

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-RS	COOK	31	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60649		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

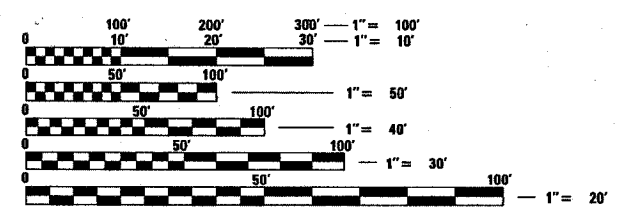
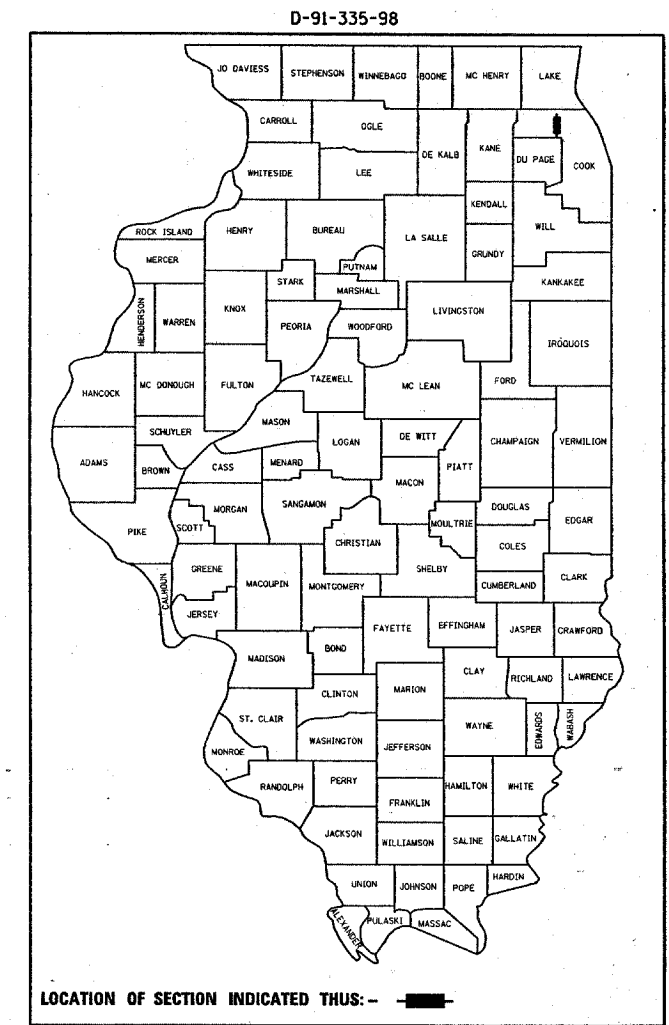
**PROPOSED
HIGHWAY PLANS**

FAU ROUTE 2660: BUSSE RD
IL 58 (GOLF RD) TO IL 72 (HIGGINS RD)
SECTION 540R-1-RS
PROJECT NO. ACM-2660(001)
RESURFACING (MAINTENANCE)
COOK COUNTY
C-91-335-98

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED
IN THE VILLAGES OF MOUNT PROSPECT
AND ELK GROVE VILLAGE

TRAFFIC DATA:
2007 ADT: 34,700
SPEED LIMIT: 35 MPH TO 40 MPH

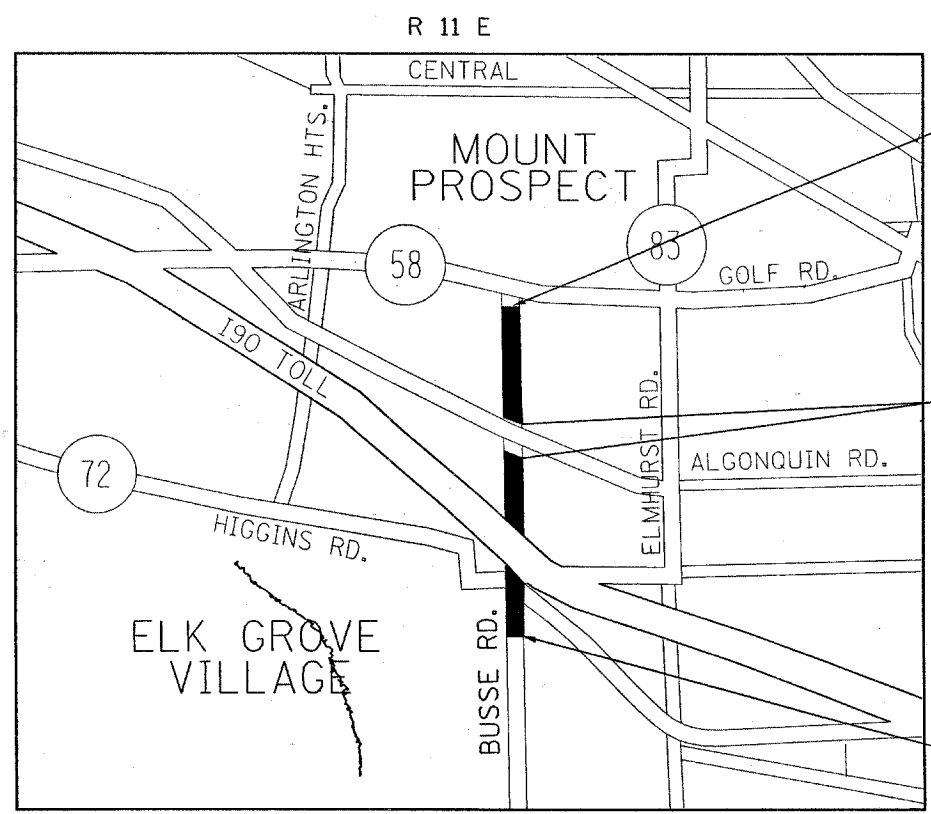


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER ROBERT BORO (847) 705-4178
PROJECT MANAGER KEN ENG

CONTRACT NO. 60649



PROJECT ENDS
STATION 258+09

OMISSION STATION 206+45
TO STATION 216+56

PROJECT BEGINS
STATION 162+02

ELK GROVE TOWNSHIP
GROSS LENGTH OF PROJECT = 9,607 FT = 1.82 MILES
NET LENGTH OF PROJECT = 8,596 FT = 1.63 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 16, 2008

Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9, 2008
Eric E. Harak
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS:

SHEET NO.	DESCRIPTION:
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES
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5-7	TYPICAL SECTIONS
8-11	ROADWAY AND PAVEMENT MARKING PLANS
12-16	DETECTOR LOOP REPLACEMENT PLANS
17	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
18	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
19	BUTT JOINT AND HMA TAPER DETAILS
20	HMA TAPER AT EDGE OF P.C.C. PAVEMENT
21	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
22	TYPICAL APPLICATION RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
23	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
24	TRAFFIC CONTROL AND PROTECTION AT TURN BAY (TO REMAIN OPEN TO TRAFFIC)
25	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
26	ARTERIAL ROAD INFORMATION SIGN
27-30	DISTRICT ONE STANDARD FOR TRAFFIC SIGNAL DESIGN DETAILS
31	DISTRICT ONE - DETECTOR LOOPS INSTALLATION DETAILS FOR ROADWAY RESURFACING

STATE STANDARDS:

420001-07	PAVEMENT JOINTS
442101-07	CLASS B PATCHES
442201-03	CLASS C & D PATCHES
604001-02	FRAMES AND LIDS, TYPE 1
604091-01	FRAMES AND GRATES, TYPE 24
606001-03	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-03	PC CONCRETE ISLANDS AND MEDIANS
701301-02	LANE CLOSURE, 2L,2W SHORT TIME OPERATIONS
701601-05	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON-TRAVERSABLE MEDIAN
701606-05	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-05	URBAN LANE CLOSURE, MULTILANE, INTERSECTION
701901	TRAFFIC CONTROL DEVICES
886001	DETECTOR LOOP INSTALLATIONS
886006	TYPICAL LAYOUTS FOR DETECTION LOOPS

GENERAL NOTES:

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 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 MOUNT PROSPECT AND CITY OF DESPALINES.

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

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

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), ACCORDING TO THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE ENGINEER SHALL CONTACT WALLY CZARNY, ^{AREA} TRAFFIC FIELD ENGINEER, AT (773) 685-8386 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

THE CONTRACTOR SHALL SAVE AND REPLACE THE STONES/COBBLESTONES AFTER THE CURB AND GUTTER HAVE BEEN REMOVED AND REPLACED. (THE COST WILL BE INCLUDED IN THE COST FOR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT").

ANY PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

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

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND COMBINATION CURB AND GUTTER (THE TYPE SPECIFIED ON THE PLANS). WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470. A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

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

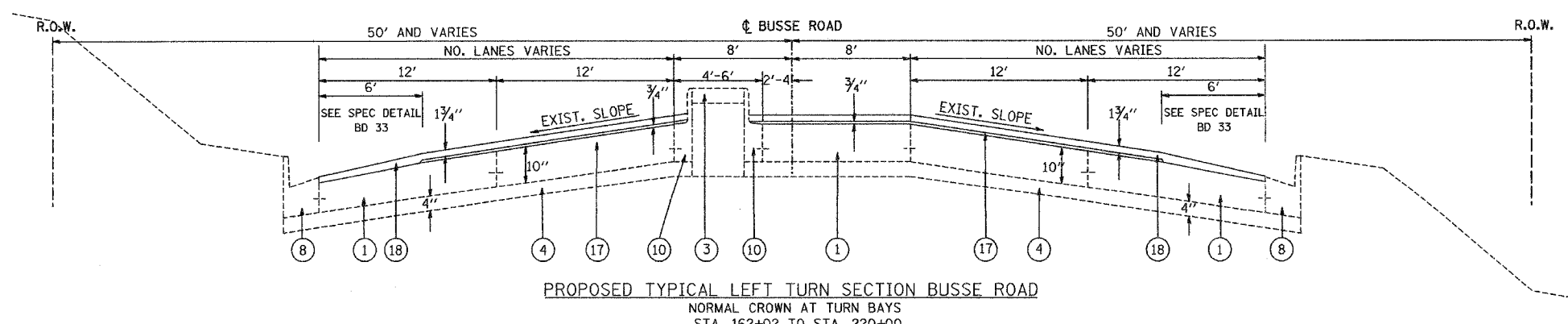
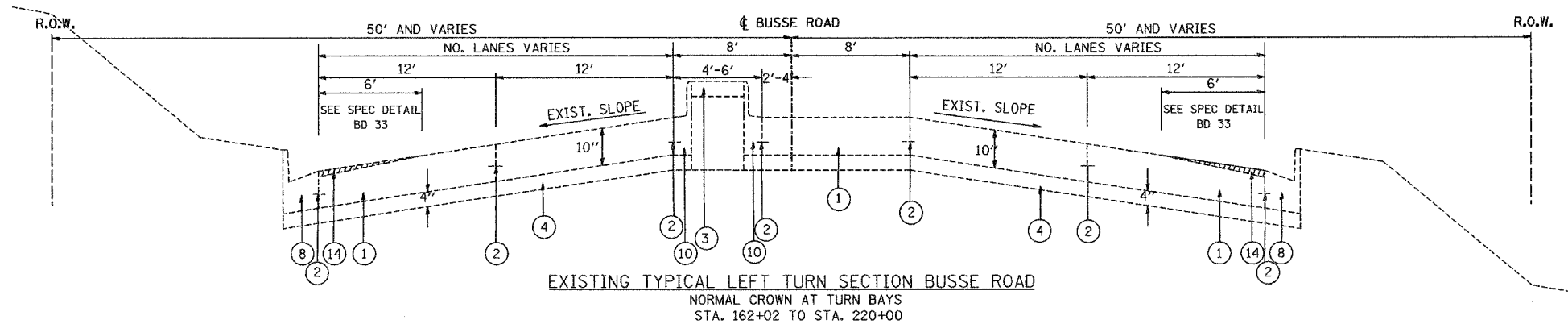
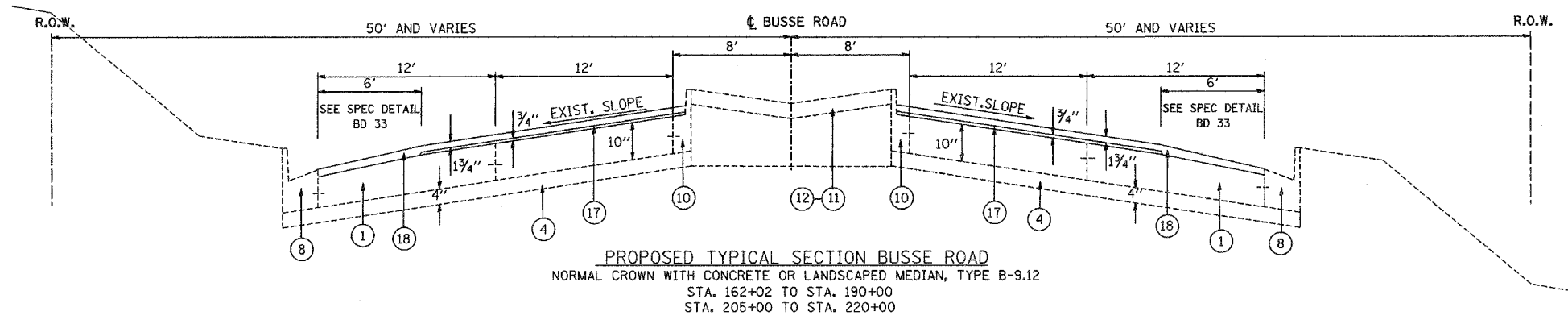
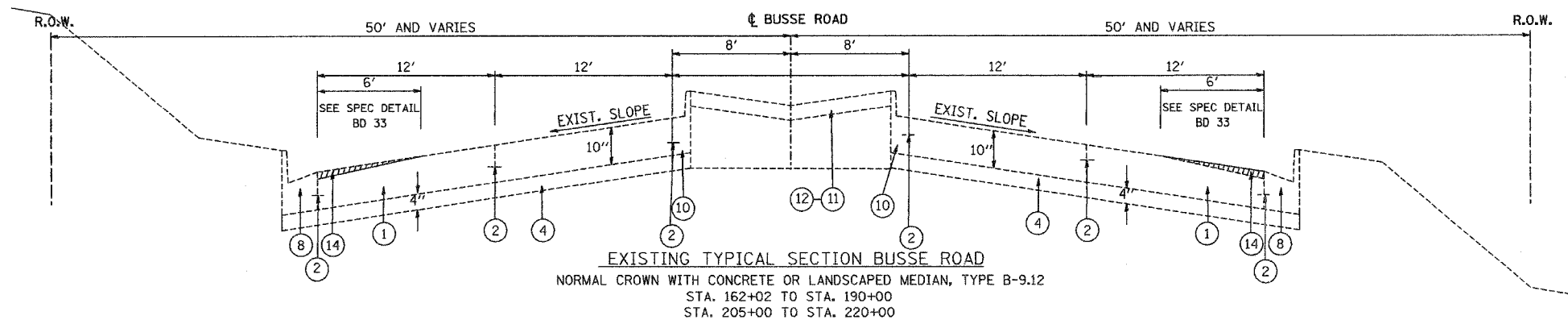
THE PROPOSED HOT-MIX ASPHALT RESURFACING SHALL BE TAPERED OUT AT A RATE OF TWENTY (20) FEET PER INCH OF THICKNESS AT MAINLINE AND MAJOR SIDE STREET LOCATIONS, EXCEPT WHERE BUTT JOINTS ARE INDICATED. AT MINOR STREETS AND ENTRANCES, TAPER OUT IN TEN (10) FEET EXCEPT WHERE BUTT JOINTS ARE INDICATED AT SEAL COATED STREETS AND ENTRANCES, TAPER OUT IN THREE (3) FEET UNLESS OTHERWISE SHOWN ON THE PLANS.

USE #8 EPOXY-COATED TIE BARS, CONFORMING TO ART. 1006.10 OF THE STANDARD SPECIFICATIONS, FOR ALL TIE BARS. USE THE "LONGITUDINAL CONSTRUCTION JOINT (TIE BAR GROUTED IN PLACE)" DETAIL SHOWN ON HIGHWAY STANDARD 420001 FOR ALL LONGITUDINAL JOINTS.

FILE NAME =	USER NAME = shurenur	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUSSE RD (IL 58 (GOLF RD) TO IL 72 (HIGGINS RD)) INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\projects\133598\sh_rdw.dgn		DRAWN -	REVISED -			2660	540R-1-RS	COOK	31	2	
		CHECKED -	REVISED -			CONTRACT NO. 60649					
		DATE -	REVISED -			SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
										REV.	

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	URBAN 80% FED. 20% STATE TOTAL QUANTITIES	BUSSE ROAD 1000-2A					CODE NO	ITEM	UNIT	URBAN 80% FED. 20% STATE TOTAL QUANTITIES	BUSSE ROAD 1000-2A				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	31	31					70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	23	23				
40600300	AGGREGATE (PRIME COAT)	TON	149	149					70300100	SHORT-TERM PAVEMENT MARKING	FOOT	7680	7680				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	12	12					70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	950	950				
40600895	LEVELING BINDER (MACHINE METHOD), N70 CONSTRUCTING TEST STRIP	TON EACH	116 3	116 3					70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	32725	32725				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	1460	1460					70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3065	3065				
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SO YD	1457	1457					70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1050	1050				
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	6424	6424					70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	2220	2220				
42001300	PROTECTIVE COAT	SO YD	5450	5450					70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	670	670				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	16740	16740					70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	9300	9300				
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SO FT	20364	20364				* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	950	950					
44003900	MEDIAN SURFACE REMOVAL AND REPLACEMENT	SO FT	700	700				* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	32725	32725					
44200970	CLASS B PATCHES, TYPE II, 10 INCH	SO YD	173	173				* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3065	3065					
44200974	CLASS B PATCHES, TYPE III, 10 INCH	SO YD	77	77				* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	1050	1050					
44200976	CLASS B PATCHES, TYPE IV, 10 INCH	SO YD	147	147				* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	2220	2220					
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SO YD	420	420				* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	670	670					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SO YD	7055	7055				* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	968	968					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	690	690				78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	657	657					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	946	946				* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1					
42001200	PAVEMENT FABRIC	SO YD	224	224				* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	648	648					
44213200	SAW CUTS	FOOT	1902	1902				* 87900200	DRILL EXISTING HANDHOLE	EACH	4	4					
55039700	STORM SEWERS TO BE CLEANED	FOOT	3350	3350				* 88500100	INDUCTIVE LOOP DETECTOR	EACH	2	2					
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	6	6				* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	2117	2117					
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	36	36				* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	590	590					
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	67	67				X0322256	TEMPORARY INFORMATION SIGNING	SO FT	257	257					
60619600	CONCRETE MEDIAN, TYPE SB-6.12	SO FT	3124	3124				X0322494	CURB CUT	FOOT	2090	2090					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4													
67100100	MOBILIZATION	L SUM	1	1													
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1													
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1													
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1													

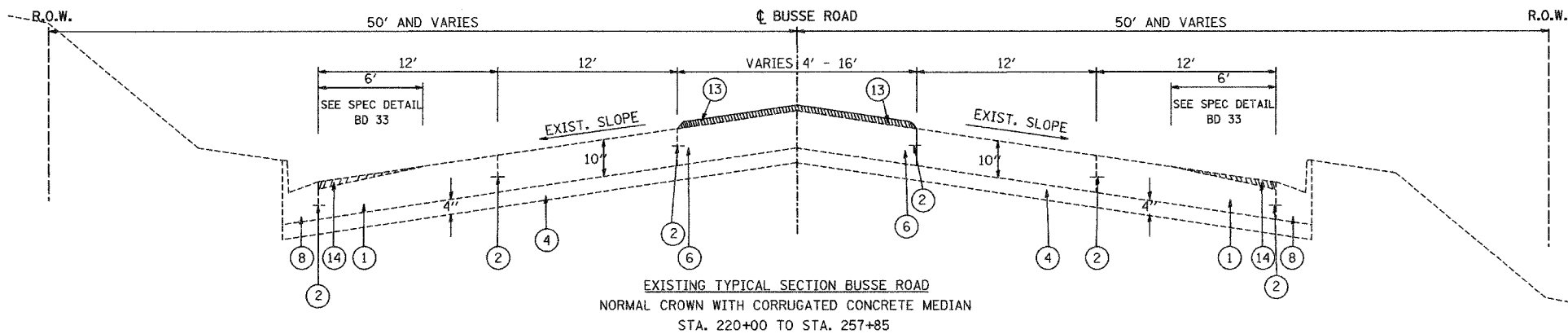
SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		BUSSE ROAD 1000-2A					CODE NO	ITEM	UNIT						
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2733	2733													
X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SO YD	13415	13415													
X4421000	PARTIAL DEPTH PATCHING	TON	345	345													
X4422030	PARTIAL DEPTH REMOVAL 3"	SO YD	2000	2000													
X8950200	REBUILD EXISTING HANDHOLE	EACH	2	2													
XX002267	MEDIAN REMOVAL AND REPLACEMENT	SO FT	342	342													
Z0017100	DOWEL BARS	EACH	560	560													
Z0018400	DRAINAGE STRUCTURES TO BE ADJUSTED	EACH	90	90													
NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	12	12													
Z0075325	TIE BARS 1"	EACH	156	156													
X0325984	HOT-MIX ASPHALT MEDIAN SURFACE REMOVAL	SO YD	2825	2825													
0 Z0076600	TRAINEES	HOUR	1500	1500													



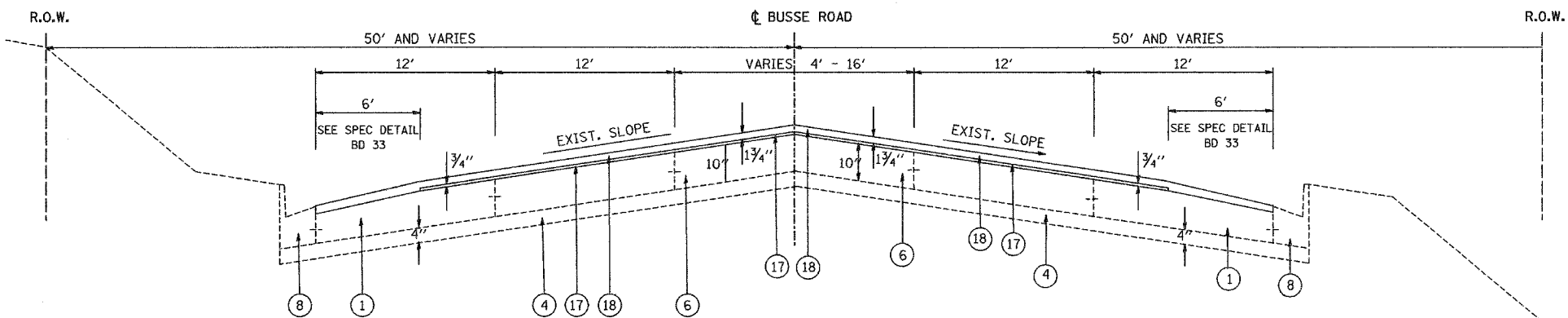
LEGEND:

- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING LONGITUDINAL CONSTRUCTION JOINT (WITH TIE BARS)
- ③ EXISTING CONCRETE MEDIAN SURFACE 4"
- ④ EXISTING STABILIZED SUB-BASE, 4"
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING HMA MEDIAN
- ⑦ DELETED
- ⑧ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑨ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12
- ⑪ EXISTING HMA MEDIAN SURFACE, 4"
- ⑫ PROPOSED HMA MEDIAN SURFACE REMOVAL
- ⑬ PROPOSED MEDIAN REMOVAL - PARTIAL DEPTH
- ⑭ PROPOSED P.C.C. PAVEMENT SURFACE REMOVAL, VARIABLE DEPTH (0" TO 1 1/2" AT OUTSIDE E.O.P.) SEE SPECIAL DETAIL, BD-33
- ⑮ PROPOSED CURB CUT
- ⑯ LEVELING BINDER (MACHINE METHOD), N70, VARIOUS 3/4" TO 1 1/2"
- ⑰ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (3/4")
- ⑱ POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (1 3/4")

FILE NAME = c:\projects\1133598\sh_rdw.dgn	USER NAME = shiranr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUSSE RD (IL 58 (GOLF RD) TO IL 72 (HIGGINS RD)) EXISTING AND PROPOSED TYPICAL SECTIONS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN -	REVISED -	REVISED -			2660	540R-1-RS	COOK	31	5	
	PLOT SCALE = 58.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60649					
	PLOT DATE = 5/7/2008	DATE -	REVISED -			SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



EXISTING TYPICAL SECTION BUSSE ROAD
NORMAL CROWN WITH CORRUGATED CONCRETE MEDIAN
STA. 220+00 TO STA. 257+85



PROPOSED TYPICAL SECTION BUSSE ROAD
NORMAL CROWN WITH CORRUGATED CONCRETE MEDIAN
STA. 220+00 TO STA. 257+85

REMOVAL

LEGEND:

- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING LONGITUDINAL CONSTRUCTION JOINT (WITH TIE BARS)
- ③ EXISTING CONCRETE MEDIAN SURFACE 4"
- ④ EXISTING STABILIZED SUB-BASE, 4"
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
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- ⑬ PROPOSED MEDIAN REMOVAL - PARTIAL DEPTH
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- ⑱ POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (1 3/4")

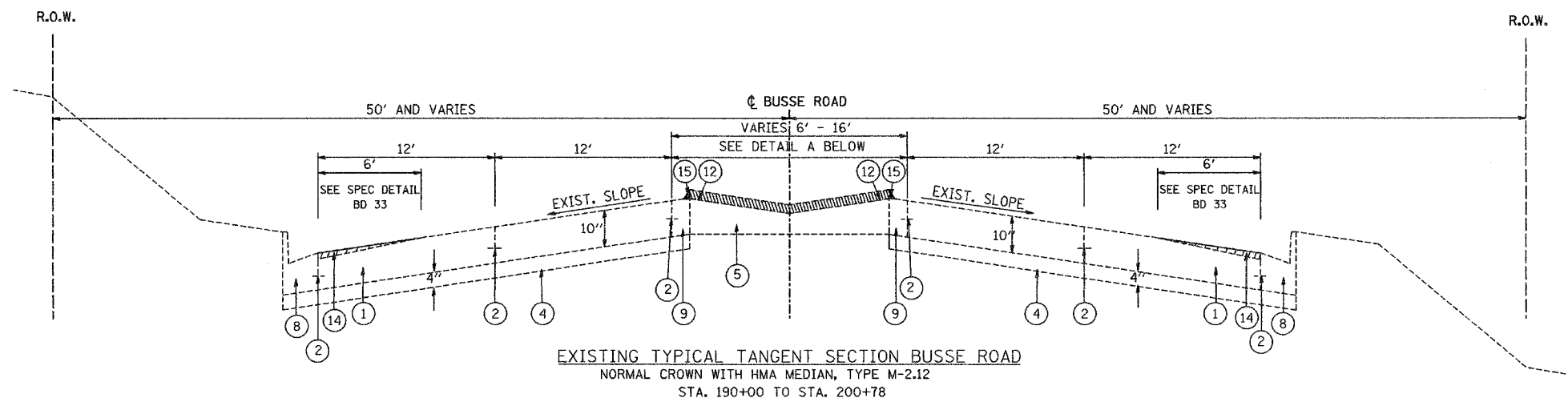
HMA MIXTURE REQUIREMENT

MIXTURE TYPE	AC TYPE	AIR VOIDS
PAVEMENT RESURFACING		
POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, IL 9.5 mm	SBS/SBR PG 70-22	4%±90 Gyr
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4%±50 Gyr
MEDIAN		
POLYMERIZED HMA SURFACE COURSE, MIX "F", N90, IL 9.5 mm	SBS/SBR PG 70-22	4%±90 Gyr
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4%±50 Gyr
PARTIAL DEPTH PATCHES (HMA BINDER IL-19 mm)	PG 64-22*	4%±70 Gyr
LEVELING BINDER (MACHINE METHOD), N70, IL 9.5 mm	PG 64-22*	4%±70 Gyr
PATCHING		
CLASS D PATCHES (HMA BINDER IL 19-mm)	PG 64-22*	4%±70 Gyr

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/INCH.

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

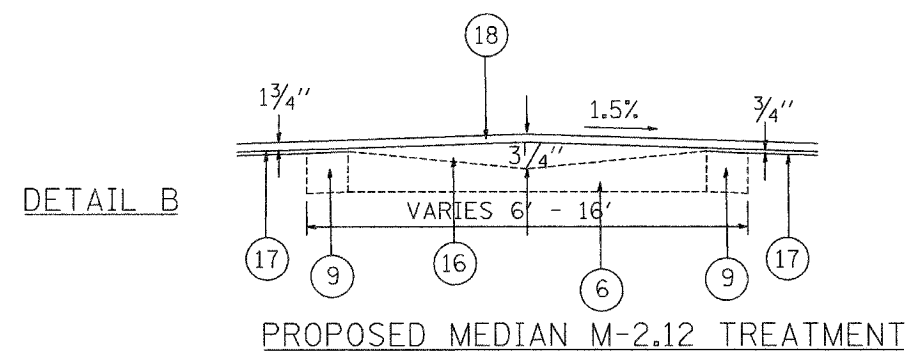
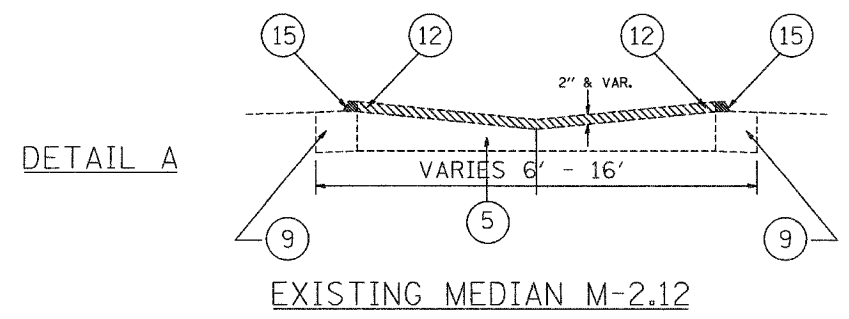
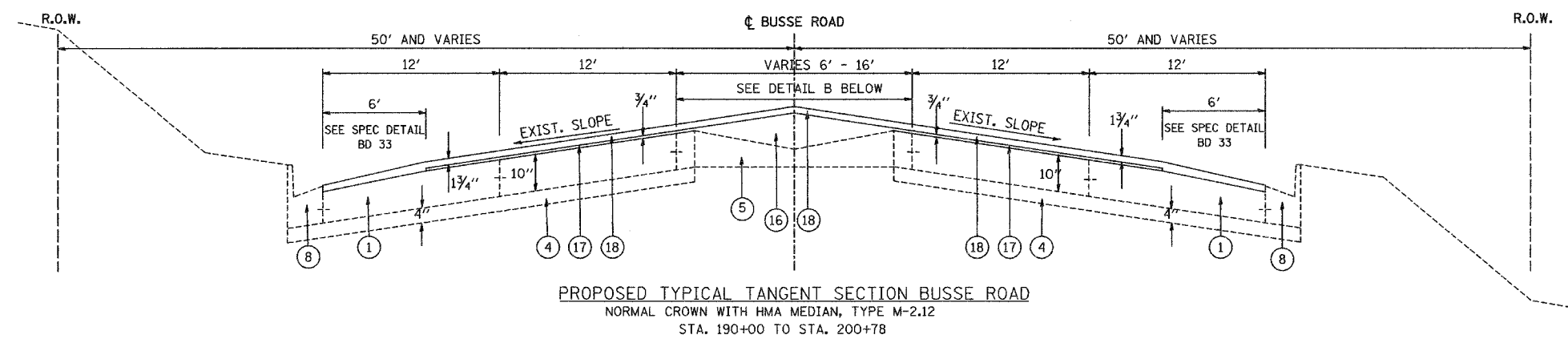
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PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	2660			540R-1-RS	COOK	31	6	
PLOT DATE = 5/7/2008	DATE -	REVISED -	CONTRACT NO. 60649							
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



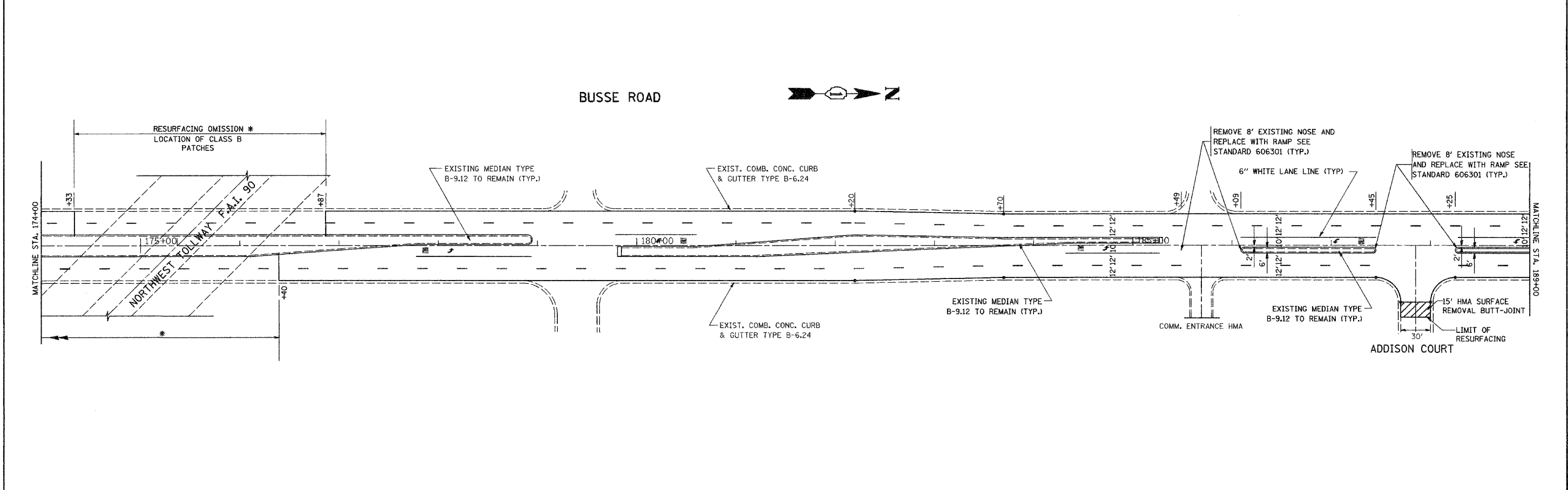
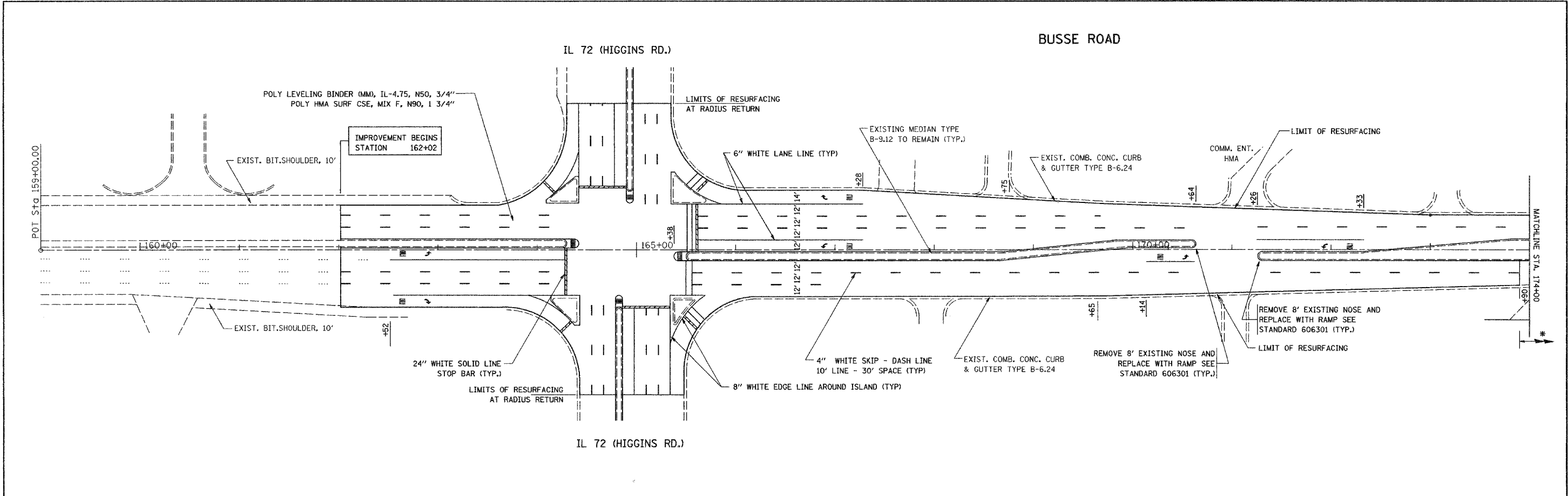
REMOVAL

LEGEND:

- ① EXISTING P.C.C. PAVEMENT, 10"
- ② EXISTING LONGITUDINAL CONSTRUCTION JOINT (WITH TIE BARS)
- ③ EXISTING CONCRETE MEDIAN SURFACE 4"
- ④ EXISTING STABILIZED SUB-BASE, 4"
- ⑤ EXISTING STABILIZED MEDIAN SURFACE, 12"
- ⑥ EXISTING HMA MEDIAN
- ⑦ DELETED
- ⑧ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑨ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12
- ⑩ EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12
- ⑪ EXISTING HMA MEDIAN SURFACE, 4"
- ⑫ PROPOSED HMA MEDIAN SURFACE REMOVAL
- ⑬ PROPOSED MEDIAN REMOVAL - PARTIAL DEPTH
- ⑭ PROPOSED P.C.C. PAVEMENT SURFACE REMOVAL, VARIABLE DEPTH (0" TO 1 1/2" AT OUTSIDE E.O.P.) SEE SPECIAL DETAIL, BD-33
- ⑮ PROPOSED CURB CUT
- ⑯ LEVELING BINDER (MACHINE METHOD), N70, VARIOUS 3/4" TO 1/2"
- ⑰ POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (3/4")
- ⑱ POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (1 3/4")

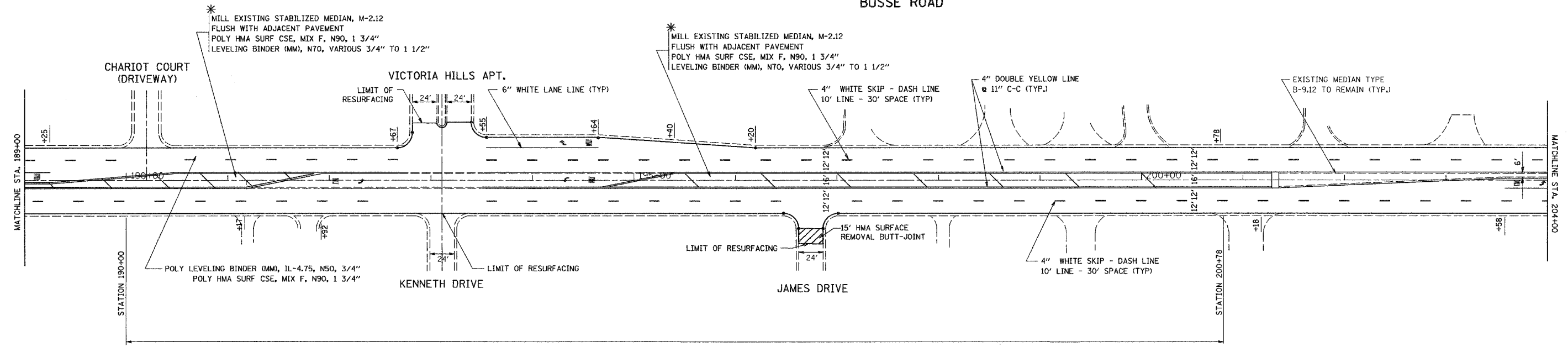


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PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -	SCALE: NONE			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT			
PLOT DATE = 5/7/2009	DATE -	REVISED -									
CONTRACT NO. 60649											



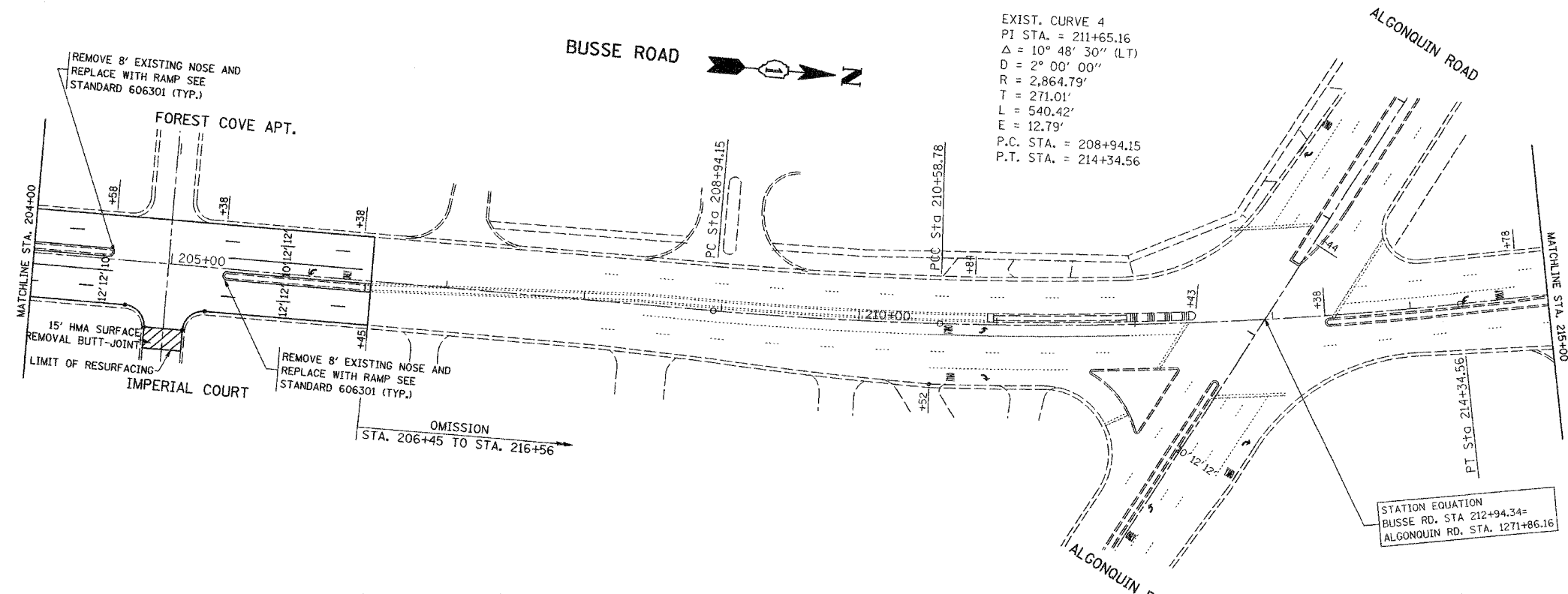
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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			SCALE: 1" = 50'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60649
	PLOT DATE = 5/7/2008	DATE -	REVISED -								

BUSSE ROAD

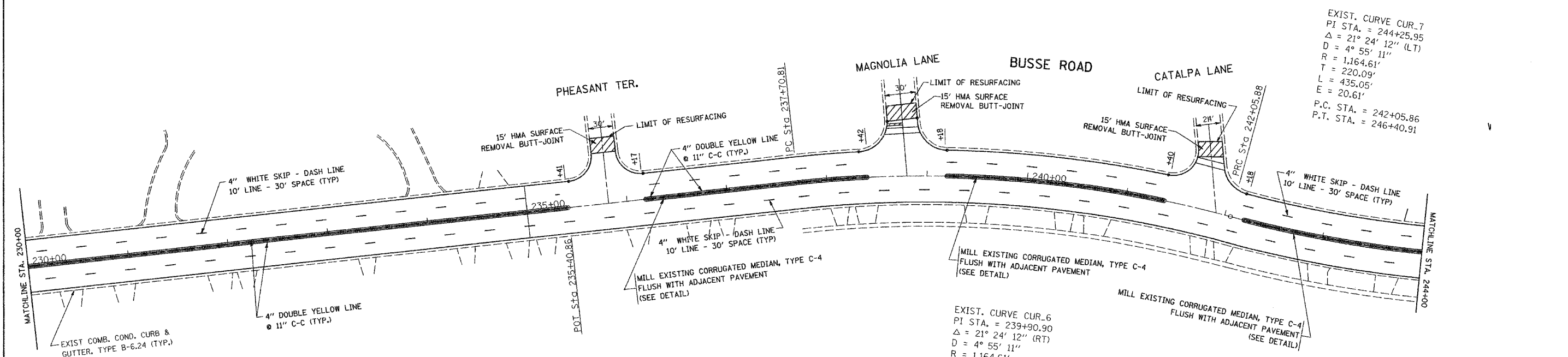
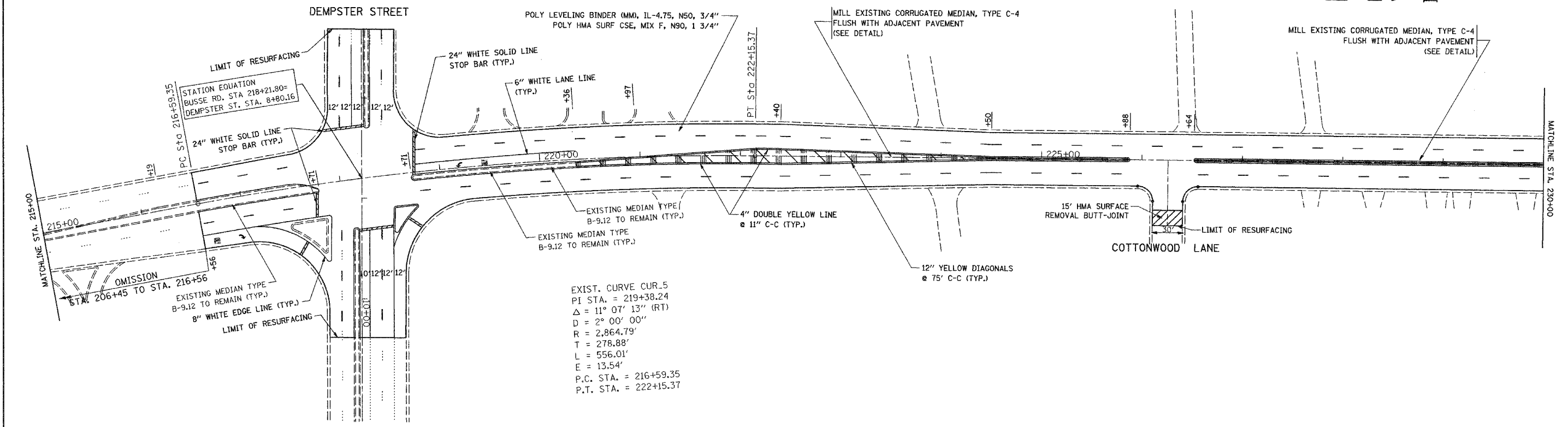


* MILL EXISTING STABILIZED MEDIAN, M-2.12
FLUSH WITH ADJACENT PAVEMENT
(SEE DETAIL A & B SHEET 7)

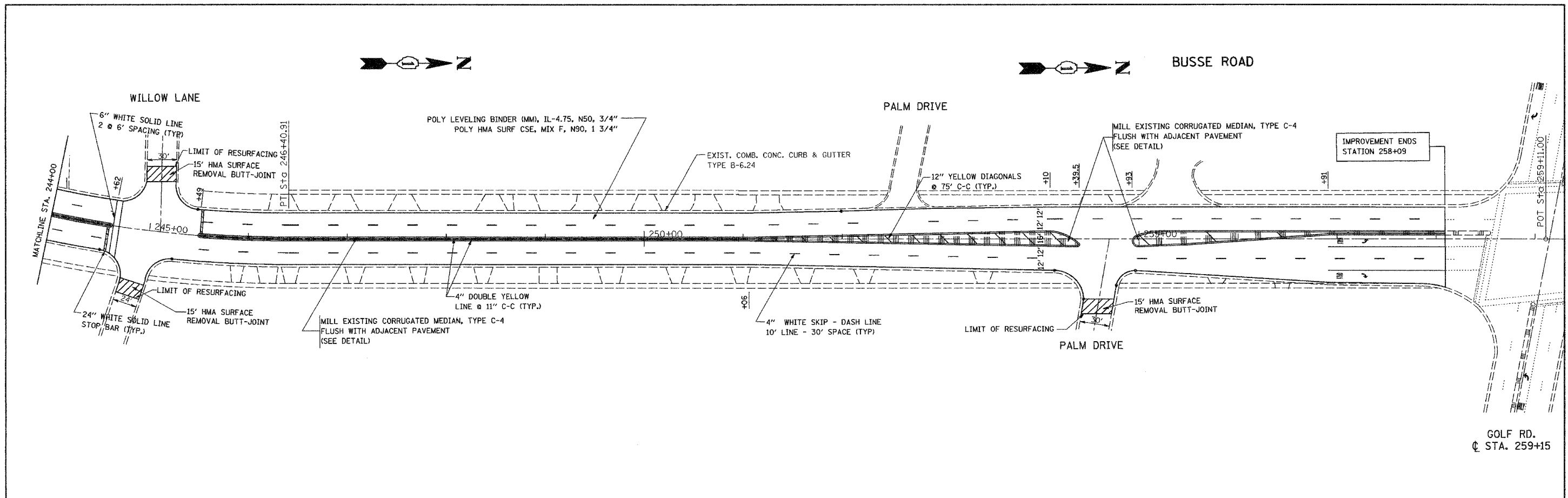
EXIST. CURVE 4
PI STA. = 211+65.16
 $\Delta = 10^\circ 48' 30''$ (LT)
D = $2^\circ 00' 00''$
R = 2,864.79'
T = 271.01'
L = 540.42'
E = 12.79'
P.C. STA. = 208+94.15
P.T. STA. = 214+34.56



BUSSE ROAD 

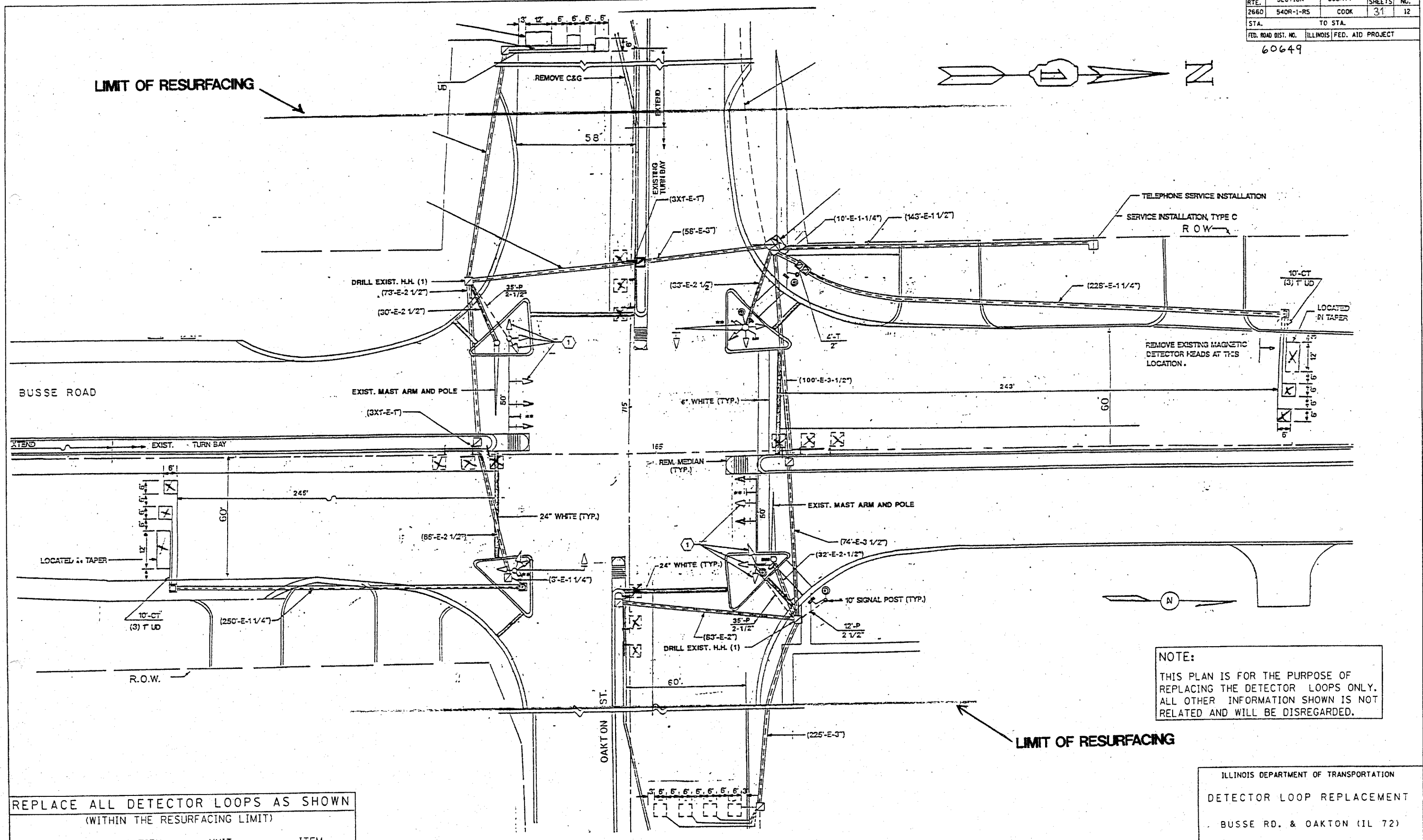


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PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	SCALE: 1" = 50'			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 5/7/2009	DATE -	REVISED -									
CONTRACT NO. 60649											



FILE NAME = c:\projects\133598\sh_rdw.dgn	USER NAME = shiranr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUSSE ROAD (IL RTE. 58 (GOLF ROAD) TO IL RTE. 72 (HIGGINS ROAD)) EXISTING AND PROPOSED ROADWAY PLAN		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -				2660	540R-1-RS	COOK	31	11
	PLOT DATE = 5/7/2008	DATE -	REVISED -				SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60649	
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

LIMIT OF RESURFACING



NOTE:
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

LIMIT OF RESURFACING

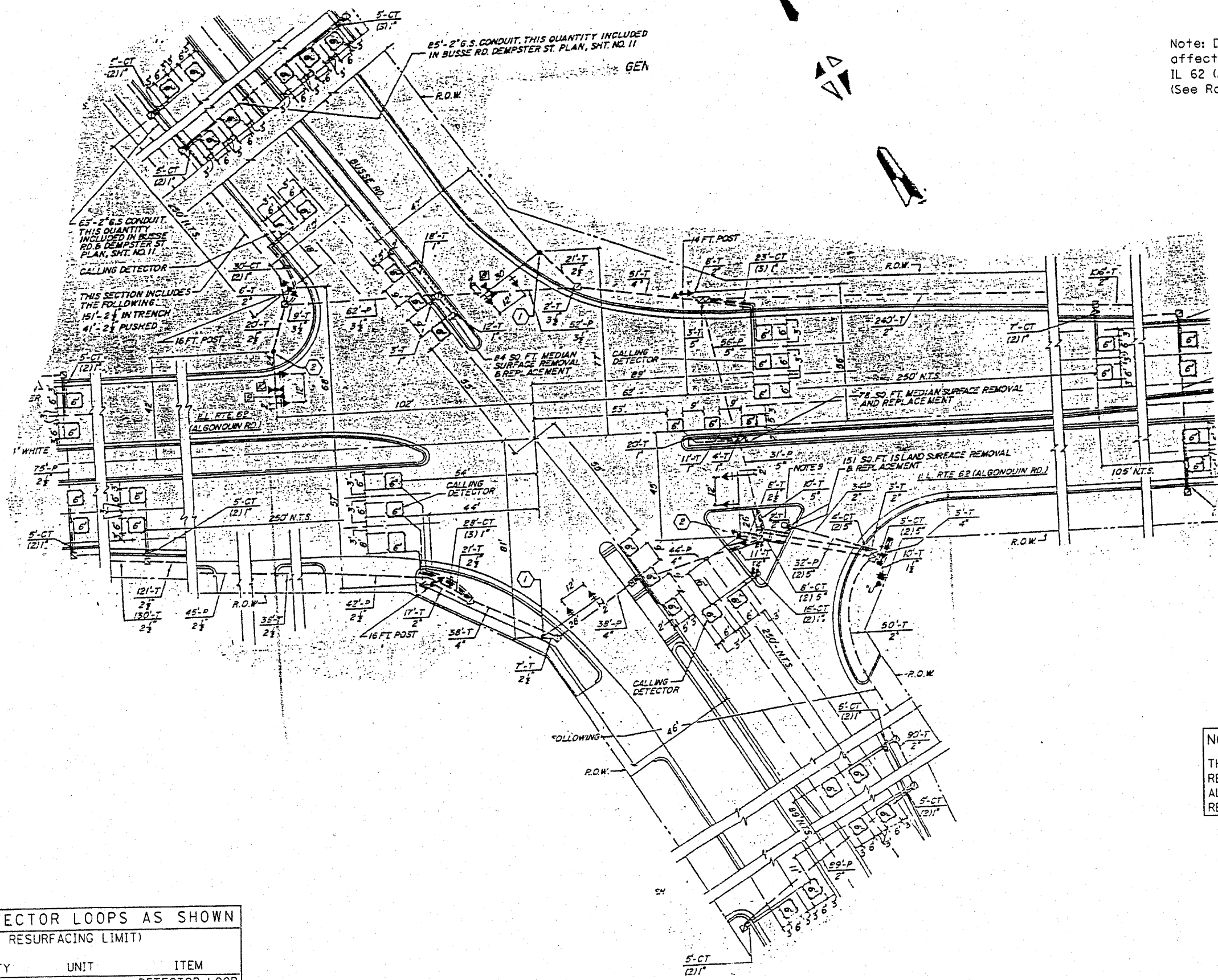
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMIT)			
CODE NO.	QUANTITY	UNIT	ITEM
	806'	FOOT	DETECTOR LOOP REPLACEMENT

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DETECTOR LOOP REPLACEMENT
 BUSSE RD. & OAKTON (IL 72)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-RS	COOK	31	13
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

60649

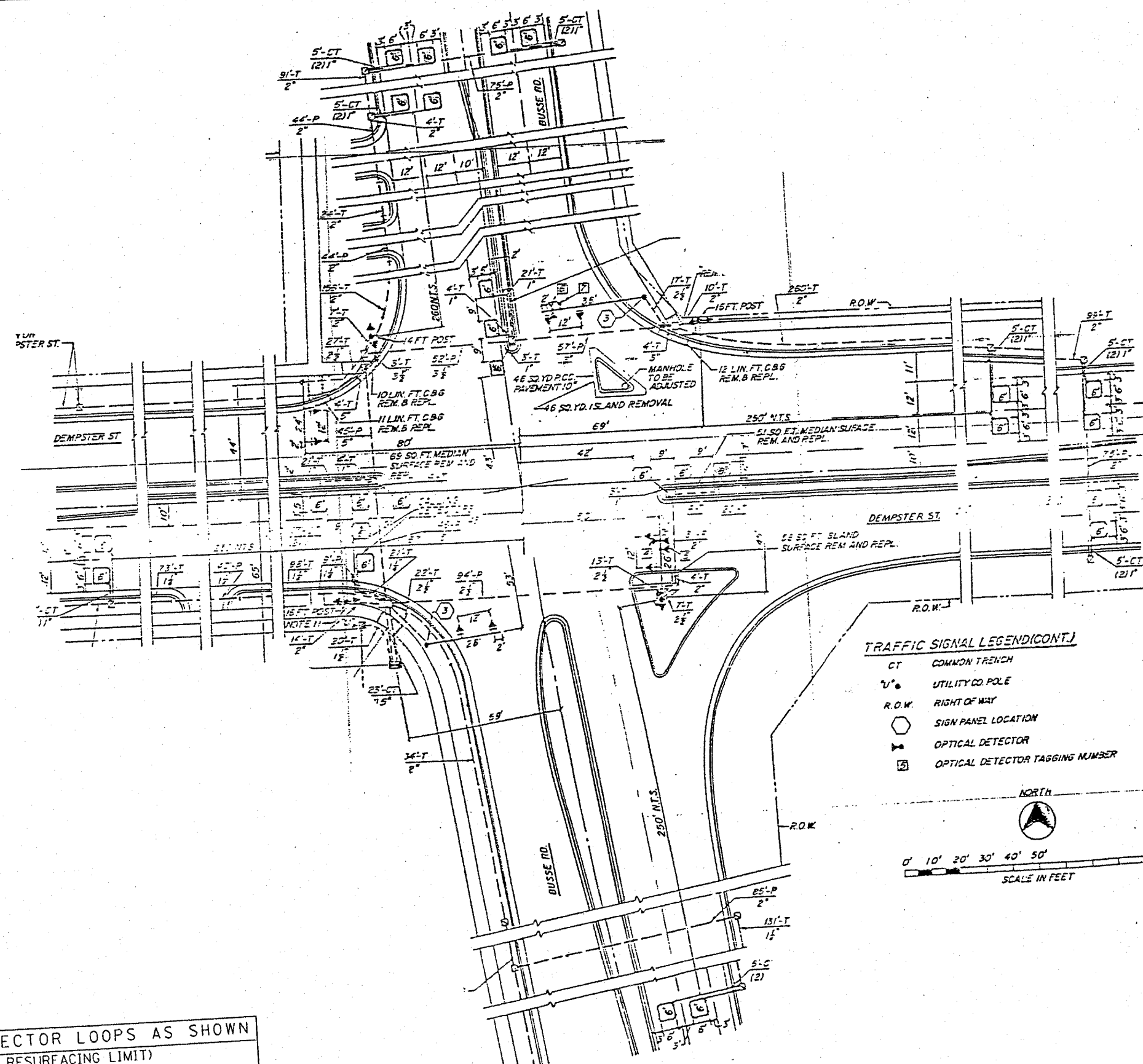
Note: Detector Loop Replacement does not affect the intersection of Busse Rd and IL 62 (Algonquin Rd) due to the omission. (See Roadway and Pavement Marking Plan)



NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

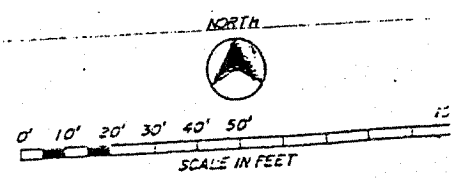
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETECTOR LOOP REPLACEMENT
BUSSE RD. &
ALGONQUIN RD (IL 62)

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMIT)			
CODE NO.	QUANTITY	UNIT	ITEM
	0	FOOT	DETECTOR LOOP REPLACEMENT



TRAFFIC SIGNAL LEGEND (CONT.)

- CT COMMON TRENCH
- U^o UTILITY CO. POLE
- R.O.W. RIGHT OF WAY
- SIGN PANEL LOCATION
- ⊥ OPTICAL DETECTOR
- ③ OPTICAL DETECTOR TAGGING NUMBER



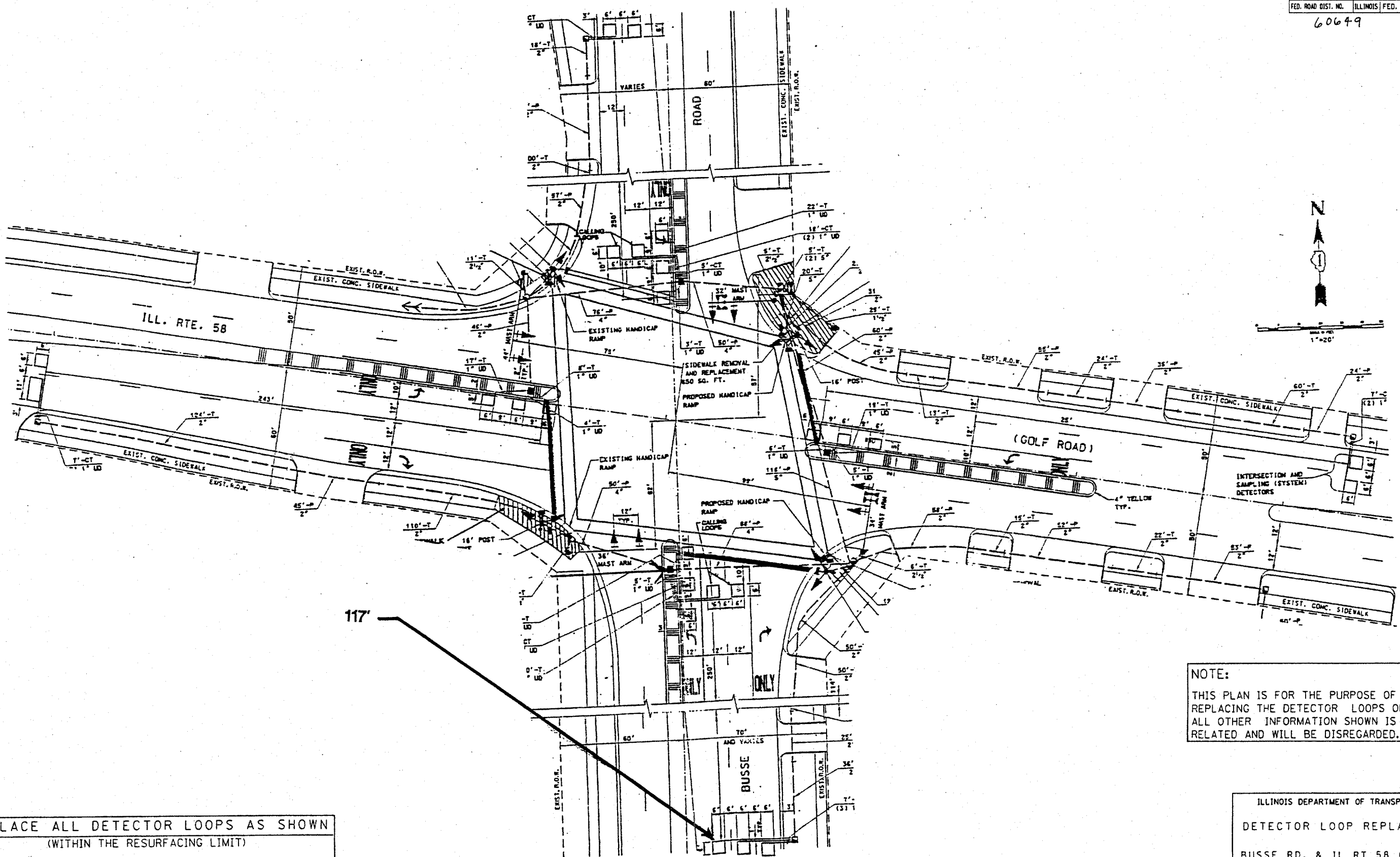
NOTE:
 THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DETECTOR LOOP REPLACEMENT
 BUSSE RD. & DEMPSTER

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMIT)			
CODE NO.	QUANTITY	UNIT	ITEM
	781'	FOOT	DETECTOR LOOP REPLACEMENT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-R5	COOK	31	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

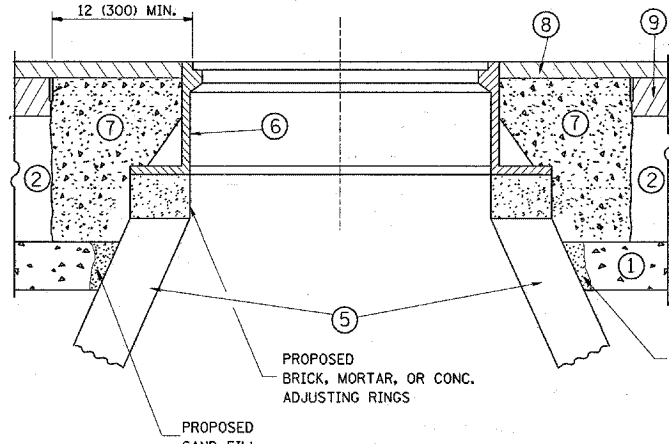
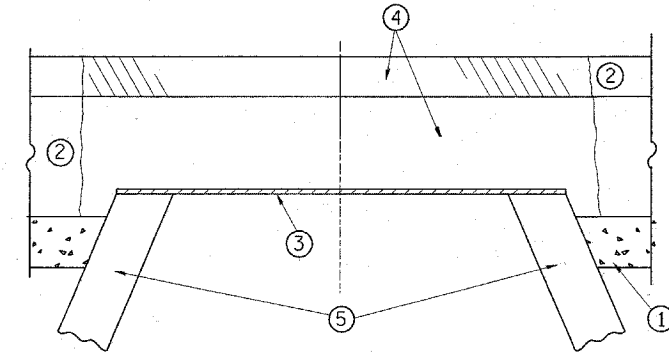
60649



NOTE:
 THIS PLAN IS FOR THE PURPOSE OF
 REPLACING THE DETECTOR LOOPS ONLY.
 ALL OTHER INFORMATION SHOWN IS NOT
 RELATED AND WILL BE DISREGARDED.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DETECTOR LOOP REPLACEMENT
 BUSSE RD. & IL RT 58 (GOLF RD)

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMIT)			
CODE NO.	QUANTITY	UNIT	ITEM
	SEE ABOVE	FOOT	DETECTOR LOOP REPLACEMENT



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

LEGEND

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

NOTES:

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

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

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

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

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

LOCATION OF STRUCTURES:

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

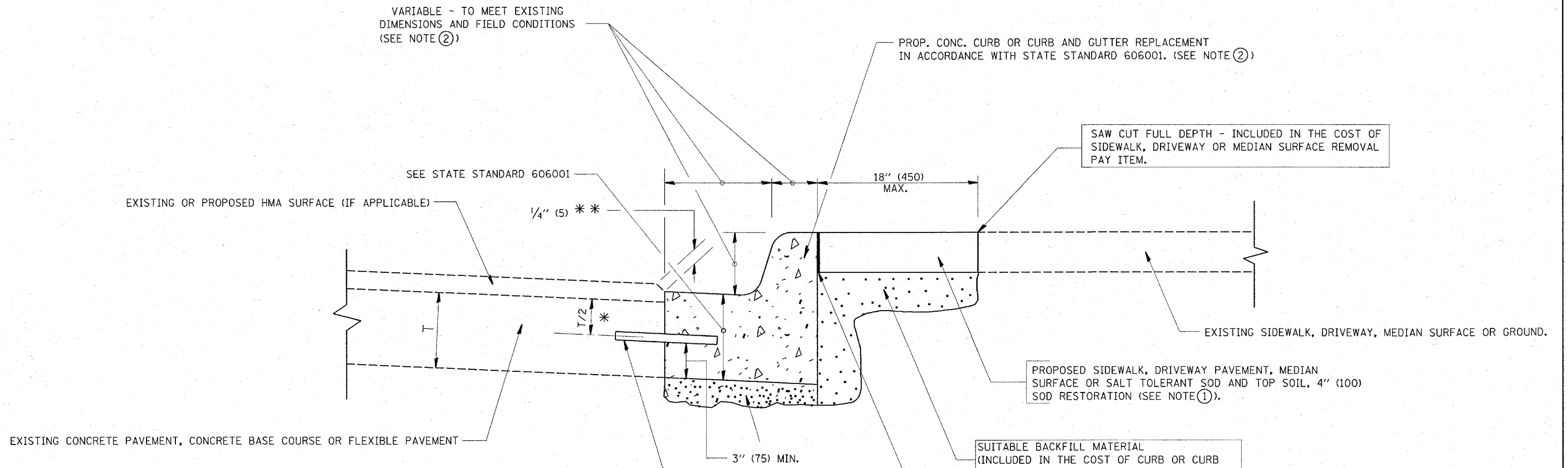
BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\dststd\22x34\bd08.dgn	USER NAME = shurenur	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING		F.A.O. RTE. 2660	SECTION 540R-1-RS	COUNTY Cook	TOTAL SHEETS 31	SHEET NO. 17
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	BD600-03 (BD-8)		CONTRACT NO. 60649	
	PLOT DATE = 4/17/2008	CHECKED -	REVISED - R. WIEDEMAN 05-14-04					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		DATE - 10-25-94	REVISED - R. BORO 01-01-07								



- * 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.

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

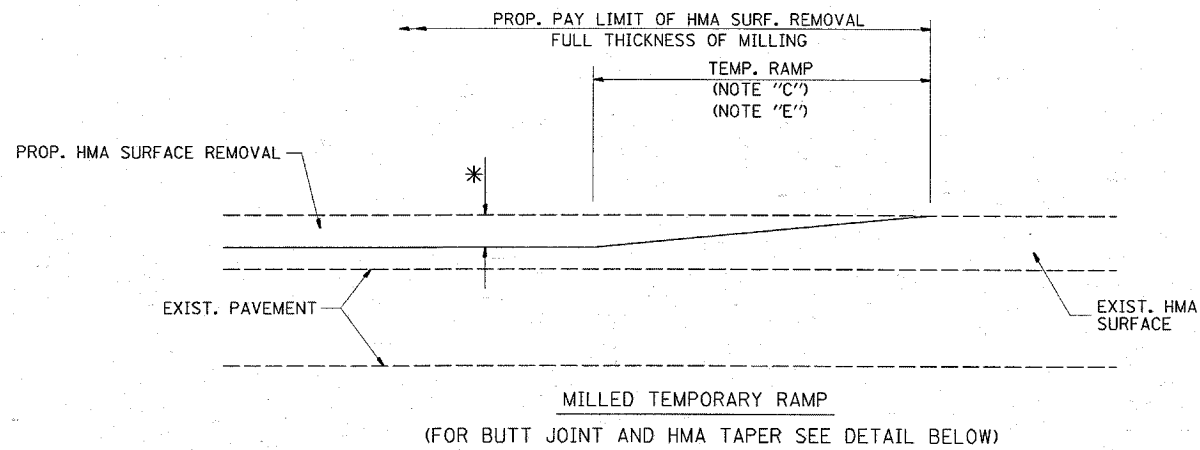
BASIS OF PAYMENT:

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".

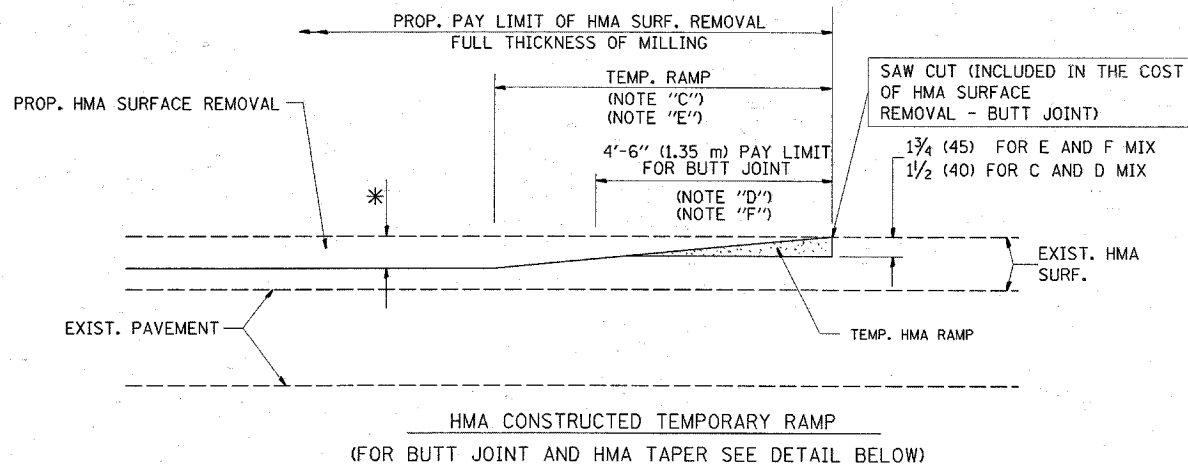
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = shiront	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	F.A.U. RTE. 2660	SECTION 540R-1-RS	COUNTY Cook	TOTAL SHEETS 31	SHEET NO. 18		
W:\disttd\22x34\bd24.dgn	PLOT SCALE = 5/8" @ 1" / IN.	DRAWN -	REVISED - A. ABBAS 03-21-97			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD600-06 (BD-24) CONTRACT NO. 60649			
	PLOT DATE = 4/17/2008	CHECKED -	REVISED - M. GOMEZ 01-22-01			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						
		DATE - 03-11-94	REVISED - R. BORO 01-01-07									

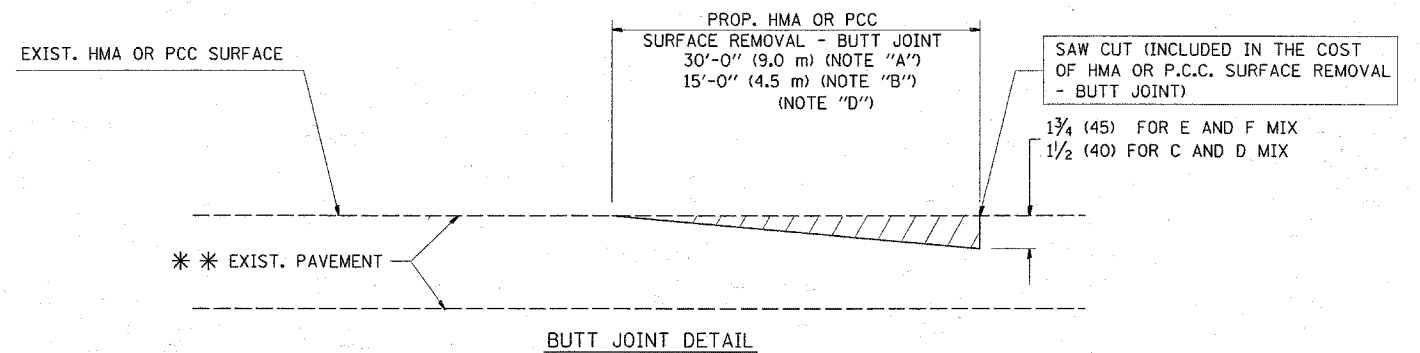


OPTION 1

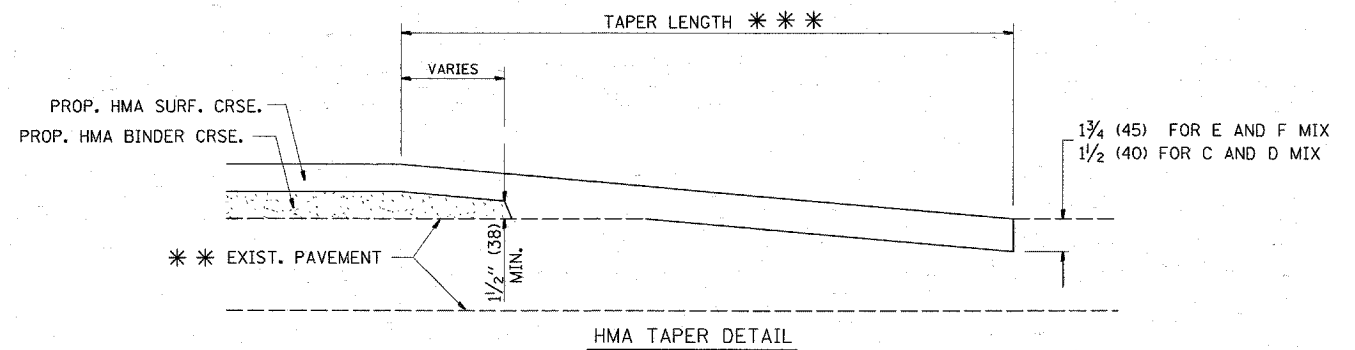


OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

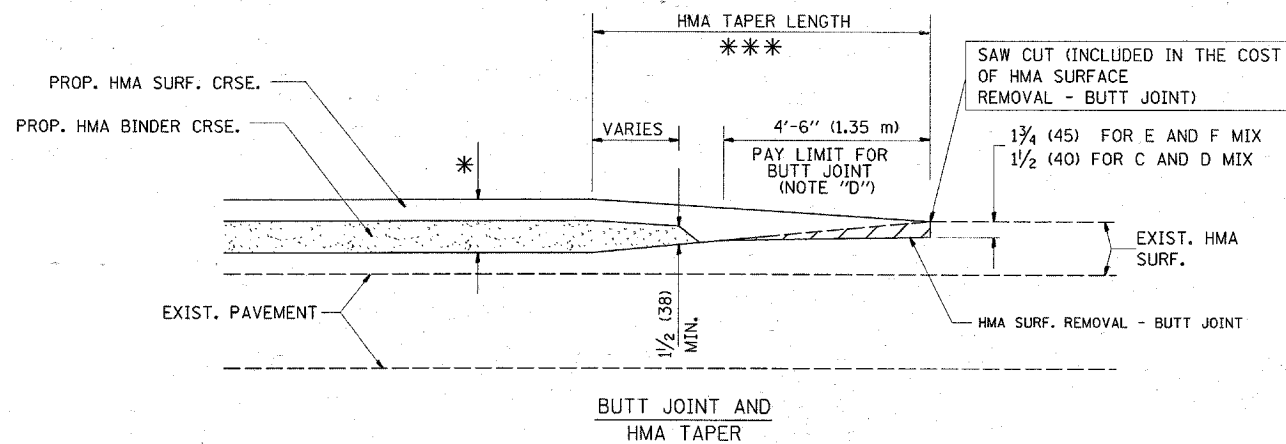
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- * * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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



BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

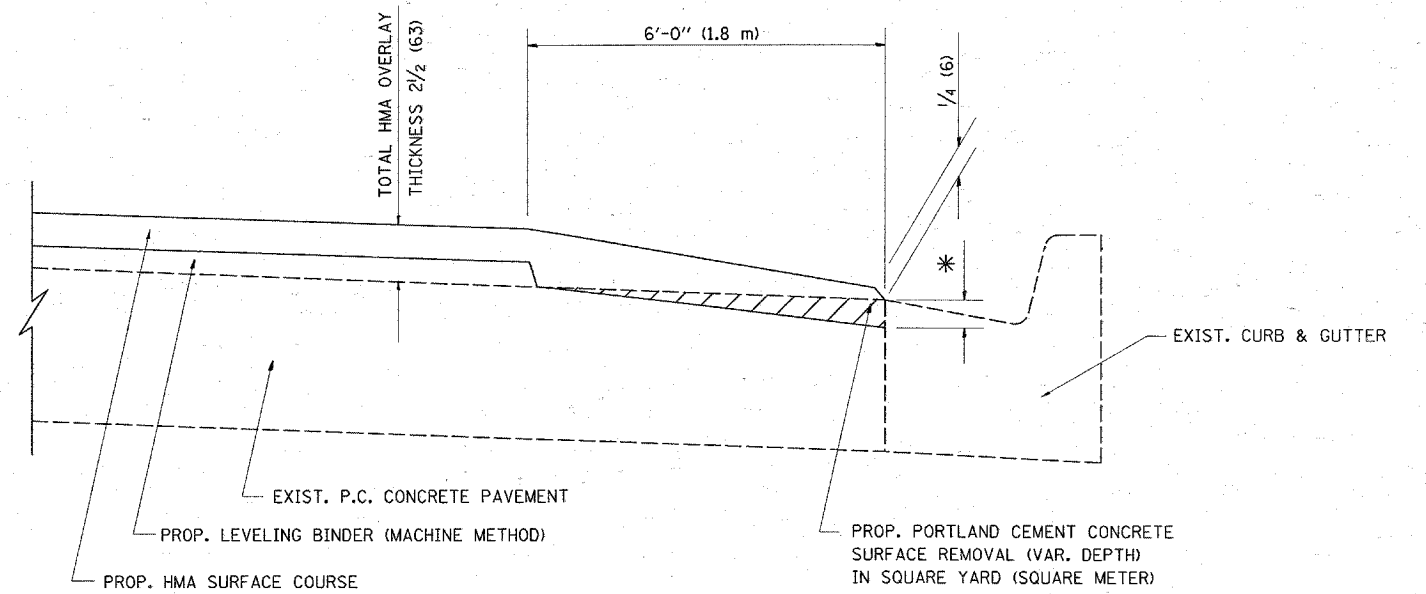
FILE NAME =	USER NAME = shirapur	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
W:\dist\atd\22x34\bd32.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 4/17/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-RS	Cook	31	19
BD400-05 BD32			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

HMA SURFACE MIX	THICKNESS	LEVELING BINDER THICKNESS	* MILLING AT GUTTER FLAG
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

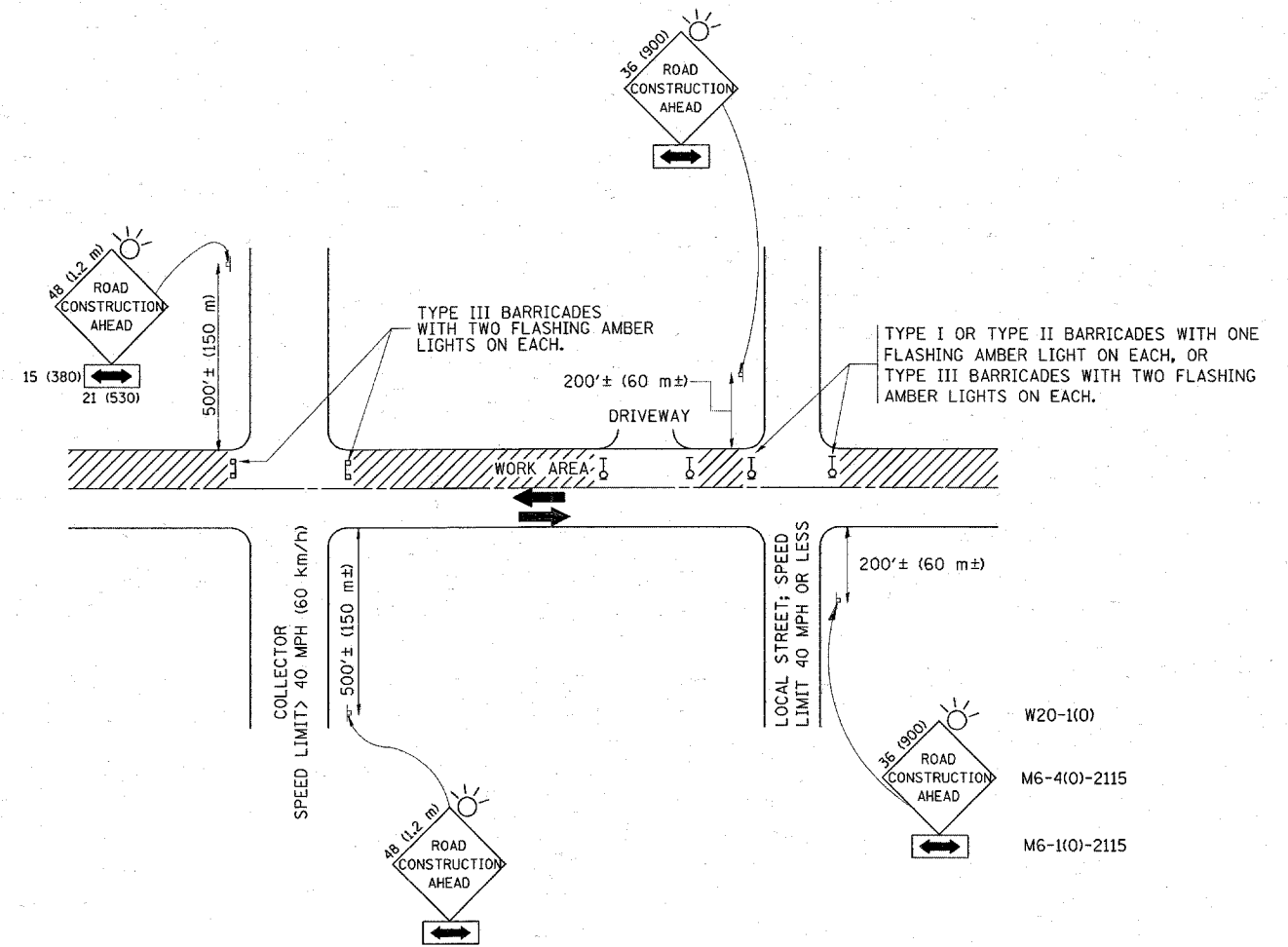
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd33.dgn	USER NAME = shizranr	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
		DRAWN - JIS	REVISED - A. ABBAS 05-05-99
		CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00
		DATE - 09-10-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

HMA TAPER AT EDGE OF P.C.C. PAVEMENT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE. 2660	SECTION 540R-1-RS	COUNTY Cook	TOTAL SHEETS 31	SHEET NO. 20
BD400-06 (BD33)		CONTRACT NO. 60649		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

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

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

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

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

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

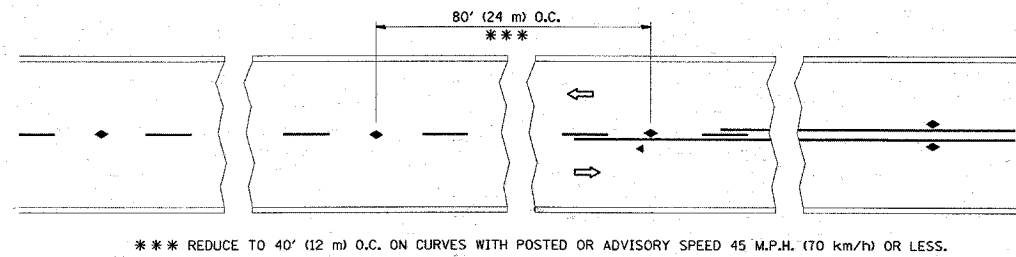
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	PLOT SCALE = 50:000 / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

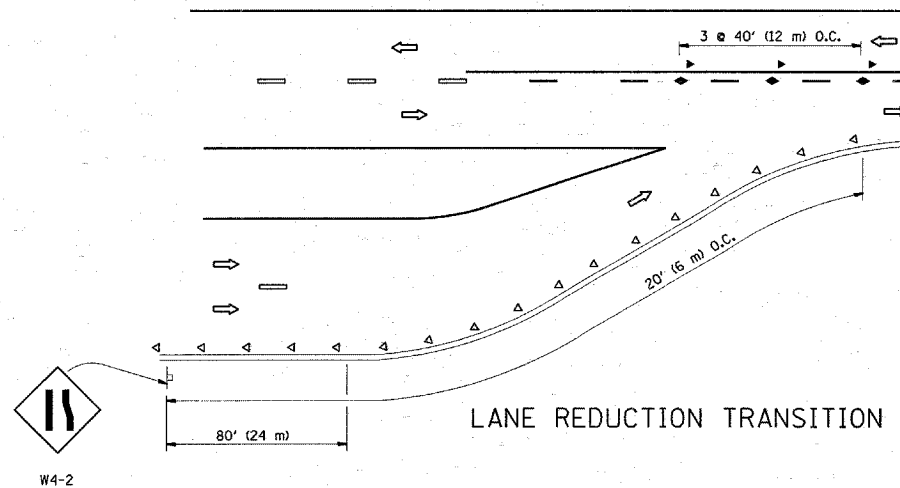
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

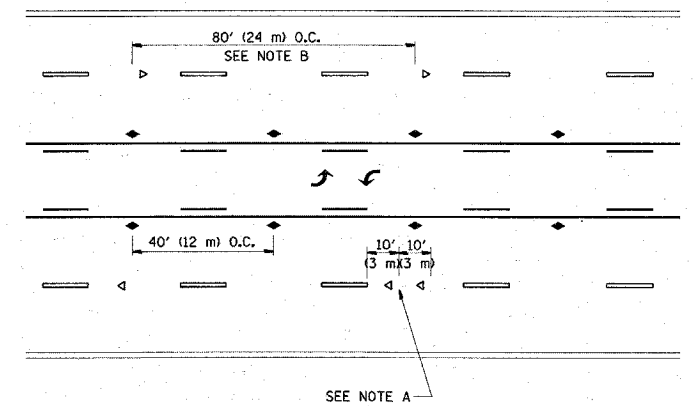
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TC-10			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



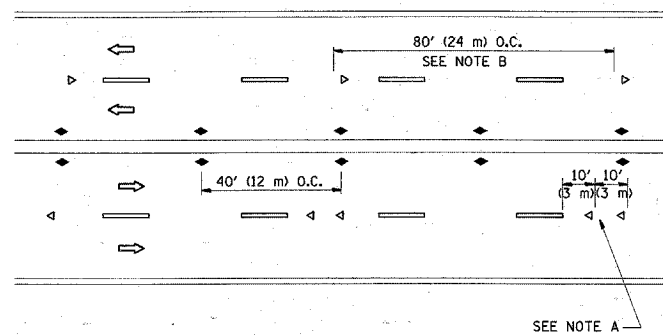
TWO-LANE/TWO-WAY



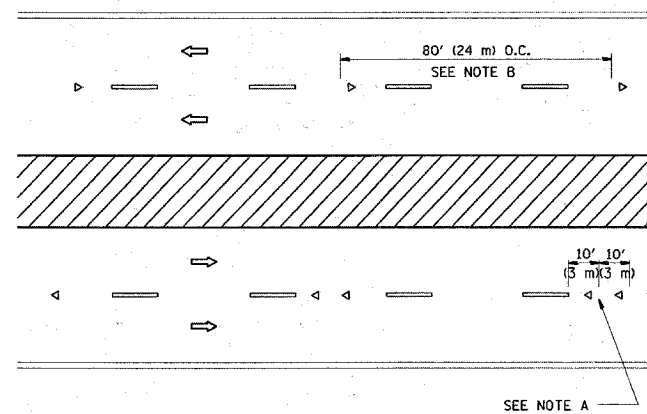
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

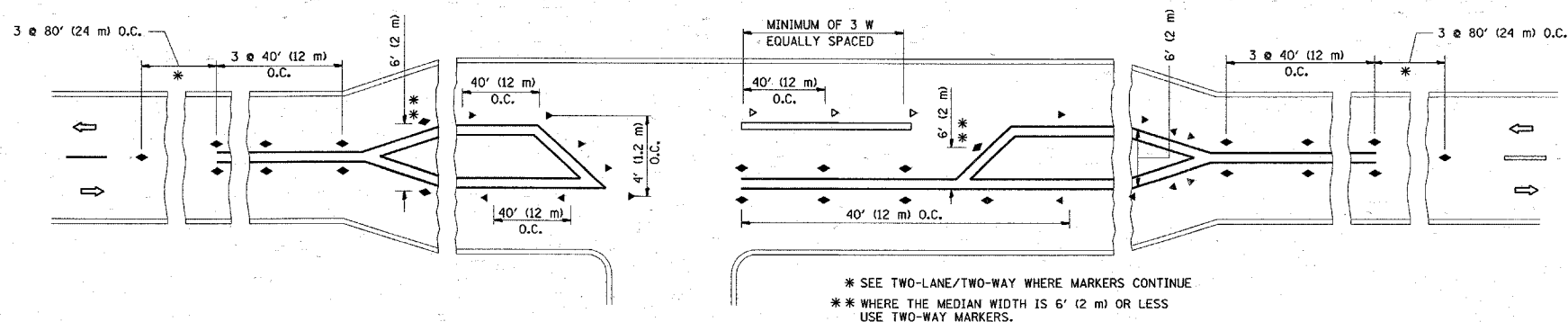
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

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



LEFT TURN

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

FILE NAME =	USER NAME = shiremir
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DESIGNED -	REVISOR -
DRAWN -	REVISOR -
PLOT SCALE = 58,000' / IN.	REVISOR -
PLOT DATE = 4/17/2008	REVISOR -

DESIGNED -	REVISOR -
DRAWN -	REVISOR -
CHECKED -	REVISOR -
DATE -	REVISOR -

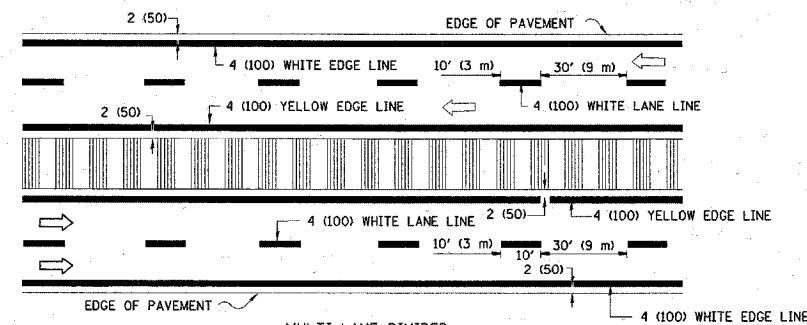
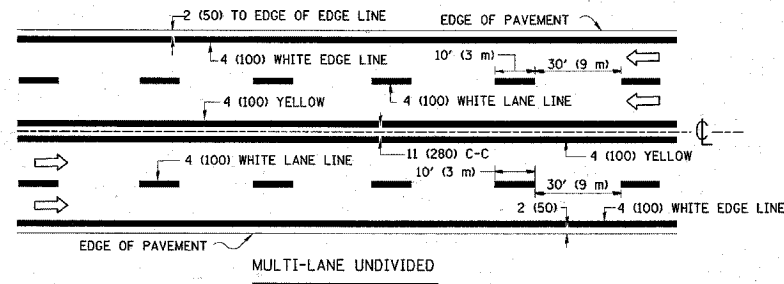
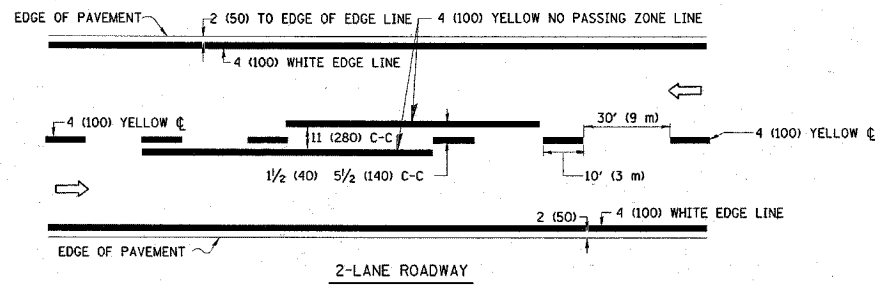
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CHECKED -	REVISOR -
DATE -	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

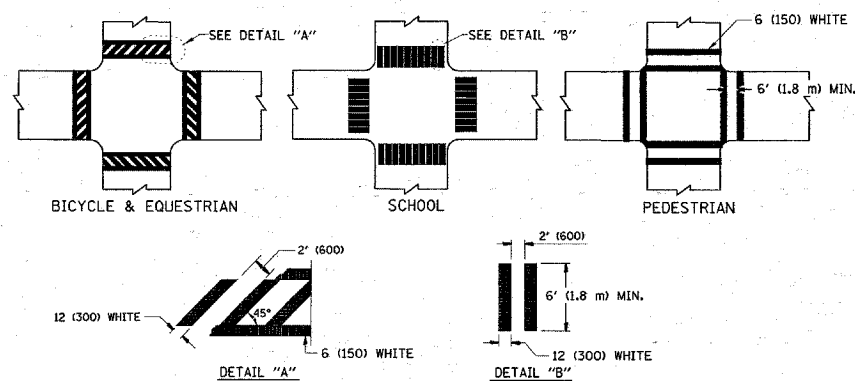
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

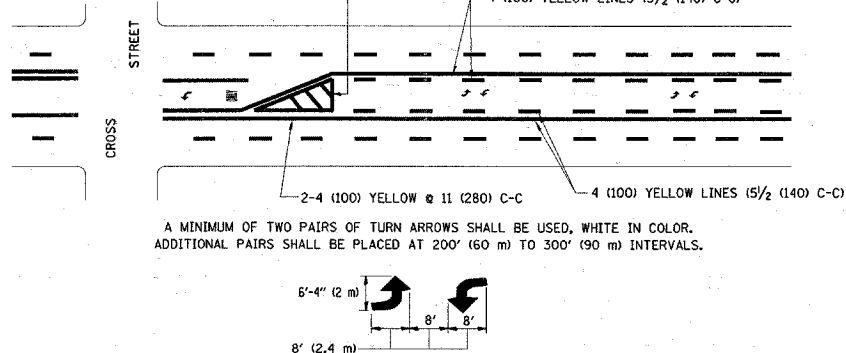
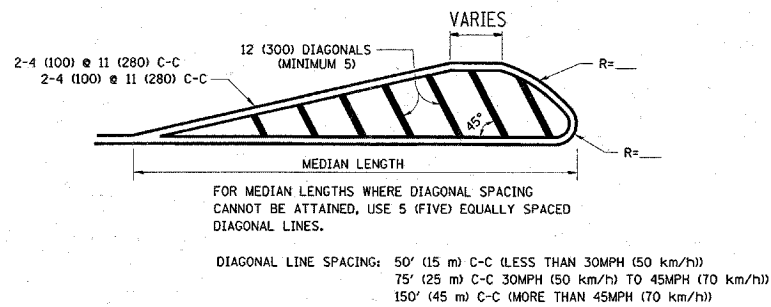
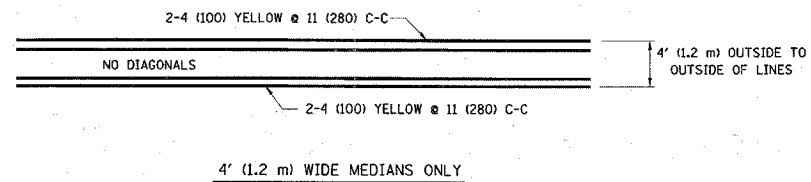


NOTE: MEDIANS WITH BARRIER CURBS DO NOT REQUIRE AN EDGE LINE

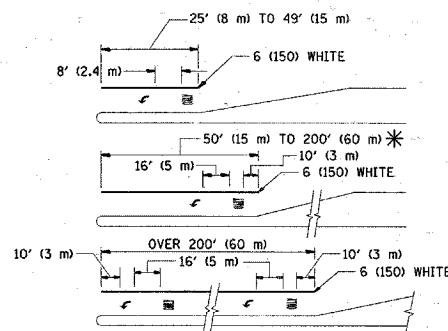
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



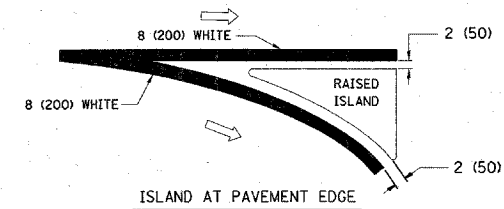
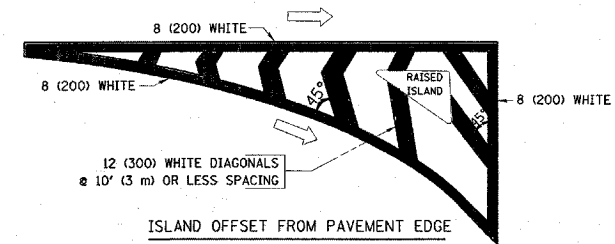
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * 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



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GOPE 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.

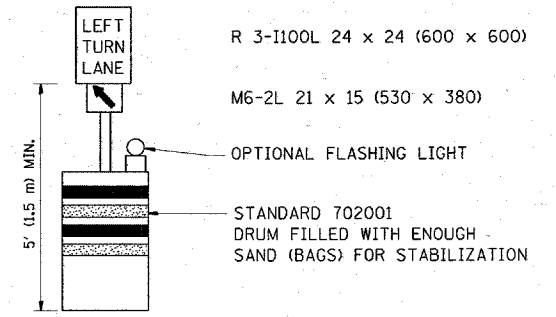
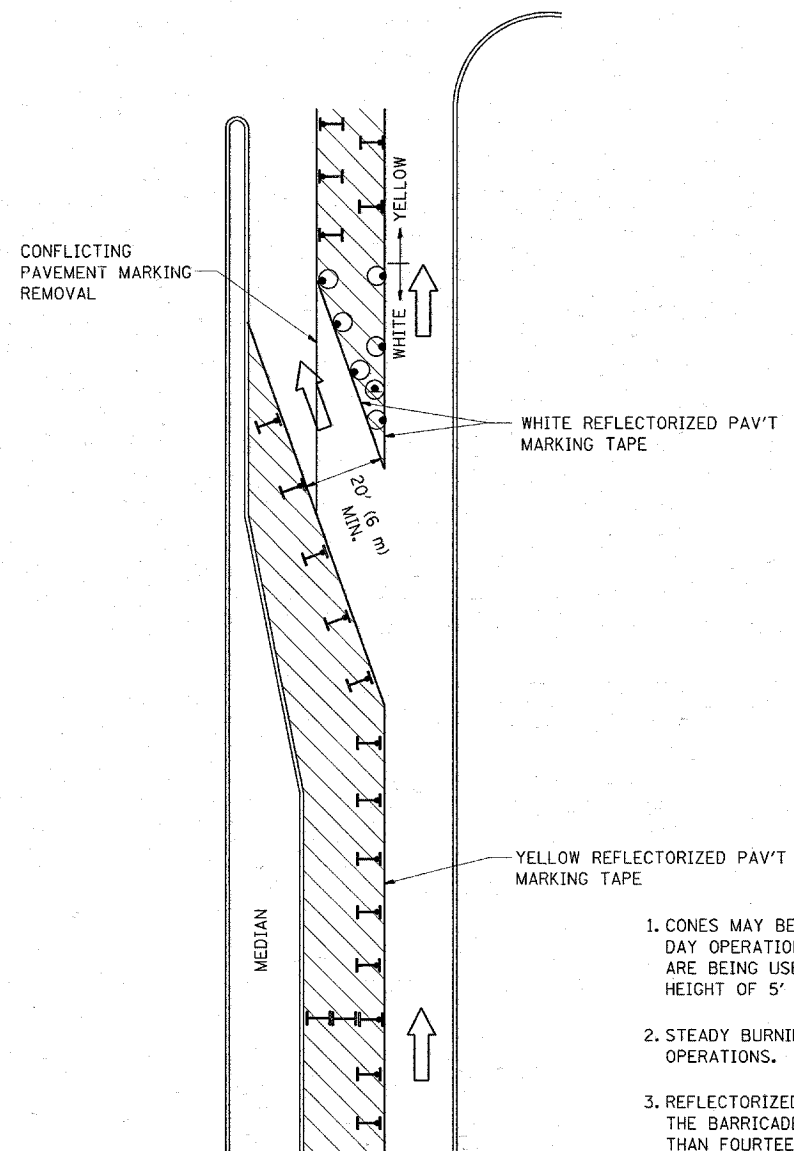
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT DATE = 4/17/2008	DATE - 03-19-90	REVISED -T, RAMMACHER 01-06-00

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.U. RTE. 2660	SECTION 540R-1-RS	COUNTY COOK	TOTAL SHEETS 31	SHEET NO. 23
			TC-13		CONTRACT NO. 60649		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

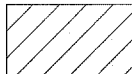







GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM 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.

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

LEGEND

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

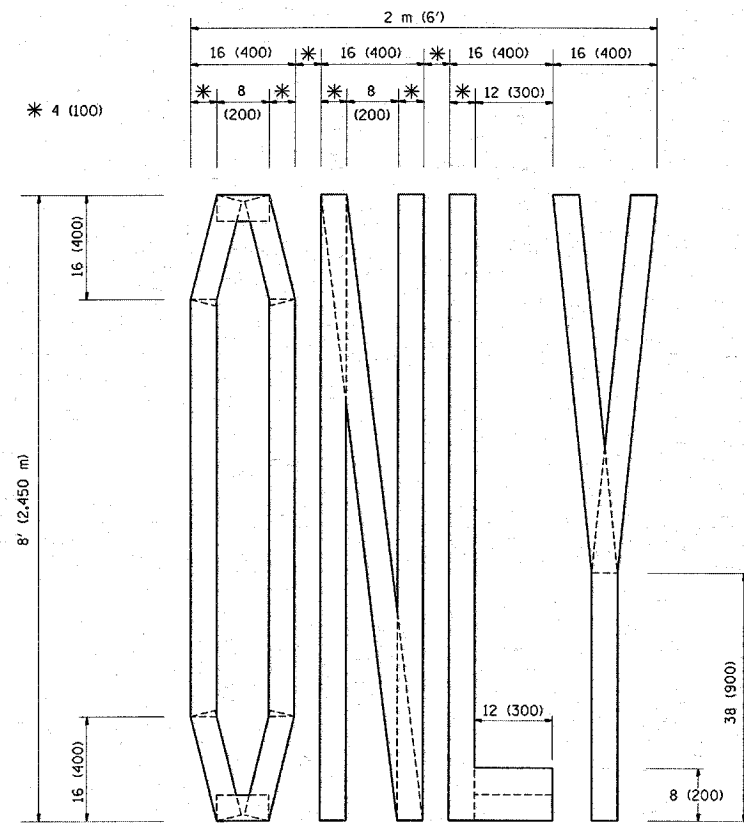
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		CHECKED -	REVISED - A. HOUSEH 10-12-96
		DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

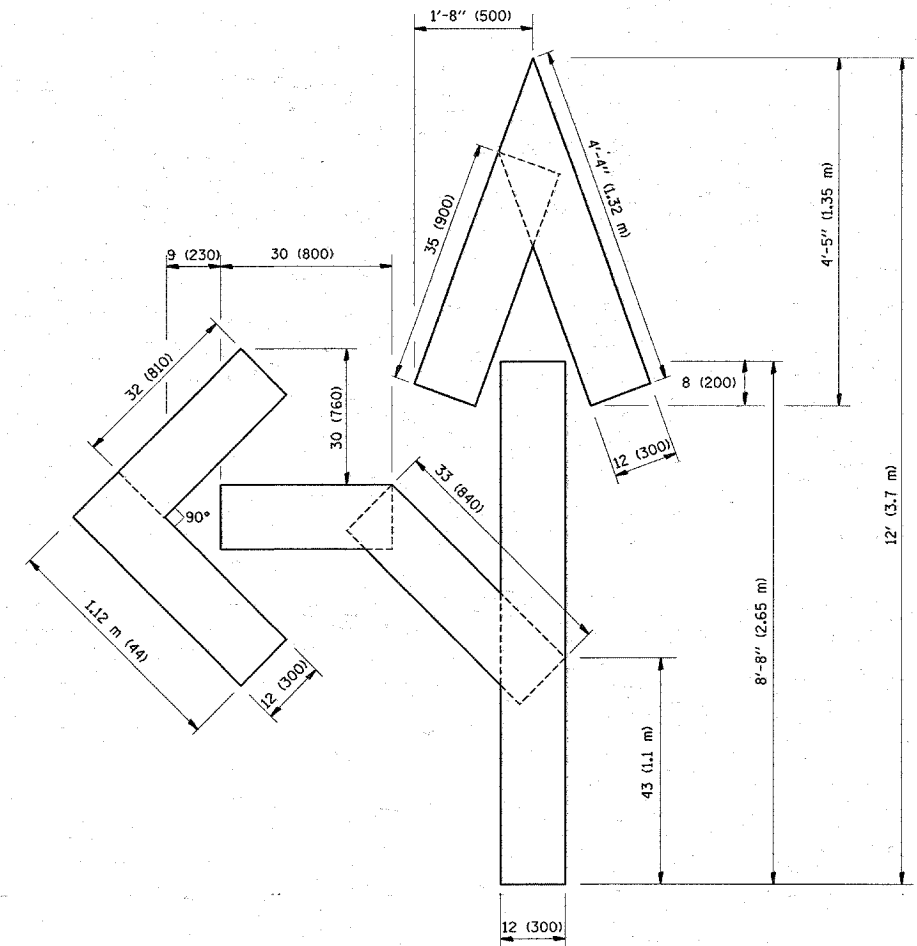
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

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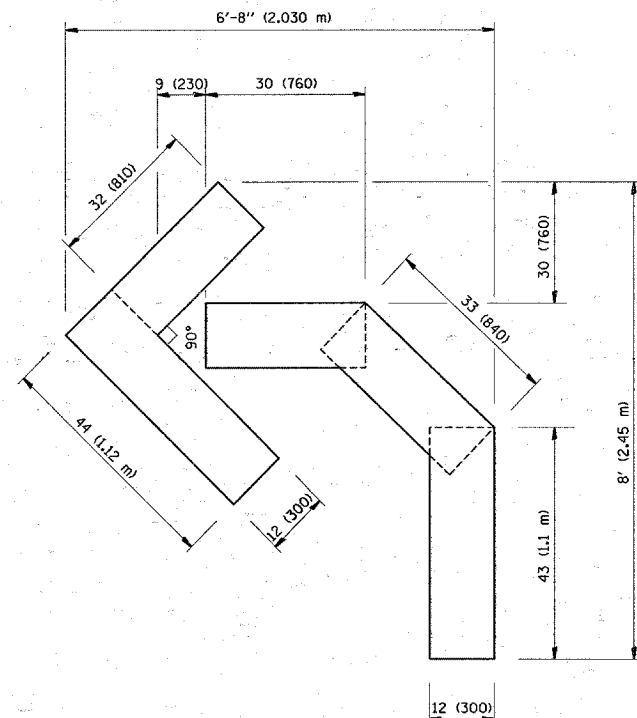
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2660	540R-1-RS	COOK	31	24
TC-14			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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.

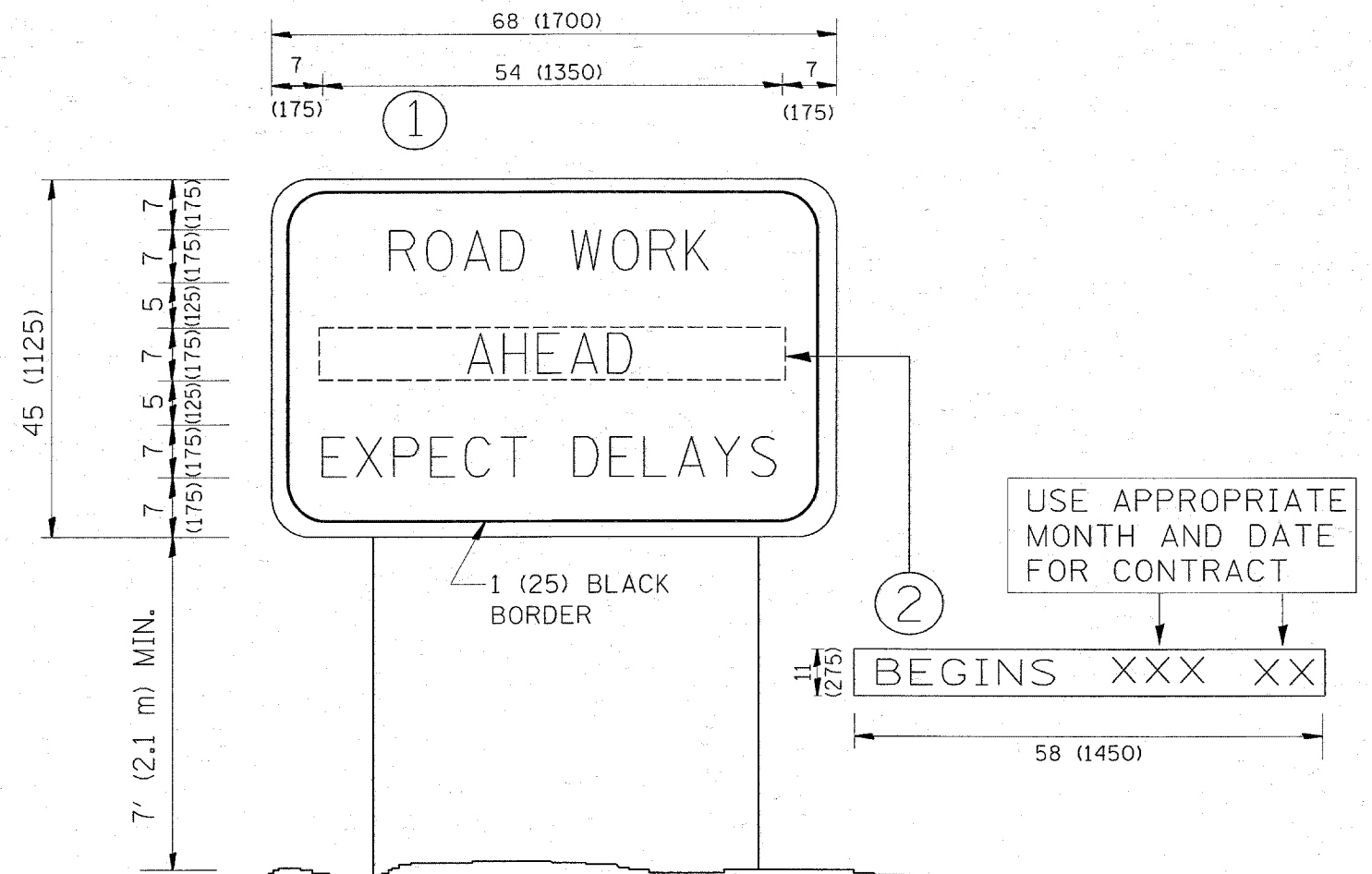
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		CHECKED -	REVISED - T. RAMMACHER 03-02-98
		DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

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

F.A.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-RS	COOK	31	25
TC-16			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\to22.dgn	USER NAME = shramur	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
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	PLOT DATE = 4/17/2008	DATE -	REVISED - C. JUCCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

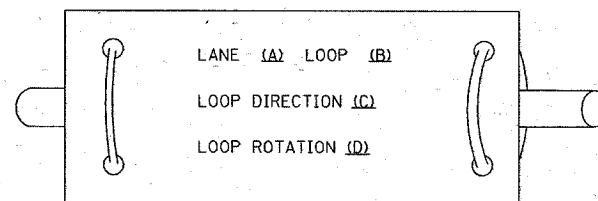
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F.A.U. RTE. 2660	SECTION 540R-1-RS	COUNTY Cook	TOTAL SHEETS 31	SHEET NO. 26
TC-22			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

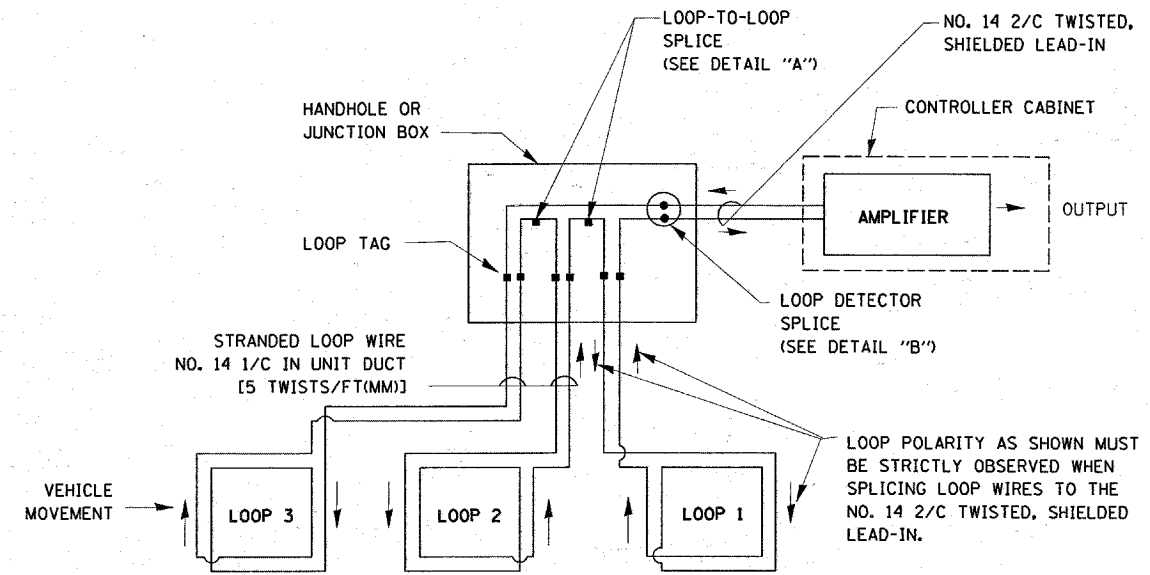
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

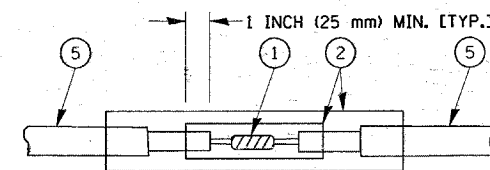


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

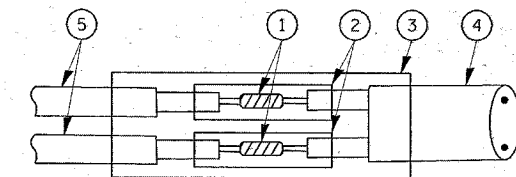


DETECTOR LOOP WIRING SCHEMATIC

- 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

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

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		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02
	PLOT SCALE = 5/8" = 1" / IN.	CHECKED - D.A.Z.	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

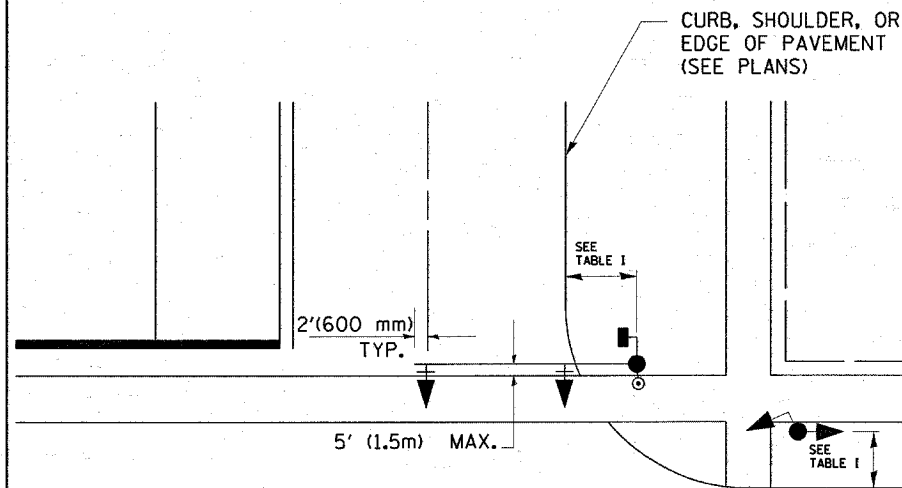
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 1 OF 4 SHEETS STA. TO STA.

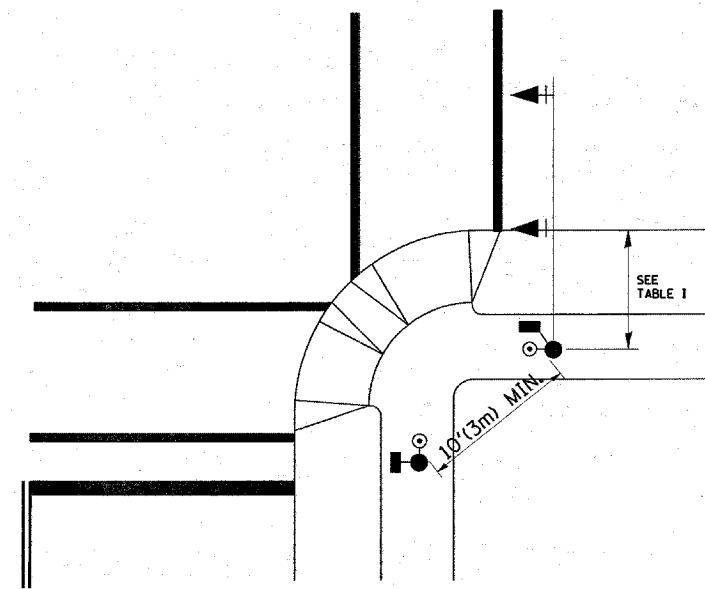
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2660	540R-1-RS	COOK	31	27
TS-05			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND POST

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



PEDESTRIAN SIGNAL PUSHBUTTON



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

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

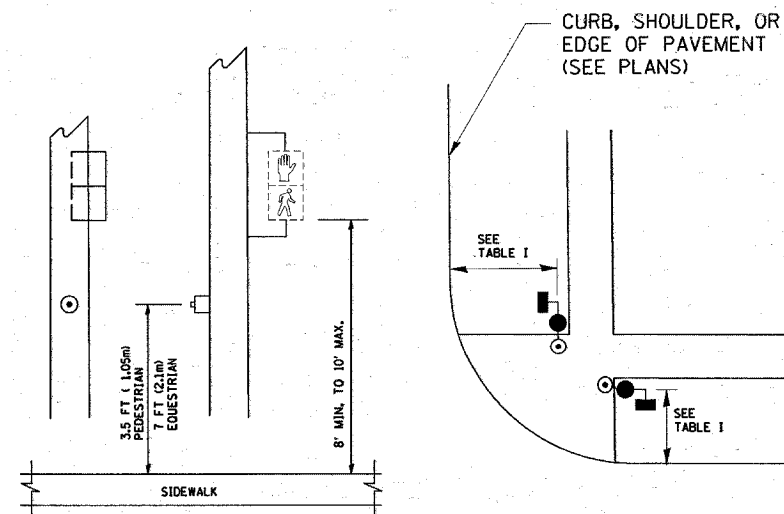


TABLE I

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

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 CHECKED - D.A.Z.
 DATE -

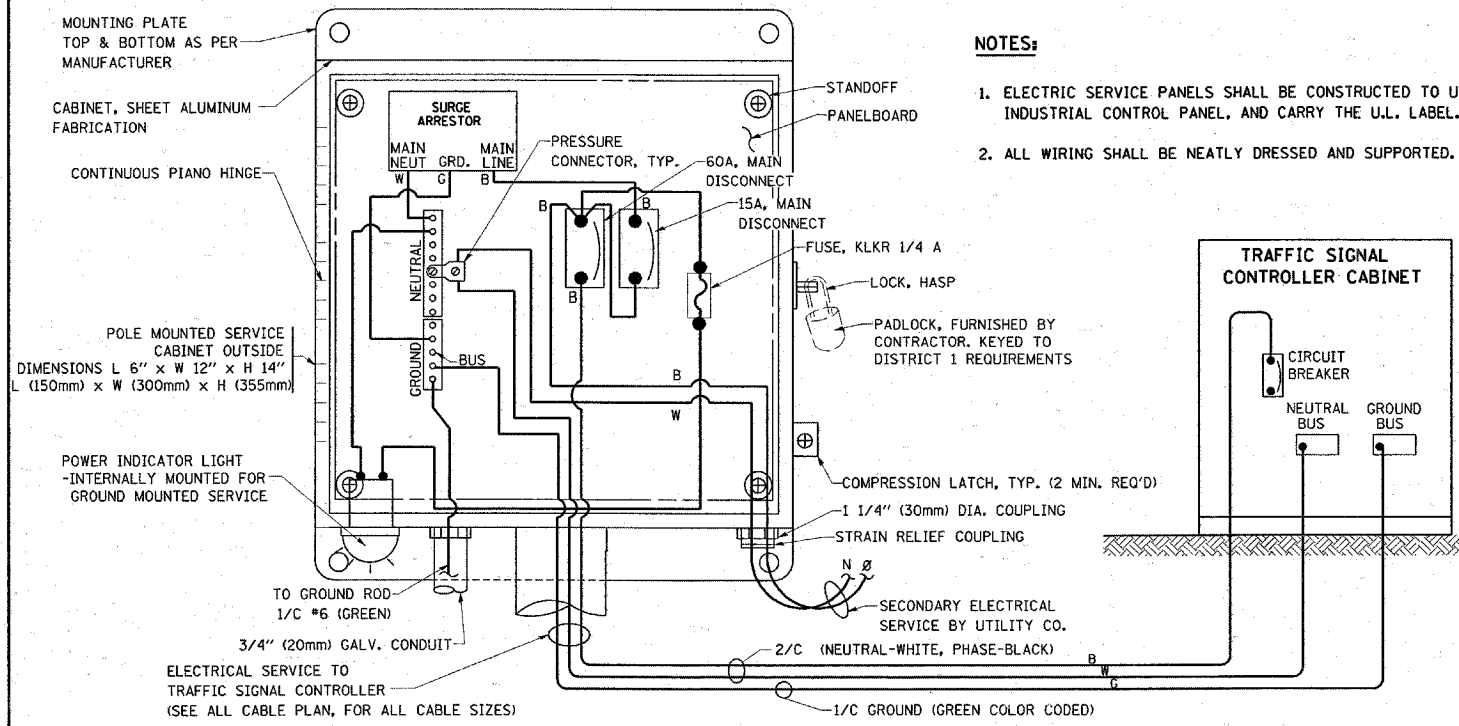
REVISED - BUR. TRAFFIC 01-01-02
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

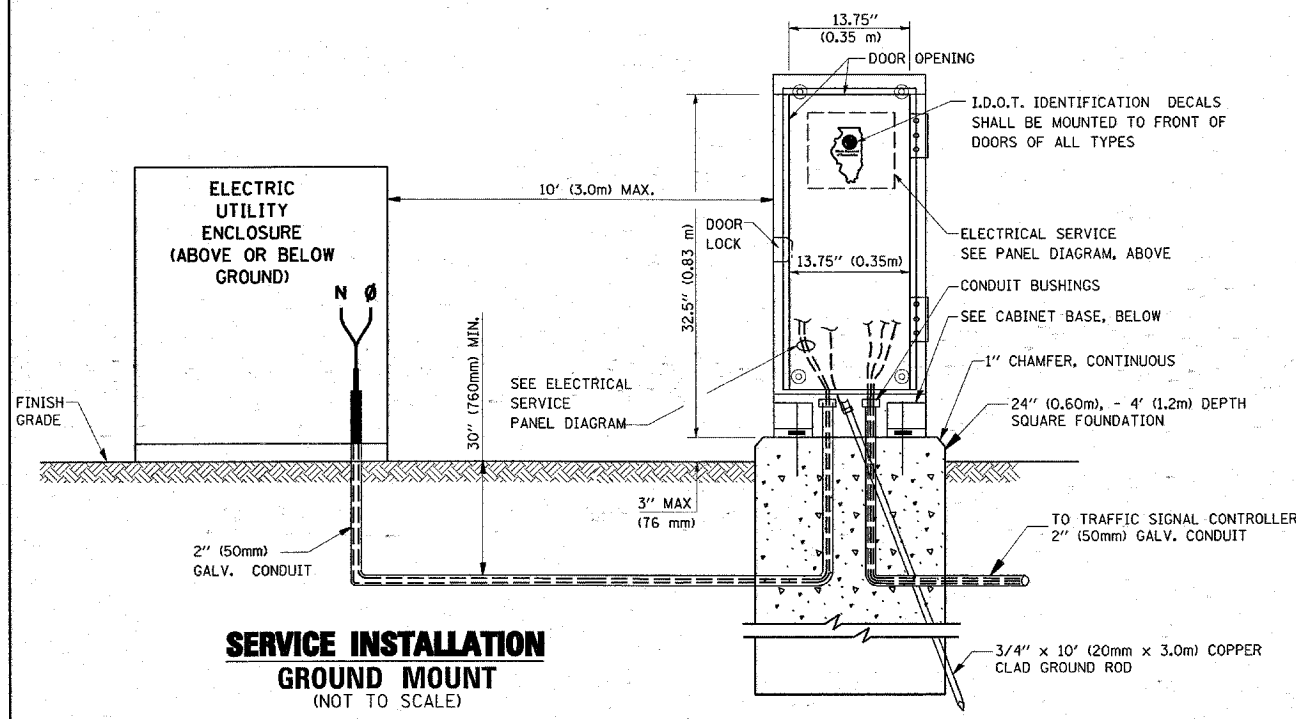
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TS-05			CONTRACT NO. 60649	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

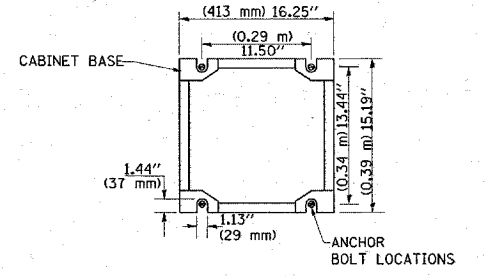


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

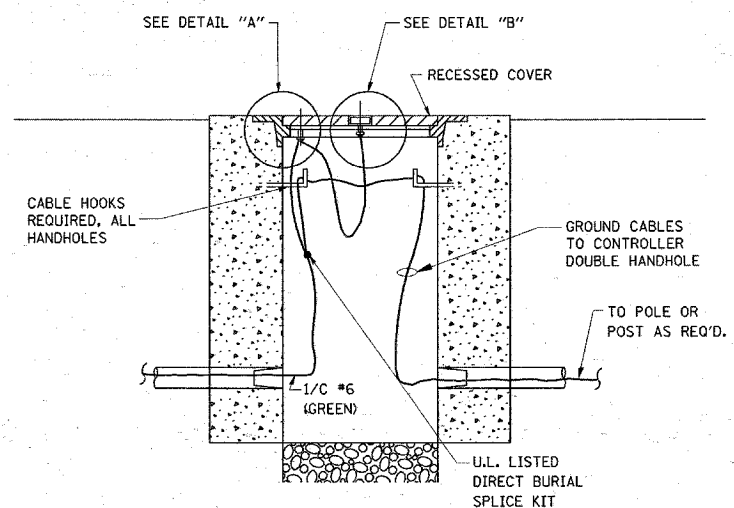
SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)

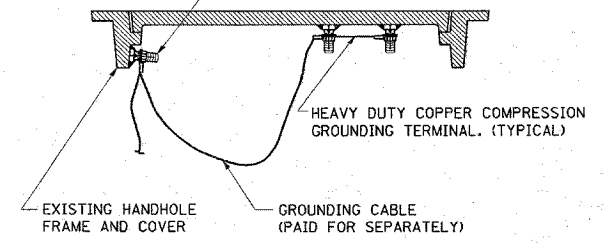


CABINET - BASE BOLT PATTERN (NOT TO SCALE)

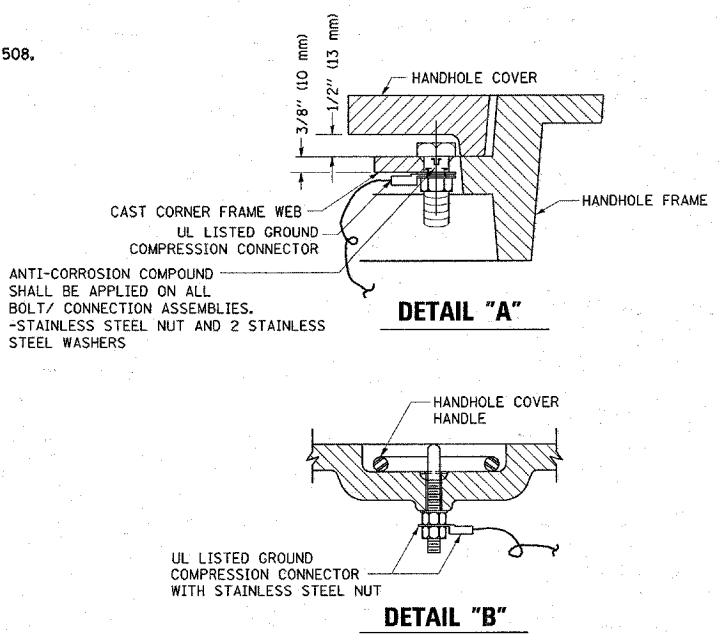


HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL)

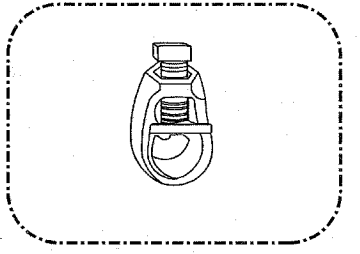
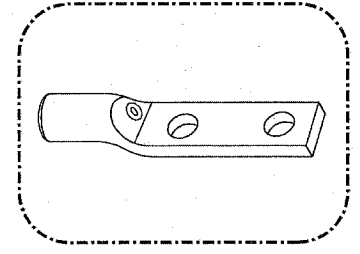


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



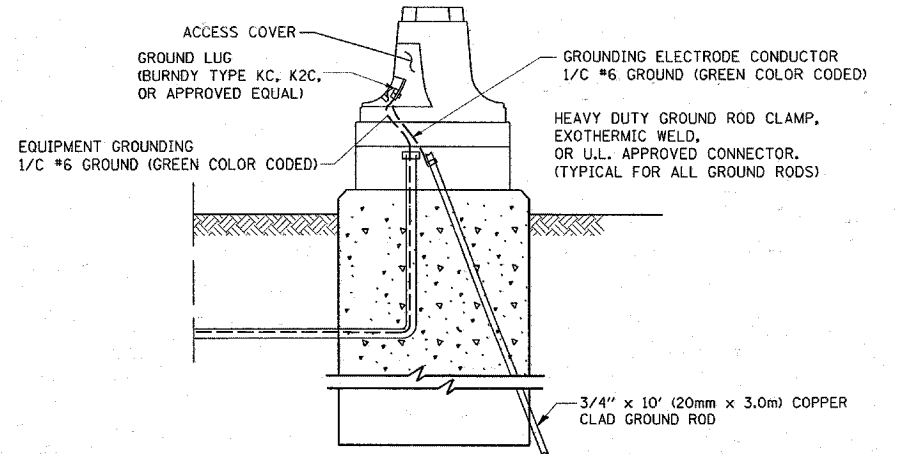
NOTES:
GROUNDING SYSTEM

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.



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.



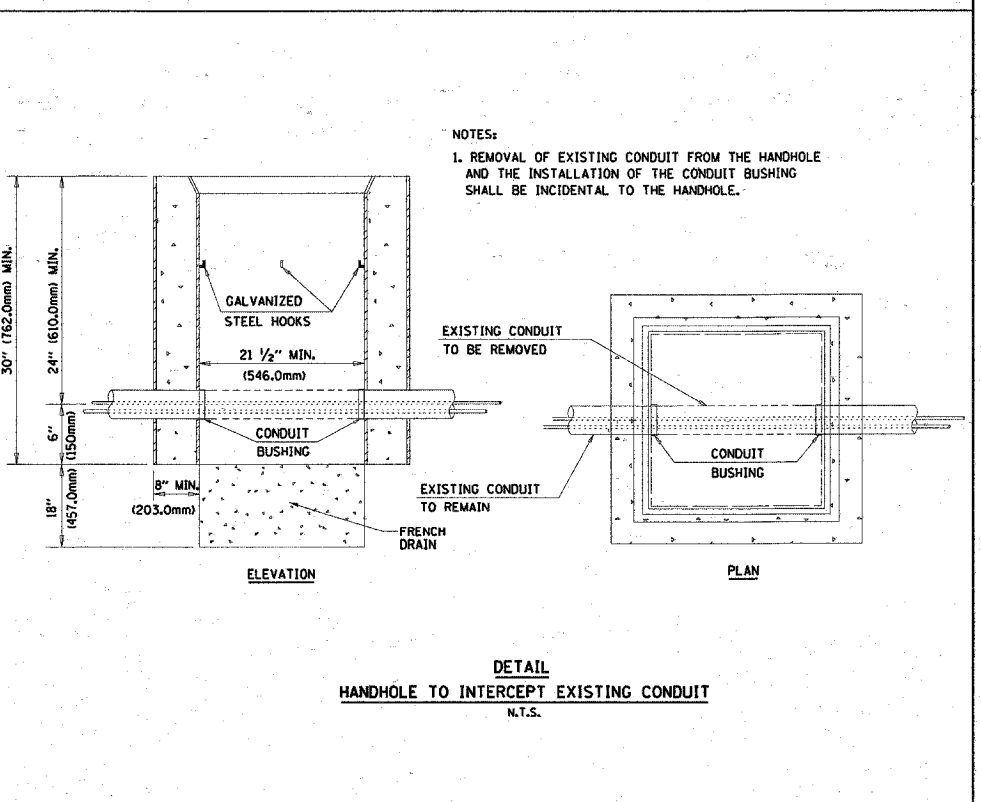
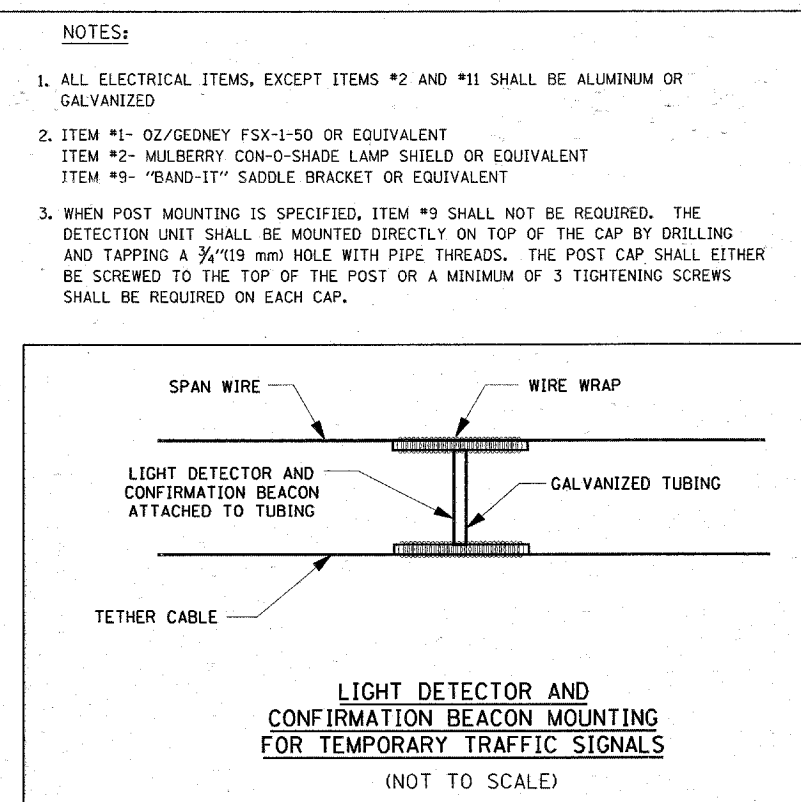
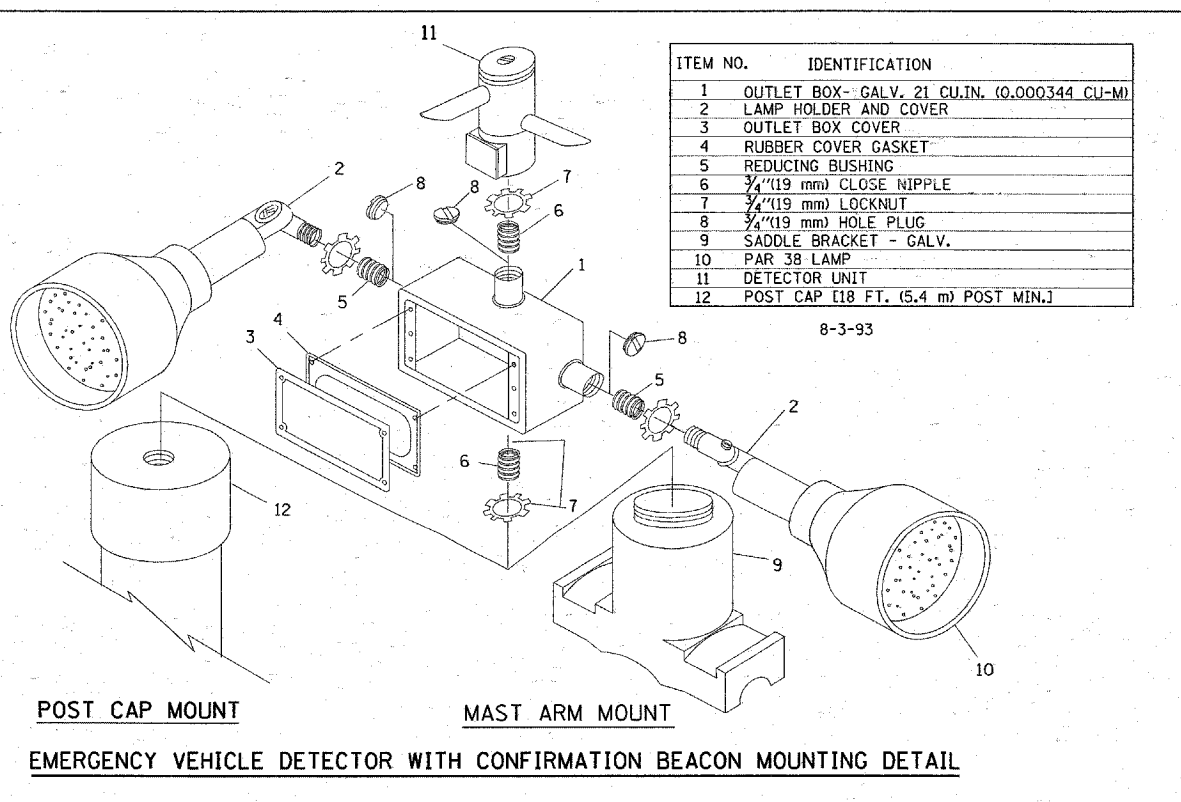
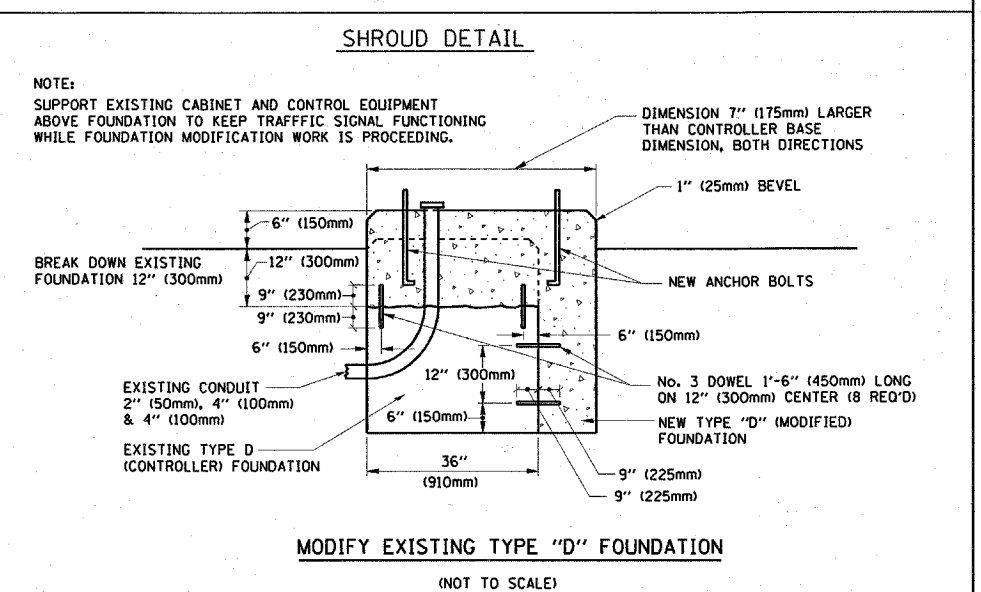
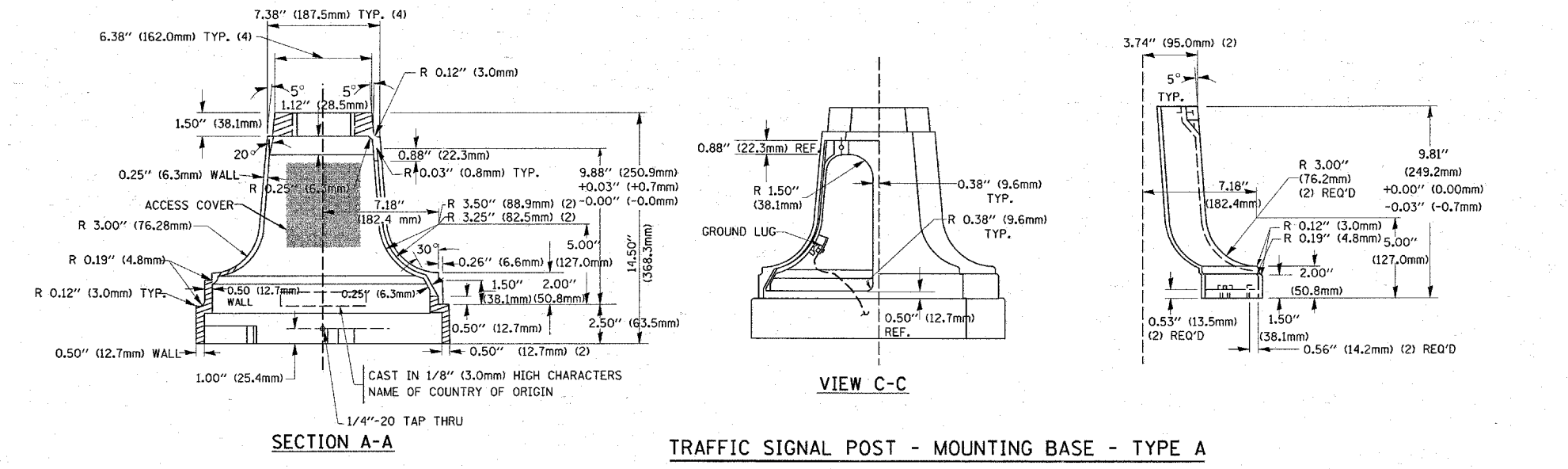
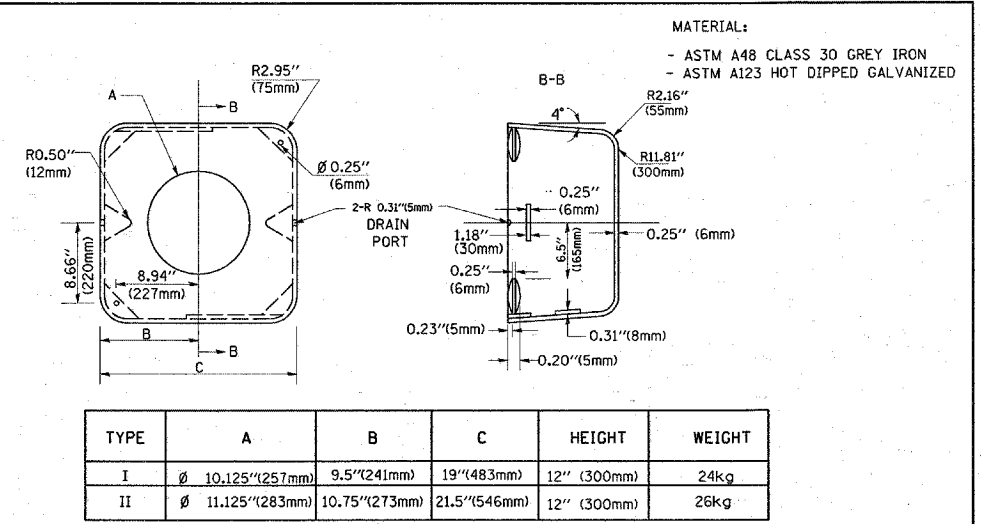
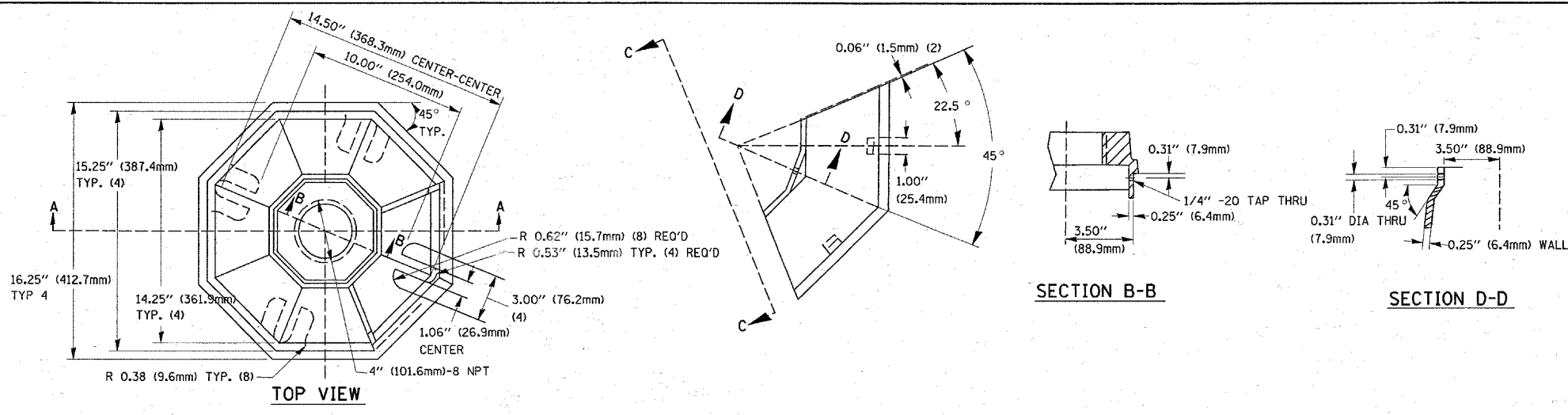
MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

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		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02
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		DATE - 05-30-00	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

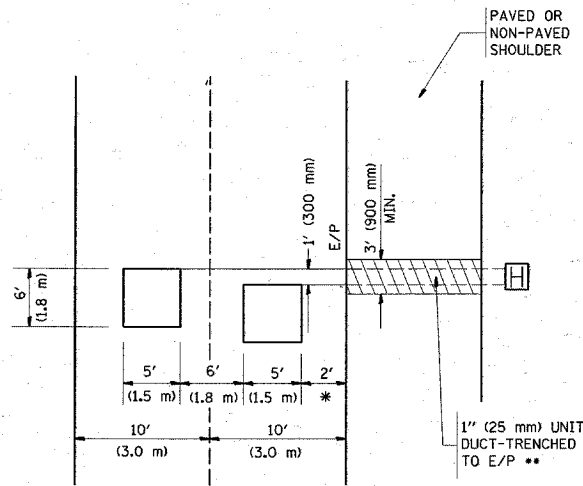
DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.I. RTE. 2660	SECTION 540R-1-RS	COUNTY Cook	TOTAL SHEETS 31	SHEET NO. 29
TS-05		CONTRACT NO. 60649		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT
NOTE WHICH SHOULD EQUAL
3' (900 mm) X WIDTH OF
PAVED SHOULDER.

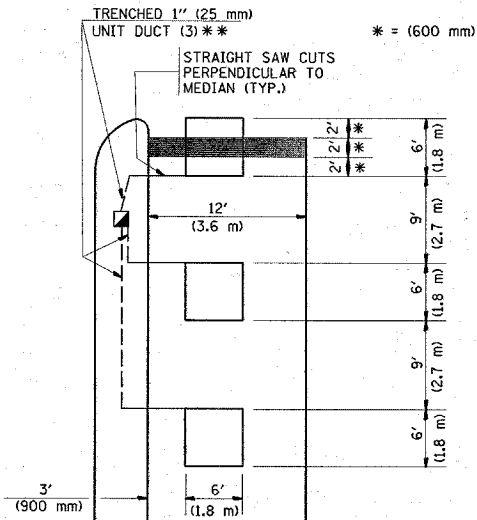


* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

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

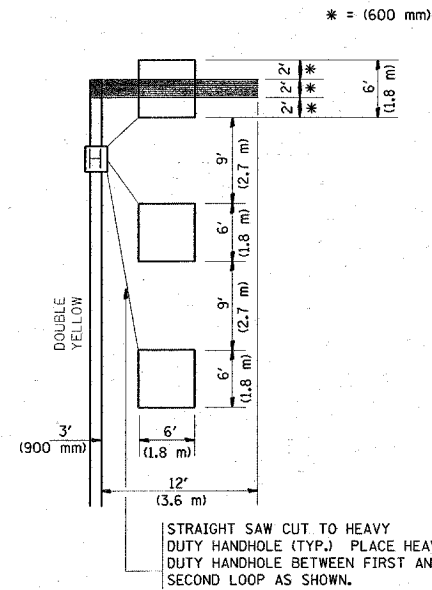
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

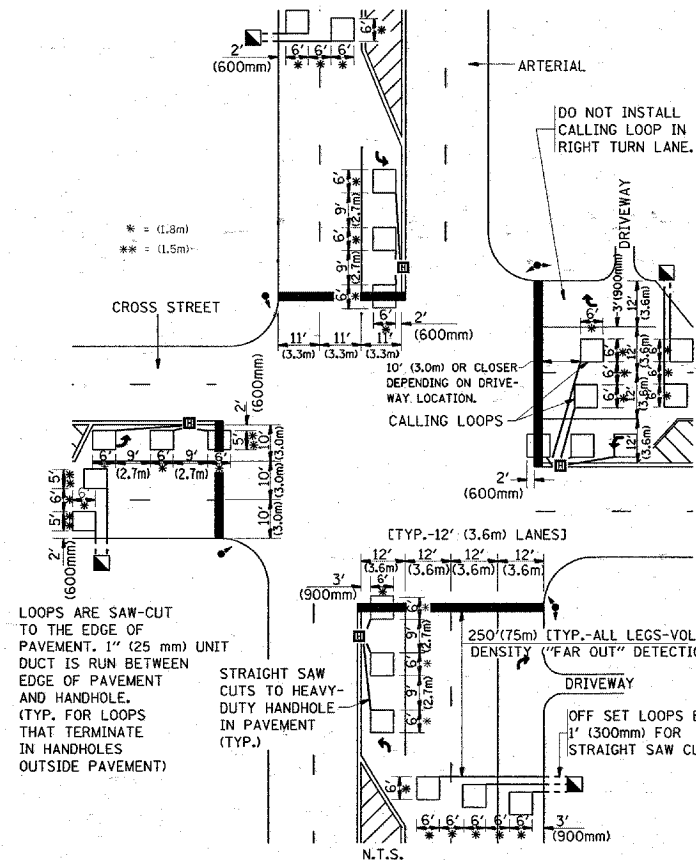
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



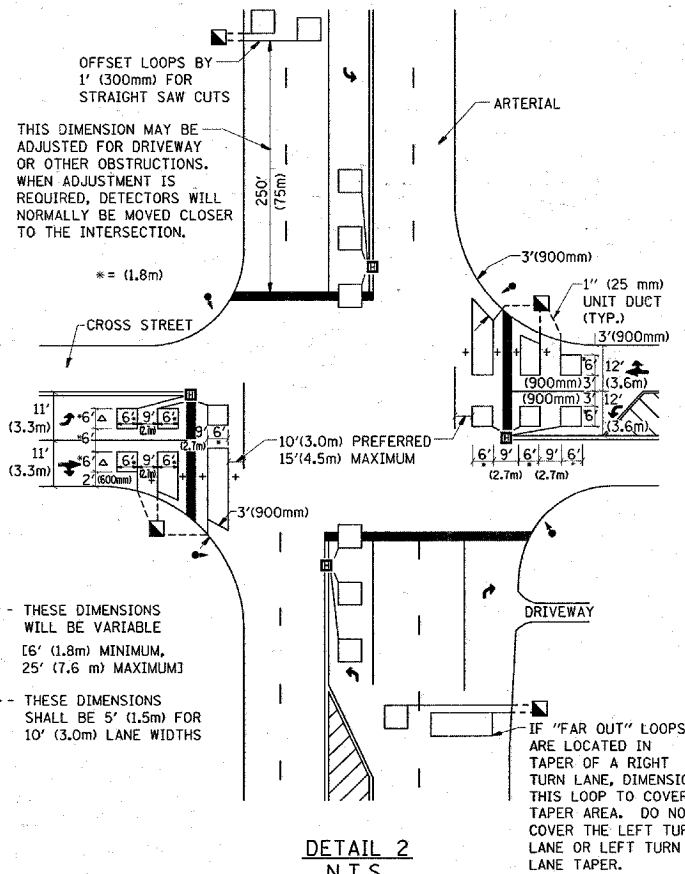
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



**DETAIL 1
N.T.S.**

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



**DETAIL 2
N.T.S.**

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

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PLOT DATE = 4/17/2008

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CHECKED - R.K.F.
DATE -

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REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

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

F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2660	540R-1-RS	Cook	31	31
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 60649	