

CITY OF HIAWATHA, IOWA

HIAWATHA RAIL QUIET ZONE

FINAL REVIEW PLANS

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PLANS PREPARED FOR:

Hiawatha!

MAYOR: BILL BENNETT

CITY COUNCIL

AT LARGE: AIME WICHTENDAHL

AT LARGE: JERRY MOHWINKLE

AT LARGE: ROB ARCHIBALD

AT LARGE: DICK OLSON

AT LARGE: STEVE DODSON

ENGINEER: JON FITCH

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.

Kevin A Binder
License Number P11986
My License Renewal Date is December 31, 2022

Pages or sheets covered by this seal:
V.01, V.02 & V.03

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

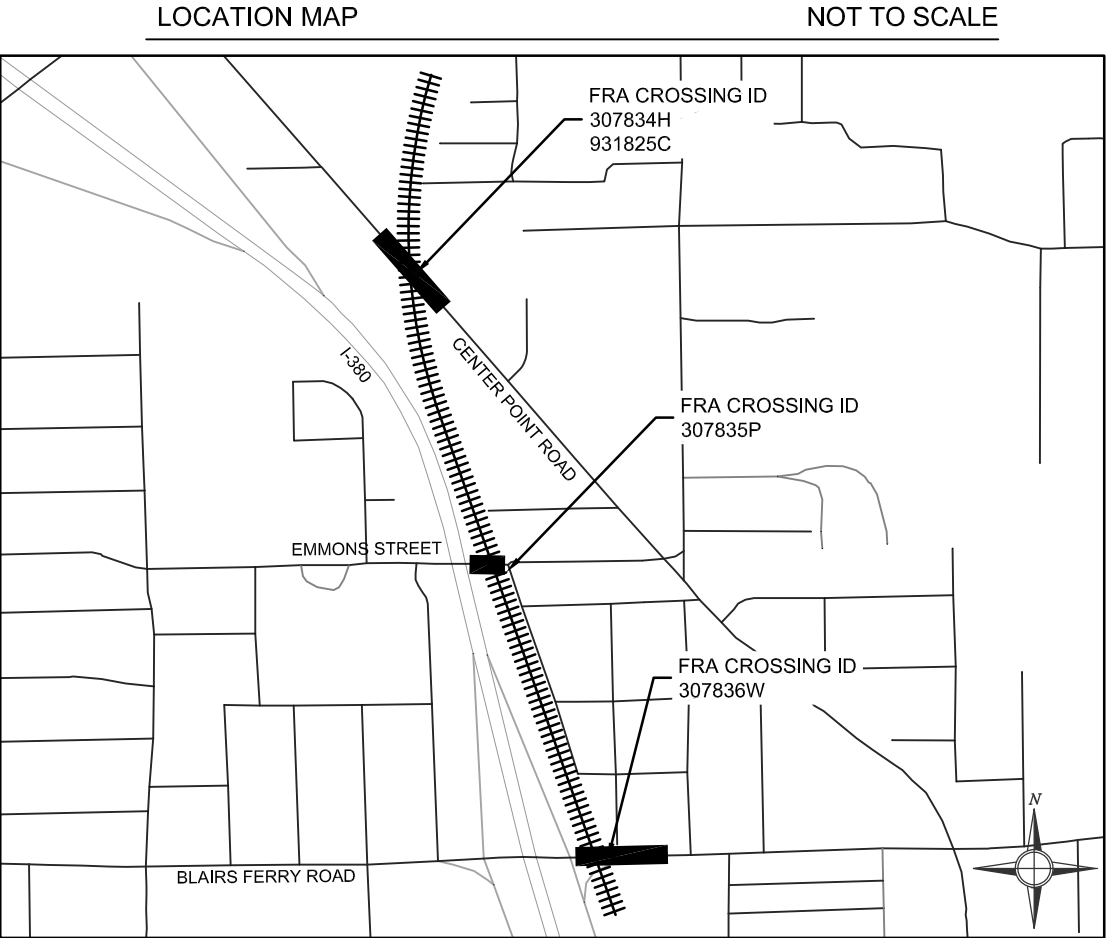
William W. Bogert Iowa Reg No. 12388
My License renewal date is December 31, 2021

Pages covered by this seal: ALL EXCEPT G, H, AND V SHEETS

I hereby certify that this Land Surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Iowa.

R. Rodney Klien Iowa Reg No. 18646
My License renewal date is December 31, 2021

Pages covered by this seal: G AND H SHEETS



Sec. 32 & 33, T84N, R7W
Sec. 4 & 5, T83N, R7W



PRIMARY PLAN PREPARER:

ANDERSON BOGERT

PHONE NUMBER: 319-377-4629

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811
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CITY OF HIAWATHA

THIS ENGINEERING DOCUMENT IS RECOMMENDED FOR FILING WITH THE CITY CLERK

CITY ENGINEER OR DESIGNEE _____ DATE _____

UNLESS OTHERWISE NOTED, THE PROPOSED IMPROVEMENTS INCLUDED IN THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT VERSIONS OF THE IOWA STATEWIDE URBAN DESIGN AND SPECIFICATION MANUALS (SUDAS 2021) AND THE MOST CURRENT HIAWATHA 2021 GENERAL SUPPLEMENT TO SUDAS. WHERE NOTED, THE CEDAR RAPIDS 2021 GENERAL SUPPLEMENT TO SUDAS, SHALL ALSO APPLY.

PROPOSED IMPROVEMENTS LOCATED ON THE EMMONS STREET BRIDGE HAVE BEEN DESIGNED IN ACCORDANCE WITH AASHTO SERIES OF 2002, AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE 2015 SERIES IOWA DEPARTMENT OF TRANSPORTATION (IDOT) STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, ALONG WITH APPLICABLE GENERAL SUPPLEMENTAL, DEVELOPMENTAL, AND SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS.

ADDITIONAL REFERENCES TO SPECIFICATIONS CAN BE FOUND IN THE ESTIMATE REFERENCE INFORMATION. EXCEPTIONS ARE SHOWN ON SHEET A.02.

LEGEND

Existing

Proposed

_____	ACC / PCC / Curb	_____
_____	Gravel / Drive / Sidewalk	_____
_____	Building	_____
_____	Centerline	_____
_____	CATV*	_____
_____	Electric (Underground)*	_____
_____	Electric (Overhead)*	_____
_____	Fiber Optic Cable*	_____
_____	Force Main*	_____
_____	Gas*	_____
_____	Sanitary Sewer (Size Unknown)*	_____
_____	6" Sanitary Sewer*	_____
_____	8" Sanitary Sewer*	_____
_____	Storm Sewer (Size Unknown)*	_____
_____	6" Storm Sewer*	_____
_____	12" Storm Sewer*	_____
_____	Subdrain	_____
_____	Subdrain Stub	_____
_____	Steam	_____
_____	Telephone*	_____
_____	Water (Size Unknown)* **	_____
_____	8" Water*	_____
_____	10" Water*	_____
_____	Water - Abandoned	_____
_____	Wall	_____
_____	Right of Way	_____
_____	Utility Easement	_____
_____	Temporary Construction Easement	_____
_____	Boundary Line	_____
_____	Adjoining Lot Line	_____
_____	Section Line	_____
_____	Proposed Property Lot Line	_____
_____	Building Setback	_____
_____	Grading Limits	_____

*NOTE: Letter designation indicates quality level of Existing Utility Data,
 ** "W-AB" denotes an abandoned water main facility.

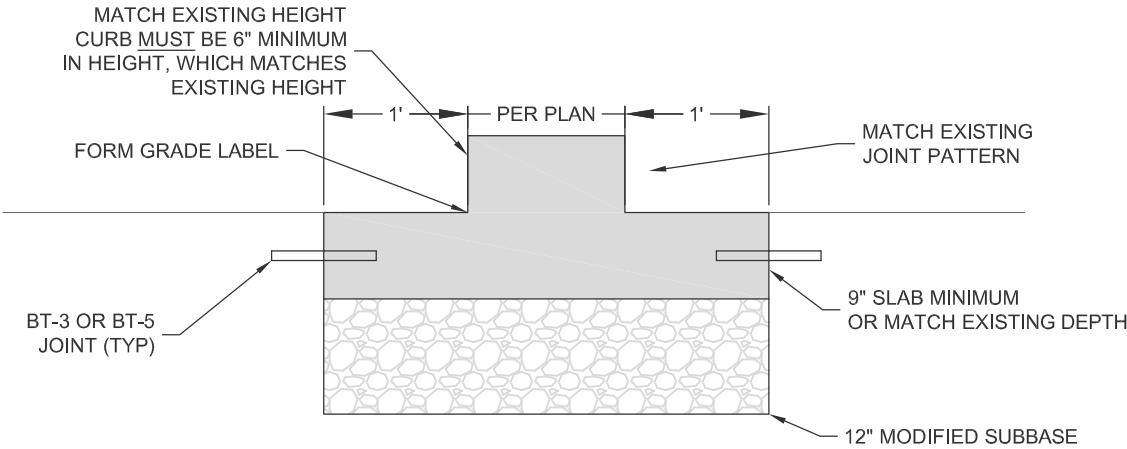
	Light Pole w/o Mast	
	Fire Hydrant	
	Utility Pole	
	Guy Anchor	
	Telephone Pedestal	
	Handhole	
	Utility/Control Cabinet	
	Drainage/Sanitary/Utility Manhole	
	Grate Intake	
	SW-507 Intake	
	Intake	
	RA-8 Intake	
	Valve, Water or Gas	
	Valve Manhole	
	Cleanout, Storm or Sanitary	
	Water Blowoff	
	Flared End Section	
	Benchmark	
	Soil Boring	
	Light Pole w/ Mast	
	Traffic Signal	
	Mailbox	
	Bollard	
	CATV Pedestal	
	Sign	
	Well	
	Deciduous Tree	
	Coniferous Tree	
	Bush	

DESIGN EXCEPTIONS	
#	

DRAWING POINT IDENTIFICATION LEGEND	
A-#	SUBSURFACE DATA POINT - CI/ASCE 38-02 QUALITY LEVEL A (UTILITY POTHOLE)
B-#	GEOTECHNICAL BORING LOCATION (SEE GEOTECHNICAL ENGINEERING REPORT)
BM-#	SURVEY BENCHMARK
CP-#	SURVEY CONTROL POINT

TYPICAL DOWELED
CONCRETE MEDIAN
FOR ROADWAY PAVEMENT
(N.T.S.)
EMMONS STREET
SEE V SHEETS

TYPICAL FULL DEPTH
CONCRETE MEDIAN NOSES
(N.T.S.)
CENTER POINT ROAD
STA 200+90 - 201+50



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ABES PROJECT NO: 218033

C.I.P. NO:

DRAWN BY: JMS
APPROVED BY: WWB
DATE: 5/6/21

NO.	REVISION DESCRIPTION	APPROVED	DATE	

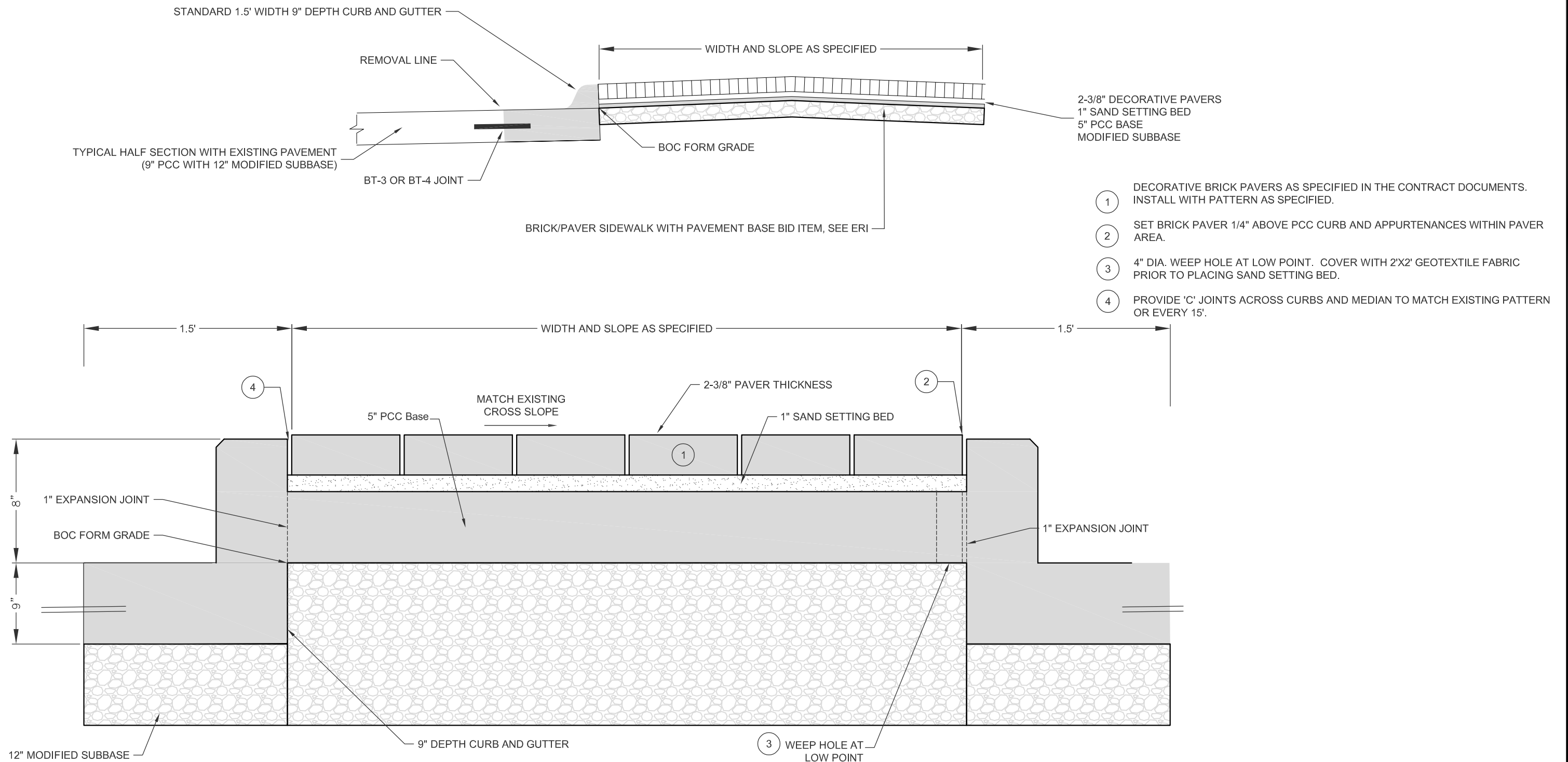


HIAWATHA RAIL QUIET ZONE

TYPICAL CROSS SECTIONS
AND SECTION DETAILS

SHEET NO.
B.01
OF
B.03

TYPICAL FULL DEPTH MEDIAN
SUDAS 7010.906
(N.T.S)
BLAIRS FERRY ROAD
APPX STA 308+50 - 312+00



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ABES PROJECT NO: 218033

C.I.P. NO:

DRAWN BY: JMS
APPROVED BY: WWB
DATE: 5/6/21

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Hiawatha!

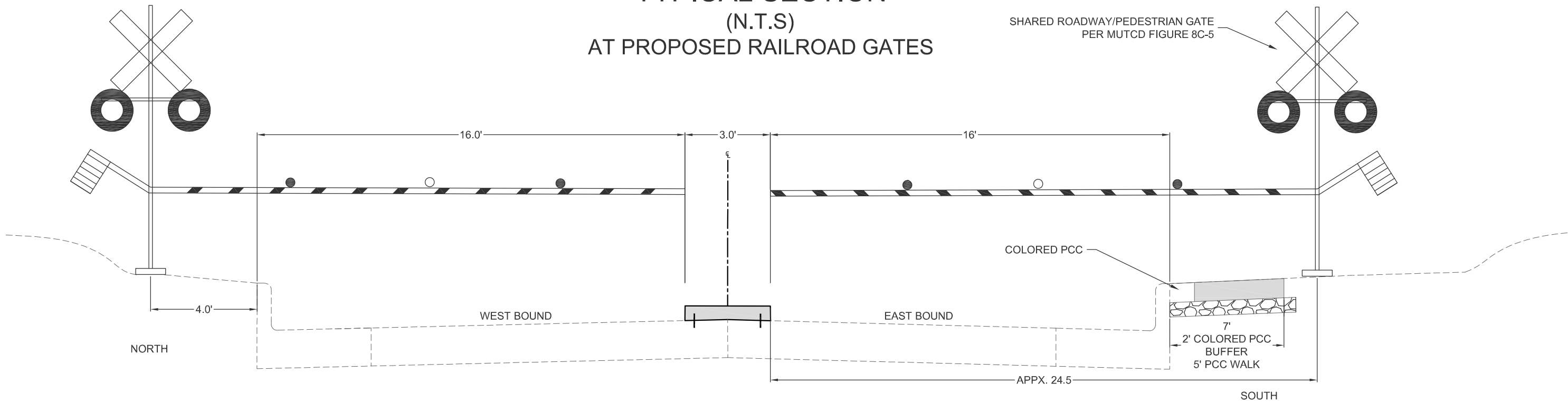
ANDERSON BOGERT

HIAWATHA RAIL QUIET ZONE

TYPICAL CROSS SECTIONS
AND SECTION DETAILS

SHEET NO.
B.02
OF
B.03

EMMONS STREET
(N.T.S)
AT PROPOSED RAILROAD GATES



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ABES PROJECT NO: 218033

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APPROVED BY: WWB
DATE: 5/6/21

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HIAWATHA RAIL QUIET ZONE

TYPICAL CROSS SECTIONS
AND SECTION DETAILS

SHEET NO.
B.03
OF
B.03

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UTILITY CONTACT LIST

CITY OF CEDAR RAPIDS

CITY ARBORIST: (319) 286-5616
FIRE: BUSINESS (319) 286-5200, Emergency 911
POLICE: BUSINESS (319) 286-5491, Emergency 911
PUBLIC WORKS: (319) 286-5802
SEWERS: (319) 286-5826
TRANSIT: (319) 286-5573
WATER: (319) 286-5900
IOWA ONE CALL: 811

UTILITIES

ALLIANT: (319) 786-1908
AT&T: (319) 364-6111
CENTURYLINK: (319) 399-7600 or (319) 399-7487
IMON COMMUNICATIONS: (319) 261-4640 or (319) 261-4689
IOWA NETWORK SERVICES: (319) 533-2319
ITC MIDWEST: (319) 297-6765
JOINT COMMUNICATIONS NETWORK: (319) 286-5491
LINN COUNTY REC: (319) 377-1587
MEDIACOM: (319) 395-9699, Ext. 354
MIDAMERICAN ENERGY: (319) 298-5162
WINDSTREAM: (319) 538-1985

UTILITY CONTACT LIST

CITY OF HIAWATHA

CITY ENGINEER: 319-393-1515 X511
CITY CONSTRUCTION OBSERVER: 319-393-1515 x510
PUBLIC WORKS AND STREETS: 319-393-6601
POLICE BUSINESS: 319-393-1212 EMERGENCY 911
FIRE BUSINESS: 319-393-4180 EMERGENCY: 911
WATER: 319-393-5556

RAILROAD CONTACTS

RAILROAD REPRESENTATIVE: NICHOLAS BURWELL
319.236.9205 Nicholas.Burwell@cn.ca
EMERGENCY: 1-800-465-9239

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF ALL EXISTING AND CONSTRUCTED DRAINAGE CHANNELS AND DRAINAGE STRUCTURES. CONTRACTOR IS LIABLE FOR ALL DAMAGE TO PUBLIC OR PRIVATE PROPERTY CAUSED BY THEIR ACTION OR INACTION IN THE HANDLING OF STORM WATER FLOWS DURING CONSTRUCTION. EXTRA GRADING WORK NECESSARY TO MAINTAIN POSITIVE DRAINAGE WITHIN THE CONSTRUCTION LIMITS IS CONSIDERED INCIDENTAL TO CONSTRUCTION OR RELATED BID ITEMS.

UNDERGROUND UTILITY DATA

THESE DESIGN DRAWINGS INCORPORATE UNDERGROUND UTILITY INFORMATION BASED UPON SUBSURFACE UTILITY ENGINEERING PRACTICES AND STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA (CI/ASCE 38-02).

UTILITY QUALITY LEVEL A: PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATION OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. MINIMALLY INTRUSIVE EXCAVATION EQUIPMENT IS TYPICALLY USED TO MINIMIZE THE POTENTIAL FOR UTILITY DAMAGE. A PRECISE HORIZONTAL AND VERTICAL LOCATION, AS WELL AS OTHER UTILITY ATTRIBUTES, IS SHOWN ON PLAN DOCUMENTS. ACCURACY IS TYPICALLY SET TO 15-MM VERTICAL AND TO APPLICABLE HORIZONTAL SURVEY AND MAPPING ACCURACY AS DEFINED OR EXPECTED BY THE PROJECT OWNER.

UTILITY QUALITY LEVEL B: INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES. QUALITY LEVEL B DATA SHOULD BE REPRODUCIBLE BY SURFACE GEOPHYSICS AT ANY POINT OF THEIR DEPICTION. THIS INFORMATION IS SURVEYED TO APPLICABLE TOLERANCES DEFINED BY THE PROJECT AND REDUCED ONTO PLAN DOCUMENTS.

UTILITY QUALITY LEVEL C: INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND BY USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION TO QUALITY LEVEL D INFORMATION.

UTILITY QUALITY LEVEL D: INFORMATION DERIVED FROM EXISTING RECORDS OR ORAL RECOLLECTIONS.

NOTE: NO IOWA ONE CALL LEVEL B LOCATES WERE ACQUIRED BY THE DESIGNER. THE SCOPE OF THE PROJECT DOES NOT INVOLVE SIGNIFICANT EXCAVATION ACTIVITIES. UTILITY INFORMATION PROVIDED ON THE PLANS WERE DERIVED FROM MAPS PROVIDED BY THE UTILITY ENTITIES LISTED ON THIS PLAN, AND HAVE BEEN SKETCHED IN FOR CONTRACTOR REFERENCE. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND PROTECTING ALL EXISTING UTILITIES AND LOCATES DURING CONSTRUCTION.

TABLE OF QUALITY LEVEL UTILITY INVESTIGATION
IN ACCORDANCE WITH CI/ASCE 38-02

UTILITY	OWNER	QUALITY LEVEL
TELEPHONE DUCTS (UNDERGROUND)	CENTURY LINK	D
TELEPHONE DUCTS (UNDERGROUND)	WINDSTREAM	D
TELEPHONE DUCTS (UNDERGROUND)	UNITE PRIVATE NETWORKS	D
TELEPHONE DUCTS (UNDERGROUND)	MEDIACOM	D
TELEPHONE DUCTS (UNDERGROUND)	AUREON	D
EXISTING SANITARY AND STORM SEWER	HIAWATHA/CEDAR RAPIDS	D
EXISTING WATER MAIN	HIAWATHA/CEDAR RAPIDS	D
GAS MAIN	MID AMERICAN ENERGY	D
EXISTING TRAFFIC SIGNAL FIXTURES	CITY OF CEDAR RAPIDS	D
EXISTING TRAFFIC SIGNAL CONDUITS	CITY OF CEDAR RAPIDS	D
EXISTING RAILROAD EQUIPMENT AND TRACKS	CHICAGO, CENTRAL AND PACIFIC RAILROAD (CANADIAN NATIONAL)	

1. GENERAL STAGING AND TRAFFIC CONTROL NOTES
- 1.1. MAJOR STAGES OF CONSTRUCTION ARE SHOWN IN THE TRAFFIC CONTROL PLAN. CHANGES TO THE TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE CITY OF CEDAR RAPIDS CITY ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAIL TRAFFIC CONTROL PLANS TO THE ENGINEER FOR ALL STAGES OF WORK. WRITTEN NOTICE SHALL BE PROVIDED TO THE CITY OF CEDAR RAPIDS CITY ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ROADWAY (LANE) CLOSURES ON STREET PARTIALLY OR FULLY MAINTAINED BY THE CITY OF CEDAR RAPIDS.
- 1.2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SUDAS SECTION 8030 - TEMPORARY TRAFFIC CONTROL.
- 1.3. ALL PERMANENT PAVEMENT MARKINGS AND SIGNING SHALL BE INSTALLED PRIOR TO OPENING ROADWAYS TO TRAFFIC, UNLESS OTHERWISE NOTED.
- 1.4. REMOVAL OF EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL FEATURES OR NEW PAVEMENT MARKINGS SHALL BE BY A METHOD APPROVED BY THE ENGINEER.

GENERAL UTILITY NOTES:

1. REFER TO SUDAS 1070 2.07 FOR GENERAL UTILITY NOTES.
2. ABANDONED UTILITIES NOT SHOWN ON THE PLANS MAY EXIST WITHIN THE CONSTRUCTION LIMITS. IF ENCOUNTERED, CONTRACTOR SHALL CONFIRM SAID UTILITIES ARE ABANDONED. CONTRACTOR IS RESPONSIBLE FOR REMOVING THESE LINES AS NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY SANITARY AND STORM SEWER PIPE SIZES AND INVERTS PRIOR TO CONSTRUCTION AND PRIOR TO ORDERING MANHOLES AND/OR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR MATERIAL THAT IS ORDERED AND DOES NOT MATCH PIPE SIZES AND INVERTS THAT ARE TO BE CONFIRMED PRIOR TO CONSTRUCTION.
4. REPAIR ALL FIELD/DRAIN TILES ENCOUNTERED DURING CONSTRUCTION AS SPECIFIED OR AT A MINIMUM TO ALLOW FLOW USING LIKE MATERIAL IN NEW CONDITION WITH CITY APPROVED CONNECTIONS. CONTRACTOR SHALL RECORD EXISTING TYPE, SIZE, LOCATION AND DEPTH OF ALL FIELD/DRAIN TILES ENCOUNTERED AND REPAIRED DURING CONSTRUCTION. PROVIDE DATA TO THE CITY FOR INCORPORATION INTO RECORD DRAWINGS.

ABES PROJECT NO: 218033

DRAWN BY: JMS
APPROVED BY: WWB
DATE: 5/6/21

C.I.P. NO:

NO.	REVISION DESCRIPTION	APPROVED	DATE		

Hiawatha!

ANDERSONBOGERT

HIAWATHA RAIL QUIET ZONE

GENERAL NOTES

SHEET NO.
C.01
OF
C.06

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ESTIMATED PROJECT QUANTITIES						
DIVISIONS 1 AND 2 SHALL SPLIT QUANTITIES AT BLAIRS FERRY ROAD EVENLY AS TABULATED						
ITEM NO.	ITEM CODE	ITEM	UNIT	EST. PROJECT QUANTITY	DIVISION 1	DIVISION 2
					HIAWATHA	CEDAR RAPIDS
1	2010-108-I-0	SUBBASE, MODIFIED, 12"	SY	537.00	278.20	258.80
2	2010-108-I-0	SUBBASE, MODIFIED, 6"	SY	90.90	90.90	-
3	6010-108-E-0	MANHOLE OR INTAKE ADJUSTMENT, MINOR	EA	1.00	0.50	0.50
4	7010-108-A-0	PCC PAVEMENT, FULL DEPTH MEDIAN NOSES	SY	43.80	31.60	12.20
5	7010-108-E-0	CURB AND GUTTER, PER PLAN	LF	658.00	329.00	329.00
6	7010-108-G-0	CONCRETE MEDIAN, DOWELED, COLORED, 8" THICKNESS	SY	62.70	62.70	-
7	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING	LS	1.00	0.55	0.45
8	7030-108-A-0	REMOVAL OF SIDEWALK, SHARED USE PATH, OR DRIVEWAY	SY	82.90	82.90	-
9	7030-108-E-0	PCC SIDEWALK, 6"	SY	40.00	40.00	-
10	7030-108-F-0	BRICK/PAVER SIDEWALK WITH PAVEMENT BASE	SY	390.00	195.00	195.00
11	7030-108-G-0	DETECTABLE WARNINGS	SF	20.00	20.00	-
12	7030-108-H-1	PAVED DRIVEWAYS, 6"	SY	34.40	34.40	-
13	7030-108-H-2	GRANULAR SURFACING FOR DRIVEWAYS, 6"	SY	37.20	37.20	-
14	7030-108-H-2-HIA	TEMPORARY GRANULAR SURFACING FOR DRIVEWAYS, 3"	SY	50.00	25.00	25.00
15	7040-108-H-0	PAVEMENT REMOVAL, ROADWAY AND MEDIANS	SY	561.00	290.00	271.00
16	8020-108-B-0	PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE	STA	22.00	17.30	4.70
17	8020-108-G-0	PAINTED SYMBOLS AND LEGENDS	EA	5.00	3.00	2.00
18	8020-108-K-0	PAVEMENT MARKINGS REMOVED	STA	0.30	0.30	-
19	8030-108-A-0	TEMPORARY TRAFFIC CONTROL	LS	1.00	0.55	0.45
20	8030-108-C-0-HIA	ACCESS AGREEMENT WITH CHICAGO, CENTRAL AND PACIFIC RAILROAD	LS	1.00	0.50	0.50
21	CR-8940-108-A-0	SIGN PANELS	SF	151.60	109.00	42.60
22	CR-8940-108-B-0	PERFORATED STEEL TUBE POSTS	LF	118.00	87.00	31.00
23	CR-8940-108-D-0	REMOVAL AND REINSTALLATION OF SIGN	EACH	3.00	3.00	-
24	CR-8940-108-E-0	REMOVAL AND SALVAGE OF SIGN	EACH	10.00	6.00	4.00
25	9020-108-A-0	SOD	SQ	5.49	5.49	-
26	9040-108-F-1	WATTLES - INSTALLATION	LF	60.00	60.00	-
27	9040-108-F-2	WATTLES - REMOVAL	LF	60.00	60.00	-
28	11010-108-A-0	CONSTRUCTION SURVEY	LS	1.00	0.55	0.45
29	11020-108-A-0	MOBILIZATION	LS	1.00	0.55	0.45

NOTE ON CONSTRUCTION ADMINISTRATION:
IT IS INTENDED THAT ALL QUANTITIES AT BLAIRS FERRY ROADWAY SHALL BE DIVIDED EQUALLY AND PAID HALF UNDER DIVISION 1 AND HALF UNDER DIVISION 2 UNLESS SPECIFICALLY NOTED DIFFERENTLY IN THE PLANS OR TABULATIONS.

ABES PROJECT NO: 218033

DRAWN BY: JMS
APPROVED BY: WWB
DATE: 5/6/21

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NO.	REVISION DESCRIPTION	APPROVED	DATE		



HIAWATHA RAIL QUIET ZONE

QUANTITIES AND TABULATIONS

SHEET NO.
C.02
OF
C.06

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ESTIMATE REFERENCE INFORMATION		
Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.		
ITEM NO.	ITEM CODE	ITEM
1-2	2010-108-I-0	SUBBASE, MODIFIED A. SUBBASE SHALL BE INSTALLED 12" THICK BENEATH ALL ROADWAY PAVEMENTS OR CURB. B. SUBBASE SHALL BE PLACED 6" THICK BENEATH ALL SIDEWALKS AND DRIVEWAYS. C. EXTRA DEPTH UNDER THE BLAIRS FERRY MEDIAN PAVERS SHALL BE INCIDENTAL TO THE 12" SUBBASE BID ITEM AND SHALL NOT BE MEASURED SEPARATELY, SEE B SHEETS. D. MODIFIED SUBBASE SHOULD BE EXTENDED 1 FOOT BEYOND PROPOSED PAVEMENT LIMITS WHERE PROPOSED PAVEMENT DOES NOT ABUT EXISTING PAVEMENTS.
3	6010-108-E-0	MANHOLE OR INTAKE ADJUSTMENT, MINOR A. ADJUST TRAFFIC HANDHOLE TO MEET NEW MEDIAN HEIGHT AT BLAIRS FERRY ROAD.
4	7010-108-A-0	PCC PAVEMENT, FULL DEPTH MEDIAN NOSES A. SEE C SHEETS B. USE STANDARD CLASS C CONCRETE. C. INSTALL TO SLAB DEPTH 9" BELOW FORM GRADE, OR TO BOTTOM OF EXISITNG PAVEMENT, WHICHEVER IS DEEPER. D. SEE D AND B SHEETS.
5	7010-108-E-0	CURB AND GUTTER, PER PLAN A. SEE C SHEETS B. INCLUDES FULL DEPTH CURB AND GUTTER PLACEMENT AT BLAIRS FERRY MEDIANS. C. SLOPED NOSES AT BLAIRS FERRY SHALL BE PAID UNDER A SEPARATE BID ITEM. D. SEE B SHEETS. INSTALL 1.5' TOTAL CURB AND GUTTER WIDTH, WITH SLAB DEPTH 9" AND 8" HEIGHT ABOVE FORM GRADE. E. EXTRA WIDTH AS NEEDED AT CORNER OF EXISTING PANELS SHALL BE INCIDENTAL.
6	7010-108-G-0	CONCRETE MEDIAN, DOWELED, COLORED, 8" THICKNESS A. SUBMITTALS, CONSTRUCTION, ACCEPTANCE, MEASUREMENT AND PAYMENT FOR THIS ITEM SHALL ADHERE TO THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015. B. ALL APPLICABLE GENERAL, SUPPLEMENTAL, DEVELOPMENTAL, AND SUPPLEMENTAL SPECIFICATIONS, IN ADDITION TO SPECIAL PROVISIONS ALSO APPLY. SEE DIVISION 24 OF THE STANDARD SPECIFICATIONS. C. UNITS FOR PAY SHALL BE MEASURED IN SQUARE YARDS. D. CONCRETE SHALL UTILIZE COLOR ADMIXTURE (DAVIS COLORS TILE RED 1117) WITH BROOM FINISH, OR APPROVED EQUAL. E. SUBMIT MANUFACTURER DATA SHEET FOR COLOR ADMIXTURE AND SEALANT FOR PRE-APPROVAL BY ENGINEER, ALONG WITH A COLOR SAMPLE OF PROPOSED MATERIAL PRIOR TO INCORPORATION. INCORPORATE ADMIXTURE AND SEALANT PER MANUFACTURER RECOMMENDATIONS. F. INCLUDES COST OF REINFORCING STEEL, POLYMER GROUT, ROUGHENED CONSTRUCTION JOINT, AND COLORED CONCRETE SEAL. G. 2' COLORED CONCRETE STRIP BETWEEN PROPOSED SIDEWALK AND SOUTH CURB OF EMMONS STREET SHALL BE INSTALLED, MEASURED, AND PAID IN COMPLIANCE WITH THIS BID ITEM. H. SEE ADDITIONAL SPECIFICATION REQUIREMENTS IN THE V SHEETS. I. EXTREME CARE SHALL BE TAKEN TO PROTECT THE EXISTING BRIDGE AND DECK IN PLACE. CONTRACTOR SHALL VERIFY FIELD CONDITIONS MATCH THOSE SHOWN IN THE V SHEETS. J. CONTRACTOR SHALL LOCATE EXISTING REBAR STEEL USING NONDESTRUCTIVE GEOPHYSICAL METHODS IN ORDER TO AVOID DRILLING DOWELS THROUGH EXISTING STEEL.
7	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING A. THICKNESS CORES AND PAVEMENT SMOOTHNESS TESTING WILL NOT BE REQUIRED ON THIS PROJECT. B. IN ADDITION TO SUDAS REQUIREMEMENTS, COMPLY WITH IDOT MATERIAL TESTING AND ACCEPTANCE REQUIREMENTS DETAILED IN THE V SHEETS AND PCC MEDIAN, DOWELED BID ITEM.
8	7030-108-A-0	REMOVAL OF SIDEWALK, SHARED USE PATH, OR DRIVEWAY
9	7030-108-E-0	PCC SIDEWALK
10	7030-108-F-0	BRICK/PAVER SIDEWALK WITH PAVEMENT BASE A. ITEM INCLUDES ALL WORK INSIDE CURBS OF LANDSCAPED MEDIAN AT BLAIRS FERRY ROAD. B. SETTING BED SHALL BE SAND. C. PAVERS SHALL BE UNILOCK HOLLANDSTONE, GRANITE COLOR, 4"x8" SIZE. D. PATTERN SHALL BE 90 DEGREE HERRINGBONE. E. SEE B SHEETS FOR TYPICAL SECTION DIMENSIONS AND DETAILS. F. MODIFIED SUBBASE SHALL BE PAID UNDER THE 12" MODIFIED SUBBASE BID ITEM.
11	7030-108-G-0	DETECTABLE WARNINGS
12	7030-108-H-1	PAVED DRIVEWAYS, 6"
13	7030-108-H-2	GRANULAR SURFACING FOR DRIVEWAYS, 6"
14	7030-108-H-2-HIA	TEMPORARY GRANULAR SURFACING FOR DRIVEWAYS A. PRODUCT SHOULD MEET REQUIREMENTS OF IDOT GRADATION NO. 14. B. ITEM INTENDED FOR USE AS REQUIRED TO MAINTAIN TEMPORARY ACCESS TO DRIVEWAYS OR TO PROTECT EXPOSED PAVEMENT EDGES DURING CONSTRUCTION AND INCLUDES FURNISHING, PLACING, AND UTLIMATE REMOVAL OF TEMPORARY SURFACING. C. METHOD OF MEASUREMENT: THE SY YARDS OF MATERIAL PLACED AT THE SPECIFIED DEPTH AND APPROVED BY THE ENGINEER SHALL BE MEASURED FOR PAY. D. BASIS OF PAYMENT: PER SUDAS 7030-108-H-2

ESTIMATE REFERENCE INFORMATION		
Data listed below is for informational purposes only and shall not constitute a basis for any extra work orders.		
ITEM NO.	ITEM CODE	ITEM
15	7040-108-H-0	PAVEMENT REMOVAL, ROADWAY AND MEDIANS
16	8020-108-B-0	PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE
17	8020-108-G-0	PAINTED SYMBOLS AND LEGENDS
18	8020-108-K-0	PAVEMENT MARKINGS REMOVED
19	8030-108-A-0	TEMPORARY TRAFFIC CONTROL A. PORTABLE DYNAMIC AND/OR STATIC MESSAGE BOARD SIGNS ARE INCIDENTAL TO THIS BID ITEM. B. WET REMOVABLE TAPE MARKING LINE AT BLAIRS FERRY BRIDGE IS INCIDENTAL TO THIS BID ITEM.
20	8030-108-C-0-HIA	ACCESS AGREEMENT WITH CHICAGO, CENTRAL AND PACIFIC RAILROAD A. IOWA DEPARTMENT OF TRANSPORTATION DS-15087 SHALL APPLY TO THIS CONTRACT AND BID ITEM. B. INCLUDES: SEE DS-15087. C. BASIS OF PAYMENT: PAYMENT IS FULL COMPENSATION FOR ALL CONTRACTOR REQUIREMENTS NEEDED TO COMPLY WITH DS-15087 INCLUDING INSURANCE, RAILROAD FLAGGERS, ENTRY AGREEMENTS, ETC. D. RAILROAD FLAGGER REIMBURSEMENT, IF REQUIRED, WILL BE PAID AS "EXTRA WORK" UPON COMPLETION OF ALL FLAGGING WORK AND PROOF OF PAYMENT AND INVOICING FROM CCP RAIL.
21	CR-8940-108-A-0	SIGN PANELS A. BOLT HOLES THAT REMAIN FROM EXISTING SURFACE MOUNTS AFTER SIGN RELOCATION SHOULD BE REMOVED FROM CONCRETE, OR CUT FLUSH, AND SEALED WITH EPOXY. B. REFER TO CEDAR RAPIDS SUPPLEMENTAL SPECIFICATIONS FOR ITEM MEASUREMENT AND PAYMENT.
22	CR-8940-108-B-0	PERFORATED STEEL TUBE POSTS A. REFER TO CEDAR RAPIDS SUPPLEMENTAL SPECIFICATIONS FOR ITEM MEASUREMENT AND PAYMENT.
23	CR-8940-108-D-0	REMOVAL AND REINSTALLATION OF SIGN A. REFER TO CEDAR RAPIDS SUPPLEMENTAL SPECIFICATIONS FOR ITEM MEASUREMENT AND PAYMENT.
24	CR-8940-108-E-0	REMOVAL AND SALVAGE OF SIGN A. REFER TO CEDAR RAPIDS SUPPLEMENTAL SPECIFICATIONS FOR ITEM MEASUREMENT AND PAYMENT.
25	9020-108-A-0	SOD A. WATERING REQUIRED BY SPECIFICATION SHALL BE INCIDENTAL.
26	9040-108-F-1	WATTLES - INSTALLATION A. QUANTITY PROVIDED FOR BIDDING PUPOSES ONLY. USE AS REQUIRED.
27	9040-108-F-2	WATTLES - REMOVAL A. QUANTITY PROVIDED FOR BIDDING PUPOSES ONLY. USE AS REQUIRED.
28	11010-108-A-0	CONSTRUCTION SURVEY
29	11020-108-A-0	MOBILIZATION

ABES PROJECT NO: 218033	DRAWN BY: JMS APPROVED BY: WWB				
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HIAWATHA RAIL QUIET ZONE

QUANTITIES AND TABULATIONS

SHEET NO.
C.03
OF
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MANHOLE OR INTAKE ADJUSTMENT, MINOR 6010-108-E-0			
NO.	LOCATION		REMARKS / STRUCTURE TYPE
	STATION	OFFSET	
1	308+67	5.7 R	TRAFFIC MANHOLE

PCC PAVEMENT, FULL DEPTH MEDIAN NOSES 2010-108-F-0, 2010-108-H-0, 2010-108-I-0, 7010-108-A-0								
LOCATION				AREA (SY)	12" MODIFIED SUBBASE(SY) DIVISION 1	AREA (SY) DIVISION 2	12" MODIFIED SUBBASE(SY) DIVISION 2	REMARKS
FROM		TO						
STATION	OFFSET	STATION	OFFSET	DIVISON 1	DIVISION 1	DIVISION 2	DIVISION 2	
200+89.2		200+95.0		2.5	2.5			CENTER PT ROAD MEDIAN NOSE
201+50.4		201+55.2		2.1	2.1			CENTER PT ROAD MEDIAN NOSE
201+87.6		201+93.6		2.7	2.7			CENTER PT ROAD MEDIAN NOSE
202+49.5		202+55.7		2.8	2.8			CENTER PT ROAD MEDIAN NOSE
104+81.8		105+02.9		9.3	9.3			EMMONS STREET EAST MEDIAN NOSE
309+07.9	L	309+15.1	R	3.2	3.2	3.2	3.2	INSIDE OF EASTBOUND RAILROAD APPROACH GATES
309+31.5	L	309+37.8	R	4.1	4.1	4.1	4.1	INSIDE OF WESTBOUND APPROACH RAILROAD GATES
312+02.6		312+12.1		4.9	4.9	4.9	4.9	BLAIRS FERRY EAST MEDIAN NOSE
TOTAL				31.6	31.6	12.2	12.2	SY

CONCRETE MEDIAN, DOWELED, COLORED, 8" 7010-108-G-0					
LOCATION				DIVISION 1 AREA (SY)	REMARKS
TO		FROM		DIVISION 1	
STATION	OFFSET	STATION	OFFSET		
103+09.99	-	104+15.72	-	34.5	Reinforced structural concrete, see V Sheets.
104+36.86	-	104+81.82	-	14.9	Emmons Street and 4th Avenue
104+09.40	19.53	104+61.75	19.52	13.3	Emmons Street to Sidewalk
TOTAL				62.7	SY

CURB AND GUTTER, PER PLAN 7010-108-E-0, 2010-108-I-0								
				CURB AND GUTTER (LF)		12" MODIFIED SUBBASE (SY)		REMARKS
FROM		TO						
STATION	OFFSET	STATION	OFFSET	DIVISION 1	DIVISION 2	DIVISION 1	DIVISION 2	
308+47.04	-	309+11.89	-	64.0	64.0	7.4	7.4	
309+35.57	-	312+02.74	-	265.0	265.0	44.2	44.2	
TOTAL				329.0	329.0	51.6	51.6	

REMOVAL OF SIDEWALK, SHARED USE PATH, OR DRIVEWAY 7030-108-A-0					
LOCATION				AREA (SY)	REMARKS
FROM		TO			
STATION	OFFSET	STATION	OFFSET	DIVISION 1	
103+99.30	21.95	104+80.06	28.75	40.7	SIDEWALK SOUTH OF EMMONS STREET
104+63.94	-17.80	104+95.20	-17.09	42.2	DRIVE NORTH OF EMMONS STREET
TOTAL				82.9	SY

GRANULAR SURFACING FOR DRIVEWAYS, 6" 7030-108-H-2					
LOCATION				AREA (SY)	REMARKS
TO		FROM			
STATION	OFFSET	STATION	OFFSET	ON 1	
104+99.68	-34.68	105+33.80	-43.23	37.2	
TOTAL				37.2	SY

DETECTABLE WARNINGS 7030-108-G-0		
LOCATION		AREA
STATION	OFFSET	SF
104+19.91	19.53	10
104+46.03	19.52	10

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HIAWATHA RAIL QUIET ZONE

QUANTITIES AND TABULATIONS

SHEET NO.
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
PCC SIDEWALK, 6" 7030-108-E-0,2010-108-I-0					
LOCATION				6" MODIFIED SUBBASE	PCC AREA (SY)
TO		FROM		DIVISION 1	DIVISION 1
STATION	OFFSET	STATION	OFFSET		
103+99.30	21.95	104+80.06	28.75	47.0	40.0
MODIFIED QUANTITY INCLUDES 1' EXTENSION EITHER SIDE OF SIDEWALK					
TOTAL				47.0	40.0
					SY

BRICK/PAVER SIDEWALK WITH PAVEMENT BASE (DECORATIVE PAVER MEDIAN AT BLAIRS FERRY) 7030-108-F-0							
LOCATION						12" MODIFIED SUBBASE (SY)	12" MODIFIED SUBBASE (SY)
FROM		TO		AREA (SY)	AREA (SY)		
STATION	OFFSET	STATION	OFFSET	DIVISION 1	DIVISION 2	DIVISION 1	DIVISION 2
308+48.54	-	309+09.71	-	43.4	43.4	43.4	43.4
309+36.55	-	312+02.62	-	151.4	151.4	151.4	151.4
TOTAL				195.0	195.0	195.0	195.0
							SY

PAVED DRIVEWAYS, 6" 7030-108-H-1					
LOCATION				6" MODIFIED	PCC AREA (SY)
TO		FROM		DIVISION 1	DIVIOSN 1
STATION	OFFSET	STATION	OFFSET		
104+99.58	-24.68	105+30.64	-33.80	43.9	34.4
MODIFIED AREA INCLUDES 1' EXTENTION AREA ON ALL FREE EDGES					
TOTAL				43.9	34.4
					SY

PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE 8020-108-B-0														
BCY4 - BROKEN CENTERLINE (YELLOW) 4" DCY4 - DOUBLE CENTERLINE (YELLOW) 4" NBCY4 - NO PASSING CENTERLINE (YELLOW) 4"			BLW4 - BROKEN LANE LINE (WHITE) 4" SLW4 - SOLID LANE LINE (WHITE) 4" DLW4 - DOTTED LANE LINE (WHITE) 4"			MNY4 - MEDIAN NOSE (YELLOW) 4" STY8 - STANDARD CURB 8" (YELLOW) CHY8 - CHANNELIZING LINE, 8" (YELLOW)			BLDW8 - BROKEN LANE DROP LINE (WHITE) 8" SLDW8 - SOLID LANE DROP LINE (WHITE) 8" CLW8 - CHANNELIZING LINE (WHITE) 8"			CLY12 - CHANNELIZING LINE (YELLOW) 12" SLW2 - SOLID STOP LINE (WHITE) 24" SYLW36 - SOLID YIELD LINE (WHITE) 36"		
LOCATION														
FROM		TO		BCY4 (LF)	DCY4 (LF)	BLW4 (LF)	MNY4 (LF)	STY8 (LF)	CHY8 (LF)	BLDW8 (LF)	SLDW8 (LF)	CLW8 (LF)	CLY12 (LF)	SLW2 (LF)
STATION	OFFSET	STATION	OFFSET											
100+79.5	-	103+11	-		230.6									1
MEDIAN NOSES - CENTER POINT ROAD							29.6							1
MEDIAN NOSES - EMMONS STREET							35.7							1
MEDAIN NOSE - BLAIRS FERRY ROAD							64.3							1
MEDAIN NOSE - BLAIRS FERRY ROAD							64.3							2
104+03.50	1.40	104+03.30	16.40											14.8
104+45.60	-1.40	104+45.60	-16.40											15.5
104+81.70	0.00	104+97.90	0.00					32.0						1
105+27.70	32.60	105+45.30	32.90											17.8
105+18.00	30.90	105+40.00	63.00						85.9					1
105+18.00	63.00	105+40.00	179.90		69.8									1
308+48.40	4.54	308+55.27	4.54				19.8							1
309+00.00	14.20	309+00.10	38.40											1
308+47.80	-1.70	308+49.10	-49.60											65.8
309+14.50	142.30	309+31.00	148.30											65.8
309+47.70	-37.80	309+48.70	-1.60											1
309+48.00	-12.30	310+78.00	-9.70			65.0								1
309+48.00	-12.30	310+78.00	-9.70			65.0								2
QUANTITY FACTOR				0.4	2.0	0.25	1.0	3.5	2.0	0.4	1.0	1.0	1.0	6.0
DIV 1 TOTAL				0.0	6.0	0.2	1.5	1.1	1.7	0.0	0.0	0.0	0.0	6.8
DIV 2 TOTAL				0.0	0.0	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	3.9
														17.3
														4.7
														STA

PAVEMENT REMOVAL, ROADWAY AND MEDIANS 7040-108-H-0					
LOCATION				AREA (SY)	
TO		FROM		DIVISION 1	DIVISION 2
STATION	OFFSET	STATION	OFFSET		
200+89.25	-	200+95.04	-	2.5	
201+50.39	-	201+55.20	-	2.1	
201+87.57	-	201+93.62	-	2.7	
202+49.46	-	202+55.05	-	2.5	
104+82.10	-	105+02.88	-	9.1	
308+47.03	-	309+15.10	-	60.5	60.5
309+31.57	-	312+12.23	-	210.1	210.1
TOTAL				290.0	271.0
					SY

PAINTED SYMBOLS AND LEGENDS 8020-108-G-0				
LOCATION				
STATION	OFFSET	RRCW	DIVISION	REMARKS
101+12.34	8.63	1	1	
305+40.20	25.02	1	1	
305+40.20	37.73	1	1	
313+05.90	-20.27	1	2	
313+05.90	-7.71	1	2	
TOTAL		5		EACH

PAVEMENT MARKINGS REMOVED 8020-108-K-0					
LOCATION				LENGTH (FT)	
TO		FROM		DIVISION 1	REMARKS
STATION	OFFSET	STATION	OFFSET		
104+10.39	1.50	104+10.1	16.30	15	EXISTING STOP BAR
104+42.48	-17.20	104+42.2	-1.50	15	EXISTING STOP BAR
TOTAL				0.3	STA

SOD 9020-108-A-0					
LOCATION				AREA (SF)	AREA (SQUARE)
TO		FROM		DIVISION 1	DIVISION 1
STATION	OFFSET	STATION	OFFSET		
104+61.73	16.95	104+80.06	23.75	95	0.95
104+63.94	-17.88	105+33.66	-35.13	454	4.54
TOTAL				549	5.49
					SQ

RAILROAD GATE PEDESTALS	
APPROXIMATE LOCATION	
NORTHING	EASTING
3482481.63	5416551.06
3482531.35	5416575.28

ABES PROJECT NO: 218033

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HIAWATHA RAIL QUIET ZONE

QUANTITIES AND TABULATIONS

SHEET NO.
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SIGN AND POSTS															
CR-8940-108-A-0, CR-8940-108-B-0, CR-8940-108-C-0, CR-8940-108-D-0, CR-8940-108-E-0															
LOCATION		BASELINE	MUTCD CODE / ID	SIGN MESSAGE	SIGN PANELS CR-8940-108-A-0 (SF)				SIGN POSTS CR-8940-108-B-0 (APPROXIMATE LF)		SURFACE MOUNT	REMOVAL AND REINSTALLATION OF SIGN CR-8940-108-D-0 DIVISION 1	REMOVAL AND SALVAGE OF SIGN CR-8940-108-E-0 DIVISION 1	REMOVAL AND SALVAGE OF SIGN CR-8940-108-E-0 DIVISION 2	REMARKS
STATION	OFFSET				WIDTH	HEIGHT	DIV 1 AREA	DIV 2 AREA	DIV 1	DIV 2					
200+29	-42.20	CENTER POINT	W10-9P	NO TRAIN HORN (PEDESTRIAN SCALE)	18	12	1.5								INSTALL BELOW EXISTING W10-1
200+32	29.54		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW EXISTING W10-1
200+96	-0.07		R4-7C	KEEP RIGHT					9		1	1			REINSTALL KEEP RIGHT SIGN
200+93	0.06		OM1-2	OBJECT MARKER	18	18	2.3								INSTALL BELOW R4-7C
201+45	-85.51		W10-9P	NO TRAIN HORN (PEDESTRIAN SCALE)	18	12	1.5								INSTALL BELOW EXISTING W10-1
202+30	81.58		W10-1	RAILROAD CROSSING (PEDESTRIAN SCALE)	24	-	3.1		9						
202+30	81.11		W10-9P	NO TRAIN HORN (PEDESTRIAN SCALE)	18	12	1.5						6		INSTALL BELOW W10-1
202+49	0.00		R4-7C	(KEEP RIGHT) SYMBOL	24	30	5.0		8		1	1			
202+52	0.12		OM1-2	OBJECT MARKER	18	18	2.3								INSTALL BELOW R4-7C
202+76	33.55		W10-1	RAILROAD CROSSING (PEDESTRIAN SCALE)	24	-	3.1		9						
202+76	33.55		W10-9P	NO TRAIN HORN (PEDESTRIAN SCALE)	18	12	1.5								INSTALL BELOW W10-1
202+96	-31.84		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW EXISTING W10-1
101+20	26.52	EMMONS STREET	W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW EXISTING W10-1
103+15	0.21		R4-7C	(KEEP RIGHT) SYMBOL	24	30	5.0		8		1				
103+15	0.21		OM1-2	OBJECT MARKER	18	18	2.3								INSTALL BELOW EXISTING R4-7C
104+94	0.90		R4-7C	(KEEP RIGHT) SYMBOL	24	30	5.0		8		1				
104+94	0.90		OM1-2	OBJECT MARKER	18	18	2.3								INSTALL BELOW EXISTING R4-7C
105+53	78.48		W10-1	RAILROAD CROSSING	36	-	7.1		10						
105+53	78.48		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW W10-1
			W7-2	NO PARKING								1			REINSTALL BELOW W10-1, W10-9P
			W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW EXISTING W10-1 ON WESTBOUND APPROACH TO CROSSING
305+11	52.12	BLAIRS FERRY ROAD	W10-1	RAILROAD CROSSING	36	-	7.1		9				1		SALVAGE EXISTING SIGN TO CITY OF CR
305+11	52.12		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW W10-1
308+15	47.77		W10-1	RAILROAD CROSSING	36	-	7.1		9				1		SALVAGE EXISTING SIGN TO HIAWATHA
308+15	47.77		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW W10-1
308+53	4.99		W10-1	RAILROAD CROSSING	36	-		7.1		12	1		1		SALVAGE EXISTING SIGN TO CITY OF HIAWATHA
308+53	4.99		W10-9P	NO TRAIN HORN	30	24		5.0							
308+53	4.99		R6-1L	ONE WAY ARROW LEFT	54	18		6.8					1		SALVAGE EXISTING SIGN TO CITY OF HIAWATHA
308+53	4.99		R6-1R	ONE WAY ARROW RIGHT	54	18		6.8					1		SALVAGE EXISTING SIGN TO CITY OF HIAWATHA
308+53	4.99		OM1-2	OBJECT MARKER	18	18	2.3								
309+35	211.58		W10-1	RAILROAD CROSSING	36	-	7.1							1	SALVAGE EXISTING SIGN TO CITY OF CEDAR RAPIDS
309+35	211.58		W10-9P	NO TRAIN HORN	30	24	5.0								INSTALL BELOW W10-1
309+41	4.42		R8-8	DO NO STOP ON TRACKS	24	30		5.0		9	1				
310+01	4.73			OBJECT MARKER										1	SALVAGE EXISTING SIGN TO CEDAR RAPIDS
312+03	6.59		OM1-2	OBJECT MARKER	18	18	2.3		8		1			1	SALVAGE EXISTING SIGN TO CEDAR RAPIDS
313+06	-28.32		W10-1	RAILROAD CROSSING	36	-		7.1		10			1		SALVAGE EXISTING SIGN TO HIAWATHA
313+06	-28.32	W10-9P	NO TRAIN HORN	30	24		5.0							INSTALL BELOW W10-1	
TOTAL							109	43	87	31	7	3	6	4	

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DATE

Hiawatha!

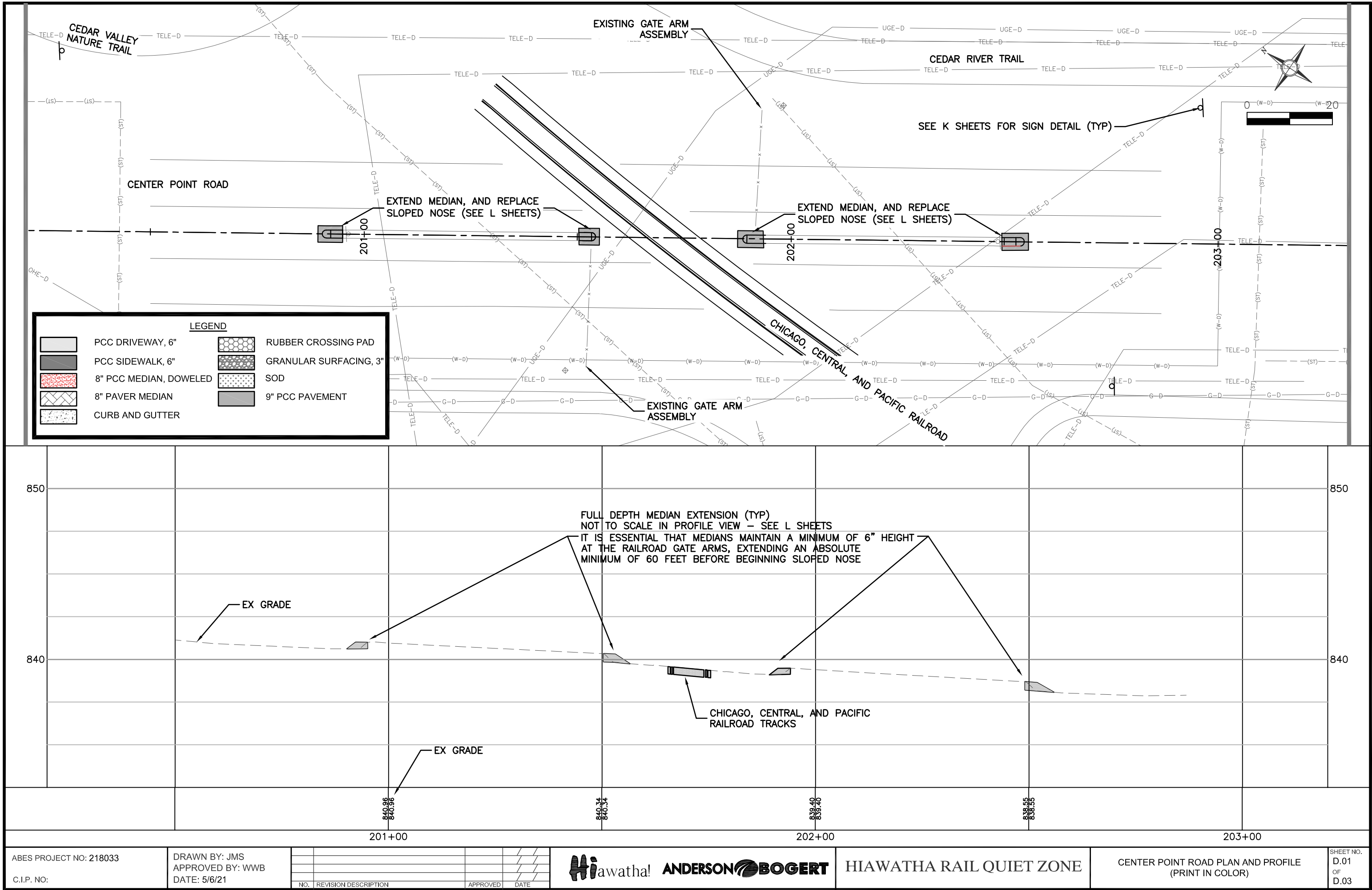
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HIAWATHA RAIL QUIET ZONE

QUANTITIES AND TABULATIONS

SHEET NO.
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PCC DRIVEWAY, 6"

PCC SIDEWALK, 6"

8" PCC MEDIAN, DOWELED

8" PAVER MEDIAN

CURB AND GUTTER

LEGEND

RUBBER CROSSING PAD

GRANULAR SURFACING, 3"

SOD

9" PCC PAVEMENT

Plan view of Emmons Street showing proposed improvements. The street runs horizontally, with railroad tracks (Chicago, Central, and Pacific) crossing it diagonally. Key features include: 8" PCC Doweled Median, Colored (SEE V SHEETS); Full 8" Curb Height to Face of Curb; Proposed Gate Arm Assembly (by Railroad); Rubber Crossing Pad (by Railroad); 6" PCC Sidewalk; 8" PCC Doweled Median, Colored; Full Depth PCC Median, Noncolored; Sloped Nose Must Not Be Within 60' of Proposed Railroad Gate Arm; Full Height 60'; 6" PCC Driveway; Gravel Driveway; Proposed Sodding Area; Proposed Gate Arm Assembly (by Railroad); DO NOT INSTALL ANY IMPROVEMENTS WITHIN 10' OF TRACK CENTERLINE; NO MEDIAN NOSE; FULL 8" CURB HEIGHT TO FACE OF CURB; EXISTING BRIDGE EXPANSION JOINT; PROTECT; SEE K SHEETS FOR SIGN DETAIL (TYP); 1-380; ATH AVENUE; TELE-D; ROW; APPROXIMATE ROW; N; 0 20.

Profile view of Emmons Street showing elevation (820 to 830 feet) and median height requirements. Key features include: 8" MEDIAN (TYP); NOT TO SCALE IN PROFILE VIEW - SEE L SHEETS; FULL 8" HEIGHT ESSENTIAL AT RAIL GATE ARM, TO A MINIMUM OF 60' FROM THE GATE ON THE EAST APPROACH, AND 100' FROM THE WEST APPROACH; FULL 8" HEIGHT REQUIRED WITHIN 100' OF RAILROAD GATE ARM; FULL 8" HEIGHT REQUIRED WITHIN 60' FROM RAILROAD GATE ARM; EX GRADE; EX GRADE ON CENTERLINE; DO NOT DISTURB EX EXPANSION JOINT; CHICAGO, CENTRAL, AND PACIFIC RAILROAD TRACKS; 103+00; 104+00; 105+00; 822.94; 822.65; 822.32; 822.55; 824.21; 826.44.

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APPROVED BY: WWB
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NO.	REVISION DESCRIPTION	APPROVED	DATE

Hiawatha! ANDERSON BOGERT

HIAWATHA RAIL QUIET ZONE

EMMONS STREET PLAN AND PROFILE
(PRINT IN COLOR)

SHEET NO.
D.02
OF
D.03

JMS3541: \\ACAD\\218033\\Sheets\\8033_D.dwg 5-06-21 02:09:46 PM

PCC DRIVEWAY, 6"

PCC SIDEWALK, 6"

8" PCC MEDIAN, DOWELED

8" PAVER MEDIAN, (PAVER SIDEWALK WITH PAVEMENT ITEM)

1.5' CURB AND GUTTER, 9" DEPTH

LEGEND

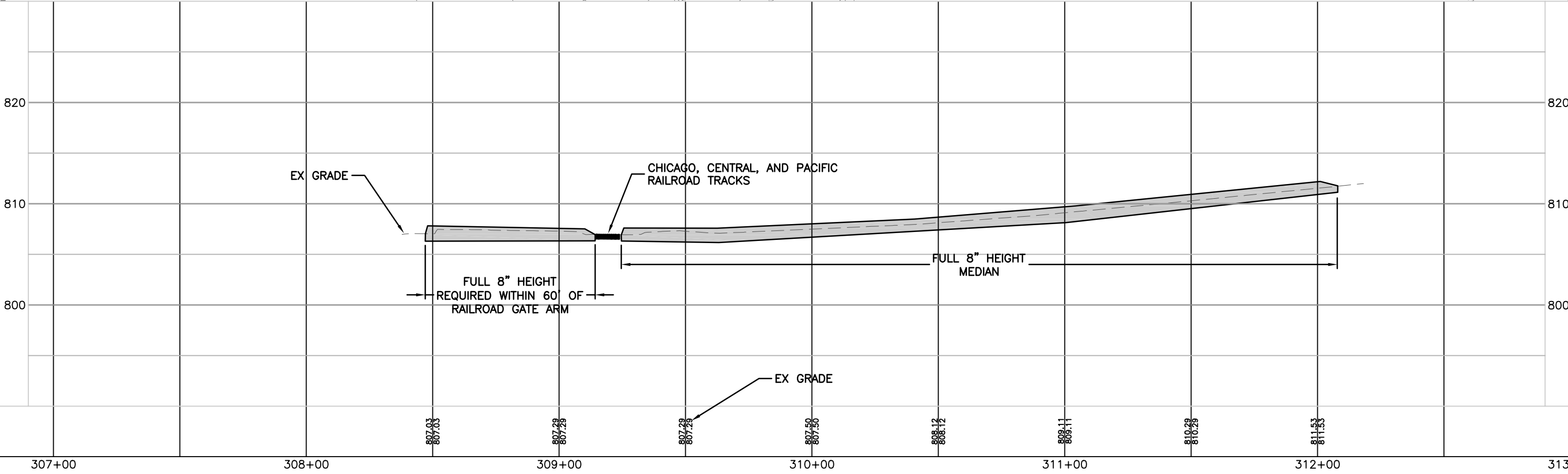
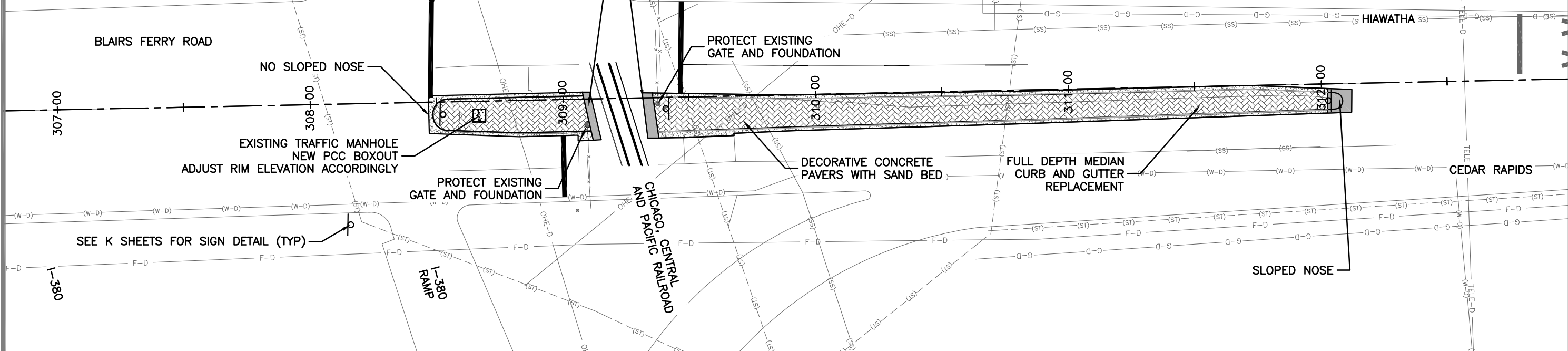
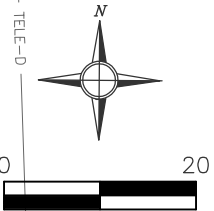
RUBBER CROSSING PAD, BY RAILROAD

GRANULAR SURFACING, DRIVEWAYS, 3"

SOD

9" PCC PAVEMENT MEDIAN NOSES

SLOPED NOSE
INSIDE OF GATE ARMS
MAINTAIN FULL HEIGHT THROUGH GATE
ARM AT CURB FACE



ABES PROJECT NO: 218033
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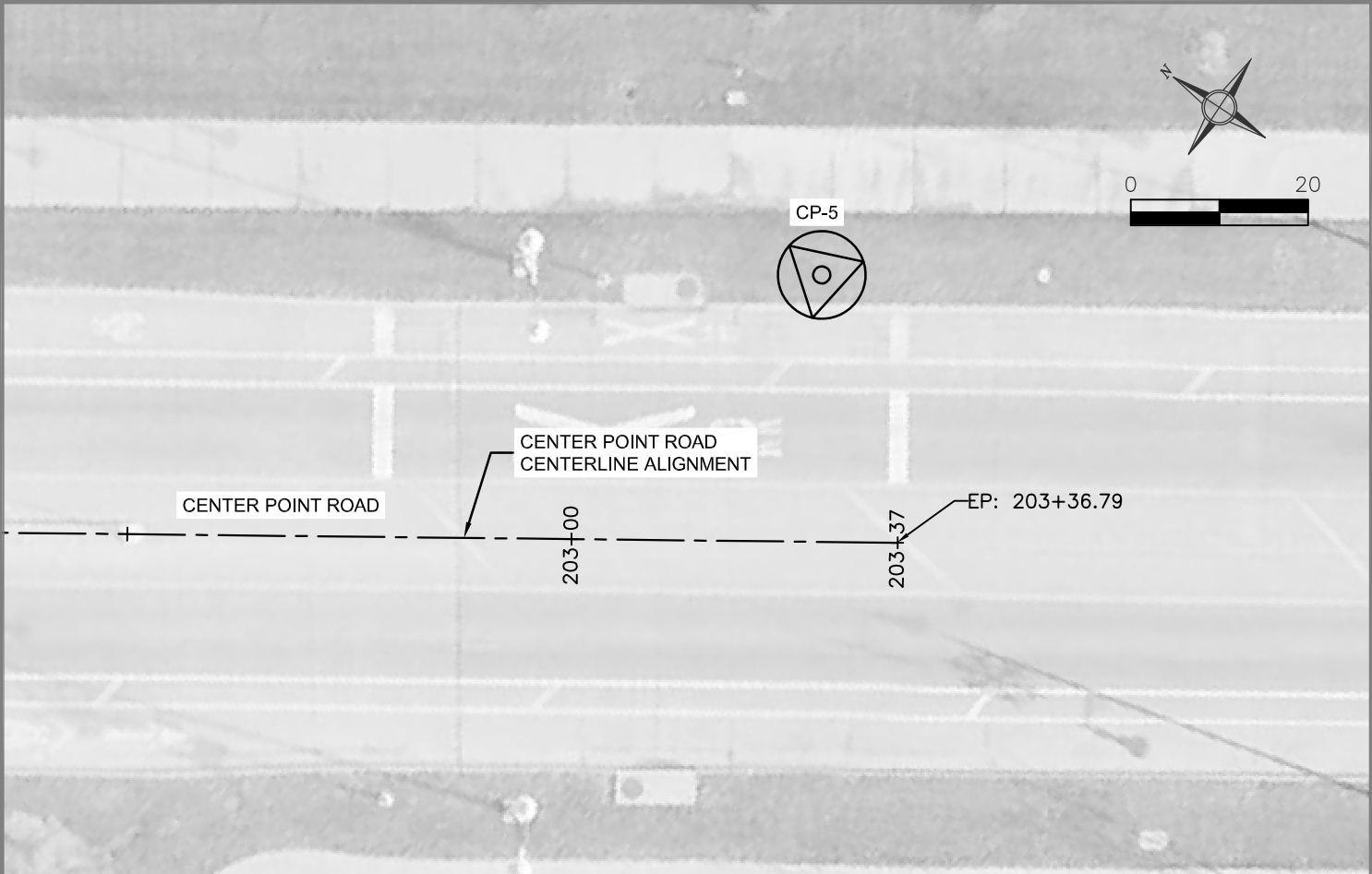
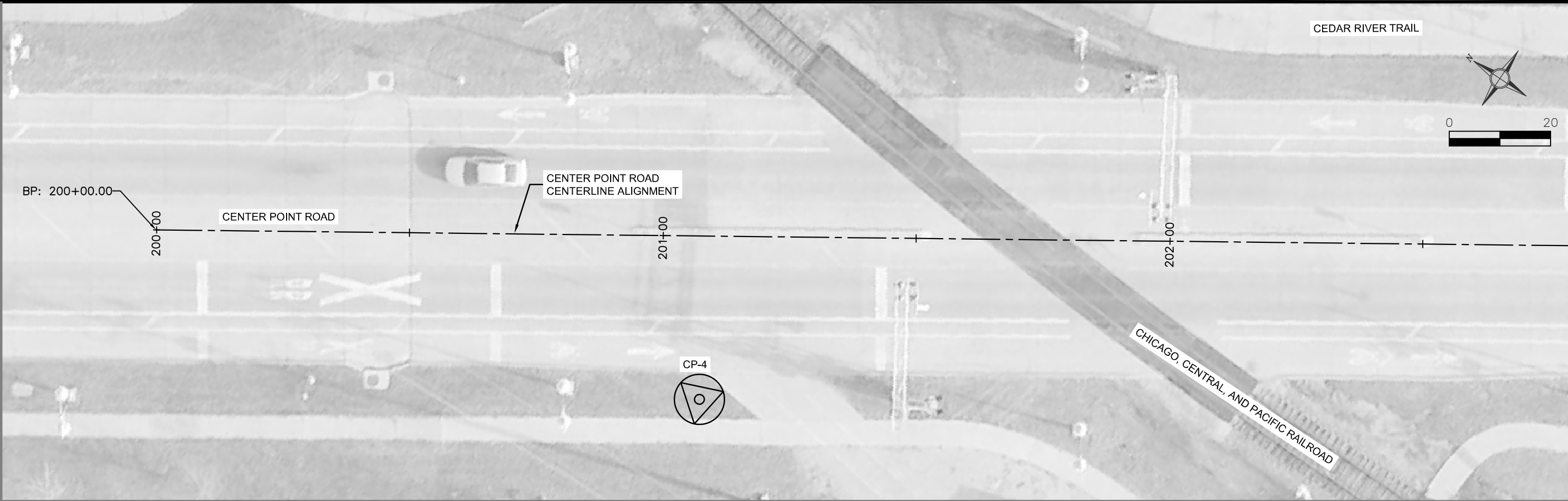


HIAWATHA RAIL QUIET ZONE

BLAIRS FERRY ROAD PLAN AND PROFILE
(PRINT IN COLOR)

SHEET NO.
D.03
OF
D.03

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CENTER POINT ROAD ALIGNMENT DATA			
POINT	STATION	NORTHING	EASTING
BP	200+00.00	3484101.367	5416021.890
EP	203+36.79	3483848.519	5416244.372

SURVEY CONTROL DATA							
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET	BASELINE
CP-2	3482541.296	5416587.546	823.53	5/8" REBAR	104+51.43	-31.52	EMMONS ST
CP-3	3482494.676	5416761.969	829.70	5/8" REBAR	106+25.02	18.17	EMMONS ST
CP-4	3483999.286	5416068.769	840.54	5/8" REBAR	201+07.61	32.24	CENTER POINT RD
CP-5	3483875.012	5416261.164	837.93	5/8" REBAR	203+28.00	-30.11	CENTER POINT RD
CP-6	3481024.935	5416972.168	807.20	5/8" REBAR	308+73.60	43.38	BLAIRS FERRY RD
CP-7	3480989.918	5417313.803	809.48	MAG NAIL	312+14.45	85.36	BLAIRS FERRY RD

ABES PROJECT NO: 218033

DRAWN BY: JMS
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NO.	REVISION DESCRIPTION	APPROVED	DATE

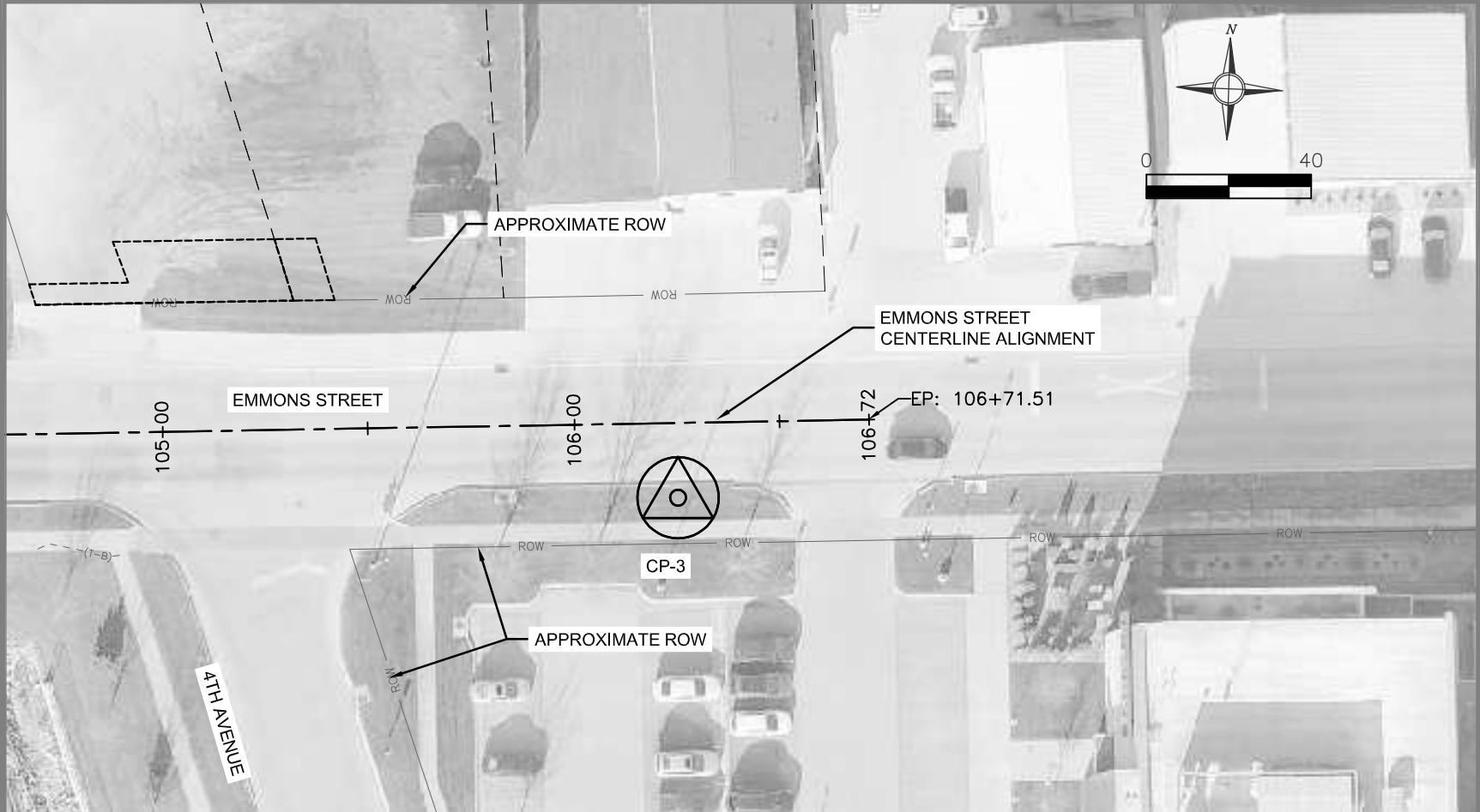
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HIAWATHA RAIL QUIET ZONE

ALIGNMENT AND SURVEY INFORMATION

SHEET NO.
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OF
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EMMONS STREET ALIGNMENT DATA			
POINT	STATION	NORTHING	EASTING
BP	100+00.00	3482501.913	5416136.732
EP	106+71.51	3482513.620	5416808.141

SURVEY CONTROL DATA							
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET	BASELINE
CP-2	3482541.296	5416587.546	823.53	5/8" REBAR	104+51.43	-31.52	EMMONS ST
CP-3	3482494.676	5416761.969	829.70	5/8" REBAR	106+25.02	18.17	EMMONS ST
CP-4	3483999.286	5416068.769	840.54	5/8" REBAR	201+07.61	32.24	CENTER POINT RD
CP-5	3483875.012	5416261.164	837.93	5/8" REBAR	203+28.00	-30.11	CENTER POINT RD
CP-6	3481024.935	5416972.168	807.20	5/8" REBAR	308+73.60	43.38	BLAIRS FERRY RD
CP-7	3480989.918	5417313.803	809.48	MAG NAIL	312+14.45	85.36	BLAIRS FERRY RD

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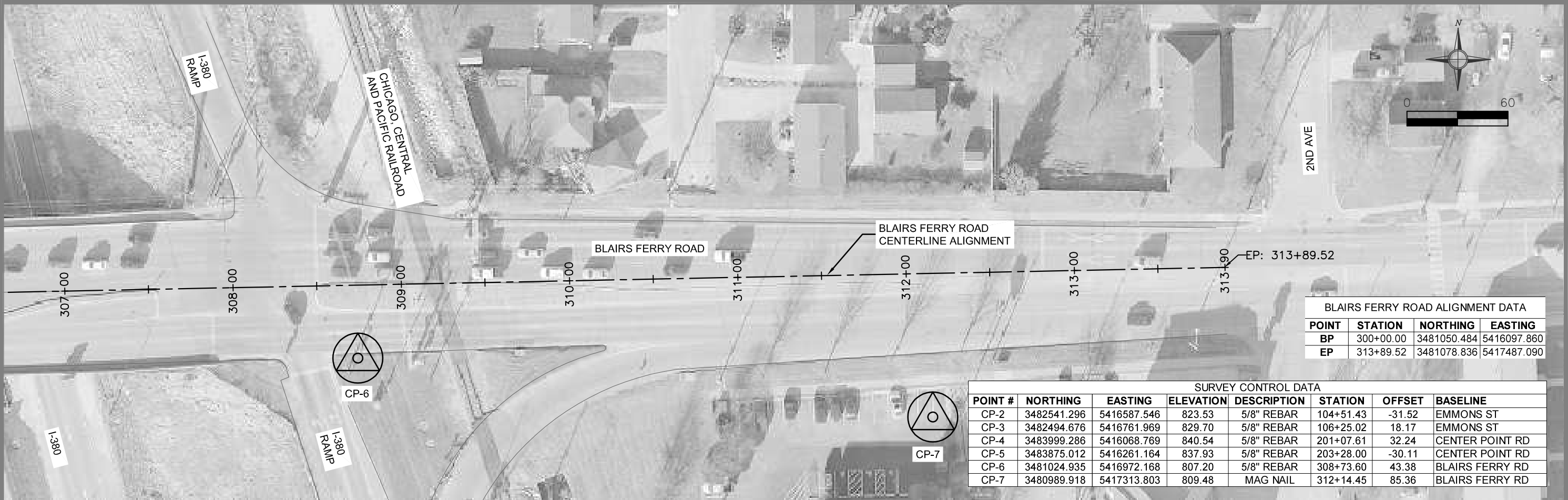
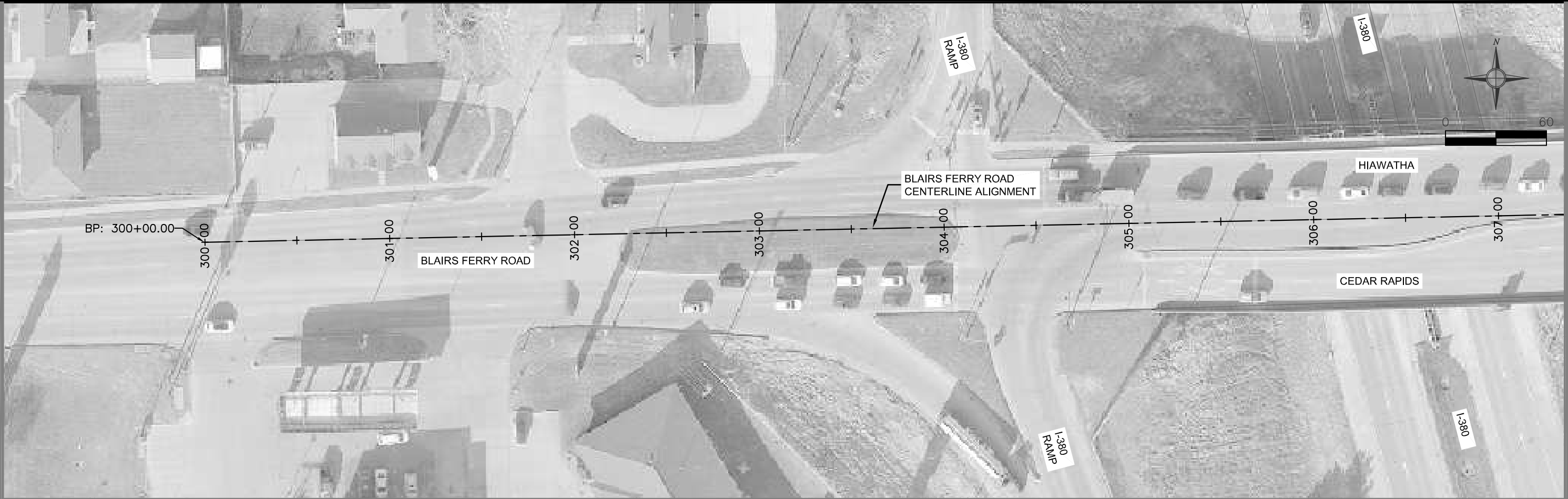
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HIAWATHA RAIL QUIET ZONE

ALIGNMENT AND SURVEY INFORMATION

SHEET NO.
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OF
G.03

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BLAIRS FERRY ROAD ALIGNMENT DATA			
POINT	STATION	NORTHING	EASTING
BP	300+00.00	3481050.484	5416097.860
EP	313+89.52	3481078.836	5417487.090

SURVEY CONTROL DATA							
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	OFFSET	BASELINE
CP-2	3482541.296	5416587.546	823.53	5/8" REBAR	104+51.43	-31.52	EMMONS ST
CP-3	3482494.676	5416761.969	829.70	5/8" REBAR	106+25.02	18.17	EMMONS ST
CP-4	3483999.286	5416068.769	840.54	5/8" REBAR	201+07.61	32.24	CENTER POINT RD
CP-5	3483875.012	5416261.164	837.93	5/8" REBAR	203+28.00	-30.11	CENTER POINT RD
CP-6	3481024.935	5416972.168	807.20	5/8" REBAR	308+73.60	43.38	BLAIRS FERRY RD
CP-7	3480989.918	5417313.803	809.48	MAG NAIL	312+14.45	85.36	BLAIRS FERRY RD

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HIAWATHA RAIL QUIET ZONE

ALIGNMENT AND SURVEY INFORMATION

SHEET NO.
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TRAFFIC CONTROL NOTES:

- 1. MAJOR STAGES OF CONSTRUCTION ARE SHOWN IN THE STAGING AND TRAFFIC CONTROL PLAN. CHANGES TO THE STAGING PLAN MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR ALL STAGES OF WORK. WRITTEN NOTICE SHALL BE PROVIDED TO THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ROADWAY CLOSURES AND STAGE TRANSITIONS.
- 2. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH SUDAS SECTION 8030 - TEMPORARY TRAFFIC CONTROL AND THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. WHERE CONFLICTS EXIST, THE MORE STRINGENT DETAIL SHALL GOVERN.
- 3. ALL PERMANENT PAVEMENT MARKINGS AND SIGNING SHALL BE INSTALLED PRIOR TO OPENING ROADWAYS TO TRAFFIC, UNLESS OTHERWISE NOTED.
- 4. REMOVAL OF EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL FEATURES OR NEW PAVEMENT MARKINGS SHALL BE BY A METHOD APPROVED BY THE ENGINEER.
- 5. PLACE PORTABLE **DYNAMIC MESSAGE SIGNS** OR **STATIC MESSAGE SIGNS** AND ADVANCED WARNING SIGNS AT LOCATIONS NOTED A MINIMUM OF FIVE (5) DAYS IN ADVANCE OF COMMENCEMENT OF WORK, OR WHEN A CLOSURE RESTRICTION IS SPECIFIED, TWO (2) CALENDAR WEEKS IN ADVANCE.
- 6. CONTRACTOR RESPONSIBLE FOR COMPLYING WITH DEVELOPMENTAL SPECIFICATIONS WITH CN RAIL REGARDING CONTRACTOR INSURANCE, RIGHT OF ENTRY, SUBMITTALS, AND RAILROAD FLAGGERS/NOTIFICATIONS

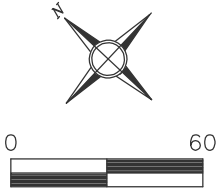
GENERAL STAGING NOTES:

- 1. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES AS REQUIRED WITH CHICAGO, CENTRAL, AND PACIFIC RAILWAY WORK
- 2. STAGE 1 - ALL CENTER POINT ROAD IMPROVEMENTS. THIS INCLUDES EXISTING MEDIAN NOSE REMOVAL, REPLACEMENT, AND SIGN INSTALLATION.
- 3. STAGE 2 - ALL EMMONS STREET IMPROVEMENTS. THIS INCLUDES DOWELED MEDIANS, SIDEWALK, DRIVEWAY, AND PAVEMENT MARKING WORK.
- 3.1. RAILROAD EQUIPMENT INSTALLATION (BY OTHERS). INSTALLATION WINDOW TBD.XXXXXXXXXXXXXXXXXXXXXXXXXX
- 4. STAGE 3 - ALL BLAIRS FERRY WORK. THIS INCLUDES MEDIAN RECONSTRUCTION AND SIGNAGE.
- 5. STAGES 1 AND 3 MAY BE COMPLETED SIMULTANEOUSLY, BUT 2 AND 3 SHOULD NOT OCCUR AT THE SAME TIME.

STAGE 1 NOTES:

- 1. PLACE TEMPORARY DEVICES AS SHOWN. SPACING SHOULD NOT EXCEED 35' IN DIRECTION OF TRAVEL
- 2. THE CENTER LANE IS CURRENTLY HATCHED OUT AND NOT IN USE AS A TRAVEL LANE. CONTRACTOR MAY STORE EQUIPMENT IN PROVIDED BUFFER ZONES DURING NON-WORKING HOURS WHEN CONTRACTOR IS NOT ON SITE.
- 3. MAINTAIN A MINIMUM OF 11' CLEAR WIDTH FOR THRU TRAFFIC, AND MAINTAIN 6' CLEAR SPACE FROM BARREL TO CURB FACE FOR BIKE LANE. ENSURE BARRELS SEPARATE THRU LANE FROM BIKE LANES TO KEEP THRU TRAFFIC FROM ENTERING THE BIKE LANE.
- 4. COMPLETE ALL ASSOCIATED MEDIAN WORK AND PROPOSED SIGNAGE.

STAGE 1



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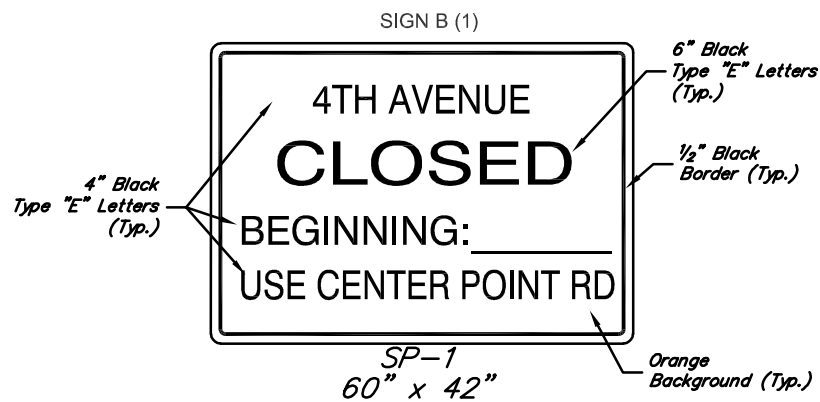
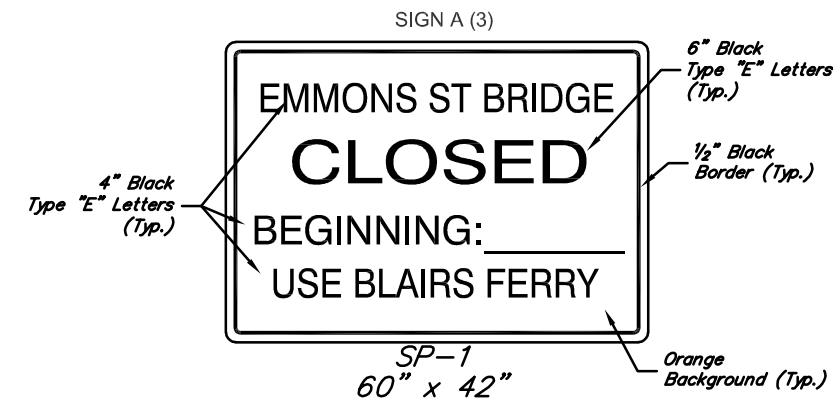
HIAWATHA RAIL QUIET ZONE

PROJECT STAGING
AND TRAFFIC CONTROL

SHEET NO.
J.01
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J.07

STAGE 2

EMMONS BRIDGE ADVANCED
WARNING SIGNAGE



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Hiawatha!

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HIAWATHA RAIL QUIET ZONE

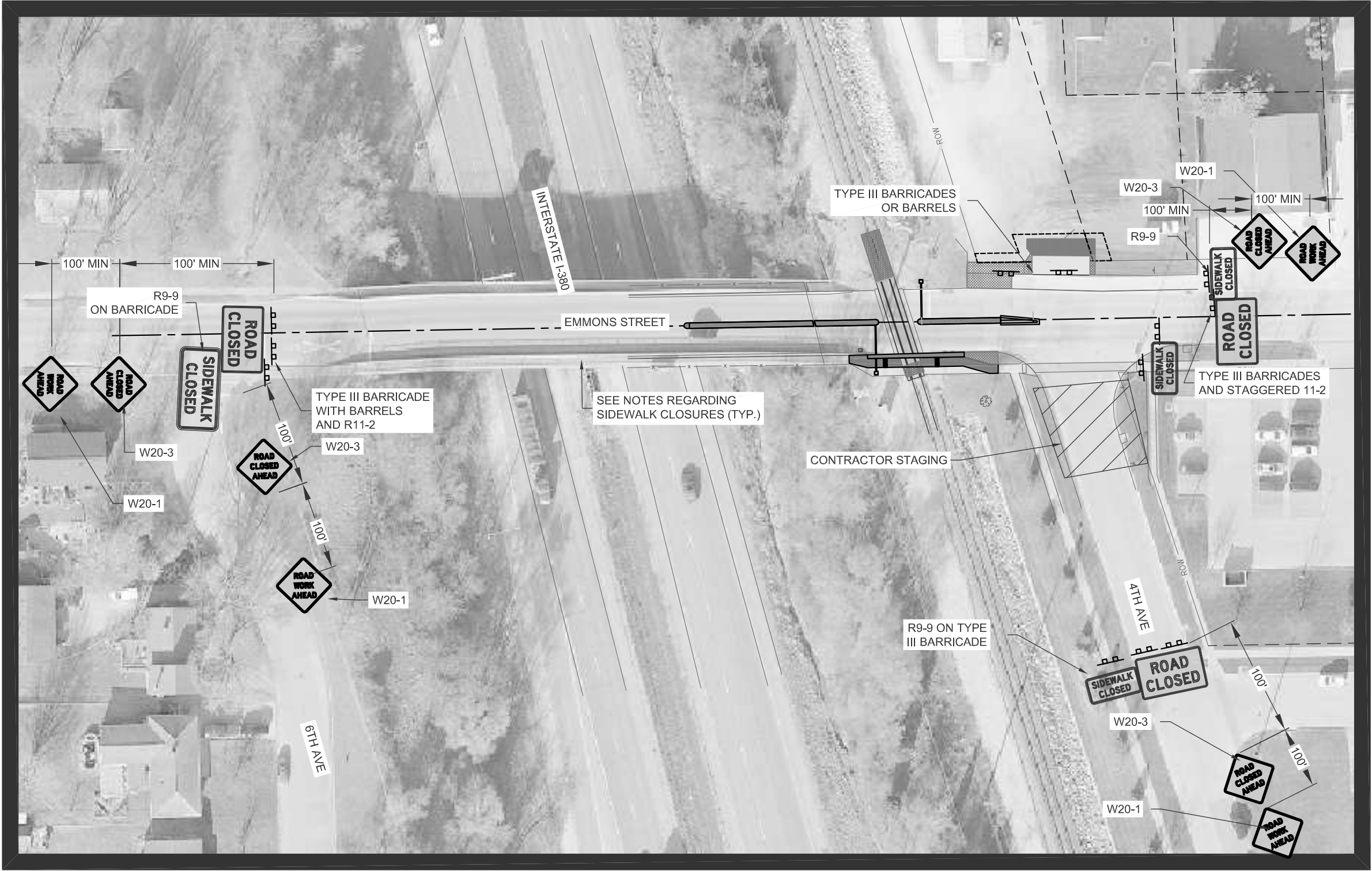
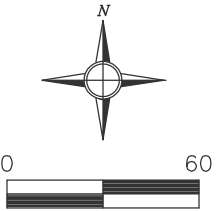
PROJECT STAGING
AND TRAFFIC CONTROL

SHEET NO.
J.02
OF
J.07

- STAGE 2 NOTES:
1. SEE C SHEETS AND CONTRACT DOCUMENTS FOR ALLOWABLE ROADWAY ENCROACHMENT/CLOSURE DAYS FOR STAGE 02.
 2. PLACE ADVANCED WARNING SIGNS AND DETOUR SIGNAGE.
 3. PLACE TEMPORARY DEVICES AS SHOWN. SPACING SHOULD NOT EXCEED 25' IN DIRECTION OF TRAVEL. COMPLETE DRIVEWAY RELOCATION PRIOR TO MEDIAN WORK AND EMMONS BRIDGE CLOSURE.
 4. EMMONS STREET SHALL BE CLOSED TO TRAFFIC WHILE CONTRACTOR IS WORKING.
 5. SIDEWALK ON SOUTH SIDE OF EMMONS ACROSS THE BRIDGE SHOULD REMAIN OPEN WHEN NO WORK IS OCCURRING ON IT. DURING SIDEWALK RELOCATION OR WHEN ANY PORTION OF STAGE 2A RAILROAD WORK IS OCCURRING, SIDEWALK SHALL BE CLOSED AS SHOWN. CONTRACTOR SHOULD NOT STORE EQUIPMENT ON EMMONS STREET WHILE ROADWAY IS OPEN TO TRAFFIC.
 6. CONTRACTOR MAY CLOSE THE PORTION OF 4TH AVENUE BETWEEN W CLARK STREET AND EMMONS STREET FOR THE DURATION OF WORK FOR EQUIPMENT AND MATERIAL STORAGE DURING CONSTRUCTION ON EMMONS STREET. SAFETY CLOSURES ARE INCIDENTAL TO TRAFFIC CONTROL.
 7. CONTRACTOR SHALL COMPLY WITH SUDAS DETAIL 8030.117 WHEN CLOSING OF SIDEWALKS IS REQUIRED TO COMPLETE WORK.
 8. COMPLETE ALL MEDIAN, DRIVEWAY, SIDEWALK, PAVEMENT MARKINGS, AND SIGNAGE IMPROVEMENTS.
 9. STAGE 2 MAY BE COMPLETED CONCURRENTLY WITH STAGE 2A. CONTRACTOR SHOULD COORDINATE CONSTRUCTION AS REQUIRED WITH RAILROAD EQUIPMENT IMPROVEMENTS WHICH MAY BE OCCURRING SIMULTANEOUSLY WITH MEDIAN IMPROVEMENTS.
 10. CONTRACTOR SHALL NOTIFY RAILROAD AS REQUIRED IN ADVANCE OF WORK IN ORDER TO SCHEDULE RAILROAD FLAGGERS AS NECESSARY.

STAGE 2

ROAD CLOSURE



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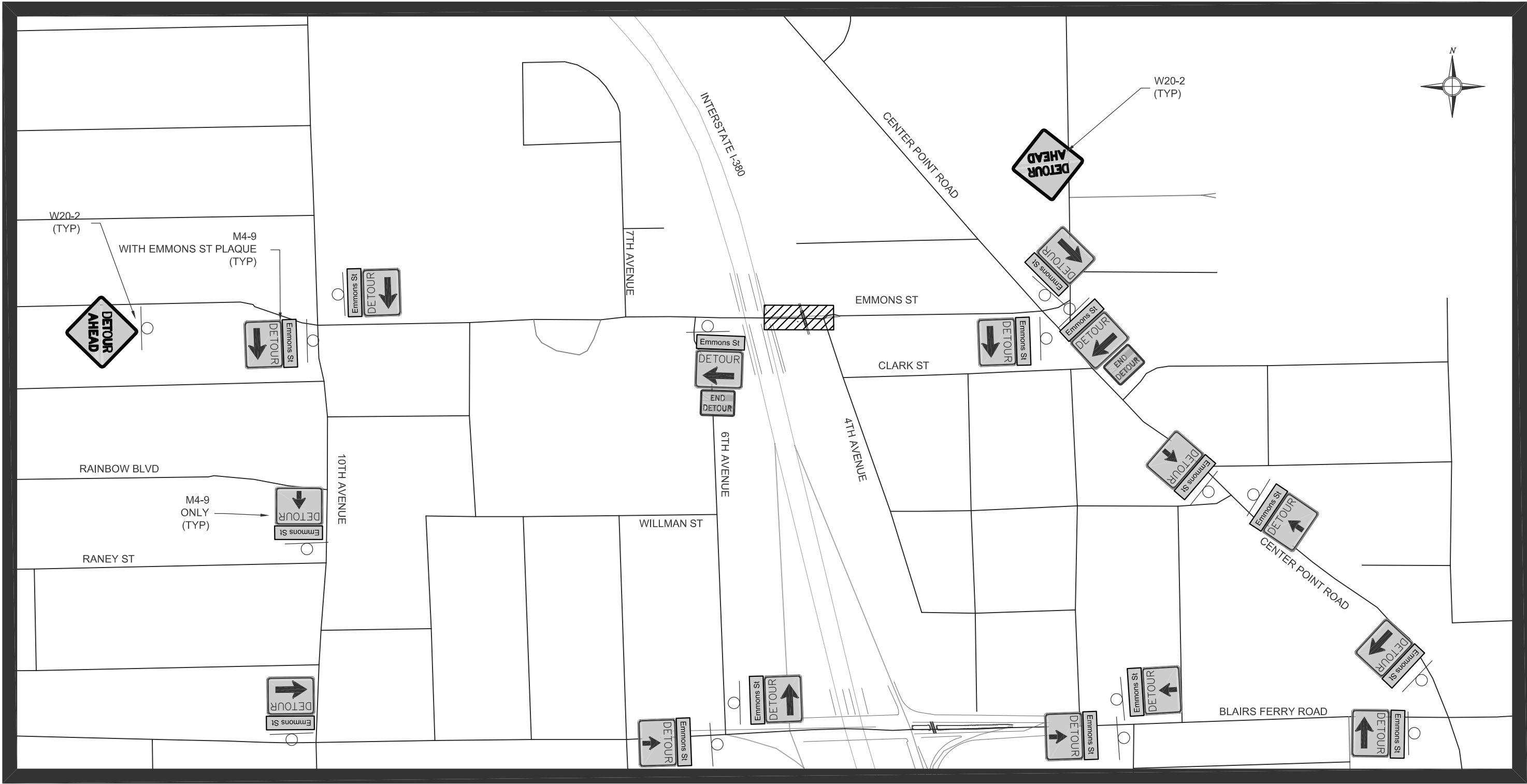
HIAWATHA RAIL QUIET ZONE

PROJECT STAGING
AND TRAFFIC CONTROL

SHEET NO.
J.03
OF
J.07

STAGE 2

DETOUR SIGNAGE



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HIAWATHA RAIL QUIET ZONE

PROJECT STAGING
AND TRAFFIC CONTROL

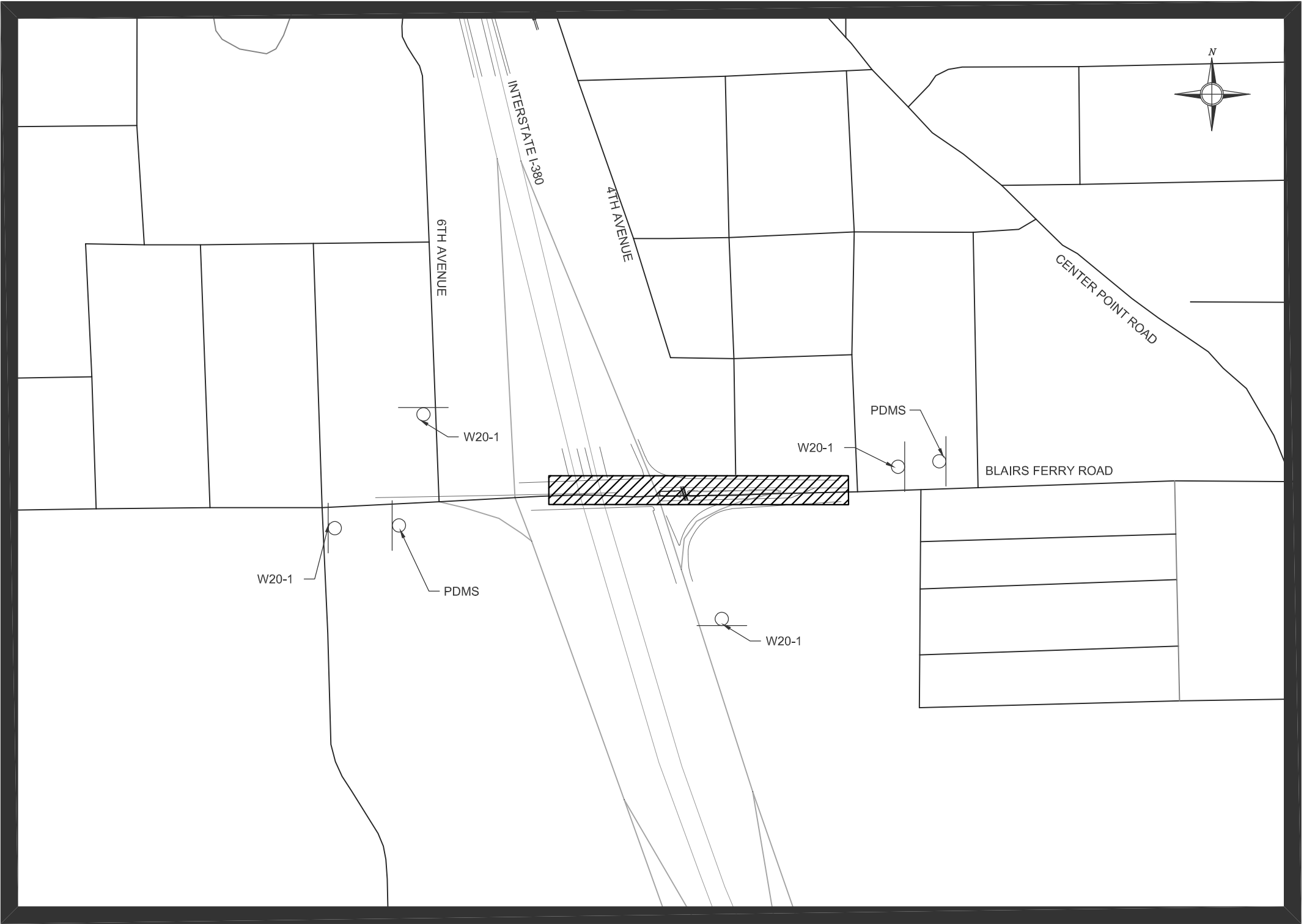
SHEET NO.
J.04
OF
J.07

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- STAGE 3 NOTES:
- SEE C SHEETS AND CONTRACT DOCUMENTS FOR ALLOWABLE ROADWAY ENCROACHMENT/CLOSURE DAYS FOR SITE 03.
 - INSTALL PORTABLE DYNAMIC MESSAGE SIGNS AS DESIGNATED (INCIDENTAL TO TRAFFIC CONTROL) TWO WEEKS PRIOR TO COMMENCING WORK.
 - DYNAMIC MESSAGE SHALL STATE PRIOR TO CONSTRUCTION:
 - PHASE 1: "ROAD WORK BEGINS"
 - PHASE 2: "XX/XX/XX" AND "EXPECT DELAYS"
 - INSTALL ADVANCED WARNING SIGNS AND TRAFFIC CONTROL DEVICES AS SHOWN.
 - DYNAMIC MESSAGE SIGN SHALL READ THE FOLLOWING DURING CONSTRUCTION:
 - PHASE 1: "THRU TRAFFIC"
"KEEP RIGHT"
 - COMPLETE MEDIAN AND SIGNING IMPROVEMENTS.
 - CONTRACTOR SHALL USE FLAGGERS AS NECESSARY DURING HEAVY CONSTRUCTION DELIVERY TRUCK ACTIVITIES.
 - CONTRACTOR SHALL MAINTAIN AT LEAST ONE EASTBOUND LANE OF TRAFFIC AND TWO LANES OF WESTBOUND TRAFFIC AT ALL TIMES.

STAGE 3

ADVANCED WARNING SIGNAGE



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HIAWATHA RAIL QUIET ZONE

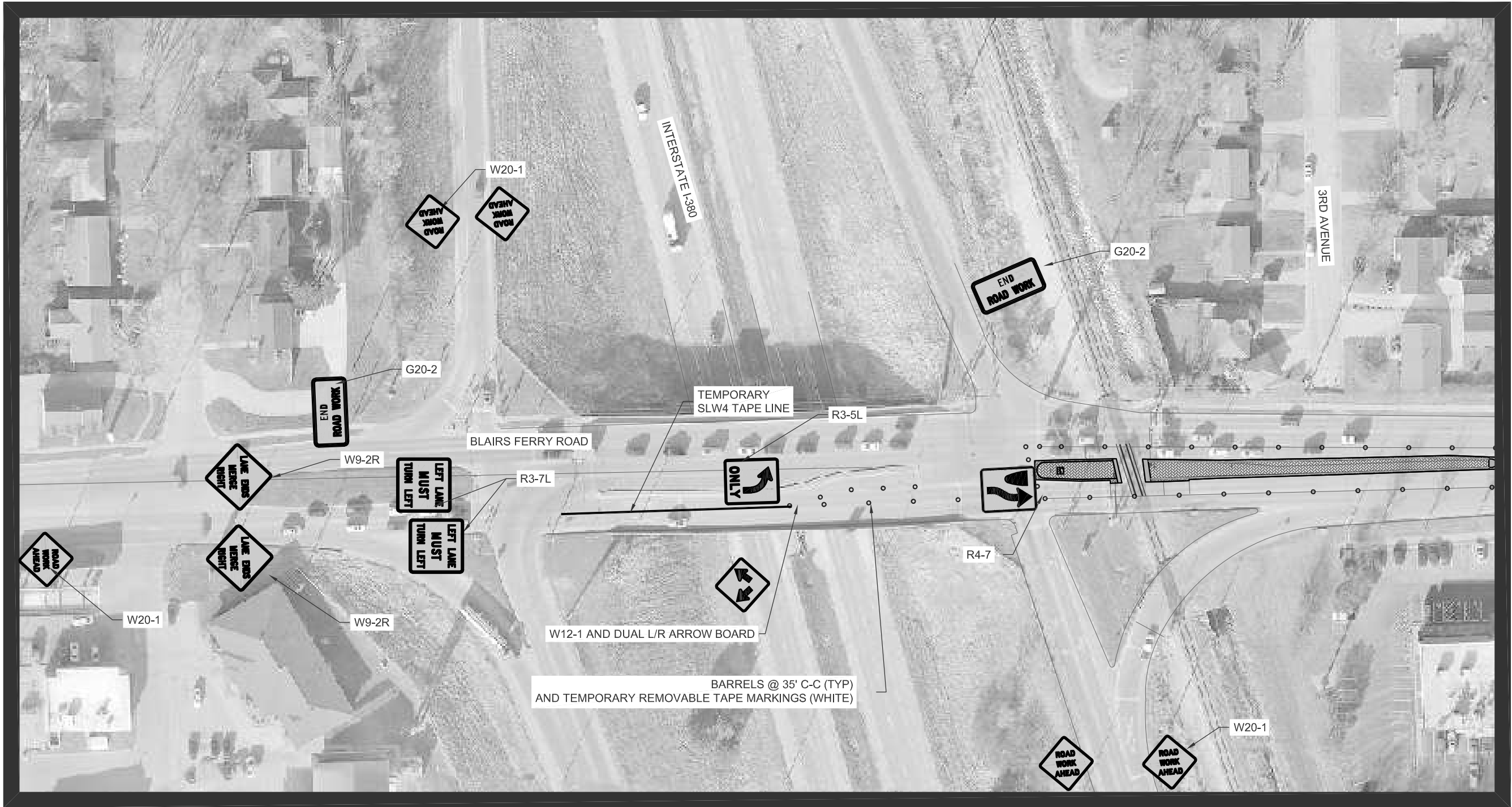
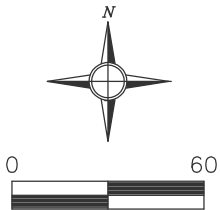
PROJECT STAGING
AND TRAFFIC CONTROL

SHEET NO.
J.05
OF
J.07

- STAGE 3 NOTES:
- SEE C SHEETS AND CONTRACT DOCUMENTS FOR ALLOWABLE ROADWAY ENCROACHMENT/CLOSURE DAYS FOR STAGE 03.
 - INSTALL PORTABLE DYNAMIC MESSAGE SIGNS AS DESIGNATED (INCIDENTAL TO TRAFFIC CONTROL) TWO WEEKS PRIOR TO COMMENCING WORK.
 - DYNAMIC MESSAGE SHALL STATE PRIOR TO CONSTRUCTION:
 - PHASE 1: "ROAD WORK BEGINS"
 - PHASE 2: "XX/XX/XX" AND "EXPECT DELAYS"
 - INSTALL ADVANCED WARNING SIGNS AND TRAFFIC CONTROL DEVICES AS SHOWN.
 - DYNAMIC MESSAGE SIGN SHALL READ THE FOLLOWING DURING CONSTRUCTION:
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 - CONTRACTOR SHALL MAINTAIN AT LEAST ONE EASTBOUND LANE OF TRAFFIC AND TWO LANES OF WESTBOUND TRAFFIC AT ALL TIMES.

STAGE 3

TYPICAL LANE CLOSURE



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HIAWATHA RAIL QUIET ZONE

PROJECT STAGING
AND TRAFFIC CONTROL

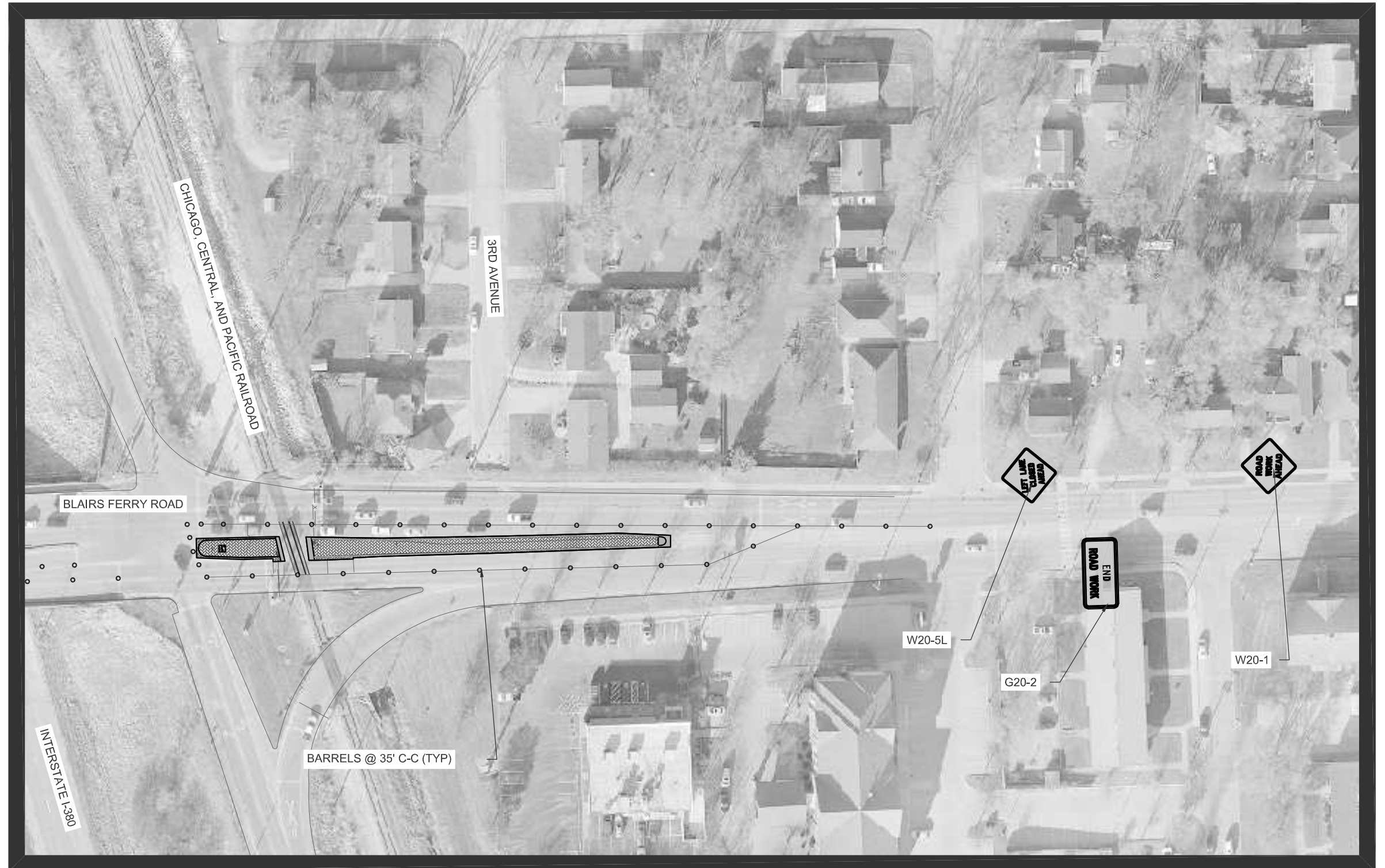
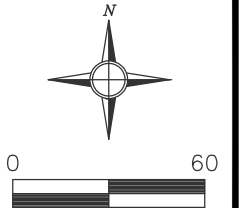
SHEET NO.
J.06
OF
J.07

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- STAGE 3 NOTES:
- SEE C SHEETS AND CONTRACT DOCUMENTS FOR ALLOWABLE ROADWAY ENCROACHMENT/CLOSURE DAYS FOR SITE 03.
 - INSTALL PORTABLE DYNAMIC MESSAGE SIGNS AS DESIGNATED (INCIDENTAL TO TRAFFIC CONTROL) TWO WEEKS PRIOR TO COMMENCING WORK.
 - DYNAMIC MESSAGE SHALL STATE PRIOR TO CONSTRUCTION:
 - PHASE 1: "ROAD WORK BEGINS"
 - PHASE 2: "XX/XX/XX" AND "EXPECT DELAYS"
 - INSTALL ADVANCED WARNING SIGNS AND TRAFFIC CONTROL DEVICES AS SHOWN.
 - DYNAMIC MESSAGE SIGN SHALL READ THE FOLLOWING DURING CONSTRUCTION:
 - PHASE 1: "THRU TRAFFIC"
 - PHASE 2: "KEEP RIGHT"
 - COMPLETE MEDIAN AND SIGNING IMPROVEMENTS.
 - CONTRACTOR SHALL USE FLAGGERS AS NECESSARY DURING HEAVY CONSTRUCTION DELIVERY TRUCK ACTIVITIES.
 - CONTRACTOR SHALL MAINTAIN AT LEAST ONE EASTBOUND LANE OF TRAFFIC AND TWO LANES OF WESTBOUND TRAFFIC AT ALL TIMES.

STAGE 3

TYPICAL LANE CLOSURE



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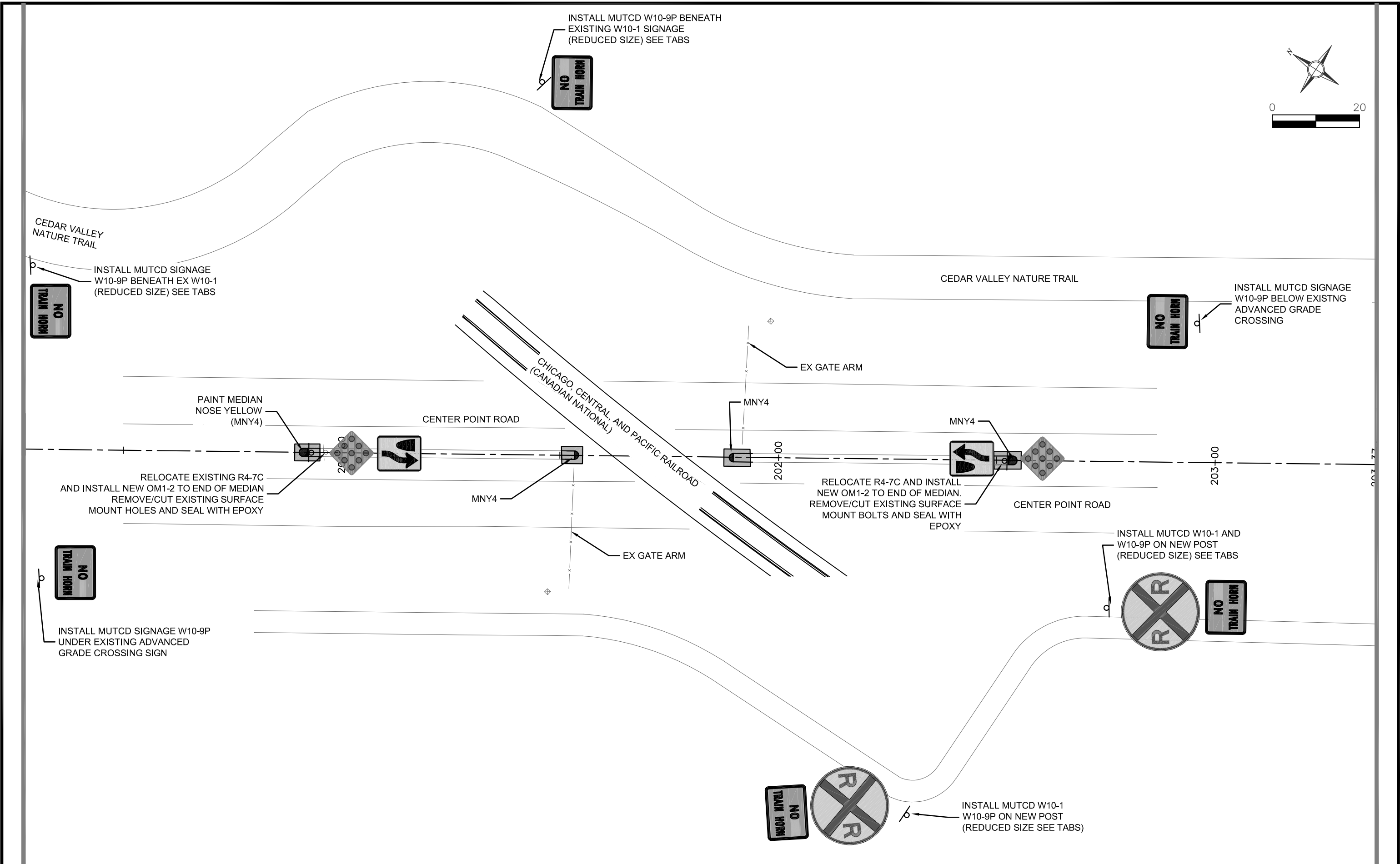
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HIAWATHA RAIL QUIET ZONE

PROJECT STAGING
AND TRAFFIC CONTROL

SHEET NO.
J.07
OF
J.07

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SEE SHEET K.03

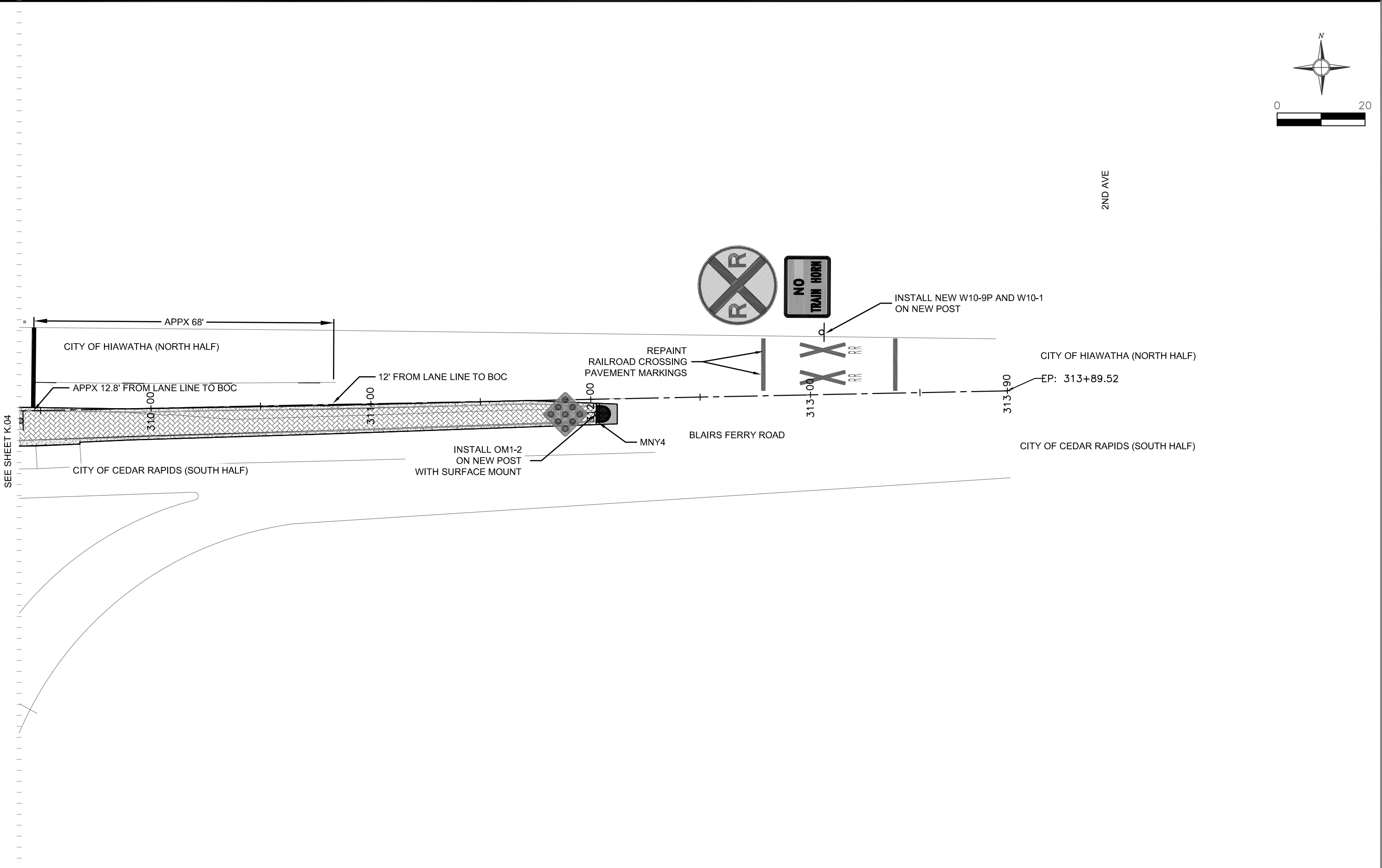
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SIGNING AND MARKING

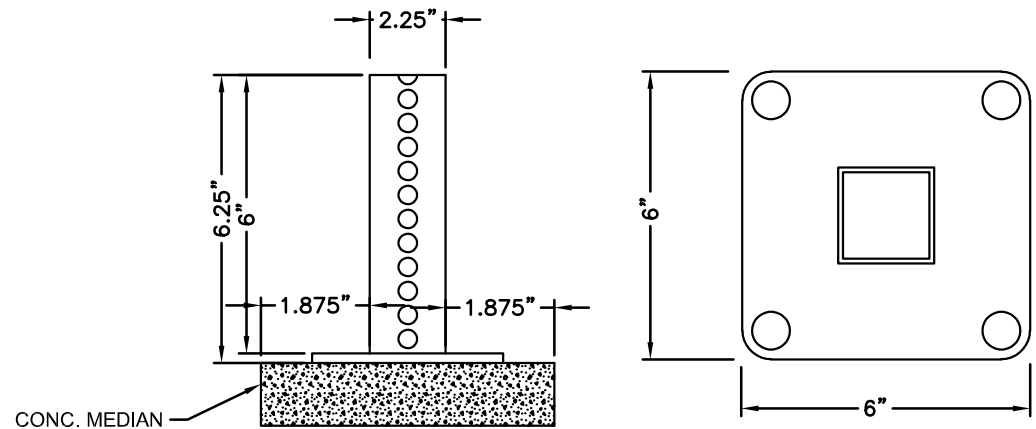
SHEET NO.
K.02
OF
K.06

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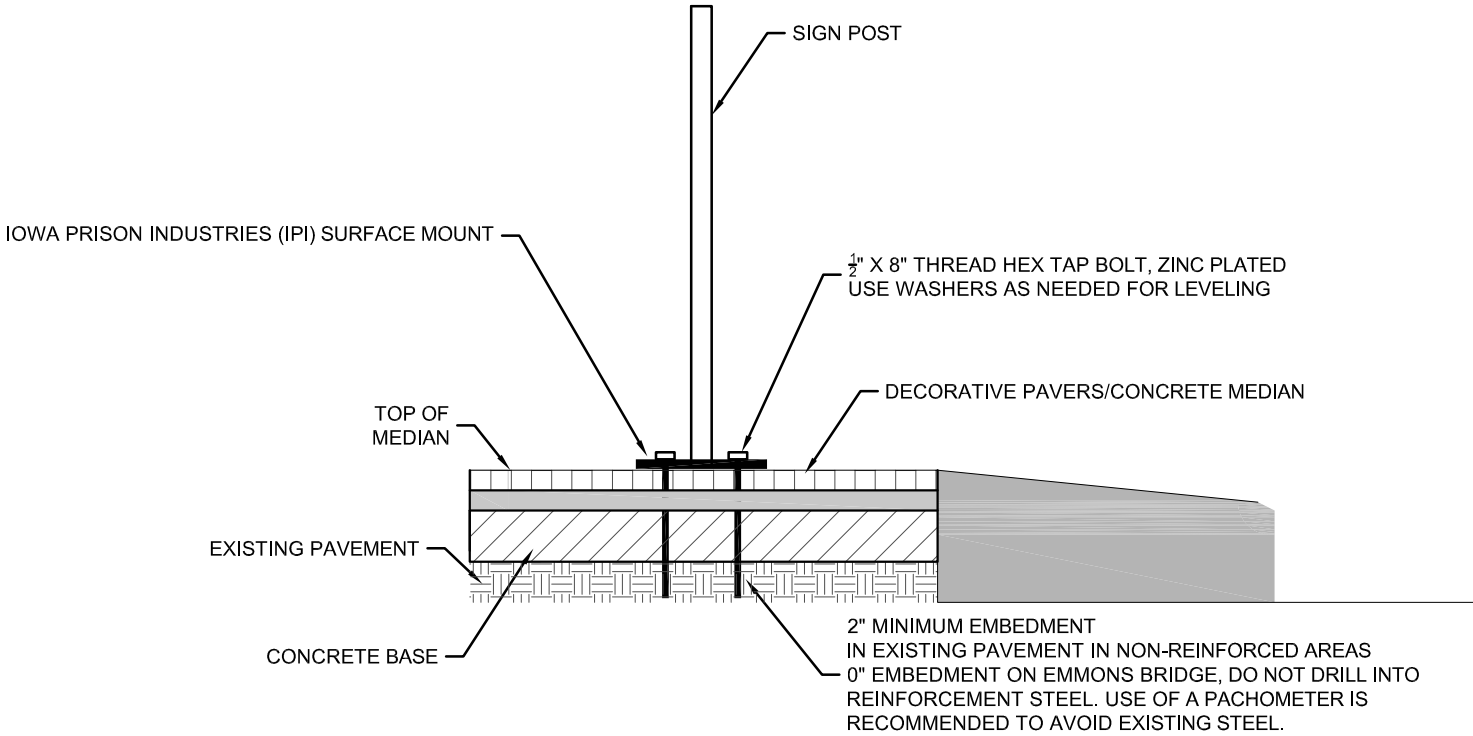


ABES PROJECT NO: 218033	DRAWN BY: JMS APPROVED BY: WWB DATE: 5/6/21						HIAWATHA RAIL QUIET ZONE	SIGNING AND MARKING	SHEET K.05 OF K.06
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IOWA PRISON INDUSTRIES (IPI) CONCRETE
SURFACE MOUNT
(N.T.S)



SIGN MOUNTING DETAIL
(N.T.S)



R8-8 _24x30;

1.5" Radius, 0.6" Border, 0.4" Indent, Black on, White;

"DO NOT", D 2K specified length;

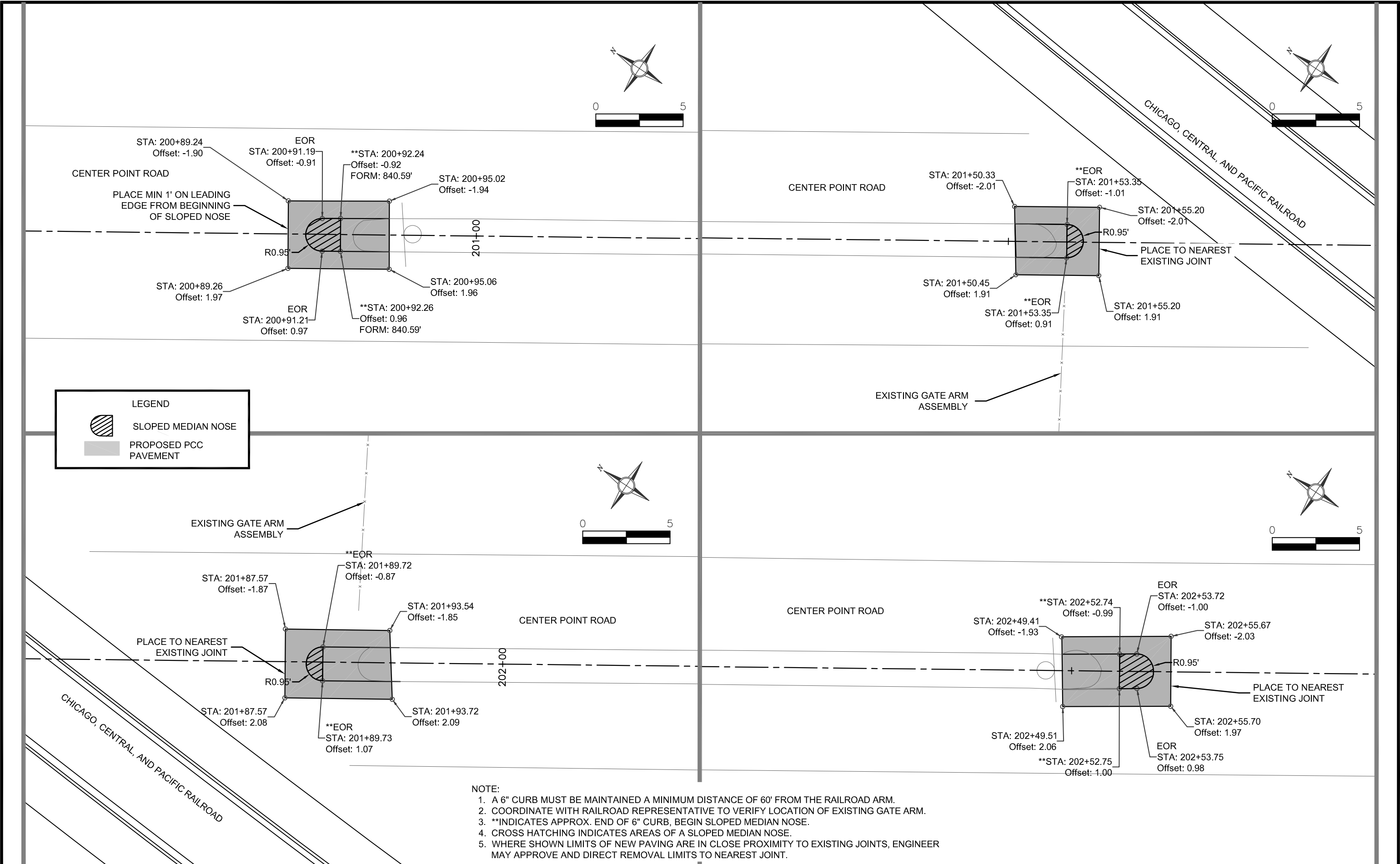
"STOP", D 2K specified length;

"ON", D 2K specified length;

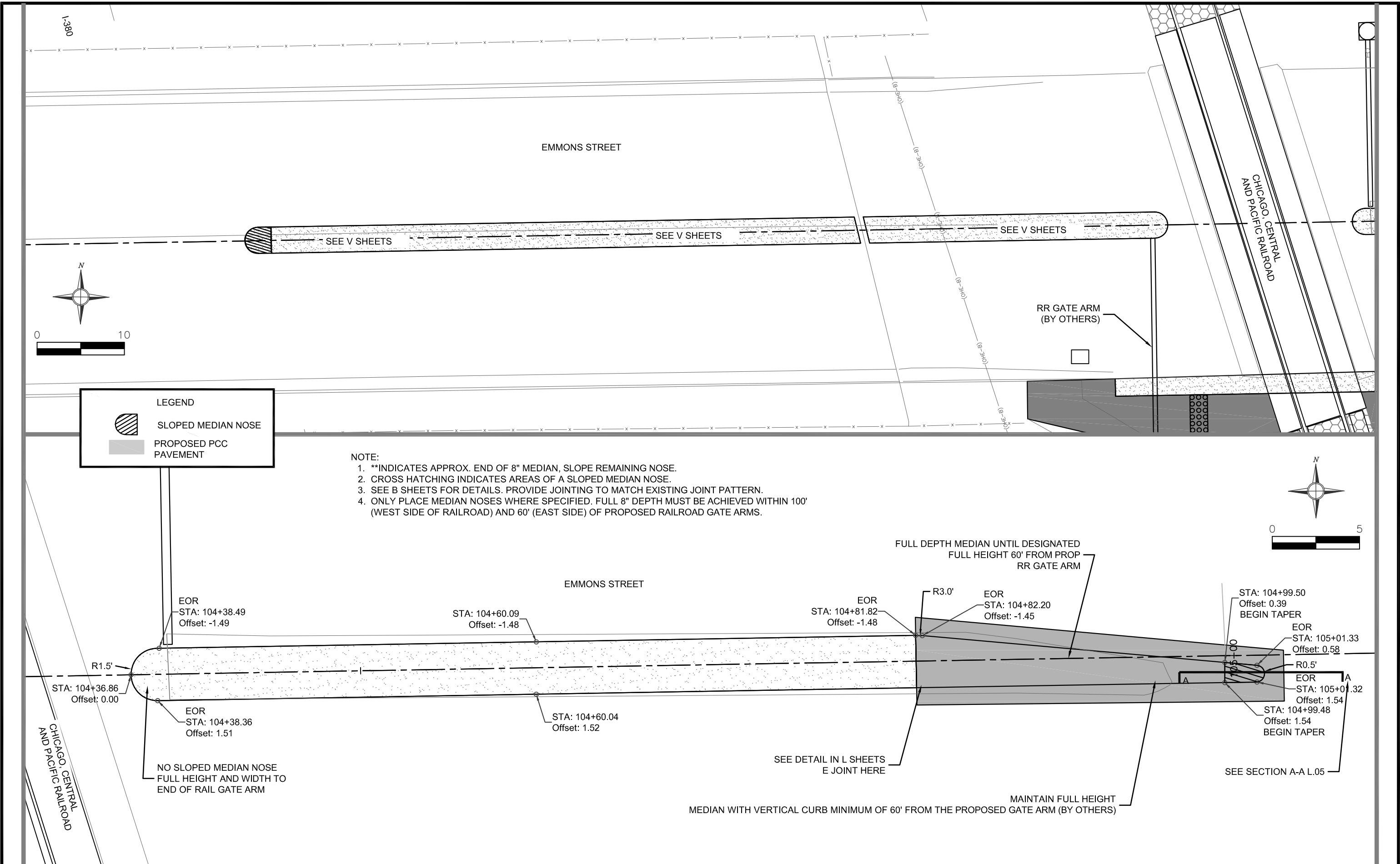
"TRACKS", D 2K specified length;

NO.	REVISION DESCRIPTION	APPROVED	DATE

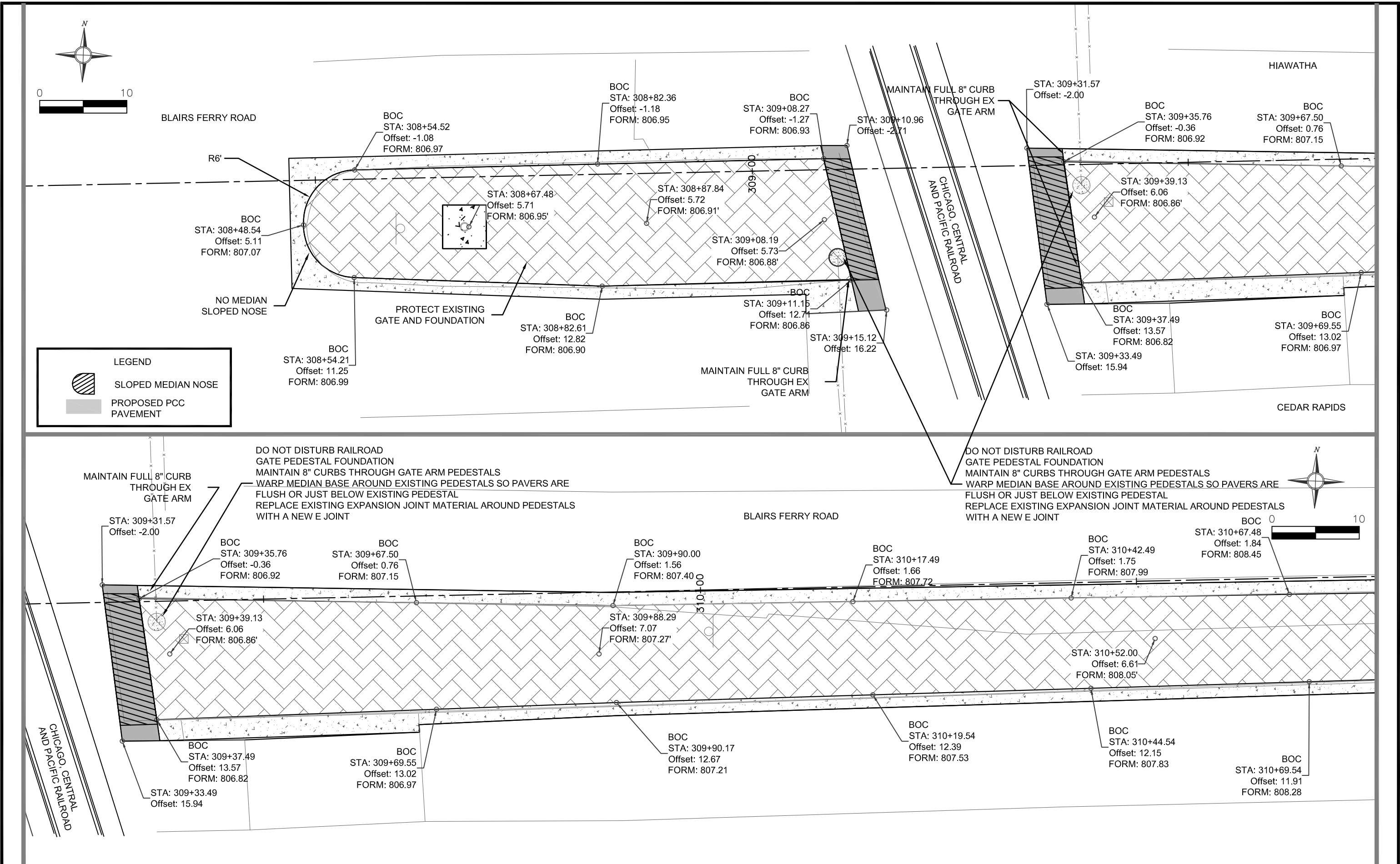
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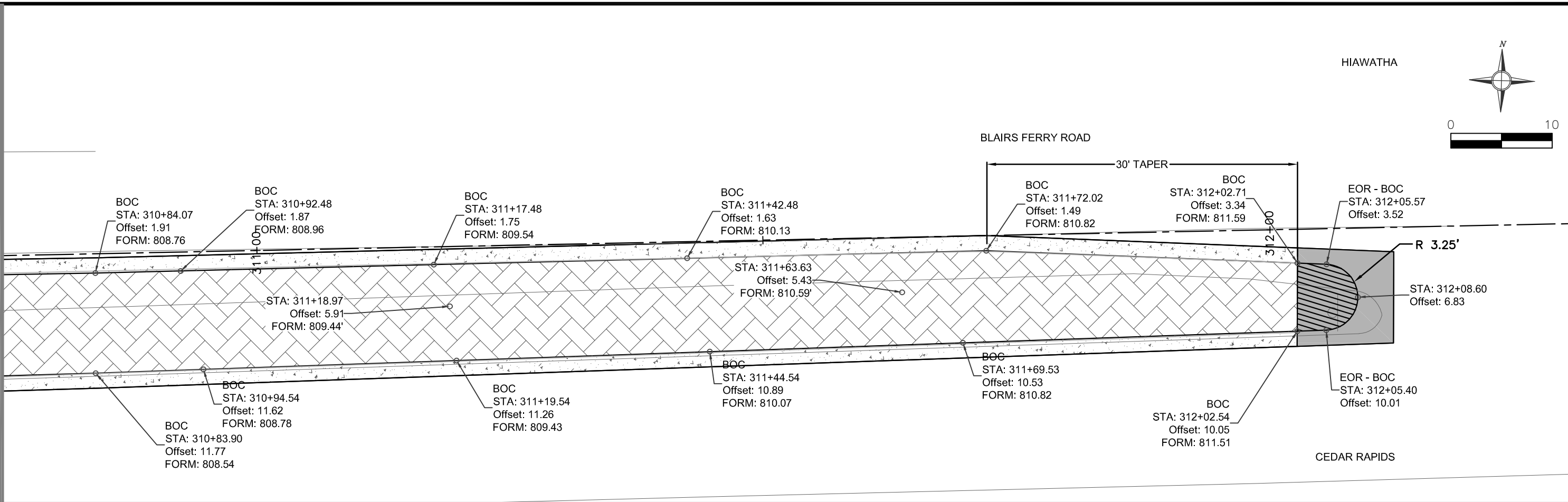
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HIAWATHA



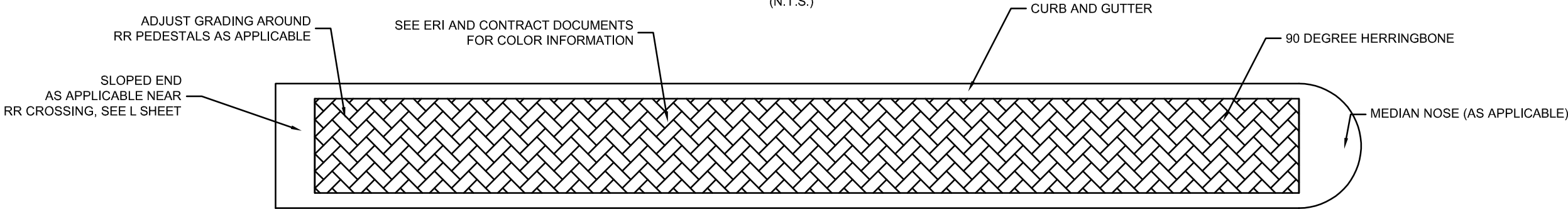
LEGEND

 SLOPED MEDIAN NOSE

 PROPOSED PCC PAVEMENT

FULL DEPTH MEDIAN PATTERN DETAIL

BLAIRS FERRY ROAD MEDIANS
HERRINGBONE PATTERN
(N.T.S.)



ABES PROJECT NO: 218033

C.I.P. NO:

DRAWN BY: JMS
APPROVED BY: WWB
DATE: 5/6/21

NO.	REVISION DESCRIPTION	APPROVED	DATE	

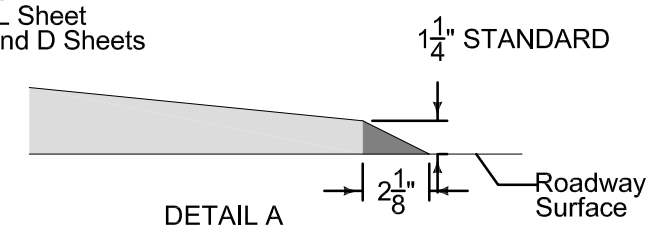
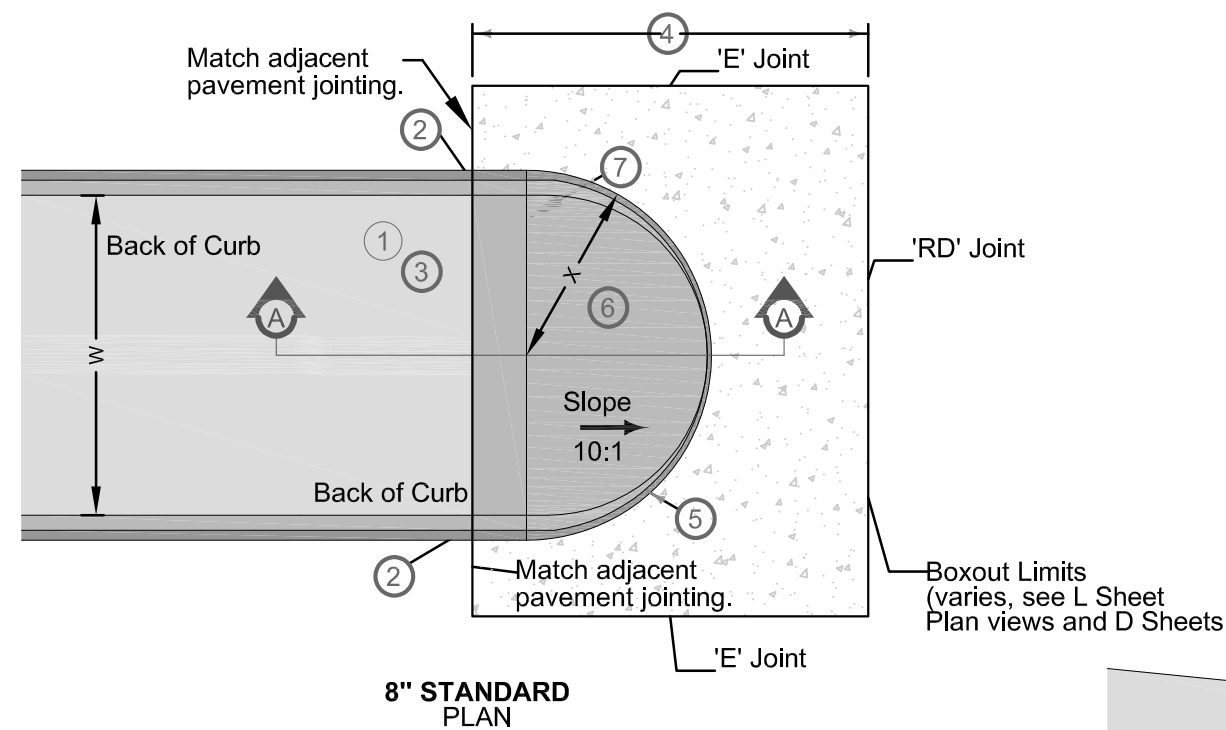
Hiawatha!

ANDERSON BOGERT

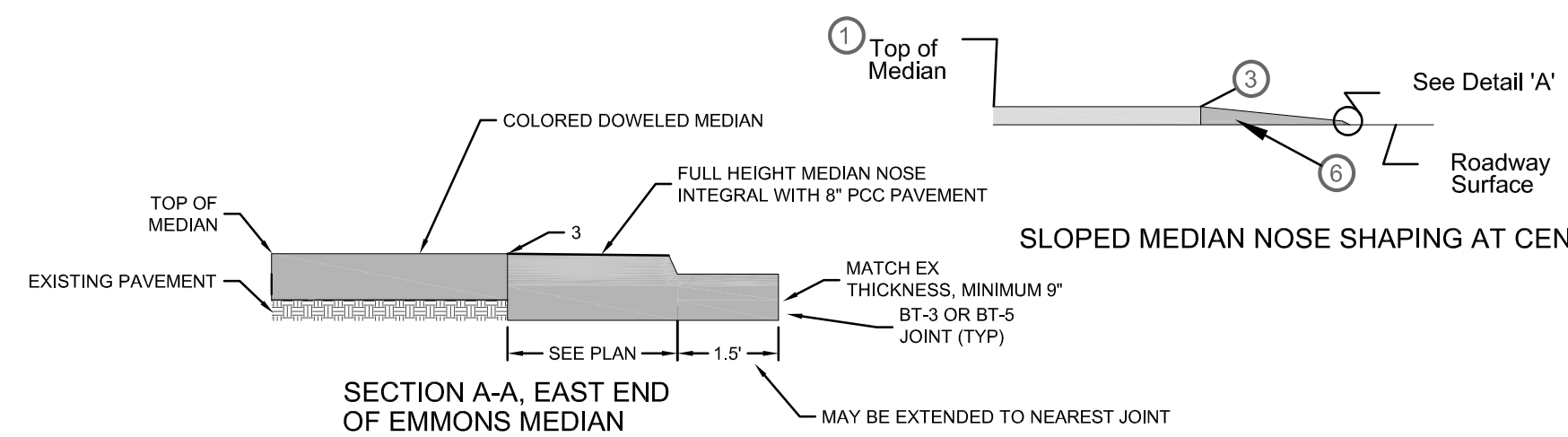
HIAWATHA RAIL QUIET ZONE

MEDIAN ISLAND DETAILS

SHEET NO.
L.04
OF
L.05



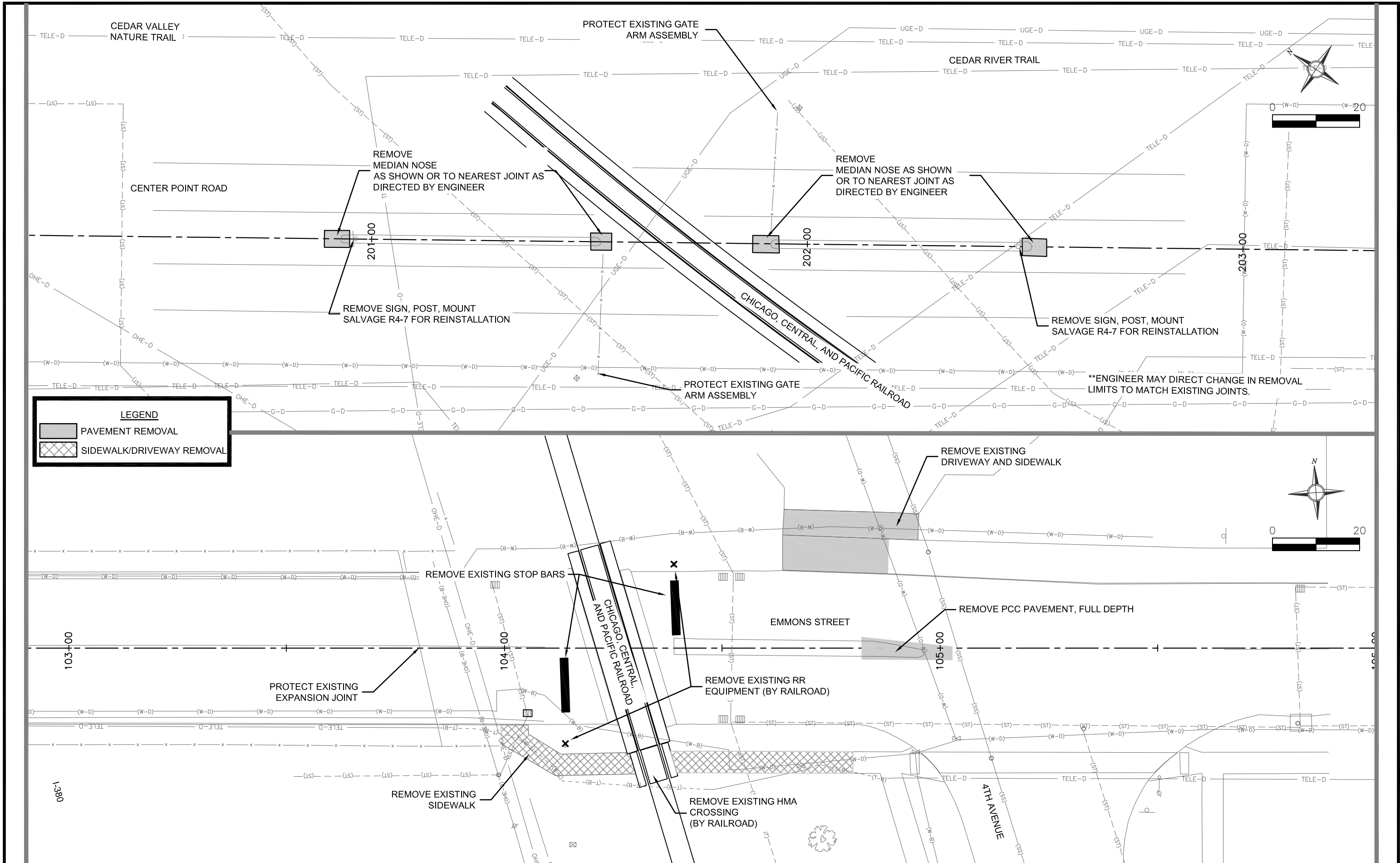
- ① For details of paved median, see contract documents.
- ② 'EE' Joint. Expansion joints located at the end of normal curb.
- ③ 'E' Joint. If median is paved, place expansion joints at the end of normal curb.
- ④ If boxout length is less than or equal to 12 feet, provide 'C' Joint. If boxout length is greater than 12 feet, provide 'RD' joint.
- ⑤ Special shaping of curb.
- ⑥ Quantities for ramped median nose area is included in roadway pavement quantities.
- ⑦ When X or Y is 4 feet or greater the expansion joints will be at the beginning of the rounded median.
 $W = \text{Width from back of curb to back of curb}$
 $X = W/2 + 7.5"$
 $Y = W/2 + 12"$



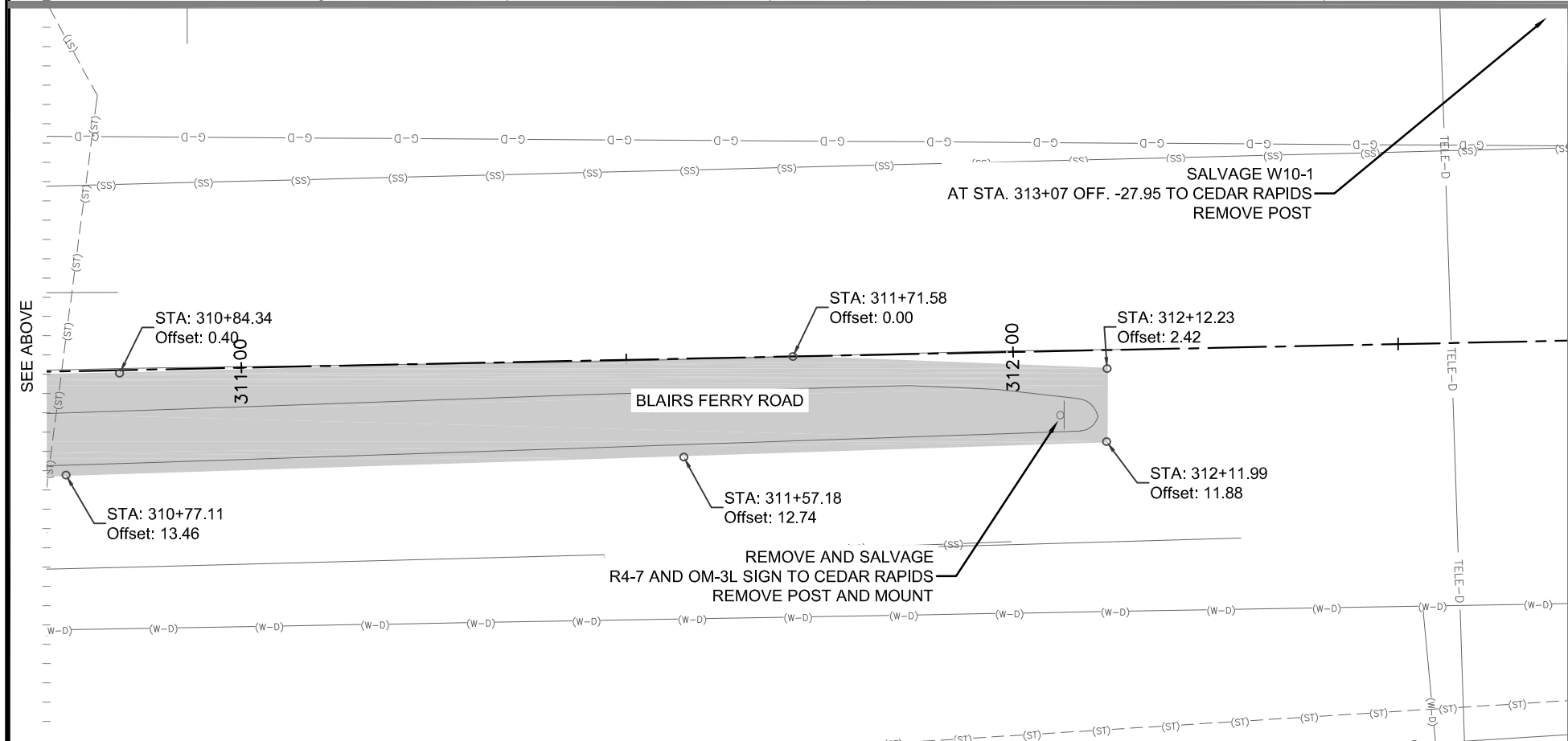
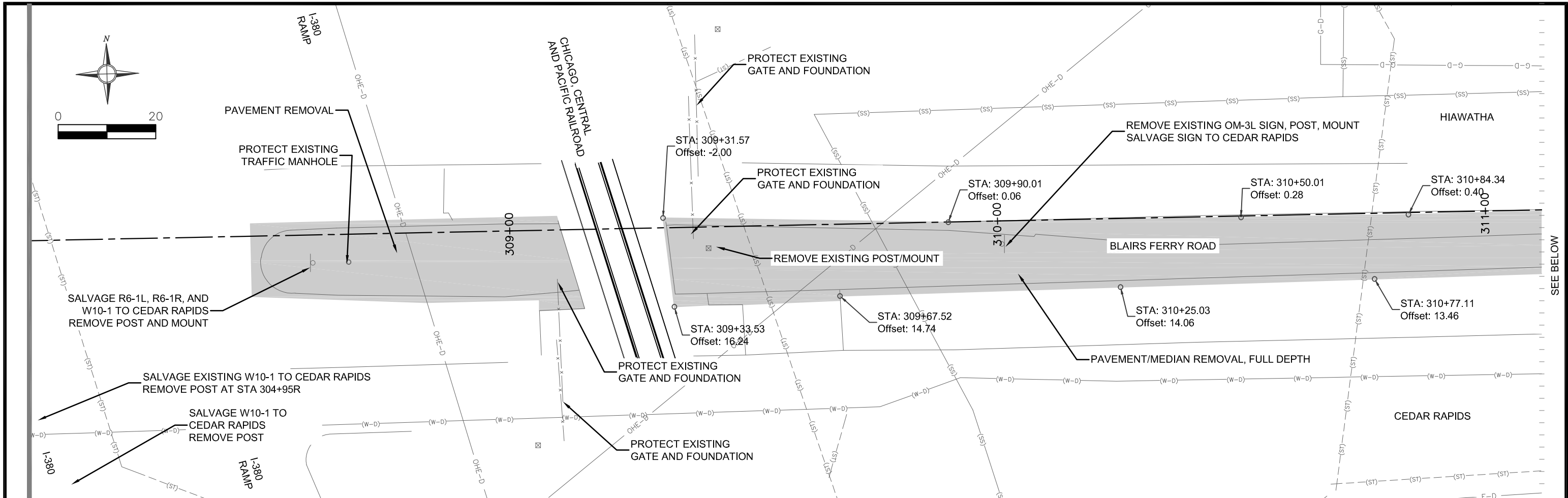
SLOPED MEDIAN NOSE SHAPING AT CENTER POINT ROAD AND BLAIRS FERRY ROAD

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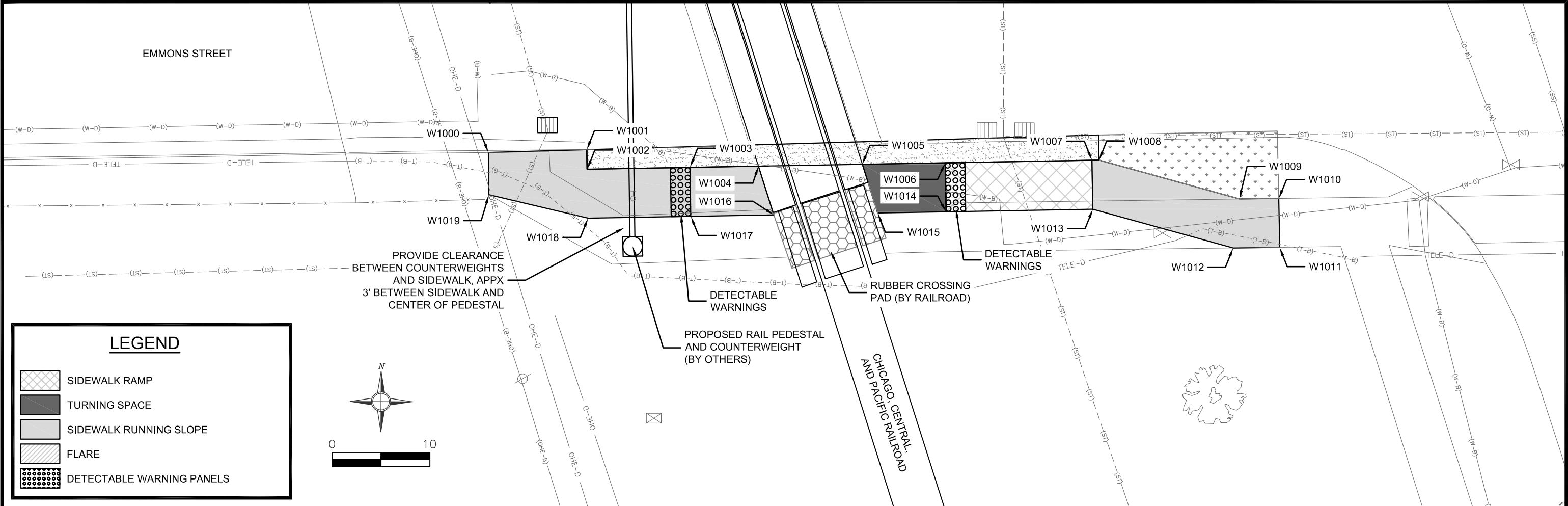


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LEGEND

- PAVEMENT REMOVAL
- SIDEWALK/DRIVEWAY REMOVAL



SIDEWALK COMPLIANCE														113-10 10/16/12	
* Does not include curb															
Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Range Constructed Range	Measured Slope (%)	Initials	Remarks	FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES					
			FT	FT	%	Pos. or Neg.				Point	Station	Offset	Elevation		
W1000	W1001	Sidewalk Running Slope	10.07	-0.21	-2.10%	0.5% to 5.0%				W1000	103+99.33	17.65	822.53		
W1001	W1002	Sidewalk Running Slope	2.00	-0.04	-2.00%	0.5% to 5.0%				W1001	104+09.40	17.53	822.32		
W1002	W1018	Sidewalk Cross Slope	5.00	-0.07	-1.40%	0.5% to 2.0%				W1002	104+09.40	19.53	822.28		
W1002	W1003	Sidewalk Running Slope	10.51	-0.25	-2.40%	0.5% to 5.0%				W1003	104+19.91	19.53	822.03		
W1003	W1017	Sidewalk Cross Slope	5.00	-0.05	-1.00%	0.5% to 2.0%				W1004	104+26.91	19.53	821.95		
W1003	W1004	Sidewalk Running Slope	7.00	-0.08	-1.10%	0.5% to 5.0%				W1005	104+37.54	19.53	821.87		
W1004	W1016	Match Existing Cross Slope	5.22	-0.08	-1.50%	Match Existing				W1006	104+46.03	19.52	821.98		
W1004	W1005	Sidewalk Running Slope	10.63	-0.08	-0.80%	0.5% to 5.0%				W1007	104+61.03	19.52	823.05		
W1005	W1015	Match Existing Cross Slope	5.22	-0.05	-1.00%	Match Existing				W1008	104+61.75	19.52	823.10		
W1005	W1006	Sidewalk Running Slope	8.49	0.11	1.30%	0.5% to 5.0%				W1009	104+76.05	23.73	823.75		
W1006	W1014	Sidewalk Cross Slope	5.00	-0.06	-1.20%	0.5% to 2.0%				W1010	104+80.06	23.75	823.86		
W1006	W1007	Ramp Running Slope	15.00	1.07	7.10%	0.5% to 8.3%				W1011	104+80.06	28.75	824.01		
W1007	W1013	Ramp Cross Slope	5.00	0.07	1.40%	0.1% to 2.0%				W1012	104+75.31	28.73	823.80		
W1008	W1009	Sidewalk Running Slope	14.91	0.65	4.40%	0.5% to 5.0%				W1013	104+61.03	24.52	823.12		
W1009	W1012	Sidewalk Cross Slope	5.05	0.05	1.00%	0.5% to 2.0%				W1014	104+46.03	24.52	821.92		
W1009	W1010	Sidewalk Running Slope	4.01	0.11	2.70%	0.5% to 5.0%				W1015	104+39.03	24.53	821.82		
W1010	W1011	Match Existing Cross Slope	5.00	0.15	3.00%	Match Existing				W1016	104+28.40	24.53	821.87		
W1011	W1012	Sidewalk Running Slope	4.75	-0.21	-4.40%	0.5% to 5.0%				W1017	104+19.91	24.53	821.98		
W1012	W1013	Sidewalk Running Slope	14.89	-0.68	-4.60%	0.5% to 5.0%				W1018	104+09.40	24.53	822.21		
W1013	W1014	Ramp Running Slope	15.00	-1.20	-8.00%	0.5% to 8.3%				W1019	103+99.30	21.95	822.45		
W1014	W1015	Sidewalk Running Slope	7.00	-0.10	-1.40%	0.5% to 5.0%									
W1015	W1016	Sidewalk Running Slope	10.63	0.05	0.50%	0.5% to 5.0%									
W1016	W1017	Sidewalk Running Slope	8.49	0.11	1.30%	0.5% to 5.0%									
W1017	W1018	Sidewalk Running Slope	10.51	0.23	2.20%	0.5% to 5.0%									
W1018	W1019	Sidewalk Running Slope	10.42	0.24	2.30%	0.5% to 5.0%									
W1019	W1000	Match Existing Cross Slope	4.30	0.08	1.90%	Match Existing									

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SPECIFICATIONS:

DESIGN: AASHTO SERIES OF 2002.
CONSTRUCTION: IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2015, PLUS APPLICABLE GENERAL SUPPLEMENTAL SPECIFICATIONS, DEVELOPMENTAL SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT.

DESIGN STRESSES:

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 2002.
REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60.
CONCRETE IN ACCORDANCE WITH SECTION 8, f'c = 4.0 KSI.

GENERAL NOTES:

THIS DESIGN IS FOR REPAIRS TO THE EXISTING 241'-3 3/8" x 32'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE LOCATED IN LINN COUNTY ON EMMONS STREET OVER I-380. ELECTRONIC COPIES OF ORIGINAL DESIGN PLANS ARE AVAILABLE TO THE CONTRACTOR AS PART OF THE E-FILES SUPPLIED WITH THE CONTRACT DOCUMENTS. DIMENSIONS SHOWN ON THESE PLANS ARE BASED ON DESIGN PLANS (ORIGINAL DESIGN NO. 1079).

IT IS THE INTENT OF THIS DESIGN TO REUSE THE EXISTING STRUCTURE AS CONSTRUCTED.

THE BRIDGE CONTRACTOR IS TO USE EXTREME CARE WHEN REMOVING THE DECK CONCRETE AND INSTALLING DRILLED-IN ANCHORS TO AVOID DAMAGE TO THE EXISTING REINFORCING STEEL.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

ALL DIMENSIONS AND DETAILS SHOWN IN THESE PLANS PERTINENT TO NEW CONSTRUCTION IN RELATION TO EXISTING PORTIONS OF THE STRUCTURE SHALL BE VERIFIED IN THE FIELD BY THE BRIDGE CONTRACTOR BEFORE STARTING CONSTRUCTION.

FAINT LINES ON PLANS INDICATE THE EXISTING STRUCTURE.

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (4G1 IS 1/2 INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	3	4	5	6	7	8	9	10	11
BAR DESIGNATION	10	13	16	19	22	25	29	32	36

COST OF SAW CUT AND JOINT SEALANT MATERIAL SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.

THE JOINT SEALANT MATERIAL SHALL BE LIGHT GRAY NONSAG LATEX CAULKING SEALER MARKETED FOR OUTDOOR USE. NO TESTING OR CERTIFICATION IS REQUIRED.

LOCATION

EMMONS STREET OVER I-380
T-84N R-7W
SECTION 33
MONROE TOWNSHIP
LINN COUNTY
FHWA NO. 604735
BRIDGE MAINT. NO. 5724.70380
LATITUDE 42.038765°
LONGITUDE -91.677217°

DESIGN HISTORY
AT THIS SITE

(INCLUDES THIS DESIGN)

DES. NO.	TYPE OF WORK
1079	ORIGINAL DESIGN
X	CONCRETE MEDIAN

TRAFFIC CONTROL PLAN

NOTE: THE ROADWAY WILL BE CLOSED TO THRU TRAFFIC. REFER TO THE TRAFFIC CONTROL PLAN SHOWN ELSEWHERE IN THESE PLANS.

ESTIMATED BRIDGE QUANTITIES

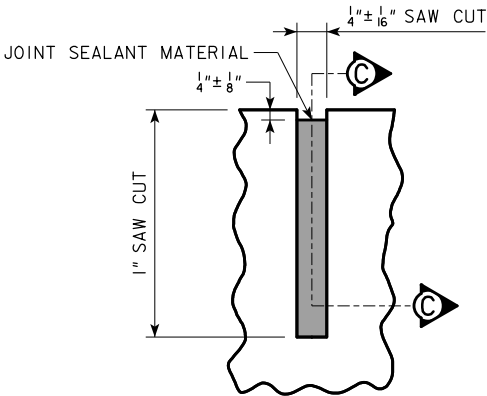
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QTY.
7	7010-108-G-0	CONCRETE MEDIAN, DOWELED, COLORED, 8" THICKNESS	SY	34.50	
8	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING	LS	1.00	

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	DESCRIPTION
7	7010-108-G-0	CONCRETE MEDIAN, DOWELED, COLORED, 8" THICKNESS A. SEE K SHEETS FOR DETAILS OF PAINTED MEDIAN NOSE. B. CONCRETE SHALL UTILIZE COLOR ADMIXTURE (DAVIS COLORS TILE RED 1117). C. INCLUDES COST OF REINFORCING STEEL, POLYMER GROUT, ROUGHENED CONSTRUCTION JOINT, AND PAINTED MEDIAN NOSE.
8	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING A. CERTIFIED PLANT INSPECTION IS REQUIRED AND IS INCIDENTAL TO THIS BID ITEM.

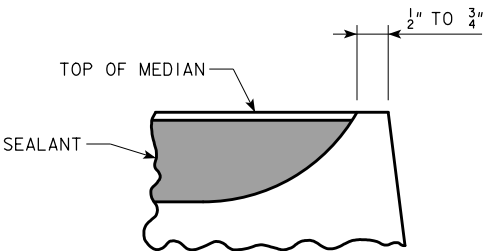
ESTIMATED BRIDGE QUANTITIES ARE INCLUDED IN THE ROADWAY QUANTITIES ON SHEET C.02.

ROADWAY QUANTITIES SHOWN ELSEWHERE IN THESE PLANS.



SAW CUT DETAIL

(SAW CUT FORMED BY CONVENTIONAL CONCRETE SAWING EQUIPMENT)



SECTION C-C
DETAIL AT EDGE OF MEDIAN

ABES PROJECT NO: 218033

DRAWN BY: CLS
APPROVED BY: CJC
DATE: 9/9/2020

C.I.P. NO:

NO.	REVISION DESCRIPTION	APPROVED	DATE	

Hiawatha!

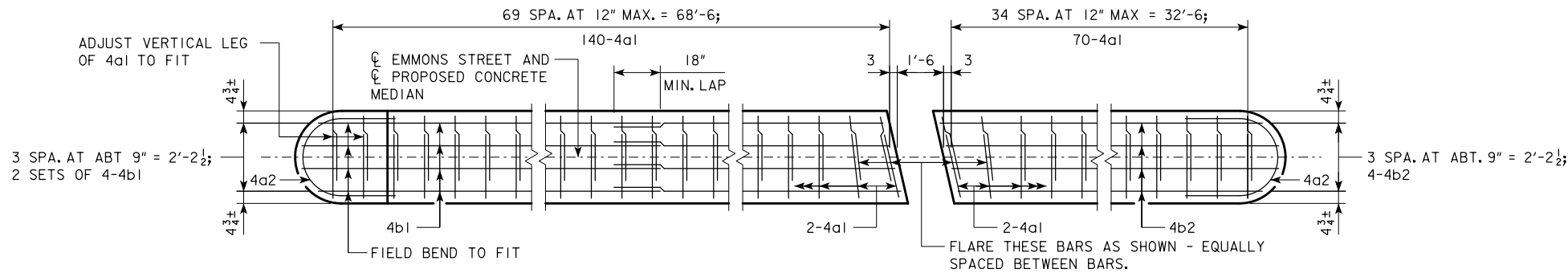
SBI SHUCK•BRITSON

HIAWATHA RAIL QUIET ZONE

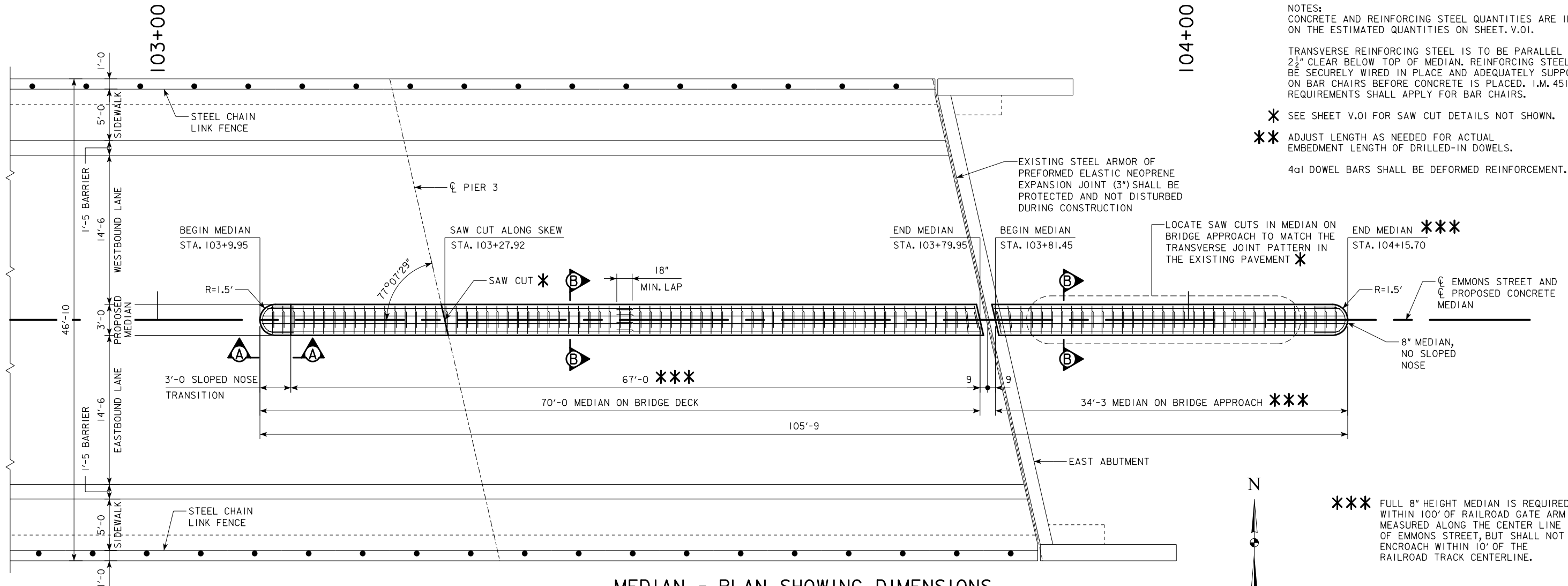
ESTIMATED QUANTITIES AND NOTES

SHEET NO.
V.01
OF
V.03

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MEDIAN - PLAN SHOWING REINFORCING DETAILS



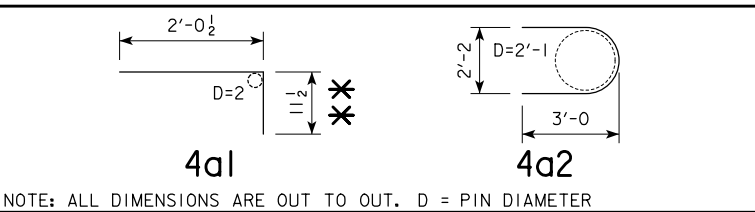
MEDIAN - PLAN SHOWING DIMENSIONS

REINFORCING BAR LIST - CONCRETE MEDIAN

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
4a1	MEDIAN, TRANSVERSE	—	210	3'-0	421
4a2	MEDIAN, TRANSVERSE	⌋	2	7'-3	10
4b1	MEDIAN, LONGITUDINAL	—	8	35'-9	191
4b2	MEDIAN, LONGITUDINAL	—	4	31'-10	25

EPOXY COATED REINFORCING STEEL TOTAL - LBS. 647

BENT BAR DETAILS



CONCRETE PLACEMENT SUMMARY

SECTION	TOTAL
MEDIAN ON BRIDGE DECK	5.0
MEDIAN ON BRIDGE APPROACH	2.5
TOTAL (CU. YDS.)	7.5

NOTES:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE ESTIMATED QUANTITIES ON SHEET. V.01.

TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2 1/2" CLEAR BELOW TOP OF MEDIAN. REINFORCING STEEL IS TO BE SECURELY WIRED IN PLACE AND ADEQUATELY SUPPORTED ON BAR CHAIRS BEFORE CONCRETE IS PLACED. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS.

* SEE SHEET V.01 FOR SAW CUT DETAILS NOT SHOWN.

** ADJUST LENGTH AS NEEDED FOR ACTUAL EMBEDMENT LENGTH OF DRILLED-IN DOWELS.

4a1 DOWEL BARS SHALL BE DEFORMED REINFORCEMENT.

*** END MEDIAN STA. 104+15.70



ABES PROJECT NO: 218033

C.I.P. NO:

DRAWN BY: CLS
APPROVED BY: CJC
DATE: 9/9/2020

NO.	REVISION DESCRIPTION	APPROVED	DATE

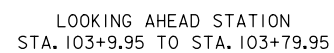
Hiawatha!

SBI SHUCK-BRITSON

HIAWATHA RAIL QUIET ZONE

PLAN VIEW SHOWING DIMENSIONS AND
PLAN VIEW SHOWING REINFORCING DETAILS

SHEET NO.
V.02
OF
V.03



**** REMOVE THE UPPERMOST 1" OF THE CONCRETE BRIDGE DECK IN ACCORDANCE WITH 2310.03, B, 2 OF THE IOWA DOT STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE THE ROUGHENED SURFACE IS PREPARED FOR CONSTRUCTION OF THE CONCRETE MEDIAN BY SANDBLASTING OR SHOT BLASTING, FOLLOWED BY AN AIR BLAST. ENSURE THIS CLEANING REMOVES ALL DIRT, OIL AND OTHER FOREIGN MATERIAL AGAINST WHICH THE CONCRETE MEDIAN IS TO BE PLACED. THE CLEANING SHOULD ROUGHEN THE SURFACE IN ORDER TO PROVIDE SATISFACTORY BOND WITH THE MEDIAN'S CONCRETE MIXTURE.**