

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

PROJECT IS LOCATED IN THE CITY OF ELMHURST

TRAFFIC DATA:

US ROUTE 20
S.N. 022-0090 2022 ADT = 13,300

DESIGN CLASSIFICATION = INTERSTATE

POSTED SPEED = 55 MPH

INTERSTATE I-290
2022 ADT = 102,100

DESIGN CLASSIFICATION = INTERSTATE (I-290)

POSTED SPEED = 55 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
HIGHWAY PLANS**

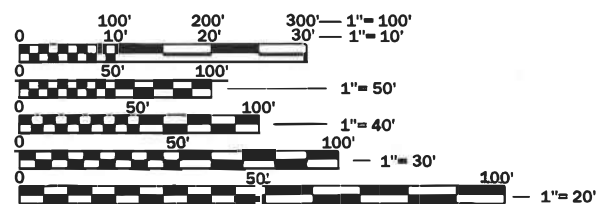
FAI ROUTE I-290 (EISENHOWER EXPW)
AT US ROUTE 20 (LAKE ST)
SECTION (22-2-3HB) BR 24
WING WALL REPAIR
DUPAGE COUNTY

F.A.I. R.I.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	1
		ILLINOIS	CONTRACT NO. 62W80	

D-91-189-24

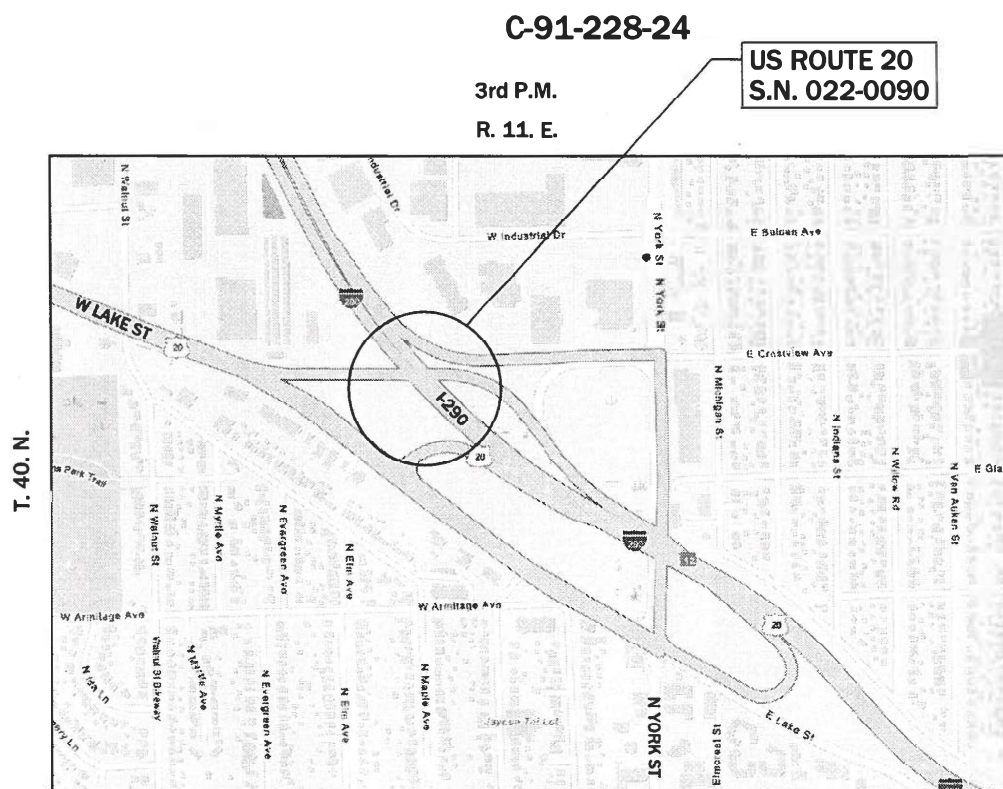


E LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811



ADDISON TOWNSHIP

LOCATION MAP

NOT TO SCALE

GROSS LENGTH = 2628 FT. = 0.50 MILES
NET LENGTH = 12 FT. = 0.002 MILES



Shiraz Tarique

6/26/2024

Shiraz Tarique
Illinois Registered Engineer No. 062-064219
Registration Expires Nov. 30, 2025

PROJECT ENGINEER: RODRIGO LEDEZMA (847) 705-4580
PROJECT MANAGER: J. ALAIN MIDY (847) 221-3056

CONTRACT NO. 62W80

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED June 27, 2024
Jorge Rios
REGIONAL ENGINEER

August 16, 2024
Scott A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT

August 16, 2024
James J. Quinn
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS**

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13	EROSION CONTROL PLAN
14 - 16	STRUCTURAL PLAN
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HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
442101-09	CLASS B PATCHES
482006-03	HMA SHOULDER ADJACENT TO RIGID PAVEMENT
643001-02	SAND MODULE IMPACT ATTENUATORS
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701400-12	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-13	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS \geq 45 MPH
701423-10	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS \geq 45 MPH TO 55 MPH
701428-01	TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701446-11	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901-09	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

DISTRICT STANDARDS

TC-8	ENTRANCE AND EXIT RAMP CLOSURE DETAILS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-12	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-17	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
TC-18	FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS
BM-21	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

GENERAL NOTES

1. THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.
2. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS THAT CONFLICT WITH TEMPORARY MARKINGS, IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR PROPOSED STRIPING AT THE COMPLETION OF THIS CONTRACT. EXACT LOCATIONS OF ALL PROPOSED PAVEMENT MARKINGS SHALL BE DIRECTED BY THE RESIDENT ENGINEER.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
4. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
5. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH AFFECTED UTILITY COMPANIES AND THE VILLAGE OF ELMHURST.
6. THE CONTRACTOR SHALL CONTRACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155, ARTERIAL TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV, AND THE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT CARLOSMUNOZ@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING ANY WORK.
7. DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKDAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DUST AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
8. TWO WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS, THE ENGINEER SHALL CONTACT EMAD ALHUSSEINI, THE AREA TRAFFIC FIELD ENGINEER, AT EMAD.ALHUSSEINI@ILLINOIS.GOV .
9. THE CONTRACTOR MUST VERIFY THE EXISTING SUBBASE AND PAVEMENT DEPTH IF APPLICABLE.
10. ALL STAGE CHANGES REQUIRING THE STOPPING AND/OR THE PACING OF TRAFFIC SHALL TAKE PLACE DURING THE ALLOWABLE HOURS FOR FULL EXPRESSWAY CLOSURES AND SHALL BE APPROVED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT LEAST 3 WORKING DAYS (WEEKENDS AND HOLIDAYS DO NOT COUNT INTO THIS 72 HOURS NOTIFICATION) IN ADVANCE OF ANY PROPOSED STAGE CHANGE.
11. A MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBMITTED TO THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR 14 DAYS IN ADVANCE OF ANY STAGE CHANGES OR FULL EXPRESSWAY CLOSURES. THE MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO: LANE AND RAMP CLOSURES, EXISTING GEOMETRICS, AND EQUIPMENT AND MATERIAL LOCATION.
12. ALL DRAINAGE STRUCTURES LOCATIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
13. FOR ALL LOCATIONS OF PATCHING IMPROVEMENTS SHOWN IN THE PLANS, THE REMOVAL OF BOTH THE EXISTING PCC PAVEMENT AND HMA OVERLAY SHALL BE INCLUDED IN THE COST OF THE CLASS B PATCHING ITEM.
14. PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.

HOT- MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS @ NDES	QUALITY MANAGEMENT PROGRAM (QMP)
SHOULDER REPAIR		
HMA SURFACE COURSE, MIX "D", IL-9.5, N70, 1½"	4.0% @ 70 GYR.	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP)		

MIXTURE TABLE NOTES

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQYD/IN.
2. THE AC TYPE FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE AC TYPE SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATION.

FACTORS FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

AGGREGATE SHOULDERS	1.60 TONS/CU YD
SEEDING, CLASS 2A	200 LB/ACRE
NITROGEN FERTILIZER NUTRIENT	90 LB/ACRE
PHOSPHORUS FERTILIZER NUTRIENT	90 LB/ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LB/ACRE
SHORT TERM PAVEMENT MARKING	10 FT/100 FT
GRANULAR MATERIAL	2.05 TONS/CU YD
MULCH	2 TON/ACRE



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PLOT DATE = \$DATE\$	DATE - 5/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT US ROUTE 20 (W LAKE STREET)
INDEX, HIGHWAY STANDARDS & GENERAL NOTES

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	2
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62W80	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE
				SN 022-0090
				0059
				BRIDGE
20200100	EARTH EXCAVATION	CU YD	5	5
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	30	30
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	30	30
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	30	30
25100630	EROSION CONTROL BLANKET	SQ YD	8	8
28000400	PERIMETER EROSION BARRIER	FOOT	24	24
28000500	INLET AND PIPE PROTECTION	EACH	1	1
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	4	4
40604062	HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "D", N70	TON	0.4	0.4
44200966	CLASS B PATCHES, TYPE 1, 10 INCH	SQ YD	5	5
44213206	TIE BARS 5/8"	EACH	7	7
50102400	CONCRETE REMOVAL	CU YD	5.5	5.5
50200100	STRUCTURE EXCAVATION	CU YD	13.8	13.8

* SPECIALTY ITEM



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AT US ROUTE 20 (W LAKE STREET)
SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24		27	3
			CONTRACT NO. 62W80	
			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE SN 022-0090 0059 BRIDGE
50300255	CONCRETE SUPERSTRUCTURE	CU YD	5.5	5.5
50300300	PROTECTIVE COAT	SQ YD	5.4	5.4
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	730	730
52000110	PREFORMED JOINT STRIP SEAL	FOOT	1	1
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	122	122
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	12.1	12.1
63301235	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	400	400
67100100	MOBILIZATION	L SUM	1	1
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	10	10
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	2	2
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	35	35

* SPECIALTY ITEM



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AT US ROUTE 20 (W LAKE STREET)
SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62W80	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				100% STATE
				SN 022-0090
				0059
				BRIDGE
70300100	SHORT TERM PAVEMENT MARKING	FOOT	244	244
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	888	888
70307100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV TAPE	SQ FT	73	73
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	1,403	1,403
70307130	TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE IV TAPE	FOOT	202	202
70307140	TEMPORARY PAVEMENT MARKING - LINE 8" - TYPE IV TAPE	FOOT	690	690
70307160	TEMPORARY PAVEMENT MARKING - LINE 12" - TYPE IV TAPE	FOOT	149	149
70400100	TEMPORARY CONCRETE BARRIER	FOOT	112.5	112.5
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1,109	1,109
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1,051	1,051
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	91	91
* 78004625	PREFORMED PLASTIC PAVEMENT MARKING - LINE 5"	FOOT	347	347
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,033	1,033

* SPECIALTY ITEM



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AT US ROUTE 20 (W LAKE STREET)
SUMMARY OF QUANTITIES**

SCALE: N.T.S. SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	5
			CONTRACT NO. 62W80	
			ILLINOIS FED. AID PROJECT	

MAINTENANCE OR TRAFFIC GENERAL NOTES

1. THE MAINTENANCE OF TRAFFIC PLANS SHALL SERVE AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR MAY MODIFY THE MAINTENANCE OF TRAFFIC PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 2. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH TEMPORARY MARKINGS SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PAVEMENT MARKING REMOVAL - WATER BLASTING.
 3. EXISTING RAISED REFLECTIVE PAVEMENT MARKER REFLECTORS THAT CONFLICT WITH THE REVISED TRAFFIC PATTERNS, SHALL BE REMOVED FROM THE EXISTING CASTINGS LOCATED IN THE PAVEMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL.
 4. THE REMOVAL OF ALL PAVEMENT MARKING TAPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE SQUARE FOOT FOR SHORT TERM PAVEMENT MARKING REMOVAL.
 5. ALL TRAFFIC CONTROL DEVICES SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE TRAFFIC CONTROL SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
 6. EXISTING SIGNS WITHIN THE LIMITS OF TRAFFIC CONTROL WHICH ARE OBSTRUCTED BY OR OTHERWISE INTERFERED WITH BY CONSTRUCTION OPERATIONS OF DESIGNATED TRAFFIC CONTROL, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE AS SPECIFIED IN ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
 7. SEE STRUCTURAL PLANS FOR WINGWALL RECONSTRUCTION INFORMATION.
 8. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING ANY WORK.
 9. ALL STAGE CHANGES REQUIRING THE STOPPING AND/OR THE PACING OF TRAFFIC SHALL TAKE PLACE DURING THE ALLOWABLE HOURS FOR FULL EXPRESSWAY CLOSURES AND SHALL BE APPROVED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT LEAST 3 WORKING DAYS (WEEKENDS AND HOLIDAYS DO NOT COUNT INTO THIS 72 HOURS NOTIFICATION) IN ADVANCE OF ANY PROPOSED STAGE CHANGE.
 10. A MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBMITTED TO THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR 14 DAYS IN ADVANCE OF ANY STAGE CHANGES OR FULL EXPRESSWAY CLOSURES. THE MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO: LANE AND RAMP CLOSURES, EXISTING GEOMETRICS, AND EQUIPMENT AND MATERIAL LOCATION.
 11. ALL DRUMS SHALL BE PLACED AT 50' CENTERS ON TANGENTS, 20' CENTERS ON TAPERS AND 10' CENTERS ON RADII AND CURVES.
 12. ALL DRUMS, VERTICAL PANELS, AND BARRICADES ADJACENT TO THE EDGE OF THE TRAVELED WAY SHALL BE EQUIPPED WITH MONO- DIRECTIONAL STEADY BURNING LIGHTS.
 13. THE CONTRACTOR SHALL REQUEST AND GAIN THE APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM TWENTY FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES AND 7 DAYS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS IN DISTRICT 1. THIS ADVANCE NOTIFICATION IS CALCULATED BASED ON WORK WEEK OF MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS OR HOLIDAYS.
 14. ENGINEER WILL CONFIRM THE MESSAGE AND THE LOCATION OF THE PORTABLE CHANGEABLE MESSAGE SIGNS, CHANGEABLE MESSAGE SIGNS TO BE PLACED 14 DAYS PRIOR TO CLOSURE.
- A ROAD CONSTRUCTION AHEAD SIGN AND PCMS SHALL BE PLACED 3 TO 5 MILES IN ADVANCE OF THE PROJECT LIMITS IN A LOCATION DETERMINED BY THE ENGINEER.

SUGGESTED SEQUENCE OF OPERATIONS

STAGE 1

1. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES, TEMPORARY SIGNAGE, & TEMPORARY PAVEMENT MARKINGS TO CLOSE THE RIGHT LANE OF THE NB I-290 EXIT RAMP TO US ROUTE 20 (W LAKE STREET) AS THE LOCATIONS SHOWN IN THE STAGING PLANS.
2. REMOVE EXISTING GUARDRAIL TERMINAL AS SHOWN ON THE ROADWAY PLANS.
3. PERFORM WINGWALL RECONSTRUCTION AT S.N. 022-0090 AS SHOWN IN THE ROADWAY AND STRUCTURAL PLANS.
4. CONSTRUCT SHOULDER APPROACH PAVEMENT REPAIRS AT LOCATIONS SHOWN IN THE ROADWAY PLANS.
5. RE-ERECT THE EXISTING GUARDRAIL TERMINAL AS SHOWN ON THE ROADWAY PLANS.

POST STAGE

1. DURING THE ALLOWABLE HOURS LISTED IN THE SPECIAL PROVISIONS, UTILIZE HIGHWAY AND DISTRICT STANDARDS TO INSTALL TRAFFIC CONTROL DEVICES AS REQUIRED TO PLACE PERMANENT PAVEMENT MARKINGS AT THE LOCATIONS SHOWN IN THE PLANS.



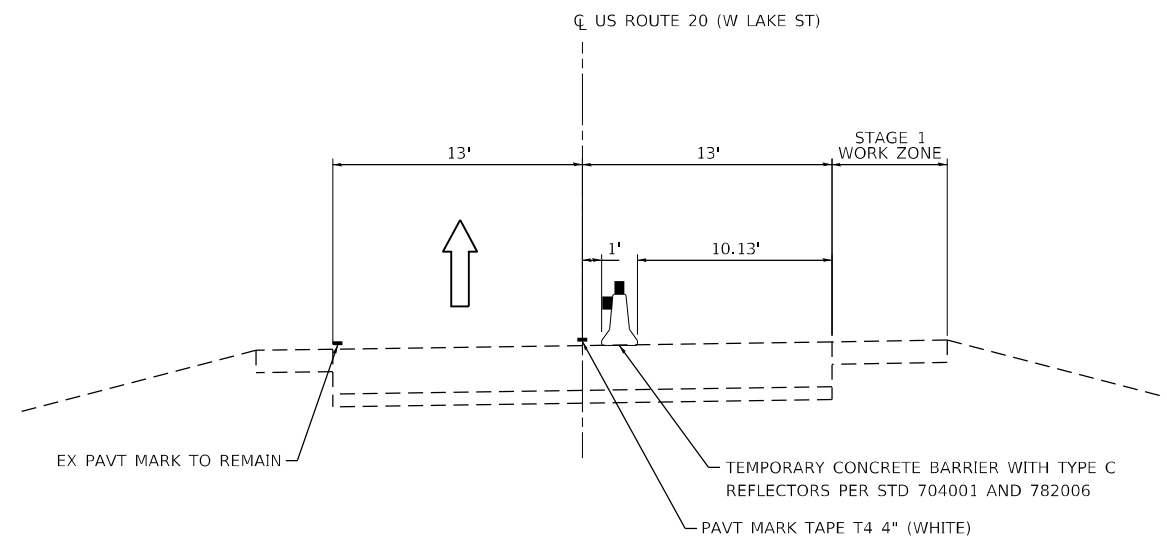
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AT US ROUTE 20 (W LAKE STREET)
STAGING GENERAL NOTES & SUGGESTED SEQUENCE**

SCALE: N.T.S. SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	7
			CONTRACT NO. 62W80	
ILLINOIS FED. AID PROJECT				

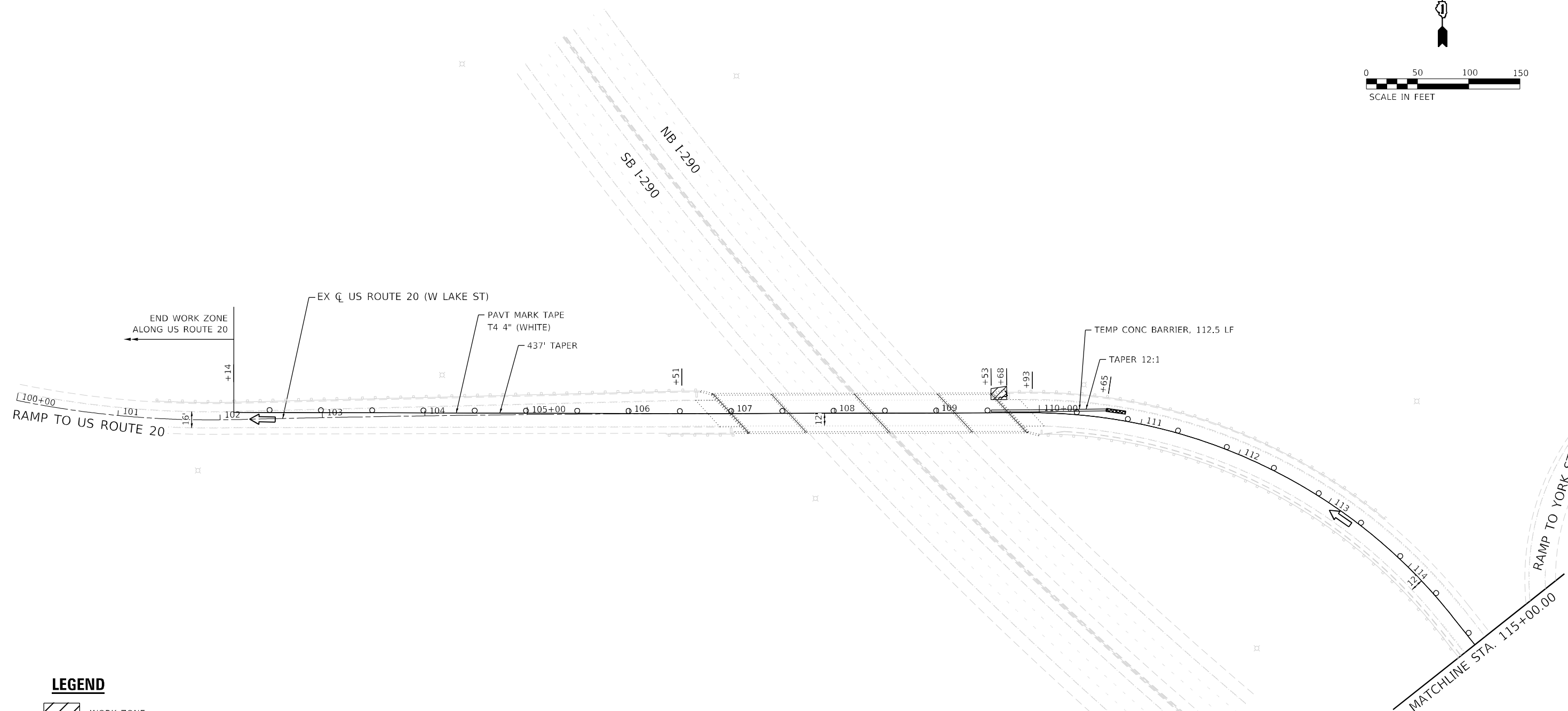
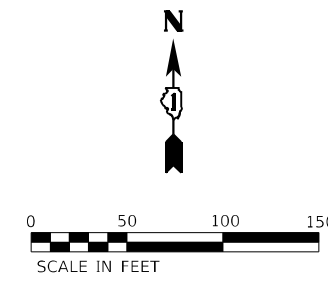


STAGE 1 TYPICAL SECTION – US RTE 20

US RTE 20 (W LAKE ST) OVER I-290
LOOKING NORTHWEST

USER NAME = jxehh	DESIGNED - JK	REVISED -
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR24	COOK	27	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62W80	



LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3
- TEMPORARY CONCRETE BARRIER
- DRUMS WITH STEADY BURNING LIGHTS @ 20' C-C IN TAPERS, 10' C-C IN RADII, & 50' C-C IN TANGENT SECTIONS (TYP)
- SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT

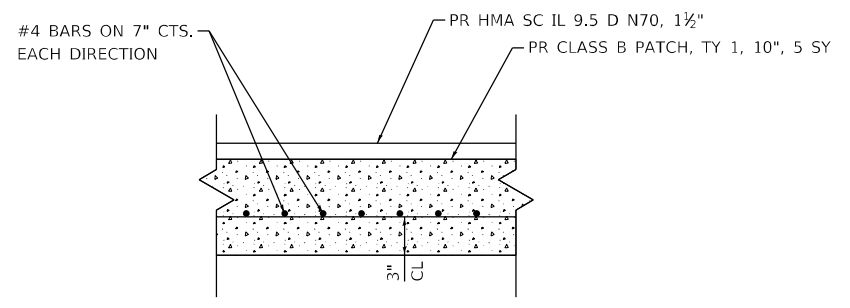
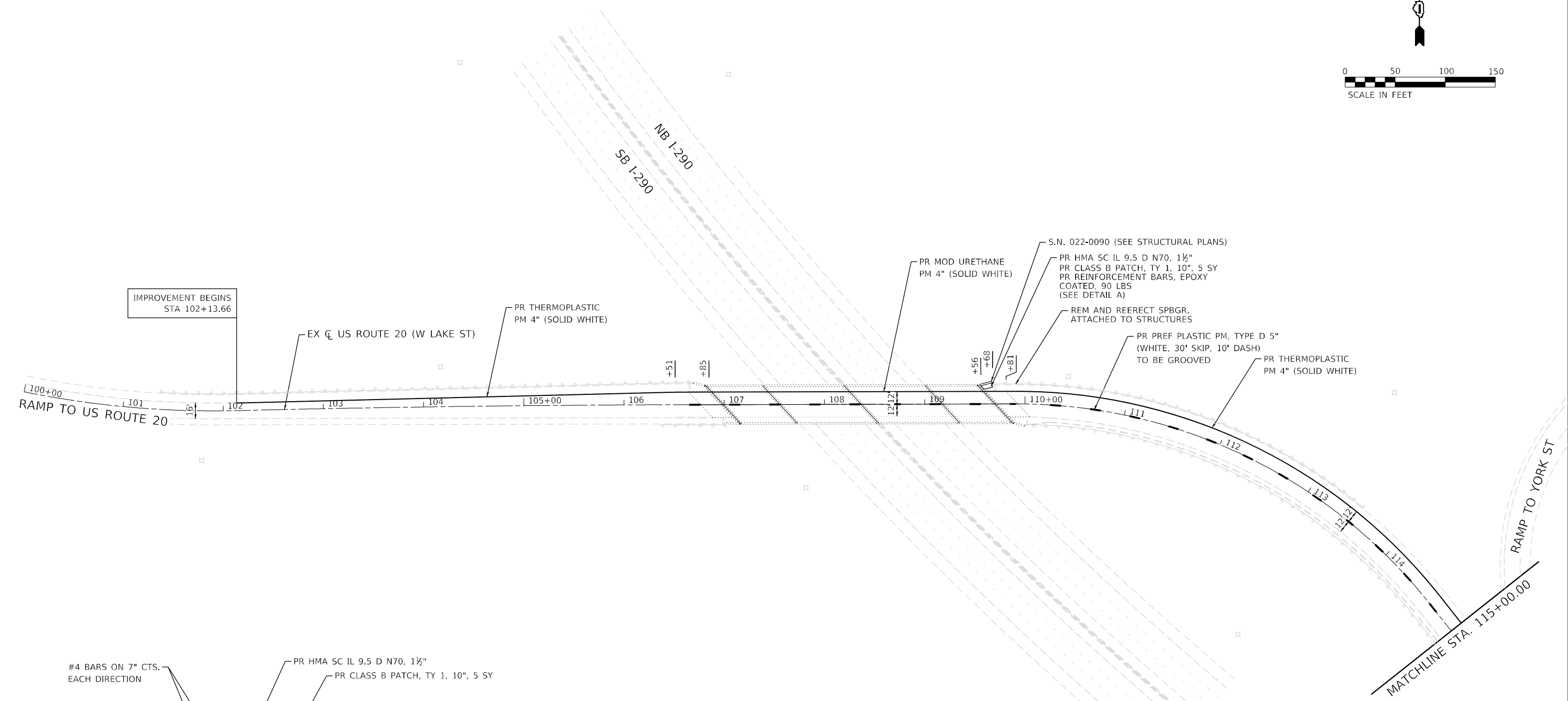
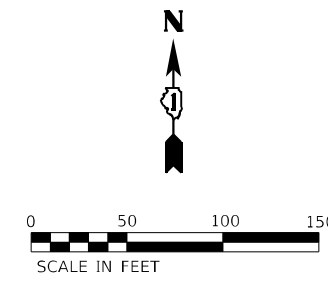


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

I-290 AT US ROUTE 20 (W LAKE STREET) STAGING PLAN			
SCALE: 1"=50'	SHEET 3 OF 4 SHEETS	STA. 102+13.66 TO STA. 115+00.00	

F.A.I. RTE. 290	SECTION (22-2-3HB) BR 24	COUNTY DUPAGE	TOTAL SHEETS 27	SHEET NO. 9
CONTRACT NO. 62W80			ILLINOIS FED. AID PROJECT	



DETAIL A

PROPOSED PAVEMENT PATCH REPAIR



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	DATE - 5/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

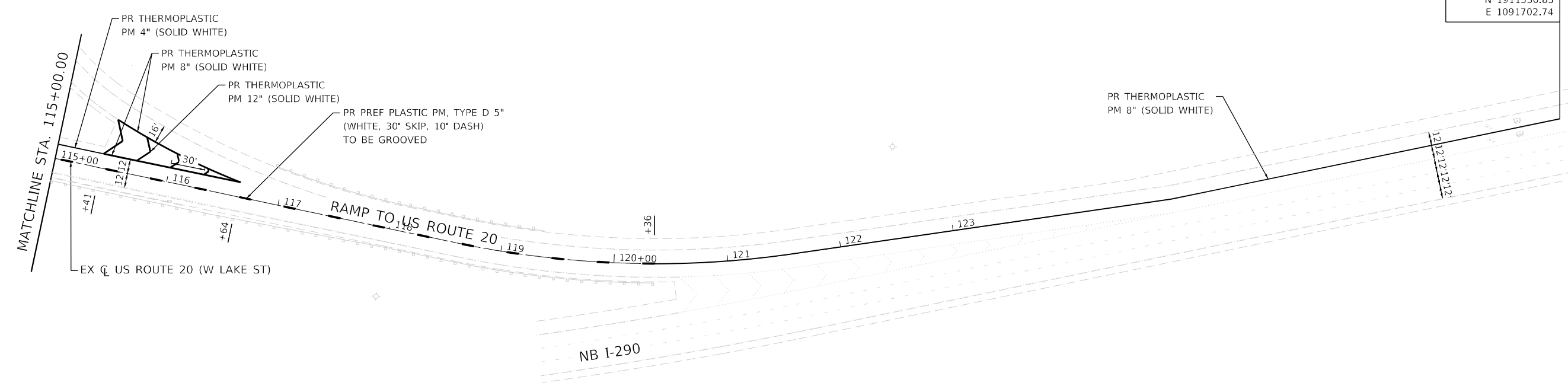
**I-290 AT US ROUTE 20 (W LAKE STREET)
ROADWAY PLAN**

SCALE: 1"=50' SHEET 1 OF 2 SHEETS STA. 102+13.66 TO STA. 115+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	11
CONTRACT NO. 62W80				
ILLINOIS FED. AID PROJECT				



IMPROVEMENT ENDS
 N 1911530.85
 E 1091702.74

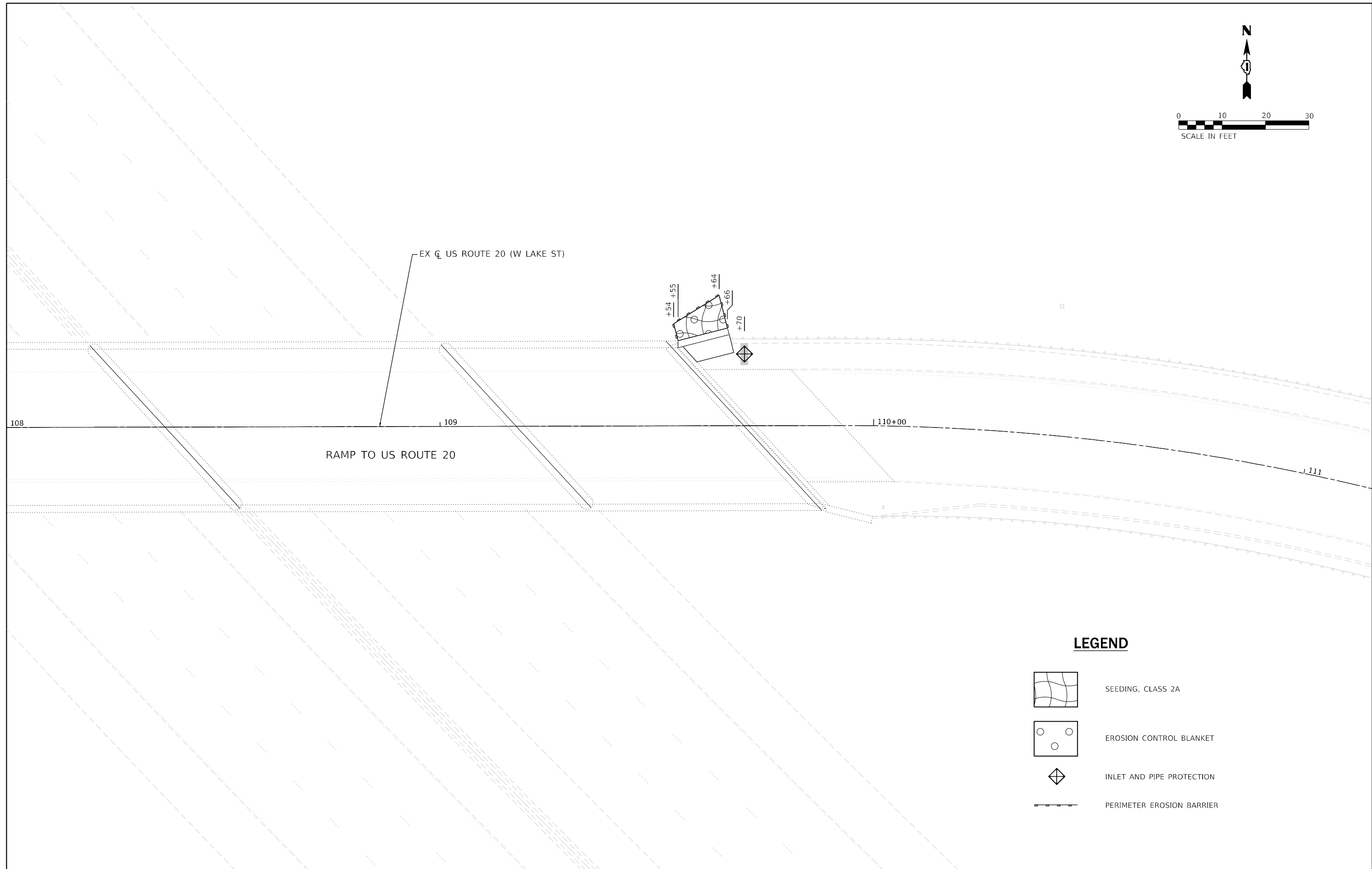
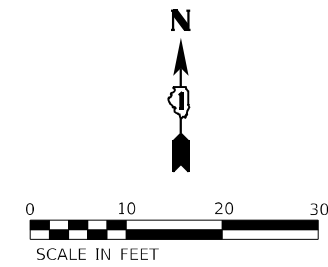


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


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

I-290 AT US ROUTE 20 (W LAKE STREET) ROADWAY PLAN	
SCALE: 1"=50'	SHEET 2 OF 2 SHEETS STA. 115+00.00 TO STA. -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	12
CONTRACT NO. 62W80				
ILLINOIS FED. AID PROJECT				



LEGEND

-  SEEDING, CLASS 2A
-  EROSION CONTROL BLANKET
-  INLET AND PIPE PROTECTION
-  PERIMETER EROSION BARRIER



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	DRAWN - JK	REVISED -
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PLOT DATE = \$DATE\$	DATE - 5/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-290 AT US ROUTE 20 (W LAKE STREET)
EROSION CONTROL PLAN**

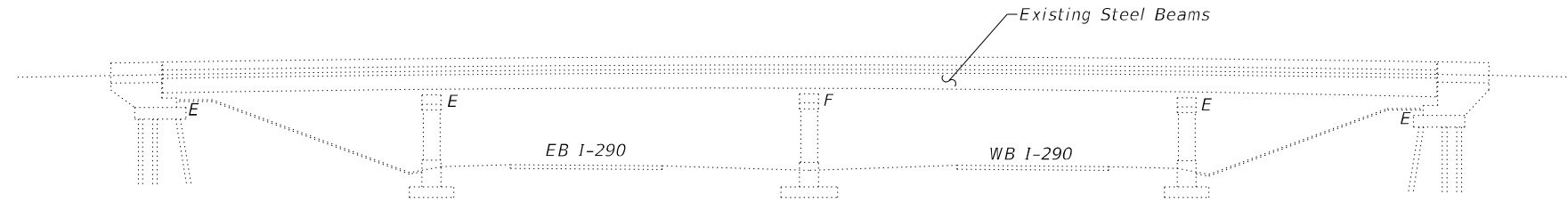
SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. 109+53.94 TO STA. 109+70.26

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	13
CONTRACT NO. 62W80			ILLINOIS FED. AID PROJECT	

Existing Structure: SN 022-0090 built in 1962 as FAI Route 90, Section 22-3HB, Sta. 18+01.07. In 1985, the deck and approach slabs were replaced along with the upper portion of the wingwalls. In 2014, the deck joints were replaced, the deck and approaches were repaired, a new concrete overlay was applied, substructure units were repaired, abutment bearings and slope walls were replaced. The structure is a 4-span bridge with a 9" overlaid deck on steel beams, measuring 276'-6" back to back abutments, 39'-2" out to out, with a 42°30' right ahead skew. The substructure consists of concrete pile supported stub abutments and multi-column concrete piers supported on spread footing foundations. Temporary barrier will be provided during construction to shift traffic away from work zone.

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Plan dimensions and details relative to the existing structure have been taken from existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.
4. Protective Coat shall be applied to the inside and top surfaces of the new concrete wingwall.



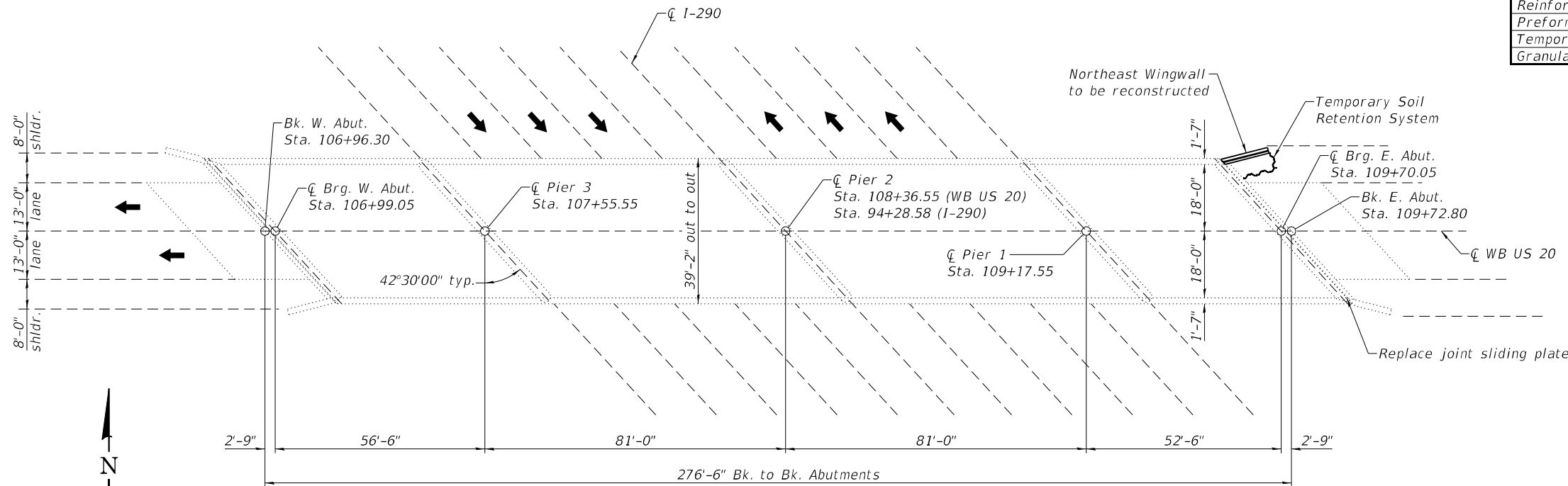
ELEVATION

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	-	5.5	5.5
Structure Excavation	Cu. Yd.	-	13.8	13.8
Concrete Superstructure	Cu. Yd.	-	5.5	5.5
Protective Coat	Sq. Yd.	5.4	-	5.4
Reinforcement Bars, Epoxy Coated	Pound	-	730	730
Preformed Joint Strip Seal	Foot	1	-	1
Temporary Soil Retention System	Sq. Ft.	-	122	122
Granular Backfill for Structures	Cu. Yd.	-	12.1	12.1

INDEX OF SHEETS

1. General Plan and Elevation
2. Northeast Wingwall Reconstruction
3. Expansion Joint Details



PLAN

DESIGN SPECIFICATIONS

(New Construction)
2002 AASHTO Standard Specifications
for Highway Bridges

DESIGN STRESSES

FIELD UNITS - NEW CONSTRUCTION

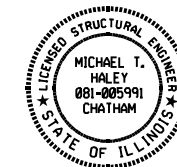
$f'_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)

LOADING HS-20 & ALT.

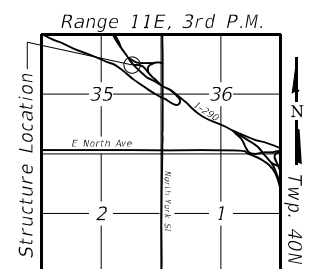
No allowance for future wearing surface.

SCOPE OF WORK

1. Remove portion of existing shoulder and place Temporary Sheet Piling.
2. Remove the northeast wingwall above its footing and replace in-kind.
3. Re-assemble portion of expansion joint assembly in new parapet.
4. Place backfill, remove Temporary Sheet Piling, and re-construct shoulder in-kind.
5. Replace sliding plate at southeast wingwall.



Michael J. Haley 06/26/2024
Date
Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 081-005991
Expires 11/30/2024



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
WB US RTE. 20 OVER I-290
FAI RTE. 290 SECTION (22-2-3HB) BR 24
DUPAGE COUNTY
STATION 108+36.55
STRUCTURE NO. 022-0090

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LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - MTH	REVISED -
	PLOT SCALE =	CHECKED - CL	REVISED -
	PLOT DATE = 7/8/2024	DRAWN - MTH	REVISED -
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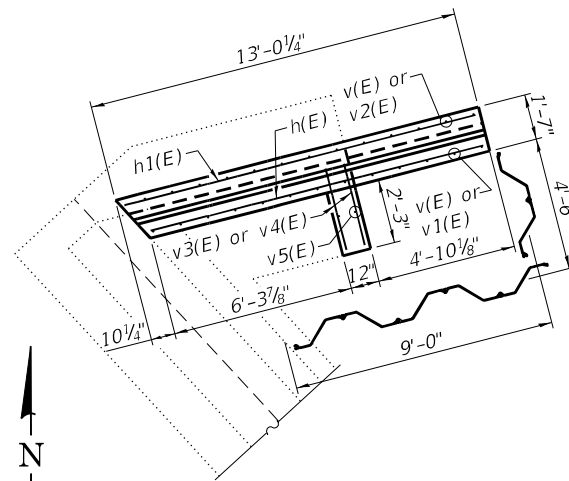
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	14
CONTRACT NO. 62W80				
ILLINOIS FED. AID PROJECT				

Care shall be taken during removal to not damage the existing preformed joint strip seal and the embedded rails and studs. Any damage to the expansion joint system shall be repaired to the satisfaction of the Engineer.

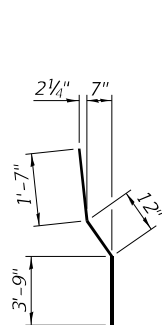
PLAN OF NORTHEAST WINGWALL
(Showing Removal)



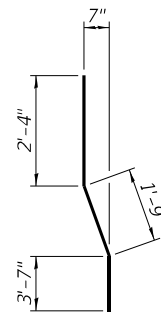
PLAN OF NORTHEAST WINGWALL
(Showing Proposed)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	11	#4	11'-10"	—
h1(E)	11	#4	12'-8"	—
v(E)	26	#5	8'-10"	—
v1(E)	13	#6	6'-4"	—
v2(E)	13	#6	7'-8"	—
v3(E)	2	#5	7'-6"	—
v4(E)	2	#5	5'-0"	—
v5(E)	2	#4	3'-3"	—
Concrete Removal		Cu. Yd.	5.5	
Structure Excavation		Cu. Yd.	13.8	
Concrete Superstructure		Cu. Yd.	5.5	
Reinforcement Bars, Epoxy Coated		Pound	730	
Temporary Soil Retention System		Sq. Ft.	122	
Granular Backfill for Structures		Cu. Yd.	12.1	

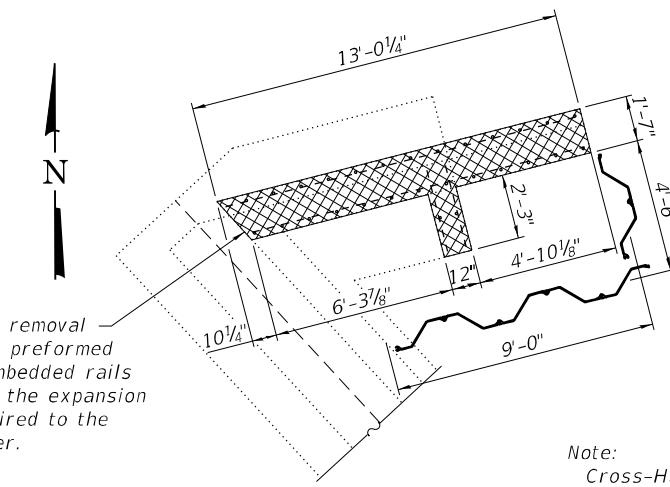


BAR v1(E)



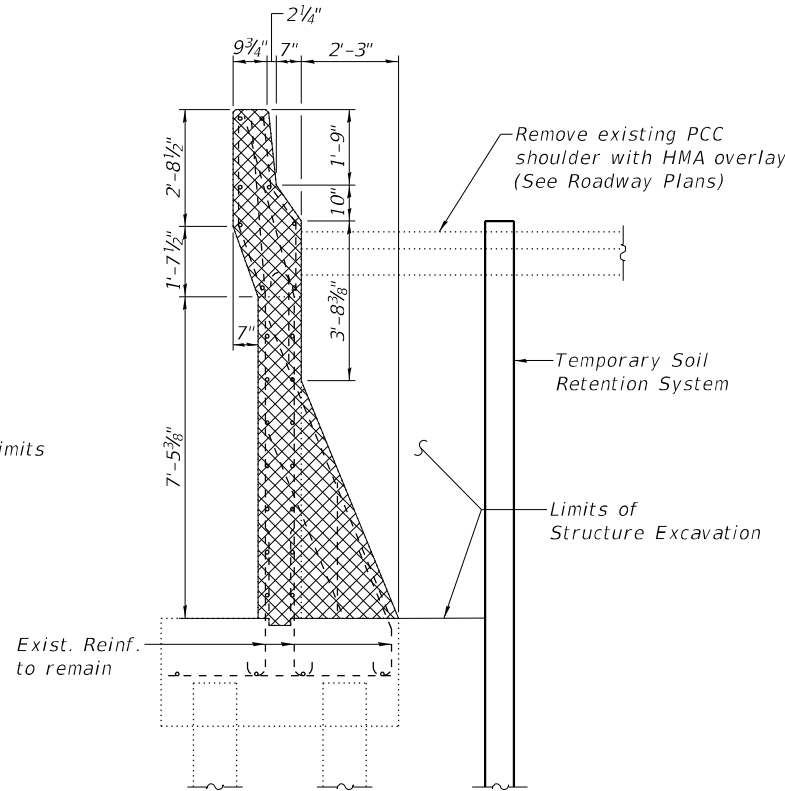
BAR v2(E)

MIN. BAR LAP
#6 bar = 3'-7"

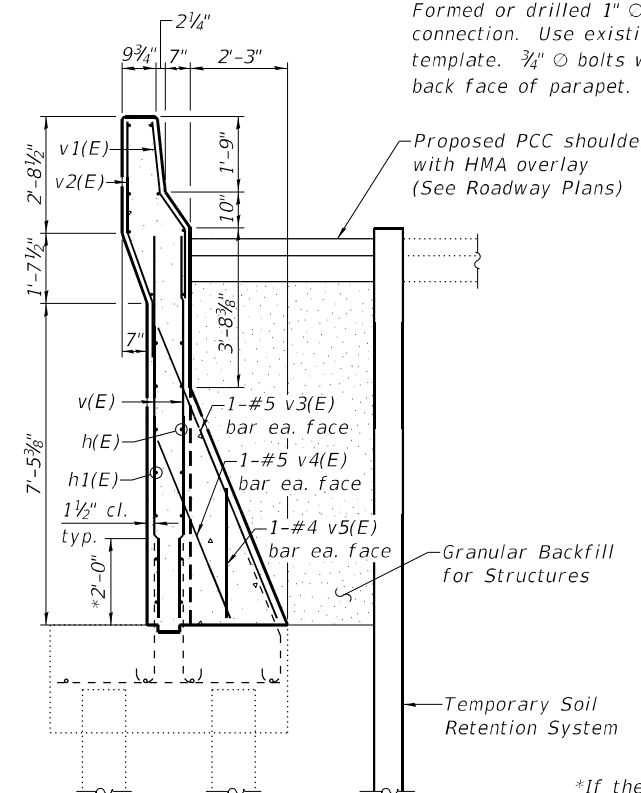


Note:
Cross-Hatched areas indicate limits of Concrete Removal.

SECTION THRU NORTHEAST WINGWALL
(Showing Removal)



SECTION THRU NORTHEAST WINGWALL
(Showing Proposed)

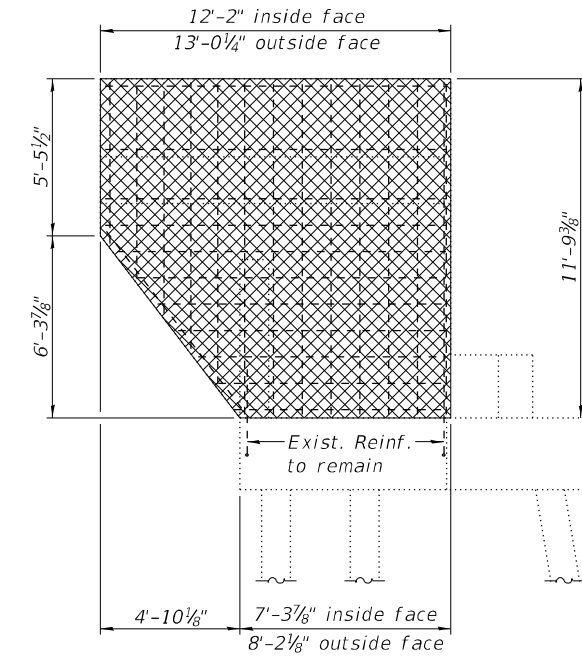


Formed or drilled 1" O holes for guardrail terminal connection. Use existing guardrail connection as template. 3/4" O bolts with steel bearing plate on back face of parapet.

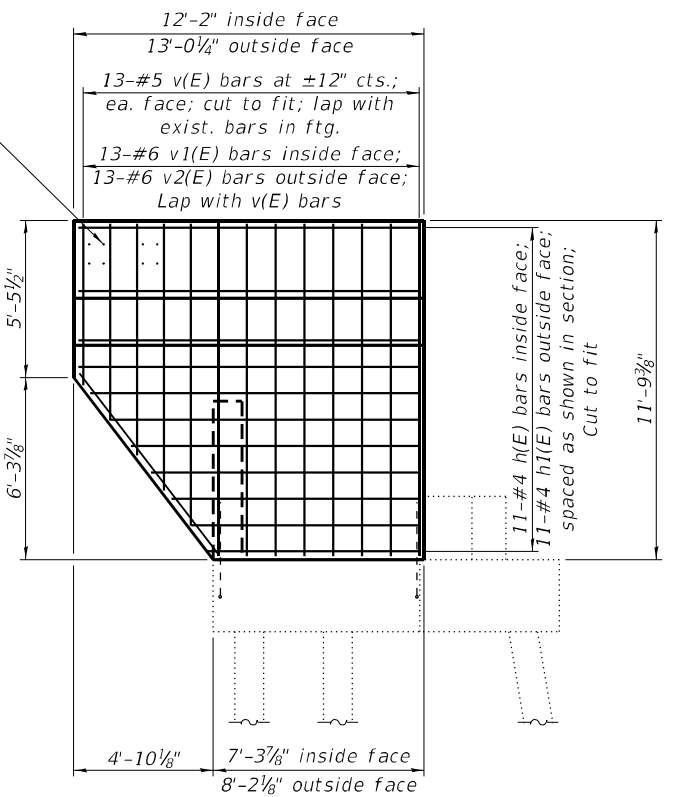
SECTION THRU NORTHEAST WINGWALL
(Showing Proposed)

*If the Contractor finds that existing bars are yielded, the bars shall be cut flush with the footing and new bars shall be epoxy grouted a minimum 9 inches into footing per Article 509.06 of the Standard Specifications.

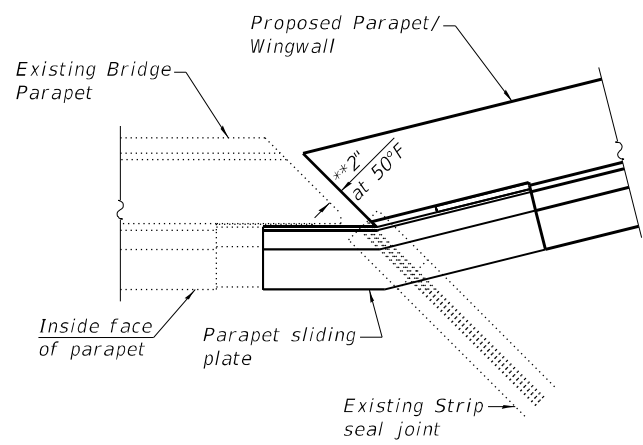
ELEVATION VIEW OF NORTHEAST WINGWALL
(Showing Removal)



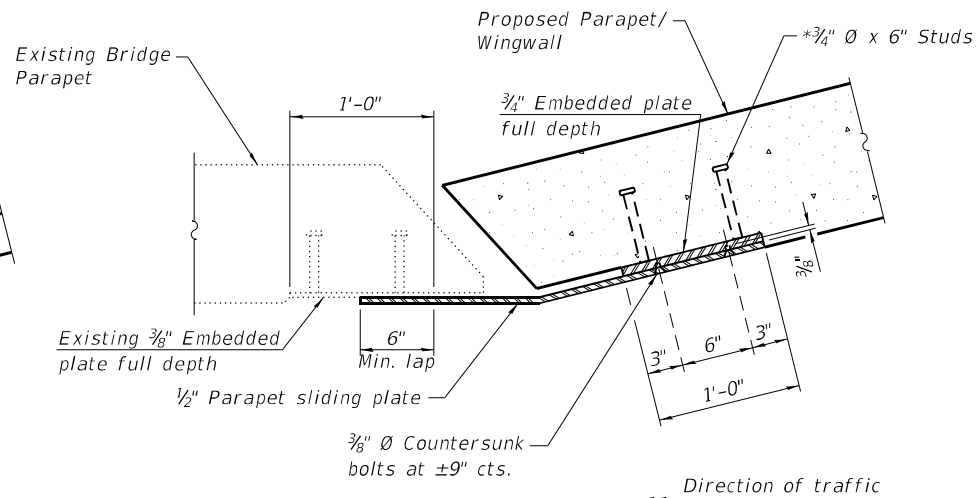
ELEVATION VIEW OF NORTHEAST WINGWALL
(Showing Proposed)



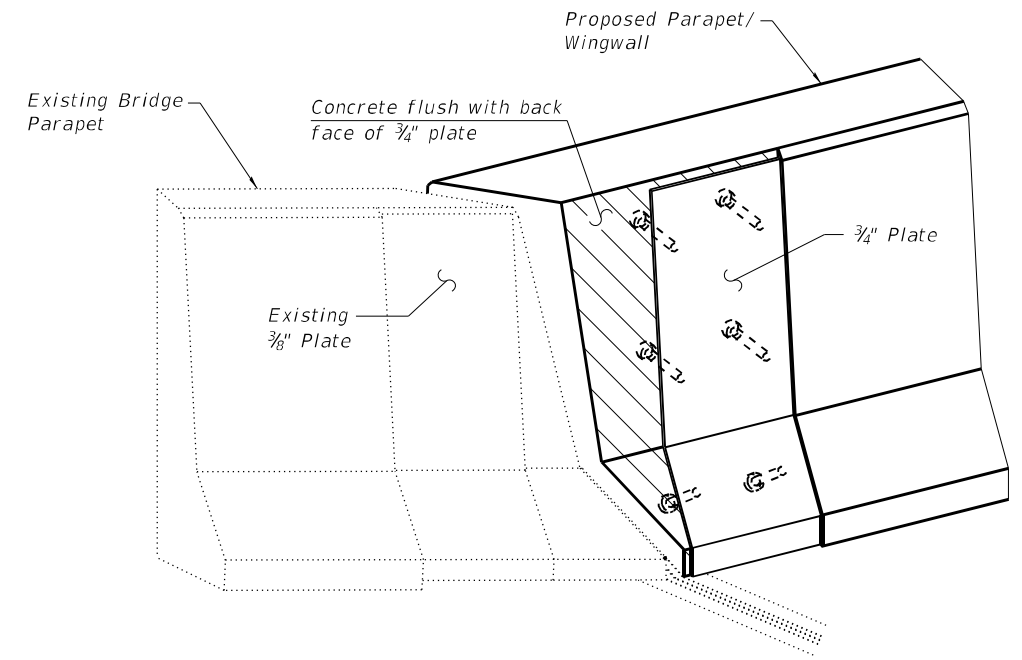
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PLAN AT NORTHEAST WINGWALL



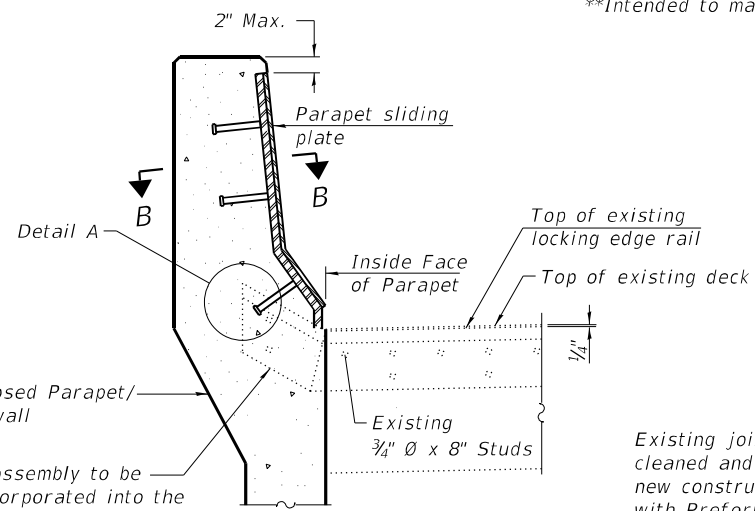
SECTION B-B



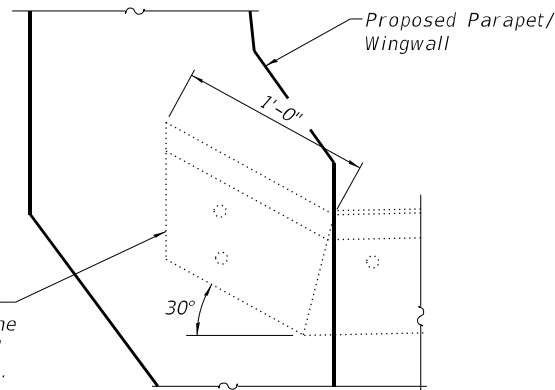
TRIMETRIC VIEW
(Showing embedded plates only)

*Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

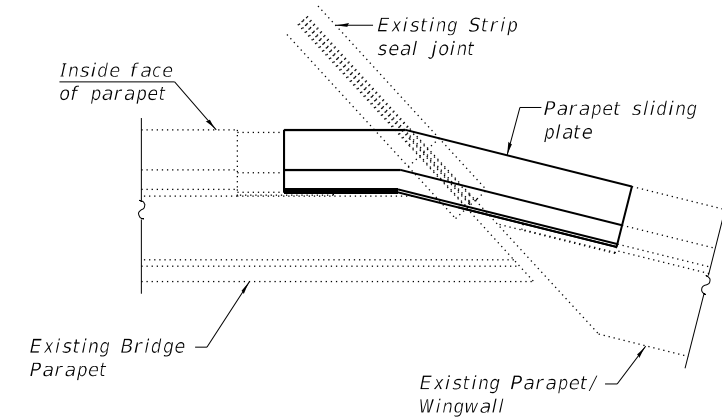
**Intended to match existing opening.



ELEVATION AT PARAPET



DETAIL A



PLAN AT SOUTHEAST WINGWALL

The 1/2" sliding plate shall be replaced, with new countersunk bolts.

Notes:
The manufacturer's recommended installation methods shall be followed.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
Contractor shall field verify all dimensions prior to ordering material.

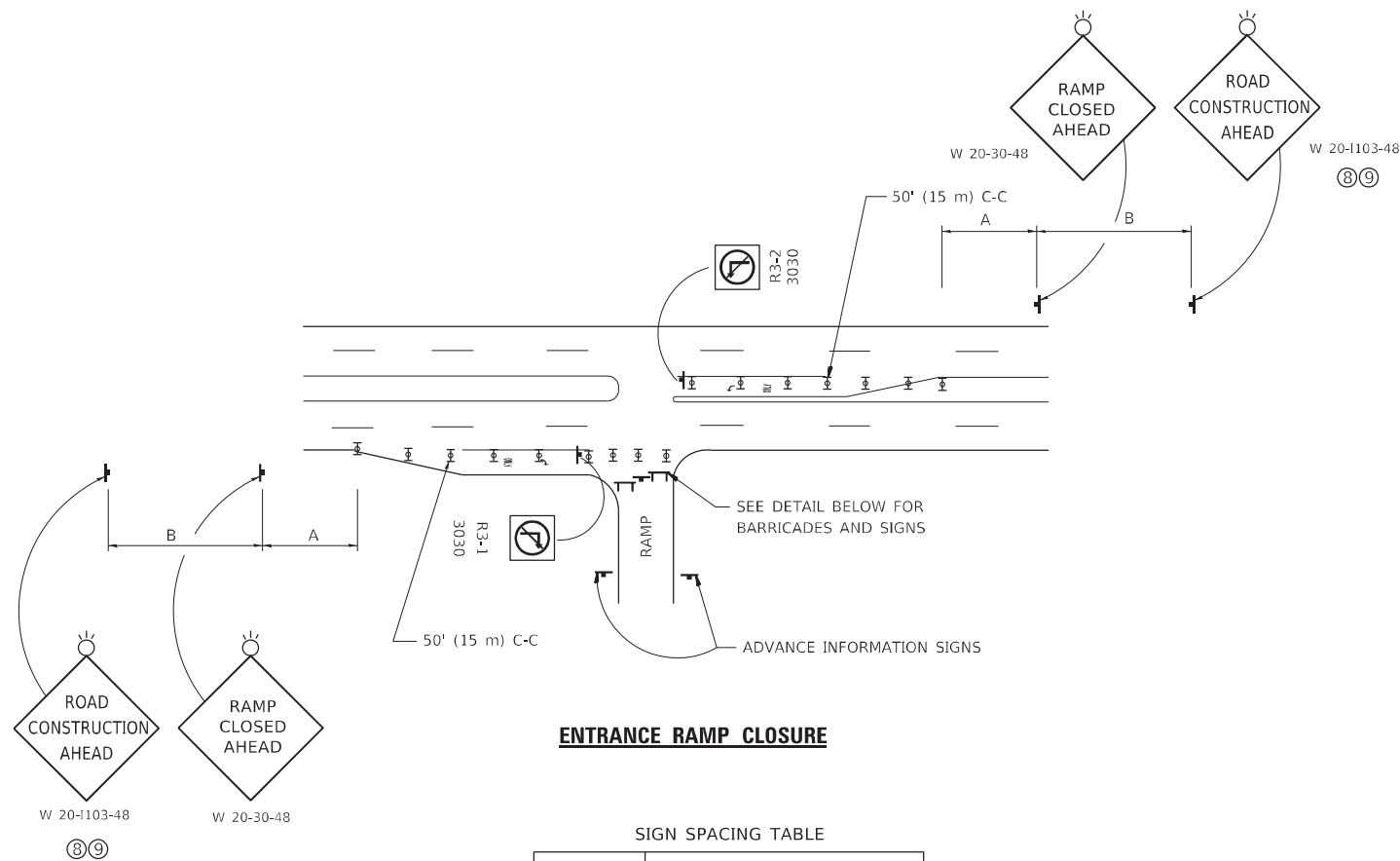
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	1

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62W80				
ILLINOIS FED. AID PROJECT				

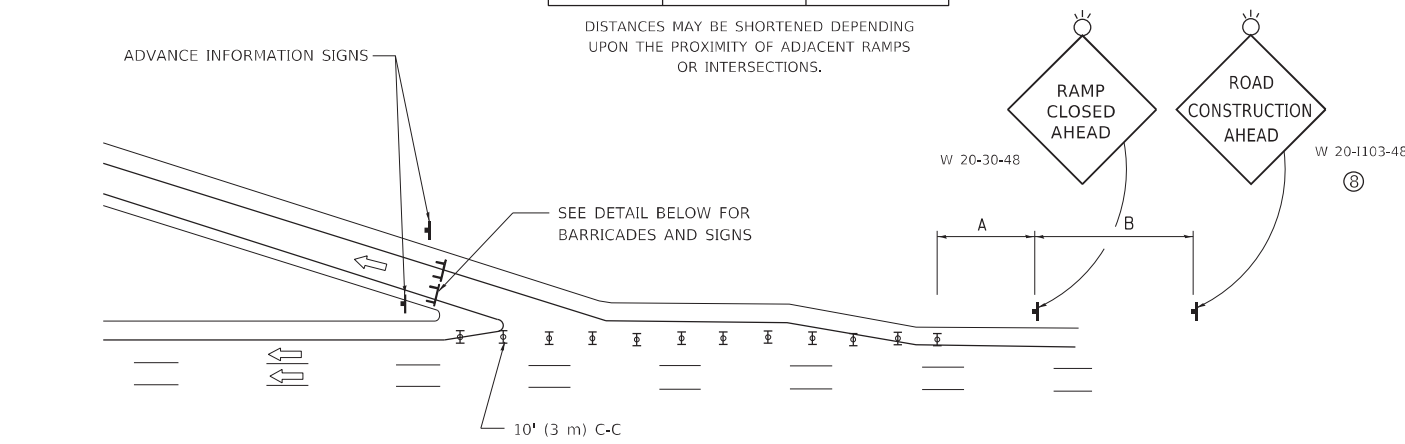


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

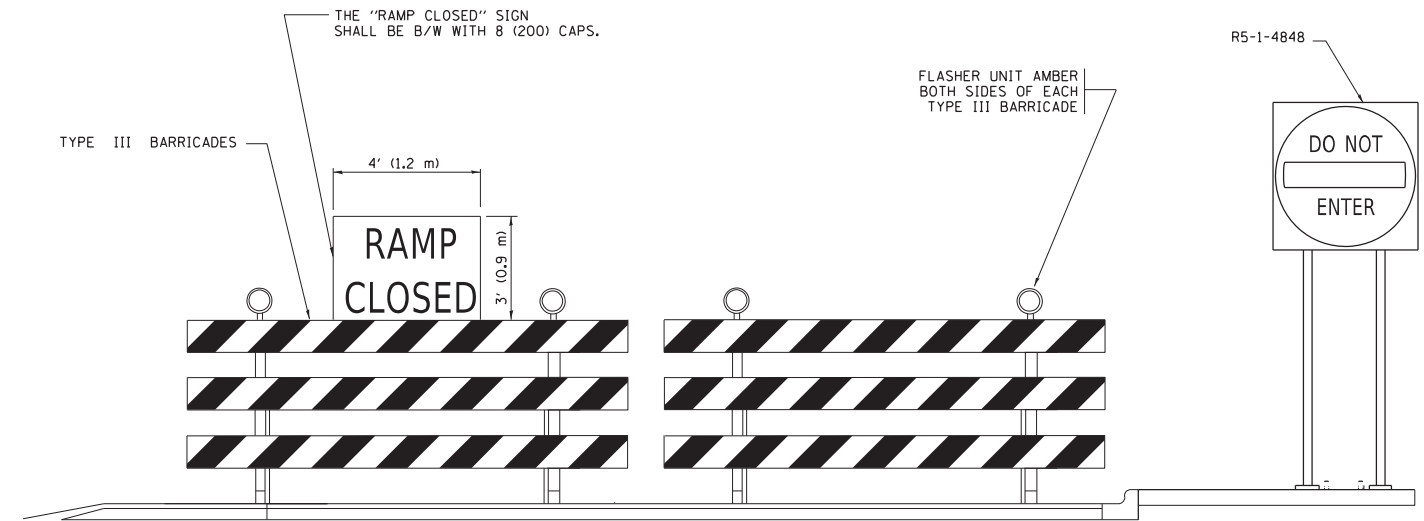
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

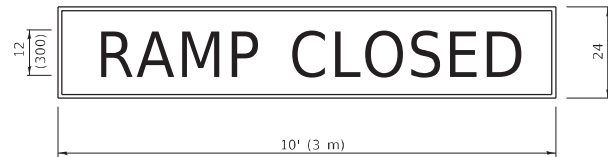
SYMBOLS

- ☐ TYPE II BARRICADE OR DRUM
- ☐ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



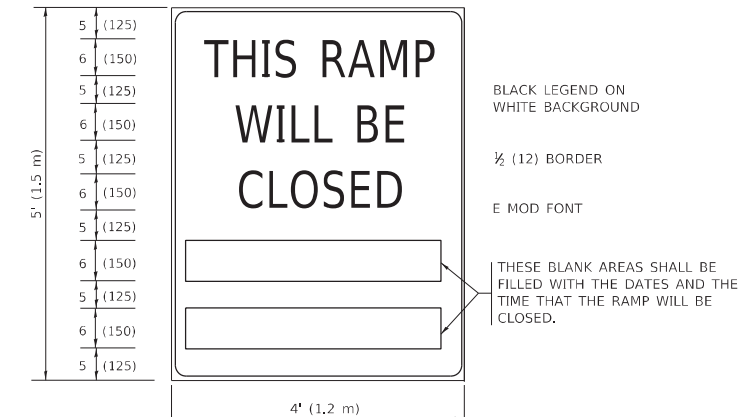
BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1/2 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE BACKGROUND

1/2 (12) BORDER

E MOD FONT

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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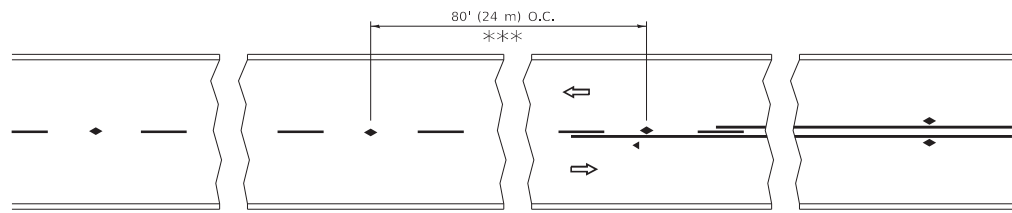
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE_AND_EXIT_RAMP
CLOSURE_DETAILS**

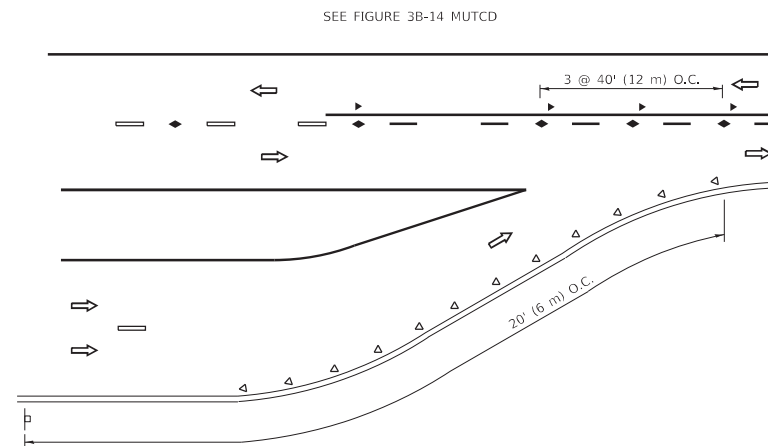
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	17
TC-08		CONTRACT NO. 62W80		
ILLINOIS / FED. AID PROJECT				

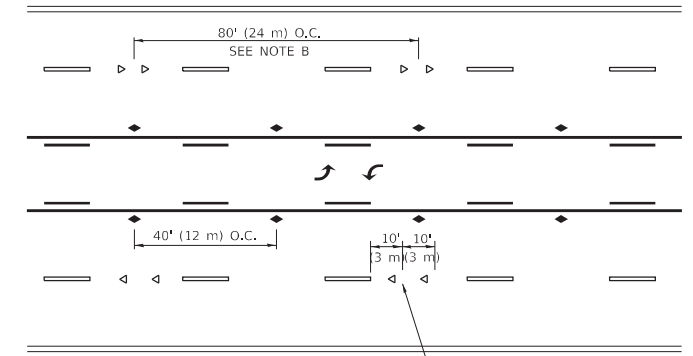


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

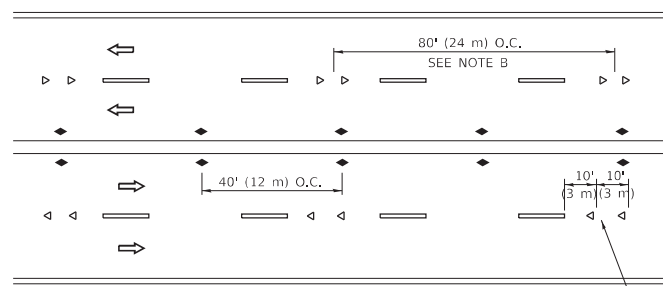
TWO-LANE/TWO-WAY



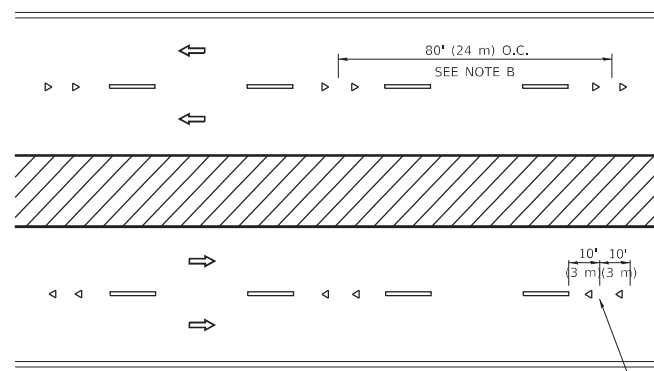
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

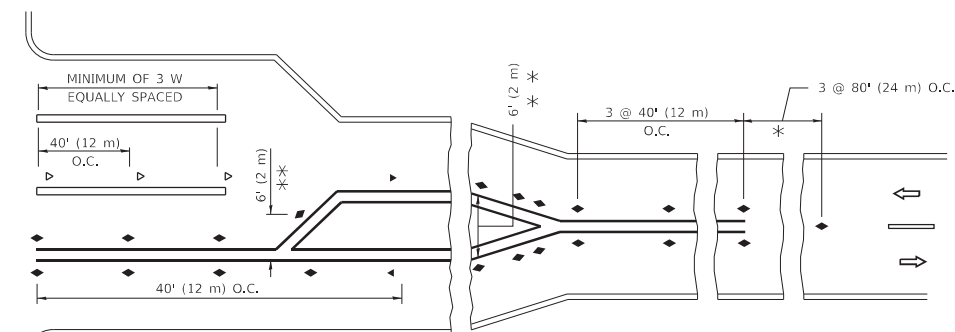
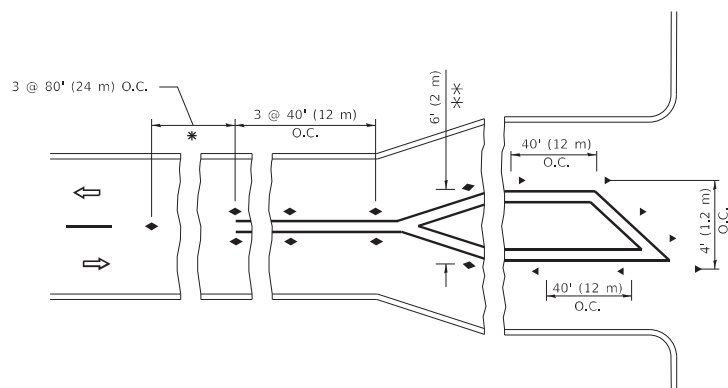
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 *** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

TURN LANES

All dimensions are in inches (millimeters) unless otherwise shown.

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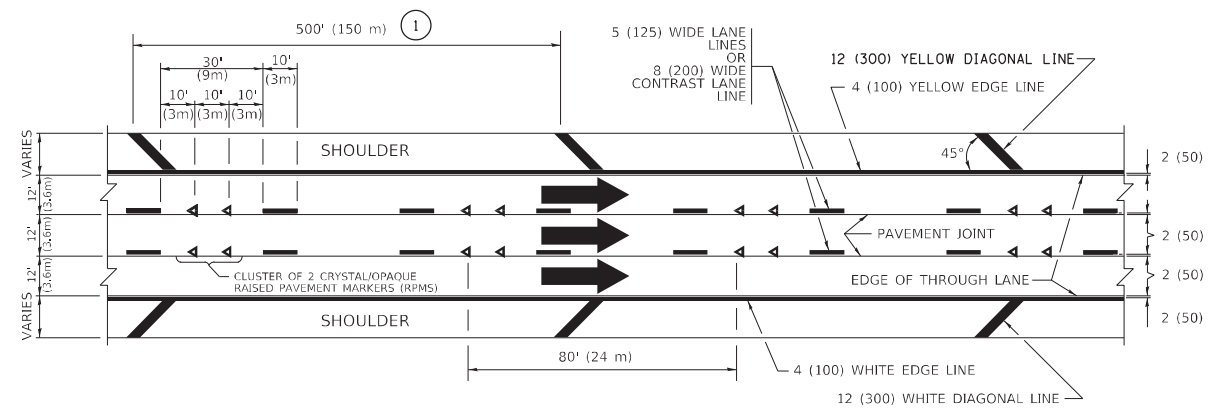
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

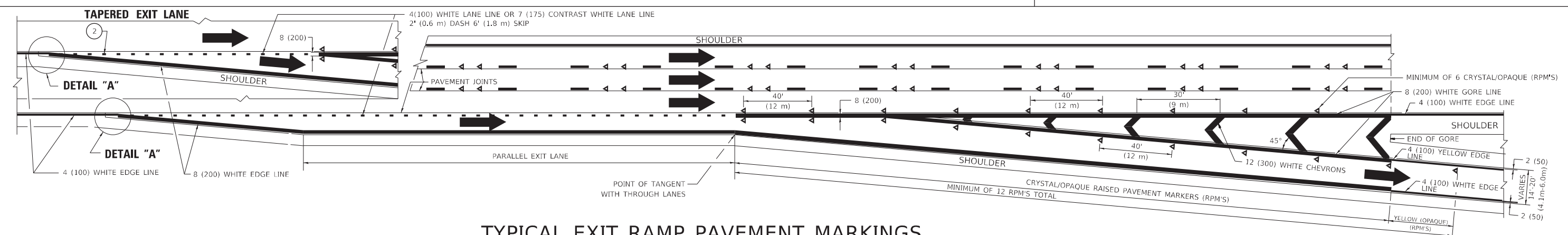
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TC-11		CONTRACT NO. 62W80		
ILLINOIS		FED. AID PROJECT		



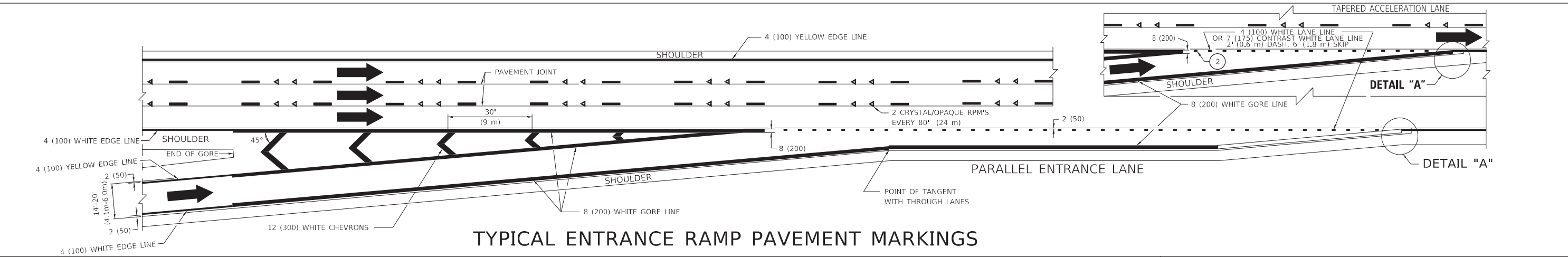
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

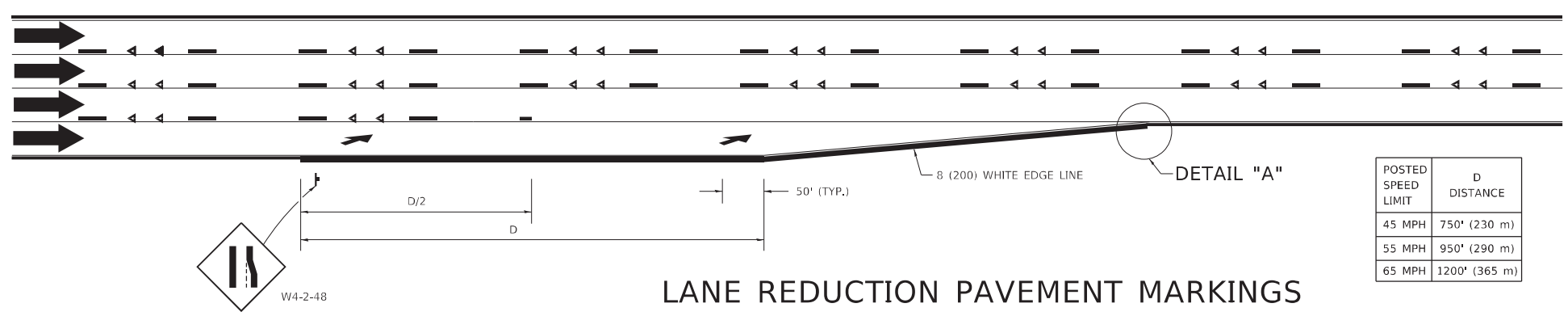
1. THERMOPLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON HMA PAVEMENTS.
2. POLYUREA OR MODIFIED URETHANE PAVEMENT MARKING LINE SHALL BE USED FOR ALL EDGE LINES, GORE LINES, AND DIAGONAL LINES ON PCC PAVEMENTS.
3. PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE D, INLAID OR GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENTS.
4. CONTRAST PREFORMED PLASTIC PAVEMENT MARKING LINE TYPE B, GROOVE IN, SHALL BE USED FOR ALL LANE LINES ON PCC PAVEMENT.



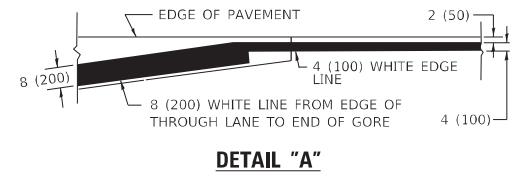
TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



LANE REDUCTION PAVEMENT MARKINGS



NOTES:

1. THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
2. 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

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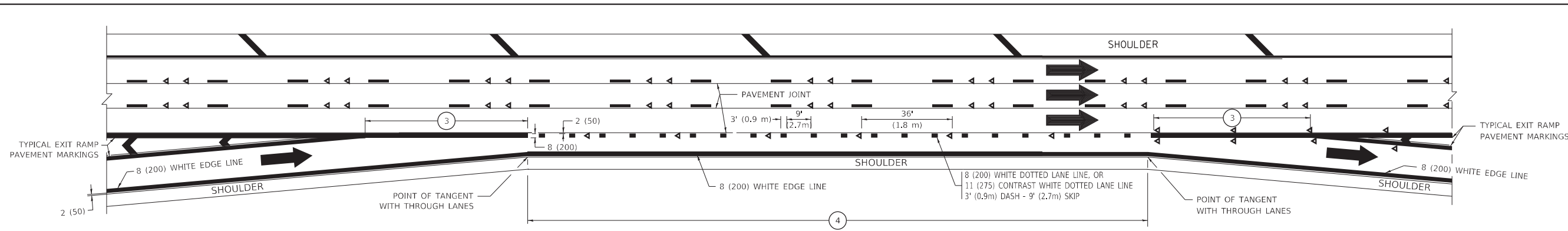
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DRAWN -	REVISED - M.D. 05-13	
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

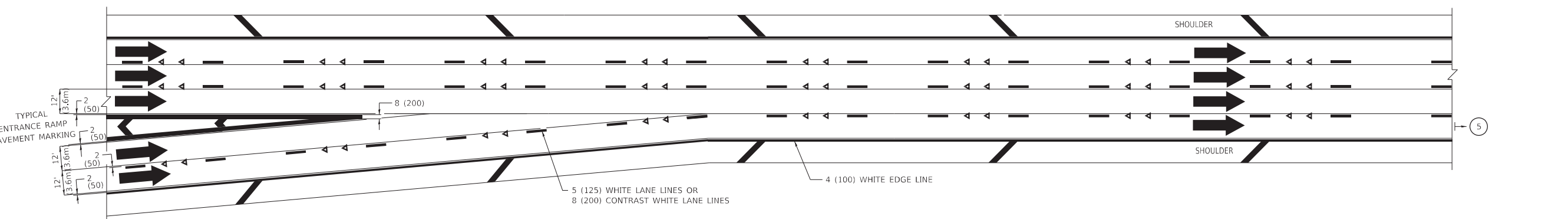
**MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS**

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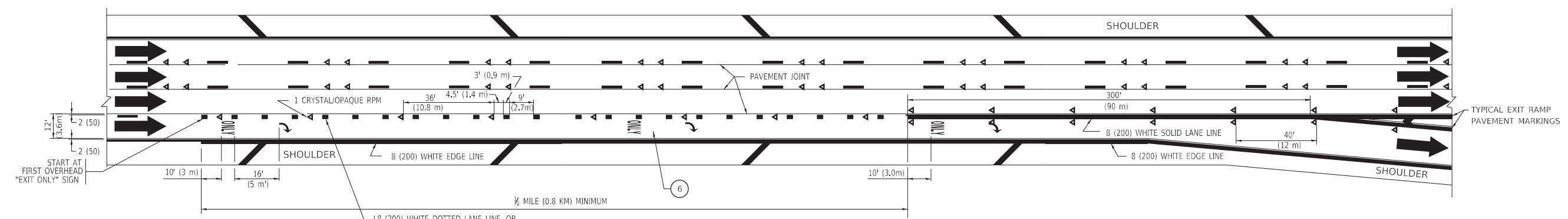
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TC-12		CONTRACT NO. 62W80		
ILLINOIS FED. AID PROJECT				



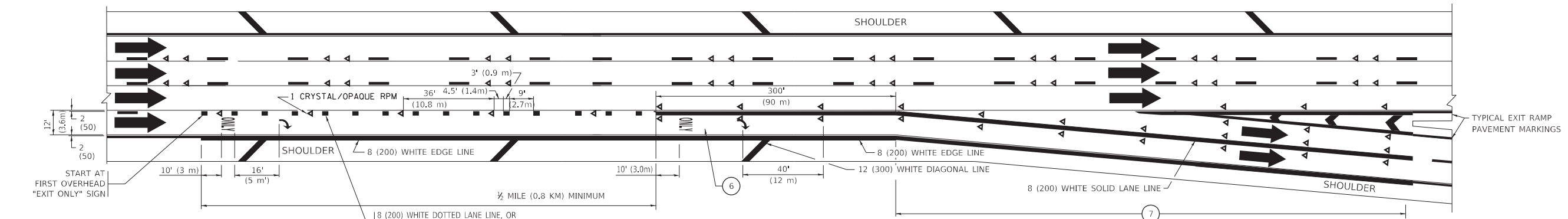
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES:**
- 3 OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
 - 4 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
 - 5 FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
 - 6 ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
 - 7 CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

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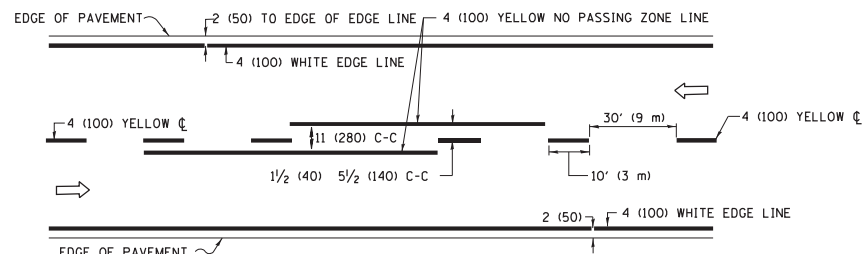
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

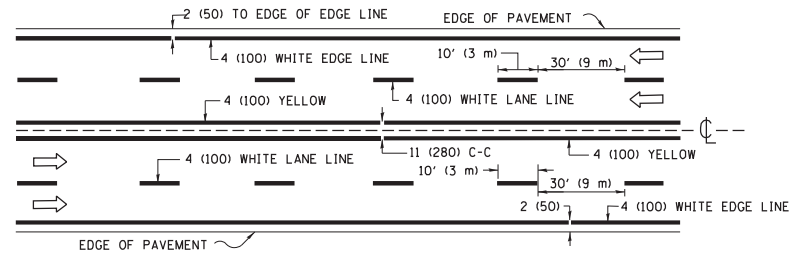
**MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS**

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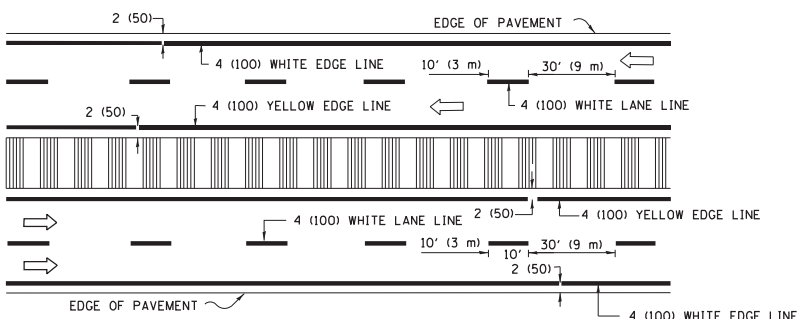
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290	(22-2-3HB) BR 24	DUPAGE	27	20
TC-12		CONTRACT NO. 62W80		
		ILLINOIS FED. AID PROJECT		



2-LANE ROADWAY

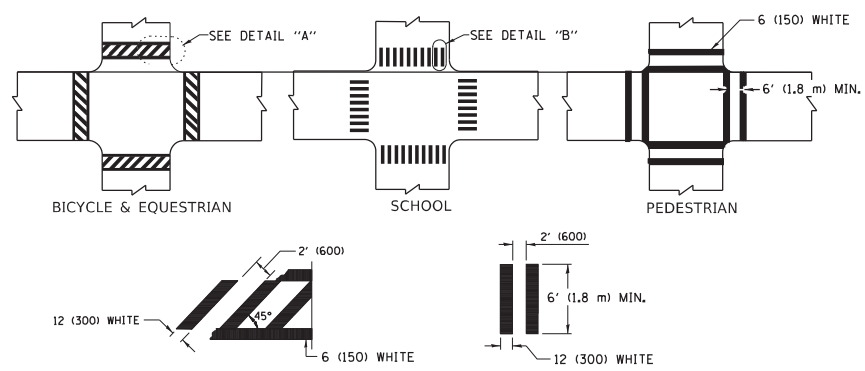


MULTI-LANE UNDIVIDED



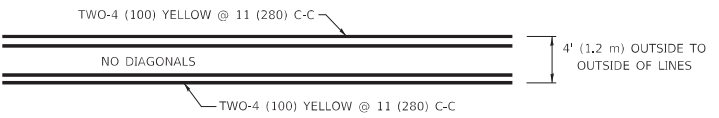
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

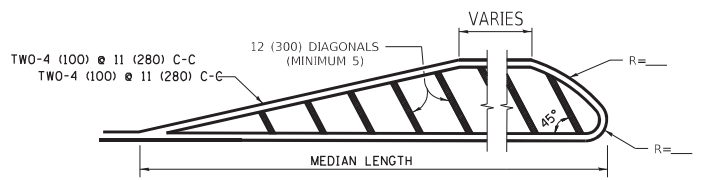


TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

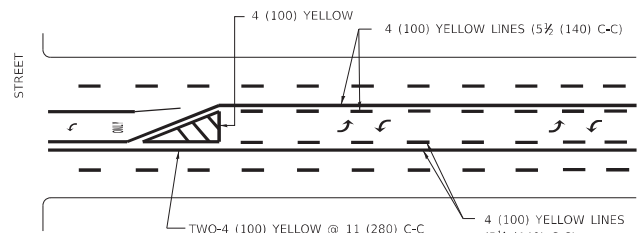


4' (1.2 m) WIDE MEDIANS ONLY



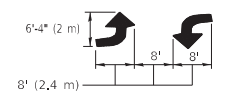
MEDIANS OVER 4' (1.2 m) WIDE

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING

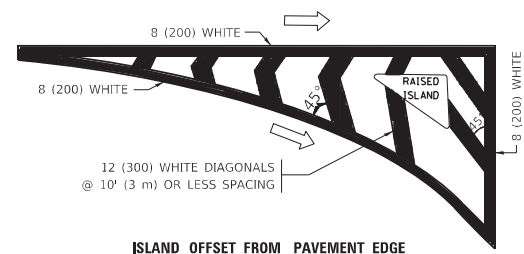
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



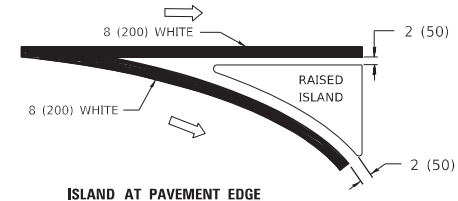
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

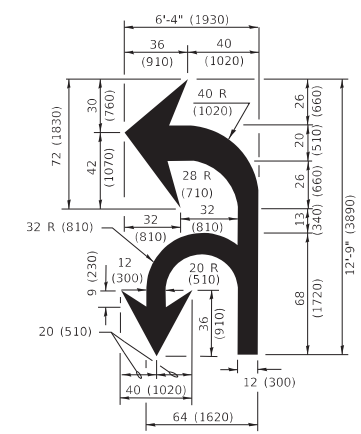
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".



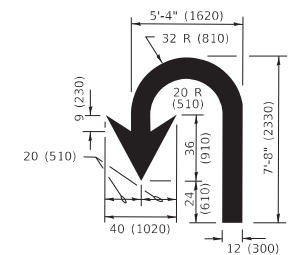
ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES "RR" IS 8' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

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PLOT DATE = 3/4/2019	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
		REVISED - C. JUCIUS 04-12-16

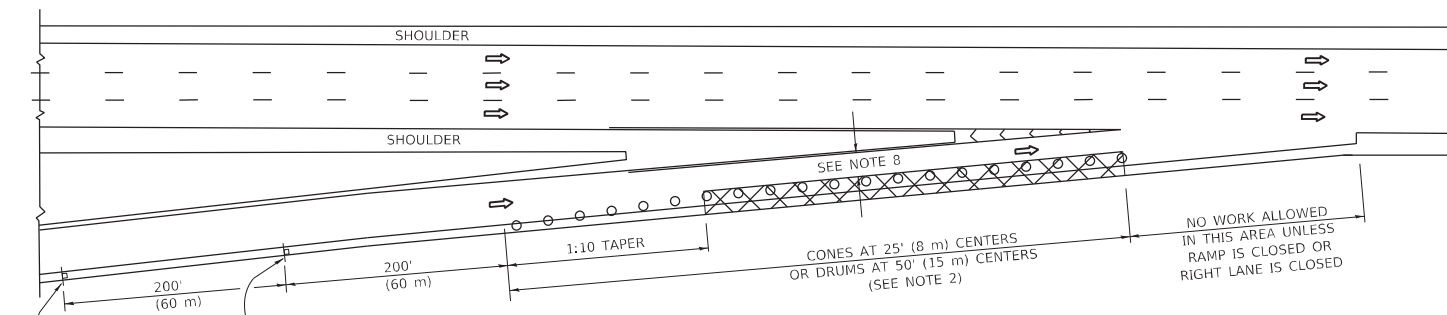
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

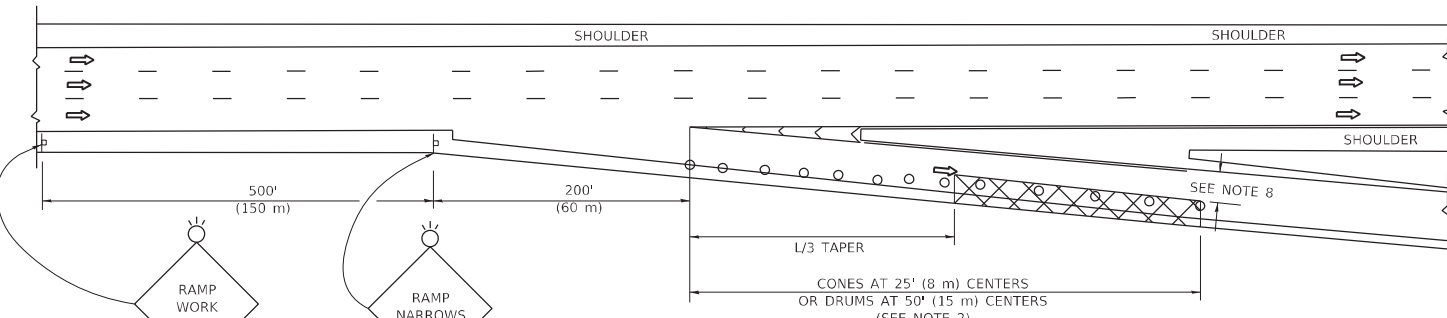
SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-13		CONTRACT NO. 62W80		
ILLINOIS		FED. AID PROJECT		

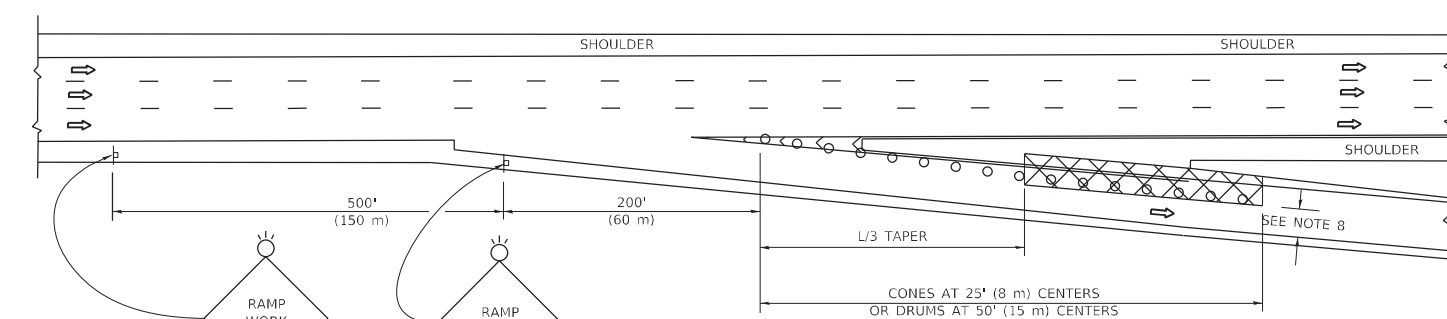
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

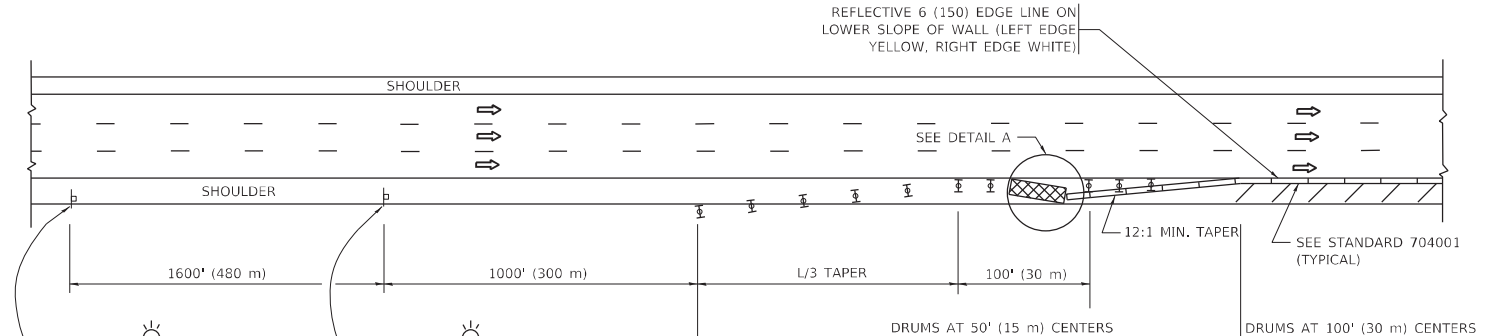
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES:

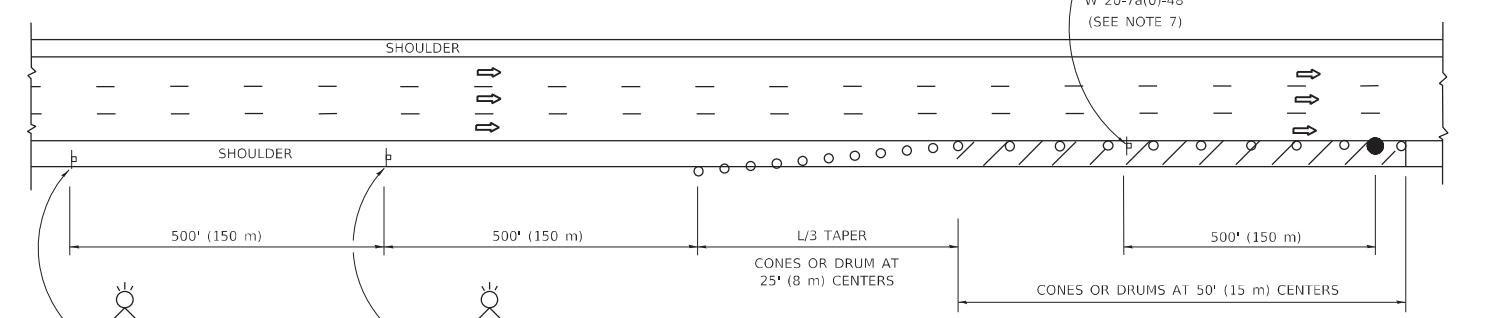
- THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(W/S)$ $L=(W/S)$
W = WIDTH OF OFFSET IN FEET (METERS)	
S = NORMAL POSTED SPEED MPH (KM/H)	
- TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

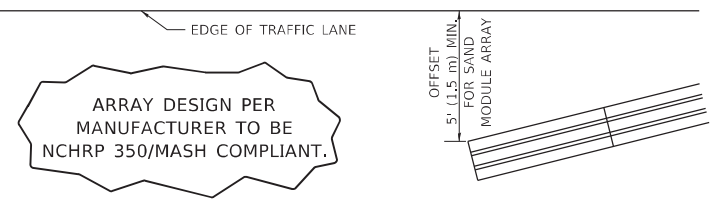


PERMANENT SHOULDER CLOSURE



TEMPORARY SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCOACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



**DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)**

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - THE WORK ACTIVITY REQUIRES FREQUENT ENCOACHMENT INTO THE LANE OPEN TO TRAFFIC. THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.
- TEMPORARY SHOULDER AND NON-SYSTEM INTERCHANGE PARTIAL RAMP CLOSURES ARE ALLOWED WEEKDAYS BETWEEN 9:00 A.M. AND 3:00 P.M. AND BETWEEN 7:00 P.M. AND 5:00 A.M. OR AS APPROVED BY THE EXPRESSWAY TRAFFIC OPERATIONS ENGINEER. PERMANENT SHOULDER AND PARTIAL RAMP CLOSURES WILL ONLY BE PERMITTED IF CALLED FOR IN THE PLANS OR AS APPROVED BY THE EXPRESSWAY OPERATIONS ENGINEER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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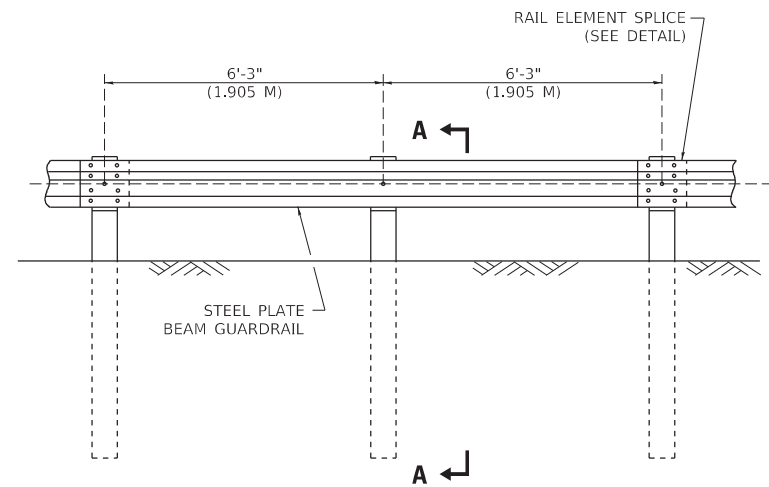
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PLOT DATE = 5/3/2024	DATE - 11-96	REVISED - D.S. 05-24

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

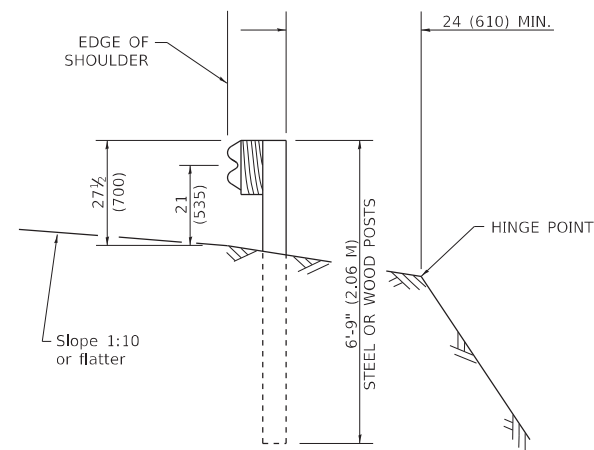
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-17			CONTRACT NO. 62W80	
ILLINOIS		FED. AID PROJECT		



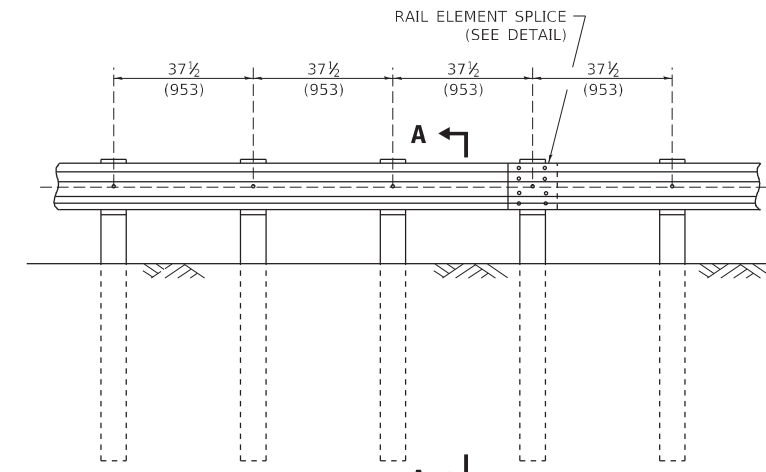
ELEVATION

TYPE A

6'-3" (1.905 M) TYPICAL POST SPACING



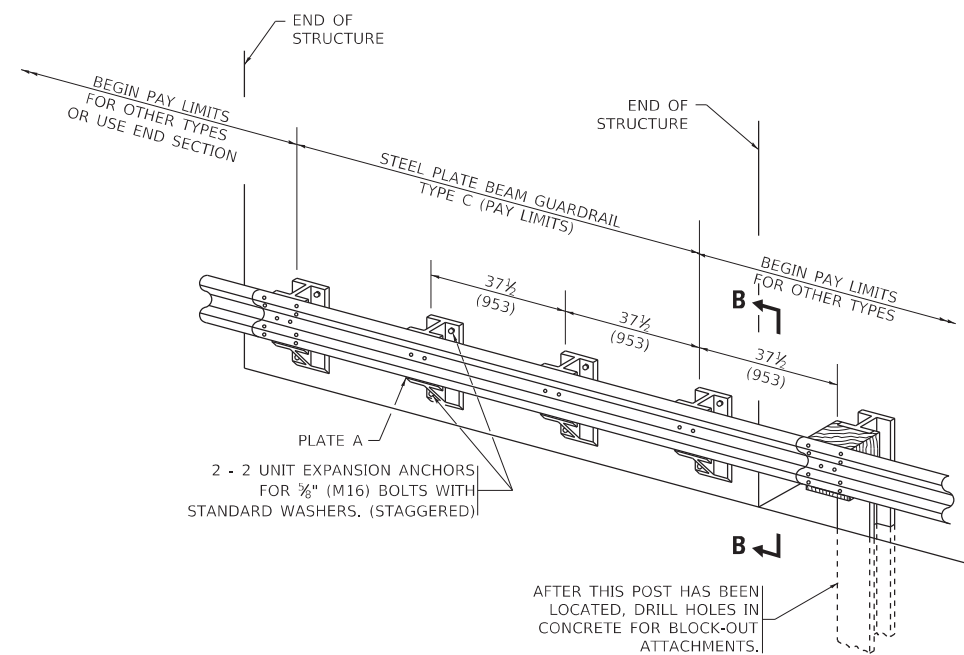
SECTION A-A



ELEVATION

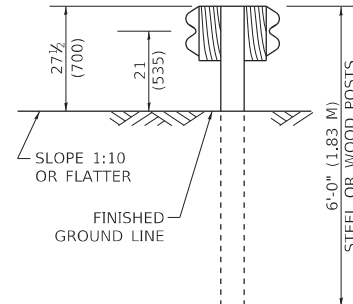
TYPE A

37 1/2 (953) CLOSED POST SPACING

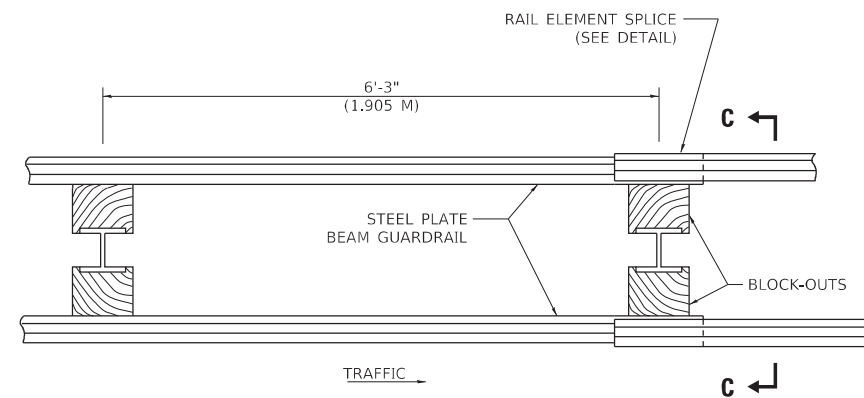


TYPE C

37 1/2 (953) BLOCK-OUT SPACING



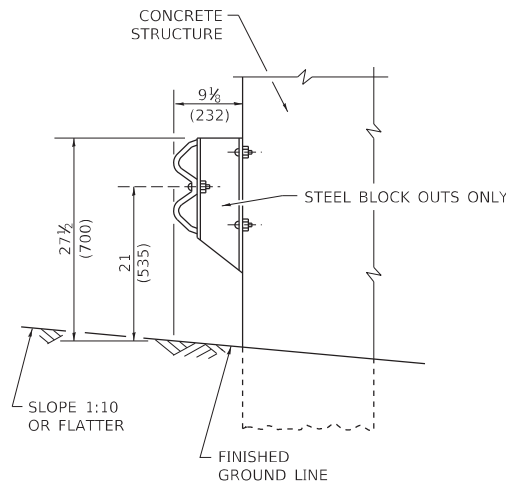
SECTION C-C



PLAN

TYPE D

DOUBLE STEEL PLATE BEAM GUARDRAIL
6'-3" (1.905 M) TYPICAL POST SPACING



SECTION B-B

GENERAL NOTES

ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

THE EXISTING STEEL POSTS MAY BE DRILLED TO MATCH THE BOLT PATTERN SHOWN HEREIN FOR THE WOOD BLOCK-OUT, OR A NEW STEEL POST SHALL BE PROVIDED.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

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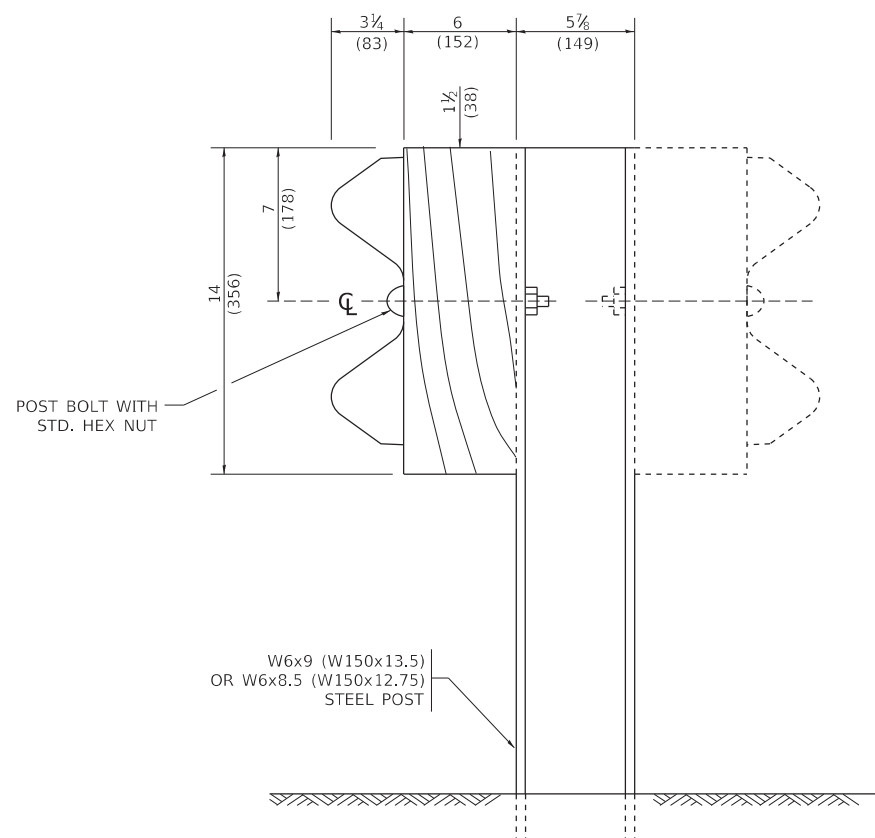
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PLOT DATE = 3/11/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

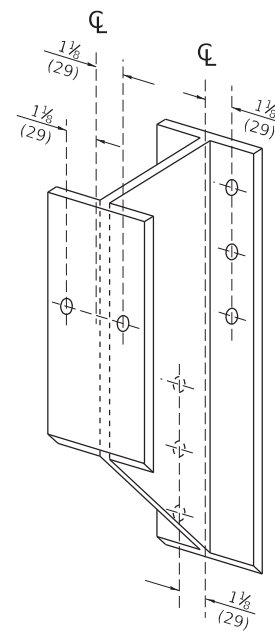
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**

SCALE: NONE SHEET 1 OF 4 SHEETS STA. TO STA.

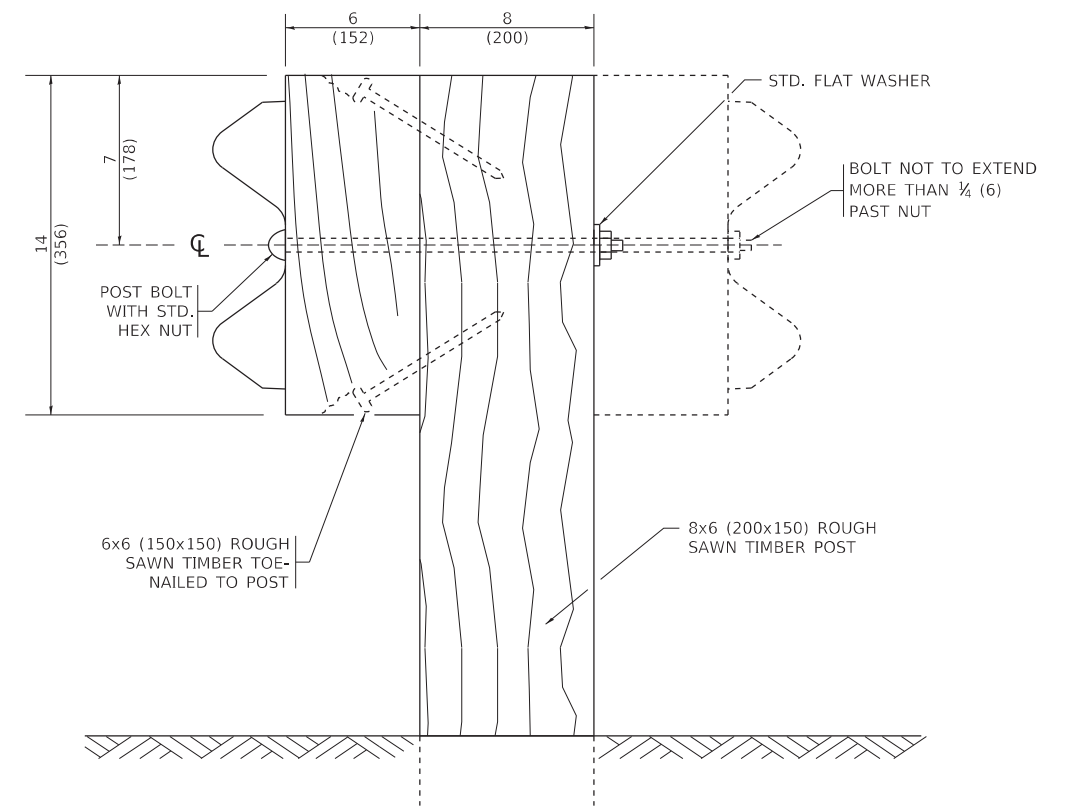
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	24
BM-21		CONTRACT NO. 62W80		
ILLINOIS FED. AID PROJECT				



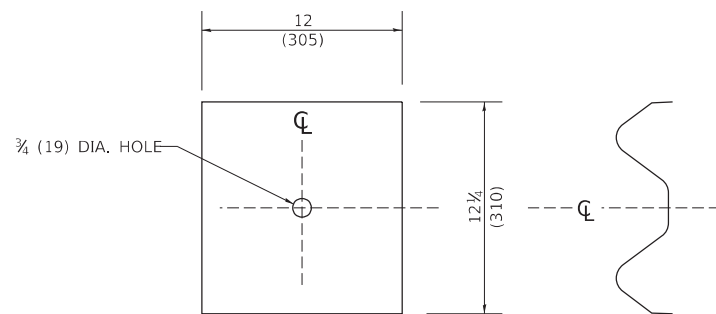
STEEL POST CONSTRUCTION



STEEL BLOCK-OUT DETAIL



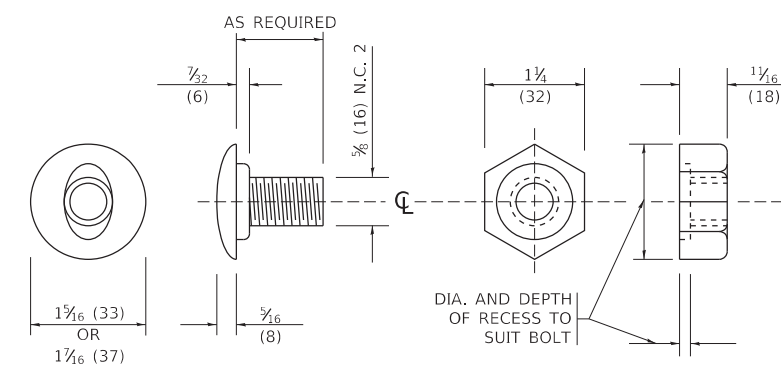
WOOD POST CONSTRUCTION



NOTE:

PLATE A SHALL BE PLACED BETWEEN RAIL ELEMENT AND BLOCK-OUT AT NON-SPLICE MOUNTING POINTS ONLY WHEN STEEL BLOCK-OUTS ARE USED.

PLATE A



POST OR SPLICE BOLT & NUT

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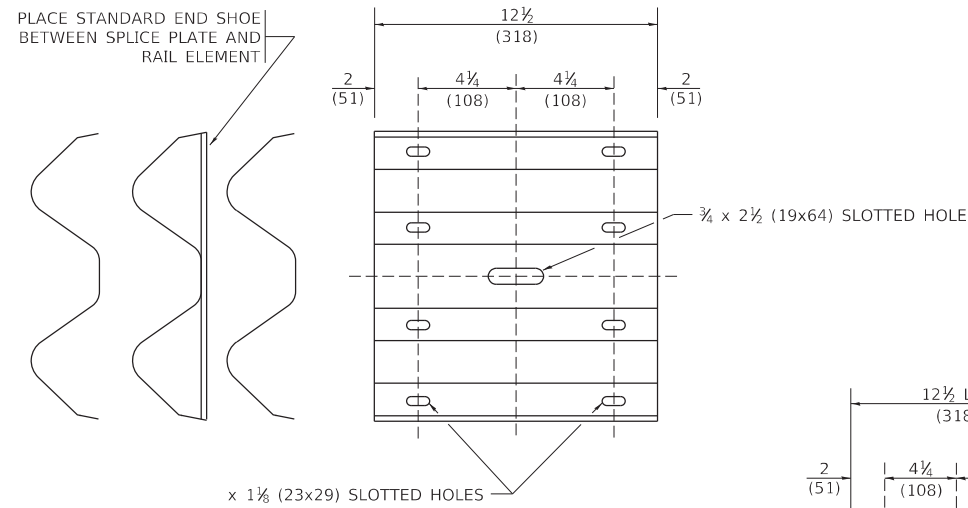
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	DRAWN -	REVISED -
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PLOT DATE = 3/11/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

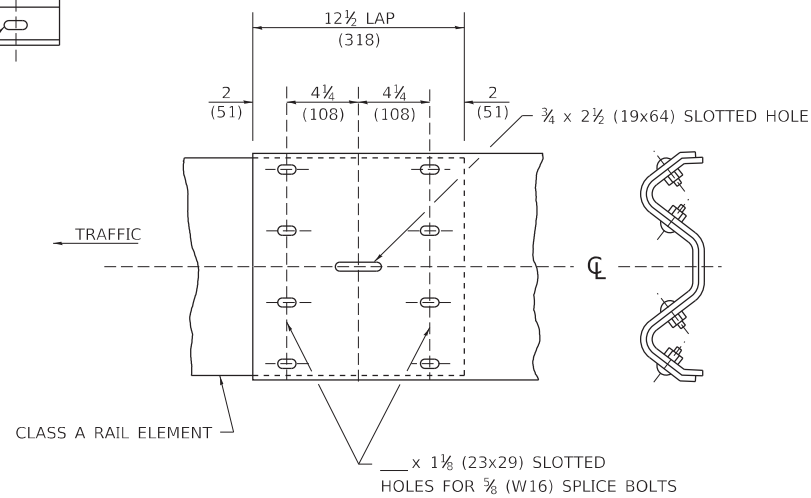
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**

SCALE: NONE SHEET 2 OF 4 SHEETS STA. TO STA.

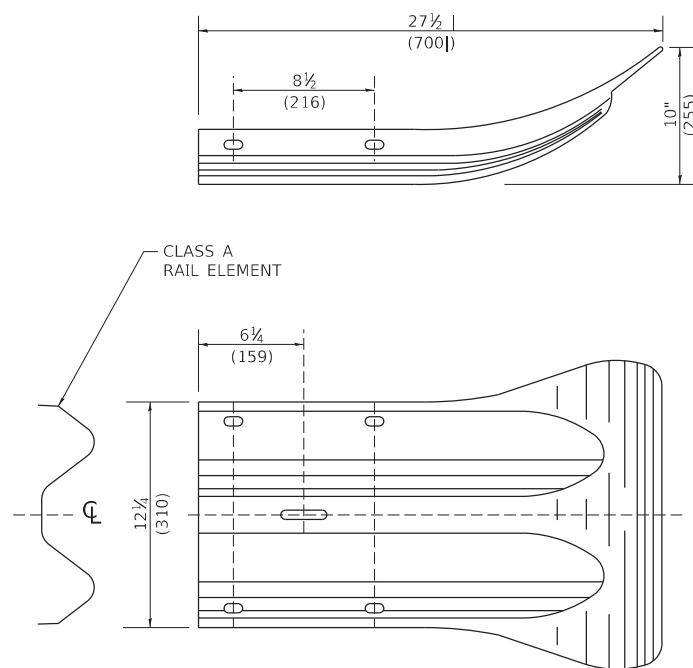
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290	(22-2-3HB) BR 24	DUPAGE	27	25
BM-21		CONTRACT NO. 62W80		
ILLINOIS FED. AID PROJECT				



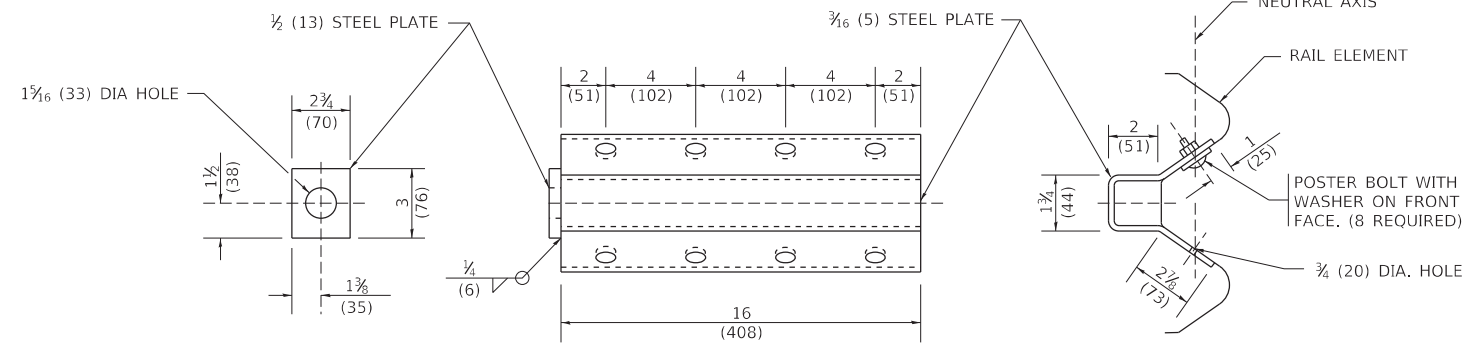
SPLICE PLATE



RAIL ELEMENT SPLICE



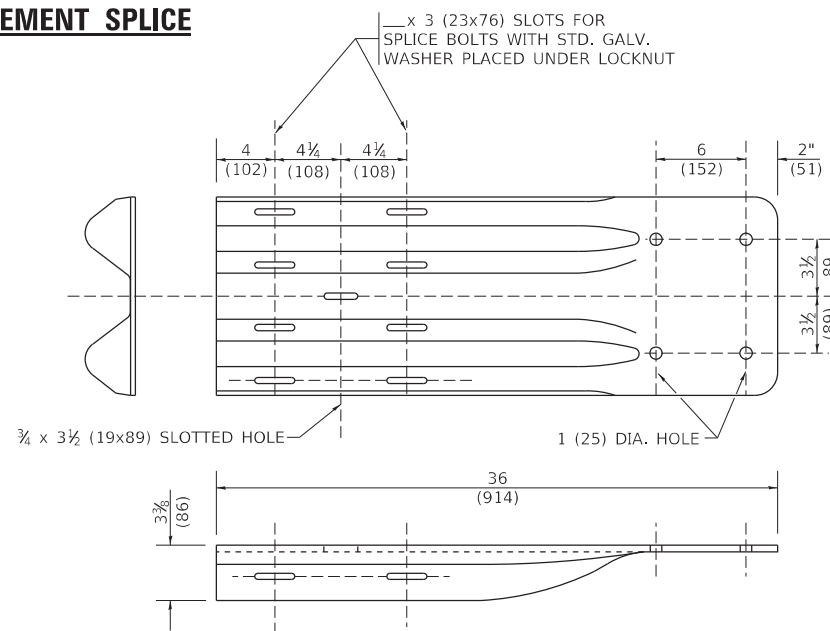
END SECTION



NOTE:

ANCHOR PLATE T SHALL BE USED TO ATTACH CABLE ASSEMBLY TO GUARDRAIL WHEN REQUIRED ON TRAFFIC BARRIER TERMINALS.

ANCHORE PLATE T DETAILS



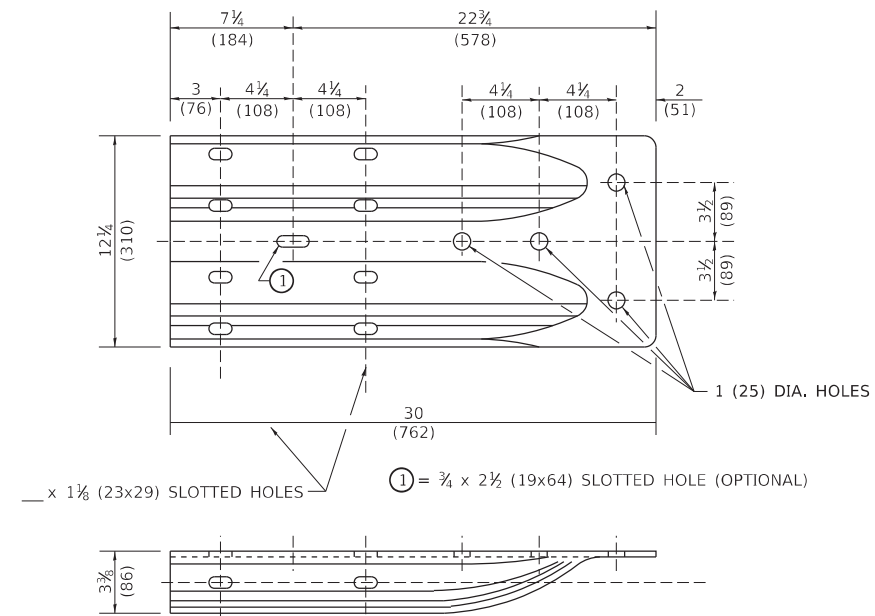
END SHOE

NOTE:

WHEN END SHOE IS ATTACHED TO A BRIDGE PARAPET WHICH HAS AN EXPANSION JOINT, THE BOLTS SHALL BE PROVIDED WITH A LOCKNUT OR DOUBLE NUT AND SHALL BE TIGHTENED ONLY TO A POINT THAT WILL ALLOW GUARDRAIL MOVEMENT.

THE STANDARD END SHOE SHALL BE ATTACHED TO THE CONCRETE WITH PRE-DRILLED OR SELF-DRILLING ANCHOR BOLTS. THE ANCHOR CONE SHALL BE SET FLUSH WITH THE SURFACE OF THE CONCRETE.

EXTERNALLY THREADED STUDS PROTRUDING FROM THE SURFACE OF THE CONCRETE WILL NOT BE PERMITTED.



ALTERNATE END SHOE

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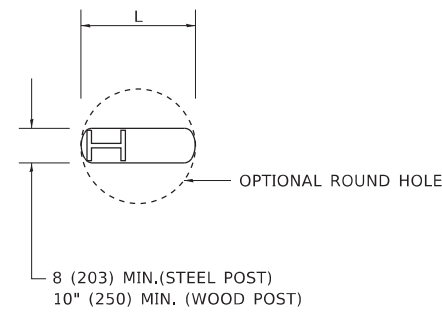
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	DRAWN -	REVISED -
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PLOT DATE = 3/11/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

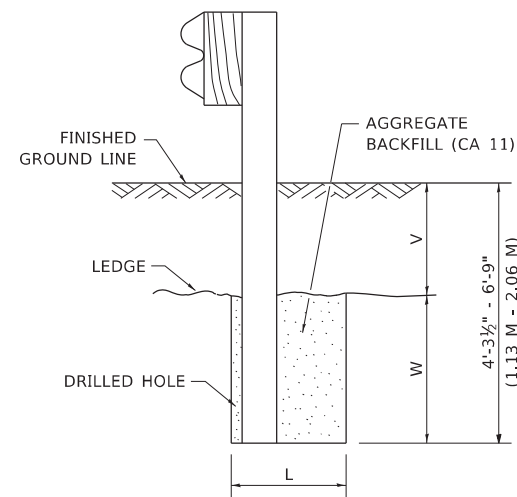
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**

SCALE: NONE SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-2-3HB) BR 24	DUPAGE	27	26
BM-21		CONTRACT NO. 62W80		
ILLINOIS FED. AID PROJECT				



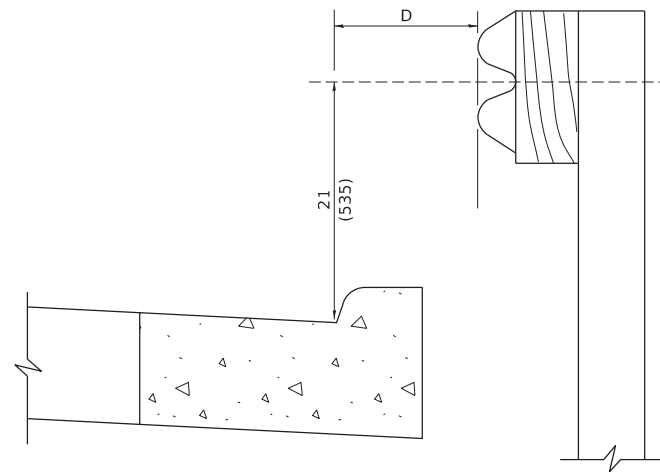
PLAN



NOTE:
LEDGE LINE IS TOP OF ROCK LEDGE OR HARD SLAG FILL.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED



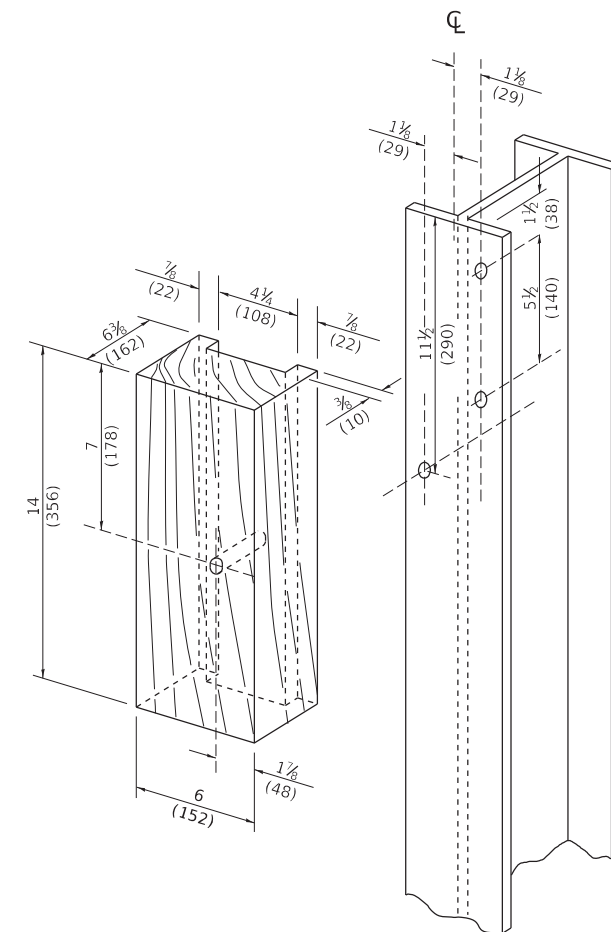
NOTE:

IF IT IS NECESSARY FOR D TO BE MORE THAN 12 (300) AND LESS THAN 10'-0" (3.0 M) TYPE M-2 (M-5) CURB AND GUTTER (STD. 606001) SHALL BE USED IN FRONT OF AND IN ADVANCE OF THE GUARDRAIL.

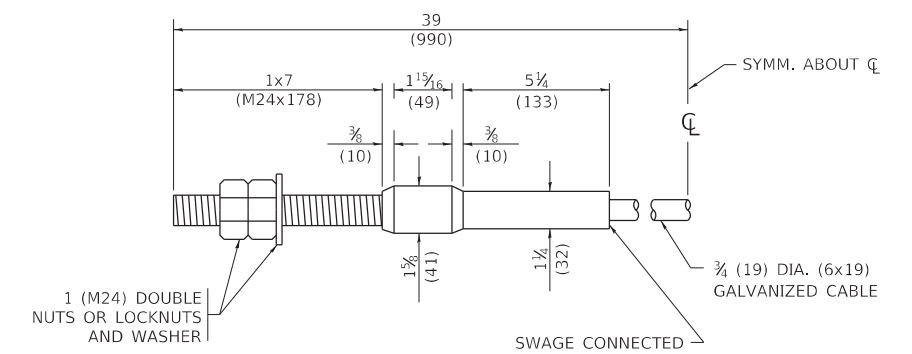
GUARDRAIL PLACED BEHIND CURB

(D = O DESIRABLE TO 12 (300) MAXIMUM)

V	W	L	
		STEEL POST	WOOD POST
0 - 18 (0 - 460)	24 (610)	21 (530)	23 (580)
>18 - 41.5 (> 460 - 825)	12 (305)	8 (203)	10 (250)
>41.5 - 53.5 (> 825 - 1.13 M)	12 - 0 (350 - 0)	8 (203)	10 (250)



WOOD BLOCK - OUT AND STEEL POST DETAILS



CABLE ASSEMBLY

(40,000 LBS (18,100 KG) MIN. BREAKING STRENGTH)
TIGHTEN TO TAUT TENSION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL

F.A. I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	(22-3-3HB) BR 24	DUPAGE	27	27
BM-21		CONTRACT NO. 62W80		

SCALE: NONE SHEET 4 OF 4 SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT