

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 0372 (IL 171)
OVER DES PLAINES RIVER
SECTION 2020-183-BR
PROJECT NHPP-IB5I(822)
BRIDGE DECK OVERLAY AND
BRIDGE REPAIRS
COOK COUNTY

C-91-352-20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	1
		ILLINOIS	CONTRACT NO. 62M38	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

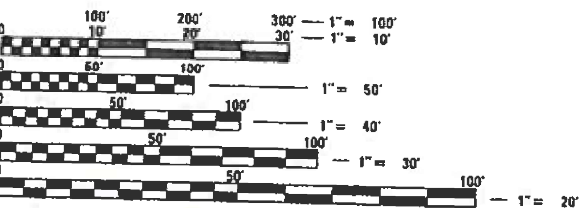
THIS PROJECT IS LOCATED WITHIN
VILLAGE OF RIVER GROVE

TRAFFIC DATA

IL ROUTE 171:
FUNCTIONAL CLASSIFICATION:
OTHER PRINCIPAL ARTERIAL
ADT (2019) = 35,400
P.V. = 96.82% M.U. = 3.18%
POSTED SPEED LIMIT = 40 MPH
DESIGN SPEED LIMIT = 40 MPH



DATE SIGNED: 10-2-2020
EXP. DATE: 11-30-21

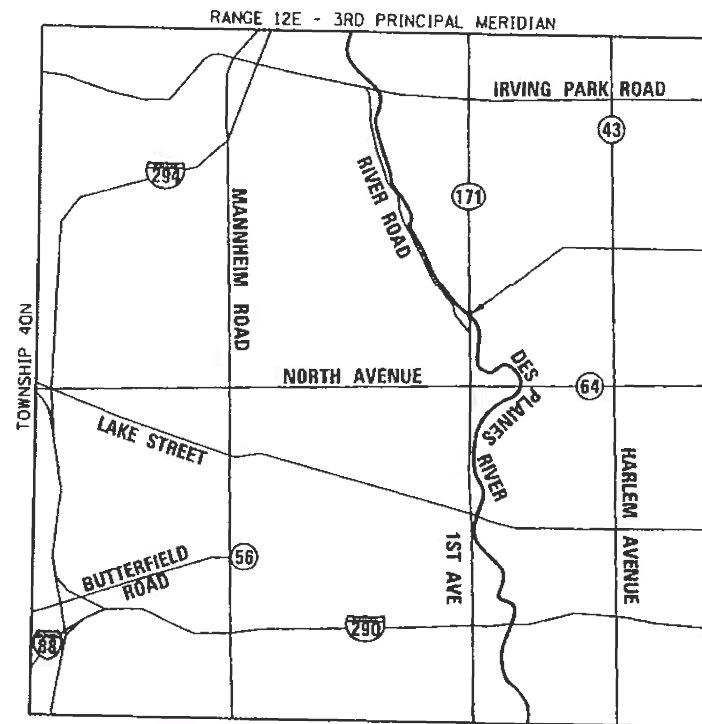


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: PRAVEEN KAINI, P.E. (847)705-4237
PROJECT MANAGER: J. ALAIN MIDY, P.E. (847)221-3056

CONTRACT NO. 62M38



BRIDGE REPAIR
SN: 016-0697
BEGIN PROJECT:
STA. 35 + 56
END PROJECT:
STA. 40 + 78

GROSS LENGTH = 2215 FT. = 0.420 MILE
NET LENGTH = 522 FT. = 0.099 MILE



LOCATION OF SECTION INDICATED THIS: -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
SERVICE | SOLUTIONS | COMMITMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 20 20
Anthony Amadio 1983
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 4, 2020
Scott A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT

December 4, 2020
James J. Gu 13
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
3-7	SUMMARY OF QUANTITIES
8	ROADWAY PLAN
9-11	MAINTENANCE OF TRAFFIC PLANS
12	PAVEMENT MARKING PLAN
13	GENERAL PLAN AND ELEVATION
14	GENERAL STRUCTURAL DATA
15	STAGE CONSTRUCTION DETAIL
16	DECK REPAIR PLAN
17-18	JOINT REPAIR PLANS
19	PREFORMED JOINT STRIP SEAL DETAIL
20	DECK DRAINAGE REMOVAL PLAN
21	FRAMING PLAN
22	BEAM REPAIR PLAN
23	ABUTMENT REPAIR PLAN
24-25	PIER REPAIR PLANS
26	PARAPET WALL REPAIR PLAN
27	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
28-32	DISTRICT DETAILS

DISTRICT ONE DETAILS

STANDARD NO.	DESCRIPTION
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-22	ARTERIAL ROAD INFORMATION SIGN

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION REQUIRED).
- NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED. PERMANENT PAVEMENT MARKINGS.15. SURVEY HAS NOT BEEN PERFORMED FOR THE PROJECT. PROJECT BENCHMARK INFORMATION IS BASED ON 1980 DRAWING PROVIDED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE LOCAL MUNICIPALITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA. KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- WHEN THE MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 mm) WHERE THE SPEED LIMIT IS 40 MPH (80 km/h) OR LESS AND 1 INCH (25 mm) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 km/h). WITH WRITTEN APPROVAL OF THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 mm) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H) OR A NOTCHED LONGITUDINAL WEDGE IS USED.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO FIELD VARIATION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR QUANTITY ACTUALLY FURNISHED BASED ON THE UNIT PRICE BID FOR THE WORK.
- TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
- ALL SAW CUTTING REQUIRED SHALL BE INCIDENTAL TO CORRESPONDING PAY ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVALS.
- THE RESIDENT ENGINEER SHALL CONTACT EMAD ALHUSSEINI, IDOT'S AREA TRAFFIC FIELD ENGINEER, VIA E-MAIL AT EMAD.ALHUSSEINI@ILLINOIS.GOV, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALL INTO THE WATERWAY OR ONTO THE PAVEMENT BELOW THE STRUCTURE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE ASSOCIATED PAY ITEMS.

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
442201-03	CLASS C AND D PATCHES
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701901-06	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	2
CONTRACT NO. 62M38				
ILLINOIS		FED. AID PROJECT		

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE	
				NHPP FUNDS	
				80% FED	
				20% STATE	
				BRIDGE	
				0059	
				016-0697	
50300300	PROTECTIVE COAT	SQ YD	1,516	1,516	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,260	1,260	
50800515	BAR SPLICERS	EACH	8	8	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	143	143	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	
67100100	MOBILIZATION	L SUM	1	1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	738	738	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	246	246	
* 70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6950	6950	
* 70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	346	346	
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	10724	10724	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500	

* = SPECIALTY ITEMS REV-SEP

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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

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	DATE - 8/21/2020	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
 SUMMARY OF QUANTITIES**

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 4
SCALE: SHEET 2 OF 5 SHEETS STA. TO STA.			CONTRACT NO. 62M38	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE	
				NHPP FUNDS	80% FED 20% STATE BRIDGE 0059 016-0697
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500	500	
70600241	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
70600341	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3507	3507	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	30	30	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3060	3060	
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	316	316	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	60	60	
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	60	60	
* 78100300	REPLACEMENT REFLECTOR	EACH	144	144	
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	132	132	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	60	60	
X0322936	REMOVE EXISTING FLARED END SECTION	EACH	1	1	
X0325748	ACRYLIC COATING	SQ YD	138	138	

* = SPECIALTY ITEMS

REV-SEP

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
SUMMARY OF QUANTITIES**

SCALE: SHEET 3 OF 5 SHEETS STA. TO STA.

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M38	

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE	
				NHPP FUNDS	80% FED 20% STATE BRIDGE 0059 016-0697
X0325749	FIBER WRAP	SQ FT	759	759	
X0323586	PIPE DRAIN REMOVAL	FOOT	20	20	
X0326331	CLEANING AND PAINTING BEARINGS	EACH	45	45	
* X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2663	2663	
* X2700003	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	383	383	
* X2700005	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 7"	FOOT	388	388	
X6012005	PIPE DRAINS 12" (SPECIAL)	FOOT	20	20	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	2663	2663	
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	144	144	
Z0001700	APPROACH SLAB REPAIR (FULL DEPTH)	SQ YD	55	55	
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	25	25	
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	80	80	
Z0006012	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	1290	1290	

* = SPECIALTY ITEMS REV-SEP

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
SUMMARY OF QUANTITIES

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 6
SCALE: SHEET 4 OF 5 SHEETS STA. TO STA.			CONTRACT NO. 62M38	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE	
				NHPP FUNDS	
				80% FED	
				20% STATE	
				BRIDGE	
				0059	
				016-0697	
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1290	1290	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	81	81	
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	153	153	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0015802	PLUG EXISTING DECK DRAINS	EACH	30	30	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	2.3	2.3	
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52	
Z0038120	PORTLAND CEMENT CONCRETE SURFACE REMOVAL 1 3/4"	SQ YD	57	57	
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	71	71	
Z0076600	TRAINEES	HOUR			

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
SUMMARY OF QUANTITIES

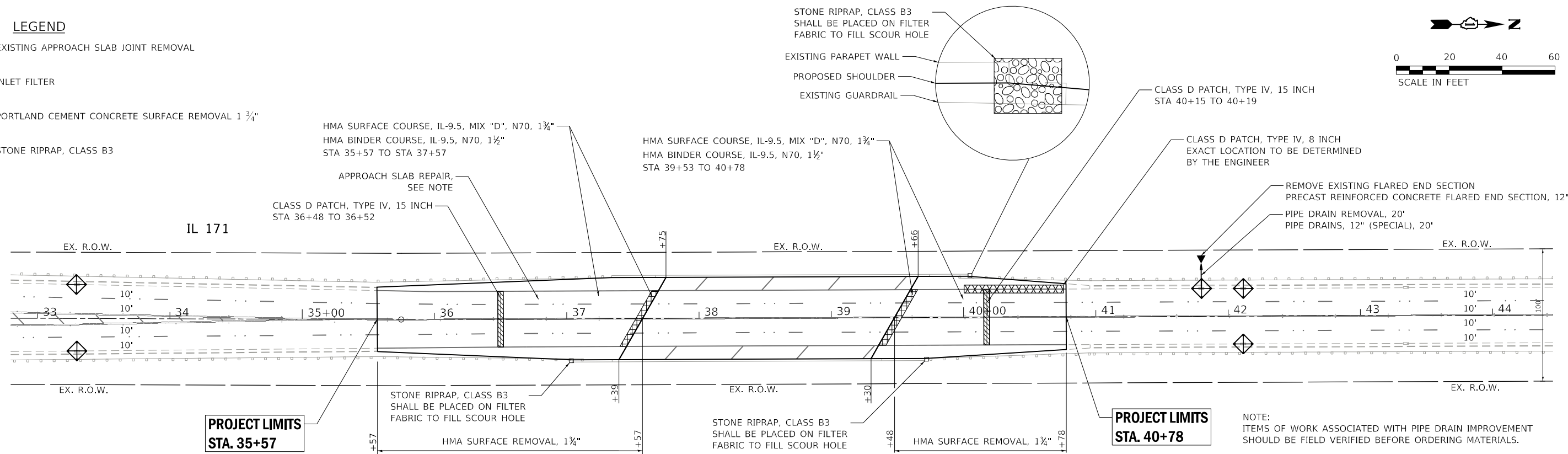
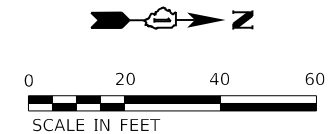
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* = SPECIALTY ITEMS REV-SEP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M38	

LEGEND

-  EXISTING APPROACH SLAB JOINT REMOVAL
-  INLET FILTER
-  PORTLAND CEMENT CONCRETE SURFACE REMOVAL 1 3/4"
-  STONE RIPRAP, CLASS B3



NOTE:
ITEMS OF WORK ASSOCIATED WITH PIPE DRAIN IMPROVEMENT SHOULD BE FIELD VERIFIED BEFORE ORDERING MATERIALS.

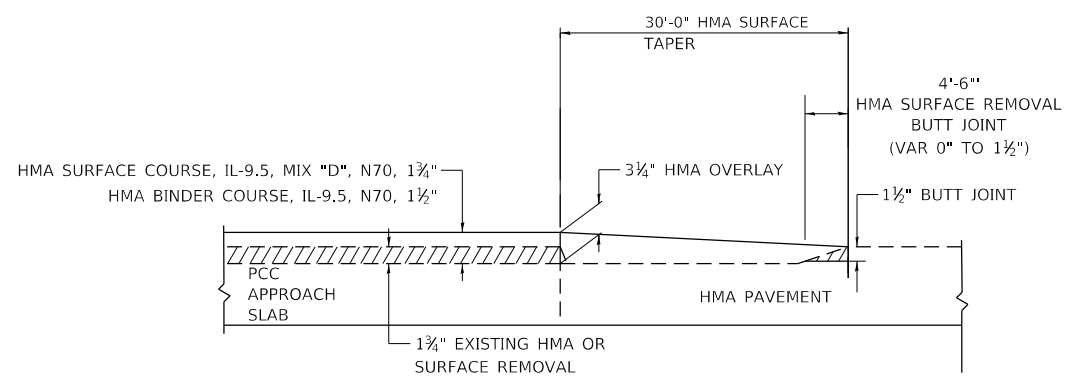
STONE RIPRAP, CLASS B3 SHALL BE PLACED ON FILTER FABRIC TO FILL SCOUR HOLE. RIP RAP SHALL NOT PROJECT ABOVE THE SURFACE OF THE ADJACENT PAVEMENT. BEFORE PLACEMENT OF THE RIP RAP, THE EXISTING GROUND SHALL BE CLEARED OF VEGETATION AND LOOSE MATERIAL. AN ESTIMATED QUANTITY OF 2 TONS IS ANTICIPATED AT EACH LOCATION. ACTUAL TONNAGE WILL BE DETERMINED IN THE FIELD BASED ON VOLUME REQUIRED TO FILL THE SCOUR HOLE TO THE SATISFACTION OF THE ENGINEER.

ESTIMATED QUANTITY OF APPROACH SLAB REPAIR HAS BEEN INCLUDED IN THE PLAN. THE FINAL LOCATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER AFTER THE EXISTING HMA SURFACE HAS BEEN REMOVED.

MIXTURES TABLE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			QUALITY MANAGEMENT PROGRAM (QMP)
OPERATION	MIXTURE TYPE	AIR VOIDS @ NDES	
PAVEMENT AND SHOULDER RESURFACING	HMA SURFACE COURSE, IL-9.5, MIX "D", N70, 1 3/4"	4% @ 70 GYR.	QC/QA
	HMA BINDER COURSE, IL-9.5, N70, 1 1/2"	4% @ 70 GYR.	QC/QA
CLASS D PATCH	CLASS D PATCHES, TYPE IV	4% @ 70 GYR.	QC/QA
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA);			

- NOTES:
- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 - 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 SPECIAL PROVISIONS.
 - FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
 - QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.



**IL 171 OVER DES PLAINES RIVER BRIDGE
HMA TAPER DETAIL**

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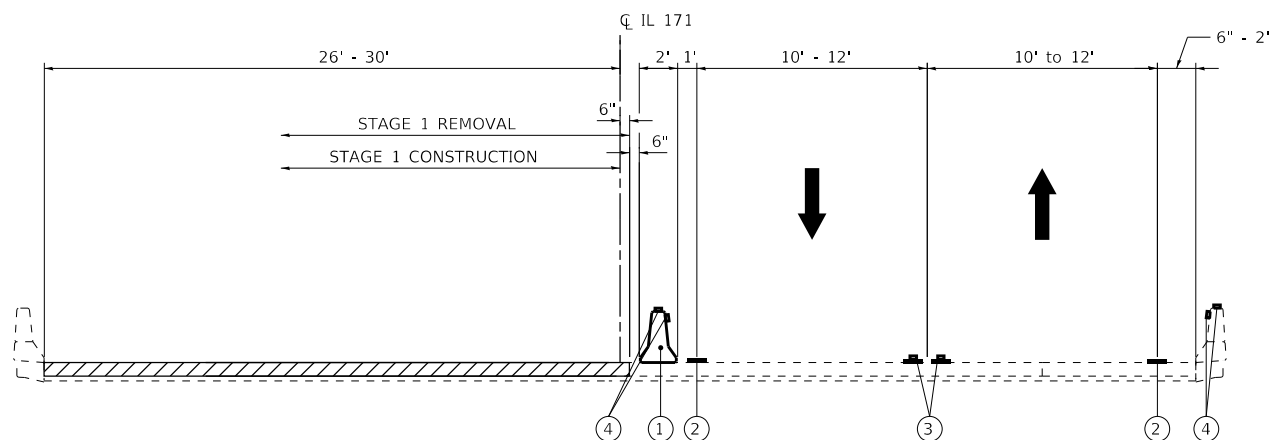
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

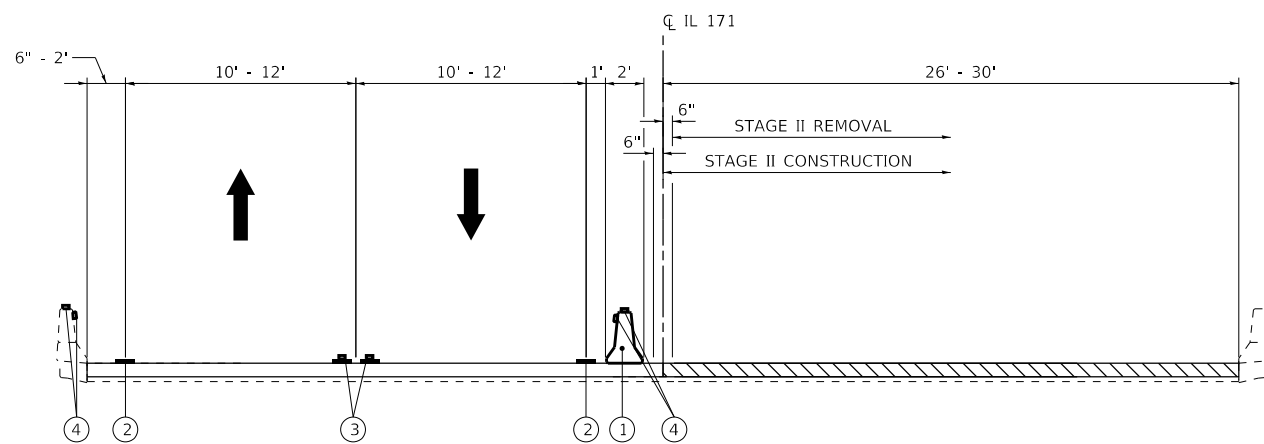
**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
ROADWAY PLAN**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 8
CONTRACT NO. 62M38			ILLINOIS FED. AID PROJECT	



MOT ROADWAY TYPICAL SECTION STAGE I
STA. 36+46 TO STA 40+21
LOOKING NORTH

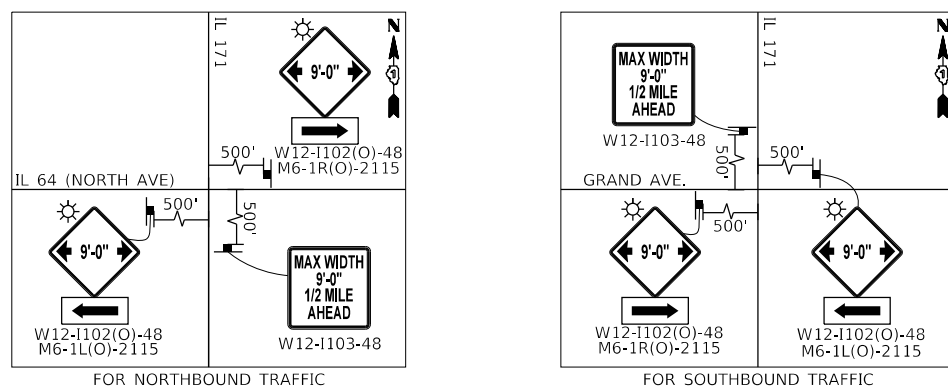


MOT ROADWAY TYPICAL SECTION STAGE II
STA. 36+46 TO STA 40+21
LOOKING NORTH

MOT LEGEND:

- ① TEMPORARY CONCRETE BARRIER WALL
- ② PAVEMENT MARKING TAPE, TYPE IV - LINE 4" (WHITE)
- ③ PAVEMENT MARKING TAPE, TYPE IV - LINE 4" AT 11" C-C WITH TEMPORARY RAISED REFLECTIVE AMBER PAVEMENT MARKERS AT 40' C-C (DOUBLE YELLOW)
- ④ BARRIER WALL REFLECTORS, TYPE C (SEE STD. 782006)

ADVANCED SIGNAGE AT INTERSECTIONS



SUGGESTED SEQUENCE OF CONSTRUCTION & MAINTENANCE OF TRAFFIC

STAGE I

1. INSTALL ADVANCE WIDTH RESTRICTION SIGNAGE.
2. INSTALL STAGE I TRAFFIC CONTROL ALONG IL 171, SHIFT TRAFFIC TO THE NORTHBOUND LANES TO STAGE I TRAFFIC LANES, AND INSTALL TEMPORARY CONCRETE BARRIER USING STANDARD 701427.
3. PERFORM BRIDGE REPAIRS ON THE WEST SIDE ABUTMENTS, PIERS, BEAMS, AND BEARINGS.
4. COMPLETE BRIDGE DECK PATCHING, JOINT REPLACEMENT, SCARIFYING AND LATEX CONCRETE OVERLAY, AND HMA MILLING OF APPROACH SLAB WITH BINDER COURSE OVERLAY.

STAGE II

1. RELOCATE STAGE II TRAFFIC CONTROL ON IL 171 AND REMOVE STAGE I TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC TO SOUTH BOUND LANES TO STAGE II TRAFFIC LANES.
2. PERFORM EAST SIDE BRIDGE REPAIRS ON ABUTMENTS, PIERS, BEAMS, AND BEARINGS.
3. COMPLETE BRIDGE DECK PATCHING, JOINT REPLACEMENT, SCARIFYING AND LATEX CONCRETE OVERLAY, AND HMA MILLING OF APPROACH SLAB WITH BINDER COURSE OVERLAY.
4. REMOVE STAGE II TEMPORARY CONCRETE BARRIER.
5. REMOVE STAGE II TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC BACK TO NORMAL LANES ALONG IL 171.

STAGE III

1. COMPLETE BUTT JOINT, HMA MILLING WITH BINDER COURSE OVERLAY WORK AT STA. 35+57 TO STA. 36+48 AND STA. 40+19 TO STA. 40+78. INSTALL HMA SURFACE COURSE ALONG PAVEMENT RESURFACING LIMITS.
2. COMPLETE PERMANENT PAVEMENT MARKING ALONG IL 171.

MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS OR SPECIAL PROVISIONS.
2. MAINTENANCE OF TRAFFIC WIDTH RESTRICTION REQUIREMENT - THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, IN WRITING, WHEN THE CONTRACTOR RECEIVES AN AWARD LETTER FOR THE CONTRACT. THE LETTER SHALL STATE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS. THE TWENTY-ONE (21) DAY NOTICE WILL START FROM THE AWARD DATE. NO WIDTH RESTRICTIONS WILL BE ALLOWED UNTIL TWENTY-ONE (21) DAYS AFTER RECEIVING NOTICE FROM THE CONTRACTOR. THE CONTRACTOR MAY ELECT TO PROVIDE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS AT PRECONSTRUCTION MEETING AS LONG AS THERE IS A MINIMUM OF TWENTY-ONE (21) DAYS ADVANCED NOTICE.
3. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR MAINTENANCE OF TRAFFIC.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
5. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING THE WORK.
6. IN ADVANCE OF ALL STAGE CHANGES ON IL ROUTE 171, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT ALONG IL ROUTE 171 AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING STAGE CHANGE ON IL ROUTE 171. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER.
7. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
8. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.
9. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE MAINTENANCE OF TRAFFIC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.
10. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL PROMPTLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.
11. THE ENGINEER SHALL BE INFORMED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.
12. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
13. WHEN THEY ARE NO LONGER NECESSARY, ALL TRAFFIC CONTROL DEVICES SHALL IMMEDIATELY BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC. W21-1 WORKER AND W20-7 FLAGGER SIGNS SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE FOR GREATER THAN ONE HOUR. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3" X 6" DELINEATOR INSTALLED. THE COST OF THE DELINEATOR IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
14. TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS SHOWN IN THE PLANS. FURNISHING, INSTALLING AND RELOCATING TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
15. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED OR OTHERWISE AFFECTED BY CONSTRUCTION.
16. ACCESS TO ALL PRIVATE AND COMMERCIAL DRIVEWAYS AND ENTRANCES ARE TO BE MAINTAINED DURING CONSTRUCTION.

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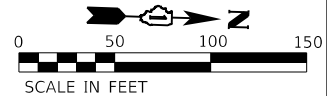
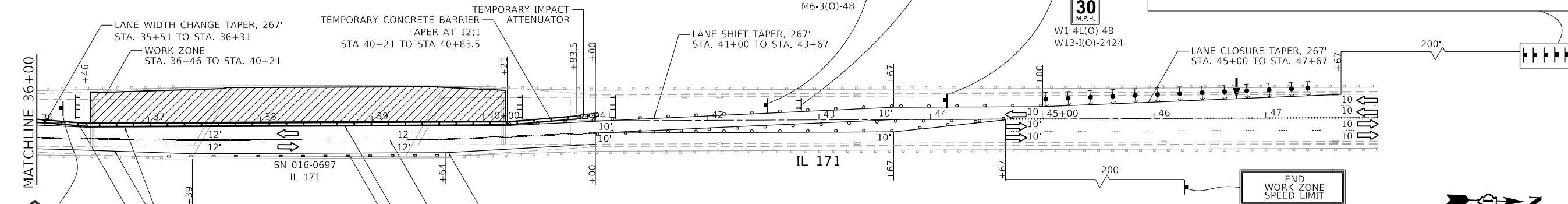
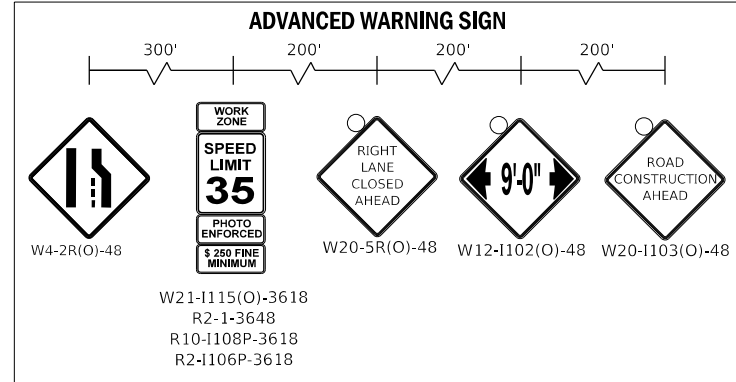
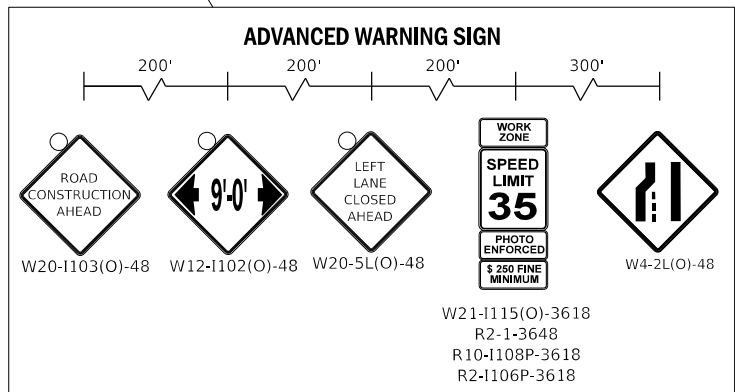
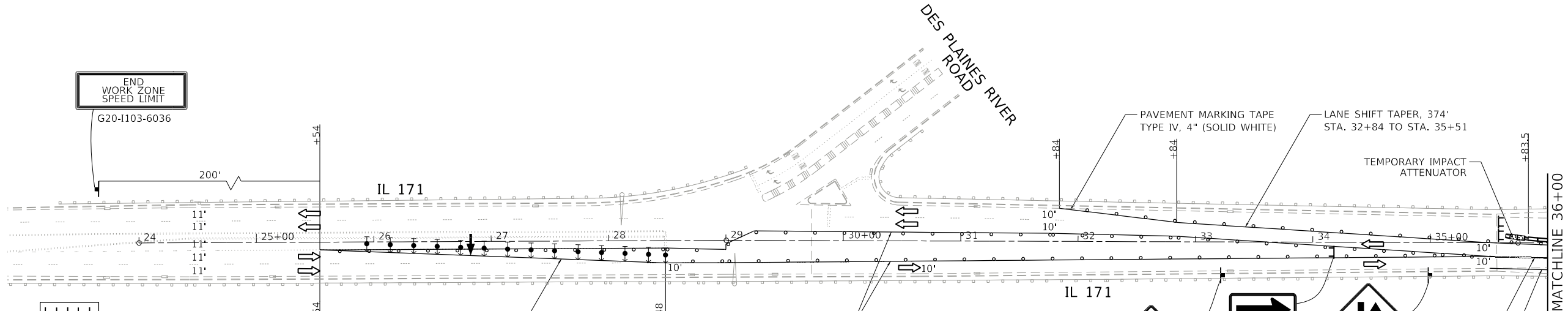
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
MAINTENANCE OF TRAFFIC TYPICAL SECTION**

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	9
				CONTRACT NO. 62M38
		ILLINOIS	FED. AID PROJECT	



LEGEND

WORK ZONE	ARROW BOARD
TEMPORARY CONCRETE BARRIER WITH DOUBLE SIDED TYPE C CRYSTAL MARKERS	TYPE III BARRICADE
SIGN ON PERMANENT OR PORTABLE SUPPORT	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 2
DIRECTION OF TRAFFIC	DRUM OR TYPE II BARRICADE AT 25' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 20' C-C SPACING IN CURVES/RADII
DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHTS @ 20' C-C	

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

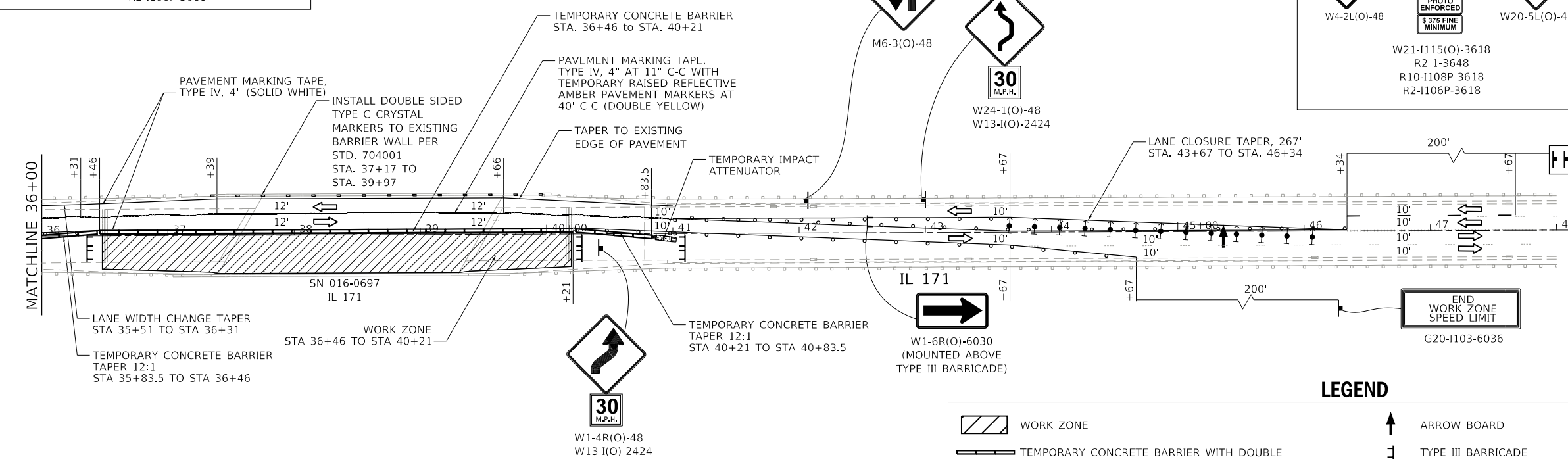
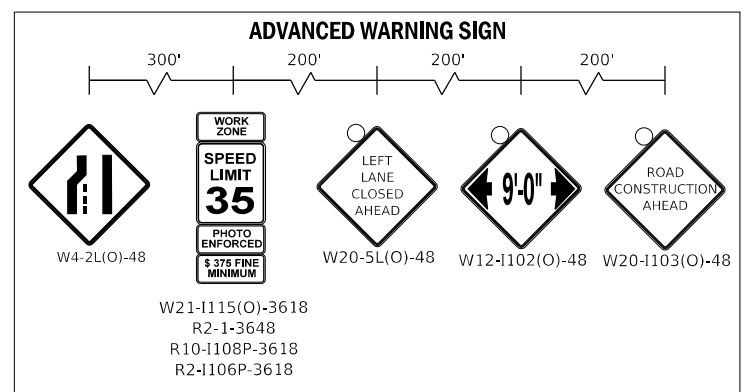
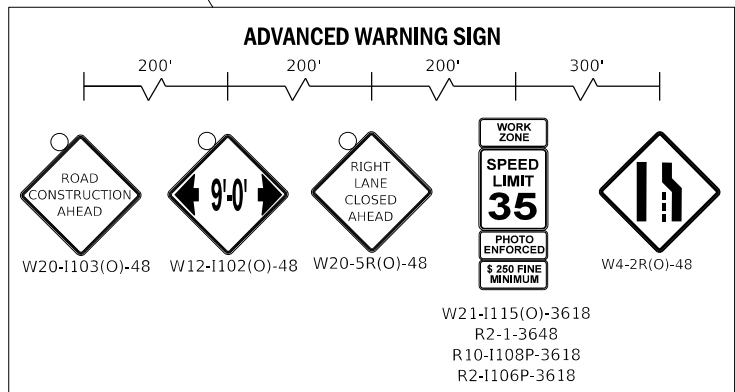
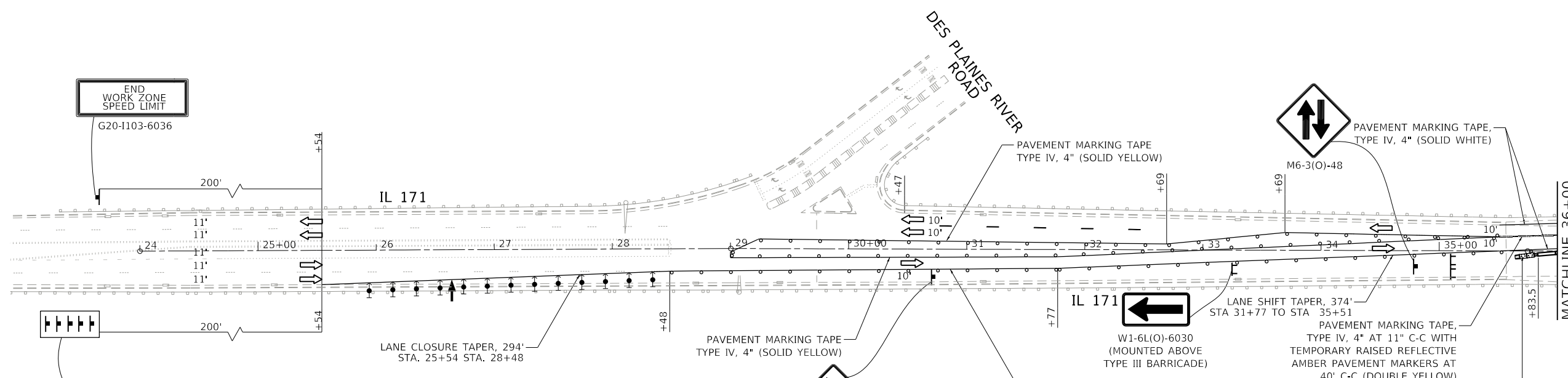
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	DATE - 8/21/2020	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
MAINTENANCE OF TRAFFIC PLAN STAGE I**

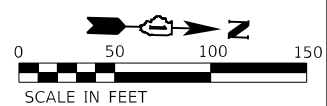
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F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 10
CONTRACT NO. 62M38				
ILLINOIS FED. AID PROJECT				



LEGEND

WORK ZONE	ARROW BOARD
TEMPORARY CONCRETE BARRIER WITH DOUBLE SIDEDTYPE C CRYSTAL MARKERS	TYPE III BARRICADE
SIGN ON PERMANENT OR PORTABLE SUPPORT	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 2
DIRECTION OF TRAFFIC	DRUM OR TYPE II BARRICADE AT 25' C-C SPACING IN TANGENT, 50' C-C SPACING TAPERS, AND 20' C-C SPACING IN CURVES/RADII
DIRECTION INDICATOR BARRICADE WITH STEADY BURN LIGHTS @ 20' C-C	



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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

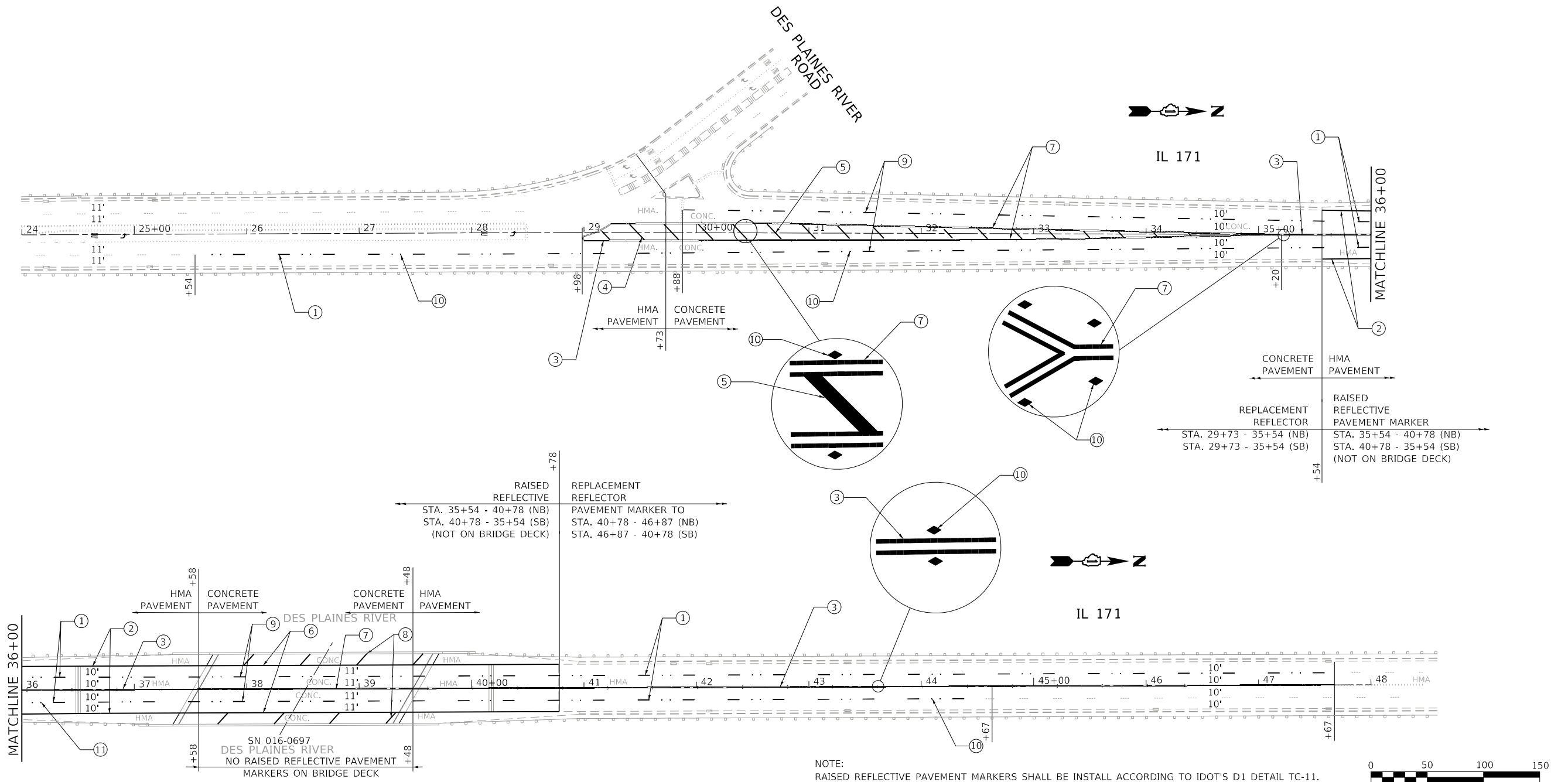
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	DATE - 8/21/2020	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
MAINTENANCE OF TRAFFIC PLAN STAGE II**

SCALE: SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	11
CONTRACT NO. 62M38				
ILLINOIS FED. AID PROJECT				



NOTE: RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALL ACCORDING TO IDOT'S D1 DETAIL TC-11. PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ACCORDING TO IDOT'S D1 DETAIL TC-13.

SCALE IN FEET

PAVEMENT MARKING LEGEND

- | | | |
|--|---|--|
| <p>① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 10', 30' SKIP)
STA. 25+54 TO STA. 29+73 (NB)
STA. 35+54 TO STA. 37+51 (NB)
STA. 39+41 TO STA. 44+67 (NB)
STA. 35+54 TO STA. 37+64 (SB)
STA. 39+54 TO STA. 47+67 (SB)</p> <p>② THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID WHITE)
STA. 35+54 TO STA. 37+45 (NB)
STA. 39+36 TO STA. 40+78 (NB)
STA. 35+54 TO STA. 37+69 (SB)
STA. 39+60 TO STA. 40+78 (SB)</p> <p>③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID DOUBLE YELLOW)
STA. 28+99 TO STA. 29+73
STA. 35+54 TO STA. 37+57
STA. 39+48 TO STA. 47+67</p> <p>④ THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW DIAGONAL) SPACED AT 30' C-C
STA. 28+98 TO STA. 29+73</p> | <p>⑤ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 12" (YELLOW DIAGONAL)(PCC PAVEMENT ONLY) SPACED AT 30' C-C
STA. 29+73 TO STA. 35+20</p> <p>⑥ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID WHITE)(PCC PAVEMENT ONLY)
STA. 37+46 TO STA. 39+36 (NB)
STA. 37+69 TO STA. 39+60 (SB)</p> <p>⑦ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 4" (SOLID DOUBLE YELLOW)(PCC PAVEMENT ONLY)
STA. 29+73 TO STA. 35+54
STA. 37+52 TO STA. 39+53</p> <p>⑧ MODIFIED URETHANE PAVEMENT MARKING, TYPE II - LINE 12" (WHITE DIAGONAL)(PCC PAVEMENT ONLY) SPACED AT 50' C-C
STA. 37+39 TO STA. 39+30 (NB)
STA. 37+75 TO STA. 39+64 (SB)</p> | <p>⑨ PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 7" WITH 8" GROOVING (WHITE SKIP DASH - 10', 30' SKIP) (PCC PAVEMENT ONLY)
STA. 37+51 TO STA. 39+41 (NB)
STA. 37+64 TO STA. 39+54 (SB)
STA. 29+73 TO STA. 35+54 (NB)
STA. 29+88 TO STA. 35+54 (SB)</p> <p>⑩ REPLACEMENT REFLECTOR
STA. 28+99 TO 35+54 (CENTERLINE) (2-WAY AMBER)
STA. 40+78 TO 47+67 (CENTERLINE) (2-WAY AMBER)
STA. 25+54 TO 35+54 (NB) (1-WAY CRYSTAL)
STA. 40+78 TO 44+67 (NB) (1-WAY CRYSTAL)
STA. 29+88 TO 35+54 (SB) (1-WAY CRYSTAL)
STA. 40+78 TO 47+67 (SB) (1-WAY CRYSTAL)</p> <p>⑪ RAISED REFLECTIVE PAVEMENT MARKER
STA. 35+54 TO 37+58 (CENTERLINE) (2-WAY AMBER)
STA. 39+48 TO 40+78 (CENTERLINE) (2-WAY AMBER)
STA. 35+54 TO 40+40 (NB) (1-WAY CRYSTAL)
STA. 39+41 TO 40+78 (NB) (1-WAY CRYSTAL)
STA. 35+54 TO 40+64 (SB) (1-WAY CRYSTAL)
STA. 39+65 TO 40+78 (SB) (1-WAY CRYSTAL)</p> |
|--|---|--|

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
PAVEMENT MARKING PLAN**

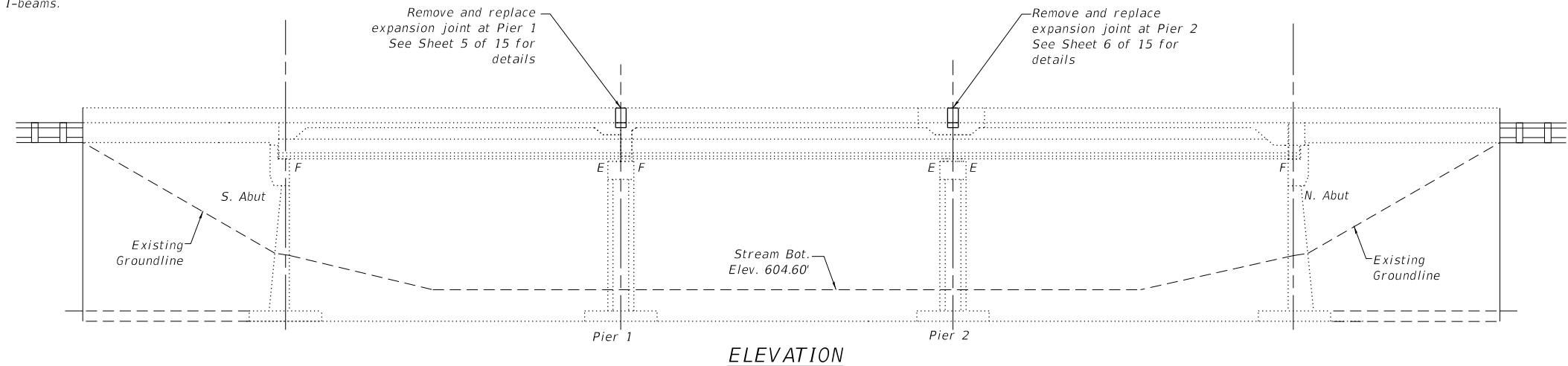
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F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M38	

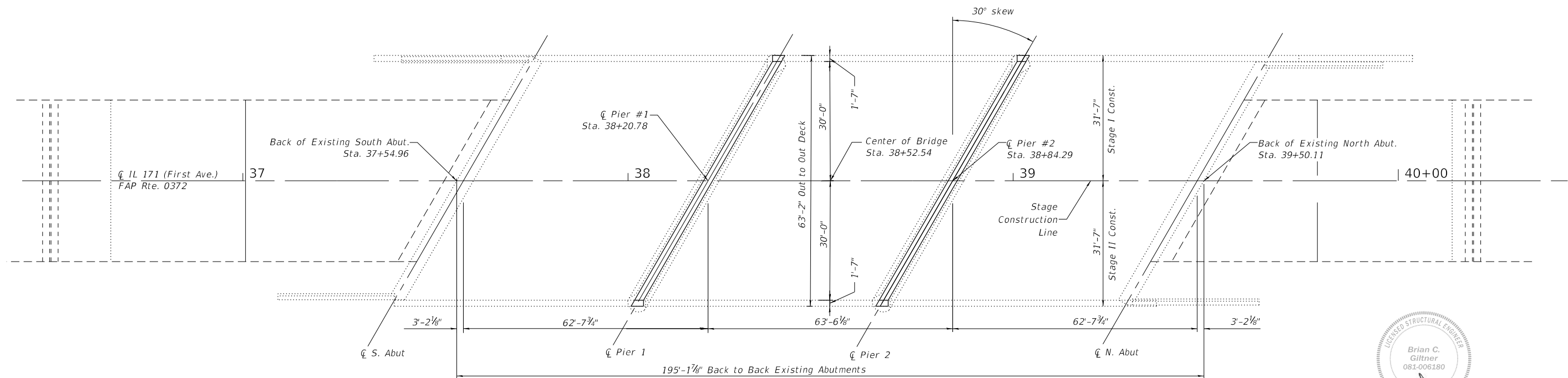
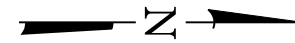
The existing F.A.P. Rte 0372 (First Avenue) over Des Plaines River was built in 1931 as a 3-span cast-in-place slab and beam superstructure on stub abutments and piers on spread footings. The back to back abutment length is 190'-6 $\frac{3}{4}$ " and the width is 63'-2" out to out deck. In 1980, the superstructure was replaced with 7 $\frac{1}{8}$ " concrete slab on 42" PPC I-beams. The bridge repairs shall be done under Staged Construction.

INDEX OF SHEETS

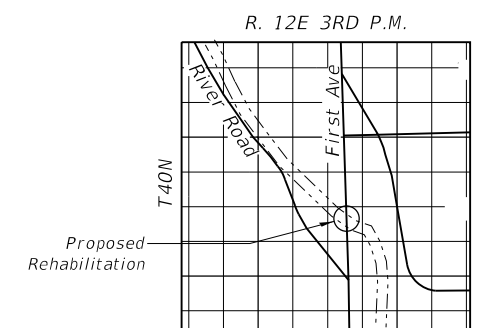
1. General Plan and Elevation
2. General Structural Data
3. Stage Construction Details
4. Bridge Deck Repairs
5. Pier 1 Expansion Joint Details
6. Pier 2 Expansion Joint Details
7. Preformed Joint Strip Seal
8. Deck Drain Removal Plan
9. Framing Plan
10. Beam Repair
11. Abutment Repair
12. Pier 1 Repair
13. Pier 2 Repair
14. Parapet Wall Repair
15. Bar Splicer Assembly and Mechanical Splicer Details



ELEVATION



PLAN



LOCATION SKETCH



B C

Brian C. Giltner, P.E., S.E.
License Expires 11/30/22

11/12/2020
Date

SCOPE OF WORK:

1. Remove and replace pier 1 and pier 2 expansion joints with preformed joint strip seal
2. Repair bridge deck slab
3. Bridge deck scarification $\frac{3}{4}$ "
4. Place bridge deck latex concrete overlay, 2 $\frac{1}{4}$ "
5. Apply protective coat to parapet and new concrete
6. PPC I-Beam Repairs
7. Repair substructure
8. Blast and paint expansion bearings
9. Approach HMA Overlay
10. Stormwater Drain Elimination

DESIGN STRESSES

EXISTING STRUCTURE
 $f'_c = 4,000$ psi (Superstructure Concrete)
 $f'_c = 3,500$ psi (Reinforced Concrete)
 $f'_c = 6,000$ psi (Prestressed Concrete)
 $f_y = 60,000$ psi (Reinforcement)

LOADING HS 20-44

Original Construction

DESIGN SPECIFICATIONS

(New Construction)
 2002 AASHTO Standard Specifications, 17th Ed.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
GENERAL PLAN AND ELEVATION

SCALE: SHEET 1 OF 15 SHEETS STA. TO STA.

GENERAL PLAN AND ELEVATION
 IL ROUTE 171 OVER
 DES PLAINES RIVER
 FAP RTE 0372 SEC 2020-183-BR
 COOK COUNTY
 STATION 38+52.54
 STRUCTURE NO. 016-0697

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 13
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES

Plan dimensions and details relative to 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.

Reinforcement bars designated (E) shall be epoxy coated.

Joint openings shall be adjusted according to Art. 520.04, in the Standard Specs. when the deck is poured at an ambient temperature other than 50°F.

Expansion joints shall be fabricated and installed according to the Manufacturer's recommendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

The steel components of all expansion bearings shall be blasted and painted according to the special provision "Cleaning and Painting Existing Steel Structures".

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	6.4	-	6.4
Concrete Superstructure	Cu. Yd.	6.5	-	6.5
Bridge Deck Grooving	Sq. Yd.	1245	-	1245
Protective Coat	Sq. Yd.	1516	-	1516
Reinforcement Bars, Epoxy Coated	Pound	1260	-	1260
Bar Splicers	Each	8	-	8
Preformed Joint Strip Seal	Foot	143	-	143
Bridge Deck Latex Concrete Overlay, 2 1/4"	Sq. Yd.	1290	-	1290
Bridge Deck Scarification 3/4"	Sq. Yd.	1290	-	1290
Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)	Sq. Ft.	18	63	81
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	51	102	153
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	71	-	71
Acrylic Coating	Sq. Yd.	138	-	138
Cleaning and Painting Bearings	Each	-	45	45
Fiber Wrap	Sq. Ft.	759	-	759
Plug Existing Floor Drains	Each	30	-	30
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2.3	-	2.3

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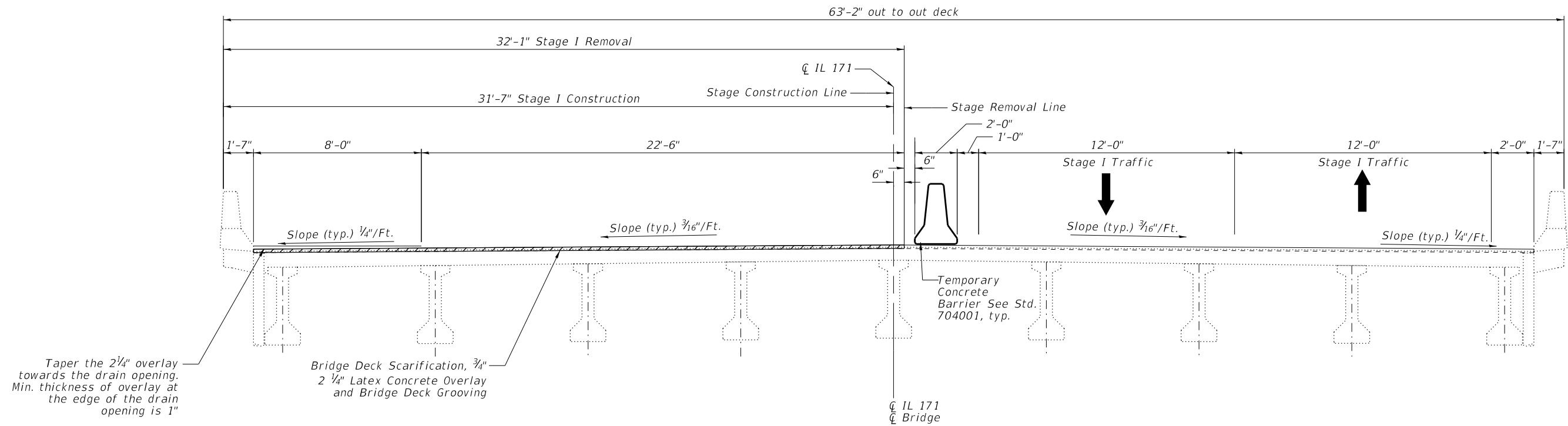
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
GENERAL STRUCTURAL DATA**

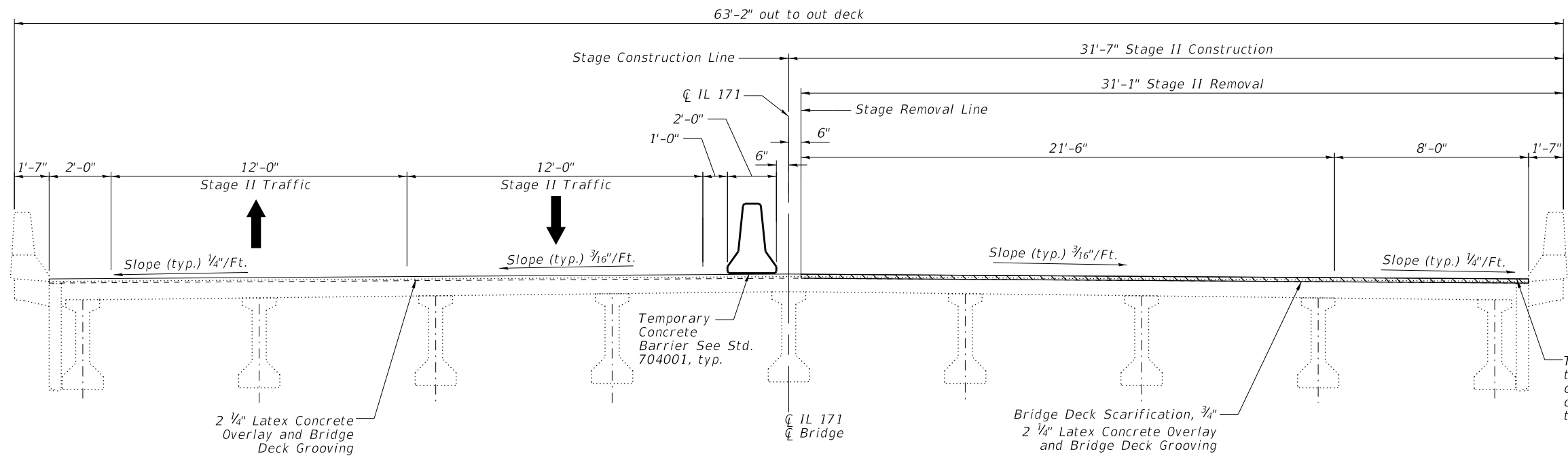
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F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 14
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



STAGE I REMOVAL & CONSTRUCTION - Looking North

(All dimensions are perpendicular to CL IL 171)



STAGE II REMOVAL & CONSTRUCTION - Looking North

(All dimensions are perpendicular to CL IL 171)

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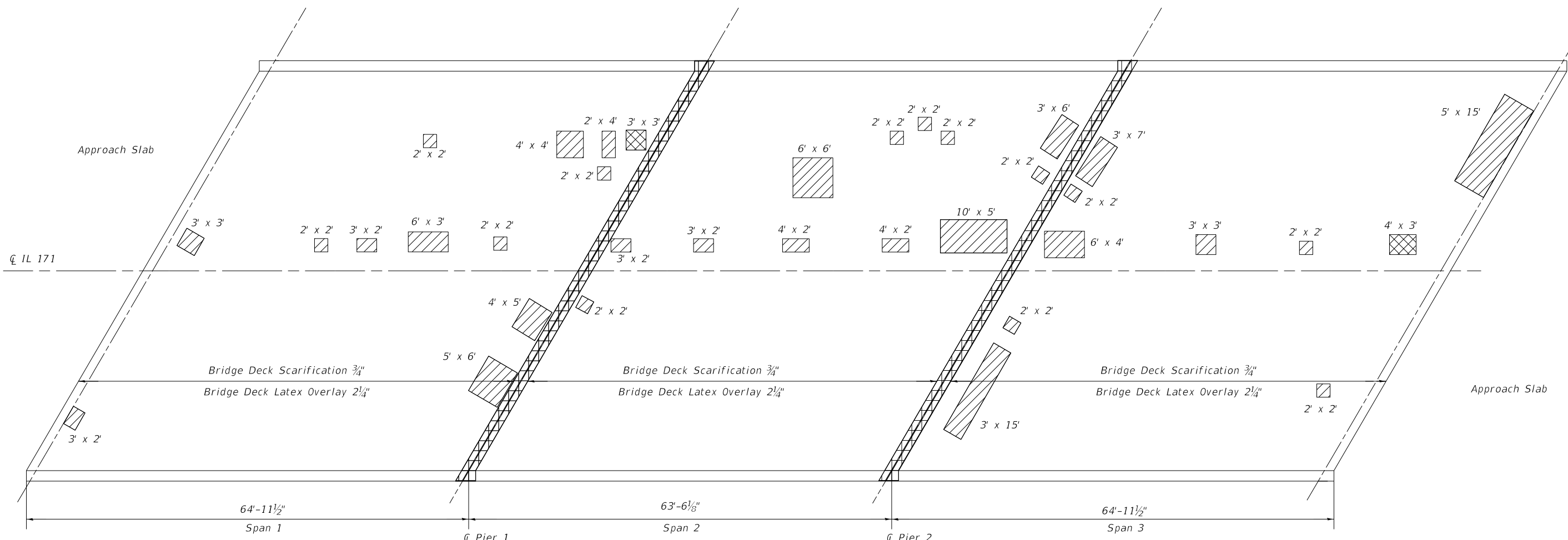
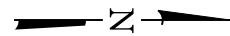
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
 STAGE CONSTRUCTION DETAIL**

SCALE: SHEET 3 OF 15 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0372	2020-183-BR	COOK	32	15
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				



Notes:
 Areas of deck repairs are estimated and will be paid for as specified in the Bridge Deck Latex Concrete Overlay Special Provision.

Actual type, location, and dimensions of deck repairs are to be determined and documented by the ENGINEER during construction. ENGINEER shall sound deck after deck scarification.



Protective Coat shall be applied to the top and inside face of all parapets and new concrete areas adjacent to joints.

Additional Structural Repair of Concrete (Depth Equal to or less than 5") and Structural Repair of Concrete (Greater than 5") are included in the summary of quantities. The additional quantity is for the repair of the concrete parapet.

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Protective Coat	Sq. Yd.	1516
Bridge Deck Grooving	Sq. Yd.	1245
Bridge Deck Latex Concrete Overlay 2 1/4"	Sq. Yd.	1290
Bridge Deck Scarification 3/4"	Sq. Yd.	1290
* Deck Slab Repair (Partial Depth)	Sq. Yd.	52.3
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2.3

LEGEND

-  Deck Slab Repair (Partial Depth)
-  Deck Slab Repair (Full Depth)
-  Area Of Joint Reconstruction
- * For Information Only

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CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS
 184-001397

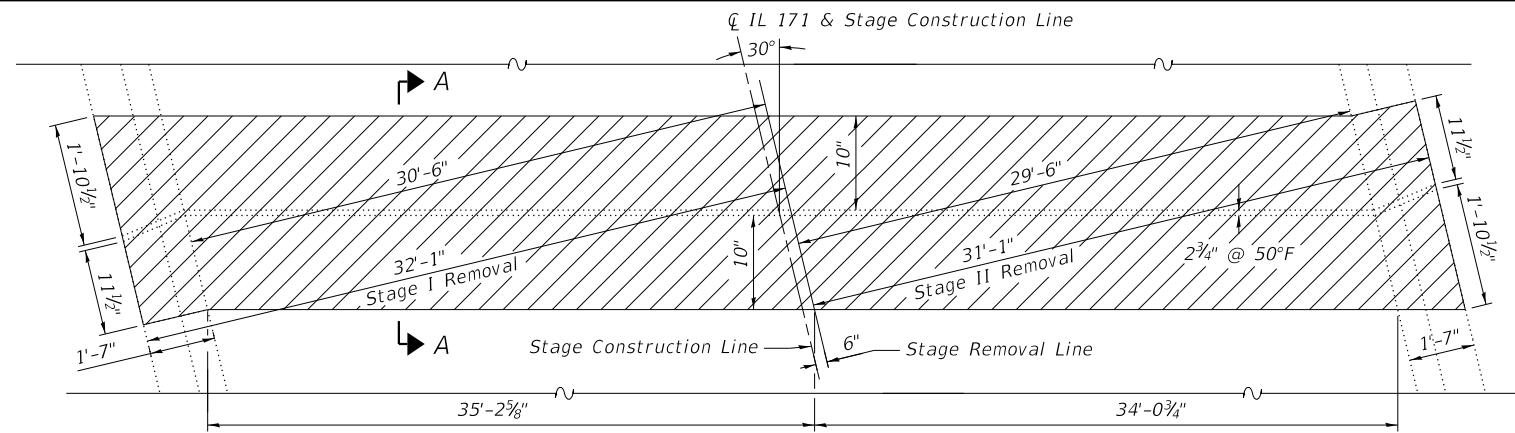
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	DATE -	REVISED - 2020/8/21

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

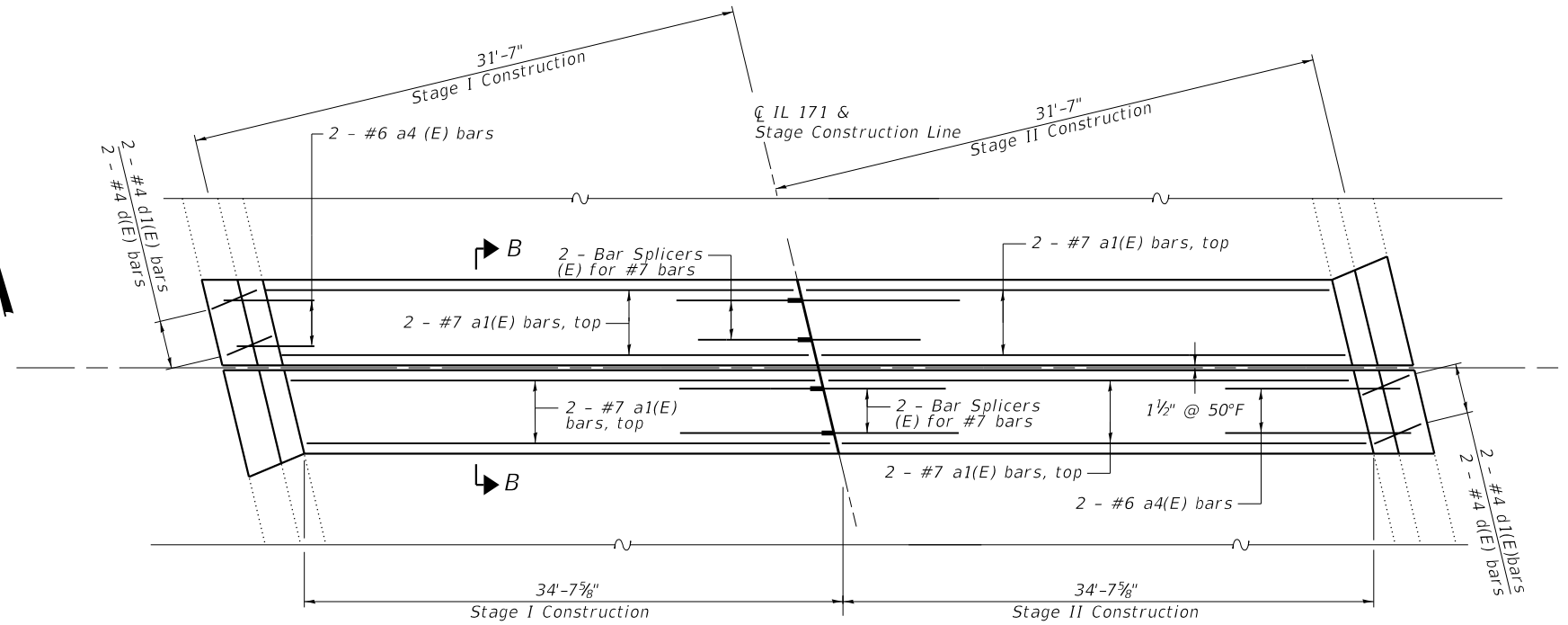
**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
 DECK REPAIR PLAN**

SCALE: SHEET 4 OF 15 SHEETS STA. TO STA.

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 16
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				



EXISTING JOINT (Pier 1)



PROPOSED JOINT (Pier 1)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	8	#7	35'-4"	—
a4(E)	4	#6	4'-0"	—
d(E)	4	#4	5'-2"	└
d1(E)	4	#4	3'-11"	└
Concrete Removal			Cu. Yd.	3.2
Concrete Superstructure			Cu. Yd.	3.2
Reinforcement Bars, Epoxy Coated			Pound	630

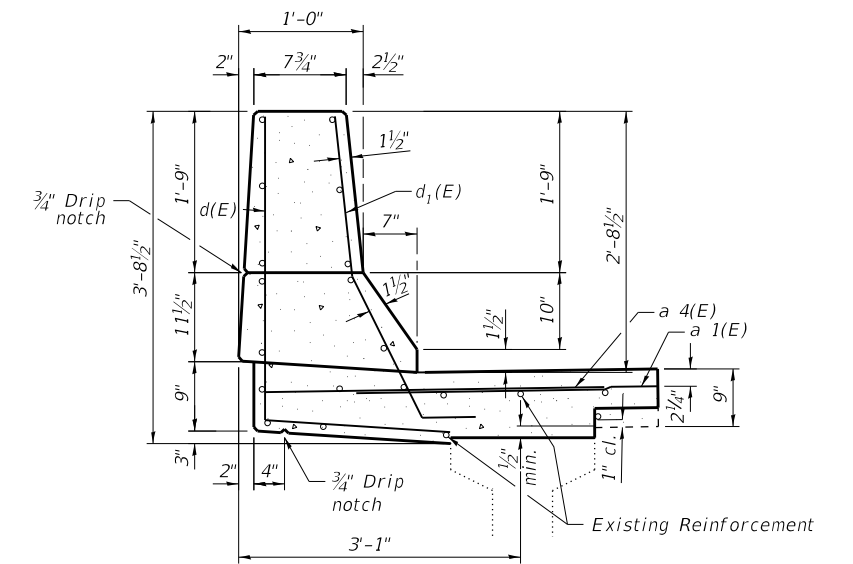
LEGEND

Concrete Removal

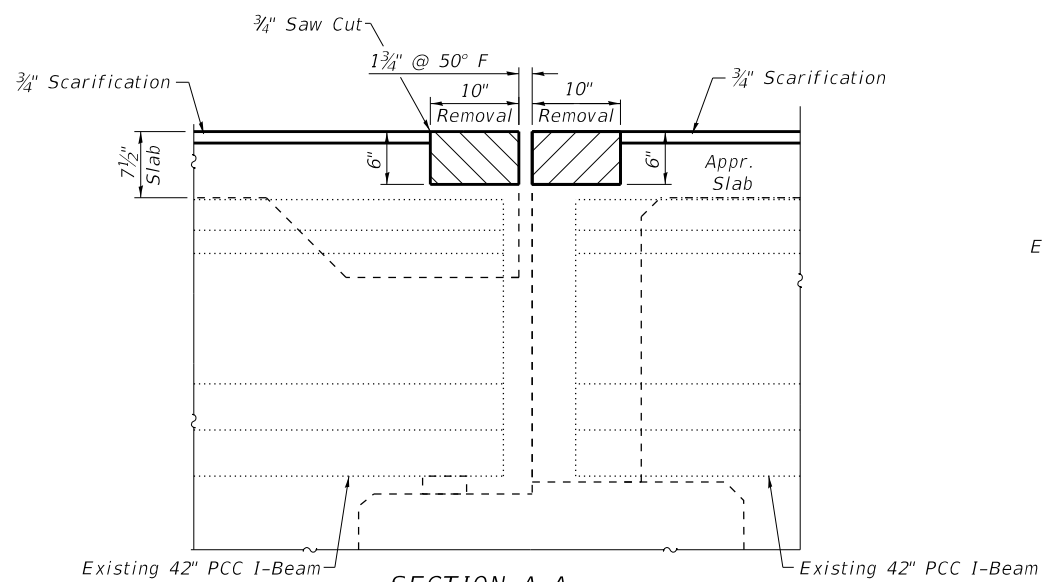
I.F. = Inside Face
O.F. = Outside Face

Notes:
Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction.

Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PCC I-Beam should be repaired with no additional cost to the Department.

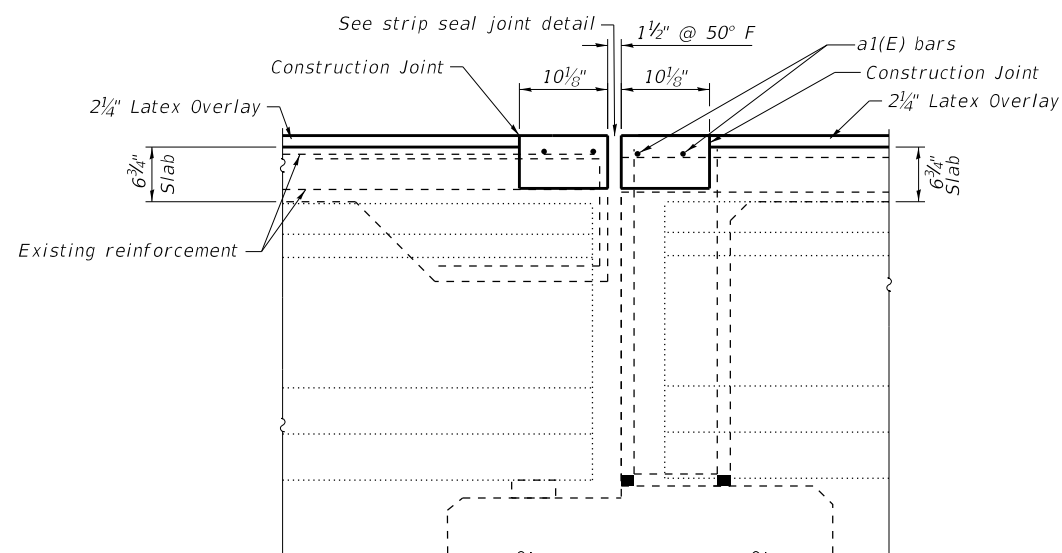


SECTION THRU PARAPET AT JOINT

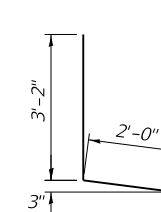


SECTION A-A

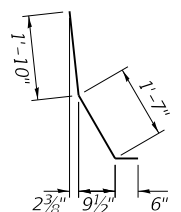
*Dimensions are from top of 7 1/2" slab



SECTION B-B

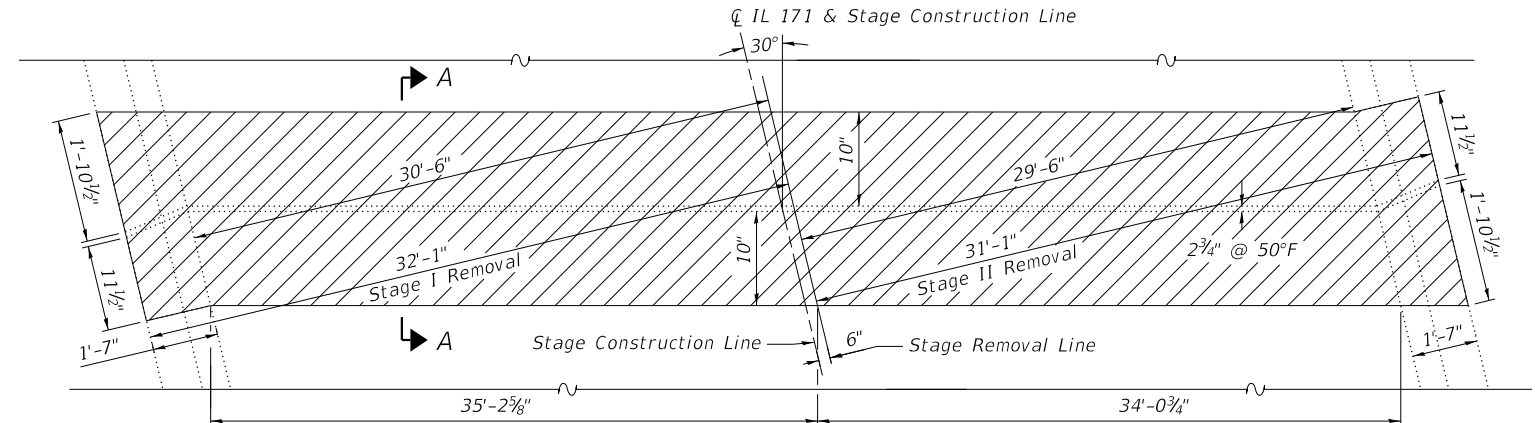


BAR d(E)



BAR d1(E)

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EXISTING JOINT (Pier 2)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	8	#7	35'-4"	—
a4(E)	4	#6	4'-0"	—
d(E)	4	#4	5'-2"	└
d1(E)	4	#4	3'-11"	└
Concrete Removal			Cu. Yd.	3.2
Concrete Superstructure			Cu. Yd.	3.3
Reinforcement Bars, Epoxy Coated			Pound	630

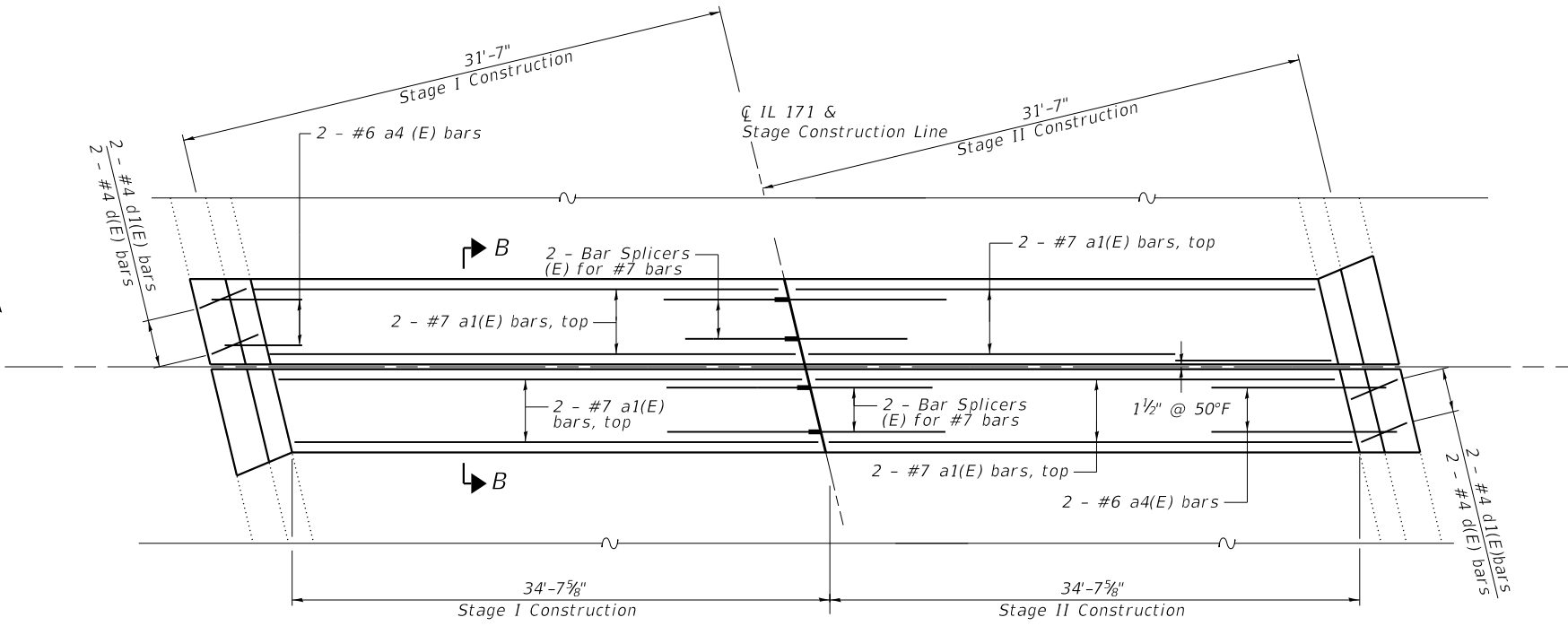
LEGEND

Concrete Removal

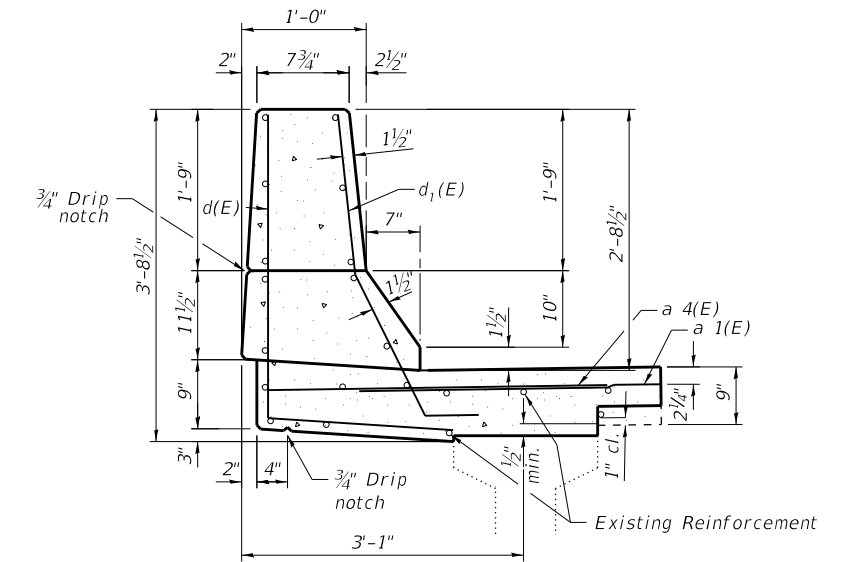
I.F. = Inside Face
O.F. = Outside Face

Notes:
Existing horizontal bars in parapet and existing longitudinal bars in slab shall remain and be incorporated into the new construction.

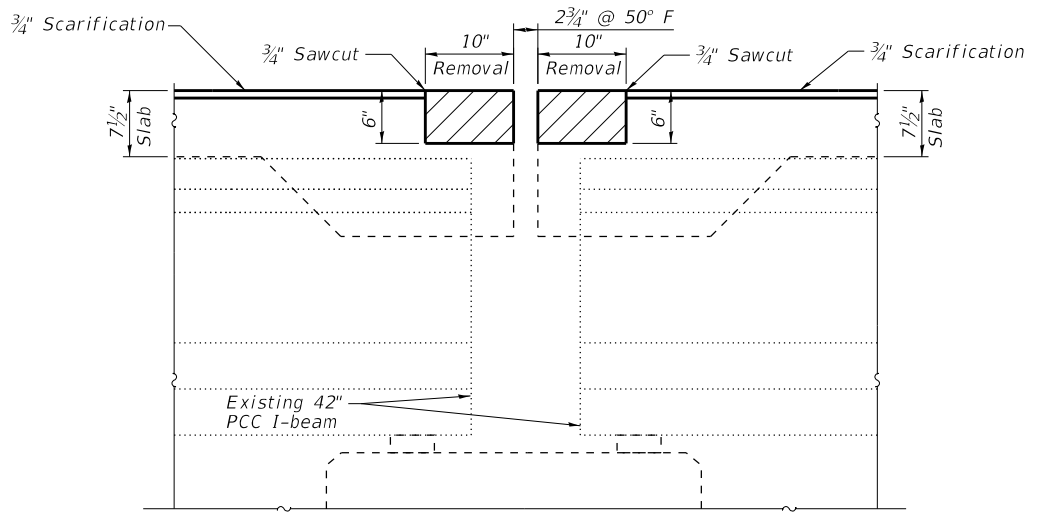
Hatched area indicates concrete removal. The CONTRACTOR shall use extreme care during concrete removal so as not to damage the PPC I-Beams. Any damage to PCC I-Beam should be repaired with no additional cost to the Department.



PROPOSED JOINT (Pier 2)

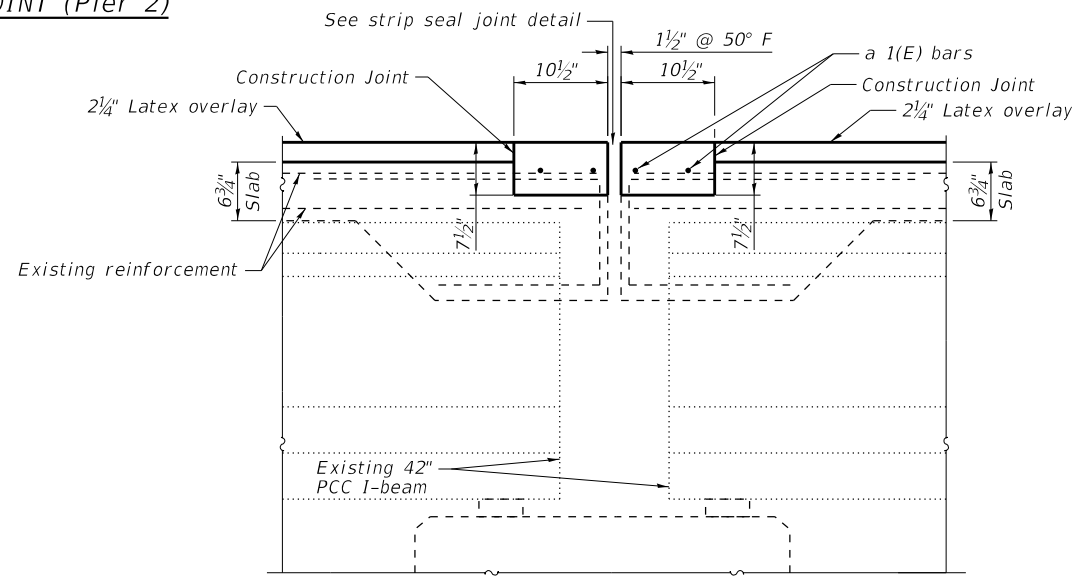


SECTION THRU PARAPET AT JOINT

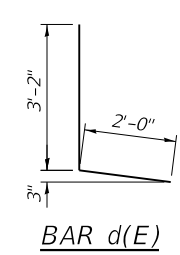


SECTION A-A

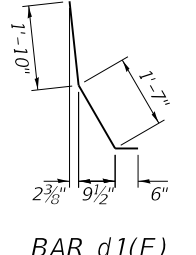
*Dimensions are from top of 7 1/2" slab



SECTION B-B



BAR d(E)



BAR d1(E)

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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PLOT DATE = 11/12/2020

DESIGNED -
DRAWN -
CHECKED -
DATE -

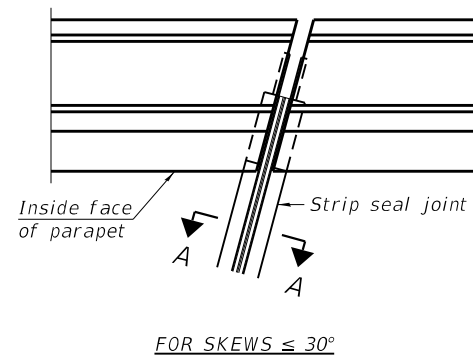
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REVISED - DMW
REVISED - JMB
REVISED - 2020/8/21

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DEPARTMENT OF TRANSPORTATION**

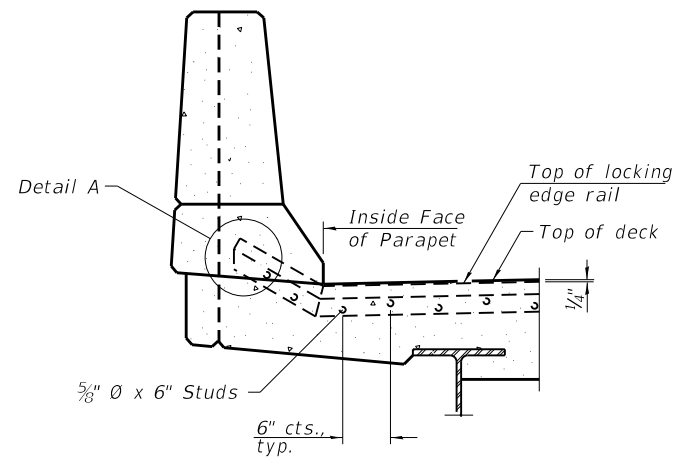
**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
PIER 2 EXPANSION JOINT DETAILS**

SCALE: SHEET 6 OF 15 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				

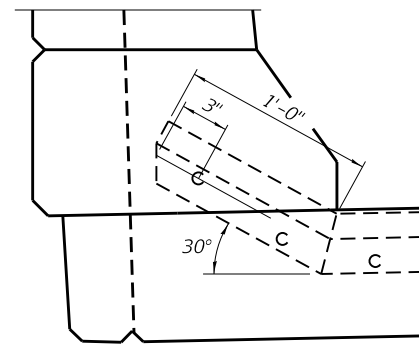


FOR SKEWS $\leq 30^\circ$

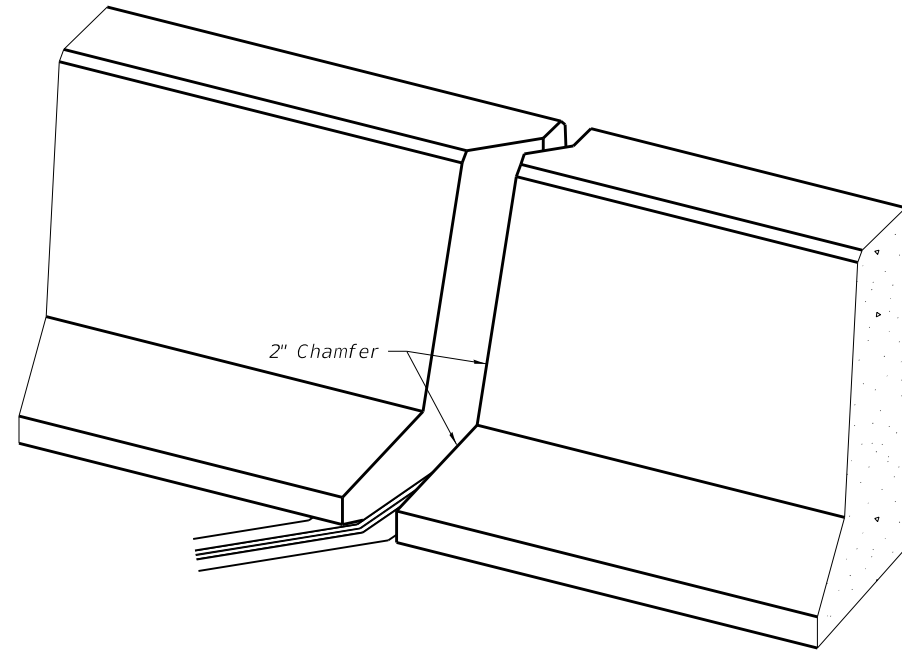


ELEVATION AT PARAPET

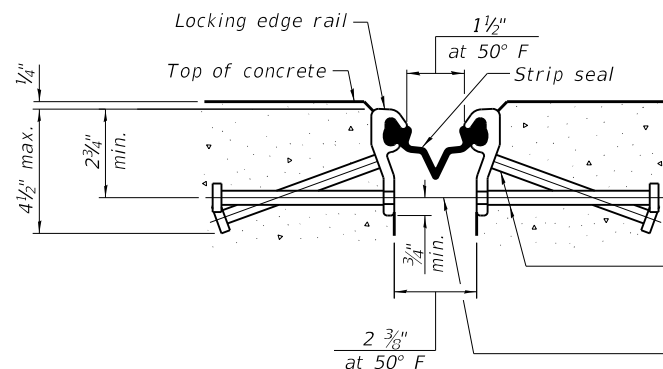
(Skews $> 30^\circ$ shown. Skews $\leq 30^\circ$ similar except as shown in plan view.)



DETAIL A



TRIMETRIC VIEW



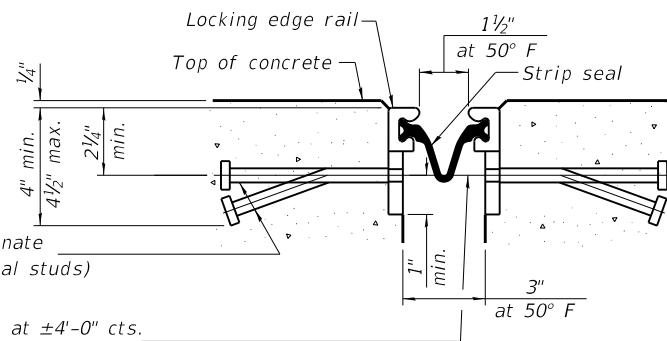
SHOWING ROLLED RAIL JOINT

* $5/8"$ ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

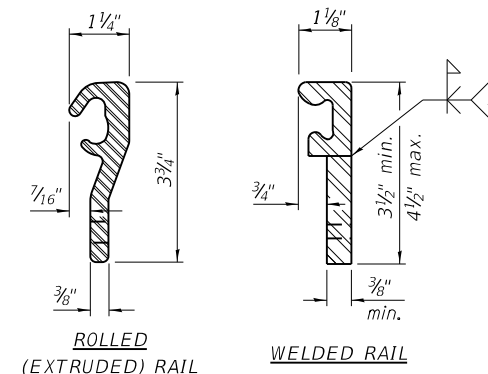
$3/8"$ ϕ threaded rods in $7/16"$ ϕ holes at $\pm 4'-0"$ cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs.

SECTION A-A

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



SHOWING WELDED RAIL JOINT

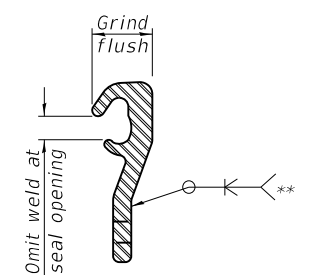


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	143

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $1/4"$. The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the $4 1/2"$ maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

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.

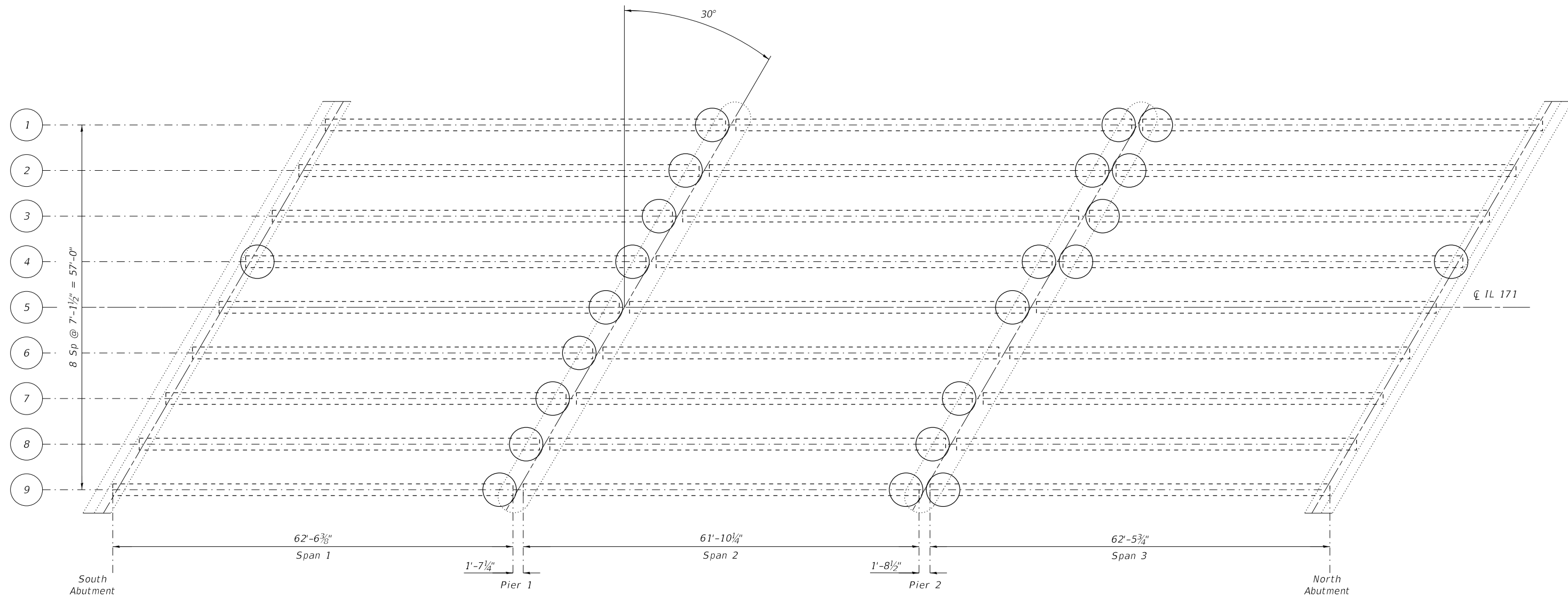
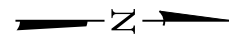
The Maximum space between locking edge rail segments shall be $3/16"$ and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of anchorage studs included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

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FRAMING PLAN

LEGEND

○ PCC I-Beam Repair (End of Beam)

Note:
Follow Special Provision "FRP Strengthening for PCC I-Beam Repairs", "Precast Prestressed Concrete I-Beam Repair", and details on Sheet 10 of 15 for end of beam repairs.

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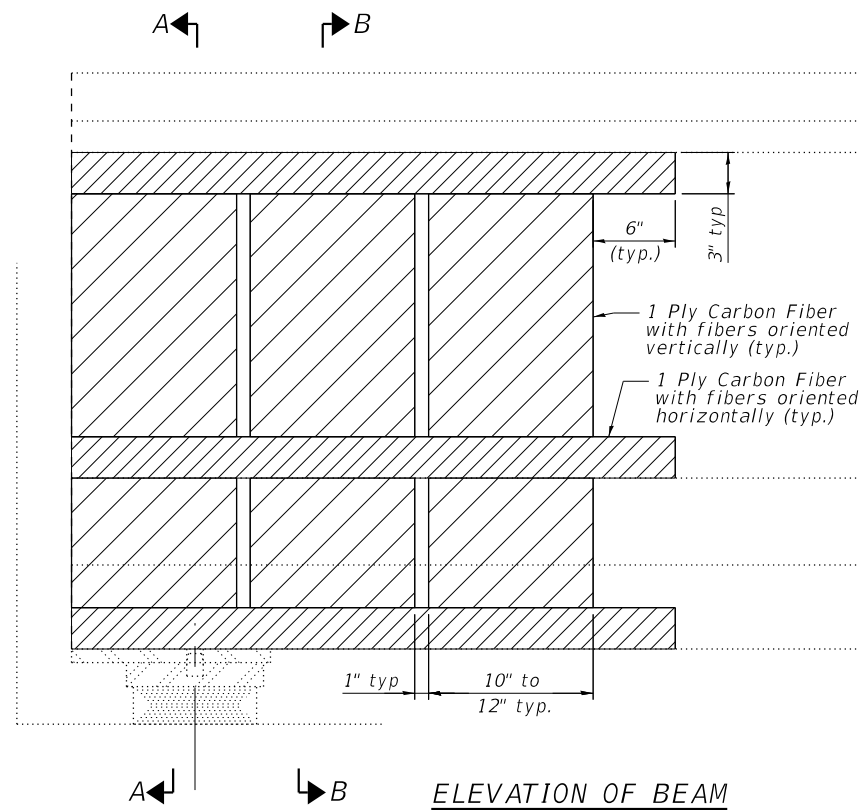
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**STATE OF ILLINOIS
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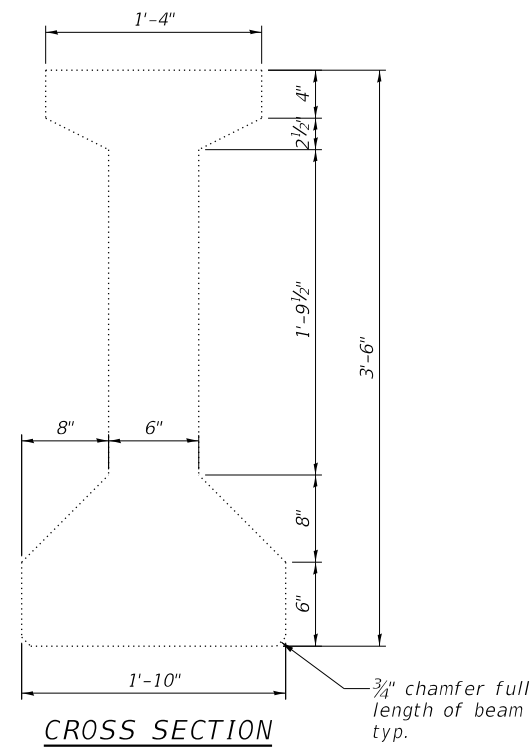
**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
FRAMING PLAN**

SCALE: SHEET 9 OF 15 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				



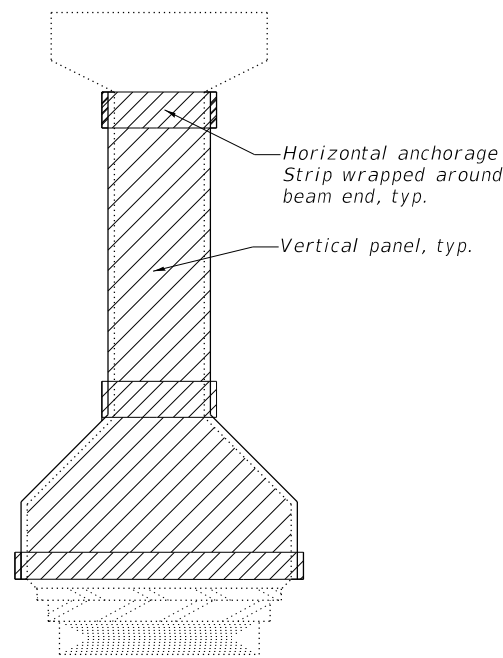
ELEVATION OF BEAM



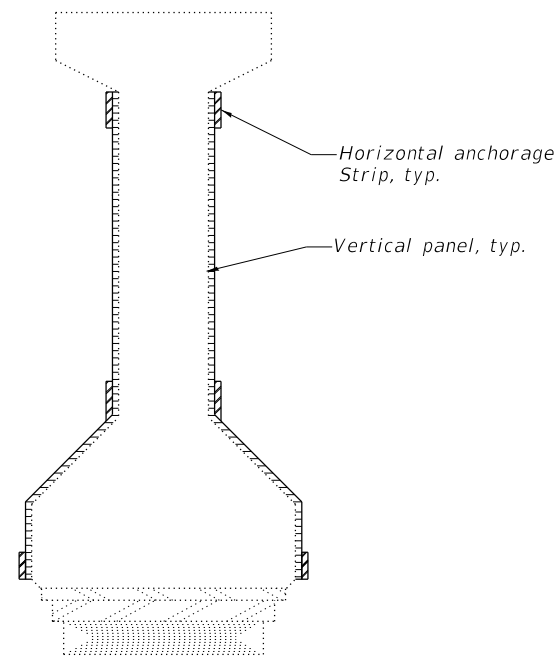
CROSS SECTION

PPC I-BEAM REPAIR

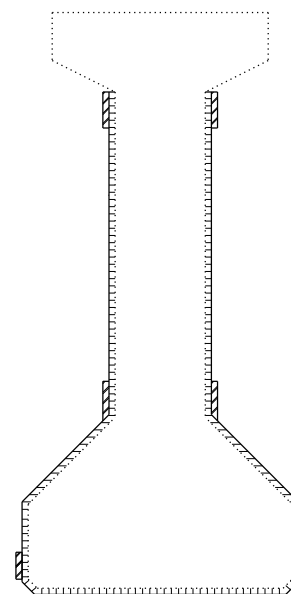
Location	Quantity
Span 1 S. Abut. - Beam 4	1 SF
Span 1 Pier 1 - Beam 1	2 SF
Span 1 Pier 1 - Beam 2	1 SF
Span 1 Pier 1 - Beam 3	1 SF
Span 1 Pier 1 - Beam 4	2 SF
Span 1 Pier 1 - Beam 5	2 SF
Span 1 Pier 1 - Beam 6	6 SF
Span 1 Pier 1 - Beam 7	3 SF
Span 1 Pier 1 - Beam 8	1 SF
Span 1 Pier 1 - Beam 9	8 SF
Span 2 Pier 2 - Beam 1	2 SF
Span 2 Pier 2 - Beam 2	5 SF
Span 2 Pier 2 - Beam 4	2 SF
Span 2 Pier 2 - Beam 5	1 SF
Span 2 Pier 2 - Beam 7	1 SF
Span 2 Pier 2 - Beam 8	2 SF
Span 2 Pier 2 - Beam 9	10 SF
Span 3 Pier 3 - Beam 1	8 SF
Span 3 Pier 3 - Beam 2	5 SF
Span 3 Pier 3 - Beam 3	1 SF
Span 3 Pier 3 - Beam 4	2 SF
Span 3 Pier 3 - Beam 9	4 SF
Span 3 N. Abut. - Beam 4	1 SF



BEAM END VIEW



SECTION A-A



SECTION B-B

Notes:

Vertical panels must be between 10" and 12". The space between each vertical panel shall be 1". Vertical panels shall extend beyond the repair zone by a minimum of 3". Vertical panels located above the bearing location shall be placed in two pieces as shown in Section A-A. At locations in front of the bearing, the vertical panels shall be one continuous strip wrapping beneath the bottom flange as shown in Section B-B.

Horizontal anchorage strips shall be 3" wide and extend a minimum of 6" beyond the vertical panels. The horizontal anchorage strips shall be placed on top of the vertical panels. In areas where deterioration occurs in the ends of beams, the anchorage strip shall wrap around the beam end in one continuous strip.

Spalled concrete and exposed reinforcement shall be repaired according to the special provision "PRECAST PRESTRESSED CONCRETE I-BEAM REPAIRS".

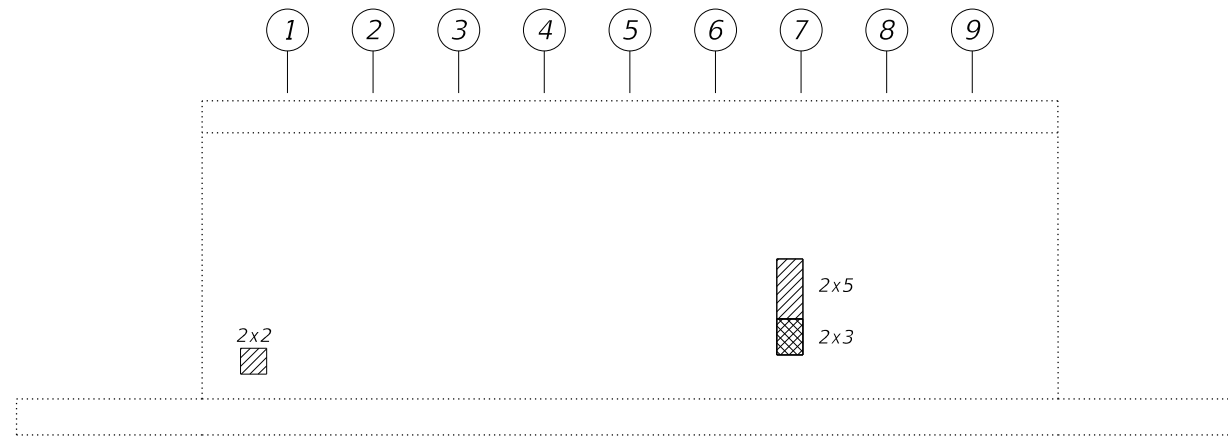
Acrylic coating shall be placed over fiber wrap repairs.

See special provisions for "FRP STRENGTHENING FOR PPC I-BEAM REPAIRS."

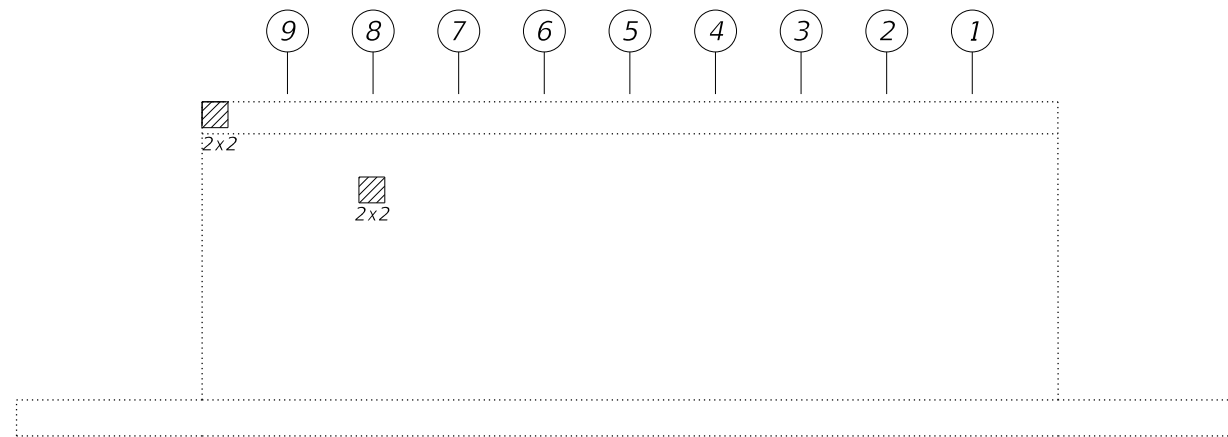
BILL OF MATERIAL

Item	Unit	Total
Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	71
Fiber Wrap	Sq. Ft.	759
Acrylic Coating	Sq. Yd.	138

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NORTH ABUTMENT- ELEVATION
(Looking North)



SOUTH ABUTMENT- ELEVATION
(Looking South)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth Equal To or Less Than 5")	Sq. Ft.	22
	Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	6

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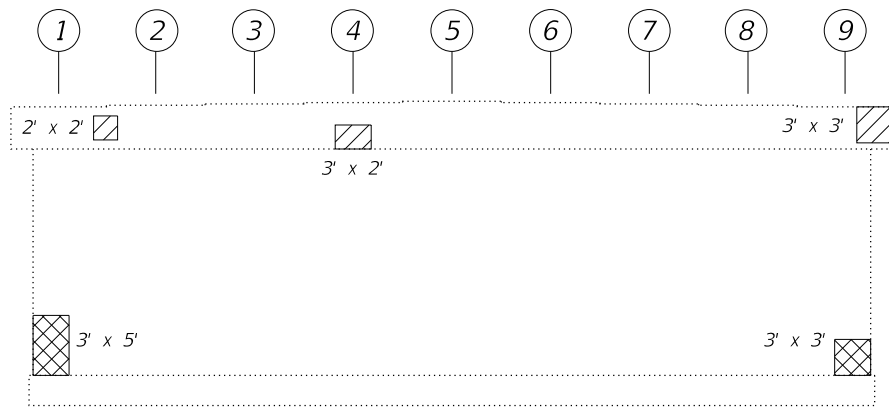
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

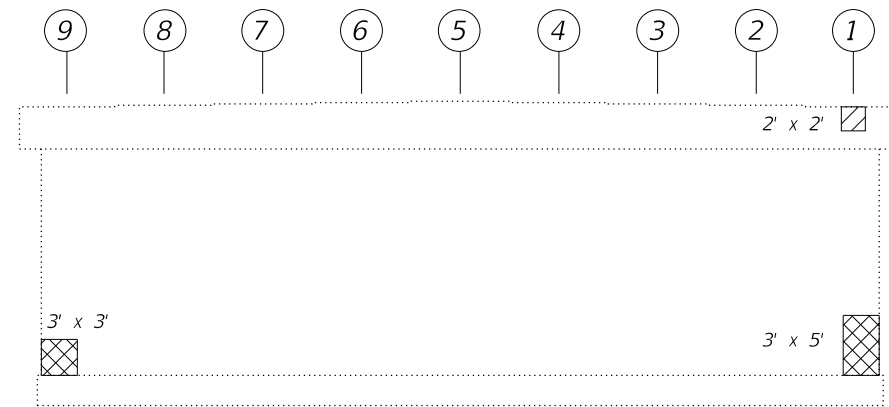
**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
ABUTMENT REPAIR PLAN**

SCALE: SHEET 11 OF 15 SHEETS STA. TO STA.

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 23
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



PIER 1 SOUTH FACE
(Looking North)





PIER 1 NORTH FACE
(Looking South)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

The repair to the bottom of the pier must be done in low flow conditions.

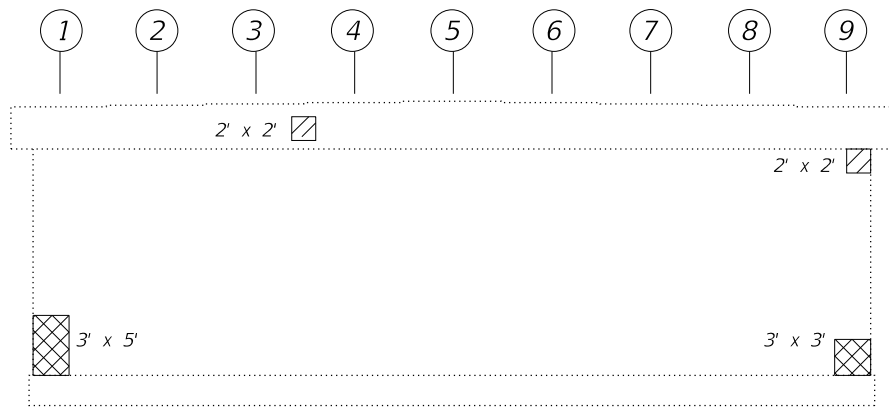
BILL OF MATERIALS

SYMBOL	ITEM	UNIT	QUANTITY
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	Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	48

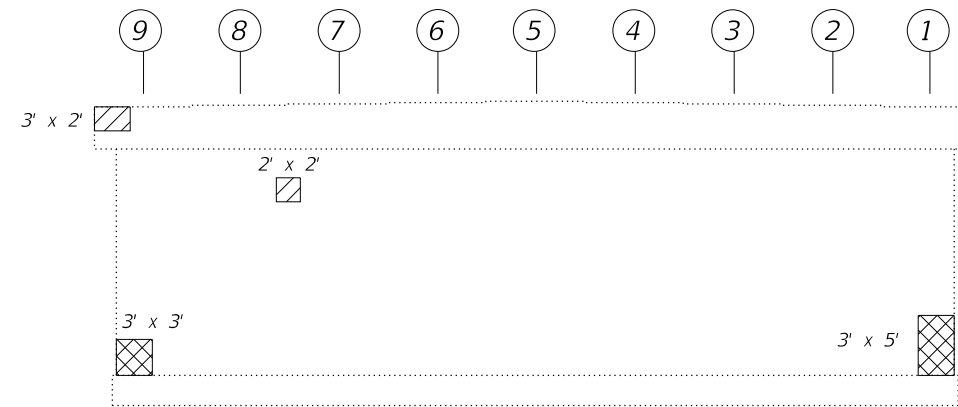
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SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



PIER 2 SOUTH FACE
(Looking North)



PIER 2 NORTH FACE
(Looking South)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

The repair to the bottom of the pier must be done in low flow conditions.

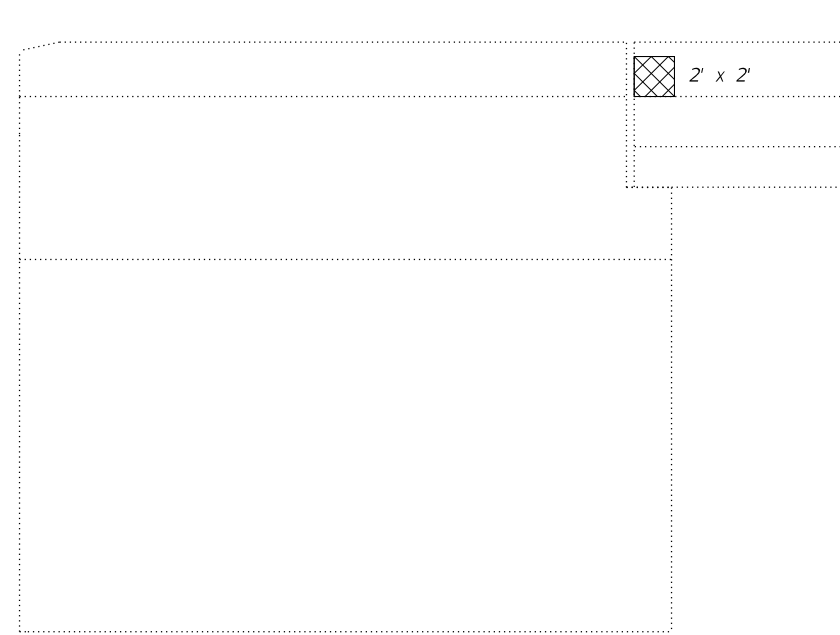
BILL OF MATERIALS

SYMBOL	ITEM	UNIT	QUANTITY
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	Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	48

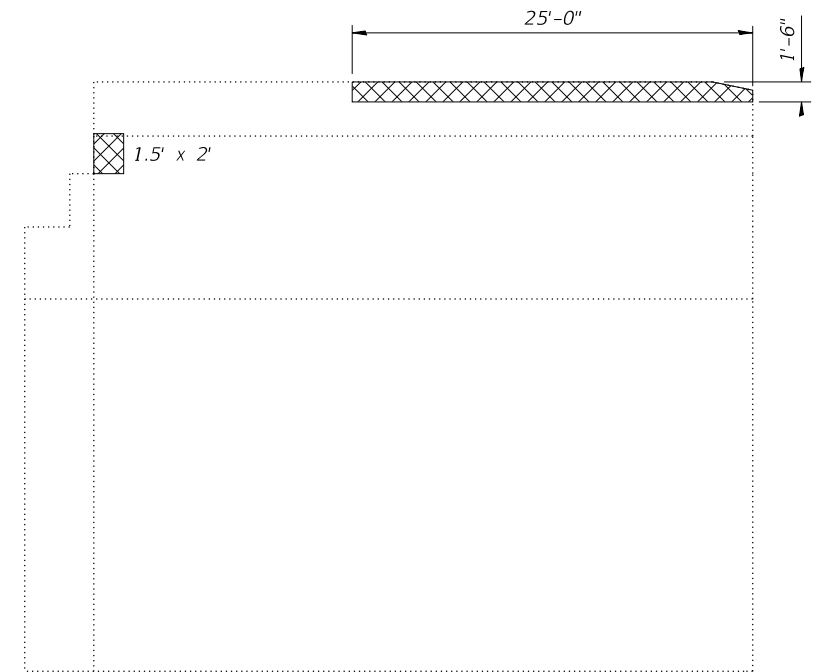
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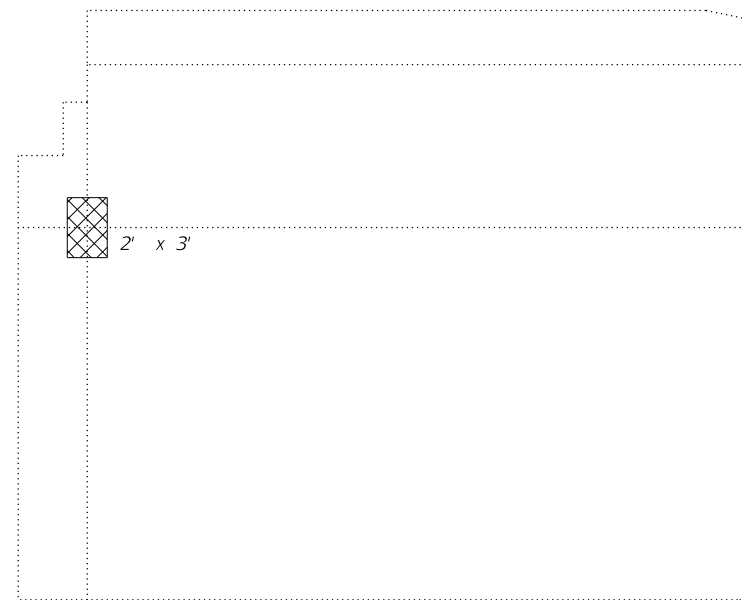
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SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



SOUTHWEST WINGWALL ELEVATION
(Looking East)



NORTHWEST WINGWALL ELEVATION
(Looking West)



NORTHEAST WINGWALL ELEVATION
(Looking West)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets and field inspections completed by Chastain & Associates. Actual locations, size, and depth shall be verified in the field.

BILL OF MATERIALS

SYMBOL	ITEM	UNIT	QUANTITY
	Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	48

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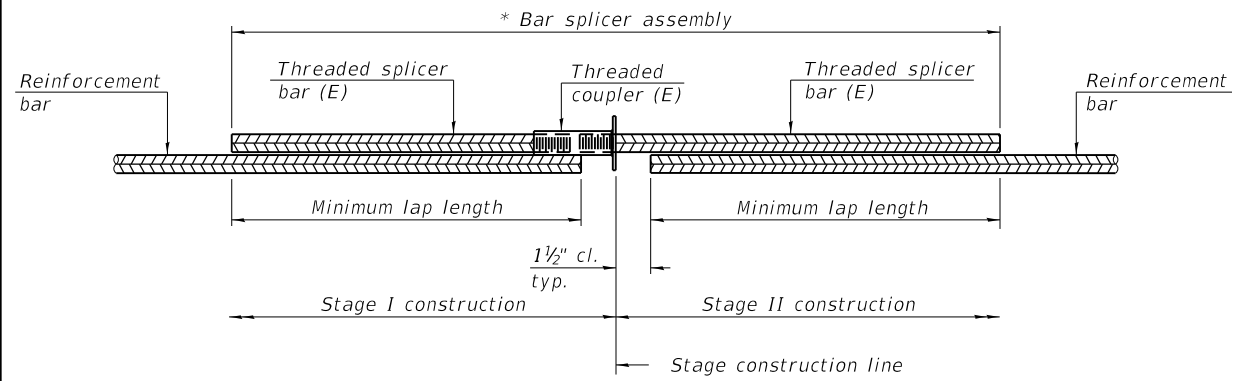
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PLOT DATE = 10/16/2020	DATE -	REVISED - 2020/8/21

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
PARAPET WALL REPAIR PLAN**

SCALE: SHEET 14 OF 15 SHEETS STA. TO STA.

F.A.P. RTE. 0372	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 26
SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		

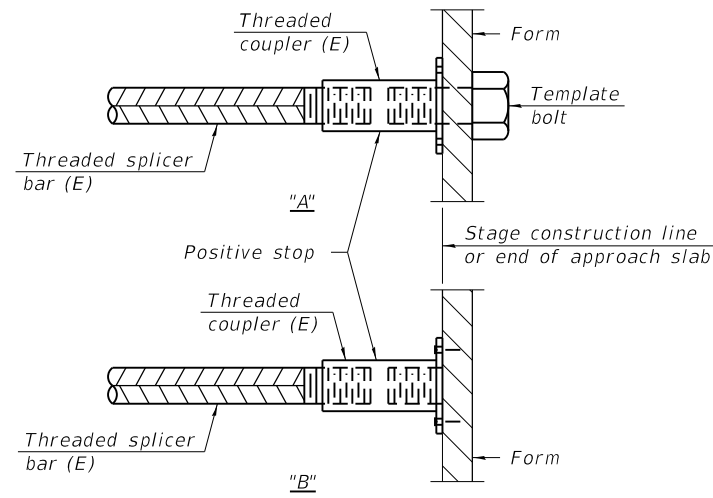


STANDARD BAR SPLICER ASSEMBLY PLAN
(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

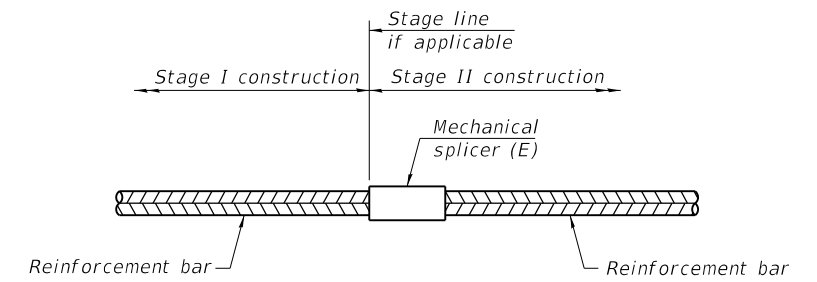
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Pier 1	#7	4	4'-8"
Pier 2	#7	4	4'-8"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:
 Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BSD-1 1-1-2020



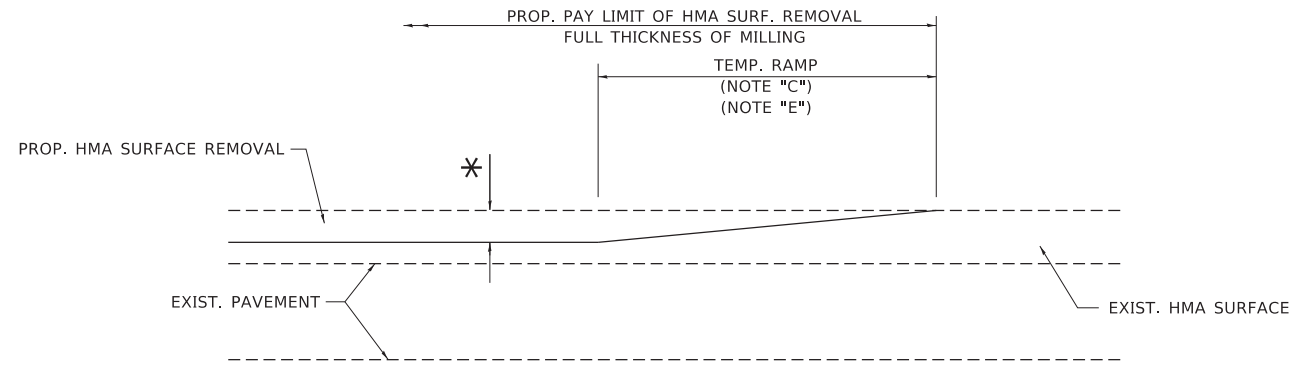
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	DATE -	REVISED - 2020/8/21

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 171 OVER DES PLAINES RIVER BRIDGE DECK OVERLAY AND REPAIRS
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS**

SCALE: SHEET 15 OF 15 SHEETS STA. TO STA.

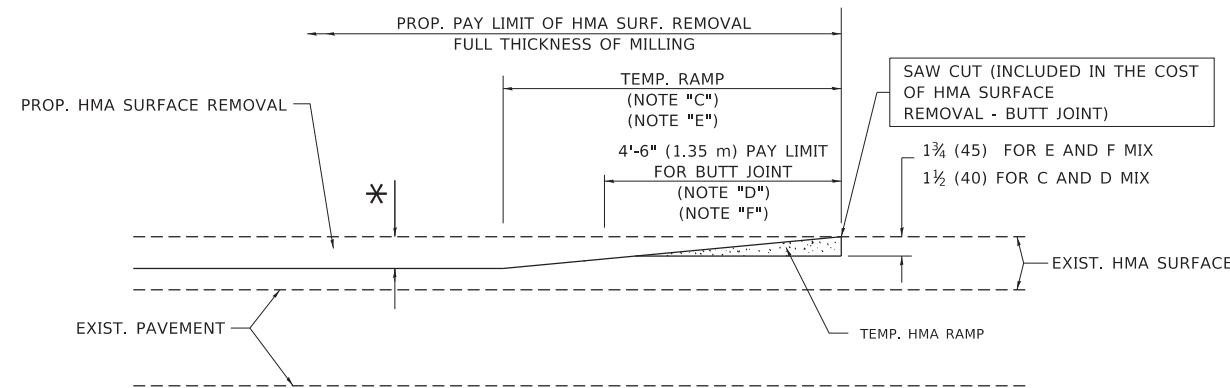
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SN 016-0697		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

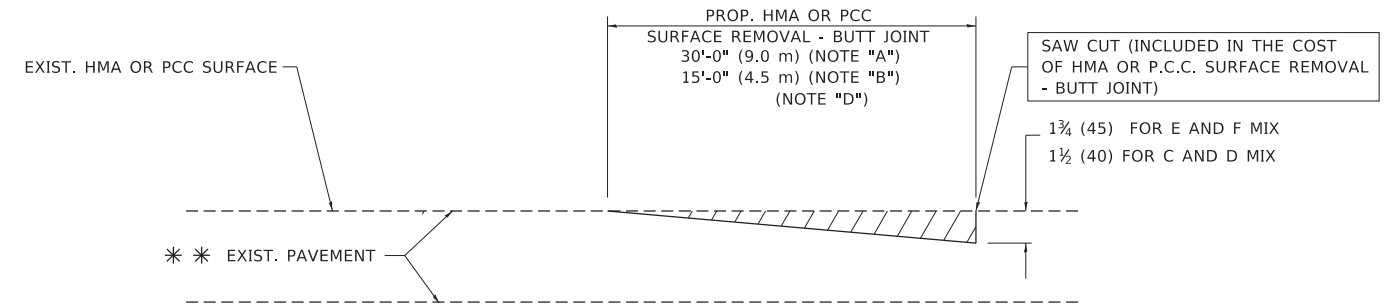


HMA CONSTRUCTED TEMPORARY RAMP

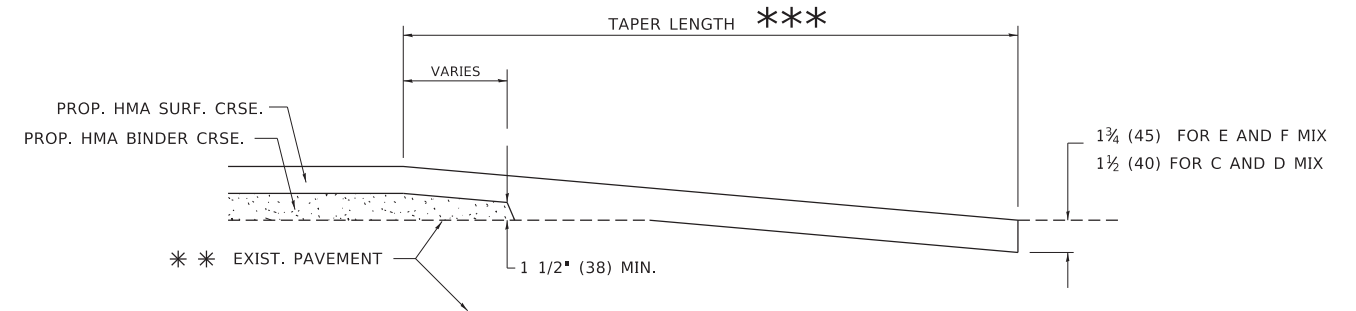
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

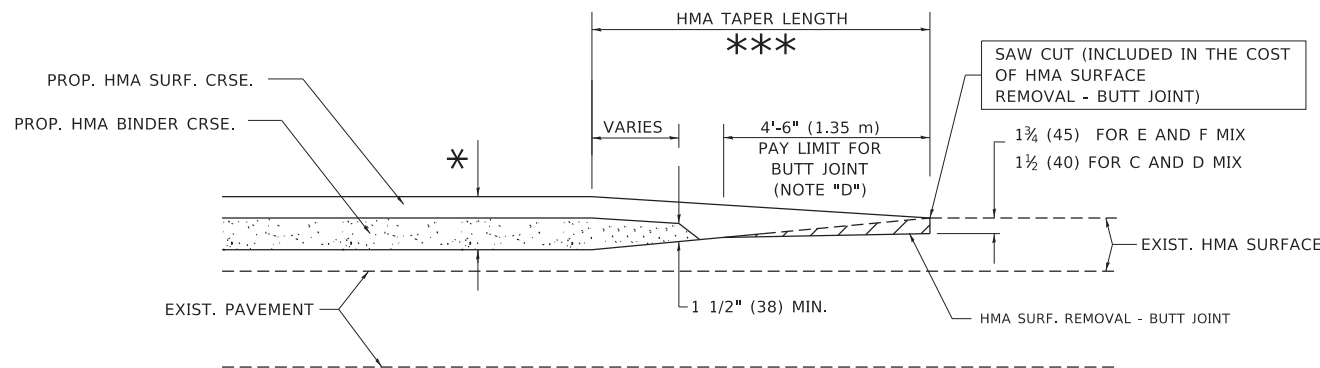
NOTES

- A. MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F. INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT.
* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- G. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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



BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

MODEL: D:\default... CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS 184-001397



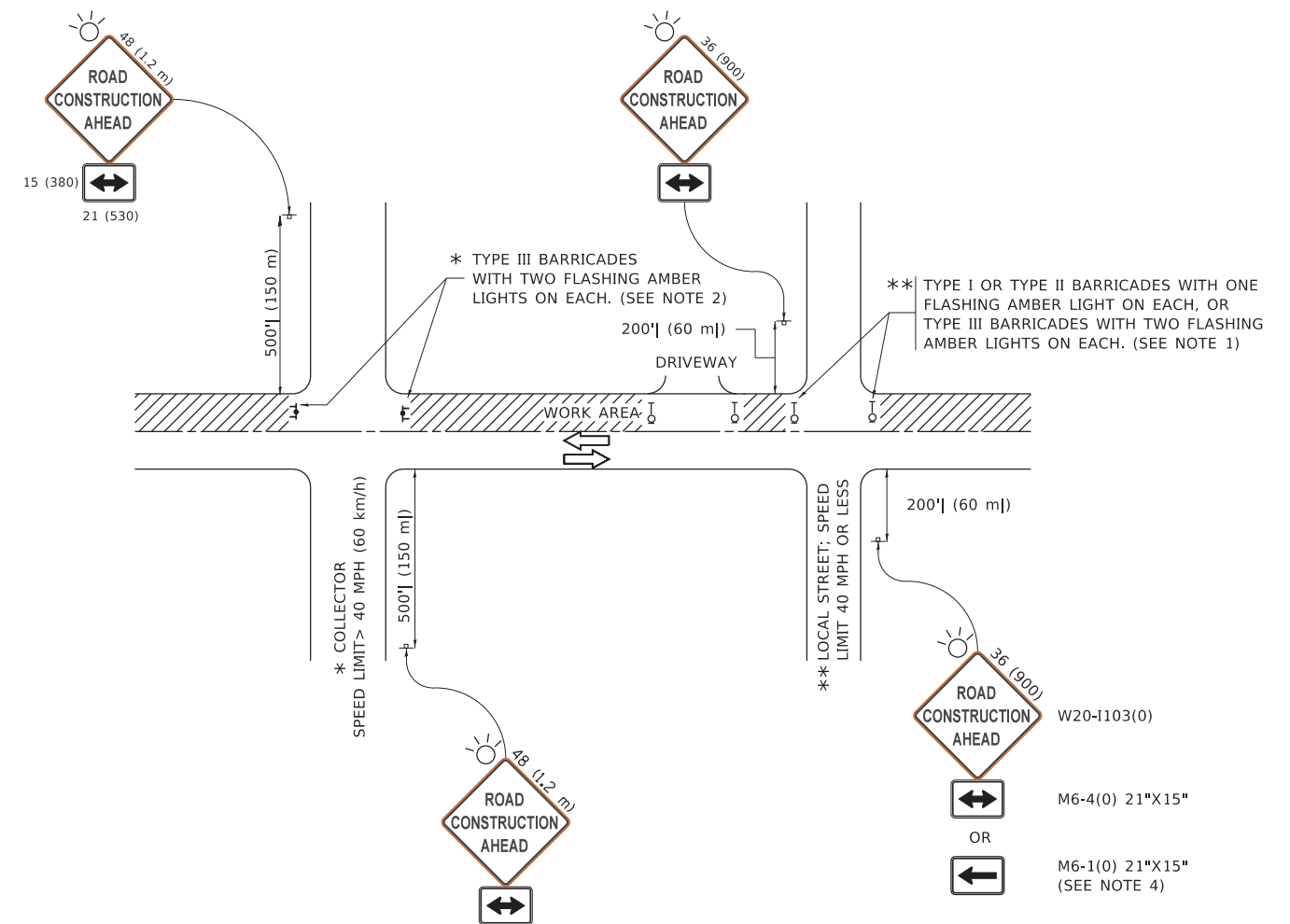
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	DATE - 06-13-90	REVISED - R.BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

SCALE: NONE SHEET 1 OF 5 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	2020-183-BR	COOK	32	28
BD400-05 BD32		CONTRACT NO. 62M38		
ILLINOIS FED. AID PROJECT				



NOTES:

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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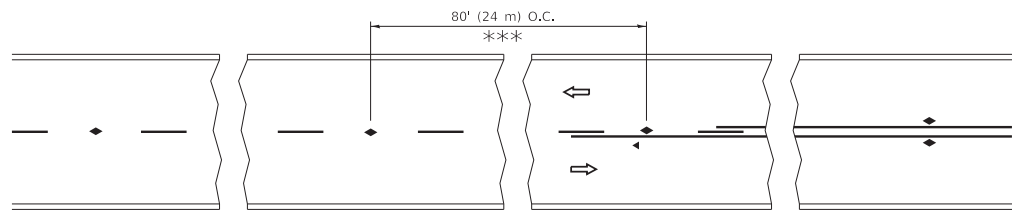
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		REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

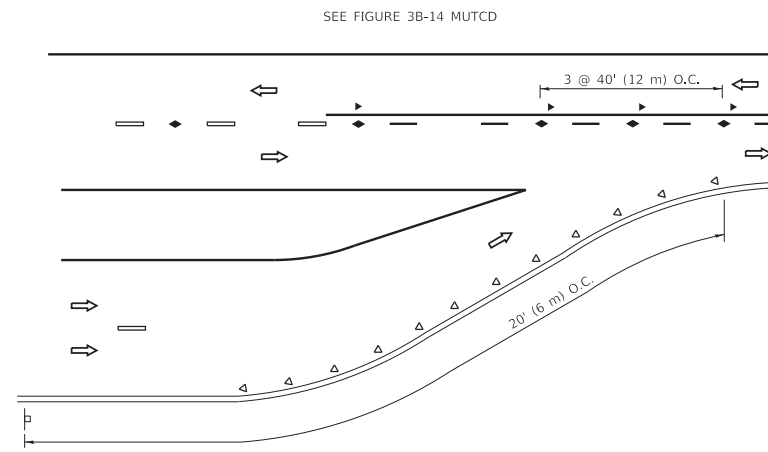
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 62M38	
ILLINOIS FED. AID PROJECT				

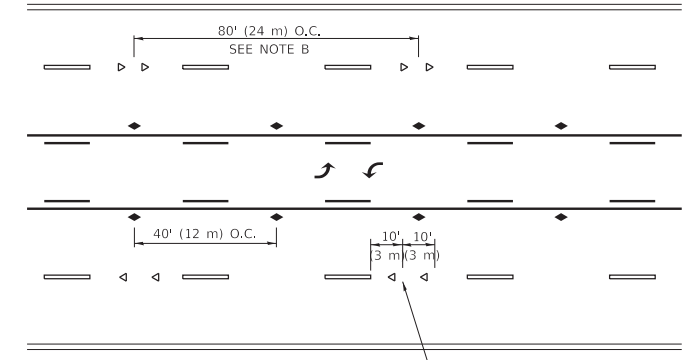


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

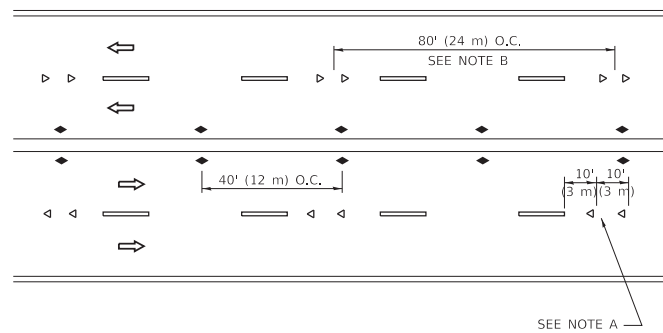
TWO-LANE/TWO-WAY



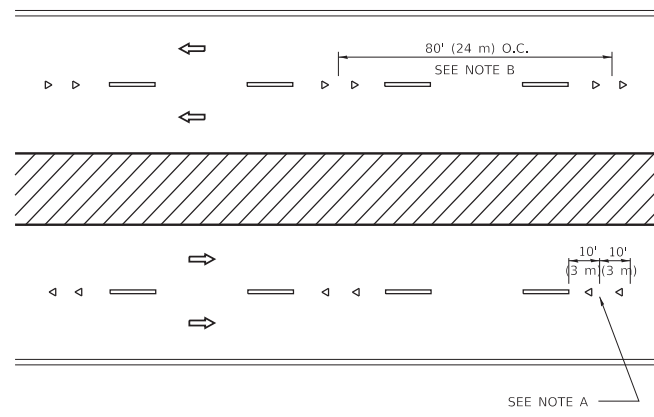
LANE REDUCTION TRANSITION



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

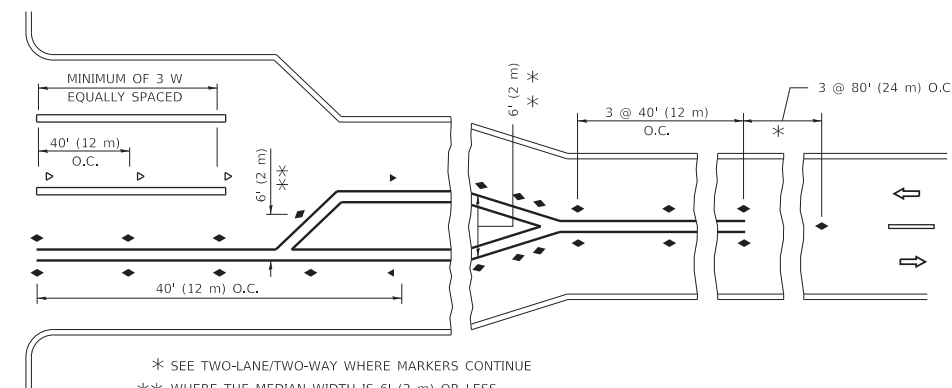
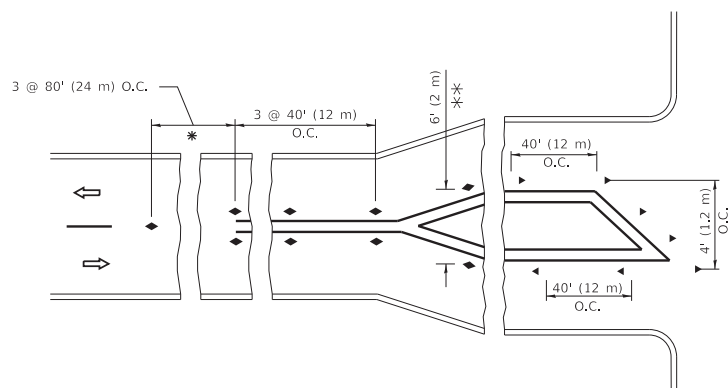
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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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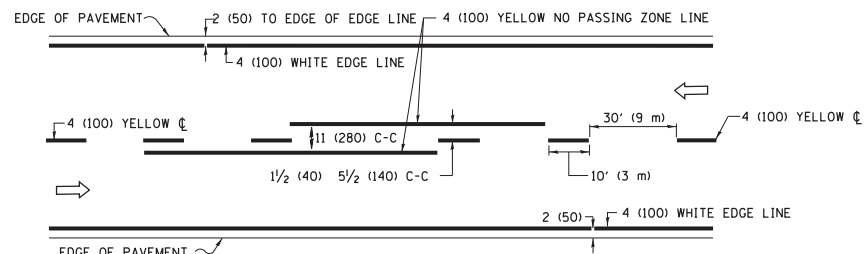
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

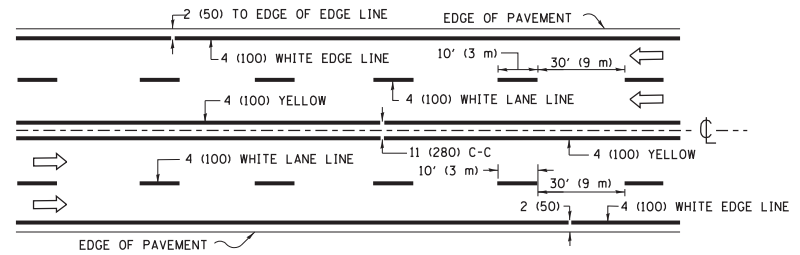
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE SHEET 3 OF 5 SHEETS STA. TO STA.

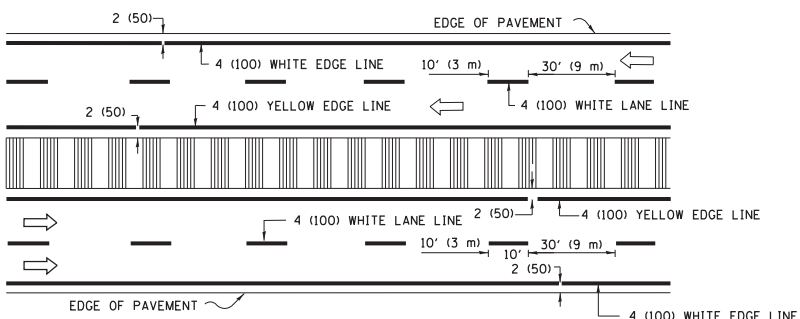
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2746	2020-183-BR	COOK	32	30
TC-11		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



2-LANE ROADWAY

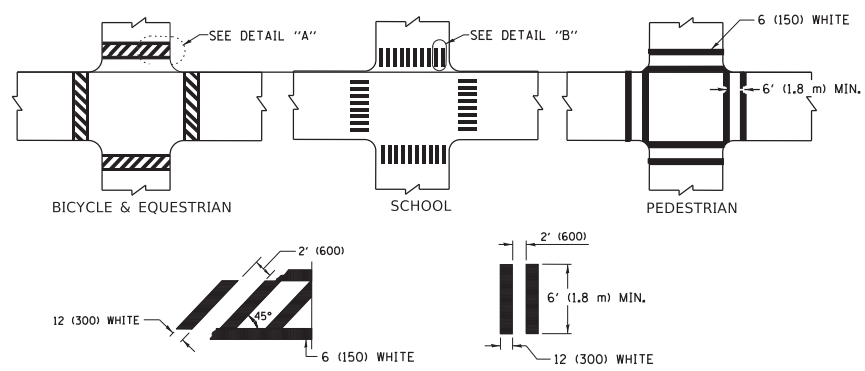


MULTI-LANE UNDIVIDED



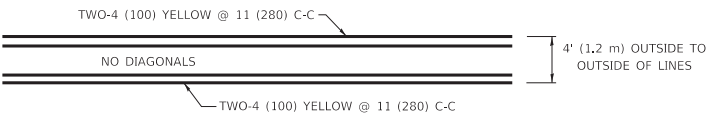
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

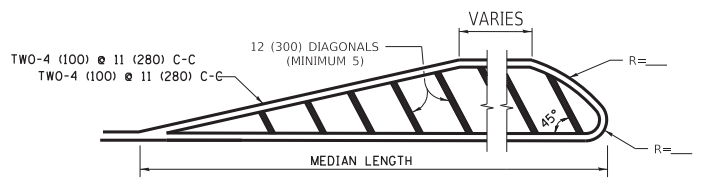


TYPICAL CROSSWALK MARKING

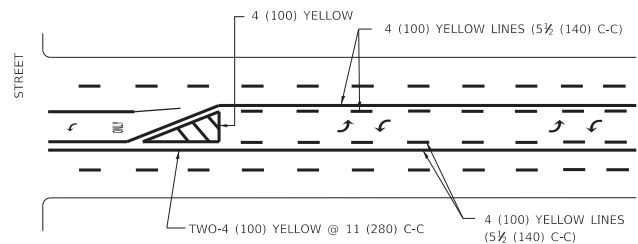
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



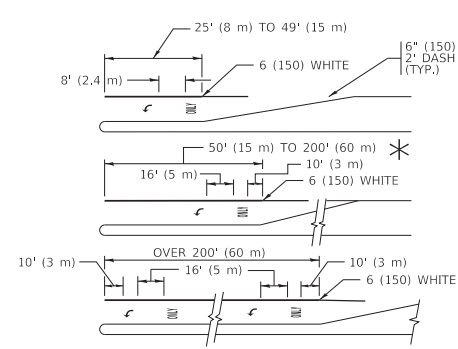
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

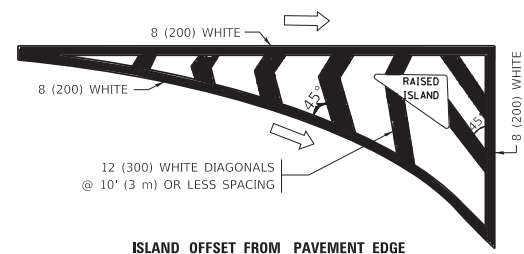


MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING

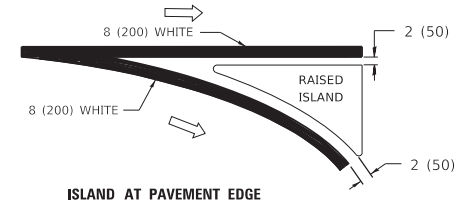


TYPICAL LEFT (OR RIGHT) TURN LANE TYPICAL TURN LANE MARKING

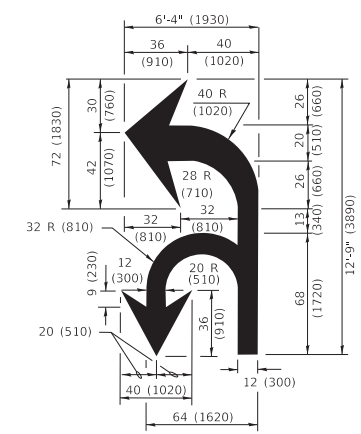
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".



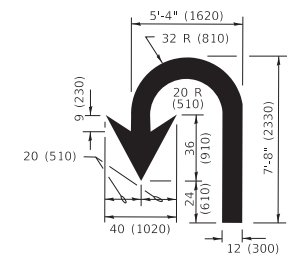
ISLAND OFFSET FROM PAVEMENT EDGE



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 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 6' (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.

MODEL: D:\default... CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS 184-001397

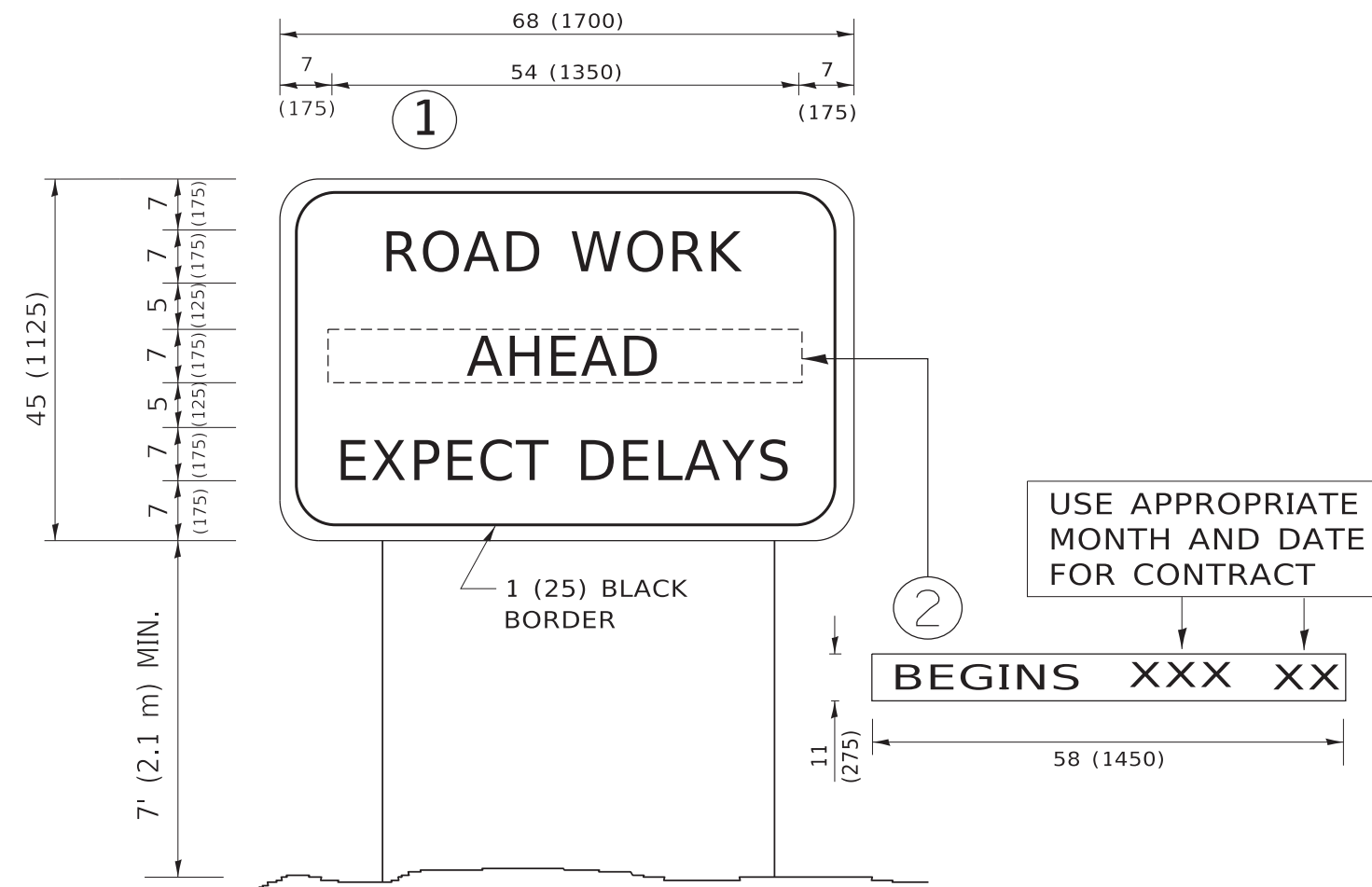


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	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET 4 OF 5 SHEETS	STA. TO STA.	

F.A. RTE. 2746	SECTION 2020-183-BR	COUNTY COOK	TOTAL SHEETS 32	SHEET NO. 31
TC-13		CONTRACT NO. 62M38		
ILLINOIS		FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

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USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97
	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 5 OF 5 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	2020-183-BR	COOK	32	32
TC-22			CONTRACT NO. 62M38	
ILLINOIS FED. AID PROJECT				