

04-22-2016 LETTING ITEM 137

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
SUPERSTRUCTURE REPLACEMENT

MOUND ROAD OVER SPRING CREEK

PROJECT NO. M-5169(053)

ROUTE FAU 7359

SECTION 13-00325-00-BR
MACON COUNTY, ILLINOIS

C-97-051-15

R2E 3RD PM

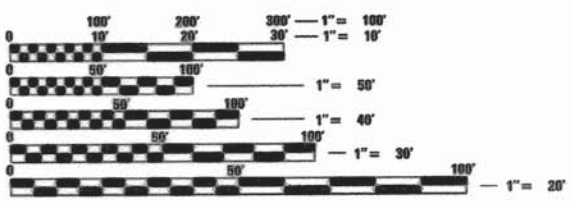
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	38	1
ILLINOIS			CONTRACT NO. 95784	

- INDEX OF SHEETS**
- 1 COVER SHEET
 - 2 GENERAL NOTES AND SUMMARY OF QUANTITIES
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 - 17-35 BRIDGE PLANS

- HIGHWAY STANDARDS**
- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
 - 420401-12 PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
 - 515001-03 NAME PLATE FOR BRIDGES
 - 606001-06 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
 - 701427-04 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS LESS THAN 40 MPH
 - 701611-01 URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
 - 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
 - 701901-05 TRAFFIC CONTROL DEVICES
 - 704001-08 TEMPORARY CONCRETE BARRIER
 - 780001-05 TYPICAL PAVEMENT MARKINGS

UTILITIES

ELECTRIC: AMEREN ILLINOIS



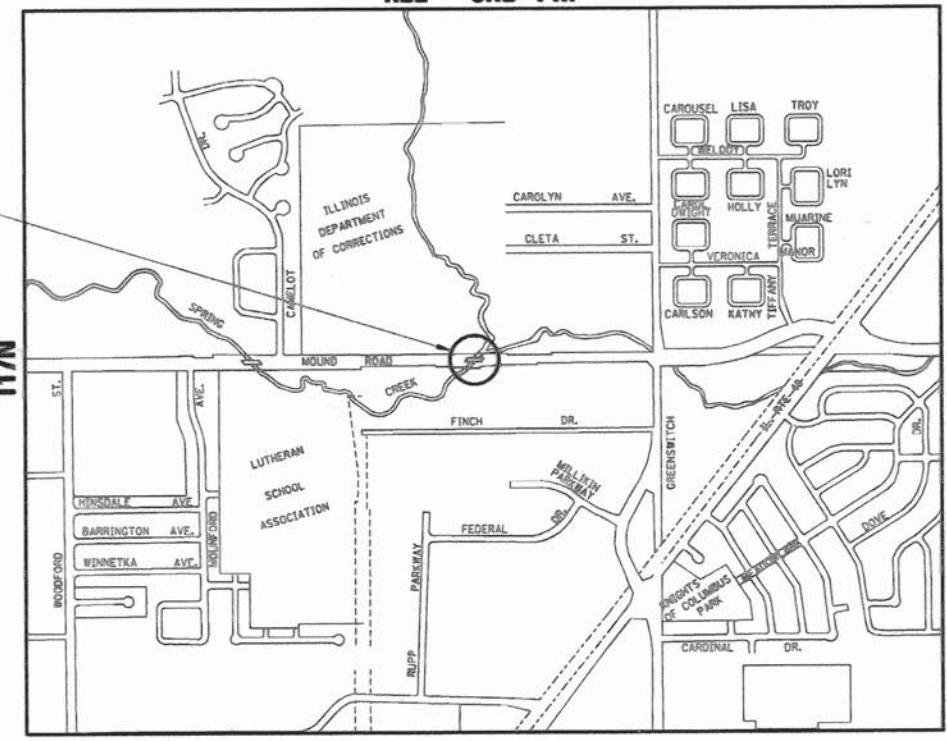
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CHASTAIN PROJECT NO. 6050
CHASTAIN FIELD BOOK NO. 506

CONTRACT NO. 95784

PROJECT LOCATION
SECTION 13-00325-00-BR
BEGINS STATION 198+31.80
ENDS STATION 200+64.37
SN 058-3037



LOCATION MAP

TOTAL LENGTH = 233' FT. = 0.044 MILE

NET LENGTH = 233' FT. = 0.044 MILE

THE PROPOSED IMPROVEMENT CONSISTS OF REMOVAL OF EXISTING SUPERSTRUCTURE AND REPLACEMENT WITH A THREE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM (17" DEPTH) BRIDGE, CONCRETE WEARING SURFACE, 52'-6" CLEAR ROADWAY, 7'-9" BIKEPATH, 118'-3 1/4" END TO END DECK, 30 DEGREE SKEW, AND OTHER MINOR COLLATERAL WORK.



FUNCTIONAL CLASSIFICATION - MINOR ARTERIAL
2015 ADT = 13,000
DESIGN SPEED = 40 MPH

APPROVED *February 11* 20 16
Shannon C. Stenow
CITY ENGINEER

PASSED *2-18* 20 16
M. E. ...
DISTRICT SEVEN ENGINEER OF LOCAL ROADS AND STREETS

Releasing For Bid Based on Limited Review *2/18* 20 16
...
REGION FOUR ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALEX C. BENZ, P.E.
DATE 2/11/16
LICENSE EXPIRES 11/30/17

CHASTAIN & ASSOCIATES LLC
DECATUR (817) 422-8544
SCHAUMBURG (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

GENERAL NOTES

WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED JANUARY 1, 2016.

EXISTING ROAD SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR.

EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS & MUST BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CONTACT J.U.L.I.E., PHONE 800-892-0123, AND ALL UTILITY COMPANIES PRIOR TO DIGGING.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION OPERATIONS.

THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PROTECT PUBLIC AND PRIVATE PROPERTY. IF AT ANY TIME THE CONTRACTOR DAMAGES OR DESTROYS PUBLIC OR PRIVATE PROPERTY, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, RESTORE SUCH PROPERTY TO A CONDITION EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE.

THE CONTRACTOR SHALL NOTIFY THE CITY OF DECATUR RESIDENT ENGINEER AND THE CITY ENGINEER 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES AT THE TIME OF CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THEY PERFORM THEIR WORK.

GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SEEDING SHALL BE DONE ON ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING SHALL BE INCLUDED IN THE CONTRACT COST OF THE PROJECT. SEEDING, CLASS 1A AND MULCH METHOD 1 SHALL BE USED FOR THIS PROJECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

THE CONTRACTOR SHALL REMOVE AND REPLACE THE VALVE BOX AS SHOWN ON THE PLANS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.

SUMMARY OF QUANTITIES

4200080	Pavement Connector (PCC) for Bridge Approach Slab	Sq. Yd.	291
42400200	Portland Cement Concrete Sidewalk 5 Inch	Sq. Ft.	326
44000100	Pavement Removal	Sq. Yd.	611
44000500	Combination Curb and Gutter Removal	Foot	232
44000600	Sidewalk Removal	Sq. Ft.	234
50101500	Removal of Existing Superstructures	Each	1
50102400	Concrete Removal	Cu. Yd.	2.2
50300100	Floor Drains	Each	6
50300225	Concrete Structures	Cu. Yd.	40.1
50300255	Concrete Superstructure	Cu. Yd.	199.9
50300260	Bridge Deck Grooving	Sq. Yd.	1,000
50300300	Protective Coat	Sq. Yd.	1,343
50400305	Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	7,556
50800205	Reinforcement Bars, Epoxy Coated	Pound	60,060
50800515	Bar Splicers	Each	341
* 50901750	Parapet Railing	Foot	141
51500100	Name Plates	Each	1
60605500	Combination Concrete Curb and Gutter, Type B-6.24 (Variable Width Gutter Flag)	Foot	113
67100100	Mobilization	L Sum	1
70102634	Traffic Control and Protection, Standard 701611	L Sum	1
70102640	Traffic Control and Protection, Standard 701801	L Sum	1
70400100	Temporary Concrete Barrier	Foot	387.5
70400200	Relocate Temporary Concrete Barrier	Foot	387.5
70600241	Impact Attenuators, Temporary (Non-Redirective, Narrow), Test Level 2	Each	2
70600341	Impact Attenuators, Relocate (Non-Redirective, Narrow), Test Level 2	Each	2
* 78001110	Paint Pavement Marking - Line 4"	Foot	7,024
X5030305	Concrete Wearing Surface, 5"	Sq. Yd.	842
* X5091725	Bicycle Railing, Special	Foot	143
* X7030030	Wet Reflective Temporary Tape Type III, 4 Inch	Foot	11,371
X7040125	Pinning Temporary Concrete Barrier	Each	72
Z0013798	Construction Layout	L Sum	1

* SPECIALTY ITEMS

u:\municipalities\city_of_decatu\668 mound road bridge\cadd\civil\vt_94.dgn

USER NAME *	DESIGNED -	REVISED -		DECATUR (217) 422-8544 CHICAGO (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	FAU 7359 (MOUND ROAD) OVER SPRING CREEK GENERAL NOTES AND SUMMARY OF QUANTITIES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN -	REVISED -	7359				13-00325-00-BR	MACON	35	2	
PLOT SCALE *	CHECKED -	REVISED -				CONTRACT NO. 95784				
PLOT DATE *	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.		

PAVEMENT MARKING SCHEDULE

BEGINNING		ENDING		STAGE	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH FOOT	PAINT PAVEMENT MARKING - LINE 4" FOOT	
STATION	OFFSET	STATION	OFFSET				
YELLOW							
191+21.24	-12.5	194+41.24	-12.5	1	320.00		
194+41.24	-12.5	198+31.24	-26	1	390.40		
200+64.78	-26	210+38.78	-13	1	975.00		
210+38.78	-13	212+33.78	-13.8	1	195.00		
191+21.24	-26	198+31.24	-26	1	710.00		
200+64.78	-26	208+43.78	-26	1	779.00		
208+43.78	-26	212+33.78	-20	1	390.00		
DOUBLE YELLOW							
198+31.24	-26	200+64.78	-26	1	233.50		
198+31.24	-26	200+64.78	-26	1	233.50		
WHITE							
188+01.24	12	191+21.24	0	1	320.20		
191+21.24	0	194+41.24	0	1	320.00		
194+41.24	0	198+31.24	-14.5	1	390.30		
198+31.24	-14.5	200+81.58	-14.5	1	250.30		
200+81.58	-14.5	202+58.78	0	1	177.80		
YELLOW							
186+61.24	-12	188+56.24	-12	2	195.00		
188+56.24	-12.0	198+31.24	2.6	2	975.10		
200+64.58	2.6	204+53.78	-12.8	2	389.70		
204+53.78	-12.8	207+74.29	-12.8	2	320.40		
186+61.24	-12	190+51.24	2.6	2	390.30		
190+51.24	2.6	198+31.24	2.6	2	780.00		
200+64.58	2.6	207+74.29	2.3	2	709.70		
DOUBLE YELLOW							
198+31.24	2.6	200+64.58	2.6	2	233.30		
198+31.24	2.6	200+64.58	2.6	2	233.30		
186+61.24	-12	210+10.48	-13	2		4698.00	
210+10.48	-13	212+34.78	-13.8	2		448.00	
210+10.48	-13	212+34.78	-20.1	2		448.00	
WHITE							
196+36.20	-25	198+13.50	-8.5	2	178.10		
198+13.50	-8.5	200+64.29	-8.5	2	250.80		
200+64.29	-8.5	204+53.78	-24.5	2	390.00		
204+53.78	-24.5	207+73.78	-24.5	2	320.00		
207+73.78	-24.5	210+92.78	-38	2	320.30		
WHITE SKIP DASH							
186+43.14	-24.75	215+01.52	-35.87	2		715.00	
186+43.14	0.75	215+02.10	-0.4	2		715.00	
					TOTAL	11371.0	7024.0

PAVING SCHEDULE

BEGINNING		ENDING		STAGE	COMB CC&G TB6.24 VWGF FOOT	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB SQ YD	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH SQ FT
STATION	OFFSET	STATION	OFFSET				
198+31.22	LT	198+74.2	LT	2	43.0		146.6
198+32.06	RT	198+44.50	RT	1	12.4		
200+21.15	RT	200+64.78	RT	1	43.6		179.4
200+50.59	LT	200+63.78	LT	2	13.2		
198+31.24		198+72.40				144.0	
200+22.83		200+64.77				147.0	
					TOTAL	112.2	326.0

REMOVAL SCHEDULE

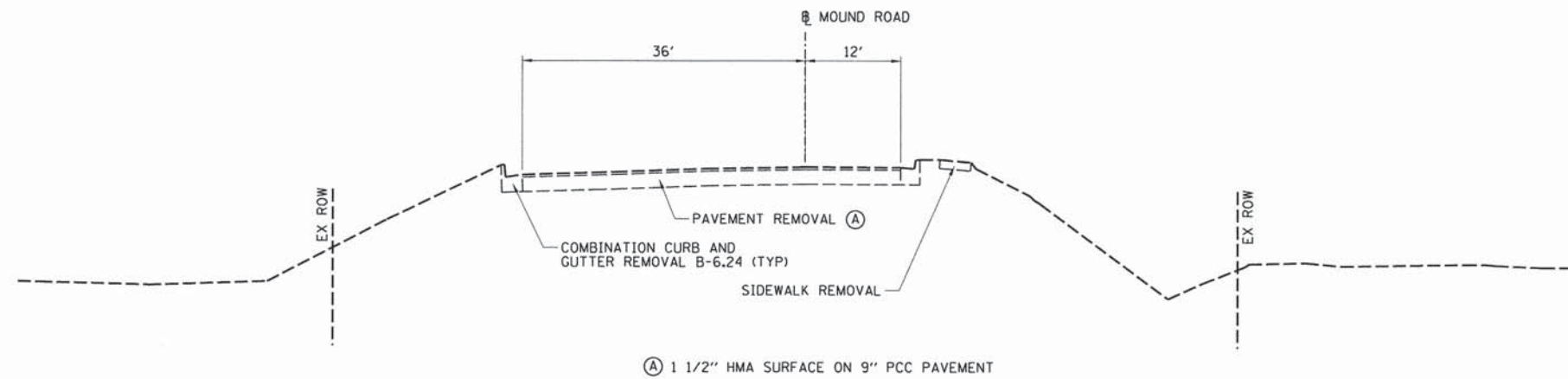
BEGINNING		ENDING		STAGE	COMBINATION CURB AND GUTTER REMOVAL FOOT	SIDEWALK REMOVAL SQ FT	PAVEMENT REMOVAL SQ YD
STATION	OFFSET	STATION	OFFSET				
198+31.22	LT	199+03.74	LT	2	72.5		
198+32.06	RT	198+74.60	RT	1	42.5		
199+91.62	RT	200+64.78	RT	1	73.2		
200+20.52	LT	200+63.78	LT	2	43.3		
198+43.00	21.0 RT	198+72.50	15.6 RT	1		110	
199+85.90	24.0 RT	200+21.00	17.0 RT	1		124	
198+31.65	12.1 RT	198+88.39	12.0 LT	1			127
199+92.76	12.2 RT	200+64.30	12.0 LT	1			167
198+31.65	12.0 LT	199+02.37	36.4 LT	2			177
200+06.63	12.0 LT	200+64.40	36.1 LT	2			140
					TOTAL	231.5	611

TEMPORARY CONCRETE BARRIER SCHEDULE

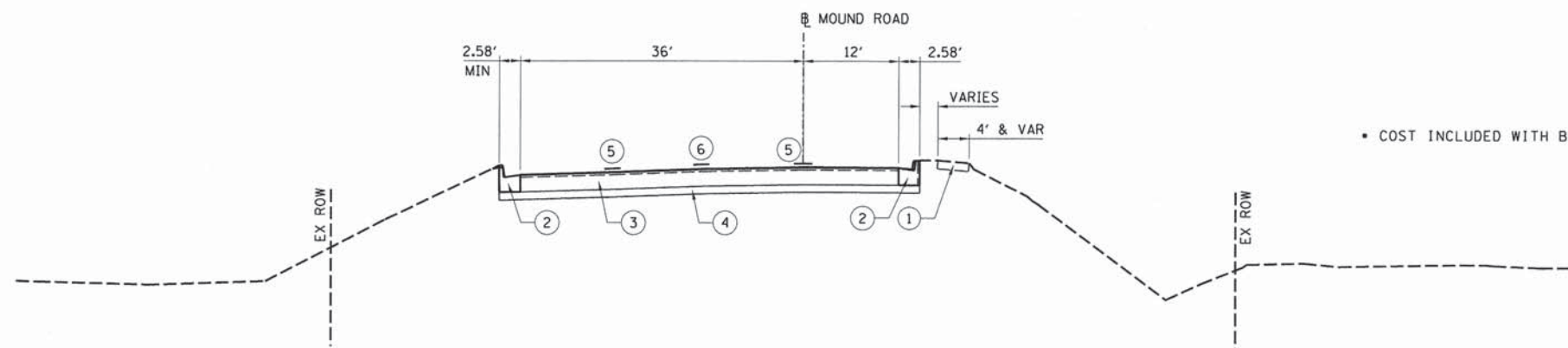
BEGINNING		ENDING		STAGE	TEMPORARY CONCRETE BARRIER FOOT	RELOCATE TEMPORARY CONCRETE BARRIER FOOT	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 2 EACH	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE, NARROW), TEST LEVEL 2 EACH
STATION	OFFSET	STATION	OFFSET					
196+79.82	0	198+29.26	-13	1	150		1	
198+29.26	-13	200+66.76	-13	1	237.5		1	
198+29.02	-10	200+66.52	-10	2		237.5		1
200+66.52	-10	202+15.72	-25	2		150		1
					TOTAL	387.5	2	2

I:\municipalities\City of Decatur\0959 Mound Road Bridge\0000_Civil\Notes.dwg

USER NAME *	DESIGNED -	REVISED -	 CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS DECATUR (217) 422-8544 CHICAGO (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	FAU 7359 (MOUND ROAD) OVER SPRING CREEK SCHEDULE OF QUANTITIES		F.A.U. RTE. 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 3	
PLOT SCALE *	CHECKED -	REVISED -		SCALE:	SHEET NO. OF	SHEETS STA.	CONTRACT NO. 95784		ILLINOIS FED. AID PROJECT		
PLOT DATE *	DATE -	REVISED -									



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION
STA 198+31.80 TO STA 200+64.37
(EXCLUDING SN 058-3037)

• COST INCLUDED WITH BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)

- ① PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
- ② COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24 (VARIABLE WIDTH GUTTER FLAG)
- ③ BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)
- ④ • SUBBASE GRANULAR MATERIAL, TYPE B, 4"
- ⑤ PAINT PAVEMENT MARKING - LINE 4" SKIP DASH WHITE
- ⑥ PAINT PAVEMENT MARKING - LINE 4" DOUBLE YELLOW

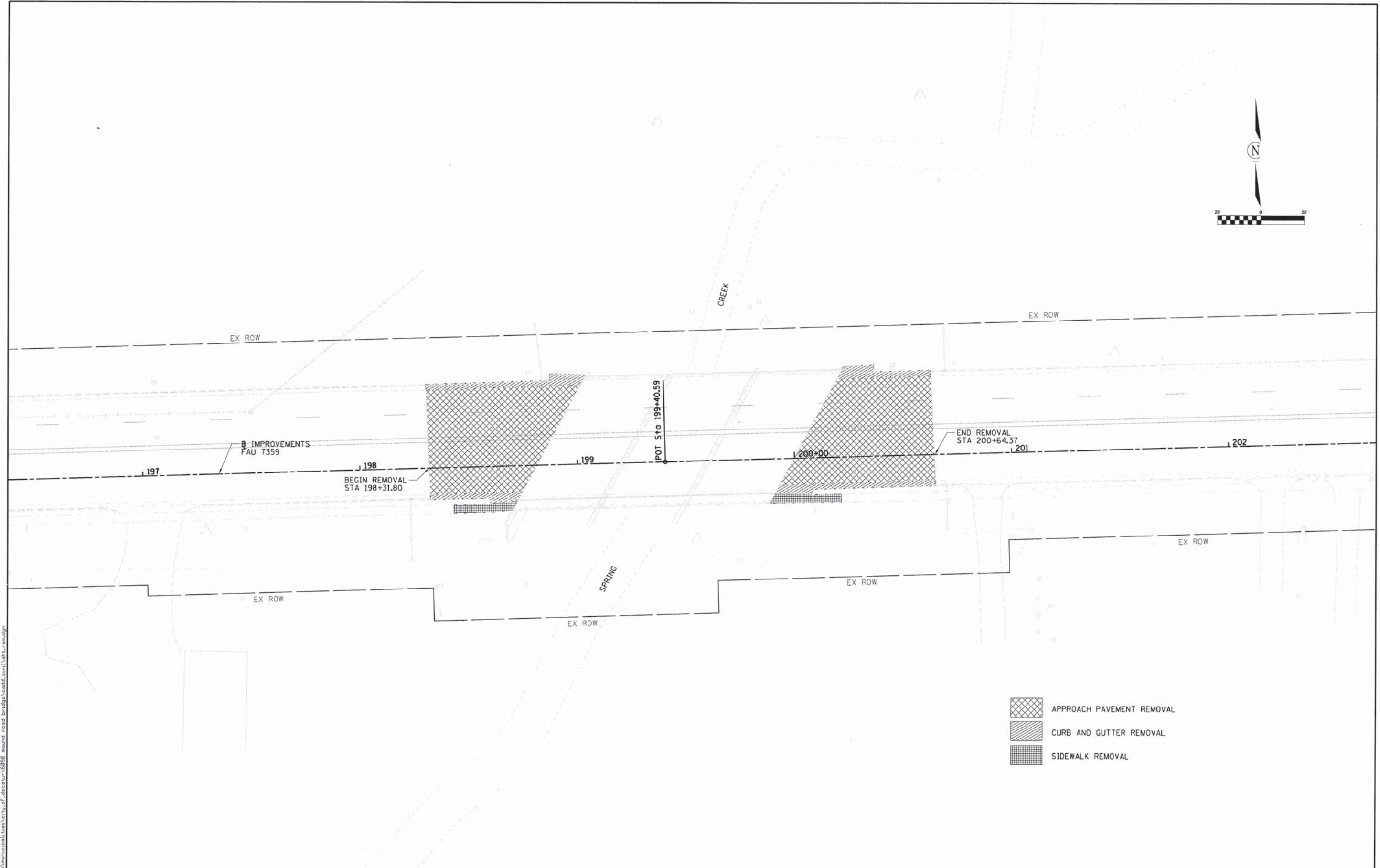
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USER NAME *	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE *	CHECKED -	REVISED -
PLOT DATE *	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
TYPICAL SECTIONS
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	4
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



-  APPROACH PAVEMENT REMOVAL
-  CURB AND GUTTER REMOVAL
-  SIDEWALK REMOVAL

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PLOT SCALE =	DRAWN -	REVISED -
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	DATE -	REVISED -

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184-001397

**FAU 7359 (MOUND ROAD) OVER SPRING CREEK
REMOVAL PLAN**

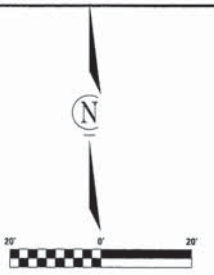
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F.A.U. RTE. 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 5
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				

MOUND ROAD BASELINE

Point MOUND001	N	1,175,148.910	E	817,678.500	Sta	189+06.40
Course from MOUND001 to MOUND002 N 88° 19' 00" E Dist 1,034.195						
Point MOUND002	N	1,175,179.290	E	818,712.248	Sta	199+40.59
Course from MOUND002 to MOUND003 N 88° 19' 00" E Dist 1,614.939						
Point MOUND003	N	1,175,226.730	E	820,326.490	Sta	215+55.53

CONTROL POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
CP#1	201+48.76	-45.04	1,175,230.4230	818,918.9990	656.16
CP#3	199+88.39	-63.31	1,175,243.9760	818,758.1670	650.14
CP#4	199+54.35	35.55	1,175,144.1574	818,727.0384	649.53
CP#5	197+28.29	25.82	1,175,147.2434	818,500.7923	657.25



PLAN

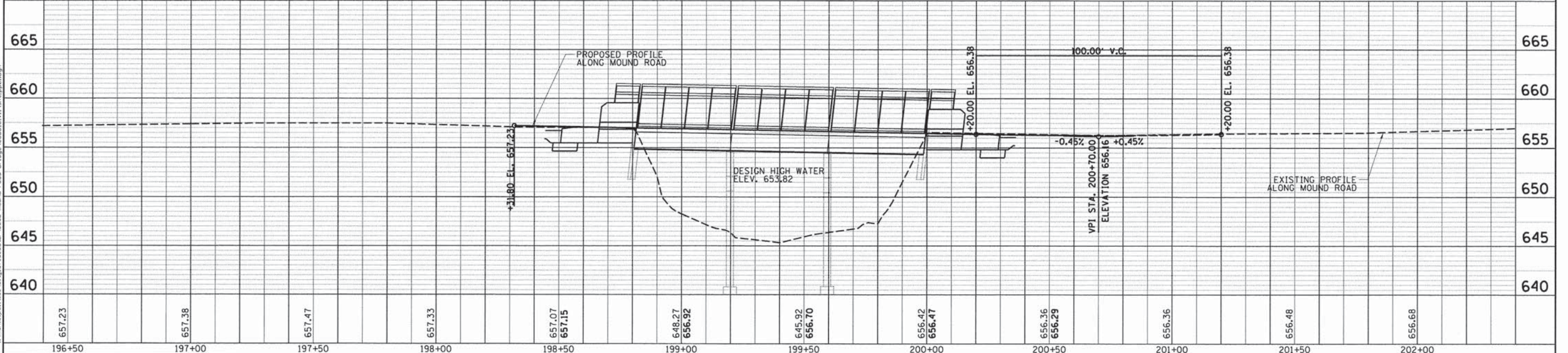
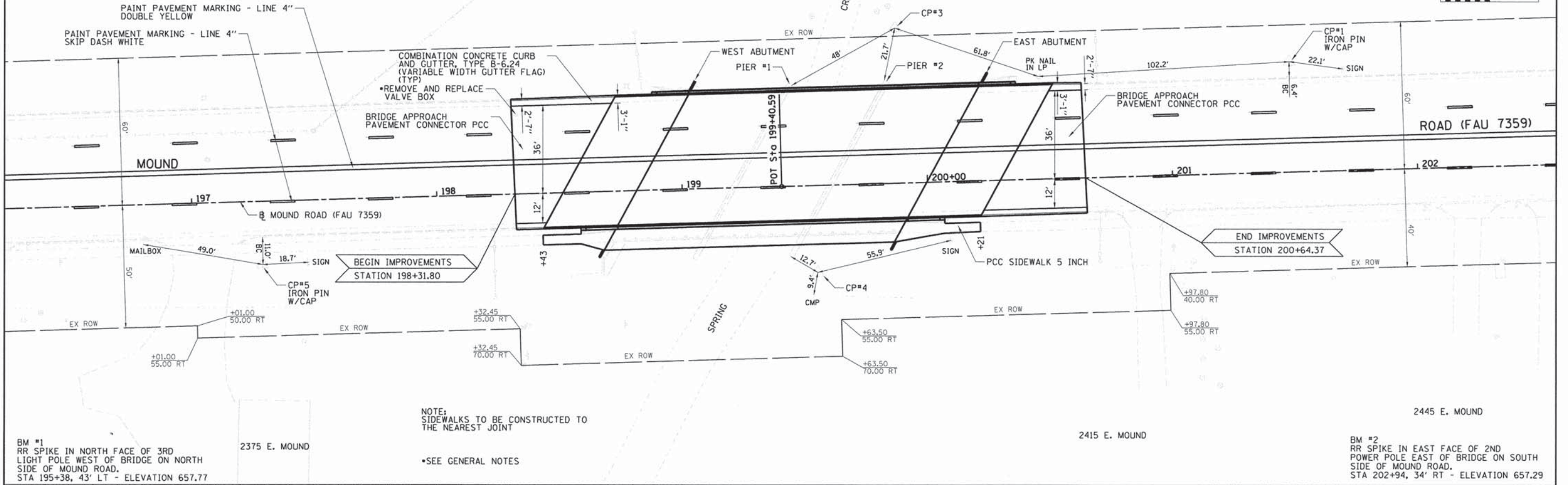
DATE	BY	DESIGNED	CHECKED

NOTE: ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE IN FEET AND INCHES. DIMENSIONS TO FACE UNLESS NOTED OTHERWISE.

PROFILE

DATE	BY	DESIGNED	CHECKED

NOTE: ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE IN FEET AND INCHES. DIMENSIONS TO FACE UNLESS NOTED OTHERWISE.



196+50	197+00	197+50	198+00	198+50	199+00	199+50	200+00	200+50	201+00	201+50	202+00
657.23	657.38	657.47	657.33	657.07 657.15	648.27 656.92	645.92 656.70	656.42 656.47	656.36 656.29	656.36	656.48	656.68

USER NAME = abullcock	DESIGNED -	REVISED -
DRAWN -	CHECKED -	DATE -
PLOT SCALE = 20,0000' / in.		
PLOT DATE = 2/12/2016		

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR CHICAGO ROCKFORD
(217) 422-8544
(773) 714-0050
(815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
PLAN AND PROFILE

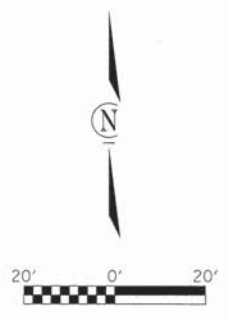
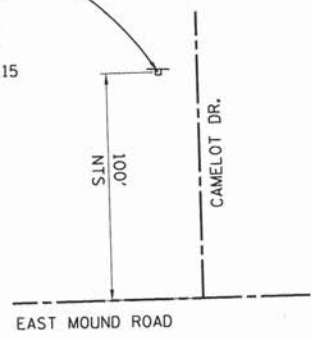
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE. 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 6
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				

W20-1103(O)-48

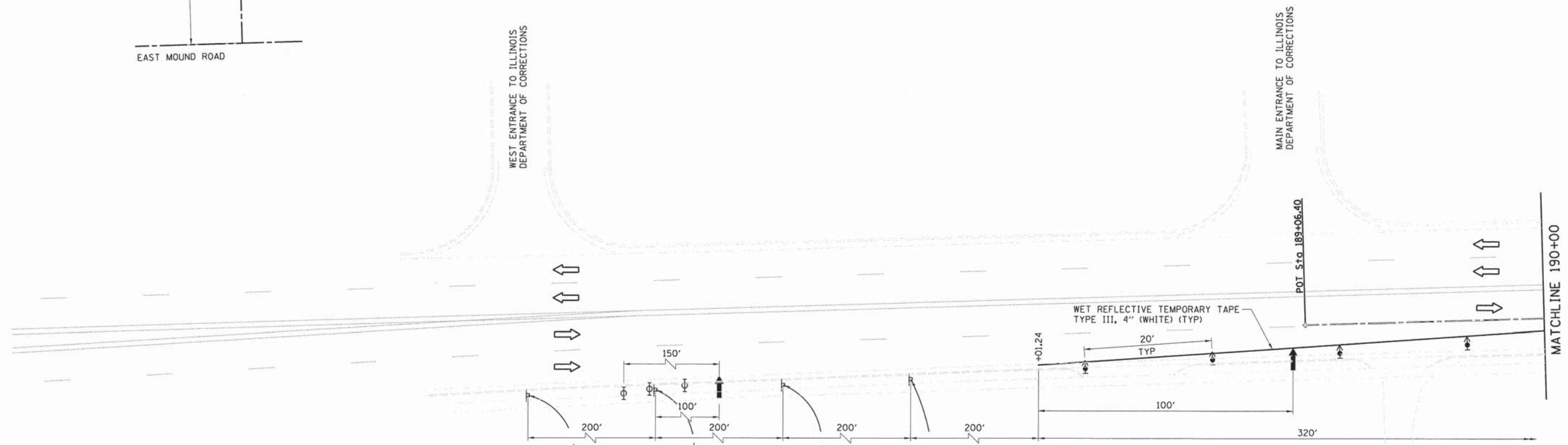


M6-1 2115



WEST ENTRANCE TO ILLINOIS DEPARTMENT OF CORRECTIONS

MAIN ENTRANCE TO ILLINOIS DEPARTMENT OF CORRECTIONS



W20-1103(O)-48



W20-5R(O)-48



W4-2R(O)-48



WORK ZONE W21-1115(O)-3618

SPEED LIMIT R2-1-3648

\$375 FINE MINIMUM R2-1106p-3618

LUTHERAN SCHOOL FIELD ENTRANCE

SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- ☉ DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆️ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆️ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⚡ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

2207 E. MOUND

MATCHLINE 190+00

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USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

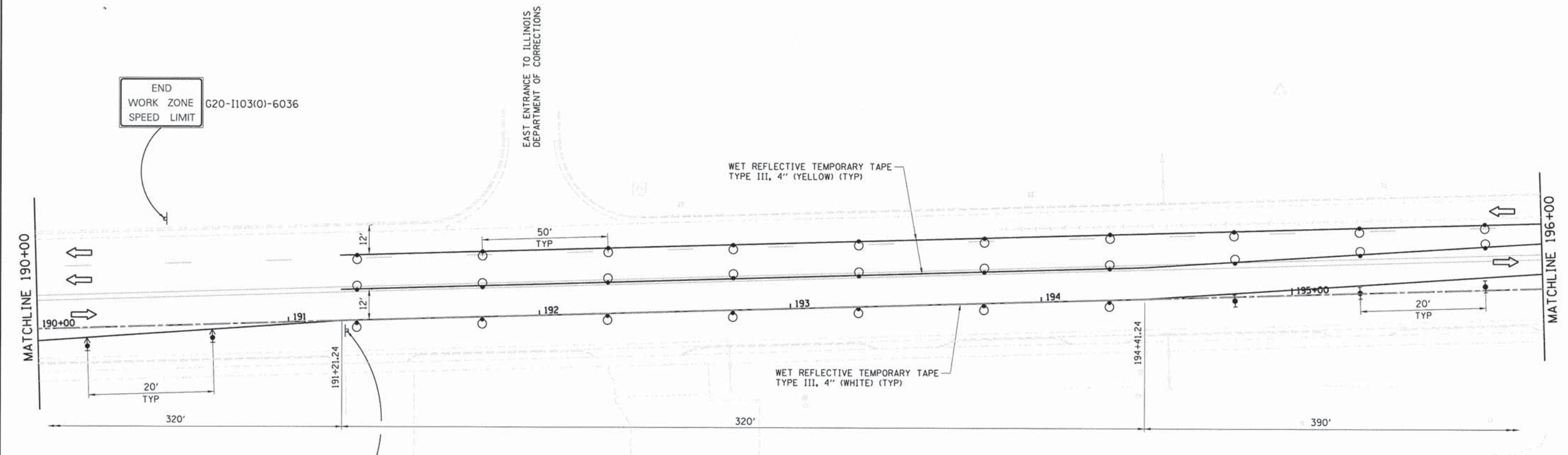
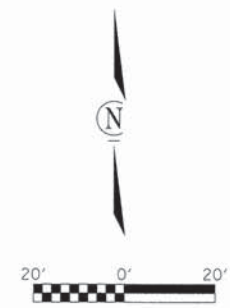
CHASTAIN & ASSOCIATES LLC
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CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

**FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 1**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	7
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



END
WORK ZONE
SPEED LIMIT
G20-1103(O)-6036

EAST ENTRANCE TO ILLINOIS
DEPARTMENT OF CORRECTIONS

WET REFLECTIVE TEMPORARY TAPE
TYPE III, 4" (YELLOW) (TYP)

WET REFLECTIVE TEMPORARY TAPE
TYPE III, 4" (WHITE) (TYP)



2221 E. MOUND

2241 E. MOUND

SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⚡ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipalities\city_of_decatour\6858_mound_road_bridge\cedd\civil\ahh_mst_stage1-2.dgn

USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -
PLOT DATE *	CHECKED -	REVISED -
	DATE -	REVISED -

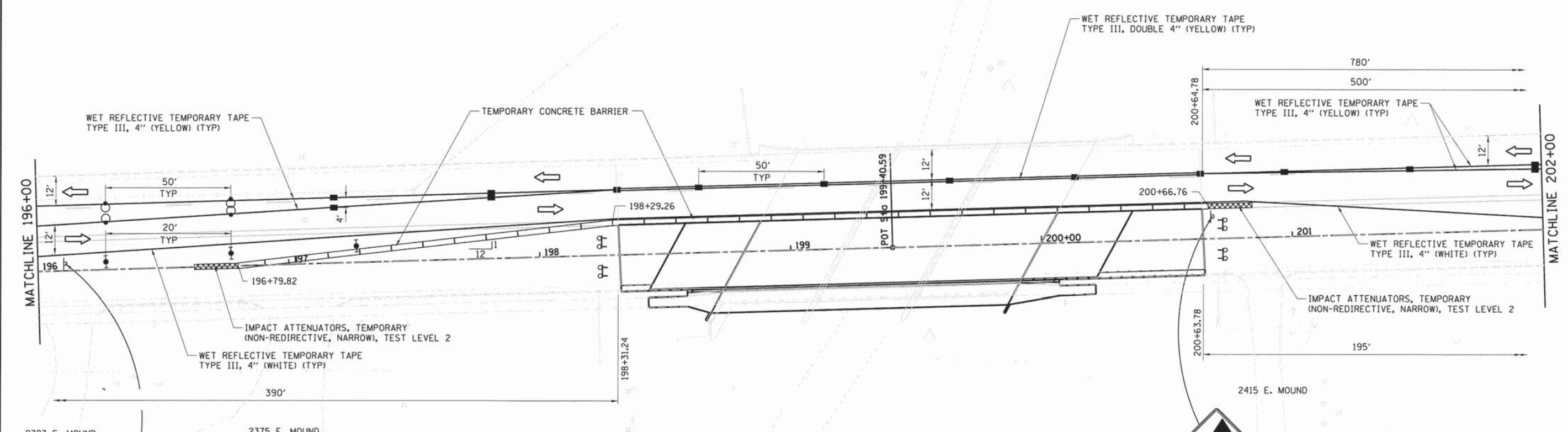
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 1

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	8
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



2323 E. MOUND

2375 E. MOUND

2415 E. MOUND

W6-3(O)-48

W1-3R(O)-48

SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- ⊙ DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⊕ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:

- SIDEWALK CLOSED IN ACCORDANCE WITH IDOT STANDARD 701801
- ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES. ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

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CONSULTING ENGINEERS

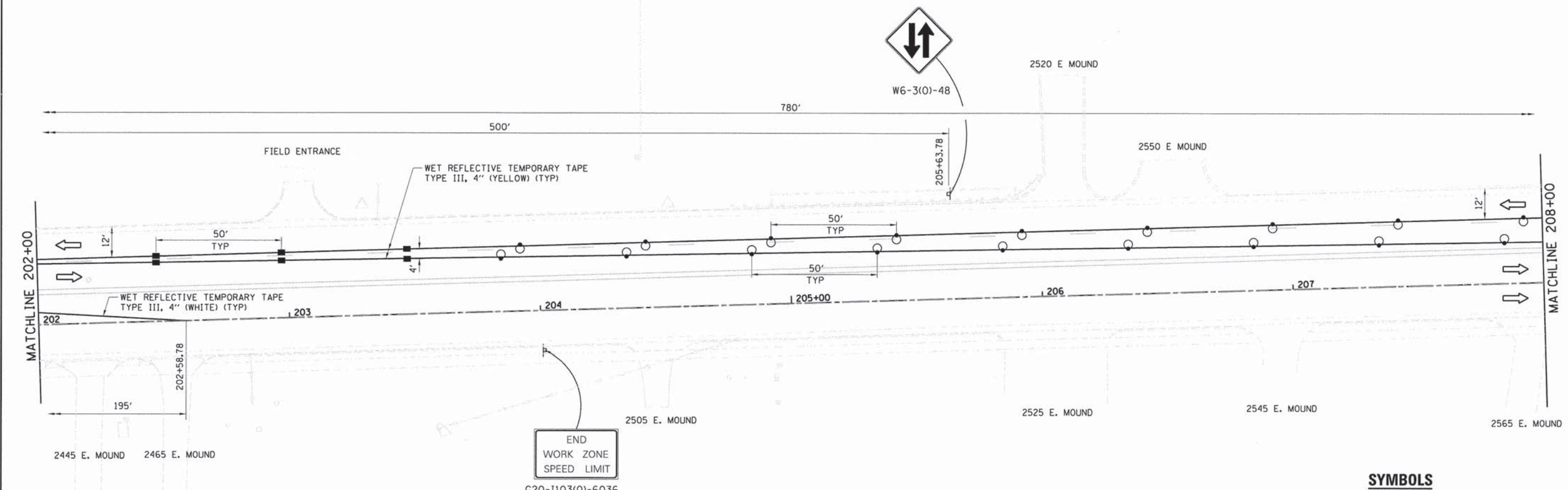
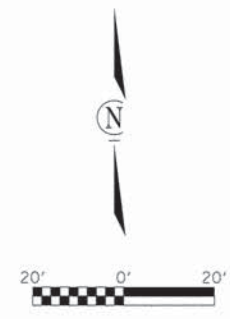
DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 1

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	9
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				

I:\mnt\p\p\13\1300325\mound_road_bridge\cadd\civil\vt\mt\stage1-3.dgn



END
WORK ZONE
SPEED LIMIT
G20-1103(0)-6036

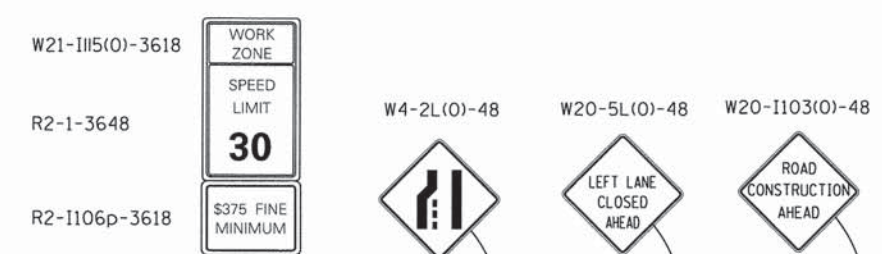
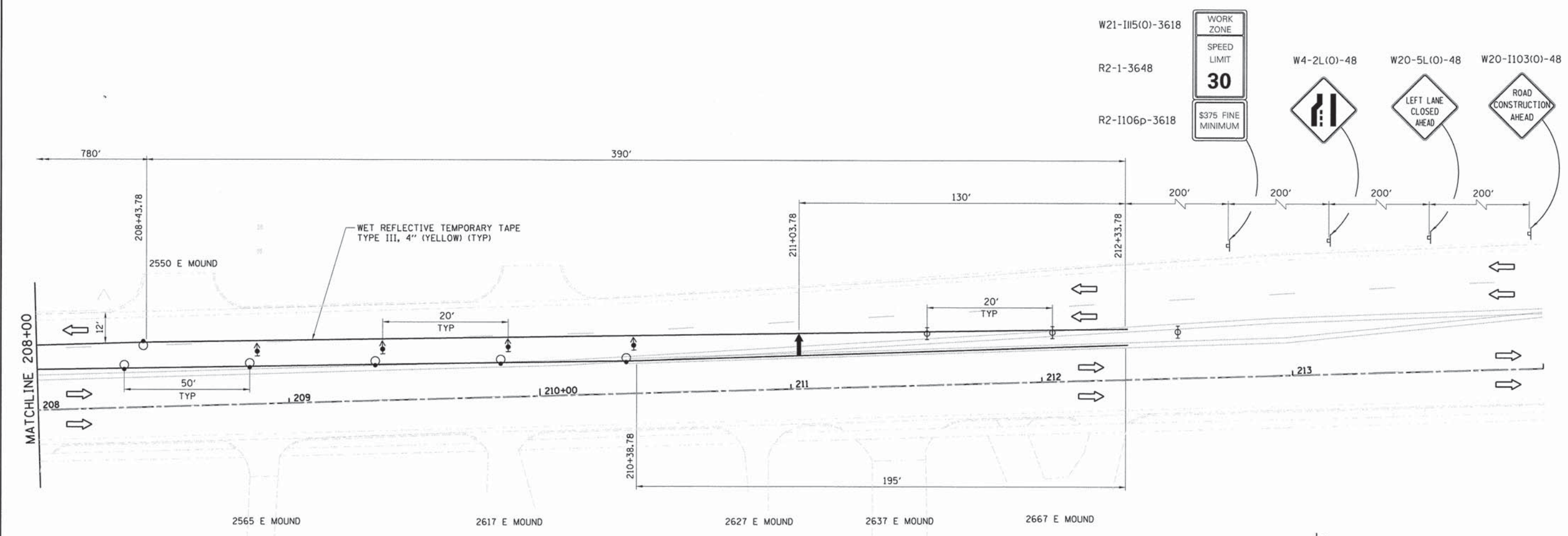
SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬇ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⊗ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipal\steele\of_decatur\8558 mound road bridge\roads\civil\vehl_mnt_stapgl-1.dwg

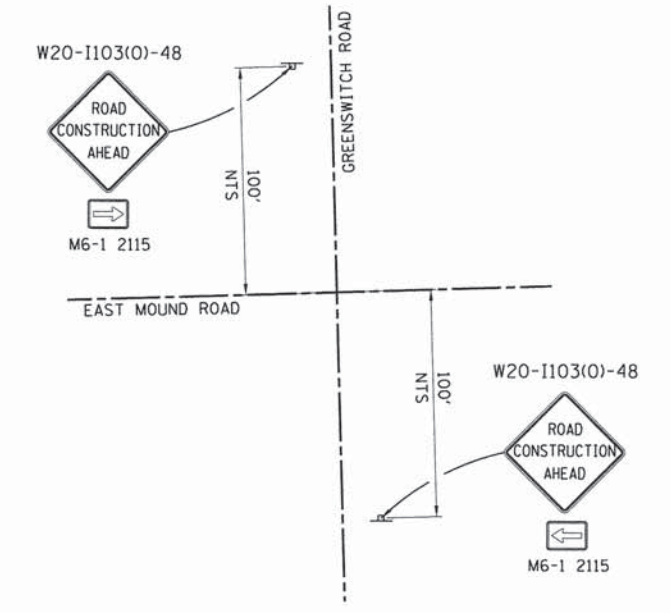
USER NAME =	DESIGNED -	REVISED -		DECATUR (217) 422-8544 CHICAGO (773) 714-0050 ROCKFORD (815) 489-0050 184-001397	FAU 7359 (MOUND ROAD) OVER SPRING CREEK MAINTENANCE OF TRAFFIC - STAGE 1			F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	CHECKED -	REVISED -						7359	13-00325-00-BR	MACON	35	10
PLOT DATE =	DATE -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 95784				
								ILLINOIS FED. AID PROJECT				



SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬇ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⚡ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.



I:\mnt\spol\stump\city\of_decatur\6898 mound road bridge\cadd\civil\vt\mt_stage1-5.dgn

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

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ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 1

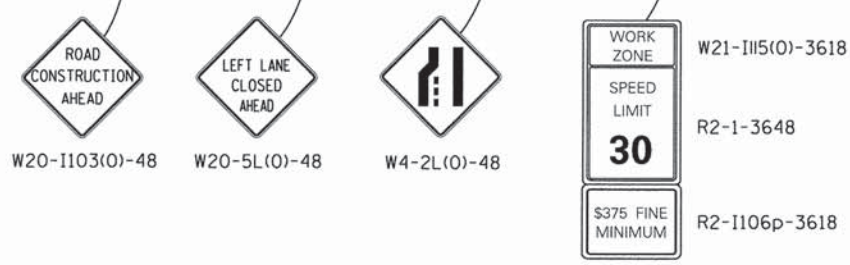
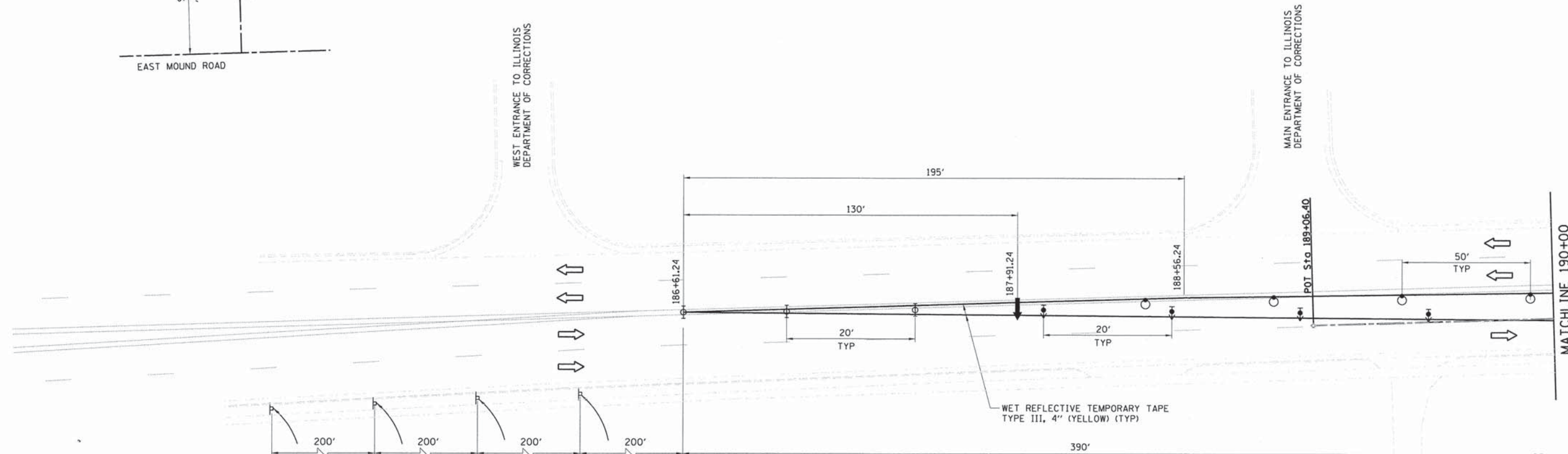
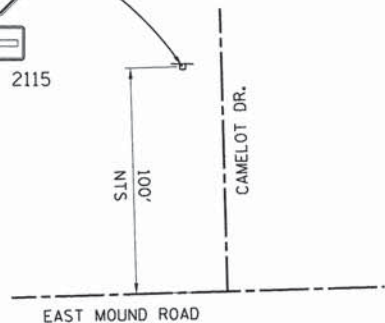
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	11
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				

W20-I103(O)-48



M6-1 2115



SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
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- ⚡ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipal\1115\city_of_decaturo\8858_mound_road_bridges\add_civil\veh_not_stage2.dgn

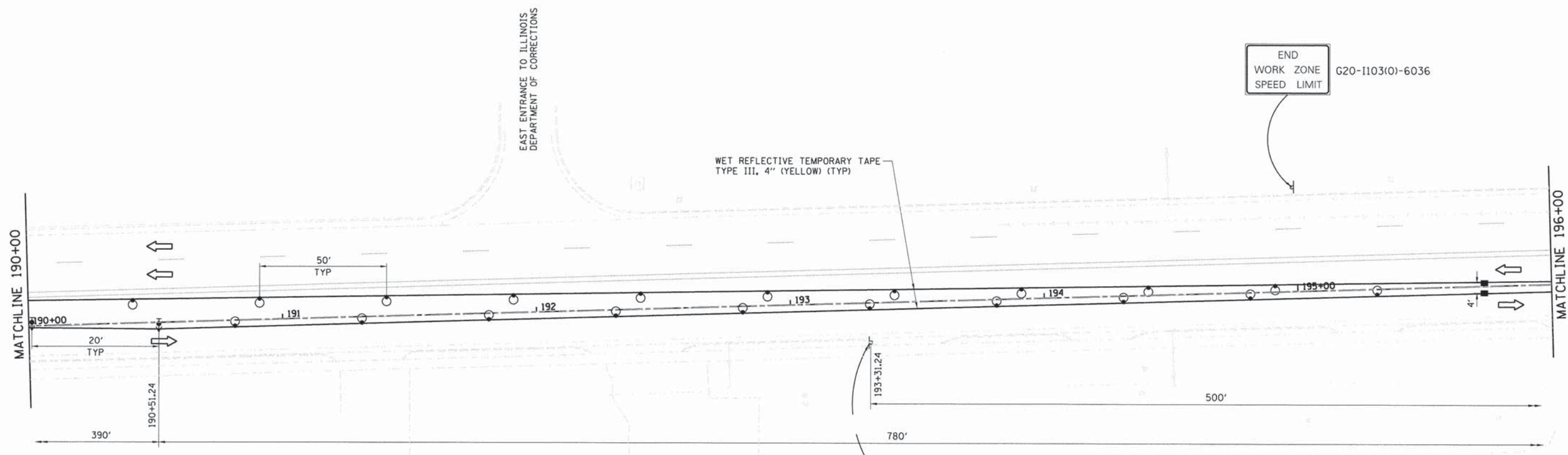
USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -
PLOT DATE *	CHECKED -	REVISED -
	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK			
MAINTENANCE OF TRAFFIC - STAGE 2			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	12
CONTRACT NO. 95784				ILLINOIS FED. AID PROJECT



END
WORK ZONE
SPEED LIMIT
G20-1103(O)-6036



W6-3(O)-48

SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊖ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
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- ⊘ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipalities\city_of_decatun\68508_mound_road_bridge\eeid\civil\hht_mnt_steps2.dgn

USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -
PLOT DATE *	CHECKED -	REVISED -
	DATE -	REVISED -

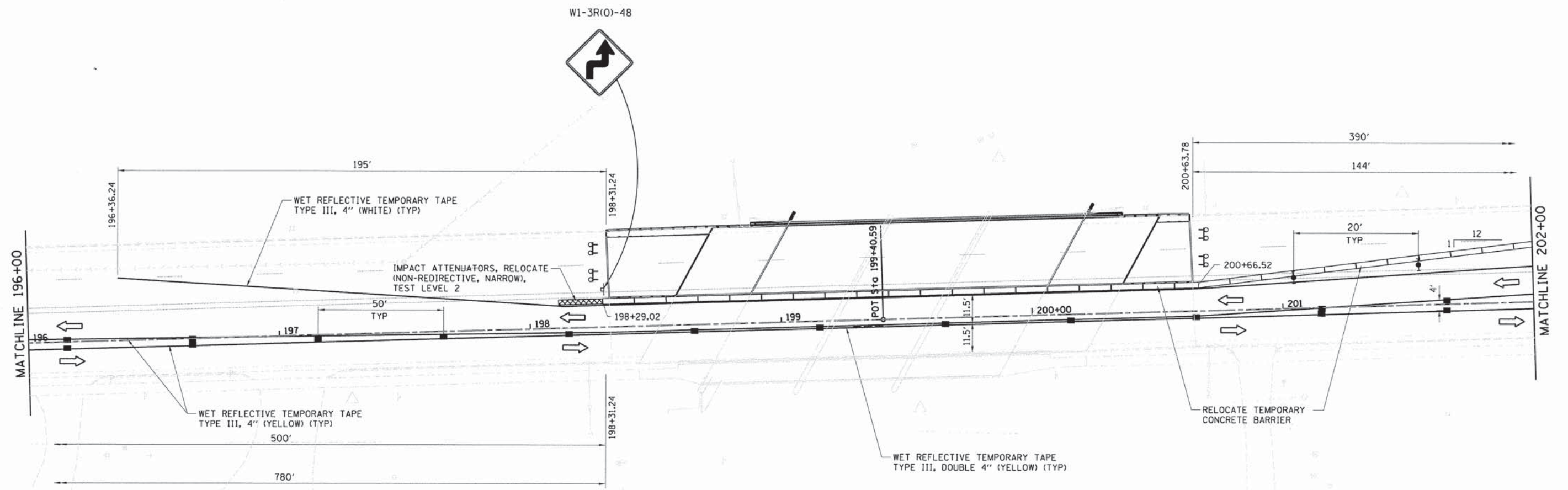
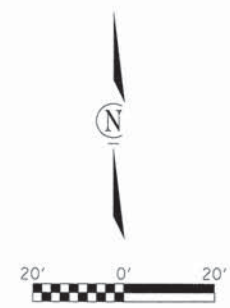
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 2

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	13
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



SYMBOLS

- ↑ ARROW BOARD
- ♣ SIGN
- ⊙ DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊖ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⊗ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ↔ TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipalities\city_of_decatour\6859 mound road bridge\cadd\civil\vt.mnt.stage2-3.dgn

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

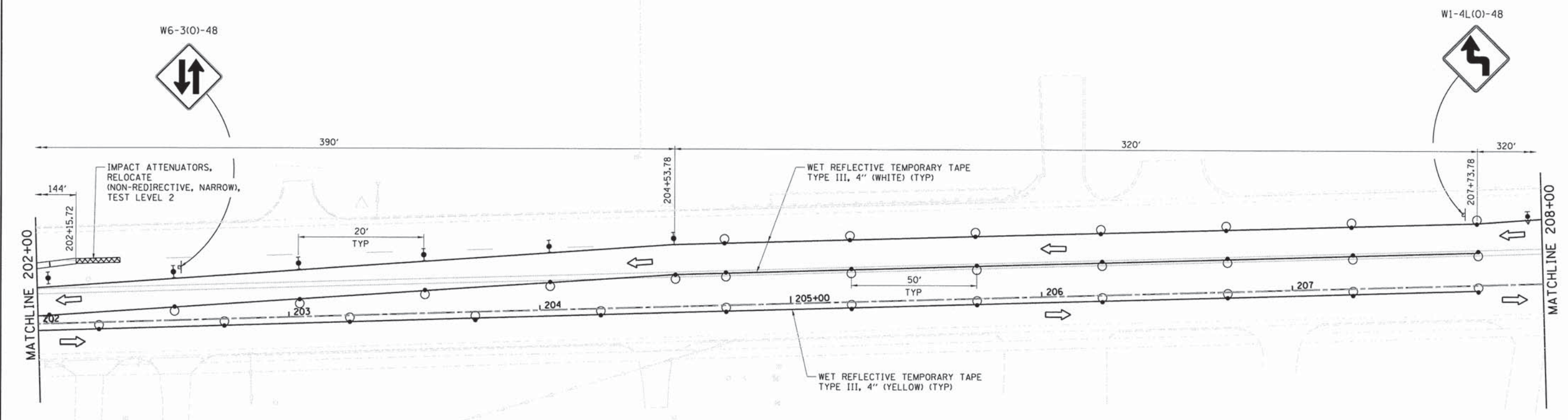
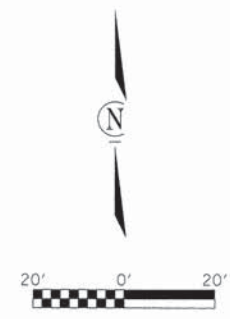
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 2

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

F.A.U. RTE. 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 14
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⚡ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⚡ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW

NOTE:
ADJUST DRUMS TO ALLOW ACCESS TO ENTRANCES.
ADD DOUBLE DRUMS EACH SIDE OF ENTRANCE.

I:\municipal\trns\city_of_decatu\6859 mound road bridge\ceidd\vehl\vehl_mst_stage2-4.dgn

USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -
PLOT DATE *	CHECKED -	REVISED -
	DATE -	REVISED -

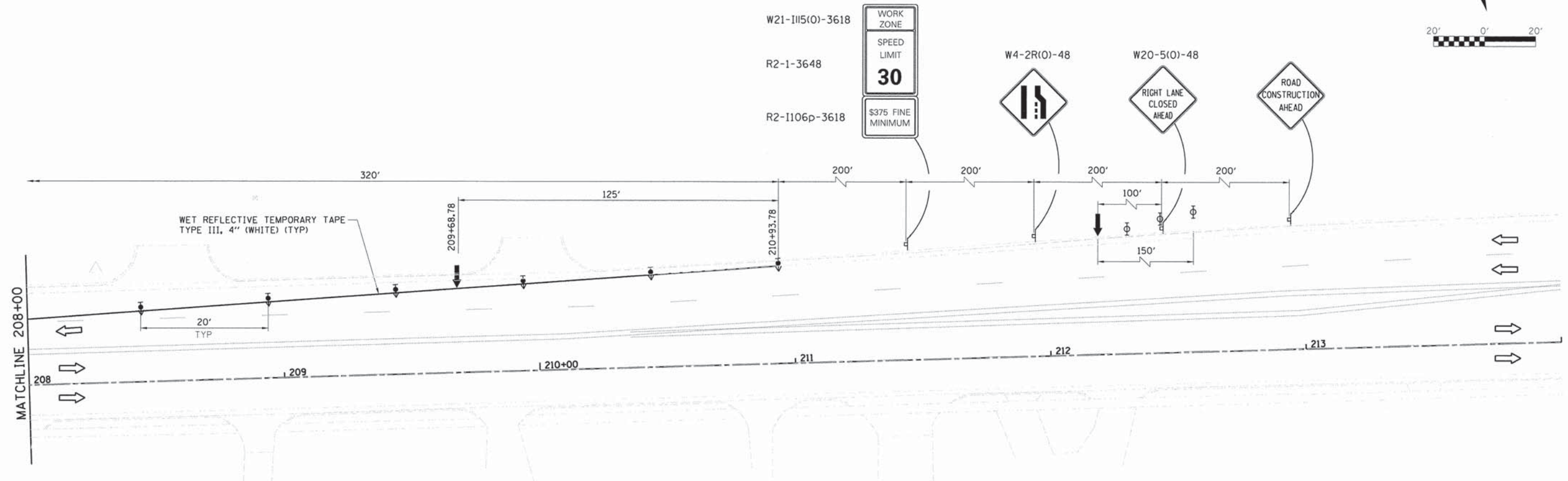
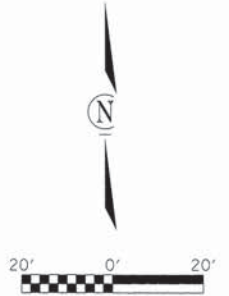
CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

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CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 2

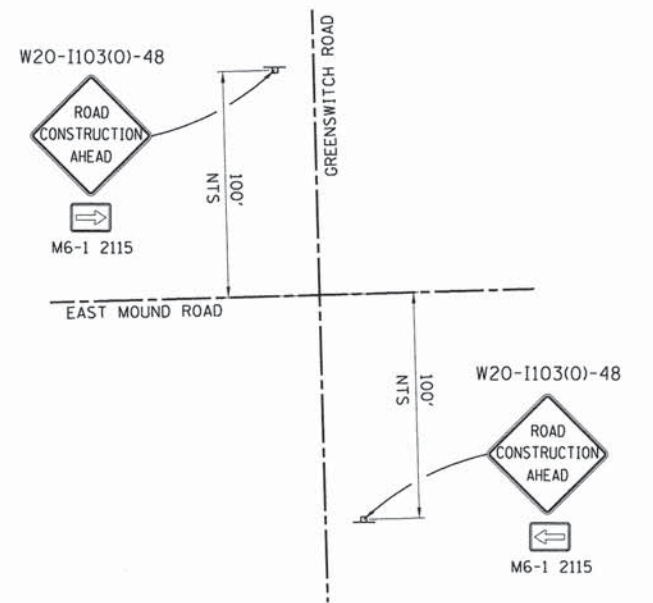
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	15
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				



SYMBOLS

- ↑ ARROW BOARD
- ⊥ SIGN
- DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬆ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⬇ TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ⊗ TYPE III BARRICADE WITH FLASHING MONODIRECTIONAL LIGHTS
- FLEXIBLE DELINEATOR
- ← TRAFFIC FLOW



I:\municipal\trn\city_of_decatur\mound_road_bridge\cadd\civil\veh_mnt_stage2-5.dgn

USER NAME =	DESIGNED -	REVISED -
PLDT SCALE =	DRAWN -	REVISED -
PLDT DATE =	CHECKED -	REVISED -
	DATE -	REVISED -

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS

DECATUR (217) 422-8544
CHICAGO (773) 714-0050
ROCKFORD (815) 489-0050
184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
MAINTENANCE OF TRAFFIC - STAGE 2

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

F.A.U. RTE. 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 16
CONTRACT NO. 95784				
ILLINOIS FED. AID PROJECT				

Existing Structure SN 058-3037:
 Built as FAS Route 1546, Section 44B in 1964, rebuilt as FAU Route 7359, Section 83-00103-02-BR in 2000 using three spans, 21" precast, prestressed concrete deck beams, 118'-3 1/4" end to end of deck, 60'-2" out to out on reinforced concrete piers and pile bent abutments. Beams No. 1 thru 19 in all 3 spans to be removed and replaced with a PPC deck beam superstructure with concrete wearing surface.

Bench Mark No. 1:
 Railroad spike in North face of 3rd L.P. west of bridge on North side of Mound Road.
 Elev 657.77

Traffic to be maintained utilizing stage construction.

Salvage: Parapet and Bicycle Railing

SPRING CREEK
 SUPERSTRUCTURE RE-BUILT 20 BY
 CITY OF DECATUR
 SEC 13-00325-00-BR
 F.A.U. 7359 STA. 199+40.59
 STR. NO. 058-3037 LOADING HS-20

LOADING HS-20
 Allow 50 lb/sq. ft.
 for future wearing surface.
DESIGN SPECIFICATIONS
 2014 AASHTO LRFD Bridge Design
 Specifications, 7th Edition with 2015 Interims

DESIGN STRESSES

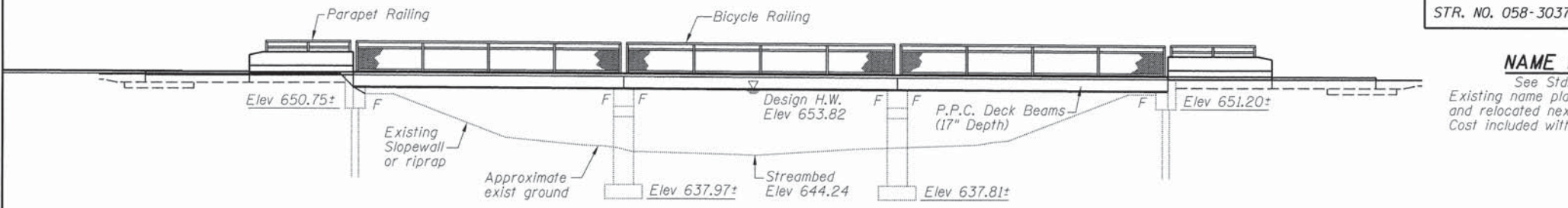
FIELD UNITS (NEW CONSTRUCTION)
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low-relaxation strands)
 $f'_{si} = 202,000$ psi (1/2" ϕ low-relaxation strands)

SEISMIC DATA

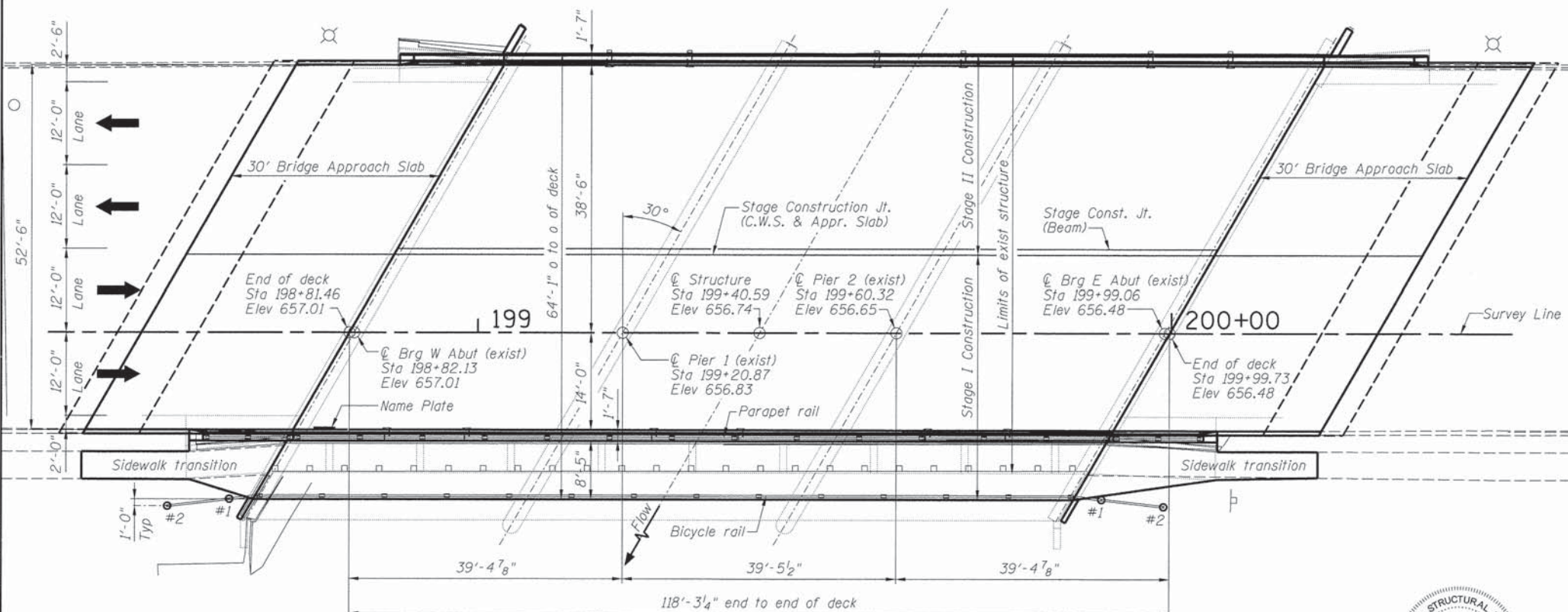
Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec (S_{d1}) = 0.151g
 Design Spectral Acceleration at 0.2 sec (S_{d5}) = 0.272g
 Soil Site Class = D

DESIGN SCOUR ELEVATION TABLE

Event/ Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	650.8	638.0	637.8	651.2	8
Q200	650.8	638.0	637.8	651.2	
Design	650.8	638.0	637.8	651.2	
Check	650.8	638.0	637.8	651.2	



ELEVATION



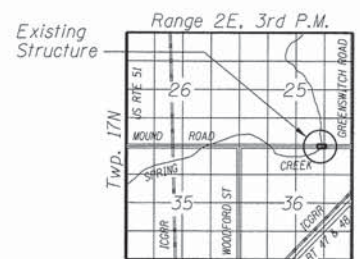
PLAN

WATERWAY INFORMATION

Drainage Area = 18.98 sq mi Low Grade Elev. 655.02 @ Sta. 192+42

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Base	10	1371	532	532	653.07	0.26	0.27	653.33	653.34	
Design	30	1911	593	593	653.82	0.52	0.53	654.34	654.35	
Overtopping	100	2493	598	598	654.40	0.81	0.83	655.21	655.23	
Max. Calc.	500	3311	598	598	655.02	1.70	1.76	656.72	656.78	

10 Year Velocity Through Existing Bridge = 2.66 ft/s
 10 Year Velocity Through Proposed Bridge = 2.66 ft/s



LOCATION SKETCH



Jeremy Buening
 JEREMY BUENING, P.E., S.E.
 LICENSE EXPIRES 11/30/16

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

GENERAL PLAN AND ELEVATION
MOUND ROAD OVER SPRING CREEK
FAU 7359 - SECTION 13-00325-00-BR
MACON COUNTY
STATION 199+40.59
STRUCTURE NO. 058-3037

USER NAME = dbullock	DESIGNED JMB	REVISED -
PLOT TIME = 9:26:25 AM	DRAWN RLK	REVISED -
PLOT SCALE = 18,0000' / in.	CHECKED ACB	REVISED -
PLOT DATE = 2/12/2016	DATE 10/17/14	REVISED -

CHASTAIN & ASSOCIATES LLC
 CONSULTING ENGINEERS

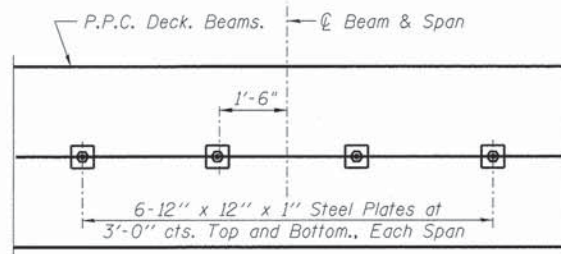
DECATUR (217) 422-8544
 CHICAGO (773) 714-0050
 ROCKFORD (815) 489-0050
 184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
GENERAL PLAN AND ELEVATION

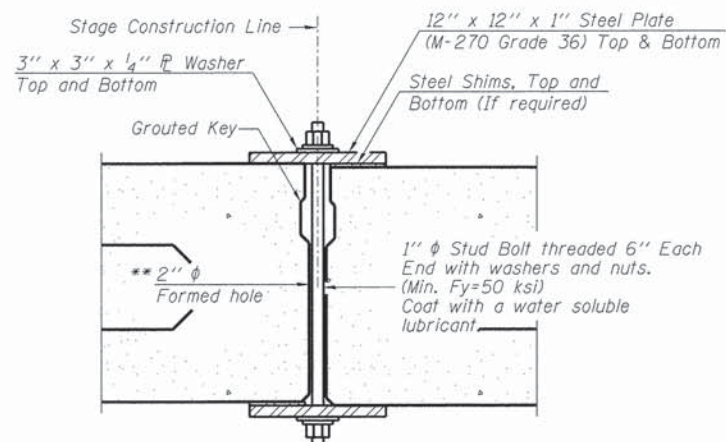
SCALE: SHEET NO. 1 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	17
95194		STRUCTURE NO. 058-3037		
ILLINOIS FED. AID PROJECT				

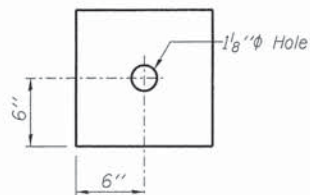
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PLAN



SECTION



CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.

** Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.

GENERAL NOTES:

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Reinforcement bars designated (E) shall be epoxy coated.
All Construction joints shall be bonded.
Slipforming of parapets is not allowed.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Structural Data
- 3 Stage Construction Details
- 4 Temporary Concrete Barrier For Stage Construction
- 5 Top of West Approach Slab Elevations
- 6 Top of East Approach Slab Elevations
- 7 Superstructure Details
- 8 Superstructure Details
- 9 Superstructure Details
- 10 Bridge Approach Slab Details
- 11 Bridge Approach Slab Details
- 12 Bicycle Railing
- 13 17"x48" PPC Deck Beam
- 14 17"x48" PPC Deck Beam Details
- 15 West Abutment Concrete Removal
- 16 West Abutment Repairs
- 17 East Abutment Concrete Removal
- 18 East Abutment Repairs
- 19 Bar Splicer Assembly And Mechanical Splicer Details

TOTAL BILL OF MATERIAL

Pay Item	Unit	Total
Removal of Existing Superstructures	Each	1
Concrete Removal	Cu. Yd.	2.2
Concrete Structures	Cu. Yd.	40.1
Concrete Superstructure	Cu. Yd.	199.9
Bridge Deck Grooving	Sq. Yd.	1000
Protective Coat	Sq. Yd.	1343
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	7556
Reinforcement Bars, Epoxy Coated	Pound	60,060
Bar Splicers	Each	341
Parapet Railing	Foot	141
Name Plates	Each	1
Floor Drains	Each	6
Concrete Wearing Surface, 5 in	Sq. Yd.	842
Bicycle Railing, Special	Foot	143

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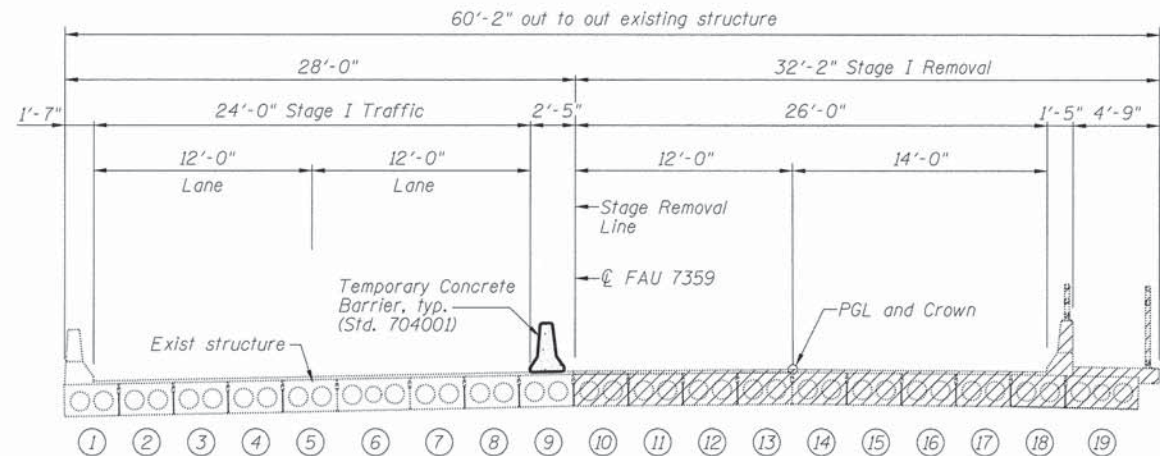
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DECATUR (217) 422-8544
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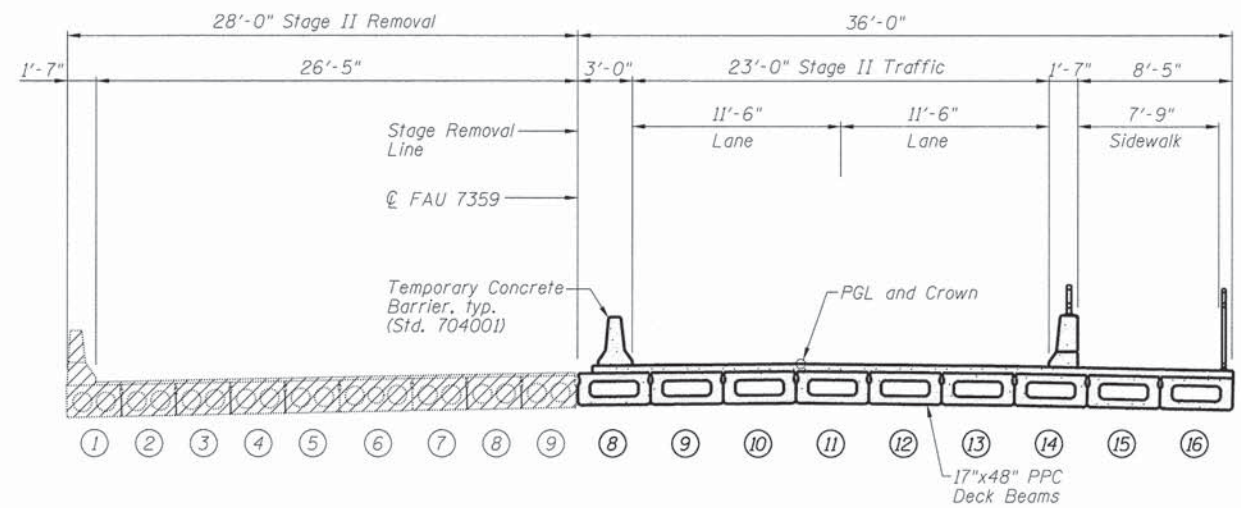
FAU 7359 (MOUND ROAD) OVER SPRING CREEK
GENERAL STRUCTURAL DATA

SCALE: SHEET NO. 2 OF 19 SHEETS STA. TO STA.

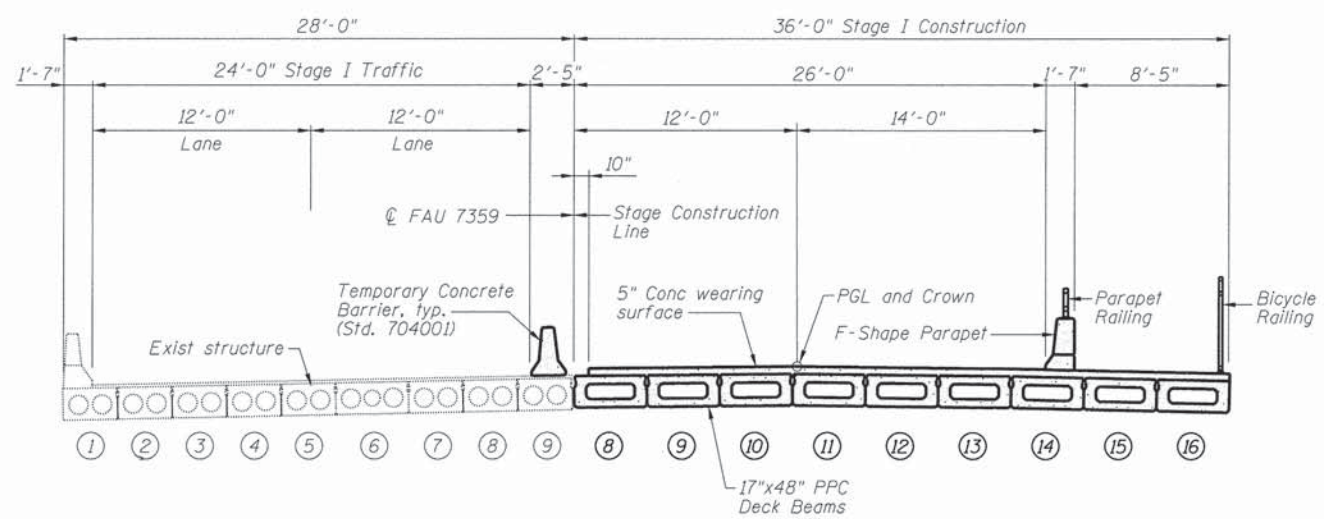
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7359	13-00325-00-BR	MACON	35	18
95184			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				



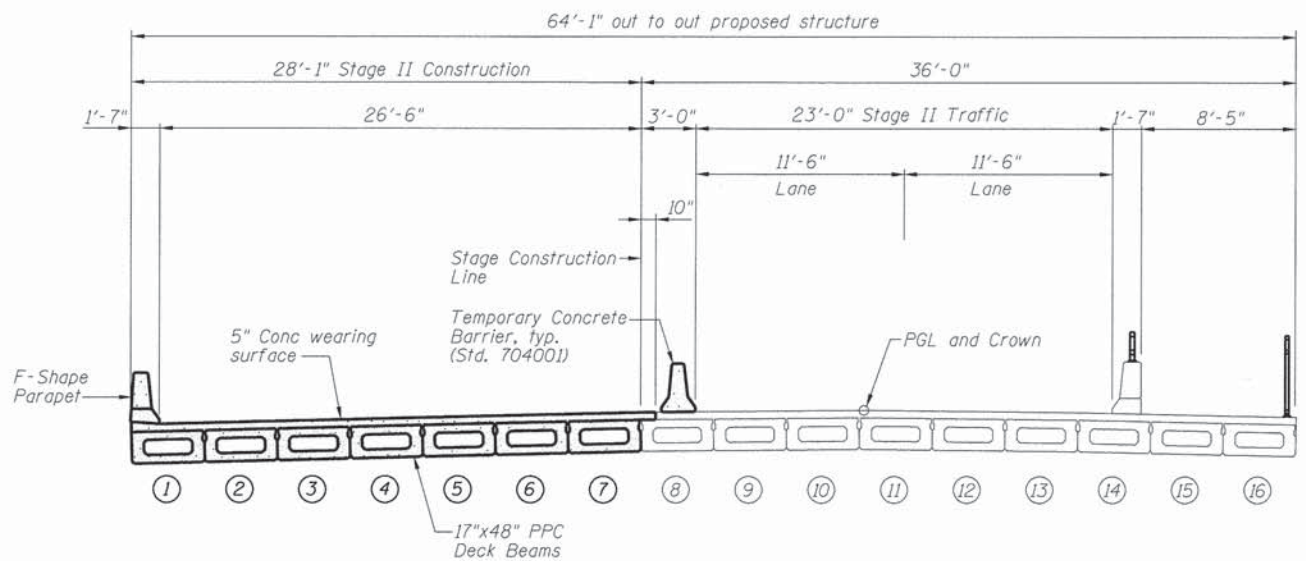
STAGE I REMOVAL
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

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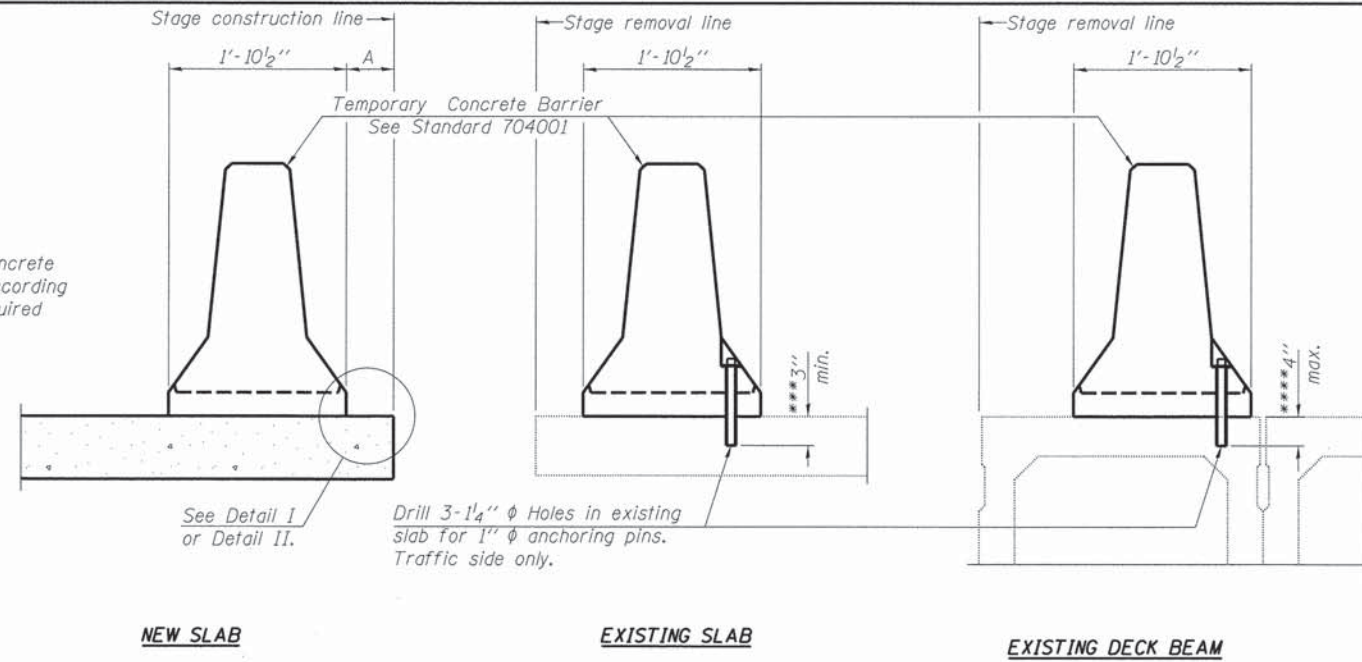
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FAU 7359 (MOUND ROAD) OVER SPRING CREEK
STAGE CONSTRUCTION DETAILS

SCALE: SHEET NO. 3 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	19
95184			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

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

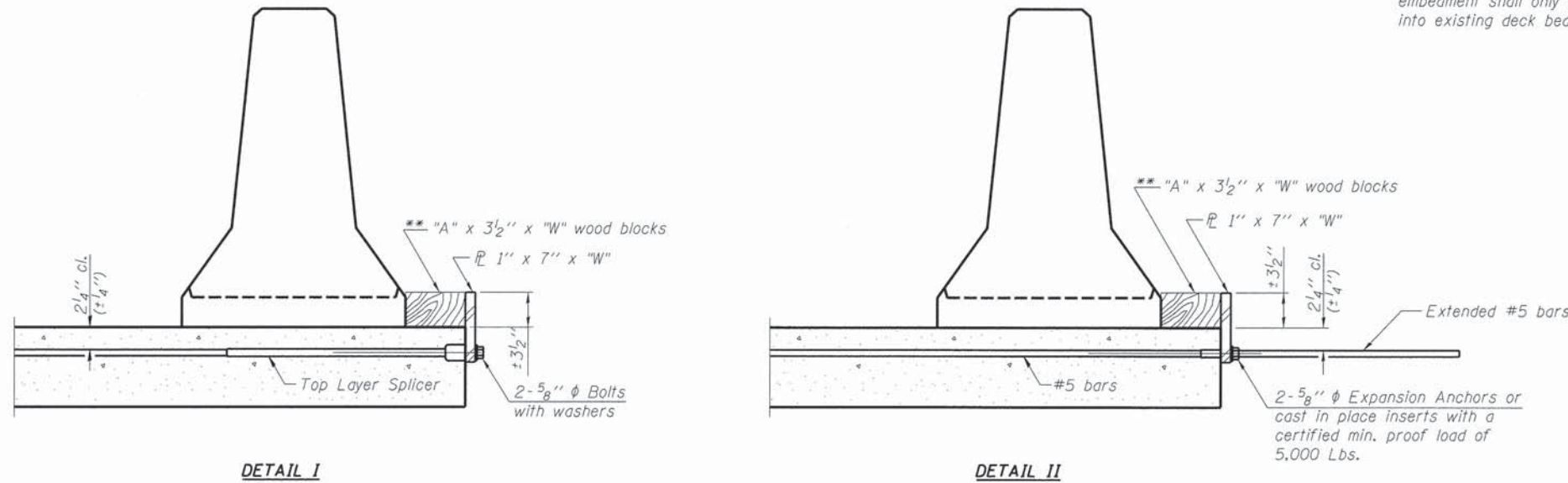
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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.

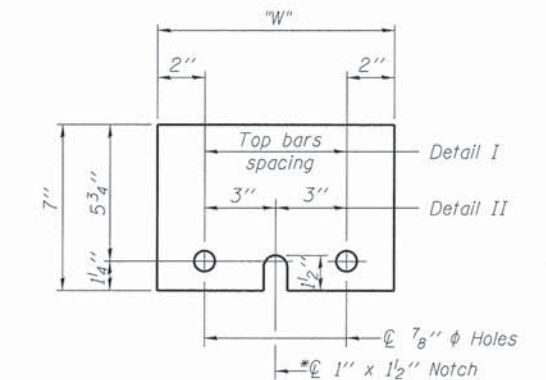
Cost of retainer assembly is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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



STEEL RETAINER PL 1" x 7" x "W"
* Required only with Detail II

** 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.

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R-27

1-12-15

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FAU 7359 (MOUND ROAD) OVER SPRING CREEK
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

SCALE: SHEET NO. 4 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	20
95184		STRUCTURE NO. 058-3037		
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+73.69	-38.50	656.37
A	198+83.69	-38.50	656.32
B	198+93.69	-38.50	656.28
E. End of W. Appr.	199+03.69	-38.50	656.23

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+72.24	-36.00	656.42
A	198+82.24	-36.00	656.38
B	198+92.24	-36.00	656.33
E. End of W. Appr.	199+02.24	-36.00	656.29

STAGE CONST JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+57.91	-11.17	657.00
A	198+67.91	-11.17	656.95
B	198+77.91	-11.17	656.91
E. End of W. Appr.	198+87.91	-11.17	656.86

PGL & CROWN

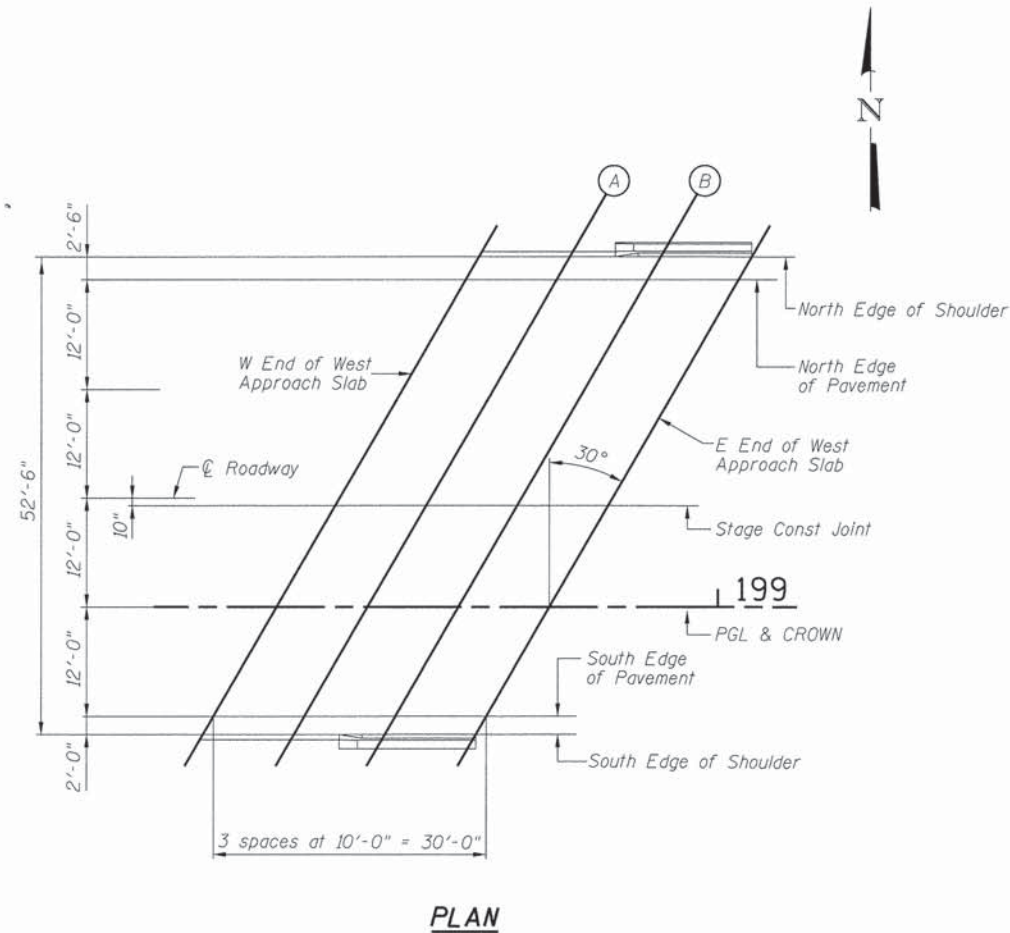
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+51.46	0.00	657.14
A	198+61.46	0.00	657.10
B	198+71.46	0.00	657.05
E. End of W. Appr.	198+81.46	0.00	657.01

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+44.53	12.00	657.05
A	198+54.53	12.00	657.00
B	198+64.53	12.00	656.96
E. End of W. Appr.	198+74.53	12.00	656.91

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	198+43.38	14.00	657.01
A	198+53.38	14.00	656.97
B	198+63.38	14.00	656.92
E. End of W. Appr.	198+73.38	14.00	656.88



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FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																					
7359	13-00325-00-BR	MACON	35	21																					
95784			STRUCTURE NO. 058-3037																						
ILLINOIS FED. AID PROJECT																									

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	200+21.29	-38.50	655.70
A	200+31.29	-38.50	655.66
B	200+41.29	-38.50	655.63
E. End of E. Apr.	200+51.29	-38.50	655.61

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	200+19.84	-36.00	655.76
A	200+29.84	-36.00	655.72
B	200+39.84	-36.00	655.69
E. End of E. Apr.	200+49.84	-36.00	655.67

STAGE CONST JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	200+05.51	-11.17	656.33
A	200+15.51	-11.17	656.29
B	200+25.51	-11.17	656.25
E. End of E. Apr.	200+35.51	-11.17	656.21

PGL & CROWN

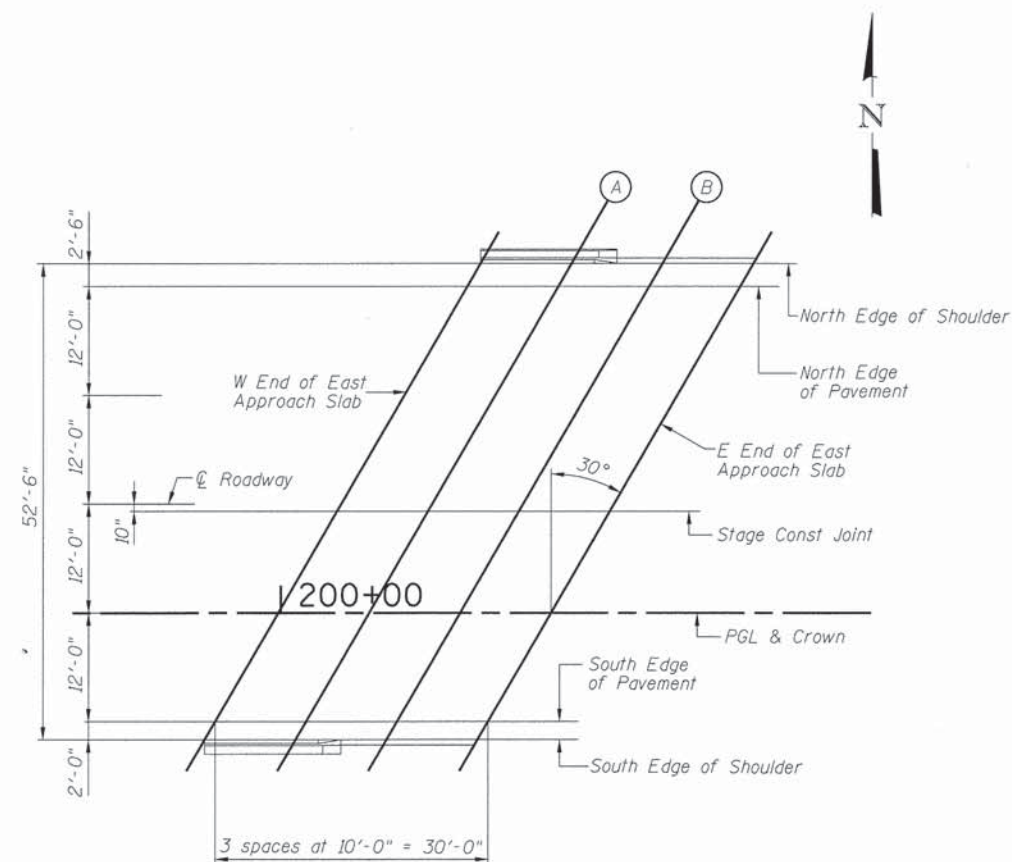
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	199+99.06	0.00	656.48
A	200+09.06	0.00	656.43
B	200+19.06	0.00	656.39
E. End of E. Apr.	200+29.06	0.00	656.35

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	199+92.13	12.00	656.39
A	200+02.13	12.00	656.34
B	200+12.13	12.00	656.30
E. End of E. Apr.	200+22.13	12.00	656.25

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Apr.	199+90.98	14.00	656.35
A	200+00.98	14.00	656.30
B	200+10.98	14.00	656.26
E. End of E. Apr.	200+20.98	14.00	656.21



PLAN

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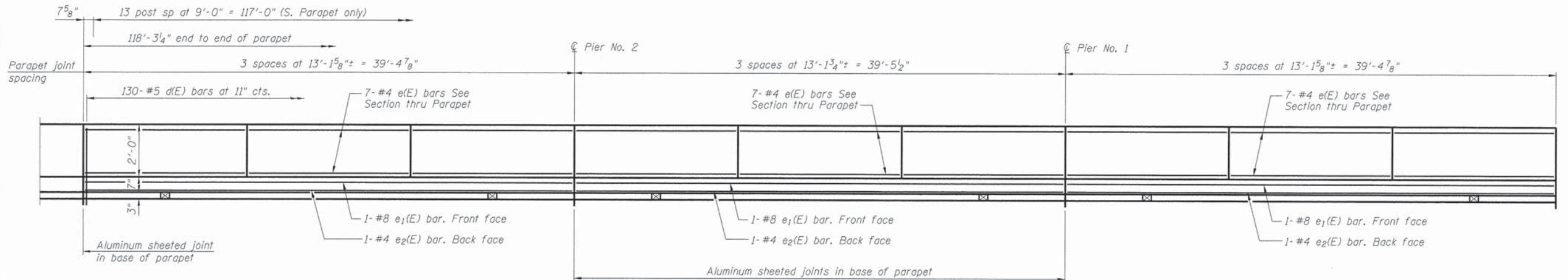
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184-001397 (815) 489-0050

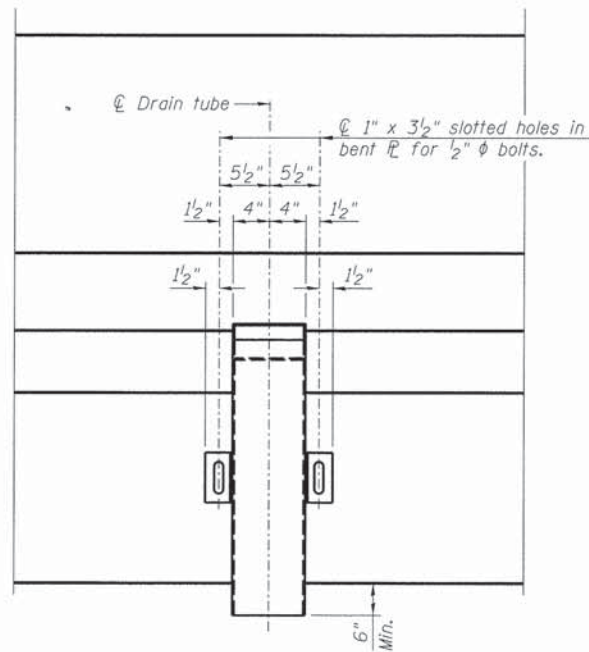
FAU 7359 (MOUND ROAD) OVER SPRING CREEK
TOP OF EAST APPROACH SLAB ELEVATIONS

SCALE: SHEET NO. 6 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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95184		STRUCTURE NO. 058-3037		
[ILLINOIS] FED. AID PROJECT				

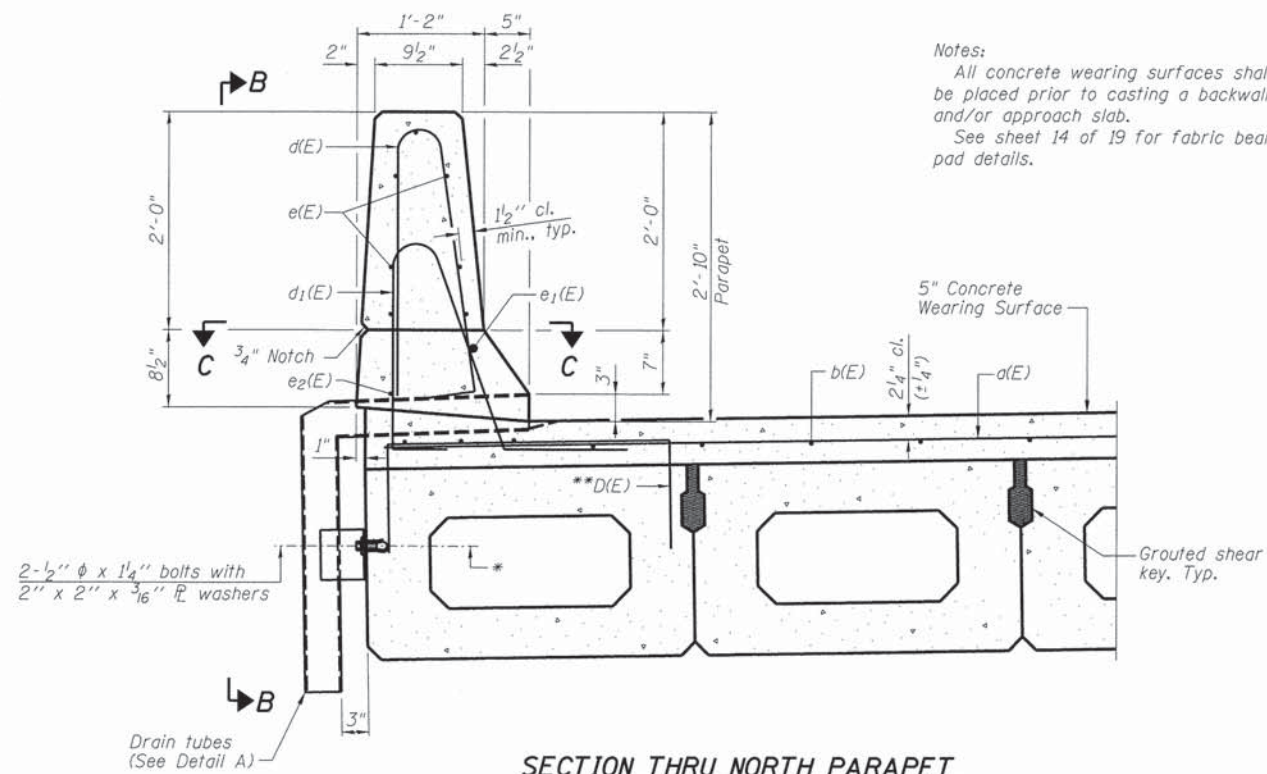


INSIDE ELEVATION OF PARAPET
(South parapet shown North parapet similar)



VIEW B-B

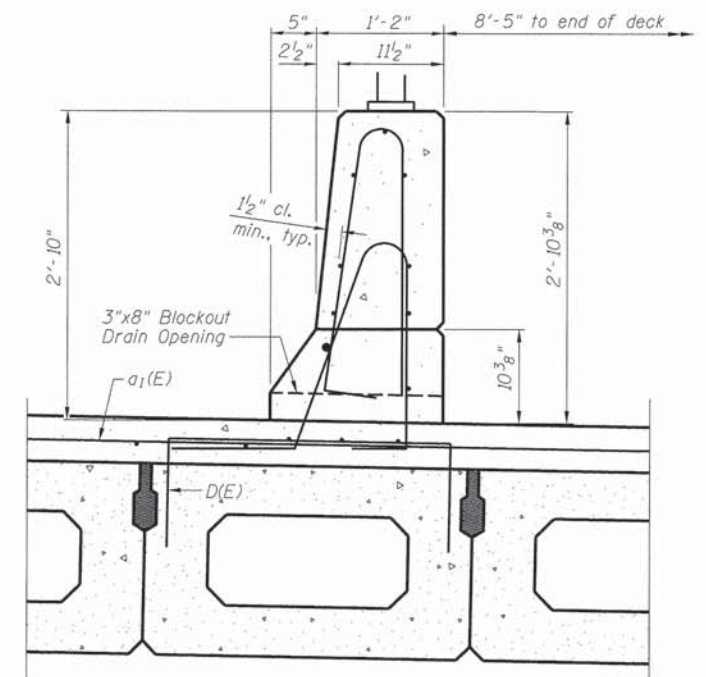
Note:
All drain tubes and accessories shall be galvanized according to AASHTO M111 or M232, (as applicable).
The cost of the drain tube assemblies and everything necessary for their installation is included with Concrete Superstructure.



SECTION THRU NORTH PARAPET

* \varnothing Loop Ferrule inserts for 1/2" \varnothing bolts. Place at \varnothing of beam depth.
** Place #4 D(E) bars at 9" cts. in fascia beam. D(E) bar included in cost of beam.
See Sheet 9 of 19 for Detail A and Section C-C.

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See sheet 14 of 19 for fabric bearing pad details.



SECTION THRU SOUTH PARAPET

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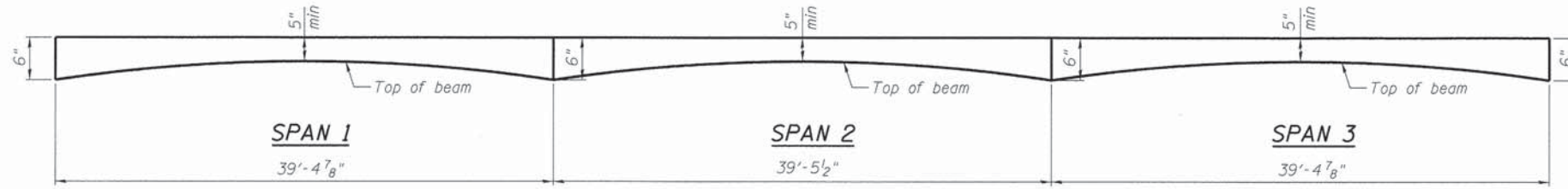
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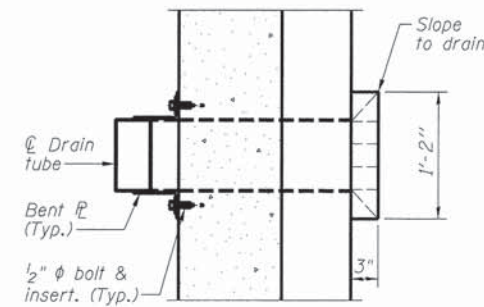
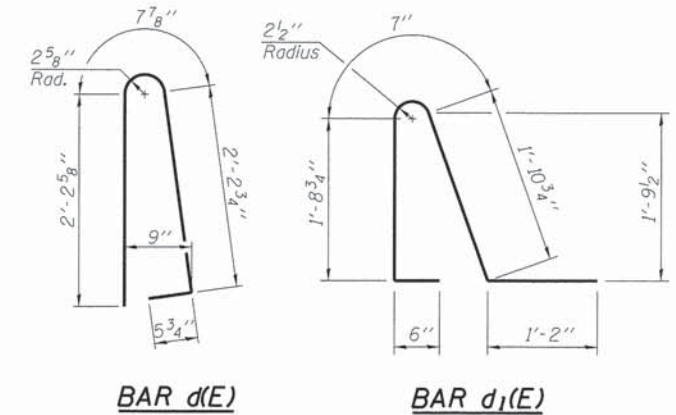
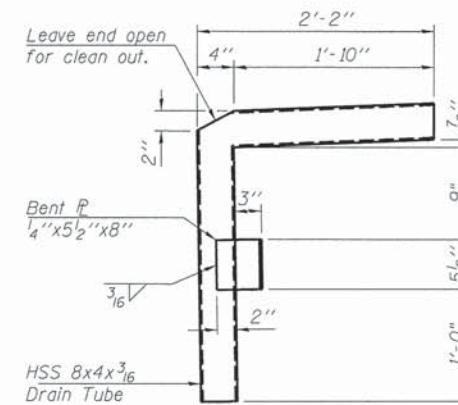
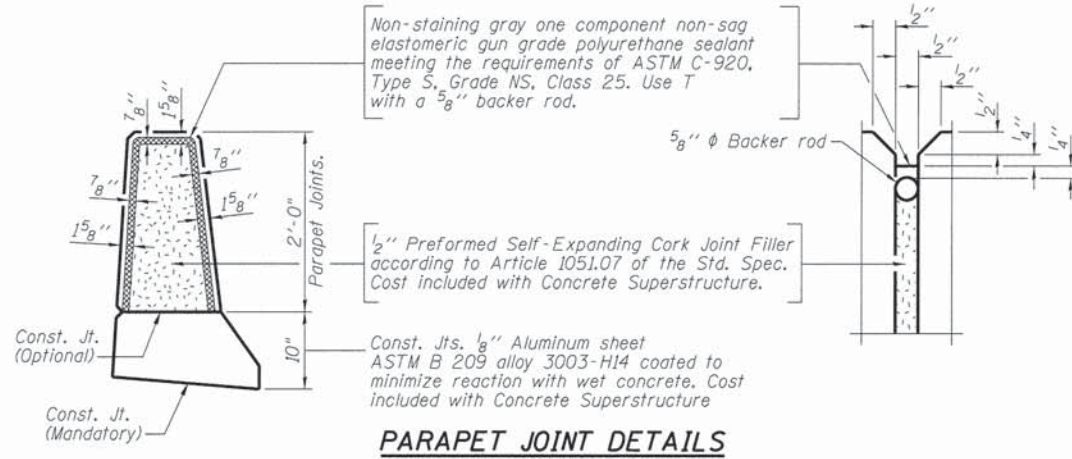
FAU 7359 (MOUND ROAD) OVER SPRING CREEK
SUPERSTRUCTURE DETAILS

SCALE: SHEET NO. 8 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	24
95184			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				



ANTICIPATED CONCRETE WEARING SURFACE PROFILE
(For information only)



**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	119	#4	32'-11"	—
d1(E)	119	#4	40'-3"	—
b(E)	276	#4	31'-6"	—
d(E)	260	#5	5'-7"	⌒
d1(E)	260	#5	5'-11"	⌒
e(E)	126	#4	12'-10"	—
e1(E)	6	#8	39'-1"	—
e2(E)	6	#4	39'-1"	—
Bar Splicers	Each	119		
Reinforcement Bars, Epoxy Coated	Pound	15,840		
Concrete Superstructure	Cu. Yd.	26.3		
Concrete Wearing Surface, 5"	Sq. Yd.	842		
Bridge Deck Grooving	Sq. Yd.	664		
Protective Coat	Sq. Yd.	903		
Floor Drains	Each	6		

Bars indicated thus 1 x 2 - #4 etc. indicates 1 line of bars with 2 lengths per line.

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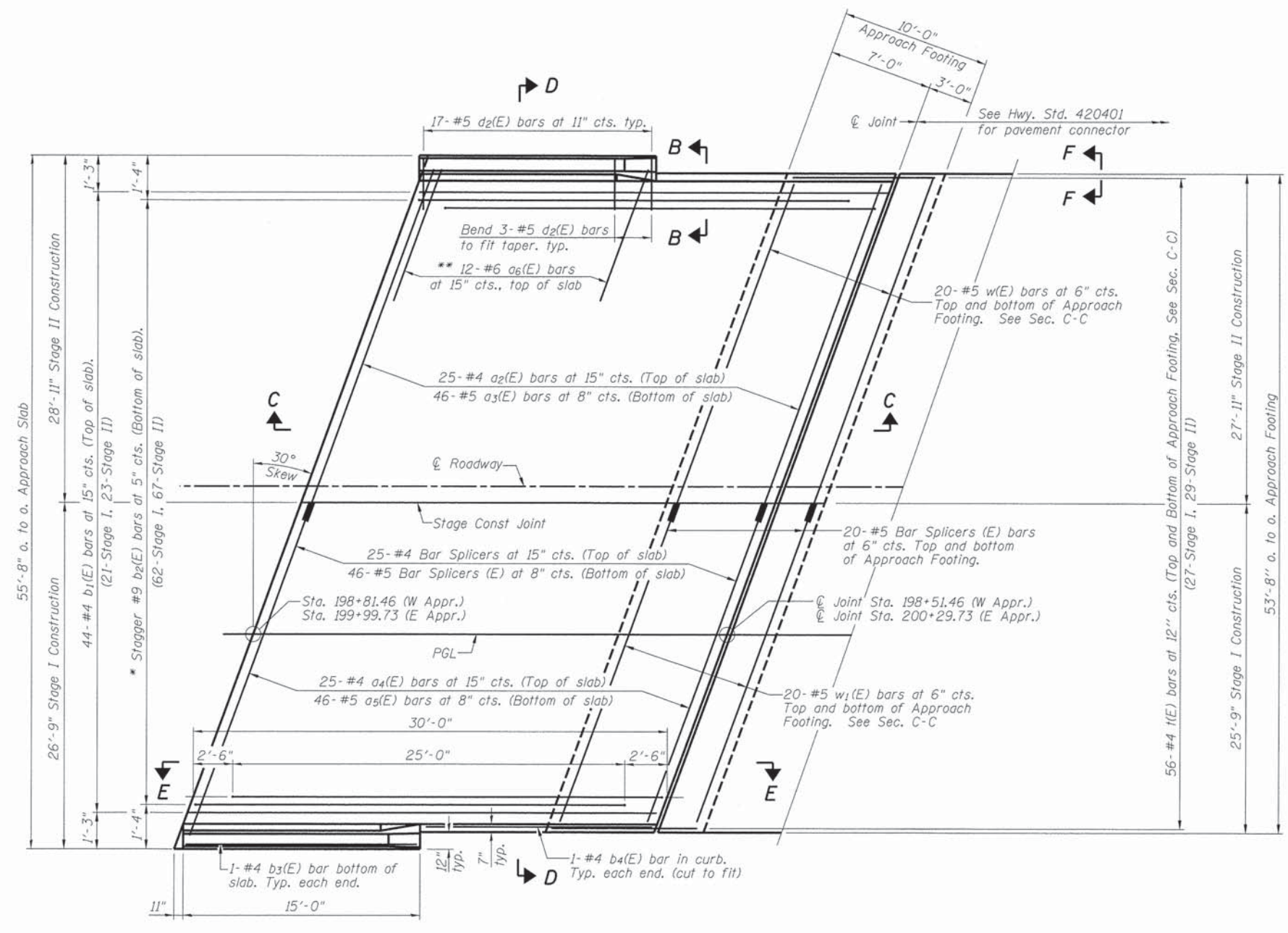
**FAU 7359 (MOUND ROAD) OVER SPRING CREEK
SUPERSTRUCTURE DETAILS**

SCALE: SHEET NO. 9 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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95184			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

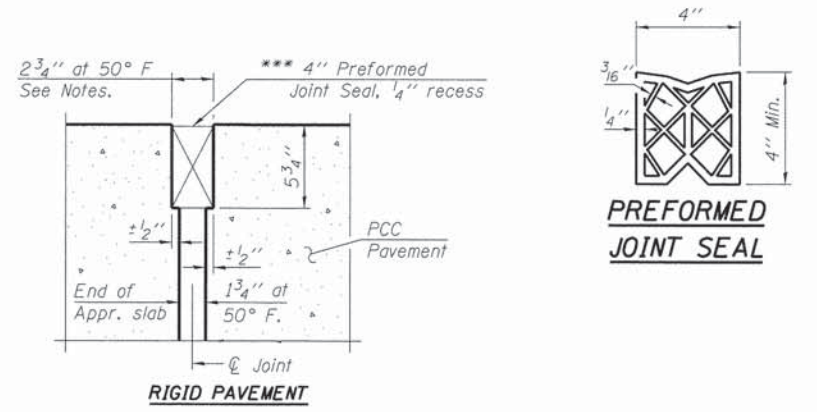
Notes:
 See sheet 11 of 19 for Sections C-C & D-D and View E-E.
 $a_2(E)$ thru $a_5(E)$ bar spacings measured along ϕ Rdwy.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$ " for installation purposes.

*** Cost included with Concrete Superstructure.

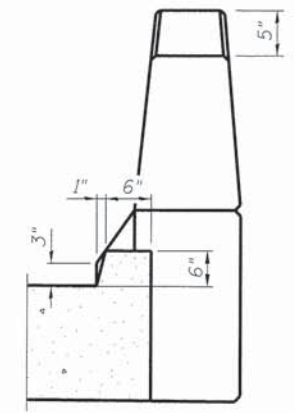


PLAN

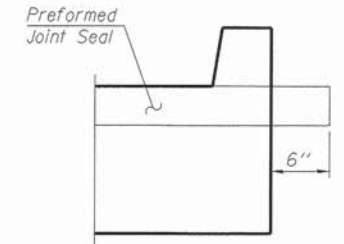
* Tilt #9 $b_2(E)$ bars as required to maintain clearance.
 ** Space between $a_2(E)$ and $a_4(E)$ bars, typ. each parapet.



DETAIL A



VIEW B-B



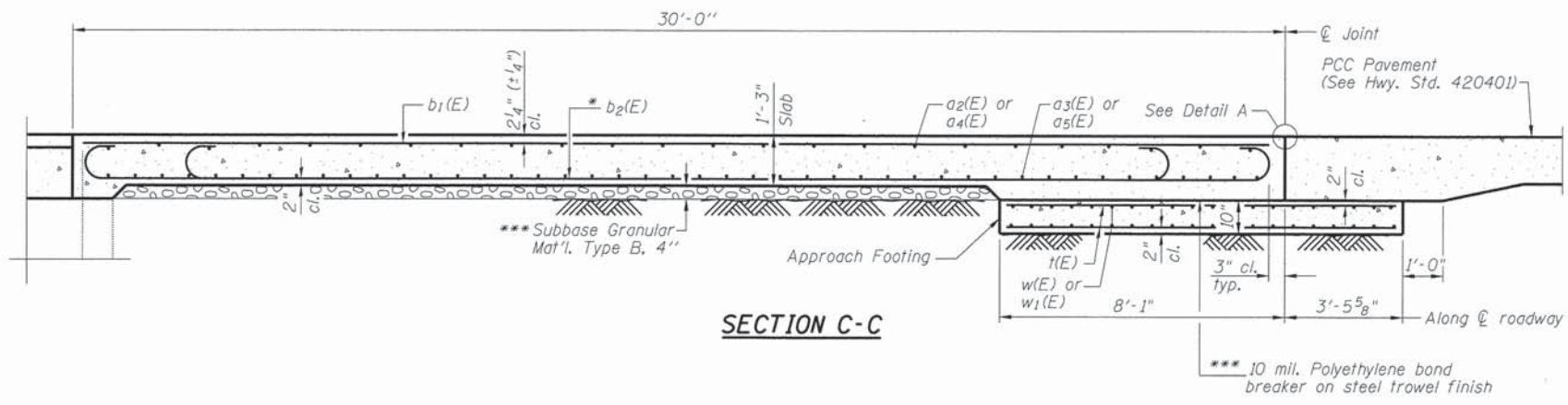
VIEW F-F

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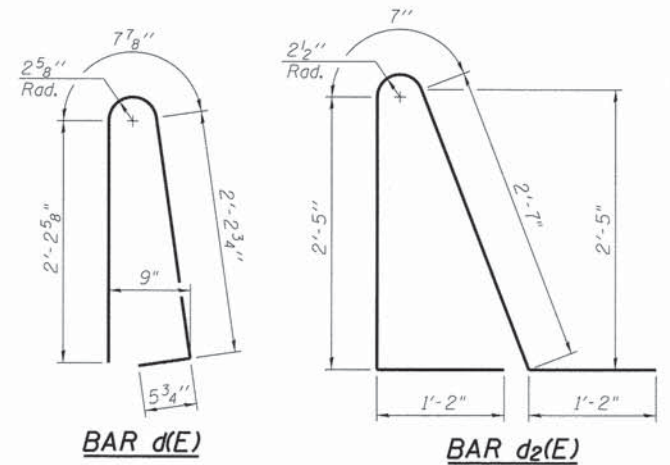
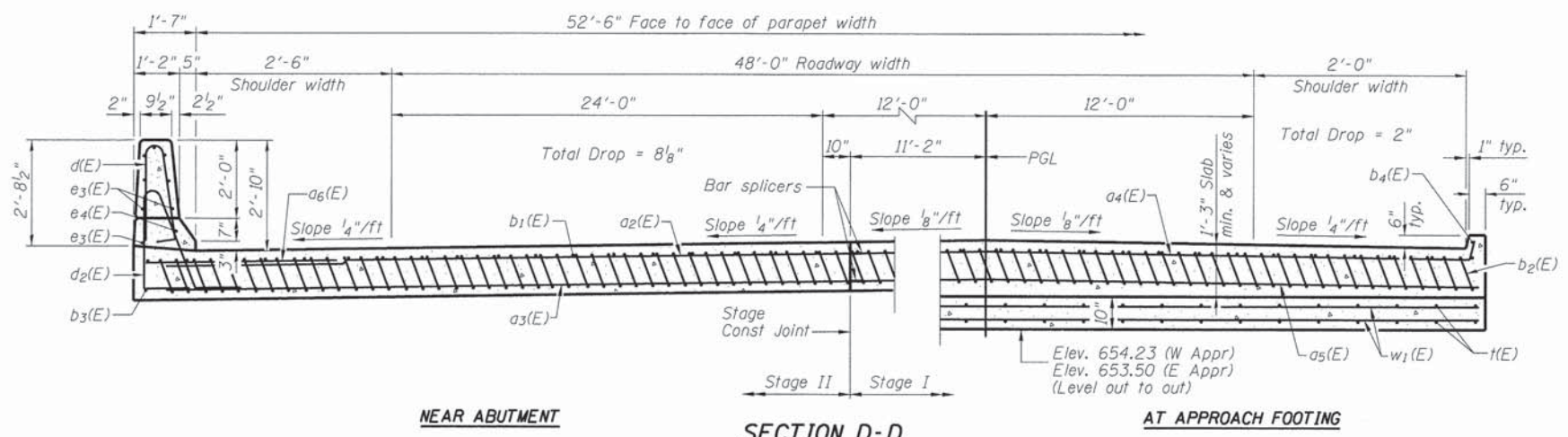
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(Sheet 1 of 2)

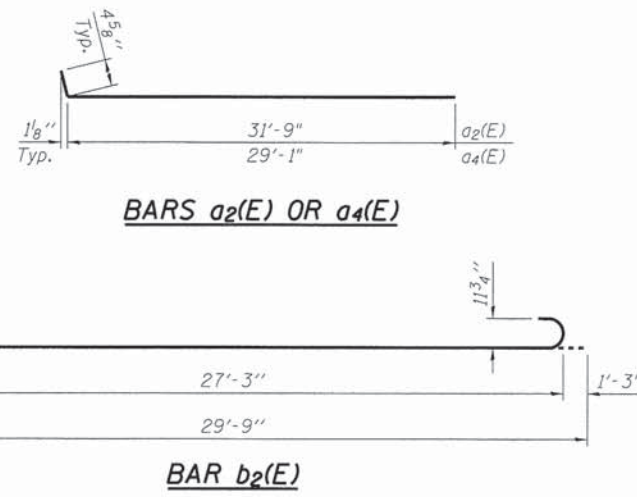
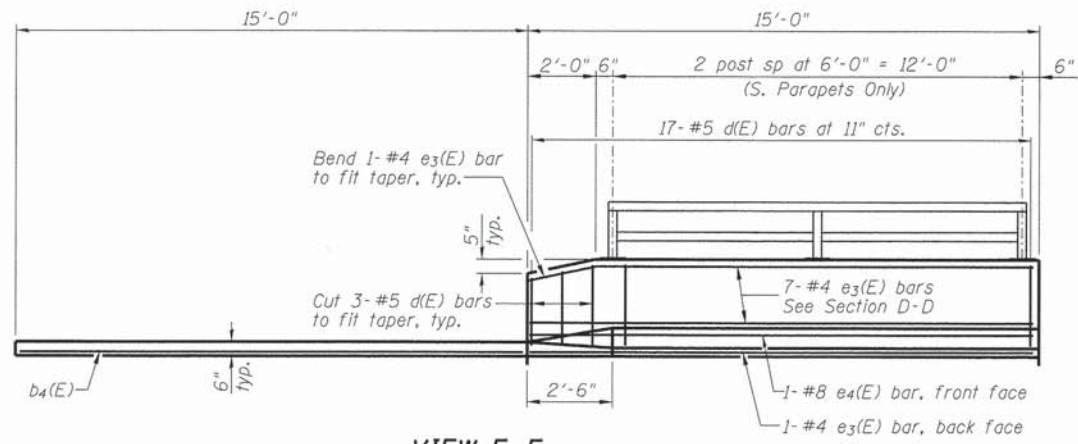
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PLOT TIME = 9:26:37 AM	DRAWN RLK	REVISED -					7359	13-00325-00-BR	MACON	35	26
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PLOT DATE = 2/12/2016	DATE 10/17/14	REVISED -					ILLINOIS FED. AID PROJECT				



Notes:
 See sheet 10 of 19 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.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 19 of 19.
 Cost of excavation for approach footing included with Concrete Structures.
 For additional parapet details, see sheet 8 of 19.



* Tilt #9 b2(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



**TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a2(E)	50	#4	32'-2"	—
a3(E)	92	#5	31'-11"	—
a4(E)	50	#4	29'-6"	—
a5(E)	92	#5	29'-3"	—
a6(E)	48	#6	6'-6"	—
b1(E)	88	#4	29'-8"	—
b2(E)	258	#9	29'-9"	U
b3(E)	4	#4	14'-8"	—
b4(E)	4	#4	14'-11"	—
d(E)	68	#5	5'-7"	U
d2(E)	68	#5	7'-11"	U
e3(E)	32	#4	14'-8"	—
e4(E)	4	#8	14'-8"	—
t(E)	224	#4	11'-2'	—
w(E)	80	#5	31'-11"	—
w1(E)	80	#5	29'-3"	—
Bar Splicers		Each	222	
Concrete Superstructure		Cu. Yd.	173.6	
Concrete Structures		Cu. Yd.	38.3	
Reinforcement Bars, Epoxy Coated		Pound	44,120	
Bridge Deck Grooving		Sq. Yd.	336	
Protective Coat		Sq. Yd.	440	

BA-L 12-12-12

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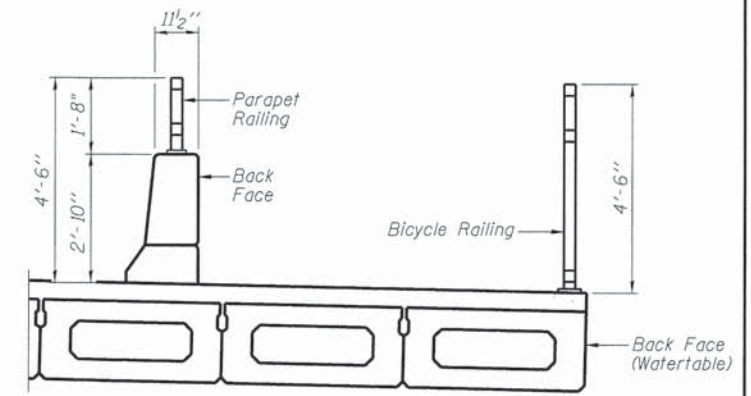
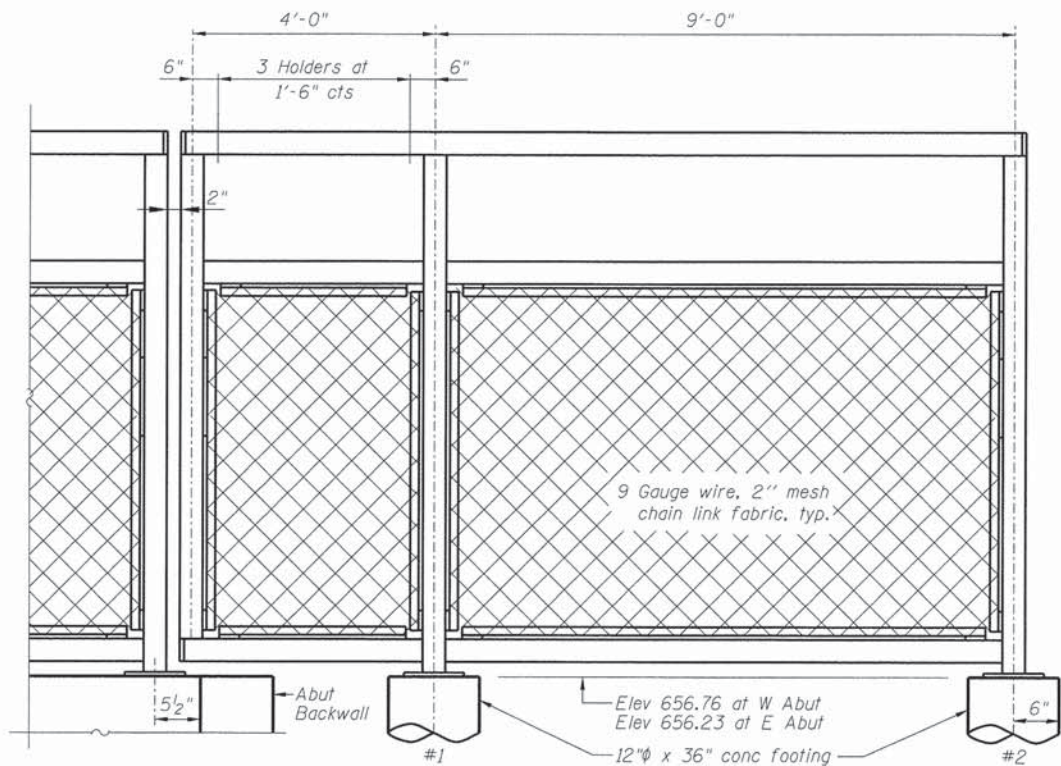
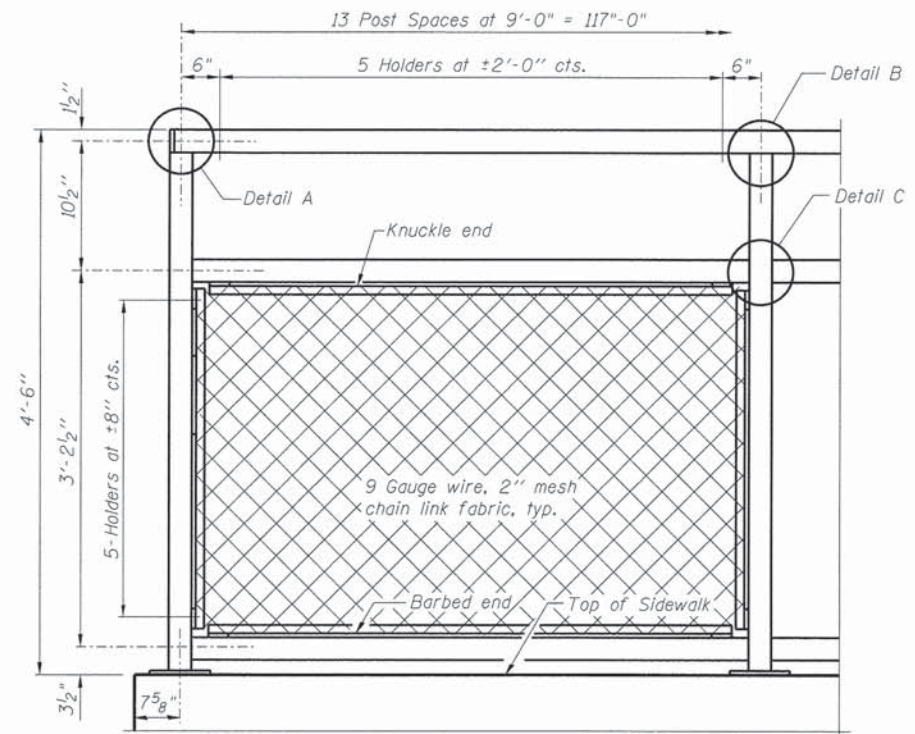
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 (217) 422-8544
 184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
 BRIDGE APPROACH SLAB DETAILS
 SCALE: SHEET NO. 11 OF 19 SHEETS STA. TO STA.

FAU 7359	SECTION 13-00325-00-BR	COUNTY MACON	TOTAL SHEETS 35	SHEET NO. 27
95784			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

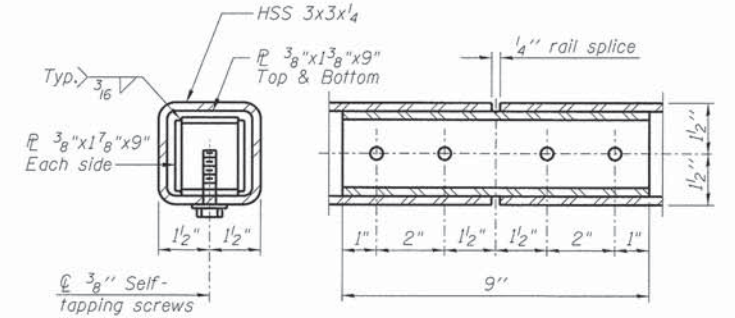
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(Sheet 2 of 2)

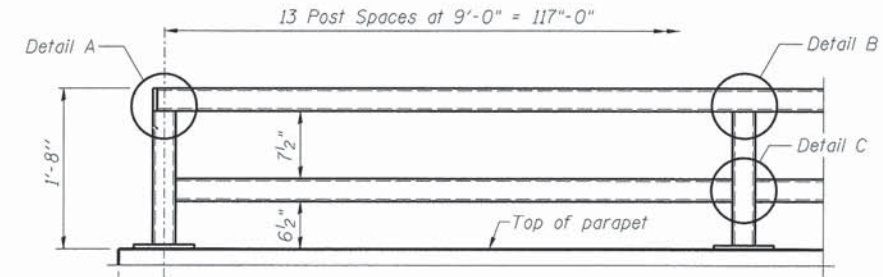


SECTION THRU DECK

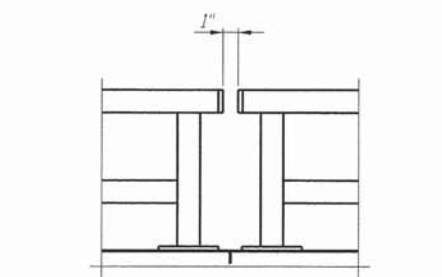
BICYCLE RAILING



RAIL SPLICE



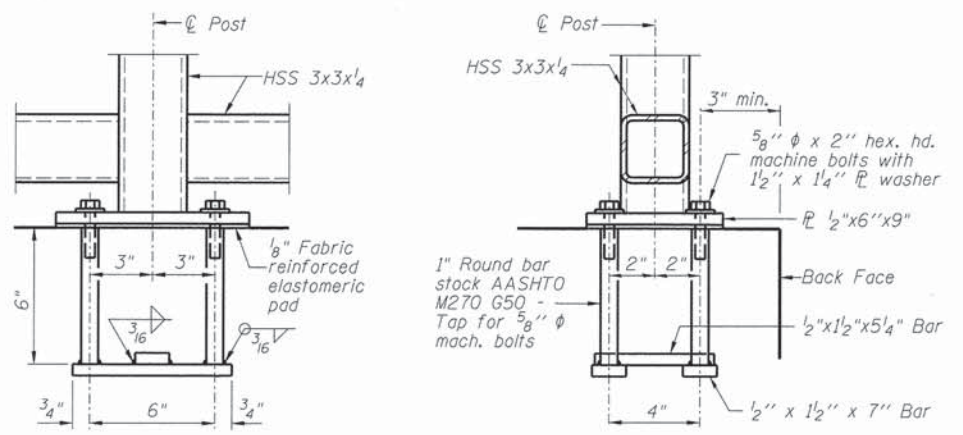
PARAPET RAILING ELEVATION
(Inside Face of Two Element Rail)



PARAPET RAILING ELEVATION AT BRIDGE AND APPROACH

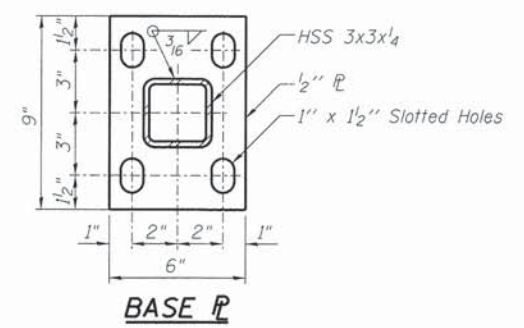
FOOTING LOCATION

Description	Station	Offset
W Abut #1	198+64.17	23.97' Rt
W Abut #2	198+55.23	25.00' Rt
E Abut #1	199+89.95	23.97' Rt
E Abut #2	199+98.90	25.00' Rt

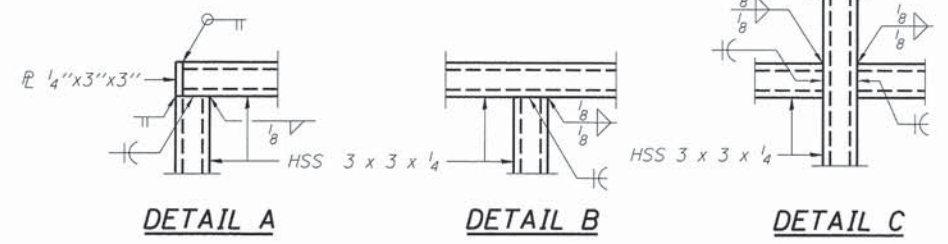


ANCHOR BOLT DETAILS

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



BASE PL



DETAIL A

DETAIL B

DETAIL C

Note:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
Footings for bicycle railing end panels shall be included in cost of Bicycle Railing, Special.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing, Special	Foot	143
Parapet Railing	Foot	141

(10'-0" Maximum Post Spacing)

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PLOT DATE = 2/12/2016	DATE 10/17/14	REVISED -

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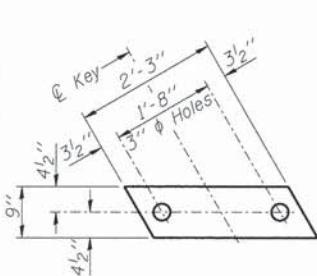
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FAU 7359 (MOUND ROAD) OVER SPRING CREEK
BICYCLE RAILING

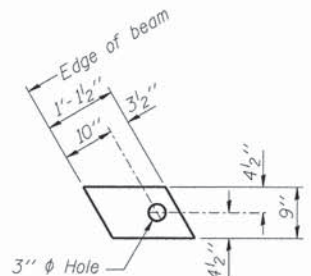
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FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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95784			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

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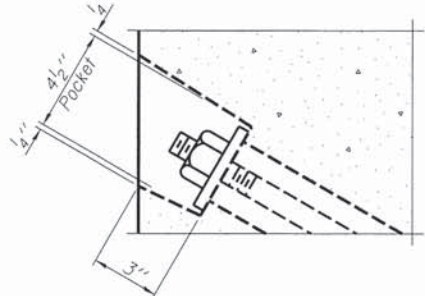
FABRIC BEARING PAD
(Interior)



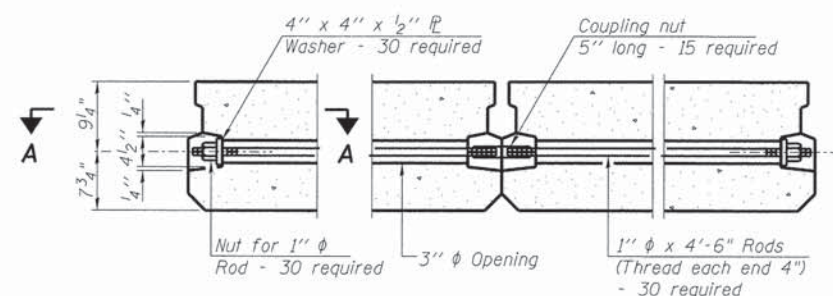
FABRIC BEARING PAD
(Exterior)

FIXED

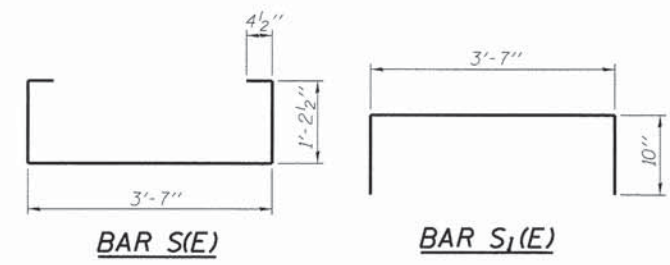
Notes:
All bearing pads shall be 1" thick.



SECTION A-A

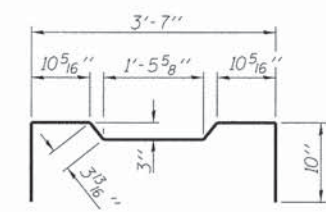


TYPICAL TRANSVERSE TIE ASSEMBLY

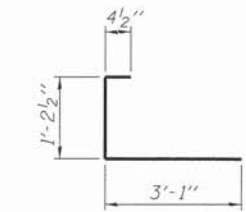


BAR S1(E)

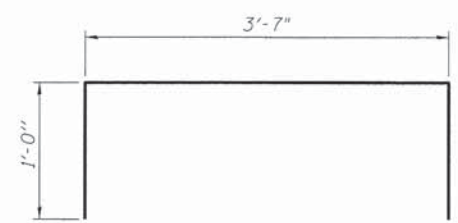
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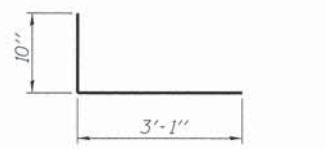
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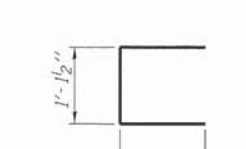
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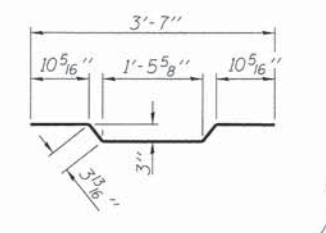
BAR D1(E)



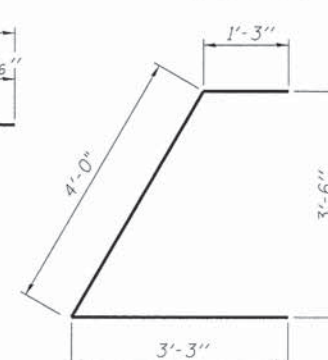
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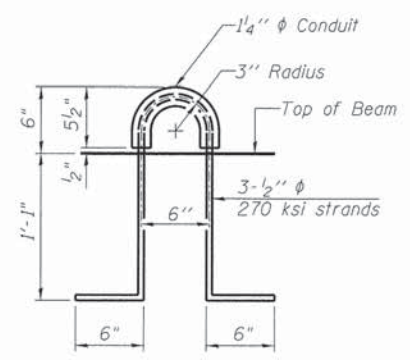
BAR U1(E)



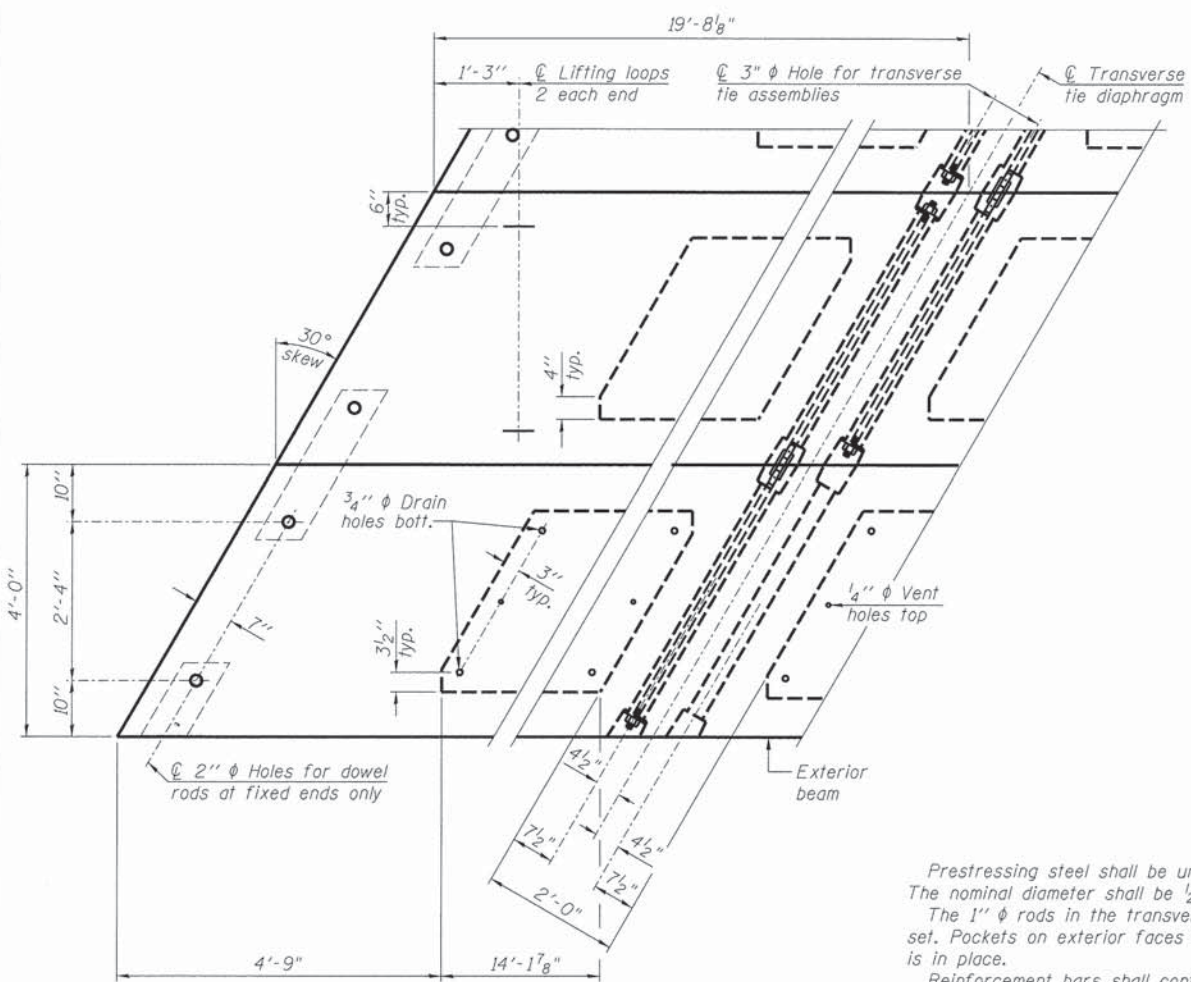
BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	7556
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PD-1748-LD

7-1-10

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PLOT SCALE = 1:8000 @ 1/8" = 1'	CHECKED ACB	REVISED -
PLOT DATE = 2/12/2016	DATE 10/17/14	REVISED -

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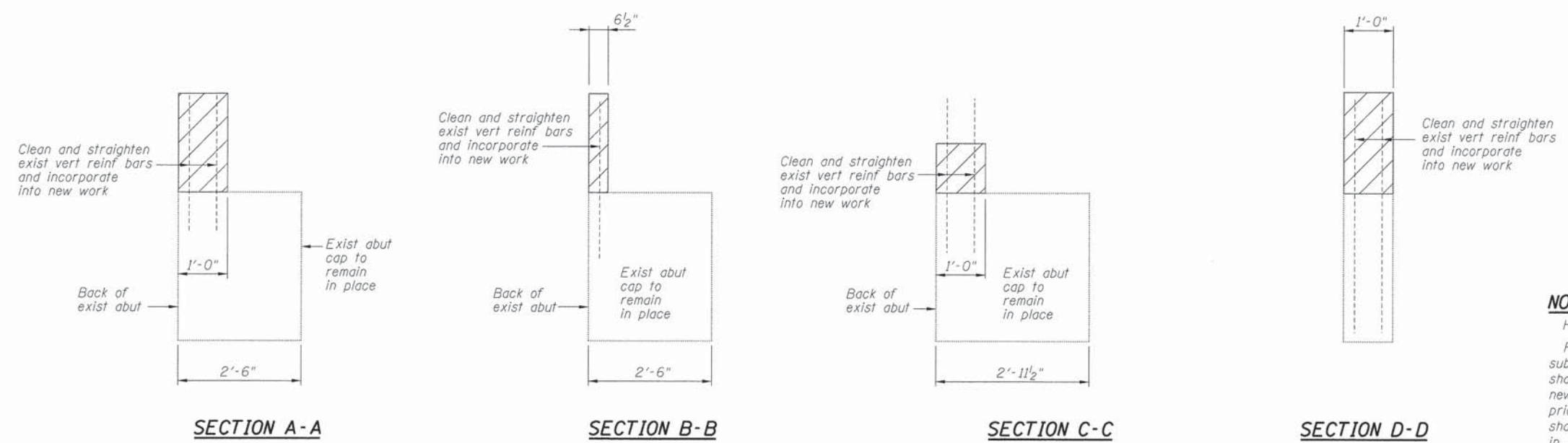
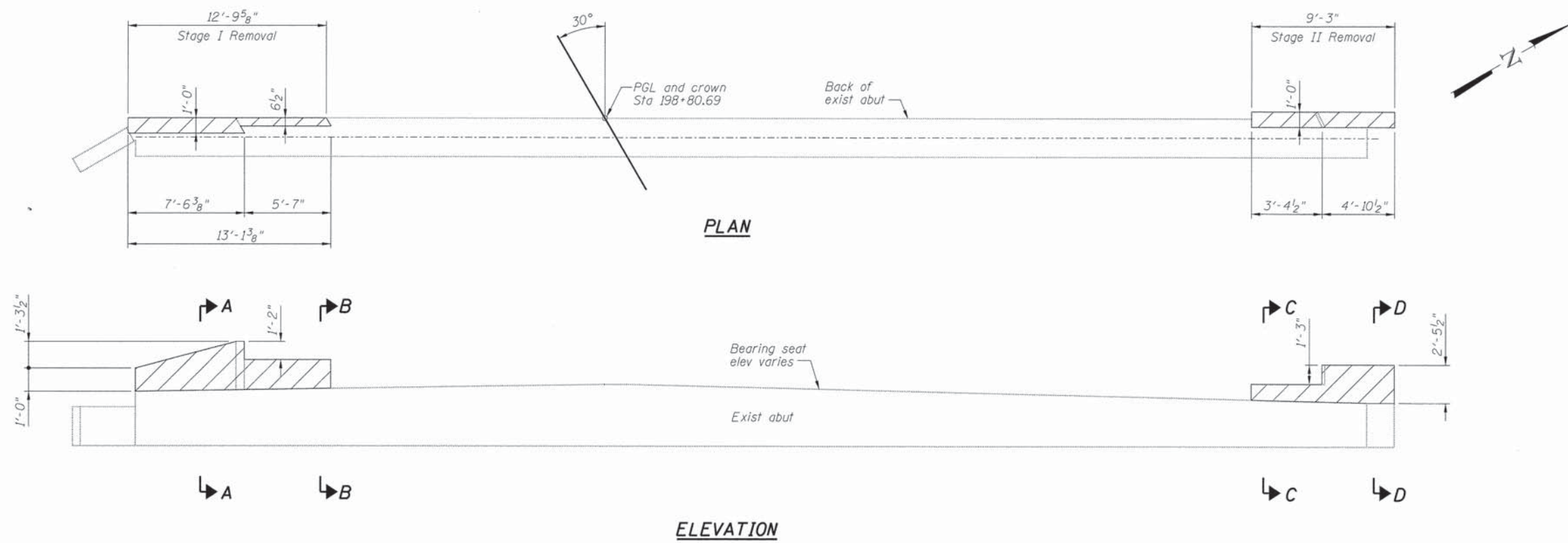
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184-001397

FAU 7359 (MOUND ROAD) OVER SPRING CREEK
17" x 48" PPC DECK BEAM DETAILS

SCALE: SHEET NO. 14 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	30
95784		STRUCTURE NO. 058-3037		
ILLINOIS FED. AID PROJECT				

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NOTES
 Hatched areas indicate Concrete Removal.
 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.

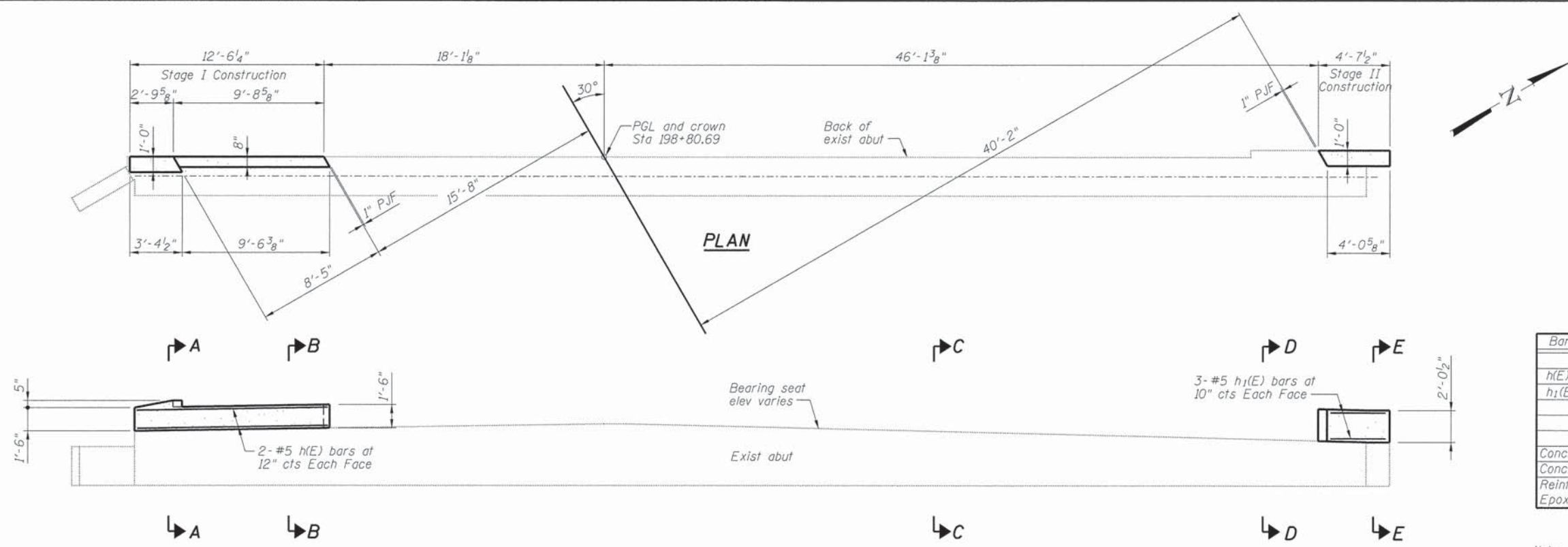
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FAU 7359 (MOUND ROAD) OVER SPRING CREEK
WEST ABUTMENT CONCRETE REMOVAL
 SCALE: SHEET NO. 15 OF 19 SHEETS STA. TO STA.

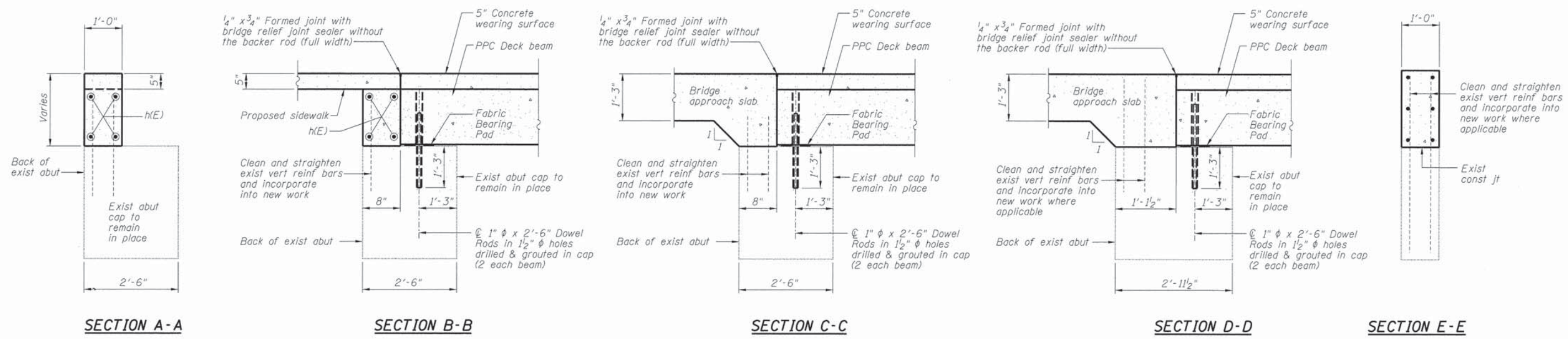
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7359	13-00325-00-BR	MACON	35	31
95134			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#5	12'-6"	—
h1(E)	6	#5	4'-1"	—
Concrete Removal		Cu. Yd.		1.1
Concrete Structures		Cu. Yd.		0.9
Reinforcement Bars, Epoxy Coated		Pound		50

Note:
If existing reinforcement bars are damaged or not able to be re-used, new #5 bars shall be drilled and grouted into abutment cap with 10" min embedment. New bars shall reach mid depth of approach slab and have 90° hook with 12" hook length.



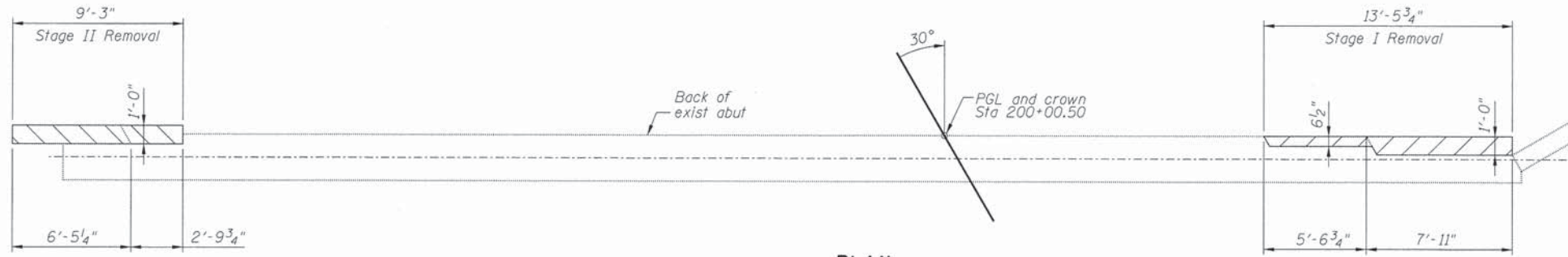
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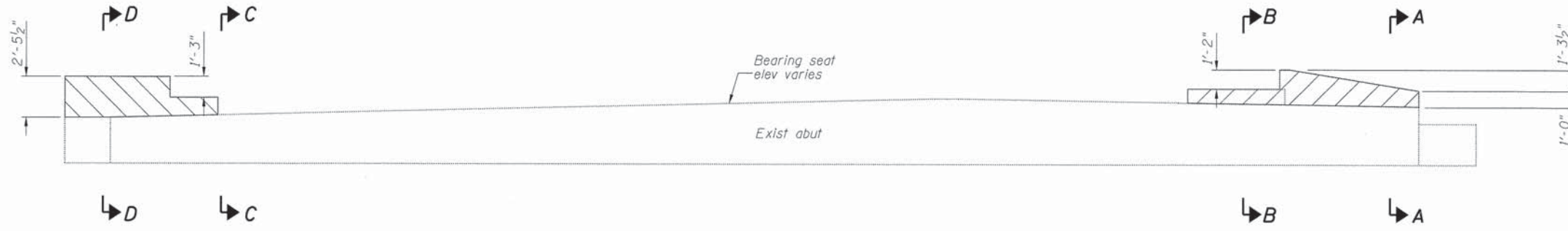
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(815) 489-0050
184-001397

**FAU 7359 (MOUND ROAD) OVER SPRING CREEK
WEST ABUTMENT REPAIRS**
SCALE: SHEET NO. 16 OF 19 SHEETS STA. TO STA.

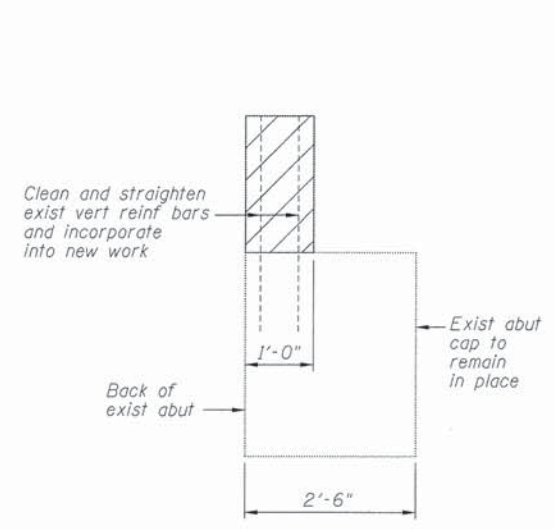
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ILLINOIS FED. AID PROJECT				



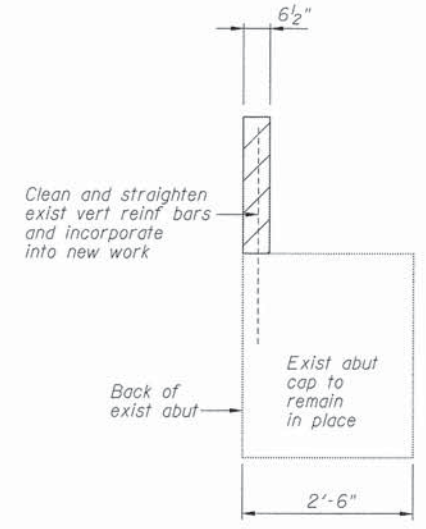
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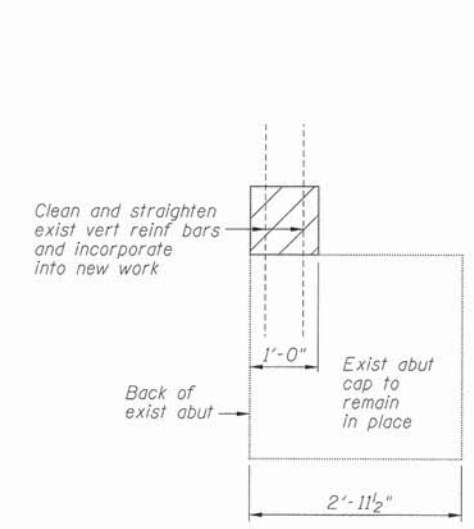
ELEVATION



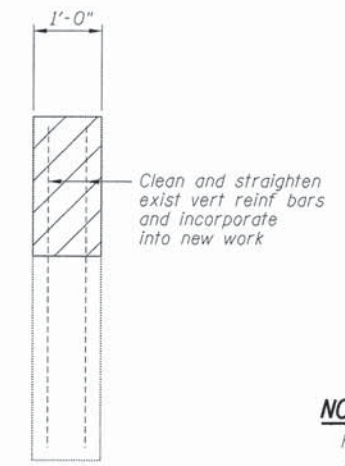
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

Hatched areas indicate Concrete Removal.
 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.

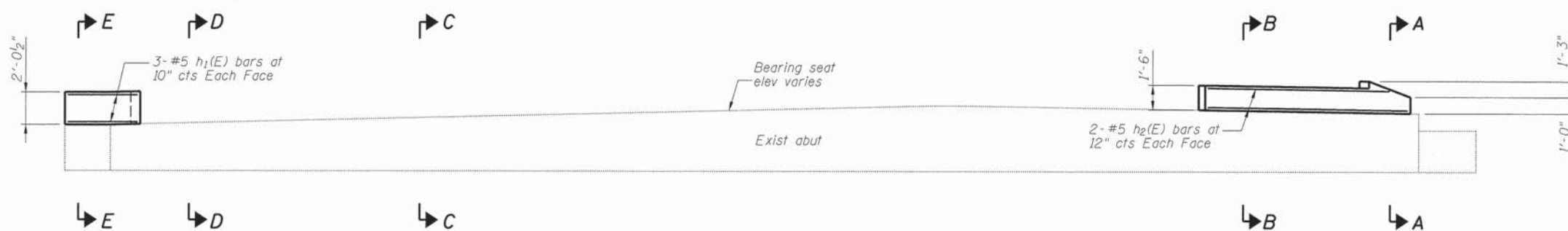
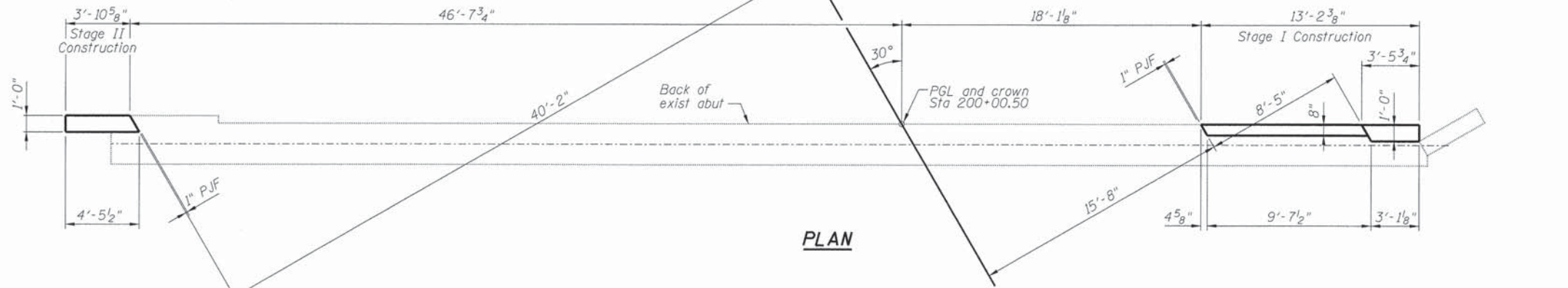
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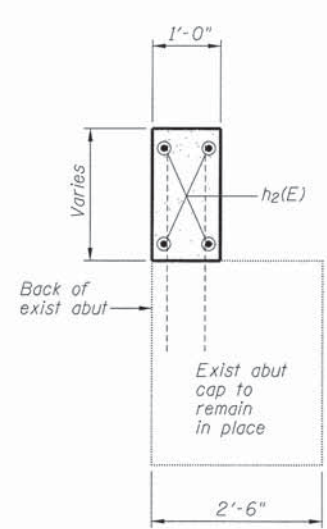
FAU 7359 (MOUND ROAD) OVER SPRING CREEK
EAST ABUTMENT CONCRETE REMOVAL
 SCALE: SHEET NO. 17 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	33
95184			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

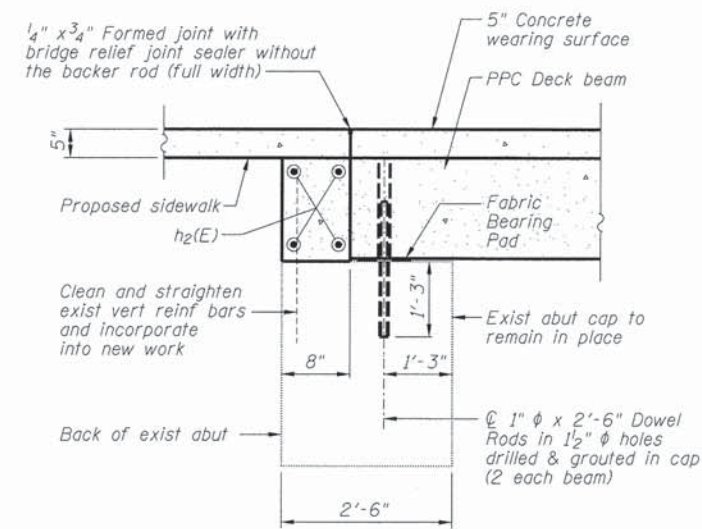


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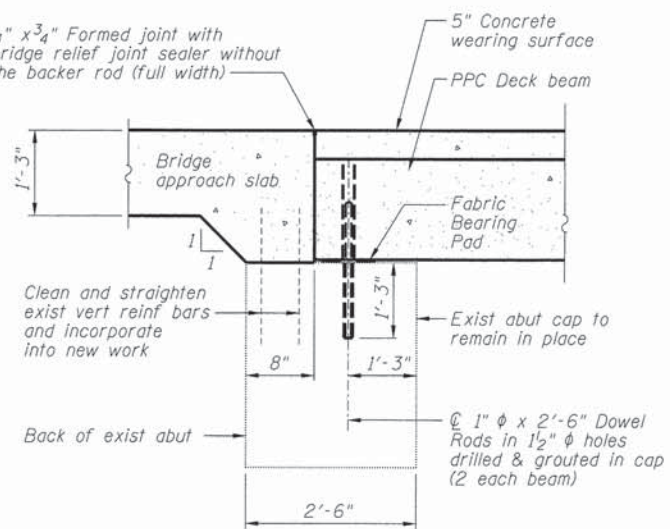
Bar	No.	Size	Length	Shape	
h1(E)	6	#5	4'-1"	—	
h2(E)	4	#5	12'-0"	—	
Concrete Removal				Cu. Yd.	1.1
Concrete Structures				Cu. Yd.	0.9
Reinforcement Bars, Epoxy Coated				Pound	50



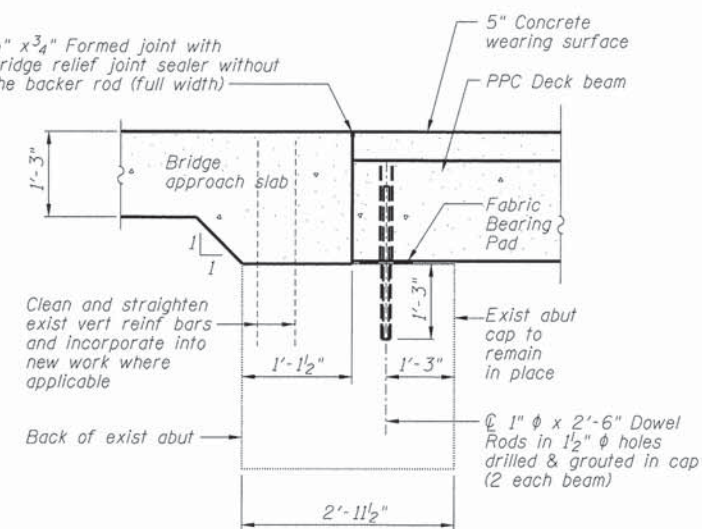
SECTION A-A



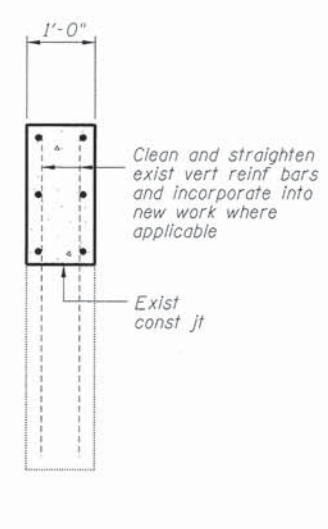
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

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**FAU 7359 (MOUND ROAD) OVER SPRING CREEK
EAST ABUTMENT REPAIRS**
SCALE: SHEET NO. 18 OF 19 SHEETS STA. TO STA.

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7359	13-00325-00-BR	MACON	35	34
95784			STRUCTURE NO. 058-3037	
ILLINOIS FED. AID PROJECT				

