

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	1
		ILLINOIS	CONTRACT NO. 60X39	

**INDEX OF SHEETS:**  
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROJECT DESCRIPTION:**  
THE PROPOSED IL ROUTE 120 IMPROVEMENTS CONSIST OF REPLACEMENT OF THE BRIDGE DECKS OVER US 41 AND UPRR / OLD SKOKIE ROAD & RESURFACING

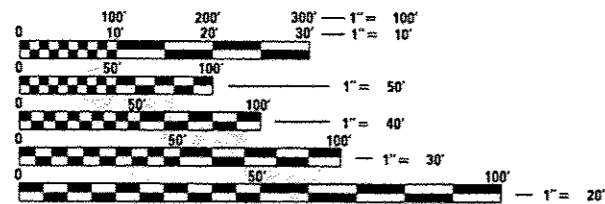
**DESIGN DESIGNATION:**  
ILLINOIS ROUTE 120: OTHER PRINCIPAL ARTERIAL / SRA ROUTE 508

**TRAFFIC DATA:**  
ILLINOIS ROUTE 120  
EXISTING ADT: 28,500 (2011)  
PROPOSED ADT: 29,800 (2014)  
POSTED SPEED LIMIT: 45 & 50 MPH  
DESIGN SPEED: 55 MPH

# PROPOSED HIGHWAY PLANS

FAP ROUTE 333 /FAU 1225 (ILLINOIS ROUTE 120)  
IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SECTION: 12(HB&VB)BR & RS-7  
PROJECT: NHPP-000V(119)  
BRIDGE DECK REPLACEMENT & RESURFACING  
LAKE COUNTY  
C-91-088-14

PROJECT IS LOCATED IN THE CITY OF PARK CITY IN LAKE COUNTY

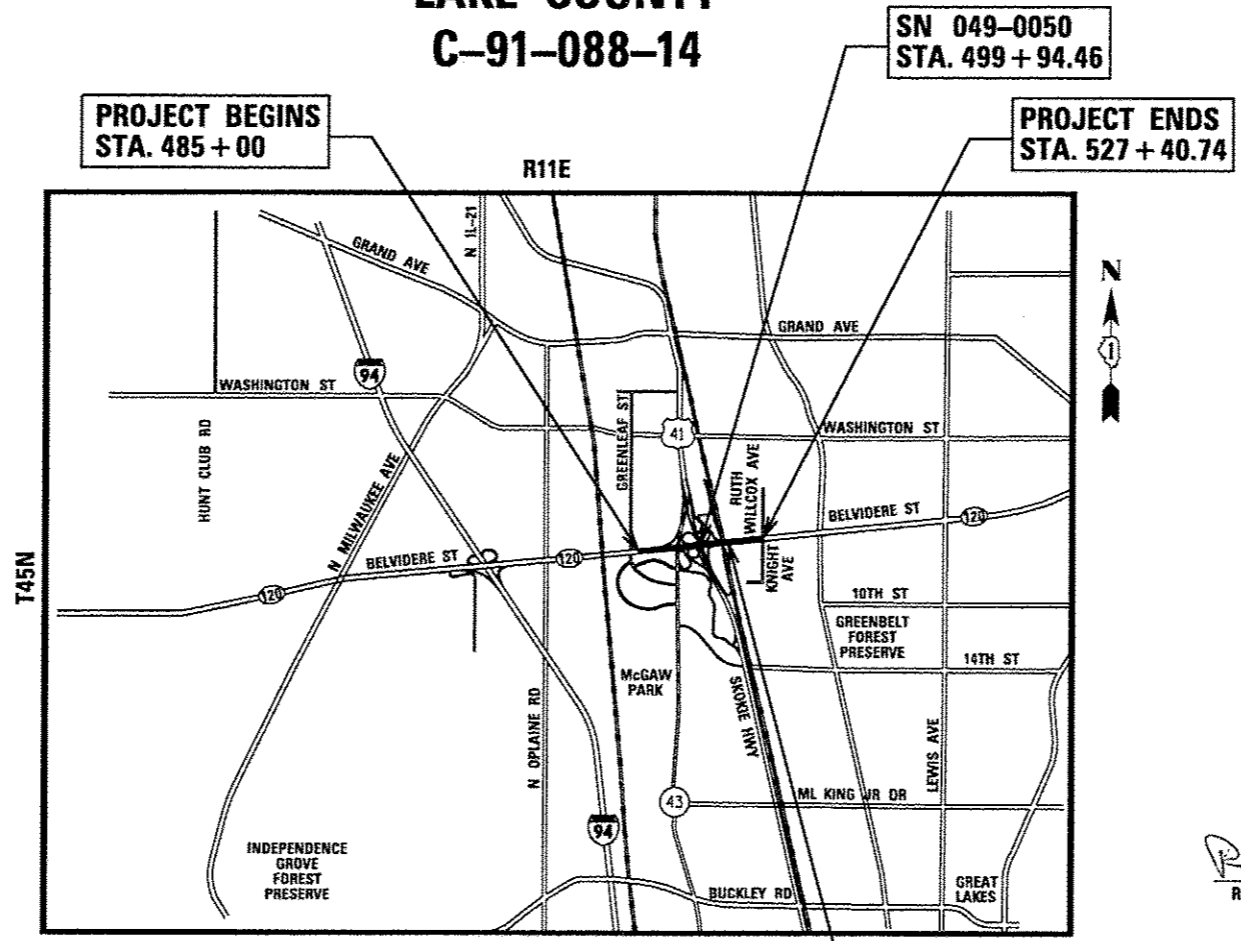


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER: HELEN PAZON, P.E. (847) 705-4523

CONTRACT NO. 60X39



SECTIONS 25, 30  
WARREN TOWNSHIP  
LOCATION MAP  
NOT TO SCALE

GROSS & NET LENGTH (IL 120) = 4,241 FT. = 0.81 MILE  
GROSS & NET LENGTH OF PROJECT = 4,241 FT. = 0.81 MILE

D-91-023-13



LOCATION OF SECTION INDICATED THIS: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED April 28 2017  
Regional Engineer

May 12 2017  
Matthew M. Addis, P.E.  
ENGINEER OF DESIGN AND ENVIRONMENT

May 12 2017  
Director of Program Development

ROBERT J. DEMING  
062-057483  
LICENSED PROFESSIONAL ENGINEER  
ILLINOIS  
ROBERT J. DEMING, P.E.  
EXPIRES 11-30-2017

STATE OF ILLINOIS  
MOHAMMAD M. HUSAIN  
081-005529  
CHICAGO, IL  
LICENSED STRUCTURAL ENGINEER  
MOHAMMAD M. HUSAIN, S.E.  
EXPIRES 11-30-2018

**Primera**  
100 S. WACKER DRIVE SUITE 700 CHICAGO IL 60606.  
P:312-606-0910 F:312-606-0415

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**COMMITMENTS**

THE FOLLOWING COMMITMENTS RELATING TO THE ILLINOIS ROUTE 120 PROPOSED IMPROVEMENT INCLUDE THE FOLLOWING:

1. THERE ARE NO COMMITMENTS AT THIS TIME.

FILE NAME  
D:\68x39-eh-gennote\_01.dgn



DESIGNED	-	CMD	REVISED	-
DRAWN	-	GEW	REVISED	-
CHECKED	-	RJD	REVISED	-
DATE	-	3/3/2017	REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
INDEX OF SHEETS / STATE STANDARDS AND COMMITMENTS**

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333		12(H&V)B1B & RS-7	LAKE	198	2
				CONTRACT NO. 60X39	
ILLINOIS FED. AID PROJECT					

IND-1

**GENERAL NOTES:**

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)
2. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 11/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (45 KM/H) OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (45 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
3. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED
4. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE LATEST EDITION, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS AND SPECIAL PROVISIONS OF THE BUREAU OF DESIGN AND ENVIRONMENT. ANY REFERENCE TO A STANDARD SHALL BE INTERPRETED TO MEAN THE LATEST EDITION.
5. 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.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ABOVE AND BELOW GROUND UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY, PUBLIC OR PRIVATE, THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
8. SAW CUTTING SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM BEING REMOVED, WITH THE EXCEPTION OF CLASS B PATCHES, 10 INCH.
9. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
10. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTION IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
11. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
12. THE RESIDENT ENGINEER SHALL CONTACT MR. WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT WALTER.CZARNY@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
14. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
15. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.
16. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER
17. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED THEIR LOCATION.
18. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED.
19. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF WAUKEGAN AND PARK CITY
20. ALL UTILITY COMPANIES, SCHOOL DISTRICTS, AND LOCAL POLICE AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
21. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING CONSTRUCTION.
22. ALL RADII ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
23. THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
24. CONCRETE TRUCK WASHOUT SHALL NOT BE DISCHARGED INTO THE SURROUNDING AREAS. THE WASHOUT SHALL BE COLLECTED ONSITE AND TREATED OR DISPOSED OF AT AN APPROVED LOCATION (I.E., THE BATCH PLANT).
25. CONCRETE TRUCK WASHOUT LOCATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR AT THE PRECONSTRUCTION MEETING FOR THE APPROVAL OF THE OWNER AND THE ENGINEER.
26. LOCATIONS OF SIDEWALK RAMPS CALLED OUT ON THE PLANS SHALL CONFORM TO CURRENT ADA REQUIREMENTS AND APPLICABLE STATE HIGHWAY STANDARDS OR AS DETERMINED BY THE ENGINEER.
27. ALL PROPOSED SIDE CURB QUANTITIES ARE INCLUDED IN THE PCC SIDEWALK 5" AND SHALL BE PAID AS SUCH.
28. THE STATION/OFFSET/ELEVATIONS NOTED FOR THE DRAINAGE STRUCTURES LOCATED WITHIN THE PAVEMENT LIMITS ARE DIMENSIONED TO THE EDGE OF PAVEMENT AND THE STATION/OFFSET/ELEVATIONS NOTED FOR ALL DRAINAGE STRUCTURES LOCATED OUTSIDE THE PAVEMENT ARE DIMENSIONED TO THE CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
29. DURING CONSTRUCTION OPERATIONS 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 WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT.
30. CURB AND GUTTER SHALL BE TRANSITIONED OVER A TEN FOOT LENGTH TO MEET EXISTING. THE TRANSITION SHALL BE PAID FOR AT THE UNIT PRICE FOR THE APPLICABLE INSTALLED CURB AND GUTTER.
31. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
32. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEDED WILL BE DETERMINED BY THE ENGINEER.
33. THE LOCATION OF THE EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE, AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR, THIS WORK SHALL BE PAID FOR PER ART. 105.07 OF THE STANDARD SPECIFICATIONS.
34. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
35. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT.
36. CLEARING OF BRUSH, BUSHES AND TREES WITH A DIAMETER LESS THAN 6 INCHES WILL NOT BE PAID FOR SEPARATELY PER SECTION 202 OF THE STANDARD SPECIFICATIONS.
37. PROPOSED END SECTIONS SHALL BE SLOPED TO MATCH THE PROPOSED CULVERTS. PIPE CULVERT LENGTHS IN SCHEDULES DO NOT INCLUDE THE LENGTH OF END SECTIONS WHERE APPLICABLE.
38. THE CONTRACTOR AND RESIDENT ENGINEER SHALL NOTIFY PACE'S TRANSPORTATION ENGINEER AT (847)-228-3584 AT LEAST 10 DAYS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO ANY MAINTENANCE OF TRAFFIC STAGING OR STAGE CHANGES.
39. COST OF CONNECTING PROPOSED TO EXISTING GUARDRAIL SHALL BE INCLUDED IN 63000001. STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS.
40. CURB AND GUTER SHALL EXTEND DOWN TO THE BOTTOM OF THE EXISTING CONCRETE PAVEMENT. IN AREAS OF VARIABLE DEPTH RESURFACING, THIS WILL NECESSITATE VARIABLE DEPTH CONCRETE GUTTER SECTIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE ADDITIONAL MATERIAL REQUIRED.
41. THE ENGINEER SHALL REPORT CLEARANCES UNDER THE FOLLOWING STRUCTURES AFTER WORK IS COMPLETED.
  - A. SN 049-0111 WAUKEGAN ROAD OVER US ROUTE 41
  - B. SN 049-0050 ILLINOIS ROUTE 120 OVER US ROUTE 41
  - C. SN 049-0051 ILLINOIS ROUTE 120 OVER OLD SKOKIE ROAD
  - D. SN 15049S120L000.0-000 SIGN TRUSS AT STATION 507+45 OVER ILLINOIS ROUTE 120
  - E. SN 1C049S120R000.0-001 CANTILEVER SIGN AT STATION 486+90 OVER ILLINOIS ROUTE 120
  - F. SN 1C049S120L000.0-000 CANTILEVER SIGN AT STATION 497+08 OVER ILLINOIS ROUTE 120
42. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION 11.C.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
43. THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL MAINTENANCE DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THE START OF EXCAVATION. THE CONTRACTOR SHALL CONTACT THE IDOT ELECTRICAL MAINTENANCE DEPARTMENT AT 1-708-524-2145 FOR FIELD LOCATIONS OF BURIED IDOT MAINTAINED ELECTRICAL FACILITIES. IDOT ELECTRICAL FACILITIES ARE SEPARATE FROM THE UTILITIES FOUND USING J.U.L.I.E. AND THEREFORE MUST BE CONTACTED IN ADDITION TO CONTRACTING J.U.L.I.E.
44. AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH AGGREGATE SUBGRADE IMPROVEMENT (CU YD) WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE AND/ OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 (04/01/2016) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE CURRENT IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

**UNION PACIFIC RAILROAD GENERAL NOTES:**

1. WITHIN THE FOLLOWING NOTES, THE UNION PACIFIC RAILROAD SHALL BE REFERRED TO AS THE "RAILROAD".
2. A CONTRACTOR'S RIGHT-OF-ENTRY PERMIT IS REQUIRED BEFORE ANY WORK CAN COMMENCE ON RAILROAD PROPERTY. THE COST TO OBTAIN THIS PERMIT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. NO DISRUPTIONS OF RAILROAD OPERATIONS WILL BE PERMITTED.
4. ALL WORK WITHIN 25 FEET OF THE NEAREST TRACK WILL REQUIRE A RAILROAD FLAGMAN. TO SCHEDULE A FLAGMAN FOR WORK ON A COMMUTER LINE, CALL CANDICE MILLER AT (312) 496-4738, A MINIMUM 72 HOURS IN ADVANCE OF START OF WORK. TO SCHEDULE A FLAGMAN FOR WORK ON FREIGHT LINES, CALL DARYL CLARK AT (708) 649-5273, A MINIMUM OF 72 HOURS IN ADVANCE OF START OF WORK.
5. WORK WINDOWS WITHIN THE 25 FOOT ZONE ARE ONLY AVAILABLE FROM 9:00 AM - 3:00 PM, MONDAY THROUGH FRIDAY. NIGHT WORK WINDOWS ARE AVAILABLE FROM 8:00 PM - 4:00 AM. PLEASE PROVIDE AT LEAST 72 HOURS OF ADDITIONAL NOTICE WHEN REQUESTING TO WORK AT NIGHT TO ENSURE APPROPRIATE FLAGGING COVERAGE. EXTENDED WORK WINDOWS MAY BE AVAILABLE ON THE WEEKENDS. NOT WITHSTANDING THE FOLLOING, DUE TO INTERSTATE FREIGHT TRAIN AND COMMUTER PASSENGER TRAIN OPERATIONS AND SCHEDULES ALL WORK WINDOWS WITHIN THE TIMES LISTED ABOVE ARE SUBJECT TO ON SITE UNILATERAL ADJUSTMENT OR DENIAL FROM THE RAILROAD'S LOCAL FIELD MANAGER AND/OR CORRIDOR MANAGER. THIS MAY RESULT IN DENIAL OR ADJUSTMENT OF ACCESS FOR ANY AND ALL CONTRACTORS, SUBCONTRACTORS AND MATERIAL MEN DURING WORK WINDOWS.
6. NO UN-USED WORK EQUIPMENT WILL BE ALLOWED TO REMAIN ON THE RAILROAD'S COMMUTER PLATFORM IF PRESENT.
7. RAILROAD UTILITIES ARE NOT INCLUDED UNDER JULIE. CALL CANDICE MILLER AT (312) 496-4738 FOR LOCATES.
8. FIBER OPTICS MAY BE PRESENT IN THIS AREA. CALL (800) 336-9193 TO COORDINATE ANY REQUIRED PROTECTION OR RELOCATION, PRIOR TO CONSTRUCTION.
9. RAILROAD REVIEW AND APPROVAL OF SHORING, DEMOLITION, ERECTION, AND FALSEWORK IS REQUIRED.
10. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTIONS TO RAILROAD'S OPERATIONS. ERECTION OVER THE RAILROAD'S TRACK SHALL BE DEVELOPED SUCH THAT IT ENABLES THE TRACKS(S) TO REMAIN OPEN TO TRAIN TRAFFIC PER RAILROAD'S REQUIREMENTS.
11. MINIMUM CONSTRUCTION CLEARANCE ENVELOPE OF 21 FEET 6 INCHES VERTICAL ABOVE THE PLANE OF TOP-OF-RAIL AND 15 FEET HORIZONTAL AT RIGHT ANGLE FROM CENTERLINE OF TRACK SHALL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION. SEE SHEET 33 OF 198
12. FALSEWORK CLEARANCE SHALL COMPLY WITH THE RAILROAD'S MINIMUM CONSTRUCTION CLEARANCE ENVELOPE.
13. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART OF SPECIAL PROVISIONS.
14. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SETTLEMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
15. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT CHANGE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD DITCHES AND/OR DRAINAGE STRUCTURES.
16. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

FILE NAME 0160X39-shit-gennote.02.dgn	DESIGNED - CMD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - JFS	REVISED -		GENERAL NOTES		333	12(H&B&V&B&R & RS-7)	LAKE	198	3
Default	CHECKED - RJD	REVISED -		SCALE: NTS	SHEET NO. 1 OF 1 SHEETS STA.	CONTRACT NO. 60X39		ILLINOIS FED. AID PROJECT		
	DATE - 3/3/2017	REVISED -		TO STA.						

GEN-1

Rev

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005	SN 049-0050 0014	SN 049-0051 0014	STRUCTURE 0004				
FUND CODE	OVER US41	OVER UPRR	OH SIGNS				
URBAN	URBAN	URBAN	URBAN				
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	117	117			
20101000	TEMPORARY FENCE	FOOT	927	927			
20200100	EARTH EXCAVATION	CU YD	5,125	5,125			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	50	50			
20400800	FURNISHED EXCAVATION	CU YD	10,120	10,120			
20800150	TRENCH BACKFILL	CU YD	1,204	1,204			
21001000	GEO TECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	150	150			
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	3,793	3,793			
• 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,707	1,707			
21400100	GRADING AND SHAPING DITCHES	FOOT	311	311			
• 25000210	SEEDING, CLASS 2A	ACRE	2.25	2.25			
• 25000305	SEEDING, CLASS 3A	ACRE	0.25	0.25			
• 25000310	SEEDING, CLASS 4	ACRE	1.50	1.50			
• 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	360	360			
• 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	360	360			

• SPECIALTY ITEM

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 SUMMARY OF QUANTITIES

SCALE: NTS

SHEET NO. 1 OF 14 SHEETS

STA. TO STA.

F.A.P.  
 RTE.  
 333

SECTION  
 12WB&VDBR & RS-7

COUNTY  
 LAKE

TOTAL SHEETS  
 198

SHEET NO.  
 4

CONTRACT NO. 60X39

ILLINOIS FED. AID PROJECT

S00-1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005	SN 049-0050 0014	SN 049-0051 0014	STRUCTURE 0004
FUND CODE	OVER US41	OVER UPRR	OH SIGNS				
URBAN	URBAN	URBAN	URBAN				
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	360	360			
25100115	MULCH, METHOD 2	ACRE	0.75	0.75			
25100635	HEAVY DUTY EROSION CONTROL BLANKET	50 YD	391	391			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	97	97			
28000305	TEMPORARY DITCH CHECKS	FOOT	125	125			
28000400	PERIMETER EROSION BARRIER	FOOT	2,966	2,966			
28000500	INLET AND PIPE PROTECTION	EACH	22	22			
28100107	STONE RIPRAP, CLASS A4	50 YD	221	221			
28200200	FILTER FABRIC	50 YD	556	556			
28400100	GABIONS	CU YD	110	110			
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	50	50			
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	50 YD	6,597	6,597			
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	17,602	17,602			
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	25	25.0			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	50 YD	130	130			

• SPECIALTY ITEM

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DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES**

SCALE: SHEET NO. 2 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333	SECTION 120NB&VDBR & RS-7	COUNTY LAKE	TOTAL SHEETS 190	SHEET NO. 5
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	1,300	1,300			
40603565	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70	TON	2,644	2,644			
42000060	WELDED WIRE REINFORCEMENT	SO YD	667	667			
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SO YD	700	700			
42001300	PROTECTIVE COAT	SO YD	1,965	1,965			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	306	306.0			
42400800	DETECTABLE WARNINGS	SO FT	27	27			
44000100	PAVEMENT REMOVAL	SO YD	5,366	5,366			
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SO YD	6,725	6,725			
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SO YD	19,474	19,474			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	6,817	6,817			
44000600	SIDEWALK REMOVAL	SO FT	264	264			
44003100	MEDIAN REMOVAL	SO FT	1,110	1,110			
44004250	PAVED SHOULDER REMOVAL	SO YD	59	59			
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SO YD	604	604			

• SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 3 OF 14 SHEETS STA. TO STA.

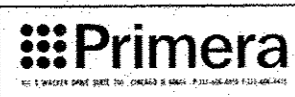
F.A.P. RTE. 333	SECTION 121HB&VBJBR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 6
CONTRACT NO. 60X39			S00-3	

ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SO YD	160	160			
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SO YD	507	507			
44201299	DOWEL BARS 1 1/2"	EACH	470	470			
44213200	SAW CUTS	FOOT	5,536	5,536			
48101620	AGGREGATE SHOULDERS, TYPE B 10"	SO YD	643	643			
48203005	HOT-MIX ASPHALT SHOULDERS, 2"	SO YD	2,473	2,473			
50102400	CONCRETE REMOVAL	CU YD	97.5		49.7	47.8	
50104400	CONCRETE HEADWALL REMOVAL	EACH	7	7			
50104701	REMOVAL OF EXISTING CONCRETE DECK NO. 1	EACH	1		1		
50104702	REMOVAL OF EXISTING CONCRETE DECK NO. 2	EACH	1			1	
50157300	PROTECTIVE SHIELD	SO YD	1,267		214	1,053	
50200100	STRUCTURE EXCAVATION	CU YD	446		284	162	
50300100	FLOOR DRAINS	EACH	8			8	
50300225	CONCRETE STRUCTURES	CU YD	183.4		94.8	88.6	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1,919.5		951.5	968.0	

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 4 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333 SECTION 12HB&VBIBR & RS-7 COUNTY LAKE TOTAL SHEETS 198 SHEET NO. 7 CONTRACT NO. 60X39 ILLINOIS FED. AID PROJECT

S00-4

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN
50300260	BRIDGE DECK GROOVING	SQ YD	5,454		2,714	2,740	
50300300	PROTECTIVE COAT	SQ YD	6,388		3,154	3,234	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	15,990		5,850	10,140	
50500505	STUD SHEAR CONNECTORS	EACH	21,864		12,000	9,864	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	541,380		279,510	261,870	
50800515	BAR SPLICERS	EACH	2,434		1,113	1,321	
51500100	NAME PLATES	EACH	2		1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	350		184	166	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	56		32	24	
52100520	ANCHOR BOLTS, 1"	EACH	112		64	48	
52200020	TEMPORARY SOIL RETENTION SYSTEM	SO FT	212		91	121	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1			
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	12	12			
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	4	4			
54214719	PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 24"	EACH	2	2			

• SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 5 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12H&VB&BR & RS-7	LAKE	198	8
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X39	

S00-5



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE ROADWAY 0005 FUND CODE URBAN	80% FED 20% STATE SN 049-0050 0014 OVER US41 URBAN	80% FED 20% STATE SN 049-0051 0014 OVER UPRR URBAN	80% FED 20% STATE STRUCTURE 0004 OH SIGNS URBAN
54390180	INSERTION CULVERT LINER 24"	FOOT	155	155			
550A0940	STORM SEWERS, CLASS A, TYPE 4 12"	FOOT	94	94			
550A0960	STORM SEWERS, CLASS A, TYPE 4 15"	FOOT	246	246			
55100500	STORM SEWER REMOVAL 12"	FOOT	160	160			
55100700	STORM SEWER REMOVAL 15"	FOOT	398	398			
55100900	STORM SEWER REMOVAL 18"	FOOT	80	80			
58700300	CONCRETE SEALER	50 FT	2,382		1,353	1,029	
59000200	EPOXY CRACK INJECTION	FOOT	100		67	33	
59100100	GEOCOMPOSITE WALL DRAIN	50 YD	287		155	132	
60201340	CATCH BASINS, TYPE A, 4' -DIAMETER, TYPE 24 FRAME AND GRATE	EACH	17	17			
60251740	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 24 FRAME AND GRATE	EACH	10	10			
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	1	1			
<input checked="" type="checkbox"/> 60255410	CATCH BASINS TO BE CLEANED	EACH	14	14			
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	3	3			
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	2	2			

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 6 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333	SECTION 12(H)B&VBIBR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 9
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

S00-6

15

NON PARTICIPATING

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN				
60500060	REMOVING INLETS	EACH	17	17			
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	595	595.0			
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	5,249	5,249.0			
60608300	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12	FOOT	605	605.0			
60618210	HOT-MIX ASPHALT MEDIAN SURFACE, 4 INCH	50 FT	5,069	5,069			
60619200	CONCRETE MEDIAN, TYPE SB-6.06	50 FT	7,475	7,475			
60620000	CONCRETE MEDIAN, TYPE SB-6.24	50 FT	210	210			
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,275.0	1,275.0			
63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	287.5	287.5			
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1			
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2			
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2			
63200310	GUARDRAIL REMOVAL	FOOT	1,038	1,038			
63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	75.0	75.0			

• SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 7 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333	SECTION 12HBB&VBIBR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 10
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

500-7

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005	SN 049-0050 0014	SN 049-0051 0014	STRUCTURE 0004				
FUND CODE URBAN	OVER US41 URBAN	OVER UPRR URBAN	OH SIGNS URBAN				
63800920	MODULAR GLARE SCREEN SYSTEM, TEMPORARY	FOOT	2,921	2,921			
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	970	970			
66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1			
66900530	SOIL DISPOSAL ANALYSIS	EACH	3	3			
67100100	MOBILIZATION	LSUM	1	1			
70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SO FT	73	73			
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	35,417	35,417			
70300908	PAVEMENT MARKING TAPE, TYPE IV 8"	FOOT	610	610			
70300912	PAVEMENT MARKING TAPE, TYPE IV 12"	FOOT	120	120			
70300924	PAVEMENT MARKING TAPE, TYPE IV 24"	FOOT	40	40			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	4,162.5	4,162.5			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	3,562.5	3,562.5			
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	5	5			
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	3	3			
72000100	SIGN PANEL - TYPE 1	SO FT	182	182			

\* SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 8 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120HB&VDIBR & RS-7	LAKE	198	11
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

S00-8

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005	SN 049-0050 0014	SN 049-0051 0014	STRUCTURE 0004				
FUND CODE URBAN	OVER US41 URBAN	OVER UPRR URBAN	OH SIGNS URBAN				
* 72000200	SIGN PANEL - TYPE 2	SO FT	24	24			
* 72000300	SIGN PANEL - TYPE 3	SO FT	1,062	1,062			
* 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	11	11			
* 72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	EACH	9	9			
* 72400330	REMOVE SIGN PANEL - TYPE 3	SO FT	1,002	1,002			
* 72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	1	1			
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2			
* 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	206	206			
* 73000100	WOOD SIGN SUPPORT	FOOT	239	239			
* 73300200	OVERHEAD SIGN STRUCTURE - SPAN, TYPE II-A (4'-6" X 5'-3")	FOOT	100				100
* 73302210	OVERHEAD SIGN STRUCTURE - CANTILEVER, TYPE III-C-A (36" X 7'-0")	FOOT	80				80
* 73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	44.9				44.9
* 73600100	REMOVE OVERHEAD SIGN STRUCTURE - SPAN	EACH	1				1
* 73600200	REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER	EACH	2				2
* 73700300	REMOVE CONCRETE FOUNDATION - OVERHEAD	EACH	6				6
* 73700300	SPECIALTY ITEM						

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES  
SCALE: NTS SHEET NO. 9 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333  
SECTION 121MB&VBIBR & RS-7  
COUNTY LAKE  
TOTAL SHEETS 198  
SHEET NO. 12  
CONTRACT NO. 60X39  
ILLINOIS FED. AID PROJECT

S00-9

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0064 OH SIGNS URBAN
73800900	REMOVE OVERHEAD SIGN STRUCTURE WALKWAY	FOOT	35	35			
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	146			
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	15,033	15,033			
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	628	628			
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	2,444	2,444			
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	875	875			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	72	72			
* 78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73			
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,838	1,838			
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	151	151			
* 78009008	MODIFIED URETHANE PAVEMENT MARKING - LINE 8"	FOOT	975	975			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	225	225			
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	25	25			
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	300	300			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	102	102			

\* SPECIALTY ITEM

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DATE - 3/3/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 10 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333	SECTION 121H&VBIBR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 13
CONTRACT NO. 60X39			S00-10	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN				
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1			
* 88600100	DETECTOR LOOP, TYPE 1	FOOT	943	943			
* A2002816	TREE, CATALPA SPECIOSA (NORTHERN CATALPA), 2" CALIPER, BALLED AND BURLAPPED	EACH	3	3			
* A2002916	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2" CALIPER, BALLED AND BURLAPPED	EACH	3	3			
* K1005875	TREE TRANSPLANT	EACH	8	8			
X0320050	CONSTRUCTION LAYOUT (SPECIAL)	LSUM	1	1			
X0322938	TEMPORARY END SECTION	EACH	4	4			
X0323491	SLOPE WALL CRACK SEALING	FOOT	386		115	271	
□ X0325893	CLEAN EXISTING END SECTION	EACH	7	7			
* X0327303	REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	18	18			
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	12,499	12,499			
* X2501800	SEEDING, CLASS 4 (MODIFIED)	ACRE	2.00	2.00			
X5010523	REMOVE CONCRETE END SECTION	EACH	6	6			
X5427600	REMOVE AND RELOCATE END SECTIONS	EACH	2	2			
X550A566	TEMPORARY STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	100	100			

\* SPECIALTY ITEM    □ Non-Participating

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DESIGNED - CWD	REVISED -
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DATE - 3/3/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES  
SCALE: NTS    SHEET NO. 11 OF 14 SHEETS    STA.    TO STA.

F.A.P. RTE. 333	SECTION 121H8&VBIBR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 14
CONTRACT NO. 60X39			500-11	

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN
X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	949	949			
X5538200	STORM SEWERS TO BE CLEANED 24"	FOOT	355	355			
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	418		186	232	
X6700410	ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL)	CAL MO	18	18			
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1			
X7010240	TRAFFIC CONTROL SURVEILLANCE (SPECIAL)	CAL DA	354	354			
X7010410	SPEED DISPLAY TRAILER	CAL MO	36	36			
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	210	210			
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	12,572	12,572			
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	1,205	1,205			
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	56		32	24	
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	9,020		2,280	6,740	
Z0004552	APPROACH SLAB REMOVAL	SO YD	818	818			
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	LSUM	1		1		
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	LSUM	1			1	

\* SPECIALTY ITEM  LOCAL PARTICIPATING

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 12 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333 SECTION 12MB&VBDR & RS-7 COUNTY LAKE TOTAL SHEETS 198 SHEET NO. 15 CONTRACT NO. 60X39 ILLINOIS FED. AID PROJECT

S00-12

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
ROADWAY 0005	SN 049-0050 0014	SN 049-0051 0014	STRUCTURE 0004	FUND CODE	OVER US41	OVER UPRR	OH SIGNS
URBAN	URBAN	URBAN	URBAN				
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1		1		
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	LSUM	1			1	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	79		32	47	
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	1		1		
Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1			
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	4		2	2	
Z0019600	DUST CONTROL WATERING	UNIT	5	5			
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	141	141			
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	458		210	248	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1			
Z0062456	TEMPORARY PAVEMENT	SO YD	4,424	4,424			
Z0065700	SLOPE WALL REPAIR	SO YD	273		263	10	
Z0065704	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SO YD	538			538	
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	8		8		
Ø Z0076600	TRAINING	HOUR	2000	2000			

• SPECIALTY ITEM Ø 0042

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DATE - 3/3/2017	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 13 OF 14 SHEETS STA. TO STA.

F.A.P. RTE. 333	SECTION 12(H&V)BR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 16
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				FUNDING TYPE			
				80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE	80% FED 20% STATE
				ROADWAY 0005 FUND CODE URBAN	SN 049-0050 0014 OVER US41 URBAN	SN 049-0051 0014 OVER UPRR URBAN	STRUCTURE 0004 OH SIGNS URBAN
Ø 20076004	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	2000	2000			
X0320070	PROTECTIVE SHIELD REMOVAL	LSUM	1		1		

2

\* SPECIALTY ITEM Ø 0042

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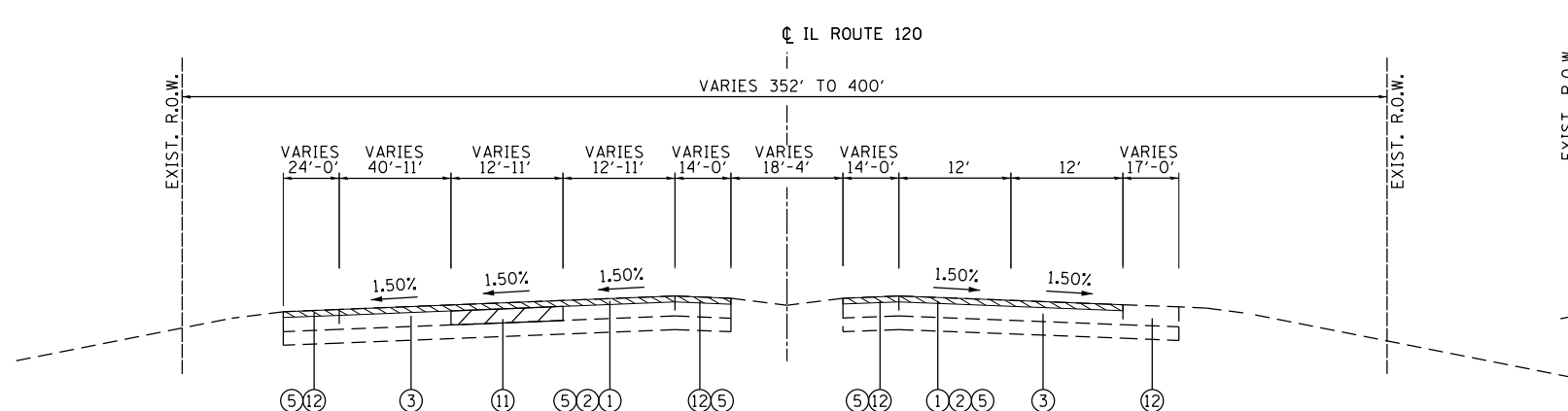
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

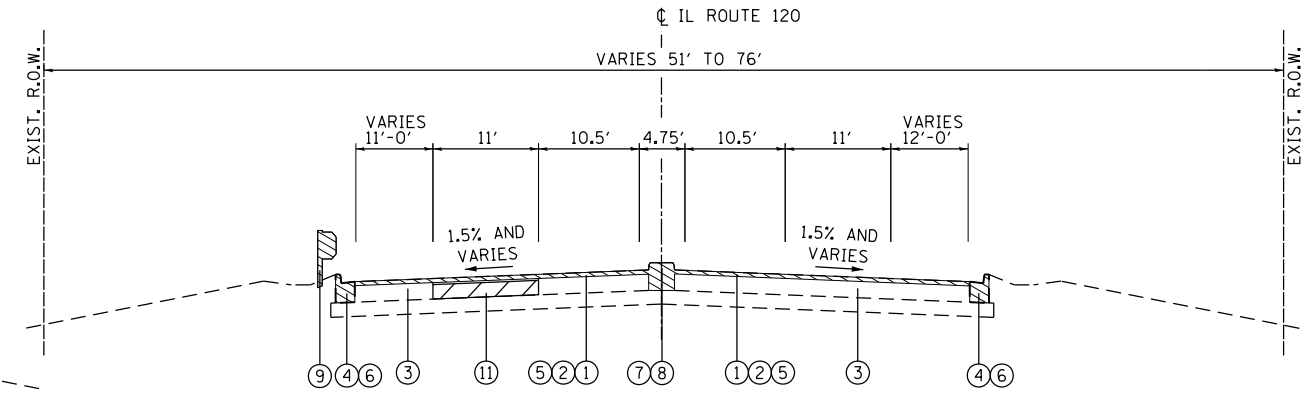
IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 SUMMARY OF QUANTITIES  
 SCALE: NTS SHEET NO. 14 OF 14 SHEETS STA. TO STA.

F.A.P. 333  
 SECTION 120RB&VBIBR & RS-7  
 COUNTY LAKE  
 TOTAL SHEETS 198  
 SHEET NO. 17  
 CONTRACT NO. 60X39  
 ILLINOIS FED. AID PROJECT

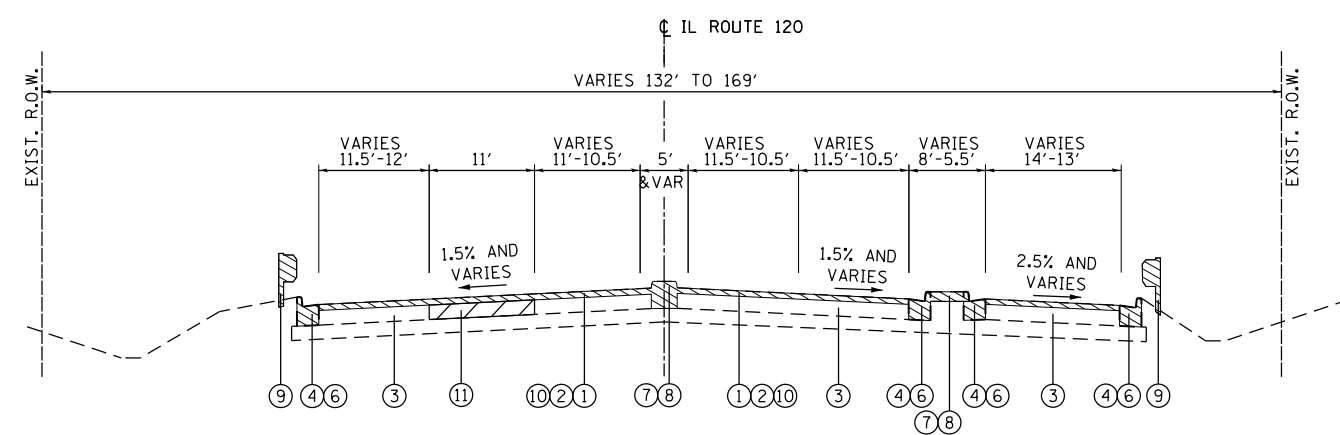
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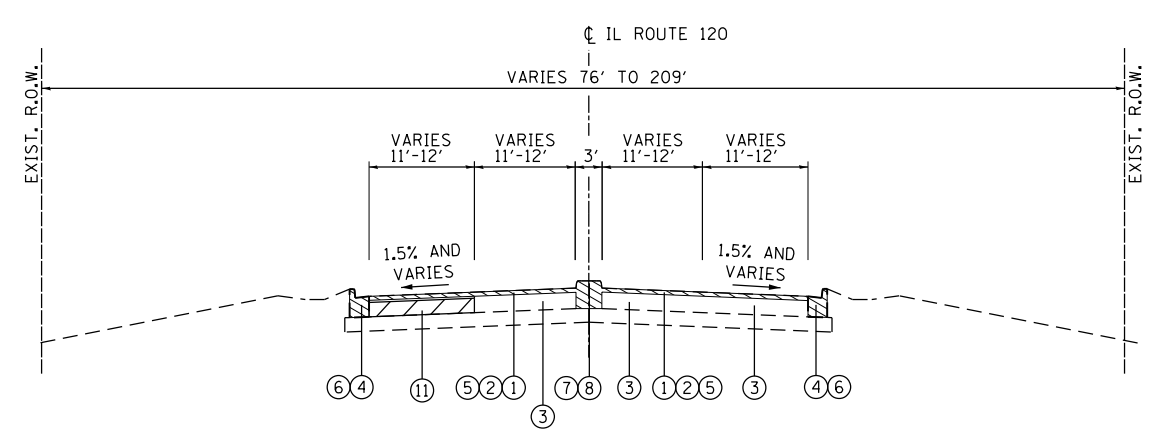
**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 485+00 TO STA. 497+65  
 (BRIDGE OMISSION FROM STA. 498+46 TO STA. 501+42)



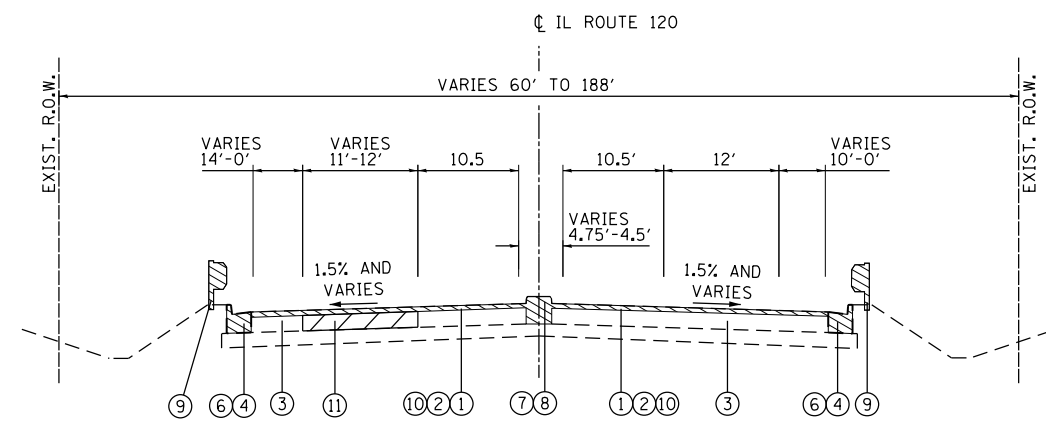
**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 512+28 TO STA. 513+50



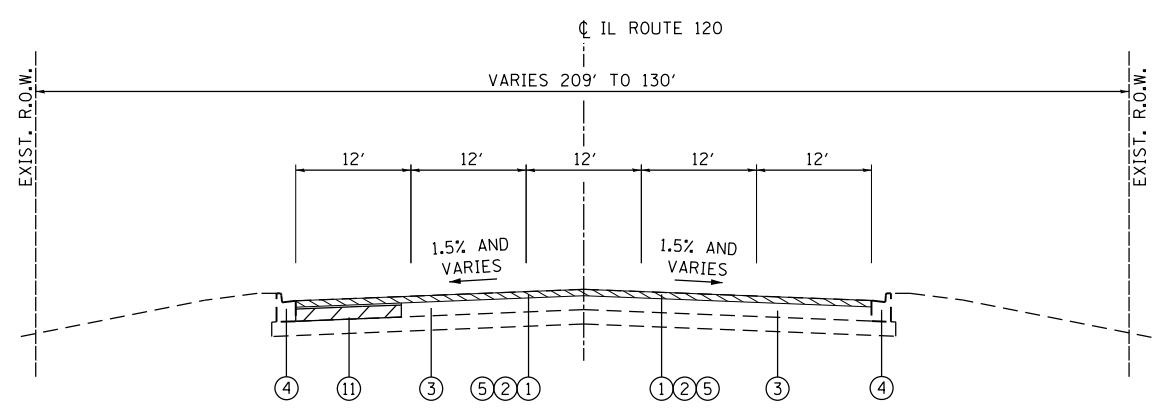
**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 497+65 TO STA. 498+46  
 (BRIDGE OMISSION FROM STA. 498+46 TO STA. 501+42)



**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 513+50 TO STA. 525+45



**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 501+42 TO STA. 512+28  
 (BRIDGE OMISSION FROM STA. 507+76 TO STA. 511+09)



**EXISTING TYPICAL SECTION**  
 ILLINOIS ROUTE 120  
 STA. 525+45 TO STA. 527+40.74

**EXISTING LEGEND**

- ① EXISTING HMA SURFACE, 1-1/2"
- ② EXISTING HMA BINDER, 1-1/2"
- ③ EXISTING PCC BASE
- ④ COMBINATION CURB AND GUTTER
- ⑤ HOT-MIX ASPHALT SURFACE REMOVAL, 2" (44000157)
- ⑥ COMBINATION CURB AND GUTTER REMOVAL (44000500)
- ⑦ CONCRETE/HMA MEDIAN
- ⑧ MEDIAN REMOVAL (44003100)
- ⑨ GUARDRAIL REMOVAL (63200310)
- ⑩ HOT-MIX ASPHALT SURFACE REMOVAL, 1/2" (44000151)
- ⑪ CLASS B PATCHING, 10"
- ⑫ EXISTING HMA SHOULDER, 1-1/2"
- ▨ REMOVAL ITEMS

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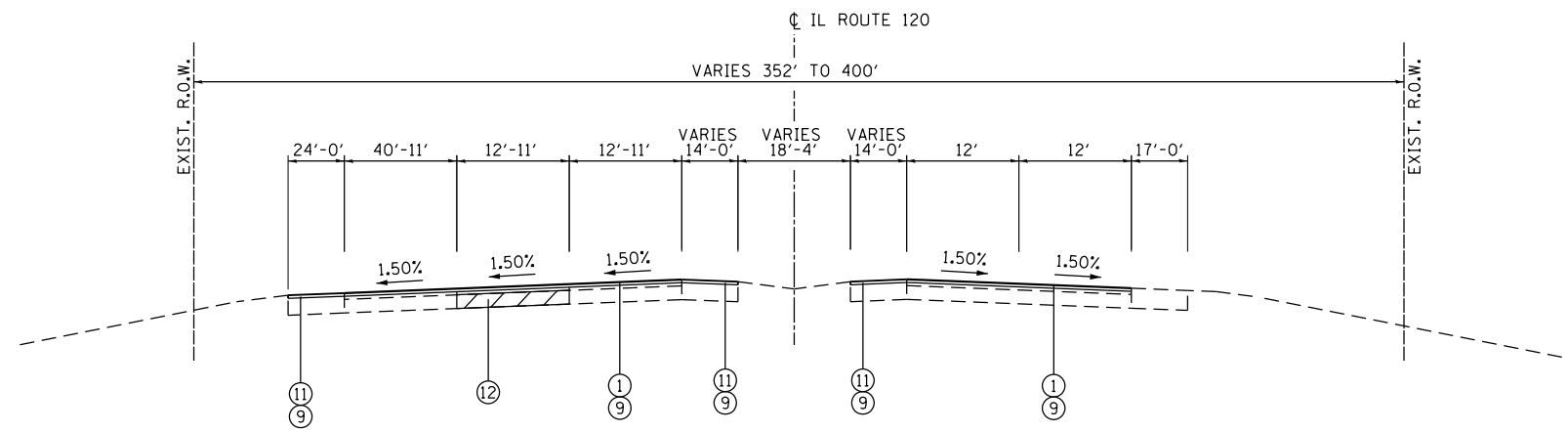
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DATE - 3/3/2017	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 EXISTING TYPICAL SECTIONS

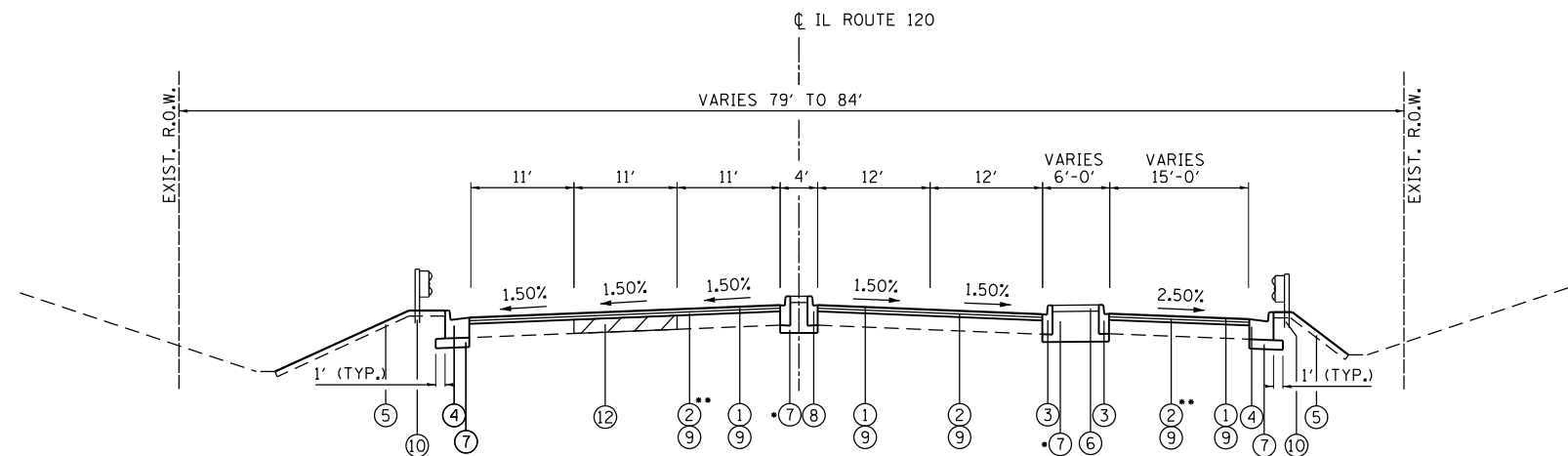
SCALE: NTS SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	18
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



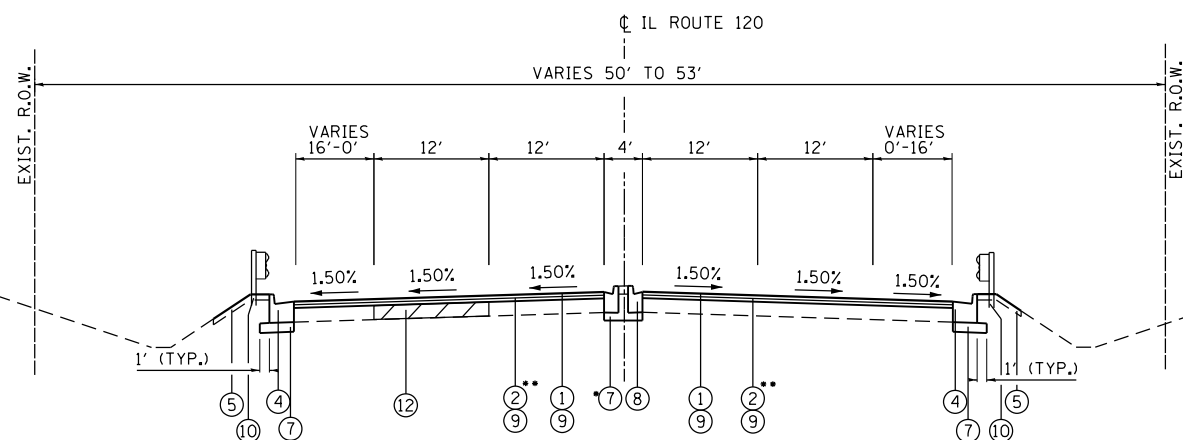
**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 485+00 TO STA. 497+65



**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 497+65 TO STA. 498+46  
(BRIDGE OMISSION FROM STA. 498+46 TO STA. 501+42)



**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 501+42 TO STA. 507+76  
(BRIDGE OMISSION FROM STA. 507+76 TO STA. 511+09)

**PROPOSED LEGEND**

- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, 2" (40603565)
- ② HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 VARIES 2 1/4" TO 8" (40603090)
- ③ COMBINATION CURB AND GUTTER, TY B-6.12 (60603800)
- ④ COMBINATION CURB AND GUTTER, TY B-6.24 (60605000)
- ⑤ TOPSOIL FURNISH AND PLACE, 4" (21101615)
- ⑥ HMA MEDIAN SURFACE, 4" (60618210)
- ⑦ SUB BASE GRANULAR MATERIAL, TYPE B 6" (31101400)
- ⑧ CONCRETE MEDIAN, TYPE SB-6.06 (60619200)
- ⑨ BITUMINOUS MATERIALS (TACK COAT) (40600290)
- ⑩ PROPOSED GUARDRAIL
- ⑪ HOT-MIX ASPHALT SHOULDERS, 2" (48203005)
- ⑫ CLASS B PATCHING (AS NECESSARY)

• ANY VARIANCE IN THICKNESS OF SUBBASE GRANULAR MATERIAL, TYPE B 6" UNDER THE PROPOSED MEDIAN WILL BE INCIDENTAL TO THE PAY ITEM SUBBASE GRANULAR MATERIAL, TYPE B 6".

•• HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 THICKNESS WILL VARY FROM 2 1/4" TO 8" AS SHOWN ON THE PLANS OR AS DIRECTED BY RESIDENT ENGINEER.

**NOTES**

1. COMBINATION CURB AND GUTTER SHALL EXTEND TO THE BOTTOM OF EXISTING PAVEMENT. DEPTHS MAY VARY.
2. SEE STRUCTURAL PLANS FOR BRIDGE TYPICAL SECTIONS.
3. CLASS B PATCHING LOCATIONS TO BE DETERMINED IN THE FIELD BY ENGINEER.
4. UPON COMPLETION OF THE CLASS B PATCHING OPERATION, AND BEFORE THE FINAL HMA SURFACE IS PLACED, A LAYER OF HMA SURFACE OR BINDER SHALL BE PLACED OVER THE PATCH TO BRING THE ROADWAY SURFACE UP TO THE ELEVATION OF THE MILLED ROADWAY SURFACE. THE "FILLER LAYER" WILL BE COMPRISED OF POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 OR HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90". SEE CLASS B PATCHING DETAILS.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AIR VOIDS	QUALITY MANAGEMENT PROGRAM (QMP)
<b>MAINLINE, SHOULDER, AND RAMPS E, F, &amp; G</b>		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 (IL 9.5 mm); 2"	4% @ 70 Gyr.	QCP
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90; VARIES 2-1/4" TO 8"	4% @ 90 Gyr.	QC/QA
<b>TEMPORARY PAVEMENT</b>		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm); 2"	4% @ 70 Gyr.	QC/QA
HOT-MIX ASPHALT BINDER IL-19 mm; 8"	4% @ 70 Gyr.	QCP
<b>HMA MEDIAN SURFACE</b>		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5 mm); 4"	4% @ 50 Gyr.	QC/QA
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); QUALITY CONTROL FOR PERFORMANCE (QCP)		

QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

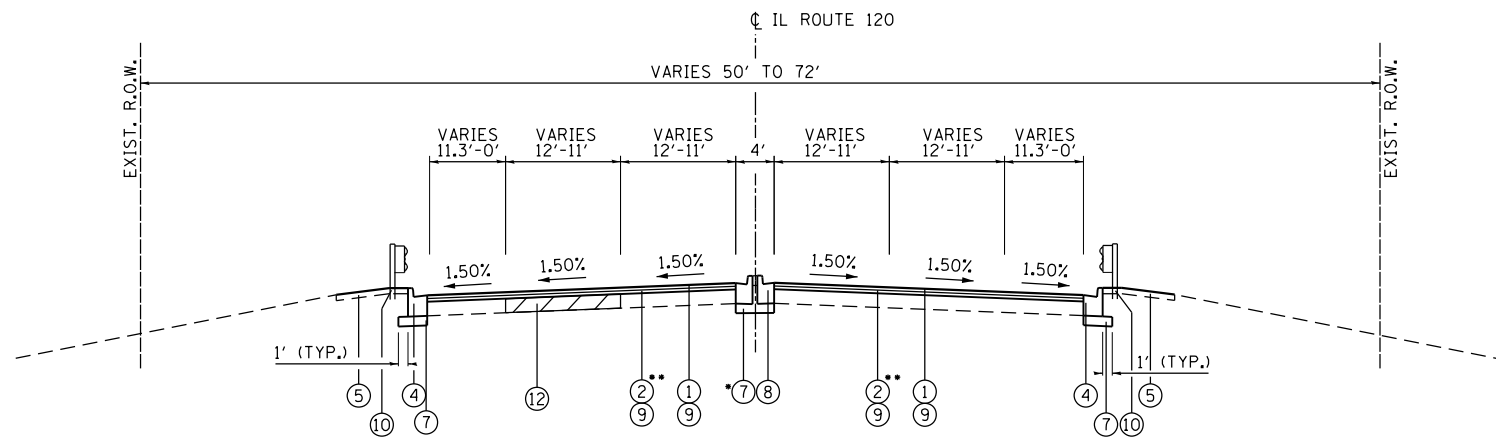
PCC TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ART. 1020 OF THE STANDARD SPECIFICATIONS.

IF THE CONTRACTOR CHOOSES TO USE CONCRETE FOR THE TEMPORARY PAVEMENT THE THICKNESS SHALL BE 10".

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

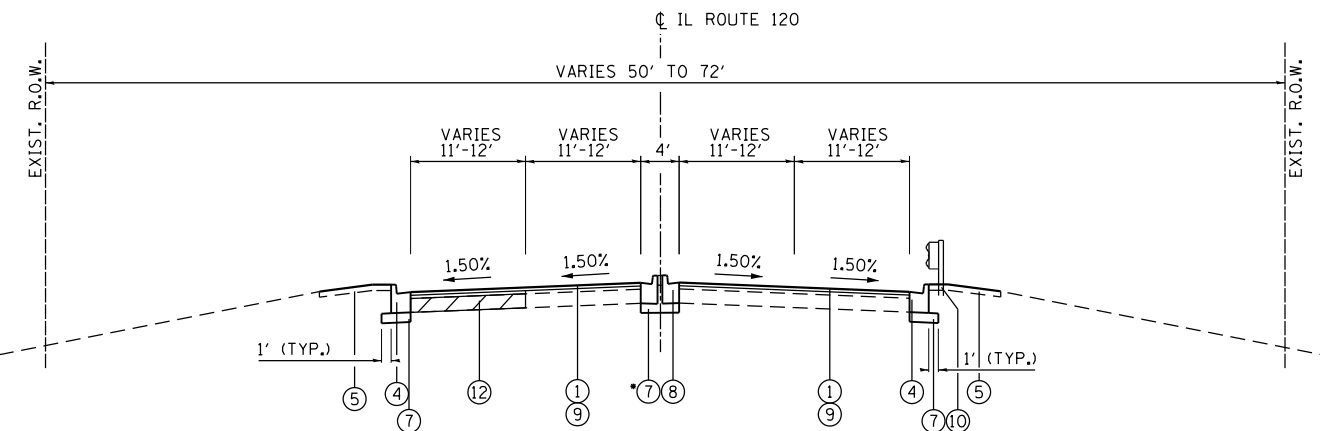
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.



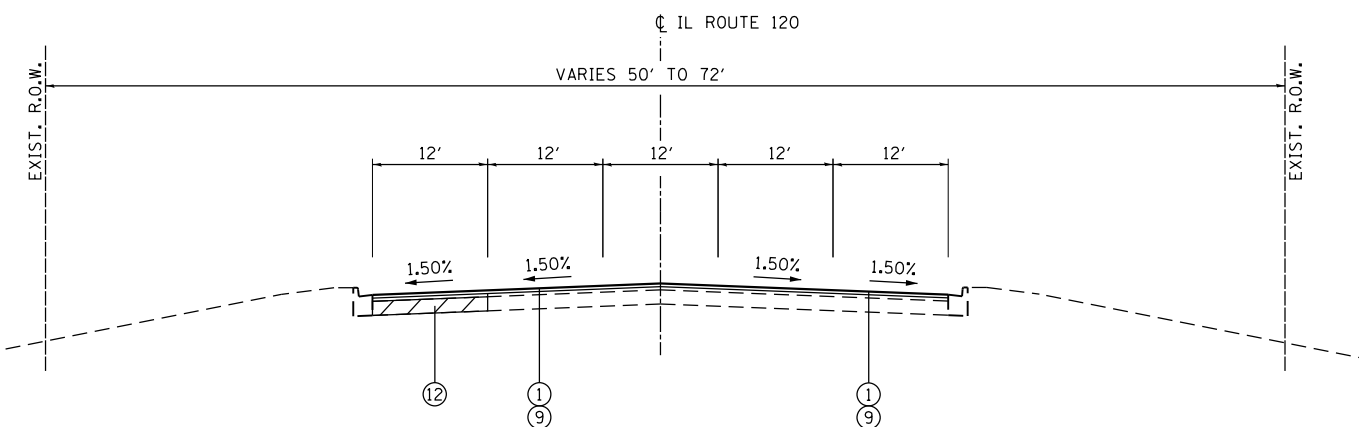
**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 511+09 TO STA. 514+25



**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 514+25 TO STA. 525+45



**PROPOSED TYPICAL SECTION**

ILLINOIS ROUTE 120  
STA. 525+45 TO STA. 527+40.74

**PROPOSED LEGEND**

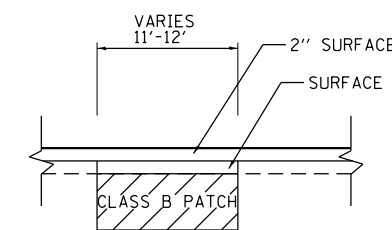
- ① POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, 2" (40603565)
- ② HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 VARIES 2 1/4" TO 8" (40603090)
- ③ COMBINATION CURB AND GUTTER, TY B-6.12 (60603800)
- ④ COMBINATION CURB AND GUTTER, TY B-6.24 (60605000)
- ⑤ TOPSOIL FURNISH AND PLACE, 4" (21101615)
- ⑥ HMA MEDIAN SURFACE, 4" (60618210)
- ⑦ SUB BASE GRANULAR MATERIAL, TYPE B 6" (31101400)
- ⑧ CONCRETE MEDIAN, TYPE SB-6.06 (60619200)
- ⑨ BITUMINOUS MATERIALS (TACK COAT) (40600290)
- ⑩ PROPOSED GUARDRAIL
- ⑪ HOT-MIX ASPHALT SHOULDERS, 2" (48203005)
- ⑫ CLASS B PATCHING (AS NECESSARY)

• ANY VARIANCE IN THICKNESS OF SUBBASE GRANULAR MATERIAL, TYPE B 6" UNDER THE PROPOSED MEDIAN WILL BE INCIDENTAL TO THE PAY ITEM SUBBASE GRANULAR MATERIAL, TYPE B 6".

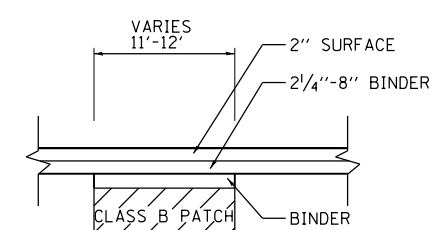
•• HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 THICKNESS WILL VARY FROM 2 1/4" TO 8" AS SHOWN ON THE PLANS OR AS DIRECTED BY RESIDENT ENGINEER.

**NOTES**

1. COMBINATION CURB AND GUTTER SHALL EXTEND TO THE BOTTOM OF EXISTING PAVEMENT. DEPTHS MAY VARY.
2. SEE STRUCTURAL PLANS FOR BRIDGE TYPICAL SECTIONS.
3. CLASS B PATCHING LOCATIONS TO BE DETERMINED IN THE FIELD BY ENGINEER.
4. UPON COMPLETION OF THE CLASS B PATCHING OPERATION, AND BEFORE THE FINAL HMA SURFACE IS PLACED, A LAYER OF HMA SURFACE OR BINDER SHALL BE PLACED OVER THE PATCH TO BRING THE ROADWAY SURFACE UP TO THE ELEVATION OF THE MILLED ROADWAY SURFACE. THE "FILLER LAYER" WILL BE COMPRISED OF POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70 OR HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90". SEE CLASS B PATCHING DETAILS.



STA. 485+00 TO STA. 497+65  
STA. 514+25 TO STA. 527+40.74



STA. 497+65 TO STA. 498+23  
STA. 501+66 TO STA. 507+56  
STA. 511+29 TO STA. 514+25

**CLASS B PATCHING, 10" DETAILS**

(AS NECESSARY)

FILE NAME  
D160X39-sht-typical\_03.dgn



DESIGNED - CMD  
DRAWN - JFS  
CHECKED - RJD  
DATE - 3/3/2017

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
PROPOSED TYPICAL SECTIONS

SCALE: NTS SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	20
CONTRACT NO. 60X39				TS-3

ILLINOIS FED. AID PROJECT

HMA SURFACE REMOVAL, 2" (44000157)						
STATION	OFFSET	WIDTH	STATION	OFFSET	WIDTH	UNITS SQ. YD.
485+00	RT/LT	77	497+65	RT/LT	75	11,774
514+25	RT/LT	48	515+00	RT/LT	48	380
515+00	RT/LT	48	527+36	RT/LT	60	7,320
					TOTAL	19,474

HMA SURFACE REMOVAL, 1/2" (44000151)						
STATION	OFFSET	WIDTH	STATION	OFFSET	WIDTH	UNITS SQ. YD.
497+65	RT/LT	77	498+23	RT/LT	75	497
501+65	RT/LT	58	507+56	RT/LT	72	4,265
511+28	RT/LT	64	514+25	RT/LT	48	1,775
8+04.5	LT	19	9+20	LT	13	188
					TOTAL	6,725

PAVEMENT REMOVAL (44000100)						
STATION	OFFSET	WIDTH	STATION	OFFSET	WIDTH	UNITS SQ. YD.
498+23	LT	36	498+50	LT	38	110
498+23	RT	39	498+58	RT	45	156
501+30	LT	45	501+65	LT	38	148
501+39	RT	37	501+65	RT	35	107
507+56	RT	74	507+84	RT	75	224
511+01	RT	72	511+28	RT	67	197
					TEMP PAVEMENT REMOVAL *	4,424
					TOTAL	5,366

\*NOTE: FOR TEMP PAVEMENT LOCATIONS SEE SCHEDULE ON SHEET NO. 32

MEDIAN REMOVAL (44003100)						
STATION	OFFSET	WIDTH	STATION	OFFSET	WIDTH	UNITS SQ. FT.
496+00	RT	8.25	498+59	RT	2	108
494+02	RT	1	498+56	RT	6	355
501+30	RT	2.5	507+80	RT	2.4	173
511+07	RT	2.5	515+00	RT	2.5	101
515+00	RT	2.5	524+00	RT	3	373
					TOTAL	1,110

HMA SURFACE REMOVAL - BUTT JOINT (40600982)						
STATION	OFFSET	WIDTH	STATION	OFFSET	WIDTH	UNITS SQ. YD.
497+65	RT/LT	16	497+69.5	RT/LT	16	8
525+53	RT	81	526+20	RT	67	35
525+85	LT	49	526+39	LT	54	26
527+36	RT/LT	60	527+41	RT/LT	60	30
8+00	RT	19	8+04.5	RT	19	10
11+95.5	LT	21	12+00	LT	21	11
7+00	LT	20	7+04.5	LT	20	10
					TOTAL	130

COMBINATION CURB AND GUTTER REMOVAL (44000500)						
STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	UNITS FOOT
494+02	47	RT	498+54	25	RT	902
497+40	56	RT	498+86	50	RT	145
497+65	40	LT	498+68	68	LT	103
501+22	42	RT	506+35	28	RT	513
501+38	27	LT	506+60	39	LT	522
510+81	41	RT	515+00	26	RT	419
510+73	39	LT	515+00	26	LT	427
515+00	26	RT	525+38	67	RT	1,095
515+00	26	LT	525+77	42	LT	1,080
520+26	1.5	RT	520+95	1	LT	369
520+26	1.5	LT	520+95	5	LT	369
10+26	8	RT	12+00	4	RT	174
11+12	27	LT	11+47	25	LT	37
8+00	3	RT	9+59	4	RT	159
8+32	20	LT	9+22	14	LT	90
7+00	6	RT	10+00	8	RT	300
7+16	22	LT	8+25	16	LT	113
					TOTAL	6,817

GUARDRAIL REMOVAL (63200310)						
STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	UNITS FOOT
497+51	53	RT	499+04	47	RT	153
510+58	39	LT	512+00	34	LT	142
8+00	3	RT	9+85	4	RT	185
7+00	3	RT	10+16	6	RT	316
9+82	6	RT	12+28	1.5	RT	242
					TOTAL	1,038

SIDEWALK REMOVAL (44000600)						
STATION	WIDTH	RT/LT	STATION	WIDTH	RT/LT	UNITS FOOT
525+36	4.8	RT	525+52	4.3	RT	185
525+68	5.5	LT	525+74	5.5	LT	79
					TOTAL	264

TREE REMOVAL 6 TO 15 UNITS DIAMETER (20100110)		
STATION	OFFSET	UNIT EACH
510+42.60	56.23	4
510+42.62	57.38	4
510+42.62	58.67	4
510+47.57	50.20	4
510+47.59	51.53	4
510+56.77	74.15	4
510+69.03	77.08	4
510+84.97	93.74	5
511+41.11	76.70	4
511+72.03	72.81	4
511+88.88	70.20	4
511+97.61	62.86	4
511+99.91	70.78	5
512+15.35	94.20	4
512+15.03	74.20	4
512+15.02	73.20	5
512+86.06	76.64	4
513+62.79	62.59	4
513+88.61	70.44	4
513+88.59	69.44	5
514+05.07	72.39	4
515+29.30	60.24	4
515+60.31	61.26	4
516+33.33	47.26	4
516+93.39	60.16	4
517+08.49	50.14	4
517+08.36	42.14	4
517+66.39	52.04	5
	TOTAL	117

COMBINATION CONCRETE CURB AND GUTTER SCHEDULE				
LOCATION	OFFSET	COMB. CONCRETE CURB AND GUTTER TYPE B-6.12 (FOOT) (60603800)	COMB. CONCRETE CURB AND GUTTER TYPE B-6.24 (FOOT) (60605000)	COMB. CONCRETE CURB AND GUTTER TYPE M-2.12 (FOOT) (60608300)
STA. 496+00 TO STA. 496+98 (IL 120)	LT	196		
STA. 497+65 TO STA. 498+68 (IL 120)	LT		103	
STA. 494+02 TO STA. 497+75 (IL 120)	RT		736	
STA. 497+40 TO STA. 498+86 (IL 120)	RT		146	
STA. 501+50 TO STA. 505+72 (IL 120)	RT		421	
STA. 501+91 TO STA. 506+59 (IL 120)	LT		468	
STA. 511+04 TO STA. 515+00 (IL 120)	LT		396	
STA. 511+13 TO STA. 515+00 (IL 120)	RT		387	
STA. 515+00 TO STA. 525+80 (IL 120)	LT		1,080	
STA. 515+00 TO STA. 525+38 (IL 120)	RT		1,096	
STA. 520+89 TO STA. 523+91 (IL 120)	LT			302.5
STA. 520+89 TO STA. 523+91 (IL 120)	RT			302.5
STA. 8+00 TO STA. 8+76 (RAMP F)	LT	76		
STA. 8+00 TO STA. 9+27 (RAMP F)	RT		127	
STA. 11+18 TO STA. 12+00 (RAMP E)	LT		89	
STA. 10+12 TO STA. 12+00 (RAMP E)	RT		185	
STA. 7+00 TO STA. 7+66 (RAMP G)	LT	68		
STA. 7+00 TO STA. 9+70 (RAMP G)	RT	255	15	
TOTAL		595	5,249	605

PAVEMENT SCHEDULE			
LOCATION	OFFSET	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 VARIES 2 1"4" TO 8" (TONS) (40603090)	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N70, 2" (TONS) (40603565)
STA. 485+00 TO STA. 498+23 (IL 120)	RT/LT	47.9	1,089.2
STA. 501+65 TO STA. 507+56 (IL 120)	RT/LT	956.7	431.8
STA. 511+28 TO STA. 515+00 (IL 120)	RT/LT	95.1	242.5
STA. 515+00 TO STA. 527+41 (IL 120)	RT/LT		813.7
STA. 8+00 TO STA. 9+27 (RAMP F)	LT		21.9
STA. 11+07 TO STA. 12+00 (RAMP E)	LT		24.2
STA. 7+00 TO STA. 7+98 (RAMP G)	LT		20.8
CONTINGENCY TO ACCOUNT FOR WEDGES		200	
TOTAL		1,299.7	2,644

NOTE: BINDER COURSE FOR RAMPS E, F, & G INCLUDED WITHIN IL 120 STATION RANGES.

MEDIAN SCHEDULE				
LOCATION	OFFSET	HMA MEDIAN SURFACE, 4" (SQ. FT.) (60618210)	CONCRETE MEDIAN TYPE SB-6.06 (SQ. FT.) (60619200)	CONCRETE MEDIAN TYPE SB-6.24 (SQ. FT.) (60620000)
STA. 494+02 TO STA. 497+75	RT	2,653		
STA. 496+00 TO STA. 496+98	RT/LT	542		
STA. 496+98 TO STA. 498+47	RT/LT		658	
STA. 497+75 TO STA. 498+35	RT		298	
STA. 501+43 TO STA. 507+77	RT/LT		2,535	
STA. 501+36 TO STA. 501+91	LT			210
STA. 511+09 TO STA. 515+00	RT/LT		1,565	
STA. 515+00 TO STA. 520+89	RT/LT		2,419	
STA. 520+89 TO STA. 523+91	RT/LT	1,874		
TOTAL		5,069	7,475	210

SIDEWALK SCHEDULE			
LOCATION	OFFSET	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH (SQ FT) (42400200)	DETECTABLE WARNINGS (SQ FT) (42400800)
STA. 525+14 TO STA. 525+28	RT	28	
STA. 525+36 TO STA. 525+52	RT	202	18
STA. 525+68 TO STA. 525+74	LT	76	9
TOTAL		306	27

GUARDRAIL SCHEDULE							
LOCATION	OFFSET	STEEL PLATE BEAM RAIL, TYPE A, 6 FOOT POSTS (FOOT) (63000001)	STEEL PLATE BEAM RAIL, TYPE A, 9 FOOT POSTS (FOOT) (63000003)	TRAFFIC BARRIER TERMINAL			
				TYPE 1 (SPEC.) TANGENT (63100167)	TYPE 2 (63100045)	TYPE 5 (63100070)	TYPE 6 (63100085)
STA. 497+78 TO STA. 498+72 (IL 120)	RT			1			1
STA. 510+89 TO STA. 511+82 (IL 120)	LT			1			1
STA. 510+99 TO STA. 521+13 (IL 120)	RT	700	287.5		1	1	
STA. 9+97 TO STA. 12+28 (RAMP E)	RT	212.5				1	
STA. 7+96 TO STA. 9+42 (RAMP F)	RT	100					1
STA. 6+77 TO STA. 9+96 (RAMP G)	RT	262.5					1
TOTAL		1,275	287.5	2	1	2	4

AGGREGATE SHOULDERS TYPE B, 10" (48101620)		
LOCATION	OFFSET	UNITS (SQ. YD.)
STA. 497+40 TO STA. 498+71 (IL 120)	RT	74.7
STA. 511+04 TO STA. 512+20 (IL 120)	LT	50.5
STA. 510+99 TO STA. 521+13 (IL 120)	RT	308.8
STA. 7+96 TO STA. 9+27 (RAMP F)	RT	51.6
STA. 10+12 TO STA. 12+28 (RAMP E)	RT	68.6
STA. 6+77 TO STA. 9+70 (RAMP G)	RT	89.0
TOTAL		643

SUB-BASE GRANULAR MATERIAL, TYPE B 6" (31101400)		
LOCATION	OFFSET	UNITS (SQ. YD.)
STA. 494+02 TO STA. 500+00 (IL 120 MEDIAN)	RT/LT	722
STA. 497+40 TO STA. 498+86 (IL 120 CURB AND GUTTER)	RT/LT	101
STA. 500+00 TO STA. 515+00 (IL 120 MEDIAN)	RT/LT	456
STA. 501+51 TO STA. 506+59 (IL 120 CURB AND GUTTER)	RT/LT	354
STA. 511+04 TO STA. 515+00 (IL 120 CURB AND GUTTER)	RT/LT	312
STA. 515+00 TO STA. 524+91 (IL 120 MEDIAN)	RT/LT	578
STA. 515+00 TO STA. 525+80 (IL 120 CURB AND GUTTER)	RT/LT	869
STA. 8+00 TO STA. 9+27 (RAMP F CURB AND GUTTER)	RT/LT	71
STA. 7+00 TO STA. 9+96 (RAMP G CURB AND GUTTER)	RT/LT	100
STA. 10+12 TO STA. 12+00 (RAMP E CURB AND GUTTER)	RT/LT	109
SUB-BASE FOR TEMPORARY PAVEMENT *	RT/LT	2,925
TOTAL		6,597

\*NOTE: FOR TEMP PAVEMENT LOCATIONS SEE SCHEDULE ON SHEET NO.32

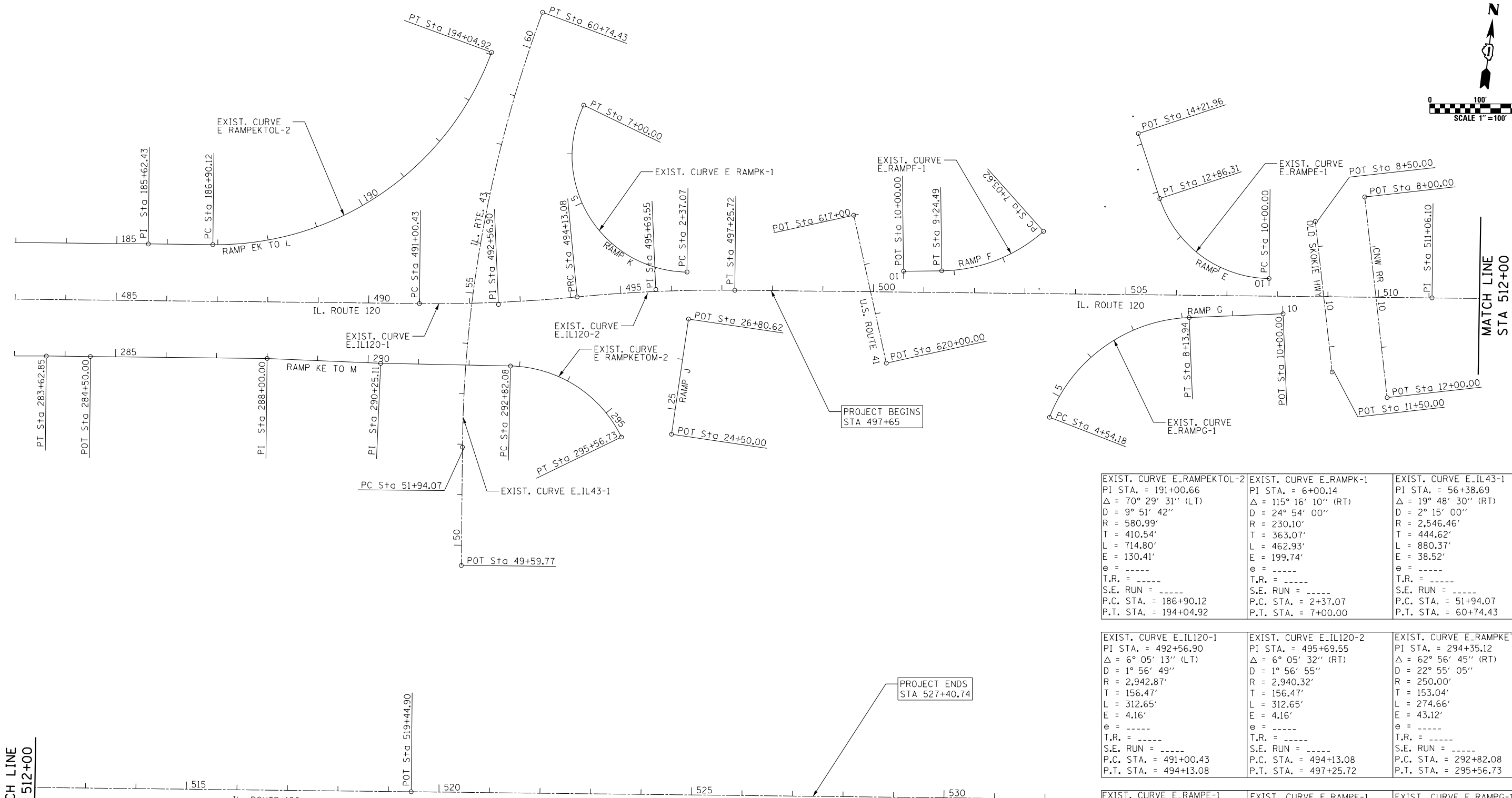
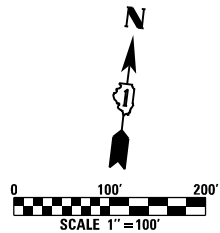
EARTHWORK SCHEDULE					
ITEM (CY)	PRESTAGE	STAGE 1	STAGE 2	STAGE 3	TOTAL
EARTH EXCAVATION (20200100)	644	3,910	122	445	• 5,125
FILL/FURNISHED EXCAVATION (20400800)	4,515	9,847	298	578	15,238
EARTHWORK BALANCE EXCESS (+) OR SHORTAGE (-)	-3,870	-5,937	-175	-133	• -10,120

\*NOTE: TOTAL ROUNDED UP TO NEAREST 5 CU YD

TREE SCHEDULE				
ITEM (CY)	STA.	OFFSET	PAY ITEM	
HACKBERRY	501+05	82' LT	A2002879 "TREE, CELTIS OCCIDENTALIS CHICAGOLAND, (CHICAGOLAND HACKBERRY), 3" CALIPER, BALLED AND BURLAPPED	
HACKBERRY	501+56	83' LT		
HACKBERRY	501+23	67' RT		
CATALPA	502+04	108' LT	A2002816 "TREE, CATALPA SPECIOSA (NORTHERN CATALPA), 2" CALIPER, BALLED AND BURLAPPED"	
CATALPA	502+33	78' RT		
CATALPA	502+68	77' RT		

TOPSOIL EXCAVATION AND PLACEMENT (21101505)		
LOCATION	OFFSET	UNITS (CU. YD.)
STA. 497+65 TO STA. 498+96 (IL 120)	LT	68.7
STA. 497+40 TO STA. 498+85 (IL 120)	RT	23.0
STA. 501+36 TO STA. 506+63 (IL 120)	LT	1,234.0
STA. 500+85 TO STA. 506+36 (IL 120)	RT	230.3
STA. 510+44 TO STA. 517+50 (IL 120)	LT	1,768.5
STA. 510+55 TO STA. 513+50 (IL 120)	RT	134.4
STA. 8+00 TO STA. 9+63 (RAMP F)	RT	29.7
STA. 10+00 TO STA. 12+00 (RAMP E)	RT	97.9
STA. 7+00 TO STA. 10+00 (RAMP G)	RT	206.4
TOTAL		3,793

TOPSOIL FURNISH AND PLACE, 4" (21101615)		
LOCATION	OFFSET	UNITS (SQ. YD.)
STA. 497+65 TO STA. 498+96 (IL 120)	LT	30.9
STA. 497+40 TO STA. 498+85 (IL 120)	RT	10.4
STA. 501+36 TO STA. 506+63 (IL 120)	LT	555.3
STA. 500+85 TO STA. 506+36 (IL 120)	RT	103.6
STA. 510+44 TO STA. 517+50 (IL 120)	LT	795.8
STA. 510+55 TO STA. 513+50 (IL 120)	RT	60.5
STA. 8+00 TO STA. 9+63 (RAMP F)	RT	13.3
STA. 10+00 TO STA. 12+00 (RAMP E)	RT	44.0
STA. 7+00 TO STA. 10+00 (RAMP G)	RT	92.9
TOTAL		1,707

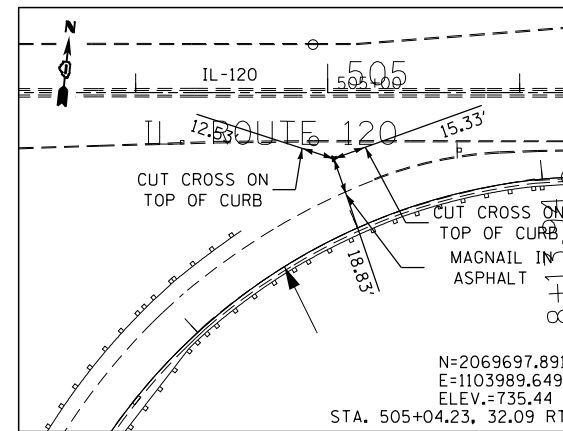


<b>EXIST. CURVE E_RAMPEKTOL-2</b> PI STA. = 191+00.66 $\Delta = 70^\circ 29' 31''$ (LT) $D = 9^\circ 51' 42''$ $R = 580.99'$ $T = 410.54'$ $L = 714.80'$ $E = 130.41'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 186+90.12$ $P.T. STA. = 194+04.92$	<b>EXIST. CURVE E_RAMPK-1</b> PI STA. = 6+00.14 $\Delta = 115^\circ 16' 10''$ (RT) $D = 24^\circ 54' 00''$ $R = 230.10'$ $T = 363.07'$ $L = 462.93'$ $E = 199.74'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 2+37.07$ $P.T. STA. = 7+00.00$	<b>EXIST. CURVE E_IL43-1</b> PI STA. = 56+38.69 $\Delta = 19^\circ 48' 30''$ (RT) $D = 2^\circ 15' 00''$ $R = 2,546.46'$ $T = 444.62'$ $L = 880.37'$ $E = 38.52'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 51+94.07$ $P.T. STA. = 60+74.43$
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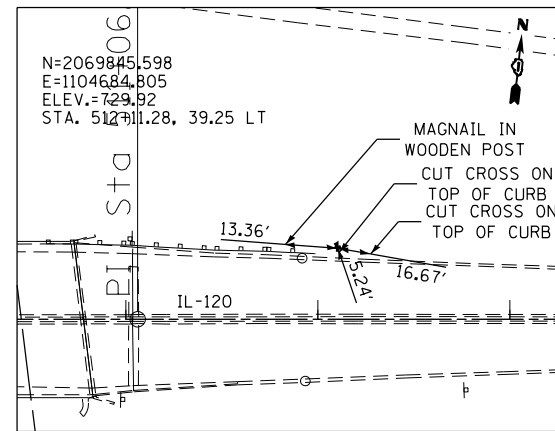
<b>EXIST. CURVE E_IL120-1</b> PI STA. = 492+56.90 $\Delta = 6^\circ 05' 13''$ (LT) $D = 1^\circ 56' 49''$ $R = 2,942.87'$ $T = 156.47'$ $L = 312.65'$ $E = 4.16'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 491+00.43$ $P.T. STA. = 494+13.08$	<b>EXIST. CURVE E_IL120-2</b> PI STA. = 495+69.55 $\Delta = 6^\circ 05' 32''$ (RT) $D = 1^\circ 56' 55''$ $R = 2,940.32'$ $T = 156.47'$ $L = 312.65'$ $E = 4.16'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 494+13.08$ $P.T. STA. = 497+25.72$	<b>EXIST. CURVE E_RAMPKETOM-2</b> PI STA. = 294+35.12 $\Delta = 62^\circ 56' 45''$ (RT) $D = 22^\circ 55' 05''$ $R = 250.00'$ $T = 153.04'$ $L = 274.66'$ $E = 43.12'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 292+82.08$ $P.T. STA. = 295+56.73$
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<b>EXIST. CURVE E_RAMPE-1</b> PI STA. = 11+64.90 $\Delta = 71^\circ 08' 24''$ (RT) $D = 24^\circ 50' 51''$ $R = 230.59'$ $T = 164.90'$ $L = 286.31'$ $E = 52.90'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 10+00.00$ $P.T. STA. = 12+86.31$	<b>EXIST. CURVE E_RAMPF-1</b> PI STA. = 8+19.04 $\Delta = 41^\circ 04' 16''$ (RT) $D = 18^\circ 35' 44''$ $R = 308.12'$ $T = 115.42'$ $L = 220.87'$ $E = 20.91'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 7+03.62$ $P.T. STA. = 9+24.49$	<b>EXIST. CURVE E_RAMPG-1</b> PI STA. = 6+57.43 $\Delta = 66^\circ 32' 25''$ (RT) $D = 18^\circ 29' 45''$ $R = 309.78'$ $T = 203.25'$ $L = 359.76'$ $E = 60.73'$ $e = \text{-----}$ $T.R. = \text{-----}$ $S.E. RUN = \text{-----}$ $P.C. STA. = 4+54.18$ $P.T. STA. = 8+13.94$
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**CONTROL POINT #101**



**CONTROL POINT #102**



**BENCH MARKS:**

SN 049-0050

T.B.M. "A" - SQUARE CUT ON THE NORTHWEST CORNER OF THE SOUTHWEST WING WALL OF IL ROUTE 120 BRIDGE OVER U.S. ROUTE 41, STA. 498+77.96 51.33' RT, ELEV. 723.925' NAVD88.

T.B.M. "B" - SQUARE CUT ON THE NORTHEAST CORNER OF THE NORTHEAST WING WALL OF IL ROUTE 120 BRIDGE OVER U.S. ROUTE 41, STA. 501+10.48 51.95' LT, ELEV. 727.19' NAVD88.

SN 049-0051

T.B.M. "C" - SQUARE CUT ON THE SOUTHWEST CORNER OF THE SOUTHWEST WING WALL OF IL ROUTE 120 BRIDGE OVER THE CANADIAN NATIONAL RAILROAD, STA. 508+01.91 44.04' RT, ELEV. 735.44' NAVD88.

FILE NAME  
D160X39-sht-ATB\_02.dgn  
  
Default



100 S. WACKER DRIVE SUITE 700 CHICAGO IL 60606 .P312-406-0010 F312-406-3015

DESIGNED -	CMD	REVISED -	
DRAWN -	VEA	REVISED -	
CHECKED -	RJD	REVISED -	
DATE -	3/3/2017	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
ALIGNMENT, TIES AND BENCHMARKS**

SCALE: NTS SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

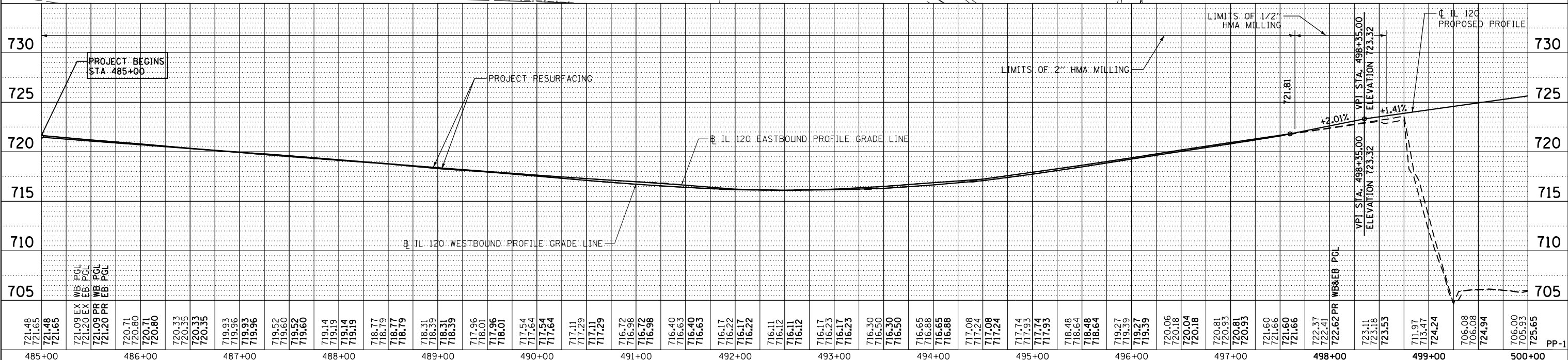
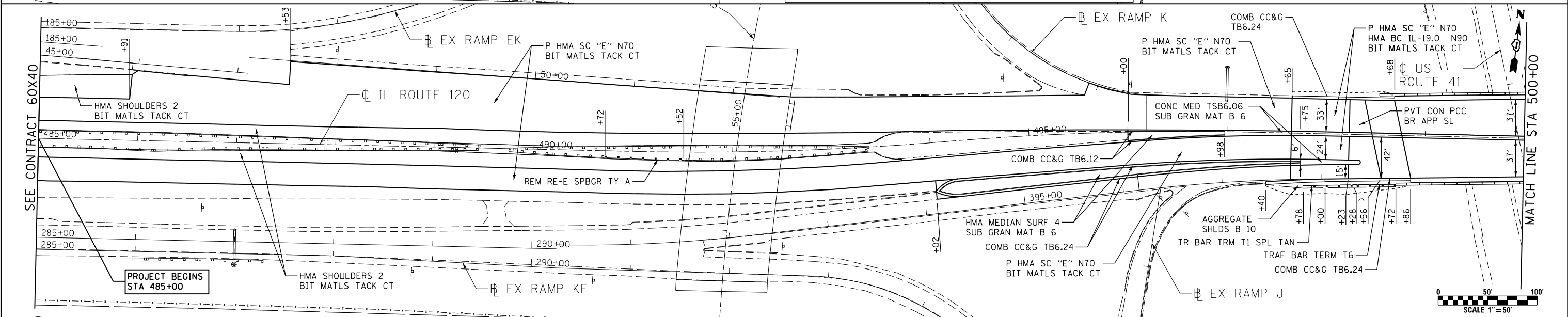
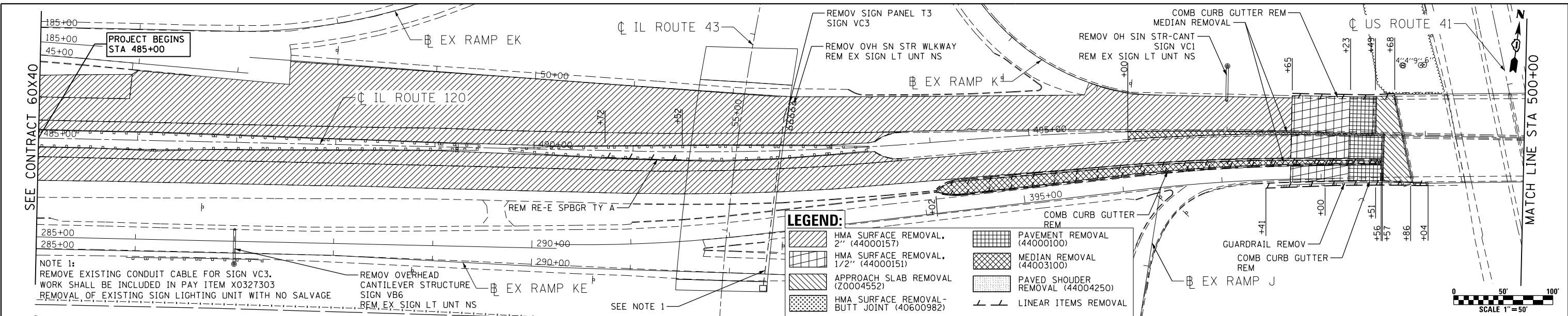
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	24
<b>CONTRACT NO. 60X39</b>				
ILLINOIS FED. AID PROJECT				

AL1-2



DATE	
BY	
PLAN	
NO.	
DATE	
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PROFILE	
NO.	

DATE	
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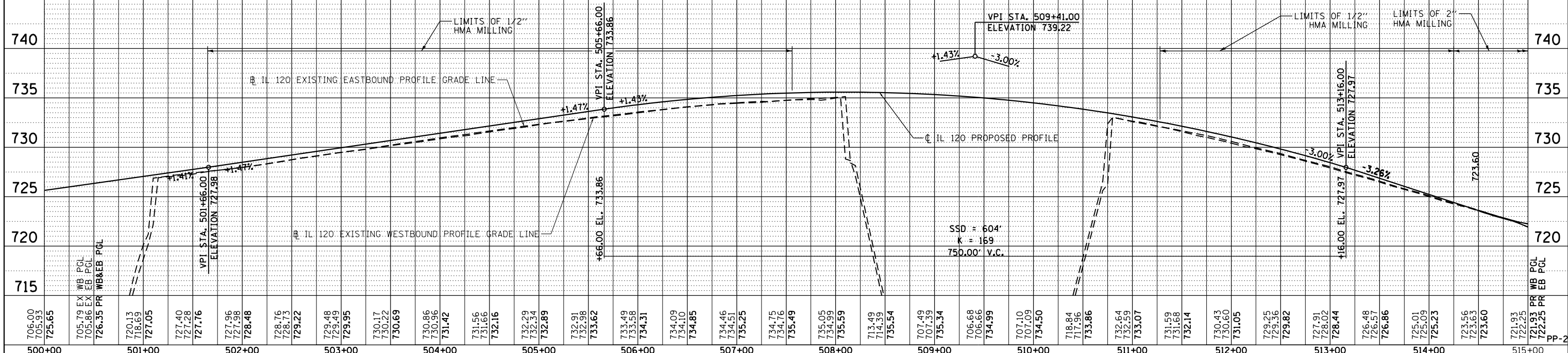
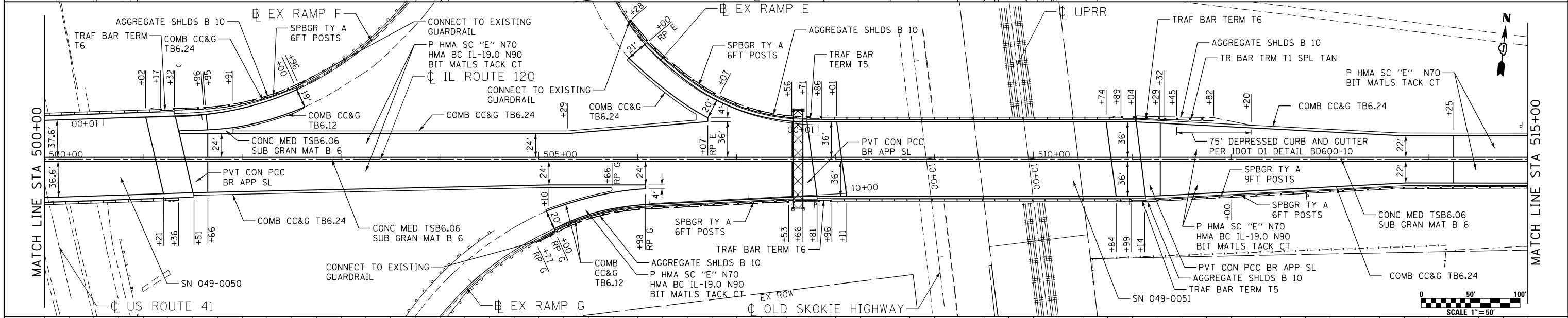
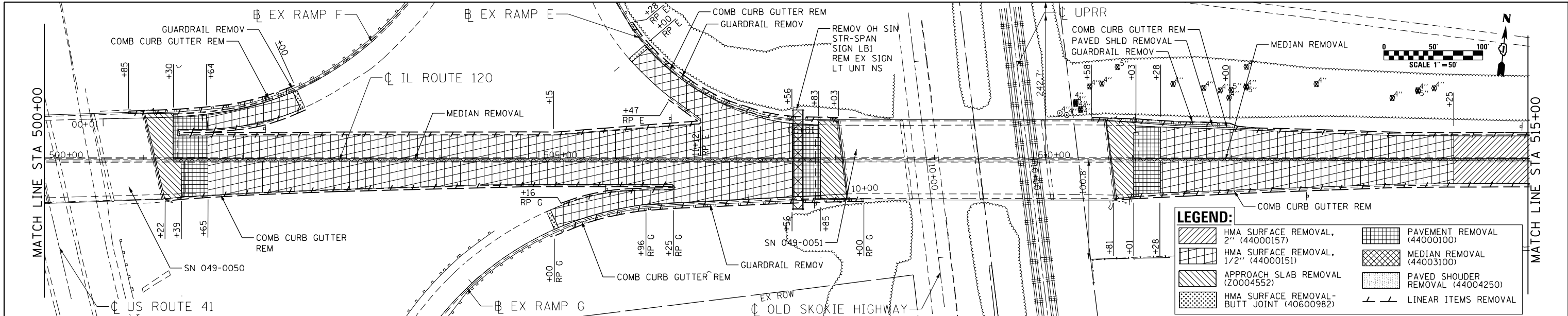
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DATE	3/3/2017	REVISIONS	
CHECKED	RJD	REVISIONS	
DRAWN	JFS	REVISIONS	
DESIGNED	CMD	REVISIONS	

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	NOTES CHECKED		
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PROFILE	SURVEYED	BY	DATE
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		



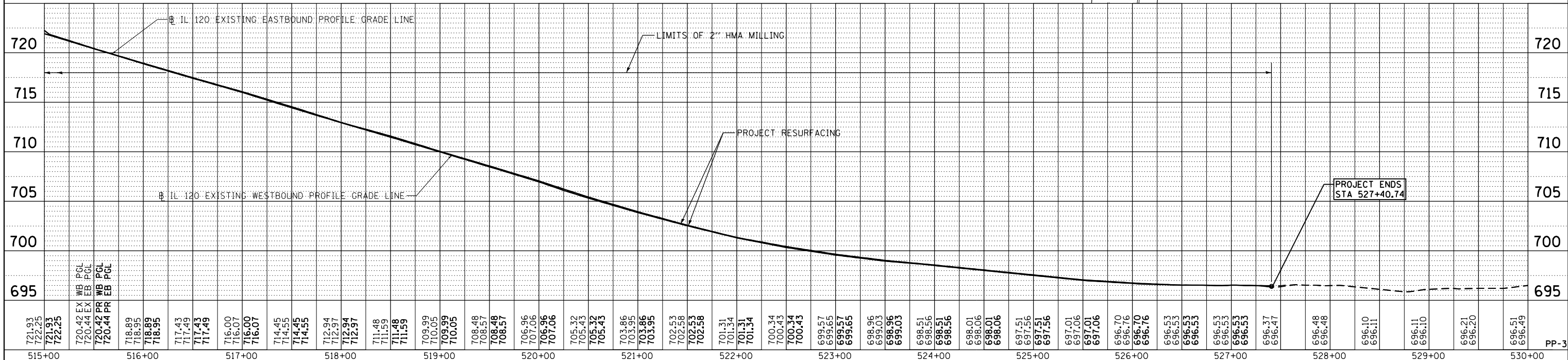
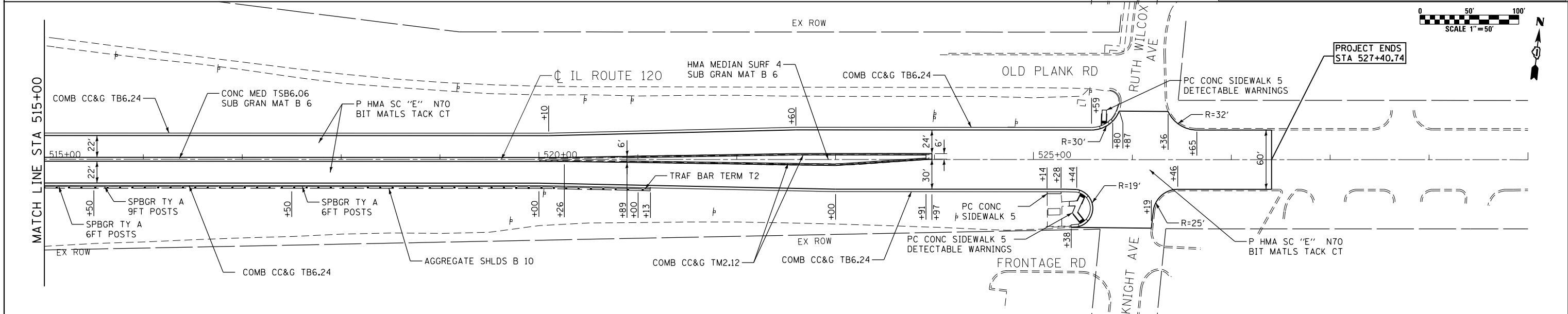
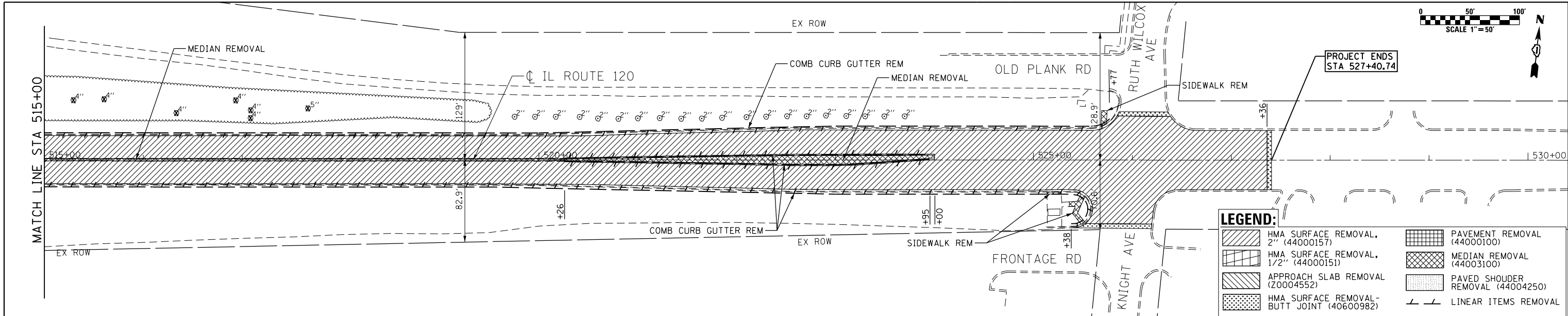
FILE NAME D:\60X39-sht-plnprf_02.dgn	DESIGNED - CMD DRAWN - JFS CHECKED - RJD DATE - 3/3/2017	REVISIONS REVISOR DATE	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD EXISTING & PROPOSED PLAN AND PROFILE	F.A.P. RT. 333 SECTION 12(HB&VB)BR & RS-7 COUNTY LAKE TOTAL SHEETS 198 SHEET NO. 26	CONTRACT NO. 60X39	ILLINOIS FED. AID PROJECT
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SCALE: H<sub>v</sub> 1" = 50' V<sub>v</sub> 1" = 50' SHEET NO. 2 OF 3 SHEETS STA. 500+00 TO STA. 515+00

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	FILE	FILE NAME

PROFILE	SURVEYED	DATE
GRADES CHECKED	PLOTTED	BY
STRUCTURE	NOTATIONS	CHECKED



FILE NAME D:\60X39-sht-plnprf_03.dgn	DESIGNED - CMD DRAWN - JFS CHECKED - RJD DATE - 3/3/2017	REVISIONS - - - -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		<b>IL ROUTE 120 OVER US 41, UPRR &amp; OLD SKOKIE ROAD EXISTING &amp; PROPOSED PLAN AND PROFILE</b>	F.A.P. RT. 333 SECTION 12(HB&VB)BR & RS-7 COUNTY LAKE TOTAL SHEETS 198 SHEET NO. 27	CONTRACT NO. 60X39	ILLINOIS FED. AID PROJECT
SCALE: 1/4" = 50'	SHEET NO. 3 OF 3 SHEETS		STA. 515+00 TO STA. 530+00					



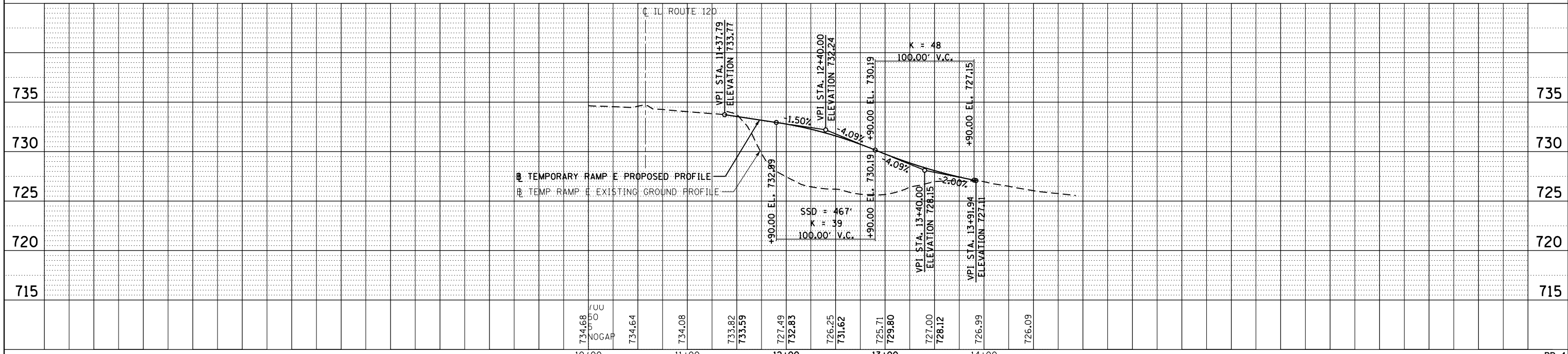
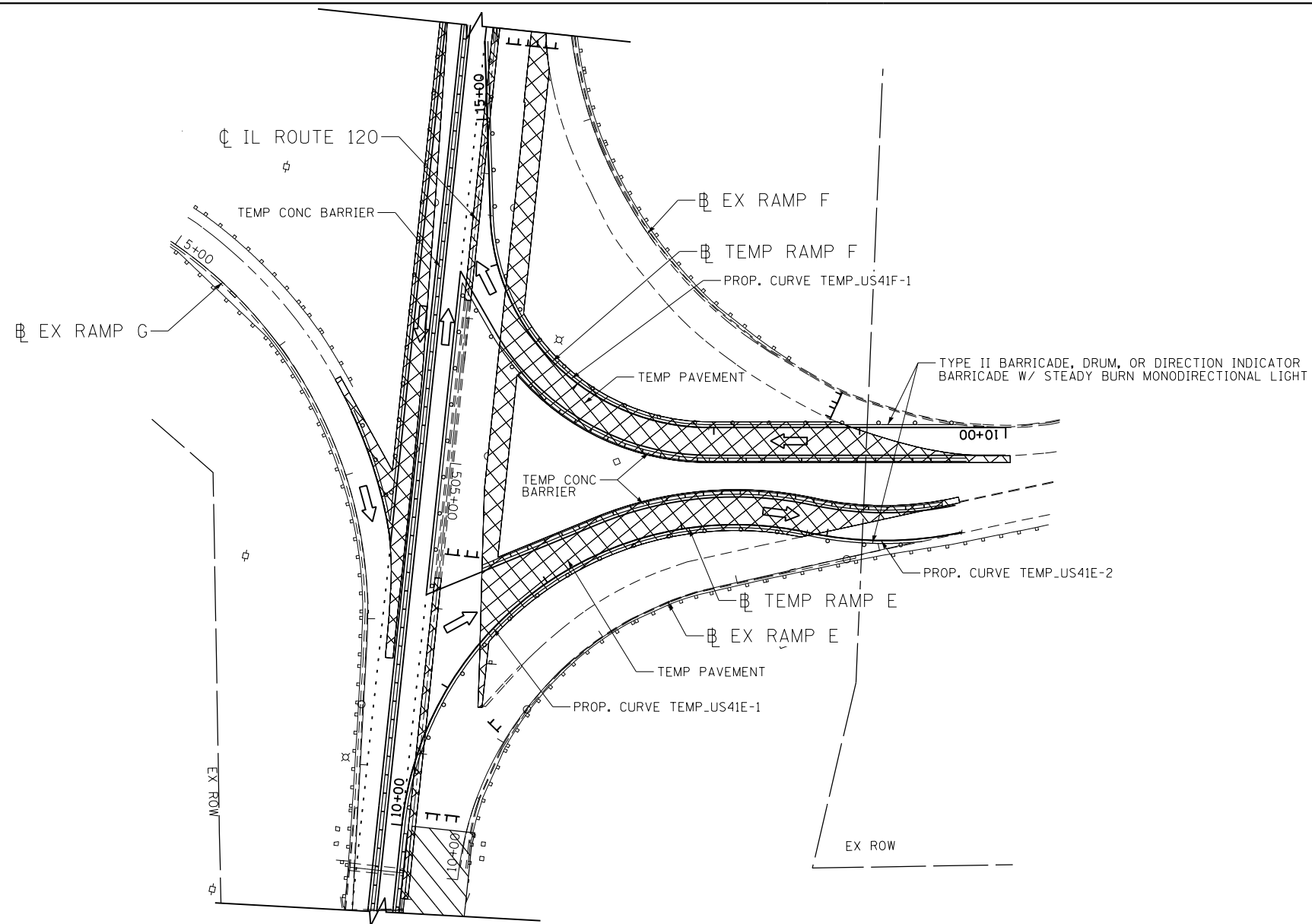
PP-3

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	FILE NAME _____	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO. _____	
	FILE NAME _____	

**PROP. CURVE TEMP\_US41E-1**  
 PI STA. = 12+56.26  
 $\Delta = 96^\circ 11' 00''$  (RT)  
 $D = 24^\circ 54' 40''$   
 $R = 230.00'$   
 $T = 256.26'$   
 $L = 386.10'$   
 $E = 114.34'$   
 $e = \text{-----}$   
 $T.R. = \text{-----}$   
 $S.E. RUN = \text{-----}$   
 $P.C. STA. = 10+00.00$   
 $P.T. STA. = 13+86.10$

**PROP. CURVE TEMP\_US41E-2**  
 PI STA. = 14+40.28  
 $\Delta = 24^\circ 27' 17''$  (LT)  
 $D = 22^\circ 55' 06''$   
 $R = 250.00'$   
 $T = 54.18'$   
 $L = 106.70'$   
 $E = 5.80'$   
 $e = \text{-----}$   
 $T.R. = \text{-----}$   
 $S.E. RUN = \text{-----}$   
 $P.C. STA. = 13+86.10$   
 $P.T. STA. = 14+92.81$



FILE NAME D160X39-sht-plnprf_04.dgn	DESIGNED - JMR	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b> <b>IL ROUTE 120 OVER US 41, UPRR &amp; OLD SKOKIE ROAD</b> <b>TEMPORARY PROPOSED PLAN AND PROFILE - RAMP E</b>	F.A.P. RTE. 333	SECTION 12(HB&VB)BR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 28	CONTRACT NO. 60X39	PP-4
Default	DRAWN - GEW	REVISED -		SCALE: $\frac{1}{4}'' = 50'$	SHEET NO. 4 OF 5 SHEETS		STA. 10+00	TO STA. 14+92		ILLINOIS FED. AID PROJECT
	CHECKED - RJD	REVISED -								
	DATE - 3/3/2017	REVISED -								

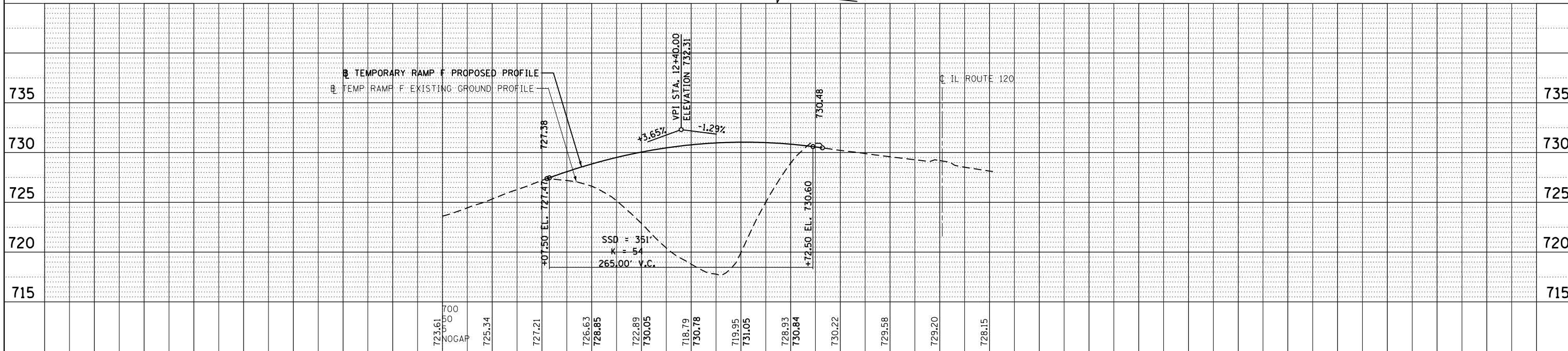
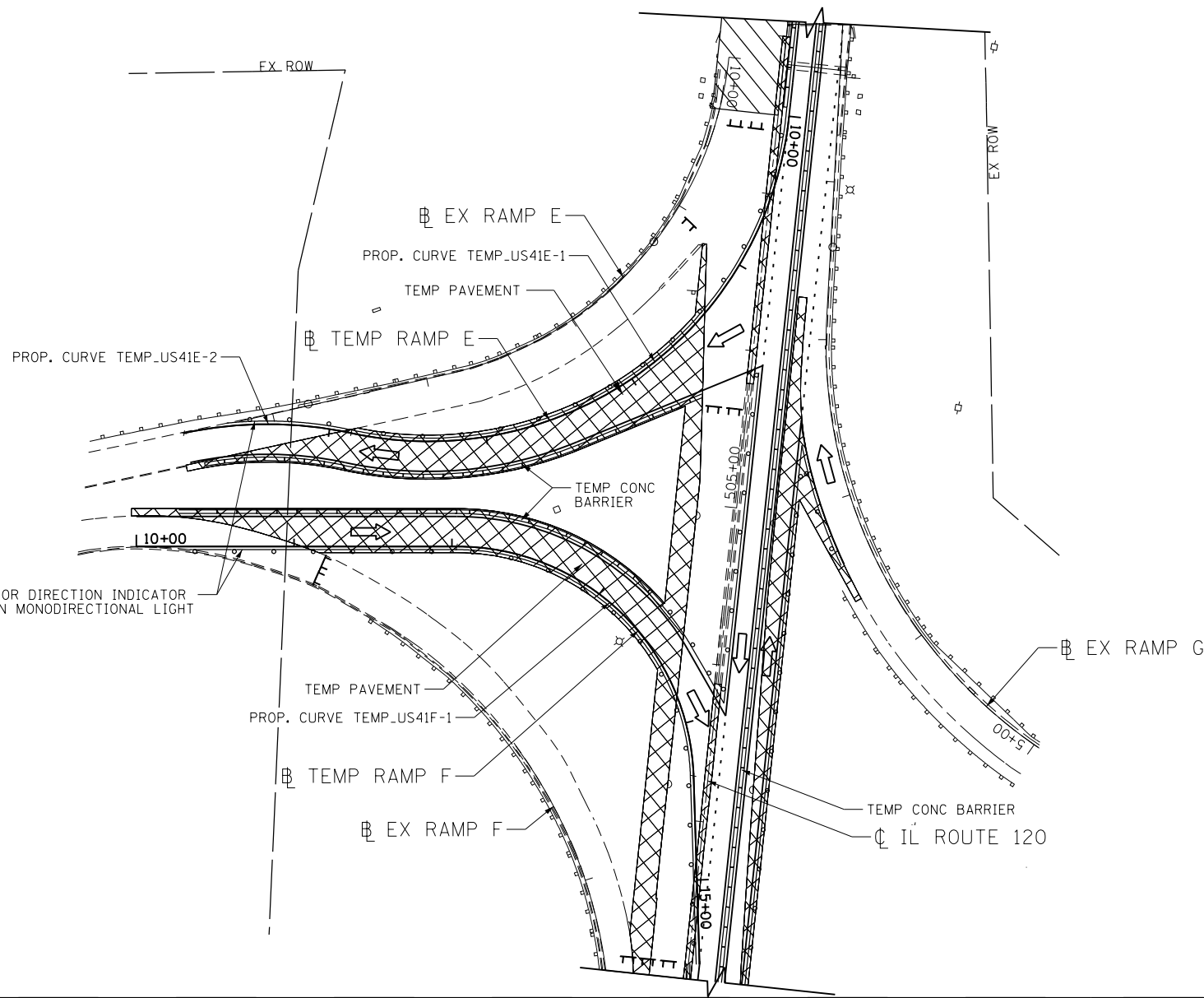


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PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO.	

TYPE II BARRICADE, DRUM, OR DIRECTION INDICATOR  
BARRICADE W/ STEADY BURN MONODIRECTIONAL LIGHT

PROP. CURVE TEMP\_US41F-1  
 PI STA. = 13+48.51  
 $\Delta = 88^\circ 12' 34''$  (RT)  
 $D = 38^\circ 11' 50''$   
 $R = 150.00'$   
 $T = 145.38'$   
 $L = 230.93'$   
 $E = 58.89'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 $P.C. STA. = 12+03.12$   
 $P.T. STA. = 14+34.05$



FILE NAME D160X39-sht-plnprf_05.dgn	DESIGNED - MAL DRAWN - GEW CHECKED - RJD DATE - 3/3/2017	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD TEMPORARY PROPOSED PLAN AND PROFILE - RAMP F	F.A.P. RTE. 333 SECTION 12(HB&VB)BR & RS-7 COUNTY LAKE TOTAL SHEETS 198 SHEET NO. 29	PP-5
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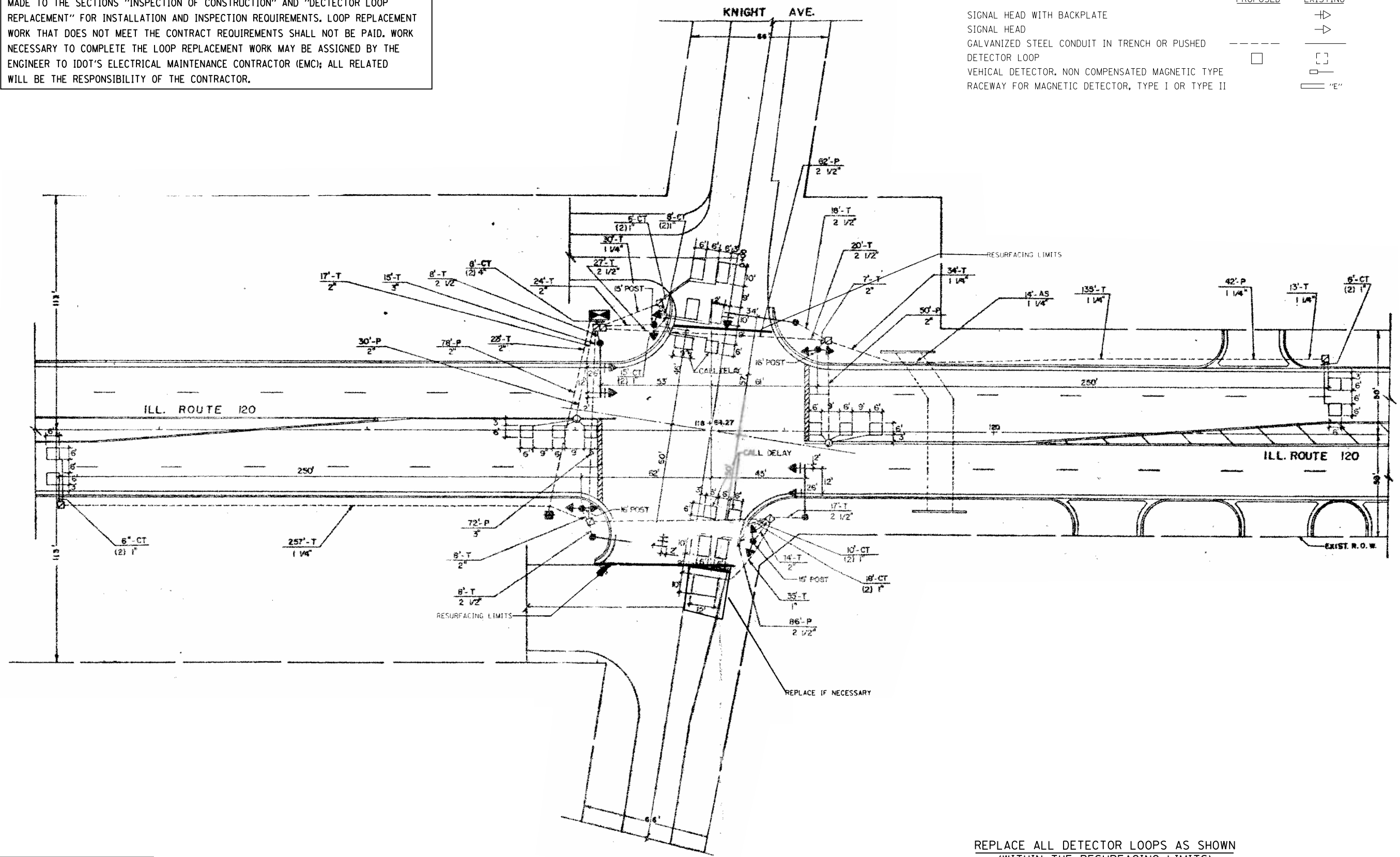
SCALE:  $\frac{1}{4}'' = 50'$  SHEET NO. 5 OF 5 SHEETS STA. 10+00 TO STA. 15+00

ILLINOIS FED. AID PROJECT CONTRACT NO. 60X39

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE	→	→
SIGNAL HEAD	→	→
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	---	---
DETECTOR LOOP	□	□
VEHICAL DETECTOR, NON COMPENSATED MAGNETIC TYPE	□	□
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	— "E"	— "E"



THIS PLAN IS FOR THE SOLE PURPOSE OF  
DETECTOR LOOP REPLACEMENT ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
88600100	943	FOOT	DETECTOR LOOP, TYPE 1

FILE NAME  
D160X39-sht-details-501.dgn  
Default



DESIGNED - CMD	REVISED -
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CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT PLANS  
IL 120 (BELVIDERE RD.) FROM US 41 (SKOKIE HWY) TO KNIGHT AVENUE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	30

CONTRACT NO. 60X39

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

DET-1

PAVEMENT DEPTH TABLE

Table with 8 columns: STATION, OFFSET (FT), LT/RT, EX SURFACE ELEVATION (FT), PR SURFACE ELEVATION (FT), MILLING DEPTH (IN), Δ ELEVATION (IN), POLYMERIZED HMA SC DEPTH (IN), IL-19.0 HMA BC DEPTH (IN). Rows include stationing from 497+83.35 to 505+00.00.

Table with 8 columns: STATION, OFFSET (FT), LT/RT, EX SURFACE ELEVATION (FT), PR SURFACE ELEVATION (FT), MILLING DEPTH (IN), Δ ELEVATION (IN), POLYMERIZED HMA SC DEPTH (IN), IL-19.0 HMA BC DEPTH (IN). Rows include stationing from 505+50.00 to 512+28.36.

Table with 8 columns: STATION, OFFSET (FT), LT/RT, EX SURFACE ELEVATION (FT), PR SURFACE ELEVATION (FT), MILLING DEPTH (IN), Δ ELEVATION (IN), POLYMERIZED HMA SC DEPTH (IN), IL-19.0 HMA BC DEPTH (IN). Rows include stationing from 512+48.36 to 514+48.36.

NOTE: THE PAVEMENT DEPTH TABLE IS TO BE USED IN CONJUNCTION WITH THE ASPHALT BINDER WEDGE DETAIL SHEET ON PAGE DD2-02. THIS TABLE IDENTIFIES APPROXIMATE DEPTHS FOR MILLING AND HMA BINDER COURSE. THE HMA SURFACE COURSE WILL BE KEPT AT A 2" DEPTH, AND MAY REQUIRE VARIABLE DEPTH MILLING. ADDITIONAL MILLING BEYOND 1/2" SHALL BE INCLUDED IN THE PAY ITEM HOT-MIX ASPHALT SURFACE REMOVAL, 1/2" (44000151)

FILE NAME: D:\160X39-sht-details-01.dgn



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
PAVEMENT DEPTH TABLE

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

Table with 4 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS. Values include 333, 121(H&V)B/RS-7, LAKE, and 198.

HMA-01

SHEET NO. 31

CONTRACT NO. 60X39

ILLINOIS FED. AID PROJECT

**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL – GENERAL NOTES**

- THE TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR THE SAFE DIVERSION OF TRAFFIC DURING THE EXECUTION OF THIS CONTRACT. THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY PROPOSED CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- THE ENGINEER SHALL BE INFORMED IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE OF ANY CHANGE TO THE TRAFFIC CONTROL PLANS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- ALL VEHICLES, EQUIPMENT, WORKERS, AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
- ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC PLANS SHALL BE REMOVED. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "PAVEMENT MARKING REMOVAL - GRINDING".
- PAVEMENT MARKING TAPE, TYPE IV SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES.
- THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PAVEMENT MARKING TAPE WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL PAVEMENT MARKINGS. REMOVAL OF TEMPORARY PAVEMENT MARKING TAPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, "TEMPORARY PAVEMENT MARKING REMOVAL".
- ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS OR AS REQUIRED BY THE APPLICABLE HIGHWAY STANDARD OR DETAIL, SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE TRAFFIC CONTROL SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.
- ALL DRUMS, VERTICAL PANELS, AND BARRICADES ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY BURNING MONO-DIRECTIONAL LIGHTS.
- DRUMS SHALL HAVE ALTERNATING REFLECTORIZED TYPE AA OR TYPE AP FLUORESCENT ORANGE AND REFLECTORIZED WHITE HORIZONTAL, CIRCUMFERENTIAL STRIPS.
- DRUMS AND BARRICADES SHALL MEET THE REQUIREMENTS OF THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 AND THE SPECIAL PROVISION "WORK ZONE TRAFFIC CONTROL DEVICES".
- ALL EXISTING SIGNS WITHIN THE LIMITS OF MAINTENANCE OF TRAFFIC WHICH ARE OBSCURED BY OR OTHERWISE INTERFERED WITH BY THE CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.
- TEMPORARY, OFF-PEAK HOUR LANE CLOSURES MUST BE REQUESTED THROUGH THE ENGINEER AND AS SPECIFIED IN THE SPECIAL PROVISIONS. WHEN OFF-PEAK HOUR OR WEEKEND LANE CLOSURES ARE REQUIRED, A PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE WEEK PRIOR TO THE CLOSURE. THE MESSAGE SIGN WORDING AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL PLACE A CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACE TWO WEEKS BEFORE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR DAY, "CHANGEABLE MESSAGE SIGN".
- ALL TEMPORARY INFORMATION SIGNS SHALL BE PAID FOR SEPARATELY AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "TEMPORARY INFORMATION SIGNING".
- HIGH-INTENSITY FLASHING LIGHTS SHALL BE USED ON EACH APPROACH IN ADVANCE OF THE WORK ZONE DURING HOURS OF DARKNESS AND INSTALLED ABOVE THE FIRST TWO SIGNS IN EACH SERIES.
- THE COST OF SUPPLYING, ERECTING, AND MAINTAINING BARRICADES, DRUMS, WARNING LIGHTS, AND SIGNS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION (SPECIAL)." QUANTITIES FOR TEMPORARY PAVEMENT MARKINGS ARE NOT INCLUDED IN "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" AND SHALL BE MEASURED SEPARATELY FOR PAYMENT.
- ALL BARRICADES SHALL BE PLACED AT THE CORRECT DISTANCE PER THE APPROPRIATE STANDARD OR AS DIRECTED BY THE ENGINEER.
- ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISION OF THE STAGE OF ILLINOIS "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012, AND THE LATEST VERSION OF THE STATE OF ILLINOIS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS AND OTHERS DEVICES INSTALLED ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME CONSTRUCTION IS IN EFFECT.
- AS MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED SHALL MEET THE REQUIREMENTS FOR A LOW INTENSITY FLASHING LIGHTS IN ARTICLE 1084.01 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING HOURS OF DARKNESS. ONLY LIGHTS THAT BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.
- THE COST OF ARROW BOARDS (FURNISHING, INSTALLING, RELOCATING AND REMOVAL) SHALL BE CONSIDERED INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)".
- ALL HIGHWAY TRAFFIC CONTROL STANDARDS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)".
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE CONSTRUCTION TO MAINTAIN SAFE TRAFFIC FLOW THROUGH ALL CONSTRUCTION STAGES.
- FOR ADDITIONAL BRIDGE CONSTRUCTION STAGING INFORMATION, SEE STRUCTURAL PLANS.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)-705-4470 A MINIMUM OF 72 HOURS BEFORE BEGINNING WORK.
- THE CONTRACTOR SHALL FURNISH ANY ADDITIONAL SIGNS AND TRAFFIC CONTROL DEVICES AS REQUIRED BY THE ENGINEER, THE COST OF WHICH WILL ALSO BE INCLUDED IN THE "TRAFFIC CONTROL AND PROTECTION (SPECIAL)".
- FOR ANY OPERATIONS THAT MAY REQUIRE A LANE CLOSURE ON US ROUTE 41 OR OLD SKOKIE ROAD, UTILIZE IDOT HIGHWAY STANDARDS 701421-07 AND 701501-06.
- TEMPORARY CONCRETE BARRIER SHALL BE PINNED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 704.

**TEMPORARY BARRIER AND IMPACT ATTENUATOR SCHEDULE**

LOCATION	TEMP. CONC. BARRIER (FOOT) (70400100)	RELOCATE TEMP. CONC. BARRIER (FOOT) (70400200)	TL 3 TEMP. IMPACT ATTENUATOR (EACH) (70600250)	RELOCATE TL3 TEMP. IMPACT ATTENUATOR (EACH) (70600350)	PINNING TEMPORARY CONCRETE BARRIER (EACH) (X7040125)	BARRIER WALL MARKERS, TYPE C (EACH) (78200530)
STA. 485+00 TO STA. 500+00 (STAGE 1)	1,725				642	129
STA. 500+00 TO STA. 515+00 (STAGE 1)	2,437.5				453	143
STA. 485+00 TO STA. 500+00 (STAGE 2)		1,725				
STA. 500+00 TO STA. 515+00 (STAGE 2)		1,837.5				
STA. 497+75 (STAGE 2)				1		
STA. 502+10 (STAGE 1)			1			
STA. 507+13 (STAGE 2)				1		
STA. 511+55 (STAGE 1)			1			
STA. 511+68 (STAGE 1)			1			
STA. 512+00 (STAGE 2)				1		
STA. 9+73 (STAGE 1 - TEMP RAMP F)			1			
STA. 11+73 (STAGE 1 - TEMP RAMP E)			1			
<b>TOTAL</b>	<b>4,162.5</b>	<b>3,562.5</b>	<b>5</b>	<b>3</b>	<b>1,205 *</b>	<b>300 *</b>

\*NOTE: 10% CONTINGENCY ADDED TO TOTAL TO ACCOUNT FOR DAMAGE AND REPAIR

**TEMPORARY PAVEMENT SCHEDULE**

LOCATION	OFFSET	TEMPORARY PAVEMENT (SQ. YD.) (Z0062456)	PAVEMENT REMOVAL (SQ. YD.) (44000100)
STA. 496+00 TO STA. 498+25 (IL 120 MEDIAN)	RT/LT	176	176
STA. 501+60 TO STA. 503+88 (IL 120 MEDIAN)	RT/LT	112	112
STA. 505+79 TO STA. 508+00 (IL 120 MEDIAN)	RT/LT	116	116
STA. 520+26 TO STA. 523+95 (IL 120 MEDIAN)	RT/LT	353	353
STA. 494+02 TO STA. 498+58 (EB IL 120)	RT	600	600
STA. 501+22 TO STA. 506+37 (EB IL 120)	RT	594	594
STA. 501+35 TO STA. 506+64 (WB IL 120/TEMP RAMPS E AND F)	RT	2,473	2,473
<b>TOTAL</b>		<b>4,424</b>	<b>4,424 *</b>

\*NOTE: FOR ALL PAVEMENT REMOVAL SEE SHEET NO.21



**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL – CONSTRUCTION SEQUENCING NOTES**

**PRE-STAGE**

**CONSTRUCTION:**

REMOVE EXISTING CONCRETE MEDIAN AND PAVEMENT MARKINGS IN LOCATIONS AS NOTED ON THE PLANS.  
INSTALL TEMPORARY PAVEMENT IN LOCATIONS AS NOTED ON THE PLANS, INCLUDING CONSTRUCTION OF TEMPORARY RAMPS E & F AND TEMPORARY DRAINAGE END SECTIONS AND PIPES.

**MAINTENANCE OF TRAFFIC:**

UTILIZE STANDARDS 701421-06, 701426-06, 701601-09 AND 701901-03.

**STAGE 1**

**CONSTRUCTION:**

STRUCTURES 049-0050 & 049-0051 AND IL ROUTE 120 WESTBOUND LANES: REMOVE CONCRETE DECK AND PARAPET WALL, BRIDGE APPROACH PAVEMENT, GUARDRAIL AND TRAFFIC TERMINAL BARRIERS, AND PERFORM HMA SURFACE REMOVAL ALONG WESTBOUND LANES OF IL ROUTE 120 AND RAMPS E AND F.

STRUCTURES 049-0050 & 049-0051: REPLACE BEARINGS, PERFORM SUBSTRUCTURE REPAIRS, PLACE NEW PCC BRIDGE DECK AND PARAPET WALL, NEW BRIDGE APPROACH SLABS, NEW BRIDGE APPROACH PAVEMENT CONNECTORS, CLEAN AND PAINT EXISTING BEAMS, BEARINGS AND DIAPHRAGMS, AND INSTALL NEW TRAFFIC TERMINAL BARRIERS.

IL ROUTE 120 WESTBOUND LANES: PERFORM DRAINAGE STRUCTURE ADJUSTMENTS, INSTALL NEW DRAINAGE STRUCTURES AND PIPES, PLACE HMA BINDER COURSE, AND INSTALL NEW CURB AND GUTTER.

**MAINTENANCE OF TRAFFIC:**

SHIFT IL ROUTE 120 TRAFFIC TO THE TEMPORARY TRAFFIC LANES SOUTH OF THE IL ROUTE 120 CENTERLINE AS PER THE DETAILS SHOWN ON THE PLANS.

UTILIZE IDOT HWY STANDARDS 701101-01, 701106-02, 701421-06, 701422-06, 701701-09, 701901-03 AND 704001-07.

**STAGE 2**

**CONSTRUCTION:**

STRUCTURES 049-0050 & 049-0051 AND IL ROUTE 120 EASTBOUND LANES: REMOVE CONCRETE DECK AND PARAPET WALL, BRIDGE APPROACH PAVEMENT, GUARDRAIL AND TRAFFIC TERMINAL BARRIERS, AND PERFORM HMA SURFACE REMOVAL ALONG EASTBOUND LANES OF IL ROUTE 120 AND RAMP G.

STRUCTURES 049-0050 & 049-0051: REPLACE BEARINGS, PERFORM SUBSTRUCTURE REPAIRS, PLACE NEW PCC BRIDGE DECK AND PARAPET WALL, NEW BRIDGE APPROACH SLABS, NEW BRIDGE APPROACH PAVEMENT CONNECTORS, CLEAN AND PAINT EXISTING BEAMS, BEARINGS AND DIAPHRAGMS, AND INSTALL NEW TRAFFIC TERMINAL BARRIERS.

IL ROUTE 120 EASTBOUND LANES: PERFORM DRAINAGE STRUCTURE ADJUSTMENTS, INSTALL NEW DRAINAGE STRUCTURES AND PIPES, PLACE HMA BINDER COURSE, AND INSTALL NEW CURB AND GUTTER.

**MAINTENANCE OF TRAFFIC:**

SHIFT IL ROUTE 120 TRAFFIC TO THE TEMPORARY TRAFFIC LANES NORTH OF THE IL ROUTE 120 CENTERLINE AS PER THE DETAILS SHOWN ON THE PLANS.

UTILIZE IDOT HWY STANDARDS 701101-01, 701106-02, 701421-06, 701422-06, 701701-09, 701901-03 AND 704001-07.

**STAGE 3**

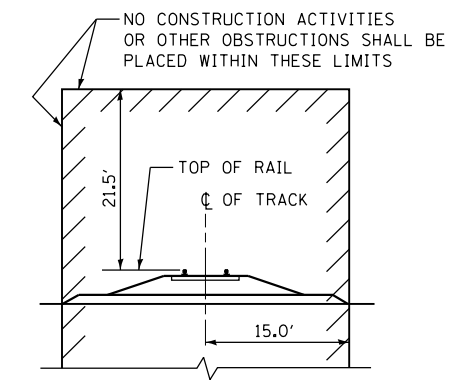
**CONSTRUCTION:**

CONSTRUCT NEW CONCRETE MEDIAN ON BRIDGE AND ROADWAY, INSTALL REMAINING CURB AND GUTTER ON IL ROUTE 120 BETWEEN BRIDGE STRUCTURES, PLACE HMA SURFACE COURSE, INSTALL PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS.

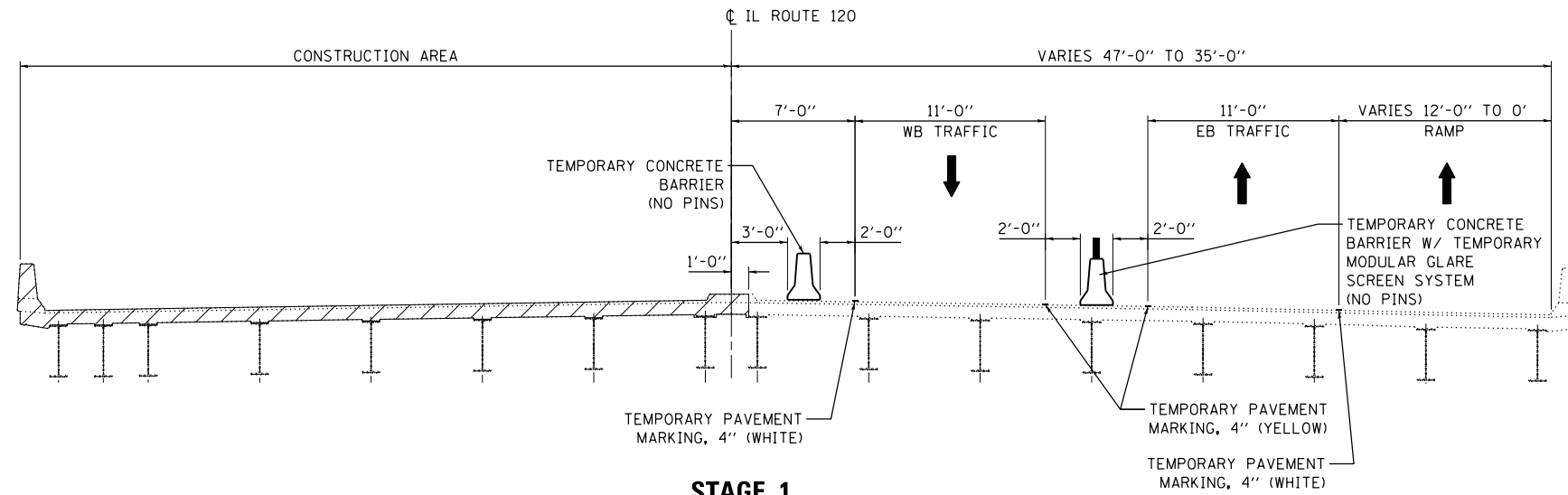
**MAINTENANCE OF TRAFFIC:**

UTILIZE IDOT HWY STANDARDS 701421-08, 701426-09, 701601-09, 701606-10, 701701-10, 701801-06 AND 701901-06.

MOT WIDTH RESTRICTION SIGN - LOCATION AND DETAILS				
	NE CORNER OF IL 120 AND GREEN BAY ROAD (VISIBLE TO WB IL 120 TRAFFIC)	NW CORNER OF IL 120 AND GREEN BAY ROAD (VISIBLE TO SB GREEN BAY ROAD TRAFFIC)	SE CORNER OF IL 120 AND GREEN BAY ROAD (VISIBLE TO NB GREEN BAY ROAD TRAFFIC)	SW CORNER OF IL 120 AND O'PLAINE ROAD (VISIBLE TO EB IL 120 TRAFFIC)
STAGE 1	 W12-I103(O)-48	 W12-I103(O)-48 M6-4R(O)-2115	 W12-I103(O)-48 M6-4L(O)-2115	 W12-I103(O)-48
STAGE 2	 W12-I103(O)-48	 W12-I103(O)-48 M6-4R(O)-2115	 W12-I103(O)-48 M6-4L(O)-2115	 W12-I103(O)-48

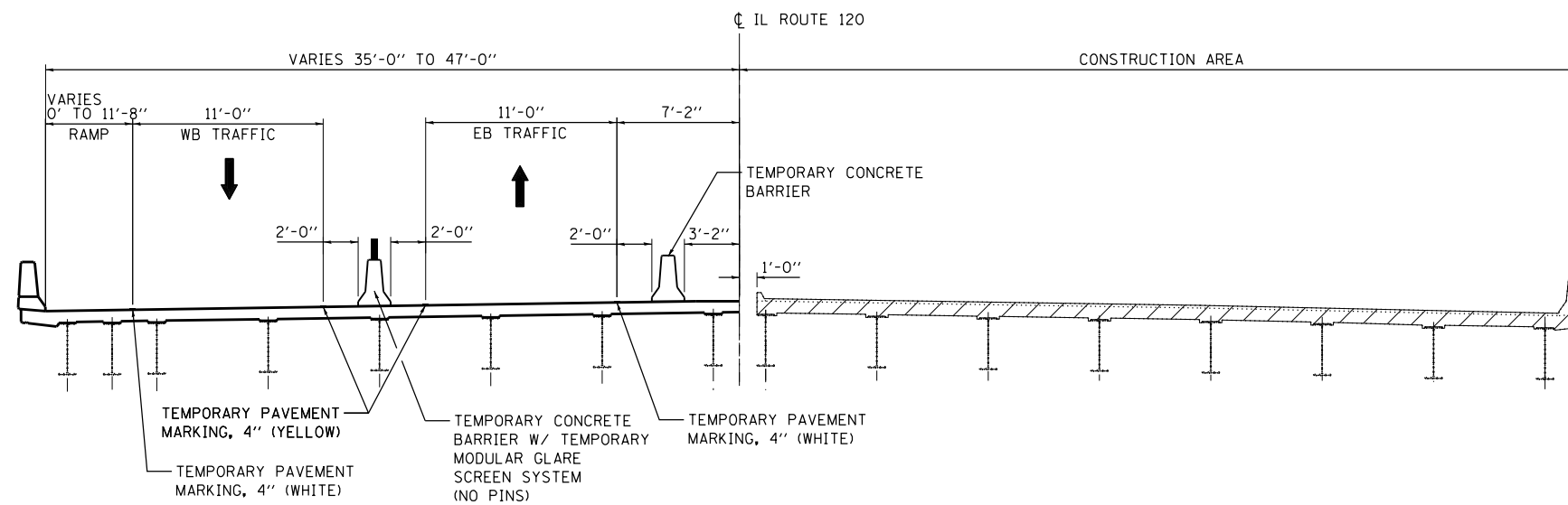


**MINIMUM CONSTRUCTION CLEARANCE ENVELOPE**  
(NORMAL TO RAILROAD)



**STAGE 1**

**STA. 498 + 46 TO STA. 501 + 42 (SN 049-0050)**  
**STA. 507 + 76 TO STA. 511 + 09 (SN 049-0051)**



**STAGE 2**

**STA. 498 + 46 TO STA. 501 + 42 (SN 049-0050)**  
**STA. 507 + 76 TO STA. 511 + 09 (SN 049-0051)**

FILE NAME  
D160X39-sht-staging\_typical\_01  
Default



DESIGNED - CMD  
 DRAWN - CMD  
 CHECKED - RJD  
 DATE - 3/3/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

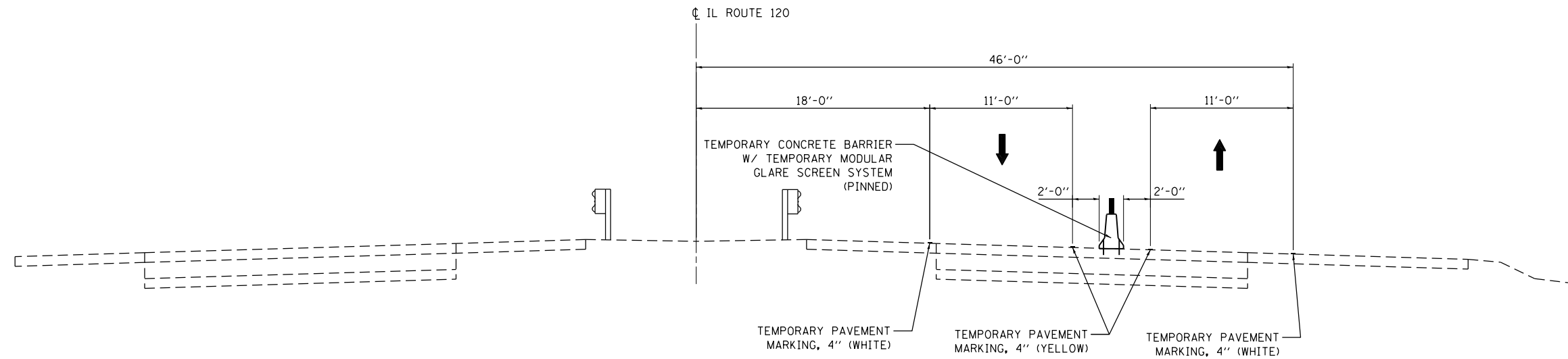
**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**TYPICAL SECTIONS**

SCALE: NTS SHEET NO. 1 OF 4 SHEETS STA. TO STA.

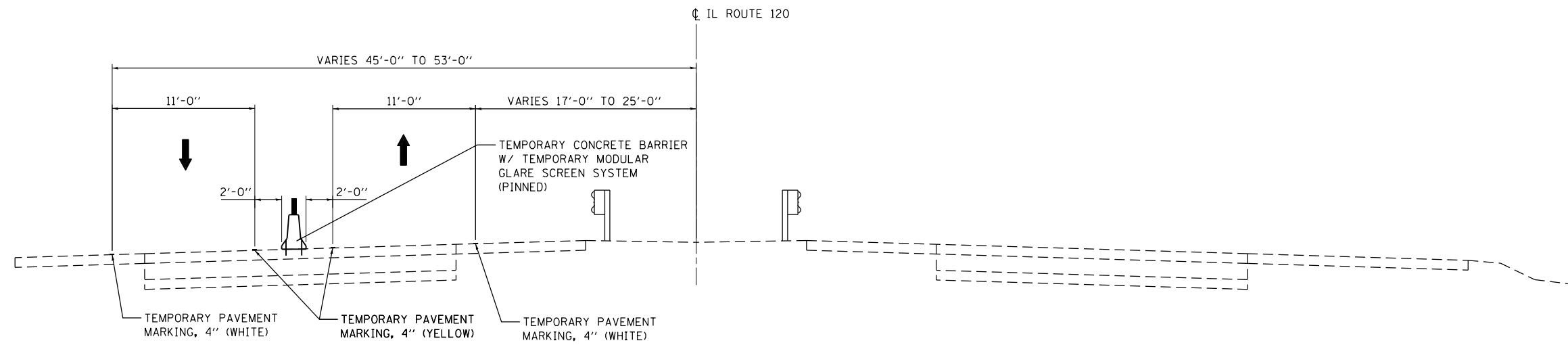
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	34
CONTRACT NO. 60X39				

ILLINOIS FED. AID PROJECT

MOT-3



**STAGE 1**  
**STA. 485 + 00 TO STA. 494 + 00**



**STAGE 2**  
**STA. 485 + 00 TO STA. 494 + 00**

FILE NAME  
 D160X39-sht-staging\_typical\_02  
 Default



DESIGNED - CMD  
 DRAWN - CMD  
 CHECKED - RJD  
 DATE - 3/3/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

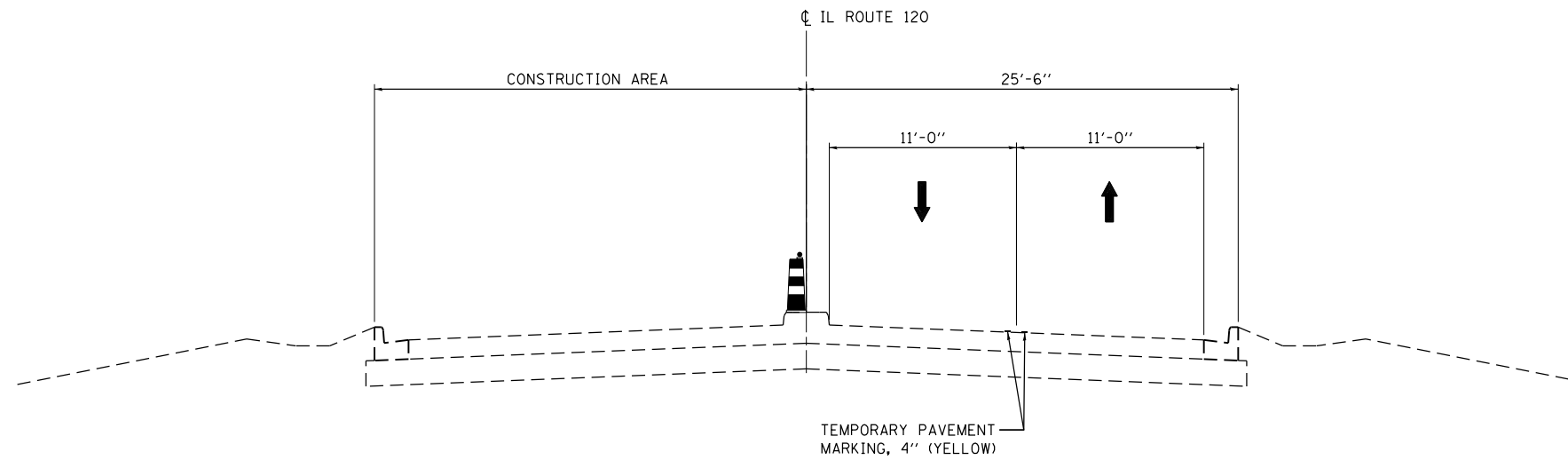
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**TYPICAL SECTIONS**

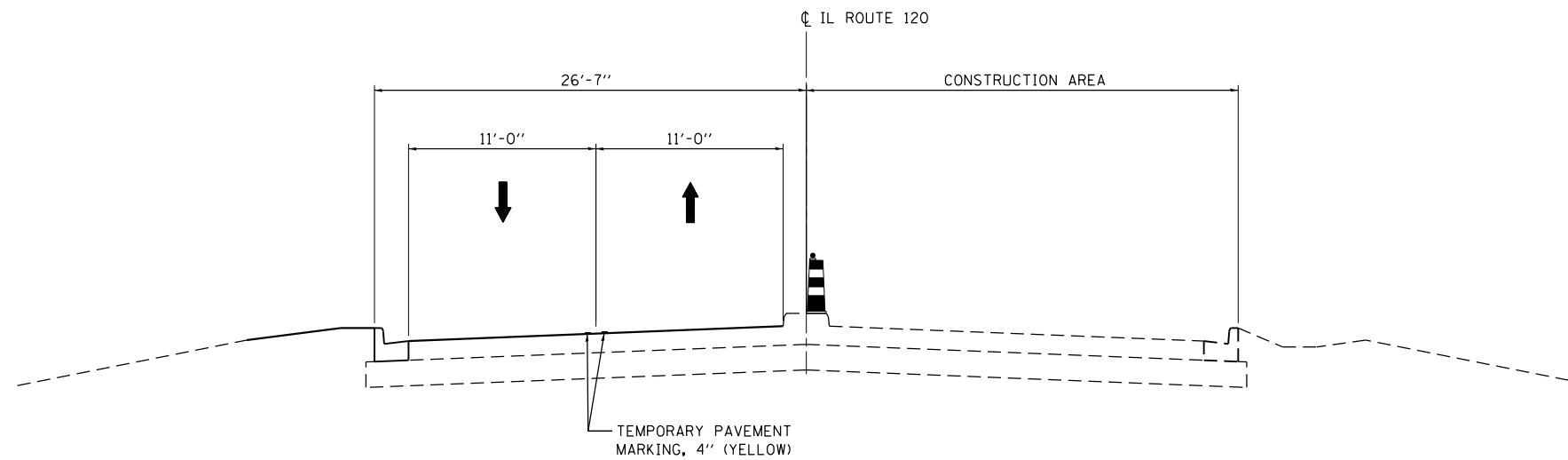
SCALE: NTS SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	35
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

MOT-4



**STAGE 1**  
**STA. 513 + 50 TO STA. 520 + 25**



**STAGE 2**  
**STA. 513 + 50 TO STA. 520 + 25**

FILE NAME  
 D160X39-sht-staging\_typical\_03

Default



DESIGNED - CMD  
 DRAWN - CMD  
 CHECKED - RJD  
 DATE - 3/3/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

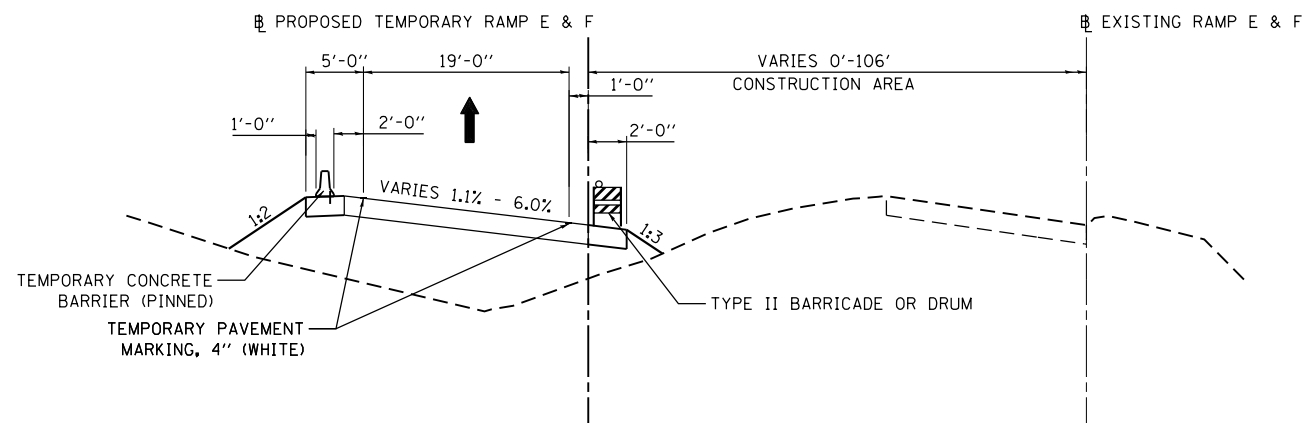
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**TYPICAL SECTIONS**

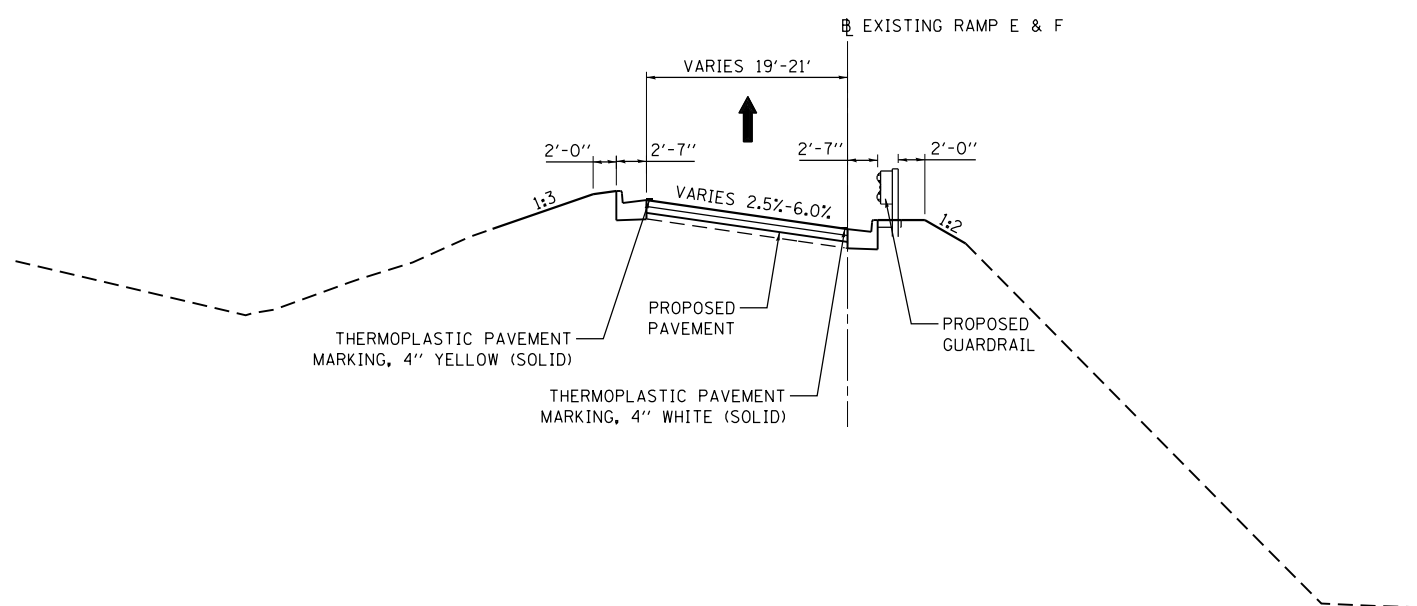
SCALE: NTS SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	36
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

MOT-5



**STAGE 1**  
**TEMPORARY RAMP E STA 12+00 TO 14+92**  
**TEMPORARY RAMP F STA 10+00 TO 13+00**



**STAGE 2**  
**EXISTING RAMP E STA 11+00 TO 12+00**  
**EXISTING RAMP F STA 8+00 TO 9+00**

FILE NAME  
 D160X39-sht-staging\_typical\_04  
 Default



DESIGNED - CMD  
 DRAWN - CMD  
 CHECKED - RJD  
 DATE - 3/3/2017

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

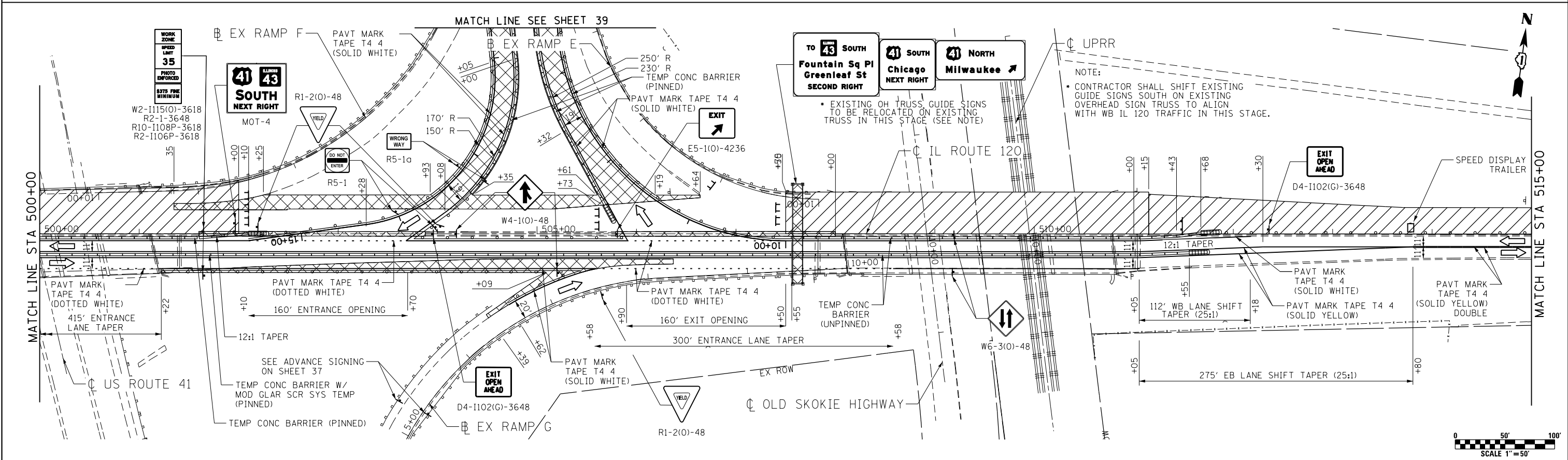
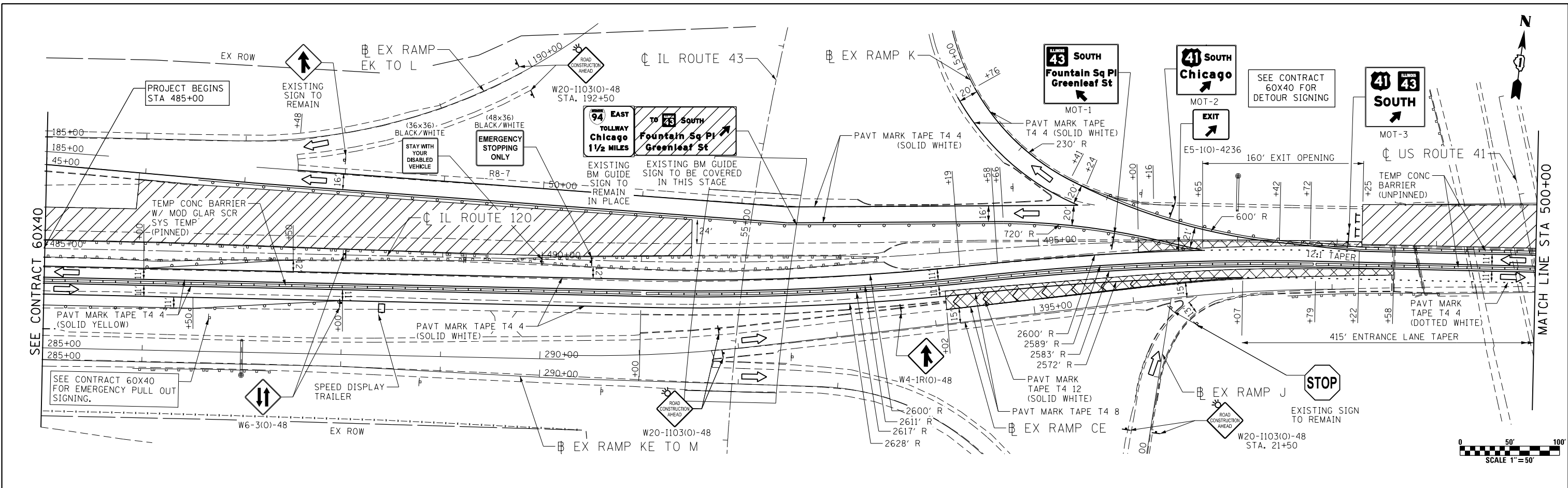
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
 TYPICAL SECTIONS - TEMPORARY RAMPS E & F

SCALE: NTS SHEET NO. 4 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	37
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

MOT-6



**LEGEND:**

WORK AREA	TEMPORARY PAVEMENT	SIGN	DIRECTION OF TRAFFIC	TEMPORARY CONCRETE BARRIER	TYPE II BARRICADES OR DRUMS WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS (20' CENTERS ON TAPERS AND 25' CENTERS ON RAMPS)	DIRECTION INDICATOR BARRICADE WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS
WORK AREA (SUB-STAGE)	PREVIOUSLY CONSTRUCTED	ARROW BOARD	TYPE III BARRICADE	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3		

FILE NAME: D168X39-shr-staging1\_01.dgn  
 Default

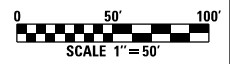
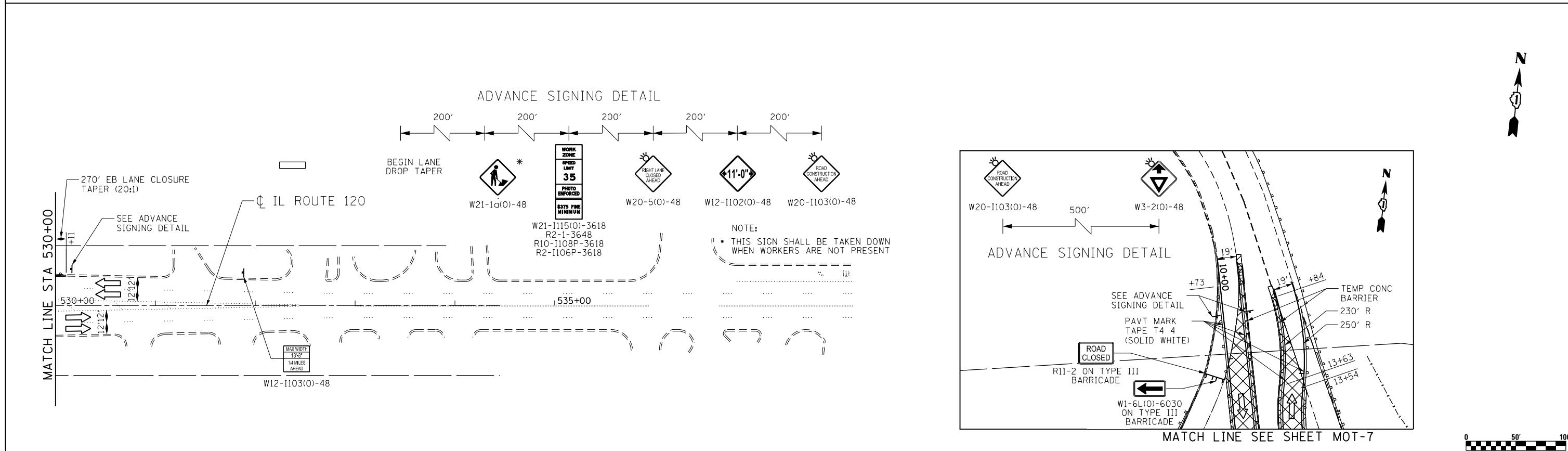
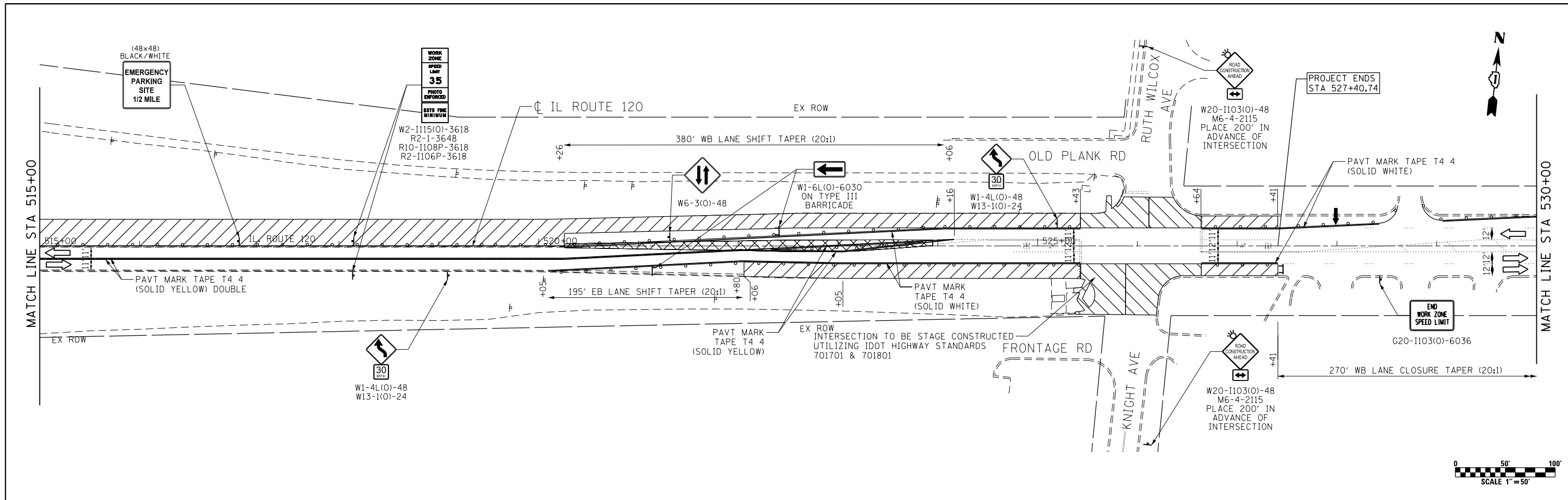
DESIGNED - CMD	REVISED -
DRAWN - JMR	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD**  
**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL**  
**STAGE 1**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(H&V)B/R & RS-7	LAKE	198	38

SCALE: 1"=50'    SHEET NO. 1 OF 2 SHEETS    STA. 485+00 TO STA. 515+00    CONTRACT NO. 60X39    ILLINOIS FED. AID PROJECT



**LEGEND:**

WORK AREA	TEMPORARY PAVEMENT	SIGN	DIRECTION OF TRAFFIC	TEMPORARY CONCRETE BARRIER	TYPE II BARRICADES OR DRUMS WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS (20' CENTERS ON TAPERS AND 25' CENTERS ON RAMPS)	DIRECTION INDICATOR BARRICADE WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS
WORK AREA (SUB-STAGE)	PREVIOUSLY CONSTRUCTED	ARROW BOARD	TYPE III BARRICADE	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3		

FILE NAME: D:\60X39-sht-staging\l\_02.dgn  
 Default

**Primera**  
 100 S. BRACKER DRIVE SUITE 700 CHICAGO IL 60606 P.312-406-0010 F.312-406-3015

DESIGNED - CMD	REVISED -
DRAWN - JMR	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

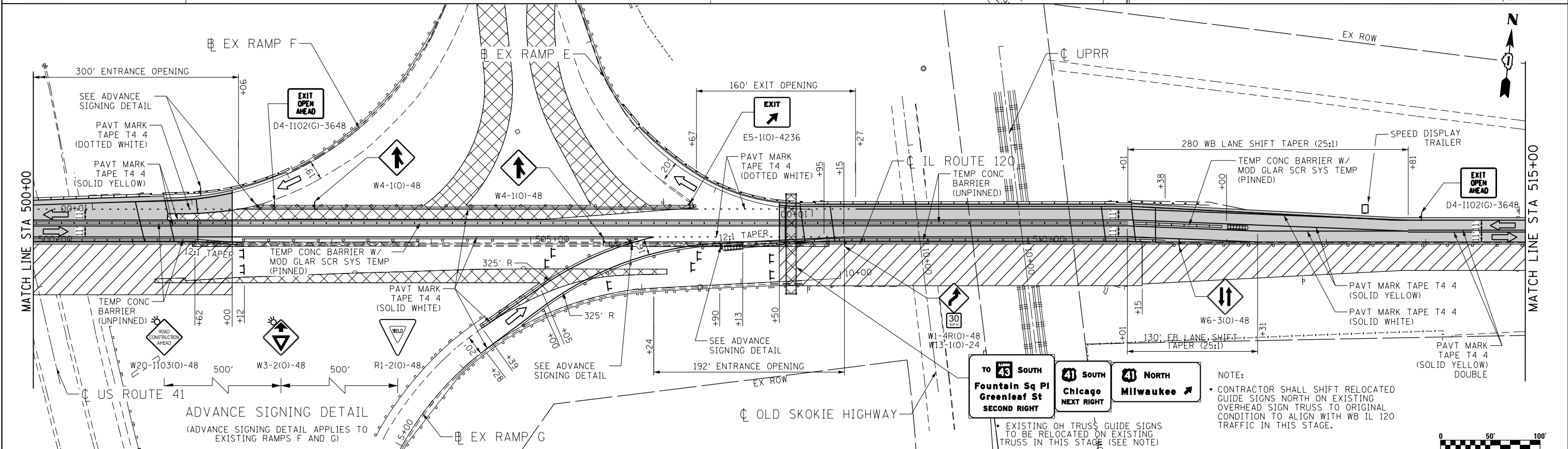
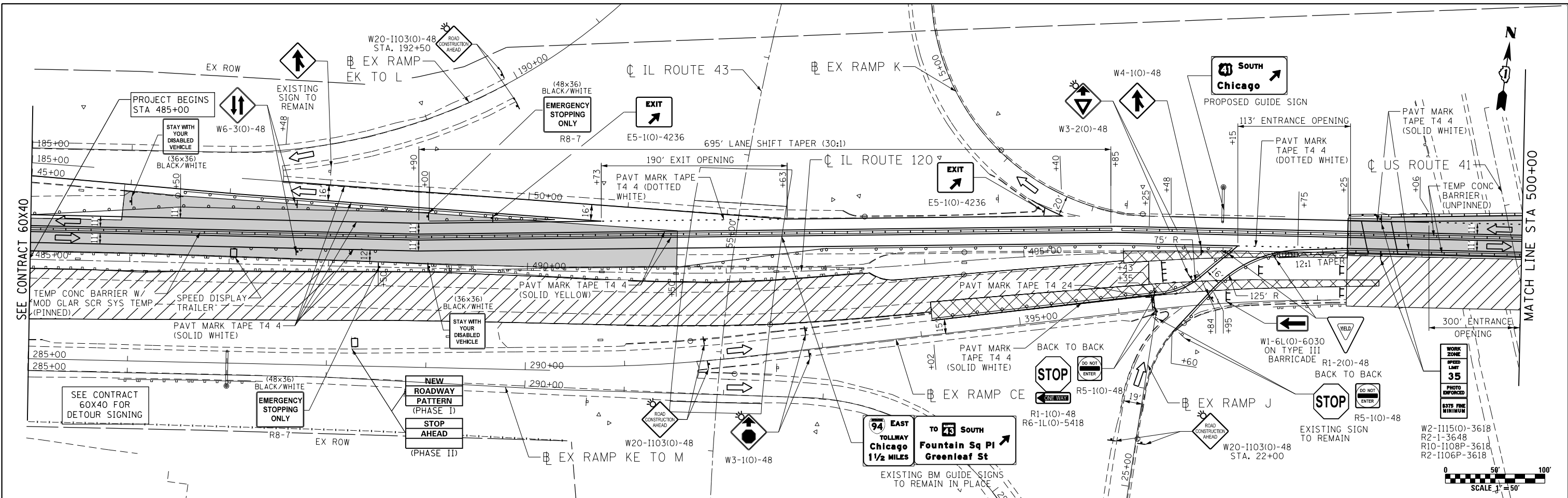
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
STAGE 1**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	39

CONTRACT NO. 60X39

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 515+00 TO STA. 535+82 ILLINOIS FED. AID PROJECT



**LEGEND:**

WORK AREA	TEMPORARY PAVEMENT	SIGN	DIRECTION OF TRAFFIC	TEMPORARY CONCRETE BARRIER	
WORK AREA (SUB-STAGE)	PREVIOUSLY CONSTRUCTED	ARROW BOARD	TYPE III BARRICADE		

FILE NAME: D160X39-stg-staging2.01.dgn

**Primera**  
100 S. BRACKER DRIVE SUITE 700, CHICAGO, IL 60606, P.312-406-0010 F.312-406-0015

DESIGNED - CMD	REVISED -
DRAWN - JMR	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

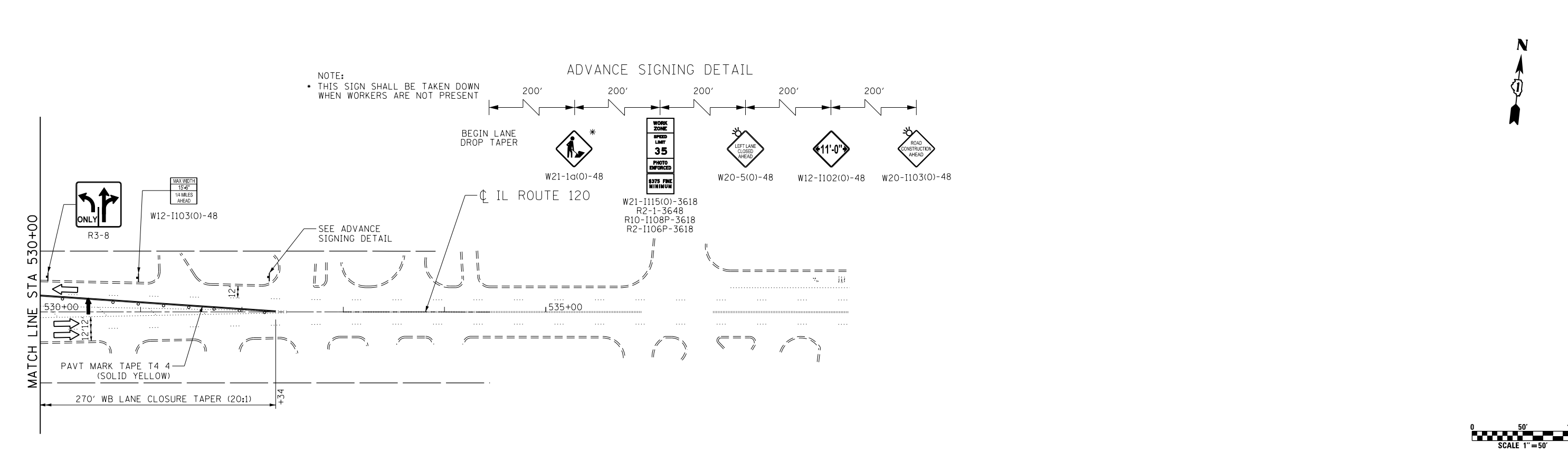
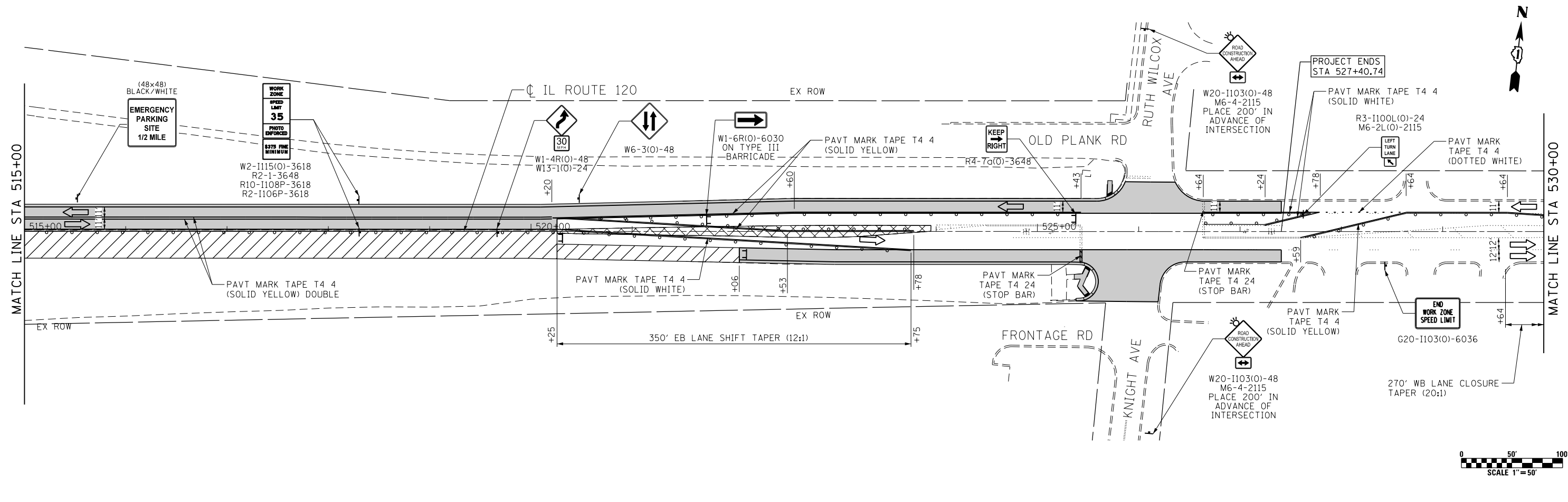
**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
STAGE 2**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 485+00 TO STA. 515+00

F.A.P. R.T.E. 333	SECTION 12(HB&VB)BR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 40
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

NOTE:  
CONTRACTOR SHALL SHIFT RELOCATED GUIDE SIGNS NORTH ON EXISTING OVERHEAD SIGN TRUSS TO ORIGINAL CONDITION TO ALIGN WITH WB IL 120 TRAFFIC IN THIS STAGE.  
EXISTING OH TRUSS GUIDE SIGNS TO BE RELOCATED ON EXISTING TRUSS IN THIS STAGE (SEE NOTE)





**LEGEND:**

- WORK AREA
- WORK AREA (SUB-STAGE)
- TEMPORARY PAVEMENT
- PREVIOUSLY CONSTRUCTED
- SIGN
- ARROW BOARD
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
- TYPE II BARRICADES OR DRUMS WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS (20' CENTERS ON TAPERS AND 25' CENTERS ON RAMPS)
- DIRECTION INDICATOR BARRICADE WITH STEADY BURNING MONO-DIRECTIONAL LIGHT @ 50' CENTERS

FILE NAME: D160X39-shr-staging2\_02.dgn  
 Default



DESIGNED - CMD	REVISED -
DRAWN - JMR	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
 STAGE 2**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	41
CONTRACT NO. 60X39				

SIGN DETAIL  
1:30



Panel Style: construction\_guide.ssi  
Dimensions are in inches, tenths  
Panel Style: construction\_guide.ssi  
M.U.T.C.D.: 2009 Edition  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT-1
WIDTH x HIGHT.	7'-6" x 6'-0"
BORDER WIDTH	1"
CORNER RADIUS	1.5"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1-H100A	0	3.1	45	26.2	24
AR_Type D	45	38	2.9	12	17.9

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
S	O	U	T	H								EM 2000	
37.2	44.7	51.7	57.7	63.7							31.7	8,6.5	
F	o	u	n	t	a	i	n	S	q	P	l	EM 2000	
3	10	17.3	25	32.1	37.6	45.3	49.3	59.6	67.4	77.7	85.6	84.2	86
G	r	e	e	n	l	e	a	f	S	t		EM 2000	
9,9	18,2	23.1	29,7	36,8	44,5	48	54,6	61,7	70	77,8		72	86

SIGN DETAIL  
1:30



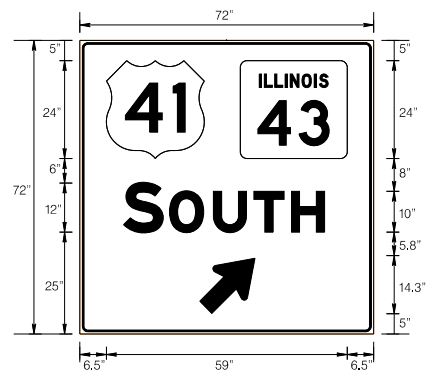
Panel Style: construction\_guide.ssi  
Dimensions are in inches, tenths  
Panel Style: construction\_guide.ssi  
M.U.T.C.D.: 2009 Edition  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT-2
WIDTH x HIGHT.	6'-0" x 5'-0"
BORDER WIDTH	1"
CORNER RADIUS	1.5"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	6	32,5	24	24
AR_Type D	315	27,8	3	12	17,9

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
S	O	U	T	H								EM 2000	
33,7	41,2	48,2	54,6	60,6								32,2	8,6.5
C	h	i	c	a	g	o						EM 2000	
4,6	15,5	26,1	31,2	40	49,7	59,4						61,6	10,7,5

SIGN DETAIL  
1:30



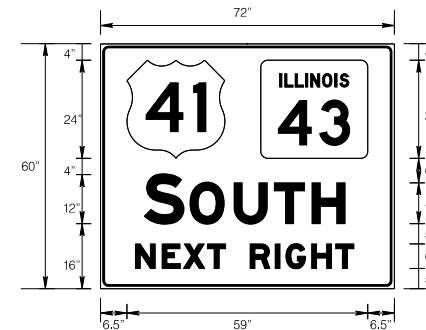
Panel Style: construction\_guide.ssi  
Dimensions are in inches, tenths  
Panel Style: construction\_guide.ssi  
M.U.T.C.D.: 2009 Edition  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT-3
WIDTH x HIGHT.	6'-0" x 6'-0"
BORDER WIDTH	1"
CORNER RADIUS	1.5"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	6,5	43	24	24
M1-H100A	0	39,3	43	26,2	24
AR_Type D	315	29,3	5	12	17,9

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
S	O	U	T	H								EM 2000	
10,7	21,9	32,7	42,6	51,8								49,2	12,10

SIGN DETAIL  
1:30



Panel Style: construction\_guide.ssi  
Dimensions are in inches, tenths  
Panel Style: construction\_guide.ssi  
M.U.T.C.D.: 2009 Edition  
Letter locations are panel edge to lower left corner

SIGN NUMBER	MOT-4
WIDTH x HIGHT.	6'-0" x 5'-0"
BORDER WIDTH	1"
CORNER RADIUS	1.5"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	6,5	32	24	24
M1-H100A	0	39,3	32	26,2	24

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE	
S	O	U	T	H								EM 2000	
10,7	21,9	32,7	42,6	51,8								49,2	12,10
N	E	X	T	R	I	G	H	T				EM 2000	
8,5	15,1	20,4	26,2	30,7	36,7	42,8	45,4	51,7	57,7			53,6	6

FILE NAME  
D160X39-sht-details-staging.dgn  
Default



DESIGNED -	CMD	REVISED -	
DRAWN -	JMR	REVISED -	
CHECKED -	RJD	REVISED -	
DATE -	3/3/2017	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL  
TEMPORARY SIGNING DETAILS

SCALE: N.T.S. SHEET NO. 1 OF 1 SHEETS STA. TO STA.

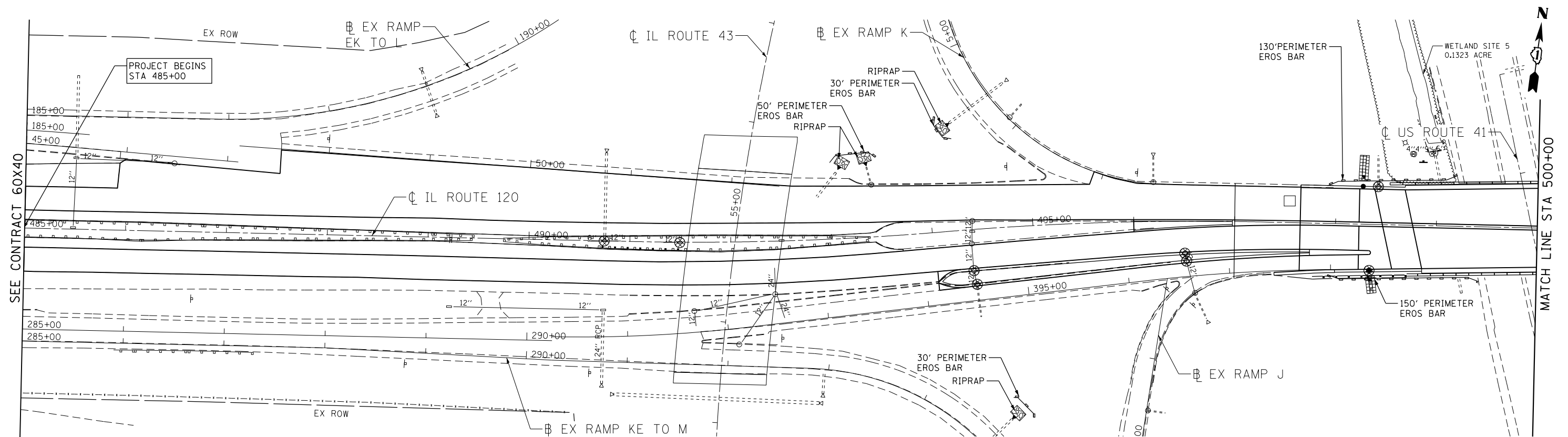
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(H&V)BR & RS-7	LAKE	198	42
CONTRACT NO. 60X39				

ILLINOIS FED. AID PROJECT

MOT-11

# EROSION CONTROL NOTES

1. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR TO PREPARE AN EROSION AND SEDIMENT CONTROL STAGING PLAN FOR ALL DRAINAGE CROSSINGS, TO BE APPROVED BY THE ENGINEER.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 02-60.
4. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL" AND THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.
5. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
6. THE MAINTENANCE AND REPAIR OR REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE ENGINEER, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEMS.
7. ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. MUD AND SEDIMENT DEPOSITS SHALL BE REMOVED FROM THE ROADWAY AT THE END OF EACH WORK DAY BY SHOVELING AND/OR SWEEPING.
8. INLET FILTERS SHALL BE PLACED ON ALL CATCH BASINS, INLETS, AND MANHOLES WITH OPEN GRATES.
9. THE CONTRACTOR SHALL APPLY TEMPORARY EROSION CONTROL SEEDING TO ALL ERODIBLE BARE EARTH AREAS EVERY 7 DAYS AFTER THE EARTH IS EXPOSED OR AS DIRECTED BY THE ENGINEER. APPLICATION RATE USED: 100 LB/ACRE
10. BROADCASTING OF THE SEED BY MACHINE, HAND METHODS, HYDRAULIC SEEDING OR OTHER METHODS APPROVED BY THE ENGINEER WILL BE ALLOWED FOR TEMPORARY EROSION CONTROL SEEDING.
11. TOPSOIL AND FERTILIZER NUTRIENTS ARE NOT REQUIRED FOR TEMPORARY EROSION CONTROL SEEDING.
12. SEED BED PREPARATION WILL NOT BE REQUIRED FOR TEMPORARY EROSION CONTROL SEEDING IF THE SOIL IS IN A LOOSE CONDITION. LIGHT DISKING SHALL BE DONE IF THE SOIL IS HARD PACKED OR CAKED.
13. MULCH WILL NOT BE REQUIRED ON AREAS WHERE VEGETATIVE COVER PROVIDES ADEQUATE EROSION CONTROL.
14. MULCH, METHOD 2 (PROCEDURE 2) SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENT OF THE STANDARD SPECIFICATIONS AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON AREAS WITH SLOPES STEEPER THAN 1:3 (V:H) THAT ARE TEMPORARILY SEEDED BEFORE NOVEMBER 2.
15. EROSION CONTROL BLANKET SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON ALL AREAS THAT ARE TEMPORARILY SEEDED IN AREAS OF CONCENTRATED FLOW AS DIRECTED BY THE ENGINEER AT ANY TIME OF YEAR.
16. EROSION CONTROL BLANKET SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AFTER TEMPORARY EROSION CONTROL SEEDING HAS BEEN COMPLETED ON ALL AREAS WITH SLOPES STEEPER THAN 1:3 (V:H) THAT ARE TEMPORARILY SEEDED ON OR AFTER NOVEMBER 2.
17. ALL TEMPORARY INFORMATION SIGNS, PERIMETER EROSION BARRIER AND TEMPORARY FENCE SHALL BE INSTALLED WITHIN THE TEMPORARY EASEMENT, PROPOSED RIGHT-OF-WAY OR EXISTING RIGHT-OF-WAY.
18. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION AND IDOT'S BEST MANAGEMENT PRACTICES - MAINTENANCE GUIDE: ([http://idot.illinois.gov/transportation\\_system/environment/erosion-and-sediment-control](http://idot.illinois.gov/transportation_system/environment/erosion-and-sediment-control)).
19. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.
20. THE CONTRACTOR SHALL CHECK ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHALL BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOW MELT.
21. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A PLAN TO ENSURE THAT A STABILIZED FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION.
22. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL.
23. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED IMMEDIATELY UPON COMPLETION OF DISTURBANCE OR IF THE WORK AREA IS TO BE LEFT UNDISTURBED FOR 14 DAYS OR MORE.
24. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.
25. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER.
26. "WETLANDS NO INTRUSION" SIGNAGE SHALL ALSO BE PROVIDED AT THE BOUNDARY OF ALL UN-IMPACTED WETLANDS AND/OR WOUS. THE CONTRACTOR CAN BORROW THE SIGNS FROM THE BUREAU OF MAINTENANCE. INCLUDE TEMPORARY FENCING AND WETLAND SIGNAGE WITHIN THE EROSION AND SEDIMENT CONTROL STRATEGY.



## LEGEND:

- SEEDING CL 2A
- SEEDING CL 3A
- STONE RIPRAP CL A4 (TYP)
- PERMANENT SEEDING WITH HEAVY DUTY EROSION CONTROL BLANKET GABION BASKET SLOPE STABILIZATION
- PERIMETER EROSION BARRIER
- TEMPORARY CONSTRUCTION FENCE
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK
- TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)
- WETLAND AREA DO NOT ENTER



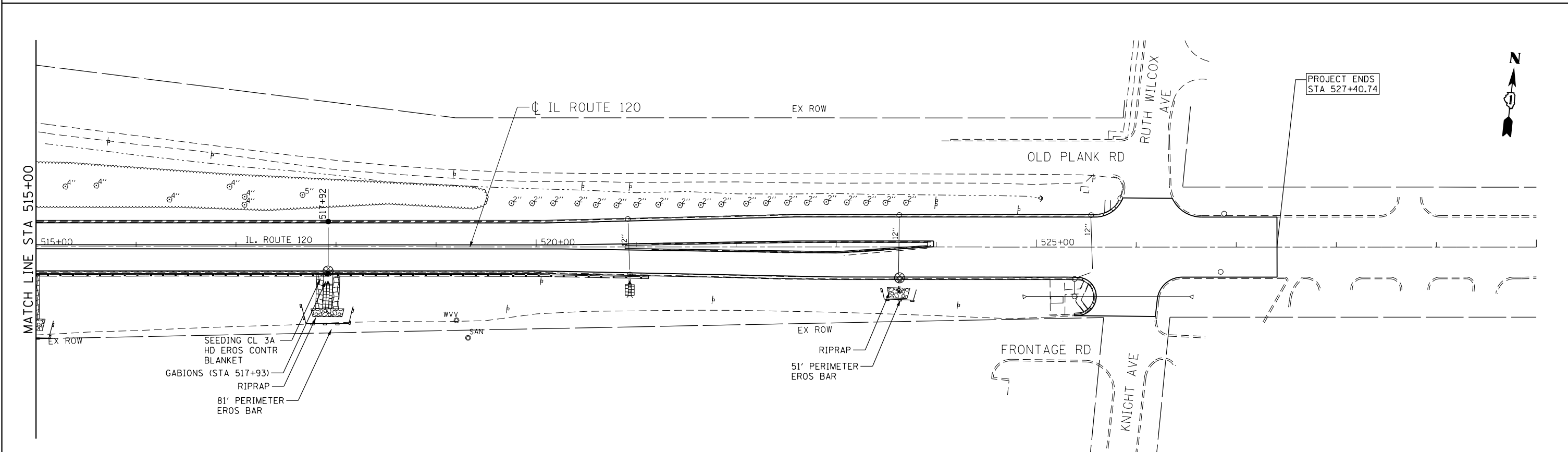
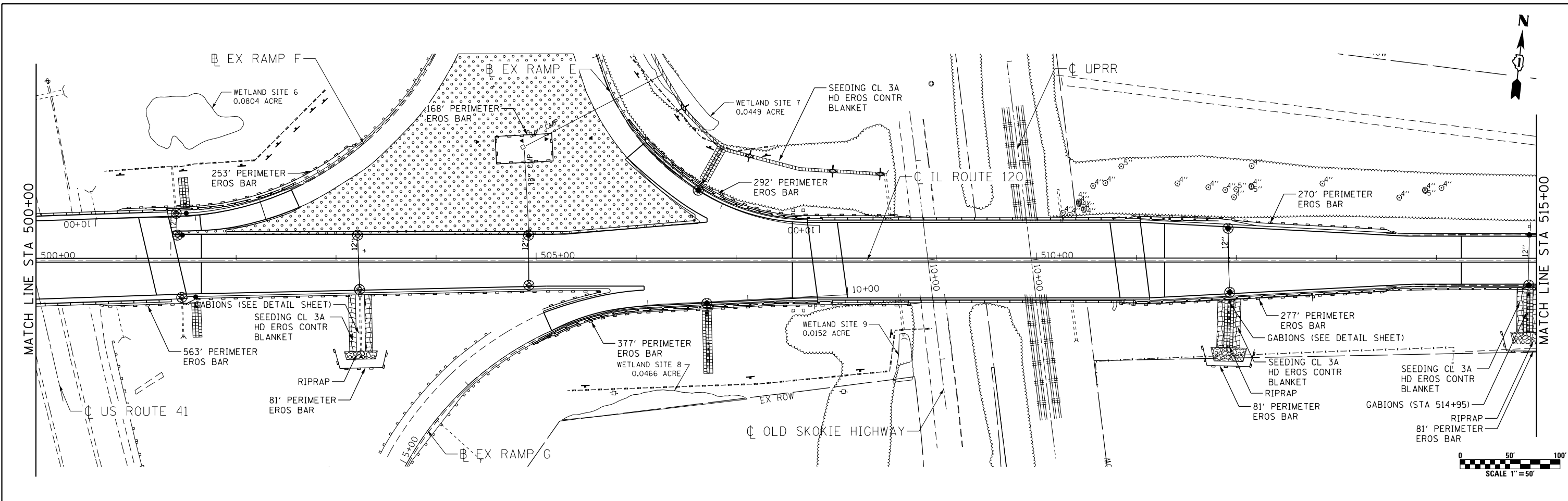
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	DRAWN - FJS	REVISED -
	CHECKED - RJD	REVISED -
	DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 485+00 TO STA. 500+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	43
CONTRACT NO. 60X39			ESC-1	
ILLINOIS FED. AID PROJECT				



**LEGEND:**

SEEDING CL 2A	STONE RIPRAP CL A4 (TYP)	PERMANENT SEEDING WITH HEAVY DUTY EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)
SEEDING CL 3A		GABION BASKET SLOPE STABILIZATION	TEMPORARY CONSTRUCTION FENCE	TEMPORARY DITCH CHECK	24" WETLAND AREA DO NOT ENTER 15"

FILE NAME: D160X39-sht-eros\_02  
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**Primera**  
 100 S. BRACKER DRIVE SUITE 700 CHICAGO IL 60606 P.312-406-0010 F.312-406-0015

DESIGNED - DCC	REVISED -
DRAWN - JFS	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD**  
**EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 500+00 TO STA. 530+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	44
CONTRACT NO. 60X39				

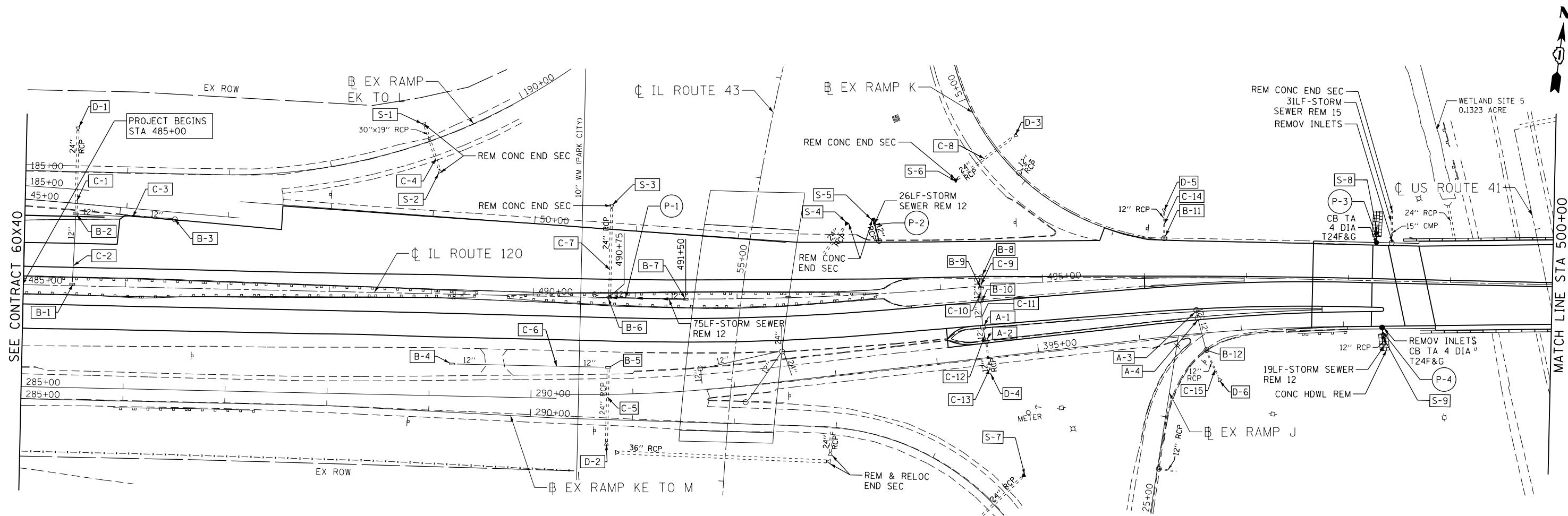
ILLINOIS FED. AID PROJECT

**STRUCTURE SCHEDULE**

NUMBER	STATION	OFFSET	STRUCTURE TYPE	PAY ITEM
S-1	189+00	15.1 LT	PRCF END S EL EQRS 24	54214719
S-2	188+99	29.1 RT	PRCF END S EL EQRS 24	54214719
S-3	490+75	87.5 LT	PRC FLAR END SEC 24	54213669
S-4	493+09	68.5 LT	PRC FLAR END SEC 24	54213669
S-5	493+39	70.6 LT	PRC FLAR END SEC 12	54213657
S-6	04+42	47.2 LT	PRC FLAR END SEC 24	54213669
S-7	294+76	38.3 LT	PRC FLAR END SEC 24	54213669
S-8	498+27	44.5 LT	PRC FLAR END SEC 15	54213660
S-9	498+35	52.6 RT	PRC FLAR END SEC 15	54213660
A-1	494+38	40.6 RT	CB ADJ NEW T24F&G	60255410
A-2	494+41	54.5 RT	CB ADJ NEW T24F&G	60255410
A-3	496+51	31.8 RT	CB ADJ NEW T24F&G	60251740
A-4	496+52	39.6 RT	CB ADJ NEW T24F&G	60251740
B-1	485+48	1.6 LT	CB TO BE CLEANED	60255410
B-2	485+50	70.6 LT	CB TO BE CLEANED	60255410
B-3	486+47	67.4 LT	CB TO BE CLEANED	60255410
B-4	489+22	68.5 RT	CB TO BE CLEANED	60255410
B-5	490+75	68.5 RT	CB TO BE CLEANED	60255410
B-6	490+75	0.1 LT	CB TO BE CLEANED	60255410
B-7	491+50	0.4 RT	CB TO BE CLEANED	60255410
B-8	494+40	8.6 LT	CB TO BE CLEANED	60255410
B-9	494+39	1.9 RT	CB TO BE CLEANED	60255410
B-10	494+38	13.9 RT	CB TO BE CLEANED	60255410
B-11	496+20	39.0 LT	CB TO BE CLEANED	60255410
B-12	496+60	71.0 RT	CB TO BE CLEANED	60255410
D-1	485+50	152.3 LT	CLEAN EX END SECTION	X0325893
D-2	490+75	141.4 RT	CLEAN EX END SECTION	X0325893
D-3	04+41	21.5 RT	CLEAN EX END SECTION	X0325893
D-4	494+42	86.7 RT	CLEAN EX END SECTION	X0325893
D-5	496+20	64.3 LT	CLEAN EX END SECTION	X0325893
D-6	496+73	97.9 RT	CLEAN EX END SECTION	X0325893

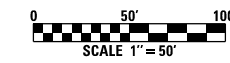
**PIPE SCHEDULE**

NUMBER	UPSTREAM		DOWNSTREAM		SIZE	LENGTH	PIPE TYPE	PAY ITEM
	STATION	OFFSET	STATION	OFFSET				
P-1	491+50	0.4 RT	490+75	0.1 LT	12"	75	RCP	550A0940
P-2	493+42	51.8 LT	493+39	70.6 LT	12"	19	RCP	550A0940
P-3	498+27	37.5 LT	498+27	44.5 LT	15"	7	RCP	550A0960
P-4	498+34	45.7 RT	498+35	52.6 RT	15"	7	RCP	550A0960
C-1	493+39	70.6 LT	485+50	152.3 LT	24"	82	RCP	X5538200
C-2	485+50	70.6 LT	485+48	1.6 LT	12"	69		X5537800
C-3	485+50	70.6 LT	486+47	67.4 LT	12"	98		X5537800
C-4	189+00	15.1 LT	188+99	29.1 RT	12"	44		X5537800
C-5	490+75	68.5 RT	490+75	141.4 RT	24"	73	RCP	X5538200
C-6	489+22	68.5 RT	490+75	68.5 RT	12"	153		X5537800
C-7	490+75	0.1 LT	490+75	87.5 LT	24"	87	RCP	X5538200
C-8	04+41	21.5 RT	04+42	47.2 LT	24"	69	RCP	X5538200
C-9	494+40	8.6 LT	494+39	1.9 RT	12"	11	RCP	X5537800
C-10	494+39	1.9 RT	494+38	13.9 RT	12"	12	RCP	X5537800
C-11	494+38	13.9 RT	494+38	40.6 RT	12"	27	RCP	X5537800
C-12	494+38	40.6 RT	494+41	54.5 RT	12"	14	RCP	X5537800
C-13	494+41	54.5 RT	494+42	86.7 RT	12"	32	RCP	X5537800
C-14	496+20	39.0 LT	496+20	64.3 LT	12"	25	RCP	X5537800
C-15	496+60	71.0 RT	496+73	97.9 RT	12"	30	RCP	X5537800



**LEGEND:**

- [A-X] CB ADJ NEW T24F&G (60251740)
- [B-X] STRUCTURE TO BE CLEANED
- [C-X] STORM SEWER TO BE CLEANED
- [D-X] CLEAN EXISTING END SECTION (X0325893)
- [GABIONS] GABIONS (28400100) (SEE DETAIL SHEET)
- [PROPOSED STORM SEWER] PROPOSED STORM SEWER
- [PROPOSED CATCH BASIN] PROPOSED CATCH BASIN
- [PRECAST RC FLARED END SECTION] PRECAST RC FLARED END SECTION
- [P-X] STORM SEWER PIPE NUMBER
- [S-X] STORM SEWER STRUCTURE NUMBER
- [RIPRAP] RIPRAP WITH FILTER FABRIC (28100107) (28200200)
- [EXISTING CATCH BASIN] EXISTING CATCH BASIN
- [EXISTING INLET] EXISTING INLET
- [EXISTING PRECAST RC FLARED END SECTION] EXISTING PRECAST RC FLARED END SECTION
- [TEMPORARY INFORMATION SIGNING] TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)
- [WETLAND AREA DO NOT ENTER] WETLAND AREA DO NOT ENTER

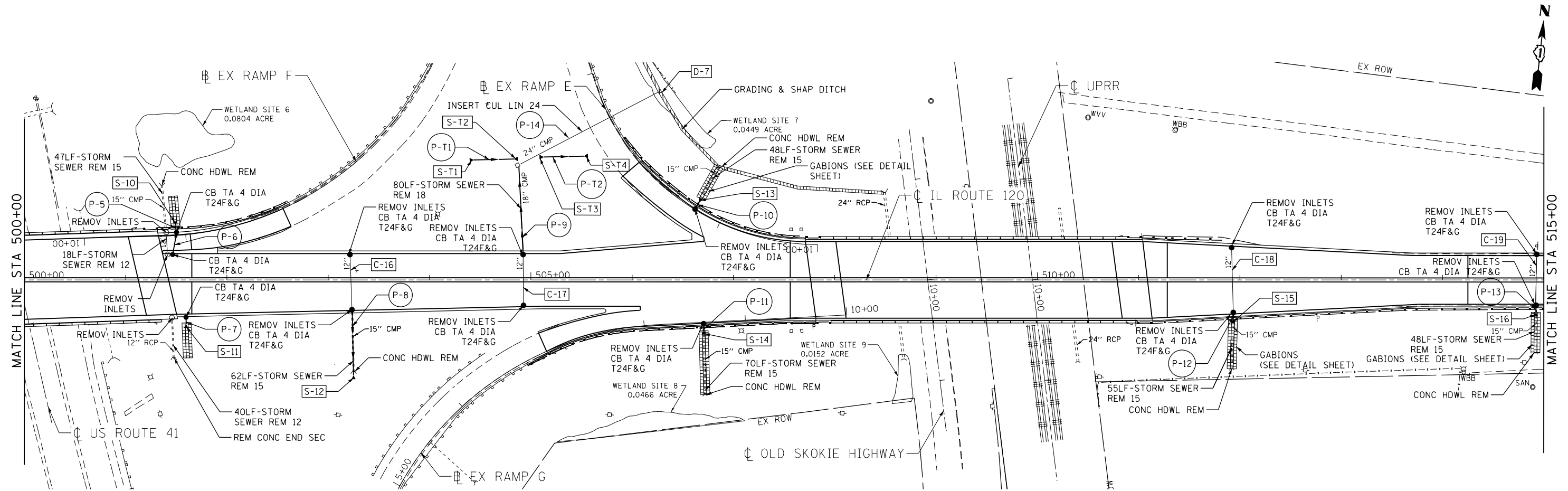


**STRUCTURE SCHEDULE**

NUMBER	STATION	OFFSET	STRUCTURE TYPE	PAY ITEM
S-10	501+49	53.9 LT	PRC FLAR END SEC 15	54213660
S-11	501+60	43.7 RT	PRC FLAR END SEC 15	54213660
S-12	503+25	94.2 RT	PRC FLAR END SEC 15	54213660
S-T1	504+43	118.4 LT	TEMP END SECTION	X0322938
S-T2	504+83	119.3 LT	TEMP END SECTION	X0322938
S-T3	505+12	121.2 LT	TEMP END SECTION	X0322938
S-T4	505+52	122.1 LT	TEMP END SECTION	X0322938
S-13	11+28	8.3 RT	PRC FLAR END SEC 15	54213660
S-14	506+71	50.3 RT	PRC FLAR END SEC 15	54213660
S-15	511+93	39.2 RT	PRC FLAR END SEC 15	54213660
S-16	514+92	31.9 RT	PRC FLAR END SEC 15	54213660
D-7	12+54	55.4 RT	CLEAN EX END SECTION	X0325893

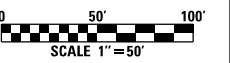
**PIPE SCHEDULE**

NUMBER	UPSTREAM		DOWNSTREAM		SIZE	LENGTH	PIPE TYPE	PAY ITEM
	STATION	OFFSET	STATION	OFFSET				
P-5	501+50	47.3 LT	501+49	53.9 LT	15"	7	RCP	550A0960
P-6	501+46	25.1 LT	501+50	47.3 LT	15"	22	RCP	550A0960
P-7	501+60	36.8 LT	501+60	43.7 RT	15"	7	RCP	550A0960
P-8	503+24	29.2 RT	503+25	94.2 RT	15"	65	RCP	550A0960
P-9	504+92	25.0 LT	504+88	111.7 LT	15"	82	RCP	550A0960
P-10	11+28	0.5 RT	11+28	8.3 RT	15"	7	RCP	550A0960
P-11	506+71	43.3 RT	506+71	50.3 RT	15"	7	RCP	550A0960
P-12	511+93	32.2 RT	511+93	39.2 RT	15"	7	RCP	550A0960
P-13	514+92	24.9 RT	514+92	31.9 RT	15"	7	RCP	550A0960
P-14	504+90	114.3 LT	506+27	186.0 LT	24"	155	CMP	54390180
P-T1	504+43	118.4 LT	504+83	119.3 LT	15"	50	RCP	X550A566
P-T2	505+12	121.2 LT	505+52	122.1 LT	15"	50	RCP	X550A566
C-16	503+21	25.0 LT	503+24	29.2 RT	12"	54	RCP	X5537800
C-17	504+93	25.1 RT	504+92	25.0 LT	12"	50	RCP	X5537800
C-18	511+92	31.8 LT	511+93	32.2 RT	12"	64	RCP	X5537800
C-19	514+93	25.3 LT	514+92	31.9 RT	12"	51	RCP	X5537800



**LEGEND:**

- [A-X] CB ADJ NEW T24F&G (60251740)
- [B-X] STRUCTURE TO BE CLEANED
- [C-X] STORM SEWER TO BE CLEANED
- [D-X] CLEAN EXISTING END SECTION (X0325893)
- [GABIONS] GABIONS (28400100) (SEE DETAIL SHEET)
- [PROPOSED] PROPOSED STORM SEWER
- [PROPOSED CB] PROPOSED CATCH BASIN
- [PRECAST] PRECAST RC FLARED END SECTION
- [P-X] STORM SEWER PIPE NUMBER
- [S-X] STORM SEWER STRUCTURE NUMBER
- [RIPRAP] RIPRAP WITH FILTER FABRIC (28100107) (28200200)
- [CATCH BASIN] EXISTING CATCH BASIN
- [INLET] EXISTING INLET
- [PRECAST RC] EXISTING PRECAST RC FLARED END SECTION
- [SIGNING] TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)
- [WETLAND] WETLAND AREA DO NOT ENTER



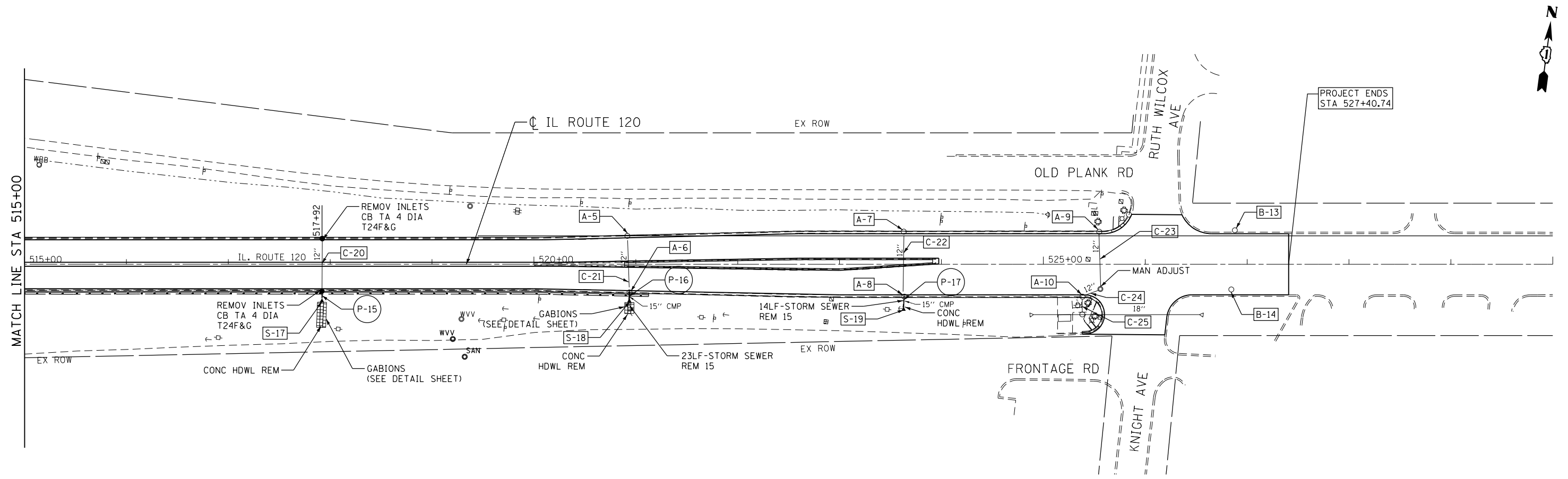
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		DRAWN - JFS	REVISED -			SCALE: 1"=50'    SHEET NO. 2 OF 3 SHEETS    STA. 500+00    TO STA. 515+00			CONTRACT NO. 60X39	
		CHECKED - RJD	REVISED -	ILLINOIS FED. AID PROJECT						
		DATE - 3/3/2017	REVISED -							

**STRUCTURE SCHEDULE**

NUMBER	STATION	OFFSET	STRUCTURE TYPE	PAY ITEM
S-17	517+92	33.5 RT	PRC FLAR END SEC 15	54213660
S-18	520+94	33.6 RT	PRC FLAR END SEC 15	54213660
S-19	523+63	42.0 RT	PRC FLAR END SEC 15	54213660
A-5	520+92	27.9 LT	CB ADJ NEW T24F&G	60251740
A-6	520+94	26.7 RT	CB ADJ NEW T24F&G	60251740
A-7	523+63	32.1 LT	CB ADJ NEW T24F&G	60251740
A-8	523+63	31.3 RT	CB ADJ NEW T24F&G	60251740
A-9	525+55	32.0 LT	CB ADJ NEW T24F&G	60251740
A-10	525+38	31.8 RT	CB ADJ NEW T24F&G	60251740
B-13	526+88	33.4 LT	CB TO BE CLEANED	60255410
B-14	526+84	24.8 RT	CB TO BE CLEANED	60255410

**PIPE SCHEDULE**

NUMBER	UPSTREAM		DOWNSTREAM		SIZE	LENGTH	PIPE TYPE	PAY ITEM
	STATION	OFFSET	STATION	OFFSET				
P-15	517+92	26.3 RT	517+92	33.5 RT	15"	7	RCP	550A0960
P-16	520+94	26.7 RT	520+94	33.6 RT	15"	7	RCP	550A0960
P-17	523+63	31.3 RT	523+63	42.0 RT	15"	14	RCP	550A0960
C-20	517+92	25.3 LT	517+92	33.5 RT	12"	52	RCP	X5537800
C-21	520+92	27.9 LT	520+94	33.6 RT	12"	55	RCP	X5537800
C-22	523+63	32.1 LT	523+63	42.0 RT	12"	63	RCP	X5537800
C-23	525+55	32.0 LT	525+56	24.3 RT	12"	54		X5537800
C-24	525+56	24.3 RT	525+38	31.8 RT	12"	19		X5537800
C-25	525+38	31.8 RT	525+38	49.2 RT	12"	17		X5537800



**LEGEND:**

- [A-X] CB ADJ NEW T24F&G (60251740)
- [B-X] STRUCTURE TO BE CLEANED
- [C-X] STORM SEWER TO BE CLEANED
- [D-X] CLEAN EXISTING END SECTION (X0325893)
- [Grid Symbol] GABIONS (28400100) (SEE DETAIL SHEET)
- [Arrow Symbol] PROPOSED STORM SEWER
- [Circle Symbol] PROPOSED CATCH BASIN
- [Triangle Symbol] PRECAST RC FLARED END SECTION
- [P-X] STORM SEWER PIPE NUMBER
- [S-X] STORM SEWER STRUCTURE NUMBER
- [Square with X Symbol] RIPRAP WITH FILTER FABRIC (28100107) (28200200)
- [Circle with X Symbol] EXISTING CATCH BASIN
- [Square with X Symbol] EXISTING INLET
- [Triangle with X Symbol] EXISTING PRECAST RC FLARED END SECTION
- [Square with X Symbol] TEMPORARY INFORMATION SIGNING (FOR WETLAND AREAS)
- [Wetland Area Symbol] WETLAND AREA DO NOT ENTER



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CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

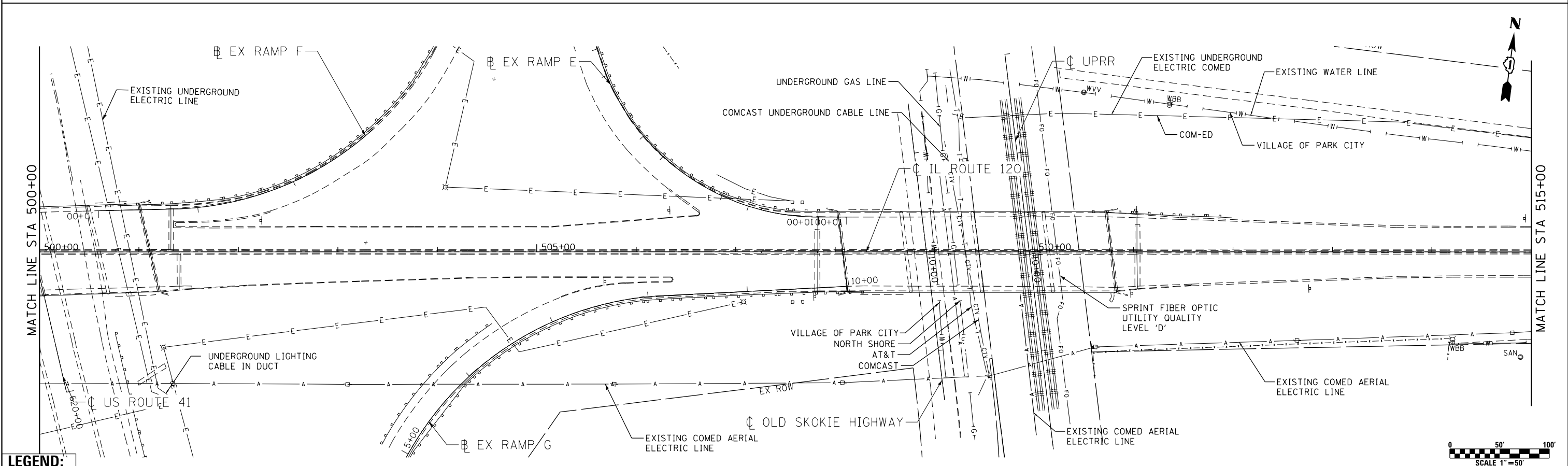
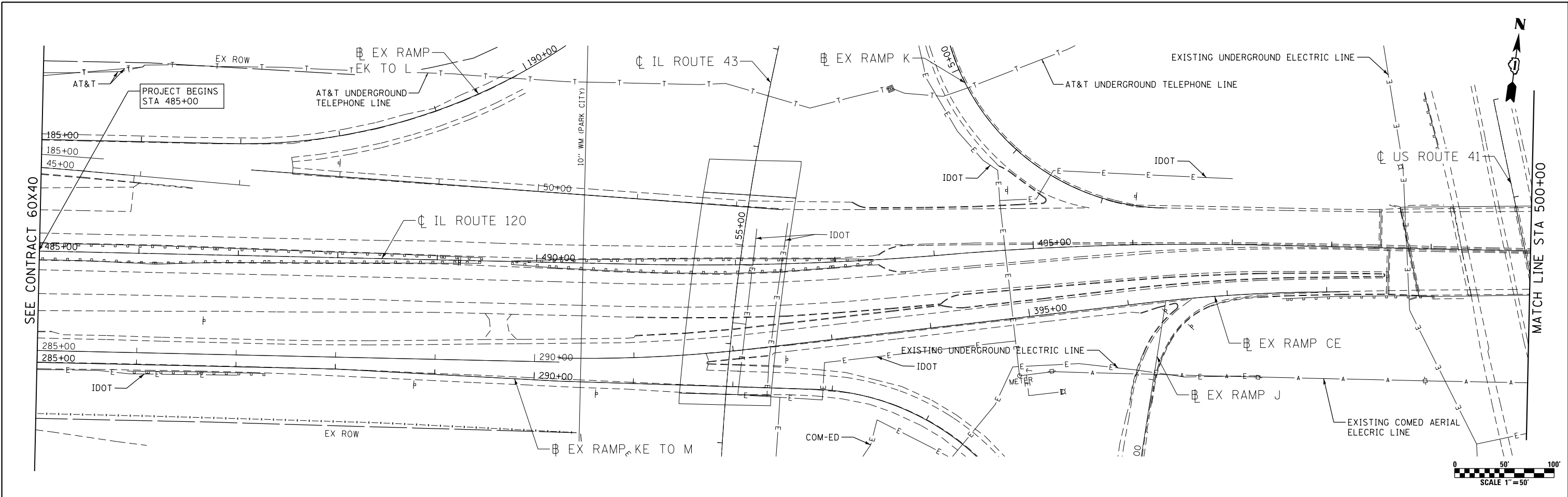
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
DRAINAGE PLAN**

SCALE: 1"=50' SHEET NO. 3 OF 3 SHEETS STA. 515+00 TO STA. 530+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	47
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

DR-3



**LEGEND:**

—T—	EXISTING UNDERGROUND TELEPHONE	—W—	EXISTING UNDERGROUND WATER	—CTV—	EXISTING UNDERGROUND CABLE TV	⊗	EXISTING LIGHTING HIGH MAST POLE 6	—○—	EXISTING LIGHTING LIGHT UNIT 1	⊠	EXISTING LIGHTING UNDERPASS LUMINAIRE
—E—	EXISTING UNDERGROUND ELECTRIC	—G—	EXISTING UNDERGROUND GAS	---	EXISTING CABLE IN DUCT	⊗	EXISTING LIGHTING HIGH MAST POLE 4	—○—	EXISTING LIGHTING LIGHT UNIT TWIN 1	⊠	EXISTING LIGHTING CONTROLLER

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CHECKED -	RJD	REVISED -	
DATE -	3/3/2017	REVISED -	

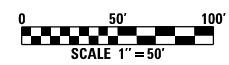
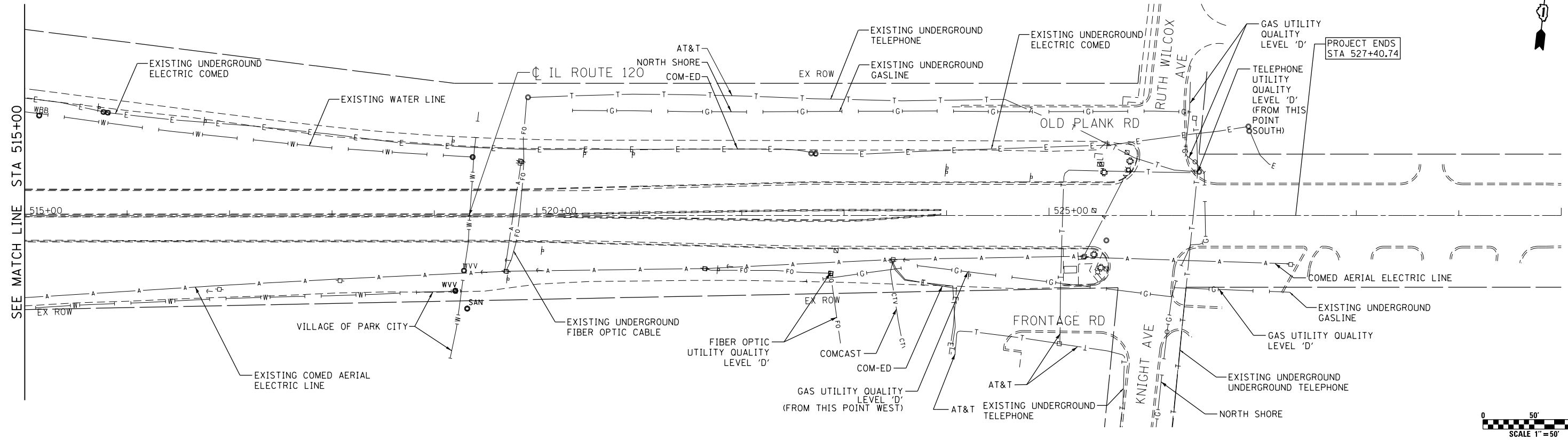
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
UTILITY PLAN**  
SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 485+00 TO STA. 515+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	48
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

UT-1





**LEGEND:**

- T— EXISTING UNDERGROUND TELEPHONE      —W— EXISTING UNDERGROUND WATER      —ctv— EXISTING UNDERGROUND CABLE TV      ☼ EXISTING LIGHTING HIGH MAST POLE 6      ⚡ EXISTING LIGHTING LIGHT UNIT 1      ☒ EXISTING LIGHTING UNDERPASS LUMINARE
- E— EXISTING UNDERGROUND ELECTRIC      —G— EXISTING UNDERGROUND GAS      — — — EXISTING CABLE IN DUCT      ⚡ EXISTING LIGHTING HIGH MAST POLE 4      ⚡ EXISTING LIGHTING LIGHT UNIT TWIN 1      ☒ EXISTING LIGHTING CONTROLLER

FILE NAME  
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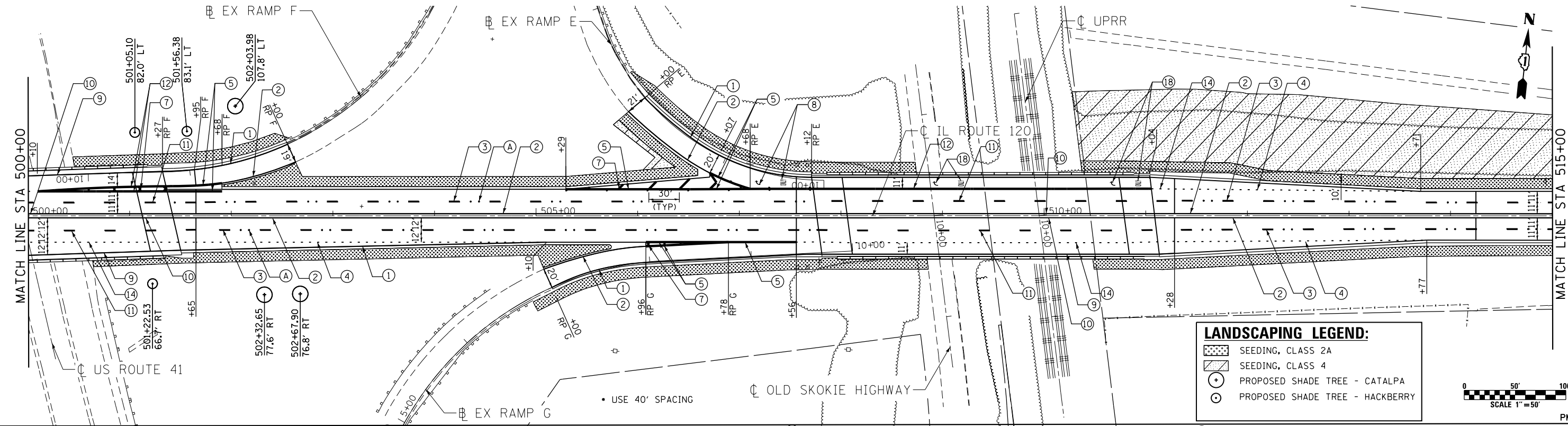
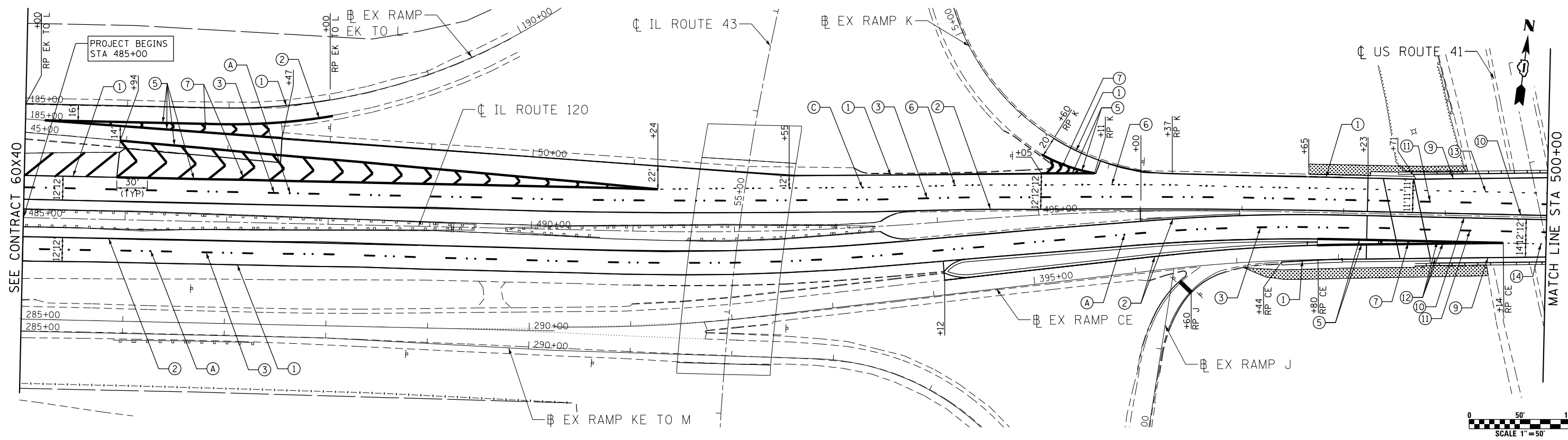
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DRAWN - VEA	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
UTILITY PLAN**

SCALE: 1"=50'      SHEET NO. 2 OF 2 SHEETS      STA. 515+00      TO STA. 530+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	49
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				



- PAVEMENT MARKING LEGEND:**
- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE (SOLID) (78000200)
  - ② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW (SOLID) (78000200)
  - ③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE (30' SKIP - 10' DASH) (78000200)
  - ④ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE (2' DASH-6' SKIP) (78000400)
  - ⑤ THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE (SOLID) (78000500)
  - ⑥ THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE (9' SKIP-3' DASH) (78000500)
  - ⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE (SOLID) (78000600)
  - ⑧ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (78000100)
  - ⑨ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE (SOLID) (78009004)
  - ⑩ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW (SOLID) (78009004)
  - ⑪ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE (30' SKIP - 10' DASH) (78009004)
  - ⑫ MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE (SOLID) (78009008)
  - ⑬ MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE (9' SKIP-3' DASH) (78009008)
  - ⑭ MODIFIED URETHANE PAVEMENT MARKING - LINE 6" WHITE (2' SKIP-6' DASH) (78009006)
  - ⑮ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE (SOLID) (78000650)
  - ⑯ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE (SOLID) (78000400)
  - ⑰ THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW (SOLID) (78000600)
  - ⑱ MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS (78000900)
- LANDSCAPING LEGEND:**
- SEEDING, CLASS 2A
  - SEEDING, CLASS 4
  - ⊕ PROPOSED SHADE TREE - CATALPA
  - ⊙ PROPOSED SHADE TREE - HACKBERRY
  - Ⓐ RAISED PAVEMENT MARKER REFLECTOR (ONE-WAY CRYSTAL MARKER, 2 EACH @ 80 CENTER) (78100100)
  - Ⓑ NOT USED
  - Ⓒ RAISED PAVEMENT MARKER REFLECTOR (ONE-WAY CRYSTAL MARKER, 1 EACH @ 36 CENTER) (78100100)

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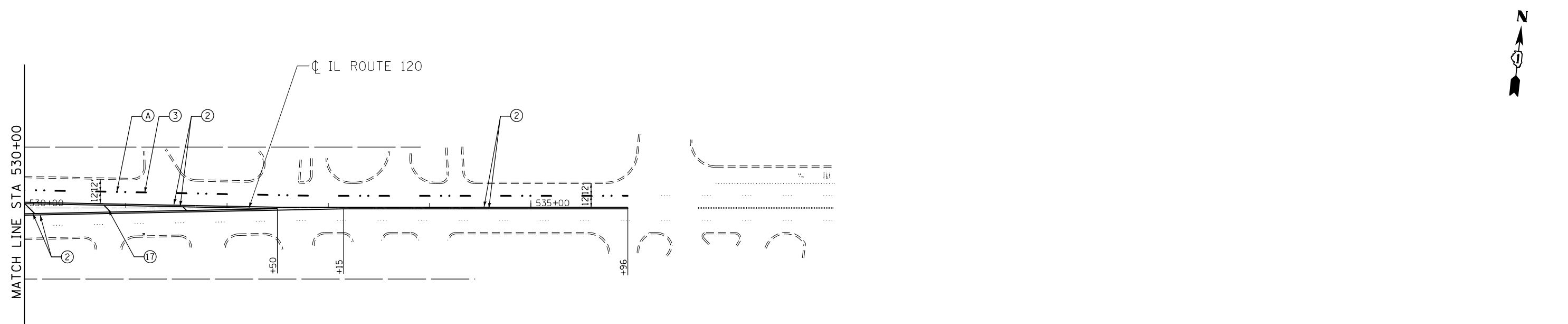
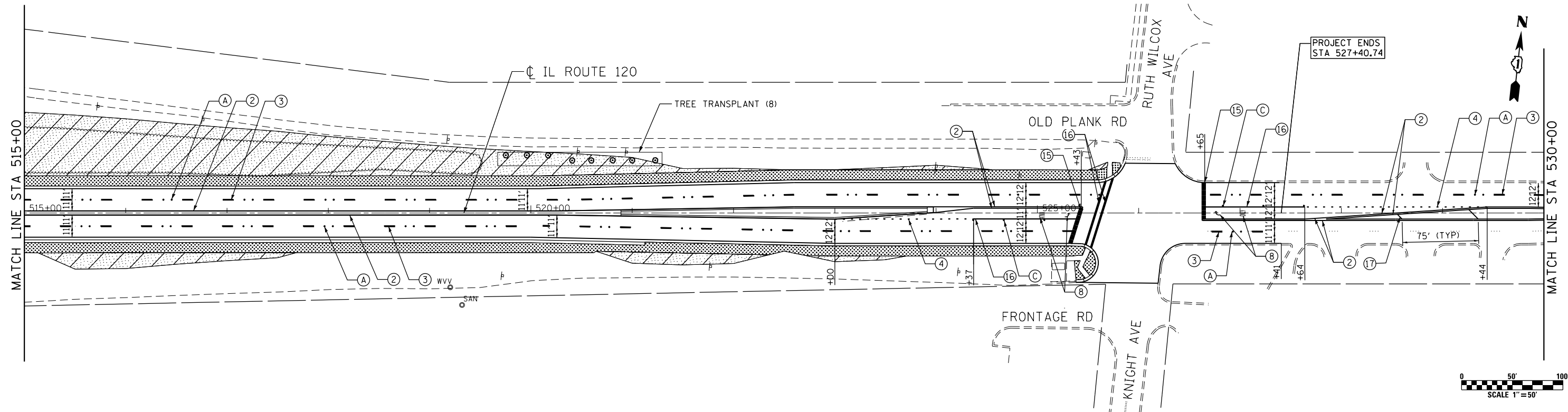
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CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
 PAVEMENT MARKING AND LANDSCAPING PLAN**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 497+00 TO STA. 515+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	50
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				



**LANDSCAPING LEGEND:**

	SEEDING, CLASS 2A
	SEEDING, CLASS 4
	PROPOSED SHADE TREE - CATALPA
	PROPOSED SHADE TREE - HACKBERRY

**PAVEMENT MARKING LEGEND:**

① THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE (SOLID) (78000200)	⑤ THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE (SOLID) (78000500)	⑪ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE (30' SKIP - 10' DASH) (78009004)	⑰ THERMOPLASTIC PAVEMENT MARKING - LINE 12" YELLOW (SOLID) (78000600)
② THERMOPLASTIC PAVEMENT MARKING - LINE 4" YELLOW (SOLID) (78000200)	⑥ THERMOPLASTIC PAVEMENT MARKING - LINE 8" WHITE (9' SKIP-3' DASH) (78000500)	⑫ MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE (SOLID) (78009008)	⑱ MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS (78000900)
③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" WHITE (30' SKIP - 10' DASH) (78000200)	⑦ THERMOPLASTIC PAVEMENT MARKING - LINE 12" WHITE (SOLID) (78000600)	⑬ MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE (9' SKIP-3' DASH) (78009008)	Ⓐ RAISED PAVEMENT MARKER REFLECTOR (ONE-WAY CRYSTAL MARKER, 2 EACH @ 80 CENTER) (78100100)
④ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE (2' DASH-6' SKIP) (78000400)	⑧ THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (78000100)	⑭ MODIFIED URETHANE PAVEMENT MARKING - LINE 6" WHITE (2' SKIP-6' DASH) (78009006)	Ⓑ NOT USED
	⑨ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE (SOLID) (78009004)	⑮ THERMOPLASTIC PAVEMENT MARKING - LINE 24" WHITE (SOLID) (78000650)	Ⓒ RAISED PAVEMENT MARKER REFLECTOR (ONE-WAY CRYSTAL MARKER, 1 EACH @ 36 CENTER) (78100100)
	⑩ MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW (SOLID) (78009004)	⑯ THERMOPLASTIC PAVEMENT MARKING - LINE 6" WHITE (SOLID) (78000400)	

FILE NAME  
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DESIGNED - CMD	REVISED -
DRAWN - VEA	REVISED -
CHECKED - RJD	REVISED -
DATE - 3/3/2017	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IL ROUTE 120 OVER US 41, UPRR & OLD SKOKIE ROAD  
PAVEMENT MARKING AND LANDSCAPING PLAN  
SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 515+00 TO STA. 535+82

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	51
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

PM-2

Bench Mark: Chiseled "□" in N.W. corner of S.W. wingwall of bridge over US Rte. 41, 48.4' Rt. of Sta. 499+57.86 Elev. 723.93' NAVD88.

Existing Structure: Structure Number 049-0050, originally built in 1959 as FA Rte 21 under section 12HB & 12HF. In 1970, a portion of the south fascia beam above northbound US 41 was replaced. In 1983, the deck was rehabilitated with partial and full depth repairs. The deck was water proofed and asphalt concrete overlay was provided. The east approach slabs were replaced and expansion joints were repaired. The existing handrails were replaced with 36" New Jersey Type concrete parapets. The structure is a continuous steel beam bridge supported by stub abutments and multi-column piers on pile supported footings. The back to back abutment length is 236'-0" and the out to out width is 89'-9 3/4". Stage Construction shall be utilized to maintain one lane of traffic in each direction at all times.

No salvage.

STATION 499+94.46  
REBUILT 20... BY  
STATE OF ILLINOIS  
F.A.P. RT. 342 SEC. 12(HB&VB)BR  
LOADING HS20  
STRUCTURE NO. 049-0050

Note:  
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**LOADING HS20-44**  
(New Const.)

Allow 25 psf for Future Wearing Surface

**DESIGN SPECIFICATIONS**  
(New Const.)

2002 AASHTO Standard Specifications, 17th Edition

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 36,000 psi (AASHTO M270 Gr. 36)

**EXISTING**

f'c = 1,200 psi (Superstructure)  
f'c = 800 psi (Substructure)  
fy = 33,000 psi (Structural Steel)  
fs = 20,000 psi (Reinforcement)

**SEISMIC DATA**

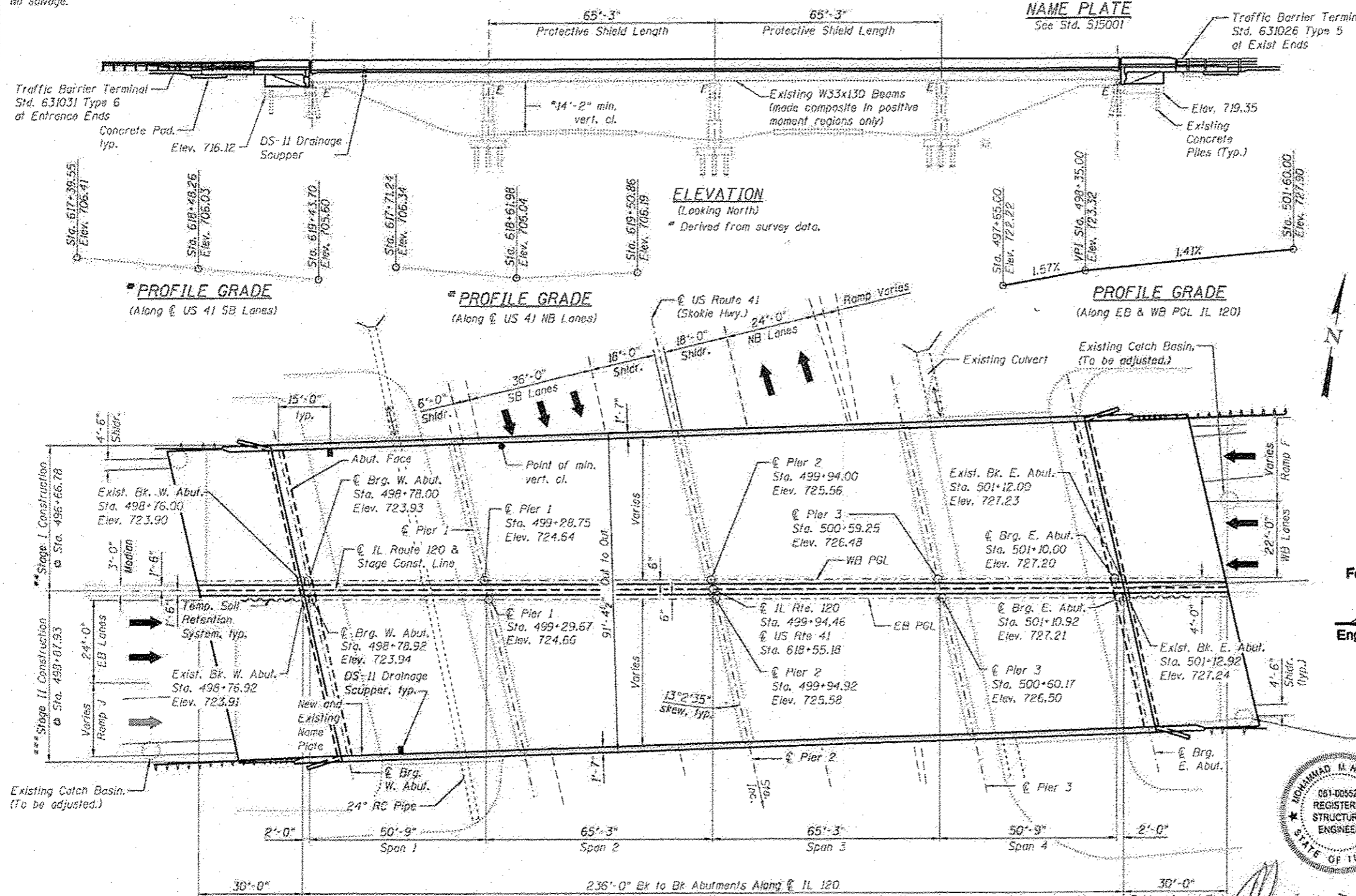
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**SCOPE OF WORK**

1. Remove and replace existing concrete deck slab utilizing stage construction.
2. Provide new strip seal expansion joints at each abutment.
3. Remove and replace existing approach slabs.
4. Remove and reconstruct abutment back walls and wingwalls partially.
5. Make new concrete deck composite by installing shear stud connectors along the positive moment regions.
6. Remove and replace existing roller bearings with elastomeric bearings at both abutments. Provide steel extensions as necessary.
7. Replace end diaphragms as shown.
8. Provide drainage scuppers.
9. Repair and modify substructure using Structural Repair of Concrete.
10. Remove existing lead paint and repaint all structural steel.
11. Slurry fill replacement fill under slopewalls.

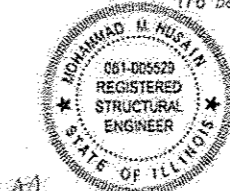
**APPROVED**  
For Structural Adequacy Only

*Signature*  
Engineer of Bridges & Structures

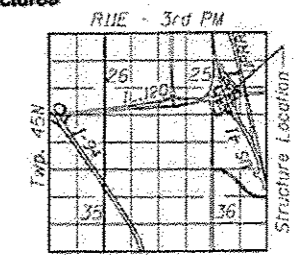


Note:  
All longitudinal dimensions are measured along @ Rte. IL 120.  
All transverse dimensions are measured perpendicular to @ Rte. IL 120.

**PLAN**  
Width varies from 41'-9" at Bk. W. Abut. (Sta. 498+76.46) to 49'-7 1/2" at Bk. E. Abut. (Sta. 501+12.46) along @ IL Rte 120.  
Width varies from 49'-7 1/2" at Bk. W. Abut. (Sta. 498+76.46) to 41'-9" at Bk. E. Abut. (Sta. 501+12.46) along @ IL Rte 120.



*Signature* 2/27/17  
MOHAMMAD M. HUSAIN  
Licensed Structural Engineer  
State of Illinois 061-005629  
Expires 11/30/2018



**GENERAL PLAN AND ELEVATION**  
**IL RTE. 120 OVER US RTE. 41**  
**FAP 342 - SECTION 12(HB&VB)BR**  
**LAKE COUNTY**  
**STA. 499+94.46**  
**STRUCTURE NO. 049-0050**



USER NAME	DESIGNED - JRD	REVISED
CHECKED - MMH	REVISED	
DRAWN - MPS	REVISED	
CHECKED - JRD, MMH, TFC	REVISED	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. 01 OF 30 SHEETS

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-1	LAKE	198	52
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

**INDEX OF STRUCTURAL SHEETS**

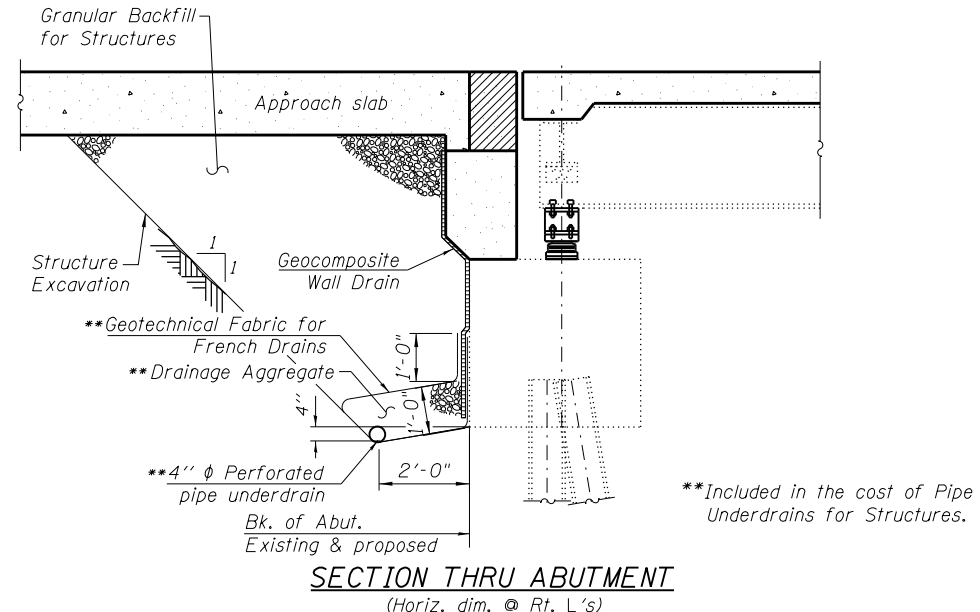
S-01 General Plan and Elevation  
 S-02 General Notes, Bill of Material and Index of Drawings  
 S-03 Stage Construction Details and Temp. Soil Retention System  
 S-04 Temporary Concrete Barrier for Stage Construction  
 S-05 Top of Slab Elevations  
 S-06 Top of Slab Elevations 1  
 S-07 Top of Slab Elevations 2  
 S-08 Top of Slab Elevations 3  
 S-09 Top of Slab Elevations 4  
 S-10 West Approach Top of Slab Elevations  
 S-11 East Approach Top of Slab Elevations  
 S-12 Superstructure Plan & Cross Section  
 S-13 Superstructure Details & Bill of Material  
 S-14 Superstructure Parapet Elevation & Details  
 S-15 East & West Approach Slab Plan & Details  
 S-16 Bridge Approach Slab Details  
 S-17 Preformed Joint Strip Seal  
 S-18 Framing Plan & Details  
 S-19 Beam Details  
 S-20 Elastomeric Bearing Type II  
 S-21 East and West Abutments and Wingwalls Removal  
 S-22 West Abutment Repair & Modification Details  
 S-23 East Abutment Repair & Modification Details  
 S-24 East & West Abutment & Wingwalls Details  
 S-25 Pier 1 Repair Details  
 S-26 Pier 2 Repair Details  
 S-27 Pier 3 Repair Details  
 S-28 Bar Splicer Assembly and Mechanical Splicer Details  
 S-29 Slopewall Repair Details  
 S-30 Drainage Scupper, DS-II

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	-	49.7	49.7
Removal of Existing Concrete Deck No. 1	Each	1	-	1
Structure Excavation	Cu. Yd.	-	284	284
Concrete Structures	Cu. Yd.	-	94.8	94.8
Protective Shield	Sq. Yd.	214	-	214
Concrete Superstructure	Cu. Yd.	951.5	-	951.5
Bridge Deck Grooving	Sq. Yd.	2,714	-	2,714
Protective Coat	Sq. Yd.	3,154	-	3,154
Furnishing and Erecting Structural Steel	Pound	5,850	-	5,850
Stud Shear Connectors	Each	12,000	-	12,000
Reinforcement Bars, Epoxy Coated	Pound	270,830	8,680	279,510
Bar Splicers	Each	901	212	1,113
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	184	-	184
Elastomeric Bearing Assembly, Type II	Each	-	32	32
Anchor Bolts, 1"	Each	-	64	64
Concrete Sealer	Sq. Ft.	-	1,353	1,353
Epoxy Crack Injection	Foot	-	67	67
Geocomposite Wall Drain	Sq. Yd.	-	155	155
Slopewall Crack Sealing	Foot	-	115	115
Granular Backfill for Structures	Cu. Yd.	-	186	186
Jack and Remove Existing Bearings	Each	32	-	32
Containment and Disposal of Lead Paint Cleaning Residues No. 1	L. Sum	1	-	1
Cleaning and Painting Steel Bridge No. 1	L. Sum	1	-	1
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	31.6	31.6
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	-	1.0	1.0
Drainage Scuppers, DS-II	Each	2	-	2
Pipe Underdrains for Structures, 4"	Foot	-	210	210
Slopewall Repair	Sq. Yd.	-	263	263
Slopewall Slurry Pumping	Cu. Yd.	-	8	8
Temporary Soil Retention System	Sq. Ft.	-	91	91
Structural Steel Removal	Pound	2,280	-	2,280
Protective Shield Removal	L. Sum	1	-	1

**GENERAL NOTES**

- Fastener shall be ASTM A325 Type 1, mechanically galvanized bolt. Bolt  $\frac{7}{8}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
 As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.  
 Any cracks that cannot be removed by grinding  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- 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.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- All new structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1.  
  
 Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Near White Blast Cleaning - SSPC-SP10.  
  
 The designated areas shown in the plan shall be cleaned per Near White Blast Cleaning and shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be reddish brown, Munsell No. 2.5YR 3/4.  
  
 A minimum of two air monitors will be required to monitor abrasive blasting operations at this site. See special provision for "Containment and Disposal of Lead Paint Cleaning Residues."
- Concrete Sealer shall be applied to the face of backwall and bearing seat of the West and East Abutments and to the traffic face of the pier crashwalls and columns as specified in the plans.
- Slipforming of parapets is not allowed.



Note:  
 All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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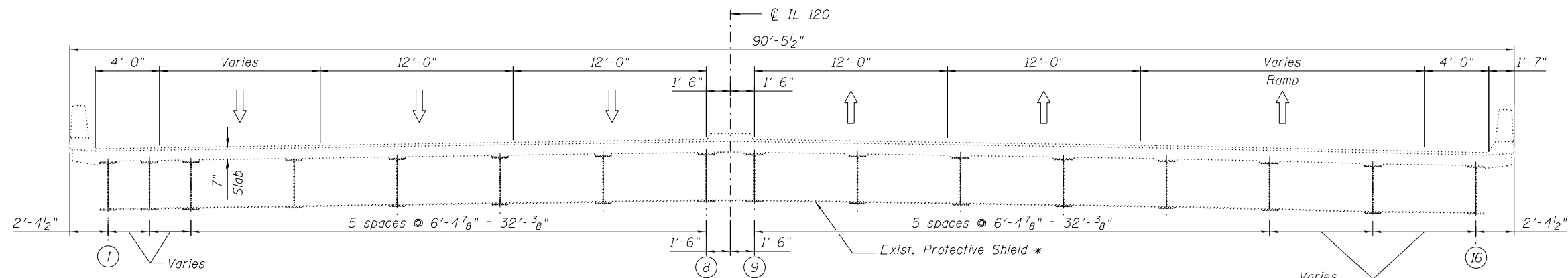


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PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

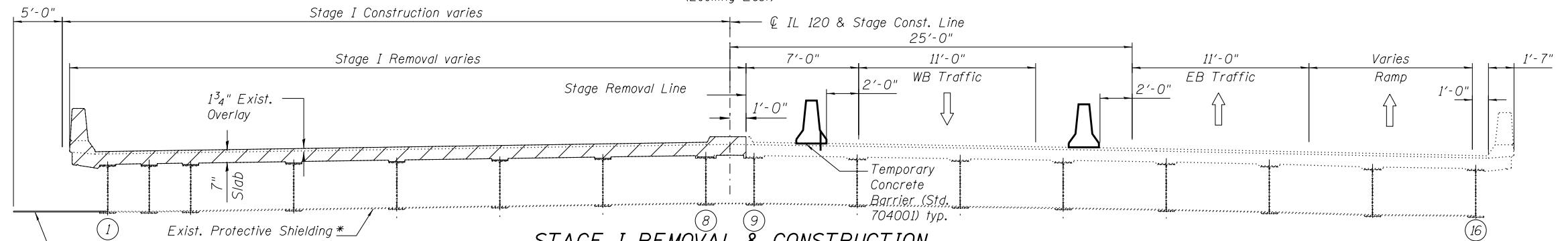
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES BILL OF MATERIAL AND INDEX OF DRAWINGS  
 STRUCTURE NO.049-0050

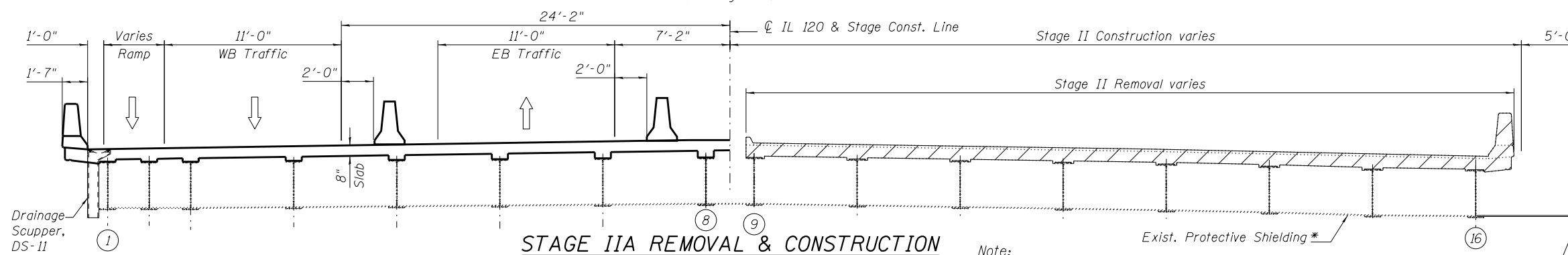
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333	12(HB&VB)BR & RS-7	LAKE	198	53
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



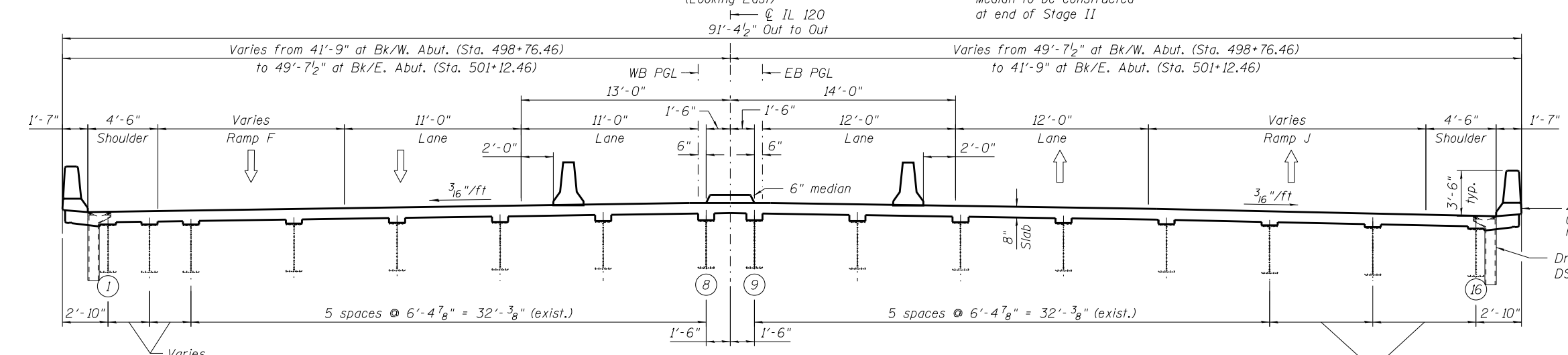
**EXISTING BRIDGE CROSS SECTION**  
(Looking East)



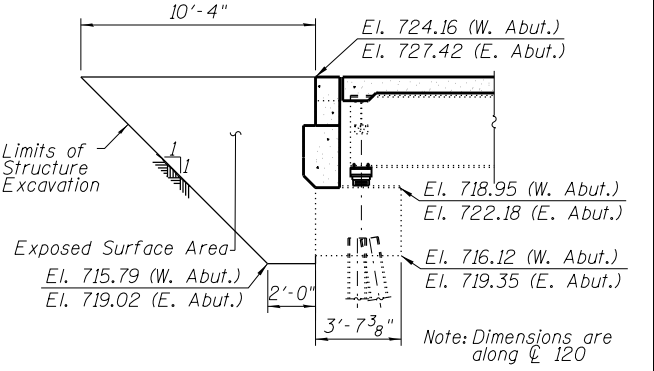
**STAGE I REMOVAL & CONSTRUCTION**  
(Looking East)



**STAGE IIA REMOVAL & CONSTRUCTION**  
(Looking East)

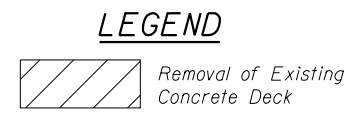


**STAGE IIB CONSTRUCTION**  
(Looking East)



**TEMPORARY SOIL RETENTION SYSTEM**

The information shown for Temporary Soil Retention System is estimated. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



**LEGEND**

Removal of Existing Concrete Deck

Note:  
See Roadway Plans for quantity of Temporary Concrete Barrier

\* Remove existing protective shield prior to cleaning and painting steel. Cost of removing existing protective shield is paid as "Protective Shield Removal". See Special Provisions.

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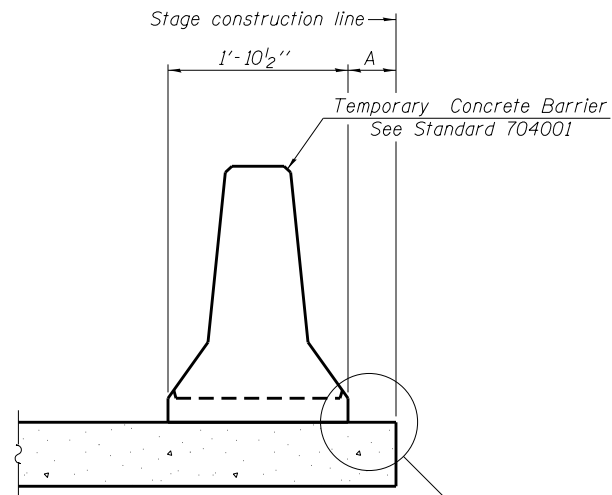


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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

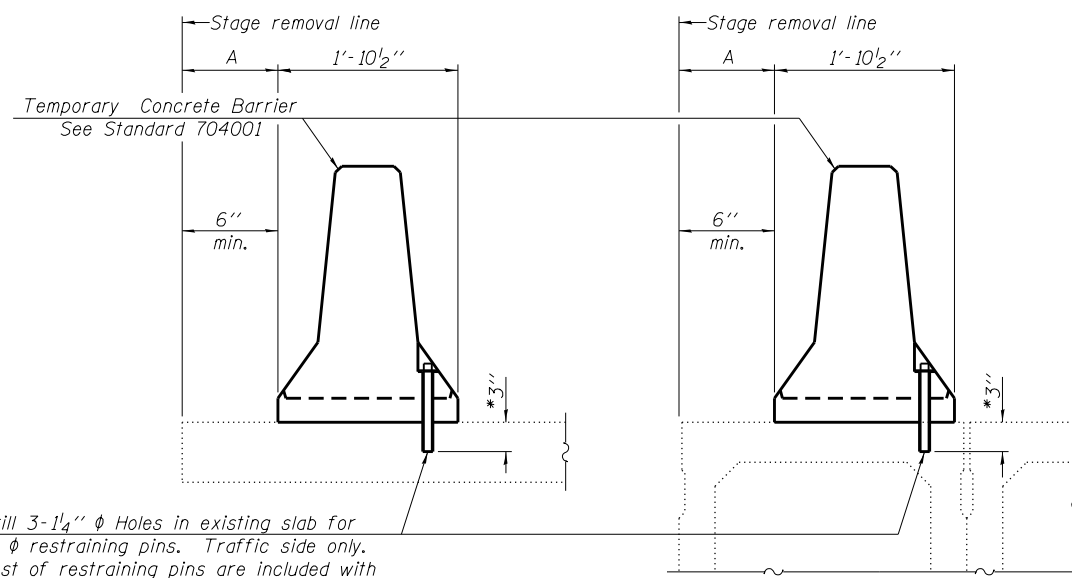
**STAGE CONSTRUCTION DETAILS AND TEMP. SOIL RETENTION SYSTEM**  
STRUCTURE NO.049-0050  
SHEET NO. 03 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	54
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

**NEW SLAB OR NEW DECK BEAM**



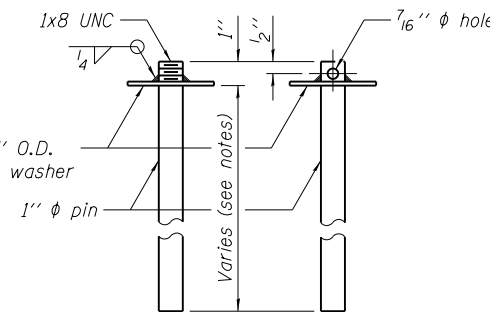
Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

**EXISTING SLAB**

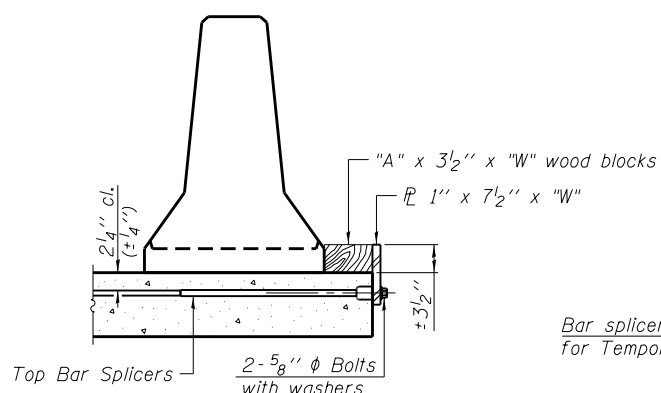
**EXISTING DECK BEAM**

**SECTIONS THRU SLAB OR DECK BEAM**

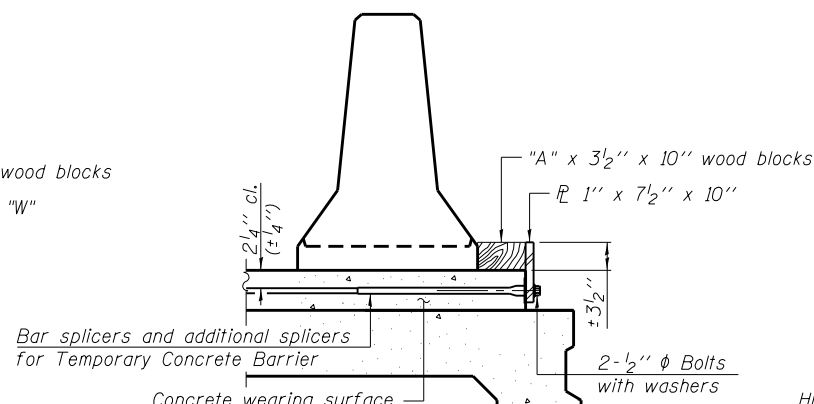


US Std. 1 1/16" I.D. x 2 1/2" O.D. x approx. 8 gauge thick washer

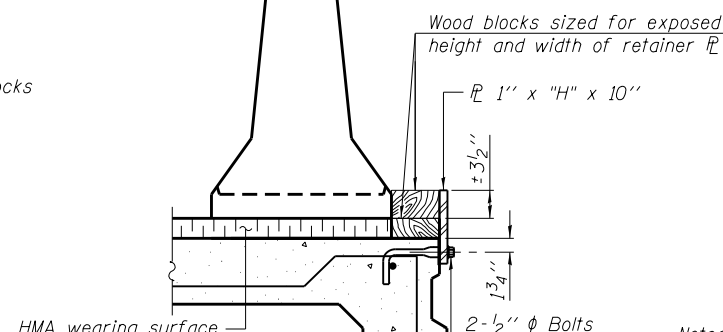
**RESTRAINING PIN**



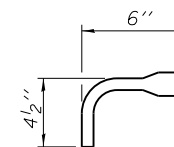
**DETAIL I**



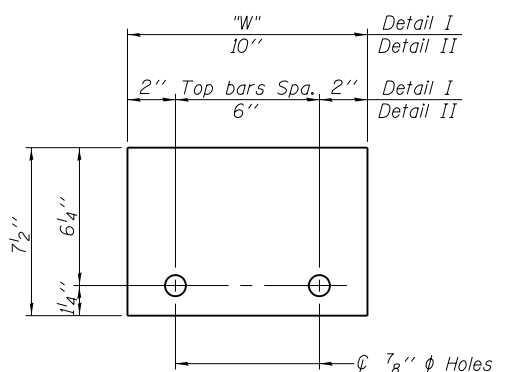
**DETAIL II**



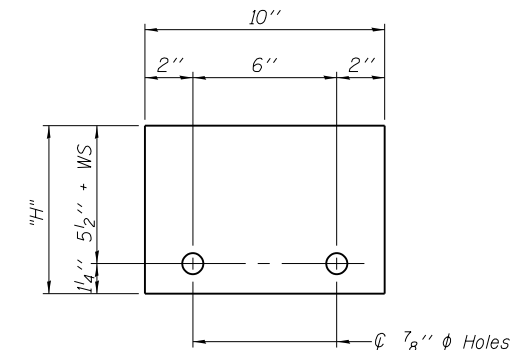
**DETAIL III**



**BAR SPLICER FOR #4 BAR - DETAIL III**



**STEEL RETAINER 1" x 7 1/2" x "W"**  
(Detail I and II)



**STEEL RETAINER 1" x "H" x 10"**  
(Detail III)

**Notes:**  
 Cost of retainer assembly is included with Temporary Concrete Barrier.  
 A retainer assembly shall be located at the approximate  $\phi$  of each temporary concrete barrier.  
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.  
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

**Detail I** - Installation for a new bridge deck or bridge slab.  
**Detail II** - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.  
**Detail III** - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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R-27

11-22-2016



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	CHECKED - MMH	REVISED
PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

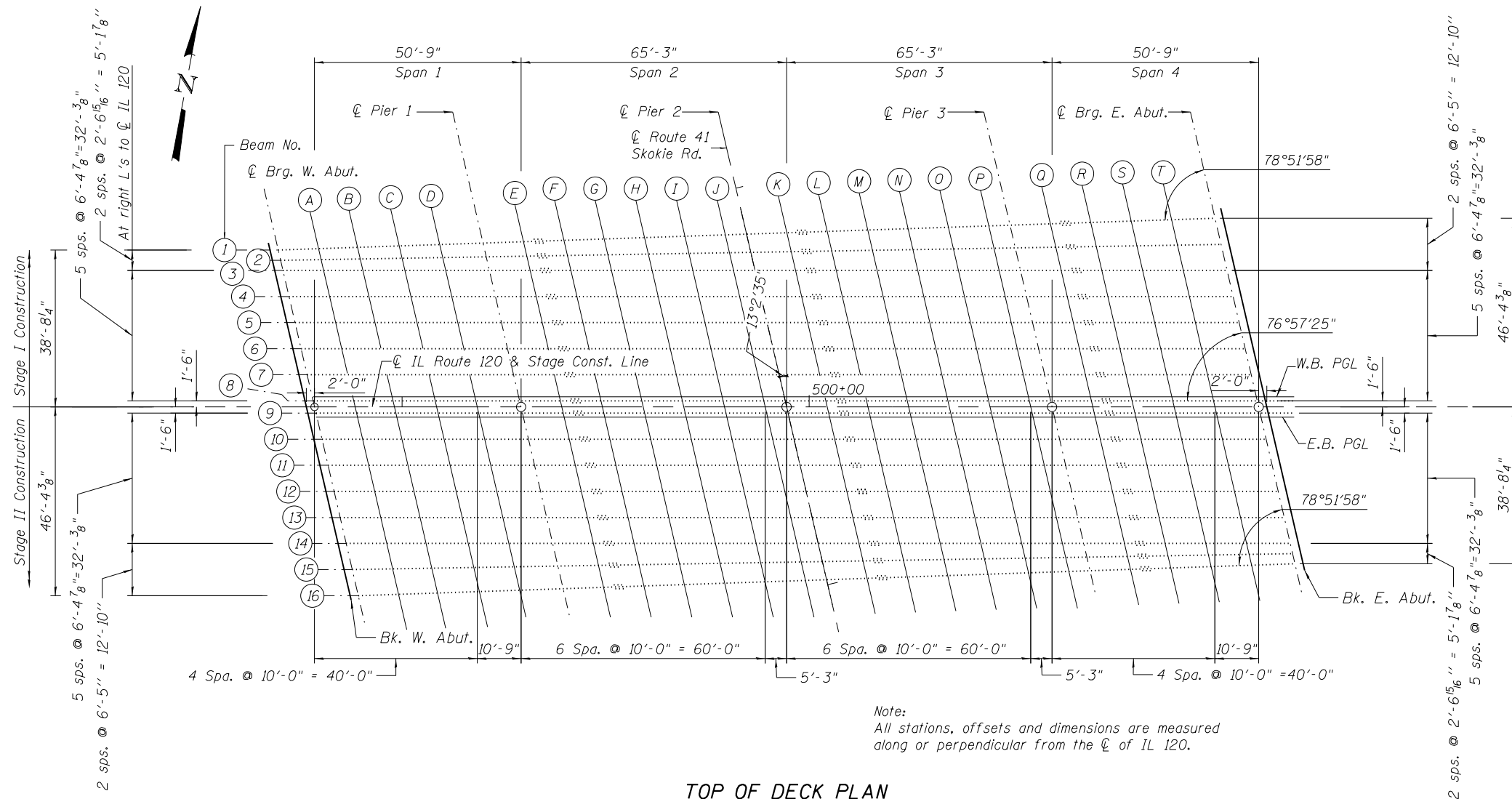
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO.049-0050

SHEET NO. 04 OF 30 SHEETS

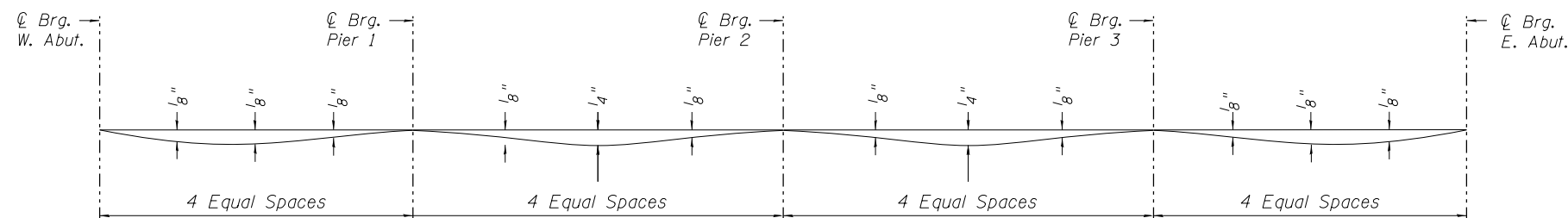
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	55
CONTRACT NO. 60X39				

ILLINOIS FED. AID PROJECT

S-04



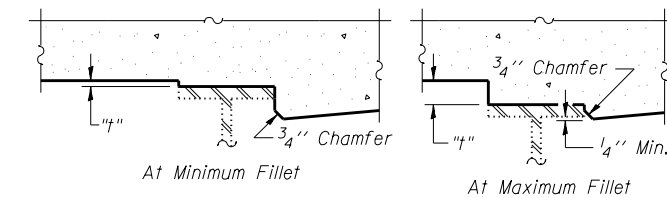
**TOP OF DECK PLAN**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only w/o FWS)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 6 thru 9 of 30.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on Sheets 6 thru 9 of 30, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

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PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP DECK PLAN DEAD LOAD DEFLECTION DIAGRAM & ELEVATIONS  
STRUCTURE NO.049-0050

SHEET NO. 05 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	56
CONTRACT NO. 60X39				

ILLINOIS FED. AID PROJECT

S-05



BEAM 1

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 2

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 3

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 4

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 5

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 6

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

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Table with 4 columns: REVISED, REVISED, REVISED, REVISED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP DECK SLAB ELEVATIONS 1 STRUCTURE NO.049-0050

SHEET NO. 06 OF 30 SHEETS

Table with 5 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Values include 333, 121(B&V)BR & RS-7, LAKE, 198, 57.



BEAM 10

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 11

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 12

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 13

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 14

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

BEAM 15

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, @Brg. W. Abutment (A-D), @Pier 1 (E-J), @Pier 2 (K-P), @Pier 3 (Q-T), and @Brg. E. Abutment/Bk. E. Abutment.

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Table with 4 columns: REVISED, REVISIONS. Values include JRB, MMH, TPG.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP DECK SLAB ELEVATION 3 STRUCTURE NO.049-0050

SHEET NO. 08 OF 30 SHEETS

Table with 5 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. Values include 333, 12(HB&VB)BR & RS-7, LAKE, 198, 59, 60X39.

**BEAM 16**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	498+87.21	46.43	723.36	723.36
ⓄBrg. W. Abutment	498+89.20	46.36	723.39	723.39
A	498+99.19	46.03	723.54	723.55
B	499+09.19	45.69	723.68	723.70
C	499+19.18	45.36	723.83	723.84
D	499+29.17	45.03	723.98	723.98
ⓄPier 1	499+39.56	44.68	724.13	724.13
E	499+49.55	44.35	724.28	724.28
F	499+59.55	44.02	724.42	724.44
G	499+69.54	43.68	724.57	724.59
H	499+79.54	43.35	724.71	724.73
I	499+89.53	43.02	724.86	724.87
J	499+99.52	42.68	725.01	725.01
ⓄPier 2	500+04.31	42.53	725.08	725.08
K	500+14.30	42.19	725.22	725.23
L	500+24.30	41.86	725.37	725.38
M	500+34.29	41.53	725.51	725.53
N	500+44.29	41.19	725.66	725.68
O	500+54.28	40.86	725.81	725.82
P	500+64.27	40.53	725.95	725.95
ⓄPier 3	500+69.06	40.37	726.02	726.02
Q	500+79.05	40.03	726.17	726.17
R	500+89.05	39.70	726.31	726.33
S	500+99.04	39.37	726.46	726.48
T	501+09.04	39.04	726.61	726.62
ⓄBrg. E. Abutment	501+19.42	38.69	726.76	726.76
Bk. E. Abutment	501+21.40	38.62	726.79	726.79

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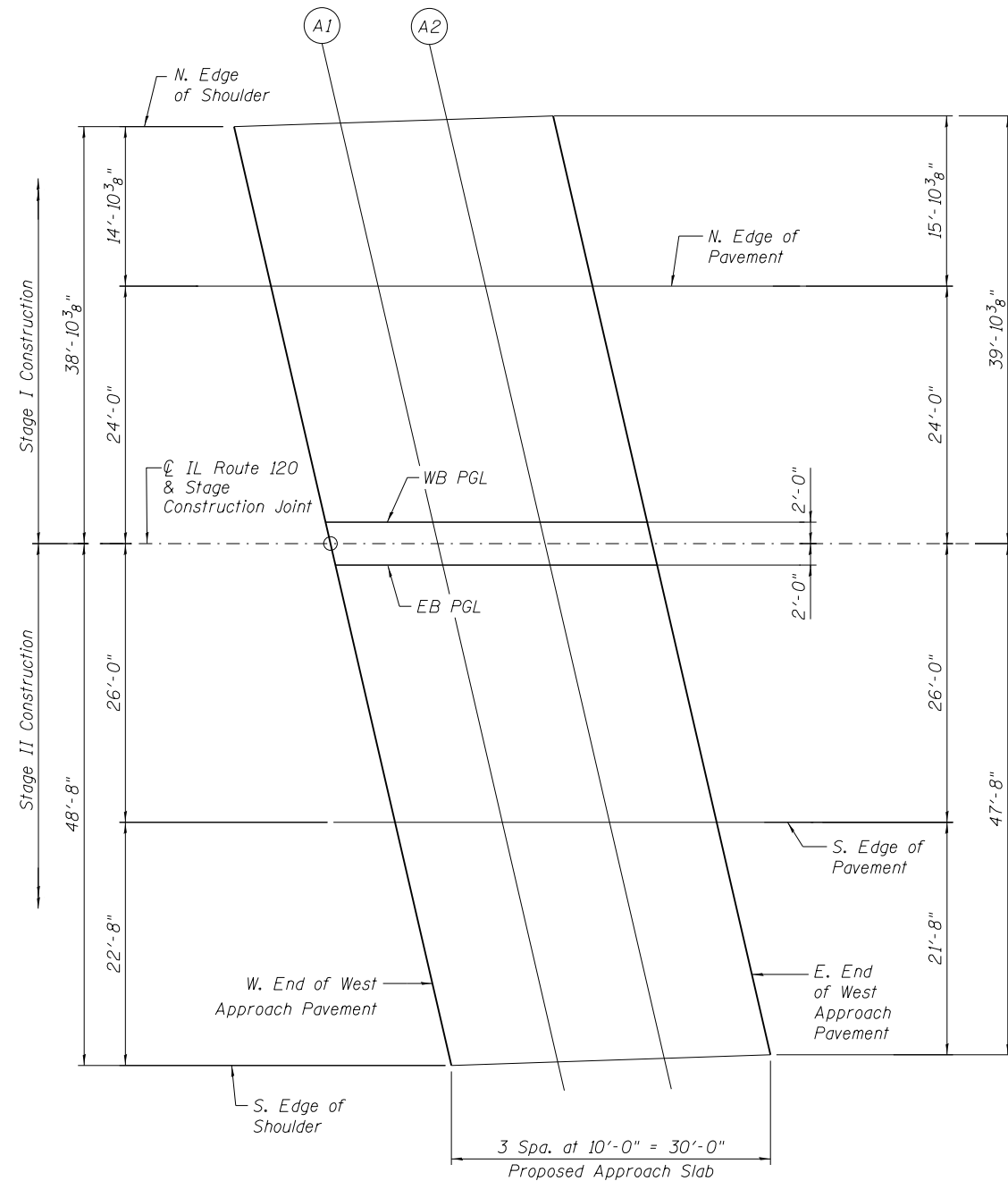
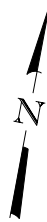
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP DECK SLAB ELEVATION 4  
STRUCTURE NO.049-0050**

SHEET NO. 09 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	60
CONTRACT NO. 60X39			S-09	
ILLINOIS FED. AID PROJECT				



**WEST APPROACH PLAN**

**N. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+37.46	-38.87	722.78
A1	498+47.38	-39.20	722.92
A2	498+57.30	-39.53	723.05
E. End W. Appr. Pav't.	498+67.23	-39.86	723.18

**EB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	49846.92	2.00	723.49
A1	49856.92	2.00	723.63
A2	49866.92	2.00	723.77
E. End W. Appr. Pav't.	49876.92	2.00	723.91

**N. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+40.90	-24.00	723.06
A1	498+50.90	-24.00	723.20
A2	498+60.90	-24.00	723.34
E. End W. Appr. Pav't.	498+70.90	-24.00	723.48

**S. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+52.48	26.00	723.19
A1	498+62.48	26.00	723.33
A2	498+72.48	26.00	723.48
E. End W. Appr. Pav't.	498+82.48	26.00	723.62

**WB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+46.00	-2.00	723.48
A1	498+56.00	-2.00	723.62
A2	498+66.00	-2.00	723.76
E. End W. Appr. Pav't.	498+76.00	-2.00	723.90

**S. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+57.73	48.67	722.91
A1	498+67.66	48.34	723.06
A2	498+77.58	48.01	723.20
E. End W. Appr. Pav't.	498+87.50	47.68	723.35

**IL ROUTE 120 & STAGE CONST. JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	498+46.46	0.00	723.48
A1	498+56.46	0.00	723.62
A2	498+66.46	0.00	723.77
E. End W. Appr. Pav't.	498+76.46	0.00	723.91

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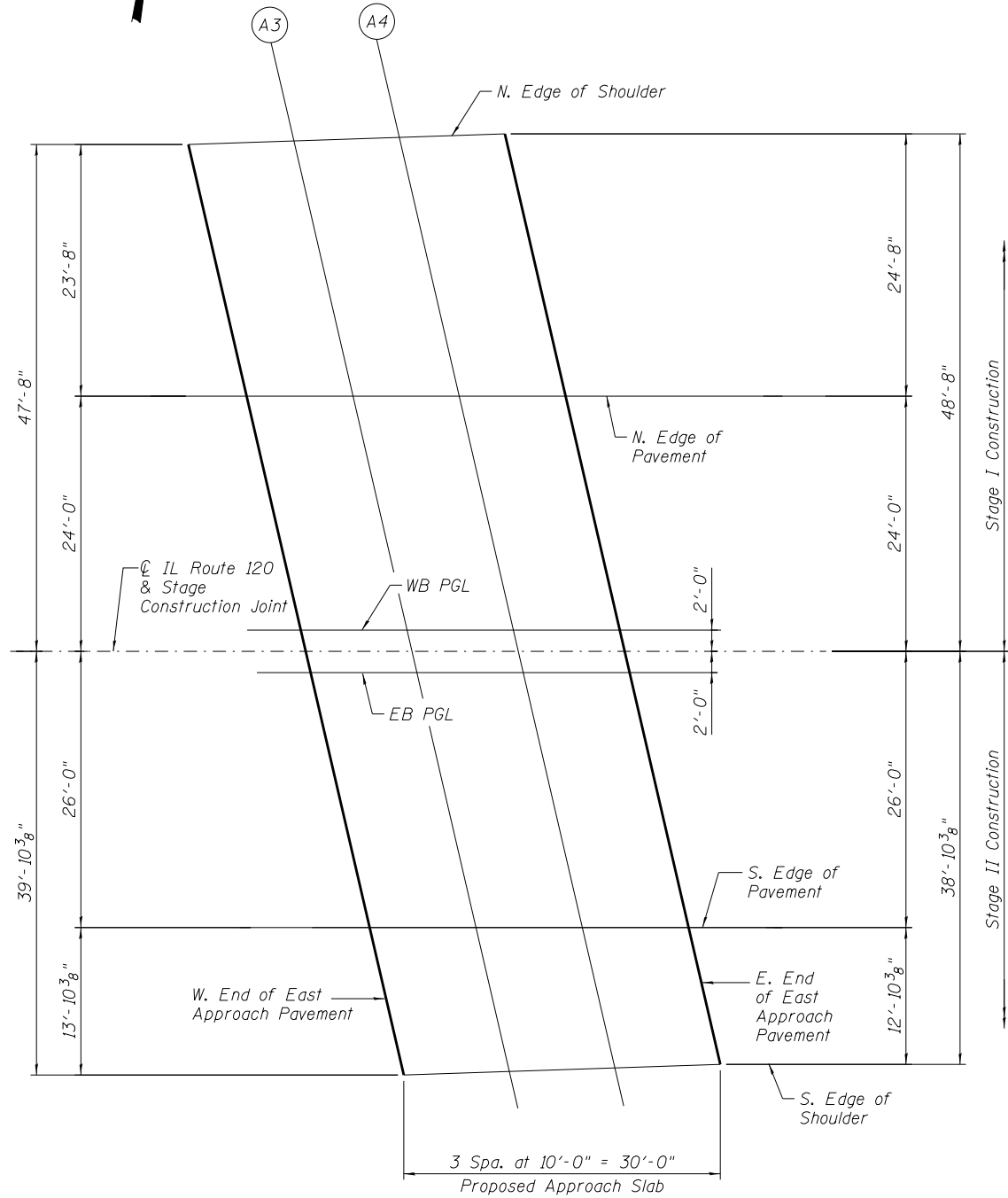
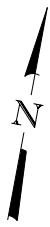
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH TOP OF SLAB ELEVATION  
STRUCTURE NO.049-0050**

SHEET NO. 10 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	61
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



**EAST APPROACH PLAN**

**N. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+01.42	-47.68	726.36
A3	501+11.34	-48.01	726.50
A4	501+21.26	-48.34	726.63
E. End E. Appr. Pav't.	501+31.19	-48.67	726.77

**EB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+12.92	2.00	727.24
A3	501+22.92	2.00	727.38
A4	501+32.92	2.00	727.52
E. End E. Appr. Pav't.	501+42.92	2.00	727.66

**N. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+06.90	-24.00	726.81
A3	501+16.90	-24.00	726.95
A4	501+26.90	-24.00	727.09
E. End E. Appr. Pav't.	501+36.90	-24.00	727.23

**S. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+18.48	26.00	726.94
A3	501+28.48	26.00	727.08
A4	501+38.48	26.00	727.23
E. End E. Appr. Pav't.	501+48.48	26.00	727.37

**WB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	501+12.00	-2.00	727.23
A3	501+22.00	-2.00	727.37
A4	501+32.00	-2.00	727.51
E. End W. Appr. Pav't.	501+42.00	-2.00	727.65

**S. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+21.69	39.86	726.77
A3	501+31.62	39.53	726.92
A4	501+41.54	39.20	727.06
E. End E. Appr. Pav't.	501+51.46	38.87	727.21

**IL ROUTE 120 & STAGE CONST. JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	501+12.46	0.00	727.23
A3	501+22.46	0.00	727.37
A4	501+32.46	0.00	727.52
E. End E. Appr. Pav't.	501+42.46	0.00	727.66

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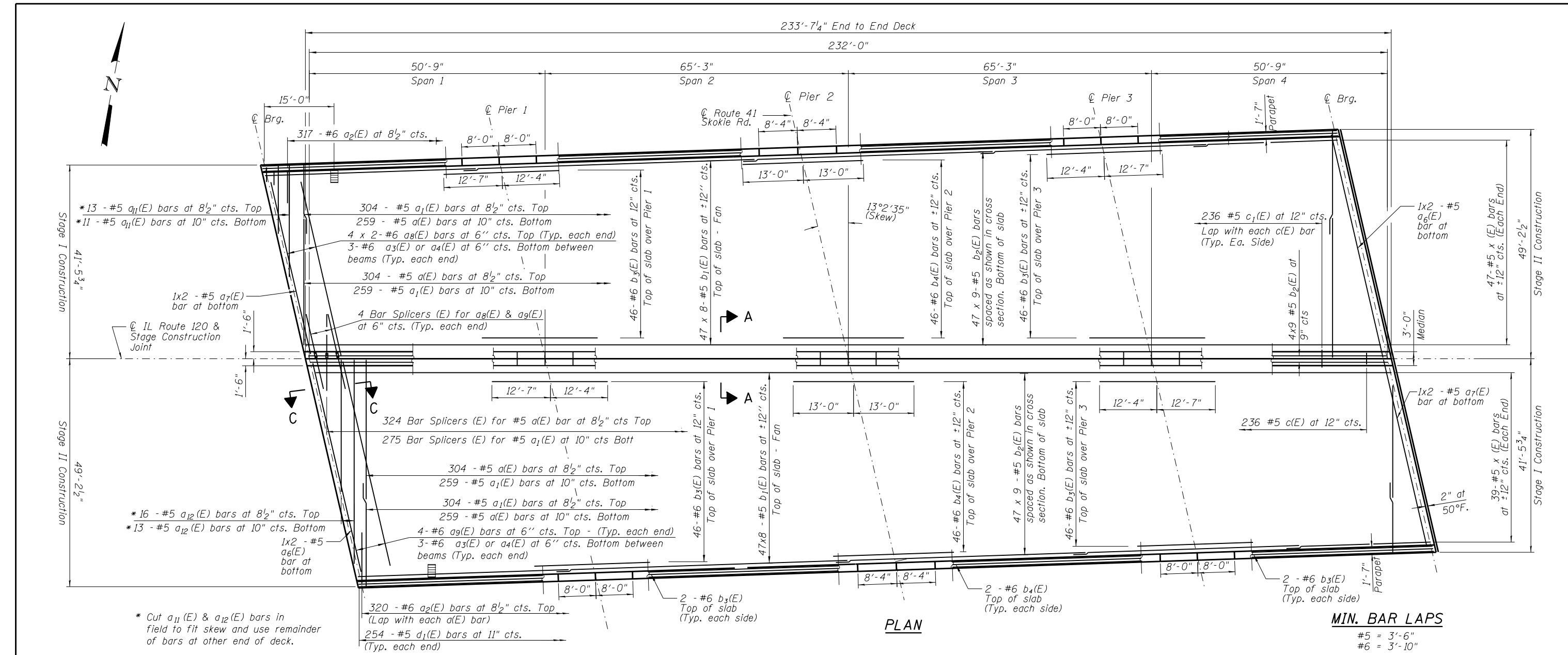
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EAST APPROACH TOP OF SLAB ELEVATION  
STRUCTURE NO.049-0050**

SHEET NO. 11 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	62
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

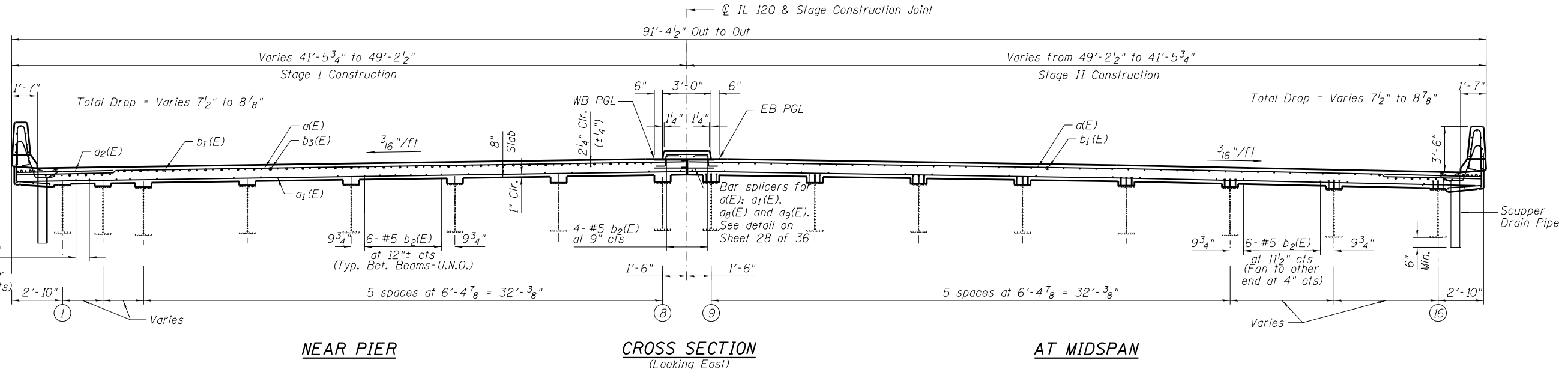


**PLAN**

**MIN. BAR LAPS**  
 #5 = 3'-6"  
 #6 = 3'-10"

\* Cut  $a_{11}(E)$  &  $a_{12}(E)$  bars in field to fit skew and use remainder of bars at other end of deck.

- Notes:
- See Sheet 13 of 30 for superstructure details and Bill of Material.
  - Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  - See Sheet 13 of 30 for parapet reinforcement.



**NEAR PIER**

**CROSS SECTION**  
(Looking East)

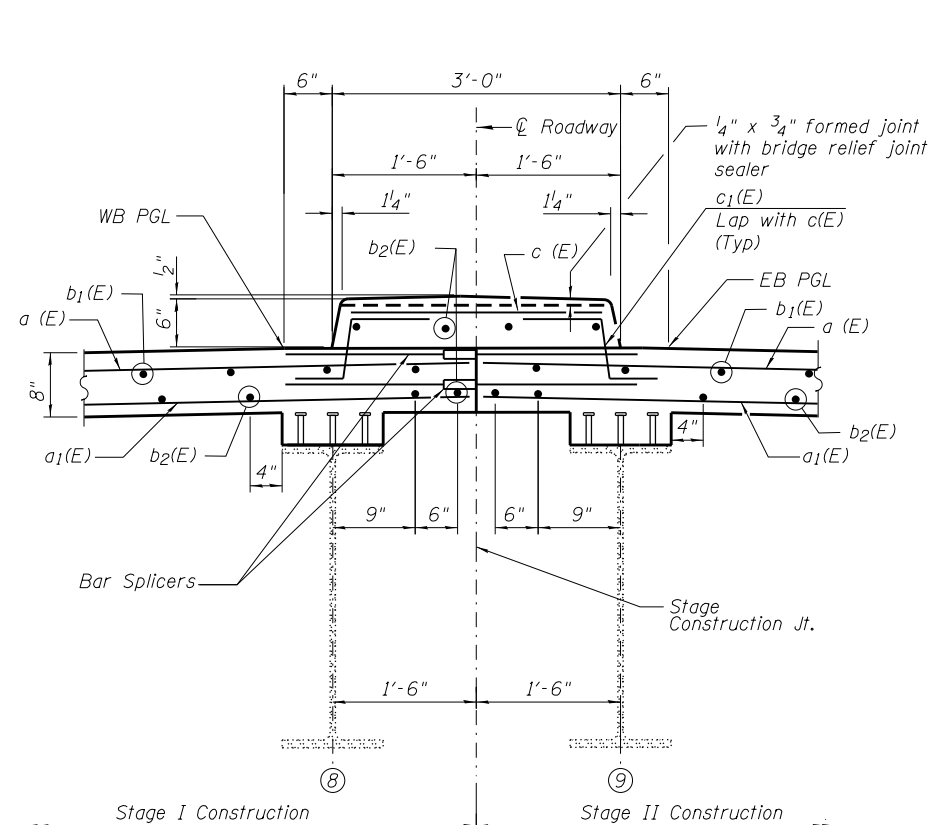
**AT MIDSPAN**

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	PLOT SCALE =	CHECKED - MMH	REVISED			333	12(HB&VB)IBR & RS-7	LAKE	198	63
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		CHECKED - JRB, MMH, TPG	REVISED			ILLINOIS FED. AID PROJECT				

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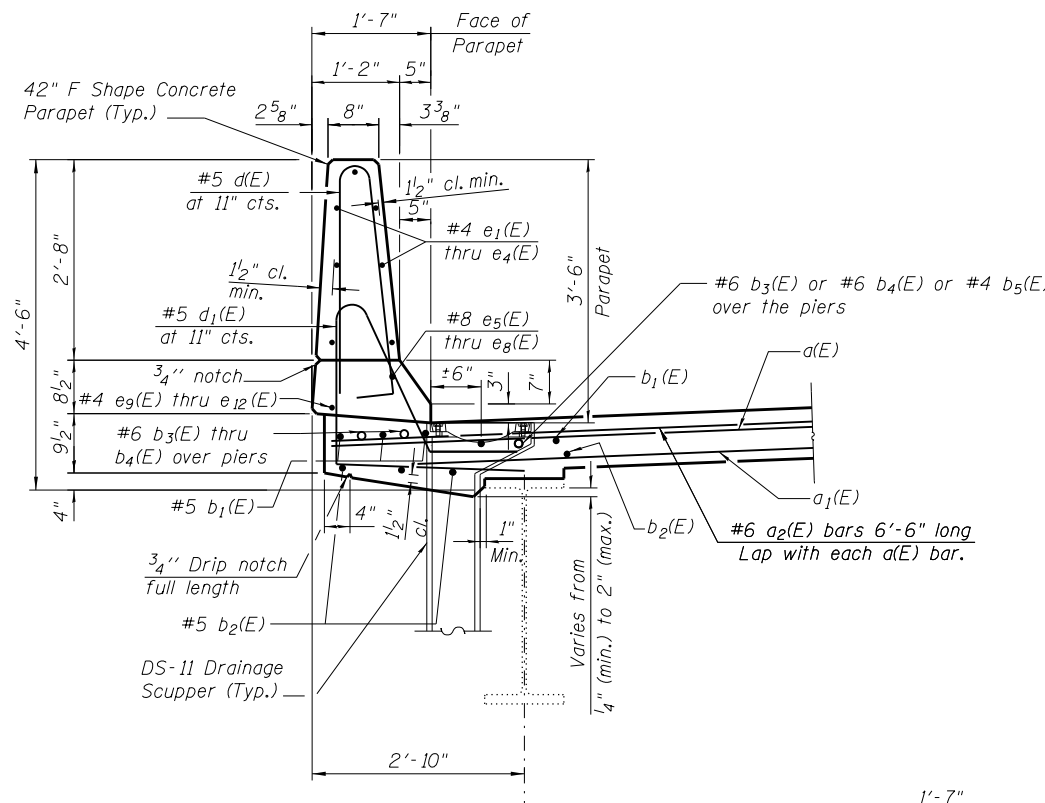
**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	1126	#5	30'-0"	
a <sub>1</sub> (E)	1126	#5	23'-1"	
a <sub>2</sub> (E)	637	#6	6'-6"	
a <sub>3</sub> (E)	72	#6	7'-8"	
a <sub>4</sub> (E)	12	#6	3'-8"	
a <sub>5</sub> (E)	4	#5	26'-11"	
a <sub>6</sub> (E)	4	#5	22'-0"	
a <sub>7</sub> (E)	16	#6	23'-3"	
a <sub>8</sub> (E)	16	#6	27'-2"	
a <sub>9</sub> (E)	16	#5	1'-6"	
a <sub>10</sub> (E)	24	#5	37'-10"	
a <sub>11</sub> (E)	29	#5	45'-6"	
b <sub>1</sub> (E)	800	#5	33'-4"	
b <sub>2</sub> (E)	882	#5	30'-2"	
b <sub>3</sub> (E)	192	#6	24'-11"	
b <sub>4</sub> (E)	96	#6	26'-0"	
b <sub>5</sub> (E)	116	#4	30'-0"	
c(E)	236	#5	2'-6"	
c <sub>1</sub> (E)	472	#5	2'-1"	
d(E)	668	#5	6'-10"	
d <sub>1</sub> (E)	668	#5	7'-6"	
e <sub>1</sub> (E)	84	#4	13'-11"	
e <sub>2</sub> (E)	56	#4	7'-8"	
e <sub>3</sub> (E)	84	#4	15'-11"	
e <sub>4</sub> (E)	28	#4	8'-0"	
e <sub>5</sub> (E)	8	#8	24'-7"	
e <sub>6</sub> (E)	8	#8	7'-8"	
e <sub>7</sub> (E)	8	#8	26'-8"	
e <sub>8</sub> (E)	4	#8	8'-0"	
e <sub>9</sub> (E)	8	#4	22'-6"	
e <sub>10</sub> (E)	8	#4	7'-8"	
e <sub>11</sub> (E)	8	#4	25'-7"	
e <sub>12</sub> (E)	4	#4	8'-0"	
* u <sub>1</sub> (E)	1443	#4	3'-7"	
x(E)	172	#5	6'-8"	
Item	Unit	Total		
Reinforcement Bars, Epoxy Coated	Pound	162,040		
Concrete Superstructure	Cu. Yd.	676.5		
Bar Splicer	Each	607		
Bridge Deck Grooving	Sq. Yd.	2,714		
Protective Shield	Sq. Yd.	214		

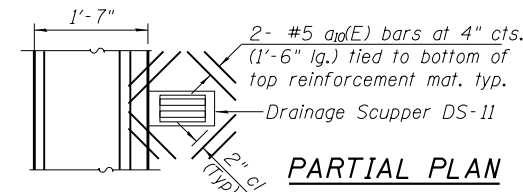


**SECTION A-A**  
Looking East

Note:  
Contractor must take precaution so as to not damage c<sub>1</sub>(E) bars during Stage II Construction.

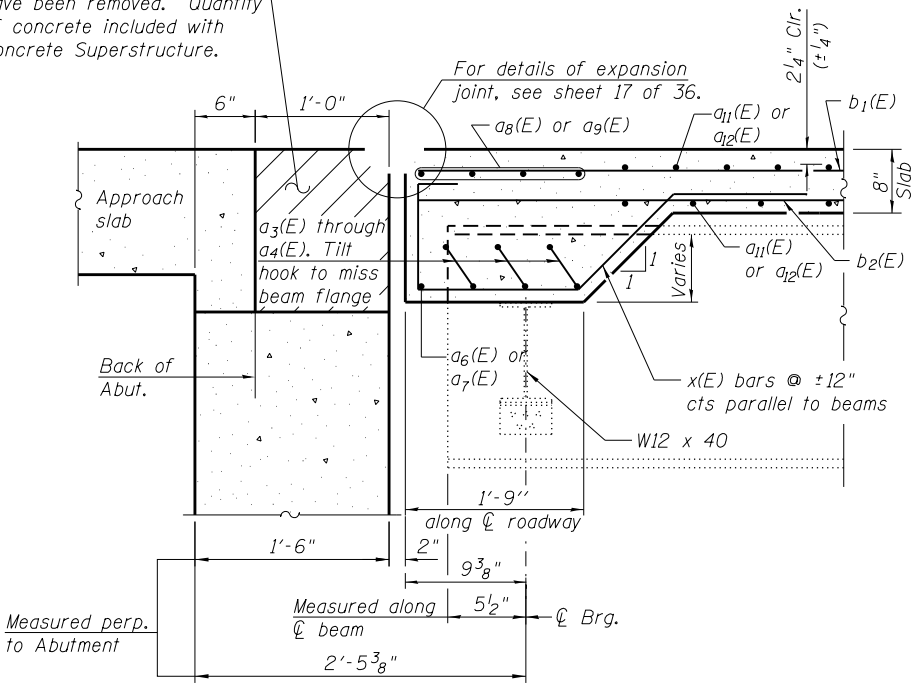


**SECTION B-B**

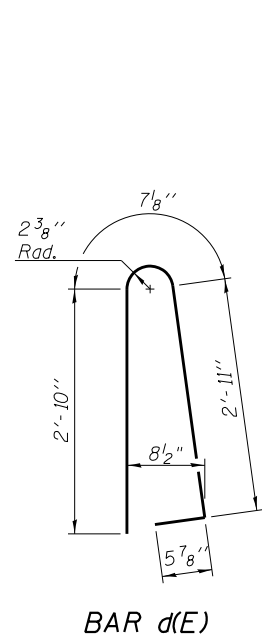


**PARTIAL PLAN**

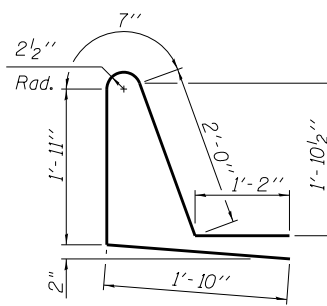
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



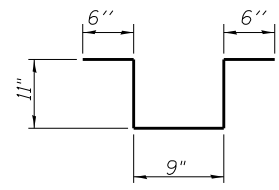
**SECTION C-C**



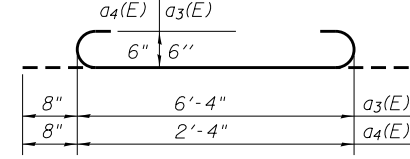
**BAR d(E)**



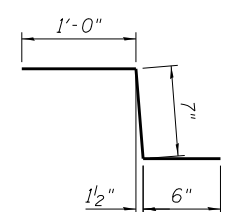
**BAR d<sub>1</sub>(E)**



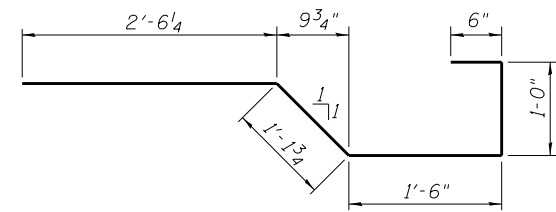
**BAR u<sub>1</sub>(E)**



**a<sub>3</sub>(E) and a<sub>4</sub>(E) BAR**



**BAR c<sub>1</sub>(E)**



**BAR x(E)**

Notes:  
I.F. = Denotes Inside Face  
O.F. = Denotes Outside Face  
U.N.O. = Unless Noted Otherwise  
\* = For estimate purposes only.  
Final Numbers will be determined during construction.  
Tilt #5-x(E) bars to fit

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USER NAME =	DESIGNED - JRB	REVISED
PLOT SCALE =	CHECKED - MMH	REVISED
PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JRB, MMH, TPG	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

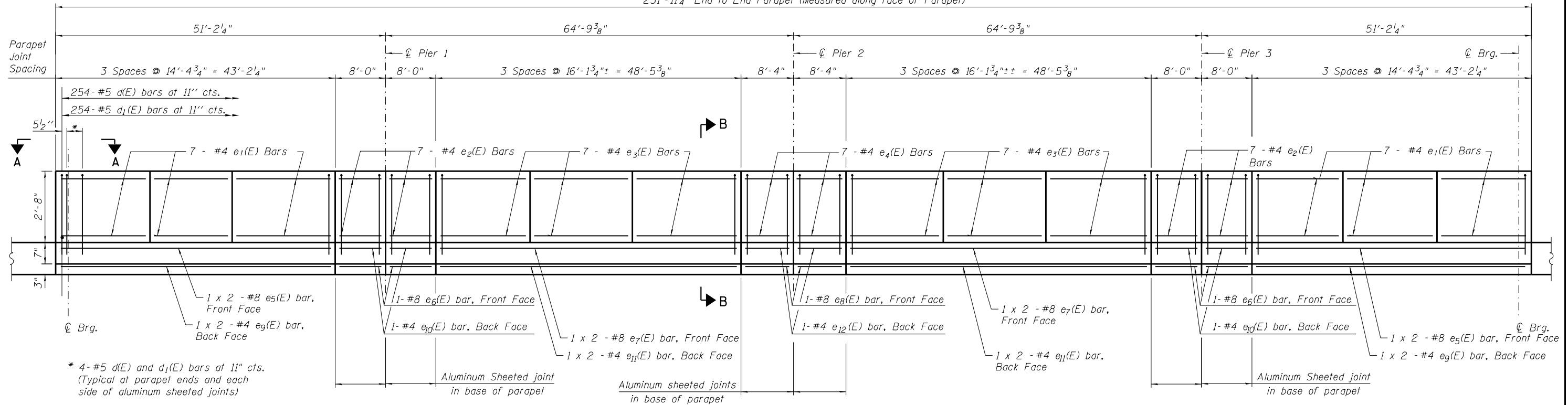
**SUPERSTRUCTURE DETAILS & BILL OF MATERIAL  
STRUCTURE NO.049-0050**

SHEET NO. 13 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(H&V)IBR & RS-7	LAKE	198	64
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



231'-11 1/4" End to End Parapet (Measured along face of Parapet)



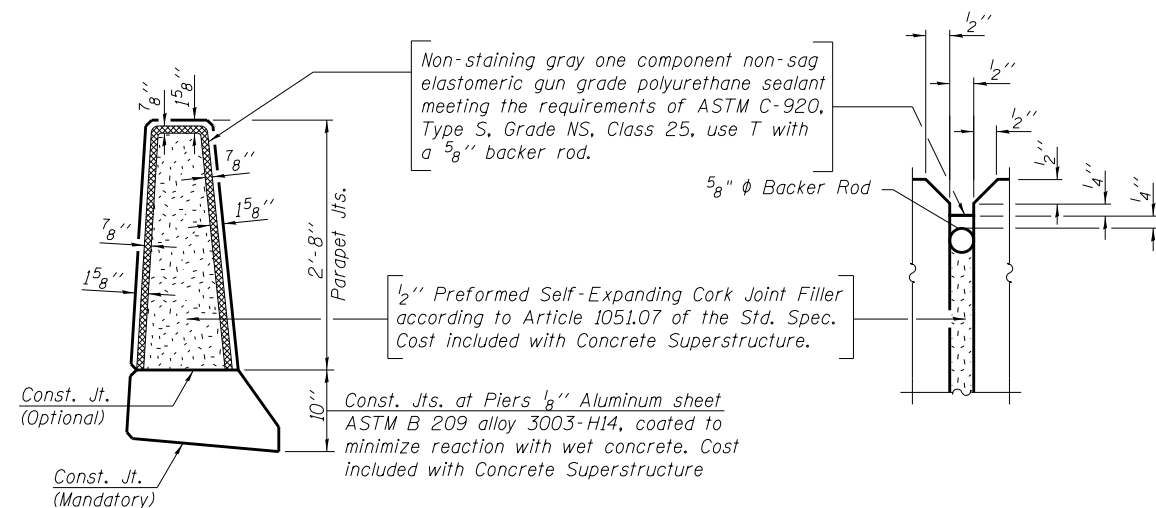
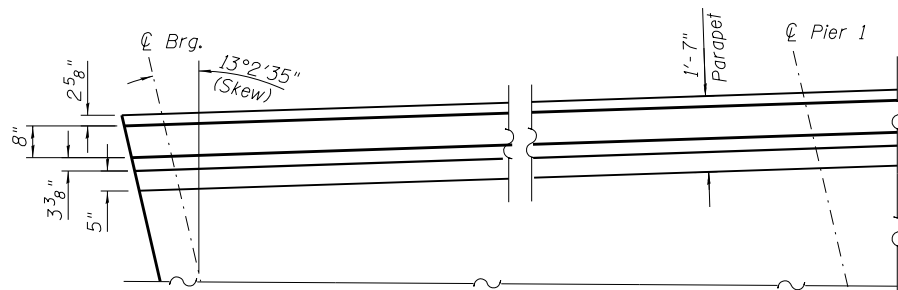
**INSIDE ELEVATION OF PARAPET**

(North Parapet shown  
South Parapet Similar Opposite hand)

**MINIMUM BAR LAP**

(Parapet)  
#4 bar = 2'-8"  
#8 bar = 5'-11"

Note:  
See Section B-B on Sheet 13 of 30



**PARAPET JOINT DETAILS**

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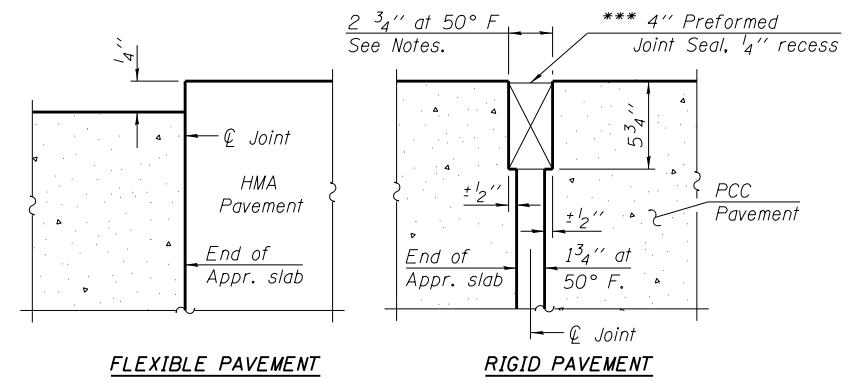
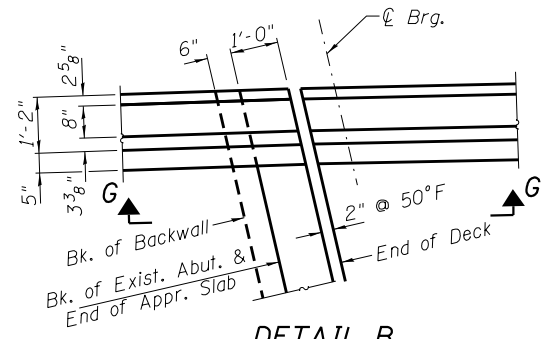
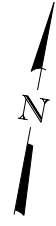
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	CHECKED - MMH	REVISED
PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PARAPET, ELEVATION & DETAILS  
STRUCTURE NO.049-0050

SHEET NO. 14 OF 30 SHEETS

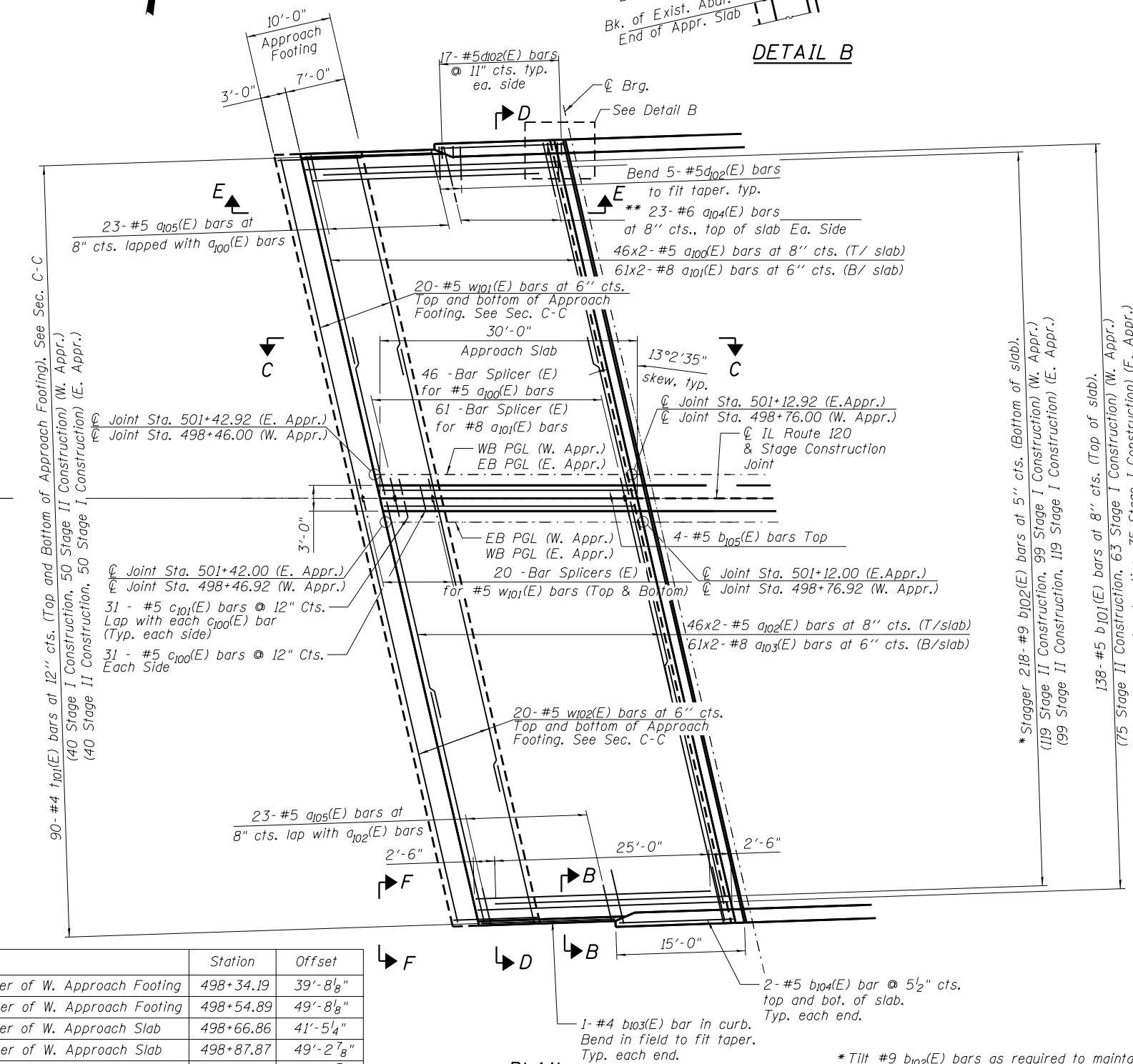
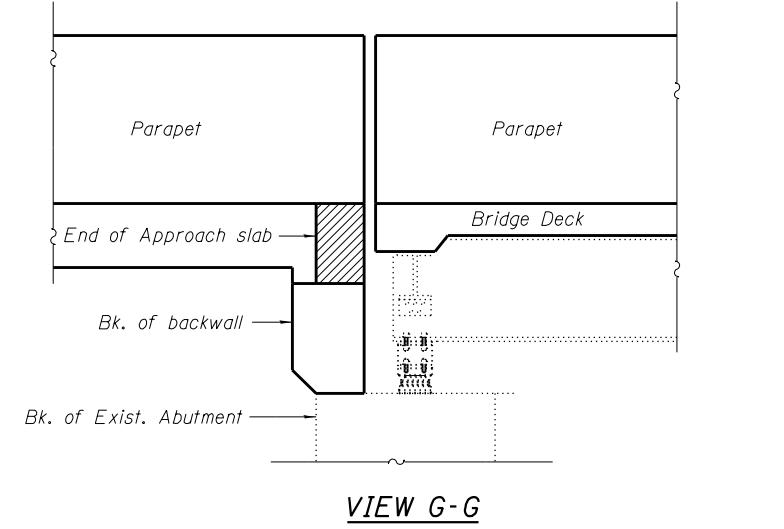
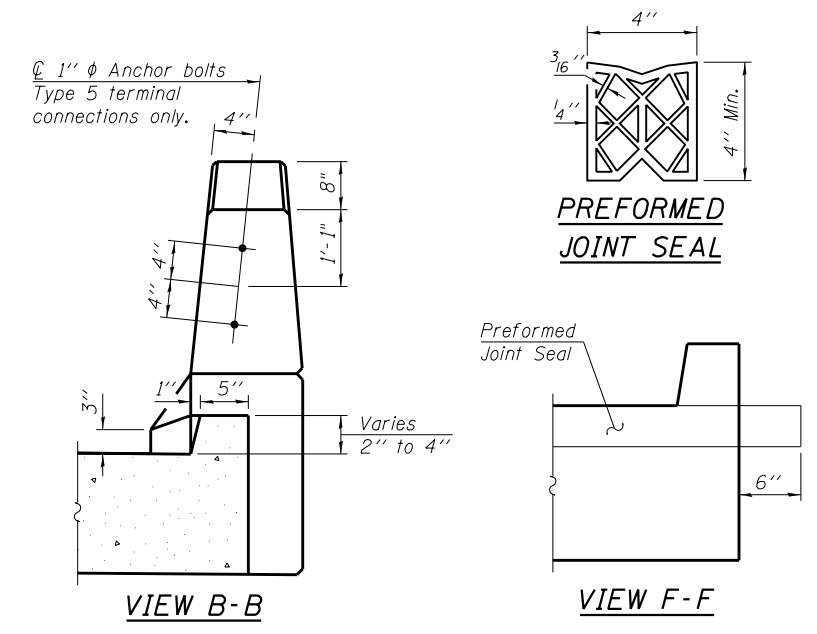
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)IBR & RS-7	LAKE	198	65
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



**DETAIL A**

Notes:  
 See sheet 16 of 30 for Sections C-C & D-D and View E-E.  
 a<sub>100</sub>(E) thru a<sub>103</sub>(E) bar spacings measured along  $\perp$  Rdwy.  
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

\*\*\* Cost included with Concrete Superstructure.



Location	Station	Offset
NW corner of W. Approach Footing	498+34.19	39'-8 1/8"
SW corner of W. Approach Footing	498+54.89	49'-8 1/8"
NE corner of W. Approach Slab	498+66.86	41'-5 1/4"
SE corner of W. Approach Slab	498+87.87	49'-2 7/8"
NW corner of E. Approach Slab	501+01.05	49'-2 7/8"
SW corner of E. Approach Slab	501+22.06	41'-5 1/4"
NE corner of E. Approach Footing	501+34.03	49'-8 1/8"
SE corner of E. Approach Footing	501+54.73	39'-8 1/8"

**PLAN**  
 West Approach - Shown  
 East Approach - Opposite Hand  
 (Stage bar numbers reversed for East Approach)

\*Tilt #9 b<sub>102</sub>(E) bars as required to maintain clearance.  
 \*\*Space between a<sub>100</sub>(E) & a<sub>102</sub>(E) bars, typ. each parapet.

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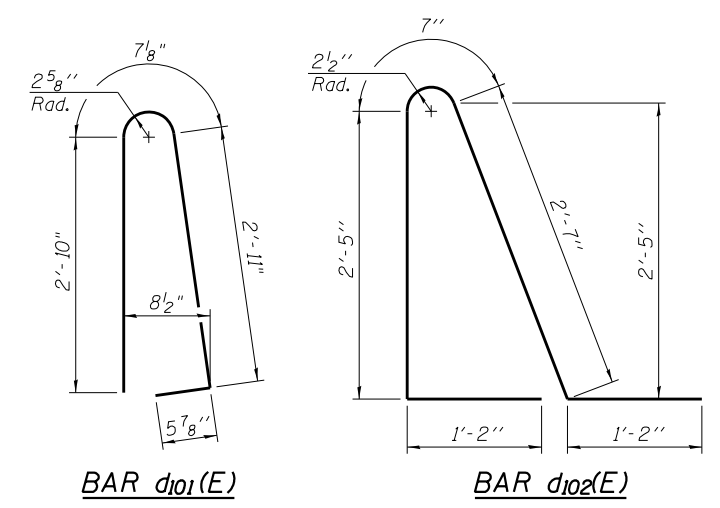
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PLOT SCALE =	CHECKED - MMH	REVISED
PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JRB	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST AND WEST APPROACH SLAB PLAN & DETAILS**  
**STRUCTURE NO.049-0050**  
 SHEET NO. 15 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	66
CONTRACT NO. 60X39				

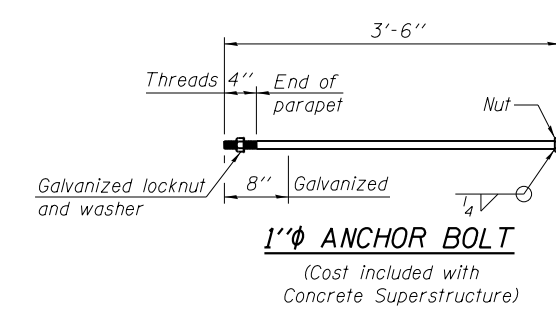
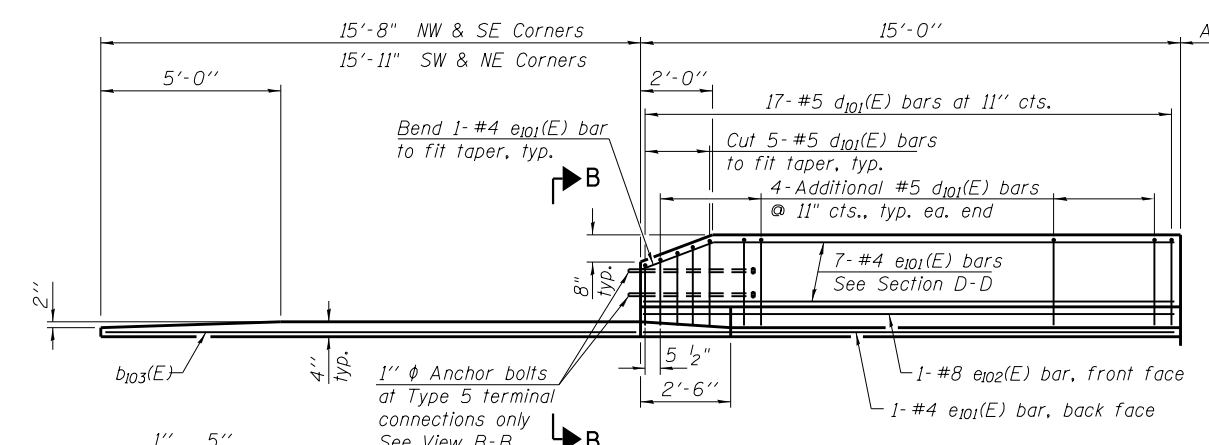
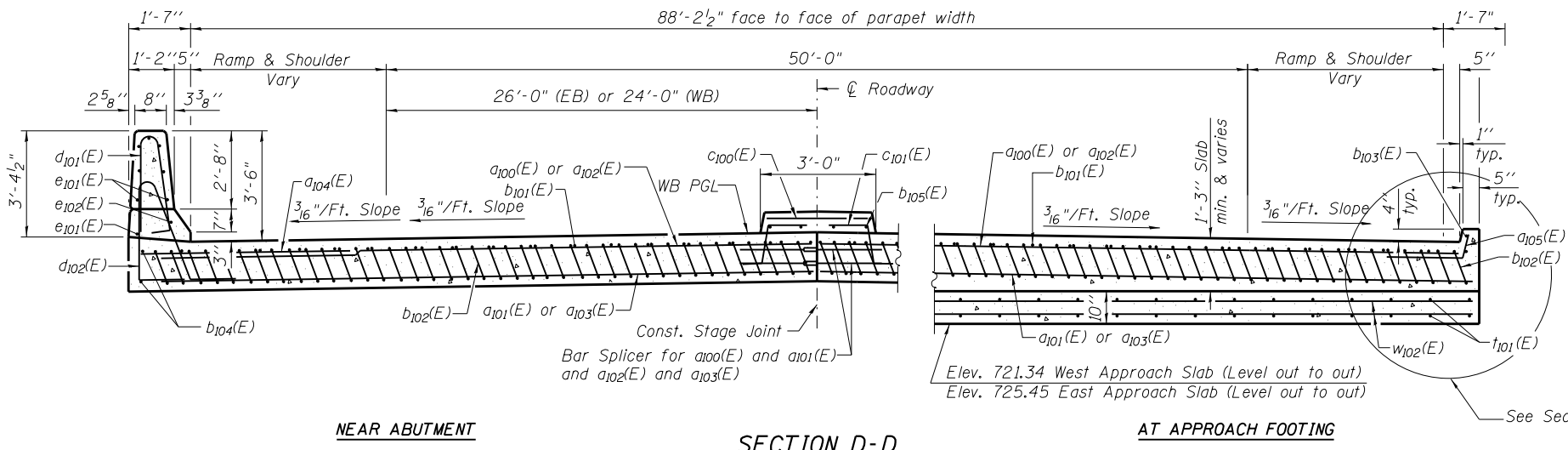
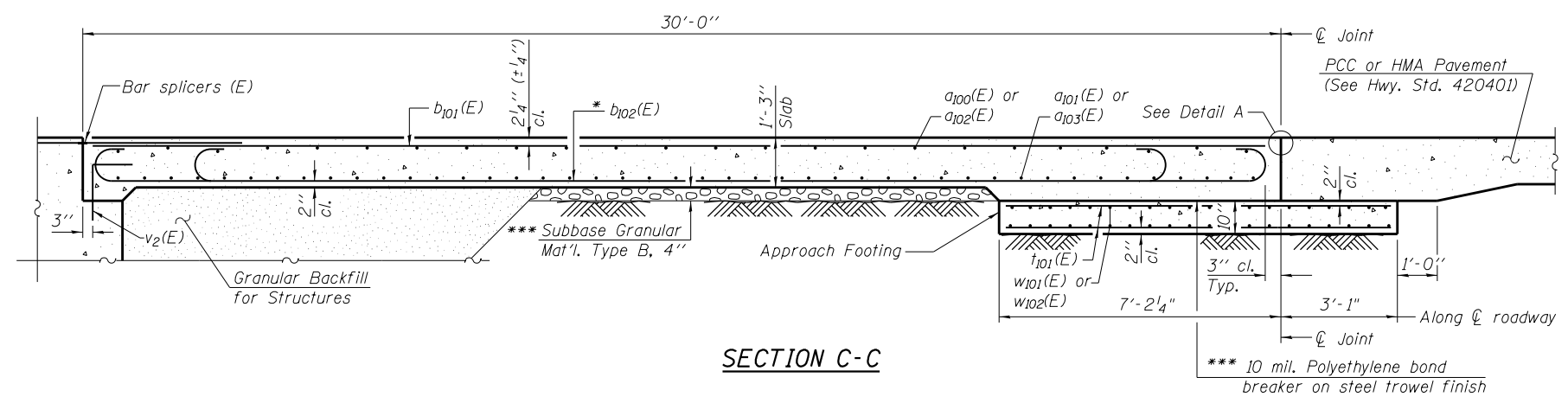
Notes:  
 See sheet 15 of 30 for Detail A and View B-B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For  $v_2(E)$  bar details, see sheet 22 & 23 of 30.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 For bar splicer details, see sheet 28 of 30.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 30.  
 For additional parapet details, see sheet 13 of 30.



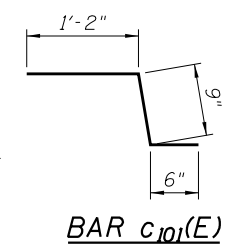
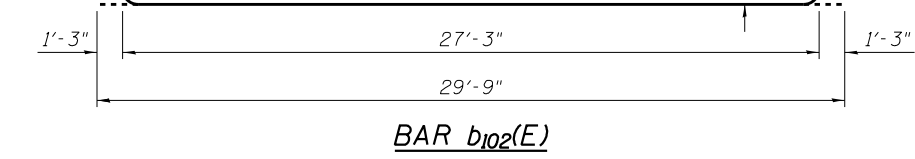
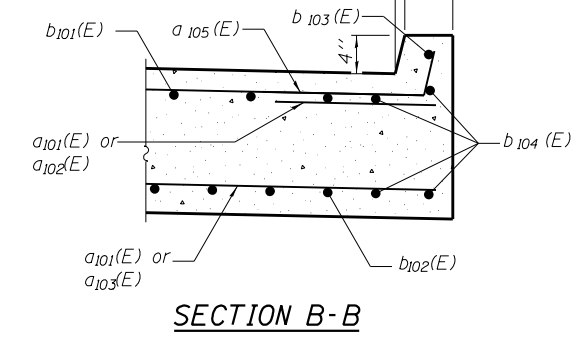
\* Tilt #9  $b_{102}(E)$  bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

**TWO APPROACHES  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_{100}(E)$	184	#5	22'-7"	—
$a_{101}(E)$	244	#8	22'-11"	—
$a_{102}(E)$	184	#5	26'-7"	—
$a_{103}(E)$	244	#8	26'-11"	—
$a_{104}(E)$	92	#6	6'-6"	—
$a_{105}(E)$	92	#5	3'-8"	—
$b_{101}(E)$	276	#5	29'-8"	—
$b_{102}(E)$	436	#9	29'-9"	—
$b_{103}(E)$	4	#4	18'-4"	—
$b_{104}(E)$	16	#5	14'-8"	—
$b_{105}(E)$	8	#5	29'-9"	—
$c_{100}(E)$	62	#5	2'-6"	—
$c_{101}(E)$	124	#5	2'-5"	—
$d_{101}(E)$	100	#5	6'-10"	—
$d_{102}(E)$	100	#5	7'-11"	—
$e_{101}(E)$	32	#4	14'-8"	—
$e_{102}(E)$	4	#8	14'-8"	—
$t_{101}(E)$	360	#4	9'-11"	—
$w_{101}(E)$	80	#5	40'-6"	—
$w_{102}(E)$	80	#5	50'-4"	—
Concrete Superstructure		Cu. Yd.	262.2	
Concrete Structures		Cu. Yd.	56.7	
Reinforcement Bars, Epoxy Coated		Pound	108,790	
Bar Splicers		Each	294	



**MIN. BAR LAP**  
 #4 = 2'-7"  
 #5 = 3'-2"  
 #8 = 5'-1"



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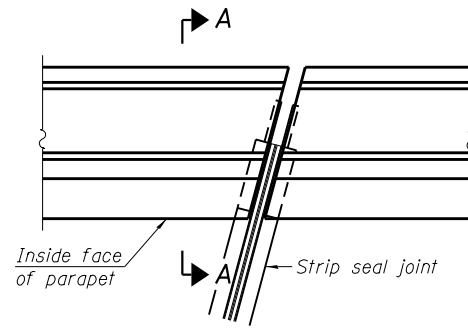


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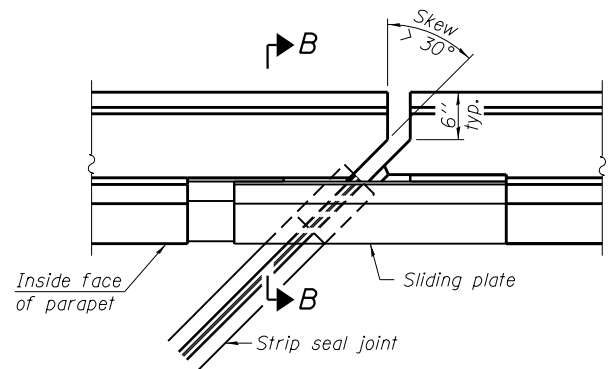
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO.049-0050**

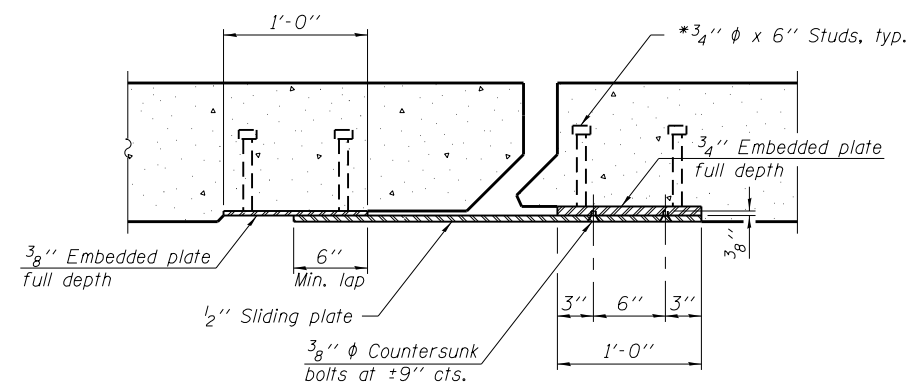
F.A.P. RTE. 333	SECTION 12(HB&VB)BR & RS-7	COUNTY LAKE	TOTAL SHEETS 198	SHEET NO. 67
CONTRACT NO. 60X39				ILLINOIS FED. AID PROJECT



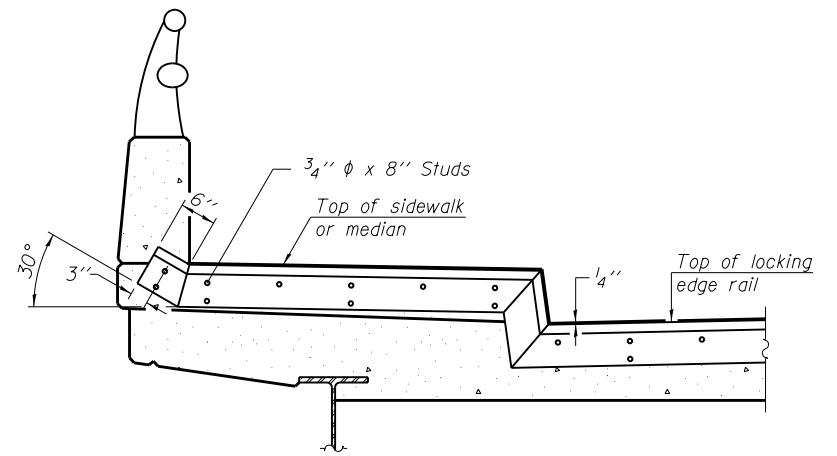
**PLAN**  
(For skews  $\leq 30^\circ$ )



**PLAN**  
(For skews  $> 30^\circ$ )  
Showing point block

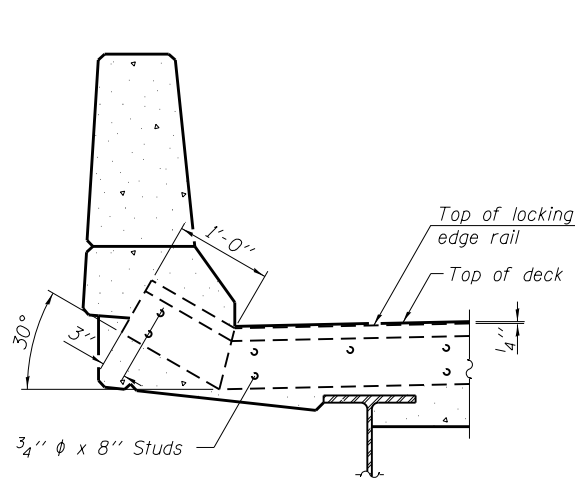


**SECTION C-C**

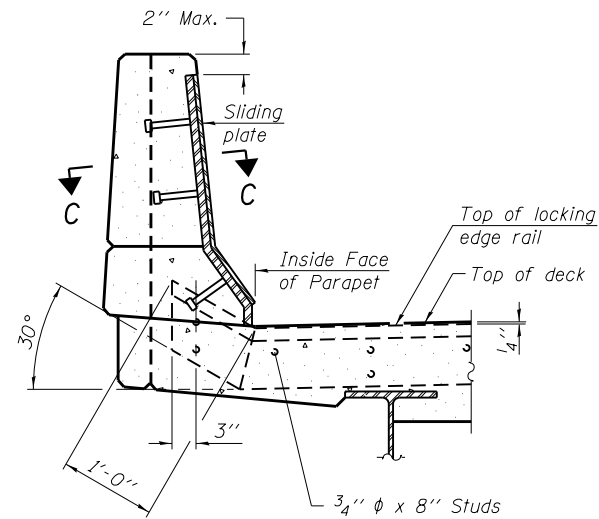


**TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN**

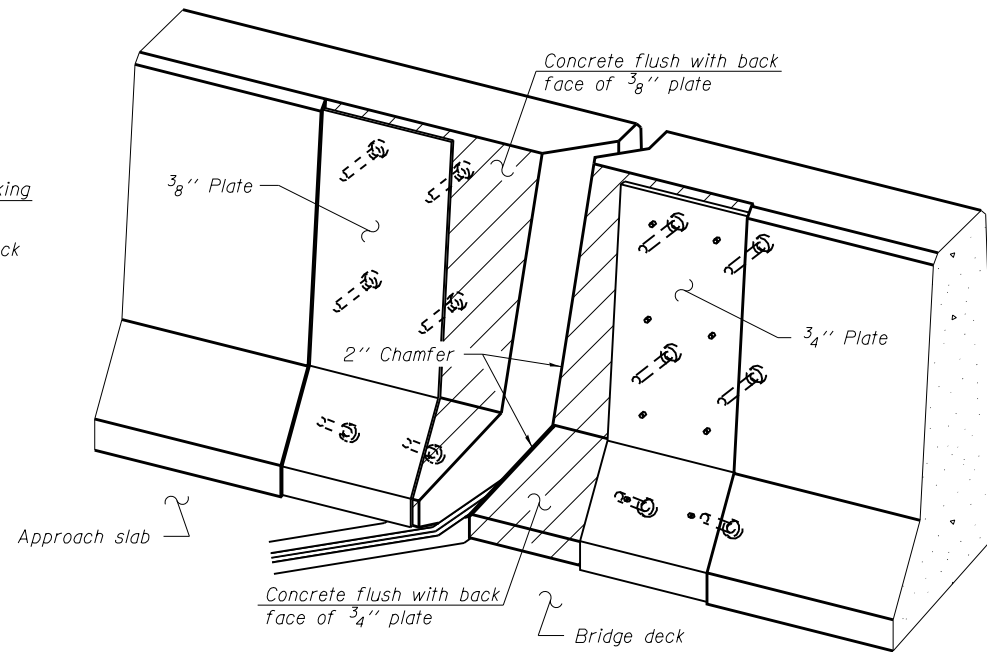
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



**SECTION A-A**

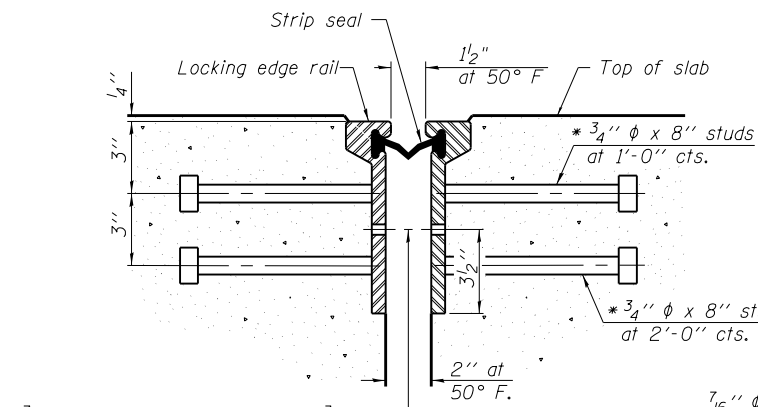


**SECTION B-B**

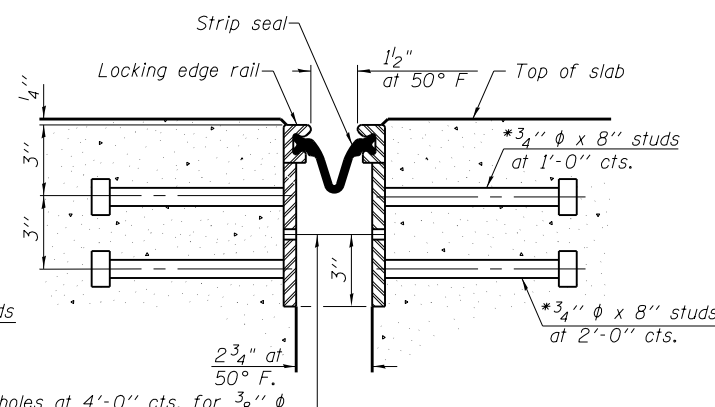


**TRIMETRIC VIEW**  
(Showing back plates only)

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 conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.  
The manufacturer's recommended installation methods shall be followed.



**SECTION THRU ROLLED RAIL JOINT**



**SECTION THRU WELDED RAIL JOINT**

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**ROLLED EXTRUDED RAIL**

**WELDED RAIL**

**LOCKING EDGE RAIL SPLICE**

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

**LOCKING EDGE RAILS**

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	184

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

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11-22-2016

USER NAME =	DESIGNED - JRB	REVISED
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PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

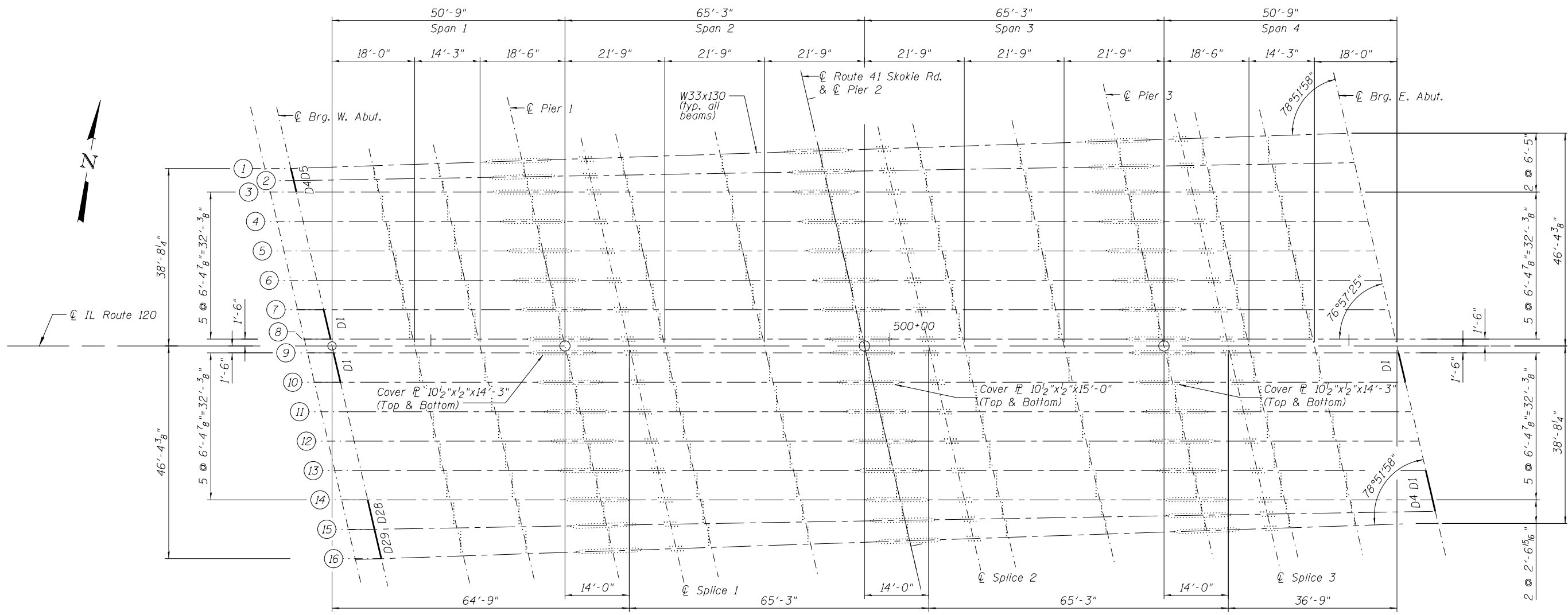
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
STRUCTURE NO.049-0050

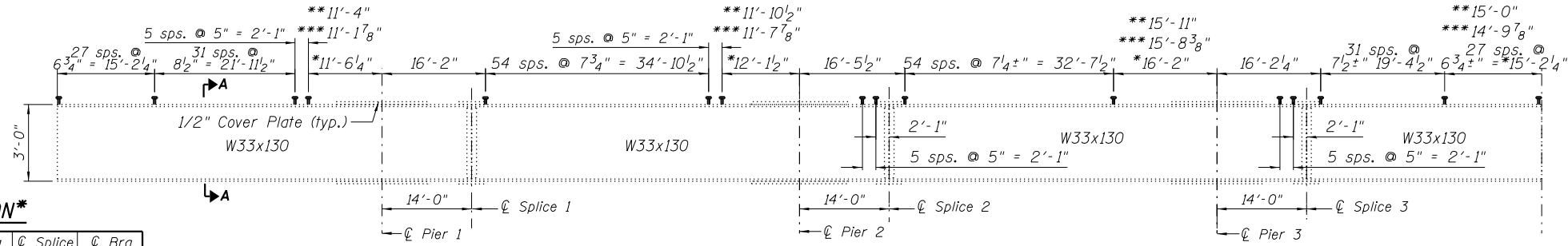
SHEET NO. 17 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	68
				CONTRACT NO. 60X39
ILLINOIS FED. AID PROJECT				

S-17



**FRAMING PLAN**



**BEAM ELEVATION**  
(Showing Studs Spacing)

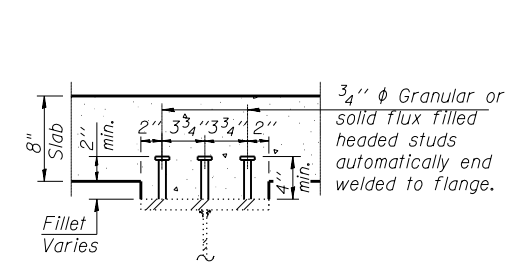
See Shear Studs Layout at Splices

Notes:  
Remove and replace Diaphragms D1, D4, D5 D28 & D29 and connection angles in kind.  
Also, remove and replace shim plates in kind if used.

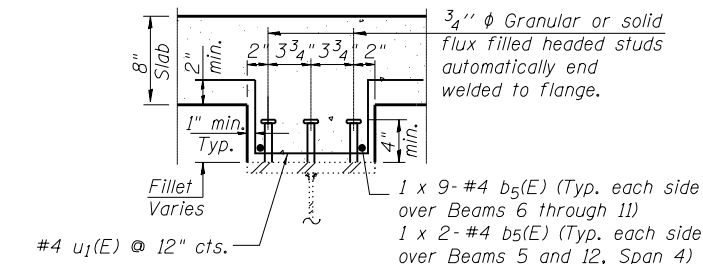
**TOP OF EXISTING BEAM ELEVATION\***

Location Beam	℄ Brg W. Abut.	℄ Brg Pier 1	℄ Splice #1	℄ Brg Pier 2	℄ Splice #2	℄ Brg Pier 3	℄ Splice #3	℄ Brg E. Abut.
1	722.45	723.06	723.17	723.97	724.09	724.86	724.96	725.56
2	722.46	723.15	723.24	724.04	724.18	724.93	725.08	725.67
3	722.49	723.18	723.29	724.08	724.22	725.01	725.15	725.74
4	722.56	723.23	723.33	724.17	724.32	725.07	725.20	725.82
5	722.64	723.31	723.40	724.26	724.42	725.13	725.26	725.90
6	722.72	723.39	723.49	724.31	724.46	725.19	725.31	725.96
7	722.83	723.46	723.57	724.40	724.55	725.26	725.39	726.06
8	722.88	723.54	723.67	724.49	724.63	725.36	725.49	726.10
9	722.85	723.53	723.64	724.48	724.64	725.36	725.51	726.15
10	722.85	723.49	723.60	724.46	724.60	725.31	725.44	726.14
11	722.81	723.44	723.56	724.40	724.56	725.29	725.43	726.10
12	722.78	723.43	723.55	724.36	724.51	725.25	725.40	726.05
13	722.75	723.39	723.55	724.33	724.49	725.23	725.35	726.03
14	722.72	723.36	723.50	724.30	724.45	725.20	725.38	726.04
15	722.68	723.34	723.49	724.29	724.45	725.19	725.35	726.03
16	722.69	723.31	723.45	724.25	724.40	725.18	725.31	726.04

\* Beams 3 through 14  
\*\* Beams 2 and 15  
\*\*\* Beams 1 and 16



**SECTION A-A**



**FOR FILLET HEIGHT DEEPER THAN 6"**

No. of studs req'd = 12,000 ea.

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USER NAME =	DESIGNED - JRB	REVISED
	CHECKED - MMH	REVISED
PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

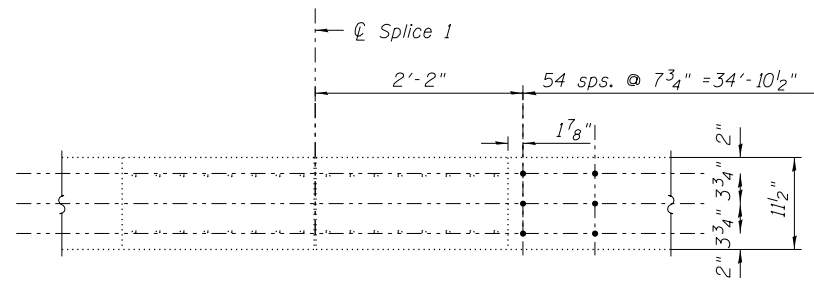
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN & DETAILS  
STRUCTURE NO.049-0050**

SHEET NO. 18 OF 30 SHEETS

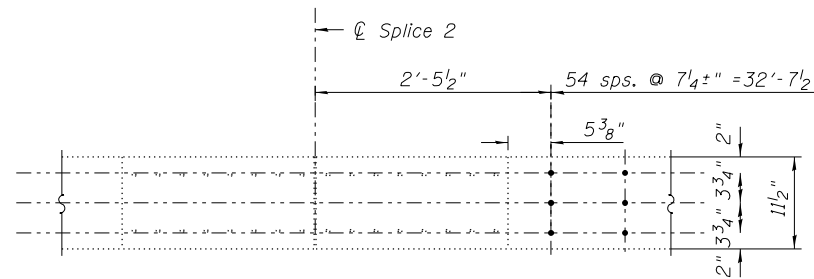
F.A.P. R.T.E. = 333	SECTION = 12(HB&VB)BR & RS-7	COUNTY = LAKE	TOTAL SHEETS = 198	SHEET NO. = 69
CONTRACT NO. 60X39				ILLINOIS FED. AID PROJECT

S-18



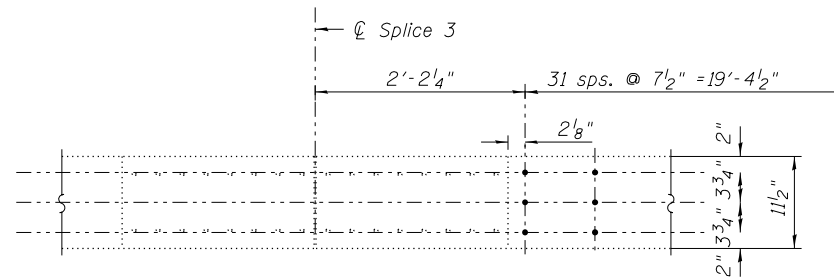
**SHEAR STUDS LAYOUT AT SPLICE 1**

Splice 1 - Shown



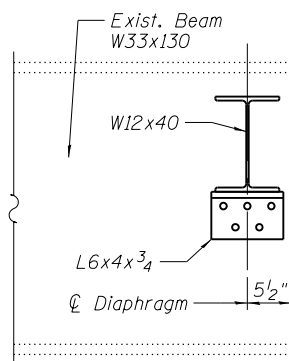
**SHEAR STUDS LAYOUT AT SPLICE 2**

Splice 2 - Shown



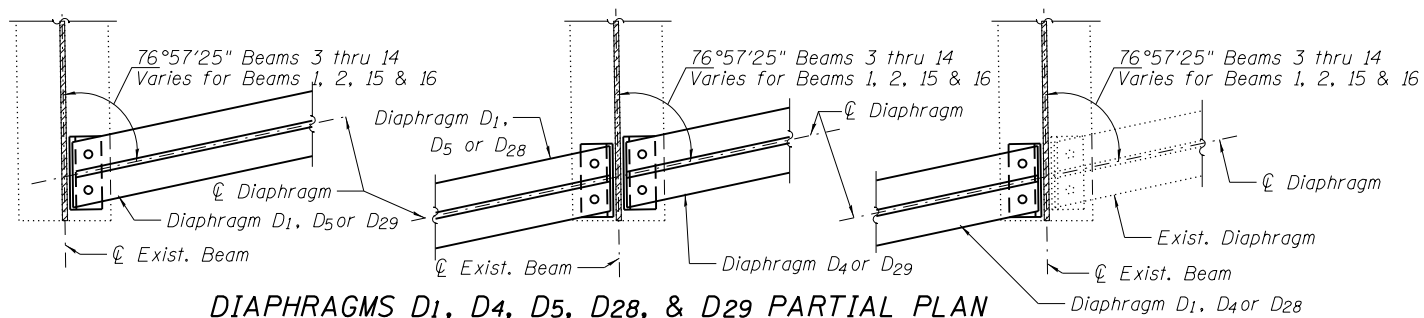
**SHEAR STUDS LAYOUT AT SPLICE 3**

Splice 3 - Shown

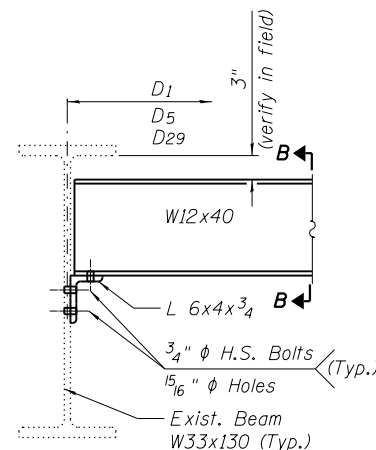


**SECTION A-A**

**SECTION B-B (Opposite Hand)**



**DIAPHRAGMS D1, D4, D5, D28, & D29 PARTIAL PLAN**



**DIAPHRAGMS D1, D4, D5, D28, & D29 PARTIAL ELEVATION**

D1 - 4 Required  
D4 - 2 Required  
D5 - 1 Required  
D28 - 1 Required  
D29 - 1 Required

INTERIOR BEAM MOMENT TABLE					
	0.4 Sp.1 or 0.6 Sp.4	Pier 1 or Pier3	0.5 Sp.2 or 0.5 Sp.3	Pier 2	
$I_s$	(in <sup>4</sup> )	6710	9672	6710	9672
$I_c(n)$	(in <sup>4</sup> )	20689.1	-	20689.1	-
$I_c(3n)$	(in <sup>4</sup> )	14757.9	-	14757.9	-
$S_s$	(in <sup>3</sup> )	406	567.4	406	567.4
$S_c(n)$	(in <sup>3</sup> )	653.9	-	653.9	-
$S_c(3n)$	(in <sup>3</sup> )	582.5	-	582.5	-
$\rho$	(k/')	0.83	0.97	0.83	0.97
$M_D$	(k)	138.4	333.5	141.6	342.9
$s_D$	(k/')	0.14	-	0.14	-
$M_{sD}$	(k)	27.0	-	32.7	-
$M_L$	(k)	299.0	191.7	332.4	206.6
$M_I$	(k)	118.9	72.1	118.5	73.6
$\bar{S}_3 [M_L + I]$	(k)	696.5	439.7	751.5	467.0
$M_a$	(k)	1120.5	1005.1	1203.5	1052.9
$M_u$	(k)	1684.0	1796.6	1680.5	1796.6
$f_s \rho$ non-comp	(ksi)	4.1	7.1	4.2	7.3
$f_s \rho$ (comp)	(ksi)	0.6	-	0.7	-
$\bar{f}_s \bar{S}_3 [M_L + M_I]$	(ksi)	12.8	9.3	13.8	9.9
$f_s$ (Overload)	(ksi)	17.5	16.4	18.7	17.2
$\bar{f}_s$ (Total)	(ksi)	-	-	-	-
VR	(k)	33.9	-	36.0	-

INTERIOR BEAM REACTION TABLE				
	E. or W. Abut	Pier 1 or 3	Pier 2	
$R_D$	(k)	19.3	62.4	63.1
$R_L$	(k)	33.2	40.2	40.8
$R_I$	(k)	9.4	8.3	8.0
$R_{Total}$	(k)	61.9	110.9	111.9

\* Compact section  
\*\* Braced non-compact and partially braced section  
\*\*\* Includes weight of concrete edge beam at exp. jt. over the diaphragm, and large fillet over the beam.

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total and Overload) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total and Overload) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total and Overload) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $\rho$ : Un-factored non-composite dead load (kips/ft.).  
 $M_D$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $s_D$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).  
 $M_{sD}$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 $M_L$ : Un-factored live load moment (kip-ft.).  
 $M_I$ : Un-factored moment due to impact (kip-ft.).  
 $M_a$ : Factored design moment (kip-ft.).  
 $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).  
 $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  
 $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $VR$ : Maximum  $\rho$  + impact shear range within the composite portion of the span for stud shear connector design (kips).

Notes:  
Use the existing holes in the web of the W33x130 Beams and the existing diaphragms connection angles as a template for bolt hole locations to reattached Diaphragms D1, D4, D5, D28 and D29.

Work this sheet with Sheet No. 18

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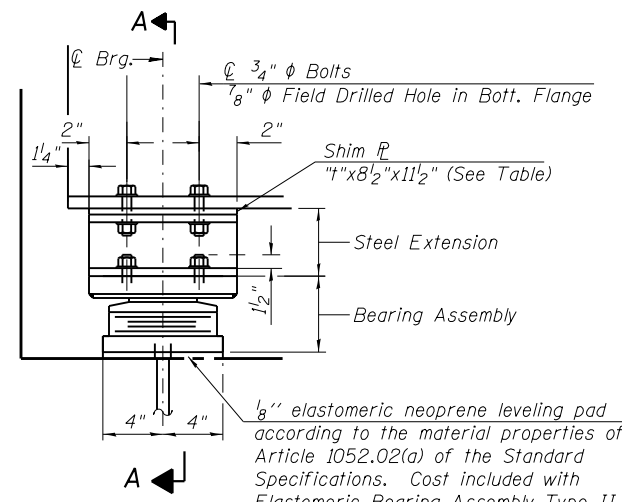


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	CHECKED - JPM, MMH	REVISÉ
PLOT SCALE =	DRAWN - MPS, MJK	REVISÉ
PLOT DATE = 3/3/2017	CHECKED - JPM, MMH, TPG	REVISÉ

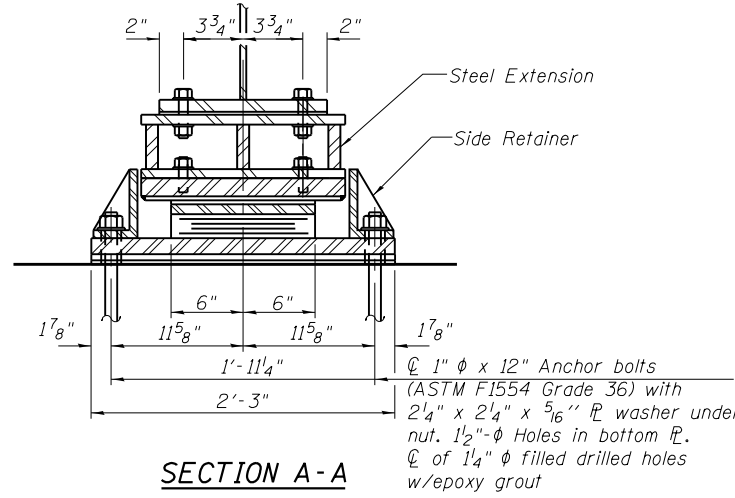
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BEAM DETAILS**  
**STRUCTURE NO.049-0050**  
SHEET NO. 19 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	70
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				



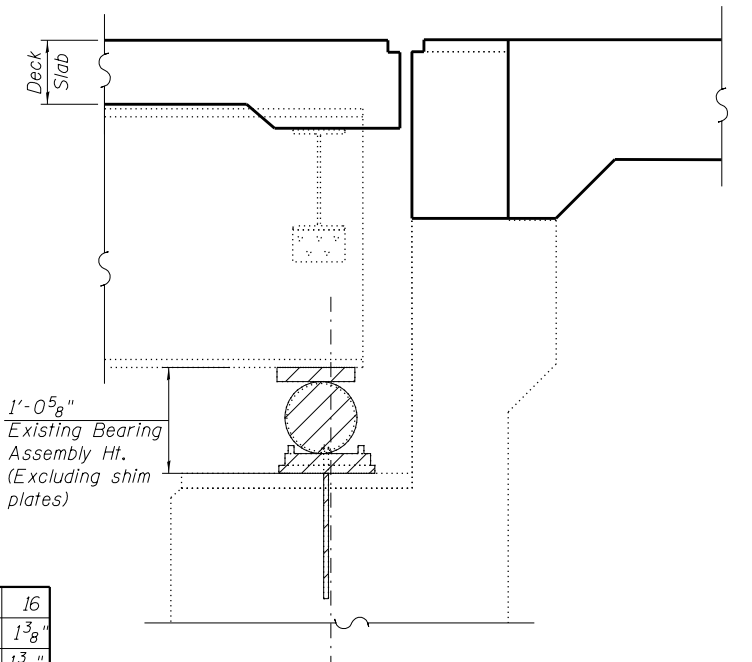
ELEVATION AT W. & E. ABUT.



SECTION A-A

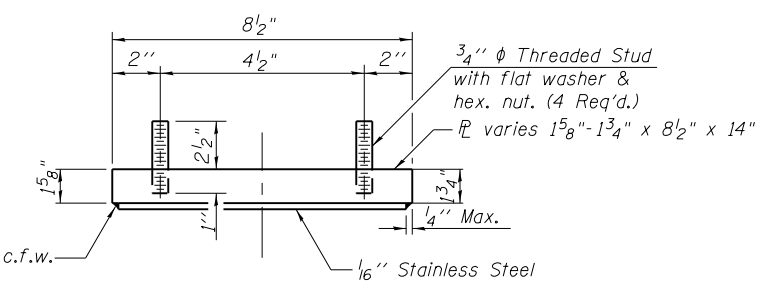
**NOTES: JACK & REMOVE EXIST. BEARING**

1. The Contractor shall submit for approval by the engineer, plan for jacking and cribbing prior to commencing any work on the bearing.
2. Jacking and removing existing bearings, including top and bottom plates and shim plates, shall be done after deck removal is completed and before the new deck is poured.
3. All Stage I and Stage II beams shall be lifted simultaneously in stages.
4. Top plates welded to the bottom flange of beams shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost included with "Jack and Remove Existing Bearings".
5. Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolts smooth and seal with epoxy. Cost is included with "Jack and Remove Existing Bearings".
6. The new bearing shall be in place and the jacks shall be lowered before the new deck is poured.
7. It is the Contractor's responsibility to verify bearing heights prior to ordering material.
8. Minimum Jack Capacity Required = 10 Tons/Jack.

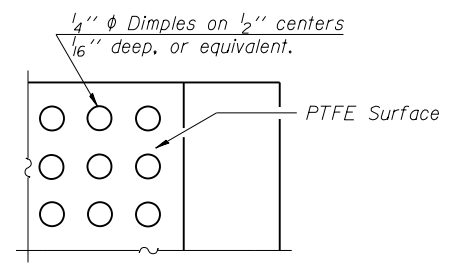


EXISTING ABUTMENT BEARING TO BE REMOVED

**TYPE II ELASTOMERIC EXP. BRG.**



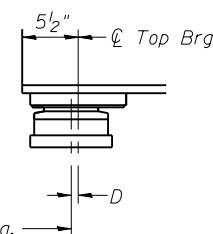
TOP BEARING ASSEMBLY



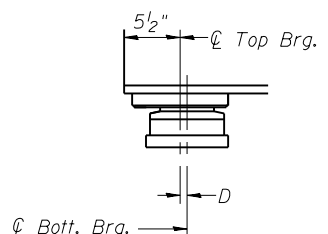
PLAN-PTFE SURFACE

Location Beam	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
W. Abutment	1"	1 1/2"	1 5/8"	3/4"	3/4"	3/4"	1"	1"	1"	1"	1 1/8"	1"	1"	1"	1 3/8"	
E. Abutment	1/8"	3/8"	0"	1/4"	1/4"	1/8"	1/2"	0"	3/8"	1/2"	1/2"	1/4"	5/8"	1 1/2"	1 1/2"	1 3/8"

**SHIM PLATES**



BELOW 50°F.

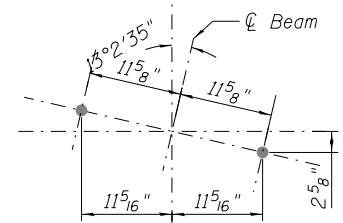


ABOVE 50°F.

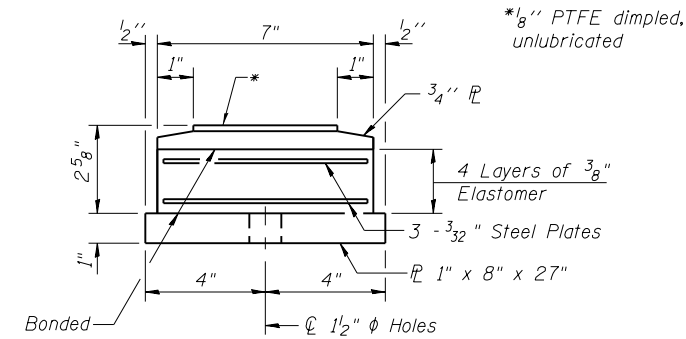
(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

**SETTING ANCHOR BOLTS AT EXP. BRG.**

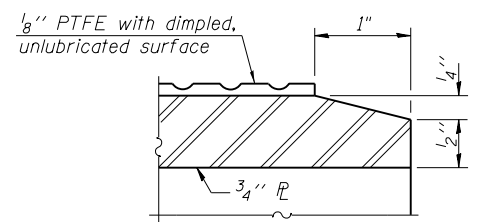
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



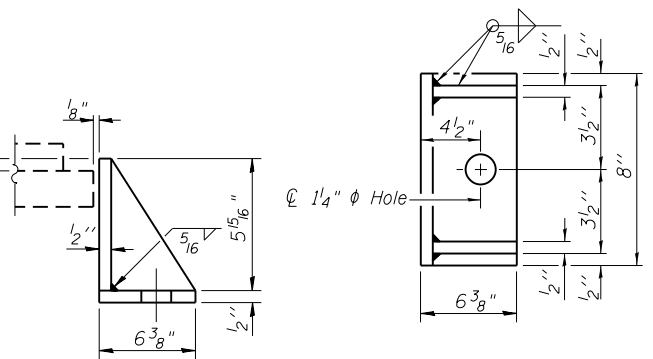
**ANCHOR BOLT LAYOUT**



BOTTOM BEARING ASSEMBLY

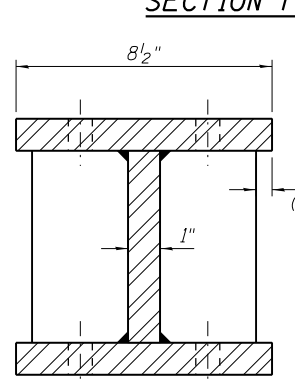


SECTION THRU PTFE

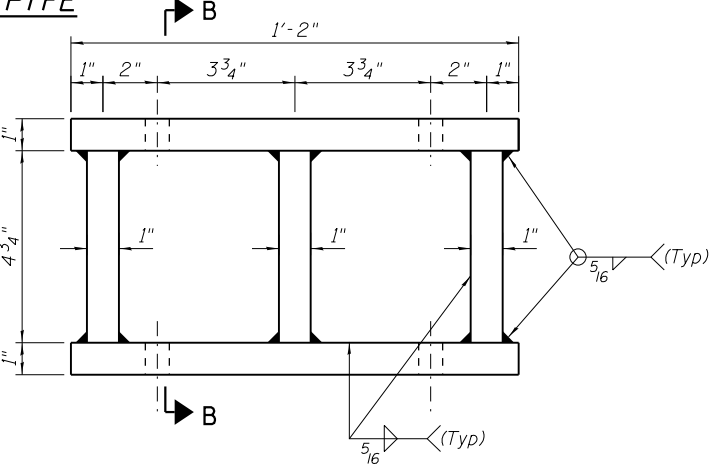


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

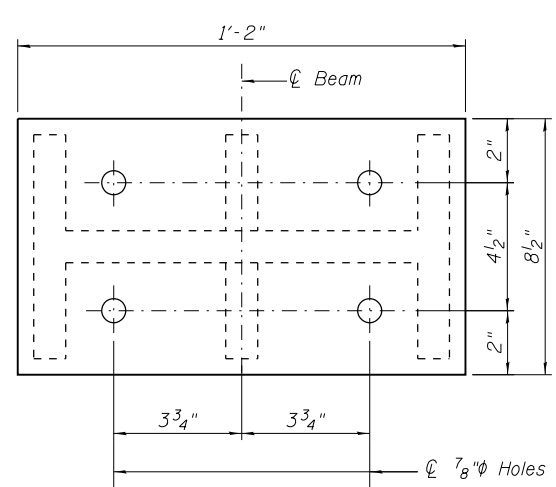


SECTION B-B



ELEVATION

**STEEL EXTENSION**



PLAN

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	3,570
Elastomeric Bearing Assembly Type II	Each	32
Anchor Bolts, 1" Diam.	Each	64
Jack & Remove Exist. Bearing	Each	32

\* Includes Bearing Steel Extensions

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 36. Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

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USER NAME =	DESIGNED - JRB	REVISED
PLOT SCALE =	CHECKED - MMH	REVISED
PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JRB, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

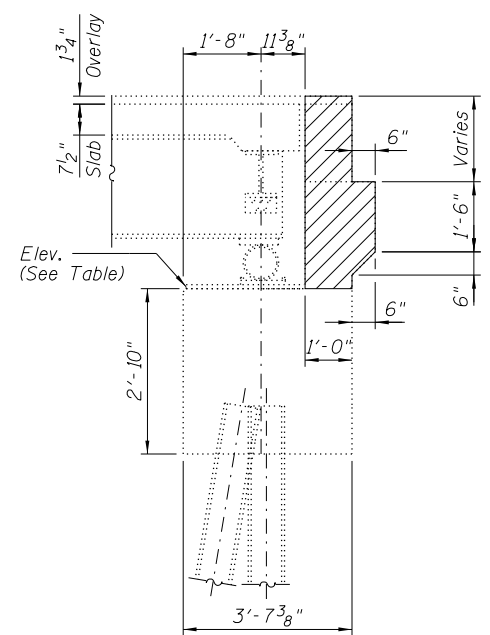
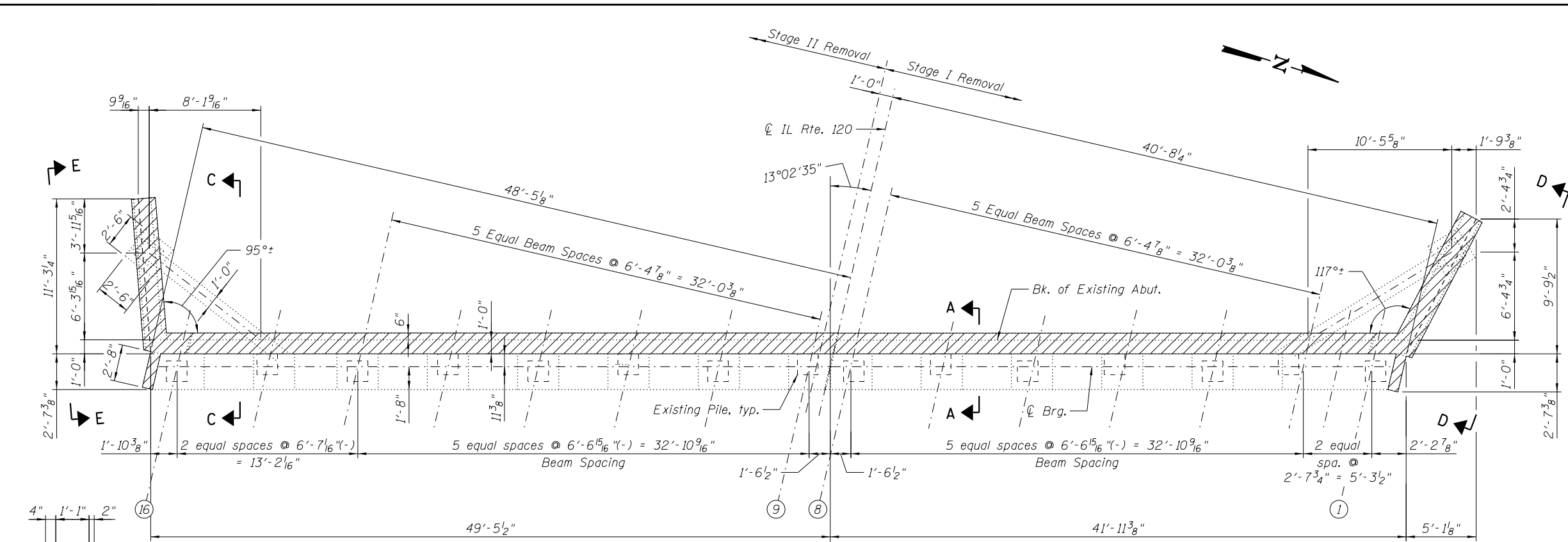
ELASTOMERIC BEARING TYPE II  
STRUCTURE NO.049-0050

SHEET NO. 20 OF 30 SHEETS

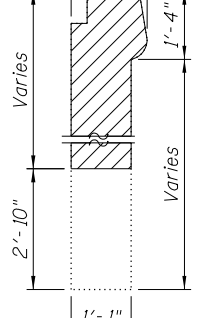
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	71
				CONTRACT NO. 60X39

ILLINOIS FED. AID PROJECT

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**SECTION A-A**  
(Dimensions at Rt. Angles)

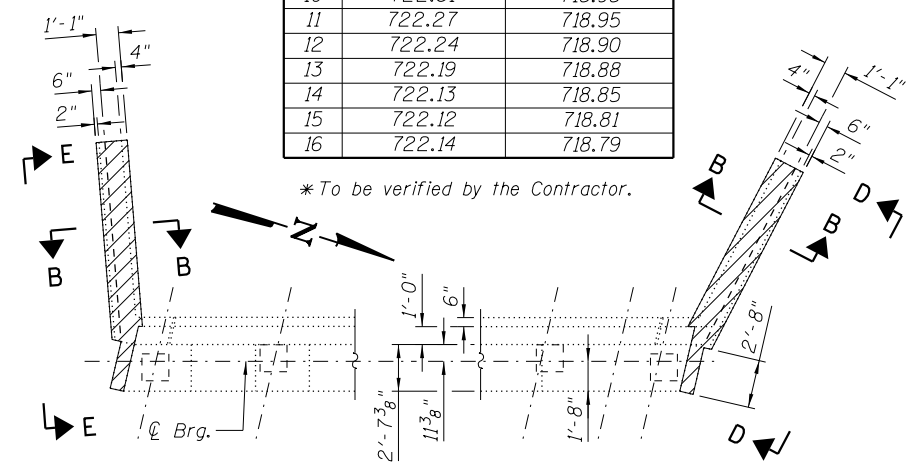


**SECTION B-B**

**EXISTING BEARING SEAT ELEVATIONS\***  
(From survey data)

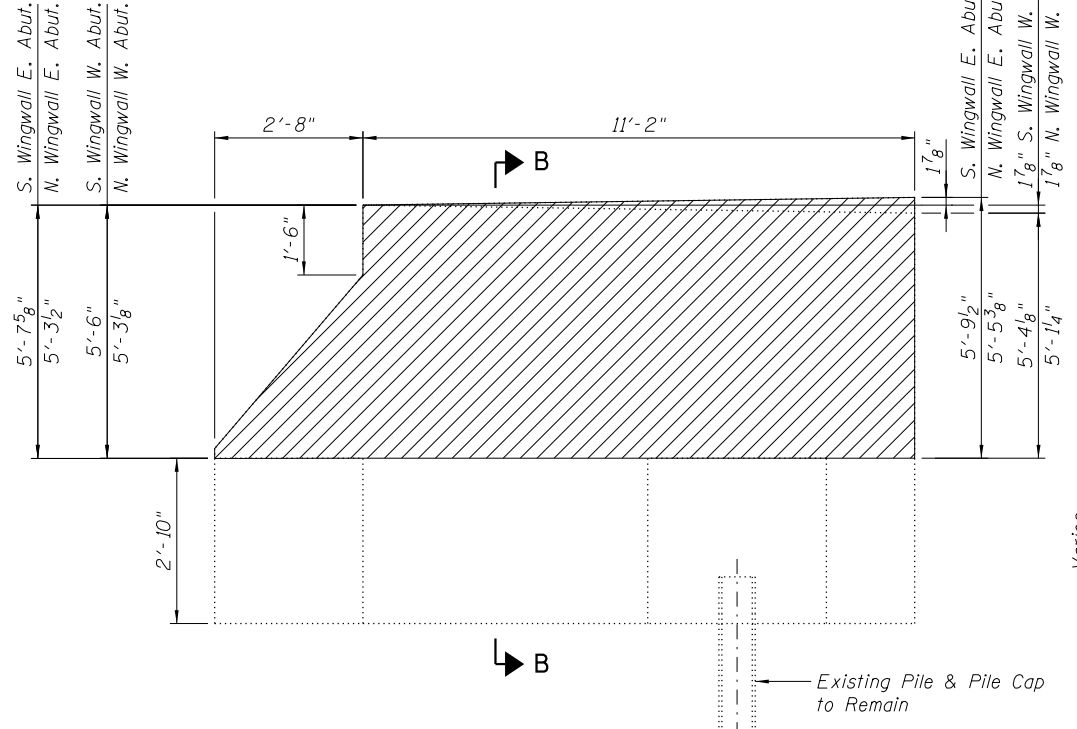
Beam	Q. Brg. E. Abut.	Q. Brg. W. Abut.
1	721.76	718.58
2	721.85	718.55
3	721.95	718.56
4	722.01	718.71
5	722.09	718.79
6	722.16	718.87
7	722.23	718.96
8	722.31	718.99
9	722.33	718.98
10	722.31	718.98
11	722.27	718.95
12	722.24	718.90
13	722.19	718.88
14	722.13	718.85
15	722.12	718.81
16	722.14	718.79

\*To be verified by the Contractor.



**PARTIAL WINGWALL REMOVAL PLAN**  
(W. Abut. shown, E. Abut. Similar)

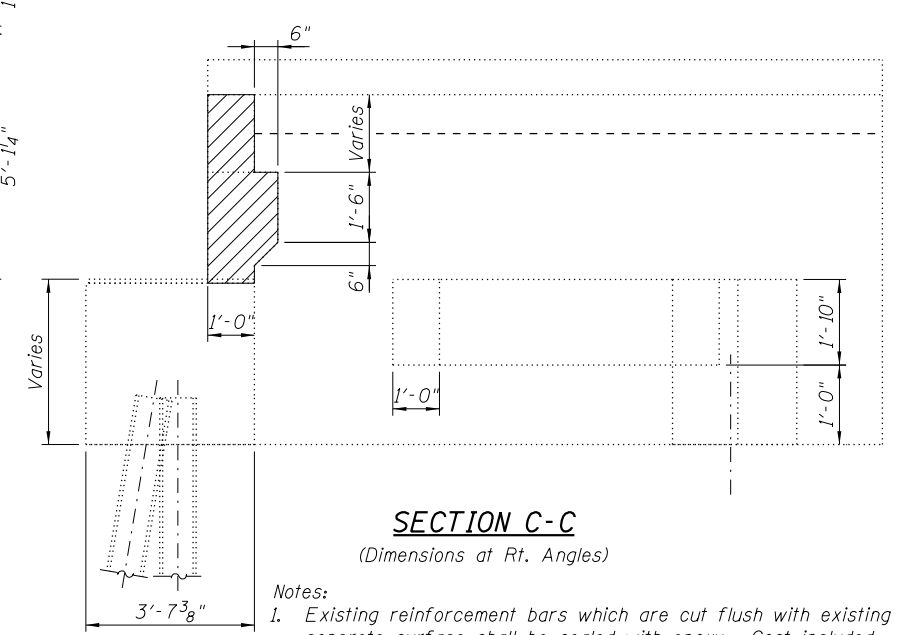
**PARTIAL EAST & WEST ABUTMENT REMOVAL**  
(W. Abut. shown, E. Abut. Similar)



**VIEW D-D**  
**VIEW E-E (OPP. HAND)**

**BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	49.7



**SECTION C-C**  
(Dimensions at Rt. Angles)

- Notes:
- Existing reinforcement bars which are cut flush with existing concrete surface shall be sealed with epoxy. Cost included with "Concrete Removal".
  - Some vertical dimensions relative to the existing structure have been adjusted to account for presumed differences between elevations shown in the existing plans and project survey data. It is the Contractor's responsibility to verify all dimensions prior to construction or ordering of materials.

**LEGEND**



**LE** LIN ENGINEERING, LTD.  
Consulting Engineers  
Springfield, Illinois

USER NAME =	DESIGNED - HP	REVISED
PLOT SCALE =	CHECKED - TBP	REVISED
PLOT DATE = 3/3/2017	DRAWN - AJF	REVISED
	CHECKED - MMH/MTH	REVISED

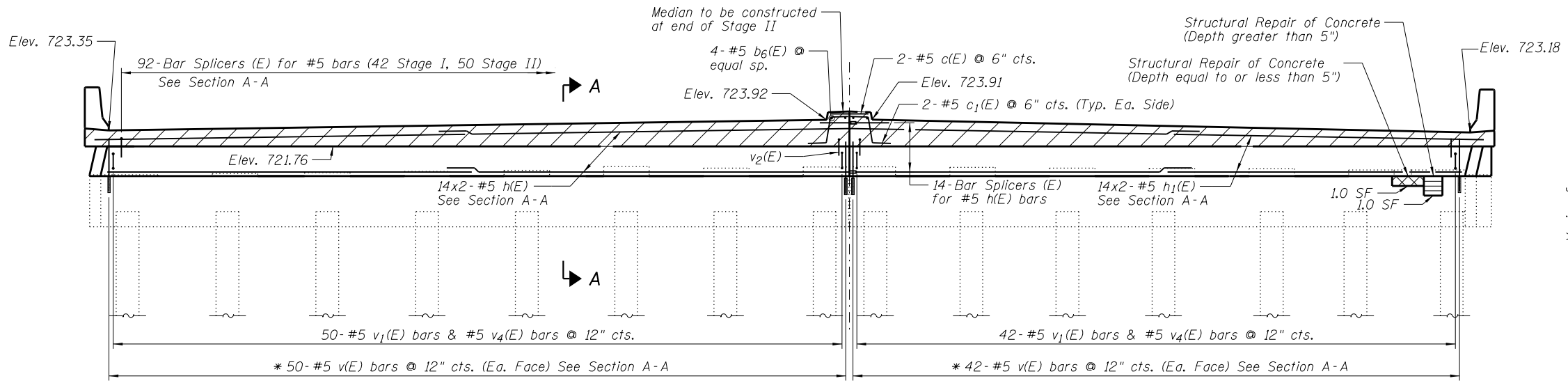
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST AND WEST ABUTMENTS & WINGWALLS REMOVAL**  
**STRUCTURE NO.049-0050**

SHEET NO. 21 OF 30 SHEETS

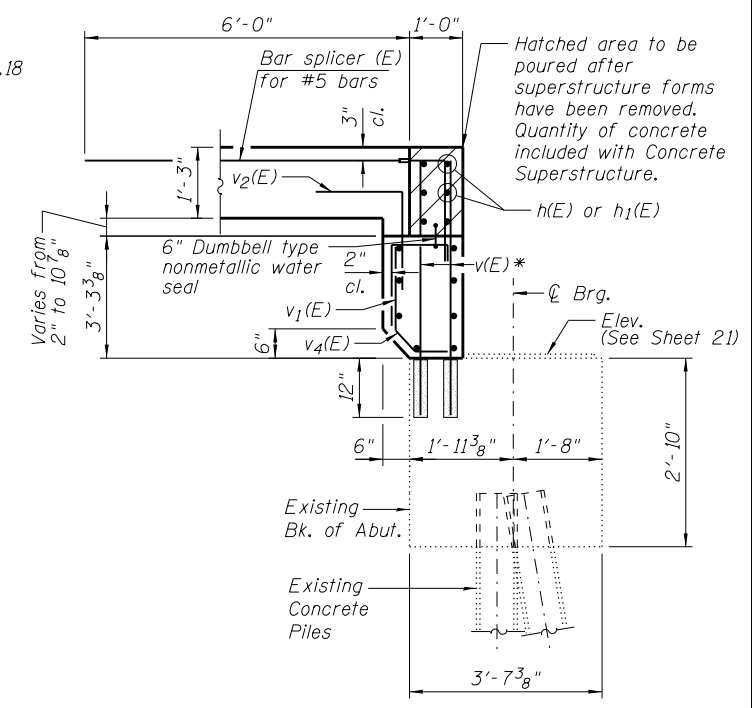
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	72
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



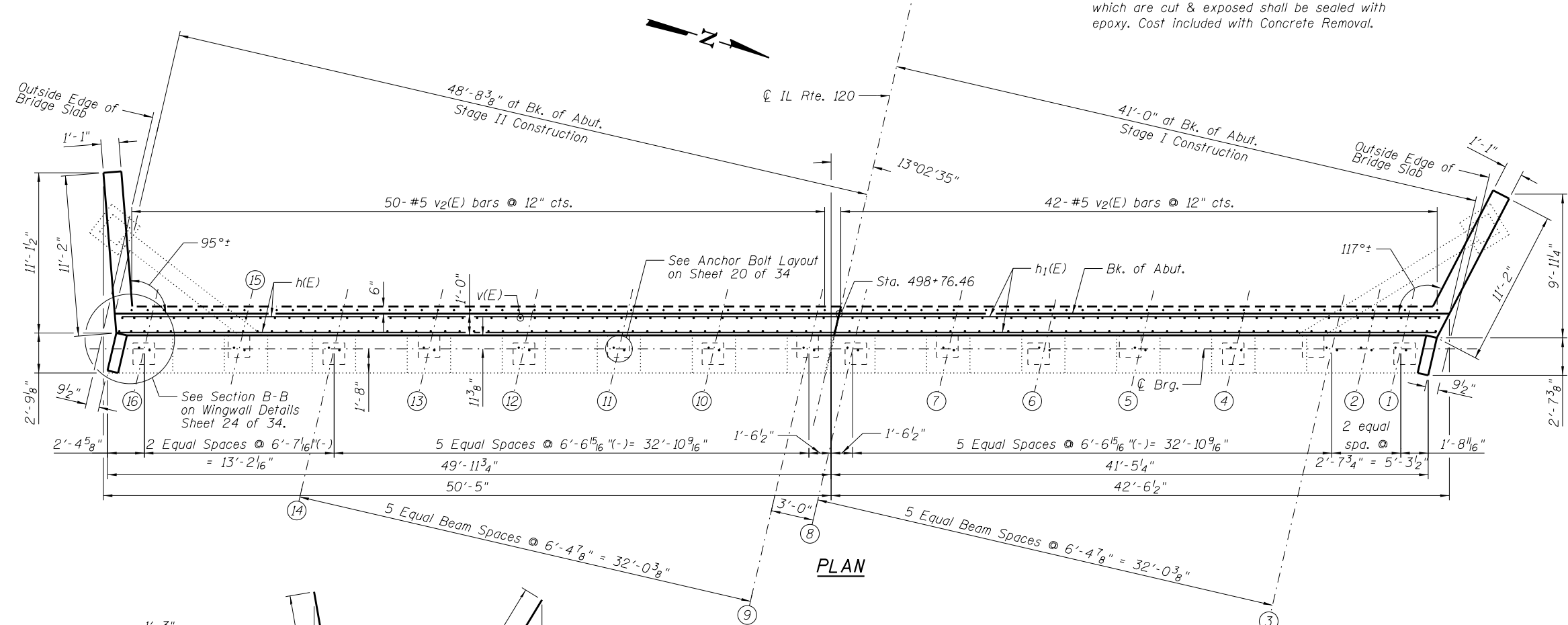


**ELEVATION**

\*Drill and grout #5 v(E) bars according to Section 584 of the Standard Specifications. Maximum depth of hole shall not exceed 12". The ends of existing reinforcement bars which are cut & exposed shall be sealed with epoxy. Cost included with Concrete Removal.



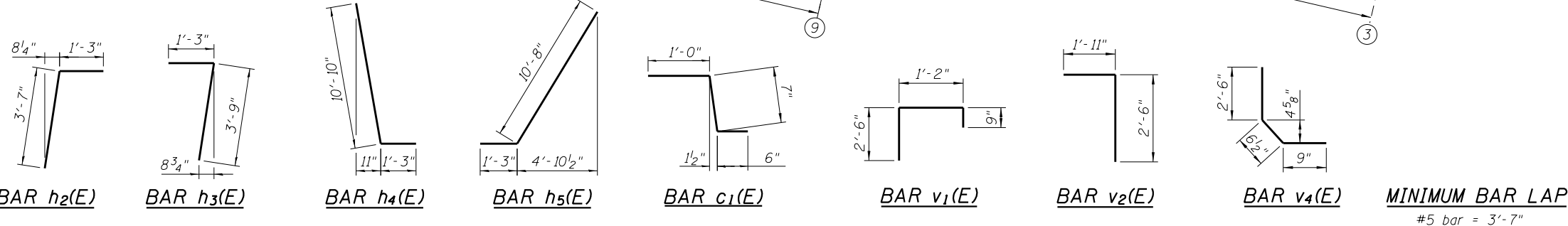
**SECTION A-A**



**PLAN**

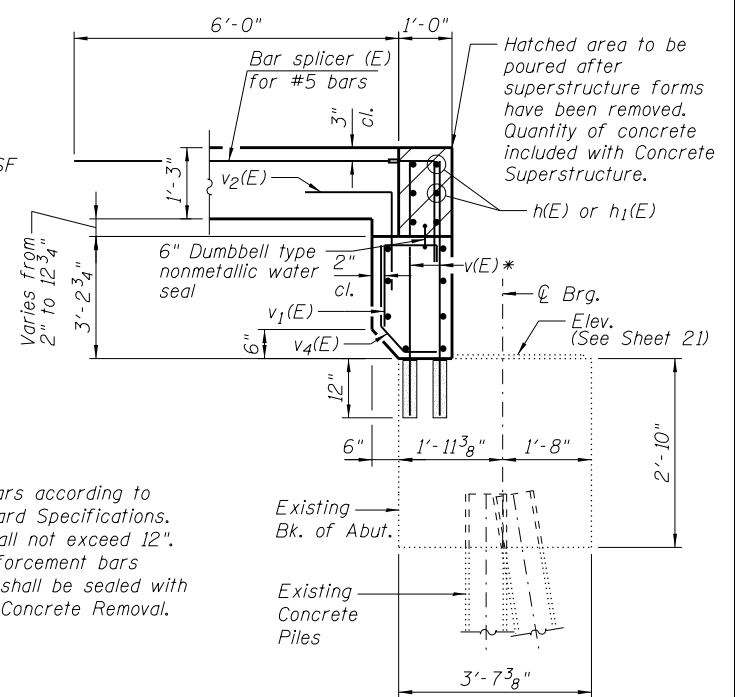
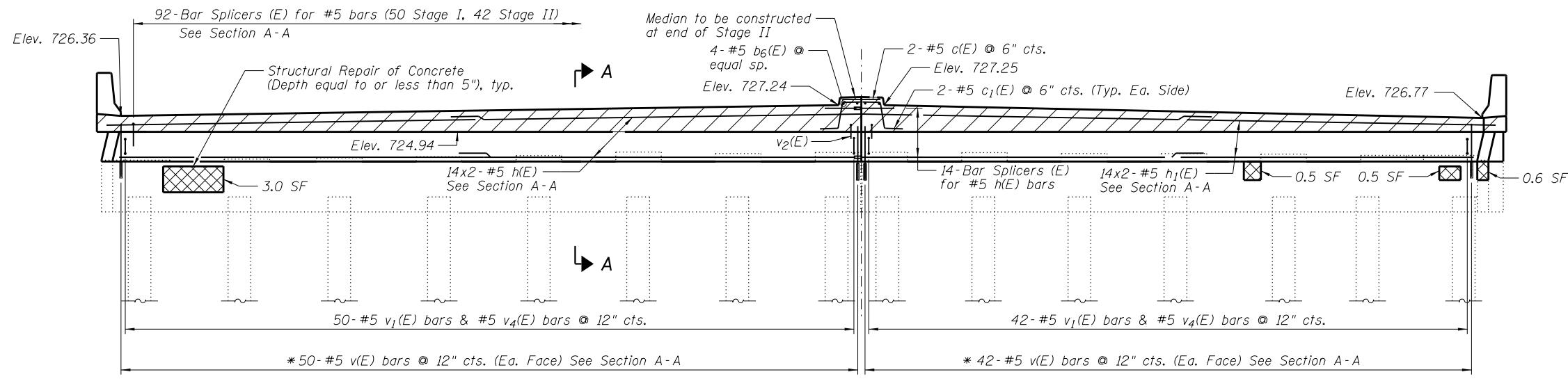
**BILL OF MATERIAL - WEST ABUT.**

Bar	No.	Size	Length	Shape
b <sub>6</sub> (E)	4	#5	0'-8"	—
c(E)	2	#5	2'-6"	—
c <sub>1</sub> (E)	4	#5	2'-1"	┘
h(E)	28	#5	26'-8"	—
h <sub>1</sub> (E)	28	#5	22'-10"	—
h <sub>2</sub> (E)	6	#5	4'-10"	┘
h <sub>3</sub> (E)	6	#5	5'-0"	┘
h <sub>4</sub> (E)	8	#5	12'-1"	┘
h <sub>5</sub> (E)	8	#5	11'-11"	┘
v(E)	184	#5	5'-5"	—
v <sub>1</sub> (E)	92	#5	4'-5"	┘
v <sub>2</sub> (E)	92	#5	4'-5"	┘
v <sub>3</sub> (E)	44	#6	5'-4"	—
v <sub>4</sub> (E)	92	#5	3'-10"	┘
Item	Unit	Total		
Reinforcement Bars, Epoxy Coated	Pound	4340		
Concrete Structures	Cu. Yd.	19.1		
Concrete Superstructure	Cu. Yd.	6.2		
Concrete Sealer	Sq. Ft.	666		
Structure Excavation	Cu. Yd.	142		
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	1.0		
Structural Repair of Concrete (Depth greater than 5")	Sq. Ft.	1.0		

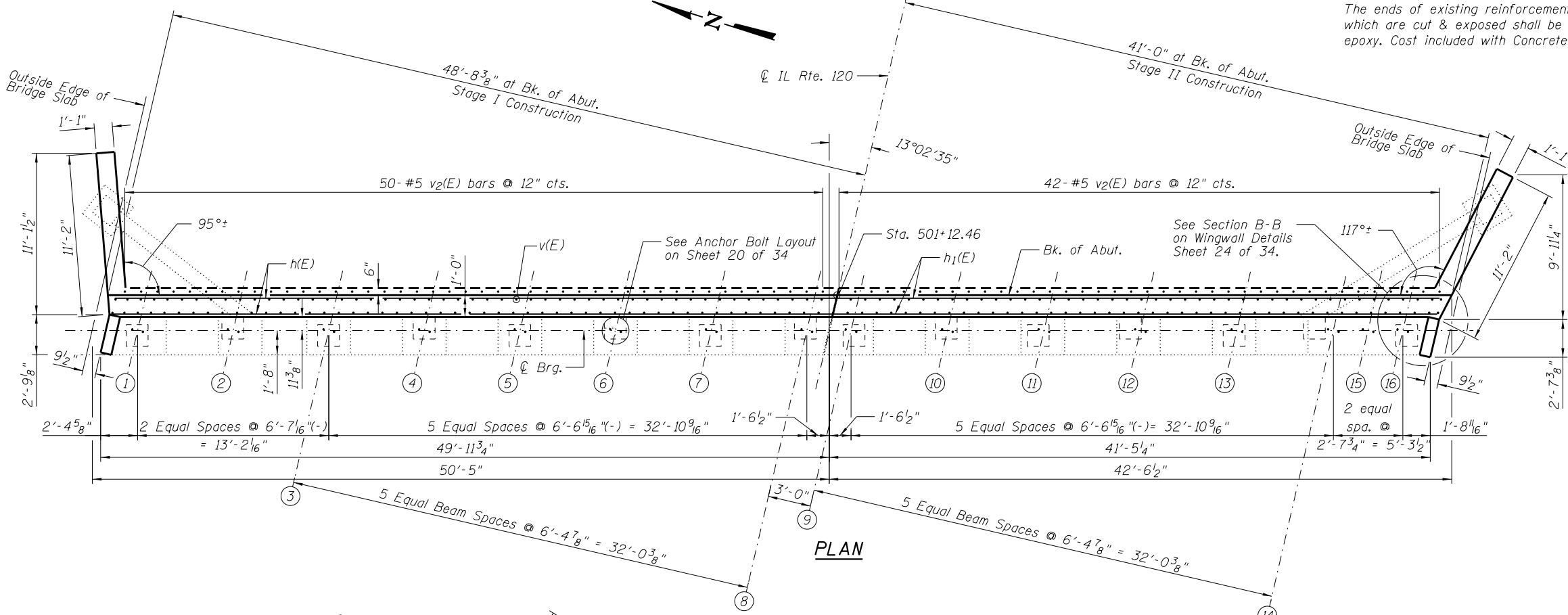


Notes:  
 1. Concrete Sealer shall be applied to the front face of backwall, bearing seat and front face of exposed cap.  
 2. Bill of Material includes Northwest and Southwest Wingwalls.  
 3. Some vertical dimensions relative to existing structure have been adjusted to account for presumed differences between elevations shown in the existing plans and project survey data. It is the Contractor's responsibility to verify all dimensions prior to construction or ordering of materials.

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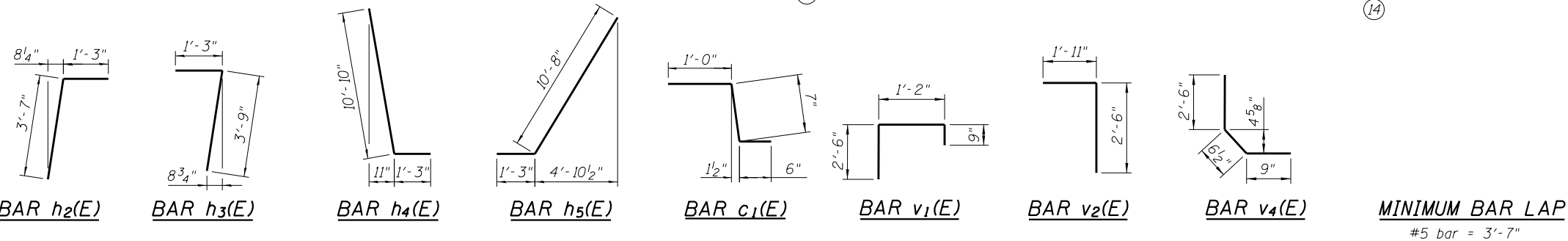


\*Drill and grout #5 v(E) bars according to Section 584 of the Standard Specifications. Maximum depth of hole shall not exceed 12". The ends of existing reinforcement bars which are cut & exposed shall be sealed with epoxy. Cost included with Concrete Removal.



**BILL OF MATERIAL - EAST ABUT.**

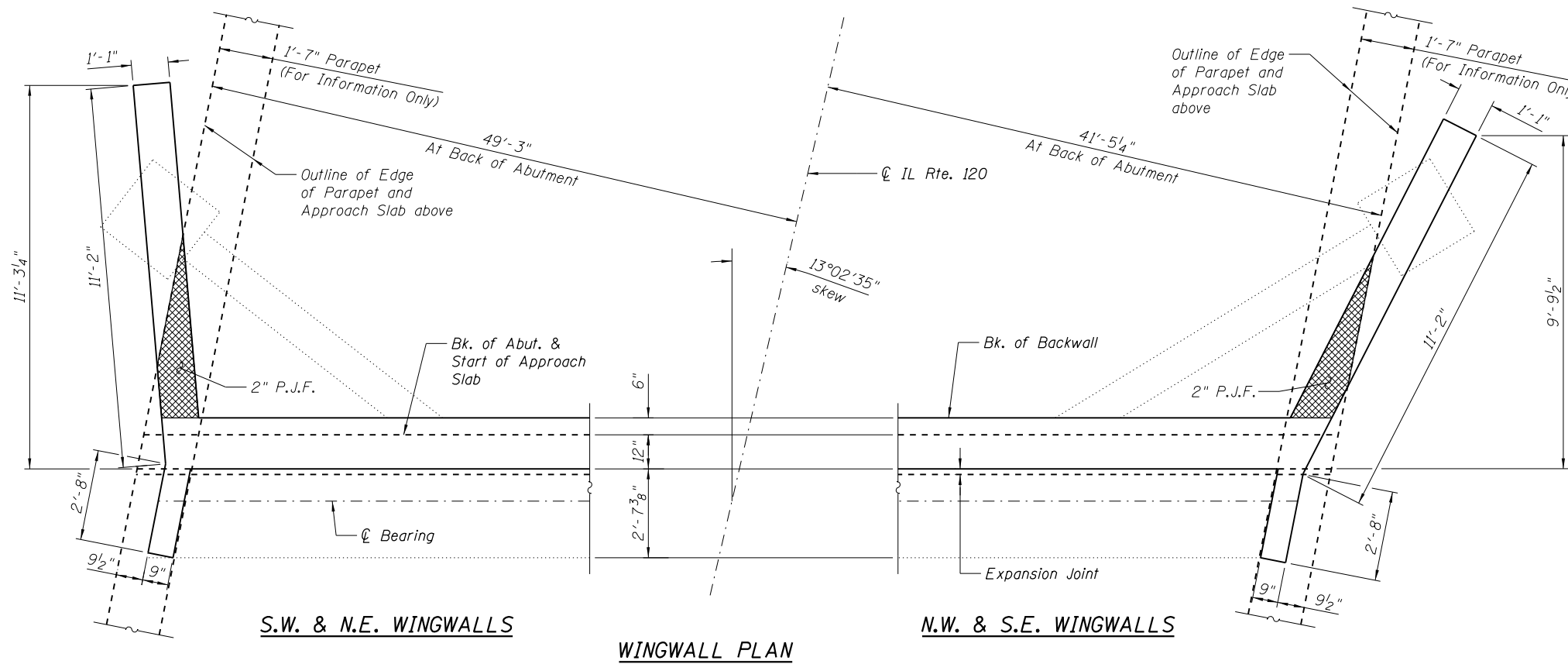
Bar	No.	Size	Length	Shape	
b <sub>6</sub> (E)	4	#5	0'-8"	—	
c(E)	2	#5	2'-6"	—	
c <sub>1</sub> (E)	4	#5	2'-1"	┌	
h(E)	28	#5	26'-8"	—	
h <sub>1</sub> (E)	28	#5	22'-10"	—	
h <sub>2</sub> (E)	6	#5	4'-10"	┌	
h <sub>3</sub> (E)	6	#5	5'-0"	┌	
h <sub>4</sub> (E)	8	#5	12'-1"	┌	
h <sub>5</sub> (E)	8	#5	11'-11"	┌	
v(E)	184	#5	5'-5"	—	
v <sub>1</sub> (E)	92	#5	4'-5"	┌	
v <sub>2</sub> (E)	92	#5	4'-5"	┌	
v <sub>3</sub> (E)	44	#6	5'-4"	—	
v <sub>4</sub> (E)	92	#5	3'-10"	┌	
Item				Unit	Total
Reinforcement Bars, Epoxy Coated				Pound	4340
Concrete Structures				Cu. Yd.	19.0
Concrete Superstructure				Cu. Yd.	6.6
Concrete Sealer				Sq. Ft.	661
Structure Excavation				Cu. Yd.	142
Structural Repair of Concrete (Depth equal to or less than 5")				Sq. Ft.	4.6



Notes:

- Concrete Sealer shall be applied to the front face of backwall, bearing seat and front face of exposed cap.
- Bill of Material includes Northwest and Southwest Wingwalls.
- Some vertical dimensions relative to existing structure have been adjusted to account for presumed differences between elevations shown in the existing plans and project survey data. It is the Contractor's responsibility to verify all dimensions prior to construction or ordering of materials.

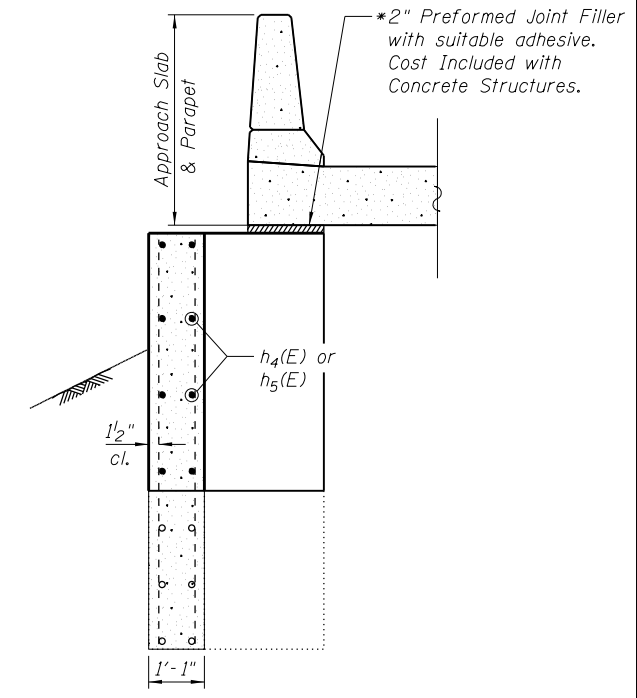
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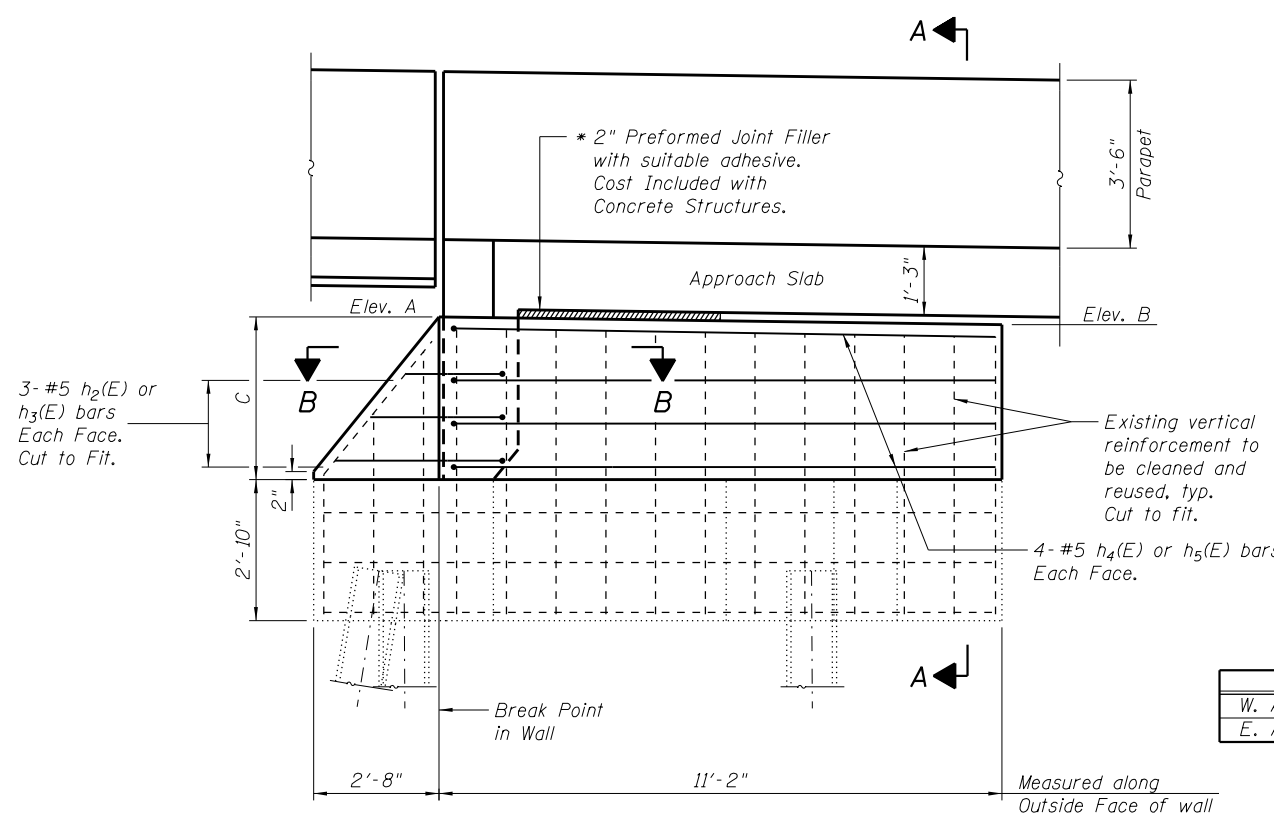
S.W. & N.E. WINGWALLS

N.W. & S.E. WINGWALLS

WINGWALL PLAN

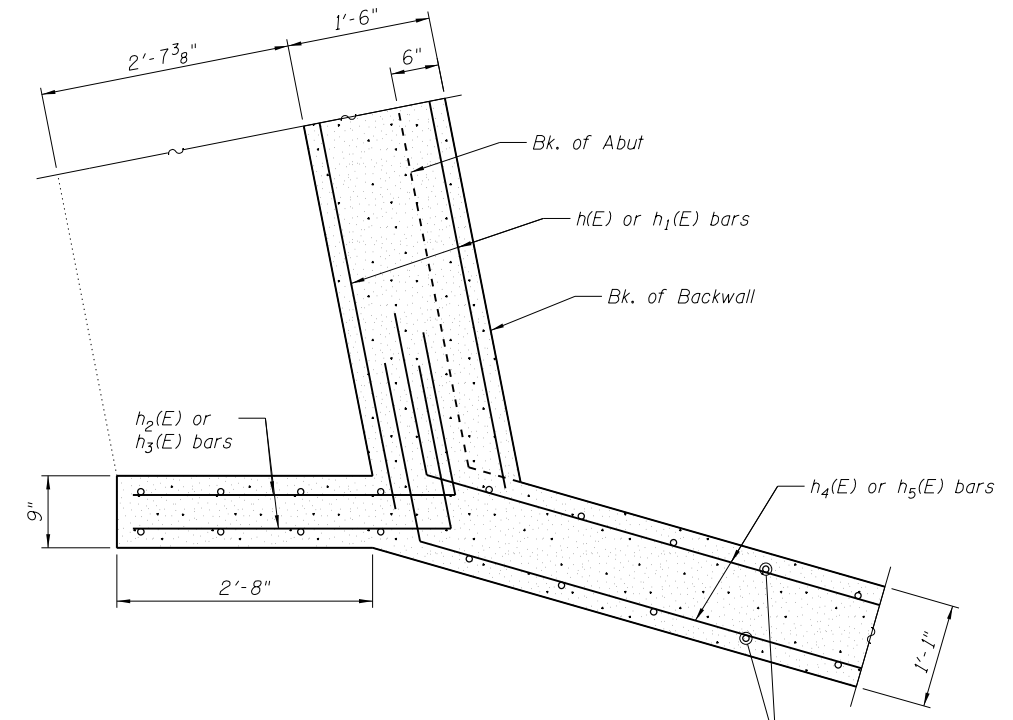


SECTION A-A



ELEVATION

\* A suitable adhesive must be compatible with preformed joint filler material and concrete. Surface preparation shall be conducted in accordance with manufacturer's guidelines.



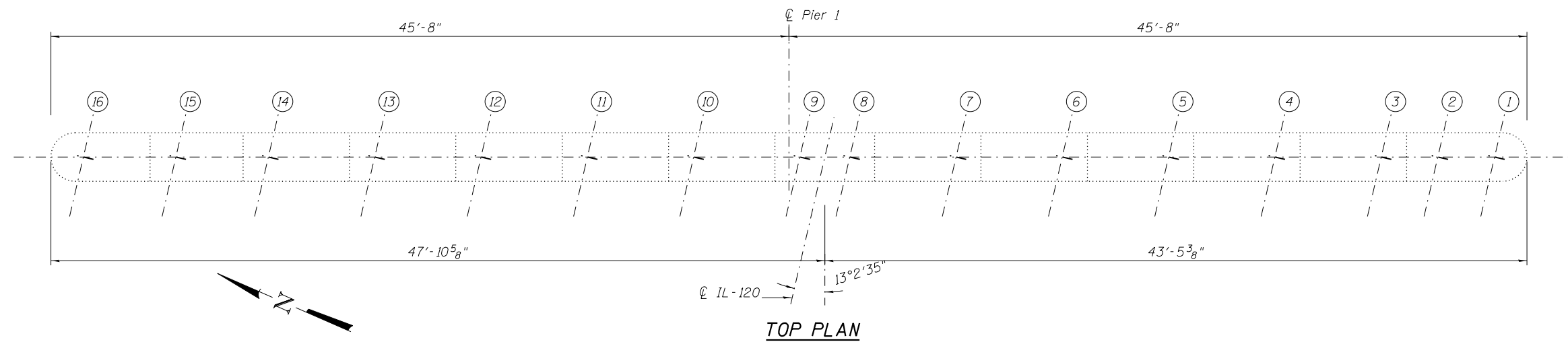
PLAN AT CORNERS  
SECTION B-B

Note: Some vertical dimensions relative to existing structure have been adjusted to account for presumed differences between elevations shown in the existing plans and project survey data. It is the Contractor's responsibility to verify all dimensions prior to construction or ordering of materials.

DIMENSION TABLE

	A	B	C
W. Abut.	721.76	721.60	3'-3 3/8"
E. Abut.	724.94	725.10	3'-2 3/4"

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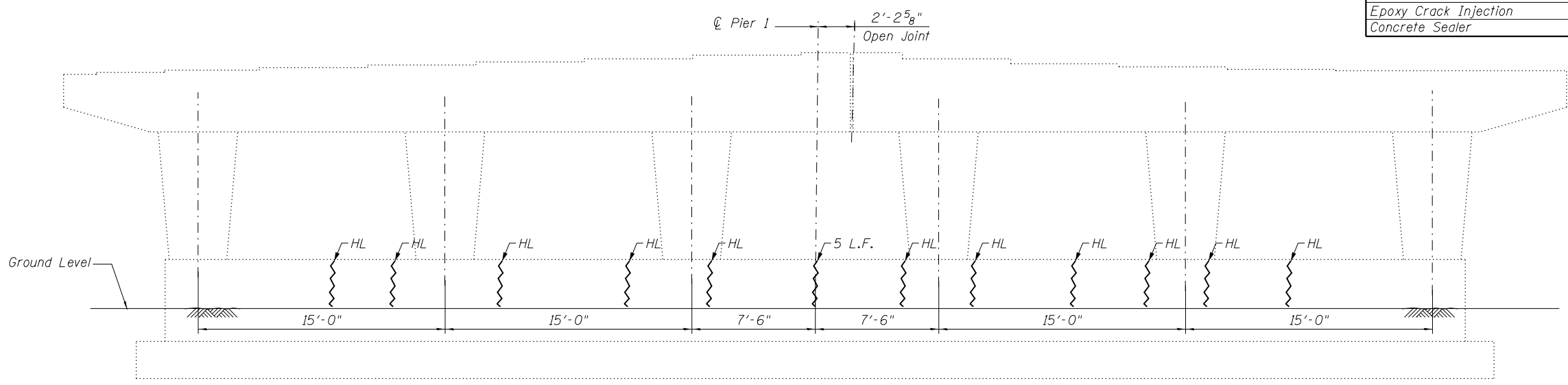
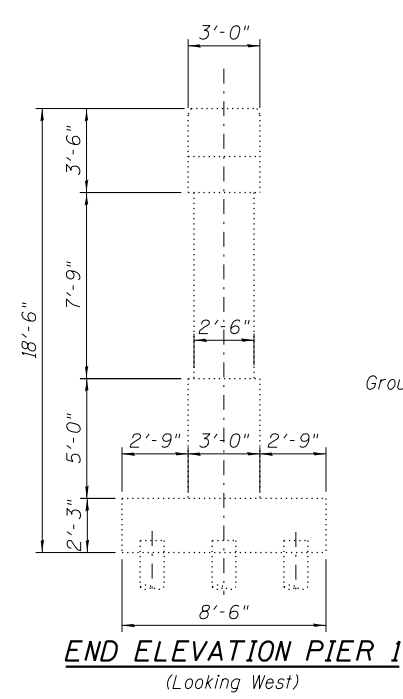


**LEGEND**

- Structural Repair of Concrete (Depth Equal to or Less Than 5")
- L.F. Epoxy Crack Injection
- HL Hairline crack (For Information Only)
- HL Hairline crack with efflorescence

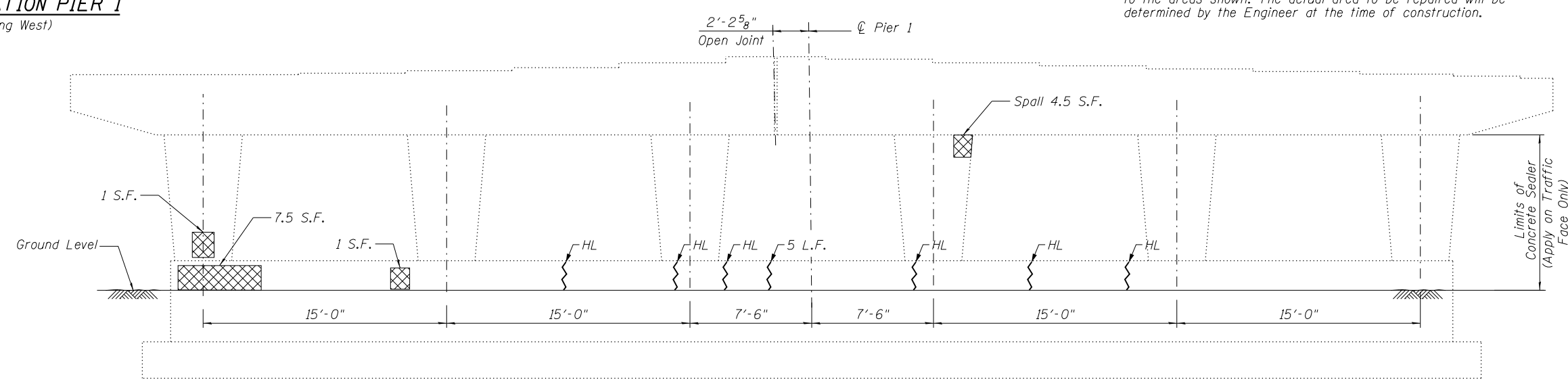
**BILL OF MATERIAL**

Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	14.0
Epoxy Crack Injection	Ft.	10.0
Concrete Sealer	Sq. Ft.	14.0

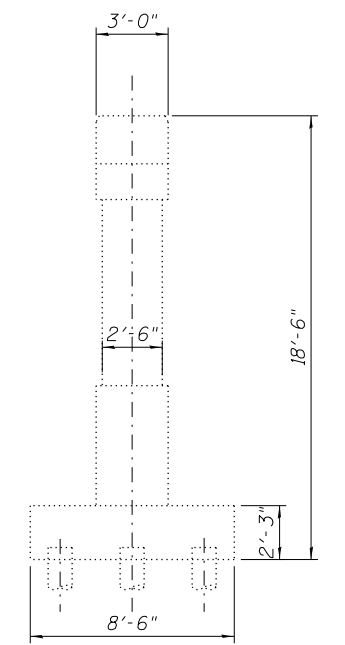


**ELEVATION PIER 1**  
(Looking East)

Note:  
Repair of the existing pier shall include but not be limited to the areas shown. The actual area to be repaired will be determined by the Engineer at the time of construction.



**ELEVATION PIER 1**  
(Looking West)



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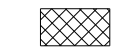
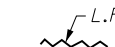
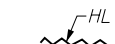
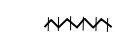
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PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 1 REPAIR DETAILS**  
**STRUCTURE NO.049-0050**  
SHEET NO. 25 OF 30 SHEETS

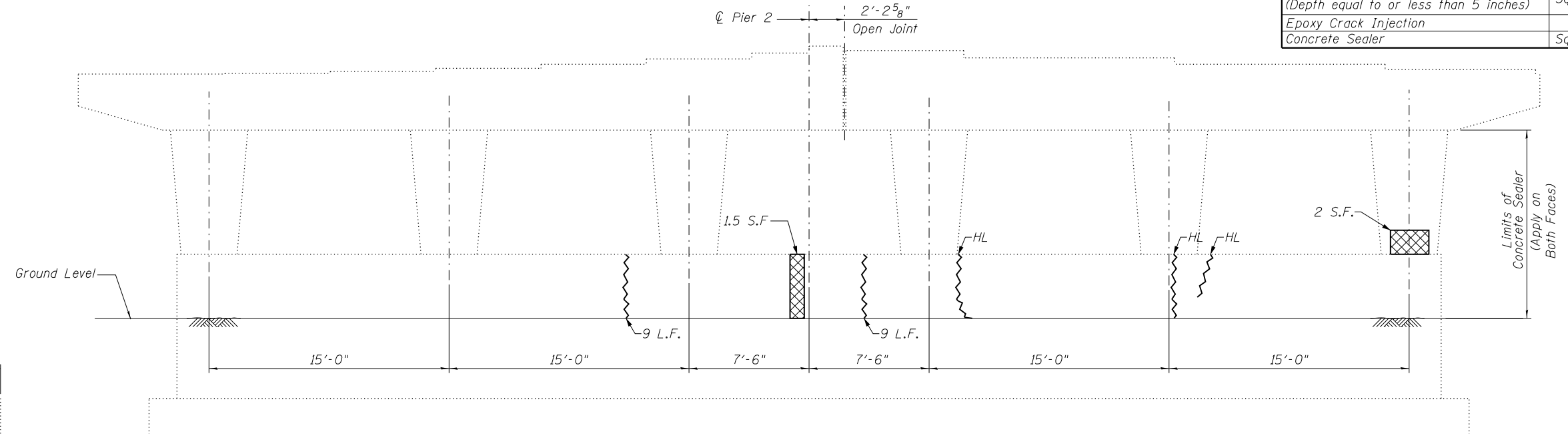
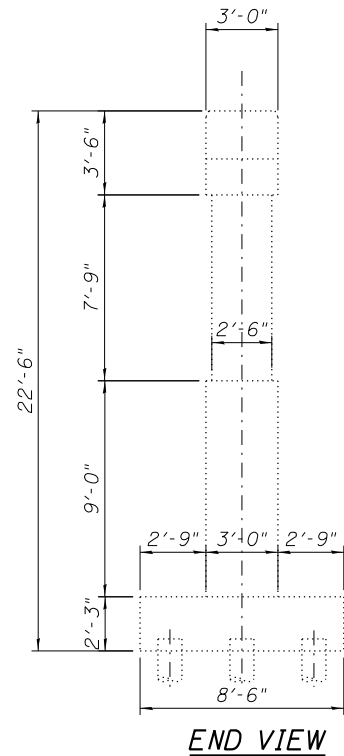
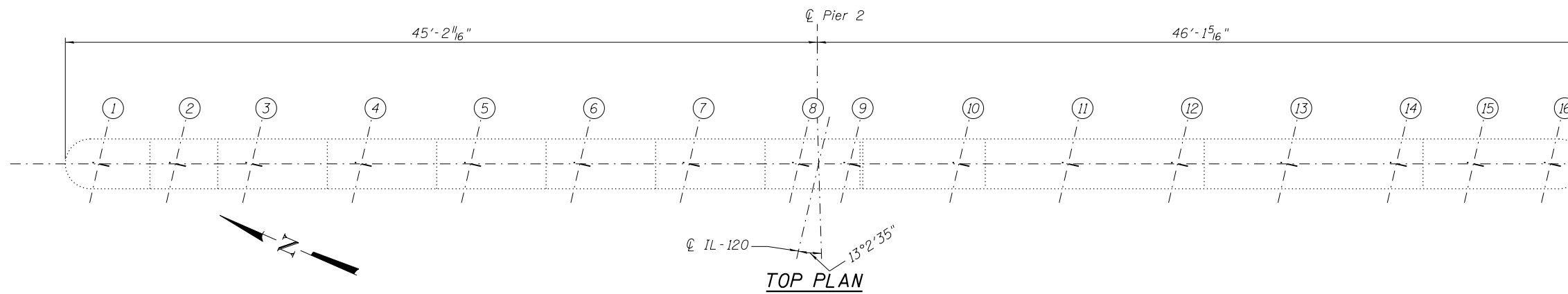
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	76
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

**LEGEND**

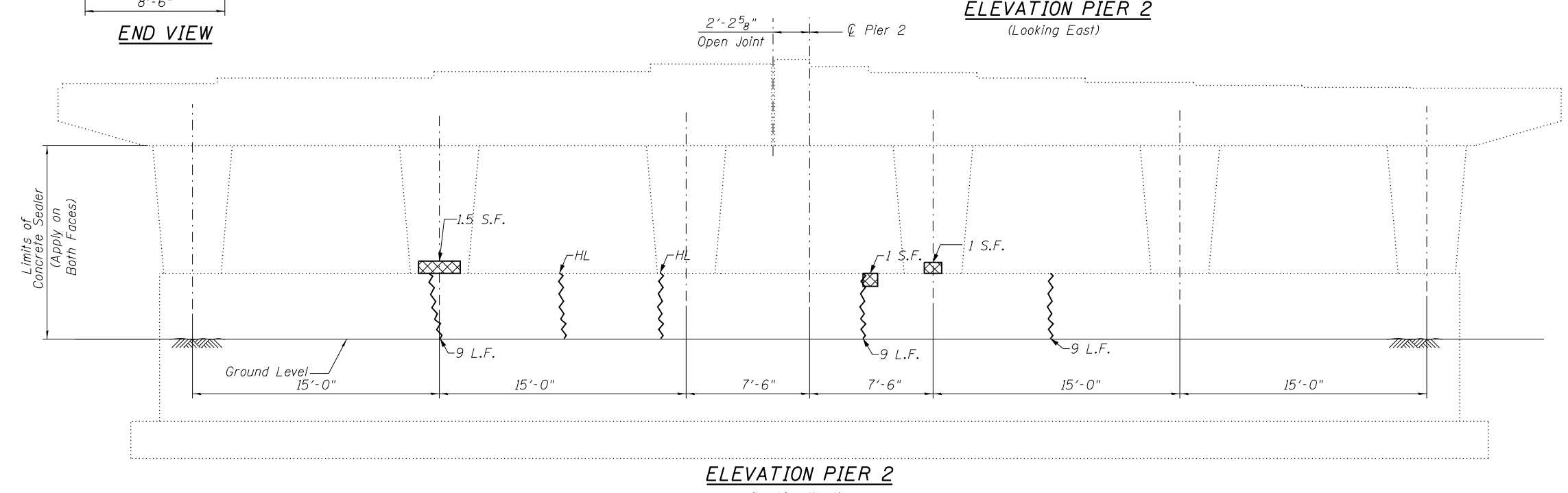
-  Structural Repair of Concrete (Depth Equal to or Less Than 5")
-  L.F. Epoxy Crack Injection
-  HL Hairline crack (For Information Only)
-  Hairline crack with efflorescence

**BILL OF MATERIAL**

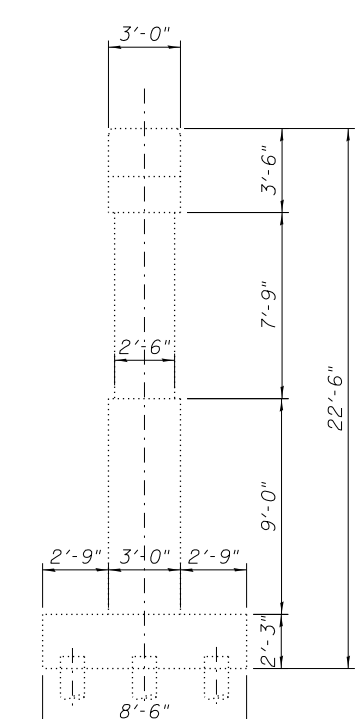
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	7.0
Epoxy Crack Injection	Ft.	45
Concrete Sealer	Sq. Ft.	7.0



**ELEVATION PIER 2**  
(Looking East)



**ELEVATION PIER 2**  
(Looking West)



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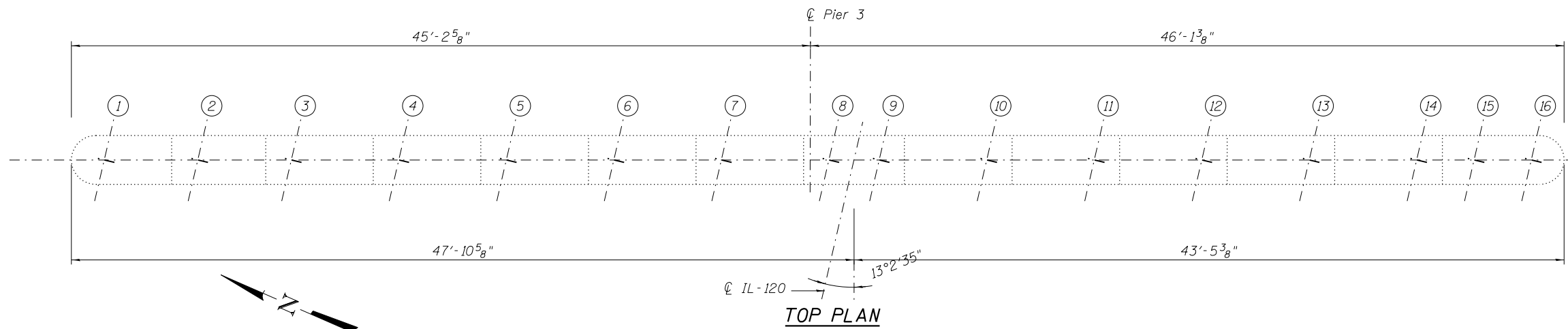


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PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 2 REPAIR DETAILS**  
**STRUCTURE NO.049-0050**  
SHEET NO. 26 OF 30 SHEETS

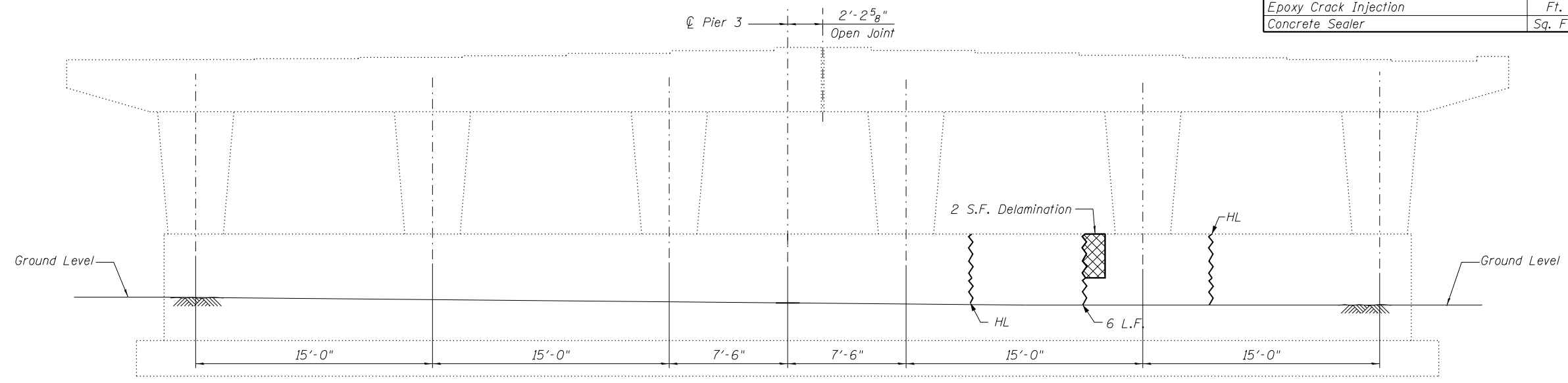
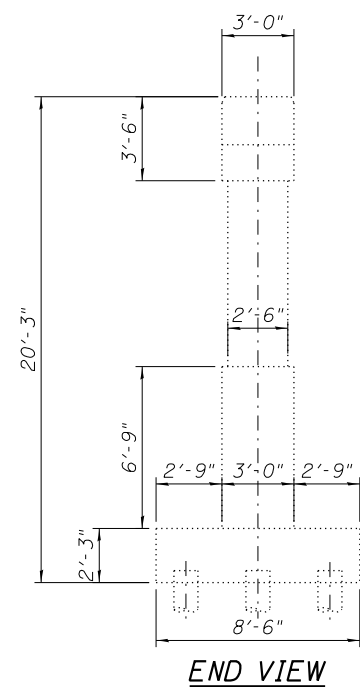
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333	12(HB&VB)BR & RS-7	LAKE	198	77
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



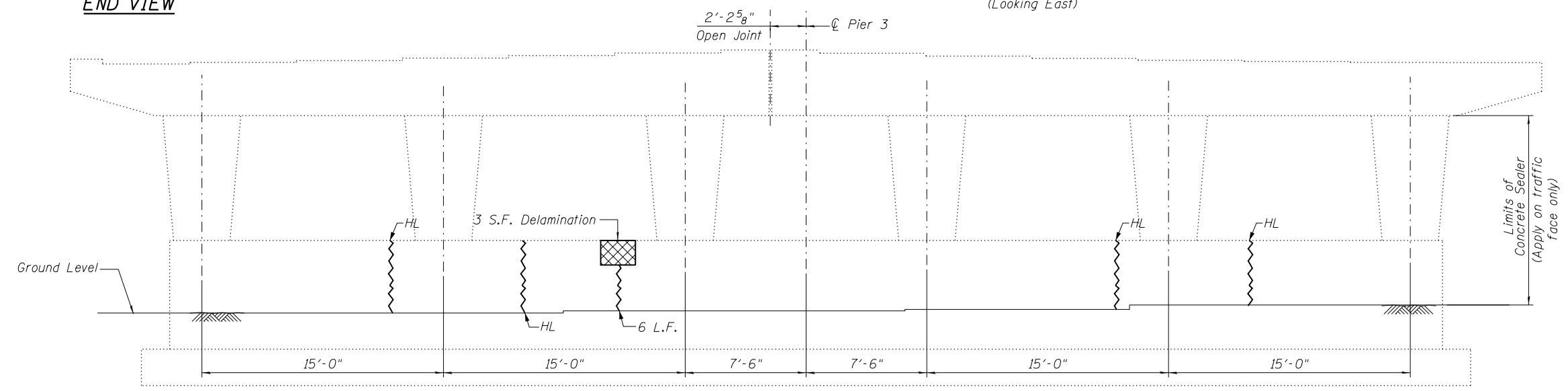
- LEGEND**
- Structural Repair of Concrete (Depth Equal to or Less Than 5")
  - L.F. Epoxy Crack Injection
  - HL Hairline crack (For Information Only)
  - Hairline crack with efflorescence

**BILL OF MATERIAL**

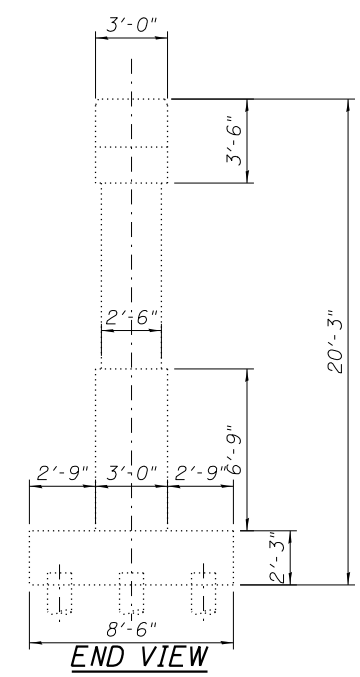
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	5.0
Epoxy Crack Injection	Ft.	12.0
Concrete Sealer	Sq. Ft.	5.0



**ELEVATION PIER 3**  
(Looking East)



**ELEVATION PIER 3**  
(Looking West)



**END VIEW**

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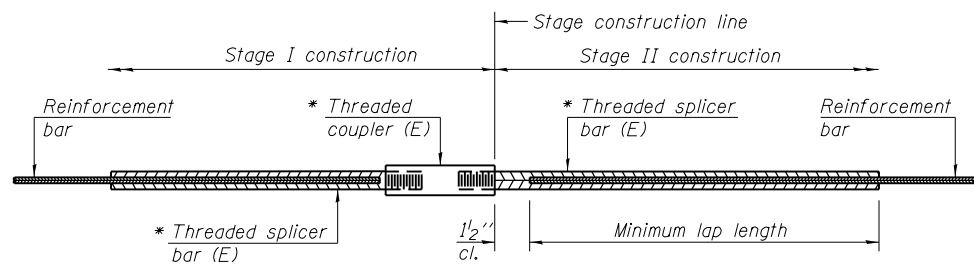


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PLOT DATE = 3/3/2017	CHECKED - JRB, MMH, TPG	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 3 REPAIR DETAILS**  
**STRUCTURE NO.049-0050**  
SHEET NO. 27 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	78
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

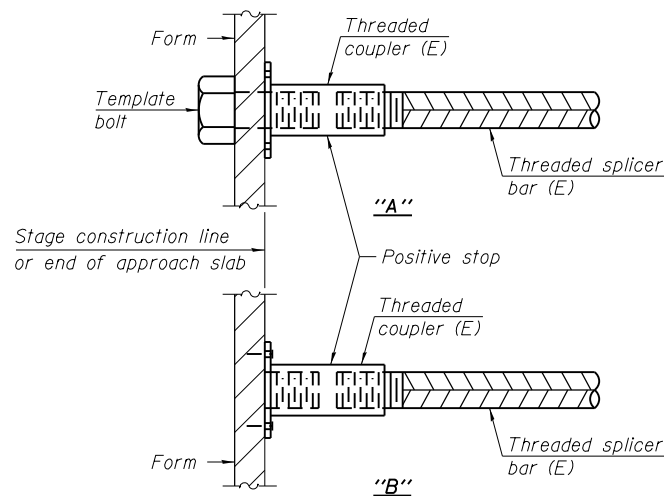


**STANDARD BAR SPLICER ASSEMBLY**

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

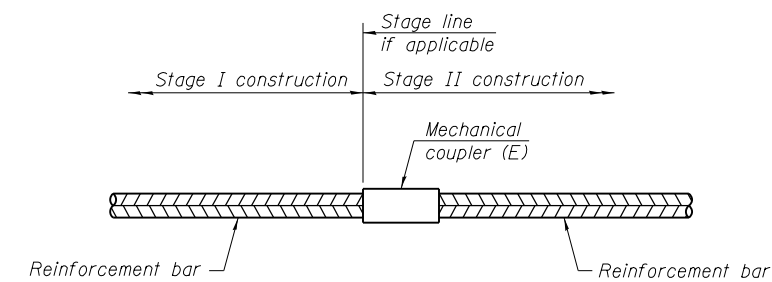
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	599	3'-6"
Deck Edge Beam	#6	8	3'-10"
W. Abutment Backwall	#5	14	3'-7"
E. Abutment Backwall	#5	14	3'-7"
W. Approach Slab	#4	46	2'-7"
W. Approach Slab	#8	61	5'-1"
W. Approach Slab Footing	#5	40	3'-2"
E. Approach Slab	#5	46	3'-2"
E. Approach Slab	#8	61	5'-1"
E. Approach Slab Footing	#5	40	3'-2"



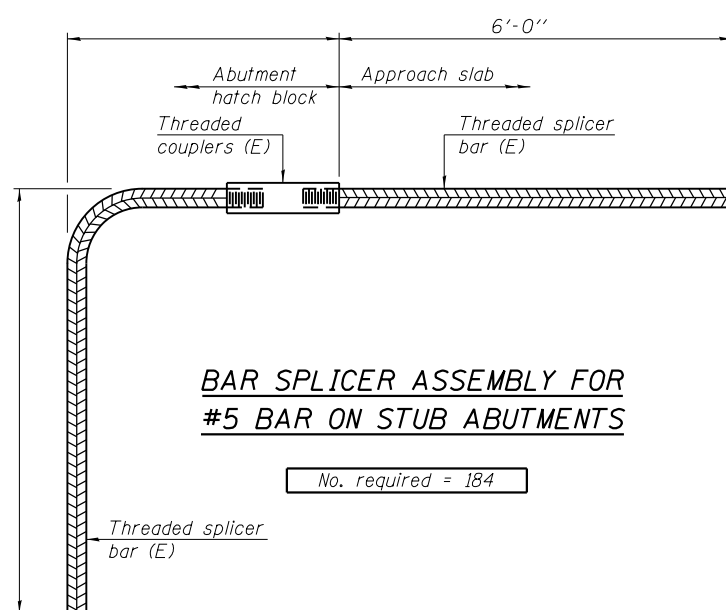
**INSTALLATION AND SETTING METHODS**

"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



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 184

**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

11-22-2016



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

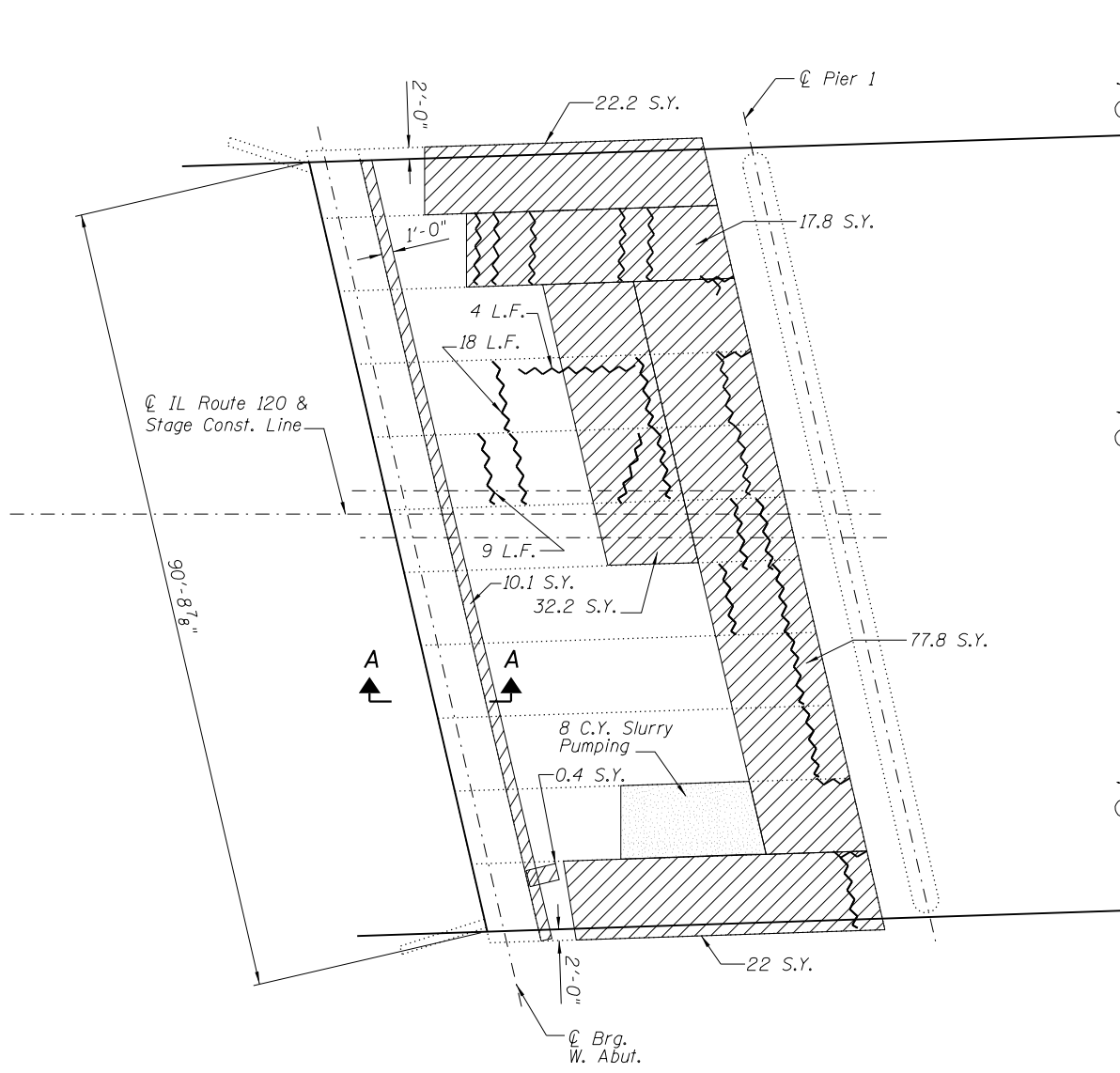
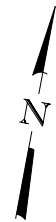
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO.049-0050

SHEET NO. 28 OF 30 SHEETS

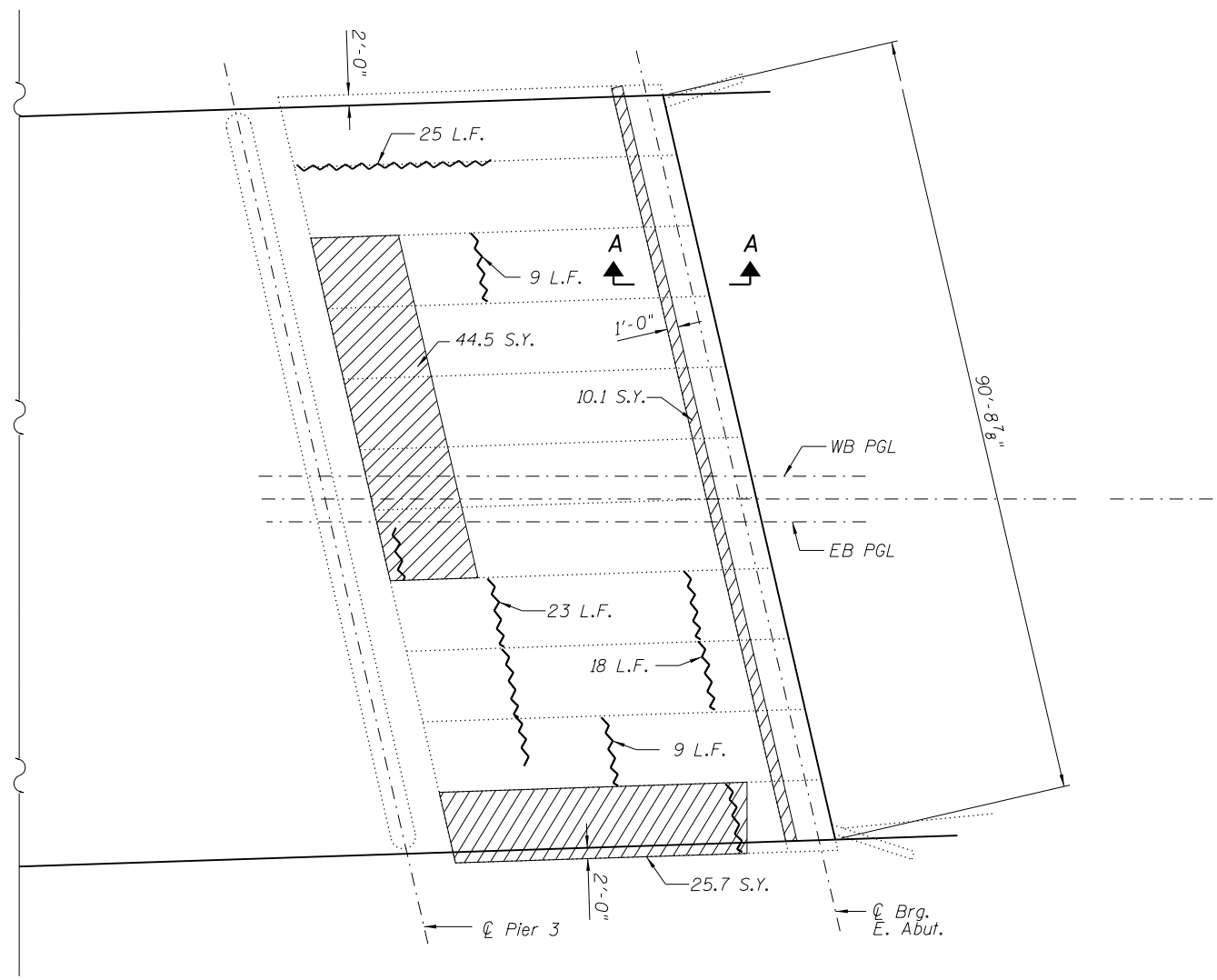
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	79
CONTRACT NO. 60X39				

ILLINOIS FED. AID PROJECT

S-28



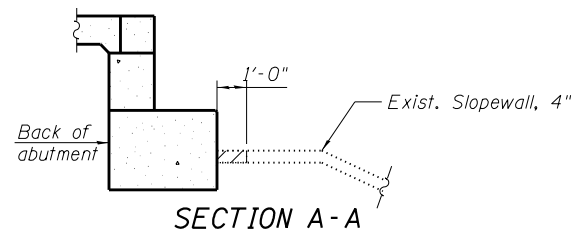
WEST ABUTMENT SLOPE WALL REPAIR



EAST ABUTMENT SLOPE WALL REPAIR

**LEGEND**

- Slope Wall Repair
- Slope Wall Slurry Pumping
- L.F. Slope Wall Crack Sealing



**BILL OF MATERIAL**

Item	Unit	Quantity
Slope Wall Repair	Sq. Yd.	263
Slope Wall Crack Sealing	Foot	115
Slope Wall Slurry Pumping	Cu. Yd.	8

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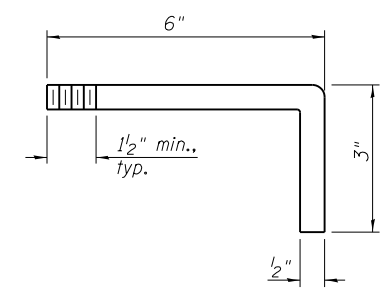
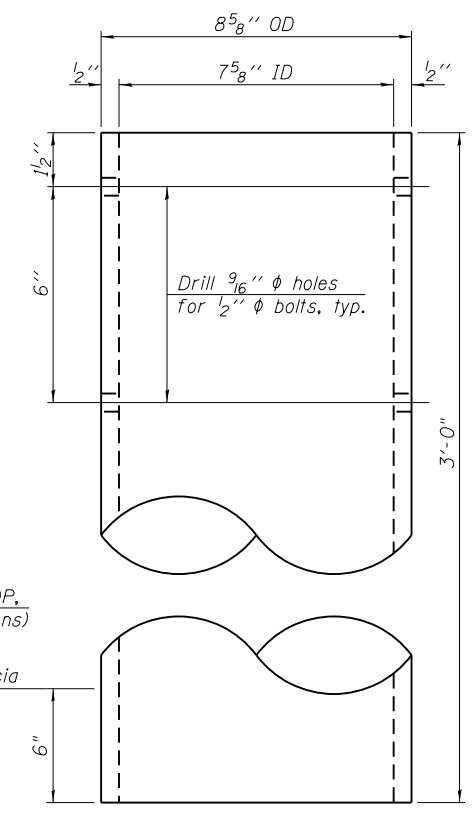
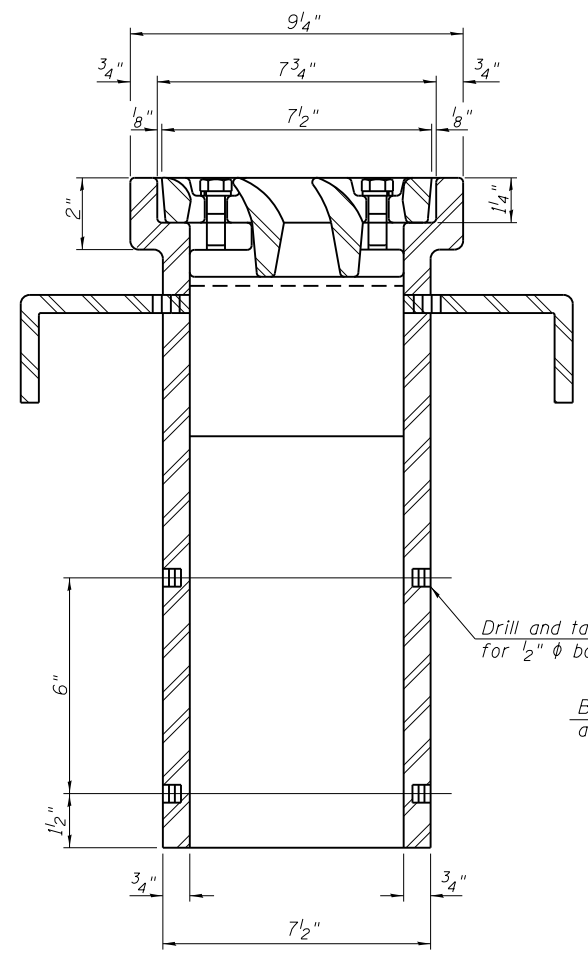
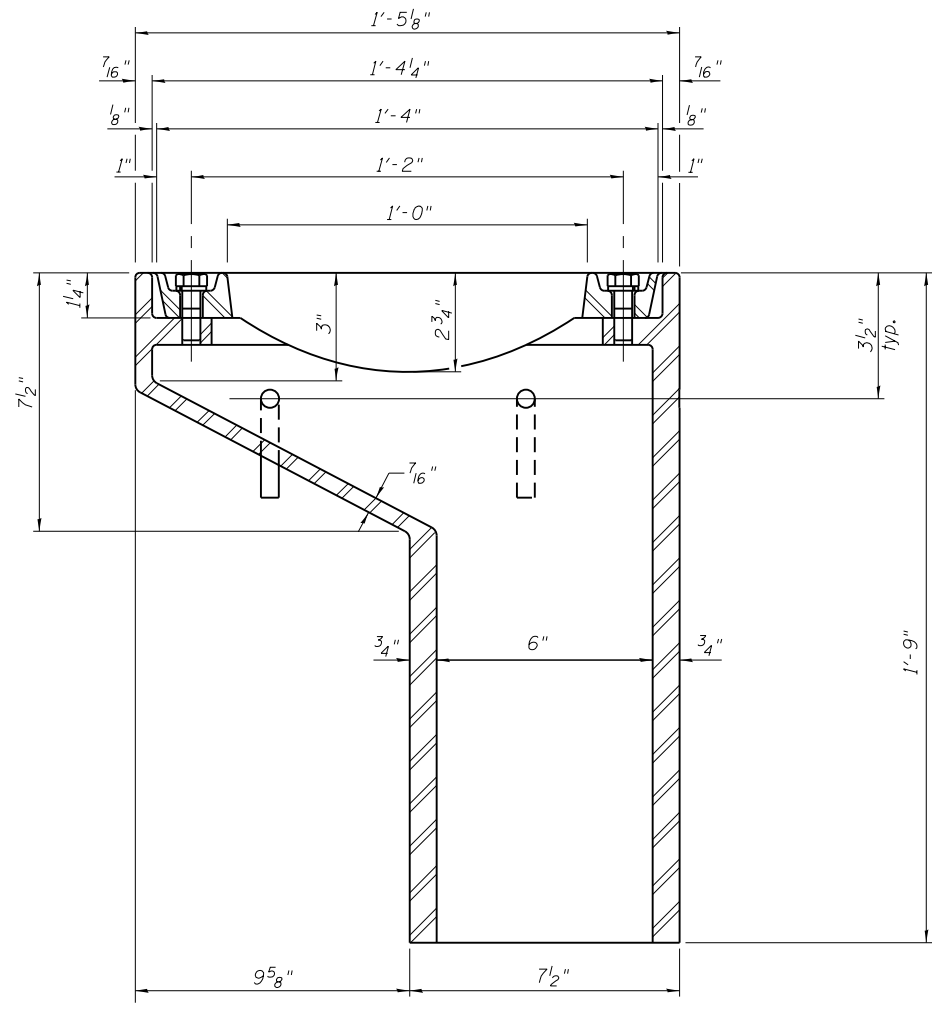
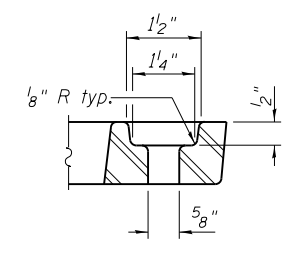
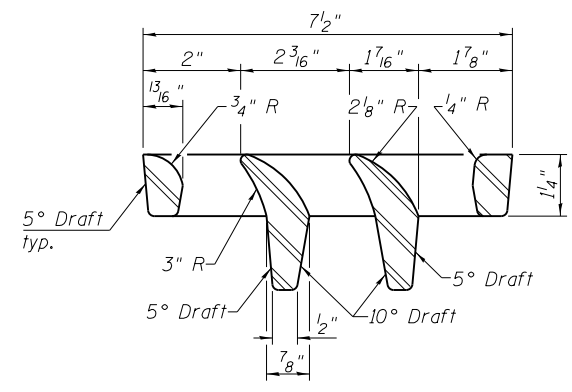
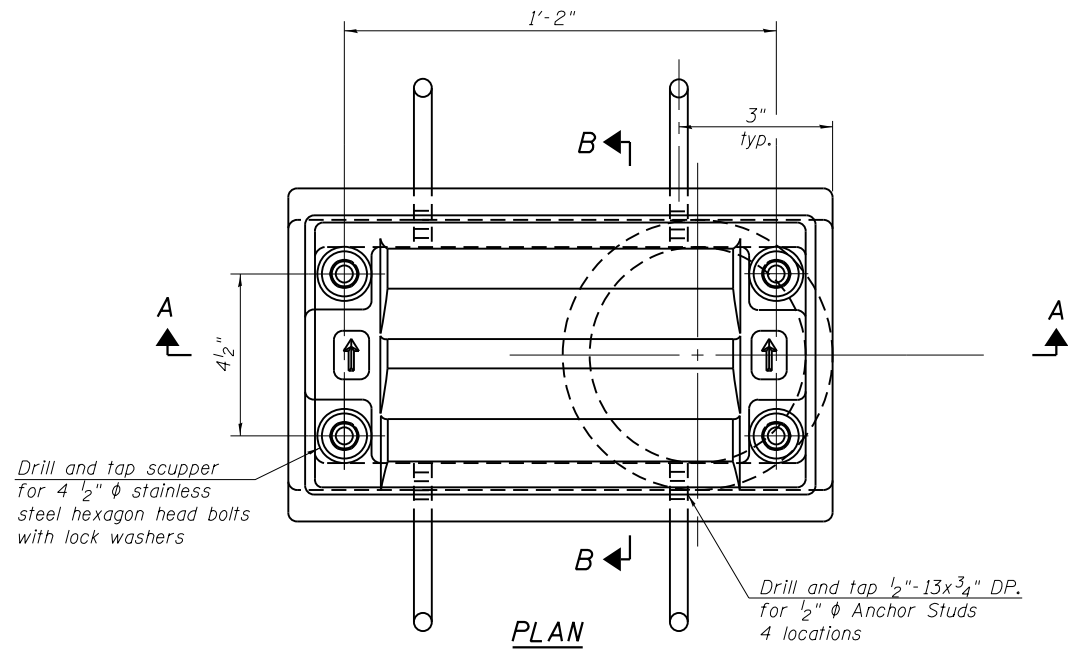
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SLOPEWALL REPAIR DETAILS  
STRUCTURE NO.049-0050

SHEET NO. 29 OF 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	80
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	





Notes:  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

See sheet 13 of 34 for scupper location relative to parapet.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	2

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DS-11 11-22-2016



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PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JRB, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11  
STRUCTURE NO.049-0050

SHEET NO. 30 OF 30 SHEETS

F.A.P. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	81
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

S-30

Bench Mark: Square cut in end of Southwest Wingwall S.N. 049-0051, Sta. 508+01.97 RT., 44.04' RT. Elev. 735.44' NAVD88.

Existing Structure: SN 049-0051, originally constructed in 1959 as F.A. Rte. 21, Sec 12-VB over Old Skokie Road and the Union Pacific Railroad, consists of two 12 foot through lanes with a 13'-4" ramp and outer shoulder in each direction and a 2'-6" wide raised median. In 1983, the structure was repaired, deck was waterproofed and overlaid, longitudinal joint was eliminated and the existing railing was replaced with 36" New Jersey Type concrete parapet. In September 2003, the bridge was repainted. The superstructure is a 4 span multi-girder with an 8<sup>3/4</sup>" deck (7" original concrete slab with 1<sup>3/4</sup>" bituminous overlay) supported by 12 - W36x194 non-composite, continuous rolled steel beams. The substructure consists of a reinforced concrete pile bent abutments with backwalls and multi-column piers on pile supported spread footing. The west abutment is about 2 feet higher than the east abutment. The out to out of deck measures 82'-0" and the back to back abutments is 272'-6".

Traffic is to be maintained utilizing staged construction.

Salvage: None

STATION 509+42.48  
REBUILT 20... BY  
STATE OF ILLINOIS  
F.A.P. RTE. 342 SEC. 12(HB&VB)BR  
LOADING HS20-44  
STRUCTURE NO. 049-0051

Note:  
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**LOADING HS20-44**  
**(New Construction)**  
No Future Wearing Surface Allowed.  
**DESIGN SPECIFICATIONS**  
**(New Construction)**  
2002 AASHTO Standard Specifications, 17th Edition  
**DESIGN STRESSES**  
**FIELD UNITS**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (AASHTO M270 Grade 50) (Bearing Plates & Bearing Steel Extensions)  
 $f_y = 36,000$  psi (Side retainers and Diaphragms FRP Plates)

**EXISTING**  
 $f'_c = 1,200$  psi (Deck & Piers)  
 $f'_c = 800$  psi (Abutments)  
 $f_s = 20,000$  psi (Reinforcement)  
 $f_y = 33,000$  psi (Structural Steel)

**SEISMIC DATA**

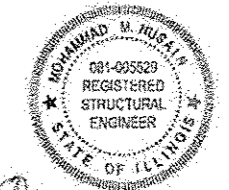
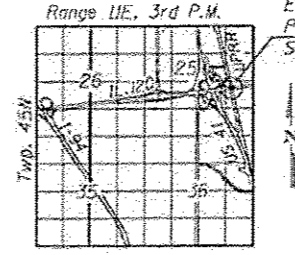
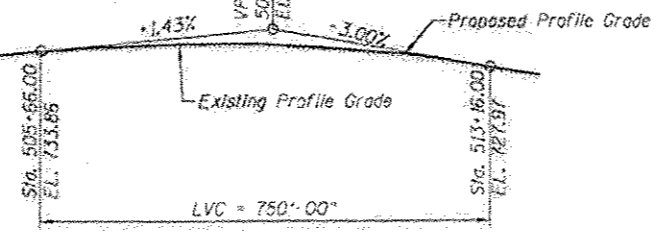
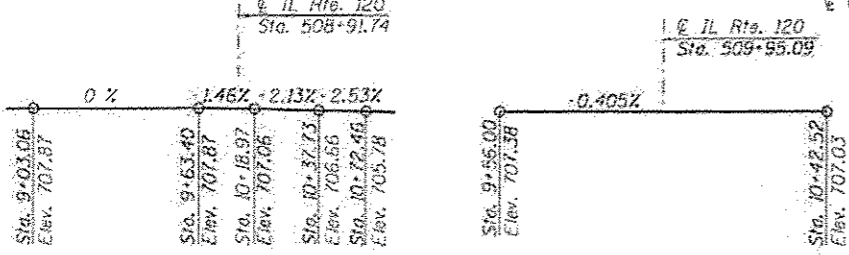
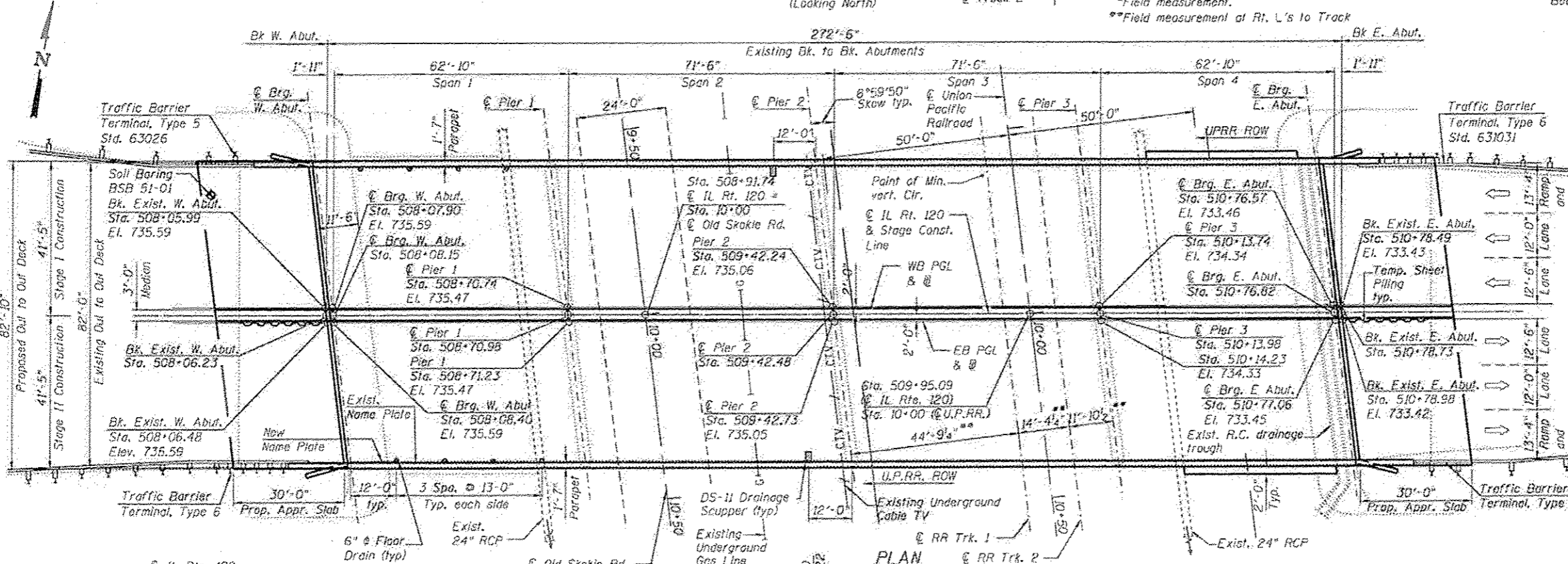
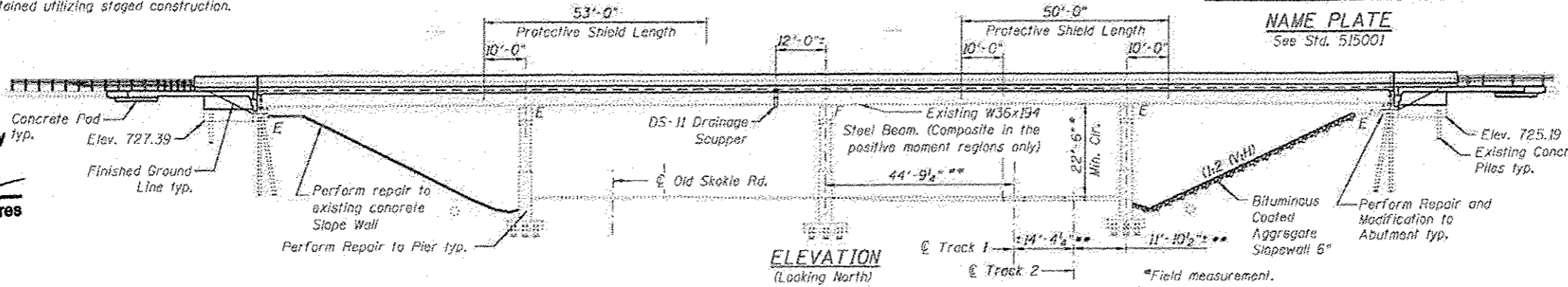
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**SCOPE OF WORK**

1. Remove and replace existing bridge deck with 8" thick concrete deck.
2. Remove and replace approach slabs.
3. Remove and replace existing abutments backwall and modify abutments.
4. Remove and replace existing roller bearing with Type II Elastomeric Bearing at both abutments.
5. Provide French drain behind abutments.
6. Remove and replace expansion joint system at each abutment.
7. Repair Piers using Structural Repair of Concrete and Epoxy Crack Sealing.
8. Clean and repaint structural steel beams 6, 7 & 11 only.
9. Remove existing abutment wingwalls and rebuild partially in places as shown.
10. Install Drainage Scuppers.
11. Repair cracks on the existing slopewall of west abutment and install Bituminous Coated Aggregate Slopewall 6" for east slopewall.

**APPROVED**  
For Structural Adequacy Only

*Carl Rupp*  
Engineer of Bridges & Structures



*Mohammad M. Husain* 2/27/17  
MOHAMMAD M. HUSAIN Date  
Licensed Structural Engineer  
State of Illinois 081-005529  
Expires 11/30/2018

**GENERAL PLAN AND ELEVATION**  
**IL RTE. 120 OVER OLD SKOKIE RD. & U.P.R.R.**  
**F.A.P. RTE. 342 SEC. 12 (HB&VB) BR**  
**LAKE COUNTY**  
**STATION 509+42.48**  
**STRUCTURE NO. 049-0051**

	USER NAME	DESIGNED - SMO, JPM	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 01 OF 29 SHEETS
	CHECKED - MMH	REVISED			
	DRAWN - MFS, SMO	REVISED			
	CHECKED - JPM, MMH, TPB	REVISED			
PLOT SCALE - PLOT DATE - 3/3/2017				CONTRACT NO. 60X39	

**INDEX OF STRUCTURAL SHEETS**

- S-01 General Plan and Elevation
- S-02 General Notes, Bill of Material and Index of Drawings
- S-03 Stage Construction Details & Temp. Soil Retention System
- S-04 Temporary Concrete Barrier for Stage Construction
- S-05 Top of Slab Elevations
- S-06 Top of Slab Elevations 1
- S-07 Top of Slab Elevations 2
- S-08 Top of Slab Elevations 3
- S-09 West Approach Top of Slab Elevations
- S-10 East Approach Top of Slab Elevations
- S-11 Superstructure Plan & Cross Section
- S-12 Superstructure Details & Bill of Material
- S-13 Superstructure Parapet Elevations & Details
- S-14 East & West Approach Slab Plan & Details
- S-15 Bridge Approach Slab Details
- S-16 Preformed Joint Strip Seal
- S-17 Framing Plan & Details
- S-18 Beam Details
- S-19 Elastomeric Bearing Type II
- S-20 Abutments and Wingwalls Removal
- S-21 West Abutment Repair & Modification Details
- S-22 East Abutment Repair & Modification Details
- S-23 East & West Abutment & Wingwall Details
- S-24 Pier 1 Repair Details
- S-25 Pier 2 Repair Details
- S-26 Pier 3 Repair Details
- S-27 Bar Splicer Assembly and Mechanical Splicer Details
- S-28 Slopewall Repair Details
- S-29 Drainage Scupper, DS-II

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	-	48	48
Removal of Existing Concrete Deck No. 2	Each	-	1	1
Structure Excavation	Cu. Yd.	-	162	162
Protective Shield	Sq. Yd.	1,053	-	1,053
Concrete Structures	Cu. Yd.	-	88.6	88.6
Concrete Superstructure	Cu. Yd.	968	-	968
Bridge Deck Grooving	Sq. Yd.	2,740	-	2,740
Protective Coat	Sq. Yd.	3,234	-	3,234
Furnishing and Erecting Structural Steel	Pound	10,140	-	10,140
Stud Shear Connectors	Each	9,864	-	9,864
Reinforcement Bars, Epoxy Coated	Pound	254,930	6,940	261,870
Bar Splicers	Each	1,289	32	1,321
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	166	-	166
Elastomeric Bearing Assembly, Type II	Each	24	-	24
Anchor Bolts, 1"	Each	48	-	48
Concrete Sealer	Sq. Ft.	-	1,029	1,029
Epoxy Crack Injection	Foot	-	33	33
Geocomposite Wall Drain	Sq. Yd.	-	132	132
Slope Wall Crack Sealing	Foot	-	271	271
Granular Backfill for Structures	Cu. Yd.	-	232	232
Jack and Remove Existing Bearings	Each	24	-	24
Structural Steel Removal	Pound	-	6,740	6,740
Containment and Disposal of Lead Paint Cleaning Residues No. 2	L. Sum	1	-	1
Cleaning and Painting Steel Bridge No. 2	L. Sum	1	-	1
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	-	47	47
Drainage Scuppers, DS-II	Each	2	-	2
Pipe Underdrains for Structures, 4"	Foot	-	248	248
Slopewall Repair	Sq. Yd.	-	10	10
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.	-	538	538
Temporary Soil Retention System	Sq. Ft.	-	121	121
Floor Drains	Each	8	-	8

**GENERAL NOTES**

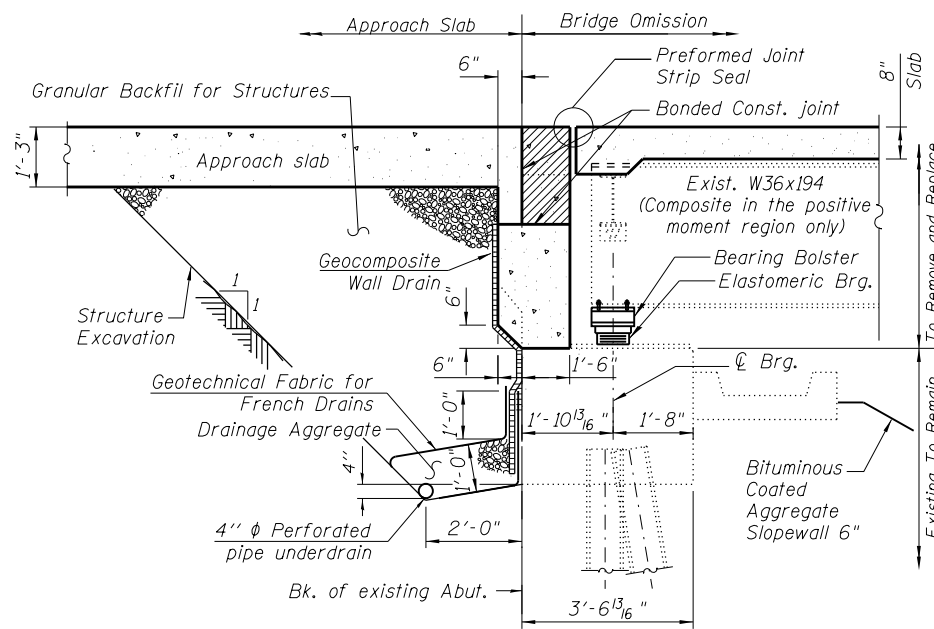
1. Fastener shall be ASTM A325 Type 1, mechanically galvanized bolt. Bolt  $\frac{7}{8}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.
2. Calculated weight of Structural Steel:  
Grade 50 (Fy = 50 Ksi) = 3,400 lbs.  
Grade 36 (Fy = 36 Ksi) = 6,740 lbs.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.  
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.  
Any cracks that cannot be removed by grinding  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
6. 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.
7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
8. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All beams, bearings and other structural steel within 10 ft (measured along the beam) of either side of deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP10. The exterior surfaces and bottom of the bottom flange of the fascia beams shall be cleaned per Near White Blast Cleaning - SSPC-SP10.

The designated areas shown in Framing Plan Sheet 17 shall be cleaned per Near White Blast Cleaning and painted according to the requirements of Paint System 1 - OZ/E/U.  
The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be reddish brown, Munsell No. 2.5YR 3/4.

A minimum of two air monitors will be required to monitor abrasive blasting operations at this site. See special provision for "Containment and Disposal of Lead Paint Cleaning Residues".

9. Concrete Sealer shall be applied to the face of backwall and bearing seat of the West and East Abutments. Also, concrete sealer shall be applied to the traffic face of Piers 1 & 2.
10. Slipforming of parapets is not allowed.



**SECTION THRU ABUTMENT**

(Horiz. dim. @ Rt. L's)

Note:

All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

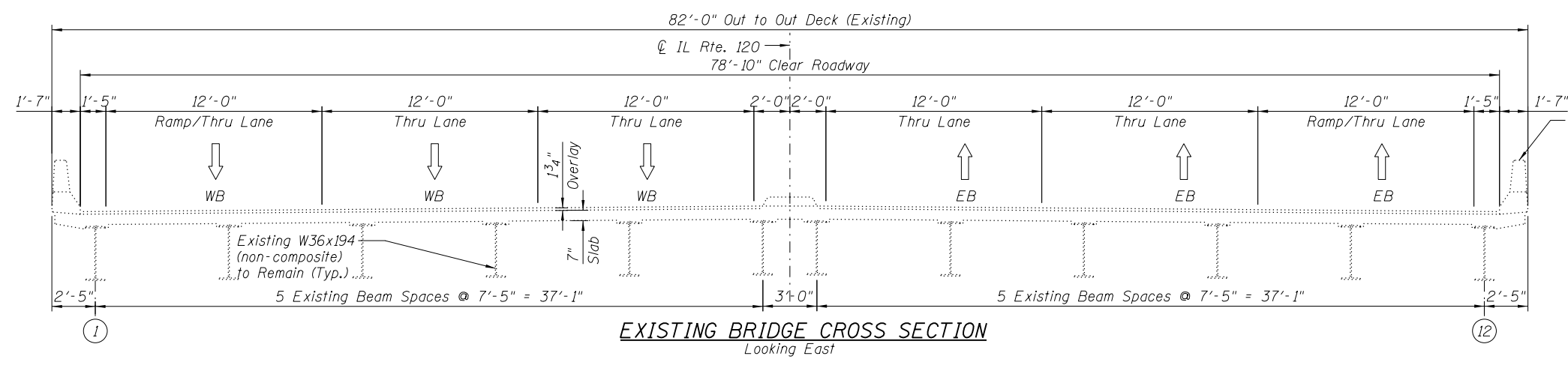
**GENERAL NOTES, BILL OF MATERIAL & INDEX OF DRAWINGS  
STRUCTURE NO.049-0051**

SHEET NO. 02 OF 29 SHEETS

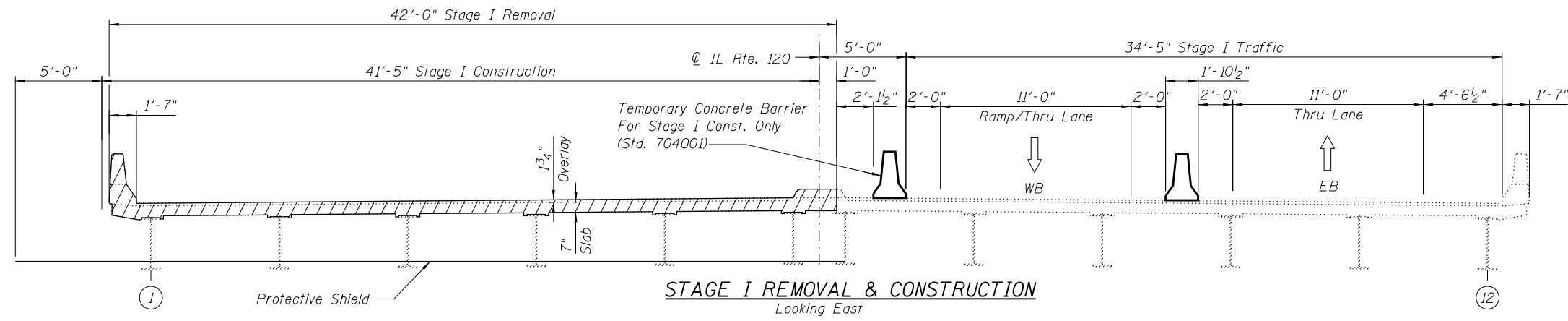
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			CONTRACT NO. 60X39	
ILLINOIS FED. AID PROJECT				

S-02

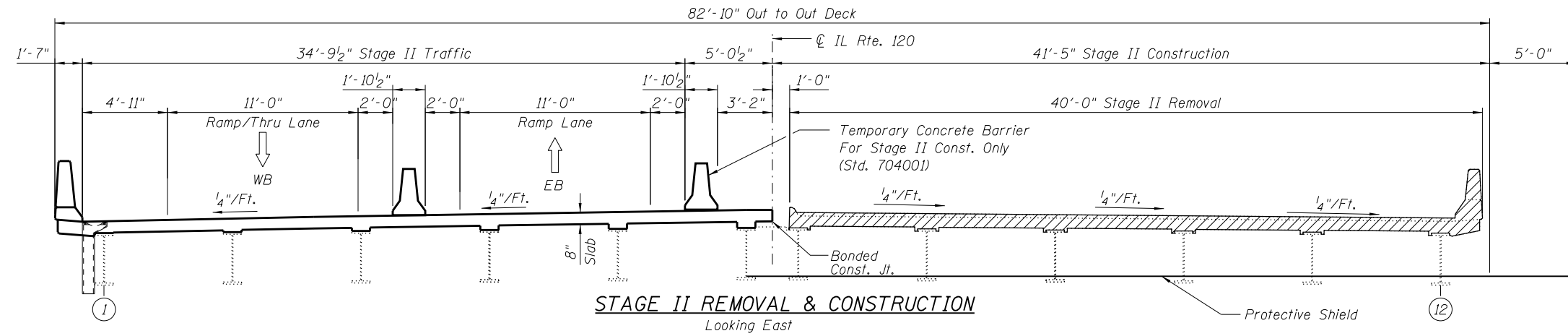
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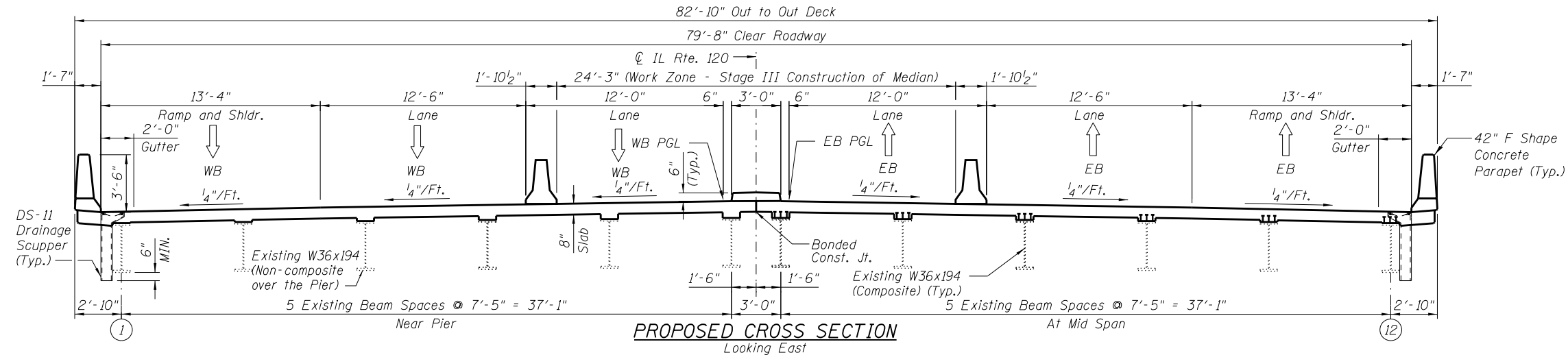
**EXISTING BRIDGE CROSS SECTION**  
Looking East



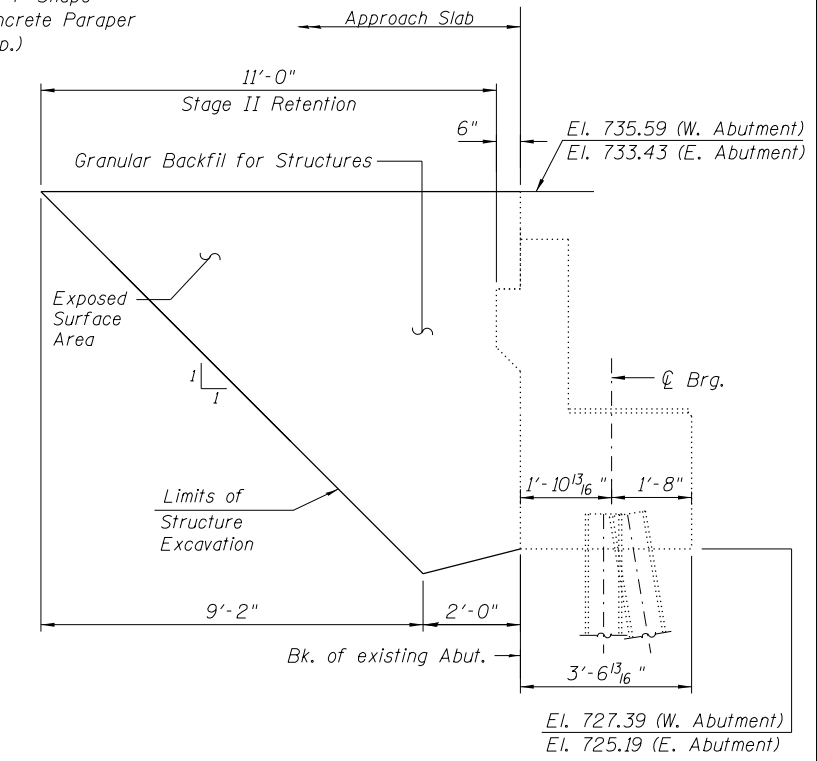
**STAGE I REMOVAL & CONSTRUCTION**  
Looking East



**STAGE II REMOVAL & CONSTRUCTION**  
Looking East



**PROPOSED CROSS SECTION**  
Looking East



**TEMPORARY SOIL RETENTION SYSTEM**

The information shown for Temporary Soil Retention System is estimated. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Note:  
See Roadway Plans for Quantity of Temporary Concrete Barrier.

**LEGEND**

- Removal of Existing Concrete Deck \*
- \* Includes removal of concrete overlay and Bridge Parapets



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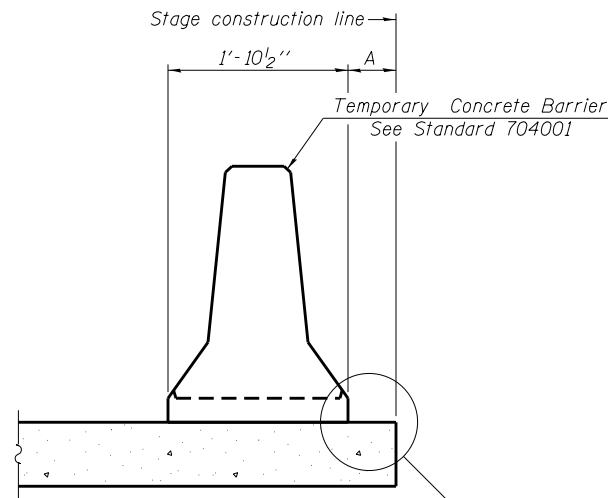
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS & TEMP. SOIL RETENTION SYSTEM  
STRUCTURE NO.049-0051

SHEET NO. 03 OF 29 SHEETS

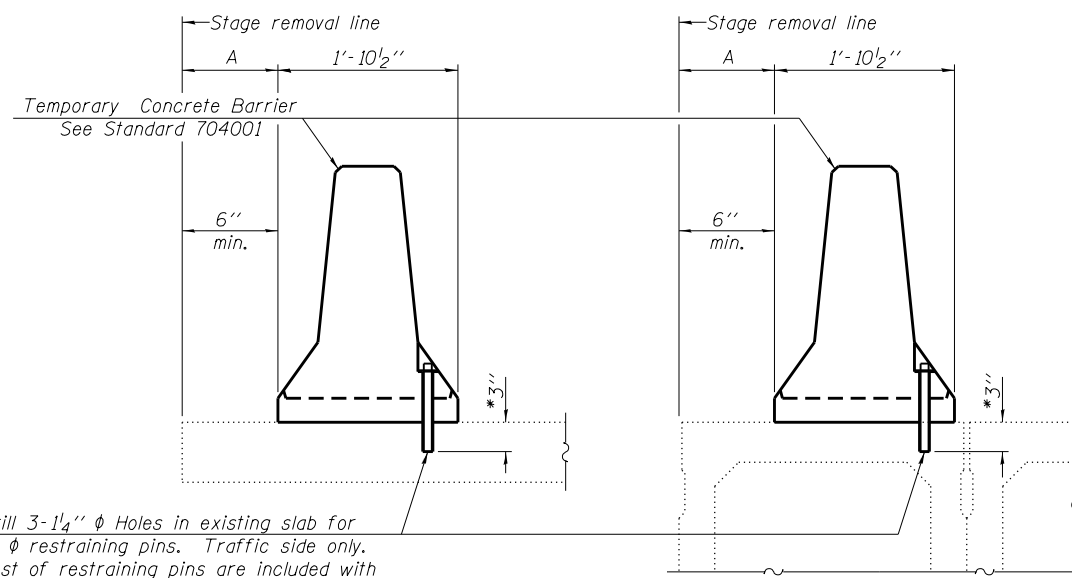
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333	12(HB&VB)BR & RS-7	LAKE	198	84
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

S-03



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

**NEW SLAB OR NEW DECK BEAM**

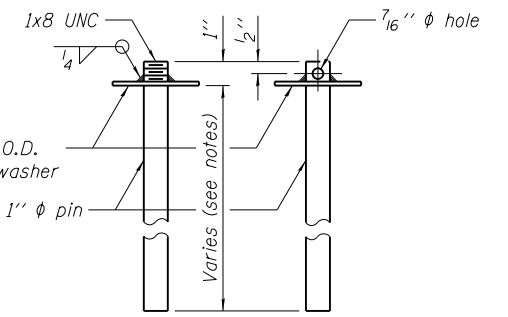


Drill 3-1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

**EXISTING SLAB**

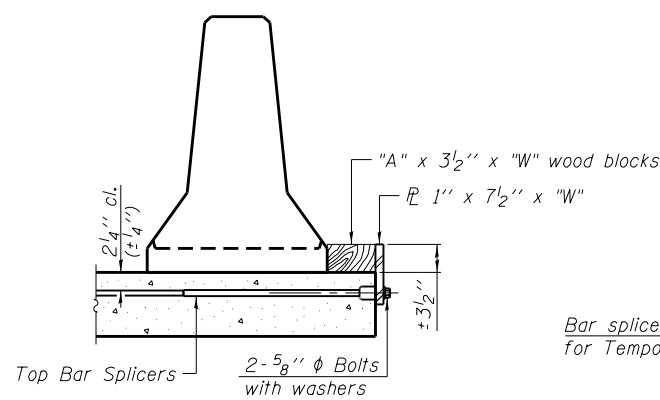
**EXISTING DECK BEAM**

**SECTIONS THRU SLAB OR DECK BEAM**

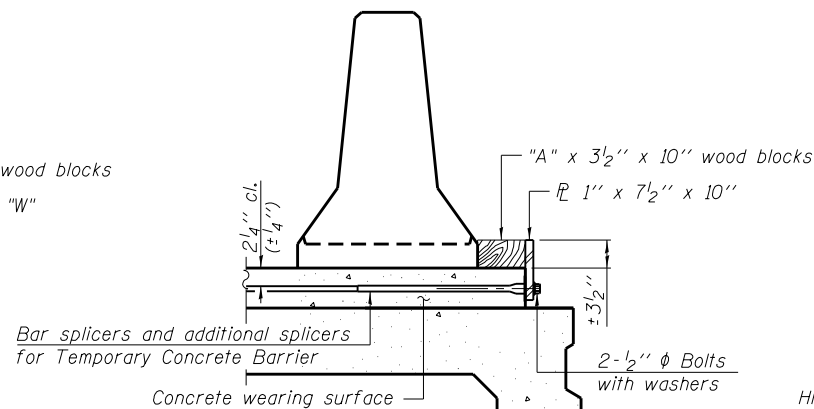


**RESTRAINING PIN**

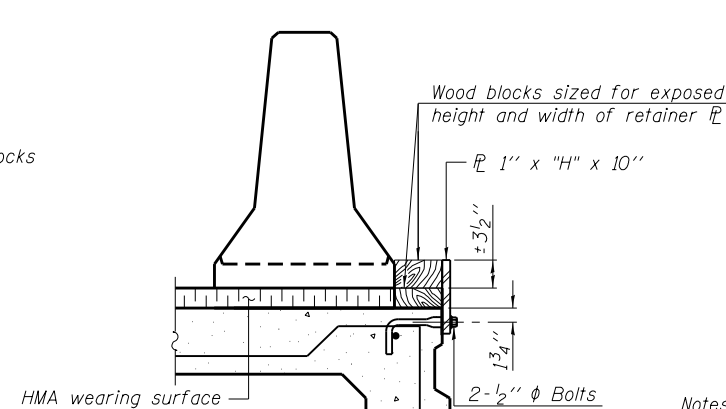
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.



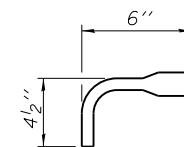
**DETAIL I**



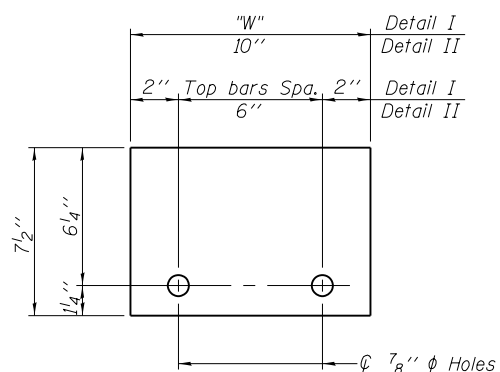
**DETAIL II**



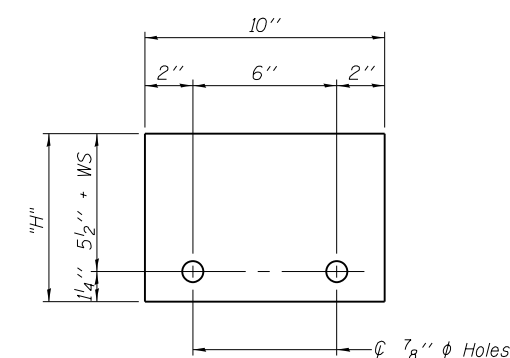
**DETAIL III**



**BAR SPLICER FOR #4 BAR - DETAIL III**



**STEEL RETAINER 1" x 7 1/2" x "W"**  
(Detail I and II)



**STEEL RETAINER 1" x "H" x 10"**  
(Detail III)

**Notes:**  
 Cost of retainer assembly is included with Temporary Concrete Barrier.  
 A retainer assembly shall be located at the approximate  $\phi$  of each temporary concrete barrier.  
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.  
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

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R-27

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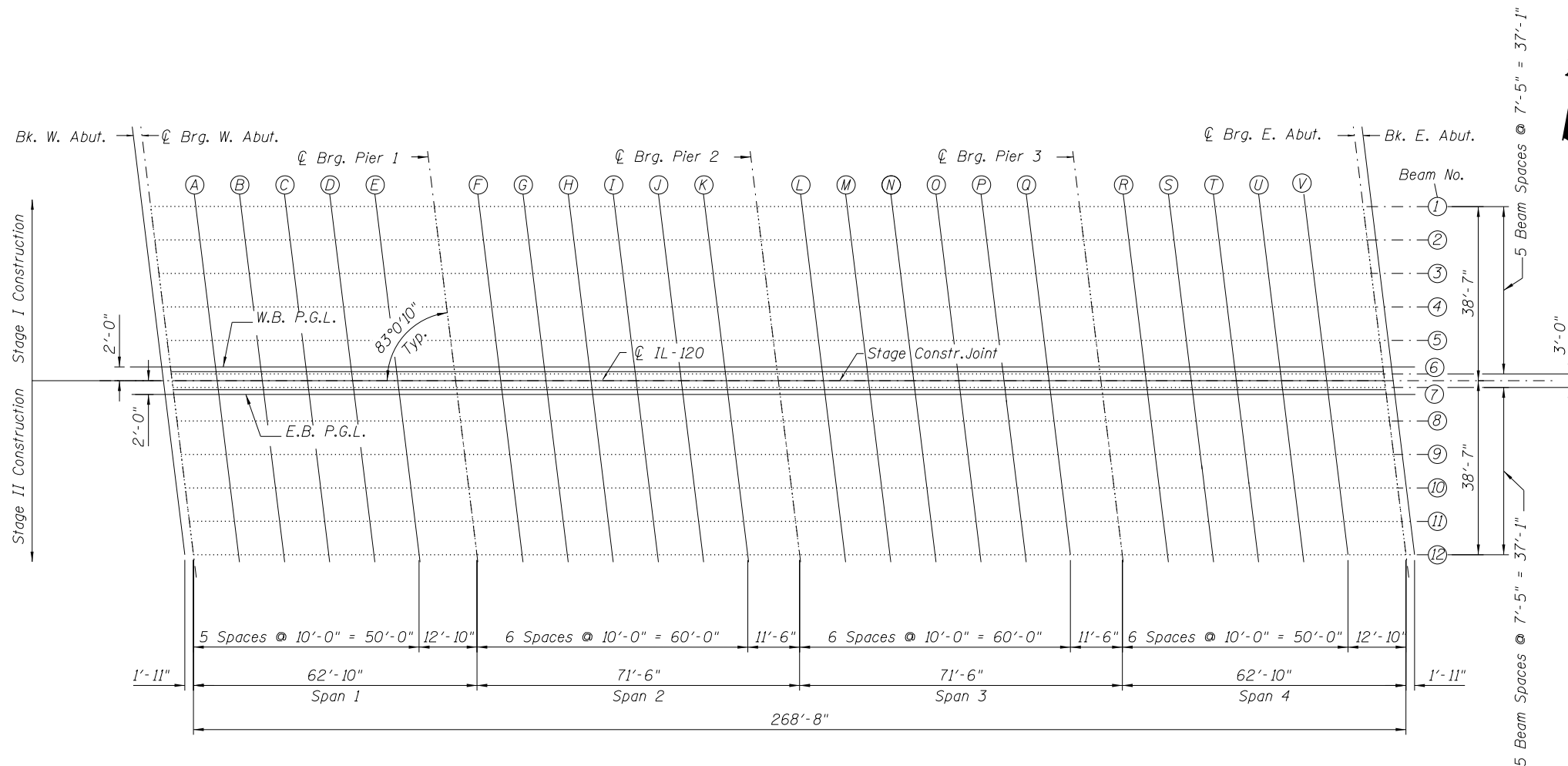
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO.049-0051

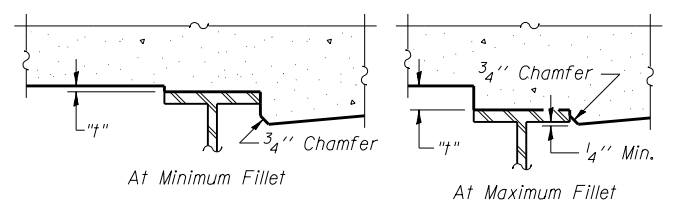
SHEET NO. 04 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

S-04

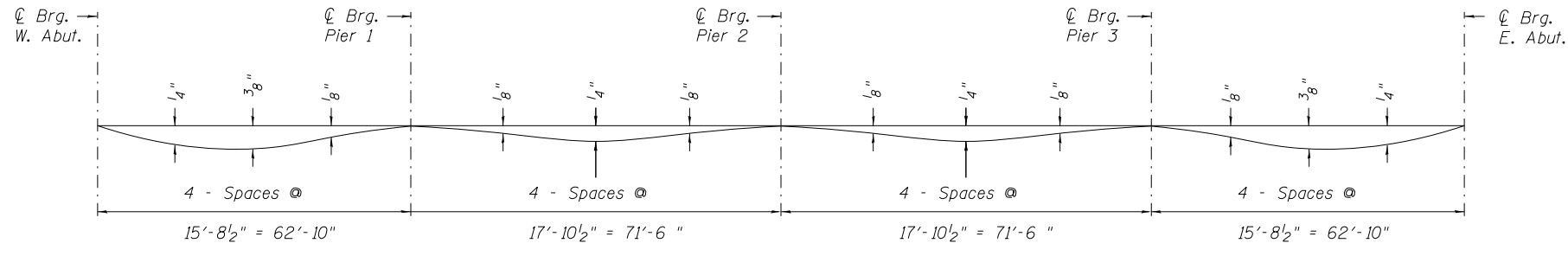


PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 6 thru 8 of 29, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only w/o FWS)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in this sheet and on Sheets 6 thru 8 of 29.

Note:  
Offsets measured from  $\text{\O}$  roadway

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PLOT DATE = 3/3/2017	CHECKED - JPM, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO.049-0051

SHEET NO. 05 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	86
CONTRACT NO. 60X39			S-05	

ILLINOIS FED. AID PROJECT

BEAM 1

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 2

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 3

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 4

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 5

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

WB PGL

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

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Table with 4 columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE. Values include JPM, MMH, PDS, MPS, 3/3/2017.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION 1 STRUCTURE NO.049-0051 SHEET NO. 06 OF 29 SHEETS

Table with 4 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS. Values include 333, 12(H&V)IBR & RS-7, LAKE, 198.

S-06

CONTRACT NO. 60X39 ILLINOIS FED. AID PROJECT

BEAM 6

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

IL 120 & STAGE CONSTRUCTION

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 7

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

EB PGL

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 8

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

BEAM 9

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. W. Abutment, Brg. W. Abutment (A-E), Pier 1 (F-K), Pier 2 (L-Q), Pier 3 (R-V), Brg. E. Abutment, and Bk. E. Abutment.

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Table with 4 columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE. Values include JPM, MMH, PDS, MPS, and 3/3/2017.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATION 2 STRUCTURE NO.049-0051 SHEET NO. 07 OF 29 SHEETS

Table with 4 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS. Values include 333, 12(HB&VB)BR & RS-7, LAKE, 198, 88.



**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	508+09.15	23.75	735.14	735.14
☉ Brg. W. Abutment	508+11.06	23.75	735.14	735.14
A	508+21.06	23.75	735.13	735.15
B	508+31.06	23.75	735.12	735.15
C	508+41.06	23.75	735.10	735.13
D	508+51.06	23.75	735.08	735.11
E	508+61.06	23.75	735.05	735.06
☉ Pier 1	508+73.90	23.75	735.01	735.01
F	508+83.90	23.75	734.97	734.97
G	508+93.90	23.75	734.92	734.93
H	509+03.90	23.75	734.86	734.89
I	509+13.90	23.75	734.80	734.83
J	509+23.90	23.75	734.74	734.76
K	509+33.90	23.75	734.67	734.67
☉ Pier 2	509+45.40	23.75	734.58	734.58
L	509+55.40	23.75	734.49	734.50
M	509+65.40	23.75	734.40	734.42
N	509+75.40	23.75	734.31	734.33
O	509+85.40	23.75	734.21	734.23
P	509+95.40	23.75	734.10	734.11
Q	510+05.40	23.75	733.99	733.99
☉ Pier 3	510+16.90	23.75	733.85	733.85
R	510+26.90	23.75	733.72	733.73
S	510+36.90	23.75	733.59	733.61
T	510+46.90	23.75	733.45	733.48
U	510+56.90	23.75	733.31	733.34
V	510+66.90	23.75	733.16	733.18
☉ Brg. E. Abutment	510+79.73	23.75	732.96	732.96
Bk. E. Abutment	510+81.65	23.75	732.93	732.93

**BEAM 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	508+10.06	31.17	734.98	734.98
☉ Brg. W. Abutment	508+11.98	31.17	734.98	734.98
A	508+21.98	31.17	734.98	734.99
B	508+31.98	31.17	734.96	734.99
C	508+41.98	31.17	734.95	734.98
D	508+51.98	31.17	734.92	734.95
E	508+61.98	31.17	734.90	734.91
☉ Pier 1	508+74.81	31.17	734.85	734.85
F	508+84.81	31.17	734.81	734.81
G	508+94.81	31.17	734.76	734.77
H	509+04.81	31.17	734.70	734.73
I	509+14.81	31.17	734.64	734.67
J	509+24.81	31.17	734.58	734.60
K	509+34.81	31.17	734.51	734.51
☉ Pier 2	509+46.31	31.17	734.42	734.42
L	509+56.31	31.17	734.33	734.34
M	509+66.31	31.17	734.24	734.26
N	509+76.31	31.17	734.15	734.17
O	509+86.31	31.17	734.04	734.06
P	509+96.31	31.17	733.93	733.95
Q	510+06.31	31.17	733.82	733.83
☉ Pier 3	510+17.81	31.17	733.68	733.68
R	510+27.81	31.17	733.56	733.56
S	510+37.81	31.17	733.42	733.44
T	510+47.81	31.17	733.28	733.31
U	510+57.81	31.17	733.14	733.17
V	510+67.81	31.17	732.99	733.01
☉ Brg. E. Abutment	510+80.64	31.17	732.79	732.79
Bk. E. Abutment	510+82.56	31.17	732.76	732.76

**BEAM 12**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	508+10.97	38.58	734.83	734.83
☉ Brg. W. Abutment	508+12.89	38.58	734.83	734.83
A	508+22.89	38.58	734.82	734.84
B	508+32.89	38.58	734.81	734.84
C	508+42.89	38.58	734.79	734.82
D	508+52.89	38.58	734.77	734.79
E	508+62.89	38.58	734.74	734.75
☉ Pier 1	508+75.72	38.58	734.69	734.69
F	508+85.72	38.58	734.65	734.65
G	508+95.72	38.58	734.60	734.61
H	509+05.72	38.58	734.54	734.57
I	509+15.72	38.58	734.48	734.51
J	509+25.72	38.58	734.42	734.43
K	509+35.72	38.58	734.35	734.35
☉ Pier 2	509+47.22	38.58	734.25	734.25
L	509+57.22	38.58	734.17	734.18
M	509+67.22	38.58	734.08	734.09
N	509+77.22	38.58	733.98	734.00
O	509+87.22	38.58	733.88	733.90
P	509+97.22	38.58	733.77	733.79
Q	510+07.22	38.58	733.66	733.66
☉ Pier 3	510+18.72	38.58	733.52	733.52
R	510+28.72	38.58	733.39	733.40
S	510+38.72	38.58	733.26	733.28
T	510+48.72	38.58	733.12	733.15
U	510+58.72	38.58	732.97	733.00
V	510+68.72	38.58	732.82	732.84
☉ Brg. E. Abutment	510+81.55	38.58	732.62	732.62
Bk. E. Abutment	510+83.47	38.58	732.59	732.59

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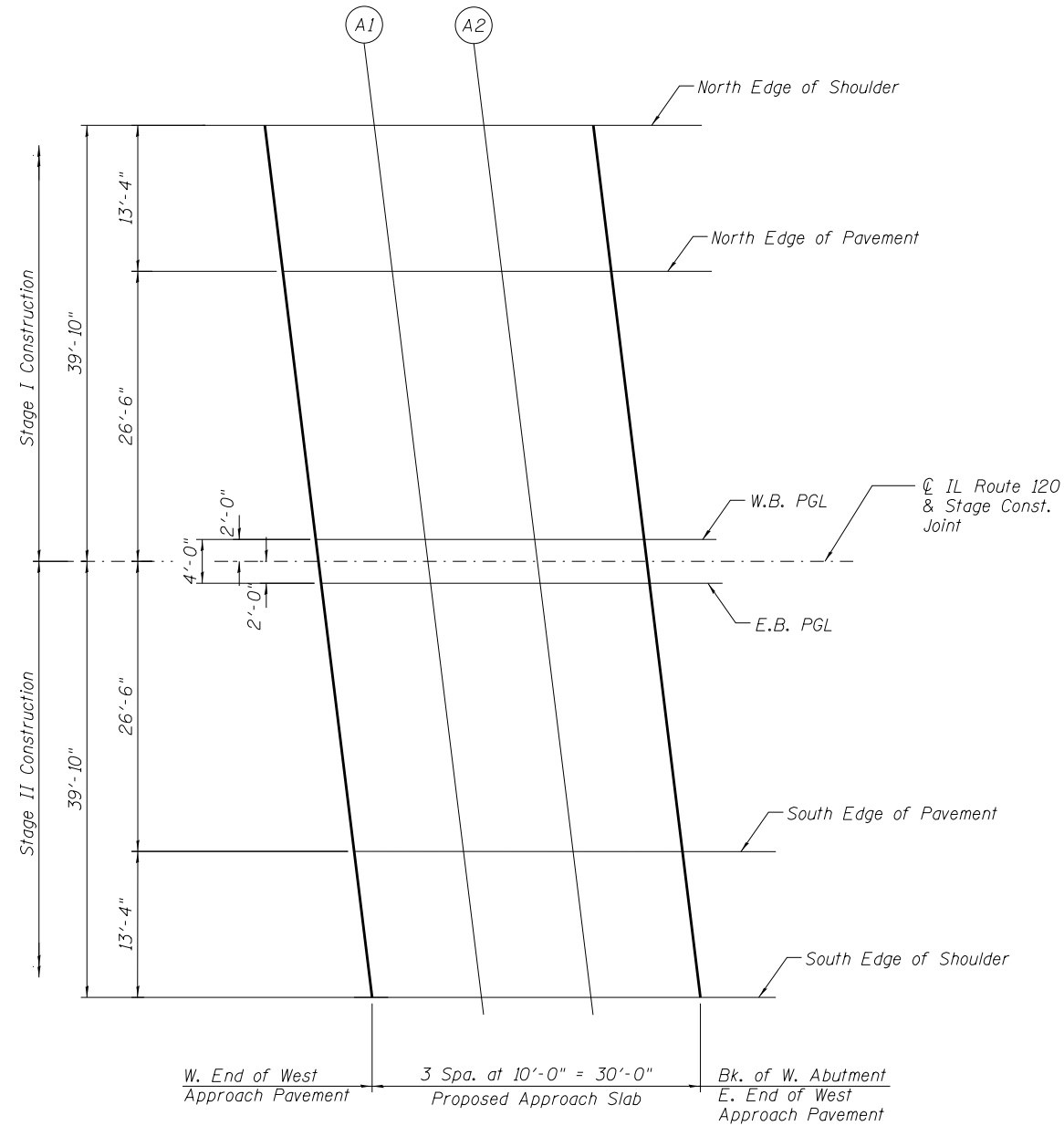
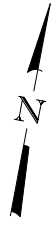
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATION 3  
STRUCTURE NO.049-0051**

SHEET NO. 08 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	89
CONTRACT NO. 60X39			S-08	
ILLINOIS FED. AID PROJECT				



**WEST APPROACH PLAN**

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+71.34	-39.83	734.76
A1	507+81.34	-39.83	734.78
A2	507+91.34	-39.83	734.79
E. End W. Appr. Pav't.	508+01.34	-39.83	734.80

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+81.12	39.83	734.78
A1	507+91.12	39.83	734.79
A2	508+01.12	39.83	734.80
E. End W. Appr. Pav't.	508+11.12	39.83	734.80

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+72.98	-26.50	735.04
A1	507+82.98	-26.50	735.06
A2	507+92.98	-26.50	735.07
E. End W. Appr. Pav't.	508+02.98	-26.50	735.08

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+79.49	26.50	735.05
A1	507+89.49	26.50	735.07
A2	507+99.49	26.50	735.08
E. End W. Appr. Pav't.	508+09.49	26.50	735.08

**WB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+75.99	-2.00	735.56
A1	507+85.99	-2.00	735.57
A2	507+95.99	-2.00	735.58
E. End W. Appr. Pav't.	508+05.99	-2.00	735.59

**EB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+76.48	2.00	735.56
A1	507+86.48	2.00	735.57
A2	507+96.48	2.00	735.58
E. End W. Appr. Pav't.	508+06.48	2.00	735.59

**IL 120 & STAGE CONST. JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pav't.	507+76.23	0.00	735.56
A1	507+86.23	0.00	735.57
A2	507+96.23	0.00	735.58
E. End W. Appr. Pav't.	508+06.23	0.00	735.59

Note:  
Offsets measured from CL roadway.

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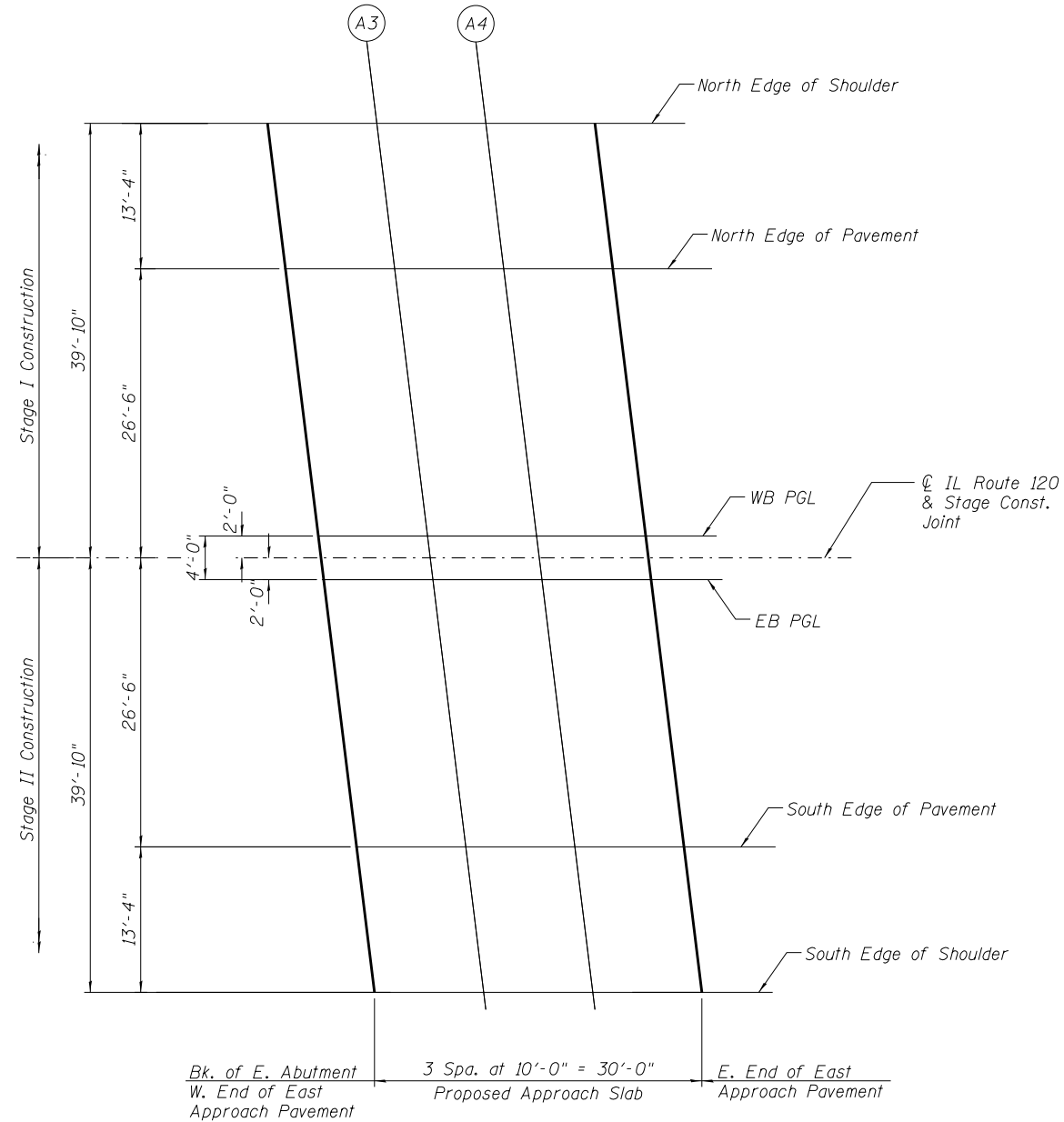
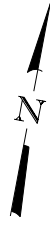
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH TOP OF SLAB ELEVATIONS  
STRUCTURE NO.049-0051**

SHEET NO. 09 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	90
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	



**EAST APPROACH PLAN**

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+73.84	-39.83	732.71
A3	510+83.84	-39.83	732.55
A4	510+93.84	-39.83	732.39
E. End E. Appr. Pav't.	511+03.84	-39.83	732.22

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+83.62	39.83	732.56
A3	510+93.62	39.83	732.39
A4	511+03.62	39.83	732.22
E. End E. Appr. Pav't.	511+13.62	39.83	732.04

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+75.48	-26.50	732.97
A3	510+85.48	-26.50	732.81
A4	510+95.48	-26.50	732.64
E. End E. Appr. Pav't.	511+05.48	-26.50	732.47

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+81.99	26.50	732.86
A3	510+91.99	26.50	732.70
A4	511+01.99	26.50	732.53
E. End E. Appr. Pav't.	511+11.99	26.50	732.35

**WB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+78.49	-2.00	733.43
A3	510+88.49	-2.00	733.27
A4	510+98.49	-2.00	733.10
E. End E. Appr. Pav't.	511+08.49	-2.00	732.92

**EB PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+78.98	2.00	733.42
A3	510+88.98	2.00	733.26
A4	510+98.98	2.00	733.09
E. End E. Appr. Pav't.	511+08.98	2.00	732.91

**CL IL 120 & STAGE CONST. JOINT**

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pav't.	510+78.73	0.00	733.43
A3	510+88.73	0.00	733.26
A4	510+98.73	0.00	733.09
E. End E. Appr. Pav't.	511+08.73	0.00	732.92

Note:  
Offsets measured from CL roadway.

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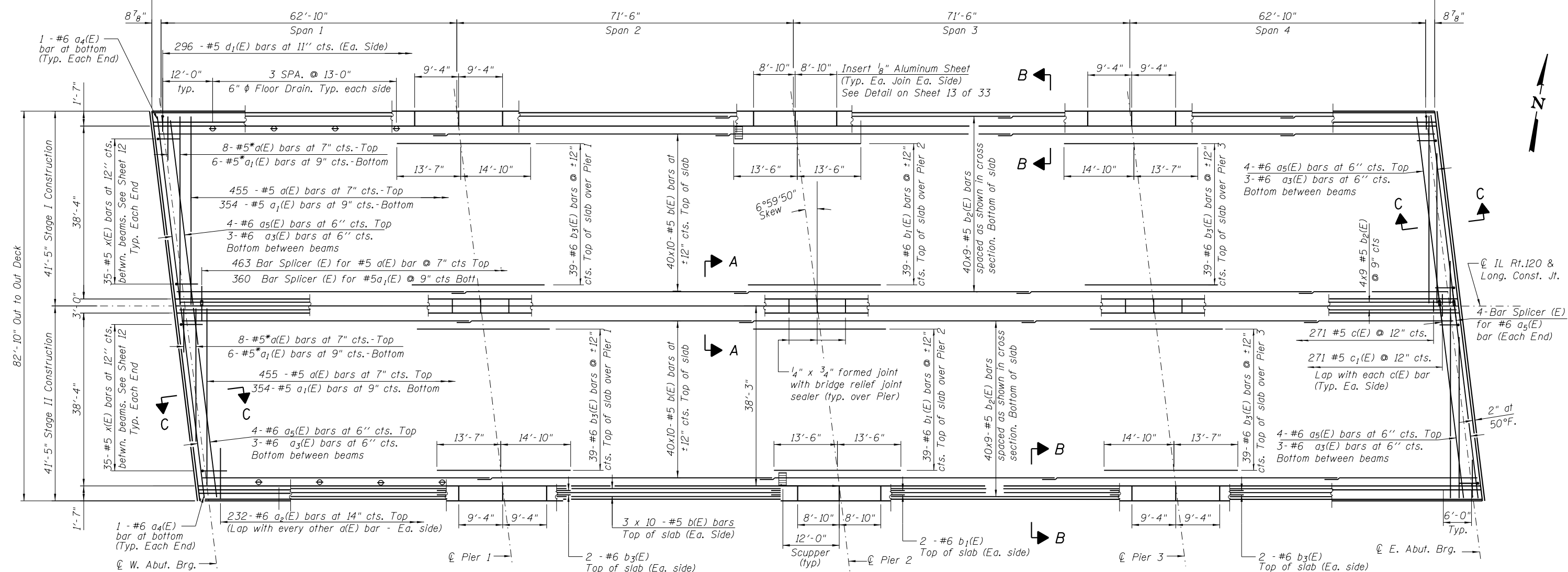
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EAST APPROACH TOP OF SLAB ELEVATIONS  
STRUCTURE NO.049-0051**

SHEET NO. 10 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	91
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

270'-13 1/4" End to End Deck



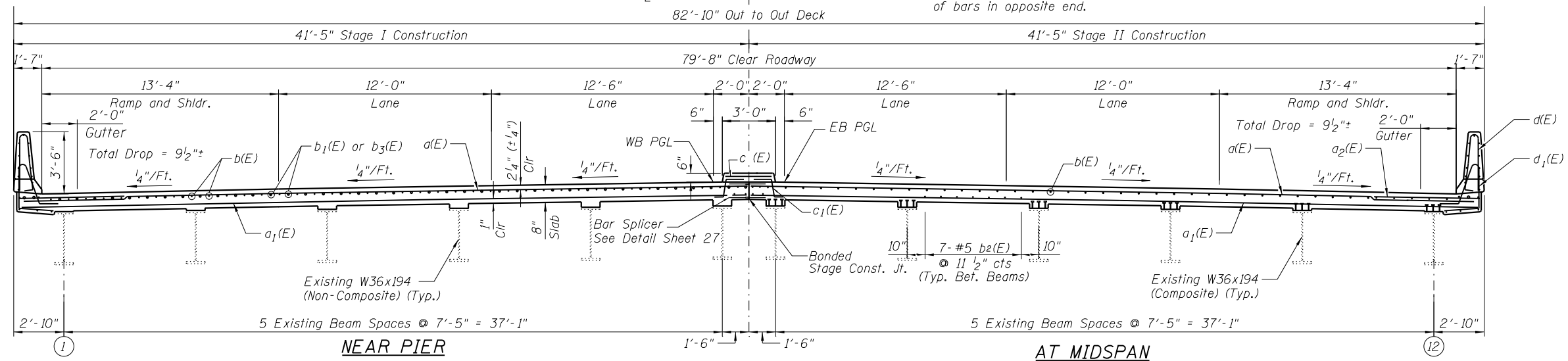
PLAN

\* Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

MIN. BAR LAP

- #4 - 2'-7"
- #5 - 3'-6"
- #6 - 3'-10"

- Notes:
- See Sheet 12 of 29 for superstructure details and Bill of Material.
  - Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  - See Sheet 13 of 29 for parapet reinforcement.



PROPOSED CROSS SECTION  
Looking East

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	CHECKED - JPM, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN & CROSS SECTION  
STRUCTURE NO.049-0051

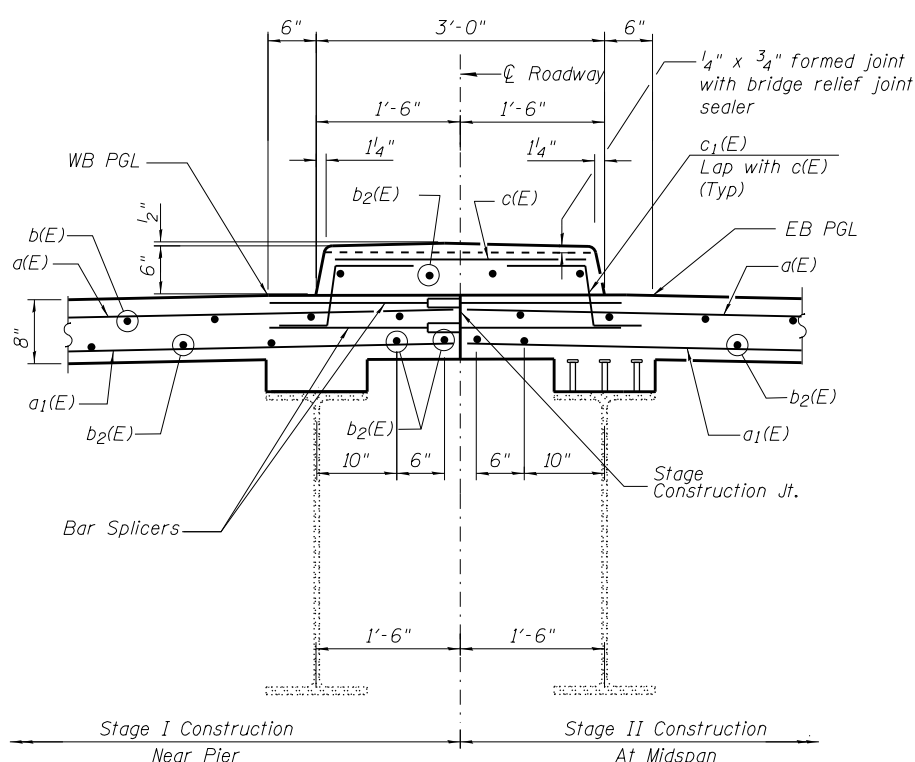
SHEET NO. 11 OF 29 SHEETS

F.A.P. R.T.E. = 333	SECTION = 12(HB&VB)BR & RS-7	COUNTY = LAKE	TOTAL SHEETS = 198	SHEET NO. = 92
CONTRACT NO. 60X39				
ILLINOIS FED. AID PROJECT				

S-11

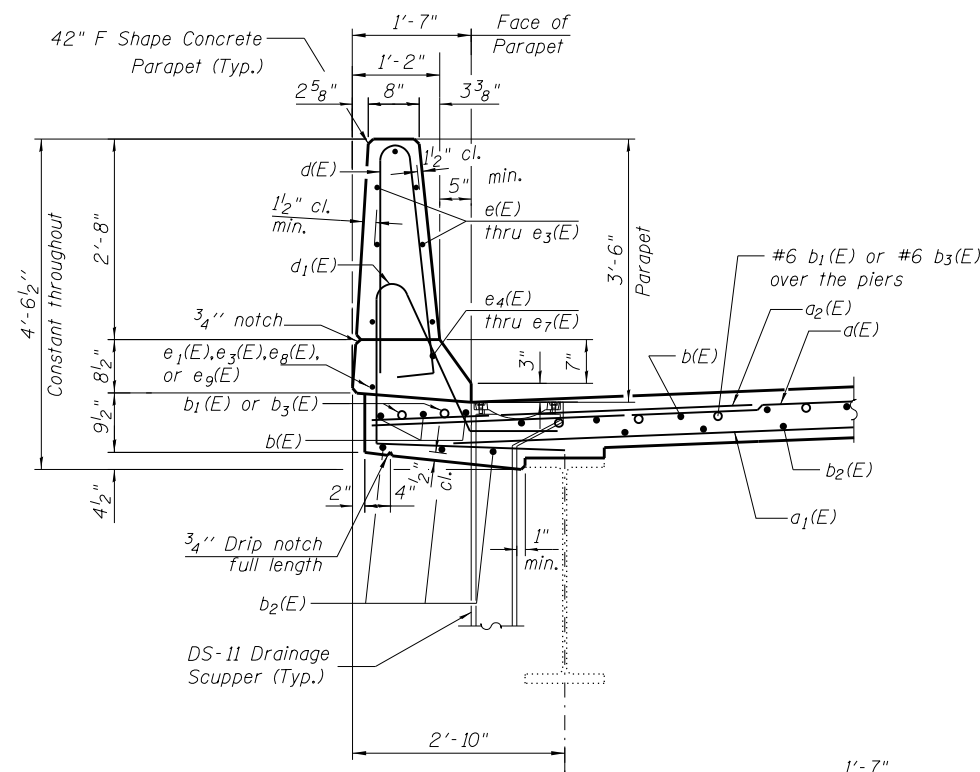
**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.		Size	Length	Shape
	Stage I	Stage II			
a(E)	463	463	#5	41'-0"	—
a <sub>1</sub> (E)	360	360	#5	40'-8"	—
a <sub>2</sub> (E)	232	232	#6	6'-6"	—
a <sub>3</sub> (E)	30	30	#6	8'-6"	U
a <sub>4</sub> (E)	2	2	#6	40'-11"	—
a <sub>5</sub> (E)	8	8	#6	41'-3"	—
a <sub>6</sub> (E)	16	16	#5	1'-6"	—
b(E)	430	430	#5	30'-4"	—
b <sub>1</sub> (E)	41	41	#6	27'-0"	—
b <sub>2</sub> (E)	378	378	#5	33'-4"	—
b <sub>3</sub> (E)	82	82	#6	28'-5"	—
b <sub>4</sub> (E)	20	20	#4	28'-1"	—
c(E)	271		#5	2'-6"	—
c <sub>1</sub> (E)	271	271	#5	2'-5"	—
d(E)	376	376	#5	6'-10"	⌒
d <sub>1</sub> (E)	376	376	#5	7'-6"	⌒
e(E)	42	42	#4	17'-10"	—
e <sub>1</sub> (E)	32	32	#4	9'-1"	—
e <sub>2</sub> (E)	42	42	#4	17'-6"	—
e <sub>3</sub> (E)	16	16	#4	8'-7"	—
e <sub>4</sub> (E)	4	4	#8	29'-8"	—
e <sub>5</sub> (E)	4	4	#8	9'-1"	—
e <sub>6</sub> (E)	4	4	#8	29'-2"	—
e <sub>7</sub> (E)	2	2	#8	8'-7"	—
e <sub>8</sub> (E)	4	4	#4	28'-0"	—
e <sub>9</sub> (E)	4	4	#4	27'-7"	—
* u <sub>1</sub> (E)	270	270	#4	3'-2"	U
x(E)	70	70	#5	7'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	161,200	
Concrete Superstructure			Cu. Yd.	712.3	
Bar Splicer			Each	831	
Bridge Deck Grooving			Sq. Yd.	2,740	
Protective Shield			Sq. Yd.	1,053	
Floor Drains			Each	8	

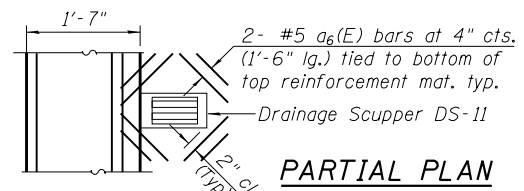


**SECTION A-A**  
Looking East

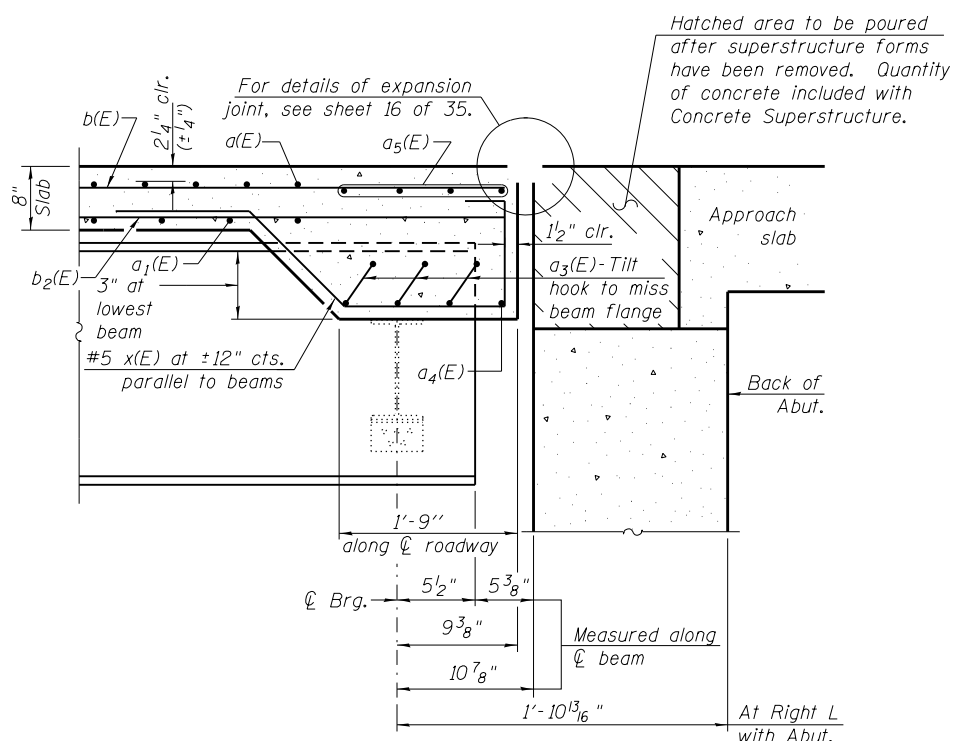
Note:  
Contractor must take precaution so as to not damage c(E) bars during Stage II Construction.



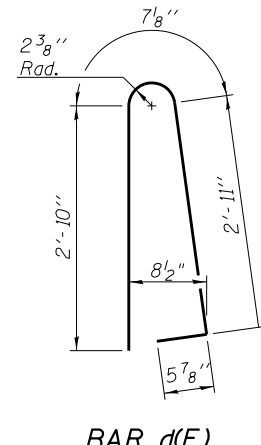
**SECTION B-B**



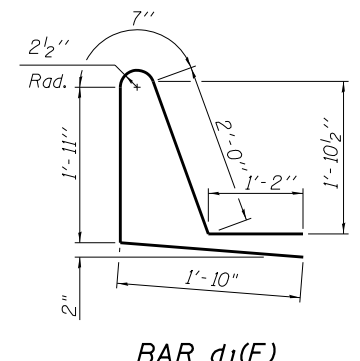
**PARTIAL PLAN**



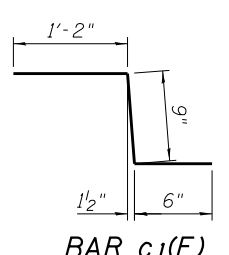
**SECTION C-C**



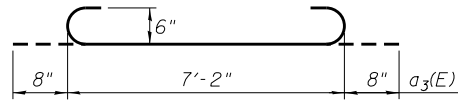
**BAR d(E)**



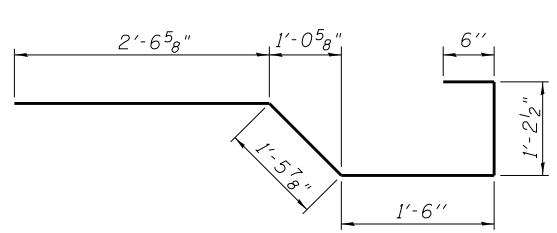
**BAR d1(E)**



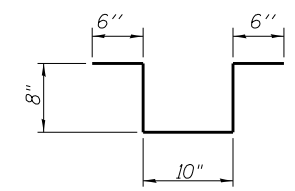
**BAR c1(E)**



**BAR a3(E)**



**BAR x(E)**



**BAR u1(E)**

Notes:  
I.F. = Denotes Inside Face  
O.F. = Denotes Outside Face  
U.N.O. = Unless Noted Otherwise  
\* = Estimated, final quantity numbers will be determined during construction.  
Tilt #5-x(E) bars to fit

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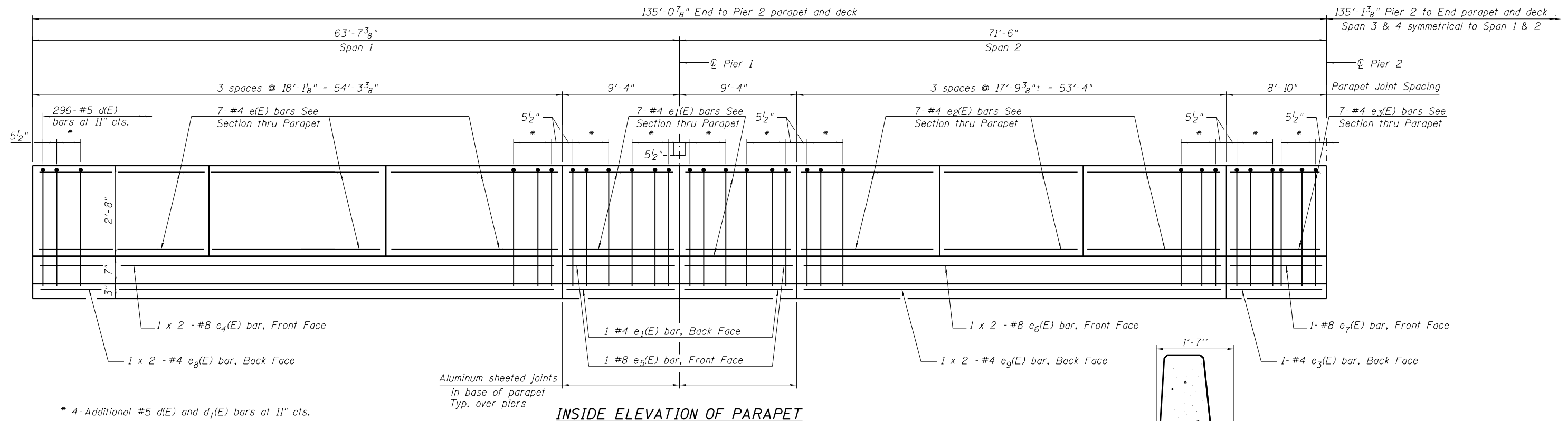
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	CHECKED - JPM, MMH, TPG	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS & BILL OF MATERIALS  
STRUCTURE NO.049-0051**

SHEET NO. 12 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)IBR & RS-7	LAKE	198	93
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

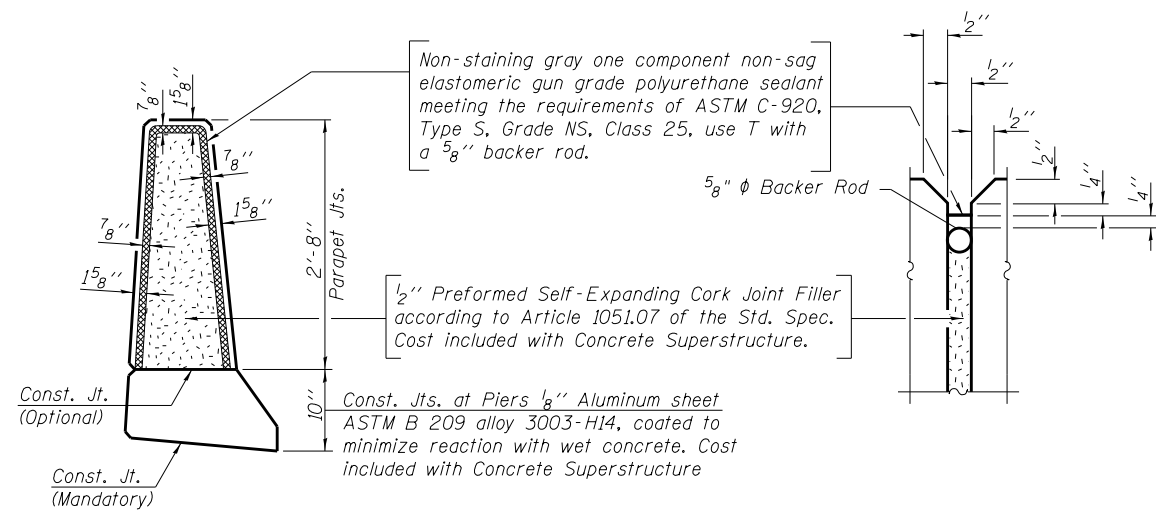


\* 4-Additional #5 d(E) and d1(E) bars at 11" cts.

Aluminum sheeted joints  
in base of parapet  
Typ. over piers

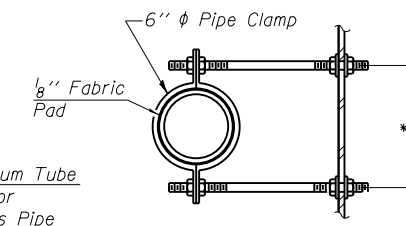
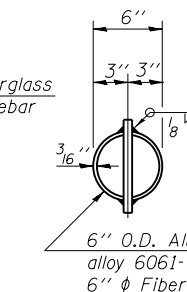
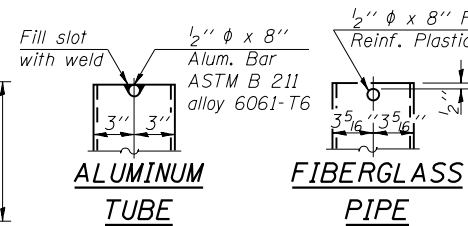
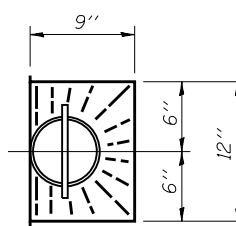
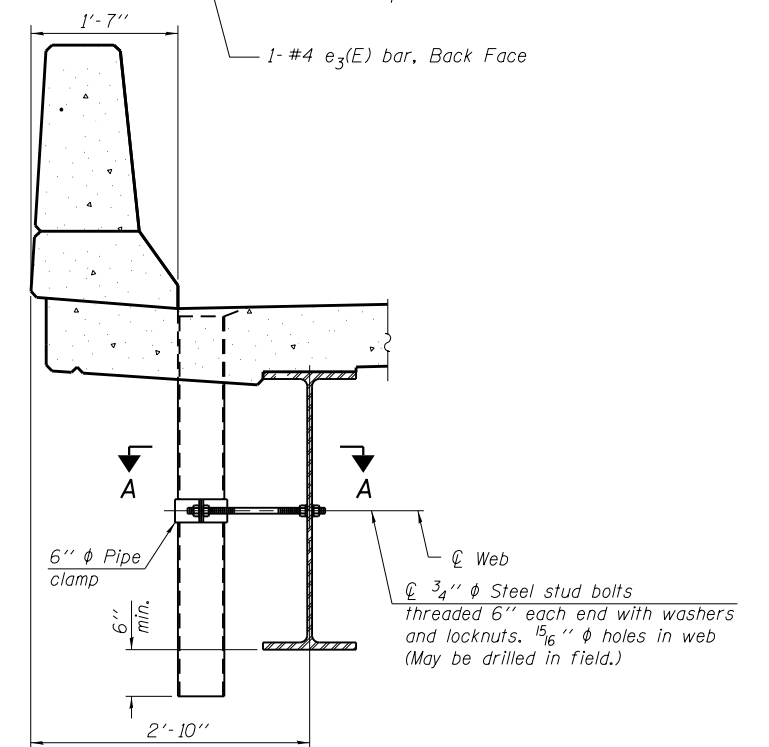
**MIN. BAR LAP**

#4 bar = 2'-8"  
#8 bar = 5'-11"



**Notes:**

Drains shall be located clear of all diaphragms.  
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.  
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.



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USER NAME =	DESIGNED - SMO	REVISED
	CHECKED - JPM, MMH	REVISED
PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JPM, MMH, TPG	REVISED

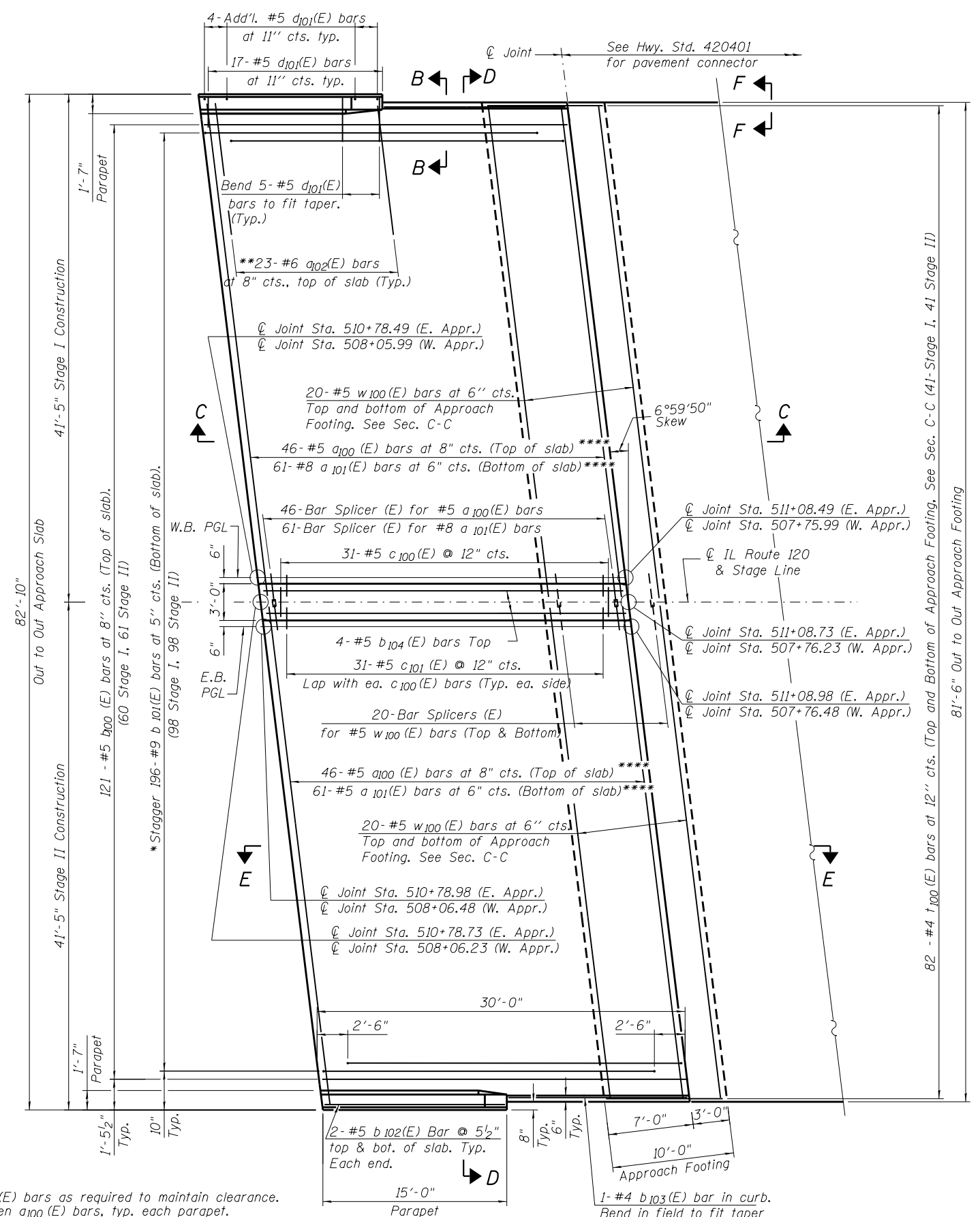
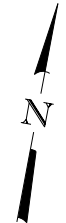
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PARAPET ELEVATION & DETAILS  
STRUCTURE NO.049-0051**

SHEET NO. 13 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	94
CONTRACT NO. 60X39				

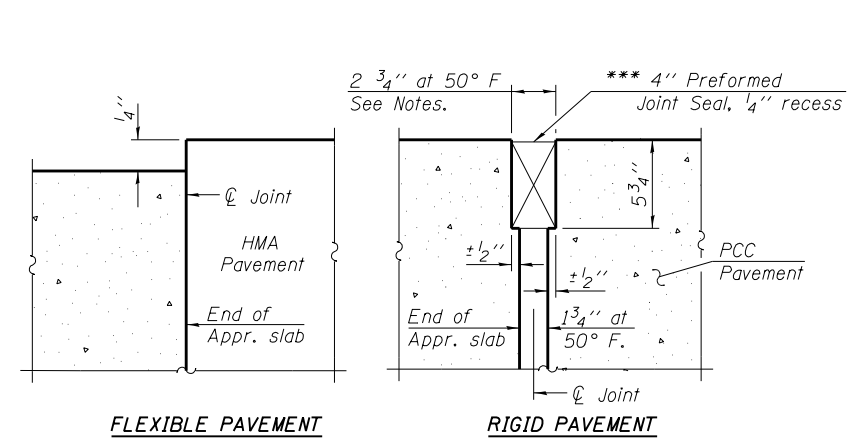
ILLINOIS FED. AID PROJECT



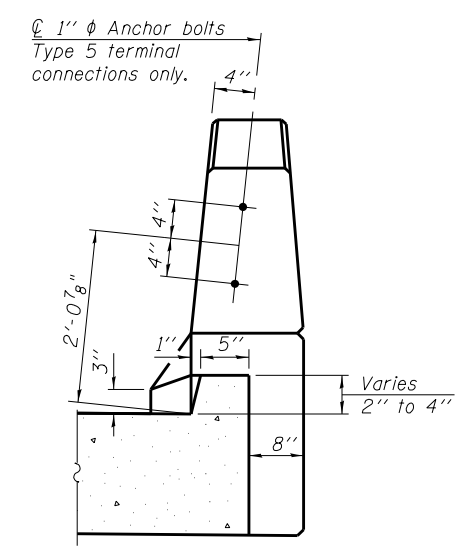
**PLAN**  
East Approach - Shown  
West Approach - Opposite Hand

Notes:  
See sheet 15 of 29 for Sections C-C & D-D and View E-E.  
a<sub>100</sub>(E) and a<sub>101</sub>(E) bar spacings measured along  $\varnothing$  Rdwy.  
The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2' for installation purposes.

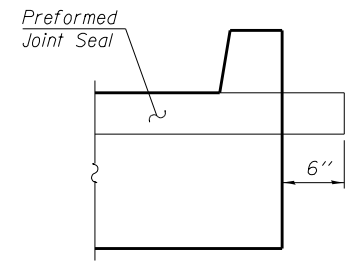
\*\*\* Cost included with Concrete Superstructure.



**DETAIL A**



**VIEW B-B**



**VIEW F-F**

**MIN. BAR LAP**

#4	- 2'-7"
#5	- 3'-2"
#8	- 5'-1"

\* Tilt #9 b<sub>101</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>100</sub>(E) bars, typ. each parapet.  
\*\*\*\* Cut bars in field to fit.

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USER NAME =	DESIGNED - SMO	REVISED
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PLOT SCALE =	DRAWN - MPS	REVISED
PLOT DATE = 3/3/2017	CHECKED - JPM, MMH, TPG	REVISED

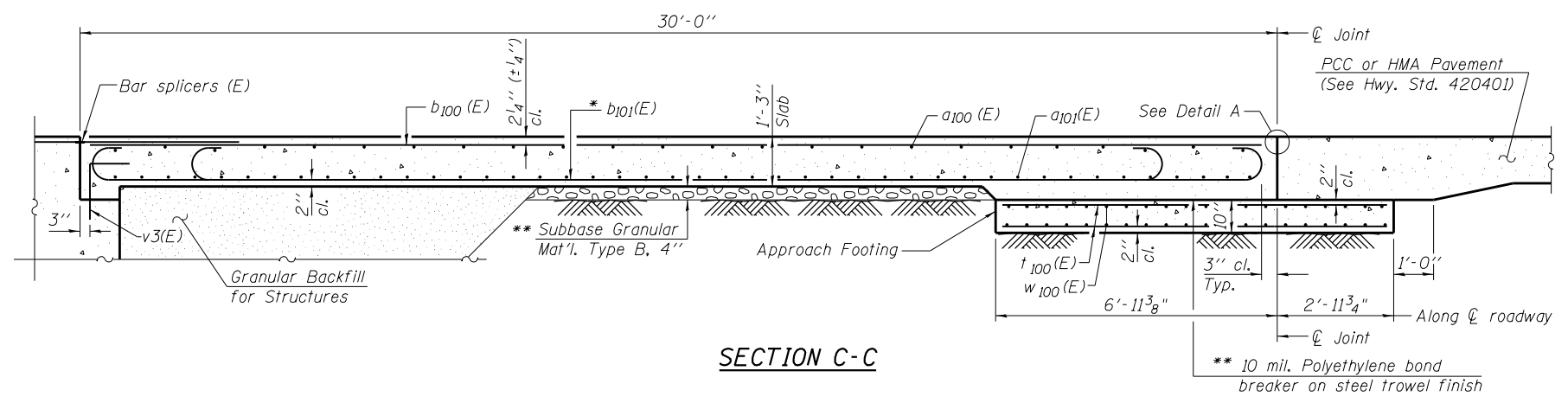
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EAST AND WEST APPROACH SLAB PLAN & DETAILS  
STRUCTURE NO.049-0051**

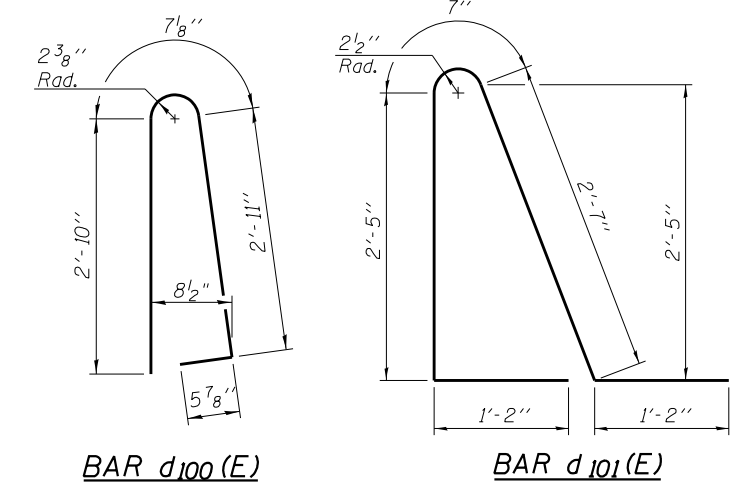
SHEET NO. 14 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	95
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X39	

Notes:  
 See sheet 14 of 29 for Detail A and View B-B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v3(E) bar details, see sheet 21 of 29.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 For bar splicer details, see sheet 27 of 29.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 29.  
 For additional parapet and median details, see sheet 12 of 29.



**SECTION C-C**



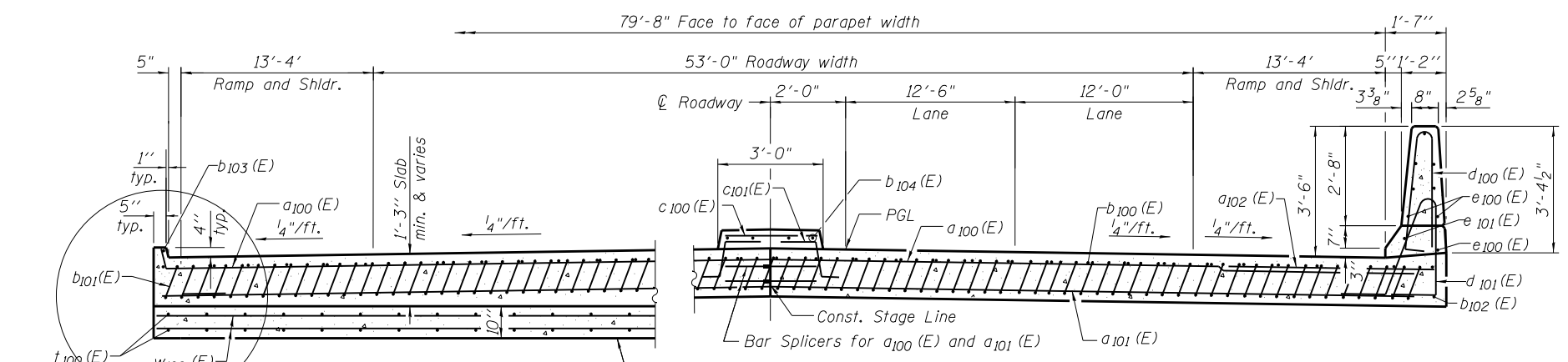
**BAR d<sub>100</sub>(E)**

**BAR d<sub>101</sub>(E)**

\* Tilt #9 b<sub>101</sub>(E) bars as required to maintain clearance.  
 \*\* Cost included with Concrete Superstructure.

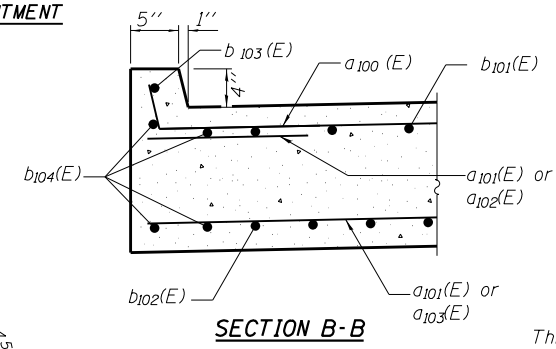
**TWO APPROACHES  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a <sub>100</sub> (E)	184	#5	40'-8"	—
a <sub>101</sub> (E)	244	#8	40'-8"	—
a <sub>102</sub> (E)	48	#6	6'-6"	—
b <sub>100</sub> (E)	242	#5	29'-8"	—
b <sub>101</sub> (E)	392	#9	29'-9"	—
b <sub>102</sub> (E)	8	#5	14'-8"	—
b <sub>103</sub> (E)	4	#4	14'-8"	—
b <sub>104</sub> (E)	8	#5	29'-8"	—
c <sub>100</sub> (E)	62	#5	2'-6"	—
c <sub>101</sub> (E)	124	#5	2'-5"	—
d <sub>100</sub> (E)	100	#5	6'-10"	—
d <sub>101</sub> (E)	100	#5	7'-11"	—
e <sub>100</sub> (E)	32	#4	14'-8"	—
e <sub>101</sub> (E)	4	#8	14'-8"	—
t <sub>100</sub> (E)	328	#4	9'-9"	—
w <sub>100</sub> (E)	160	#5	40'-8"	—
Concrete Superstructure		Cu. Yd.		244.3
Concrete Structures		Cu. Yd.		51.1
Reinforcement Bars, Epoxy Coated		Pound		93,730
Bar Splicer		Each		294

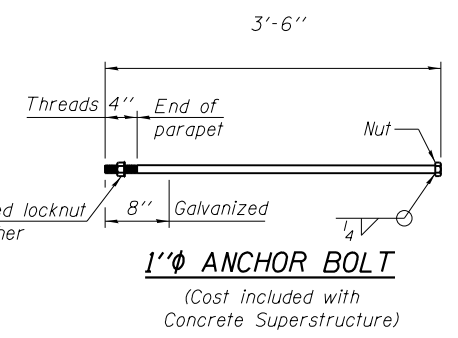


**SECTION D-D**

**NEAR ABUTMENT**

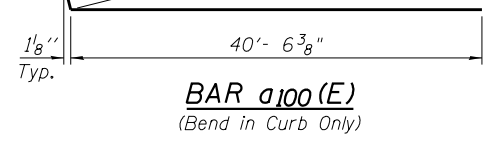


**SECTION B-B**



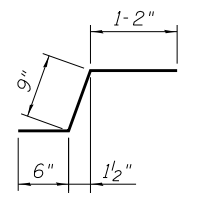
**1" ANCHOR BOLT**

(Cost included with Concrete Superstructure)

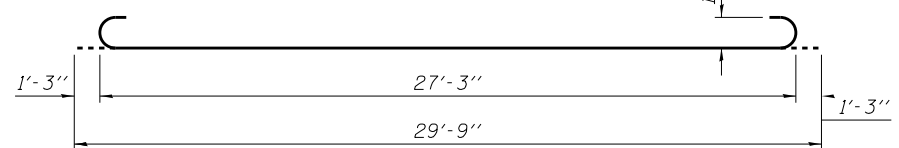


**BAR a<sub>100</sub>(E)**

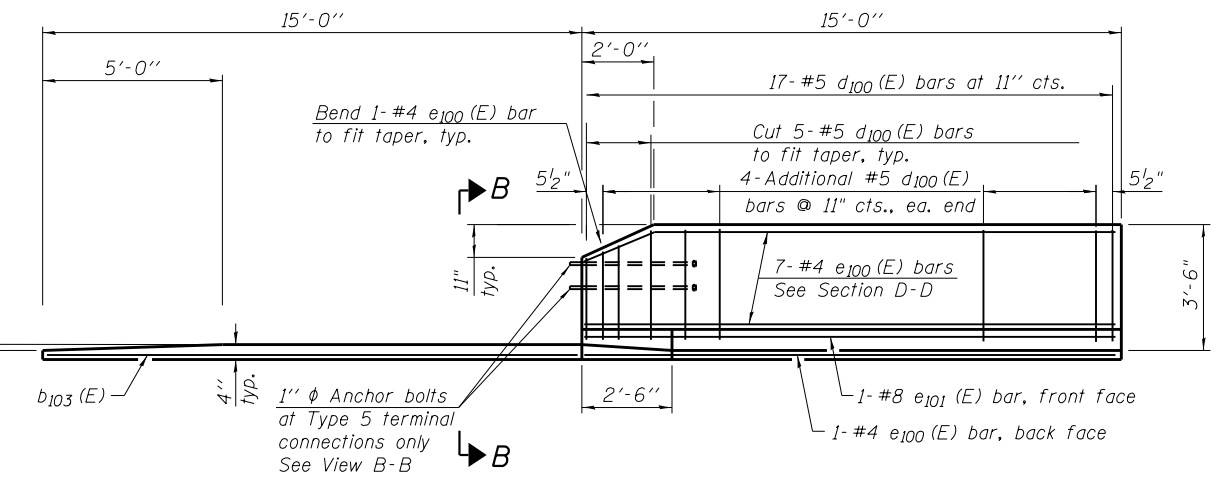
(Bend in Curb Only)



**BAR c<sub>1</sub>(E)**



**BAR b<sub>101</sub>(E)**



**VIEW E-E**

Elev. 732.36 West Approach Slab (Level out to out)  
 Elev. 730.50 East Approach Slab (Level out to out)

(See Plan for dimensions not shown)

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PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JPM, MMH, TPG	REVISED

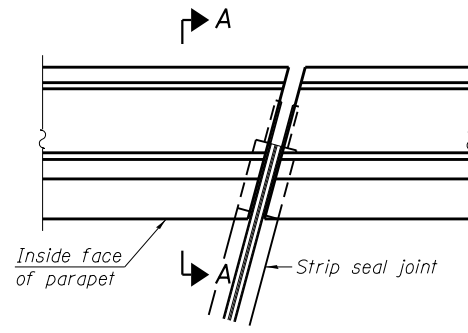
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO.049-0051**

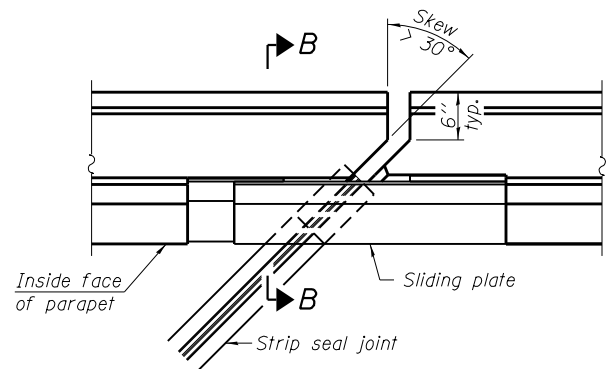
SHEET NO. 15 OF 29 SHEETS

F.A.P. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(H&B)/VB/BR & RS-7	LAKE	198	96
CONTRACT NO. 60X39			ILLINOIS FED. AID PROJECT	

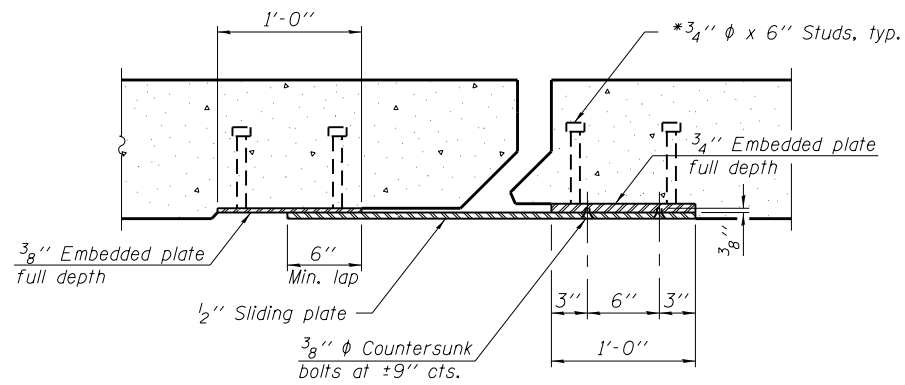




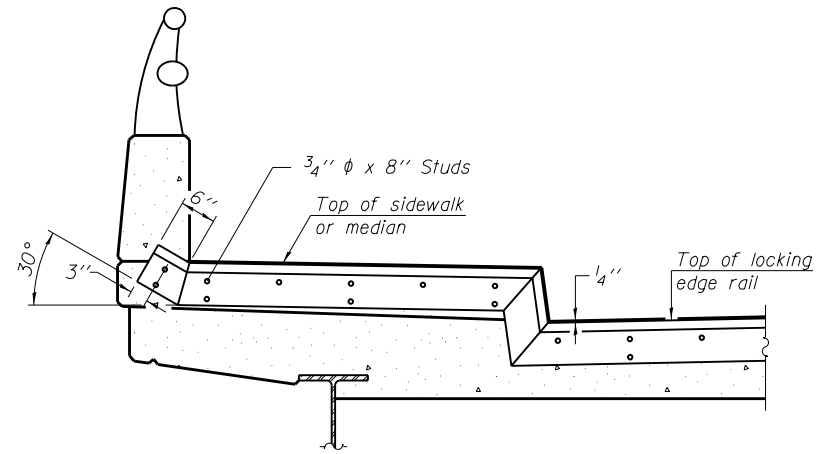
**PLAN**  
(For skews  $\leq 30^\circ$ )



**PLAN**  
(For skews  $> 30^\circ$ )  
Showing point block

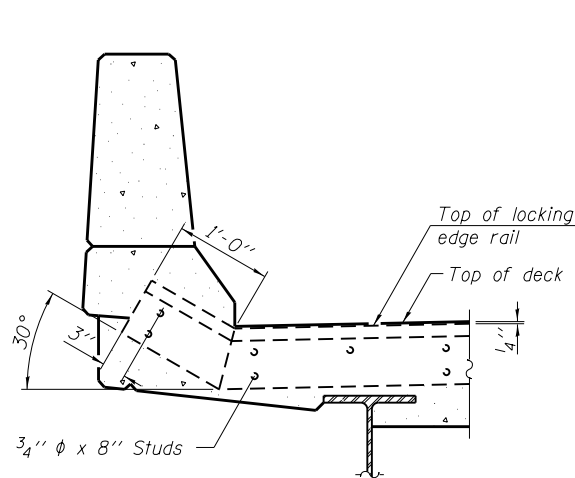


**SECTION C-C**

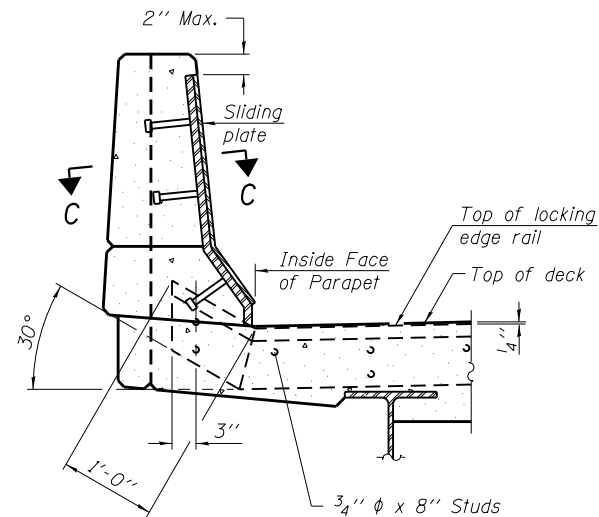


**TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN**

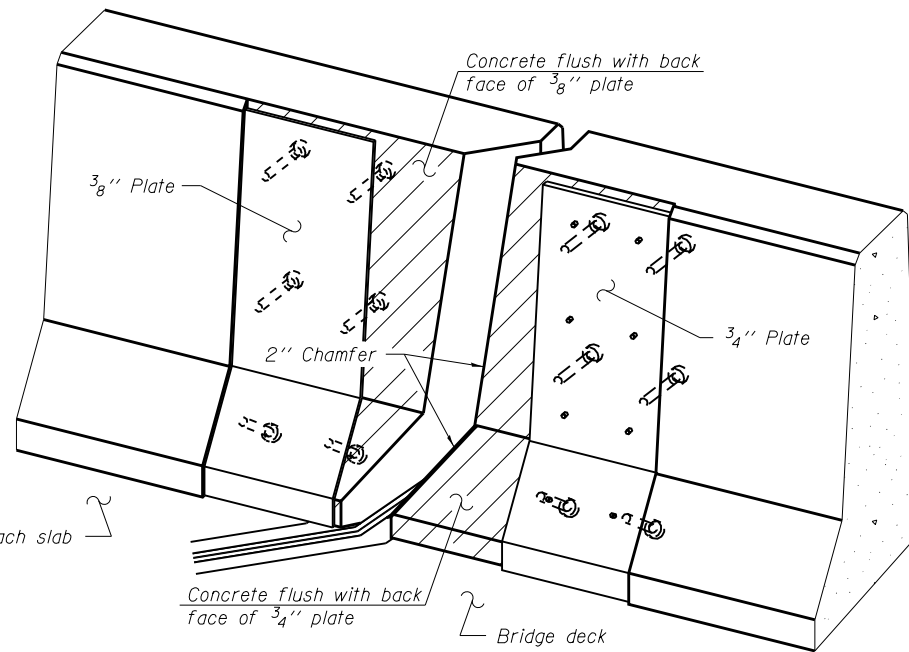
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



**SECTION A-A**



**SECTION B-B**



**TRIMETRIC VIEW**  
(Showing back plates only)

**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 conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

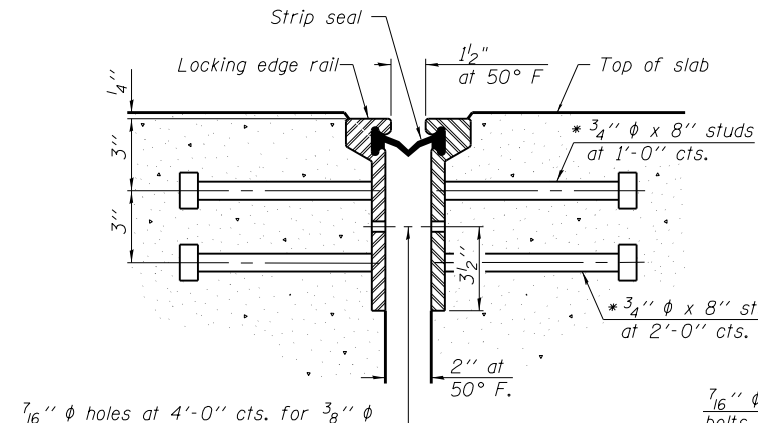
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

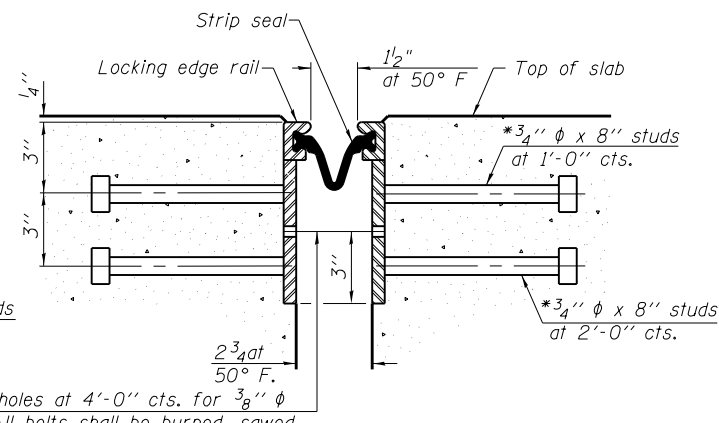
Parapet plates and anchorage studs for skews  $> 30^\circ$  included in the cost of Preformed Joint Strip Seal.

3/27/2017 11:31:48 AM c:\pwworking\primera\pwworking\dms06638\0490051-60x39-16-details-pref\_joint.dgn



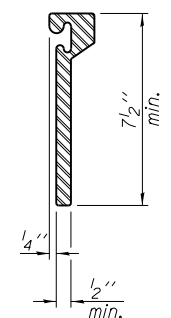
**SECTION THRU ROLLED RAIL JOINT**

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

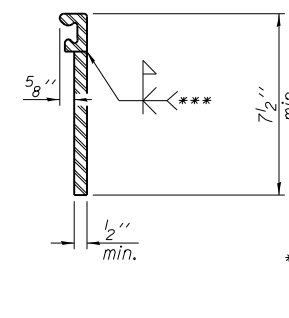


**SECTION THRU WELDED RAIL JOINT**

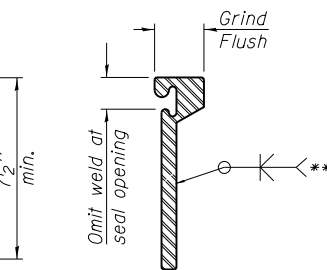
7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



**ROLLED EXTRUDED RAIL**



**WELDED RAIL**



**LOCKING EDGE RAIL SPLICE**

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

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

**LOCKING EDGE RAILS**

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	166



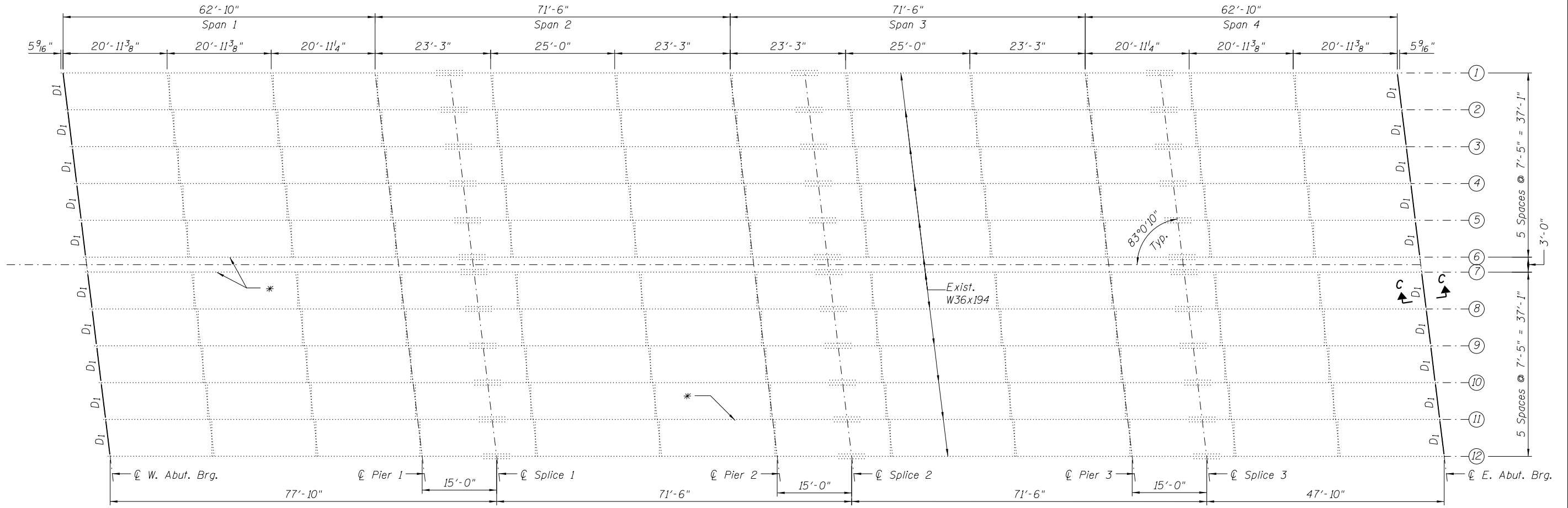
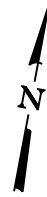
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	CHECKED - JPM, MMH, TPG	REVISD -

STATE OF ILLINOIS  
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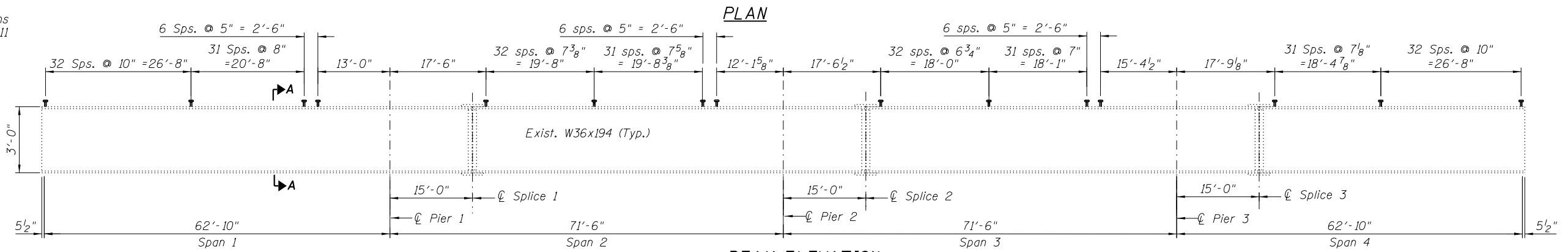
PREFORMED JOINT STRIP SEAL  
STRUCTURE NO.049-0051

SHEET NO. 16 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	97
				CONTRACT NO. 60X39
ILLINOIS FED. AID PROJECT				

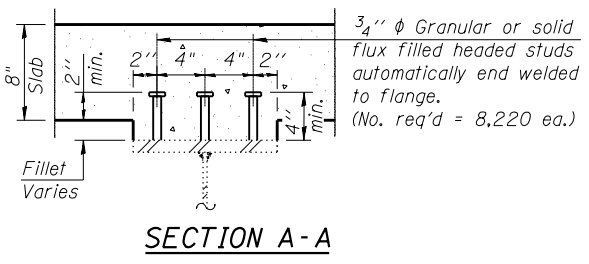


\* Near White Blast clean and repaint entire length of beams 6 & 7 and portion of Beam 11 over the spans 2 & 3. Cost will be paid as "Cleaning and Painting Steel Bridge No.2"

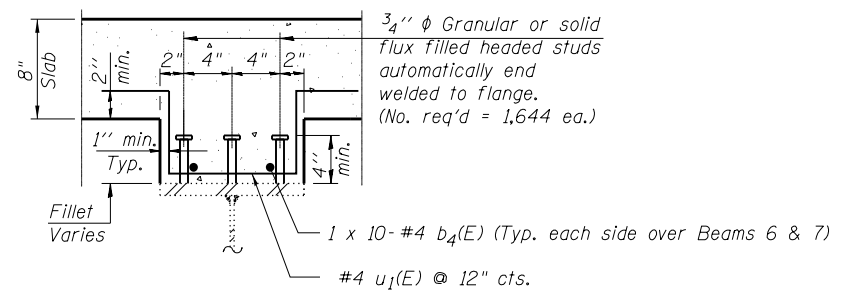


**PLAN**  
**BEAM ELEVATION**  
(Showing Studs Spacing)  
See Sheet 18 for Shear Studs Layout at Splices

TOP OF EXISTING BEAM ELEVATION **								
Location Beam	Q C Brg W. Abut.	Q C Brg Pier 1	Q C Splice #1	Q C Brg Pier 2	Q C Splice #2	Q C Brg Pier 3	Q C Splice #3	Q C Brg E. Abut.
1	734.04	733.93	733.82	733.55	733.37	732.81	732.54	731.98
2	734.09	734.02	733.92	733.63	733.45	732.90	732.60	732.06
3	734.15	734.08	734.00	733.68	733.48	732.95	732.68	732.10
4	734.19	734.13	734.02	733.74	733.56	733.00	732.73	732.14
5	734.27	734.19	734.07	733.81	733.63	733.08	732.82	732.18
6	734.33	734.24	734.13	733.87	733.69	733.13	732.88	732.23
7	734.33	734.24	734.13	733.88	733.68	733.11	732.86	732.22
8	734.28	734.18	734.05	733.79	733.60	733.03	732.75	732.17
9	734.22	734.13	734.02	733.72	733.53	732.95	732.72	732.12
10	734.17	734.05	733.95	733.70	733.44	732.88	732.62	732.00
11	734.11	734.00	733.88	733.60	733.35	732.82	732.57	731.96
12	734.01	733.92	733.78	733.51	733.30	732.74	732.44	731.86



**SECTION A-A**



**FOR FILLET HEIGHT  
DEEPER THAN 6"**

Note:  
See Sheet 18 of 29 for Diaphragm D1 Details.

\*\*From Field Survey and for information only. Verify during construction for actual fillet height before deck slab is poured.



USER NAME =	DESIGNED - MJK, JPM	REVISED
	CHECKED - JPM, MMH	REVISED
PLOT SCALE =	DRAWN - MPS, SMO	REVISED
PLOT DATE = 3/3/2017	CHECKED - JPM, MMH, TPG	REVISED

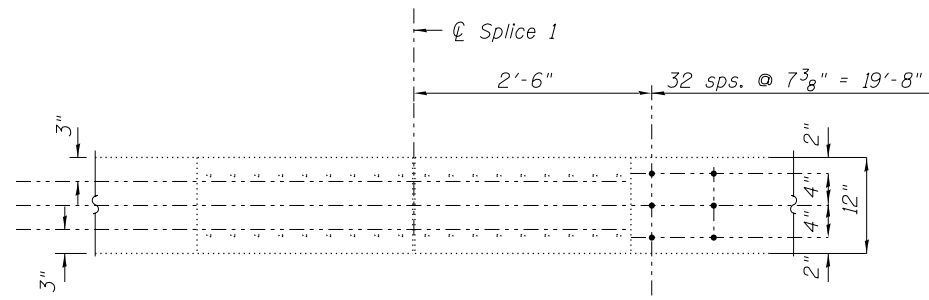
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & DETAILS  
STRUCTURE NO.049-0051  
SHEET NO. 17 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	98
CONTRACT NO. 60X39				

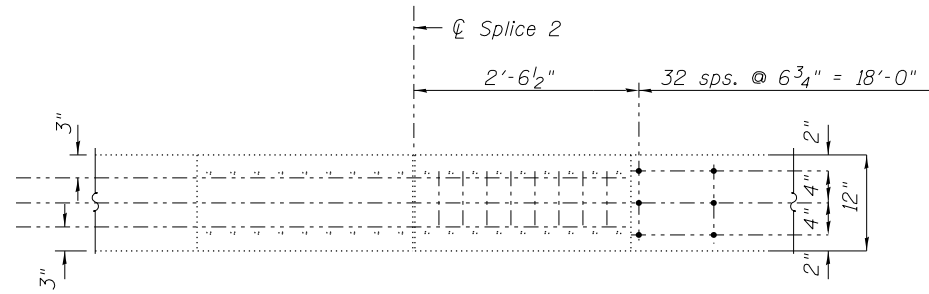
ILLINOIS FED. AID PROJECT

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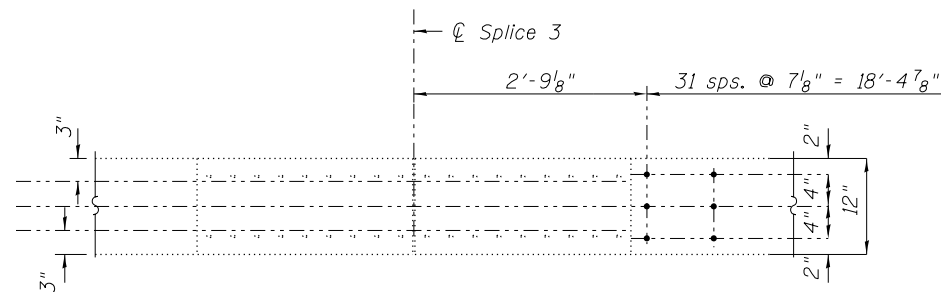
**SHEAR STUDS TERMINATION NEAR SPLICE 1**

Splice 1 - Shown



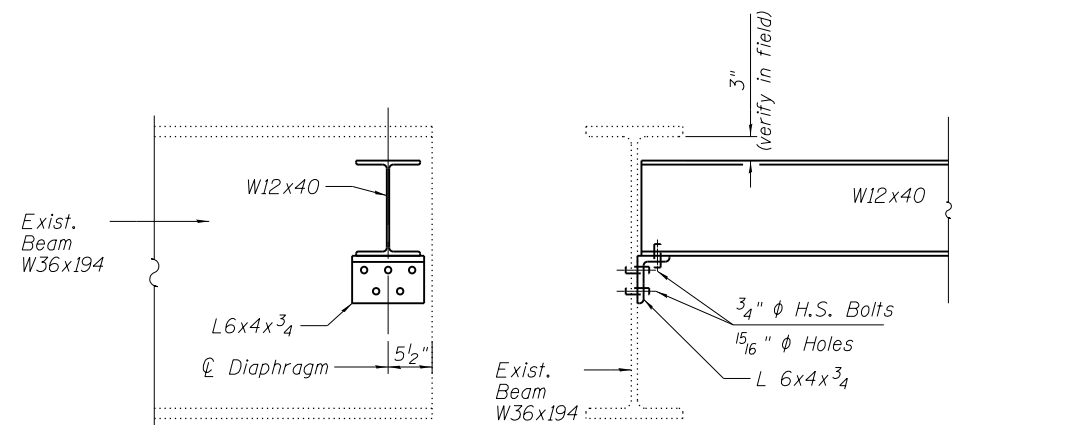
**SHEAR STUDS TERMINATION NEAR SPLICE 2**

Splice 2 - Shown



**SHEAR STUDS TERMINATION NEAR SPLICE 3**

Splice 3 - Shown



SECTION C-C

DIAPHRAGM D<sub>1</sub> PARTIAL ELEVATION

(5 Required)

INTERIOR BEAM MOMENT TABLE					
		0.4 Sp.1 0.6 or Sp.4	Pier 1 or Pier3	0.5 Sp.2 0.5 or Sp.3	Pier 2
$I_s$	(in <sup>4</sup> )	12,100	12,100	12,100	12,100
$I_c(n)$	(in <sup>4</sup> )	33635.9	-	33635.9	-
$I_c(3n)$	(in <sup>4</sup> )	23730.9	-	23730.9	-
$S_s$	(in <sup>3</sup> )	664.0	664.0	664.0	664.0
$S_c(n)$	(in <sup>3</sup> )	1021.8	-	1021.8	-
$S_c(3n)$	(in <sup>3</sup> )	904.7	-	904.7	-
$Q$	(k/')	1.022	1.19	1.022	1.19
$M_Q$	(k)	296.9	527.4	212.8	473.2
$s_Q$	(k/')	0.17	-	0.17	-
$M_{sQ}$	(k)	56.6	-	48.4	-
$M_L$	(k)	462.4	261.3	453.0	280.9
$M_{IM}$	(k)	167.8	91.9	154.6	95.9
$^{5/3} [M_L + M_I]$	(k)	1050.3	588.7	1012.7	628.0
$M_o$	(k)	1825.0	1450.9	1656.0	1431.6
* $M_u$	(k)	2592.5	-	2652.8	-
$f_s Q$ non-comp	(ksi)	5.4	9.5	3.8	8.6
$f_s Q$ (comp)	(ksi)	0.8	-	0.6	-
$f_s ^{5/3} [M_L + M_I]$	(ksi)	12.3	10.6	11.9	11.3
$f_s$ (Overload)	(ksi)	18.5	20.2	16.4	19.9
** $f_s$ (Total)	(ksi)	-	26.2	-	25.9
VR	(k)	42.2	-	43.1	-

\*\*

\*\*\*

INTERIOR BEAM REACTION TABLE				
		E. or W. Abut	Pier 1 or 3	Pier 2
$R_Q$	(k)	30.7 ***	89.2	83.7
$R_L$	(k)	40.5	50.6	50.6
$R_I$	(k)	10.8	9.8	9.4
$R_{Total}$	(k)	82.0	149.6	143.7

- \* Compact section
- \*\* Braced non-compact and partially braced section
- \*\*\* Includes weight of concrete edge beam at exp. jt. over the diaphragm and large fillet over the beam.

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total and Overload) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total and Overload) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total and Overload) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).

$Q$ : Un-factored non-composite dead load (kips/ft.).  
 $M_Q$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $s_Q$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).  
 $M_{sQ}$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).  
 $M_L$ : Un-factored live load moment (kip-ft.).  
 $M_I$ : Un-factored moment due to impact (kip-ft.).  
 $M_o$ : Factored design moment (kip-ft.).  
 $1.3 [M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)]$   
 $M_u$ : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).  
 $f_s$  (Overload): Sum of stresses as computed from the moments below (ksi).  
 $M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)$   
 $f_s$  (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.3 [M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)]$   
 VR: Maximum  $\perp$  + impact shear range within the composite portion of the span for stud shear connector design (kips).

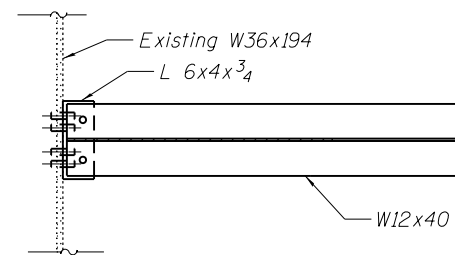
**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Cleaning and Painting Steel Bridge No. 2	L. Sum	1
**** Furnishing and Erecting Structural Steel	Pound	6,740
Structural Steel Removal	Pound	6,740

\*\*\*\* Grade 36 Steel which includes Diaphragms & connection angles.

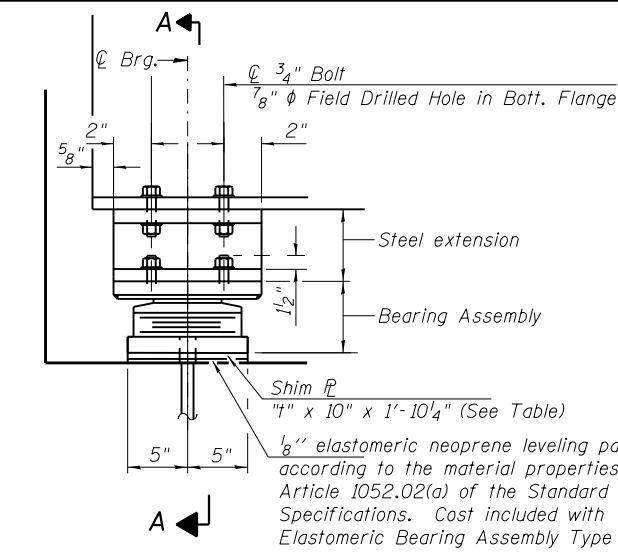
Note:  
Use the holes in the web of the W36x194 beams as a template for the new connection angle's bolt hole locations.

Cost of removing existing diaphragms and connection angles are included in the cost of "Furnishing and Erecting Structural Steel".



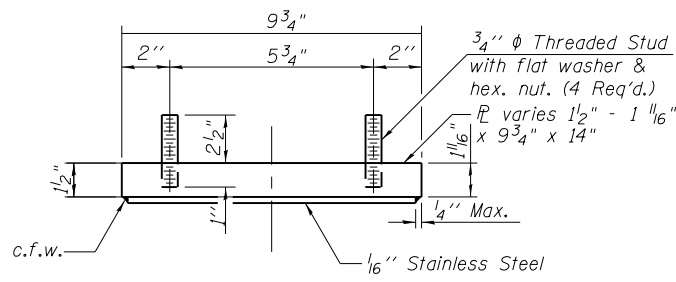
DIAPHRAGM D<sub>1</sub> PARTIAL PLAN

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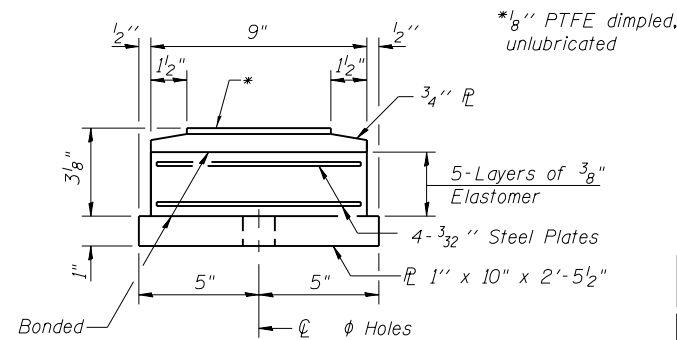


ELEVATION AT W. & E. ABUT.

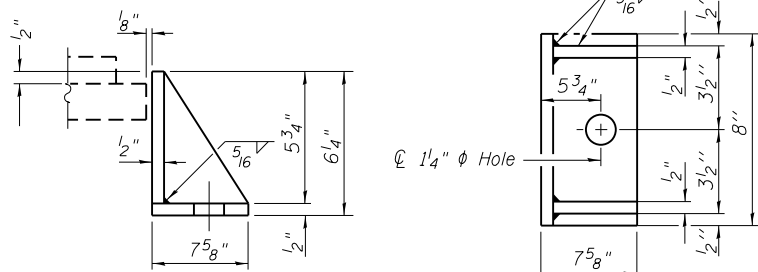
TYPE II ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY

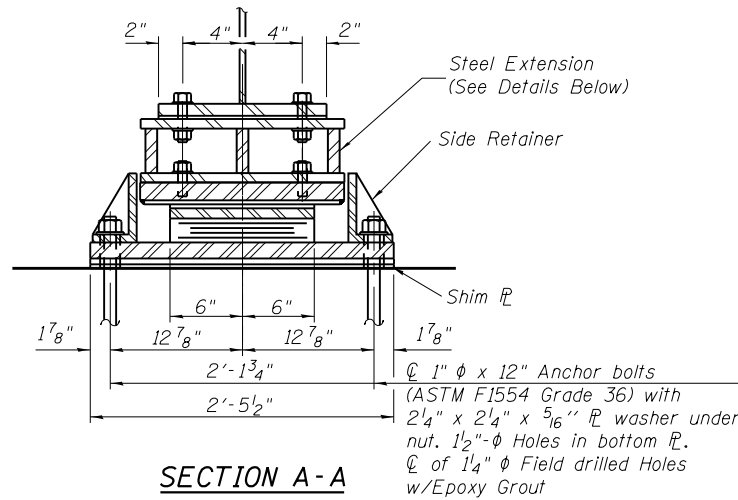


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



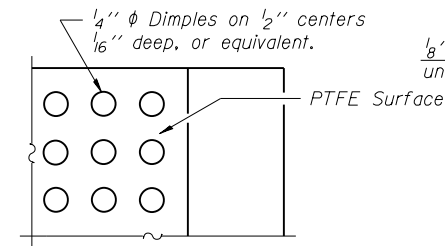
SECTION A-A

NOTES: JACK & REMOVE EXIST. BEARING

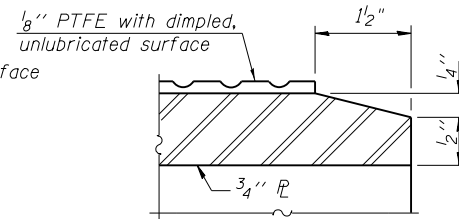
- It is the Contractor's responsibility to verify existing bearing heights prior to ordering material.
- The Contractor shall submit for approval by the engineer, plan for jacking and cribbing prior to commencing any work on the bearing.
- Jacking and removing existing bearings, including top and bottom plates and shim plates, shall be done after deck removal is completed and before the new deck is poured.
- All Stage I and Stage II beams shall be lifted simultaneously in stages.
- Top plates welded to the bottom flange of beams shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost included with "Jack and Remove Existing Bearings".
- Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolts smooth and seal with epoxy. Cost is included with "Jack and Remove Existing Bearings".
- The new bearing shall be in place and the jacks shall be lowered before the new deck is poured.
- Minimum Jack Capacity Required = 10 Tons/Jack.

SHIM PLATES "I"

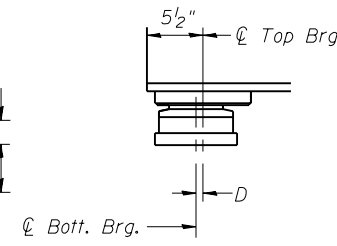
Location Beam	1	2	3	4	5	6	7	8	9	10	11	12
W. Abutment	3/8"	1/4"	3/8"	3/8"	3/8"	1/8"	3/8"	1/2"	3/8"	1/2"	1/2"	3/8"
E. Abutment	3/8"	3/8"	3/8"	3/8"	1/4"	1/8"	0	3/8"	13/16"	1/4"	5/8"	5/8"



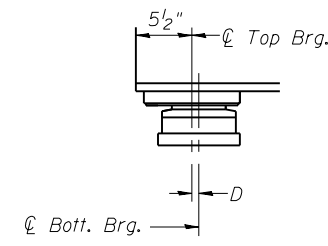
PLAN-PTFE SURFACE



SECTION THRU PTFE



BELOW 50°F.

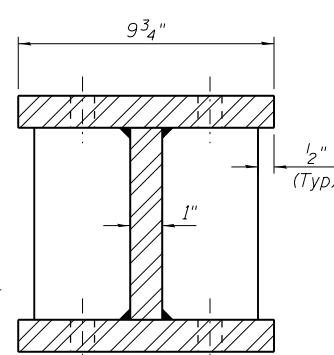


ABOVE 50°F.

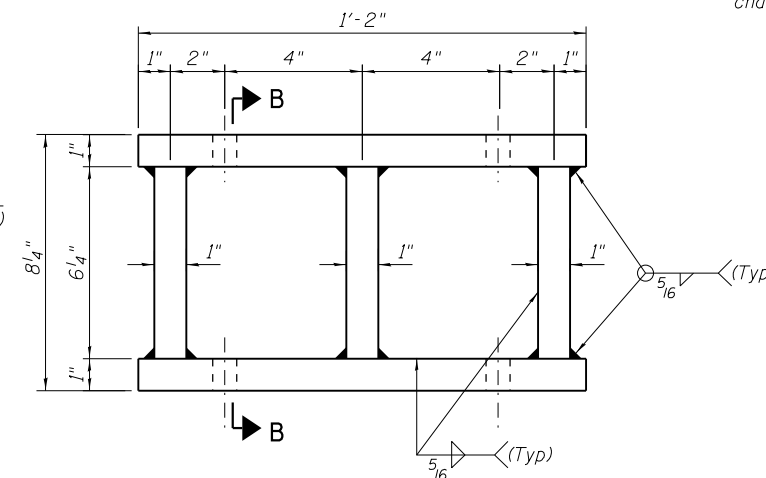
(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

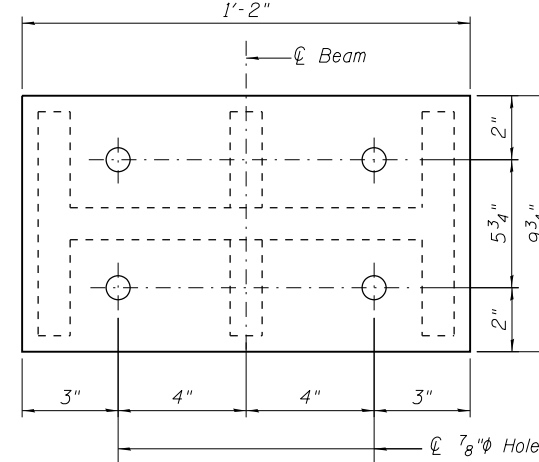


SECTION B-B

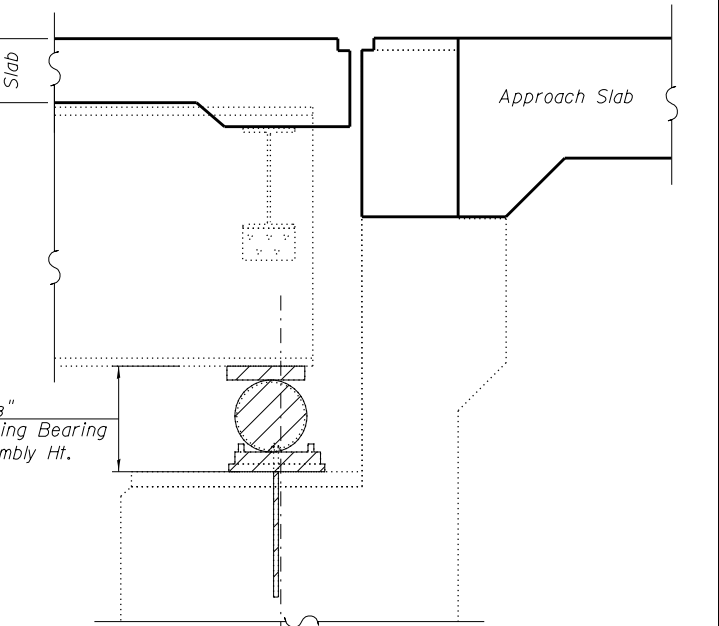


ELEVATION

STEEL EXTENSION



PLAN



EXISTING ABUTMENT BEARING TO BE REMOVED

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the elastomeric bearing assembly, including shim plates, shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50. Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	24
Anchor Bolts, 1"	Each	48
Jack & Remove Exist. Bearings	Each	24
Furnishing and Erecting Structural Steel *	Pound	3,400

\* Includes Bearing Steel Extensions

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USER NAME =	DESIGNED - JPM	REVISED
PLOT SCALE =	CHECKED - MMH	REVISED
PLOT DATE = 3/3/2017	DRAWN - MPS	REVISED
	CHECKED - JPM, MMH, TPG	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC BEARING TYPE II  
STRUCTURE NO.049-0051

SHEET NO. 19 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	12(HB&VB)BR & RS-7	LAKE	198	100
				CONTRACT NO. 60X39
ILLINOIS FED. AID PROJECT				

S-19