F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	1

CONTRACT NO. 60C20

38+2=40

1-18-08 Letting, Item 139

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

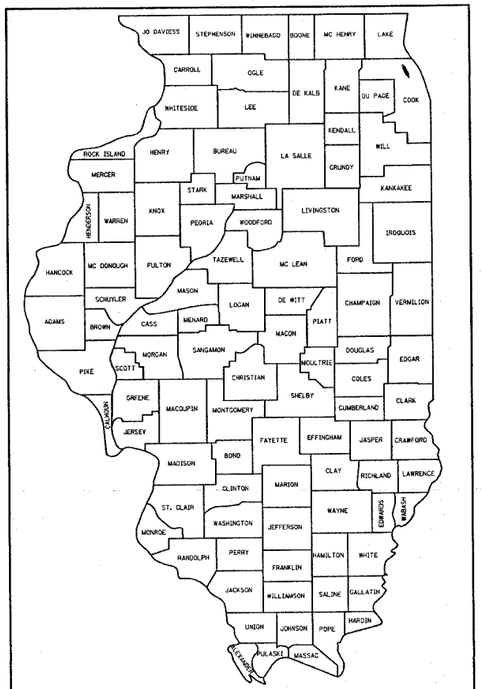
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN
THE VILLAGE OF GLENVIEW

F.A.P. ROUTE 374: MILWAUKEE AVE. (IL. RTE. 21)
OVER UNION PACIFIC RAILROAD
STRUCTURE NO.: 016-0243
SECTION: 211-K-V-X-B
BRIDGE DECK REPLACEMENT

COOK COUNTY
C-91-164-07

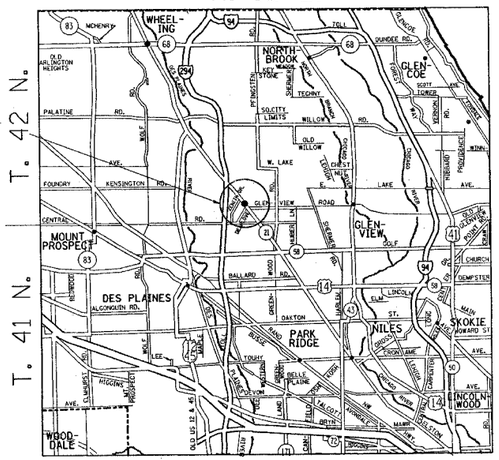
D-91-164-07



LOCATION OF SECTION INDICATED THUS: -■-

LOCATION OF PROJECT
MILWAUKEE AVE. (IL. RTE. 21)
OVER UNION PACIFIC RAILROAD

R. 12 E.



TRAFFIC DATA

2005 ADT = 41,800

POSTED SPEED = 45 MPH

N

GROSS & NET LENGTH OF PROJECT = 1341 FEET = 0.25 MILE

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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

CONTRACT NO. 60C20

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 19 2007
Diane O'Keefe/cd
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
August 17 2007
Eric E. Harm/cd
Interim ENGINEER OF DESIGN AND ENVIRONMENT
August 17 2007
Milton R. Sees P.E./cd
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DISTRICT ONE - PLAN PREPERATION ENGINEER - KEN ENG/J. CHANG (847) 705-4432

7/18/2007
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	2
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

INDEX OF SHEETS

GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF GLENVIEW.

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

THE RESIDENT ENGINEER SHALL CONTACT MR. WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-8386 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

10 FEET (3 METERS) TRANSITION SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTERS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MR. STEVEN HOOGHKIRK, BUREAU OF MAINTENANCE SUPPORT SECTION AT (847) 705-4177 FOR AVAILABILITY OF TEMPORARY CONCRETE BARRIER, STATE OWNED. IF TEMPORARY CONCRETE BARRIER, STATE OWNED, IS AVAILABLE, IT SHALL BE UTILIZED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL LOAD THE TEMPORARY CONCRETE BARRIER FROM THE STATE MAINTENANCE YARD, TRANSPORT, UNLOAD AND PLACE THE TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE DETAILS SHOWN IN THE PLANS. AT THE CONCLUSION OF WORK, REMOVE, TRANSPORT AND UNLOAD THE BARRIER UNITS AT THE SPECIFIED STATE MAINTENANCE YARD AS DIRECTED BY THE ENGINEER. IF TEMPORARY CONCRETE BARRIER, STATE OWNED,

IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE TEMPORARY CONCRETE BARRIER.

RAILROAD REVIEW AND APPROVAL OF SHORING, DEMOLITION, ERECTION, AND FALSEWORK IS REQUIRED.

ALL SHORING SYSTEMS THAT IMPACTS THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT UNION PACIFIC RAILROAD GUIDELINES FOR TEMPORARY SHORING.

ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.

ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO RAILROAD'S OPERATIONS. ERECTION OVER THE RAILROAD'S TRACK SHALL BE DEVELOPED SUCH THAT IT ENABLES THE TRACK(S) TO REMAIN OPEN TO TRAIN TRAFFIC PER RAILROAD'S REQUIREMENT.

MINIMUM CONSTRUCTION CLEARANCE ENVELOPE OF 21 FEET VERTICAL ABOVE THE PLANE OF TOP-OF-RAIL AND 12 FEET HORIZONTAL AT RIGHT ANGLE FROM CENTERLINE OF TRACK SHALL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

FALSEWORK CLEARANCE SHALL COMPLY WITH THE RAILROAD'S MINIMUM CONSTRUCTION CLEARANCE ENVELOPE.

FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART AS SPECIAL PROVISIONS.

THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.

THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT CHANGE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD DITCHES AND/OR DRAINAGE STRUCTURES.

THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.

ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
420001-06	PAVEMENT JOINTS
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENT
421101-06	7.2 m (24') CRC PAVEMENT
606001-03	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
606301-03	CONCRETE ISLANDS AND MEDIANS
631026-03	TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
701006-02	OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO PAVEMENT EDGE FOR SPEEDS > 45 MPH
701601-04	URBAN LANE CLOSURE, MULTI-LANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-03	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER
814001-01	HANDHOLES
420601-04 ⚠	
420701-01	

⚠ Rev. 9-5-07

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.P. 374: IL. RTE. 21 (MILWAUKEE AVE.)
INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES

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DATE CHECKED BY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	3
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT NO. 60C20

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY I000-2A	CONSTRUCTION TYPE CODE: X181-2A BRIDGE
⚠1	31101400	SUB-BASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	150	150	
	42001165	BRIDGE APPROACH PAVEMENT	SQ YD	~~325~~	~~325~~	⚠
⚠1	42000500	PORTLAND CEMENT CONCRETE PAVEMENT, 10"	SQ YD	150	150	
	42001300	PROTECTIVE COAT	SQ YD	1733	1733	
	42001200	PAVEMENT FABRIC	SQ YD	150	150	
⚠1	~~42001420~~	~~BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)~~	~~SQ YD~~	~~93~~	~~93~~	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	270	270	
	44000700	APPROACH SLAB REMOVAL	SQ YD	475	475	⚠
⚠1	44000500	COMBINATION CONCRETE CURB & GUTTER REMOVAL	FOOT	360	360	
	44003100	MEDIAN REMOVAL	SQ FT	7937	7937	
⚠1	44000600	SIDEWALK REMOVAL	SQ FT	270	270	
	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
⚠1	44002020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	270	270	
	50104650	SLOPE WALL REMOVAL	SQ YD	185		185
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	182.6		182.6
	50300260	BRIDGE DECK GROOVING	SQ YD	940		940
	50300300	PROTECTIVE COAT	SQ YD	1582		1582
⚠1	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	1020		1020
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	13185		13185
	50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	9000		9000
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36530		36530
	50800515	BAR SPLICERS	EACH	162		162
	50900105	ALUMINUM RAILING, TYPE L	FOOT	326		326
	51100100	SLOPE WALL 4 INCH	SQ YD	185		185
NP	~~55039700~~	~~STORM SEWERS TO BE CLEANED~~	~~FOOT~~	~~605~~	~~605~~	
⚠1	60605000	COMBINATION CONCRETE CURB & GUTTER TYPE B-6.24	FOOT	180	180	
	60605900	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12	FOOT	1235	1235	⚠
	60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	4457	4457	
	60620800	CONCRETE MEDIAN, TYPE SB-9.12	SQ FT	1973	1973	
	~~60624600~~	~~CORRUGATED MEDIAN~~	~~SQ FT~~	~~74~~	~~74~~	
	60253000	CATCH BASIN TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1	
*	63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2	
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
	63200310	GUARDRAIL REMOVAL	FOOT	100	100	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
	67100100	MOBILIZATION	L SUM	1	1	
	70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	

SUMMARY OF QUANTITIES

	CODE NO	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY I000-2A	CONSTRUCTION TYPE CODE: X181-2A BRIDGE
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	40	40	
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3020	3020	
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	110	110	
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	230	230	
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	7200	7200	
	70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	750	750	
*	72000100	SIGN PANEL - TYPE 1	SQ FT	20	20	
	70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	750	750	
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	660	660	
*	78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS & SYMBOLS	SQ FT	40	40	
*	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	2360	2360	
*	78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	110	110	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	35	35	
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	10	10	
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1355	1355	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10	
*	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	625	625	
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	
*	87900200	DRILL EXISTING HANDHOLE	EACH	1	1	
	X0321743	SILICONE JOINT SEALER, 1"	FOOT	86		86
	~~X0321865~~	~~ANTI-GRAFFITI PROTECTION SYSTEM~~	~~SQ FT~~	~~14900~~		~~14900~~
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4	
	X0322932	SILICONE JOINT SEALER, 1.5"	FOOT	258		258
	X0325239	TEMPORARY PAVEMENT 10"	SQ YD	882	882	
	X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	20		20
	X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	397.5		397.5

* SPECIALITY ITEM

NP= NON-PARTICIPATING

⚠ Rev. 9-5-07

Rev.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A. 374: MILWAUKEE AVE (IL 21)
SUMMARY OF QUANTITIES

PLOT DATE: 7/23/2007

7/23/2007
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	4
FED. ROAD DIST. NO. 1	ILLINOIS	HIGHWAY PROJECT		

CONTRACT NO. 60C20

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY I000-2A	X181-2A BRIDGE				
X7030125	TEMPORARY PAVEMENT MARKING, LINE 4", TYPE 3, SPECIAL	FOOT	7200	7200					
* X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	2273	2273					
~~Z0018600~~	~~DRAINAGE STRUCTURES TO BE RECONSTRUCTED~~	~~EACH~~	~~1~~	~~1~~					
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1					
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	1					
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		1				
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	162		162				

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE: ROADWAY I000-2A	BRIDGE SFTY-2A				

* SPECIALITY ITEM

Rev.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A. 374: MILWAUKEE AVE (IL 21)
SUMMARY OF QUANTITIES

PLOT DATE: 7/23/2007

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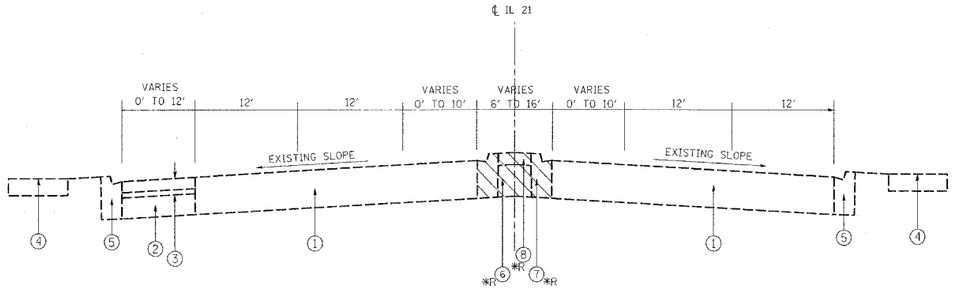
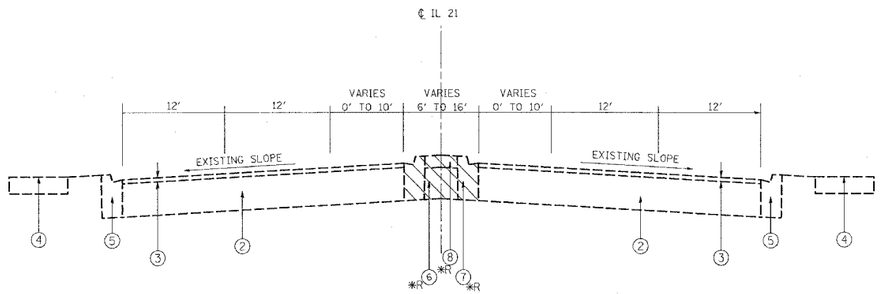
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	5
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION
IL 21

STATION
23+00 TO 28+29
33+13 TO 33+82



EXISTING TYPICAL SECTION
IL 21

STATION
33+82 TO 36+41

LEGEND

1. EXISTING PCC BASE COURSE, 10"(±)
2. EXISTING BASE COURSE
3. EXISTING HOT-MIX ASPHALT SURFACE COURSE
4. EXISTING PCC SIDEWALK, 5"
5. EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.24
6. EXISTING CRUSHED STONE
7. EXISTING PC CONCRETE CURB
8. EXISTING CONCRETE MEDIAN SURFACE
9. PROPOSED CONCRETE CURB AND GUTTER, TYPE B-9.12
10. PROPOSED CONCRETE MEDIAN SURFACE, 4"
11. PROPOSED CONCRETE MEDIAN TYPE SB-9.12
12. PROP. DRILL AND GROUT #4 TIE BAR, SHAPE (24" C-C), COST INCLUDED IN CONCRETE CURB AND GUTTER, TYPE B-9.12 PAY ITEM
13. PROP. COARSE AGGREGATE - FILL TO SUBGRADE (TYP.) COST INCLUDED IN CONC. MEDIAN SURFACE 4" PAY ITEM
14. PROP. 5/8" PREFORMED EXPANSION JOINT FILLER - COST INCLUDED IN CONCRETE CURB AND GUTTER, TYPE B-9.12 PAY ITEM

R - DESIGNATED FOR REMOVAL

NOTES:

✳ TEMPORARY PAVEMENT SHALL BE PLACED AFTER MEDIAN REMOVAL AND PRIOR TO STAGED CONSTRUCTION.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
TEMPORARY PAVEMENT		
HOT-MIX ASPHALT (BINDER IL-19 MM), N50, 10"	PG 64-22*	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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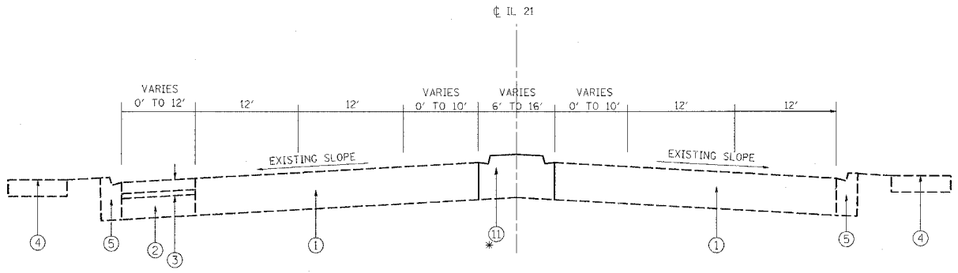
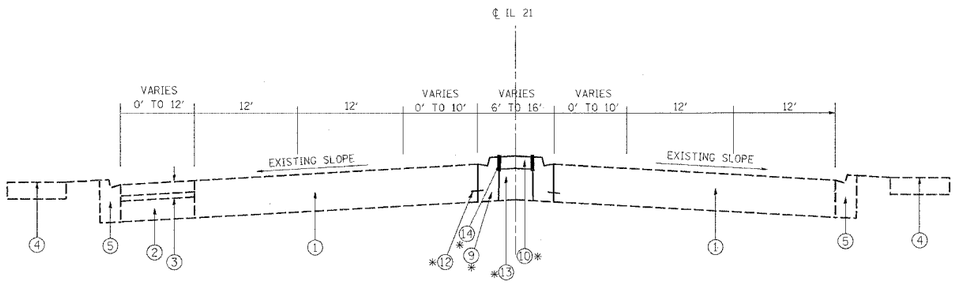
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	6
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



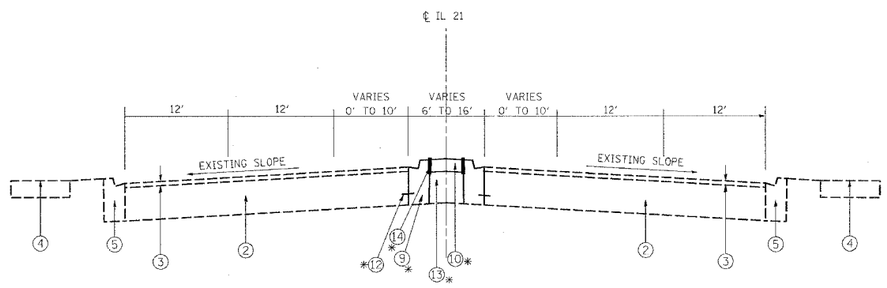
PROPOSED TYPICAL SECTION
IL 21

STATION
23+00 TO 26+29



PROPOSED TYPICAL SECTION
IL 21

STATION
26+29 TO 28+29
33+13 TO 33+82



PROPOSED TYPICAL SECTION
IL 21

STATION
33+82 TO 36+60

LEGEND

1. EXISTING PCC BASE COURSE, 10"(±)
2. EXISTING BASE COURSE
3. EXISTING HOT-MIX ASPHALT SURFACE COURSE
4. EXISTING PCC SIDEWALK, 5"
5. EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.24
6. EXISTING CRUSHED STONE
7. EXISTING PC CONCRETE CURB
8. EXISTING CONCRETE MEDIAN SURFACE
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R - DESIGNATED FOR REMOVAL

NOTES:

* PROPOSED MEDIAN SHALL BE CONSTUCTED AFTER STAGED CONSTRUCTION AND TEMPORARY PAVEMENT HAS BEEN REMOVED.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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HORIZ.
DATE

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CHECKED BY

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CONTRACT NO. 60C20

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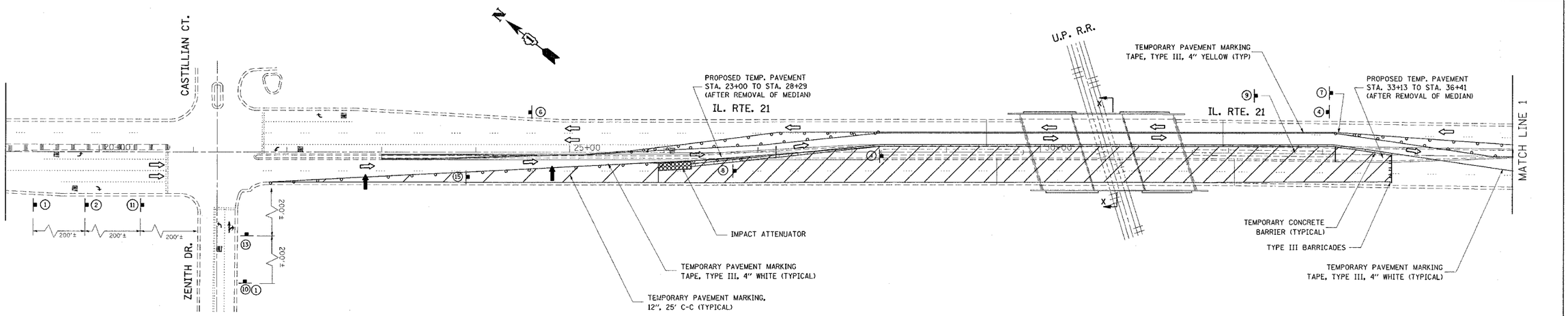
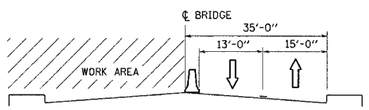
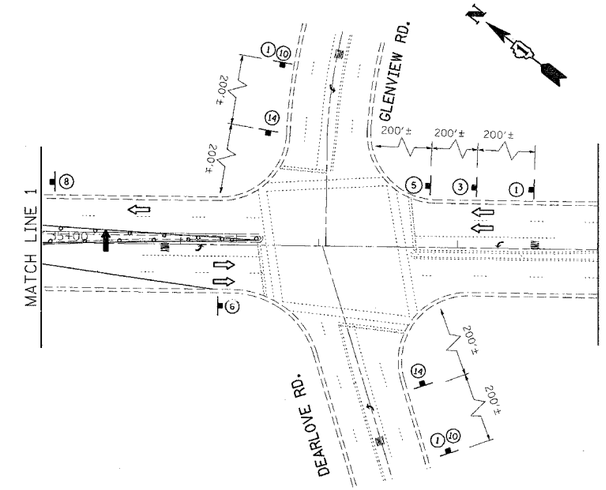
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





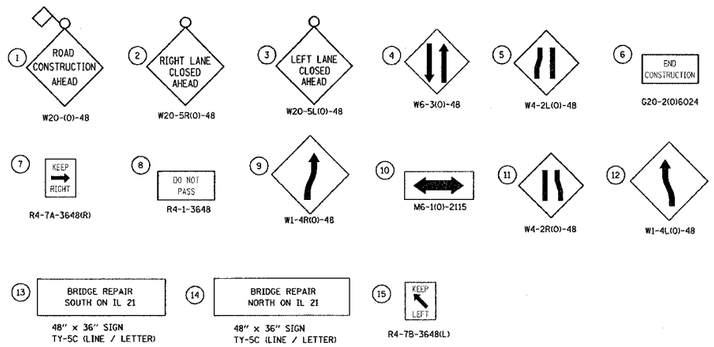
SECTION X-X
STAGE I TYPICAL ON BRIDGE
(LOOKING WEST)



NOTES:

BARRICADES (TYPE I OR II) SHALL BE PLACED AT 50' C-C ON TANGENTS, 25' C-C ON TAPERS AND 12' C-C ON RADII

SIGNS SHALL BE PLACED IN ACCORDANCE TO TRAFFIC CONTROL STANDARDS



LEGEND

- WORK AREA
- TEMPORARY CONC. BARRIER
- TYPE I OR II BARRICADES W/ STEADY BURN LIGHT 25' C-C
- ARROW BOARD
- TYPE III BARRICADES (2) WITH HIGH INTENSITY FLASHING LIGHT ON EACH (TYP.)
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- IMPACT ATTENUATOR

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE I
SUGGESTED TRAFFIC CONTROL PLAN
IL. RTE. 21 (MILWAUKEE AVE.) OVER
UNOIN PACIFIC RAILROAD
S.N. 016-0243

SCALE: VERT. 1"=50'
HORIZ.
DATE
DRAWN BY
CHECKED BY

R1

PLOT DATE = 8/3/2007
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PLOT SCALE = 50.0000 ' / IN.
USER NAME = mmichal

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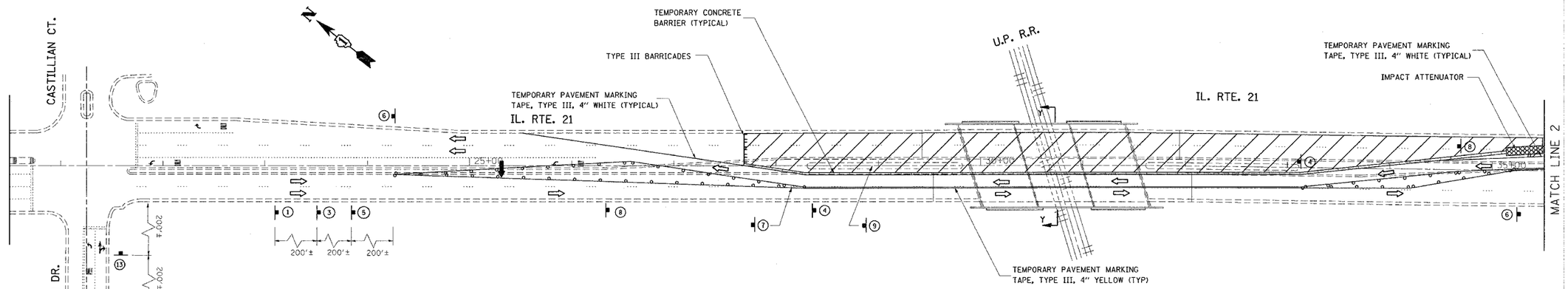
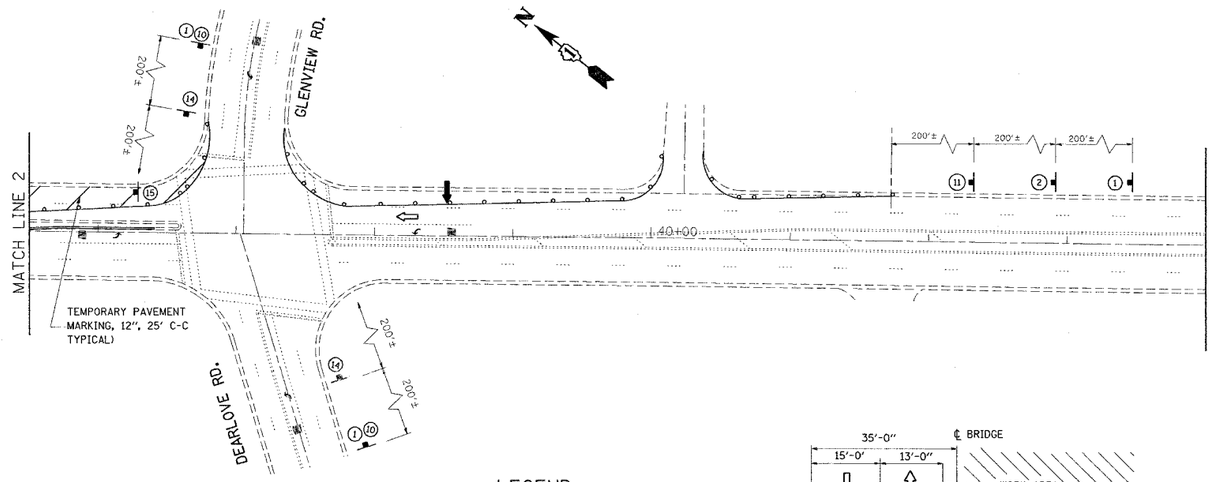
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	8
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

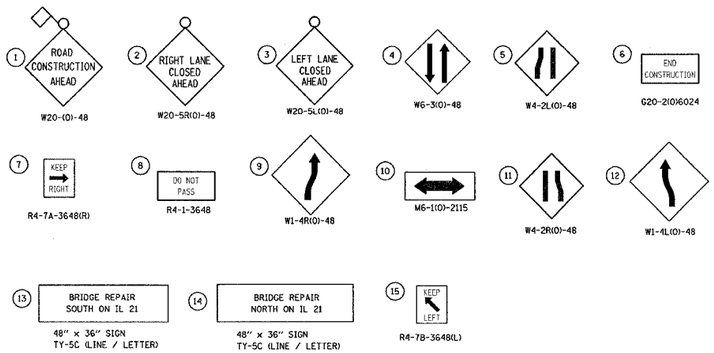




NOTES:

BARRICADES (TYPE I OR II) SHALL BE PLACED AT 50' C-C ON TANGENTS, 25' C-C ON TAPERS AND 12' C-C ON RADII

SIGNS SHALL BE PLACED IN ACCORDANCE TO TRAFFIC CONTROL STANDARDS



LEGEND

- WORK AREA
- TEMPORARY CONC. BARRIER
- TYPE I OR II BARRICADES W/ STEADY BURN LIGHT 25' C-C
- ARROW BOARD
- TYPE III BARRICADES (2) WITH HIGH INTENSITY FLASHING LIGHT ON EACH (TYP.)
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- IMPACT ATTENUATOR

SECTION Y-Y
STAGE II TYPICAL ON BRIDGE
(LOOKING WEST)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE II
SUGGESTED TRAFFIC CONTROL PLAN
IL. RTE. 21 (MILWAUKEE AVE.) OVER
UNOIN PACIFIC RAILROAD
S.N. 016-0243

SCALE: VERT. HORIZ. 1"=50'
DATE
DRAWN BY
CHECKED BY

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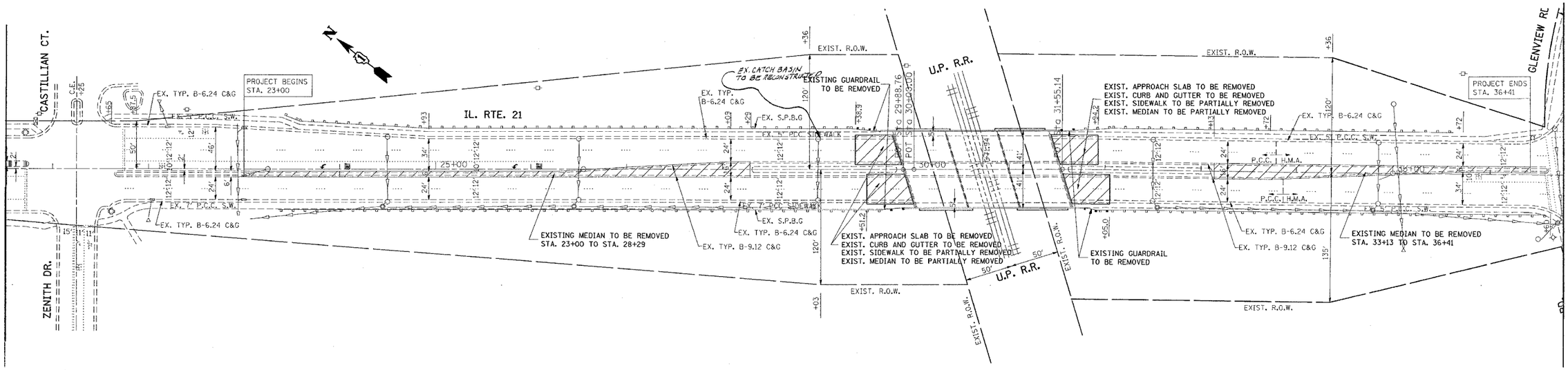
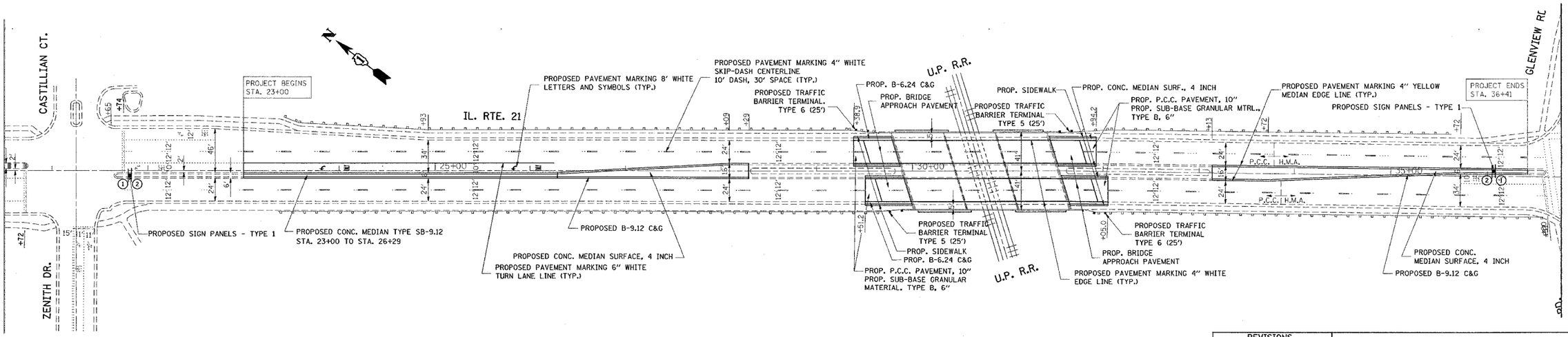
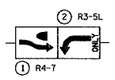
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	9
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		







REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED ROADWAY AND PAVEMENT MARKING PLAN
IL. RTE. 21 (MILWAUKEE AVE.) OVER UNOIN PACIFIC RAILROAD
S.N. 016-0243

SCALE: VERT. 1"=50'
HORIZ.
DATE
DRAWN BY
CHECKED BY

⚠ Rev. Sheet R2 9-5-07

PLOT DATE = 8/28/2007
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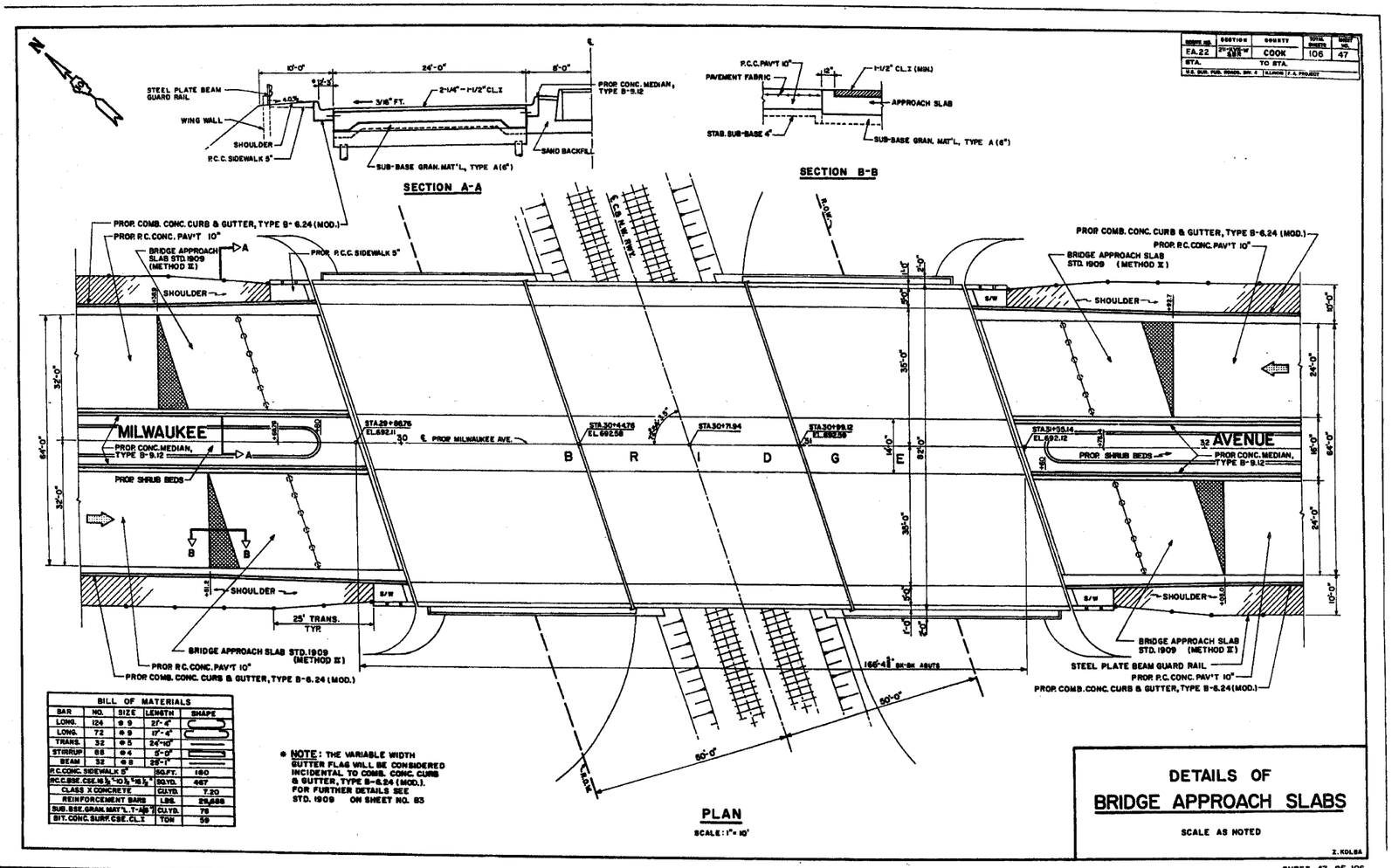
USER NAME = smith41

CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	9A
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY



BILL OF MATERIALS				
BAR	NO.	SIZE	LENGTH	SHAPE
LONG.	124	# 9	27'-4"	
LONG.	72	# 9	17'-4"	
TRANS.	32	# 5	24'-10"	
STIRRUP	88	# 4	5'-0"	
BEAM	32	# 8	28'-1"	
R.C. CONC. SIDEWALK 5"			SQ.FT.	180
R.C.C. BRK. CSE. 10 1/2" - 10" & 8 1/2"			SQ.YD.	467
CLASS X CONCRETE			CU.YD.	7.20
REINFORCEMENT BARS			LBS.	2,968
SUB. BSE. GRAN. MAT'L, T-AB			CU.YD.	78
BIT. CONC. SURF. CSE. CL. I			TON	59

* NOTE: THE VARIABLE WIDTH GUTTER FLAG WILL BE CONSIDERED INCIDENTAL TO COMB. CONC. CURB & GUTTER, TYPE B-6.24 (MOD.). FOR FURTHER DETAILS SEE STD. 1909 ON SHEET NO. 83

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA.22	211-K-V-X-B	COOK	106	47
STA.	TO STA.			
U.S. SUR. FUR. ROADS, DIV. 4	ILLINOIS	F.A. PROJECT		

DETAILS OF BRIDGE APPROACH SLABS

SCALE AS NOTED

Z. KOLBA

SHEET 47 OF 106

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS OF
BRIDGE APPROACH SLAB
IL. RTE. 21 (MILWAUKEE AVE.) OVER
UNOIN PACIFIC RAILROAD
S.N. 016-0243

SCALE: VERT. 1"=50'
HORIZ.
DATE

DRAWN BY
CHECKED BY

Δ Added Sheet 9-5-07

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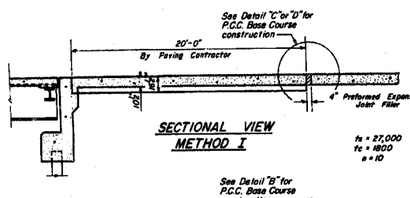
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-8	COOK	38	98
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

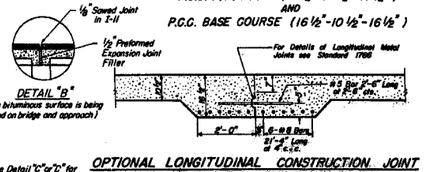
FOR INFORMATION ONLY

DETAILS OF BRIDGE APPROACHES

P.C.C. PAVEMENT (16½"-10½"-16½") AND P.C.C. BASE COURSE (16½"-10½"-16½")



SECTIONAL VIEW METHOD I

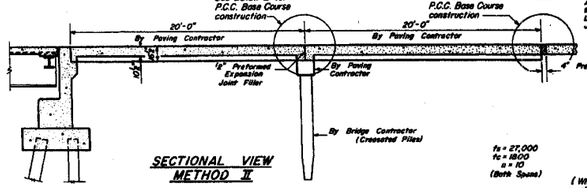


DETAIL "B" (When bituminous surface is being placed on bridge and approach)

fs = 27,000
fc = 1800
n = 10

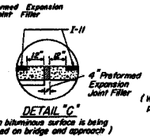
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the width of lane by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a Traffic Lane.

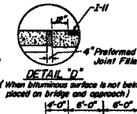


SECTIONAL VIEW METHOD II

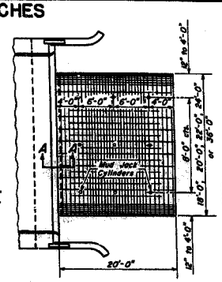
fs = 27,000
fc = 1800
n = 10
(Both Spans)

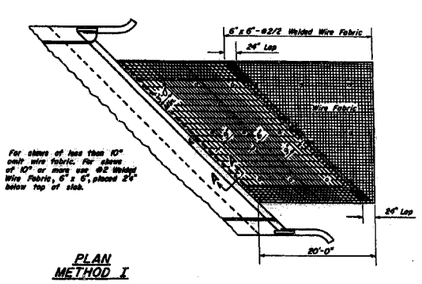


DETAIL "C" (When bituminous surface is being placed on bridge and approach)



DETAIL "D" (When bituminous surface is not being placed on bridge and approach)



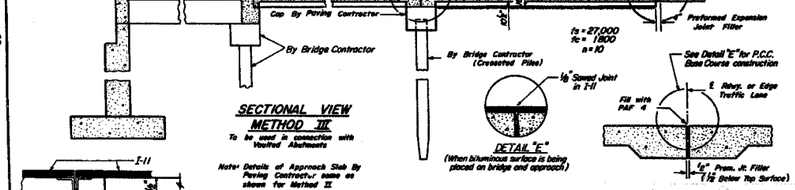


PLAN METHOD I

For skews of less than 10° omit wire fabric. For skews of 10° or more use Ø2 Welded Wire Fabric, 6" x 6", placed 2" below top of slab.

Expanded Metal weighing not less than 78 Lbs. per 100 sq.ft. or a welded bar mat weighing not less than 78 Lbs. per 100 sq.ft. having members of equal size in both directions and spaced not over 6" apart may be used instead of the Ø2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.

Design as self supporting unit Constructed By Bridge Contractor

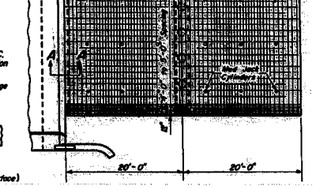


SECTIONAL VIEW METHOD III

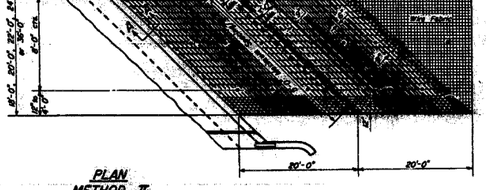
To be used in connection with Vaulted Abutments

Note: Details of Approach Slab By Paving Contractor same as shown for Method II

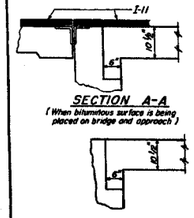
fs = 27,000
fc = 1800
n = 10



DETAIL "E" (When bituminous surface is being placed on bridge and approach)



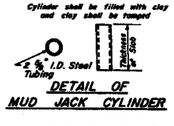
PLAN METHOD II



SECTION A-A (When bituminous surface is being placed on bridge and approach)

SECTION A-A (P.C.C. Pavement construction)

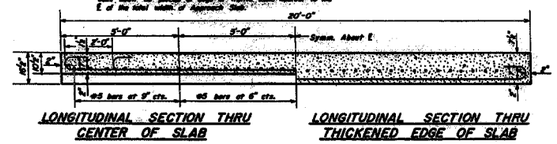
Cylinder shall be filled with clay and clay shall be tamped



DETAIL OF MUD JACK CYLINDER

LONGITUDINAL EXPANSION JOINT

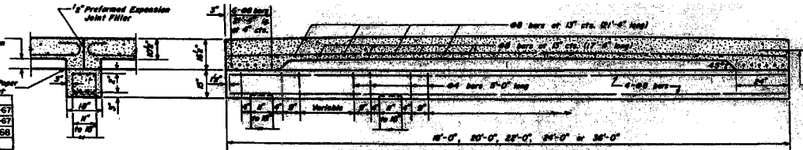
To be used when Approach Slabs are Greater than 36'-0" wide. Joint shall be placed at point of Traffic Lane nearest to the ℄ of the total width of Approach Slab.



LONGITUDINAL SECTION THRU CENTER OF SLAB

LONGITUDINAL SECTION THRU THICKENED EDGE OF SLAB

Mud Jack Cylinders not required for P.C.C. Base Course



SECTIONAL VIEW OF CONCRETE SLAB AND CAP

Note: When road plans show curb and gutter or curb replacement to be removed, contractor shall saw cut 1'-6" from ℄ of P.C.C. Curb of the bars required in contract unit price for Curb & Gutter, or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for at CONCRETE GUTTER, of the Type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for at COMBINATION CURB and GUTTER, of the Type specified.

GENERAL NOTES

FOR P.C.C. PAVEMENT

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½").

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Mud Jack Cylinders, and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½").

Preformed Expansion Joint Filler shall conform to Section 715 of the Standard Specification.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

The Contractor shall, after completion of the finishing operations, mark the location of the Mud Jack Cylinders.

FOR P.C.C. BASE COURSE

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE BASE COURSE (16½"-10½"-16½").

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Concrete Headers and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE BASE COURSE (16½"-10½"-16½").

Preformed Expansion Joint Filler shall conform to Section 715 of the Standard Specification.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

STANDARD 1909-9

DESIGNED: CGT JR. CHECKED: TMD JR. DRAWN: TMD JR. 26 NOV. 1968

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	ISSUED 12-18-68		
APPROVED August 1, 1968 ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES	REVISIONS		
APPROVED August 1, 1968 ENGINEER OF BRIDGES	BM 3	8-2-99	W.F. 5-10-67
	GE 1	10-02-98	W.F. 7-13-67
	BM 2	8-9-89	G.R. 8-1-68
	W.H.F.	9-17-65	
	K.H.W	7-29-64	
	W.F.	10-29-64	

H-100

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH
STANDARD 1909-9
IL. RTE. 21 (MILWAUKEE AVE.) OVER
UNOIN PACIFIC RAILROAD
S.N. 016-0243

SCALE: VERT. 1"=50' HORIZ.
DATE
DRAWN BY
CHECKED BY

Δ Added Sheet 9-5-07

PLOT DATE = 8/28/2007
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PLOT SCALE = 50.0868 ' / IN.
USER NAME = smithkl

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

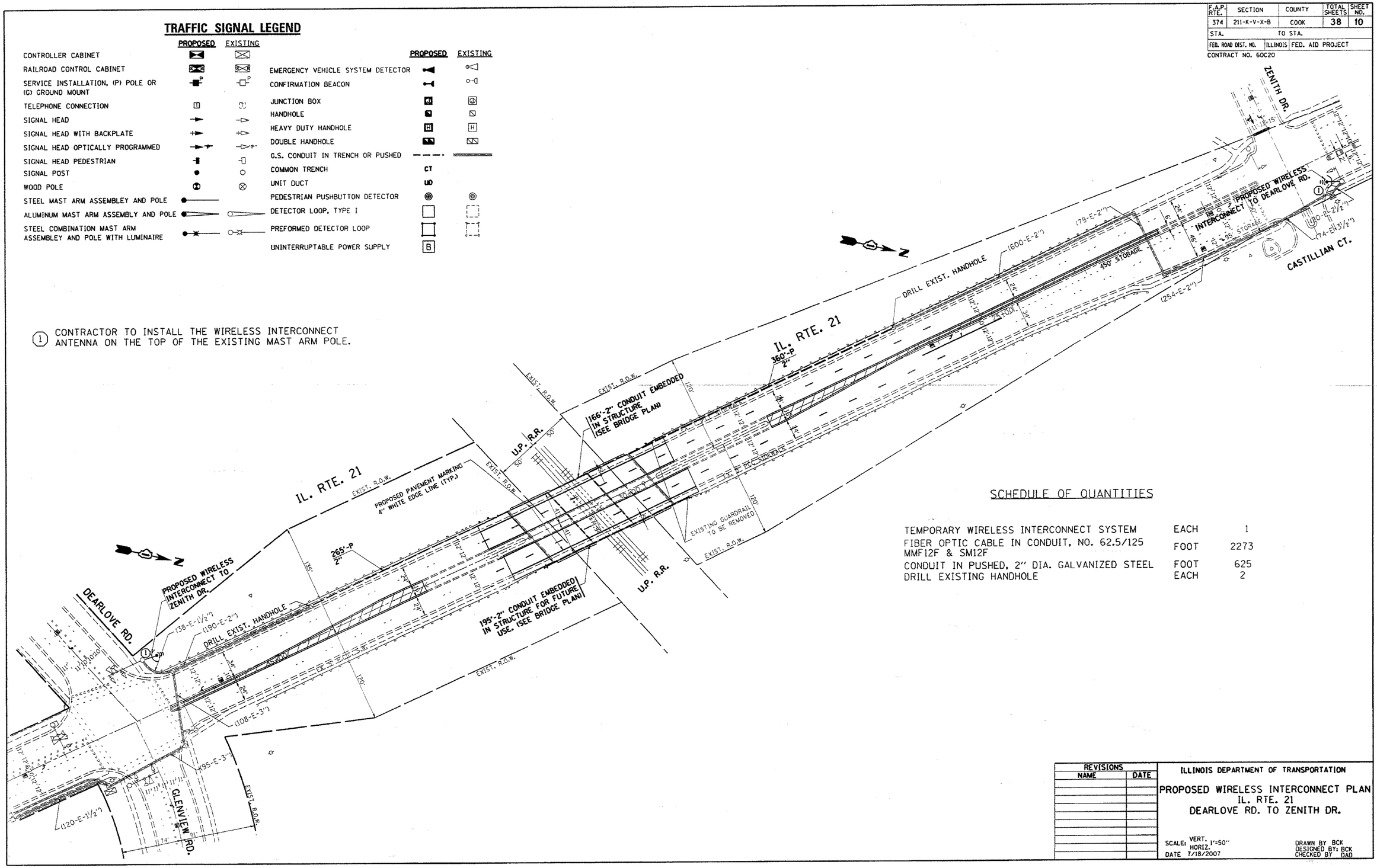
CONTRACT NO. 60C20

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	▣	▣
RAILROAD CONTROL CABINET	▣	▣
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	■P	□P
TELEPHONE CONNECTION	T	T
SIGNAL HEAD	→	→
SIGNAL HEAD WITH BACKPLATE	→	→
SIGNAL HEAD OPTICALLY PROGRAMMED	→	→
SIGNAL HEAD PEDESTRIAN	■	□
SIGNAL POST	●	○
WOOD POLE	⊠	⊗
STEEL MAST ARM ASSEMBLEY AND POLE	● ——	
ALUMINUM MAST ARM ASSEMBLY AND POLE	● ———	○ ———
STEEL COMBINATION MAST ARM ASSEMBLEY AND POLE WITH LUMINAIRE	●—✕—	○—✕—

	PROPOSED	EXISTING
EMERGENCY VEHICLE SYSTEM DETECTOR	◀	◁
CONFIRMATION BEACON	◀	◁
JUNCTION BOX	J	J
HANDHOLE	■	▨
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE	■■	▨▨
G.S. CONDUIT IN TRENCH OR PUSHED	———	———
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR	◉	◎
DETECTOR LOOP, TYPE I	□	⬚
PREFORMED DETECTOR LOOP	□	⬚
UNINTERRUPTABLE POWER SUPPLY	B	

① CONTRACTOR TO INSTALL THE WIRELESS INTERCONNECT ANTENNA ON THE TOP OF THE EXISTING MAST ARM POLE.



SCHEDULE OF QUANTITIES

TEMPORARY WIRELESS INTERCONNECT SYSTEM	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MMF12F & SM12F	FOOT	2273
CONDUIT IN PUSHED, 2" DIA. GALVANIZED STEEL	FOOT	625
DRILL EXISTING HANDHOLE	EACH	2

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED WIRELESS INTERCONNECT PLAN
IL. RTE. 21
DEARLOVE RD. TO ZENITH DR.

SCALE: VERT. 1"=50"
HORIZ.
DATE 7/18/2007

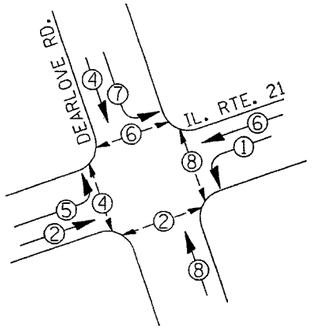
DRAWN BY BCK
DESIGNED BY: BCK
CHECKED BY DAD

\\07001010\it21overpacificrr.dgn 7/18/2007 8:27:13 AM User=kanthaphixaybc

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	11
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

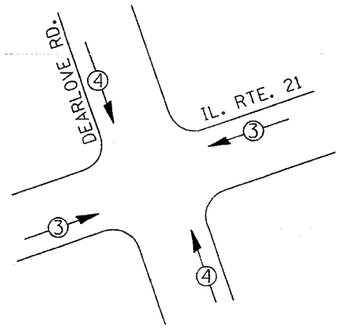
CONTROLLER SEQUENCE



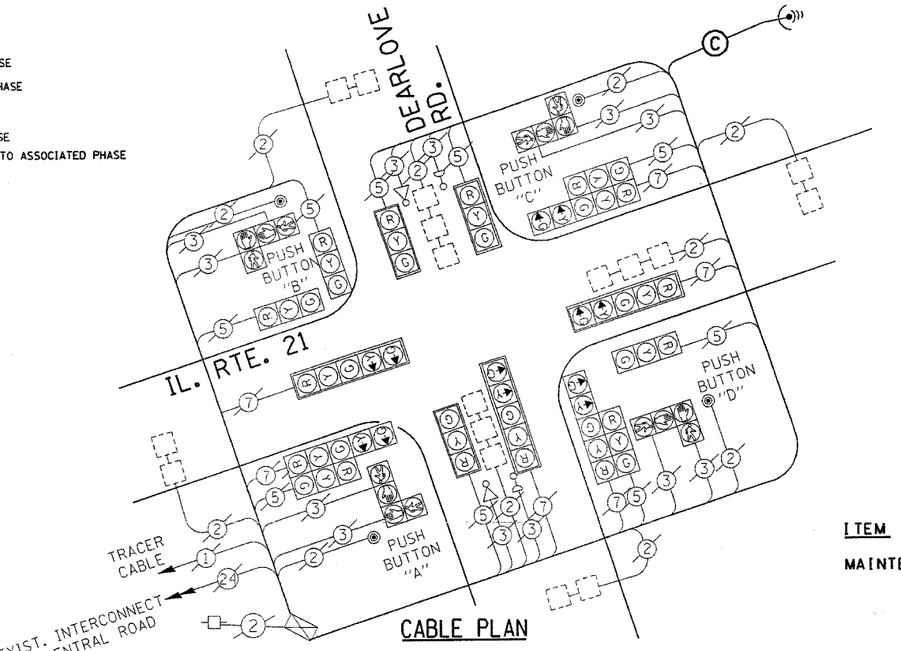
LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	⊠	⊠
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	■P	□P
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	R	R
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	②—	②—
PEDESTRIAN PUSHBUTTON DETECTOR	◉	◉
VEHICLE DETECTOR, INDUCTION LOOP	□	□
MICROWAVE VEHICLE SENSOR	M	M
VIDEO DETECTOR	V	V
CLOSED CIRCUT TV	C	C
EMERGENCY VEHICLE SYSTEM DETECTOR	◀	◁
CONFIRMATION BEACON	●	○
COAXIAL CABLE	Ⓒ—	
WIRELESS INTERCONNECT	⏚	

I.D.O.T
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	* %OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	135	17	0.50	127.50
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	12	135	12	0.10	14.40
PED. SIGNAL	4	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:			TOTAL =		491.90

ENERGY SUPPLY
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
CONTACT: LARRY D. SHANK
PHONE: (847) 291-3214
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
IL. RTE. 21 (MILWAUKEE AVE.) AT DEARLOVE ROAD

SCALE: 1"=20'
DATE 7/18/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

7/18/2007
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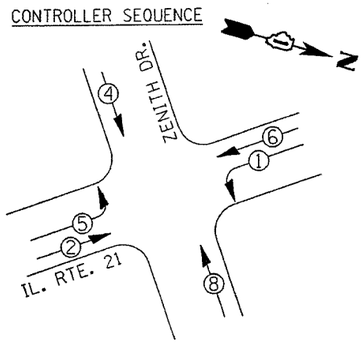
kanthaphikaybc

...\t070010\il21overpassplan.dgn 7/18/2007 8:22:00 AM User=kanthaphikaybc

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	12
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

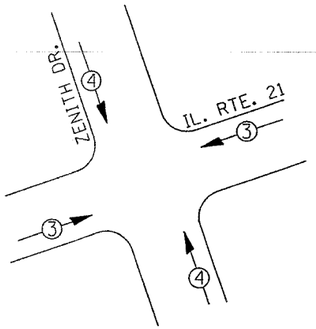
CONTROLLER SEQUENCE



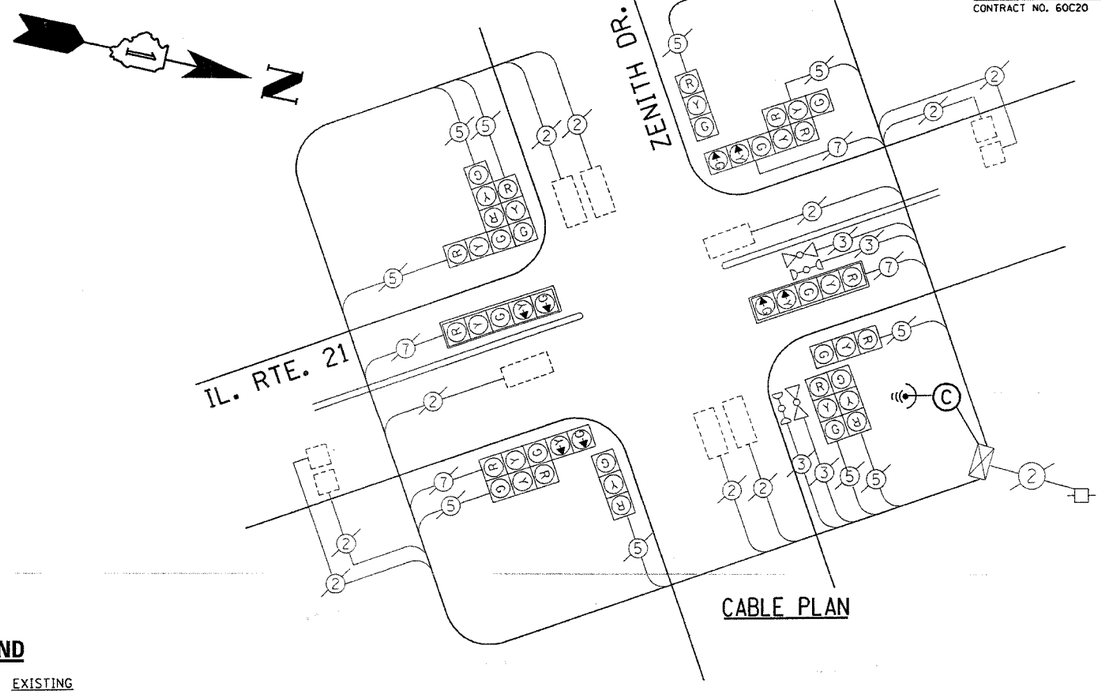
LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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



CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	⊠	⊠
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	■P	□P
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	R	R
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	—2—	—2—
PEDESTRIAN PUSHBUTTON DETECTOR	◉	◎
VEHICLE DETECTOR, INDUCTION LOOP	□	⬚
MICROWAVE VEHICLE SENSOR	M	M
VIDEO DETECTOR	V	V
CLOSED CIRCUT TV	C	C
EMERGENCY VEHICLE SYSTEM DETECTOR	◄	◅
CONFIRMATION BEACON	●◄	○◅
COAXIAL CABLE	—Ⓒ—	—Ⓒ—
WIRELESS INTERCONNECT	—⊂—	

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.00
(YELLOW)	14	135	25	0.25	87.50
(GREEN)	14	135	15	0.25	52.50
ARROW	8	135	12	0.10	9.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	368.60

ENERGY SUPPLY
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
CONTACT: LARRY D. SHANK
PHONE: (847) 291-3214
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
IL. RTE. 21 (MILWAUKEE AVE.) AT ZENITH DRIVE

SCALE: 1"=20'
DATE 7/18/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

7/18/2007
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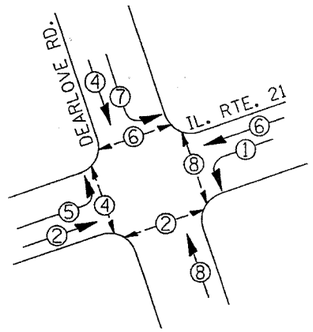
kanthaphixaybc

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	13
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

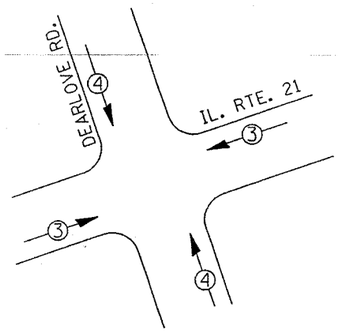
CONTROLLER SEQUENCE



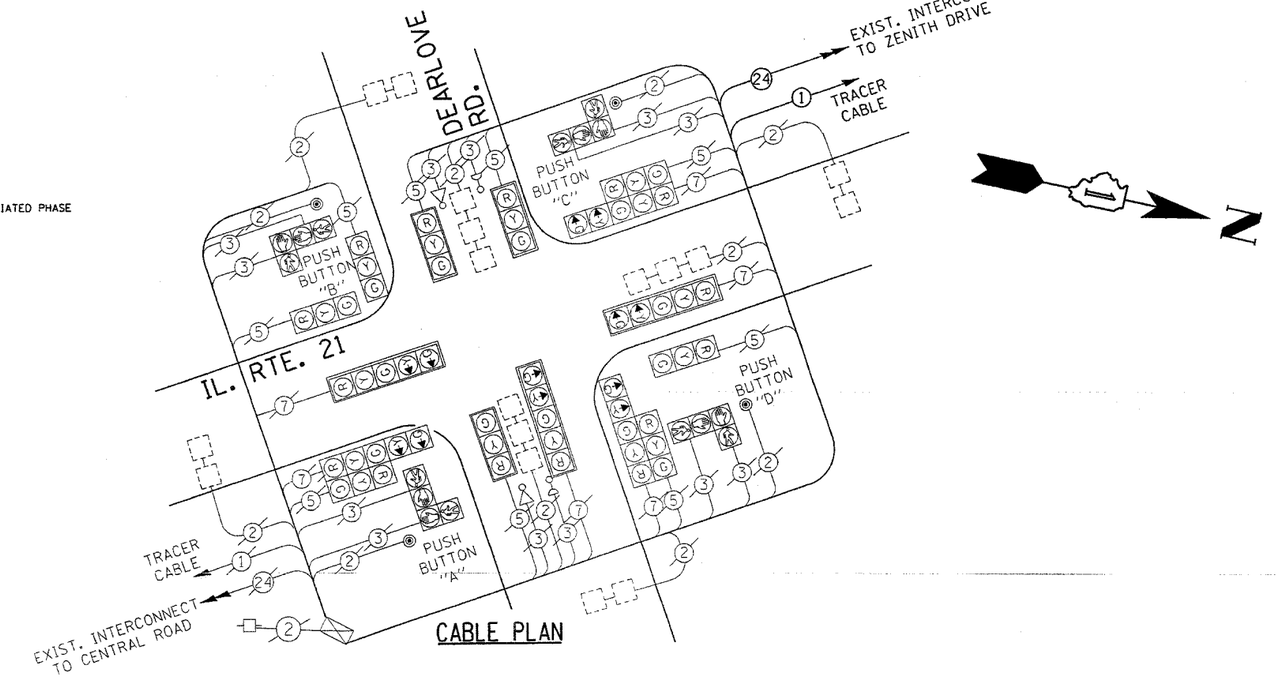
LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑↓



CABLE PLAN

CABLE PLAN LEGEND

EXISTING	PROPOSED	
	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
	T	TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOOP DETECTOR CABLE TO BE SHIELDED.

EXISTING	PROPOSED	
	R Y G (P)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
"E"		ILLUMINATED SIGN "NO RIGHT TURN"
C	C	GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
	B	UNINTERRUPTABLE POWER SUPPLY

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	15	135	17	0.50	127.50
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	12	135	12	0.10	14.40
PED. SIGNAL	4	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	491.90

ENERGY SUPPLY
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
CONTACT: LARRY D. SHANK
PHONE: (847) 291-3214
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
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		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES IL. RTE. 21 (MILWAUKEE AVE.) AT DEARLOVE ROAD

SCALE: 1"=20'
DATE 7/18/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

7/18/2007
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kanthaphixaybc

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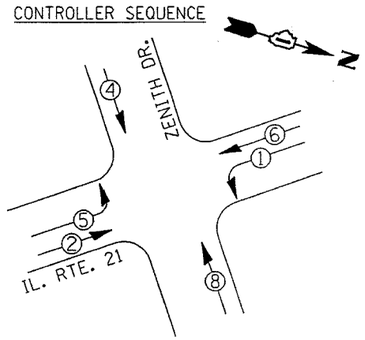
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	14
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

CONTROLLER SEQUENCE

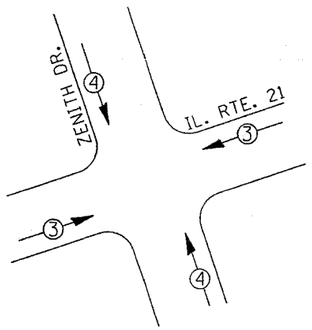


LEGEND

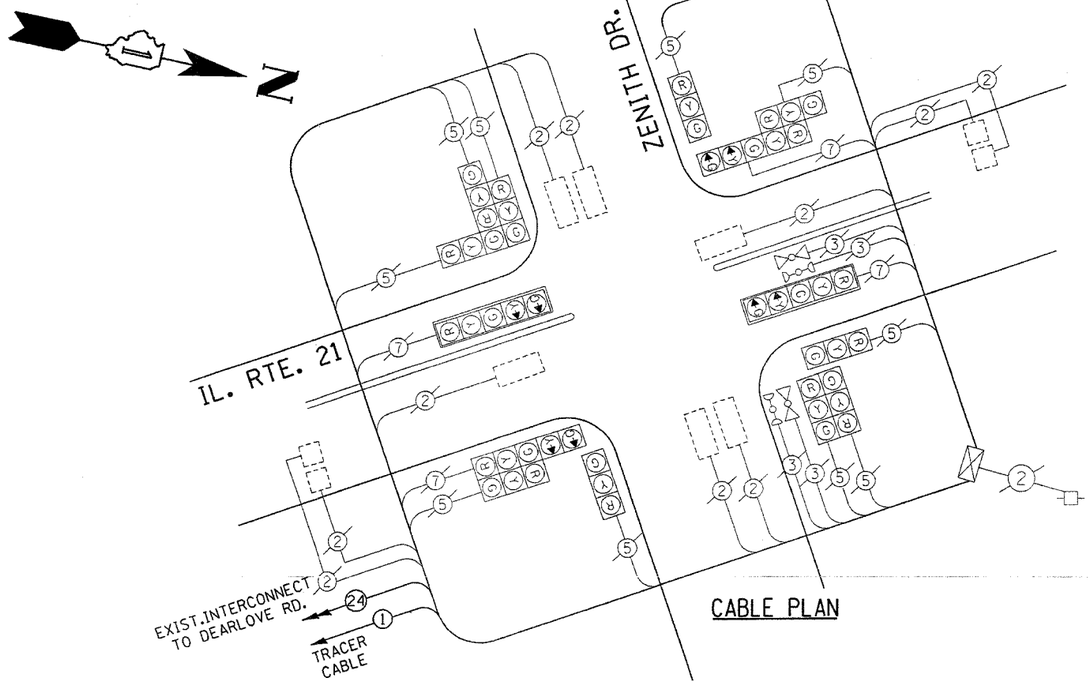
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑↓



CABLE PLAN

CABLE PLAN LEGEND

EXISTING	PROPOSED	
C	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
✋ / 🚶	✋ / 🚶	12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOOP DETECTOR CABLE TO BE SHIELDED.

EXISTING	PROPOSED	
R Y G	R Y G / Y G	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN "NO LEFT TURN"
"E"		ILLUMINATED SIGN "NO RIGHT TURN"
C	C	GROUND ROD AT HANDHOLE(H), DOUBLE HANDHOLE(H), OR CONTROLLER(C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(1)	(1)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
	B	UNINTERRUPTABLE POWER SUPPLY

I.D.O.T
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	‡ %OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	17	0.50	119.00
(YELLOW)	14	135	25	0.25	87.50
(GREEN)	14	135	15	0.25	52.50
ARROW	8	135	12	0.10	9.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	368.60

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY CONTACT: LARRY D. SHANK
PHONE: (847) 291-3214
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	
TYPE A - POST	4	(1.2)
D - CONTROLLER	4	(1.2)
E - M. ARM POLE		
24" (600mm)	10	(3.0)
30" (750mm)	15	(4.6)
36" (900mm)	15	(4.6)

CABLE SLACK	FT. (m)	
HANDHOLE	6.5	(2.0)
DOUBLE HANDHOLE	13	(4.0)
SIGNAL POST	2	(1.0)
CONTROLLER CAB.	1	(0.5)
FIBER OPTIC	13	(4.0)
ELECTRIC SERVICE	1	(0.5)
GROUND CABLE	1	(0.5)

VERTICAL	FT.	(m)
ALL FOUNDATIONS	3.5	(1.0)
MAST ARM (L) POLE	20'+L-2=	(6m+L-0.6m)=
BRACKET MOUNTED	13	(4.0)
PED. PUSHBUTTON	4	(1.2)
ELECTRIC SERVICE	13.5	(4.1)
SERVICE TO GROUND	13.5	(4.1)
POST MOUNTED	6	(1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES IL. RTE. 21 (MILWAUKEE AVE.) AT ZENITH DRIVE

SCALE: 1"=20'
DATE 7/18/2007

DRAWN BY BCK
DESIGN BY BCK
CHECKED BY DAD

7/18/2007
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kanthaphixaybc

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SHEET S1 OF S13

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	15

STA. TO STA.

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

CONTRACT NO. 60C20

BENCH MARK: (Existing Shown in 1969 Plans)

Standard County Disc set in Concrete Monument in triangle at intersection of Milwaukee Avenue, Glenview Road and Dearlove Road, Elev. 674.444

Existing Structure: S.N. 016-0243, was originally built in 1969 as F.A. Route 22 (S.B.I. Route 21), Section 211-KVX-W & BR. In 1998 the Structure was repaired, at that time the Bituminous Concrete Overlay was replaced with a Reinforced Concrete Overlay. The Existing three span structure consists of Precast Prestressed Concrete Deck Beams supported by open abutments and two (2) Column Piers. Dimensions are 166'-4⅝" bk. to bk. Abutments and 82'-0" out to out with a 17°-54"-3.5" Skew.

PROPOSED APPROVEMENT:

The existing Precast Concrete Deck Beams and Concrete Overlay shall be removed and replaced utilizing Stage Construction. While maintaining the existing Alignment & Profile. Substructure repairs as shown shall be performed.

Salvage: None

SCOPE OF WORK:

Remove and replace P.P.C. Deck Beam Superstructure with 5" min. Concrete Overlay and repair Substructure.

LOADING HS20-44

Allow 50#/sq. ft. for Future Wearing Surface

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

NEW CONSTRUCTION

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

EXISTING CONDITIONS
(SERVICE DESIGN)

f'c = 1,400 psi
fy = 20,000 psi (Reinforcement)

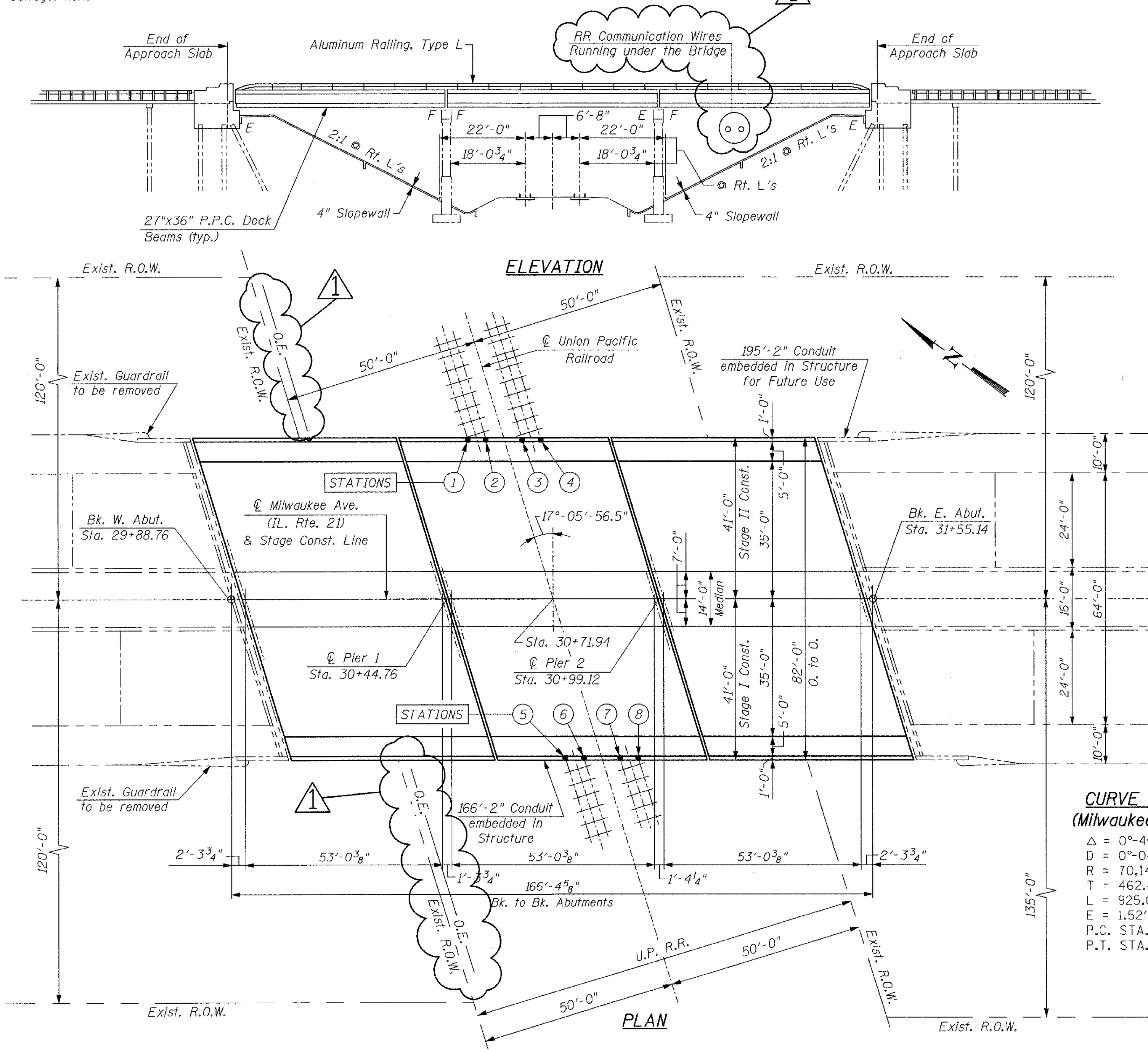
PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (½"ϕ Low Relax Strands)
fsi = 201,960 psi (½"ϕ Low Relax Strands)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.2

INDEX OF SHEETS

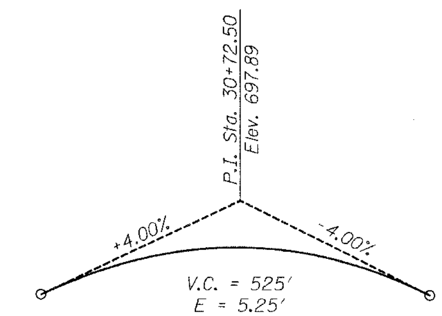


ELEVATION TABLE

TOP OF RAIL	ELEVATION
At Station 1	667.30
At Station 4	667.12

VERTICAL CLEARANCE RAIL

FROM TOP OF RAIL	VERTICAL CLEARANCE
At Station 1	22'-2"
At Station 2	22'-2"
At Station 3	22'-3⅞"
At Station 4	22'-4⅜"
At Station 5	22'-4$\frac{9}{16}$"
At Station 6	22'-4$\frac{9}{16}$"
At Station 7	22'-6⅝"
At Station 8	22'-7$\frac{3}{16}$"



PROFILE S.B.I. RTE. 21

(Milwaukee Ave.)
(Existing Shown in 1969 Plans)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES

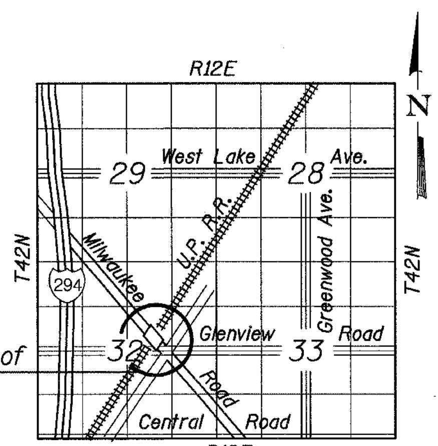
STATE OF ILLINOIS — BHADRESH N. SHAH — 081-004476 — CHICAGO — LICENSED STRUCTURAL ENGINEER

BHADRESH N. SHAH
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS LIC. No. 081-004476
EXPIRES: 11-30-08

CURVE DATA
(Milwaukee Ave.)

Δ = 0°-45'-20"
D = 0°-04'-54"
R = 70,141.13'
T = 462.44'
L = 925.00'
E = 1.52'
P.C. STA. = 27+05.91
P.T. STA. = 36+30.91

Location of Structure



LOCATION SKETCH

REVISIONS	
NAME	DATE
	09-10-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JULY 23, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

GENERAL NOTES:

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

2. The Contractor shall submit a complete Bridge Superstructure Removal Plan to the Railroad. These plans must include details, procedures and the sequence of Stage Removal. These Plans must also include the steps necessary to remove the bridge superstructure in a safe and controlled manner.

3. Slopewall shall be reinforced with Welded Wire Fabric, 6 Inx6 In-W 4.0xW 4.0 weighing 85 Lbs., per 100 Sq. Ft.

4. The Reinforced Concrete Overlay, as specified on the plan details, shall be paid for at the Contract Unit Price Bid per Square Yard for "Concrete Wearing Surface" and pounds for "Reinforcement Bars, Epoxy Coated".

5. Reinforcement Bars shall conform to the requirements of ASTM A 706, Grade 60 (IL. Modified). See Special Provisions.

6. Reinforcement Bars designated (E) shall be Epoxy Coated.

7. The cut strands at each beam end shall be given two coats of Zinc Dust Spray or Paint meeting the requirements of ASTM A780. The Zinc Dust Spray or Paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of Zinc. A Concrete Sealer meeting the requirements of Section 587 of The Standard Specifications shall be applied to the exterior face and 9 inches on the underside of the Fascia Beams. The Sealer shall be applied after visible crack growth has sudsided. This work shall be performed by the producer and included with the cost of the beam.

8. The minimum thickness of the Concrete Overlay shall be 5 inches and varies as required to adjust for the new Profile Grade and Beam Camber.

9. 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.

10. Repair of the Pier Caps shall be completed prior to placement of the new Deck Beams.

11. If the Contractor's procedure for existing Beam Removal or Placement of new Beams involves placement of cranes or other heavy equipement on new Beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipement and procedure used will not overstress the new Beams. To distribute load to multiple Beams and protect the Concrete, in all cases, a double layer Mat or heavy Timbers shall be used at all times under Crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the Crane Mat to ensure uniform contact with the underlying Beams. Prior to placement of the Timber Mats, the following shall be done: placement and tightening of Transverse Tie Assemblies, Grouting and Curing the Dowel Rods 24 hours minimum and Grouting and Curing the Shear Keys. A temporary means of lateral restraint will be required for Fascia Beams at Expansion ends of Beams to prevent movement of the Beams.

UNION PACIFIC RAILROAD'S GENERAL PLAN NOTES

1. Railroad review and approval of shoring, demolition, erection and falsework is required.

2. All shoring systems that impacts the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Union Pacific Railroad Guidelines for Temporary Shoring.

3. All demolitions within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall be in compliance with the Railroad's demolition Guidelines.

4. Erection over the Railroad's right-of-way shall be designed to cause no interruption to Railroad's operations. Erection over the Railroad's track shall be developed such that it enables the track (s) to remain open to train traffic per Railroad's requirements.

5. Minimum Construction Clearance Envelope of 21 feet vertical above the plane of top-of-rail and 12 feet horizontal at right angle from centerline of track shall be maintained at all times during Construction.

6. Falsework clearance shall comply with the Railroad's Minimun Construction Clearance Envelope.

7. For Railroad coordination please refer to the Railroad Minimum Requirements as part of special provisions.

8. The proposed grade separation project shall not change the quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.

9. The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the railroad prior to construction.

10. Railroad requirements do not allow work within 50 feet of track centerline when a train passes the work site and all personal must clear the area within 25 feet of the track centerline and secure all equipement.

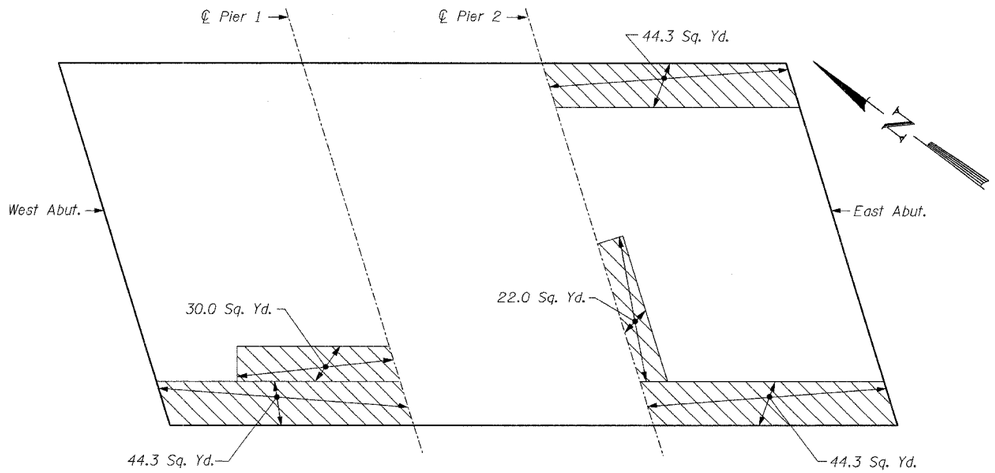
11. All permanent clearances shall be verified before project closing.

TOTAL BILL OF MATERIAL

ITEM NO.	DESCRIPTION	UNIT	SUPER.	SUB.	TOTAL	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURE	EACH	1	-	1	
50104650	SLOPEWALL REMOVAL	SQ. YD.	-	185	185	*
50300255	CONCRETE SUPERSTRUCTURES	CU. YD.	182.6	-	182.6	
50300260	BRIDGE DECK GROOVING	SQ. YD.	940	-	940	
50300300	PROTECTIVE COAT	SQ. YD.	1,582	-	1,582	
50301200	CONCRETE WEARING SURFACE 5"	SQ. YD.	1,020	-	1,020	
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS, 27"	SQ. FT.	13,185	-	13,185	
50500405	FURNISHING & ERECTING STRUCTURAL STEEL	POUND	9,000	-	9,000	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36,530	-	36,530	
50800515	BAR SPLICERS	EACH	162	-	162	
50900105	ALUMINUM RAILING, TYPE L	FOOT	326	-	326	
51100100	SLOPEWALL 4 IN.	SQ. YD.	-	185	185	*
X0321743	SILICONE JOINT SEALER, 1 IN	FOOT	86	-	86	
X0322932	SILICONE JOINT SEALER, 1½ IN	FOOT	258	-	258	
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 IN)	SQ. FT.	-	20	20	*
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN)	SQ. FT.	-	397.5	397.5	*
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	162	-	162	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L. SUM	-	-	1	

2

* Based on the Field Notes from I.D.O.T. Maintenance Engineers, dated March 30, 2007



SLOPEWALL PLAN
(Existing)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
REMOVE AND REPLACE SLOPEWALL	SQ. YD.	185

LEGEND:

Remove & Replace Slopewall

REVISIONS NAME	DATE
	09-14-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & TOTAL BILL OF MATERIAL
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

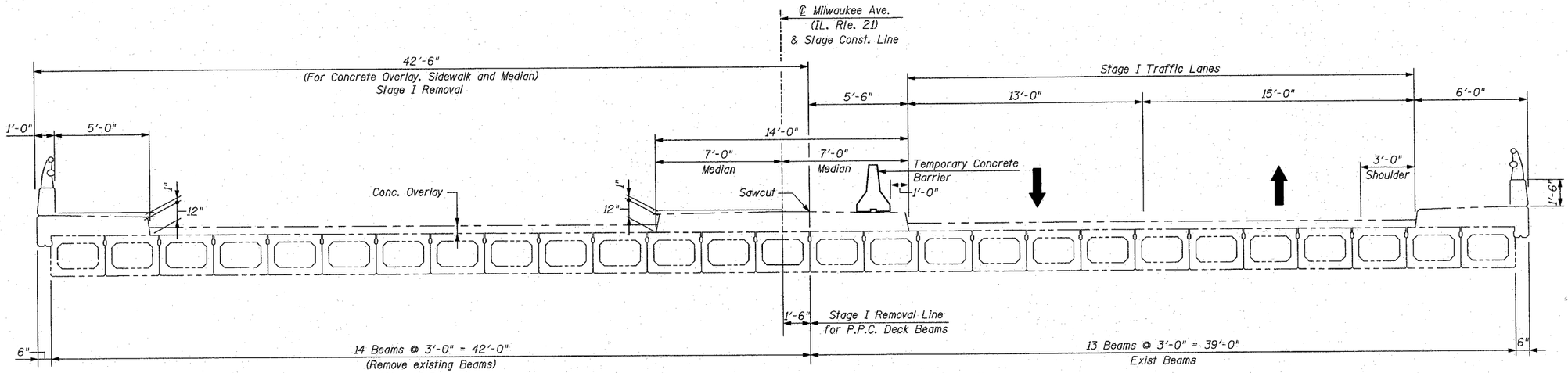
SCALE:
DATE: JULY 23, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

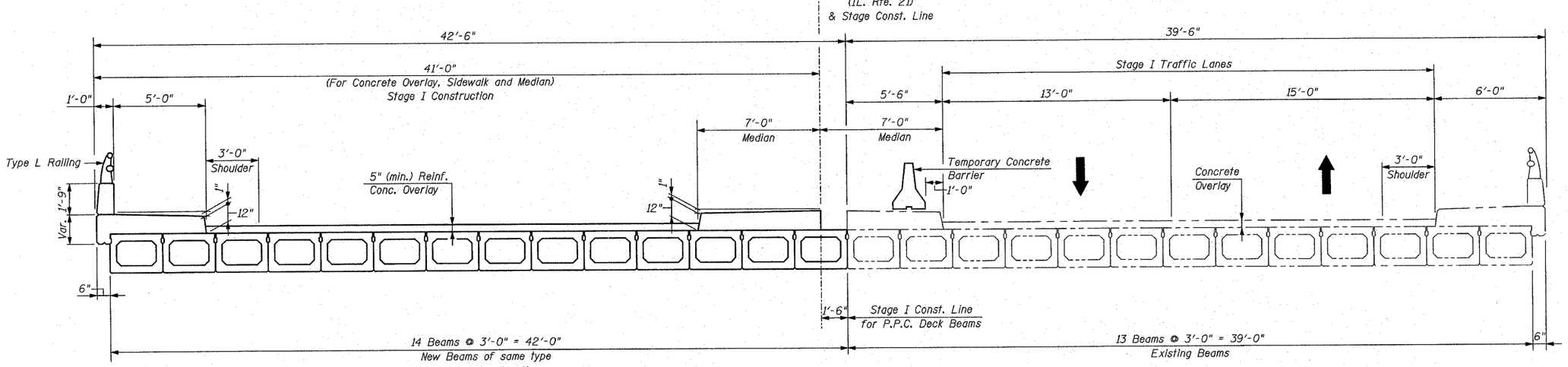
S:\PROJECTS\Construction notes.dgn 9/12/2007 1:36:25 PM

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20



STAGE I REMOVAL
(Looking West)



STAGE I CONSTRUCTION
(Looking West)

CONSTRUCTION STAGING

NOTE:
Quantity for Temporary Barrier is included with Roadway Plans

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

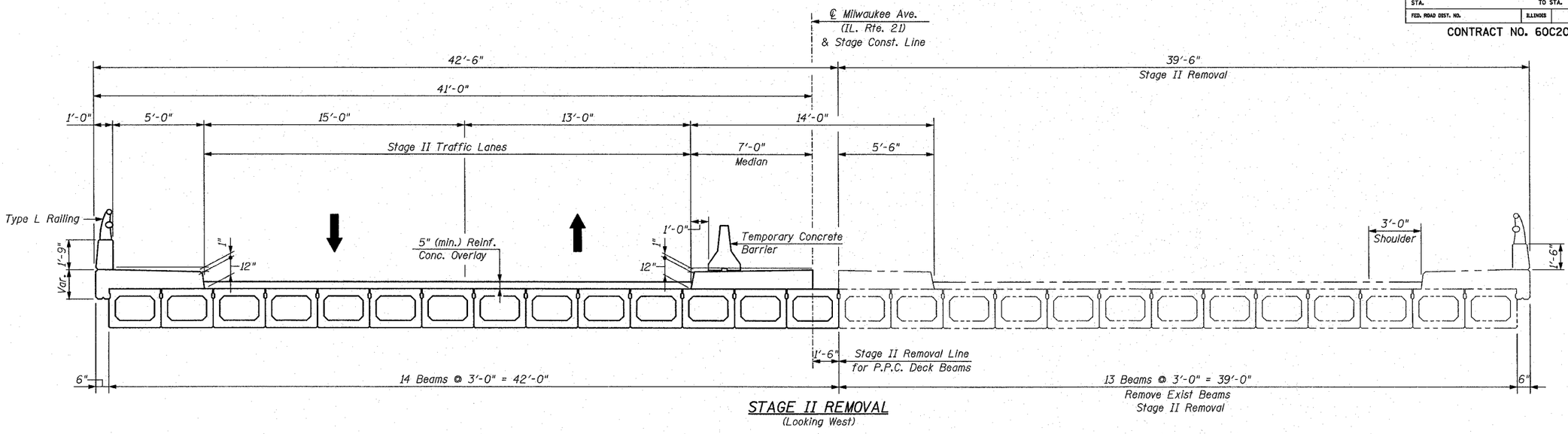
CONSTRUCTION STAGING-I
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

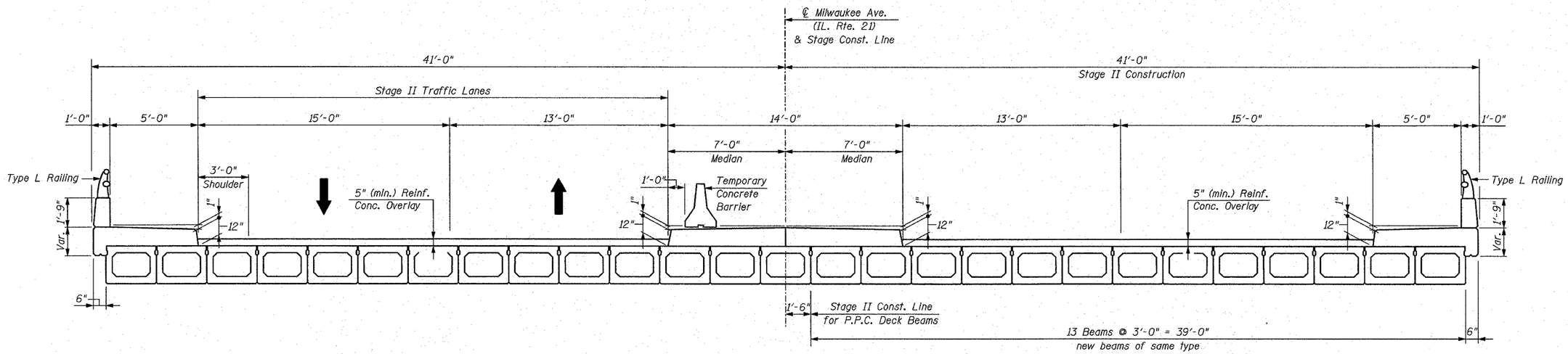
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20



STAGE II REMOVAL
(Looking West)



STAGE II CONSTRUCTION
(Looking West)

CONSTRUCTION STAGING

NOTE:
Quantity for Temporary Barrier is included with Roadway Plans

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING-II
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

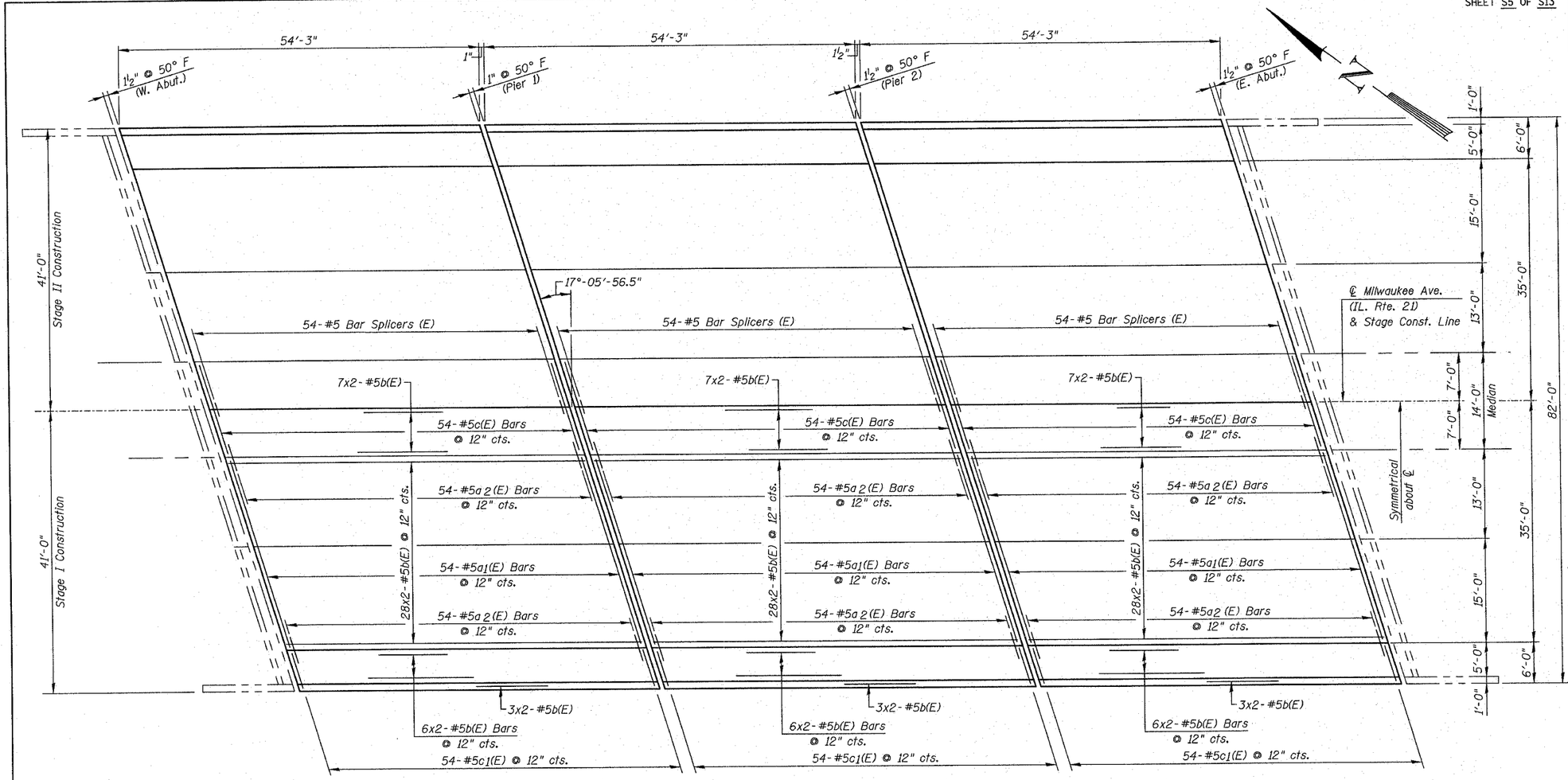
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

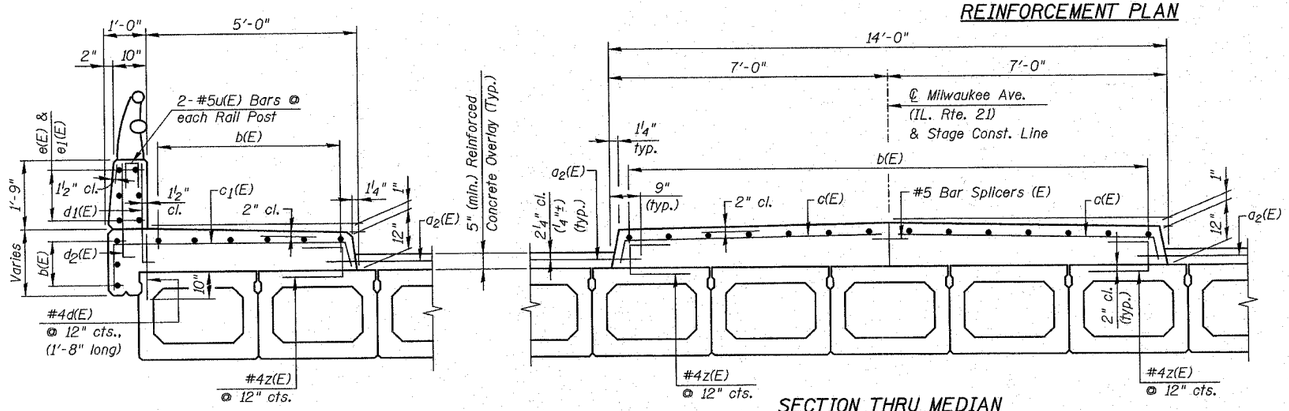
CONTRACT NO. 60C20

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_1(E)$	324	#5	28'-11"	
$a_2(E)$	648	#5	3'-9"	
b(E)	528	#5	27'-10"	
c(E)	324	#5	7'-5"	
$c_1(E)$	324	#5	8'-1"	
$d_1(E)$	324	#6	3'-4½"	
$d_2(E)$	324	#4	3'-1½"	
e(E)	72	#4	17'-8"	
$e_1(E)$	36	#4	18'-0"	
u(E)	42	#4	2'-0"	
Concrete Superstructure		Cu. Yd.	182.6	
Reinforcement Bars, Epoxy Coated		Pound	36,530	
Silicone Joint Sealer 1 In.		Foot	86	
Silicone Joint Sealer 1½ In.		Foot	258	
Bar Splicers		Each	162	
Concrete Wearing Surface		Sq. Yd.	1,020	



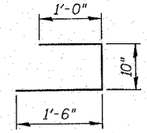
REINFORCEMENT PLAN



SECTION THRU CURB

SECTION THRU MEDIAN

MIN. LAP:
#5 Bars = 1'-8"

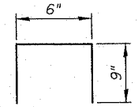


BAR z(E)

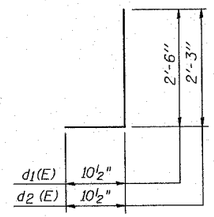
NOTE:
#4d(E) Bars & #4z(E) Bars are to be included with P.P.C. Deck Beams, 27"

BAR c(E)

BAR c1(E)



BAR u(E)



BARS $d_1(E)$ & $d_2(E)$

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

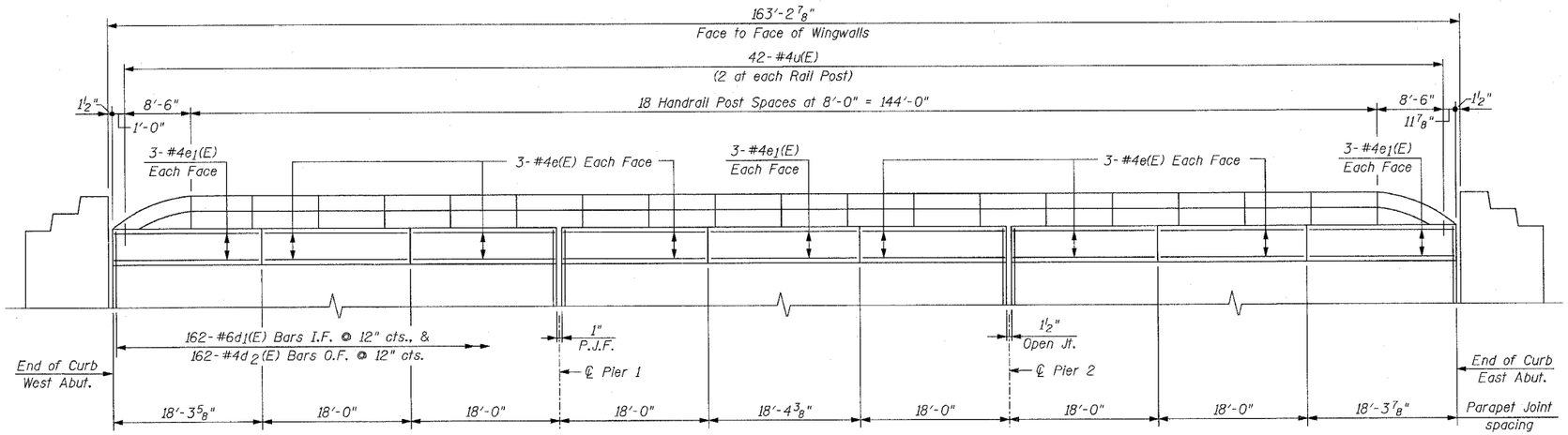
REINFORCEMENT PLAN
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	20
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20

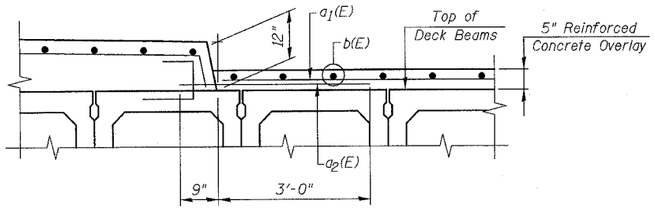


ELEVATION

(DIMENSIONS ARE ALONG INSIDE FACE OF PARAPET)

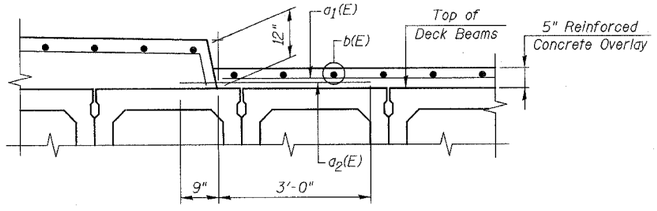
NOTE:
See Sheet S5 for Bill Of Material

LEGEND:
I.F. = Inside Face
O.F. = Outside Face



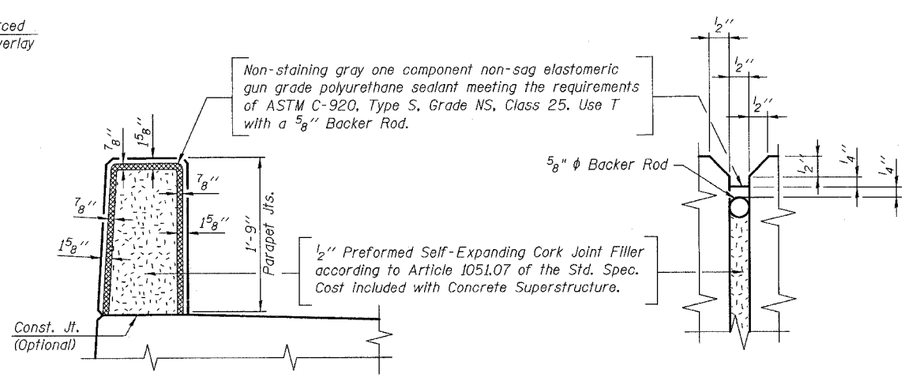
PROPOSED P.P.C. DECK BEAM STABILIZING DETAIL

(AT SIDEWALK)



PROPOSED P.P.C. DECK BEAM STABILIZING DETAIL

(AT MEDIAN)



PARAPET JOINT DETAILS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS
IL. 21/MILWAUKEE AVE. OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JULY 23, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

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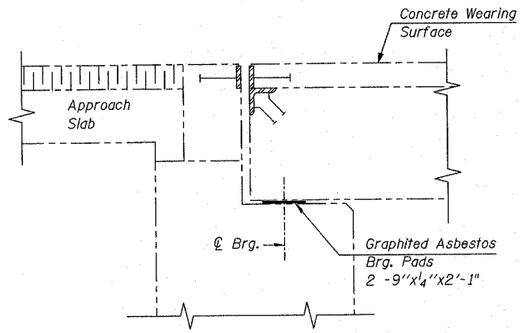
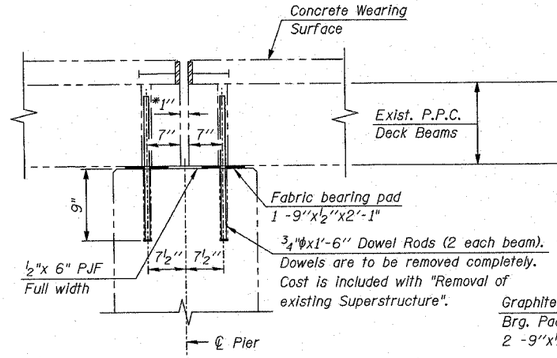
FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

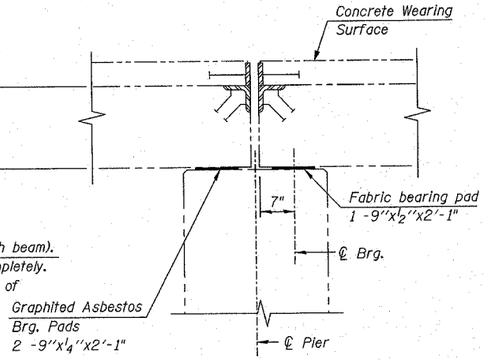
CONTRACT NO. 60C20



SECTION THRU ABUTMENT
(EXISTING)



SECTION THRU FIXED PIER NO. 1
(EXISTING)



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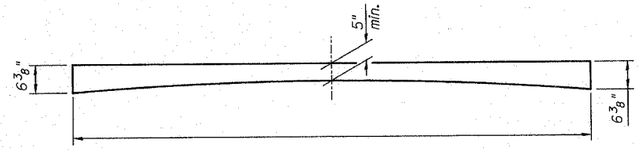
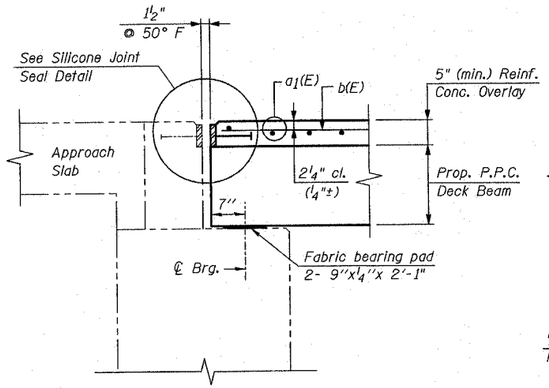
(EXISTING)

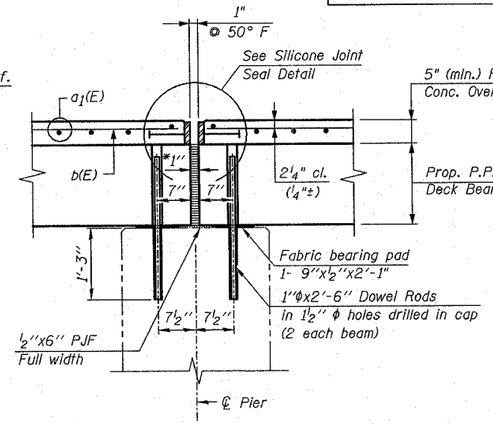


REINFORCED CONCRETE WEARING SURFACE PROFILE
(Proposed)

NOTE:
Exist. P.P.C. Deck Beams & Concrete Wearing Surface to be removed

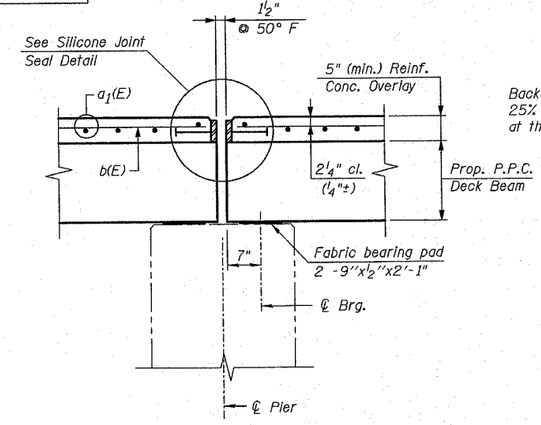


SECTION THRU ABUTMENT
(PROPOSED)



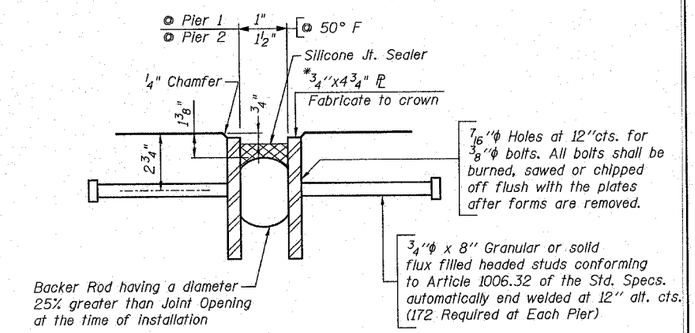
SECTION THRU FIXED PIER NO. 1
(PROPOSED)

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

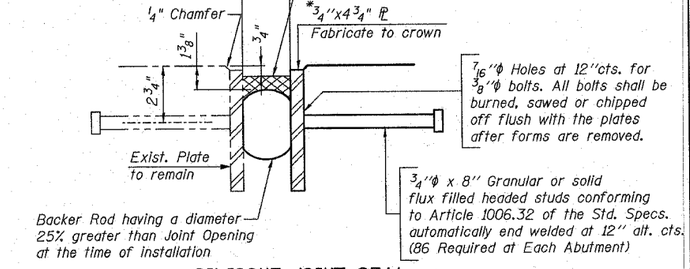


SECTION THRU PIER NO. 2
(PROPOSED)

Notes:
After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
All horizontal dimensions are at right angles to beam ends.
Hatched area to be poured after beams are in place.
See Sheet S8 for bearing pad details.



SILICONE JOINT SEAL
(AT PIERS)



SILICONE JOINT SEAL
(AT ABUTMENTS)

Notes:
After fabrication all srufaces of the Steel Plates shall be given one Shop Coat of paint specified for Structural Steel.

No field painting required.

* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16''. Seal space with Silicone Sealant suitable for Structural Steel.

** Cut retainer bars in sidewalk or median 6" short of the sidewalk or median face.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

JOINT DETAILS

IL. 21/MILWAUKEE AVE. OVER UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
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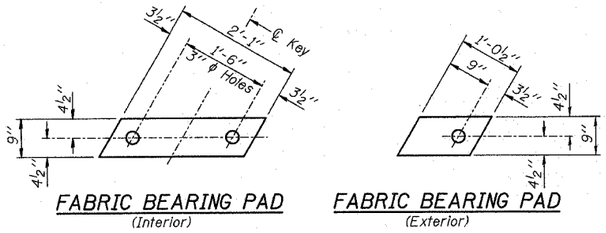
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

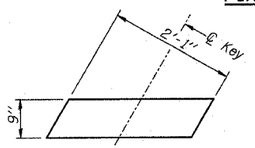
CONTRACT NO. 60C20



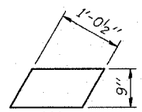
FABRIC BEARING PAD (Interior)

FABRIC BEARING PAD (Exterior)

FIXED

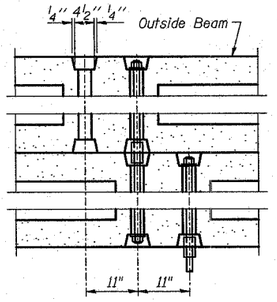


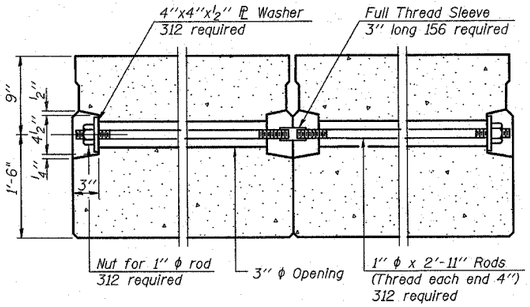
FABRIC BEARING PAD (Interior)



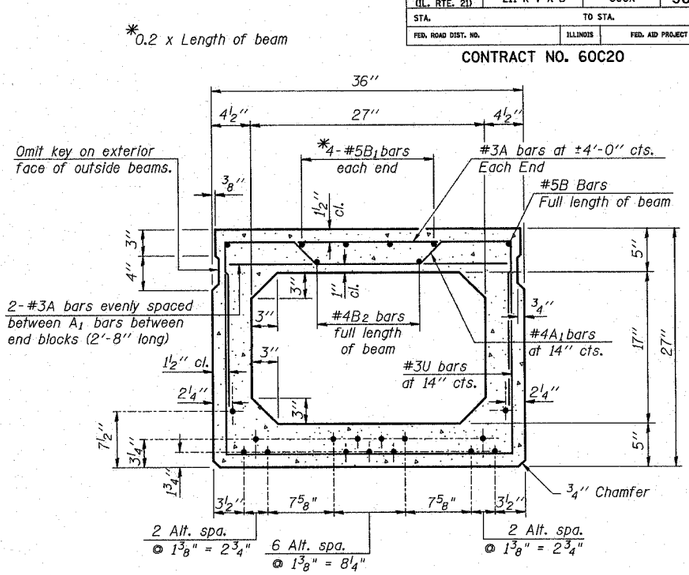
FABRIC BEARING PAD (Exterior)

EXPANSION





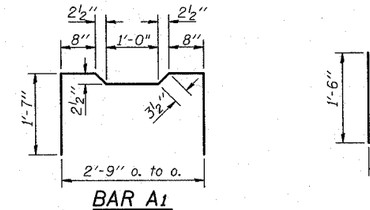
TYPICAL TRANSVERSE TIE ASSEMBLY



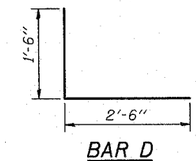
TYPICAL SECTION

½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
7 Strands 1¾" up, 6 Strands 3¼" up, 2 Strands 7½" up

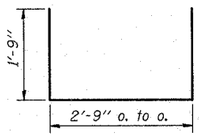
Note:
Place strands symmetrically about ℄ of beam.



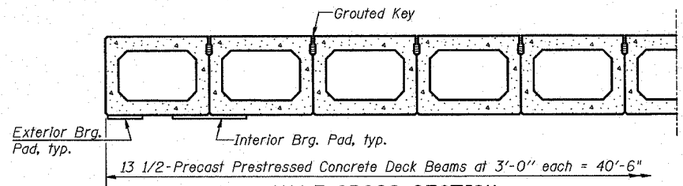
BAR A1



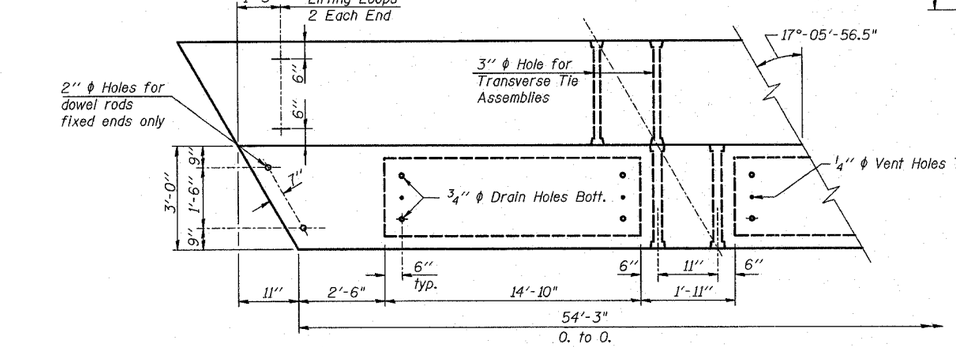
BAR D



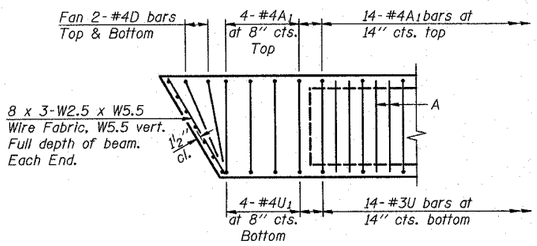
BARS U & U1



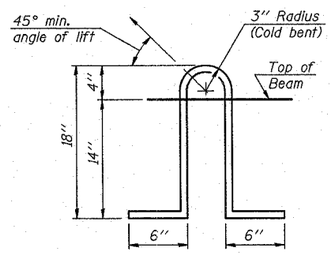
HALF CROSS SECTION



PLAN



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 ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 2-½" 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.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
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 4,000 p.s.i.
See Sheet S5 for the Anchor Dowels for Sidewalk and Median into P.P.C. Deck Beams.

BILL OF MATERIAL

Precast Prestressed Concrete Deck Beams	Sq. Ft.	13,185

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

P.P.C. DECK BEAM DETAILS
MILWAUKEE AVE. (IL. RTE. 21) OVER UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

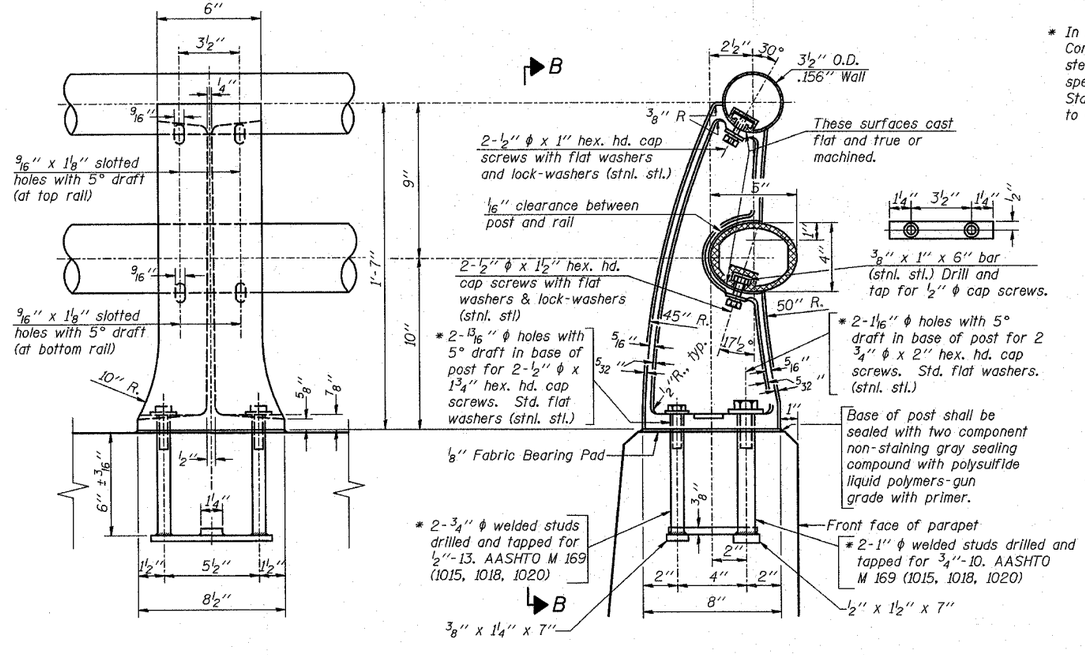
SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

PD-5-R 11-1-06

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

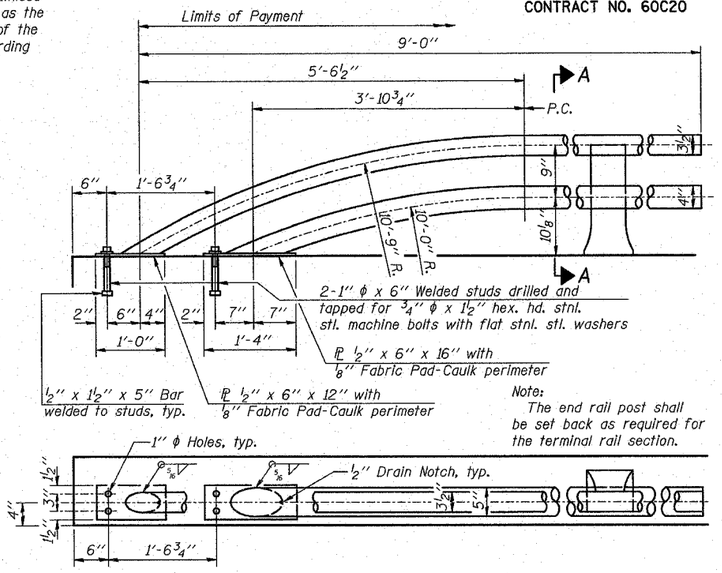
CONTRACT NO. 60C20



VIEW B-B

SECTION A-A

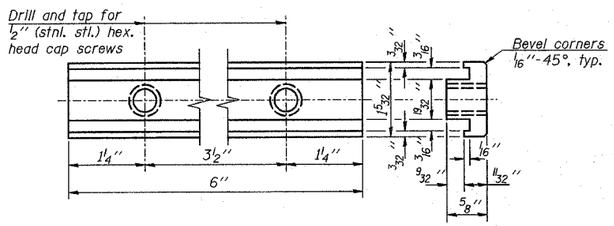
* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*



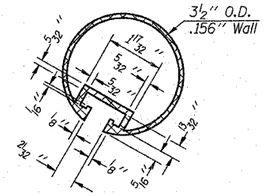
RAIL TERMINAL SECTION

Note:
The end rail post shall be set back as required for the terminal rail section.

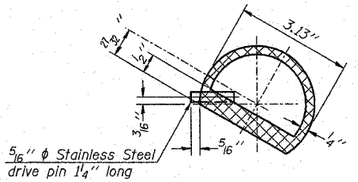
RAIL POST DETAILS



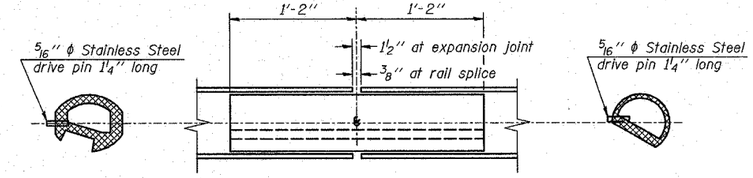
RAIL POST CLAMP BAR
For Top Rail



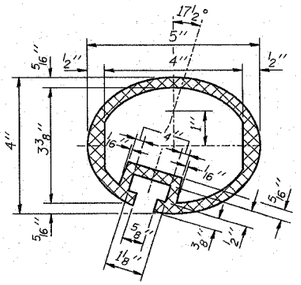
SECTION THRU TOP RAIL



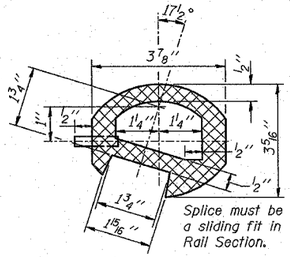
SECTION THRU SPLICE
For Top Rail



RAIL SPLICE



SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
Provide 1-⅛'' and 2-1/16'' Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See Sheet S6 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	326

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ALUMINUM RAILING, TYPE L
MILWAUKEE AVE. (IL. RTE. 21) OVER UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

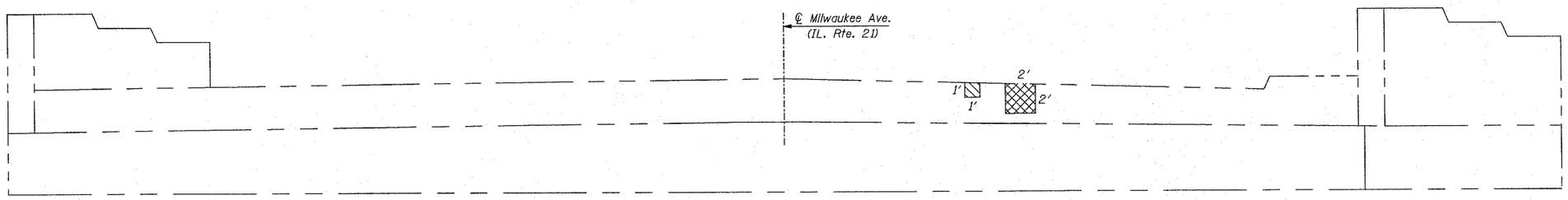
SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

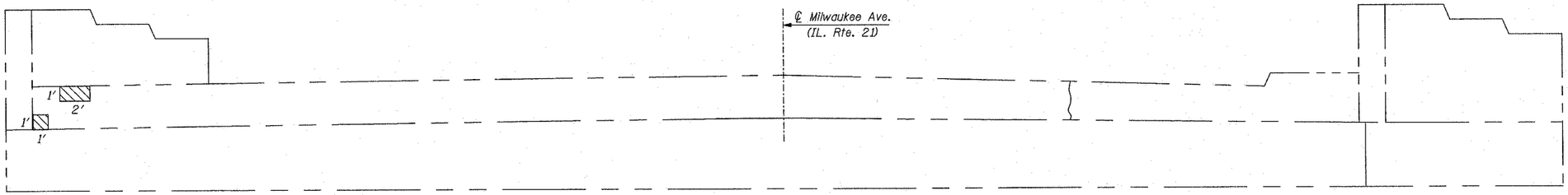
R-20 11-1-06 (7'-0'' to 10'-0'' Post spacing)

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

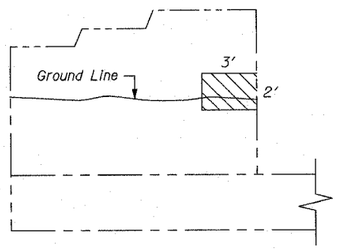
CONTRACT NO. 60C20



WEST ABUTMENT
(LOOKING WEST)



EAST ABUTMENT
(LOOKING EAST)



SOUTHEAST WINGWALL

LEGEND:

Structural Repair of Concrete (Depth equal to or less than 5 In)

Structural Repair of Concrete (Depth greater than 5 In)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN)	SQ. FT.	14
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 IN)	SQ. FT.	4

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

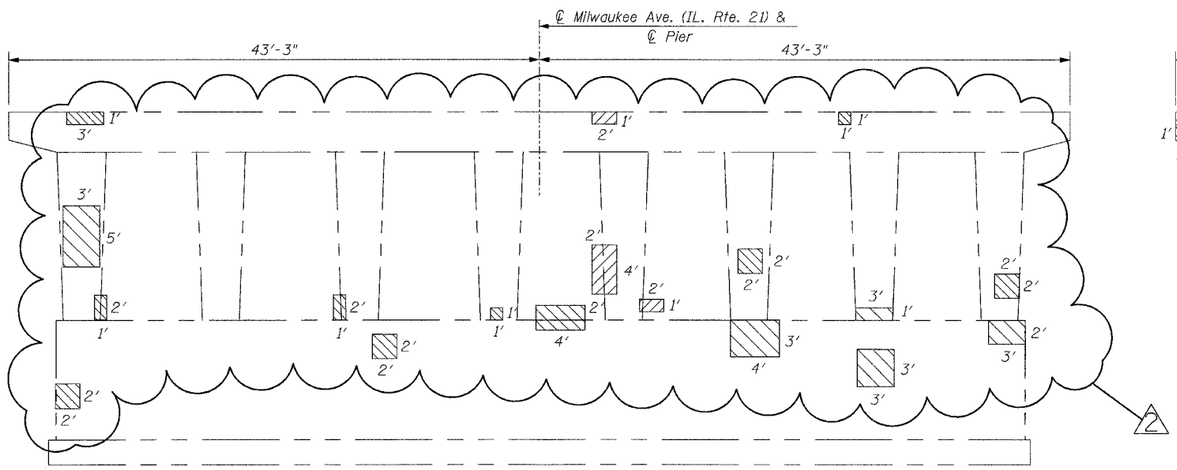
ABUTMENT REPAIR
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

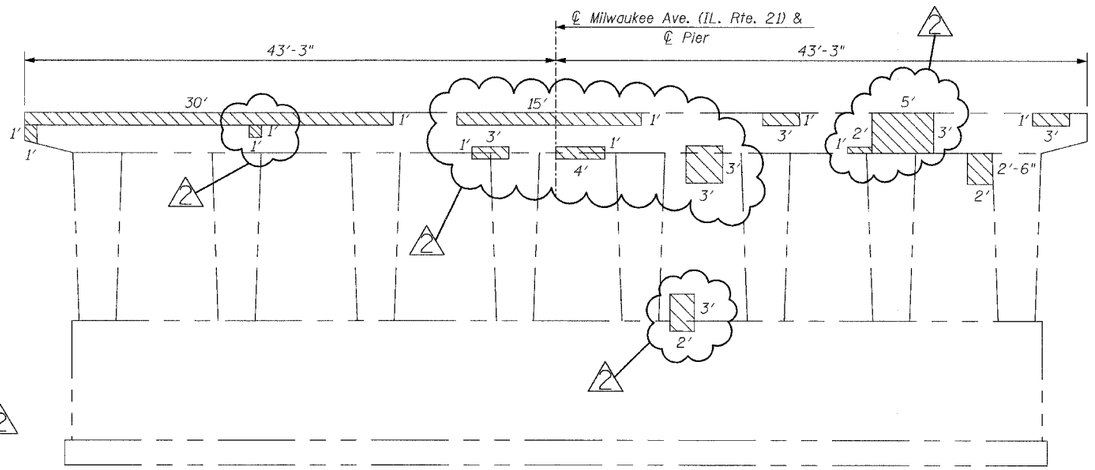
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	25
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

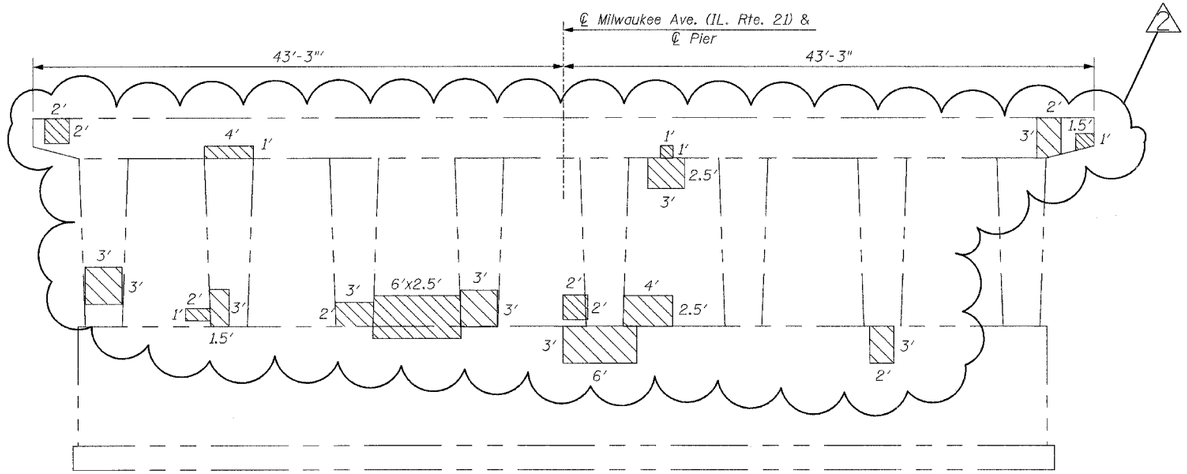
CONTRACT NO. 60C20



PIER NO. 1 - EAST FACE
(LOOKING WEST)



PIER NO. 2 - EAST FACE
(LOOKING WEST)



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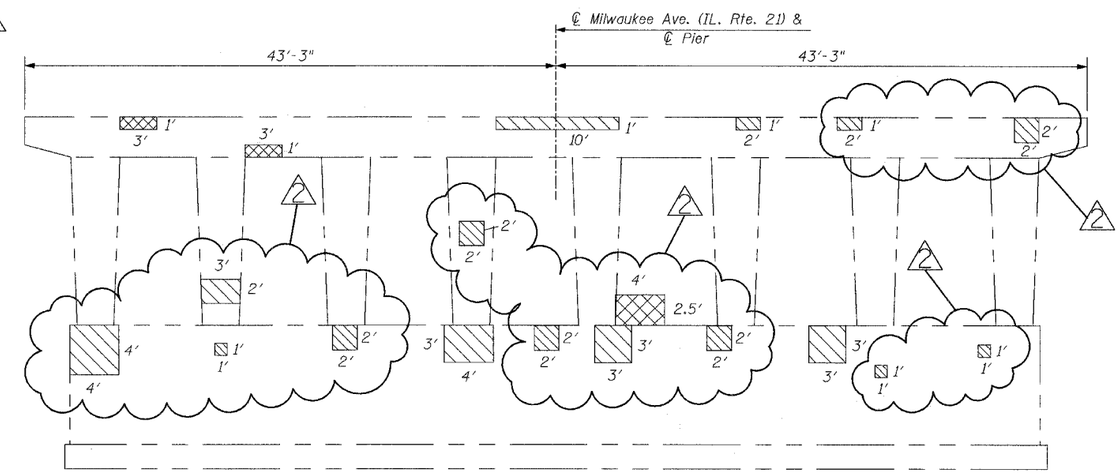
(LOOKING EAST)



PIER NO. 2 - WEST FACE
(LOOKING EAST)

LEGEND:

Structural Repair of Concrete (Depth equal to or less than 5 In)

Structural Repair of Concrete (Depth greater than 5 In)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 IN)	SQ. FT.	383.5
STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 IN)	SQ. FT.	16

REVISIONS NAME	DATE
	09-14-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

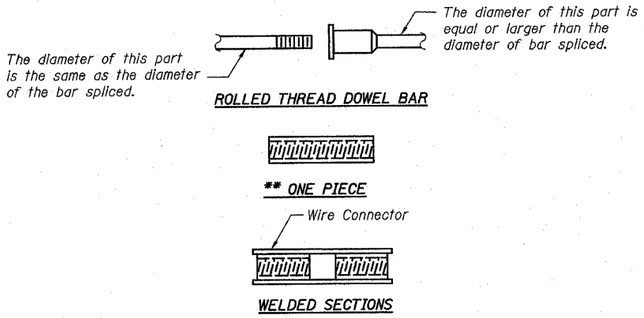
PIER REPAIR
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JULY 23, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

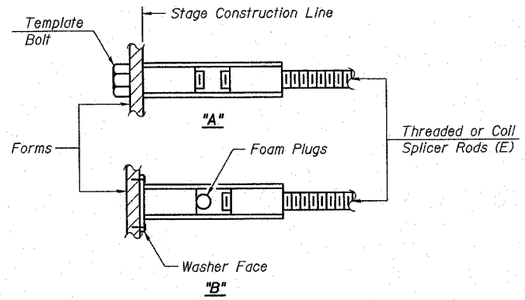
FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20



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.

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.

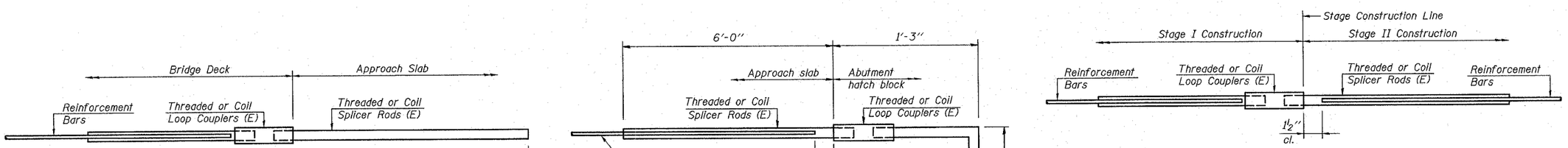
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

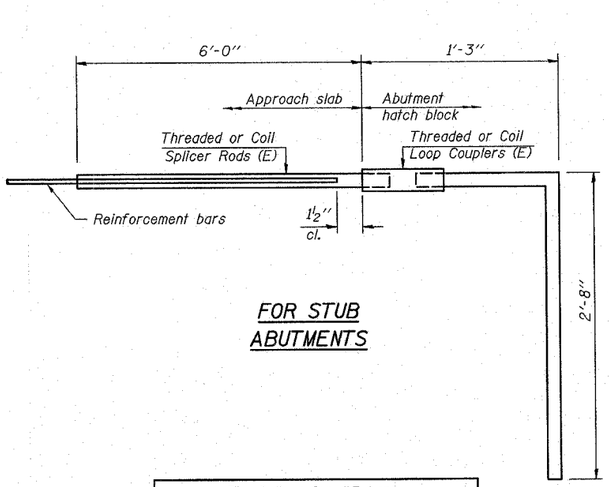
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



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
#5	162	Median
Total	162	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
MILWAUKEE AVE. (IL. RTE. 21) OVER UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

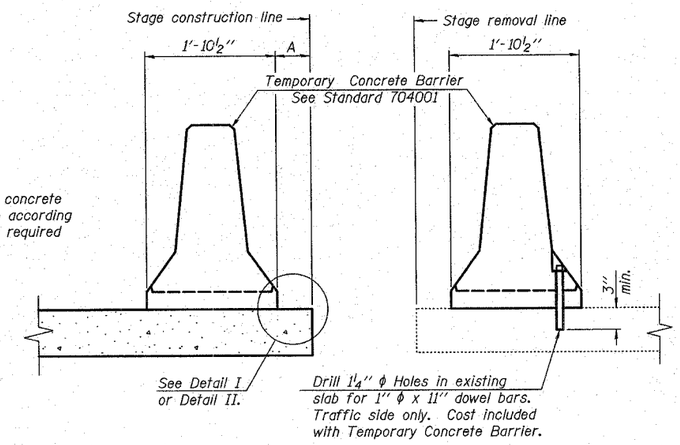
SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

BSD-1 11-1-06

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. RTE. 374 (IL. RTE. 21)	211-K-V-X-B	COOK	38	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60C20



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

NEW SLAB **EXISTING SLAB**

SECTIONS THRU SLAB

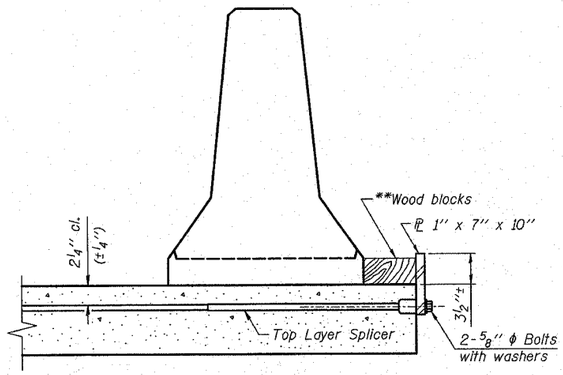
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

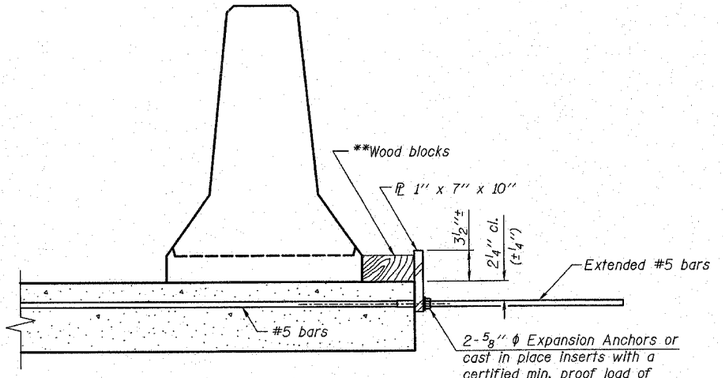
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 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.

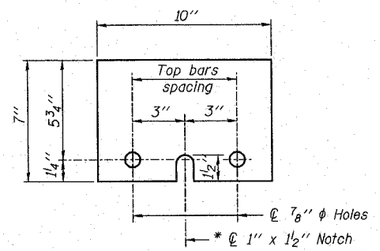


DETAIL I



DETAIL II

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



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

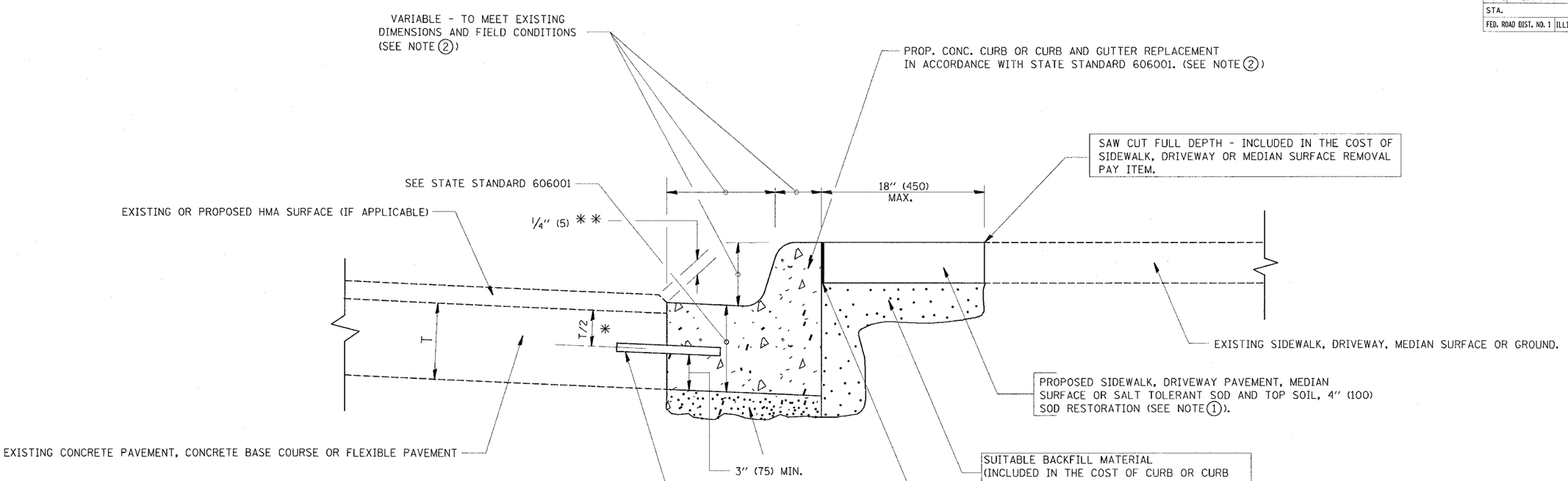
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
MILWAUKEE AVE. (IL. RTE. 21) OVER
UNION PACIFIC RAILROAD
F.A. RTE. 374 (S.B.I. RTE. 21)
SECTION: 211-K-V-X-B
COOK COUNTY STATION 30+71.94
STRUCTURE NO. 016-0243

SCALE:
DATE: JUNE 12, 2007
DRAWN BY: F.M.
CHECKED BY: B.N.S.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	28
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

* * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: (1) SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(4) LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(5) THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

(6) THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

(7) THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE HORIZ.

DRAWN BY

CHECKED BY

BD600-06 (BD-24)

PLOT DATE = 7/10/2007
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PLOT SCALE = 50.2000 ' / IN.
USER NAME = SMITHKL

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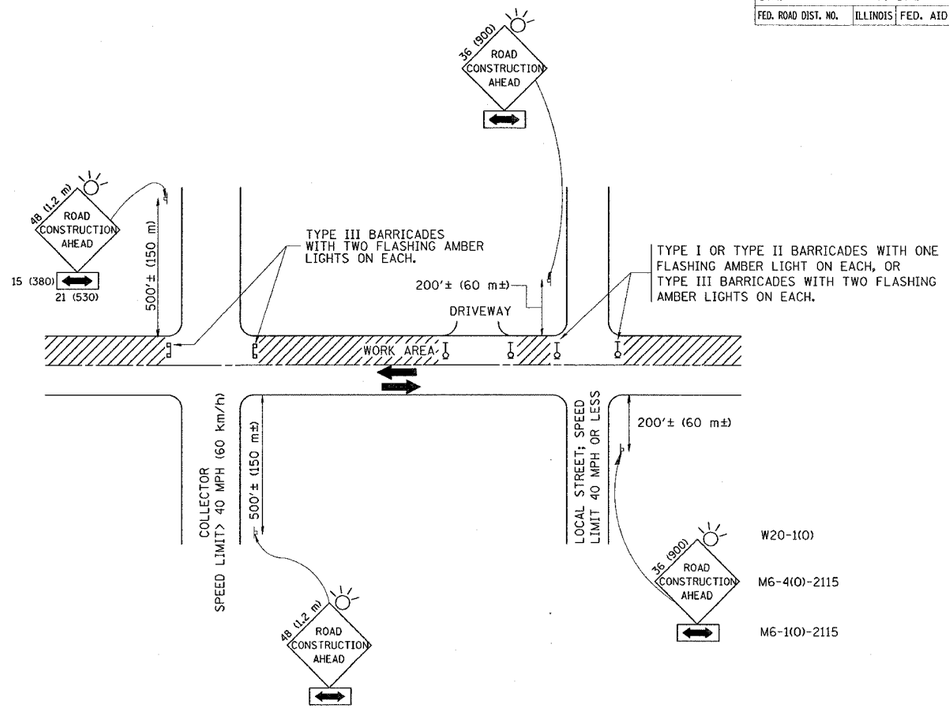
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	21H-X-V-X-B	COOK	38	29
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

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

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

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

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

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

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

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

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

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

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

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

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

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

SCALE: NONE

DRAWN BY

CHECKED BY

TC-10

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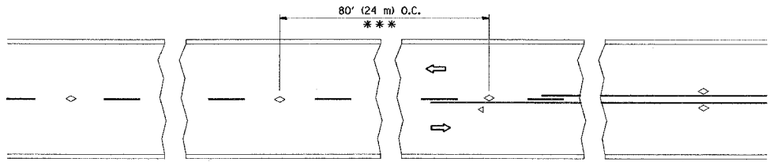
USER NAME = SMITHKL

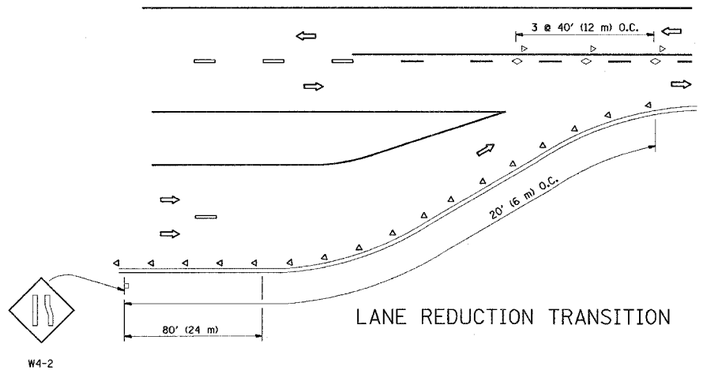
CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	30
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

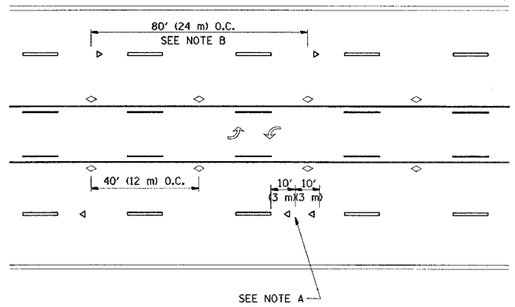


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

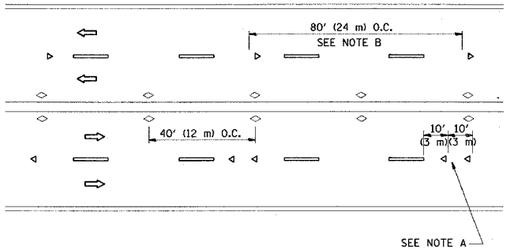
TWO-LANE/TWO-WAY



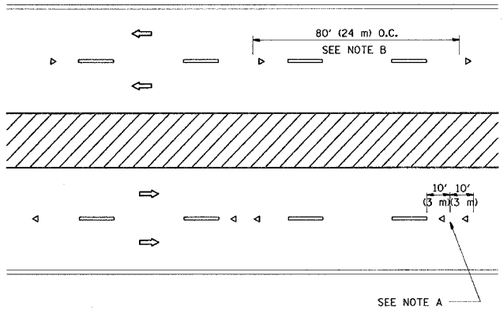
LANE REDUCTION TRANSITION



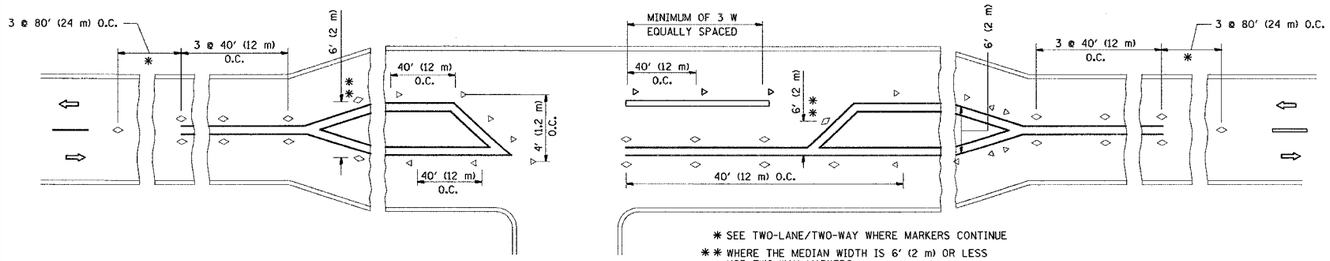
TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED



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

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

LEFT TURN

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.

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.

SYMBOLS

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

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.

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

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)

SCALE: NONE

DRAWN BY CADD

CHECKED BY

TC-11

PLOT DATE = 7/10/2007
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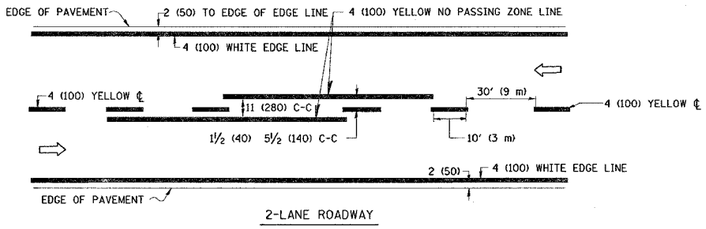
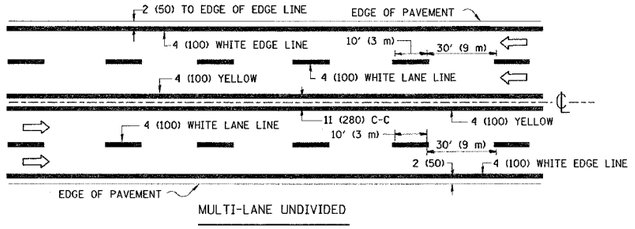
USER NAME = SMITHKL

CONTRACT NO. 60C20

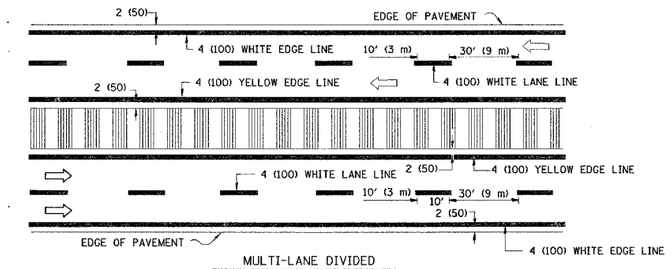
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	31
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



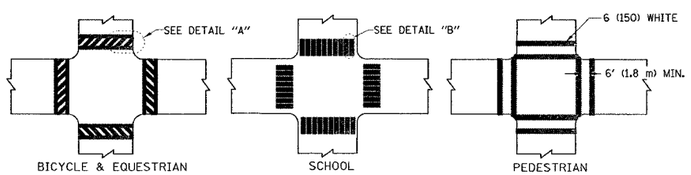
MULTI-LANE UNDIVIDED



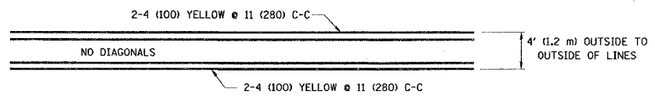
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

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

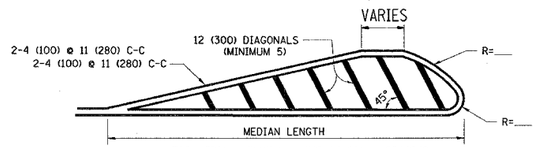
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



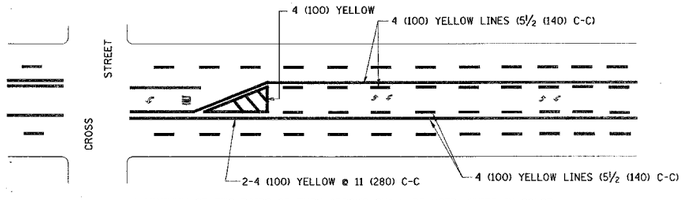
4' (1.2 m) WIDE MEDIANS ONLY



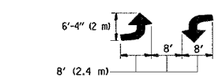
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

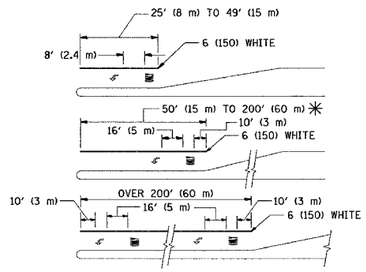


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

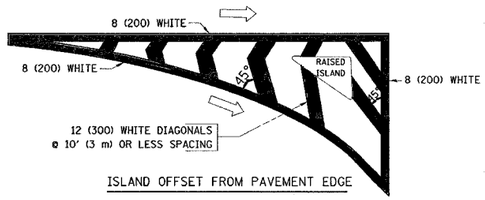


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) ONLY AREA = 20.8 SQ. FT. (1.9 m^2)

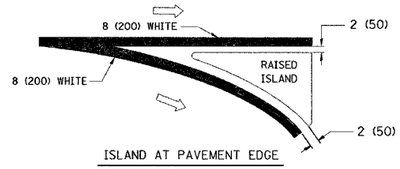
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

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

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

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

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

DRAWN BY CADD

CHECKED BY

TC-13

PLOT DATE = 7/10/2007
FILE NAME = c:\projects\tc13.dgn
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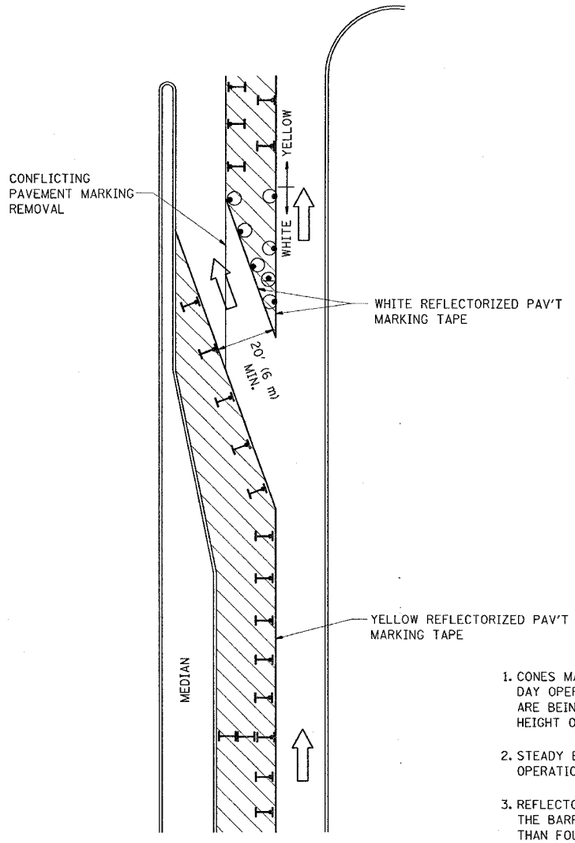
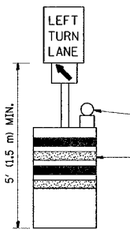
USER NAME = SMITHKL

CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	32
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





R 3-1100L 24 x 24 (600 x 600)

M6-2L 21 x 15 (530 x 380)

OPTIONAL FLASHING LIGHT

STANDARD 702001
DRUM FILLED WITH ENOUGH
SAND (BAGS) FOR STABILIZATION

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 inches (millimeters) 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)

SCALE: NONE

DRAWN BY

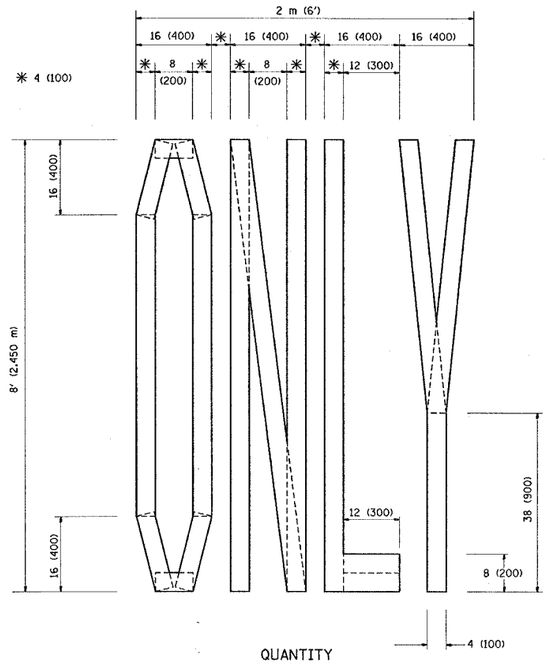
CHECKED BY LHA

TC-14

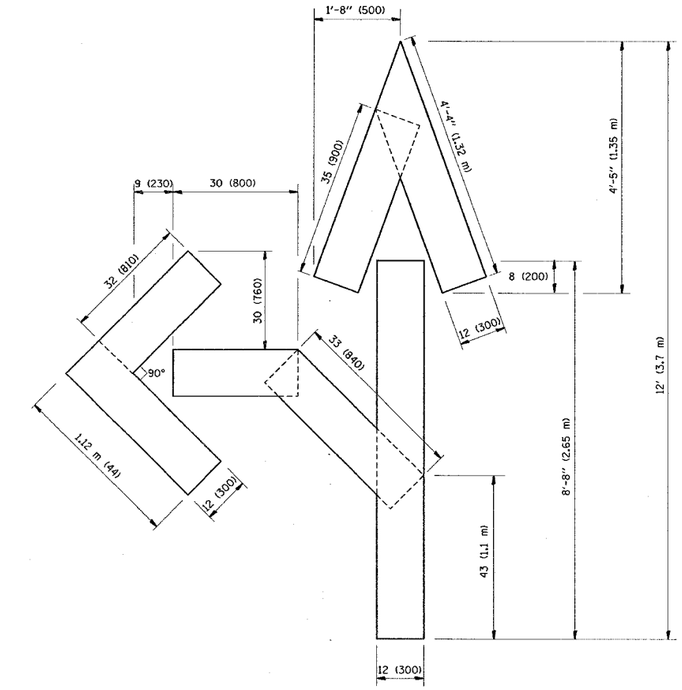
PLOT DATE = 7/18/2007
FILE NAME = w:\dist1\projects\tc14.dgn
PLOT SCALE = 49.9999 '/ IN.
USER NAME = SMITHKL

CONTRACT NO. 60C20

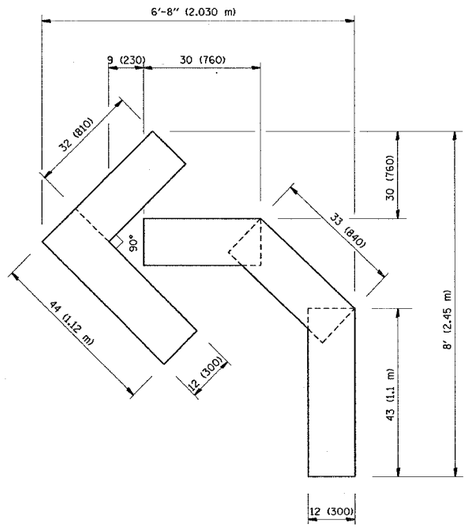
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2(1-K-V-X-8	COOK	38	33
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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 inches (millimeters) unless otherwise shown.

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

DRAWN BY CADD

CHECKED BY

TC-16

PLOT DATE = 7/10/2007
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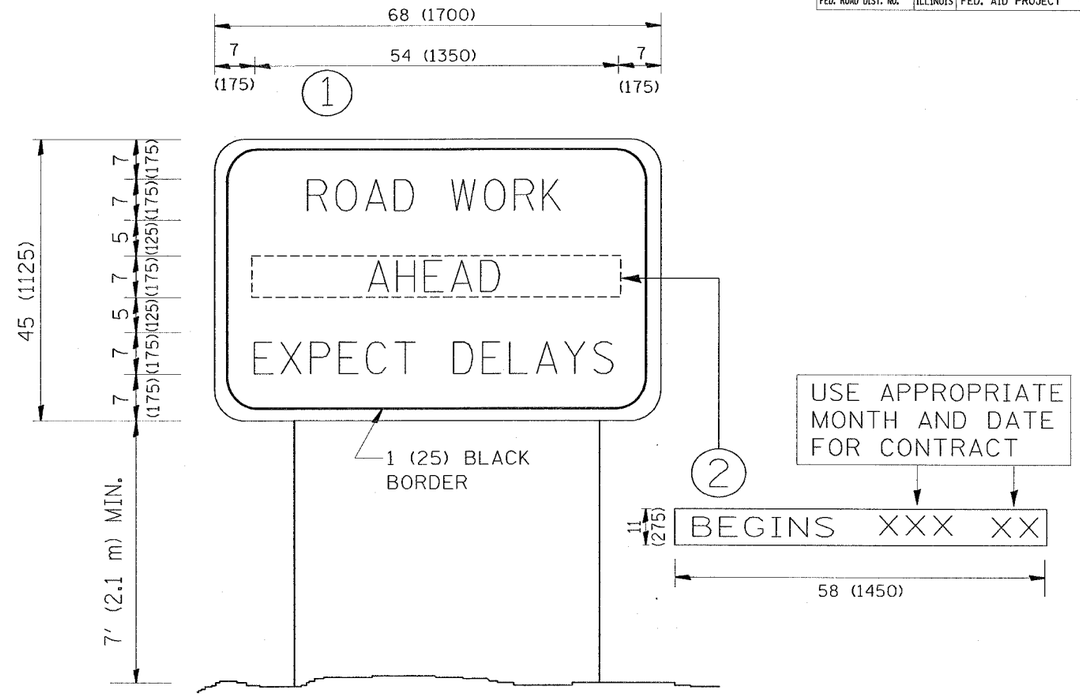
PLOT SCALE = 49.9959 '/ IN.
USER NAME = SMITHKL

CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	2H-K-V-X-8	COOK	38	34
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.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

DRAWN BY DESIGN

CHECKED BY

TC22

PLOT DATE = 7/18/2007
FILE NAME = c:\projects\tc22.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = SMITHKL

CONTRACT NO. 60C20

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-Y-X-B	COOK	38	35
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. 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.

2. 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.

3. 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.

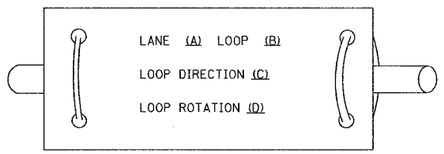
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES 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.

6. 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.

7. 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.

LOOP LEAD-IN CABLE TAG

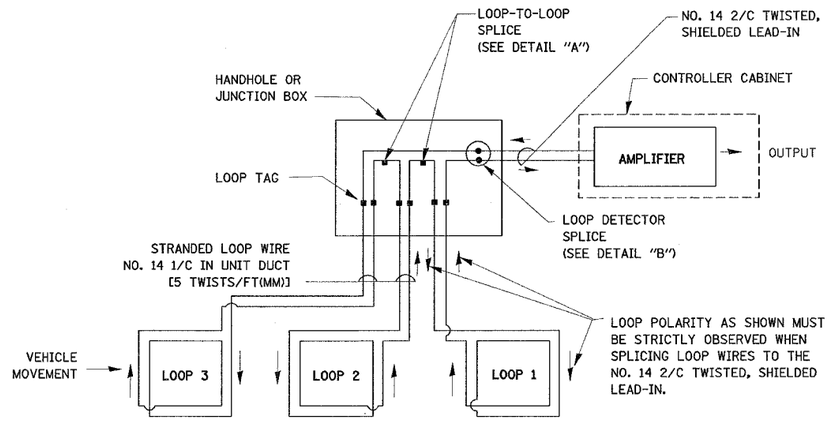


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

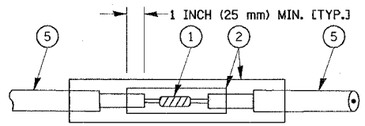
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

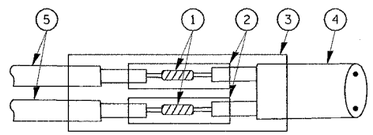


DETECTOR LOOP WIRING SCHEMATIC

- 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.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) 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

TS05

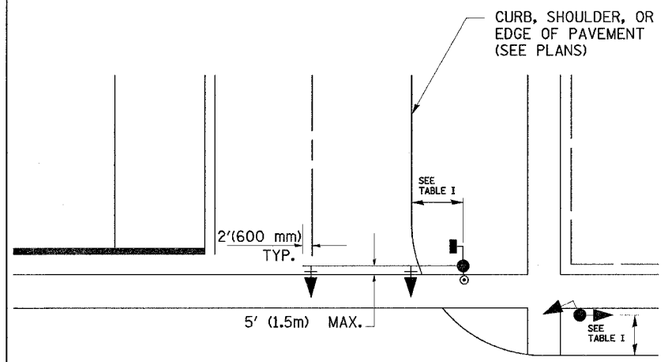
PLOT DATE = 7/23/2007
FILE NAME = k:\district1\ts05.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = smithkl

CONTRACT NO. 60C20

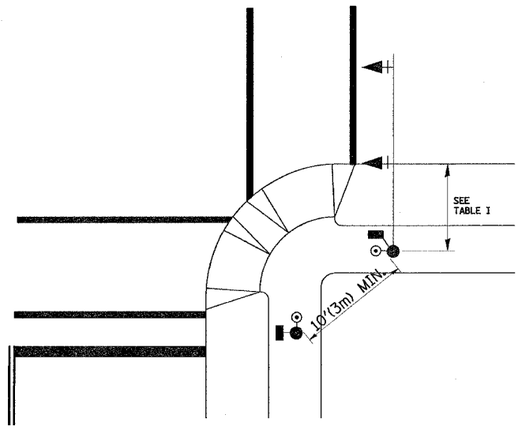
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	21I-K-V-X-B	COOK	38	36
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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:

1. 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

2. 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.

3. 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.

4. 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

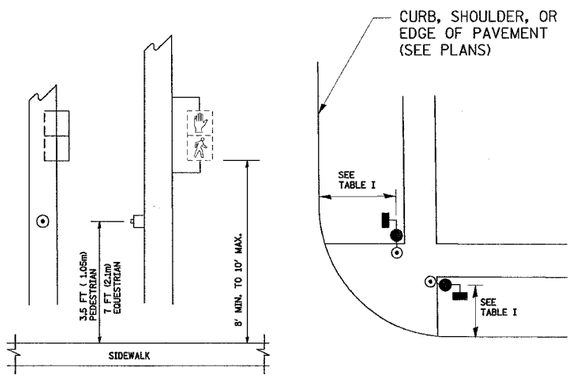


TABLE I

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

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

TS05

PLOT DATE = 1/23/2007
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USER NAME = smithkl

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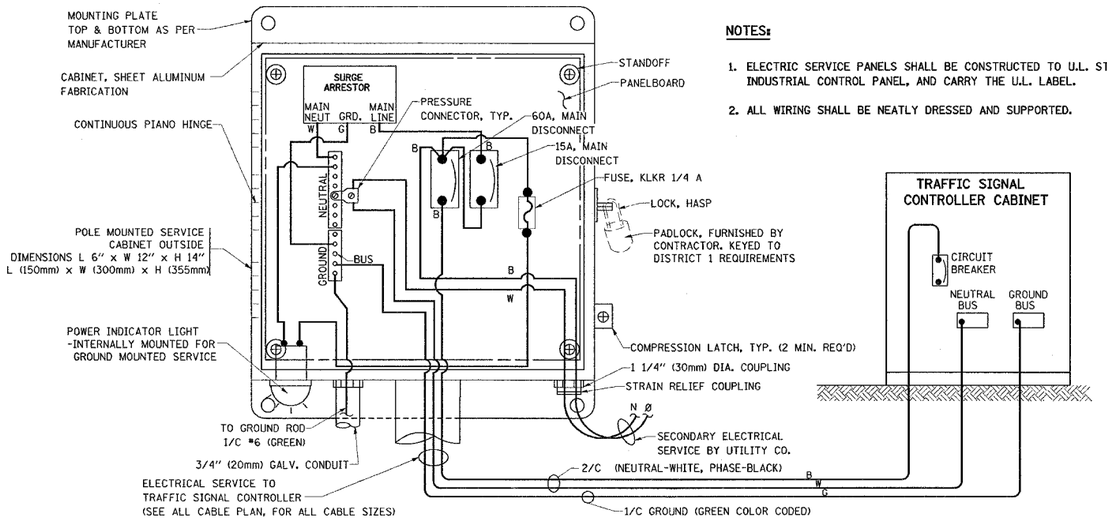
CONTRACT NO. 60C20

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



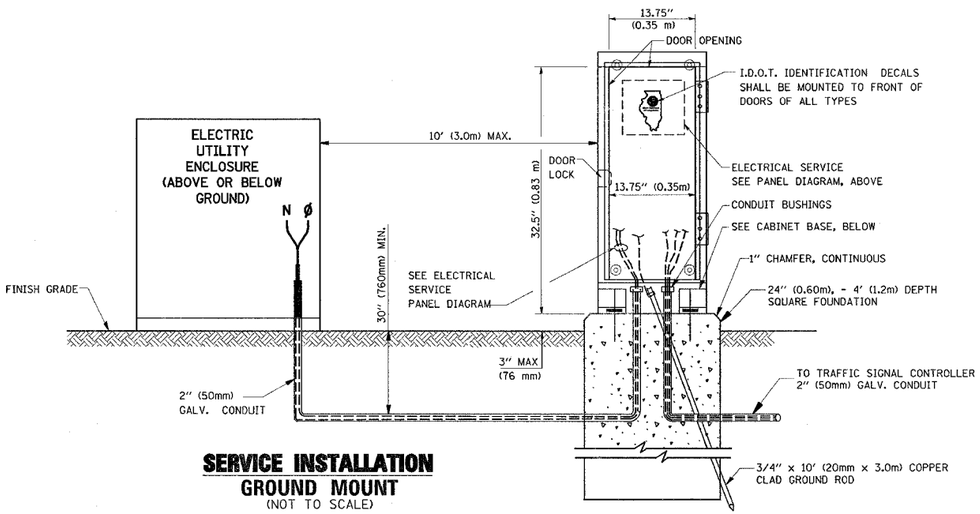
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

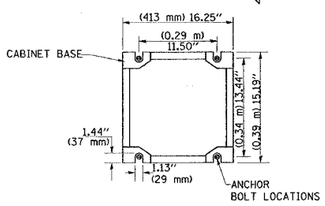
SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



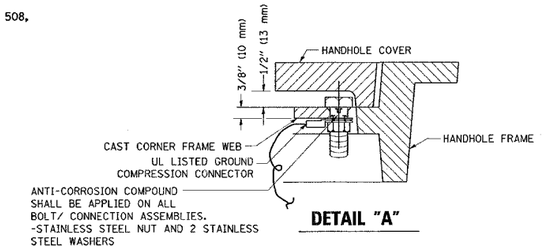
SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)

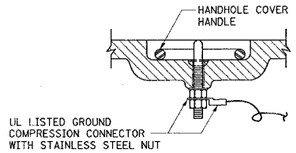


CABINET – BASE BOLT PATTERN

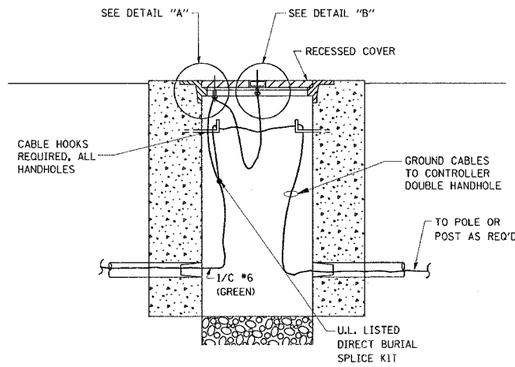
(NOT TO SCALE)



DETAIL "A"

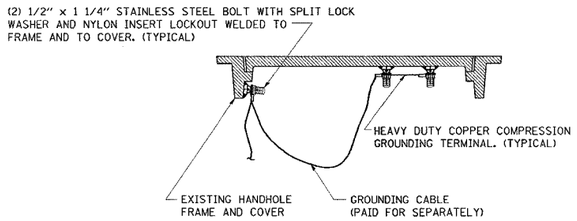


DETAIL "B"



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



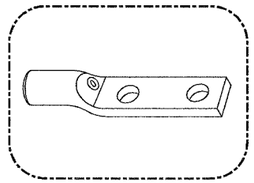
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

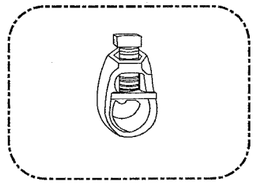
NOTES:

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.



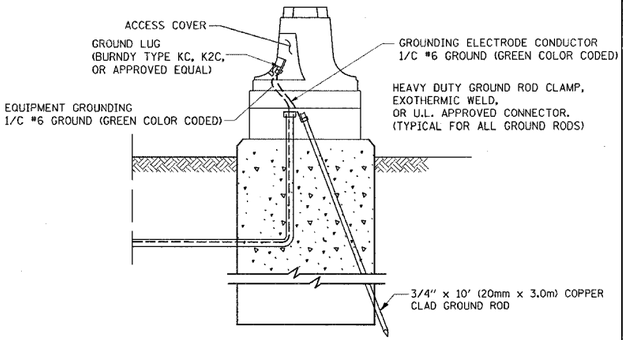
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

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.



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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

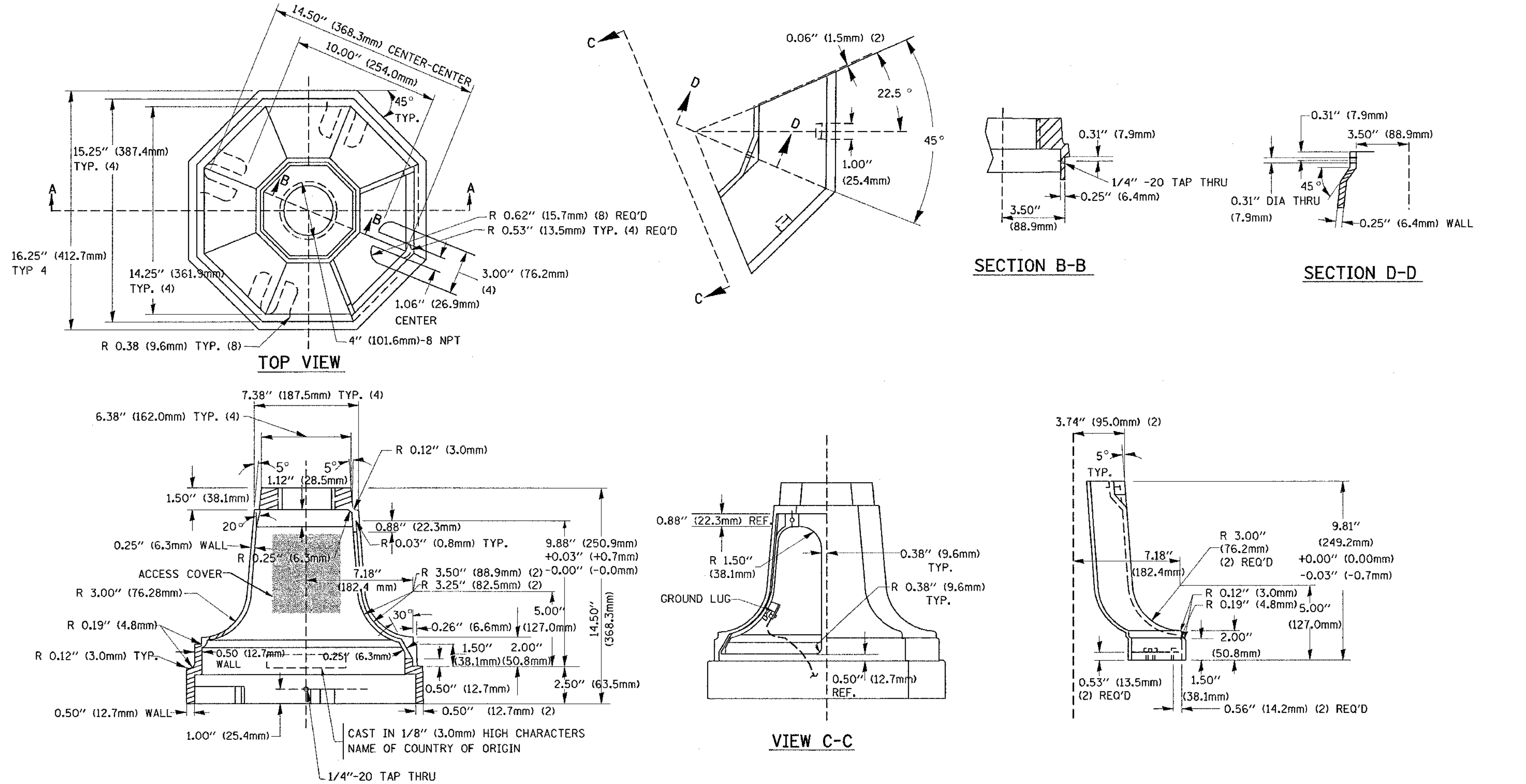
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

TS05

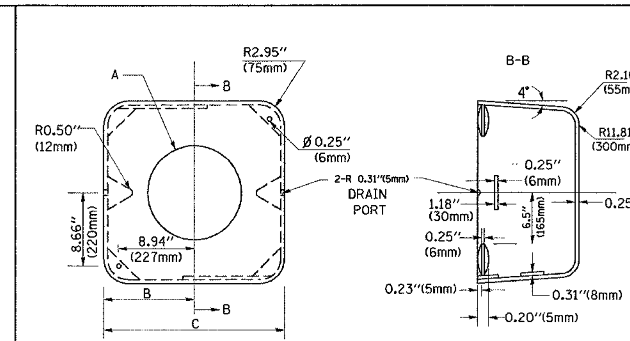
PLOT DATE = 7/23/2007
FILE NAME = k:\d1tss\ts05.dgn
PLOT SCALE = 50.0000 '/ IN.
USER NAME = smith

CONTRACT NO. 60C20

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	211-K-V-X-B	COOK	38	38
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



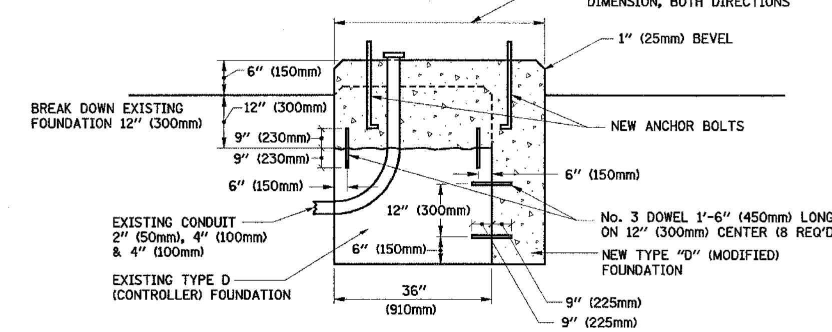
MATERIAL:

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

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

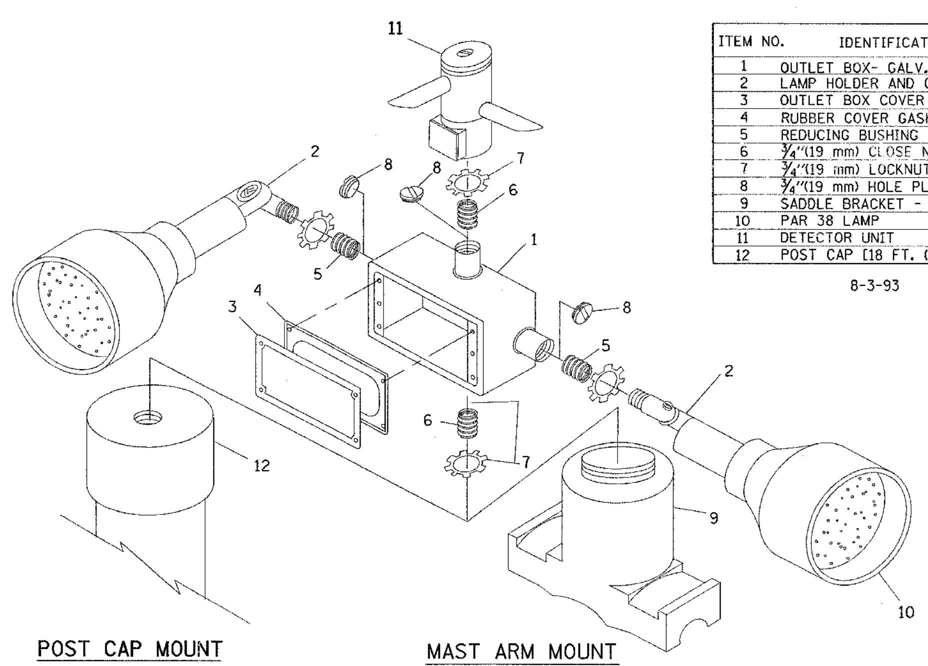
SHROUD DETAIL

NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



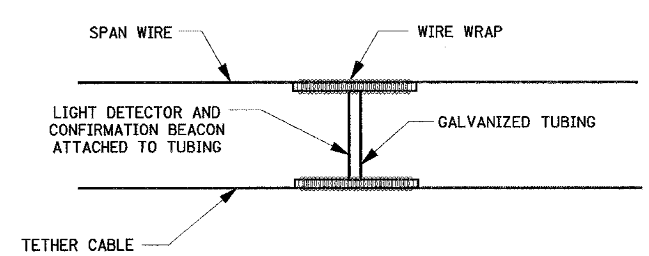
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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:

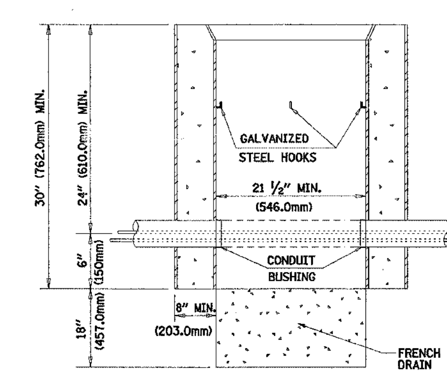
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. 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.

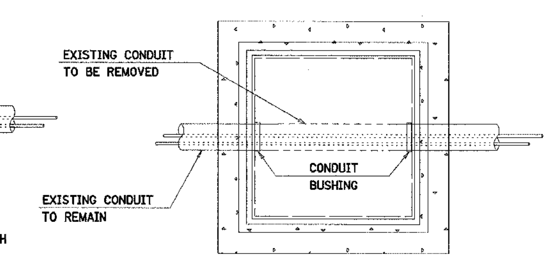


LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

NOTES:
1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.





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