11-21-14 LETTING ITEM 118

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	1
	ILLINOIS	CONTRACT NO. 85614		

INDEX OF SHEETS

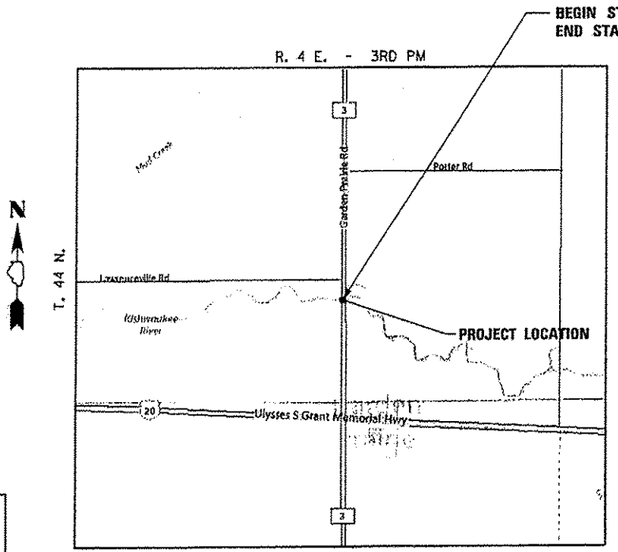
LIST OF STANDARDS

280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 SPL GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER REPLACEMENT
667101-02	PERMANENT SURVEY MARKERS
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-03	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS
780001-04	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
BRIDGE REPLACEMENT
FAS ROUTE 1030 (GARDEN PRAIRIE ROAD)
over KISHWAUKEE RIVER

SECTION 12-00091-00-BR
BOONE COUNTY
PROJECT BRS-1030(102)
JOB #C-92-040-14



PROPOSED IMPROVEMENTS:

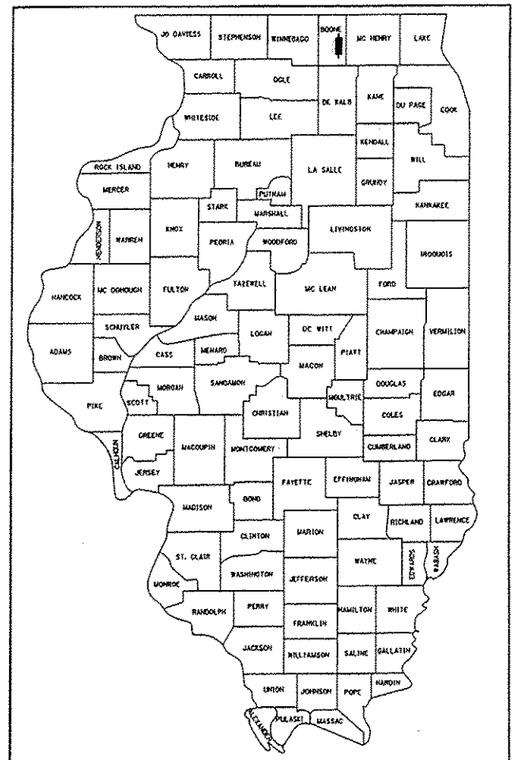
REMOVAL AND REPLACEMENT OF THREE-SPAN STEEL BEAM AND CONCRETE DECK BRIDGE CARRYING FAS RT. 1030 (GARDEN PRAIRIE RD.) OVER KISHWAUKEE RIVER AT STA. 28+35. NEW BRIDGE CONSISTS OF TWO-SPAN STEEL PLATE GIRDER AND CONCRETE DECK BRIDGE.

TRAFFIC DATA:

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (RURAL)
2014 ADT : 2800 (5% TRUCKS)
DESIGN SPEED : 55 MPH

PLAN SHEET SCALES: HORIZ. = 20, VERT. = 5

CROSS SECTION SHT. SCALES: HORIZ. = 10, VERT. = 1



LOCATION OF SECTION INDICATED THUS:-

LOCATION MAP

2000 0 2000 4000
SCALE IN FEET

NET LENGTH = 470 FEET (0.09 MILES)

UTILITY NOTE

THE LOCATIONS OF THOSE BURIED AND ABOVEGROUND UTILITIES SHOWN ARE APPROXIMATE, ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVEGROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED AMONG THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS, ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

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

KEVIN C. BUNGE
062-045735
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
SIGNATURE
8/29/14
DATE
LIC. EXP. DATE 11/30/15

THE P.E. SEAL PROVIDED ABOVE PERTAINS TO THE DESIGN, DETAILS AND INFORMATION SHOWN ON SHEETS 3 THRU 6 AND 24 THRU 27, WHICH WERE PROVIDED BY CIVIL ENGINEERING SERVICES INC.

STUART M. KEMP
062-044427
REGISTERED PROFESSIONAL ENGINEER
OF ILLINOIS
SIGNATURE
8/29/14
DATE
LIC. EXP. DATE 11/30/15

HANSON
HANSON PROFESSIONAL SERVICES INC.
6776 FINCHAM DRIVE
ROCKFORD, IL 61108-3001

ILLINOIS DESIGN FIRM LICENSE NO: 184-001-084

APPROVED August 29 20 14
BOONE COUNTY ENGINEER

PASSED Sept 9 20 14
Tony Baratta
DISTRICT 2 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW Sept 9 20 14
Paul A. Loete
DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 85614

8/29/2014
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GENERAL NOTES

1. THE CONSTRUCTION SHALL BE GOVERNED BY THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", CURRENT EDITION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES ON SITE PRIOR TO ANY CONSTRUCTION AND WILL BE HELD RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THEIR FACILITIES. THE CONTRACTOR, ON SITE, SHALL DETERMINE THE EXACT LOCATIONS OF THE UTILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E. @ 1-800-892-0123 OR 811 FOR UTILITY LOCATIONS.

3. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.

4. EXCESS MATERIAL, IF NOT USED FOR OTHER ON-SITE PURPOSES, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE CONTRACTOR.

5. THE WORK AREA SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION, AND TRAFFIC.

6. WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A FULL DEPTH SAWCUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. THE SAWCUT IS TO BE INCLUDED IN THE COST OF THE VARIOUS HMA PAY ITEMS.

7. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE COUNTY ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

8. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY IMMEDIATELY.

9. OBJECT MARKER SIGNS (OM3-L & R) LOCATED AT THE ENDS OF THE GUARDRAIL SHALL BE REMOVED AND REMAIN THE PROPERTY OF THE BOONE COUNTY HIGHWAY DEPARTMENT. THE SIGNS SHALL BE REPLACED IF THEY ARE DAMAGED DURING REMOVAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR GUARDRAIL REMOVAL.

10. CONTRACTORS BIDDING THIS PROJECT SHALL VISIT THE SITE BEFORE BIDDING.

11. ALL SECTIONS, DETAILS, AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN.

12. ADJUSTMENT OF PROPOSED GRADES TO MATCH EXISTING ENTRANCES OR OTHER FIELD CONDITIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

13. ANY DAMAGE TO THE EXISTING PAVEMENT TO REMAIN DURING ANY CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

14. THE OWNER RESERVES THE RIGHT TO REDUCE ANY QUANTITY OR DELETE ANY PAY ITEMS FROM THIS CONTRACT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

15. ALL ELEVATIONS, STATIONS, AND OFFSETS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

16. ALL REFERENCES TO THE "DEPARTMENT" OR "ENGINEER" IN THE I.D.O.T. STANDARD SPECIFICATIONS SHALL BE CONSTRUED TO MEAN THE BOONE COUNTY ENGINEER OR HIS AGENT.

17. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.

18. THE CONTRACTOR SHALL USE ANY ON SITE MATERIAL DEEMED SUITABLE BY THE ENGINEER BEFORE ANY NEW FILL IS HAULED TO THE SITE.

19. THE RESIDENT ENGINEER (RE) AND/OR RESIDENT CONSTRUCTION OBSERVER (RCO) WILL BE RESPONSIBLE FOR MONITORING THE CONTRACTOR'S ACTIVITIES RELATIVE TO BEST MANAGEMENT PRACTICES (BMPS) TO REDUCE EROSION AND SILTATION. REGULAR INSPECTIONS TO VERIFY PROPER WORKING ORDER AND MAINTENANCE OF BMPS WILL BE MADE WEEKLY BY THE RE OR RCO. ADDITIONAL INSPECTIONS WILL BE MADE FOLLOWING RAIN EVENTS OF 0.5-INCH OR GREATER. THE CONTRACTOR WILL CORRECT ANY NOTED DEFICIENCIES IMMEDIATELY.

UTILITY NAME	TYPE	PHONE NO.	EMAIL
NICOR GAS SCOTT PUFFER	GAS	(815) 378-5750	SPUFFER@NICOR.COM
COMED NORA FERNANDEZ	ELECTRIC	(815) 490-2335	NORA.FERNANDEZ@COMED.COM
FRONTIER PAULO JAVIER	TELEPHONE	(815) 547-0395	PAULO.T.JAVIER@FTR.COM
WINDSTREAM DAVID ACKERMAN	CABLE	(319) 790-1464	DAVID.F.ACKERMAN@WINDSTREAM.COM
MEDIACOM MATTHEW FORGAS	CABLE	(815) 597-5103	MFORGAS@MEDIACOMCC.COM

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: 0011

	CODED PAY ITEM NUMBER	ITEM	UNIT	TOTAL QUANTITY
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	24
	21101615	TOPSOIL, FURNISH AND PLACE, 4"	SQ YD	1527
	25000210	SEEDING, CLASS 2A	ACRE	0.32
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	28
	25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	28
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	28
	25100630	EROSION CONTROL BLANKET	SQ YD	1527
	28000305	TEMPORARY DITCH CHECKS	FOOT	20
	28000400	PERIMETER EROSION BARRIER	FOOT	758
*	28100107	STONE RIPRAP, CLASS A4	SQ YD	140
	28200200	FILTER FABRIC	SQ YD	140
	35102400	AGGREGATE BASE COURSE, TYPE B 12"	SQ YD	761
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,560
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	216
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	59
	48101500	AGGREGATE SHOULDER, TYPE B 6"	SQ YD	353
*	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
	50200100	STRUCTURE EXCAVATION	CU YD	278
	50201101	COFFERDAM (TYPE 1) (LOCATION-1)	EACH	1
	50300225	CONCRETE STRUCTURES	CU YD	77.2
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	205.5
	50300260	BRIDGE DECK GROOVING	SQ YD	680
	50300300	PROTECTIVE COAT	SQ YD	725
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
	50500505	STUD SHEAR CONNECTORS	EACH	2,940
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	62,870
Δ	50901050	STEEL RAILING, TYPE SM	FOOT	408
	51201800	FURNISHING STEEL PILES HP14x73	FOOT	360
	51201900	FURNISHING STEEL PILES HP14x89	FOOT	240
	51202305	DRIVING PILES	FOOT	600
	51203800	TEST PILE STEEL HP14x73	EACH	2
	51203900	TEST PILE STEEL HP14x89	EACH	1
	51204650	PILE SHOES	EACH	17
	51500100	NAME PLATES	EACH	1
	52100520	ANCHOR BOLTS, 1"	EACH	20
	52100530	ANCHOR BOLTS, 1 1/4"	EACH	10
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	68
Δ	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POST	FOOT	325.0
Δ	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
* Δ	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
	63200310	GUARDRAIL REMOVAL	FOOT	532
	67100100	MOBILIZATION	L SUM	1
Δ	78001110	PAINT PAVEMENT MARKING - LINE 4 INCH	FOOT	1060
* Δ	78200410	GUARDRAIL MARKERS, TYPE A	EACH	15
* Δ	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
*	X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	488
*	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	137
*	X6670105	PERMANENT SURVEY MARKERS (SPECIAL)	EACH	1
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
*	XX006821	CONCRETE TRUCK WASHOUT	L SUM	1
*	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
*	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	140

* - SEE SPECIAL PROVISIONS, HIGHWAY STANDARDS, GENERAL NOTES, AND/OR DETAILS IN PLANS

Δ - SPECIALTY ITEMS

LAYOUT	JKR	02/12/2014
DRAWN	MWH	02/12/2014
REVIEWED	SMK	02/12/2014

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HANSON

USER NAME = HUSSUB411	DESIGNED - SMK	REVISED -	
FILE NAME = S-002-GenData.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 9/5/2014	CHECKED - SMK	REVISED -	

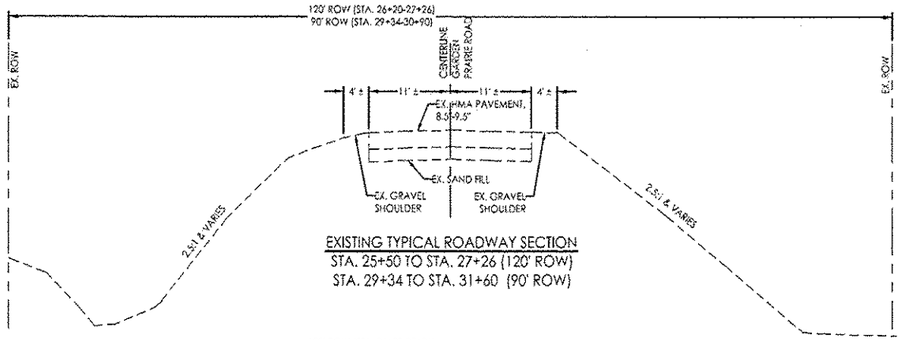
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND SUMMARY OF QUANTITIES
STRUCTURE NO. 004-3097

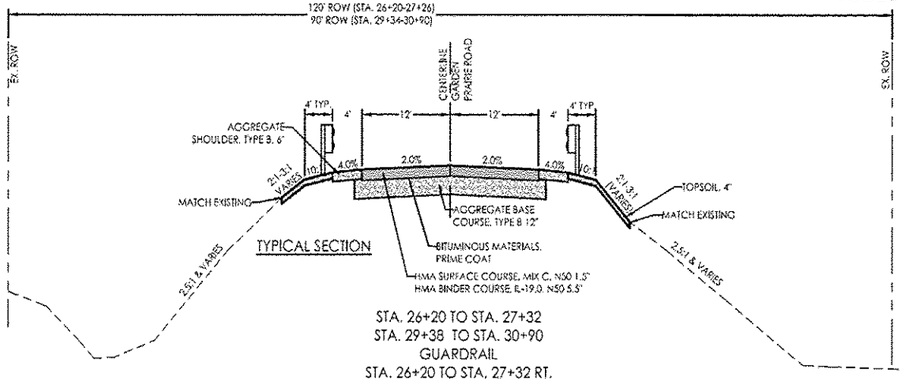
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	2
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

		QUANTITY	UNIT
TREE REMOVAL (6 TO 15 UNITS DIAMETER)			
STA. 27+31 - 39' R		12	UNIT
STA. 27+35 - 36' R		12	UNIT
	TOTAL =	24	UNIT
EARTH EXCAVATION (SPECIAL)			
STA. 25+60 - 27+32		200	CU YD
STA. 29+38 - 31+66		288	CU YD
	TOTAL =	488	CU YD
TOPSOIL FUNISH AND PLACE, 4"			
STA. 25+60 - 27+38 - 14' - 40' R		281	SQ YD
STA. 26+20 - 27+37 - 14' - 41' L		210	SQ YD
STA. 29+37 - 31+66 - 14' - 38' R		513	SQ YD
STA. 29+37 - 31+66 - 14' - 39' L		523	SQ YD
	TOTAL =	1527	SQ YD
SEEDING, CLASS 2A			
STA. 25+60 - 27+38 - 14' - 40' R		0.058	ACRE
STA. 26+20 - 27+37 - 14' - 41' L		0.043	ACRE
STA. 29+37 - 31+66 - 14' - 39' L		0.106	ACRE
STA. 29+37 - 31+66 - 14' - 38' R		0.108	ACRE
	TOTAL =	0.315	ACRE
NITROGEN FERTILIZER NUTRIENT			
STA. 25+60 - 27+38 - 14' - 40' R		5.22	POUND
STA. 26+20 - 27+37 - 14' - 41' L		3.87	POUND
STA. 29+37 - 31+66 - 14' - 39' L		9.54	POUND
STA. 29+37 - 31+66 - 14' - 38' R		9.72	POUND
	TOTAL =	28.35	POUND
PHOSPHORUS FERTILIZER NUTRIENT			
STA. 25+60 - 27+38 - 14' - 40' R		5.22	POUND
STA. 26+20 - 27+37 - 14' - 41' L		3.87	POUND
STA. 29+37 - 31+66 - 14' - 39' L		9.54	POUND
STA. 29+37 - 31+66 - 14' - 38' R		9.72	POUND
	TOTAL =	28.35	POUND
POTASSIUM FERTILIZER NUTRIENT			
STA. 25+60 - 27+38 - 14' - 40' R		5.22	POUND
STA. 26+20 - 27+37 - 14' - 41' L		3.87	POUND
STA. 29+37 - 31+66 - 14' - 39' L		9.54	POUND
STA. 29+37 - 31+66 - 14' - 38' R		9.72	POUND
	TOTAL =	28.35	POUND
EROSION CONTROL BLANKET			
STA. 25+60 - 27+38 - 14' - 40' R		281	SQ YD
STA. 26+20 - 27+37 - 14' - 41' L		210	SQ YD
STA. 29+37 - 31+66 - 14' - 38' R		513	SQ YD
STA. 29+37 - 31+66 - 14' - 39' L		523	SQ YD
	TOTAL =	1527	SQ YD
TEMPORARY DITCH CHECKS			
STA. 27+26 R		10	FOOT
STA. 27+37 L		10	FOOT
	TOTAL =	20	FOOT
PERIMETER EROSION BARRIER			
STA. 25+60 - 27+38 - R		180	FOOT
STA. 26+20 - 27+37 - L		120	FOOT
STA. 29+37 - 31+66 - R		229	FOOT
STA. 29+37 - 31+66 - L		229	FOOT
	TOTAL =	758	FOOT
AGGREGATE BASE COURSE, TYPE B, 12"			
STA. 26+20 - 27+32		323	SQ YD
STA. 29+38 - 30+90		438	SQ YD
	TOTAL =	761	SQ YD
BITUMINOUS MATERIALS (PRIME COAT)			
STA. 26+20 - 30+90		2560	POUND
	TOTAL =	2560	POUND
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50			
STA. 26+20 - 27+32		91.8	TON
STA. 29+38 - 30+90		124.4	TON
	TOTAL =	216.2	TON
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50			
STA. 26+20 - 27+32		25.0	TON
STA. 29+38 - 30+90		33.9	TON
	TOTAL =	58.9	TON
AGGREGATE SHOULDERS, TYPE B, 6"			
STA. 25+60 - 27+32 - 11' - 16' R		82	SQ YD
STA. 26+20 - 27+32 - 11' - 16' L		48	SQ YD
STA. 29+38 - 31+66 - 11' - 16' R		111	SQ YD
STA. 29+38 - 31+66 - 11' - 16' L		112	SQ YD
	TOTAL =	353	SQ YD
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6' POSTS			
STA. 26+13.25 - 26+88.25 - 16' R		75	FOOT
STA. 29+81.75 - 31+06.75 - 16' R		125	FOOT
STA. 29+81.75 - 31+06.75 - 16' L		125	FOOT
	TOTAL =	325	FOOT
TRAFFIC BARRIER TERMINAL, TYPE 6A			
STA. 26+88.25 - 27+32 - 16' R		1	EACH
STA. 26+88.25 - 27+32 - 16' L		1	EACH
STA. 29+38 - 29+81.75 - 16' R		1	EACH
STA. 29+38 - 29+81.75 - 16' L		1	EACH
	TOTAL =	4	EACH
TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT			
STA. 25+63.25 - 26+13.25 - 16' R		1	EACH
STA. 26+38.25 - 26+88.25 - L		1	EACH
STA. 31+06.75 - 31+56.75 - 16' R		1	EACH
STA. 31+06.75 - 31+56.75 - 16' L		1	EACH
	TOTAL =	4	EACH
GUARDRAIL REMOVAL			
STA. 25+73 - 27+37 - R		164	FOOT
STA. 26+36 - 27+37 - L		102	FOOT
STA. 29+33 - 30+36 - R		102	FOOT
STA. 29+33 - 30+97 - L		164	FOOT
	TOTAL =	532	FOOT
PAINT PAVEMENT MARKING - LINE 4"			
STA. 26+20 - 30+90 CL (YELLOW)		120	FOOT
STA. 26+20 - 30+90 - 11.5' R (WHITE)		470	FOOT
STA. 26+20 - 30+90 - 11.5' L (WHITE)		470	FOOT
	TOTAL =	1060	FOOT
GUARDRAIL MARKERS, TYPE A			
STA. 25+69.5 - 31+56.75		15	EACH
	TOTAL =	15	EACH
TERMINAL MARKER - DIRECT APPLIED			
STA. 25+69.5 - R		1	EACH
STA. 26+38.25 L		1	EACH
STA. 31+56.75 - R		1	EACH
STA. 31+56.75 - L		1	EACH
	TOTAL =	4	EACH



EXISTING TYPICAL ROADWAY SECTION
STA. 25+50 TO STA. 27+26 (120' ROW)
STA. 29+34 TO STA. 31+60 (90' ROW)



TYPICAL SECTION

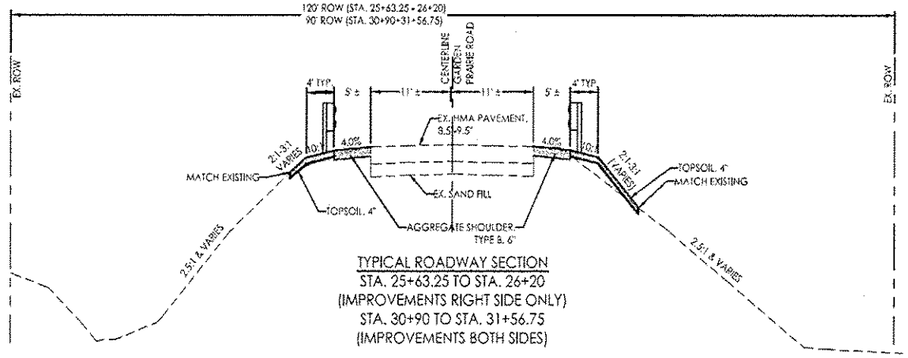
STA. 26+20 TO STA. 27+32
STA. 29+38 TO STA. 30+90
GUARDRAIL
STA. 26+20 TO STA. 27+32 RT.
STA. 26+38.25 TO STA. 27+32 LT.
STA. 29+38 TO STA. 30+90 RT. & LT.

GARDEN PRAIRIE ROAD
FULL-DEPTH HMA PAVEMENT DESIGN FOR LOCAL AGENCIES
USING THE BUREAU OF LOCAL ROADS & STREETS MANUAL, CHAPTER 44

GIVEN

DESIGN PERIOD: 20 YEARS
ADT = 3400
ADTT = 170
PV = 3230
SU = 114 67% ADTT ASSUMED
MU = 56 33% ADTT ASSUMED
CLASS II ROAD 2/3 LANES
POSTED SPEED LIMIT 55 MPH

1. TF = DP(0.073PV+67.890SU+283.605MU)/(1,000,000)
   TF = 0.477143
2. FROM FIGURE 44-4D, THE BINDER GRADE SHOULD BE PG 64-22 OR 58-22.
   SURFACE SHOULD BE PG 58-28
3. ASSUMED SUBGRADE RATING OF FAIR
4. FROM FIGURE 44-4F, THE DESIGN PAVEMENT HMA TEMPERATURE FOR BOONE COUNTY IS 77 DEGREES
5. USE FIGURE 44-4G, TF IS LESS THAN 0.5, IN CONJUNCTION WITH THE DESIGN TF OF 0.477 TO DETERMINE THAT THE HMA DESIGN STRAIN IS 180 MICROSTRAIN.
6. USE FIGURE 44-4I, IN CONJUNCTION WITH THE DESIGN PAVEMENT HMA TEMPERATURE OF 77 DEGREES TO DETERMIN THAT THE HMA DESIGN MODULUS IS 540 KSI FOR A PG 58-28
7. USE FIGURE 44-4K, SUBGRADE RATING IS FAIR, IN CONJUNCTION WITH THE HMA STRAIN OF 180 MICROSTRAIN AND THE DESIGN MODULUS OF 540 KSI TO DETERMINE A DESIGN HMA THICKNESS OF 7.0 IN. THIS THICKNESS IS AFTER ROUNDING TO THE NEXT HIGHER 0.25 IN.
8. A 12 IN IMPROVED SUBGRADE IS REQUIRED FOR ALL CLASS I & FULL-DEPTH HMA PROJECTS UNLESS BUILT UPON A GRANULAR SUBGRADE.



TYPICAL ROADWAY SECTION
STA. 25+63.25 TO STA. 26+20
(IMPROVEMENTS RIGHT SIDE ONLY)
STA. 30+90 TO STA. 31+56.75
(IMPROVEMENTS BOTH SIDES)

MIXTURE REQUIREMENTS		
	HMA SURFACE	HMA BINDER
PG GRADE	PG64-22	PG64-22
DESIGN AIR VOIDS	4% AT N50	4% AT N50
MIXTURE COMPOSITION	IL-9.5	IL-19.0 OR IL-19.0 FG
FRICTION AGGREGATE	MIXTURE C	
MIXTURE WEIGHT	112 LB./S.Y./IN	112 LB./S.Y./IN
TRAFFIC FACTOR	0.48	0.48

FILE NAME = G:\FILES\BOONE\GARDEN PRAIRIE\3320 GARDEN PRAIRIE BRIDGE \3322_CurrentProject\3220_BASE	USER NAME = JOHNB	DESIGNED — JAB	REVISED —
		DRAWN — JAB	REVISED —
	PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
	PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND SCHEDULES OF QUANTITES
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: | SHEET NO. 3 OF 27 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	3
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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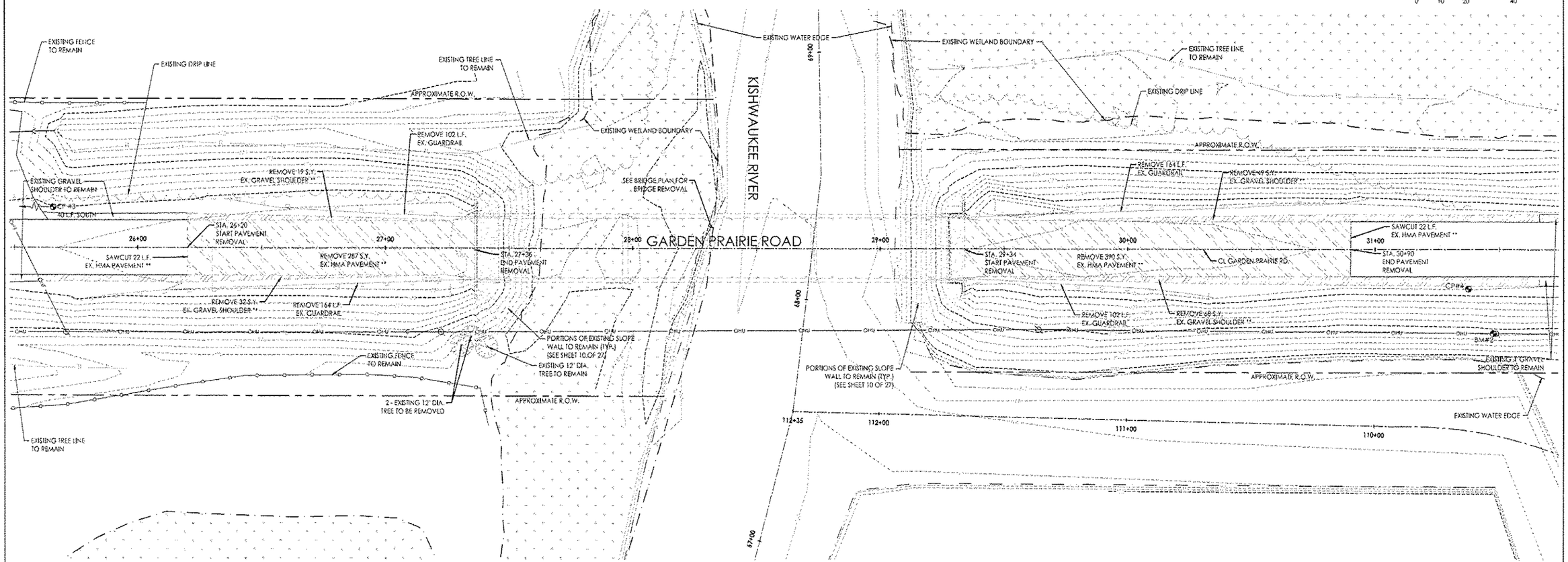

BENCHMARK				
BENCHMARK	STATION	OFFSET	DESCRIPTION	ELEVATION
#1	25+24.98	21.58R	5/8" PIN	779.01
#2	31+47.62	34.0' RT.	9d NAIL S. SIDE OF U.P.	776.45

CONTROL POINTS			
POINT	NORTHING	EASTING	DESCRIPTION
#3	2037644.0200	878155.1996	IRON SPIKE
#4	2038255.9700	878188.2545	IRON SPIKE
#10	2038484.179	878189.8386	5/8" PIN

ALIGNMENT DATA		
ALIGNMENT STA.	NORTHING	EASTING
25+50	2037657.0272	878171.5141
31+50	2038257.0266	878179.3227

** COST INCLUDED IN EARTH EXCAVATION (SPECIAL).

FILE NAME = G:\FILES\BOONE\GARDEN PRAIRIE\3320 GARDEN PRAIRIE BRIDGE \3322_Current\Project\3220_BASE	USER NAME = JOHNB	DESIGNED — JAB	REVISED —
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	PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES, BENCHMARKS AND REMOVAL PLAN
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: 1" = 20' | SHEET NO. 4 OF 27 SHEETS | STA. 25+50 | TO STA. 31+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	4
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

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EXISTING FENCE TO REMAIN
EXISTING DRIP LINE
EXISTING TREE LINE TO REMAIN
APPROXIMATE R.O.W.
50' TYPE 1 (SPECIAL) GUARDRAIL TERMINAL STA. 26+38.25 TO STA. 26+88.25
43.75' TRAFFIC BARRIER TERMINAL, TYPE 6A STA. 26+88.25 TO STA. 27+32
EXISTING WETLAND BOUNDARY
EXISTING WATER EDGE
KISHWAUKEE RIVER
FLOW
CL S. ABUT. (STA. 27+33.67)
CL N. ABUT (STA. 29+36.33)
400 L.F. WHITE PAINT PAVEMENT MARKING, 4" LINE
EXISTING GRAVEL SHOULDER TO REMAIN
TYPE B AGGREGATE SHOULDER, 48 S.Y.
MATCH EX. 781.01
MATCH EX. 780.75
STA. 26+20 BEGIN TAPER
50:1 TAPER
STA. 26+63 END TAPER
PAVEMENT PER TYPICAL SECTION
STA. 26+20 BEGIN NEW PAVEMENT
MATCH EX. 781.02
GARDEN PRAIRIE ROAD
400 L.F. WHITE PAINT PAVEMENT MARKING, 4" LINE
PORTIONS OF EXISTING SLOPE WALL TO REMAIN (TYP.) (SEE SHEET 10 OF 27)
EXISTING 12" DIA. TREE TO REMAIN
CL PIER (STA. 28+23.67)
120 L.F. YELLOW PAINT PAVEMENT MARKING, 4" LINE
CL GARDEN PRAIRIE ROAD & PROFILE GRADE LINE
PORTIONS OF EXISTING SLOPE WALL TO REMAIN (TYP.) (SEE SHEET 10 OF 27)
TYPE B AGGREGATE SHOULDER, 82 S.Y.
EXISTING FENCE TO REMAIN
APPROXIMATE R.O.W.
50' TYPE 1 (SPECIAL) GUARDRAIL TERMINAL STA. 25+63.25 TO STA. 26+13.25
75' STEEL PLATE BEAM GUARDRAIL STA. 26+13.25 TO STA. 26+88.25
43.75' TRAFFIC BARRIER TERMINAL, TYPE 6A STA. 26+88.25 TO STA. 27+32
EXISTING TREE LINE TO REMAIN
43.75' TRAFFIC BARRIER TERMINAL, TYPE 6A STA. 29+38 TO STA. 29+81.75
EXISTING DRIP LINE
125' STEEL PLATE BEAM GUARDRAIL STA. 29+81.75 TO STA. 31+06.75
TYPE B AGGREGATE SHOULDER, 112 S.Y.
50' TYPE 1 (SPECIAL) GUARDRAIL TERMINAL STA. 31+06.75 TO STA. 31+56.75
MATCH EX. 774.45
MATCH EX. 774.26
MATCH EX. 774.30
MATCH EX. 774.25
MATCH EX. 773.50
MATCH EX. 772.80
MATCH EX. 781.28 - 781.20
MATCH EX. 781.24
MATCH EX. 781.54
MATCH EX. 781.70
STA. 30+44 - L BEGIN TAPER
STA. 30+90 END NEW PAVEMENT
STA. 30+40 - R BEGIN TAPER
50:1 TAPER
PAVEMENT PER TYPICAL SECTION
MATCH EX. 781.74
STA. 30+90 END TAPER
MATCH EX. 781.94
MATCH EX. 781.82
MATCH EX. 781.80
MATCH EX. 781.78
MATCH EX. 781.76
EXISTING GRAVEL SHOULDER TO REMAIN
EXISTING WATER EDGE
43.75' TRAFFIC BARRIER TERMINAL, TYPE 6A STA. 29+38 TO STA. 29+81.75
125' STEEL PLATE BEAM GUARDRAIL STA. 29+81.75 TO STA. 31+06.75
TYPE B AGGREGATE SHOULDER, 111 S.Y.
50' TYPE 1 (SPECIAL) GUARDRAIL TERMINAL STA. 31+06.75 TO STA. 31+56.75

SCALE 1" = 20'
0 10' 20' 40'

SCALE:
1" = 20'-0" Horizontal
1" = 5'-0" Vertical

PVI STA: 27+10.00
PVI ELEV: 781.94
K: 227.60
LVC: 160.00
BVCS: 26+20.00
BVCE: 781.36
EVCS: 28+00.00
EVCE: 781.94
BEGIN PROJECT STA. 26+20
S = 0.646%
36" PL GIRDERS COMPOSITE FULL-LENGTH
S = 0.000%
EXISTING PROFILE
PROPOSED PROFILE
END PROJECT STA. 30+90
EX. SLOPE WALL
773.84
DES. HWE = 776.28
EX. SLOPE WALL
773.92
2.5' TYP.
E.W.S.E. = 768.50
EXISTING CHANNEL
763.17
CL PIER (STA. 28+23.67)
CL BRIDGE (STA. 28+35)
781.74
BACK S. ABUT. (STA. 27+32)
BACK N. ABUT. (STA. 29+38)
EXISTING CENTERLINE GRADE
PROPOSED CENTERLINE GRADE
MATCH EXISTING
MATCH EXISTING

790 785 780 775 770 765 760 755 750

781.22 781.36 781.56 781.53 781.84 781.76 781.86 781.94 781.89 781.92 781.94 781.92 781.94 781.94 781.92 781.94 781.94 781.94 780.07 781.94 780.13 781.94 781.94 781.92 781.85

26+00 26+20 26+50 27+00 27+50 28+00 28+50 29+00 29+50 30+00 30+50 30+90 31+00 31+50

PLAN SURVEYED / DRAWN / CHECKED / QUANTITIES CHECKED / BY / DATE / NOTE BOOK / NO. / PAGE

PROFILE SURVEYED / DRAWN / CHECKED / QUANTITIES CHECKED / BY / DATE / NOTE BOOK / NO. / PAGE / STRUCTURE NUMBER(S)

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		DRAWN — JAB	REVISED —
	PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
	PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CES ILLINOIS DESIGN FIRM NO. 184-001260

ROADWAY PLAN AND PROFILE
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: 1" = 20' | SHEET NO. 5 OF 27 SHEETS | STA. 25+50 | TO STA. 31+56

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	5
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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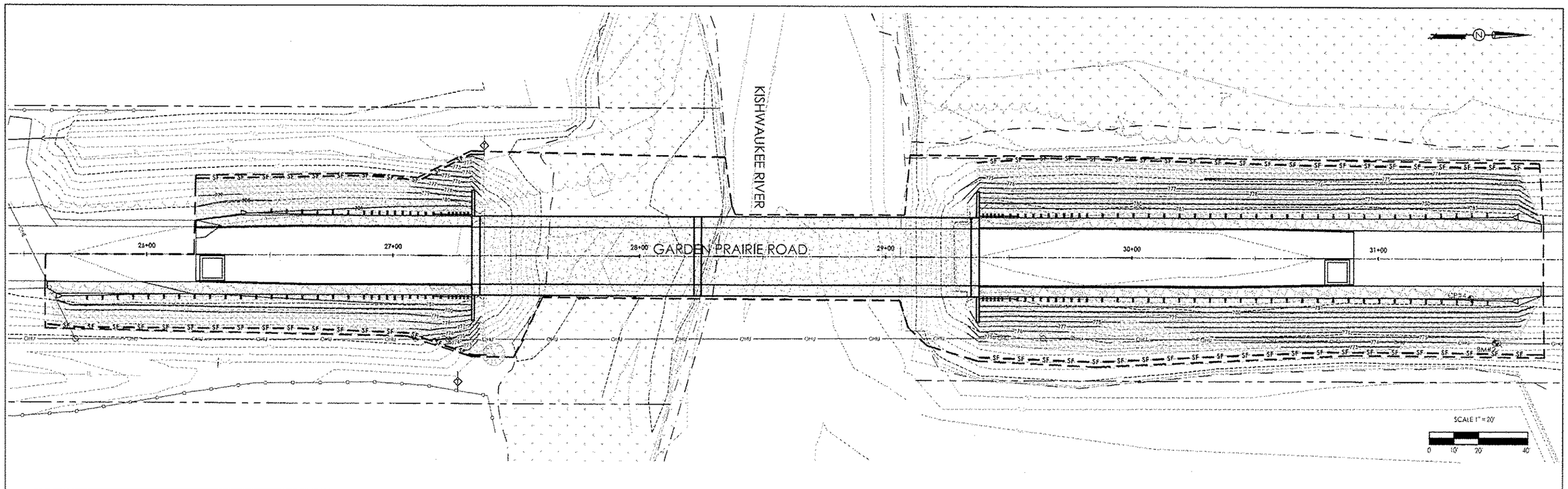

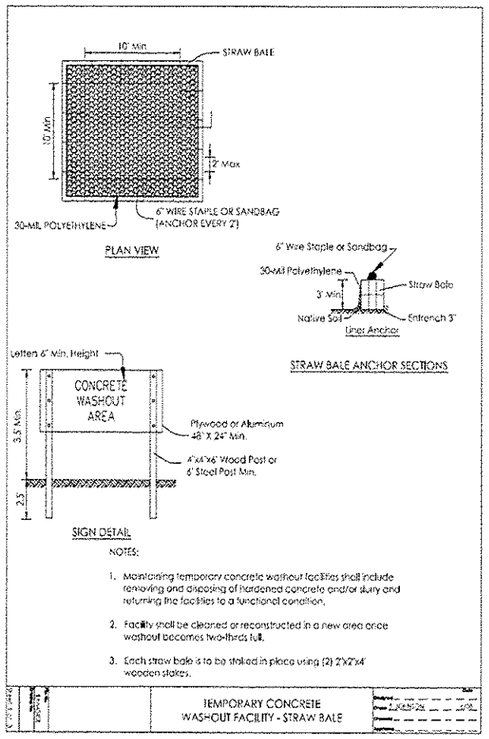

GENERAL EROSION CONTROL NOTES

1. EROSION CONTROL DEVICES SHALL BE IN PLACE AND APPROVED BY THE RESIDENT ENGINEER AS TO PROPER PLACEMENT AND INSTALLATION PRIOR TO BEGINNING OTHER WORK.
2. THE RESIDENT ENGINEER WILL DETERMINE WHEN TEMPORARY EROSION CONTROL SYSTEMS SHOWN ON THE PLAN MAY BE MOVED TO A DIFFERENT LOCATION OR DELETED.
3. IN THE EVENT OF HIGH WATER AND/OR HIGH FLOW RATES THAT DAMAGE THE PERIMETER EROSION AND SEDIMENT CONTROLS, THE CONTRACTOR SHALL RETRIEVE ANY CONTROLS THAT HAVE BEEN WASHED DOWNSTREAM.
4. STRAW BALES ARE NOT ALLOWED FOR ANY USE EXCEPT FOR CONCRETE TRUCK WASH OUT.
5. SILT FENCING IS NOT ALLOWED FOR USE IN DITCH CHECKS.
6. AFTER THE VEGETATION IS ESTABLISHED IN THE DISTURBED AREA, THE CONTRACTOR SHALL:
   - REMOVE THE REMAINING SEDIMENT CONTROL ITEMS AS DIRECTED BY THE RESIDENT ENGINEER.
   - RESTORE THE AREAS DISTURBED BY THE SEDIMENT CONTROL ITEMS BY PERMANENT SEEDING MEASURES.
7. CONTRACTOR SHALL KEEP GARDEN PRAIRIE ROAD FREE OF EARTH AND AGGREGATE EXCEPT IN THE IMMEDIATE VICINITY OF THE BRIDGE. IF THE TOWNSHIP HIGHWAY COMMISSIONER OR THE COUNTY ENGINEER REGISTER A COMPLAINT ABOUT THE ROADWAY SURFACE THE CONTRACTOR SHALL CLEAN THE SURFACE AS SOON AS POSSIBLE.
8. DISTURBED AREA = 0.90 ACRES

INTENDED SEQUENCE

1. PLACE PERIMETER SEDIMENT CONTROL BARRIER PRIOR TO COMMENCEMENT OF ANY WORK. SEE STD. 280001
2. CONSTRUCT EARTHWORK, INCLUDING DITCHES.
3. PLACE AND MAINTAIN TEMPORARY AND PERMANENT EROSION CONTROLS AS WORK PROGRESSED. SEED EVERY 7 DAYS. SEE ART. 280.04
4. FINAL SHAPE, GRADE, AND PAVE ROADWAY.
5. PLACE REMAINING PERMANENT EROSION CONTROLS.

LEGEND

- SF — SF — SILT FENCE
- TEMPORARY DITCH CHECK
- TOPSOIL, EROSION BLANKET & SEEDING CLASS 2A
- CONCRETE TRUCK WASH OUT
- — — — — CONSTRUCTION LIMITS

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		DRAWN — JAB	REVISED —
	PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
	PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CES ILLINOIS DESIGN FIRM NO. 184-001260

EROSION CONTROL PLAN
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: 1" = 20' | SHEET NO. 6 OF 27 SHEETS | STA. 25+50 | TO STA. 31+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	6
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

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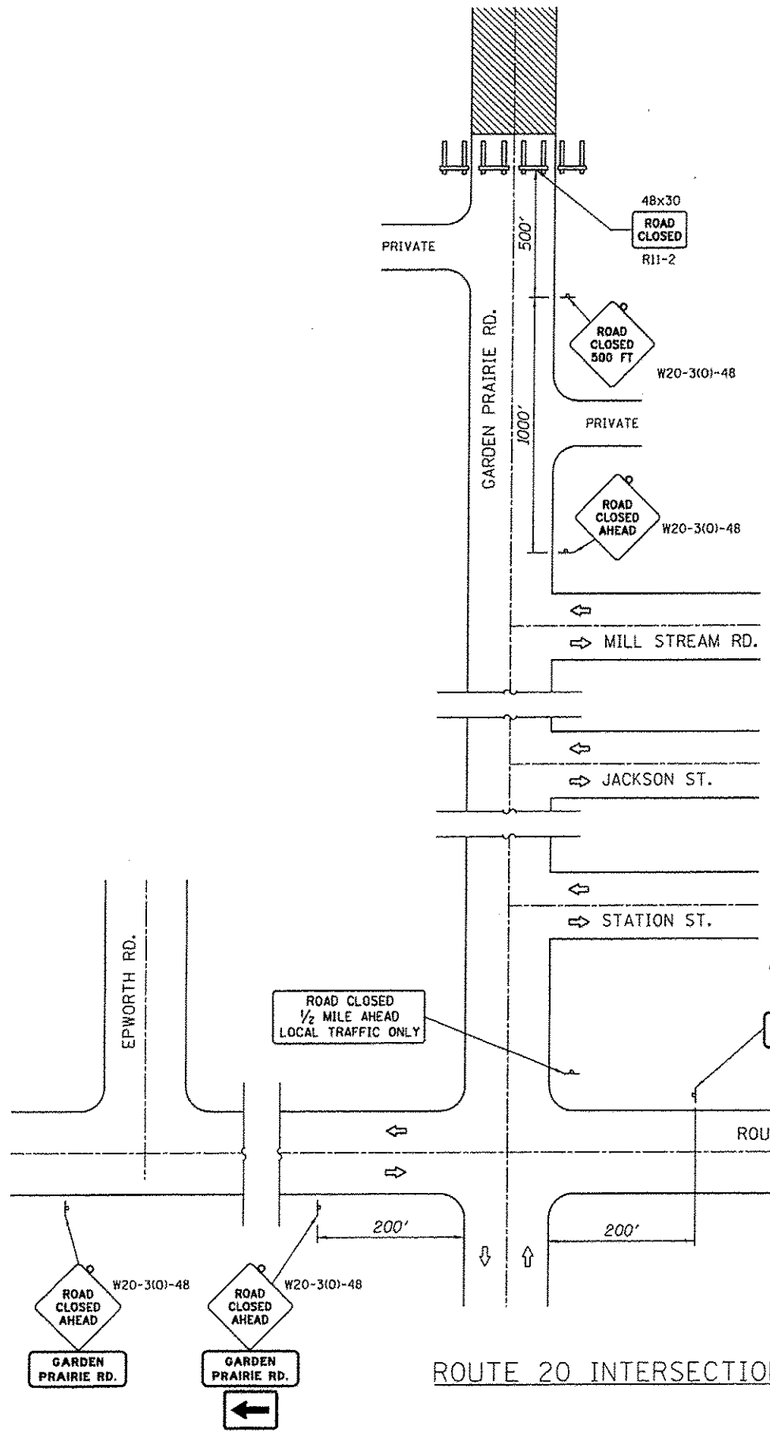
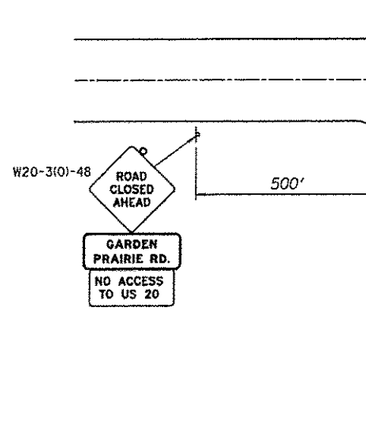
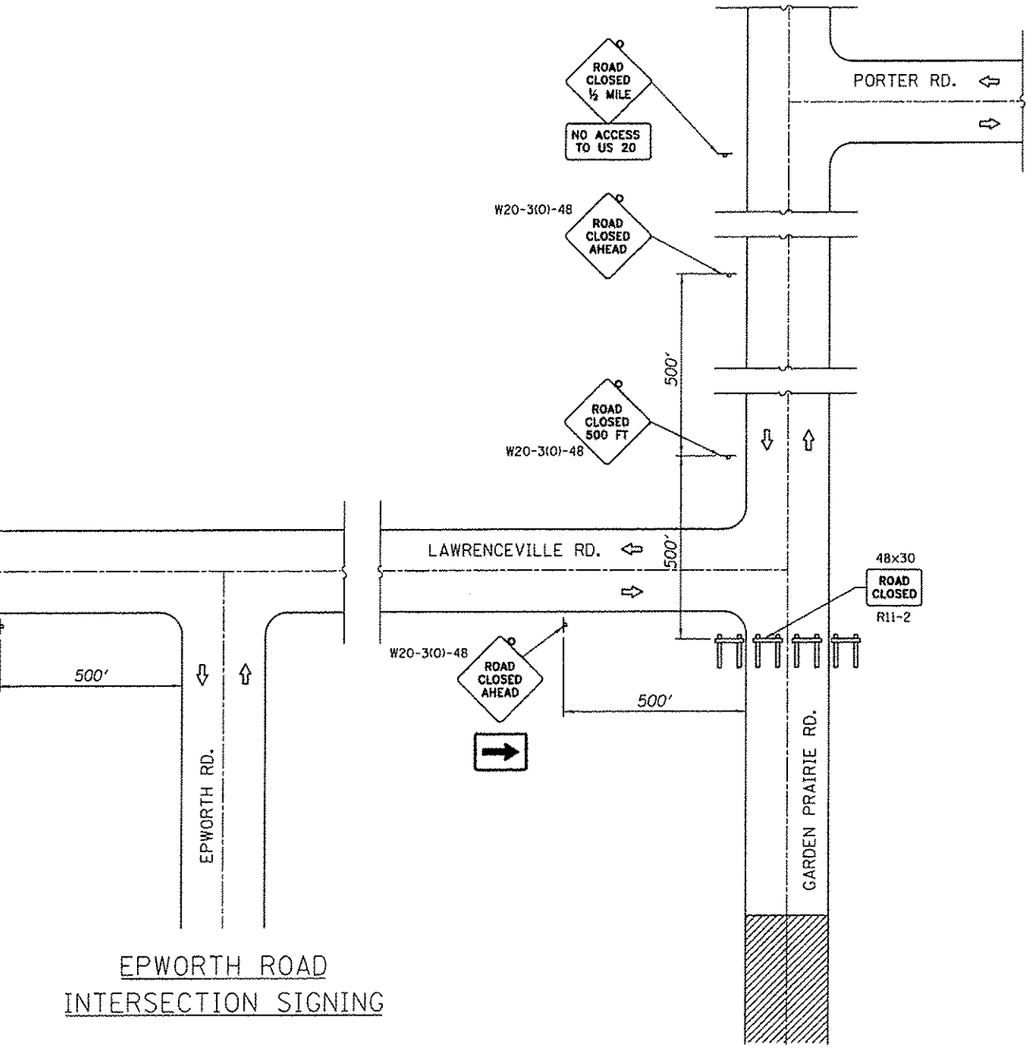


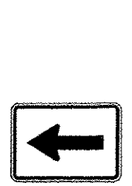
ROUTE 20 INTERSECTION SIGNING

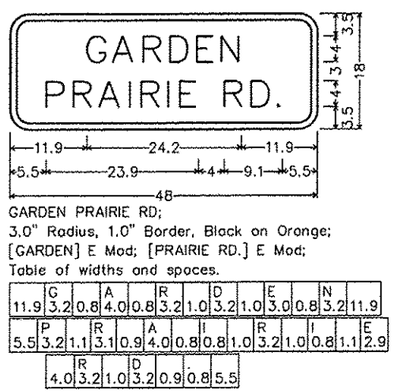


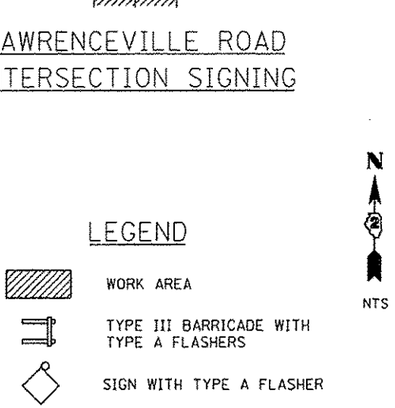
EPWORTH ROAD
INTERSECTION SIGNING



LAWRENCEVILLE ROAD
INTERSECTION SIGNING







LAYOUT	DRAWN	REVISED
JKR	MWH	SMK
02/12/2014	05/12/2014	09/12/2014

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HANSON

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PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

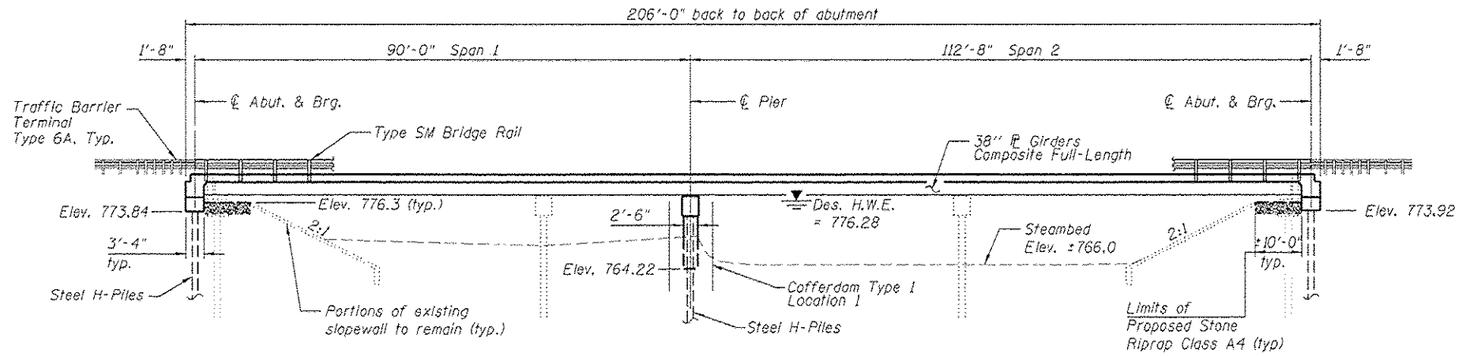
TRAFFIC CONTROL PLAN
STRUCTURE NO. 004-3097

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	7
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

B.M.- Benchmark is a chisled "x" located on the Southwest wing wall of bridge. Sta. 29+33.3, 16.6' Lt., Elev. 782.24

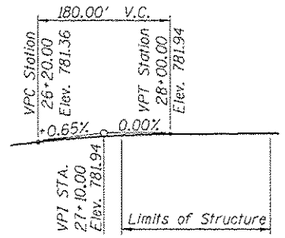
Existing Structure - Structure No. 004-3010. Existing structure was constructed in 1959 and consists of a three-span continuous steel beam superstructure on pile bent piers and abutments. The bridge width is 27'-8" out-to-out and the bridge length is 198'-0" back to back of abutments. Superstructure consists of five lines of wide flange steel beams supporting a reinforced concrete deck with a bituminous overlay. The road will be closed during construction with a signed detour route.

Salvage- Existing Name Plate



ELEVATION

Estimated water Surface Elev. (EWSE) = 768.5



PROFILE GRADE
(Along ℄ Roadway)

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications - 6th edition

LOADING HL-93

Allow 50 #/sq. ft. for future wearing surface.

DESIGN STRESSES

f'c = 5,000 p.s.i. (Superstructure)
f'c = 3,500 p.s.i. (Substructure)
fy = 60,000 p.s.i. (Reinforcement)
fy = 50,000 p.s.i. (M270 Grade 50W)

SEISMIC DATA

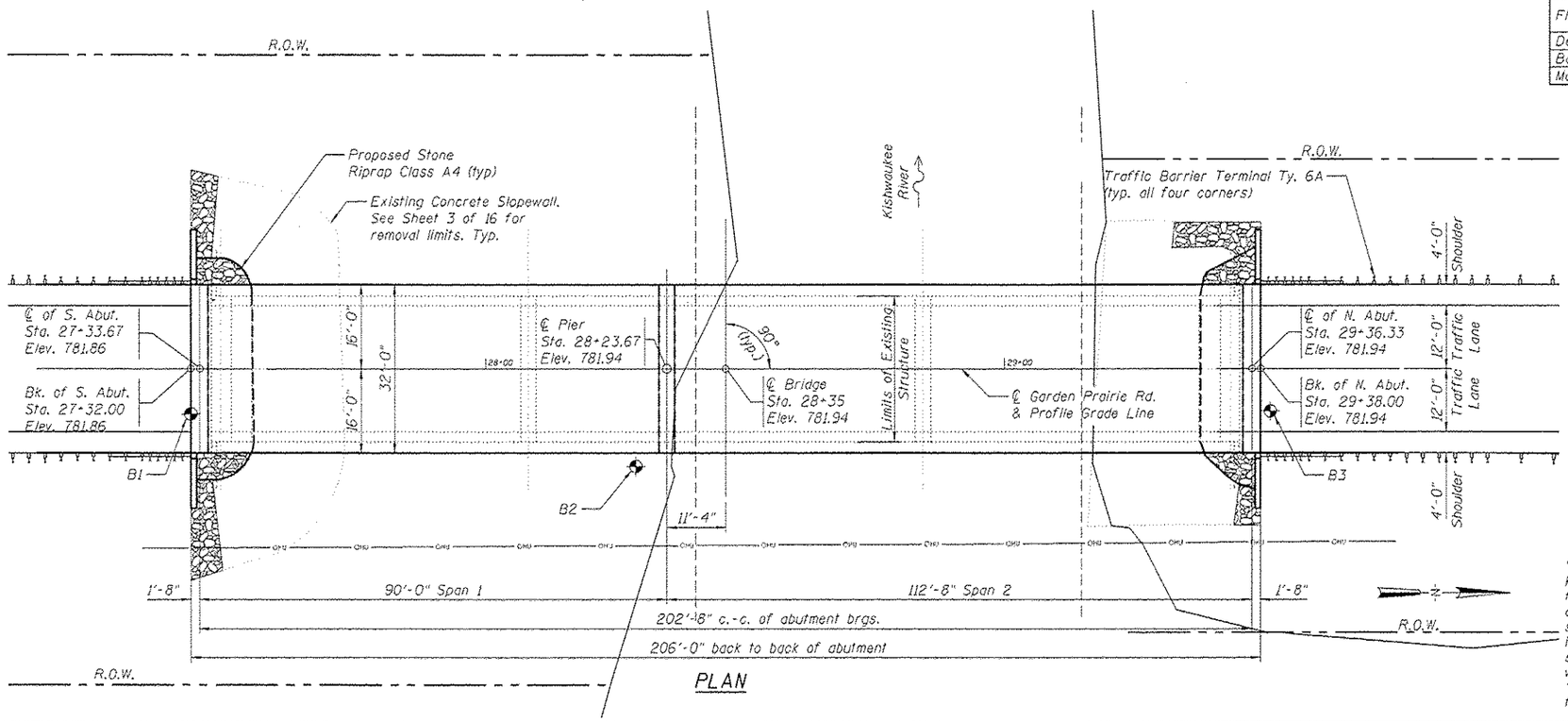
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (SD1) = 0.056
Design Spectral Acceleration at 0.2 sec (SDs) = 0.102
Soil Site Class = C

DESIGN SCOUR ELEVATION TABLE

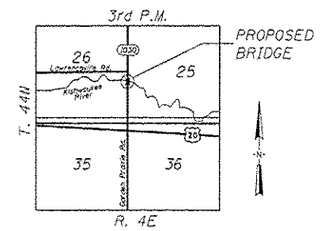
Design Scour Elevation (ft.)	S. Abut.	Pier	N. Abut.
	773.84	760.00	773.92

WATERWAY INFORMATION

Drainage Area = 221.8 Sq. Mi.					Low Grade Elev. = 781.5±				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	30	5030	1398	1403	776.28	0.10	0.09	776.38	776.37
Base	100	6170	1589	1603	777.21	0.19	0.17	777.40	777.38
Max	500	7620							



PLAN



LOCATION SKETCH

STUART M. KEMP 081-004997 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

Stuart M. Kemp
SIGNATURE
8/29/14
DATE
LIC. EXP. DATE: 11/30/14

"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 requirements of the current 'AASHTO Standard Specifications for Highway Bridges.'"

GENERAL PLAN & ELEVATION
GARDEN PRAIRIE ROAD BRIDGE
OVER KISHWAUKEE RIVER
FAS 1030
SEC. 12-00091-00-BR
BOONE COUNTY, ILLINOIS
STATION 28+35
STRUCTURE NUMBER 004-3097

HANSON Professional Services Inc.

LAYOUT	JKR	10/27/2014
DRAWN	MWH	10/27/2014
REVIEWED	SMK	10/27/2014

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HANSON Professional Services Inc.

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PLOT DATE = 10/3/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

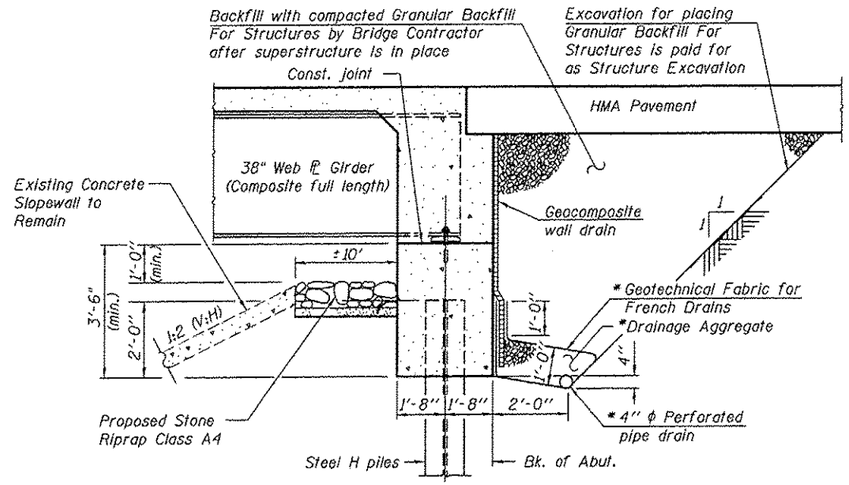
GENERAL PLAN AND ELEVATION
STRUCTURE NO. 004-3097
SHEET 1 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	8
		CONTRACT NO. 85614		
	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap Class A4	Sq. Yd.	-	140	140
Filter Fabric	Sq. Yd.	-	140	140
Removal of Existing Structures	Each	1	-	1
Structure Excavation	Cu. Yd.	-	278	278
Cofferdam Type 1 Location 1	Each	-	1	1
Concrete Structures	Cu. Yd.	-	77.2	77.2
Concrete Superstructure	Cu. Yd.	205.5	-	205.5
Bridge Deck Grooving	Sq. Yd.	680	-	680
Protective Coat	Sq. Yd.	725	-	725
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	2940	-	2940
Reinforcement Bars, Epoxy Coated	Pound	51,640	11,230	62,870
Steel Railing, Type SM	Foot	408	-	408
Furnishing Steel Piles HP 14x73	Foot	-	360	360
Furnishing Steel Piles HP 14x89	Foot	-	240	240
Driving Piles	Foot	-	600	600
Test Pile Steel HP 14x73	Each	-	2	2
Test Pile Steel HP 14x89	Each	-	1	1
Pile Shoes	Each	-	17	17
Name Plates	Each	1	-	1
Anchor Bolts 1"	Each	-	20	20
Anchor Bolts 1¼"	Each	-	10	10
Geocomposite Wall Drain	Sq. Yd.	-	67.3	67.3
Granular Backfill for Structures	Cu. Yd.	-	137.0	137.0
Pipe Underdrains for Structures 4"	Foot	-	140.0	140.0



SECTION THRU INTEGRAL ABUTMENT

* Included in the cost of Pipe Underdrains for Structures.

All drainage system components shall extend to 2'-0" from end of each wingwall except on outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

KISHWAUKEE RIVER
BUILT 201_ BY
BOONE COUNTY
SEC. 12-00091-00-BR
FAS 1030 STA. 28+35
STR. NO. 004-3097 LOADING HL-93

NAME PLATE

See Std. 515001

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts (in painted areas and ASTM A325 Type 3 in unpainted areas). Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 232,380 lbs.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
8. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
9. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

LAYOUT JKR 02/12/2014
DRAWN MWH 03/12/2014
REVIEWED SMK 03/12/2014

N:\2Jobs\2L0175\CADS\Struct\Sheet\S-009-GenData-NEW.dgn

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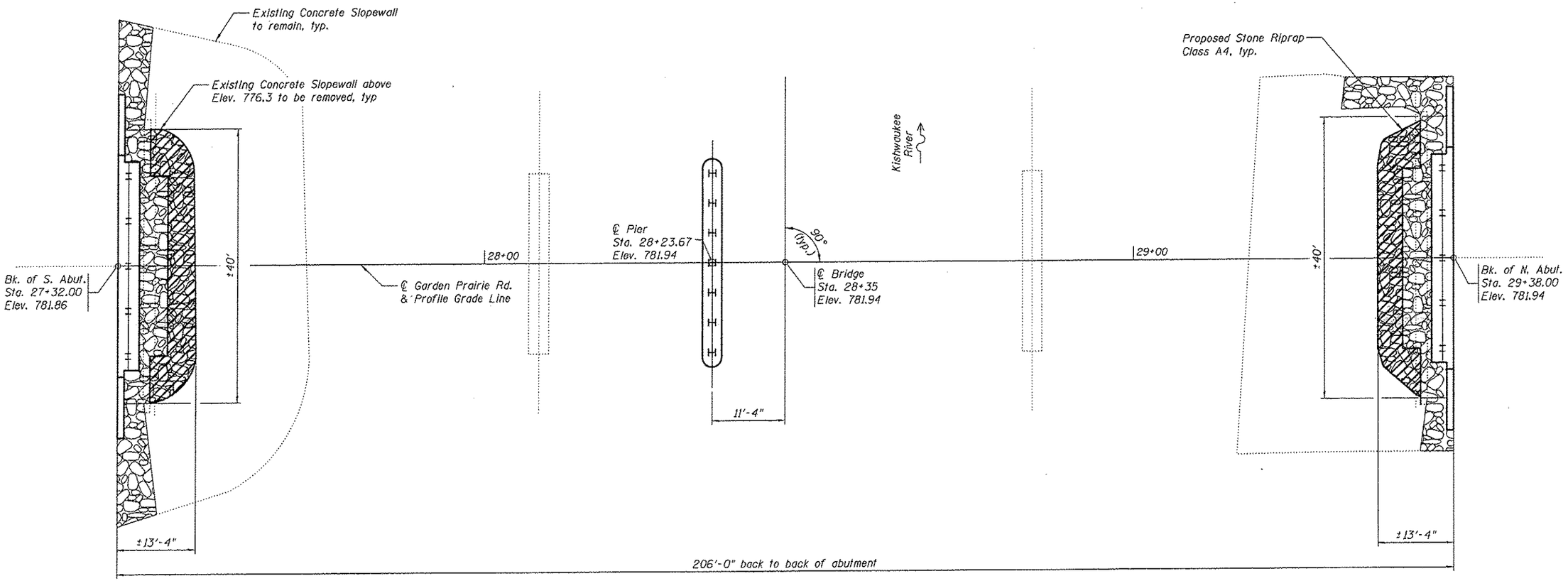
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 004-3097
SHEET 2 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	9
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		



SUBSTRUCTURE LAYOUT PLAN

Slope wall removal. Cost included in Removal of Existing Structures.

Stone riprap with filter fabric.

LAYOUT	JKR	02/12/2014
DRAWN	MWH	02/12/2014
REVIEWED	SMK	02/12/2014

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HANSON

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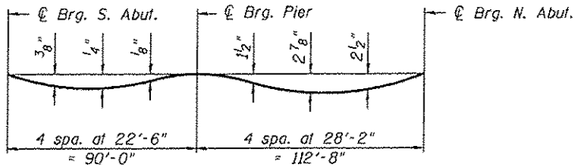
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT
STRUCTURE NO. 004-3097
SHEET 3 OF 16

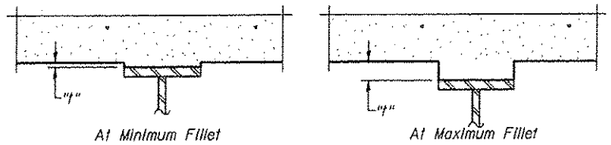
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	10
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			



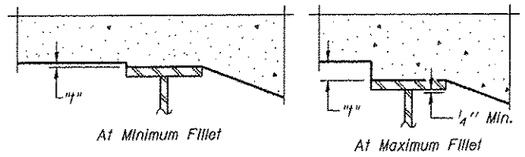
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



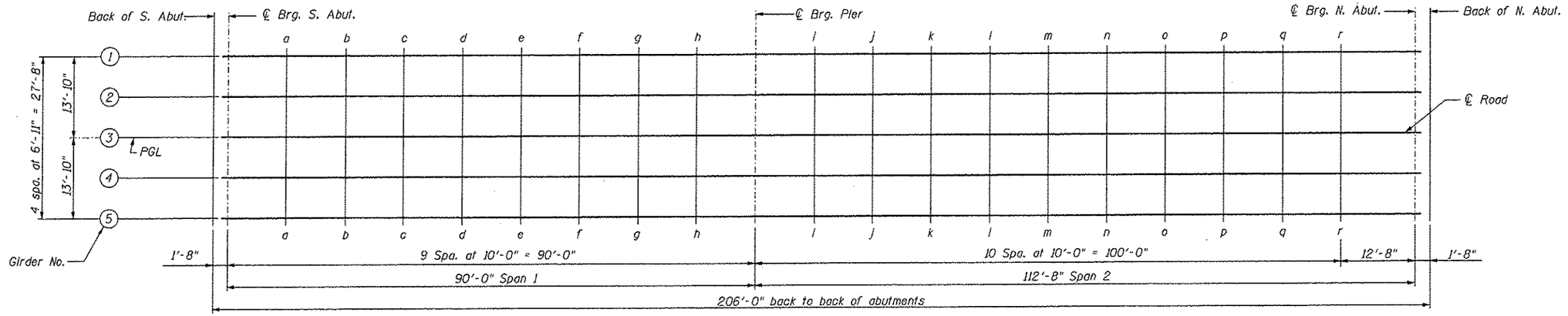
Interior Girder



Exterior Girder

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

FILLET HEIGHTS



DIAGRAMMATIC PLAN

GIRDER 1 & 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	27+32.00	±13.83	781.58	781.58
℄ Brg. S. Abut.	27+33.67	±13.83	781.58	781.58
a	27+43.67	±13.83	781.61	781.62
b	27+53.67	±13.83	781.62	781.66
c	27+63.67	±13.83	781.64	781.67
d	27+73.67	±13.83	781.65	781.68
e	27+83.67	±13.83	781.66	781.67
f	27+93.67	±13.83	781.66	781.66
g	28+03.67	±13.83	781.66	781.65
h	28+13.67	±13.83	781.66	781.65
℄ Brg. Pier	28+23.67	±13.83	781.66	781.66
i	28+33.67	±13.83	781.66	781.70
j	28+43.67	±13.83	781.66	781.74
k	28+53.67	±13.83	781.66	781.79
l	28+63.67	±13.83	781.66	781.85
m	28+73.67	±13.83	781.66	781.89
n	28+83.67	±13.83	781.66	781.91
o	28+93.67	±13.83	781.66	781.91
p	29+03.67	±13.83	781.66	781.89
q	29+13.67	±13.83	781.66	781.84
r	29+23.67	±13.83	781.66	781.77
℄ Brg. N. Abut.	29+36.34	±13.83	781.66	781.66
Bk. N. Abut.	29+38.00	±13.83	781.66	781.66

GIRDER 2 & 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	27+32.00	±6.92	781.72	781.72
℄ Brg. S. Abut.	27+33.67	±6.92	781.72	781.72
a	27+43.67	±6.92	781.74	781.76
b	27+53.67	±6.92	781.76	781.79
c	27+63.67	±6.92	781.78	781.81
d	27+73.67	±6.92	781.79	781.82
e	27+83.67	±6.92	781.80	781.81
f	27+93.67	±6.92	781.80	781.80
g	28+03.67	±6.92	781.80	781.79
h	28+13.67	±6.92	781.80	781.79
℄ Brg. Pier	28+23.67	±6.92	781.80	781.80
i	28+33.67	±6.92	781.80	781.83
j	28+43.67	±6.92	781.80	781.88
k	28+53.67	±6.92	781.80	781.93
l	28+63.67	±6.92	781.80	781.98
m	28+73.67	±6.92	781.80	782.03
n	28+83.67	±6.92	781.80	782.05
o	28+93.67	±6.92	781.80	782.05
p	29+03.67	±6.92	781.80	782.03
q	29+13.67	±6.92	781.80	781.98
r	29+23.67	±6.92	781.80	781.91
℄ Brg. N. Abut.	29+36.34	±6.92	781.80	781.80
Bk. N. Abut.	29+38.00	±6.92	781.80	781.80

GIRDER 3 & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut	27+32.00	0.00	781.86	781.86
℄ Brg. S. Abut.	27+33.67	0.00	781.86	781.86
a	27+43.67	0.00	781.88	781.90
b	27+53.67	0.00	781.90	781.93
c	27+63.67	0.00	781.92	781.95
d	27+73.67	0.00	781.93	781.95
e	27+83.67	0.00	781.94	781.95
f	27+93.67	0.00	781.94	781.94
g	28+03.67	0.00	781.94	781.93
h	28+13.67	0.00	781.94	781.93
℄ Brg. Pier	28+23.67	0.00	781.94	781.94
i	28+33.67	0.00	781.94	781.97
j	28+43.67	0.00	781.94	782.02
k	28+53.67	0.00	781.94	782.07
l	28+63.67	0.00	781.94	782.12
m	28+73.67	0.00	781.94	782.17
n	28+83.67	0.00	781.94	782.19
o	28+93.67	0.00	781.94	782.19
p	29+03.67	0.00	781.94	782.17
q	29+13.67	0.00	781.94	782.12
r	29+23.67	0.00	781.94	782.05
℄ Brg. N. Abut.	29+36.34	0.00	781.94	781.94
Bk. N. Abut.	29+38.00	0.00	781.94	781.94

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LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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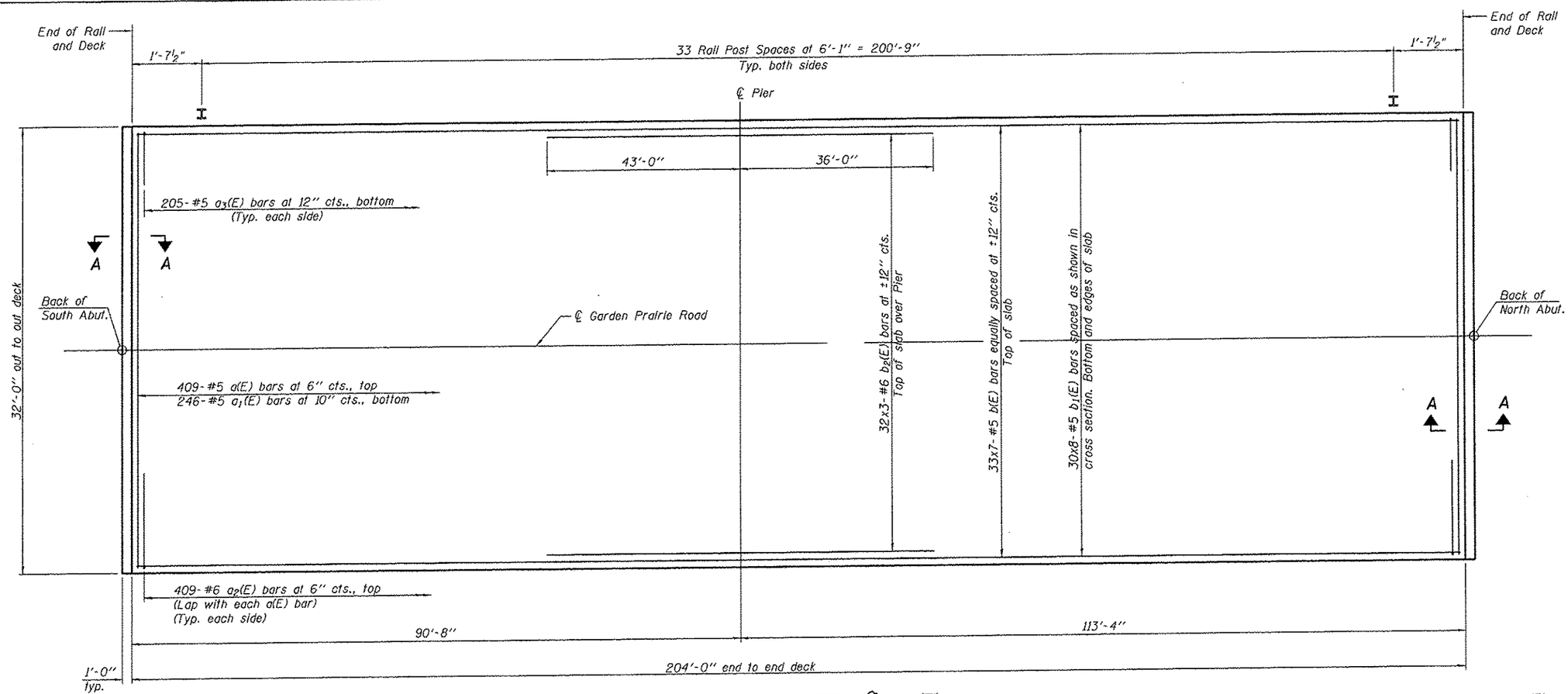
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

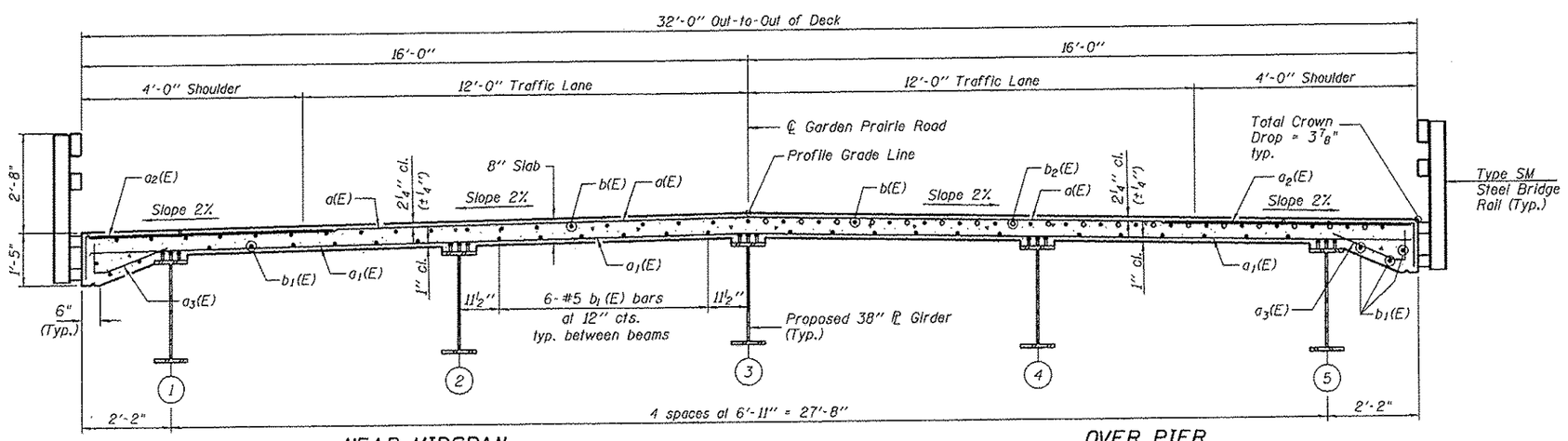
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 004-3097
SHEET 4 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	11
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

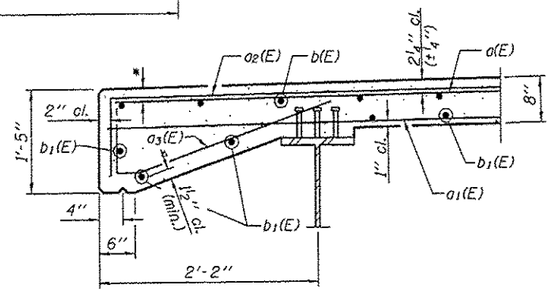


PLAN



NEAR MIDSPAN — OVER PIER

CROSS SECTION
(Looking North)



SECTION THRU EDGE OF SLAB

* Reinforcement bars in the top deck may be placed with a 1½ inch minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

MIN. BAR LAP

#5 bar = 2'-7"
#6 bar = 3'-1"

Notes:
See Sheet 6 of 16 for diaphragm details, bar details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 004-3097
SHEET 5 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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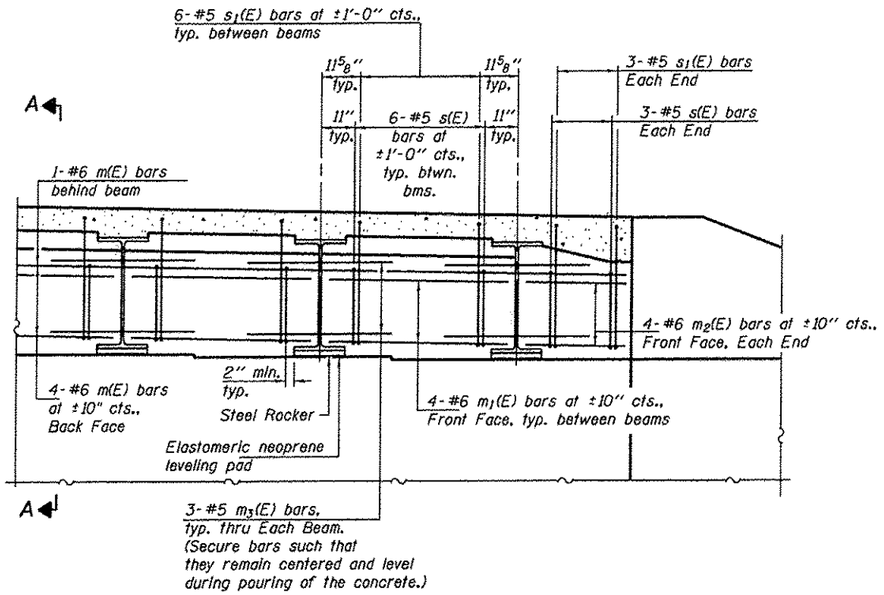
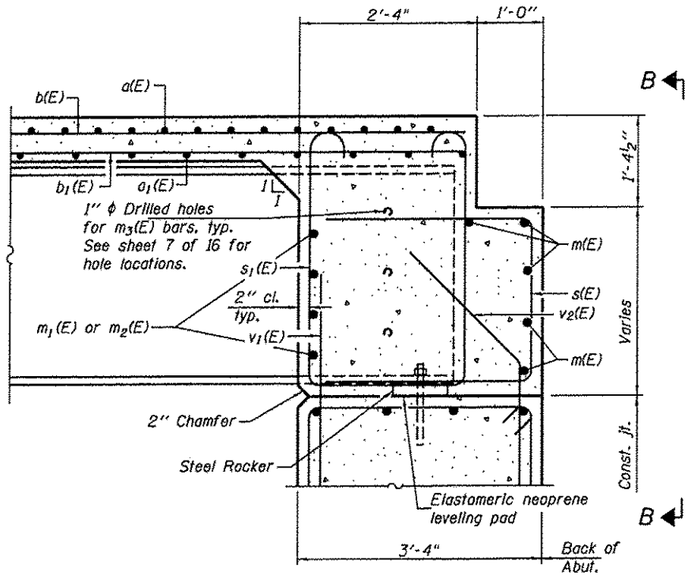
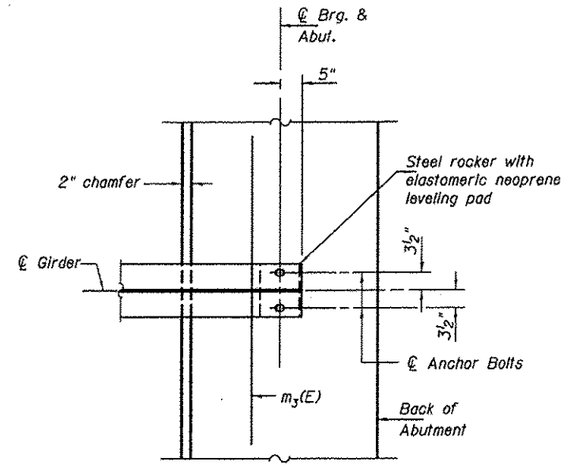
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		



DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

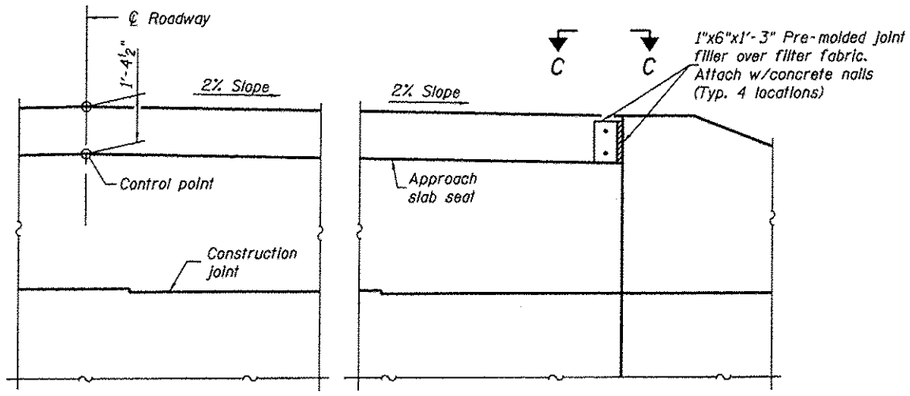
Reinforcement bars in diaphragm are billed with superstructure on this sheet.

Concrete in diaphragm is included with Concrete Superstructure on this sheet.

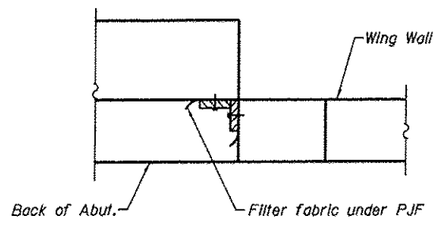
The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 9 of 16.

For details of bars v_1(E) and v_2(E) see sheet 11 of 16.

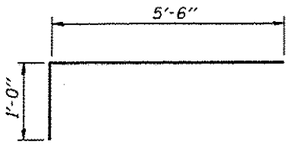


SECTION B-B

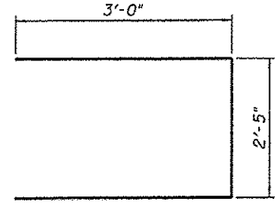


SECTION C-C

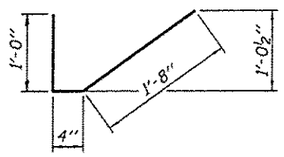
Filter fabric, PJF and concrete nails considered part of Concrete Structures.



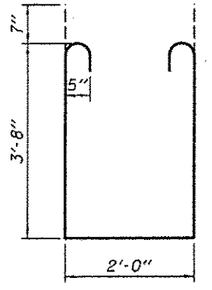
BARS a_2(E)



BARS s(E)



BARS a_3(E)



BARS s_1(E)

SUPERSTRUCTURE BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a(E)	409	#5	31'-8"	
a_1(E)	246	#5	31'-8"	
a_2(E)	818	#6	6'-6"	
a_3(E)	410	#5	3'-0"	
b(E)	231	#5	31'-4"	
b_1(E)	240	#5	27'-9"	
b_2(E)	96	#6	28'-5"	
m(E)	10	#6	31'-8"	
m_1(E)	32	#6	6'-6"	
m_2(E)	16	#6	1'-10"	
m_3(E)	30	#5	4'-0"	
s(E)	60	#5	8'-5"	
s_1(E)	60	#5	10'-6"	
Reinforcement Bars, Epoxy Coated			Pound	51,640
Concrete Superstructure			Cu. Yd.	205.5
Bridge Deck Grooving			Sq. Yds.	680
Protective Coat			Sq. Yds.	725

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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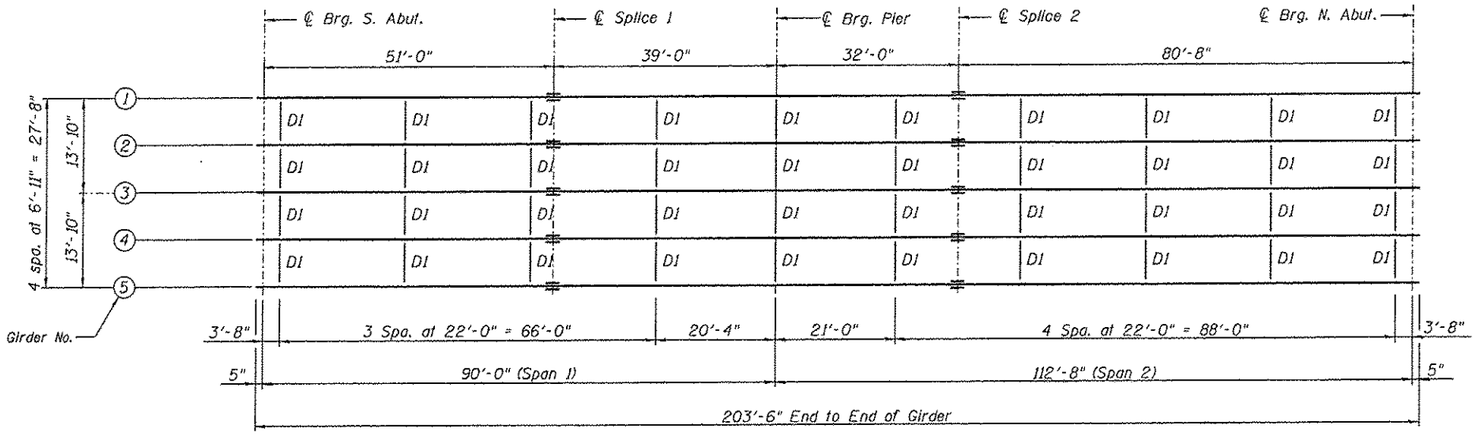
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

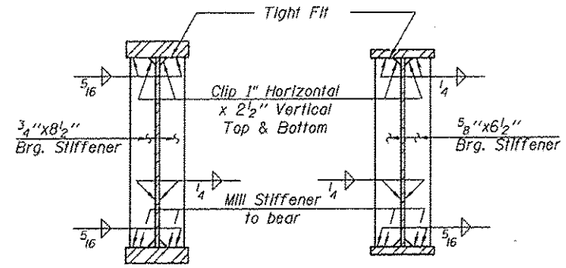
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTEGRAL ABUTMENT DIAPHRAGM DETAILS
STRUCTURE NO. 004-3097
SHEET 6 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	13
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

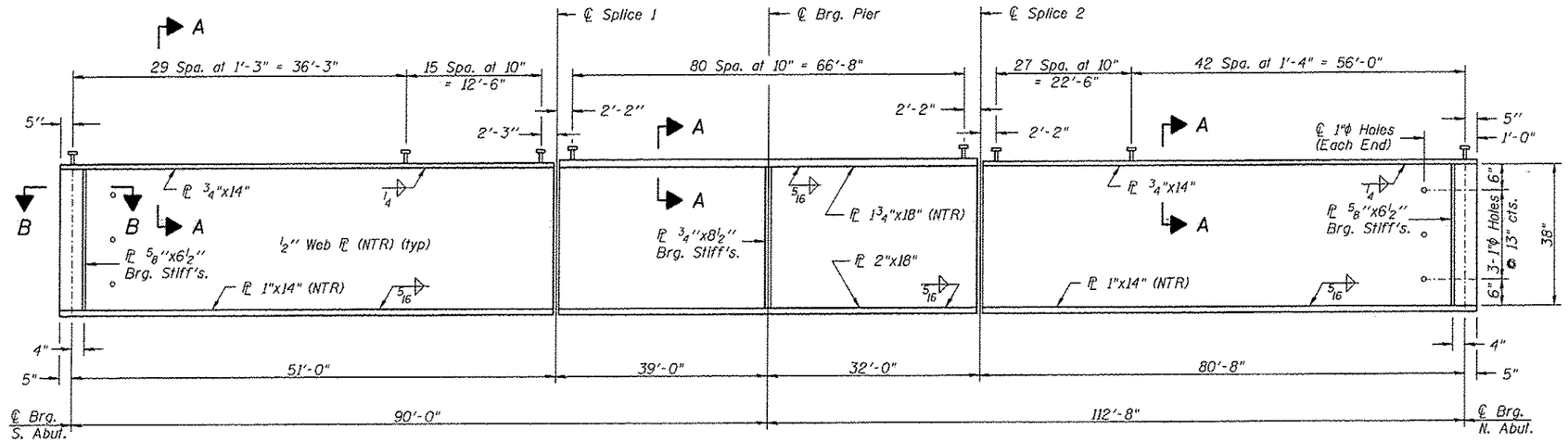


FRAMING PLAN



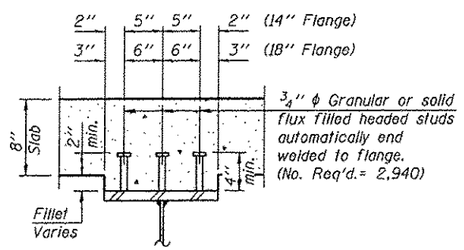
SECTION AT PIER

SECTION AT ABUTMENT

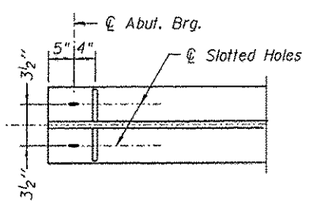


GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.



SECTION A-A



SECTION B-B

(Typ. each end)

LAYOUT	JKR	02/12/2014			
DRAWN	MWH	03/12/2014			
REVIEWED	SMK	03/12/2014			

HANSON

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FILE NAME = S-014-Str_Stl.dgn	CHECKED - JKR	REVISED -			
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -			
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL
STRUCTURE NO. 004-3097
SHEET 7 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	14
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

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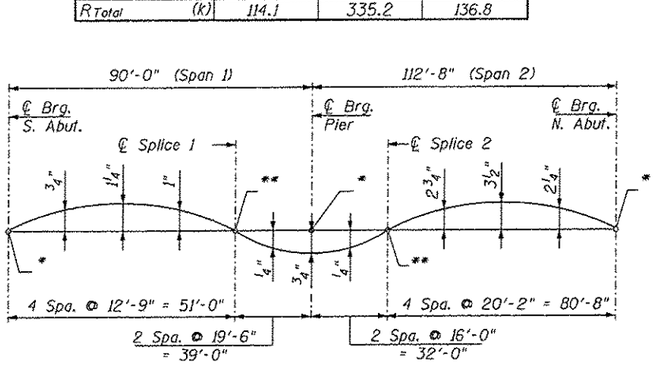
INTERIOR GIRDER MOMENT TABLE				
		0.35 Sp. 1	Pier	0.6 Sp. 2
I_s	(in^4)	11442	45127	11442
$I_c(n)$	(in^4)	31112	-	31112
$I_c(3n)$	(in^4)	23376	-	23376
$I_c(cr)$	(in^4)	-	33374	-
S_s	(in^3)	622	2005	622
$S_c(n)$	(in^3)	870	-	870
$S_c(3n)$	(in^3)	804	-	804
$S_c(cr)$	(in^3)	-	1677	-
DC1	(k/')	0.887	1.055	0.887
M_{DC1}	('k)	299	1656	753
DC2	(k/')	0.028	0.028	0.028
M_{DC2}	('k)	10	45	25
DW	(k/')	0.320	0.320	0.320
M_{DW}	('k)	115	514	282
M_{L+IM}	('k)	1012	1614	1220
M_u (Strength I)	('k)	2330	-	3543
$\phi_f M_n$, $\phi_f M_{nc}$	('k)	4613	-	4253
f_s DC1	(ksi)	5.77	9.91	14.53
f_s DC2	(ksi)	0.15	0.32	0.37
f_s DW	(ksi)	1.72	3.68	4.21
f_s (L+IM)	(ksi)	13.97	11.55	16.84
f_s (Service II)	(ksi)	25.79	28.93	41.00
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	38.52	-
$\phi_f F_n$	(ksi)	-	50.00	-
V_r	(k)	29.7	29.8	27.8

INTERIOR GIRDER REACTION TABLE				
		S. Abut.	Pier	N. Abut.
R_{DC1}	(k)	24.5	128.3	37.6
R_{DC2}	(k)	0.8	3.8	1.2
R_{DW}	(k)	8.7	42.7	13.5
R_{L+IM}	(k)	80.1	160.4	84.5
R_{Total}	(k)	114.1	335.2	136.8



CAMBER DIAGRAM

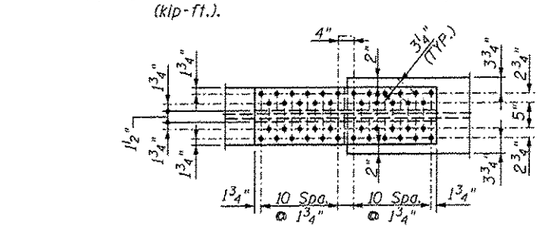
* See table for final top of web elevations at abutments and pier.
** Theoretical top of web elevations before dead load deflections.

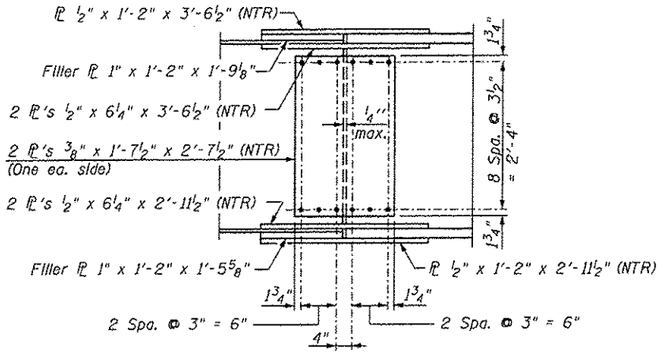
TOP OF WEB ELEVATIONS TABLE

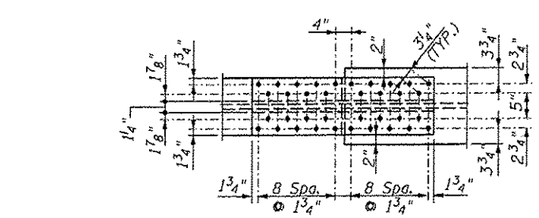
For fabrication only

GIRDER NUMBER	℄ Brg. S. Abut.	℄ Splice No. 1	℄ Brg. Pier	℄ Splice No. 2	℄ Brg. N. Abut.
Girder 1	780.77	780.73	780.74	780.87	780.85
Girder 2	780.91	780.87	780.88	781.01	780.99
Girder 3	781.05	781.01	781.02	781.14	781.13
Girder 4	780.91	780.87	780.88	781.01	780.99
Girder 5	780.77	780.73	780.74	780.87	780.85

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).
$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).



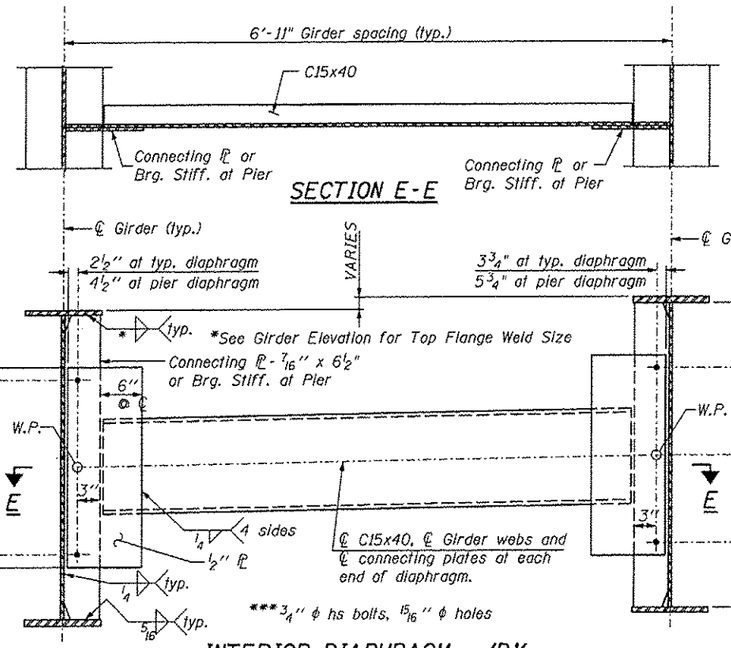




DETAIL - FIELD SPLICE

Note:
Load carrying components designated "NTR" shall conform to the supplemental requirements for notch toughness, Zone 2.
Use ⅞" ϕ h.s. bolts with 15/16" ϕ holes for all splice connections.
Splice plates shall conform to the requirements of AASHTO M270, grade 50.

M_u (Strength I): Factored design moment (kip-ft.).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L+IM}
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / $S_c(3n)$ or M_{DC2} / $S_c(cr)$ as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / $S_c(3n)$ or M_{DW} / $S_c(cr)$ as applicable.
f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{L+IM} / $S_c(n)$ or M_{DW} / $S_c(cr)$ as applicable.
f_s (Service II): Sum of stresses as computed below (ksi).
f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (L + IM)
$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (L + IM)
$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
V_r: Maximum factored shear range in span computed according to Article 6.10.10.



INTERIOR DIAPHRAGM - 'D1'

(40 required)

Notes:
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
All connecting plates & diaphragm members may conform to the requirements of AASHTO M270, Grade 36.
Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.
Two hardened washers required for each set of oversized holes.

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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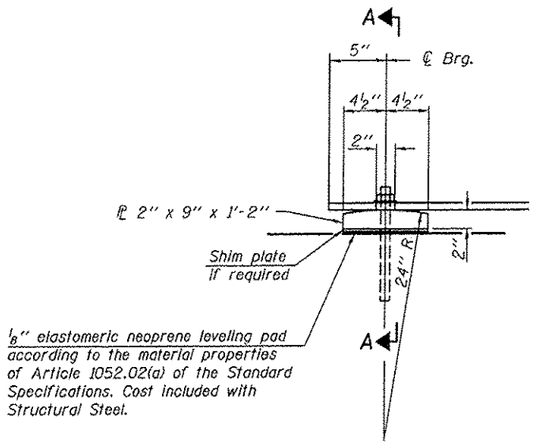
HANSON

USER NAME = HUSSU00411	DESIGNED - SMK	REVISED -	
FILE NAME = S-015-Str-S1.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

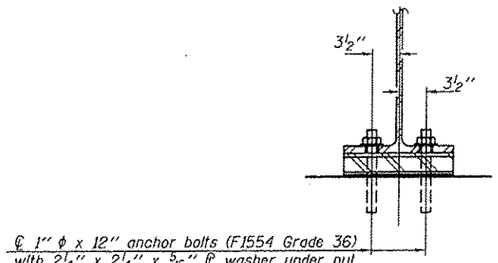
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 004-3097
SHEET 8 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	15
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

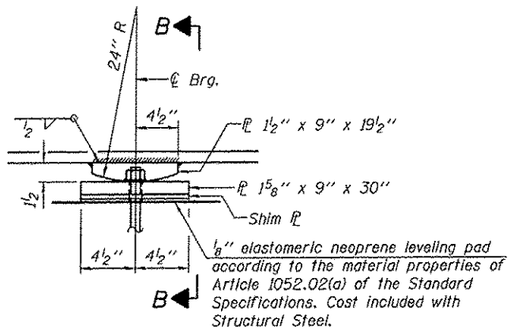


ELEVATION AT ABUTMENT

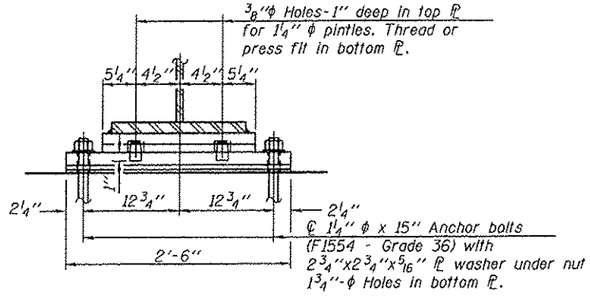


SECTION A-A

FIXED BEARING AT ABUTMENTS
(10 required)

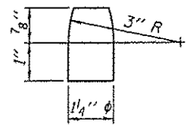


ELEVATION AT PIER



SECTION B-B

FIXED BEARING AT PIER
(5 required)



PINTLE

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

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

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Quantity
Anchor Bolts, 1"	Each	20
Anchor Bolts, 1¼"	Each	10

LAYOUT JKR 02/13/2014
DRAWN MWH 03/12/2014
REVIEWED SMK 03/12/2014
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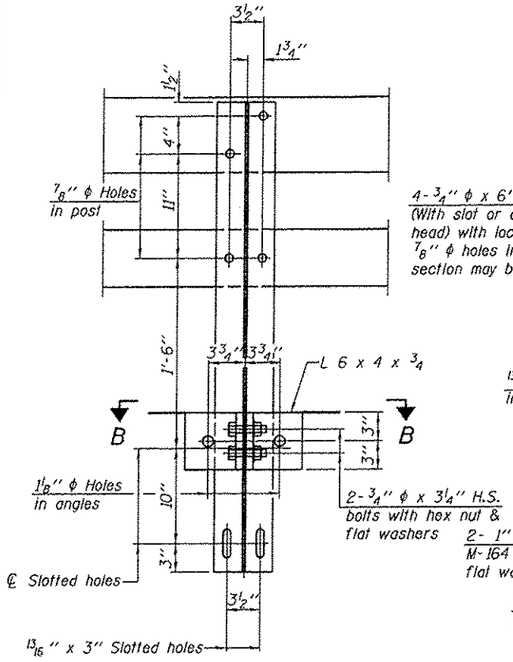
HANSON

USER NAME = HUSSU08411	DESIGNED - SMK	REVISED -	
FILE NAME = S-016-BearingDet.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

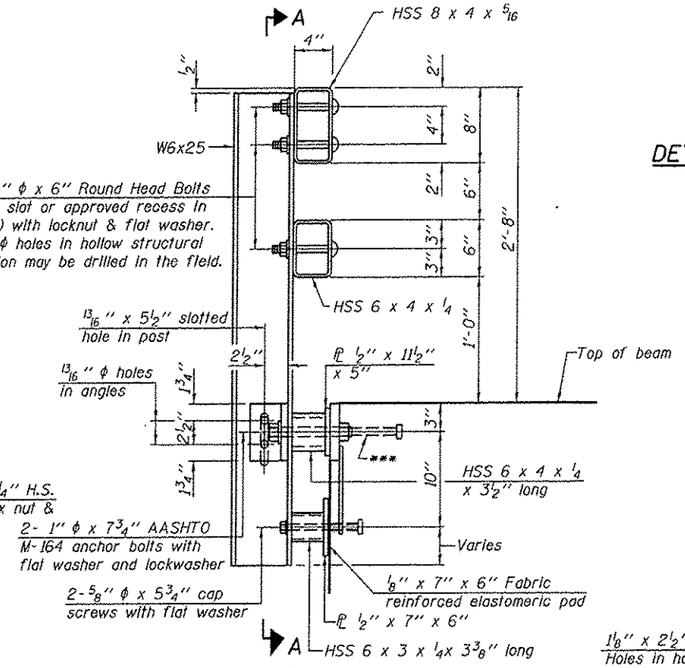
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 004-3097
SHEET 9 OF 16

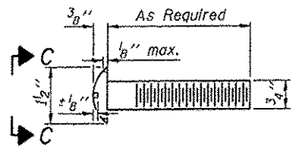
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	16
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			



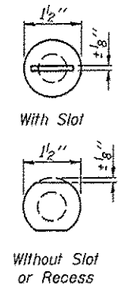
SECTION A-A



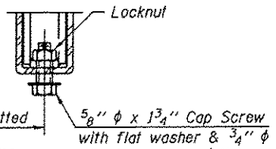
SECTION AT RAIL POST



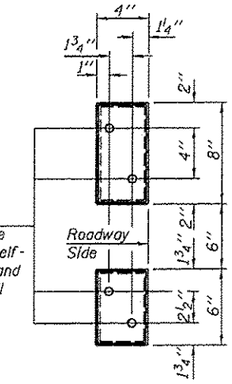
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



VIEW C-C

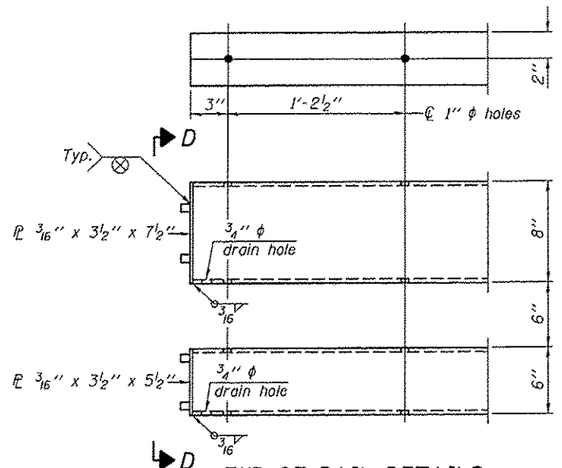


RAIL SPLICE CONNECTION AT EXPANSION JT.

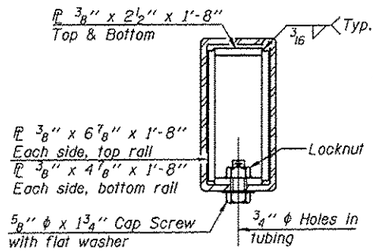


℄ - 5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032 .

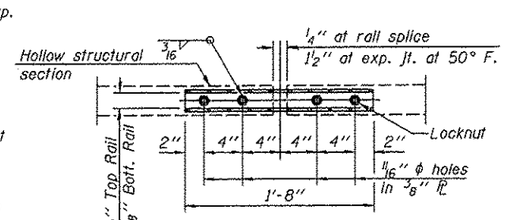
VIEW D-D



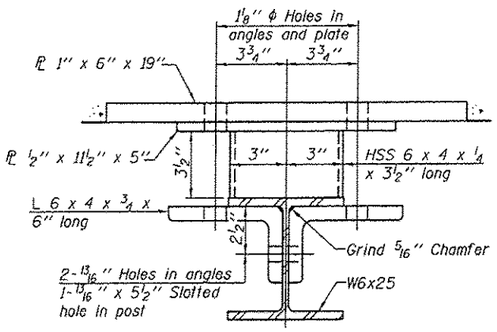
END OF RAIL DETAILS



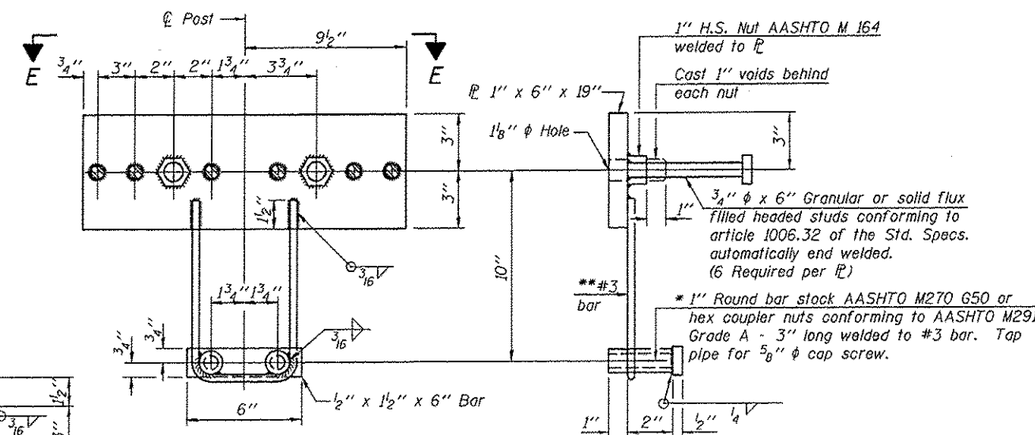
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE ℄ TYPICAL

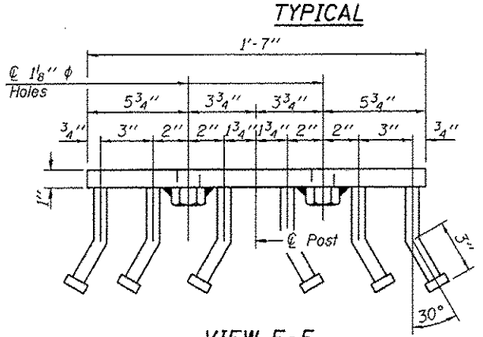


SECTION B-B

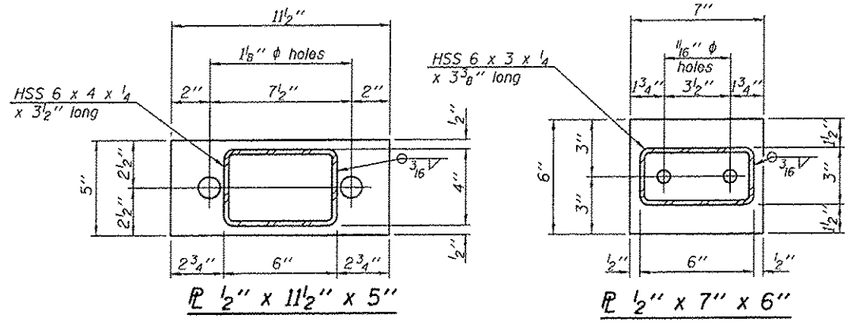


ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



VIEW E-E



Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.

All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.

*** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	408

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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HANSON

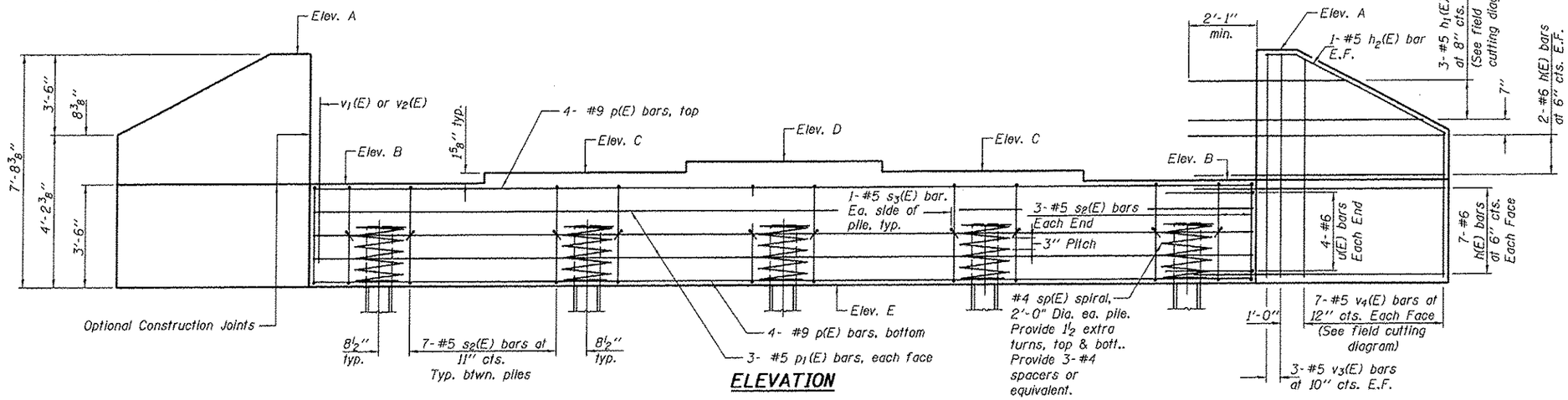
USER NAME = HUSSU00411	DESIGNED - SMK	REVISED -	
FILE NAME = S-017-Stl_Rail.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

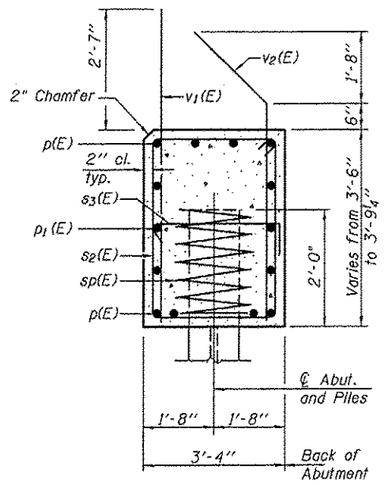
STEEL RAILING, TYPE SM
STRUCTURE NO. 004-3097
SHEET 10 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	17
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

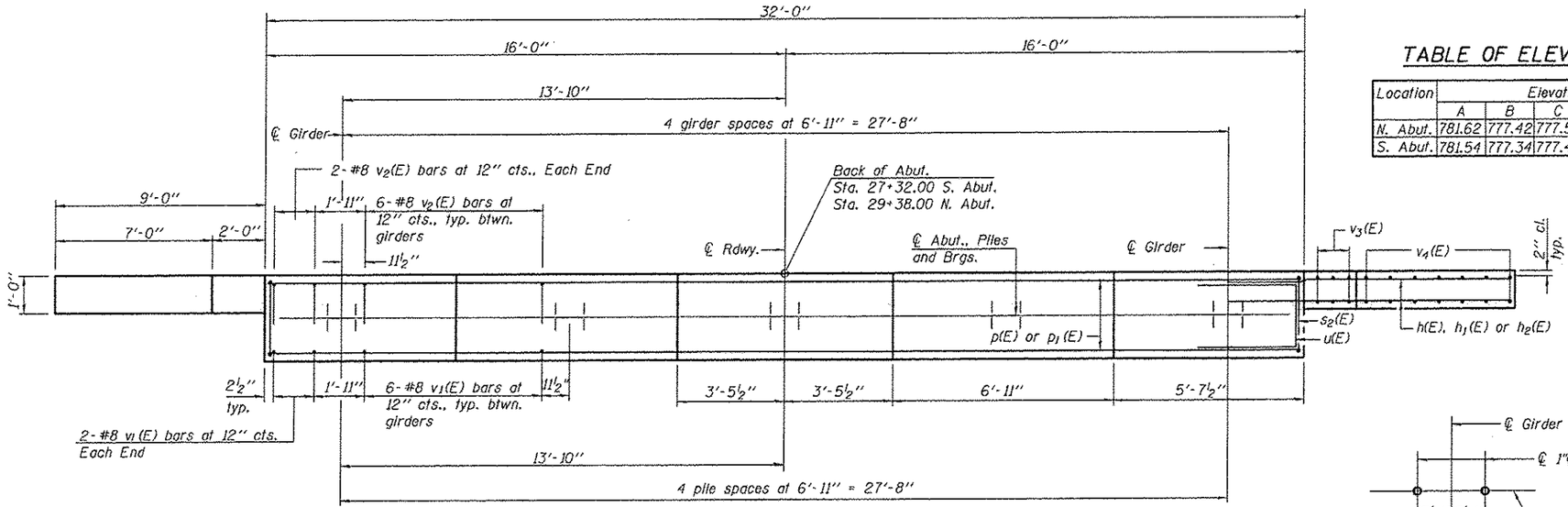
Notes:
Pour steps monolithically with cap.



ELEVATION



SEC. THRU ABUT.



PLAN

TABLE OF ELEVATIONS

Location	Elevations				
	A	B	C	D	E
N. Abut.	781.62	777.42	777.56	777.70	773.92
S. Abut.	781.54	777.34	777.48	777.62	773.84

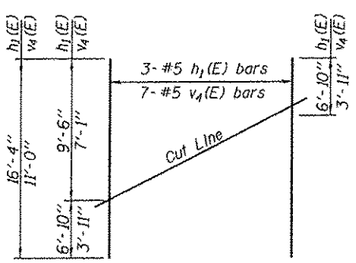
BILL OF MATERIAL FOR TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h(E)	72	#6	11'-1"	
$h_1(E)$	12	#5	16'-4"	
$h_2(E)$	8	#5	9'-4"	
p(E)	16	#9	31'-8"	
$p_1(E)$	12	#5	31'-8"	
$s_2(E)$	68	#5	13'-3"	
$s_3(E)$	20	#5	4'-0"	
sp(E)	10	#4	2'-0"	
u(E)	16	#6	10'-7"	
$v_1(E)$	56	#8	5'-11"	
$v_2(E)$	56	#8	6'-2"	
$v_3(E)$	24	#5	7'-5"	
$v_4(E)$	28	#5	11'-0"	
Structure Excavation	Cu. Yd.		238	
Concrete Structures	Cu. Yd.		37.0	
Reinforcement Bars, Epoxy Coated	Pound		7,650	
Furnishing Steel Piles, HP14x73	Foot		360	
Driving Piles	Foot		360	
Test Pile, HP14x73	Each		2	
Pile Shoes	Each		10	

* Length is height of spiral.
For details of piles see sheet 13 of 16.

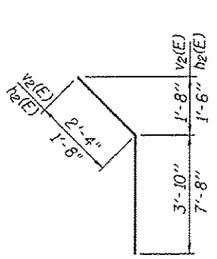
PILE DATA

Type: HP14x73 w/ Pile Shoes
Nominal Required Bearing: 490k S. Abut.
545k N. Abut.
Factored Resistance Available: 270k S. Abut.
300k N. Abut.
Est. Length: 45 ft. each abut.
No. Production Piles: 8 (4 each abut.)
No. Test Piles: 2 (1 each abut.)

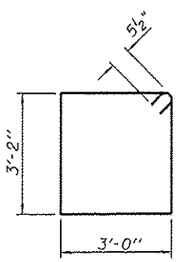


FIELD CUTTING DIAGRAM

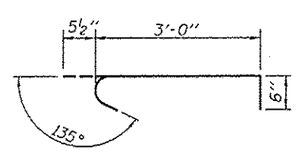
Order $h_1(E)$ and $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



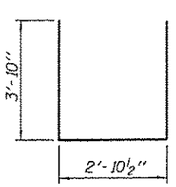
BAR $v_2(E)$ & $h_2(E)$



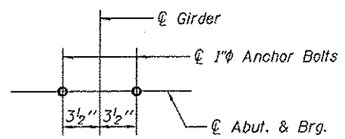
BAR $s_2(E)$



BAR $s_3(E)$



BAR u(E)



ANCHOR BOLT LAYOUT

LAYOUT	JKR	05/12/2014	
DRAWN	MWH	05/12/2014	
REVIEWED	SMK	05/12/2014	

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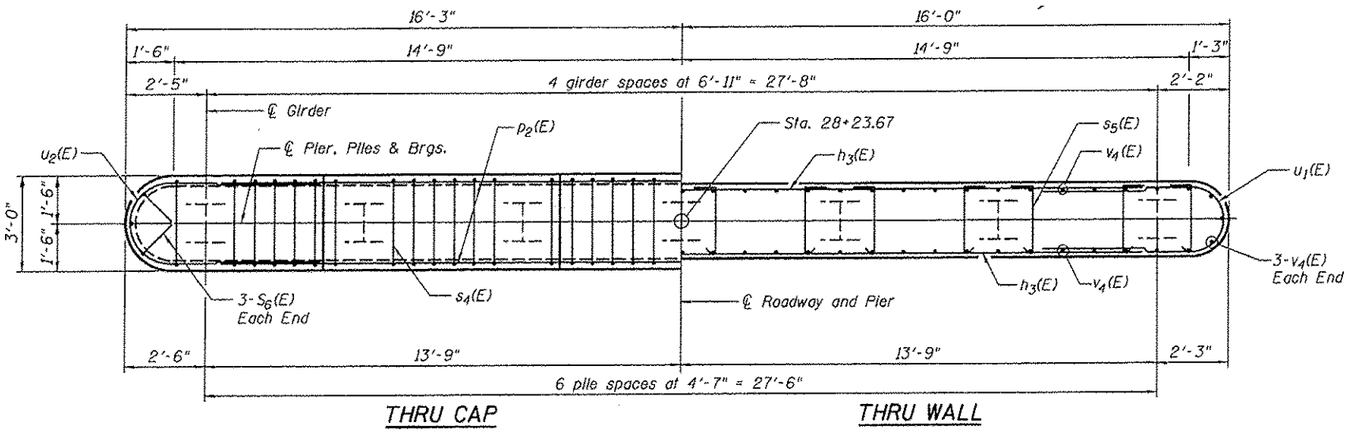
HANSON

USER NAME = HUSSUBBAIII	DESIGNED - SMK	REVISED -	
FILE NAME = S-018-abutments.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

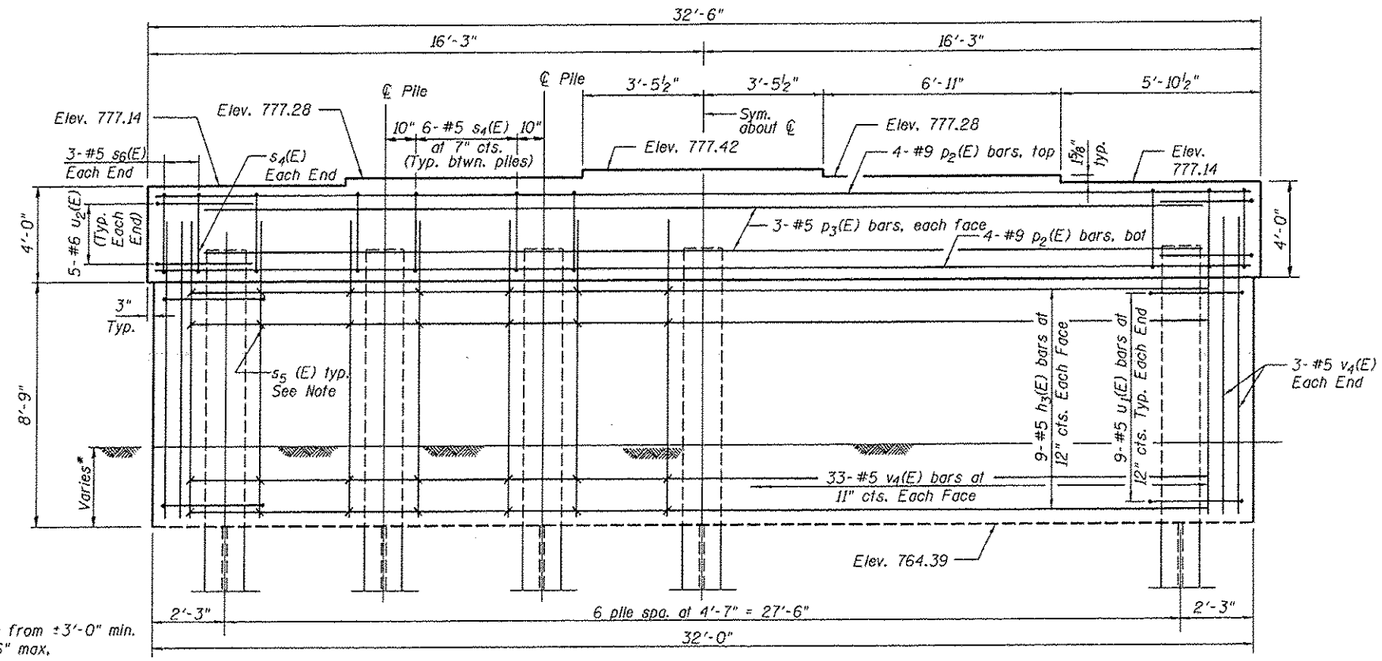
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENTS
STRUCTURE NO. 004-3097
SHEET 11 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	18
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			



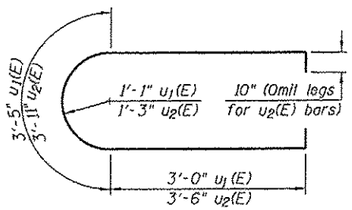
SECTION



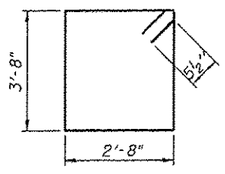
* Varies from ±3'-0" min. to ±6'-6" max.

ELEVATION

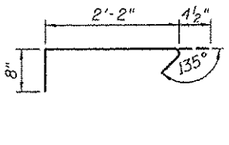
Note:
Place #4 s_5(E) bars at 12" cts. at vertical v_4(E) bars on each side of pile.



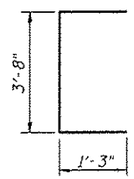
BARS u_1(E) & u_2(E)



BAR s_4(E)



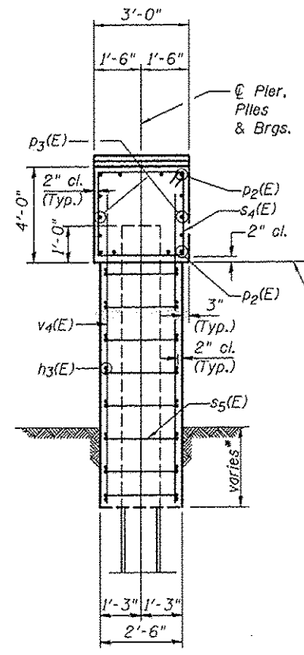
BAR s_5(E)



BAR s_6(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_3(E)	18	#5	29'-4"	——
p_2(E)	8	#9	29'-4"	——
p_3(E)	6	#5	29'-4"	——
s_4(E)	38	#5	13'-7"	□
s_5(E)	126	#4	3'-3"	⌐
s_6(E)	6	#5	6'-2"	L
u_1(E)	18	#5	11'-1"	⊂⊃
u_2(E)	10	#6	10'-11"	⊂⊃
v_4(E)	72	#5	11'-0"	——
Structure Excavation			Cu. Yd.	40
Concrete Structures			Cu. Yd.	40.2
Reinf. Bars, Epoxy Coated			Lbs.	3,580
Furn. Steel Piles, HP14x89			Foot	240
Driving Piles			Foot	240
Pile Shoes			Each	7
Cofferdam (Type 1) (Loc. 1)			Each	1
Test Pile, HP14X89			Each	1



SECTION THRU PIER

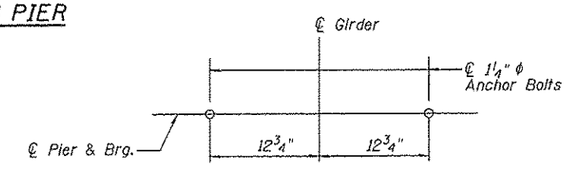
NOTES:

See Sheet 13 of 16 for Pile Details.

If a portion of the pier wall or concrete encasement is underwater, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

PILE DATA

Type: - HP14X89 w/ Pile Shoes
Nominal Required Bearing: 690 k
Factored Resistance Available: 380 k
Est. Length: 40 ft.
No. Production Piles: 6
No. Test Piles: 1



ANCHOR BOLT LAYOUT

USER NAME = HUSSU00411	DESIGNED - SMK	REVISED -	
FILE NAME = S-019-Piers.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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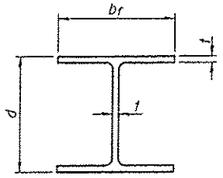
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

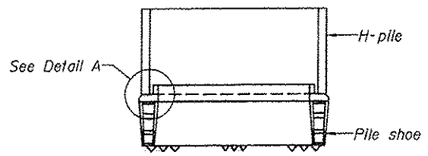
PIER
STRUCTURE NO. 004-3097
SHEET 12 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	19
		CONTRACT NO. 85614		
	ILLINOIS FED. AID PROJECT			

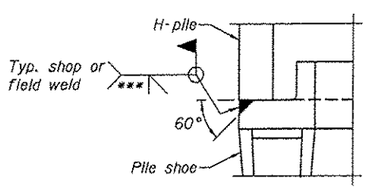


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	$14\frac{1}{4}''$	$14\frac{7}{8}''$	$\frac{13}{16}''$	30''
x102	14''	$14\frac{3}{4}''$	$\frac{11}{16}''$	30''
x89	$13\frac{7}{8}''$	$14\frac{3}{4}''$	$\frac{5}{8}''$	30''
x73	$13\frac{5}{8}''$	$14\frac{5}{8}''$	$\frac{1}{2}''$	30''
HP 12x84	$12\frac{1}{4}''$	$12\frac{1}{4}''$	$\frac{11}{16}''$	24''
x74	$12\frac{1}{8}''$	$12\frac{1}{4}''$	$\frac{5}{8}''$	24''
x63	12''	$12\frac{1}{8}''$	$\frac{1}{2}''$	24''
x53	$11\frac{3}{4}''$	12''	$\frac{7}{16}''$	24''
HP 10x57	10''	$10\frac{1}{4}''$	$\frac{9}{16}''$	24''
x42	$9\frac{3}{4}''$	$10\frac{1}{8}''$	$\frac{7}{16}''$	24''
HP 8x36	8''	$8\frac{1}{8}''$	$\frac{7}{16}''$	18''

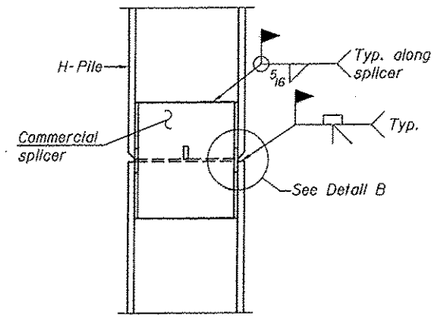


ELEVATION

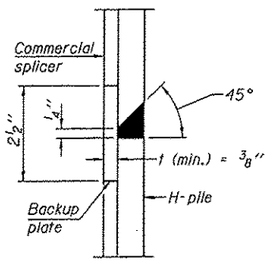


DETAIL A

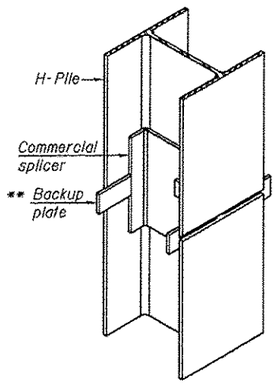
H-PILE SHOE ATTACHMENT



ELEVATION

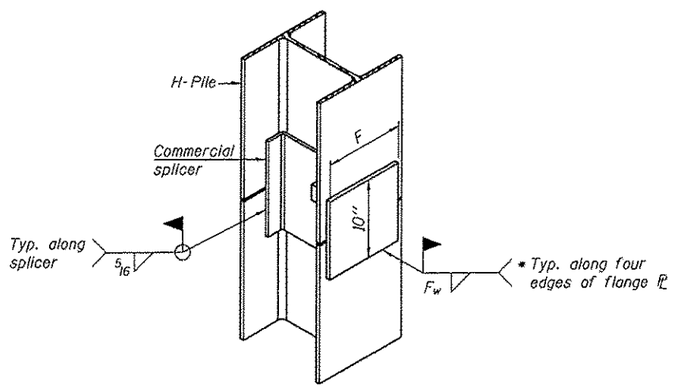


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



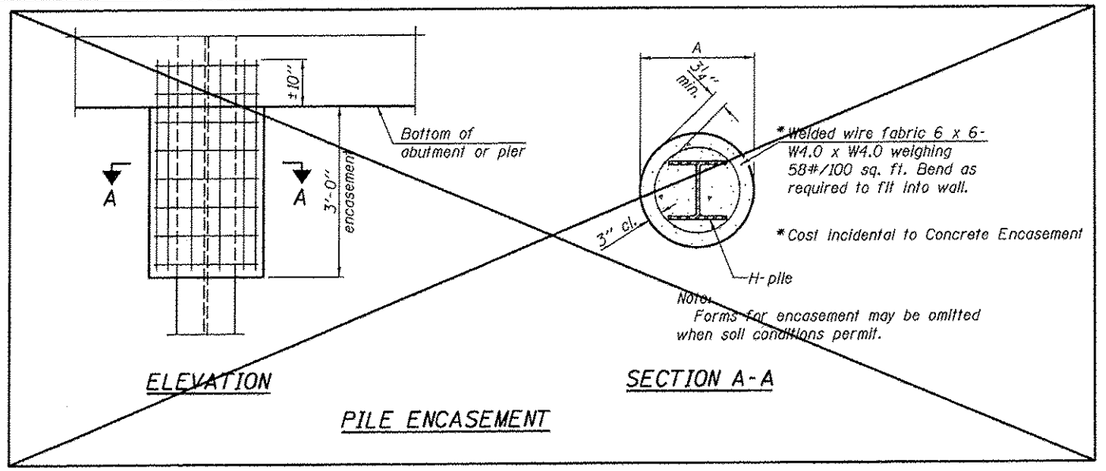
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds ¼'' from end of web and/or each flange.

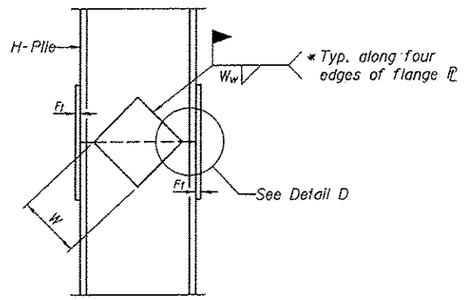
** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer ($\frac{5}{16}''$ min.).



ELEVATION SECTION A-A

PILE ENCASEMENT



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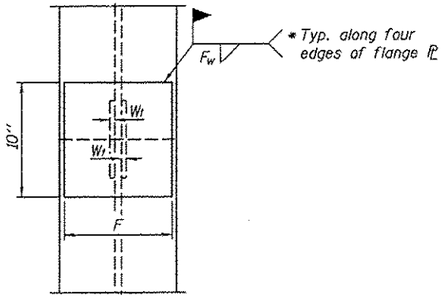
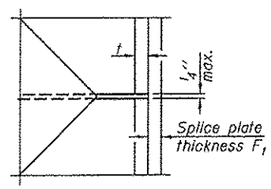


END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	$12\frac{1}{2}''$	1''	$\frac{7}{8}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x102	$12\frac{1}{2}''$	$\frac{7}{8}''$	$\frac{3}{4}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x89	$12\frac{1}{2}''$	$\frac{3}{4}''$	$\frac{11}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x73	$12\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{9}{16}''$	$7\frac{3}{4}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
HP 12x84	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x74	10''	$\frac{7}{8}''$	$\frac{11}{16}''$	$6\frac{1}{2}''$	$\frac{5}{8}''$	$\frac{1}{2}''$
x63	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x53	10''	$\frac{5}{8}''$	$\frac{1}{2}''$	$6\frac{1}{2}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 10x57	8''	$\frac{3}{4}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
x42	8''	$\frac{5}{8}''$	$\frac{9}{16}''$	$5\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$
HP 8x36	7''	$\frac{5}{8}''$	$\frac{7}{16}''$	$4\frac{1}{4}''$	$\frac{1}{2}''$	$\frac{3}{8}''$

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

LAYOUT	JKR	05/12/2014
DRAWN	MWH	05/12/2014
REVIEWED	SMK	05/12/2014

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HANSON

USER NAME = HUSSU0841I	DESIGNED - SMK	REVISED -	
FILE NAME = S-028-H-pile.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL H-PILE DETAILS
STRUCTURE NO. 004-3097
SHEET 13 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	20
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Terracon

SOIL BORING LOG

Date 4/8/13

ROUTE FAS Route 1030 DESCRIPTION Garden Prairie Bridge over Kishwaukee River LOGGED BY DAW

SECTION 12-00091-00-BR LOCATION , SEC. 25, TWP. 44N, RNG. 4E,
Latitude , Longitude

COUNTY Boone DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 004-3097
Station

BORING NO. 1
Station 27+32 *
Offset 8.5 ft RT
Ground Surface Elev. 781.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 765.9 ft
Upon Completion ft
After Hrs. 769.4 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
781.21				ASPHALT, Approximately 8½"
	10		5	FILL: SAND, brown
	7			
	4			
	8			
-5	7		4	
	7			
775.91				
	5			FILL: CLAY, brown
	2		23	
	3			
	2		17	
	2			
771.91 -10	2			
				FILL: SAND, brown
	2			
	1		13	
	2			
	2		14	
	2			
-15	10			
	9			
	11		11	
	15			
	16			
	14		16	
-20	11			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				FILL: SAND, brown *(continued)*
	10			
	15		10	
	13			
758.91				
				SAND, brown, very dense
	10			
	19		8	
-25	43			
	8			
	28		9	
	34			
	8			
752.41				
	33	4.5	9	SANDY CLAY, gray, hard
-30	46	P		
	11	4.0	9	
	36	P		
-35	49			
	30	4.5	9	
	50/5"	P		
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

* Stationings have been revised to match existing and proposed plans.

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Terracon

SOIL BORING LOG

Date 4/8/13

ROUTE FAS Route 1030 DESCRIPTION Garden Prairie Bridge over Kishwaukee River LOGGED BY DAW

SECTION 12-00091-00-BR LOCATION , SEC. 25, TWP. 44N, RNG. 4E,
Latitude , Longitude

COUNTY Boone DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 004-3097
Station

BORING NO. 1
Station 27+32 *
Offset 8.5 ft RT
Ground Surface Elev. 781.91 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 765.9 ft
Upon Completion ft
After Hrs. 769.4 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				SANDY CLAY, gray, hard *(continued)*
	20	4.0	11	
	50/3"	P		
-45				
733.91				
735.81	50/1"			DOLOMITE
				Auger Refusal at 48 ft
				End of Boring
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

* Stationings have been revised to match existing and proposed plans.

BBS, form 137 (Rev. 8-99)

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

HANSON

USER NAME = HUSSU00411		DESIGNED - SMK		REVISED -	
FILE NAME = S-021-Borings1.dgn		CHECKED - JKR		REVISED -	
PLOT SCALE = PLOT SCALE		DRAWN - MWH		REVISED -	
PLOT DATE = 8/29/2014		CHECKED - SMK		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 004-3097
SHEET 14 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	21
		CONTRACT NO. 85614		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Terracon

SOIL BORING LOG

Date 4/9/13

ROUTE FAS Route 1030 DESCRIPTION Garden Prairie Bridge over Kishwaukee River LOGGED BY DAW

SECTION 12-00091-00-BR LOCATION , SEC. 25, TWP. 44N, RNG. 4E,
Latitude , Longitude

COUNTY Boone DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 004-3097
Station

BORING NO. 2
Station 28+18 *
Offset 18.5 ft RT
Ground Surface Elev. 771.26 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 767.8 ft
Upon Completion ft
After Hrs. 769.3 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
0				TOPSOIL. Approximately 6" 770.76
	2 1 1		20	SAND. brown and gray, very loose to very dense
-5	7 18 5			
	16			
	13 7		7	
	7 9 7		11	
-10	18			
	27 10 10		10	
	41 34		7	
-15				755.26
	10 21 43	4.5 P	9	SANDY CLAY. gray, hard
	42 50/3"	4.0 P	10	
-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SANDY CLAY. gray, hard *(continued)*
	38 50/4"	4.5 P	9	
	33 50/3"	4.5 P	9	
-25	38			
	50/5"	4.5 P	8	
	50/5"	4.5 P	9	
-30	50/1"			737.26
				Auger Refusal at 34'
-35				End of Boring
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
* Stationings have been revised to match existing and proposed plans.

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Terracon

SOIL BORING LOG

Date 4/8/13

ROUTE FAS Route 1030 DESCRIPTION Garden Prairie Bridge over Kishwaukee River LOGGED BY DAW

SECTION 12-00091-00-BR LOCATION , SEC. 25, TWP. 44N, RNG. 4E,
Latitude , Longitude

COUNTY Boone DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 004-3097
Station

BORING NO. 3
Station 29+40 *
Offset 8.5 ft RT
Ground Surface Elev. 781.90 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 768.4 ft
Upon Completion ft
After Hrs. 769.9 ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
0				ASPHALT. Approximately 9½" 781.10
	11 4 4		5	FILL: SAND. brown
	3			
-5	4 3		8	
	2			
	3 5		10	
	3			
-10	2 3		14	
	3			
	2 3		20	
	4			
	3 8		21	
-15				766.90
	8			SAND. brown, medium dense
	8			
	8 7		9	
	6			
-20	7 9		11	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				SAND. brown, medium dense *(continued)*
	11			
	11 11		9	
	11			
	15		8	
-25	7			
				755.90
	3			SANDY CLAY. gray, medium stiff to hard
	3 2		12	
		0.5 B		
-30				
	19			
	23 17	4.5 P	8	
-35				
	26			
	50/5"	4.5 P	9	
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
* Stationings have been revised to match existing and proposed plans.

BBS, form 137 (Rev. 8-99)

HANSON

USER NAME = HUSSU00411	DESIGNED - SMK	REVISED -	
FILE NAME = S-022-Borings-2.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 004-3097
SHEET 15 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	22
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Terracon

SOIL BORING LOG

Date 4/8/13

ROUTE FAS Route 1030 DESCRIPTION Garden Prairie Bridge over Kishwaukee River LOGGED BY DAW

SECTION 12-00091-00-BR LOCATION , SEC. 25, TWP. 44N, RNG. 4E,
Latitude , Longitude

COUNTY Boone DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO. 004-3097
Station

BORING NO. 3
Station 29+40 *
Offset 8.5 ft RT
Ground Surface Elev. 781.90 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 768.4 ft
Upon Completion ft
After Hrs. 769.9 ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY CLAY, gray, medium stiff to hard *(continued)*		34		
		36	4.5	14
	-45	50/2"	P	
	734.40			
DOLOMITE	~~734.30~~	50/1"		
Auger Refusal at 47.5 ft End of Boring				
	-50			
	-55			
	-60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
* Stationings have been revised to match existing and proposed plans.

BBS, form 137 (Rev. 8-99)

LAYOUT	JKR	02/12/2014
DRAWN	MWH	03/12/2014
REVIEWED	SMK	03/12/2014

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HANSON

USER NAME = HUSSU00411	DESIGNED - SMK	REVISED -	
FILE NAME = S-023-Borings-3.dgn	CHECKED - JKR	REVISED -	
PLOT SCALE = PLOT SCALE	DRAWN - MWH	REVISED -	
PLOT DATE = 8/29/2014	CHECKED - SMK	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 004-3097
SHEET 16 OF 16

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	23
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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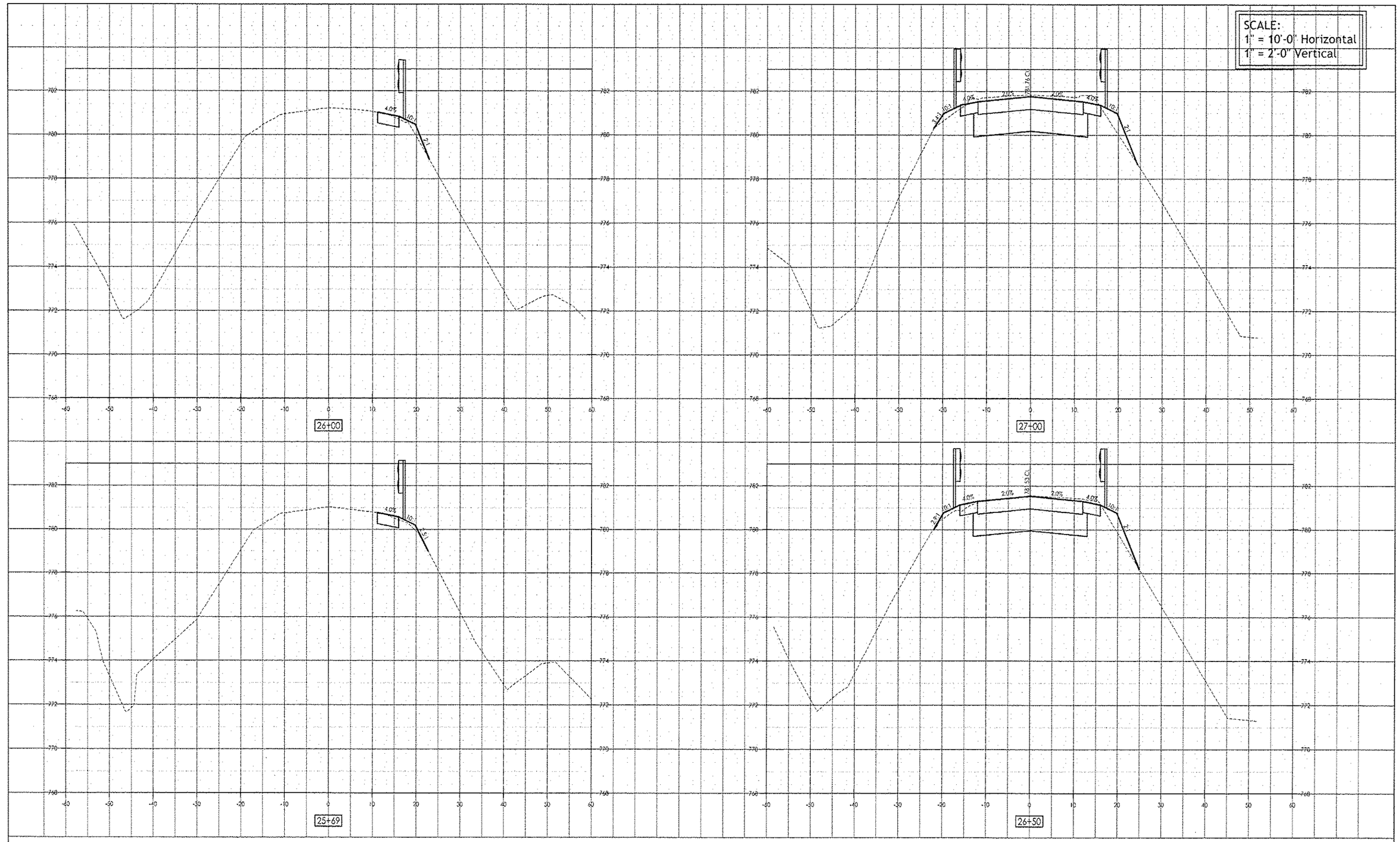
1" = 2'-0" Vertical



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PROFILE
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NOTE BOOK —
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BY	DATE

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	DRAWN — JAB	REVISED —
PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: AS SHOWN | SHEET NO. 24 OF 27 SHEETS | STA. 25+69 | TO STA. 27+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	24
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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SCALE:
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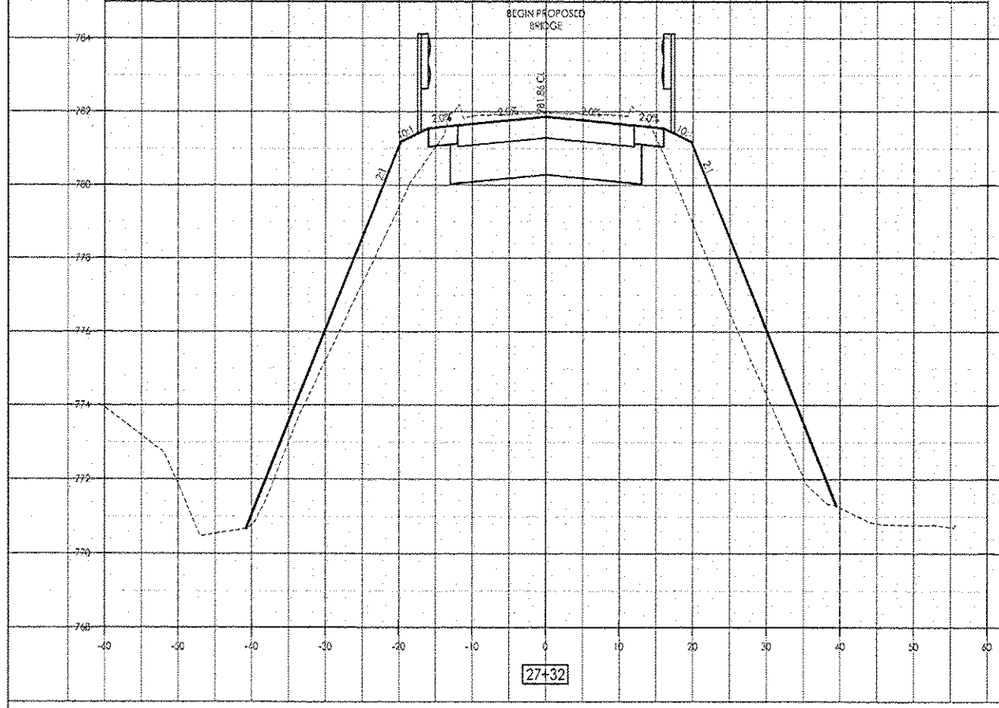
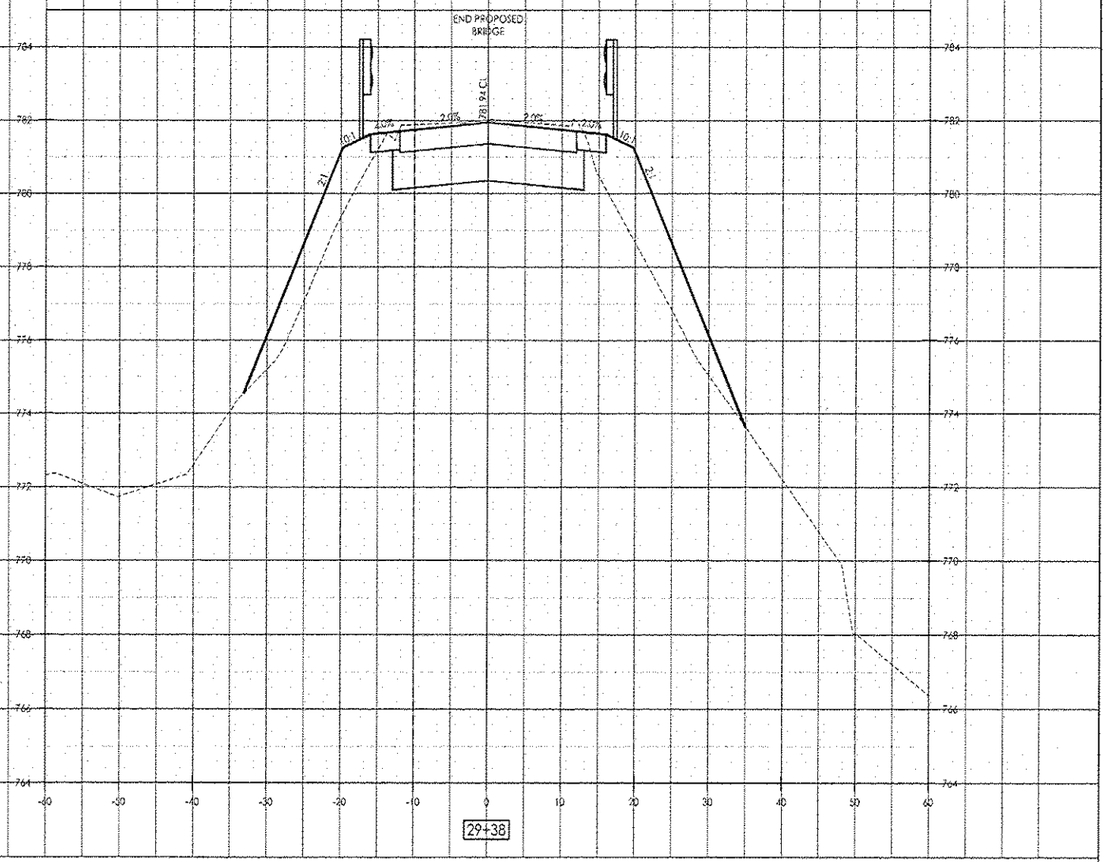
1" = 2'-0" Vertical

PLAN
DRAWN
ALIGNMENT CK2333
GRADES CK2333
NOTE BOOK
NO.
BY DATE

PROFILE
DRAWN
PLOTTED
GRADES CHECKED
B.M. NOTES
STRUCTURE NO. 049178 DF3
NOTE BOOK
NO.
BY DATE





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	PLOT DATE = 09/08/2014	DATE —07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: AS SHOWN | SHEET NO. 25 OF 27 SHEETS | STA. 27+32 | TO STA. 29+38

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1020	12-00091-00-BR	BOONE	27	25
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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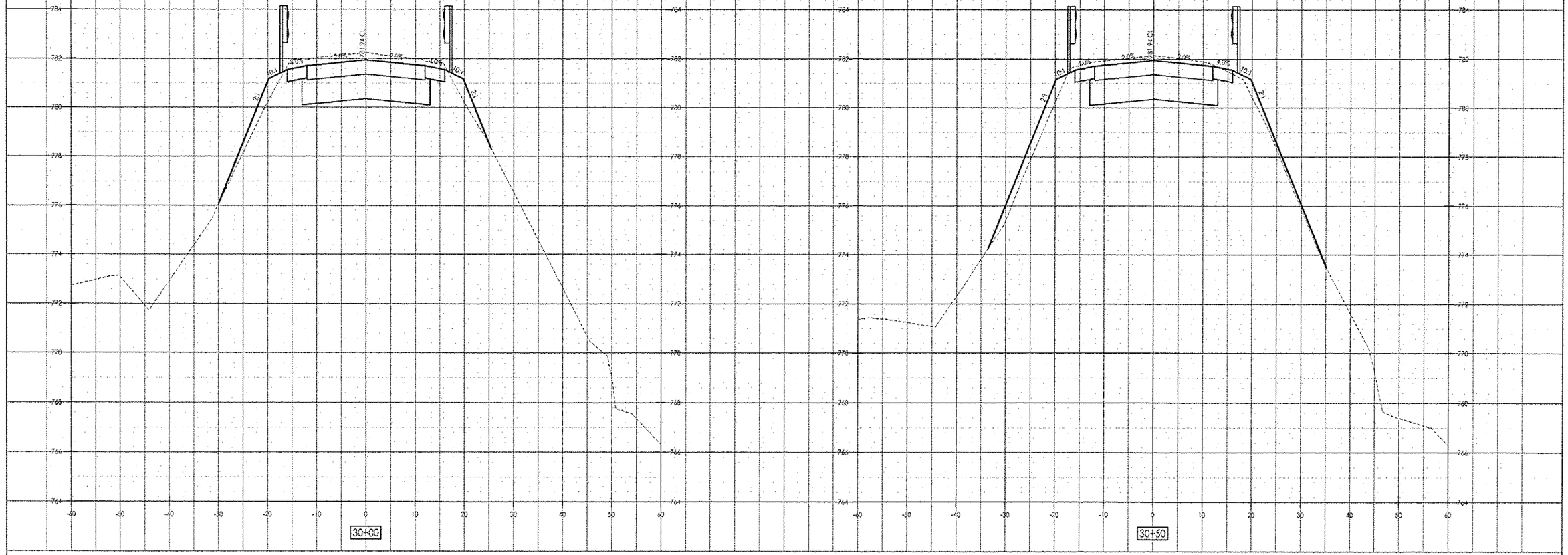

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		DRAWN — JAB	REVISED —
	PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
	PLOT DATE = 09/08/2014	DATE —07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: AS SHOWN | SHEET NO. 26 OF 27 SHEETS | STA. 30+00 | TO STA. 30+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1030	12-00091-00-BR	BOONE	27	26
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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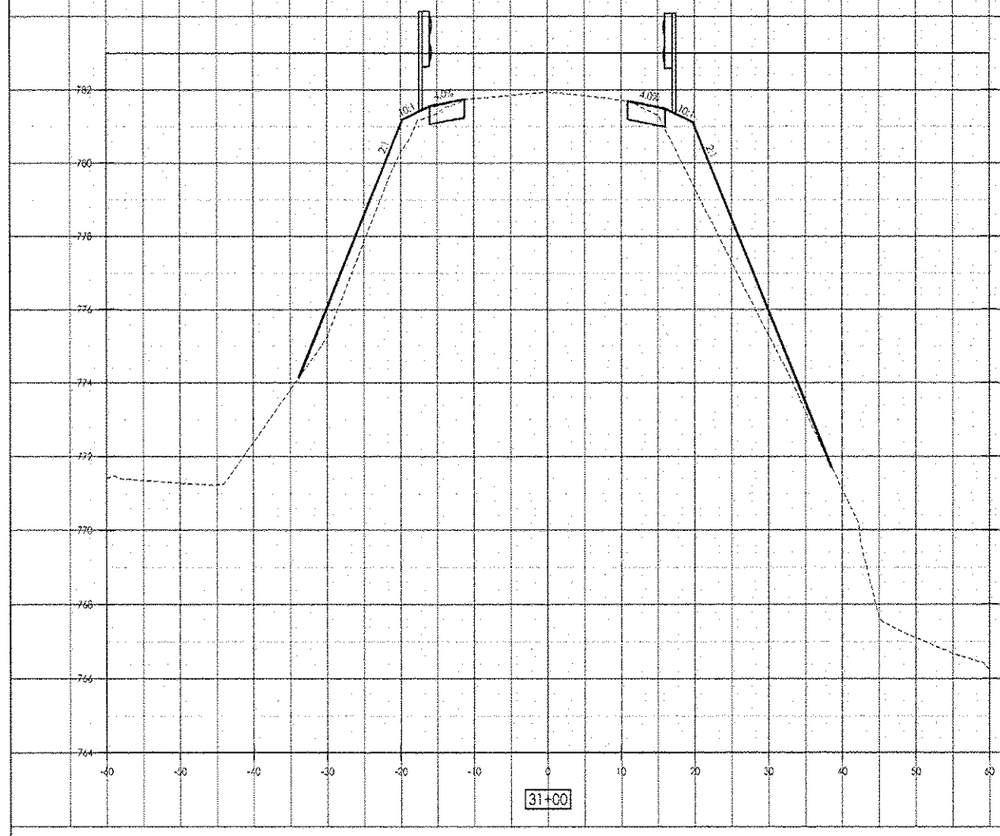

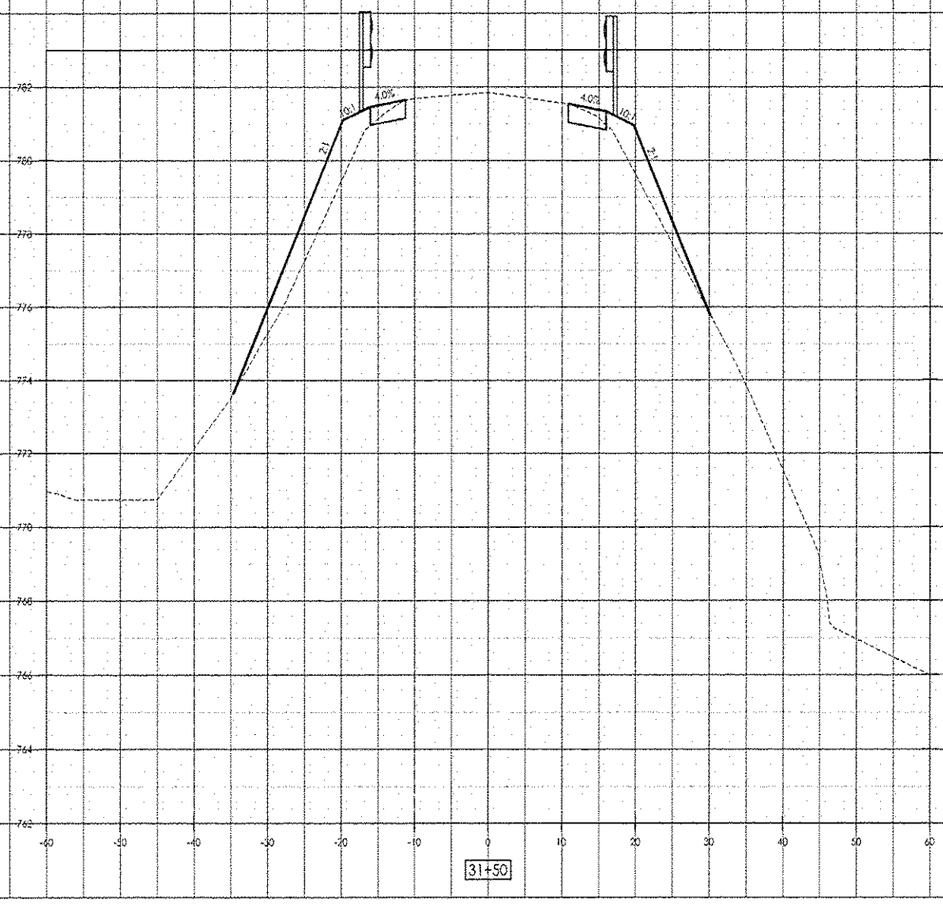

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PLOTTED
NOTE BOOK
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ALIGNMENT CHECKED
ENTRIES VERIFIED
CAD FILE NAME

PROFILE
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PLOTTED
NOTE BOOK
NO.
ENTRIES CHECKED
R.M. NOTED
STRUCTURE NUMBERS CHKD

BY	DATE

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		DRAWN — JAB	REVISED —
	PLOT SCALE = AS SHOWN	CHECKED — KCB	REVISED —
	PLOT DATE = 09/08/2014	DATE — 07/15/2014	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
GARDEN PRAIRIE ROAD BRIDGE REPLACEMENT
GARDEN PRAIRIE, ILLINOIS

SCALE: AS SHOWN | SHEET NO. 27 OF 27 SHEETS | STA. 31+00 | TO STA. 31+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1020	12-00091-00-BR	BOONE	27	27
		CONTRACT NO. 85614		
		ILLINOIS FED. AID PROJECT		

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