

CONTRACT NO. 60B82

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	1
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

D-91-433-06

47

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
HIGHWAY**

FAU 1320 (IL 58)
SECTION: 581 EXT - BR
OVER POPLAR CREEK & AT IL 59
BRIDGE BEAM REPLACEMENT, NEW DECK
AND RESURFACING (3P)
COOK COUNTY
C-91-433-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2

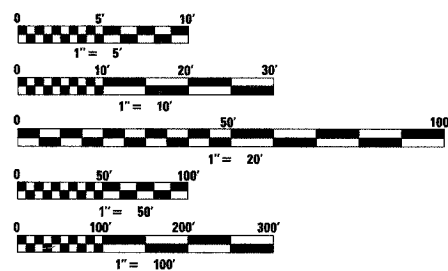
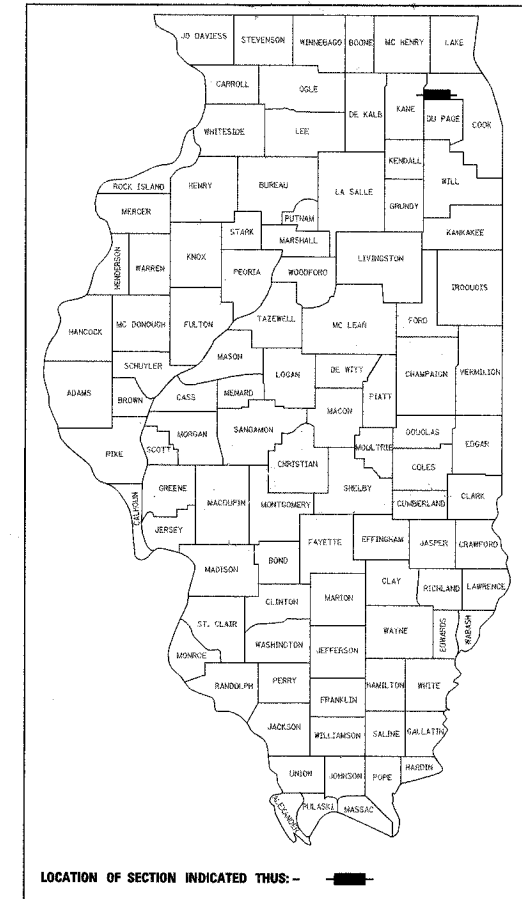
TRAFFIC DATA

EXISTING ADT
IL 59 37,200 (2005)
IL 58 16,700 (2005)

SPEED LIMIT
IL 59 45 MPH
IL 58 45 MPH

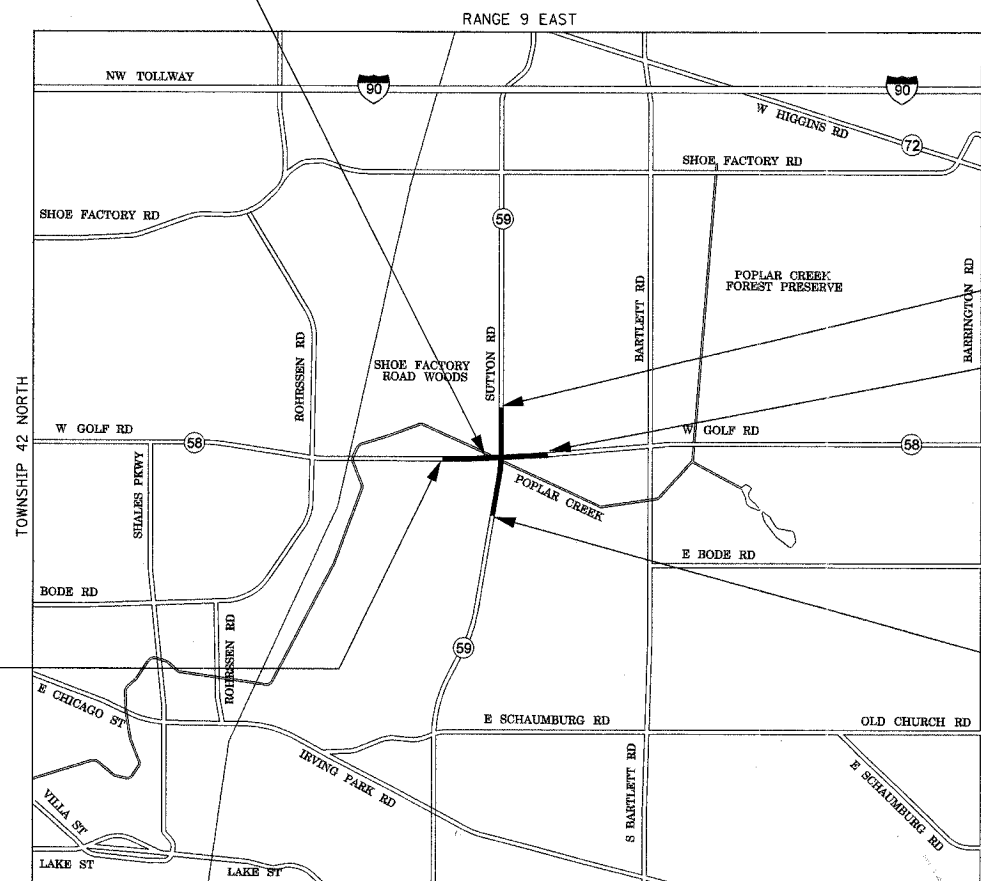
PROJECT LOCATED IN
UNINCORPORATED COOK
COUNTY, HANOVER TOWNSHIP

SN 016-2087
TWO SPAN PRECAST PRESTRESSED
CONCRETE DECK BEAM STRUCTURE
CARRYING F.A.U. 1320 (IL 58 GOLF
ROAD) OVER POPLAR CREEK



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



IMPROVEMENT LIMIT
STA. 2005+76

END IMPROVEMENT
STA. 1124+03

IMPROVEMENT LIMIT
STA. 1996+30

BEGIN IMPROVEMENT
STA. 1113+72.4

PETER M. JOHNSTON
062-047647
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS
Expires 11-30-07
Johnston
7-17-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 17, 2007
Diane O'Keefe / od
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

August 17, 2007
Eric E. Baranick
ENGINEER OF DESIGN AND ENVIRONMENT

August 17, 2007
Nelson R. See, P.E. / RD
DIRECTOR, DIVISION OF HIGHWAYS

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THE STATE OF ILLINOIS

GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC.
ENGINEERS & SCIENTISTS
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631
(773) 399-0112

FILE: H:\Jobs\2006\20063028-0\CAD\Site\dgn\00\cover.dgn
DATE: 14-Sep-06 14:37

DISTRICT ONE PLAN PREPARATION ENGINEER: KEN ENG (847) 705-4247

CONTRACT NO. 60B82

GROSS AND NET LENGTH OF PROJECT: 1,031 FT (0.195 MI)

HANOVER TOWNSHIP
NOT TO SCALE

CONTRACT NO. 60882

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	2
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS

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42	EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION MAIN STREET AND CROSS STREET
43-46	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
46A	TRAFFIC BARRIER TERMINAL, TYPE 2 DETAIL

STATE STANDARDS

STD. NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
420401-05	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATES FOR BRIDGES
606001-03	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
630001-07	STEEL PLATE BEAM GUARDRAIL
631011-03	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
701301-02	LANE CLOSURE, 2W, 2L, SHORT TIME OPERATIONS
701331-02	LANE CLOSURE, 2W, 2L, WITH RUN AROUND, FOR SPEEDS ≥ 45 MPH
701421-01	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS
805001	ELECTRICAL SERVICE INSTALLATION DETAILS
857001	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
880001	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION), (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- 10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTERS 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.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD ENGINEER, MR. WALTER CZARNY AT (773) 685-8386 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAU 1320 (IL 58 GOLF ROAD) OVER POPLAR CREEK
		INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
		DATE: 7/20/07
		DRAWN BY: WS CHECKED BY: RS
		GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. CHICAGO, ILLINOIS

Rev.


CONTRACT NO. 60B82

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	3
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES URBAN
100% STATE

ENGLISH	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	IL 58 1000	IL 59 1000	BRIDGE X081-2A
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	2	1	1	
40600300	AGGREGATE (PRIME COAT)	TON	22	10	12	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	5	2	3	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	464	213	251	
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	1,083	497	586	
40600895	CONSTRUCTING TEST STRIP	EACH	2	1	1	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	99	51	48	
40600990	TEMPORARY RAMP	SQ YD	67	35	32	
42001300	PROTECTIVE COAT	SQ YD	839	839		
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	749			749
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	91			91
44000100	PAVEMENT REMOVAL	SQ YD	430	430		
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	11,136	5,174	5,962	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	404	404		
44003100	MEDIAN REMOVAL	SQ FT	5,725	5,725		
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1			1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	55			55
50300260	BRIDGE DECK GROOVING	SQ YD	556.7			556.7
50300300	PROTECTIVE COAT	SQ YD	827.3			827.3
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	6,763			6,763
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	16,100			16,100
50800515	BAR SPLICERS	EACH	105			105
51500100	NAME PLATES	EACH	1			1
60250200	CATCH BASINS TO BE ADJUSTED	EACH	3	3		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	345	345		
60620800	CONCRETE MEDIAN, TYPE SB-9.12	SQ FT	3,444	3,444		
60622000	CONCRETE MEDIAN, TYPE SM-2.12	SQ FT	1,361	1,361		
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	283	283		
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	EACH	1	1		
63200310	GUARDRAIL REMOVAL	FOOT	490	490		
6700400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	2	2	6
67100100	MOBILIZATION	L SUM	1	0.2	0.2	0.6
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	0.2	0.2	0.6
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	150	63	87	
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	365	219	146	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	18,257	17,446	811	
58700300	CONCRETE SEALER	SQ FT	504			504

* SPECIALTY ITEMS

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAU 1320 (IL 58 GOLF ROAD) OVER POPLAR CREEK SUMMARY OF QUANTITIES DRAWN BY: LT CHECKED BY: RS DATE: 7/20/07
NAME	DATE	
 GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. CHICAGO, ILLINOIS		


CONTRACT NO. 60B82

F.A.U. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	4
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

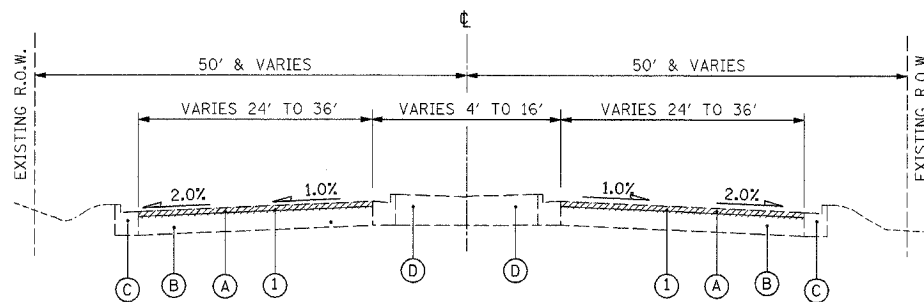
SUMMARY OF QUANTITIES *URBAN*
100-1 STATE

ENGLISH	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	IL 58 1000	IL 59 1000	BRIDGE X081-2A
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2,865	1,300	1,565	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	326	182	144	
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	949	949		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	278	278		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	255	255		
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	73	73	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3,835	1,807	2,028	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,433	650	783	
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	163	91	72	
78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	438	438		
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	92	43	49	
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	9	9		
78200410	GUARDRAIL MARKERS, TYPE A	EACH	11	11		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	101	52	49	
81000600	CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL	FOOT	190	190		
81018500	CONDUIT PUSHED, 2" DIA, GALVANIZED STEEL	FOOT	155	155		
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALVANIZED STEEL	FOOT	96	96		
81100700	CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA, GALVANIZED STEEL	FOOT	96	96		
81400100	HANDHOLE	EACH	1	1		
81400200	HEAVY DUTY HANDHOLE	EACH	3	3		
81603040	UNIT DUCT, 600V, 2-1/C NO. 6, 1/C NO. 8 GROUND, (XLP-TYPE USE), 1" DIA POLYETHYLENE	FOOT	389	389		
81800330	AERIAL CABLE, 3-1/C NO 6 WITH MESSENGER WIRE	FOOT	360	360		
82057350	LIGHT POLE, WOOD, 60 FOOT, CLASS 4	EACH	1	1		
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	395	395		
87900200	DRILL EXISTING HANDHOLE	EACH	4	4		
88600100	DETECTOR LOOP, TYPE I	FOOT	639	639		
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102	51	51	
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")	SQ FT	14			14
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	248.5			248.5
X0712400	TEMPORARY PAVEMENT	SQ YD	366	366		
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	754.4			754.4
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.2	0.2	0.6
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	3		3	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2	2		
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2	2		
Z0037100	TEMPORARY WALL BRACING SYSTEM	L SUM	1			1

* SPECIALTY ITEMS

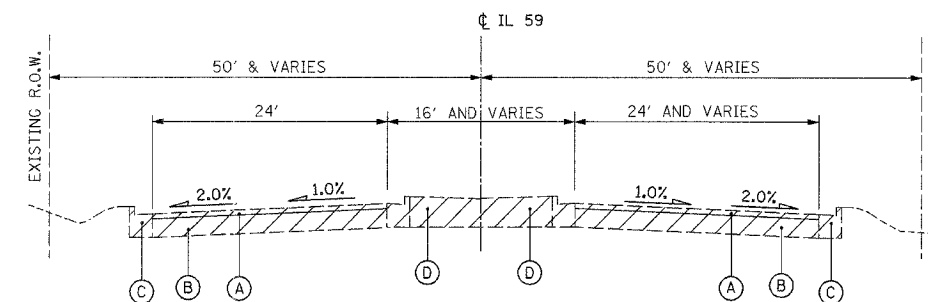
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAU 1320 (IL 58 GOLF ROAD) OVER POPLAR CREEK SUMMARY OF QUANTITIES DATE: 7/20/07 DRAWN BY: LT CHECKED BY: RS
NAME	DATE	
 GRAEF, ANHALT, SCHLOEMER & ASSOCIATES, INC. CHICAGO, ILLINOIS		

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



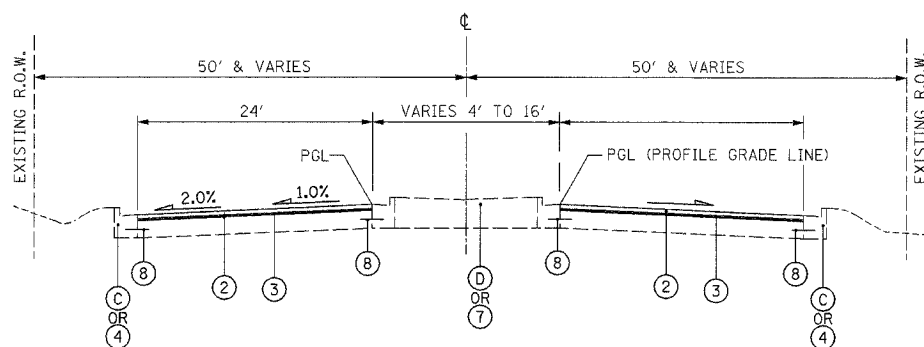
EXISTING TYPICAL SECTION

SUTTON ROAD (RTE. 59) STA. 1996+30.0 TO STA. 2005+76.0
 GOLF ROAD (RTE. 58) STA. 1113+94.0 TO STA. 1114+53.3
 GOLF ROAD (RTE. 58) STA. 1116+26.7 TO STA. 1124+03.0



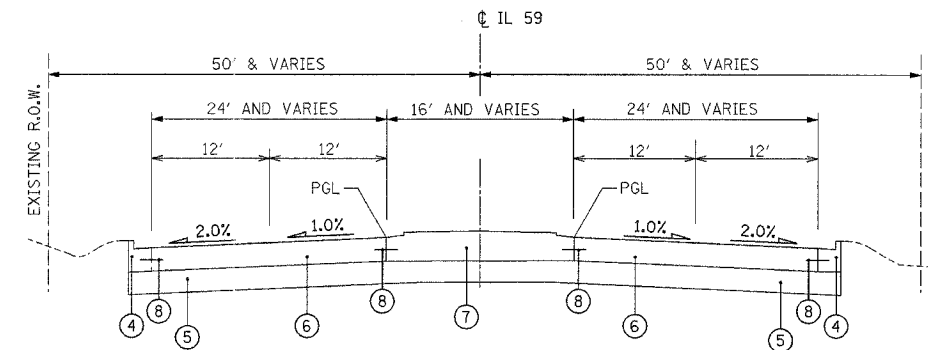
EXISTING TYPICAL SECTION

GOLF ROAD (RTE. 58) STA. 1114+53.3 TO STA. 1114+61.3
 GOLF ROAD (RTE. 58) STA. 1116+18.7 TO STA. 1116+26.7



PROPOSED TYPICAL SECTION

SUTTON ROAD (RTE. 59) STA. 1996+30.0 TO STA. 2005+76.0
 GOLF ROAD (RTE. 58) STA. 1113+94.0 TO STA. 1114+53.3
 GOLF ROAD (RTE. 58) STA. 1116+26.7 TO STA. 1124+03.0



PROPOSED TYPICAL SECTION

GOLF ROAD (RTE. 58) STA. 1114+53.3 TO STA. 1114+61.3
 GOLF ROAD (RTE. 58) STA. 1116+18.7 TO STA. 1116+26.7

EXISTING CONDITIONS:

- (A) HOT-MIX ASPHALT SURFACE, 3" & VARIES
- (B) EXISTING P.C.C. PAVEMENT, 10" & VARIES
- (C) COMBINATION CONCRETE CURB AND GUTTER
- (D) PAVED MEDIAN

PROPOSED IMPROVEMENTS:

- (1) HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- (2) HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" (IL 9.5 mm)
- (3) LEVELING BINDER (MACHINE METHOD), N70, 3/4" & VARIES (IL 9.5 mm)
- (4) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- (5) AGGREGATE SUBGRADE, 12"
- (6) BRIDGE APPROACH PAVEMENT CONNECTOR (P.C.C..)
- (7) CONCRETE MEDIAN, TYPE SM-2.12 OR SB-9.12
- (8) NO. 6 24" TIE BARS WITH 24" C-C. COST INCLUDED IN COST OF CURB AND GUTTER.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" (IL 9.5 mm)	SBS/SBR PG 70-22	4% @ 90 GYR
LEVELING BINDER (MACHINE METHOD), N70, 3/4" & VARIES (IL 9.5 mm)	PG 64-22 *	4% @ 50 GYR
TEMP PAVEMENT HMA BINDER, (IL-19 mm)	PG 64-22 *	4% @ 50 GYR
TEMP PAVEMENT HMA SURFACE COURSE, MIX "D", N50, 2" (IL 9.5 mm)	PG 64-22	4% @ 50 GYR

* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58 - 22
 THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT MIXTURES IS 112 LB/SQ YD/INCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK

TYPICAL SECTIONS

SCALE: NOT TO SCALE
 DATE 7/20/07

DRAWN BY: AJR
 CHECKED BY: RS

CONTRACT NO. 60B82

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SUGGESTED CONSTRUCTION STAGING

PRE-STAGE BRIDGE RECONSTRUCTION

PLACE TEMPORARY PAVEMENT MARKING, SIGNING AND TRAFFIC CONTROL ITEMS
 INSTALL TEMPORARY TRAFFIC SIGNALS
 REMOVE PAVED MEDIANS AND CONSTRUCT TEMPORARY PAVEMENTS
 PLACE STAGE 1 PAVEMENT MARKINGS, SIGNING AND TRAFFIC CONTROL

STAGE 1 BRIDGE RECONSTRUCTION

SHIFT TRAFFIC TO STAGE 1 CONFIGURATION
 REMOVE STAGE 1 PORTION OF BRIDGE AND ADJACENT PAVEMENTS
 PLACE BEAMS AND CONSTRUCT CONCRETE OVERLAY, BRIDGE APPROACH PAVEMENT, BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) AND ADJACENT CONCRETE CURB AND GUTTER.
 PLACE TEMPORARY PAVEMENT ON DECK BEAMS.
 PLACE STAGE 2 PAVEMENT MARKINGS, SIGNING AND TRAFFIC CONTROL.
 SHIFT TEMPORARY TRAFFIC SIGNAL HEADS TO STAGE 2 CONFIGURATION

STAGE 2 BRIDGE RECONSTRUCTION

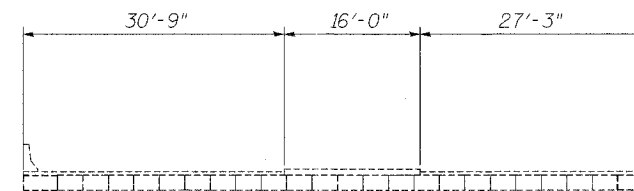
SHIFT TRAFFIC TO STAGE 2 CONFIGURATION
 REMOVE STAGE 2 PORTION OF BRIDGE AND ADJACENT PAVEMENTS
 PLACE BEAMS AND CONSTRUCT CONCRETE OVERLAY, BRIDGE APPROACH PAVEMENT, BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) AND ADJACENT CONCRETE CURB AND GUTTER.
 PLACE POST STAGE PAVEMENT MARKINGS, SIGNING AND TRAFFIC CONTROL.
 SHIFT TEMPORARY TRAFFIC SIGNAL HEADS TO POST STAGE CONFIGURATION

POST STAGE BRIDGE RECONSTRUCTION

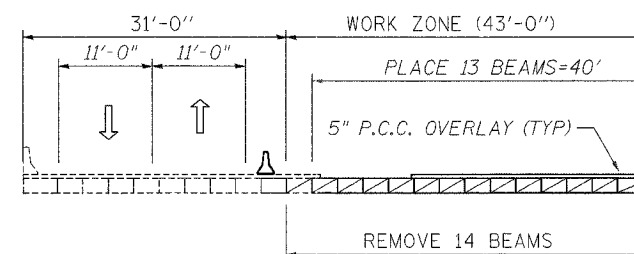
SHIFT TRAFFIC TO POST STAGE CONFIGURATION
 REMOVE TEMPORARY PAVEMENTS AND CONSTRUCT CONCRETE MEDIANS
 ACTIVATE PERMANENT TRAFFIC SIGNALS AND REMOVE TEMPORARY TRAFFIC SIGNALS.

HMA SURFACE REMOVAL AND RESURFACING

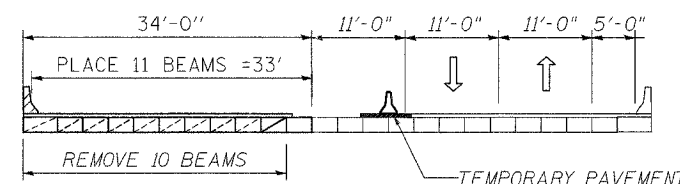
MILLING AND RESURFACING WORK WILL BE CONSTRUCTED UTILIZING HIGHWAY STANDARD 701421



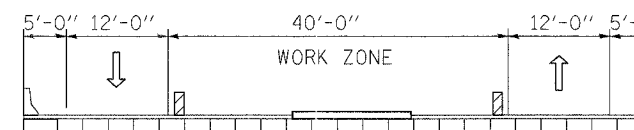
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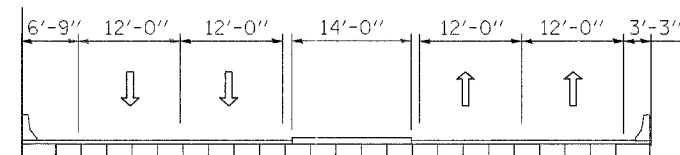
STAGE I



STAGE II



PRE-STAGE / POST STAGE



PROPOSED FINAL CONFIGURATION

LEGEND

- DIRECTION OF TRAFFIC
- ▲ TEMPORARY CONCRETE BARRIER WALL
- ▤ DECK BEAM REMOVAL LIMIT
- ▥ DRUMS @50' CENTERS
- ▨ TEMPORARY PAVEMENT
- EXISTING
- CONSTRUCTION
- COMPLETED

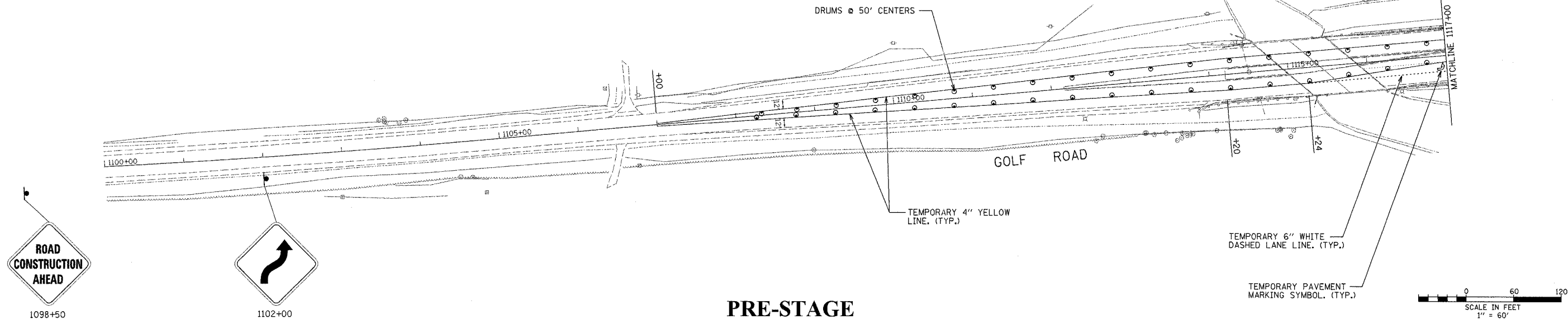
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		FAU 1320 (IL 58 GOLF ROAD) OVER POPLAR CREEK MOT TYPICAL SECTIONS DATE: 7/20/07 SCALE: NOT TO SCALE DRAWN BY: RG CHECKED BY: RJS

CONTRACT NO. 60B82

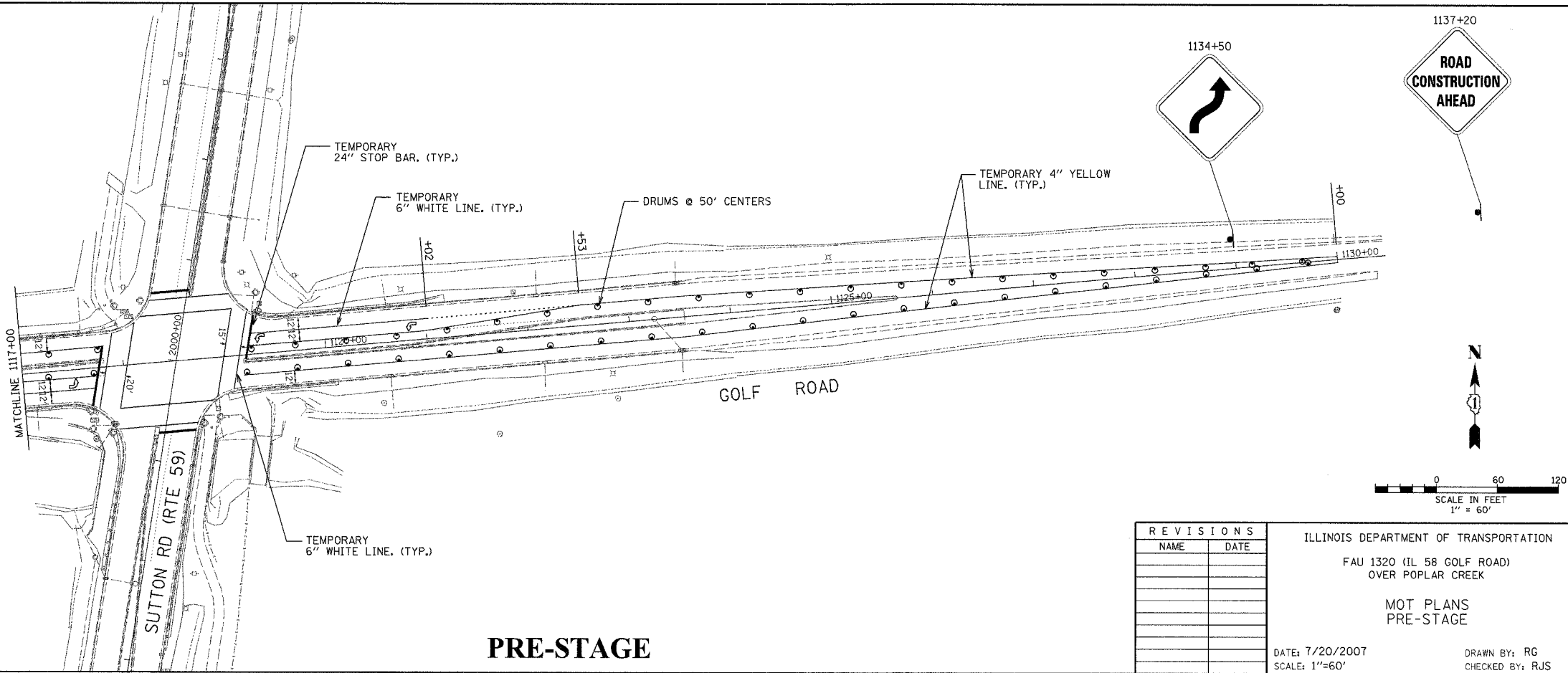
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

LEGEND:

- TEMPORARY CONCRETE BARRIER WALL
- ⚠ WARNING SIGN
- ▣ IMPACT ATTENUATORS
- DRUMS @ 50' C-C
- ⚡ TYPE III BARRICADE
- ▨ WORK ZONE



PRE-STAGE



PRE-STAGE

REVISIONS	
NAME	DATE

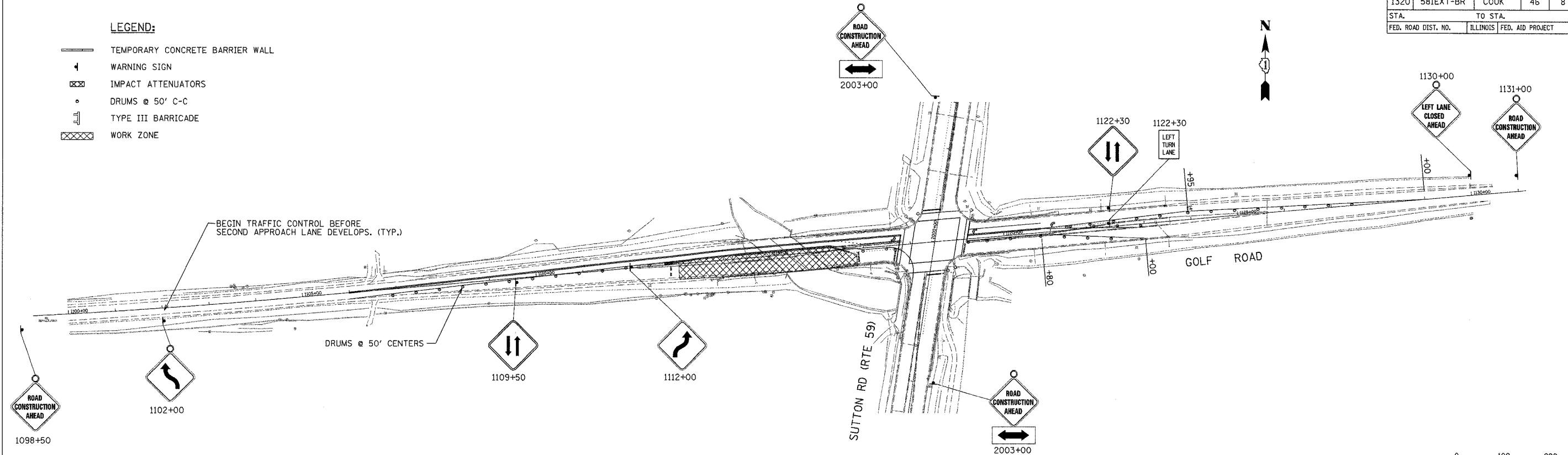
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 MOT PLANS
 PRE-STAGE
 DATE: 7/20/2007
 SCALE: 1"=60'
 DRAWN BY: RG
 CHECKED BY: RJS

CONTRACT NO. 60B82

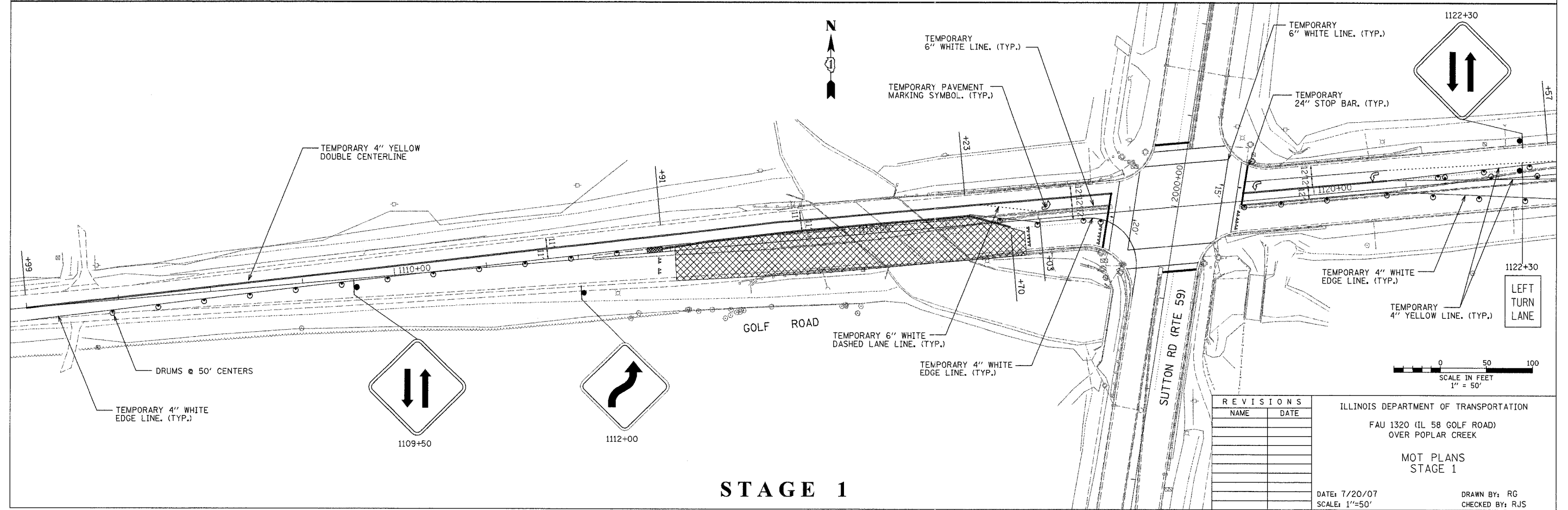
F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND:

- TEMPORARY CONCRETE BARRIER WALL
- ⚠ WARNING SIGN
- ▣ IMPACT ATTENUATORS
- DRUMS @ 50' C-C
- ⚡ TYPE III BARRICADE
- ▨ WORK ZONE



STAGE 1



STAGE 1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 MOT PLANS
 STAGE 1
 DATE: 7/20/07
 SCALE: 1"=50'
 DRAWN BY: RG
 CHECKED BY: RJS

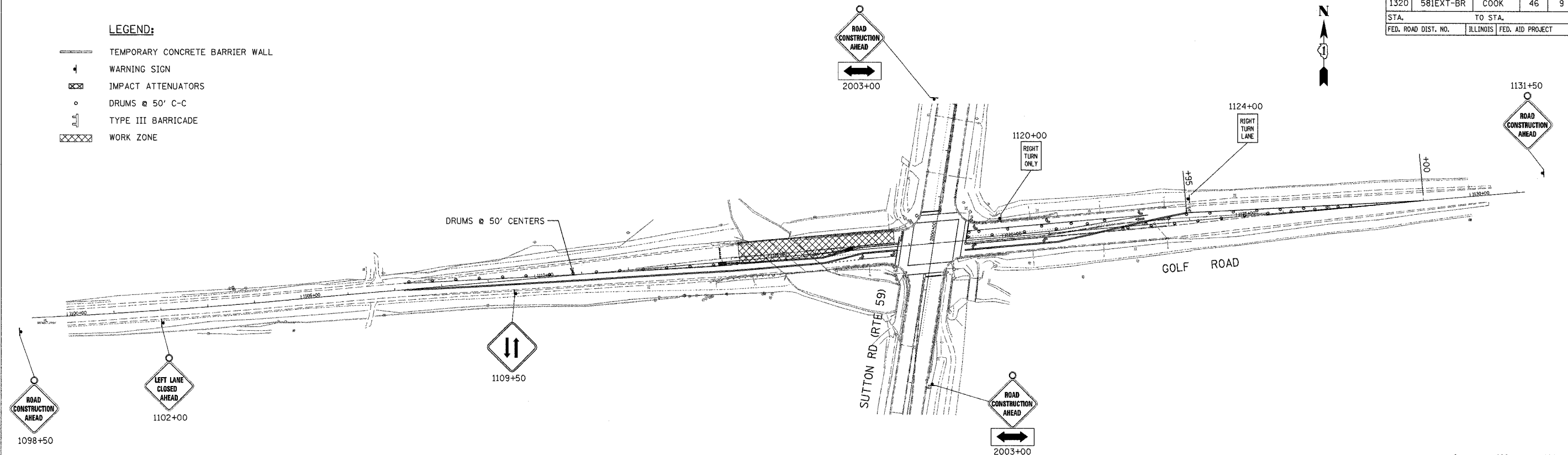
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CONTRACT NO. 60B82

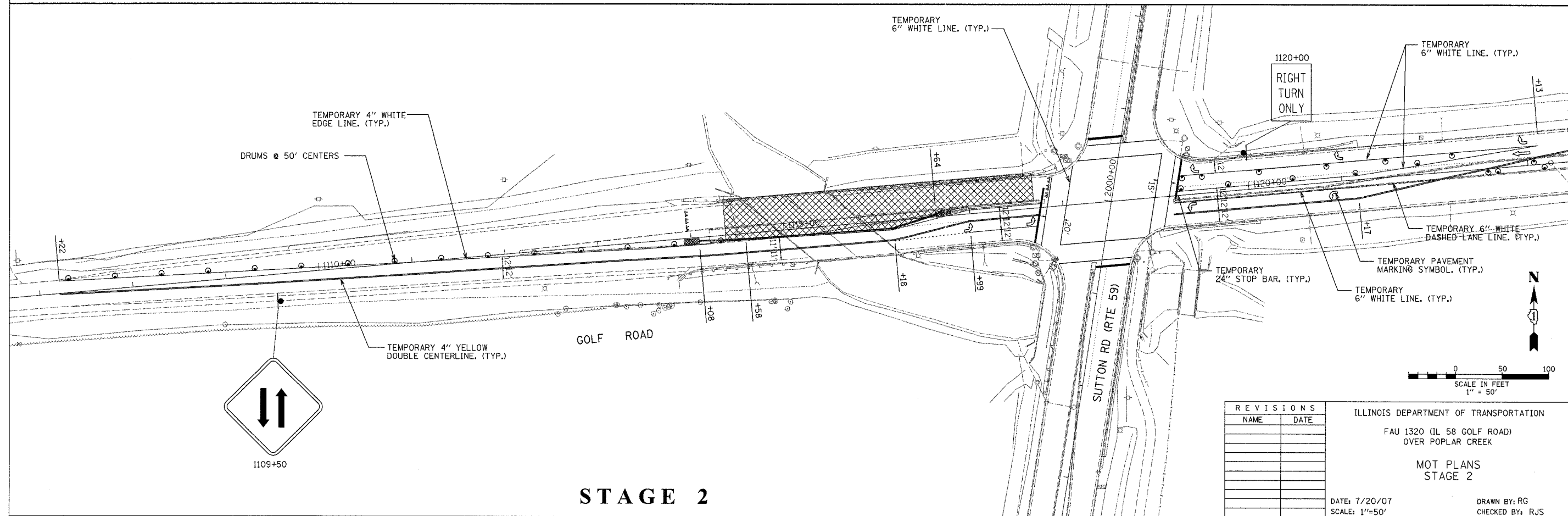
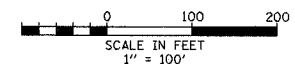
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND:

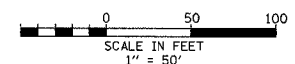
- TEMPORARY CONCRETE BARRIER WALL
- ⚠ WARNING SIGN
- ▣ IMPACT ATTENUATORS
- DRUMS @ 50' C-C
- ⚡ TYPE III BARRICADE
- ▨ WORK ZONE



STAGE 2



STAGE 2









REVISIONS	
NAME	DATE

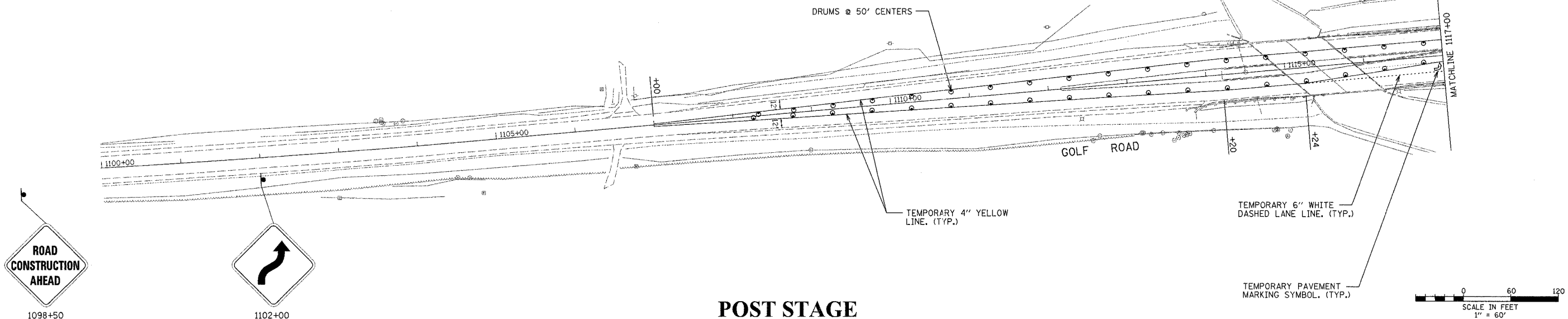
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
**MOT PLANS
 STAGE 2**
 DATE: 7/20/07
 SCALE: 1"=50'
 DRAWN BY: RG
 CHECKED BY: RJS

CONTRACT NO. 60882

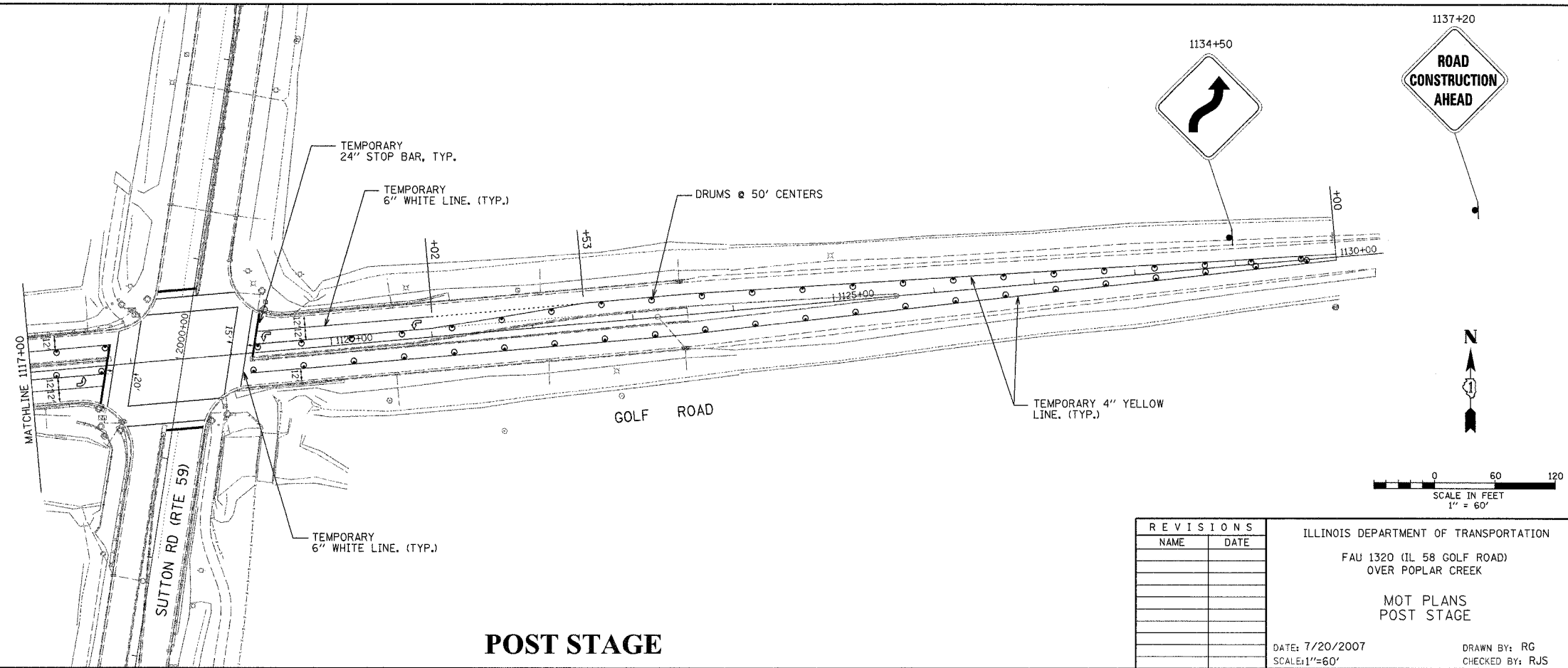
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND:

-  TEMPORARY CONCRETE BARRIER WALL
-  WARNING SIGN
-  IMPACT ATTENUATORS
-  DRUMS @ 50' C-C
-  TYPE III BARRICADE
-  WORK ZONE



POST STAGE



POST STAGE

REVISIONS	
NAME	DATE

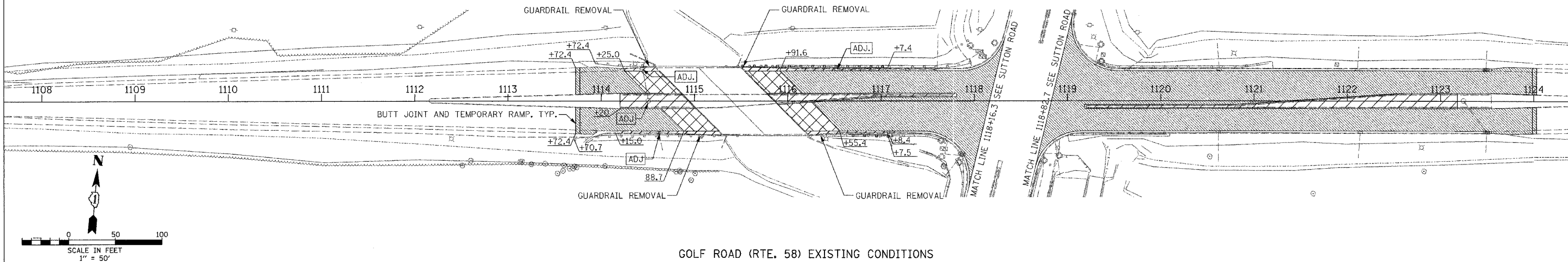
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 MOT PLANS
 POST STAGE
 DATE: 7/20/2007
 SCALE: 1"=60'
 DRAWN BY: RG
 CHECKED BY: RJS

LEGEND: CURB & GUTTER REMOVAL PAVEMENT REMOVAL MEDIAN REMOVAL
 STRUCTURE ADJUSTMENT H.M.A. SURFACE REMOVAL, 2 1/2"

CONTRACT NO. 60B82

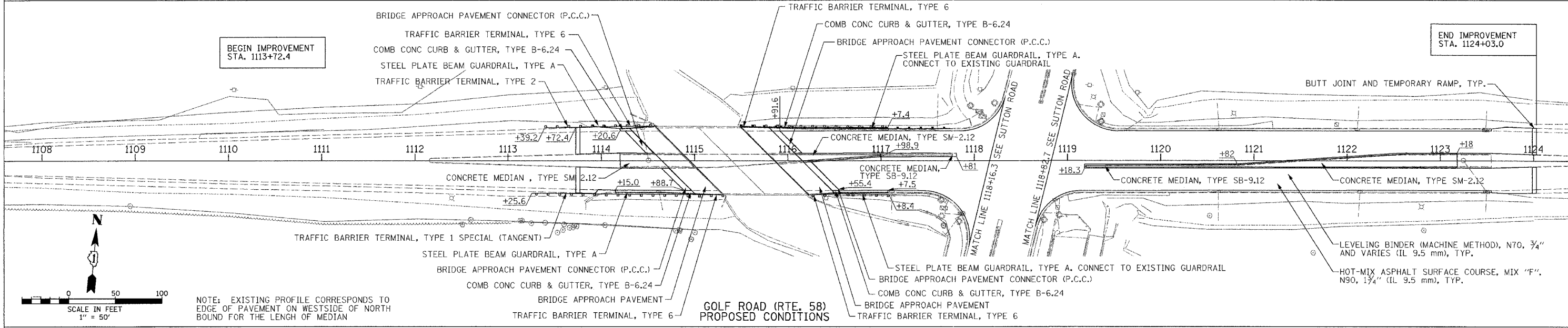
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

DATE: _____
 BY: _____
 CHECKED: _____
 ALLOWED: _____
 CAD FILE NAME: _____
 NO. _____



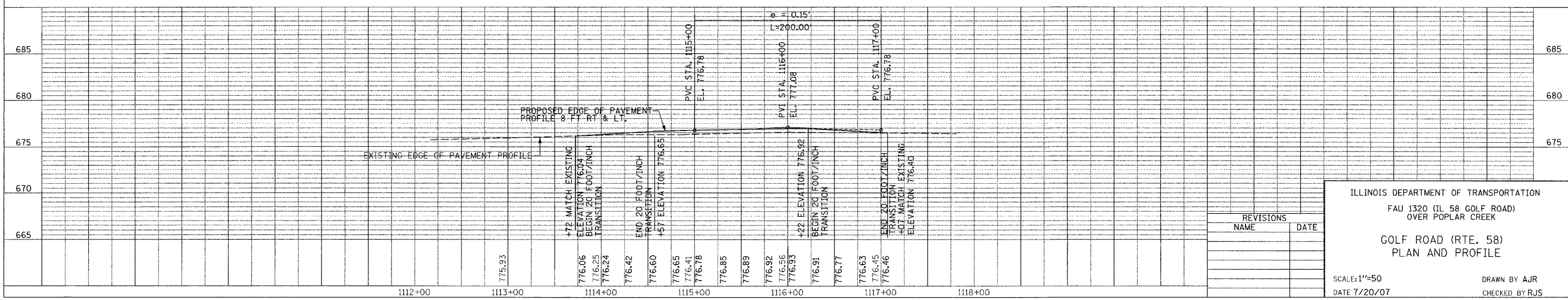
GOLF ROAD (RTE. 58) EXISTING CONDITIONS

DATE: _____
 BY: _____
 CHECKED: _____
 ALLOWED: _____
 CAD FILE NAME: _____
 NO. _____



GOLF ROAD (RTE. 58) PROPOSED CONDITIONS

NOTE: EXISTING PROFILE CORRESPONDS TO EDGE OF PAVEMENT ON WESTSIDE OF NORTH BOUND FOR THE LENGTH OF MEDIAN



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
**GOLF ROAD (RTE. 58)
 PLAN AND PROFILE**
 SCALE: 1"=50
 DATE 7/20/07
 DRAWN BY AJR
 CHECKED BY RJS

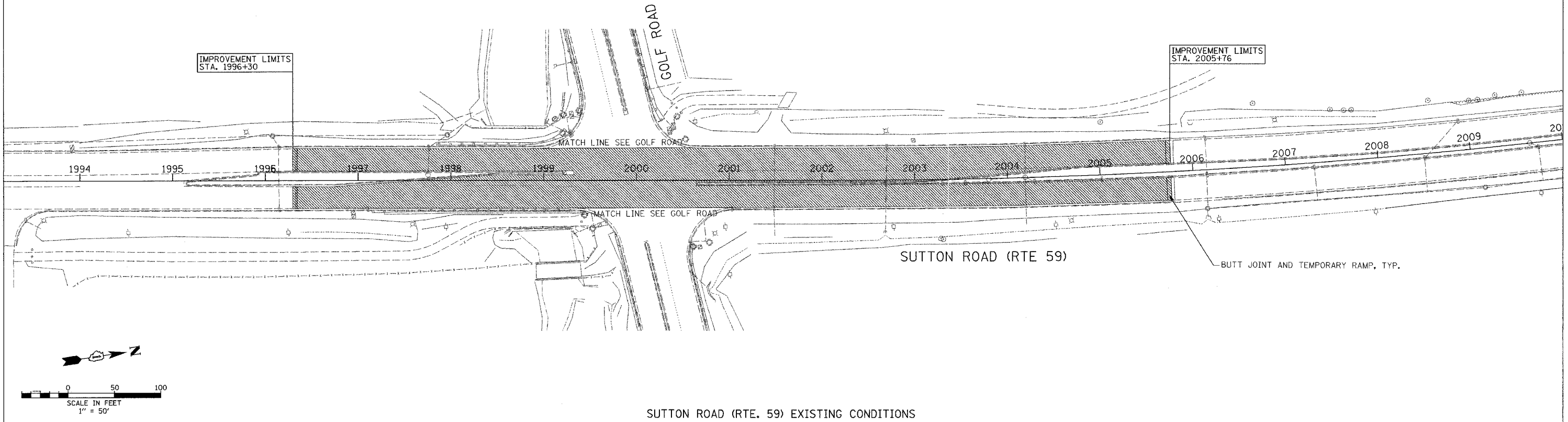
PLOT DATE = 7/16/2007
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = USER

LEGEND: CURB & GUTTER REMOVAL PAVEMENT REMOVAL MEDIAN REMOVAL
 ADJ. STRUCTURE ADJUSTMENT H.M.A. SURFACE REMOVAL

CONTRACT NO. 60882

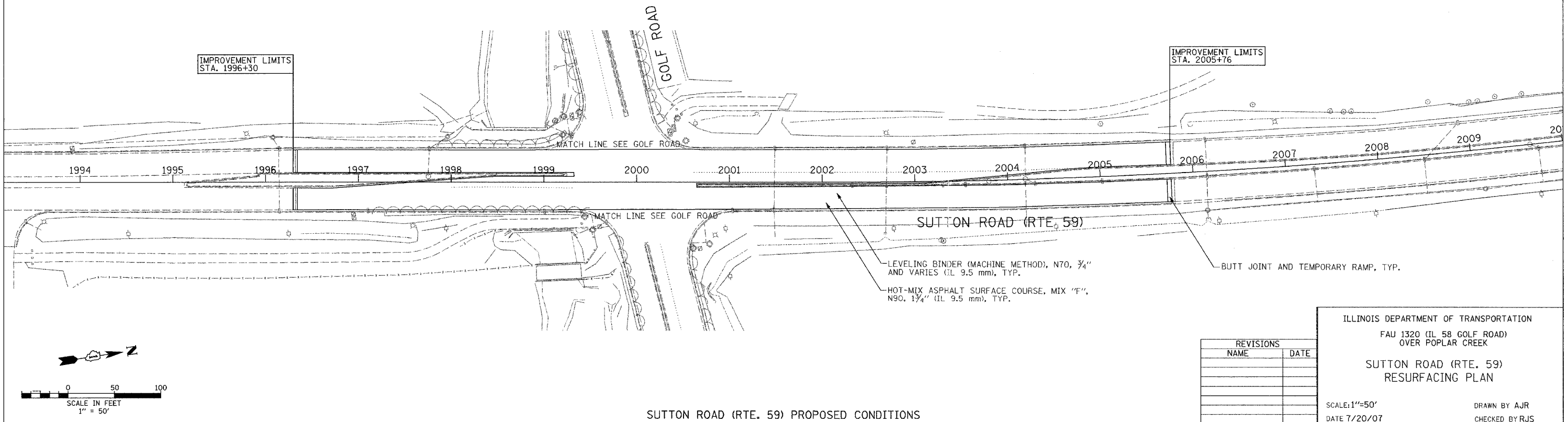
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	12
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

DATE	BY



SUTTON ROAD (RTE. 59) EXISTING CONDITIONS

DATE	BY



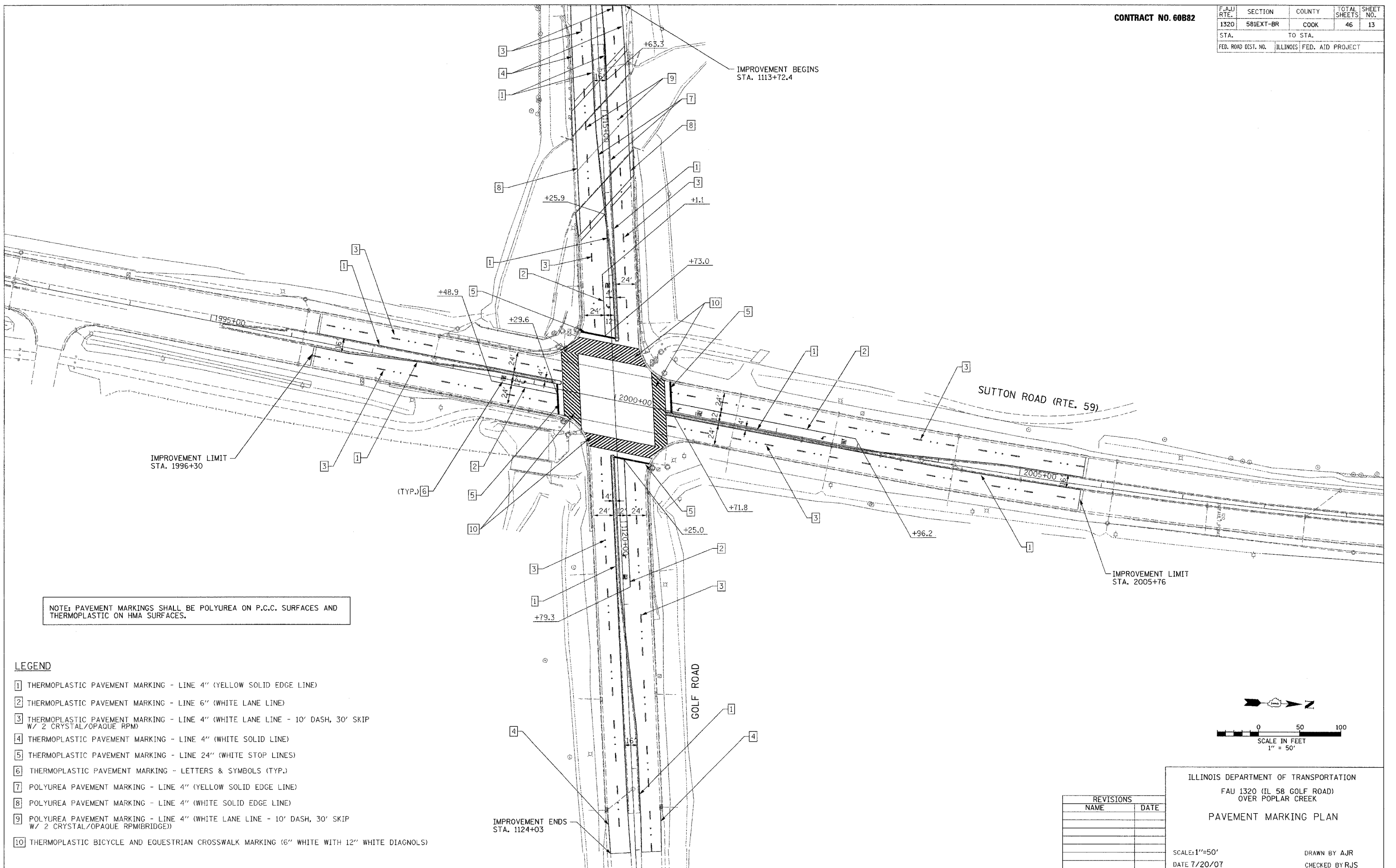
SUTTON ROAD (RTE. 59) PROPOSED CONDITIONS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
**SUTTON ROAD (RTE. 59)
 RESURFACING PLAN**
 SCALE: 1"=50'
 DATE 7/20/07
 DRAWN BY AJR
 CHECKED BY RJS

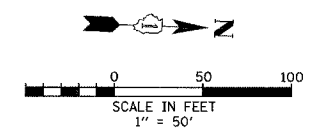
CONTRACT NO. 60882

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

- 1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID EDGE LINE)
- 2 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE LANE LINE)
- 3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP W/ 2 CRYSTAL/OPAQUE RPM)
- 4 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SOLID LINE)
- 5 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINES)
- 6 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS (TYP.)
- 7 POLYUREA PAVEMENT MARKING - LINE 4" (YELLOW SOLID EDGE LINE)
- 8 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE SOLID EDGE LINE)
- 9 POLYUREA PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP W/ 2 CRYSTAL/OPAQUE RPM(BRIDGE))
- 10 THERMOPLASTIC BICYCLE AND EQUESTRIAN CROSSWALK MARKING (6" WHITE WITH 12" WHITE DIAGNOLS)



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
PAVEMENT MARKING PLAN
 SCALE: 1"=50'
 DATE 7/20/07
 DRAWN BY AJR
 CHECKED BY RJS

NOTES FOR TEMPORARY TRAFFIC SIGNAL

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12"(300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. THE TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROL CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

CONTRACT NO. 60B82

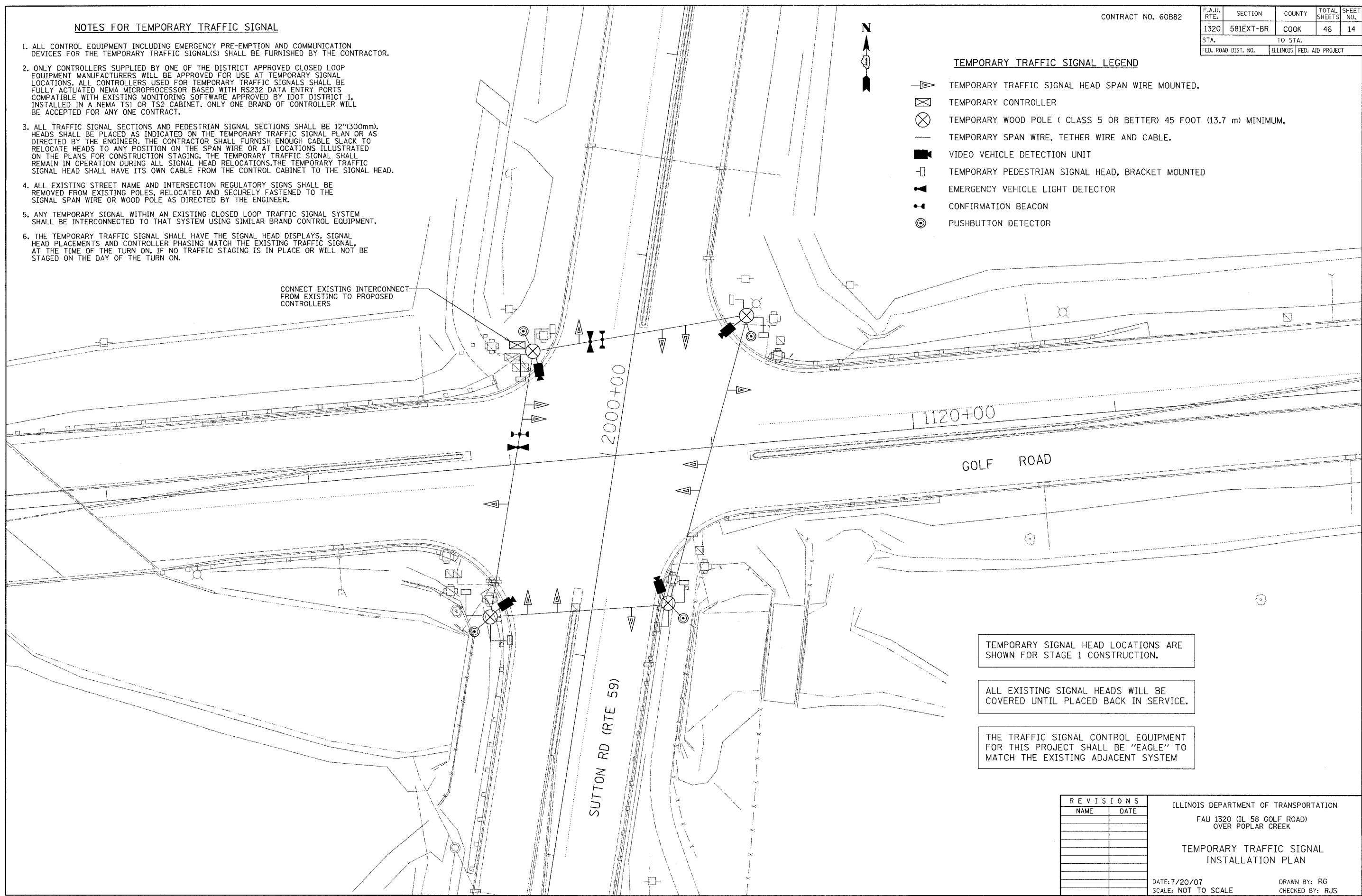
F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	14
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED.
- TEMPORARY CONTROLLER
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7 m) MINIMUM.
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE.
- VIDEO VEHICLE DETECTION UNIT
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR



CONNECT EXISTING INTERCONNECT FROM EXISTING TO PROPOSED CONTROLLERS



TEMPORARY SIGNAL HEAD LOCATIONS ARE SHOWN FOR STAGE 1 CONSTRUCTION.

ALL EXISTING SIGNAL HEADS WILL BE COVERED UNTIL PLACED BACK IN SERVICE.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM

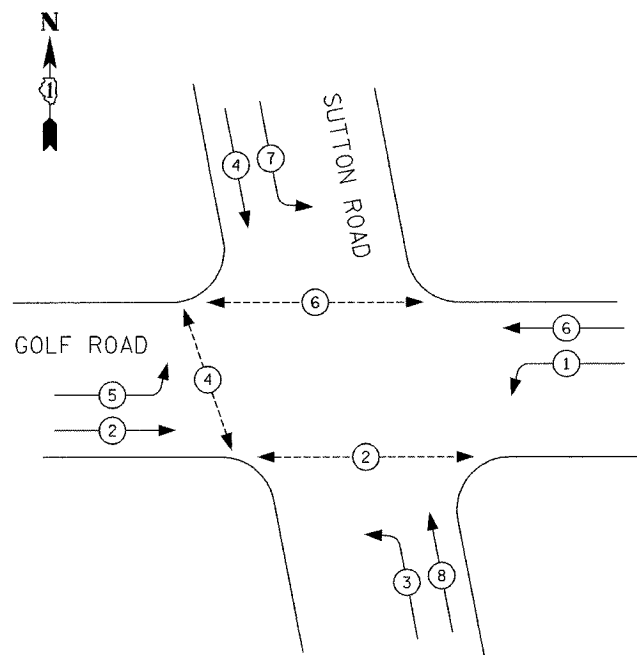
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 TEMPORARY TRAFFIC SIGNAL
 INSTALLATION PLAN

DATE: 7/20/07
 SCALE: NOT TO SCALE
 DRAWN BY: RG
 CHECKED BY: RJS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	15
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE IV



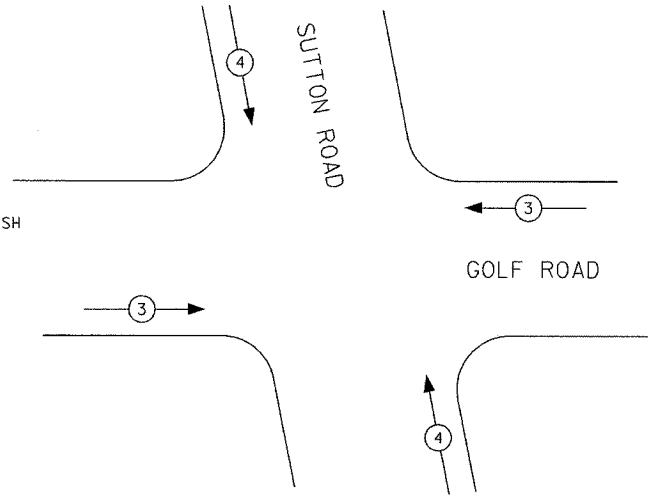
TEMPORARY PHASE DESIGNATION DIAGRAM

- LEGEND:**
- ← * → DUAL ENTRY PHASE
 - ← * → SINGLE ENTRY PHASE
 - ← * → PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 2 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 6 AND 8

ALL EXISTING SIGNAL HEADS WILL BE COVERED UNTIL PLACED BACK IN SERVICE

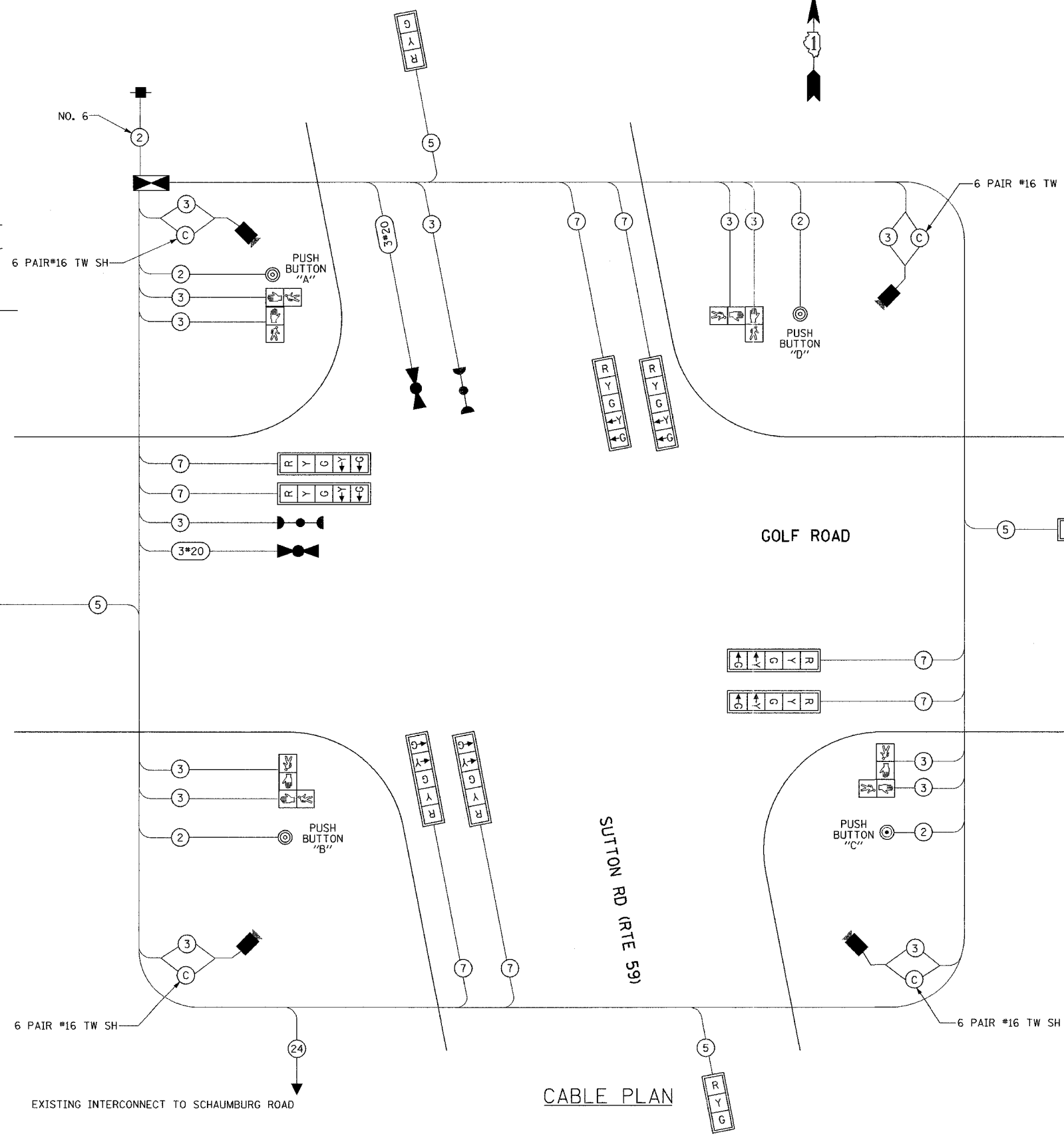
EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

CABLE PLAN LEGEND:

- VIDEO DETECTION CAMERA
- G 8" TRAFFIC SIGNAL SECTION
- R 12" TRAFFIC SIGNAL SECTION
- W 12" PEDESTRIAN SIGNAL SECTION
- Ⓜ 12" PEDESTRIAN SIGNAL SECTION
- ☒ CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- MAGNETIC DETECTOR
- ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- ⊙ PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- R Y G SIGNAL FACE WITH BACK PLATE "P" INDICATES PROGRAMMED HEAD
- "E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD
- "P"



CABLE PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 TEMPORARY TRAFFIC SIGNAL
 CABLE PLAN AND SEQUENCE
 OF OPERATIONS

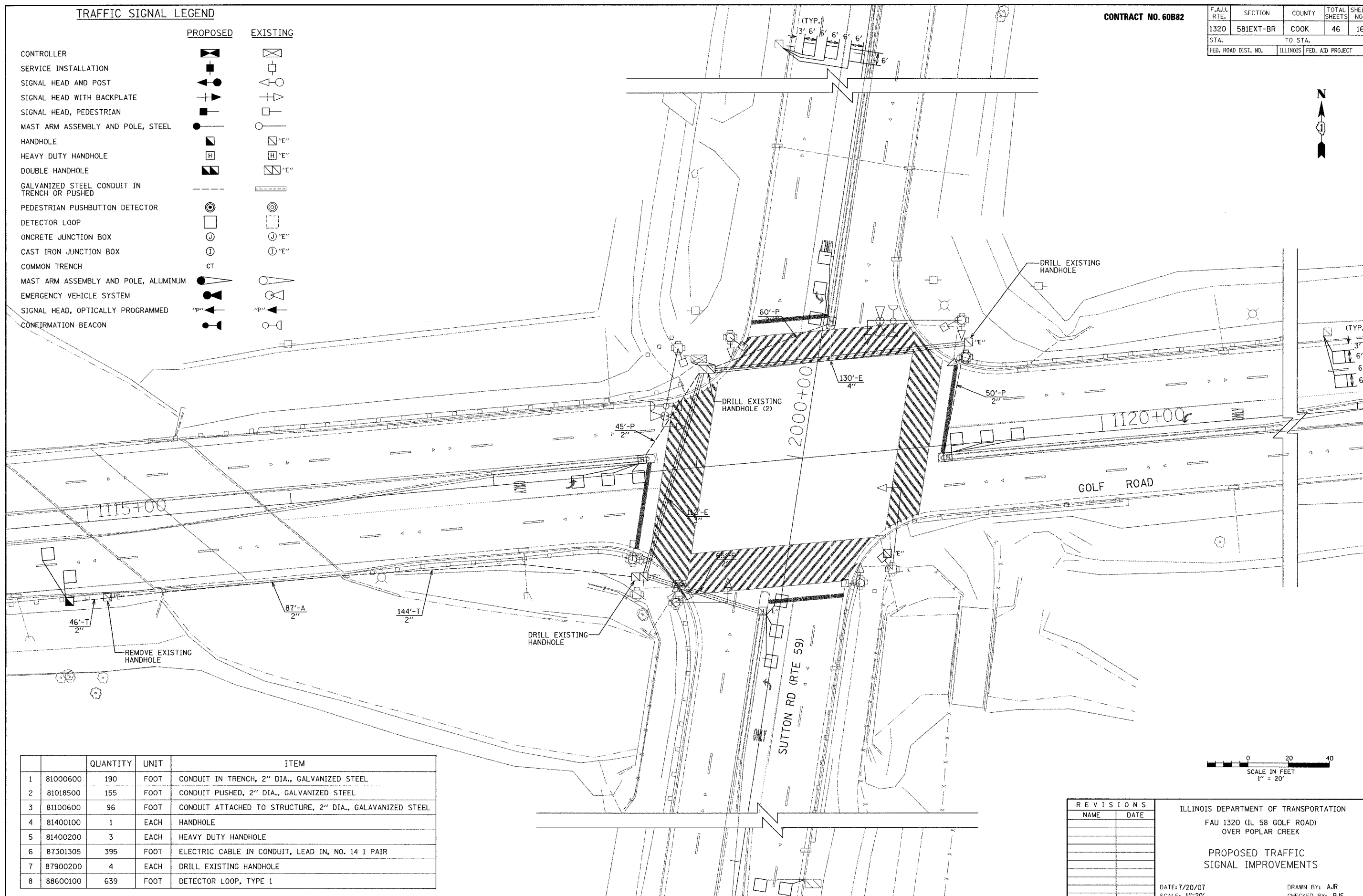
SCALE: NOT TO SCALE
 DATE 7/20/07
 DRAWN BY: AJR
 CHECKED BY: RS

TRAFFIC SIGNAL LEGEND

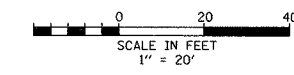
	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD AND POST		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
MAST ARM ASSEMBLY AND POLE, STEEL		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
ONCRETE JUNCTION BOX		
CAST IRON JUNCTION BOX		
COMMON TRENCH	CT	
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
EMERGENCY VEHICLE SYSTEM		
SIGNAL HEAD, OPTICALLY PROGRAMMED		
CONFIRMATION BEACON		

CONTRACT NO. 60882

F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



	QUANTITY	UNIT	ITEM
1	81000600	190	FOOT CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
2	81018500	155	FOOT CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
3	81100600	96	FOOT CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL
4	81400100	1	EACH HANDHOLE
5	81400200	3	EACH HEAVY DUTY HANDHOLE
6	87301305	395	FOOT ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR
7	87900200	4	EACH DRILL EXISTING HANDHOLE
8	88600100	639	FOOT DETECTOR LOOP, TYPE 1



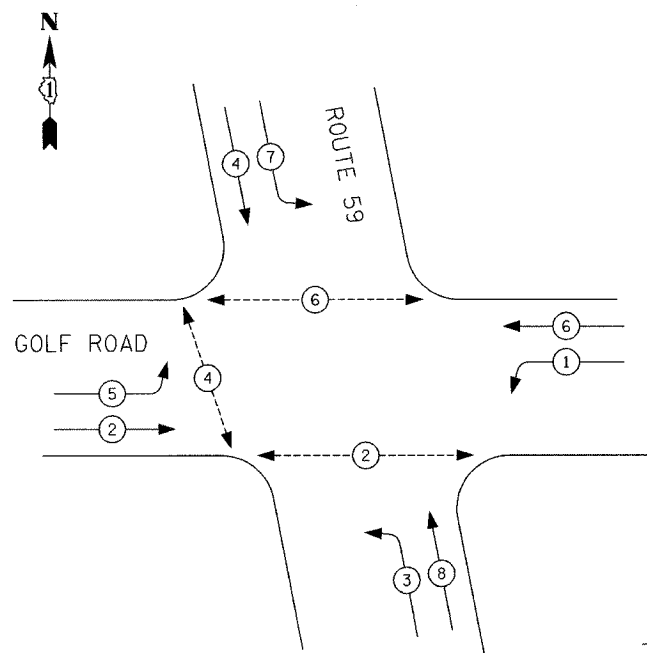
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 PROPOSED TRAFFIC
 SIGNAL IMPROVEMENTS

DATE: 7/20/07
 SCALE: 1"=20'
 DRAWN BY: AJR
 CHECKED BY: RJS

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	17
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTROLLER SEQUENCE IV

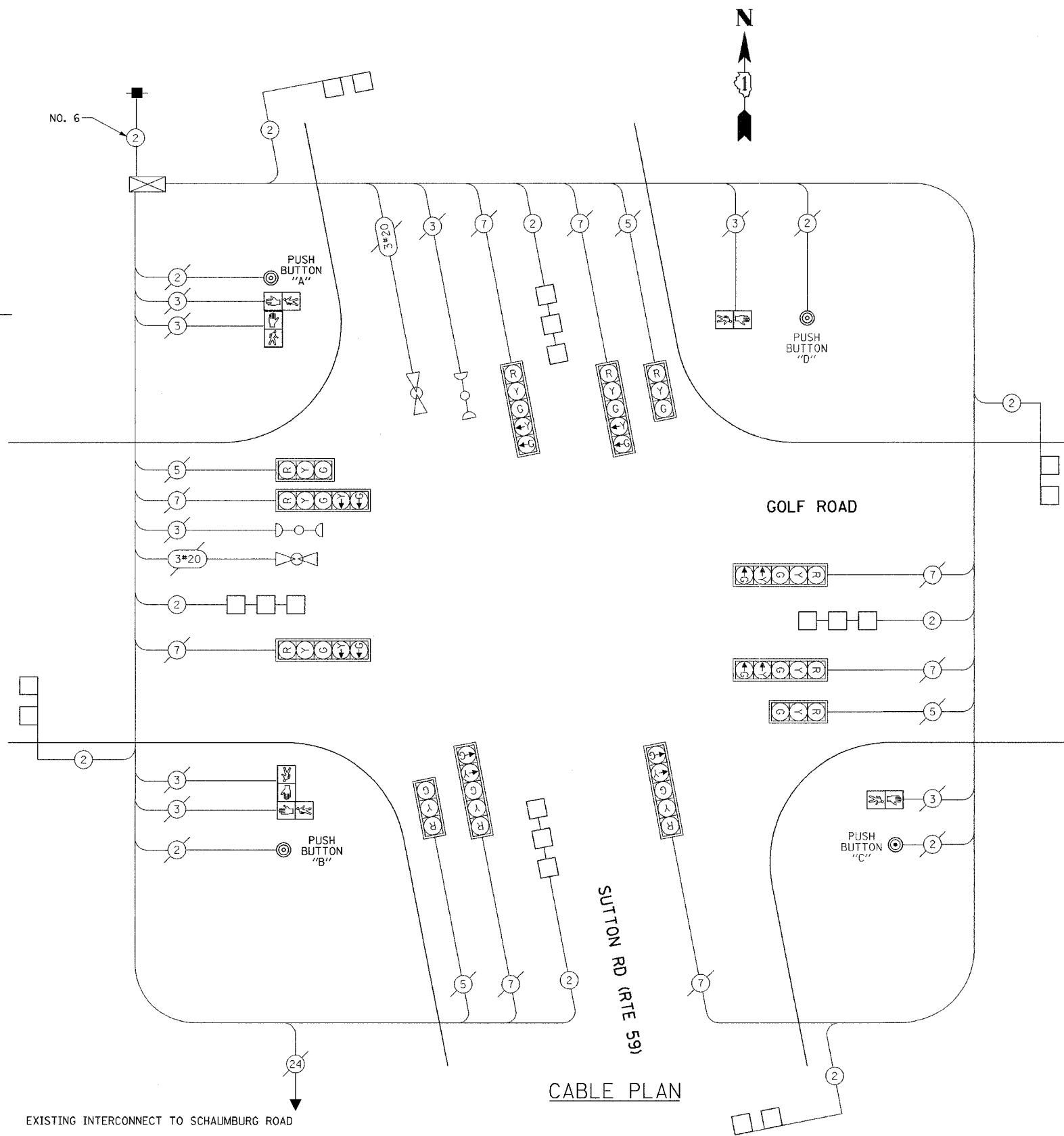


TEMPORARY PHASE DESIGNATION DIAGRAM

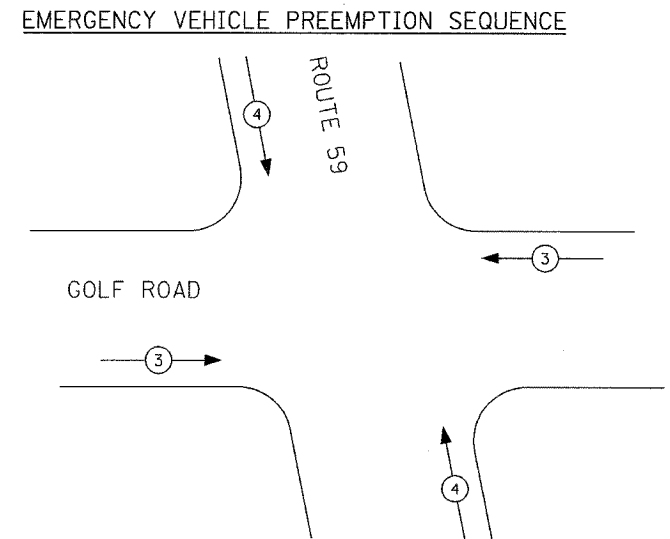
LEGEND:

- ← * → DUAL ENTRY PHASE
- ← * → DUAL ENTRY PHASE
- ← * → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASE 2
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASE 6



CABLE PLAN



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

CABLE PLAN LEGEND:

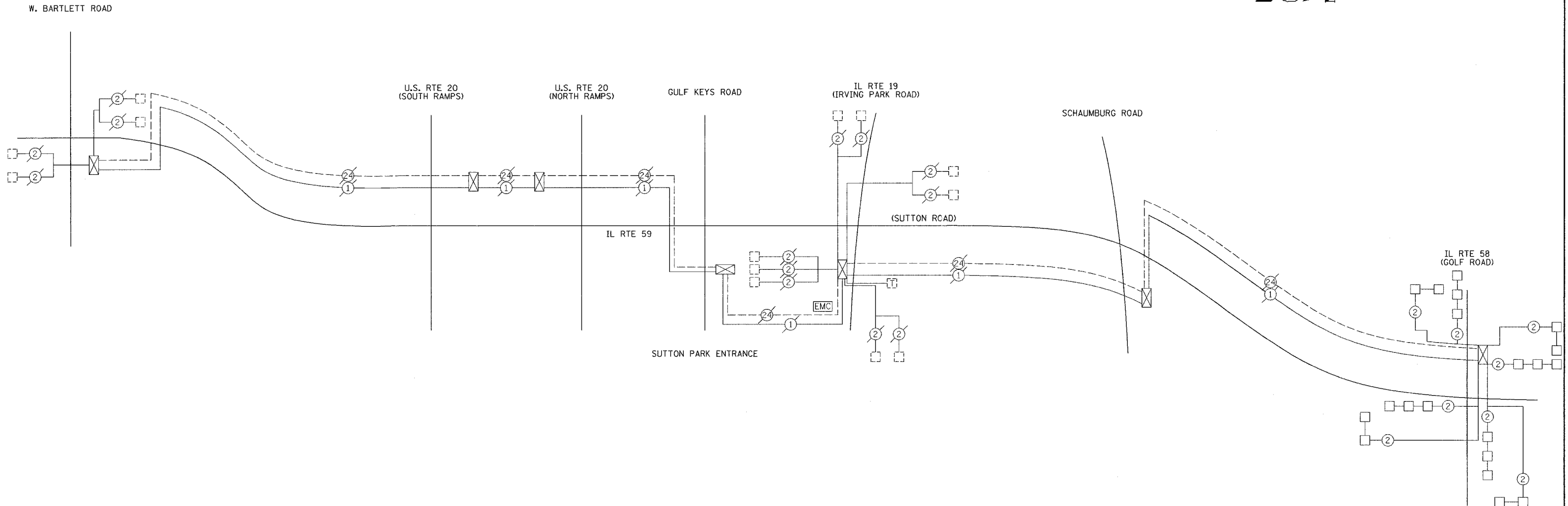
- | | | |
|-----------------|-----------------|---|
| PROPOSED | EXISTING | |
| [G] | [G] | 8" TRAFFIC SIGNAL SECTION |
| [R] | [R] | 12" TRAFFIC SIGNAL SECTION |
| [W] | [W] | 12" PEDESTRIAN SIGNAL SECTION |
| [P] | [P] | 12" PEDESTRIAN SIGNAL SECTION |
| [Cabinet] | [Cabinet] | CONTROLLER CABINET |
| [Square] | [Square] | SERVICE INSTALLATION |
| [Loop] | [Loop] | VEHICLE DETECTOR, INDUCTION LOOP |
| [Magnet] | [Magnet] | MAGNETIC DETECTOR |
| [Light] | [Light] | EMERGENCY VEHICLE LIGHT DETECTOR |
| [Beacon] | [Beacon] | CONFIRMATION BEACON |
| [Detector] | [Detector] | PUSHBUTTON DETECTOR |
| (2) | (2) | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| [R Y G] | [R Y G] | SIGNAL FACE WITH BACK PLATE |
| [R Y G "P"] | [R Y G "P"] | "P" INDICATES PROGRAMMED HEAD |
| [R Y G "E"] | [R Y G "E"] | "E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD |

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAP 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
**PROPOSED TRAFFIC SIGNAL
 CABLE PLAN**
 SCALE: NOT TO SCALE
 DATE 7/20/07
 DRAWN BY: AJR
 CHECKED BY: RS

CONTRACT NO. 60B82

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



INTERCONNECT SCHEMATIC LEGEND

EXISTING INTERSECTION CONTROLLER		PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	
PROPOSED INTERSECTION CONTROLLER		EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
EXISTING MASTER CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
PROPOSED MASTER CONTROLLER		EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
MASTER MASTER CONTROLLER		PROPOSED FIBER OPTIC CABLE IN CONDUIT, 62.5/125 12F FIBER OPTIC CABLE	
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
EXISTING INTERSECTION LOOP DETECTORS		EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
EXISTING SAMPLING (SYSTEM) DETECTORS		EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	
PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	
EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS		EXISTING TELEPHONE CONNECTION	
EXISTING SAMPLING (SYSTEM) DETECTORS PROPOSED SAMPLING (SYSTEM) DETECTORS		PROPOSED TELEPHONE CONNECTION	
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS			
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS			
EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS			

SCHEDULE OF QUANTITIES

INTERCONNECT PLAN

QUANT. UNIT ITEM

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAU 1320 (IL 58 GOLF ROAD)
OVER POPLAR CREEK

INTERCONNECT SCHEMATIC

DATE: 7/20/2007
SCALE: NOT TO SCALE

DRAWN BY: AJR
CHECKED BY: RJS

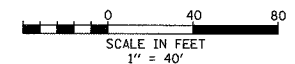
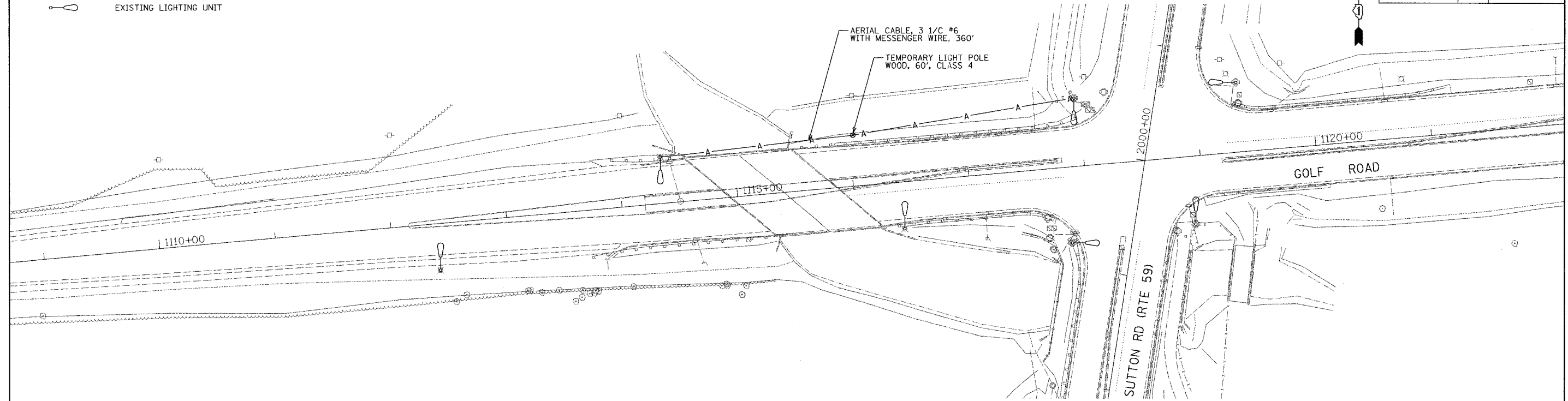
CONTRACT NO. 60882

F.A.I.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581EXT-BR	COOK	46	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEGEND:

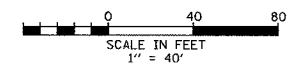
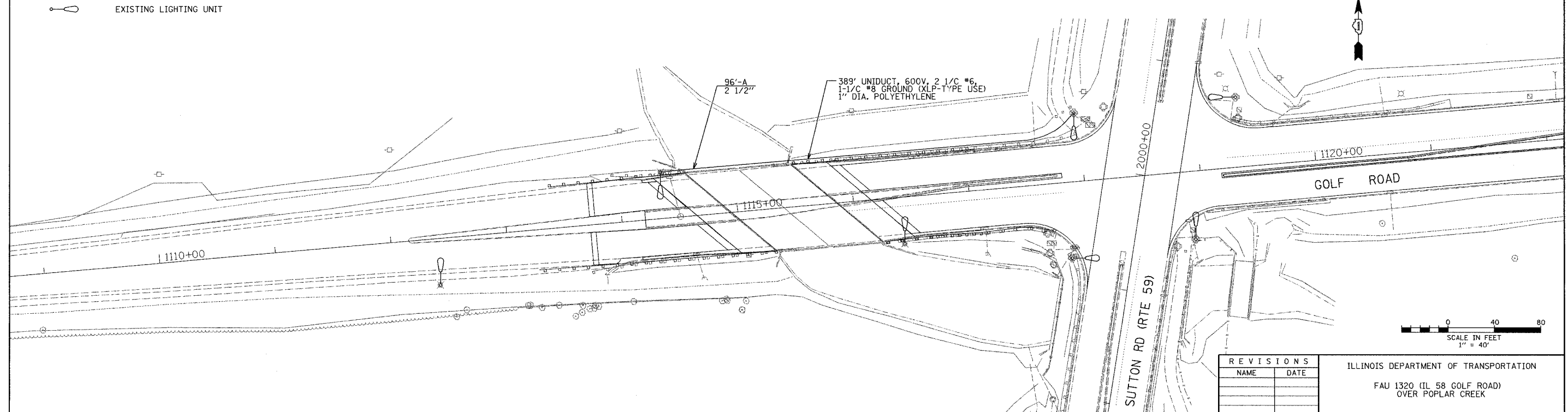
 EXISTING LIGHTING UNIT



TEMPORARY LIGHTING PLAN

LEGEND:

 EXISTING LIGHTING UNIT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAU 1320 (IL 58 GOLF ROAD)
 OVER POPLAR CREEK
 LIGHTING PLAN

DATE: 7/20/2007
 SCALE: 1"=40'
 DRAWN BY: AJR
 CHECKED BY: RJS

LIGHTING PLAN

Benchmark: #2 at Elev. 776.06 square cut on handhole located adjacent to the traffic signal in the Northwest quadrant of IL 58/IL 59 intersection.

Existing Structure: S.N. 016-2087 was built in 1977 as F.A.P. Route 77, Section 109-I at Station 1115+40.00. The two span superstructure consists of 21" deep precast prestressed concrete deck beams. The substructure consists of closed abutments and a solid wall pier-all resting on pile supported footings. The structure is 96'-0" back to back of abutments and 74'-0" out to out of deck. The existing superstructure is to be removed and replaced utilizing stage construction.

The Contractor shall salvage the existing aluminum hand rail and deliver to District Maintenance Yard as directed by the Engineer. Cost included with Removal of Existing Superstructures.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.U. 1320 (IL 58)	581 EXT-BR	COOK	44	20
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #60B82

INDEX OF SHEETS

1. General Plan & Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier
4. Beam Details (36")
5. Beams Details (48")
6. Superstructure Details
7. Parapet Details
8. Concrete Removal and Substructure Repair
9. West Abutment
10. East Abutment
11. Bar Splicer Details

GENERAL NOTES

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

Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

Attach new Name Plate to the inside face of parapet as shown. Existing name plate is to be removed, cleaned and relocated adjacent to new name plate. Cost included in the cost of Name Plates.

If the Contractor's procedures for existing beam removal or replacement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures.

Repair of the pier caps shall be completed prior to placement of the new deck beams.

Reinforcement bars designated (E) shall be epoxy coated.

Concrete Sealer shall be applied to exterior vertical face and to outer one foot of bottom face of each fascia beam.

No in-stream work shall be allowed on this project.

The minimum thickness of concrete wearing surface shall be 5" and varies as required to adjust for the new profile grade and beam camber.

Utilities shall be removed from the existing structure prior to the proposed construction. See Roadway Plans for the details. They shall be re-attached to the proposed exterior beam with the use of cast-in-place inserts. For the pay item of this re-attachment, see Roadway Plans. For the details of these inserts see sheet 5 of 11.

SCOPE OF WORK

1. Total superstructure removal and replacement.
2. Substructure repair.

STATION 1115+40.00
REBUILT 20 BY
STATE OF ILLINOIS
F.A.U. RT. 1320 SECTION 581 EXT-BR
LOADING HS 20
STR. NO. 016-2087

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Superstructure	Cu. Yd.	55.0
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	248.5
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	14.0
Removal of Existing Superstructures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	16100
Concrete Wearing Surface, 5"	Sq. Yd.	754.4
Bridge Deck Grooving	Sq. Yd.	556.7
Protective Coat	Sq. Yd.	827.3
Name Plates	Each	1
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	6763
Bar Splicers	Each	105
Concrete Sealer	Sq. Ft.	504.0
Temporary Wall Bracing System	L. Sum	1

GENERAL PLAN & ELEVATION

IL 58 (GOLF ROAD) OVER POPLAR CREEK

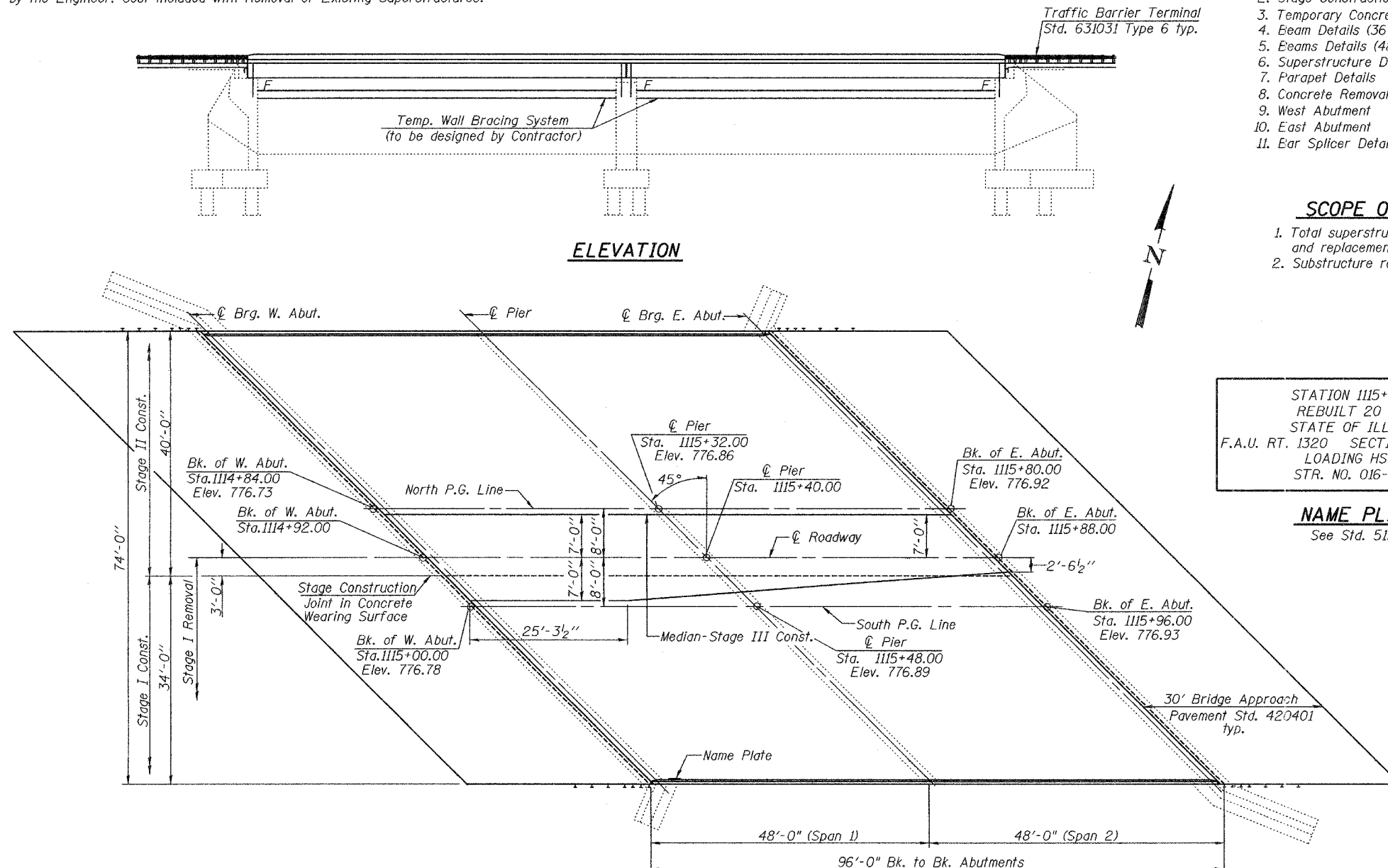
F.A.U. RT. 1320 SEC. 581 EXT-BR

COOK COUNTY

STATION 1115+40.00

STRUCTURE NO. 016-2087

Rev.



PLAN

LOADING HS 20-44

No allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

DESIGN STRESSES

NEW CONSTRUCTION

FIELD UNITS

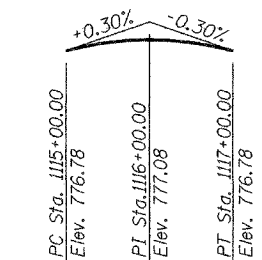
$f'_c = 3,500$ psi
 $f'_c = 5,000$ psi (concrete wearing surface)
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{st} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)

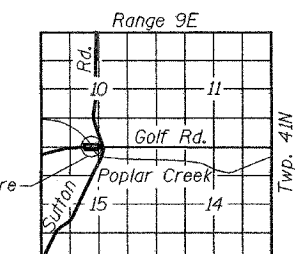
EXISTING CONSTRUCTION

$f'_c = 1000$ psi (Abutts. & Wing Walls)
 $f'_c = 1400$ psi (Pier)
 $f'_s = 20000$ psi (Reinforcement)
 $v_c = 75$ psi (Footings)
 $n = 10$



PROFILE GRADE

(Along North P.G. Line (8' left of ϕ roadway) and South P.G. Line (8' right of ϕ roadway)).



LOCATION SKETCH

DESIGNED *Edward P. Danilov*
 CHECKED *Stephen M. Ryan*
 DRAWN *R. Sommer*
 CHECKED *D. PN/SMR*

August 10 2007
 EXAMINED *Thomas J. ...*
 PASSED *R. Sommer*
 ENGINEER OF BRIDGE DESIGN
 ENGINEER OF BRIDGES AND STRUCTURES

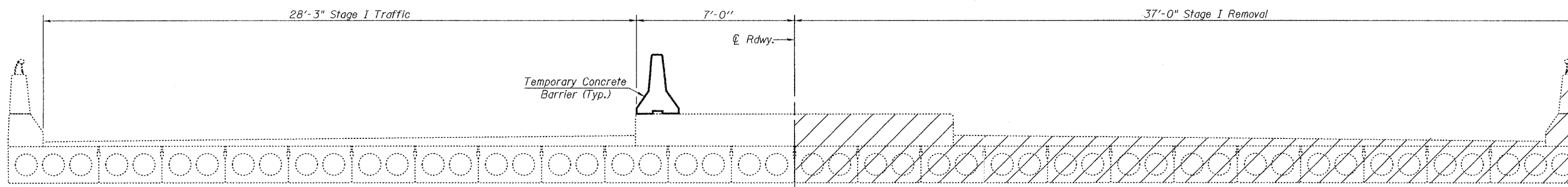


EXPIRES 11-30-08

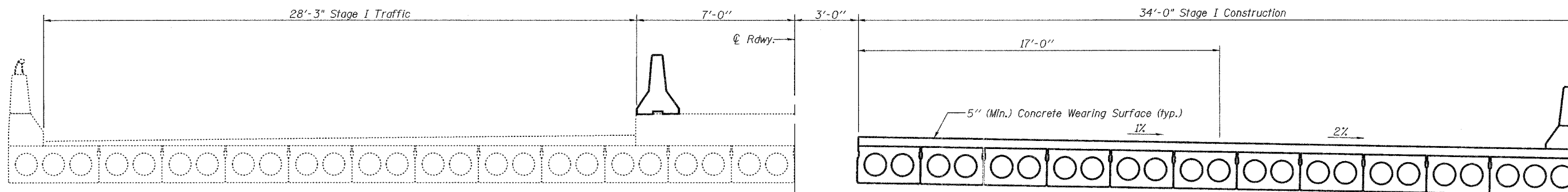
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.U. 1320 (IL50)	581 EXT-BR	COOK	46	21	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

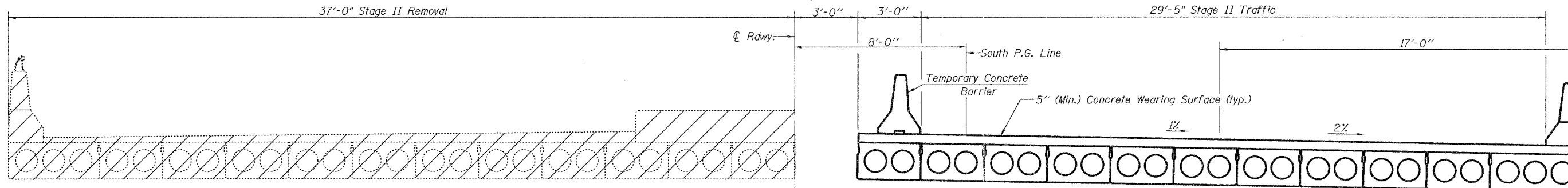
Contract #60B82



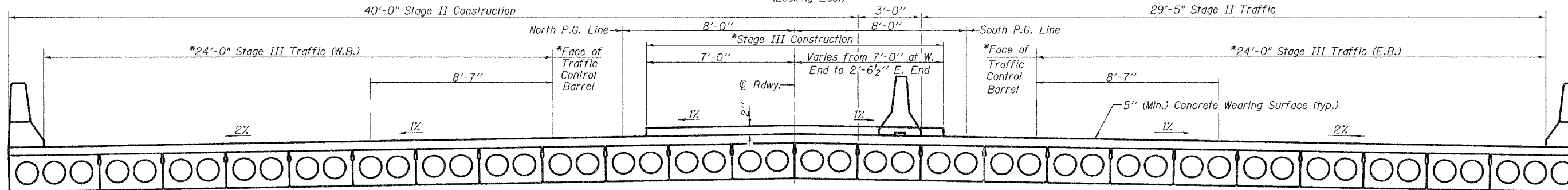
STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

August 10 2007
EXAMINED *Thomas J. Namagala*
ENGINEER OF BRIDGE DESIGN
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

*Refers to Stage III Construction. During Stage III Construction, 2" unreinforced mountable median is to be constructed. For the details of traffic control barrel see Roadway Plans.
Volume of concrete for median is included with Concrete Superstructure on sheet 7 of 11.

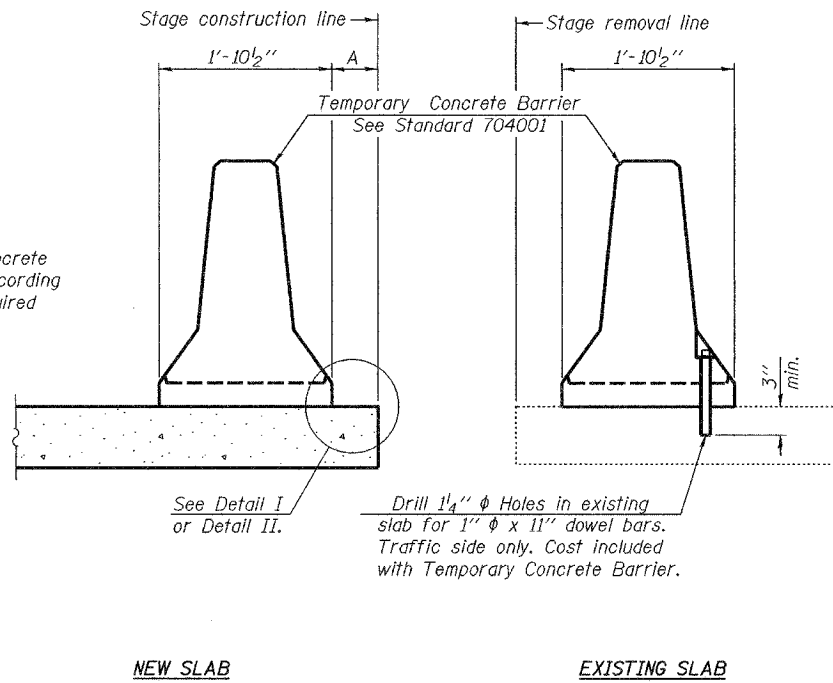
Notes: Hatched area indicates "Removal of Existing Superstructures."
For quantity of Temporary Concrete Barrier, see Roadway Plans.
For details of Temporary Concrete Barrier, see sheet 3 of 11.

STAGE CONSTRUCTION DETAILS
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	PART NO.	SHEET NO. 3
F.A.U. 1320 (IL 58)	581 EXT -BR	COOK	46	22	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #60B82

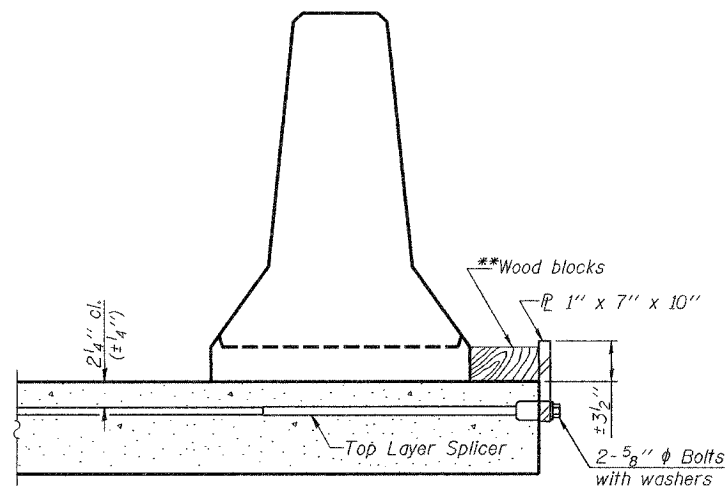


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

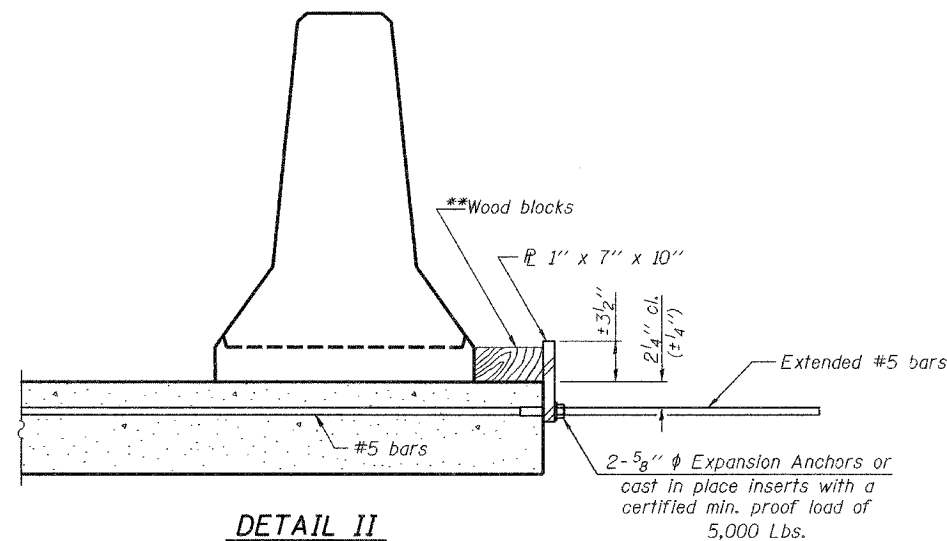
NOTES

- Detail I - With Bar Splicer or Couplers:**
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:**
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.
The 1" x 7" x 10" 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.

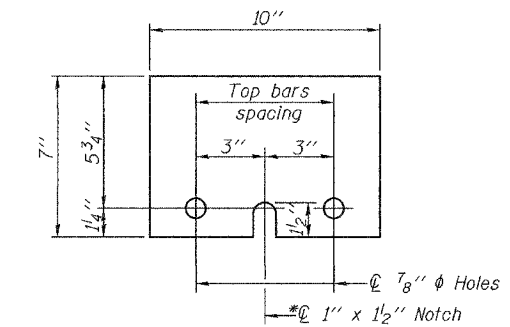
SECTIONS THRU SLAB



DETAIL I



DETAIL II



STEEL RETAINER 1" X 7" X 10"

*Required only with Detail II

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

DESIGNED <i>Dhruv P. Narielwala</i>	August 10 2007
CHECKED <i>Stephen M. Ryan</i>	EXAMINED <i>Thomas J. Domagala</i>
DRAWN <i>R. Sommer</i>	PASSED <i>Ralph E. Anderson</i>
CHECKED <i>DPN/SMR</i>	ENGINEER OF BRIDGES AND STRUCTURES

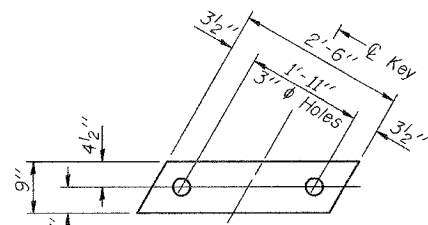
R-27 11-1-06

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
F.A.U. 1320 (IL 58)	581 EXT -BR	COOK	46	23	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

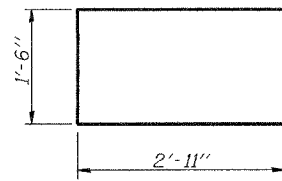
Contract #60B82



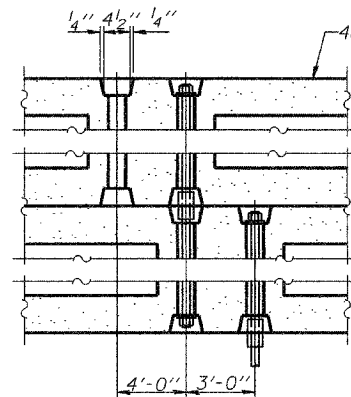
FABRIC BEARING PAD

(Interior)
(84 Req'd.)

FIXED



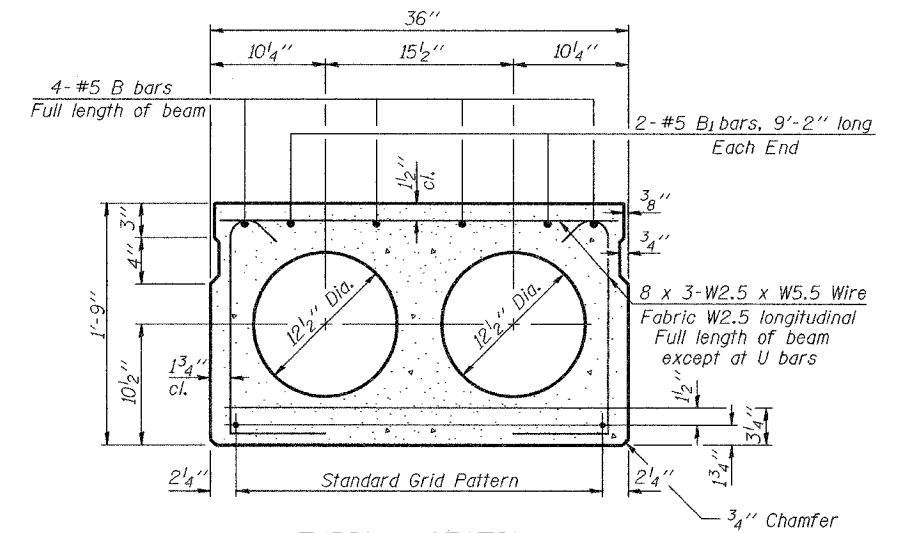
BAR U1



TYPICAL TRANSVERSE TIE ASSEMBLY

(Interior Tie)

This beam is 48" wide for exterior tie only

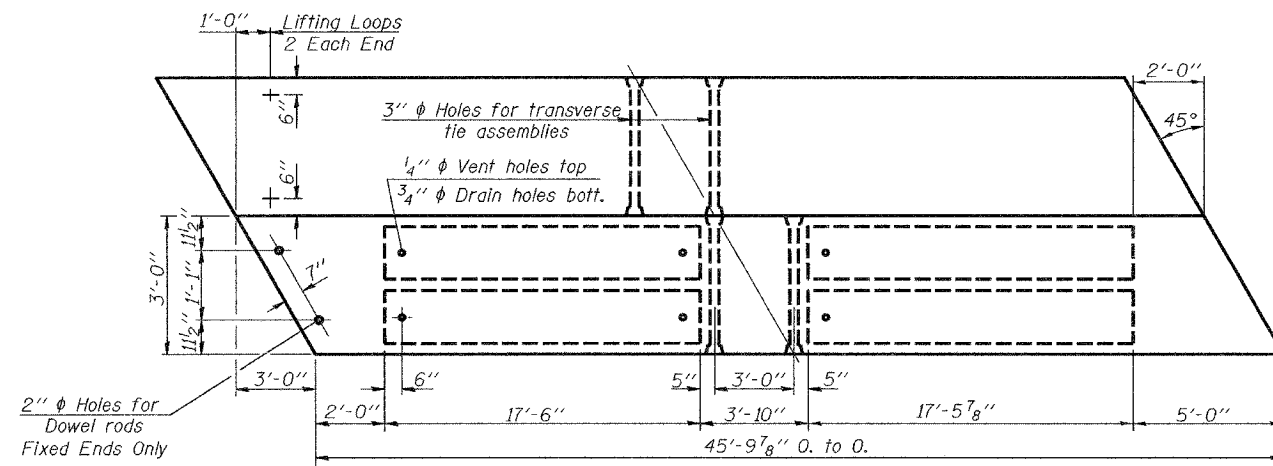


TYPICAL SECTION

1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
4-Strands 1 3/4" up, 8-Strands 3/4" up

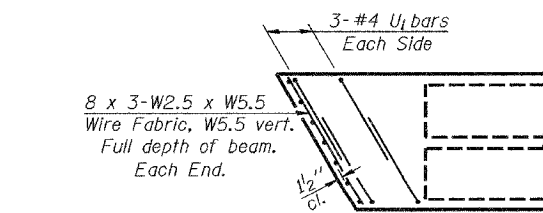
Note:
Place strands symmetrically about ϕ of beam.

*For the detail of outer most interior Brg. Pad, See sheet 5 of 11.

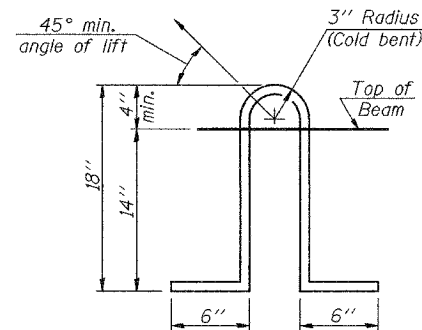


PLAN

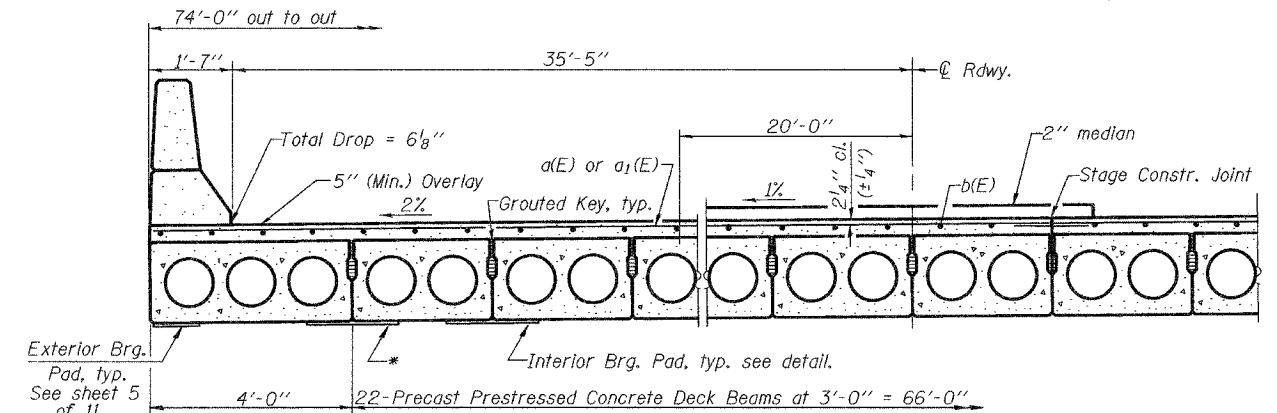
2" ϕ Holes for Dowel rods Fixed Ends Only



END PLAN



LIFTING LOOP DETAIL



PARTIAL CROSS SECTION

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. See Special Provisions. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Cut in field to fit. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'cl, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	6032
---	---------	------

BEAM DETAILS (36")

IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

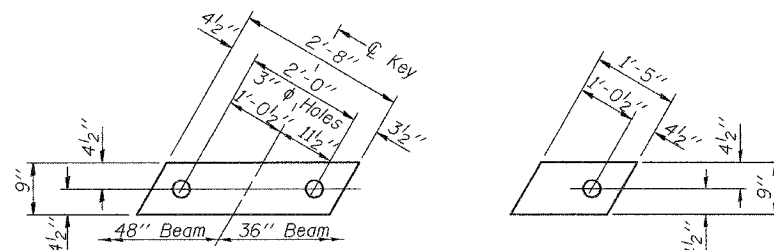
DESIGNED	Dhruv P. Narietwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

EXAMINED	Thomas J. Damaalaki	August 10 2007
PASSED	Ralph E. Anderson	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.U. 1320 (IL58)	581 EXT -BR	COOK	4b	2A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

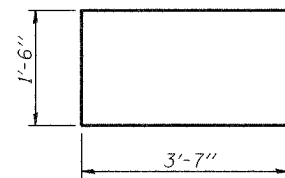
SHEET NO. 5
11 SHEETS



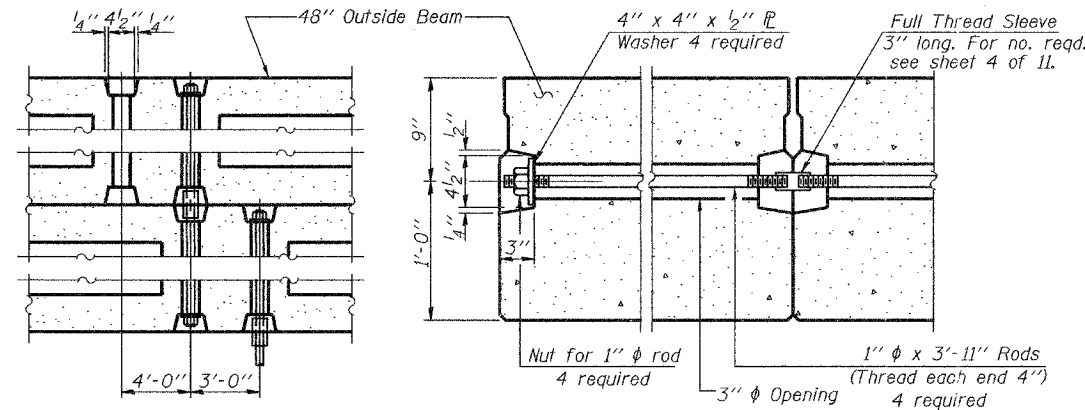
FABRIC BEARING PAD
(Outer most Interior-Between Exterior 48"
Beam and next Interior 36" Beam)
(8 Required)

FABRIC BEARING PAD
(Exterior)
(8 Required)

FIXED



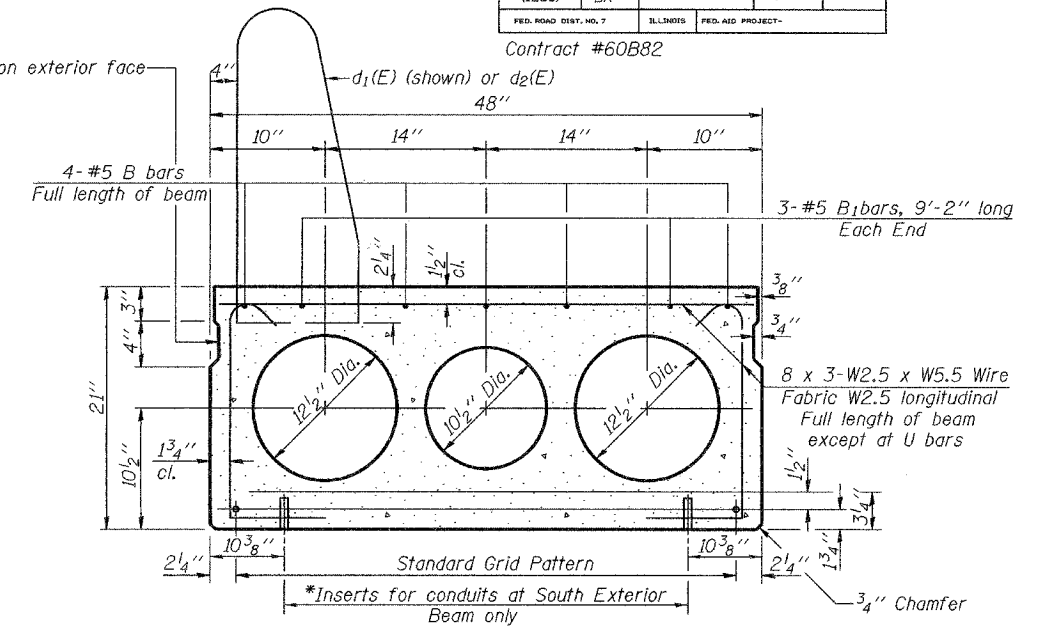
BAR U1



TYPICAL TRANSVERSE TIE ASSEMBLY
(Exterior Tie for 48" Beam)

Notes: For details of bars $d_1(E)$ and $d_2(E)$, see sheet 7 of 11.
For layout and spacing of bars $d_1(E)$ and $d_2(E)$, see sheet 6 of 11.
These bars are to be cast into the deck beams. Cost included
with Precast Prestressed Concrete Deck Beams (21" Depth).

Omit key on exterior face

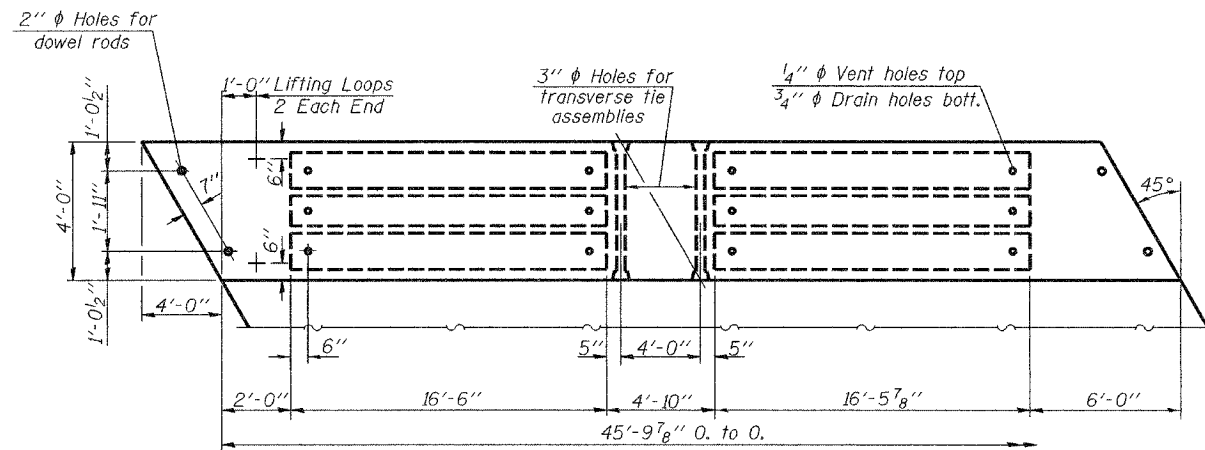


TYPICAL SECTION

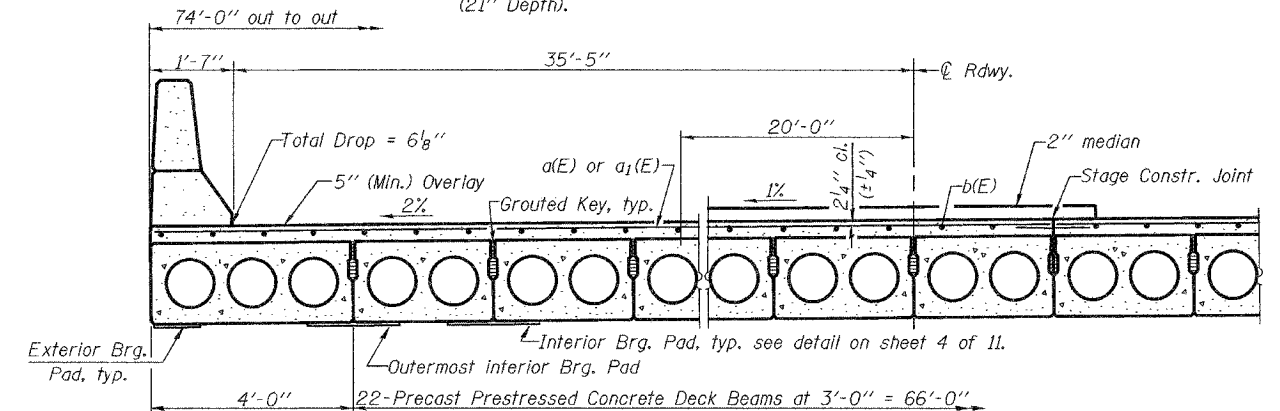
$1/2$ " ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands $1 3/4$ " up, 7-Strands $3/4$ " up

Note:
Place strands symmetrically
about ϕ of beam.

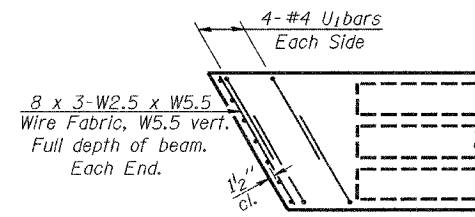
*Maximum 10' spacing. Proof Load of each Insert = 150 lbs.
Cost Included with Precast Prestressed Concrete Deck Beams
(21" Depth).



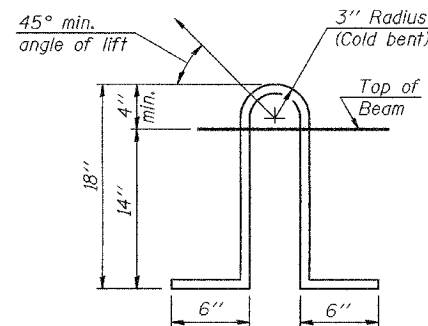
PLAN



PARTIAL CROSS SECTION



END PLAN



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be $1/2$ " and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be $2-1/2$ " ϕ -270 ksi strands, as shown.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads
set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie
assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. See Special Provisions.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two
 $1/8$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each
bearing. Cut in field to fit.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to
shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the
beam and the bottom edge of the key.
Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the
concrete for precast prestressed concrete deck beams.
Required Release Strength, f'_{ci} , shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	731
--	---------	-----

BEAM DETAILS (48")

IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

EXAMINED	August 10 2007	Thomas J. Namagala
PASSED		Rafael E. Anderson

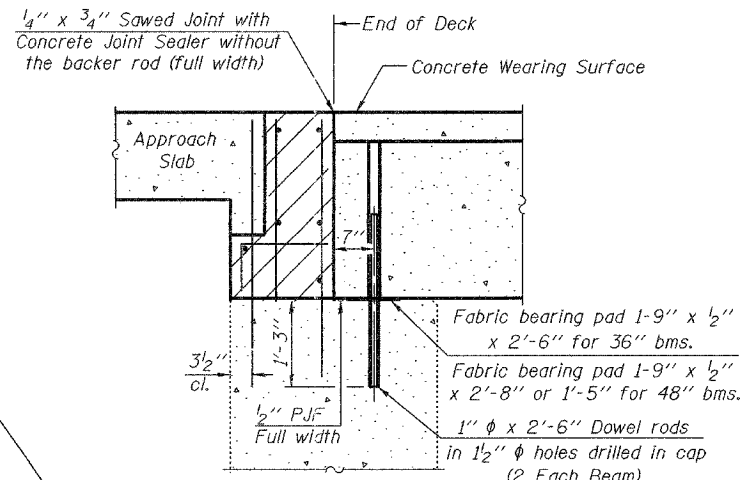
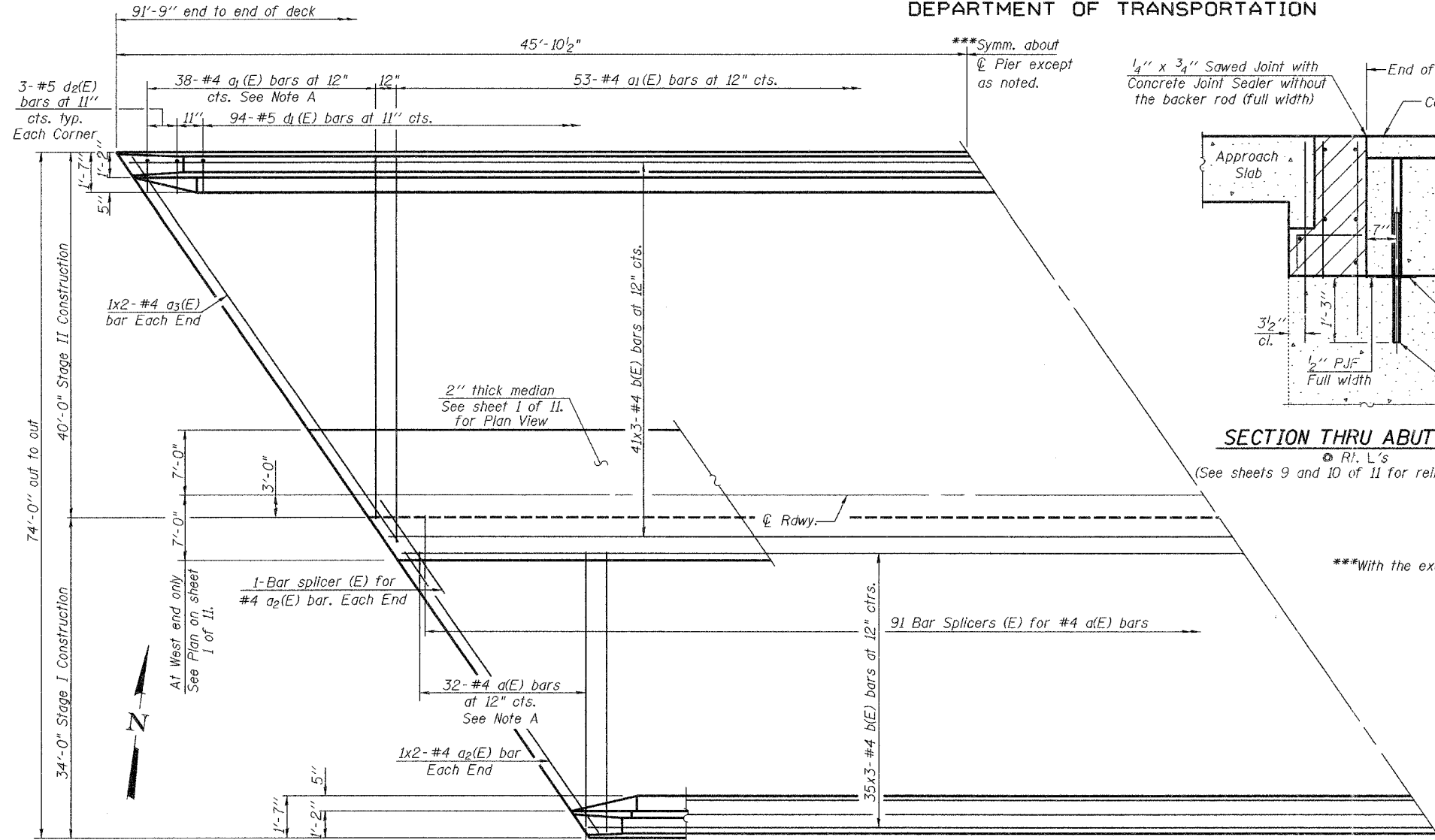
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MIN. BAR LAP

#4 bar = 1'-4"
#5 bar = 1'-8"

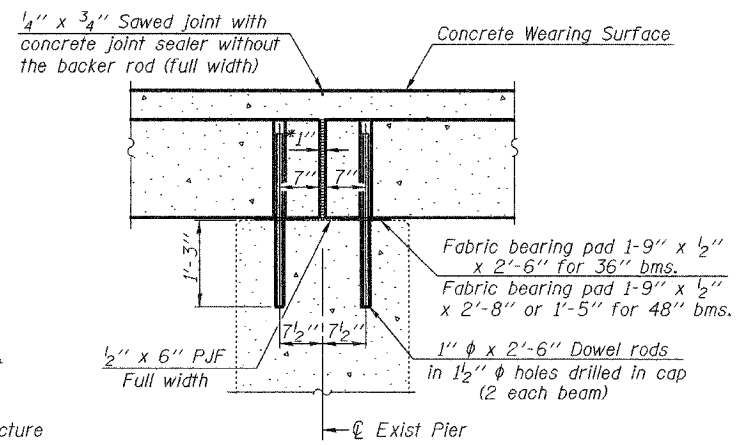
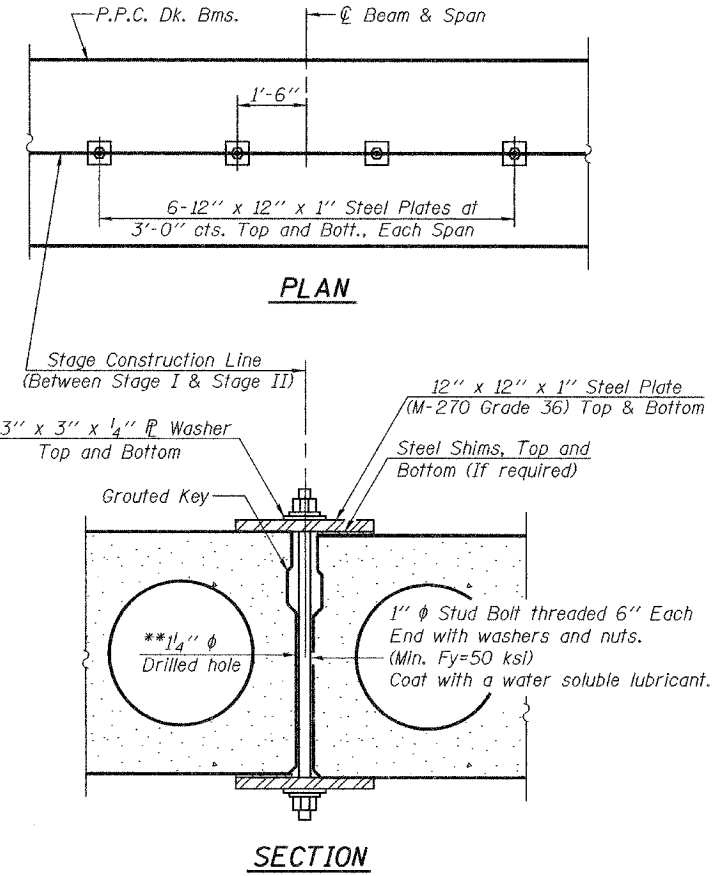
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
F.A.U. 1320 (IL58)	581 EXT-BR	COOK	46	25	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #60B82



SECTION THRU ABUTMENT

(See sheets 9 and 10 of 11 for reinforcement bars.)

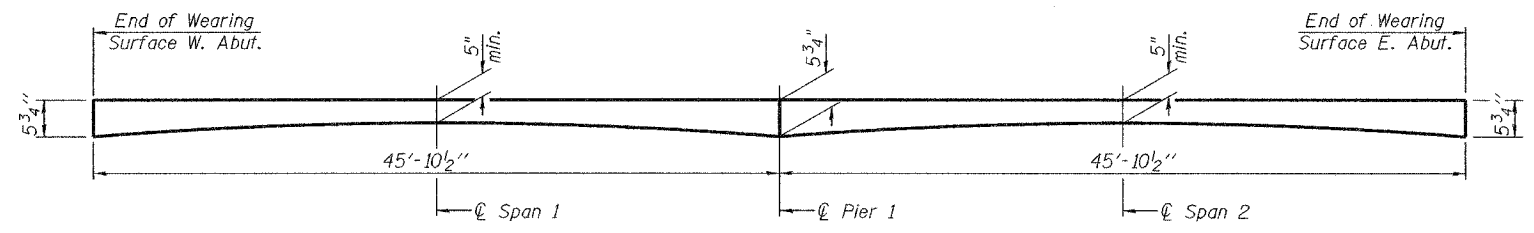


SECTION THRU FIXED PIER

*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

Note A: Order a(E) and a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PARTIAL WEARING SURFACE PLAN
(Span 1 Shown, Span 2 Similar except for Median)



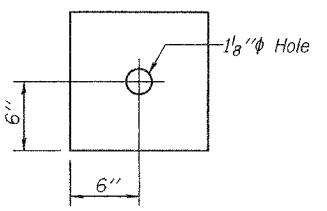
REINFORCED CONCRETE WEARING SURFACE DIAGRAM

Notes: Bars indicated thus 35 x 3-#4 etc. indicates 35 lines of bars with 3 lengths per line.
After beams have been erected, holes shall be drilled into substructure and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys.
See sheets 4 and 5 of 11 for Fabric Bearing Pad Details
Concrete Wearing Surface to be poured after grouting the shear keys.
Dowel rods drilled in cap are included in the Cost of Precast Prestressed Concrete Deck Beams, (21" Depth).
Hatched areas to be poured after concrete wearing surface is in place and cured. Quantity included with Concrete Superstructure on sheet 7 of 11.

SHEAR KEY CLAMPING DETAILS AT CONST. JT. BETWEEN STAGE I AND STAGE II

Cost included with Precast Prestressed Concrete Deck Beams, (21" Depth). See Stage Construction Details for traffic lanes.

**As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.



CLAMPING PLATE

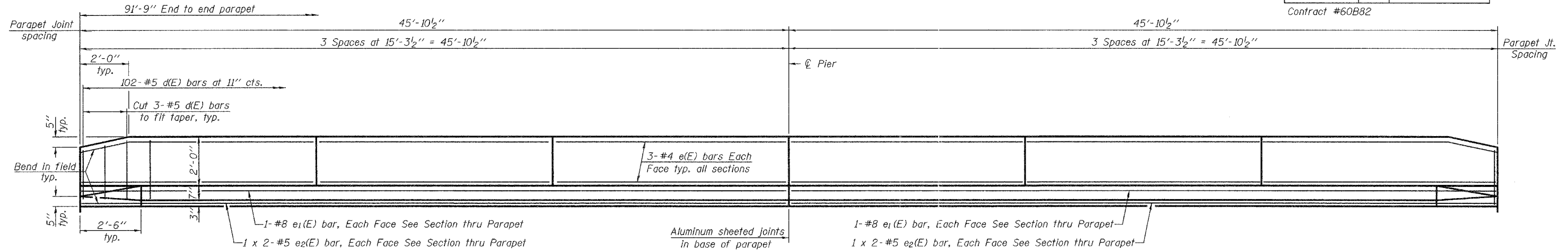
DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

EXAMINED	August 10 2007	Thomas J. Damagala
PASSED		Ralph E. Anderson

SUPERSTRUCTURE DETAILS
IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

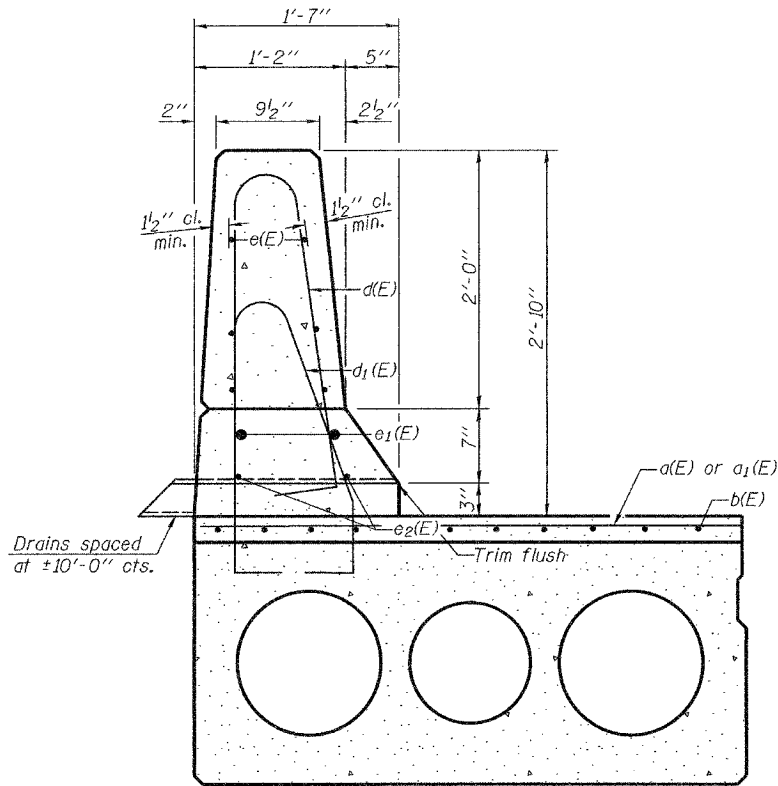
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 11 SHEETS
F.A.U. 1320 (IL 58)	581 EXT -BR	COOK	46	26	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			
Contract #60B82					



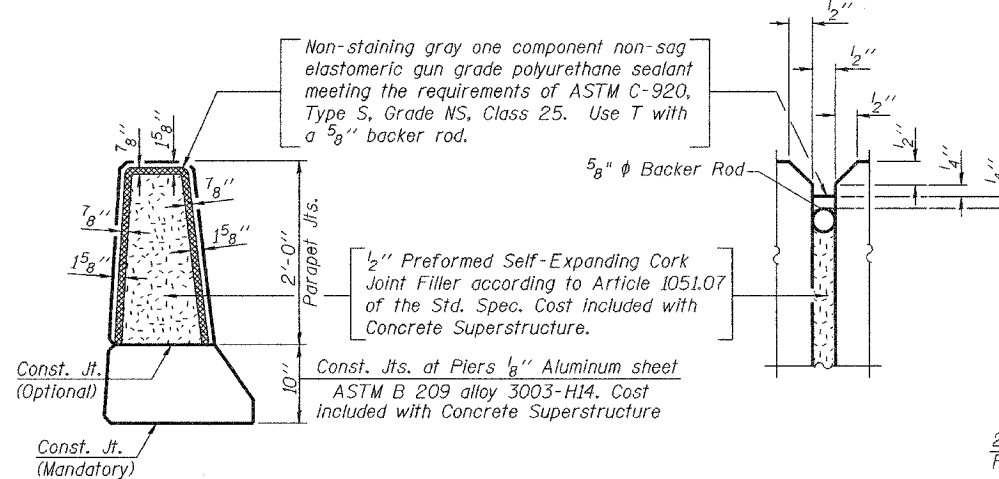
INSIDE ELEVATION OF PARAPET

MIN. BAR LAP
#5 bars = 1'-8"

*For information only. These bars are to be cast into the deck beam.
Cost included with Precast Prestressed Concrete Deck Beams (21" Depth).

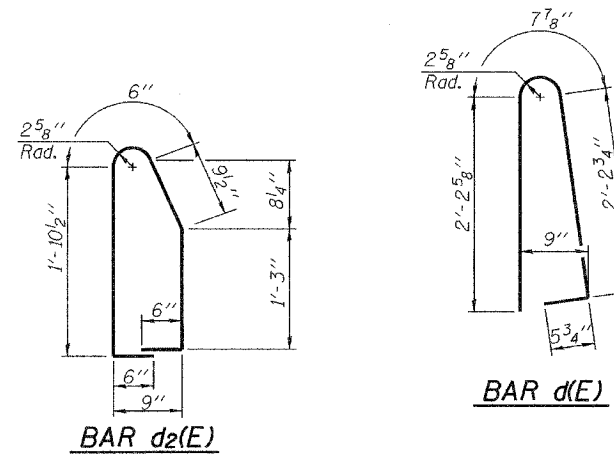


SECTION THRU PARAPET



PARAPET JOINT DETAILS

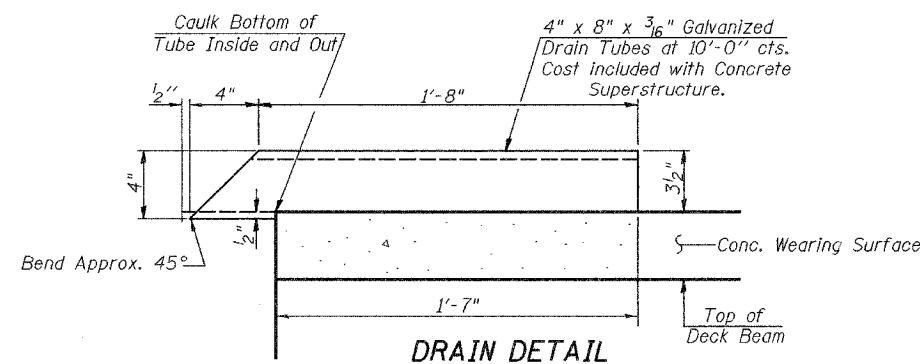
Note: Drains shall not be placed within
10'-0" from face of Pier or Abutments.
For details of v2(E) bar, see sheet 9 of 11.



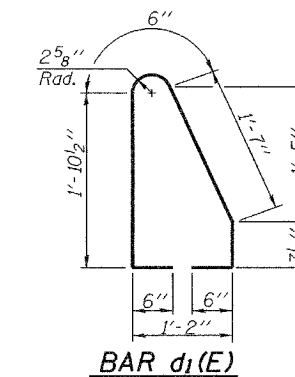
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	91	#4	33'-9"	—
a1(E)	91	#4	39'-9"	—
a2(E)	4	#4	24'-7"	—
a3(E)	4	#4	28'-10"	—
b(E)	228	#4	31'-5"	—
d(E)	204	#5	5'-7"	⏏
d1(E)	188	#5	5'-7"	⏏
d2(E)	12	#5	5'-5"	⏏
e(E)	72	#4	15'-0"	—
e1(E)	8	#8	45'-7"	—
e2(E)	16	#5	23'-8"	—
h(E)	24	#5	24'-9"	—
h1(E)	24	#5	29'-0"	—
v(E)	212	#5	2'-11"	—
v1(E)	212	#5	2'-0"	—
v2(E)	212	#5	1'-11"	⏏
v3(E)	212	#5	2'-7"	—
Reinforcement Bars, Epoxy Coated		Lbs.		16100
Concrete Superstructure		Cu. Yds.		55.0
Conc. Wearing Surface		Sq. Yd.		754.4

Bars indicated thus 1 x 2-#5 etc. indicates
1 line of bars with 2 lengths per line.



DRAIN DETAIL



BAR d1(E)

DESIGNED Dhruv P. Narielwala
CHECKED Stephen M. Ryan
DRAWN R. Sommer
CHECKED DPN/SMR

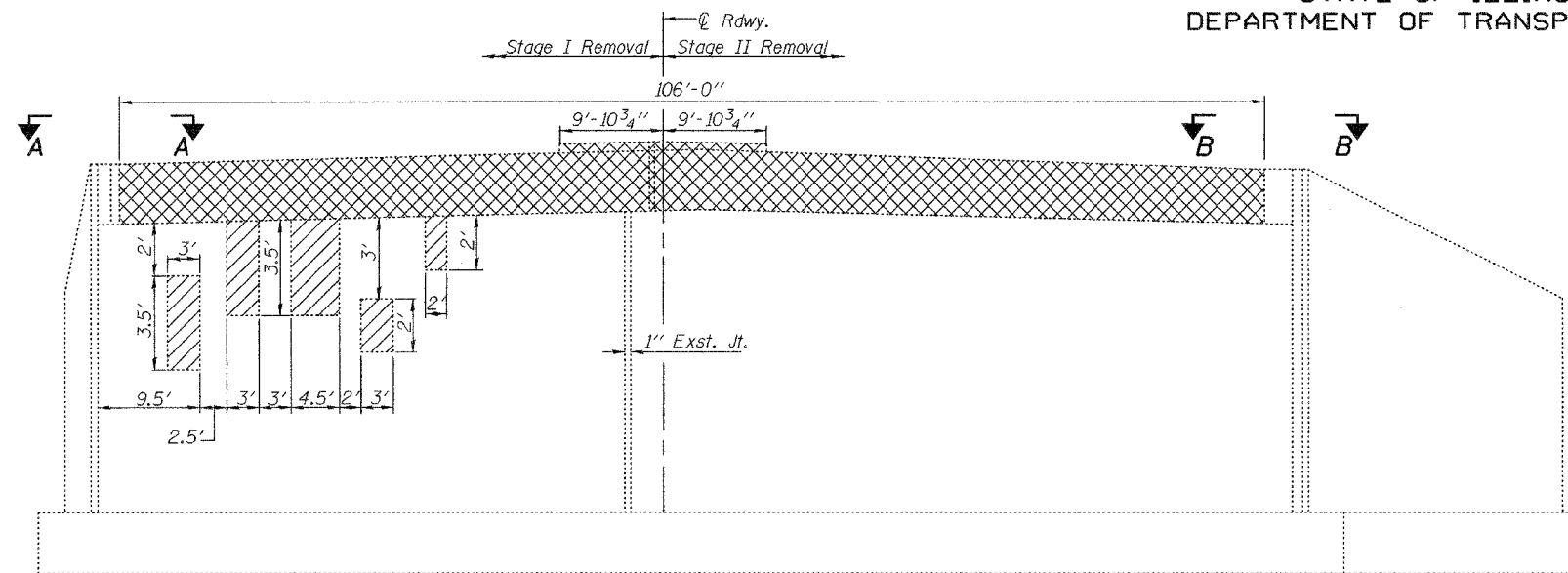
August 10 2007
EXAMINED Thomas J. Damagalaki
PASSED Robert E. Anderson

PARAPET DETAILS
IL 58 (GOLF ROAD) OVER POPLAR CREEK
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

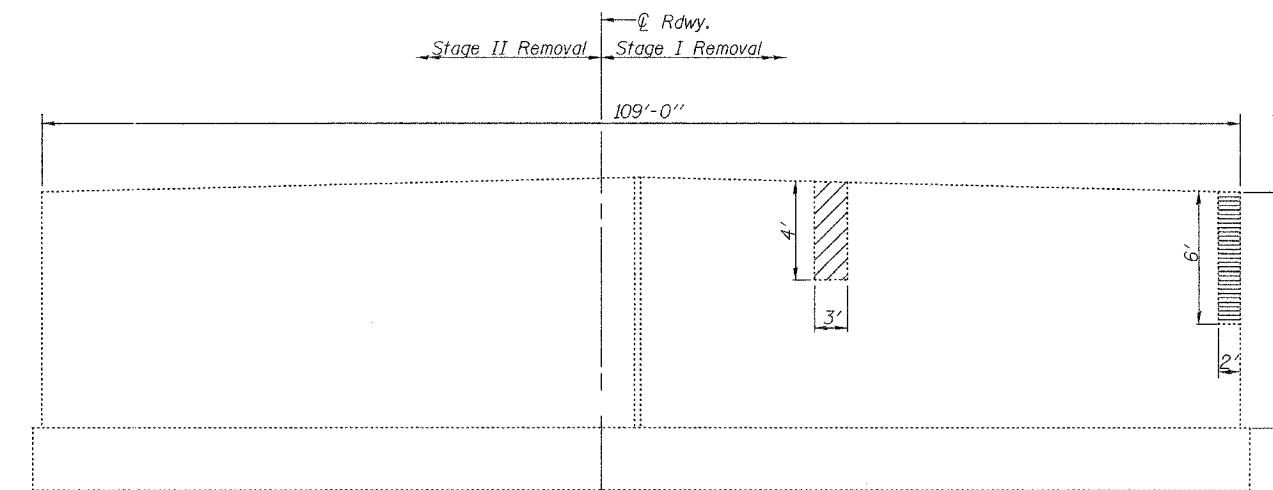
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.U. 1320 (L58)	581 EXT - BR	COOK	46	27	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #60B82

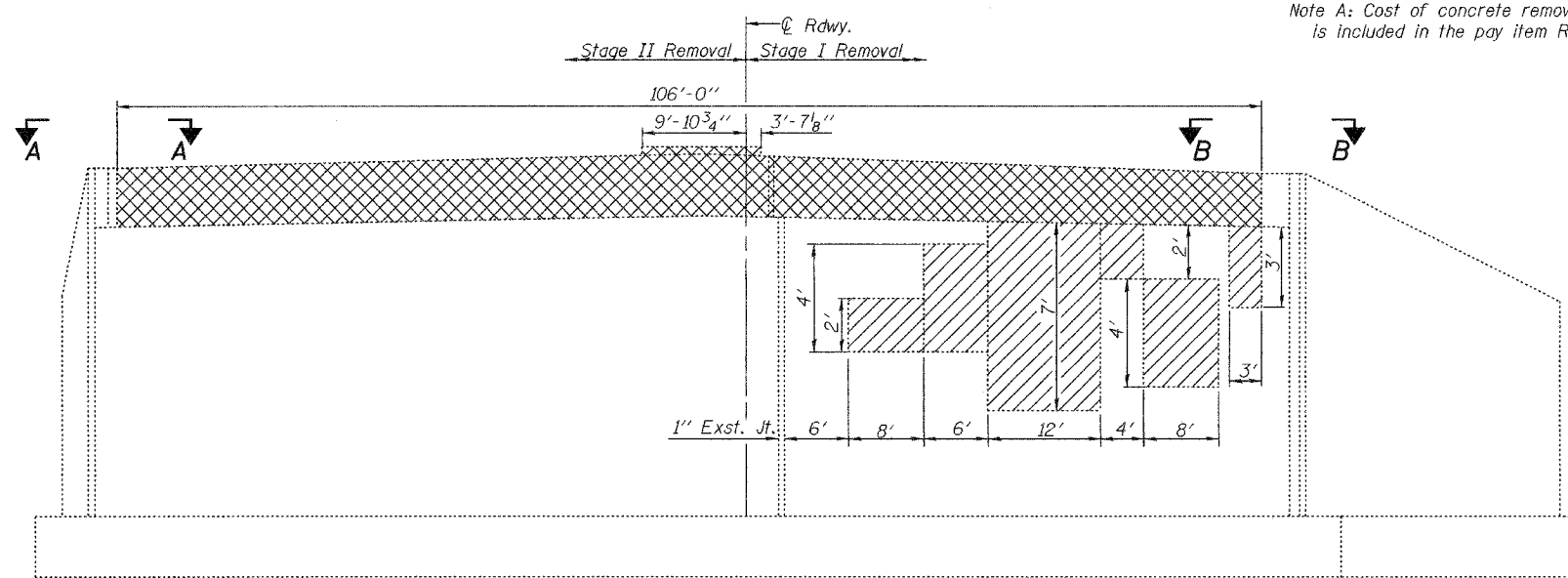


WEST ABUTMENT

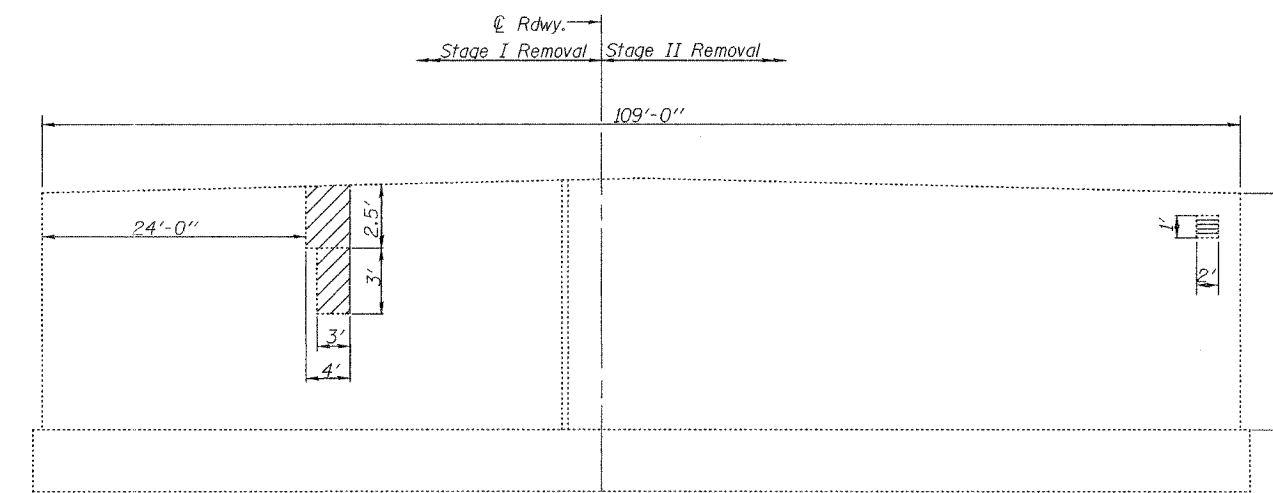


PIER
(West Face)

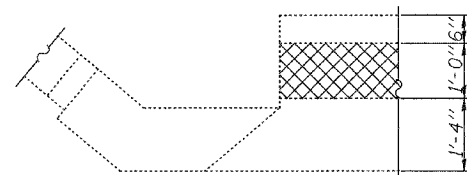
Note A: Cost of concrete removal shown by cross hatched areas is included in the pay item Removal of Existing Superstructures.



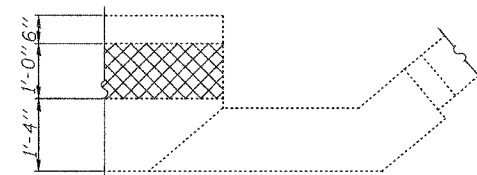
EAST ABUTMENT



PIER
(East Face)



VIEW A-A

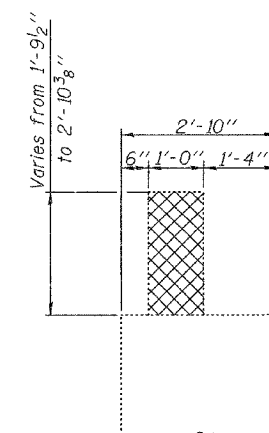


VIEW B-B

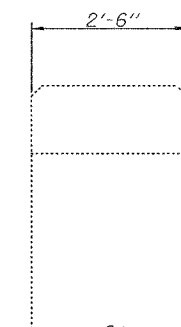
- Concrete removal (See Note A)
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Structural Repair of Concrete (Depth Greater than 5")

DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

August 10, 2007
 EXAMINED *Thomas J. Domagalaki*
 PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGE DESIGN
 ENGINEER OF BRIDGES AND STRUCTURES



SECTION THRU ABUTMENT



SECTION THRU PIER

BILL OF MATERIAL

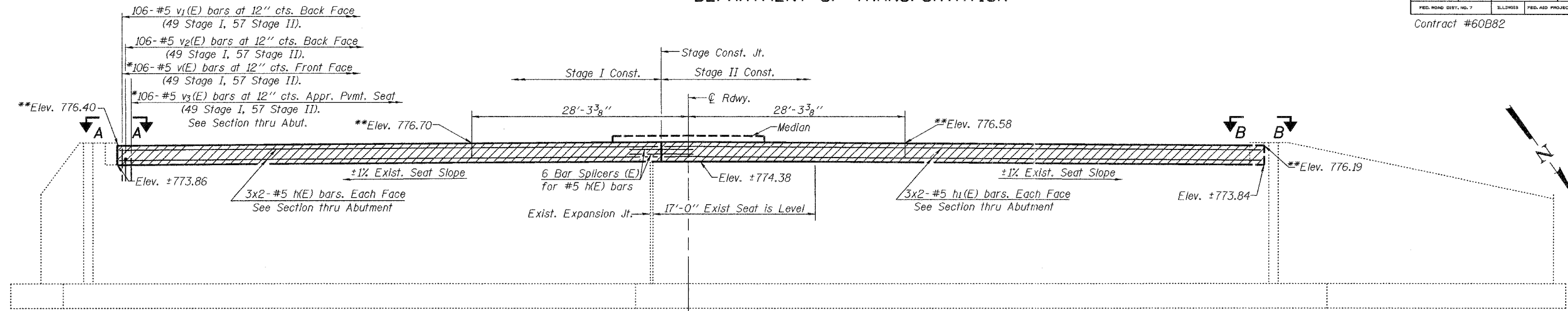
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.	248.5
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.	14.0

CONCRETE REMOVAL & SUBSTRUCTURE REPAIR
 F.A.U. RT. 1320 SEC. 581 EXT-BR
 COOK COUNTY
 STATION 1115+40.00
 STRUCTURE NO. 016-2087

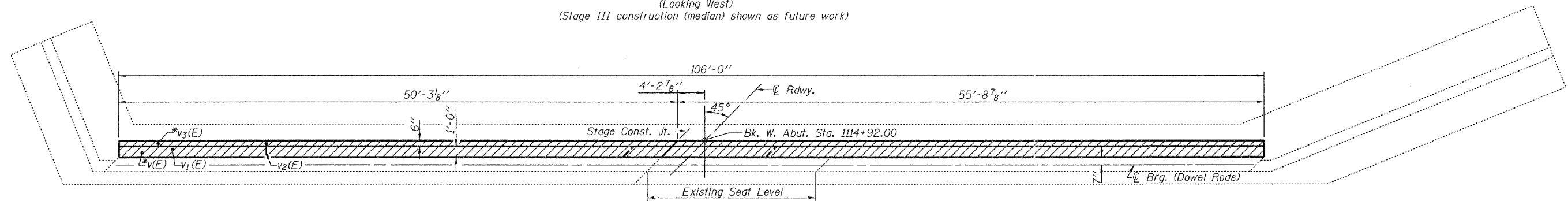
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 11 SHEETS
F.A.U. 1320 (IL 58)	581 EXT -BR	COOK	46	28	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #60B82



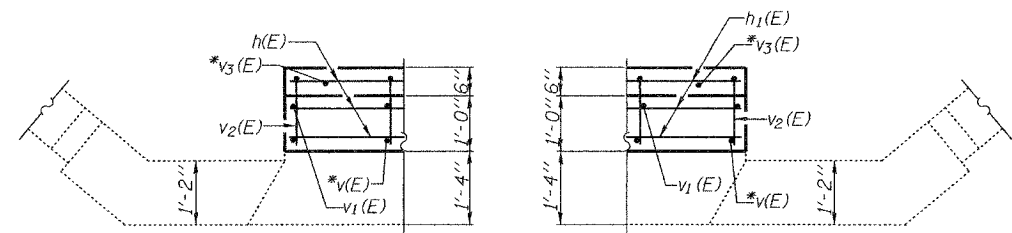
ELEVATION
(Looking West)
(Stage III construction (median) shown as future work)



PLAN

*Drill and grout v(E) and v3(E) bars min. 9" according to Article 584 of the Standard Specifications.
**Elevations given at Front Face of Hatched Block.

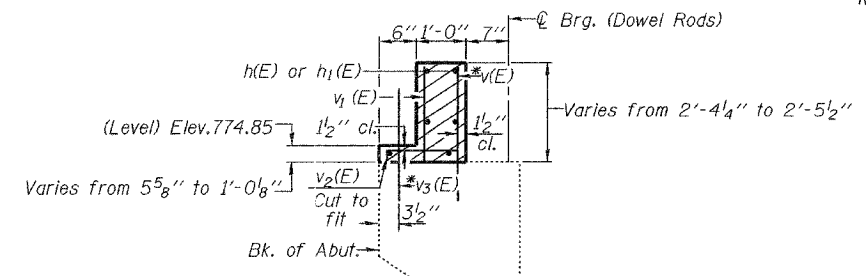
Notes: Hatched areas indicate proposed concrete construction. Hatched areas to be poured after Concrete Wearing Surface is in place and cured. Quantity of Concrete included with Concrete Superstructure on sheet 7 of 11. For Bar Splicer details see sheet 11 of 11.



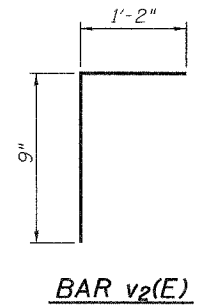
VIEW A-A

VIEW B-B

MIN. BAR LAP
#5 bars = 1'-8"



SECTION THRU ABUTMENT
(at Rt. L's)



BAR v2(E)

DESIGNED Dhruv P. Narietwala
CHECKED Stephen M. Ryan
DRAWN R. Sommer
CHECKED DPN/SMR

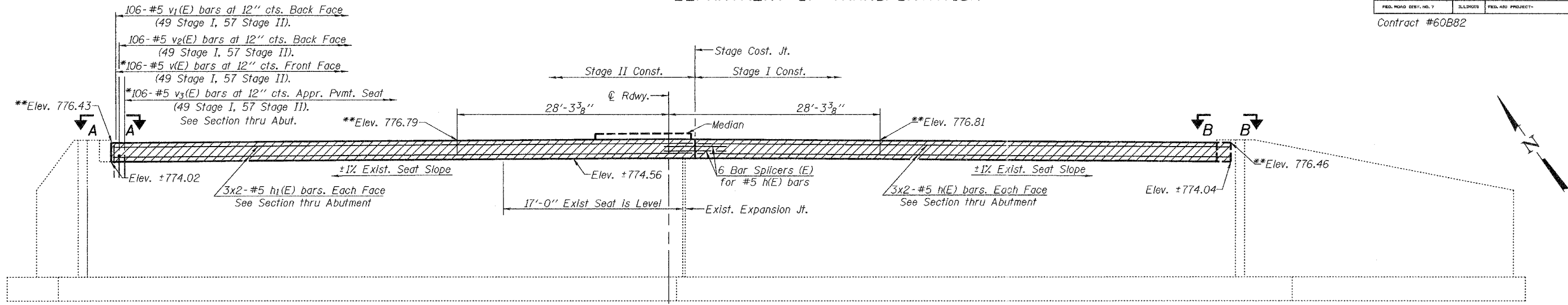
August 10 2007
EXAMINED Thomas J. Damagalki
PASSED Ralph E. Anderson

WEST ABUTMENT
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

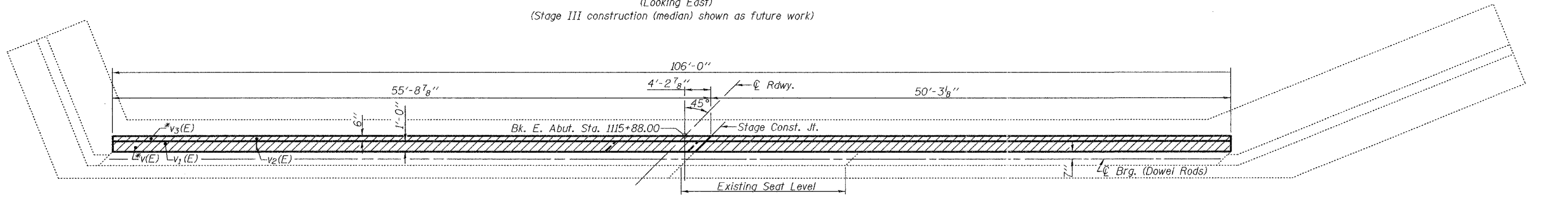
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.	SHEET NO. 10
F.A.U. 1320 (IL58)	581 EXT -BR	COOK	46	29	11 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #60B82



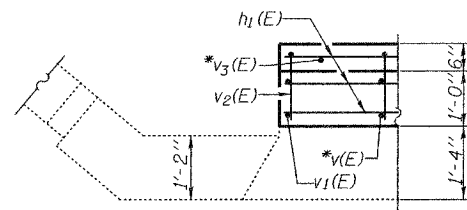
ELEVATION
(Looking East)
(Stage III construction (median) shown as future work)



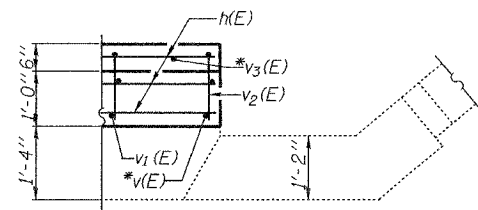
PLAN

*Drill and grout v(E) and v3(E) bars min. 9" according to Article 584 of the Standard Specifications.
**Elevations given at Front Face of Hatched Block.

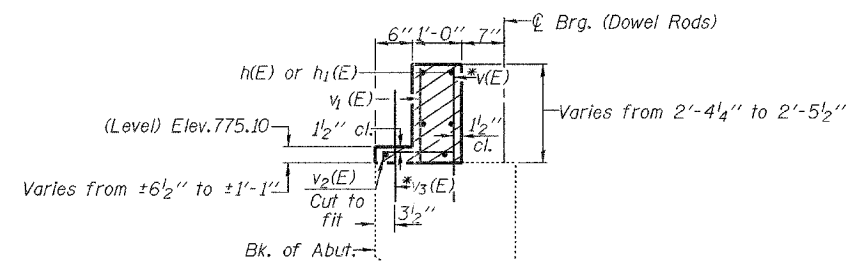
Notes: Hatched areas indicate proposed concrete construction. Hatched areas to be poured after Concrete Wearing Surface is in place and cured. Quantity of Concrete included with Concrete Superstructure on sheet 7 of 11. For Bar Splicer details see sheet 11 of 11.



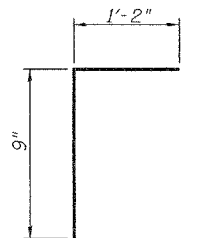
VIEW A-A



VIEW B-B



SECTION THRU ABUTMENT
(at fit. L's)



BAR v2(E)

DESIGNED	Dhruv P. Narielwala
CHECKED	Stephen M. Ryan
DRAWN	R. Sommer
CHECKED	DPN/SMR

2007	
EXAMINED	Thomas J. Domagalaki
PASSED	Ralph E. Anderson

EAST ABUTMENT
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.U. 1320 (IL58)	SECTION 581 EXT -BR	COUNTY COOK	TOTAL SHEETS 46	SHEET NO. 30	SHEET NO. 11 11 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-			

Contract #60B82

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

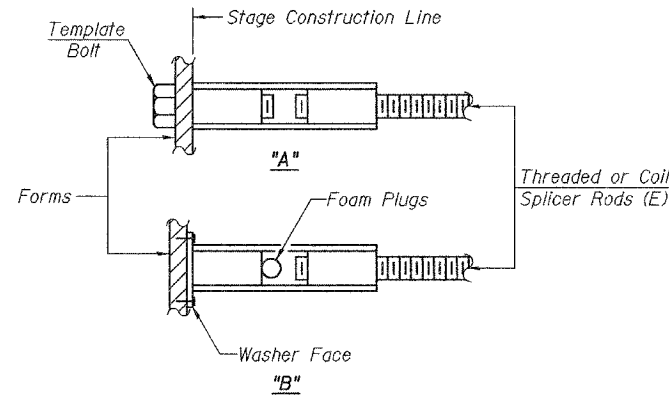
Wire Connector



WELDED SECTIONS

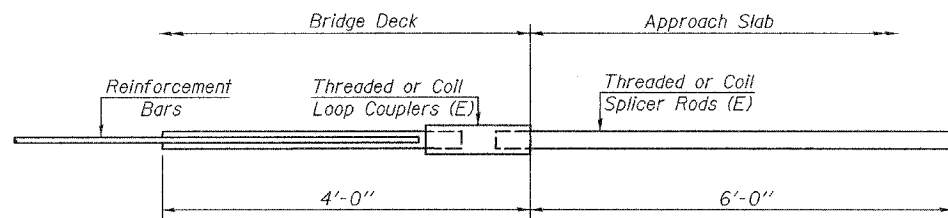
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



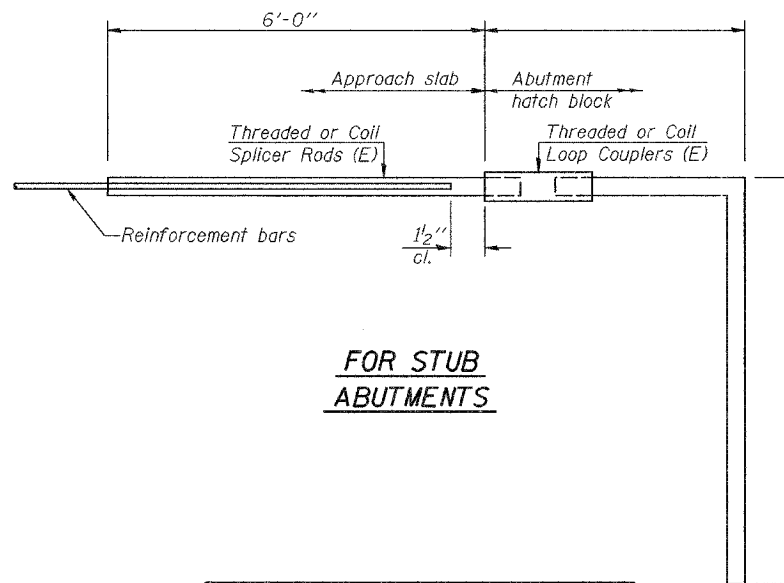
INSTALLATION AND SETTING METHODS

"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.



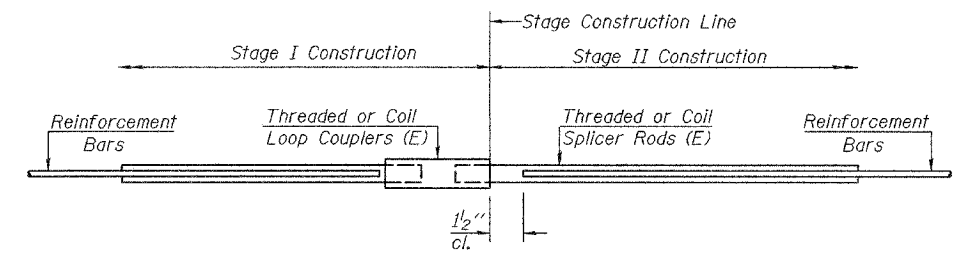
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

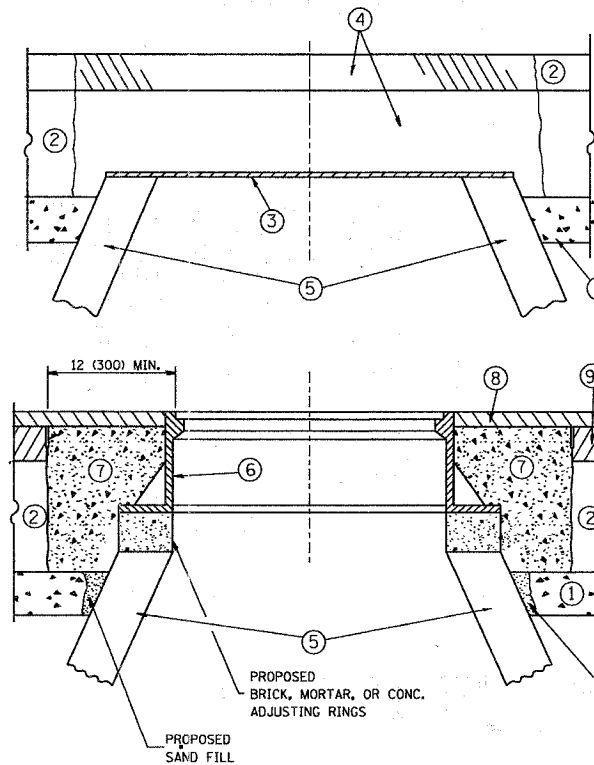
Bar Size	No. Assemblies Required	Location
#4	93	Conc. Wearing Surface
#5	12	Abut. Hatch Block

BAR SPLICER ASSEMBLY DETAILS
F.A.U. RT. 1320 SEC. 581 EXT-BR
COOK COUNTY
STATION 1115+40.00
STRUCTURE NO. 016-2087

DESIGNED Dhruv P. Narielwala
CHECKED Stephen M. Ryan
DRAWN R. Sommer
CHECKED DPN/SMR
BSD-1 11-1-06

August 10 2007
EXAMINED Thomas J. Damagalabi
PASSED Ralph E. Anderson
ENGINEER OF BRIDGE DESIGN
ENGINEER OF BRIDGES AND STRUCTURES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 EXT-02	COOK	46	31
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

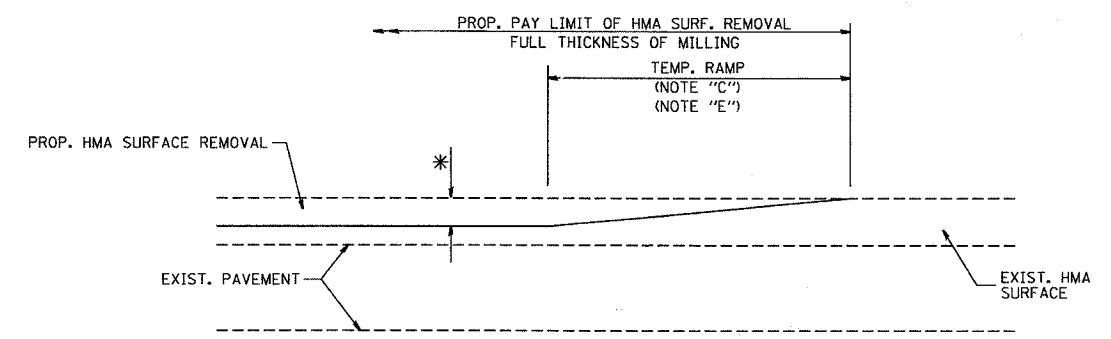
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR
FRAMES AND LIDS ADJUSTMENT
WITH MILLING

SCALE: VERT. NONE
HORIZ. NONE
PLOT DATE: 10/31/2006

DRAWN BY
CHECKED BY

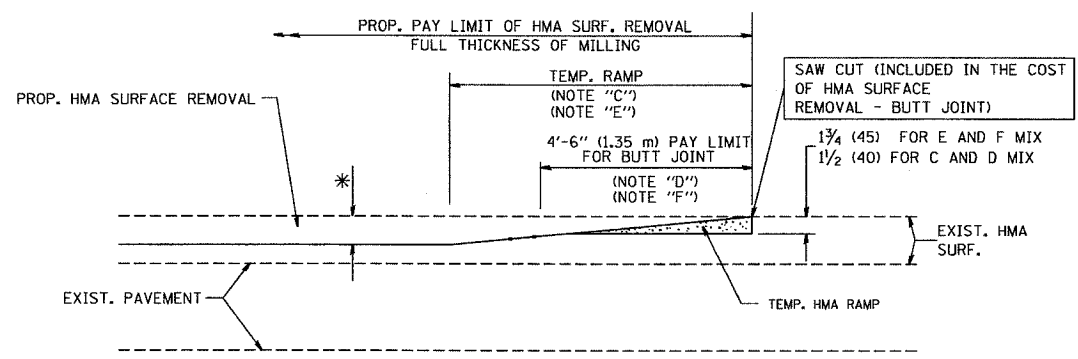
BD600-03 (BD-8)
REVISION DATE: 01/01/07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	501 EXT-82	Cook	46	32
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



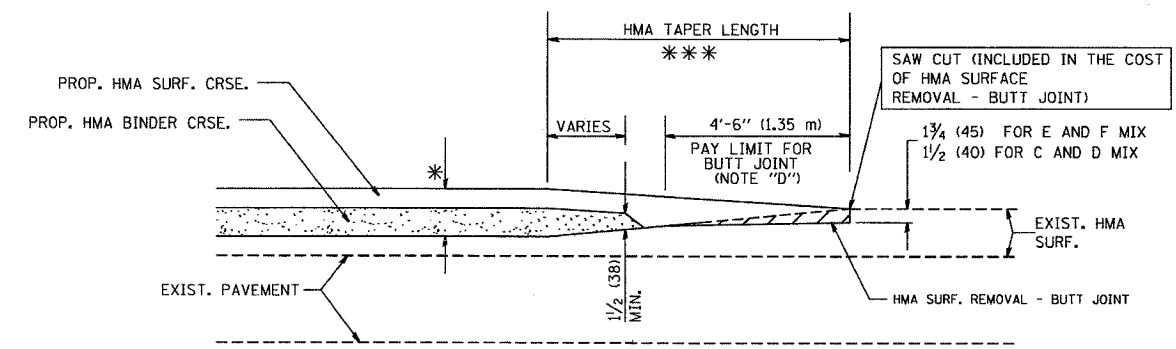
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1



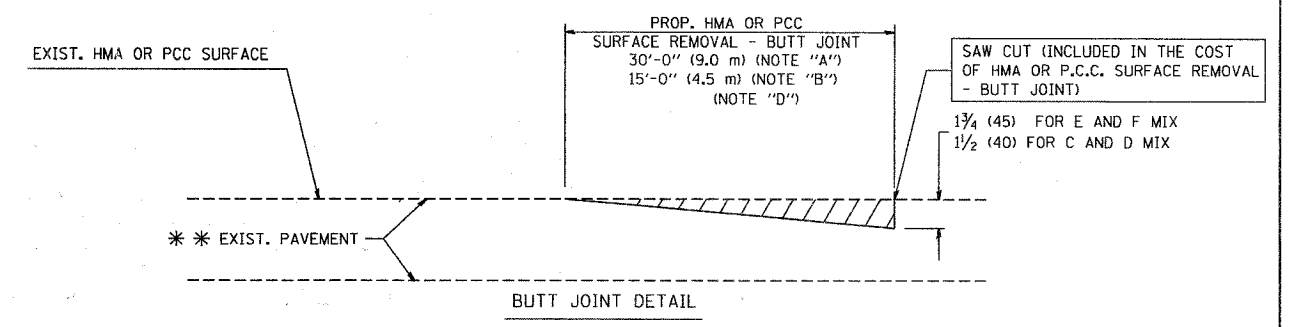
HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2
TYPICAL TEMPORARY RAMP

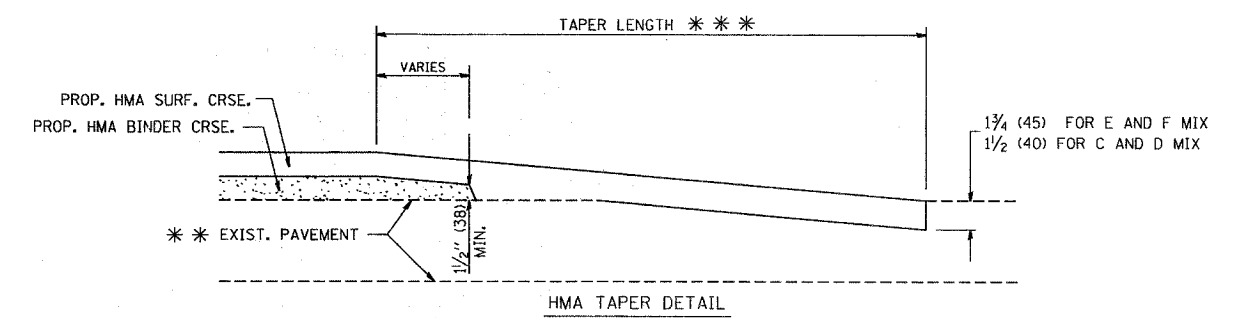


BUTT JOINT AND HMA TAPER

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")

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

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".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/23/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ. 1" = 10'

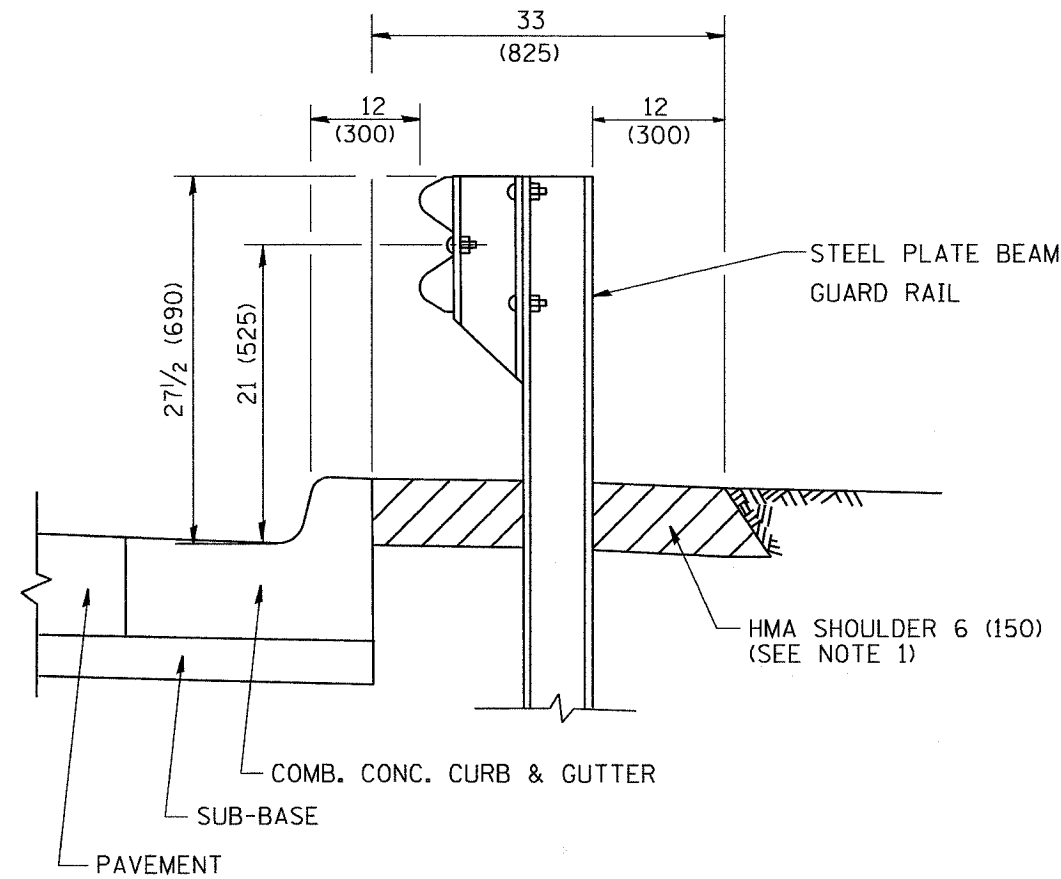
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CHECKED BY

BD400-05 (VI-BD32)
REVISION DATE: 01/01/07

PLOT DATE: 10/31/2006
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PLOT SCALE: 0.000000 / IN.
USER NAME: llynn

CONTRACT NO. 60882

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

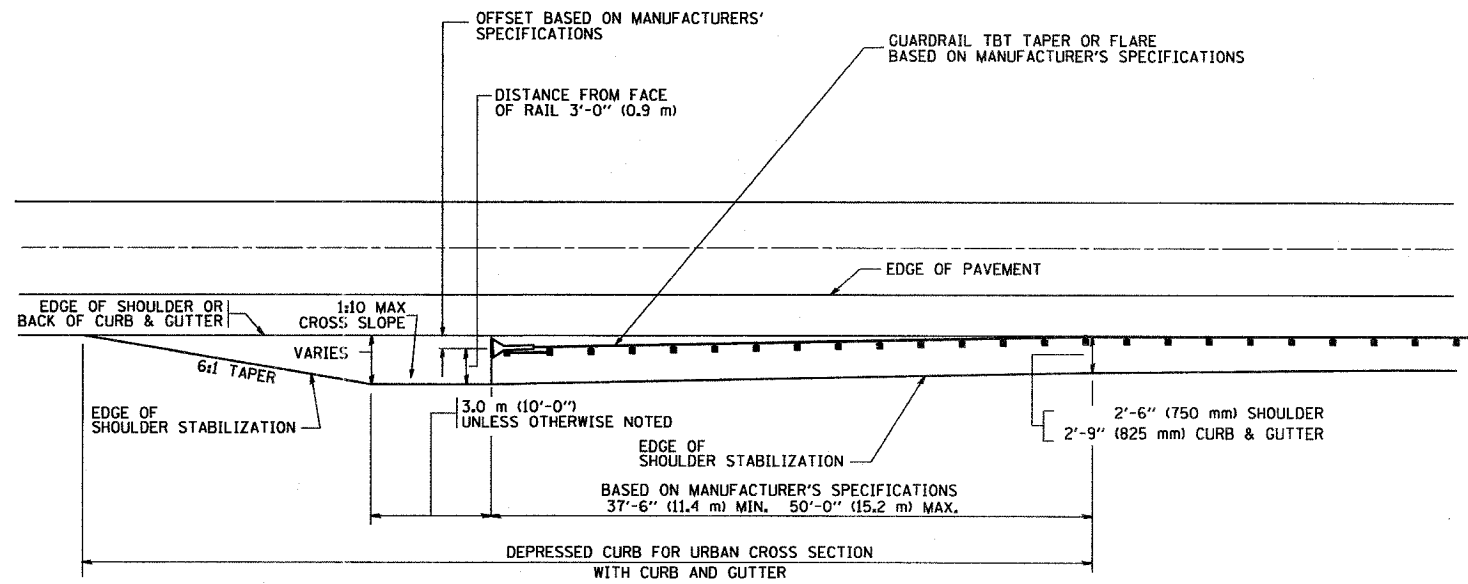


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

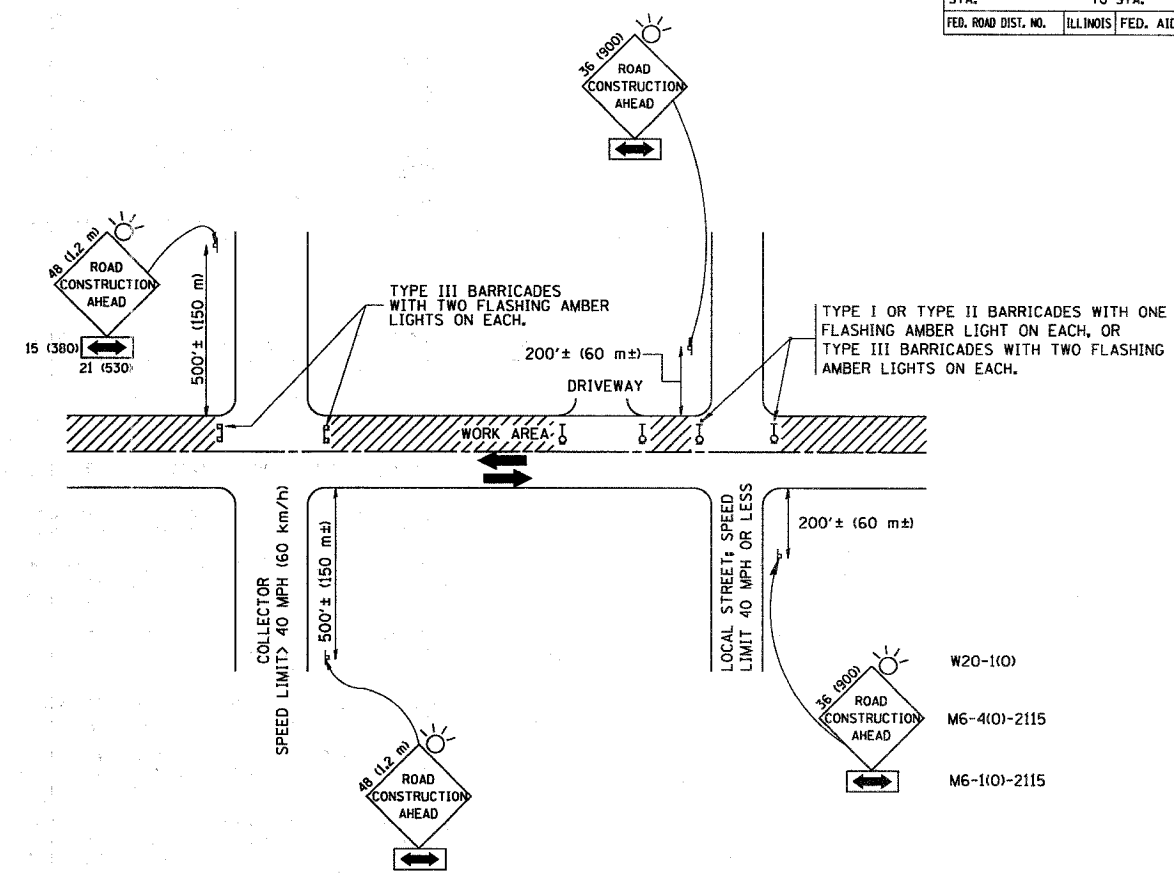
REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.

SCALE: VERT. NONE
 HORIZ. NONE
 PLOT DATE: 10/31/2006
 DRAWN BY: jls
 CHECKED BY:

PLOT DATE: 10/31/2006
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: jls

CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
1920	681 EXP-BE	COOK	46	34	
STA.		TO STA.			
FED. ROAD DIST. NO.		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
- 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:
 - 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.
 - 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.
 - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - 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.
 - 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.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

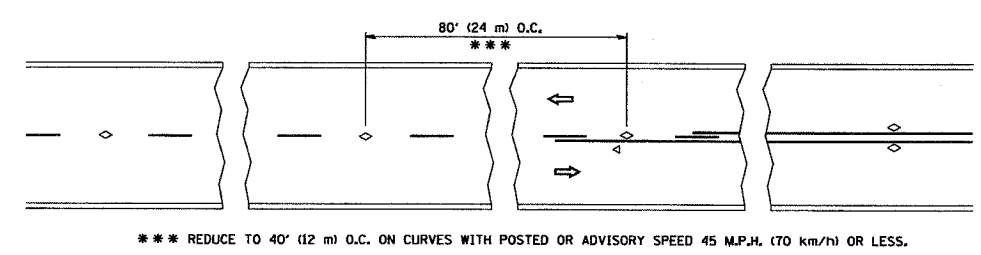
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DRAWN BY: CHECKED BY: TC-10

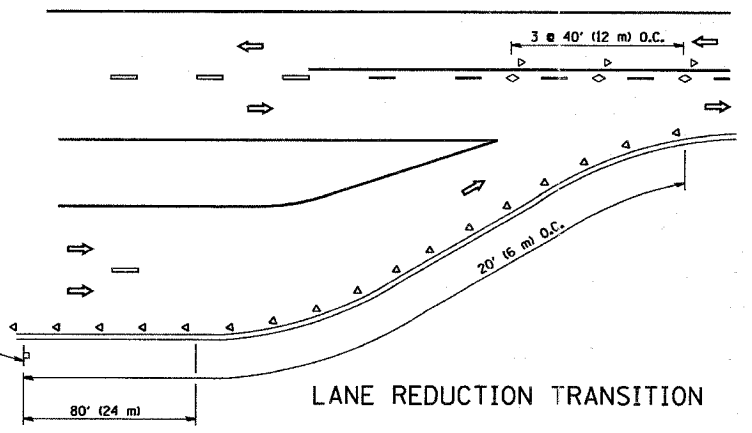
REVISION DATE: 01/06/00

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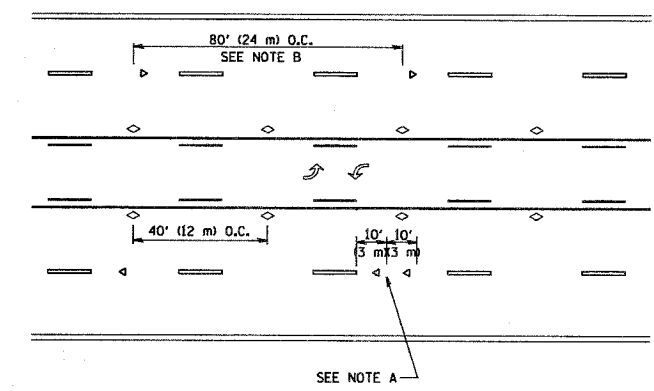
CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
F.A. RTE.	SECTION	COUNTY			
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STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



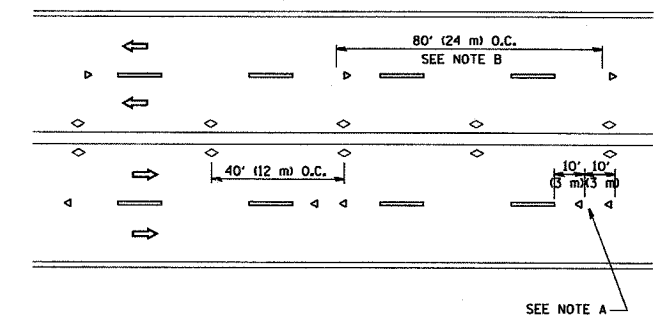
TWO-LANE/TWO-WAY



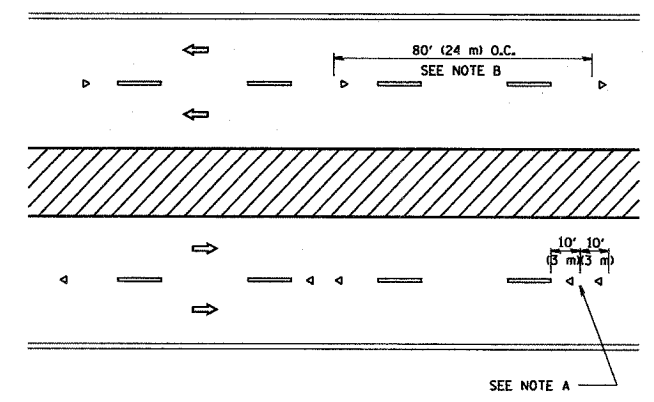
LANE REDUCTION TRANSITION



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

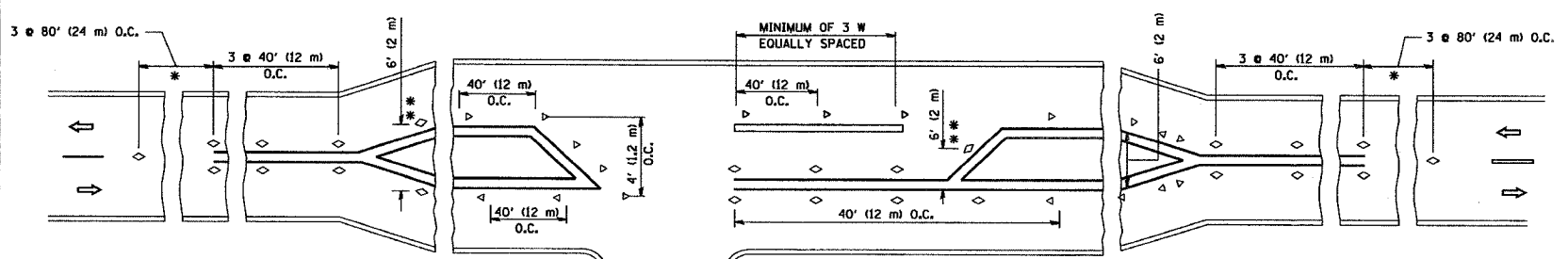
- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◇ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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 millimeters (Inches) unless otherwise shown.

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 PLOT SCALE = 0.0000 / IN.
 USER NAME = jaynes

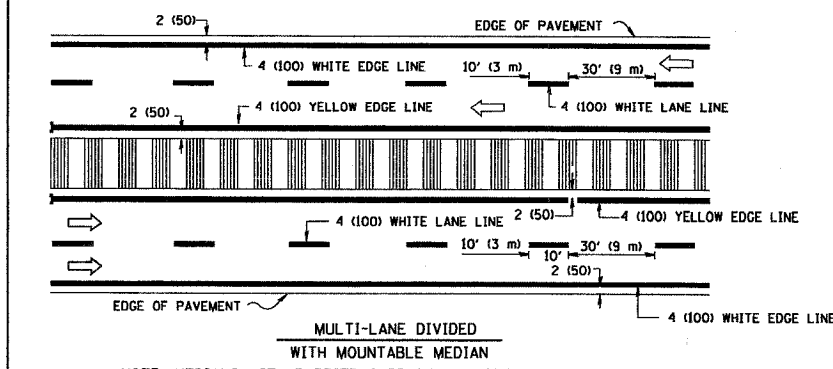
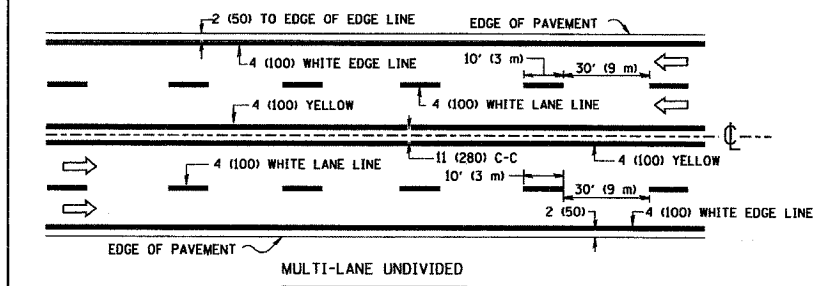
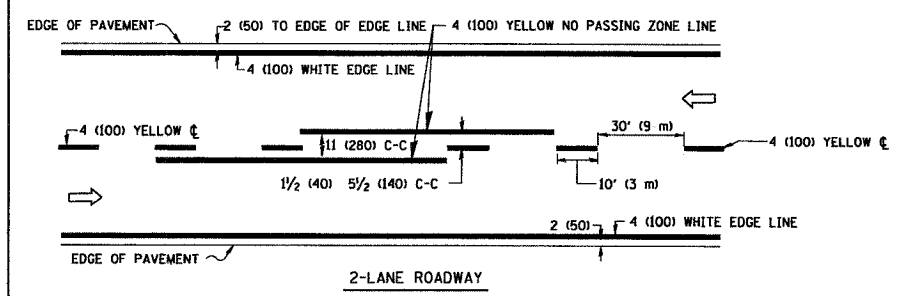
REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT
 MARKERS (SNOW-PLOW RESISTANT)

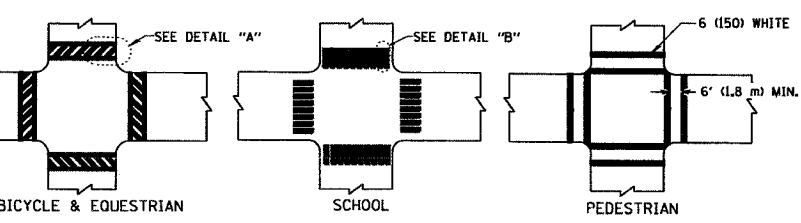
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 DATE: 1/17/2007
 DRAWN BY CADD
 CHECKED BY

CONTRACT NO. 60B82

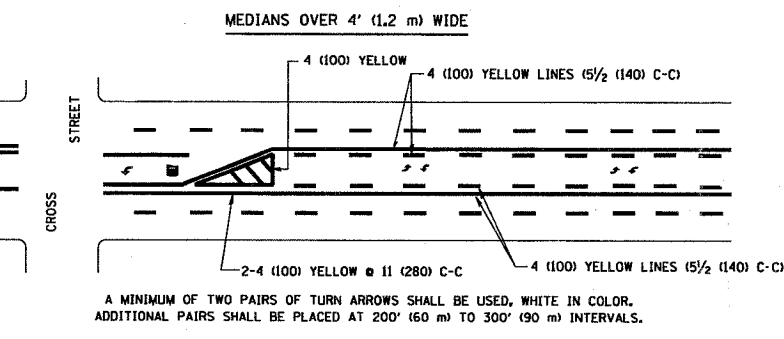
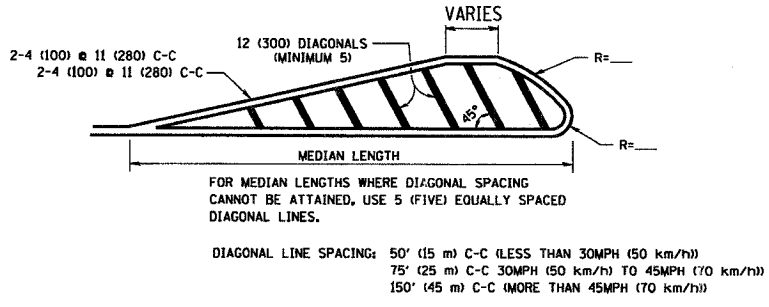
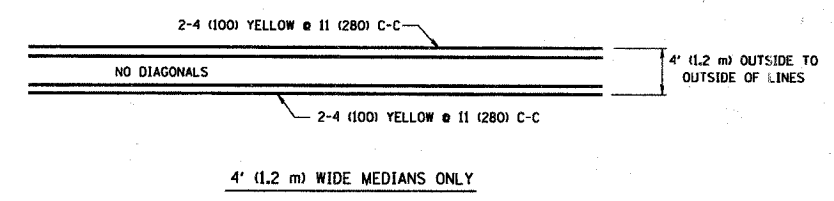
CONTRACT NO.		TOTAL SHEETS	
F.A. RTE.	SECTION	COUNTY	NO.
1320	681 EFT-BL	COOK	46 36
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



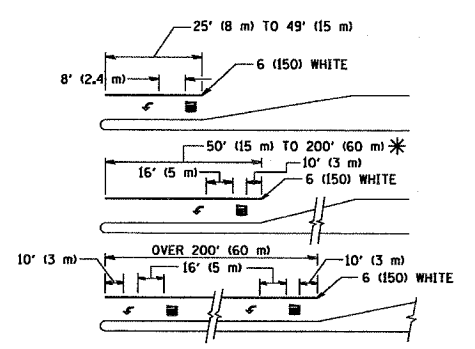
TYPICAL LANE AND EDGE LINE MARKING



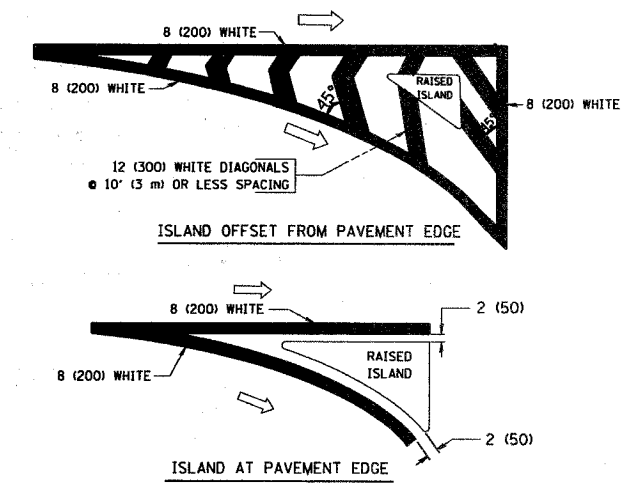
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE



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	5/2 (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 5/2 (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) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SO. FT. (0.33 m ²) EACH "X"=54.0 SO. 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 millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

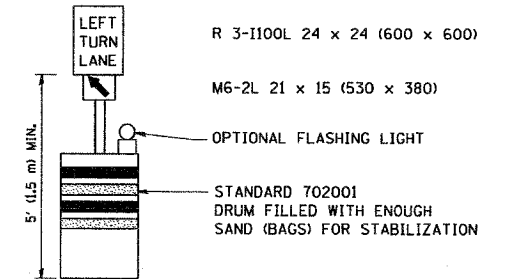
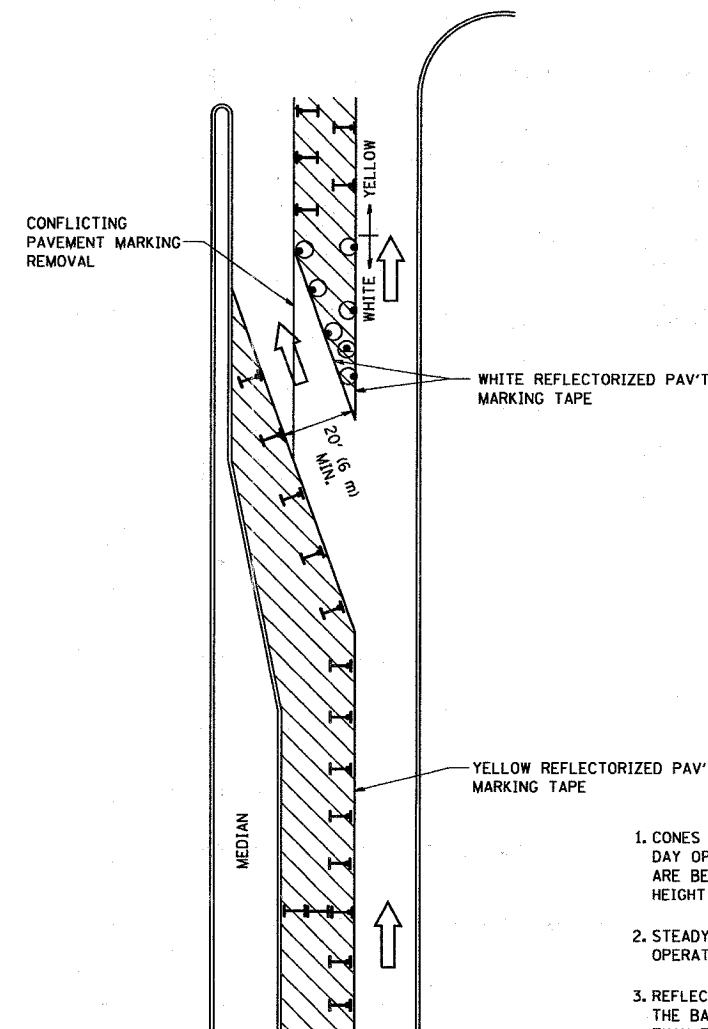
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE
DATE: 1/17/2007
DRAWN BY CADD
CHECKED BY
TC-13
REVISION DATE: 01/06/00

DATE: 1/17/2007
DRAWN BY: CADD
FILE NAME: 060800 / IN.
PLOT SCALE: 1"=100'
USER NAME: jay

CONTRACT NO. 60B8Z







CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
F.A. RTE.	SECTION	COUNTY			
1320	681 EXT. 02	COOK	46	37	
STA.		TO STA.			
FED. ROAD DIST. NO.		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 BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL AND PROTECTION
 AT TURN BAYS
 (TO REMAIN OPEN TO TRAFFIC)**

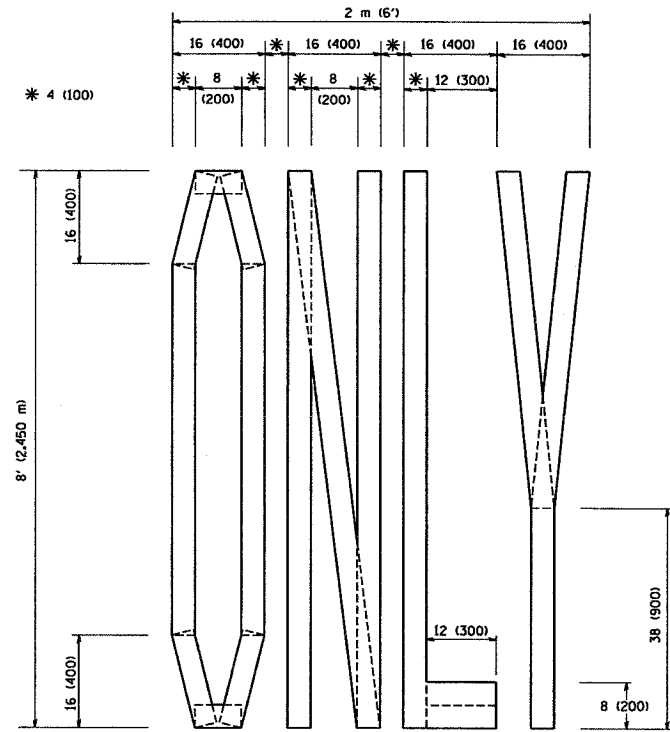
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DRAWN BY
 CHECKED BY LHA

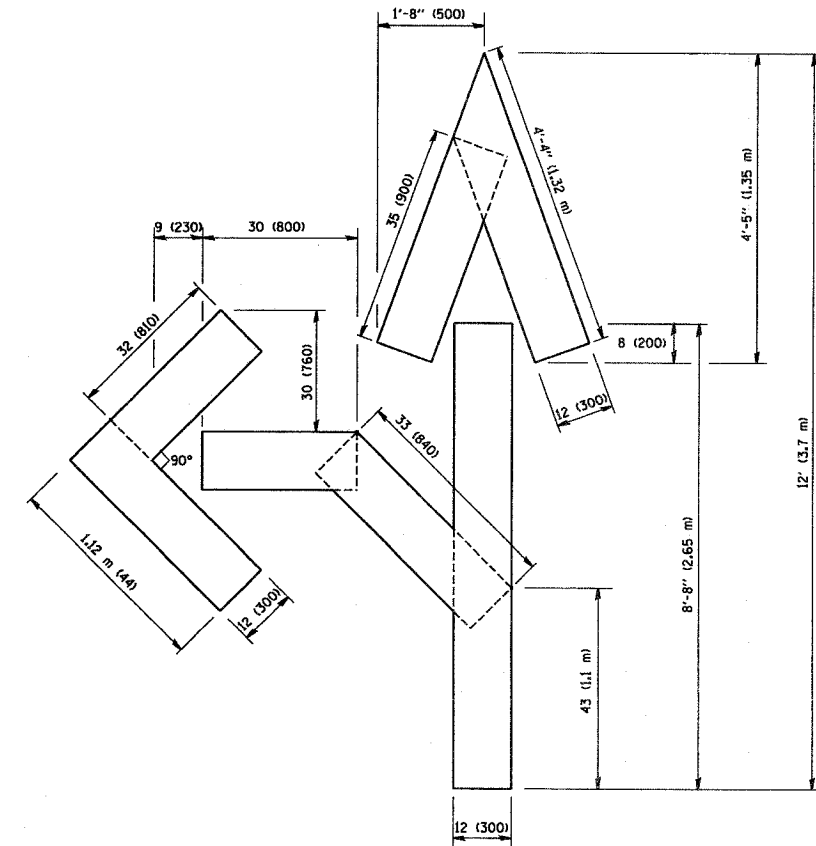
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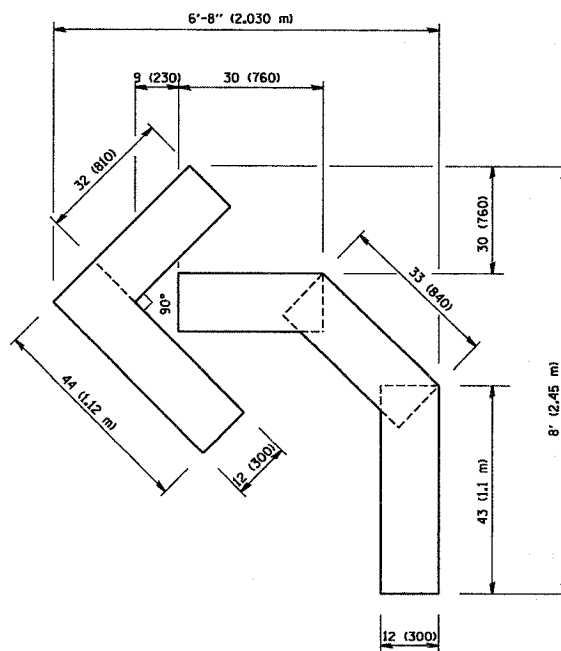
CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
F.A. RTE.	SECTION	COUNTY			
1320	681 Ext-B/E	Cook	46	38	
STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

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

PLOT DATE = 1/17/2007
FILE NAME = K:\Users\kaci\B.dwg
PLOT SCALE = 0.80000 / IN.
USER NAME = lryao

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING
LETTERS AND SYMBOLS
FOR TRAFFIC STAGING

SCALE: NONE
DATE: 1/17/2007

DRAWN BY CADD
CHECKED BY
TC-16

REVISION DATE: 08/28/00

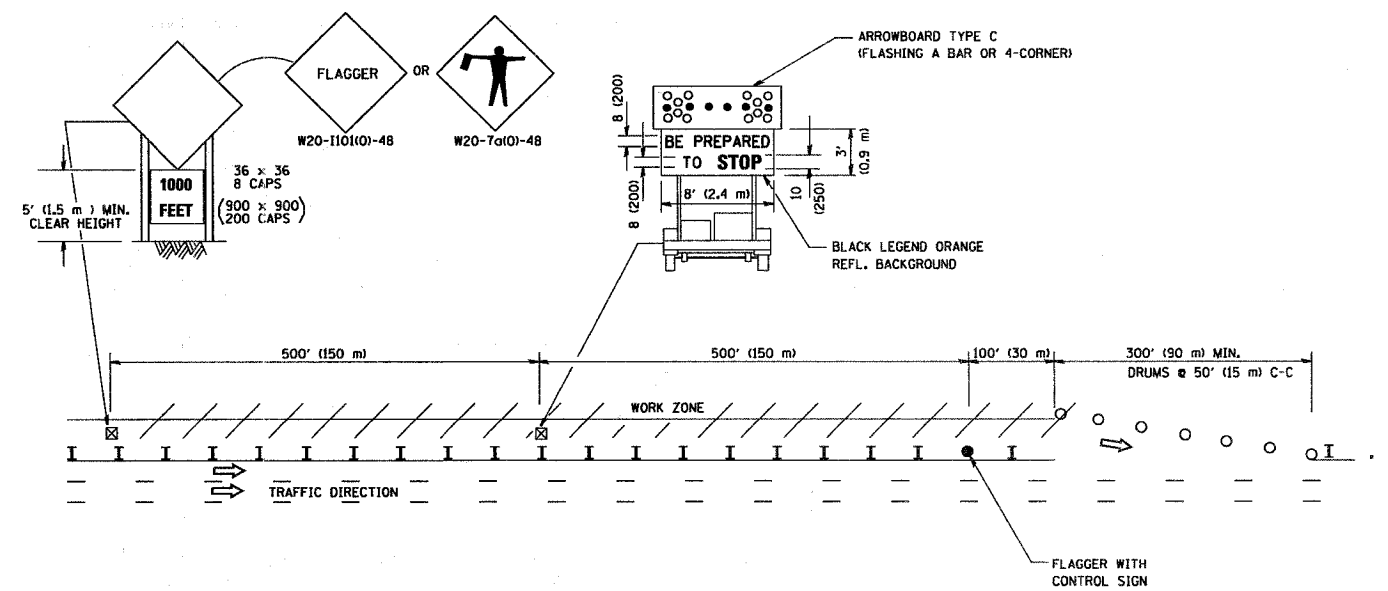
CONTRACT NO. 60882

CONTRACT NO.

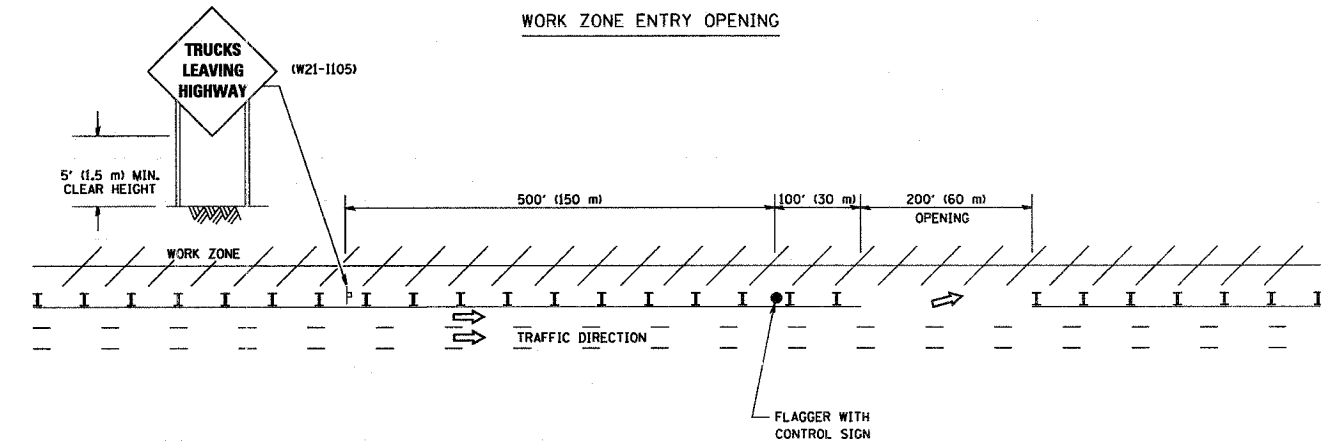
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1720	681 E. St.	Cook	46	39
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE
DATE: 1/16/2007

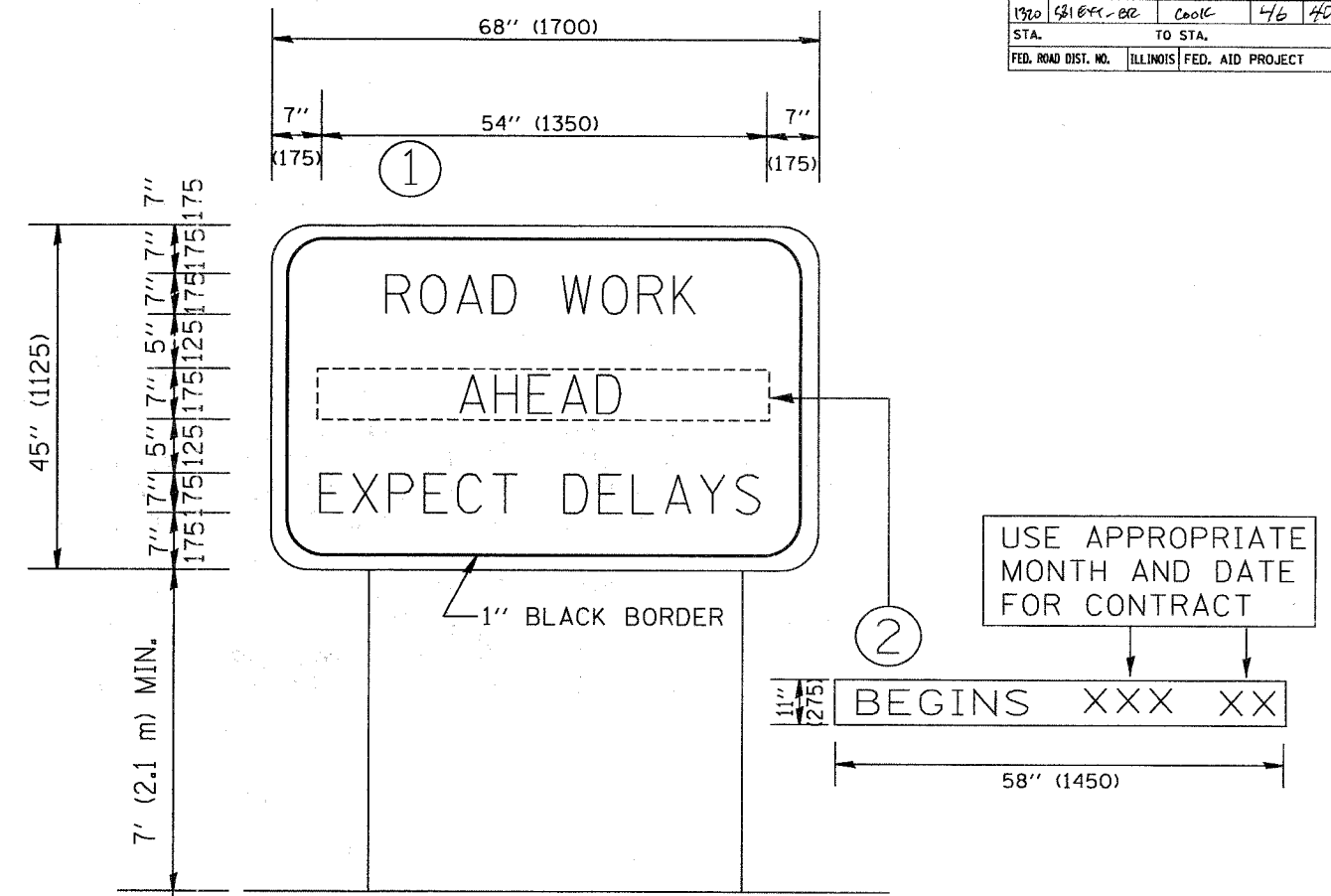
DRAWN BY CADD
CHECKED BY

TC-18

REVISION DATE: 01/01/07

PLT DATE = 1/16/2007
PLT SCALE = 50,000 / IN.
USER NAME = jaf

CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
F.A. RTE.	SECTION	COUNTY	SHEETS	NO.	NO.
1920	SB184-02	COOK	46	40	
STA.		TO STA.			
FED. ROAD DIST. NO.		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.)

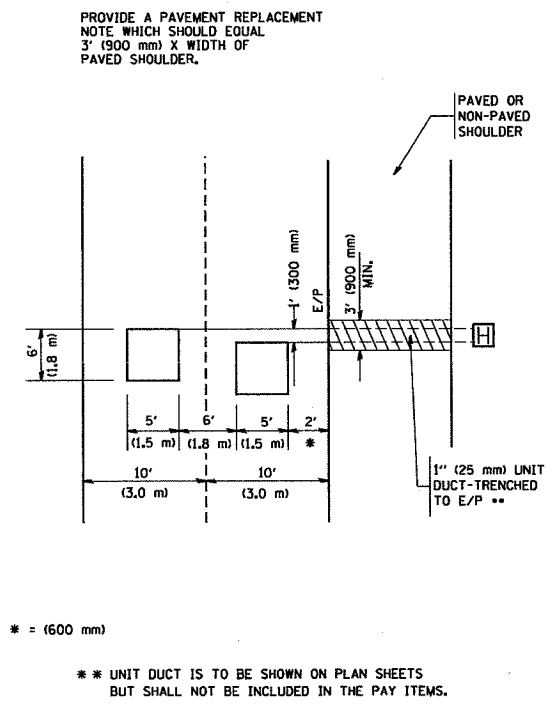
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99

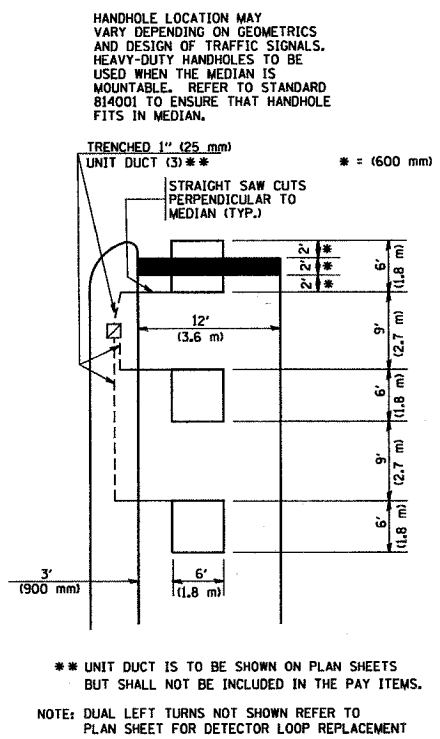
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY INFORMATION SIGNING
 SCALE:
 DATE: 1/17/2007
 DRAWN BY DESIGN
 CHECKED BY
 TC22
 REVISION DATE: 02/02/99

CONTRACT NO.		TOTAL SHEETS	
F.A. RTE.	SECTION	COUNTY	NO.
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STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

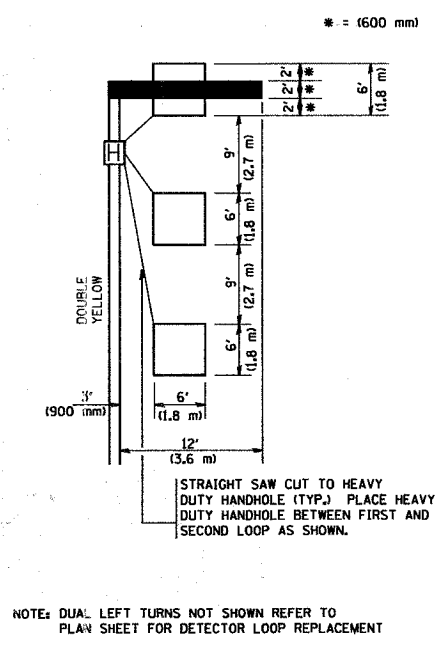
LOOPS NEXT TO SHOULDERS



LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



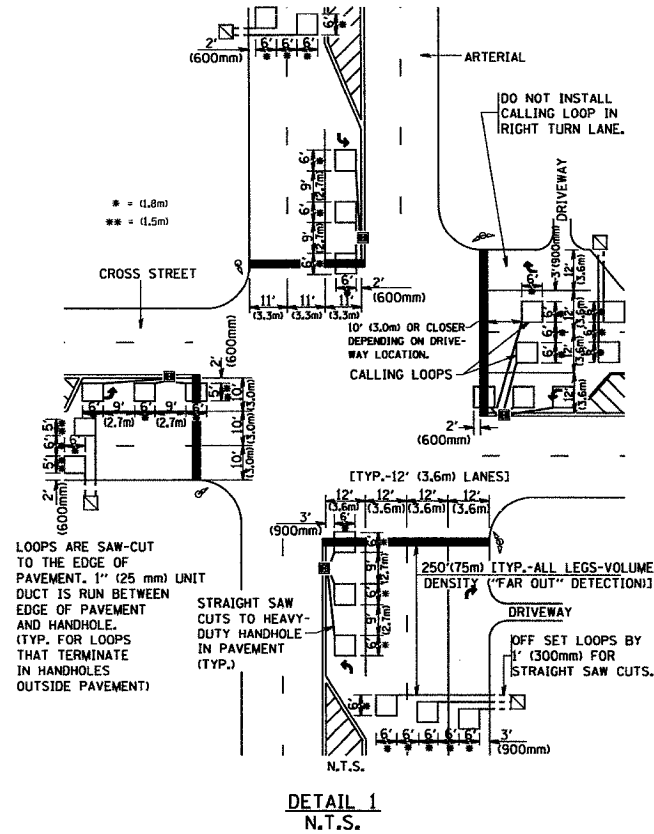
LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



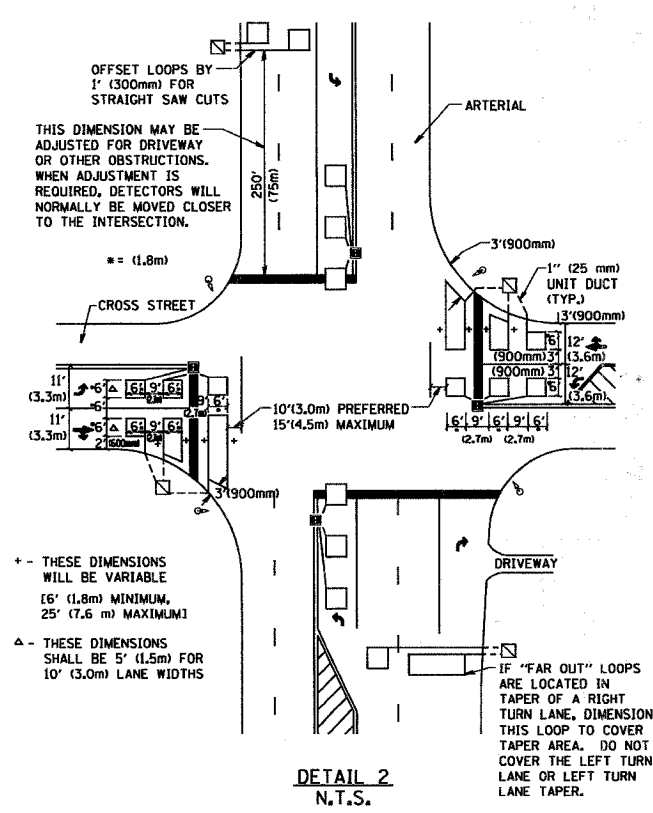
NOTES:

- VEHICLES LOOP DETECTORS**
- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
 - * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
 - * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
 - * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
 - * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
 - * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
 - * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)



ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DIMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:
ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
DETECTOR LOOP
INSTALLATION DETAILS
FOR ROADWAY RESURFACING

DESIGNED BY
DRAWN BY CADD
CHECKED BY R.K.F.
TS07
REVISION DATE:

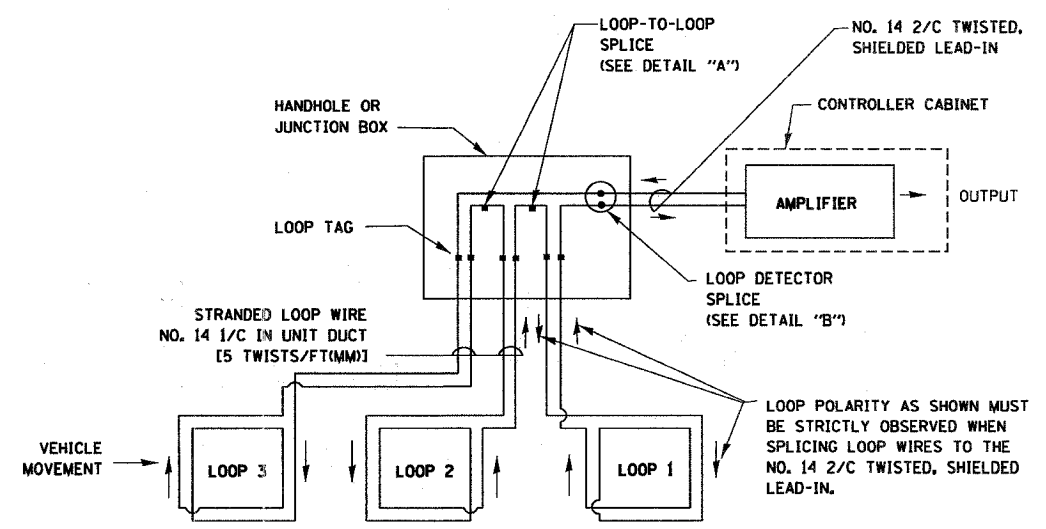
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PLOT SCALE = 48,9999 / IN.
USER NAME = gglanobst

CONTRACT NO.		TOTAL SHEETS		SHEET NO.	
F.A. RTE.	SECTION	COUNTY			
1320	581 BVT-BC	COOK	46	43	
STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	

LOOP DETECTOR NOTES

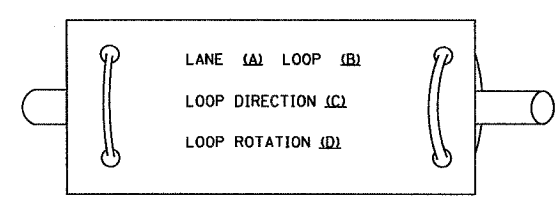
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



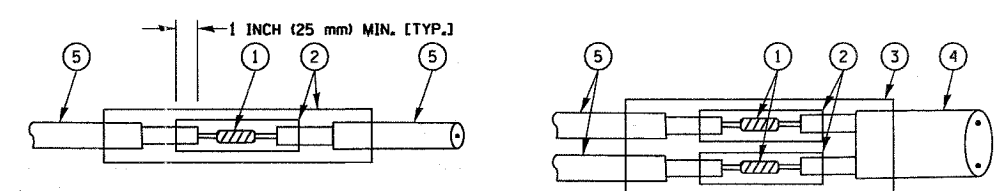
DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

LOOP LEAD-IN CABLE TAG



- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



**DETAIL "A"
LOOP-TO-LOOP SPLICE**

**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS**

SCALE: NONE

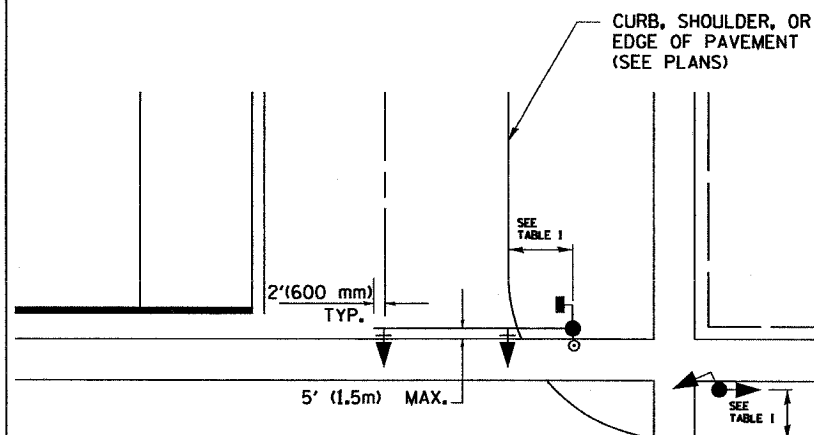
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

PLOT DATE = 3/7/2007
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 USER NAME = bboardl

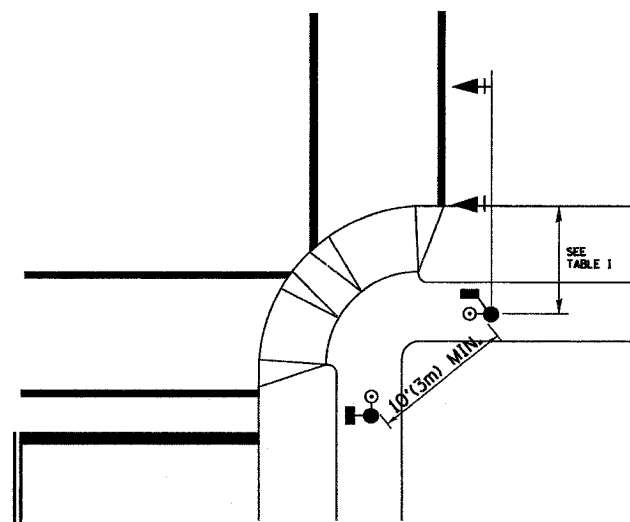
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	681 BR BR	COOK	46	44
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA, INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

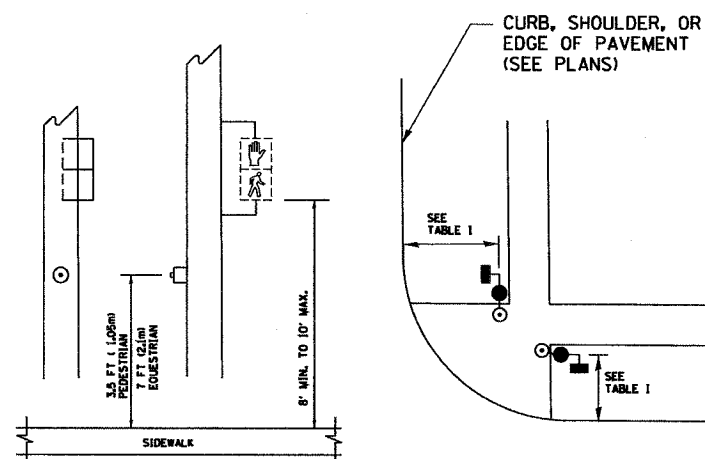


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

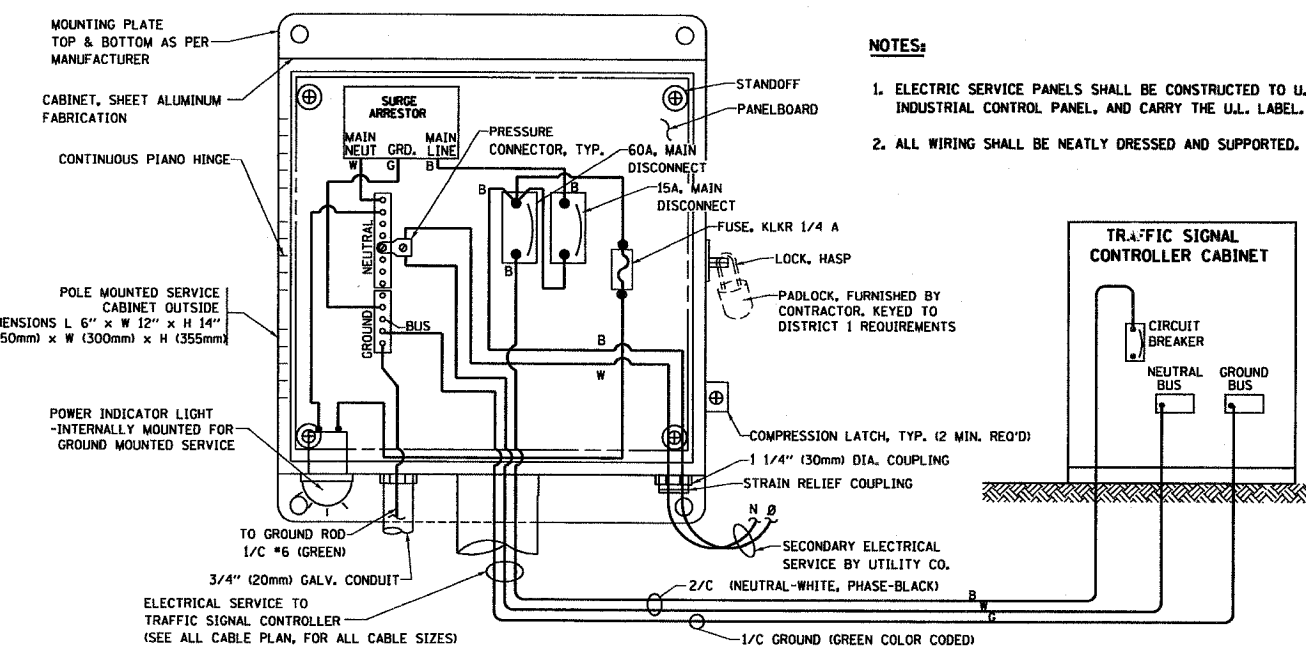
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 USER NAME = dbauercl

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

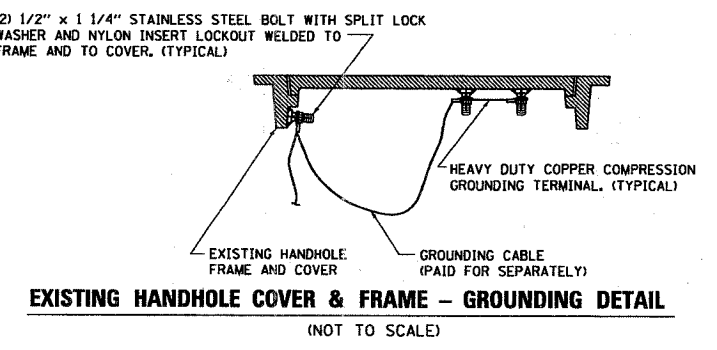
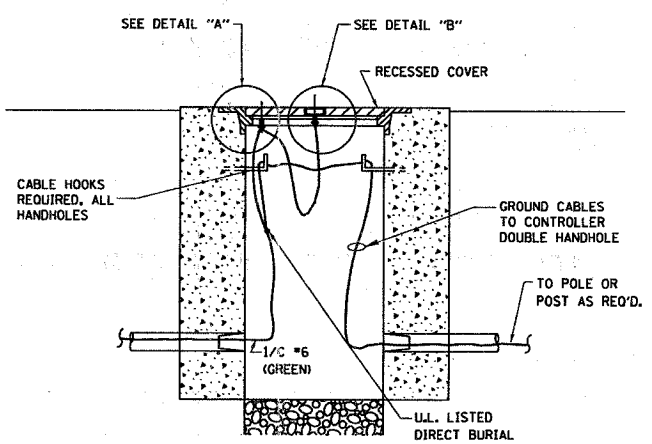
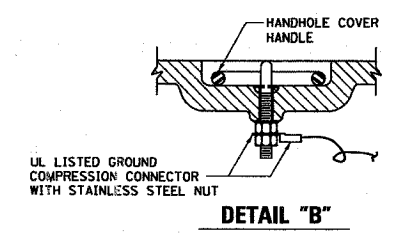
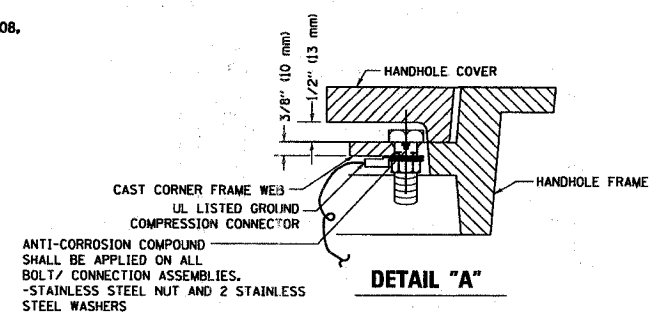
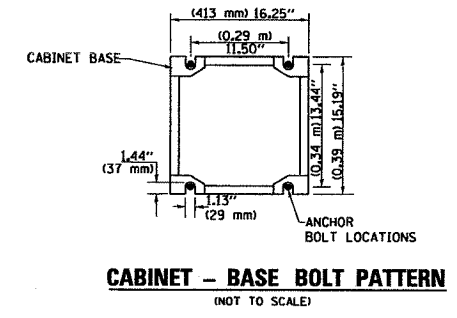
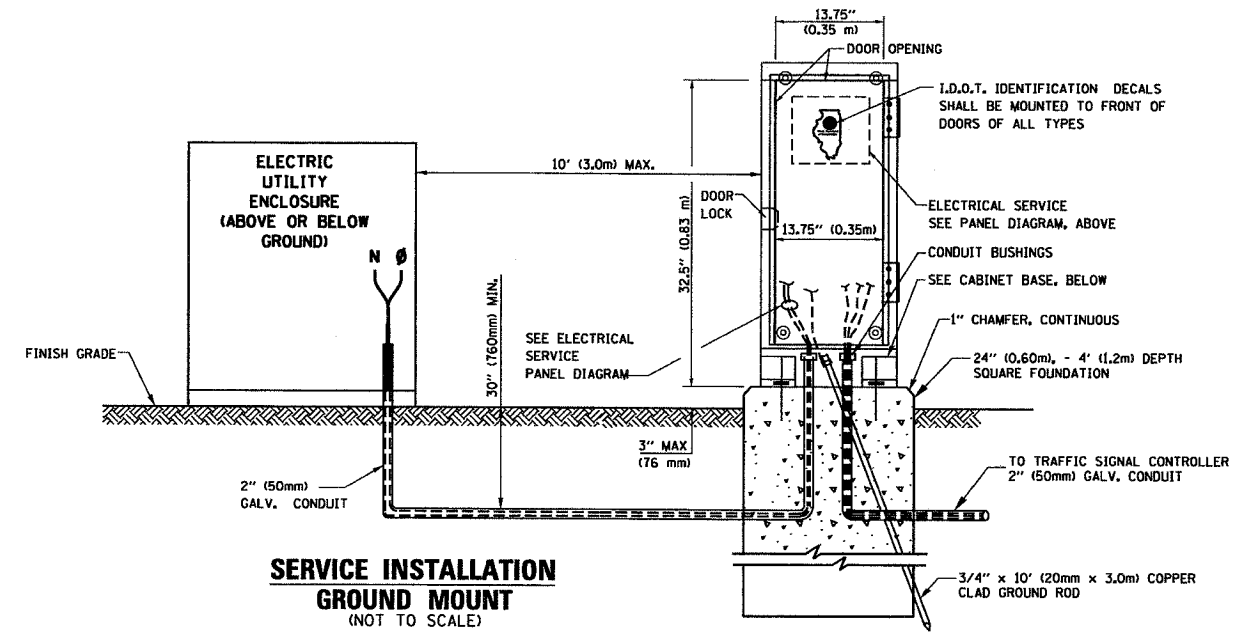
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: NONE
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4

F.A. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581	644-02	46	45
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

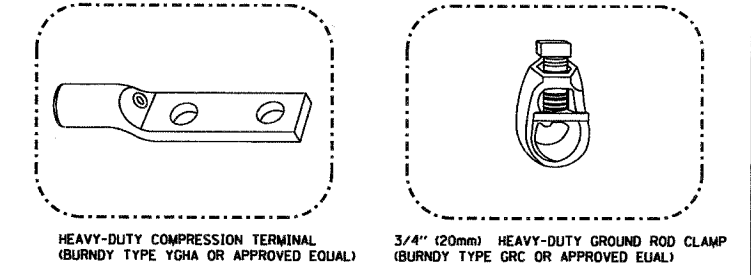


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

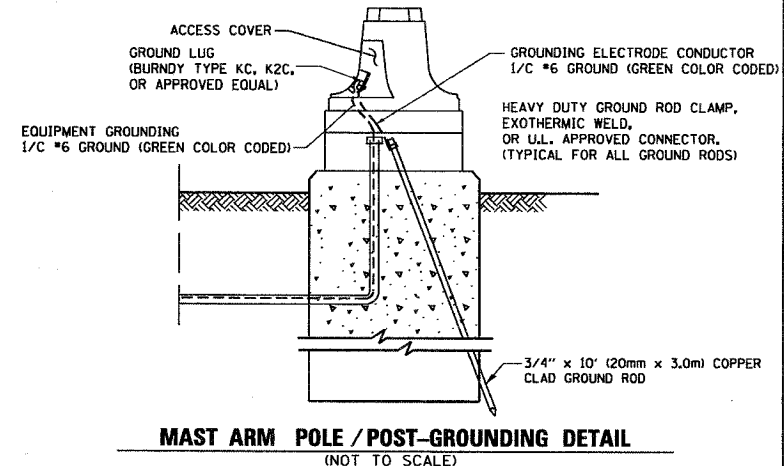


GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
 - 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
 - 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
 - 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



REVISIONS

NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

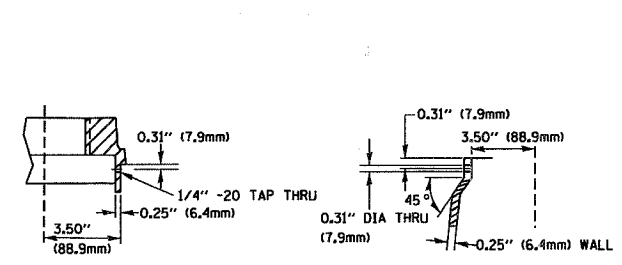
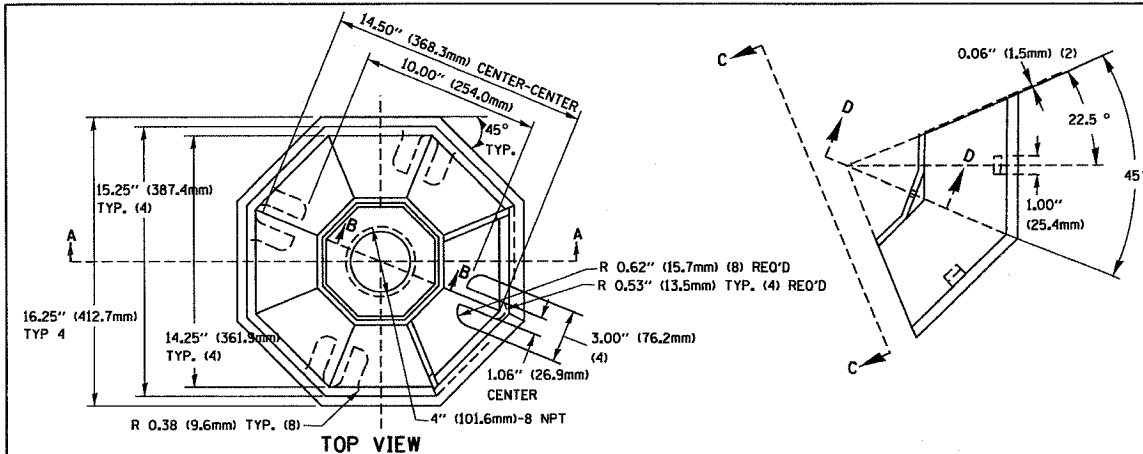
SCALE: NONE

DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 3 OF 4

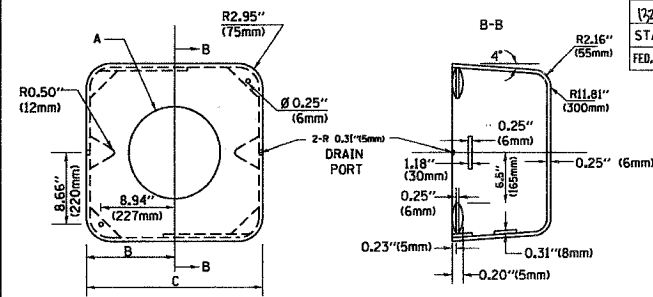
PLOT DATE: 3/7/2007
 FILE NAME: K:\projects\10085.dgn
 USER: RWP

CONTRACT NO. 60882

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
120	981 OCT-02	COOK	46	46
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



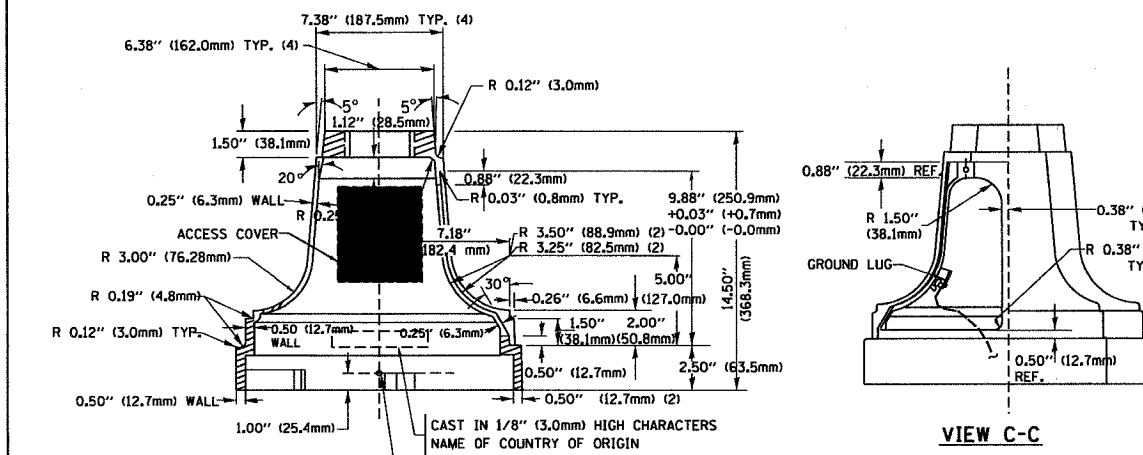
SECTION B-B SECTION D-D



TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125" (257mm)	9.5" (241mm)	19" (483mm)	12" (300mm)	24kg
II	Ø 11.125" (283mm)	10.75" (273mm)	21.5" (546mm)	12" (300mm)	26kg

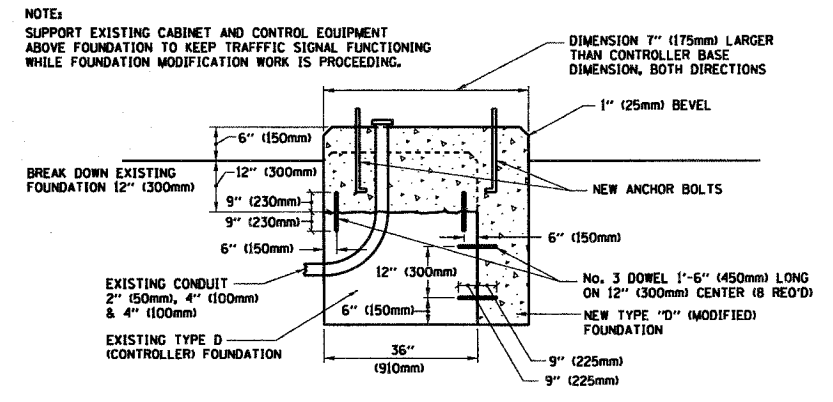
SHROUD DETAIL

MATERIAL:
- ASTM A48 CLASS 30 GREY IRON
- ASTM A123 HOT DIPPED GALVANIZED



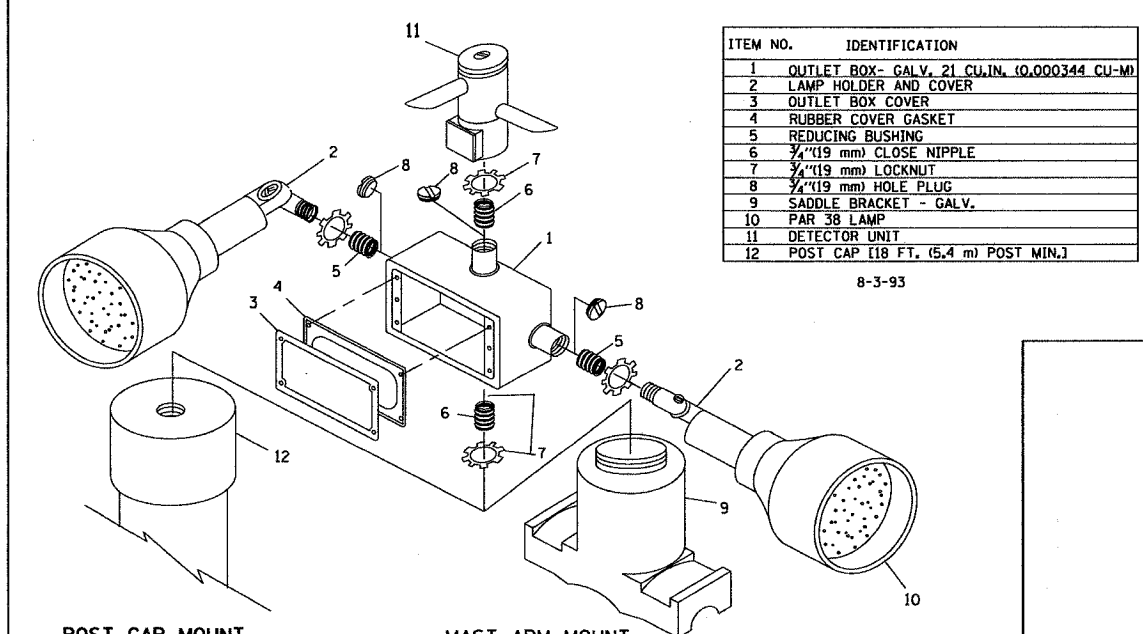
SECTION A-A

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



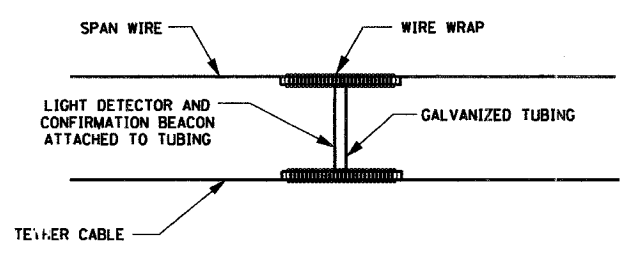
POST CAP MOUNT MAST ARM MOUNT EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU. M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

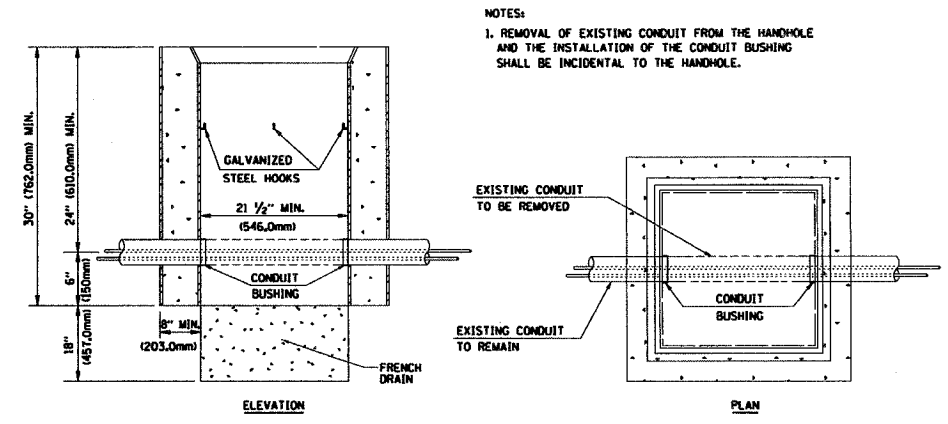
8-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE)



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

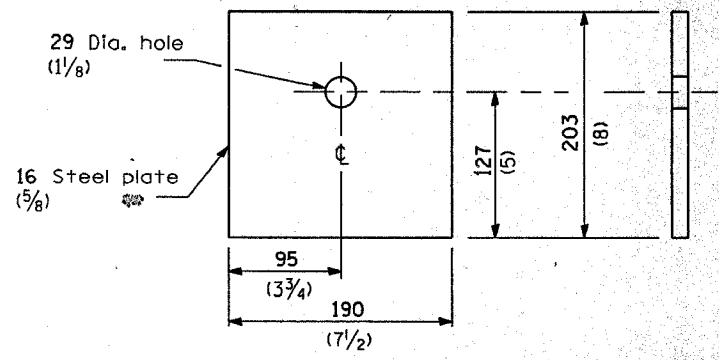
SCALE: NONE

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 4 OF 4

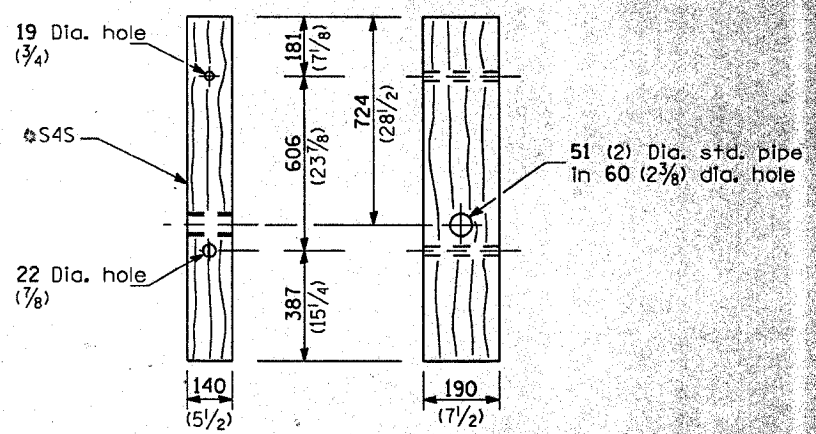
TS05

PLOT DATE = 2/7/2007
PLOT SCALE = 1/8" = 1'-0"
USER NAME = baward

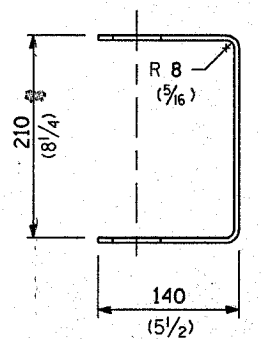
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1320	581 EXT-BR	COOK	46	46A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



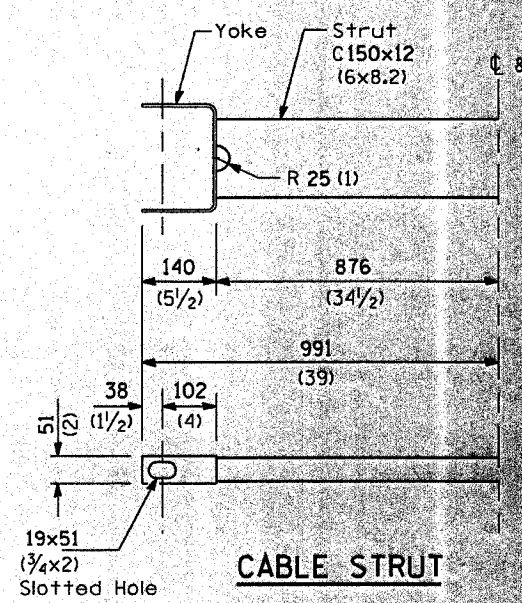
BEARING PLATE K



WOOD POST



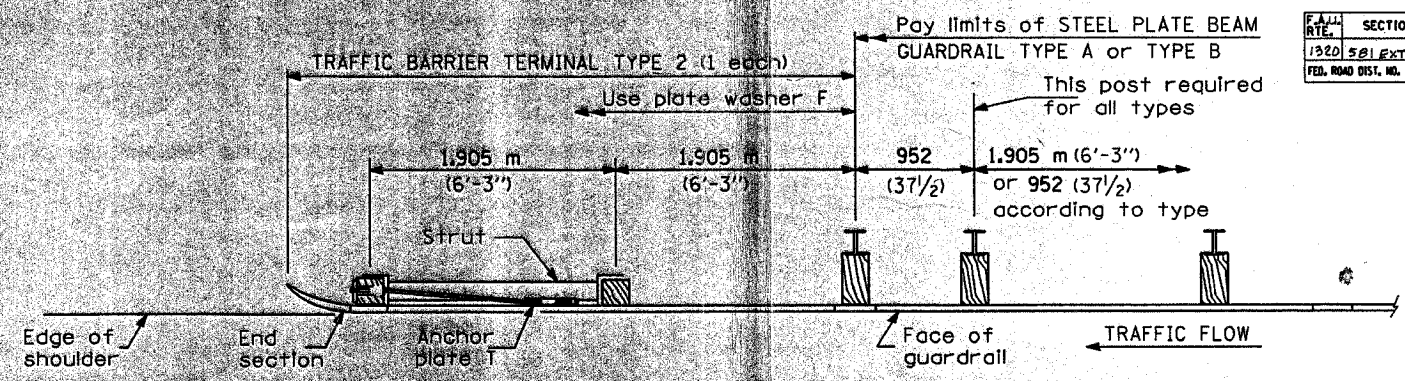
YOKE
5 (3/16) thick steel



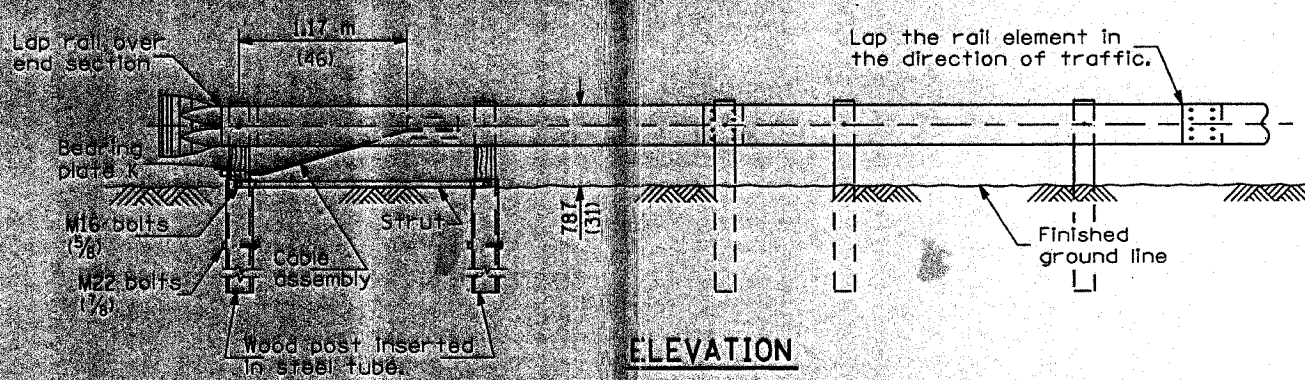
CABLE STRUT



STEEL TUBE



PLAN



ELEVATION

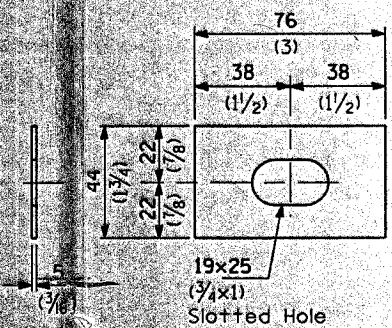


PLATE WASHER F

GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

The bearing plate K shall be held in position by (2) two eight penny nails driven into the post and bent over the top of the plate.

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

TRAFFIC BARRIER TERMINAL, TYPE 2

DETAIL