

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
-	13-00270-00-CH	COOK	393	1
ILLINOIS			CONTRACT NO.	

C-91-065-14
61C32
+2=395



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED ROADWAY PLANS

EMERSON STREET, RIDGE AVENUE AND GREEN BAY ROAD CORRIDOR

SECTION: 13-00270-00-CH

PROJECT: CMM-M-4003 (237)

INTERSECTION IMPROVEMENTS AND PAVEMENT RESURFACING & RECONSTRUCTION

CITY OF EVANSTON

COOK COUNTY

C-91-065-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

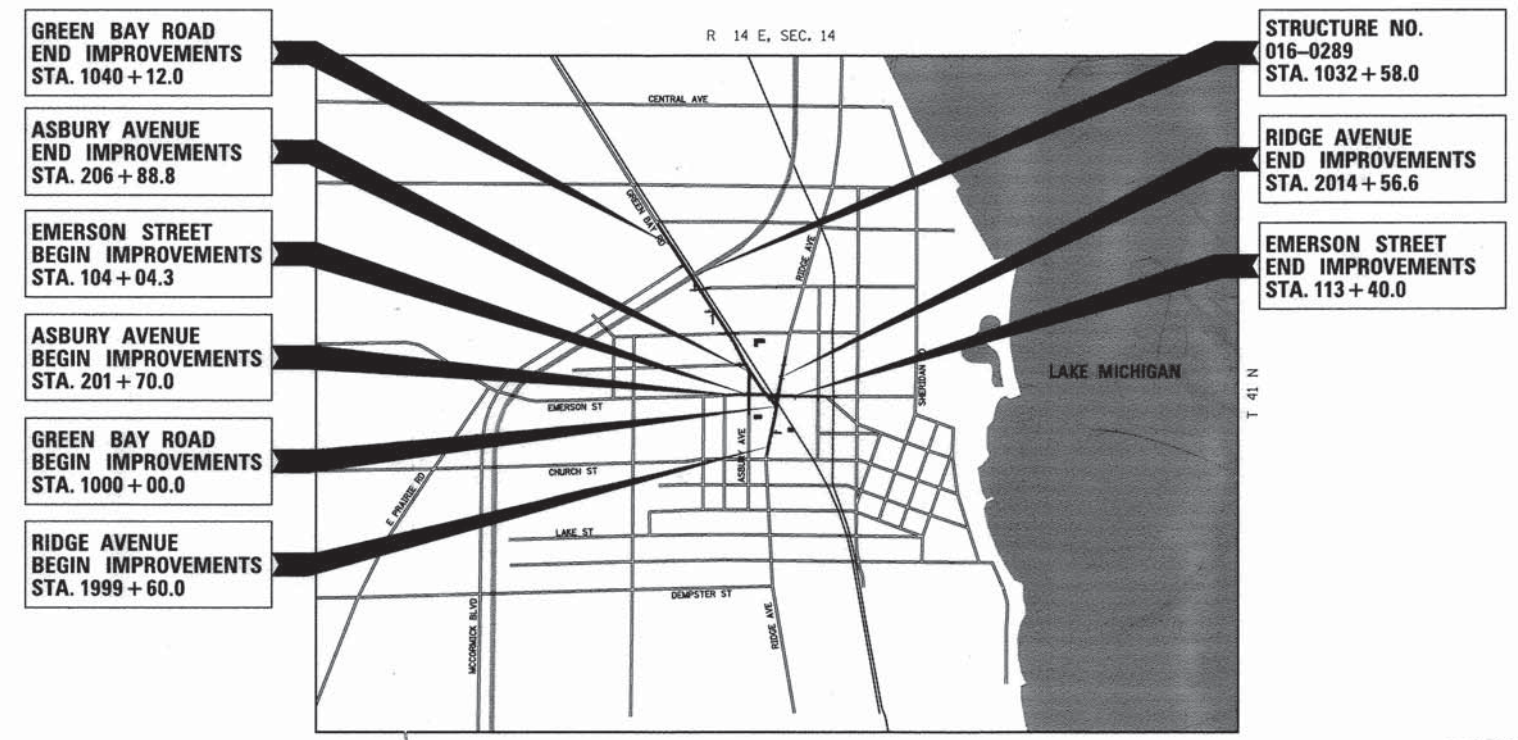
DESIGN DESIGNATION

GREEN BAY ROAD
POSTED SPEED LIMIT = 30 MPH
DESIGN SPEED LIMIT = 35 MPH
TRAFFIC = 15250 ADT (2014)
TRAFFIC = 16015 ADT (2040)

RIDGE AVENUE
POSTED SPEED LIMIT = 30 MPH
DESIGN SPEED LIMIT = 35 MPH
TRAFFIC = 10600 ADT (2014)
TRAFFIC = 11130 ADT (2040)

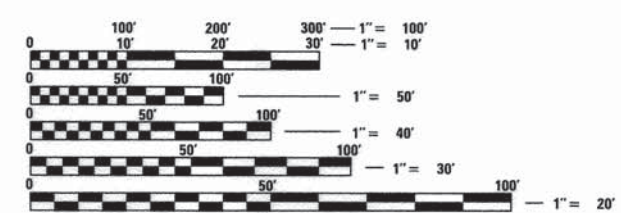
EMERSON STREET
POSTED SPEED LIMIT = 30 MPH
DESIGN SPEED LIMIT = 35 MPH
TRAFFIC = 10500 ADT (2014)
TRAFFIC = 11025 ADT (2040)

ASBURY AVENUE
POSTED SPEED LIMIT = 30 MPH
DESIGN SPEED LIMIT = 35 MPH
TRAFFIC = 3900 ADT (2014)
TRAFFIC = 4100 ADT (2040)



- GREEN BAY ROAD END IMPROVEMENTS STA. 1040 + 12.0
- ASBURY AVENUE END IMPROVEMENTS STA. 206 + 88.8
- EMERSON STREET BEGIN IMPROVEMENTS STA. 104 + 04.3
- ASBURY AVENUE BEGIN IMPROVEMENTS STA. 201 + 70.0
- GREEN BAY ROAD BEGIN IMPROVEMENTS STA. 1000 + 00.0
- RIDGE AVENUE BEGIN IMPROVEMENTS STA. 1999 + 60.0

- STRUCTURE NO. 016-0289 STA. 1032 + 58.0
- RIDGE AVENUE END IMPROVEMENTS STA. 2014 + 56.6
- EMERSON STREET END IMPROVEMENTS STA. 113 + 40.0



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

CITY SENIOR PROJECT MANAGER: SAT NAGAR, PE
CONSULTANT PROJECT MANAGER: MARK REZNICEK, PE

CONTRACT NO. - 61C32

LOCATION MAP
GROSS LENGTH = 6925 FT. = 1.31 MILES
NET LENGTH = 6925 FT. = 1.31 MILES

ESI CONSULTANTS, LTD.
1979 N. MILL STREET, SUITE 100
NAPERVILLE, IL 60563
630.428.1700

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MARK A. REZNICEK
62-046136
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

Revised 2/26/16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED 12-4 20 15
Walter Benvenuto
CITY OF EVANSTON, CITY MANAGER

PASSED DECEMBER 16 20 2015
Christopher Holt
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW December 17 20 15
John Fortman
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FEDERAL AID PROGRAM ENGINEER: FAWAD AG-UEEL, P.E., PTOE 847-705-4021 SCHAMBERG, I.L.

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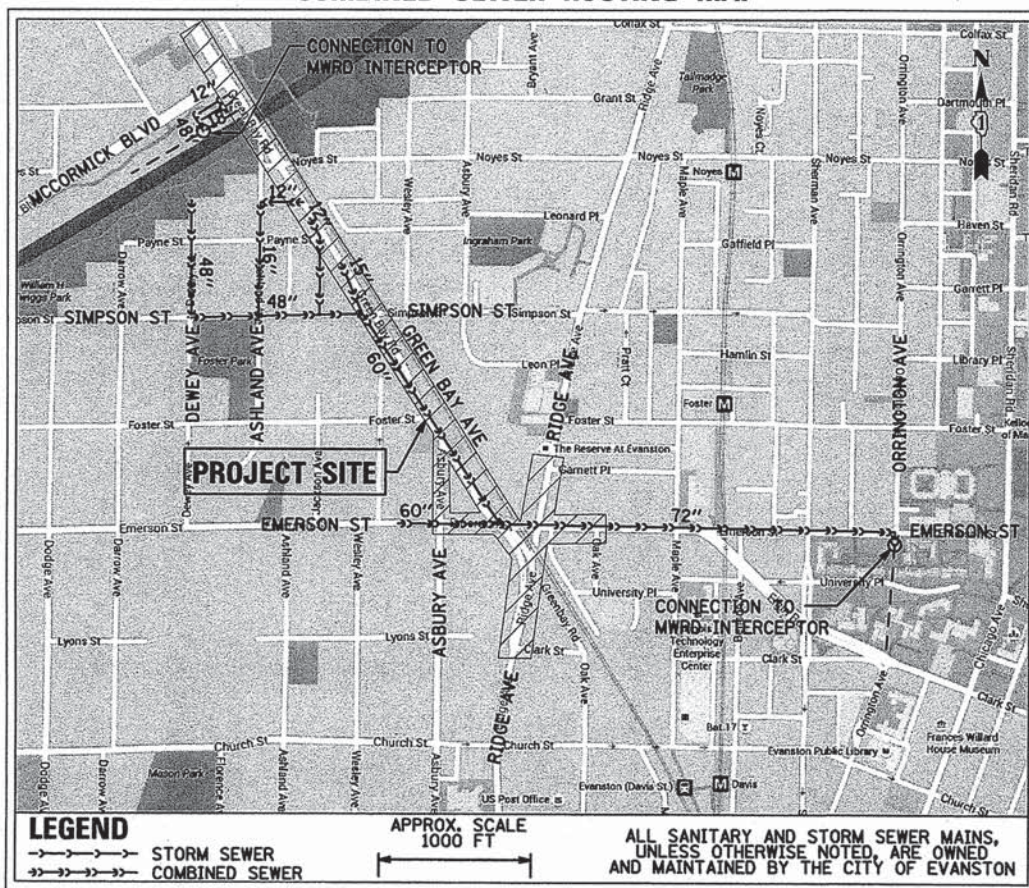
DISTRICT 1 HIGHWAY STANDARDS

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TS-05E	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
TS-05F	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
TS-07	STANDARD TRAFFIC SIGNAL DESIGN DETAILS

IDOT HIGHWAY STANDARDS

STD.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
424001-08	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-02	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424016-02	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-03	DEPRESSED CORNER FOR SIDEWALKS
424031-01	MEDIAN PEDESTRIAN CROSSINGS
442201-03	CLASS C AND D PATCHES
602001-02	CATCH BASIN TYPE A
602301-04	INLET - TYPE A
602401-03	MANHOLE TYPE A
604001-04	FRAME AND LIDS TYPE 1
604036-03	GRATE TYPE 8
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-06	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
720016-03	MAST ARM MOUNTED STREET NAME SIGNS
720021-02	SIGN PANELS EXTRUDED ALUMINUM TYPE
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATION OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
814001-03	HANDHOLES
814006-02	DOUBLE HANDHOLES
821101-01	LUMINAIRE WIRING DIAGRAM
830001-03	LIGHT POLE ALUMINUM MAST ARM
830006-03	LIGHT POLE ALUMINUM DAVIT ARM
830011-02	LIGHT POLE STEEL MAST ARM
830016-02	LIGHT POLE STEEL DAVIT ARM
836001-02	LIGHT POLE FOUNDATION
836006-01	LIGHT POLE FOUNDATION WITH 32 IN CONCRETE MEDIAN BARRIER
836011-01	LIGHT POLE FOUNDATION WITH 42 IN CONCRETE MEDIAN BARRIER
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-05	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
877011-05	STEEL COMB. MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-10	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

COMBINED SEWER ROUTING MAP



DATE	
BY	
REVISION	
NO.	
DESCRIPTION	
DATE	
BY	
REVISION	
NO.	
DESCRIPTION	

DATE	
BY	
REVISION	
NO.	
DESCRIPTION	
DATE	
BY	
REVISION	
NO.	
DESCRIPTION	

FILE NAME: ER081_ah1.dwg

ESI CONSULTANTS, LTD.
 1000 N. LAKE ST. SUITE 1000
 EVANSTON, IL 60120
 TEL: 847.329.7000
 FAX: 847.329.7001
 WWW.ESI-CONSULTANTS.COM

USER NAME = bharrish
PLOT SCALE = 2.0000' / 1" =
PLOT DATE = 2/19/2016

DESIGNED - BAH
DRAWN - BAH
CHECKED - MAR
DATE - 10/9/2015

REVISED - 2/18/2016
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

INDEX OF SHEETS AND HIGHWAY STANDARDS	
SCALE:	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	2
CONTRACT NO. 61C32				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

- 8. MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED WITH FLAT TOPS WHERE THE DIFFERENCE BETWEEN THE RIM ELEVATION AND INVERT ELEVATION IS LESS THAN SIX (6) FEET.
- 9. ALL MANHOLES AND INLETS SHALL HAVE POURED INVERTS. THE COST OF INVERTS SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.
- 10. TRENCHES CROSSING TRAFFIC LANES SHALL BE TEMPORARILY PATCHED WITH FOUR (4) INCHES HOT-MIX ASPHALT BASE COURSE; THE COST OF THE HOT-MIX ASPHALT BASE COURSE WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE SEWER, CULVERT, WATER MAIN, OR OTHER ITEM PLACED IN TRENCH. THIS PRICE SHALL INCLUDE THE COST OF MAINTAINING THE PATCH TO THE SATISFACTION OF THE ENGINEER.

WATER MAIN NOTES:

- 1. WATER MAIN SHALL BE INSTALLED AT A MINIMUM DEPTH OF 5.5' BELOW FINISHED GRADE AND NO DEEPER THAN 8' FROM FINISHED GRADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE CITY OF EVANSTON. WATER MAIN SHALL BE A MIN. OF 18" ABOVE SANITARY AND STORM SEWERS AND A MIN. OF 10' OF HORIZONTAL CLEARANCE FROM FACE OF WATER MAIN TO FACE OF SANITARY AND STORM SEWERS.
- 2. SERVICE LINES SHALL HAVE A MINIMUM OF 5.5' COVER AND A MAXIMUM OF 8' COVER. SERVICE LINES SHALL BE A MINIMUM OF 18" ABOVE SANITARY OR STORM SEWERS. COUPLINGS SHALL NOT BE INSTALLED UNDER PAVEMENT. WHEN INSTALLING A BACK LOOP OVER OR UNDER WATERMAIN, THE LOOP SHALL HAVE A MAXIMUM OF A 4' RADIUS.
- 3. CHANGES IN DIRECTION OF WATER MAIN SHALL BE INSTALLED WITH APPROVED RETAINER FITTINGS AND THRUST BLOCKING.
- 4. WATER MAIN SHALL NOT BE SLEEVED OR ENCASED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE CITY OF EVANSTON.
- 5. ALL WATER MAIN SHALL BE WRAPPED. THE WRAPPING SHALL BE INSTALLED PER MANUFACTURER GUIDELINES. AFTER THE WRAPPING HAS BEEN REMOVED TO INSTALL SERVICE TAPS, LATERAL CONNECTION, ETC. THE WATER MAIN SHALL BE RE-WRAPPED WATER TIGHT USING BLACK VINYL TAPE MEETING ASTM D1000.
- 6. TESTING OF NEW WATER MAIN PRIOR TO FINAL ACCEPTANCE BY THE CITY SHALL BE IN ACCORDANCE WITH SECTION 41-2.13 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND THE SPECIAL PROVISIONS WITHIN THE CONTRACT DOCUMENTS. PRESSURE TESTING SHALL INCLUDE HYDRANTS BY PRESSURE TESTING AGAINST THE INTERNAL VALVE OF HYDRANT.
- 7. FOR WATERMAIN SHUT OFFS, THE CONTRACTOR SHALL NOT OPERATE ANY WATER VALVES, THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE. THE CITY SHALL PROVIDE NOTIFICATION FORMS AND DETERMINE THE LIMIT OF THE AFFECTED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF THE NOTIFICATION FORMS TO ALL AFFECTED RESIDENTS/BUSINES OWNERS AT LEAST 24 HOURS IN ADVANCE OF THE SHUT OFF.
- 8. NON-PREFORMED MASTIC SHALL BE USED BETWEEN ALL VALVE VAULT SECTIONS INCLUDING FROM THE TOP OF CONE OR FLAT TOP SECTIONS TO BOTTOM OF FRAME, AND ALL ADJUSTING RINGS. VALVES SHALL BE ALIGNED TO THE CENTER OF THE VAULT FRAME SECTION.
- 9. A WOOD STAKE 2 INCH BY 4 INCH BY 6 FEET LONG WITH NOT LESS THAN THE TOP 2 FEET PAINTED BLUE SHALL BE INSTALLED NEXT TO EACH VAULT, SERVICE BOX AND VALVE BOX IN THE PARKWAY. THE STAKE SHALL BE MAINTAINED IN AN UPRIGHT POSITION UNTIL CITY ACCEPTANCE.
- 10. TRENCH BACKFILL QUANTITY FOR WATER MAIN HAS BEEN COMPUTED BASED ON STANDARD DRAWINGS NUMBER ONE AND TWO OF THE STANDARD SPECIFICATIONS FOR WATER SEWER MAIN CONSTRUCTION IN ILLINOIS AND SHALL BE PAID FOR ON THE FOLLOWING BASIS:
6 AND 8 INCH DIAMETER: 0.47 C.Y./L.F.
12 INCH DIAMETER: 0.52 C.Y./L.F.
WATER SERVICE LINE: 0.19 C.Y./L.F.
- 11. THE TRENCH DEPTH IS THE DEPTH FROM THE SUBGRADE TO THE TOP OF SERVICE AND ANY REQUIRED BEDDING. ANY TRENCH BACKFILL REQUIRED IN EXCESS OF THE QUANTITY ESTABLISHED ABOVE, INCLUDING BEDDING MATERIAL, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

- 12. ALL FIRE HYDRANTS ARE TO BE CLOW MEDALION. ALL HYDRANTS ARE TO BE SUPPLIED WITH FACTORY INSTALLED 6" FLANGED AND MECHANICAL JOINT RESILIENT WEDGE AUXILIARY VALVE CONFORMING TO AWWA C500-80. VALVE SHALL WATEROUS M.J.. ALL BOLTS TO BE SERIES 300 STAINLESS STEEL ON HYDRANT AND VALVE. HYDRANTS SHALL BE INSTALLED WITH A BURY MARK AT GRADE LEVEL AND NO LOWER THAN 18" FROM THE CENTER OF STEAMER PORT TO FINAL GRADE. HYDRANTS SHALL BE INSTALLED PLUMB AND LEVEL. WHEN EXTENDING A HYDRANT THE "BREAK FLANGE" SHALL BE RELOCATED TO GRADE LEVEL. AUXILIARY VALVES SHALL OPEN IN A COUNTER-CLOCKWISE FASHION, BE KEYABLE AND TO GRADE, AND SHALL INCLUDE VALVE BOXES. EXTERNAL ABOVE-GRADE SURFACES OF FIRE HYDRANTS SHALL BE COATED BY THE MANUFACTURER WITH ONE COAT OF ALKYD BASED, LEAD AND CHROME-FREE BUFF PRIMER AND TWO COATS OF ALKYD BASED, CHAIN-STOPPED GLOSS ENAMEL CONFORMING TO WATEROUS M4182, FEDERAL SAFETY YELLOW HYDRANT ENAMEL. HYDRANTS HAVING BEEN COATED WITH ANY OTHER COATING OR COLOR SHALL NOT BE ACCEPTED.

STRUCTURE NOTES:

- 1. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS THE OWNER OF RECORD FOR THE BRIDGE CARRYING GREEN BAY ROAD OVER THE NORTH SHORE CHANNEL. FOR INFORMATION REGARDING THE EXISTING STRUCTURE SEE RECORD PLANS WITHIN PLAN SET.
- 2. THE UNION PACIFIC RAILROAD IS THE OWNER OF RECORD FOR THE RAILROAD VIADUCT OVER EMERSON STREET AND RIDGE AVENUE. FOR INFORMATION REGARDING THE EXISTING STRUCTURE SEE RECORD PLANS WITHIN PLAN SET.

3. ~~SUBWAY TILE SHALL BE INSTALLED ON THE EMERSON STREET AND RIDGE AVENUE ABUTMENT WALLS OF THE UNION PACIFIC RAILROAD VIADUCT.~~

LANDSCAPING NOTES:

- 1. CONTRACTOR SHALL PROVIDE SPADE EDGES FOR ALL SODDING AREA ABUTTING EXISTING TREES BY MAINTAINING A MINIMUM 5' DIAMETER MULCH BED AROUND EACH EXISTING TREE.

TRAFFIC SIGNAL NOTES:

- 1. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE TO THE DEPTH AS LABELED ON THE PROPOSED TRAFFIC SIGNAL PLAN SHEETS.

MWRD NOTES:

A. REFERENCED SPECIFICATIONS

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
* STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
* STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
* VILLAGE OF EVANSTON MUNICIPAL CODE;
* THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
* IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

- 1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
- 2. THE VILLAGE OF EVANSTON ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
- 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL I.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

- 1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS 0 FT.
- 2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- 3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
- 4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
- 5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
- 6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- 7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
- 8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
- 9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- 10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

- 1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
- 2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
- 3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
- 4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
- 5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- 6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

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PROFILE	
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BY	

DATE	
BY	
PROFILE	
DATE	
BY	

FILE NAME: ER081_ah1-gen_02.dgn



USER NAME = bhenrichs	DESIGNED - BAH	REVISED - 2/18/2016
PLOT SCALE = 2.0000' / 1" =	DRAWN - BAH	REVISED -
PLOT DATE = 2/19/2016	CHECKED - MAR	REVISED -
	DATE - 10/9/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: _____	SHEET 2 OF 3 SHEETS	STA. _____ TO STA. _____
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	4
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE


CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																
				ROADWAY (STP)	ROADWAY (CMAQ)	ROADWAY / LIGHTING (100% LOCAL)	SEWER (STP)	SEWER (CMAQ)	SEWER (100% LOCAL)	TRAFFIC SIGNALS (STP)	TRAFFIC SIGNALS (CMAQ)	WATER MAIN (100% LOCAL)	LIGHTING (100% LOCAL)	LANDSCAPING (100% LOCAL)	BRIDGE (100% LOCAL)					
				0004 URBAN	0004 URBAN	0021 URBAN	0043 URBAN	0043 URBAN	0043 URBAN	0021 URBAN	0021 URBAN	0043 URBAN	0021 URBAN	0031 URBAN	0004 S.N. 0289					
Δ 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	14																14	
Δ 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	14																14	
Δ 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	14																14	
Δ 25100630	EROSION CONTROL BLANKET	SQ YD	709																709	
Δ 25200110	SODDING, SALT TOLERANT	SQ YD	2820																2820	
Δ 25200200	SUPPLEMENTAL WATERING	UNIT	20	20																
28000400	PERIMETER EROSION BARRIER	FOOT	421																421	
28000500	INLET AND PIPE PROTECTION	EACH	118																118	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	5072	5051	21	0														
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	10235	5354	4049	832														
35300300	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	5526	5471	53	2														
Δ 35301100	HIGH-EARLY STRENGTH PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	350	350																
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	174315	138648	31838	3829														
40600537	LEVELING BINDER (HAND METHOD), IL-9.5FG, N70	TON	6.2	6.2																
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	328.0	328																

Δ SPECIALTY ITEMS

PLAN
DATE: _____
BY: _____
SURVEYED _____
CHECKED _____
ALIGNMENT CHECKED _____
RT. OF WAY CHECKED _____
NO. _____
FILE NAME: _____

PROFILE
DATE: _____
BY: _____
SURVEYED _____
CHECKED _____
S.M. NOTED _____
STRUCTURE NOTATIONS CHKD _____
NO. _____

FILE NAME: ER081-sh1-sum_02.dgn

	USER NAME = bhennicha	DESIGNED - BAH	REVISED - Δ 2/26/16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1.0000' / 1"	DRAWN - BAH	REVISÉD -						-	13-00270-00-CH	COOK	393	8
PLOT DATE = 1/28/2016	CHECKED - MAR	REVISÉD -							CONTRACT NO. 61C32				
	DATE - 10/9/2015	REVISÉD -					SCALE: _____ SHEET 2 OF 20 SHEETS STA. _____ TO STA. _____		[ILLINOIS] FED. AID PROJECT				

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE											
				ROADWAY (STP)	ROADWAY (CMAQ)	ROADWAY / LIGHTING (100% LOCAL)	SEWER (STP)	SEWER (CMAQ)	SEWER (100% LOCAL)	TRAFFIC SIGNALS (STP)	TRAFFIC SIGNALS (CMAQ)	WATER MAIN (100% LOCAL)	LIGHTING (100% LOCAL)	LANDSCAPING (100% LOCAL)	BRIDGE (100% LOCAL)
				0004 URBAN	0004 URBAN	0021 URBAN	0043 URBAN	0043 URBAN	0043 URBAN	0021 URBAN	0021 URBAN	0043 URBAN	0021 URBAN	0031 URBAN	0004 S.N. 0289
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SQ YD	4,576	2052			260	689	71			1504			
44213200	SAW CUTS	FOOT	8943	3363	4727	853									
44213202	TIE BARS 1"	EACH	5895	3292	2603										
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	22560	10770	9990	1800									
50102400	CONCRETE REMOVAL	CU YD	42.3	12.9											29.4
50157300	PROTECTIVE SHIELD	SQ YD	210												210
50300255	CONCRETE SUPERSTRUCTURE	CU YD	50.6												50.6
50300300	PROTECTIVE COAT	SQ YD	192												192
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6200												6200
50800515	BAR SPLICERS	EACH	28												28
50901750	PARAPET RAILING	FOOT	145												145
50901760	PIPE HANDRAIL	FOOT	12.0									12.0			
52000110	PREFORMED JOINT STRIP SEAL	FOOT	125												125
55100400	STORM SEWER REMOVAL 10"	FOOT	172					172							
56100030	DUCTILE IRON WATER MAIN TEE, 10" X 6"	EACH	4									4			

Δ SPECIALTY ITEMS

PLAN
SURVEYED
ALIGNED
CHECKED
BY: _____
DATE: _____
NOTE BOOK NO. _____
FILE NAME: _____

PROFILE
SURVEYED
CHECKED
BY: _____
DATE: _____
NOTE BOOK NO. _____
FILE NAME: _____

FILE NAME: ERGB1...ah1...sum...04.dgn

ESI CONSULTANTS, LTD.
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USER NAME = bhanracha	DESIGNED - BAH	REVISED - Δ 2/26/16
PLOT SCALE = 1:8000' / 1"	DRAWN - BAH	REVISED -
PLOT DATE = 1/28/2016	CHECKED - MAR	REVISED -
	DATE - 10/9/2015	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE: _____	SHEET 4 OF 20 SHEETS	STA. _____	TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	10
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY (STP)	ROADWAY (CMAQ)	ROADWAY / LIGHTING (100% LOCAL)	SEWER (STP)	SEWER (CMAQ)	SEWER (100% LOCAL)	TRAFFIC SIGNALS (STP)	TRAFFIC SIGNALS (CMAQ)	WATER MAIN (100% LOCAL)	LIGHTING (100% LOCAL)	LANDSCAPING (100% LOCAL)	BRIDGE (100% LOCAL)
				0004	0004	0021	0043	0043	0043	0021	0021	0043	0021	0031	0004
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	S.N. 0289
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	3075	2899	176										
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SQ FT	1582	1582											
Δ 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1		1										
Δ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2		2										
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1		1										
Δ 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	1288	867	421										
Δ 66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1									1			
Δ 66900530	SOIL DISPOSAL ANALYSIS	EACH	10									10			
67100100	MOBILIZATION	LSUM	1	0.33	0.34	0.33									
70300100	SHORT TERM PAVEMENT MARKING	FOOT	15340	7180	6960	1200									
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	84100	70811	8042	5247									
Δ 70400100	TEMPORARY CONCRETE BARRIER	FOOT	250												Δ 250
72000100	SIGN PANEL - TYPE 1	SQ FT	400	84	69					150	91				
72000200	SIGN PANEL - TYPE 2	SQ FT	5	5											

Δ SPECIALTY ITEMS

PLAN SURVEYED _____
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 BY _____
 DATE _____
 NOTE BOOK NO. _____
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PROFILE SURVEYED _____
 PLOTTED _____
 CHECKED _____
 BY _____
 DATE _____
 NOTE BOOK NO. _____
 FILE NAME _____

FILE NAME: ERCB1_ah1_sum_08.dgn



USER NAME = bhenrisha	DESIGNED - BAH	REVISED - Δ 2/26/16
PLOT SCALE = 1:8000 ' / in.	DRAWN - BAH	REVISED -
PLOT DATE = 1/28/2016	CHECKED - MAR	REVISED -
	DATE - 10/9/2015	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES		
SCALE: _____	SHEET 8 OF 20 SHEETS	STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	14
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY (STP)	ROADWAY (CMAQ)	ROADWAY / LIGHTING (100% LOCAL)	SEWER (STP)	SEWER (CMAQ)	SEWER (100% LOCAL)	TRAFFIC SIGNALS (STP)	TRAFFIC SIGNALS (CMAQ)	WATER MAIN (100% LOCAL)	LIGHTING (100% LOCAL)	LANDSCAPING (100% LOCAL)	BRIDGE (100% LOCAL)
				0004	0004	0021	0043	0043	0043	0021	0021	0043	0021	0031	0004
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	S.N. 0289
Δ XX001465	SANITARY SEWER, PVC 10"	FOOT	120				29	91							
Δ XX001466	SANITARY SEWER, PVC, 12"	FOOT	234					234							
XZ127902	RETAINING WALL, SPECIAL	SQ FT	651	651											
ZD012450	CONCRETE STEPS	CU YD	2.5	2.5											
Δ Z0013798	CONSTRUCTION LAYOUT	LSUM	1	0.5	0.5										
ZD018900	DRILL AND GROUT DOWEL BARS	EACH	5200	2945	2255										
Δ ZD033024	MAINTAIN EXISTING LIGHTING SYSTEM	LSUM	1										1		
ZD048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1											
ZD056604	STORM SEWER (WATER MAIN REQUIREMENTS) 8 INCH	FOOT	487									487			
ZD056606	STORM SEWER (WATER MAIN REQUIREMENTS) 10 INCH	FOOT	21									21			
ZD056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	82									82			
ZD062456	TEMPORARY PAVEMENT	SQ YD	397	397											
Δ ZD067200	STEEL CASINGS 10"	FOOT	45									45			
Δ ZD067300	STEEL CASINGS 12"	FOOT	6									6			
Δ ZD067400	STEEL CASINGS 14"	FOOT	153									153			

Δ SPECIALTY ITEMS

PLAN
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 CHECKED _____
 RT. OF WAY CHECKED _____
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PROFILE
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 BY _____
 CHECKED _____
 STRUCTURE NOTATION CHKD _____
 NO. _____

FILE NAME: ERIBL_sht_sum_19.dgn

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 1000 N. WILSON AVENUE, SUITE 100
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 (708) 426-1000
 www.esiconsultants.com

USER NAME = bhenrzoa
 DESIGNED - BAH
 DRAWN - BAH
 CHECKED - MAR
 DATE - 10/9/2015
 PLOT SCALE = 1.0000' / 1" =
 PLOT DATE = 1/28/2016

DESIGNED - BAH
 DRAWN - BAH
 CHECKED - MAR
 DATE - 10/9/2015

REVISED - Δ 2/26/16
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 19 OF 20 SHEETS STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	25
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

Bench Mark: Arrow on Fire Hydrant on Southeast corner of Grant Street and McCormick Blvd.
Elev. = 599.84

Existing Structure was originally built in 1936 as a 3-span riveted plate girder Bridge. 2-Spans 35'-3" and 1-span 70'-0". Roadway is 44'-0" carrying Green Bay Road over the North Shore Channel. In 1989 the deck and superstructure was removed and widened to 62'-5" out-to-out including a 5' sidewalk. Riveted plate girders were replaced with 8 W36 beams. Only the middle 70'-0" span is composite.

Proposed Improvement: Reducing lane configurations, removing existing Barrier wall and moving closer to centerline and increasing sidewalk width.

CONTENT OF BRIDGE PLANS

1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Barrier Details
4. Expansion Joint Replacement Details
5. Superstructure (Plan and Cross Section)
6. Preformed Joint Strip Seal
7. Bar Splicer Assembly Details
8. Parapet Railing Detail

LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO Standard Specifications for Highway Bridges, 17th Edition - 2002 Interims

DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

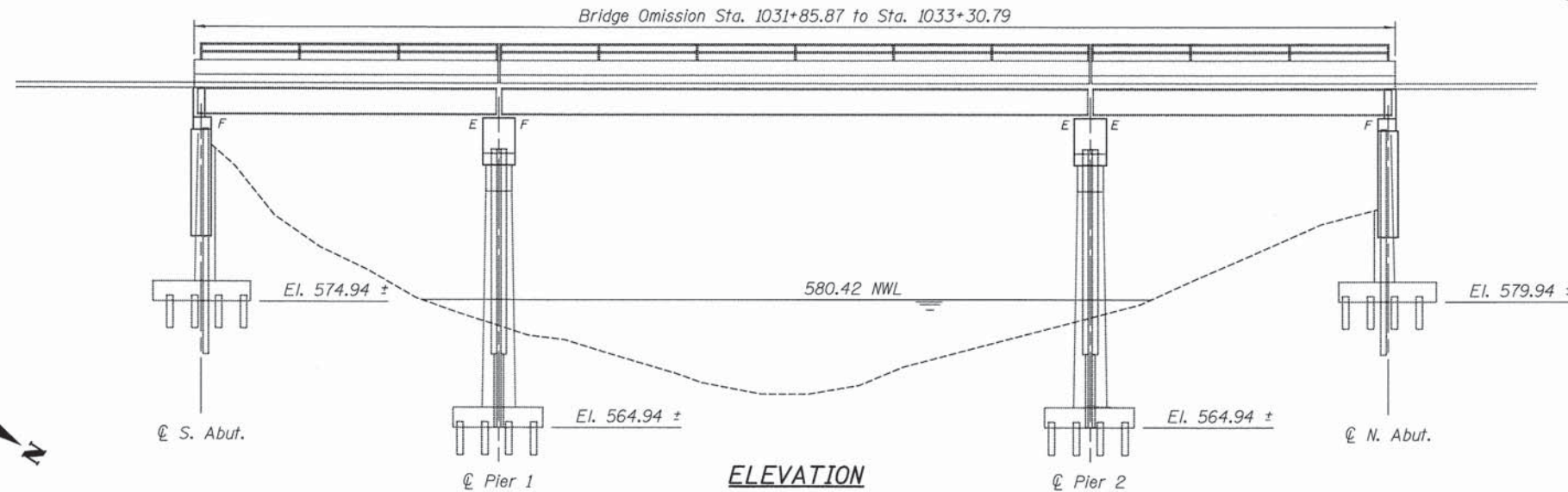
$f'_c = 4,000$ psi - (Superstructure)
 $f_y = 60,000$ psi - (Reinforcement)

FIELD UNITS (EXISTING CONSTRUCTION)

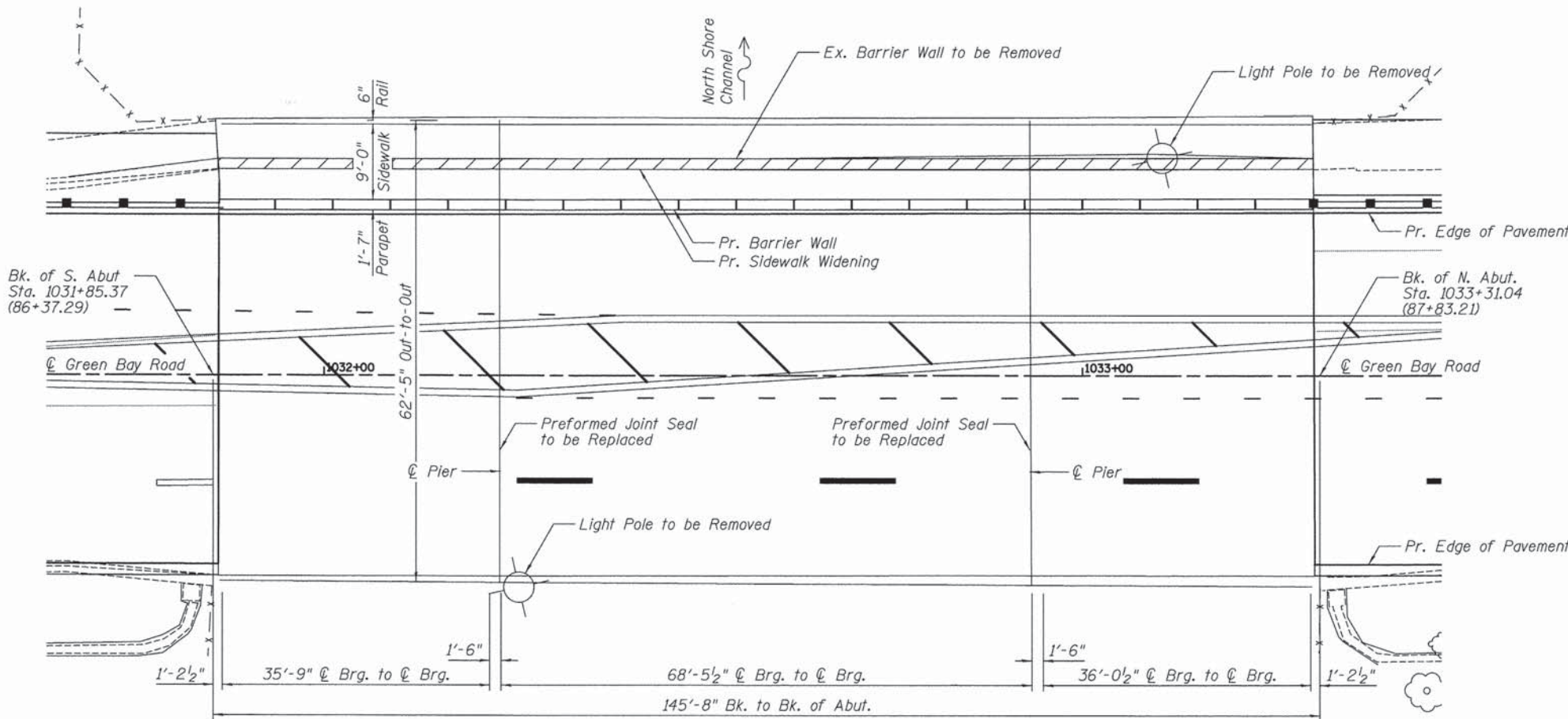
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi - (Reinforcement)
 $f_y = 50,000$ psi - (M223 Grade 50) (Structural Steel)
 $f_y = 36,000$ psi - (M183) (Structural Steel)

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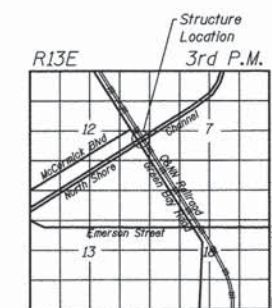
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ELEVATION



PLAN



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Curtis M. Watkins
Engineer of Bridges and Structures



Curtis M. Watkins 2/25/16
Curtis M. Watkins Date
License Expires 11-30-2016

GENERAL PLAN & ELEVATION
GREEN BAY ROAD OVER
NORTH SHORE CHANNEL
FAU ROUTE 2744
SECTION 13-00270-00-CH
COOK COUNTY
STATION 87+10.25
STRUCTURE NO. 016-0289



USER NAME = bhensrcha	DESIGNED - JEH	REVISED - 2/26/2016
PLANNED - JEH	DRAWN - JEH	REVISED - ENTIRE SHEET
CHECKED - CMW	CHECKED - CMW	REVISED -
DATE - 2/25/2016	DATE - 2/25/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION	
STRUCTURE NO. 016-0289	
SCALE: _____	SHEET 1 OF 8 SHEETS STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	317
				CONTRACT NO. 61C32
[ILLINOIS] FED. AID PROJECT				

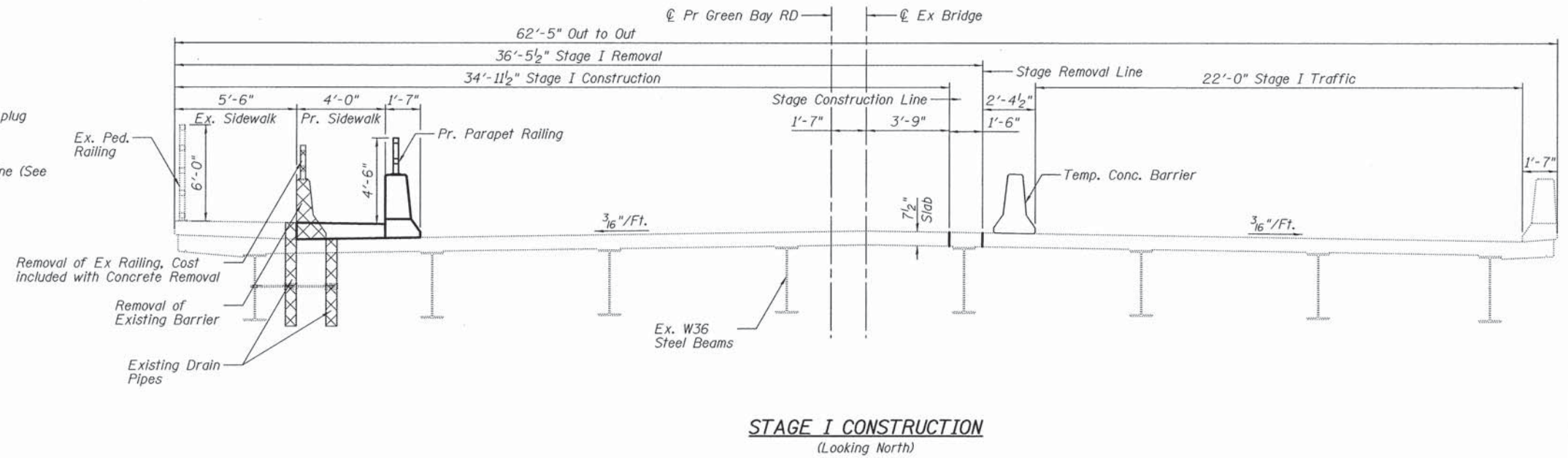
SCOPE OF WORK

Stage I

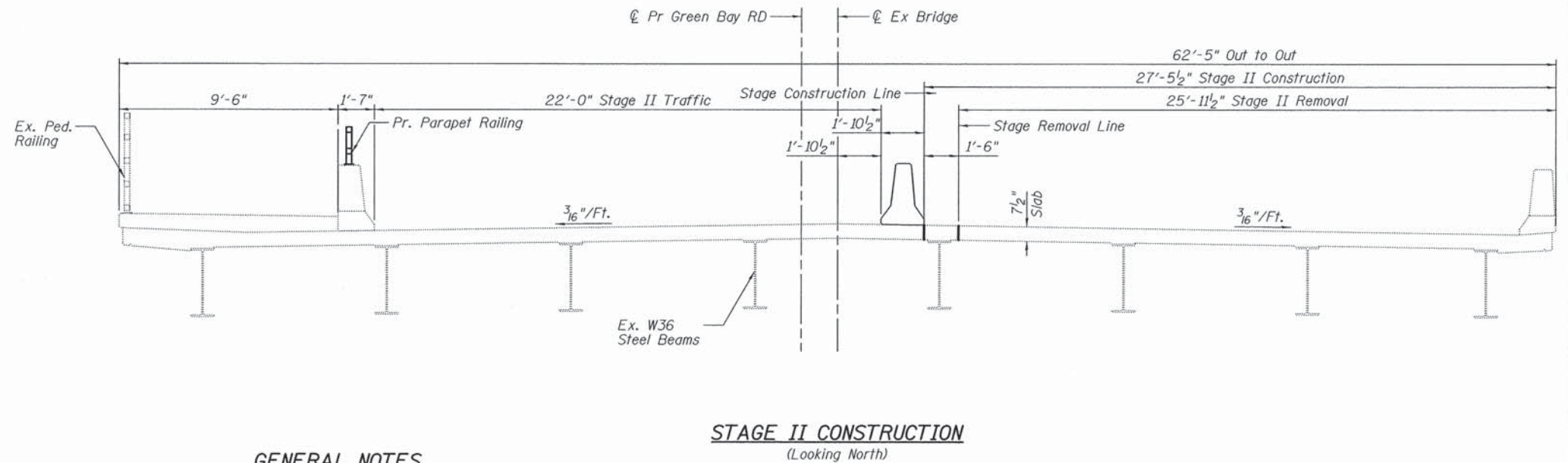
1. Install temporary traffic control devices.
2. Move traffic onto east side of bridge.
3. Remove Existing Parapet on West side of bridge adjacent to sidewalk.
4. Cut off and plug Existing drain pipe in existing sidewalk. Remove and plug drain pipe in bridge deck.
5. Remove Existing Expansion Joint up to Removal Line.
6. Erect Proposed sidewalk and Parapet up to Expansion Joint Removal Line (See Sheet 4 of 7)
7. Install Proposed Strip Seal Expansion Joint up to Construction Line.
8. Erect remaining ends of sidewalk and parapet.

Stage II

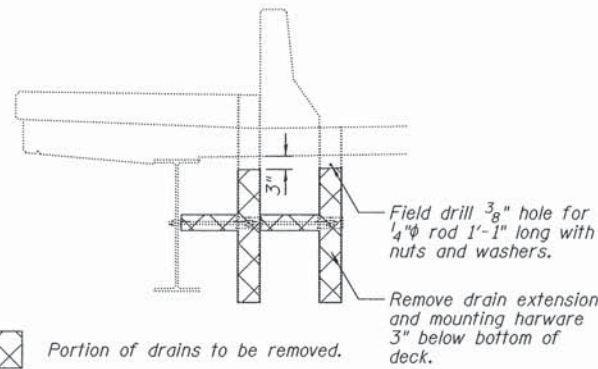
1. Move traffic onto West side of bridge.
2. Remove remaining Expansion Joint (See Sheet 4 of 7).
3. Erect remaining Proposed Strip Seal Expansion Joint.



STAGE I CONSTRUCTION
(Looking North)



STAGE II CONSTRUCTION
(Looking North)



PLUGGING EXISTING DECK DRAINS

Notes:
Deck drains shall be eliminated by field drilling a 3/8" hole through the bottom of the drain just below the deck. Installing a 1/4" threaded rod and filling the drain with concrete. Alternate methods of plugging may be accepted with the approval of the engineer.
Drain plugs shall be poured monolithically with the new construction.
Removal and disposal of the existing deck drains shall be as shown in the detail. Existing 7/8" holes in the beam webs shall be filled with HS bolts. The existing bolts may be reused.
(16 Total drains)

TOTAL BILL OF MATERIALS

ITEM	UNITS	TOTAL QUANTITY
CONCRETE REMOVAL	CU YD	29.4
CONCRETE SUPERSTRUCTURE	CU YD	50.6
PROTECTIVE COAT	SQ YD	192
REINFORCEMENT BARS, EPOXY COATED	POUND	6220
BAR SPLICERS	EACH	28
PARAPET RAILING	FOOT	145
PREFORMED JOINT STRIP SEAL	FOOT	125

GENERAL NOTES

- Slipforming of parapets shall not be allowed.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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 the scope of work.
- Existing reinforcement bars and Parapet Railing Anchor Bolts extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars and Parapet Railing Anchor Bolts that are damaged during concrete removal shall be replaced with an approved anchorage system. Cost included with Concrete Removal.
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose and potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. 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.

DATE	
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REVISIONS	
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REVISIONS	
PLANNED	
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NO.	

FILE NAME: ER081.dwg, 2/25/2016, 9:22:49am

ESI CONSULTANTS, LTD.
222 N. WILSON AVENUE, SUITE 100
DEERFIELD, ILLINOIS 60015
TEL: 847.938.8800 FAX: 847.938.8801
WWW.ESI-CONSULTANTS.COM

USER NAME = bhenrichs	DESIGNED - JEH	REVISED - 2/26/2016
PLOT SCALE = 3/8"=1'-0"	DRAWN - JEH	REVISED - ENTIRE SHEET
PLOT DATE = 2/25/2016	CHECKED - CMW	REVISED -
	DATE - 2/25/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-0289

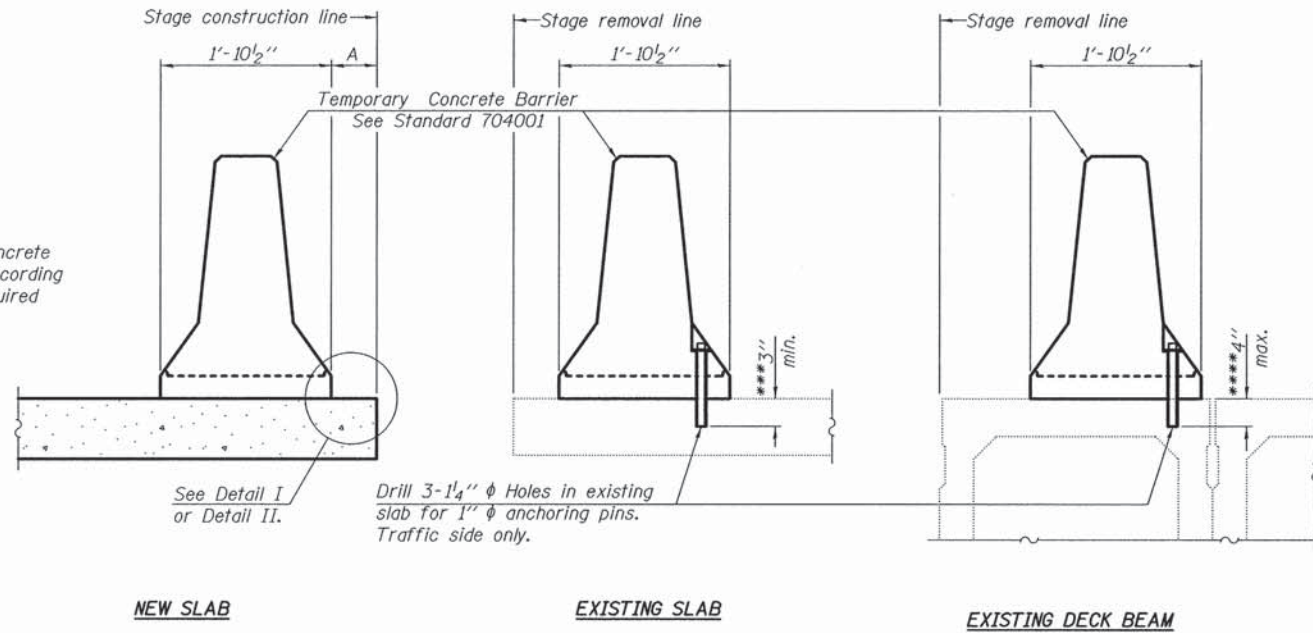
SCALE: _____ SHEET 2 OF 8 SHEETS STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	318
CONTRACT NO. 61C32				
ILLINOIS FED. AID PROJECT				

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

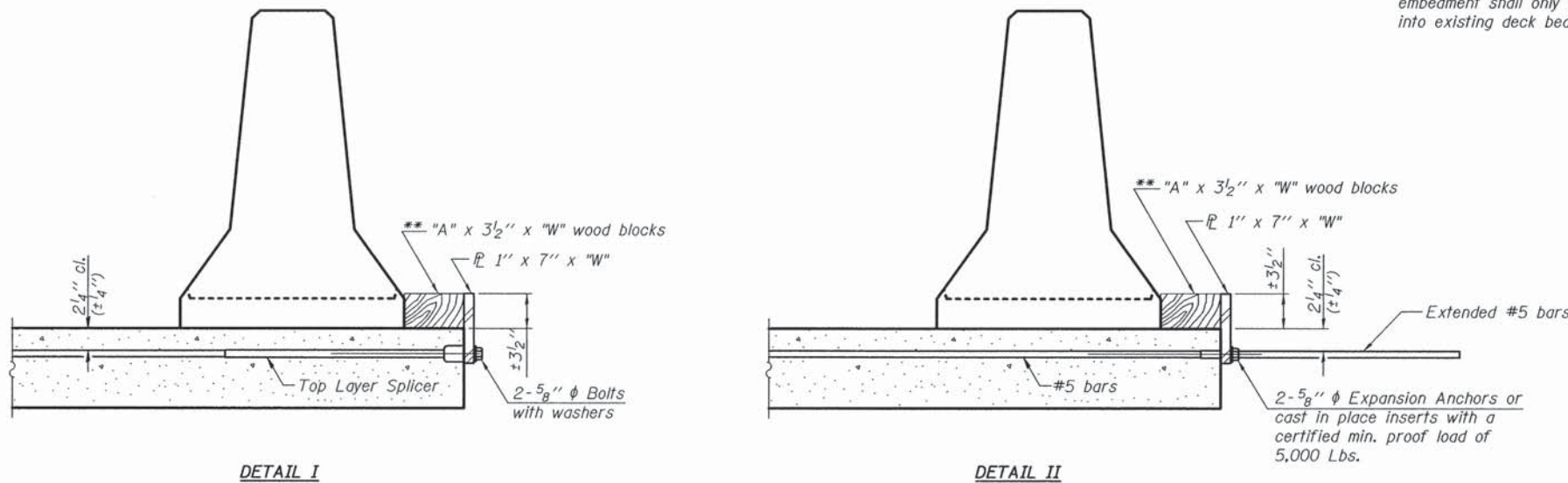


SECTIONS THRU SLAB OR DECK BEAM

- NOTES**
- Detail I - With Bar Splicer or Couplers: Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.
 - Detail II - With Extended Reinforcement Bars: Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
 - Cost of retainer assembly is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

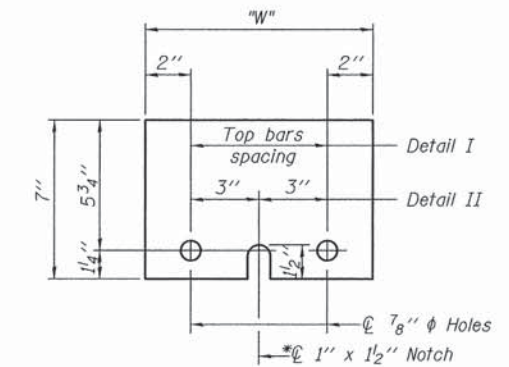
*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



RETAINER ASSEMBLY

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

R-27

1-12-15

ESI CONSULTANTS, LTD.
 1000 W. WASHINGTON ST., SUITE 100
 CHICAGO, IL 60601
 TEL: 312.281.1000 FAX: 312.281.1001
 WWW.ESI-CONSULTANTS.COM

USER NAME = bhenrichs	DESIGNED - JEJ	REVISED - 2/26/2016
	DRAWN - JEJ	REVISED - ENTIRE SHEET
PLOT SCALE = 0:1.0000 '1' / 1/8"	CHECKED - CMW	REVISED -
PLOT DATE = 2/25/2016	DATE - 2/25/2016	REVISED -

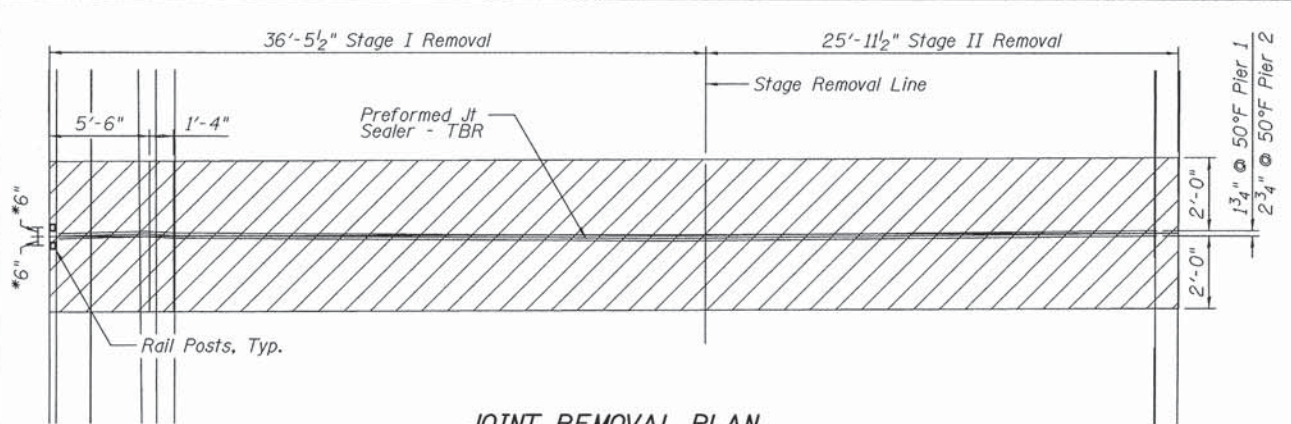
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY BARRIER DETAILS
 STRUCTURE NO. 016-0289

SCALE: SHEET 3 OF 8 SHEETS STA. TO STA.

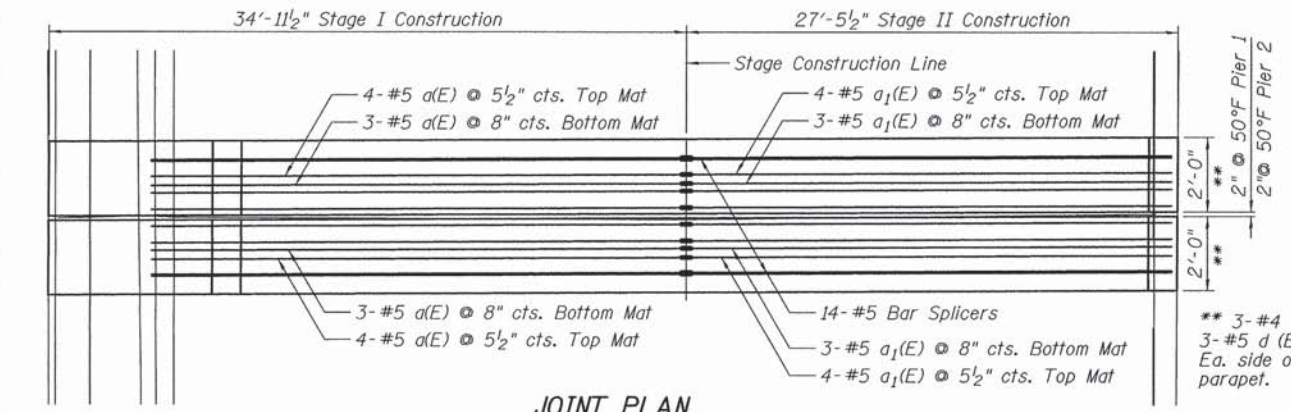
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	319
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

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NO. OF FIGURES	
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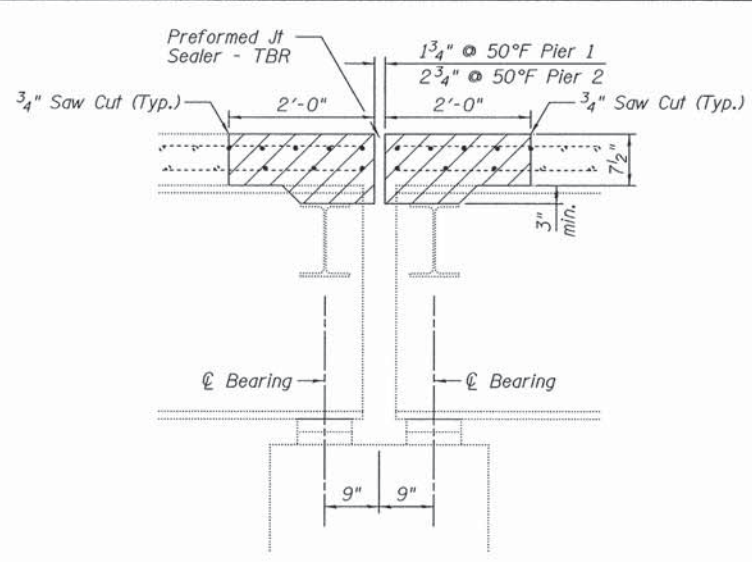


**JOINT REMOVAL PLAN
BOTH PIERS - TYP.**

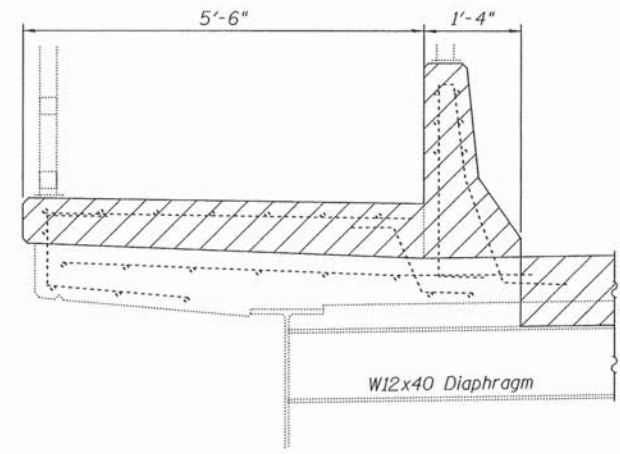
* Rail post anchors shall be cleaned, straightened and incorporated into the new construction. Any part of the anchor that is damaged during the concrete removal shall be replaced with an approved anchorage system. Cost included with Concrete Removal.



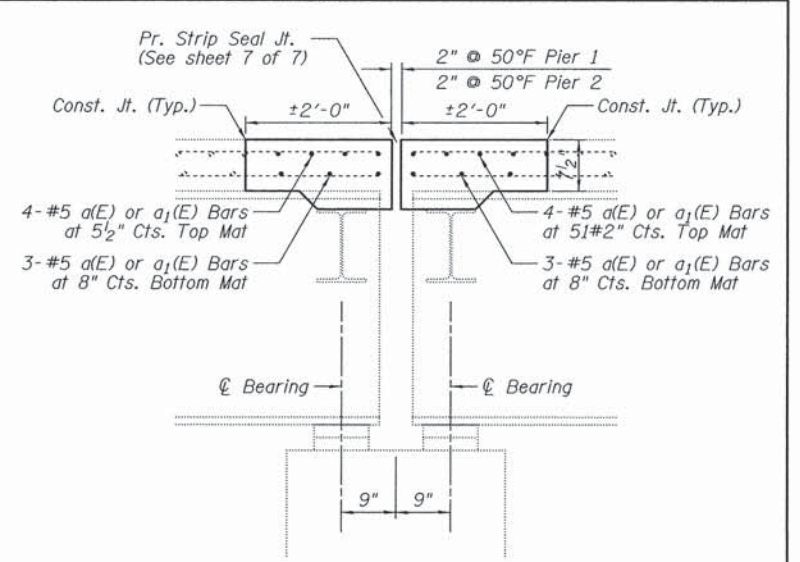
**JOINT PLAN
BOTH PIERS - TYP.**



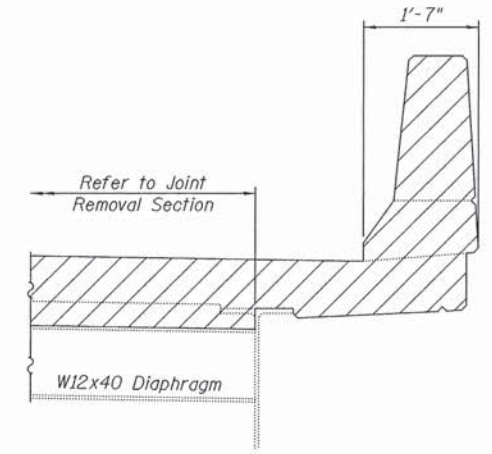
**JOINT REMOVAL AT PIERS
CROSS SECTION - TYP.**



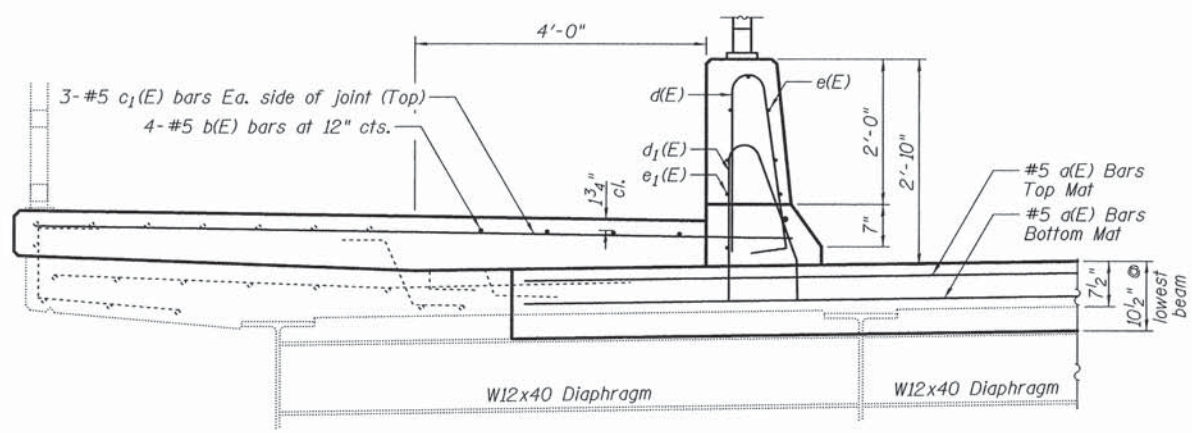
**SIDEWALK AND PARAPET JOINT REMOVAL
AT PIERS CROSS SECTION - TYP.**



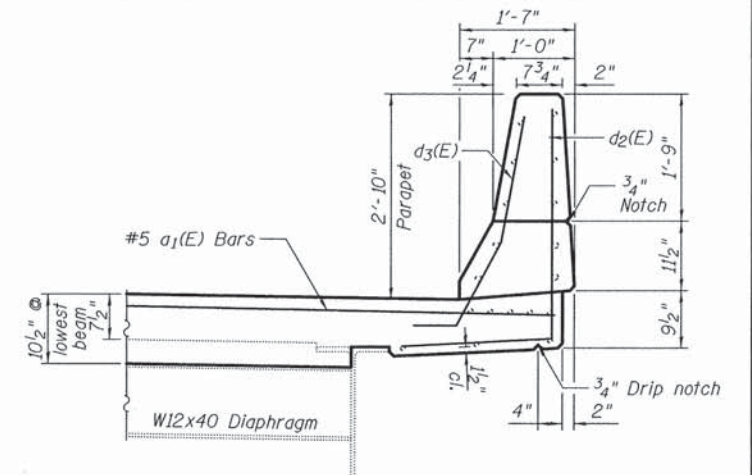
**JOINT AT PIERS
CROSS SECTION - TYP.**



**PARAPET JOINT REMOVAL
AT PIERS CROSS SECTION - TYP.**



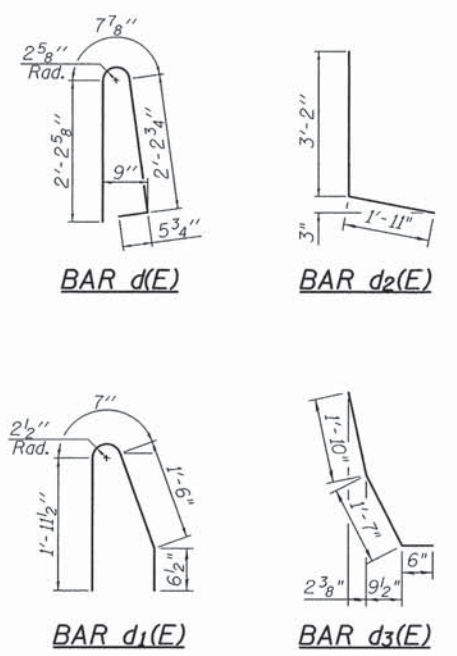
**SIDEWALK AND PARAPET JOINT
AT PIERS CROSS SECTION - TYP.**



**PARAPET JOINT
AT PIERS CROSS SECTION - TYP.**

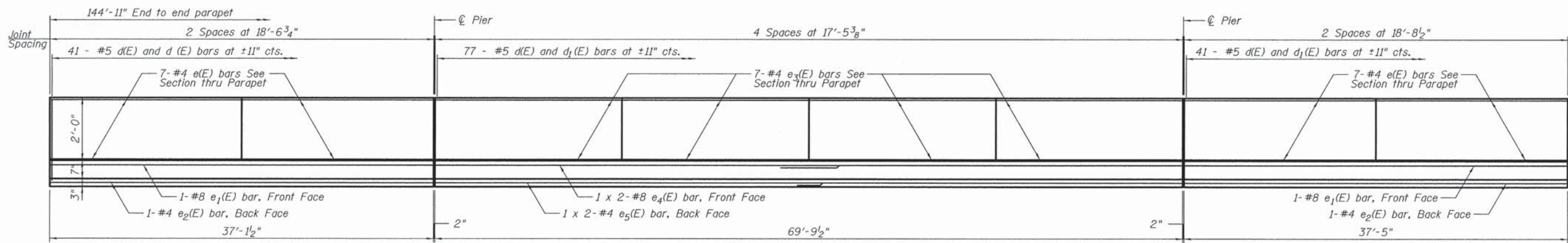
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	28	#5	29'-3"	
a1(E)	28	#5	27'-1"	
b(E)	16	#5	37'-1"	
c(E)	136	#5	4'-10"	
c1(E)	12	#5	9'-10"	
d(E)	159	#5	5'-7"	
d1(E)	159	#5	4'-7"	
d2(E)	12	#4	5'-1"	
d3(E)	12	#5	3'-11"	
d4(E)	136	#5	1'-6"	
e(E)	28	#4	18'-3"	
e1(E)	2	#8	36'-10"	
e2(E)	2	#4	36'-10"	
e3(E)	28	#4	17'-2"	
e4(E)	2	#8	38'-1"	
e5(E)	2	#4	38'-1"	
Concrete Removal	Cu. Yd.		29.4	
Conc. Superstructures	Cu. Yd.		50.6	
Reinforcement Bars, Epoxy Coated	Pound		6220	

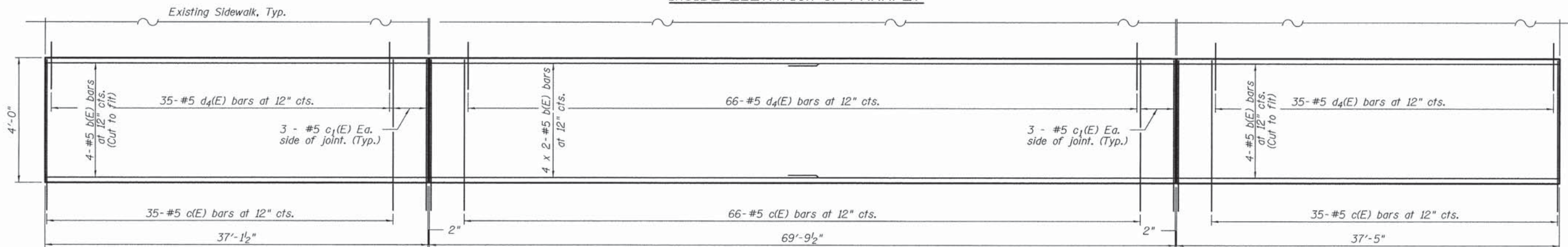


DATE	
BY	
PLANNED	
DESIGNED	
CHECKED	
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NO.	
FILE NAME	

DATE	
BY	
PLANNED	
DESIGNED	
CHECKED	
NOTED	
NO.	
FILE NAME	



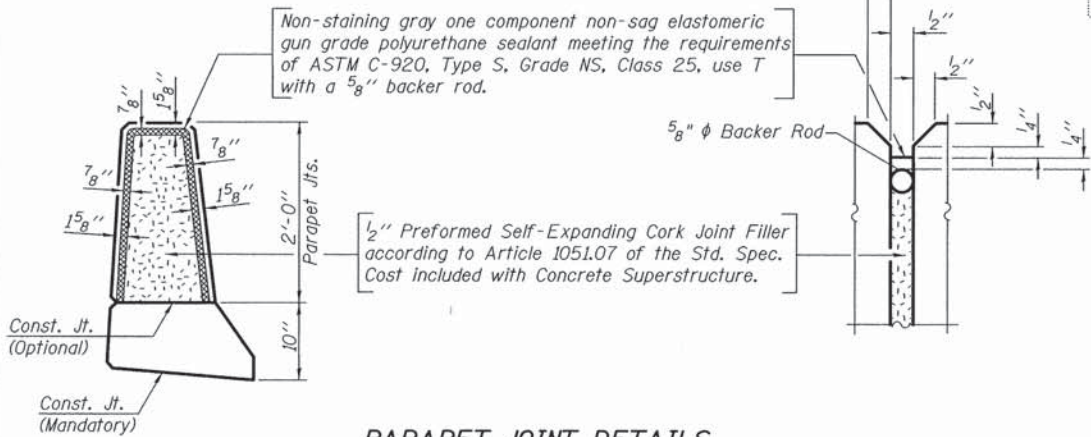
INSIDE ELEVATION OF PARAPET



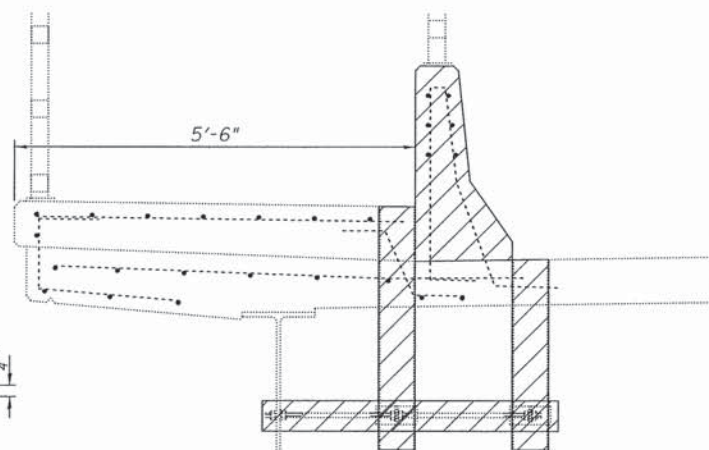
NEW SIDEWALK PLAN

MINIMUM BAR LAP

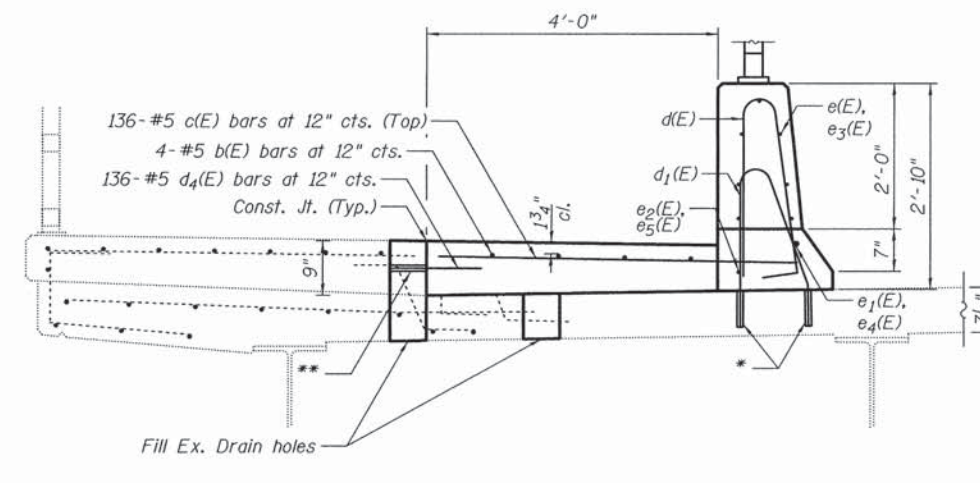
- (Parapet)
- #4 bar = 2'-5"
- #5 bar = 3'-0"
- #8 bar = 5'-11"



PARAPET JOINT DETAILS



EXISTING SIDEWALK CROSS SECTION - TYP.



SIDEWALK CROSS SECTION - TYP.

* Epoxy grout #5 d1(E) bars in 6" holes according to article 584 of the Standard Specifications.

** Epoxy grout #5 d4(E) bars in 9" min holes according to article 584 of the Standard Specifications.



USER NAME = bhenrichs	DESIGNED - PS	REVISED - 2/26/2016
PLANNED	DRAWN - PS	REVISED - ENTIRE SHEET
CHECKED - CMW	CHECKED - CMW	REVISED -
DATE - 2/25/2016	DATE - 2/25/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

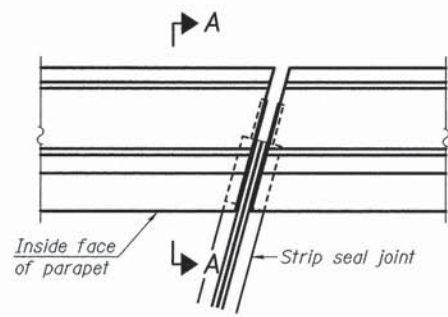
**SUPERSTRUCTURE (PLAN AND CROSS SECTION)
STRUCTURE NO. 016-0289**

SCALE: SHEET 5 OF 8 SHEETS STA. TO STA.

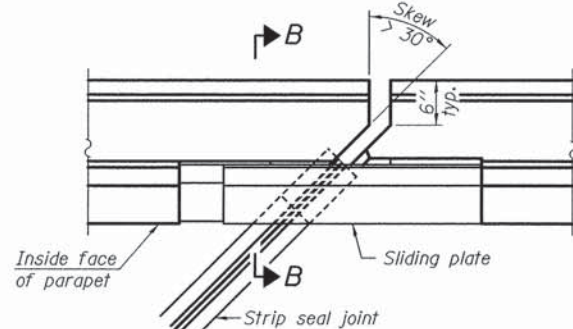
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	321
CONTRACT NO. 61C32				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	PAID FILE NAME	

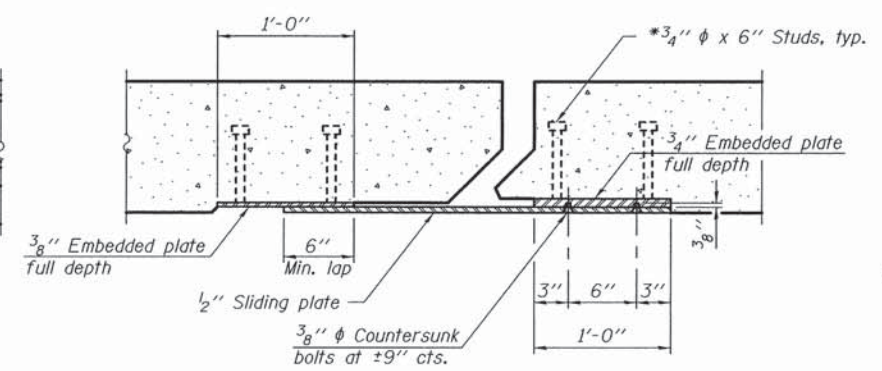
PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	STRUCTURE NOTATIONS CHFD	



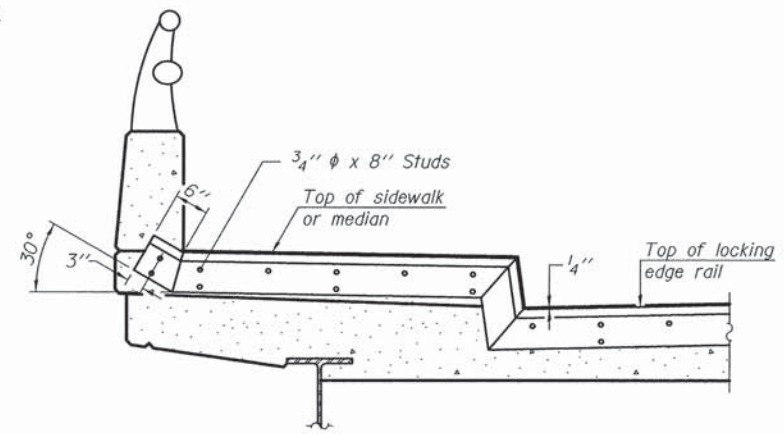
PLAN
(For skews $\leq 30^\circ$)



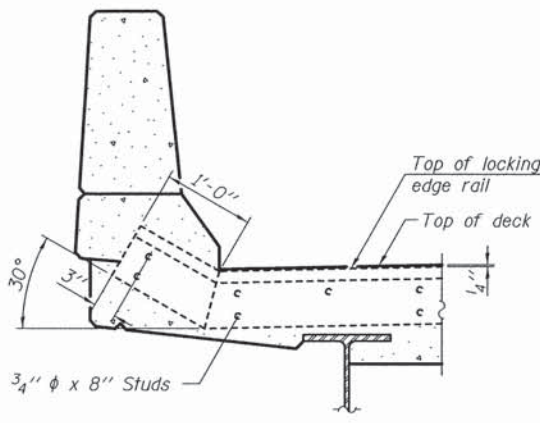
PLAN
(For skews $> 30^\circ$)
Showing point block



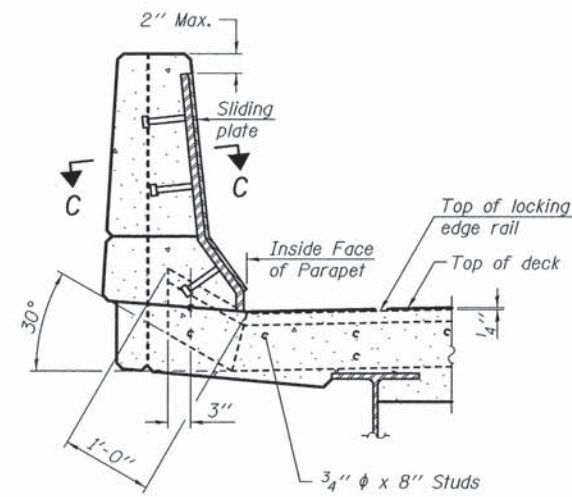
SECTION C-C



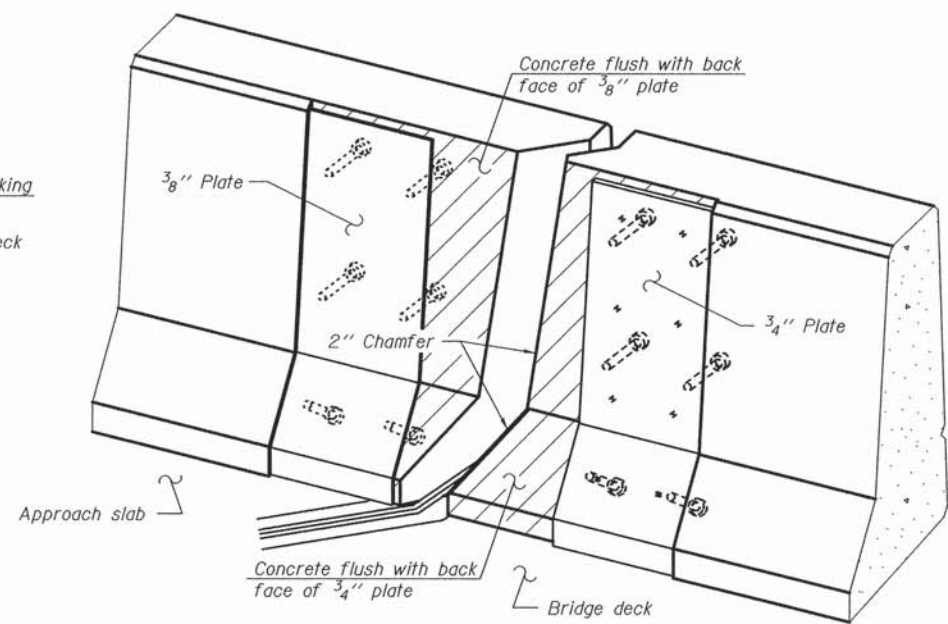
**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



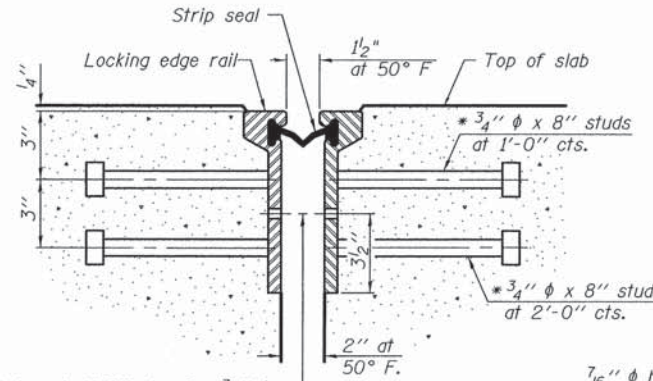
SECTION A-A



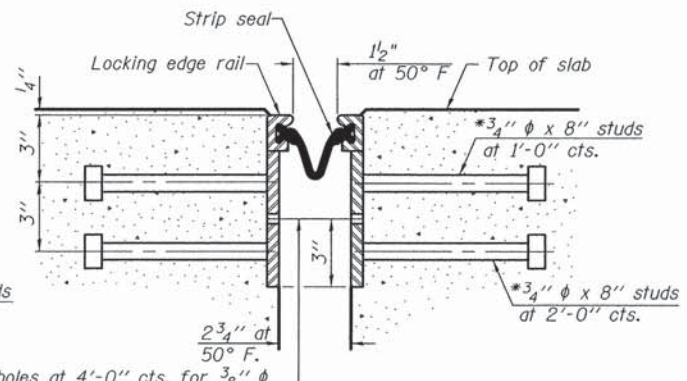
SECTION B-B



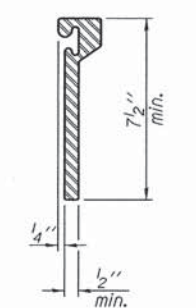
TRIMETRIC VIEW
(Showing back plates only)



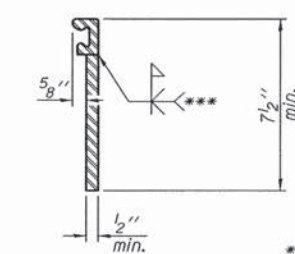
**SECTION THRU
ROLLED RAIL JOINT**



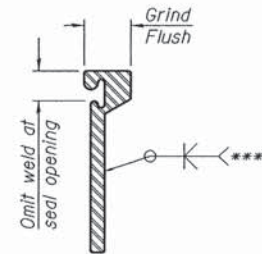
**SECTION THRU
WELDED RAIL JOINT**



**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.

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

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

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

EJ-SSJ 1-27-12



USER NAME = bhenrichs	DESIGNED - JEH	REVISED - 2/26/2016
PLOT SCALE = 8:1, 0000 '1' = 1"	DRAWN - JEH	REVISED - ENTIRE SHEET
PLOT DATE = 2/25/2016	CHECKED - CMW	REVISED -
	DATE - 2/25/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL STRUCTURE NO. 016-0289	
SCALE: _____	SHEET 6 OF 8 SHEETS STA. _____ TO STA. _____

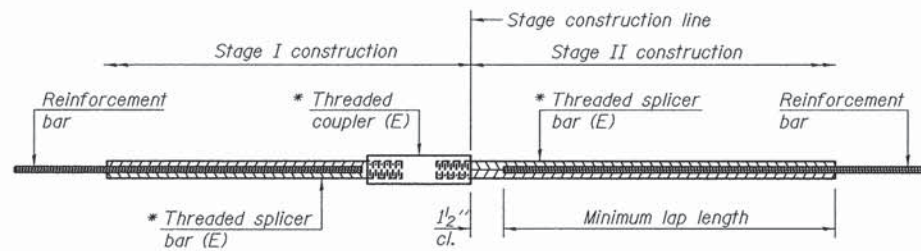
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	124.5

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	322
				CONTRACT NO. 61C32
ILLINOIS FED. AID PROJECT				

DATE
BY
SURVEYED
PLOTTED
CHECKED
BY
DATE
NOTE BOOK
NO.
FILE NAME

DATE
BY
SURVEYED
PLOTTED
CHECKED
BY
DATE
NOTE BOOK
NO.
FILE NAME

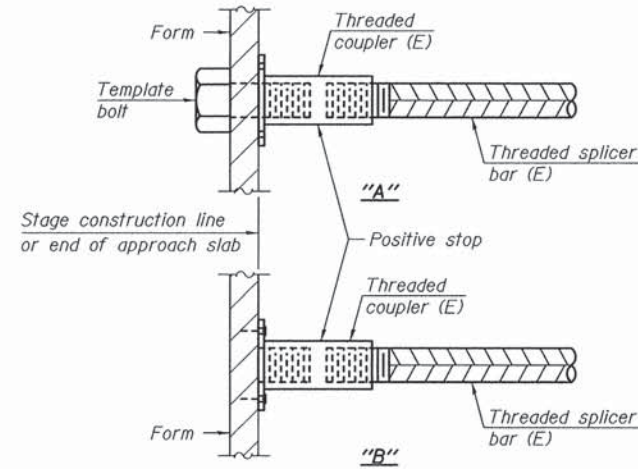


STANDARD BAR SPLICER ASSEMBLY

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

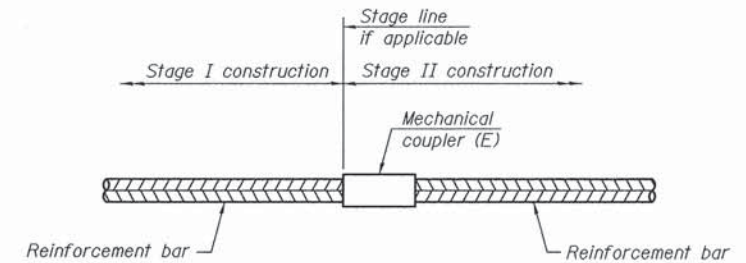
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Pier 1	5	14	3'-6"
Pier 2	5	14	3'-6"



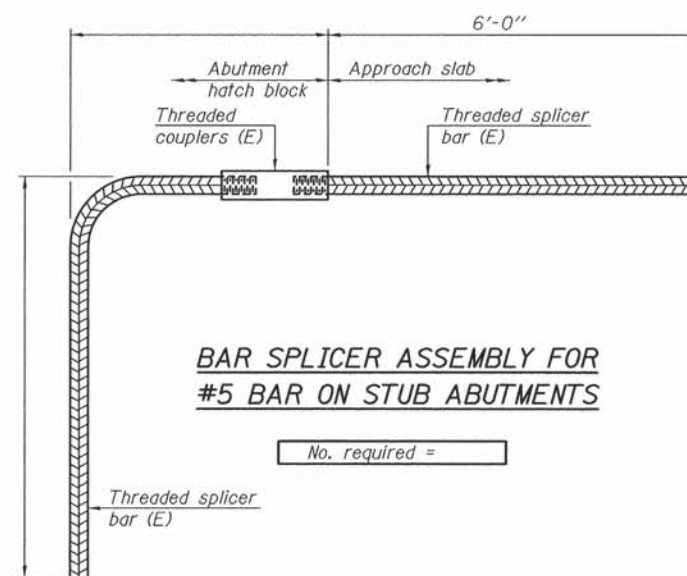
INSTALLATION AND SETTING METHODS

"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 =

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.

BSD-1 6-8-15



USER NAME = bhenrichs	DESIGNED - JEH	REVISED - 2/26/2016
PLOT SCALE = 0:1.0000 '1' / in.	DRAWN - JEH	REVISED - ENTIRE SHEET
PLOT DATE = 2/25/2016	CHECKED - CMW	REVISED -
	DATE - 2/25/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-0289

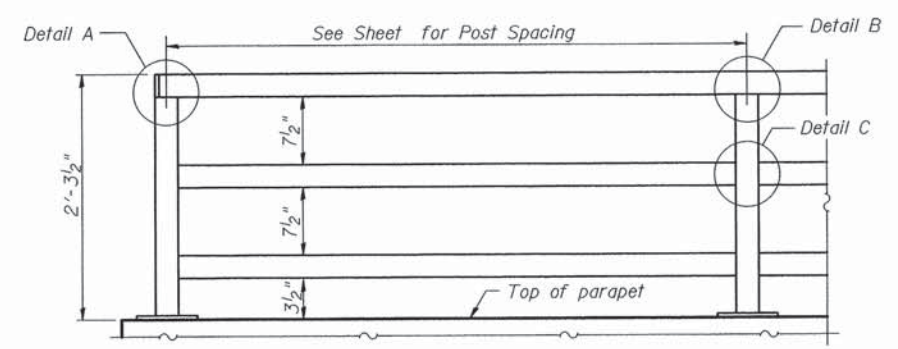
SCALE: SHEET 7 OF 8 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	322A
CONTRACT NO. 61C32			ILLINOIS FED. AID PROJECT	

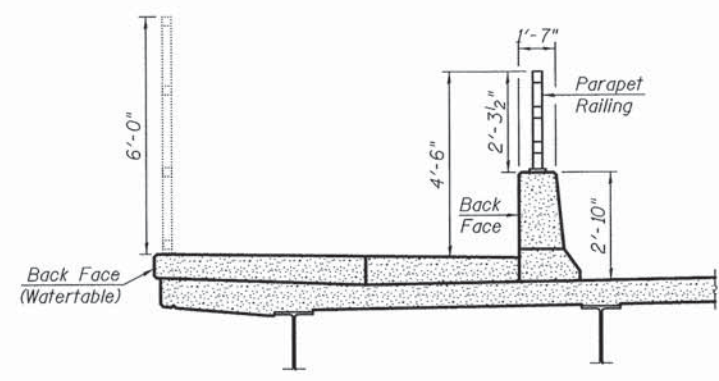
DATE	
BY	
PLAN	
SURVEYED	
PLOTTED	
GRADES CHECKED	
RT. OF WAY CHECKED	
STRUCTURE NOTATION CHECKED	
NOTE BOOK NO.	
CADD FILE NAME	

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PROFILE	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE NOTATION CHECKED	
NOTE BOOK NO.	

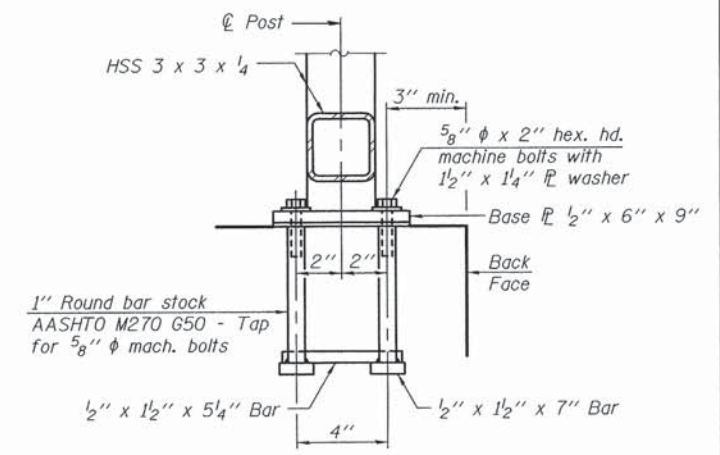
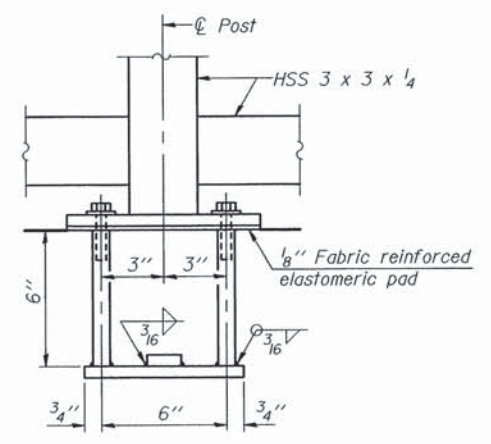
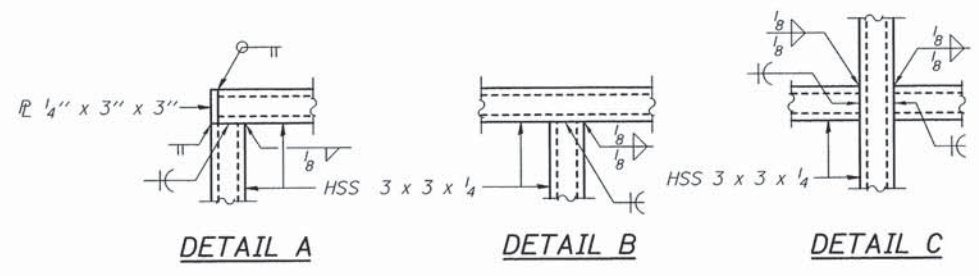
Note:
When railing is galvanized:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



**PARAPET RAILING
ELEVATION**
(Inside Face of Three Element Rail)

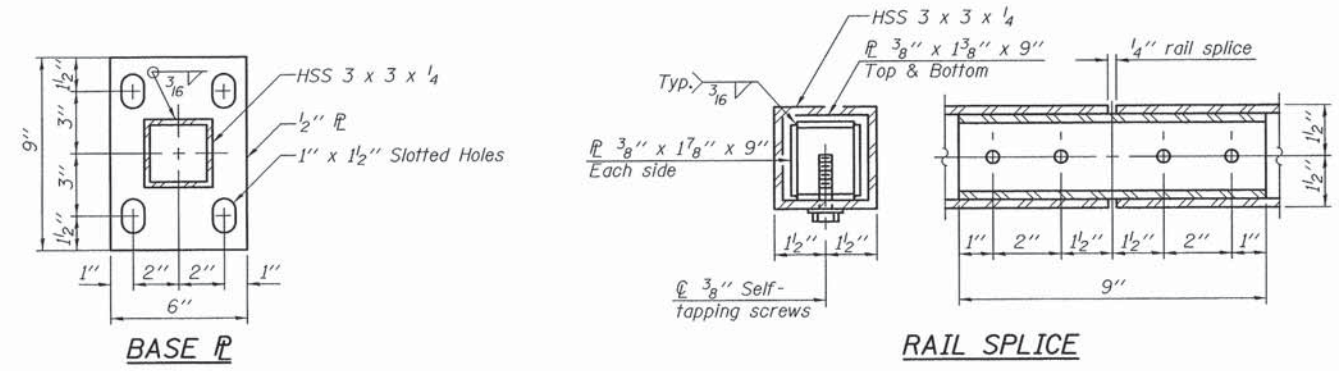


SECTION THRU SIDEWALK



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" diameter anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Foot	145

(10'-0" Maximum Post Spacing)



USER NAME = bhenn-schs	DESIGNED - JEH	REVISED - 2/26/2016
	DRAWN - JEH	REVISED - ENTIRE SHEET
PLOT SCALE = 0.1/0000 1" = 10'	CHECKED - CMW	REVISED -
PLOT DATE = 2/25/2016	DATE - 2/25/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PARAPET RAILING DETAIL
STRUCTURE NO. 016-0289**

SCALE:	SHEET 8 OF 8 SHEETS	STA. TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	13-00270-00-CH	COOK	393	322B
CONTRACT NO. 61C32				
ILLINOIS FED. AID PROJECT				