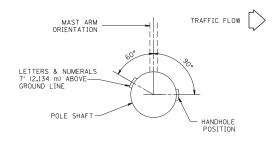
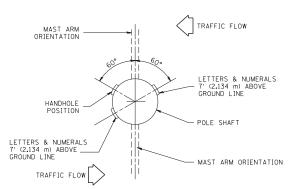


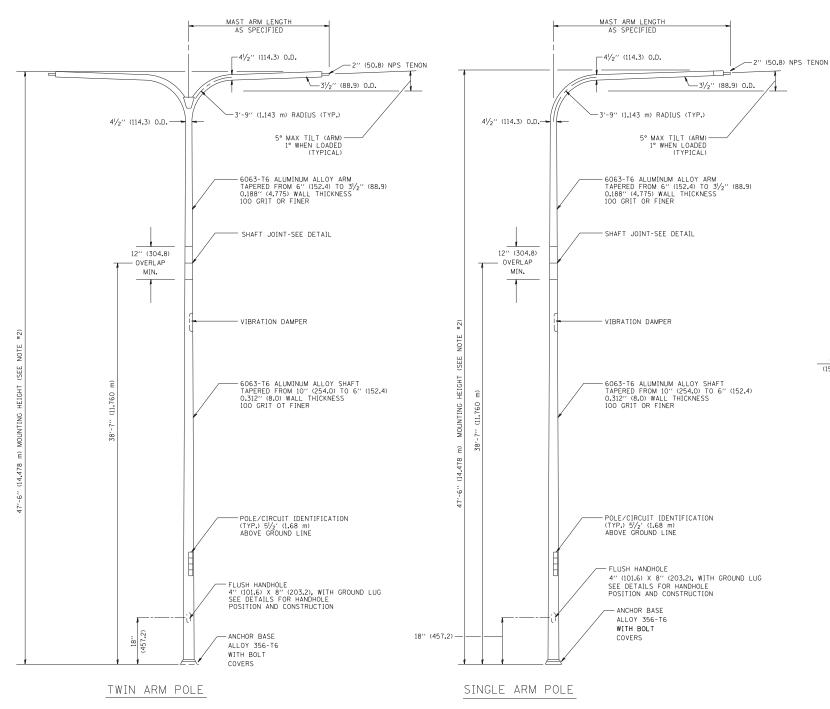
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

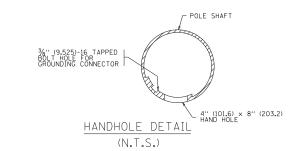


POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES





SCALE: NONE

NOTES:

- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
- 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
- NOT BE ALLOWED.

 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.

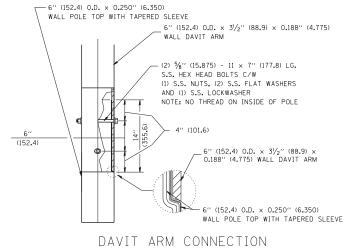
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.

 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.

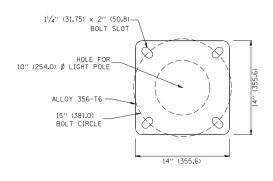
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.

 8. LIGHTING UINTL DEPOTIFICATION NUMBERS

- 8. LIGHTING UNIT IDENTIFICATION NUMBERS
 SHALL BE INSTALLED BEFORE THE LIGHTING
 UNIT IS ENERGIZED.



[14" (355.6) OVERLAP SHOWN]



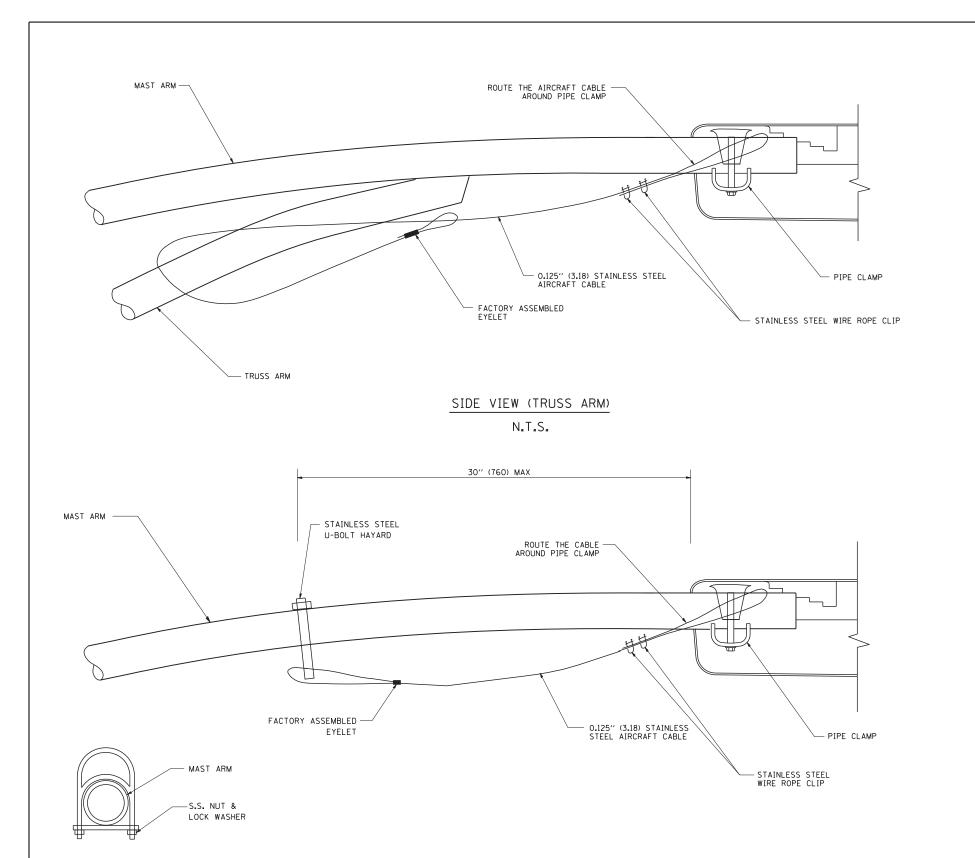
LIGHT POLE BASE PLATE DETAIL

(FOR POLE MOUNTED ON 15 INCH (381.0) BOLT CIRCLE FOUNDATION)

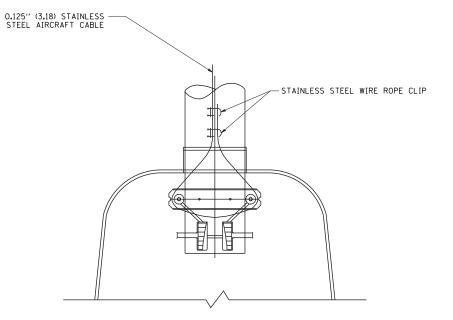
FILE NAME =	USER NAME = leysa	DESIGNED -		REVISED	-	D. DREW 05-07-92
c:\pw_work\pwidot\leysa\d0108315\be410.dg	DRAWN -	LEY	REVISED	-	R. TOMSONS 09-06-0	
	PLOT SCALE = 50.0000 '/ in.	CHECKED -		REVISED	-	R. TOMSONS 09-02-0
	PLOT DATE = 4/4/2013	DATE -		REVISED	-	R. TOMSONS 01-18-13

STATE OF	ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	DAV	IT LIGHT F	POLF	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	47'-6" (14.478						888	801	
	47-0 (14.470	III) IVIOUN	TING HEIGH		BE-410	CONTRACT	NO. 60	0X07	
1	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.



BOTTOM VIEW N.T.S.

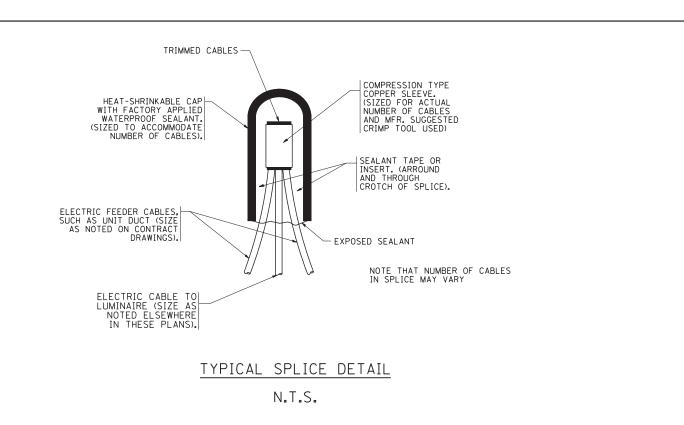
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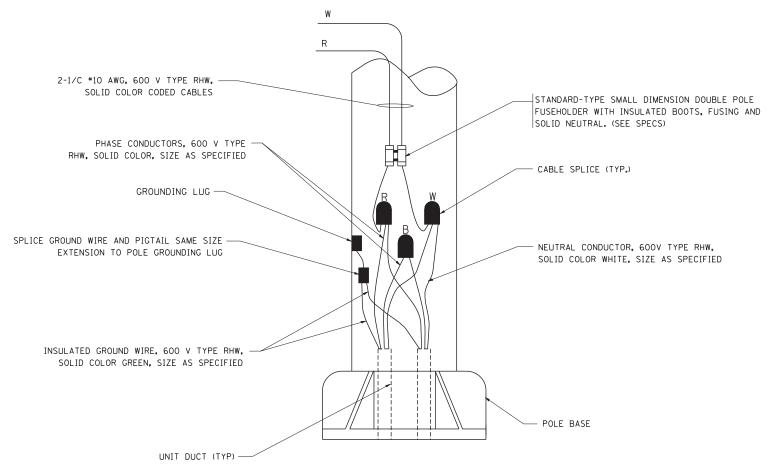
- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
- 3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
- 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

STAINLESS STEEL U-BOLT HAYARD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	LUMINAIRE SAFET	RTE.	SECTION	COUNTY	SHEETS	NO.			
								888	802
			BE-701	CONTRACT	NO. 60	X07			
SCALE: NONE	SHEET NO. 1 OF 1 SHI	FED. R	OAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT					





AS APPROVED BY THE ENGINEER

12" (305)

WARNING TAPE AS SPECIFIED

WARNING TAPE AS SPECIFIED

UNIT DUCT OR OTHER RACEWAY
AND WIRING AS PER PLANS. COMPLETE
WITH INTERNAL INSULATED
EQUIPMENT GROUND WIRE.

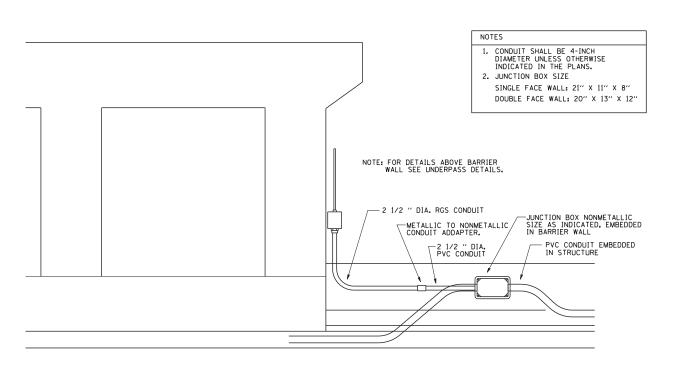
12" (305) MAXIMUM WIDTH EXCEPT

TYPICAL WIRING IN TRENCH DETAIL N.T.S.

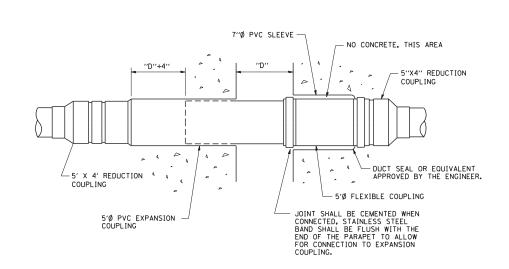
POLE WIRING DETAIL

N.T.S.

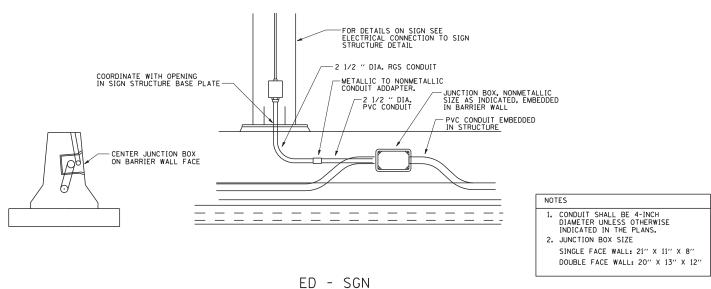
FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03		MISC. ELECTRICAL DETAILS	F.A. SECTION	COUNTY SHEET
W:\diststd\22x34\be702.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS		NIL.	888 803
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	SHEET A	BE-702	CONTRACT NO. 60X07
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT



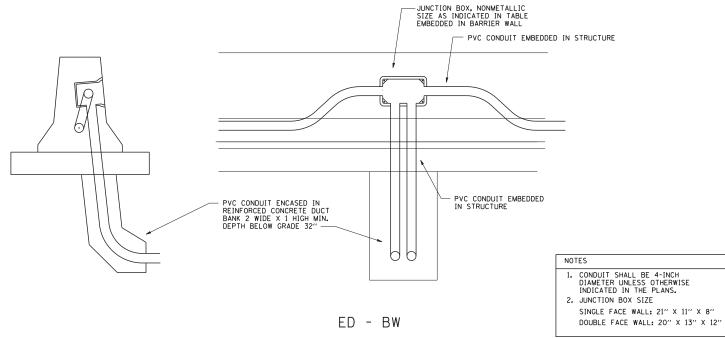
ED - BWD ELECTRIC CONNECTION TO UNDERPASS LIGHTING



INSTALLATION OF CONDUIT IN BRIDGE PARAPET EXPANSION JOINT (N.T.S.)



JUNCTION BOX EMBEDDED IN BARRIER WALL FOR SIGN LIGHTING



JUNCTION BOX EMBEDDED IN BARRIER WALL

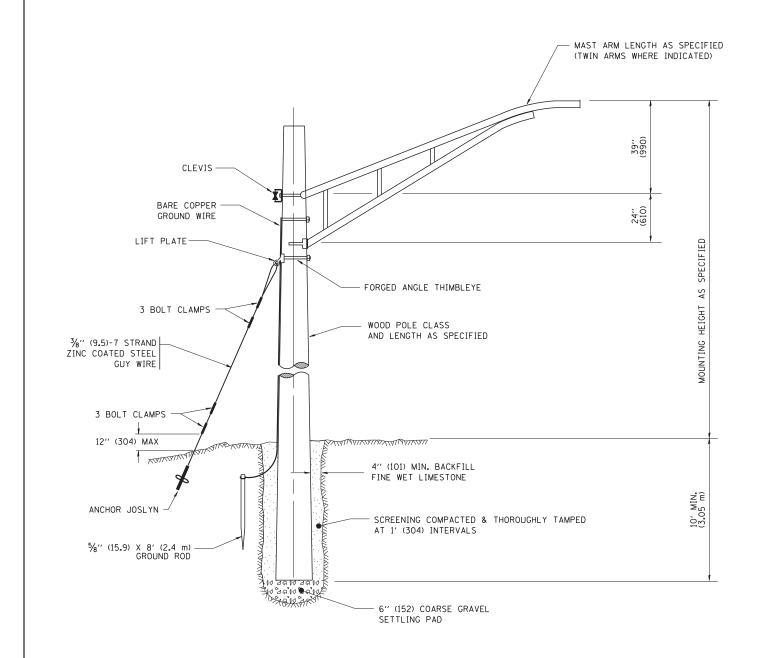
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be703.dgn		DRAWN -	REVISED -	
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	DEPART
	PLOT DATE = 2/5/2009	DATE - 01-20-2009	REVISED -	

	MISCELLANEOUS	F.A RTE.	SECTION	COUNTY			
	ED IN BARRIER V						
PARAPET EXPAN	ISION JOINT – ELI	CTRIC CON	NECTION	TO UNDERPASS LIGHTING		BE-703	CONTRAC
CALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT

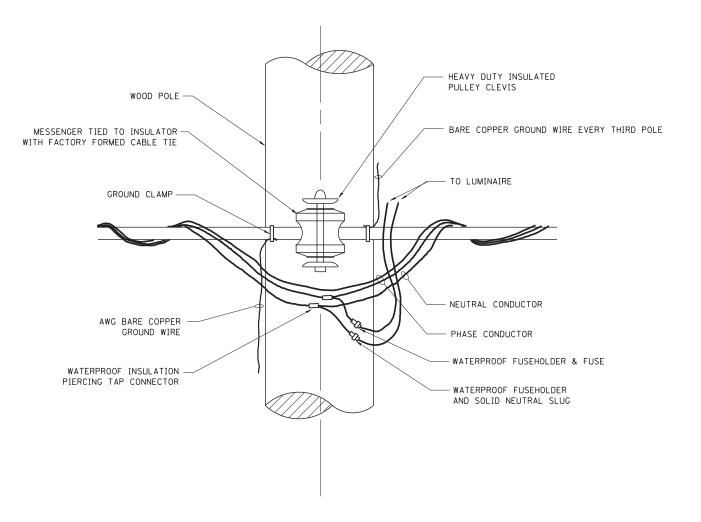
COUNTY

CONTRACT NO. 60X07

888 804



TEMPORARY LIGHT POLE DETAIL

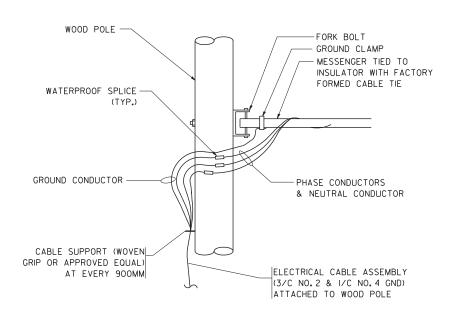


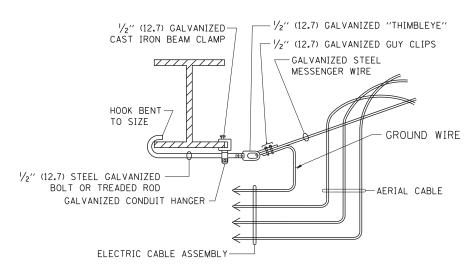
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

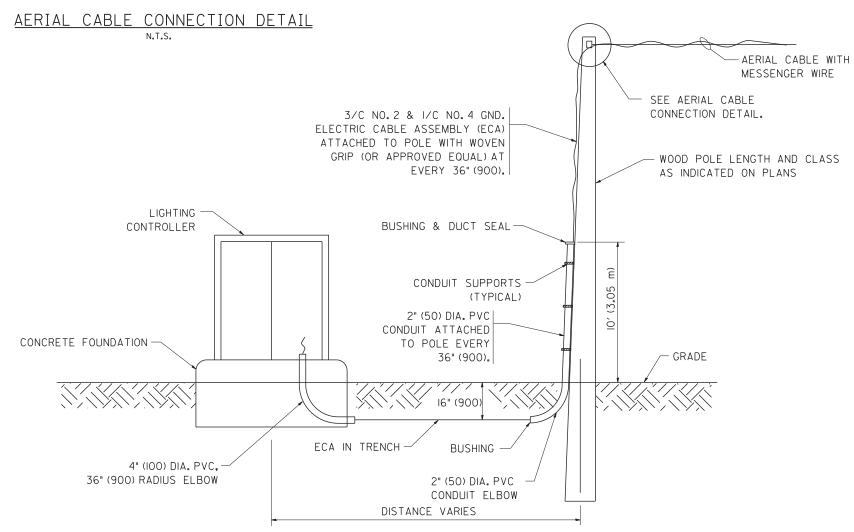
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03		TEMPORARY LIGHT POLE DETAILS	F.A. · SECTION	COUNTY TOTAL SHEET NO.
W:\diststd\22x34\be800.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS	ILMFORARI LIGHT FOLE DETAILS	11122	888 805
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		BE-800	CONTRACT NO. 60X07
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.		. AID PROJECT





AERIAL CABLE ATTACHED TO STRUCTURE NOT TO SCALE



NOTES:

- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS)
 UNLESS OTHERWISE INDICATED.
- 2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
- 3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
- 4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.

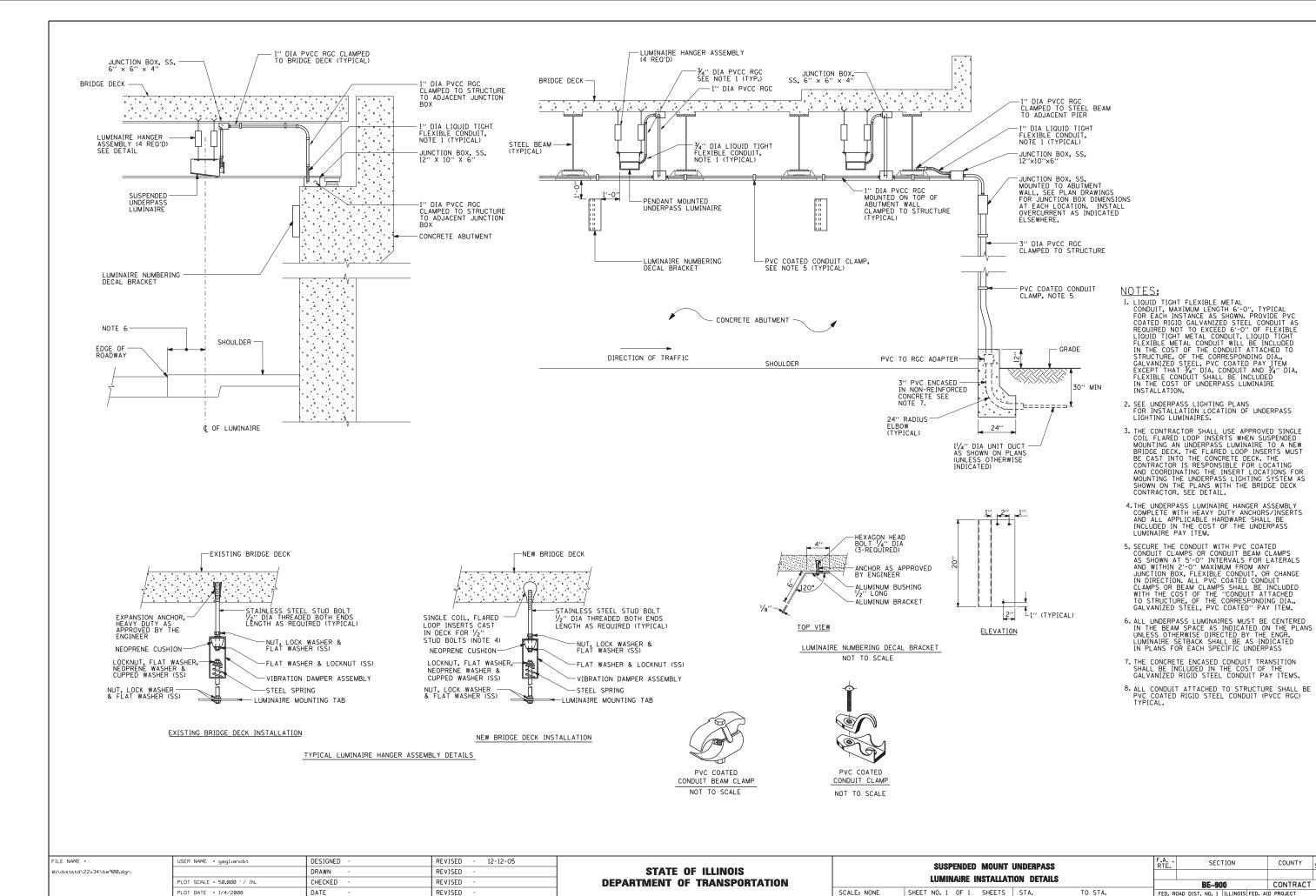
WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL

N.T.S.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - 08-08-03
W:\diststd\22x34\be801.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE	0F	ILLINOIS
DEPARTMENT ()F '	TRANSPORTATION

		TEMPORARY AER	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
ı									888	806
ı				BE-801	CONTRACT	NO. 60	X07			
	SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

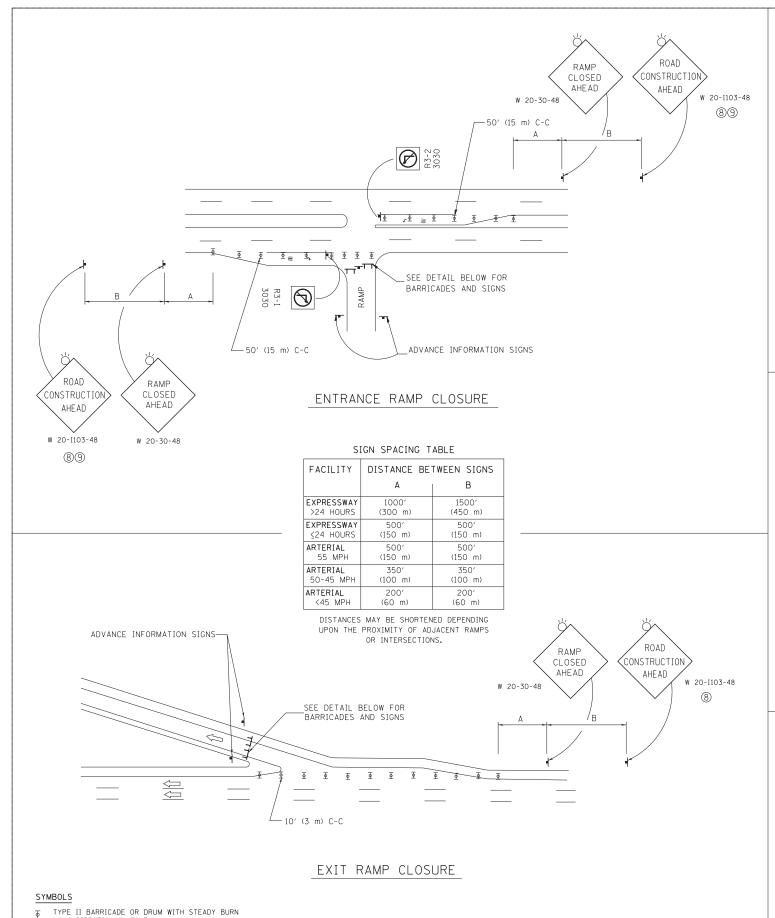


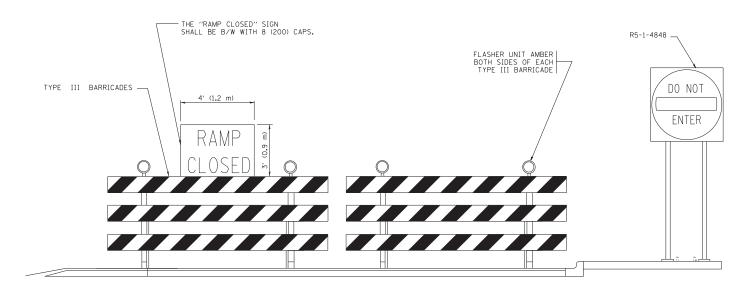
SECTION

COUNTY

888 807

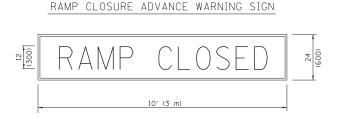
CONTRACT NO. 60X07





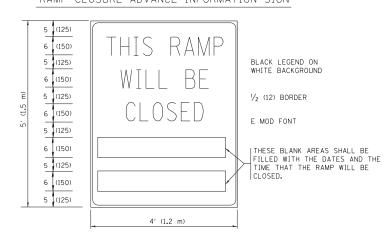
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON ORANGE
BACKGROUND MOUNTED
DIAGONALLY
E MOD FONT
1 (25) BORDER
SIGNS ARE REQUIRED ON ALL THE EXIT

THESE SIGNS ARE REQUIRED ON ALL THE EXIT
GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE
CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II
 BARRICADES DURING DAY OPERATIONS. CONES SHALL BE
 A MINIMUM OF 28 (700) HIGH.
- (2) STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- (3) A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED BY A W20-7 FLAGGER WARNING SIGN.
- 4 ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- (5) THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

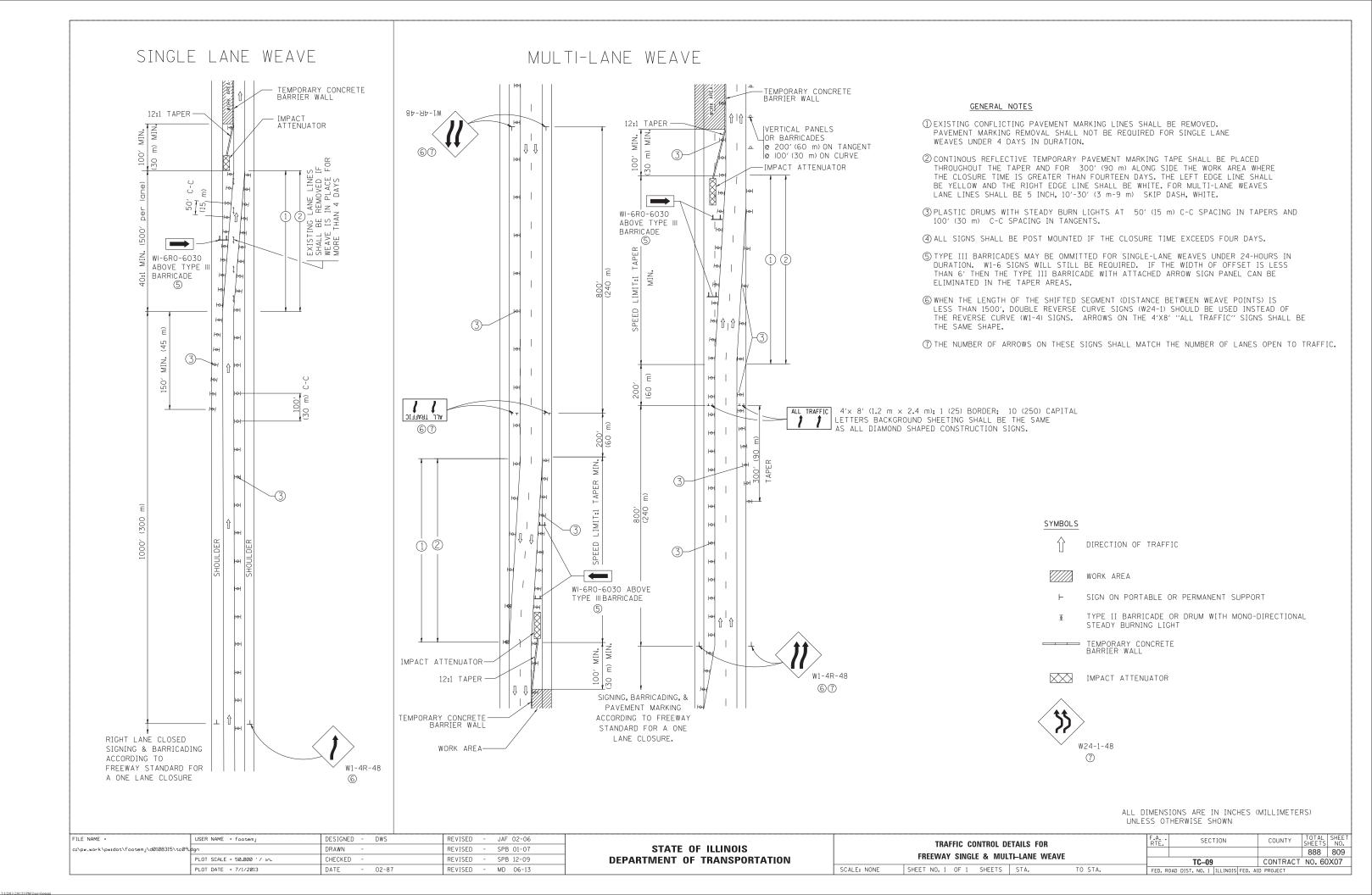
- 6 AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
- (8) ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED
 ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

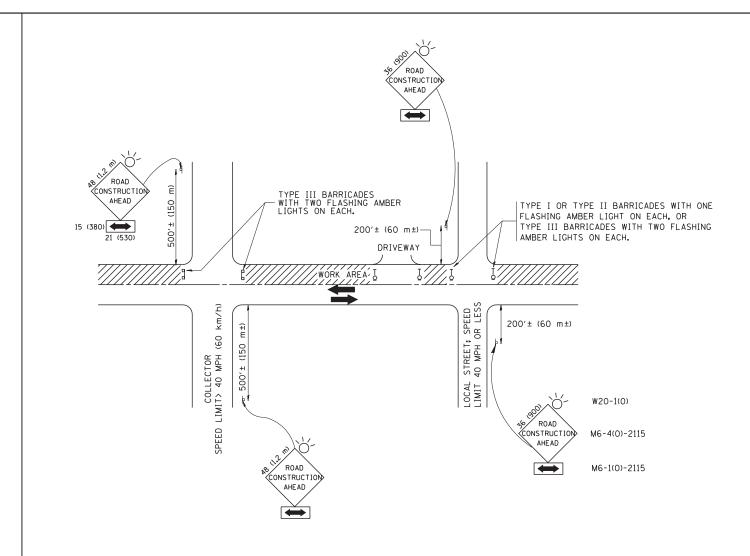
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

	FILE NAME =	USER NAME = footemj	DESIGNED - DWS	REVISED - JAF 02-06		ENTRANCE AND EXI				F.A	SECTION	COUNTY	TOTAL	SHEE	T	
	c:\pw.work\pwidot\footemj\d0108315\tc08.9gn PLOT SCALE = 50.000 '/ in.		DRAWN -	REVISED - SPB 01-07	STATE OF ILLINOIS						1112			888	808	_
			CHECKED -	REVISED - SPB 12-09	DEPARTMENT OF TRANSPORTATION			RE DETA				TC-08	CONTRACT	NO. 60	JX07	_
		PLOT DATE = 7/8/2013	DATE - 02-83	REVISED - MD 06-13		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.		TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT			_		

une des 7/9/2012 7-19/02 AM II---

TYPE III BARRICADE WITH 2 FLASHING LIGHTS





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:
- O) 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:
- o) ONE ROAD CONSTRUCTION AHEAD SIGN 48 \times 48 (1.2 m \times 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 (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-4).

SCALE: NONE

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

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

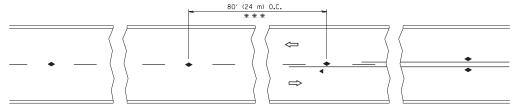
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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

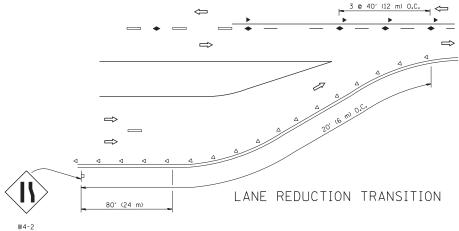
STATI	E OI	F ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

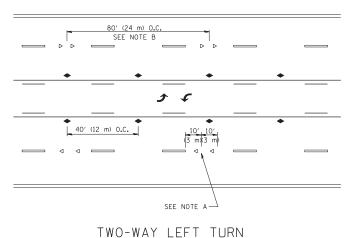
TRAFFIC CONTR	OL AND P	ROTECTIO	N FOR	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SIDE ROADS, INTE	RECTIONS	AND DE	IVEWAVE				888	810
SIDE NUADS, INTE	1950110149	, AND DR	IVEVVAIS		TC-10	CONTRACT	NO. 60	X07
SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



*** 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





80' (24 m) 0,C.

SEE NOTE B

40' (12 m) 0,C.

30' (24 m) 0,C.

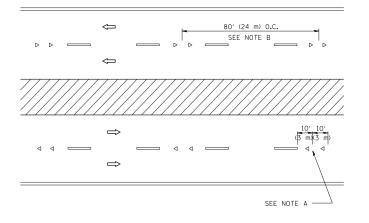
SEE NOTE B

40' (12 m) 0,C.

3 m)(3 m)

SEE NOTE A

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.

LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

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

SYMBOLS

---- YELLOW STRIPE

── WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

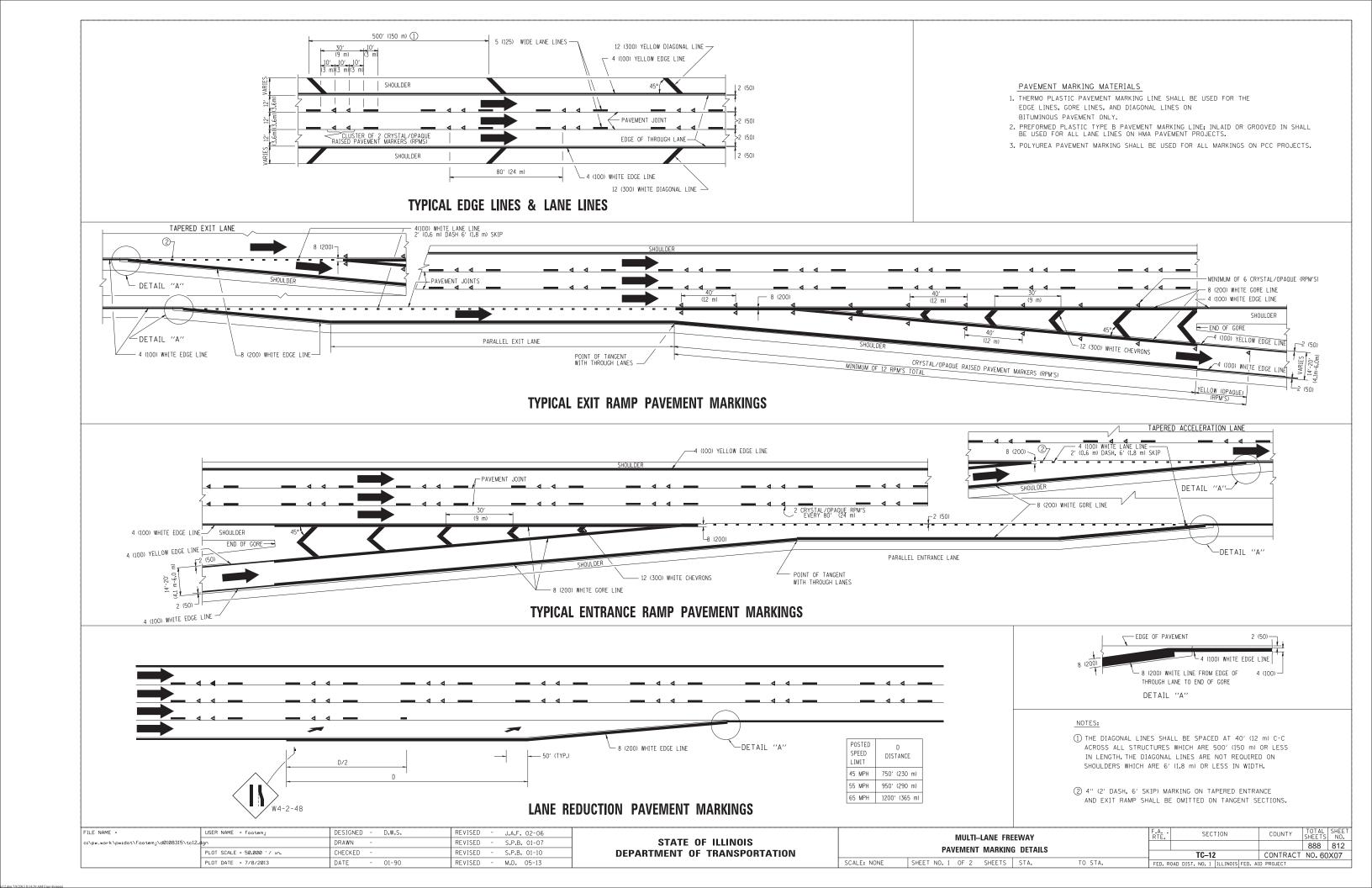
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD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

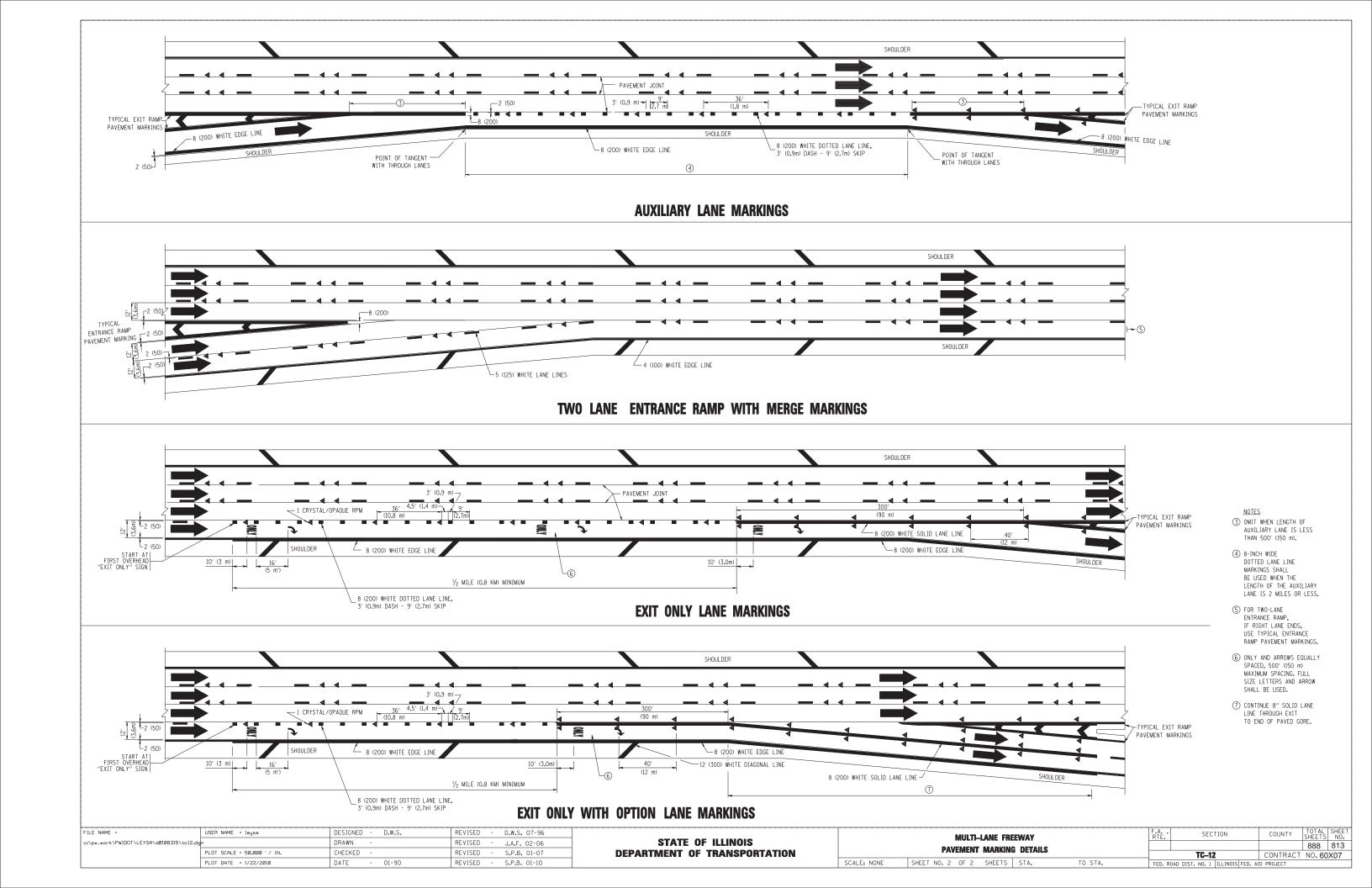
SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

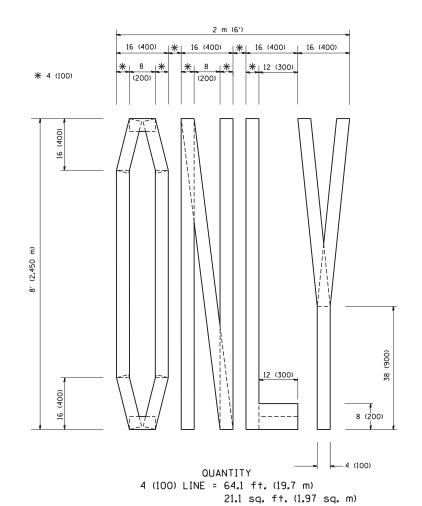
LEFT TURN

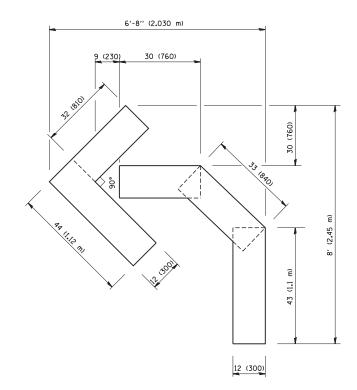
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = leysa	DESIGNED -	REVISED -	T. RAMMACHER 09-19-94			TYPICAL APPLICATIONS	RTF.	SECTION	COUNTY TOTAL SHEET NO.
c:\pw_work\pwidot\leysa\d0108315\tc11.dgn		DRAWN -	REVISED -	T. RAMMACHER 03-12-99	STATE OF ILLINOIS	241052				888 811
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	T. RAMMACHER 01-06-00	DEPARTMENT OF TRANSPORTATION	KAISED	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		TC-11	CONTRACT NO. 60X07
	PLOT DATE = 3/2/2011	DATE -	REVISED -	- C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FE	ED. AID PROJECT

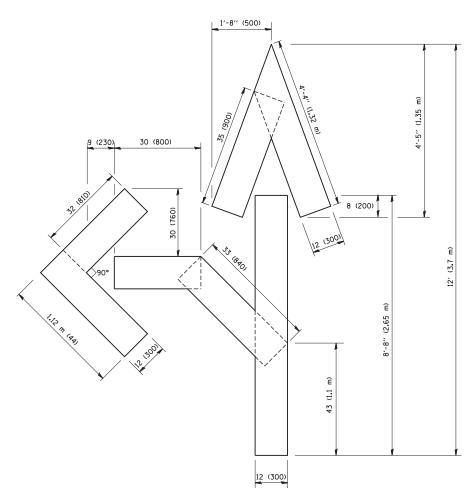








OUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)



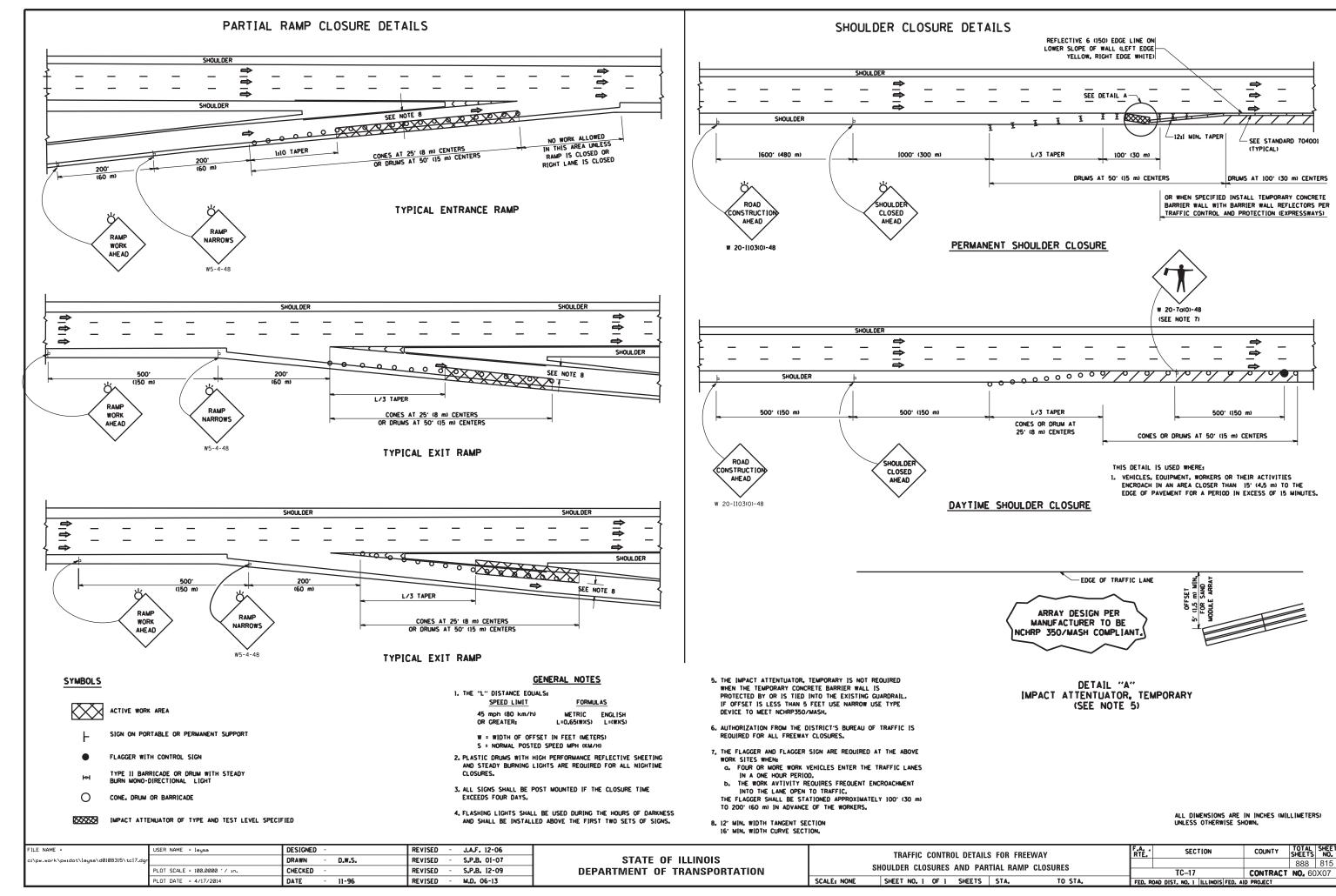
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
W:\diststd\22x34\tc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

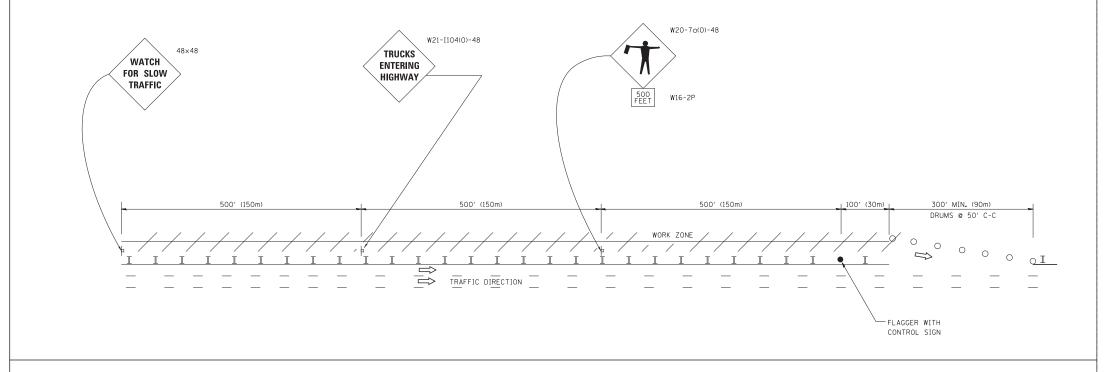
STATE	OF ILLINOIS	
DEPARTMENT O	OF TRANSPORTATION	1

	PAVEMENT MARKING LETTER	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	FOR TRAFFIC ST				888	814		
	FOR TRAFFIC 31		TC-16	CONTRACT	NO. 60	X07		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. R	OAD DIST, NO. 1 ILLINOIS FED. AI	D PROJECT		

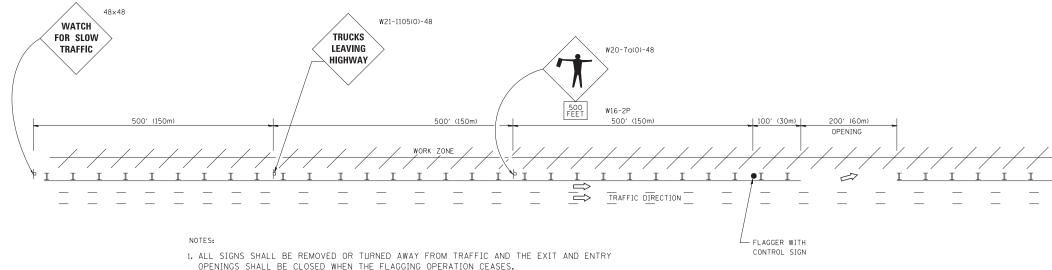


SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



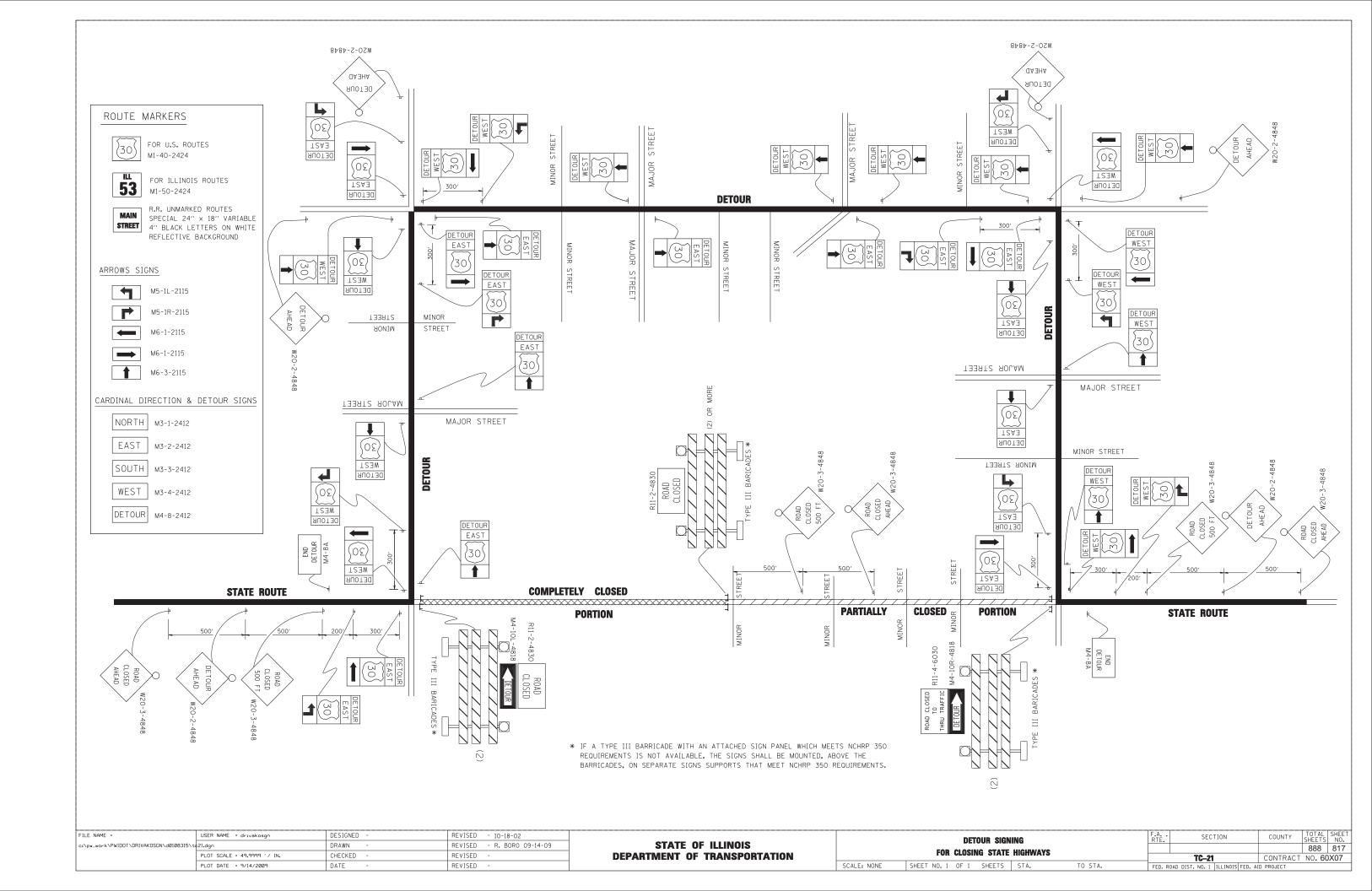
WORK ZONE ENTRY OPENING

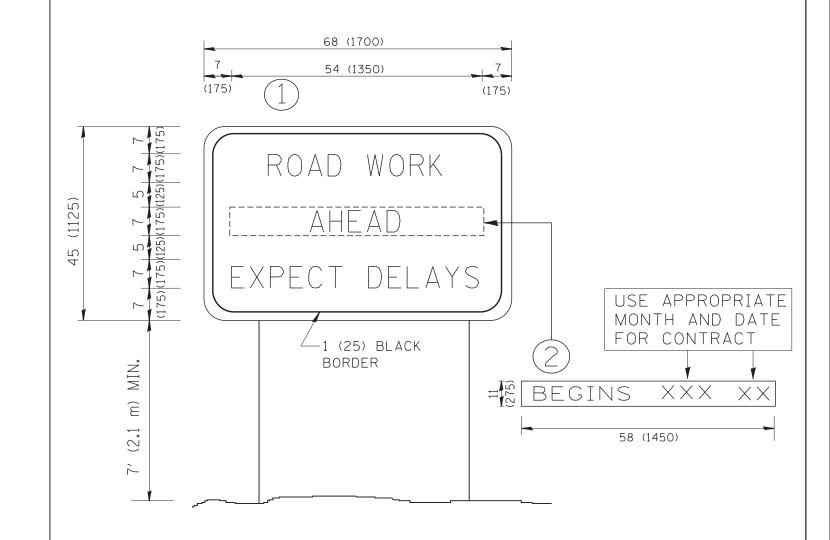


- 1. ALL SIGNS SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
- 2. WORK ZONE OPENINGS SHALL BE A MINIMUM OF ONE HALF MILE APART AND A MINIMUM OF ONE QUARTER MILE FROM ALL ENTRANCE AND EXIT RAMPS.
- 3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
- 4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS
- 5. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - J.A.F. 02-06		FREEV	VAY/EXPRESSWAY SIGNING FO	R FLAGGING O	PERATIONS	RTE.	SECTION	COUNTY	SHEETS	NO.
c:\pw_work\pwidot\footemj\d0108315\tc18	.dgn	DRAWN -	REVISED - S.P.B. 01-07	STATE OF ILLINOIS								888	816
PLOT SCALE = 50.000 '/ in.		CHECKED -	REVISED - S.P.B. 12-09	DEPARTMENT OF TRANSPORTATION	AI	WORK ZONE OPENINGS ON F	REEWAYS/EXPRE	:55WAY5		TC-18	CONTRACT	NO. 602	X07
	PLOT DATE = 7/8/2013	DATE -	REVISED - M.D. 06-13		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



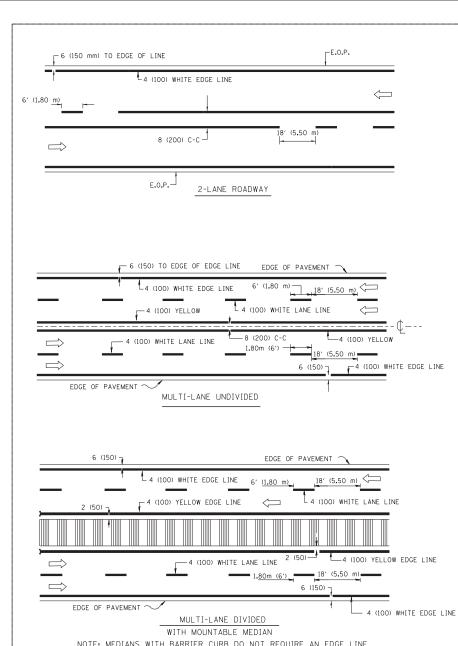


NOTES:

- 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.

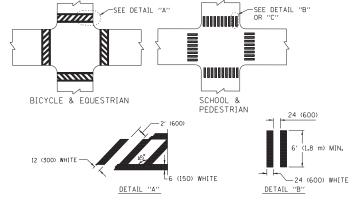
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97			ARTERIAL ROAD		ECTION	COUNTY TOTAL SHEETS	SHEET
W:\diststd\22x34\tc22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97	STATE OF ILLINOIS			10122		888	818
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99	DEPARTMENT OF TRANSPORTATION		INFORMATION SIGN	TC-		ONTRACT NO. 60>	K07
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO.	. 1 ILLINOIS FED. AID PF		

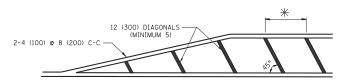


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



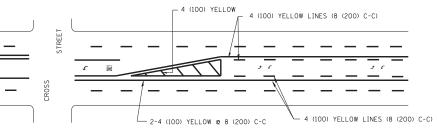




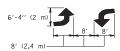
* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED

* DIAGONAL LINE SPACING: 20' (6.1 m) C-C

PAINTED MEDIANS

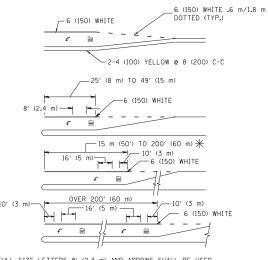


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

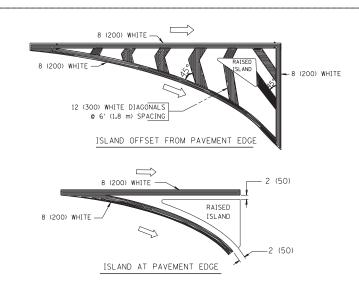


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.8 SO. FT. (1.47 m²) ONLY AREA = 22.9 SO. FT. (2.13 m²)

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	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 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) 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' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4 m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL & PEDESTRIAN)	12 (300) @ 45° 24 (600) @ 90°	SOLID SOLID	WHITE WHITE	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°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	8 (200) 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: 20' (6.1 m) (LESS THAN 30 MPH (50 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 SO. FT. (0.33m ²) EACH "X"=54.0 SO. FT. (5.0 m ²)

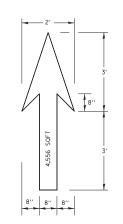
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

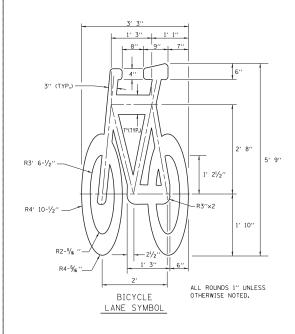
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED	-T. RAMMACHER	12-07-0
c:\pw_work\pwidot\drivakosgn\d0108315\tc	24.dgn	DRAWN -	REVISED	- K. ENG	02-28-
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED	-	
	PLOT DATE = 3/1/2012	DATE -	REVISED	-	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

CITY OF CHICAGO						SECTI	ON	COUNTY	SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS									888	819
TTFICAL FAVEWENT WARKINGS						TC-24		CONTRACT	NO. 60	X07
SCALE: NONE	SHEET NO. 1 OF 3	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

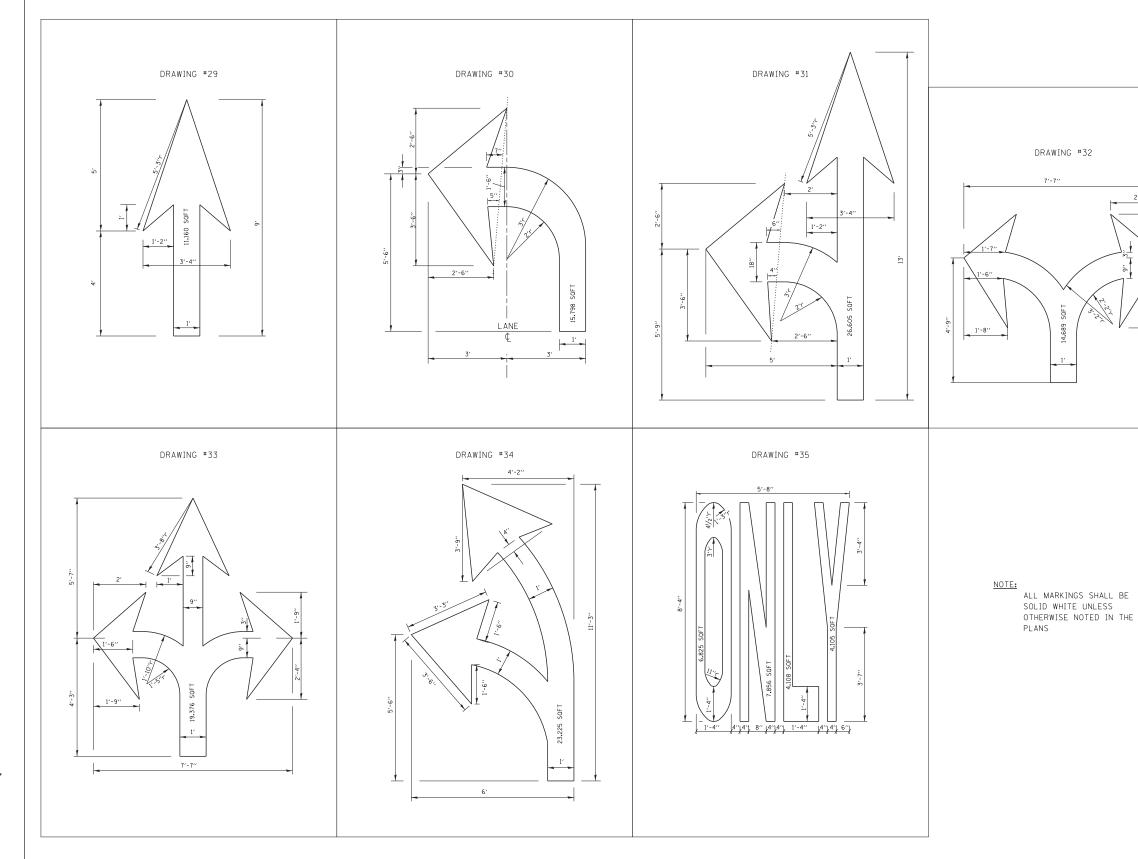




- NOTE:

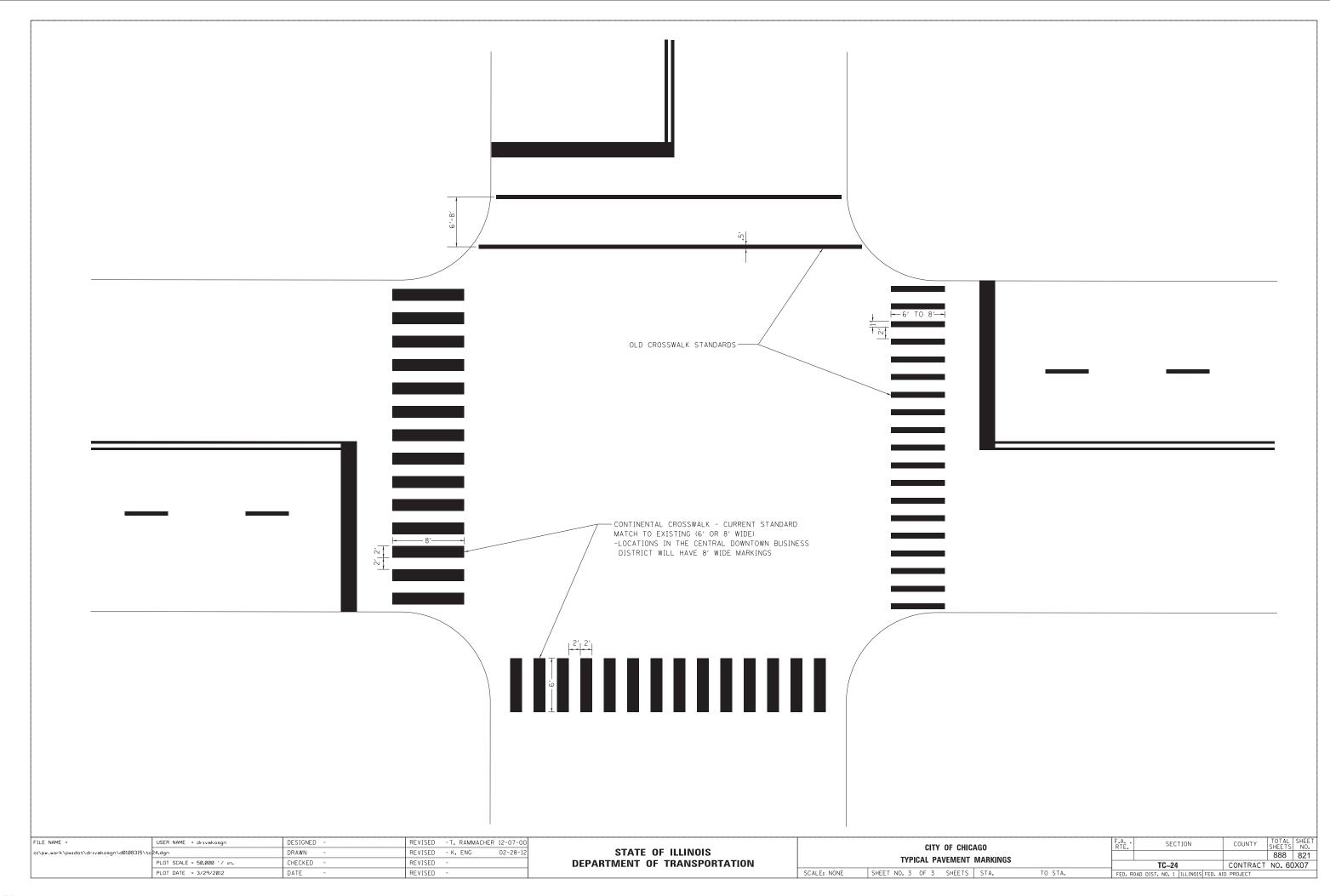
 1.) FOR BIKE LANE SYMBOLS ONLY,
 USE PRE-FORMED THERMOPLASTIC
 WITH A MINIMUM THICKNESS OF 90 MILS,
 MINIMUM SKID RESISTANCE VALUE OF 60 BPN,
 & A MINIMUM INDEX OF REFRACTION OF 1.50.
- 2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS DRAWING #28

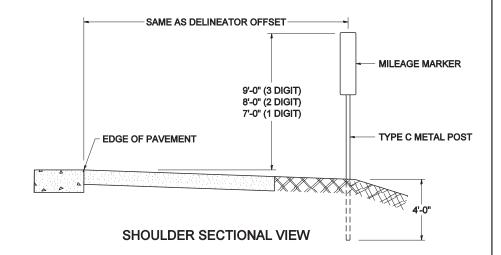


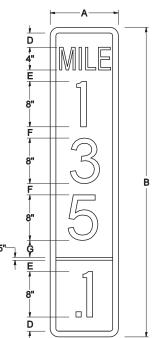
COUNTY TOTAL SHEET NO. 888 820 CONTRACT NO. 60X07

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED -T. RAMMACHER 12-07-00			CITY OF CHICAGO		F.A	SECTION
c:\pw_work\pwidot\drivakosgn\d0108315\tc	24.dgn	DRAWN -	REVISED - K. ENG 02-28-12	STATE OF ILLINOIS	TYPICAL PAVEMENT MARKINGS		Ado		
	PLOT SCALE = 50.000 '/ 10.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					C-24
	PLOT DATE = 3/29/2012	DATE -	REVISED -		SCALE: NONE	SHEET NO. 2 OF 3 SHEETS STA.	TO STA.	FED. ROAD DIST. N	10. 1 ILLINOIS FED. AID



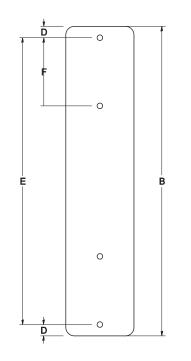
STANDARD DESIGN FOR MILE POST





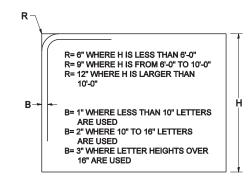
	D +		. o L			<u>_</u>		
SIGN	DIMENSIONS							
SIZE	Α	В	С	D	Ε	F	G	DIGIT
12 × 24	12.0	24.0	1.5	1.5	1.5	N/A	1.5	1
12 × 36	12.0	36.0	1.5	2.0	2.0	2.0	1.5	2
12 × 48	12.0	48.0	1.5	2.5	2.0	2.0	2.5	3

			SERIES	,		Ж	
SIGN SIZE			LINES			BORDER	BLANK STD.
	1	2	3	4	5	m	
12 × 24	4C	8D	4C	N/A	N/A	0.5	B9-1224
12 × 36	4C	8D	8D	4C	N/A	0.5	B9-1236
12 × 48	4C	8D	8D	8D	4C	0.5	B9-1248

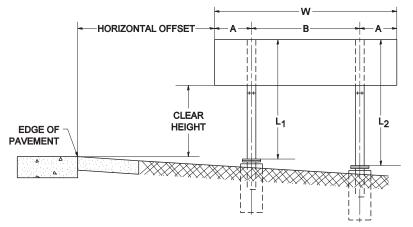


					_	
BLANK	Α	В	С	D	E	F
B9-1224	12.0	24.0	1.5	2.0	20.0	N/A
B9-1236	12.0	36.0	1.5	2.0	32.0	12.0
B9-1248	12.0	48.0	1.5	2.0	44.0	12.0

BORDER AND RADIUS LAYOUT



MAJOR GUIDE SIGN LAYOUT



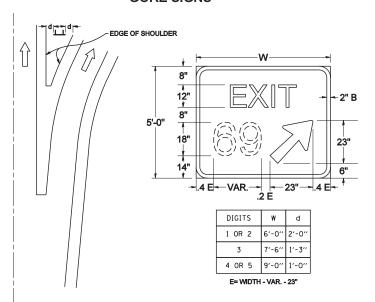
NUMBER OF STEEL SUPPORTS	Α	В
2	.2 W	.6 W
3	.15 W	.35 W
4	.125 W	.25 W
5	.1 W	.2 W

"L₁IS THE LENGTH OF SUPPORT, NOT INCLUDING THE STUB PROJECTION, CLOSEST TO THE EDGE OF THE PAVEMENT.

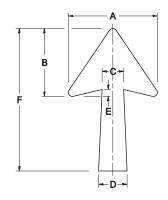
"A" IS THE DISTANCE FROM THE SIGN EDGE TO THE CENTERLINE OF THE NEAREST SUPPORT. "B" IS THE DISTANCE BETWEEN CENTERLINES OF SUPPORTS.

SCALE: NONE

GORE SIGNS

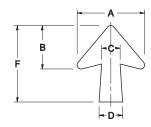


STANDARD ARROWS FOR INTERSTATE GUIDE SIGNS



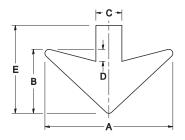
ARROW SYMBOL	Α	В	С	D	E	F	R
24 ¹ / ₄ × 15 ¹ / ₈	151/8	11%	3¾	5	15/16	241/4	13/16
29 ¹ / ₄ × 18 ¹ / ₄	181/4	14	41/2	6	11/2	291/4	3/4
35% × 221/4	221/4	17	5¾	71/8	1¾	35%	1
181/4 × 111/4	111/4	8¾	31/8	3 1/8		18 ¹ / ₄	

NOTE: D & F ARE RECOMMENDED DIMENSIONS. TAPER SHOULD BE HELD CONSTANT FOR LONGER OR SHORTER SHAFT LENGTHS



ARROW SYMBOL	Α	В	С	D	E	F	R
17 ¹ / ₄ × 14 ¹ / ₄	141/4	913//6	33/8	41/2	15/16	171/4	3/4
20 ¹ / ₄ × 17 ¹ / ₄	171/4	113/4	43/8	5%	11/2	201/4	
25 × 21 1/8	21 1/8	141/4	5	6¾	1¾	25	1
9% × 8%	81/16	5½	25/16	215/16		9%	1/2

DOWN ARROWS



ARROW SYMBOL	Α	В	С	D	E	R
161/2 × 24	24	12	5	11/2	161/2	3/4
22 × 32	32	16	61/2	3	22	1

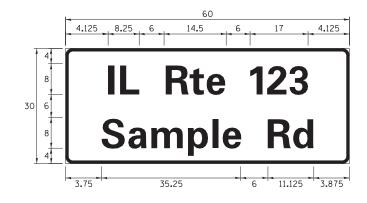
FILE NAME = USER NAME = gaglianobt DESIGNED - REVISED - 02-04-2009 to27-dgn PLOT SCALE = 50.0000 '/ IN. CHECKED - REVISED - REVISED - PLOT DATE = 2/4/2009 DATE - 03-08-1984 REVISED - REVISED - REVISED - CHECKED - REVISED - CHECKED - REVISED - CHECKED - CH

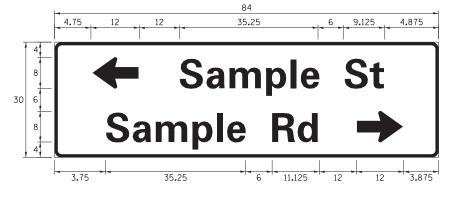
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	MILE	POST M	IARKERS -	GORE SIGI	VS	F.A RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	MA IOR	CHIDE	CICN I AV	DUT – ARRO	nwe					888	822
_				JOI – Ann		_	TC-27	(TS-2341-1)	CONTRACT	NO. 60	X07
	SHEET NO.	OF 1	SHEETS	STA	TO STA.	EED E	OAD DICT	NO 1 THE INDIC EED A	ID DDO IECT		

SIGN PANEL - TYPE 1 OR TYPE 2

3.75 35.25 6 11.125 3.875 Sample Rd





DESIGN	AREA	SIGN PANEL	SHEETING	QTY.
SERIES	(SQ FT)	TYPE	TYPE	REQUIRED
D OR C	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH	(INCH)
NAME	ADDREVATION	SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	C†	8. 250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	ΙL	7.000	8. 250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	PΙ	7.125	7. 750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	S†	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7. 750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" × 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- 2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- 3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- 4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUX OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THERE IS SPACE AVAILABLE.
- 5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- 6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS: PARTS LISTING:

- J.O. HERBERT COMPANY, INC
MIDLOTHIAN, VA
SIGN SCREWS
PART #HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
SELE TAPPING WITH NEOPRENE

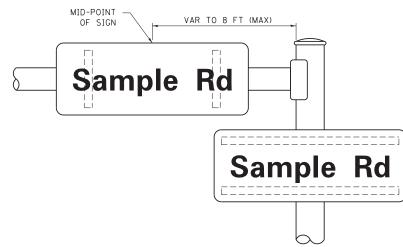
- WESTERN REMAC, INC. BRACKETS PART #HPNO34 (UNIVERSAL)

WOODRIDGE, IL CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

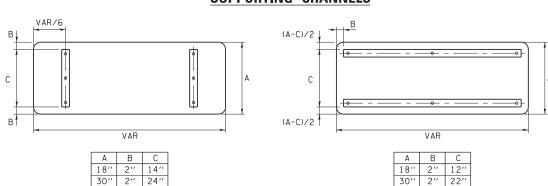
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION





SUPPORTING CHANNELS



SCALE:

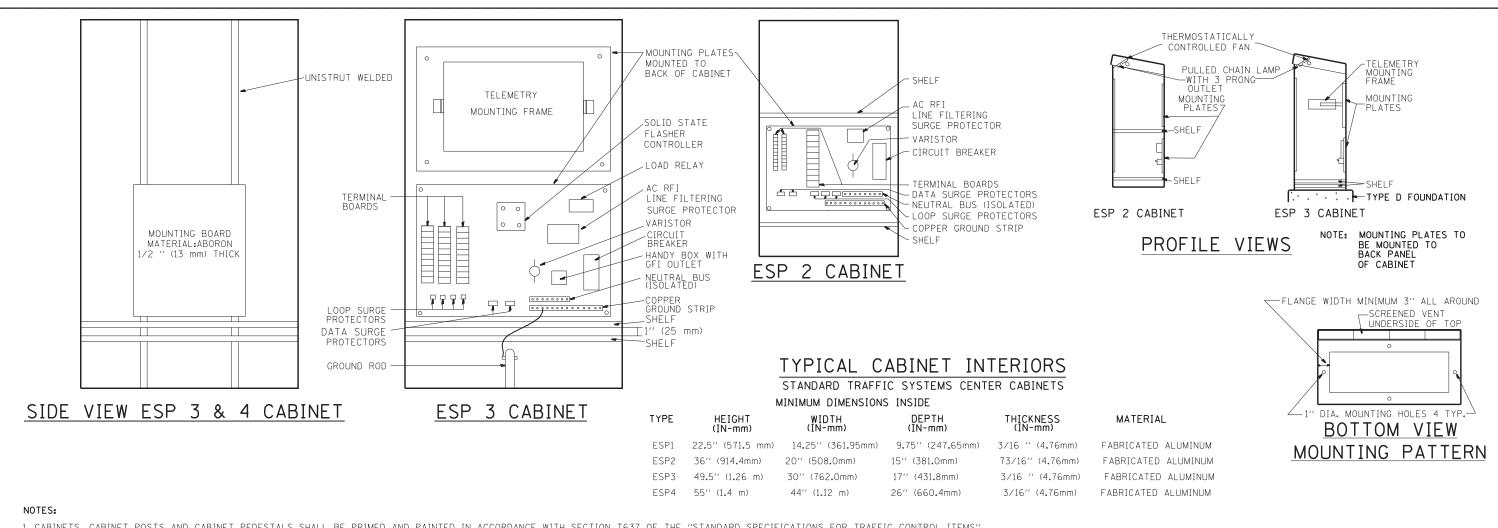
STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

	FHWA SEF	RIES "C"		FHWA SERIES "D"						
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)			
Α	0.240	5.122	0.240	А	0.240	6.804	0.240			
В	0.880	4.482	0.480	В	0.960	5.446	0.400			
С	0.720	4.482	0.720	С	0.800	5.446	0.800			
D	0.880	4.482	0.720	D	0.960	5.446	0.800			
E	0.880	4.082	0.480	E	0.960	4.962	0.400			
F	0.880	4.082	0.240	F	0.960	4.962	0.240			
G	0.720	4.482	0.720	G	0.800	5.446	0.800			
H	0.880	4.482	0.880	H	0.960	5.446	0.960			
I	0.880	1.120	0.880	I	0.960	1.280	0.960			
J K	0.240	4.082 4.482	0.880	J K	0.240 0.960	5.122 5.604	0.960			
L	0.880	4.082	0.480	L	0.960	4. 962	0.240			
M	0.880	5. 284	0.880	М	0.960	6. 244	0.960			
N	0.880	4.482	0.880	N	0.960	5.446	0.960			
0	0.720	4.722	0.720	0	0.800	5.684	0.800			
Р	0.880	4.482	0.720	Р	0.960	5.446	0.240			
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800			
R	0.880	4.482	0.480	R	0.960	5.446	0.400			
S	0.480	4.482	0.480	S	0.400	5.446	0.400			
T	0.240	4.082	0.240	Т	0.240	4.962	0.240			
U	0.880	4.482	0.880	U	0.960	5.446	0.960			
V	0.240	4.962	0.240	V	0.240	6.084	0.240			
W	0.240	6.084	0.240	W	0.240	7. 124	0.240			
X Y	0.240 0.240	4.722	0.240	X Y	0.400	5.446 6.884	0.400			
Z	0.480	5.122 4.482	0.480	Z	0.240 0.400	5.446	0.400			
	0.480	3.842	0.480	0	0.400	4.562	0.720			
b	0.720	4.082	0.480	Ь	0. 400	4. 802	0.480			
С	0.480	4.002	0.240	С	0.480	4. 722	0.240			
d	0.480	4.082	0.720	d	0.480	4.802	0.800			
е	0.480	4.082	0.320	е	0.480	4.722	0.320			
f	0.320	2.480	0.160	f	0.320	2.882	0.160			
g	0.480	4.082	0.720	g	0.480	4.802	0.800			
h	0.720	4.082	0.640	h	0.800	4.722	0.720			
ī	0.720	1.120	0.720	i	0.800	1.280	0.800			
j	0.000	2.320	0.720	j	0.000	2.642	0.800			
k	0.720	4. 322	0.160	k	0.800	5.122	0.160			
1	0.720	1.120	0.720	l 	0.800	1.280	0.800			
m	0.720	6.724	0.640	m	0.800	7. 926	0.720			
n	0.720 0.480	4.082 4.082	0.640	n	0.800 0.480	4.722 4.882	0.720			
о Р	0.720	4.082	0.480	O P	0.480	4.802	0.480			
Q P	0. 480	4.082	0.720	q	0.480	4. 802	0.800			
r	0.720	2.642	0.160	r	0.800	3.042	0.160			
s	0.320	3. 362	0.240	s	0.320	3. 762	0.240			
+	0.080	2.882	0.080	+	0.080	3. 202	0.080			
U	0.640	4.082	0.720	u	0.720	4.722	0.800			
٧	0.160	4.722	0.160	٧	0.160	5.684	0.160			
W	0.160	7.524	0.160	w	0.160	9.046	0.160			
×	0.000	5.202	0.000	×	0.000	6.244	0.000			
У	0.160	4.962	0.160	У	0.160	6.004	0.160			
Z	0.240	3. 362	0.240	Z	0.240	4.002	0.240			
1	0.720	1.680	0.880	1	0.800	2.000	0.960			
2	0.480	4.482	0.480	2	0.800	5.446	0.800			
3 4	0.480 0.240	4.482 4.962	0.480	3 4	1.440	5.446 6.004	0.800			
5	0. 240	4. 482	0.720	5	0.160 0.800	5.446	0.800			
6	0.720	4.482	0.720	6	0.800	5. 446	0.800			
7	0.120	4.482	0.720	7	0.560	5. 446	0.560			
8	0.480	4.482	0.480	8	0.800	5. 446	0.800			
9	0.480	4.482	0.480	9	0.800	5.446	0.800			
0	0.720	4.722	0.720	0	0.800	5.684	0.800			
-	0.240	2.802	0.240	-	0.240	2.802	0.240			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS				F.A. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.		
							888	823		
10	WAST ARM WOUNTED STREET WANTE SIGNS					TS-02	CONTRACT	NO. 60	X07	
	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



- 1. CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH SECTION T637 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS". THE FINAL COAT SHALL BE (X) IN COLOR. THE INTERIOR SHALL BE PAINTED WHITE. SIGNAL POSTS AND HEADS TO BE FEDERAL YELLOW 89-19(MAUTZ).
- 2. CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION T400 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
- 3. ALL CABINETS WHICH ARE SERVICED BY 117 VOLTS A.C. POWER SHALL BE EQUIPPED WITH A 10 AMP CIRCUIT BREAKER, A.C. R.F.I. LINE FILTERING SURGE PROTECTOR, VARISTOR, DATA SURGE AND LOOP SURGE PROTECTORS AS INCIDENTAL TO THE COST OF THE CABINET. CMS CABINETS TYPE IV SHALL HAVE A 60 AMP. CIRCUIT BREAKER MINIMUM.
- 4. ESP 2/3/4 CABINETS SHALL BE FITTED WITH A THERMOSTATICALLY CONTROLLED FAN. IT SHALL BE MOUNTED AT THE TOP OF THE CABINET. THE FAN SHALL BE CAPABLE OF OPERATING AT 130 CPM AT 160' (48.8 m) OF STATIC WATER PRESSURE. A PORCLAIN BASED PULL CHAIN FIXTURE WITH 3 PRONG OUTLET SHALL ALSO BE PROVIDED.
- 5. RAMP METERING ESP 3 TYPE CABINETS SHALL ALSO BE EQUIPPED WITH A LOAD RELAY AND 2 CIRCUIT FLASHER, LAMPS, FAN, LOAD RELAY, AND 2 CIRCUIT FLASHER SHALL BE INCIDENTAL TO THE COST OF THE CABINET
- 6. INCIDENTAL TO THE COST OF EACH CABINET THE CONTRACTOR SHALL CONSTRUCT A 5 INCH (130mm) PCC SIDEWALK OF A RECTANGULAR AREA 3 FEET (915 mm) BY 4 FEET (1.25 m) IMMEDIATELY ADJACENT TO THE CABINET FOUNDATION ON THE SAME SIDE OF THE FOUNDATION AS THE CABINET DOOR TO PROVIDE FOOTING DURING INSTALLATION AND MAINTENANCE.
- 7. ANCHOR BOLTS FOR PEDESTAL AND BASE MOUNTED CABINETS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- 8. ALL CABINETS SHALL HAVE TERMINAL BLOCKS AND SHELVES AS SHOWN. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- 9. THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE CABINET. THE DOOR SHALL BE FURNISHED WITH A GASKET THAT SHALL FORM A WEATHER TIGHT SEAL BETWEEN THE CABINET AND DOOR, THE HINGES SHALL BE CONTINUOUS AND BOLTED TO THE CABINET AND DOOR UTILIZING 1/4-20
 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGES WILL BE MADE OF STAINLESS STEEL WITH A 0.25 INCH (6.35 mm) DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER PROOF.
- 10. THE LATCHING MECHANISM SHALL BE A 3 POINT DRAW ROLLER TYPE. THE CENTER CATCH AND PUSHRODS SHALL BE EITHER CADMIUM OR ZINC PLATED, TYPE II CLASS I. PUSHRODS WILL BE TURNED EDGEWISE AT THE OUTWARD SUPPORTS AND SHALL BE 0.25 INCH (6.35 mm) BY 0.75 INCH (19.05 mm), MINIMUM. ROLLERS SHALL HAVE A MINIMUM DIAMETER OF 0.875 INCH (22.22 mm) AND WILL BE MADE OF NYLON. THE CENTER CATCH SHALL BE FABRICATED FROM 0.14 INCH (3.55 mm) STEEL, MIMIMUM. WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION. AN OPERATING HANDLE SHALL BE FURNISHED WITH EACH LOCK. THE HANDLE WILL BE STAINLESS STEEL WITH A 0.75 INCH (19.05 mm) DIAMETER SHANK.
- 11. THE ENCLOSURE SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS, MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
- 12. CABINET DOOR SHALL NOT HAVE COMPARTMENT DOORS OR LOUVERS.
- 13. ALL FIELD CABINETS SHALL BE FITTED WITH BRASS LOCKS.
- 14. ESP TYPE 2 & 3 CABINETS FITTED WITH TWO SHELVES AS SHOWN.
- 15. POST TOP MOUNTED CABINETS, SHALL HAVE A 0.25 INCH (6.3 mm) BOTTOM OF CABINET WELDED.
- 16. THE CONTROL CABINET SHALL BE SET PLUMB ON THE FOUNDATION AND FASTENED TO THE ANCHOR BOLTS WITH NUTS AND WASHERS. FLAT WASHERS SHALL BE INSTALLED BELOW AND ABOVE THE BASE PLATE OF THE CONTROL CABINET, LOCKWASHERS SHALL BE INSTALLED ON TOP OF THE TOP FLAT WASHER.

FILE NAME DESIGNED - R.L. **REVISED** - 12/94 ISER NAME = mezaa :\pw_work\pwidot\mezag\d0287541\TSC DRAWN - G.M. REVISED 09/96 LOT SCALE = 100.0000 '/ in. CHECKED REVISED 02/98 PLOT DATE = 2/7/2013 DATE - 06/21/94 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** TRAFFIC SYSTEMS CENTER

CABINET DETAIL SHEET SCALE: NONE SHEET NO. OF SHEETS STA.

SECTION COUNTY CONTRACT NO. 60X07 TO STA. FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT

WAI NUT * BLUE STREAK ** CARIBBEAN BLUE * I-290/IL53/I-355 POST OFFICE BLUE ** YELLOW STONE II ** MEDIUM BRONZE * RED BARON ** BLUE STREAK ** LAKE SHORE DR. GREEN *

STATUARY BRONZE **

888 824

ALL RAMP METERING CABINETS LIME GREEN ***. ALL POSTS, T.S. HEADS AND SERVICES WILL BE PAINTED FEDERAL YELLOW.

(X)

KENNEDY

RYAN

I-55

I-57

I-80

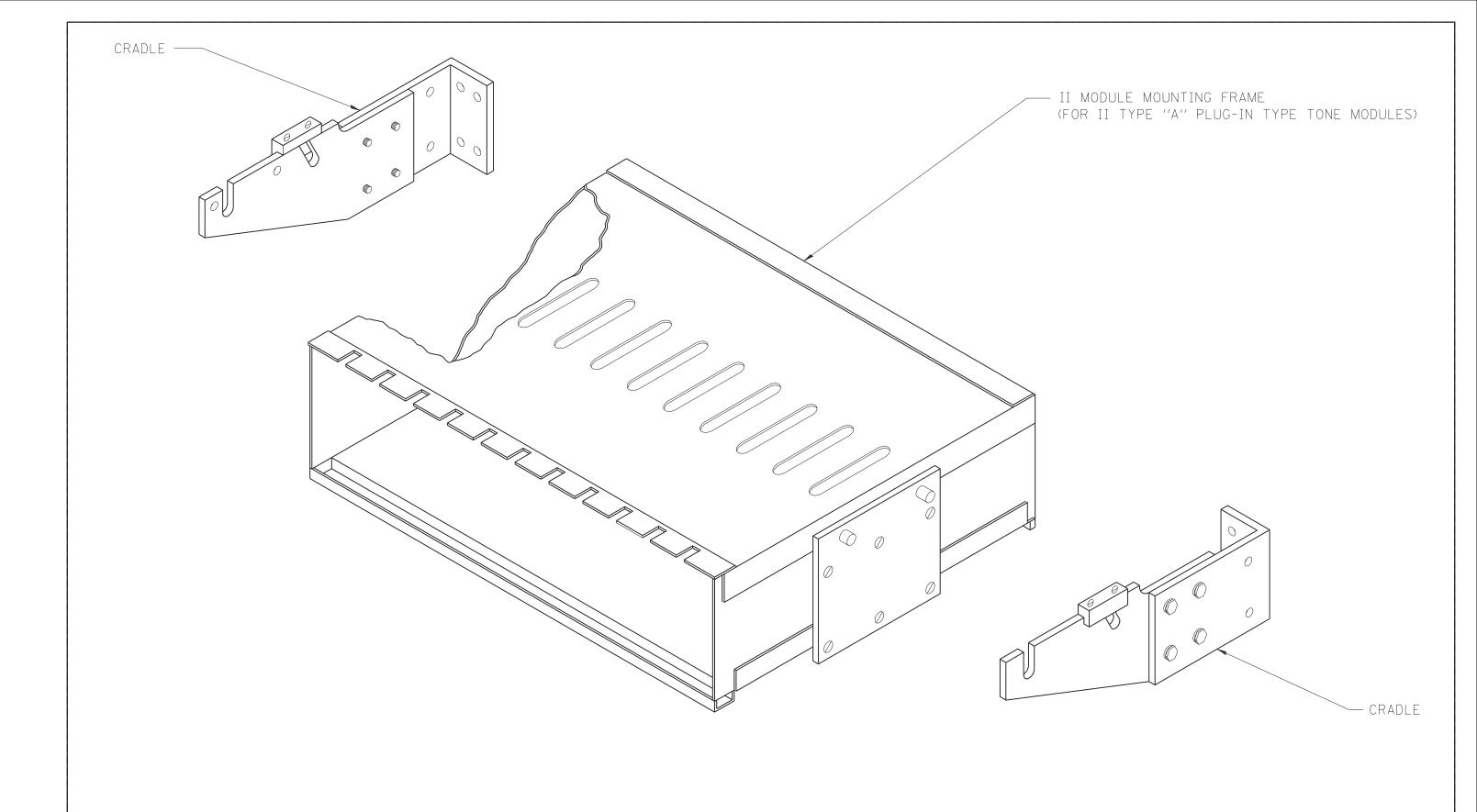
CAL-KING

EISENHOWER

- * MORTON POWDER PAINT COLOR OR EQUIVALENT.

 ** O'BRIEN POWDER PAINT COLOR OR EQUIVALENT.

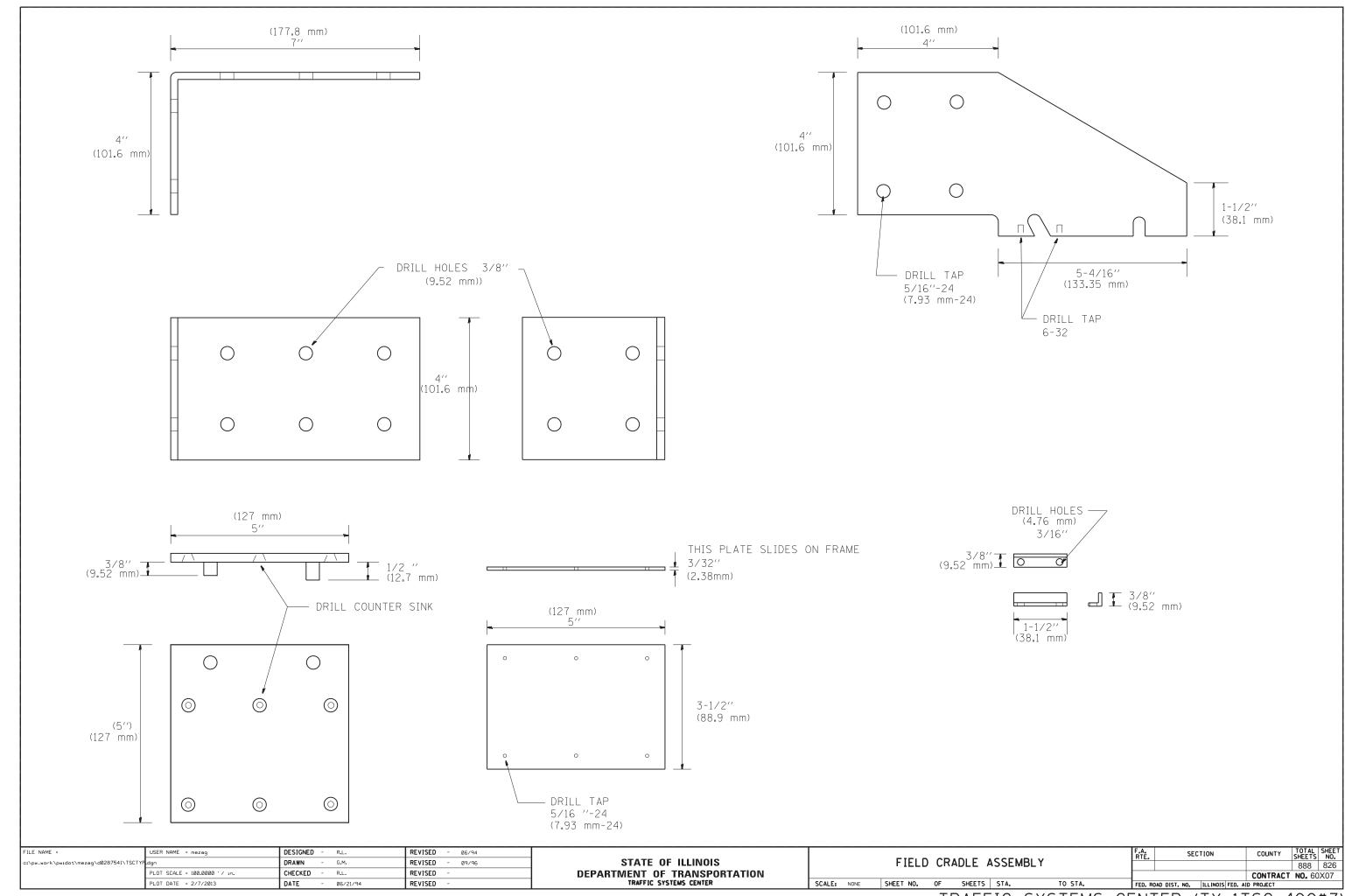
 *** BENJAMIN MOORE ENAMEL COLOR OR EQUIVALENT.
 - NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONFORMING TO COLOR REQUIREMENTS

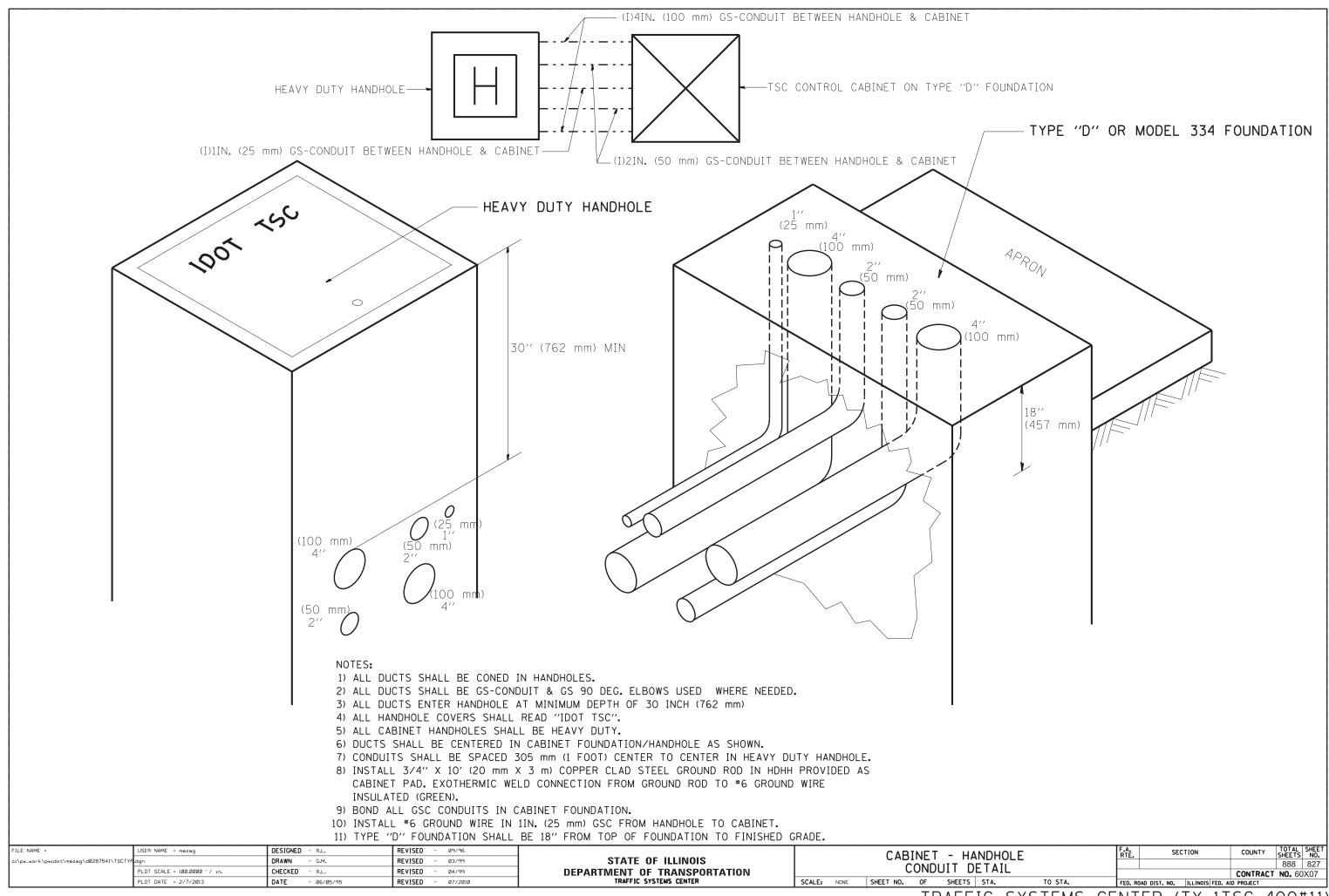


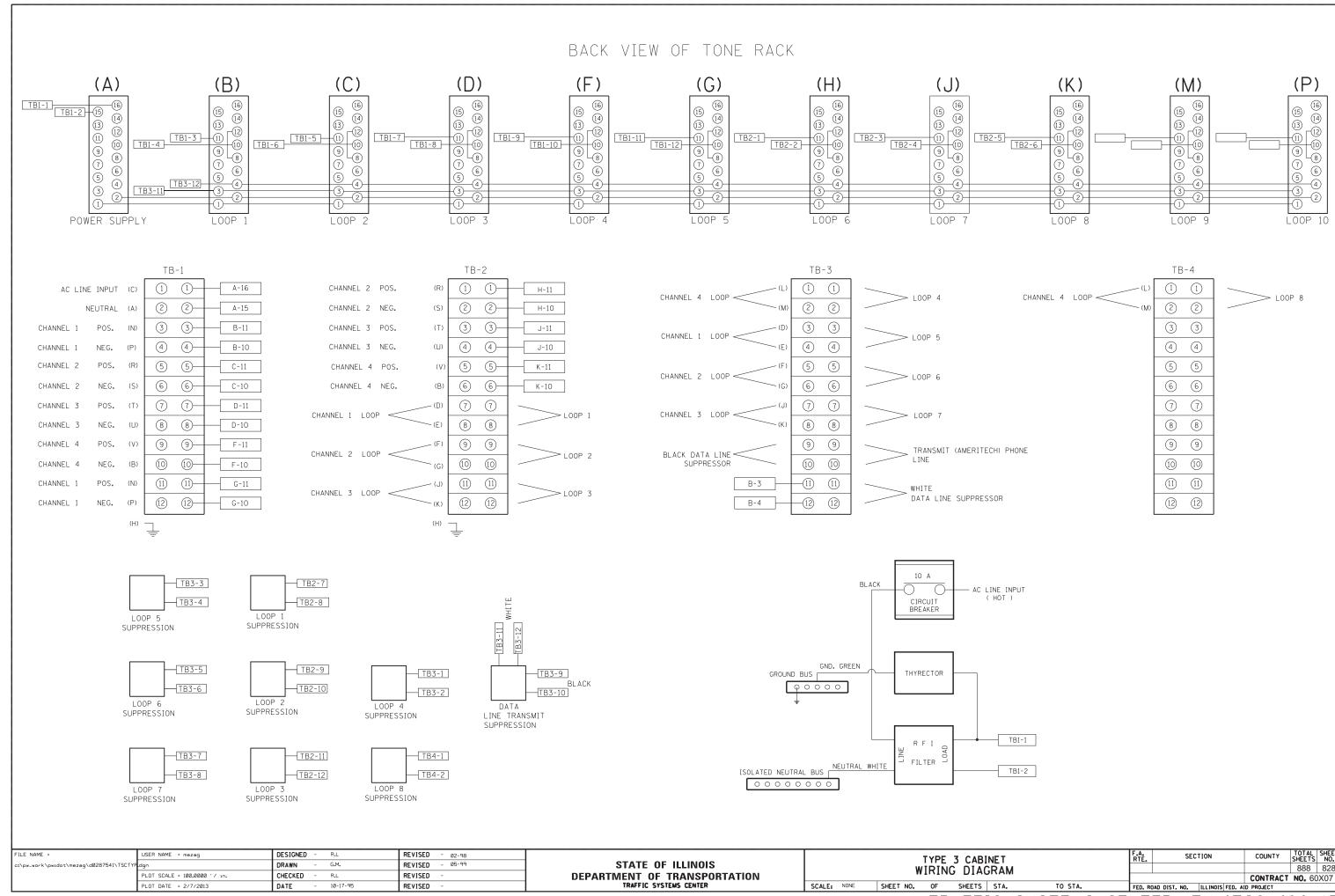
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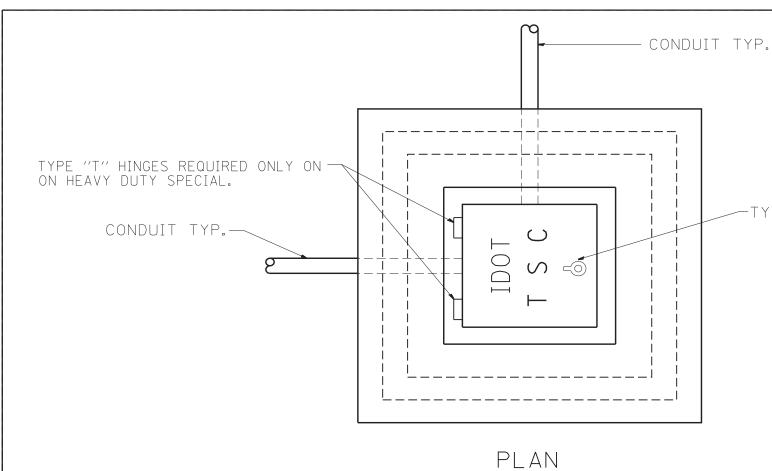
TYPE "A" TONE MODULES ARE PLUG
IN UNIT MEASURING 5-7/32" (132.55 mm) X 1.5" (38.1 mm) X 13-3/4" (349.25 mm)

Γ	ILE NAME =	USER NAME = mezag	DESIGNED - R.L.	REVISED - 06/94		FIELD MOUNTING FRAME	F.A. SECTION	COUNTY TOTAL SHEET SHEET NO.
	:\pw_work\pwidot\mezag\d028754[\TSCTYP	dgn	DRAWN - G.M.	REVISED - 09/96	STATE OF ILLINOIS		NIE.	888 825
		PLOT SCALE = 100.0000 ' / in.	CHECKED - R.L.	REVISED -	DEPARTMENT OF TRANSPORTATION	WITH CRADLE ASSEMBLY		CONTRACT NO. 60X07
		PLOT DATE = 2/7/2013	DATE - 06/21/94	REVISED -	TRAFFIC SYSTEMS CENTER	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AI	









TYPE "G" HANDLE FOR BOTH HDHH AND HDHH SPECIAL

HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

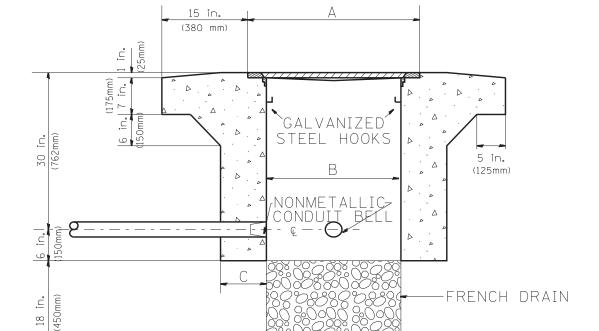
А	28'' (711 mm)
В	22" (559 mm)
С	8'' (200 mm)

(FRAME AND COVER 260 LBS. (118 Kg.) MIN.)

HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

А	31.5′′ (800 mm)
В	30.0" (762 mm)
С	10.0′′ (250 mm)

(FRAME AND COVER 405 LBS. (184 Kg. (405))



ELEVATION

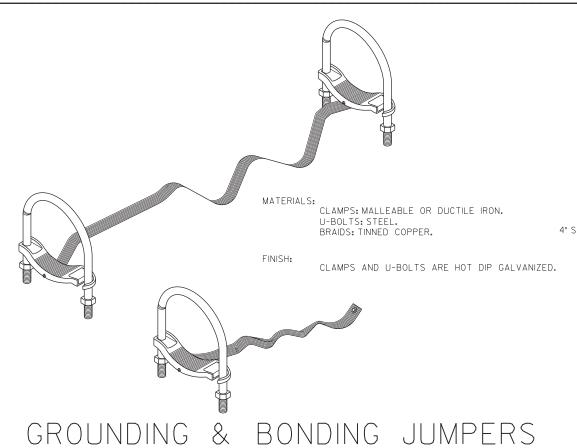
PC CONCRETE - HEAVY DUTY HAND HOLE

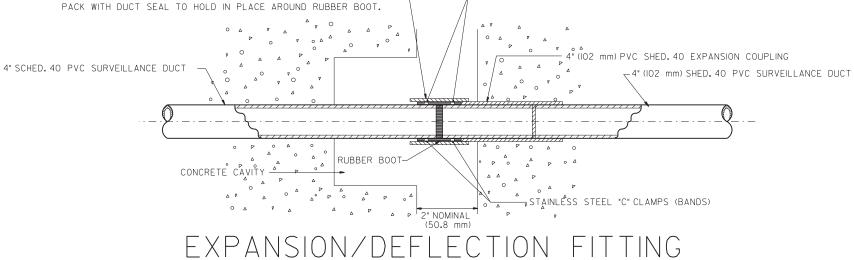
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c:\pw_work\pwidot\mezag\d0287541\TSCTYF	.dgn	DRAWN	-	G.M.	REVISED	-		
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	PLOT DATE = 2/7/2013	DATE	-	09/11/96	REVISED	-		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

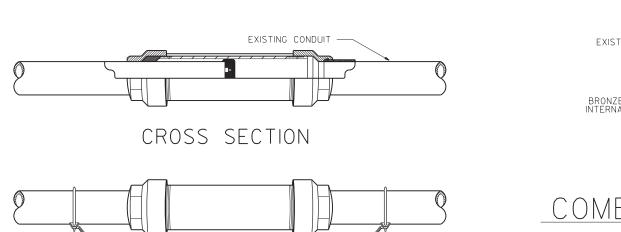
PC CONCRETE - HEAVY DUTY
HAND HOLE

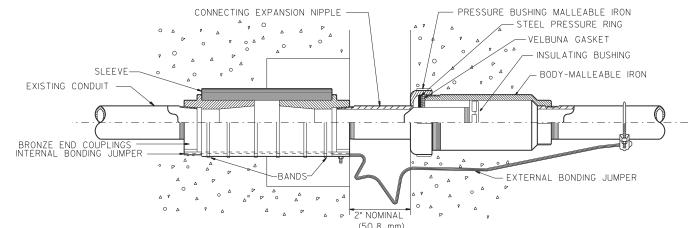
SCALE: NONE SHEET NO. OF SHEETS STA. TO STA. FED. ROAD DIST. N





- STAINLESS STEEL "C" CLAMPS (BANDS)





COMBINATION DEFLECTION/EXPANSION FITTINGS FOR RIGID METAL CONDUIT & IMC

FITTING CAN BE USED EXPOSED OR EMBEDDED IN CONCRETE. MATERIALS:

SLEEVE: NEOPRENE. END COUPLINGS: BRONZE.
BONDING JUMPER: TINNED COPPER BRAIDS.
BANDS: STAINLESS STEEL.

ALL MALLEABLE, DUCTILE IRON OR STEEL PARTS ARE HOT DIP GALVANIZED.

6" (152 mm) PVC SHED, 40 SLEEVE COVERING RUBBER BOOT.

MATERIALS:

HEAD: MALLEABLE OR DUCTILE IRON. SLEEVE: STEEL. INSULATING BUSHING: PHENOLIC.

BONDING

EXPANSION FITTINGS

FINISH:

HOT DIP GALVANIZED.

FOR RIGID STEEL, IMC

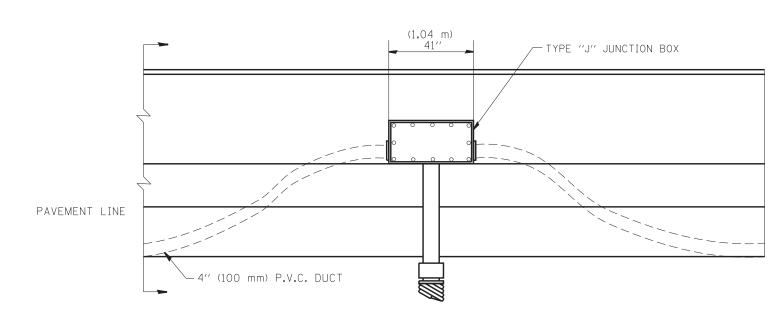
HOT BII GAEVANIZED.									
FILE NAME =	USER NAME = \$USER\$	DESIGNED - R.L.	REVISED - 03/99						
\$FILEL\$		DRAWN - G.M.	REVISED -						
	PLOT SCALE = \$SCALE\$	CHECKED - R.L.	REVISED -						
\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE - 01/22/98	REVISED -						

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATI

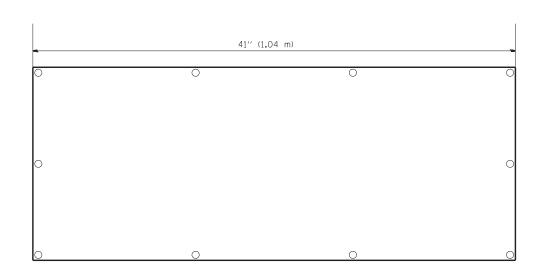
EXPANSION FITTING DETAIL SHEET SCALE: NONE SHEET SHEETS STA.

COUNTY 888 830 CONTRACT NO. 60X07

TO STA.



ELEVATION BARRIER WALL DUCT DETAIL



FRONT VIEW

ALL WELDS SHALL BE CONTINUOUS AND LEAK PROOF BOX AND COVER SHALL BE 0.25" (6.4 mm) TYPE 316 STAINLESS STEEL

BARRIER WALL SHALL BE GAPPED A MINIMUM OF 15' (4.57 m) FOR PROPER PLACEMENT OF JUNCTION BOX TYPE "J" AND FOR A SMOOTH TRANSITION OF 4" (100 mm) PVC SURVEILLANCE DUCT(S) FROM BARRIER WALL FOOTER INTO JUNCTION BOX.

FILE NAME =	USER NAME = mezag	DESIGNED	-	J.G.	REVISED	-	
c:\pw_work\pwidot\mezag\d028754!\TSCTYF	.dgn	DRAWN	-	G.M.	REVISED	-	ı
	PLOT SCALE = 100.0000 '/ in.	CHECKED	-	J.G.	REVISED	-	ı
	PLOT DATE = 2/7/2013	DATE	-	04-19-05	REVISED	-	ı

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

JUCTION BOX "TYPE J"
IN DOUBLE FACED
BARRIER WALL

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

2" (50 mm) (229 mm) 2" (50 mm)

4" (100 mm) P.V.C. DUCT

12" mm

1'-7" (483 mm)

1'-7" (483 mm)

3" (762 mm)

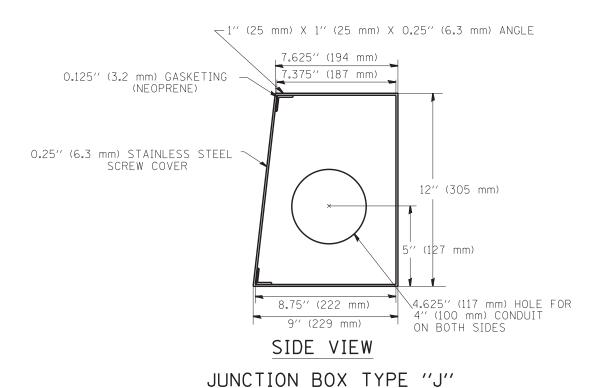
2"-6"

MIN.

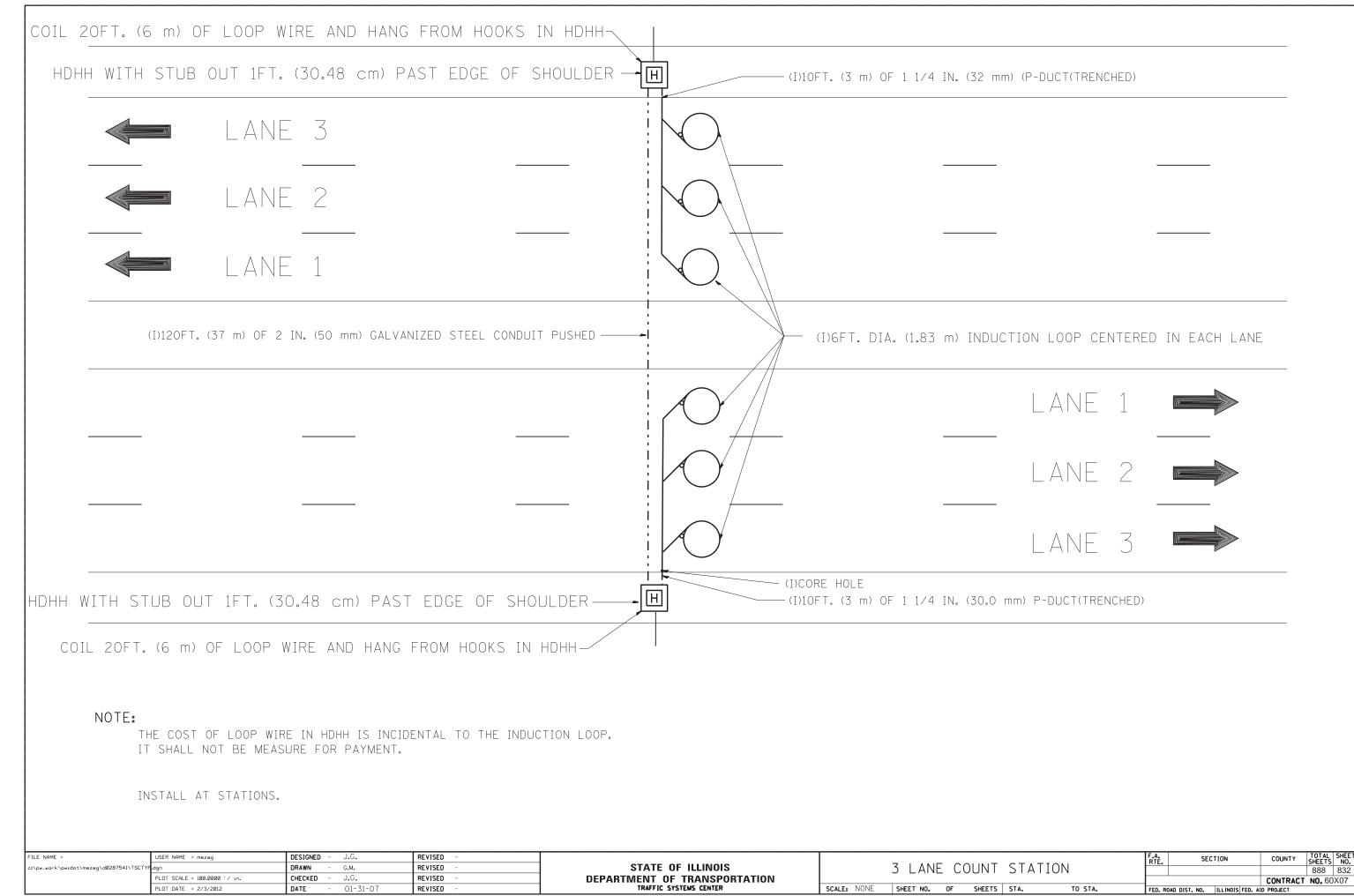
36" (914 mm)R-90° BEND

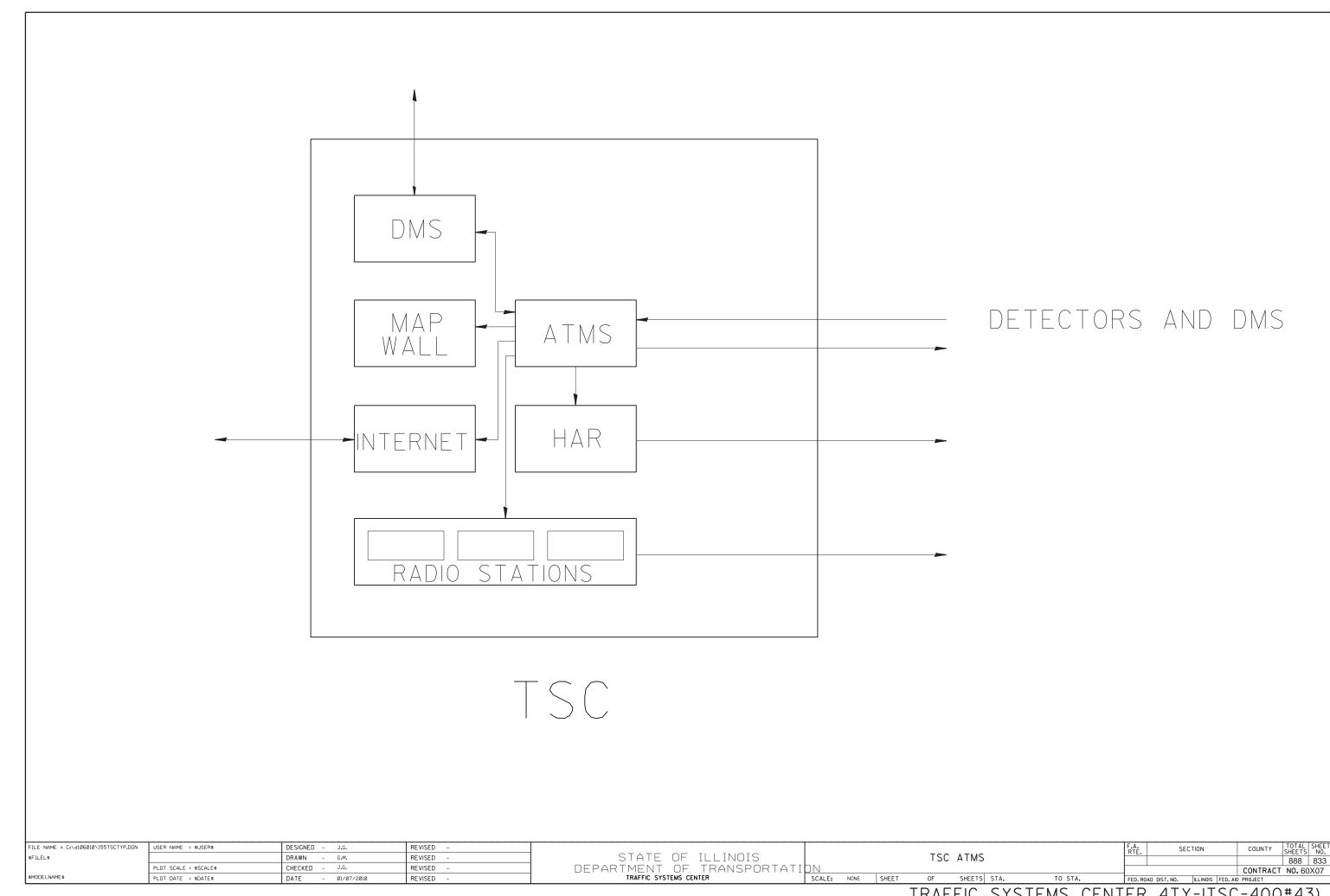
3" (76.2 mm) GS-CONDUIT

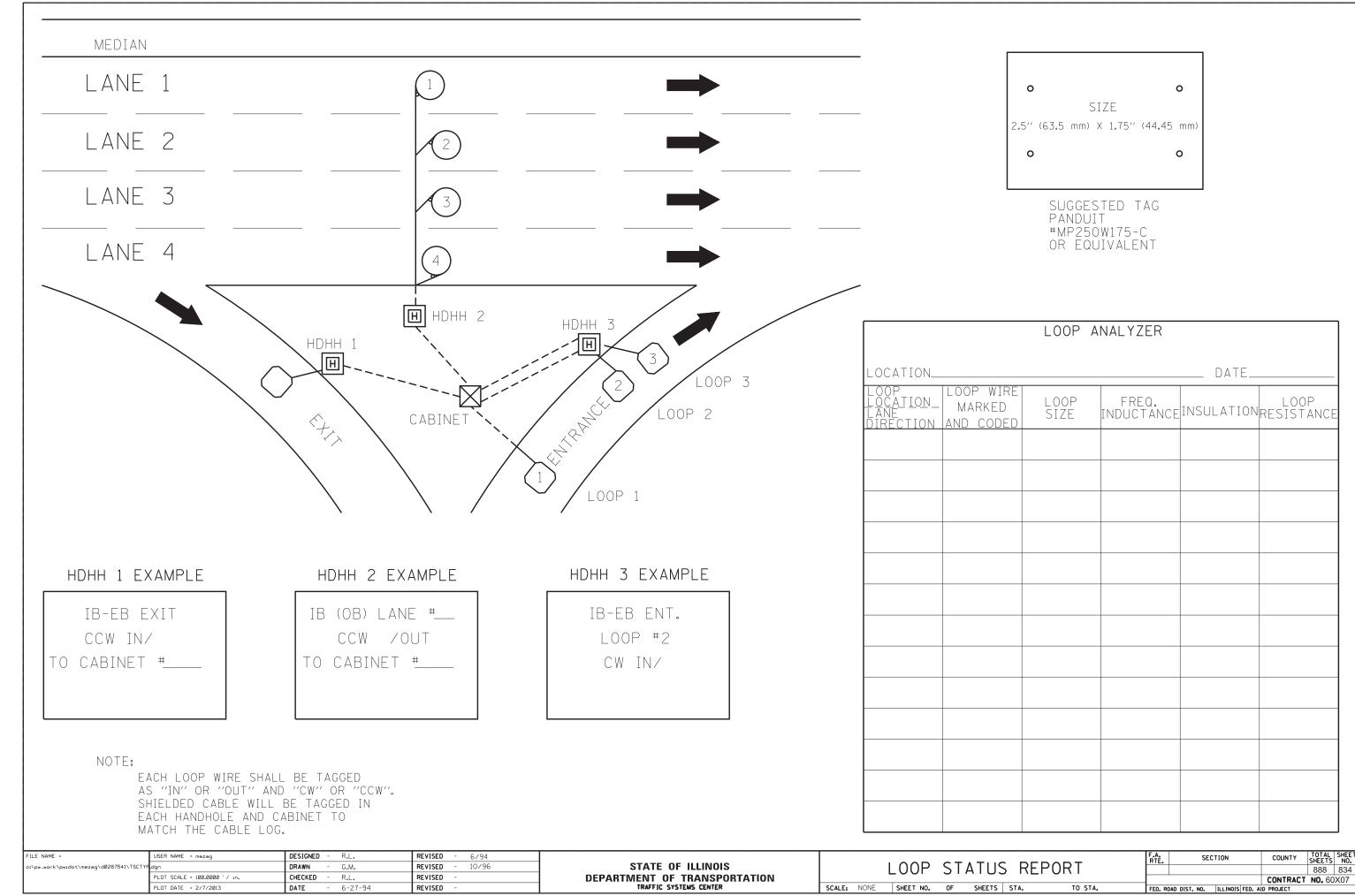
DOUBLE FACED BARRIER WALL

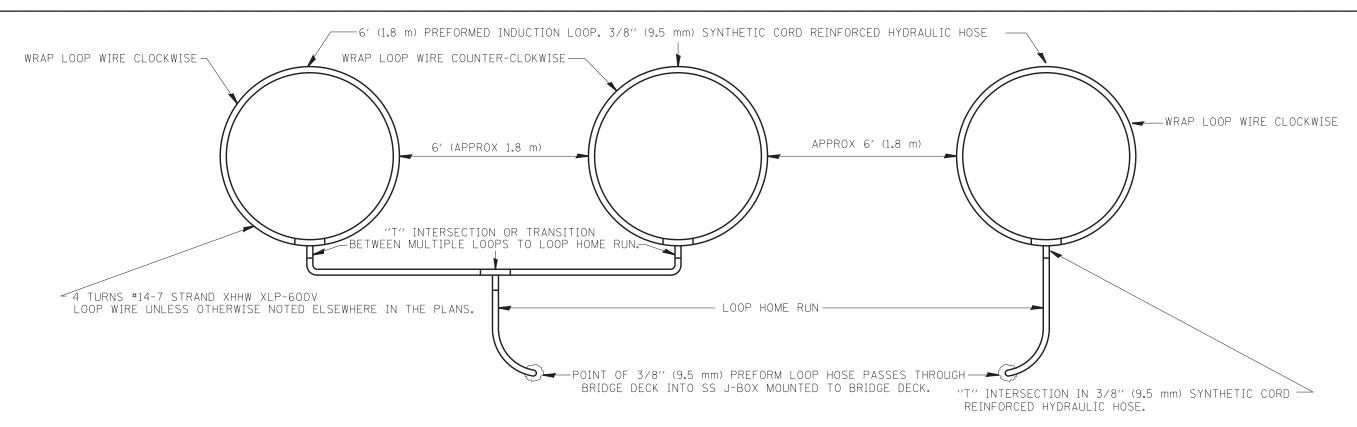


TRAFFIC SYSTEMS CENTER (TY-1TSC-400#30)

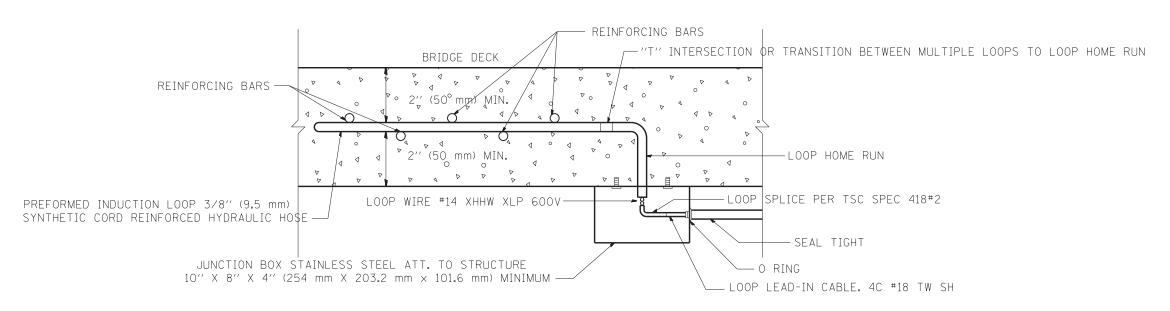








TYPICAL 3 LANE COUNT STATION EMBEDDED IN BRIDGE DECK

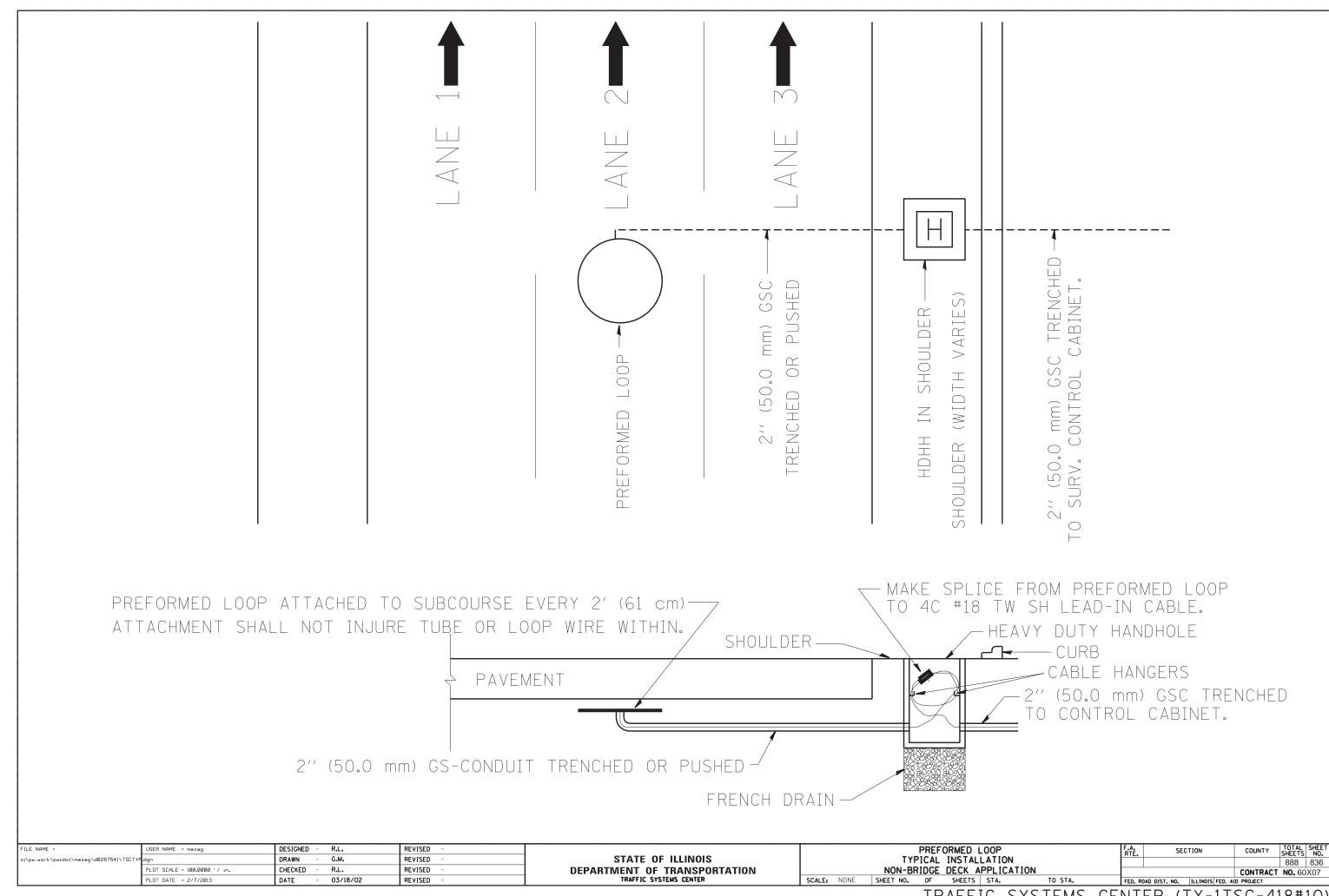


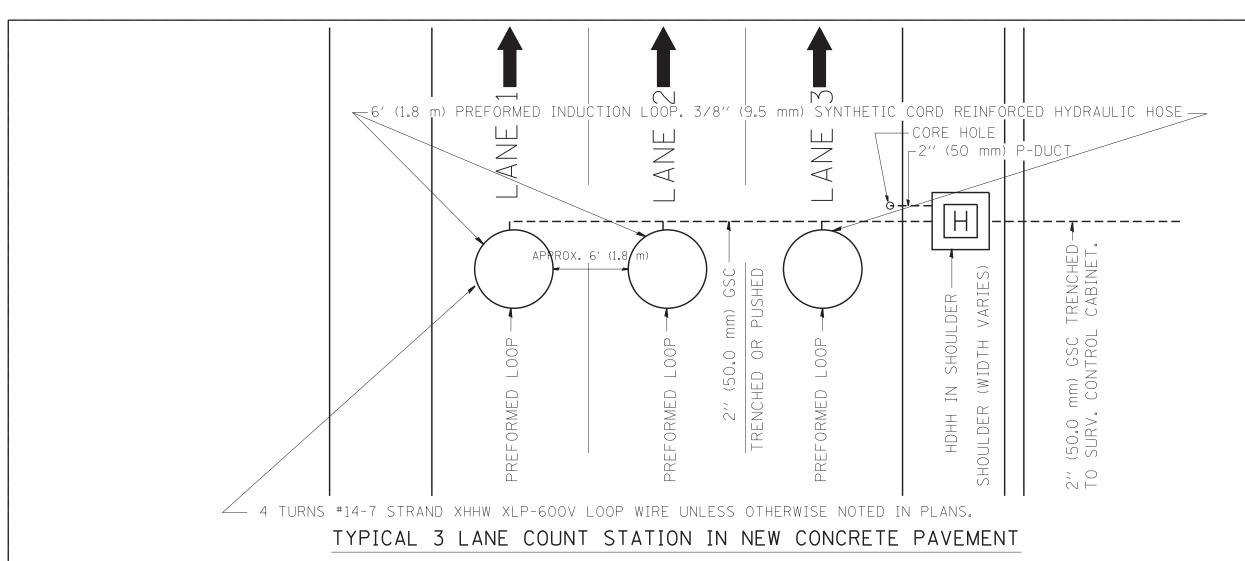
LOOP JUNCTION BOX UNDER BRIDGE DECK

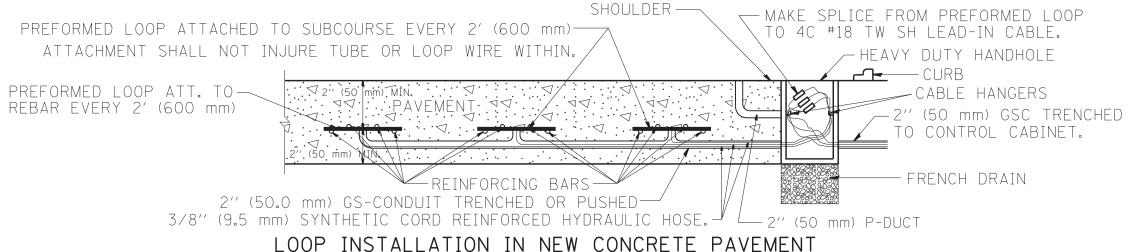
NOTES:

- 1.- EACH INDUCTION LOOP SHALL HAVE ITS OWN LEAD-IN CABLE TO CABINET.
- 2.- INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
- 3.- LOOPS LOCATED OVER 1000' (300 m) FROM CABINET SHALL REQUIRE 5 TURNS OF #14 WIRE.

FILE NAME =	USER NAME = mezag	DESIGNED - R.L.	REVISED -		PREFORMED LOOP INSTALLATION	RTF. SECTION	COUNTY SHEET
c:\pw_work\pwidot\mezag\d028754!\TSCTYF	dgn	DRAWN - G.M.	REVISED -	STATE OF ILLINOIS	IN	KIL2	888 835
	PLOT SCALE = 100.0000 '/ in.	CHECKED - R.L.	REVISED -	DEPARTMENT OF TRANSPORTATION	BRIDGE DECK		CONTRACT NO. 60X07
	PLOT DATE = 2/7/2013	DATE - 2-97	REVISED -	TRAFFIC SYSTEMS CENTER	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED	AID PROJECT



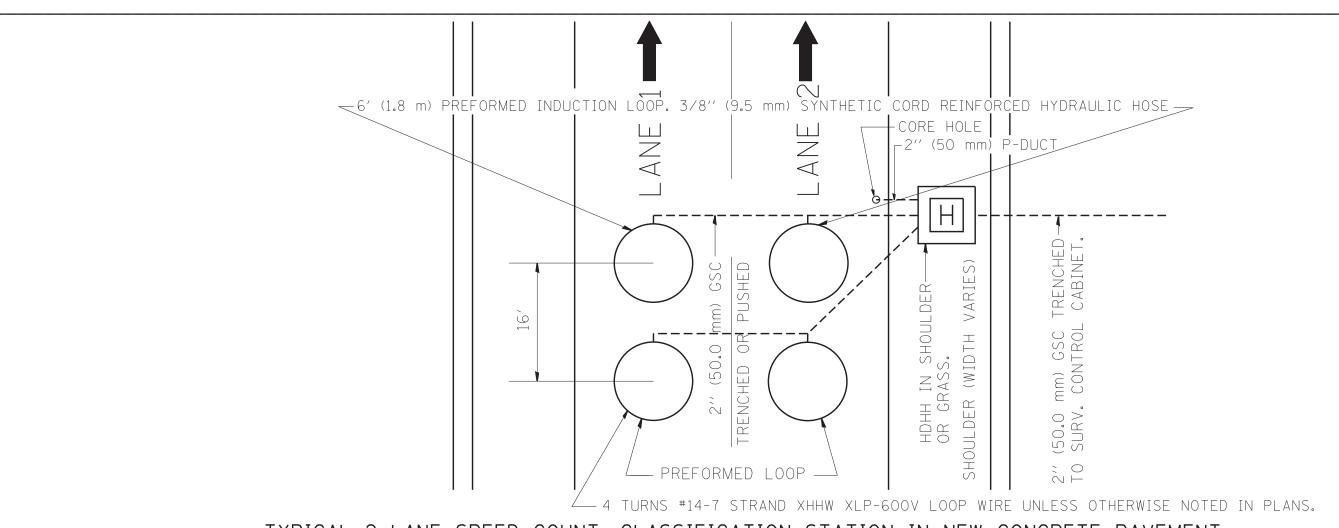




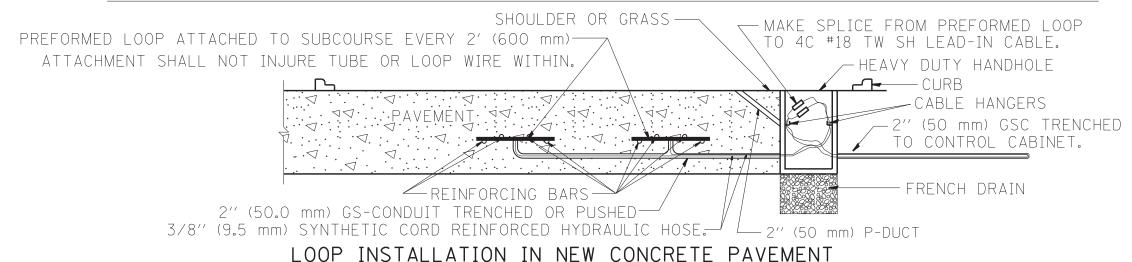
NOTES:

- 1.- EACH INDUCTION LOOP SHALL HAVE ITS OWN LEAD-IN CABLE TO CABINET.
- 2.- INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
- 3.- LOOPS LOCATED OVER 1000' (300 m) FROM CABINET SHALL REQUIRE 5 TURNS OF #14 WIRE.
- 4.- FOR LANES 1 AND 3 WRAP LOOPS CLOCKWISE, FOR LANE 2 WRAP LOOP COUNTER CLOCKWISE.
- 5.- FOR COUNT STATIONS WHICH HAVE MORE THAN 3 LANES, A 3" (75 mm) GSC SHALL BE USED.
- 6.- COREHOLE SHALL BE FILLED WITH DUCT SEAL. JOINT SEALER (OZ GEDNEY DOZSEAL 230 OR BETTER) SHALL BE ADDED AFTER DUCT SEAL.

FILE NAME =	USER NAME = mezag	DESIGNED - J.G.	REVISED -		PREFORMED LOOP	F.A. SECTION	COUNTY TOTAL SHEET
c:\pw_work\pwidot\mezag\d0287541\TSCTYP	dgn	DRAWN - G _a M _a	REVISED -	STATE OF ILLINOIS	TYPICAL INSTALLATION	NIL2	888 837
	PLOT SCALE = 100.0000 '/ in.	CHECKED - J.G.	REVISED -	DEPARTMENT OF TRANSPORTATION	NEW CONCRETE PAVEMENT		CONTRACT NO. 60X07
	PLOT DATE = 2/7/2013	DATE - 06/22/04	REVISED -	TRAFFIC SYSTEMS CENTER	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST, NO. ILLINOIS FED.	AID PROJECT



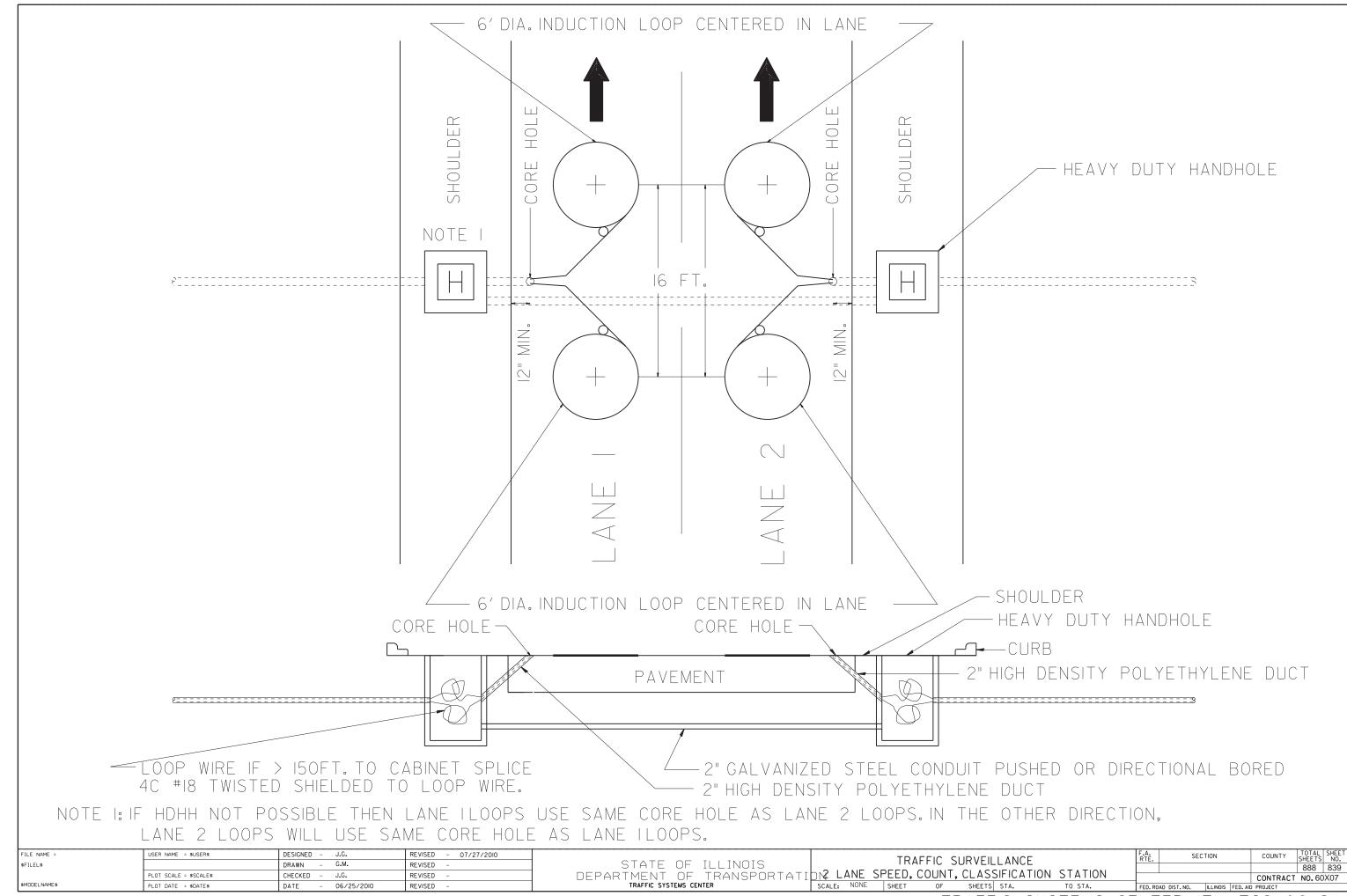
TYPICAL 2 LANE SPEED COUNT, CLASSIFICATION STATION IN NEW CONCRETE PAVEMENT

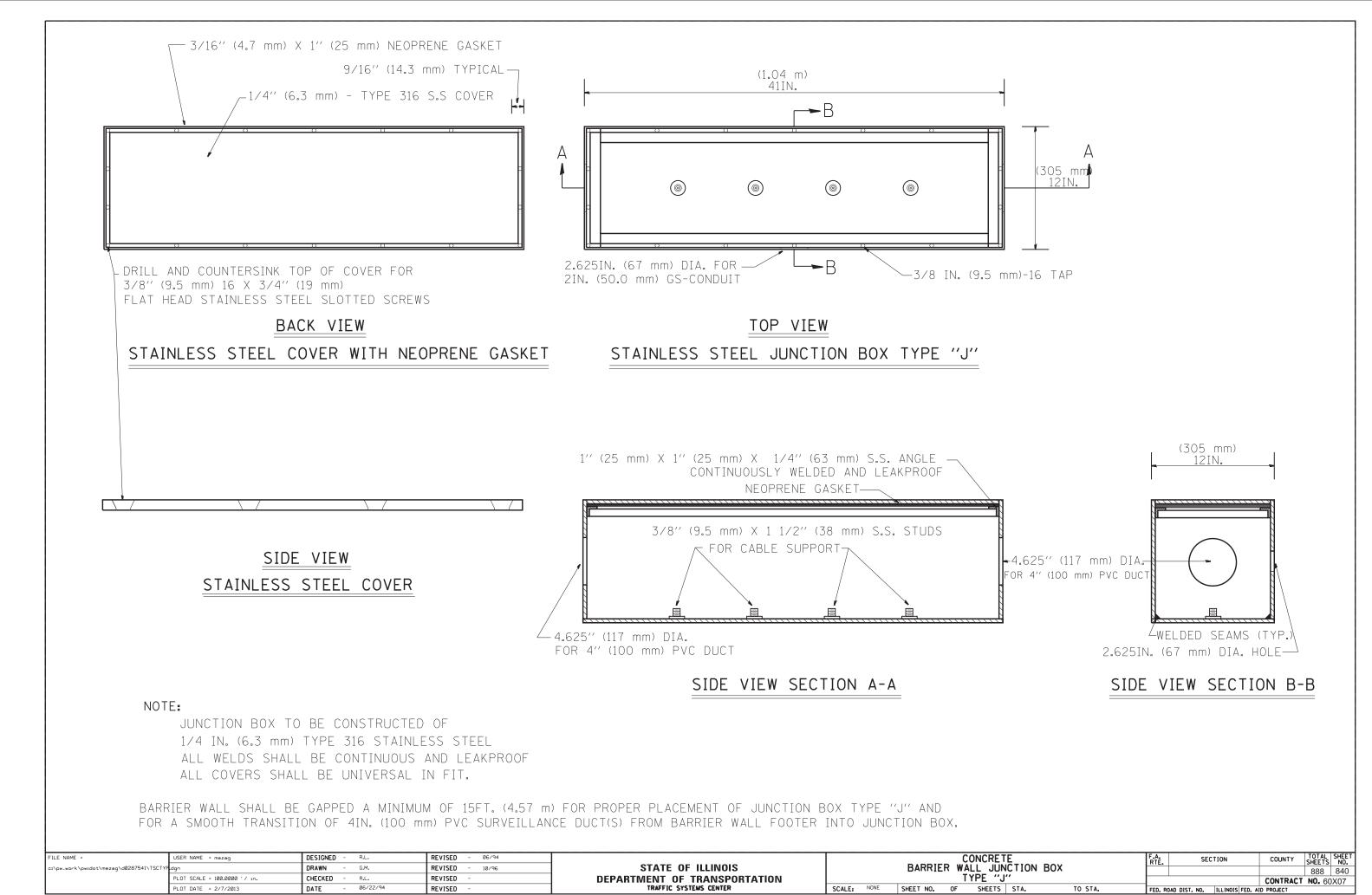


NOTES:

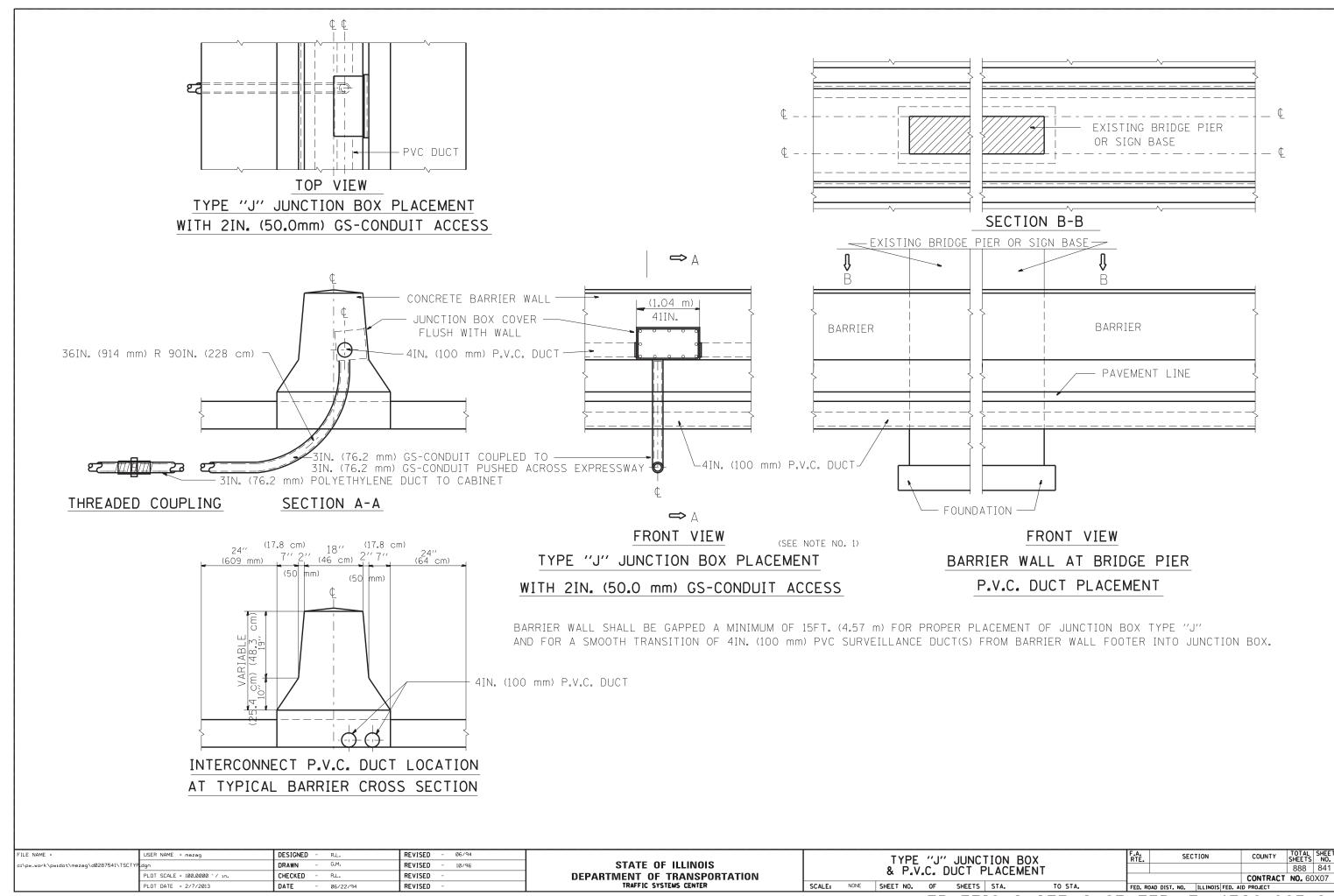
- 1.- EACH INDUCTION LOOP SHALL HAVE ITS OWN 4C #18 TWISTED SHIELD LEAD-IN CABLE TO CABINET.
- 2.- INDUCTION LOOPS SHALL NOT BE CONNECTED IN SERIES WITH OTHER LOOPS.
- 3.- LOOPS LOCATED OVER 1000' (300 m) FROM CABINET SHALL REQUIRE 5 TURNS OF #14 WIRE.
- 4.- FOR LANE 1 WRAP LOOPS CLOCKWISE, FOR LANE 2 WRAP LOOP COUNTER CLOCKWISE.
- 5.- COREHOLE SHALL BE FILLED WITH DUCT SEAL. JOINT SEALER (OZ GEDNEY DOZSEAL 230 OR BETTER) SHALL BE ADDED AFTER DUCT SEAL.

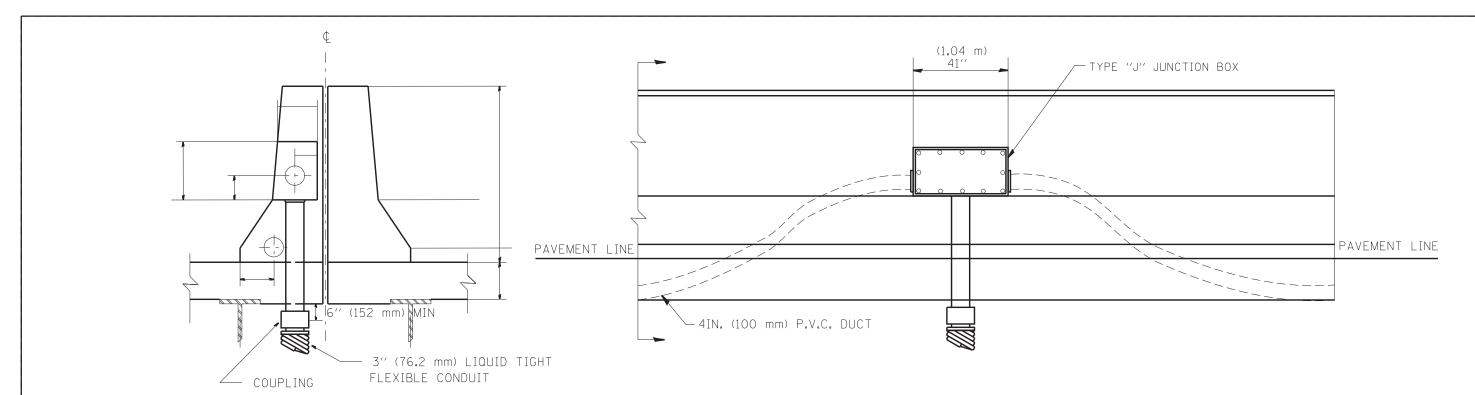
	FILE NAME =	USER NAME = mezag	DESIGNED - J.G.	REVISED - 07/01/2010		PREFORMED LOOP	RTE. SECTION	COUNTY TOTAL SHEET
	c:\pw_work\pwidot\mezag\d0287541\TSCTYP	dgn	DRAWN - G.M.	REVISED -	STATE OF ILLINOIS	TYPICAL INSTALLATION	NIL2	888 838
		PLOT SCALE = 100.0000 ' / in.	CHECKED - J.G.	REVISED -	DEPARTMENT OF TRANSPORTATION	NEW CONCRETE PAVEMENT		CONTRACT NO. 60X07
l		PLOT DATE = 2/7/2013	DATE - 06/25/2010	REVISED -	TRAFFIC SYSTEMS CENTER	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AIG	





TRAFFIC SYSTEMS CENTER (TY-1TSC-663#1)



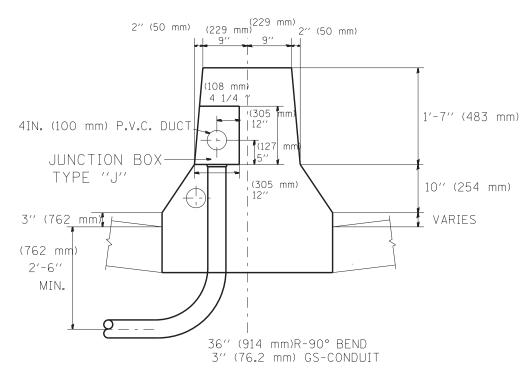


DOUBLE SINGLE FACED BARRIER WALL ON BRIDGE DECK

ELEVATION

BARRIER WALL DUCT DETAIL

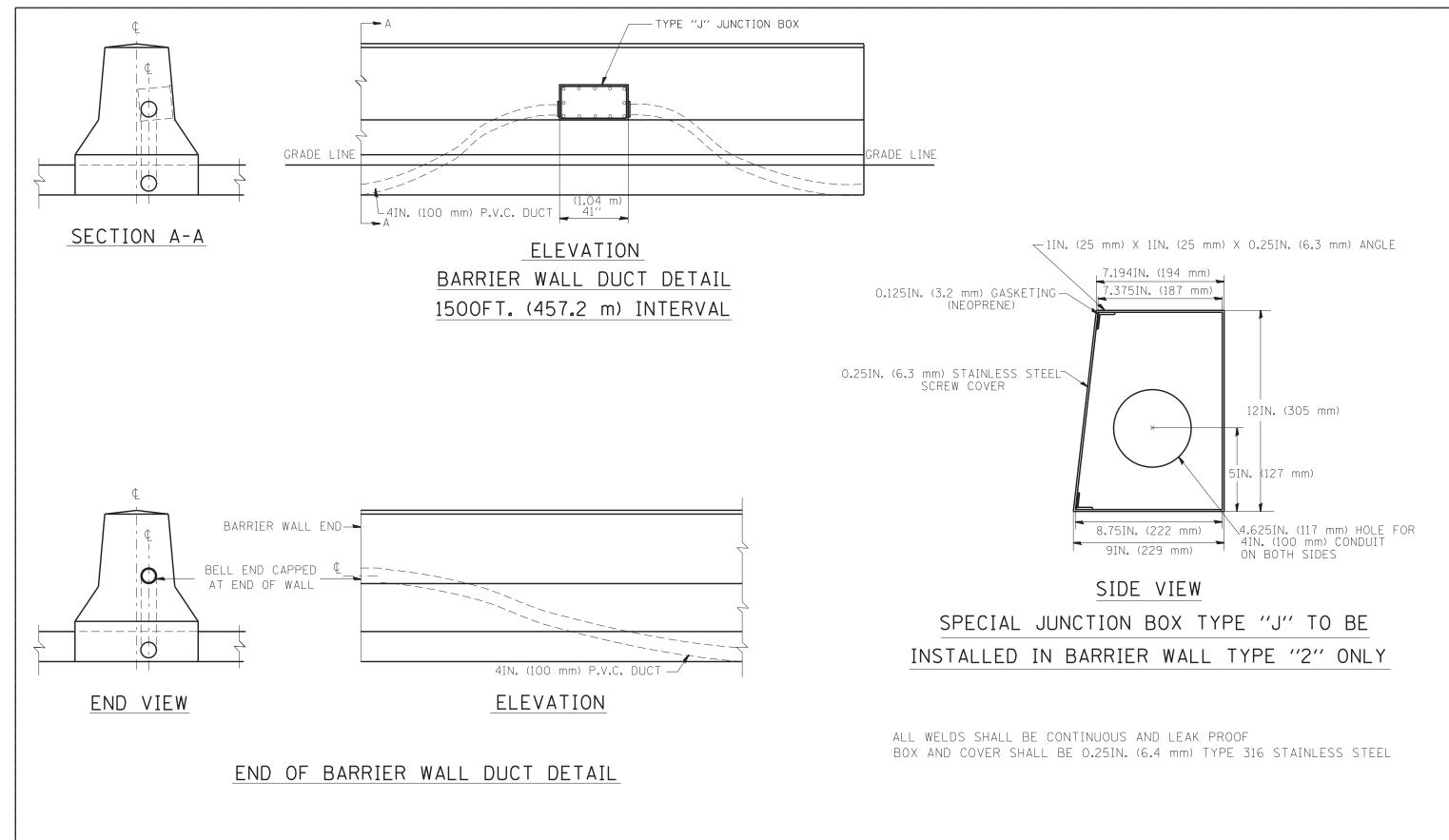
ON BRIDGE DECK



DOUBLE FACED BARRIER WALL

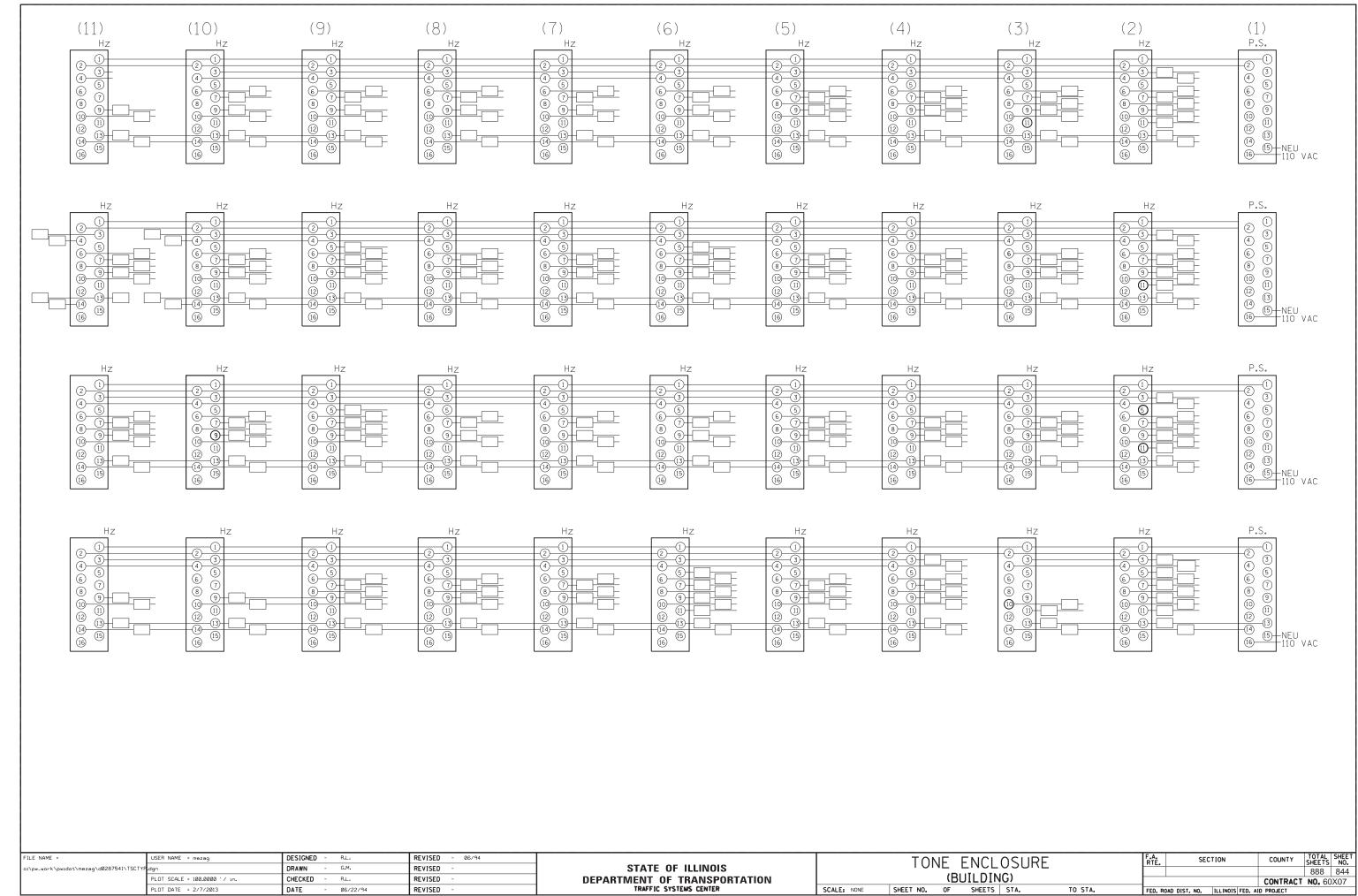
BARRIER WALL SHALL BE GAPPED A MINIMUM OF 15FT. (4.57 m) FOR PROPER PLACEMENT OF JUNCTION BOX TYPE "J" AND FOR A SMOOTH TRANSITION OF 4IN. (100 mm) PVC SURVEILLANCE DUCT(S) FROM BARRIER WALL FOOTER INTO JUNCTION BOX.

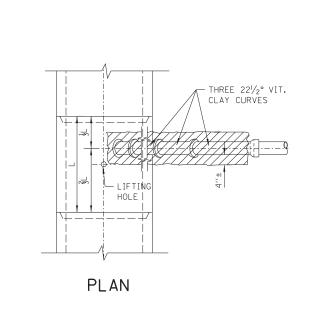
Ī	ILE NAME =	USER NAME = mezag	DESIGNED - R.L.	REVISED - 06/94		TRAFFIC SURVEILLANCE	F.A. SECTION	COUNTY TOTAL SH
	::\pw_work\pwidot\mezag\d028754!\TSCTYP	dgn	DRAWN - G.M.	REVISED - 10/96	STATE OF ILLINOIS	BARRIER WALL DUCT DETAIL	NIE2	888 84
		PLOT SCALE = 100.0000 ' / in.	CHECKED - R.L.	REVISED - 02/98	DEPARTMENT OF TRANSPORTATION	ON BRIDGE DECK	<u> </u>	CONTRACT NO. 60X0
L		PLOT DATE = 2/7/2013	DATE - 06/22/94	REVISED -	TRAFFIC SYSTEMS CENTER	SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. A	AID PROJECT

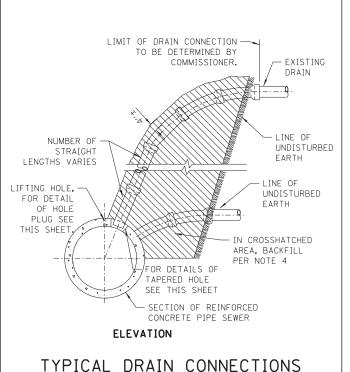


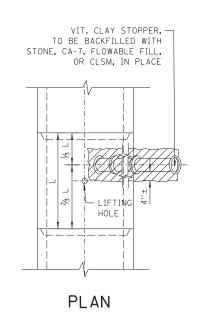
BARRIER WALL SHALL BE GAPPED A MINIMUM OF 15FT. (4.57 m) FOR PROPER PLACEMENT OF JUNCTION BOX TYPE "J" AND FOR A SMOOTH TRANSITION OF 4IN. (100 mm) PVC SURVEILLANCE DUCT(S) FROM BARRIER WALL FOOTER INTO JUNCTION BOX.

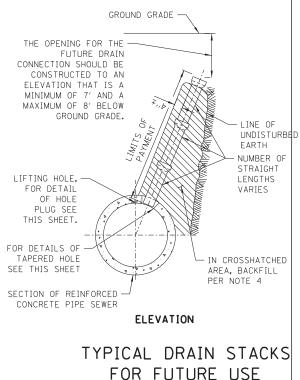
TRAFFIC SURVEILLANCE BARRIER WALL DUCT DETAILS DESIGNED -**REVISED** - 06/94 SECTION STATE OF ILLINOIS DRAWN G.M. REVISED - 10/96 **DEPARTMENT OF TRANSPORTATION** LOT SCALE = 100.0000 '/ in. CHECKED REVISED 02/94 CONTRACT NO. 60X07 PLOT DATE = 2/7/2013 SHEET NO. OF SHEETS STA. TO STA. DATE - 06/22/94 REVISED

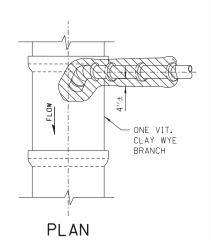








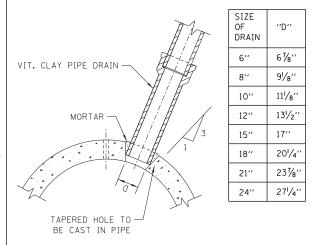




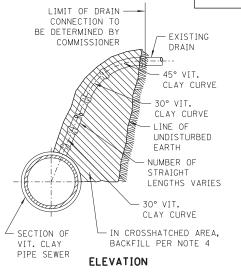
DRIVEN INTO PLACE WITH A WOODEN
MALLET AND THEN SEALED WITH MORTAR.

PLUG TO BE COATED WITH MORTAR AND

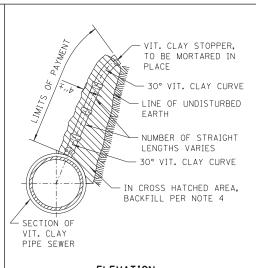
LIFTING HOLE PLUG DETAIL FOR CONCRETE PIPE



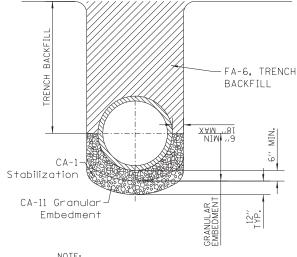
DETAIL OF TAPERED HOLE



TYPICAL DRAIN CONNECTIONS FOR EXISTING DRAINS



TYPICAL DRAIN STACKS FOR FUTURE USE



NOTE: 1. FOR TRENCH BACKFILL, USE FA-6 SAND, CRUSHED CONCRETE SAND OR STONE SAND.

2. FOR GRANULAR EMBEDMENT, USE CA-11, CRUSHED GRAVEL, CRUSHED STONE, OR CRUSHED CONCRETE.

3. 12" OF CA-1 STONE IS ONLY REQUIRED WHEN UNSTABLE MATERIAL IS ENCOUNTERED AT TRENCH BOTTOM.

SEWER TRENCH DETAIL

NOTE

- 1. ALL DRAIN CONNECTION JOINTS MUST BE MADE AS SPECIFIED IN SPECIFICATIONS..
- 2. FOR DUCTILE IRON PIPE DRAIN CONNECTIONS SEE SHEET NO. A.2.

FOR EXISTING DRAINS

- 3. FOR ALL GRANULAR EMBANKMENT, USE CA-7 OR CA-11
- 4. FOR BACKFILL OF HATCHED SUPPORT AREAS, USE CONCRETE. CA-11, FLOWABLE FILL, OR CLSM.

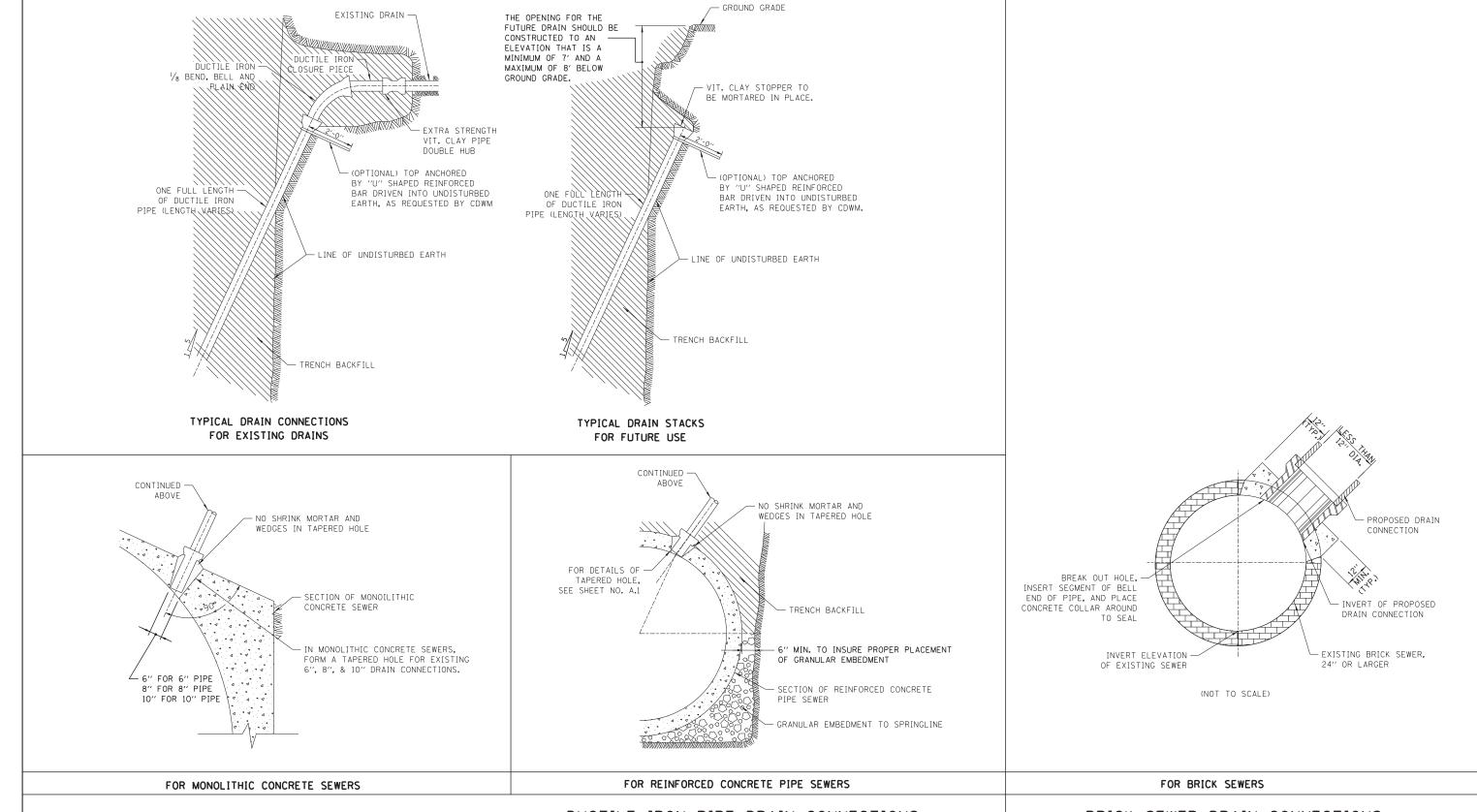
	STAND	AND NEVISIONS
	DATE	DESCRIPTION
	2/22/19	APPROVED PLAN

SCALE: NTS

	STAND	ARD REVISIONS	PERCENT COMPLETE	DATE	CITY OF CHICAGO	DRAWN: SBW DESIGNED:	
DA	ATE	DESCRIPTION	30		DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES	CHECKED: GD. GC. SO	A.I
2/28	2/19	APPROVED PLAN	60			REVIEWED:	
			75		VITRIFIED CLAY PIPE	l ,	3 E
			90		DRAIN CONNECTIONS		OF
			100		1	l _{PN}	
			BULLETIN			FIN	
		UOAGO DEDARTIAE	 OF WATER BARNAGE	ERSENIT	F.A.I. SECTION	COUNTY I	TAL SHEET

SUITE 1400 USER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- 1. DUCTILE IRON PIPE MUST BE BELL END WITH PUSH-ON JOINTS CONFORMING TO ANSI SPECIFICATIONS A21.51 WITH CLASS 52 THICKNESS.
- 2. CONNECTIONS AND STACKS SHOWN MUST BE USED FOR 6", 8", & 10" DRAINS ONLY.
- 3. FOR VITRIFIED CLAY PIPE DRAIN CONNECTION AND DRAIN STACK CONSTRUCTION, SEE SHEET NO. A.I.
- 4. FOR TRENCH BACKFILL, USE FA-6 SAND, CRUSHED CONCRETE SAND, OR STONE SAND.
- 5. FOR GRANULAR EMBEDMENT, USE CA-11, CRUSHED GRAVEL, CRUSHED STONE, OR CRUSHED CONCRETE.

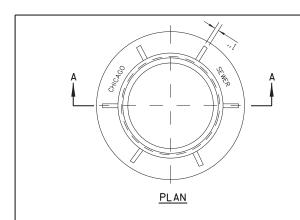
DUCTILE IRON PIPE DRAIN CONNECTIONS

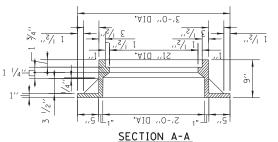
BRICK SEWER DRAIN CONNECTIONS

STAND	ARD REVISIONS	PERCENT COMPLETE	DATE		OF CHICAGO	DRAWN: SBW DESIGNED:	1, 2
DATE	DESCRIPTION	30			T OF WATER MANAGEMEN FENGINEERING SERVICES	CHECKED:	A.Z
1/5/15	APPROVED PLAN	60				REVIEWED:	
		75			ILE IRON PIPE		OF
		90		DRAI	N CONNECTIONS		OF
		100				l _{PN}	
		BULLETIN]		LIN	
С	HICAGO DEPARTMEN	T OF WATER MANAG	F.A.I. RTE.	SECTION		OTAL SHEET HEETS NO.	

USER NAME = augeungh	DESIGNED	-		REVISED	-	
	DRAWN	-		REVISED	-	
PLOT SCALE = 1.0000 ' / in.	CHECKED	-		REVISED	-	
PLOT DATE = 5/22/2015	DATE	-	5/26/2015	REVISED	-	
					_	

			В	ULLETIN					PN		
	CHICAG	F.A. RTE	.I. SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.				
	STANDARD DETAILS						5 2013	-049B	COOK	888	846
		סוחוטח	IID DEI	AILU					CONTRACT	NO. 6	0X07
S	CALE: NTS SHE	ET NO. 2 OF 12 S	SHEETS	STA.	TO STA.			ILLINOIS FED. AII	PROJECT		

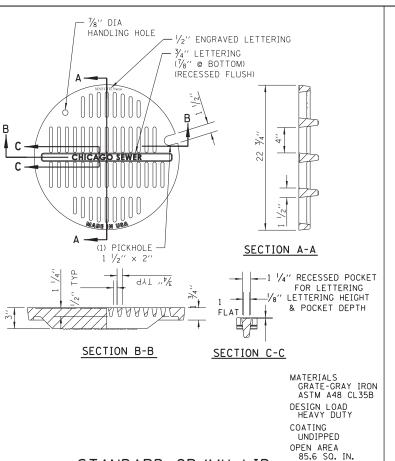




NOTE: METAL PLATES MUST BE FURNISHED FOR PERFORATED LIDS ON MANHOLES.

HEAVYWEIGHT MANHOLE FRAME

MATERIAL: CAST IRON

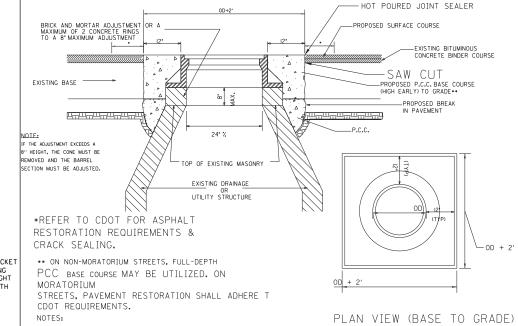


STANDARD CB/MH LID

- ½" DIA HANDLING HOLE ENGRAVED LETTERING ¾" LETTERING (1/8" @ BOTTOM) (RECESSED FLUSH) CHICAGO SEWER SECTION A-A (1) PICKHOLE -1 1/4" RECESSED POCKET FOR LETTERING

— 1/8" LETTERING HEIGH & POCKET DEPTH dγ1 ''_γ⁄^ε SECTION C-C MATERIALS GRATE-GRAY IRON ASTM A48 CL35B SECTION B-B DESIGN LOAD HEAVY DUTY COATING UNDIPPED OPEN AREA 85.6 SQ. IN. STANDARD LID FOR

INFILTRATION SYSTEMS



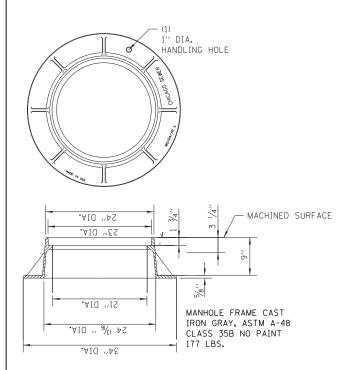
IF THE ADJUSTMENT EXCEEDS AN 8" HEIGHT, THE CONE MUST BE REMOVED AND THE BARREL SECTION MUST BE ADJUSTED.

THE CONTRACTOR IS REQUIRED TO REPLACE ANY BROKEN FRAMES AND LIDS OF SEWER STRUCTURES WITH STANDARD
FRAMES AND LIDS OF THE DWM. IN ADJUSTMENT OR RECONSTRUCTION OF SEWER STRUCTURES, ANY
NON-STANDARD FRAMES AND LIDS MUST BE REPLACED WITH STANDARD FRAMES AND LIDS. IN ADJUSTMENT OR RECONSTRUCTION OF INLETS, ANY NON-STANDARD INLETS (GUTTER BOXES) MUST BE REPLACED WITH DWM STANDARD INLETS.

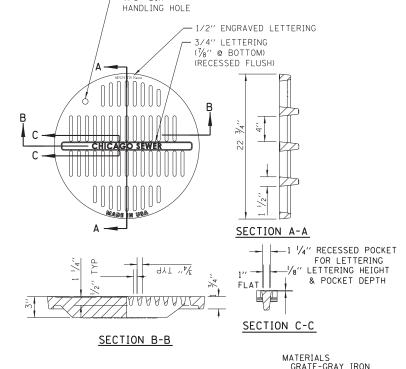
THE FRAMES AND LIDS OF SEWER STRUCTURES TO BE ABANDONED, REMOVED, OR FILLED MUST BE SALVAGED AND THE DWM NOTIFIED FOR PICK UP.

MANHOLES, CATCH BASINS AND INLETS MUST BE PROTECTED FROM THE ENTRY OF ASPHALT/DEBRIS INTO THE SEWER SYSTEM DURING CONSTRUCTION. THE CONTRACTOR MUST MARK LOCATIONS OF ALL SEWER STRUCTURES ON THE SIDEWALK BEFORE STARTING PAVEMENT REMOVAL/REPLACEMENT. ADJUSTMENT OF FRAMES AND LIDS OF SEWER STRUCTURES MUST BE COMPLETED PRIOR TO STREET RESURFACING.

DETAIL OF FRAME ADJUSTMENT



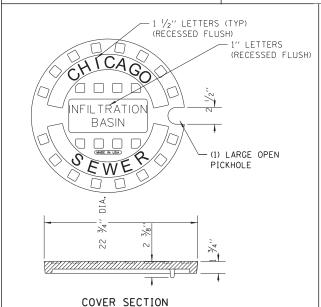
LIGHTWEIGHT MANHOLE FRAME



ADA MANHOLE LID

NOTE: NOT TO BE USED WITHOUT PRIOR APPROVAL OF CDWM MATERIALS GRATE-GRAY IRON ASTM A48 CL35B DESIGN LOAD HEAVY DUTY COATING UNDIPPED OPEN AREA

85.6 SQ. IN.



INFILTRATION SOLID LID FOR CA

SCALE: NTS

<u>\</u> T	CH BA	<u>SIN</u>	
	STAND	ARD REVISIONS	
	DATE	DESCRIPTION	
	1/5/15	Approved	
			l ⊦

PLAN ,,, SECTION

SOLID LID FOR MANHOLES

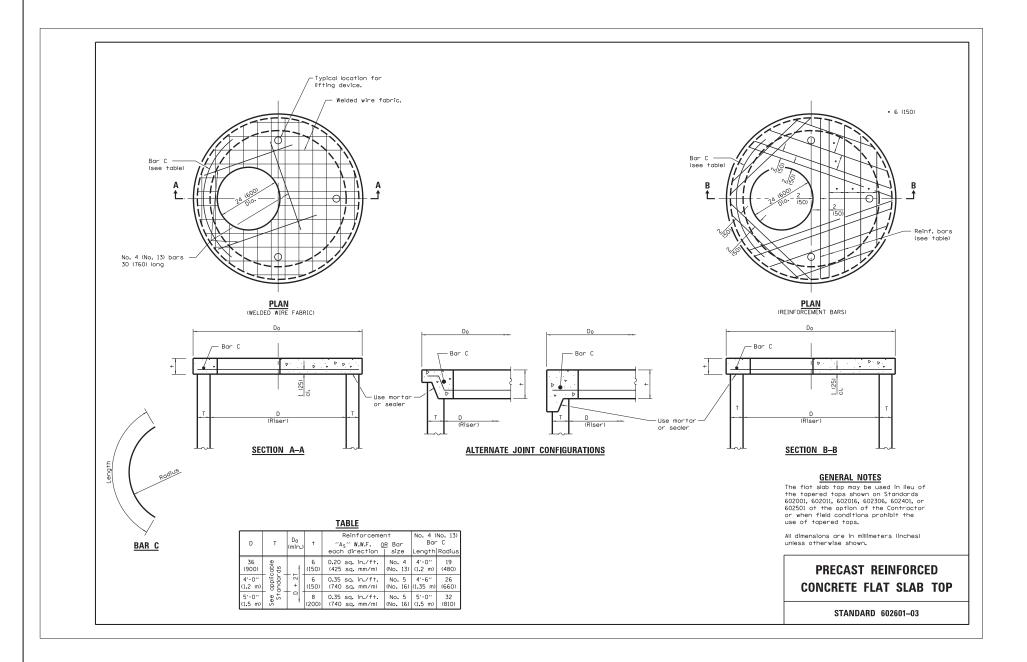
	STANDA	ARD REVISIONS	PE	PERCENT COMPLETE DATE CITY OF CHICAGO		DRAWN: SBW DESIGNED:	, ,	
	DATE	DESCRIPTION		30		DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES	CHECKED: GD, GC, SO	A.3
ı	1/5/15	Approved		60			REVIEWED:	
ı				75		MANHOLE	_ ا	_
1				90		LIDS AND FRAMES)F
				100			PN	
				BULLETIN			FIN	

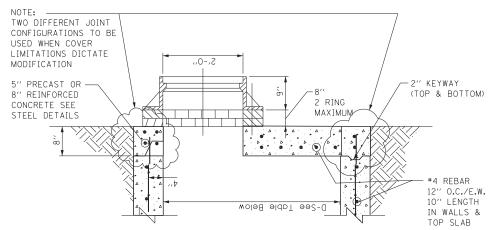
DESIGNED REVISED JSER NAME = augeungh DRAWN REVISED CHECKED REVISED PLOT DATE = 5/22/2015 DATE - 5/26/2015 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION COUNTY CHICAGO DEPARTMENT OF WATER MANAGEMENT 2013-049B COOK 888 847 STANDARD DETAILS CONTRACT NO. 60X07 SHEET NO. 3 OF 12 SHEETS STA. TO STA.

SPECIAL DRAINAGE STRUCTURES FOR PUBLIC STREETS AND ALLEYS





STANDARD FLAT TOP SLAB FOR CATCH BASINS

NOTES: FLAT TOP SLAB AAPLICATION CAN ONLY BE USED WITH WRITTEN PERMISSION FROM CDWM. USE LATEST IDOT DETAIL, #602601

STAND	ARD REVISIONS
DATE	DESCRIPTION
1/5/15	APPROVED PLAN

PERCENT COMPLETE	DATE	CITY OF CHICAGO DEPARTMENT OF WATER MANAG
30		BUREAU OF ENGINEERING SERVICES
60		
75		FLAT TOP SLAB DETA
90		
100		

CHICAGO
WATER MANAGEMENT
EERING SERVICES

LAB DETAILS

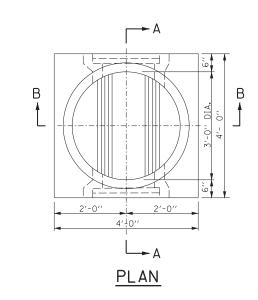
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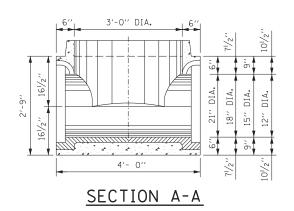
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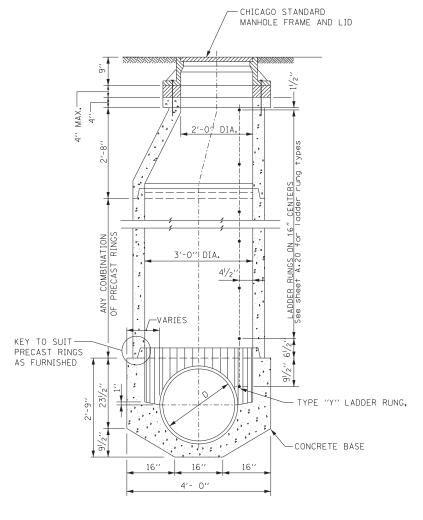
AECOM
303 EAST MACKER DRIVE, SUITE 1400
600 FHOME, (3)22 373-7600 FAX, (3)23 373-6800

USER NAME = auyeungh	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1.0000 '/ in.	CHECKED -	REVISED -	
PLOT DATE = 5/22/2015	DATE - 5/26/2015	REVISED -	

				BULLETIN				PN		
	СНІ	ICAGO DEPARTMEN	T OF W	ATER MANAGI	EMENT	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	
		CIAND	ARD DE	PILAT		55	2013-049B	COOK	888	848
		- OTAND	מט טווא	IAILO				CONTRACT	NO. 6	50X07
S	CALE: NTS	SHEET NO. 4 OF 12	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

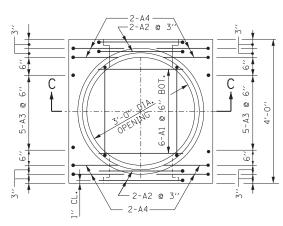




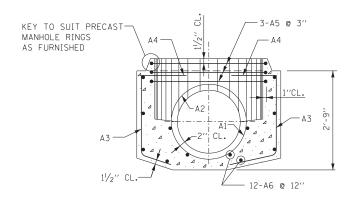


SECTION B-B

							SC	CHED	ULE	OF	REII	NFOF	RCEM	IENT						
	ZJRE		RE	INF	ORCEM	IENT	BAR					В	ENDING	DIMEN	ISIONS					
STRI	5	MARK S	IZE T	YPE	LENGTH	NO. REQD.	WE I GH E A C H	T - LBS	А	В	С	D	E	F	G	Н	J	К	0	R
		21A1 6	6 S	9	3'-1''	6	4.63	28		3'-1"						111/4"			2'-1''	123/4′′
	ď	21A2 6	6 T	3	8'-8''	4	13.02	52										2'-0''	2'-11/2"	
ı 🗀	ΙΊΟ	21A3 5			3′-3′′	10	3.39	34			22''	17''				141/2"		83/4''		
AS		21A4			4'-6''	8	4.69	38		15''	22''	17''				141/2"		83/4′′		
l G	21′′	21A5 5			11'-11''	3	12.43	37										20′′	3'-31/4''	
씾	(/)			TR	3'-8''	12	2.45	30												
(PRE		TOT						219												لسببسا
		18A1 6			2'-81/2"	6	4.07	24		2'-81/2"							93/4′′		22"	111/4′′
S	∢	18A2 6			7'-101/2'	4	11.83	47										2'-0''	221/2"	
			5 17		3′-3′′	10	3.39	34			22''	17''					141/2"	83/4''		
1우	_		5 17		4'-6''	8	4.69	38		15′′	22''	17''					141/2"	83/4''		
	ò		5 T		11'-11''	3	12.43	37										2'-0''	3'-31/4''	
MANHOL	-			TR	3-8′′	12	2.45	30												
		TOTA		. 1				202								al /				~ 7/
\A		15A1 6			2'-31/2"	6	3.44	21		231/2"						81/4′′		01.011	19"	93/4′′
1	DIA	15A2 6			7'-1''	4	10.64	42										2'-0''	191/2"	
لبا		-	5 17		3'-3''	10	3.39	34		45.0	22''	17"				4 41 / 11		83/4′′		
∠ ∠	5,,		5 12	_	4′-6′′	8	4.69	38		15′′	22''	17''				141/2"		8 ³ / ₄ '' 20''	3'-33/4''	
ĺ Ĺ	12		5 T	TR	11'-11''	3	12.43	37								14/2		20	3374	
1 m		15A6 4		IK	3′-8′′	12	2.45	30												
OR				. 1	1′-11′′		2.88	202 17		23''						6¾′′			16"	81/4"
L					6'-1''	6	9.14	37		25"						674		2'-0''		8./4
S	ΔI		5 T		3'-3''	10	3.39	34			22''	17''				141/2"		83/4''		
SE	DI		5 17		4'-6''	8	4.69	38			22''	17"				14/2"		83/4"		
A A	2,,		5 T		11'-11''	3	12.43	37			<u> </u>	17				14/2		20''	3'-31/4''	
1 4	12			TR.	3′-8′′	12	2.45	30										20	13 3/4	
		TOT		111.	J -0	1 1 2	1 2.43	193												
	l	1017	~L					132												



PLAN PRECAST BASE



SECTION C-C

NOTE: 6" MINIMUM GRANULAR EMBEDMENT UNDER ALL PRECAST MANHOLE BASES

STANDA	ARD REVISIONS	ſ	PERCENT COMPLETE	DATE	CITY OF CHICAGO
DATE	DESCRIPTION	ŀ	30		DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES
1/5/15	REVISION	1	60		
		[75		TYPE ''A'' PRECAST
		[90		MANHOLE FOR SEWERS
		[100		21" DIA. AND SMALLER
		- 1	DILLETIN		1

CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

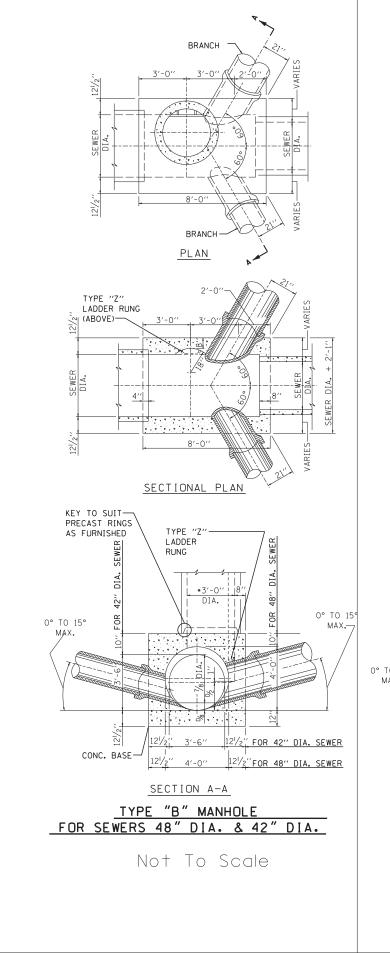
SCALE: NTS SHEET NO. 5 OF 12 SHEETS STA. TO STA.

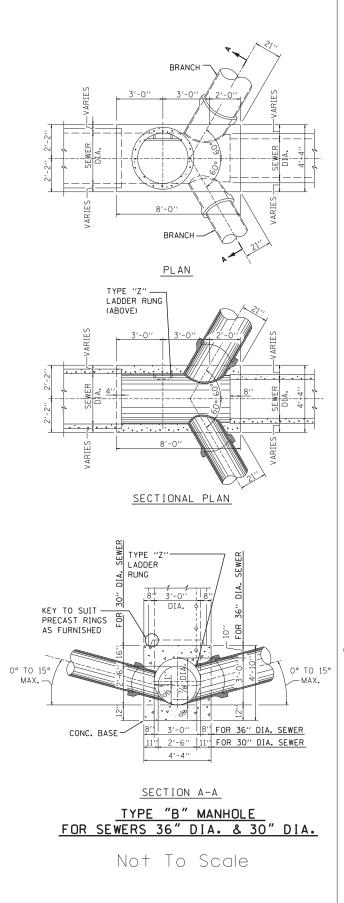
			1 11		
F.A.I. RTE.	SECTION	CC	UNTY	TOTAL SHEET:	SHEE NO.
55	2013-049B	C	ООК	888	849
		CO	NTRACT	NO.	60X0
	ILLINOIS FED. A	D PRO	JECT		

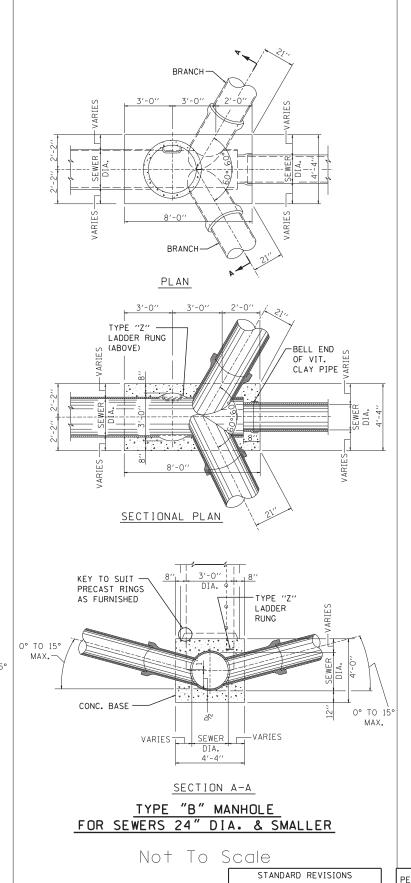
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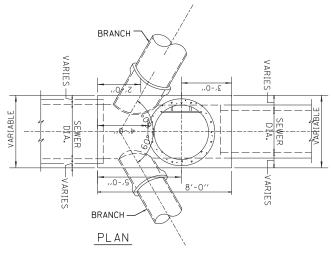
AECOM	
303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	

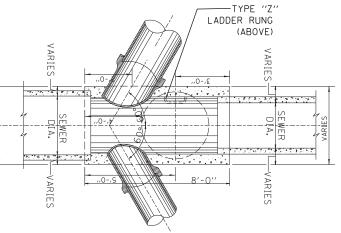
USER NAME = augeungh	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 5/22/2015	DATE - 5/26/2015	REVISED -	











SECTIONAL PLAN

TYPICAL REVERSE TYPE "B" MANHOLE

Not To Scale

DESCRIPTION APPROVED PLAN

SCALE:

NOTES:
1. CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF
ALL PROPOSED MANHOLE CONFIGURATIONS FOR APPROVAL PRIOR TO SUBMISSION OF MATERIAL ORDERS.

2. CONNECTION BELLS MAY BE INSTALLED AT MANUFACTURER'S SITE, OR MORTARED IN PLACE IN THE FIELD. SEE SHEET A.11 FOR FURTHER CONFIGURATION DETAILS.

3. BASES MUST BE PRECAST WITH THE CORRECT NUMBER OF PIPE OPENINGS, CORRESPONDING TO THE REPRESENTATION IN THE PLAN AND PROFILE SHEETS.

4. PATCHING, BRICKING, OR OTHER MATERIAL METHODS OF CLOSING UNUSED HOLES WILL NOT BE ACCEPTED.

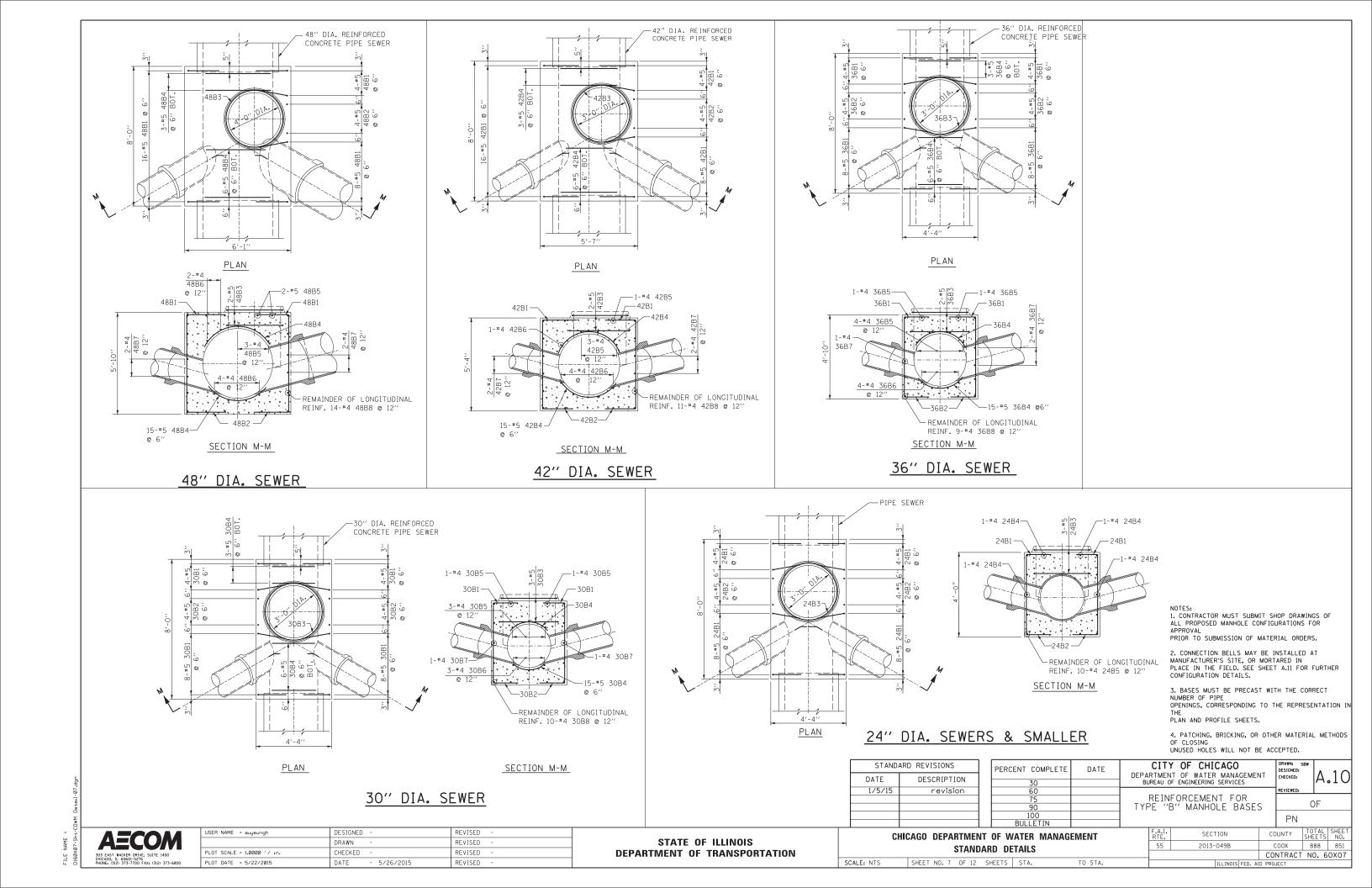
5. 6" MINIMUM GRANULAR EMBEDMENT UNDER ALL PRECAST MANHOLE BASES

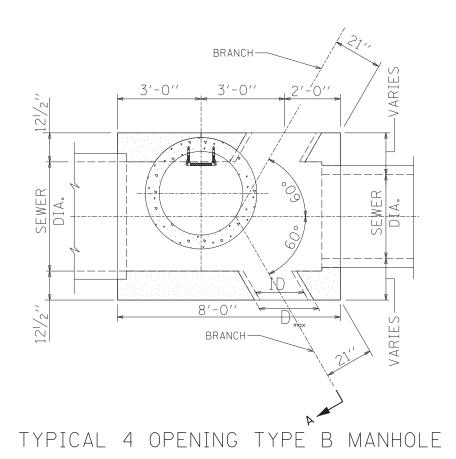
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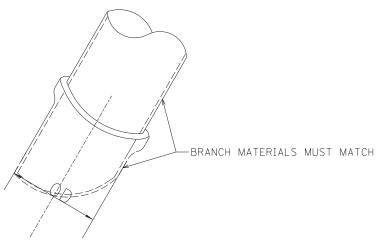


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NTS	SHEET NO. 6 OF 12	SHEETS	STA.	TO STA.		TILL INOIS FED. AT	D PROJECT		







NOTES.

- 1. CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF ALL PROPOSED MANHOLE CONFIGURATIONS FOR APPROVAL PRIOR TO SUBMISSION OF MATERIAL ORDERS.
- 2. CONNECTION BELLS MAY BE INSTALLED AT MANUFACTURER'S SITE, OR MORTARED IN PLACE IN THE FIELD.
- 3. BASES MUST BE PRECAST WITH THE CORRECT NUMBER OF PIPE OPENINGS, CORRESPONDING TO THE REPRESENTATION IN THE PLAN AND PROFILE SHEETS.
- 4. PATCHING, BRICKING, OR OTHER MATERIAL METHODS OF CLOSING UNUSED HOLES WILL NOT BE ACCEPTED.

BRANCH SIZING CHART

ID PIPE (in.)	MATERIAL	OD PIPE (in.)	D max* (in.)
12	VCP	14.36	18.36
15	VCP	17.8	21.8
18	VCP	21.48	25.48
21	VCP	25.54	31.54
8	DIP	9.05	13.05
10	DIP	11.1	15.1
12	DIP	13.2	17.2
14	DIP	15.3	19.3
16	DIP	17.4	21.4
18	DIP	19.5	23.5
20	DIP	21.6	25.6
24	DIP	25.8	29.8
24	RCP III	30	34
27	RCP III	33.5	37.5
30	RCP III	37	41
33	RCP III	40.5	44.5
36	RCP III	44	48
42	RCP III	51	56.5
Notes:			
1 If the sine of	lace is not el	nown on this tab	lo thon D

- 1. If the pipe class is not shown on this table, then D max =OD pipe + 4"
- *2. Dmax indicates the maximum size of branch opening to be cast or cut into structure.

STANDARD REVISIONS									
DESCRIPTION									
APPROVED PLAN									

PERCENT COMPLETE	DATE	CITY OF CHICAGO DEPARTMENT OF WATER MANAGEM
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E "B" MANHOLE

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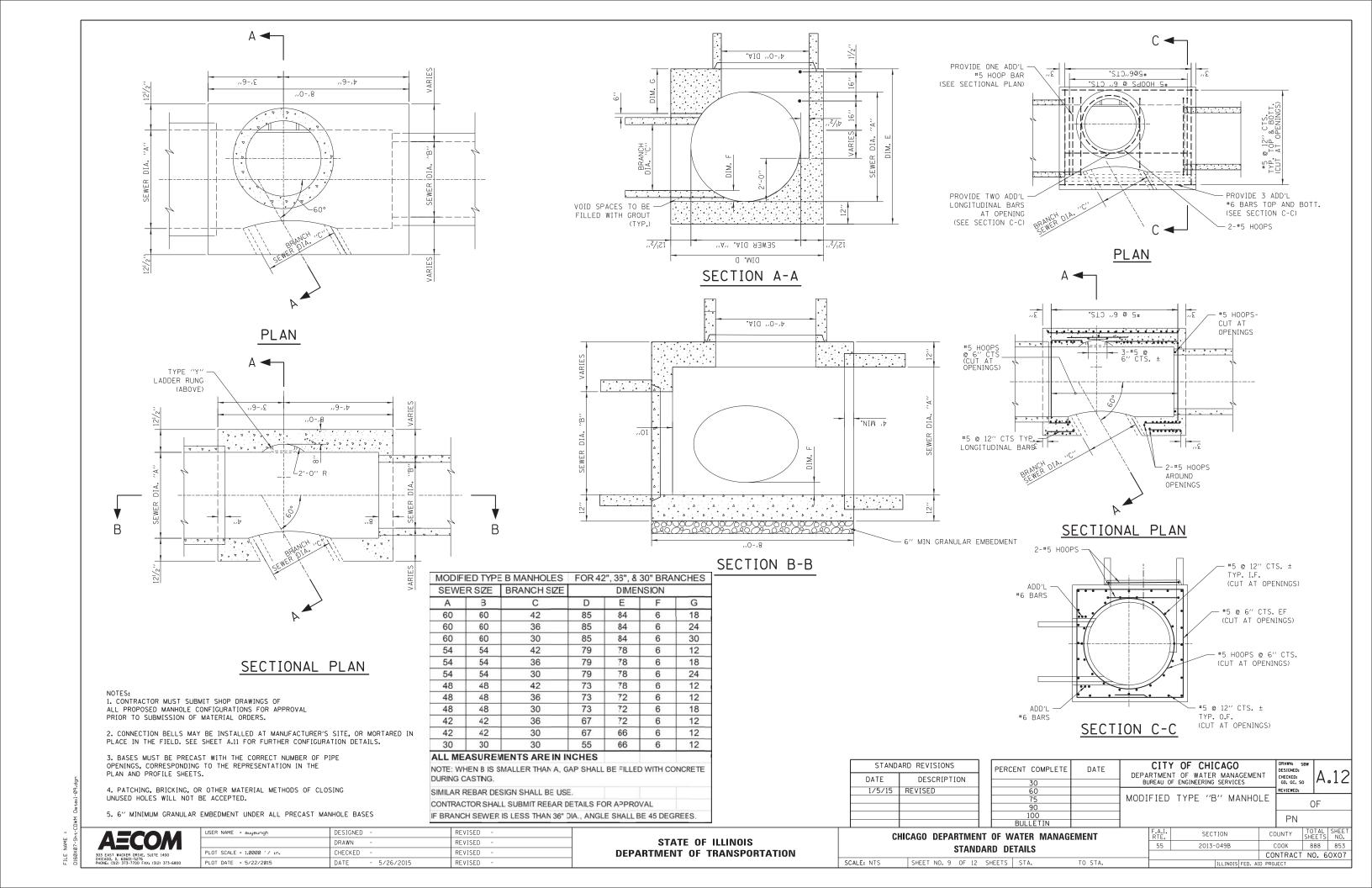
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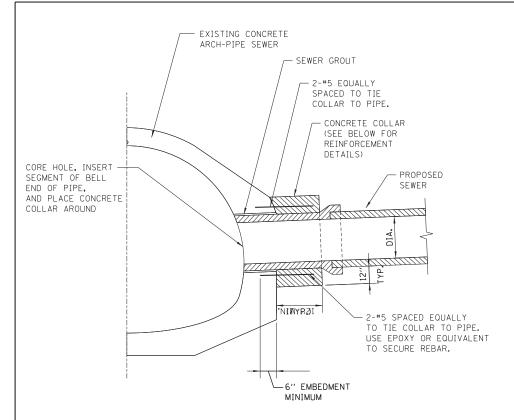
CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

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EXAMPLE TYPICAL CONNECTION DETAIL

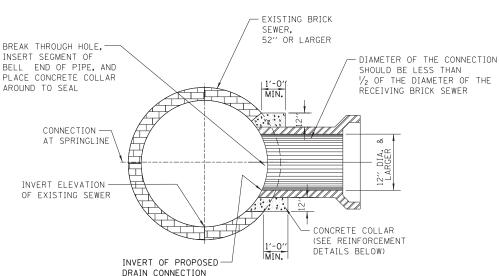
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CONRETE COLLAR NOTES:

- 1. ALL ITEMS AND MATERIALS SHALL CONFORM TO THE LATEST IDOT SSRBC SPECIFICATIONS, UNLESS OTHERWISE NOTED IN SUPPLEMENTAL SPECIFICATIONS FOR THE SPECIFIC PROJECT BEING CONSTRUCTED.
- ALL CONCRETE SHALL CONFORM TO IDOT SSRBC ARTICLE 1020.04, CLASS SI, WITH A
 COMPRESSIVE STRENGTH OF 3500 PSI.
 ALL EPOXY COATED REINFORCEMENT BARS SHALL CONFORM TO IDOT SSRBC SECTION 508,
- AND ARTICLE 1006.10.

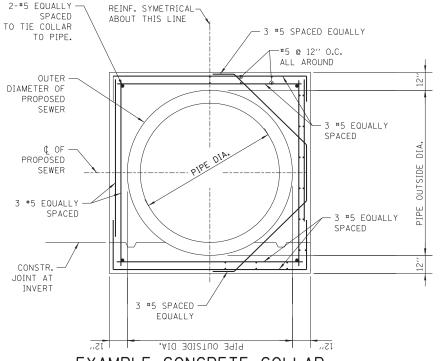
 4. UNLESS OTHERWISE SHOWN, THE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
- A.) CONCRETE CAST AGAINST PERMANENTLY EXPOSE EARTH: 3" B.) ALL OTHER REINFORCING BARS: 2"
 5. CONCRETE COLLARS SHALL BE USED AT ALL EXISTING/PROPOSED PIPE CONNECTIONS. TRIM
- EXISTING PIPE END TO PROVIDE FLUSH BUTT JOINT, INSTALL REBAR, AND PLACE CONCRETE COLLAR.

 6. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO THE EXISTING SEWER DURING CONSTRUCTION, CONTRACTOR SHALL
- PREVENT DAMAGE TO THE EXISTING SEWER DURING CONSTRUCTION, CONTRACTOR SHALL ADEQUATELY BRACE OR SHORE EXISTING SEWER IF REQUIRED TO MAINTAIN INTEGRITY OF SEWER DURING CONSTRUCTION, SUBMIT DESIGN AND DETAILS, SEALED AND SIGNED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER, SHOWING TEMPORARY BRACING FOR THE EXISTING SEWER DURING CONSTRUCTION FOR REVIEW PRIOR TO CONSTRUCTION. ANY DAMAGE TO EXISTING STRUCTURE IS RESPONSIBILITY OF THE CONTRACTOR.
- 7. CONTRACTOR SHALL DIVERT ALL FLOW FROM THE EXISTING SEWER PRIOR TO CONSTRUCTION SO THAT THE WORK CAN BE PERFORMED IN THE DRY CONDITION. SEWER MUST BE MAINTAINED IN SERVICE AT ALL TIMES. SUBMIT MEANS OF FLOW DIVERSION FOR REVIEW PRIOR BREAKING INTO EXISTING BRICK SEWER. ALL EXCAVATION SHALL BE KEPT DEWATERED DURING CONSTRUCTION OPERATIONS UNTIL BACKFILL IN PLACE. PROVISIONS SHALL BE MADE TO PREVENT THE BOTTOM OF ALL EXCAVATIONS FROM FREEZING OR FLOODING AT ALL TIMES. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE SHALL BE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE OF THE WORK.



EXAMPLE TYPICAL BRICK SEWER CONNECTION FOR CONNECTING PIPE SIZES GREATER THAN 12" DIA.

F5 EOUALLY REINF. SYMETRICAL
SPACED AROUT THIS LINE



EXAMPLE CONCRETE COLLAR
REINFORCEMENT - SECTION
(NOT TO SCALE)

DATE DESC

PIPE TO PIPE REINFORCED CONCRETE COLLAR DETAIL SCALE: N.T.S. D w TOTAL TOTAL CLASS SI PIPE #5 EPOXY WIDTH RCP DIA. THICKNESS LENGTH CONCRETE REBAR QTY LENGTH QTY (IN) (IN) (IN) (IN) (EACH) (FT) (N) (EACH) (FT) (CU YD) (LBS) (IN) 12.0 12" 2.00 32.0 26.00 21.00 4 22.7 8 1/8 18.0 0.42 42.5 15* 2.25 35.5 29.50 22.75 4 25.0 9 3/8 12.0 18.0 0.49 44.8 18* 2.50 39.0 33.00 24.50 27.3 10 1/2 12.0 18.0 0.57 47.2 21* 2.75 36.50 5€.0 42.5 26.25 4 29.7 8 3/4 16.0 24.0 0.65 3.00 46.0 40.00 28.00 32.0 9 5/8 16.0 0.72 58.4 27 3.25 49.5 43.50 29.75 34.3 16.0 24.0 0.81 60.8 10 1/2 47.00 31.50 16.0 30 3.50 53.0 4 36.7 11 3/8 24.0 0.89 63.3

39.0

41.3

50.7

46.0

4

4

9 4/5

11 1/8

10 1/2 20.0

9 7/8 24.0

24.0

- LAP BARS 16"

CLASS SI

CONCRETE

#5-H BARS

#5 H BAR

4 EACH #5 U-BARS PER COLLAR

SECTION

#5 U BAR

3.75

4.00

4.50

5.00

*NOTE: OPTION TO USE WITHOUT REBAR

36

42

56.5

60.0

67.0

74.0

50.50

68.00

33.25

42.00

54.00 35.00

61.00 38.50

BARS

BARS

PLAN

0.98

1.07

1.26

30.0

36.0

72.0

74.4

85.5

STANDARD REVISIONS						
DATE	DESCRIPTION					
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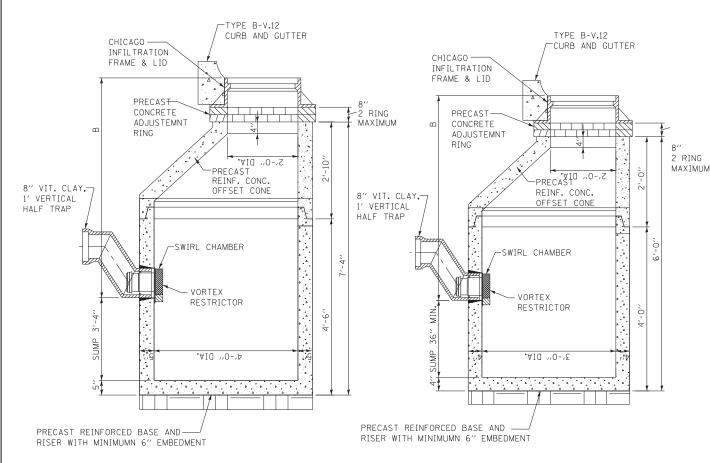
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STANDARD DRAINAGE STRUCTURES FOR PUBLIC STREETS



STANDARD CATCH BASIN-4' DIA.

STANDARD CATCH BASIN-3' DIA.

NOTES:

1. FOR ANY DRAIN TILE CONNECTION, THE

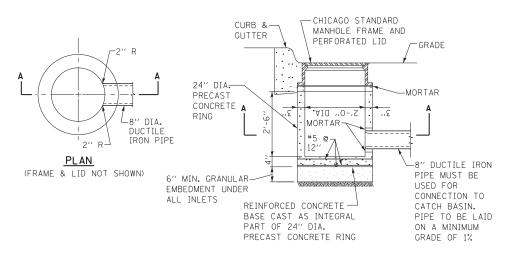
FEET BELOW ELEVATION A.

WATER TABLE MUST BE AT LEAST 3.5

2. PVC UNDERDRAINS MUST BE 4" MINIUMUM

DIAMETER. (6" RECOMMENDED) AND MUST

BE WRAPPED IN GEOTECH FABRIC.



STANDARD INLET-2' DIA.

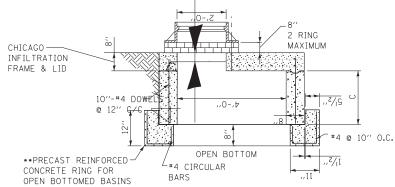
NOTE: INLETS AND 3' DIAMETER CATCH BASINS ARE TO BE USED ONLY WITH PRIOR APPROVAL OF DWM SEWER ENGINEER OR FIELD INSPECTOR.

FOR TRENCH BACKFILL, USE FA-6 SAND, CRUSHED CONCRETE SAND, OR STONE SAND.

FOR GRANULAR EMBEDMENT, USE CA-11, CRUSHED GRAVEL, CRUSHED STONE, OR CRUSHED CONCRETE.

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STANDARD DRAINAGE STRUCTURES FOR PUBLIC ALLEYS



GREEN ALLEY OPEN BOTTOM CATCH BASIN

TO BE USED IF STANDARD CONE WITH REQUIRED SUMP DEPTH INSTALLATION IS IMPOSSIBLE.

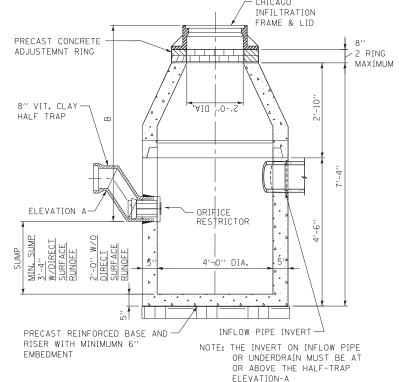
**IF FLAT TOP SLAB CATCH BASIN IS USED IN AN OPEN BOTTOM APPLICATION, THE FOLLOWING CRITERIA MUST BE FOLLOWED:

-"C" MUST BE A MINIMUM OF 3 FEET.

- PROVIDE A MINIMUM AGGREGATE BASE OF 1.0 FEET BELOW PRECAST REINFORCED CONCRETE RING.

-GEOTECH FABRIC MUST BE PLACED ON SIDES AND BOTTOM OF AGGREGATE SURROUNDING BASIN.

-AGGREGATE BASE MUST PROVIDE ADEQUATE STORMWATER STORAGE CAPACITY PER THE APPROVED/PERMITTED PLANS.



N.T.S.

DRAINAGE STRUCTURES RESTRICTORS



INSERT THE RESTRICTOR INTO THE HALF-TRAP. UPON TIGHTENING OF THE CENTER NUT ON THE EACE OF THE RESTRICTOR. THE RUBBER O-RINGS WILL EXPAND INSIDE THE HALF TRAP, PROVIDING A WATER- TIGHT SEAL. PULL ON RESTRICTOR TO VERIFY THAT A TIGHT FIT IS MADE.



PULL ON RESTRICTOR TO VERIFY THAT A

INSERT THE RESTRICTOR WITH THE OPENING DOWN. UPON TIGHTENING OF THE 2 BOLTS ON THE FACE OF THE RESTRICTOR, THE RUBBER O-RINGS WILL PROVIDE A WATER- TIGHT SEAL.

GENERAL NOTES:

1. CATCH BASIN TO CATCH BASIN CONNECTIONS ARE ALLOWED IN PRIVATE SITES & ALLEYS. ONLY THE DOWNSTREAM CATCH BASIN IS REQUIRED TO HAVE A HALF-TRAP.

2. IF B < 4 FEET, THEN USE A DUCTILE IRON PIPE HALF TRAP AND FLAT TOP SLAB CATCH BASIN AS NECESSARY.

3. INLETS AND 3' DIAMETER CATCH BASINS ARE TO BE WITH PRIOR APPROVAL OF DWM FIELD INSPECTOR.

RESTRICTOR NOTES:

THE DWM'S RAIN BLOCKER RESTRICTOR PROGRAM MUST BE MAINTAINED WITH ANY ROADWAY IMPROVEMENT.

THE DESIGN OF ANY ROADWAY IMPROVEMENT MUST CONSIDER LIMITING THE NUMBER OF CATCH BASINS TO THE EXTENT PRACTICAL. THE NUMBER OF EXISTING STRUCTURES SHOULD NOT BE INCREASED.

THE RESTRICTORS CAN BE OBTAINED FROM DWM CENTRAL DISTRICT AT 3901 S. ASHLAND AVE. THE CONTRACTOR SHOULD ARRANGE FOR PICK UP BY CONTACTING 312-747-1177 (7AM TO 3PM, M-F)

FLOW RESTRICTORS MUST BE INSTALLED IN ALL CATCH BASINS OUTSIDE OF THE CENTRAL BUSINESS DISTRICT. RESTRICTORS MUST NOT BE INSTALLED IN CATCH BASINS IN CLOSE PROXIMITY TO VIADUCT AREAS, BUS STOPS, OR EMERGENCY ENTRANCES. THE DWM MUST APPROVE THE NON-INSTALLATION OR REMOVAL OF ANY RESTRICTOR. REQUIREMENTS FOR RESTRICTOR INSTALLATION ARE AS FOLLOWS:

*ARTERIAL STREETS: 3-INCH ORIFICE RESTRICTOR *BUS ROUTES: 3-INCH ORIFICE RESTRICTOR

*RESIDENTIAL STREETS: 3-INCH VORTEX RESTRICTOR *ALLEYS: 3-INCH ORIFICE RESTRICTOR IN THE LAST CB.

*CLOSED LIDS ARE REQUIRED ON ALL MANHOLES EXCEPT AT INTERSECTIONS WHERE A PERFORATED LID SHALL BE

CATCH BASIN-ORIFICE RESTRICTOR

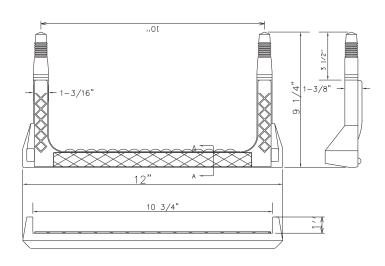
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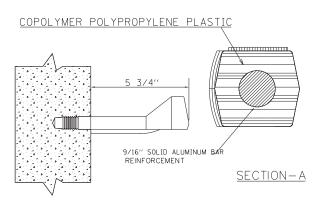
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CHICAGO DEPARTMENT OF WATER MANAGEMENT STANDARD DETAILS SCALE: NTS SHEET NO. 11 OF 12 SHEETS STA. TO STA.

SECTION COUNTY 55 2013-049B COOK 888 855 CONTRACT NO. 60X07

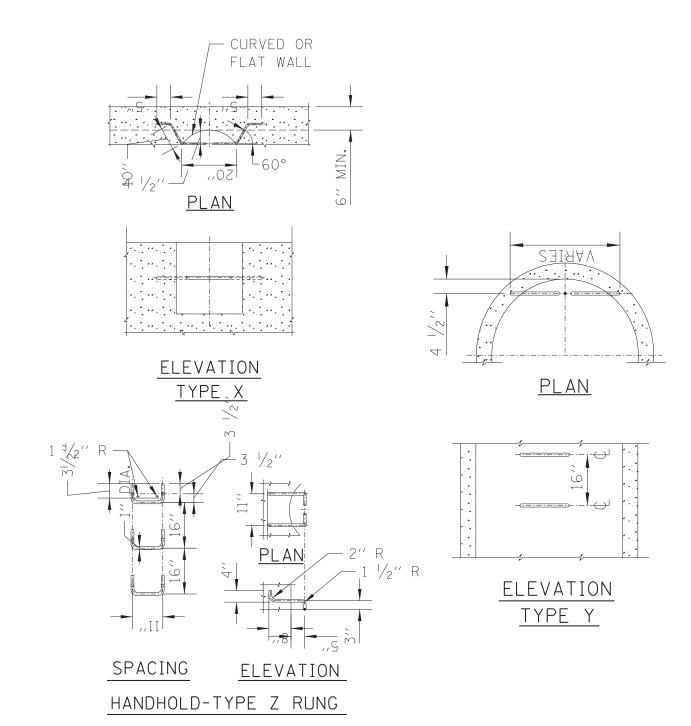




STEP LADDER RUNG

NOTES:

- 1. VERTICAL SPACING = 16" O.C., ON VERTICAL WALL ONLY.
- 2. STEPS TO PROTRUDE MINIMUM 5" FROM FACE OF STRUCTURE WALL.
- 3. STEPS SHALL MEET THE REQUIREMENTS OF ASTM C478 IN ADDITION TO A HORIZONTAL PULL-OUT LOAD OF 1000 LBS. WHEN INSTALLED.
- 4. ALL STEPS SHALL BE VERTICALLY ALIGNED IN A STRAIGHT LINE.
- 5. NO STEPS LOCATED INSIDE MANHOLE CHIMNEY.
- 6. MINIMUM CONCRETE STRENGTH MUST BE 3000 PSI
- 7. HOLES- PREFORMED/DRILLED
 - A. HOLES MUST BE PARALLEL
 - B. HOLES MUST BE 10" CENTERED, 1" DIAMETER
 - C. MINIMUM DEPTH- 3 1/2" TO 3 3/4"



STANDARD REVISIONS					
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