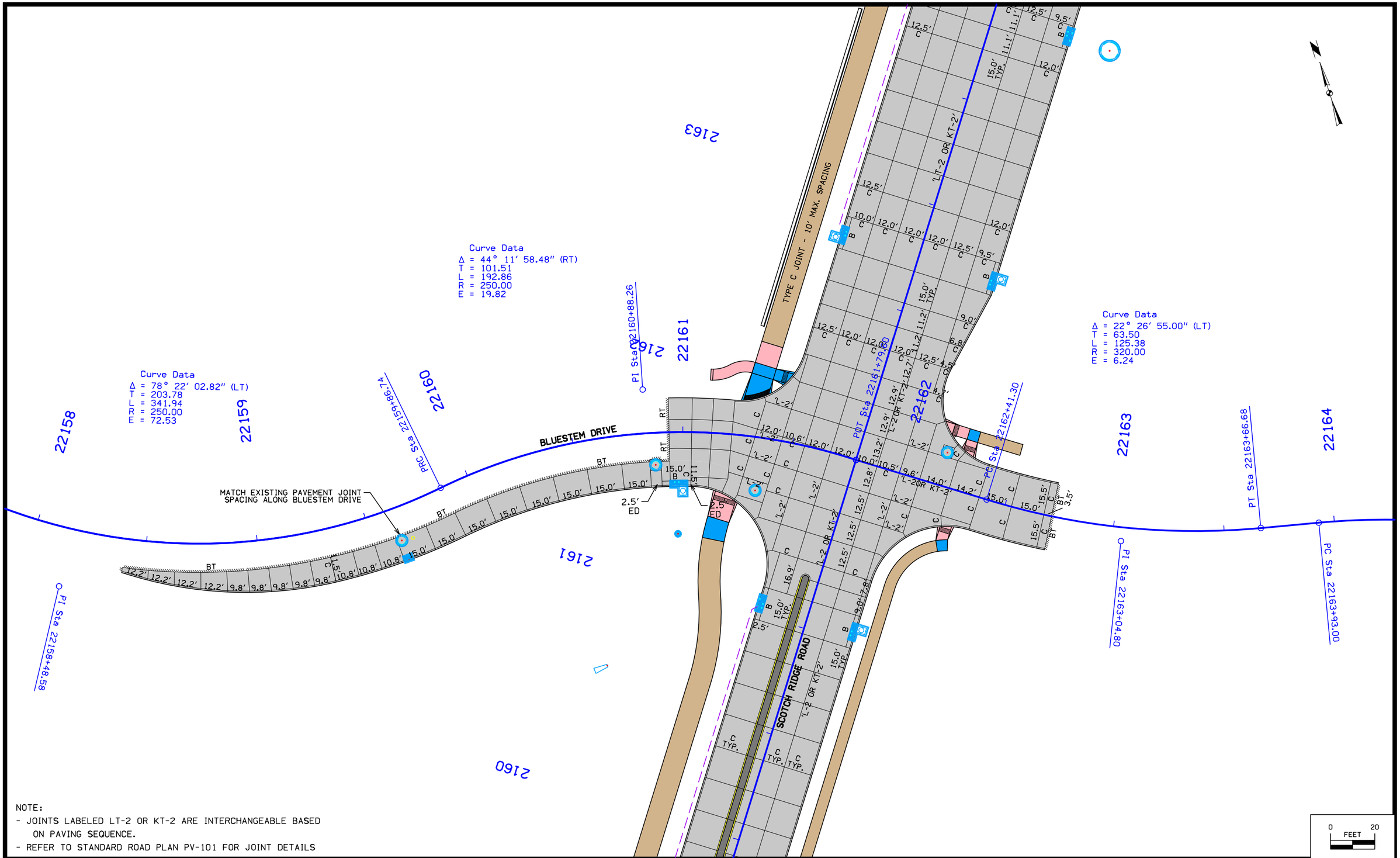

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- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	BLUESTEM DRIVE JOINTING	SHEET NO. L.7
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JS	FIELDBOOK	JULY, 2021					

9/15/2021

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STA. 22159+86.74, 250.00' LT.
CENTER 274.5' RADIUS
1/4 PT FG ELEV = 871.38
1/2 PT FG ELEV = 871.17
3/4 PT FG ELEV = 870.96

STA. 22159+30.64, 155.50' LT.
CENTER 180' RADIUS
1/4 PT FG ELEV = 874.07
1/2 PT FG ELEV = 872.82
3/4 PT FG ELEV = 872.16

Curve Data
Δ = 44° 11' 58.48" (RT)
T = 101.51
L = 192.86
R = 250.00
E = 19.82

Curve Data
Δ = 22° 26' 55.00" (LT)
T = 63.50
L = 125.38
R = 320.00
E = 6.24

Curve Data
Δ = 78° 22' 02.82" (LT)
T = 203.78
L = 341.94
R = 250.00
E = 72.53

PT STA. 22161+01.32, 24.50' LT.
FG ELEV = 869.26

MATCH EXISTING ROADWAY SLOPE

225.5' R

SEE FIGURE 2 FOR CENTER OF 225.5' RADIUS

180' R

274.5' R

PT/PC STA. 22159+86.74, 24.50' RT.
END 274.5' RADIUS
BEGIN 225.5' RADIUS
FG ELEV = 870.71

PC STA. 22158+40.64, 15.34' RT.
BEGIN 180' RADIUS
BEGIN 6" STANDARD CURB
FG ELEV = 874.40

PT/PC STA. 22159+30.64, 24.50' RT.
END 180' RADIUS
BEGIN 274.5' RADIUS
FG ELEV = 871.63

FIGURE 2

STA. 22159+86.74, 250.00' RT.
CENTER 225.5' RADIUS
1/4 PT FG ELEV = 870.31
1/2 PT FG ELEV = 869.86
3/4 PT FG ELEV = 869.41

BLUESTEM DRIVE

SCOTCH RIDGE ROAD

CONSTANT SLOPE

UNIFORM TRANSITION

SPECIAL SHAPING

U.T.

2.0% / 15.5'

PI Sta 22158+48.58

PRC Sta 22159+86.74

PI Sta 22160+88.26

POT Sta 22161+79.60

PC Sta 22162+44.30

PT Sta 22163+66.68

PI Sta 22163+04.80

PC Sta 22163+93.00

22158 22159 22160 22161 22162 22163 22164

2163 2162 2161 2160

NOTE:
- JOINTS LABELED LT-2 OR KT-2 ARE INTERCHANGEABLE BASED ON PAVING SEQUENCE.
- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

0 20 FEET

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	BLUESTEM DRIVE GEOMETRIC AND STAKING DETAILS	SHEET NO. L.8
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

9/15/2021

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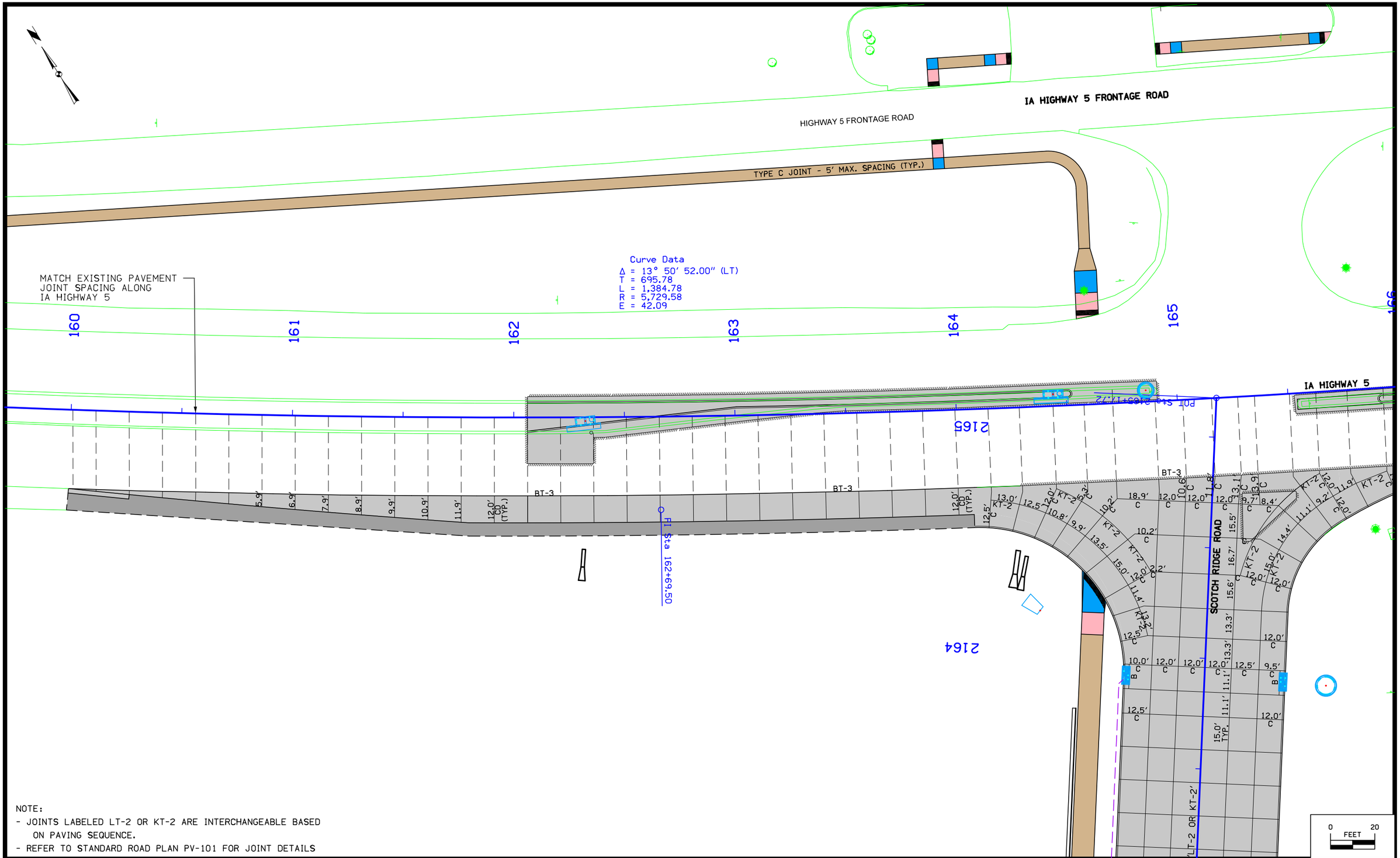

NOTE:
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- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

McCLURE™ making lives better.

1360 NW 121ST Street
Clive, Iowa 50325
515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

IA HIGHWAY 5
JOINTING

SHEET NO.
L.9

9/15/2021

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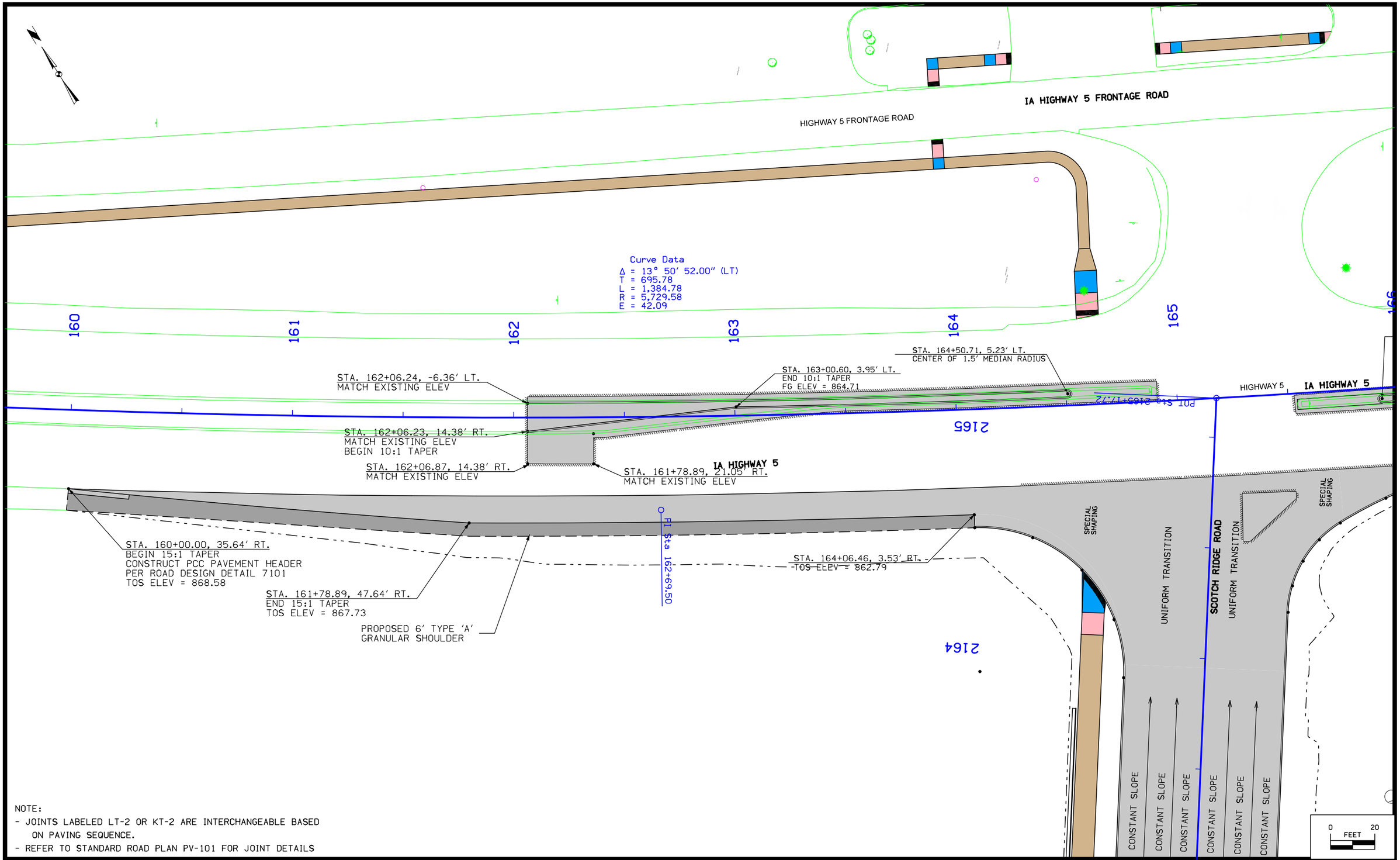

NOTE:
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ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	IA HIGHWAY 5 GEOMETRIC AND STAKING DETAILS	SHEET NO. L.10
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JS	FIELDBOOK	JULY, 2021					

9/15/2021

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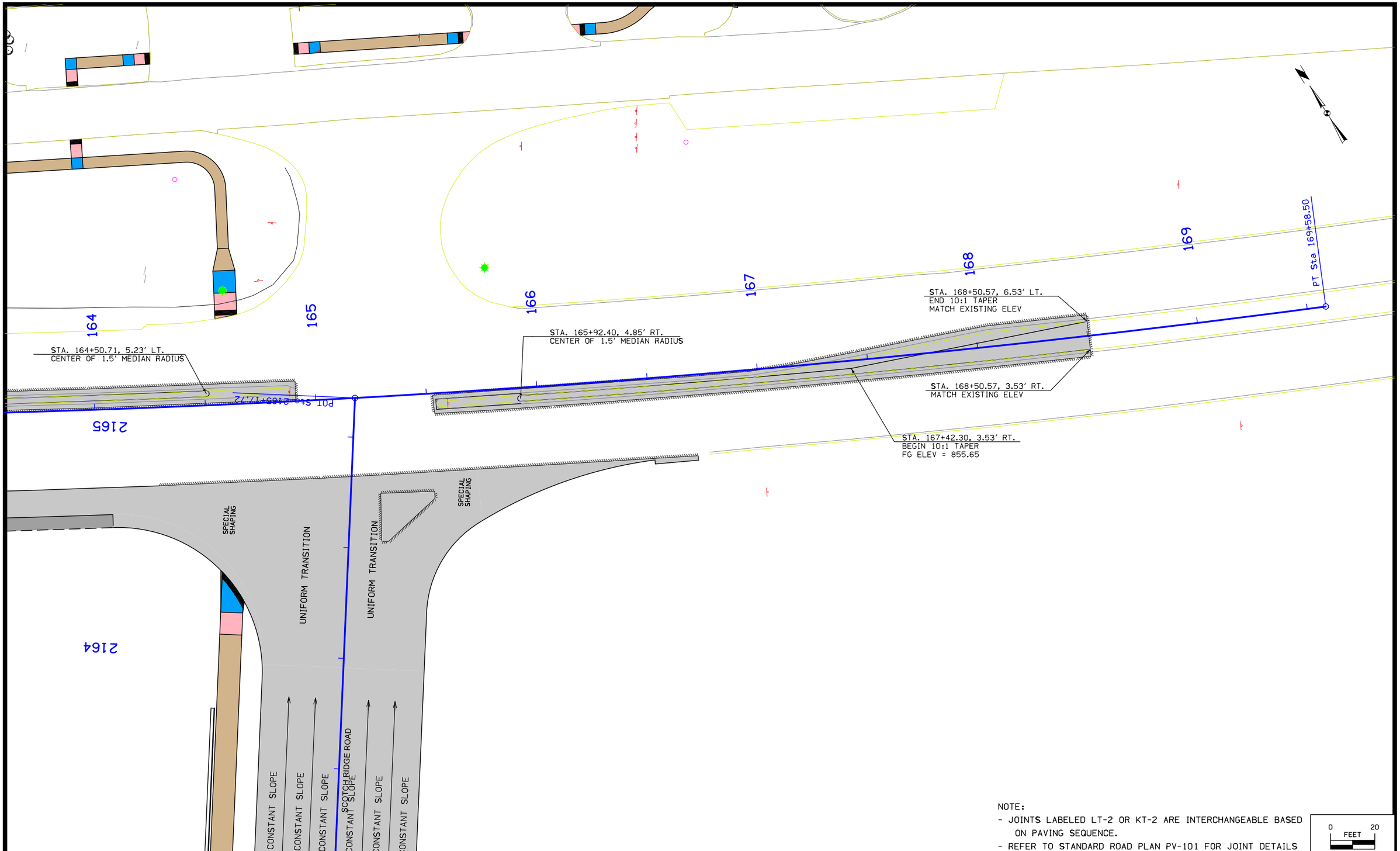

NOTE:
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- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

0 FEET 20

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	IA HIGHWAY 5 GEOMETRIC AND STAKING DETAILS	SHEET NO. L.11
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JS	FIELDBOOK	JULY, 2021					

9/15/2021

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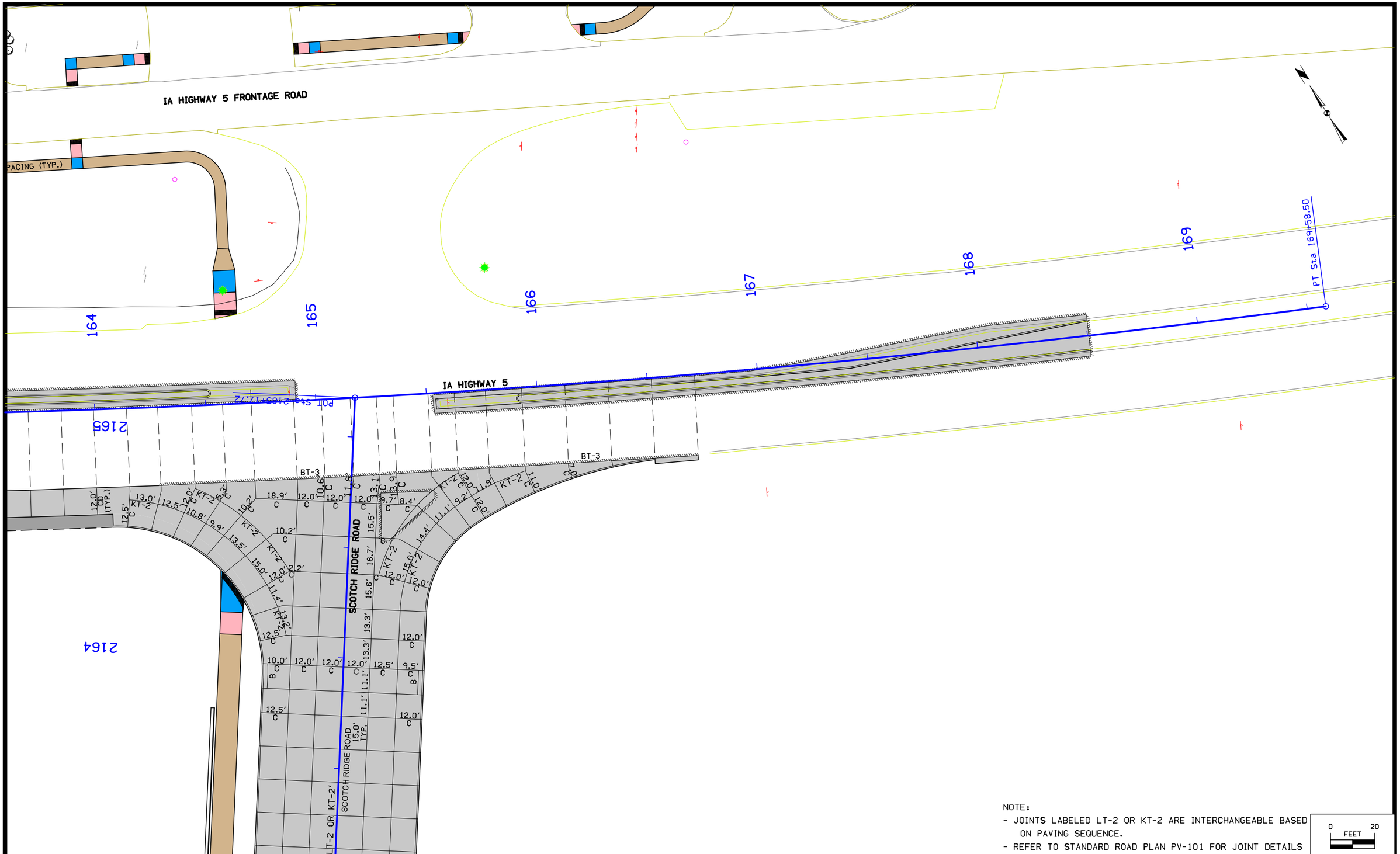

NOTE:
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- REFER TO STANDARD ROAD PLAN PV-101 FOR JOINT DETAILS

0 FEET 20

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	IA HIGHWAY 5 GEOMETRIC AND STAKING DETAILS	SHEET NO. L.12
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021					

10/1/2021

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STORM SEWER

(1) Diameter or equivalent diameter
* Bid Item
** For SW-545

INTAKES AND UTILITY ACCESSES

No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade Elev.	Bottom Well Elev.	Extension Length** FT	Notes
I-100	2163+90.82, 36.50	SW-505	860.42	854.32		
I-101	2163+90.82, -36.50	SW-505	860.56	854.78		
I-102	2164+23.00, -82.00	DR-201 (52" X 32")				FL Elev. = 855.95
I-103	2162+75.00, 36.50	SW-506	863.21	856.99		
I-104	2162+75.00, -36.50	SW-506	863.20	858.08		
I-105	2161+05.00, 23.00	SW-506	872.73	865.51		
I-106	2161+05.00, -23.00	SW-505	872.97	868.24		
I-107	2160+53.75, -84.61	DR-201 (15")				FL Elev. = 872.00
I-108	2161+24.00, -67.00	SW-512 (24" Type 3B Casting)	867.03	862.53		
I-109	22160+98.00, 24.50	SW-506	869.24	863.67		
I-110	2158+00.00, 22.94	SW-506	885.31	879.70		
I-111	2158+00.00, -31.97	SW-505	885.13	880.51		
I-200	2152+47.00, 12.50	SW-505	883.58	878.93		
I-201	2152+47.00, -11.33	SW-505	883.58	878.43		
I-300	2154+10.00, 6.86	SW-505	888.74	884.13		
I-301	2154+10.00, -35.36	SW-505	888.52	883.83		
I-400	22159+62.00, 24.50	SW-501	871.12	866.61		
I-500	164+44.00, -3.72	SW-509 (Modified)	861.86	857.29		
I-600	162+32.50, 3.22	SW-509	865.90	861.40		
O-100	2164+35.00, 110.00	DR-201 (52" X 32")				FL Elev. = 854.36
O-200	2152+47.00, -35.00	DR-201 (15")				FL Elev. = 878.75
O-300	2154+00.00, -54.00	DR-201 (15")				FL Elev. = 884.25
O-600	162+35.00, 7.00	Connect to Existing Pipe				FL Elev. = 862.43
MH-100	2163+90.00, 55.00	SW-401 (96")	859.65	854.15		
MH-101	2161+95.00, 38.50	SW-401 (48")	867.76	860.92		
MH-102	2161+53.00, -39.50	SW-401 (48")	870.17	862.56		
MH-103	22160+87.00, 14.50	SW-401 (48")	869.47	864.31		
MH-400	22159+62.00, 15.00	SW-401 (48")	871.32	866.61		
MH-500	164+85.98, -5.12	SW-401 (72")	861.28	856.67		
0-700	2161+04.10, 39.50	Connect to Existing Pipe				
		Total:				
		Connect to Existing Pipe	2			
		DR-201 (15")	3			
		DR-201 (52" X 32")	2			
		SW-401 (48")	4			
		SW-401 (72")	1			
		SW-401 (96")	1			
		SW-501	1			
		SW-505	8			
		SW-506	5			
		SW-509	1			
		SW-509 (Modified)	1			
		SW-512 (24" Type 3B Casting)	1			

PIPES

Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 2 ft length is added to each side of the Design Length to account for estimated length to center of structures.

Line Number	Intake/ Utility Access No. From	To	Class 'D'	(1) Pipe Size IN	Bid* Length FT	Design Length FT	Slope %	Connected Pipe Joint (DR-121) Type	Flow Lines Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
P-100	I-100	MH-100	2000	52x32	19	14.5	0.50		854.82	854.75		M.7	
P-101	I-101	I-100	2000	52x32	73	69.0	0.50		855.28	854.92		M.7	
P-102	I-102	I-101	2000	52x32	50	47.7	1.20		855.95	855.38		M.7	
P-103	I-103	MH-100	2000	30	113	108.9	2.20		857.49	855.10		M.3	
P-104	I-104	I-103	2000	24	73	69.0	1.00		858.58	857.89		M.5	
P-105	MH-101	I-103	2000	24	83	78.3	4.50		861.42	857.89		M.3	
P-106	I-105	MH-101	2000	24	90	85.7	5.00		866.01	861.72		M.3	
P-107	I-106	I-105	2000	18	46	42.0	2.00		868.74	867.90		M.7	
P-108	I-110	I-105	2000	15	306	302.0	4.50		880.20	866.61		M.3	
P-109	I-111	I-110	2000	15	55	51.0	1.00		881.01	880.50		M.7	
P-110	I-107	I-106	2000	15	77	74.1	4.00		872.00	869.04		M.7	
P-111	I-108	I-109	2000	15	21	16.6	1.00		864.65	864.48		M.7	
P-112	MH-103	I-109	2000	18	15	11.0	3.00		864.81	864.48		M.5	
P-113	I-109	MH-102	2000	18	34	29.1	2.80		864.17	863.36		M.5	
P-114	MH-102	I-104	2000	18	121	116.7	3.50		863.06	858.98		M.5	
P-115	MH-100	O-100	2000	52x32	62	59.1	0.50		854.65	854.36		M.7	
P-200	I-200	I-201	2000	15	24	19.8	1.00		879.43	879.23		M.2	
P-201	I-201	O-200	2000	15	20	17.6	1.00		878.93	878.75		M.2	
P-300	I-300	I-301	2000	15	44	39.3	0.50		884.63	884.43		M.2	
P-301	I-301	O-300	2000	15	18	15.1	0.50		884.33	884.25		M.2	
P-400	I-400	MH-400	2000	15	10	5.5	1.00		867.18	867.13		M.5	
P-500	I-500	MH-500	2000	15	39	34.9	1.50		857.79	857.27		M.6	
P-600	I-600	O-600	2000	15	7	4.0	0.99		862.47	862.43		M.6	
P-700	0-700	I-105	2000	24	28	24.0	1.00		867.55	867.31		M.7	
			Total:										
			2000	15	621								
			2000	18	216								
			2000	24	274								
			2000	30	113								
			2000	52x32	204								

ALLEN TWP.
T-77N R-23W
SEC. 3

SIDEWALK EASEMENT
SIDEWALK EASEMENT
EXISTING ROW
EXISTING ROW
EXISTING ROW
EXISTING ROW
EXISTING ROW
SCOTCH RIDGE ROAD
30°BEND
REMOVE 24" RCP APRON
REMOVE 35 LF OF 12" CULVERT
REMOVE 28 LF OF 12" CULVERT
ELECTRICAL EASEMENT
SCHOOL ENTRANCE
ONLY
CARLISLE SCHOOL FIBER
MB
TYPE A-2 SUBDRAIN RISER/CLEANOUT
TYPE A-2 SUBDRAIN RISER/CLEANOUT
TYPE A-2 SUBDRAIN RISER/CLEANOUT
TYPE A-2 SUBDRAIN RISER/CLEANOUT

2152+00
2153+00
2154+00
2155+00
2156+00
2157+00

STA. 2153+55.32, 42.56'LT
FL = 883.00

STA. 2153+94.02, 53.30'LT
FL = 884.10

STA. 2152+08.29, 48.46'RT
FL = 877.43

O-200
P-201
P-200
I-200
I-201
SD-1
SD-2
SD-3
SD-4
SD-5
SD-7
I-300
P-300
I-301
P-301
O-300

For Geometric & Jointing Details Refer to L Sheets

For Sidewalk Details Refer to S Sheets

0 20 FEET

895
890
885
880
875
870
865

I-200, SW-505
STA 2152+47.00, 12.50' RT
FG ELEV. = 883.58
FL ELEV. (W) = 879.43
B.W. ELEV. = 878.93

I-201, SW-505
STA 2152+47.00, 11.33' LT
FG ELEV. = 883.58
FL ELEV. (E) = 879.23
FL ELEV. (W) = 878.93
B.W. ELEV. = 878.43

O-200, DR-201 (15")
STA 2152+47.00, 35.00' LT
FL ELEV. = 878.75

17.59ft of 15 2000D 1.00% P-201

19.83ft of 15 2000D 1.00% P-200

878.93
879.23
879.43

UTILIZE FLEXIBLE O-RING GASKETS AT CROSSING

O-300, DR-201 (15")
STA 2154+00.00, 54.00' LT
FL ELEV. = 884.25

MAINTAIN 18" MIN. CLEARANCE

15.07ft of 15 2000D 0.50% P-301

884.33
884.43

EXISTING WATER MAIN (VERIFY ELEV.)

39.25ft of 15 2000D 0.50% P-300

884.63

I-301, SW-505
STA 2154+10.00, 35.36' LT
FG ELEV. = 888.52
FL ELEV. (E) = 884.43
FL ELEV. (W) = 884.33
B.W. ELEV. = 883.83

I-300, SW-505
STA 2154+19.36, 6.86' RT
FG ELEV. = 888.74
FL ELEV. (W) = 884.63
B.W. ELEV. = 884.13

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

McCLURE™ making lives better.

1360 NW 121ST Street
Clive, Iowa 50325
515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
STORM SEWER

SHEET NO.
M.2

9/15/2021

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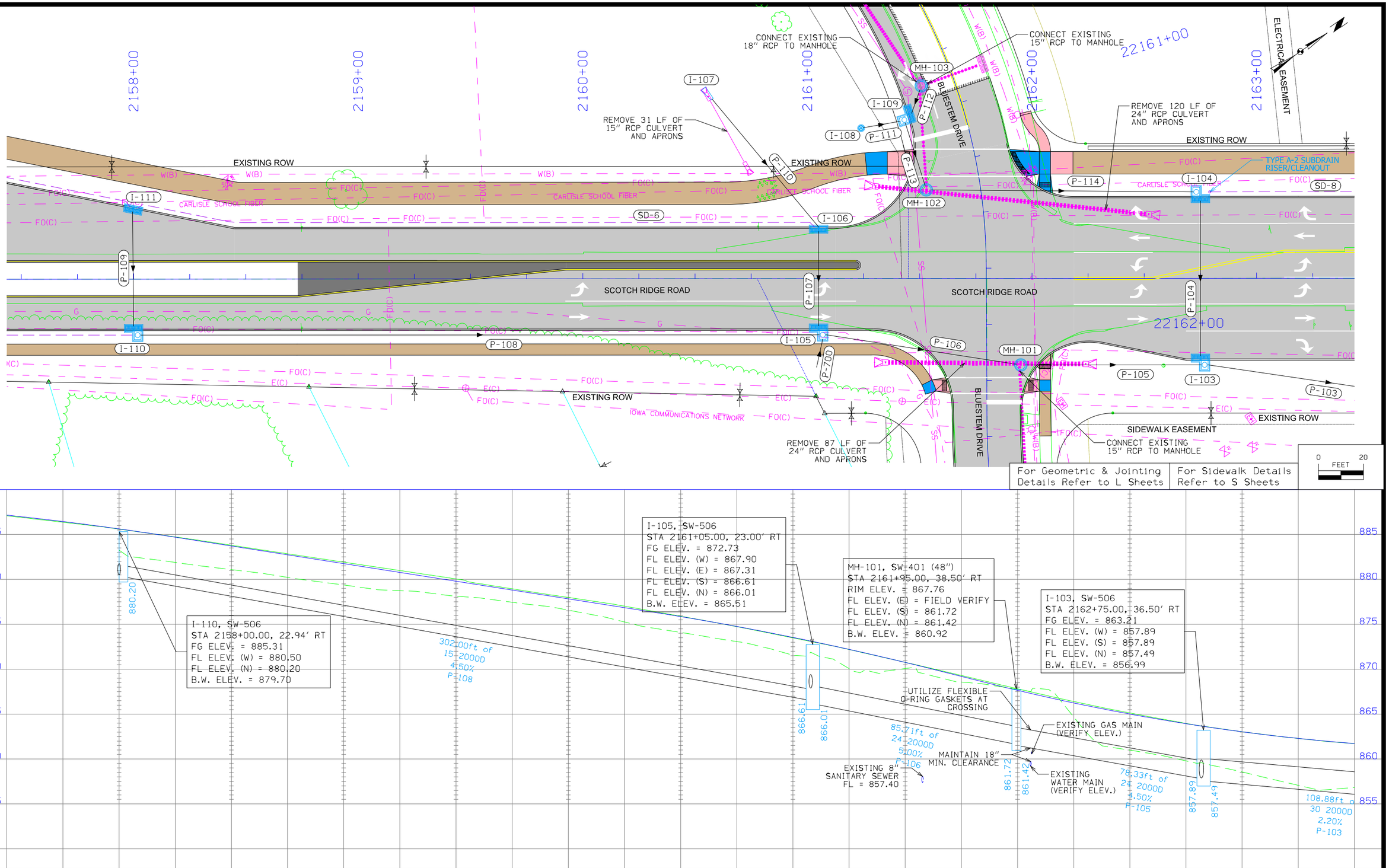

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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Clive, Iowa 50325
515-964-1229
fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
STORM SEWER

SHEET NO. M.3

9/15/2021

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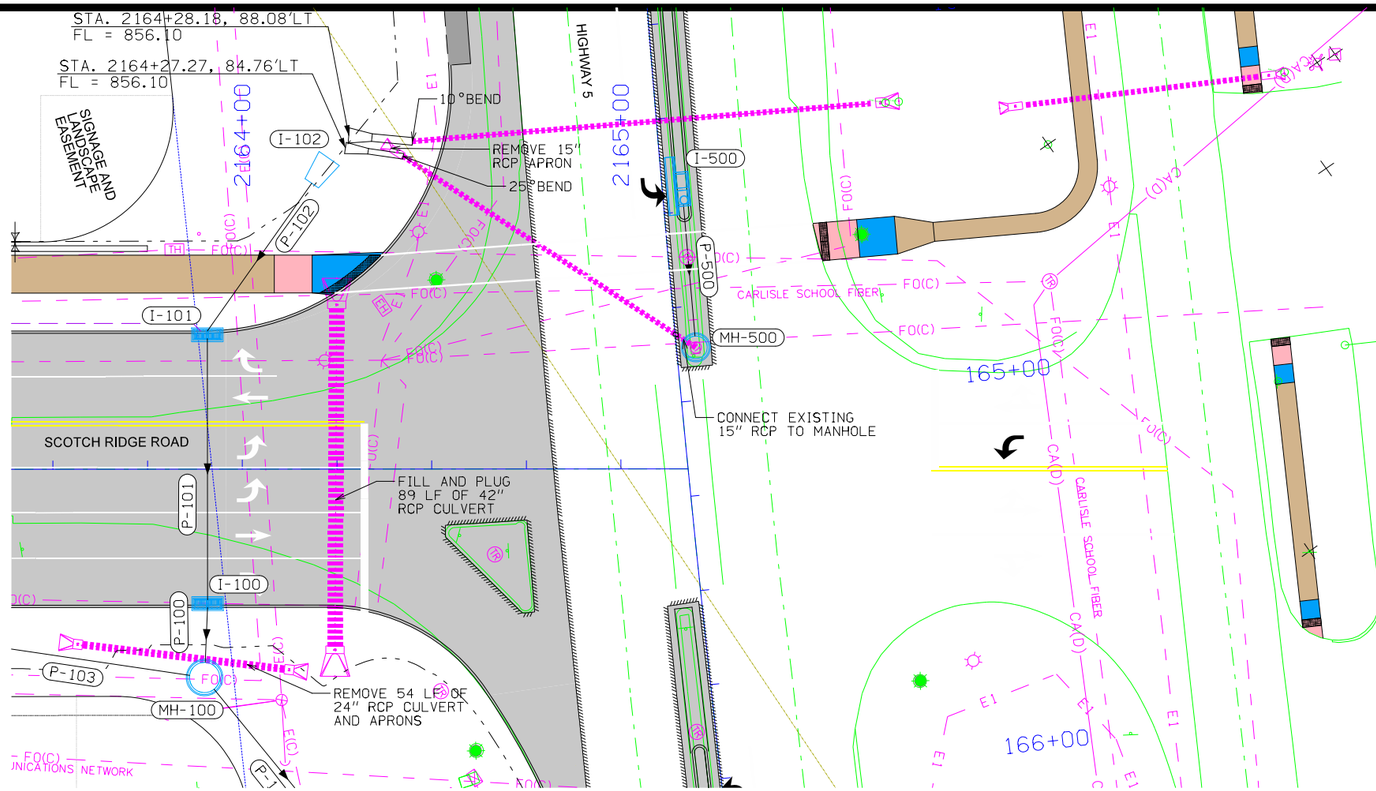
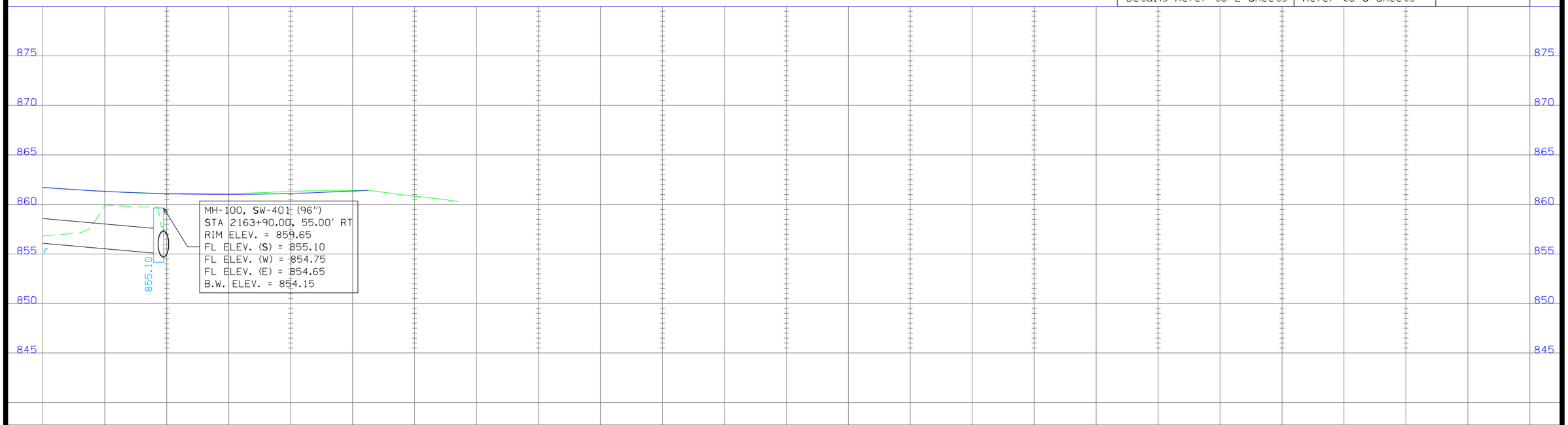


For Geometric & Jointing Details Refer to L Sheets

For Sidewalk Details Refer to S Sheets

0 20 FEET



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD STORM SEWER	M.4
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 JULY, 2021						

9/14/2021

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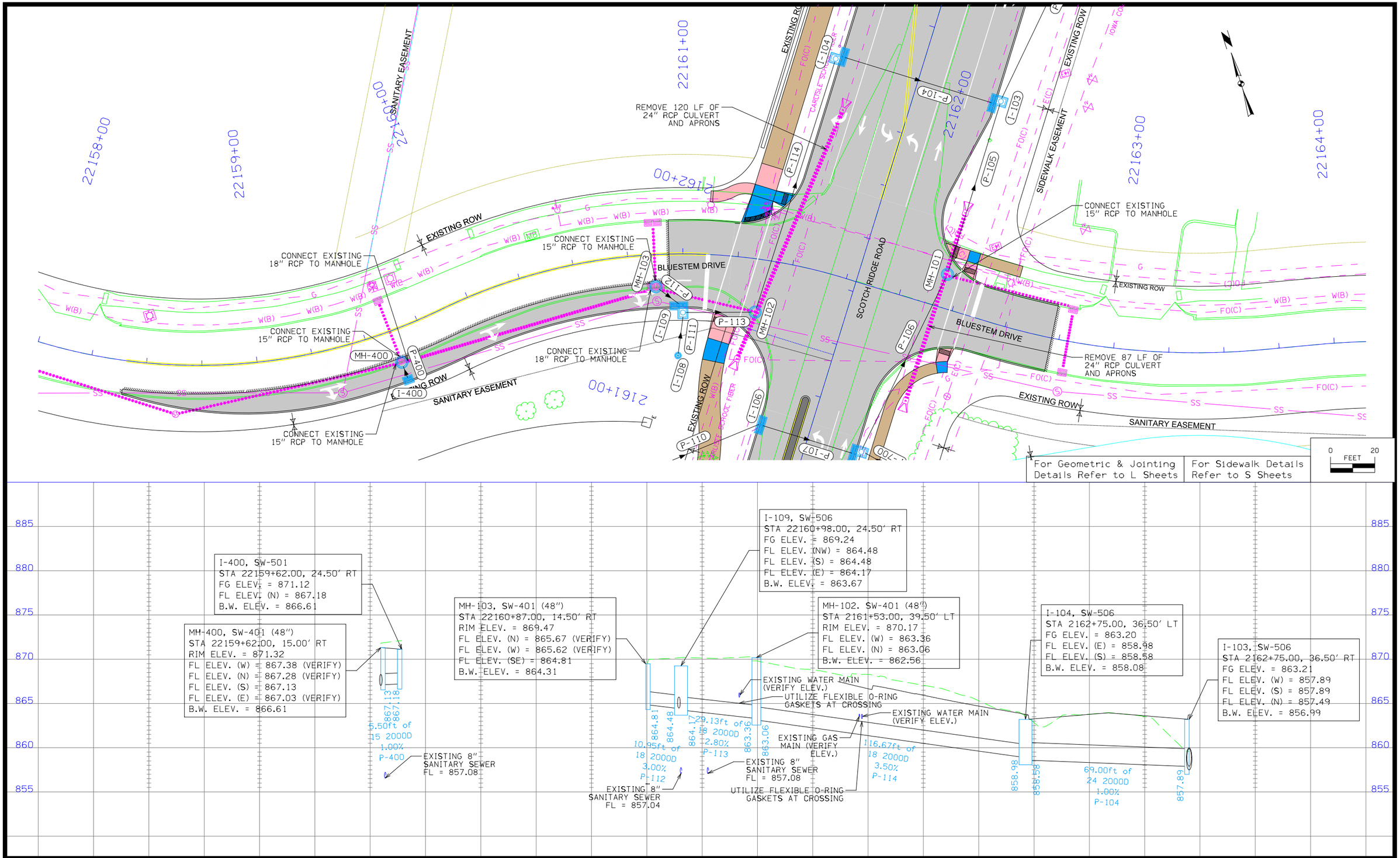

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

BLUESTEM DRIVE
STORM SEWER

SHEET NO. M.5

9/14/2021

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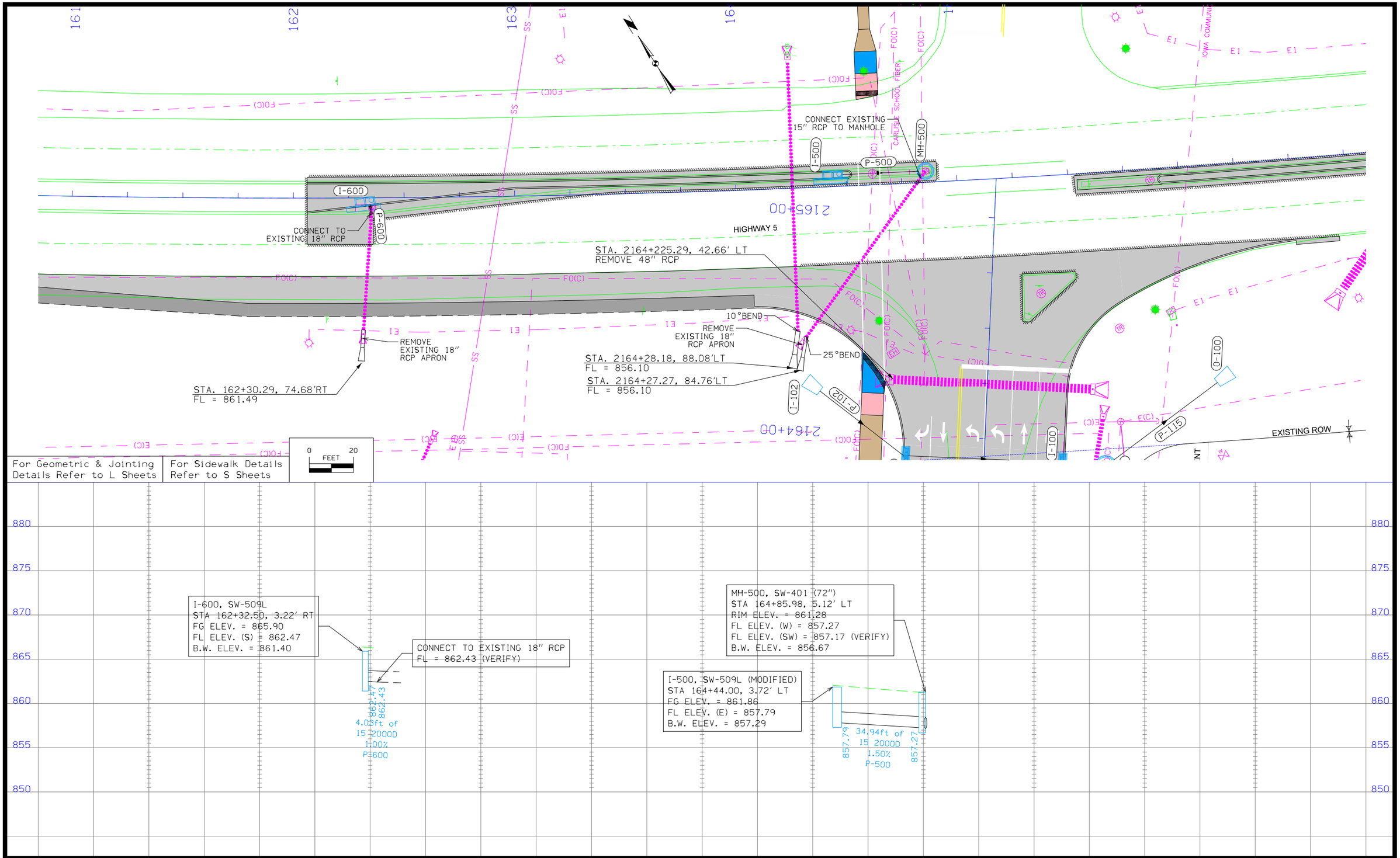

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	
JS	FIELDBOOK	JULY, 2021	

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SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

IA HIGHWAY 5
STORM SEWER

SHEET NO. M.6

9/14/2021

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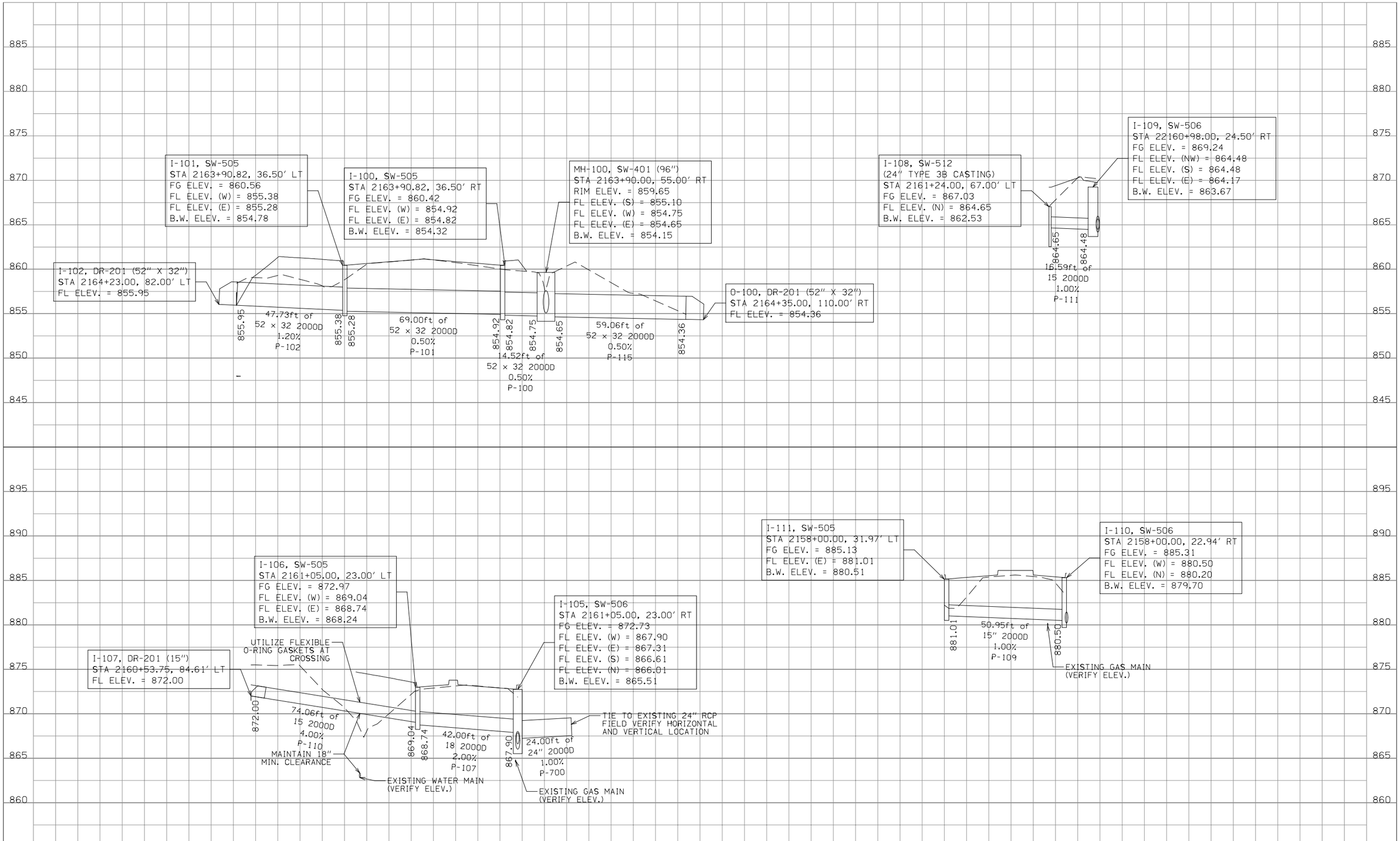

ENGINEER	DRAWN BY		REVISIONS				
BDS	SBS	CLINTON, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	SCOTCH RIDGE ROAD STORM SEWER PROFILES	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 190227	.				M.7
JWM	FIELDBOOK	JUNE 2, 2020	.				

9/14/2021

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TRAFFIC SIGNAL GENERAL NOTES

1. ALL QUANTITIES SHOWN IN THE PLANS AND SPECIFICATIONS ARE FOR INFORMATIONAL AND ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S LUMP SUM BID FOR THIS PROJECT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL AND SIGNAL SYSTEM INSTALLATION IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
2. THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPOXIMATE ONLY. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO ANY EXCAVATION ON THE PROJECT.
3. PROVIDE TRAFFIC CONTROL DEVICES AS REQUIRED TO FACILITATE CONSTRUCTION OF TRAFFIC SIGNALS IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.
4. TRAFFIC SIGNAL CONSTRUCTION SHALL FOLLOW IOWA DEPARTMENT OF TRANSPORTATION SECTION 2525 TRAFFIC SIGNALIZATION.
5. THE LOCATIONS OF ALL EXISTING SIGNAL POLES, HANDHOLES AND CONDUIT ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. EXISTING INFRASTRUCTURE TO BE USED AS CONSTRUCTED UNLESS SPECIFIED OTHERWISE.
6. THE LOCATIONS OF ALL PROPOSED FOOTINGS, HANDHOLES, CONDUIT, AND DETECTOR ZONES ARE TO BE COORDINATED WITH THE ENGINEER AND ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER.
7. ALL SIGNAL CABLE SHALL BE #14 AWG UNLESS OTHERWISE NOTED ON THE PLANS.
8. ALL CONDUIT SHALL BE PVC OR HDPE EQUIVALENT.
9. ALL WORK WITHIN THE EXISTING TRAFFIC SIGNAL CONTROLLER CABINET IS TO BE COORDINATED WITH THE CITY OF CARLISLE. PROVIDE 48 HOURS OF NOTICE TO THE CITY OF CARLISLE PUBLIC WORKS DEPARTMENT PRIOR TO MODIFICATION OF TRAFFIC SIGNAL SYSTEM.
10. AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
11. SURFACE RESTORATION OF ABANDONED STRUCTURES AND ABANDONED POLE FOUNDATIONS TO BE COMPLETED.
12. CONTRACTOR TO RECEIVE DELIVERY OF PROPOSED TRAFFIC SIGNAL EQUIPMENT AND ASSUMES RESPONSIBILITY FOR DELIVERY AND INSTALLATION IN THE FIELD.
13. ALL ELECTRICAL CONNECTORS, GROUND CONDUCTORS, GROUND RODS AND OTHER MISCELLANEOUS MATERIALS WHICH ARE NOT LISTED ON THE ESTIMATE OF QUANTITIES SHALL BE CONSIDERED INCIDENTAL TO THE TRAFFIC SIGNAL BID ITEM.
14. INSTALL PEDESTRIAN PUSHBUTTON SIGNS (R10-3A) ABOVE EACH NEW PEDESTRIAN PUSHBUTTON.
15. INSTALL A #6 AWG BARE COPPER GROUND WIRE BETWEEN THE GROUND RODS IN THE SIGNAL FOOTINGS AND THE CONTROLLER CABINET TO FORM A CONTINUOUSLY GROUNDED SYSTEM. THE GROUND WIRE SHALL BE INSTALLED IN ALL CONDUITS.
16. THE CONTRACTOR HAS THE OPTION TO BORE OR TRENCH CONDUIT; HOWEVER, CONDUIT SHALL BE BORED UNDER UNDISTURBED PAVEMENT.
17. ALL CONDUIT SHALL INCLUDE ONE, 1/2" WIDE, POLYESTER CABLE PULLING TAPE WITH A MINIMUM 1200 LB. TENSILE STRENGTH WHEN INSTALLATION IS COMPLETE.
18. THE CONTRACTOR SHALL COIL 50 FEET OF POWER SERVICE CABLE AT THE BASE OF THE SECONDARY SERVICE POLE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING POWER SERVICE LOCATIONS AT THE ONSET OF THE CONSTRUCTION PROJECT WITH POWER SERVICE PROVIDER TO CONDUIT/CIRCUIT INSTALLATION. POWER SERVICE PROVIDER TO INSTALL SECONDARY SERVICE RISER. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF THE SECONDARY SERVICE RISER.
19. SIGNAL WIRING SHALL ONLY BE SPLICED IN POLE BASES, POLE JUNCTION BOX AND/OR CONTROLLER CABINET. USE SILICONE-FILLED WIRE NUTS FOR ALL SIGNAL WIRE CONNECTIONS.
20. ALL DETECTION CABLES SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CABLES SHALL BE CONTINUOUS FROM CAMERA TO SIGNAL CABINET.
21. ALL SIGNING AND MOUNTING HARDWARE SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
22. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL NEW CONDUITS UNTIL PROJECT ACCEPTANCE.
23. ALL NEW VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE LED.
24. ALL NEW OVERHEAD-MOUNTED TRAFFIC SIGNAL HEADS SHALL BE FURNISHED WITH BACKPLATES.
25. THE STATIONS AND OFFSETS LISTED ON THE SIGNAL PLANS ARE TO THE CENTER OF THE ITEM UNLESS OTHERWISE NOTED.
26. WHEN HEATING PVC CONDUIT TO FORM A BEND, AN APPROVED CONDUIT HEATING DEVICE SHALL BE USED. DIRECT FLAME SHALL NOT BE APPLIED TO THE CONDUIT.
27. THE CONTRACTOR SHALL INSTALL ONE SIGNAL CABLE FROM EACH PROPOSED SIGNAL HEAD TO THE BASE OF THE POLE. A 5-CONDUCTOR SHALL BE USED FOR A 3-SECTION HEAD AND A 7-CONDUCTOR SHALL BE USED FOR EITHER A 4 OR 5 SECTIONS SIGNAL HEAD.
28. IOWA SUDAS TRAFFIC SIGNAL SPECIFICATIONS APPLY TO THIS PROJECT.
29. ALL PROPOSED TRAFFIC SIGNAL POLES, PUSH BUTTON POLES, AND PEDESTAL POLES SHALL INCLUDE TRANSFORMER BASES, UNLESS DIRECTED OTHERWISE. TOPS OF ALL FOOTINGS SHALL BE FORMED SQUARE AND FLUSH WITH ADJACENT PROPOSED OR EXISTING SIDEWALK/TRAIL FACILITIES.

SALVAGE OF EXISTING TRAFFIC SIGNALS

1. CONTROLLER, CABINET AND COMPONENTS, AND SIGNAL HEADS NOT INCORPORATED INTO THE PROJECT SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO THE CITY OF CARLISLE STREETS DEPARTMENT. COORDINATE WITH THE CITY STREET DEPT FOR SALVAGE AND DELIVERY. CONTRACTOR IS RESPONSIBLE FOR THE SALVAGE AND DISPOSAL OF REMAINING ITEMS INCLUDING BUT NOT LIMITED TO SIGNAL POLES, HANDHOLES AND WIRING.
2. PC CONCRETE BASES SHALL BE REMOVED TO TWO FOOT BELOW GRADE AND BACKFILLED WITH SUITABLE MATERIAL UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL LEGEND

- SIGNAL HEAD WITH BACKPLATE
- SIGAL HEAD WITHOUT BACKPLATE
- PEDESTRIAN SIGNAL HEAD
- CABINET AND CONTROLLER
- EXISTING CABINET/CONTROLLER
- SIGNAL BASE
- EXISTING SIGNAL BASE
- UTILITY POLE
- EXISTING HANDHOLE
- HANDHOLE – TYPE 1
- HANDHOLE – TYPE 3
- EXISTING HANDHOLE
- TRAFFIC SIGN – MAST ARM MOUNTED
- DETECTION CAMERA
- SIGNAL CONDUIT
- SINGLE-POINT DETECTION CAMERA
- LUMINAIRE
- FLASHER ASSEMBLY
- 11 SIGNAL HEAD NUMBER
- 3 SIGNAL BASE NUMBER
- 25 PEDESTRIAN PUSHBUTTON NUMBER
- 12 HANDHOLE NUMBER
- LABELS WITH A NUMBER FOLLOWED BY THE LETTER "E" REPRESENT EXISTING EQUIPMENT.
- DETECTOR LOOP
- CAMERA DETECTION AREA

SIG	SIGNAL HEAD CABLE
PED HD	PEDESTRIAN HEAD CABLE
PED PB	PEDESTRIAN PUSHBUTTON CABLE
CNTRL	CONTROLLER
LUM	STREET LIGHT POWER CABLE
N	NEUTRAL
LN	POWER
GR	GROUND WIRE 1c #6
TR	TRACER WIRE 1c #10
PR	PULL ROPE
DETECTION	SHIELDED LOOP DETECTOR LEAD-IN
LOOP	DETECTOR LOOP WIRE IN TUBING
HH	HANDHOLE
VIDEO	VIDEO DETECTOR/ETHERNET CABLES
TM CABLE	VIDEO MONITORING CABLE
FO	FIBER OPTIC CABLE
EVP	EMERGENCY VEHICLE PREEMPTION
- - - - - - - - -	EXISTING CONDUIT

Permanent Traffic Signal Installation - Bill of Materials / Schedule of Unit Prices
Iowa 5 and Scotch Ridge Rd

No.	Item Description	Plan Quantity	Units	Unit Price	Unit Extension
1	NEMA Controller, Cabinet, and Accessories	1	EA	$	$
2	Uninterruptable Power Supply, Enclosure and Accessories	1	LS	$	$
3	Vehicle Detection System including Advanced Detection	1	EA	$	$
4	Signal Pole (Steel) - 65'	2	LS	$	$
5	Relocate Signal Pole (Steel) - Existing 52' Arm	1	EA	$	$
6	Pedestal Pole	2	EA	$	$
7	4-Sec., 12" Red SY-FY-G Left Turn Arr, w/Bkpl (as noted)	2	EA	$	$
8	3-Sec., 12" RYG Signal Head, w/Bkpl (as noted)	13	EA	$	$
9	3-Sec., 12" RYG Left Turn Arr, w/Bkpl (as noted)	2	EA	$	$
10	1-Sec., Hand/Man Pedestrian Heads	2	EA	$	$
11	2" Rigid PVC Conduit, Trenched	709	EA	$	$
12	3" Rigid PVC Conduit, Trenched	68	EA	$	$
13	4" Rigid PVC Conduit, Trenched	11	LF	$	$
14	3" Rigid PVC Conduit, Pushed	0	LF	$	$
15	4" Rigid PVC Conduit, Pushed	394	LF	$	$
16	Pull Rope	515	LF	$	$
17	Tracer Cable 1c#10	515	LF	$	$
18	Bare Copper Ground #6	515	LF	$	$
19	Power 1c#6	425	LF	$	$
20	1c#8 Power Supply Cable for Street Lighting	0	LF	$	$
21	Cable - CAT5E, Vehicle Detection Cameras Inc. Adv. Detecti	567	LF	$	$
22	2c#14 Signal Cable	563	LF	$	$
23	5c#14 Signal Cable	1315	LF	$	$
24	7c#14 Signal Cable	461	LF	$	$
25	12c#14 Signal Cable	735	LF	$	$
26	Concrete Base, Type FIII, 3.0' Dia x 16.0' deep	1	LF	$	$
27	Concrete Base, Type FIII, 3.5' Dia x 18.0' deep	2	LF	$	$
28	Concrete Pad, Controller Footing	1	EA	$	$
29	18" Controller Cabinet Riser	1	EA	$	$
30	Handhole, Type I 24" Poured or Precast, Ring & Cover	4	EA	$	$
31	Handhole, Type IV 48" x 30" Tub	1	EA	$	$
32	Street Name Signs "Iowa 5" (53"x 20")	2	EA	$	$
33	Street Name Signs "Scotch Ridge Rd" (113"x 20")	2	EA	$	$
34	Left-Turn Only Overhead Sign (30"x36") R3-5L	4	EA	$	$
35	Right-Turn Only Overhead Sign (30"x36") R3-5R	3	EA	$	$
36	Pedestrian Push Button Sign (9" x 15") R10-3A	2	EA	$	$
37	Pedestrian Push Button	2	EA	$	$
38	Power Supply & Service Connection - Furnish and Install Met	1	EA	$	$
39	Traffic Control	1	EA	$	$
40	Flagger	5	EA	$	$
41	Mobilization	1	EA	$	$

Total Lump Sum to Furnish and Install Traffic Signals $

Approved:
Project Engineer Date

TRAFFIC SIGNS

Iowa 5 — (A) 53" X 20" Series C (2-REQ'D)

Scotch Ridge Rd — (B) 113" X 20" Series C (2-REQ'D)

ONLY — (C) R3-5L 30" X 36" (4-NEW)

ONLY — (D) R3-5R 30" X 36" (3-NEW)

PEDESTRIAN PUSHBUTTON SIGNS

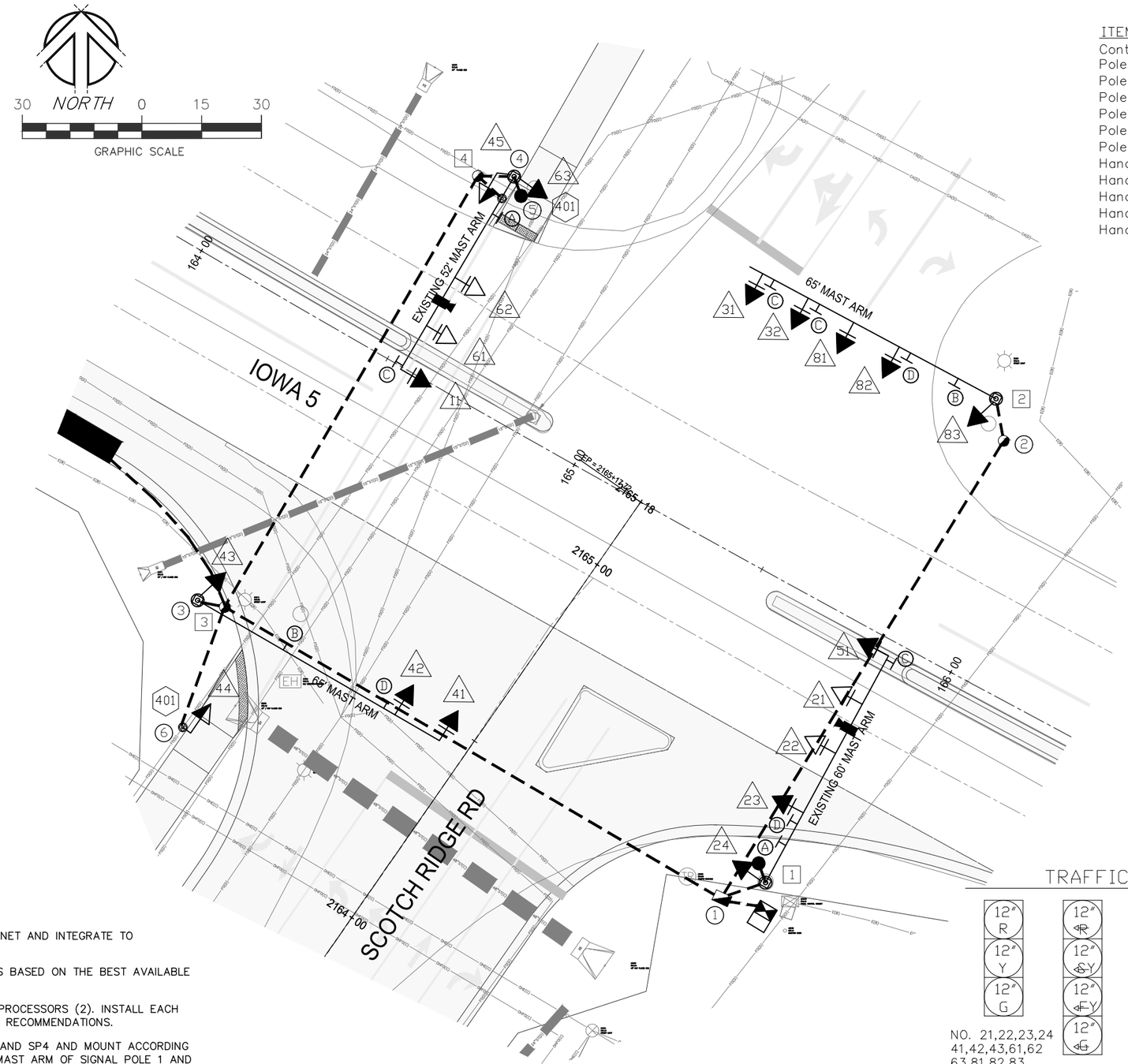
PUSH BUTTON TO CROSS STREET WAIT FOR — R10-3AL 9" X 15" (1-REQ'D)

PUSH BUTTON TO CROSS STREET WAIT FOR — R10-3AR 9" X 15" (1-REQ'D)

PEDESTRIAN PUSHBUTTONS

5

6



ITEM	STATION
Controller	165+88.60, 69.3'R
Pole 1	EXISTING
Pole 2	165+78.85, 61.0'L
Pole 3	164+40.01, 70.6'R
Pole 4	164+54.55, 51.4'L
Pole 5	164+54.63, 45.6'L
Pole 6	164+51.44, 98.1'R
Handhole 1	165+78.25, 71.7'R
Handhole 2	165+85.13, 53.2'L
Handhole 3	164+45.98, 68.9'R
Handhole 4	164+47.06, 47.3'L
Handhole 5	159+07.72, 46.7'R

SIGNAL MODIFICATION NOTES

1. REUSE EXISTING SIGNAL POLE 1 IN-PLACE.
2. RELOCATE EXISTING SIGNAL POLE 4 AS SHOWN.
3. MOUNT BATTERY BACK-UP SYSTEM TO SIDE OF CONTROLLER CABINET AND INTEGRATE TO CONTROLLER CABINET COMPONENTS AS NECESSARY.
4. EXISTING TRAFFIC SIGNAL STRUCTURES ARE SHOWN ON THE PLANS BASED ON THE BEST AVAILABLE DATA. CONTRACTOR TO VERIFY LOCATIONS IN THE FIELD.
5. INSTALL GRIDSMART SINGLE-POINT DETECTION CAMERAS (2) AND PROCESSORS (2). INSTALL EACH CAMERA ON UPRIGHT POLES OF SP1 AND SP4 PER MANUFACTURER'S RECOMMENDATIONS.
6. INSTALL ADVANCED DETECTION CAMERAS ON MAST ARMS OF SP1 AND SP4 AND MOUNT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS .INSTALL ONE CAMERA ON MAST ARM OF SIGNAL POLE 1 AND ONE CAMERA ON MAST ARM OF SIGNAL POLE 4.
7. TRAFFIC SIGNAL POWER CIRCUITS ARE TO BE PROVIDED TO EXISTING SERVICE POINT. CONTRACTOR TO ROUTE CONDUIT(S)/CABINET AS NECESSARY. CONTRACTOR SHALL COORDINATE POWER SERVICE CONNECTION DETAILS WITH ELECTRIC SERVICE PROVIDER AT THE ONSET OF THE PROJECT.

TRAFFIC SIGNAL FACES

12" R / 12" Y / 12" G — NO. 21,22,23,24 41,42,43,61,62 63,81,82,83 (9-NEW) (4-EXISTING)

12" R / 12" Y / 12" F Y / 12" G — NO.11,51 (2-NEW)

12" R / 12" Y / 12" G — NO. 31,32 (2-NEW)

ONE-SECTION HAND/MAN/COUNTDOWN LED SIGNAL — NO. 44,45 (2-NEW)

ALL SIGNAL INDICATIONS SHALL BE LED.

ENGINEER	DRAWN BY		REVISIONS
LMV	LMV	CARLISLE, IOWA	.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.
RKD	-	JULY, 2021	.

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SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

TRAFFIC LAYOUT SIGNAL

SHEET NO. N.03

$DATE$

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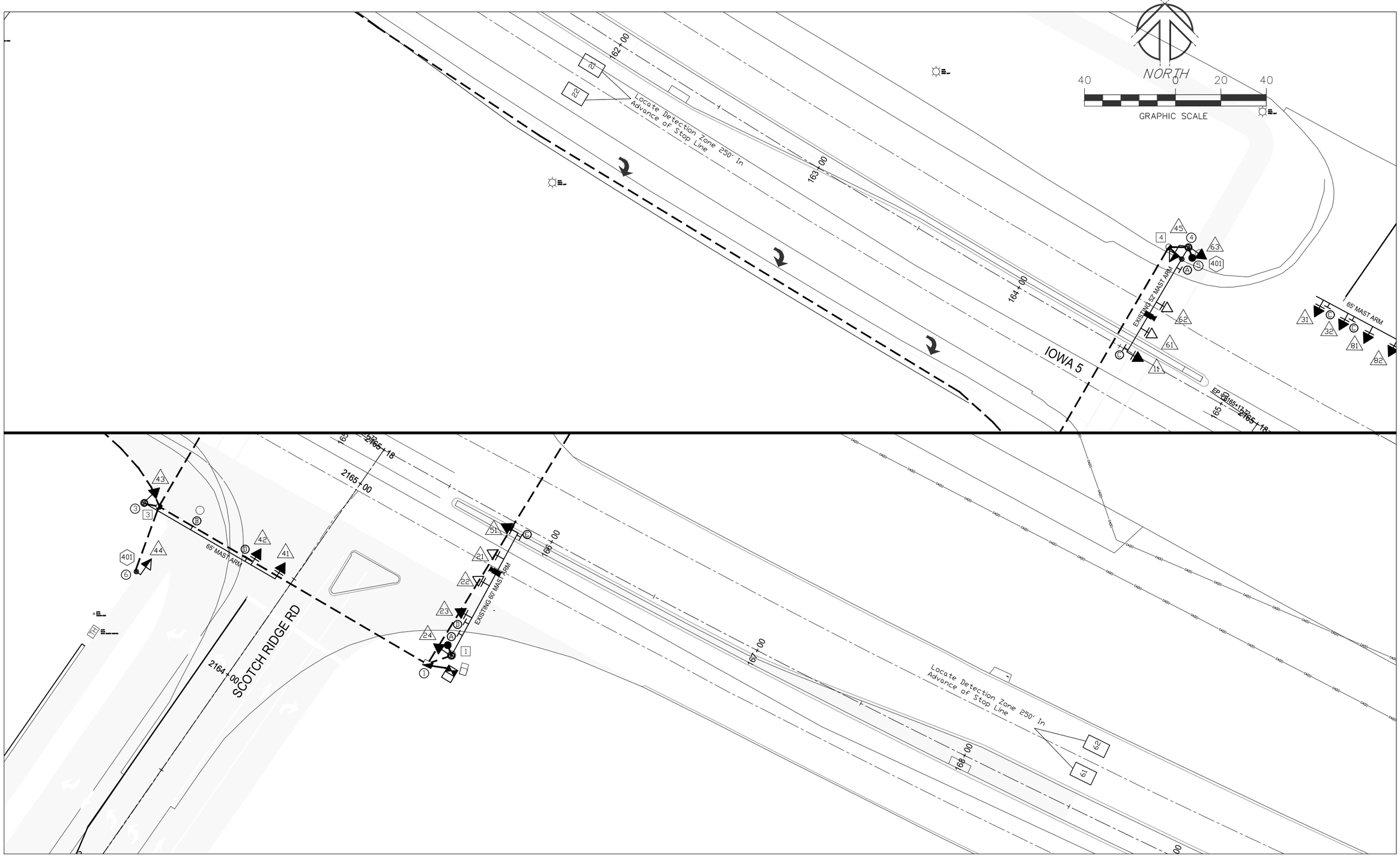

ENGINEER	DRAWN BY		REVISIONS				
LMV	LMV	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	ADVANCED DETECTOR LAYOUT
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				SHEET NO.
RKD	-	JULY, 2021	.				N.04

$DATE$

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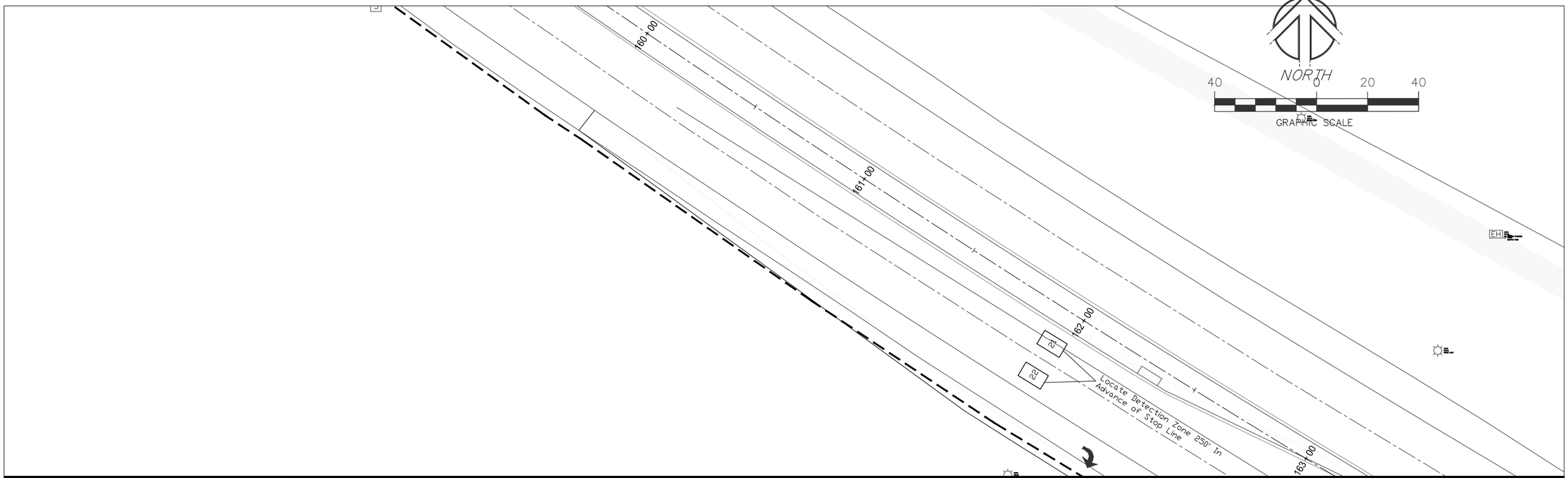

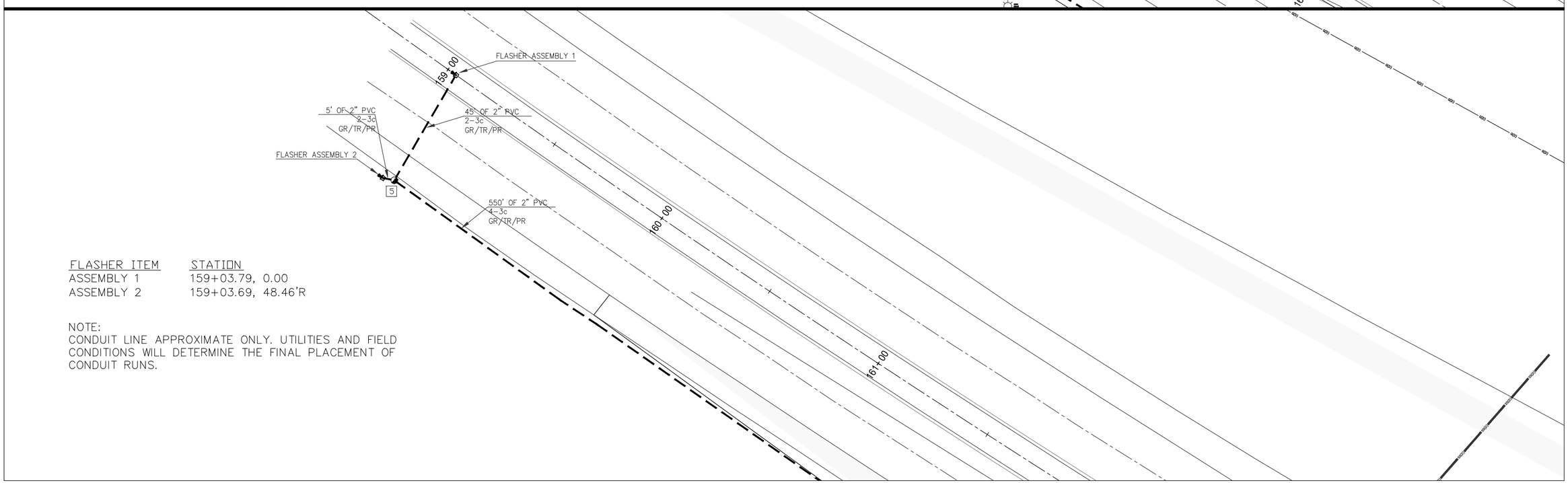

FLASHER ITEM	STATION
ASSEMBLY 1	159+03.79, 0.00
ASSEMBLY 2	159+03.69, 48.46'R

NOTE:
CONDUIT LINE APPROXIMATE ONLY. UTILITIES AND FIELD CONDITIONS WILL DETERMINE THE FINAL PLACEMENT OF CONDUIT RUNS.

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LMV	LMV	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	FLASHER ASSEMBLY	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.						
RKD	-	JULY, 2021	.						N.05

$DATE$

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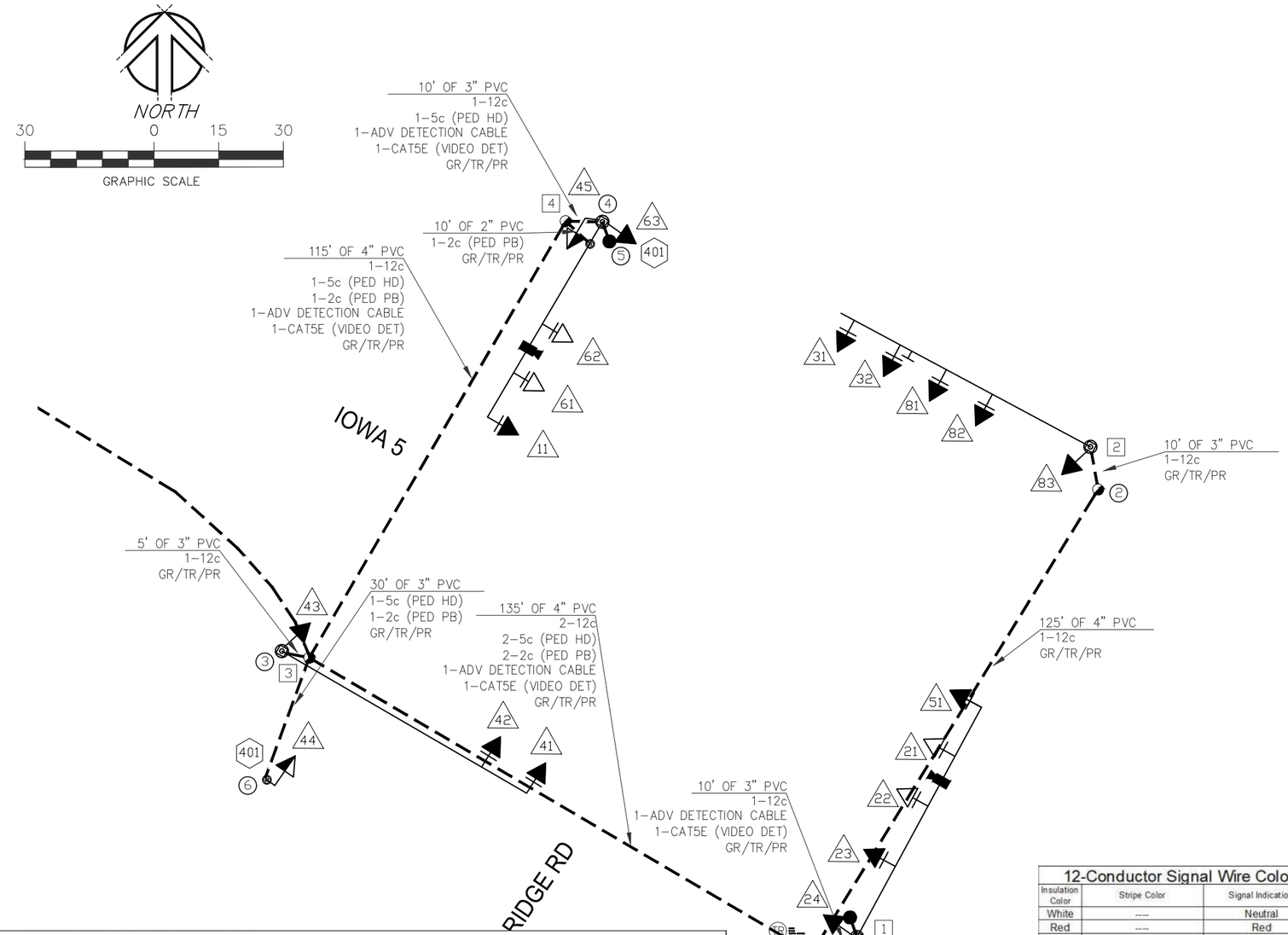
LEGEND

- SIGNAL HEAD NUMBER
- SIGNAL BASE NUMBER
- PEDESTRIAN PUSHBUTTON NUMBER
- HANDHOLE NUMBER
- LABELS WITH A NUMBER FOLLOWED BY THE LETTER "E" REPRESENT EXISTING EQUIPMENT.
- DETECTOR LOOP
- VIDEO DETECTION AREA

SIG	SIGNAL HEAD CABLE
PED HD	PEDESTRIAN HEAD CABLE
PED PB	PEDESTRIAN PUSHBUTTON CABLE
CNTRL	CONTROLLER
LUM	STREET LIGHT POWER CABLE
N	NEUTRAL
LN	POWER
GR	GROUND WIRE 1c #6
TR	TRACER WIRE 1c #10
PR	PULL ROPE
DETECTION	SHIELDED LOOP DETECTOR LEAD-IN
LOOP	DETECTOR LOOP WIRE IN TUBING
HH	HANDHOLE
VIDEO DET	VIDEO DETECTOR/ETHERNET CABLES
TM CABLE	VIDEO MONITORING CABLE
FO	FIBER OPTIC CABLE
EVP	EMERGENCY VEHICLE PREEMPTION

NOTES

1. ALL VIDEO DETECTION CABLES / CAT5E CABLES PROVIDED BY THE SUPPLIER AS PART OF THE VIDEO DETECTION SYSTEM. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION.



TRAFFIC SIGNAL POLE DATA

	POLE NO.	POLE TYPE	MAST ARM LENGTH OR PEDESTAL HEIGHT (ft.)	TRAFFIC SIGNAL HEADS (1)		TRAFFIC SIGNS (2)		LUMINAIRE ARM (3)			FOOTING DIMENSIONS		MISC.	TOTAL QUANTITY
				QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA (ft.)	DEPTH (ft.)		
IOWA 5 AND SCOTCH RIDGE RD	1	EXISTING SIGNAL POLE	EXISTING	3 NEW, 2 EXISTING	60,47,34,18	3	9,15,59							0
	2	NEW SIGNAL POLE	65	5	25,37,49,61	4	10,22,46,58				3.5	18.0		1
	3	NEW SIGNAL POLE	65	3	53,65	2	23,50				3.0	18.0		1
	4	EXISTING SIGNAL POLE (RELOCATED)	EXISTING, 52'	3 NEW, 2 EXISTING	52,40,27	2	10,51				3.0	16.0	Existing pole and mast arm to be re-installed in new footing.	0
	5	PEDESTRIAN PUSH BUTTON	-	-	-	-	-				2.0	3.0	Pedestrian crossing signs to be located on pole.	1
	6	PEDESTRIAN PUSH BUTTON	-	1	-	-	-				2.0	3.0	Pedestrian crossing signs to be located on pole.	1

(1) (2) LOCATION IS DISTANCE FROM POLE MEASURED OUT TO THE END OF THE ARM.

(3) ORIENTATION OF LUMINAIRE ARM IS A CLOCKWISE ANGLE MEASURED FROM THE CENTERLINE OF THE SIGNAL MAST ARM.

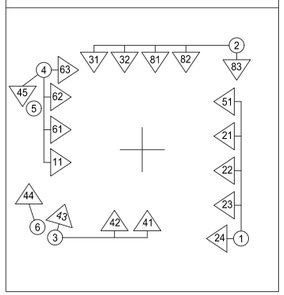
12-Conductor Signal Wire Color

Insulation Color	Stripe Color	Signal Indication
White	----	Neutral
Red	----	Red
Orange	----	Yellow
Green	----	Green
Blue	----	Y-->(5-Sec)
Black	----	G-->(5-Sec)
Red	Black	<--R(LT 4 Sec)
Green	Black	<--G(LT 4 Sec)
Orange	Black	<--Y(LT 4 Sec)
Blue	Black	<--FY(LT 4 Sec)
White	Black	Open
Black	White	Open

5-Conductor Signal Wire Color Mode

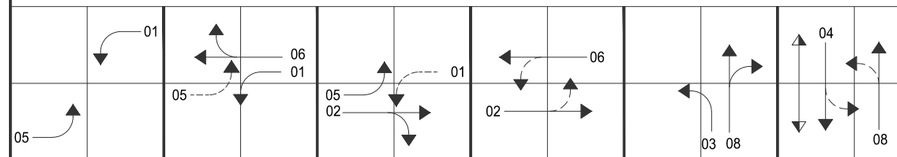
Insulation Color	Stripe Color	Signal Indication
White	----	Neutral
Red	----	ø2, 6 DW
Green	----	ø2, 6 W
Orange	----	ø4, 8 DW
Black	----	ø4, 8 W

SIGNAL FACE LOCATION



NORTH

TRAFFIC PHASING AND COLOR SEQUENCE

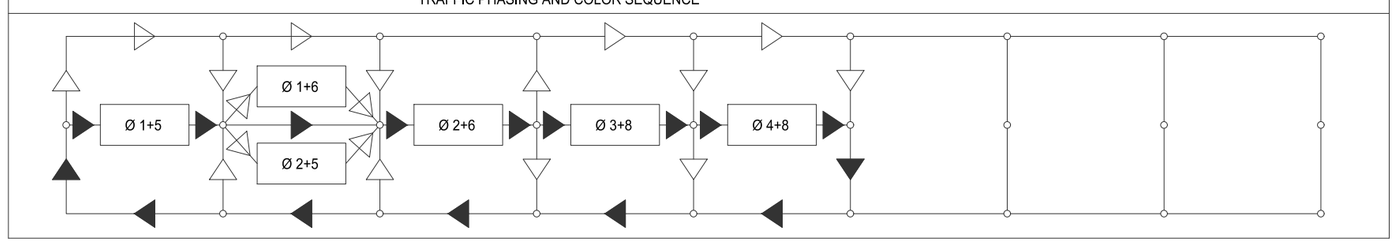


APPROACH	FACE NO.	Ø 1+5 R/W	Ø 1+5 CLEAR TO Ø 1+6	Ø 1+5 CLEAR TO Ø 2+5	Ø 1+5 CLEAR TO Ø AO	Ø1+6 R/W	Ø1+6 CLEAR TO Ø 2+5	Ø1+6 CLEAR TO Ø 2+6	Ø1+6 CLEAR TO Ø AO	Ø 2+5 R/W	Ø 2+5 CLEAR TO Ø 1+5	Ø 2+5 CLEAR TO Ø 2+6	Ø 2+5 CLEAR TO Ø AO	Ø 2+6 R/W	Ø 2+6 CLEAR TO Ø 1+6	Ø 2+6 CLEAR TO Ø 2+5	Ø 2+6 CLEAR TO Ø AO	Ø 3+8 R/W	Ø 3+8 CLEAR TO Ø 4+8	Ø 3+8 CLEAR TO Ø AO	Ø 4+8 R/W	Ø 4+8 CLEAR TO Ø 3+8	Ø 4+8 CLEAR TO Ø AO
NORTHBOUND SCOTCH RIDGE RD	41,42,43	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	Y
	44,45	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW/DW	FDW/DW
SOUTHBOUND SCOTCH RIDGE RD	31,32	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<G	<Y	<Y	<FY	<FY	<Y
	81,82,83	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	G	G	Y
EASTBOUND IOWA 5	51	<G	<Y	<G	<Y	<FY	<FY	<FY	<Y	<G	<G	<Y	<Y	<FY	<FY	<FY	<Y	<R	<R	<R	<R	<R	<R
	21,22,23,24	R	R	R	R	R	R	R	R	G	Y	G	Y	G	Y	G	Y	R	R	R	R	R	R
WESTBOUND IOWA 5	11	<G	<G	<Y	<Y	<G	<Y	<Y	<Y	<FY	<FY	<FY	<Y	<FY	<FY	<FY	<Y	<R	<R	<R	<R	<R	<R
	61,62,63	R	R	R	R	G	Y	G	Y	R	R	R	R	G	G	Y	Y	R	R	R	R	R	R

	R/W	CLEAR TO Ø			R/W	CLEAR TO Ø		
NORTHBOUND SCOTCH RIDGE RD								
SOUTHBOUND SCOTCH RIDGE RD								
EASTBOUND IOWA 5								
WESTBOUND IOWA 5								

NOTE: ADVANCED WARNING FLASHER TO START FLASHING 8.0 SECONDS BEFORE THE YELLOW LIGHT FOR EASTBOUND THROUGH TRAFFIC.

TRAFFIC PHASING AND COLOR SEQUENCE



LEGEND

▶	ACTUATED VEHICULAR MOVEMENT
▷	NON-ACTUATED VEHICULAR MOVEMENT
▶ (dashed)	PARTIALLY RESTRICTED VEHICULAR MOVEMENT
▶	ACTUATED PEDESTRIAN MOVEMENT
▷ (dashed)	NON-ACTUATED PEDESTRIAN MOVEMENT
R/W	RIGHT OF WAY INTERVAL
Ø	TRAFFIC PHASE
R	CIRCULAR RED
Y	CIRCULAR YELLOW
G	CIRCULAR GREEN
S	GREEN STRAIGHT AHEAD ARROW
<FY	FLASHING YELLOW LEFT ARROW
<Y	YELLOW LEFT ARROW
<G	GREEN LEFT ARROW
Y>	YELLOW RIGHT ARROW
G>	GREEN RIGHT ARROW
W	WALK
DW	DON'T WALK
FDW	FLASHING DON'T WALK
AO	ALL OTHER PHASES

INITIAL RECOMMENDED TIMING (SECONDS)

PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN	6	20	6	6	6	20	6	6
PASSAGE	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MAXIMUM I	30	60	20	40	20	60	20	40
MAXIMUM II								
YELLOW CHANGE	3.0	4.0	3.6	4.4	3.0	4.0	3.6	4.4
RED CLEARANCE	2.7	2.0	2.1	1.0	2.1	2.0	2.6	1.0
WALK				10				
PEDESTRIAN CLEARANCE				33				
ADDED INTIAL								
TIME TO REDUCE								
TIME BEFORE REDUCTION								
MINIMUM GAP								

FLASHING OPERATIONS	
IOWA 5	RED
SCOTCH RIDGE RD	RED
PEDESTRIAN	DARK

CONTROLLER & CABNET HARDWARE	
PHASES USED:	8
EXPANSIBLE TO:	8
MINIMUM NUMBER OF BACKPANEL POSITIONS:	16

PHASE SEQUENCE NOT ALLOWED	
FROM →	TO
DUAL ENTRY PHASES	
2+6, 4+8	

INDICATES FLOW PATH WITH ALL PHASES DEMANDED.

INDICATES OPTIONAL FLOW PATHS WHEN SOME PHASES ARE NOT DEMANDED AT THE SAME TIME OF RIGHT-OF-WAY TRANSFER.

THE RED CLEARANCE INTERVAL SHALL BE INCLUDED IN THE COLOR SEQUENCE WHEN CALLED FOR BY CONTROLLER TIMING.

TRAFFIC SIGNAL HEAD QUANTITIES
IA 5 and Scotch Ridge Rd

Pole No.	Signal Head Number(s)	3-Sect. 12" RYG	4-Sect. 12" Red SY-FY-G Left Turn Arrows	3-Sect. R-Y-G Arrows Left Turn Arrows	1 - Section Hand/Man Ped Head	Back Plate	Mounting OH	Mounting Side
1	51		1			1	1	
1	21	1				1	1	
1	22	1				1	1	
1	23	1				1	1	
1	24	1						1
2	31			1		1	1	
2	32			1		1	1	
2	81	1				1	1	
2	82	1				1	1	
2	83	1						1
3	41	1				1	1	
3	42	1				1	1	
3	43	1						1
6	44				1			1
4	11		1			1	1	
4	61	1				1	1	
4	62	1				1	1	
4	63	1						1
4	45				1			1
		13	2	2	2	13	13	6

WIRE QUANTITIES IN FEET
IA 5 and Scotch Ridge Rd

From	To	Pull Rope	1c#10 Tracer	1c #6Bare Copper	1c#6 PWR Copper	1c#8 LUM Copper	2c#14	5c#14	7c#14	12c#14
SERVICE	CONTROLLER				405					
CONTROLLER	SIGNAL POLE 1									45
CONTROLLER	SIGNAL POLE 2									175
CONTROLLER	SIGNAL POLE 3									175
CONTROLLER	SIGNAL POLE 4							300		305
CONTROLLER	SIGNAL POLE 5						300			
CONTROLLER	SIGNAL POLE 6						200	200		
SIGNAL POLE 1								210	90	
SIGNAL POLE 2								144	172	
SIGNAL POLE 3								103	95	
SIGNAL POLE 4								275	82	
SIGNAL POLE 5							18			
SIGNAL POLE 6							18	20		
THROUGHOUT		490	490	490						
	Sub-Totals=	490	490	490	405	0	536	1252	439	700
	Extra=	25	25	25	20	0	27	63	22	35
	Grand Totals=	515	515	515	425	0	563	1315	461	735

REMARKS: CONTRACTOR HAS OPTION TO INTERCEPT AND CONNECT TO EXISTING POWER SERVICE CONNECTION.

CONDUIT QUANTITIES
IA 5 and Scotch Ridge Rd

From	To	Trenched (Feet) 2" Dia PVC	Trenched (Feet) 3" Dia PVC	Trenched (Feet) 4" Dia PVC	Pushed (Feet) 3" Dia PVC	Pushed (Feet) 4" Dia PVC
SERVICE	CONTROLLER	65				
CONTROLLER	HANDHOLE 1			10		
HANDHOLE 1	HANDHOLE 2					125
HANDHOLE 1	SIGNAL POLE 1		10			
HANDHOLE 1	HANDHOLE 3					135
HANDHOLE 2	SIGNAL POLE 2		10			
HANDHOLE 3	SIGNAL POLE 3		5			
HANDHOLE 3	SIGNAL POLE 6		30			
HANDHOLE 3	HANDHOLE 4					115
HANDHOLE 3	HANDHOLE 5	550				
HANDHOLE 4	SIGNAL POLE 4		10			
HANDHOLE 4	SIGNAL POLE 5	10				
HANDHOLE 5	FLASHER ASSEMBLY 1	45				
HANDHOLE 5	FLASHER ASSEMBLY 2	5				
	Sub-Totals=	675	65	10	0	375
	Extra=	34	3	1	0	19
	Grand Totals=	709	68	11	0	394

REMARKS: CONTRACTOR HAS OPTION TO INTERCEPT AND CONNECT TO EXISTING POWER SERVICE CONNECTION.

VIDEO DETECTION EQUIPMENT
IA 5 AND Scotch Ridge Rd

From	To	Single-Point Detection Camera Each	Advanced Video Detection Mast Arm Mount Camera Each	Video Camera Cable(s)* Linear Feet
CONTROLLER	SIGNAL POLE 1			80
CONTROLLER	SIGNAL POLE 2			
CONTROLLER	SIGNAL POLE 3			
CONTROLLER	SIGNAL POLE 4			305
SIGNAL POLE 1		1	1	101
SIGNAL POLE 2				
SIGNAL POLE 3				
SIGNAL POLE 4		1	1	54
	Sub-Totals=	2	2	540
	Extra=	0	0	27
	Grand Totals=	2	2	567

NOTE: CAT5E CABLE PROVIDED WITH EACH CAMERA SYSTEM BY THE SUPPLIER. QUANTITIES ARE FOR LINEAR FEET OF INSTALLATION OF FURNISHED MATERIAL.

FOOTING AND HANDHOLE QUANTITIES
IA 5 and Scotch Ridge Rd

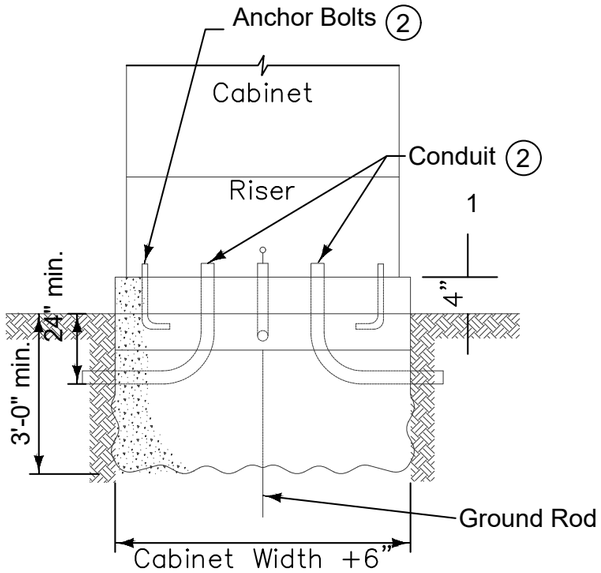
Item Number	Concrete Signal Pole Footings	Hand-Hole Type I 24" Dia.	Hand-Hole Type IV "Tub"	COMMENTS
IOWA 5 CONTROLLER				
SIGNAL POLE 1	0			Existing
SIGNAL POLE 2	1			3.5' Dia x 18.0' Deep Footing
SIGNAL POLE 3	1			3.0' Dia x 16.0' Deep Footing
SIGNAL POLE 4	1			3.0' Dia x 16.0' Deep Footing
SIGNAL POLE 5	1			2.0' Dia x 3.0' Deep Footing
SIGNAL POLE 6	1			2.0' Dia x 3.0' Deep Footing
HANDHOLE 1			1	
HANDHOLE 2		1		
HANDHOLE 3		1		
HANDHOLE 4		1		
HANDHOLE 5		1		
Totals=	5	4	1	

SIGNAGE QUANTITIES
IA 5 and Scotch Ridge Rd

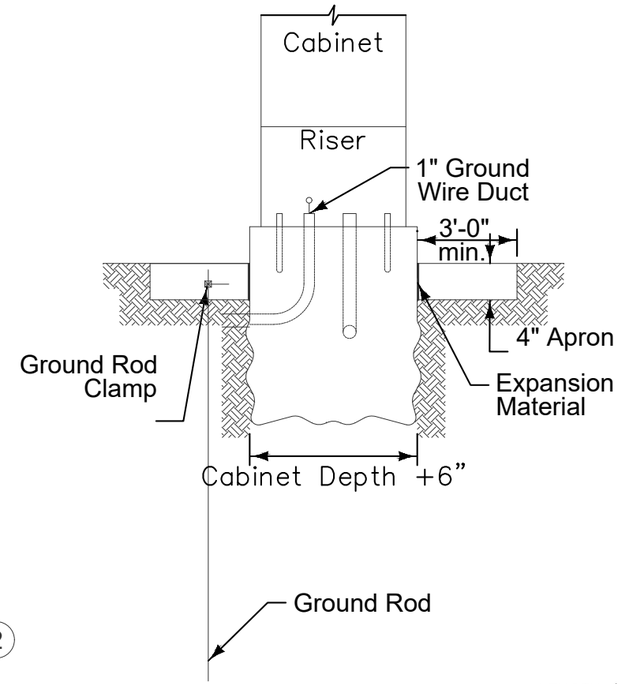
LEGEND LETTER	"A"	"B"	"C"	"D"	Pedestrian PB Sign
SIGN TYPE	Iowa 5	Scotch Ridge Rd	Left Turn Only	Right Turn Only	9" x 15"
SIZE	53" x 20"	113" x 20"	30"x36" R3-5L	30"x36" R3-5R	R10-3A
MOUNTING LOCATION	Horizontal Arm	Horizontal Arm	Horizontal Arm	Horizontal Arm	Vertical Shaft
SIGNAL POLE 1	1		1	1	
SIGNAL POLE 2		1	2	1	1
SIGNAL POLE 3		1		1	1
SIGNAL POLE 4	1		1		
Totals=	2	2	4	3	2

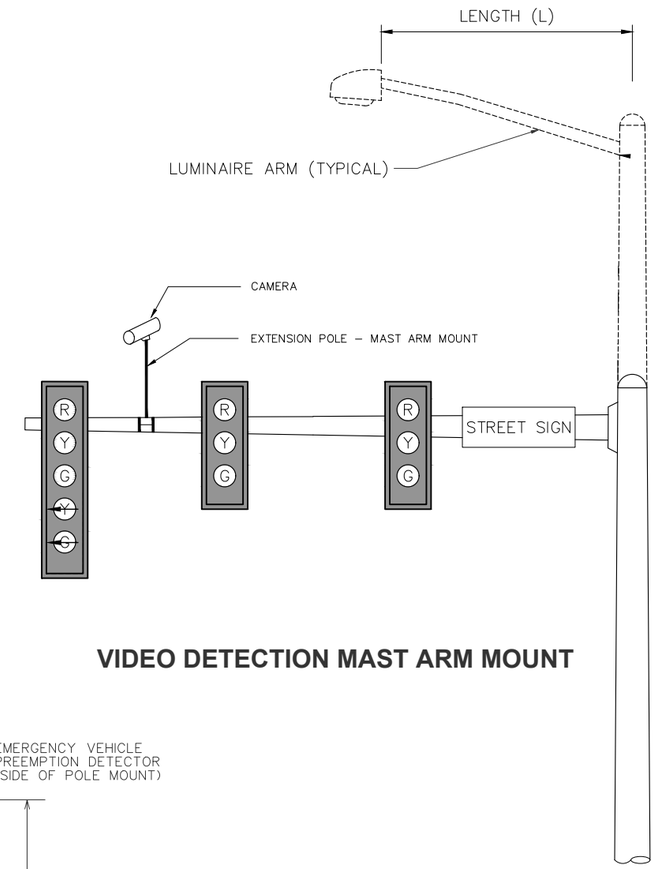
(1) Shape top 11 inches with forms.

(2) Bolt spacing and conduit locations as specified by the manufacturer.

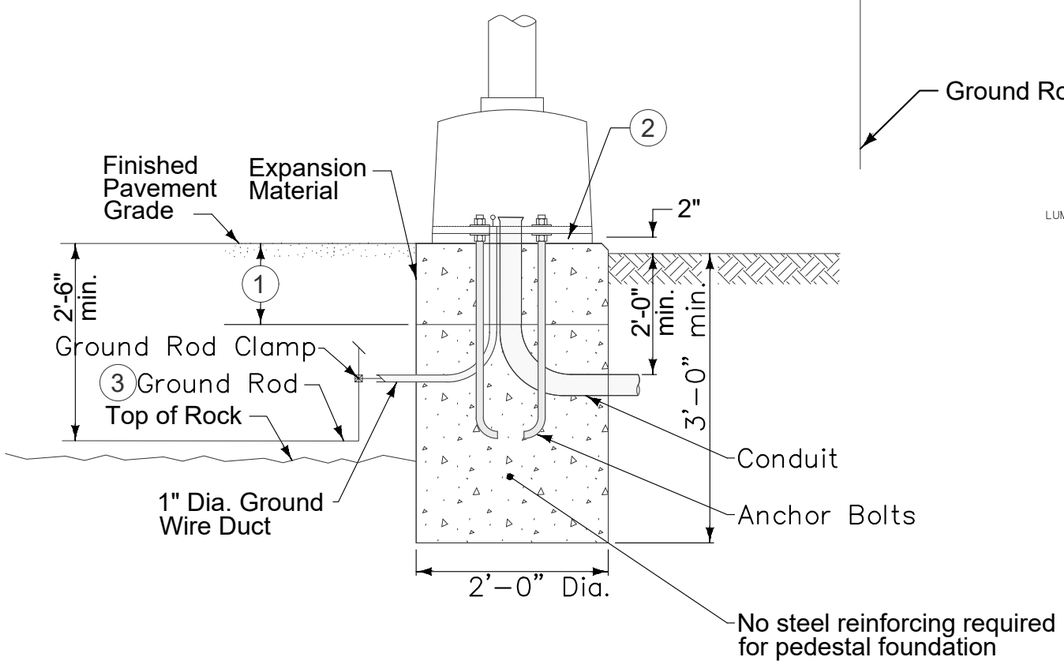


NEMA CONTROLLER CABINET FOOTING

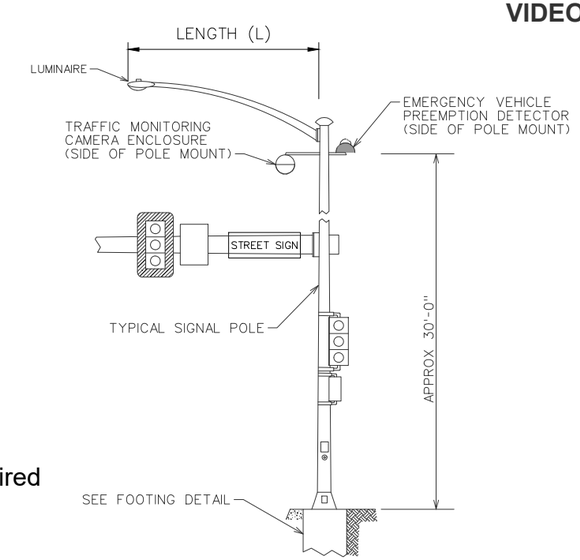




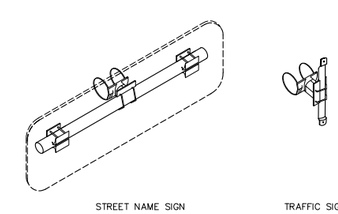
VIDEO DETECTION MAST ARM MOUNT



PEDESTAL POLE FOUNDATION IN SOIL OR ROCK



CAMERA MOUNT TO SIGNAL POLE

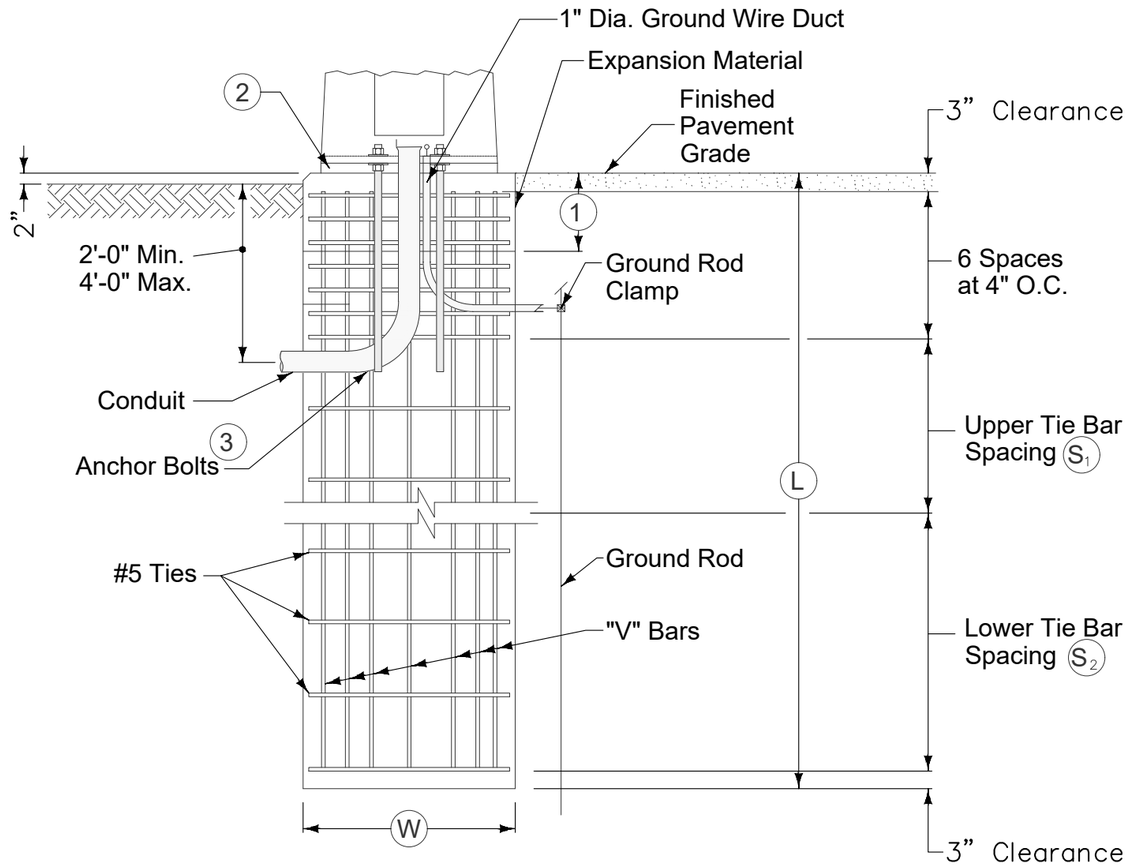


STREET SIGN MOUNTING DETAIL

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
LMV	LMV	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	TRAFFIC SIGNAL DETAILS	N.10
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
RKD	-	JULY, 2021	.					

$DATE$

$FILEL$

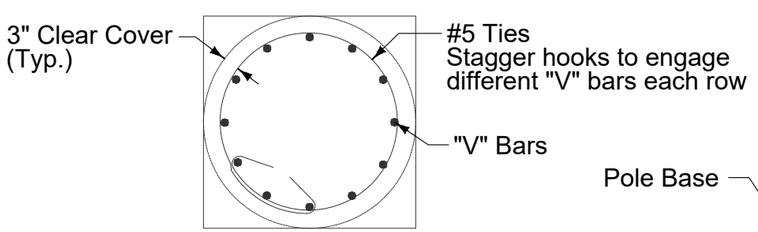


MAST ARM POLE FOUNDATION IN SOIL
TYPE A FOUNDATION

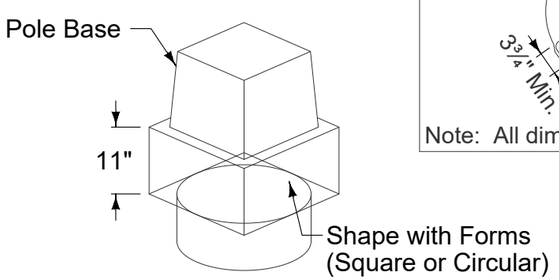
The Type A Foundation is the normally required foundation construction. Where rock is encountered, the Engineer may approve the use of the Type B or C Foundation. Prior to installing a foundation in rock, obtain a subsurface investigation certified by a geotechnical engineer licensed in the State of Iowa.

1. Shape top 11 inches with forms. See Detail 'A'.
2. Install rodent guard or non-shrink grout with weep hole.
3. Furnish nut, nut and plate, or nut and anchor bolt assembly ring plate on embedded end.

Max. Mast Arm Length	Foundation		"V" Bars			Tie Bars				
							Upper Spacing		Lower Spacing	
	W	L	Count	Size	Length	Count	# Spaces	S_1	# Spaces	S_2
35'–0"	3'–0"	12'–0"	12	#8	11'–6"	17	9	12"	N/A	N/A
45'–0"	3'–0"	14'–0"	12	#8	13'–6"	19	11	12"	N/A	N/A
55'–0"	3'–0"	16'–0"	12	#8	15'–6"	25	12	8"	5	12"
60'–0"	3'–0"	18'–0"	13	#8	17'–6"	28	15	8"	5	12"
70'–0"	3'–6"	18'–0"	12	#10	17'–6"	28	15	8"	5	12"
80'–0"	3'–6"	21'–0"	14	#10	20'–6"	40	22	6"	10	8"
90'–0"	4'–0"	22'–0"	16	#10	21'–6"	42	24	6"	10	8"
100'–0"	4'–0"	24'–0"	18	#10	23'–6"	47	32	6"	7	8"

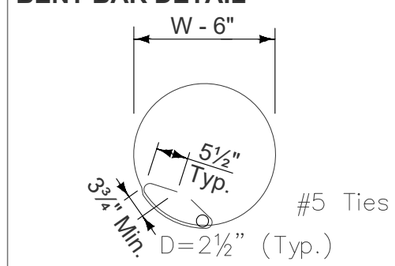


PLAN VIEW

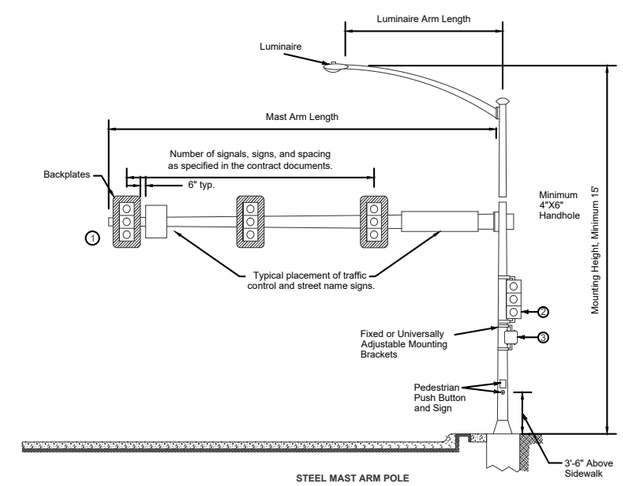


DETAIL 'A'

BENT BAR DETAIL

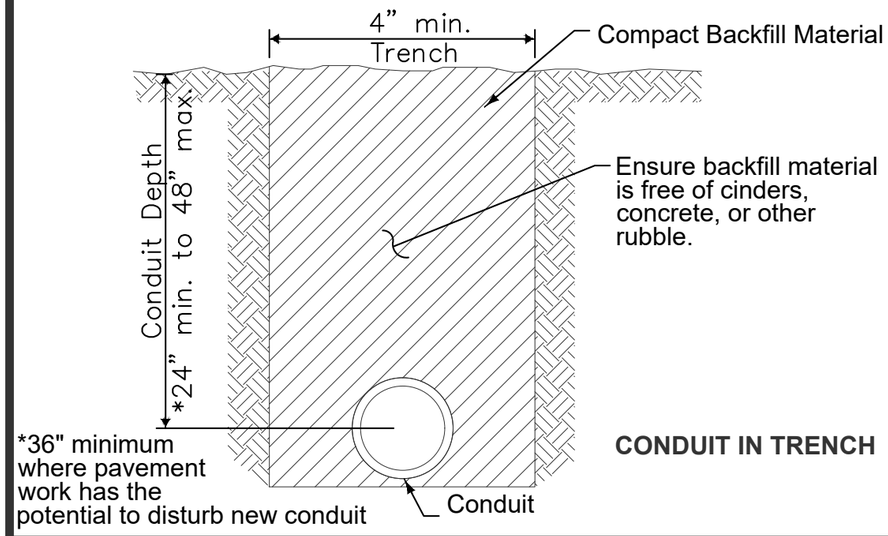


Note: All dimension are out to out.

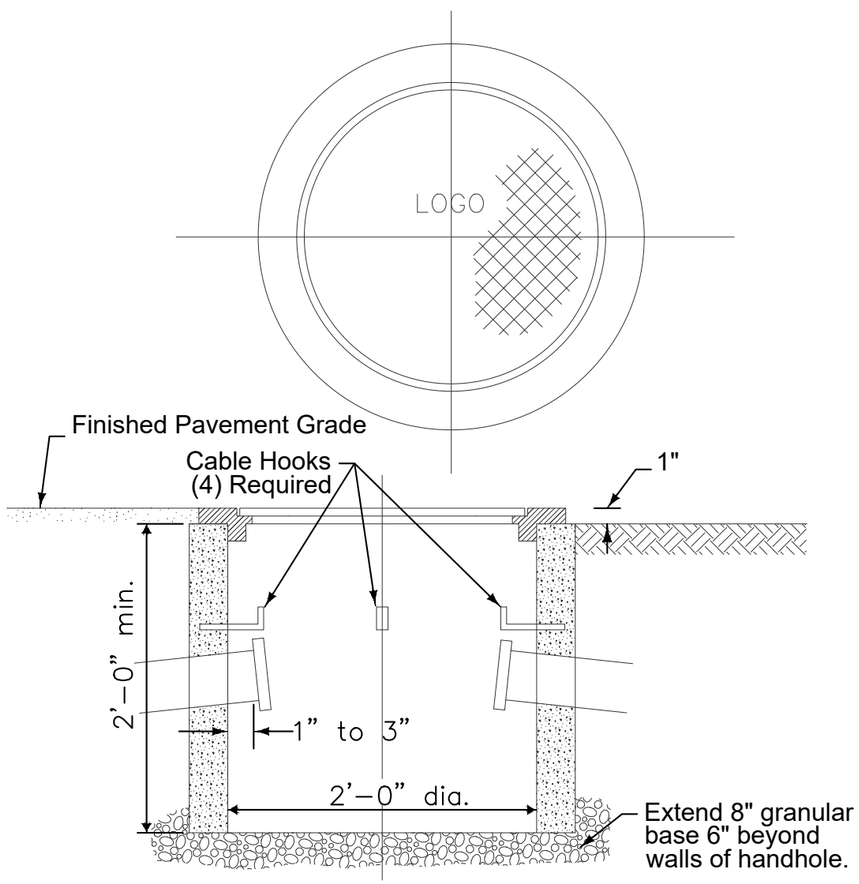


STEEL MAST ARM POLE

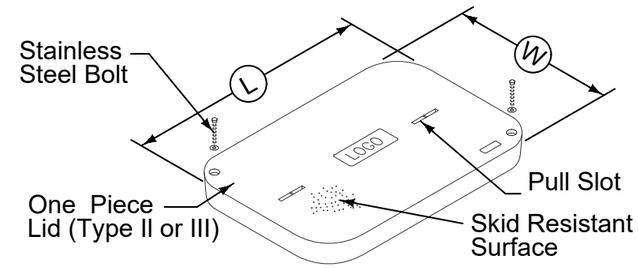
1. Ensure the top of the signal housing is no more than 25.6 feet above the pavement. Ensure the bottom of the signal housing and related attachments are at least 15 feet above the pavement.
2. Ensure the bottom of the signal housing (including brackets) that is not located over a roadway is a minimum of 8 feet and a maximum of 19 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
3. Mount pedestrian signal heads with the bottom of the signal housing (including brackets) no less than 7 feet or more than 10 feet above the sidewalk level. Position and adjust heads to provide maximum visibility at the beginning of the controlled crosswalk.

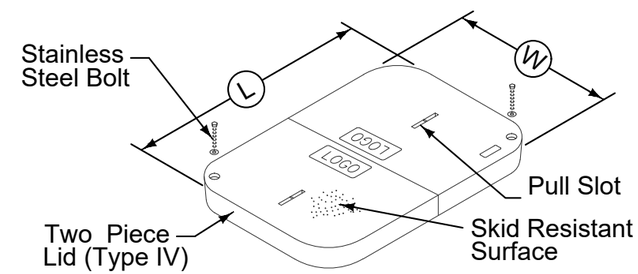


CONDUIT IN TRENCH

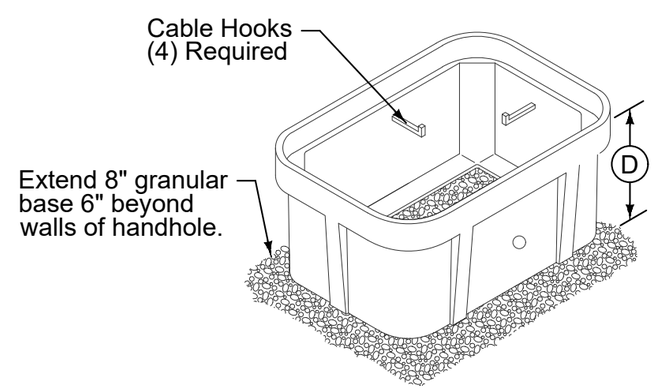


PRECAST CONCRETE HANDHOLE (TYPE I)



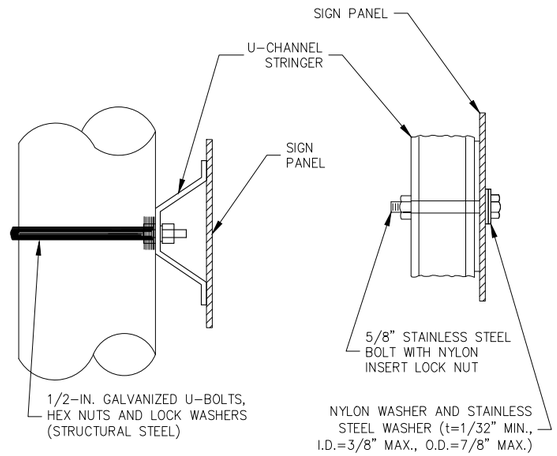


HANDHOLE DIMENSIONS TABLE (NOMINAL)			
TYPE	L	W	D
II	30"	17"	24"
III	36"	24"	30"
IV	48"	30"	36"



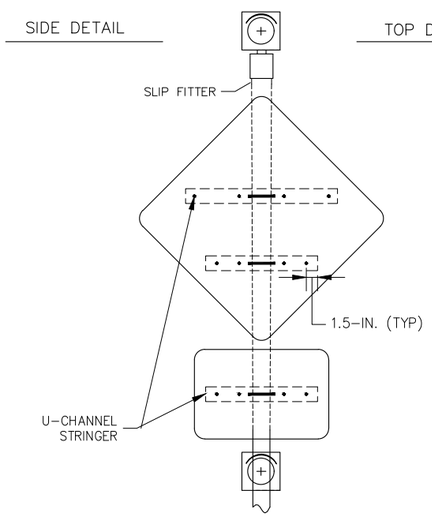
PRECAST CONCRETE COMPOSITE HANDHOLE

NOTES:
1. PLACEMENT OF ASSEMBLY IN THE CONCRETE MEDIAN SHALL CONFORM TO THE MUTCD FOR LATERAL PLACEMENT FROM THE TRAFFIC-WAY.
2. CONTRACTOR SHALL MEET BOTH MINIMUM REQUIRED MOUNTING HEIGHTS WITH THE SHORTEST PEDESTAL POLE POSSIBLE OR AS DIRECTED BY THE ENGINEER.
3. 12" LED FLASHING YELLOW BEACONS SHALL FLASH ALTERNATELY WHEN RECEIVING SIGNAL FROM SIGNAL CONTROLLER.
4. ALL COMPONENTS (SIGNS, HEADS, POSTS, BRACKETS, CONDUIT, CABLE, ETC) SHALL BE INCLUDED IN BID ITEM FOR "TRAFFIC SIGNALIZATION".



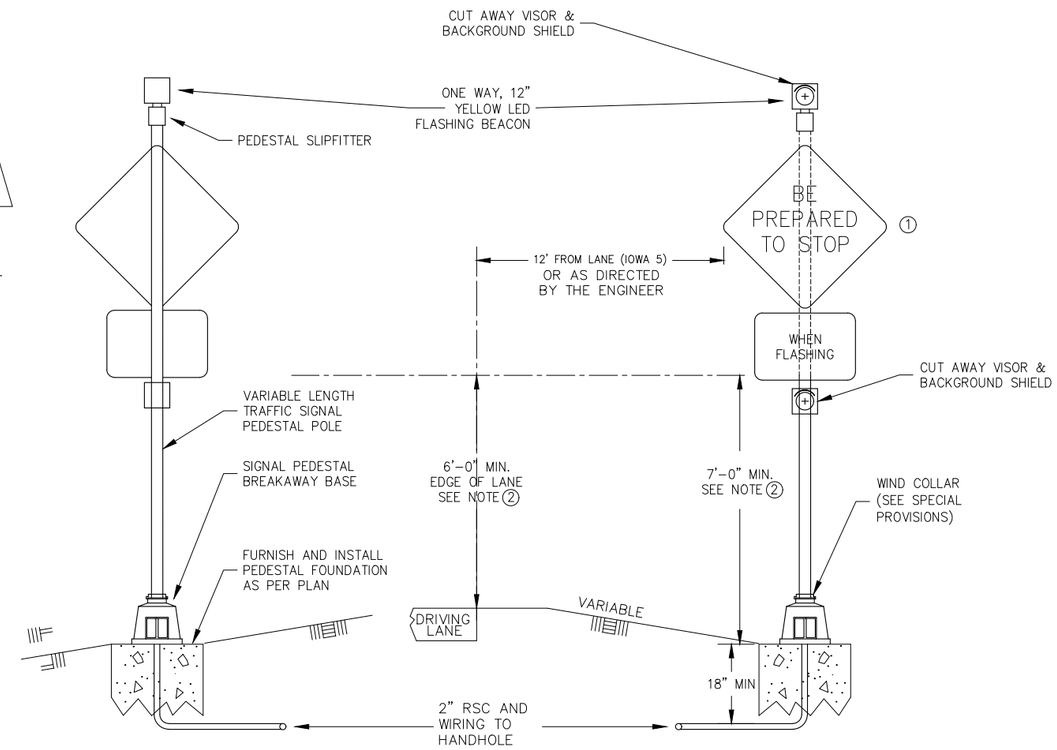
SIDE DETAIL

TOP DETAIL



FRONT DETAIL

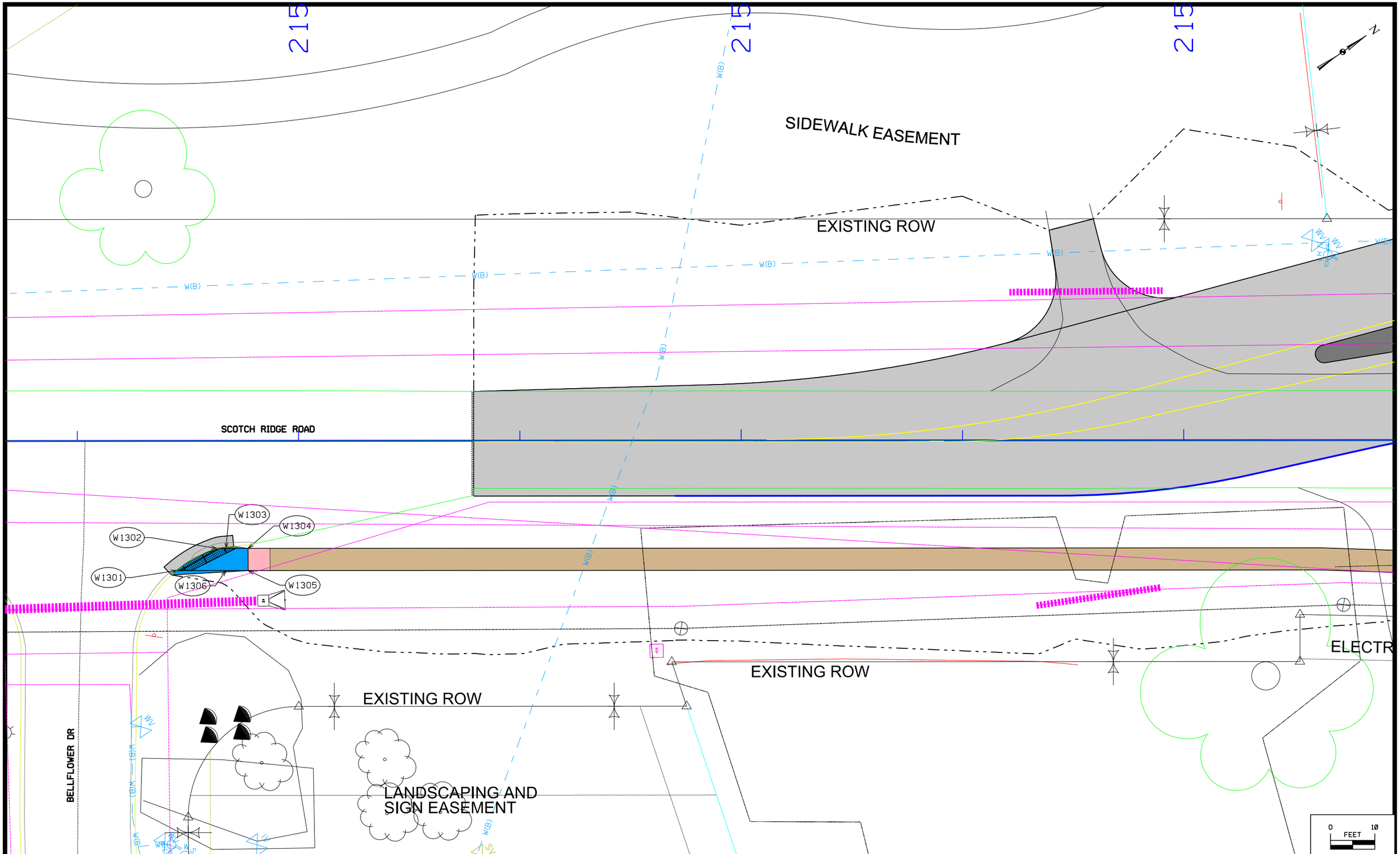
FLASHER SIGN MOUNTING ATTACHMENT DETAILS



BACK VIEW

FRONT VIEW

ADVANCE WARNING FLASHER DETAILS
TRAFFIC CONTROL SIGNAL SYSYTEM



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD SIDEWALK LAYOUT	S.1
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JSS	-	JULY, 2021						

8/2/2021

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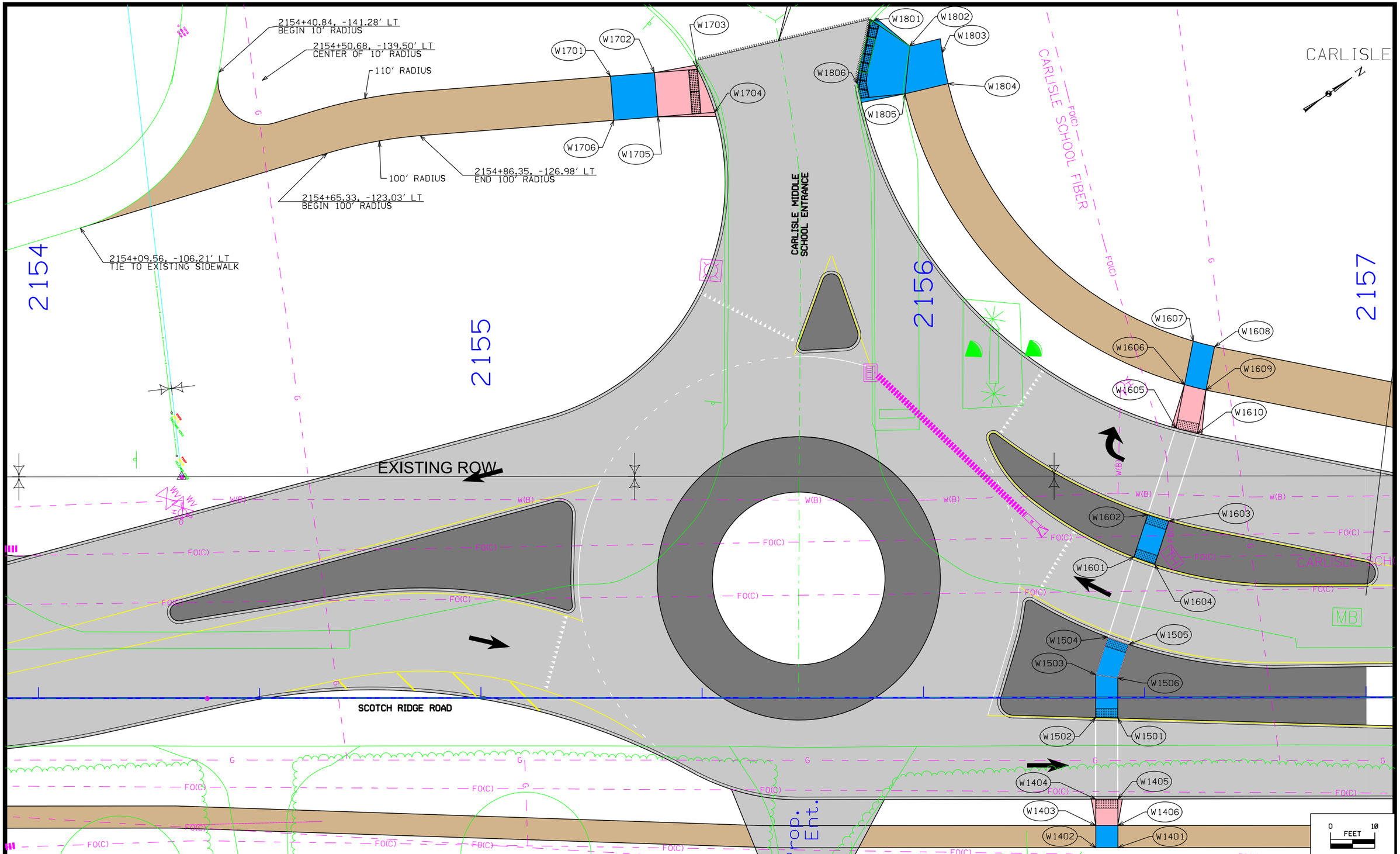

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD SIDEWALK LAYOUT	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					S.2

9/17/2021

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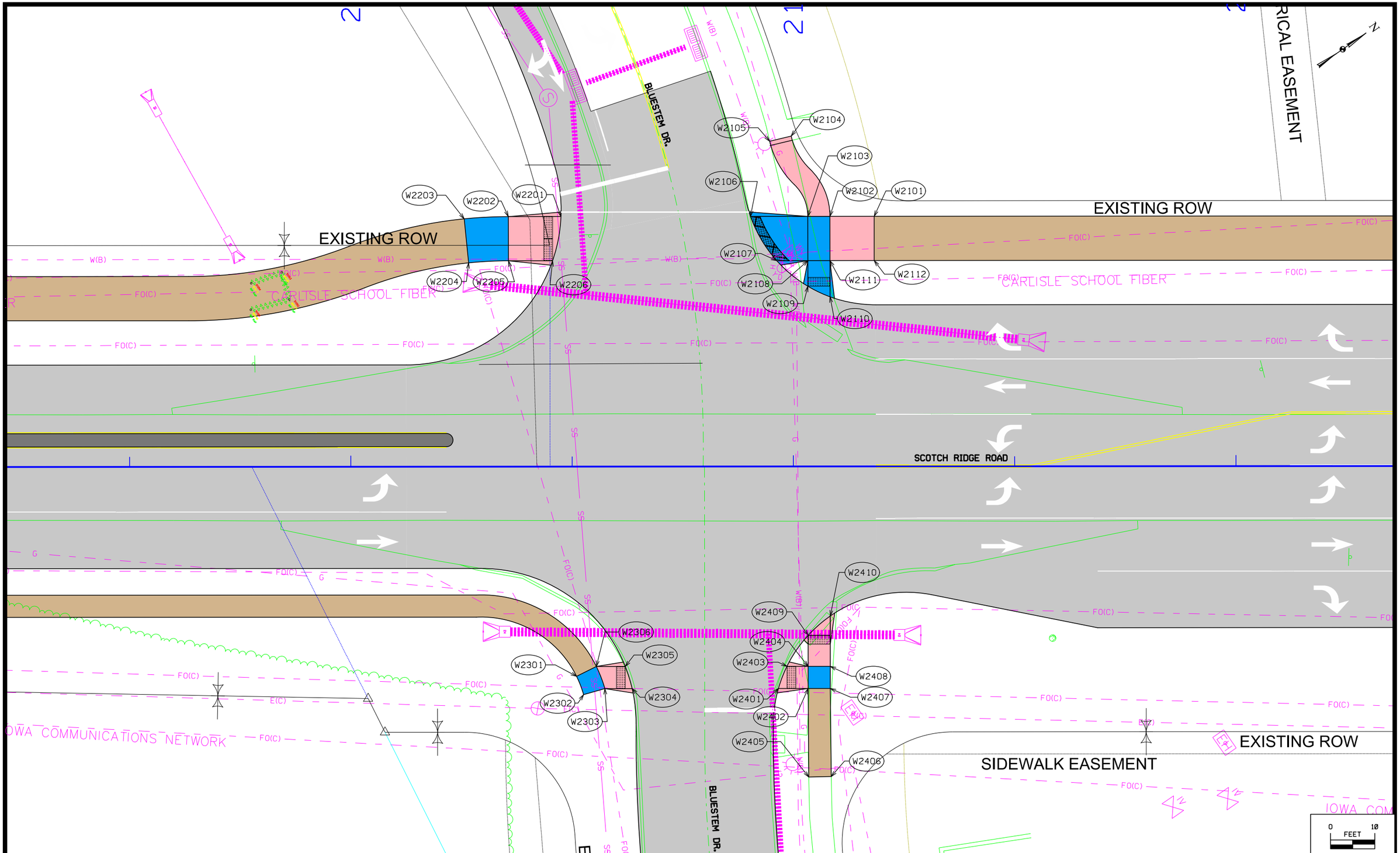

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™	making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD SIDEWALK LAYOUT	S.3
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007						
JSS	-	JULY, 2021						

8/2/2021

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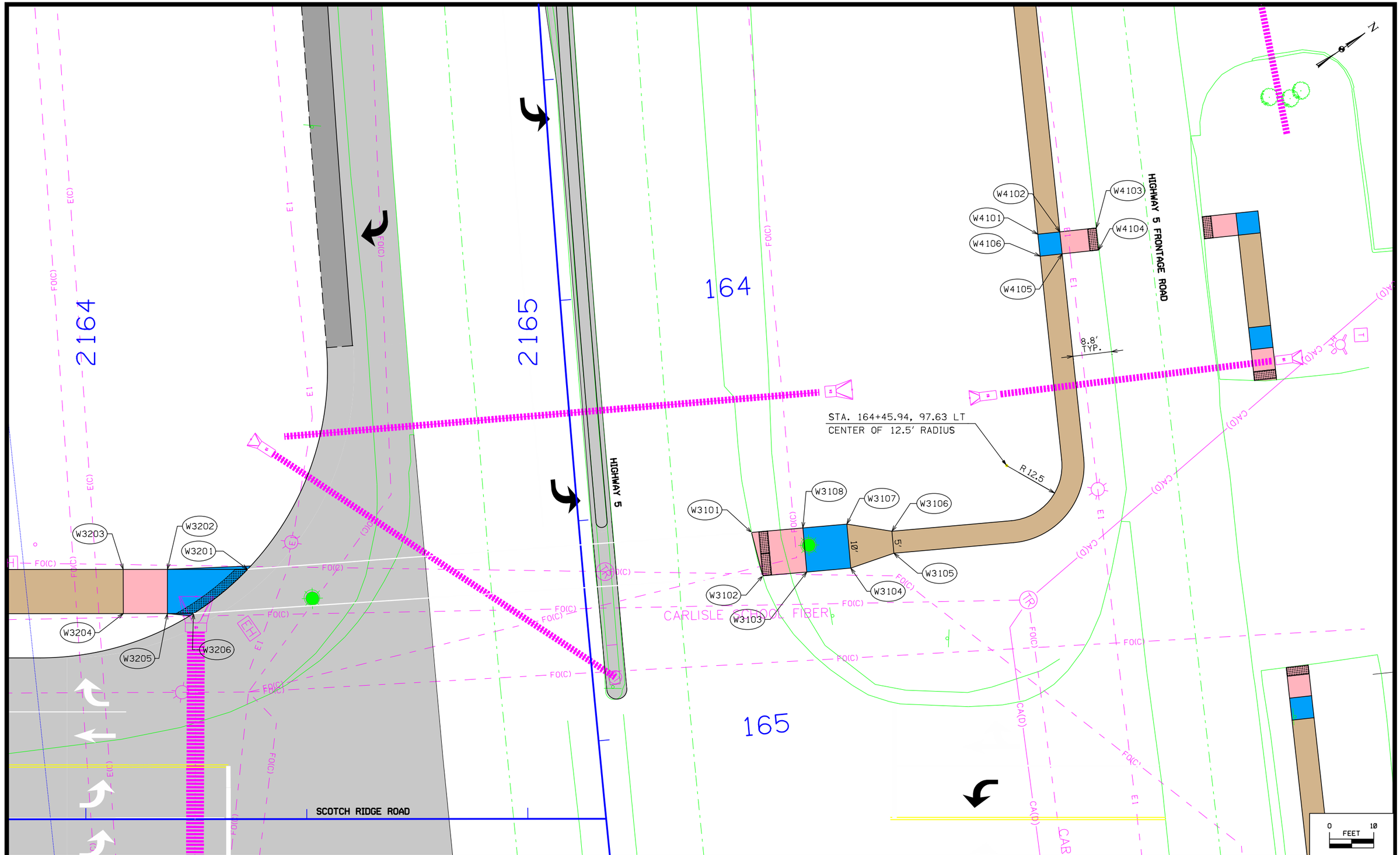

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD SIDEWALK LAYOUT	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					
JSS	-	JULY, 2021					S.4

8/2/2021

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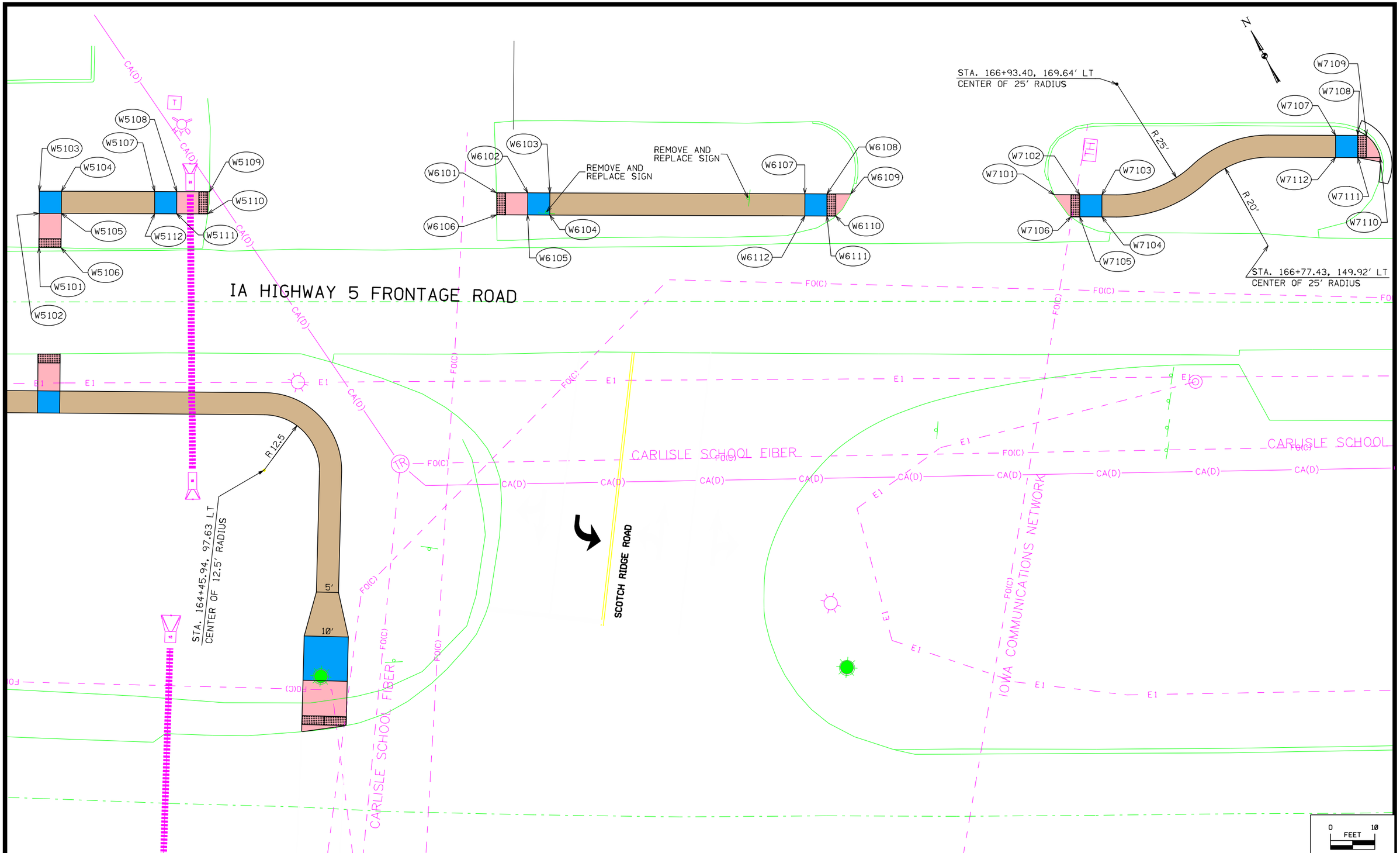

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	HIGHWAY 5 FRONTAGE ROAD SIDEWALK LAYOUT	SHEET NO. S.5
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021						

8/2/2021

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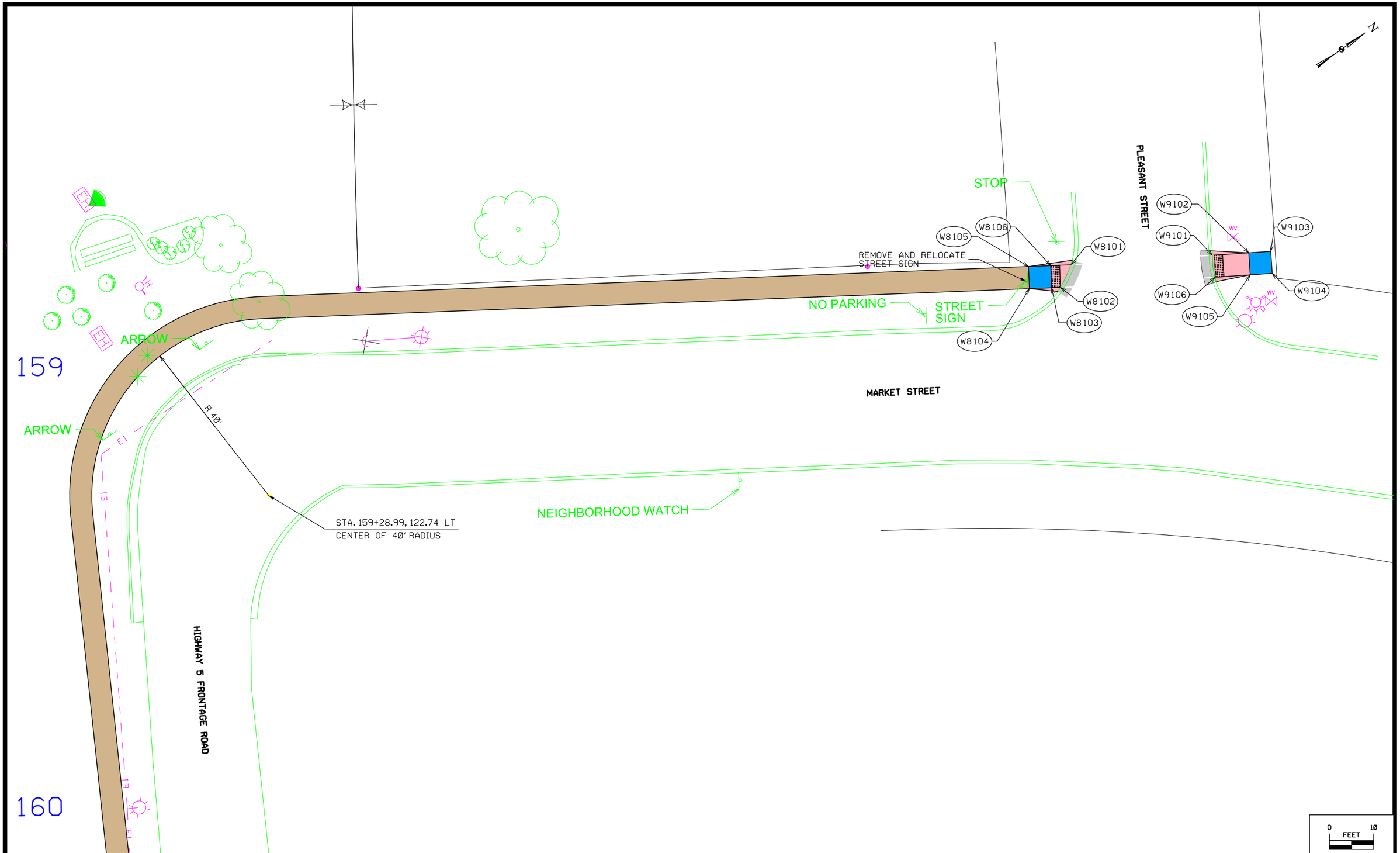

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD		McCLURE™	making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	HIGHWAY 5 FRONTAGE ROAD SIDEWALK LAYOUT	SHEET NO. S.6
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021						

9/17/2021

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SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance* FT	Δ Elevation FT	Slope %	Acceptable Constructed Range Pos. or Neg.	Staking Required on this Quadrant? (1)	Measured Slope %	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES Point	Station	Offset	Elevation
W1301	W1302	Crosswalk Cross Slope - Yield Condition	6	10.50	0.71	6.8%	0.0% to 7.8%				BEYOND INTENDED SCOPE OF PROJECT	W1301	2151+72.45	29.31	880.96
W1302	W1303	Landing/Turning Space	4	7.00	0.08	1.1%	0.1% to 2.0%					W1302	2151+81.57	24.31	881.67
W1303	W1304	Landing/Turning Space	4	5.00	0.05	1.0%	0.1% to 2.0%					W1303	2151+88.57	24.31	881.75
W1304	W1305	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W1304	2151+88.57	29.31	881.80
W1305	W1306	Landing/Turning Space	4	5.00	-0.04	-0.9%	0.1% to 2.0%					W1305	2151+81.57	29.31	881.87
W1306	W1301	Ramp Running Slope	6	11.12	-0.87	-7.8%	0.5% to 8.3%	Yes				W1306		29.31	881.83
W1303	W1305	Landing/Turning Space	4	7.07	0.12	1.7%	0.1% to 2.0%	Yes							
W1304	W1306	Landing/Turning Space	4	7.07	0.03	0.4%	0.1% to 2.0%								
W1401	W1402	Landing/Turning Space	4	5.00	0.06	1.2%	0.1% to 2.0%					W1401	2156+43.91	33.90	889.80
W1402	W1403	Landing/Turning Space	4	5.00	-0.03	-0.6%	0.1% to 2.0%					W1402	2156+38.91	33.90	889.86
W1403	W1404	Ramp Running Slope	6	5.93	-0.37	-6.2%	0.5% to 8.3%					W1403	2156+38.91	28.90	889.83
W1404	W1405	Crosswalk Cross Slope - No Yield Condition	6	5.00	-0.10	-2.0%	0.0% to 5.0%					W1404	2156+38.91	22.97	889.46
W1405	W1406	Ramp Running Slope	6	5.94	0.37	6.2%	0.5% to 8.3%					W1405	2156+43.91	22.96	889.36
W1406	W1401	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W1406	2156+43.91	28.90	889.73
W1401	W1403	Landing/Turning Space	4	7.07	0.03	0.4%	0.1% to 2.0%								
W1402	W1406	Landing/Turning Space	4	7.07	-0.13	-1.8%	0.1% to 2.0%	Yes							
W1501	W1502	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.09	1.8%	0.0% to 5.0%					W1501	2156+43.91	9.82	889.73
W1502	W1503	Landing/Turning Space	4	9.70	0.18	1.9%	0.1% to 2.0%	Yes				W1502	2156+38.91	11.04	889.82
W1503	W1504	Ramp Running Slope	6	8.90	0.70	7.9%	0.5% to 8.3%	Yes				W1503	2156+38.91	10.13	890.00
W1504	W1505	Crosswalk Cross Slope - No Yield Condition	6	5.00	-0.23	-4.6%	0.0% to 5.0%					W1504	2156+41.67	-7.19	890.70
W1505	W1506	Ramp Running Slope	6	7.98	-0.57	-7.1%	0.5% to 8.3%					W1505	2156+46.39	-7.60	890.47
W1506	W1501	Landing/Turning Space	4	9.10	-0.17	-1.8%	0.1% to 2.0%	Yes				W1506	2156+43.91	-4.37	889.90
W1601	W1602	Landing/Turning Space	4	10.10	-0.18	-1.8%	0.1% to 2.0%	Yes				W1601	2156+47.57	-31.71	890.20
W1602	W1603	Crosswalk Cross Slope - No Yield Condition	6	5.00	-0.10	-2.0%	0.0% to 5.0%					W1602	2156+50.70	-41.31	890.02
W1603	W1604	Landing/Turning Space	4	10.10	0.18	1.8%	0.1% to 2.0%	Yes				W1603	2156+55.48	-39.84	889.92
W1604	W1601	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.10	2.0%	0.0% to 5.0%					W1604	2156+52.28	-30.02	890.10
W1605	W1606	Ramp Running Slope	6	10.00	0.20	2.0%	0.5% to 8.3%					W1605	2156+57.06	-60.81	889.68
W1606	W1607	Landing/Turning Space	4	10.00	0.15	1.5%	0.1% to 2.0%					W1606	2156+59.03	-70.64	889.88
W1607	W1608	Landing/Turning Space	4	5.00	-0.07	-1.4%	0.1% to 2.0%					W1607	2156+61.00	-80.48	890.03
W1608	W1609	Landing/Turning Space	4	10.00	-0.15	-1.5%	0.1% to 2.0%					W1608	2156+65.85	-79.23	889.96
W1609	W1610	Ramp Running Slope	6	10.00	-0.30	-3.0%	0.5% to 8.3%					W1609	2156+63.88	-69.40	889.81
W1610	W1605	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.17	3.4%	0.0% to 5.0%					W1610	2156+61.92	-59.61	889.51
W1701	W1702	Landing/Turning Space	4	10.00	-0.13	-1.3%	0.1% to 2.0%					W1701	2155+29.35	-140.40	895.13
W1702	W1703	Ramp Running Slope	6	9.73	-0.59	-6.1%	0.5% to 8.3%					W1702	2155+39.32	-141.19	895.00
W1703	W1704	Crosswalk Cross Slope - No Yield Condition	6	10.00	-0.41	-4.1%	0.0% to 5.0%					W1703	2155+49.02	-141.95	894.41
W1704	W1705	Ramp Running Slope	6	12.90	0.85	6.6%	0.5% to 8.3%					W1704	2155+52.97	-132.23	894.00
W1705	W1706	Landing/Turning Space	4	10.00	0.15	1.5%	0.1% to 2.0%					W1705	2155+40.11	-131.22	894.85
W1706	W1701	Landing/Turning Space	4	10.00	0.13	1.3%	0.1% to 2.0%					W1706	2155+30.14	-130.43	895.00
W1801	W1802	Ramp Running Slope	6	10.10	0.15	1.5%	0.5% to 8.3%					W1801	2155+88.76	-152.93	894.59
W1802	W1803	Landing/Turning Space	4	7.50	-0.11	-1.5%	0.1% to 2.0%					W1802	2155+96.99	-147.15	894.74
W1803	W1804	Landing/Turning Space	4	7.10	-0.13	-1.8%	0.1% to 2.0%	Yes				W1803	2156+04.33	-145.61	894.63
W1804	W1805	Landing/Turning Space	4	10.00	-0.15	-1.5%	0.1% to 2.0%					W1804	2156+05.67	-138.68	894.50
W1805	W1806	Ramp Running Slope	6	11.00	-0.41	-3.7%	0.5% to 8.3%					W1805	2155+95.94	-136.36	894.35
W1806	W1801	Crosswalk Cross Slope - No Yield Condition	6	14.80	0.65	4.4%	0.0% to 5.0%					W1806	2155+85.14	-138.72	893.94
W2101	W2102	Ramp Running Slope	4	10.00	0.43	4.3%	0.5% to 8.3%					W2101	2162+18.30	-56.50	867.33
W2101	W2112	Sidewalk Cross Slope	4	10.00	-0.15	-1.5%	0.5% to 2.0%					W2102	2162+08.30	-56.50	867.76
W2102	W2103	Landing/Turning Space	6	5.00	0.08	1.6%	0.1% to 2.0%	Yes				W2103	2162+03.30	-56.50	867.84
W2102	W2111	Landing/Turning Space	6	10.00	-0.15	-1.5%	0.1% to 2.0%					W2104	2161+99.55	-74.65	869.88
W2102	W2104	Ramp Running Slope	4	20.60	2.12	10.3%						W2105	2161+94.69	-73.47	869.91
W2103	W2105	Ramp Running Slope	4	19.43	2.07	10.7%						W2106	2161+90.35	-56.50	867.98
W2103	W2106	Landing/Turning Space	6	12.95	0.14	1.1%	0.1% to 2.0%					W2107	2161+96.27	-46.50	867.75
W2103	W2108	Landing/Turning Space	6	10.00	-0.15	-1.5%	0.1% to 2.0%					W2108	2162+03.30	-46.50	867.69
W2104	W2105	Sidewalk Cross Slope	4	5.00	0.03	0.6%	0.5% to 2.0%					W2109	2162+03.30	-40.72	867.33
W2106	W2107	Crosswalk Cross Slope - Yield Condition	6	11.69	-0.23	-2.0%	0.0% to 2.0%					W2110	2162+08.30	-38.34	866.95
W2107	W2108	Landing/Turning Space	6	7.00	-0.06	-0.9%	0.1% to 2.0%					W2111	2162+08.30	-46.50	867.61
W2108	W2109	Ramp Running Slope	6	5.78	-0.36	-6.2%	0.5% to 8.3%					W2112	2162+18.30	-46.50	867.18
W2108	W2111	Landing/Turning Space	6	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes							
W2109	W2110	Crosswalk Cross Slope - No Yield Condition	6	5.53	-0.38	-6.9%	0.0% to 7.9%								
W2110	W2111	Ramp Running Slope	6	8.16	0.66	8.1%	0.5% to 8.3%	Yes							
W2111	W2112	Ramp Running Slope	4	10.00	-0.43	-4.3%	0.5% to 8.3%								

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance* FT	Δ Elevation FT	Slope %	Acceptable Constructed Range Pos. or Neg.	Staking Required on this Quadrant? (1)	Measured Slope %	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES Point	Station	Offset	Elevation
W2201	W2202	Ramp Running Slope	6	11.89	0.69	5.8%	0.5% to 8.3%					W2201	2161+47.53	-56.50	869.48
W2201	W2206	Crosswalk Cross Slope - Yield Condition	6	10.21	0.21	2.1%	0.0% to 3.1%					W2202	2161+35.64	-56.50	870.17
W2202	W2203	Landing/Turning Space	4	10.00	0.15	1.5%	0.1% to 2.0%					W2203	2161+25.66	-56.00	870.32
W2202	W2205	Landing/Turning Space	4	10.00	0.15	1.5%	0.1% to 2.0%					W2204	2161+26.66	-46.05	870.45
W2203	W2204	Landing/Turning Space	4	10.00	0.13	1.3%	0.1% to 2.0%					W2205	2161+35.64	-46.50	870.32
W2204	W2205	Landing/Turning Space	4	9.00	-0.13	-1.4%	0.1% to 2.0%					W2206	2161+45.62	-46.50	869.69
W2205	W2206	Ramp Running Slope	6	10.00	-0.63	-6.3%	0.5% to 8.3%								
W2301	W2302	Landing/Turning Space	4	4.43	-0.07	-1.6%	0.1% to 2.0%	Yes				W2301	2161+50.97	47.38	868.19
W2301	W2306	Landing/Turning Space	4	5.00	-0.07	-1.4%	0.1% to 2.0%					W2302	2161+52.55	51.52	868.12
W2302	W2303	Landing/Turning Space	4	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes				W2303	2161+57.36	50.17	868.04
W2303	W2304	Ramp Running Slope	6	6.16	-0.38	-6.2%	0.5% to 8.3%					W2304	2161+63.53	50.17	867.66
W2303	W2306	Landing/Turning Space	4	5.35	0.08	1.5%	0.1% to 2.0%					W2305	2161+61.98	45.17	867.70
W2304	W2305	Crosswalk Cross Slope - Yield Condition	6	5.23	0.04	0.8%	0.0% to 2.0%					W2306	2161+55.45	45.17	868.12
W2305	W2306	Ramp Running Slope	6	6.57	0.42	6.4%	0.5% to 8.3%								
W2401	W2402	Ramp Running Slope	6	6.71	0.35	5.2%	0.5% to 8.3%					W2401	2161+96.58	50.17	867.58
W2401	W2403	Crosswalk Cross Slope - Yield Condition	6	5.37	-0.03	-0.6%	0.0% to 2.0%					W2402	2162+03.30	50.17	867.93
W2402	W2404	Landing/Turning Space	4	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes				W2403	2161+98.51	45.17	867.55
W2402	W2407	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W2404	2162+03.30	45.17	867.85
W2402	W2405	Sidewalk Running Slope	4	20.00	0.45	2.3%	0.5% to 5.0%					W2405	2162+03.30	59.00	868.38
W2403	W2404	Ramp Running Slope	6	4.78	0.30	6.3%	0.5% to 8.3%					W2406	2162+08.30	59.00	868.41
W2404	W2408	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W2407	2162+08.30	50.17	868.00
W2404	W2409	Ramp Running Slope	6	7.00	-0.35	-5.0%	0.5% to 8.3%					W2408	2162+08.30	45.17	867.92
W2405	W2406	Match Existing Cross Slope	4	5.00	0.03	0.6%	Match Existing					W2409	2162+03.30	38.17	867.50
W2406	W2407	Sidewalk Running Slope	4	19.90	-0.41	-2.1%	0.5% to 5.0%					W2410	2162+08.30	33.81	867.46
W2407	W2408	Landing/Turning Space	4	5.00	-0.08	-1.6%	0.1% to 2.0%	Yes							
W2408	W2410	Ramp Running Slope	6	11.36	-0.46	-4.0%	0.5% to 8.3%								
W2409	W2410	Crosswalk Cross Slope - No Yield Condition	6	6.65	-0.04	-0.6%	0.0% to 5.0%								
W3101	W3102	Crosswalk Cross Slope - No Yield Condition	6	10.50	0.39	3.7%	0.0% to 5.0%					W3101	164+56.09	-38.81	860.35
W3102	W3103	Ramp Running Slope	6	10.00	-0.62	-6.2%	0.5% to 8.3%					W3102	164+66.16	-40.45	860.74
W3103	W3104	Landing/Turning Space	4	10.00	0.15	1.5%	0.1% to 2.0%					W3103	164+66.18	-50.45	860.12
W3104	W3105	Sidewalk Running Slope	4	10.30	0.13	1.3%	0.5% to 5.0%					W3104	164+66.21	-60.45	860.27
W3105	W3106	Sidewalk Cross Slope	4	10.00	-0.10	-1.0%	0.5% to 2.0%					W3105	164+63.69	-70.45	860.40
W3106	W3107	Sidewalk Running Slope	4	10.30	-0.13	-1.3%	0.5% to 5.0%					W3106	164+58.63	-70.46	860.30
W3107	W3108	Landing/Turning Space	4	10.00	-0.15	-1.5%	0.1% to 2.0%					W3107	164+56.10	-60.46	860.17
W3108	W3101	Ramp Running Slope	6	10.00	0.33	3.3%	0.5% to 8.3%					W3108	164+56.10	-50.46	860.02
W3103	W3107	Landing/Turning Space	4	14.14	0.05	0.3%	0.1% to 2.0%								
W3104	W3108	Landing/Turning Space	4	14.14	-0.25	-1.8%	0.1% to 2.0%	Yes							
W3201	W3202	Landing/Turning Space	4	18.15	0.27	1.5%	0.1% to 2.0%					W3201	2164+42.77	-56.50	860.18
W3202	W3203	Ramp Running Slope	6	10.00	0.62	6.2%	0.5% to 8.3%					W3202	2164+18.51	-56.50	860.45
W3203	W3204	Landing/Turning Space	4	10.00	-0.10	-1.0%	0.1% to 2.0%					W3203	2164+08.51	-56.50	861.07
W3204	W3205	Ramp Running Slope	6	10.00	-0.63	-6.3%	0.5% to 8.3%					W3204	2164+08.51	-46.50	860.97
W3205	W3206	Landing/Turning Space	4	5.88	-0.08	-1.4%	0.1% to 2.0%					W3205	2164+18.51	-46.50	860.34
W3206	W3201	Crosswalk Cross Slope - Yield Condition	6	15.86	-0.08	-0.5%	0.0% to 2.0%					W3206	2164+24.39	-46.50	860.26
W3202	W3205	Landing/Turning Space	4	10.00	-0.11	-1.1%	0.1% to 2.0%								
W4101	W4102	Landing/Turning Space	4	5.00	0.08	1.5%	0.1% to 2.0%					W4101	163+93.40	-108.92	864.04
W4102	W4103	Ramp Running Slope	6	8.32	0.23	2.8%	0.5% to 8.3%					W4102	163+93.25	-113.92	864.11
W4103	W4104	Crosswalk Cross Slope - No Yield Condition	6	5.00	-0.11	-2.2%	0.0% to 5.0%					W4103	163+93.01	-122.23	864.34
W4104	W4105	Ramp Running Slope	6	8.31	-0.18	-2.2%	0.5% to 8.3%					W4104	163+98.12	-122.45	864.23
W4105	W4106	Landing/Turning Space	4	5.00	-0.05	-1.0%	0.1% to 2.0%					W4105	163+98.35	-114.06	864.05
W4106	W4101	Landing/Turning Space	4	5.00	0.03	0.7%	0.1% to 2.0%					W4106	163+98.49	-109.06	864.00
W4101	W4105	Landing/Turning Space	4	7.10	0.01	0.2%	0.1% to 2.0%								
W4102	W4106	Landing/Turning Space	4	7.10	-0.11	-1.5%	0.1% to 2.0%								
W5101	W5102	Ramp Running Slope	6	7.70	0.07	0.9%	0.5% to 8.3%					W5101	163+92.31	-146.29	864.21

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.
(2) Refer to tabulation 113-01 for bid quantities.

Point to Point		Sidewalk Designation	_" PCC Sidewalk (2)	Distance* FT	Δ Elevation FT	Slope %	Acceptable Constructed Range Pos. or Neg.	Staking Required on this Quadrant? (1)	Measured Slope %	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES Point	Station	Offset	Elevation
W5102	W5103	Landing/Turning Space	4	5.00	0.02	0.4%	0.1% to 2.0%					W5102	163+92.09	-153.98	864.28
W5103	W5104	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W5103	163+91.94	-158.97	864.30
W5104	W5105	Landing/Turning Space	4	5.00	-0.05	-1.0%	0.1% to 2.0%					W5104	163+97.08	-159.14	864.37
W5105	W5106	Ramp Running Slope	6	7.70	-0.21	-2.7%	0.5% to 8.3%					W5105	163+97.23	-154.14	864.32
W5106	W5101	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.10	2.0%	0.0% to 5.0%					W5106	163+97.45	-146.36	864.11
W5102	W5104	Landing/Turning Space	4	7.10	0.09	1.3%	0.1% to 2.0%								
W5103	W5105	Landing/Turning Space	4	7.10	0.02	0.3%	0.1% to 2.0%								
W5107	W5108	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W5107	164+18.73	-159.78	863.38
W5108	W5109	Ramp Running Slope	6	7.40	-0.07	-0.9%	0.5% to 8.3%					W5108	164+23.87	-159.92	863.45
W5109	W5110	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.11	2.2%	0.0% to 5.0%					W5109	164+31.46	-160.12	863.38
W5110	W5111	Ramp Running Slope	6	7.40	-0.04	-0.6%	0.5% to 8.3%					W5110	164+31.21	-155.11	863.49
W5111	W5112	Landing/Turning Space	4	5.00	-0.05	-1.0%	0.1% to 2.0%					W5111	164+24.02	-154.92	863.45
W5112	W5107	Landing/Turning Space	4	5.00	-0.02	-0.4%	0.1% to 2.0%					W5112	164+18.88	-154.78	863.40
W5107	W5111	Landing/Turning Space	4	7.10	0.07	1.0%	0.1% to 2.0%								
W5108	W5112	Landing/Turning Space	4	7.10	-0.05	-0.7%	0.1% to 2.0%								
W6101	W6102	Ramp Running Slope	6	7.10	0.16	2.2%	0.5% to 8.3%					W6101	164+98.14	-161.46	862.14
W6102	W6103	Landing/Turning Space	4	5.00	0.05	1.0%	0.1% to 2.0%					W6102	165+05.43	-161.56	862.30
W6103	W6104	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W6103	165+10.58	-161.62	862.35
W6104	W6105	Landing/Turning Space	4	5.00	-0.04	-0.8%	0.1% to 2.0%					W6104	165+10.64	-156.62	862.42
W6105	W6106	Ramp Running Slope	6	7.10	-0.28	-3.9%	0.5% to 8.3%					W6105	165+05.50	-156.56	862.38
W6106	W6101	Crosswalk Cross Slope - No Yield Condition	6	5.00	0.04	0.8%	0.0% to 5.0%					W6106	164+98.31	-156.46	862.10
W6102	W6104	Landing/Turning Space	4	7.10	0.12	1.7%	0.1% to 2.0%	Yes							
W6103	W6105	Landing/Turning Space	4	7.10	0.03	0.4%	0.1% to 2.0%								
W6107	W6108	Landing/Turning Space	4	5.00	0.05	1.0%	0.1% to 2.0%					W6107	165+69.88	-162.05	860.40
W6108	W6109	Ramp Running Slope	6	5.30	0.03	0.6%	0.5% to 8.3%					W6108	165+75.03	-162.06	860.45
W6109	W6110	Crosswalk Cross Slope - No Yield Condition	6	6.80	-0.11	-1.6%	0.0% to 5.0%					W6109	165+80.52	-162.07	860.48
W6110	W6111	Ramp Running Slope	6	2.00	0.08	4.0%	0.5% to 8.3%					W6110	165+77.09	-157.06	860.37
W6111	W6112	Landing/Turning Space	4	5.00	0.02	0.4%	0.1% to 2.0%					W6111	165+75.03	-157.06	860.45
W6112	W6107	Landing/Turning Space	4	5.00	-0.07	-1.4%	0.1% to 2.0%					W6112	165+69.89	-157.05	860.47
W6107	W6111	Landing/Turning Space	4	7.10	0.05	0.7%	0.1% to 2.0%								
W6108	W6112	Landing/Turning Space	4	7.10	0.02	0.3%	0.1% to 2.0%								
W7101	W7102	Ramp Running Slope	6	5.80	0.04	0.7%	0.5% to 8.3%					W7101	166+27.82	-161.90	859.33
W7102	W7103	Landing/Turning Space	4	5.00	-0.09	-1.8%	0.1% to 2.0%	Yes				W7102	166+33.81	-161.85	859.37
W7103	W7104	Landing/Turning Space	4	5.00	-0.04	-0.8%	0.1% to 2.0%					W7103	166+38.96	-161.80	859.28
W7104	W7105	Landing/Turning Space	4	5.00	-0.09	-1.8%	0.1% to 2.0%	Yes				W7104	166+38.91	-156.80	859.24
W7105	W7106	Ramp Running Slope	6	2.00	-0.15	-7.5%	0.5% to 8.3%	Yes				W7105	166+33.77	-156.85	859.15
W7106	W7101	Crosswalk Cross Slope - No Yield Condition	6	6.40	0.33	5.2%	0.0% to 6.2%					W7106	166+31.71	-156.87	859.00
W7102	W7104	Landing/Turning Space	4	7.10	-0.13	-1.8%	0.1% to 2.0%	Yes							
W7103	W7105	Landing/Turning Space	4	7.10	-0.13	-1.8%	0.1% to 2.0%	Yes							
W7107	W7108	Landing/Turning Space	4	5.00	-0.08	-1.5%	0.1% to 2.0%					W7107	166+93.50	-174.64	858.71
W7108	W7109	Ramp Running Slope	6	2.00	-0.01	-0.6%	0.5% to 8.3%					W7108	166+98.66	-174.54	858.63
W7109	W7110	Crosswalk Cross Slope - No Yield Condition	6	6.50	-0.42	-6.5%	0.0% to 7.5%					W7109	167+00.72	-174.50	858.62
W7110	W7111	Ramp Running Slope	6	5.10	0.38	7.4%	0.5% to 8.3%	Yes				W7110	167+03.79	-169.44	858.20
W7111	W7112	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W7111	166+98.55	-169.55	858.58
W7112	W7107	Landing/Turning Space	4	5.00	0.06	1.2%	0.1% to 2.0%					W7112	166+93.40	-169.64	858.65
W7107	W7111	Landing/Turning Space	4	7.10	-0.13	-1.8%	0.1% to 2.0%	Yes							
W7108	W7112	Landing/Turning Space	4	7.10	0.02	0.2%	0.1% to 2.0%								
W8101	W8102	Crosswalk Cross Slope - Yield Condition	6	7.80	-0.02	-0.3%	0.0% to 2.0%					W8101	158+73.19	-303.50	877.07
W8102	W8103	Ramp Running Slope	6	2.00	0.06	3.0%	0.5% to 8.3%					W8102	158+78.62	-301.23	877.05
W8103	W8104	Landing/Turning Space	4	5.00	0.09	1.8%	0.1% to 2.0%	Yes				W8103	158+78.73	-299.24	877.11
W8104	W8105	Landing/Turning Space	4	5.00	0.04	0.8%	0.1% to 2.0%					W8104	158+79.02	-294.22	877.20
W8105	W8106	Landing/Turning Space	4	5.00	0.08	1.6%	0.1% to 2.0%	Yes				W8105	158+73.76	-293.95	877.24
W8106	W8101	Ramp Running Slope	6	4.60	-0.25	-5.5%	0.5% to 8.3%					W8106	158+73.47	-298.96	877.32
W8103	W8105	Landing/Turning Space	4	7.10	0.13	1.8%	0.1% to 2.0%	Yes							
W8104	W8106	Landing/Turning Space	4	7.10	0.12	1.7%	0.1% to 2.0%	Yes							
W9101	W9102	Ramp Running Slope	6	8.22	0.51	6.2%	0.5% to 8.3%					W9101	158+70.45	-335.46	877.81
W9102	W9103	Landing/Turning Space	4	5.00	0.06	1.2%	0.1% to 2.0%					W9102	158+69.75	-343.65	878.32
W9103	W9104	Landing/Turning Space	4	5.00	0.07	1.4%	0.1% to 2.0%					W9103	158+69.32	-348.64	878.38
W9104	W9105	Landing/Turning Space	4	5.00	-0.05	-1.0%	0.1% to 2.0%					W9104	158+74.62	-349.04	878.45
W9105	W9106	Ramp Running Slope	6	7.92	-0.39	-4.9%	0.5% to 8.3%					W9105	158+75.05	-344.06	878.40
W9106	W9101	Crosswalk Cross Slope - Yield Condition	6	7.10	-0.20	-2.8%	0.0% to 3.8%				BEYOND INTENDED SCOPE OF PROJECT	W9106	158+75.72	-336.15	878.01
W9102	W9104	Landing/Turning Space	4	7.10	0.13	1.8%	0.1% to 2.0%	Yes							
W9103	W9105	Landing/Turning Space	4	7.10	0.02	0.3%	0.1% to 2.0%								

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill						Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
BlueStem																						
22158+40.64	6	4	2	4	0	2		2	3	1	0	0	2	1	1	1						
22158+50.00	23	16	7	16	0	7		7	9	7	0	0	7	4	6	1						
22158+75.00	32	23	9	23	0	9		9	12	11	0	0	9	4	6	3						
22159+00.00	36	27	9	27	0	9		9	12	15	0	0	9	4	6	3						
22159+25.00	37	27	10	27	0	10		10	13	14	0	0	10	4	6	4						
22159+50.00	26	19	7	19	0	7		7	9	10	0	0	7	3	4	3						
22159+68.12	10	7	3	7	0	3		3	4	3	0	0	3	1	1	2						
22159+75.00	36	26	10	26	0	10		10	13	13	0	0	10	4	6	4						
22160+00.00	34	25	9	25	0	9		9	12	13	0	0	9	4	6	3						
22160+25.00	35	26	9	26	0	9		9	12	14	0	0	9	4	6	3						
22160+50.00	37	27	10	27	0	10		10	13	14	0	0	10	4	6	4						
22160+75.00	22	16	6	16	0	6		6	8	8	0	0	6	3	4	2						
22160+89.23	17	12	5	12	0	5		5	7	6	0	0	5	2	3	2						
22161+00.00																						
BlueStem Totals:	351	255	96	255	0	96	0	96	125	131	0	0	96	42	59	38						

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	JCH	CARLISLE, IOWA		McCLURE making lives better	1360 NW 121st Street, Ste Clive, IA 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	EARTHWORK TABULATIONS	T.1
CHECKED BY	FIELD BOOK NO.	MEC #20615007						
BDS	-	DECEMBER 2020						

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill						Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
Hwy5																						
160+25.00	8	4	4	4	0	4		4	5	-1	0	0	4	0	0	4						
160+50.00	10	5	5	5	0	5		5	7	-2	0	0	5	1	1	4						
160+75.00	12	5	7	5	0	7		7	9	-4	0	0	7	2	3	4						
161+00.00	14	5	9	5	1	9		10	13	-8	0	0	9	3	4	5						
161+25.00	17	6	11	6	3	11		14	18	-12	0	0	11	4	6	5						
161+50.00	19	6	13	6	6	13		19	25	-19	0	0	13	5	7	6						
161+75.00	18	6	12	6	8	12		20	26	-20	0	0	12	6	8	4						
162+00.00	21	5	16	5	10	16		26	34	-29	0	0	16	7	10	6						
162+25.00	18	1	17	1	3	17		20	26	-25	0	0	17	2	3	14						
162+31.45	22	4	18	4	9	18		27	35	-31	0	0	18	6	8	10						
162+50.00	23	5	18	5	13	18		31	40	-35	0	0	18	8	11	7						
162+75.00	23	5	18	5	14	18		32	42	-37	0	0	18	8	11	7						
163+00.00	24	5	19	5	15	19		34	44	-39	0	0	19	9	13	6						
163+25.00	24	5	19	5	16	19		35	46	-41	0	0	19	9	13	6						
163+50.00	23	5	18	5	15	18		33	43	-38	0	0	18	9	13	5						
163+75.00	13	6	7	6	13	7		20	26	-20	0	0	7	8	11	-4						
164+00.00	8	1	7	1	3	7		10	13	-12	0	0	7	2	3	4						
164+06.00																						
Hwy5 Totals:	297	79	218	79	129	218	0	347	452	-373	0	0	218	89	125	94						

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	JCH	CARLISLE, IOWA		McCLURE™ making lives better	1360 NW 121st Street, Ste Clive, IA 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	EARTHWORK TABULATIONS	T.2
CHECKED BY	FIELD BOOK NO.	MEC #20615007						
BDS	-	DECEMBER 2020						

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill						Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
School																						
1000+50.00	103	103	0	103	3			3	4	99	0	0	0	16	22	-22						
1000+75.00	89	89	0	89	4			4	5	84	0	0	0	15	21	-21						
1001+00.00	12	12	0	12	1			1	1	11	0	0	0	2	3	-3						
1001+03.98																						
School Totals:	204	204	0	204	8	0	0	8	11	194	0	0	0	33	47	-47						

ENGINEER	DRAWN BY	
MDR	JCH	CARLISLE, IOWA
CHECKED BY	FIELD BOOK NO.	MEC #20615007
BDS	-	DECEMBER 2020

REVISIONS

McCLURE™ making lives better

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515-964-1229
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SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

EARTHWORK TABULATIONS

SHEET NO.
T.3

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill						Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
SCOTCH																						
2152+40.00	45	18	27	18	38	27	11	76	99	-81	0	0	27	17	24	3						
2152+50.00	89	48	41	48	95	41	17	153	199	-151	0	0	41	42	59	-18						
2152+75.00	83	47	36	47	94	36	17	147	191	-144	0	0	36	40	56	-20						
2153+00.00	79	47	32	47	98	32	17	147	191	-144	0	0	32	40	56	-24						
2153+25.00	88	57	31	57	105	31	17	153	199	-142	0	0	31	40	56	-25						
2153+50.00	79	52	27	52	70	27	17	114	148	-96	0	0	27	29	41	-14						
2153+75.00	94	67	27	67	74	27	17	118	153	-86	0	0	27	30	42	-15						
2154+00.00	99	72	27	72	103	27	17	147	191	-119	0	0	27	39	55	-28						
2154+25.00	62	33	29	33	75	29	17	121	157	-124	0	0	29	31	43	-14						
2154+50.00	58	22	36	22	87	36	20	143	186	-164	0	0	36	29	41	-5						
2154+75.00	74	40	34	40	125	34	24	183	238	-198	0	0	34	32	45	-11						
2155+00.00	108	71	37	71	119	37	27	183	238	-167	0	0	37	30	42	-5						
2155+25.00	122	94	28	94	109	28	67	204	265	-171	0	0	28	33	46	-18						
2155+50.00	111	95	16	95	146	16	104	266	346	-251	0	0	16	19	27	-11						
2155+75.00	130	96	34	96	113	34	68	215	280	-184	0	0	34	11	15	19						
2156+00.00	197	136	61	136	65	61	31	157	204	-68	0	0	61	19	27	34						
2156+25.00	208	149	59	149	67	59	26	152	198	-49	0	0	59	17	24	35						
2156+50.00	171	125	46	125	54	46	22	122	159	-34	0	0	46	17	24	22						
2156+75.00	184	141	43	141	46	43	18	107	139	2	0	0	43	17	24	19						
2157+00.00	178	139	39	139	41	39	17	97	126	13	0	0	39	17	24	15						
2157+25.00	141	102	39	102	48	39	17	104	135	-33	0	0	39	19	27	12						
2157+50.00	103	64	39	64	58	39	17	114	148	-84	0	0	39	19	27	12						
2157+75.00	89	41	48	41	73	48	17	138	179	-138	0	0	48	18	25	23						
2158+00.00	85	36	49	36	88	49	17	154	200	-164	0	0	49	18	25	24						
2158+25.00	77	38	39	38	99	39	17	155	202	-164	0	0	39	20	28	11						
2158+50.00	79	39	40	39	104	40	17	161	209	-170	0	0	40	21	29	11						
2158+75.00	82	41	41	41	104	41	17	162	211	-170	0	0	41	22	31	10						
2159+00.00	86	44	42	44	104	42	17	163	212	-168	0	0	42	23	32	10						
2159+25.00	89	48	41	48	105	41	17	163	212	-164	0	0	41	24	34	7						
2159+50.00	92	51	41	51	107	41	17	165	215	-164	0	0	41	24	34	7						
2159+75.00	94	53	41	53	104	41	17	162	211	-158	0	0	41	22	31	10						
2160+00.00	92	51	41	51	105	41	18	164	213	-162	0	0	41	20	28	13						
2160+25.00	86	46	40	46	115	40	18	173	225	-179	0	0	40	21	29	11						
2160+50.00	81	43	38	43	121	38	20	179	233	-190	0	0	38	22	31	7						
2160+75.00	80	44	36	44	136	36	25	197	256	-212	0	0	36	24	34	2						
2161+00.00	81	44	37	44	168	37	32	237	308	-264	0	0	37	27	38	-1						
2161+25.00	101	77	24	77	96	24	63	183	238	-161	0	0	24	18	25	-1						
2161+50.00	160	125	35	125	2	35	54	91	118	7	0	0	35	3	4	31						
2161+75.00	137	137	0	137	2		27	29	38	99	0	0	0	7	10	-10						
2162+00.00	165	135	30	135	10	30	37	77	100	35	0	0	30	15	21	9						
2162+25.00	169	133	36	133	30	36	34	100	130	3	0	0	36	16	22	14						
2162+50.00	159	119	40	119	48	40	27	115	150	-31	0	0	40	16	22	18						
2162+75.00	154	110	44	110	57	44	21	122	159	-49	0	0	44	16	22	22						
2163+00.00	149	103	46	103	66	46	18	130	169	-66	0	0	46	16	22	24						
2163+25.00	130	85	45	85	63	45	20	128	166	-81	0	0	45	16	22	23						
2163+50.00	107	71	36	71	42	36	22	100	130	-59	0	0	36	11	15	21						
2163+75.00	100	66	34	66	36	34	25	95	124	-58	0	0	34	10	14	20						
2164+00.00	107	70	37	70	80	37	33	150	195	-125	0	0	37	20	28	9						
2164+25.00	127	94	33	94	73	33	49	155	202	-108	0	0	33	21	29	4						
2164+50.00	124	124	0	124	18		49	67	87	37	0	0	0	14	20	-20						
2164+75.00																						
SCOTCH Totals:	5,585	3,783	1,802	3,783	3,986	1,802	1,350	7,138	9,280	-5,497	0	0	1,802	1,092	1,529	274						

ENGINEER	DRAWN BY		REVISIONS					
MDR	JCH	CARLISLE, IOWA		McCLURE™	making lives better	1360 NW 121st Street, Ste Clive, IA 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	EARTHWORK TABULATIONS
CHECKED BY	FIELD BOOK NO.	MEC #20615007						SHEET NO.
BDS	-	DECEMBER 2020						T.4

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill						Checks (EW-102)		Topsoil									
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Existing Pavement Undercut (+Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink						
Summary:																						
BlueStem	351	255	96	255	0	96	0	96	125	131	0	0	96	42	59	38						
Hwy5	297	79	218	79	129	218	0	347	452	-373	0	0	218	89	125	94						
School	204	204	0	204	8	0	0	8	11	194	0	0	0	33	47	-47						
SCOTCH	5,585	3,783	1,802	3,783	3,986	1,802	1,350	7,138	9,280	-5,497	0	0	1,802	1,092	1,529	274						
Project Totals:	6,437	4,321	2,116	4,321	4,123	2,116	1,350	7,589	9,868	-5,545	0	0	2,116	1,256	1,760	359						

ENGINEER	DRAWN BY	
MDR	JCH	CARLISLE, IOWA
CHECKED BY	FIELD BOOK NO.	MEC #20615007
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REVISIONS

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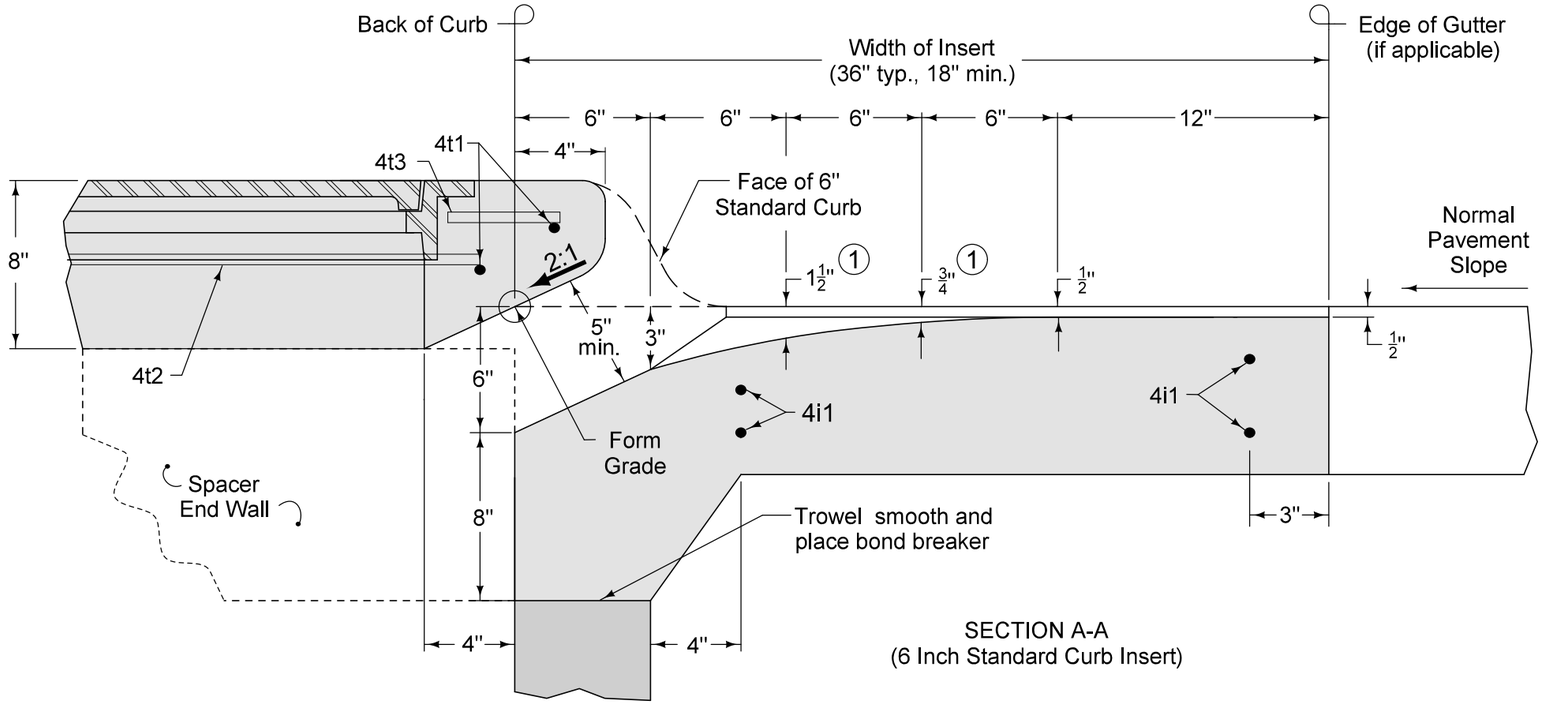
SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)--SG-91

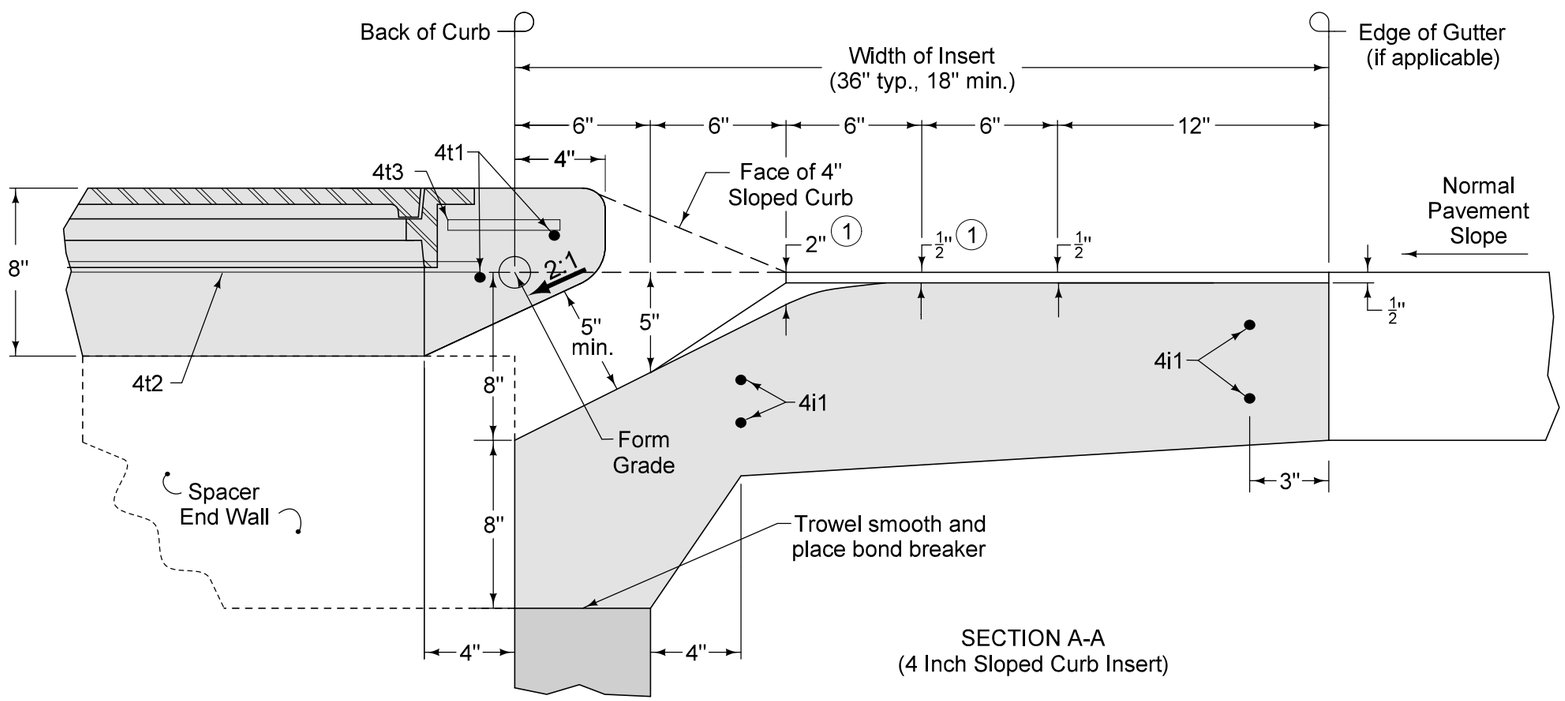
EARTHWORK TABULATIONS

SHEET NO.
T.5

(1) Insert shaping may be modified for insert widths less than 36 inches. For an 18 inch insert, reduce dimensions indicated by $\frac{1}{4}$ inch.



SECTION A-A
(6 Inch Standard Curb Insert)



SECTION A-A
(4 Inch Sloped Curb Insert)

MODIFIED STANDARD ROAD PLAN

REVISION	
NEW	04-21-09

SW-509

SHEET 1 of 3

MODIFICATIONS: INTAKE SHORT WALL WAS SHORTENED FROM 3'-0" TO 2'-6".

DOUBLE OPEN-THROAT CURB INTAKE, SMALL BOX

FIGURE 6010.509 SHEET 1 OF 3

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SPECIAL DETAILS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JSS	-	JULY, 2021	.					U.1

7/8/2021

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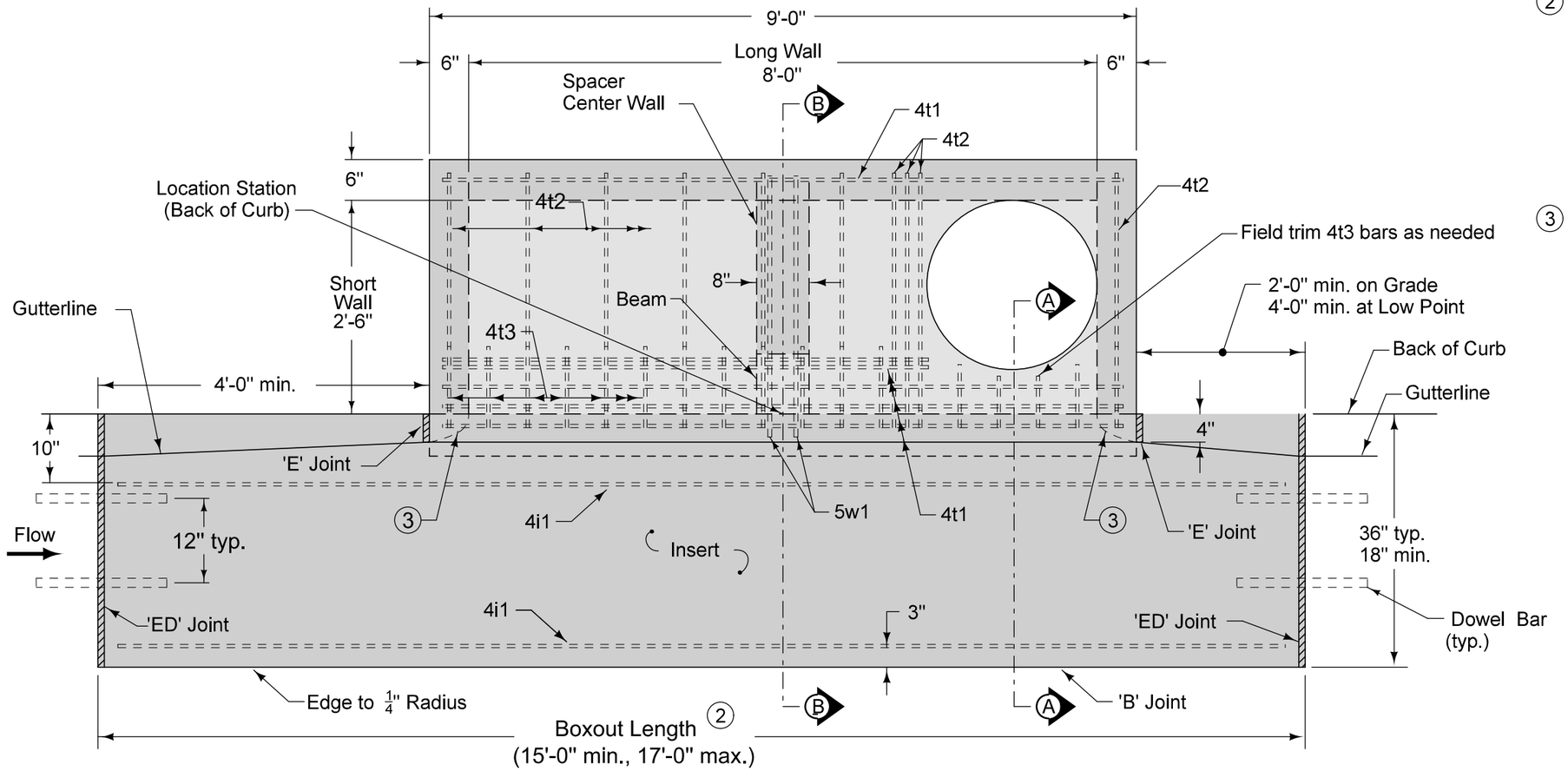


PLAN

2 Transverse joint spacing on new concrete pavement is controlled by the intake boxout. Adjust adjacent joint spacing as required to accommodate boxouts.

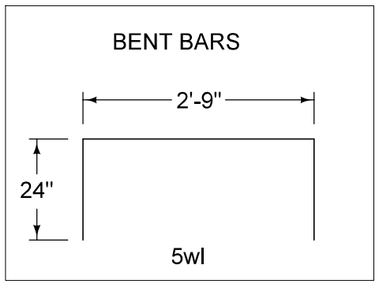
For retrofit intakes, match existing pavement joints. Stop any transverse pavement joints that do not conform to the minimum spacing requirements at the edge of the insert area.

3 Rounded shaping at inlet.

REINFORCING BAR LIST

Mark	Size	Location	Shape	Count	Length	Spacing
4b1	4	Base	——	9	3'-0"	12"
4b2	4	Base	——	4	8'-6"	10"
4i1	4	Insert	——	4	Boxout Length minus 8"	See Insert
4t1	4	Top	——	6	8'-6"	See Plan
4t2	4	Top	——	10	3'-0"	12"
4t3	4	Top	——	18	10"	6"
4w1	4	Walls	——	22	Wall Height minus 4"	13"
4w2	4	Long Walls	——	Varies	8'-6"	12"
4w3	4	Short Walls	——	Varies	3'-2"	12"
5w1	5	Beam	⌐	2	6'-9"	4"

BENT BARS



MODIFIED STANDARD ROAD PLAN

REVISION
NEW 04-21-09

SW-509

SHEET 2 of 3

MODIFICATIONS: INTAKE SHORT WALL WAS SHORTENED FROM 3'-0" TO 2'-6".

DOUBLE OPEN-THROAT CURB INTAKE, SMALL BOX

FIGURE 6010.509 SHEET 2 OF 3

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SPECIAL DETAILS	SHEET NO. U.2
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021	.				

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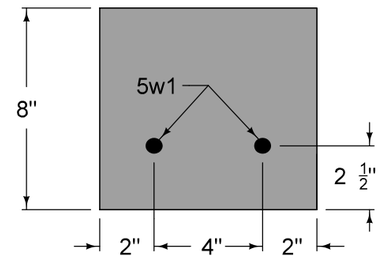
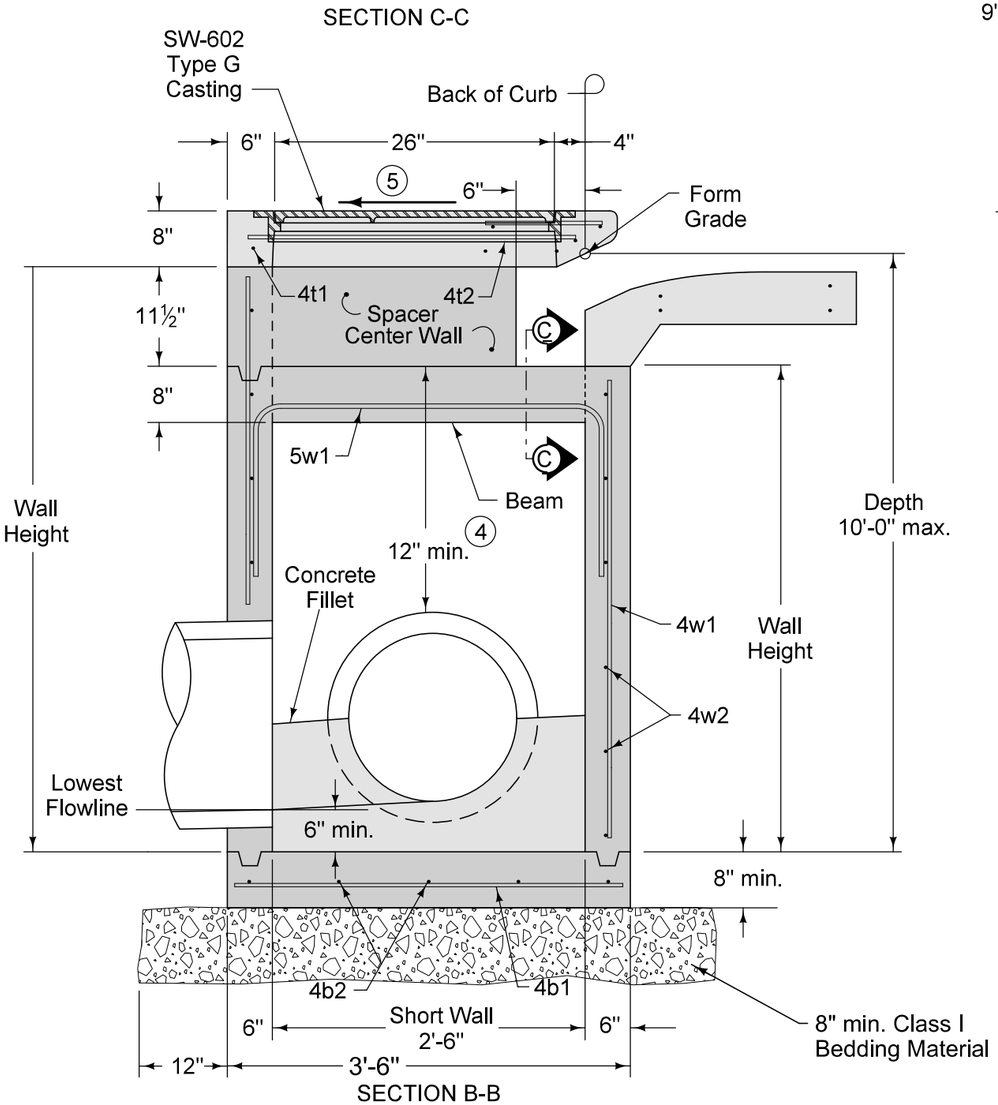
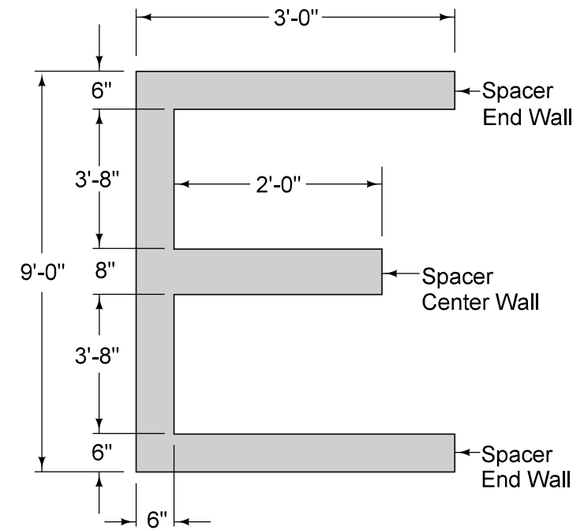


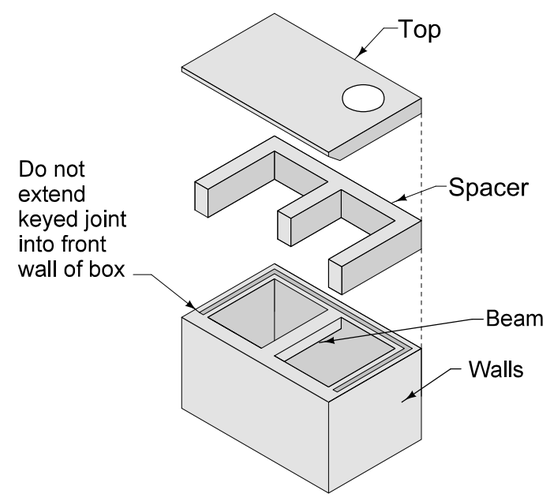
SECTION C-C



SECTION B-B



PLAN
(SPACER)



ISOMETRIC
(Refer to SECTION B-B for
alignment of Top with Spacer)

4 12 inch minimum wall height above all pipes.

5 Slope of 1.5% or as specified in the contract documents.

MAXIMUM PIPE DIAMETERS		
Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	18"	24"
Long Wall	60"	66"

MODIFIED STANDARD ROAD PLAN

REVISION	
NEW	04-21-09

SW-509

SHEET 3 of 3

MODIFICATIONS: INTAKE SHORT WALL WAS SHORTENED FROM 3'-0" TO 2'-6".

DOUBLE OPEN-THROAT CURB INTAKE, SMALL BOX

FIGURE 6010.509 SHEET 3 OF 3

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	SCOTCH RIDGE ROAD	.	McCLURE™ making lives better.	1360 NW 121st Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SPECIAL DETAILS	SHEET NO. U.3
CHECKED BY JSS	FIELD BOOK NO. -	MEC JOB #: 20615007 JULY, 2021	.					

7/8/2021

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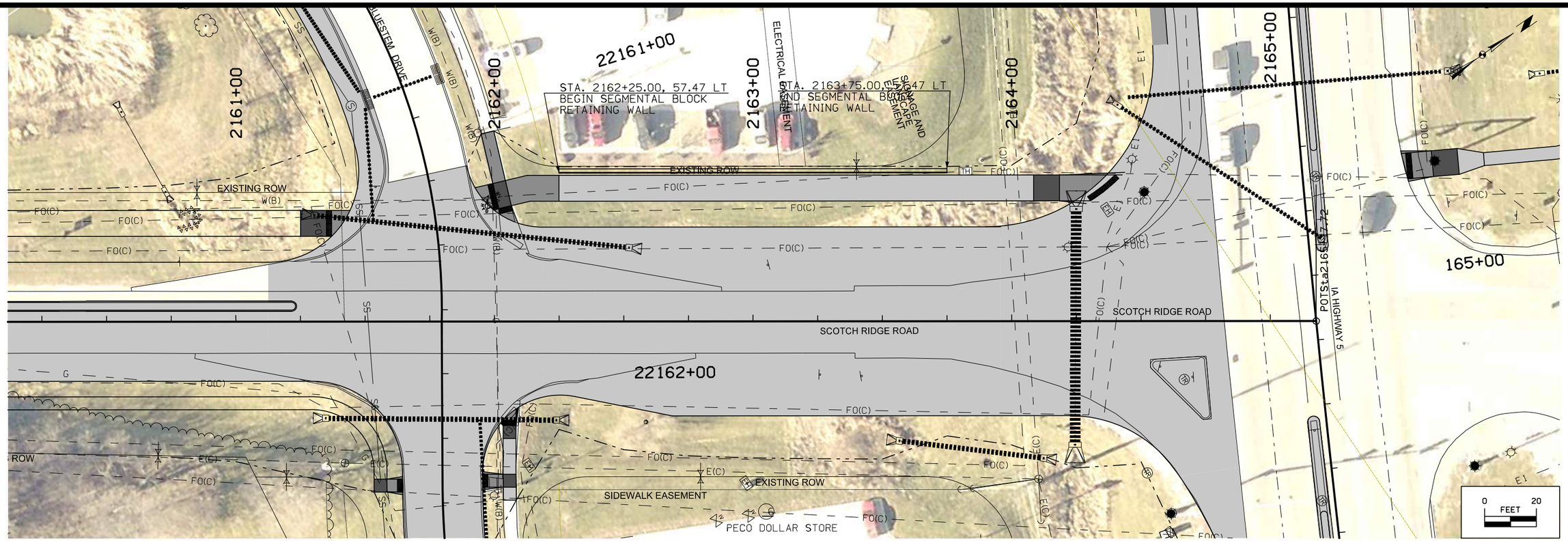

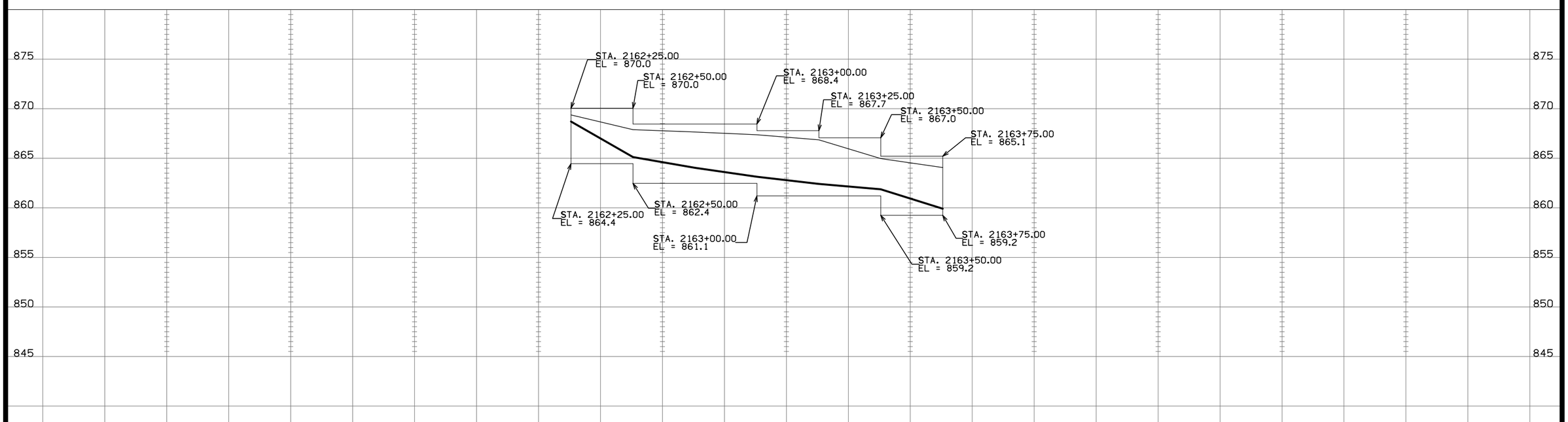

ENGINEER	DRAWN BY		REVISIONS
MDR	MDR	CARLISLE, IOWA	.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.
JS	FIELDBOOK	JULY, 2021	.

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fax 515-964-2370

SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION
SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST
STBG-SWAP-1105(608)–SG-91

SCOTCH RIDGE ROAD
RETAINING WALL PROFILE

SHEET NO. V.1

7/8/2021

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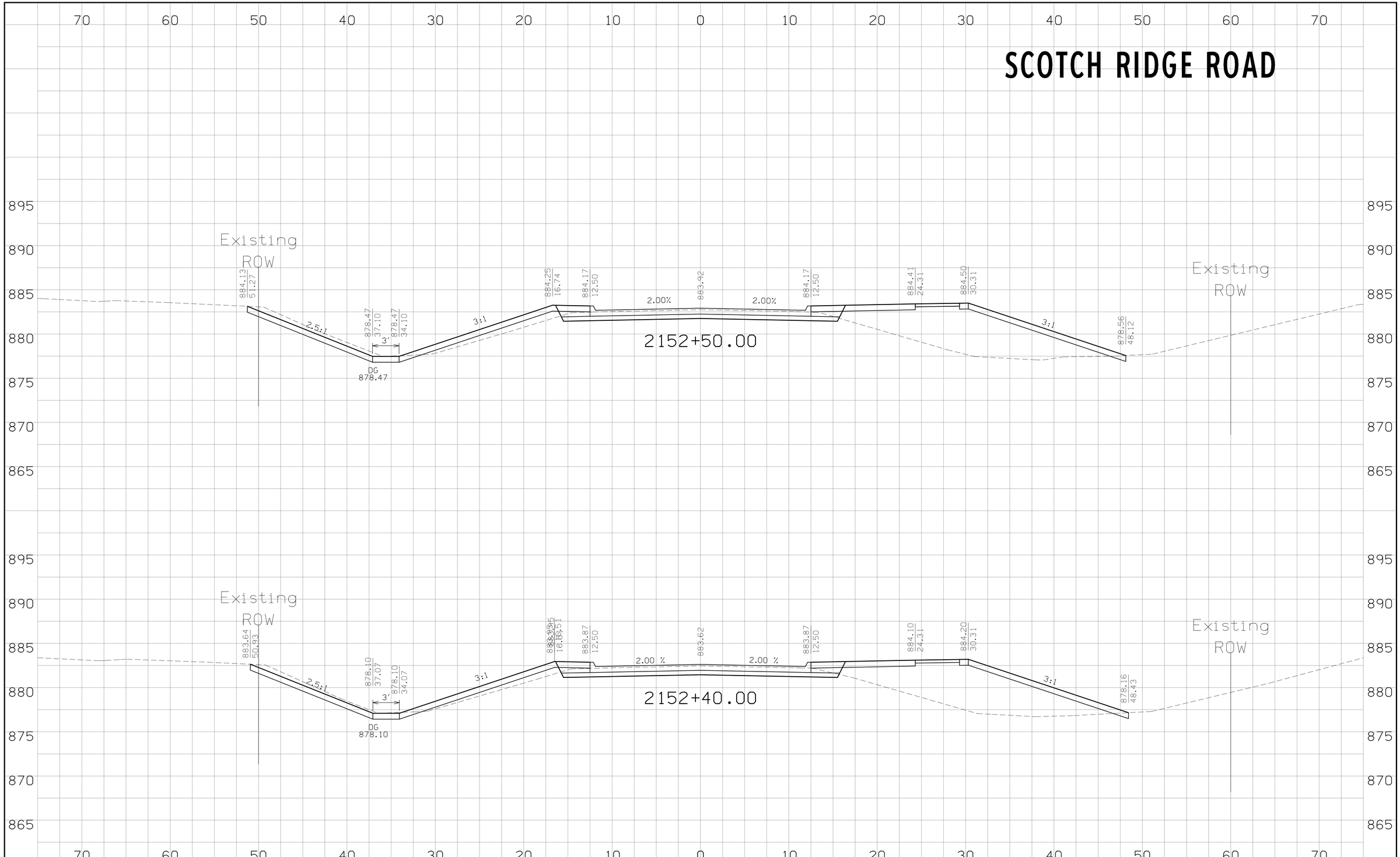
SCOTCH RIDGE ROAD



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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
JS	FIELDBOOK	MAY 18, 2021	.				W.1

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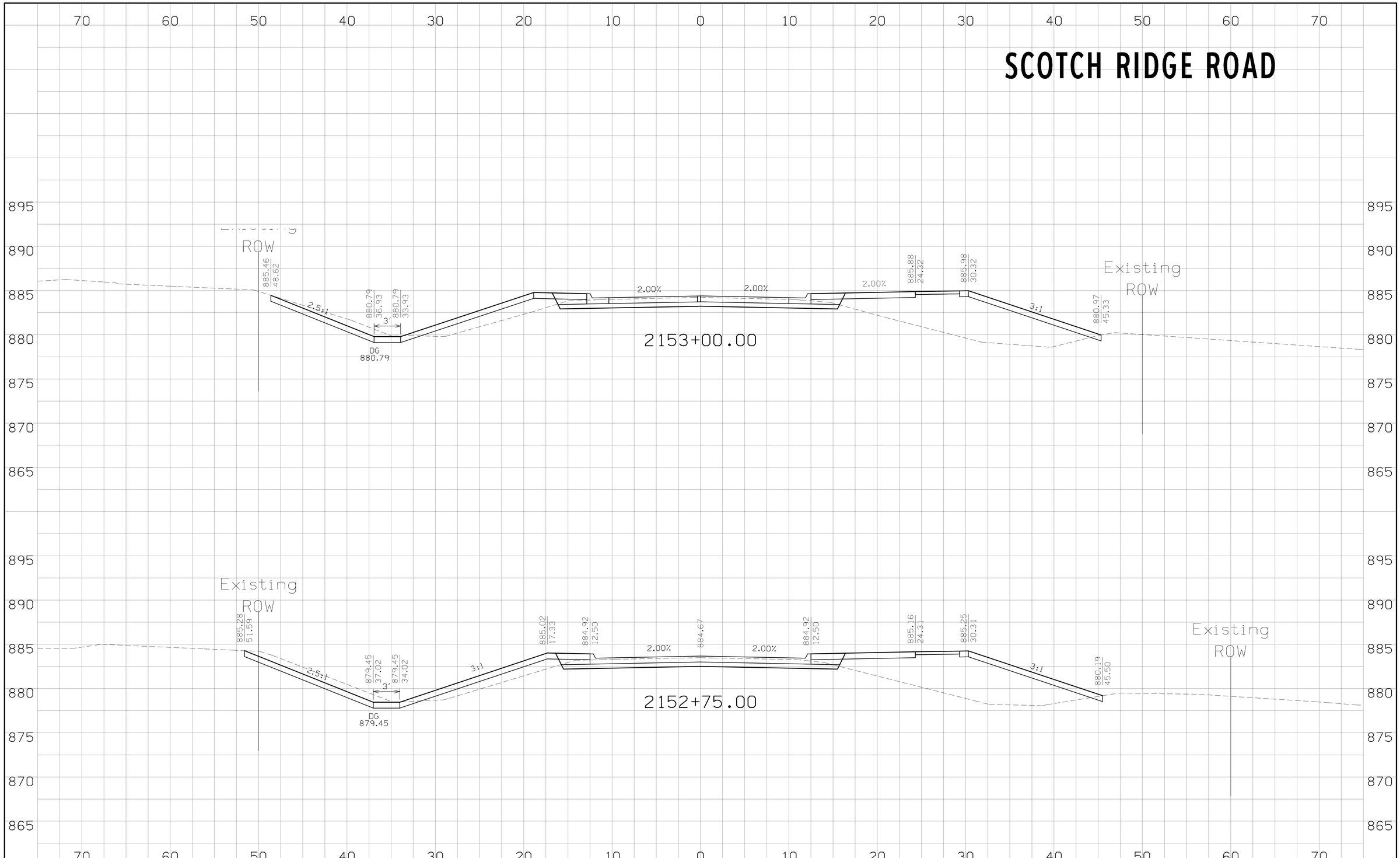
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS				
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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
JS	FIELDBOOK	MAY 18, 2021	.				W.2

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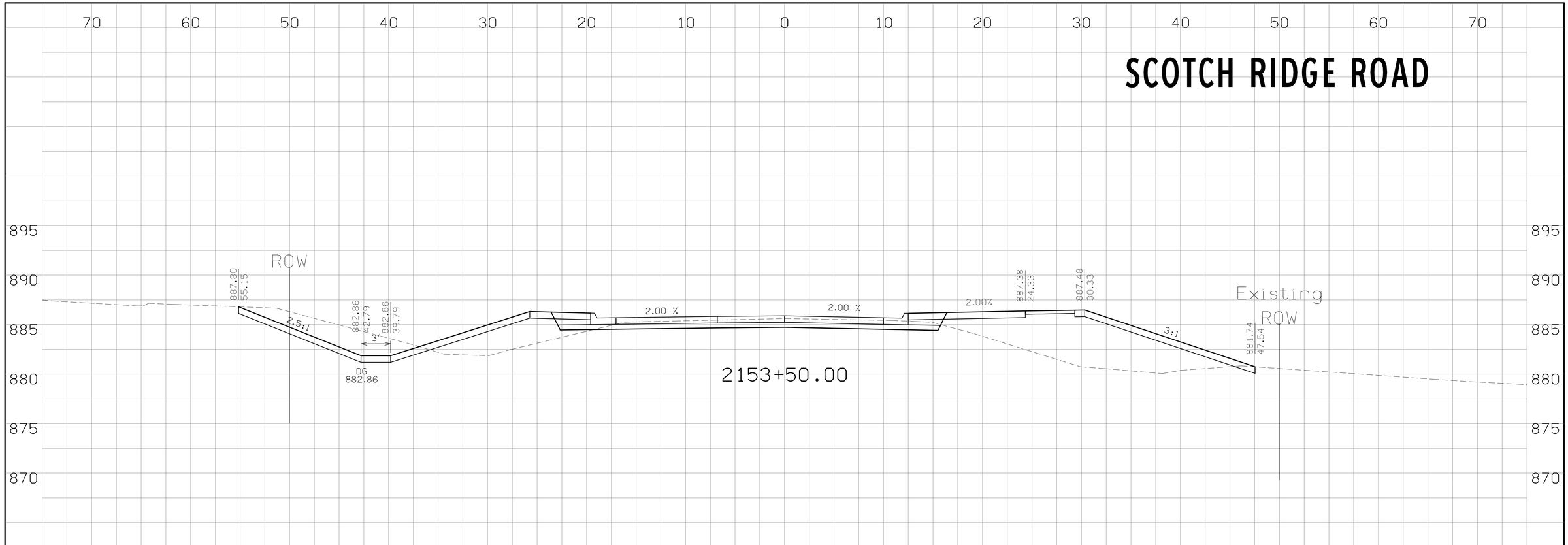
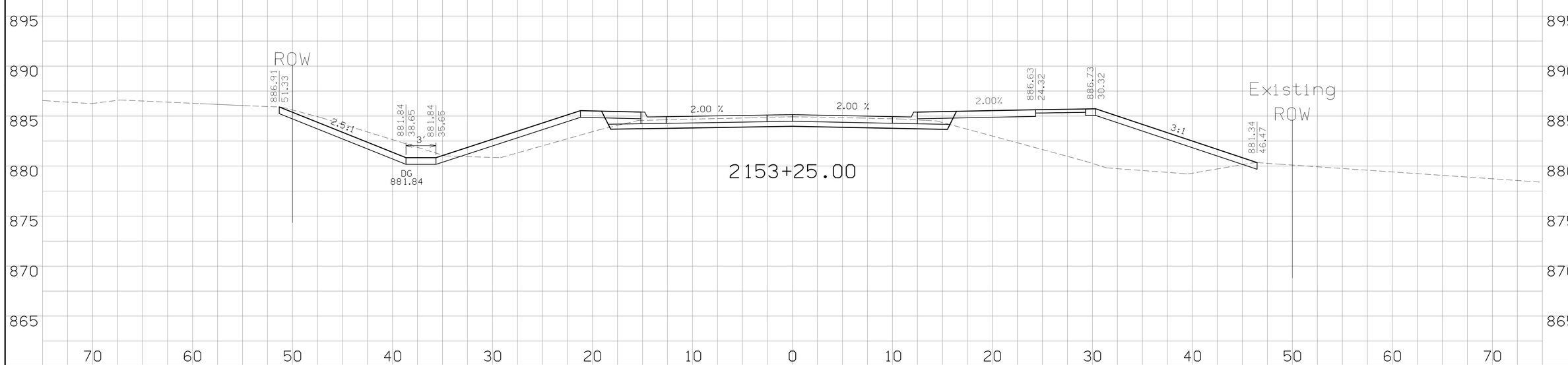
SCOTCH RIDGE ROAD





ENGINEER MDR	DRAWN BY MDR	CARLISLE, IOWA	REVISIONS	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.3
CHECKED BY JS	FIELD BOOK NO. FIELDBOOK	MEC JOB #: 20615007 MAY 18, 2021							

9/16/2021

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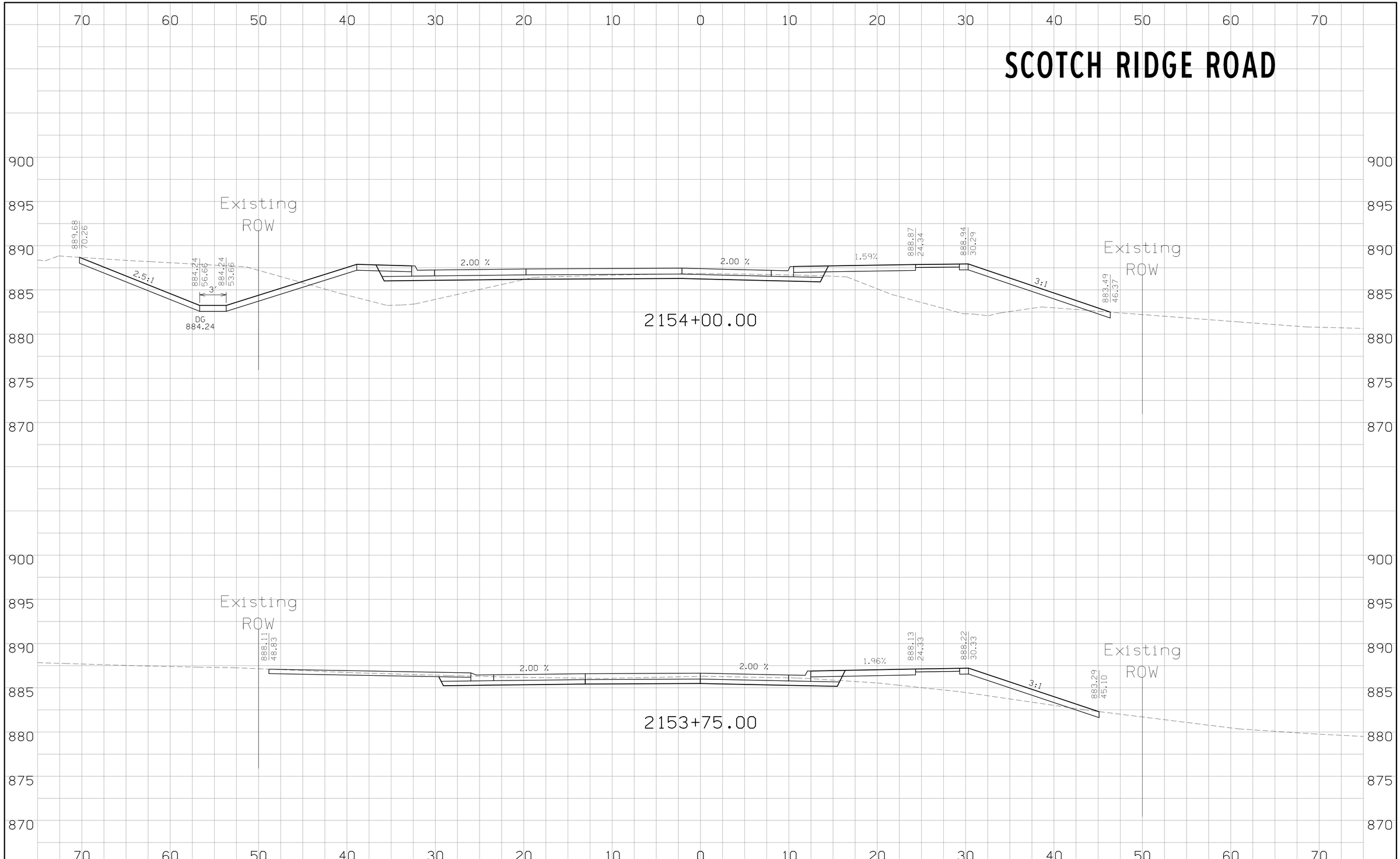
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.4
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

9/16/2021

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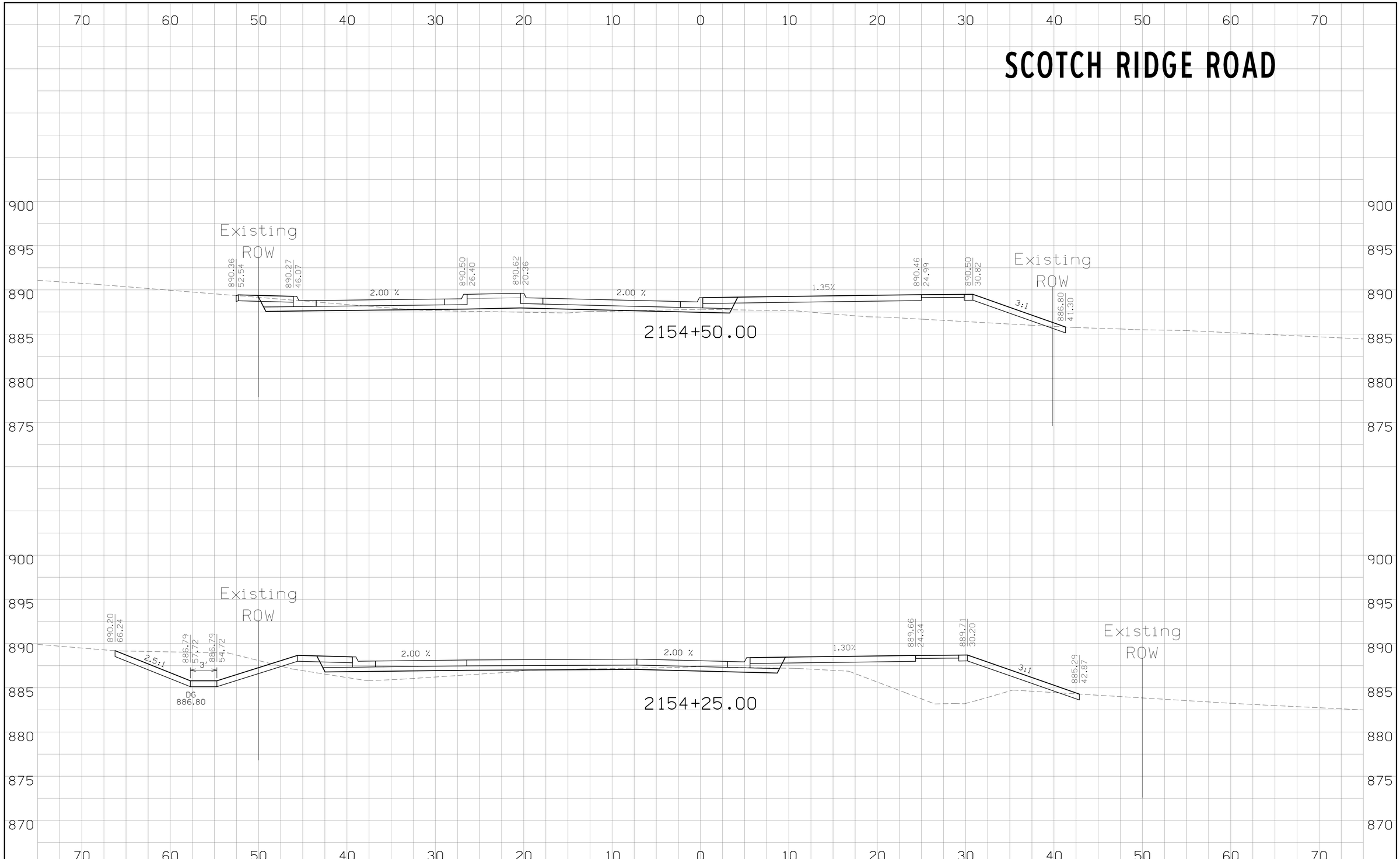
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.						W.5
JS	FIELDBOOK	MAY 18, 2021	.						

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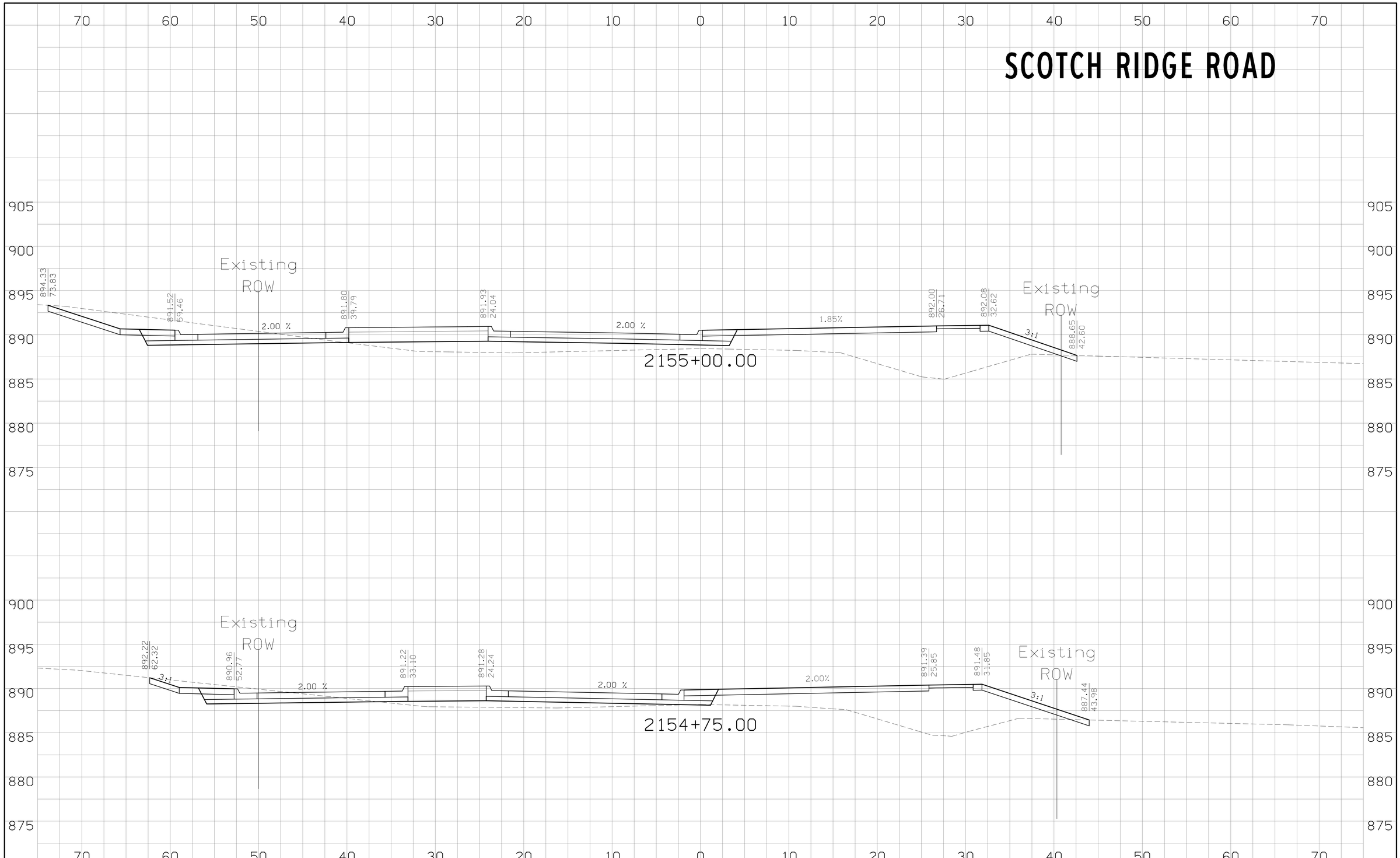
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.6
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.						
JS	FIELDBOOK	MAY 18, 2021	.						

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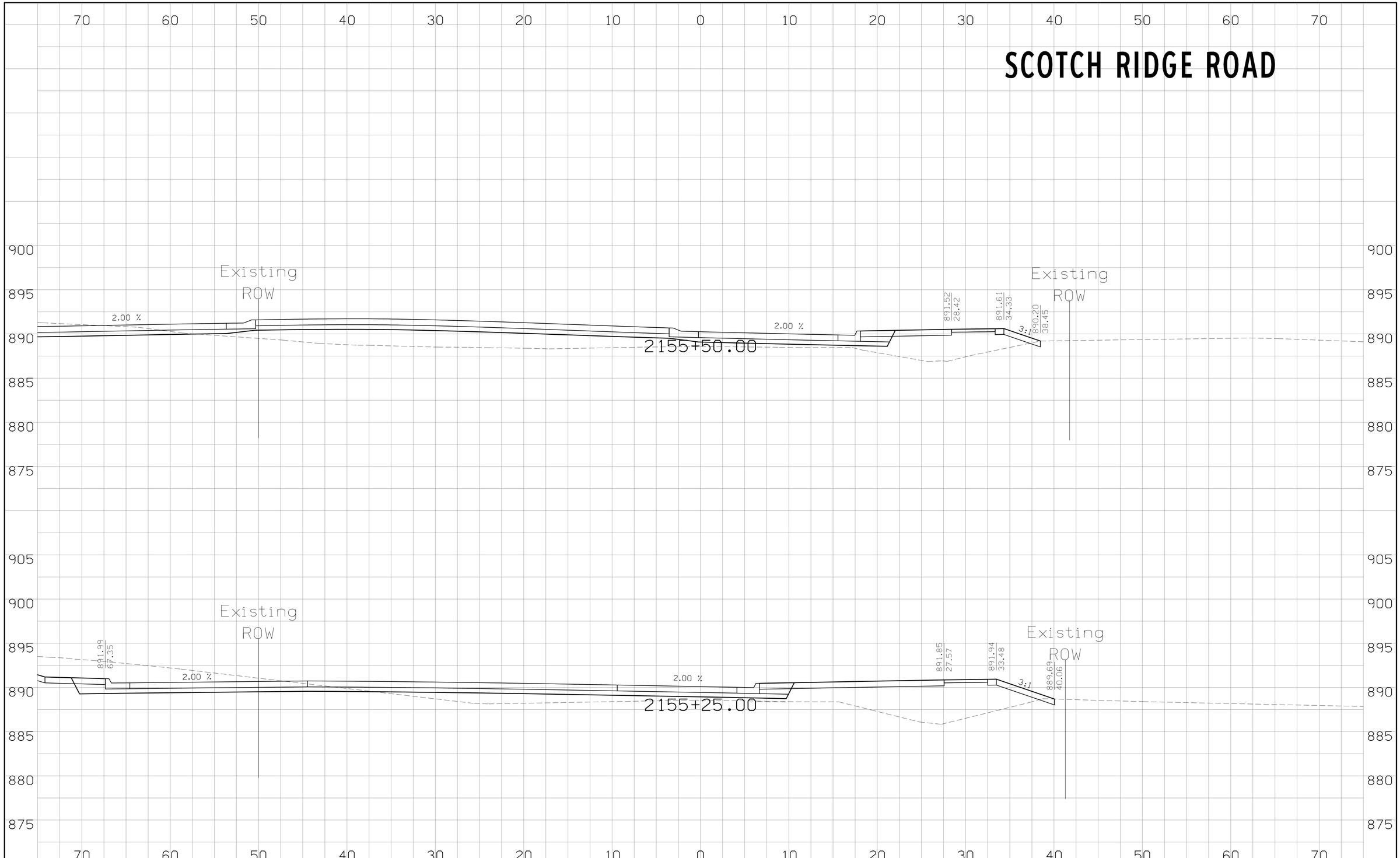
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.7
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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SCOTCH RIDGE ROAD

ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.8
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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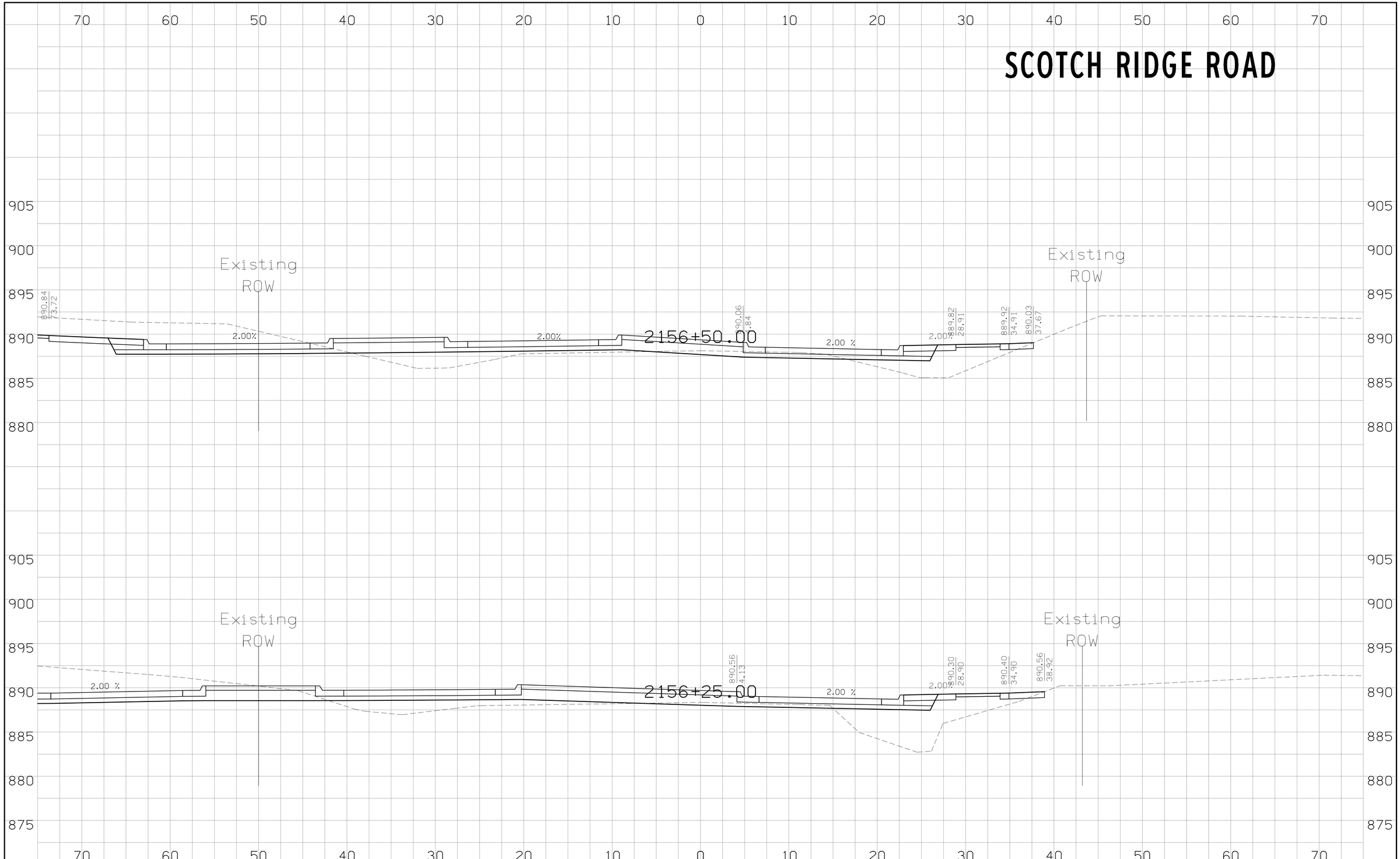
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.						
JS	FIELDBOOK	MAY 18, 2021	.						W.9

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SCOTCH RIDGE ROAD

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.10
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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SCOTCH RIDGE ROAD

ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA		McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007					SHEET NO.
JS	FIELDBOOK	MAY 18, 2021					W.11

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SCOTCH RIDGE ROAD

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.12
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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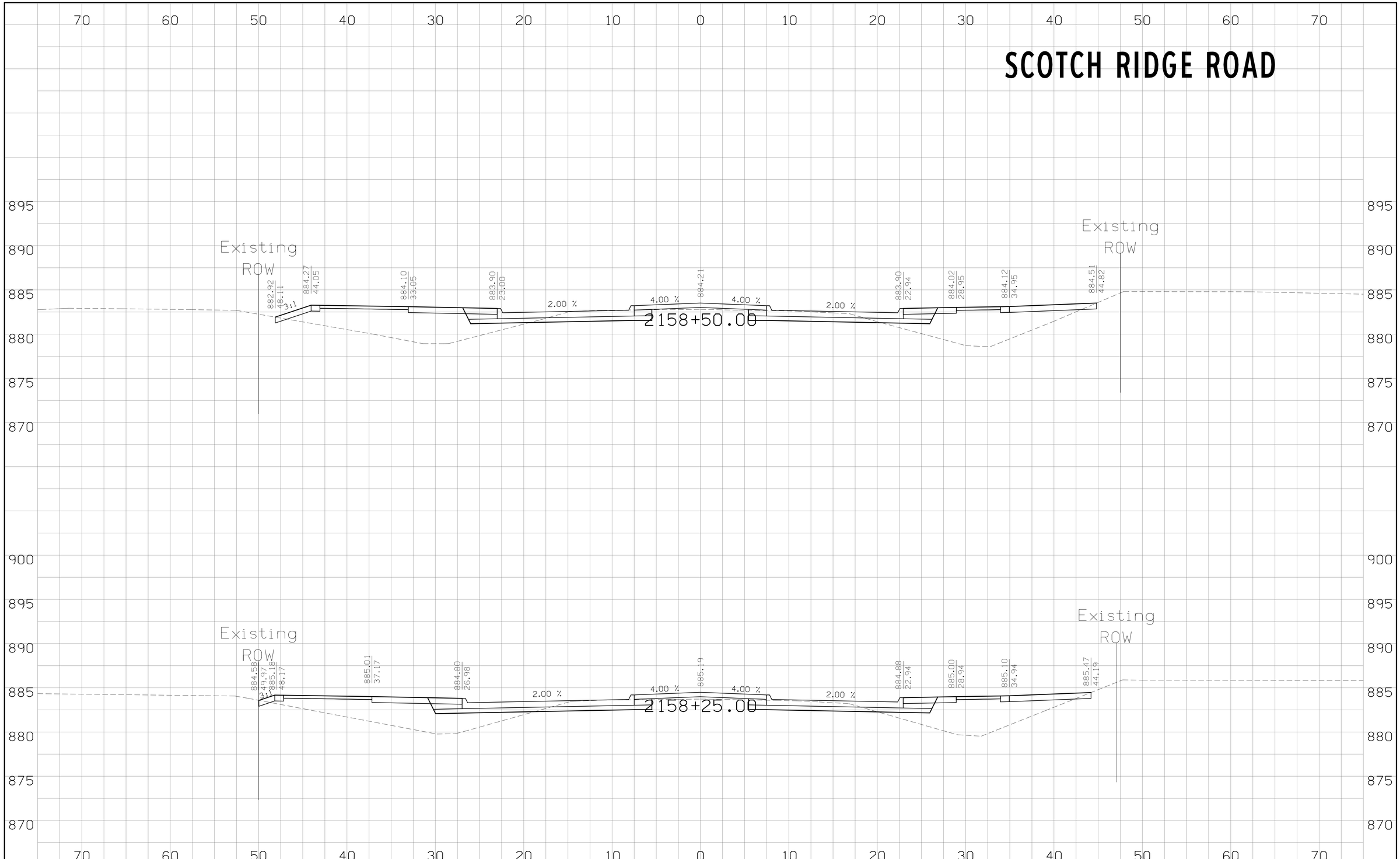
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					W.13

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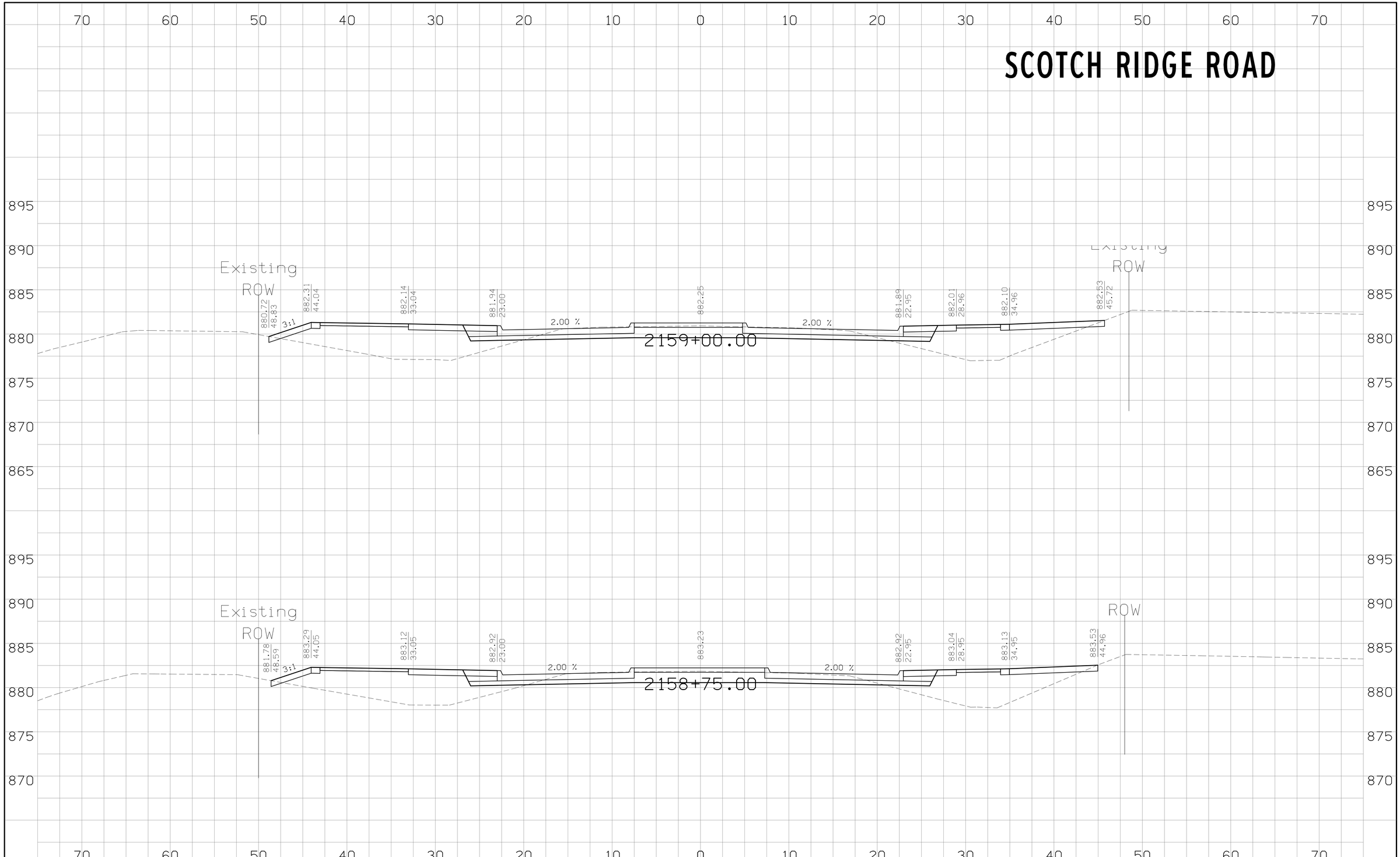
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS				
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JS	FIELDBOOK	MAY 18, 2021	.				W.14

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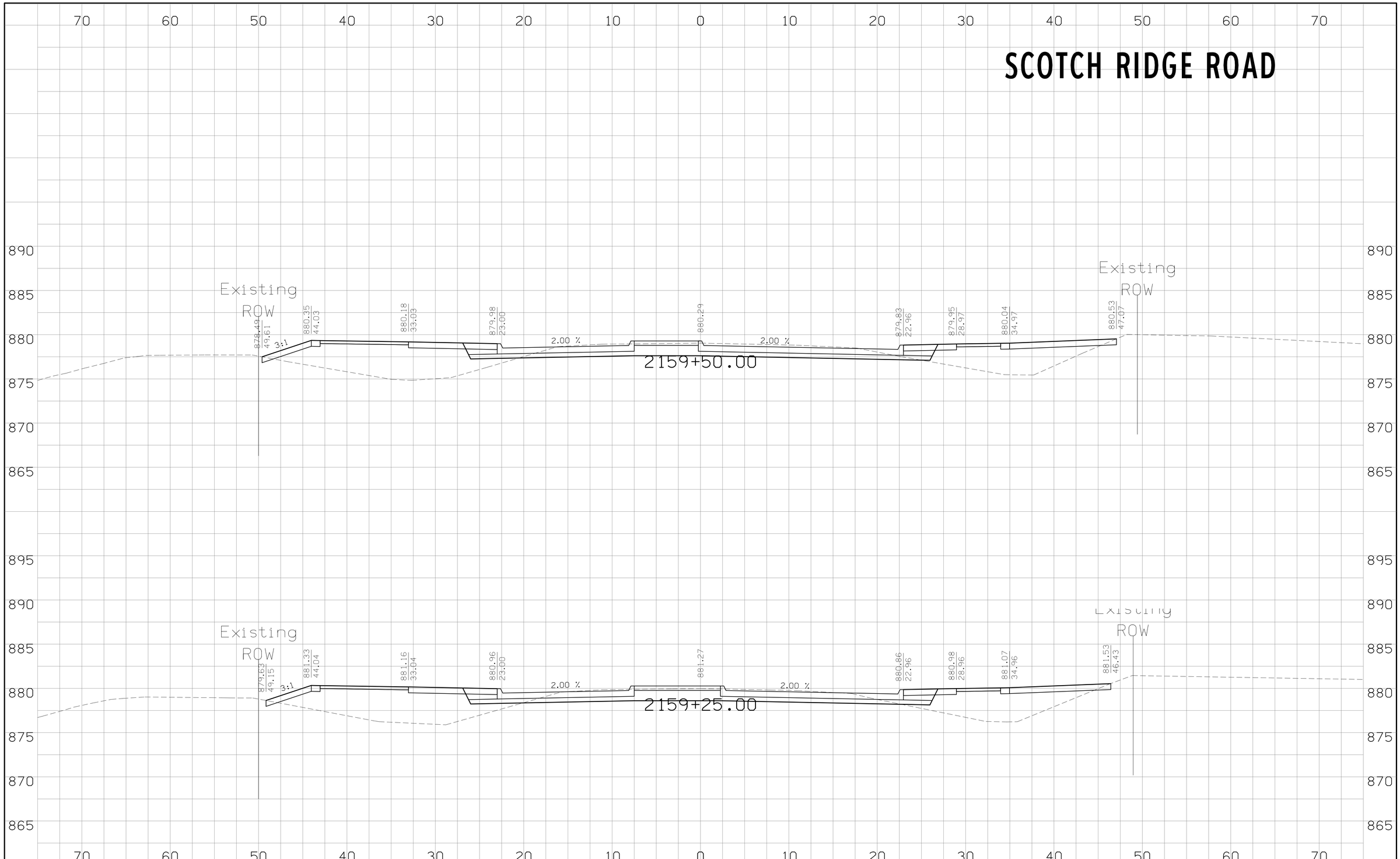
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.15
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
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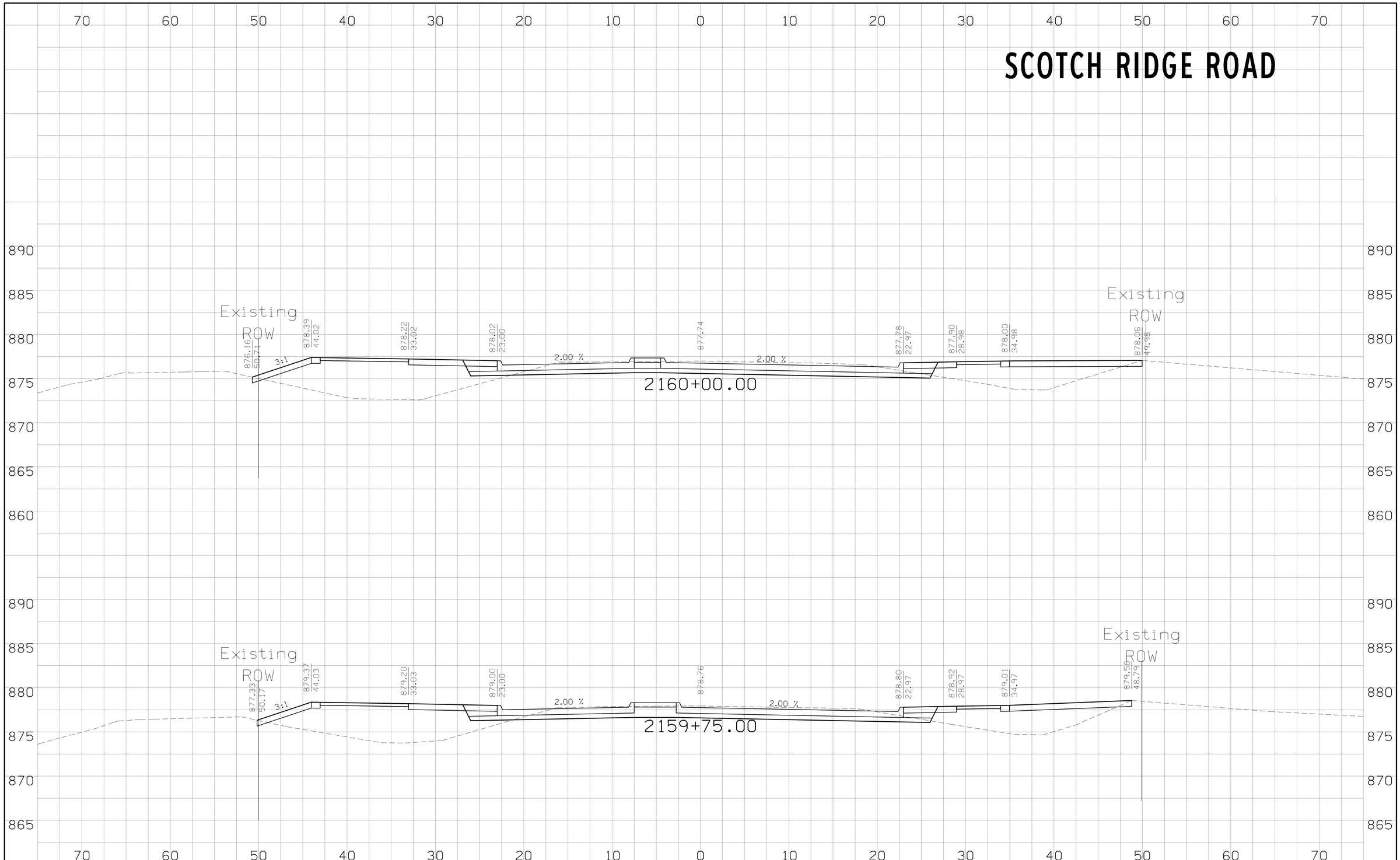
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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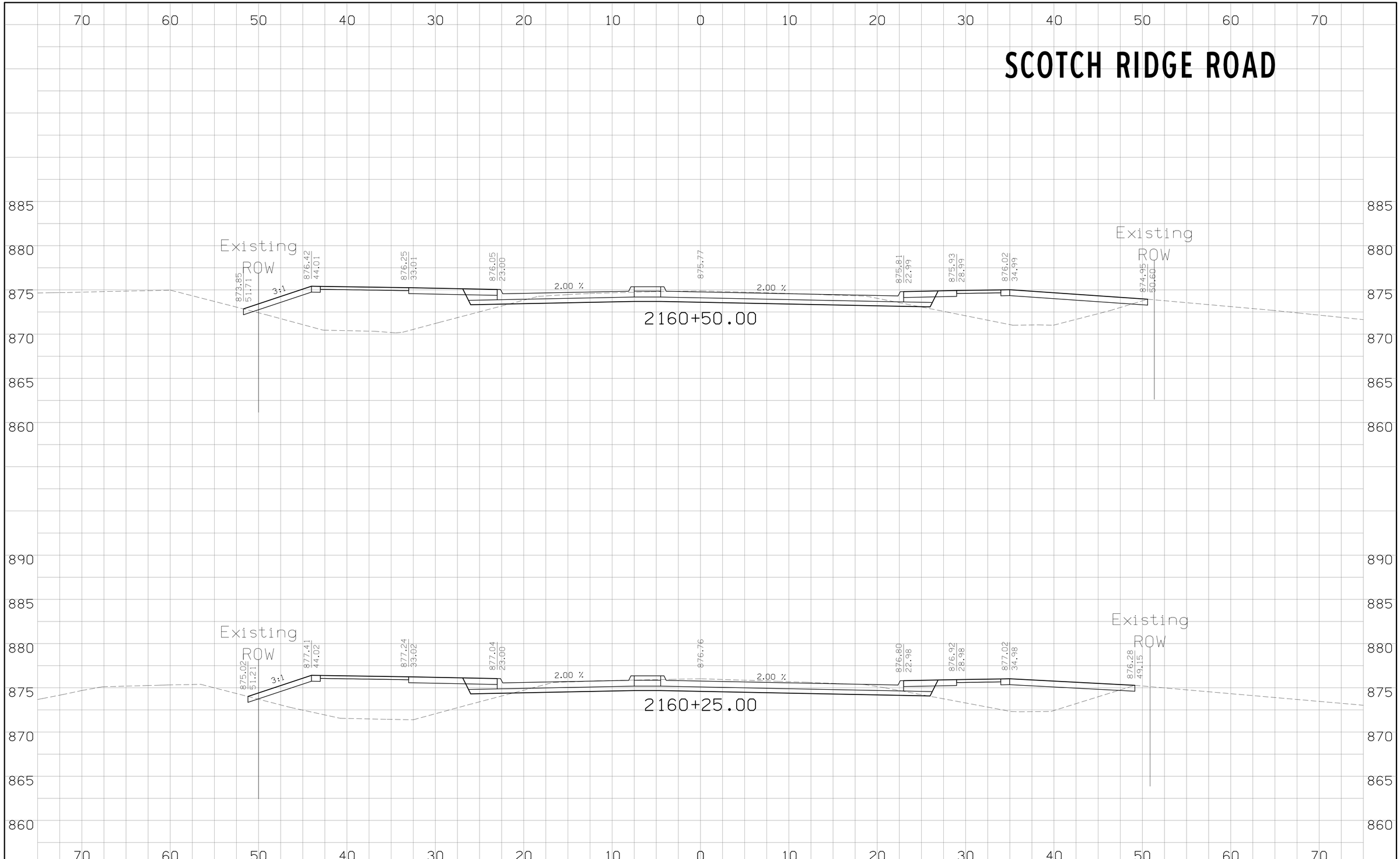
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.						W.17
JS	FIELDBOOK	MAY 18, 2021	.						

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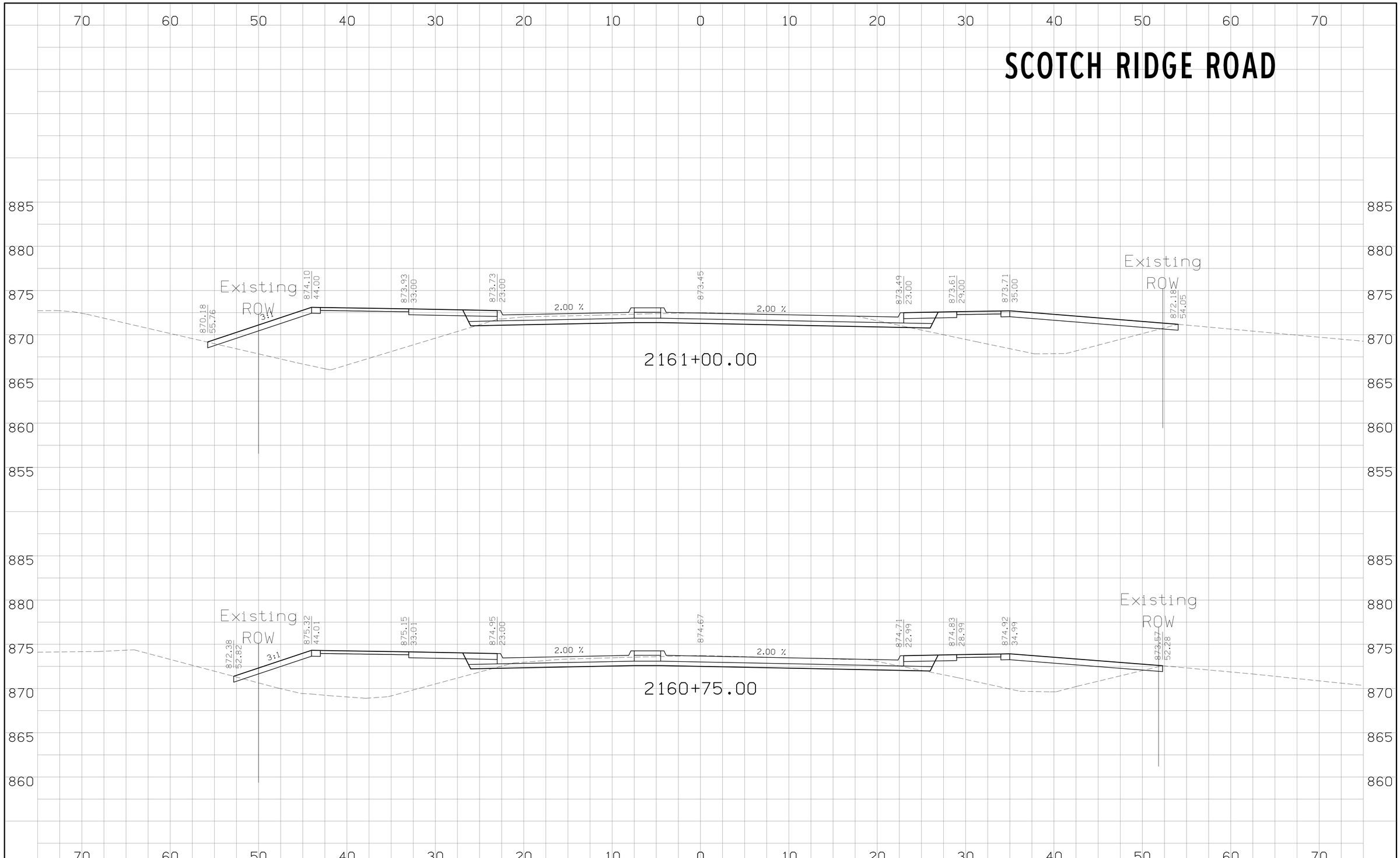
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	MCCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.18
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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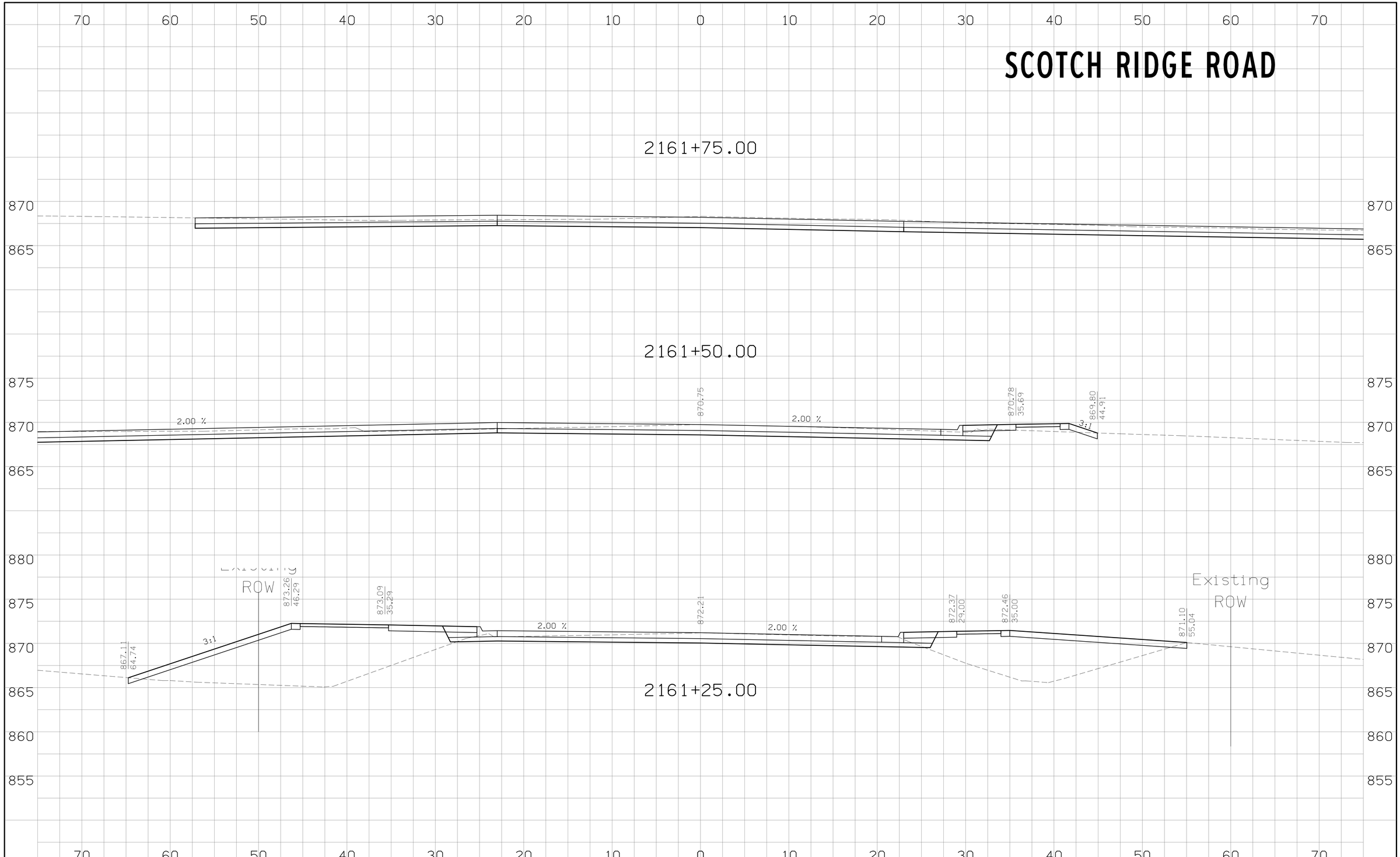
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO. W.19
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JS	FIELDBOOK	MAY 18, 2021	.					

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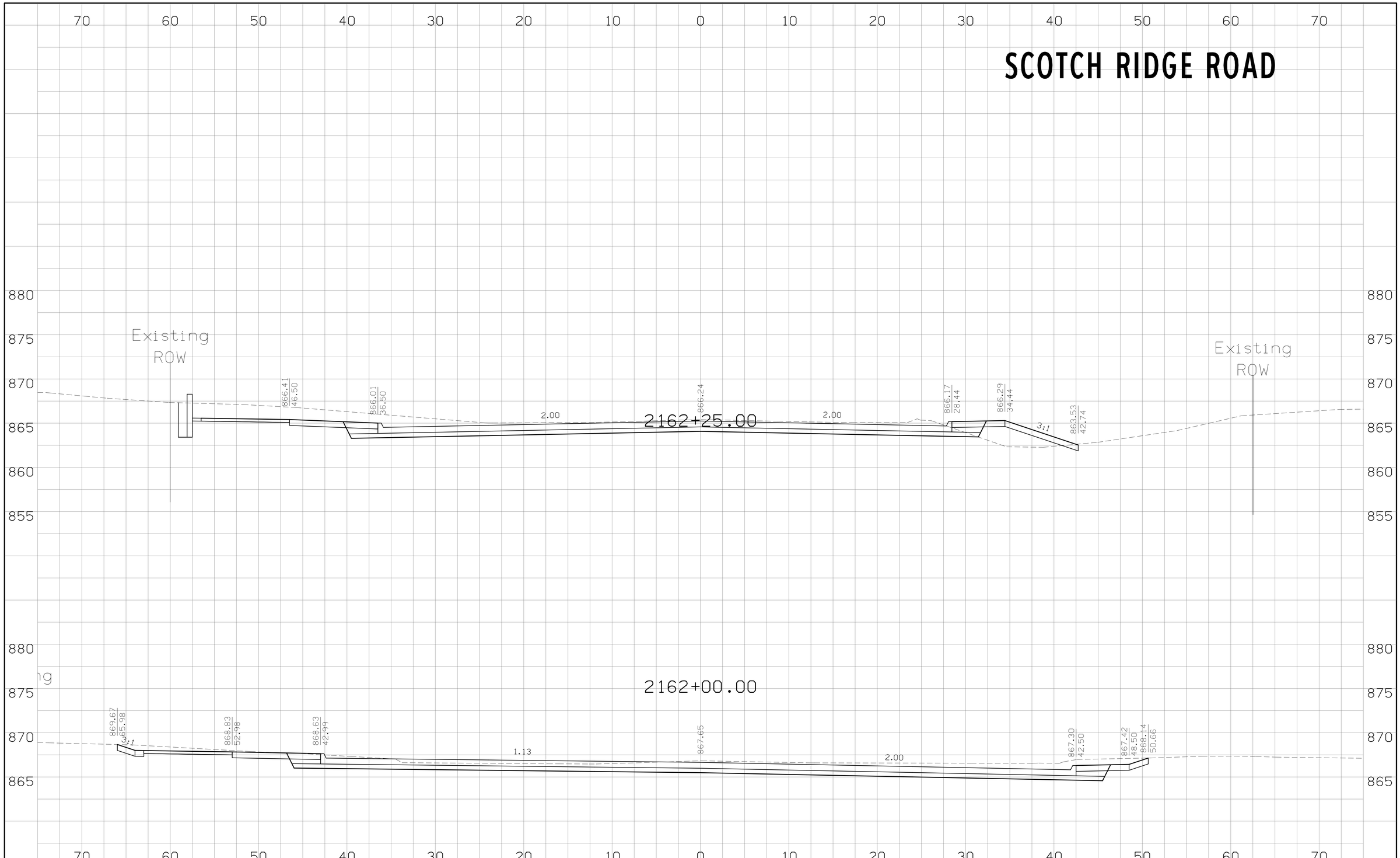
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.20
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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SCOTCH RIDGE ROAD

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MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.21
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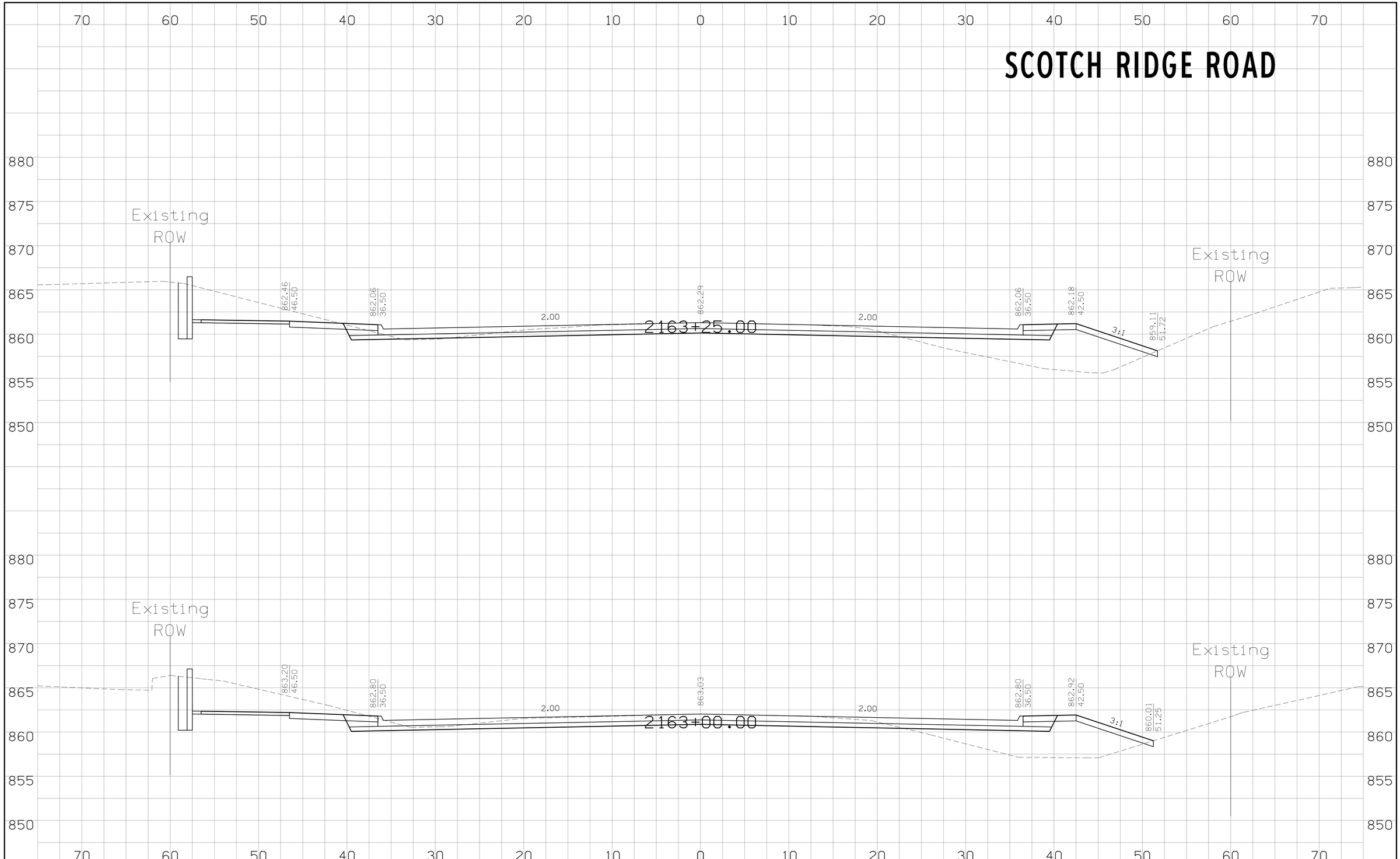
SCOTCH RIDGE ROAD



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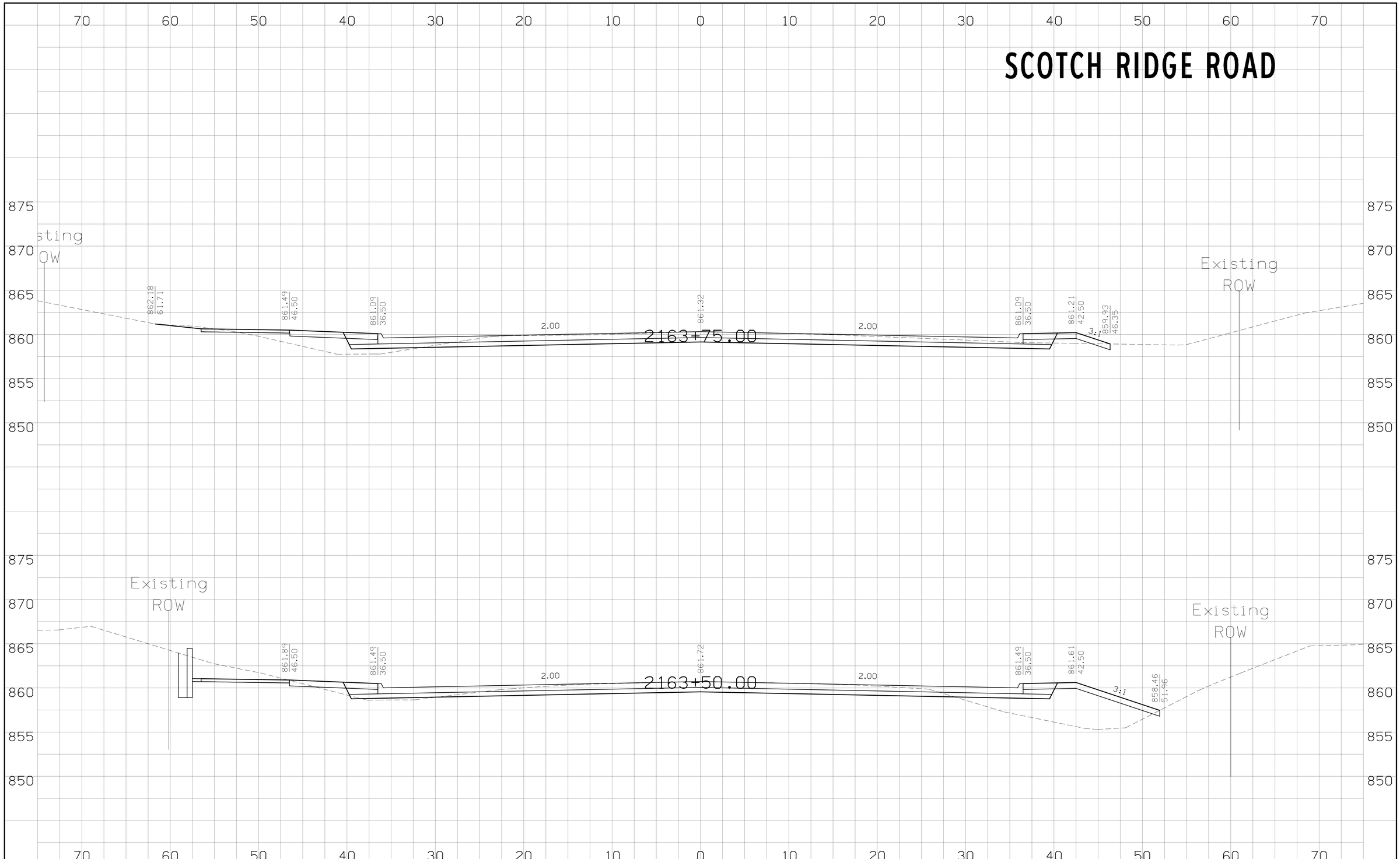
SCOTCH RIDGE ROAD



ENGINEER	DRAWN BY		REVISIONS					
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	SHEET NO.
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SCOTCH RIDGE ROAD

ENGINEER	DRAWN BY		REVISIONS					SHEET NO.
MDR	MDR	CARLISLE, IOWA	.	McCLURE™	making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)--SG-91	SCOTCH RIDGE ROAD CROSS SECTIONS	W.24
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
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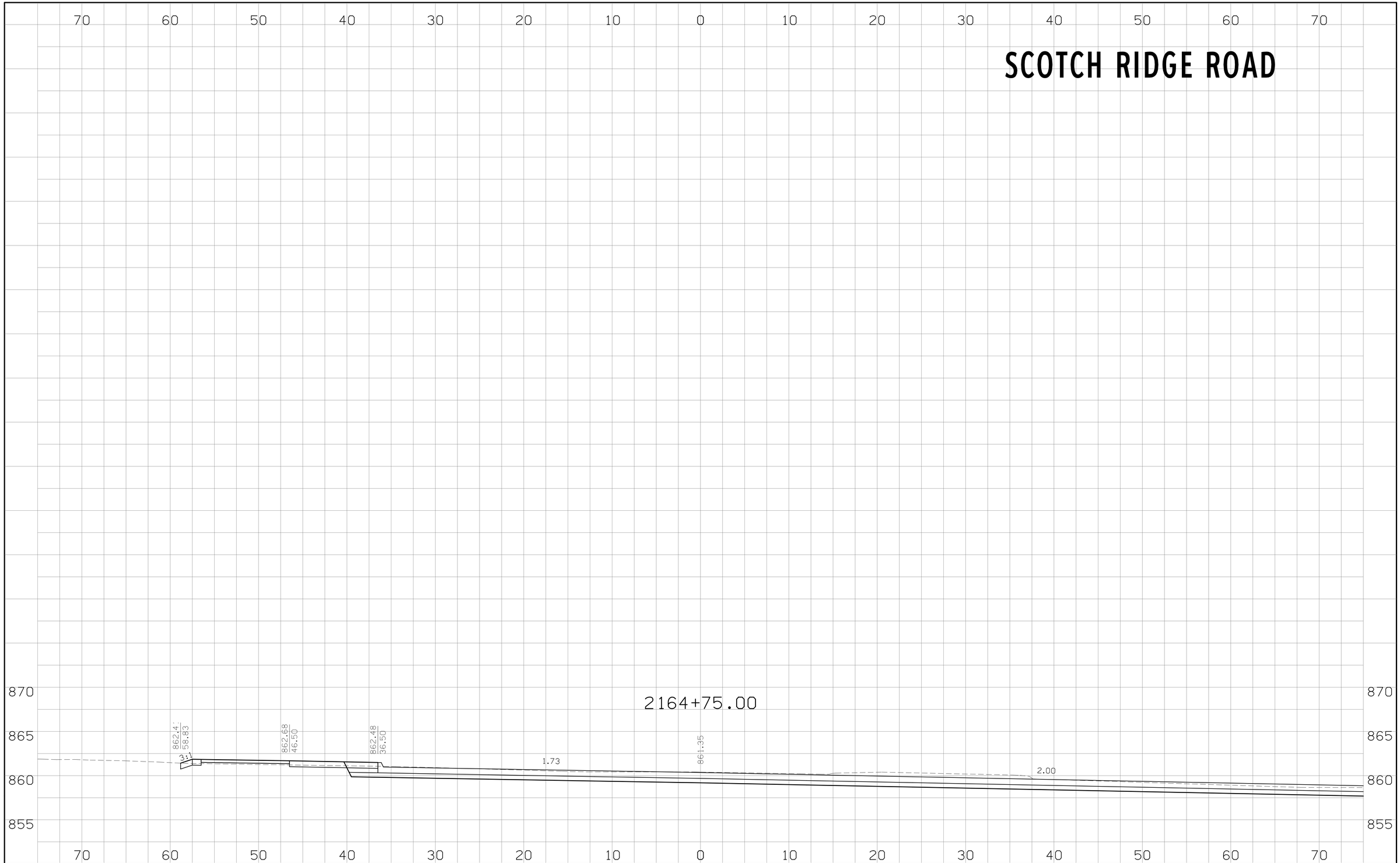

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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				SHEET NO.
JS	FIELDBOOK	MAY 18, 2021	.				W.25

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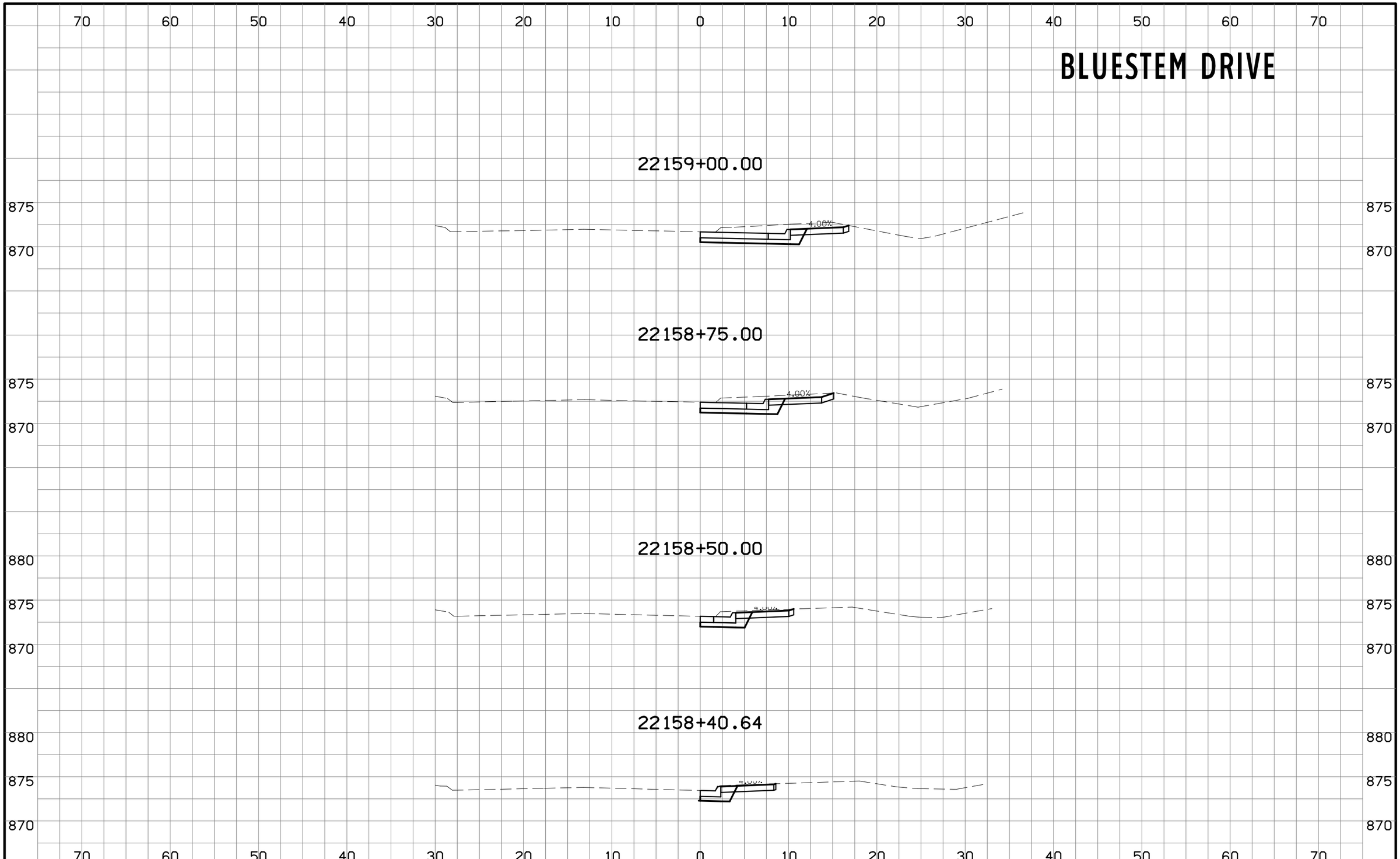
BLUESTEM DRIVE



ENGINEER	DRAWN BY		REVISIONS				
MDR	MDR	CARLISLE, IOWA	.	McCLURE™ making lives better.	1360 NW 121ST Street Clive, Iowa 50325 515-964-1229 fax 515-964-2370	SCOTCH RIDGE ROAD AND HIGHWAY 5 INTERSECTION SOUTH APPROXIMATELY 1,250 FEET SOUTHWEST STBG-SWAP-1105(608)–SG-91	BLUESTEM DRIVE CROSS SECTIONS	SHEET NO.
CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
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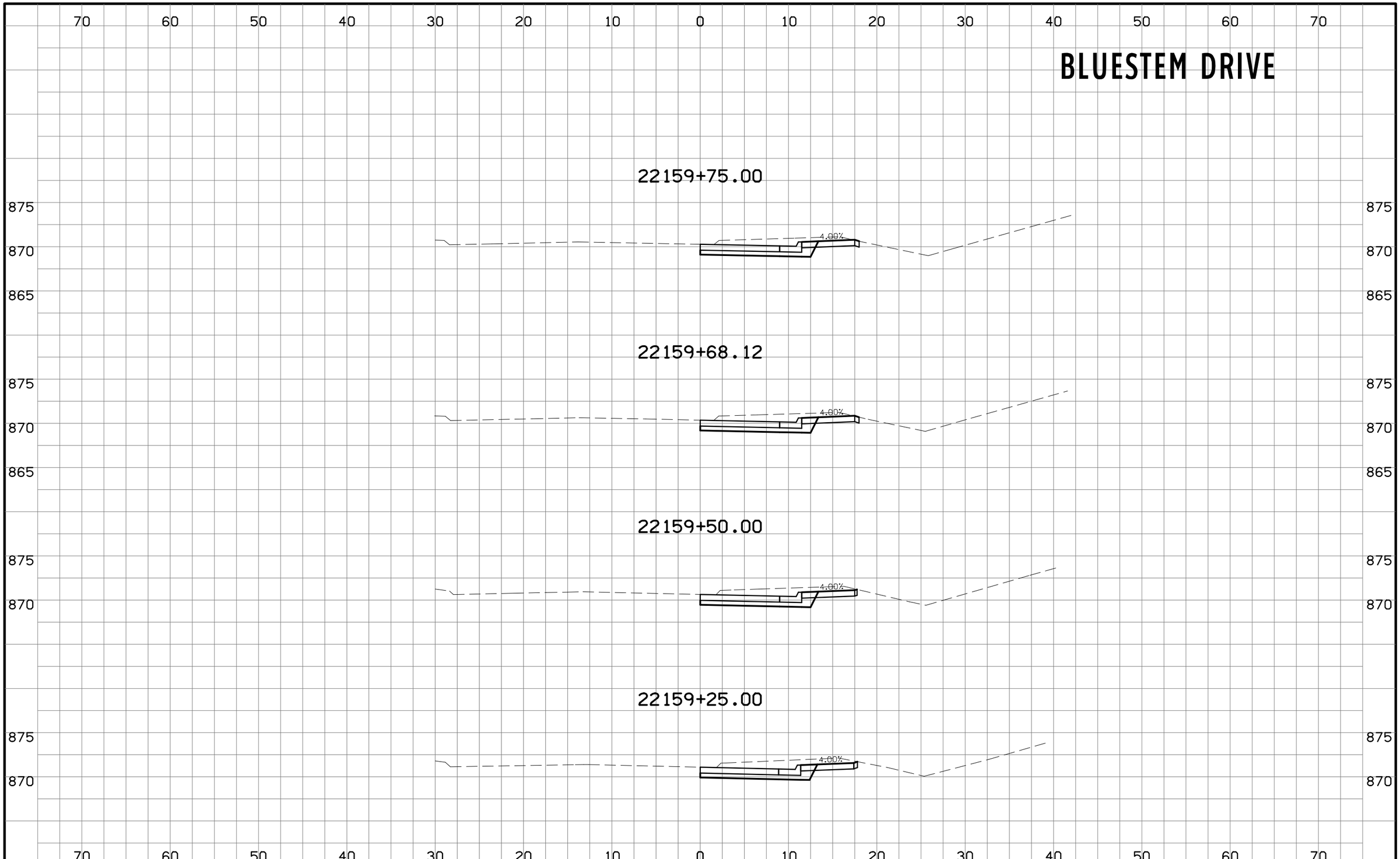
BLUESTEM DRIVE



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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.					
JS	FIELDBOOK	MAY 18, 2021	.					

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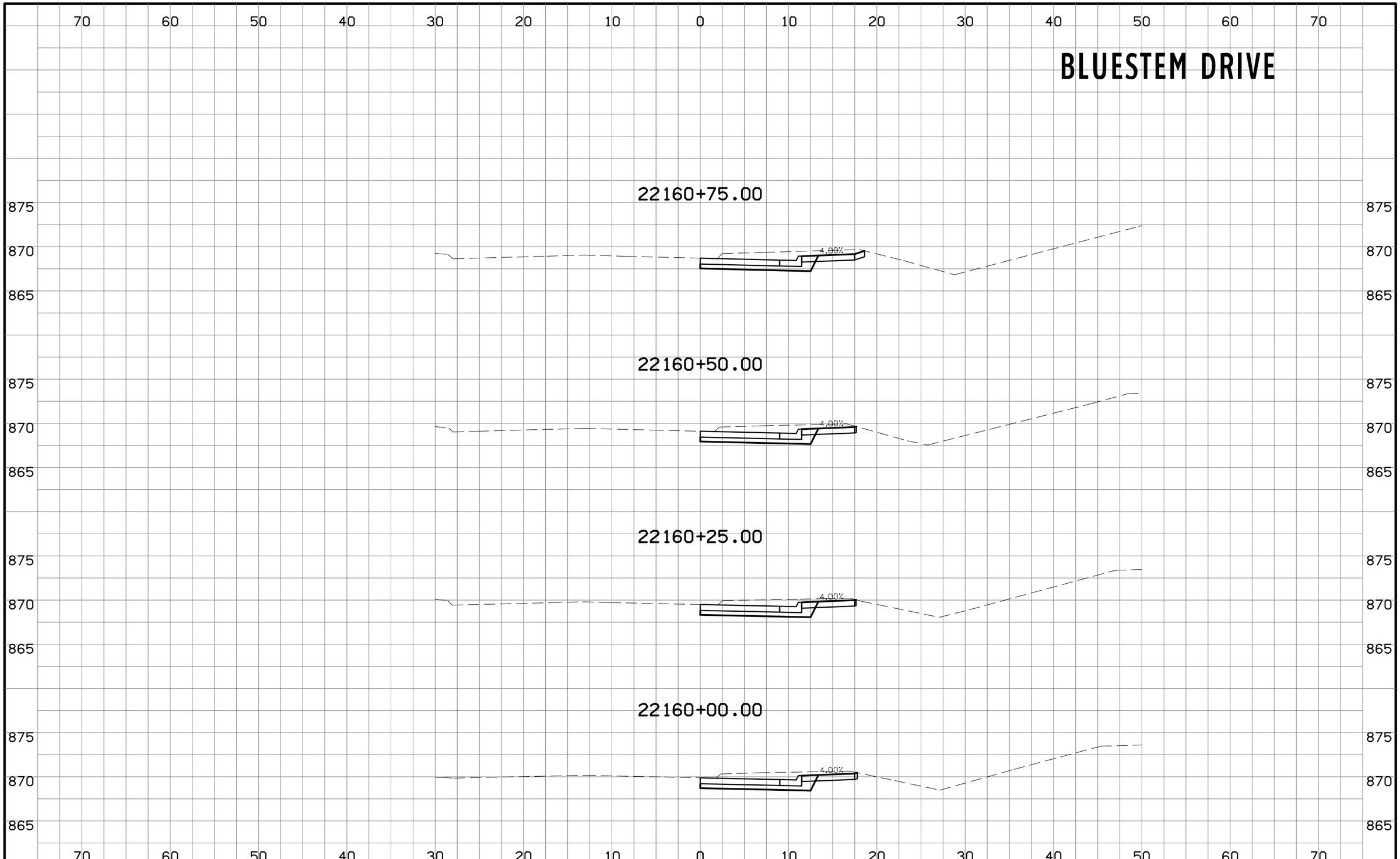
BLUESTEM DRIVE



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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
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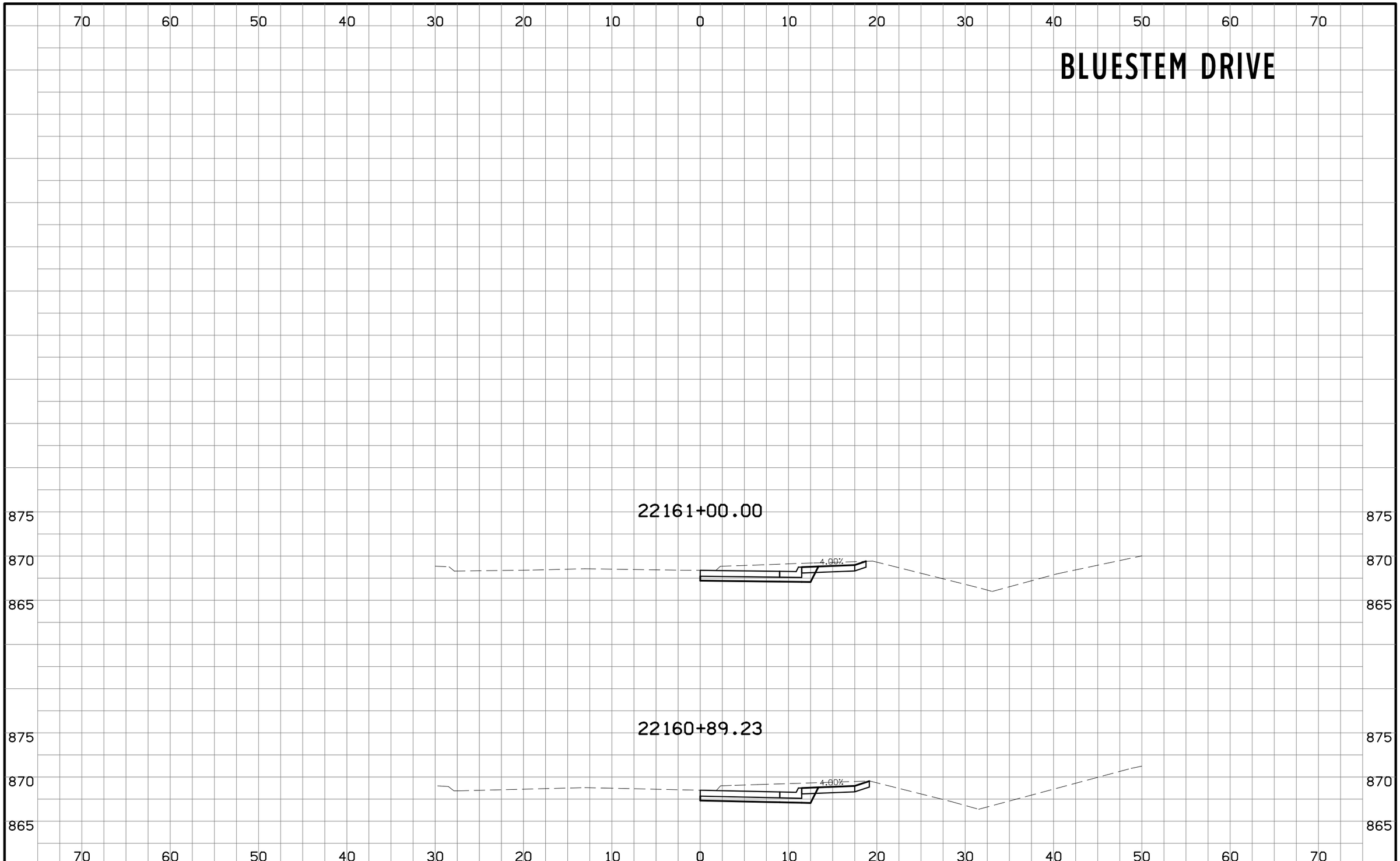
BLUESTEM DRIVE



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CHECKED BY	FIELD BOOK NO.	MEC JOB #: 20615007	.				
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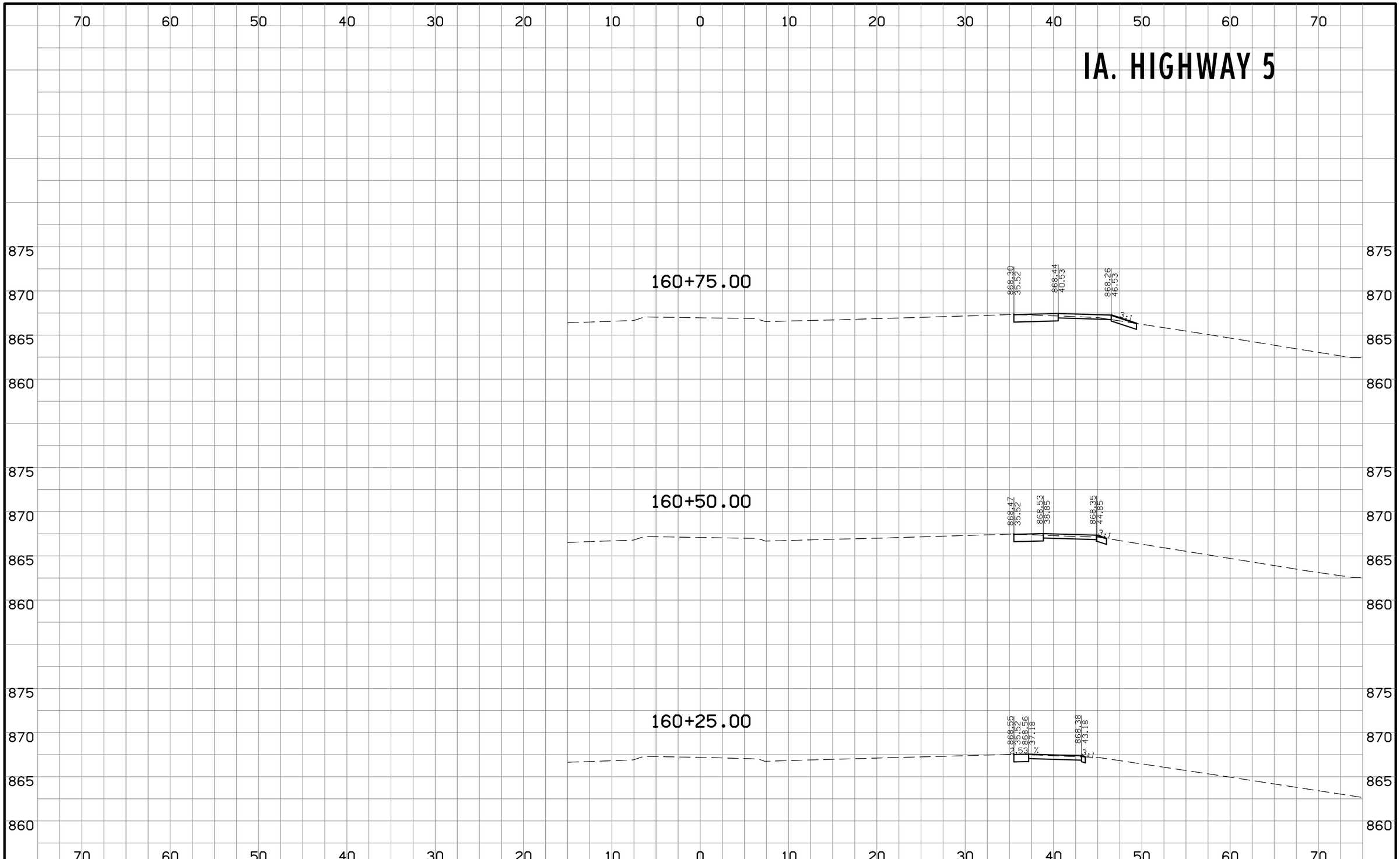
IA. HIGHWAY 5



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JS	FIELDBOOK	MAY 18, 2021	.				Y.1

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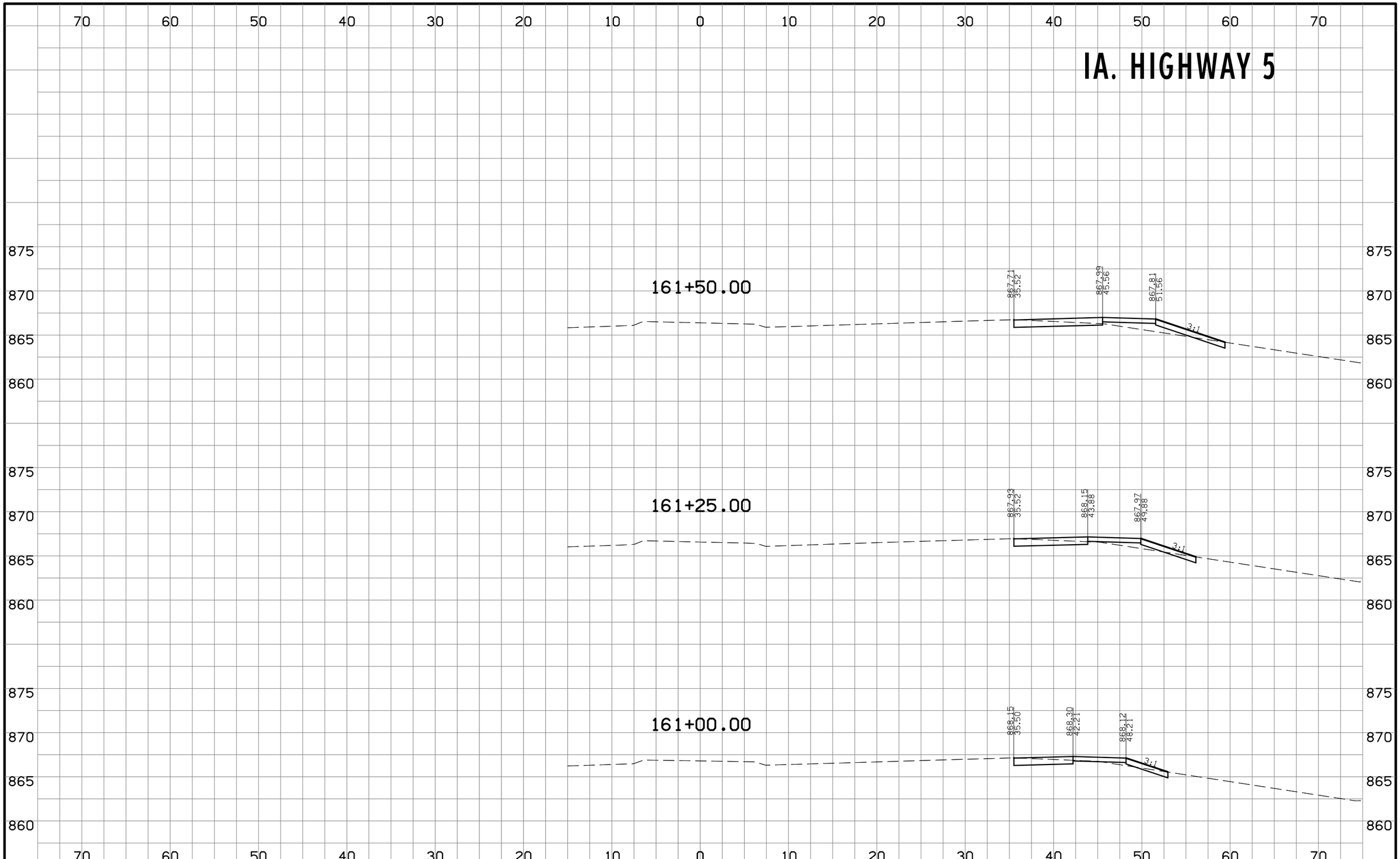
IA. HIGHWAY 5



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STBG-SWAP-1105(608)–SG-91

IA. HIGHWAY 5
CROSS SECTIONS

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Y.2

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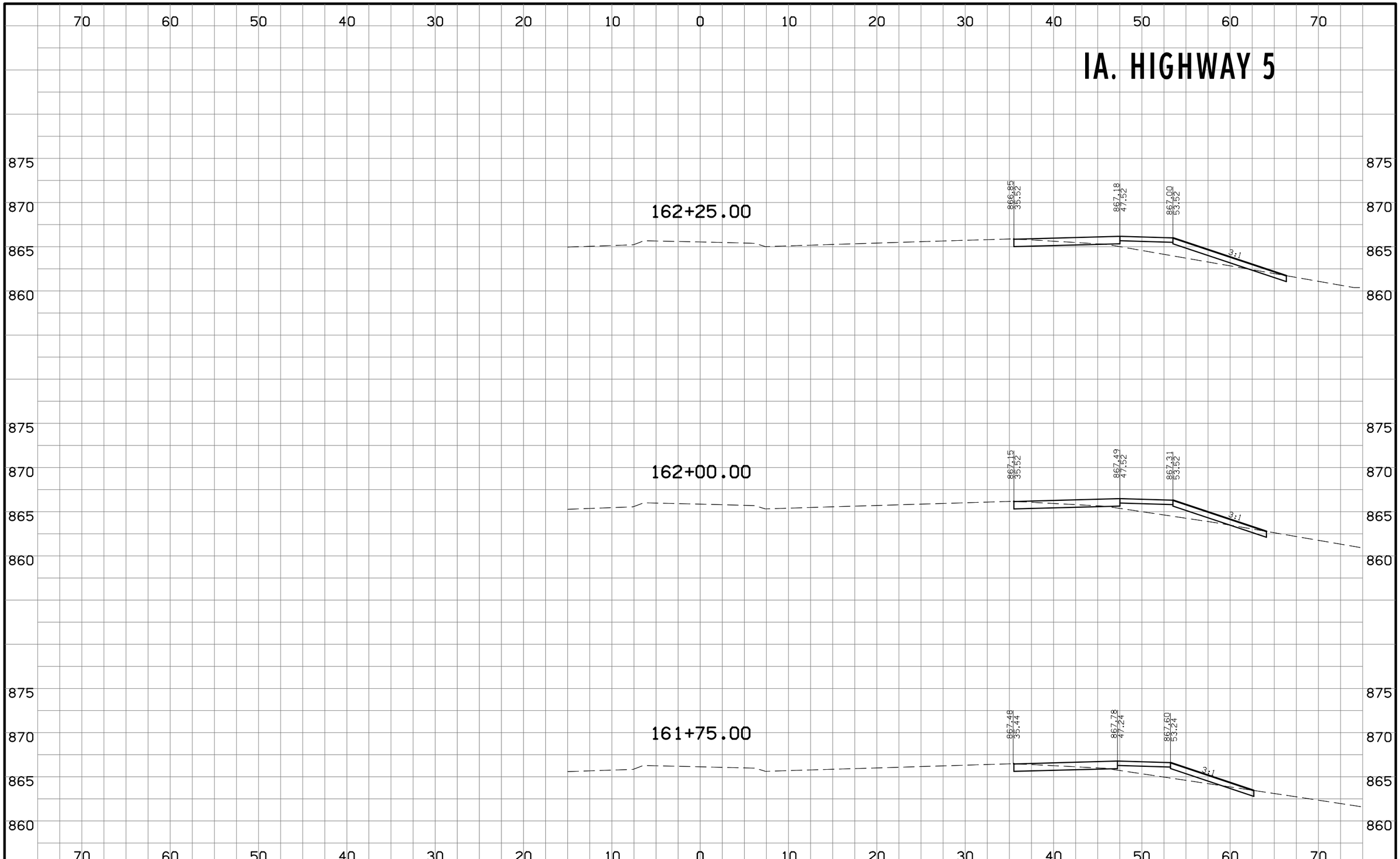
IA. HIGHWAY 5



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JS	FIELDBOOK	MAY 18, 2021	.				Y.3

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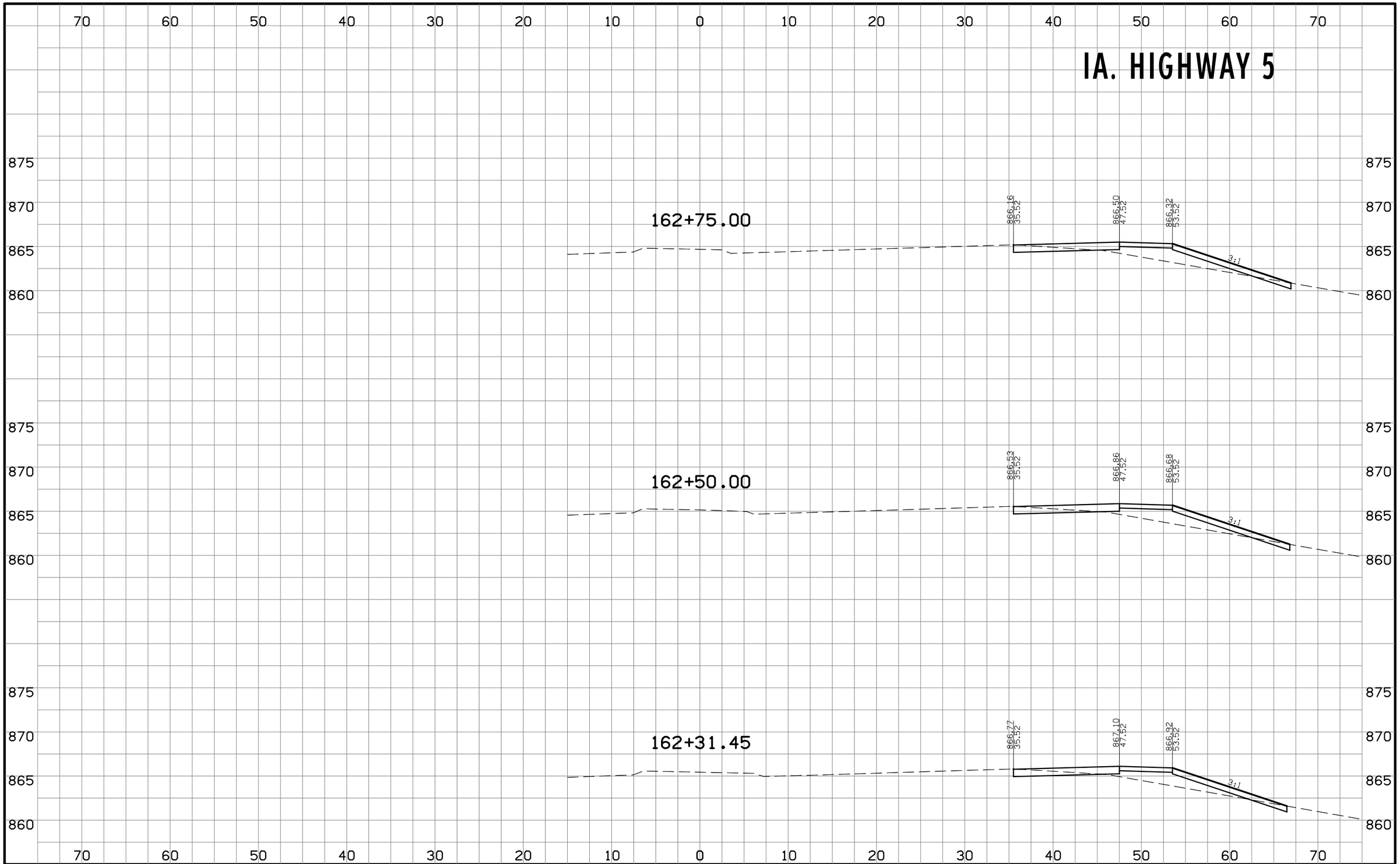
IA. HIGHWAY 5



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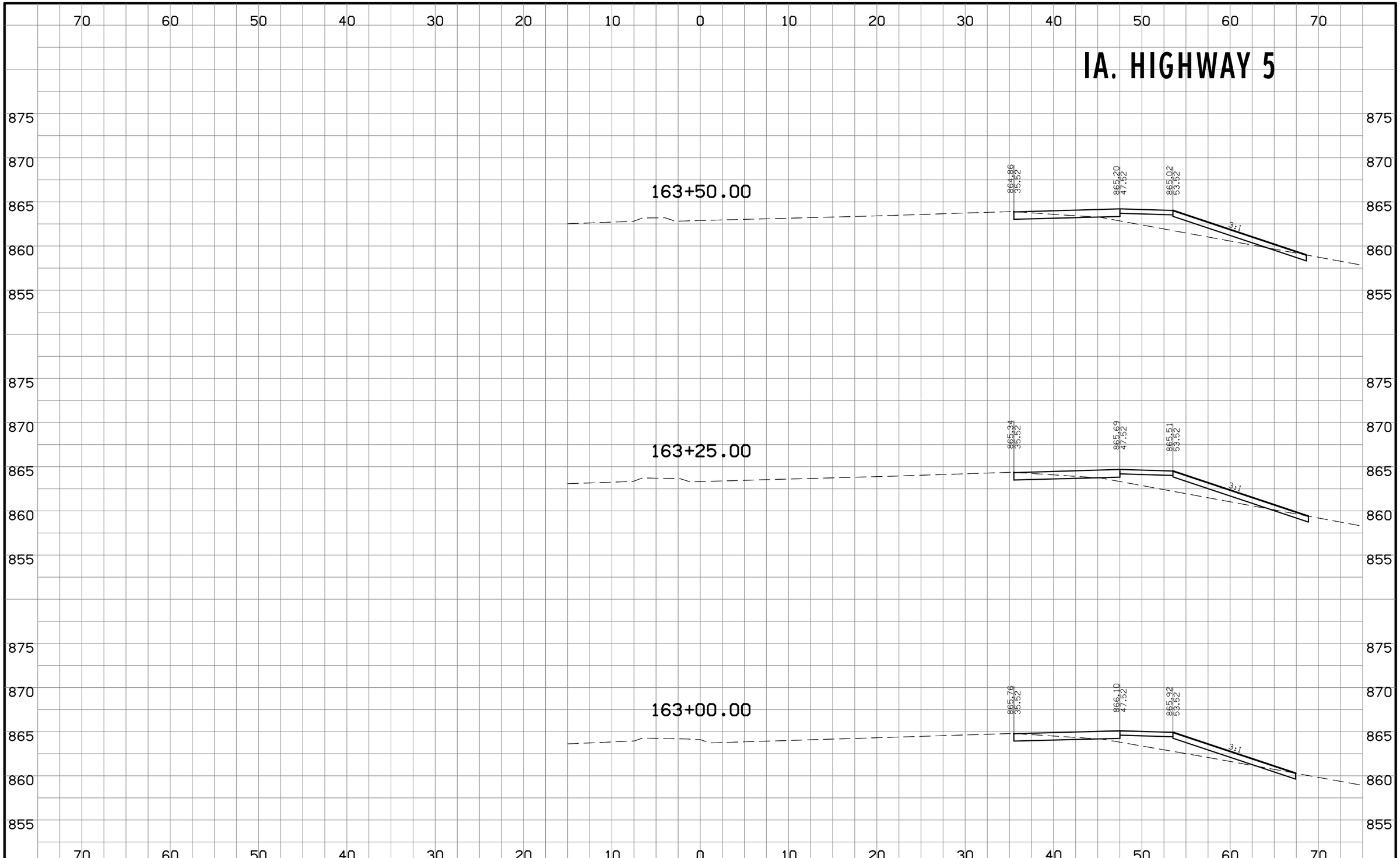
IA. HIGHWAY 5



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CROSS SECTIONS

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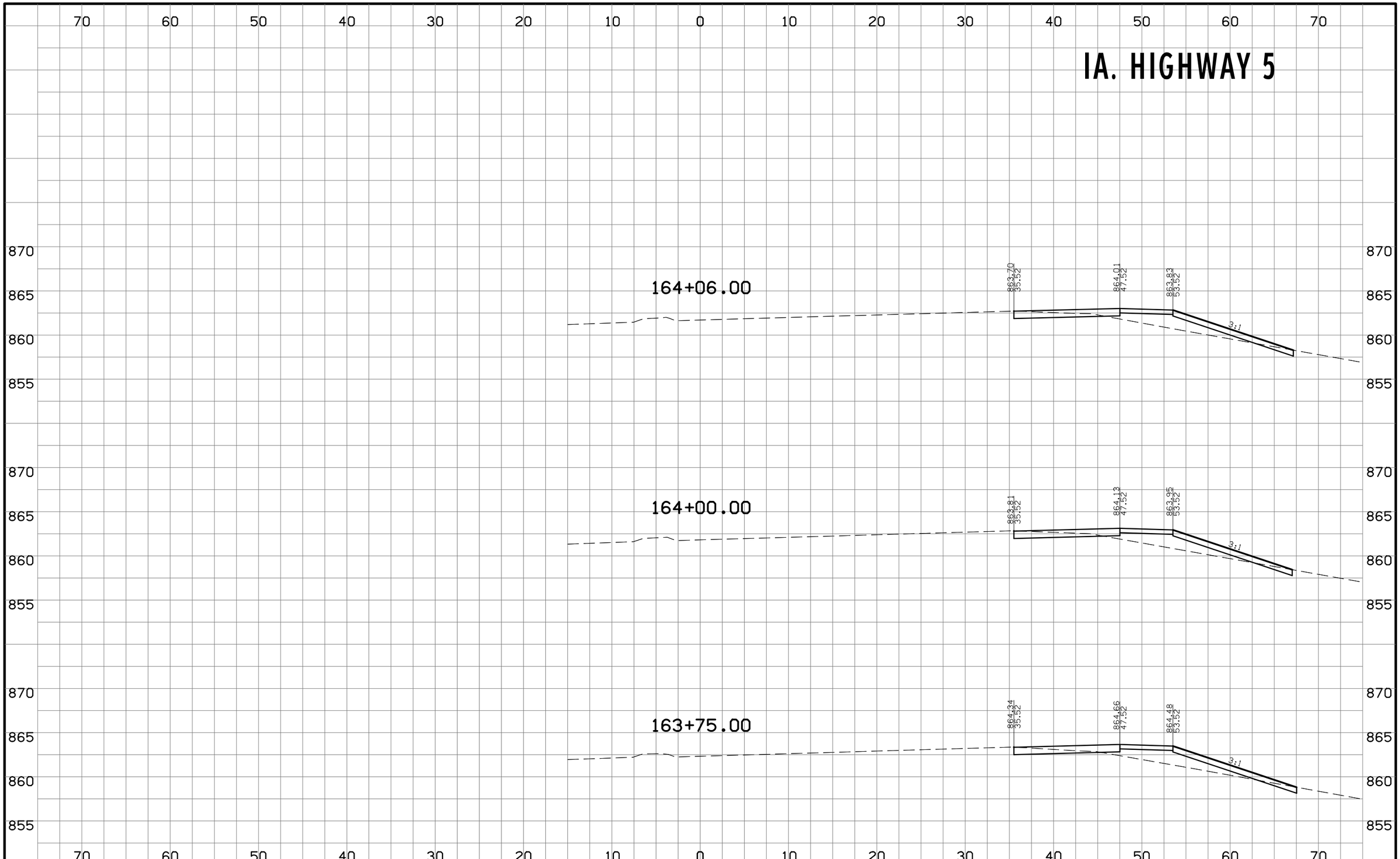
IA. HIGHWAY 5



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