09-23-11 LETTING ITEM 001

FOR INDEX OF SHEETS, SEE SHEET NO. 2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	1
	ILLINOIS	CONTRACT NO. 60863		

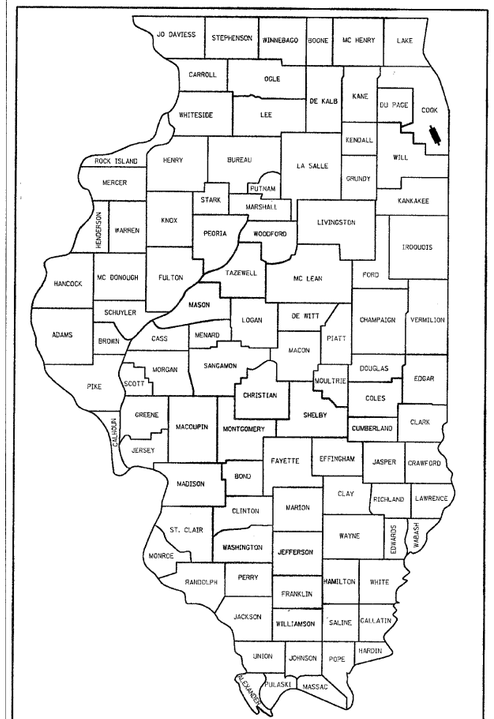
D-91-534-99

75+1=76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.I. ROUTE 57 (INTERSTATE 57) AT
F.A.U. ROUTE 3778 (CRAWFORD AVENUE) (SN 016–1015)
SECTION 1112.1B
PROJECT : ACBHI-057-7(292)346
COOK COUNTY
BRIDGE DECK REMOVAL AND REPLACEMENT
C–91–534–99



LOCATION OF SECTION INDICATED THUS: –■–

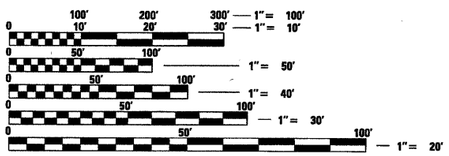
TRAFFIC DATA
****

CRAWFORD AVENUE
EXISTING ADT : 13,300 (2010)
POSTED SPEED LIMIT 45 MPH

IL 57
EXISTING ADT : 105,100 (2008)
POSTED SPEED LIMIT 55 MPH

THIS PROJECT WILL REQUIRE AUTHORIZATION UNDER (SWPPP) PERMIT

IMPROVEMENT IS LOCATED IN THE CITY OF MARKHAM



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

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

PROJECT ENGINEER **ROBERT BORO**
PROJECT MANAGER **ISSAM RAYYAN**

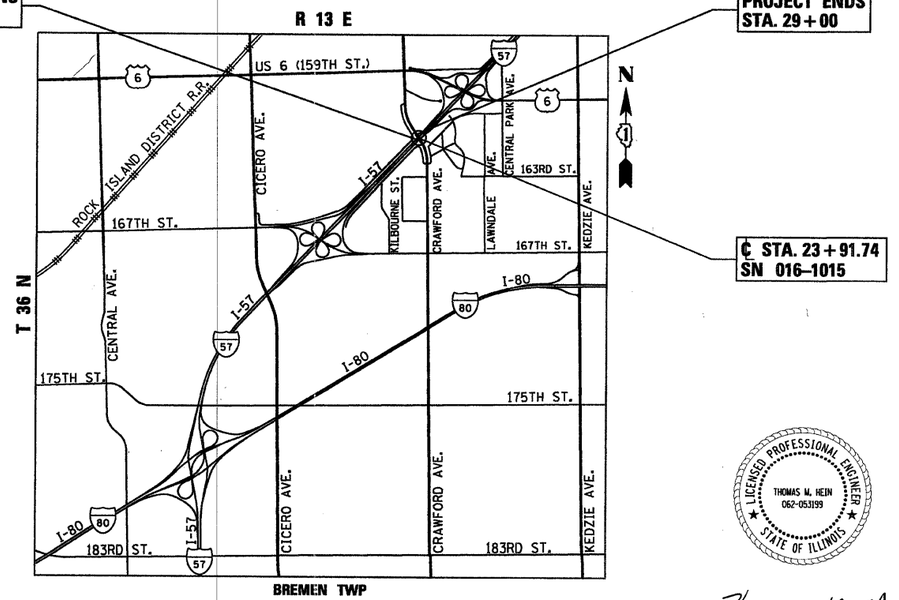
CONTRACT NO. 60863

ENTRAN
5440 N. CUMBERLAND AVE, SUITE 111
CHICAGO, IL 60656

PROJECT BEGINS STA. 19+25

PROJECT ENDS STA. 29+00

℄ STA. 23+91.74 SN 016–1015



LOCATION MAP
NOT TO SCALE

GROSS LENGTH = 975 FT. = 0.18 MILE
NET LENGTH = 975 FT. = 0.18 MILE

LICENSED PROFESSIONAL ENGINEER
THOMAS M. HEIN
062-053199
STATE OF ILLINOIS

THOMAS M. HEIN, P. E.
IL. LIC. NO. 062-053199
EXP 11-30-2011
DATE 07-07-2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 12 20 11
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
August 19 20 11
Scott E. Stitt, P.E. /a
acting ENGINEER OF DESIGN AND ENVIRONMENT
August 19 20 11
Christine M. Reed /a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL NOTES, & HIGHWAY STANDARDS
3 - 4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6 - 8	SCHEDULE OF QUANTITIES
9 - 10	ALIGNMENT, TIES, AND BENCHMARKS
11	EXISTING AND PROPOSED ROADWAY PLAN
12	EXISTING AND PROPOSED PROFILE
13	MAINTENANCE OF TRAFFIC - GENERAL NOTES AND TYPICAL SECTIONS
14 - 17	MAINTENANCE OF TRAFFIC - SUGGESTED TRAFFIC CONTROL STAGES 1 & 2
18 - 19	PAVEMENT MARKING, LANDSCAPING, AND EROSION CONTROL PLAN
20 - 23	SIGN DETAILS
24	UNDERPASS LIGHTING GENERAL NOTES
25	UNDERPASS LIGHTING PLAN
26 - 27	UNDERPASS LIGHTING DETAILS
28 - 63	STRUCTURAL SHEETS
64	ROADWAY DETAIL - TYPE 1 TERMINALS
65	DISTRICT ONE BUTT JOINT AND HMA TAPER DETAILS (BD-32)
66 - 68	DISTRICT ONE TYPE 6 TERMINAL FOR USE WITH 21 IN HIGH SPBGR (BM-22)
69	DISTRICT ONE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
70	DISTRICT ONE RAISED REFLECTIVE PAVEMENT MARKERS (TC-11)
71	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
72	DISTRICT ONE TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC-14)
73	DISTRICT ONE TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)
74	DISTRICT ONE ARTERIAL ROAD INFORMATION SIGN (TC-22)
75	DISTRICT ONE TRAFFIC CONTROL DETAILS FOR FREEWAY CENTER LANE CLOSURE SHOULDER LANE (TC-25)

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)

2. 10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE CITY OF MARKHAM.

4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

5. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

6. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

7. THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS, AREA TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

8. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) SHOWN IN THE PLANS.

9. ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

10. LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND COMBINATION CONCRETE CURB AND GUTTER TYPE B6.12, WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

11. DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

13. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 AND THE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT (847)705-4155 A MINIMUM OF 72 HOURS PRIOR TO START.

14. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

15. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

16. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1.5 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

17. OVERNIGHT CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS.

18. WET REFLECTIVE TEMPORARY TAPE, TYPE III SHALL BE USED FOR TEMPORARY PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF TEMPORARY PAVEMENT MARKING TAPE REMOVAL SHALL BE INCLUDED IN THE COST OF WORK ZONE PAVEMENT MARKING REMOVAL.

19. FULL DEPTH SAW CUTS SHALL BE MADE AS DIRECTED BY THE ENGINEER TO REMOVE THE EXISTING PAVEMENT, CURB AND GUTTER, SIDEWALK, AND MEDIAN. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ITEM BEING REMOVED. SAW CUTS NEEDED FOR CLASS B PATCHES WILL BE PAID FOR AT THE UNIT PRICE FOR "SAW CUTS".

HIGHWAY STANDARDS

280001-05 TEMPORARY EROSION CONTROL SYSTEMS

420001-07 PAVEMENT JOINTS

420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR

420701-02 PAVEMENT FABRIC

442101-07 CLASS B PATCHES

606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

606306-03 CORRUGATED PC CONCRETE MEDIANS

630001-09 STEEL PLATE BEAM GUARDRAIL

630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS

631011-07 TRAFFIC BARRIER TERMINAL, TYPE 2

631031-09 TRAFFIC BARRIER TERMINAL, TYPE 6

635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT

635011-02 REFLECTOR MARKER AND MOUNTING DETAILS

664001-02 CHAIN LINK FENCE

701101-02 OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE

701400-06 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY

701401-06 LANE CLOSURE, FREEWAY/EXPRESSWAY

701406-06 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY

701431-06 LANE CLOSURE, MULTILANE, UNDIVIDED WITH CROSSOVER, FOR SPEEDS ≤ 45 MPH TO 55 MPH

701606-07 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN

701901-01 TRAFFIC CONTROL DEVICES

704001-06 TEMPORARY CONCRETE BARRIER

720006-02 SIGN PANEL ERECTION DETAILS

515001-03
542401-01
609006-05
701311-03
701421-03

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PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
INDEX OF SHEETS, GENERAL NOTES & HIGHWAY STANDARDS

SCALE: 50.0000 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

Rev.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	2
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE URBAN TOTAL QUANTITY	CONSTRUCTION TYPE CODE ROADWAY 0004	CONSTRUCTION TYPE CODE BRIDGE 0014
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	607	607	0
25000210	SEEDING, CLASS 2A	ACRE	0.1	0.1	0.0
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	11	11	0
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	11	11	0
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	11	11	0
25100630	EROSION CONTROL BLANKET	SQ YD	607	607	0
28000400	PERIMETER EROSION BARRIER	FOOT	1,633	1,633	0
28000510	INLET FILTERS	EACH	8	8	0
28100107	STONE RIPRAP, CLASS A4	SQ YD	3	0	3
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	778	778	0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	780	780	0
40600300	AGGREGATE (PRIME COAT)	TON	16.0	16.0	0.0
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	218	218	0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	26	26	0
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	160	160	0
40600990	TEMPORARY RAMP	SQ YD	31	31	0
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	328	328	0
42001300	PROTECTIVE COAT	SQ YD	736	736	0
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	69	69	0
44000100	PAVEMENT REMOVAL	SQ YD	448	448	0
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	2,194	2,194	0
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,606	1,606	0
44000600	SIDEWALK REMOVAL	SQ FT	204	204	0
44200966	CLASS B PATCHES, TYPE I, 10 INCH	SQ YD	120	120	0
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SQ YD	268	268	0
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SQ YD	426	426	0
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SQ YD	320	320	0
44201294	CLASS B PATCH - EXPANSION JOINT	FOOT	360	360	0
44201296	DEFORMED BARS - EXPANSION JOINT	EACH	500	500	0
44201299	DOWEL BARS 1 1/2"	EACH	500	500	0
44213100	PAVEMENT FABRIC	SQ YD	746	746	0
44213200	SAW CUTS	FOOT	3,560	3,560	0
44213208	TIE BARS 1 1/4"	EACH	940	940	0
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	3,742	3,742	0
50102400	CONCRETE REMOVAL	CU YD	52.4	0.0	52.4

CODE NO.	ITEM	UNIT	80% FED. 20% STATE URBAN TOTAL QUANTITY	CONSTRUCTION TYPE CODE ROADWAY 0004	CONSTRUCTION TYPE CODE BRIDGE 0014
50104650	SLOPE WALL REMOVAL	SQ YD	136	0	136
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1	0	1
50157300	PROTECTIVE SHIELD	SQ YD	1,311	0	1,311
50200100	STRUCTURE EXCAVATION	CU YD	36	0	36
50300225	CONCRETE STRUCTURES	CU YD	69.7	0.0	69.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	817.6	0.0	817.6
50300260	BRIDGE DECK GROOVING	SQ YD	1,335	0	1,335
50300300	PROTECTIVE COAT	SQ YD	2,244	0	2,244
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3,850		3,850
50500505	STUD SHEAR CONNECTORS	EACH	320	0	320
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	175,100	0	175,100
50800515	BAR SPLICERS	EACH	988	0	988
50901730	BRIDGE FENCE RAILING	FOOT	501	0	501
51100100	SLOPE WALL 4 INCH	SQ YD	139	0	139
51500100	NAME PLATES	EACH	1		1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	146	0	146
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	20	0	20
52100530	ANCHOR BOLTS, 1 1/4"	EACH	40	0	40
54213447	END SECTIONS 12"	EACH	2	2	
58700300	CONCRETE SEALER	SQ FT	803	0	803
59000200	EPOXY CRACK INJECTION	FOOT	41	0	41
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	24	0	24
60100945	PIPE DRAINS 12"	FOOT	179	179	
60260100	INLETS TO BE ADJUSTED	EACH	1	1	0
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	10	10	0
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,606	1,606	0
60624600	CORRUGATED MEDIAN	SQ FT	3,412	3,412	0
60900140	TYPE B INLET BOX, STANDARD 609006	EACH	2	2	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100	0
60900515	CONCRETE THRUST BLOCKS	EACH	2	2	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1	0
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	0
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1	0
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1	1	0
63200310	GUARDRAIL REMOVAL	FOOT	345	345	0
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8	0
67100100	MOBILIZATION	L SUM	1.0	1.0	0.0
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1.0	1.0	0.0
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1.0	1.0	0.0
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	80	80	0
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	100	100	0

* SPECIALTY ITEMS

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ENTRAN

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PLOT DATE = 7/6/2011

DESIGNED - DJB | REVISED -
DRAWN - ENTRAN | REVISED -
CHECKED - TMH | REVISED -
DATE - 06/15/11 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SUMMARY OF QUANTITIES

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

Rev.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	3

CONTRACT NO. 60863

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	80% FED. 20% STATE URBAN TOTAL QUANTITY	CONSTRUCTION TYPE CODE ROADWAY 0004	CONSTRUCTION TYPE CODE BRIDGE 0014
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	4,865	4,865	0
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	590	590	0
*	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	590	590	0
	72000300	SIGN PANEL - TYPE 3	SQ FT	791	791	0
	72400730	RELOCATE SIGN PANEL - TYPE 3	SQ FT	311	311	0
	73304000	OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	FOOT	67	67	0
	73602000	REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	EACH	4	4	0
	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	11,232	11,232	0
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	61	61	0
	78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	36.4	36.4	0.0
	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	7,724	7,724	0
	78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	110	110	0
	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	72	72	0
	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	16	16	0
	78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	8	8	0
	78200410	GUARDRAIL MARKERS, TYPE A	EACH	28	28	0
	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	0
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	6,472	6,472	0
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	72	72	0
*	81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	525	525	0
	81100805	CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	80	80	0
	81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	14	14	0
	81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	2	2	0
*	81300730	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 14" X 6"	EACH	2	2	0
	81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,975	1,975	0
	81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	245	245	0
	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	735	735	0
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	245	245	0
	82107200	UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8	8	0
	X0325541	REMOVE EXISTING LIGHTING SYSTEM	L SUM	1.0	1.0	0.0
	Z0018800	DRAINAGE SYSTEM	L SUM	1.0	0.0	1.0
	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	36	0.0	36
	X6060500	CORRUGATED MEDIAN REMOVAL	SQ FT	3,412	3,412	0
	X6640304	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	152	152	0
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0	1.0	0.0

CODE NO.	ITEM	UNIT	80% FED. 20% STATE URBAN TOTAL QUANTITY	CONSTRUCTION TYPE CODE ROADWAY 0004	CONSTRUCTION TYPE CODE BRIDGE 0014
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1.0	1.0	0.0
X7030025	WET REFLECTIVE TEMPORARY TAPE, TYPE III, LETTERS AND SYMBOLS	SQ FT	36	36	0
X7030030	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	14,485	14,485	0
X7200056	TEMPORARY SIGN PANEL ASSEMBLY	SQ FT	311	311	0
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	20	0	20
Z0004552	APPROACH SLAB REMOVAL	SQ YD	274	274	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	664	0	664
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0	1.0	0.0
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	12	0	12
Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	2	0	2
Z0026407	TEMPORARY SHEET PILING	SQ FT	141	0	141
Z0030280	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE,NARROW), TEST LEVEL 3	EACH	2	2	0
Z0030360	IMPACT ATTENUATORS, RELOCATE (SEVERE USE), TEST LEVEL 3	EACH	2	2	0
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51	51	0
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6	6	0
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	69	0	69
Z0062456	TEMPORARY PAVEMENT	SQ YD	379	379	0
78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS	EACH	25	25	
X7013820	TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)	CAL DAY	10	10	

* SPECIALTY ITEMS

FILE NAME = G:\project\2102155.02R\CADD\Civil\Sht\0160863-03sht-500.dgn

ENTRAN

USER NAME = 2penud	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

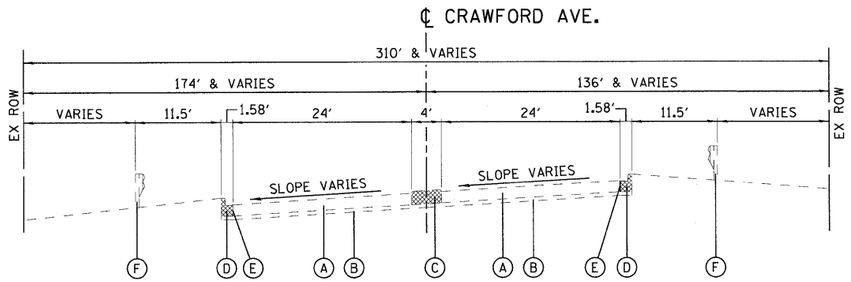
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SUMMARY OF QUANTITIES

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

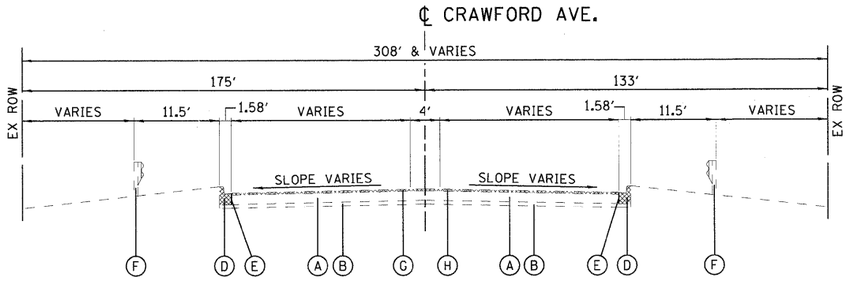
Rev.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	4
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



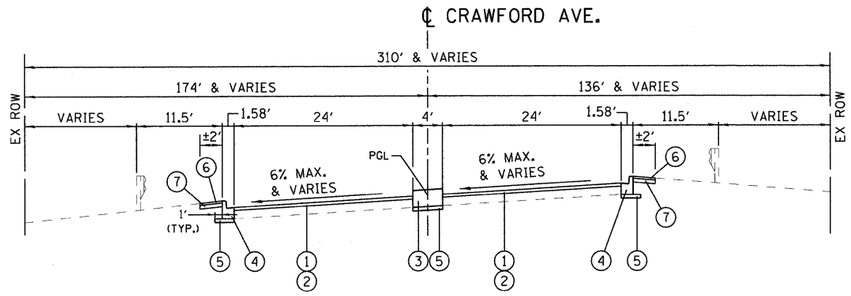
EXISTING TYPICAL SECTION

FACING NORTH - SOUTH OF EXPRESSWAY
STA. 19+25 TO 22+46
N.T.S.



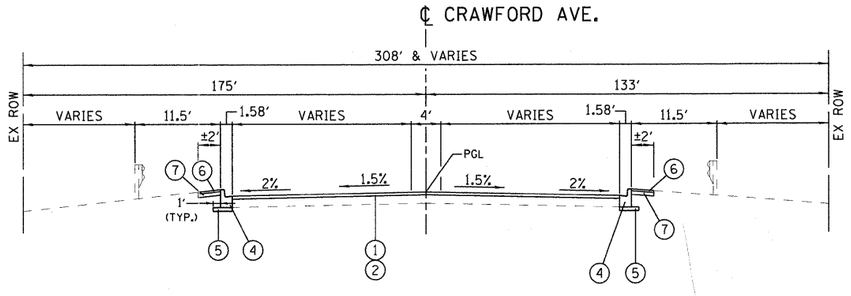
EXISTING TYPICAL SECTION

FACING NORTH - NORTH OF EXPRESSWAY
STA. 25+09 TO 29+00
N.T.S.



PROPOSED TYPICAL SECTION

FACING NORTH - SOUTH OF EXPRESSWAY
STA. 19+25 TO 22+46
RESURFACING AREA
N.T.S.



PROPOSED TYPICAL SECTION

FACING NORTH - NORTH OF EXPRESSWAY
STA. 25+09 TO 29+00
RESURFACING AREA
N.T.S.

EXISTING LEGEND

- (A) EXIST. PCC PAVEMENT, ± 10 ''
- (B) EXIST. STABILIZED SUB-BASE, ± 4''
- (C) PC CONCRETE MEDIAN
- (D) COMB. CONCRETE CURB & GUTTER, TYPE B-6.12
- (E) SAWCUT (INCIDENTAL)
- (F) EXIST. GUARDRAIL
- (G) EXIST. HMA SURFACE, ± 2½''
- (H) HMA SURFACE REMOVAL, 2½''

REMOVAL AREA
(LIMITS ARE SHOWN ON THE PLANS)

PROPOSED LEGEND

- (1) HMA SURFACE COURSE, MIX ''D'', N70; 1½''
- (2) LEVELING BINDER (MACHINE METHOD), N70; 1''
- (3) CORRUGATED MEDIAN
- (4) COMB. CONCRETE CURB & GUTTER, TYPE B-6.12
- (5) SUB-BASE GRANULAR MATERIAL, TYPE B; 6''
- (6) SEEDING, CLASS 2A
- (7) TOPSOIL FURNISH AND PLACE, 4''

EARTH EXCAVATION FOR PROPOSED SUBGRADE MATERIAL SHALL BE INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

BACKFILL BEHIND THE CURB AND GUTTER SHALL BE INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

HMA MIXTURE REQUIREMENTS

MIX DESIGNS	AIR VOIDS @ NDES
PAVEMENT RESURFACING	
HMA SURFACE COURSE, MIX 'D', N70 (IL-9.5 mm); 1½''	4% @ 70 GYRATIONS
LEVELING BINDER, MACHINE METHOD, N70 (IL-9.5 mm); 1''	4% @ 70 GYRATIONS
TEMPORARY PAVEMENT	
TEMP PAVEMENT - HMA SURFACE, MIX ''D'', N50, 1½''	4% @ 50 GYRATIONS
TEMP PAVEMENT - HMA BINDER, (IL-19mm); 8½''	4% @ 50 GYRATIONS

NOTE: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SY/IN. THE RATE USED TO CALCULATE BITUMINOUS MATERIAL PRIME COAT IS 0.10 GAL/SY

THE ''AC TYPE'' FOR POLYMERIZED HMA MIXES SHALL BE ''SBS/SBR PG 70 -22'' AND FOR NON-POLYMERIZED HMA THE ''AC TYPE'' SHALL BE ''PG 64 -22'' UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR ''PERCENT OF RAP'' SEE DISTRICT ONE SPECIAL PROVISIONS.

TEMP PAVEMENT NOTE: IF THE CONTRACTOR CHOOSES TO USE CONCRETE, THE THICKNESS SHALL BE 10''.

FILE NAME = G:\projects\2182155.004\CADD\Civil\Sht\D1560953.04sht-typical.dgn

ENTRAN

USER NAME = 2pienid	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.000 ' / IN.	CHECKED - TMH	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
TYPICAL SECTIONS

SCALE: 50.000 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	5
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

21101615 TOPSOIL FURNISH AND PLACE, 4"

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
LEFT					
19+25.0	2.0	-	22+18.0	2.0	65.1
22+18.0	15.0	-	22+68.0	13.5	79.2
22+68.0	7.0	-	23+15.0	4.0	28.7
24+68.0	5.5	-	25+19.0	5.5	31.2
25+19.0	10.0	-	25+53.0	10.0	37.8
25+53.0	2.0	-	29+00.0	2.0	77.1
RIGHT					
19+25.0	2.0	-	22+37.0	2.0	69.3
22+37.0	10.5	-	22+84.0	11.0	56.1
22+84.0	4.5	-	23+30.0	4.5	23.0
24+84.0	4.5	-	25+33.0	4.5	24.5
25+33.0	10.0	-	25+71.0	10.0	42.2
25+71.0	2.0	-	29+00.0	2.0	73.1
				TOTAL =	607

25000210 SEEDING, CLASS 2A

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	ACRE
LEFT					
19+25.0	2.0	-	22+18.0	2.0	0.013
22+18.0	15.0	-	22+68.0	13.5	0.016
22+68.0	7.0	-	23+15.0	4.0	0.006
24+68.0	5.5	-	25+19.0	5.5	0.006
25+19.0	10.0	-	25+53.0	10.0	0.008
25+53.0	2.0	-	29+00.0	2.0	0.016
RIGHT					
19+25.0	2.0	-	22+37.0	2.0	0.014
22+37.0	10.5	-	22+84.0	11.0	0.012
22+84.0	4.5	-	23+30.0	4.5	0.005
24+84.0	4.5	-	25+33.0	4.5	0.005
25+33.0	10.0	-	25+71.0	10.0	0.009
25+71.0	2.0	-	29+00.0	2.0	0.015
				TOTAL =	0.1

25100630 EROSION CONTROL BLANKET

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
LEFT					
19+25.0	2.0	-	22+18.0	2.0	65.1
22+18.0	15.0	-	22+68.0	13.5	79.2
22+68.0	7.0	-	23+15.0	4.0	28.7
24+68.0	5.5	-	25+19.0	5.5	31.2
25+19.0	10.0	-	25+53.0	10.0	37.8
25+53.0	2.0	-	29+00.0	2.0	77.1
RIGHT					
19+25.0	2.0	-	22+37.0	2.0	69.3
22+37.0	10.5	-	22+84.0	11.0	56.1
22+84.0	4.5	-	23+30.0	4.5	23.0
24+84.0	4.5	-	25+33.0	4.5	24.5
25+33.0	10.0	-	25+71.0	10.0	42.2
25+71.0	2.0	-	29+00.0	2.0	73.1
				TOTAL =	607

28000400 PERIMETER EROSION BARRIER

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
LEFT					
19+25.0	27.5 LT	-	19+26.0	29.5 LT	2.2
19+26.0	29.5 LT	-	22+18.0	29.5 LT	292.0
22+18.0	29.5 LT	-	22+19.0	41.0 LT	11.5
22+19.0	41.0 LT	-	23+15.0	36.0 LT	96.1
23+15.0	36.0 LT	-	23+15.0	26.0 LT	10.0
24+70.0	26.0 LT	-	24+68.0	37.5 LT	11.7
24+68.0	37.5 LT	-	25+53.0	37.5 LT	85.0
25+53.0	29.0 LT	-	29+00.0	30.0 LT	347.0
29+00.0	30.0 LT	-	29+00.0	28.0 LT	2.0

28000400 PERIMETER EROSION BARRIER (CONT)

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
RIGHT					
19+24.0	27.5 RT	-	19+24.0	30.0 RT	2.5
19+24.0	30.0 RT	-	22+37.0	31.0 RT	313.0
22+37.0	31.0 RT	-	22+37.0	39.0 RT	8.0
22+37.0	39.0 RT	-	23+30.0	37.5 RT	93.0
23+30.0	37.5 RT	-	23+30.0	27.5 RT	10.0
24+83.0	27.5 RT	-	24+85.0	37.5 RT	10.2
25+71.0	37.5 RT	-	25+71.0	30.0 RT	7.5
25+71.0	30.0 RT	-	29+00.0	30.0 RT	329.0
29+00.0	30.0 RT	-	29+00.0	27.5 RT	2.5
				TOTAL =	1,633

28000510 INLET FILTERS

STATION	OFFSET(FT)	EACH
20+00.0	27.0 LT	1.0
21+00.0	27.0 LT	1.0
22+00.0	27.0 LT	1.0
26+00.0	27.0 LT	1.0
26+00.0	27.0 RT	1.0
28+00.0	27.0 LT	1.0
28+00.0	27.0 RT	1.0
29+00.0	27.0 RT	1.0
	TOTAL =	8

31101400 SUBBASE GRANULAR MATERIAL, TYPE B 6"

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
COMBINATION CURB AND GUTTER					
19+25.0	2.6	-	22+38.0	2.6	89.8
25+19.0	2.6	-	29+00.0	2.6	109.4
19+25.0	2.6	-	22+54.0	2.6	94.4
25+33.0	2.6	-	29+00.0	2.6	105.3
CORRUGATED MEDIAN					
15+00.0	4.0	-	23+06.0	4.0	358.2
24+78.0	4.0	-	25+25.0	4.0	20.9
				TOTAL =	778

40600635 LEVELING BINDER (MACHINE METHOD), N70

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	TON
RATE =	112.0	POUND / SQ YD / INCH			
DEPTH =	1.0	INCH			
19+25.0	48.0	-	22+40.0	48.0	94.1
25+15.0	48.0	-	25+25.0	48.0	3.0
25+25.0	52.0	-	29+00.0	52.0	121.3
				TOTAL =	218

40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
28+95.5	52.0	-	29+00.0	52.0	26.0
				TOTAL =	26

40600985 PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
19+25.0	24.0	-	19+55.0	24.0	80.0
19+25.0	24.0	-	19+55.0	24.0	80.0
				TOTAL =	160

40603340 HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	TON
RATE =	112.0	POUND / SQ YD / INCH			
DEPTH =	1.5	INCH			
19+25.0	48.0	-	22+40.0	48.0	141.1
25+15.0	48.0	-	25+25.0	48.0	4.5
25+25.0	52.0	-	29+00.0	52.0	182.0
				TOTAL =	328

42001420 BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
22+39.2	26.0	-	22+45.2	26.0	17.3
22+40.2	26.0	-	22+46.2	26.0	17.3
25+08.7	26.0	-	25+14.7	26.0	17.3
25+09.5	26.0	-	25+15.5	26.0	17.3
				TOTAL =	69

44000100 PAVEMENT REMOVAL

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
22+39.2	26.0	-	22+45.2	26.0	17.3
22+40.2	26.0	-	22+46.2	26.0	17.3
25+08.7	26.0	-	25+14.7	26.0	17.3
25+09.5	26.0	-	25+15.5	26.0	17.3
SEE TEMPORARY PAVEMENT					379.1
				TOTAL =	448

44000159 HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
25+15.0	48.0	-	25+25.2	48.0	54.1
25+25.2	52.0	-	28+95.5	52.0	2,139.8
				TOTAL =	2,194

44000500 COMBINATION CURB AND GUTTER REMOVAL

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
19+25.0	26.5 LT	-	23+00.0	27.0 LT	375.0
24+73.0	27.0 LT	-	29+00.0	28.0 LT	427.0
19+25.0	26.0 RT	-	23+13.0	27.0 RT	388.0
24+84.0	27.0 RT	-	29+00.0	25.5 RT	416.0
				TOTAL =	1,606

44000600 SIDEWALK REMOVAL

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
25+03.0	6.0	-	25+19.0	6.0	96.0
25+15.0	6.0	-	25+33.0	6.0	108.0
				TOTAL =	204

54213447 END SECTIONS 12"

STATION	OFFSET(FT)	EACH
CRAWFORD AVE		
22+43.0	101.0 LT	1.0
22+48.0	101.0 LT	1.0
	TOTAL =	2

60100945 PIPE DRAINS 12"

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
CRAWFORD AVE					
22+49.0	26.0 LT	-	22+43.0	101.0 LT	75.2
22+55.0	3.0 RT	-	22+48.0	101.0 LT	104.2
				TOTAL =	179

60300105 FRAMES AND GRATES TO BE ADJUSTED

STATION	OFFSET(FT)	EACH
20+00.0	26.5 LT	1.0
21+00.0	26.5 LT	1.0
22+00.0	26.5 LT	1.0
26+00.0	26.5 LT	1.0
26+00.0	26.5 RT	1.0
28+00.0	26.5 LT	1.0
28+00.0	26.5 RT	1.0
29+00.0	26.5 RT	1.0
MOT		
15+99.6	2.6 RT	2.0
	TOTAL =	10

60603800 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
19+25.0	26.5 LT	-	23+00.0	27.0 LT	375.0
24+73.0	27.0 LT	-	29+00.0	28.0 LT	427.0
19+25.0	26.0 RT	-	23+13.0	27.0 RT	388.0
24+84.0	27.0 RT	-	29+00.0	25.5 RT	416.0
				TOTAL =	1,606

60624600 CORRUGATED MEDIAN

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
15+00.0	4.0	-	23+06.0	4.0	3,224.0
24+78.0	4.0	-	25+25.0	4.0	188.0
				TOTAL =	3,412

60900140 TYPE B INLET BOX, STANDARD 609006

STATION	OFFSET(FT)	EACH
CRAWFORD AVE		
22+49.0	25.0 LT	1.0
22+55.0	4.0 RT	1.0
	TOTAL =	2

60900515 CONCRETE THRUST BLOCKS

STATION	OFFSET(FT)	EACH
CRAWFORD AVE		
22+42.0	101.0 LT	1.0
22+48.0	101.0 LT	1.0
	TOTAL =	2

63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
149+30.3	68.0 RT	-	150+30.3	68.0 RT	100.0
				TOTAL =	100

FILE NAME = G:\project\2102155.004\C4DD\Civil\Sht\0102863-05sht-schedule.dgn

ENTRAN

USER NAME = 2PIENID	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SCHEDULE OF QUANTITIES

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	6
		CONTRACT NO. 60863		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

SCHEDULE OF QUANTITIES

63100045 TRAFFIC BARRIER TERMINAL, TYPE 2

STATION	OFFSET(FT)	EACH
150+43.0	68.0 RT	1.0
	TOTAL =	1

63100085 TRAFFIC BARRIER TERMINAL, TYPE 6

STATION	OFFSET(FT)	EACH
22+37.0	33.5 RT	1.0
25+33.0	33.5 RT	1.0
22+20.0	33.5 LT	1.0
25+20.0	33.5 LT	1.0
	TOTAL =	4

63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

STATION	OFFSET(FT)	EACH
35+30.0	41.0 LT	1.0
	TOTAL =	1

63100169 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED

STATION	OFFSET(FT)	EACH
14+70.0	39.5 RT	1.0
	TOTAL =	1

63200310 GUARDRAIL REMOVAL

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
149+30.3	68.0 RT	-	150+30.3	68.0 RT	100.0
150+43.0	68.0 RT	-	150+30.5	68.0 RT	12.5
22+37.0	33.5 RT	-	22+70.0	33.5 RT	33.0
25+33.0	33.5 RT	-	25+66.0	33.5 RT	33.0
22+20.0	33.5 LT	-	22+53.0	33.5 LT	33.0
25+20.0	33.5 LT	-	25+53.0	33.5 LT	33.0
14+70.0	39.5 RT	-	15+20.0	39.5 RT	50.0
34+80.0	41.0 LT	-	35+30.0	41.0 LT	50.0
				TOTAL =	345

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
REFER TO "X7030025 WET REF TEM RAPE L&S" FOR QUAN					36.4
REFER TO "X7030030 WET REF TEM TAPE T3 4" FOR QUA					4,828.5
				TOTAL =	4,865

70400100 TEMPORARY CONCRETE BARRIER

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
STAGE I					
21+10.4	5.3 LT	-	22+00.0	3.1 RT	90.0
22+00.0	3.1 RT	-	26+00.0	3.1 RT	400.0
26+00.0	3.1 RT	-	26+99.6	5.3 LT	100.0
				TOTAL =	590

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
STAGE II					
21+30.1	6.0 RT	-	22+00.0	2.3 RT	70.0
22+00.0	2.3 RT	-	26+00.0	2.3 RT	400.0
26+00.0	2.3 RT	-	27+19.7	6.0 LT	120.0
				TOTAL =	590

78000200 THERMOPLASTIC PAVEMENT MARKING - LINE 4"

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
SOUTH OF BRIDGE					
WHITE EDGE LINE					
19+25.0	26.0 LT	-	22+39.6	26.0 LT	314.6
19+25.0	26.0 RT	-	22+52.2	26.0 RT	327.2
YELLOW 4' WIDE MEDIAN					
19+25.0	2.0 LT	-	22+45.5	2.0 LT	320.5
19+25.0	2.0 RT	-	22+45.5	2.0 RT	320.5
WHITE SKIP DASH					
19+25.0	14.0 LT	-	22+42.5	14.0 LT	79.4
19+25.0	14.0 RT	-	22+42.5	14.0 RT	79.4
NORTH OF BRIDGE					
WHITE EDGE LINE					
25+03.0	25.8 LT	-	36+36.5	25.8 LT	1,133.5
37+45.2	25.8 LT	-	39+07.2	25.8 LT	162.0
39+07.2	25.8 LT	-	40+86.2	32.1 LT	179.1
40+86.2	32.1 LT	-	41+44.3	32.1 LT	58.1
25+03.0	25.8 RT	-	38+68.6	25.8 RT	1,365.6
YELLOW 4' WIDE MEDIAN					
25+03.0	2.2 LT	-	36+36.2	2.2 LT	1,133.2
37+45.2	2.2 LT	-	39+02.9	2.2 LT	157.7
39+02.9	2.2 LT	-	40+86.9	8.5 LT	184.1
40+86.9	8.5 LT	-	41+12.1	8.5 LT	25.2
41+12.1	8.5 LT	-	41+49.7	10.0 RT	47.3
25+03.0	1.3 LT	-	36+36.2	1.3 LT	1,133.2
37+45.2	1.3 LT	-	39+02.9	1.3 LT	157.7
39+02.9	1.3 LT	-	40+86.9	7.7 LT	184.1
40+86.9	7.7 LT	-	41+12.1	7.7 LT	25.2
41+12.1	7.7 LT	-	41+49.7	9.1 RT	44.4
25+03.0	2.2 RT	-	36+36.2	2.2 RT	1,133.2
37+45.2	2.2 RT	-	38+64.1	2.2 RT	118.9
38+64.1	2.2 RT	-	40+86.8	10.0 RT	222.9
40+86.8	10.0 RT	-	41+49.7	10.0 RT	62.8
25+03.0	1.3 RT	-	36+36.2	1.3 RT	1,133.2
37+45.2	1.3 RT	-	38+64.1	1.3 RT	118.9
38+64.1	1.3 RT	-	40+86.9	1.3 RT	222.8
40+86.9	1.3 RT	-	41+49.7	1.3 RT	62.8
WHITE SKIP DASH					
25+03.0	14.0 LT	-	36+36.4	14.0 LT	283.4
37+45.2	14.0 LT	-	39+07.4	14.0 LT	40.6
39+07.4	14.0 LT	-	40+86.6	20.3 LT	44.8
40+86.6	20.3 LT	-	41+44.3	20.3 LT	14.4
25+03.0	14.0 RT	-	38+68.6	14.0 RT	341.4
				TOTAL =	11,232

78000600 THERMOPLASTIC PAVEMENT MARKING - LINE 12"

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
YELLOW DIAGONAL					
39+00.0	0.0 RT				5.0
39+75.0	0.0 RT				12.6
40+50.0	0.0 RT				20.0
41+25.0	0.0 RT				23.8
				TOTAL =	61

78008200 POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
8+50.0	2.5 RT				
LEFT TURN PAVEMENT MARKING - "ONLY"					20.8
LEFT TURN PAVEMENT MARKING - "ARROW"					15.6
				TOTAL =	36

78008210 POLYUREA PAVEMENT MARKING TYPE I - LINE 4"

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
SOUTH OF BRIDGE AND BRIDGE DECK					
WHITE EDGE LINE					
3+08.8	30.8 LT	-	9+40.8	30.8 LT	632.0
10+20.8	30.8 LT	-	11+83.2	30.8 LT	162.5
11+83.2	30.8 LT	-	13+94.1	25.9 LT	210.9
15+00.0	25.8 LT	-	19+25.0	25.8 LT	425.0
22+39.6	26.0 LT	-	25+03.3	26.0 LT	263.7
3+08.8	32.6 RT	-	9+40.9	32.6 RT	632.1
10+12.4	32.6 RT	-	11+80.0	32.6 RT	167.6
11+80.0	32.6 RT	-	14+00.0	25.8 RT	220.1
15+00.0	25.8 RT	-	19+25.0	25.8 RT	425.0
22+52.2	26.0 RT	-	25+14.9	26.0 RT	262.7
YELLOW MEDIAN					
3+08.8	8.0 LT	-	9+24.9	8.0 LT	616.1
9+89.5	8.0 LT	-	11+82.2	8.0 LT	192.7
11+82.2	8.0 LT	-	13+95.2	2.2 LT	213.0
15+00.0	2.2 LT	-	19+25.0	2.2 LT	425.0
22+46.0	2.2 LT	-	25+09.0	2.2 LT	263.0
3+08.8	9.2 RT	-	5+90.5	9.2 RT	281.7
5+90.5	9.2 RT	-	8+25.1	2.7 LT	234.9
8+25.1	2.7 LT	-	9+24.9	2.7 LT	99.8
9+89.5	8.0 LT	-	10+29.6	8.6 RT	43.4
10+29.6	8.6 RT	-	11+81.9	8.6 RT	152.3
11+81.9	8.6 RT	-	13+95.2	2.2 RT	213.4
15+00.0	2.2 RT	-	19+25.0	2.2 RT	425.0
22+46.0	2.2 RT	-	25+09.0	2.2 RT	263.0
WHITE SKIP DASH					
3+08.8	19.0 LT	-	9+40.9	19.0 LT	158.0
10+02.6	19.0 LT	-	11+88.1	19.0 LT	46.4
11+88.1	19.0 LT	-	14+00.0	14.0 LT	53.0
15+00.0	14.0 LT	-	19+25.0	14.0 LT	106.3
22+43.7	0.0 RT	-	25+05.9	14.0 LT	65.8
3+08.8	21.0 RT	-	19+25.0	14.0 RT	404.1
22+49.3	14.0 RT	-	25+12.2	14.0 RT	65.8
				TOTAL =	7,724

78008230 POLYUREA PAVEMENT MARKING TYPE I - LINE 6"

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
SOUTH OF BRIDGE AND BRIDGE DECK					
8+25.0	8.4 RT	-	9+35.0	8.4 RT	110.0
				TOTAL =	110

78100100 RAISED REFLECTIVE PAVEMENT MARKER

STATION	OFFSET(FT)				EACH
ONE-WAY CRYSTAL MARKER - 2 MARKERS PLACED AT 80' O.C.					
19+25.0	14.0 LT	-	22+39.7	14.0 LT	8.0
19+25.0	14.0 RT	-	22+39.7	14.0 RT	8.0
25+15.1	14.0 LT	-	29+00.0	14.0 LT	10.0
25+15.1	14.0 RT	-	29+00.0	14.0 RT	10.0
TWO-WAY AMBER MARKER - 1 MARKER PLACED AT 40' O.C.					
19+25.0	2.0 LT	-	22+39.7	2.0 LT	8.0
19+25.0	2.0 RT	-	22+39.7	2.0 RT	8.0
25+15.1	2.0 LT	-	29+00.0	2.0 LT	10.0
25+15.1	2.0 RT	-	29+00.0	2.0 RT	10.0
				TOTAL =	72

78100105 RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

STATION	OFFSET(FT)				EACH
ONE-WAY CRYSTAL MARKER - 2 MARKERS PLACED AT 80' O.C.					
22+46.0	14.0 LT	-	25+09.0	14.0 LT	8.0
22+46.0	14.0 RT	-	25+09.0	14.0 RT	8.0
				TOTAL =	16

78300100 PAVEMENT MARKING REMOVAL

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
REFER TO "78000200 THPL PVT MK LINE 4" FOR QUANTI					3,744.0
REFER TO "78000600 THPL PVT MK LINE 12" FOR QUANT					61.4
REFER TO "78008200 POLYUREA PM T1 LTR-SY" FOR QUA					36.4
REFER TO "78008210 POLYUREA PM T1 LN 4" FOR QUANT					2,574.7
REFER TO "78008230 POLYUREA PM T1 LN 6" FOR QUANT					55.0
				TOTAL =	6,472

X6060500 CORRUGATED MEDIAN REMOVAL

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
15+00.0	4.0	-	23+06.0	4.0	3,224.0
24+78.0	4.0	-	25+25.0	4.0	188.0
				TOTAL =	3,412

X6640304 CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
22+50.0	35.0 LT	-	22+72.0	58.2 LT	32.0
22+70.0	35.5 RT	-	22+79.0	74.5 RT	40.0
25+07.0	79.0 LT	-	25+19.0	32.5 LT	48.0
25+31.0	34.0 RT	-	25+39.0	65.0 RT	32.0
				TOTAL =	152

X7030025 WET REFLECTIVE TEMPORARY TAPE LETTERS AND SYMBOLS

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ FT
AT 163RD STREET					
LEFT TURN PAVEMENT MARKING - "ONLY"					20.8
LEFT TURN PAVEMENT MARKING - "ARROW"					15.6
				TOTAL =	36

FILE NAME = G:\projects\2102155.004\CADD\Civil\Sht\D1060863-#Sht-schedule.dgn

ENTRAN

USER NAME = 2PIENID	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SCHEDULE OF QUANTITIES

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	7
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

X7030030 WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
STAGE I					
YELLOW					
SHEET #MOT01 - TOP PANE					
3+10.0	9.0 RT	-	5+00.0	13.0 RT	190.0
5+00.0	13.0 RT	-	6+00.0	8.5 RT	100.1
6+70.0	16.5 RT	-	8+50.0	20.0 RT	180.0
8+50.0	20.0 RT	-	9+45.0	20.0 RT	95.0
6+70.0	16.5 RT	-	8+35.0	8.5 RT	165.2
8+35.0	8.5 RT	-	9+45.0	8.5 RT	110.0
9+45.0	8.5 RT	-	9+45.0	20.0 RT	18.0
9+90.0	7.5 LT	-	12+00.0	7.5 LT	210.0
9+90.0	7.5 LT	-	10+50.0	20.0 RT	66.0
10+50.0	20.0 RT	-	11+80.0	20.0 RT	130.0
11+80.0	20.0 RT	-	12+00.0	20.0 RT	20.0
SHEET #MOT01 - BOTTOM PANE					
12+00.0	7.5 LT	-	13+90.0	2.0 LT	190.1
12+00.0	20.0 RT	-	13+86.0	14.0 RT	186.1
13+86.0	14.0 RT	-	13+90.0	2.0 LT	22.0
15+00.0	2.0 LT	-	21+65.0	15.8 RT	665.2
15+00.0	2.0 LT	-	15+30.0	14.0 RT	34.0
15+30.0	14.0 RT	-	21+65.0	15.8 RT	635.0
21+65.0	15.8 RT	-	24+00.0	15.8 RT	235.0
SHEET #MOT02 - TOP PANE					
24+00.0	15.8 RT	-	26+90.0	15.8 RT	290.0
26+90.0	14.5 RT	-	31+40.0	2.0 LT	450.3
31+40.0	2.0 LT	-	35+00.0	2.0 LT	360.0
26+90.0	14.5 RT	-	35+00.0	14.0 RT	810.0
SHEET #MOT02 - BOTTOM PANE					
35+00.0	2.0 LT	-	36+60.0	2.0 LT	160.0
35+00.0	14.0 RT	-	36+30.0	14.0 RT	130.0
36+30.0	14.0 RT	-	36+60.0	2.0 LT	34.0
WHITE					
SHEET #MOT01 - BOTTOM PANE					
19+30.0	14.0 LT	-	22+00.0	4.0 RT	270.6
SHEET #MOT02 - TOP PANE					
26+00.0	4.0 RT	-	31+40.0	14.0 LT	540.3
31+40.0	14.0 LT	-	35+00.0	14.0 LT	360.0
SHEET #MOT02 - BOTTOM PANE					
35+00.0	14.0 LT	-	36+30.0	14.0 LT	130.0
36+30.0	14.0 LT	-	36+62.0	40.0 LT	41.2
37+25.0	43.0 LT	-	37+55.0	15.0 LT	41.0
37+55.0	15.0 LT	-	41+90.0	26.0 LT	435.1
STAGE II					
YELLOW					
SHEET #MOT03 - TOP PANE					
11+20.0	8.0 RT	-	12+00.0	8.0 RT	80.0
11+20.0	20.0 LT	-	12+00.0	20.0 LT	80.0
SHEET #MOT03 - BOTTOM PANE					
12+00.0	20.0 LT	-	13+80.0	14.0 LT	180.1
12+00.0	8.0 RT	-	13+96.0	2.0 RT	196.1
13+80.0	14.0 LT	-	13+96.0	2.0 RT	27.0
15+00.0	2.0 RT	-	16+60.0	2.0 RT	160.0
16+60.0	2.0 RT	-	22+00.0	14.8 LT	540.3
15+00.0	2.0 LT	-	15+35.0	14.0 LT	37.0
15+35.0	14.0 LT	-	22+00.0	14.8 LT	665.0
22+00.0	14.8 LT	-	24+00.0	14.8 LT	200.0
SHEET #MOT04 - TOP PANE					
24+00.0	14.8 LT	-	26+00.0	14.8 LT	200.0
26+00.0	14.8 LT	-	31+00.0	14.0 LT	500.0
31+00.0	14.0 LT	-	35+00.0	14.0 LT	400.0
26+00.0	14.0 LT	-	35+00.0	4.6 LT	900.0
SHEET #MOT04 - BOTTOM PANE					
35+00.0	14.0 LT	-	36+80.0	14.0 LT	180.0
35+00.0	4.6 LT	-	36+50.0	3.0 LT	150.0
36+50.0	3.0 LT	-	36+80.0	14.0 LT	31.0
37+45.0	12.0 LT	-	41+90.0	8.0 LT	445.0
37+45.0	12.0 LT	-	37+62.0	0.0 RT	20.8
37+62.0	0.0 RT	-	41+55.0	10.0 RT	393.1

X7030030 WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH (CONT)

STATION	OFFSET(FT)	-	STATION	OFFSET(FT)	FOOT
WHITE					
SHEET #MOT03 - TOP PANE					
5+80.0	32.0 RT	-	9+52.0	24.0 RT	372.1
10+25.0	22.0 RT	-	11+20.0	20.0 RT	95.0
11+20.0	20.0 RT	-	12+00.0	20.0 RT	80.0
SHEET #MOT03 - BOTTOM PANE					
12+00.0	20.0 RT	-	13+75.0	14.0 RT	175.1
13+75.0	14.0 RT	-	13+95.0	14.0 RT	20.0
13+95.0	14.0 RT	-	14+25.0	45.0 RT	43.1
14+70.0	45.0 RT	-	15+10.0	14.0 RT	50.6
15+10.0	14.0 RT	-	16+60.0	14.0 RT	150.0
16+60.0	14.0 RT	-	22+00.0	3.0 LT	540.3
SHEET #MOT04 - TOP PANE					
26+00.0	4.0 LT	-	28+69.0	14.0 RT	269.6
				TOTAL =	14.485

Z0030280 IMPACT ATTENUATORS, TEMPORARY (SEVERE USE,NARROW), TEST LEVEL 3

STATION	OFFSET(FT)	EACH
STAGE I		
21+12.0	5.0 LT	1.0
27+00.0	6.0 LT	1.0
	TOTAL =	2

Z0030360 IMPACT ATTENUATORS, RELOCATE (SEVERE USE), TEST LEVEL 3

STATION	OFFSET(FT)	EACH
STAGE II		
21+29.0	6.0 RT	1.0
27+06.0	7.0 RT	1.0
	TOTAL =	2

Z0062456 TEMPORARY PAVEMENT

STATION	WIDTH(FT)	-	STATION	WIDTH(FT)	SQ YD
CORRUGATED MEDIAN					
15+00.0	4.0	-	23+06.0	4.0	358.2
24+78.0	4.0	-	25+25.0	4.0	20.9
				TOTAL =	379

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ENTRAN

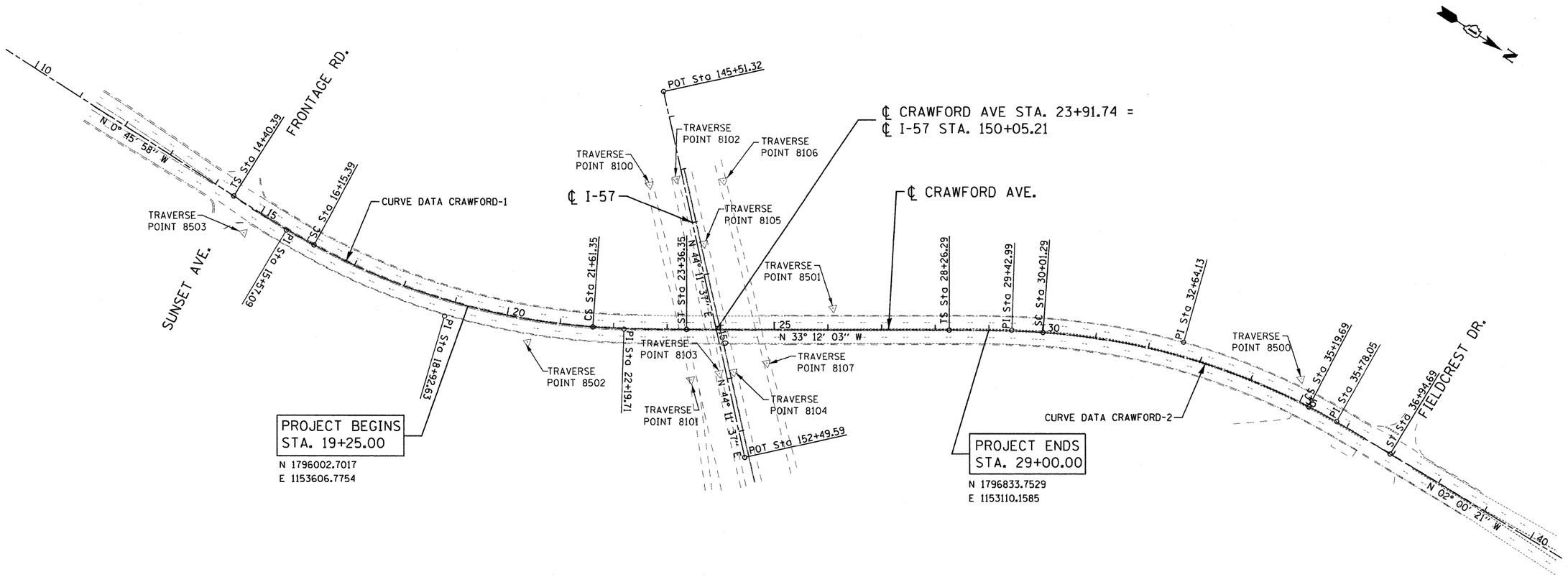
USER NAME = 2PIENID	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SCHEDULE OF QUANTITIES

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	8
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



CURVE DATA CRAWFORD-1
Δ = 32° 26' 05.57" (LT)
L_s = 175.00'
T_s = 458.2043'
E_s = 54.138'
$\emptyset_s$ = 03° 56' 11.32" (LT)
X_c = 174.9174'
Y_c = 4.0064'
Δ_c = 24° 39' 18"
D = 04° 29' 55.80"
L_c = 174.9633'
R = 1,273.57'
S = 0.06'/'

CURVE DATA CRAWFORD-2
Δ = 31° 11' 42.09" (LT)
L_s = 175.00'
T_s = 443.2934'
E_s = 50.25'
$\emptyset_s$ = 03° 56' 11.32" (RT)
X_c = 174.9174'
Y_c = 4.0064'
Δ_c = 23° 28' 48"
D = 04° 29' 55.80"
L_c = 174.9633'
R = 1,273.57'
S = 0.06'/'

POINT	STATIONING	NORTHING	EASTING
TS	14+40.39	1795525.3882	1153675.5757
PI	15+57.09	1795642.0733	1153674.0154
SC	16+15.39	1795700.2364	1153669.2309
PI	18+92.63	1795976.5431	1153646.5019
SCS PI	18+98.60	1795983.5516	1153669.4493
CS	21+61.35	1796218.3995	1153510.9754
PI	22+19.71	1796269.3108	1153482.4468
ST	23+36.35	1796366.9564	1153418.5470
TS	28+26.29	1796776.9129	1153150.2690
PI	29+42.99	1796874.5585	1153086.3692
SC	30+01.29	1796925.4698	1153057.8406
PI	32+64.13	1797154.7646	1152929.3531
SCS PI	32+69.58	1797147.8410	1152907.5315
CS	35+19.69	1797416.1927	1152902.1415
PI	35+78.05	1797474.2387	1152896.0996
ST	36+94.69	1797590.8627	1152892.0149
POT	146+00.00	1796122.7688	1153105.7534
POT	150+05.21	1796413.3007	1153388.2190
POT	152+49.59	1796588.5161	1153558.5697

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ENTRAN

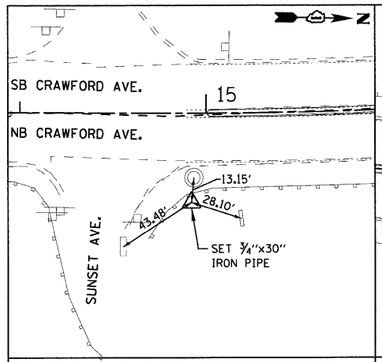
USER NAME = 2PIENID	DESIGNED - DJB	REVISED -
	DRAWN - ENTRAN	REVISED -
PLOT SCALE = 100.0000 ' / IN.	CHECKED - TMH	REVISED -
PLOT DATE = 9/17/2011	DATE - 06/15/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

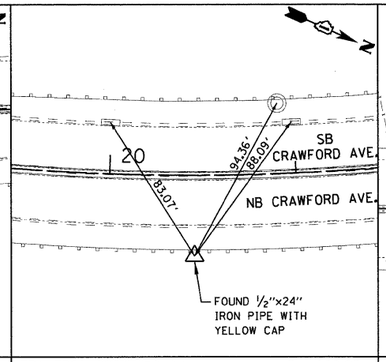
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
ALIGNMENT, TIES & BENCHMARKS

SCALE: 100.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.

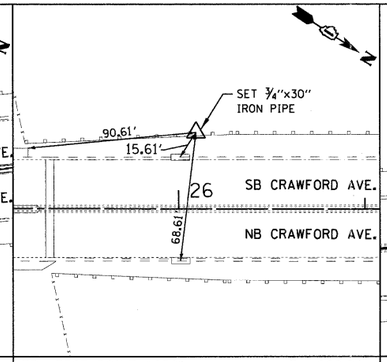
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	9
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



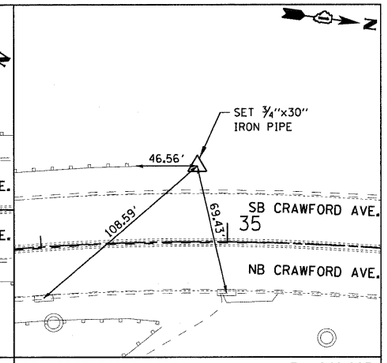
TRAVERSE POINT #8503 EL.=644.41
N 1795577.9730
E 1153722.1220
STA 14+92.07, OFFSET 47.35' RT



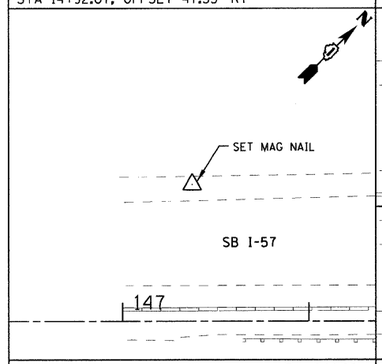
TRAVERSE POINT #8502 EL.=662.25
N 1796132.3870
E 1153602.2020
STA 20+45.47, OFFSET 42.98' RT



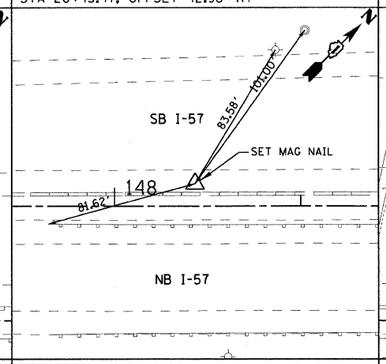
TRAVERSE POINT #8501 EL.=662.24
N 1796573.1450
E 1153235.2640
STA 26+09.25, OFFSET 40.45' LT



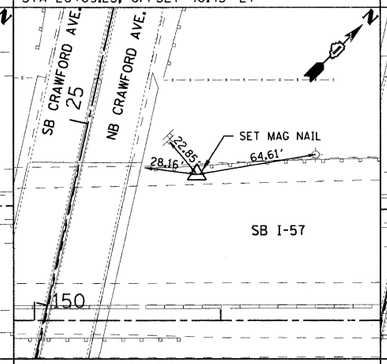
TRAVERSE POINT #8500 EL.=640.803
N 1797375.4140
E 1152866.4850
STA 34+83.95, OFFSET 40.20' LT



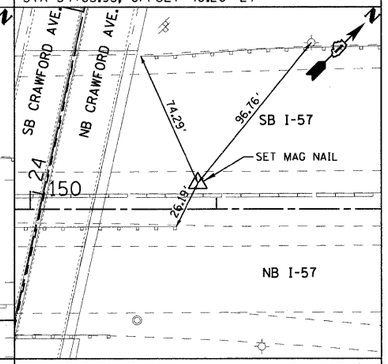
TRAVERSE POINT #8106 EL.=644.28
N 1796272.5090
E 1153148.7870
STA 147+37.36, OFFSET 73.53' LT



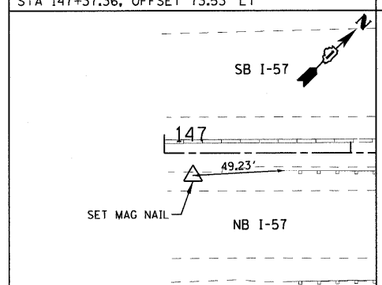
TRAVERSE POINT #8105 EL.=643.28
N 1796305.6160
E 1153266.6610
STA 148+43.27, OFFSET 12.09' LT



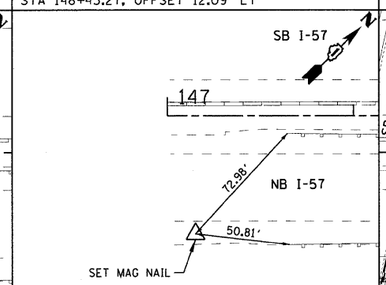
TRAVERSE POINT #8107 EL.=640.59
N 1796526.8200
E 1153389.2830
STA 150+87.34, OFFSET 78.37' LT



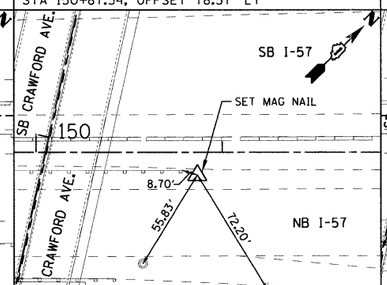
TRAVERSE POINT #8104 EL.=640.41
N 1796483.8230
E 1153437.3760
STA 150+90.04, OFFSET 13.91' LT



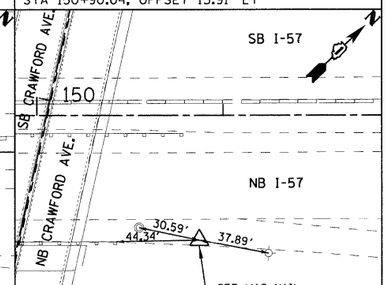
TRAVERSE POINT #8102 EL.=644.73
N 1796197.0770
E 1153194.8420
STA 147+15.38, OFFSET 12.07' RT



TRAVERSE POINT #8100 EL.=645.21
N 1796161.2770
E 1153231.3470
STA 147+15.16, OFFSET 63.21' RT



TRAVERSE POINT #8103 EL.=640.66
N 1796463.1490
E 1153453.8170
STA 150+86.68, OFFSET 12.28' RT



TRAVERSE POINT #8101 EL.=640.47
N 1796425.4370
E 1153493.2340
STA 150+87.12, OFFSET 66.83' RT

TRAVERSE CONTROL POINTS
NOT TO SCALE

BENCHMARK

BM-1 SET CUT CROSS IN SIDEWALK SOUTH I-57 (TELEGRAPH ST.) AND WEST OF CRAWFORD AVE. APPROX. STA. ±15+25.00, OFFSET ±50.00' RT. ELEV. = 645.29

NOTE:
VERTICAL AND HORIZONTAL CONTROL
NAVD 1988 DATUM PER GPS TOPCON PSC Net

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ENTRAN

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PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
ALIGNMENT, TIES & BENCHMARKS

SCALE: 100.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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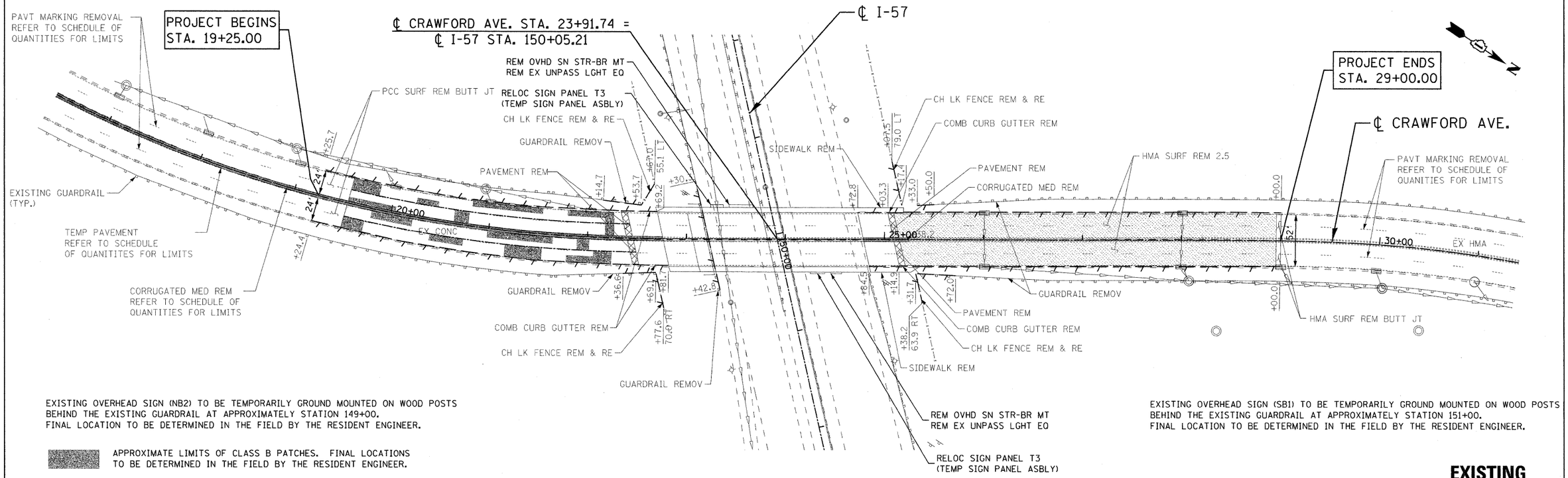
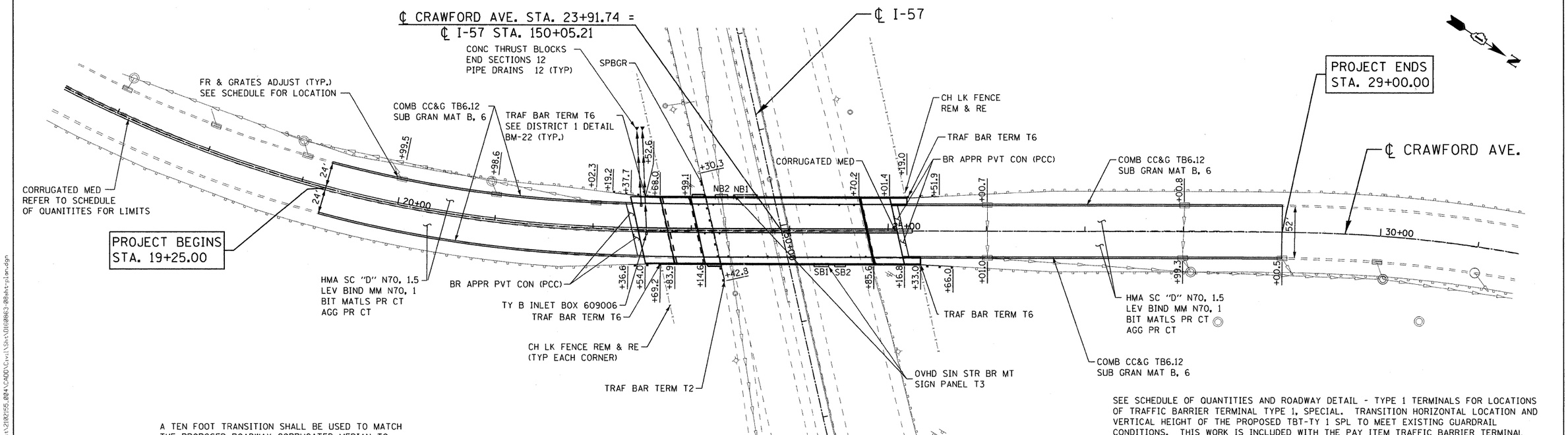
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





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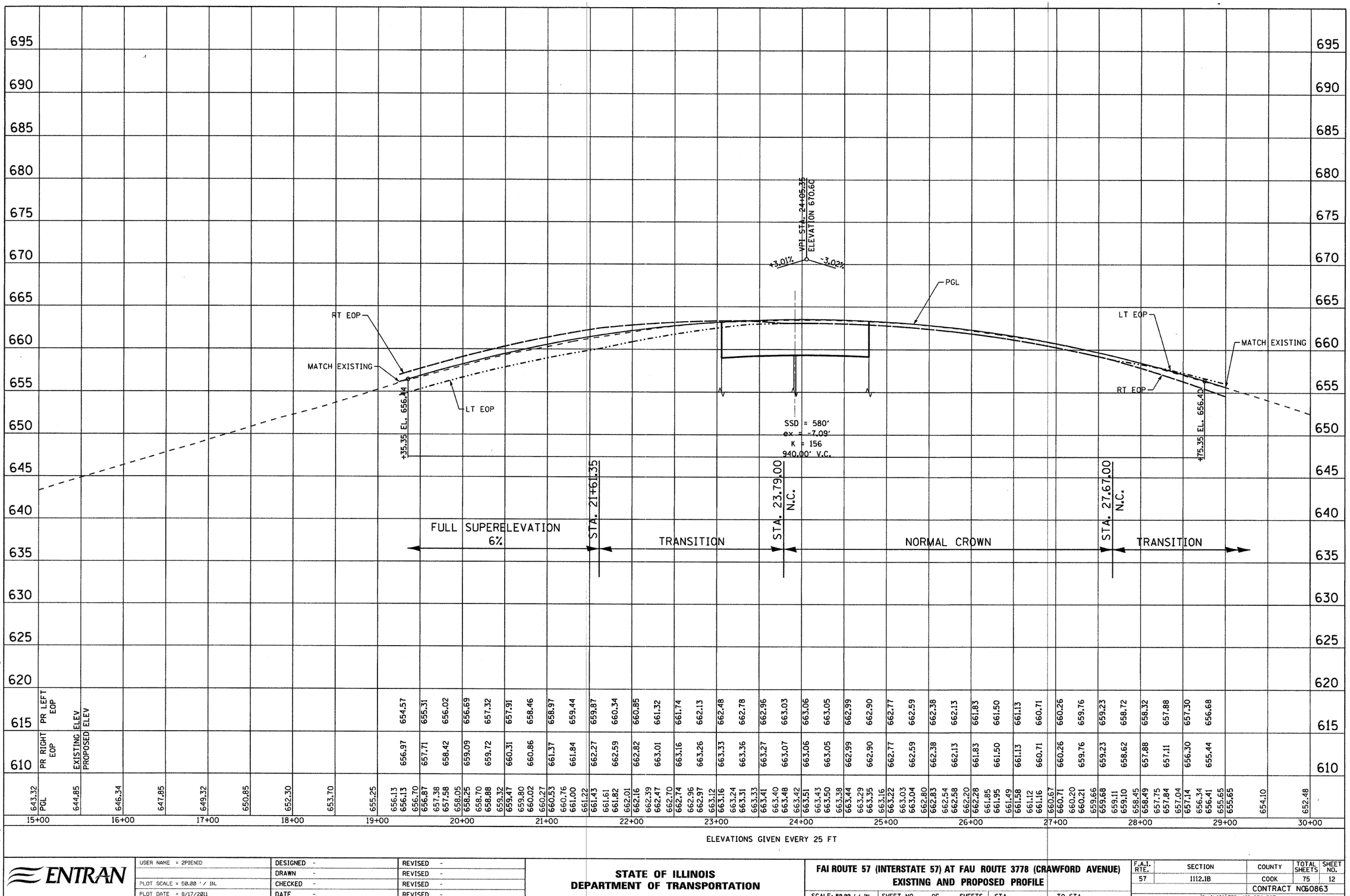
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
EXISTING AND PROPOSED ROADWAY PLAN

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	11
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



	PR LEFT EOP	PR RIGHT EOP	EXISTING ELEV	PROPOSED ELEV
15+00	654.57	656.97	643.32	PGL
	655.31	657.71	644.85	
	656.02	658.42		
16+00	656.69	659.09	646.34	
	657.32	659.72		
	657.91	660.31	647.85	
	658.46	660.86		
17+00	658.97	661.37	649.32	
	659.44	661.84		
	659.87	662.27	650.85	
	660.34	662.59		
18+00	660.85	662.82	652.30	
	661.32	663.01		
	661.74	663.16	653.70	
	662.13	663.26		
19+00	662.48	663.33	655.25	
	662.78	663.36		
	662.96	663.27	656.13	
	663.03	663.07	656.13	
20+00	663.06	663.06	656.87	
	663.05	663.05	657.38	
	662.99	662.99	657.58	
	662.90	662.90	658.05	
21+00	662.77	662.77	658.25	
	662.59	662.59	658.70	
	662.38	662.38	658.88	
	662.13	662.13	659.32	
22+00	661.83	661.83	659.47	
	661.50	661.50	659.80	
	661.13	661.13	660.02	
	660.71	660.71	660.27	
23+00	660.26	660.26	660.53	
	659.76	659.76	660.76	
	659.23	659.23	661.00	
	658.72	658.62	661.22	
24+00	658.32	657.88	661.43	
	657.88	657.11	661.61	
	657.30	656.30	661.82	
	656.68	655.44	662.01	
25+00			662.16	
			662.39	
			662.47	
			662.70	
26+00			662.74	
			662.96	
			662.97	
			663.12	
27+00			663.16	
			663.24	
			663.31	
			663.33	
28+00			663.41	
			663.40	
			663.48	
			663.42	
29+00			663.51	
			663.43	
			663.50	
			663.38	
30+00			663.44	
			663.29	
			663.35	
			663.16	
			663.22	
			663.03	
			663.04	
			662.80	
			662.83	
			662.54	
			662.58	
			662.20	
			662.28	
			661.85	
			661.95	
			661.49	
			661.58	
			661.12	
			661.16	
			660.67	
			660.71	
			660.20	
			660.21	
			659.66	
			659.68	
			659.11	
			659.10	
			658.45	
			657.75	
			657.84	
			657.04	
			657.14	
			656.34	
			656.41	
			655.65	
			655.65	
			654.10	
			652.48	

ELEVATIONS GIVEN EVERY 25 FT

PLAN: SURVEYED, PLOTTED, PLANS CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., DATE

PROFILE: SURVEYED, PLOTTED, PLANS CHECKED, ILL. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

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ENTRAN

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	DRAWN -	REVISED -
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PLOT DATE = 8/17/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
EXISTING AND PROPOSED PROFILE

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	12
		CONTRACT NO60863		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES - TRAFFIC CONTROL

MAINTENANCE OF TRAFFIC DEVICES TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE POTIONS OF STANDARDS 701606 AND 701431 AND DISTRICT ONE STANDARDS TC-11 AND TC-13. ADDITIONAL SIGNAGE MAY BE REQUIRED BY THE RESIDENT ENGINEER AT NO ADDITIONAL COST. THIS WORK AND SIGNAGE IS INCLUDED IN THE PAY ITEM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

THE MAINTENANCE OF TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT, HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF THE PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER IN WRITING FOR APPROVAL.

THE RESIDENT ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE MOT PLANS.

EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL.

REMOVAL OF THE TEMPORARY PAVEMENT MARKINGS SHALL BE PAID FOR UNDER THE PAY ITEM WORK ZONE PAVEMENT MARKING REMOVAL.

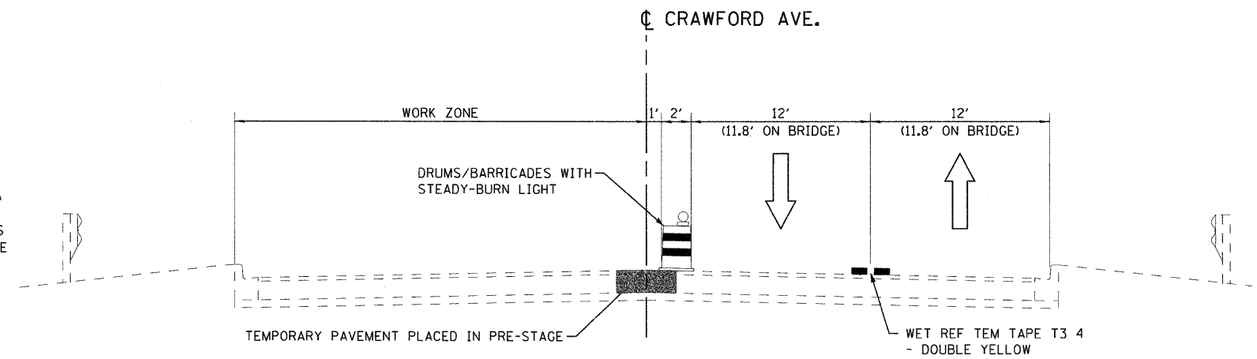
THE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN REMOVED SHALL BE REPLACED IN-KIND.

THE CONTRACTOR SHALL NOT MOUNT SIGNS ON EXISTING SIGNS.

THE CONTRACTOR SHALL PLACE AN ARTERIAL ROAD INFORMATION SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACE TWO WEEKS BEFORE THE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PER SQUARE FOOT, TEMPORARY INFORMATION SIGNING.

THE CONTRACTOR SHALL COORDINATE THE EXACT PLACEMENT OF ADVANCED WARNING SIGNAGE WITH THE RESIDENT ENGINEER.

THE REMOVAL OF TEMPORARY PAVEMENT PROVIDED IN THE MEDIAN CROSS OVER SHALL BE PAID FOR AS PAVEMENT REMOVAL.

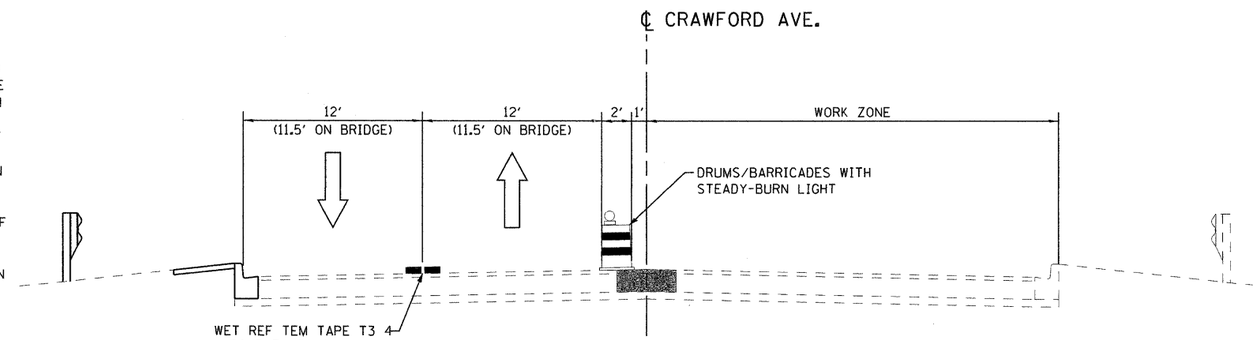


CRAWFORD AVENUE - STAGE I

FACING NORTH

N.T.S.

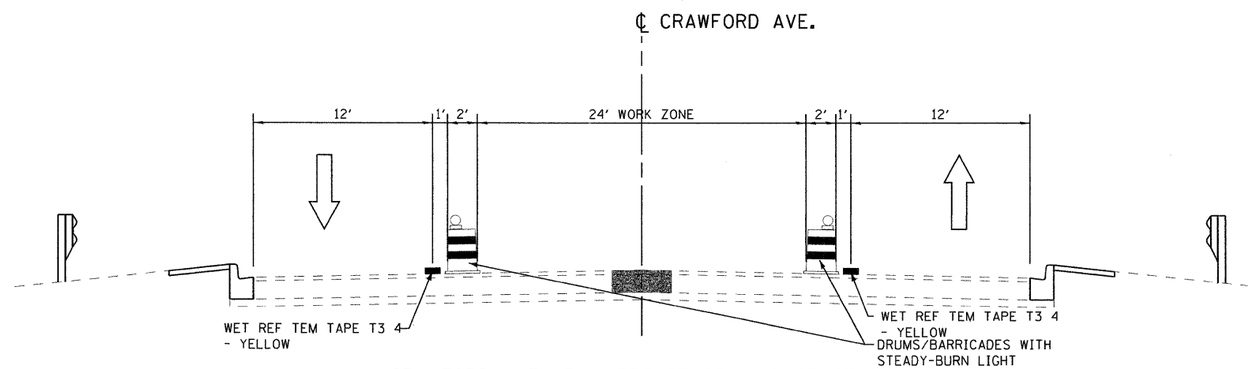
TEMPORARY BARRIER WALL TO BE USED WITHIN STRUCTURE LIMITS, STA. 21+10 TO STA. 27+00



CRAWFORD AVENUE - STAGE II

FACING NORTH

N.T.S.



CRAWFORD AVENUE - (PRE-STAGE) AND STAGE III

FACING NORTH

N.T.S.

SUGGESTED CONSTRUCTION SEQUENCING FOR CRAWFORD AVENUE

PRE-STAGE

PERFORM PATCHING OPERATIONS. REMOVE CORRUGATED CONCRETE MEDIAN AND INSTALL TEMPORARY PAVEMENT FOR THE CROSSOVER BETWEEN STATION 15+00 TO 22+00. PERFORM THIS WORK USING STANDARD 701606. TRAFFIC CONTROL TO BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701606.

STAGE 1

REMOVE AND REPLACE DECK, VAULTED SPAN, ABUTMENT BACKWALLS, AND ABUTMENT BEARINGS. REMOVE APPROACH PAVEMENTS AND REPLACE WITH APPROACH SLABS. REMOVE TOP OF EXISTING RETAINING WALLS AND SIDEWALKS AT NORTH ABUTMENT. REMOVE EXISTING CURB AND GUTTER AND GUARDRAIL. INSTALL PROPOSED CURB AND GUTTER AND GUARDRAIL. TRAFFIC CONTROL TO BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, SPECIAL.

STAGE 2

REMOVE AND REPLACE DECK, VAULTED SPAN, ABUTMENT BACKWALLS, AND ABUTMENT BEARINGS. REMOVE APPROACH PAVEMENTS AND REPLACE WITH APPROACH SLABS. REMOVE TOP OF EXISTING RETAINING WALLS AND SIDEWALKS AT NORTH ABUTMENT. REMOVE EXISTING CURB AND GUTTER AND GUARDRAIL. INSTALL PROPOSED CURB AND GUTTER AND GUARDRAIL. TRAFFIC CONTROL TO BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, SPECIAL.

STAGE 3

REMOVE TEMPORARY PAVEMENT AND INSTALL CORRUGATED CONCRETE MEDIAN. TRAFFIC CONTROL TO BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701606.

STAGE 4

PLACE LEVELING BINDER AND SURFACE COURSE AND FINAL PAVEMENT MARKINGS UTILIZING HIGHWAY STANDARDS 701421 AND 701311. TRAFFIC CONTROL TO BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701421.

WORK TO BE CONSTRUCTED ON I-57

REMOVE EXISTING BRIDGE MOUNTED SIGNS AND UNDERPASS LIGHTING. REMOVE EXISTING PROTECTIVE SHIELD. INSTALL PROPOSED BRIDGE MOUNTED SIGNS AND UNDERPASS LIGHTING. PERFORM SLOPEWALL REPAIRS AND STRUCTURAL REPAIR OF CONCRETE ON ABUTMENTS AND PIERS UTILIZING HIGHWAY STANDARDS 701101, 701400, AND 701406 AND DISTRICT ONE DETAILS TC-17 AND TC-25 ON IL ROUTE 57. ALL CONSTRUCTION STAGING NEEDED TO PERFORM THE WORK AS OUTLINED IN THE PLANS AND BY THE ENGINEER SHALL BE PAID FOR AS TRAFFIC CONTROL AND PROTECTION, (EXPRESSWAYS).

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PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
MOT – GENERAL NOTES & TYPICAL SECTIONS

SCALE: 50.000 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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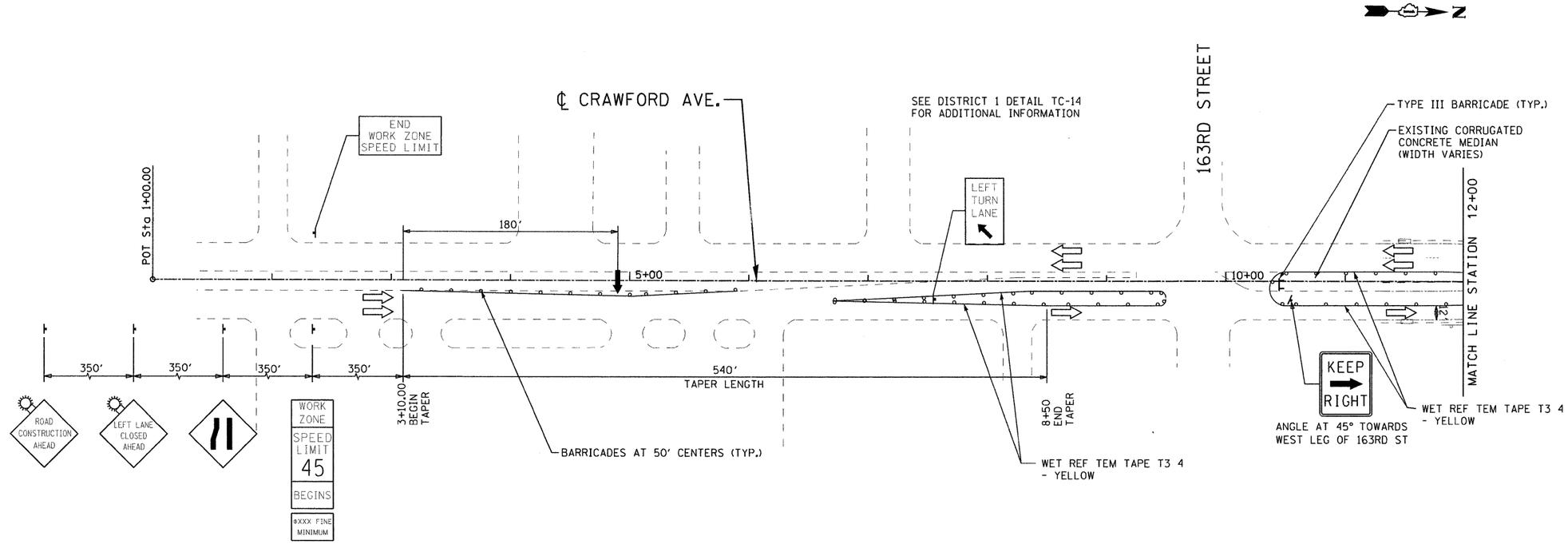
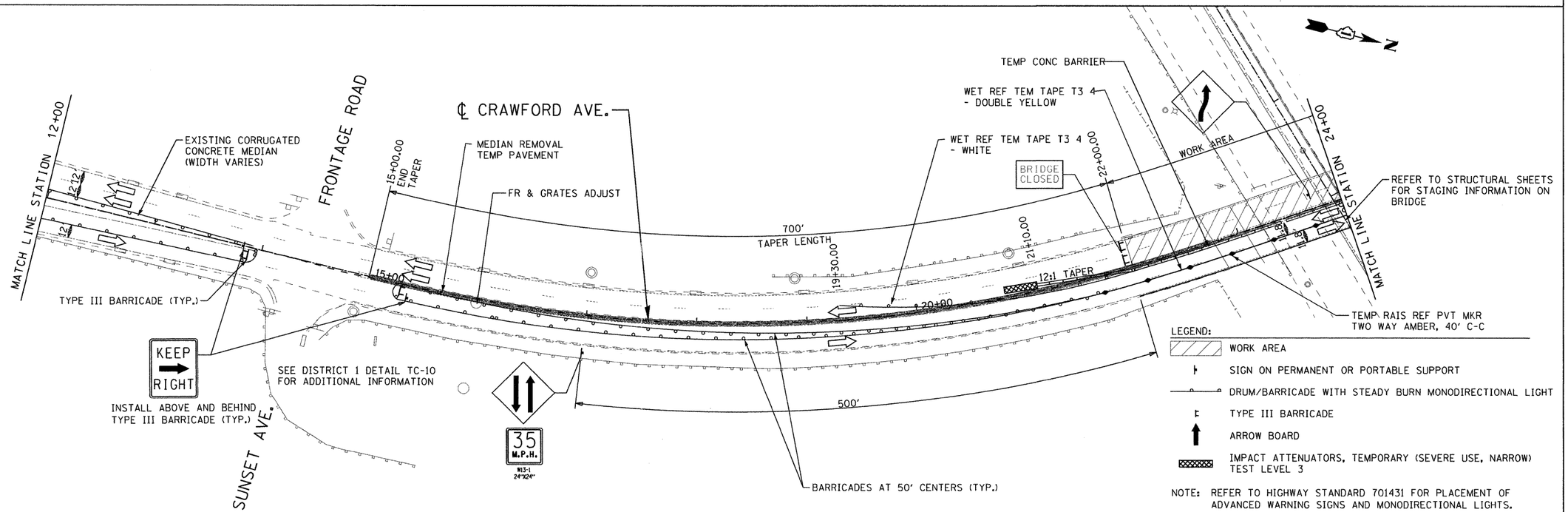
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STAGE 1



NOTE: REFER TO HIGHWAY STANDARD 701431 FOR PLACEMENT OF ADVANCED WARNING SIGNS AND MONODIRECTIONAL LIGHTS.

COORDINATE FINAL PLACEMENT OF ADVANCE WARNING SIGNS WITH THE ENGINEER.

STAGE 1

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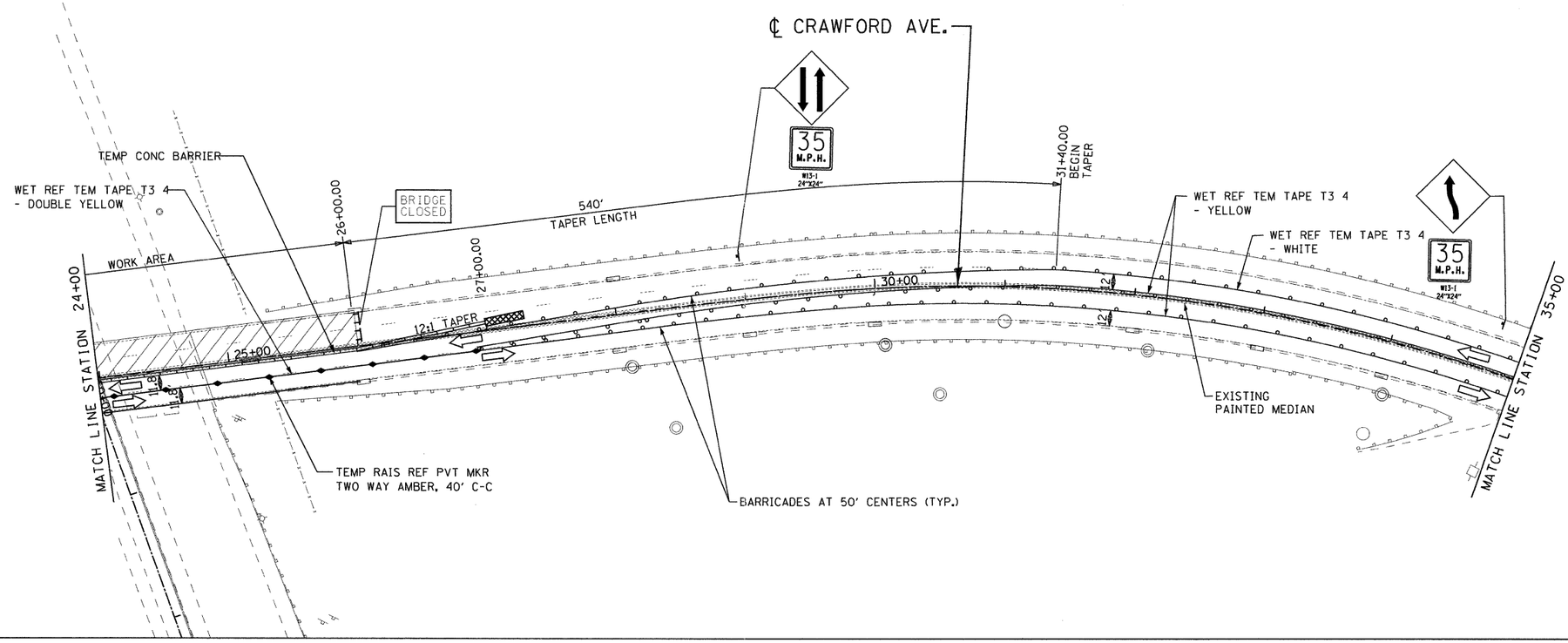
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

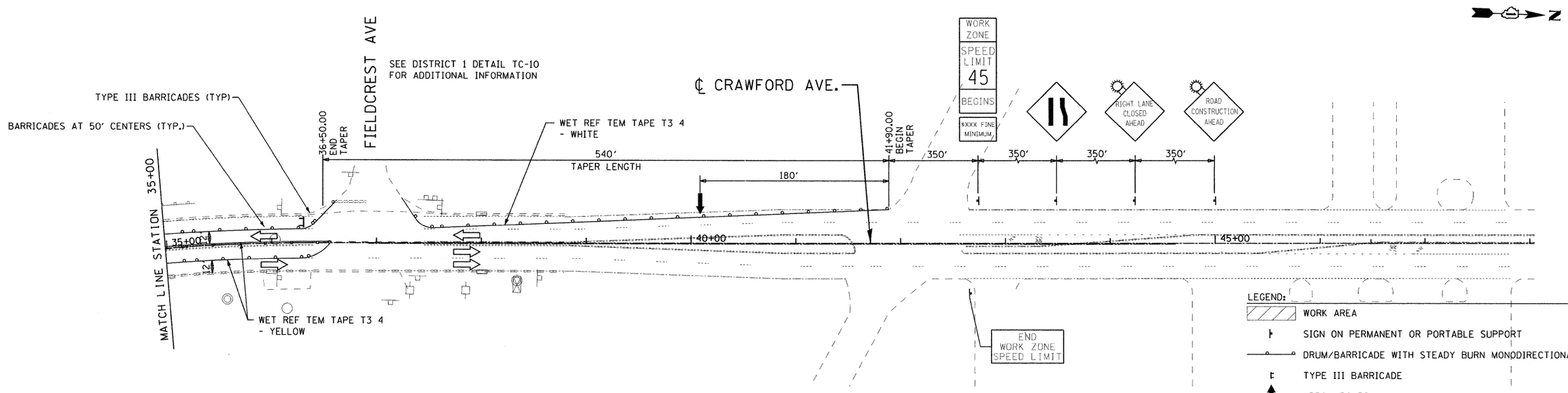
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
MAINTENANCE OF TRAFFIC – STAGE 1

SCALE: 50.0000 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	14
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STAGE 1



NOTE: REFER TO HIGHWAY STANDARD 701431 FOR PLACEMENT OF ADVANCED WARNING SIGNS AND MONODIRECTIONAL LIGHTS.

COORDINATE FINAL PLACEMENT OF ADVANCE WARNING SIGNS WITH THE ENGINEER.

STAGE 1

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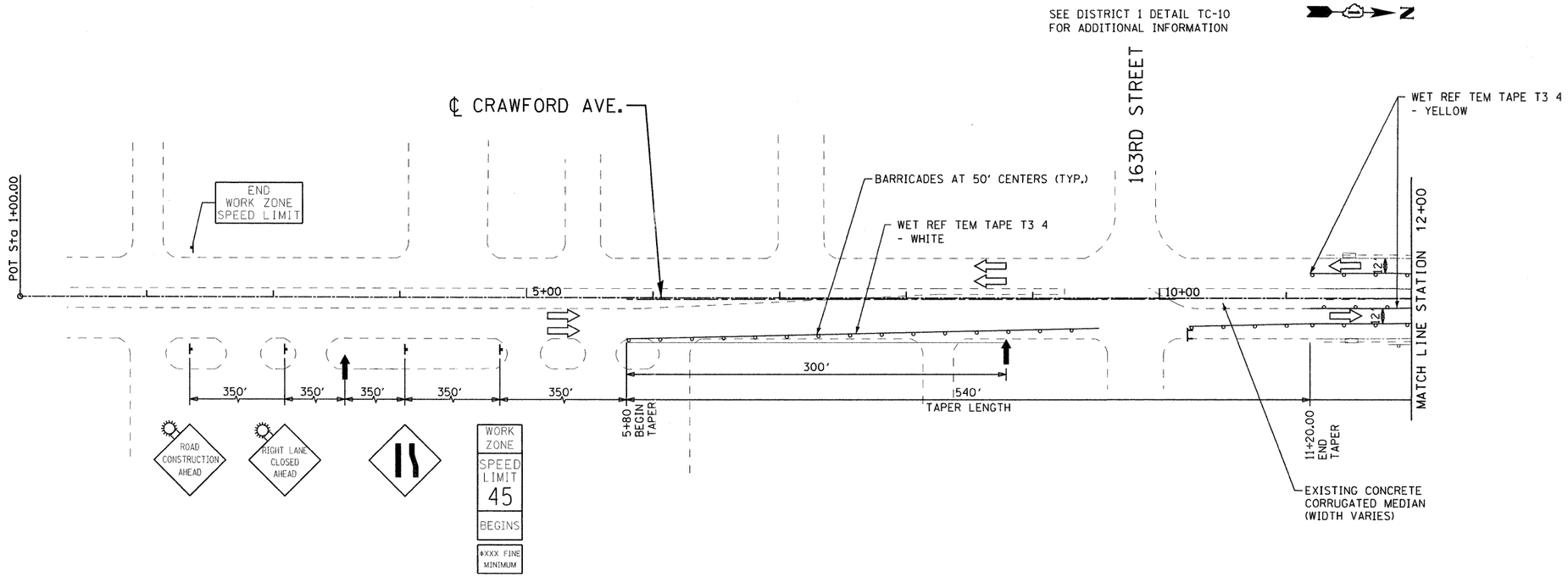
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

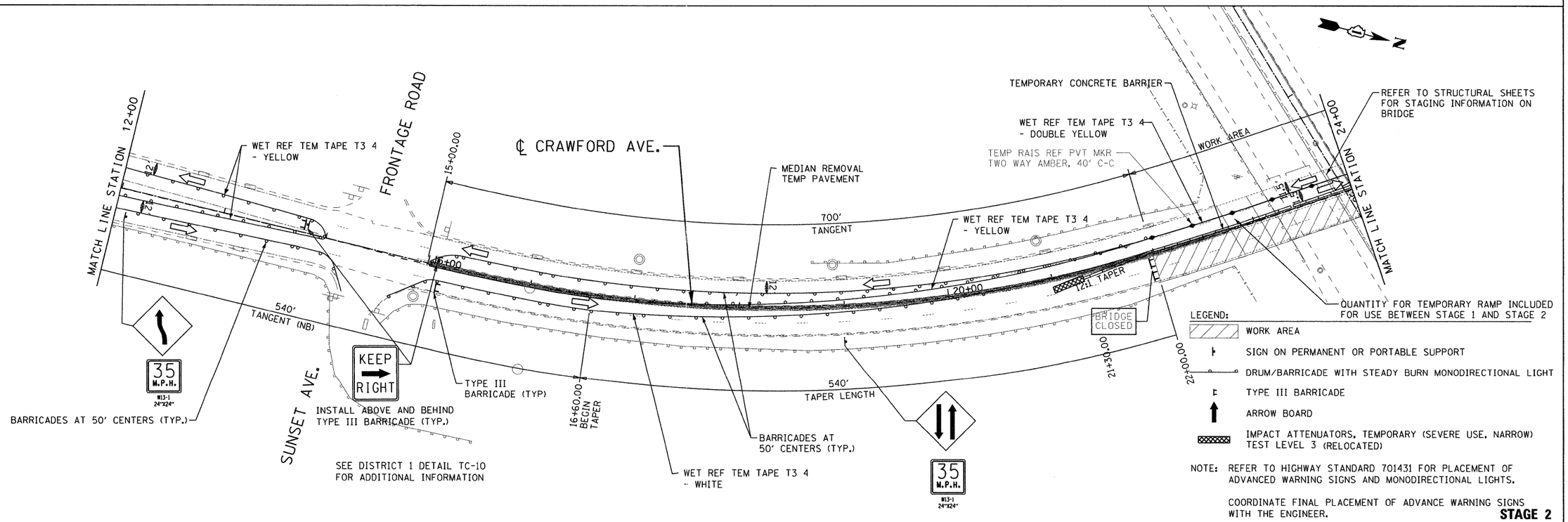
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
MAINTENANCE OF TRAFFIC – STAGE 1

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	15
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STAGE 2



NOTE: REFER TO HIGHWAY STANDARD 701431 FOR PLACEMENT OF ADVANCED WARNING SIGNS AND MONODIRECTIONAL LIGHTS.

COORDINATE FINAL PLACEMENT OF ADVANCE WARNING SIGNS WITH THE ENGINEER.

STAGE 2

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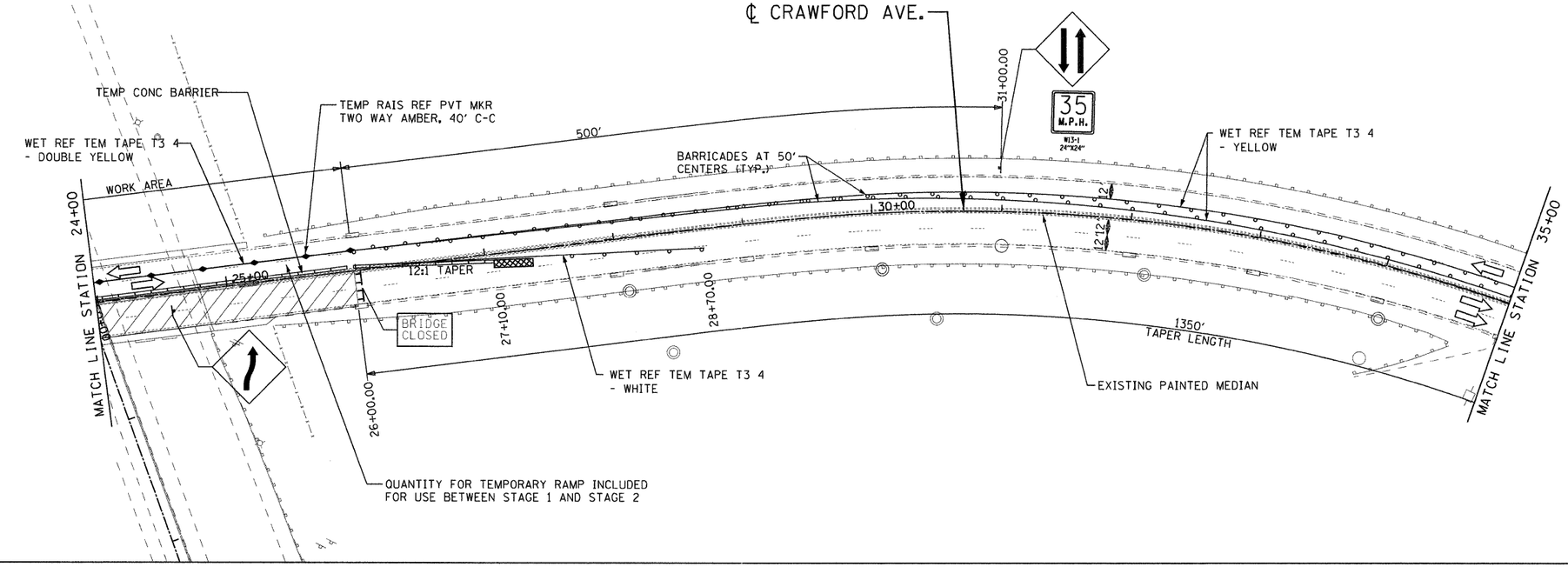
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

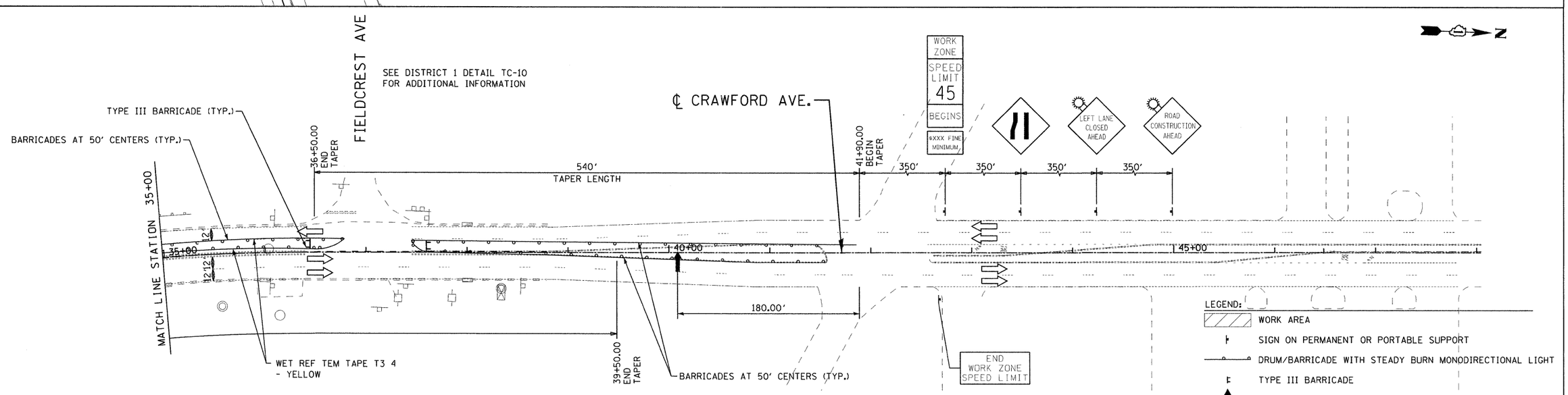
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
MAINTENANCE OF TRAFFIC – STAGE 2

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	16
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STAGE 2



NOTE: REFER TO HIGHWAY STANDARD 701431 FOR PLACEMENT OF ADVANCED WARNING SIGNS AND MONODIRECTIONAL LIGHTS.

COORDINATE FINAL PLACEMENT OF ADVANCE WARNING SIGNS WITH THE ENGINEER.

STAGE 2

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PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
MAINTENANCE OF TRAFFIC – STAGE 2

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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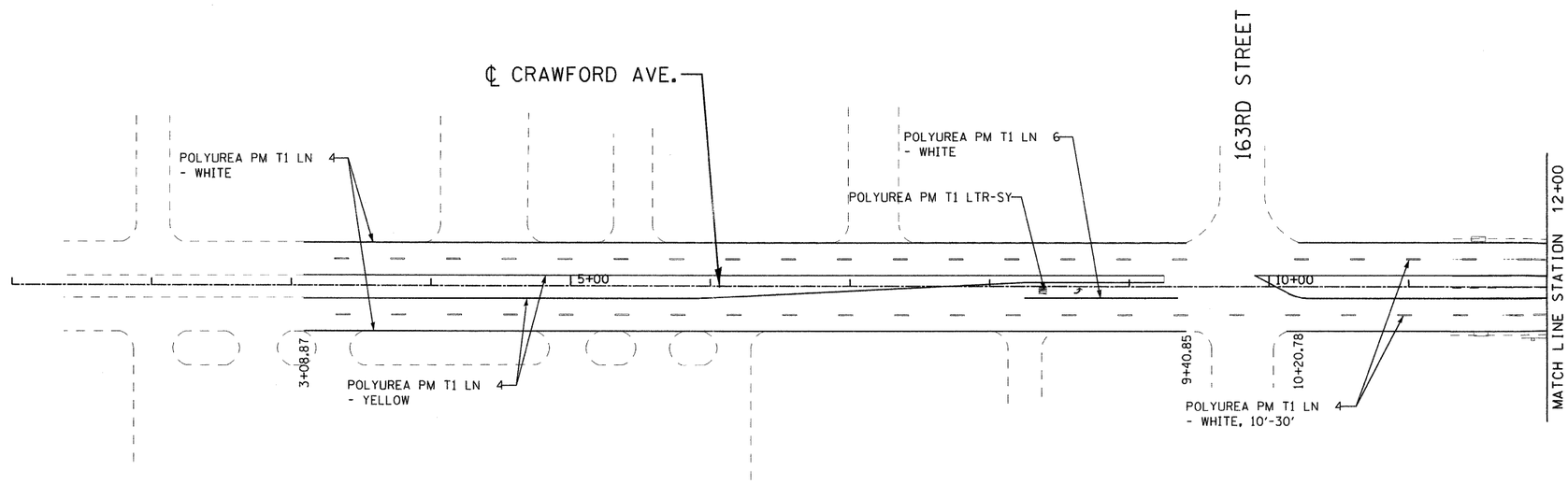
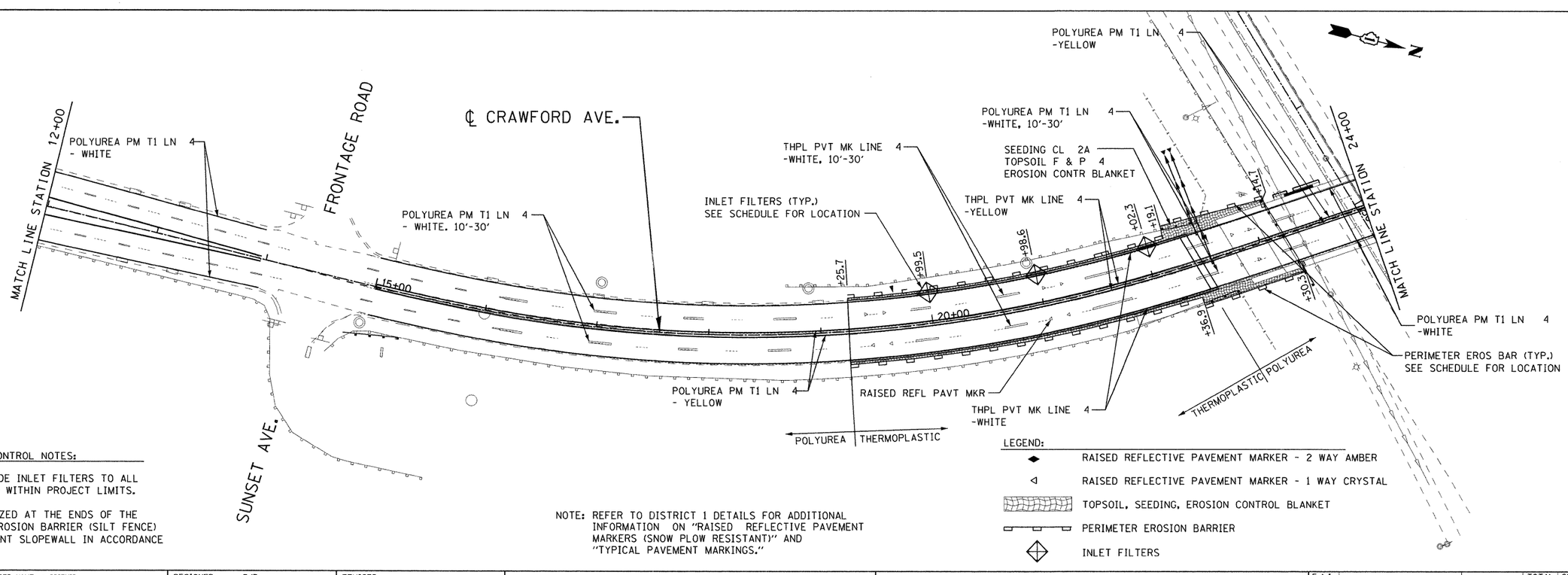
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





EROSION AND SEDIMENT CONTROL NOTES:

CONTRACTOR SHALL PROVIDE INLET FILTERS TO ALL EXISTING INLETS LOCATED WITHIN PROJECT LIMITS.

J-HOOKS SHALL BE UTILITZED AT THE ENDS OF THE ON-CONTOUR PERIMETER EROSION BARRIER (SILT FENCE) FOUND ALONG THE ABUTMENT SLOPEWALL IN ACCORDANCE WITH STANDARD 280001.

NOTE: REFER TO DISTRICT 1 DETAILS FOR ADDITIONAL INFORMATION ON "RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)" AND "TYPICAL PAVEMENT MARKINGS."

LEGEND:

- RAISED REFLECTIVE PAVEMENT MARKER - 2 WAY AMBER
- RAISED REFLECTIVE PAVEMENT MARKER - 1 WAY CRYSTAL
- TOPSOIL, SEEDING, EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- INLET FILTERS

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ENTRAN

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PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
PAVEMENT MARKING, & EROSION CONTROL PLAN

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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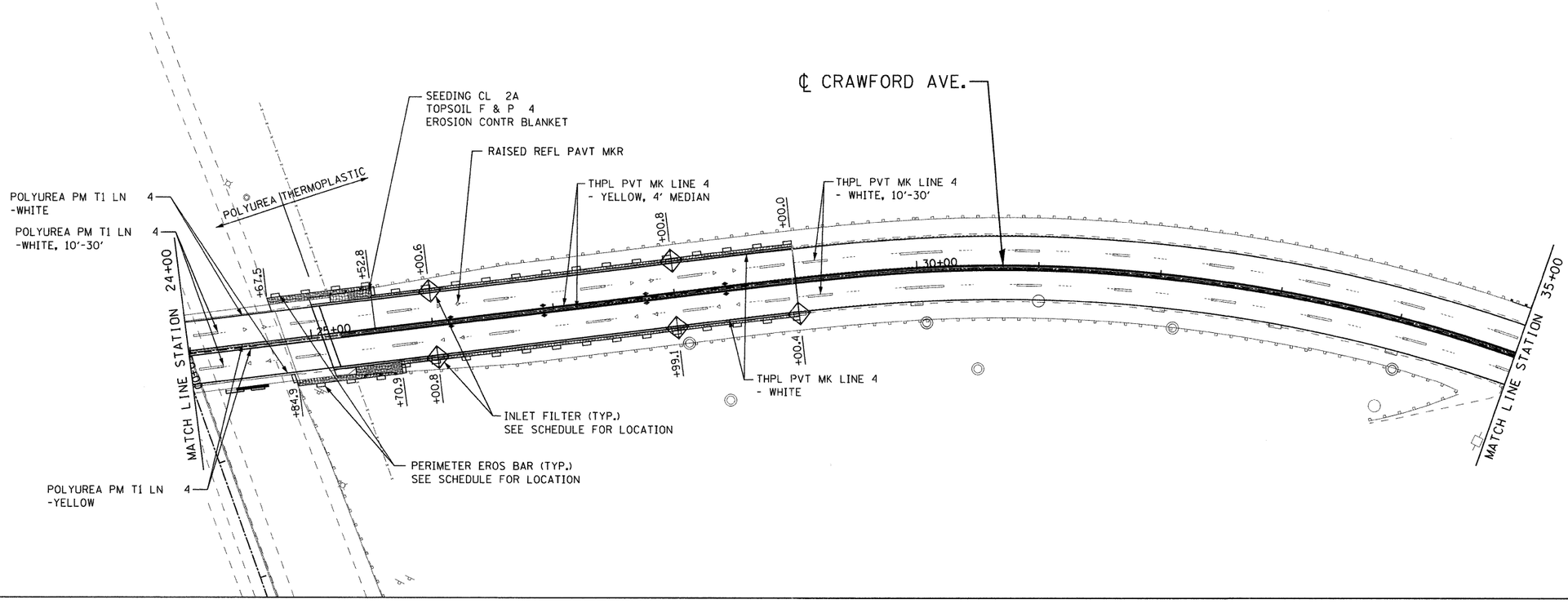
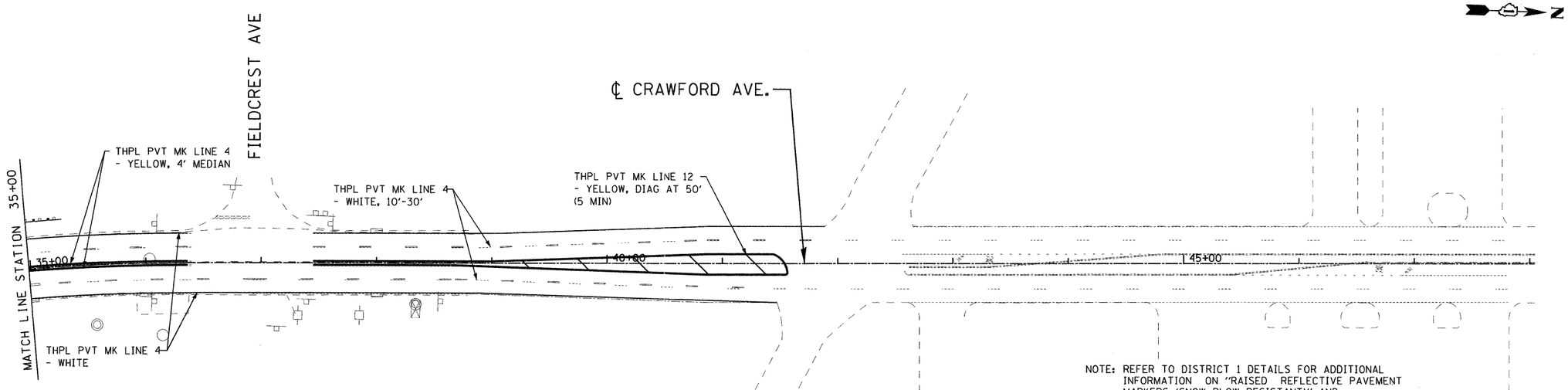
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





NOTE: REFER TO DISTRICT 1 DETAILS FOR ADDITIONAL INFORMATION ON "RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)" AND "TYPICAL PAVEMENT MARKINGS."

EROSION AND SEDIMENT CONTROL NOTES:

CONTRACTOR SHALL PROVIDE INLET FILTERS TO ALL EXISTING INLETS LOCATED WITHIN PROJECT LIMITS.

J-HOOKS SHALL BE UTILITZED AT THE ENDS OF THE ON-CONTOUR PERIMETER EROSION BARRIER (SILT FENCE) FOUND ALONG THE ABUTMENT SLOPEWALL IN ACCORDANCE WITH STANDARD 280001.

LEGEND:

- RAISED REFLECTIVE PAVEMENT MARKER - 2 WAY AMBER
- RAISED REFLECTIVE PAVEMENT MARKER - 1 WAY CRYSTAL
- TOPSOIL, SEEDING, EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- INLET FILTERS

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PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

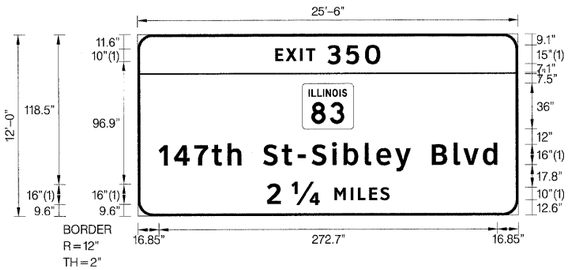
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
PAVEMENT MARKING, & EROSION CONTROL PLAN

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	19
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SIGN DETAIL

1:75



SIGN NUMBER	NB1
WIDTH x HGHT.	25'-6" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1-1100A-2-42-20D	0	132.6	68.4	41.1	36

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

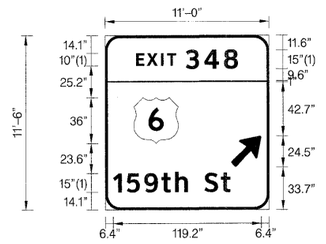
LETTER POSITIONS (X)

																						LENGTH	SERIES/SIZE
E	X	I	T	3	5	0																	
110.9	119.5	130.9	135.8	153	168	183.3																84.5	Clearview Hwy-5-W 10,15
1	4	7	t	h		S	t	–	S	i	b	l	e	y		B	l	v	d				
16.8	29.1	45.4	59.6	72.2	83.3	101	116	128.8	140.2	156.5	165.9	182.9	192.1	207.3	219.8	236.9	254.4	262.3	278			272.7	Clearview Hwy-5-W 1613
2	¼	M	I	L	E	S																	
103.9	123.9	158.3	171.4	177.3	186.4	195.3																98.6	Clearview Hwy-5-W 16,10

THIS EXISTING SIGN IS TO BE REMOVED AND DISPOSED OF

SIGN DETAIL

1:75



SIGN NUMBER	NB2
WIDTH x HGHT.	11'-0" x 11'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_4	0	23	52.7	36	36
ARMED	45	101.1	33.7	20	31.5

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

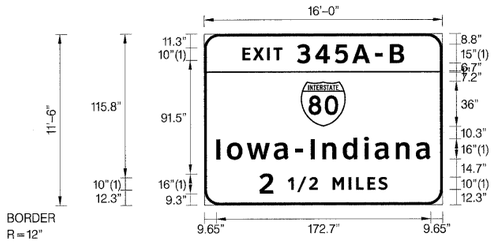
LETTER POSITIONS (X)

																						LENGTH	SERIES/SIZE
E	X	I	T	3	4	8																	
25.1	33.7	45.1	50	65.2	79.8	95.9																81.7	Clearview Hwy-5-W 10,15
1	5	9	t	h		S	t																
6.4	17.3	31.4	45.2	56.2	66.5	79.8	93.3															94.2	Clearview Hwy-5-W 1512.2

THIS EXISTING SIGN IS TO BE REMOVED AND TEMPORARILY RELOCATED
ON WOOD GROUND SUPPORTS BEHIND THE EXISTING GUARDRAIL

SIGN DETAIL

1:75



SIGN NUMBER	SB1
WIDTH x HGHT.	16'-0" x 11'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	78	63.3	36	36

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

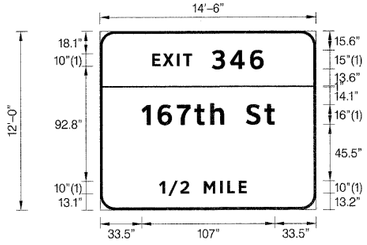
LETTER POSITIONS (X)

																						LENGTH	SERIES/SIZE
E	X	I	T	3	4	5	A	–	B														
30.9	39.4	50.8	55.8	74.9	89.5	105.5	119.5	137.9	149.8													130.2	Clearview Hwy-5-W 10,15
l	o	w	a	–	l	n	d	i	a	n	a												
9.7	18.4	34.3	56.1	73.2	85.8	95.2	111.6	129	137.4	154.4	170.5											172.7	Clearview Hwy-5-W 1613
2	1	/	2	M	I	L	E	S															
44.4	67.4	75	84.5	103.3	116.4	122.4	131.4	140.4														103.2	Clearview Hwy-5-W 16,10

THIS EXISTING SIGN IS TO BE REMOVED AND TEMPORARILY RELOCATED
ON WOOD GROUND SUPPORTS BEHIND THE EXISTING GUARDRAIL

SIGN DETAIL

1:75



SIGN NUMBER	SB2
WIDTH x HGHT.	14'-6" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_exp_advance_a.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																						LENGTH	SERIES/SIZE
E	X	I	T	3	4	6																	
42.2	50.8	62.1	67.1	90.3	104.9	121																89.6	Clearview Hwy-5-W 10,15
1	6	7	t	h		S	t																
33.5	46.4	62	76.2	88.9	99.9	117.6	132.7															107	Clearview Hwy-5-W 1613
1	/	2	M	I	L	E																	
47.7	55.2	64.7	83.6	96.7	102.6	111.7																70.4	Clearview Hwy-5-W 10

THIS EXISTING SIGN IS TO BE REMOVED AND DISPOSED OF

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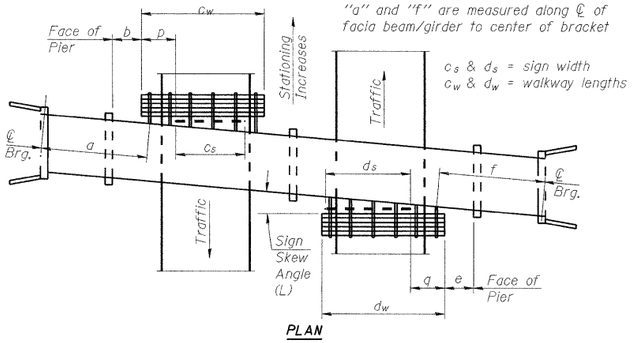
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
SIGNING DETAILS

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	20
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

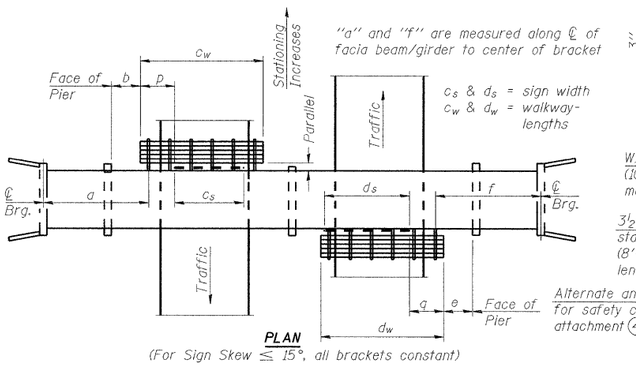


PLAN

(Left Sign Skew > 15°)

WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)

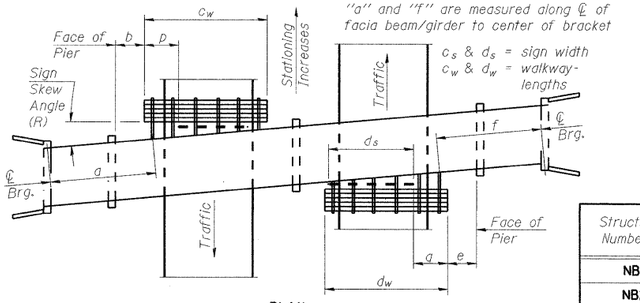


PLAN

(For Sign Skew ≤ 15°, all brackets constant)

WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)

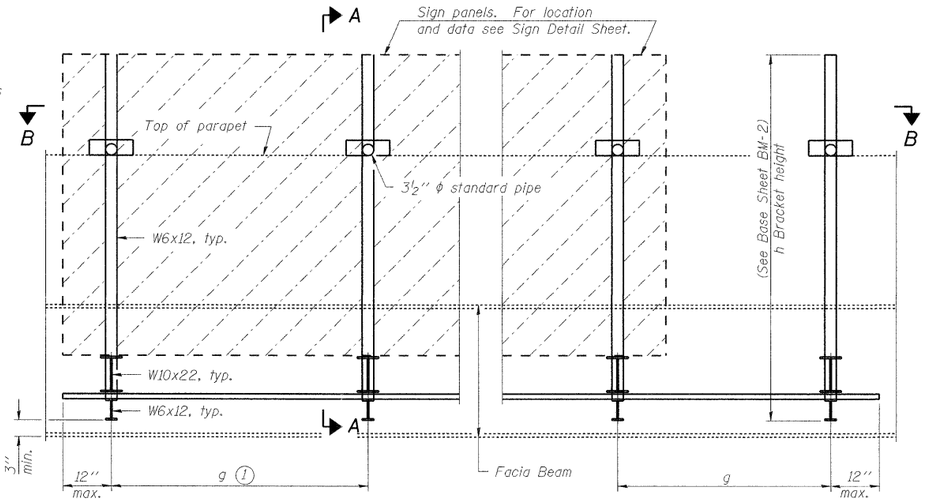


PLAN

(Right Sign Skew > 15°)

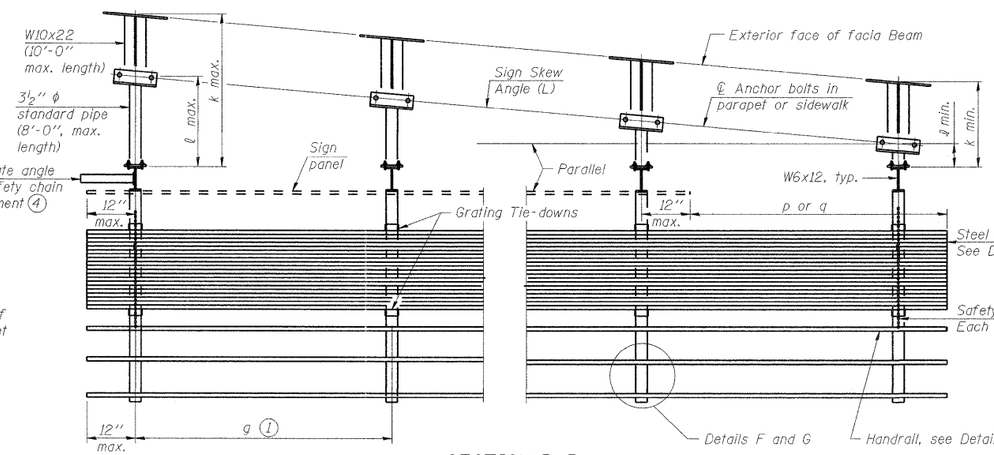
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION

(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B

(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c_s	c_w	d_s	d_w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/ Hndrl. Lengths (c_w + d_w)
NB1	12°35'05"	150+05	016-1015	FAI 57					25'-6"			42'-3"	6'-0"	5			
NB2	12°35'05"	150+05	016-1015	FAI 57					11'-0"			24'-0"	4'-6"	3			
SB1	12°35'05"	150+05	016-1015	FAI 57	45'-9"		16'-0"						4'-10"	4			
SB2	12°35'05"	150+05	016-1015	FAI 57	27'-2"		14'-6"						4'-6"	4			

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When c_w < c_s and/or d_w < d_s, use alternate brackets without walkway supports where applicable, see (3).

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specificiations.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50,).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: All-threaded rod shall conform to ASTM F1554 Grade 105, ¾" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

(1) Bracket spacing g ≤ 6'-0", max. Spacing shall be uniform if possible but may vary ±6" to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.

(2) Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.

(3) Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (c_w, d_w) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.

(4) If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

TOTAL BILL OF MATERIAL

(3) OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED	Foot	67.0

BM-1 1-20-11

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ENTRAN

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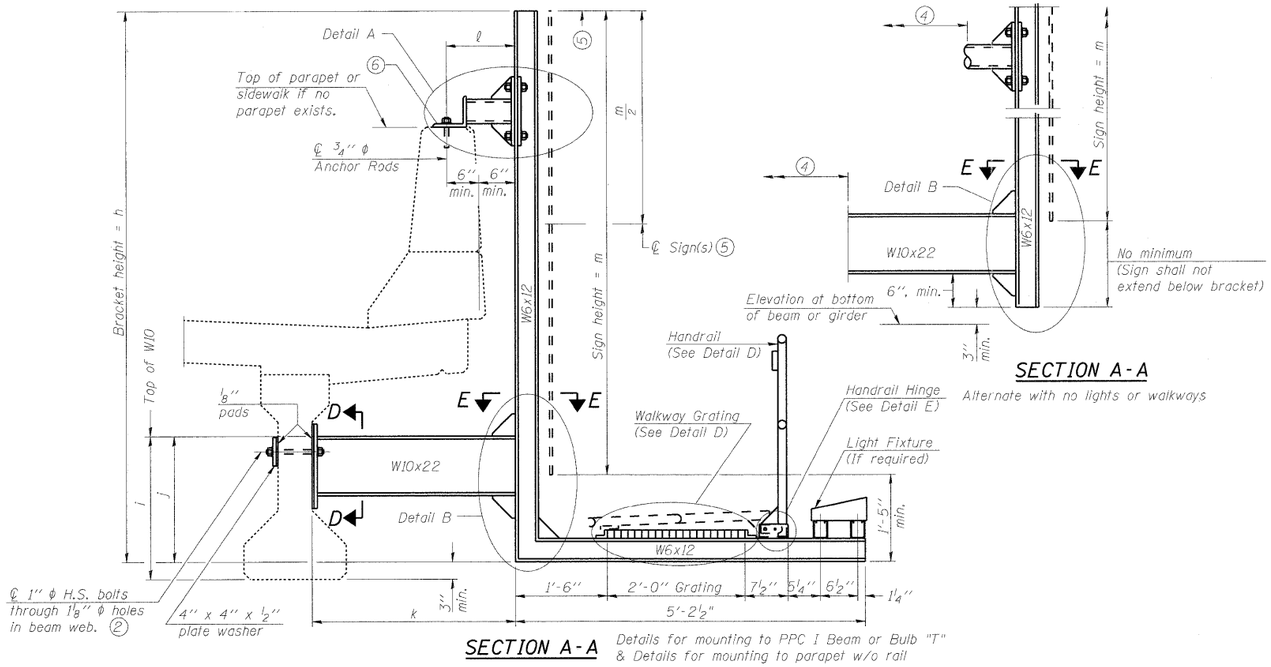
PLOT DATE = 8/17/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
BRIDGE MOUNT SIGN STRUCTURES – GENERAL PLAN AND ELEVATION

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	21
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

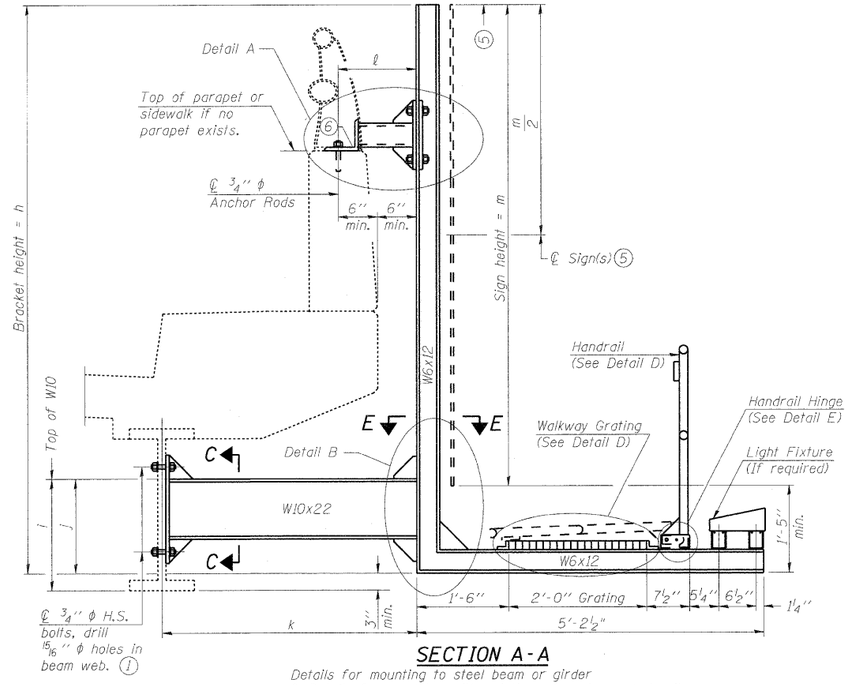


SECTION A-A

Details for mounting to PPC I Beam or Bulb "T" & Details for mounting to parapet w/o rail

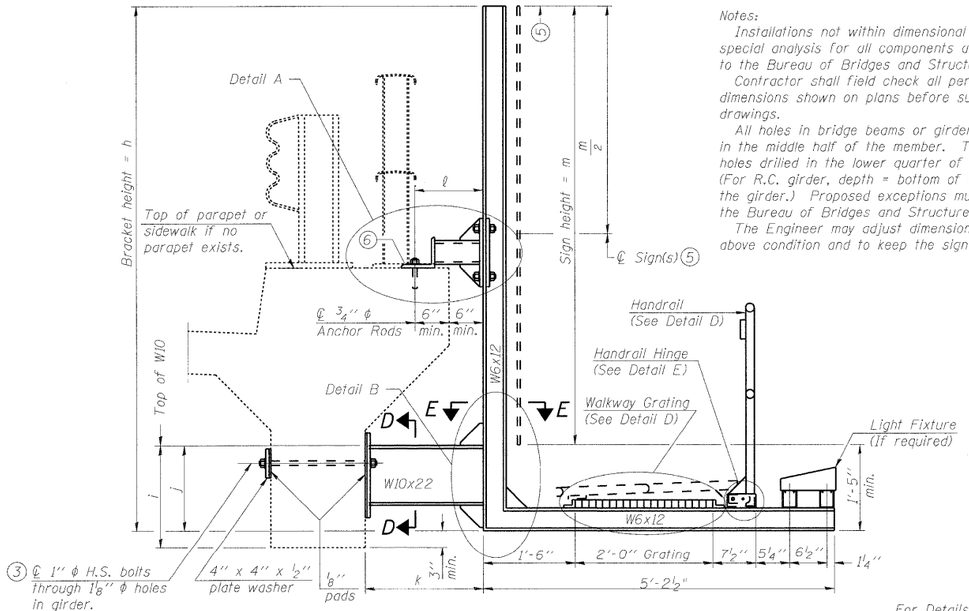
SECTION A-A

Alternate with no lights or walkways



SECTION A-A

Details for mounting to steel beam or girder & Details for mounting with existing parapet mounted rail



SECTION A-A

Details for mounting to integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

Notes:

Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.

Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.

All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.

The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

(1) Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.

(2) For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.

(3) For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over ¼" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.

(4) For attachment details of 3½" pipe and W10x22, see other sections as applicable.

(5) Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)

(6) For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
For Details D & E, see Base Sheet BM-4.

Structure Number	Station	h	i	j	k max. (10'-0" max.)	ℓ max. (8'-0" max.)	m (15'-0" max.)
NB1	150+05	13'-5"	2'-3"	2'-0"	3'-6"	1'-0"	12'-0"
NB2	150+05	12'-11"	2'-3"	2'-0"	3'-6"	1'-0"	11'-6"
SB1	150+05	12'-11"	2'-3"	2'-0"	3'-6"	1'-0"	11'-6"
SB2	150+05	13'-5"	2'-3"	2'-0"	3'-6"	1'-0"	12'-0"

BM-2 1-20-11

ENTRAN

USER NAME = 2pierid	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
BRIDGE MOUNT SIGN STRUCTURES – WALKWAY AND CONNECTION DETAILS

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	22
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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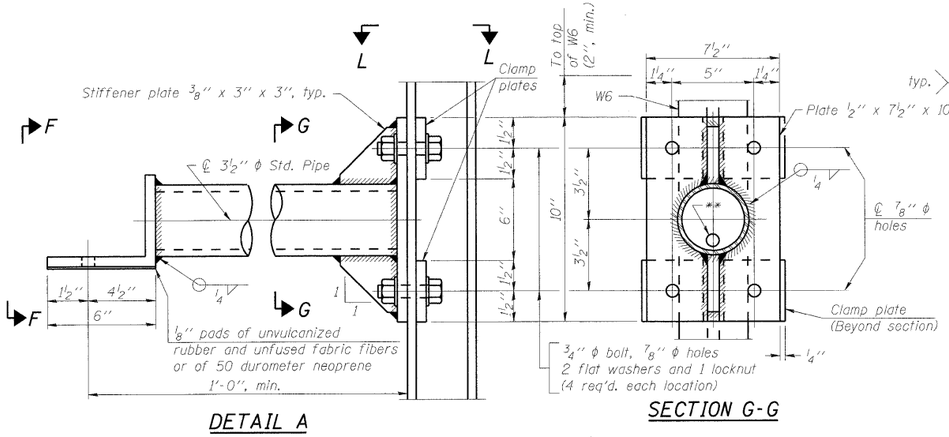
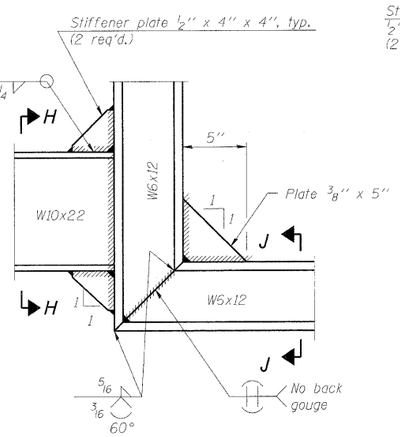
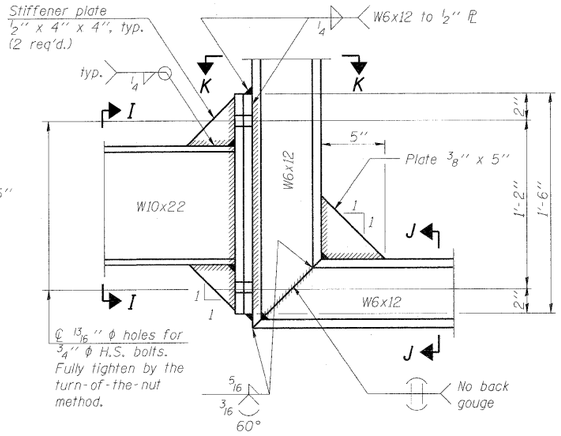


DETAIL A

SECTION G-G

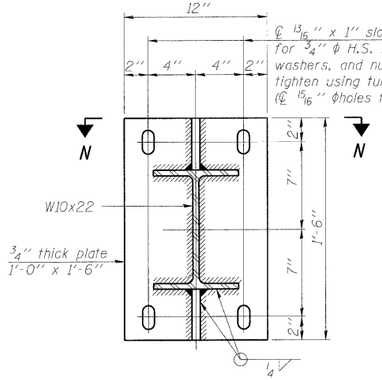


DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



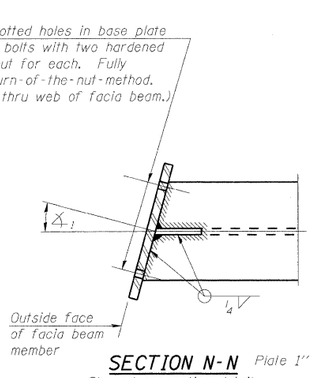
DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION

Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.



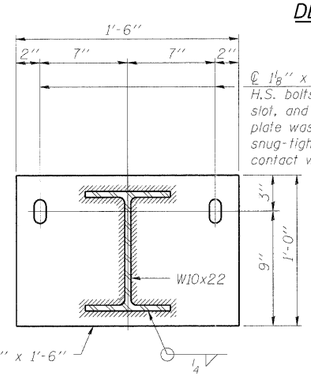
SECTION C-C

Steel beam or girder connection plate details



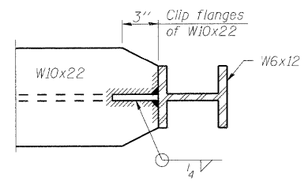
SECTION N-N

Skewed connection detail for W10x22 to facia beam.

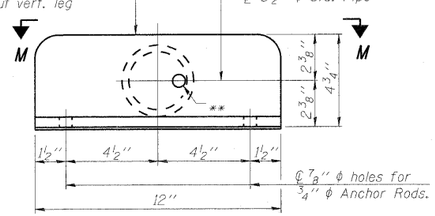


SECTION D-D

Concrete beam or girder connection plate details.

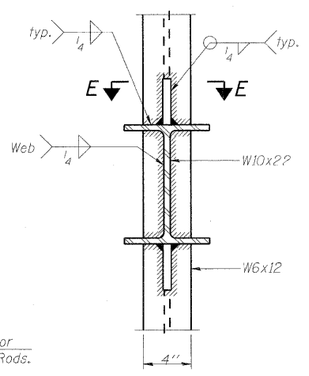


SECTION E-E

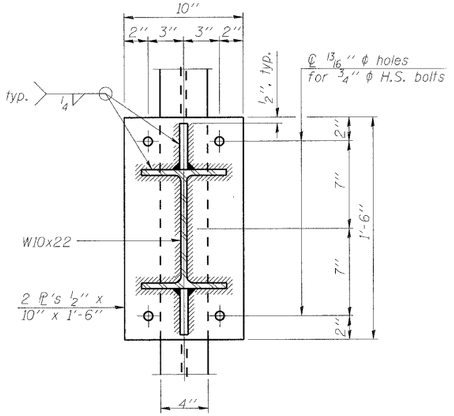


VIEW F-F

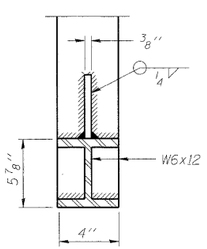
** 13/16" ϕ holes for galvanizing. After galvanizing, install 7/8" ϕ A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2" plate.)



SECTION H-H

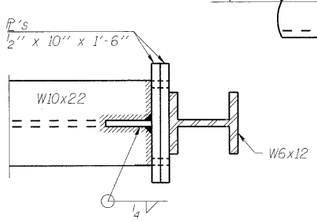


SECTION I-I

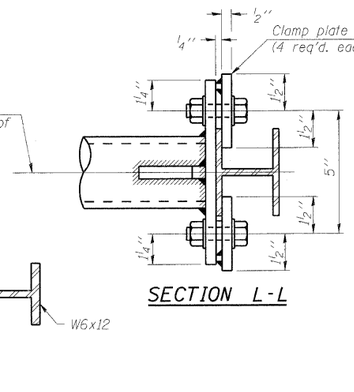


SECTION J-J

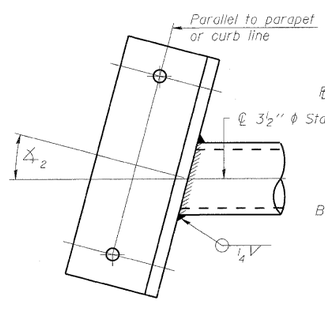
Note: For constant slab overhang at facia beam, $\Delta_1 = \Delta_2$ = sign angle. For flared beams or other special special cases where $\Delta_1 \neq \Delta_2$, Δ_1 = sign angle.



SECTION K-K

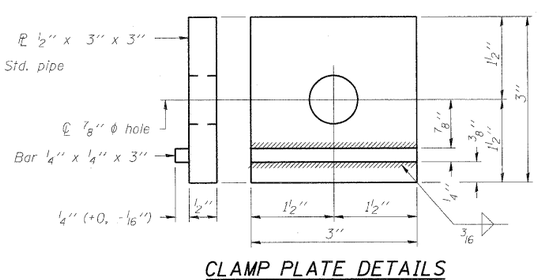


SECTION L-L



SECTION M-M

Skewed connection detail for 3 1/2" ϕ pipe to parapet.



CLAMP PLATE DETAILS

BM-3 1-20-11

USER NAME = 2pienid	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 50.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

ENTRAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
BRIDGE MOUNT SIGN STRUCTURES – CONNECTION DETAILS

SCALE: 50.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	23
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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GENERAL NOTES

1.
ANY ROADWAY LIGHTING MATERIALS AND/OR LIGHTING SYSTEMS SHOWN ON THE PLAN SHEETS AS "EXISTING" ARE FOR THE CONTRACTOR'S INFORMATION ONLY. THE CONTRACTOR MUST FIELD VERIFY EXISTING ROADWAY LIGHTING MATERIALS/SYSTEMS AS SPECIFIED IN THE "GENERAL ELECTRICAL PROVISIONS".

2.
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LUMINAIRES FOR EXAMINATION AND CONFIRMATION WITH THE RESIDENT ENGINEER AT THE PRECONSTRUCTION INSPECTION.

3.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE FINISHED GRADE. THE ENGINEER MAY ASSIST THE CONTRACTOR AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL REMAIN WITH THE CONTRACTOR.

4.
PROPOSED UNDERGROUND RACEWAYS, UNIT DUCT AND WARNING TAPE SHALL NOT BE INSTALLED UNTIL FINAL GRADE HAS BEEN ESTABLISHED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, RACEWAYS AND UNIT DUCT SHALL BE INSTALLED AT A DEPTH OF 30-INCHES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE INSTALLATION OF THE WARNING TAPE SHALL BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE. AT THE REQUEST OF THE ENGINEER AND AT NO ADDITIONAL COST, THE CONTRACTOR SHALL HAND-DIG TEST HOLES. WITH ONE TEST HOLE DUG FOR EACH 1000-FT OF TRENCH/PLOWING. TEST HOLE CHECKS SHALL BE WITNESSED BY THE ENGINEER TO VERIFY THE DEPTH AND CONDITION OF UNIT DUCT WARNING TAPE AND RACEWAYS.

5.
QUANTITIES OF TRENCHED AND PUSHED CONDUIT, WHERE INDICATED ON THE CONTRACT DRAWINGS, ARE APPROXIMATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE CONFORMANCE WITH SPECIFICATIONS.

6.
THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR SPLICING ELECTRICAL CABLE. SEE "GENERAL ELECTRICAL REQUIREMENTS" AND SPLICING DETAIL ON SHEET E-3.

7.
THE CONTRACTOR SHALL MAKE NOTE OF THE REQUIREMENTS FOR GROUNDING.

A. GROUNDING CONNECTIONS AT THE FOUNDATION STEEL AND AT THE GROUND ROD SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.

B. EQUIPMENT GROUND CONDUCTORS (GREEN COLOR CODED) SHALL BE SPLICED AND PIGTAILED TO EACH METALLIC JUNCTION/PULL BOX THEY PASS THROUGH AS WELL AS AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT. THE CONNECTION SHALL UTILIZE U.L. LISTED CLAMPS. PRESSURE CONNECTORS OR OTHER U.L. LISTED MEANS.

C. METALLIC JUNCTION/PULL BOXES SHALL BE EQUIPPED FOR THE GROUNDING WIRE TERMINATIONS WITHOUT DEGRADATION OF BOX RATING.

8.
THE CONTRACTOR SHALL SUBMIT FULL SIZED COMPLETE, NEAT AND ACCURATE "RECORD DRAWINGS" TO THE ENGINEER FOR REVIEW AND COMMENT, AS SPECIFIED. THE "RECORD DRAWINGS" SHALL BE UPDATED ON REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.

9.
WITHIN THIRTY (30) DAYS AFTER THE CONTRACT IS SIGNED AND BEFORE ANY WORK IS AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S LITERATURE PERTAINING TO LIGHTING WORK FOR THE ELECTRICAL ENGINEER'S REVIEW AND APPROVAL.

10.
THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. (1-800-892-0123). TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.

11.
THE CONTRACTOR SHALL NOTIFY THE CITY OF MARKHAM TO LOCATE AND MARK/STAKE ALL CITY OWNED UNDERGROUND UTILITIES.

12.
THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, DISPOSE OF THE EXISTING ELECTRICAL MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE RESPECTIVE PAY ITEM.

13.
THE EXISTING SCHEMATIC WIRING, SHOWN ON SHEET E-2 & E-3 IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY IN THE FIELD, CIRCUITS FOR EXISTING LIGHTING SYSTEM.

14.
THE ENGINEER SHALL DETERMINE IN THE FIELD, THE EXACT LOCATION AND TYPE OF FOUNDATION IF REQUIRED TO DRILL

15.
THE CONTRACTOR SHALL GIVE IN WRITING TO THE ELECTRICAL ENGINEER FOR REVIEW. CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING WORK, AND THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ELECTRICAL ENGINEER.

16.
THE LIGHTING SYSTEM SHALL REMAIN IN OPERATION BETWEEN 4 P.M. AND 8 A.M. OR AS DIRECTED BY THE ENGINEER.

PAY ITEM	UNITS	QUANTITY
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	525
CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	80
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	14
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	2
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 14" X 6"	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1975
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	245
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	735
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	245
UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8
REMOVE EXISTING LIGHTING SYSTEM	L SUM	1
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6

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PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
UNDERPASS LIGHTING GENERAL NOTES

SCALE: 20.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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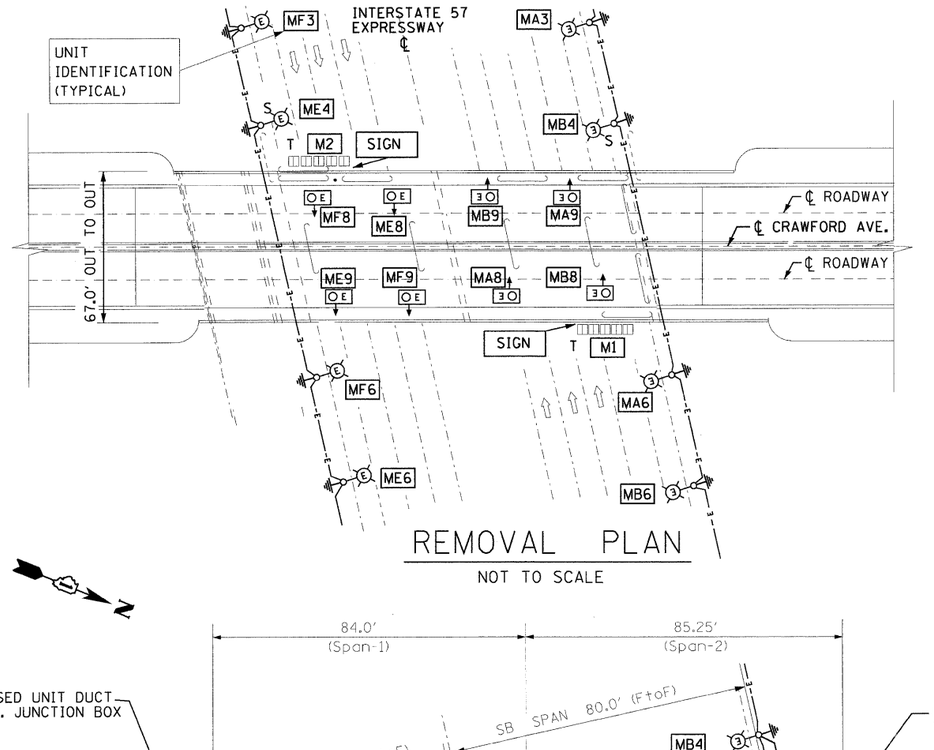
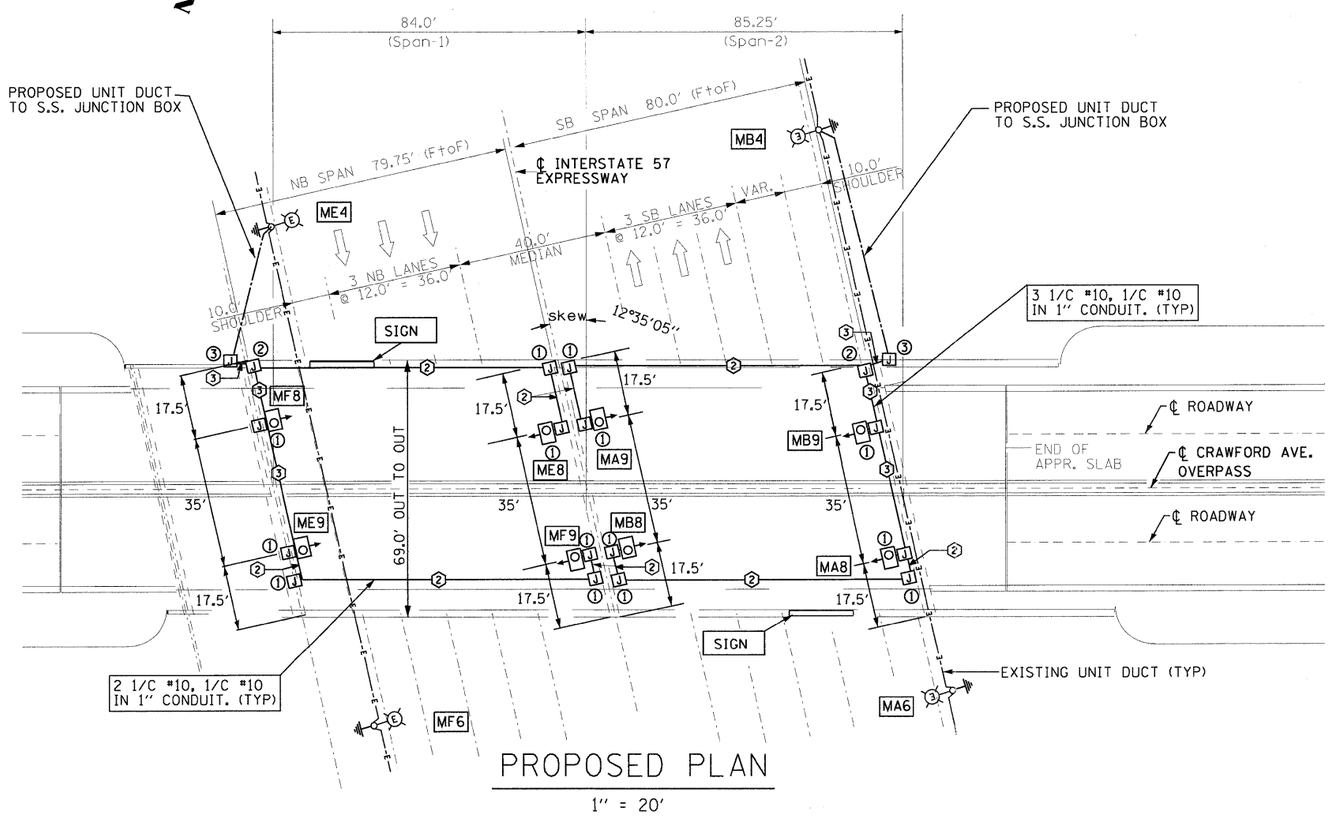
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



REMOVAL PLAN

NOT TO SCALE



PROPOSED PLAN

1" = 20'

LEGEND

EXISTING	PROPOSED	
○—E		LIGHT POLE, ALUMINUM
OE		L.P.S. UNDERPASS LUMINAIRE
◫		H.P.S.V. SIGN LUMINAIRE
	O	H.P.S.V. UNDERPASS LUMINAIRE
	J①	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" x 6" x 4"
	J②	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" x 10" x 6"
	J③	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" x 14" x 6"
—E—	-----	UNIT DUCT, 3-1/C NO. 6, AND 1/C NO. 8 GROUND, 600 V (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE
⌐——	—②—	ELECTRIC CABLE 600 V, (XLP-TYPE USE) 2-1/C NO. 10 & 1/C NO. 10 GROUND IN 1" CONDUIT GALVANIZED STEEL, SEE NOTE A
⌐——	—③—	ELECTRIC CABLE 600 V, (XLP-TYPE USE) 3-1/C NO. 10 & 1/C NO. 10 GROUND IN 1" CONDUIT GALVANIZED STEEL, SEE NOTE A

REMOVAL NOTES

R - REMOVE EXISTING UNDERPASS LUMINAIRE HUNG FROM DECK AND ALL ASSOCIATED CABLE, CONDUITS AND JUNCTION BOXES ATTACHED TO STRUCTURE

S - REMOVE AND DISCONNECT CABLES FROM BASE OF POLE

T - REMOVE 11-EXISTING SIGN LUMINAIRES AND S.S. SWITCH BOX ATTACHED TO SIGN STRUCTURE.

INSTALLATION NOTES

A - ALL CONDUIT TO BE FASTENED SECURELY AT 5' INTERVALS WITH BEAM CLAMPS AND HANGERS AND/OR I-SCREW MALLEABLE CLAMPS AND CLAMP BACKS.

B - ONE 1/C #10 AWG COPPER CONDUCTOR WITH GREEN INSULATION SHALL BE CONNECTED TO EACH FIXTURE HOUSING FOR GROUNDING PURPOSES.

C - CONNECT NEW UNIT DUCT THROUGH EXISTING ELBOW IN BASE OF POLE, SEE SHEET E3 FOR TYPICAL WIRING AND CIRCUIT DIAGRAM. THIS WORK IS INCIDENTAL TO TRENCH AND BACKFILL.

D - THE CONTRACTOR SHALL ISOLATE THE UNDERPASS LIGHTING SYSTEM WITH FUSING DURING THE CONSTRUCTION PERIOD.

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PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

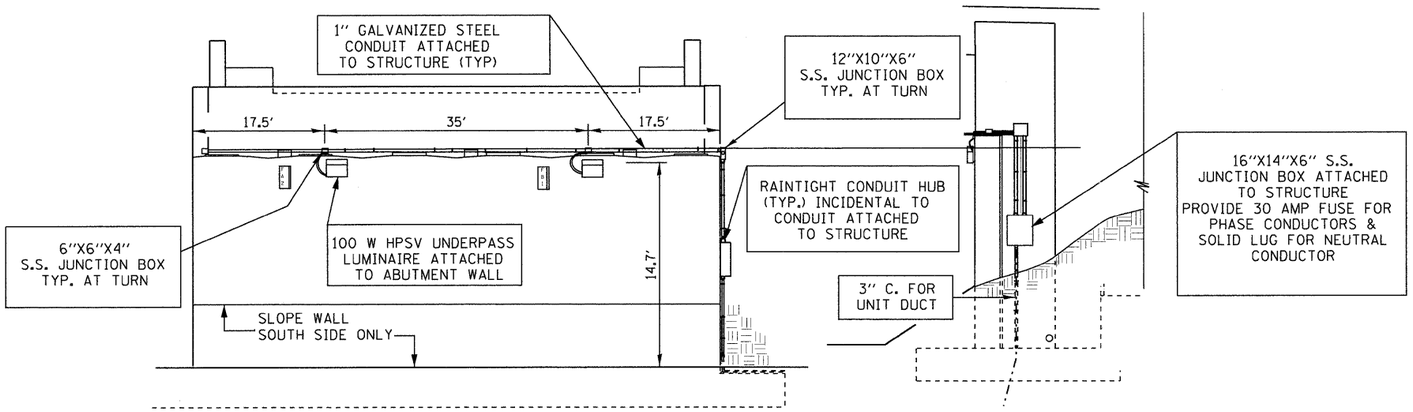
FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
UNDERPASS LIGHTING PLAN

SCALE: 20.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	25

CONTRACT NO. 60863

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

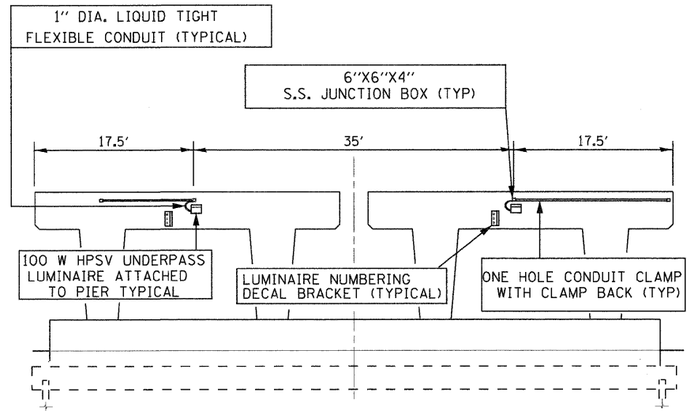


SOUTH ABUTMENT WALL

(AT NORTH ABUT. SEE PLAN FOR DIMENSION- TYPICAL CONNECTION)

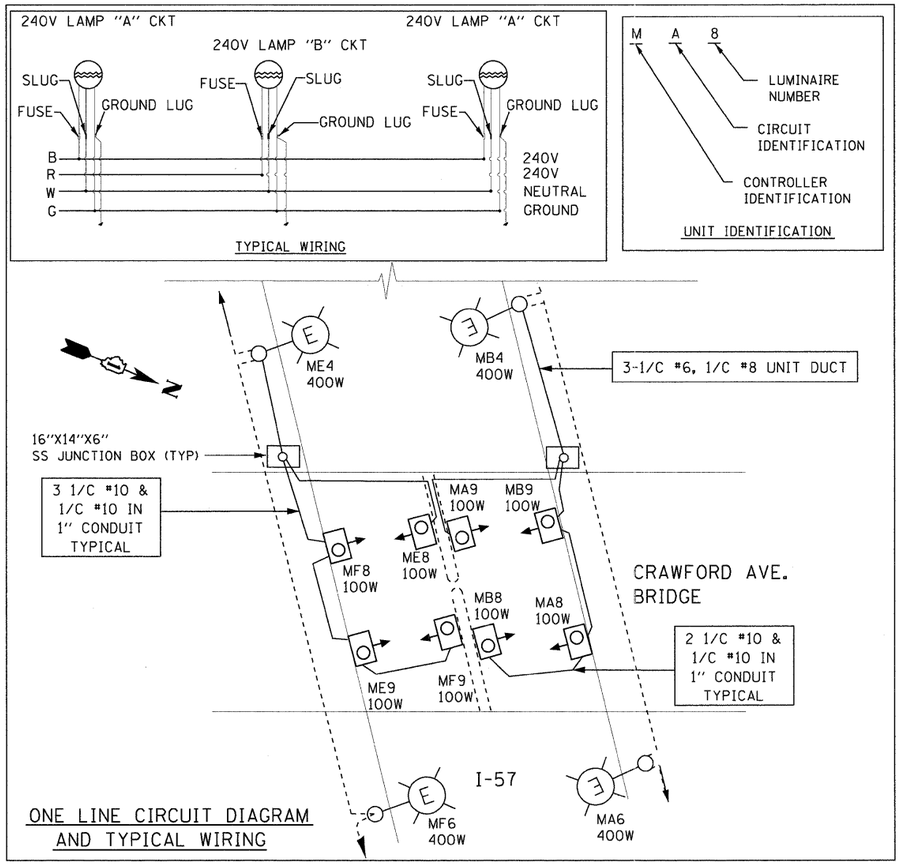
AT SOUTH ABUTMENT

(AT NORTH ABUT. SEE PLAN FOR LOCATION- TYPICAL CONNECTION)

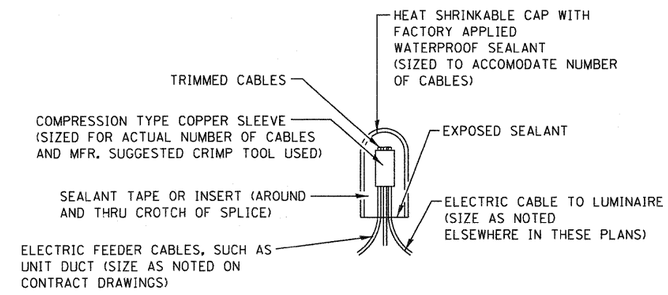


PIER ELEVATION FACING NORTH

(AT PIER FACING SOUTH SEE PLAN FOR DIMENSION- TYPICAL CONNECTION)



ONE LINE CIRCUIT DIAGRAM AND TYPICAL WIRING



ELECTRIC CABLE SPLICE DETAIL

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ENTRAN

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PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
UNDERPASS LIGHTING DETAILS

SCALE: 20.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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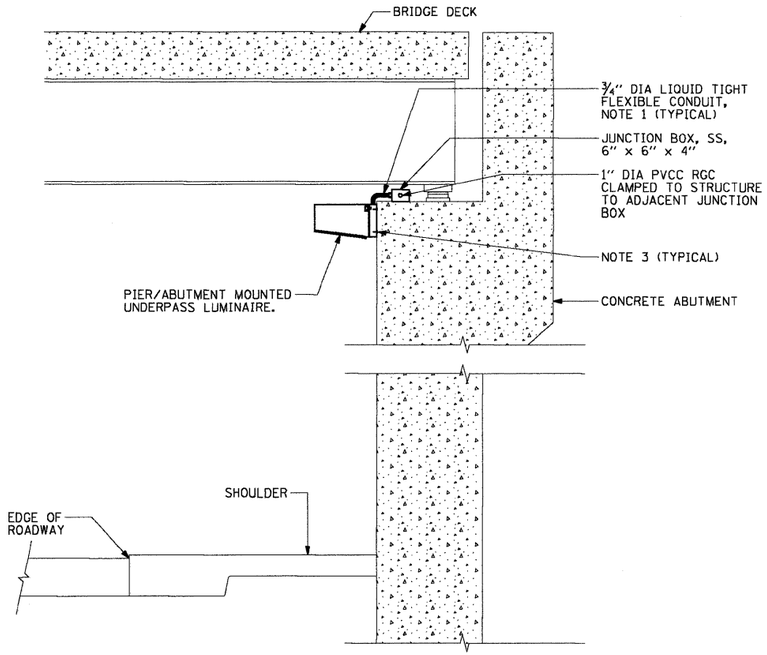
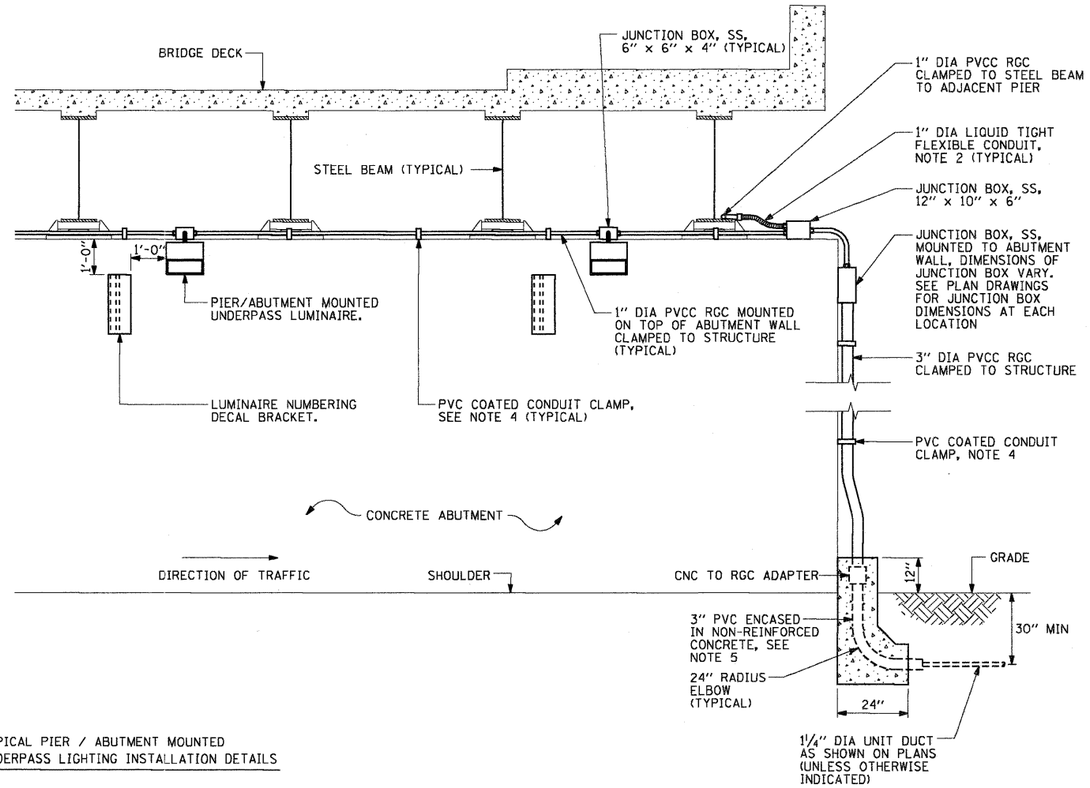
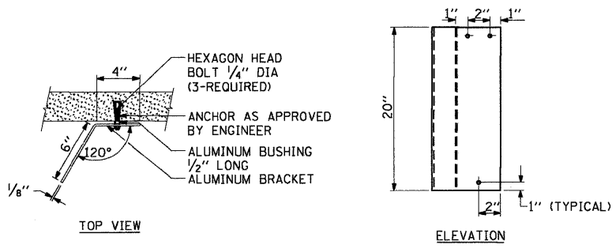
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





TYPICAL PIER / ABUTMENT MOUNTED
UNDERPASS LIGHTING INSTALLATION DETAILS



LUMINAIRE NUMBERING DECAL BRACKET
NOT TO SCALE

PVC COATED
CONDUIT BEAM CLAMP
NOT TO SCALE

PVC COATED
CONDUIT CLAMP
NOT TO SCALE

NOTES:

1. LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT THE COST OF THE ¾" DIA. RIGID STEEL CONDUIT AND ¾" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE LUMINAIRE INSTALLATION.
2. UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
3. EXPANSION ANCHOR, POWDER ACTUATED FASTENERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
4. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
5. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
6. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

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		DRAWN -	REVISED -
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER /ABUTMENT MOUNTED UNDERPASS LUMINAIRE INSTALLATION DETAILS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	27
	BE-902	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BENCH MARK:
Chiseled " □ " on West wingwall of N. Abutment. El. 666.81

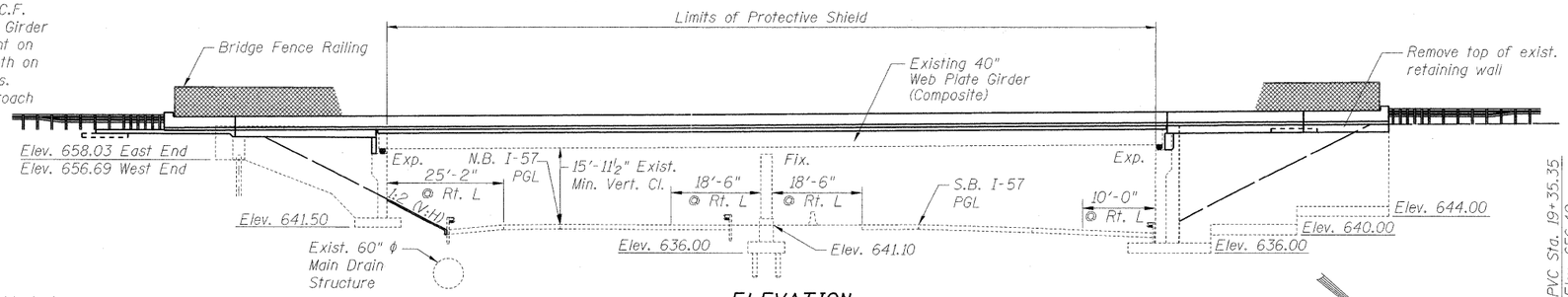
EXISTING STRUCTURE:
SN 016-1015 built in 1968 under section 068-1112.1-C.F.
The Structure is a two span continuous welded Plate Girder with a concrete deck, supported by a vaulted abutment on South side, a tall wall abutment on the North side, both on spread footings, and the pier supported on steel piles.
The existing structure is 173'-8 3/4" long. vaulted approach span is 29'-9 3/4" long. The bridge is 67'-0" wide.

CONSTRUCTION STAGING:
One lane of traffic in each direction will be maintained during construction using stage construction. Shoulder closures will be required on I-57 for substructure repairs.

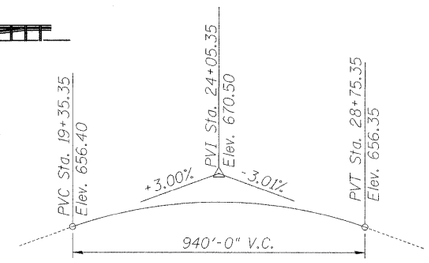
No Salvage

SCOPE OF WORK:

1. Remove and replace deck & vaulted spans (minor widening) using stage construction.
2. Remove & replace abutment backwalls.
3. Remove & replace abutment bearings with Elastomeric Bearings.
4. Clean and paint structural steel. (Separate contract)
5. Repair abutments, pier.
6. Replace south slope wall.
7. Remove approach pavements and replace with approach slabs.
8. Remove top of exist. retaining walls and sidewalks at North Abutment.
9. Remove and replace underdeck lighting fixtures and conduits.
10. Remove traffic sign structures and reinstall new sign structures.
11. Slopewall widening (South).

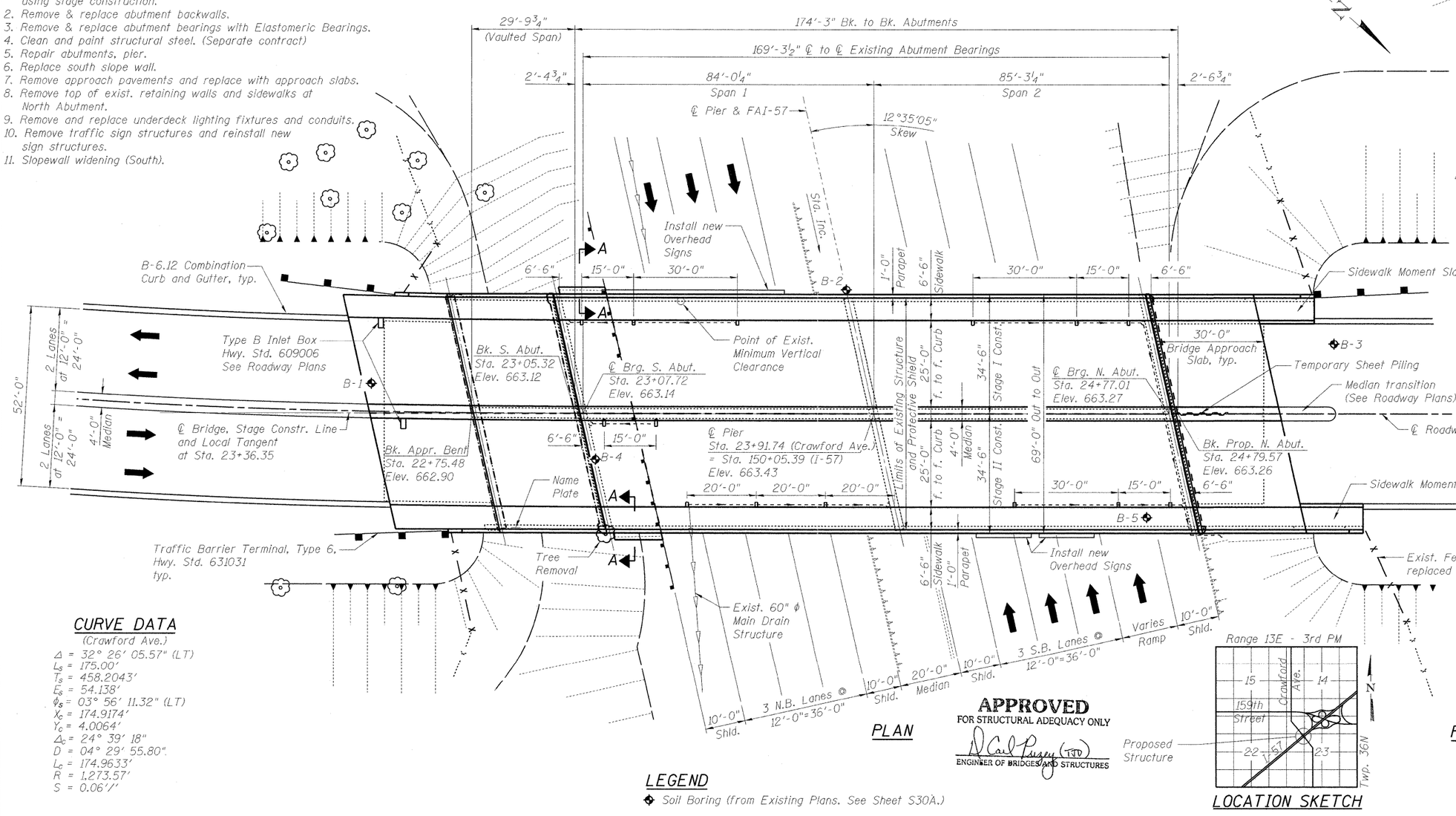


ELEVATION



P.G.L. CRAWFORD AVENUE

Along ℄ Roadway (below median)



PLAN

LOADING HS-20

Allow 50 psf for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 36,000 psi (M270 Grade 36)

EXISTING UNITS

f_c = 1,400 psi
f_s = 20,000 (reinforcement)
f_s = 20,000 (ASTM A36)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.0

CURVE DATA

(Crawford Ave.)

Δ = 32° 26' 05.57" (LT)
L_s = 175.00'
T_s = 458.2043'
E_s = 54.138'
ϕ_s = 03° 56' 11.32" (LT)
X_c = 174.9174'
Y_c = 4.0064'
Δ_c = 24° 39' 18"
D = 04° 29' 55.80"
L_c = 174.9633'
R = 1,273.57'
S = 0.06'/'

LEGEND

◆ Soil Boring (from Existing Plans. See Sheet S30A.)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
D Carl Pusey (TSD)
ENGINEER OF BRIDGES AND STRUCTURES

LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
BRAD H. SAYERS
081-006267
CHICAGO
ILLINOIS
STATE OF ILLINOIS

BRAD H. SAYERS, S.E.
IL. LIC. NO. 081-006267
EXP 11/30/12
DATE 8/8/11

GENERAL PLAN
CRAWFORD AVE. OVER I-57
F.A.U. RTE. 3778 - SECT. 1112.B1
COOK COUNTY
STATION 23+91.74
STRUCTURE NO. 016-1015

FILE NAME = g:\projects\2102165.004\cadd\structure\sht\016I015_68863_R01_General Plan.dgn

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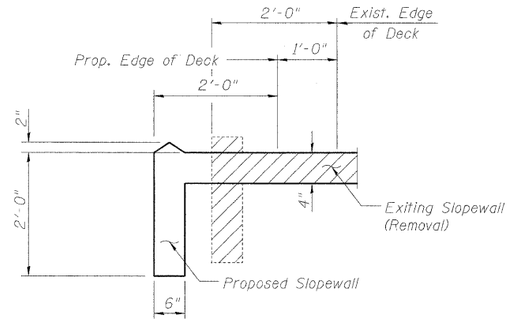
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 016-1015
SHEET NO. 51 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	28
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS



SECTION A-A

Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

STATION 23+91.74
REBUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 57 SEC. 1112.1B
LOADING HS-20
STRUCTURE NO. 016-1015

NAME PLATE

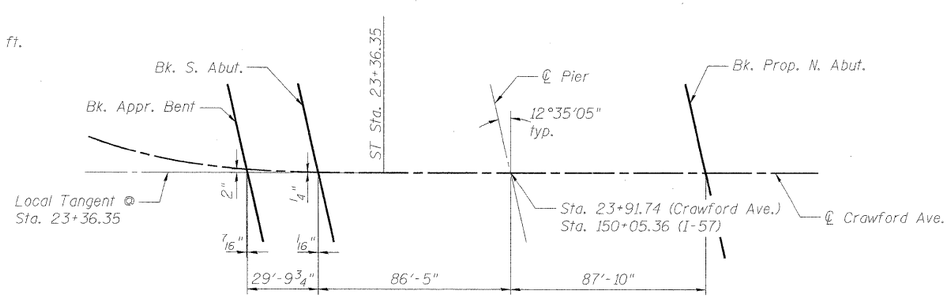
See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates. See Sheet S1 for Name Plate location.

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ϕ, holes $\frac{7}{8}$ in. ϕ, unless otherwise noted.
2. No field welding is permitted except as specified in the contract documents.
3. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

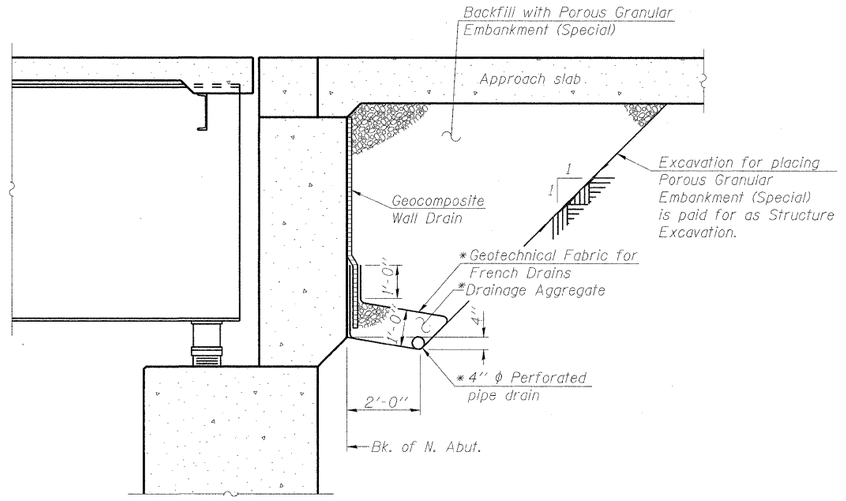
   As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding $\frac{1}{4}$ in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
6. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
7. Concrete Sealer shall be applied to the designated areas of the exposed surface of the new backwalls.
8. Cleaning and field painting of structural steel shall be done under a separate painting contract.
9. Existing structural steel shall only be cleaned and painted as required by the Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures."
10. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.
11. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
12. Slipforming of parapets is not allowed.
13. Areas of the existing bridge have permanent protective shield in place. If any part of the existing permanent protective shield system is to be re-used as temporary protective shield, the Contractor shall submit design calculations to the Engineer proving the system meets the requirements of Article 501.03 of the Standard Specifications. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. The cost of removal of all Protective Shield, temporary and existing permanent protective shield shall be included in the cost of Protective Shield.



OFFSET SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		3	3
Concrete Removal	Cu. Yd.	52.4		52.4
Slope Wall Removal	Sq. Yd.		136	136
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	1311		1311
Structure Excavation	Cu. Yd.		36	36
Concrete Structures	Cu. Yd.		69.7	69.7
Concrete Superstructure	Cu. Yd.	817.6		817.6
Bridge Deck Grooving	Sq. Yd.	1335		1335
Protective Coat	Sq. Yd.	2244		2244
Furnishing and Erecting Structural Steel	Pound	3850		3850
Stud Shear Connectors	Each	320		320
Reinforcement Bars, Epoxy Coated	Pound	163,620	11,480	175,100
Bar Splicers	Each	891	97	988
Bridge Fence Railing	Foot	501.0		501.0
Slope Wall 4 Inch	Sq. Yd.		139	139
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	146.0		146.0
Elastomeric Bearing Assembly, Type I	Each	20		20
Anchor Bolts, 1 1/4"	Each	40		40
Concrete Sealer	Sq. Ft.		803	803
Epoxy Crack Injection	Foot		41	41
Geocomposite Wall Drain	Sq. Yd.		24	24
Porous Granular Embankment, Special	Cu. Yd.		36	36
Jack and Remove Existing Bearings	Each	20		20
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.		664	664
Drainage Scuppers, DS-11	Each	12		12
Drainage Scuppers, DS-12	Each	2		2
Drainage System	L. Sum		1	1
Temporary Sheet Piling	Sq. Ft.		141	141
Pipe Underdrains for Structures 4"	Foot		69	69



*Included in the cost of Pipe Underdrains for Structures 4"

SECTION THRU NORTH ABUTMENT

(Horiz. dim. @ Rt. ∟'s)

Note:
All drainage system components shall extend parallel the full length of the North Abutment back wall except an outlet pipe shall extend until intersecting with the wingwalls. The wingwalls shall be cored to accept the outlet pipe. This work shall be included in the pay item for Pipe Underdrains for Structures 4".

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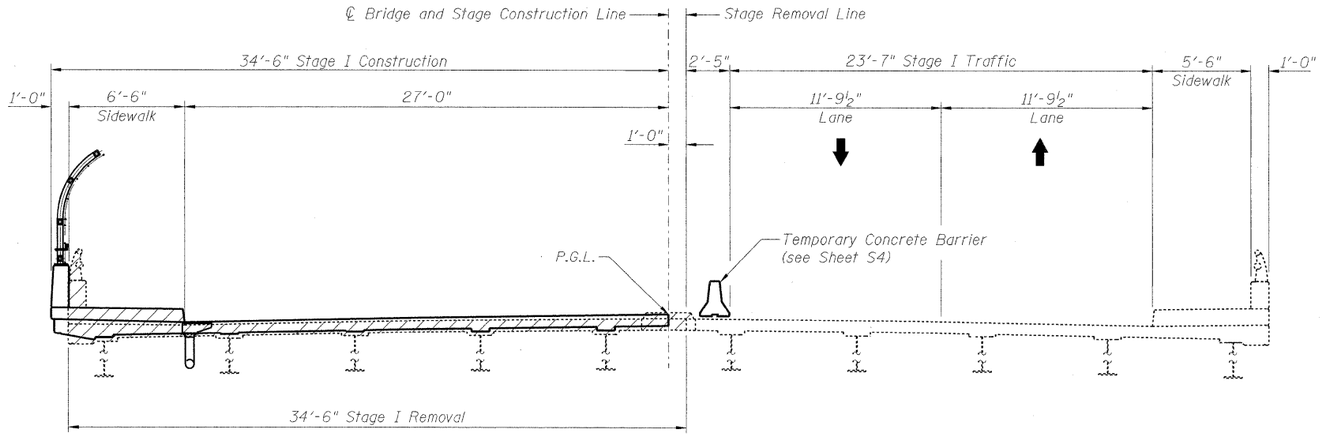
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/17/2011	CHECKED - GSP	REVISED -	

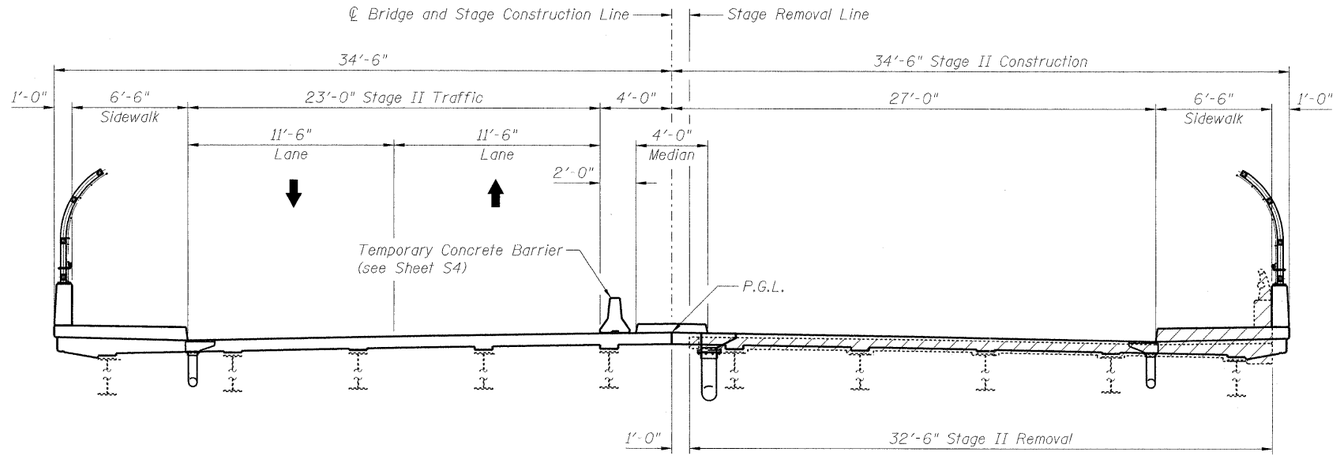
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, STAGE CONSTRUCTION & TOTAL BILL OF MATERIAL
STRUCTURE NO. 016-1015
SHEET NO. S2 OF 36 SHEETS

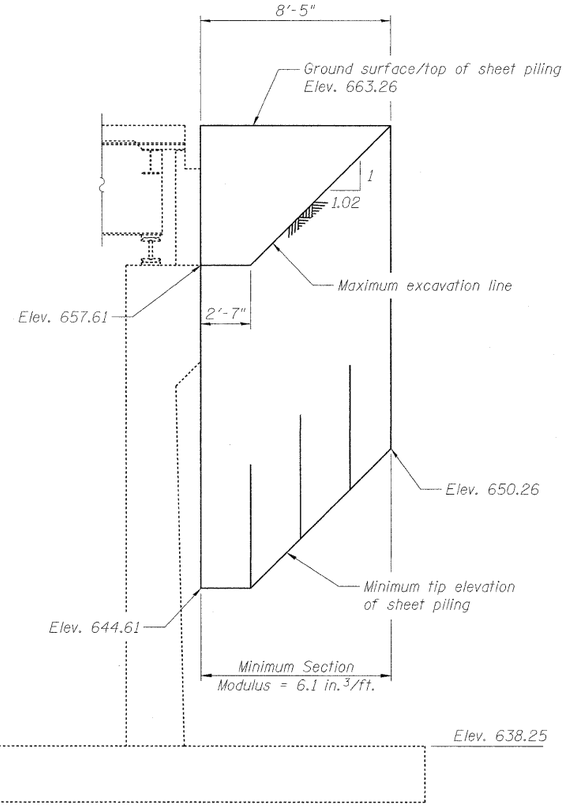
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	29
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STAGE I CROSS SECTION
(Looking North)



STAGE II CROSS SECTION
(Looking North)



TEMPORARY SHEET PILING AT NORTH ABUTMENT

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

Notes:
Existing median to be removed during Stage I Removal. Proposed median to be constructed during Stage II Construction.
See Roadway Plans for quantity of temporary concrete barrier.

FILE NAME = g:\project\2102155.004\roads\structure\sht\2161015_60863_003_Stage Construction.dgn

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	CHECKED - BHS	REVISED -
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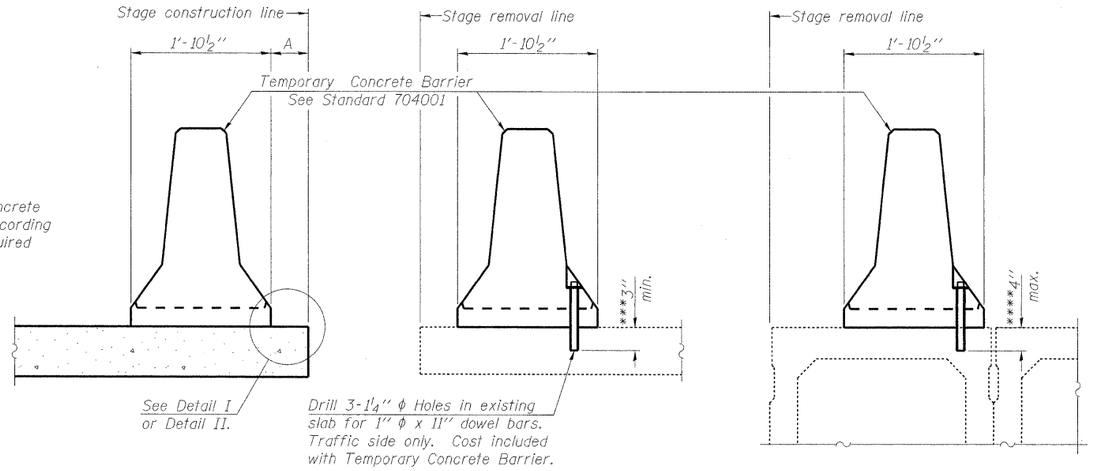
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-1015
SHEET NO. S3 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	30
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

When "A" is 3'-6" 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'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

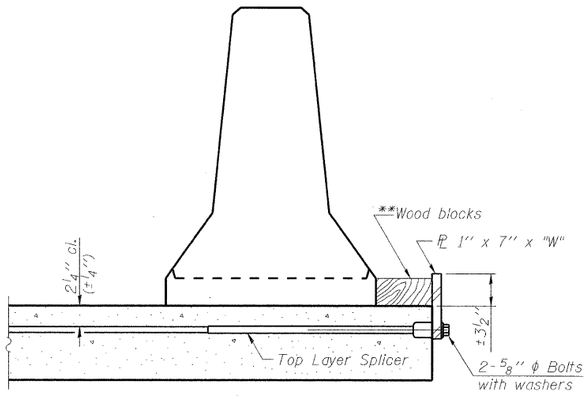
Cost of anchorage is included with Temporary Concrete Barrier.

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.

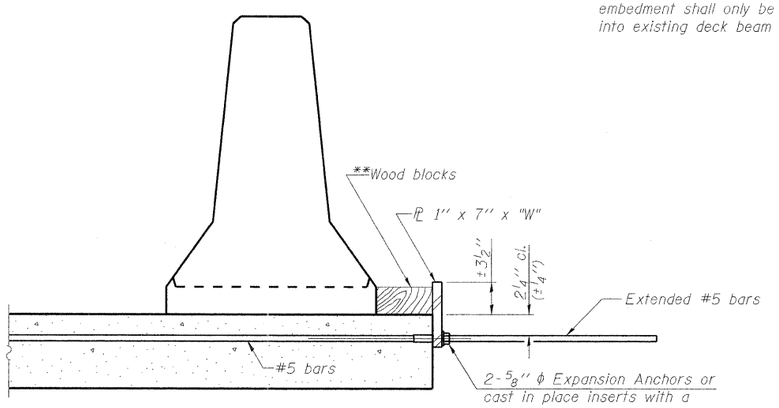
SECTIONS THRU SLAB OR DECK BEAM

*** 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.



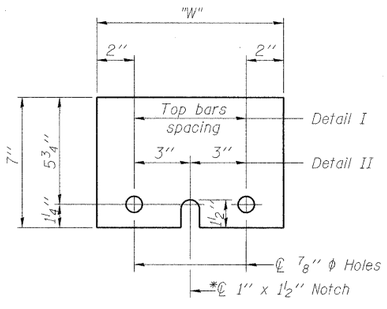
DETAIL I



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.

"W" = Top bars spacing + 4"



STEEL RETAINER ℄ 1" x 7" x "W"

* Required only with Detail II

R-27

7-1-10

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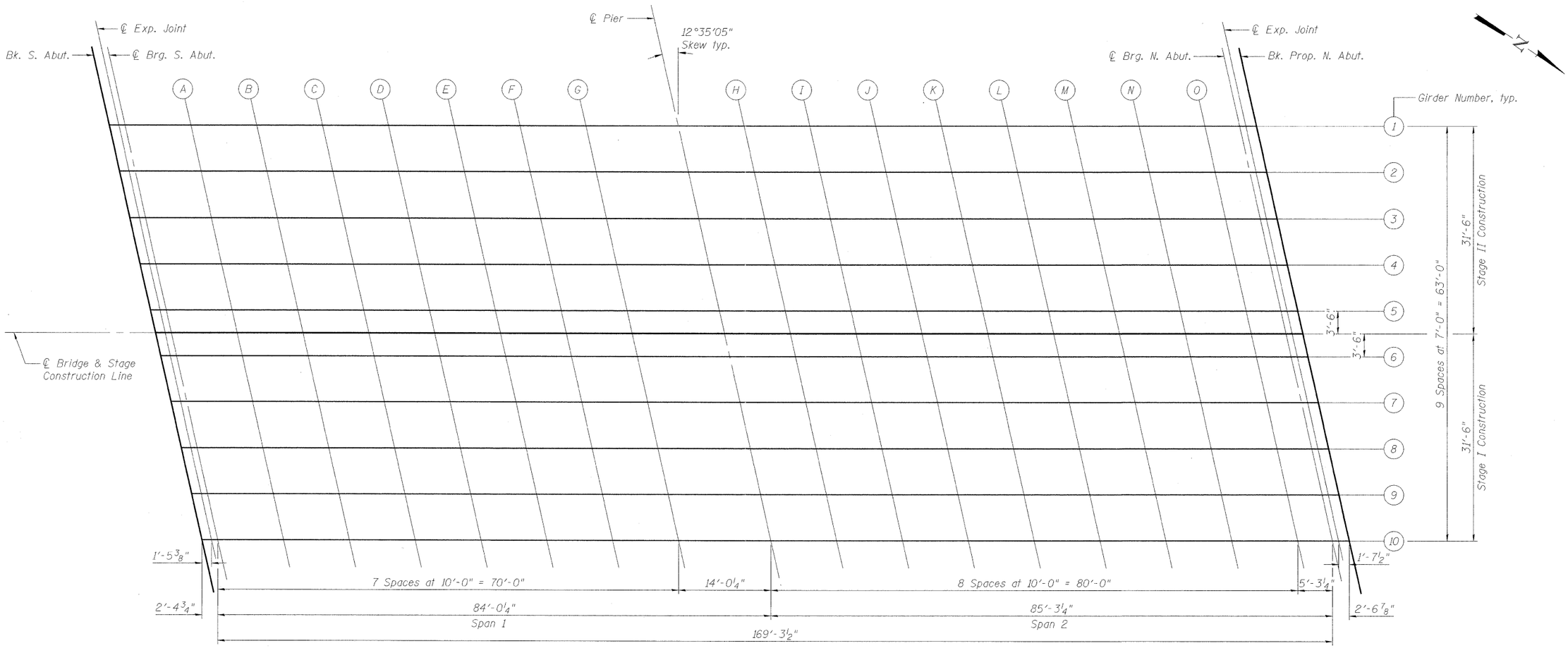
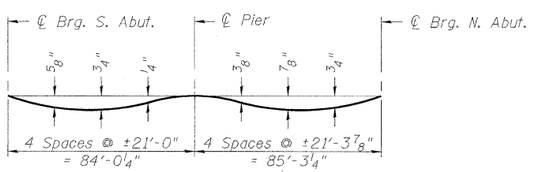
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-1015
SHEET NO. 54 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	31
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



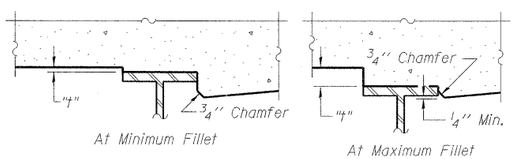
PLAN



DEAD LOAD DEFLECTION DIAGRAM

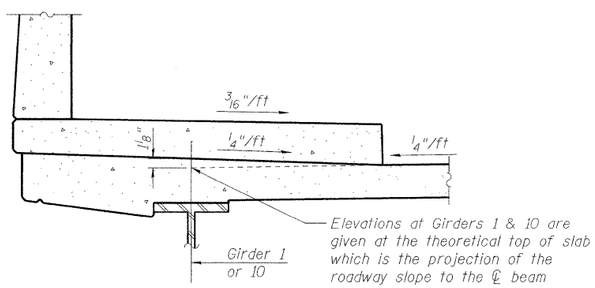
(Includes weight of concrete only.)

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 on Sheets S6 & S7 of 36.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet S6 & S7 of 36. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet S6 & S7 of 36, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PROJECTION UNDER SIDEWALK DETAIL

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PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (1 OF 3)
STRUCTURE NO. 016-1015
SHEET NO. S5 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	32
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	22+98.19	-31.46	662.23	662.23
℄ Exp. Joint	22+99.65	-31.46	662.25	662.25
℄ Brg. S. Abut.	23+00.60	-31.47	662.26	662.26
A	23+10.64	-31.49	662.40	662.43
B	23+20.67	-31.50	662.53	662.59
C	23+30.69	-31.50	662.66	662.73
D	23+40.69	-31.50	662.72	662.79
E	23+50.69	-31.50	662.76	662.81
F	23+60.69	-31.50	662.79	662.82
G	23+70.69	-31.50	662.82	662.83
℄ Pier	23+84.71	-31.50	662.84	662.84
H	23+94.71	-31.50	662.85	662.86
I	24+04.71	-31.50	662.85	662.88
J	24+14.71	-31.50	662.85	662.90
K	24+24.71	-31.50	662.84	662.91
L	24+34.71	-31.50	662.82	662.90
M	24+44.71	-31.50	662.80	662.87
N	24+54.71	-31.50	662.77	662.82
O	24+64.71	-31.50	662.74	662.76
℄ Brg. N. Abut.	24+69.98	-31.50	662.72	662.72
℄ Exp. Joint	24+70.92	-31.50	662.71	662.71
Bk. Prop. N. Abut.	24+72.54	-31.50	662.71	662.71

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	22+99.78	-24.46	662.45	662.45
℄ Exp. Joint	23+01.24	-24.47	662.47	662.47
℄ Brg. S. Abut.	23+02.19	-24.47	662.48	662.48
A	23+12.22	-24.49	662.60	662.63
B	23+22.24	-24.50	662.72	662.77
C	23+32.25	-24.50	662.83	662.89
D	23+42.25	-24.50	662.88	662.94
E	23+52.25	-24.50	662.91	662.96
F	23+62.25	-24.50	662.94	662.97
G	23+72.25	-24.50	662.97	662.98
℄ Pier	23+86.27	-24.50	662.99	662.99
H	23+96.27	-24.50	663.00	663.01
I	24+06.27	-24.50	663.00	663.03
J	24+16.27	-24.50	663.00	663.05
K	24+26.27	-24.50	662.98	663.05
L	24+36.27	-24.50	662.97	663.04
M	24+46.27	-24.50	662.94	663.01
N	24+56.27	-24.50	662.91	662.96
O	24+66.27	-24.50	662.88	662.90
℄ Brg. N. Abut.	24+71.54	-24.50	662.86	662.86
℄ Exp. Joint	24+72.48	-24.50	662.85	662.85
Bk. Prop. N. Abut.	24+74.10	-24.50	662.84	662.84

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+01.37	-17.47	662.66	662.66
℄ Exp. Joint	23+02.83	-17.47	662.68	662.68
℄ Brg. S. Abut.	23+03.77	-17.47	662.69	662.69
A	23+13.79	-17.49	662.79	662.83
B	23+23.81	-17.50	662.89	662.95
C	23+33.81	-17.50	662.99	663.05
D	23+43.81	-17.50	663.03	663.09
E	23+53.81	-17.50	663.06	663.11
F	23+63.81	-17.50	663.09	663.12
G	23+73.81	-17.50	663.12	663.13
℄ Pier	23+87.83	-17.50	663.14	663.14
H	23+97.83	-17.50	663.14	663.15
I	24+07.83	-17.50	663.15	663.17
J	24+17.83	-17.50	663.14	663.19
K	24+27.83	-17.50	663.13	663.20
L	24+37.83	-17.50	663.11	663.18
M	24+47.83	-17.50	663.09	663.15
N	24+57.83	-17.50	663.05	663.10
O	24+67.83	-17.50	663.02	663.04
℄ Brg. N. Abut.	24+73.10	-17.50	662.99	662.99
℄ Exp. Joint	24+74.04	-17.50	662.99	662.99
Bk. Prop. N. Abut.	24+75.67	-17.50	662.98	662.98

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+02.96	-10.47	662.86	662.86
℄ Exp. Joint	23+04.41	-10.48	662.87	662.87
℄ Brg. S. Abut.	23+05.35	-10.48	662.88	662.88
A	23+15.36	-10.49	662.97	663.00
B	23+25.37	-10.50	663.05	663.10
C	23+35.37	-10.50	663.12	663.19
D	23+45.38	-10.50	663.16	663.23
E	23+55.38	-10.50	663.20	663.25
F	23+65.38	-10.50	663.22	663.26
G	23+75.38	-10.50	663.25	663.26
℄ Pier	23+89.40	-10.50	663.27	663.27
H	23+99.40	-10.50	663.27	663.28
I	24+09.40	-10.50	663.27	663.30
J	24+19.40	-10.50	663.27	663.32
K	24+29.40	-10.50	663.25	663.32
L	24+39.40	-10.50	663.23	663.31
M	24+49.40	-10.50	663.21	663.28
N	24+59.40	-10.50	663.18	663.23
O	24+69.40	-10.50	663.14	663.16
℄ Brg. N. Abut.	24+74.67	-10.50	663.12	663.12
℄ Exp. Joint	24+75.61	-10.50	663.11	663.11
Bk. Prop. N. Abut.	24+77.23	-10.50	663.10	663.10

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+04.54	-3.48	663.04	663.04
℄ Exp. Joint	23+05.99	-3.48	663.05	663.05
℄ Brg. S. Abut.	23+06.93	-3.48	663.05	663.05
A	23+16.93	-3.49	663.12	663.15
B	23+26.94	-3.50	663.18	663.24
C	23+36.94	-3.50	663.24	663.30
D	23+46.94	-3.50	663.28	663.34
E	23+56.94	-3.50	663.31	663.36
F	23+66.94	-3.50	663.34	663.37
G	23+76.94	-3.50	663.36	663.37
℄ Pier	23+90.96	-3.50	663.38	663.38
H	24+00.96	-3.50	663.38	663.39
I	24+10.96	-3.50	663.38	663.41
J	24+20.96	-3.50	663.37	663.42
K	24+30.96	-3.50	663.36	663.43
L	24+40.96	-3.50	663.34	663.41
M	24+50.96	-3.50	663.31	663.38
N	24+60.96	-3.50	663.28	663.33
O	24+70.96	-3.50	663.24	663.26
℄ Brg. N. Abut.	24+76.23	-3.50	663.22	663.22
℄ Exp. Joint	24+77.17	-3.50	663.21	663.21
Bk. Prop. N. Abut.	24+78.79	-3.50	663.21	663.21

℄ BRIDGE & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+05.33	0.02	663.12	663.12
℄ Exp. Joint	23+06.78	0.02	663.13	663.13
℄ Brg. S. Abut.	23+07.72	0.02	663.14	663.14
A	23+17.72	0.00	663.20	663.23
B	23+27.72	0.00	663.25	663.30
C	23+37.72	0.00	663.29	663.36
D	23+47.72	0.00	663.33	663.40
E	23+57.72	0.00	663.37	663.42
F	23+67.72	0.00	663.39	663.43
G	23+77.72	0.00	663.41	663.43
℄ Pier	23+91.74	0.00	663.43	663.43
H	24+01.74	0.00	663.44	663.45
I	24+11.74	0.00	663.44	663.46
J	24+21.74	0.00	663.43	663.48
K	24+31.74	0.00	663.41	663.48
L	24+41.74	0.00	663.39	663.47
M	24+51.74	0.00	663.37	663.43
N	24+61.74	0.00	663.33	663.38
O	24+71.74	0.00	663.29	663.31
℄ Brg. N. Abut.	24+77.01	0.00	663.27	663.27
℄ Exp. Joint	24+77.95	0.00	663.26	663.26
Bk. Prop. N. Abut.	24+79.57	0.00	663.26	663.26

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+06.12	3.52	663.16	663.16
℄ Exp. Joint	23+07.57	3.52	663.17	663.17
℄ Brg. S. Abut.	23+08.51	3.52	663.18	663.18
A	23+18.50	3.50	663.22	663.25
B	23+28.50	3.50	663.26	663.32
C	23+38.50	3.50	663.30	663.36
D	23+48.50	3.50	663.32	663.39
E	23+58.50	3.50	663.34	663.39
F	23+68.50	3.50	663.36	663.39
G	23+78.50	3.50	663.36	663.38
℄ Pier	23+92.52	3.50	663.38	663.38
H	24+02.52	3.50	663.38	663.39
I	24+12.52	3.50	663.38	663.41
J	24+22.52	3.50	663.37	663.42
K	24+32.52	3.50	663.36	663.42
L	24+42.52	3.50	663.34	663.41
M	24+52.52	3.50	663.31	663.38
N	24+62.52	3.50	663.27	663.32
O	24+72.52	3.50	663.23	663.25
℄ Brg. N. Abut.	24+77.79	3.50	663.21	663.21
℄ Exp. Joint	24+78.73	3.50	663.21	663.21
Bk. Prop. N. Abut.	24+80.35	3.50	663.20	663.20

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ENTRAN

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	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (2 OF 3)
STRUCTURE NO. 016-1015
SHEET NO. S6 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	33
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+07.69	10.52	663.24	663.24
℄ Exp. Joint	23+09.14	10.52	663.24	663.24
℄ Brg. S. Abut.	23+10.08	10.51	663.25	663.25
A	23+20.07	10.50	663.27	663.30
B	23+30.06	10.50	663.28	663.34
C	23+40.06	10.50	663.29	663.36
D	23+50.06	10.50	663.29	663.36
E	23+60.06	10.50	663.29	663.34
F	23+70.06	10.50	663.27	663.31
G	23+80.06	10.50	663.25	663.27
℄ Pier	23+94.08	10.50	663.27	663.27
H	24+04.08	10.50	663.27	663.28
I	24+14.08	10.50	663.27	663.30
J	24+24.08	10.50	663.26	663.31
K	24+34.08	10.50	663.24	663.31
L	24+44.08	10.50	663.22	663.30
M	24+54.08	10.50	663.19	663.26
N	24+64.08	10.50	663.16	663.21
O	24+74.08	10.50	663.12	663.14
℄ Brg. N. Abut.	24+79.35	10.50	663.09	663.09
℄ Exp. Joint	24+80.29	10.50	663.09	663.09
Bk. Prop. N. Abut.	24+81.92	10.50	663.08	663.08

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+09.26	17.51	663.31	663.31
℄ Exp. Joint	23+10.71	17.51	663.31	663.31
℄ Brg. S. Abut.	23+11.65	17.51	663.31	663.31
A	23+21.63	17.50	663.31	663.34
B	23+31.63	17.50	663.30	663.35
C	23+41.63	17.50	663.28	663.34
D	23+51.63	17.50	663.25	663.31
E	23+61.63	17.50	663.21	663.26
F	23+71.63	17.50	663.17	663.20
G	23+81.63	17.50	663.13	663.14
℄ Pier	23+95.65	17.50	663.14	663.14
H	24+05.65	17.50	663.15	663.15
I	24+15.65	17.50	663.14	663.17
J	24+25.65	17.50	663.13	663.18
K	24+35.65	17.50	663.11	663.18
L	24+45.65	17.50	663.09	663.17
M	24+55.65	17.50	663.06	663.13
N	24+65.65	17.50	663.03	663.07
O	24+75.65	17.50	662.98	663.00
℄ Brg. N. Abut.	24+80.92	17.50	662.96	662.96
℄ Exp. Joint	24+81.86	17.50	662.95	662.95
Bk. Prop. N. Abut.	24+83.48	17.50	662.95	662.95

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+10.83	24.51	663.37	663.37
℄ Exp. Joint	23+12.28	24.51	663.37	663.37
℄ Brg. S. Abut.	23+13.22	24.51	663.37	663.37
A	23+23.20	24.50	663.34	663.37
B	23+33.19	24.50	663.30	663.36
C	23+43.19	24.50	663.25	663.32
D	23+53.19	24.50	663.19	663.25
E	23+63.19	24.50	663.12	663.17
F	23+73.19	24.50	663.04	663.07
G	23+83.19	24.50	662.99	663.00
℄ Pier	23+97.21	24.50	663.00	663.00
H	24+07.21	24.50	663.00	663.01
I	24+17.21	24.50	662.99	663.02
J	24+27.21	24.50	662.98	663.03
K	24+37.21	24.50	662.97	663.03
L	24+47.21	24.50	662.94	663.02
M	24+57.21	24.50	662.91	662.98
N	24+67.21	24.50	662.87	662.92
O	24+77.21	24.50	662.83	662.85
℄ Brg. N. Abut.	24+82.48	24.50	662.81	662.81
℄ Exp. Joint	24+83.42	24.50	662.80	662.80
Bk. Prop. N. Abut.	24+85.04	24.50	662.79	662.79

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	23+12.40	31.51	663.42	663.42
℄ Exp. Joint	23+13.85	31.51	663.42	663.42
℄ Brg. S. Abut.	23+14.78	31.51	663.41	663.41
A	23+24.76	31.50	663.36	663.39
B	23+34.75	31.50	663.30	663.35
C	23+44.75	31.50	663.21	663.28
D	23+54.75	31.50	663.12	663.18
E	23+64.75	31.50	663.01	663.07
F	23+74.75	31.50	662.90	662.94
G	23+84.75	31.50	662.84	662.85
℄ Pier	23+98.77	31.50	662.85	662.85
H	24+08.77	31.50	662.85	662.86
I	24+18.77	31.50	662.85	662.87
J	24+28.77	31.50	662.83	662.88
K	24+38.77	31.50	662.82	662.88
L	24+48.77	31.50	662.79	662.87
M	24+58.77	31.50	662.76	662.83
N	24+68.77	31.50	662.72	662.77
O	24+78.77	31.50	662.68	662.70
℄ Brg. N. Abut.	24+84.04	31.50	662.65	662.65
℄ Exp. Joint	24+84.98	31.50	662.65	662.65
Bk. Prop. N. Abut.	24+86.60	31.50	662.64	662.64

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ENTRAN

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	CHECKED - BHS	REVISED -
PLOT SCALE = N/A	DRAWN - TWO	REVISED -
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS (3 OF 3)
STRUCTURE NO. 016-1015
SHEET NO. S7 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	34
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

*SB FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+37.65	-33.51	661.15
A1	22+47.85	-33.47	661.34
A2	22+58.04	-33.39	661.52
S. End of Vaulted Span	22+68.20	-33.27	661.70
B1	22+78.30	-33.35	661.87
B2	22+88.38	-33.42	662.02
N. End of Vaulted Span	22+99.11	-33.46	662.18

SB CURB LINE

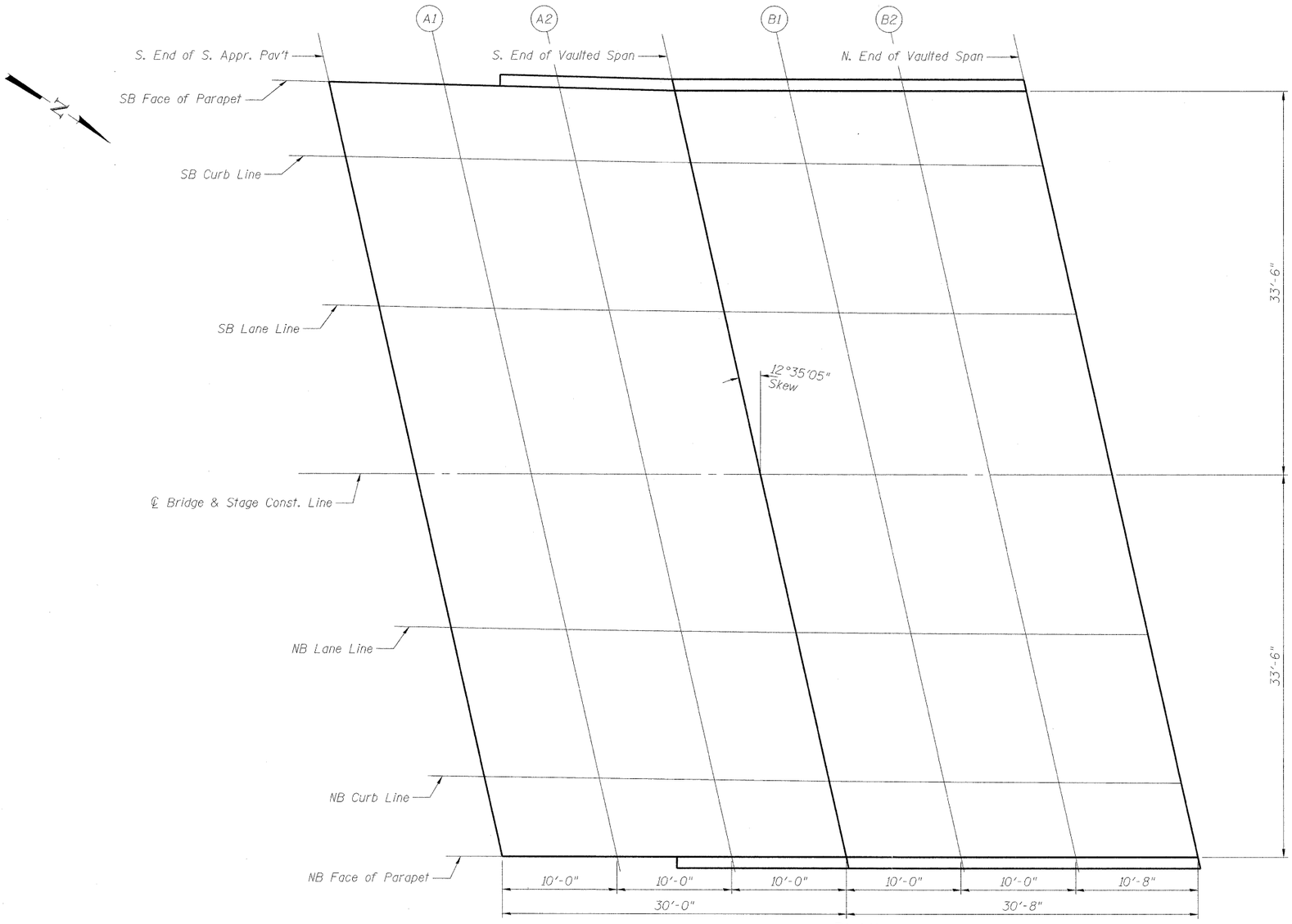
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+39.27	-27.01	661.46
A1	22+49.42	-27.05	661.62
A2	22+59.56	-27.05	661.79
S. End of Vaulted Span	22+69.68	-27.01	661.95
B1	22+79.77	-27.02	662.10
B2	22+89.85	-27.00	662.24
N. End of Vaulted Span	23+00.59	-26.97	662.39

SB LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+42.48	-14.02	662.05
A1	22+52.58	-14.02	662.19
A2	22+62.66	-14.02	662.32
S. End of Vaulted Span	22+72.73	-14.01	662.44
B1	22+82.79	-14.01	662.56
B2	22+92.83	-14.01	662.67
N. End of Vaulted Span	23+03.53	-14.00	662.78

℄ BRIDGE & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+46.04	0.55	662.65
A1	22+56.03	0.39	662.74
A2	22+66.03	0.26	662.83
S. End of Vaulted Span	22+76.03	0.16	662.91
B1	22+86.03	0.10	662.99
B2	22+96.03	0.05	663.06
N. End of Vaulted Span	23+06.70	0.02	663.13



PLAN

NB LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+49.27	13.96	663.08
A1	22+59.26	13.96	663.13
A2	22+69.24	13.97	663.17
S. End of Vaulted Span	22+79.22	13.98	663.21
B1	22+89.20	13.98	663.24
B2	22+99.19	13.99	663.26
N. End of Vaulted Span	23+09.84	13.99	663.28

NB CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+52.37	26.95	663.47
A1	22+62.30	26.93	663.47
A2	22+72.25	26.94	663.47
S. End of Vaulted Span	22+82.20	26.97	663.46
B1	22+92.15	26.97	663.44
B2	23+02.12	26.98	663.42
N. End of Vaulted Span	23+12.76	27.01	663.39

*NB FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	22+54.02	33.92	663.67
A1	22+63.91	33.79	663.64
A2	22+73.81	33.68	663.61
S. End of Vaulted Span	22+83.72	33.61	663.58
B1	22+93.65	33.56	663.54
B2	23+03.59	33.53	663.49
N. End of Vaulted Span	23+14.21	33.51	663.43

*Note: Elevations at face of parapet are given at the theoretical top of roadway surface which is the projection of the roadway slope beneath the superimposed sidewalk. See Sheet S9 for detail.

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ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH ELEVATIONS
STRUCTURE NO. 016-1015
SHEET NO. S8 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	35
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SB FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+71.58	-33.50	662.67
C1	24+81.58	-33.50	662.62
C2	24+91.58	-33.50	662.57
N. End of N. Appr. Pav't	25+01.58	-33.50	662.51

SB CURB LINE

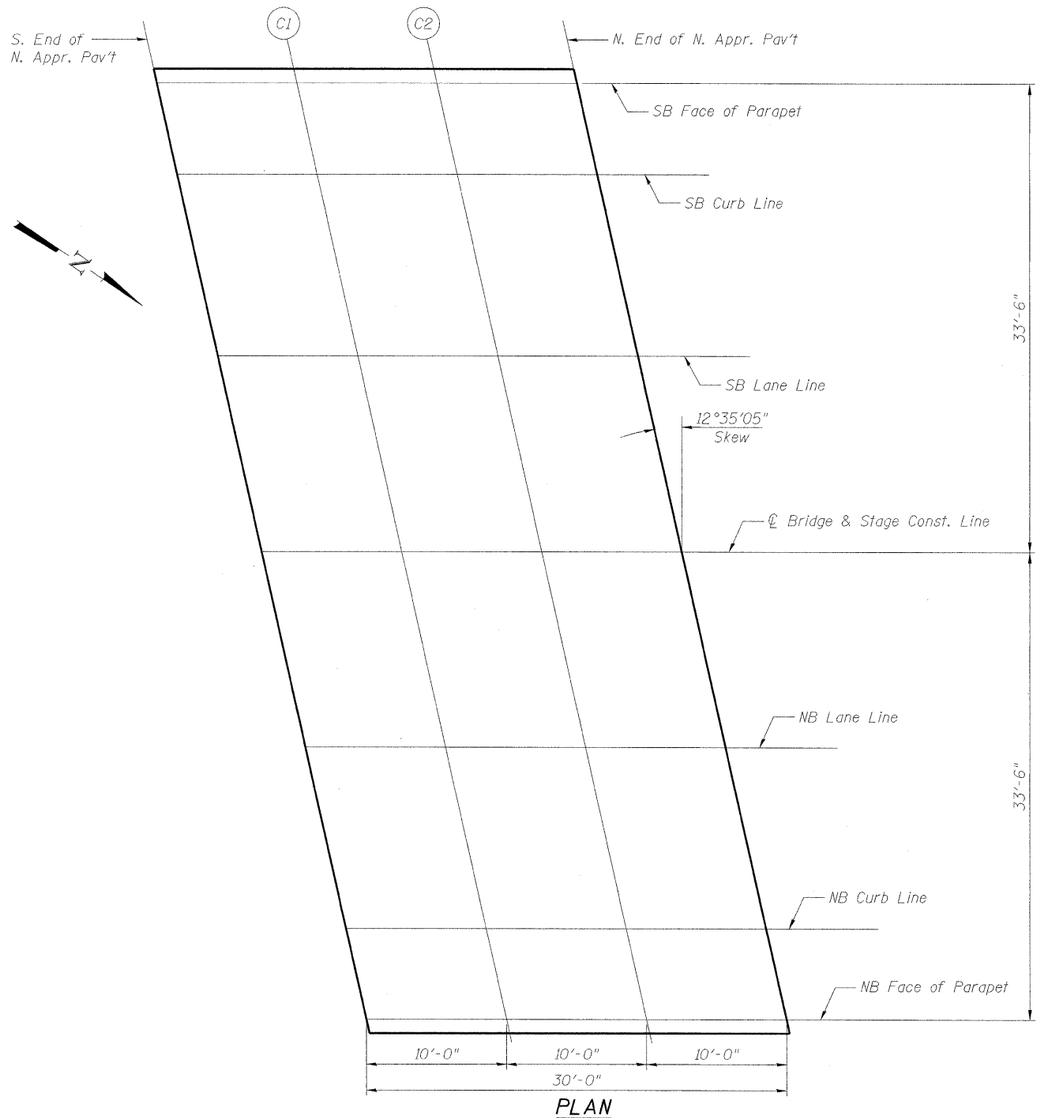
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+73.03	-27.00	662.80
C1	24+83.03	-27.00	662.75
C2	24+93.03	-27.00	662.70
N. End of N. Appr. Pav't	25+03.03	-27.00	662.64

SB LANE LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+75.93	-14.00	663.06
C1	24+85.93	-14.00	663.01
C2	24+95.93	-14.00	662.95
N. End of N. Appr. Pav't	25+05.93	-14.00	662.89

℄ BRIDGE & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+79.06	0.00	663.26
C1	24+89.06	0.00	663.21
C2	24+99.06	0.00	663.15
N. End of N. Appr. Pav't	25+09.06	0.00	663.09



PLAN

NB LANE LINE

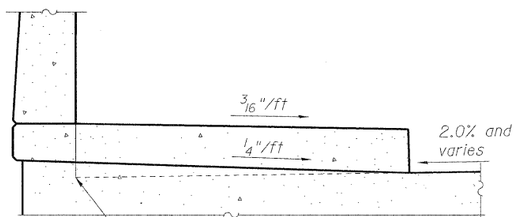
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+82.19	14.00	663.03
C1	24+92.19	14.00	662.97
C2	25+02.19	14.00	662.91
N. End of N. Appr. Pav't	25+12.19	14.00	662.85

NB CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+85.09	27.00	662.74
C1	24+95.09	27.00	662.69
C2	25+05.09	27.00	662.62
N. End of N. Appr. Pav't	25+15.09	27.00	662.56

NB FACE OF PARAPET

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't	24+86.54	33.50	662.60
C1	24+96.54	33.50	662.54
C2	25+06.54	33.50	662.48
N. End of N. Appr. Pav't	25+16.54	33.50	662.41



Elevations at face of parapet are given at the theoretical top of roadway surface which is the projection of the roadway slope beneath the superimposed sidewalk.

PROJECTION UNDER SIDEWALK DETAIL

FILE NAME = g:\projects\2102155.004\cadd\structure\sht\1016015_60863_009 Appr Elev 2.dgn

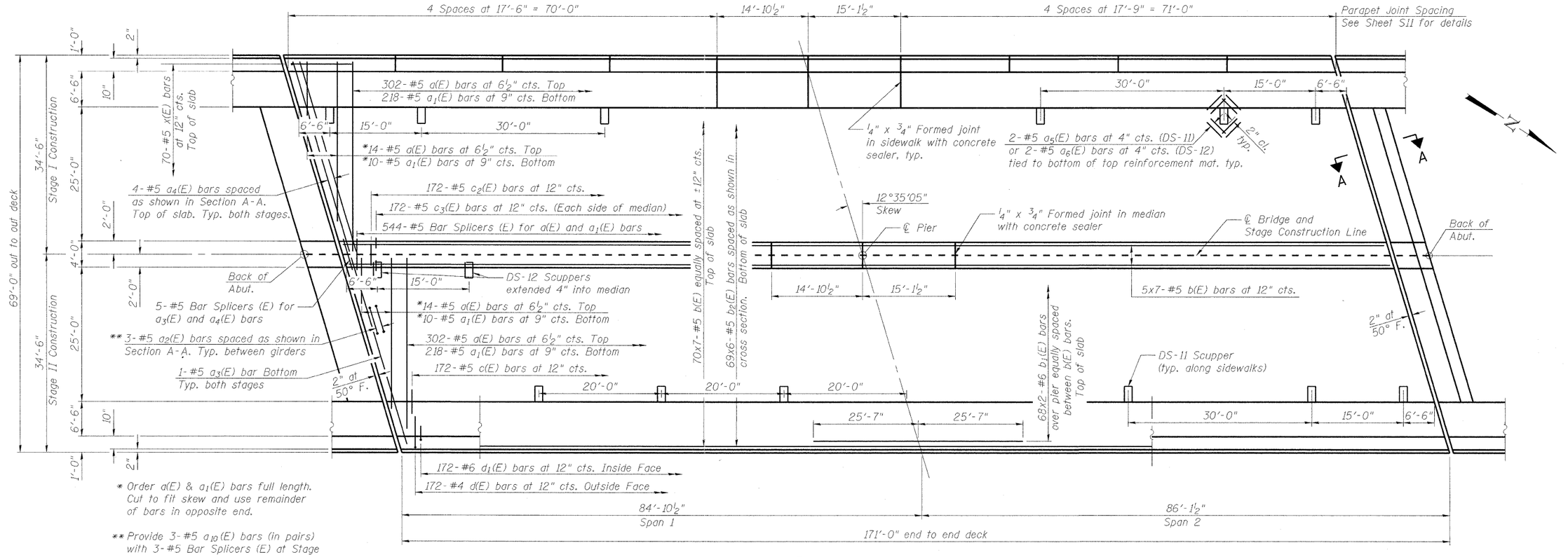
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

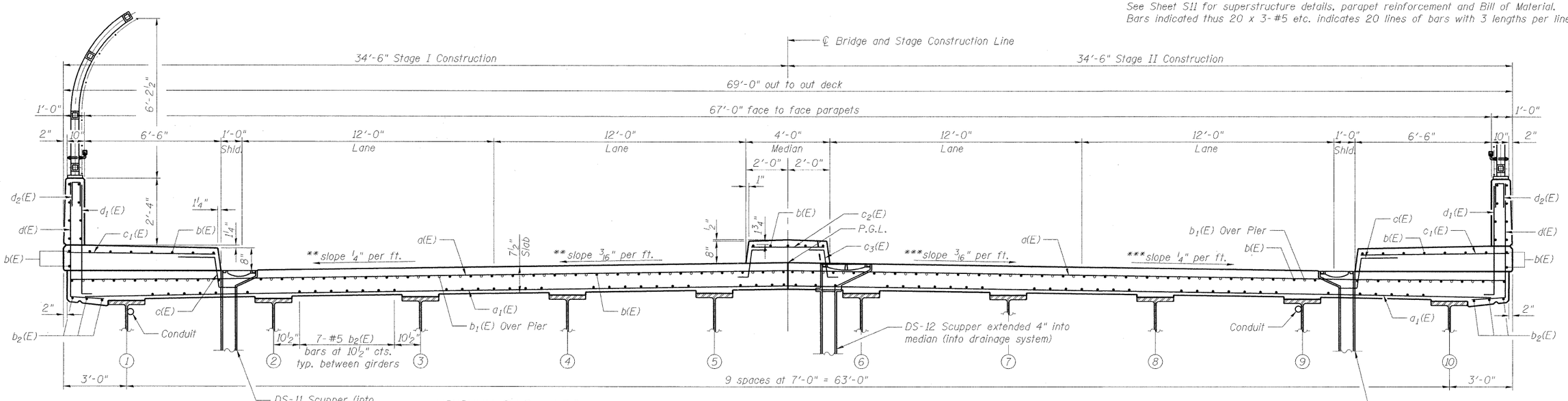
TOP OF NORTH APPROACH ELEVATIONS
STRUCTURE NO. 016-1015
SHEET NO. 59 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	36
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN

Notes:
See Sheet S11 for superstructure details, parapet reinforcement and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



MINIMUM BAR LAPS

#5 Bar - 2'-7"
#6 Bar - 3'-1"

CROSS SECTION

(Looking North)

** Slope varies between S. Abut. to Sta. 23+36.35 due to superelevation transition
*** Slope varies between S. Abut. to Sta. 23+78.98 due to superelevation transition

FILE NAME = s:\projects\2102155_004\cadd\structure\sht\0101015_60863_010_Deck 1.dgn

ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
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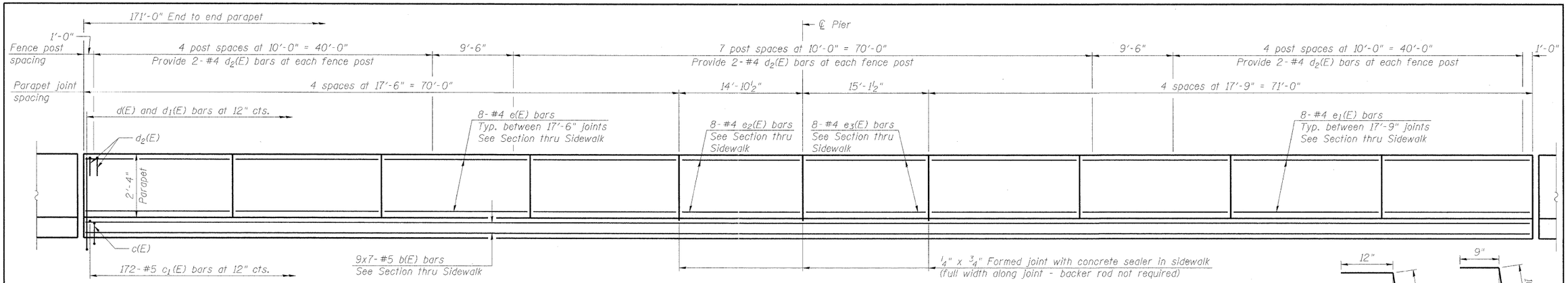
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

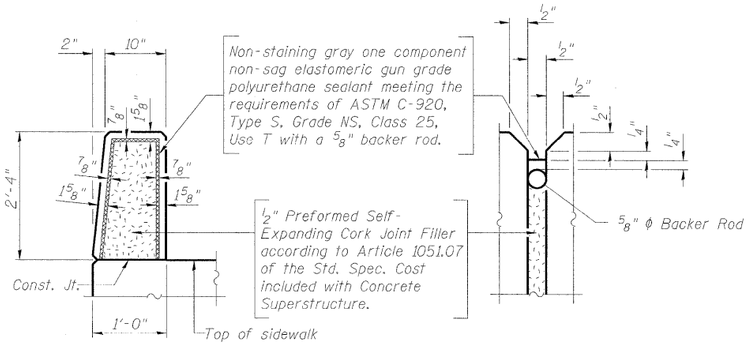
DECK PLAN AND SECTION
STRUCTURE NO. 016-1015
SHEET NO. S10 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	37
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



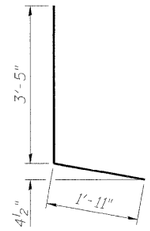
INSIDE ELEVATION OF PARAPET AND SIDEWALK

(Looking West)

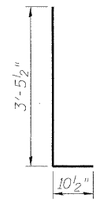


PARAPET JOINT DETAILS

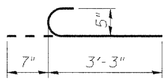
BAR d2(E)



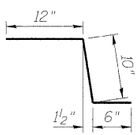
BAR d(E)



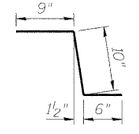
BAR d_1(E)



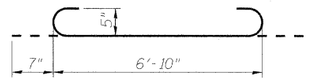
a_{10}(E) BAR



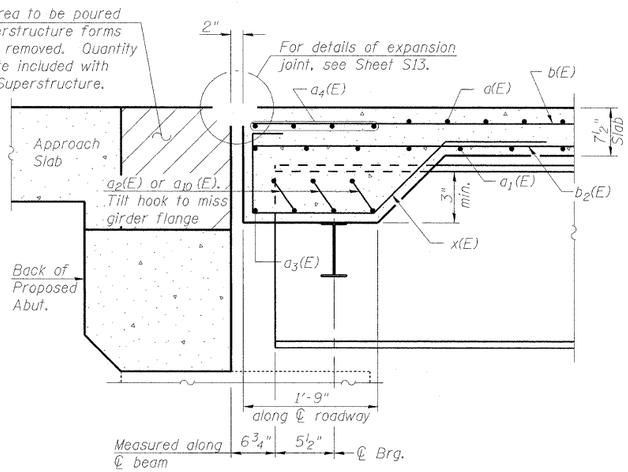
BAR c(E)



BAR c_3(E)



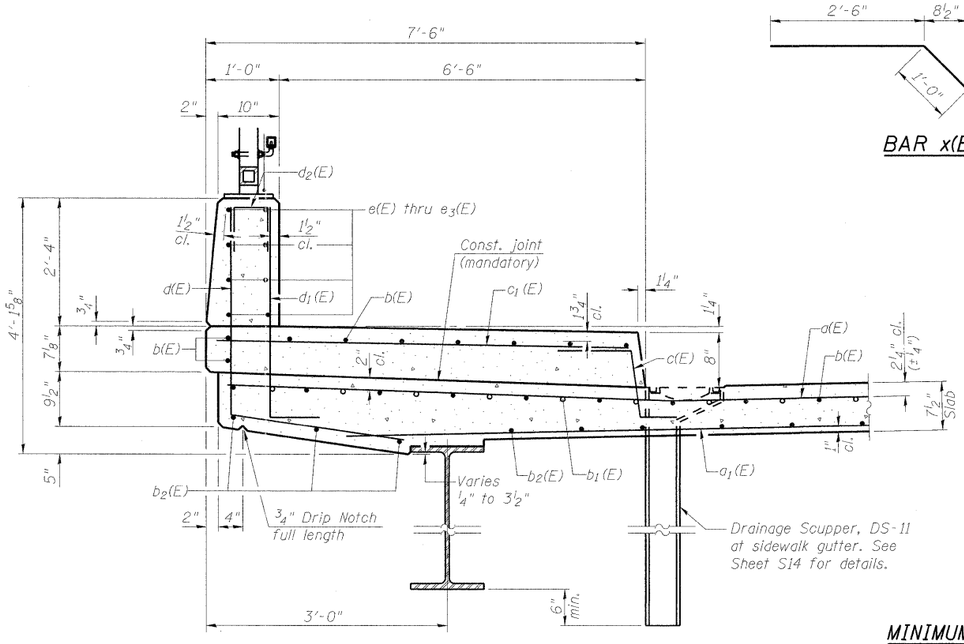
a_2(E) BAR



SECTION A-A

(North Abutment shown. Deck detail at South Abutment similar. See Sheet S17 for Vaulted Approach Span detail on South Abutment backwall.)

**Note: Hatched area is at North Abutment only.



SECTION THRU SIDEWALK

BAR x(E)

MINIMUM BAR LAP

#5 bar = 2'-7"

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	632	#5	34'-0"	
a_1(E)	456	#5	33'-4"	
a_2(E)	48	#5	8'-0"	
a_3(E)	4	#5	31'-11"	
a_4(E)	16	#5	35'-0"	
a_5(E)	96	#5	1'-6"	
a_6(E)	16	#5	2'-0"	
a_{10}(E)	12	#5	3'-10"	
b(E)	651	#5	26'-8"	
b_1(E)	136	#6	27'-2"	
b_2(E)	414	#5	30'-8"	
c(E)	344	#5	2'-4"	
c_1(E)	344	#5	7'-0"	
c_2(E)	172	#5	3'-6"	
c_3(E)	344	#5	2'-1"	
d(E)	344	#4	5'-4"	
d_1(E)	344	#6	4'-4"	
d_2(E)	72	#4	2'-0"	
e(E)	64	#4	17'-2"	
e_1(E)	64	#4	17'-5"	
e_2(E)	16	#4	14'-6"	
e_3(E)	16	#4	14'-9"	
x(E)	140	#5	6'-5"	
Reinforcement Bars, Epoxy Coated			Pound	87,530
Concrete Superstructure			Cu. Yds.	407.1

Bars indicated thus 9x7-#5 etc. indicates 9 lines of bars with 7 lengths per line.

FILE NAME = g:\projects\2102155.004\ceadd\structure\sht\0161015.60863_011_Deck 2.dgn

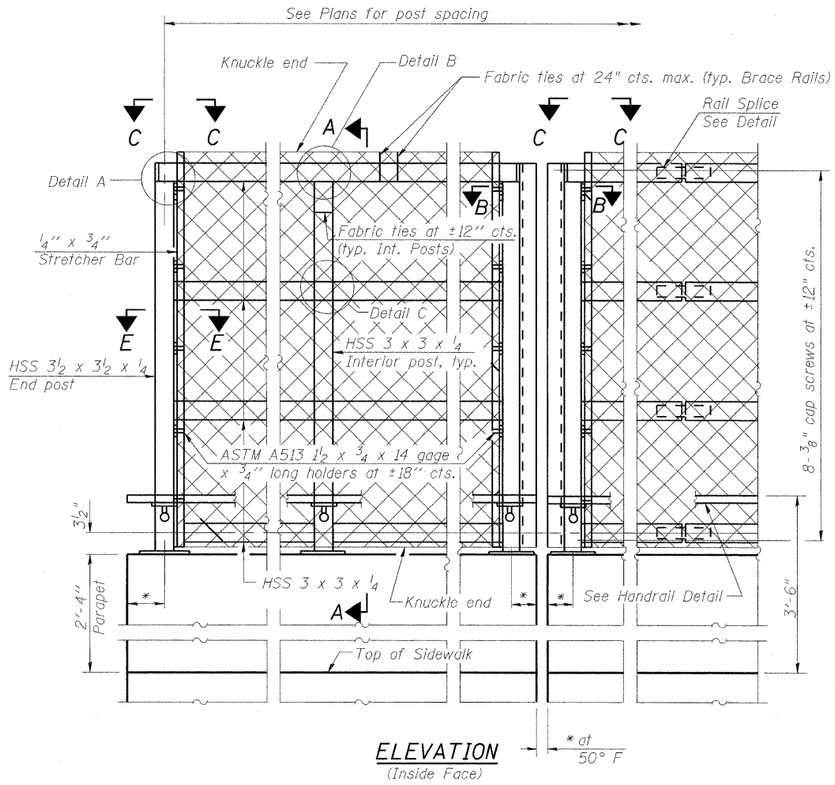
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/17/2011	CHECKED - GSP	REVISED -	

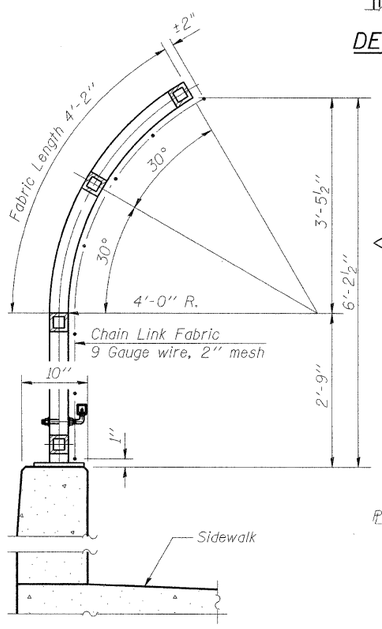
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET AND SIDEWALK ELEVATION AND DETAILS
STRUCTURE NO. 016-1015
SHEET NO. S11 OF 36 SHEETS

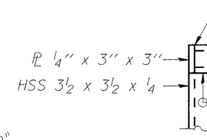
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	38
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



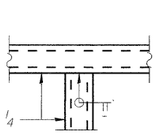
ELEVATION
(Inside Face)



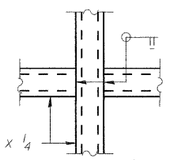
SECTION A-A



DETAIL A

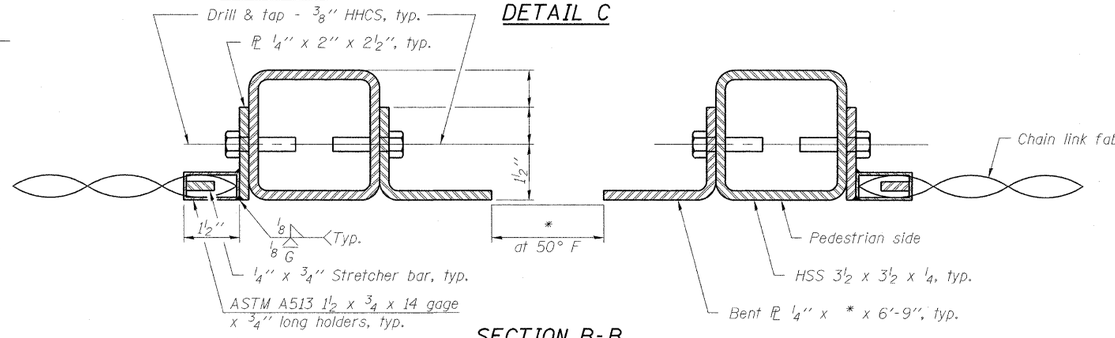


DETAIL B

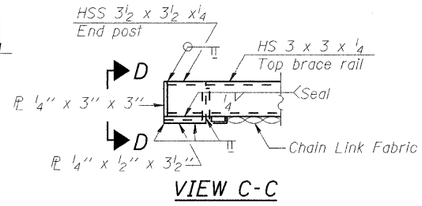


DETAIL C

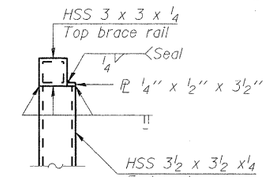
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



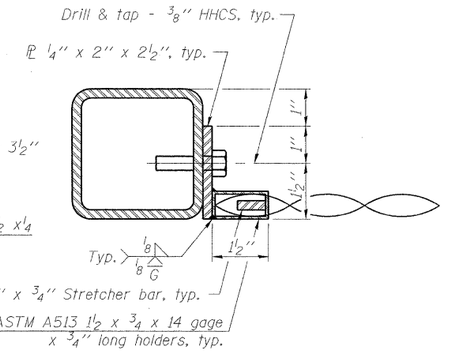
SECTION B-B
(At Expansion Joint)

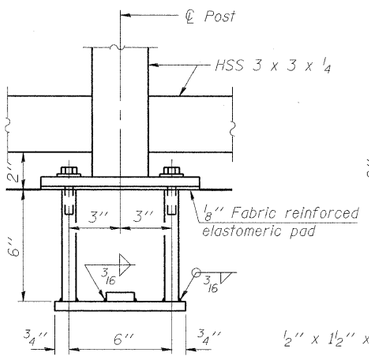


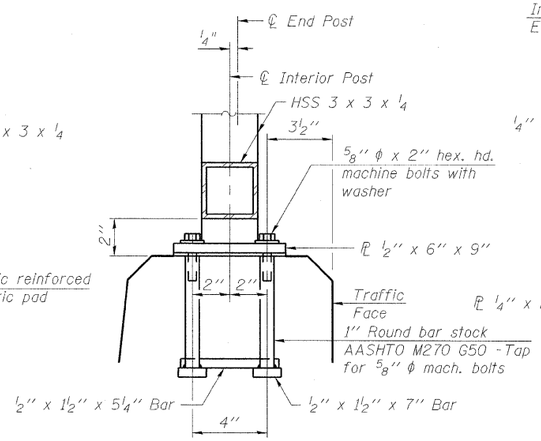
VIEW C-C



VIEW D-D

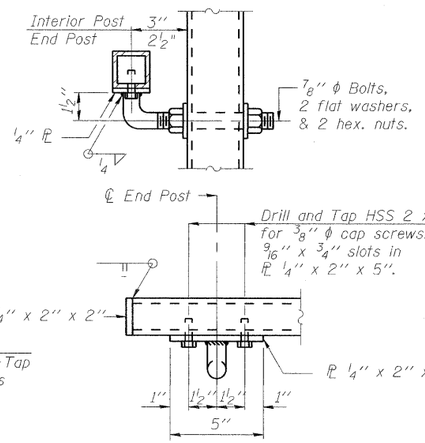




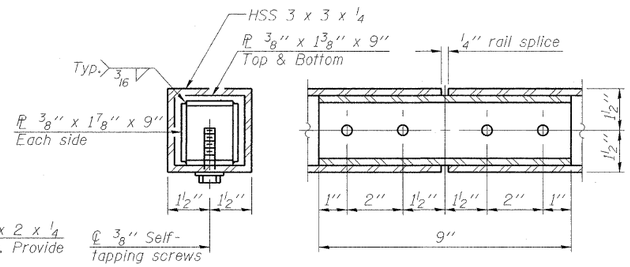


ANCHOR BOLT DETAILS

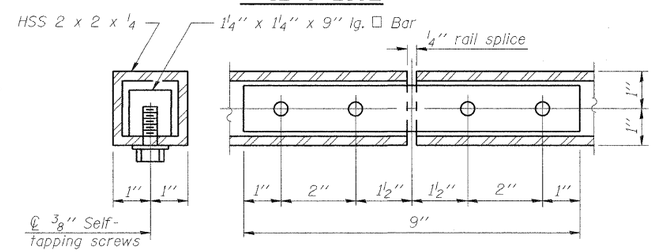
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



HANDRAIL DETAIL

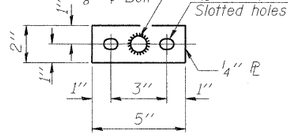


RAIL SPLICE

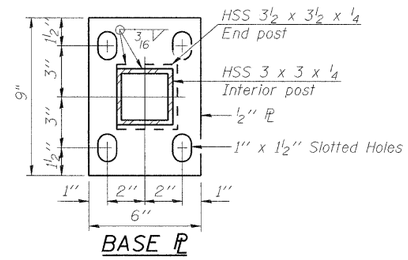


HANDRAIL SPLICE

SECTION E-E



BASE PL
(Handrail)



BASE PL

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	501.0

*Variable - See Plans (10'-0" Maximum Post Spacing)

R-32

7-1-10

FILE NAME = g:\prc_gen\2102155.02A\cadd\structure\shh\0161015_68863_R12_Fence.dgn

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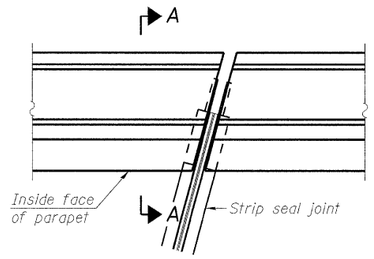
		CHECKED - BHS	REVISED -
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

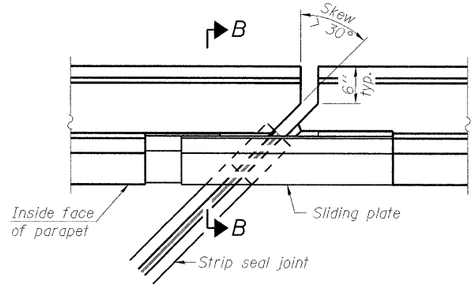
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO. 016-1015
SHEET NO. 512 OF 36 SHEETS

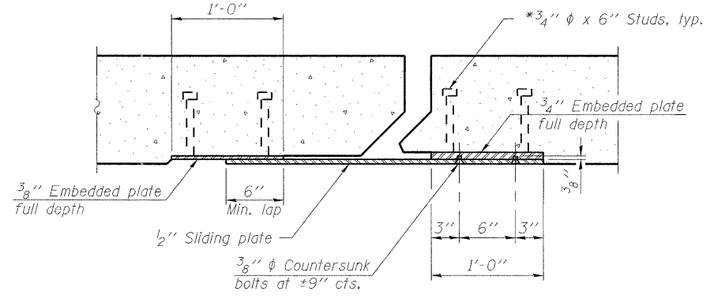
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	39
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



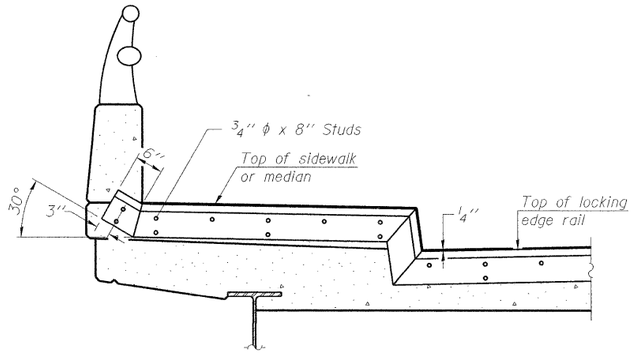
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

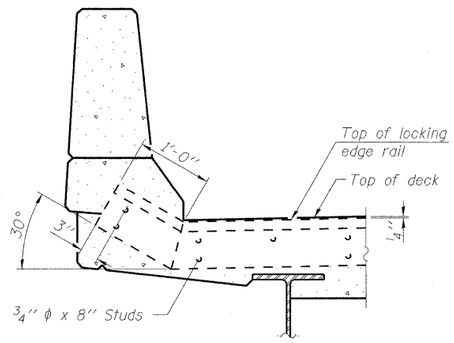


SECTION C-C

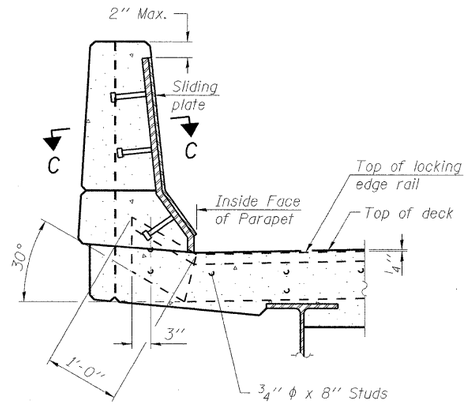


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

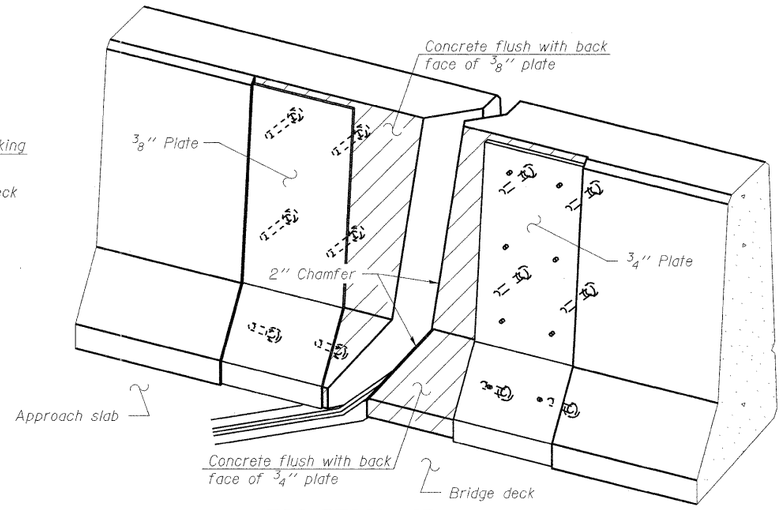
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

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

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

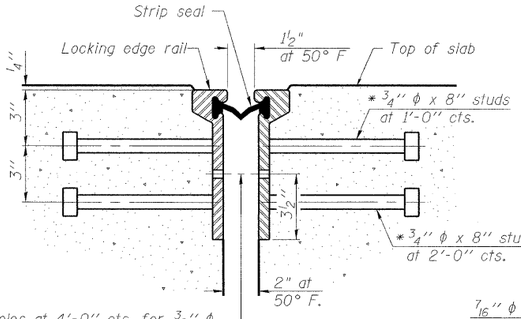
The manufacturer's recommended installation methods shall be followed.

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

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

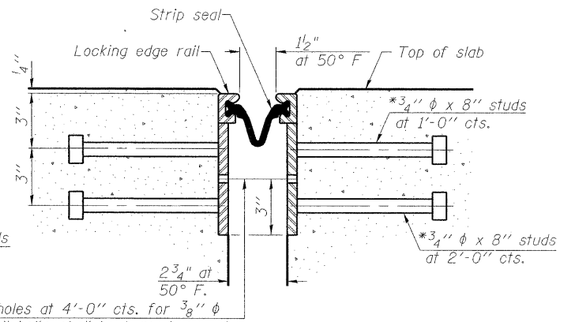
Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



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

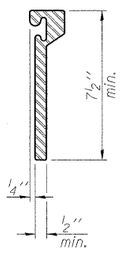
SECTION THRU ROLLED RAIL JOINT



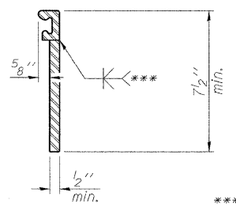
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

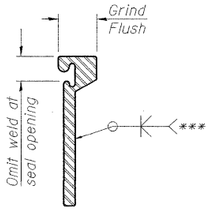
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



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

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	146.0

EJ-SSJ

7-1-10

FILE NAME = g:\projects\2102155.004\cadd\structure\sht\0161015_60863_013_Joint Seal.dgn

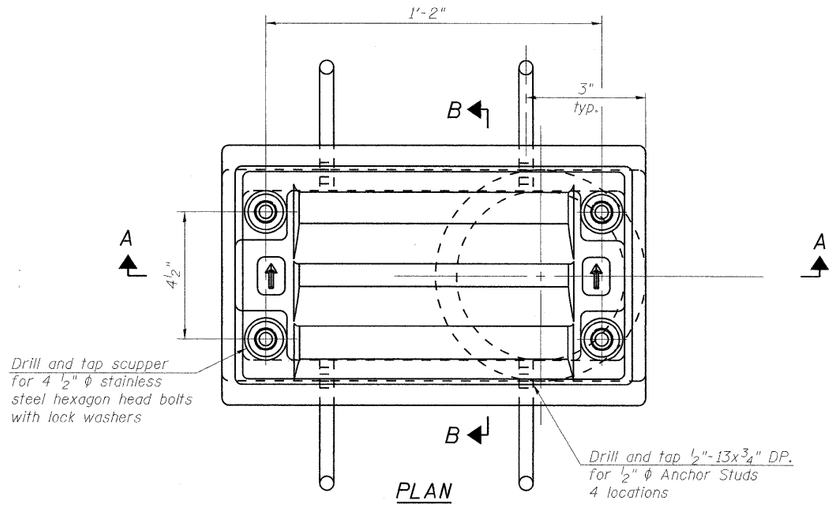
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

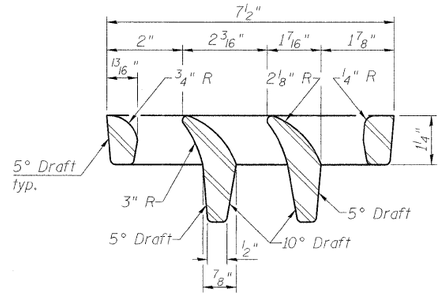
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-1015
SHEET NO. 513 OF 36 SHEETS

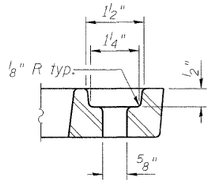
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	40
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

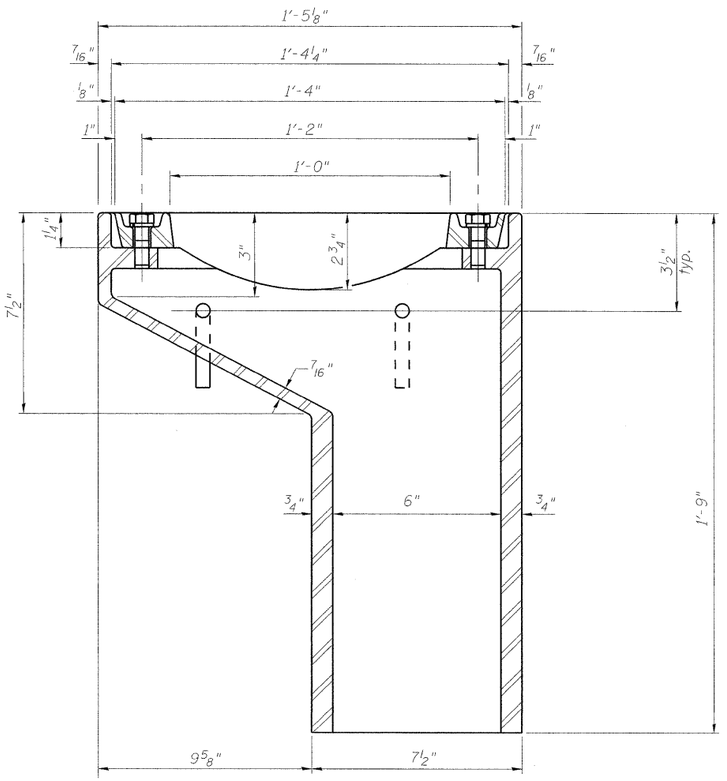
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

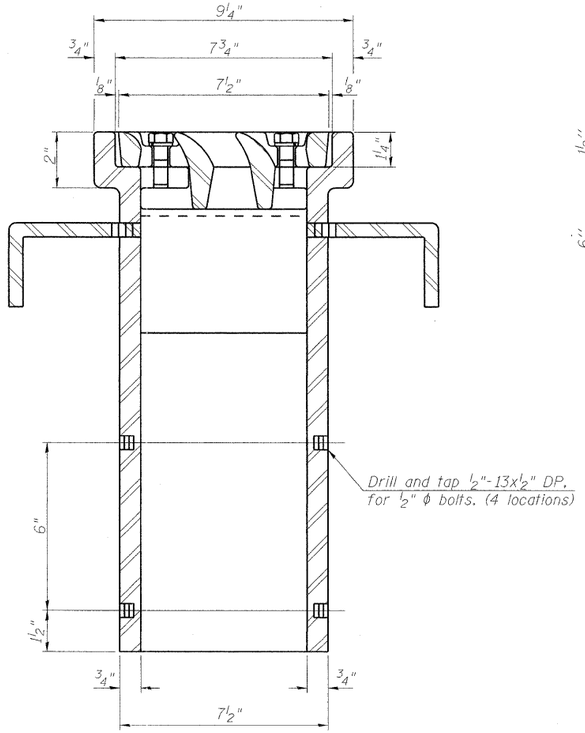
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

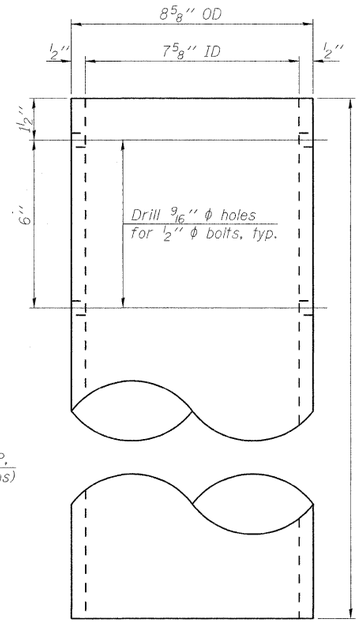


SECTION A-A

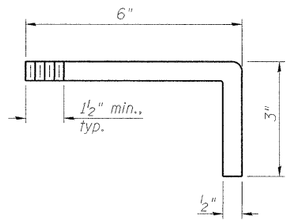
See Sheet S10 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	12

DS-11 7-1-10

ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
		CHECKED - BHS	REVISED -
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-1015
SHEET NO. S14 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	41
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

FILE NAME = q:\projects\2102155.004\cadd\structure\sht\0161015_60863_014_Scupper DS11.dgn

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

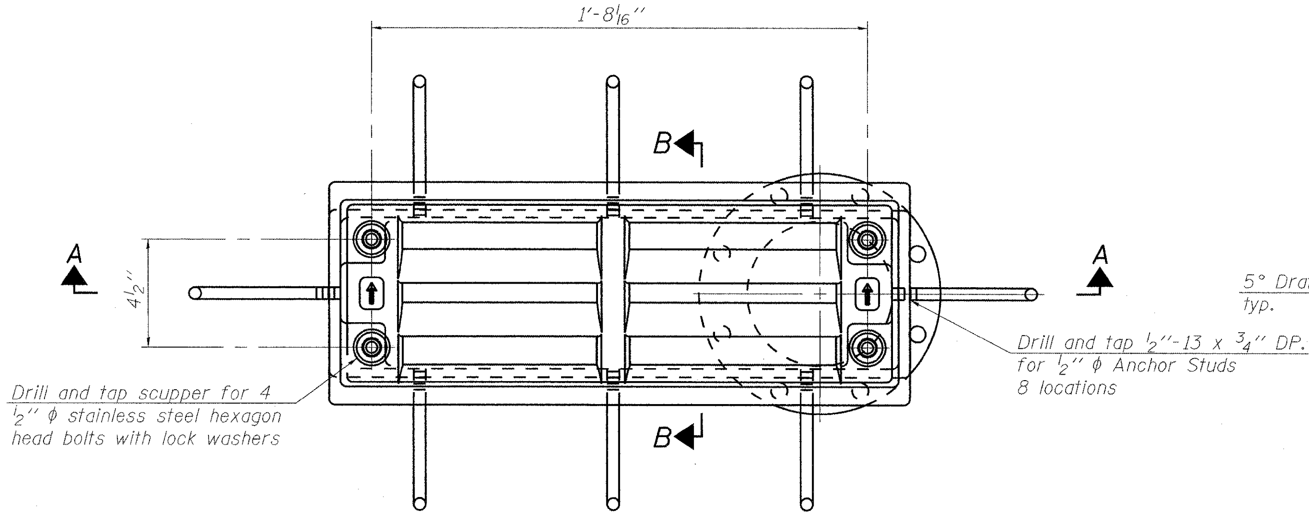
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

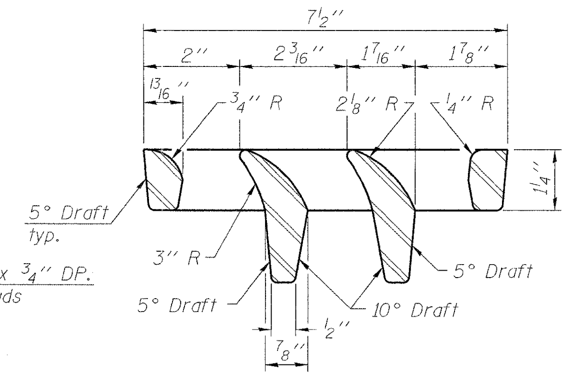
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

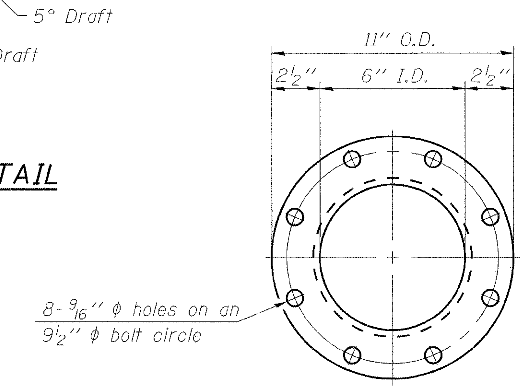
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

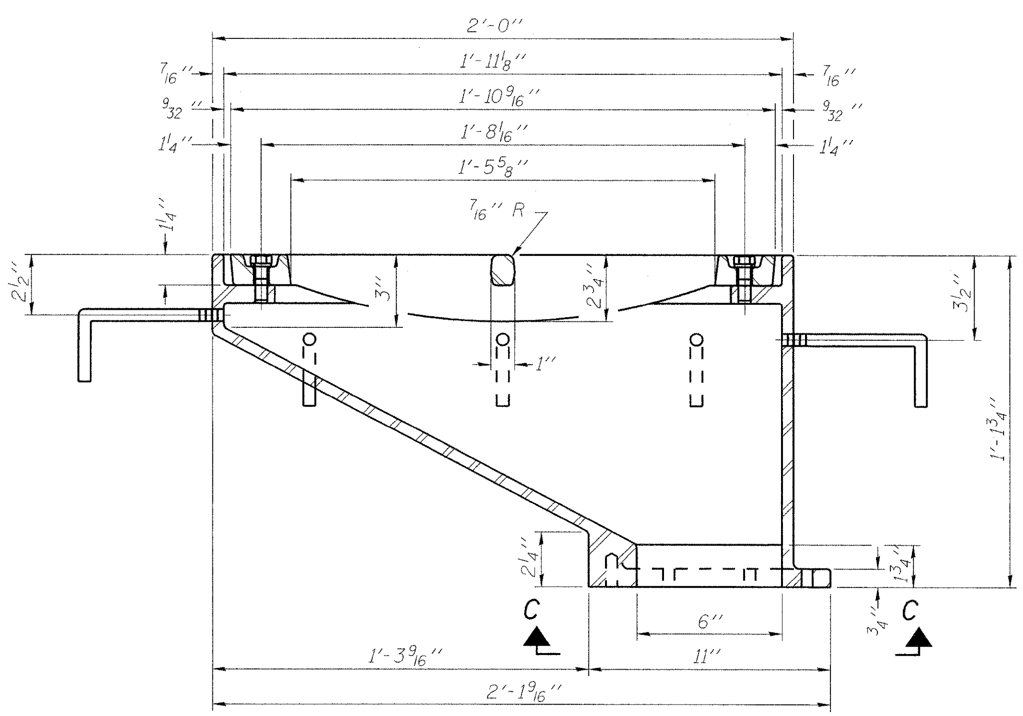


PLAN



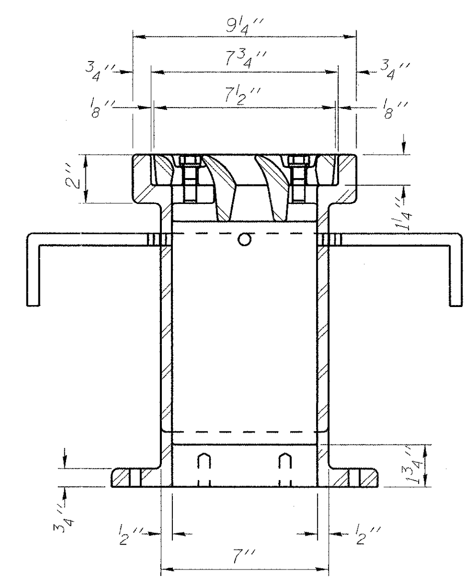
VANE GRATE DETAIL



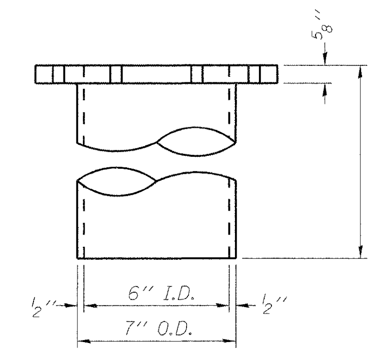


SECTION A-A

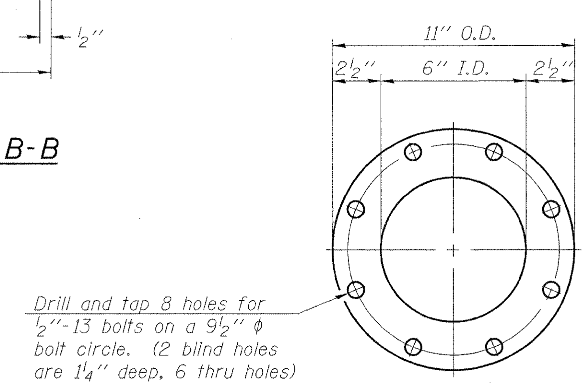
See Sheet S10 for scupper location relative to parapet.



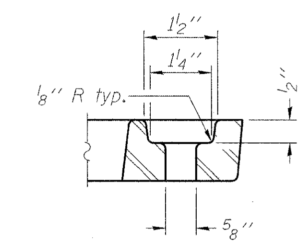
SECTION B-B



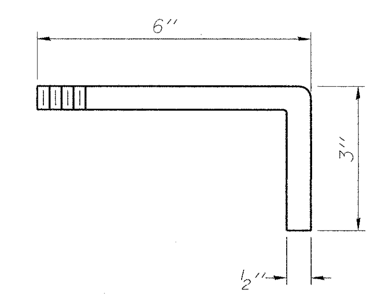
DOWNSPOUT



VIEW C-C



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

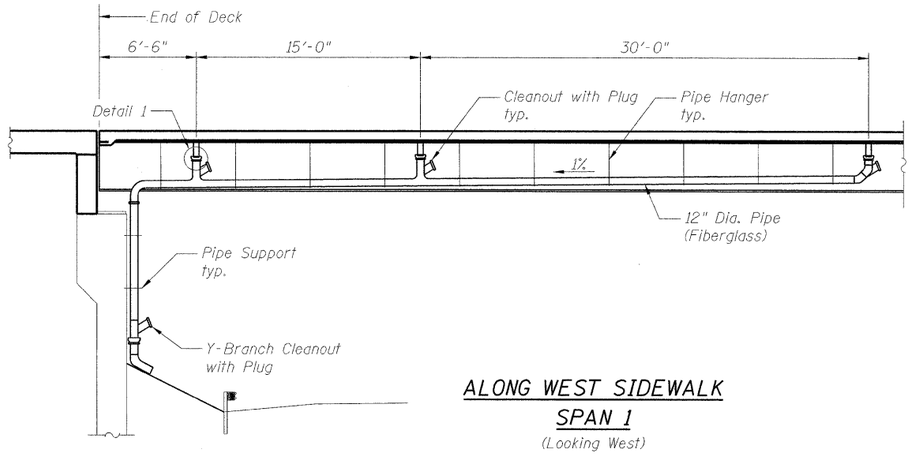
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	2

DS-12 7-1-10

FILE NAME = g:\project\2102155.004\cadd\structure\sht\016\1015.60863.015.Scupper DS12.dgn

ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE SCUPPER, DS-12 STRUCTURE NO. 016-1015
		CHECKED - BHS	REVISED -		
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -		
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -		SHEET NO. S15 OF 36 SHEETS

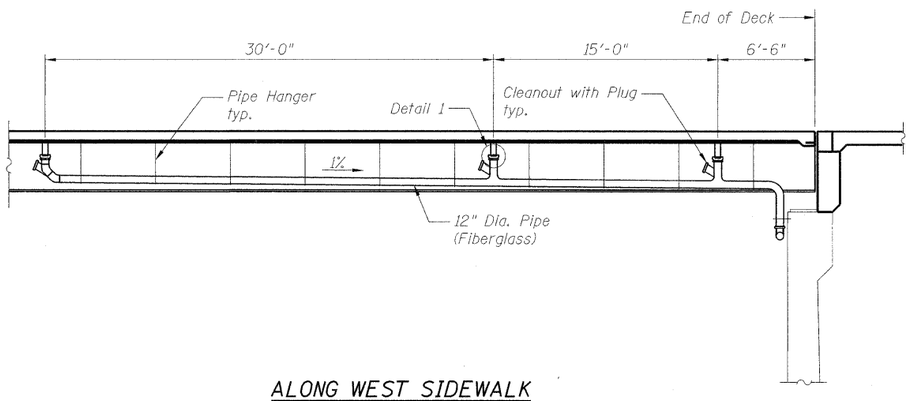
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	42
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



ALONG WEST SIDEWALK SPAN 1

(Looking West)

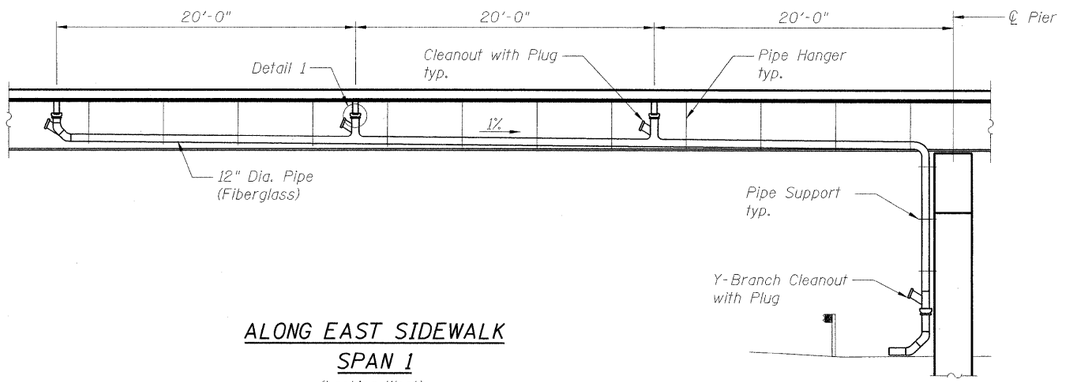
S. ABUTMENT



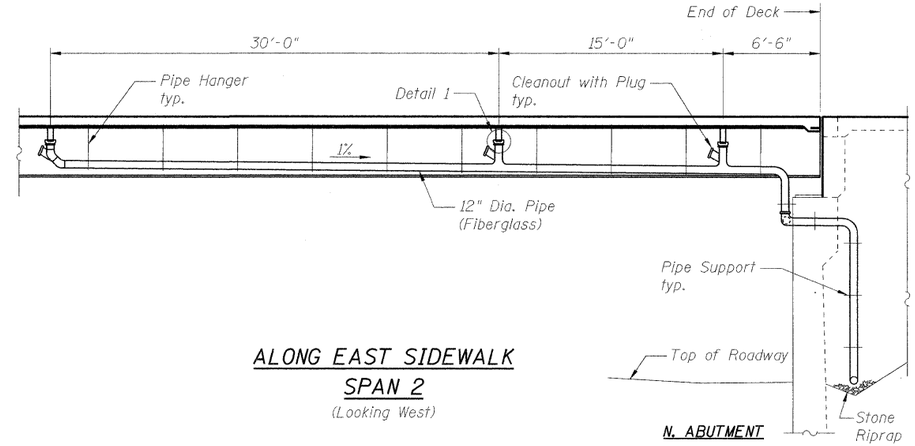
ALONG WEST SIDEWALK SPAN 2

(Looking West)

N. ABUTMENT



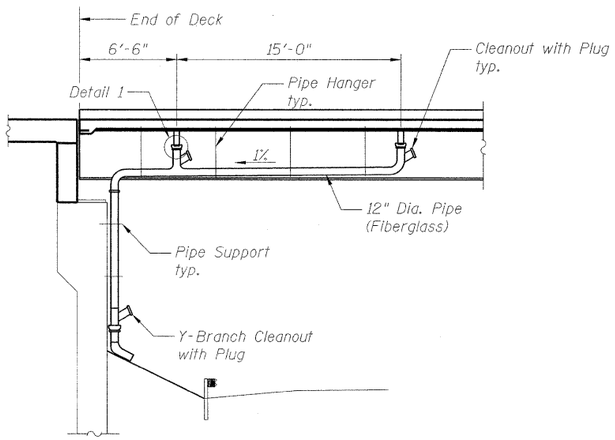
PIER



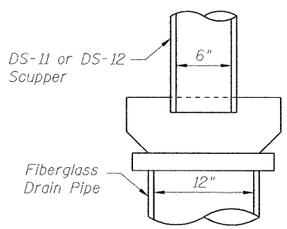
N. ABUTMENT

ALONG EAST SIDEWALK SPAN 1

(Looking West)



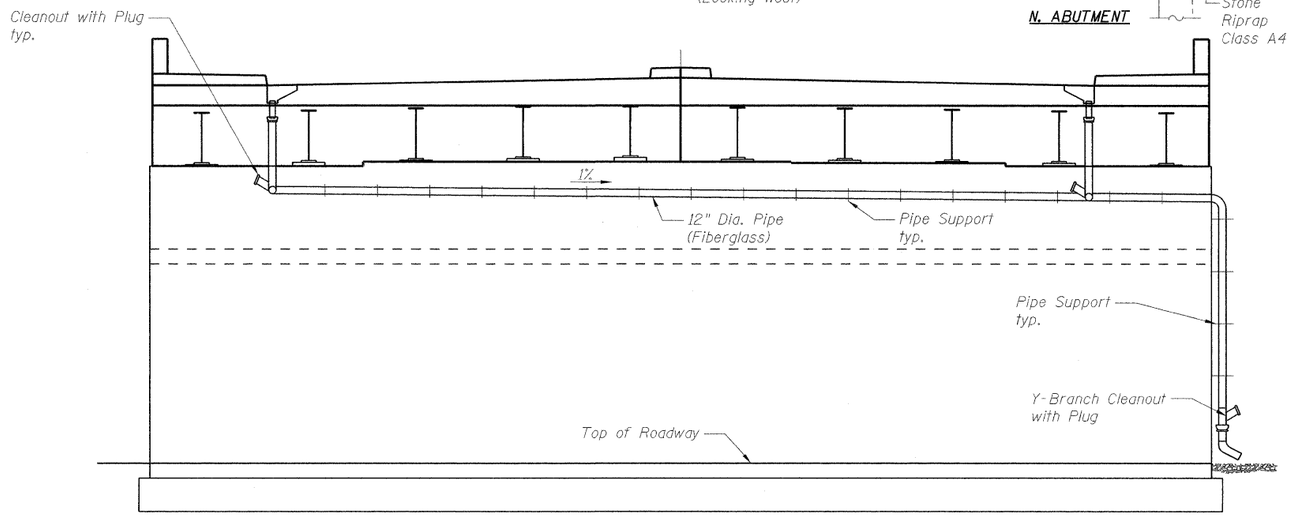
S. ABUTMENT



DETAIL 1

ALONG EAST SIDEWALK SPAN 2

(Looking West)



ALONG NORTH ABUTMENT

(Looking North)

ALONG MEDIAN SPAN 1

(Looking West)

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L. Sum	1
Stone Riprap, Class A4	Sq. Yd.	3

FILE NAME = g:\projects\2121155.004\roadd\structure\sht\0161015.68863.015.Drainage.dgn

ENTRAN

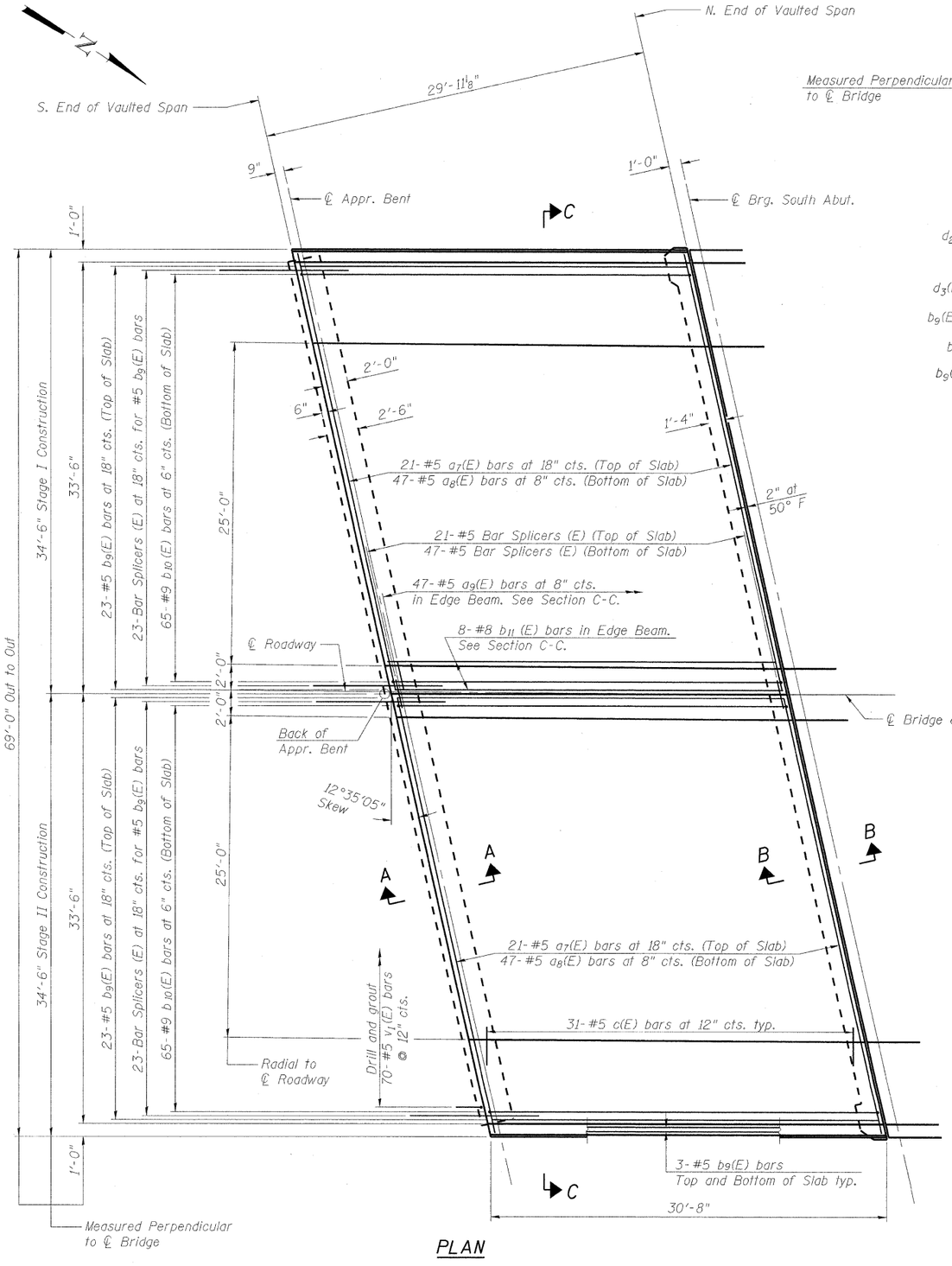
USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

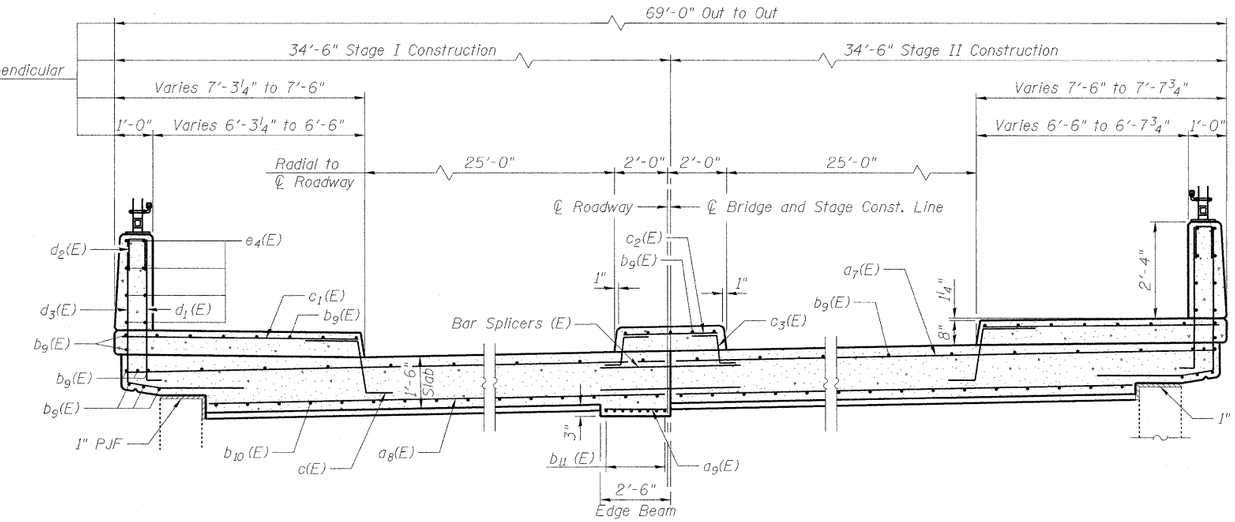
BRIDGE DRAINAGE SYSTEM
STRUCTURE NO. 016-1015

SHEET NO. 516 OF 36 SHEETS

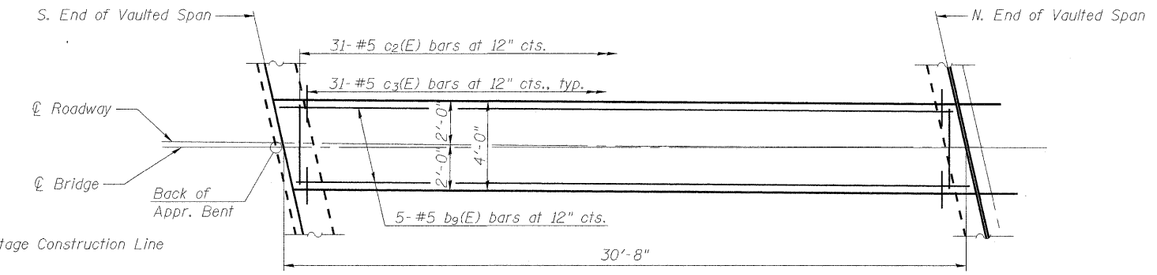
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	43
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



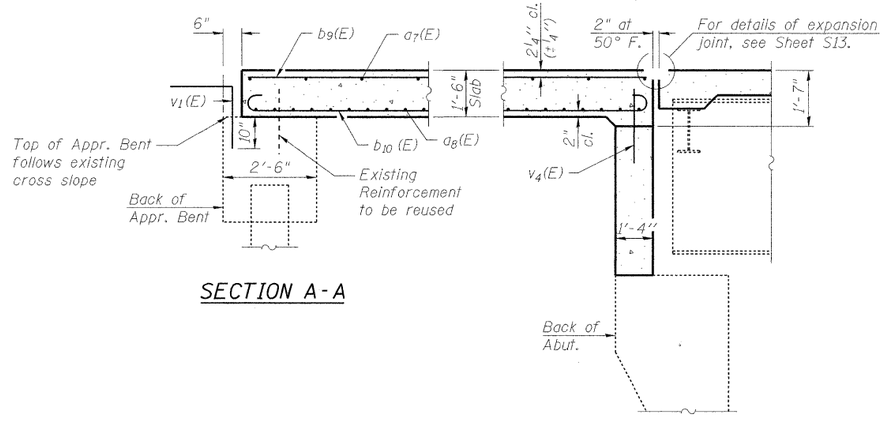
PLAN



SECTION C-C



MEDIAN DETAIL



SECTION A-A

SECTION B-B

Note:
For $v_4(E)$ bar details, see Sheet S26

ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	VAULTED ABUTMENT APPROACH SPAN (1 OF 2) STRUCTURE NO. 016-1015
		CHECKED - BHS	REVISED -		
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -		SHEET NO. S17 OF 36 SHEETS
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	44
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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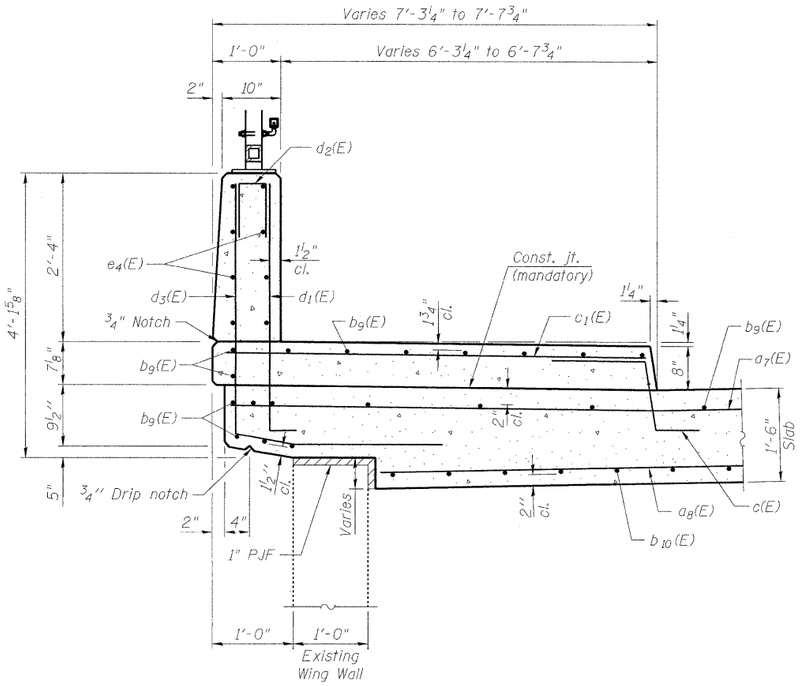
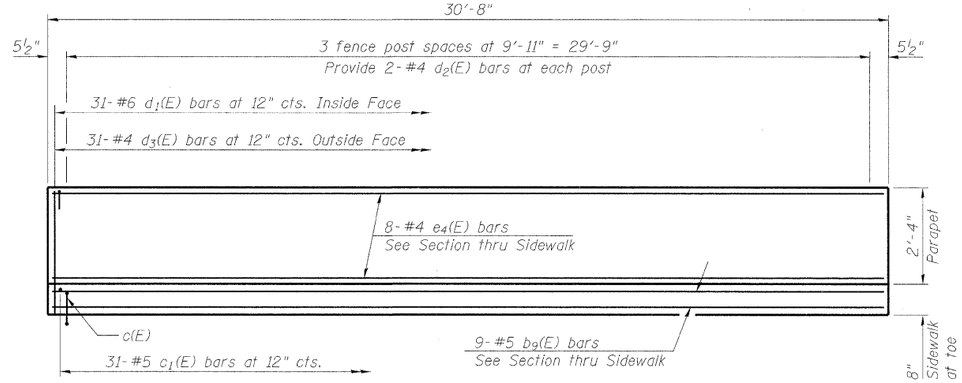
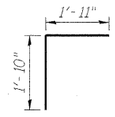


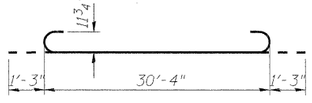
SECTION THRU SIDEWALK



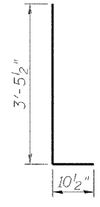
INSIDE ELEVATION OF PARAPET AND SIDEWALK



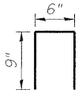
BAR $v_1(E)$



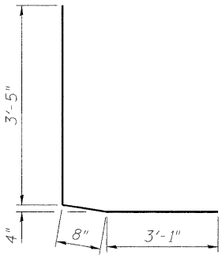
BAR $b_{10}(E)$



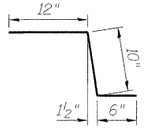
BAR $d_1(E)$



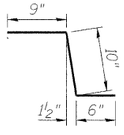
BAR $d_2(E)$



BAR $d_3(E)$



BAR c(E)



BAR $c_3(E)$

VAULTED SPAN BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_7(E)$	42	#5	34'-10"	——
$a_8(E)$	94	#5	32'-11"	——
$a_9(E)$	47	#5	2'-2"	——
$b_9(E)$	81	#5	30'-4"	——
$b_{10}(E)$	130	#9	32'-10"	⊂ ⊃
$b_{11}(E)$	8	#8	30'-4"	——
$c(E)$	62	#5	2'-4"	⌐
$c_1(E)$	62	#5	7'-0"	——
$c_2(E)$	31	#5	3'-6"	——
$c_3(E)$	62	#5	2'-1"	⌐
$d_1(E)$	62	#6	4'-4"	L
$d_2(E)$	16	#4	2'-0"	⊓
$d_3(E)$	62	#4	7'-2"	L
$e_4(E)$	16	#4	30'-4"	——
$v_1(E)$	70	#5	4'-9"	⌐
Reinforcement Bars, Epoxy Coated			Pound	24,830
Concrete Superstructure			Cu. Yd.	142.8

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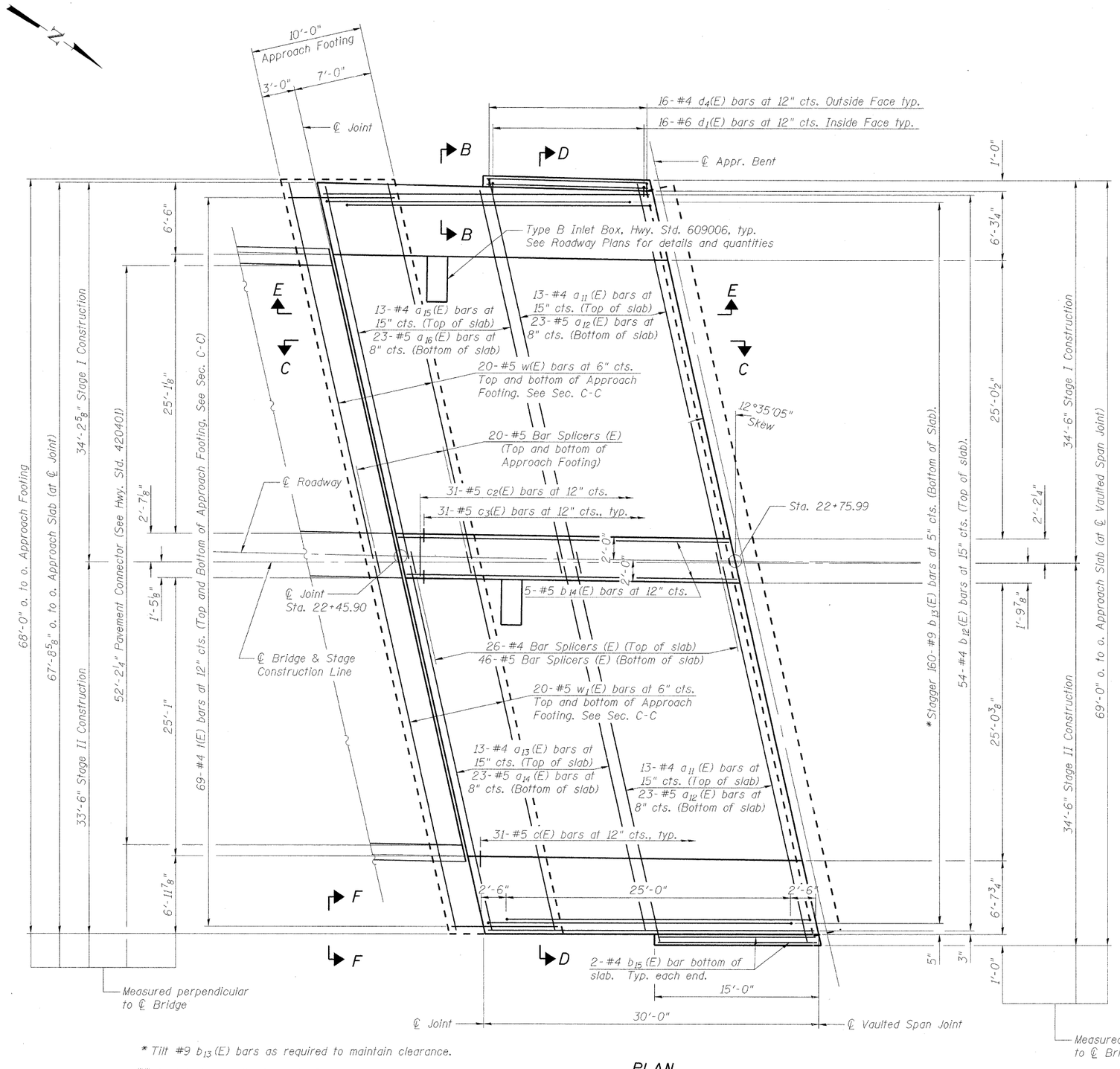
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VAULTED ABUTMENT APPROACH SPAN (2 OF 2)
STRUCTURE NO. 016-1015
SHEET NO. S18 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	45
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

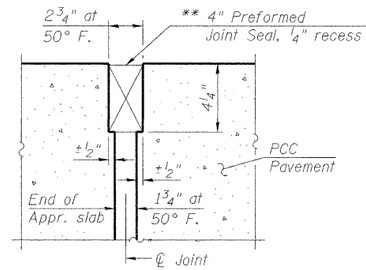


* Tilt #9 b_{13}(E) bars as required to maintain clearance.

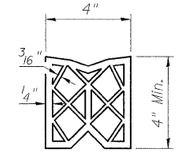
** Cost included with Concrete Superstructure.

PLAN

Notes:
See Sheet S21 for Sections C-C & D-D.
a_{11} (E) thru a_{14}(E) bar spacings measured along ℄ Rdwy.
Order a_{13}(E) thru a_{16}(E), b_{12}(E) and b_{13}(E) bars full length. Cut in field to fit Type B Inlet Box, Hwy. Standard 609006.

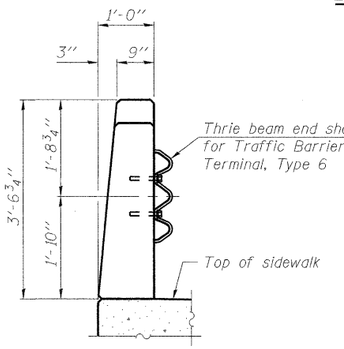


RIGID PAVEMENT

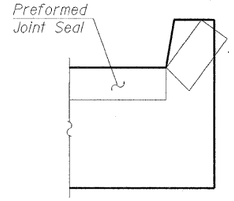


PREFORMED JOINT SEAL

DETAIL A

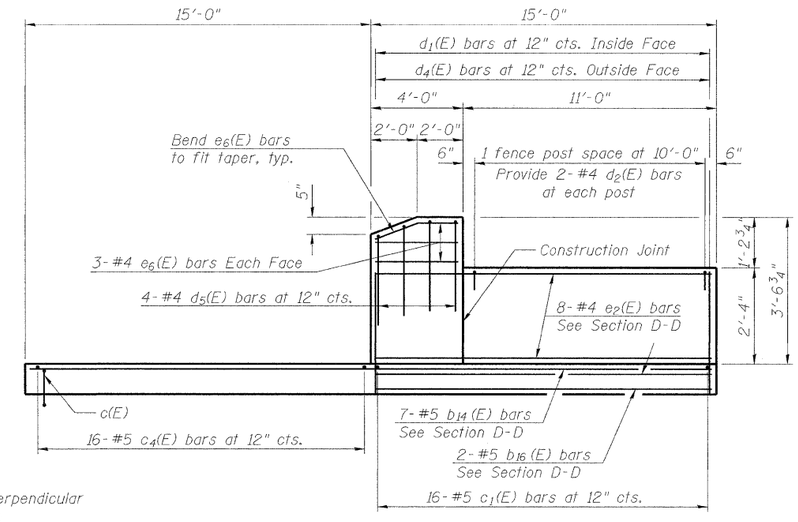


VIEW B-B



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs and parapet when req'd for drainage.



VIEW E-E

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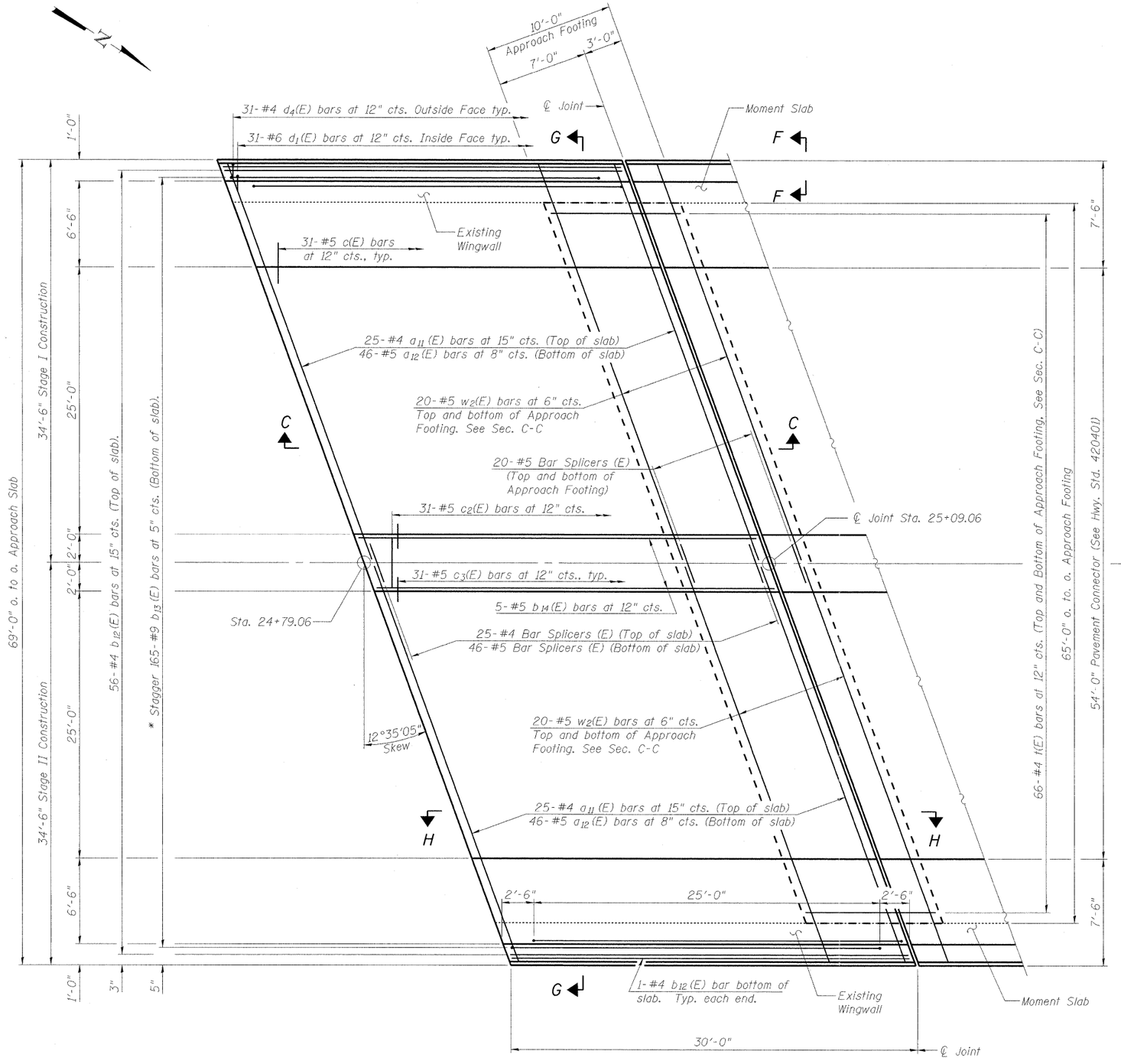
ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
		CHECKED - BHS	REVISED -
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH APPROACH SLAB
STRUCTURE NO. 016-1015
SHEET NO. S19 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	46
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

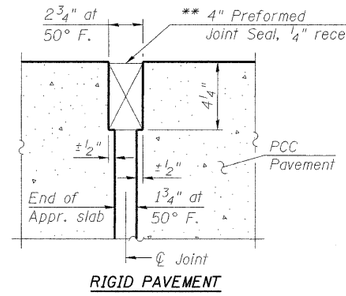


* Tilt #9 b_{13}(E) bars as required to maintain clearance.

** Cost included with Concrete Superstructure.

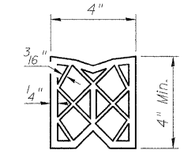
PLAN

Notes:
See Sheet S21 for Sections C-C & G-G.
See Sheet S22 for Moment Slabs.
a_{11}(E) and a_{12}(E) bar spacings measured along ℄ Bridge.

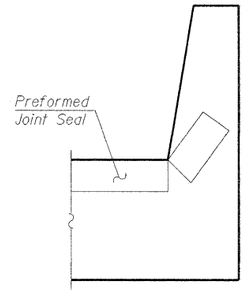


RIGID PAVEMENT

DETAIL A

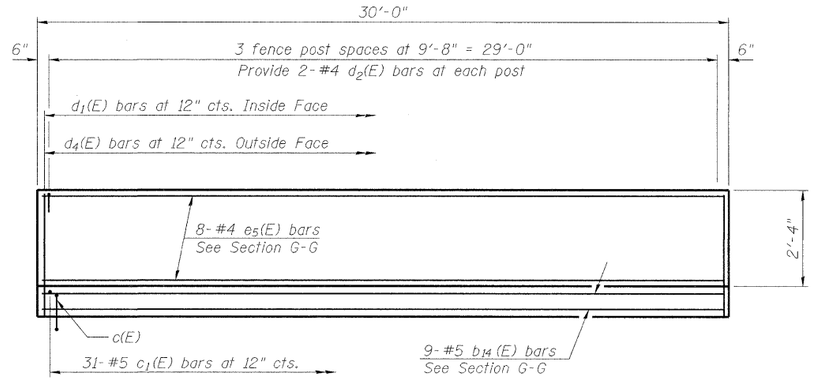


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs and parapets when req'd for drainage.



VIEW H-H

ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH APPROACH SLAB STRUCTURE NO. 016-1015
		CHECKED - BHS	REVISED -		
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -		SHEET NO. S20 OF 36 SHEETS
	PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	47
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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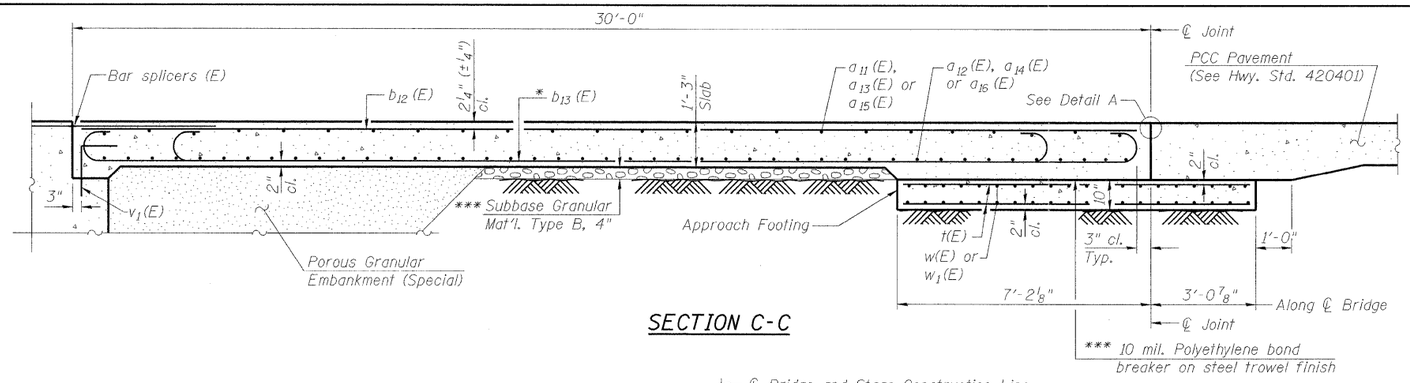
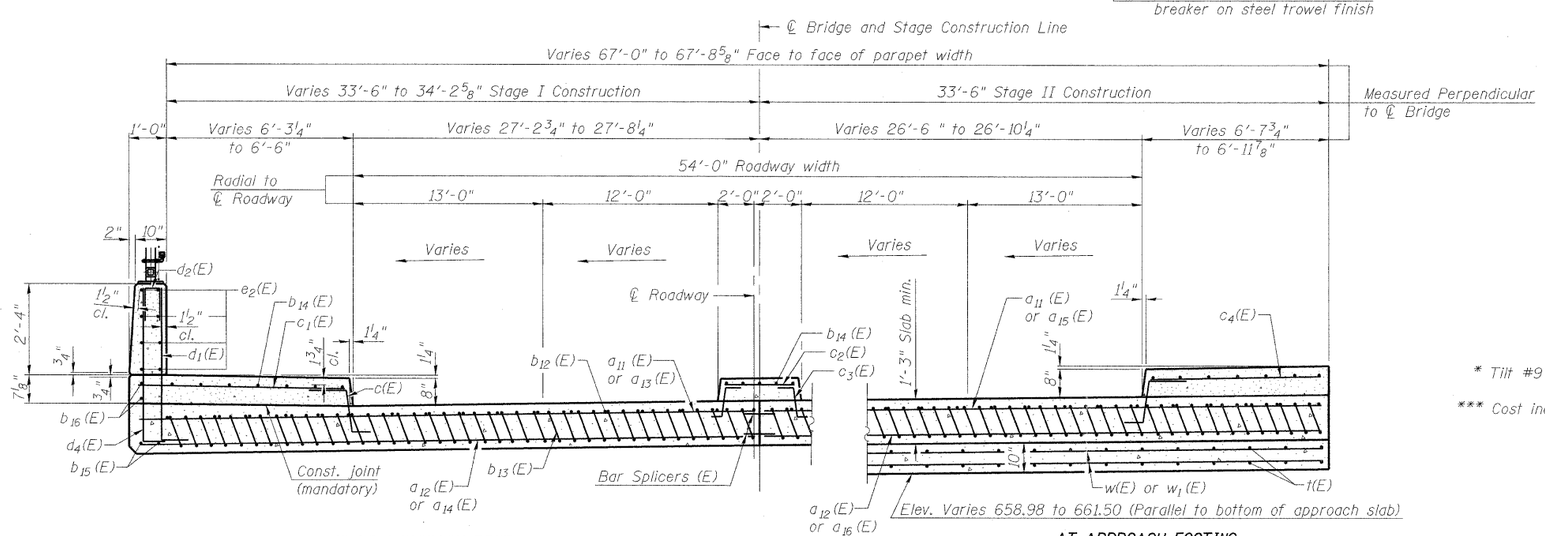


SECTION C-C

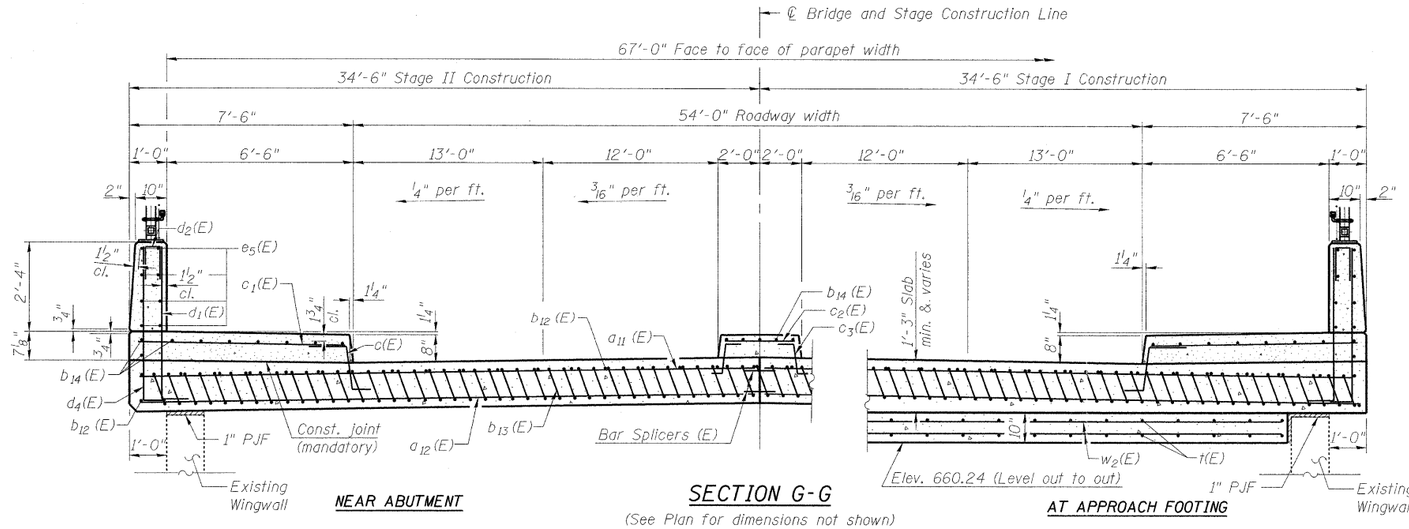


NEAR APPROACH BENT

AT APPROACH FOOTING

SECTION D-D

(See Plan for dimensions not shown)



NEAR ABUTMENT

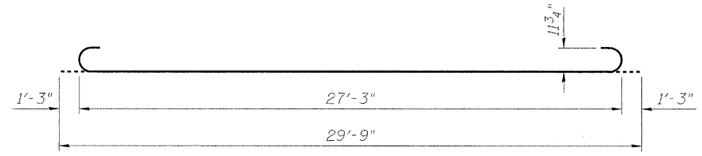
SECTION G-G

(See Plan for dimensions not shown)

AT APPROACH FOOTING

Notes:

See Sheet S19 or S20 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v_1(E) bar details, see Sheet S18.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see Sheet S30.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet S2.



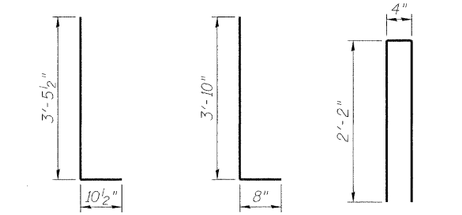
BAR b_{13}(E)

* Tilt #9 b_{13} (E) bars as required to maintain clearance.

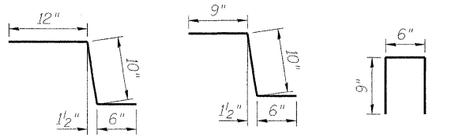
*** Cost included with Concrete Superstructure.

APPROACH SLABS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{11}(E)	76	#4	35'-0"	—
a_{12}(E)	138	#5	35'-0"	—
a_{13}(E)	13	#4	34'-0"	—
a_{14}(E)	23	#5	34'-0"	—
a_{15}(E)	13	#4	34'-4"	—
a_{16}(E)	23	#5	34'-4"	—
b_{12}(E)	112	#4	29'-8"	—
b_{13}(E)	325	#9	29'-9"	⌒
b_{14}(E)	42	#5	29'-8"	—
b_{15}(E)	4	#4	14'-6"	—
b_{16}(E)	4	#5	14'-6"	—
c(E)	124	#5	2'-4"	⌐
c_1(E)	94	#5	7'-0"	—
c_2(E)	62	#5	3'-6"	—
c_3(E)	124	#5	2'-1"	⌐
c_4(E)	32	#5	6'-0"	—
d_1(E)	94	#6	4'-4"	L
d_2(E)	24	#4	2'-0"	⊓
d_4(E)	94	#4	4'-6"	L
d_5(E)	8	#4	4'-8"	⊐
e_2(E)	16	#4	14'-6"	—
e_5(E)	16	#4	29'-8"	—
e_6(E)	12	#4	3'-8"	—
t(E)	270	#4	9'-10"	—
w(E)	40	#5	35'-0"	—
w_1(E)	40	#5	34'-0"	—
w_2(E)	80	#5	33'-0"	—
Concrete Superstructure			Cu. Yd.	239.0
Concrete Structures			Cu. Yd.	42.1
Reinforcement Bars, Epoxy Coated			Pound	56,090



BAR d_1(E) BAR d_4(E) BAR d_5(E)



BAR c(E) BAR c_3(E) BAR d_2(E)

FILE NAME = g:\projects\2202155.004\roadd\structure\sht\0161015_60863_021_Approach Details.dgn

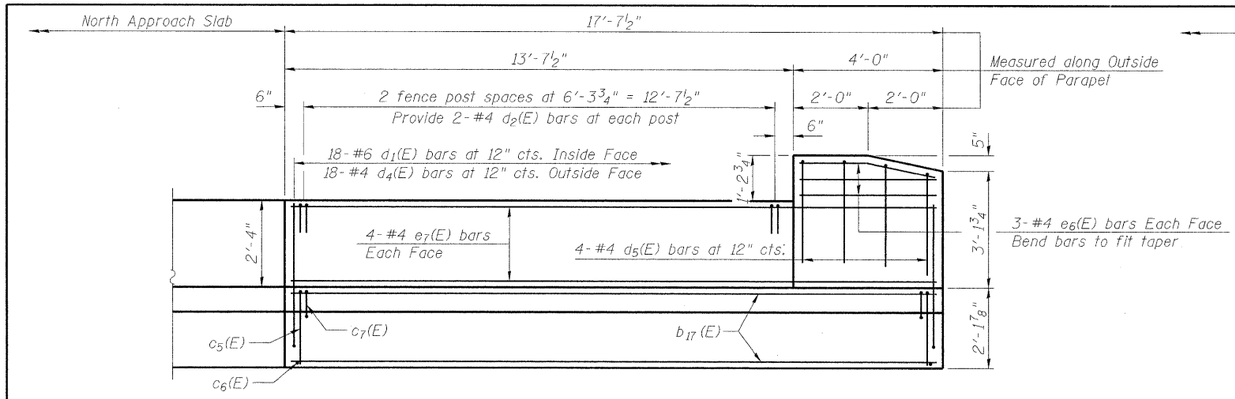
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

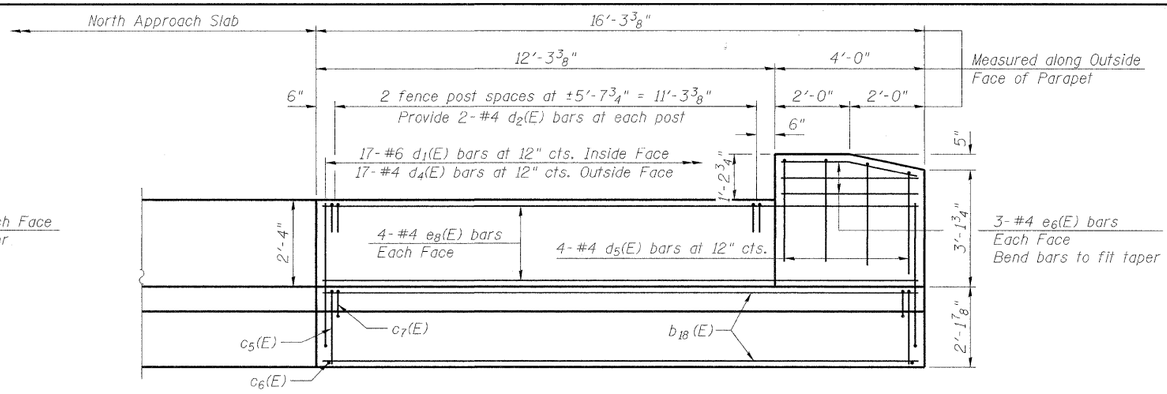
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB SECTION AND DETAILS
STRUCTURE NO. 016-1015
SHEET NO. S21 OF 36 SHEETS

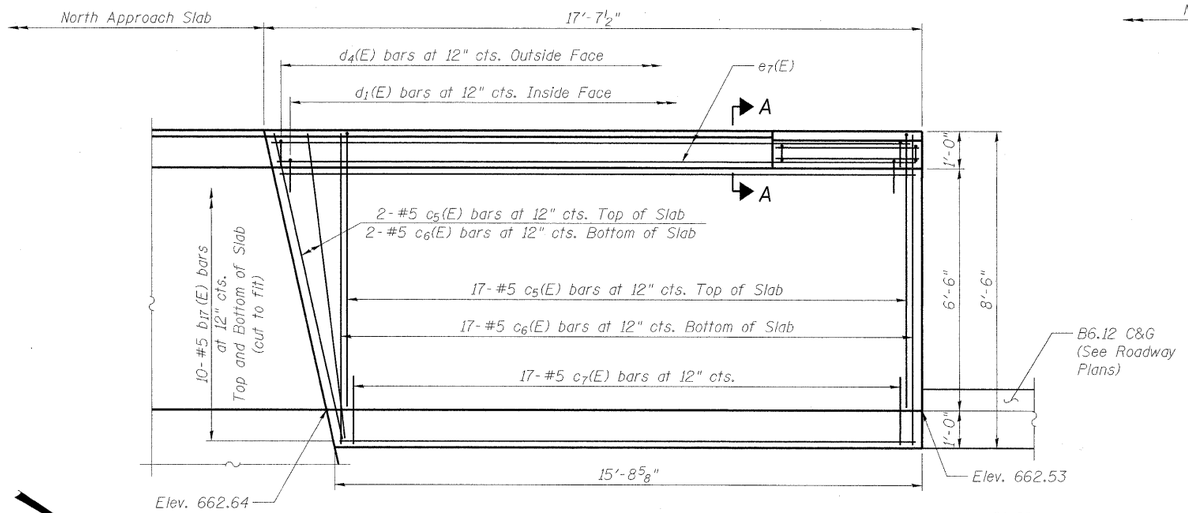
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	48
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



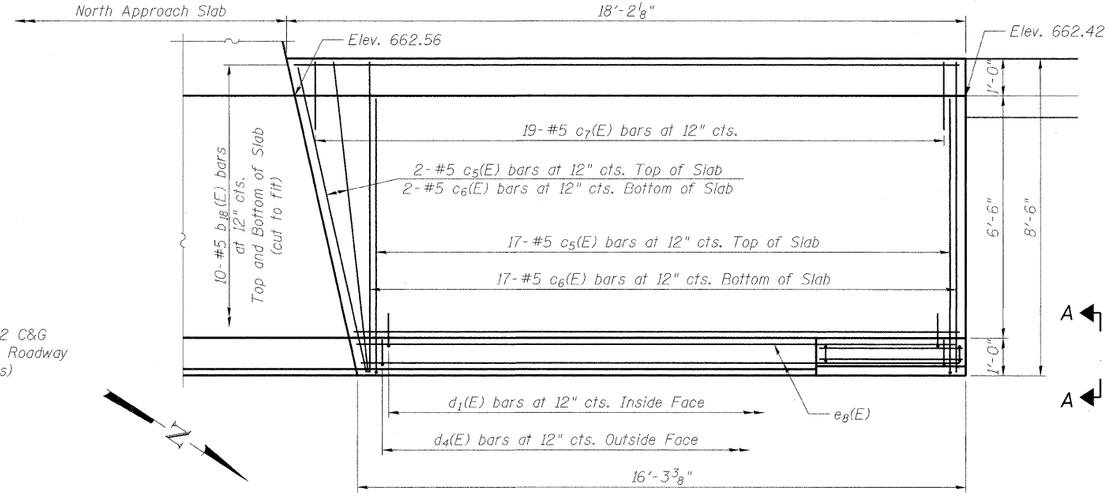
NORTHWEST MOMENT SLAB PARAPET ELEVATION



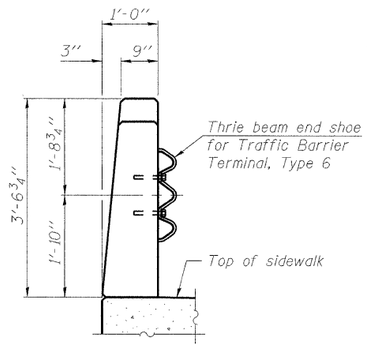
NORTHEAST MOMENT SLAB PARAPET ELEVATION



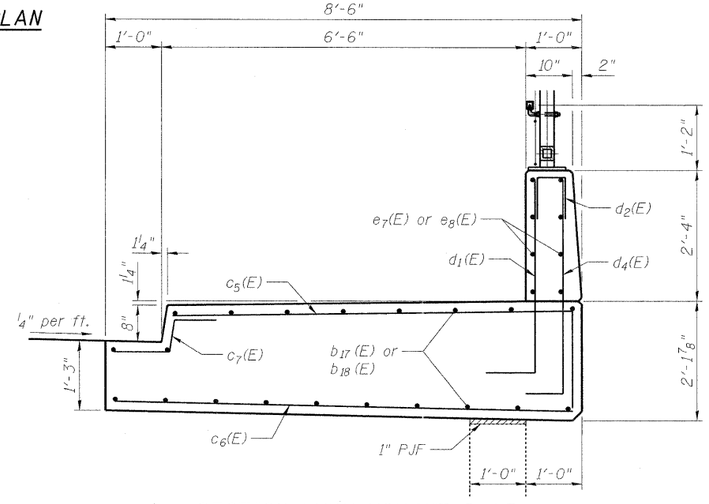
NORTHWEST MOMENT SLAB PLAN



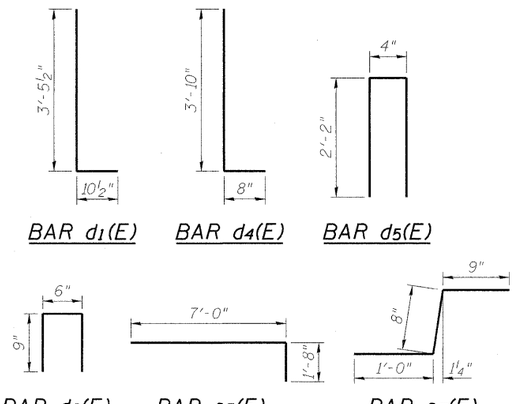
NORTHEAST MOMENT SLAB PLAN



VIEW A-A



SECTION THRU MOMENT SLAB



BAR $d_1(E)$ BAR $d_4(E)$ BAR $d_5(E)$

BAR $d_2(E)$ BAR $c_5(E)$ BAR $c_7(E)$

MOMENT SLABS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$b_{17}(E)$	20	#5	17'-3"	——
$b_{18}(E)$	20	#5	17'-10"	——
$c_5(E)$	38	#5	8'-8"	——
$c_6(E)$	38	#5	8'-0"	——
$c_7(E)$	36	#5	2'-5"	⌐
$d_1(E)$	35	#6	4'-4"	L
$d_2(E)$	12	#4	2'-0"	⊓
$d_4(E)$	35	#4	4'-6"	L
$d_5(E)$	8	#4	4'-8"	⊓
$e_6(E)$	12	#4	3'-8"	——
$e_7(E)$	8	#4	17'-0"	——
$e_8(E)$	8	#4	15'-11"	——
Concrete Superstructure			Cu. Yd.	23.6
Reinforcement Bars, Epoxy Coated			Pound	2,060

FILE NAME = q:\projects\2102155.2041\cadd\structure\sht\0151815_60863_022_Moment Slab.dgn

ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK MOMENT SLABS
STRUCTURE NO. 016-1015
SHEET NO. S22 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	49
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	12911	26715
$I_c(n)$	(in^4)	36703	———
$I_c(3n)$	(in^4)	26902	———
S_s	(in^3)	787	1214
$S_c(n)$	(in^3)	1053	———
$S_c(3n)$	(in^3)	980	———
Z	(in^3)	———	———
$\mathcal{D}$	(k/')	0.866	1.565
$M\mathcal{D}$	('k)	398	1495
$s\mathcal{D}$	(k/')	0.605	———
$M_s\mathcal{D}$	('k)	294	———
$M\mathcal{L}$	('k)	636	585
M_I	('k)	151	139
$\frac{5}{3}[M\mathcal{L} + I]$	('k)	1314	1209
M_a	('k)	2606	3516
* M_u	('k)	3500	———
f_s $\mathcal{D}$ non-comp	(ksi)	6.1	14.8
f_s $\mathcal{D}$ (comp)	(ksi)	3.6	———
f_s $\frac{5}{3}[M\mathcal{L} + M_I]$	(ksi)	15.0	12.0
f_s (Overload)	(ksi)	24.6	26.7
** f_s (Total)	(ksi)	———	34.7
VR	(k)	45.0	———

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
$R\mathcal{D}$	(k)	46.2	162.6
$R\mathcal{L}$	(k)	46.9	60.1
R_I	(k)	8.0	10.2
R_{Total}	(k)	101.1	232.9

* Compact section
** Braced non-compact and partially braced section

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.^{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 and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.^{3}).

$\mathcal{D}$: Un-factored non-composite dead load (kips/ft.).

$M\mathcal{D}$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\mathcal{D}$: Un-factored long-term composite (superimposed) dead load (kips/ft.)

$M_s\mathcal{D}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M\mathcal{L}$: Un-factored live load moment (kip-ft.).

M_I: Un-factored moment due to impact (kip-ft.).

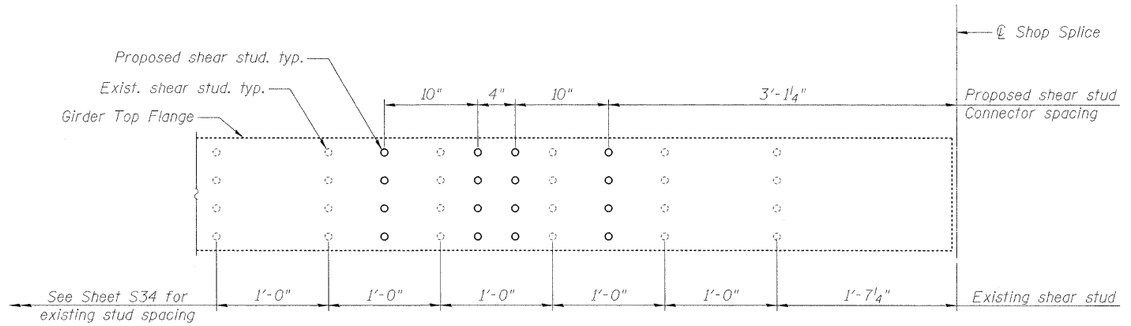
M_a: Factored design moment (kip-ft.).
$1.3\ [\ M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}\ (M\mathcal{L} + M_I)]$

M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

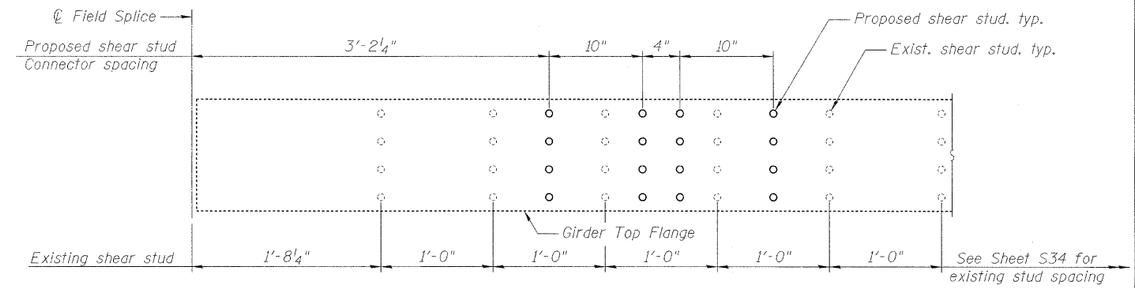
f_s (Overload): Sum of stresses as computed from the moments below (ksi).
$M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}\ (M\mathcal{L} + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M\mathcal{D} + M_s\mathcal{D} + \frac{5}{3}\ (M\mathcal{L} + M_I)]$

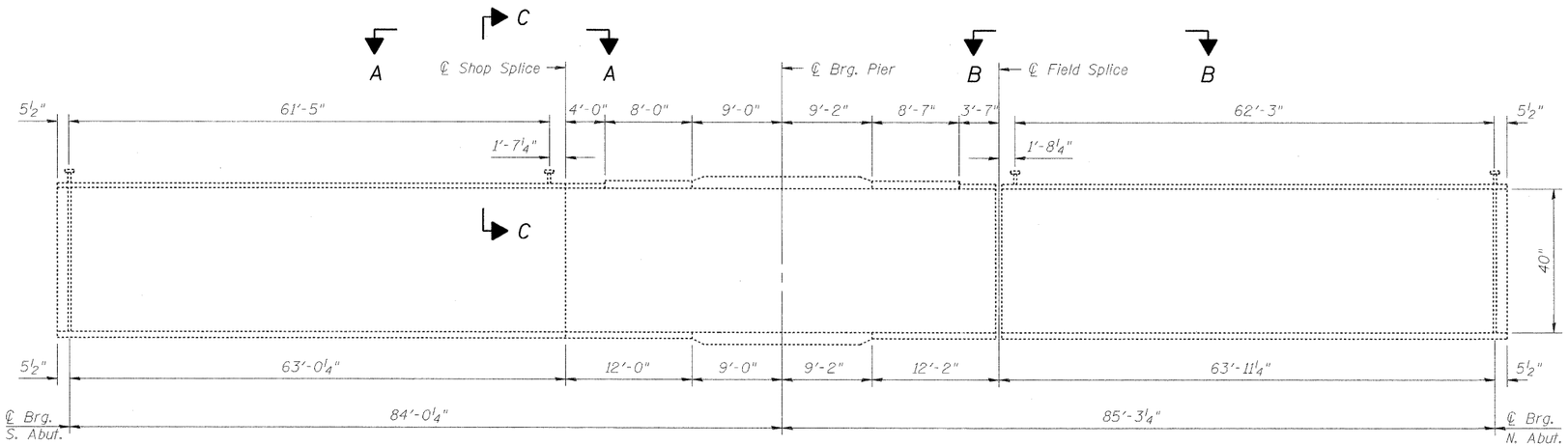
VR: Maximum $\mathcal{L}$ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



VIEW A-A

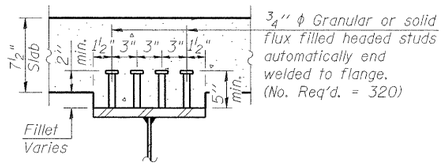


VIEW B-B



GIRDER ELEVATION

Note: Intermediate stiffeners not shown.



SECTION C-C

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ENTRAN					
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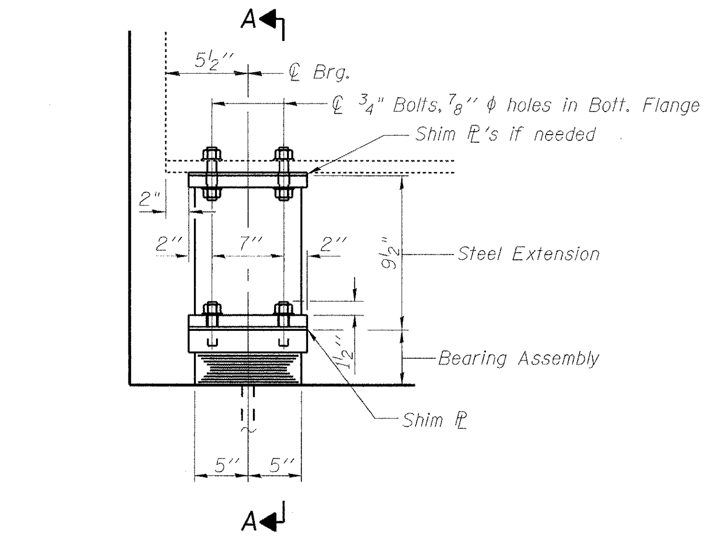
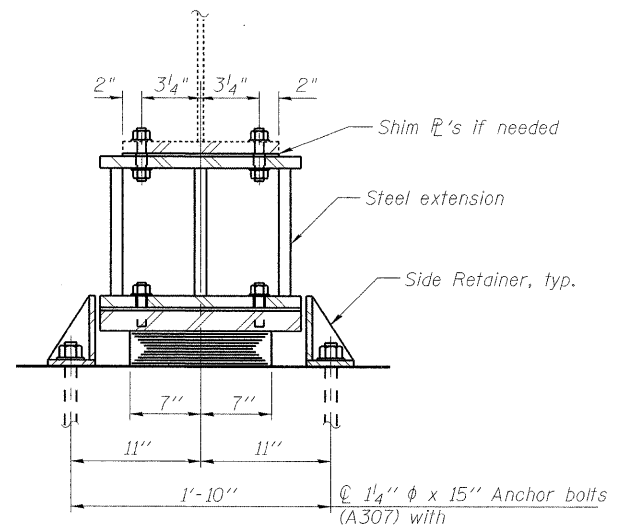
	CHECKED - BHS	REVISED -			
PLOT SCALE = N/A	DRAWN - TWO	REVISED -			
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -		SHEET NO. S23 OF 36 SHEETS	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	50
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

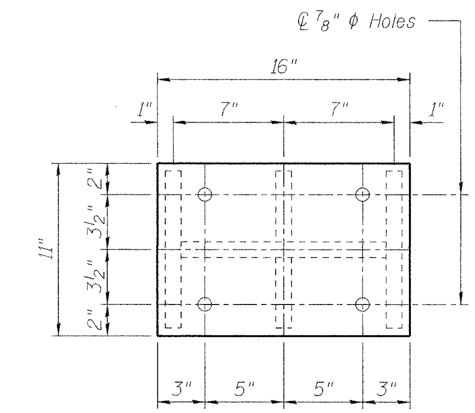


ELEVATION AT ABUT.

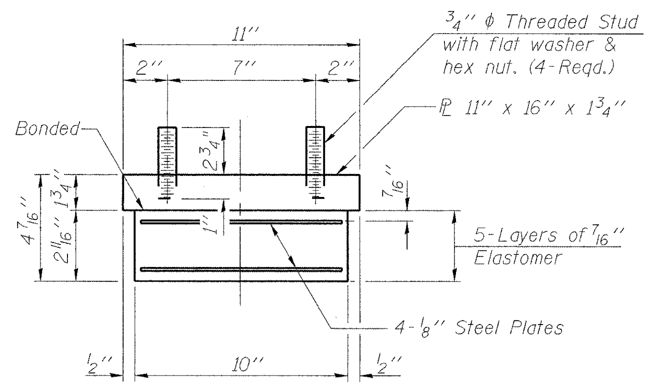


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



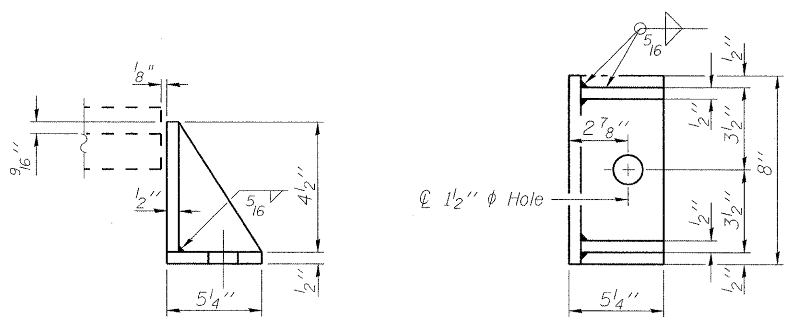
PLAN TOP AND BOTTOM PLATE



BEARING ASSEMBLY

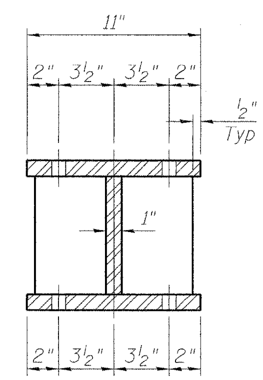
Note:
Shim plates shall not be placed under Bearing Assembly.

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.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
The Steel Extensions shall be paid for as Furnishing and Erecting Structural Steel.
Existing top bearing plate welded to the existing beam must be removed. Contractor must exercise caution as to not damage bottom flange. Existing top plate to be removed using the air-arc method and grind smooth all weld material remaining on the bottom flange.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

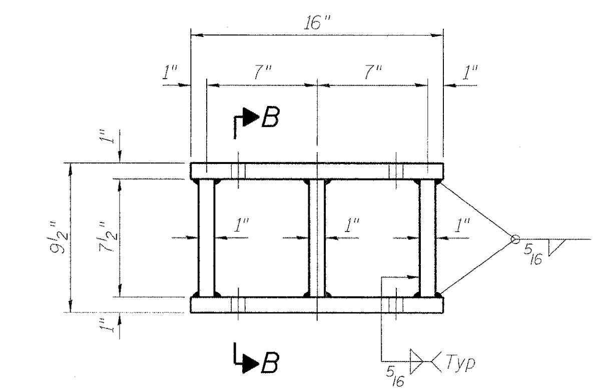


SIDE RETAINER

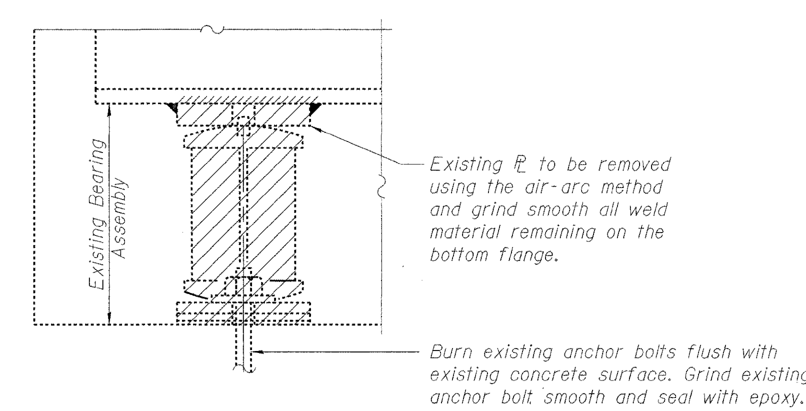
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Structural Steel	Pound	3,850
Elastomeric Bearing Assembly Type I	Each	20
Anchor Bolts 1¼"	Each	40
Jack and Remove Existing Bearings	Each	20

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ENTRAN

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PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

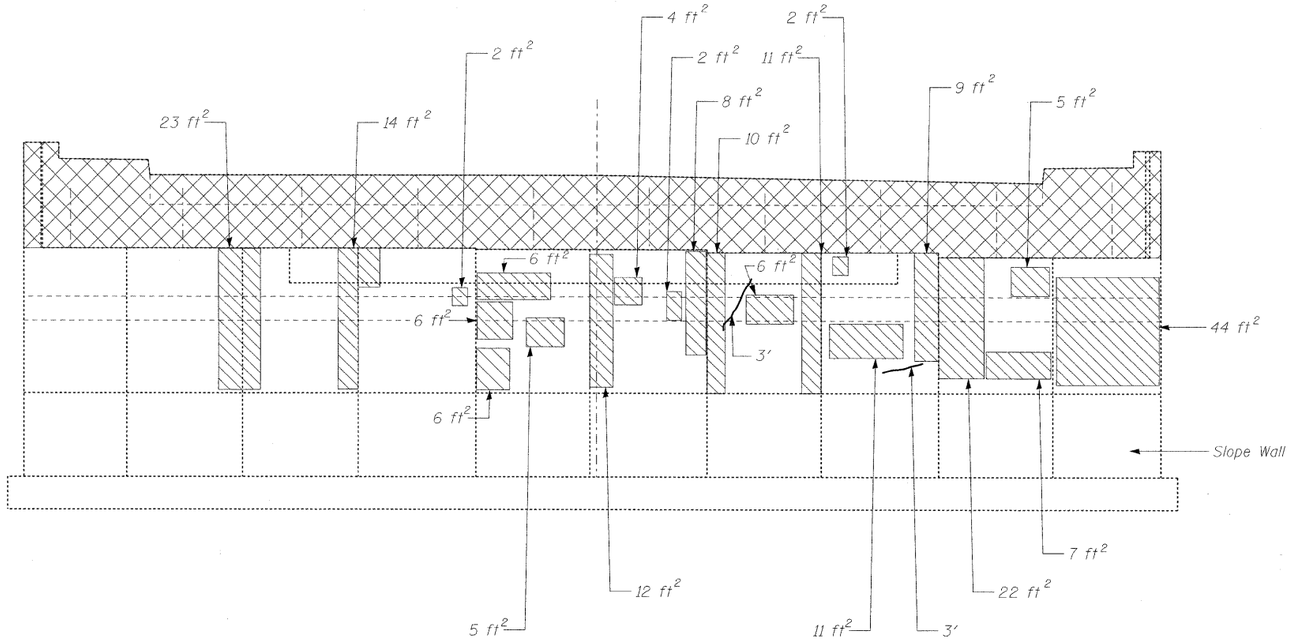
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 016-1015

SHEET NO. S24 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	51
		CONTRACT NO. 60863		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

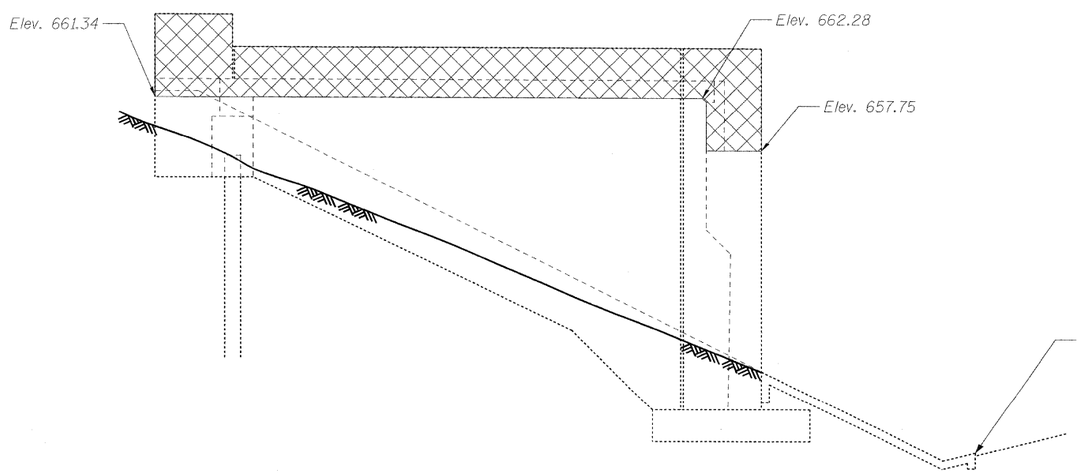


SOUTH ABUTMENT ELEVATION

(Looking South)

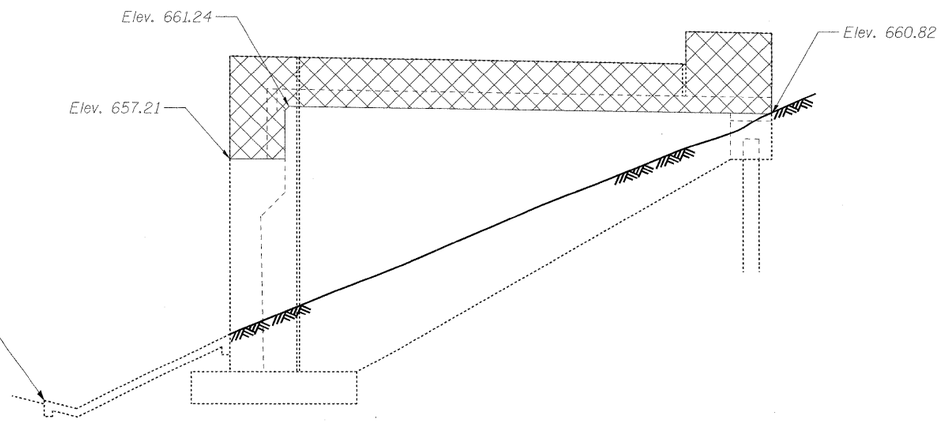
BILL OF MATERIAL

	Item Description	Unit	Quantity
	Concrete Removal	Cu. Yd.	26.0
	Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	215
	Epoxy Crack Injection	Foot	6



SOUTHEAST WINGWALL ELEVATION

(Looking West)



SOUTHWEST WINGWALL ELEVATION

(Looking East)

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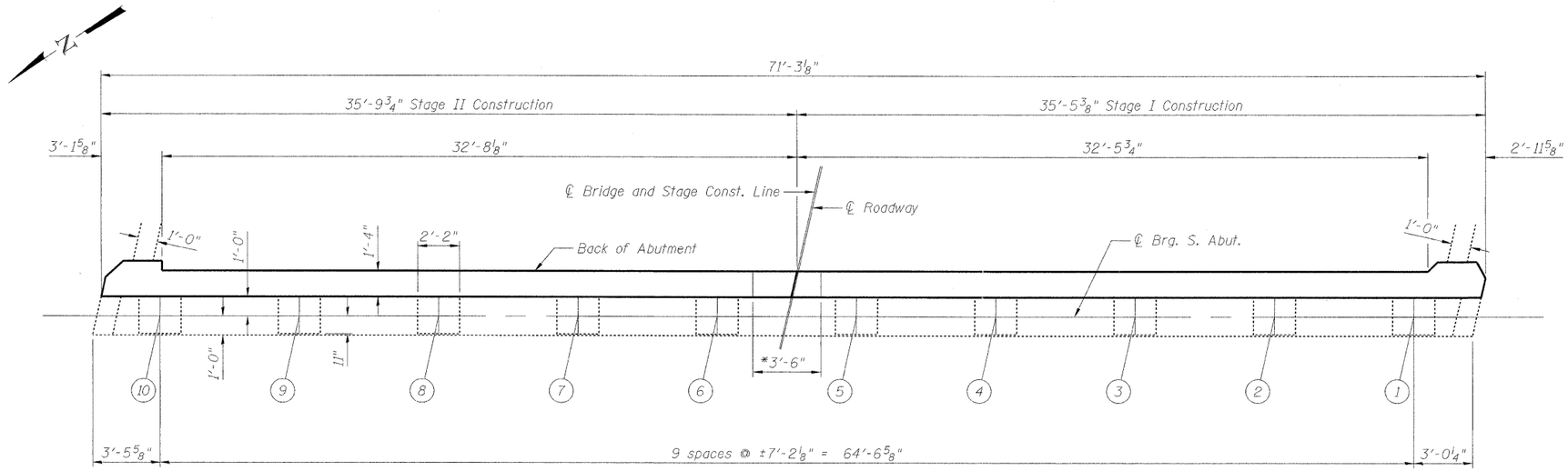
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

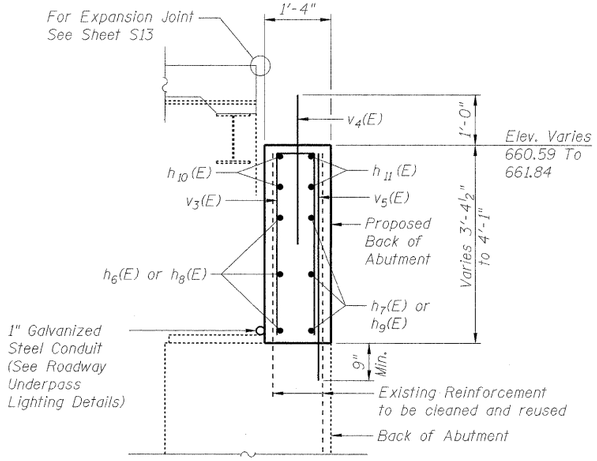
SOUTH ABUTMENT REPAIR
STRUCTURE NO. 016-1015
SHEET NO. S25 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	52
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

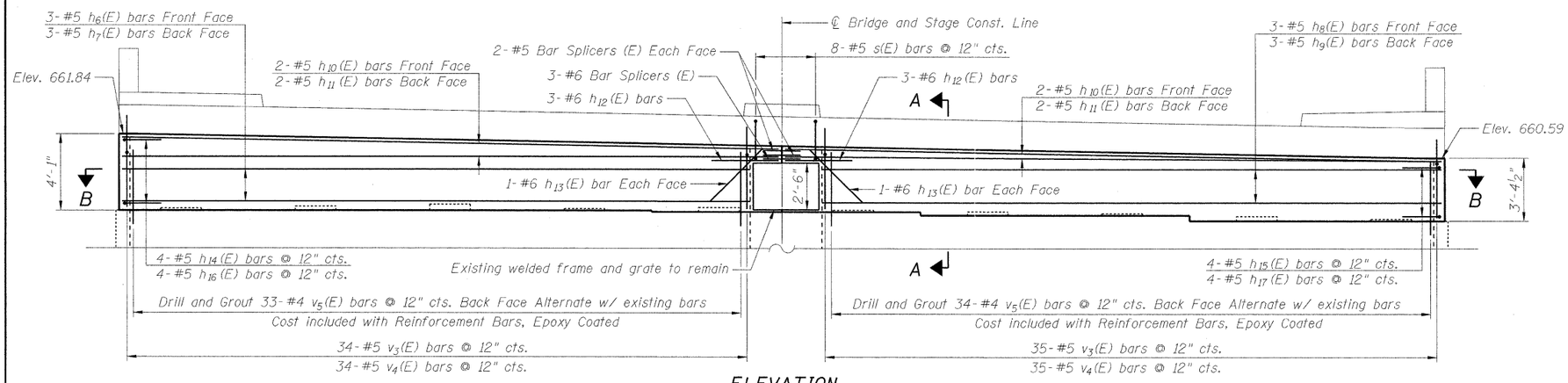


PLAN

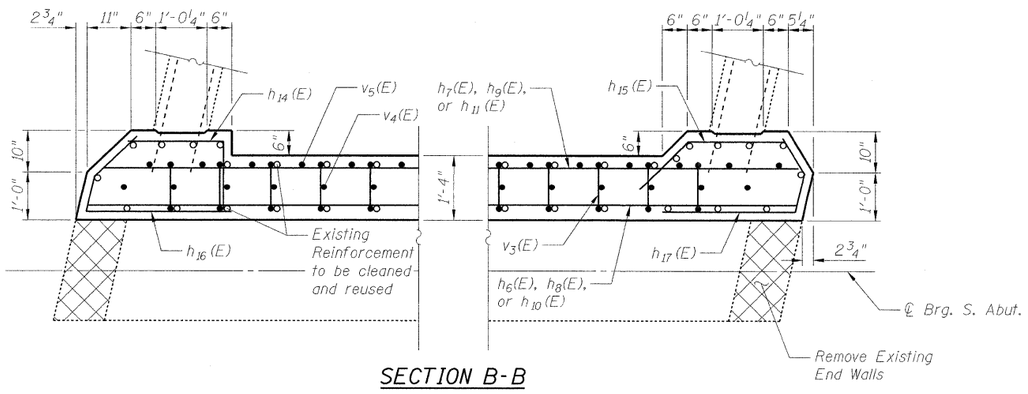
*Location of welded frame and grate to be verified in the field prior to ordering h_6(E) thru h_9(E) bars.



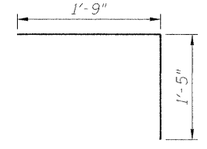
SECTION A-A



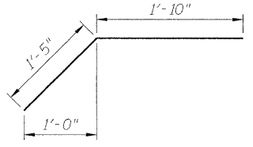
ELEVATION



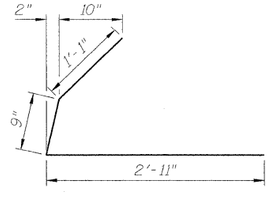
SECTION B-B



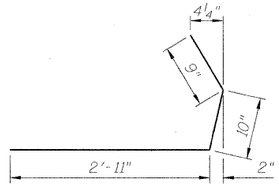
BAR h_{14}(E)



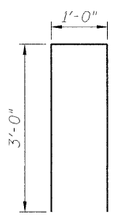
BAR h_{15}(E)



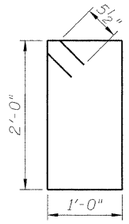
BAR h_{16}(E)



BAR h_{17}(E)



BAR v_3(E)



BAR s(E)

SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_6(E)	3	#5	33'-2"	
h_7(E)	3	#5	32'-9"	
h_8(E)	3	#5	33'-7"	
h_9(E)	3	#5	33'-9"	
h_{10}(E)	4	#5	35'-2"	
h_{11}(E)	4	#5	35'-0"	
h_{12}(E)	6	#6	6'-0"	
h_{13}(E)	4	#6	4'-0"	
h_{14}(E)	5	#5	3'-2"	
h_{15}(E)	4	#5	3'-3"	
h_{16}(E)	5	#5	4'-9"	
h_{17}(E)	4	#5	4'-6"	
s(E)	8	#5	6'-11"	
v_3(E)	69	#5	7'-0"	
v_4(E)	69	#5	3'-0"	
v_5(E)	67	#4	3'-11"	
Reinforcement Bars, Epoxy Coated			Pound	1,810
Concrete Structures			Cu. Yd.	12.9

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PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

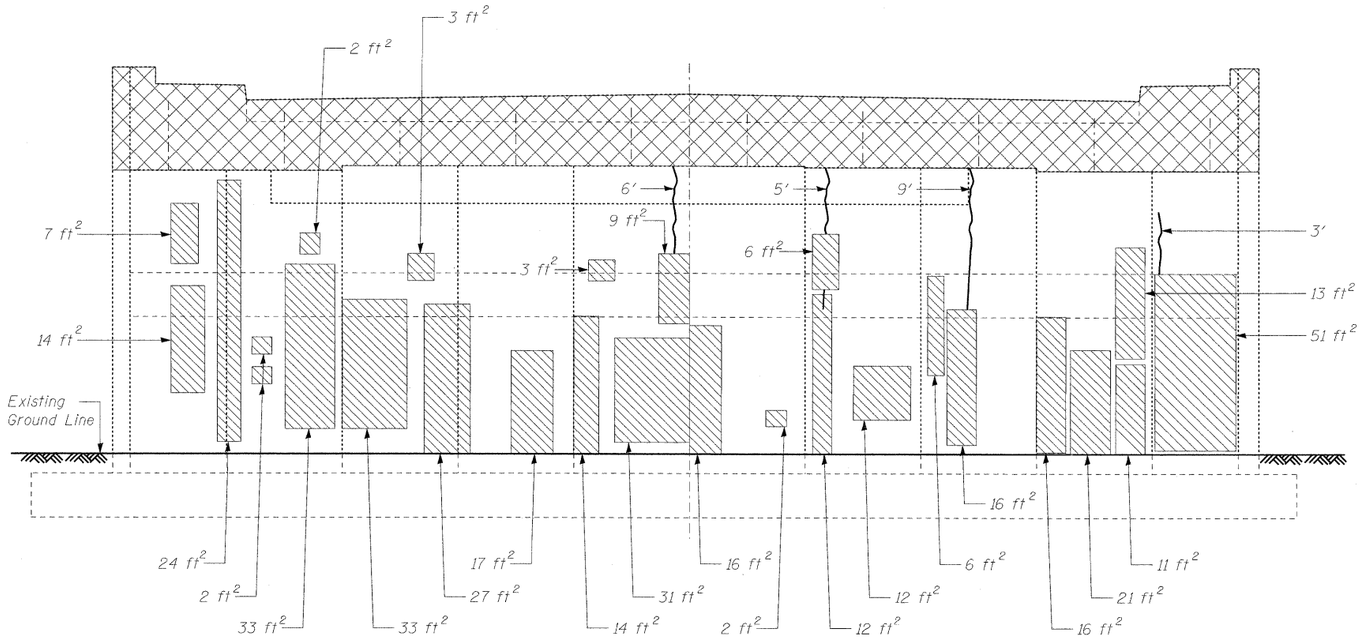
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT BACKWALL RECONSTRUCTION
STRUCTURE NO. 016-1015
SHEET NO. S26 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	53
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

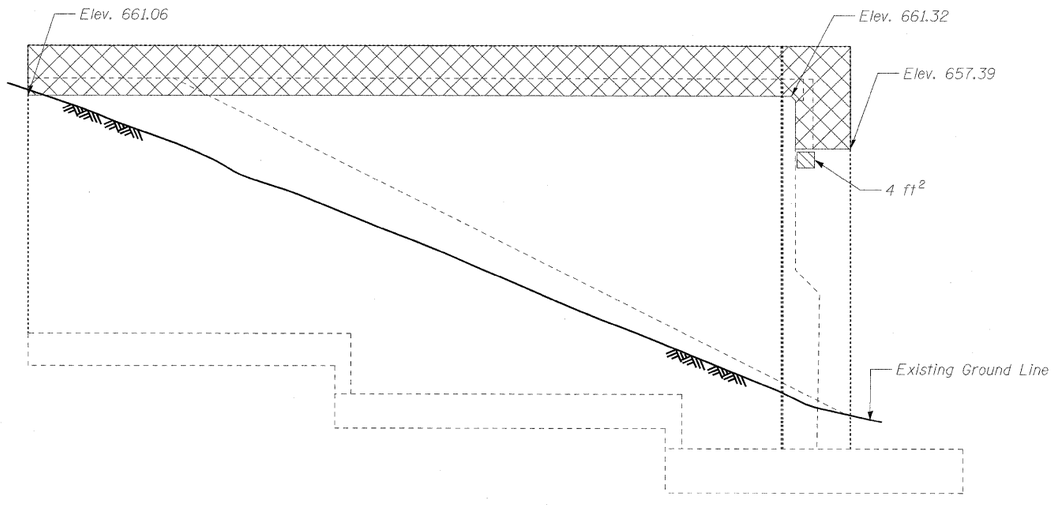
BILL OF MATERIAL

	Item Description	Unit	Quantity
	Concrete Removal	Cu. Yd.	26.4
	Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	432
	Epoxy Crack Injection	Foot	23



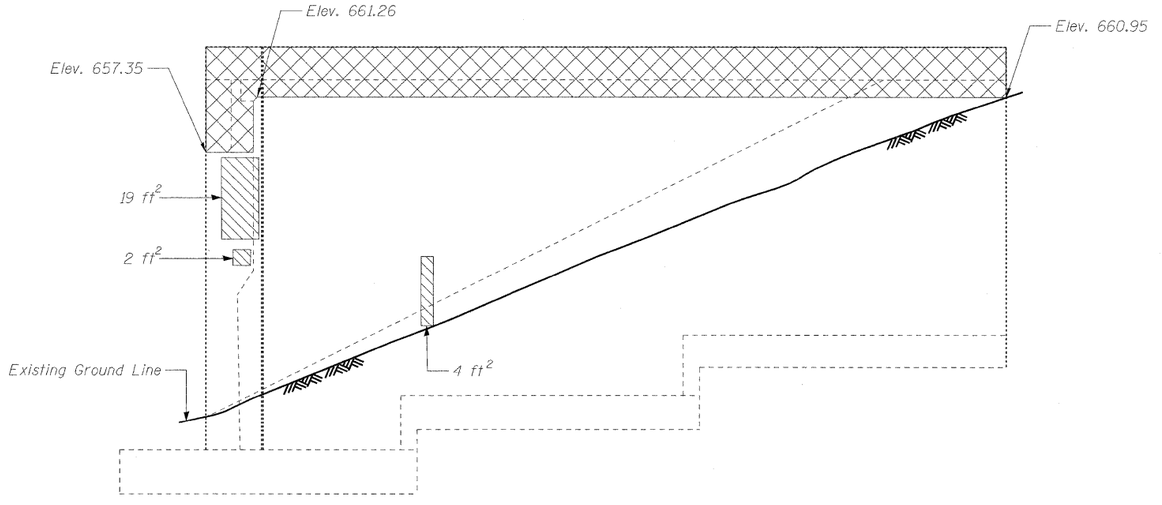
NORTH ABUTMENT ELEVATION

(Looking North)



NORTHWEST WINGWALL ELEVATION

(Looking East)



NORTHEAST WINGWALL ELEVATION

(Looking West)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT REPAIR
STRUCTURE NO. 016-1015
SHEET NO. 527 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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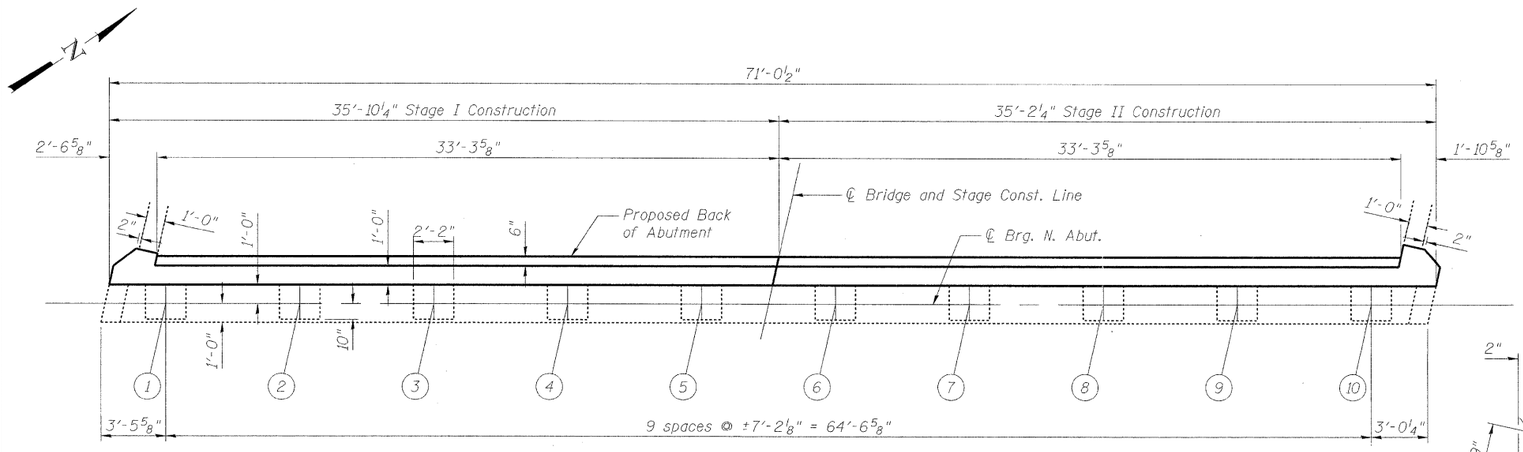
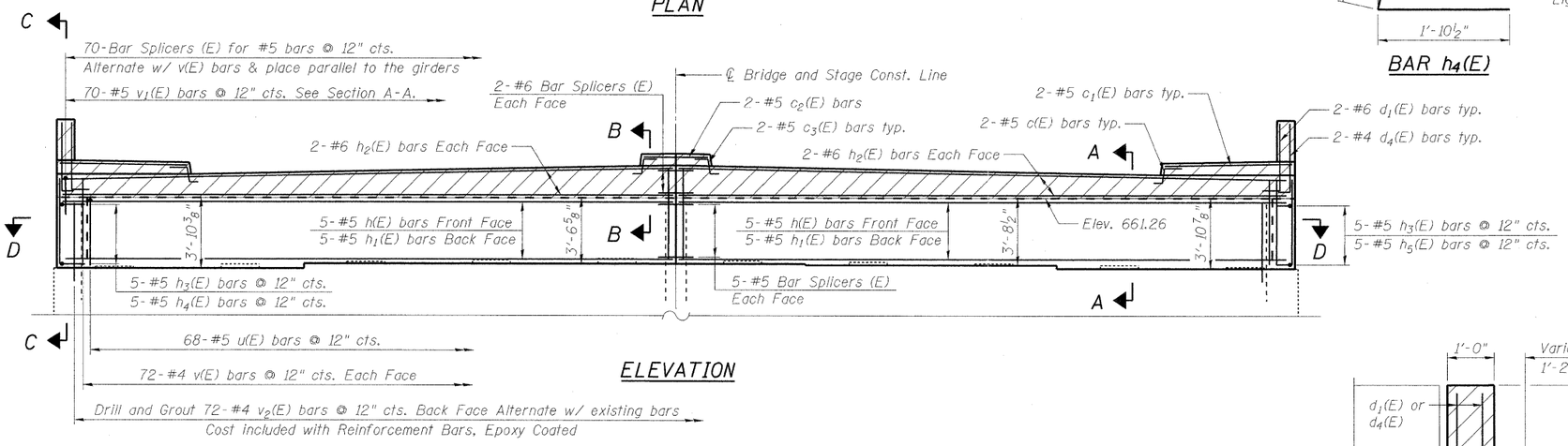
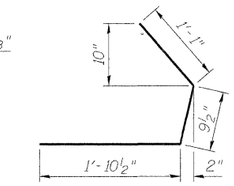
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



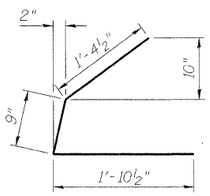
PLAN



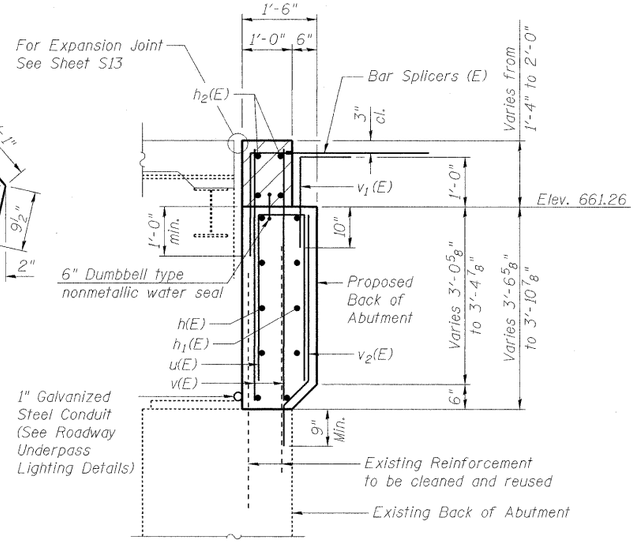
ELEVATION



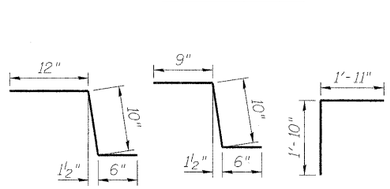
BAR h5(E)

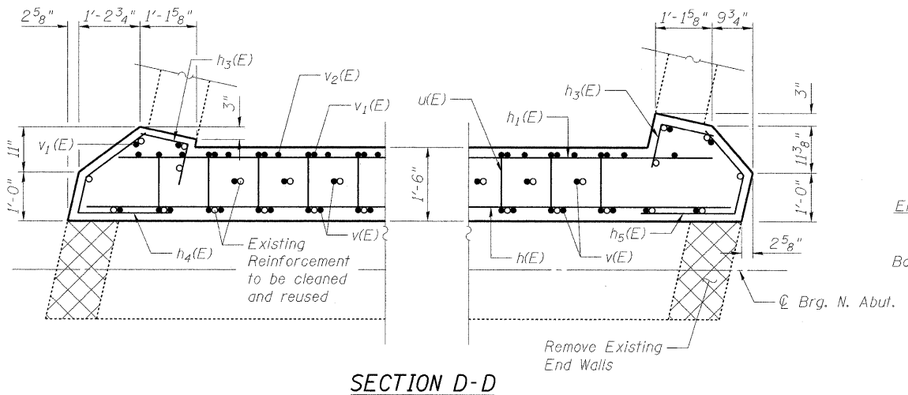


BAR h4(E)



SECTION A-A





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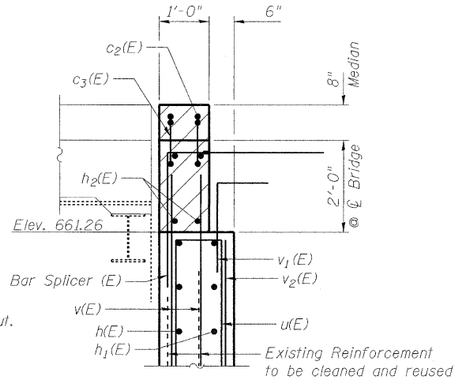
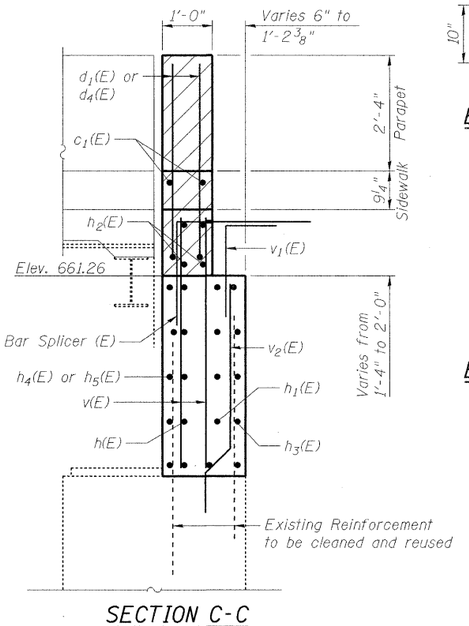
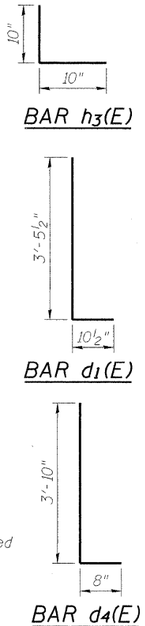


SECTION B-B



SECTION C-C



NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
c(E)	4	#5	2'-4"	
c1(E)	4	#5	7'-0"	
c2(E)	2	#5	3'-6"	
c3(E)	4	#5	2'-1"	
d1(E)	4	#6	4'-4"	
d4(E)	4	#4	4'-6"	
h(E)	10	#5	35'-2"	
h1(E)	10	#5	34'-9"	
h2(E)	8	#6	35'-2"	
h3(E)	10	#5	1'-8"	
h4(E)	5	#5	4'-0"	
h5(E)	5	#5	3'-9"	
u(E)	68	#5	6'-6"	
v(E)	144	#4	4'-10"	
v1(E)	70	#5	4'-9"	
v2(E)	72	#4	4'-3"	
Reinforcement Bars, Epoxy Coated			Pound	2,780
Concrete Structures			Cu. Yd.	14.7
Concrete Superstructure			Cu. Yd.	5.1

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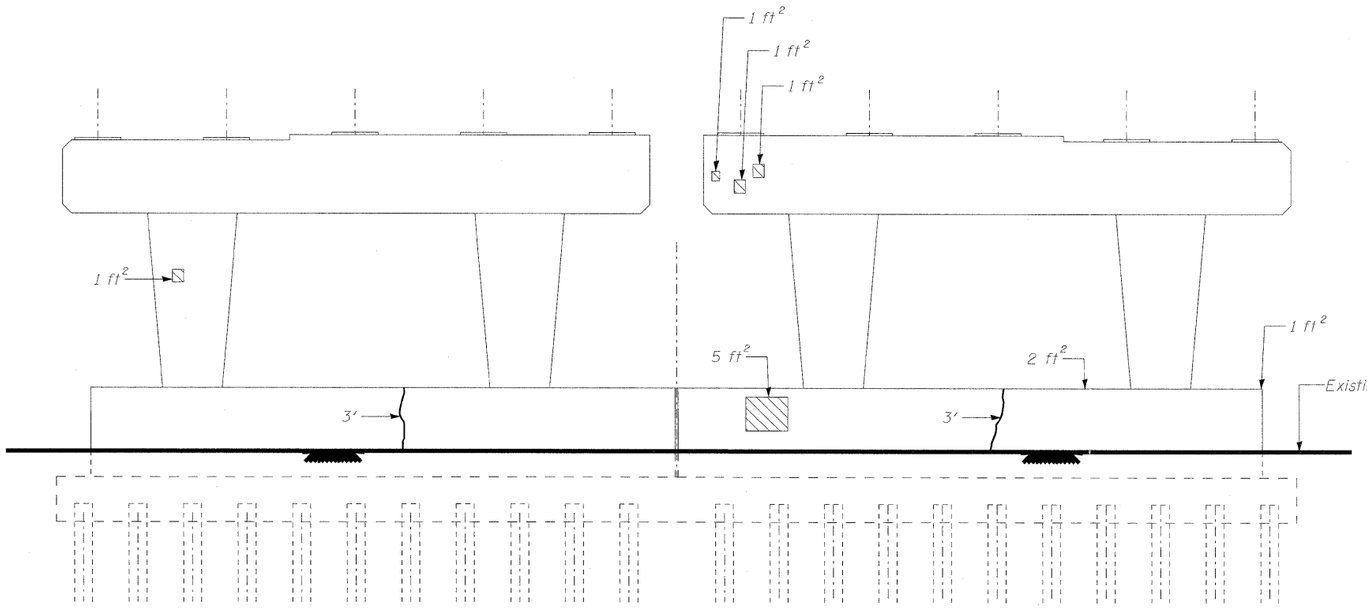
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT BACKWALL RECONSTRUCTION
STRUCTURE NO. 016-1015
SHEET NO. S28 OF 36 SHEETS

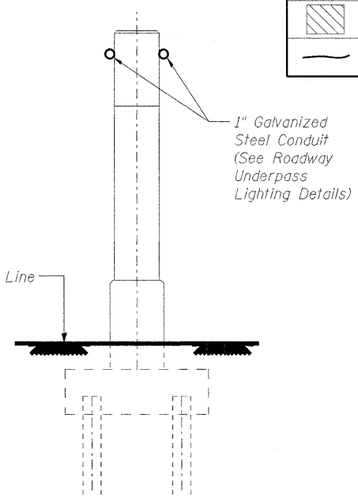
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	55
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BILL OF MATERIAL

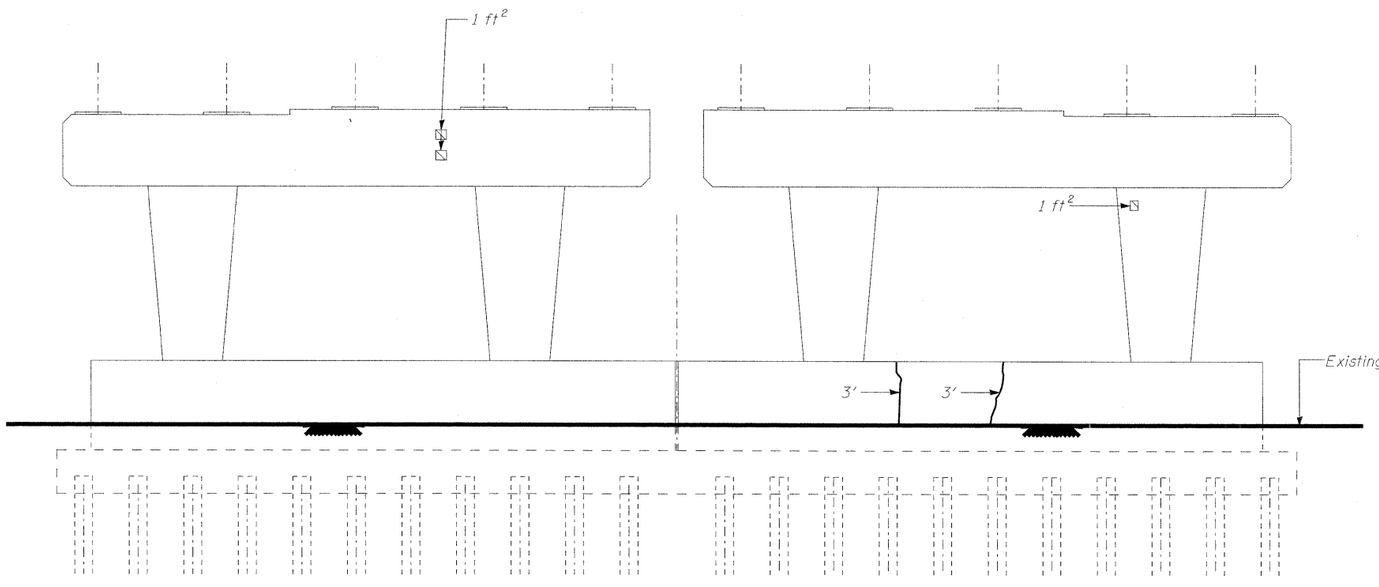
	Item Description	Unit	Quantity
▨	Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	17
⁓	Epoxy Crack Injection	Foot	12



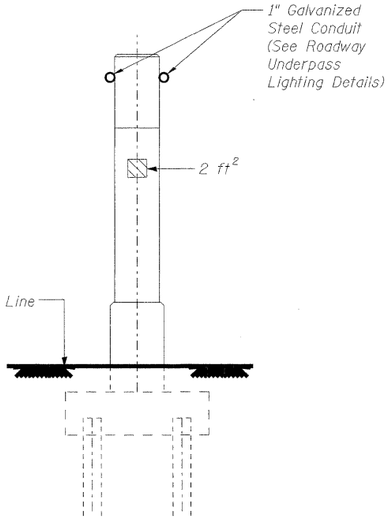
SOUTH ELEVATION
(Looking North)



END VIEW
(Looking West)



NORTH ELEVATION
(Looking South)



END VIEW
(Looking East)

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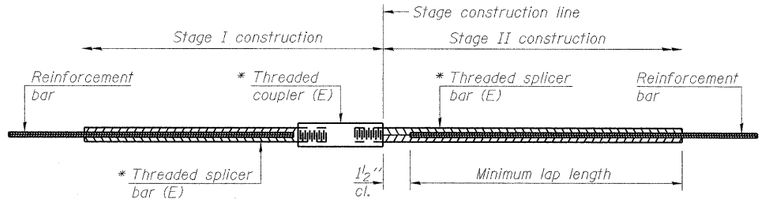
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR
STRUCTURE NO. 016-1015
SHEET NO. S29 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.IB	COOK	75	56
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

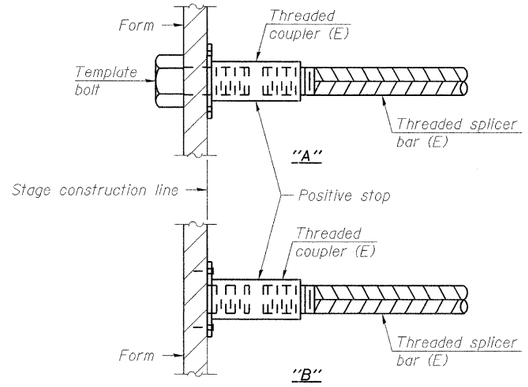
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

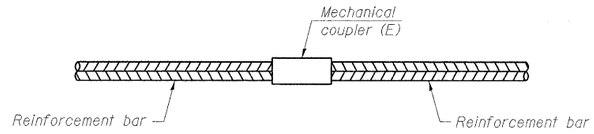
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	560	Table 3
Vaulted Span	#5	68	Table 4
Approach Slabs	#4	51	Table 3
Approach Slabs	#5	92	Table 3
Approach Footing	#5	80	Table 3
South Abutment	#5	4	Table 3
South Abutment	#6	3	Table 3
North Abutment	#5	10	Table 4
North Abutment	#6	4	Table 3



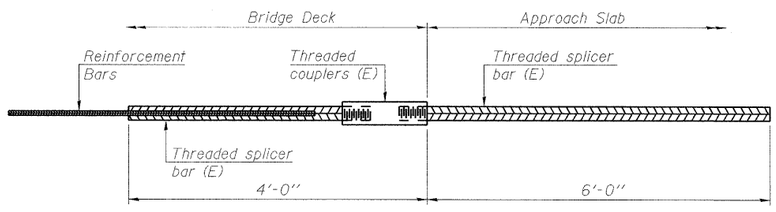
INSTALLATION AND SETTING METHODS

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



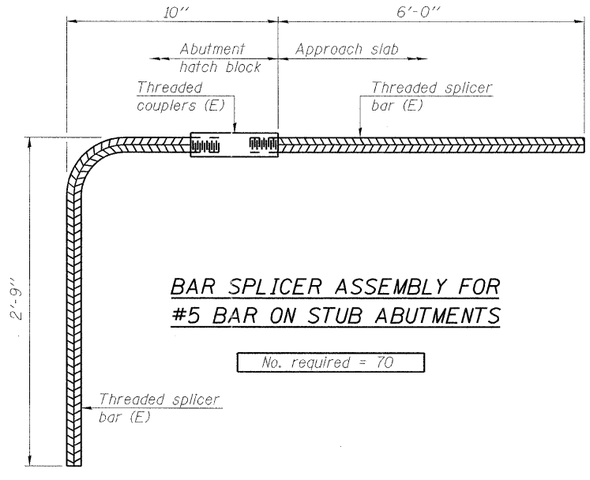
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 46



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 70

NOTES

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

BSD-1

7-1-10

FILE NAME = g:\pro_jects\2102165.20A\roads\structure\sh\V0151015.60863.030.Splicer.dgn

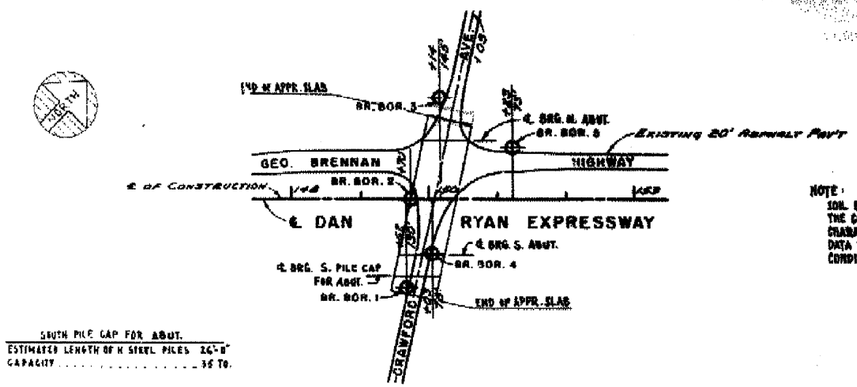
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY
STRUCTURE NO. 016-1015
SHEET NO. 530 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	57
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SOUTH PILE CAP FOR ABUT.
ESTIMATED LENGTH OF H STEEL PILES 26'-0"
CAPACITY ..... 35 TO.

EL. 669.5 - BOTTOM OF SOUTH PILE CAP @ HIGHEST PILE

NOTE:
SOIL BORINGS AT DESIGNATED LOCATIONS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR TO SHOW THE PROBABLE CHARACTERISTIC OF THE SOIL IN THE AREA. USE OF THIS BORING DATA BY THE CONTRACTOR TO EVALUATE CONSTRUCTION CONDITIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

BORING PLAN
SCALE 1"=100'

AVERAGE RESULTS OF LABORATORY TESTS

TEXTURAL CLASSIFICATION	P.R.A. CLASS.	GRADATION % OF TOTAL					PHYSICAL TEST CONSTANTS							NO. OF SAMPLES TESTED
		COARSE AGG.	COARSE SAND	FINE SAND	SILT	CLAY	L.L.	P.L.	P.I.	F.M.E.	S.L.	S.R.	L.S.	

LEGEND
EXISTING PROFILE
PROPOSED GRADE LINE
WATER TABLE
BORINGS IN PLAN
BORINGS IN PROFILE

BRIDGE BORINGS
VERT. SCALE 1"=5'

BORING NO. 1
AT CRAWFORD AVE.

BLOWS PER FOOT	U.C.S. TONS PER SQ. FT.	% MOIST. OVEN DRY WT.	DEPTH IN FEET	TYPE OF SOIL
14	—	20.0	0.0	Bit. Clay EL. 650.38 (71.1)
				Bit. Clay
37	4.1	14.9	2.0	Very Stiff
42	6.7	16.7		
44	8.4	17.3		Bit. Clay Hard
44	4.8	19.4		
57	4.5	19.6		
36	4.2	19.7		
34	4.2	18.0	16.0	
15	2.5	19.1		Grey Clay Very Stiff
18	2.7	20.0		
15	2.5	22.3		
13	2.6	19.0	24.0	
36	4.1	18.7		Grey Gravel Clay Lm. Hard
32	4.1	18.4		
48	4.1	16.3	30.0	
41	—	18.5		Grey Gravel & Sandy Lm. Wet - Dense
45	—	16.0		
50	—	16.6	36.0	
22	2.5	22.6	38.0	Grey Clay Very Stiff
20	3.0	20.0	40.0	Grey Gravel & Clay Lm. Very Stiff

Date of Boring : April 7, 1965

BORING NO. 2
AT CRAWFORD AVE.

BLOWS PER FOOT	U.C.S. TONS PER SQ. FT.	% MOIST. OVEN DRY WT.	DEPTH IN FEET	TYPE OF SOIL
6	—	24.9	0.0	Bit. Clay EL. 651.19 (71.8)
34	5.3	17.1		Bit. Clay
32	5.5	21.4	2.0	Stiff
54	4.6	20.9		Bit. Clay Hard
79	8.2	18.4		
48	6.3	19.1		FOUNDATION FOR PIER.
49	8.9	17.9		ESTIMATED LENGTH OF H STEEL PILES 27'-0"
70	5.7	19.2		CAPACITY ..... 57 TO.
13	2.0	18.3	16.0	EL. 636.0 - BOTTOM OF PIER FOOTING
13	1.9	20.5		
13	1.6	19.6		Grey Clay Stiff
16	1.5	20.6		
16	1.5	18.0		
21	1.8	19.2	28.0	
25	3.0	17.6		Grey Clay Very Stiff
32	4.0	17.7	32.0	
20	—	18.9		Grey Gravel & Cement Sandy Loam - Moist Medium Dense
16	—	18.2		
20	—	18.0		
28	—	18.9	40.0	
60	4.5	20.2		Grey Gray Silty Lm. & Boulders - Hard
35	4.5	19.7	46.0	

Date of Boring : March 12, 1965

BORING NO. 3
AT CRAWFORD AVE.

BLOWS PER FOOT	U.C.S. TONS PER SQ. FT.	% MOIST. OVEN DRY WT.	DEPTH IN FEET	TYPE OF SOIL
6	—	19.1	0.0	Bit. Clay EL. 648.03 (69.8)
40	5.5	18.7		Bit. Brown Clay
66	6.1	19.0	2.0	Stiff
48	5.7	19.0		Bit. Brown Clay
51	6.1	19.2	4.0	Hard
27	4.3	20.0		Bit. Clay
26	4.1	20.2		Mixed
27	5.5	19.0		
16	2.8	20.4		
21	2.6	19.8		
51	3.0	21.2	14.0	EL. 634.6 - BOTTOM OF SPREAD-FOOTING FOR N. ABUT. SEE BORING NO 5
20	1.8	18.4		
23	1.9	11.2		Grey Clay Very Stiff
27	—	10.6		
30	—	15.3		
25	—	15.3		
22	2.8	18.8	22.0	Grey Gravel & Sandy Clay Loam - Stiff
25	2.7	14.6		
27	—	19.2	27.0	Grey Gravel & Co. Sandy Lm, Moist - Med. Dense
36	2.8	17.9		
25	4.0	18.8	32.0	Grey Green Clay Very Stiff
27	4.1	20.0		
28	4.1	18.9	36.0	Grey Fine Sandy Loam Wet - Dense
				Grey Silty Loam Very Stiff
			44.0	
				Grey Silty Loam Hard
			50.0	

Date of Boring : March 25, 1965

BORING NO. 4
AT CRAWFORD AVE.

BLOWS PER FOOT	U.C.S. TONS PER SQ. FT.	% MOIST. OVEN DRY WT.	DEPTH IN FEET	TYPE OF SOIL
6	—	13.2	0.0	Bit. Clay EL. 650.37 (71.7)
26	3.5	18.7		Bit. Clay - Stiff
17	3.6	18.4	2.0	Bit. Clay Very Stiff
35	6.1	19.8	6.0	
63	6.8	19.9		Bit. Clay - Hard
64	6.8	20.1		EL. 641.5 - BOTTOM OF SPREAD-FOOTING FOR SOUTH ABUT. MAXIMUM p = 4000 psf.
98	4.5	19.7	14.0	
66	4.9	19.2		Grey Clay Hard
97	5.6	19.1		
96	6.4	20.4		
97	4.2	18.4	18.0	
19	—	18.6		Grey Black Co. Sandy Lm, Wet - Very Dense
14	—	21.6	26.0	
23	2.7	19.8		Grey Green Clay Very Stiff
37	2.6	16.8	28.0	Grey Variegated Sandy Clay Lm. - Very Stiff
19	2.6	17.5	30.0	Grey Clay Very Stiff
38	—	18.6	32.0	Grey Gravel & Cement Sandy Lm, Wet - Dense
31	—	14.1		
14	1.5	23.8	36.0	Grey Silty Loam Stiff
24	1.8	22.8		
26	1.8	18.7	42.0	
58	3.0	19.6		Grey Silty Loam Very Stiff
68	4.0	18.4		
52	3.0	18.2		
68	3.5	18.1		
32	—	18.6	51.0	
34	—	16.5		Grey Fine Sandy Lm. Wet - Dense
62	—	18.7		
46	—	18.6	58.0	
50	2.0	18.2	60.0	Grey Silty Loam Very Stiff

Date of Boring : March 31, 1965

BORING NO. 5
AT CRAWFORD AVE.

BLOWS PER FOOT	U.C.S. TONS PER SQ. FT.	% MOIST. OVEN DRY WT.	DEPTH IN FEET	TYPE OF SOIL
5	—	22.8	0.0	Bit. Clay EL. 643.19 (70.2)
38	4.4	19.1	2.0	Bit. Clay - Stiff
34	3.5	18.7		Bit. Clay Hard
38	6.3	17.9	8.0	
58	6.4	17.7		Grey Clay Mixed
59	5.6	17.0		
38	4.2	19.8		
30	4.1	16.8	16.0	EL. 636.0 - BOTTOM OF SPREAD-FOOTING FOR NORTH ABUT. MAXIMUM ALLOWABLE SOIL PRESSURE - 4000 psf
20	2.5	18.8		Grey Clay Very Stiff
20	2.9	19.1		
24	2.7	19.9		
26	3.7	19.3		
36	3.1	19.1	28.0	
31	—	16.0		Grey Gravel Co. Sandy Lm. Wet - Dense
30	—	18.0		
32	—	19.6	32.0	
23	3.0	19.2		Grey Clay Very Stiff
23	3.1	19.3	36.0	
18	—	20.3		Grey Gravel Co. Sandy Lm. Wet - Dense
41	—	18.8	41.0	
41	3.0	19.9		Grey Silty Loam Very Stiff
41	3.1	20.4	44.0	
16	1.8	24.4		
15	1.5	25.6		Grey Silty Loam Stiff
14	1.5	19.0		
24	1.7	20.6		
22	1.7	19.0	54.0	
35	3.3	17.2		Grey Gravel Co. Sandy Lm. Very Dense
78	4.0	16.0	58.0	
26	—	22.9	60.0	Grey Clay Soft Wet - Seams

Date of Boring : March 26, 1965

DEPARTMENT OF HIGHWAYS
COOK COUNTY ILLINOIS

RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

SOIL BORINGS
CRAWFORD AVE GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED
DRAWN
CHECKED A. Gilyard
APPROVED
PROJECT I-57-7(154) 349
SCALE
APPROVED
CHIEF ENGINEER

Route	County Highway Section Number	Sheet No.	Total Sheets	Drawing No.
57	068-1112	5	69	SB 2481-5

FILE NAME = g:\projects\2012155.02A\cadd\structure\sht\0161015_60863_030A_Borings.dgn

ENTRAN

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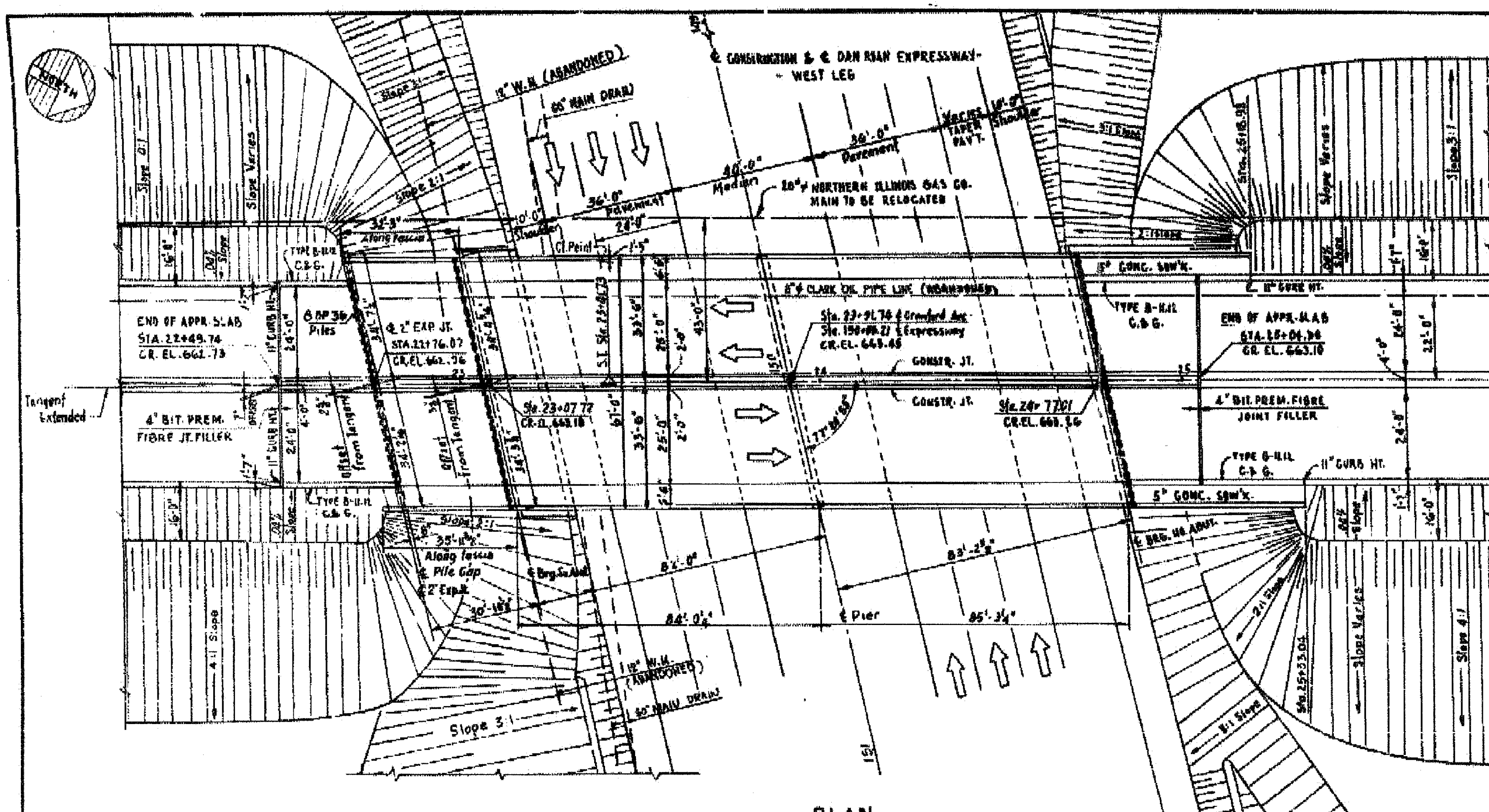
	CHECKED - BHS	REVISED -
PLOT SCALE = N/A	DRAWN - TWO	REVISED -
PLOT DATE = 6/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SOIL BORINGS
STRUCTURE NO. 016-1015
SHEET NO. 30A OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	57A
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



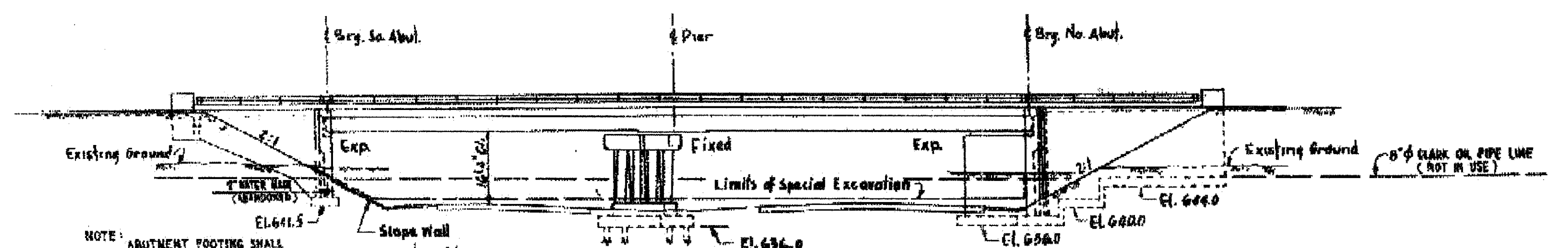
PLAN
Scale: 1" = 20'

CURVE DATA

Δ =	32°-31'-48"	Δc =	24°-35'-18"
Ls =	175.00'	D =	4°-30'-00"
Ts =	459.551'	Lc =	547.895'
Es =	54.138'	R =	1273.57'
θs =	3°-56'-15"	S =	0.06'
Xc =	174.916'		
Yc =	4.0075'		

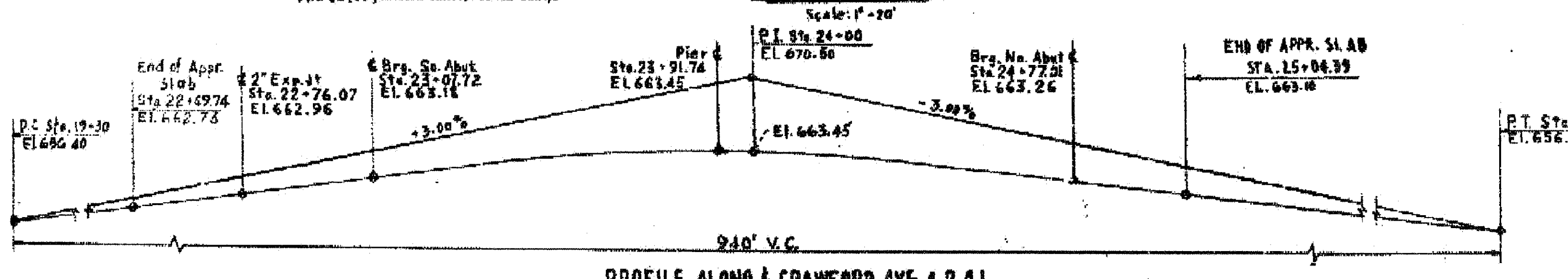
BENCH MARK 23C-167TH STR. & CRAWFORD AVE

A STANDARD COUNTY BENCH MARK 44.7' SOUTH AND 30' EAST OF SURVEY MARKER AT CENTER OF INTERSECTION OF 167TH & CRAWFORD
C.C.H.D. EL. 664.956



NOTE: ABUTMENT FOOTING SHALL NOT BE PLACED UNTIL CONSTRUCTION OF MAIN DRAIN IS COMPLETED, BETWEEN STA. 149+50 AND STA. 150+40

EAST ELEVATION
Scale: 1" = 20'



PROFILE ALONG C CRAWFORD AVE. & P.G.L.

DESIGN DATA

LOADING:

Live Load	HS20-44
Future Load	3" of Bituminous Wearing Surface

SPECIFICATIONS:

DESIGN	A.A.S.H.O. Specifications for Highway Bridges, 1961 and as amended to date.
CONSTRUCTION & MATERIALS	Standard Specifications for Road and Bridge Construction of the State of Illinois, 1958
	Supplemental Specifications, 1966
WELDING	A.W.S. STANDARD SPECIFICATIONS for Welded Highway and Railway Bridges, 1963 and Addenda of March, 1965.

ALLOWABLE STRESSES:

fs	Structural Steel (A.S.T.M.-A36)	20,000 p.s.i.
fc	Flexural Compressive Stress of Concrete	1,400 p.s.i.
fs	Reinforcement Bars	20,000 p.s.i.
fc	Compressive Stress of Concrete with Earth Pressure	1,000 p.s.i.
	Equivalent Fluid Pressure	40 p.s.f.
n = 10		

SUPERSTRUCTURE:

All girders are designed as 2-span continuous plat girders with Composite action in the positive moment area.
Maximum Live load deflection = L/1200.
Shear connectors shall be automatically welded studs.

FOUNDATION:
Abutments are supported on Spread Footings. Maximum allowable soil pressure = 4000p.s.f. Pier and Pile Cap for abutment are supported on H Bearing Piles. Piles are 8BP36. Bearing capacity of piles: For Pier - 37 tons, for South Pile Cap for abutment -- 35 tons.

GENERAL NOTES:
Class "X" Concrete shall be used throughout. The concrete deck slab shall be placed in one continuous operation from expansion joint to expansion joint. Pour the slab full width with horizontal joints and a 4 inch wide joint sealant between the slab and the curbs and bonded construction joints as shown. Finishing of the deck slab shall be as specified in the Article 51.19 of the Standard Specifications.

After concrete is cured, finished and the surfaces are clean and dry, the exposed surfaces of the deck slab, approach slabs, curbs, sidewalks and parapet walls shall be given a protective coat. See Supplemental Specifications Article 52.14A.

Permanent forms will not be permitted in forming concrete deck slabs. All concrete shall be chamfered 3/4" unless otherwise shown or noted on plans.

Handrail Parapet Wall Concrete shall be free from chart, flint, limonite, lignite, and soft sandstone.

Exposed surfaces of the abutment walls and retaining walls shall be given a rubbed finish in accordance with Article 52.13 of the Standard Specifications.

The part of the Abutments and Retaining Walls that are in contact with earth or embankment material shall be covered with waterproofing in accordance with Article 51.21 of the Standard Specifications.

The cost of rubbed finish, waterproofing, rubber waterseals and the bituminous premoulded fibre joint fillers shall be included in the contract unit bid price forClass "X" Concrete.

The Contractor shall adequately support, brace and protect bituminous premoulded fibre joint filler during construction, so that it does not become torn and distorted. The Contractors method of supporting, bracing and protecting the bituminous premoulded fibre joint filler shall be approved by the Engineer. The rubber waterseal shall be spliced as recommended by the manufacturer.

For "Bridge Seat Sealant" see Special Provisions.

STRUCTURAL STEEL:

All structural steel shall conform to the requirements of A.S.T.M.-A36 except as otherwise shown or noted.

Welding shall be in accordance with current Specifications for Welded Highway and Railway Bridges of the American Welding Society and as noted on the Plans and in the Special Provisions.

The Bridge Seats shall be constructed to the exact Elevations shown. If bush hammering or grinding is necessary this work shall be done at no additional cost to the County.

REINFORCEMENT BARS:

All Reinforcement Bars shall conform to A.S.T.M. A 305-56T as amended to date and shall comply with A.S.T.M. A15-58T Specification.
Reinforcement Bars shall be delivered, tagged and bundled in conformance with Supplemental Specifications. Top of Beam Reinforcement bars shall be spaced by Shop Detailer to Clear anchor bolts.
Reinforcement Bars shall comply with Article 59 of the State Standard Specifications.

TRAFFIC:

Traffic Classification 1210 T

FOR ENGINEER'S FIELD OFFICE
AND ENGINEER'S FIELD LABORATORY
SEE SPECIAL PROVISION.

REVISIONS

DATE	BY	DESCRIPTION
6-2-67	T.A.	ADD NOTES FOR ENGINEER'S FIELD OFFICE AND LABORATORY
2-1-68	N.P.	ADD NOTE ABOUT MAIN DRAIN

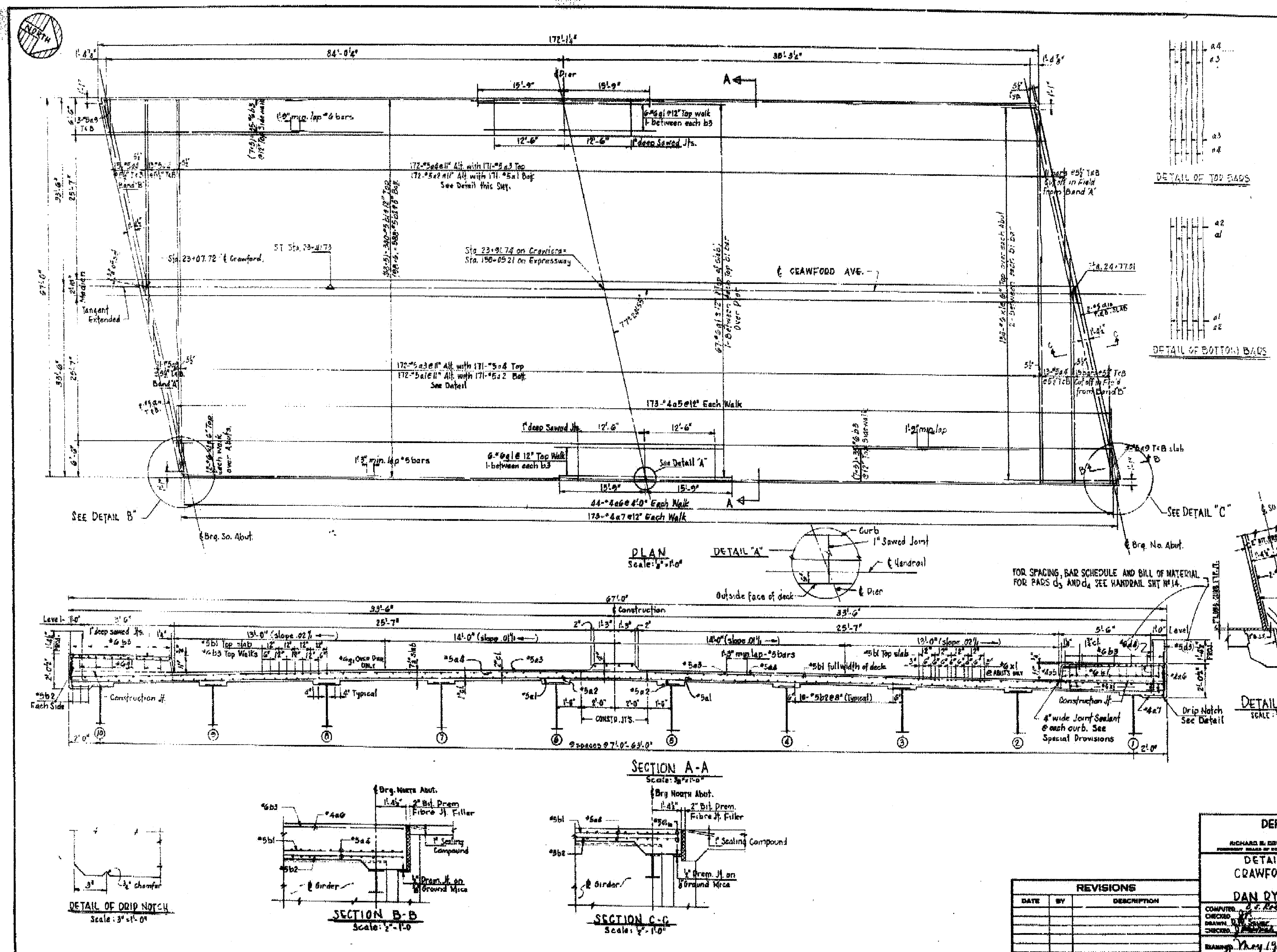
DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS — ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

GENERAL PLAN
CRAWFORD AVE GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED: [illegible]
DRAWN: D.W. Sauer - T. Abrams
CHECKED: [illegible]
PROJECT: I-57-7(156)349
SCALE: 1" = 20'
APPROVED: [illegible]
APPROVED: [illegible] 1967, CHIEF ENGINEER

Federal Aid Interstate	County Highway Section No.	Sheet No.	Total Sheets	Drawing No.
57	066-1121	2	63	59.1240-S



COUNTY PROGRAM		SHEET
REG. No.	YEAR	No.
	1967	4

BAR SCHEDULE & BILL OF MATERIAL

Mark	Nº	Size	Length	Sketch	Location
a1	343	5	28-5		Bottom Slab
a2	343	5	31-5		"
a3	343	5	28-0		Top & Bot. Slab
a4	425	5	30-0		"
a5	246	4	3-5		Sidewalk
a6	88	4	6-9		"
a7	346	4	3-0		"
a8	22	5	33-0		Top & Bot. Slab
a9	12	5	4-0		"
a10	8	5	37-9		Ends of DECK
a11	16	5	2-5"		Each Corner
b1	340	5	35-5		Top Slab
b2	588	5	29-10		Bot. "
b3	70	6	35-9		Top Sidewalk
g1	79	6	31-6		Top Slab & Sdwk
x1	376	6	4-3		Top Slab & Sdwk

Class "X" Concrete	377.0 Cu. Yds.
Reinforcement Bars	96,000.0 Lbs.
Protective Coat	1,336.0 Sq. Yds.

SCALE: AS SHOWN

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

RICHARD B. OGILVIE — PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER — SUPERINTENDENT OF HIGHWAYS

DETAILS OF BRIDGE SUPERSTRUCTURE
CRAWFORD AVE. GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

COMPUTED: D. F. Roe
CHECKED:
DRAWN: D.W. Sauer
CHECKED:
PROJECT: I-57-(154)349
SUBMITTED: May 17, 1967
STRUCTURAL DESIGN ENGINEER
EXAMINED: May 19, 1967

Federal Aid Route	County Highway Section Number	Sheet No.	Total Sheets	Drawing No.
57	068-1112.1	4	63	SR 1242-5

ENTRAN

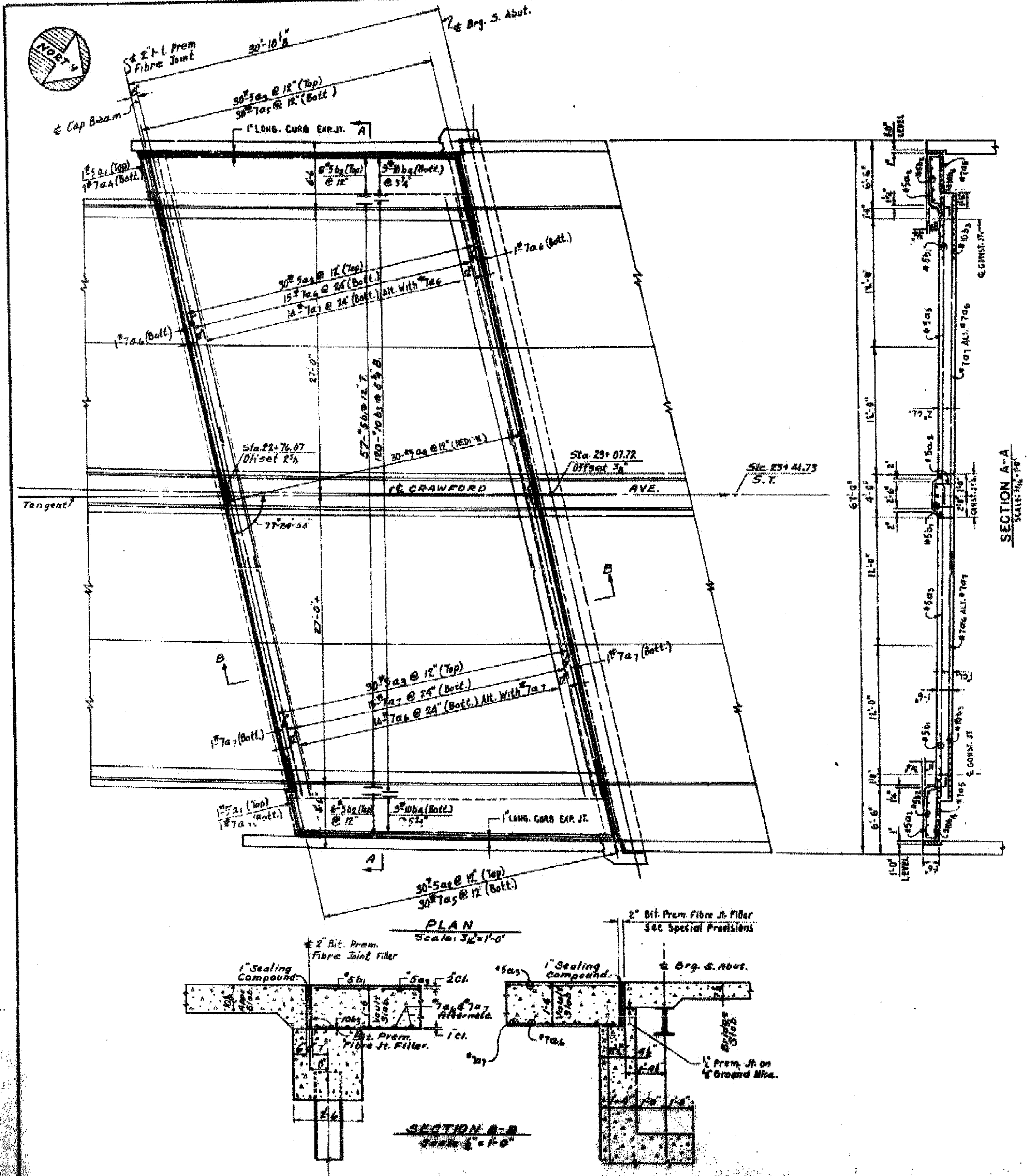
USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
	CHECKED - BHS	REVISED -
PLOT SCALE = N/A	DRAWN - TWO	REVISED -
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

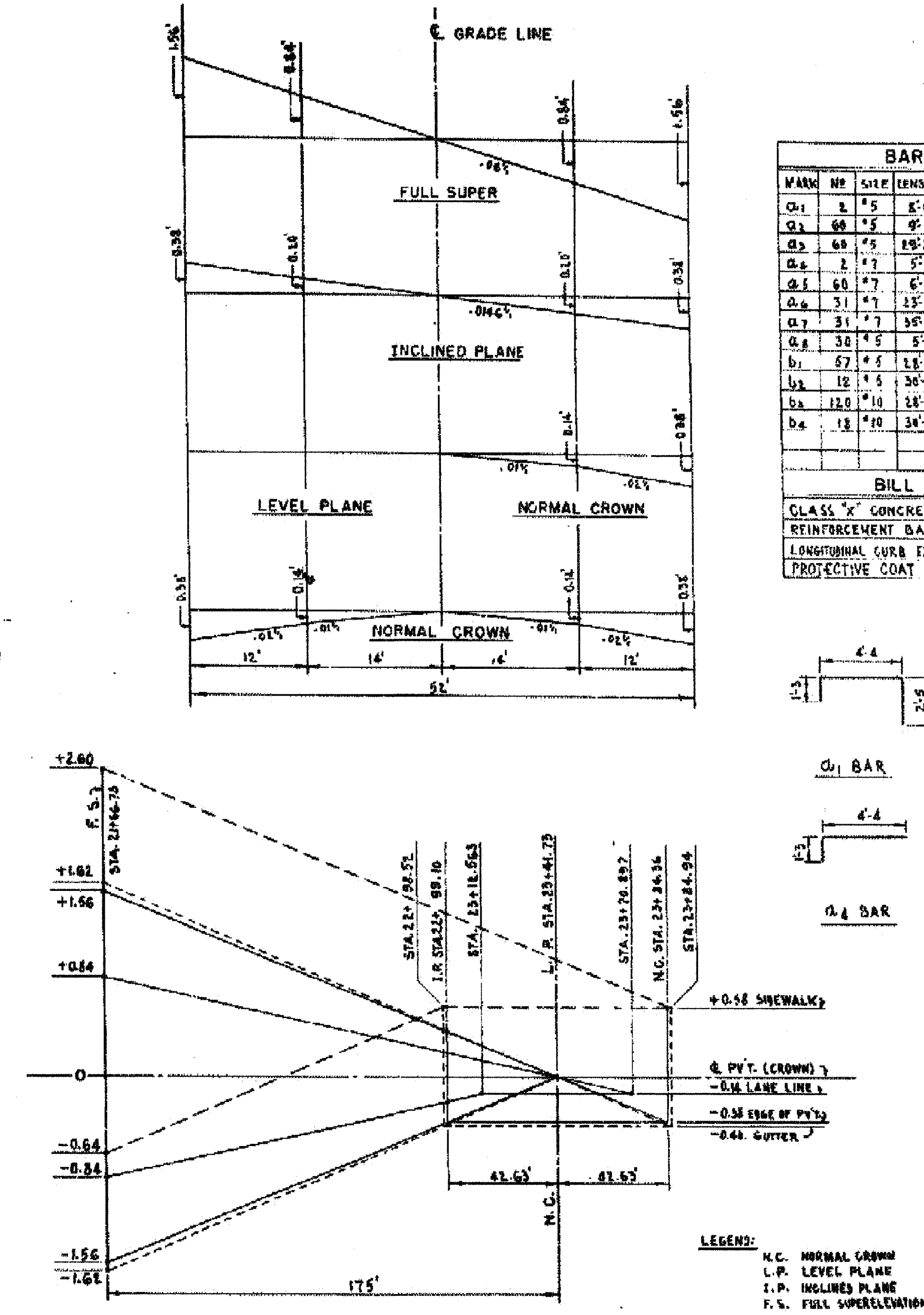
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS (2 OF 6)
STRUCTURE NO. 016-1015
SHEET NO. S32 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	59
		CONTRACT NO. 60863		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT





METHOD OF ATTAINING SUPERELEVATION

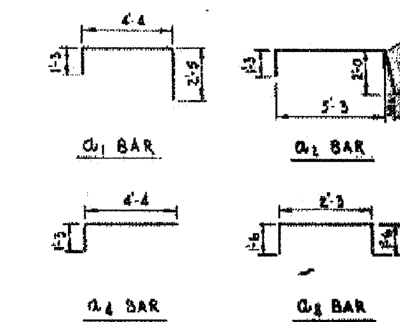
SCALES: HOR. 1" = 30'
VER. 1/2" = 1'-0"

BAR SCHEDULE

MARK	NO	SIZE	LENGTH	SKETCH	LOCATION
a_1	2	#5	8'-0"		TOP SIDEWALK
a_2	60	#5	9'-3"		" "
a_3	60	#5	29'-8"		TOP SLAB
a_4	2	#7	5'-7"		BOTT. SIDEWALK
a_5	60	#7	6'-2"		" "
a_6	31	#7	23'-11"		BOTT. SLAB
a_7	31	#7	35'-10		" "
a_8	30	#5	5'-3"		MEDIAN
b_1	57	#5	28'-8"		TOP SLAB
b_2	12	#5	30'-4"		TOP SIDEWALK
b_3	120	#10	28'-8"		BOTT. SLAB
b_4	12	#10	30'-4"		BOTT. SIDEWALK

BILL OF MATERIAL

CLASS "X" CONCRETE	113.5	CU. YDS.
REINFORCEMENT BARS	26,420.0	LBS.
LONGITUDINAL CURB EXPANSION JOINT	98.0	SQ. FT.
PROTECTIVE COAT	236.0	SQ. YDS.



REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

DETAILS OF VAULT SUPERSTRUCTURE
CRAWFORD AVE GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY – WEST LEG

COMPUTED
CHECKED ... T.A.
DRAWN
CHECKED
PROJECT I-57-(154)349
SUBMITTED May 19, 1967
STRUCTURE DESIGN ENGINEER
EXAMINED ... 14 1967
CHIEF ENGINEER OF DESIGN

Federal Aid Route	County Highway Section Number	Sheet No.	Total Sheets	Drawing No.
57	068-1112.1	5	69	S.R.1243-5

SCALE: AS SHOWN

ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -	
	CHECKED - BHS	REVISED -	
PLOT SCALE = N/A	DRAWN - TWO	REVISED -	
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -	

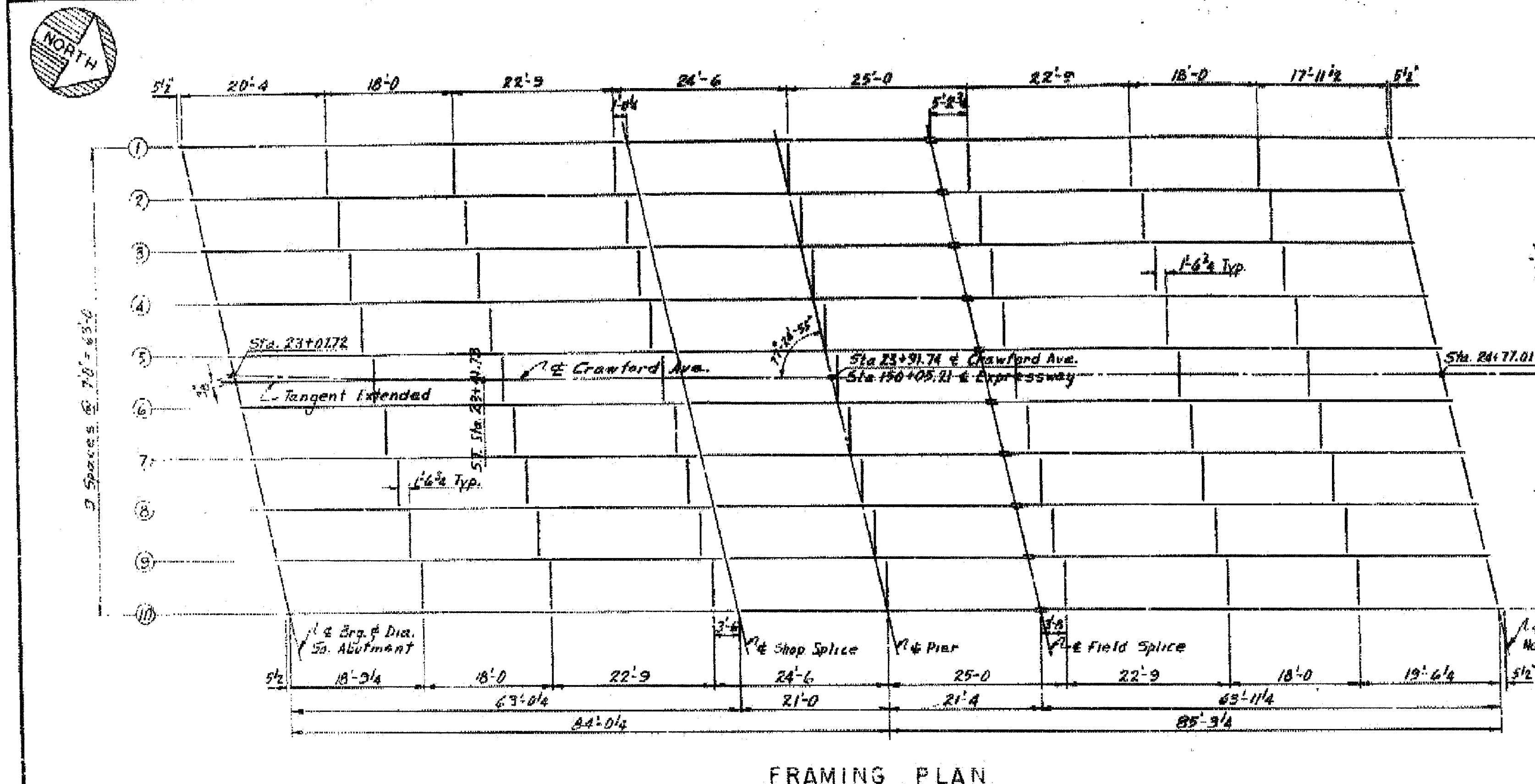
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS (3 OF 6)
STRUCTURE NO. 016-1015
SHEET NO. S33 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	60

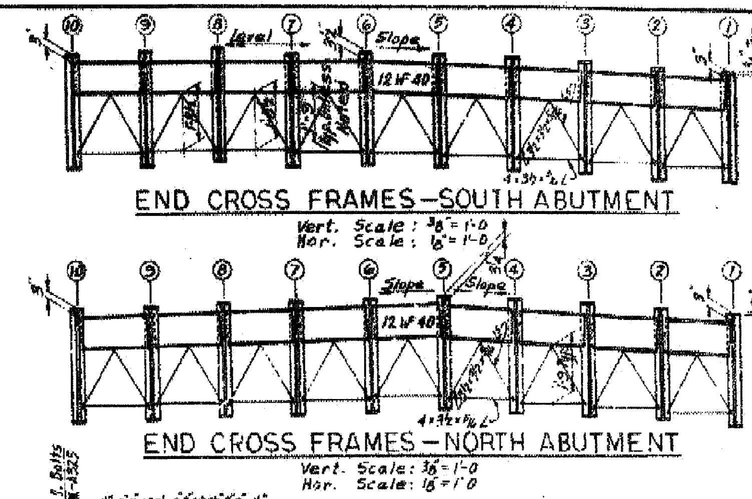
CONTRACT NO. 60863

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT



FRAMING PLAN

Scale: 3/32" = 1'-0"

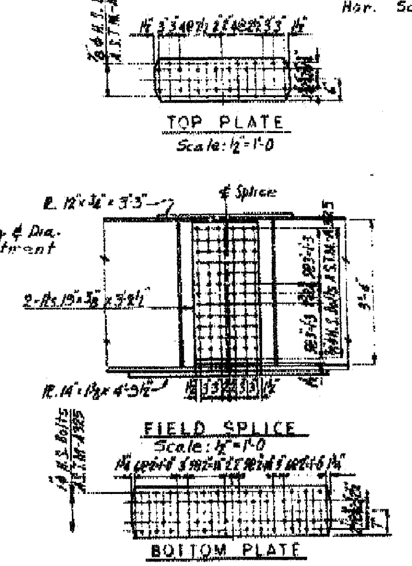


END CROSS FRAMES—SOUTH ABUTMENT

Vert. Scale: 3/8" = 1'-0
Hor. Scale: 1/8" = 1'-0

END CROSS FRAMES—NORTH ABUTMENT

Vert. Scale: 3/8" = 1'-0
Hor. Scale: 1/8" = 1'-0



TOP PLATE
Scale: 1/2" = 1'-0

FIELD SPLICE
Scale: 1/2" = 1'-0

BOTTOM PLATE

Structural Steel Notes:

Structural Steel shall be Carbon Steel A36 and shall Conform to A.S.T.M. Specifications Amended to Date. All Bolts shall be High Strength Bolts, (A.S.T.M. A325). Top Flange Splice and Web Splice of Girders shall have 7/8" ϕ High Strength Bolts and shall have Holes Sub-Punched 11/16" ϕ and Reamed to 15/16" ϕ. Bottom Flange Splice of Girders shall have 1" ϕ High Strength Bolts and shall have Holes Sub-Punched 13/16" ϕ and Reamed to 1 1/16" ϕ. All Cross Frame Connections shall have 3/4" ϕ High Strength Bolts and shall have 13/16" Open Holes.

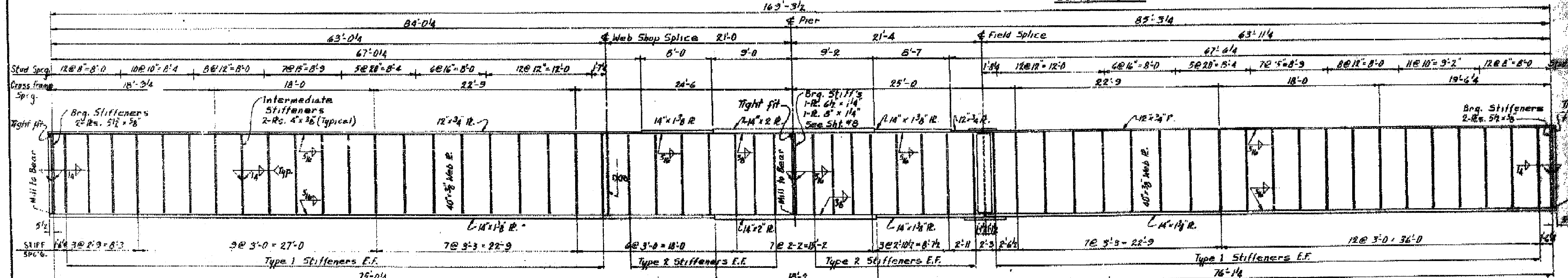
Before any Reaming is done, Girders of a Continous Unit shall be Assembled in their Proper Position with or without the Bracing in Place. Match Mark and Leave Assembled for Inspection.

Welding shall conform to the "Specifications of American Welding Society for Highway and Railway Bridges, 1963, Amended to Date.

Contact Surfaces of Shop Welded Structural Steel Shall not be Painted. See Specification concerning inaccessible Surfaces. Tops of Girders that are to have Concrete poured in contact with them shall not be Painted, except such Surfaces over Pier shall be Painted for a distance of 5 feet each way from Center Line of Bearing.

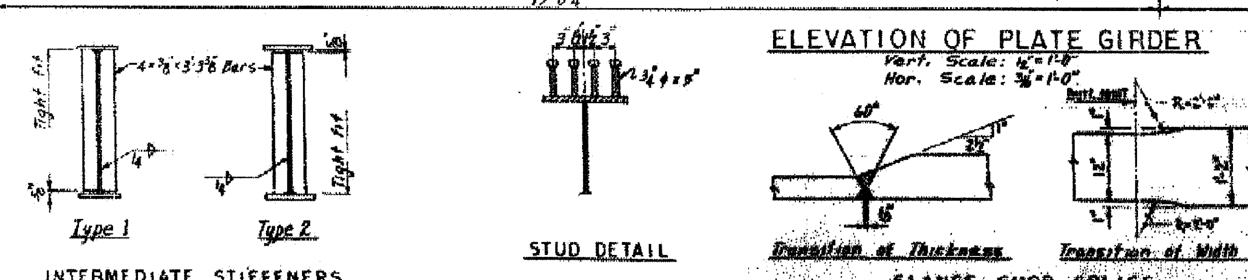
Structural Steel shall be inspected by the Illinois Division of Highways before Painting.

All Structural Steel, except Fascia Girders, shall be given one Shop Coat of Red Lead Paint and two Field Coats of Aluminum Paint. For Fascia Girders see "Special Provisions, Green Paint for Bridges."



ELEVATION OF PLATE GIRDER

Vert. Scale: 1/2" = 1'-0"
Hor. Scale: 3/8" = 1'-0"



Type 1 Type 2

INTERMEDIATE STIFFENERS

STUD DETAIL

Transition of Thickness Transition of Width

FLANGE SHOP SPLICE

Note: For Cross Frame Details & Bill of Material See Sht. No. 8.

ELEVATION AT TOP OF WEB PLATE					
BEAM No.	℄ BRGS. So. ABUT.	SPLICE 1	℄ PIER	SPLICE 2	℄ BRG'S. No. ABUT.
1	661.936	662.126	662.136	662.150	662.042
2	[illegible]	662.270	[illegible]	[illegible]	662.186
3	[illegible]	662.415	662.425	662.437	662.329
4	[illegible]	662.521	662.535	[illegible]	662.437
5	662.406	662.596	662.606	662.618	662.510
6	[illegible]	[illegible]	662.551	662.501	662.393
7	[illegible]	[illegible]	[illegible]	[illegible]	662.320
8	[illegible]	[illegible]	662.407	662.457	662.249
9	[illegible]	[illegible]	[illegible]	662.256	662.148
10	[illegible]	[illegible]	662.205	[illegible]	662.047

REVISIONS		
DATE	BY	DESCRIPTION
12-26-67	J.R.	Brg. Stiffeners change to tight fit at top.

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS

RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

FRAMING PLAN
CRAWFORD AVE. GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY WEST LEG

PROJECT I-57-7 (154) 348
SUBMITTED May 19, 1967

Federal Aid Route	County Highway Section Number	Sheet No.	Total Sheets	
57	068-8112	7	65	

ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
	CHECKED - BHS	REVISED -
PLOT SCALE = N/A	DRAWN - TWO	REVISED -
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS (4 OF 6)
STRUCTURE NO. 016-1015

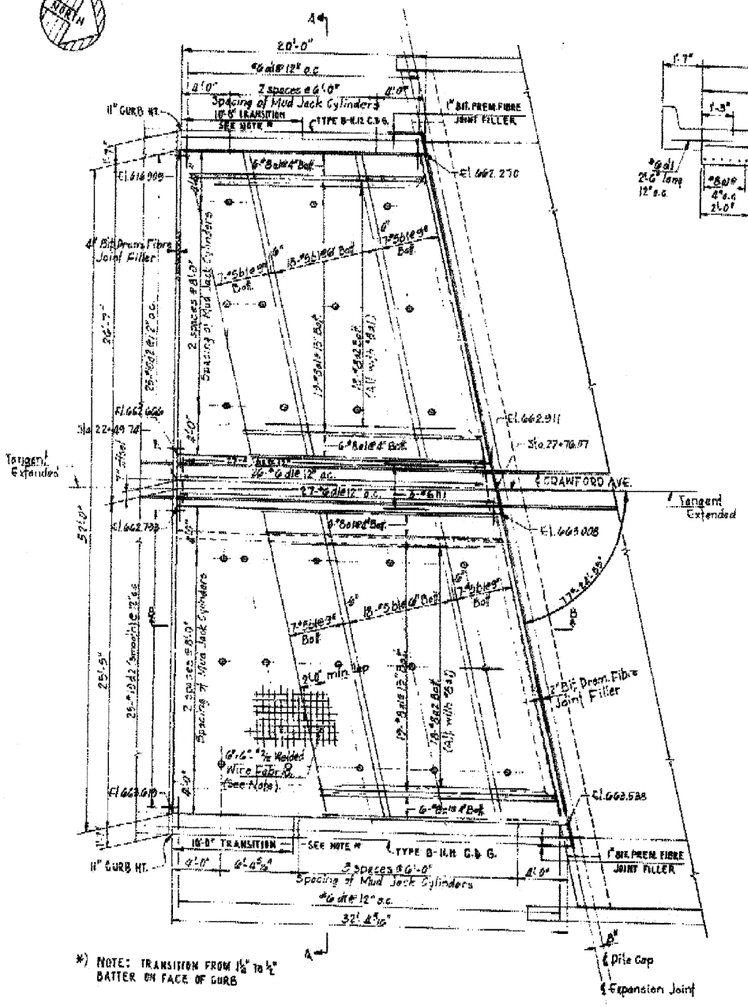
SHEET NO. S34 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	61

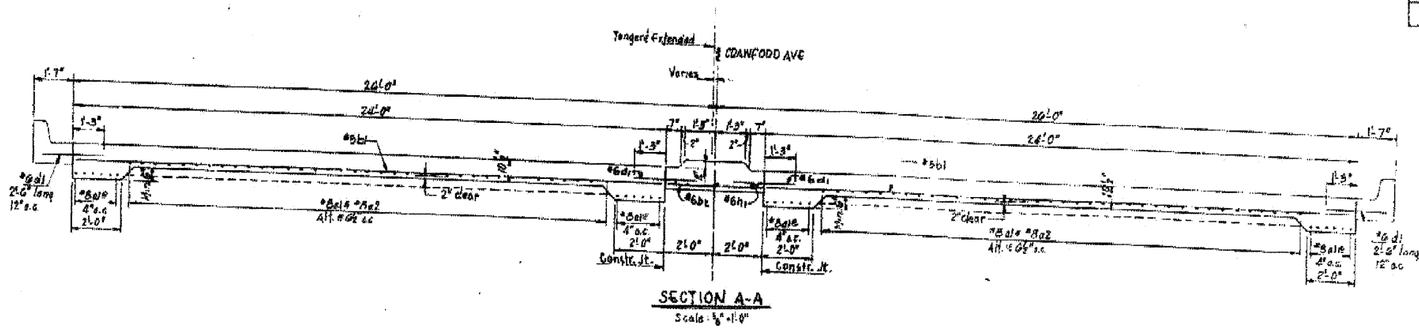
CONTRACT NO. 60863

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

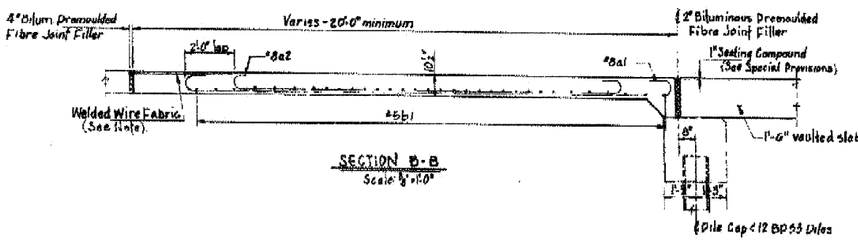
COUNTY PROGRAM		SHEET
FEDL No.	YEAR	NO.
	1967	17



PLAN OF SOUTH APPROACH SLAB
Scale: 1/8"=1'-0"



SECTION A-A
Scale: 1/8"=1'-0"



SECTION B-B
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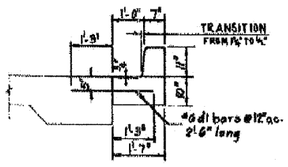
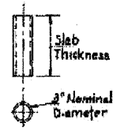


DETAIL OF CURB & GUTTER
Scale: 1/2"=1'-0"

NOTE:
Adjacent to the Approach Slabs, C.& G. dowels shall be *6 deformed bars @ 12" o.c. No extra compensation shall be allowed for these bars nor for any transition C.& G. but they shall be included in the Unit Price Bid for Combination Concrete Curb & Gutter, Type B-II.12

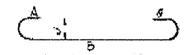
WELDED WIRE FABRIC NOTE

Expanded Metal weighing not less than 76 lbs. per 100 sq.ft. or a Welded Bar Mat weighing not less than 78 lbs. per 100 sq.ft. having members of equal size in both directions and spaced not over 8" apart may be used instead of the 6"x6" provided the Expanded Metal or Bar Mat is furnished at no additional cost to the County.



DETAIL OF MUD JACK CYLINDER

Cylinders shall be standard weight black steel pipe. Cylinders shall be filled with clay and clay shall be tamped.



BILL OF MATERIAL

Mark No	Size	Length	Sketch	A	B	G	J
a1	62	8	21-4		0-10	19-6	0-10	0-7
a2	36	8	17-4		0-10	19-6	0-10	0-7
d1	68	5	24-3					
b1	27	6	3-9		(Median)			
d1	53	6	2-6		(Median Only)			
h1	3	6	26-9		(Median)			

P.C. Concrete Pavt. (16½"-10½"-16½"), 151.0 Sq.Yds.
Reinforcement Bars, 7,255.0 Lbs.
Comb. Conc. C&G, Type B-II.12, 52.0 Lin.Ft.
Protective Coat, 188.0 Sq.Yds.

NOTES:

The Approach Slabs shall be paid for at the Contract Unit Price for P.C. Concrete Pavement (16½"-10½"-16½").
The quantities for the Concrete Pile Cap and Piles are included in the Bill of Material on Sheet (A-1).
The cost of Median Strip shall be paid for at the Contract Unit Price Bid for P.C. Concrete Pavement (16½"-10½"-16½"). All reinforcement bars, except the *6 Curb & Gutter Dowels, shall be included in the Contract Unit Price for Reinforcement Bars. The *6 Curb & Gutter Dowels shall be included in the Contract Unit Price for Combination Concrete Curb & Gutter, Type B-II.12. The Welded Wire Fabric, Mud Jack Cylinders and Premoulded Fibre Joint Filler shall be included in the Contract Unit Price for P.C. Concrete Pavement (16½"-10½"-16½").
The Bituminous Premoulded Fibre Joint Filler shall conform to Section 1129 of the Standard Specifications.

REVISIONS

DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUNKETT, SUPERINTENDENT OF HIGHWAYS

SOUTH APPROACH SLAB
CRAWFORD AVE. GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED E.C. ROE
CHECKED A.G. [illegible]
DRAWN D.W. SCHMIDT
CHECKED E.J. [illegible]
PROJECT T-57-7 (156) 389
SUBMITTED [illegible]
STRUCTURAL ENGINEER
STRUCTURAL ENGINEER'S SEAL
REGISTERED STRUCTURAL ENGINEER
STATE OF ILLINOIS
[illegible]

Federal Aid Route	County Highway Section Number	Sheet No.	Total Sheets	Drawing No.
57	068-1112.1	17	69	S.R. 1156-S

NO = WE

SCALE AS SHOWN

FILE NAME = s:\projects\2102155.0024\loads\structure\sht\0161915_60863.dgn Existing Bridge

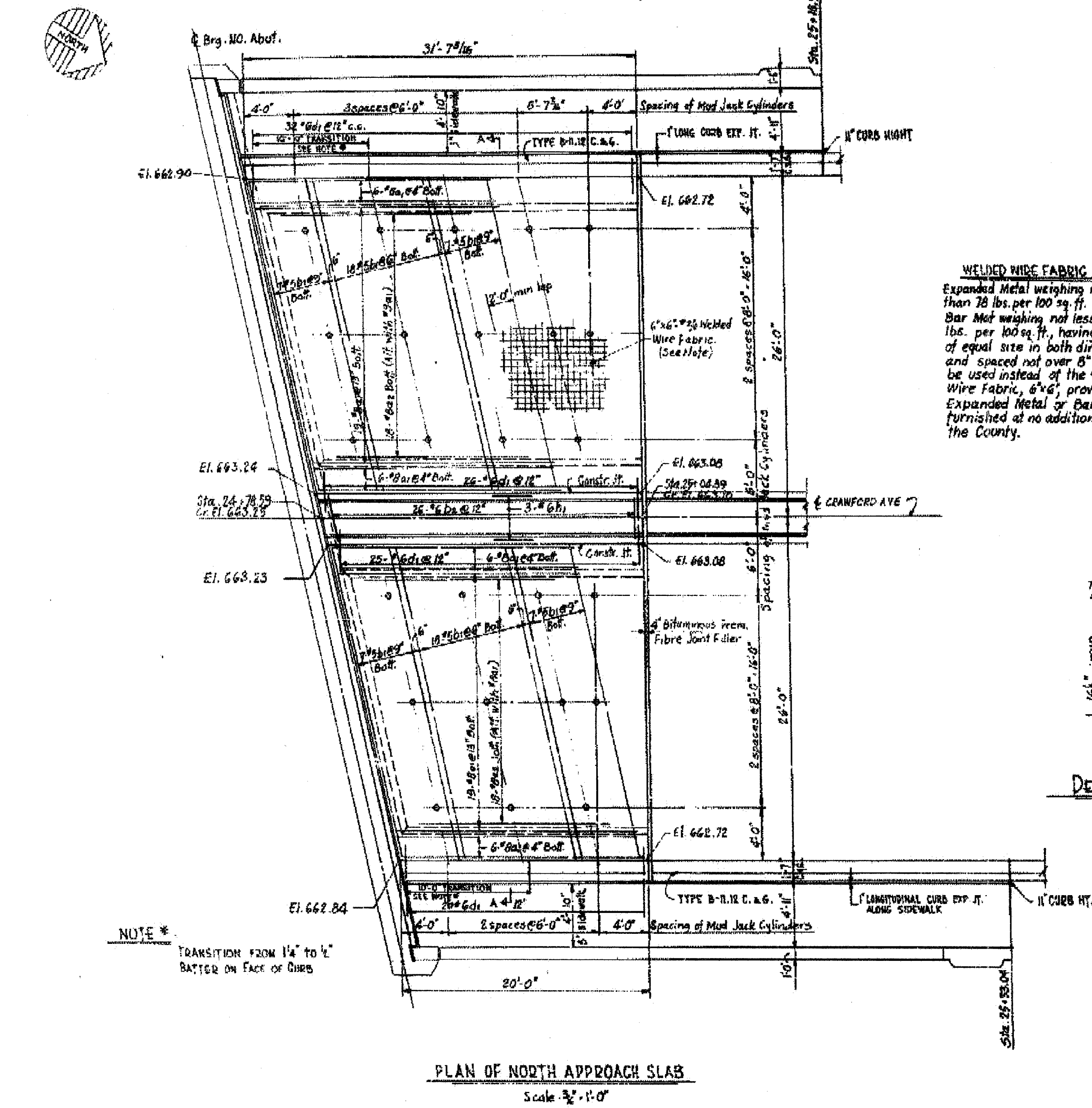
ENTRAN

USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
	CHECKED - BHS	REVISED -
PLOT SCALE = N/A	DRAWN - TWO	REVISED -
PLOT DATE = 8/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

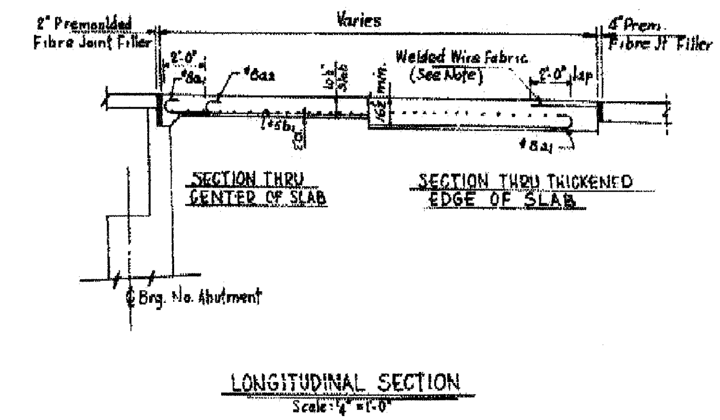
EXISTING BRIDGE PLANS (5 OF 6)
STRUCTURE NO. 016-1015
SHEET NO. S35 OF 36 SHEETS

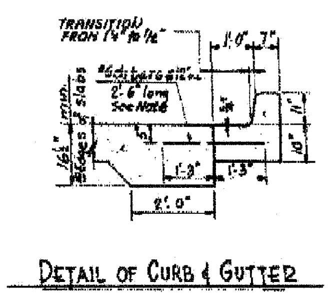
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	62
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



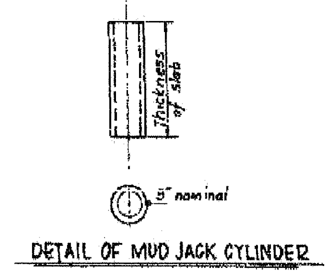
WELDED WIRE FABRIC NOTE

Expanded Metal weighing not less than 78 lbs. per 100 sq. ft. or a Welded Bar Mat weighing not less than 78 lbs. per 100 sq. ft., having members of equal size in both directions and spaced not over 8" apart may be used instead of the #2 Welded Wire Fabric, 6"x6", provided the Expanded Metal or Bar Mat is furnished at no additional cost to the County.

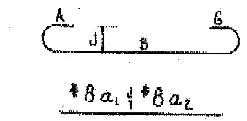




NOTE:
Adjacent to the Approach Slab C & G dowels shall be #6 deformed bars @ 12" c.c. No extra compensation shall be allowed for these bars, nor for any transition C & G but they shall be included in the Unit Price Bid for Combination Concrete Curb and Gutter, Type B 11.12

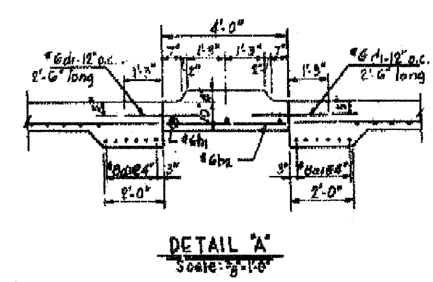


Cylinders shall be standard weight black steel pipe. Cylinders shall be filled with clay and clay shall be tamped.



BILL OF MATERIAL								
Mark	No.	Size	Length	Sketch	A	B	G	J
a1	62	8	21'-4"	⊂⊃	10	19'8	10	7
a2	36	8	17'-4"	⊂⊃	10	15'8	10	7
b1	64	5	24'-3"	—				
b2	26	6	3'-9"	—	(MEDIAN)			
* d1	103	6	2'-6"	—				
h	3	6	25'-3"	—	(MEDIAN)			
REINFORCEMENT BARS								7,270.0 LBS
P.C. CONCRETE PAV'T. (16½-10½-16½)								149.0 SQ.YDS
COMB. CONC. C.&G. TYPE B-11.12								95.0 LIN.FT
PROTECTIVE COAT								165.0 SQ.YDS
LONGITUDINAL CURB EXP. JT.								48.0 SQ.FT

* 52-#6 d1 bars not included in weight of reinforcement.



NOTES:

The Approach Slab shall be paid for at the Contract Unit price for P.C. Concrete Pavement (16½-10½-16½).

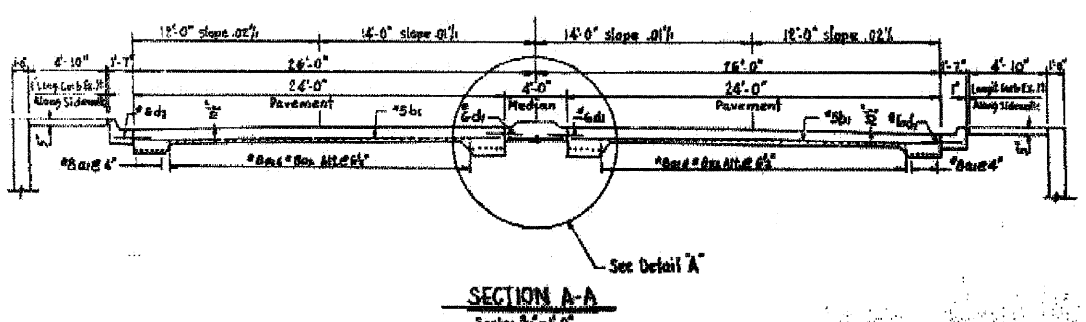
The cost of Median Strip shall be paid for at the Contract Unit price for P.C. concrete Pavement (16½"-10½"-16½").

All reinforcement bars, except the #6 Curb & Gutter dowels shall be included in the Contract Unit Price for Reinforcement Bars.

The #6 Curb & Gutter Dowels shall be included in the Contract Unit Price for combination Concrete Curb & Gutter Type B-11.12

The Welded Wire Fabric, Mud Jack Cylinders and Premoulded Fibre Joint Filler shall be included in the Contract Unit Price for P.C. concrete Pavement (16½"-10½"-16½").

The Premoulded Fibre Joint Filler shall conform to Section 129 of the Standard Specifications.



REVISIONS		
DATE	BY	DESCRIPTION

DEPARTMENT OF HIGHWAYS
COOK COUNTY, ILLINOIS
RICHARD B. OGILVIE, PRESIDENT BOARD OF COMMISSIONERS
ANDREW V. PLUMMER, SUPERINTENDENT OF HIGHWAYS

NORTH APPROACH SLAB
CRAWFORD AVE. GRADE SEPARATION
OVER
DAN RYAN EXPRESSWAY - WEST LEG

COMPUTED M. PILAT
DRAWN N. PILAT
CHECKED
PROJECT I-57-7(154)349
APPROVED May 18 1967

Federal Aid Interstate	County Highway Section No.	Sheet No.	Total Sheets
57	068-1112.1	18	63

ENTRAN	USER NAME = 2sayerb	DESIGNED - TWO	REVISED -
		CHECKED - BHS	REVISED -
	PLOT SCALE = N/A	DRAWN - TWO	REVISED -
	PLOT DATE = 6/5/2011	CHECKED - GSP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS (6 OF 6)
STRUCTURE NO. 016-1015
SHEET NO. S36 OF 36 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	63
		CONTRACT NO. 60863		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

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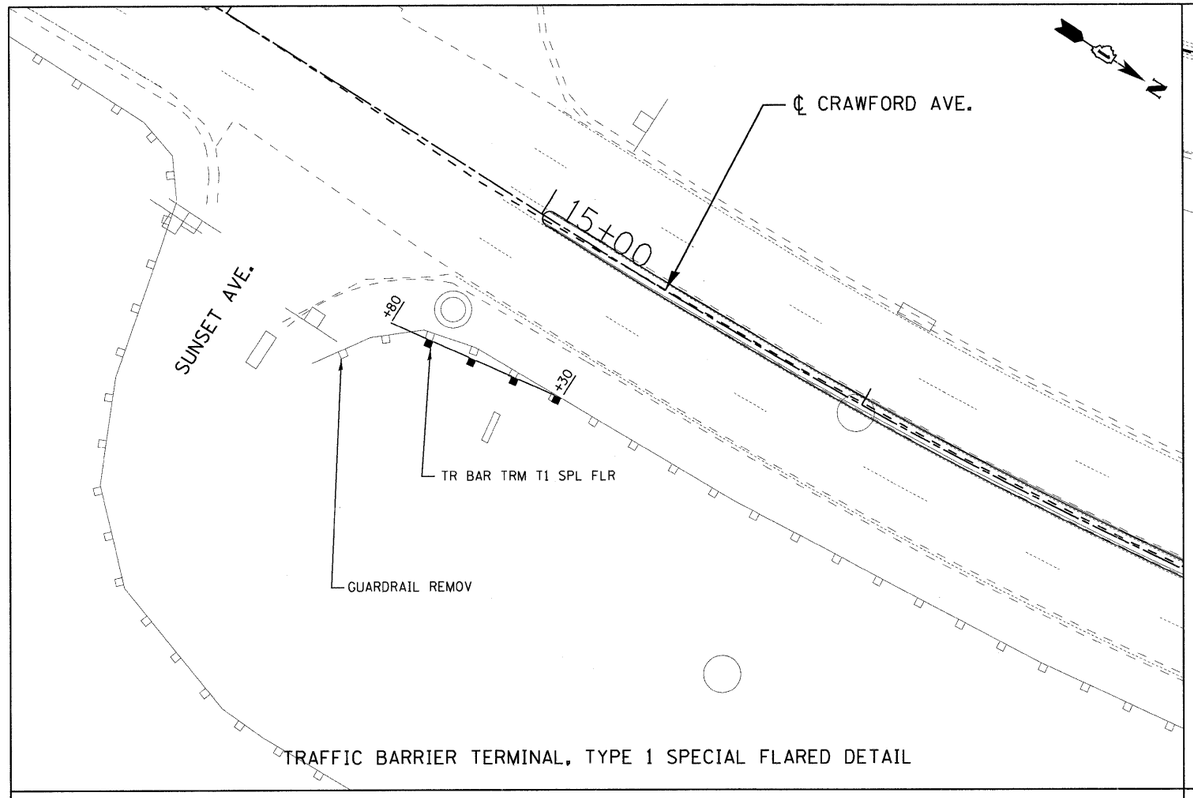
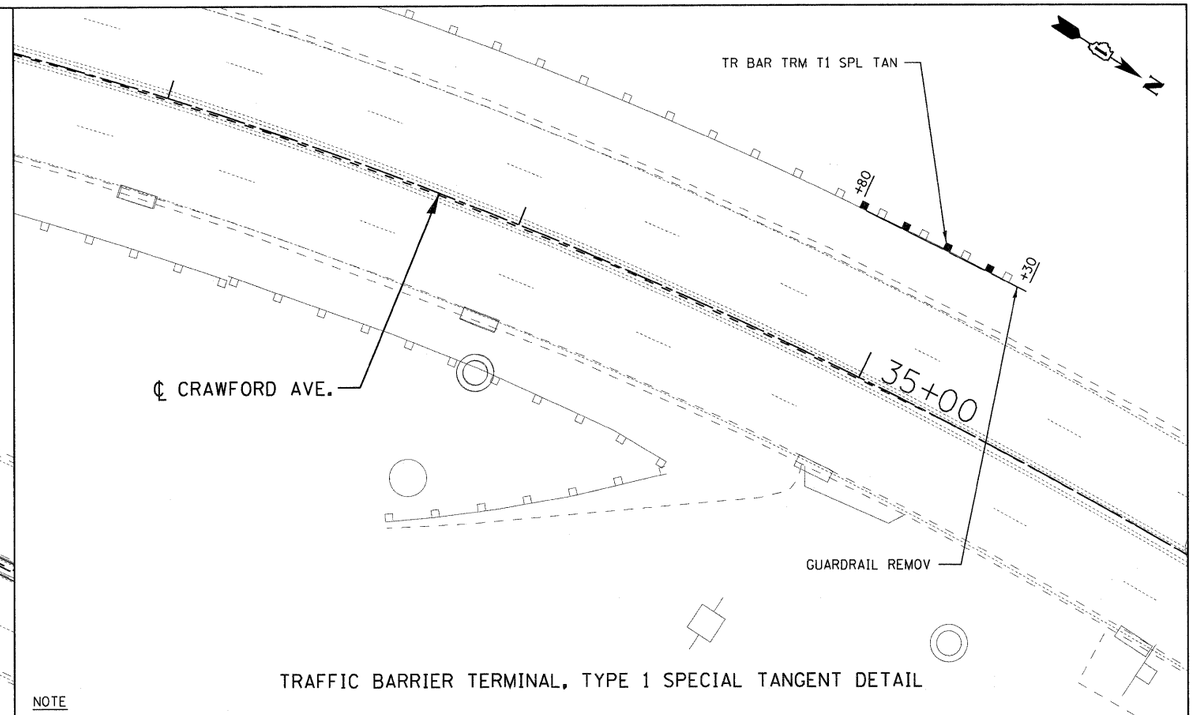


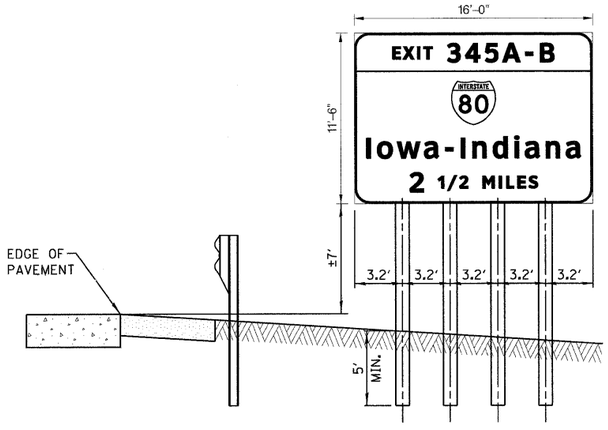
TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL FLARED DETAIL



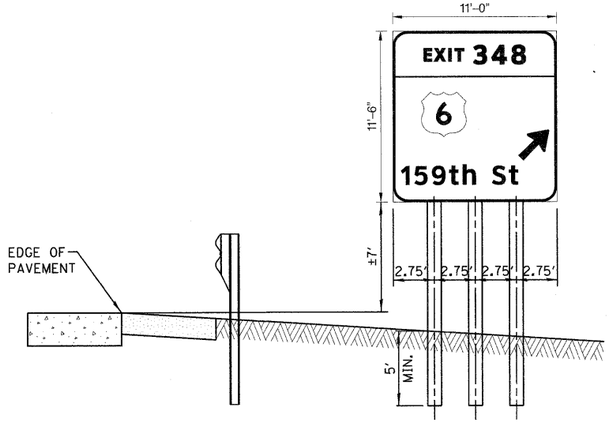
TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL TANGENT DETAIL

NOTE

SEE SCHEDULE OF QUANTITIES FOR LOCATIONS OF TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL. TRANSITION HORIZONTAL LOCATION AND VERTICAL HEIGHT OF THE PROPOSED TBT-TY 1 SPL TO MEET EXISTING GUARDRAIL CONDITIONS. THIS WORK IS INCLUDED WITH THE PAY ITEMS FOR TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL, FLARED AND TANGENT.



TEMPORARY SIGN PANEL ASSEMBLY DETAIL
APPROXIMATE I-57 STATION 151+00
(LOOKING NORTH)



TEMPORARY SIGN PANEL ASSEMBLY DETAIL
APPROXIMATE I-57 STATION 149+00
(LOOKING SOUTH)

FILE NAME = G:\projects\V2102165.02A\CADD\Civil\Sht\D1560863-SHeet-Roadway Details.dgn

ENTRAN

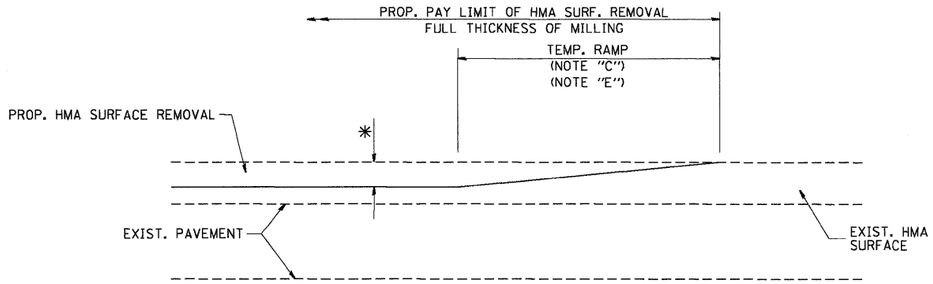
USER NAME = 2pierid	DESIGNED - DJB	REVISED -	
	DRAWN - ENTRAN	REVISED -	
PLOT SCALE = 20.00 ' / IN.	CHECKED - TMH	REVISED -	
PLOT DATE = 7/6/2011	DATE - 06/15/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAI ROUTE 57 (INTERSTATE 57) AT FAU ROUTE 3778 (CRAWFORD AVENUE)
ROADWAY DETAILS

SCALE: 20.00 ' / IN. | SHEET NO. OF SHEETS | STA. | TO STA.

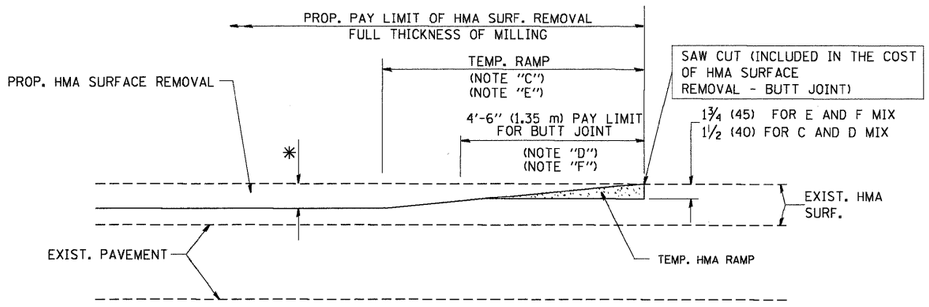
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	64
		CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

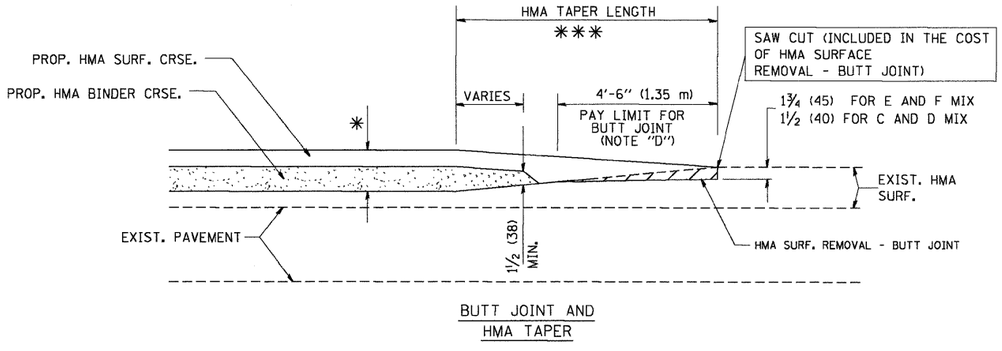


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

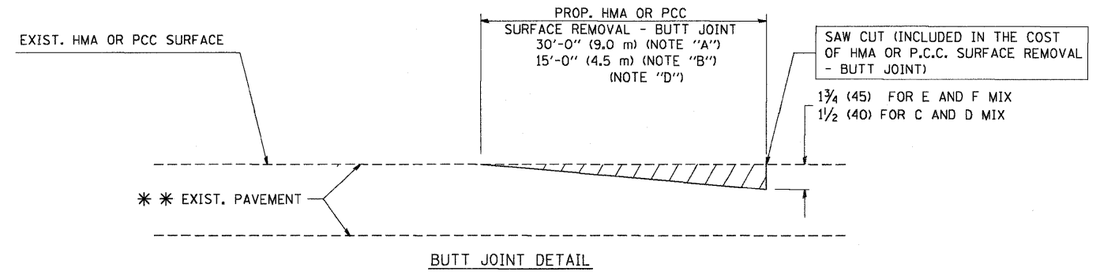
OPTION 2

TYPICAL TEMPORARY RAMP

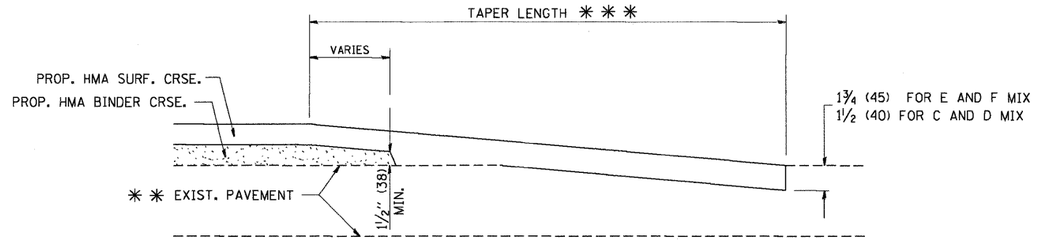


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

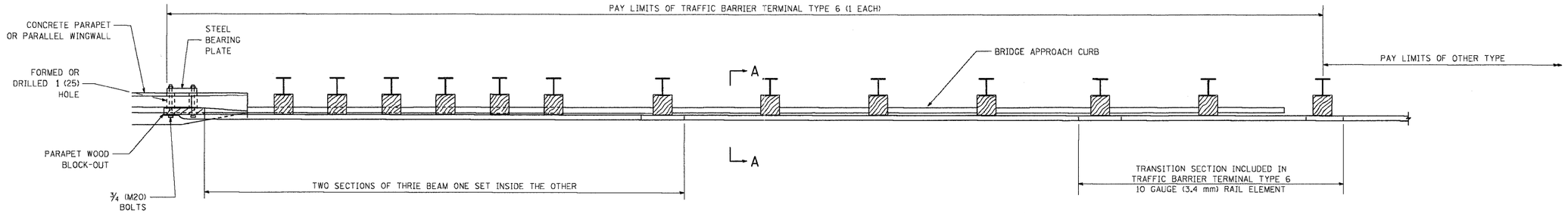
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianabt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS
		DRAWN -	REVISED - A. ABBAS 03-21-97		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01		
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		

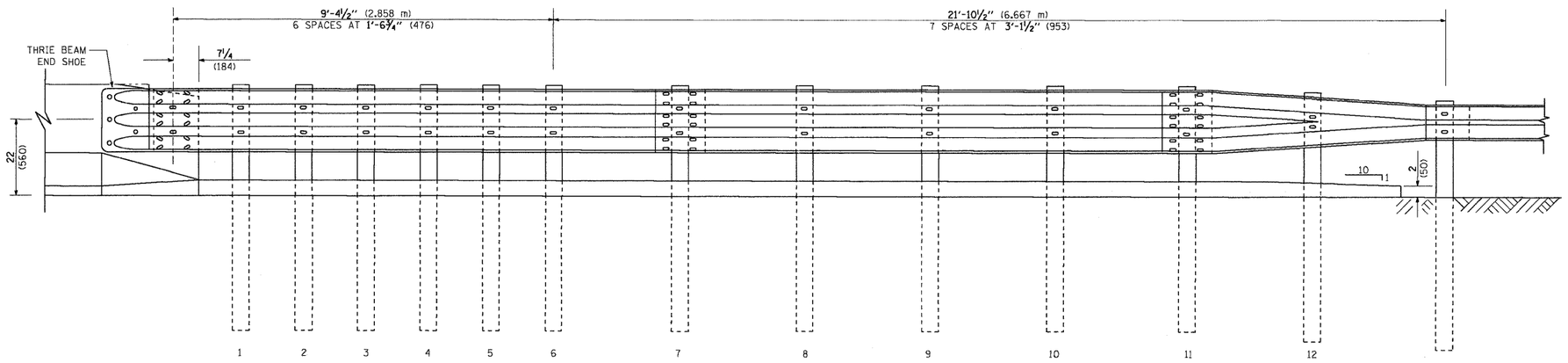
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	65
	BD400-05 BD32	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

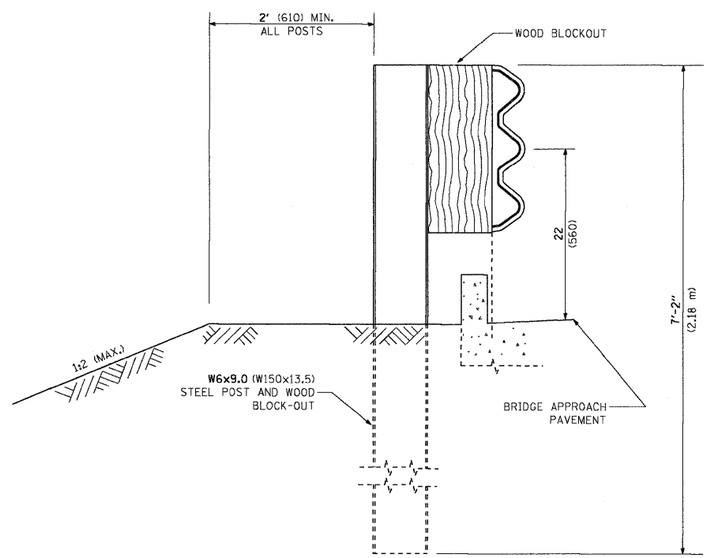
PARAPET OR WINGWALL



PLAN



ELEVATION



SECTION A-A

GENERAL NOTES

TO BE USED WHEN CONNECTING TO EXISTING GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.

SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.

THRIE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL POSTS.

SEE STANDARD 420401 FOR DETAILS OF BRIDGE APPROACH PAVEMENT.

ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

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

FILE NAME = c:\Projects\diststa2007\bm22.dgn	USER NAME = bauerdl	DESIGNED -	REVISED - STATE STANDARD:
		DRAWN -	631031-05 - 02/19/2008
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 2/21/2008	DATE -	REVISED -

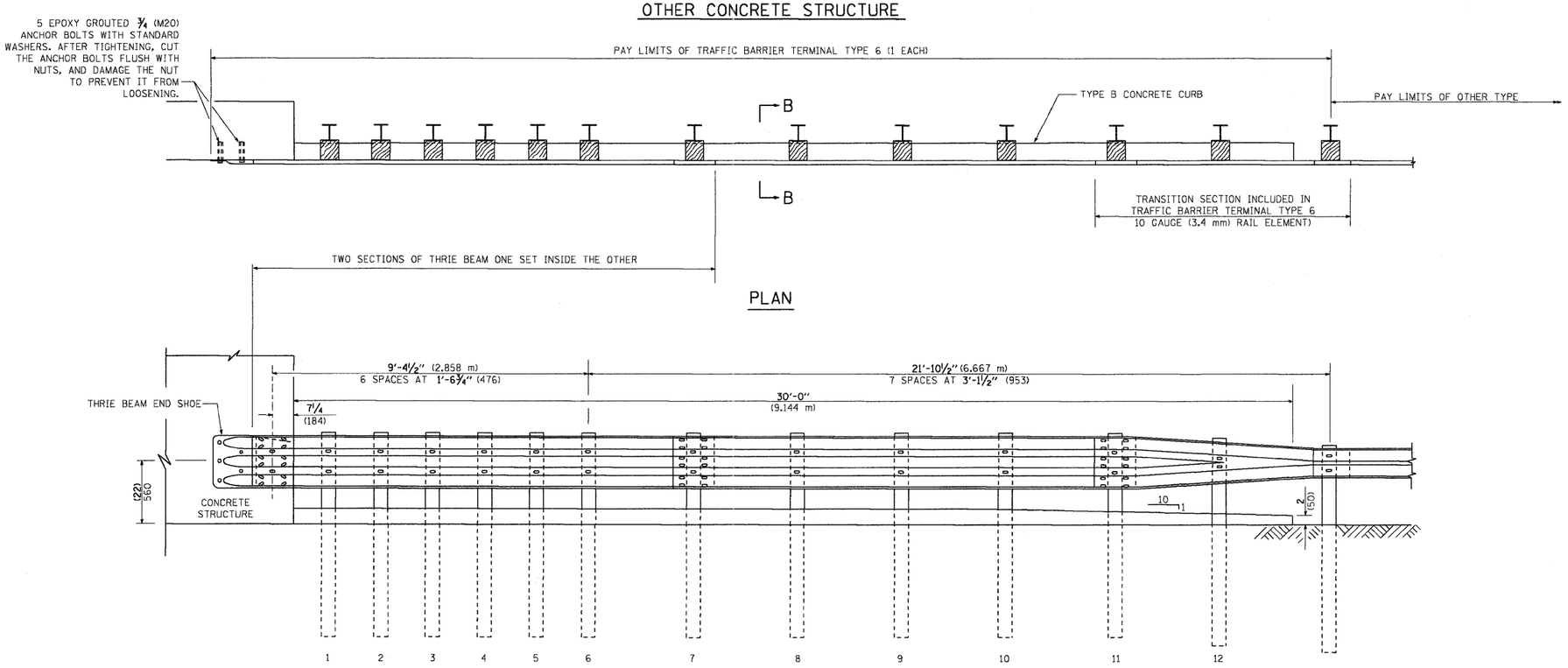
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPE 6 TERMINAL
FOR USE WITH 21" HIGH SPBGR

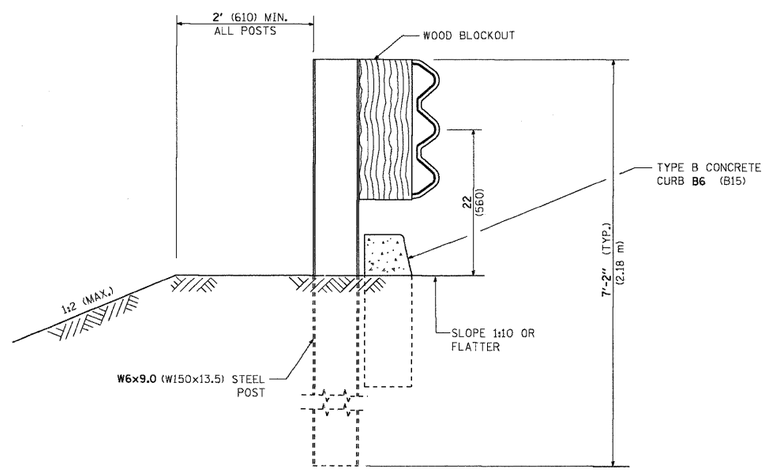
SCALE: NONE | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	66
	BM 22	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

OTHER CONCRETE STRUCTURE

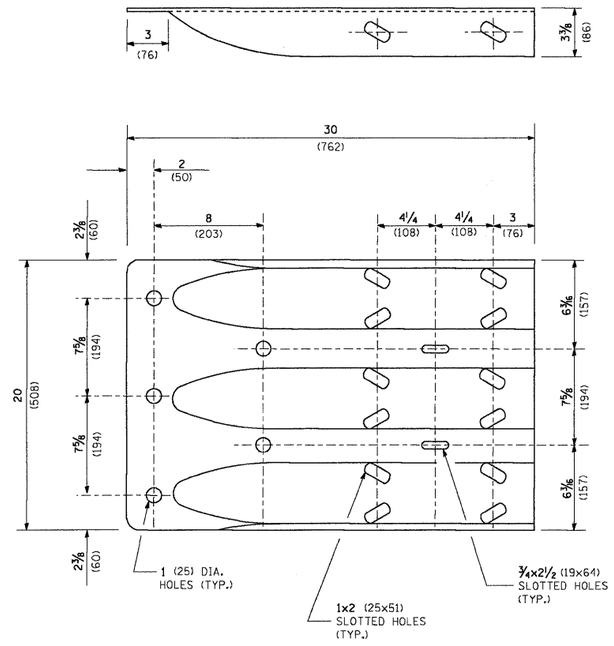


ELEVATION

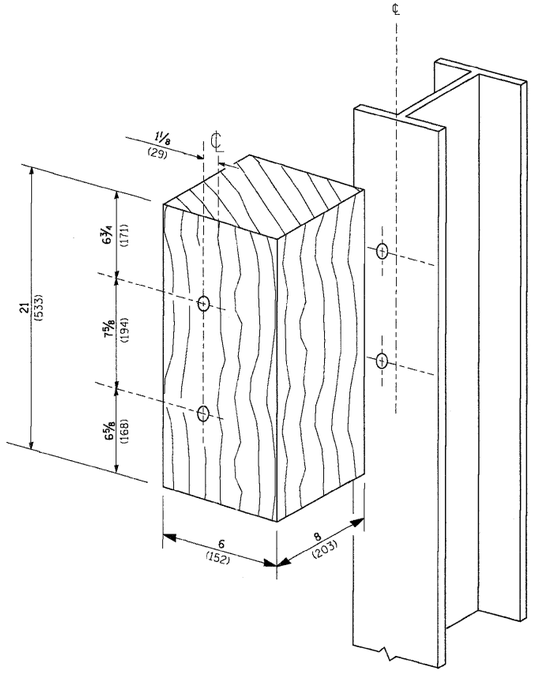


SECTION B-B

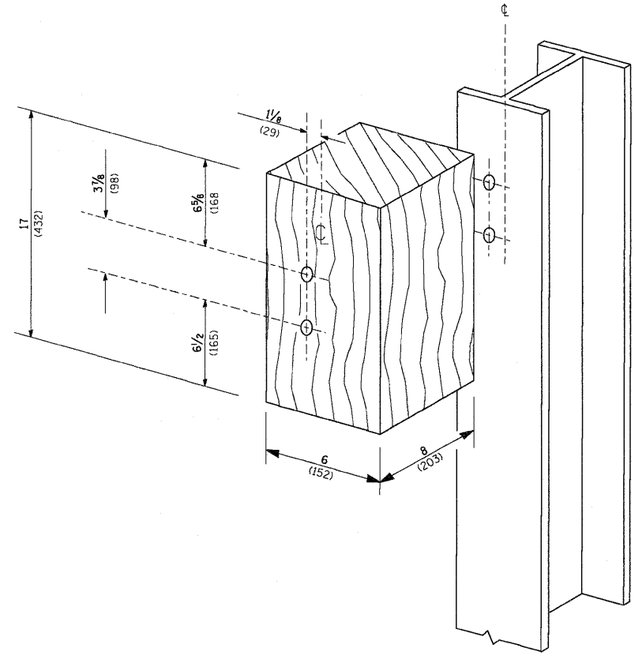
FILE NAME = c:\Projects\diststd2007\bm22.dgn	USER NAME = bauerdl	DESIGNED -	REVISED - STATE STANDARD:	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TYPE 6 TERMINAL FOR USE WITH 21" HIGH SPBGR**			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	631031-05 - 02/19/2008					57	1112.1B	COOK	75	67
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -						**BM 22**	CONTRACT NO. 60863		
	PLOT DATE = 2/21/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



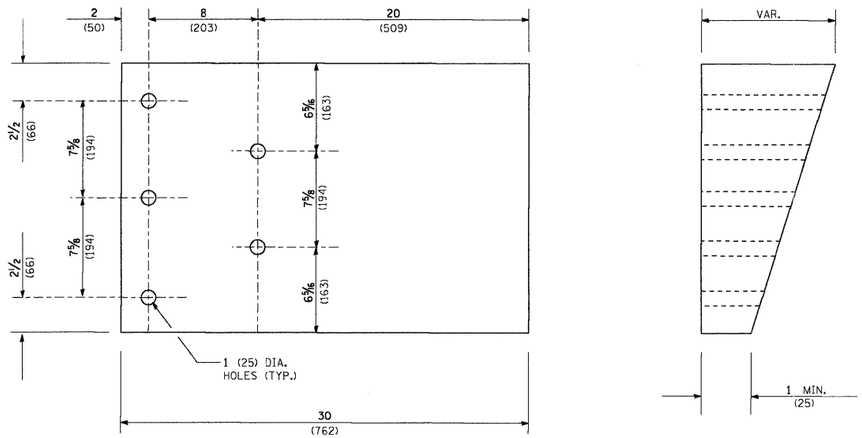
THRIE BEAM END SHOE DETAIL



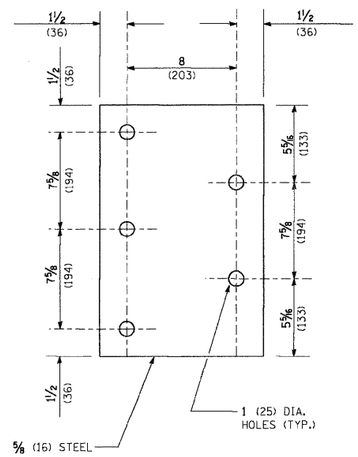
POSTS 1-11 WOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



PARAPET WOOD BLOCK-OUT DETAIL



PARAPET STEEL BEARING PLATE DETAIL

(5 EACH INDIVIDUAL 5x5x⅝ (125x125x16) STEEL PLATES WITH CENTERED 1 (25) HOLES MAY BE SUBSTITUTED FOR THE PLATE SHOWN.)

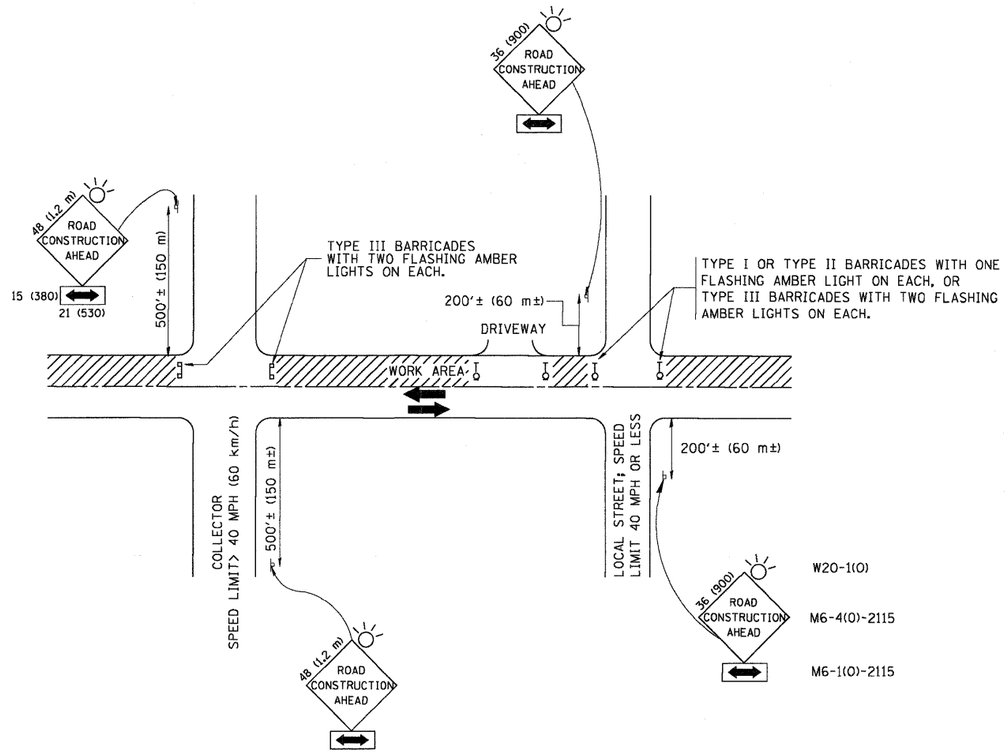
FILE NAME = c:\Projects\diststd2007\bm22.dgn	USER NAME = bauerdl	DESIGNED -	REVISED - STATE STANDARD:
		DRAWN -	631031-05 - 02/19/2008
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 2/21/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPE 6 TERMINAL
FOR USE WITH 21" HIGH SPBGR

SCALE: NONE | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	68
	BM 22	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

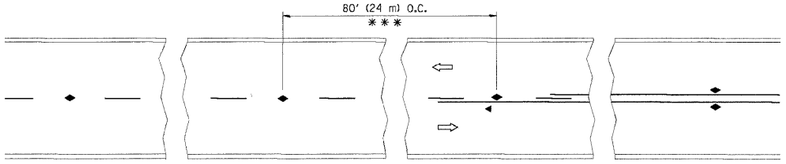
FILE NAME = W:\diststd\22x34\tc10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

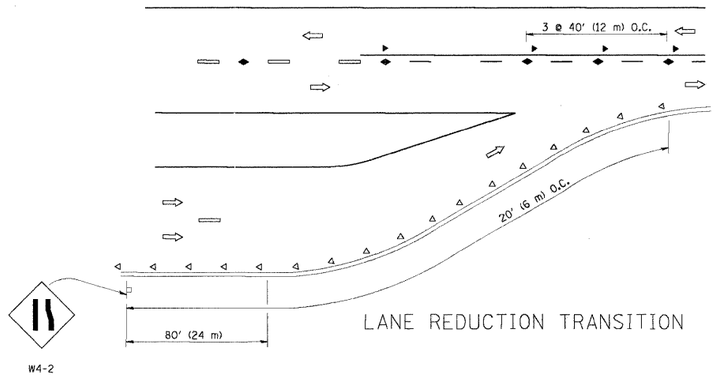
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	69
	TC-10	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

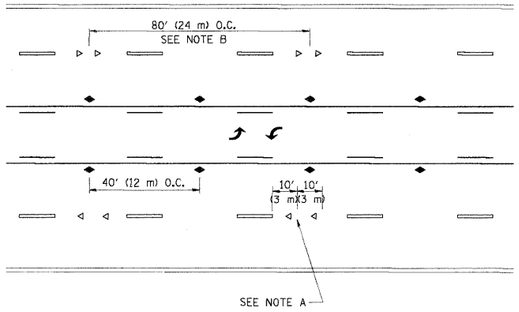


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

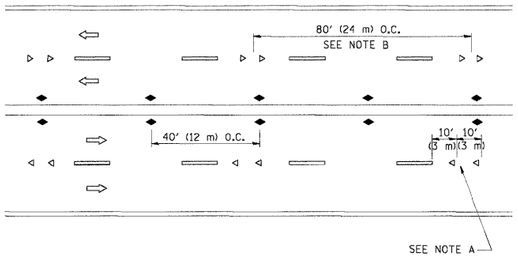
TWO-LANE/TWO-WAY



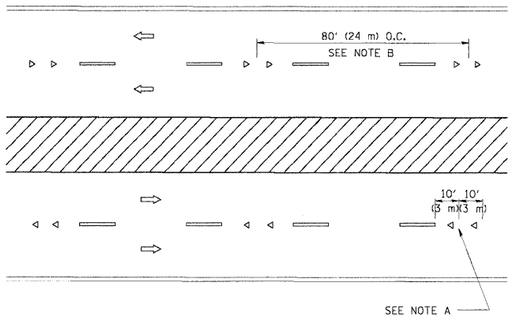
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

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

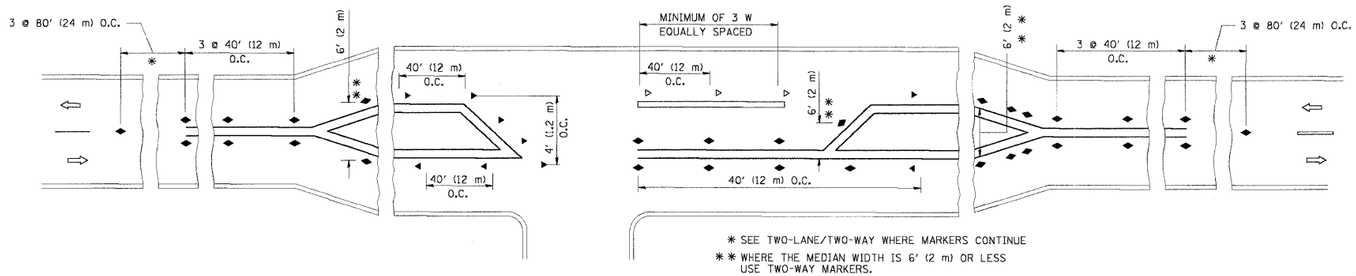
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

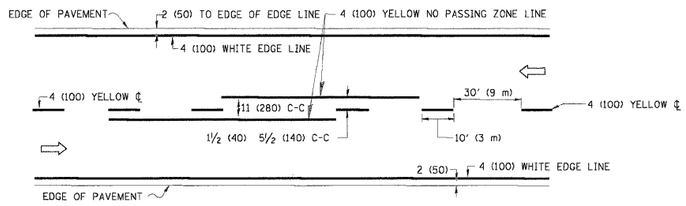
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\tc11.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN -	REVISED - T. RAMMACHER 03-12-99	
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00	
	PLOT DATE = 9/9/2009	DATE -	REVISED - C. JUCIUS 09-09-09	

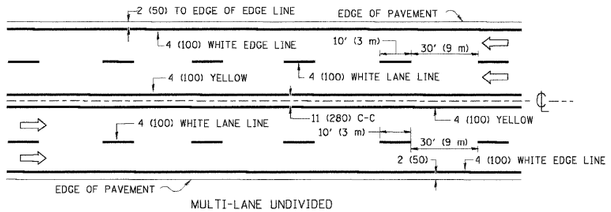
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

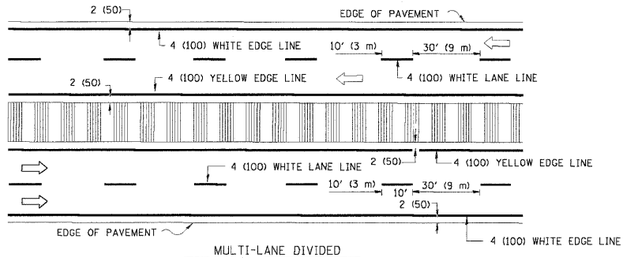
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	70
	TC-11	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



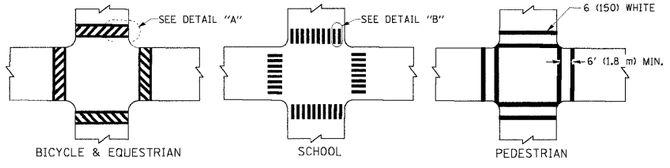
MULTI-LANE UNDIVIDED

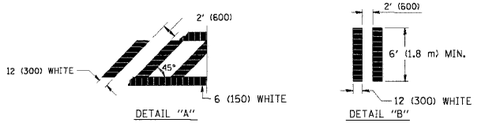


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

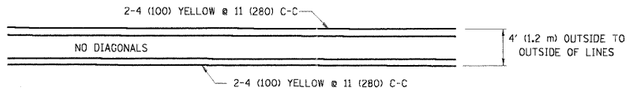
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

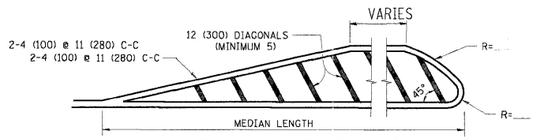




TYPICAL CROSSWALK MARKING



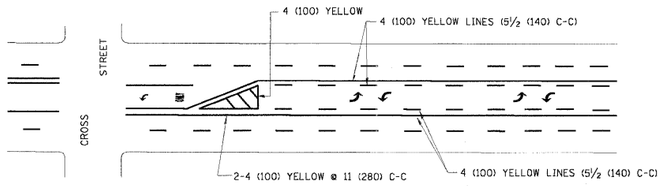
4' (1.2 m) WIDE MEDIANS ONLY



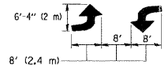
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

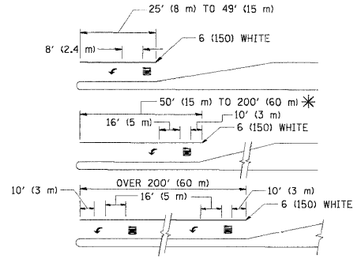


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

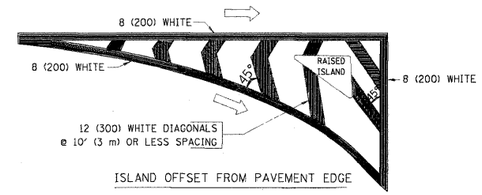


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

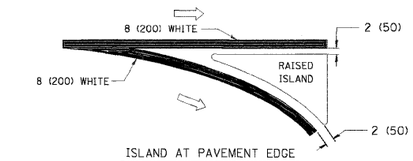
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

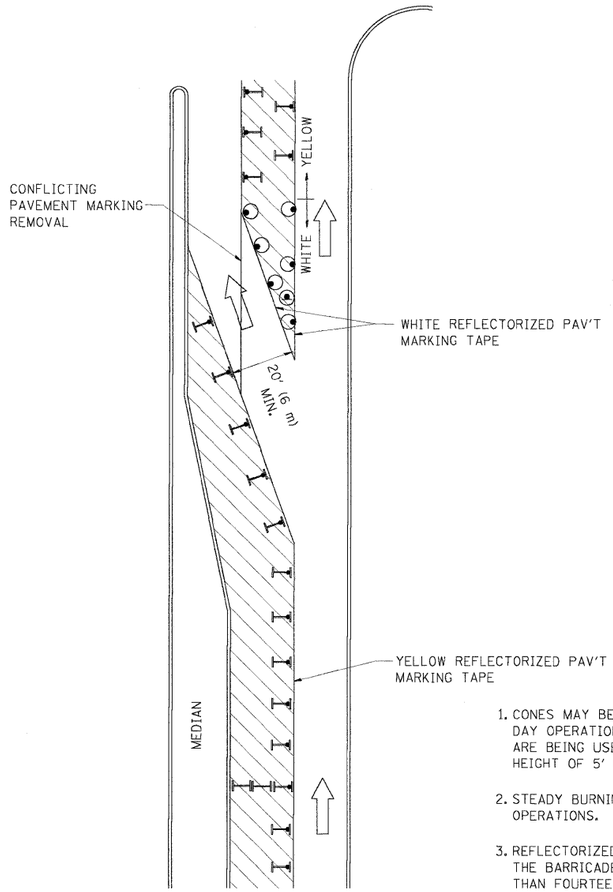
FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\tc13.dgn	USER NAME = crivakosgn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
		DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

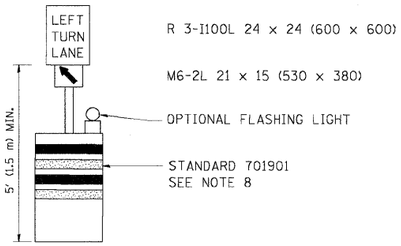
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	71
	TC-13	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\tc14.dgn	USER NAME = drivakosgn	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT DATE = 9/14/2009	REVISED - A. HOUSEH 10-12-96	REVISED -
		REVISED -T. RAMMACHER 01-06-00	REVISED -

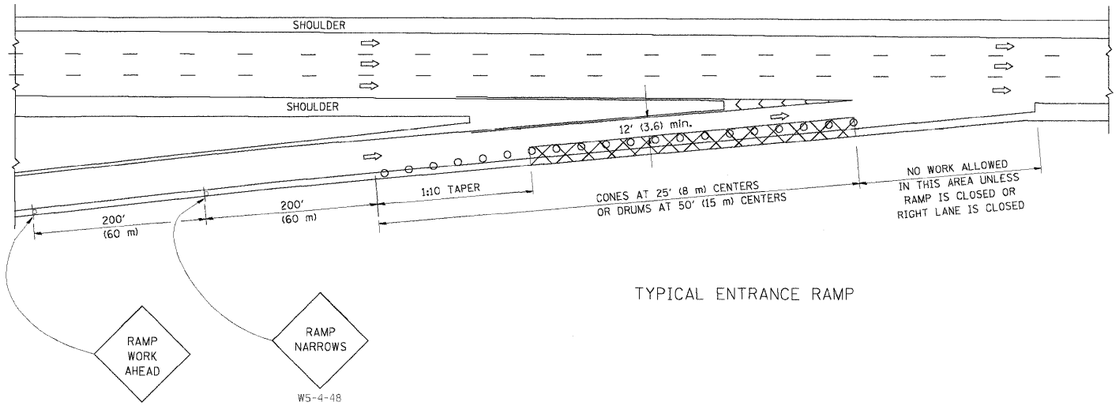
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

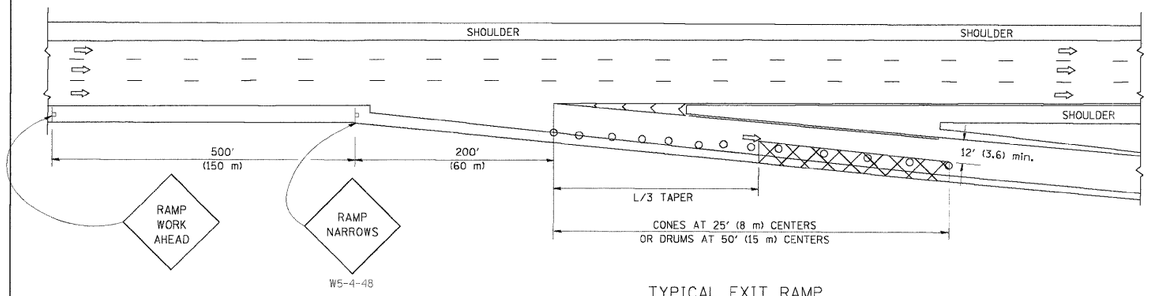
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	72
	TC-14	CONTRACT NO. **60863**		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

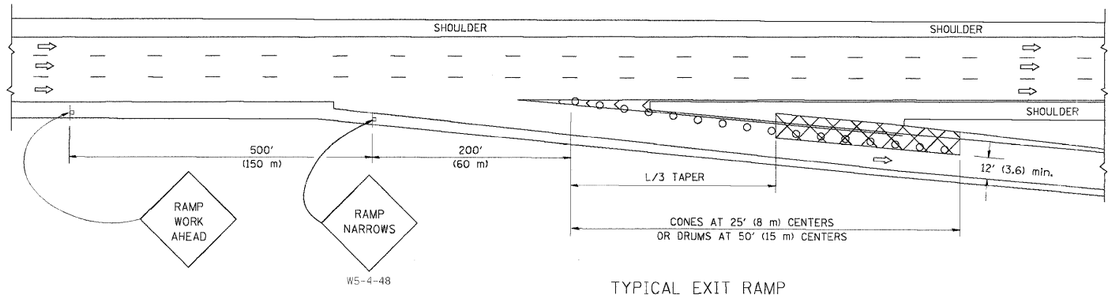
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

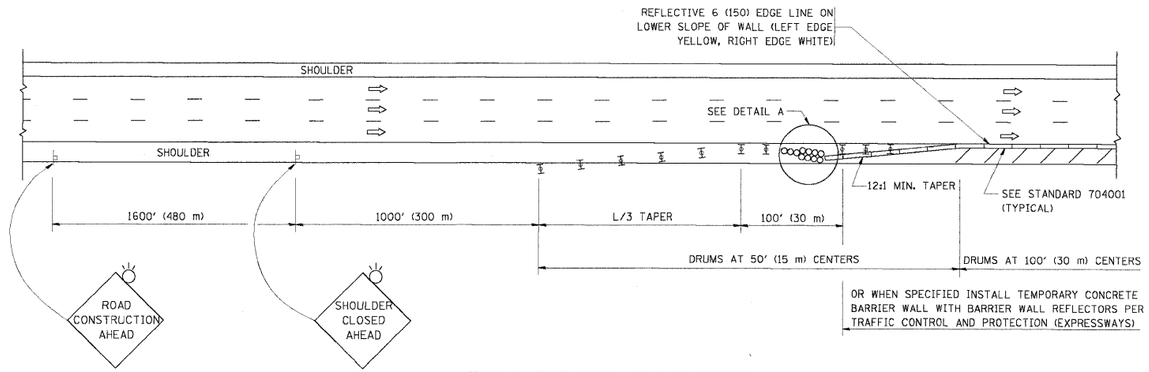
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS	
45 mph (80 km/h) OR GREATER:	METRIC L=0.65(W)(S)	ENGLISH L=(W)(S)

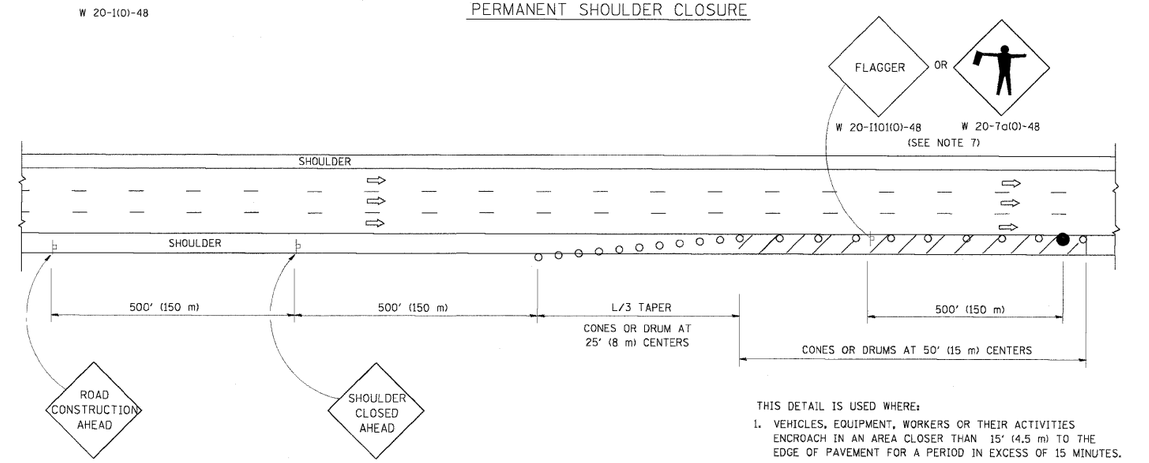
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



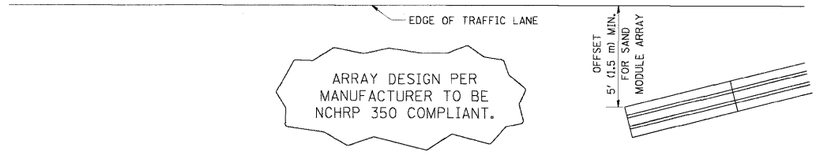
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4,5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

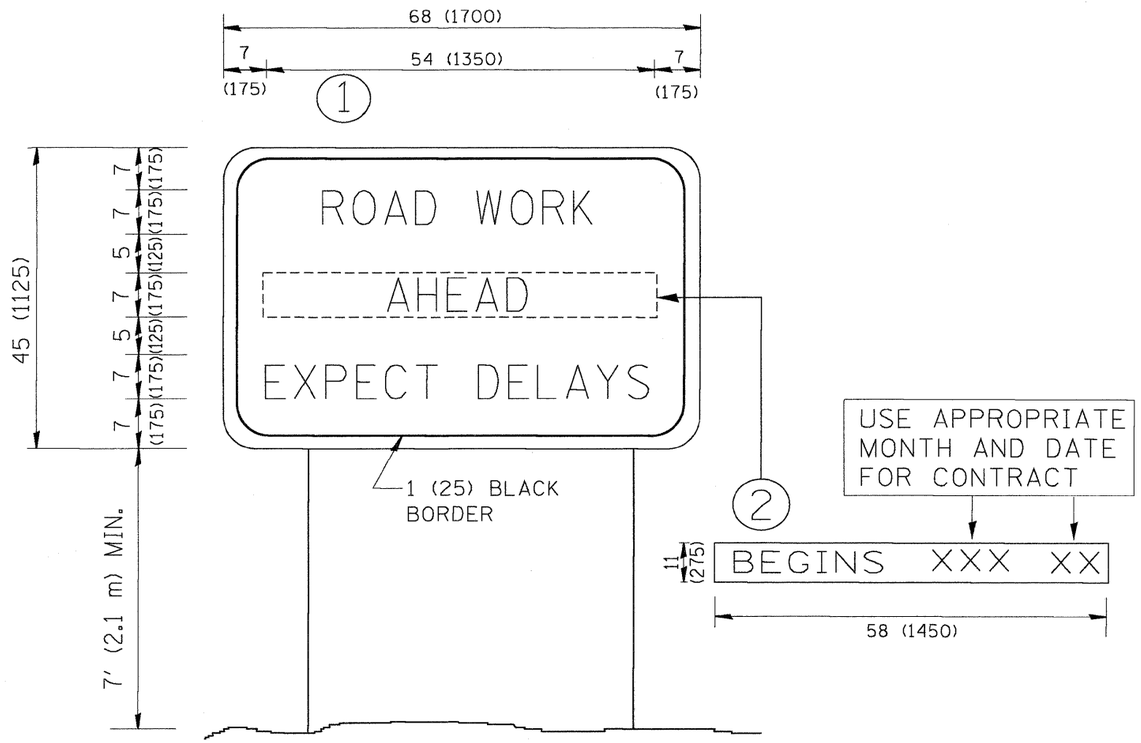
5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

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

FILE NAME = W:\diatstd\22x34\tc17.dgn	USER NAME = leyso	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED	REVISED - S.P.B. 01-07		
	PLOT DATE = 1/26/2010	DATE - 11-96	REVISED - S.P.B. 12-09		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	73
	TC-17	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

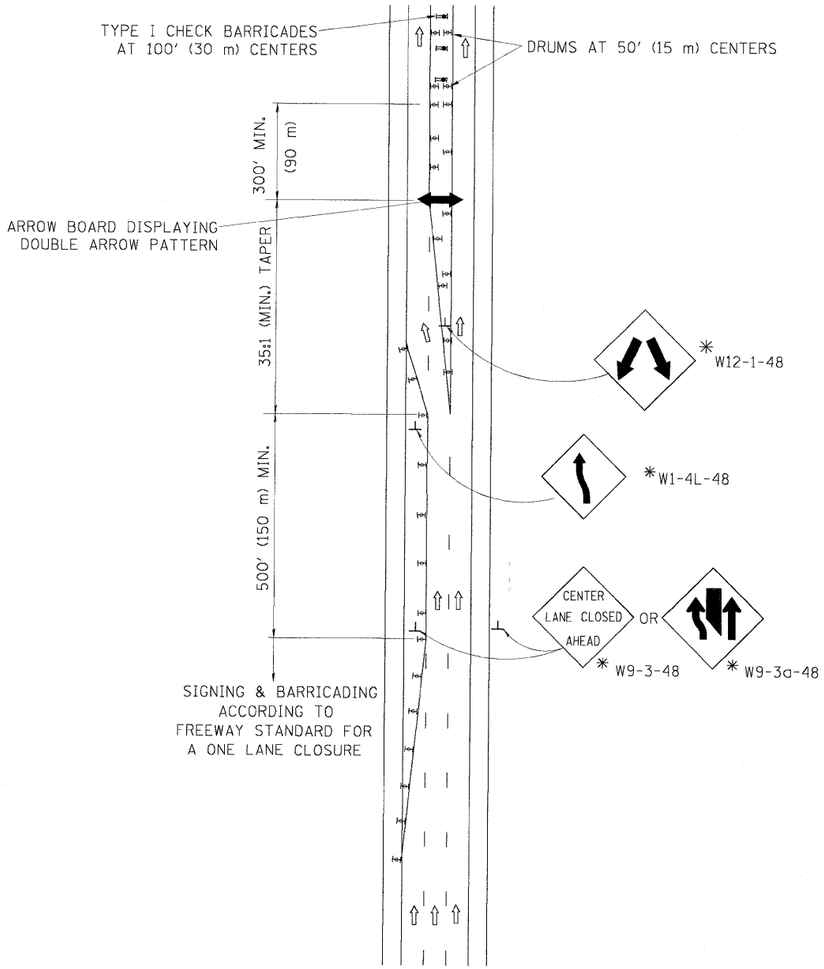
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

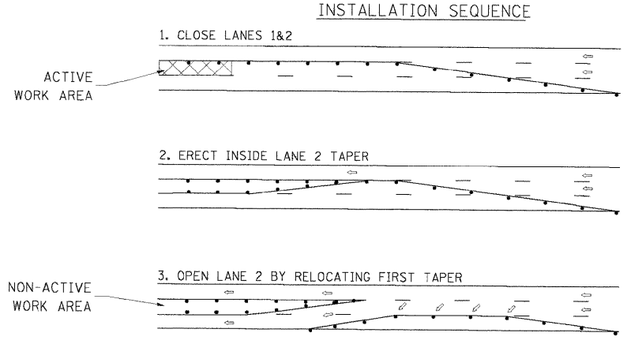
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	74
	TC-22	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CENTER LANE CLOSURE



INSTALLATION SEQUENCE

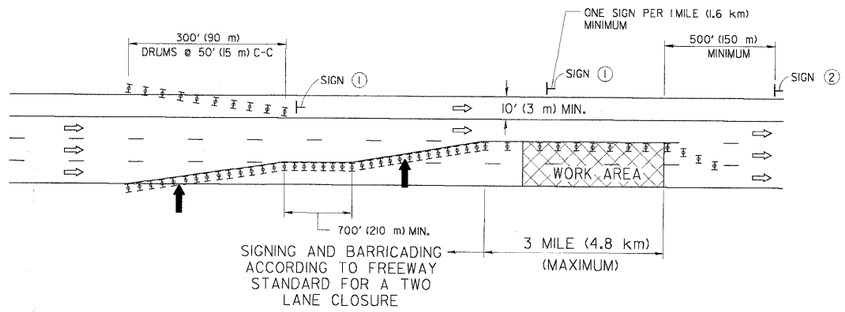


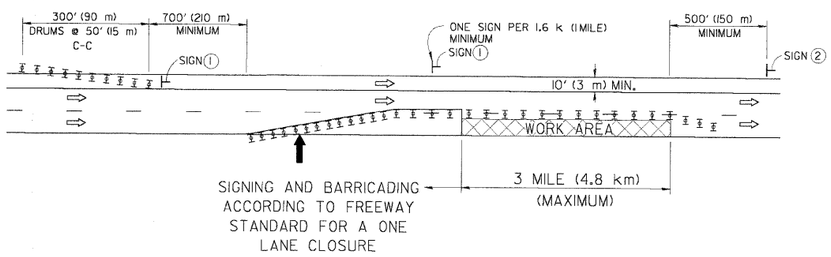
NOTES

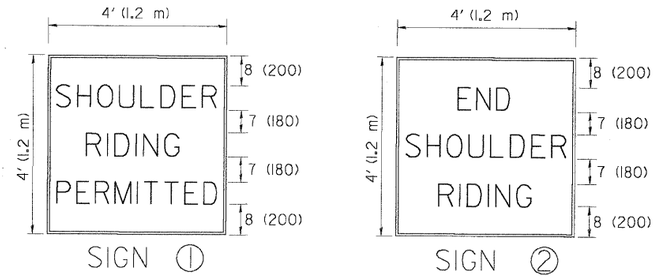
1. DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA.
2. CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.
3. CENTER LANE CLOSURE CONFIGURATION IS NOT TO BE USED WITH WORKERS PRESENT.

SHOULDER LANE

NOTE: CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.







6 (150) SERIES "C" LEGEND
BLACK LEGEND
WHITE REFLECT. BACKGROUND
1 (25) BORDER

SYMBOLS

- DIRECTION OF TRAFFIC
- ARROWBOARD
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT *
- TYPE II BARRICADE, OR DRUM WITH MONO-DIRECTIONAL STEADY BURN LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

FILE NAME = W:\diststd\22x34\tc25.dgn	USER NAME = leyse	DESIGNED -	REVISED - J.A.F. 04-03
		DRAWN -	REVISED - S.P.B. 01-07
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - S.P.B. 12-09
	PLOT DATE = 1/26/2010	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
CENTER LANE CLOSURE SHOULDER LANE

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1112.1B	COOK	75	75
	TC-25	CONTRACT NO. 60863		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		