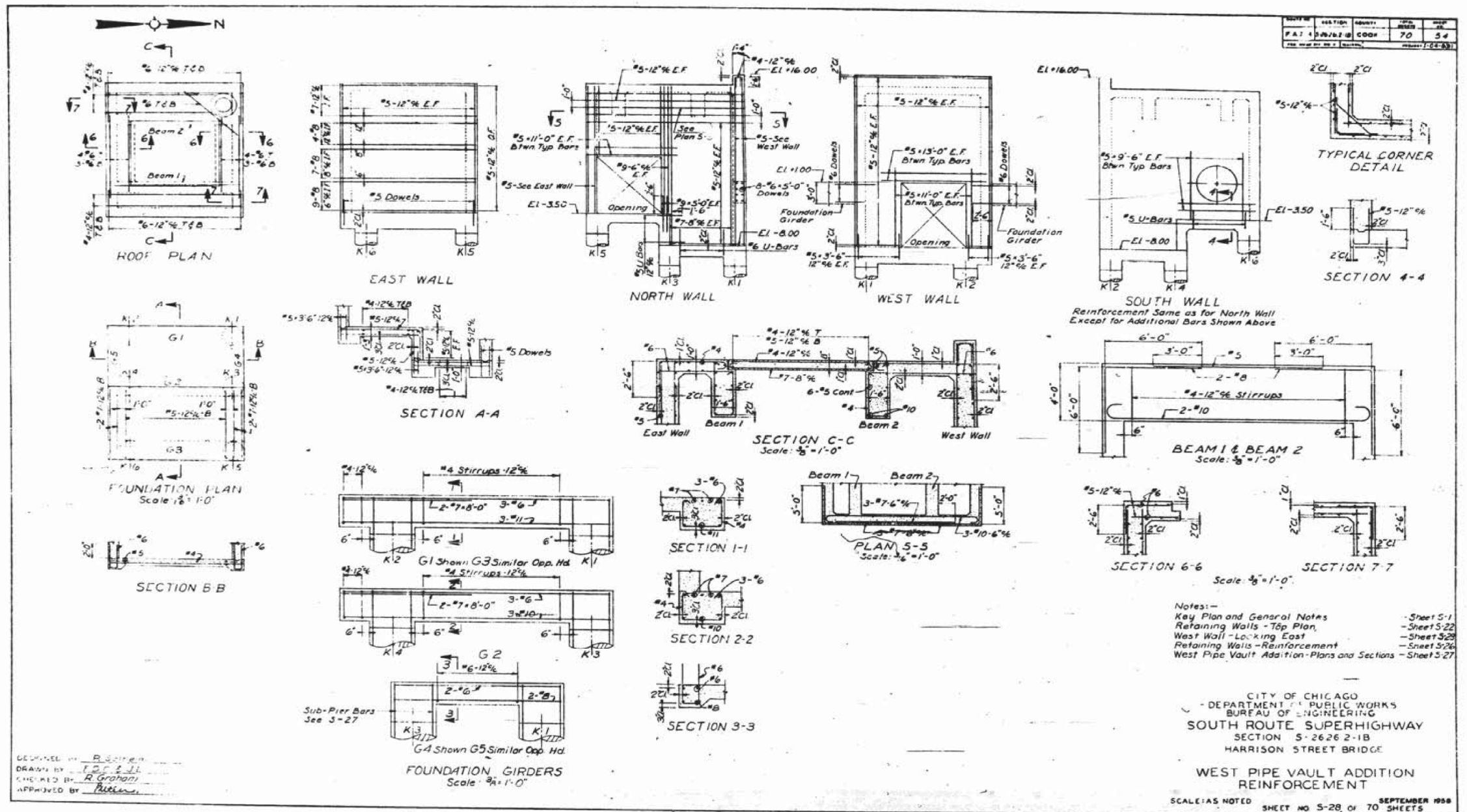


FOR INFORMATION ONLY



DESIGNED BY: B. Smith
 DRAWN BY: J. D. J.
 CHECKED BY: R. Graham
 APPROVED BY: [Signature]

USER NAME = dunkerleyb	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE = N.T.S.	DRAWN -	REVISED -
PLOT DATE = 11/26/2013	CHECKED -	REVISED -

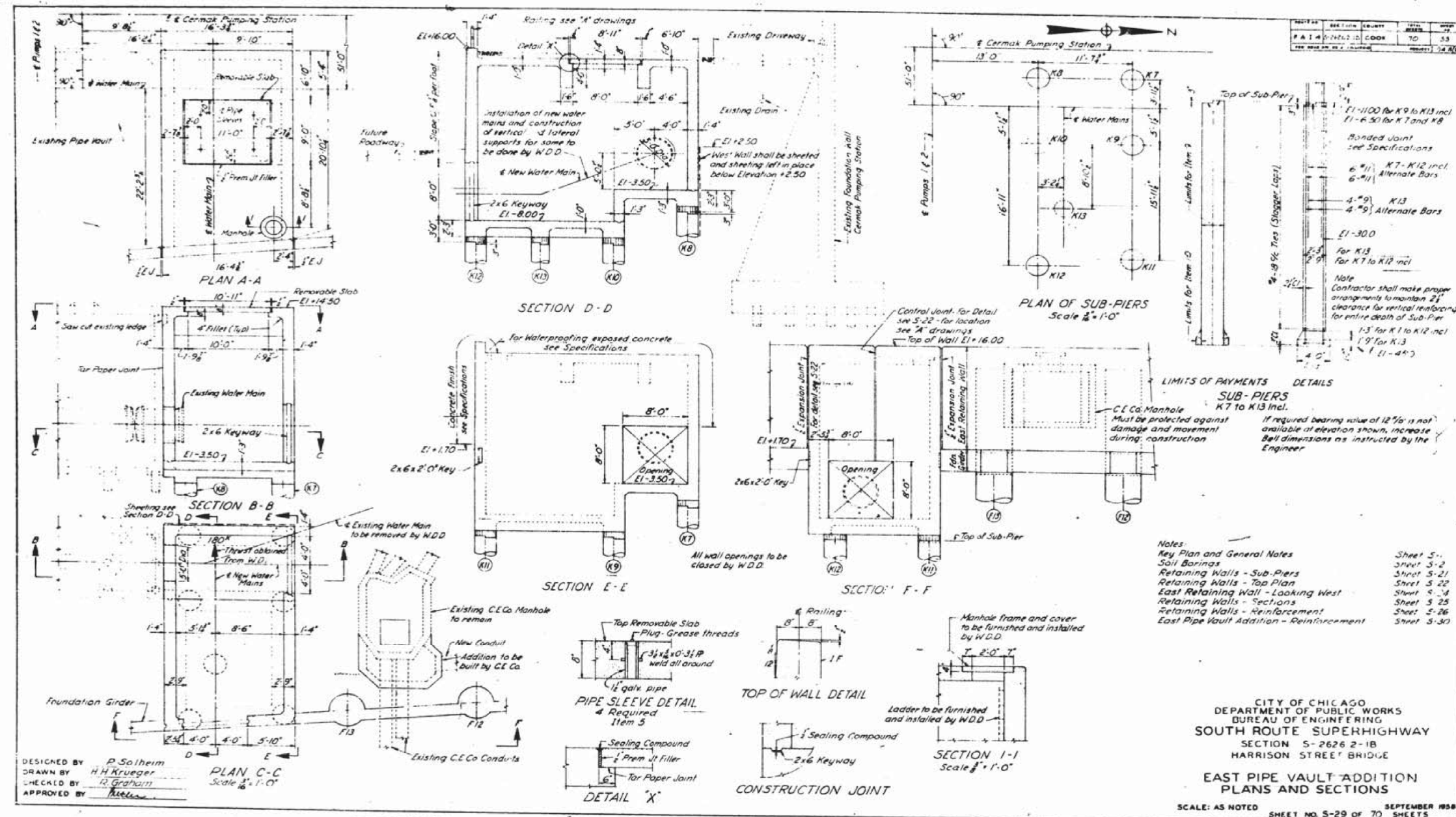
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-59 OF AS-72 SHEETS

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	201
				CONTRACT NO. 60W71
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



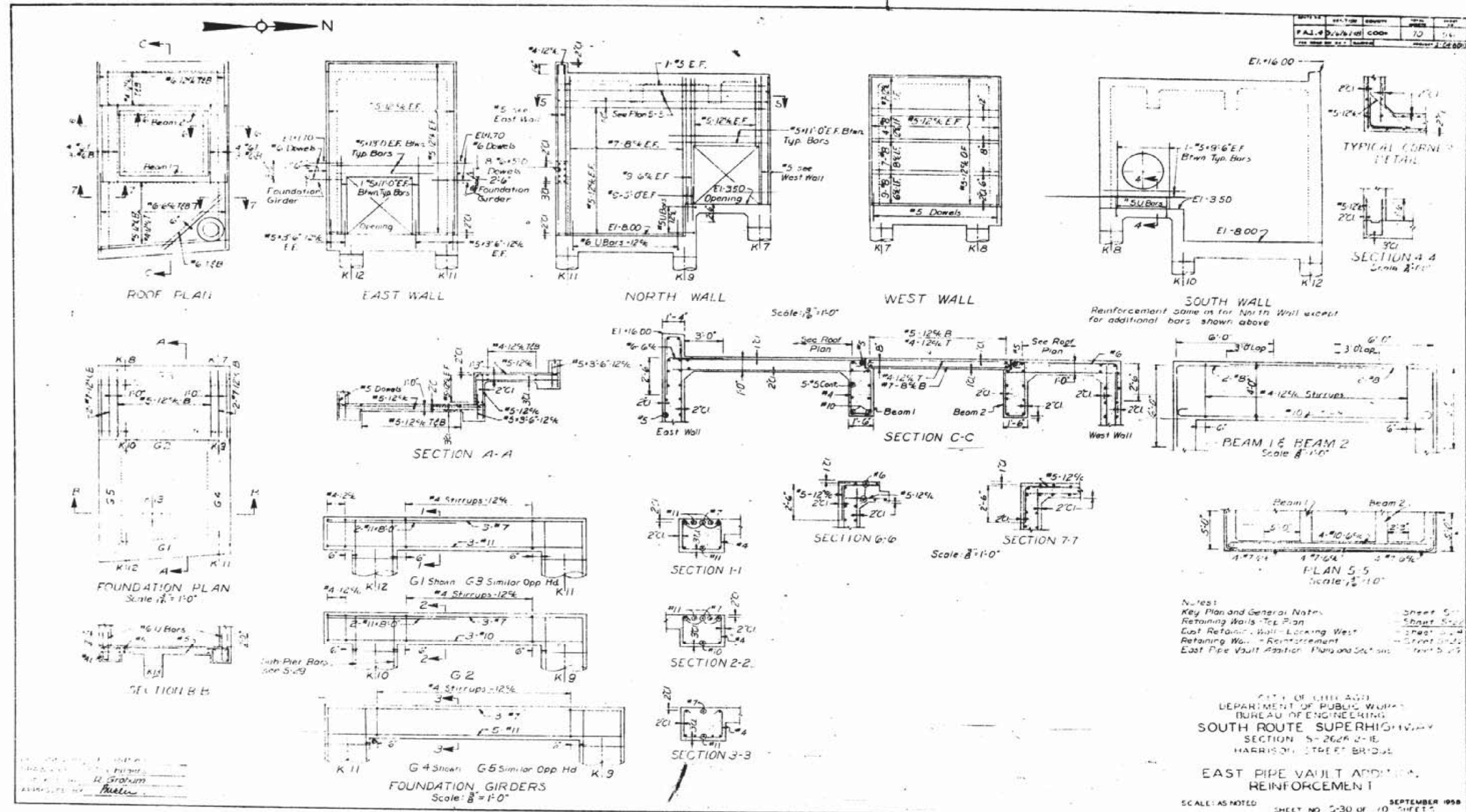
DESIGNED BY P. Solheim
 DRAWN BY H.H. Krueger
 CHECKED BY R. Graham
 APPROVED BY [Signature]

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION 5-2626 2-1B
 HARRISON STREET BRIDGE
EAST PIPE VAULT ADDITION
 PLANS AND SECTIONS
 SCALE: AS NOTED SHEET NO. 5-29 OF 70 SHEETS
 SEPTEMBER 1958

D:\60W71-sht-AS-BUILT-60.dgn

USER NAME = dunkerleyb	DESIGNED -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AS-BUILTS SN 016-1088	F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	CHECKED -	REVISED			90/94/290	2013-036R	COOK	256	202	
PLOT SCALE = N.T.S.	DRAWN -	REVISED			CONTRACT NO. 60W71					
PLOT DATE = 11/26/2013	CHECKED -	REVISED			ILLINOIS FED. AID PROJECT -NUMBER-					

FOR INFORMATION ONLY



D:\60W71-sht-AS-BUILT-61.dgn

USER NAME = dunkerleyb	DESIGNED -	REVISED
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PLOT DATE = 11/26/2013	CHECKED -	REVISED

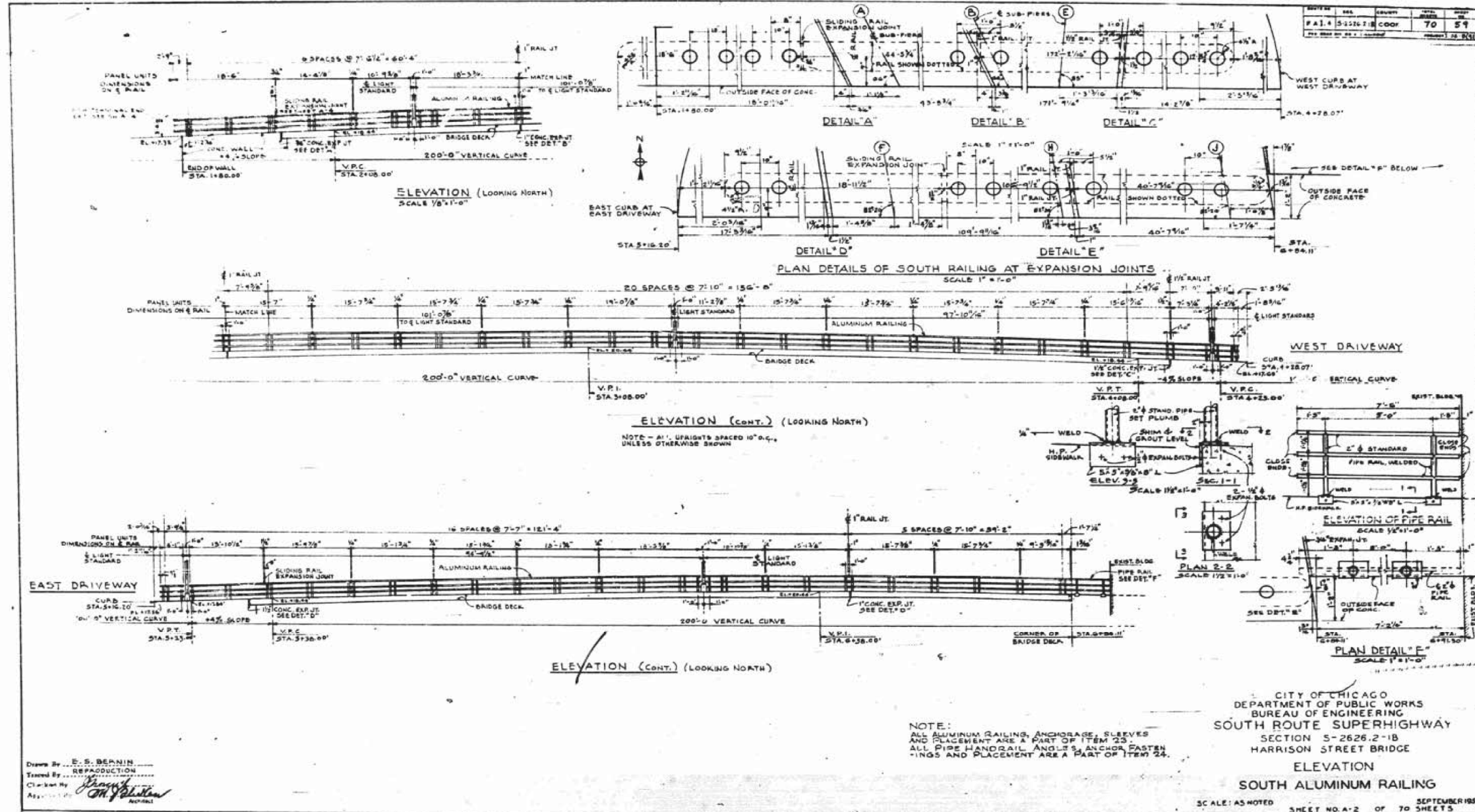
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-61 OF AS-72 SHEETS

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	203
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



D:\6071-sht-AS-BUILT-62.dgn

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PLOT DATE = 11/26/2013	CHECKED -	REVISED

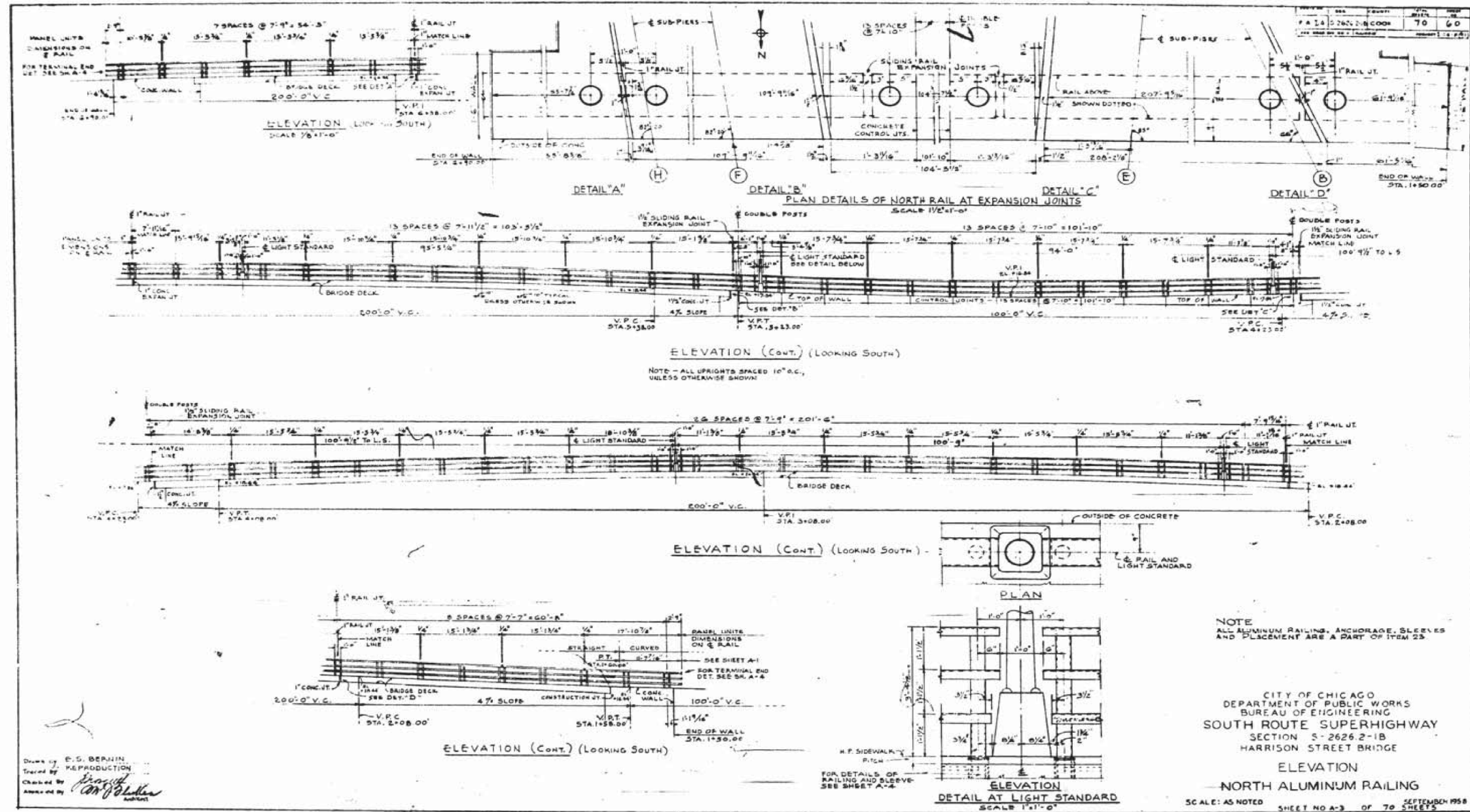
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-62 OF AS-72 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	204
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



D:\60W71-sht-AS-BUILT-63.dgn

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	CHECKED -	REVISED -
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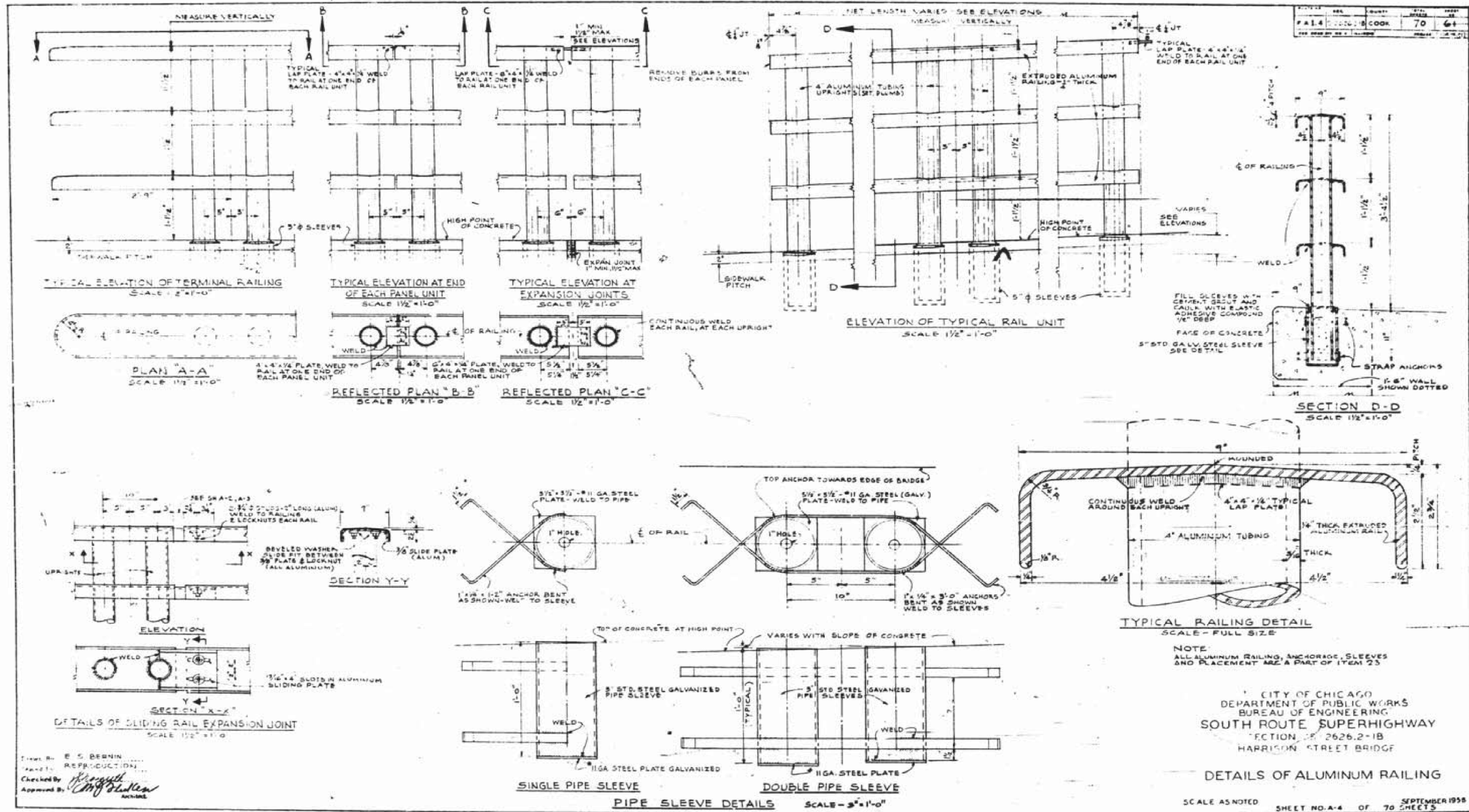
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-63 OF AS-72 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	205
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



D:\60W71-SHT-AS-BUILT-64.dgn

USER NAME = dunkerleyb	DESIGNED -	REVISED
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PLOT DATE = 11/26/2013	CHECKED -	REVISED

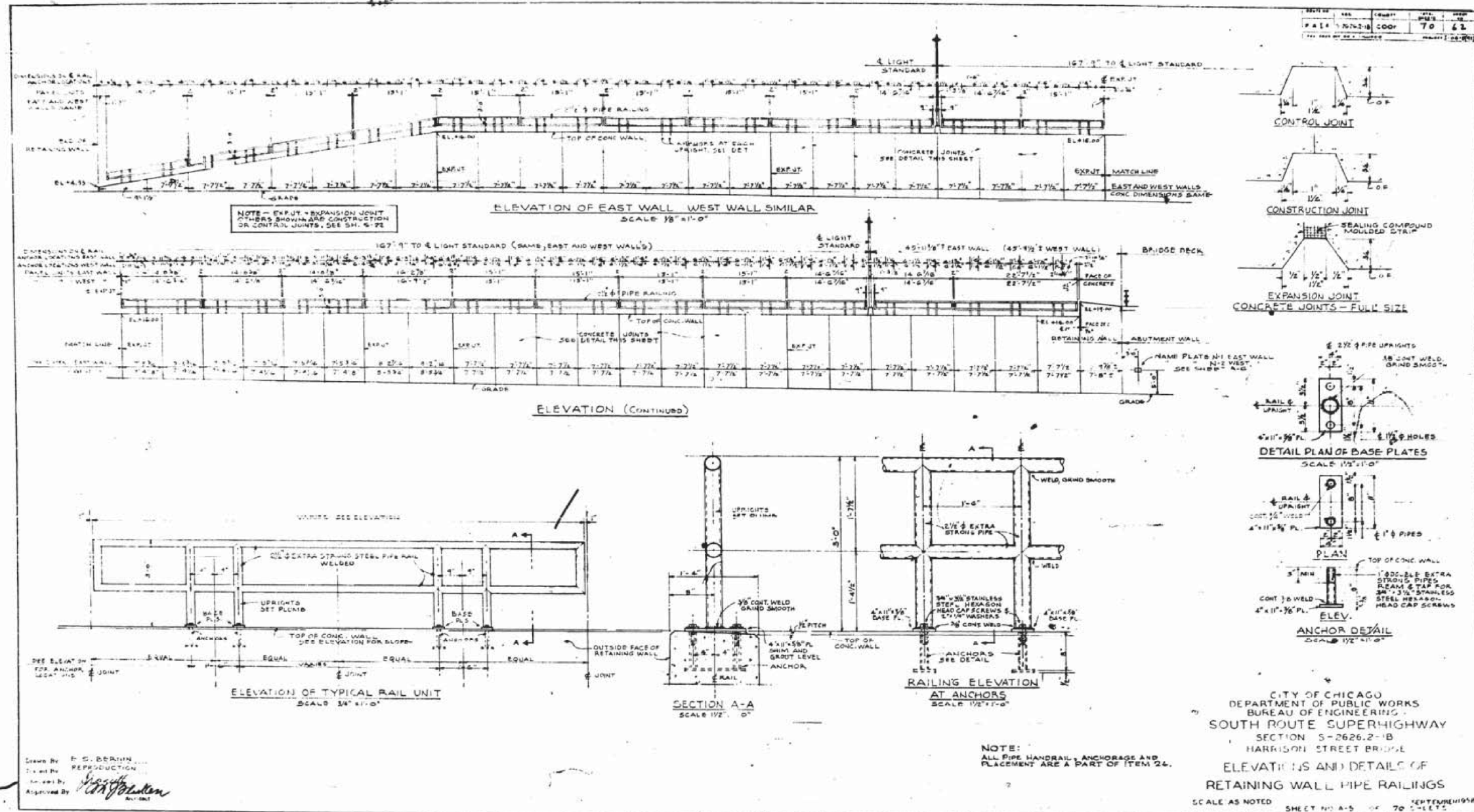
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-64 OF AS-72 SHEETS

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	206
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



Drawn By: F. C. BERLIN
 Title: REPRODUCTION
 Checked By: [Signature]
 Approved By: [Signature]

NOTE:
 ALL PIPE HANDRAIL, ANCHORAGE AND
 PLACEMENT ARE A PART OF ITEM 24.

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION 5-2626.2-B
 HARRISON STREET BRIDGE
 ELEVATIONS AND DETAILS OF
 RETAINING WALL PIPE RAILINGS
 SCALE AS NOTED SHEET NO. A-5 OF 70 SHEETS

D160W71-sht-AS-BUILT-65.dgn

USER NAME = dunkerleyb	DESIGNED -	REVISED -
	CHECKED -	REVISED -
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PLOT DATE = 11/26/2013	CHECKED -	REVISED -

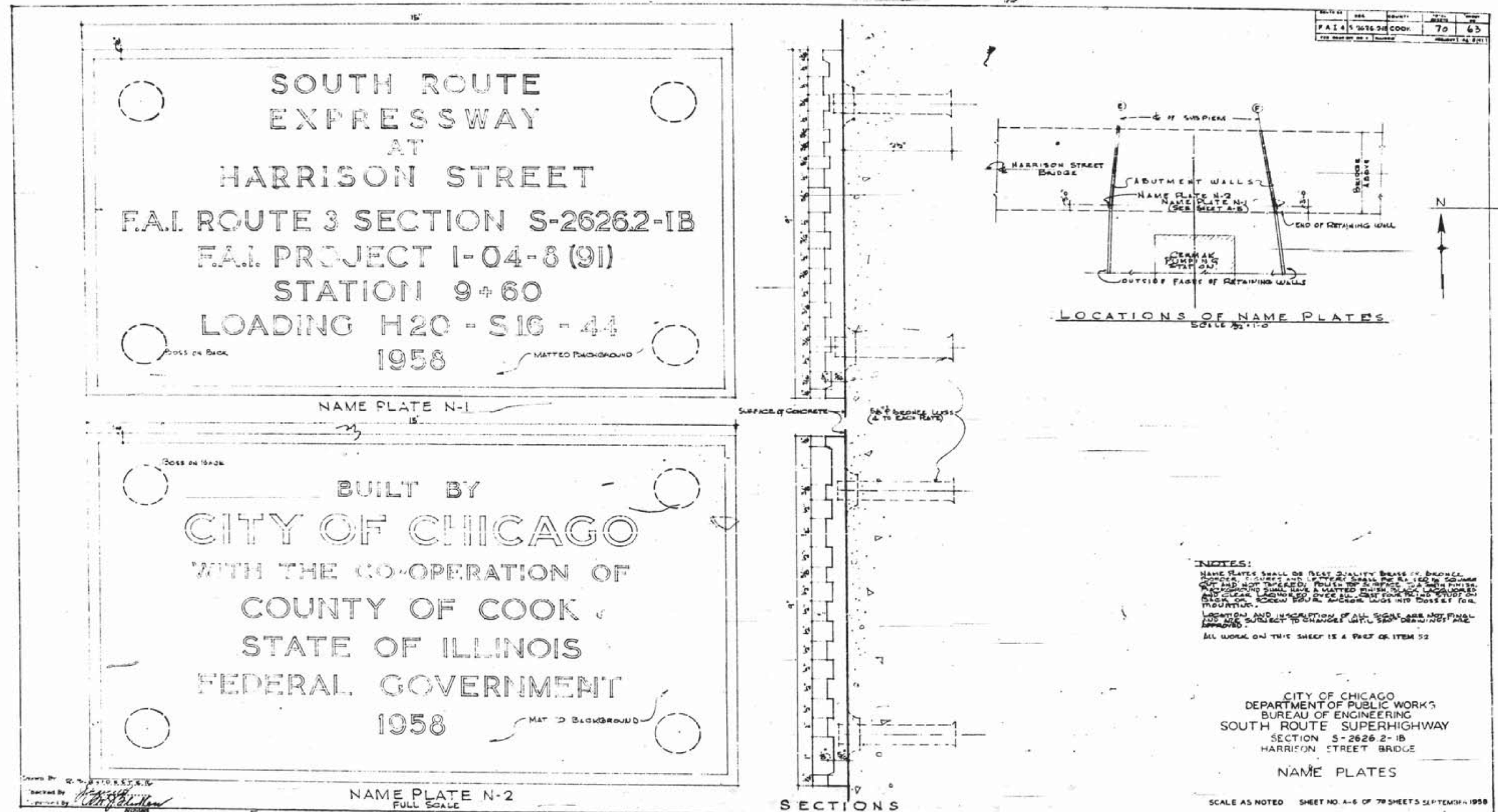
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-65 OF AS-72 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	207
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



NOTES:
 NAME PLATES SHALL BE BEST QUALITY BRASS OR BRONZE
 LETTERS, FIGURES AND SYMBOLS SHALL BE RAISED IN SQUARE
 AND NOT THREADED. FINISH OF SURFACE OF BRASS
 AND BRONZE SHALL HAVE A MATTED FINISH. ALL LETTERS
 SHALL BE CLEAR, UNIFORM SIZE AND SPACING AND NOT
 PLACED ON A CURVED SURFACE UNLESS SPECIFIED
 OTHERWISE.
 LOCATION AND INSCRIPTION OF ALL SIGNS ARE NOT FINAL
 AND ARE SUBJECT TO CHANGE UNTIL SIGN ORDINANCES ARE
 APPROVED.
 ALL WORK ON THIS SHEET IS A PART OF ITEM 52

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE SUPERHIGHWAY
 SECTION S-2626.2-1B
 HARRISON STREET BRIDGE
 NAME PLATES

SCALE AS NOTED SHEET NO. A-6 OF 78 SHEETS SEPTEMBER 1958

D:\60W71-shr-AS-BUILT-66.dgn

USER NAME = dunkerleyb	DESIGNED -	REVISED
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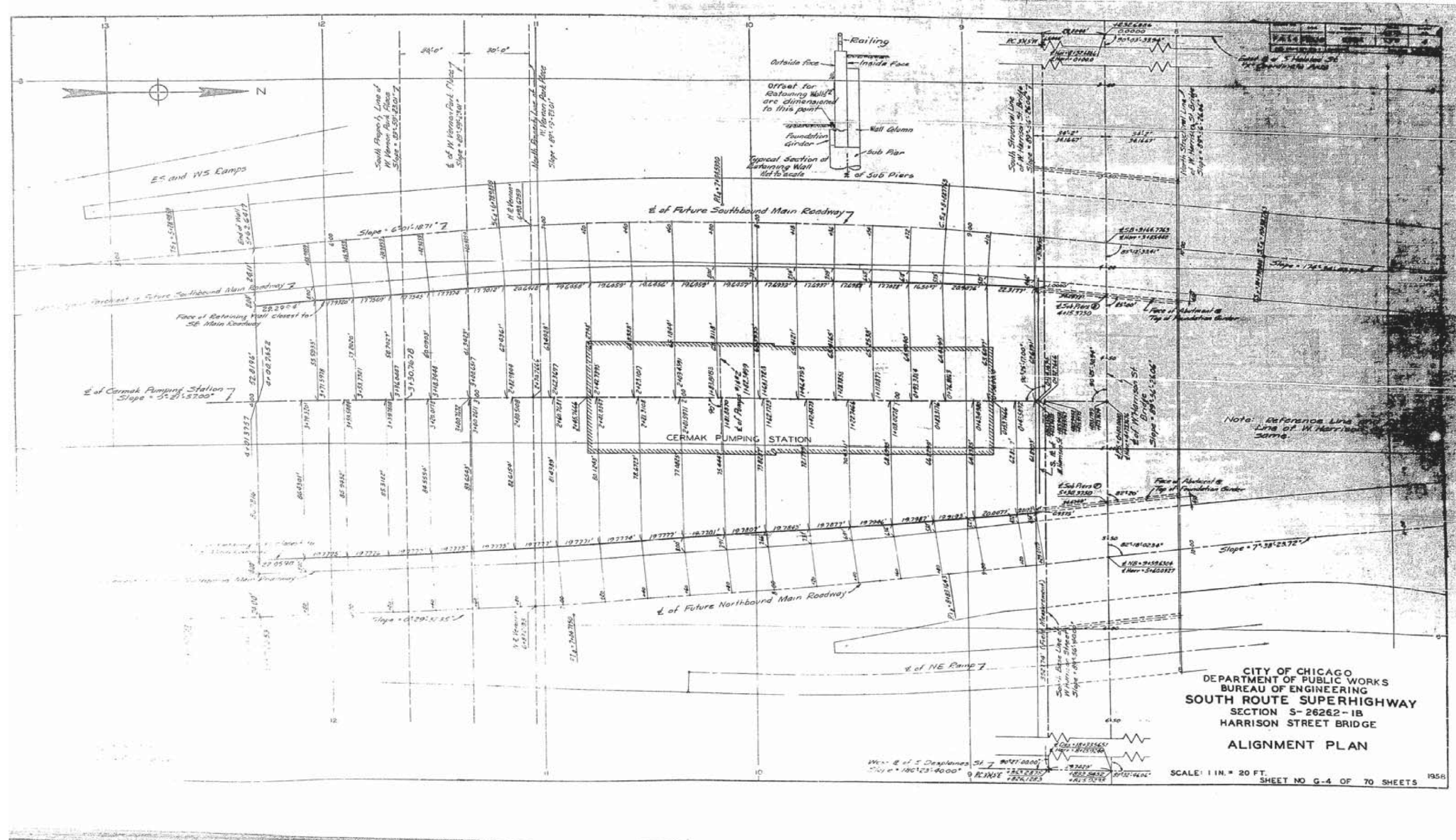
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-66 OF AS-72 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	208
				CONTRACT NO. 60W71
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



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USER NAME = dunkerleyb	DESIGNED -	REVISED
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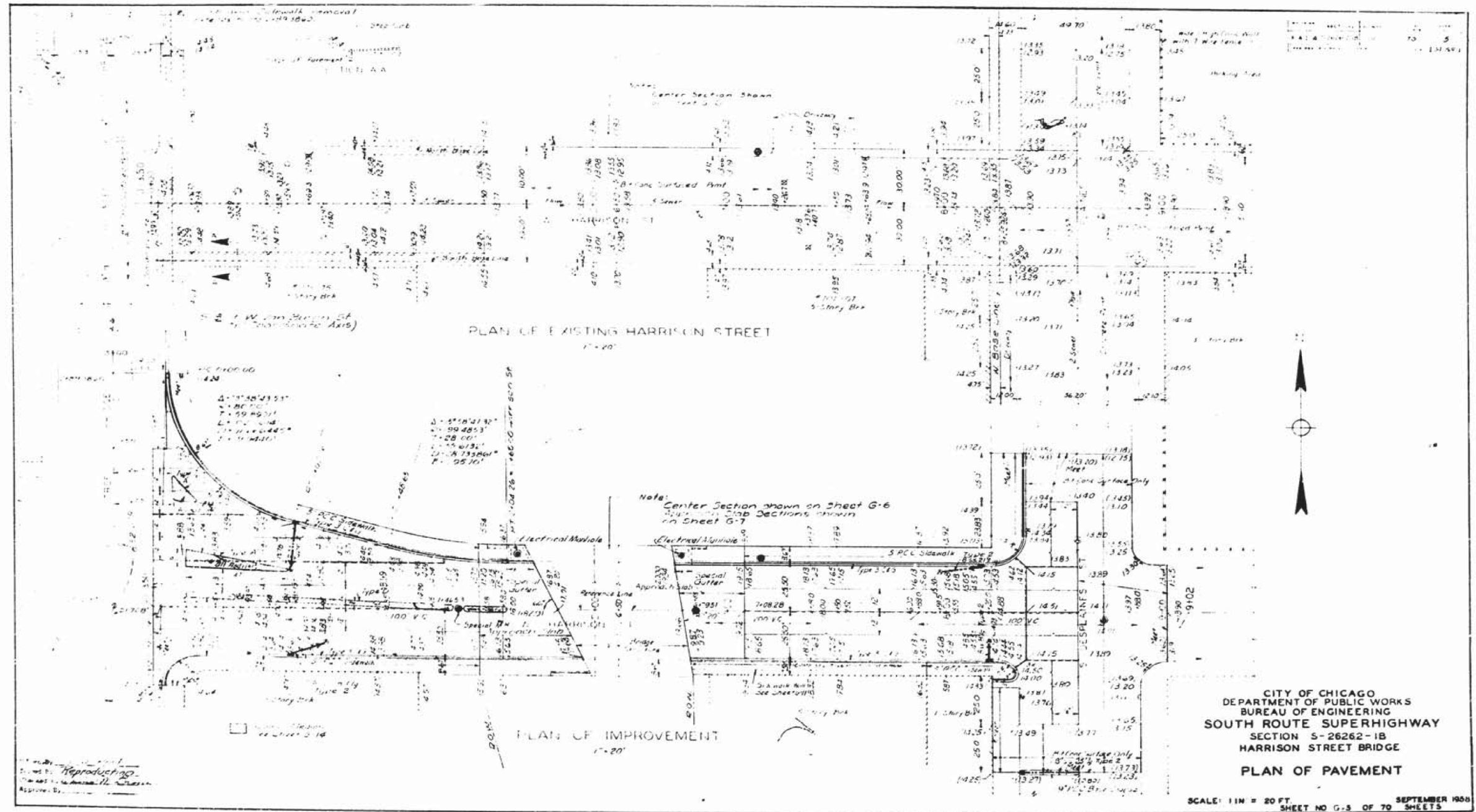
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-67 OF AS-72 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	209
				CONTRACT NO. 60W71
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



USER NAME = dunkerleyb	DESIGNED -	REVISED
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PLOT DATE = 11/26/2013	CHECKED -	REVISED

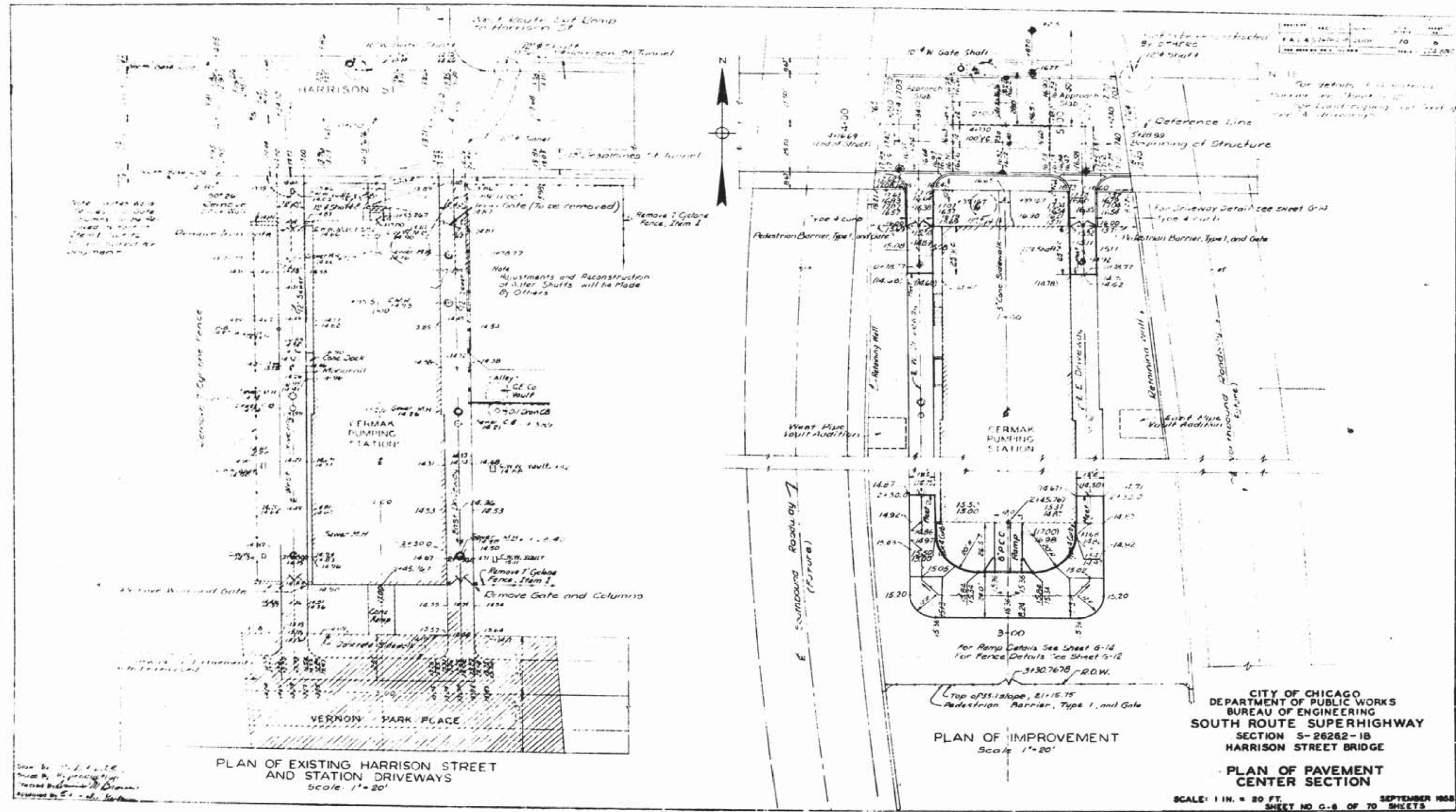
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-68 OF AS-72 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	210
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



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	CHECKED -	REVISED -
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PLOT DATE = 11/26/2013	CHECKED -	REVISED -

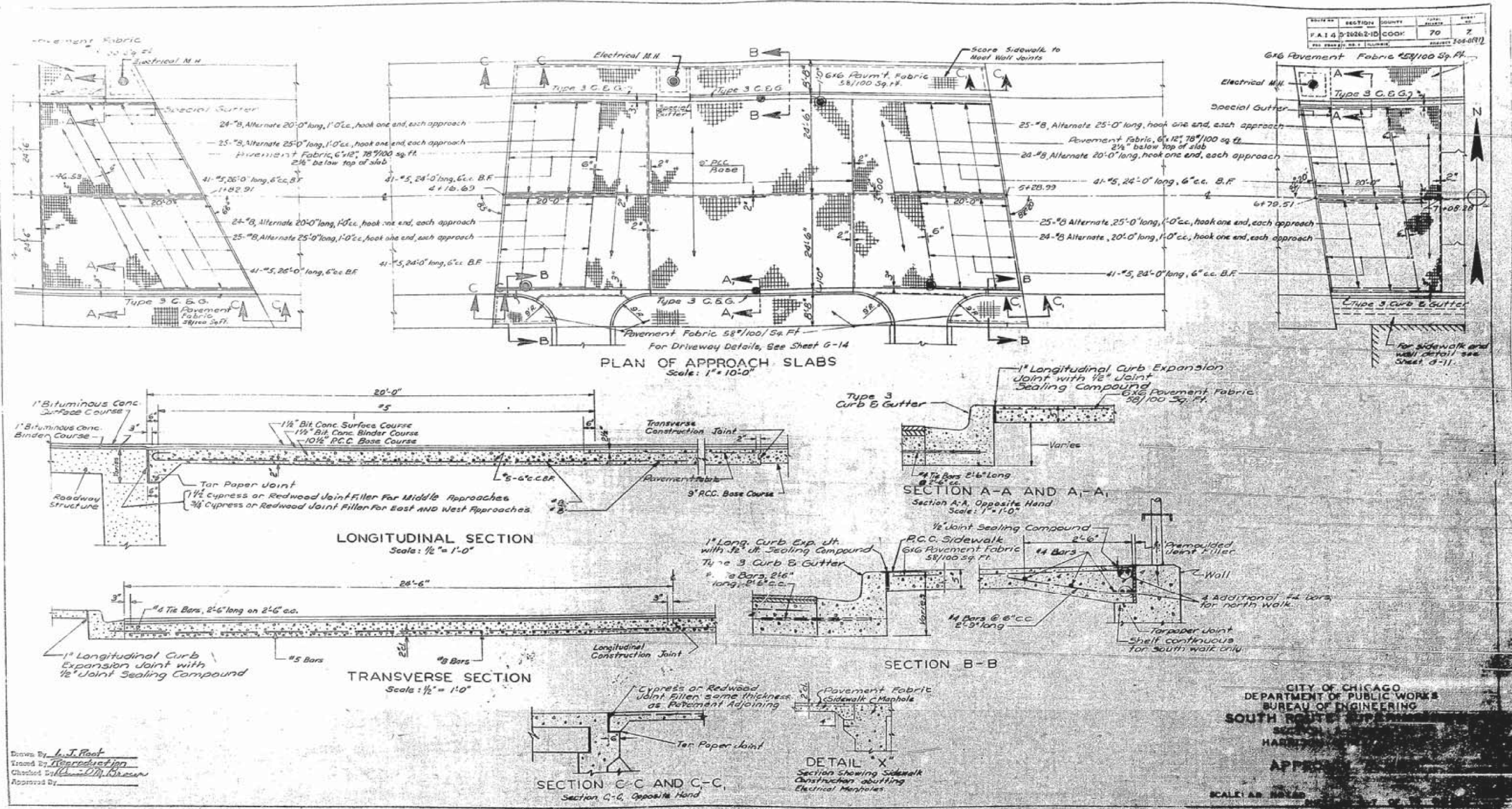
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-69 OF AS-72 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	211
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



Drawn By: L.J. Root
 Traced By: [Signature]
 Checked By: [Signature]
 Approved By:

CITY OF CHICAGO
 DEPARTMENT OF PUBLIC WORKS
 BUREAU OF ENGINEERING
 SOUTH ROUTE 100
 SECTION 1
 HARRISON
 APPENDIX
 SCALE: AS SHOWN

D:\60W71-sht-AS-BUILT-70.dgn

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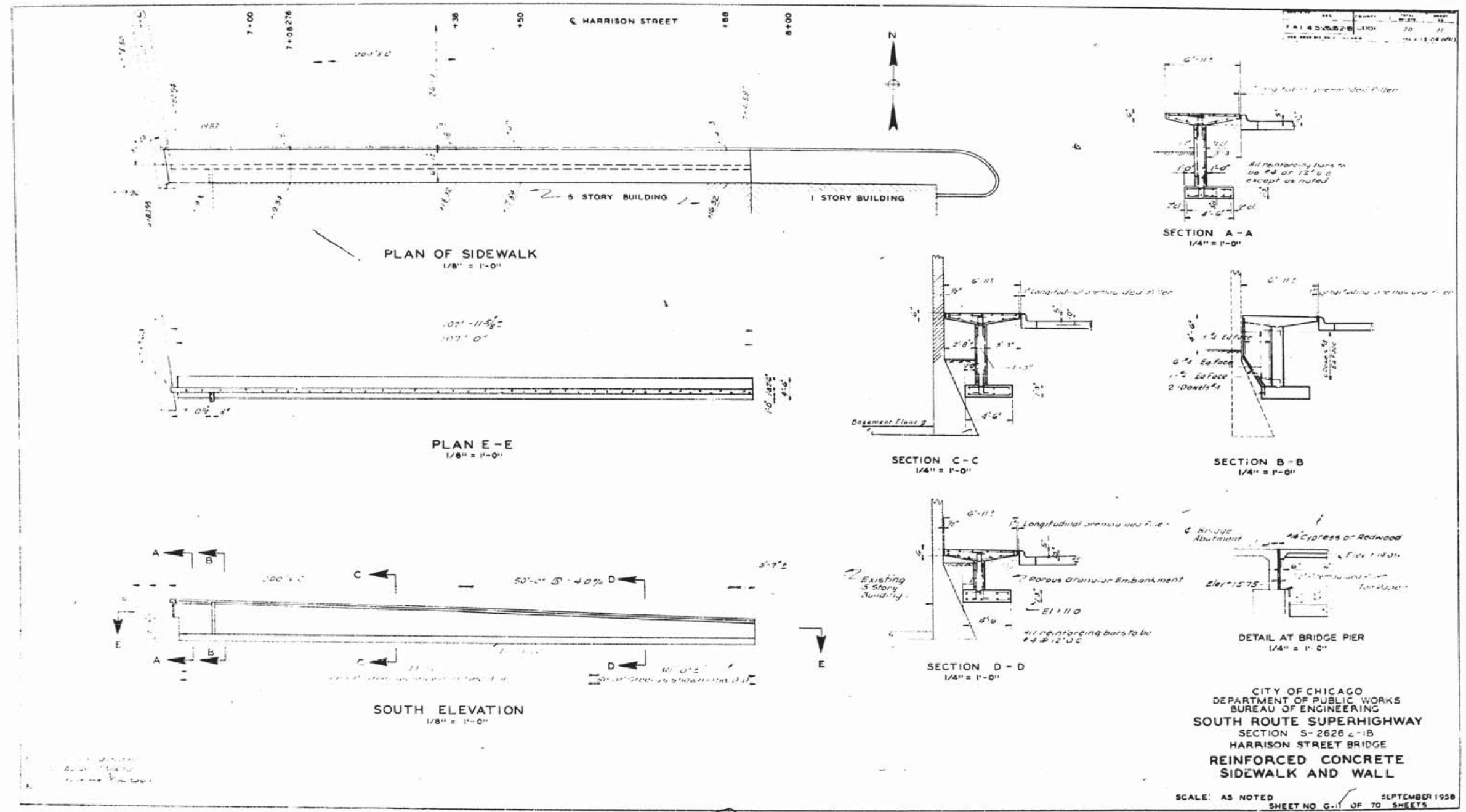
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-70 OF AS-72 SHEETS

F.A.I. R.E. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 212
				CONTRACT NO. 60W71
ILLINOIS FED. AID PROJECT -NUMBER-				

FOR INFORMATION ONLY



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PLOT DATE = 11/26/2013	CHECKED -	REVISED

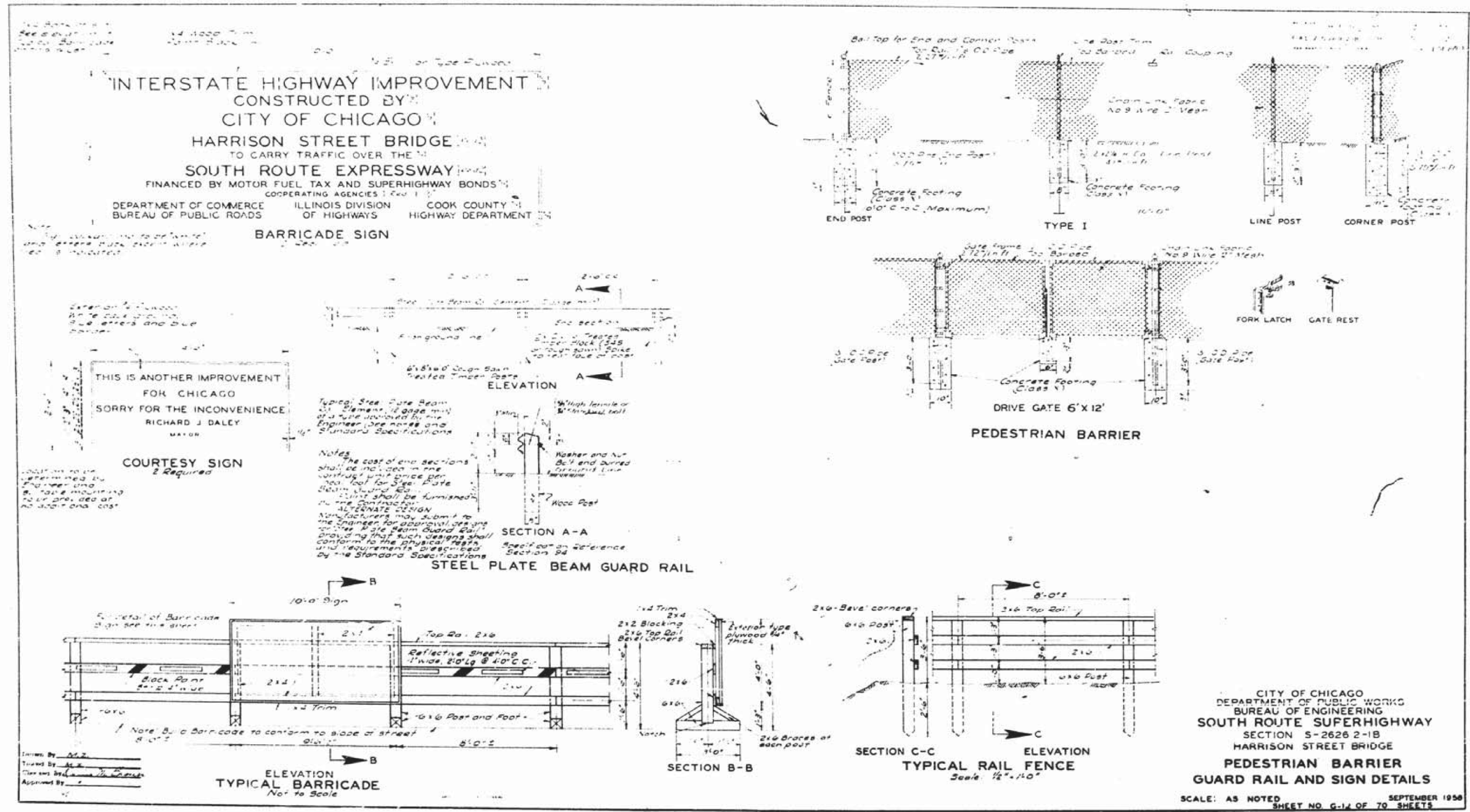
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

SHEET NO. AS-71 OF AS-72 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	213
CONTRACT NO. 60W71			ILLINOIS FED. AID PROJECT -NUMBER-	

FOR INFORMATION ONLY



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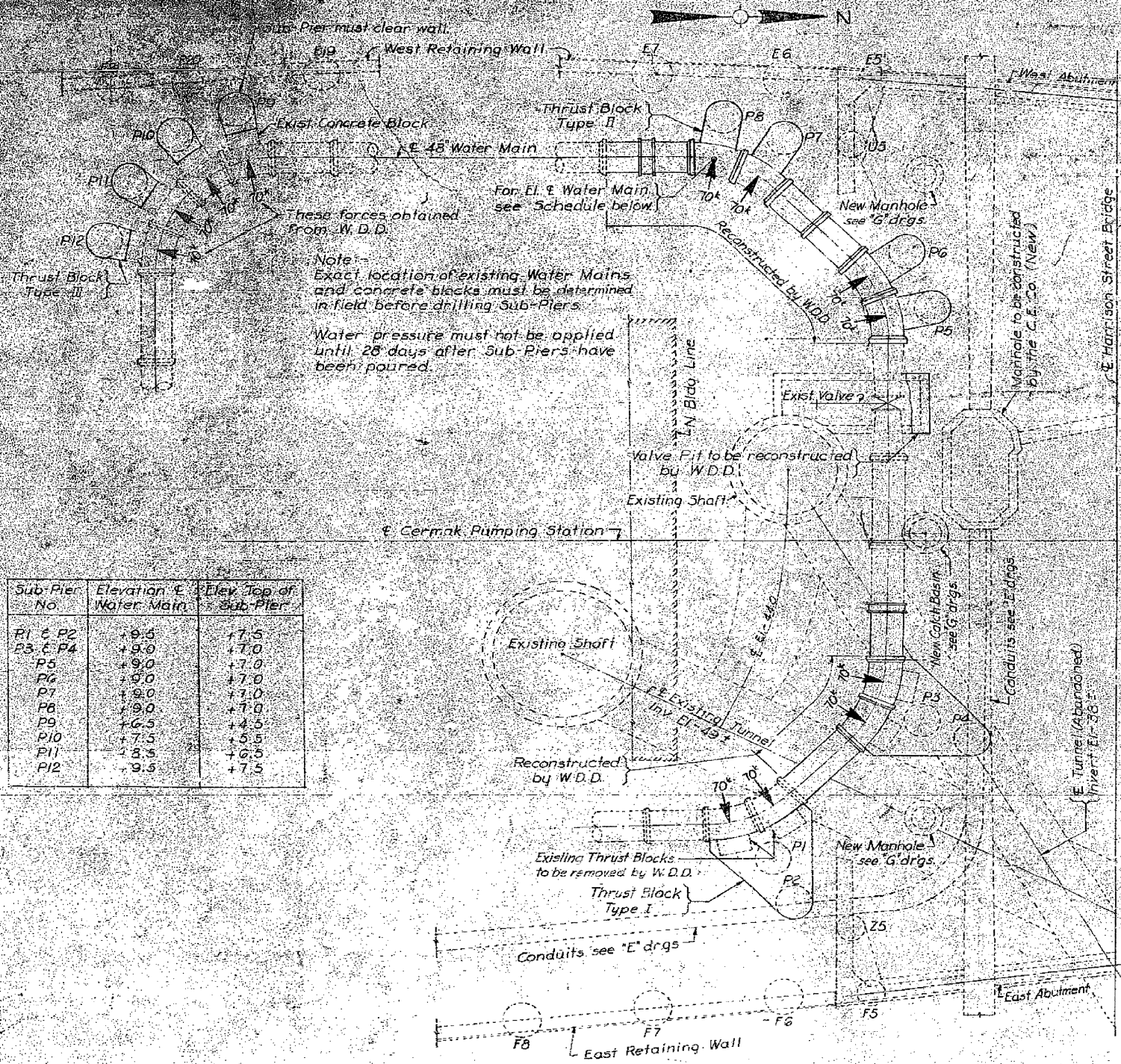
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PLOT DATE = 11/26/2013	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS SN 016-1088

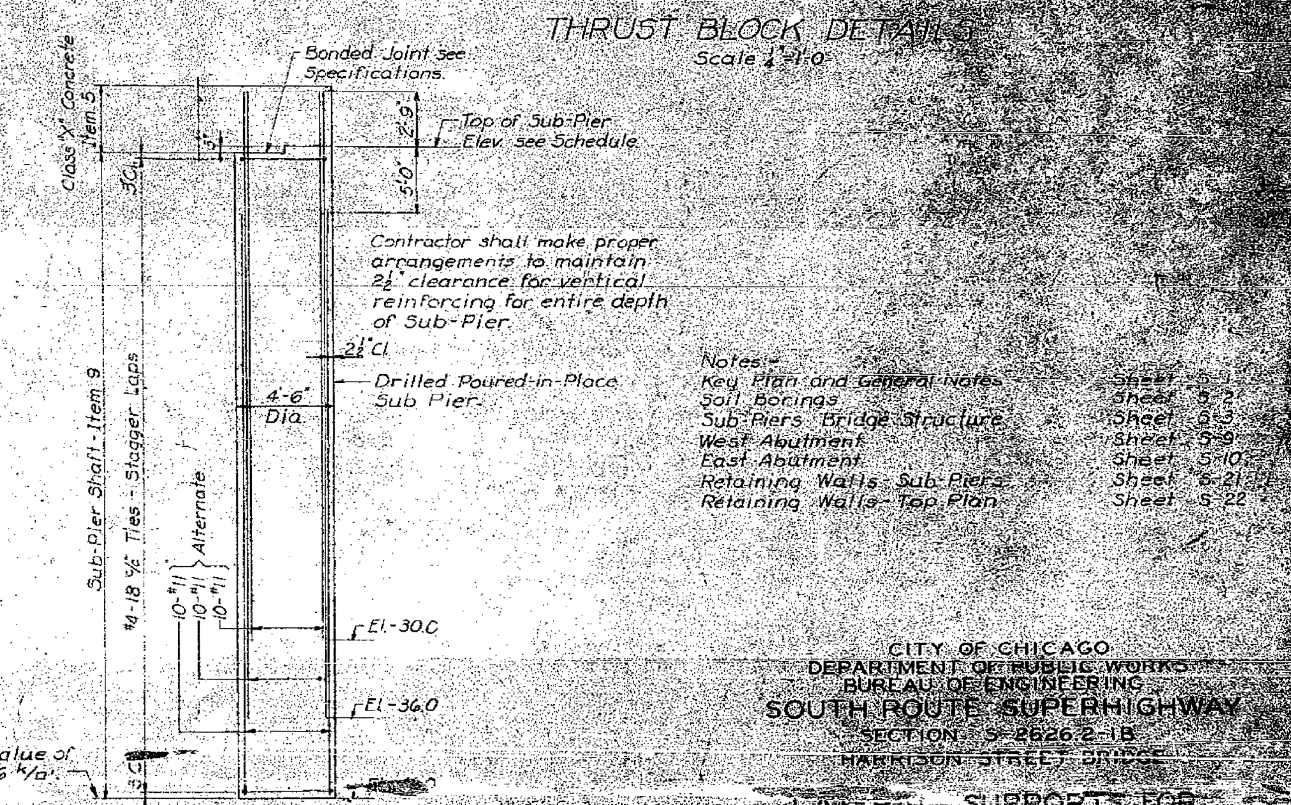
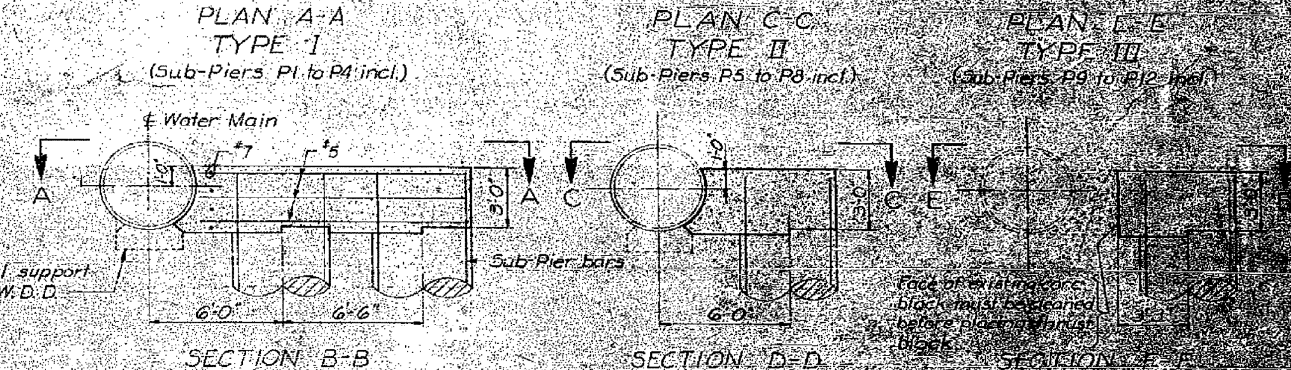
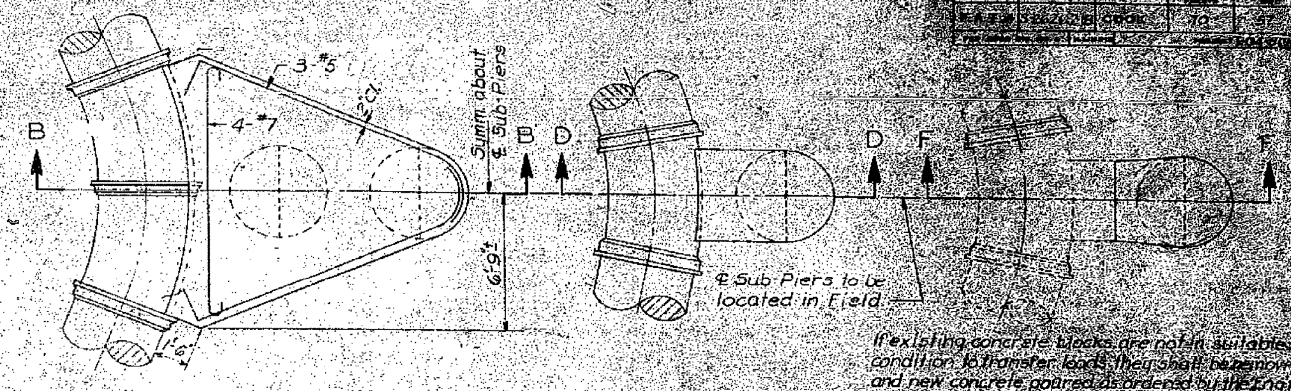
SHEET NO. AS-72 OF AS-72 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	214
				CONTRACT NO. 60W71
ILLINOIS FED. AID PROJECT -NUMBER-				



Sub-Pier No	Elevation of Water Main	Elev. Top of Sub-Pier
P1 & P2	+9.0	+7.5
P3 & P4	+9.0	+7.0
P5	+9.0	+7.0
P6	+9.0	+7.0
P7	+9.0	+7.0
P8	+9.0	+7.0
P9	+6.5	+4.5
P10	+7.5	+5.5
P11	+8.5	+6.5
P12	+9.5	+7.5

Note:
Exact location of existing Water Mains and concrete blocks must be determined in field before drilling Sub-Piers.
Water pressure must not be applied until 28 days after Sub-Piers have been poured.



Notes:

Key Plan and General Notes	Sheet 5-1
Soil Borings	Sheet 5-2
Sub-Piers Bridge Structure	Sheet 5-3
West Abutment	Sheet 5-9
East Abutment	Sheet 5-10
Retaining Walls Sub-Piers	Sheet 5-21
Retaining Walls Top Plan	Sheet 5-22

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
SOUTH ROUTE SUPERHIGHWAY
SECTION 5-2626.2-1B
HARRISON STREET BRIDGE

LATERAL SUPPORTS FOR
SUB PIERS
P1 to P12 incl.

SCALE AS NOTED SHEET NO. 5/21 OF 70 SHEETS

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DRAWN BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]



D160W71-sht-AS-BUILT-73.dgn
USER NAME = chtua
PLOT SCALE = 20.0000' / in.
PLOT DATE = 12/19/2013

DESIGNED - MSC
DRAWN - MSC
CHECKED - RBB
DATE - 12/20/13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

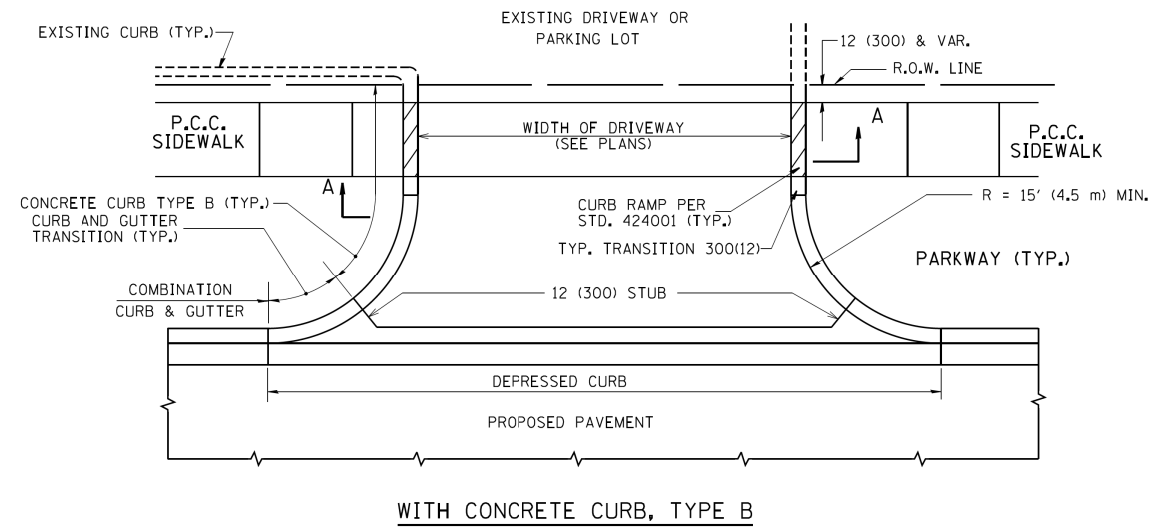
EXISTING HARRISON STREET BRIDGE PLANS
THRUST RESTRAINTS

SCALE: SHEET OF SHEETS STA. TO STA.

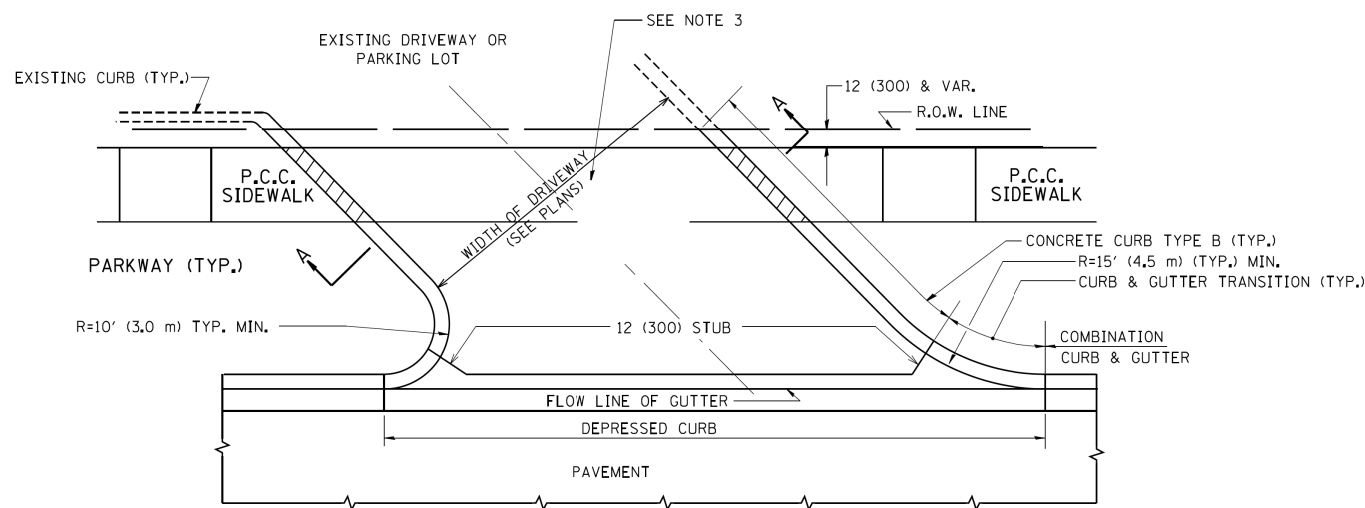
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90/94/290	2013-036R	COOK	256	215
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY
NOT TO SCALE

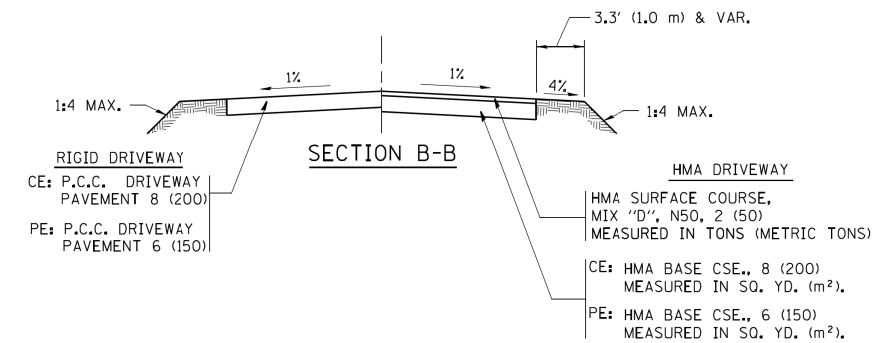
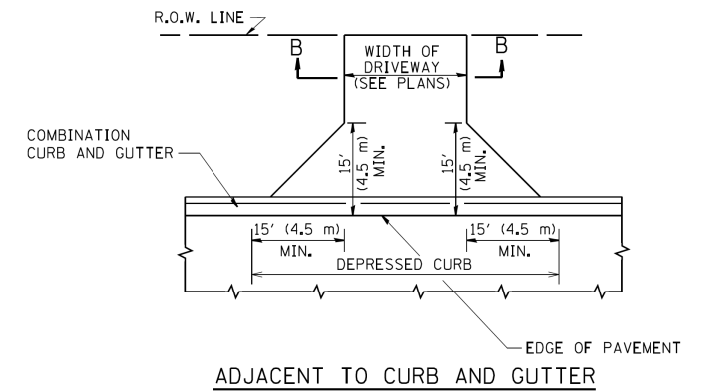
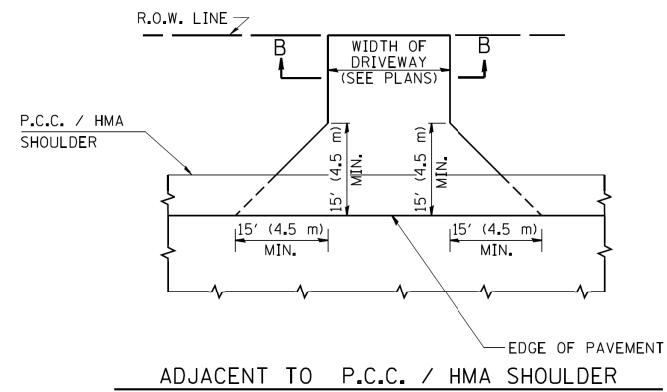
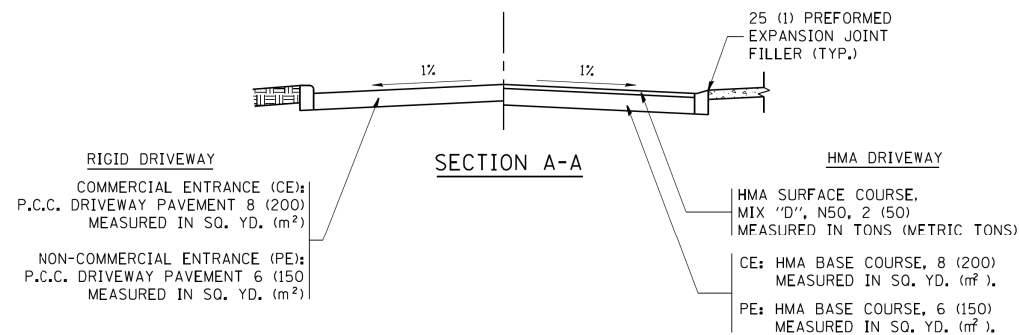
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WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



RURAL FIELD ENTRANCE (FE)
HMA SURFACE COURSE,
MIX "D", N50, 2 (50)
MEASURED IN TONS (METRIC TONS)
AGGREGATE BASE CSE., TYPE B, 8 (200)
MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



D160W71-SHT-D1-Detail-01-(B0-1)
USER NAME = chhua
PLOT SCALE = 50.000' / in.
PLOT DATE = 12/19/2013

DESIGNED - R. SHAH
DRAWN -
CHECKED -
DATE - 12/20/13

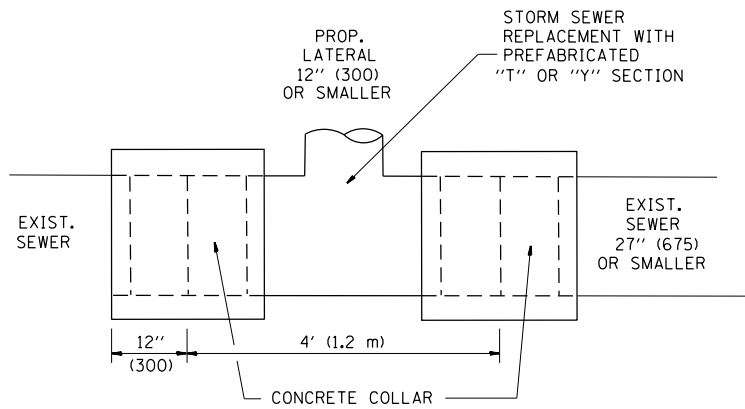
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.
AND FACE OF CURB & EDGE OF SHOULDER > = 15' (4.5 m)
SCALE: NONE SHEET OF SHEETS STA. TO STA.

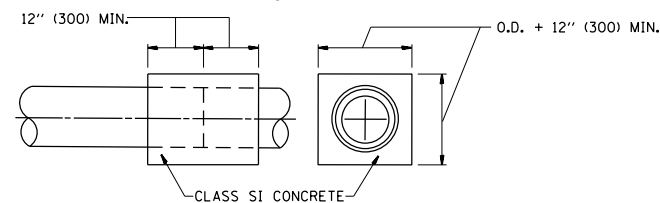
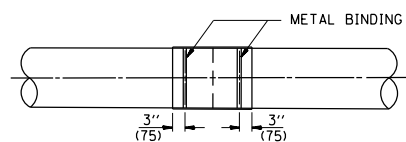
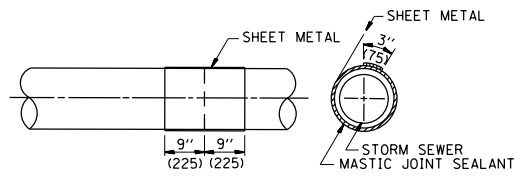
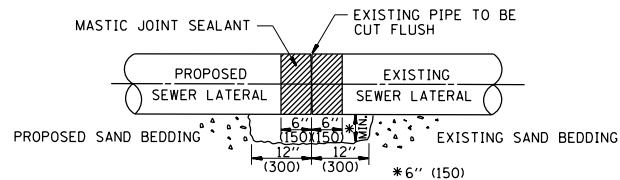
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	216
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER



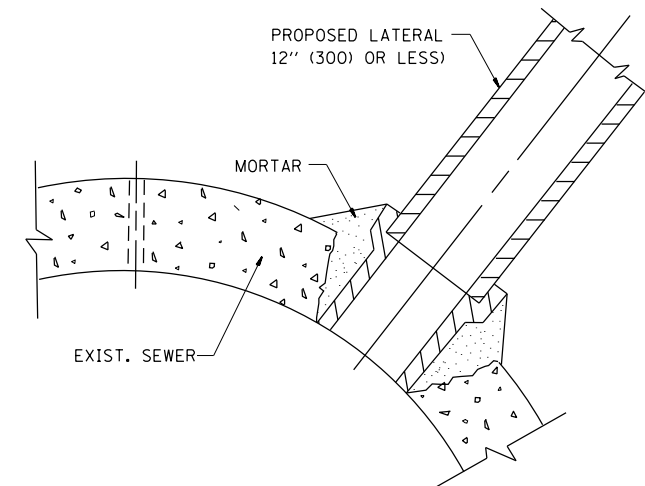
DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.

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



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.



D:\60W71-SHT-01-Detail-02-(BD-7).dgn
 USER NAME = chhua
 PLOT SCALE = 50.000' / 1" =
 PLOT DATE = 12/19/2013

DESIGNED - M. DE YONG	REVISED-M. DE YONG 05-08-92
DRAWN -	REVISED-R. SHAH 09-09-94
CHECKED -	REVISED-R. SHAH 10-25-94
DATE - 07-25-90	REVISED-R. SHAH 06-12-96

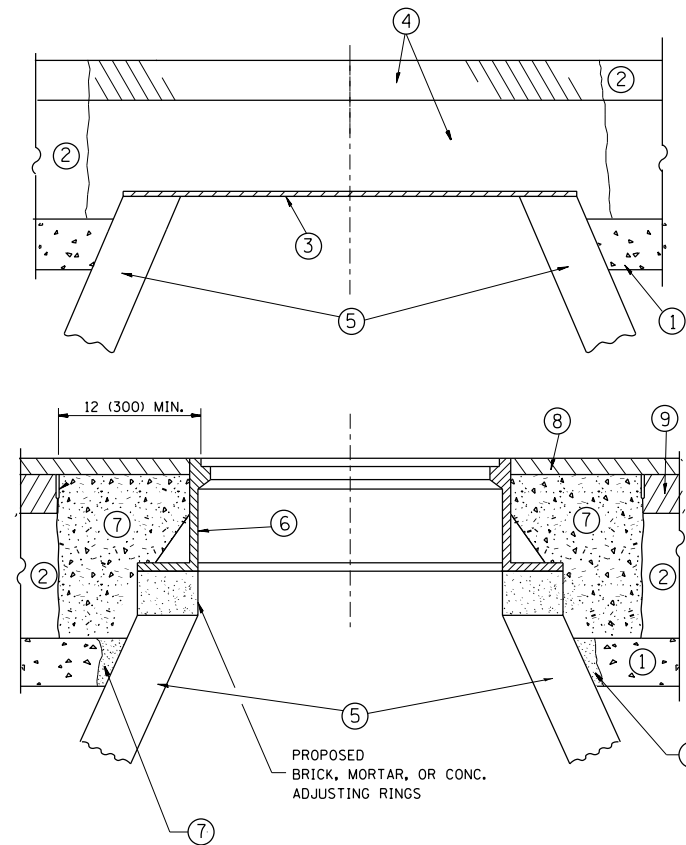
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER
 CONNECTION TO EXISTING SEWER

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	217
BD500-01 (BD-7)			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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NOTES:

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

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

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

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

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

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

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

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

LEGEND

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

LOCATION OF STRUCTURES:

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

BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN



D160W71-SHT-D1-Detail-03-(BD-8).dgn
 USER NAME = chitua
 PLOT SCALE = 50.0000' / in.
 PLOT DATE = 12/19/2013

DESIGNED - R. SHAH	REVISED-R. WIEDEMAN 05-14-04
DRAWN -	REVISED-R. BORO 01-01-07
CHECKED -	REVISED-R. BORO 03-09-11
DATE - 10-25-94	REVISED-R. BORO 12-06-11

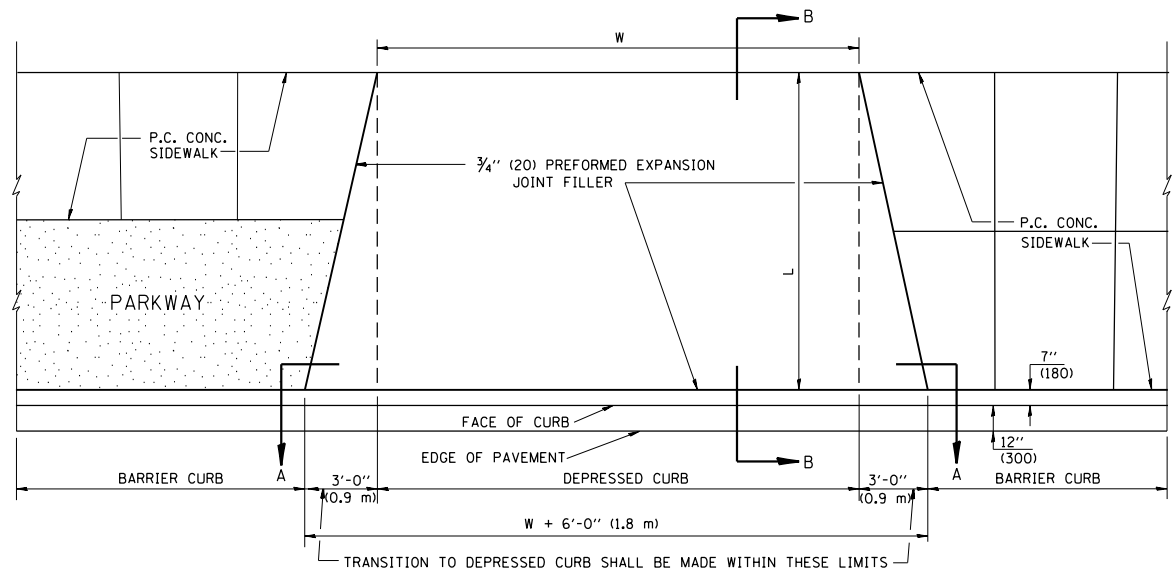
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR
 FRAMES AND LIDS ADJUSTMENT WITH MILLING**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

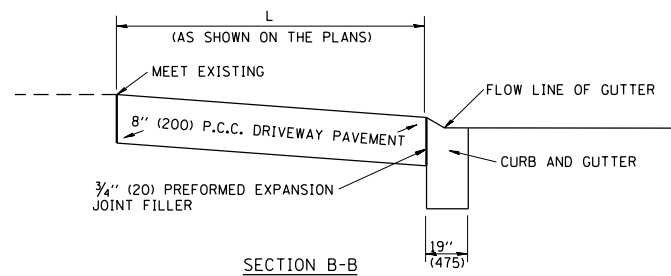
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	218
BD600-03 (BD-8)			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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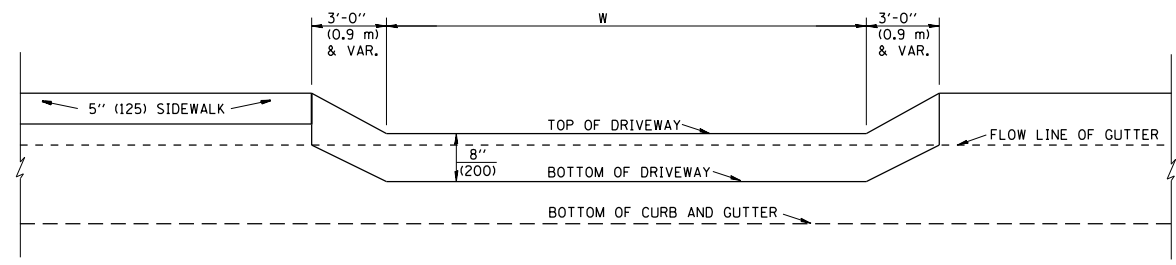


PLAN VIEW

- NOTES:
1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
 2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR FEET (1.2 METERS)
 3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
 4. 3/4" (20) PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 8" (200).
 5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.

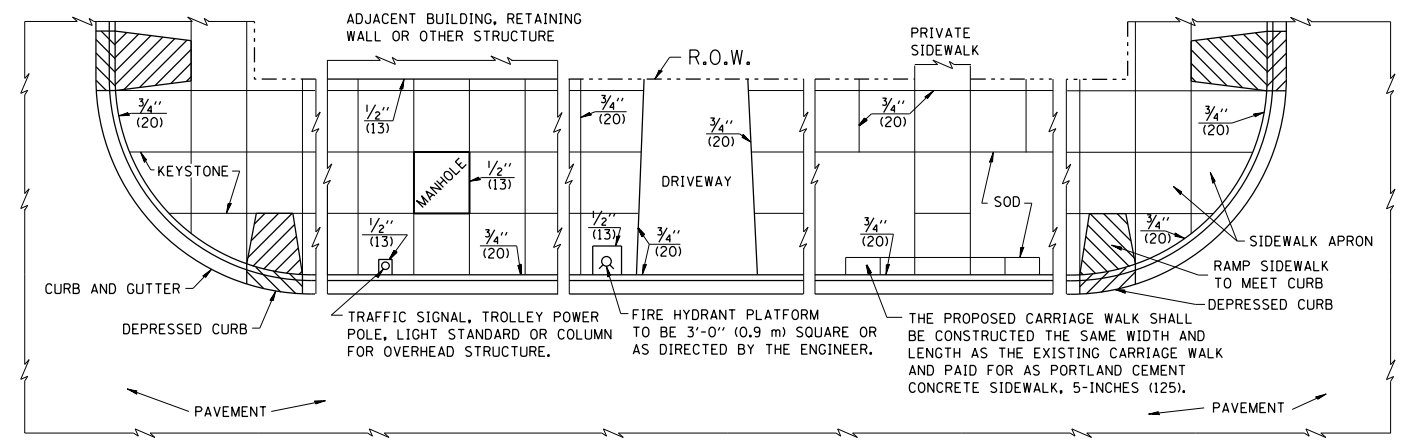


SECTION B-B



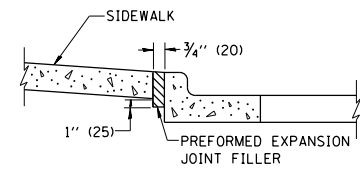
SECTION A-A

P.C.C. DRIVEWAY PAVEMENT DETAIL



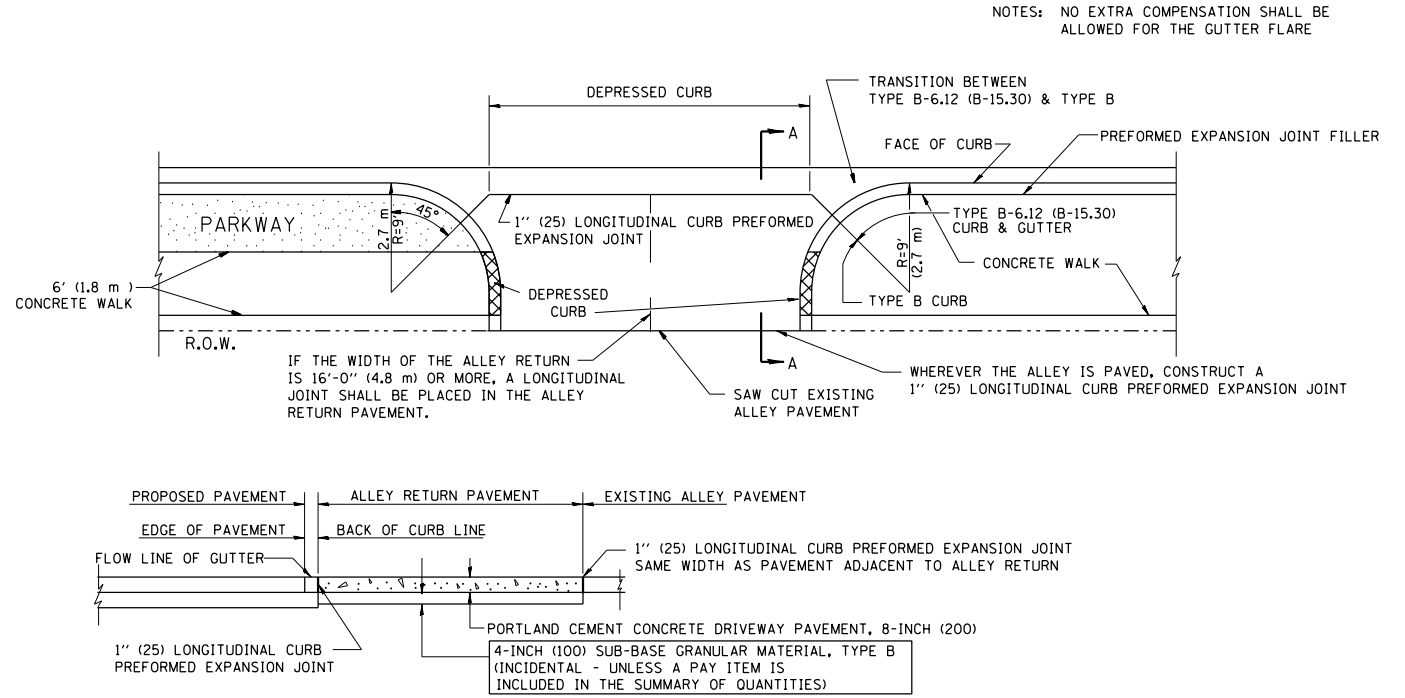
NOTES:

1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. 3/4" (20) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET (30 METERS) IN THE SIDEWALK, WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.



SLOPE FOR SIDEWALK
1" (25) IN 3'-0" (0.9 m) IN CHICAGO

PORTLAND CEMENT CONCRETE SIDEWALK DETAILS



SECTION A-A

ALLEY RETURN DETAIL

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE



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 USER NAME = chhua
 PLOT SCALE = 50.0000' / 1" IN.
 PLOT DATE = 12/19/2013

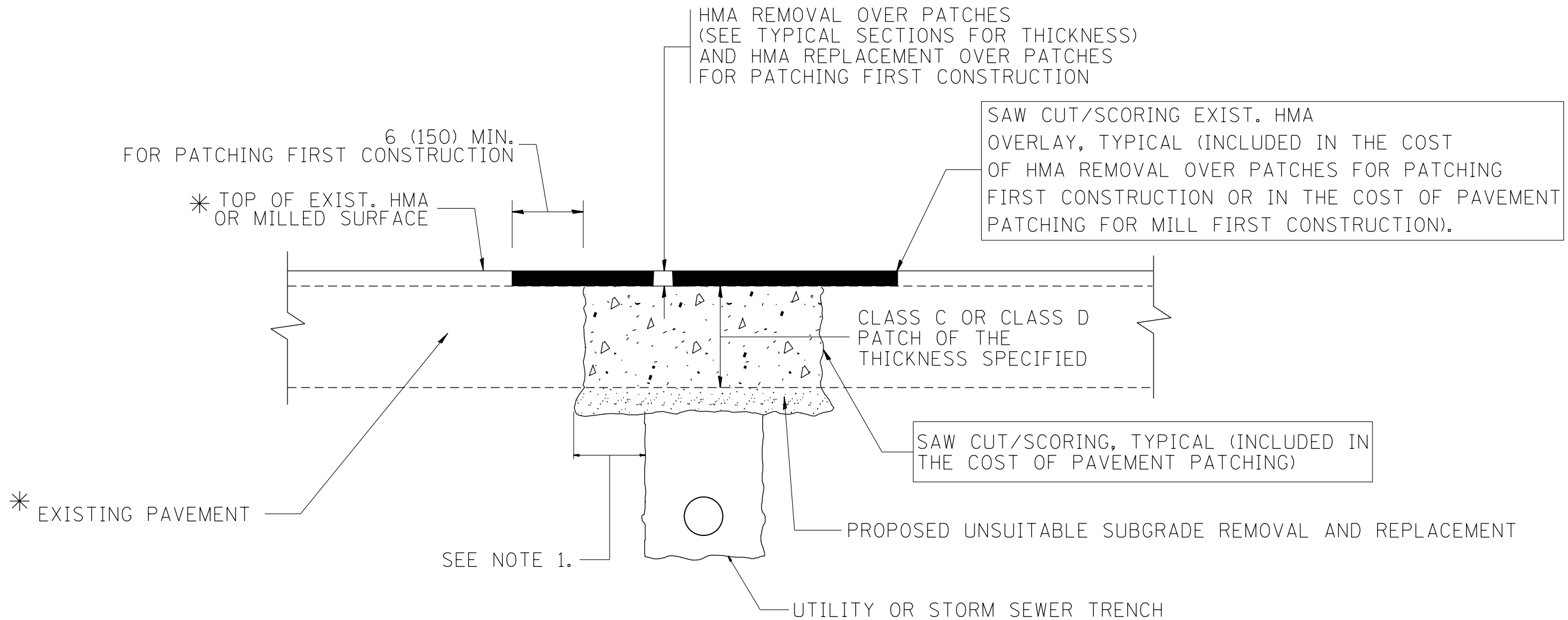
DESIGNED - M. DE YONG	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 06-13-90	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CITY OF CHICAGO
DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK
 SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	219
BD400-03 (BD-17)			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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



D160W71-SHT-01-Detail-05-(BD-22).dgn	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
USER NAME = chitua	DRAWN -	REVISED - R. BORO 01-01-07
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - R. BORO 09-04-07
PLOT DATE = 12/19/2013	DATE - 12/20/13	REVISED - K. ENG 10-27-08

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT PATCHING FOR
HMA SURFACED PAVEMENT**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	220
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

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

- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

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

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

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

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

- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY.
- ② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED
- ③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

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USER NAME = chhua	DRAWN -	REVISED- A. ABBAS 03-21-97
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED- M. GOMEZ 01-22-01
PLOT DATE = 12/19/2013	DATE - 03-11-94	REVISED- R. BORO 12-15-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT			
SCALE: NONE	SHEET	OF SHEETS	STA. TO STA.

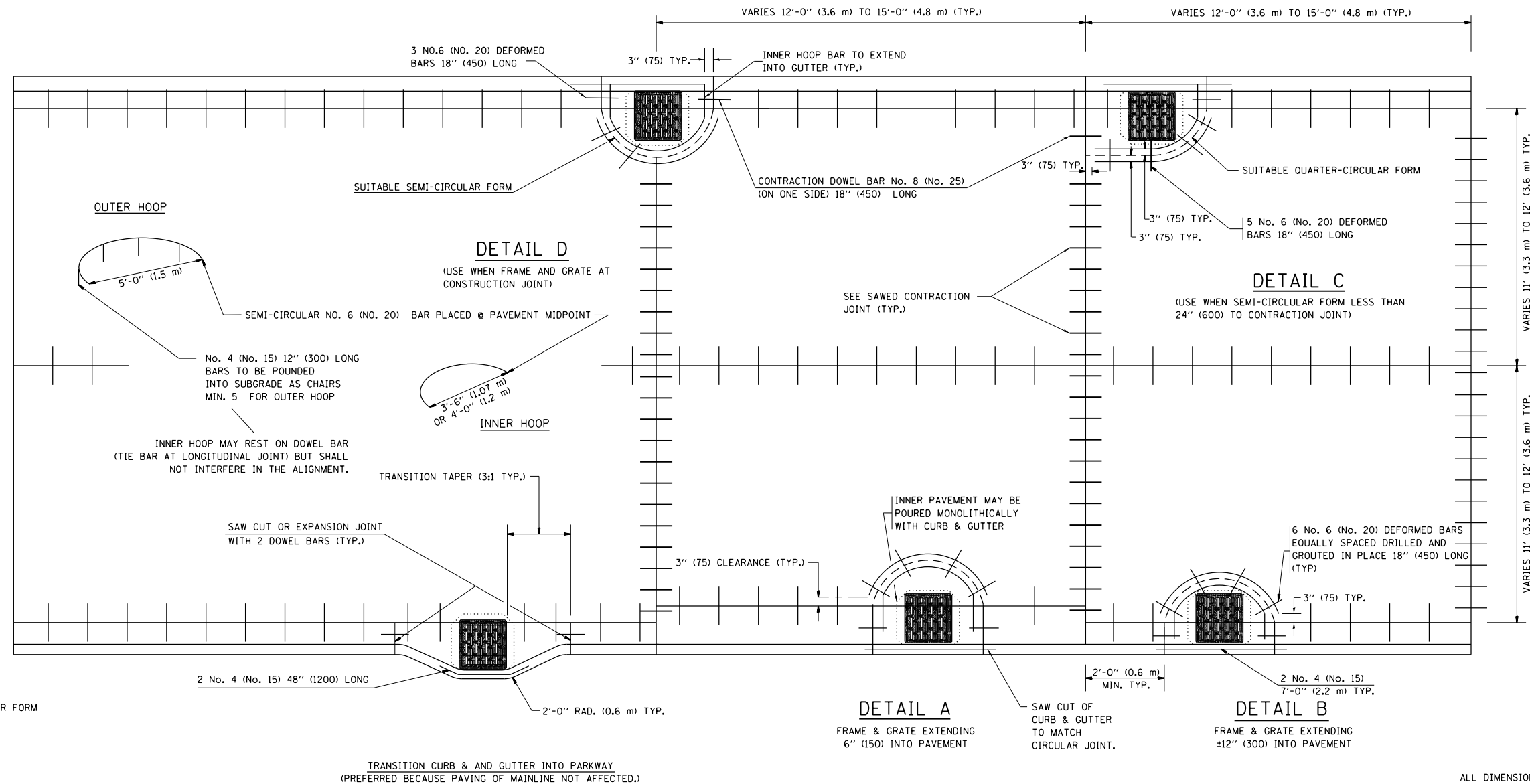
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	221
BD600-06 (BD-24)			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3'-6" (1.1 m)	4'-0" (1.2 m)	5'-0" (1.5 m)
> 8" (200) TO 14" (360)	4'-0" (1.2 m)	4'-6" (1.4 m)	5'-0" (1.5 m)

DESIGNER NOTE:
THIS DETAIL IS TO BE USED
WHEN THE GUTTER FLAG IS
LESS THAN 24"

NOTES :

1. THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
2. TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT. EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
3. SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
4. ALL REINFORCED BARS SHALL BE EPOXY COATED.
5. DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
6. WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
7. HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
8. CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
9. CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.



LEGEND:

- CASTING
- - - - - SUITABLE SEMI-CIRCULAR FORM

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

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D160W71-SHT-D1-Detail-07-(BD-48).dgn	DESIGNED - A. ABBAS	REVISED-T. MATOUSEK 08-28-00
USER NAME = chitua	DRAWN - TOM MATOUSEK	REVISED-T. MATOUSEK 10-02-00
PLOT SCALE = 50.0000' / in.	CHECKED - A. ABBAS	REVISED-T. MATOUSEK 04-25-02
PLOT DATE = 12/19/2013	DATE - 01-04-99	REVISED-P. LAFLEUR 08-27-02

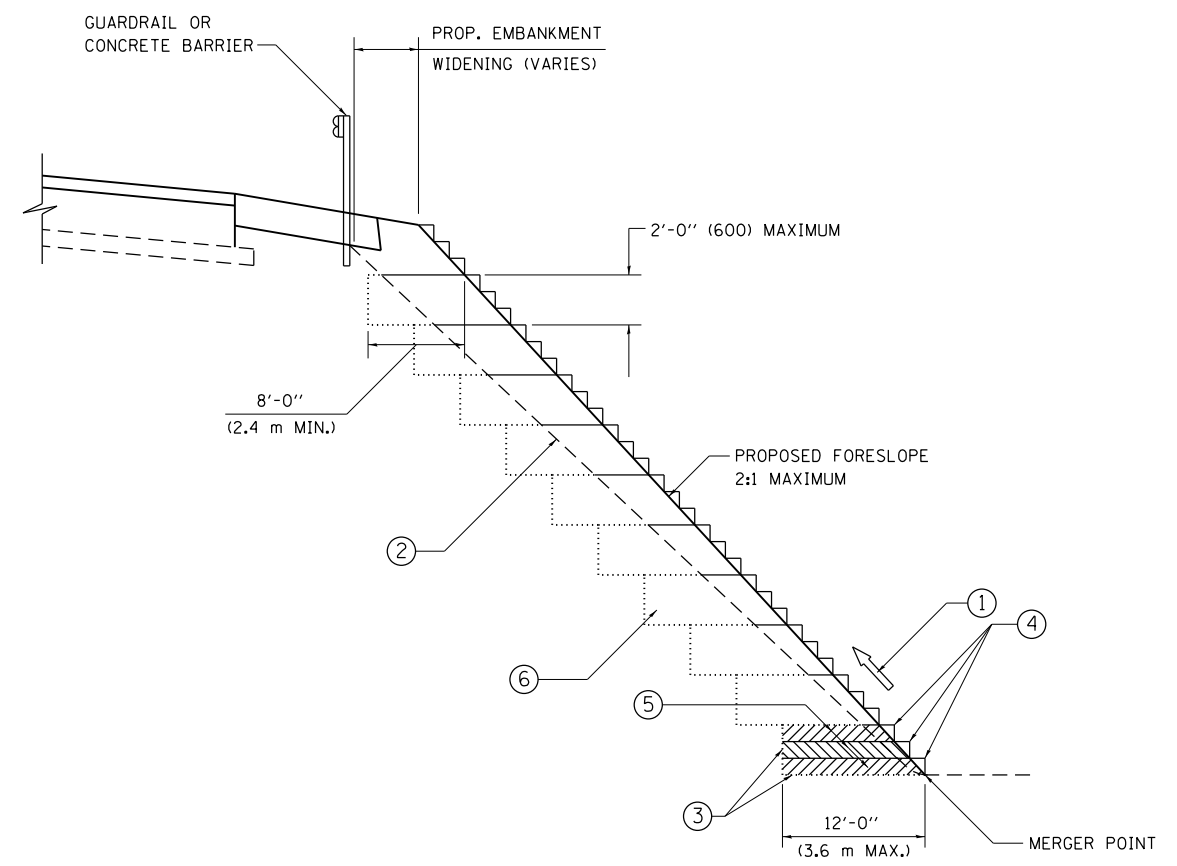
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PCC PAVEMENT ROUNDOUTS AT
CURB AND GUTTER**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	222
BD-48			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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**TYPICAL BENCHING DETAIL
FOR EMBANKMENT**

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

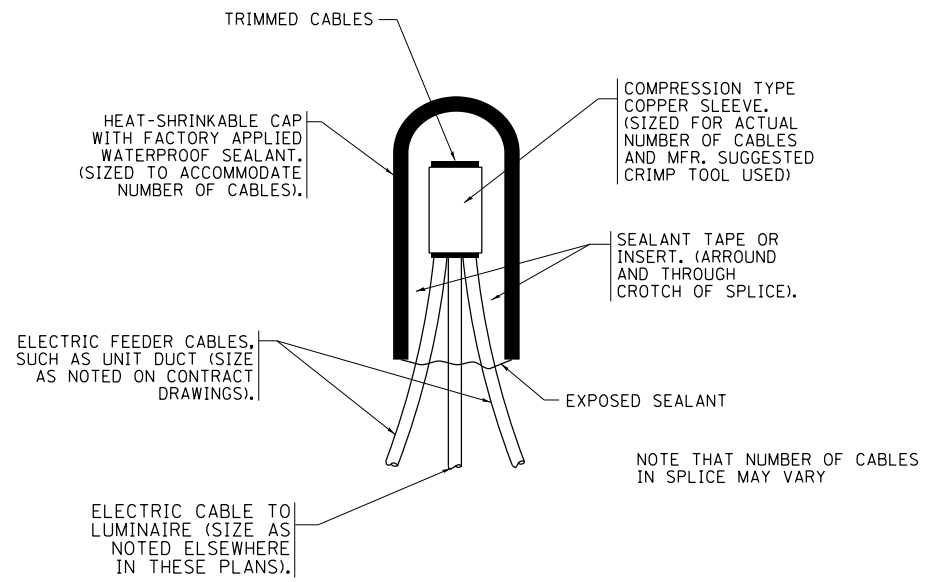


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

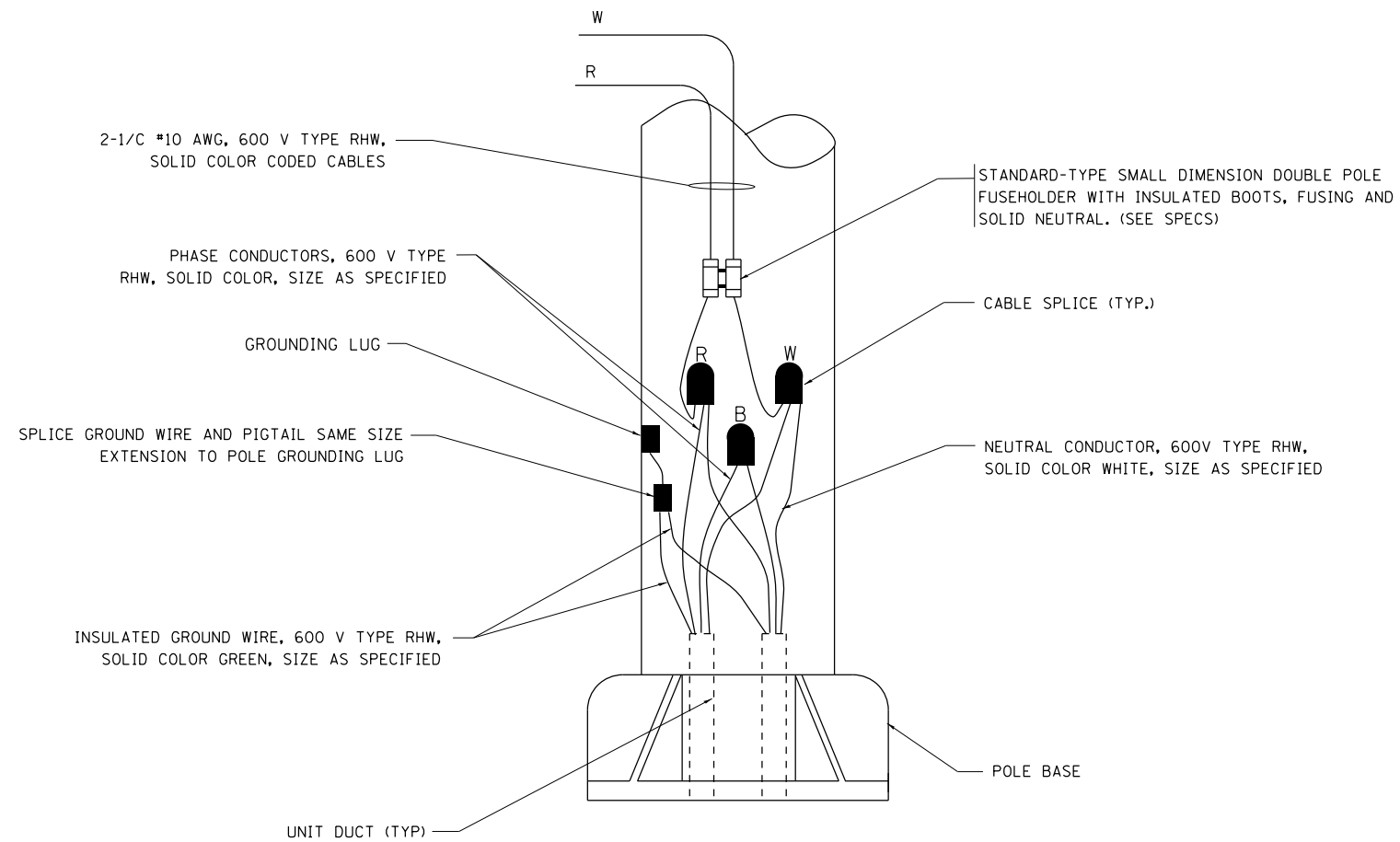
BENCHING DETAIL FOR EMBANKMENT WIDENING			
SCALE: NONE	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BD-51			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



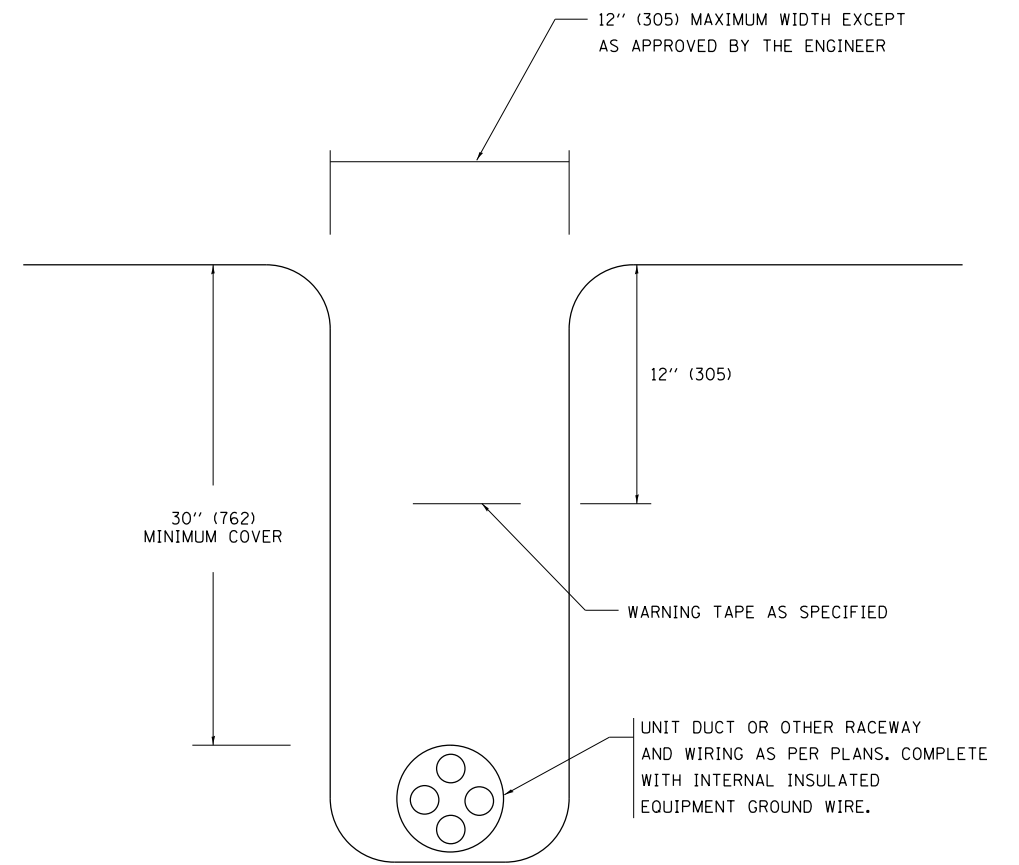
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

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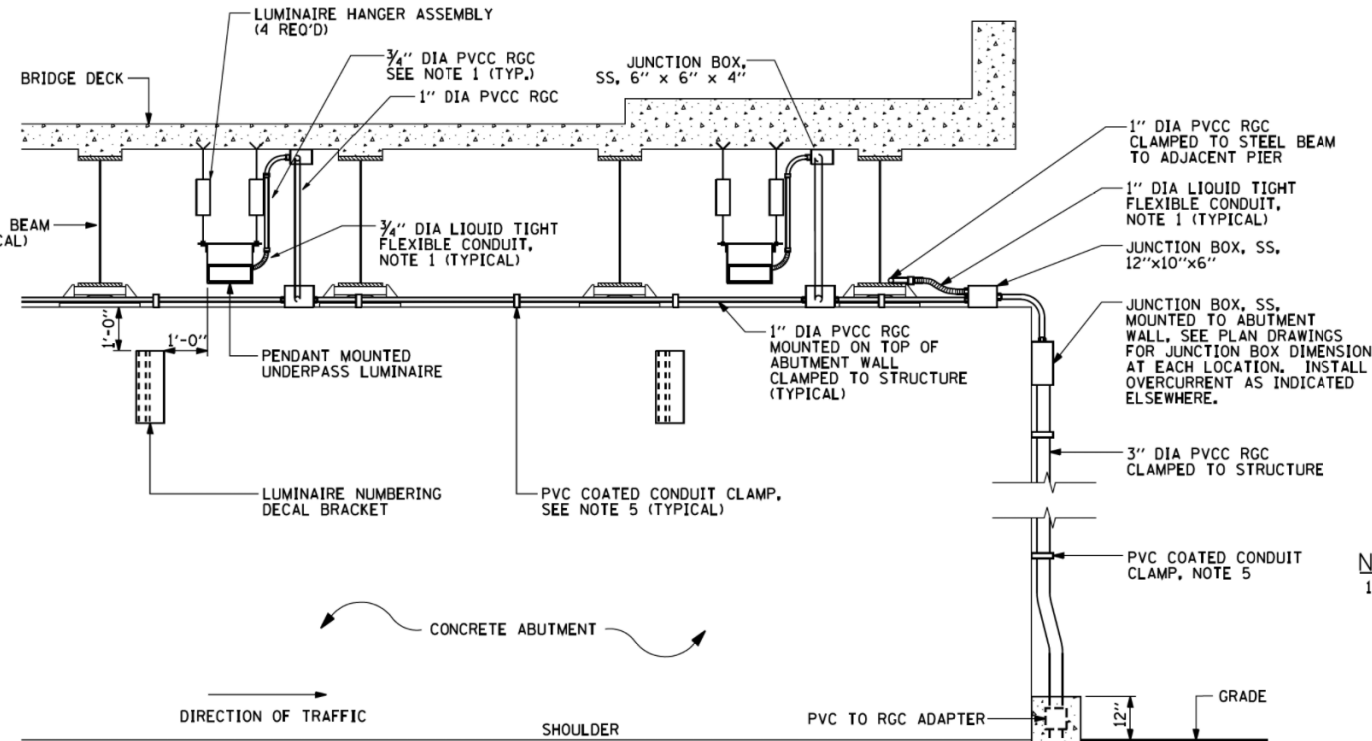
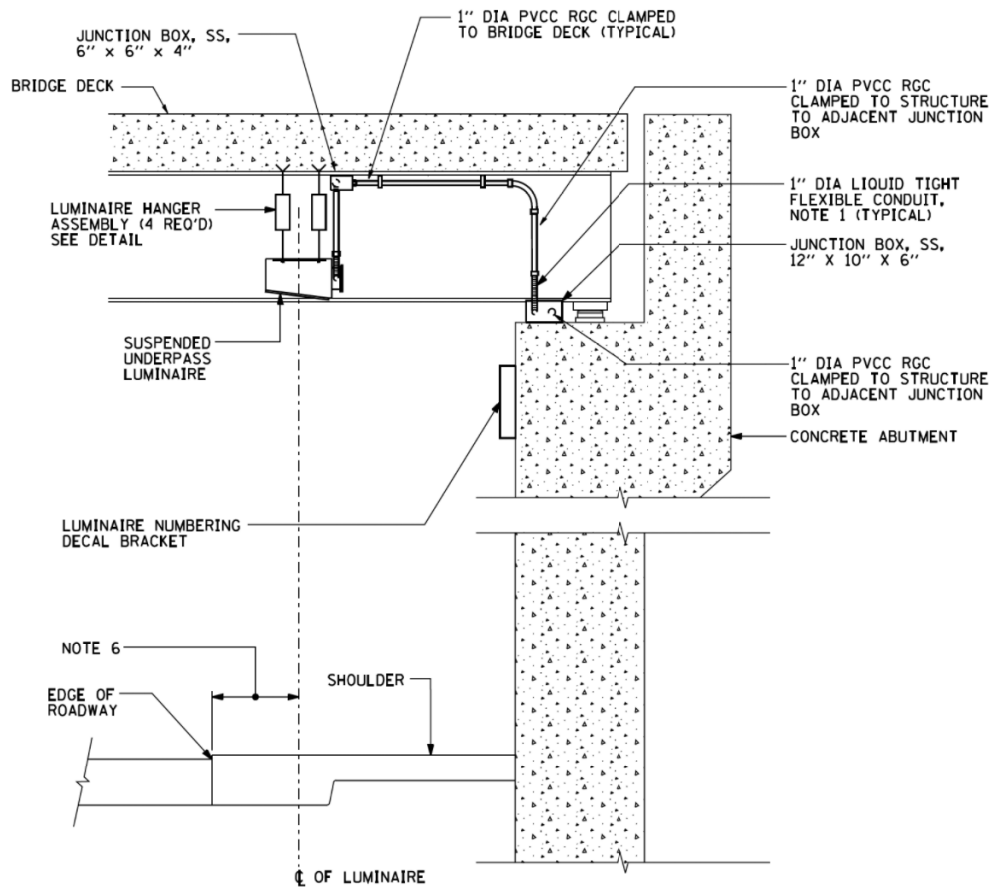
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MISC. ELECTRICAL DETAILS
SHEET A**

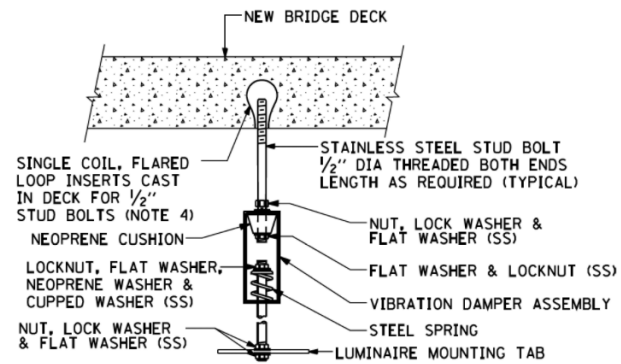
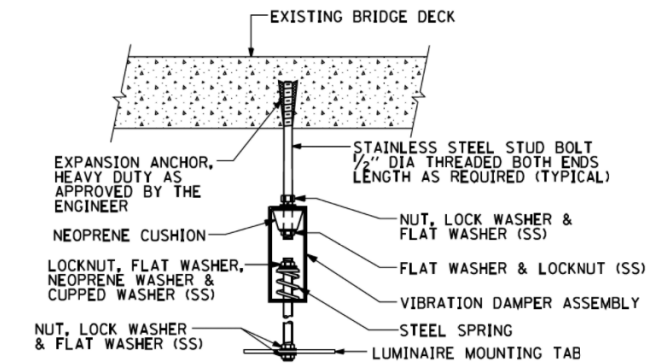
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BE-702			CONTRACT NO. 60W71	
ILLINOIS FED. AID PROJECT				

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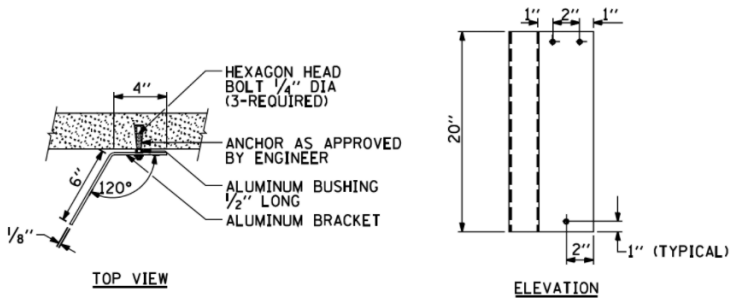
- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN, PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
 - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
 - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR, SEE DETAIL.
 - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
 - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
 - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS.
 - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
 - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



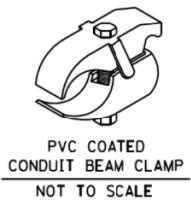
EXISTING BRIDGE DECK INSTALLATION

NEW BRIDGE DECK INSTALLATION

TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



LUMINAIRE NUMBERING DECAL BRACKET
NOT TO SCALE



D160W71-SHT-D1-Detail-09A-(BE-900)
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PLOT SCALE = 100.000 / in.
PLOT DATE = 2/19/2014

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DATE - 02/19/14

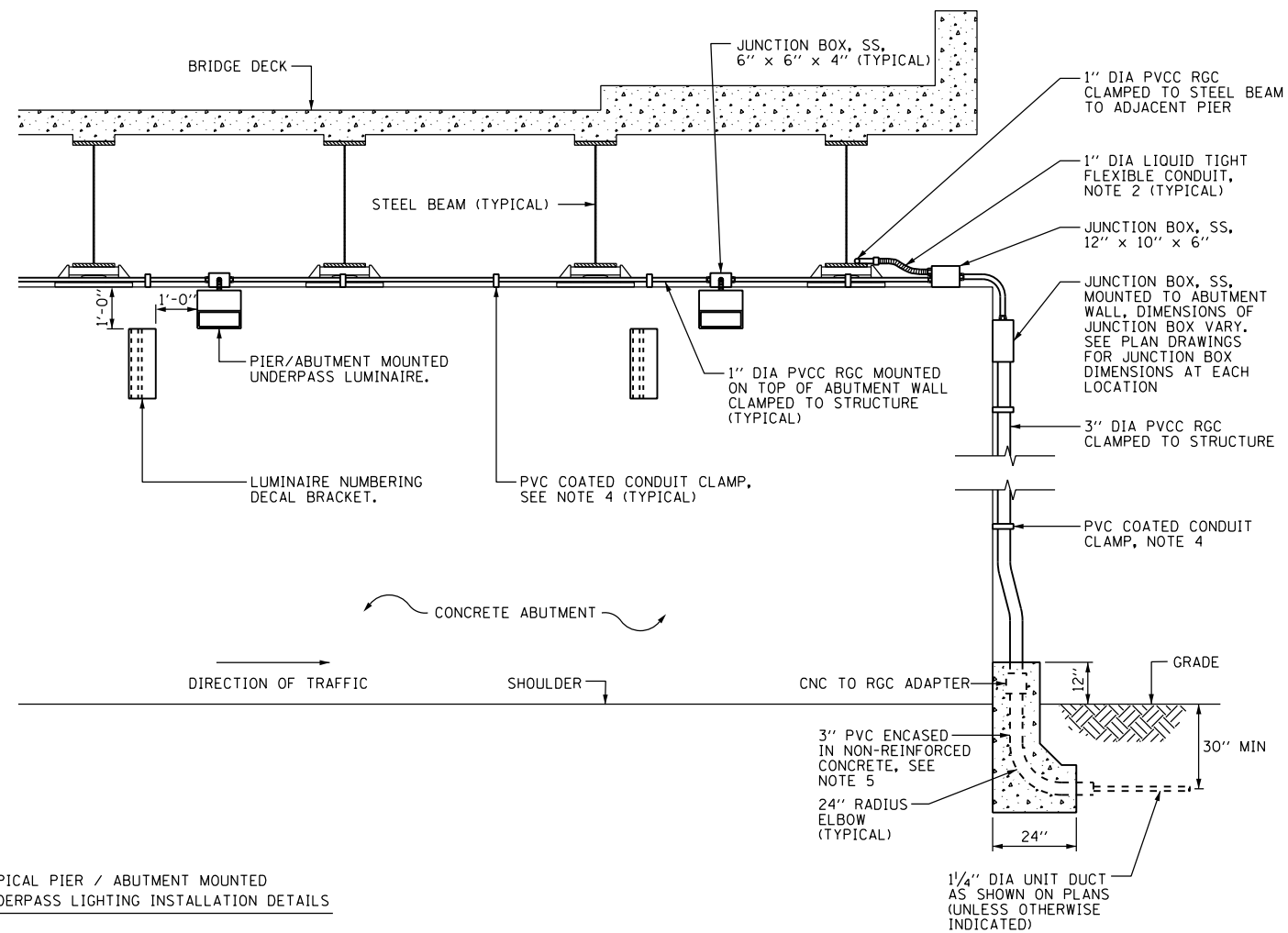
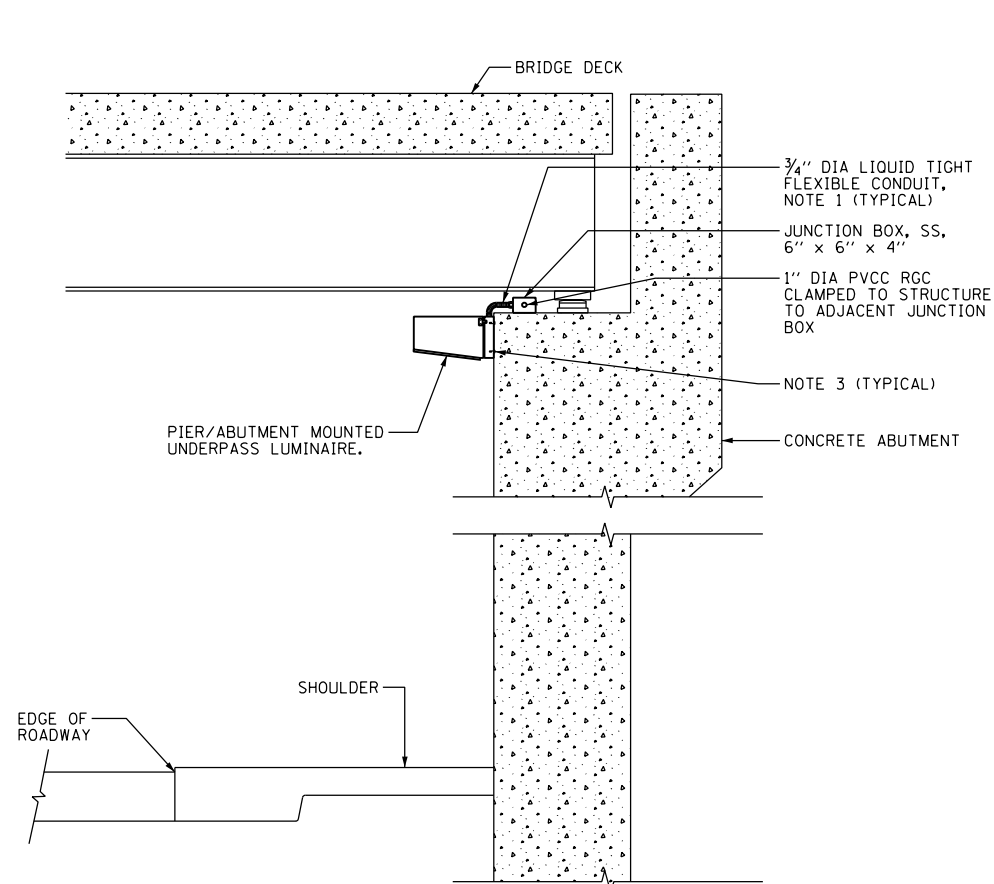
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

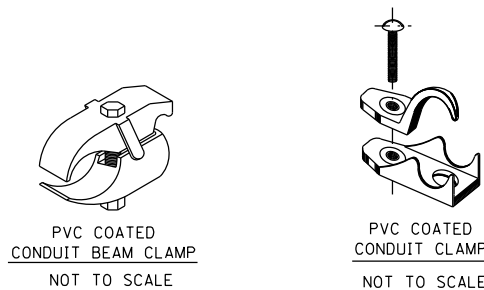
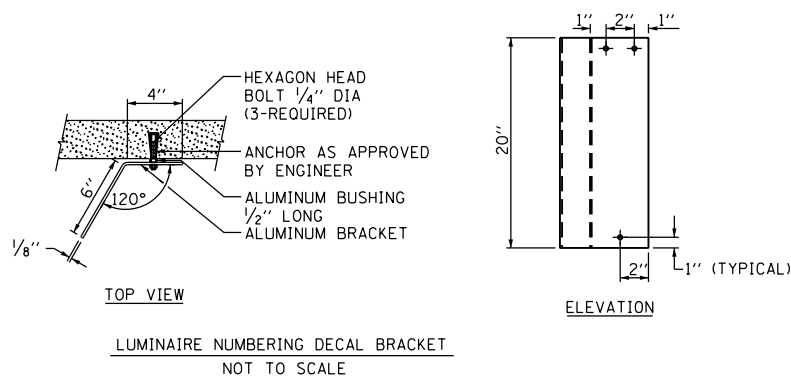
SUSPENDED MOUNT UNDERPASS
LUMINAIRE INSTALLATION DETAILS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	224A
BE-702		CONTRACT NO. 60W71		
ILLINOIS FED. AID PROJECT				



TYPICAL PIER / ABUTMENT MOUNTED UNDERPASS LIGHTING INSTALLATION DETAILS



NOTES:

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

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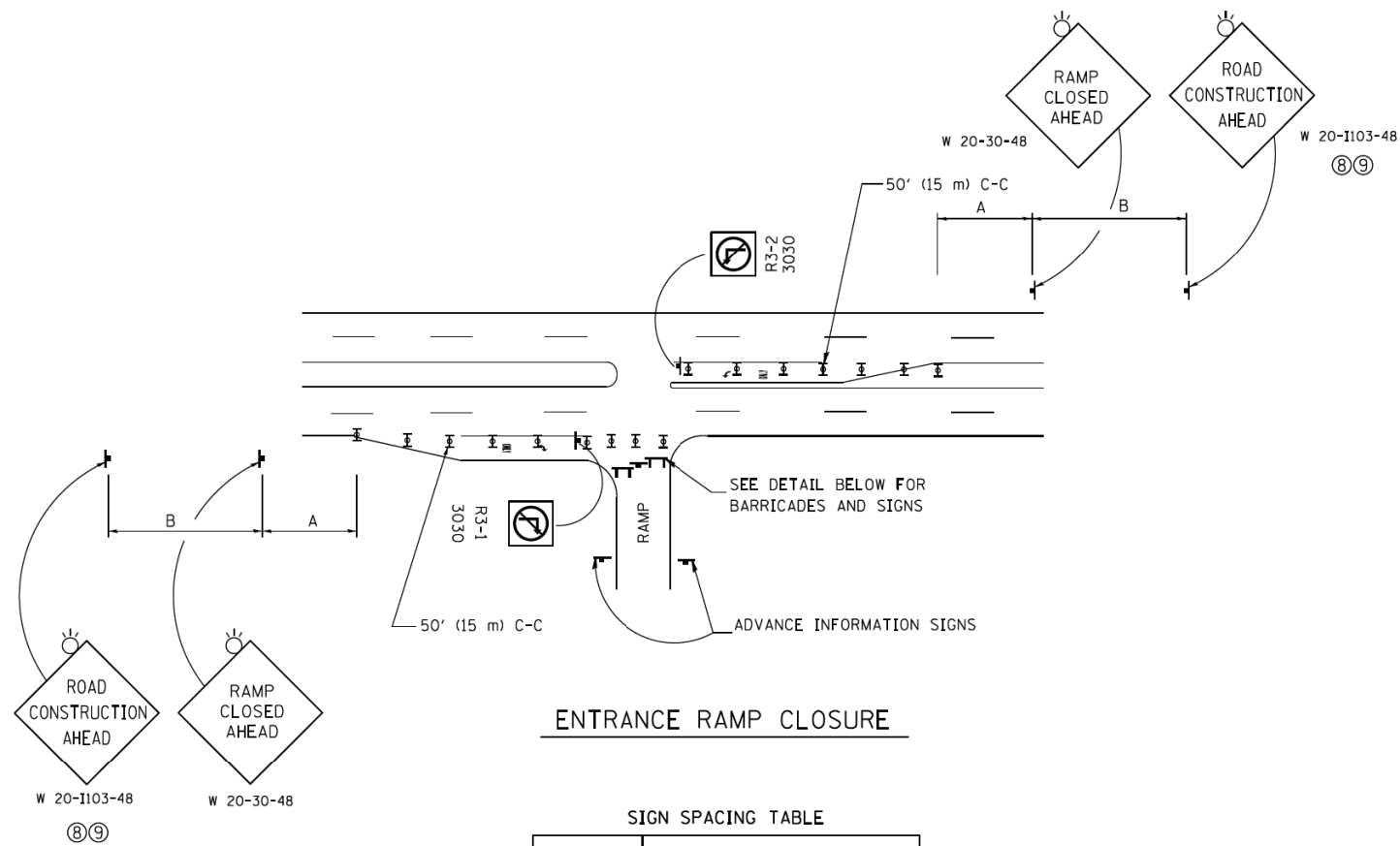
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER / ABUTMENT MOUNTED UNDERPASS
LUMINAIRE INSTALLATION DETAILS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	224B
BE-002		CONTRACT NO. 60W71		
ILLINOIS FED. AID PROJECT				

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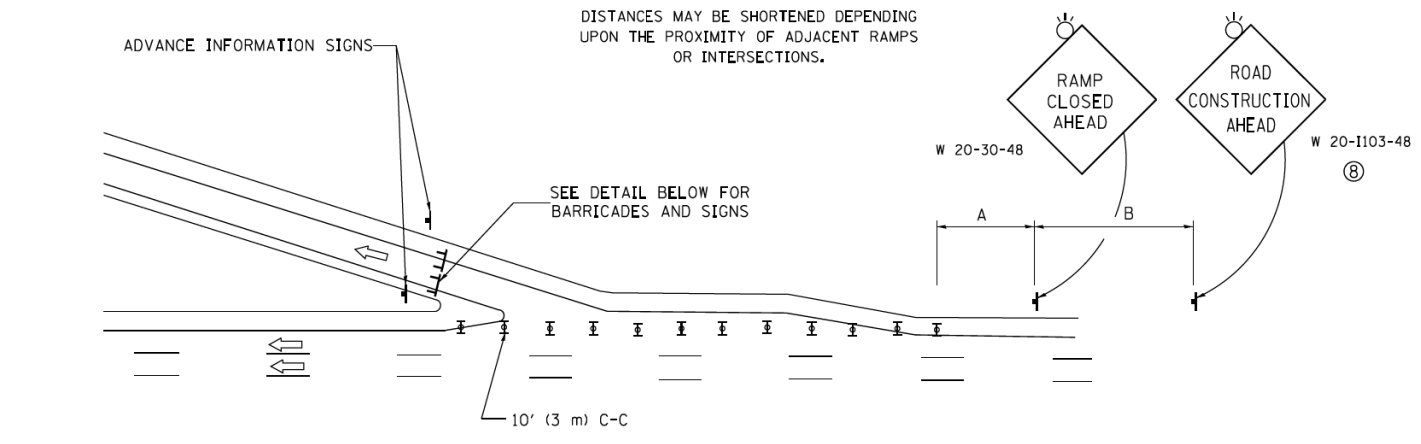


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

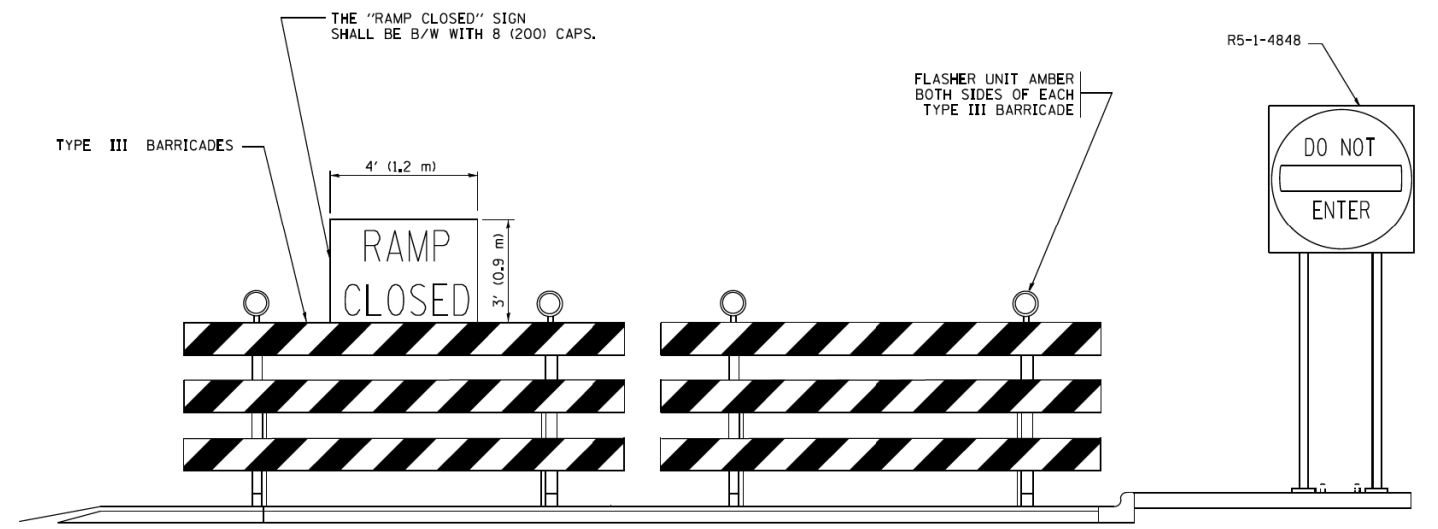
FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



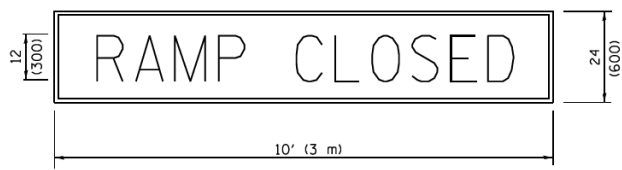
EXIT RAMP CLOSURE

- SYMBOLS**
- ⊓ TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
 - ⊓ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS

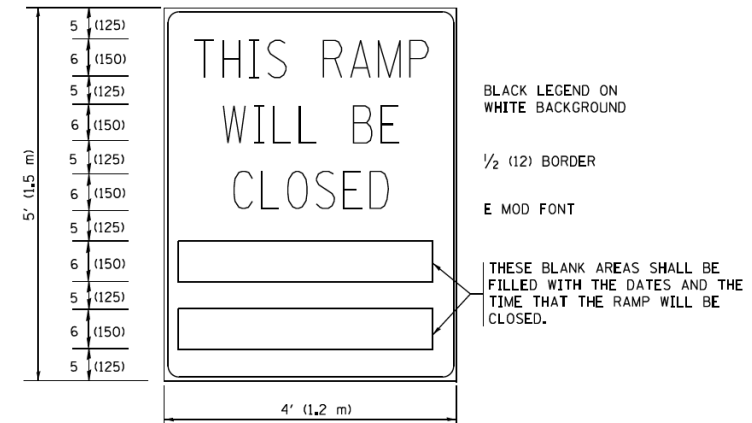
RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY
E MOD FONT
1 (25) BORDER

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

RAMP CLOSURE ADVANCE INFORMATION SIGN



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, PRECEDED 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.
- ⑦ 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.
- ⑨ 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.



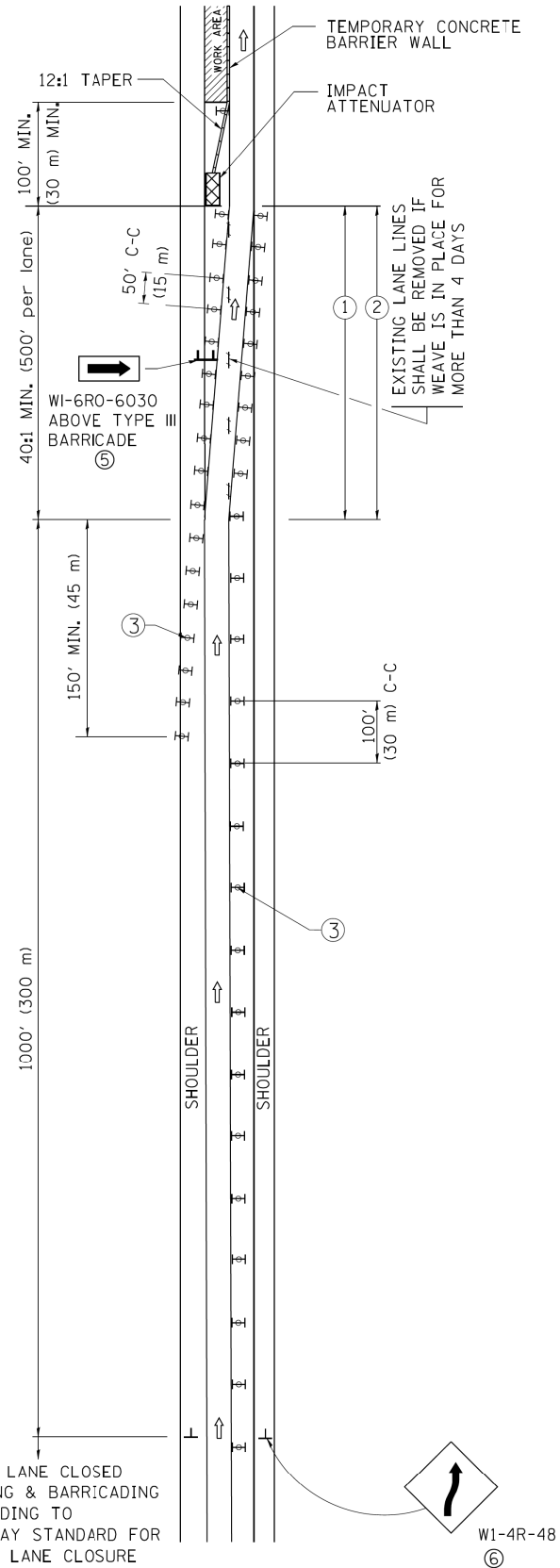
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

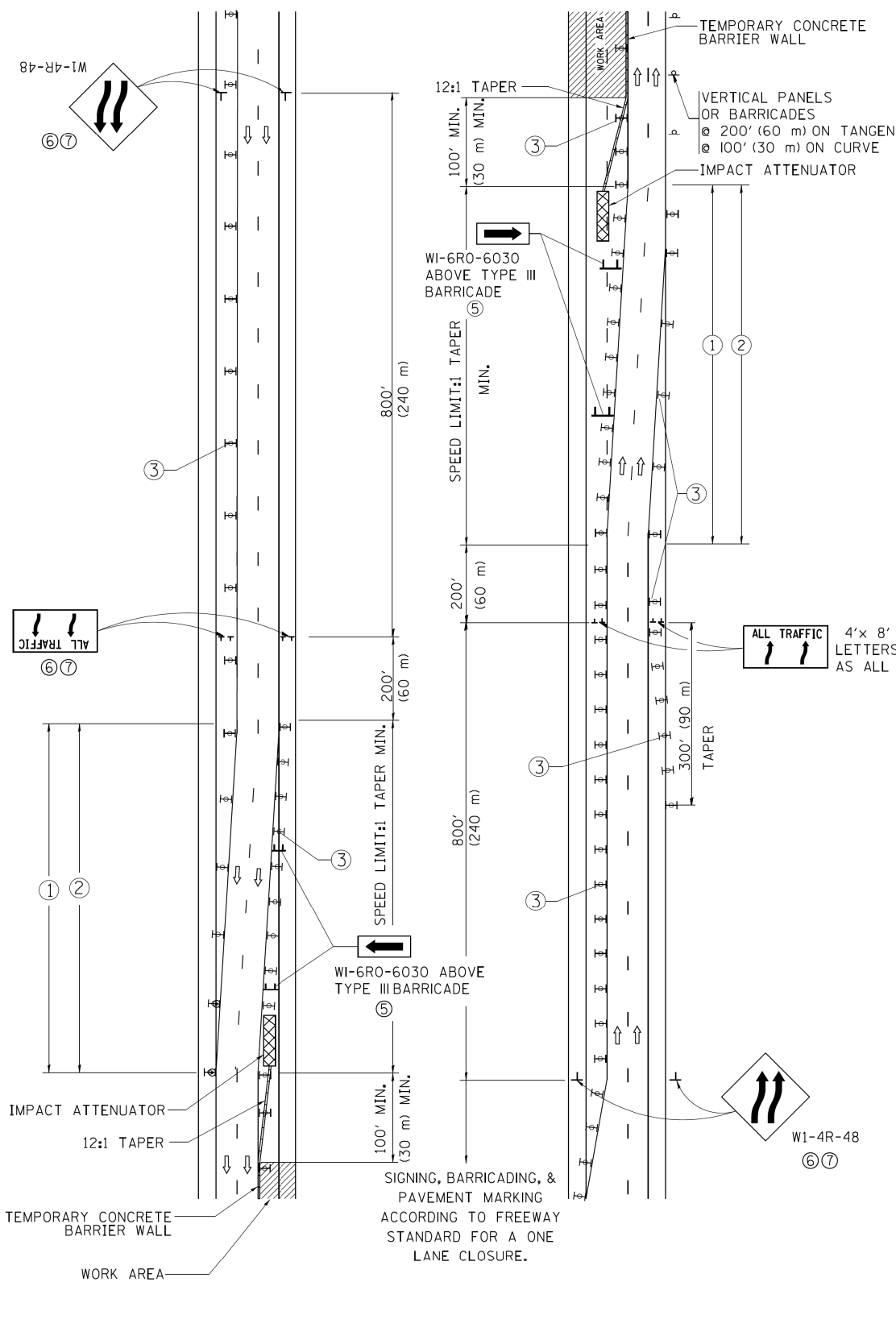
ENTRANCE AND EXIT RAMP CLOSURE DETAILS			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	224C
TC-08			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SINGLE LANE WEAVE



MULTI-LANE WEAVE



- ### GENERAL NOTES
- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
 - CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
 - PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
 - ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
 - TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
 - WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
 - THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W1-4R-48
- W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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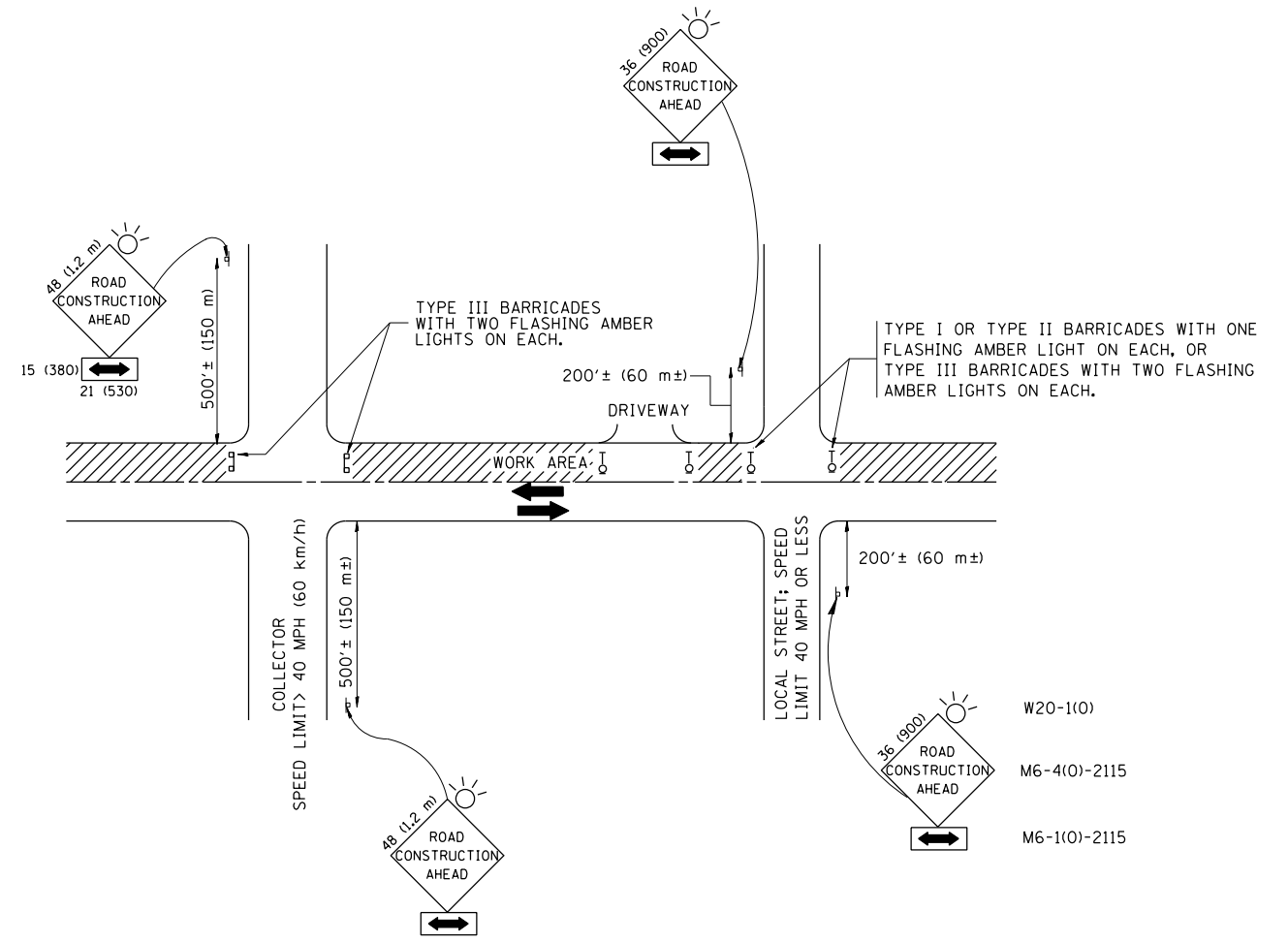
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DRAWN -	REVISED - SPB 01-07
CHECKED -	REVISED - SPB 12-09
DATE - 02-87	REVISED - MD 06-13

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	225
TC-09		CONTRACT NO. 60W71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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



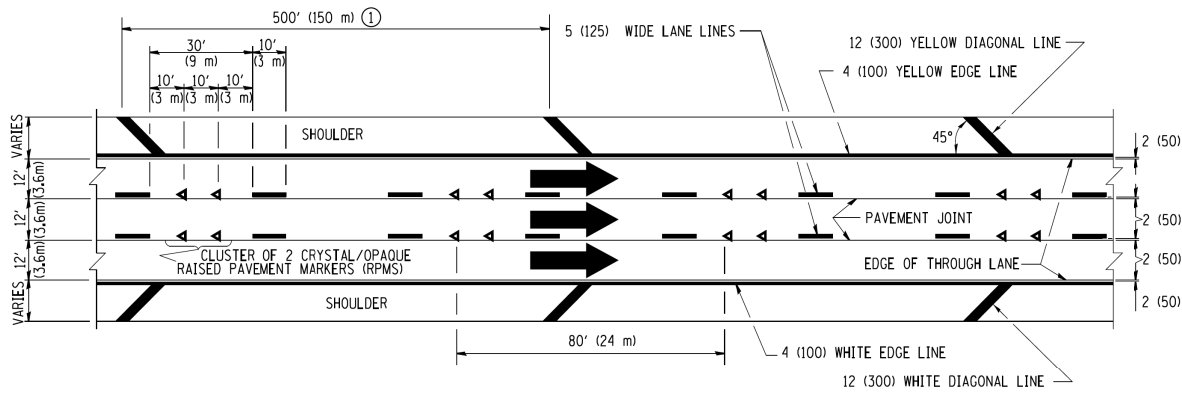
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USER NAME = chitua	DRAWN -	REVISED-A. HOUSEH 03-06-96
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED-A. HOUSEH 10-15-96
PLOT DATE = 12/19/2013	DATE - 06-89	REVISED-T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

SCALE: NONE SHEET OF SHEETS STA. TO STA.

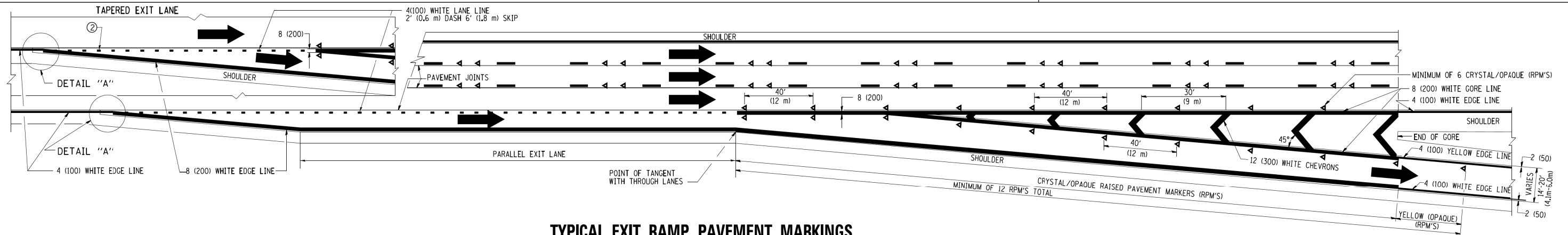
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	226
TC-10			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



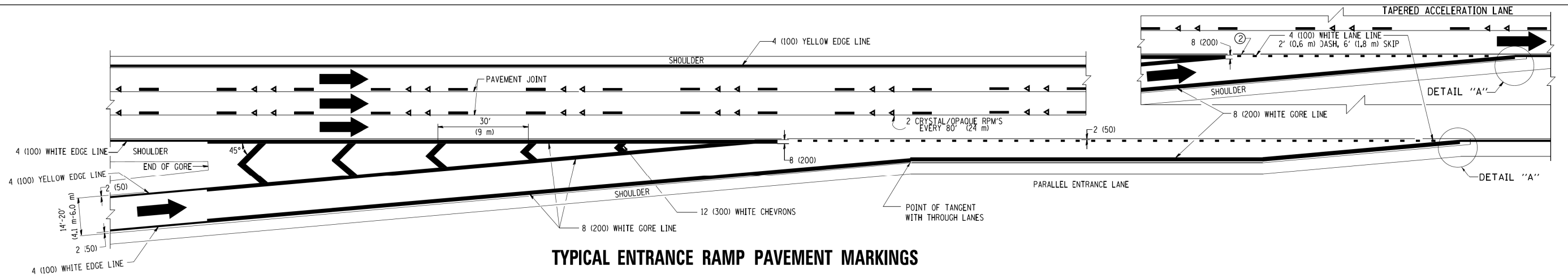
TYPICAL EDGE LINES & LANE LINES

PAVEMENT MARKING MATERIALS

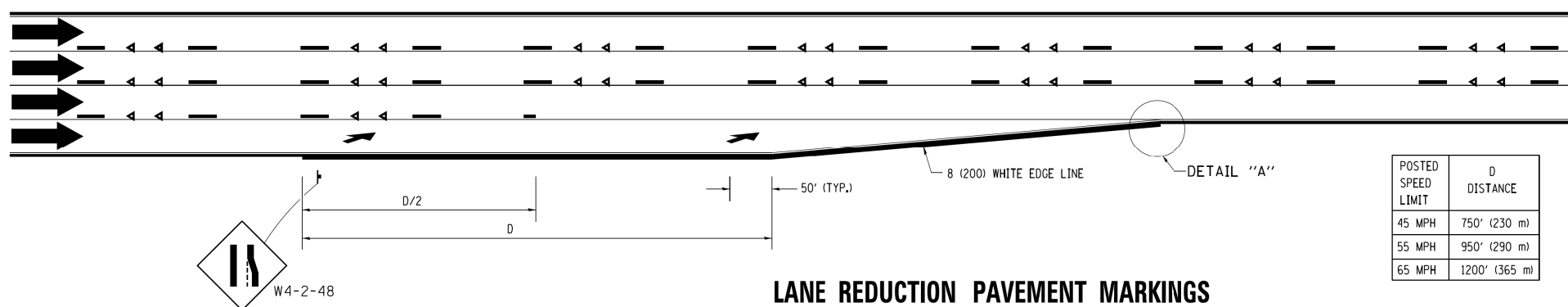
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE; INLAID OR GROOVED IN SHALL BE USED FOR ALL LANE LINES ON HMA PAVEMENT PROJECTS.
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC PROJECTS.



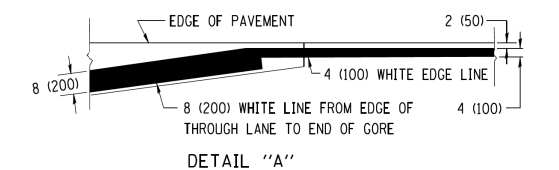
TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS



LANE REDUCTION PAVEMENT MARKINGS



NOTES:

- ① THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH. THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH.
- ② 4" (2' DASH, 6' SKIP) MARKING ON TAPERED ENTRANCE AND EXIT RAMP SHALL BE OMITTED ON TANGENT SECTIONS.

FILE PATH = p:\388935\part1\escomonline\local\pave\cdm\Documents\01_Americas\Transportation\62629938_Circle\Phase_1\1000_CAD\005_Roadway_Sheets\60W71_Contract\0160W71-SHT-D1-Detail-13-14-TC-121.dgn



D160W71-SHT-D1-Detail-13-14-TC-121.dgn
 USER NAME = chitua
 PLOT SCALE = 50.0000' / in.
 PLOT DATE = 12/19/2013

DESIGNED - D.W.S.
 DRAWN -
 CHECKED -
 DATE - 01-90

REVISED - J.A.F. 02-06
 REVISED - S.P.B. 01-07
 REVISED - S.P.B. 01-10
 REVISED - M.D. 05-13

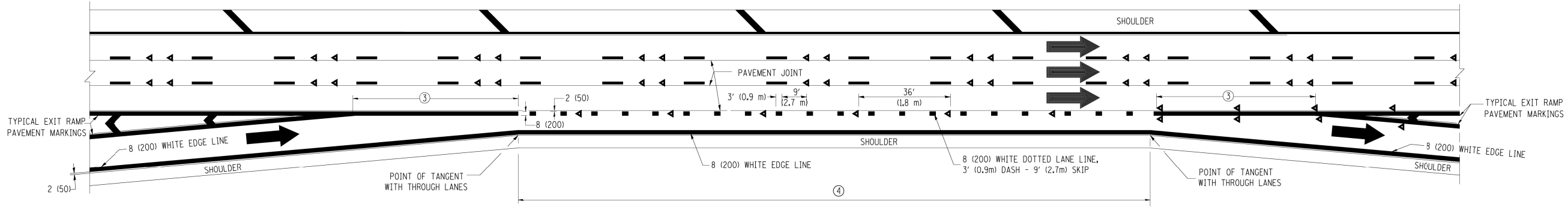
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY
 PAVEMENT MARKING DETAILS

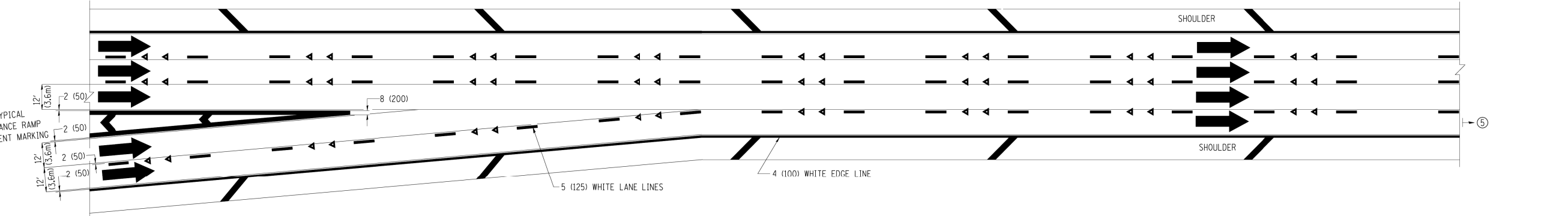
SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	227
TC-12			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

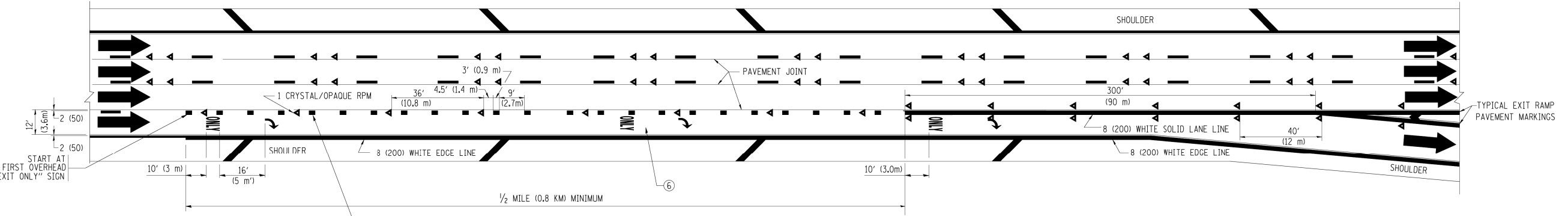
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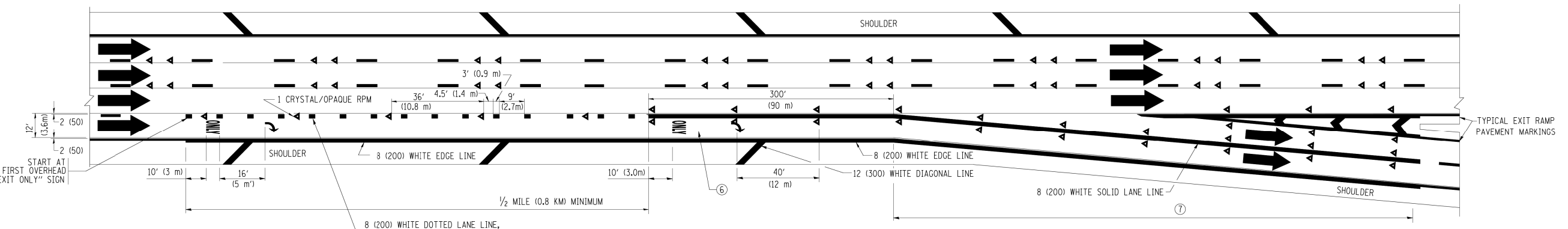
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
 - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
 - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
 - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
 - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED CORE.



D160W71-SHT-D1-Detail-13-14-TC-121.dgn
 USER NAME = chhua
 PLOT SCALE = 50.0000' / in.
 PLOT DATE = 12/19/2013

DESIGNED - D.W.S.
 DRAWN -
 CHECKED -
 DATE - 01-90

REVISED - D.W.S. 07-96
 REVISED - J.A.F. 02-06
 REVISED - S.P.B. 01-07
 REVISED - S.P.B. 01-10

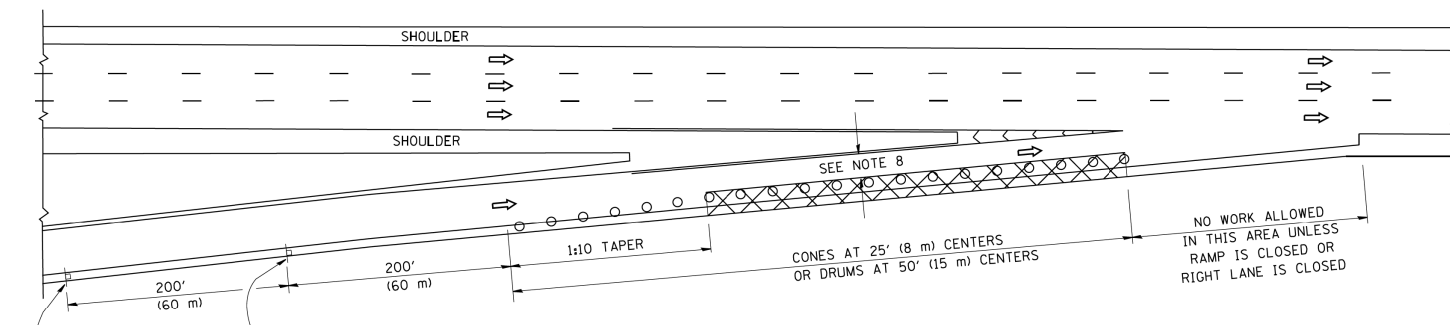
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY
 PAVEMENT MARKING DETAILS

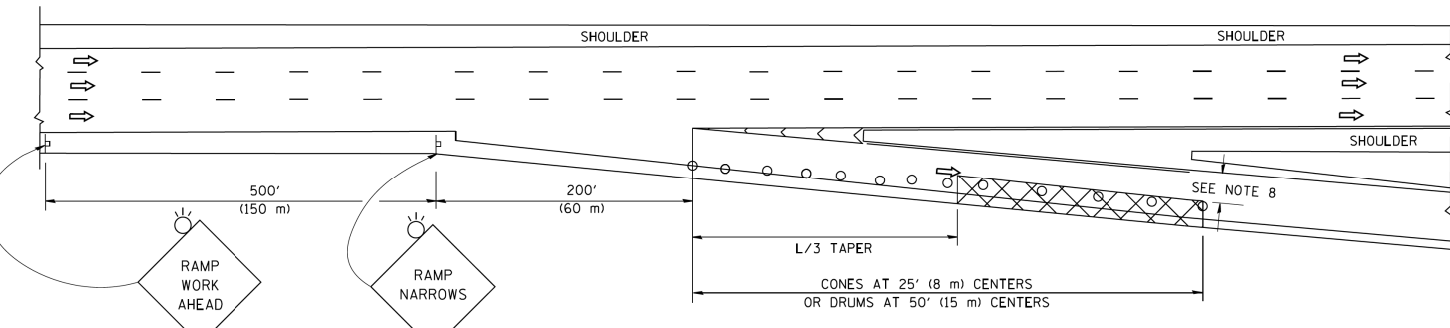
SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	228
TC-12			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

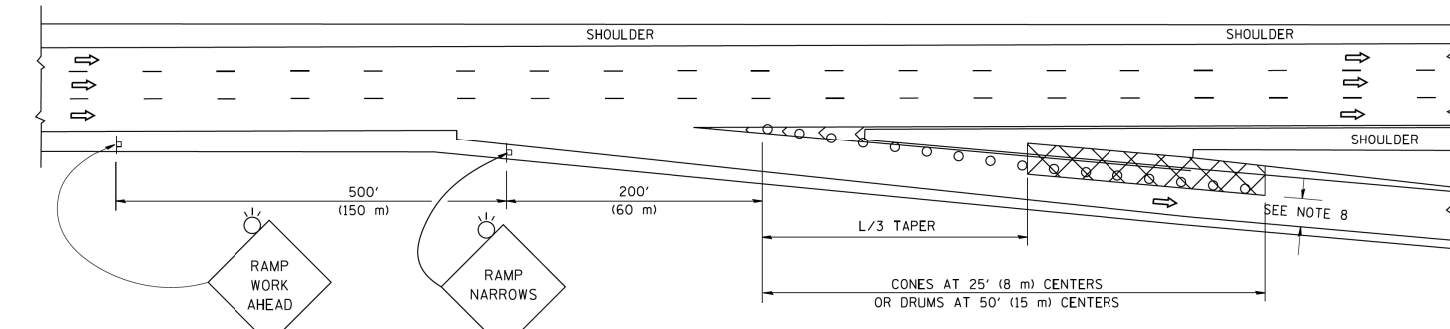
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

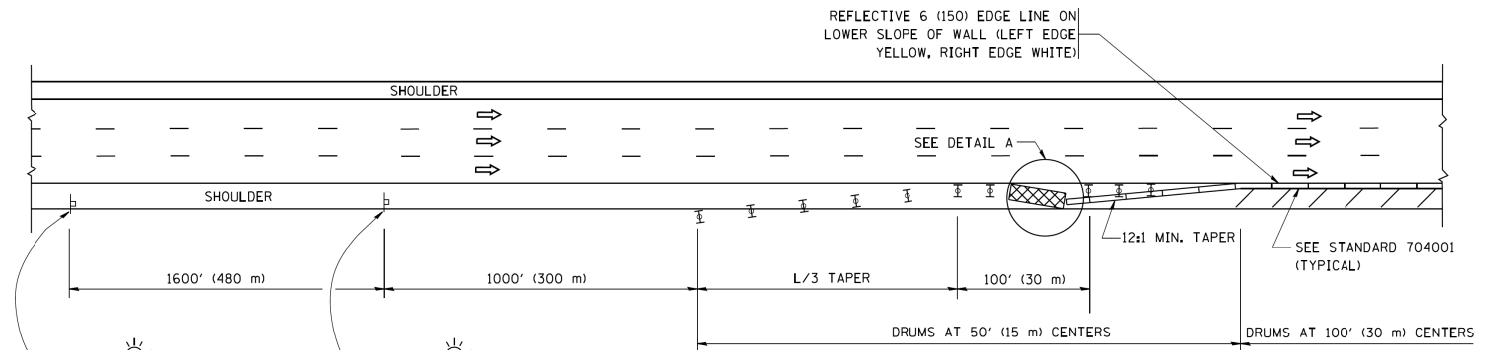
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

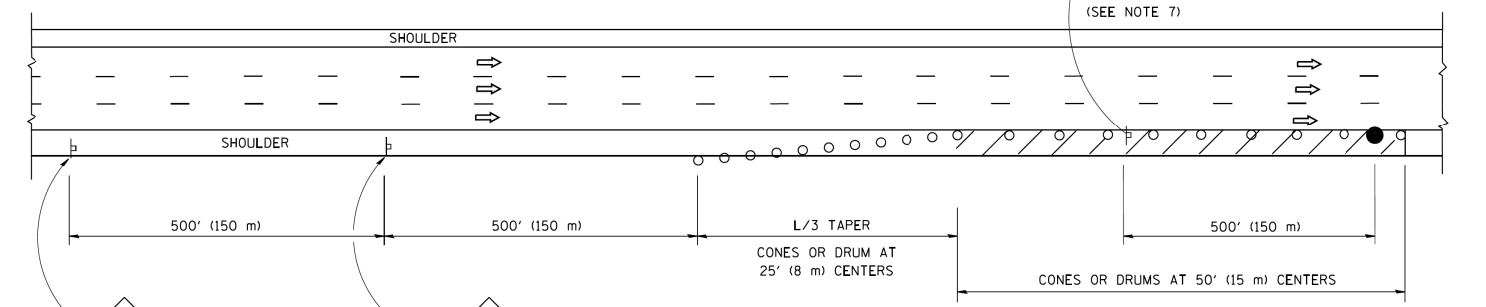
SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH
	$L=0.65(W)(S)$ $L=(W)(S)$

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



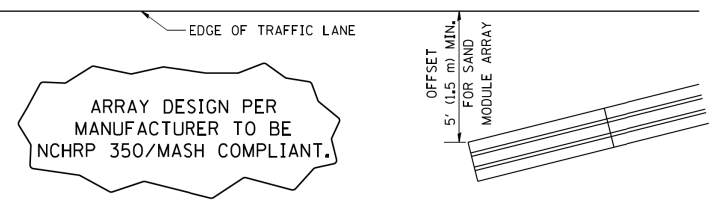
PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



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

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

THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12" MIN. WIDTH TANGENT SECTION
16" MIN. WIDTH CURVE SECTION.

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

FILE PATH = p:\388035\part1\escom\line\local\p\AEC\000\Documents\01_Americas\Transportation\62629938_Circle\Phase_1\000_CAD\005_Roadway\Sheets\60W71_Contract\0160W71-SHT-01-Detail-15-(TC-17).dgn



D160W71-SHT-01-Detail-15-(TC-17).dgn
USER NAME = chitua
PLOT SCALE = 50.0000' / in.
PLOT DATE = 12/19/2013

DESIGNED -	REVISED - J.A.F. 12-06
DRAWN - D.W.S.	REVISED - S.P.B. 01-07
CHECKED -	REVISED - S.P.B. 12-09
DATE - 11-96	REVISED - M.D. 06-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

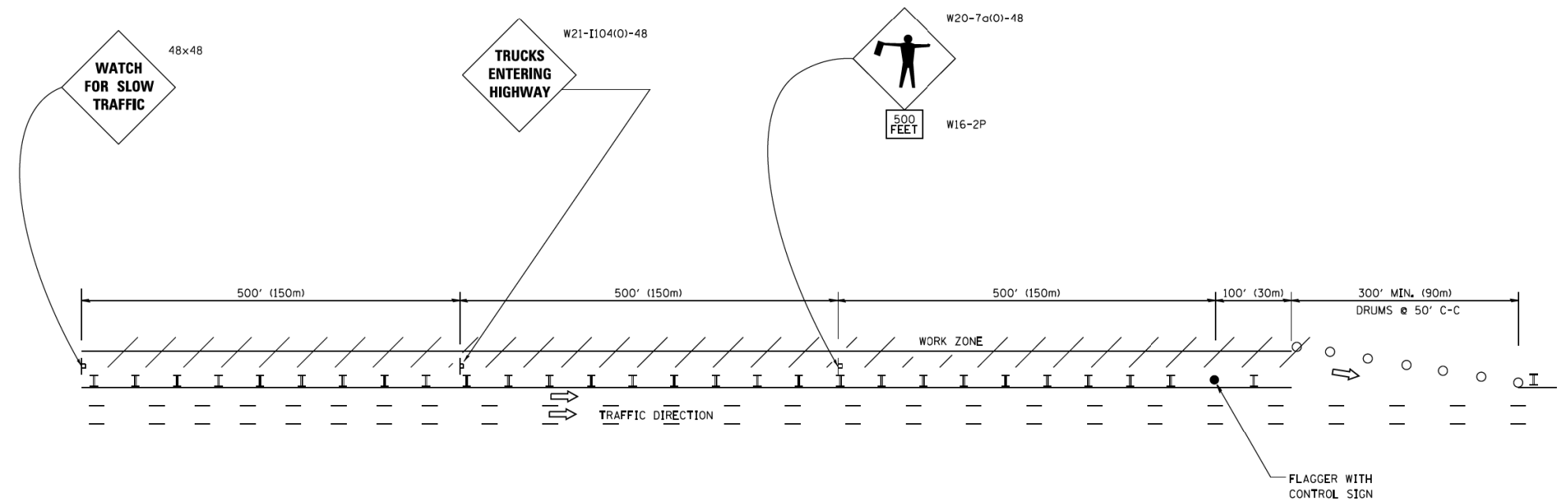
TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

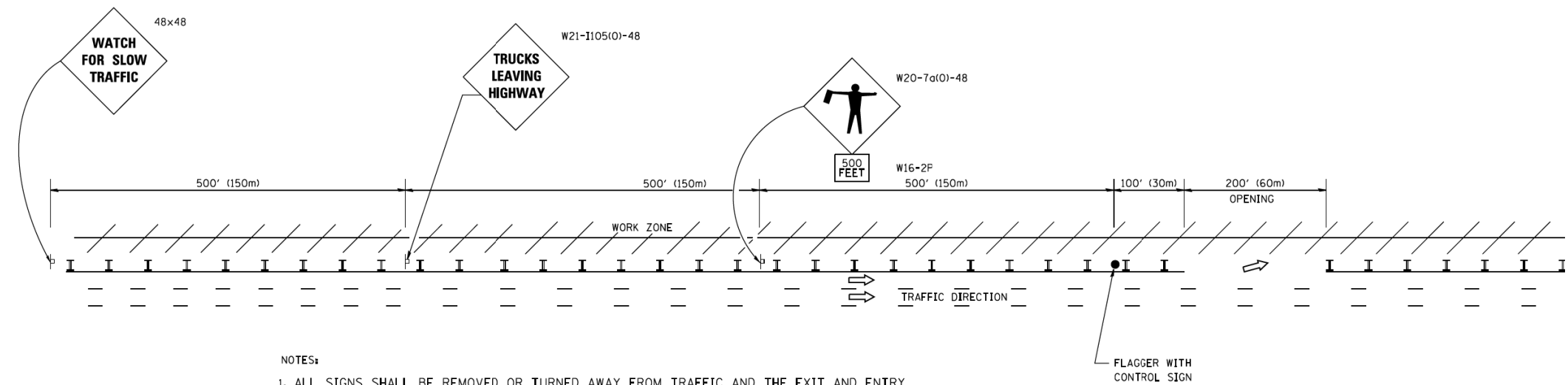
F.A.I. RTE. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 229
TC-17			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

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 RAMP.
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 PATH = p:\388035\pmt\escomon\me\local\p\AECOM\Documents\01_Americas\Transportation\6269938_Circle\Phase_1\000_CAD\005_Roadway\Sheets\60W71_Contract\0160W71-SHT-D1-Detail-15A-1TC18



D160W71-SHT-D1-Detail-15A-1TC18
 USER NAME = ch1ue
 PLOT SCALE = 100.0000' / in.
 PLOT DATE = 2/18/2014

DESIGNED -	REVISD - J.A.F. 02-06
DRAWN -	REVISD - S.P.B. 01-07
CHECKED -	REVISD - S.P.B. 12-09
DATE -	REVISD - M.D. 06-13

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FREEWAY/EXPRESSWAY SIGNING FOR FLAGGING OPERATIONS
 AT WORK ZONE OPENINGS ON FREEWAYS/EXPRESSWAYS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	229A
TC-18			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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ROUTE MARKERS

FOR U.S. ROUTES
MI-40-2424

FOR ILLINOIS ROUTES
MI-50-2424

R.R. UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

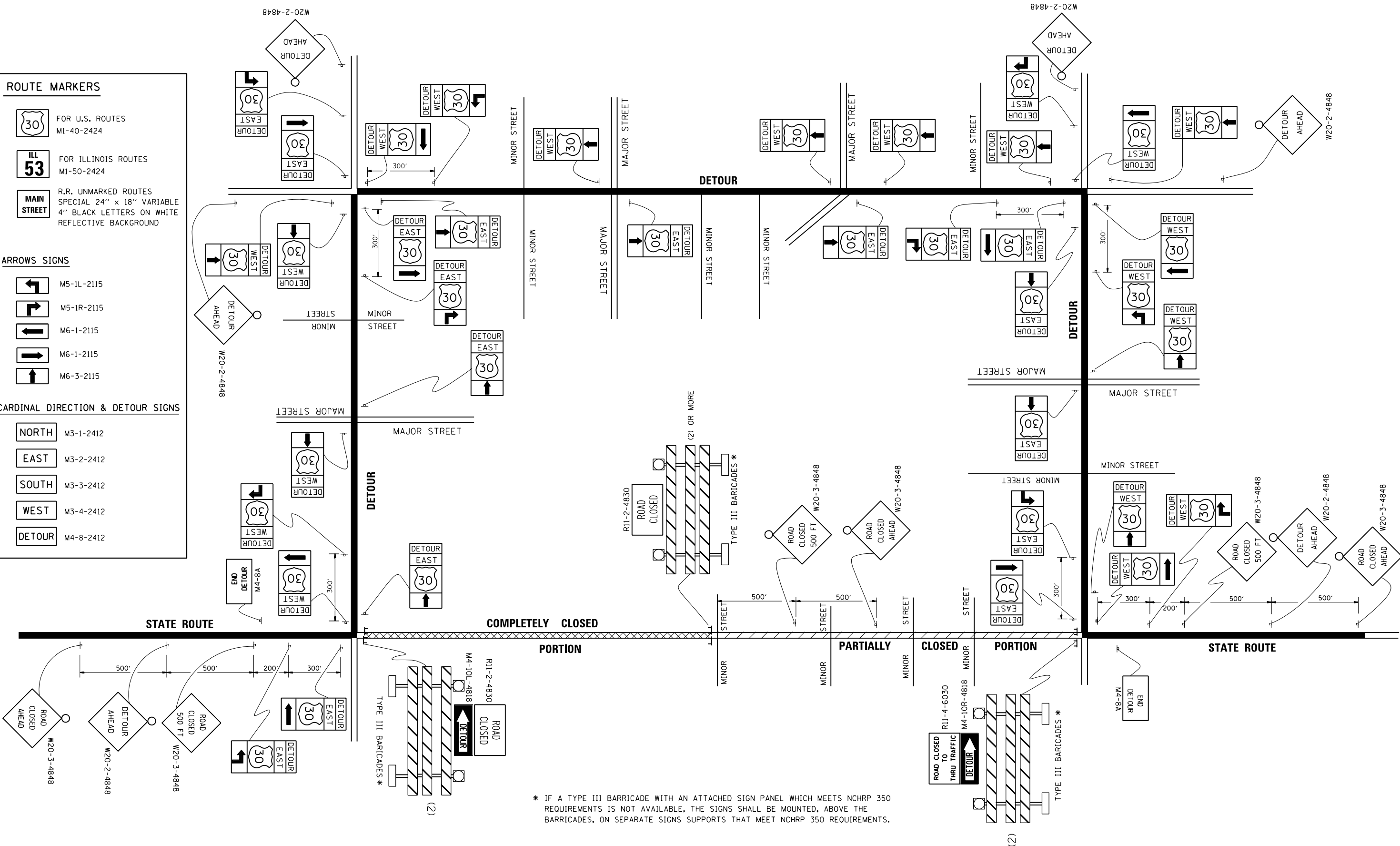
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.



D160W71-SHT-01-Detail-16-TC-211.dgn
 USER NAME = chhua
 PLOT SCALE = 50.0000' / in.
 PLOT DATE = 12/19/2013

DESIGNED -
 DRAWN -
 CHECKED -
 DATE - 12/20/13

REVISED -10-18-02
 REVISED -R. BORO 09-14-09
 REVISED -
 REVISED -

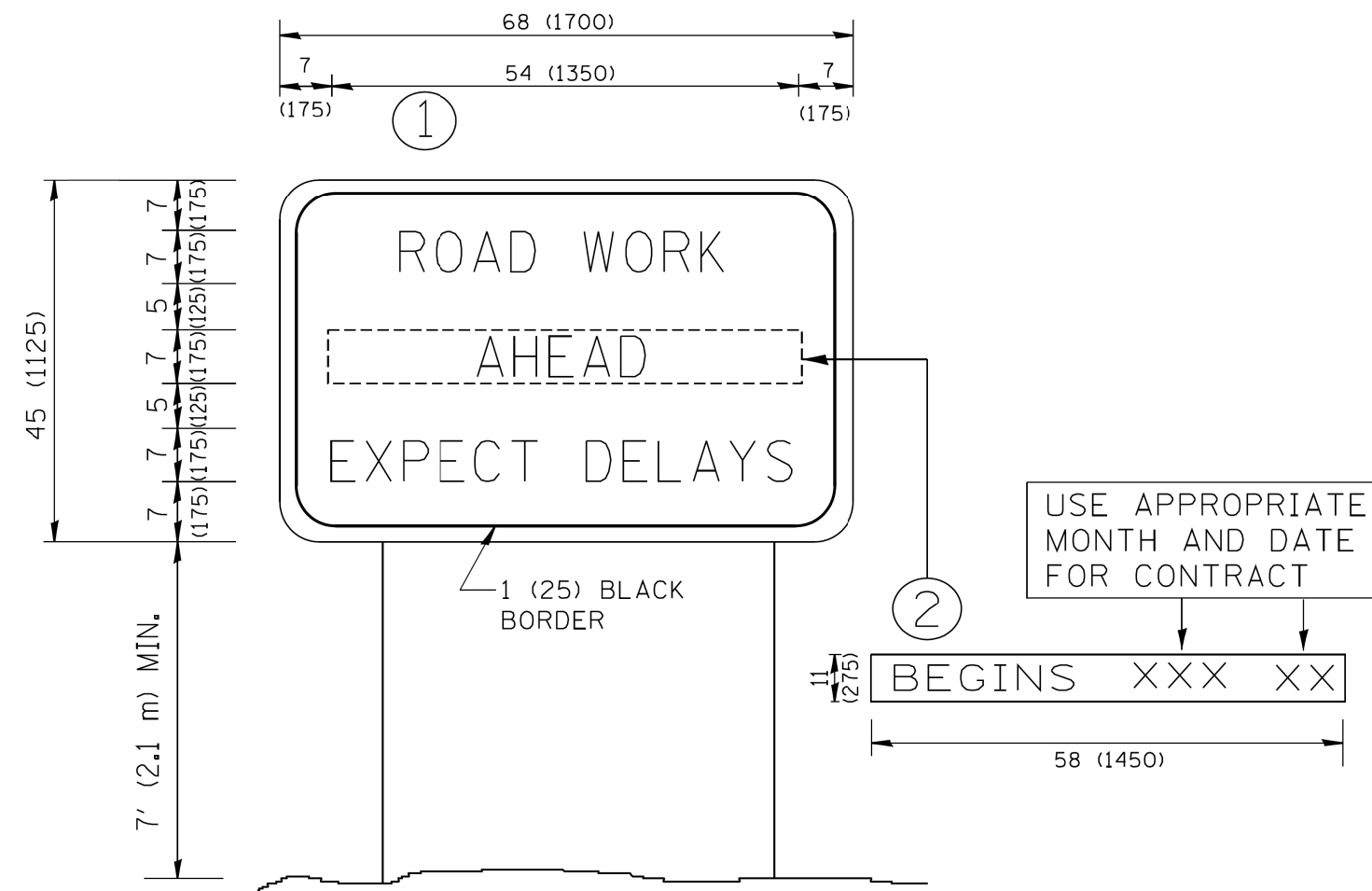
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING
 FOR CLOSING STATE HIGHWAYS**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	230
TC-21			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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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.



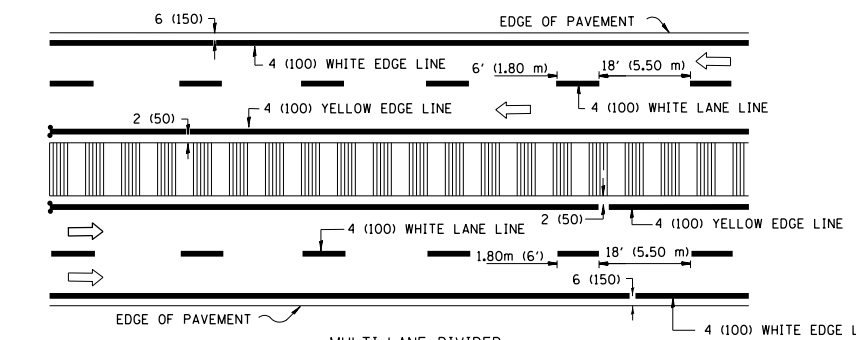
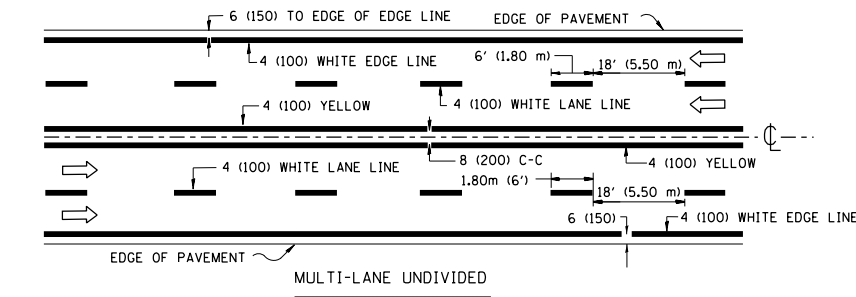
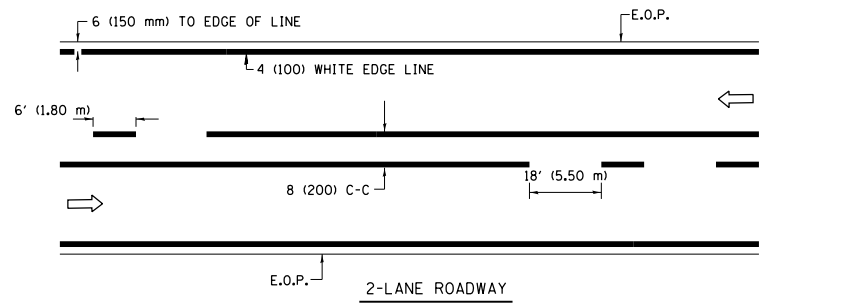
D160W71-SHT-01-Detail-17-TC-22.dgn	DESIGNED -	REVISED-R, MIRS 9-15-97
USER NAME = chitua	DRAWN -	REVISED-R, MIRS 12-11-97
PLOT SCALE = 50.000' / in.	CHECKED -	REVISED-R, RAMMACHER 02-02-99
PLOT DATE = 12/19/2013	DATE -	REVISED-C, JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

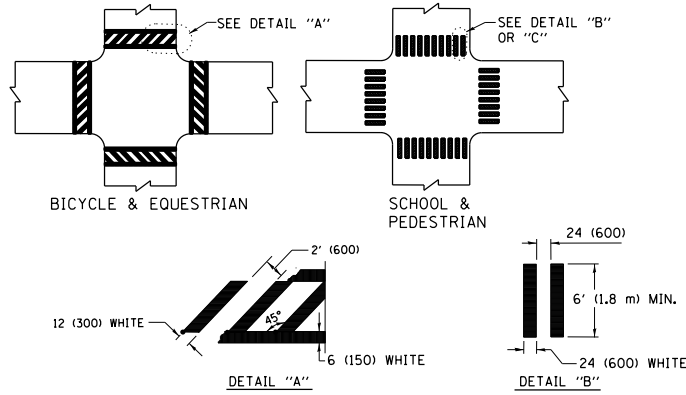
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	230A
TC-22			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE PATH = p:\388935\pmt\lsc\com\line\local\p\AEC\000\Documents\01_Americas\Transportation\66269938_Circle\Phase\1\000_CAD\005_Roadway_Sheets\66W71_Contract\0166W71-SHT-D1-Detail-18-20-1TC-241.dgn

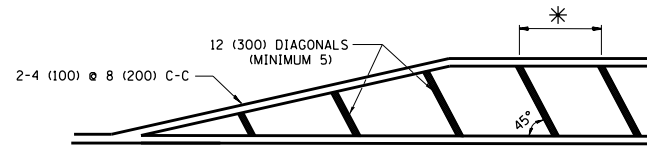


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



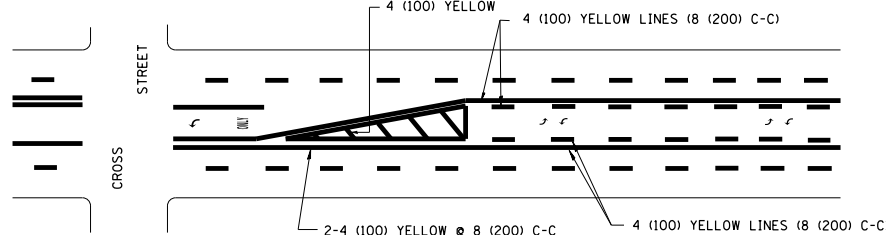
TYPICAL CROSSWALK MARKING



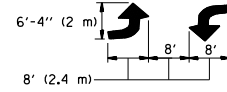
* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

PAINTED MEDIANS

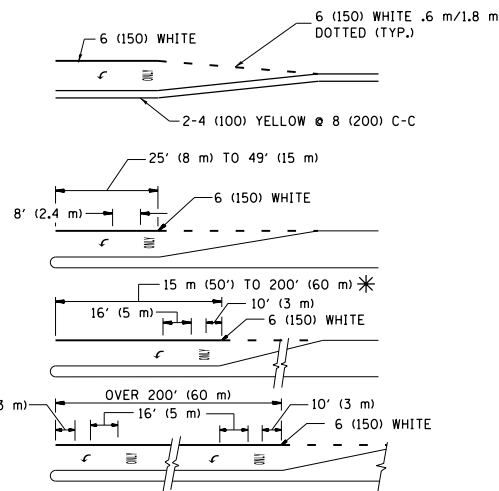


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

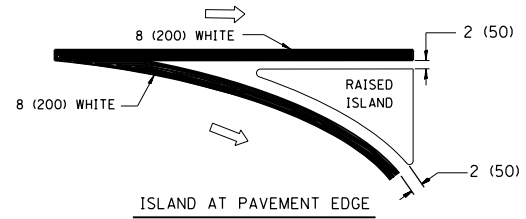
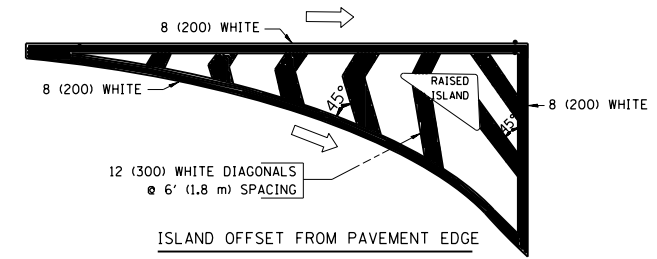


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.8 SQ. FT. (1.47 m²) ONLY AREA = 22.9 SQ. FT. (2.13 m²)

* 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 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	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 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 SQ. FT. (0.33m ²) EACH "X"=54.0 SQ. 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.



D160W71-SHT-D1-Detail-18-20-1TC-241.dgn
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PLOT SCALE = 50.0000' / in.
PLOT DATE = 12/19/2013

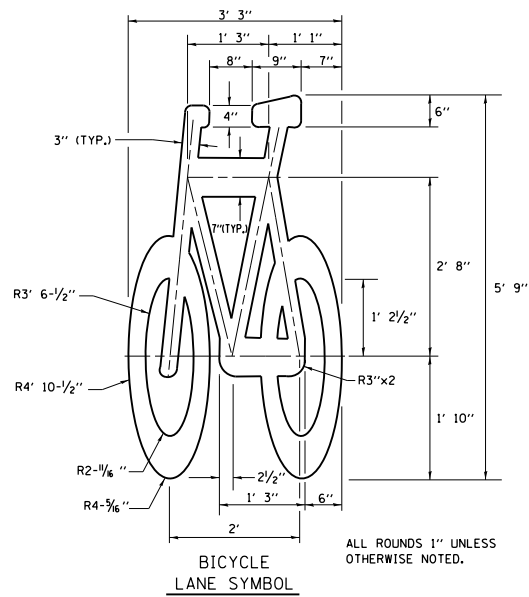
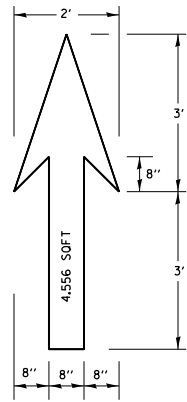
DESIGNED -
DRAWN -
CHECKED -
DATE -
REVISED-T, RAMMACHER 12-07-00
REVISED-K, ENG 02-28-12
REVISED-
REVISED-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS
SCALE: NONE SHEET OF SHEETS STA. TO STA.

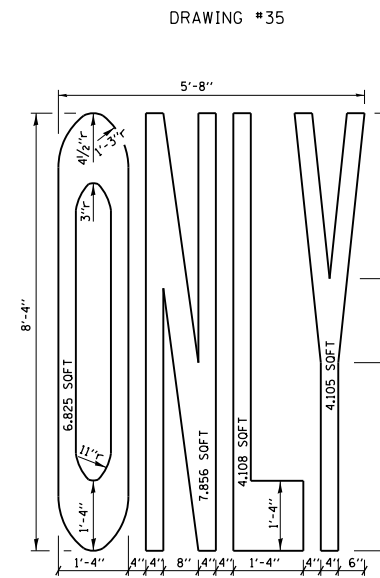
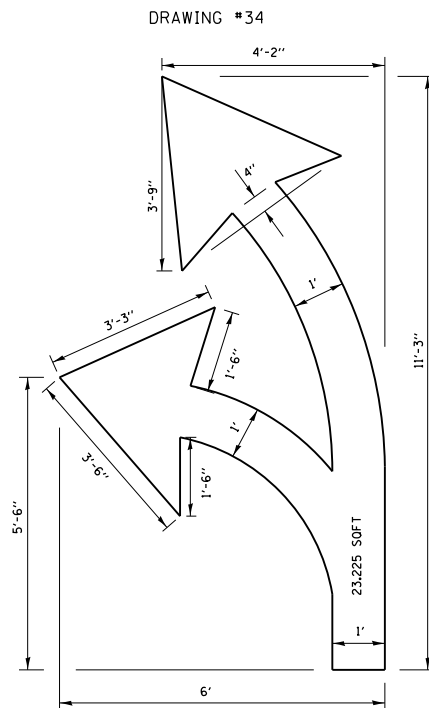
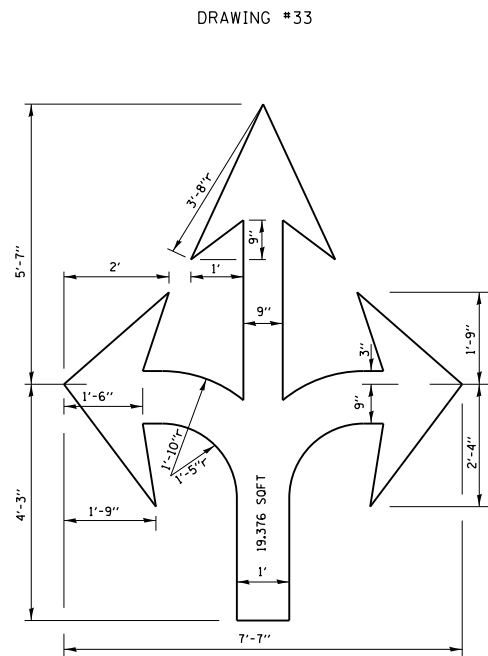
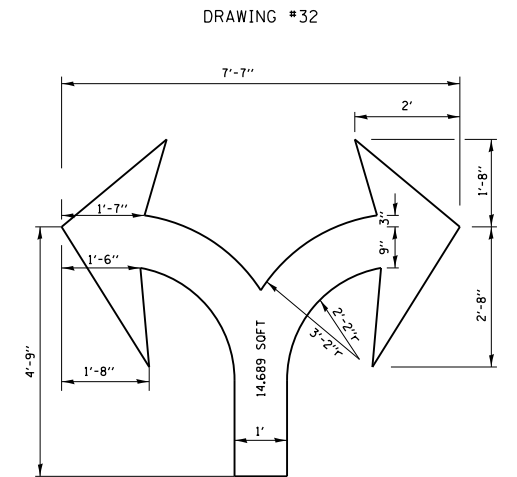
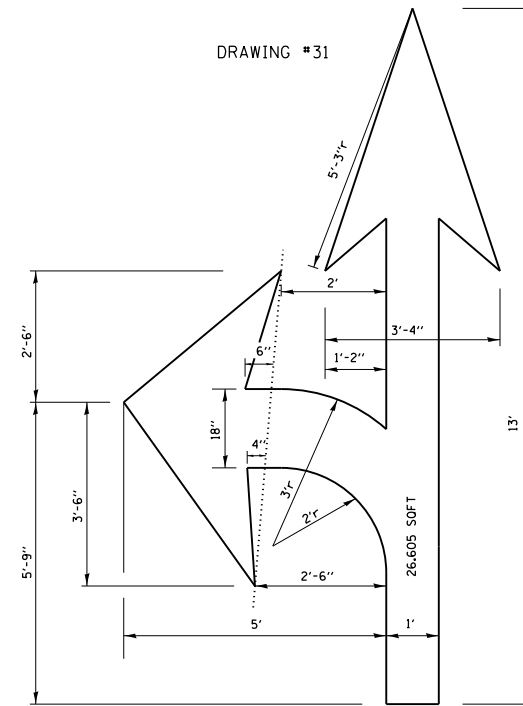
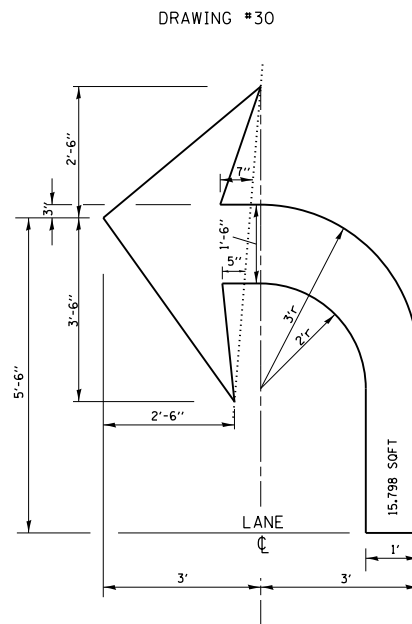
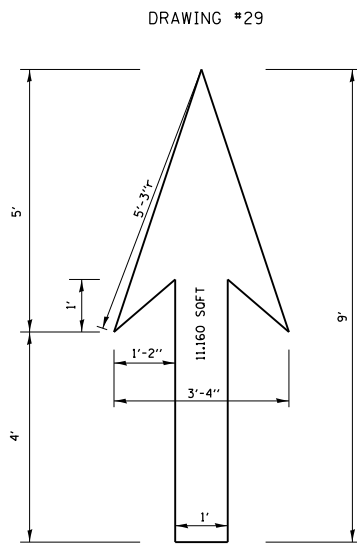
F.A.I. R.T.E. SECTION COUNTY TOTAL SHEETS SHEET NO.
90/94/290 2013-036R COOK 256 231
TC-24 CONTRACT NO. 60W71
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

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- NOTE:**
- 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.
 - 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



NOTE: ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS



D160W71-SHT-01-Detail-18-20-11C-241.dgn
USER NAME = chhua
PLOT SCALE = 50.000' / in.
PLOT DATE = 12/19/2013

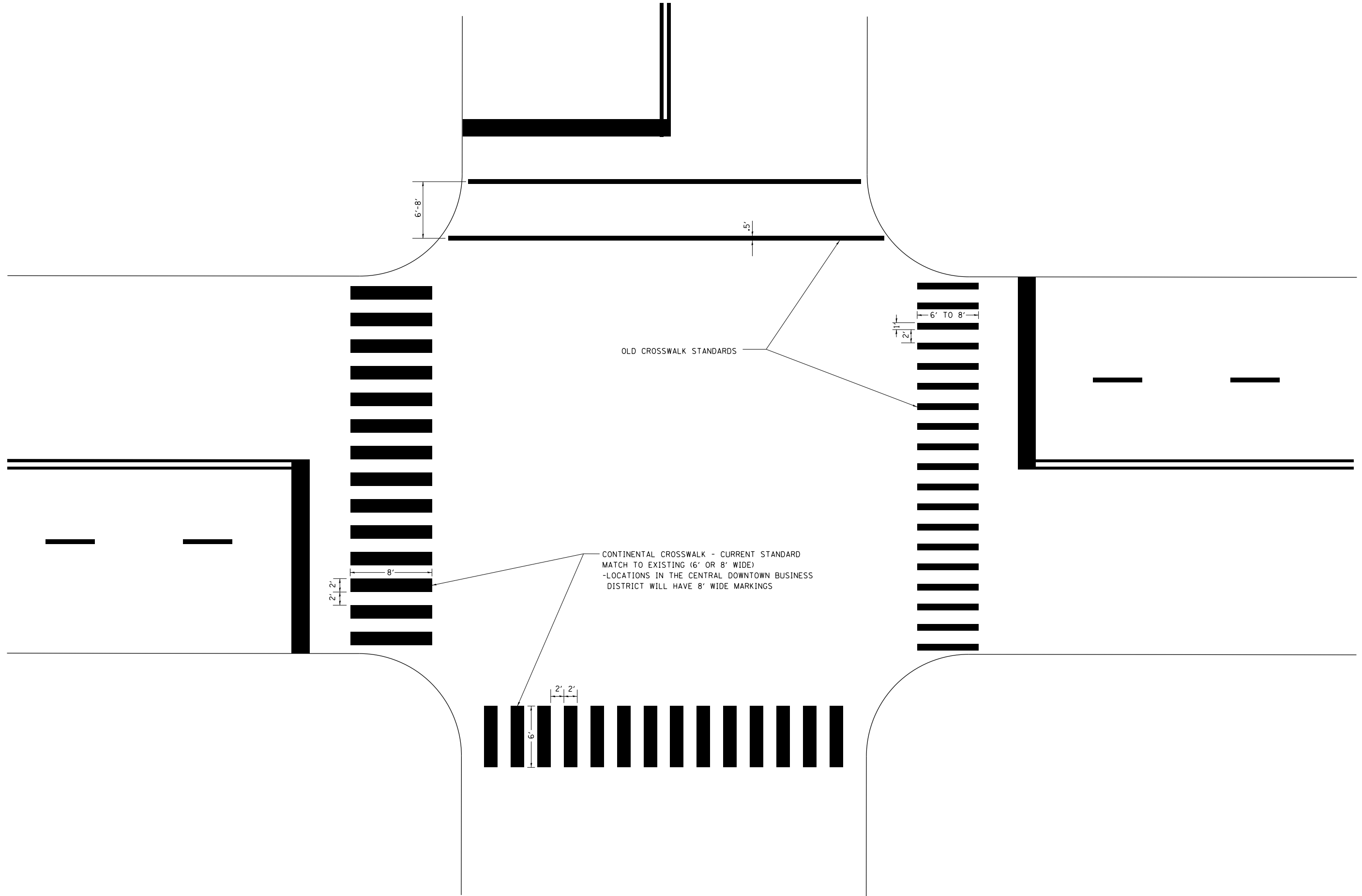
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DRAWN - REVISED-K. ENG 01-12-12
CHECKED - REVISED-
DATE - REVISED-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	232
TC-24			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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D160W71-SHT-01-Detail-18-20-1TC-241.dgn	DESIGNED -	REVISED-T, RAMMACHER 12-07-00
USER NAME = chtw	DRAWN -	REVISED-K, ENG 01-12-12
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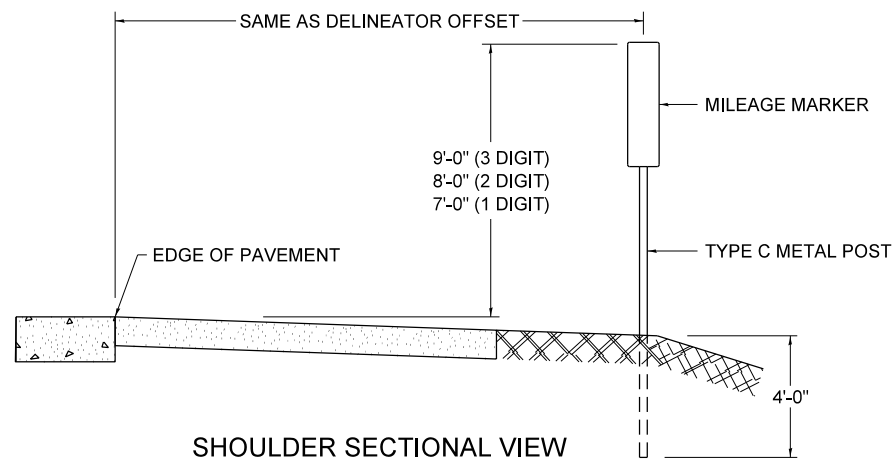
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

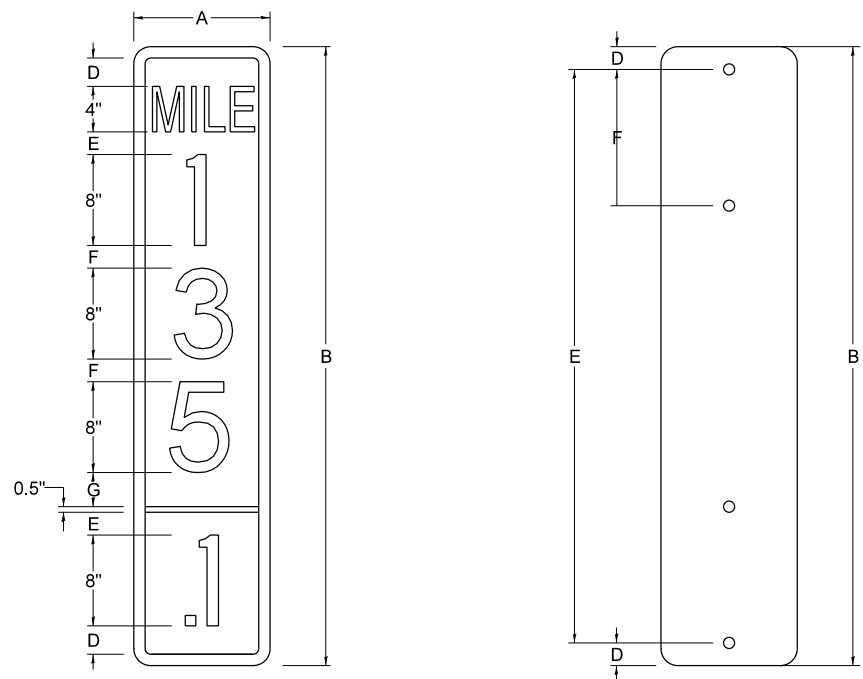
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	233
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

STANDARD DESIGN FOR MILE POST



SHOULDER SECTIONAL VIEW

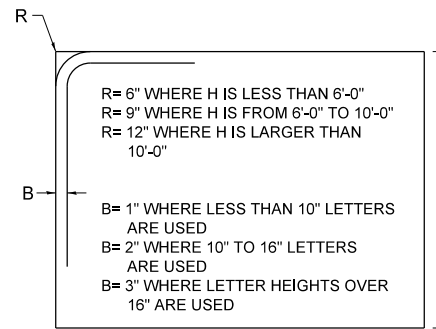


SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	DIGIT
12 x 24	12.0	24.0	1.5	1.5	1.5	N/A	1.5	1
12 x 36	12.0	36.0	1.5	2.0	2.0	2.0	1.5	2
12 x 48	12.0	48.0	1.5	2.5	2.0	2.0	2.5	3

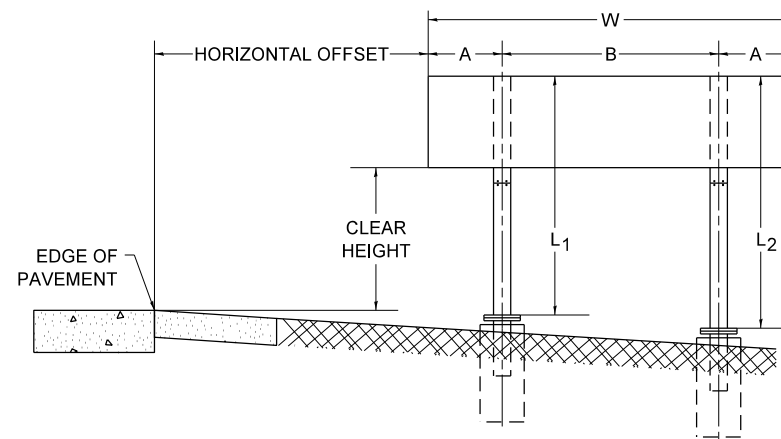
BLANK	A	B	C	D	E	F
B9-1224	12.0	24.0	1.5	2.0	20.0	N/A
B9-1236	12.0	36.0	1.5	2.0	32.0	12.0
B9-1248	12.0	48.0	1.5	2.0	44.0	12.0

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

BORDER AND RADIUS LAYOUT



MAJOR GUIDE SIGN LAYOUT

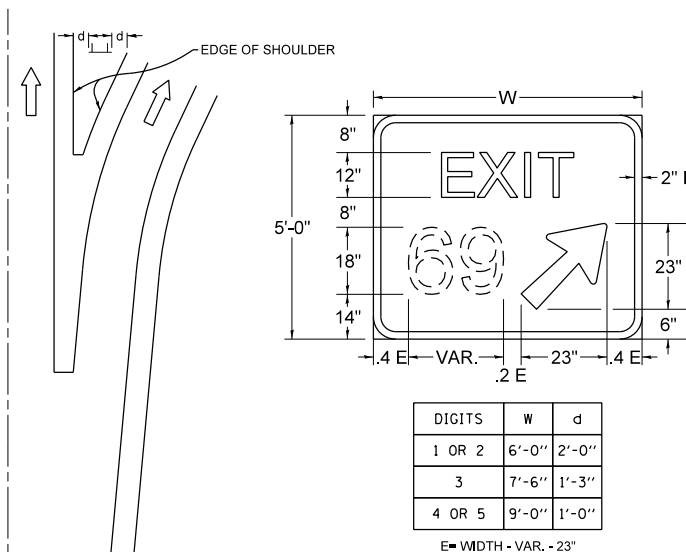


NUMBER OF STEEL SUPPORTS	A	B
2	.2 W	.6 W
3	.15 W	.35 W
4	.125 W	.25 W
5	.1 W	.2 W

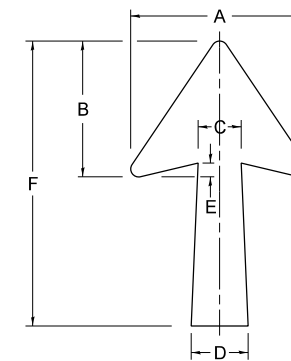
"L1 IS THE LENGTH OF SUPPORT, NOT INCLUDING THE STUB PROJECTION, CLOSEST TO THE EDGE OF THE PAVEMENT."

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

GORE SIGNS

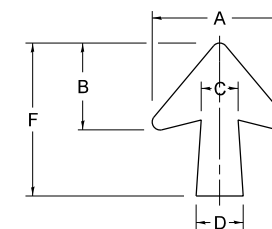


STANDARD ARROWS FOR INTERSTATE GUIDE SIGNS



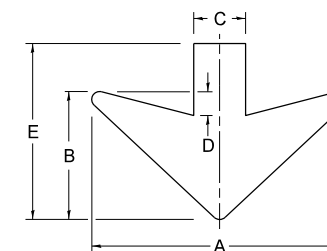
ARROW SYMBOL	A	B	C	D	E	F	R
24 1/4 x 15 1/8	15 1/8	11 3/8	3 3/4	5	1 5/8	24 1/4	1/8
29 1/4 x 18 1/4	18 1/4	14	4 1/2	6	1 1/2	29 1/4	3/4
35 5/8 x 22 1/4	22 1/4	17	5 3/8	7 1/8	1 3/4	35 5/8	1
18 1/4 x 11 1/4	11 1/4	8 3/4	3 1/8	3 3/8		18 1/4	

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



ARROW SYMBOL	A	B	C	D	E	F	R
17 1/4 x 14 1/4	14 1/4	9 1/8	3 3/8	4 1/2	1 5/8	17 1/4	3/4
20 1/4 x 17 1/4	17 1/4	11 3/4	4 3/8	5 5/8	1 1/2	20 1/4	
25 x 21 1/8	21 1/8	14 1/4	5	6 3/4	1 3/4	25	1
9 5/8 x 8 1/8	8 1/8	5 1/8	2 3/8	2 3/8		9 5/8	1/2

DOWN ARROWS



ARROW SYMBOL	A	B	C	D	E	R
16 1/2 x 24	24	12	5	1 1/2	16 1/2	3/4
22 x 32	32	16	6 1/2	3	22	1

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D160W71-SHT-D1-Detail-21-(TC-27).dgn
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 PLOT SCALE = 50.0000' / in.
 PLOT DATE = 12/19/2013

DESIGNED -
 DRAWN -
 CHECKED -
 DATE - 03-08-1984

REVISED - 02-04-2009
 REVISED -
 REVISED -
 REVISED -

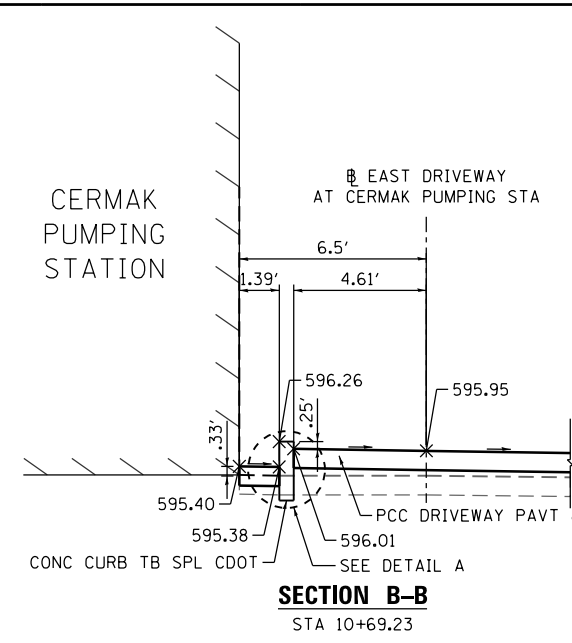
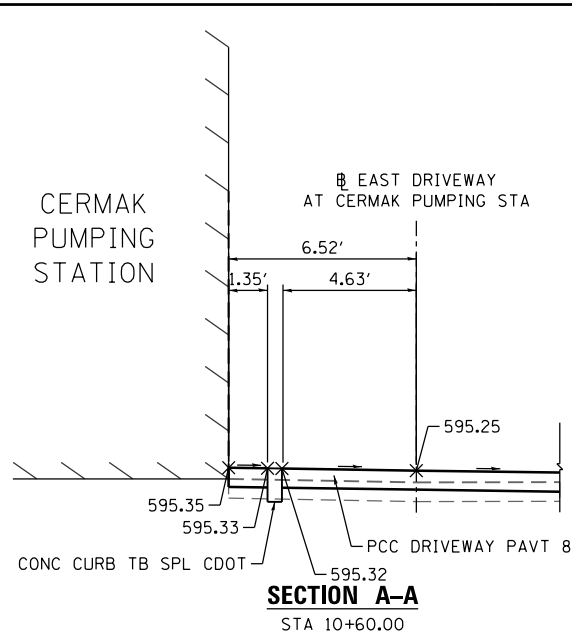
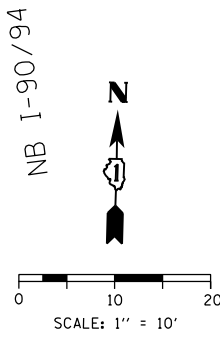
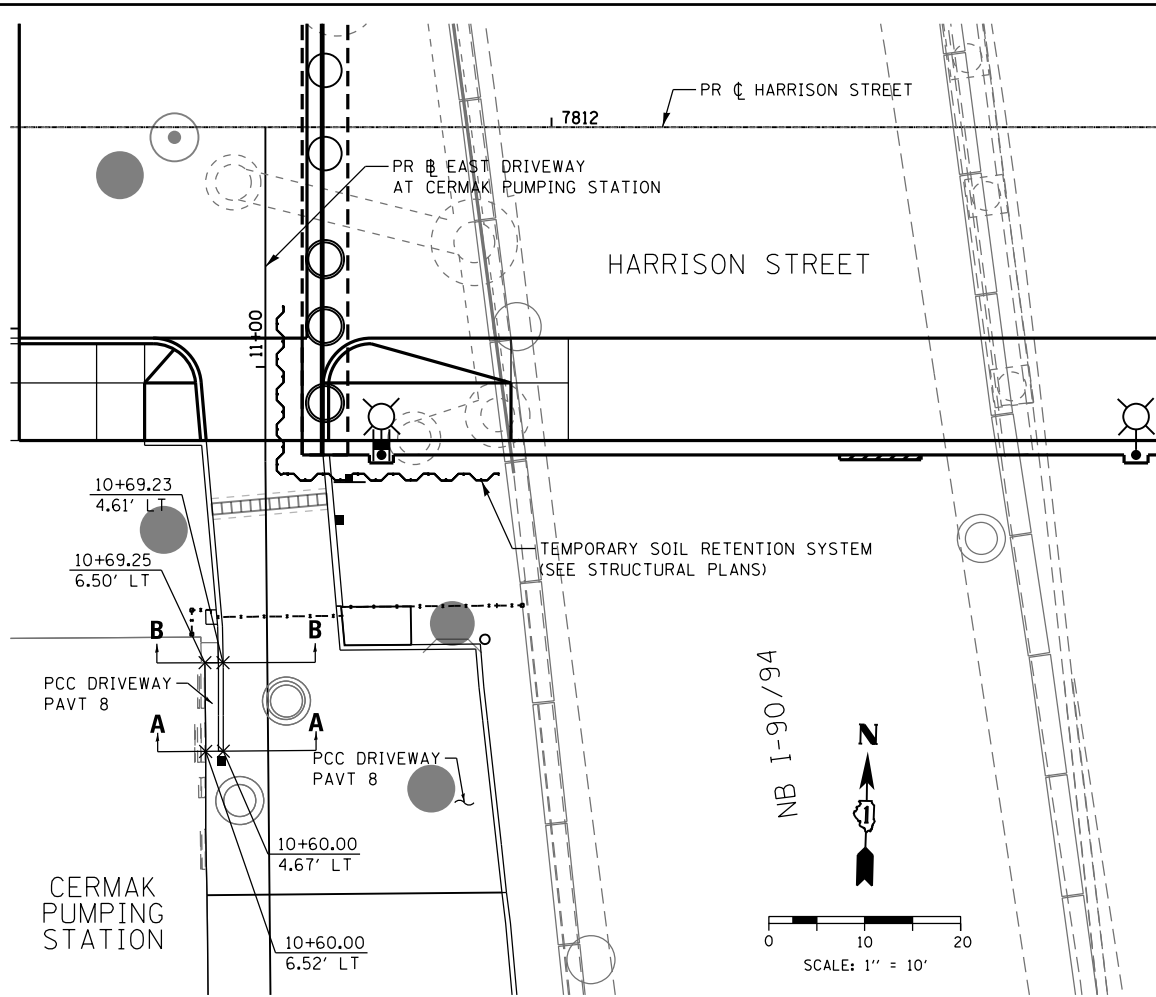
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MILE POST MARKERS - GORE SIGNS
 MAJOR GUIDE SIGN LAYOUT - ARROWS

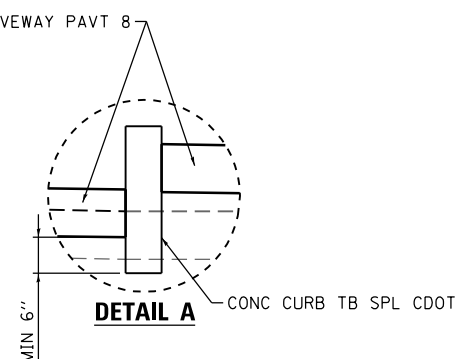
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	234
TC-27 (TS-2341-1)			CONTRACT NO. 60W71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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**CONCRETE CURB, TYPE B (SPECIAL) (CDOT)
AT EAST DRIVEWAY OF
CERMAK PUMPING STATION**



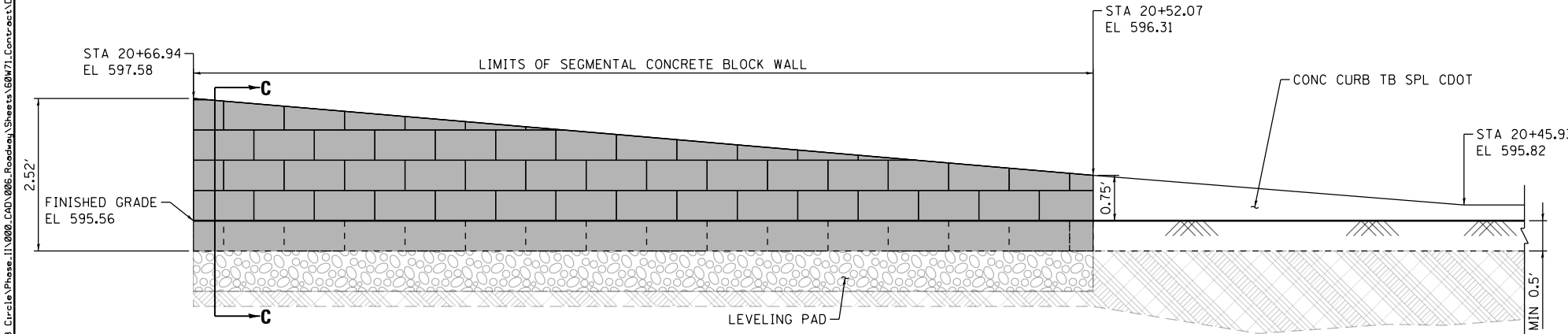
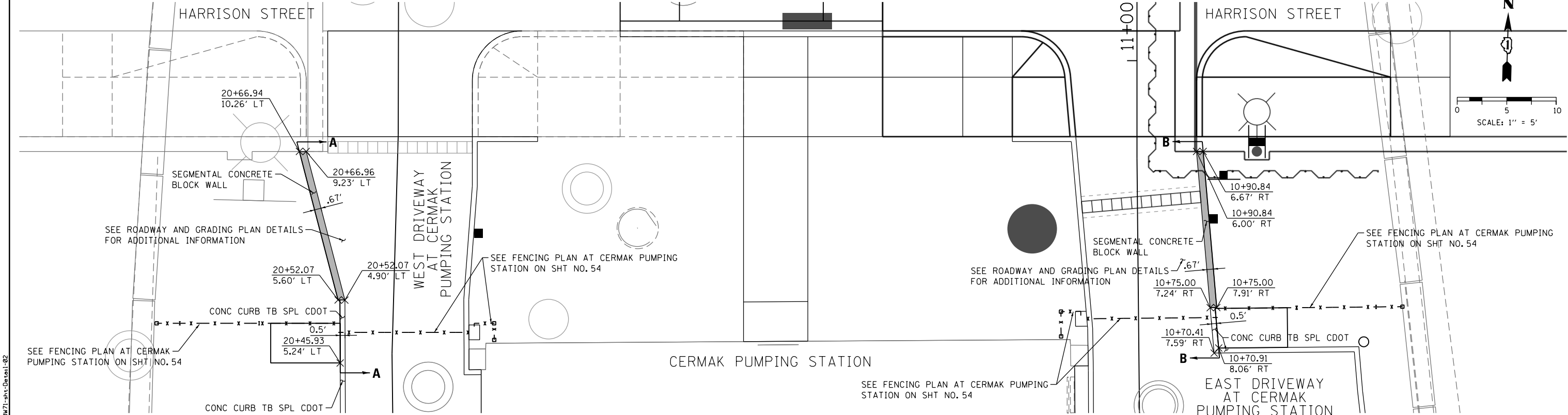
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USER NAME = chiuw	DRAWN - AFC	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - DBM	REVISED -
PLOT DATE = 2/21/2014	DATE - 02/19/14	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

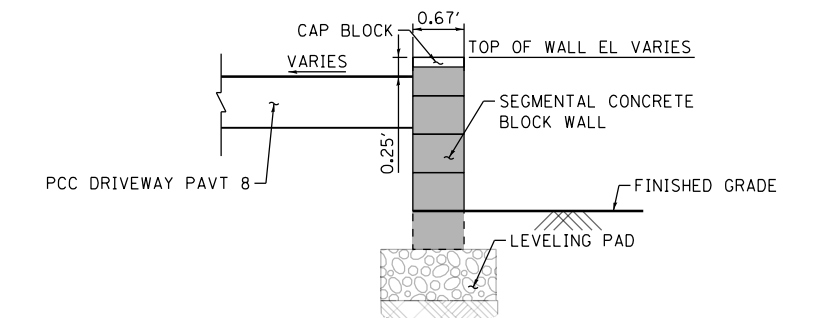
ROADWAY DETAILS			
CONCRETE CURB, TYPE B (SPECIAL) (CDOT)			
SCALE: N.T.S.	SHEET 1 OF 3 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	235
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

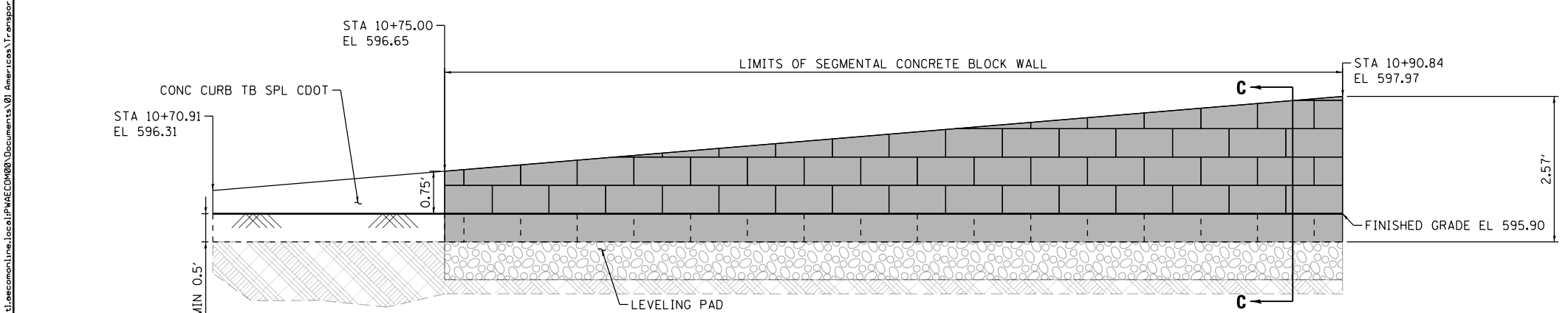
PLAN VIEW



ELEVATION VIEW
SECTION A-A
(WEST DRIVEWAY AT CERMAK PUMPING STATION)



TYPICAL SECTION
SECTION C-C



ELEVATION VIEW
SECTION B-B
(EAST DRIVEWAY AT CERMAK PUMPING STATION)

- NOTES:**
- CONTRACTOR SHALL COORDINATE COLOR AND TEXTURE OF THE SEGMENTAL CONCRETE BLOCK WALL TO BE APPROVED BY THE ENGINEER AND CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
SEGMENTAL CONCRETE BLOCK WALL	SQ FT	59

SEGMENTAL CONCRETE BLOCK WALL



D160W71-sht-Detail-02
USER NAME = chiuw
PLOT SCALE = 10.0000 "/>

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DRAWN - AFC
CHECKED - BMR
DATE - 02/19/14

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REVISED -
REVISED -
REVISED -

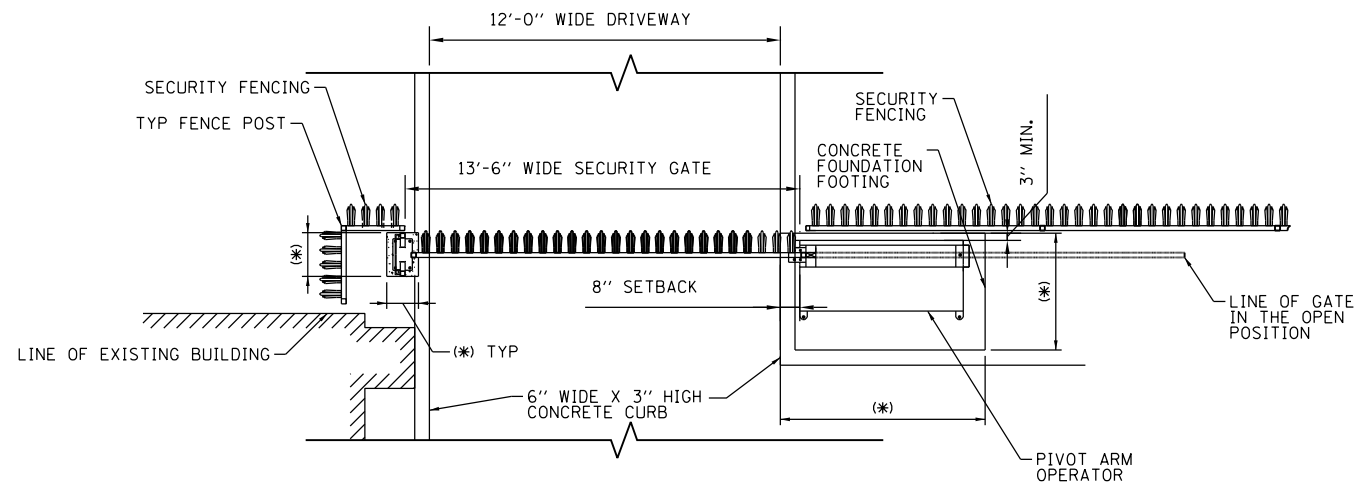
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROADWAY DETAILS
SEGMENTAL CONCRETE BLOCK WALL**
SCALE: N.T.S. SHEET 2 OF 3 SHEETS STA. TO STA.

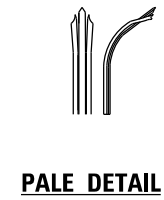
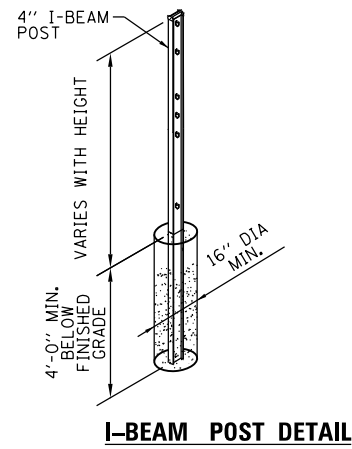
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	235A
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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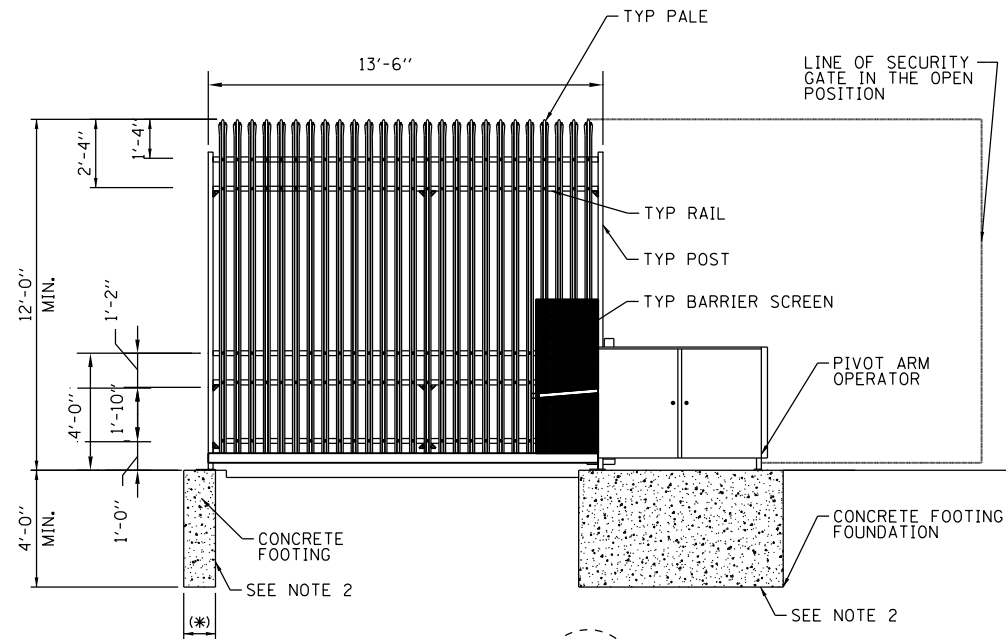
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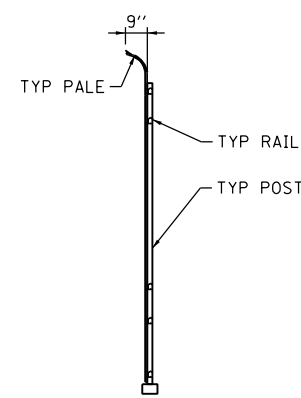
**SECURITY GATE/FENCING PLAN DETAIL AT EAST GATE
WEST SECURITY GATE/FENCING OPPOSITE HAND SIMILAR**



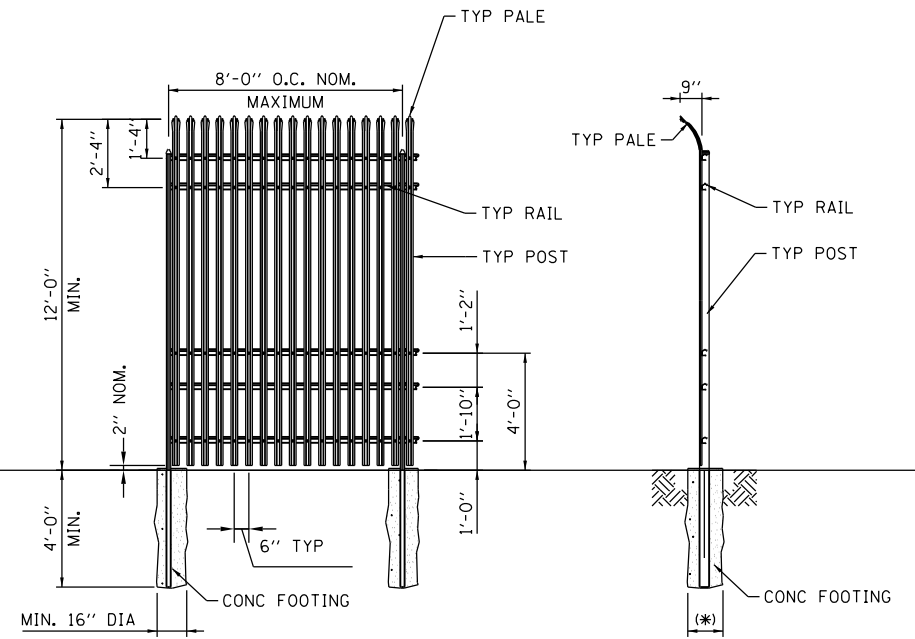
- NOTES:**
1. THE ASTERISK (*) INDICATES DIMENSIONS TO BE DETERMINED BY GATE MANUFACTURER AND CONTRACTOR'S ILLINOIS LICENSED STRUCTURAL ENGINEER.
 2. REINFORCE GATE FOUNDATION FOOTINGS WITH MINIMUM #5 @ 12 EACH WAY, TOP, BOTTOM AND SIDES. ALL REINFORCING BARS SHALL BE EPOXY COATED.
 3. EXISTING WATER MAIN TO REMAIN. VERIFY LOCATION IN FIELD TO ALLOW FOR MINIMUM 12" OF SOIL BETWEEN PIPE AND GATE OR FENCE FOUNDATIONS.



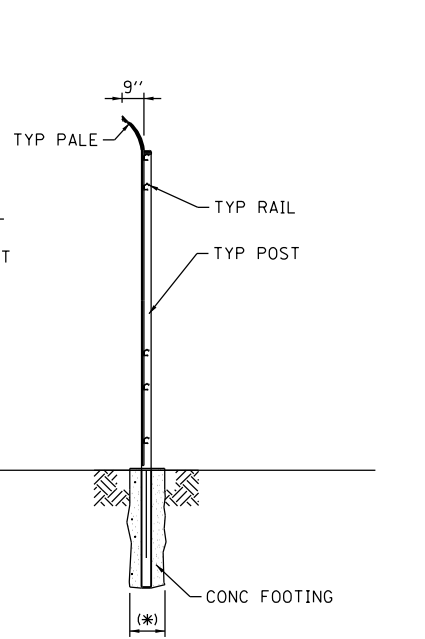
**SECURITY GATE ELEVATION
NOTE: ADJACENT FENCING
NOT SHOWN FOR CLARITY**



SECURITY GATE SECTION



**SECURITY FENCE ELEVATION
TYPICAL 8'-0" PANEL**



TYPICAL SECURITY FENCE SECTION



D160W71-sht-Fence-02
USER NAME = chiuw
PLOT SCALE = 20.0000' / in.
PLOT DATE = 2/20/2014

DESIGNED - JP
DRAWN - MSC
CHECKED - DBM
DATE - 02/19/14

REVISED -
REVISED -
REVISED -
REVISED -

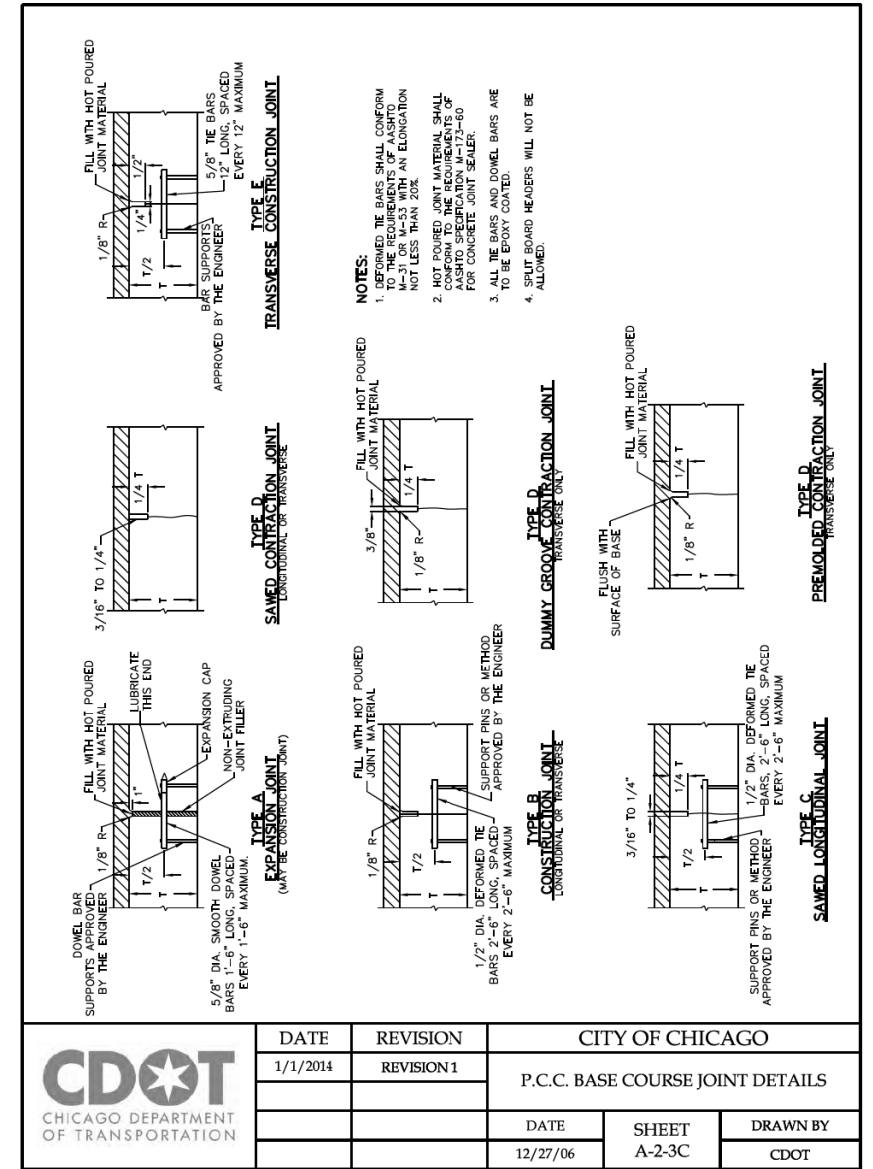
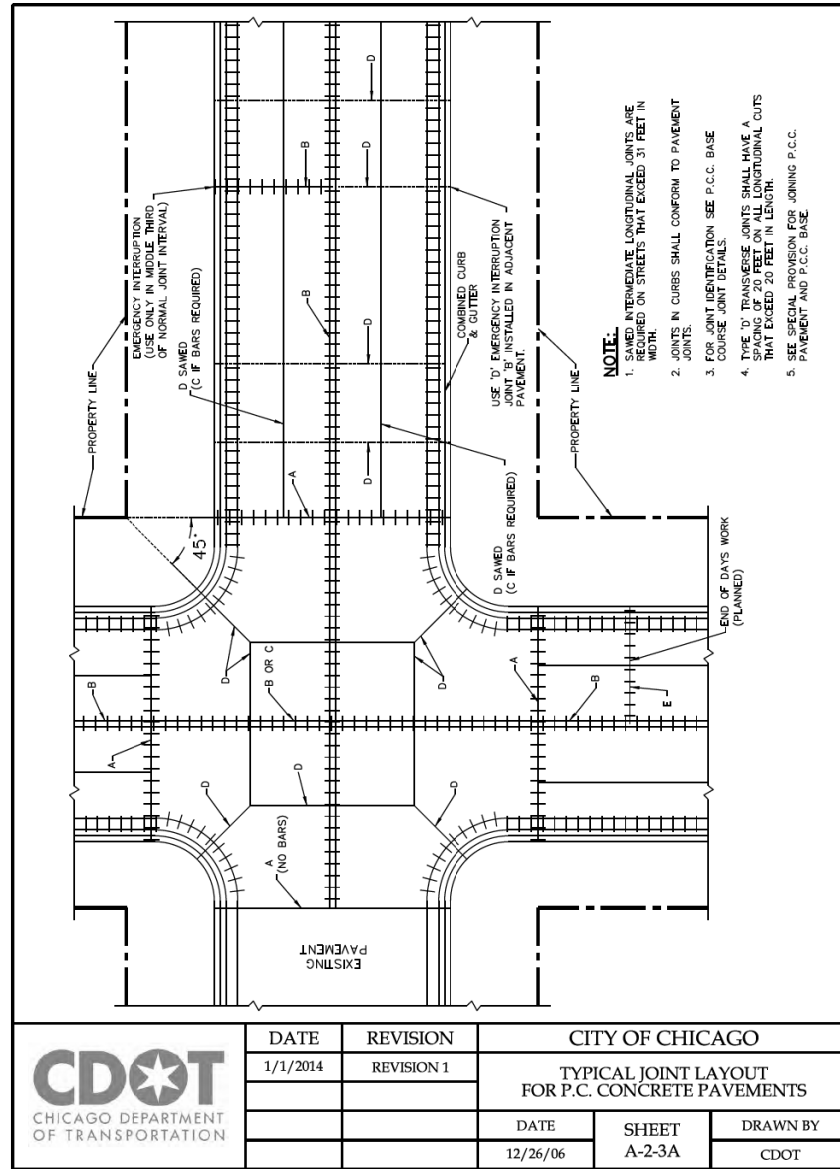
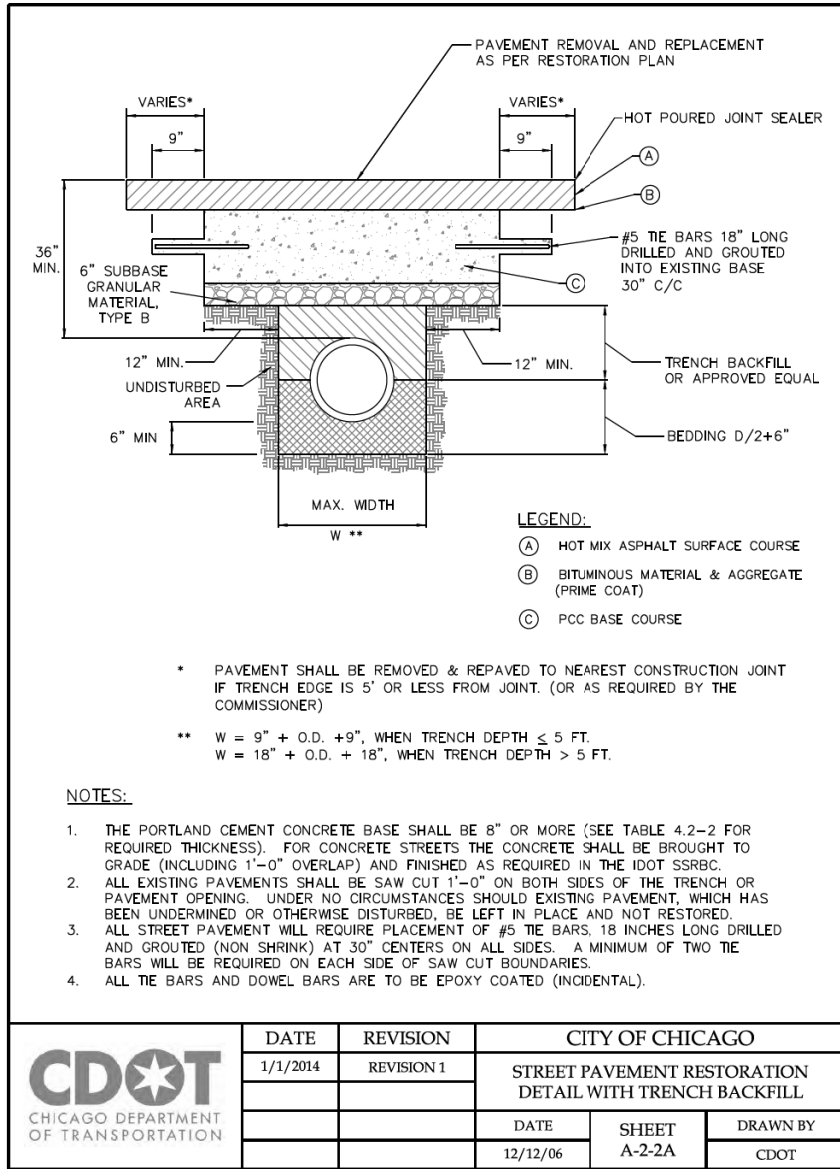
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FENCE AND GATE DETAILS

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	236
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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D160W71-shr-CDOT-Detail-01
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PLOT SCALE = 2.0000' / in.
PLOT DATE = 2/18/2014

DESIGNED - OPS
DRAWN - OPS
CHECKED - DBM
DATE - 02/19/14

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

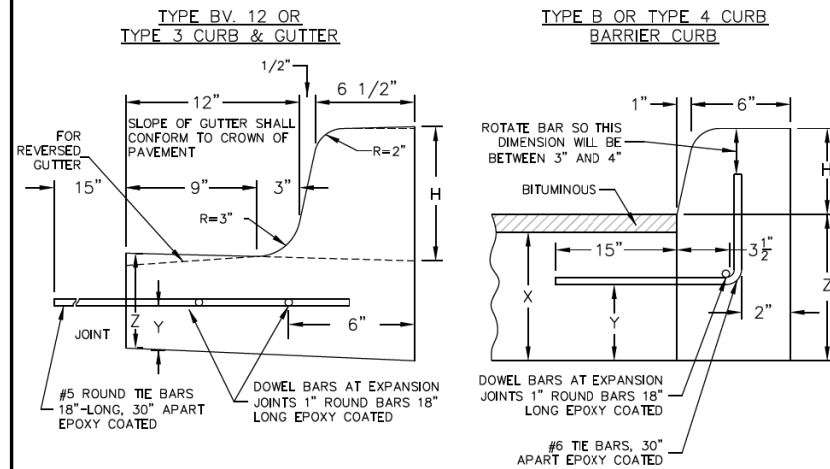
CHICAGO DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS

SCALE: NTS SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	237
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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NOTE: H = VARIABLE 3" TO 9"
 X = THICKNESS OF PAVEMENT
 Y = ONE HALF THE THICKNESS OF CONCRETE PAVEMENT OR CONCRETE BASE.
 Z = 10" OR THICKNESS OF PAVEMENT - WHICHEVER IS GREATER



JOINTS IN CURB, COMBINED CURB & GUTTER

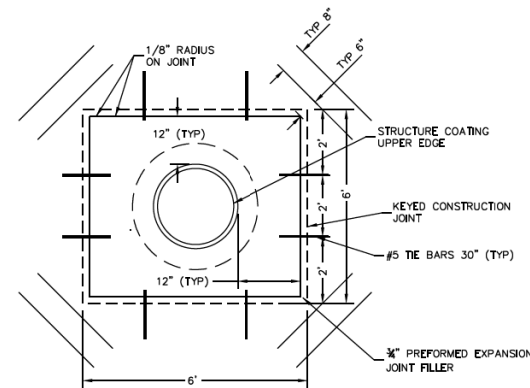
TRANSVERSE JOINTS OF A TYPE SIMILAR TO THAT USED IN THE ADJACENT PAVEMENT SHALL BE INSTALLED IN THE CURB, GUTTER AND COMBINED CURB & GUTTER IN PROLONGATION WITH THE JOINTS IN THE PAVEMENT. THE DETAILS OF THE TRANSVERSE JOINTS IN THE CURB, GUTTER AND COMBINED CURB & GUTTER SHALL BE APPROVED BY THE COMMISSIONER. CURB, GUTTER OR COMBINED CURB & GUTTER IS CONSTRUCTED ADJACENT TO A FLEXIBLE BASE PAVEMENT, 1" THICK EXPANSION JOINTS COMPOSED OF BITUMINOUS PERFORMED JOINT FILLER SHALL BE INSTALLED IN THE CURB AND/OR GUTTER AT POINTS OF CURVATURE AND AT CONSTRUCTION JOINTS. CONTRACTION JOINTS SHALL ALSO BE PLACED BETWEEN THESE EXPANSION JOINTS AT DISTANCES NOT EXCEEDING 20 FEET. ALL TIE BARS SHALL BE DEFORMED-ALL DOWEL BARS SHALL BE SMOOTH.

NOTE: ALL TIE BARS AND DOWEL BARS TO BE EPOXY COATED.

*AT LOCATIONS REQUIRING DEPRESSED CURBS SEE THE ADA STANDARDS FOR CONSTRUCTION DETAILS

	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	CONCRETE CURB & GUTTER DETAIL		
			DATE	SHEET	DRAWN BY
			12/12/06	A-2-6	CDOT

2-#4 DEFORMED TIE BARS 30" LONG AT A MID DEPTH (TYPICAL) SEE SPECIAL CONDITION BELOW.



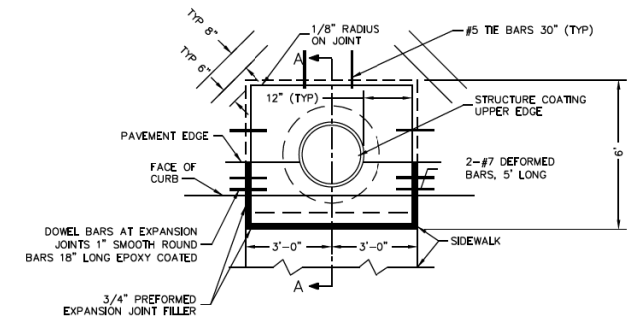
SPECIAL CONDITIONS:

TIE BARS SHALL NOT BE INSTALLED AT ISOLATION BOX CORNERS WHERE EITHER SIDE OF THE BOX FORMING SAID CORNER IS A LONGITUDINAL OR TRAVERSE JOINT. MOREOVER, AT NO TIME SHALL A TIE BAR CROSS A JOINT (ALREADY FORMED OR PROPOSED) IN THE VICINITY OF THE ISOLATION BOX. IF THIS SITUATION OCCURS, THE TIE BAR SHALL BE ADJUSTED PARALLEL TO THE AXIS OF THE BAR SO THAT THE END OF THE BAR IS NO CLOSER THAN 1 1/2" TO THE JOINT.

ONLY BY THE DIRECTION OR APPROVAL OF THE COMMISSIONER SHALL THE DISTANCE BETWEEN THE UPPER EXTERNAL CASTING EDGE AND THE EDGE OF STANDARD ISOLATION BOX, SHOWN AS 12", BE INCREASED SO THAT AN IMMOVABLE LONGITUDINAL JOINT AND (OR) TRAVERSE JOINT WILL THEN THENCE FORM (O) SIDE (S) OF THE BOX. THIS ADJUSTMENT WILL BE ALLOWED ONLY WHEN THE DISTANCE BETWEEN THE SIDE OF THE STANDARD ISOLATION BOX AND IMMOVABLE JOINT IS 18" OR LESS.

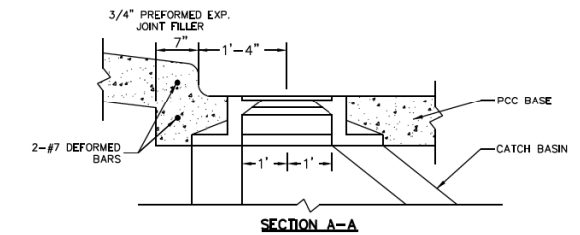
BACKFILL MATERIAL AROUND STRUCTURE WILL BE COMPACTED TO 95% MODIFIED PROCTOR PRIOR TO THE PLACEMENT OF CONCRETE WITHIN THE ISOLATION BOX.

	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	DETAILS OF STRUCTURE CASTING ISOLATION BOX		
			DATE	SHEET	DRAWN BY
			12/21/06	A-2-10A	CDOT



NOTES:

- STRUCTURE CASTING MAY BE ROUND OR RECTANGULAR.
- CONCRETE WITHIN THE ISOLATION BOX WILL BE OF THE SAME TYPE AND THICKNESS AS CONCRETE IN THE ADJACENT PAVEMENT.



	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	DETAILS OF STRUCTURE CASTING ISOLATION BOX FOR P.C.C. PAVEMENT AND BASE COURSE		
			DATE	SHEET	DRAWN BY
			12/22/06	A-2-10B	CDOT



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 PLOT DATE = 2/18/2014

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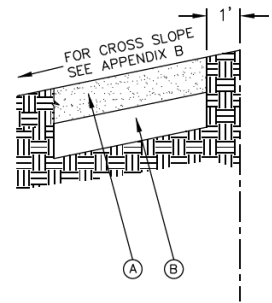
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CHICAGO DEPARTMENT OF TRANSPORTATION
 STANDARD DETAILS

SCALE: NTS SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	238
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

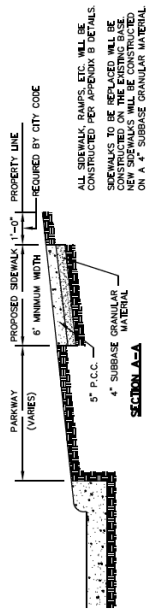
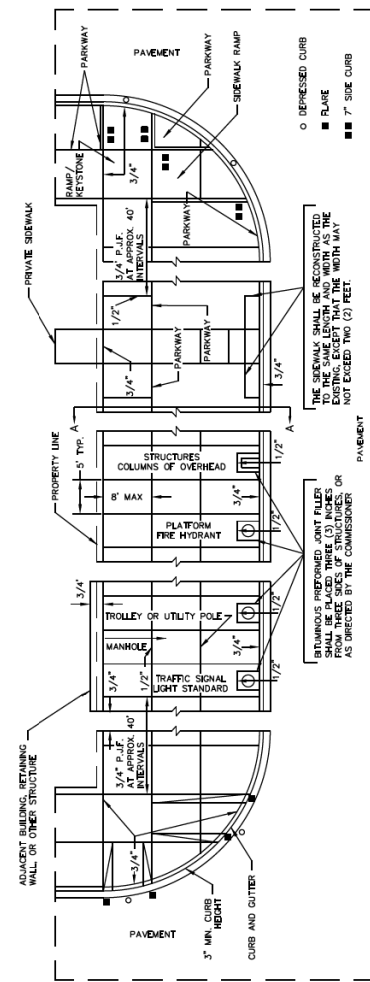
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LEGEND:

- (A) PROPOSED 5" P.C.C. SIDEWALK *
 - (B) SUBBASE GRANULAR MATERIAL, TYPE B OR C, 4"
- * CURB RAMP & KEYSTONE 8" P.C.C. AT SIGNALIZED AND INDUSTRIAL STREET INTERSECTIONS

 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	ADA COMPLIANT SIDEWALK CONSTRUCTION DETAILS		
	DATE	SHEET	DRAWN BY		
	12/20/06	A-3-1	CDOT		



 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	DETAILS OF PORTLAND CEMENT CONCRETE CONSTRUCTION		
	DATE	SHEET	DRAWN BY		
	12/22/06	A-3-2	CDOT		



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 PLOT DATE = 2/18/2014

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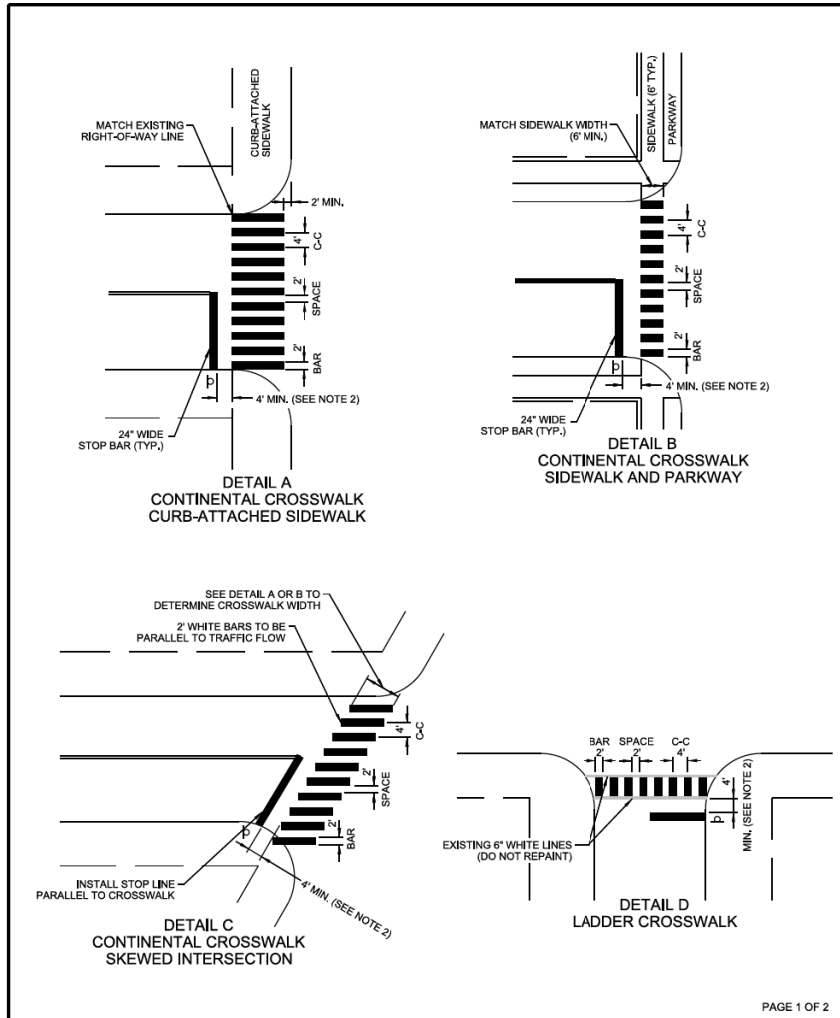
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CHICAGO DEPARTMENT OF TRANSPORTATION
 STANDARD DETAILS

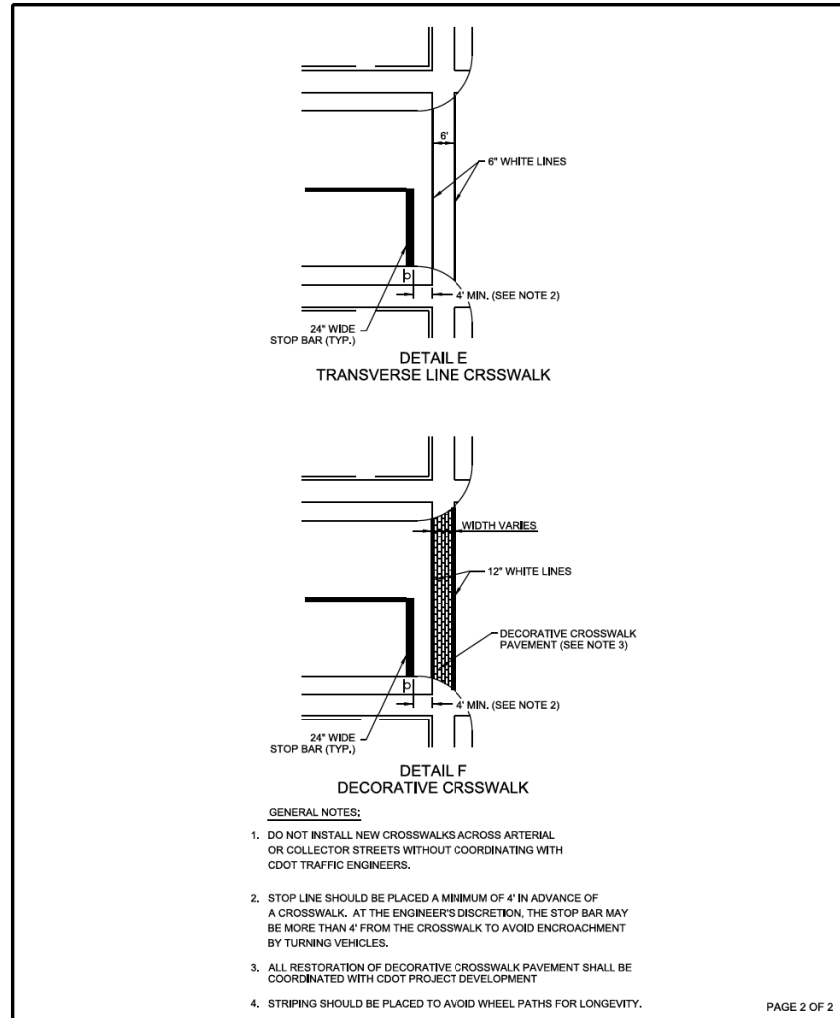
SCALE: NTS SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	239
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

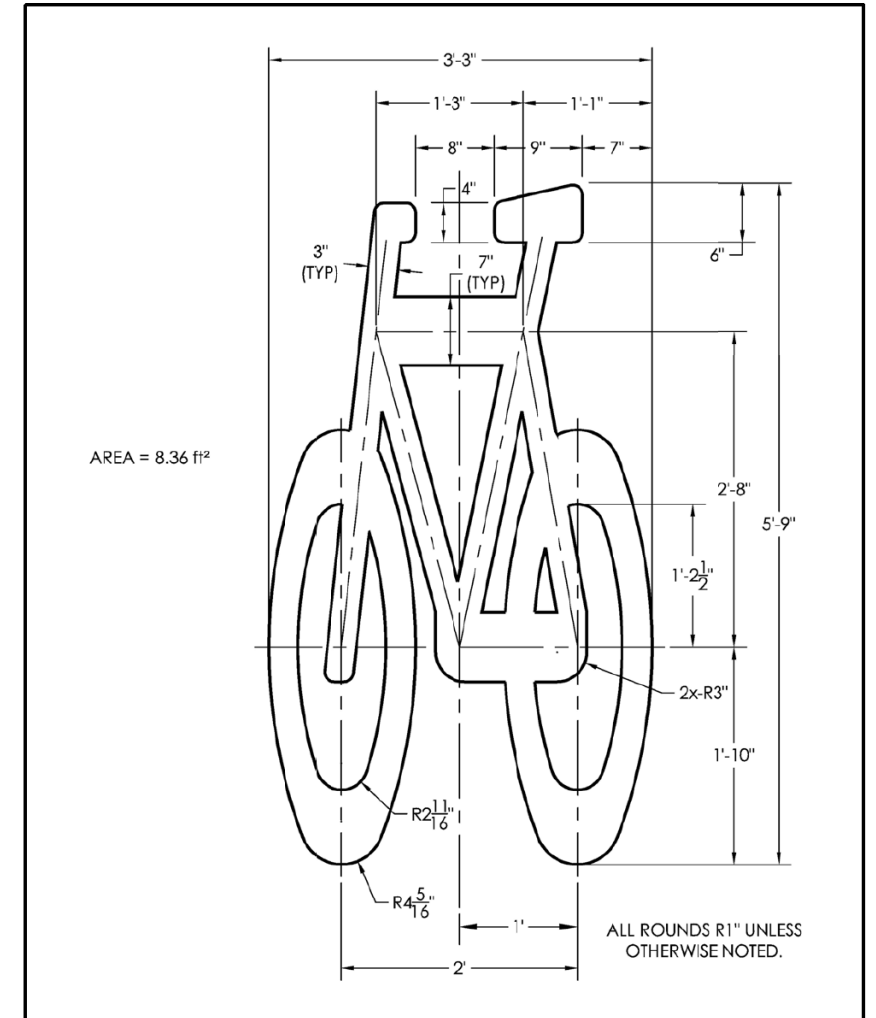
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CDOT CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	CROSSWALK MARKING DETAIL		
	DATE	SHEET	DRAWN BY		
	06/25/12	A-7-1A	CDOT		



CDOT CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	CROSSWALK MARKING DETAIL		
	DATE	SHEET	DRAWN BY		
	06/25/12	A-7-1B	CDOT		



CDOT CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	6' BIKE SYMBOL		
	DATE	SHEET	DRAWN BY		
	06/25/12	A-7-2	CDOT		



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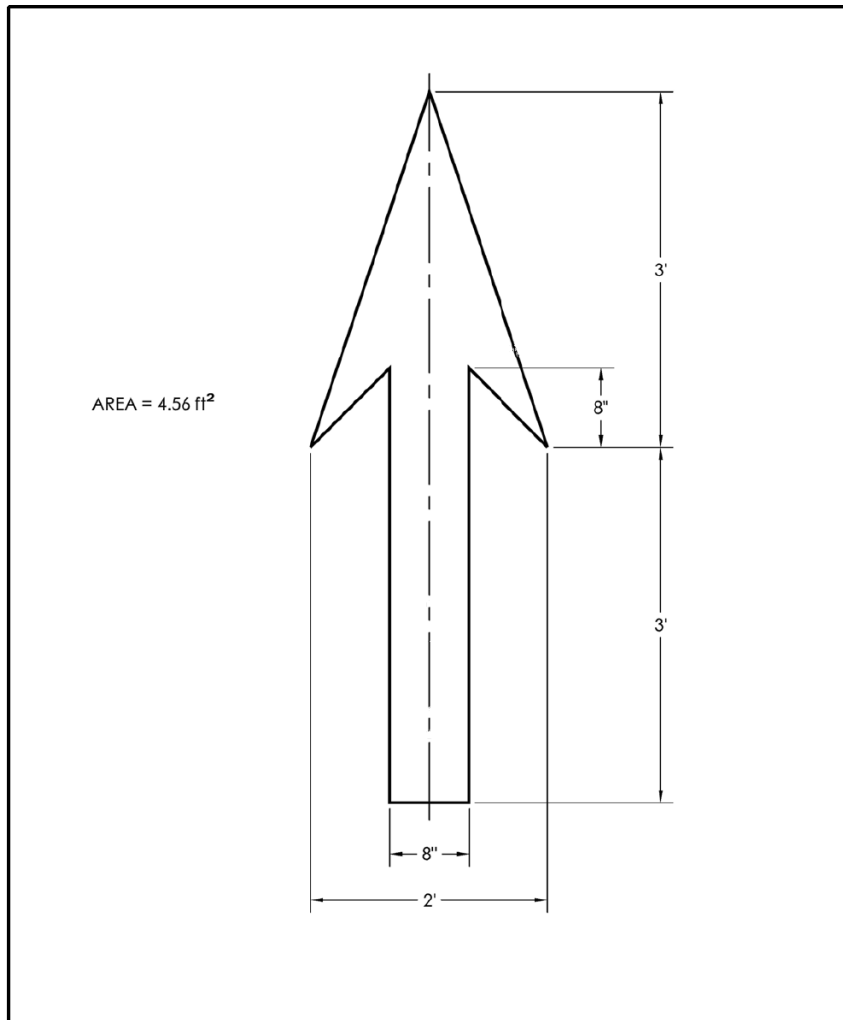
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHICAGO DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS

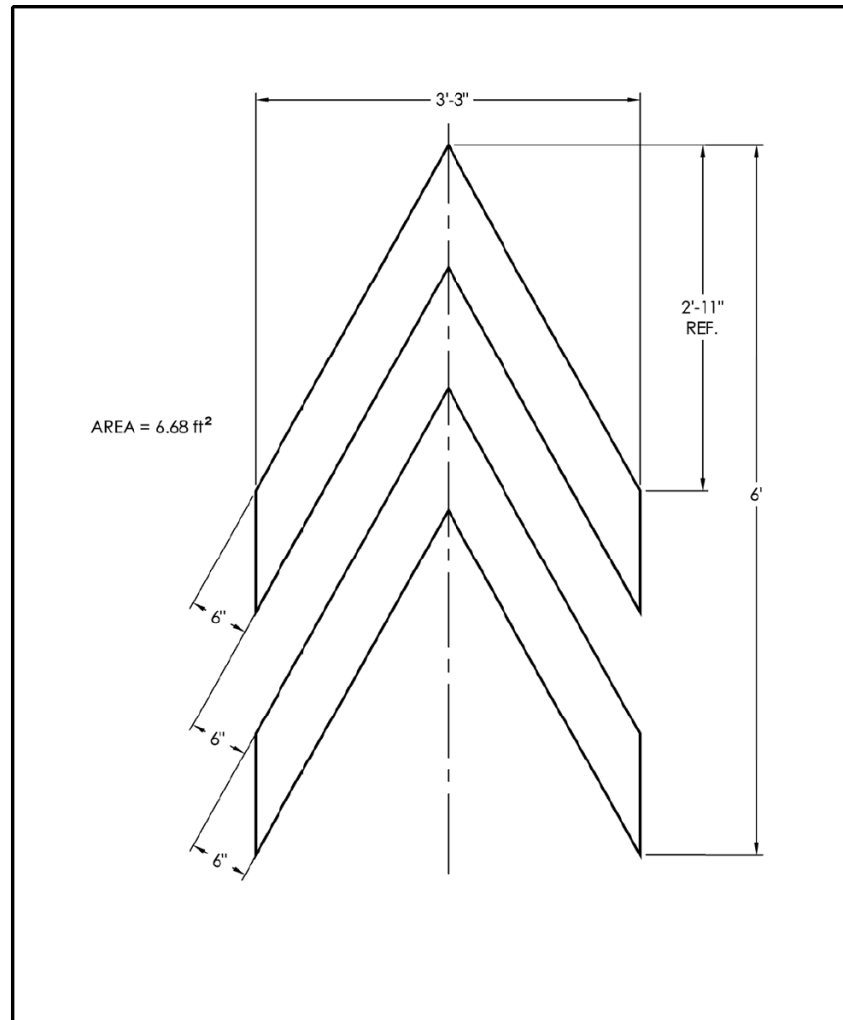
SCALE: NTS SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	240
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

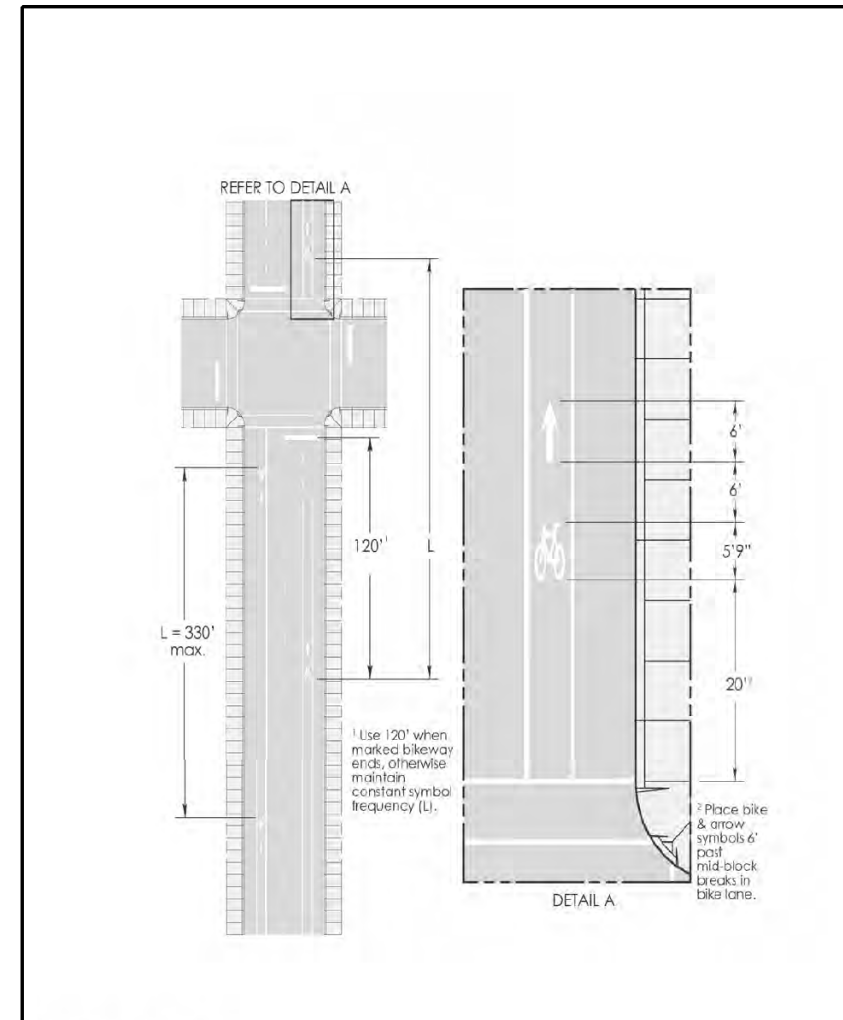
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 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	BIKE ARROW		
			DATE	SHEET	DRAWN BY
			06/25/12	A-7-4	CDOT



 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	BIKE CHEVRON		
			DATE	SHEET	DRAWN BY
			06/25/12	A-7-6	CDOT



 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	BIKE AND ARROW SYMBOL SPACING		
			DATE	SHEET	DRAWN BY
			09/02/05	A-7-10	CDOT



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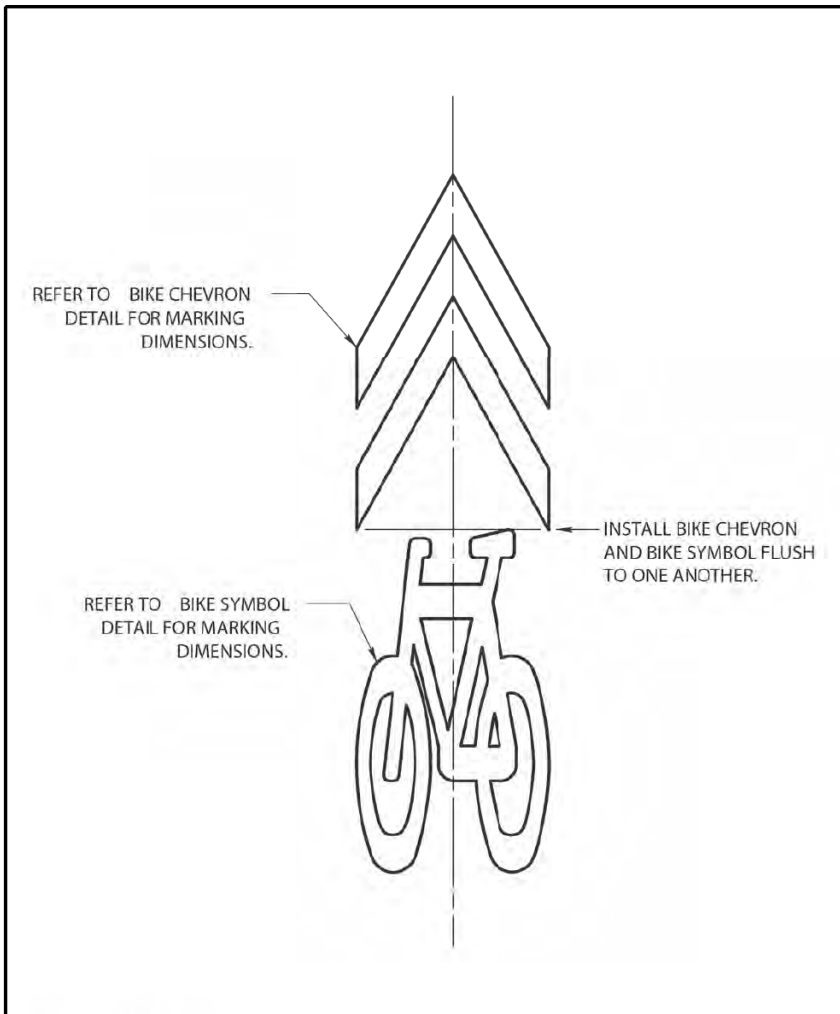
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


CHICAGO DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS

SCALE: NTS SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	241
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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 CHICAGO DEPARTMENT OF TRANSPORTATION	DATE	REVISION	CITY OF CHICAGO		
	1/1/2014	REVISION 1	SHARED LANE MARKING		
			DATE	SHEET	DRAWN BY
		10/02/07	A-7-11	CDOT	



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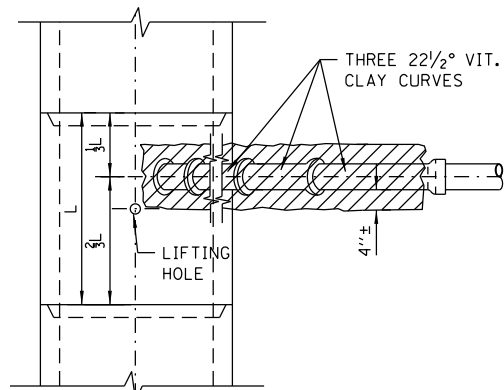
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

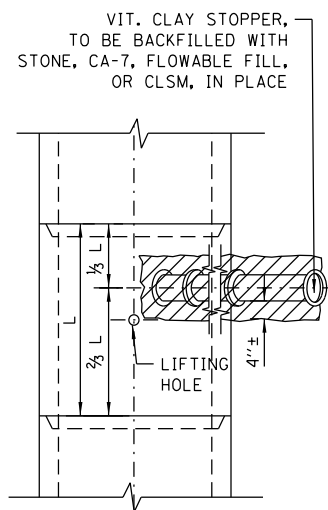
CHICAGO DEPARTMENT OF TRANSPORTATION
 STANDARD DETAILS

SCALE: NTS SHEET 6 OF 6 SHEETS STA. TO STA.

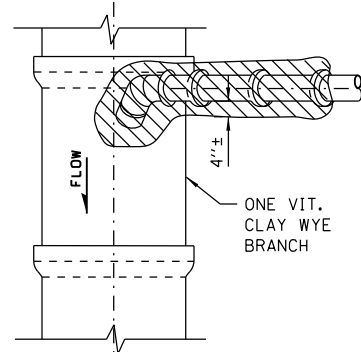
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	242
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				



PLAN

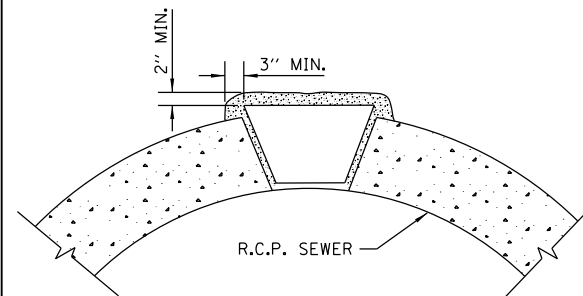


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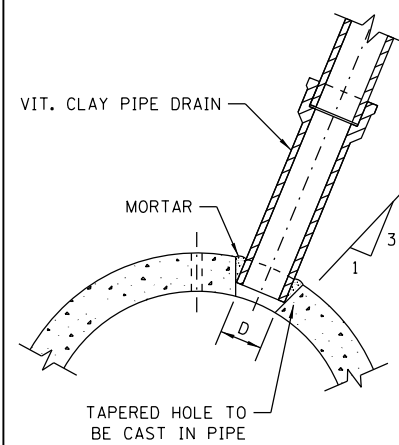


PLAN

NOTE:
PLUG TO BE COATED WITH MORTAR AND
DRIVEN INTO PLACE WITH A WOODEN
MALLET AND THEN SEALED WITH MORTAR.

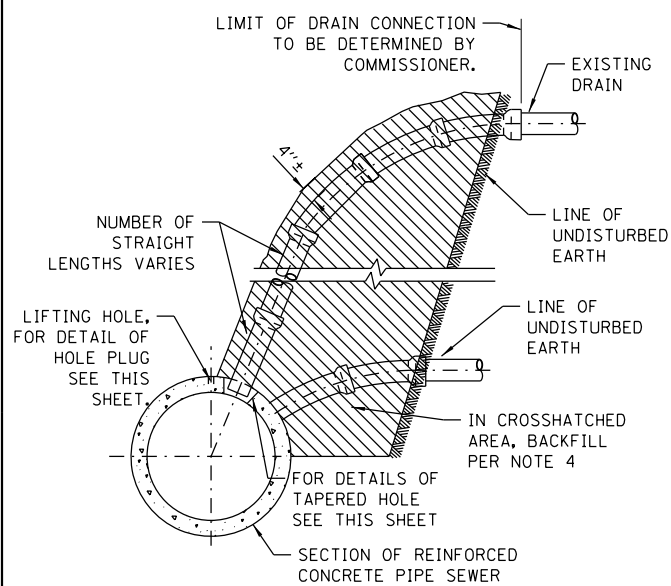


LIFTING HOLE PLUG DETAIL
FOR CONCRETE PIPE



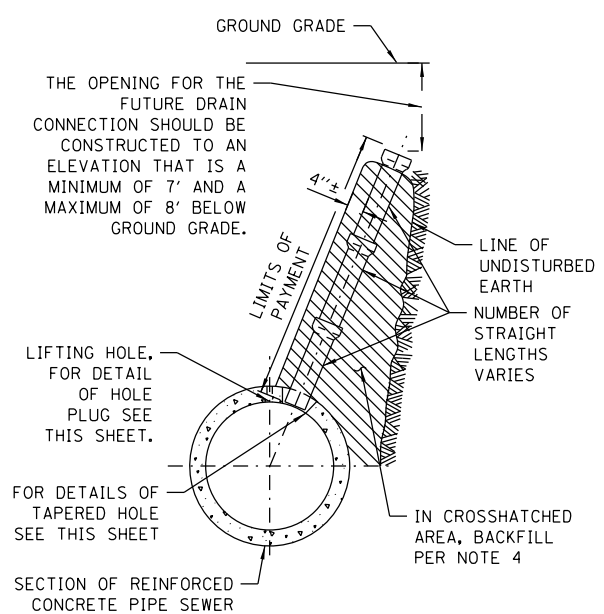
DETAIL OF TAPERED HOLE

SIZE OF DRAIN	"D"
6"	6 7/8"
8"	9 1/8"
10"	11 1/8"
12"	13 1/2"
15"	17"
18"	20 1/4"
21"	23 7/8"
24"	27 1/4"



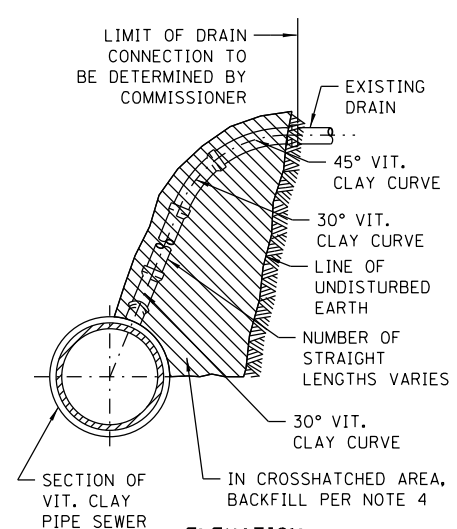
ELEVATION

TYPICAL DRAIN CONNECTIONS
FOR EXISTING DRAINS



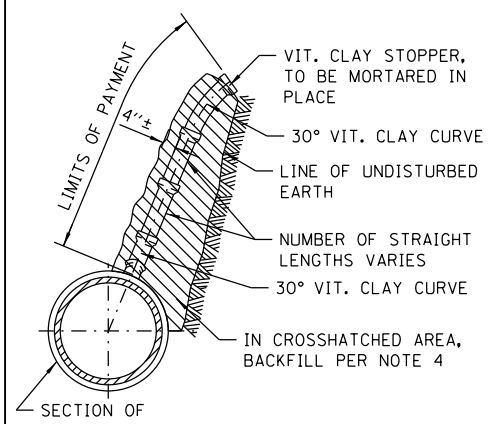
ELEVATION

TYPICAL DRAIN STACKS
FOR FUTURE USE



ELEVATION

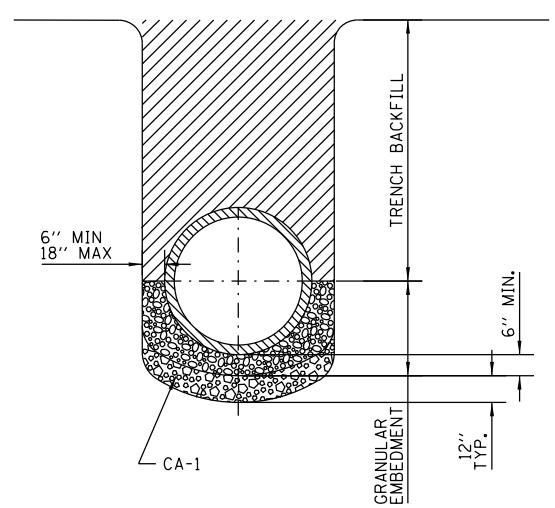
TYPICAL DRAIN
CONNECTIONS FOR
EXISTING DRAINS



ELEVATION

TYPICAL DRAIN STACKS
FOR FUTURE USE

NOTE:
GRANULAR MATERIAL WILL BE USED AS BEDDING FOR
ALL PIPE SEWERS; SEE SPECIFICATIONS, BOOK 3,



DETAIL OF GRANULAR
EMBANKMENT AND STABILIZATION
FOR PIPE SEWERS

NOTES:
FOR STABILIZATION OF TRENCH BOTTOM AND
PROVISIONS RELATING TO TRENCH BOX SUPPORT
SEE SPECIFICATIONS, BOOK 3

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

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	APPROVED PLAN

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES	
VITRIFIED CLAY PIPE DRAIN CONNECTIONS	

DRAWN: SDB	DESIGNED: SDB	CHECKED: CD, CC, SO	REVIEWED:



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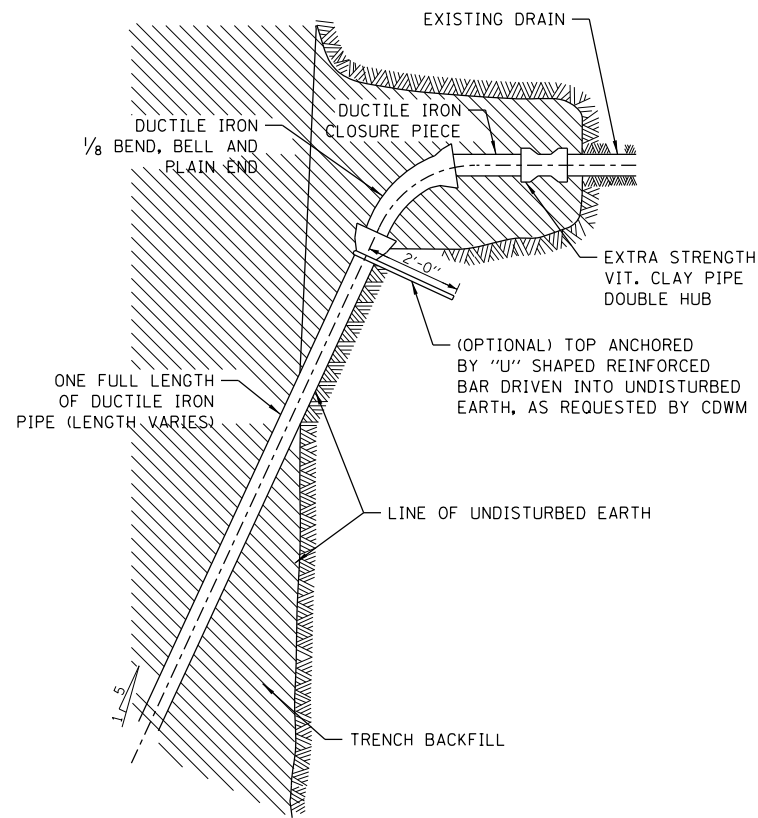
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

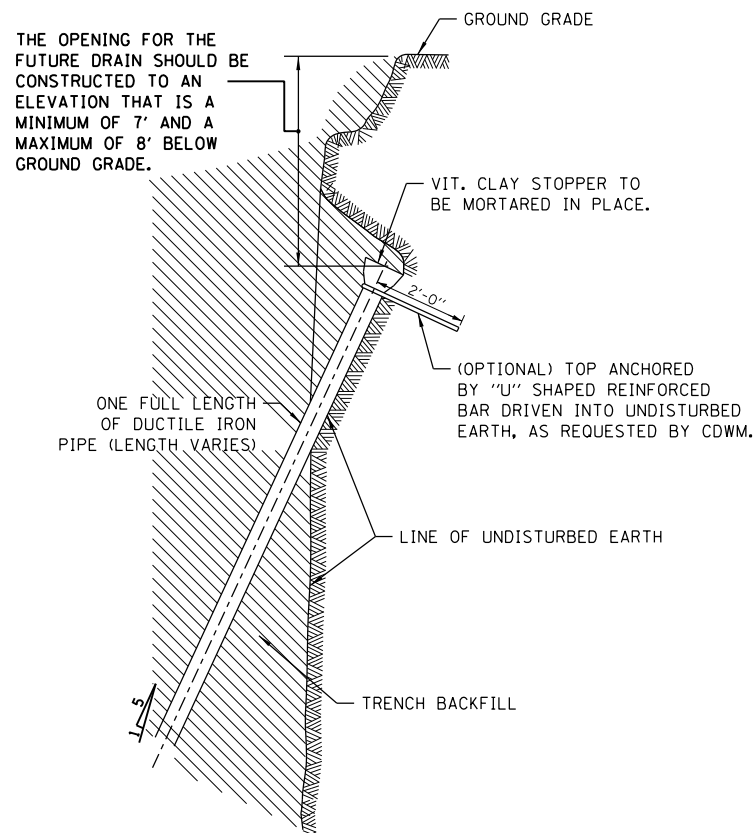
CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS
SCALE: NTS SHEET 1 OF 12 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	243
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

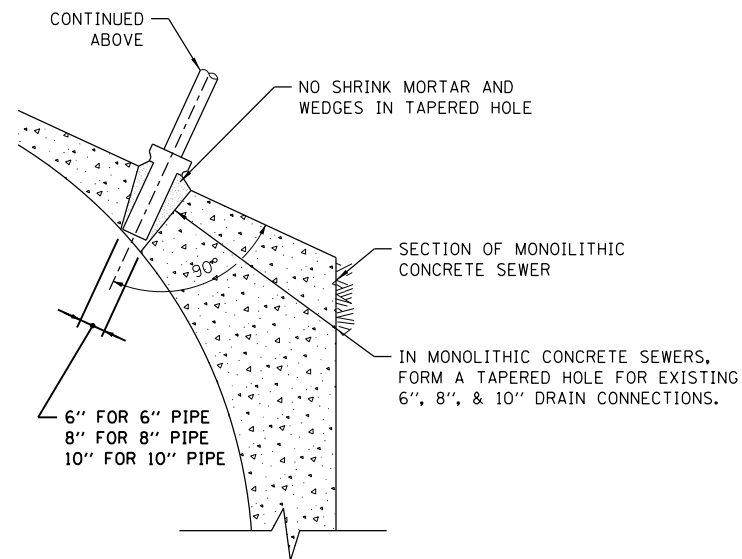
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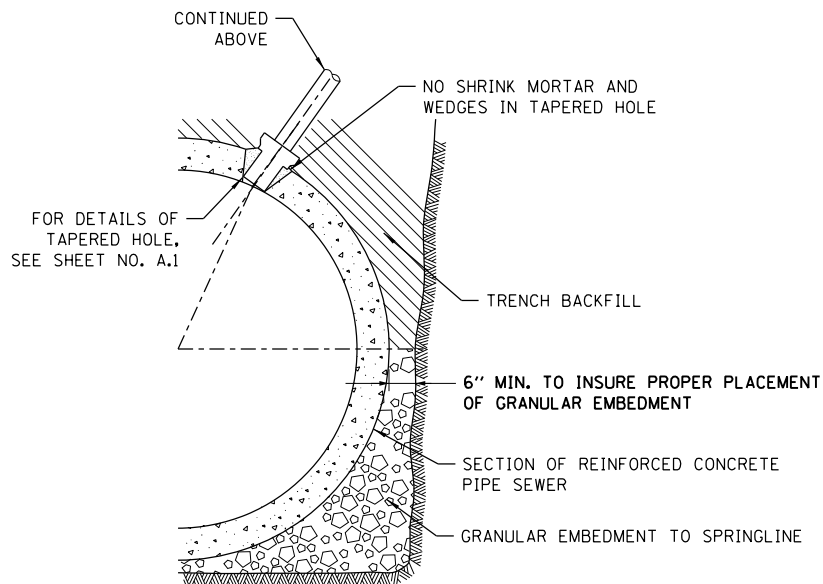
TYPICAL DRAIN CONNECTIONS FOR EXISTING DRAINS



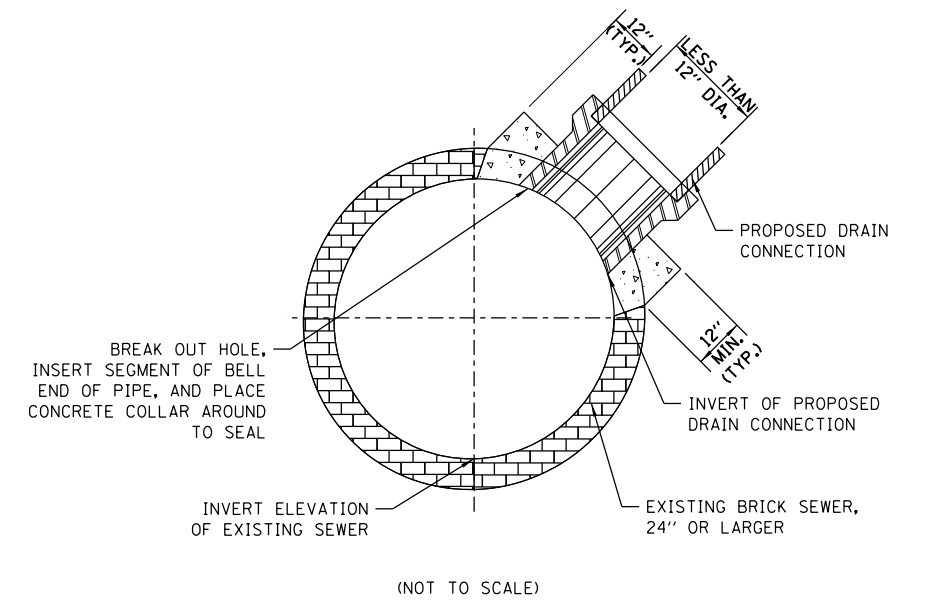
TYPICAL DRAIN STACKS FOR FUTURE USE



FOR MONOLITHIC CONCRETE SEWERS



FOR REINFORCED CONCRETE PIPE SEWERS



FOR BRICK SEWERS

DUCTILE IRON PIPE DRAIN CONNECTIONS

BRICK SEWER DRAIN CONNECTIONS

- NOTES:
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.1.
 4. FOR ALL GRANULAR EMBANKMENT, USE CA-7 OR CA11.

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	APPROVED PLAN

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES		DRAWN: SDB DESIGNED: CHECKED: REVIEWED: A.2
DUCTILE IRON PIPE DRAIN CONNECTIONS		OF PN



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DATE - 02/19/14

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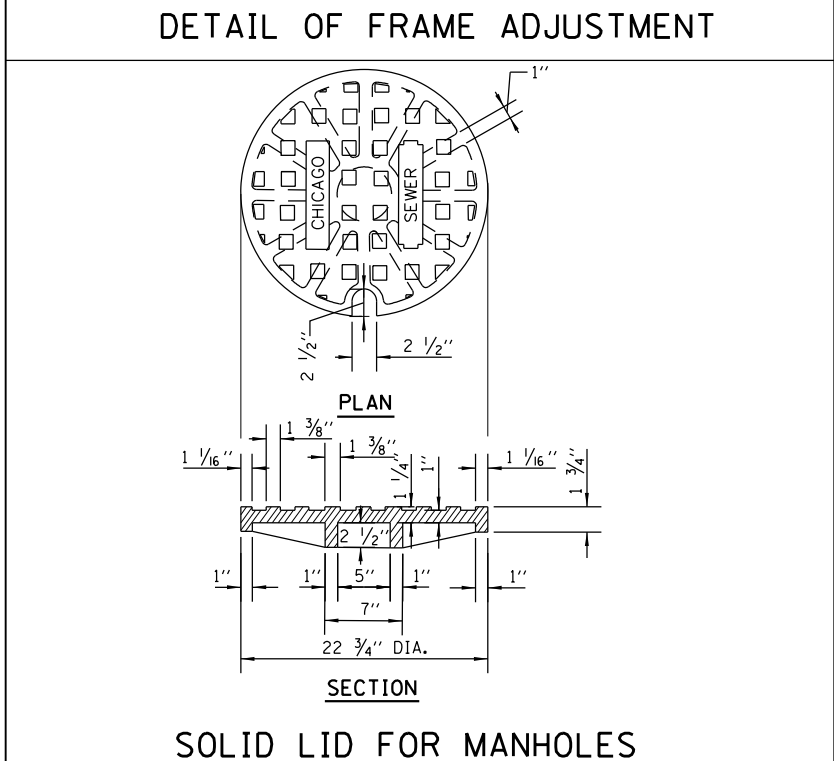
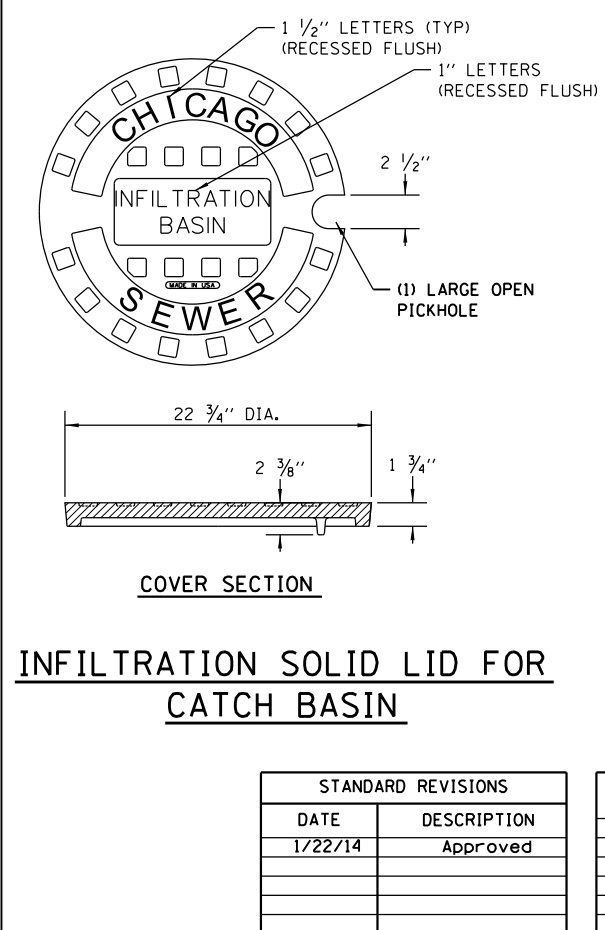
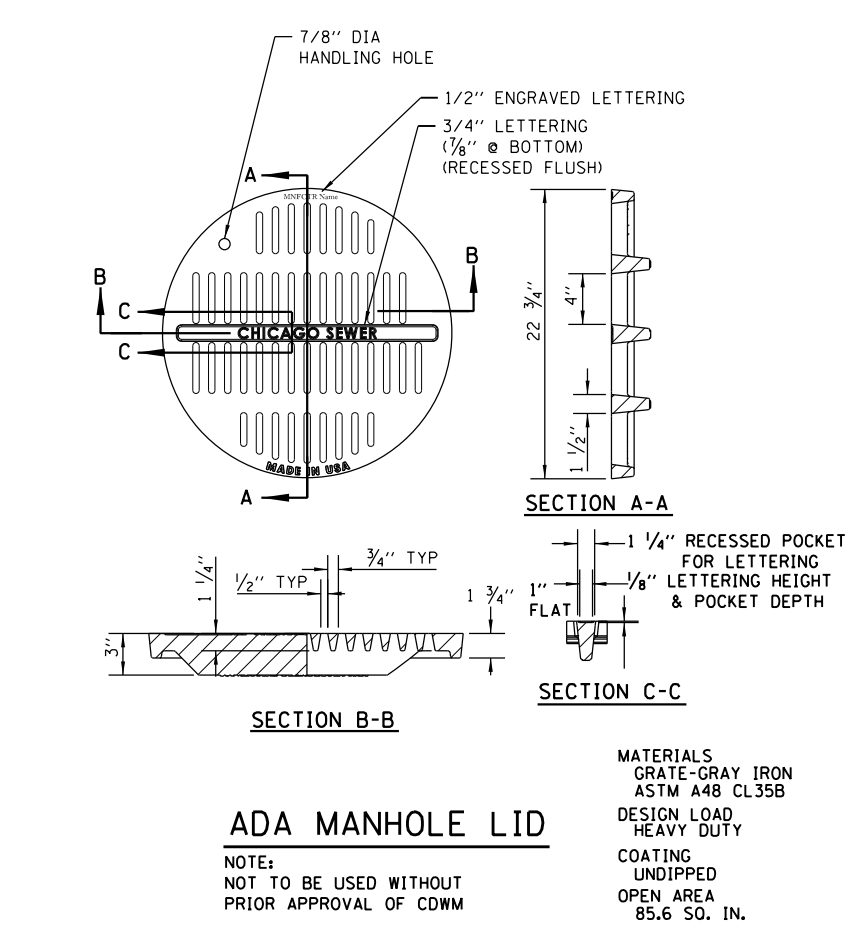
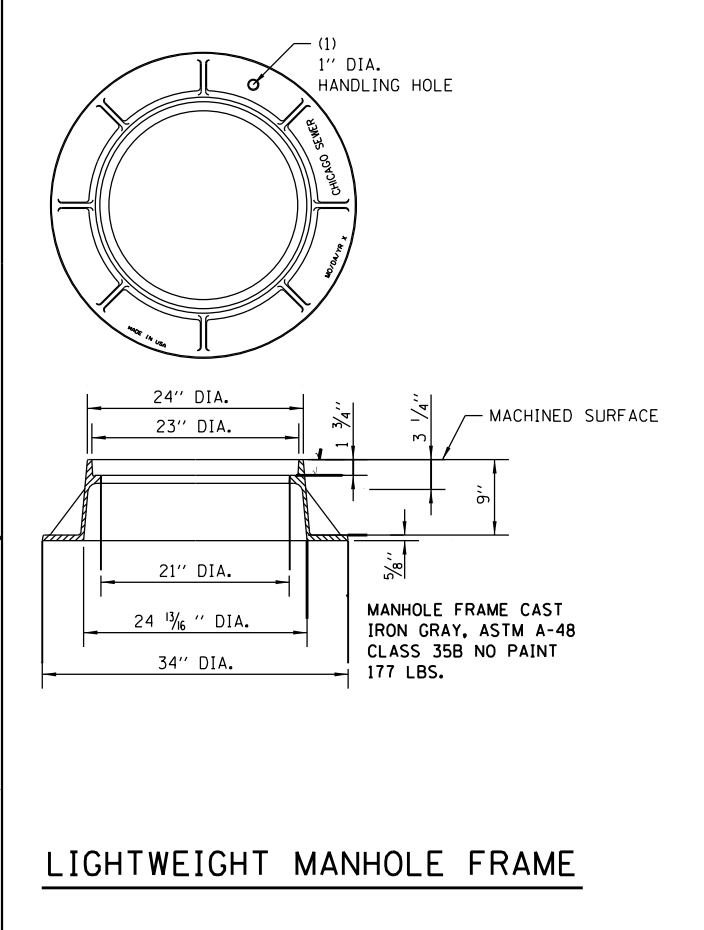
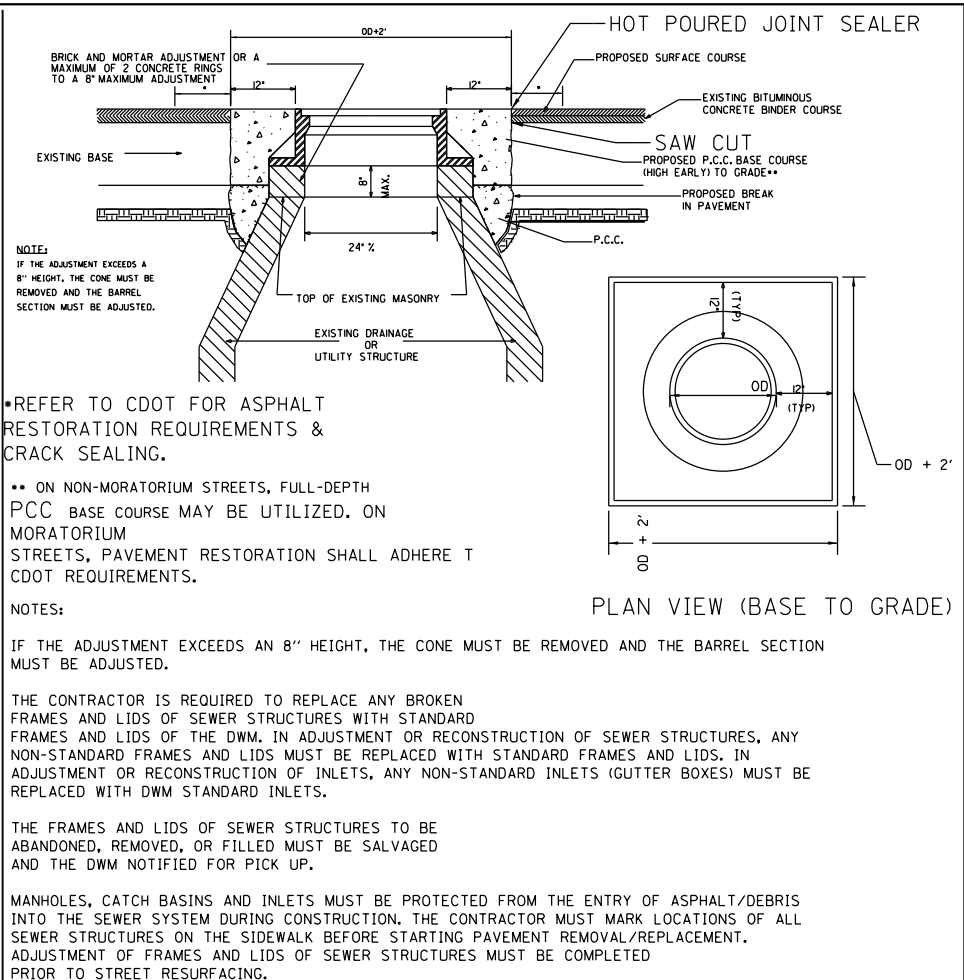
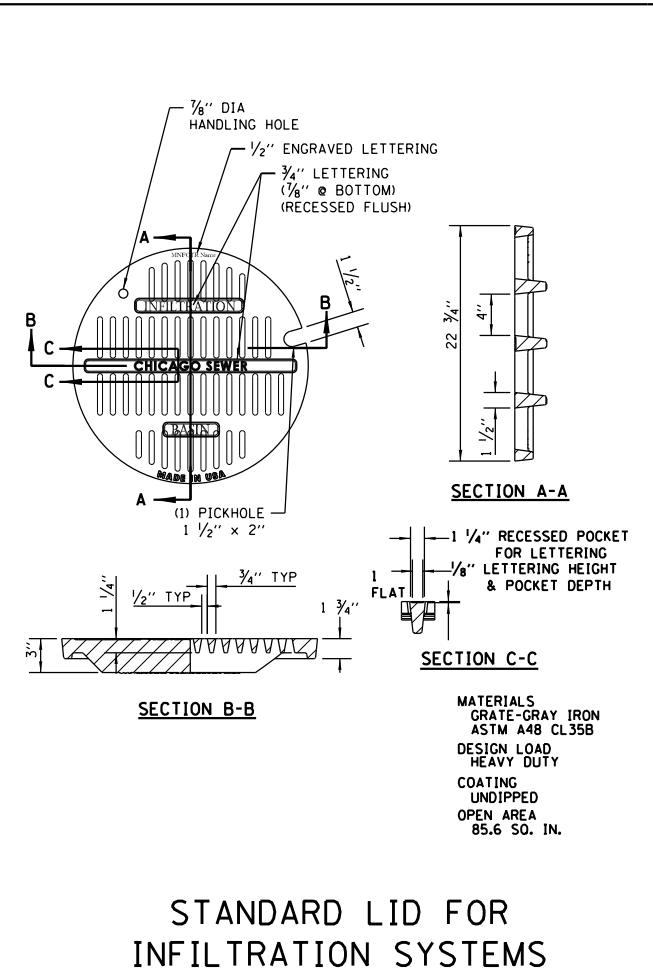
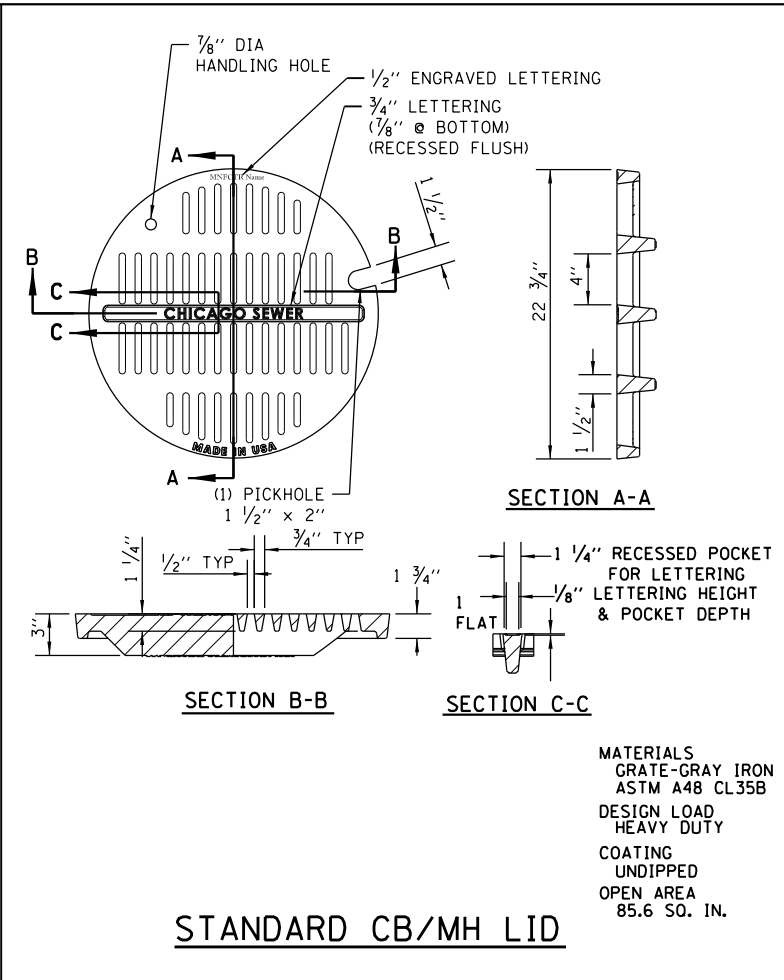
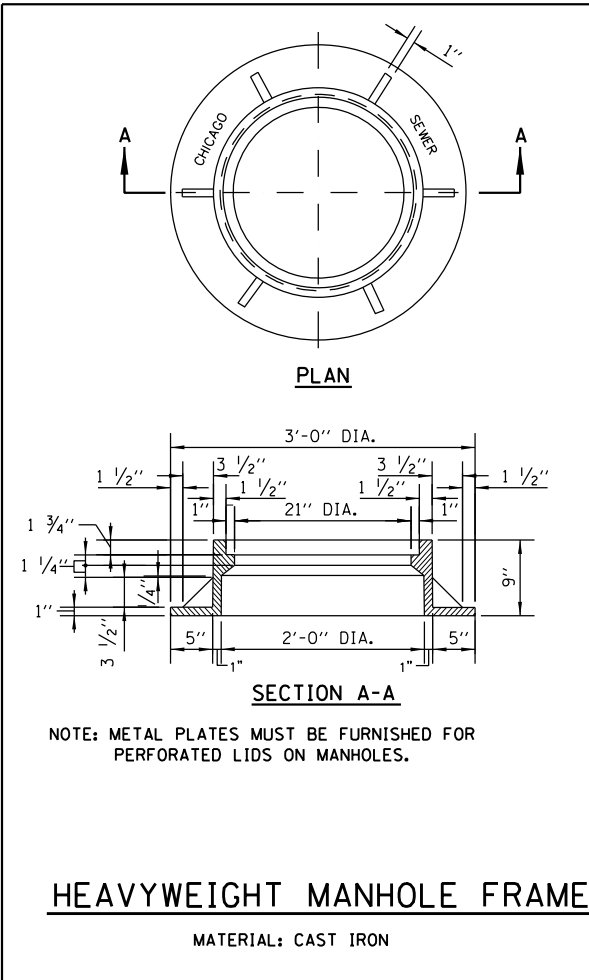
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

SCALE: NTS SHEET 2 OF 12 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 244
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	Approved

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES		DRAWN: SDB	A.3
MANHOLE LIDS AND FRAMES		CHECKED: GC, CC, SO	
		REVIEWED:	
			OF
			PN



D160W71-sht-CDWM-Detail-03.dgn
USER NAME = chhua
PLOT SCALE = 2.0000' / in.
PLOT DATE = 2/18/2014

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 02/19/14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

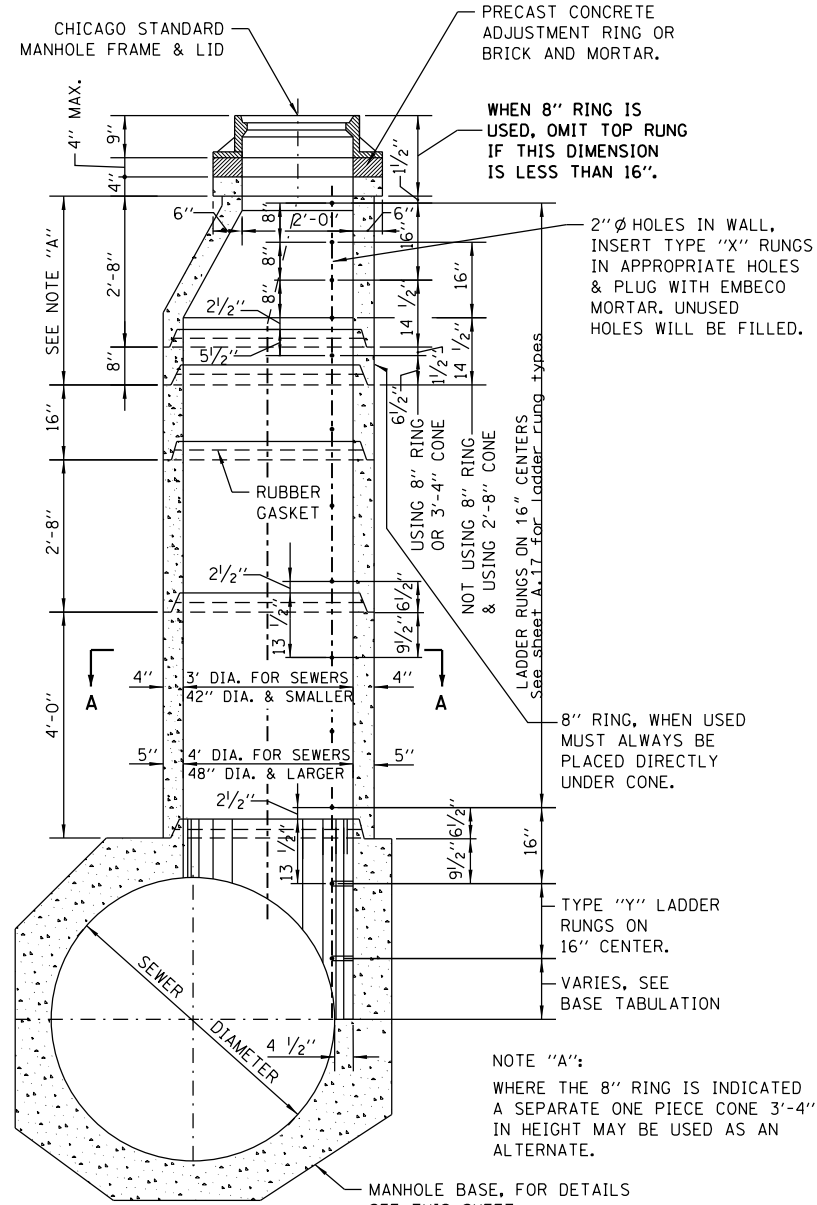
CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

SCALE: NTS SHEET 3 OF 12 SHEETS STA. TO STA.

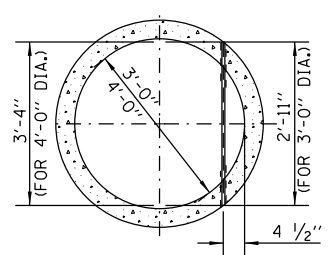
F.A.I. RTE. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 245
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

NUMBER OF PRECAST RINGS REQUIRED FOR MANHOLES OF VARIOUS HEIGHTS

TOTAL HEIGHT "H"	9" FRAME ±2'-8" CORBEL ±3'-5"	PRECAST RINGS				BRICK AND/OR MORTAR	TOTAL HEIGHT "H"	9" FRAME ±2'-8" CORBEL ±3'-5"	PRECAST RINGS				BRICK AND/OR MORTAR						
		4'-0"	2'-8"	1'-4"	8"				4'-0"	2'-8"	1'-4"	8"							
5'-0"	3'-5"					3"	12'-0"	3'-5"				3"	19'-0"	3'-5"					3"
1"						4"	1"				4"	1"	4"	1"					4"
2"						1"	2"				1"	2"	1"	2"					1"
3"						2"	3"				2"	3"	2"	3"					2"
4"						3"	4"				3"	4"	3"	4"					3"
5"						4"	5"				4"	5"	4"	5"					4"
6"						5"	6"				5"	6"	5"	6"					5"
7"						6"	7"				6"	7"	6"	7"					6"
8"						7"	8"				7"	8"	7"	8"					7"
9"						8"	9"				8"	9"	8"	9"					8"
10"						9"	10"				9"	10"	9"	10"					9"
11"						10"	11"				10"	11"	10"	11"					10"
12"						11"	12"				11"	12"	11"	12"					11"
13"						12"	13"				12"	13"	12"	13"					12"
14"						13"	14"				13"	14"	13"	14"					13"
15"						14"	15"				14"	15"	14"	15"					14"
16"						15"	16"				15"	16"	15"	16"					15"
17"						16"	17"				16"	17"	16"	17"					16"
18"						17"	18"				17"	18"	17"	18"					17"
19"						18"	19"				18"	19"	18"	19"					18"
20"						19"	20"				19"	20"	19"	20"					19"
21"						20"	21"				20"	21"	20"	21"					20"
22"						21"	22"				21"	22"	21"	22"					21"
23"						22"	23"				22"	23"	22"	23"					22"
24"						23"	24"				23"	24"	23"	24"					23"
25"						24"	25"				24"	25"	24"	25"					24"
26"						25"	26"				25"	26"	25"	26"					25"
27"						26"	27"				26"	27"	26"	27"					26"
28"						27"	28"				27"	28"	27"	28"					27"
29"						28"	29"				28"	29"	28"	29"					28"
30"						29"	30"				29"	30"	29"	30"					29"
31"						30"	31"				30"	31"	30"	31"					30"
32"						31"	32"				31"	32"	31"	32"					31"
33"						32"	33"				32"	33"	32"	33"					32"
34"						33"	34"				33"	34"	33"	34"					33"
35"						34"	35"				34"	35"	34"	35"					34"
36"						35"	36"				35"	36"	35"	36"					35"
37"						36"	37"				36"	37"	36"	37"					36"
38"						37"	38"				37"	38"	37"	38"					37"
39"						38"	39"				38"	39"	38"	39"					38"
40"						39"	40"				39"	40"	39"	40"					39"
41"						40"	41"				40"	41"	40"	41"					40"
42"						41"	42"				41"	42"	41"	42"					41"
43"						42"	43"				42"	43"	42"	43"					42"
44"						43"	44"				43"	44"	43"	44"					43"
45"						44"	45"				44"	45"	44"	45"					44"
46"						45"	46"				45"	46"	45"	46"					45"
47"						46"	47"				46"	47"	46"	47"					46"
48"						47"	48"				47"	48"	47"	48"					47"
49"						48"	49"				48"	49"	48"	49"					48"
50"						49"	50"				49"	50"	49"	50"					49"
51"						50"	51"				50"	51"	50"	51"					50"
52"						51"	52"				51"	52"	51"	52"					51"
53"						52"	53"				52"	53"	52"	53"					52"
54"						53"	54"				53"	54"	53"	54"					53"
55"						54"	55"				54"	55"	54"	55"					54"
56"						55"	56"				55"	56"	55"	56"					55"
57"						56"	57"				56"	57"	56"	57"					56"
58"						57"	58"				57"	58"	57"	58"					57"
59"						58"	59"				58"	59"	58"	59"					58"
60"						59"	60"				59"	60"	59"	60"					59"
61"						60"	61"				60"	61"	60"	61"					60"
62"						61"	62"				61"	62"	61"	62"					61"
63"						62"	63"				62"	63"	62"	63"					62"
64"						63"	64"				63"	64"	63"	64"					63"
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66"						65"	66"				65"	66"	65"	66"					65"
67"						66"	67"				66"	67"	66"	67"					66"
68"						67"	68"				67"	68"	67"	68"					67"
69"						68"	69"				68"	69"	68"	69"					68"
70"						69"	70"				69"	70"	69"	70"					69"
71"						70"	71"				70"	71"	70"	71"					70"
72"						71"	72"				71"	72"	71"	72"					71"
73"						72"	73"				72"	73"	72"	73"					72"
74"						73"	74"				73"	74"	73"	74"					73"
75"						74"	75"				74"	75"	74"	75"					74"
76"						75"	76"				75"	76"	75"	76"					75"
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82"						81"	82"				81"	82"	81"	82"					81"
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86"						85"	86"				85"	86"	85"	86"					85"
87"						86"	87"				86"	87"	86"	87"					86"
88"						87"	88"				87"	88"	87"	88"					87"
89"						88"	89"				88"	89"	88"	89"					88"
90"						89"	90"				89"	90"	89"	90"					89"
91"						90"	91"				90"	91"	90"	91"					90"
92"						91"	92"				91"	92"	91"	92"					91"
93"						92"	93"				92"	93"	92"	93"					92"
94"						93"	94"				93"	94"	93"	94"					93"
95"						94"	95"				94"	95"	94"	95"					94"
96"						95"	96"				95"	96"	95"	96"					95"
97"						96"	97"				96"	97"	96"	97"					96"
98"						97"	98"				97"	98"	97"	98"					97"
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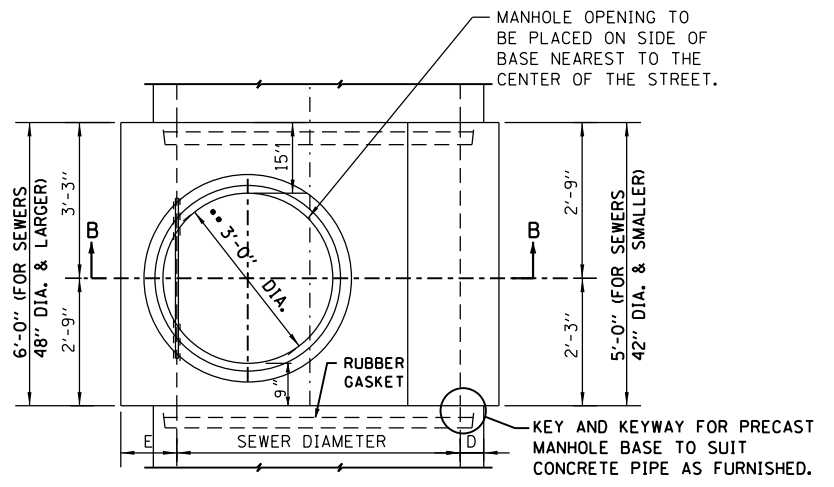


DETAIL OF PRECAST RINGS

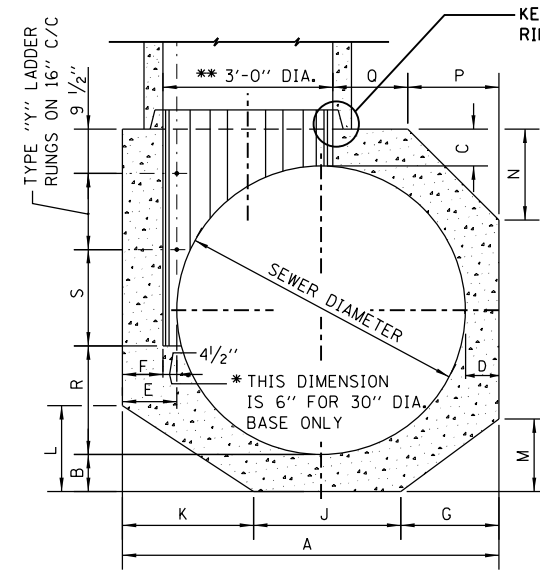


1"Ø LADDER RUNG, TYPE "X", LENGTH 2'-11" OR 3'-4" INSERTED INTO 2"Ø HOLE IN WALL & PLUGGED BY MFR. WITH EMBECO MORTAR.

SECTION A-A



PLAN

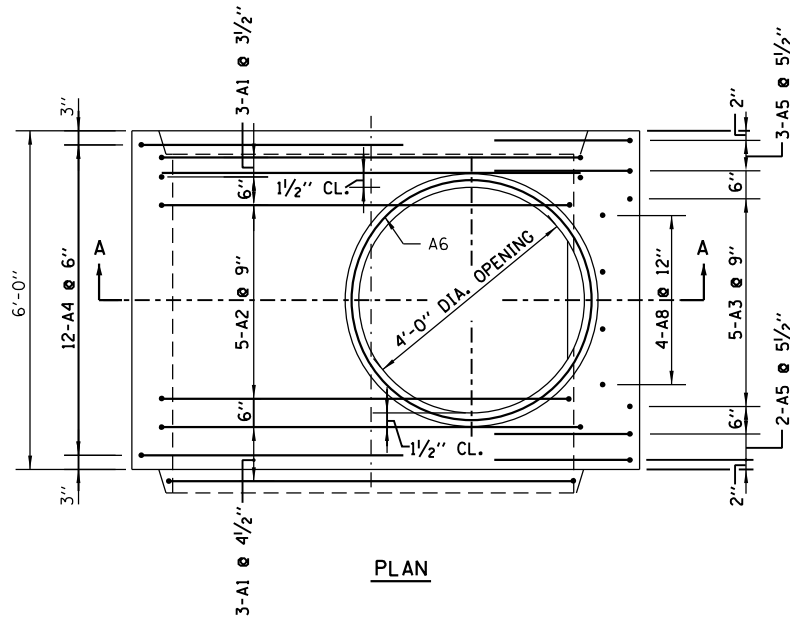


SECTION B-B

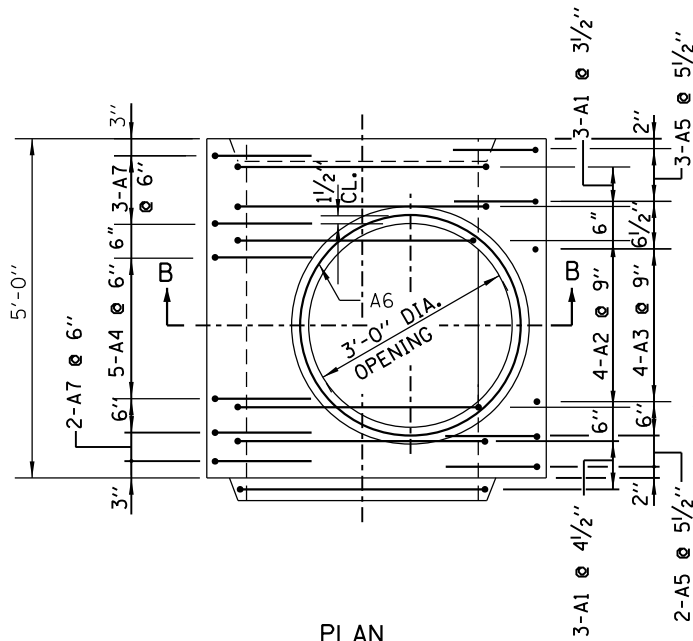
NOTES:
6" MINIMUM GRANULAR EMBEDMENT UNDER ALL PRECAST MANHOLE BASES
• THIS DIMENSION IS 6" ON BOTH SIDES FOR A 24" DIA. BASE

DETAIL OF PRECAST BASE

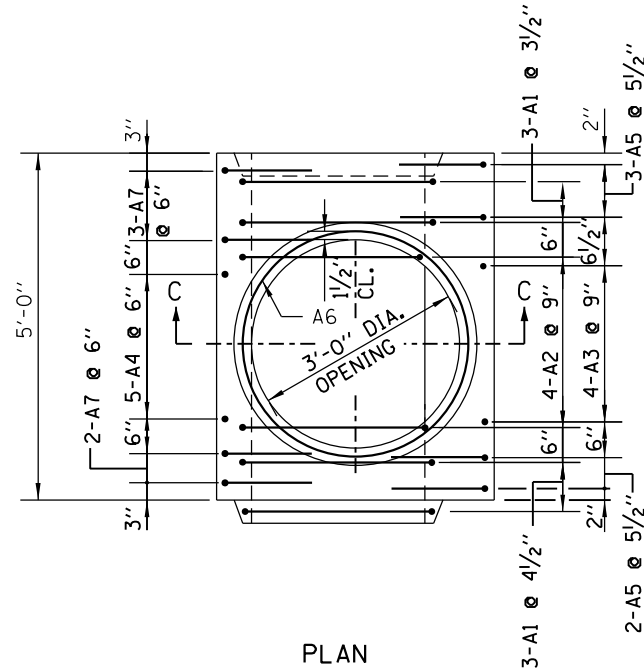
SEWER DIA.	PART OF ITEM	DIMENSIONS OF PRECAST MANHOLE BASE																NO. "Y" RUNGS
		A	B	C	D	E</												



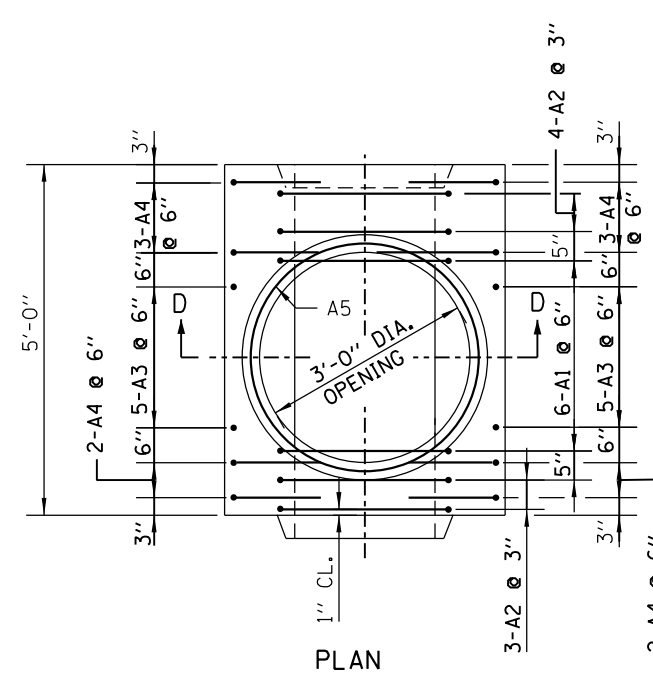
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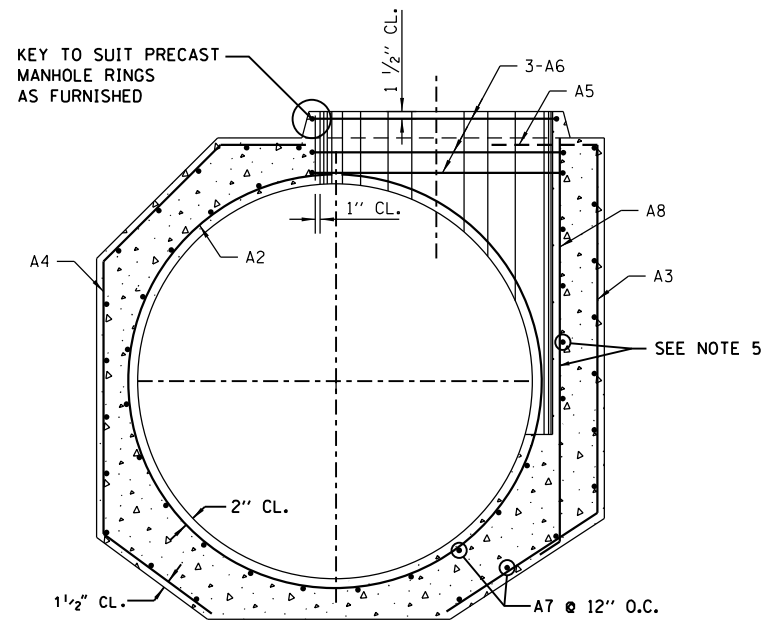
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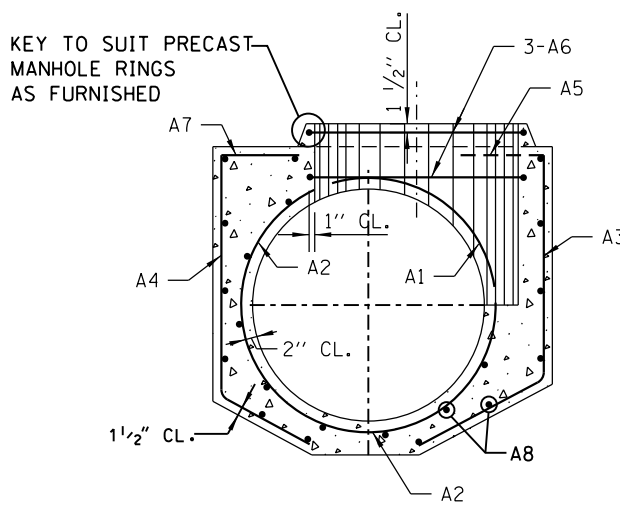
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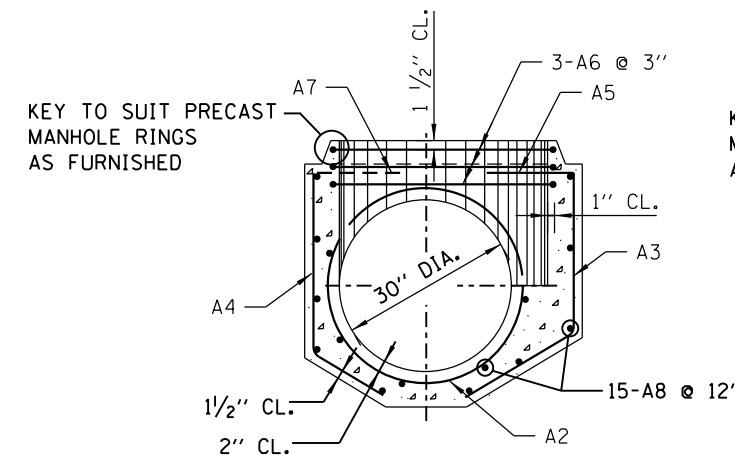
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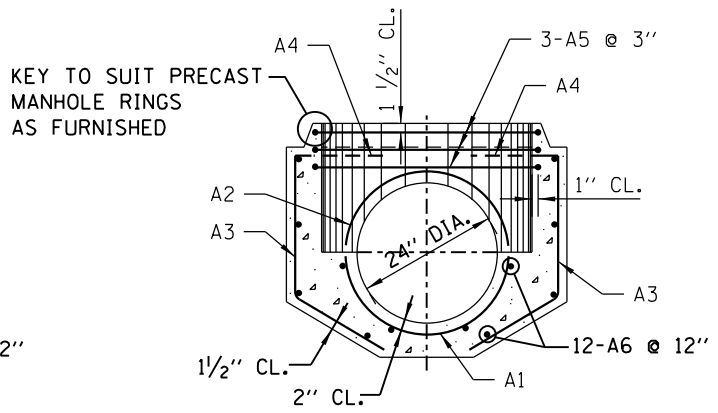
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

**MANHOLE BASE FOR SEWERS
48" DIA. TO 120" DIA. INCLUSIVE**

**MANHOLE BASE FOR SEWERS
36" DIA. AND 42" DIA.**

MANHOLE BASE FOR 30" DIA. SEWERS

MANHOLE BASE FOR 24" DIA. SEWERS

NOTES:
1. TWO LAYERS OF REINFORCEMENT FOR 66" DIA. MANHOLE AND OVER.

STANDARD REVISIONS	
DATE	DESCRIPTION
1/9/14	REVISION

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES				DRAWN: SDB DESIGNED: SDB CHECKED: SDB REVIEWED: SDB
REINFORCEMENT FOR TYPE "A" PRECAST MANHOLE BASES				A.5
OF				PN



D160W71-sht-CDWM-Detail-05.dgn
 USER NAME = chitue
 PLOT SCALE = 2.0000' / in.
 PLOT DATE = 2/18/2014

DESIGNED -		REVISED -	
DRAWN -		REVISED -	
CHECKED -		REVISED -	
DATE -	02/19/14	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS**

SCALE: NTS SHEET 5 OF 12 SHEETS STA. TO STA.

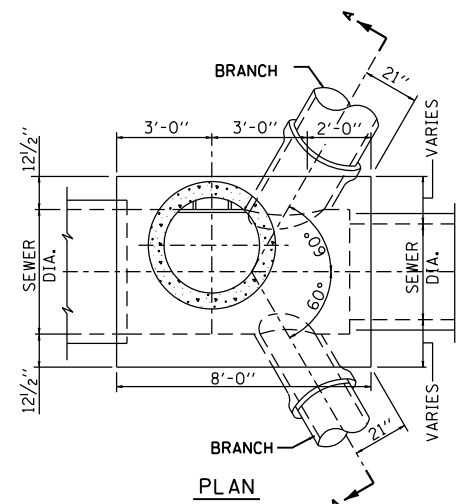
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	247
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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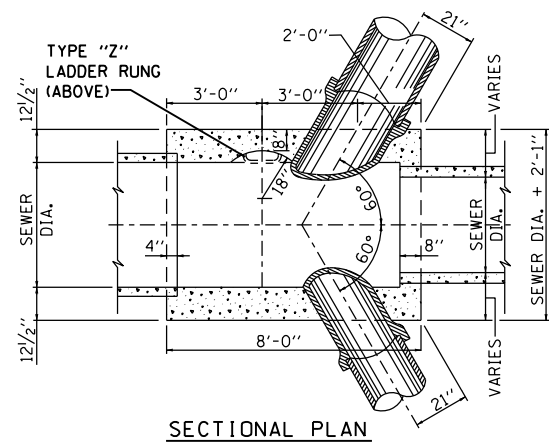
SCHEDULE OF REINFORCEMENT

STRUCTURE	REINFORCEMENT BAR					BENDING DIMENSIONS														
	MARK	SIZE NO.	TYPE	LENGTH	NO. REOD.	WEIGHT EACH	TOTAL	A	B	C	D	E	F	G	H	J	K	O	R	
BASES FOR TYPE "A" MANHOLES (Precast)	120A1	8	T3	35'-4 1/2"	6	94.51	567										2'-8"	10'-5"		
	120A2	7	T3	22'-5"	5	45.82	229		22'-5"								8'-0"	8'-7 1/2"	5'-2 1/2"	
	120A3	6	T3	14'-4 1/2"	5	21.61	108			9'-6 1/2"	4'-10"						2'-2 1/2"			
	120A4	7	D10	19'-0 1/2"	12	38.86	466	4'-6"	5'-11 1/2"	4'-10 1/4"	3'-8 1/2"	3'-10 1/4"	2'-3 1/2"				3'-5 1/2"			
	120A5	8	T3	17'-10 1/2"	5	47.76	239		3'-6"	9'-6 1/2"	4'-10"						2'-2 1/2"			
	120A6	5	T3	15'-1"	3	15.74	47										20"	4'-3/4"		
	120A7	4	STR.	5'-8"	66	3.79	250													
	120A8	5	T3	10'-9"	4	11.21	45			9'-9"	1'-0"						10 1/4"	6 1/4"		
	TOTAL						1951													
	108A1	7	T3	31'-11"	6	65.24	391											2'-4"	9'-5"	
108A2	6	T3	20'-2 1/2"	5	30.37	152		20'-2 1/2"									7'-2 1/2"	7'-9 3/4"	4'-8 1/2"	
108A3	6	T3	12'-9"	5	19.15	96			8'-5"	4'-4"							3'-8 1/2"	2'-2 1/2"		
108A4	7	D10	17'-0 1/2"	12	34.81	418	4'-1"	5'-6 1/2"	4'-5 1/4"	2'-11 1/2"	3'-6"	2'-11 1/2"				3'-1 1/2"	3'-1 1/2"			
108A5	7	T3	16'-0"	5	32.70	163		3'-3"	8'-5"	4'-4"							2'-2 1/2"			
108A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
108A7	4	STR.	5'-8"	62	3.79	234														
108A8	5	T3	9'-8"	4	10.09	40			8'-8"	1'-0"							10 1/4"	6 1/4"		
TOTAL						1541														
102A1	7	T3	30'-3"	6	61.83	371											2'-4"	8'-10 1/2"		
102A2	6	T3	19'-0"	5	28.54	143		19'-0"									6'-9 1/2"	7'-4 1/2"	4'-5 1/2"	
102A3	6	T3	12'-3"	5	18.40	92			8'-0"	4'-3"							3'-7 1/2"	2'-2"		
102A4	7	D10	16'-0 1/2"	12	32.79	393	3'-9"	5'-5 1/2"	4'-1 1/2"	2'-8 1/2"	3'-2 1/2"	23"					2'-11 1/2"	2'-11 1/2"		
102A5	7	T3	15'-4"	5	31.34	157		3'-1"	8'-0"	4'-3"							3'-7 1/2"	2'-2"		
102A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
102A7	4	STR.	5'-8"	58	3.79	220														
102A8	5	T3	9'-3"	4	9.65	39			8'-3"	1'-0"							10 1/4"	6 1/4"		
TOTAL						1423														
96A1	7	T3	28'-8"	6	58.38	352											2'-4"	8'-5"		
96A2	6	T3	17'-11 1/2"	5	26.94	135		17'-11 1/2"									6'-4"	7'-2 1/2"	4'-2 1/2"	
96A3	6	T3	11'-6"	5	17.27	86			7'-5"	4'-1"							2'-1 1/2"	3'-8"	2'-1"	
96A4	7	D10	14'-10 1/2"	12	30.38	365	3'-8"	5'-0"	3'-11 1/2"	2'-2 1/2"	3'-1 1/4"	22 1/2"					2'-9 3/4"	2'-9 3/4"		
96A5	7	T3	13'-5"	5	27.43	137		2'-10 1/2"	7'-5"	4'-1"							3'-6"	2'-1 1/2"		
96A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
96A7	4	STR.	5'-8"	54	3.79	204														
96A8	5	T3	8'-8"	4	9.04	36			7'-8"	1'-0"							10"	6 1/2"		
TOTAL						1362														
90A1	6	T3	26'-6"	6	39.80	239											2'-0"	7'-10 1/2"		
90A2	5	T3	16'-7 1/4"	5	17.32	87		16'-7 1/4"									5'-10 1/4"	2'-0"	6'-9 3/4"	
90A3	6	T3	11'-0"	5	16.52	83			7'-0"	4'-0"							3'-5"	2'-0 1/2"		
90A4	6	D10	13'-9 1/2"	12	20.70	248	3'-6"	4'-7 1/2"	3'-9 1/2"	22 1/2"	3'-0"	21 1/2"					2'-8 1/2"	2'-8 1/2"		
90A5	6	T3	13'-9"	5	20.65	103		2'-9"	7'-0"	4'-0"							3'-5"	2'-0 1/2"		
90A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
90A7	4	STR.	5'-8"	50	3.79	189														
90A8	5	T3	8'-2"	4	8.51	34			7'-2"	1'-0"							9 1/2"	7"		
TOTAL						1030														
84A1	6	T3	25'-3"	6	37.93	228											2'-0"	7'-4 1/2"		
84A2	5	T3	15'-5 1/2"	5	16.12	81		15'-5 1/2"									5'-9"	8'-2 1/4"	3'-8 1/4"	
84A3	5	T3	9'-10"	5	10.26	51			6'-4"	3'-6"							3'-0"	2'-1 1/2"		
84A4	6	D10	12'-6 1/2"	12	18.79	225	3'-2"	4'-4 1/2"	3'-4 1/2"	1'-6 1/2"	2'-7 1/2"	19 1/2"					2'-4 1/2"	2'-4 1/2"		
84A5	6	T3	12'-5"	5	18.65	93		2'-7"	6'-4"	3'-6"							3'-0"	2'-1 1/2"		
84A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
84A7	4	STR.	5'-8"	46	3.79	174														
84A8	5	T3	7'-6"	4	7.82	31			6'-6"	1'-0"							10 1/4"	6 1/4"		
TOTAL						930														
78A1	6	T3	23'-7"	6	35.42	213											2'-0"	6'-10 1/2"	3'-5 1/4"	
78A2	5	T3	14'-3 1/2"	5	14.53	75		14'-3 1/2"									5'-0"	7'-9 1/4"	3'-5 1/4"	
78A3	5	T3	9'-3"	5	9.65	48			6'-1"	3'-2"							3'-5"	2'-8 1/4"		
78A4	6	D10	11'-5 1/2"	12	17.26	207	3'-1"	4'-0"	3'-3"	1'-1 1/2"	2'-7 1/2"	19 1/2"					2'-3 1/2"	2'-3 1/2"		
78A5	6	T3	11'-9"	5	17.65	88		2'-6"	6'-1"	3'-2"							19 3/4"	2'-8 1/4"		
78A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
78A7	4	STR.	5'-8"	42	3.79	159														
78A8	5	T3	7'-3"	4	7.56	30			6'-3"	1'-0"							9 1/2"	7"		
TOTAL						867														
72A1	6	T3	22'-0"	6	33.04	198											2'-0"	6'-4 1/2"		
72A2	5	T3	13'-3"	5	13.82	69		13'-3"									4'-8"	5'-6"	3'-2"	
72A3	5	T3	9'-5"	5	9.87	44			5'-6"	3'-0"							2'-6 1/2"	18 1/2"		
72A4	6	D10	9'-11 1/2"	12	14.94	179	2'-6"	3'-8 1/4"	3'-0"	9 1/4"	2'-1 1/4"	15 1/2"					2'-1 1/2"	2'-1 1/2"		
72A5	6	T3	10'-9"	5	16.15	81		2'-3"	5'-6"	3'-0"							18 1/2"	18 1/2"		
72A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"		
72A7	4	STR.	5'-8"	38	3.79	144														
72A8	5	T3	6'-9"	4	7.04	28			5'-9"	1'-0"							10 1/4"	6 1/4"		
TOTAL						790														

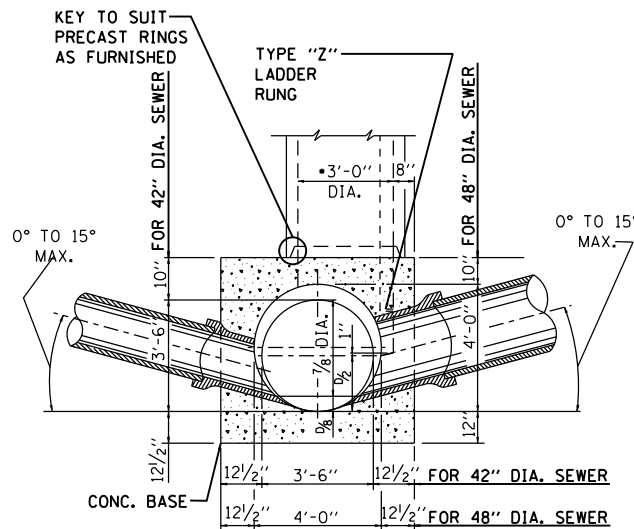
STRUCTURE	REINFORCEMENT BAR					BENDING DIMENSIONS														
	MARK	SIZE NO.	TYPE	LENGTH	NO. REOD.	WEIGHT EACH	TOTAL	A	B	C	D	E	F	G	H	J	K	O	R	
BASES FOR TYPE "A" MANHOLES (Precast)	66A1	6	T3	20'-5"	6	30.73	184										2'-0"	5'-10 1/2"		
	66A2	5	T3	11'-10"	5	12.35	62		11'-10"									4'-2 1/4"	5'-1 1/4"	2'-11 1/4"
	66A3	5	T3	8'-2"	5	8.52	43			5'-2"	3'-0"							18 1/2"		
	66A4	5	D10	9'-1 1/2"	12	9.51	114	2'-6"	3'-5"	2'-9 1/2"	4 1/2"	2'-2"	15"				23 1/2"	23 1/2"		
	66A5	6	T3	10'-4"	5	15.50	78		2'-2"	5'-2"	3'-0"							18 1/2"		
	66A6	5	T3	15'-1"	3	15.74	47											20"	4'-3/4"	
	66A7	4	STR.	5'-8"	36	3.79	136													
	66A8	5	T3	10'-9"																



PLAN



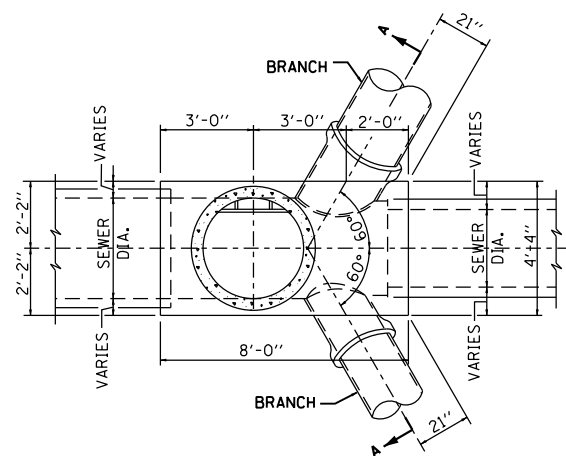
SECTIONAL PLAN



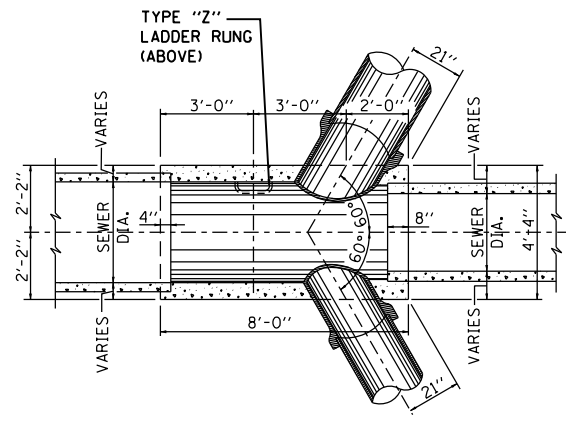
SECTION A-A

TYPE "B" MANHOLE
FOR SEWERS 48" DIA. & 42" DIA.

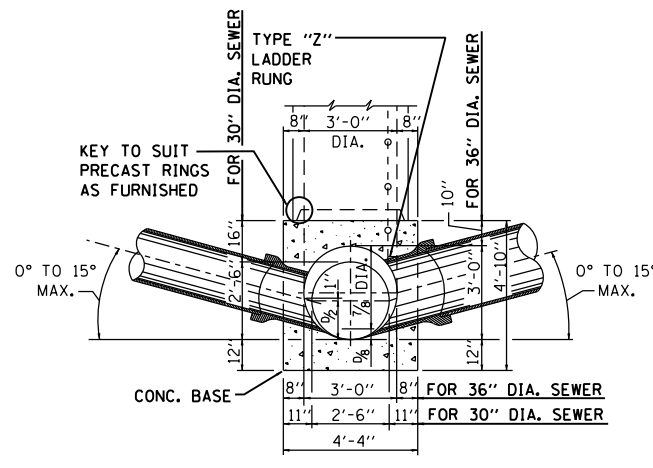
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PLAN



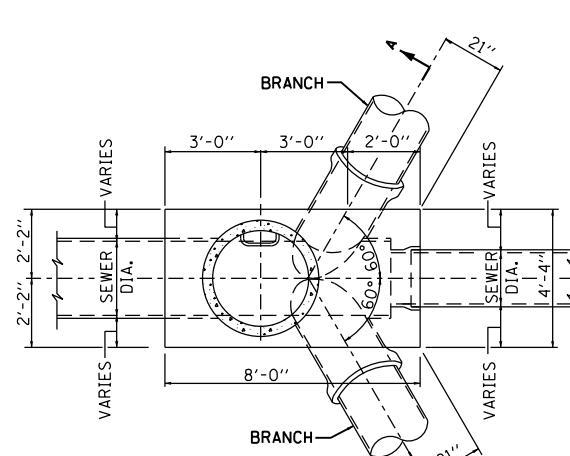
SECTIONAL PLAN



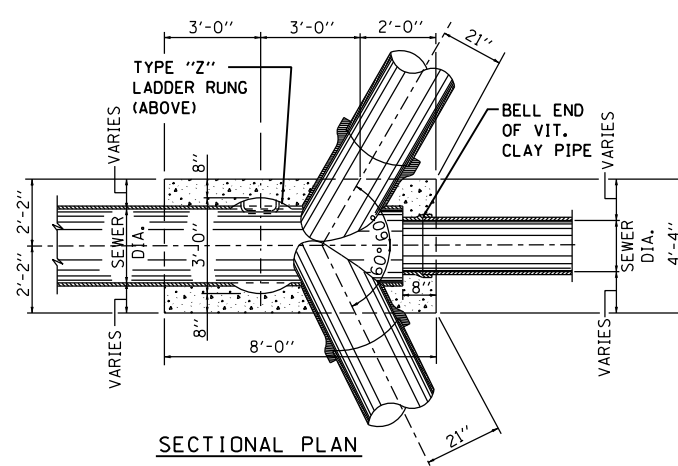
SECTION A-A

TYPE "B" MANHOLE
FOR SEWERS 36" DIA. & 30" DIA.

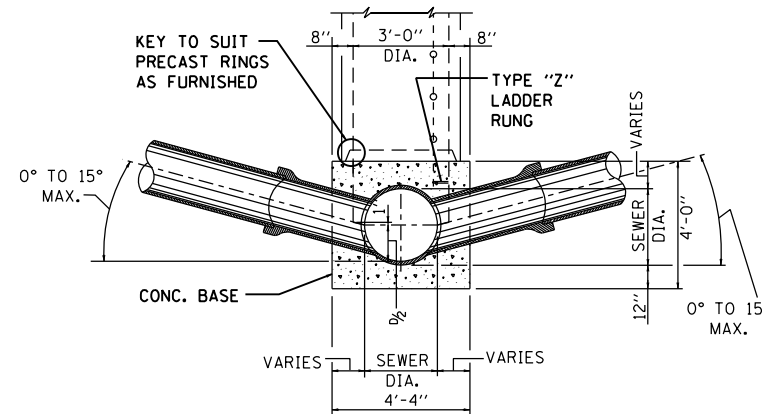
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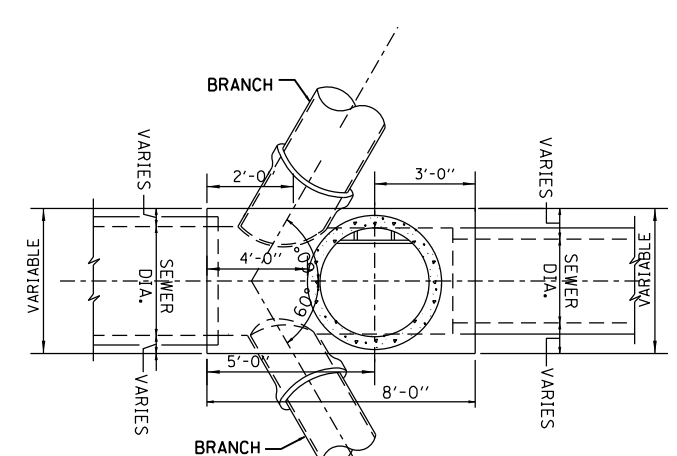
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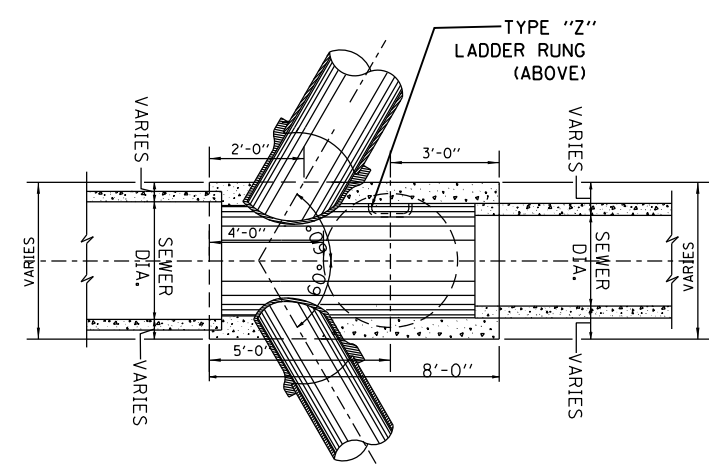
SECTION A-A

TYPE "B" MANHOLE
FOR SEWERS 24" DIA. & SMALLER

Not To Scale



PLAN



SECTIONAL PLAN

TYPICAL REVERSE TYPE "B" MANHOLE

Not To 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.10A 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.

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	APPROVED PLAN

PERCENT COMPLETE	DATE	CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES	DRAWN: SDB DESIGNED: CHECKED: REVIEWED:	A.9
30				
60				
75				
90				
100		TYPE "B" MANHOLE		OF
BULLETIN				PN

CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	249
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET 7 OF 12 SHEETS STA. TO STA.

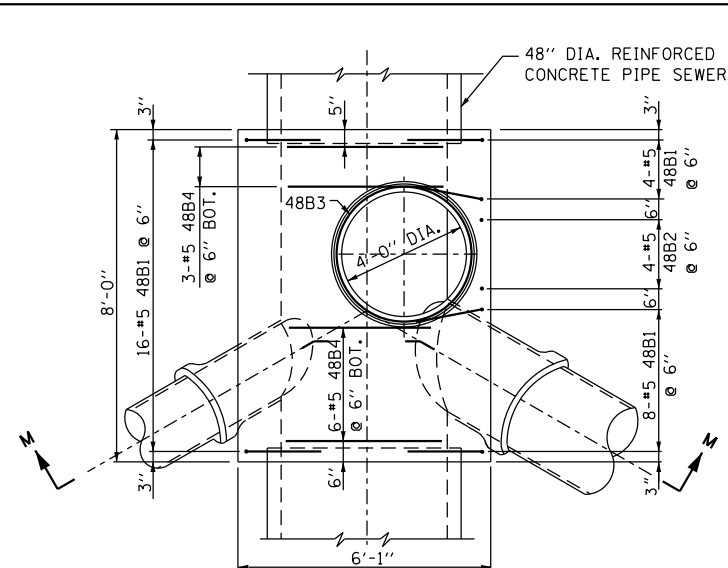
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 02/19/14	REVISED -

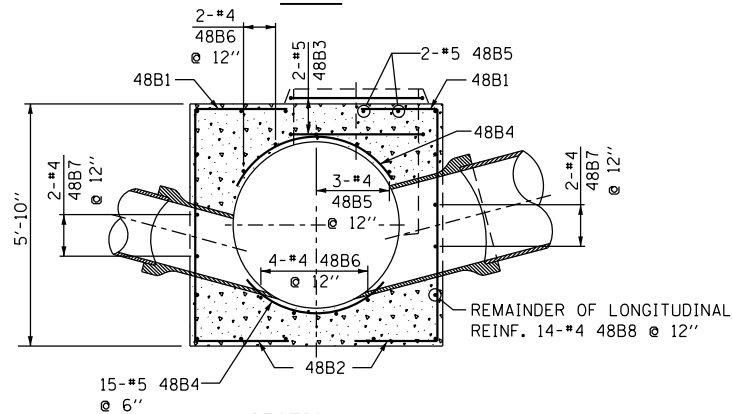
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PLOT SCALE = 2.0000' / in.
PLOT DATE = 2/18/2014

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5076
PHONE: (312) 373-7700 FAX: (312) 373-6800

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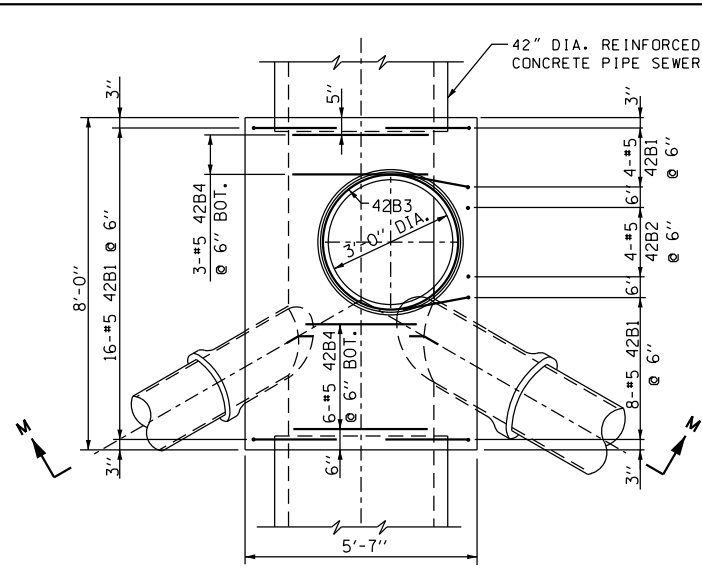


PLAN

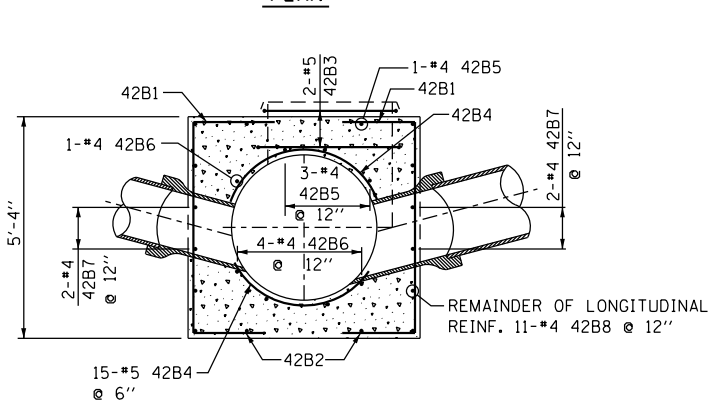


SECTION M-M

48" DIA. SEWER

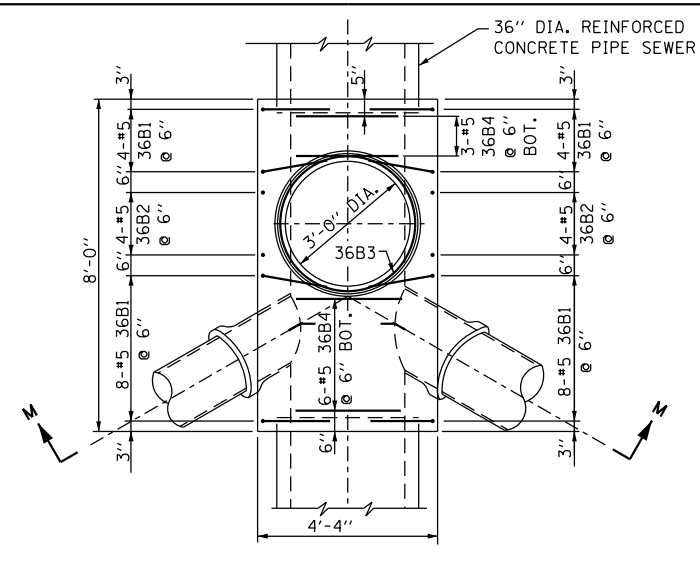


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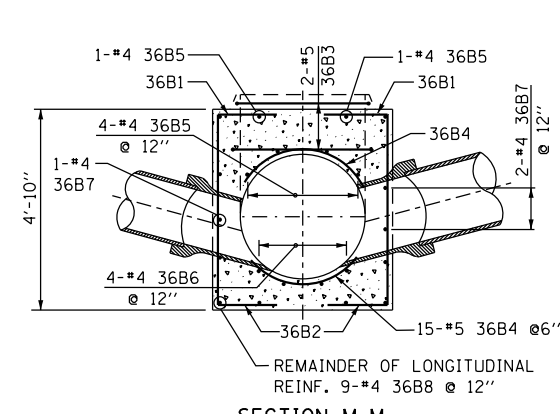


SECTION M-M

42" DIA. SEWER

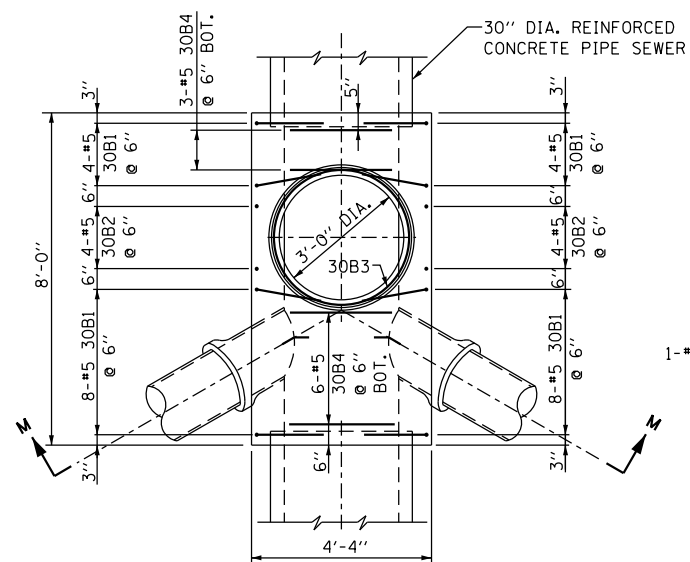


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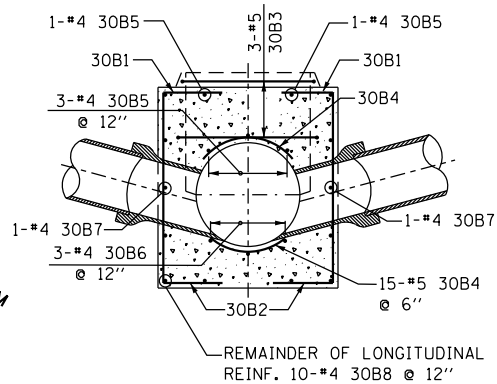


SECTION M-M

36" DIA. SEWER

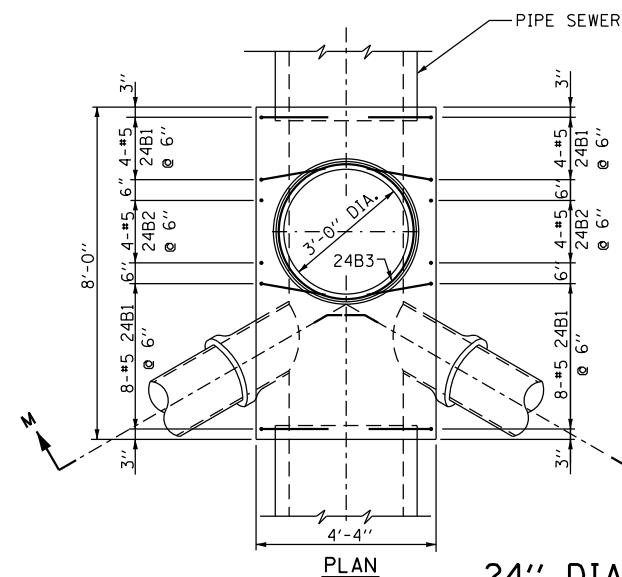


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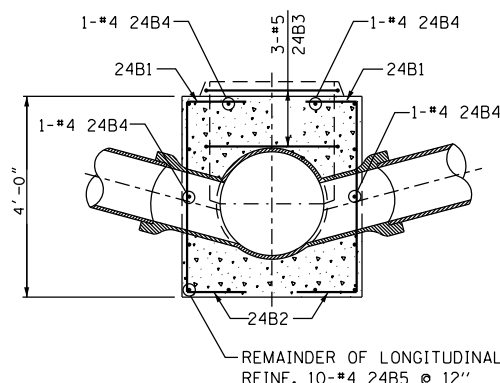


SECTION M-M

30" DIA. SEWER



PLAN



SECTION M-M

24" DIA. SEWERS & SMALLER

- NOTES:
- CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF ALL PROPOSED MANHOLE CONFIGURATIONS FOR APPROVAL PRIOR TO SUBMISSION OF MATERIAL ORDERS.
 - CONNECTION BELLS MAY BE INSTALLED AT MANUFACTURER'S SITE, OR MORTARED IN PLACE IN THE FIELD. SEE SHEET A.10A FOR FURTHER CONFIGURATION DETAILS.
 - BASES MUST BE PRECAST WITH THE CORRECT NUMBER OF PIPE OPENINGS, CORRESPONDING TO THE REPRESENTATION IN THE PLAN AND PROFILE SHEETS.
 - PATCHING, BRICKING, OR OTHER MATERIAL METHODS OF CLOSING UNUSED HOLES WILL NOT BE ACCEPTED.

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	revision

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO		DRAWN: SDB	A.10
DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES		CHECKED:	
REINFORCEMENT FOR TYPE "B" MANHOLE BASES		REVIEWED:	OF
			PN

CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	250
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

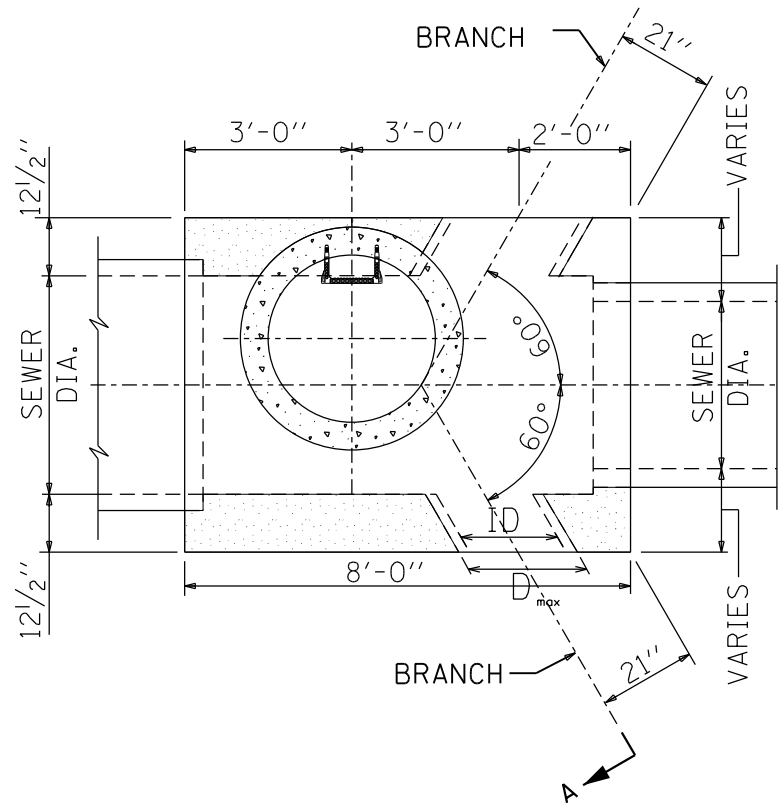
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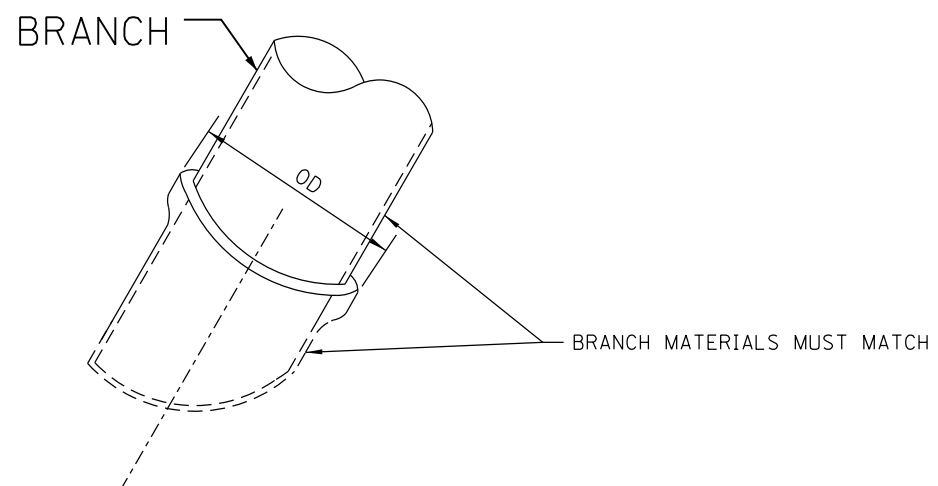


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PLOT SCALE = 2.0000' / in.
PLOT DATE = 2/18/2014

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 02/19/14	REVISED -



Typical 4 Opening Type B Manhole



- NOTES:**
- CONTRACTOR MUST SUBMIT SHOP DRAWINGS OF ALL PROPOSED MANHOLE CONFIGURATIONS FOR APPROVAL PRIOR TO SUBMISSION OF MATERIAL ORDERS.
 - CONNECTION BELLS MAY BE INSTALLED AT MANUFACTURER'S SITE, OR MORTARED IN PLACE IN THE FIELD.
 - BASES MUST BE PRECAST WITH THE CORRECT NUMBER OF PIPE OPENINGS, CORRESPONDING TO THE REPRESENTATION IN THE PLAN AND PROFILE SHEETS.
 - 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	27.6
24	DIP	25.8	31.8
24	RCP III	30	36
27	RCP III	33.5	39.5
30	RCP III	37	43
33	RCP III	40.5	46.5
36	RCP III	44	50
42	RCP III	52.5	58.5

Notes:

- If the pipe class is not shown on this table, then $D_{max} = OD_{pipe} + 4"$
- D_{max} indicates the maximum size of branch opening to be cast or cut into structure.

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 PLOT DATE = 2/18/2014

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 02/19/14	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STANDARD REVISIONS	
DATE	DESCRIPTION
1/9/14	APPROVED PLAN

PERCENT COMPLETE	DATE
30	
60	
75	
90	
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BULLETIN	

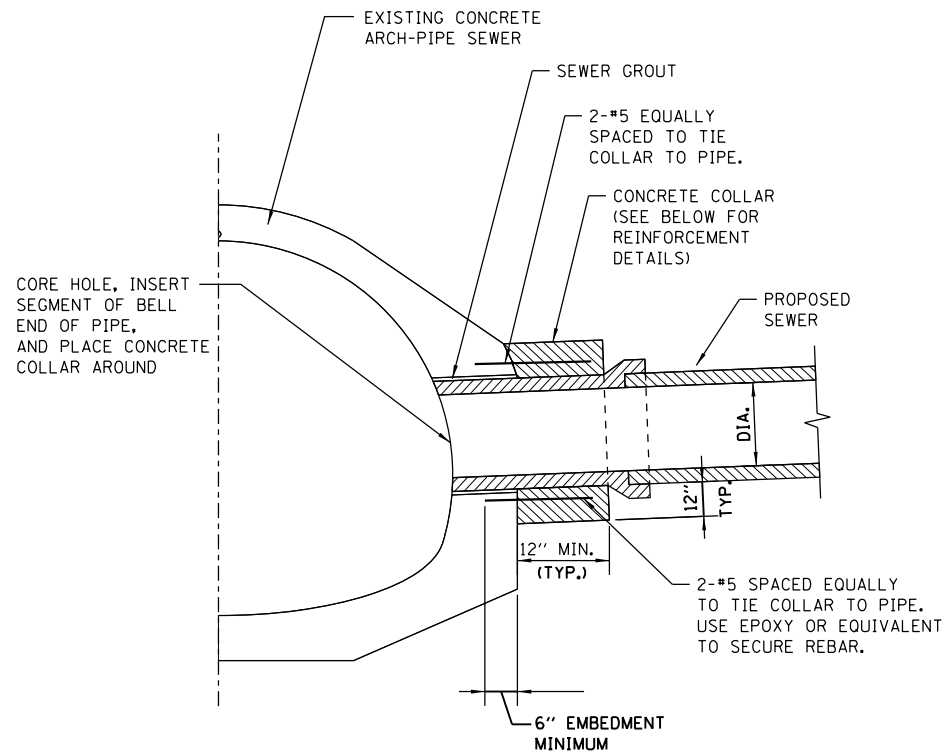
CITY OF CHICAGO
 DEPARTMENT OF WATER MANAGEMENT
 BUREAU OF ENGINEERING SERVICES
 TYPE "B" MANHOLE CONFIGURATIONS

DRAWN: SDB	A.10.A
DESIGNED: SDB	
CHECKED: SDB	
REVIEWED: SDB	
	OF
	PN

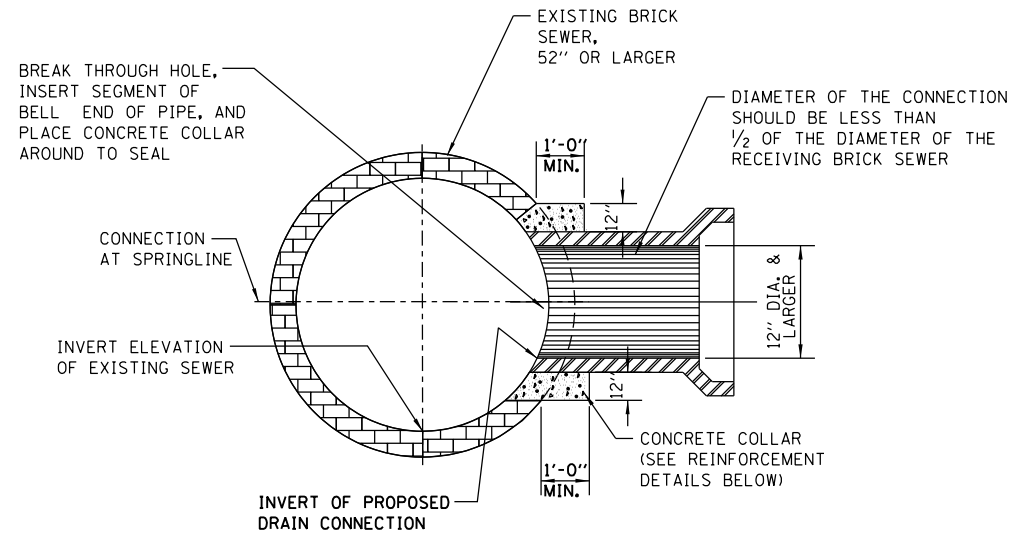
**CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS**

SCALE: NTS SHEET 9 OF 12 SHEETS STA. TO STA.

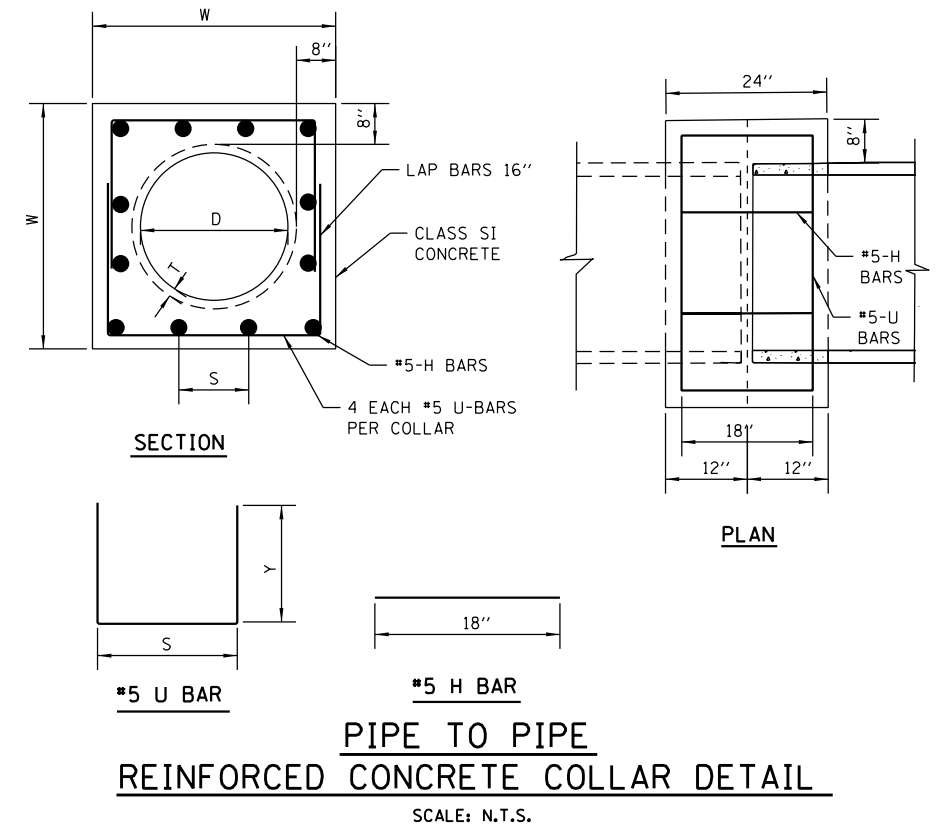
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	250A
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				



EXAMPLE TYPICAL CONNECTION DETAIL
(NOT TO SCALE)



EXAMPLE TYPICAL BRICK SEWER CONNECTION FOR CONNECTING PIPE SIZES GREATER THAN 12" DIA.
(NOT TO SCALE)



#5 U BAR

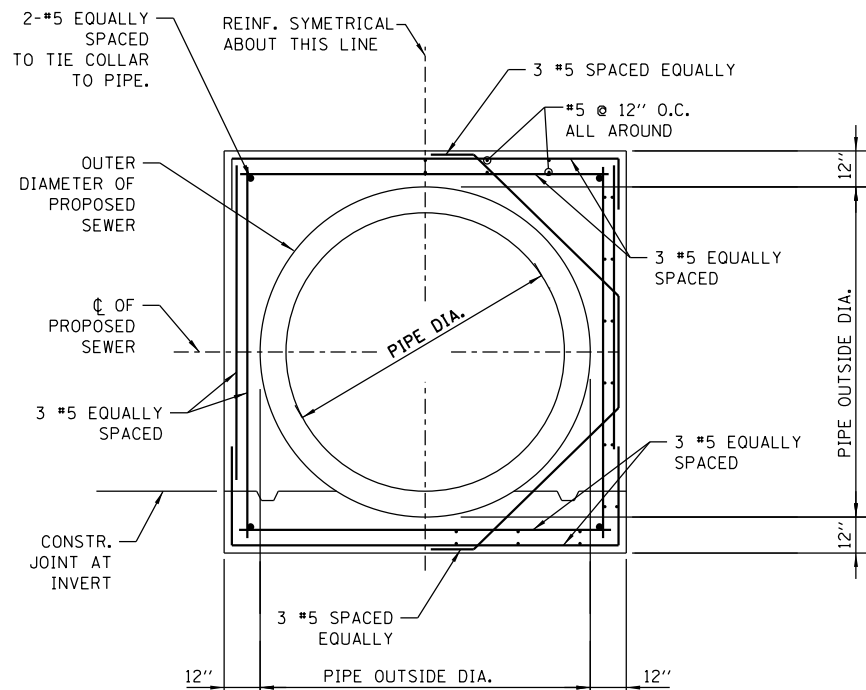
#5 H BAR

PIPE TO PIPE REINFORCED CONCRETE COLLAR DETAIL

SCALE: N.T.S.

CONCRETE 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.
2. ALL CONCRETE SHALL CONFORM TO IDOT SSRBC ARTICLE 1020.04, CLASS SI, WITH A COMPRESSIVE STRENGTH OF 3500 PSI.
3. 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 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 CONCRETE COLLAR REINFORCEMENT - SECTION
(NOT TO SCALE)

D RCP DIA. (IN)	T PIPE THICKNESS (IN)	W WIDTH (IN)	UBAR				HBAR				Class SI Concrete (CU YD)	#5 Epoxy Rebar (LBS)
			x (IN)	y (IN)	QTY (EACH)	TOTAL LENGTH (FT)	S (IN)	QTY (EACH)	TOTAL LENGTH (FT)			
12*	2.00	32.0	26.00	21.00	4	22.7	8 1/8	12.0	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	4	27.3	10 1/2	12.0	18.0	0.57	47.2	
21*	2.75	42.5	36.50	26.25	4	29.7	8 3/4	16.0	24.0	0.65	56.0	
24	3.00	46.0	40.00	28.00	4	32.0	9 5/8	16.0	24.0	0.72	58.4	
27	3.25	49.5	43.50	29.75	4	34.3	10 1/2	16.0	24.0	0.81	60.8	
30	3.50	53.0	47.00	31.50	4	36.7	11 3/8	16.0	24.0	0.89	63.3	
33	3.75	56.5	50.50	33.25	4	39.0	9 4/5	20.0	30.0	0.98	72.0	
36	4.00	60.0	54.00	35.00	4	41.3	10 1/2	20.0	30.0	1.07	74.4	
42	4.50	67.0	61.00	38.50	4	46.0	9 7/8	24.0	36.0	1.26	85.5	
48	5.00	74.0	68.00	42.00	4	50.7	11 1/8	24.0	36.0	1.46	90.4	

*Note: Option to use without Rebar

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	APPROVED PLAN

PERCENT COMPLETE	DATE
30	
60	
75	
90	
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BULLETIN	

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES			
CONCRETE COLLAR / CONNECTION DETAILS		OF	
		PN	

DRAWN: SBR	A.14
DESIGNED: CHECKED:	
REVIEWED:	



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PLOT DATE = 2/18/2014

DESIGNED -
DRAWN -
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DATE - 02/19/14

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

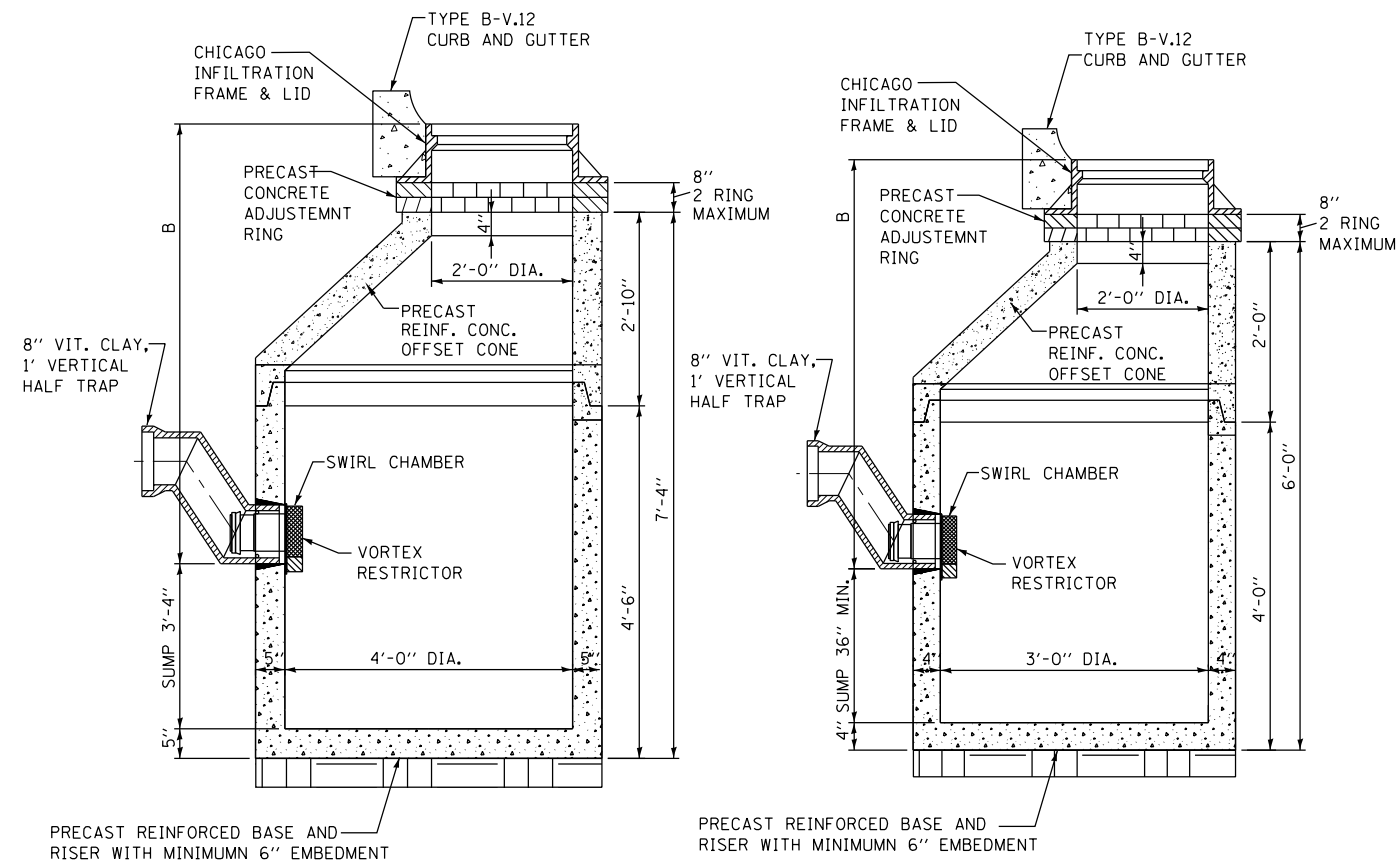
CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS

SCALE: NTS SHEET 10 OF 12 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290 SECTION 2013-036R COUNTY COOK TOTAL SHEETS 256 SHEET NO. 250B CONTRACT NO. 60W71 ILLINOIS FED. AID PROJECT

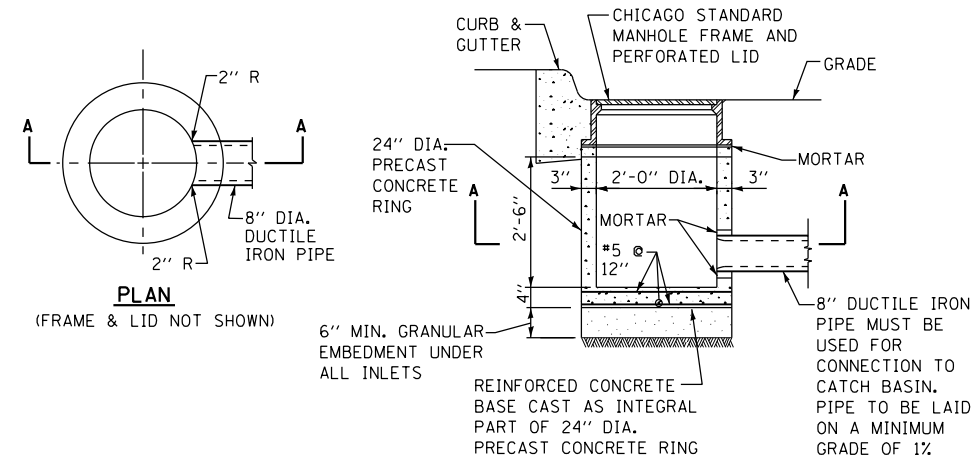
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STANDARD DRAINAGE STRUCTURES FOR PUBLIC STREETS



STANDARD CATCH BASIN-4' DIA.

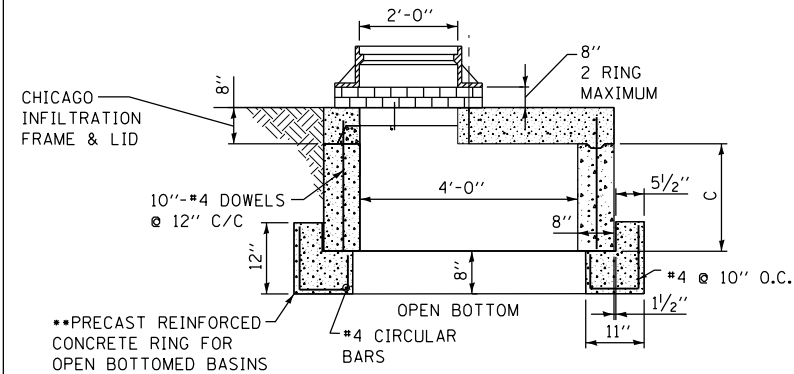
STANDARD CATCH BASIN-3' DIA.



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.

STANDARD DRAINAGE STRUCTURES FOR PUBLIC ALLEYS

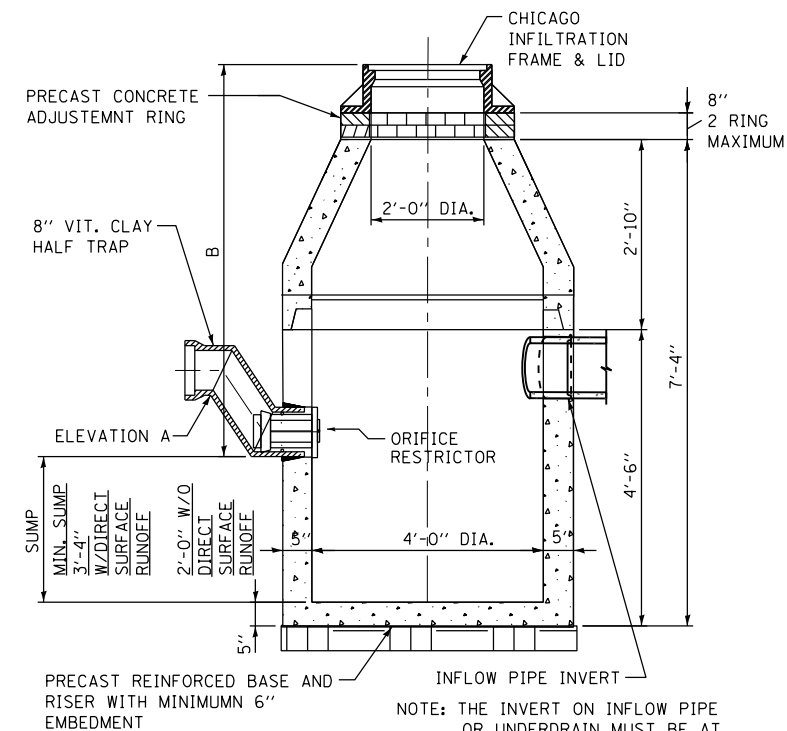


GREEN ALLEY OPEN BOTTOM CATCH BASIN

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.



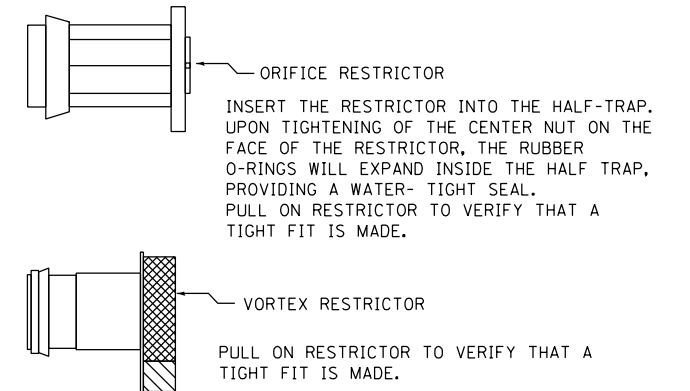
CATCH BASIN-ORIFICE RESTRICTOR

N.T.S.

NOTES:

1. FOR ANY DRAIN TILE CONNECTION, THE WATER TABLE MUST BE AT LEAST 3.5 FEET BELOW ELEVATION A.
2. PVC UNDERDRAINS MUST BE 4" MINIMUM DIAMETER, (6" RECOMMENDED) AND MUST BE WRAPPED IN GEOTECH FABRIC.

DRAINAGE STRUCTURES RESTRICTORS



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 USED ONLY 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 USED.

STANDARD REVISIONS	
DATE	DESCRIPTION
1/22/14	APPROVED

PERCENT COMPLETE	DATE
30	
60	
75	
90	
100	
BULLETIN	

CITY OF CHICAGO		DRAWN: SDB DESIGNED: SDB CHECKED: SDB	A.15
DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES			
DRAINAGE STRUCTURE DETAILS		REVIEWED: SDB	OF
PN			



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PLOT DATE = 2/18/2014

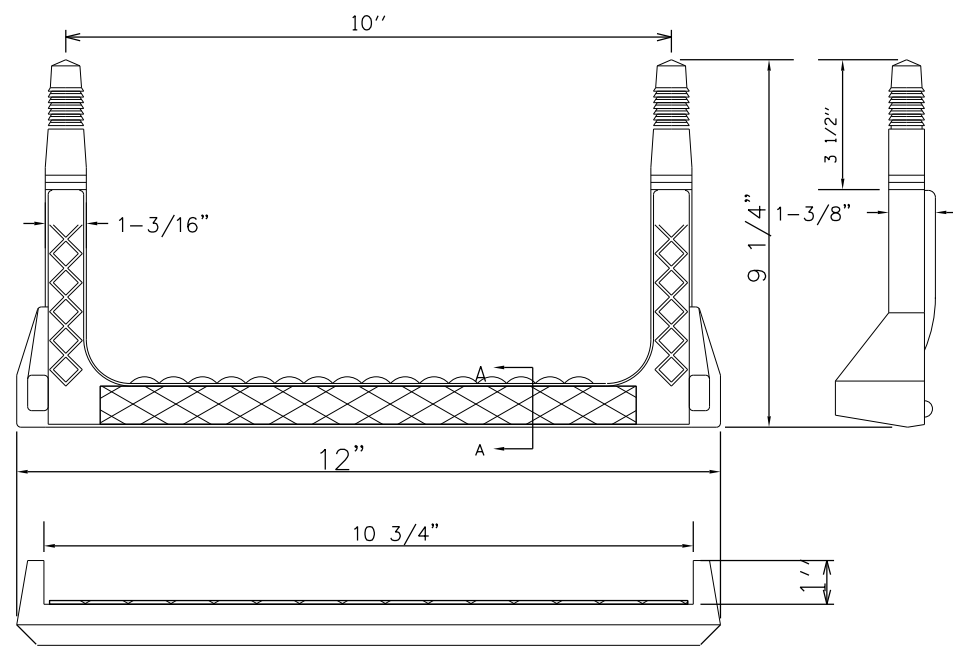
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DATE - 02/19/14	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

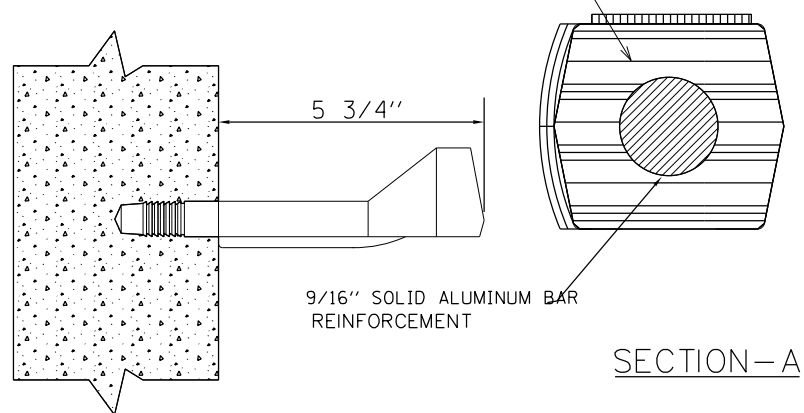
**CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS**

SCALE: NTS SHEET 11 OF 12 SHEETS STA. TO STA.

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	250C
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				



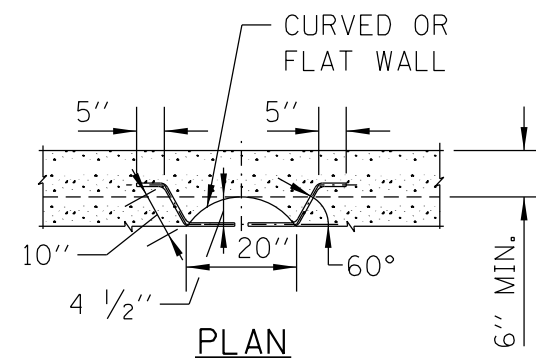
COPOLYMER POLYPROPYLENE PLASTIC



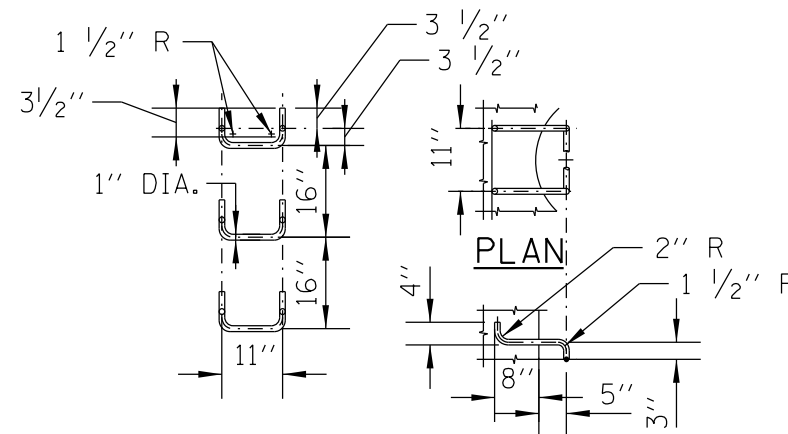
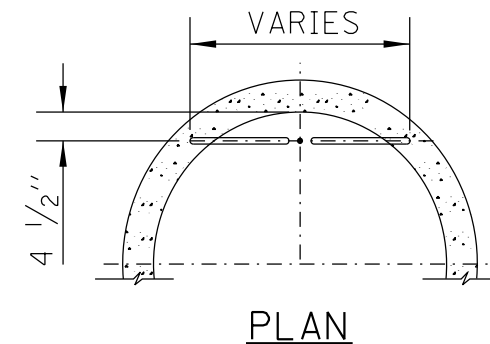
STEP LADDER RUNG

NOTES:

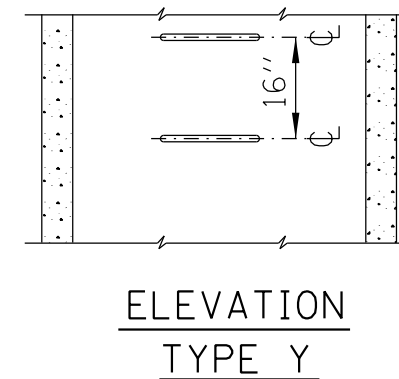
1. VERTICAL SPACING = 16" O.C., ON VERTICAL WALL ONLY.
2. STEPS TO PROTRUDE MINIMUM 5" FROM FACE OF STRUCTURE WALL.
3. STEPS SHALL MEET THE REQUIREMENTS OF ASTM C478 IN ADDITION TO A HORIZONTAL PULL-OUT LOAD OF 1000 LBS. WHEN INSTALLED.
4. ALL STEPS SHALL BE VERTICALLY ALIGNED IN A STRAIGHT LINE.
5. 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"



ELEVATION
TYPE X



SPACING ELEVATION
HANDHOLD-TYPE Z RUNG



ELEVATION
TYPE Y

PERCENT COMPLETE	DATE	CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING SERVICES		DRAWN: SBW
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BULLETIN				
SCALE: NTS		CHICAGO DEPARTMENT OF WATER MANAGEMENT STANDARD DETAILS		F.A.I. RTE. 90/94/290
SHEET 12 OF 12 SHEETS		COUNTY COOK		TOTAL SHEETS 251
STA. TO STA.		SECTION 2013-036R		SHEET NO. 251
		CONTRACT NO. 60W71		ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHICAGO DEPARTMENT OF WATER MANAGEMENT
STANDARD DETAILS



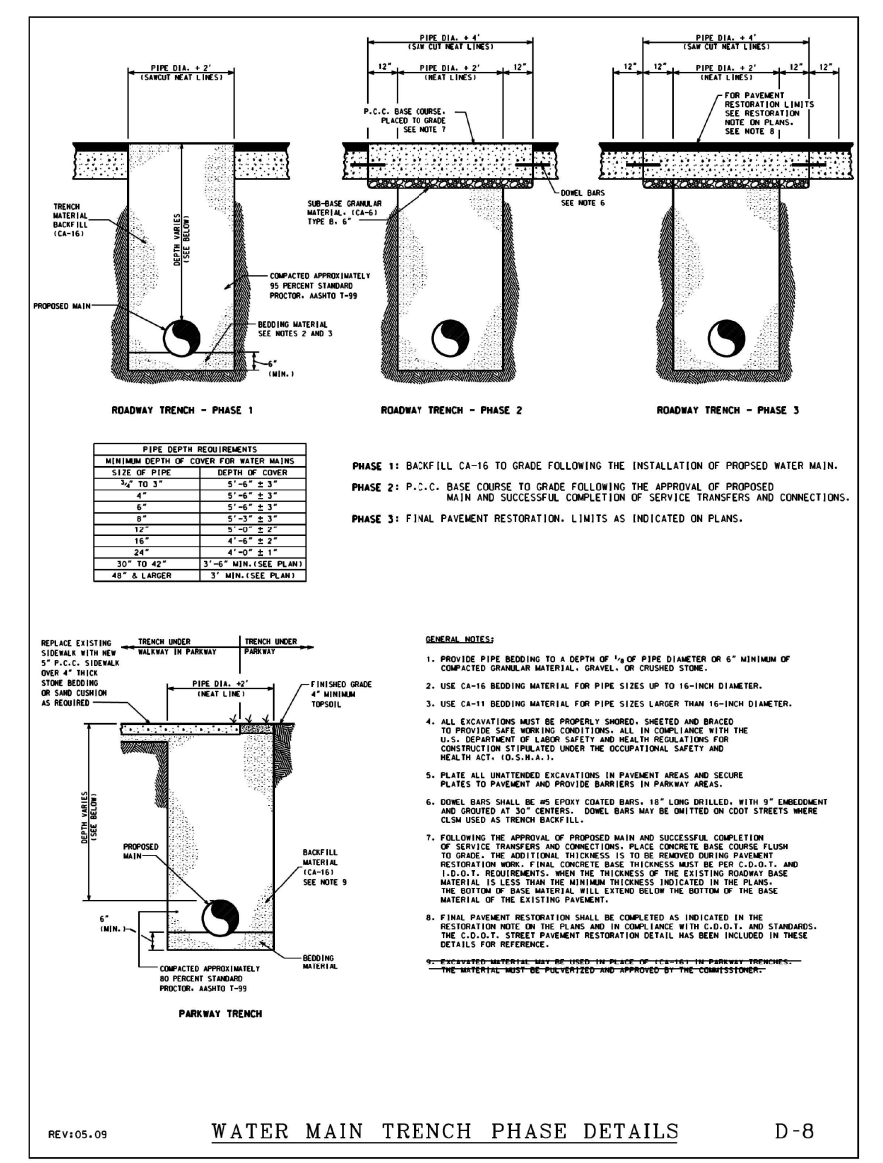
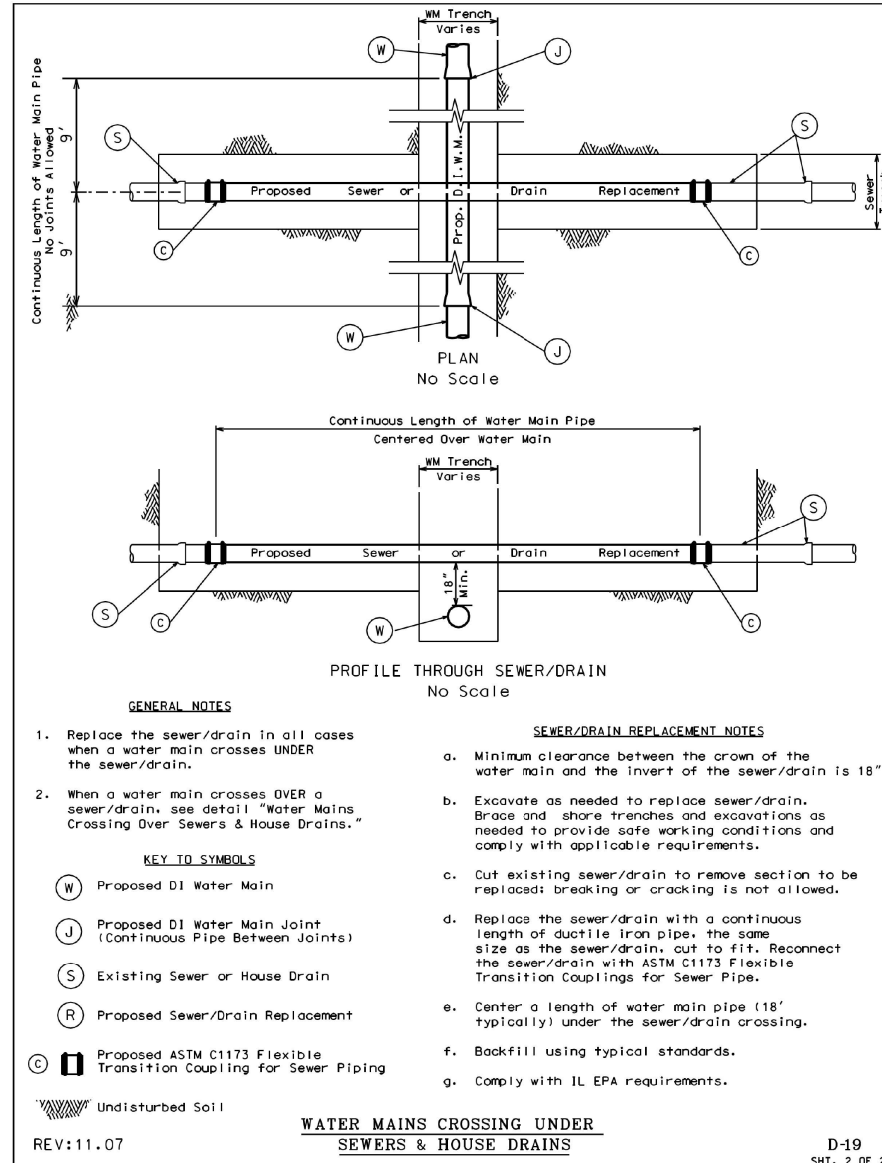
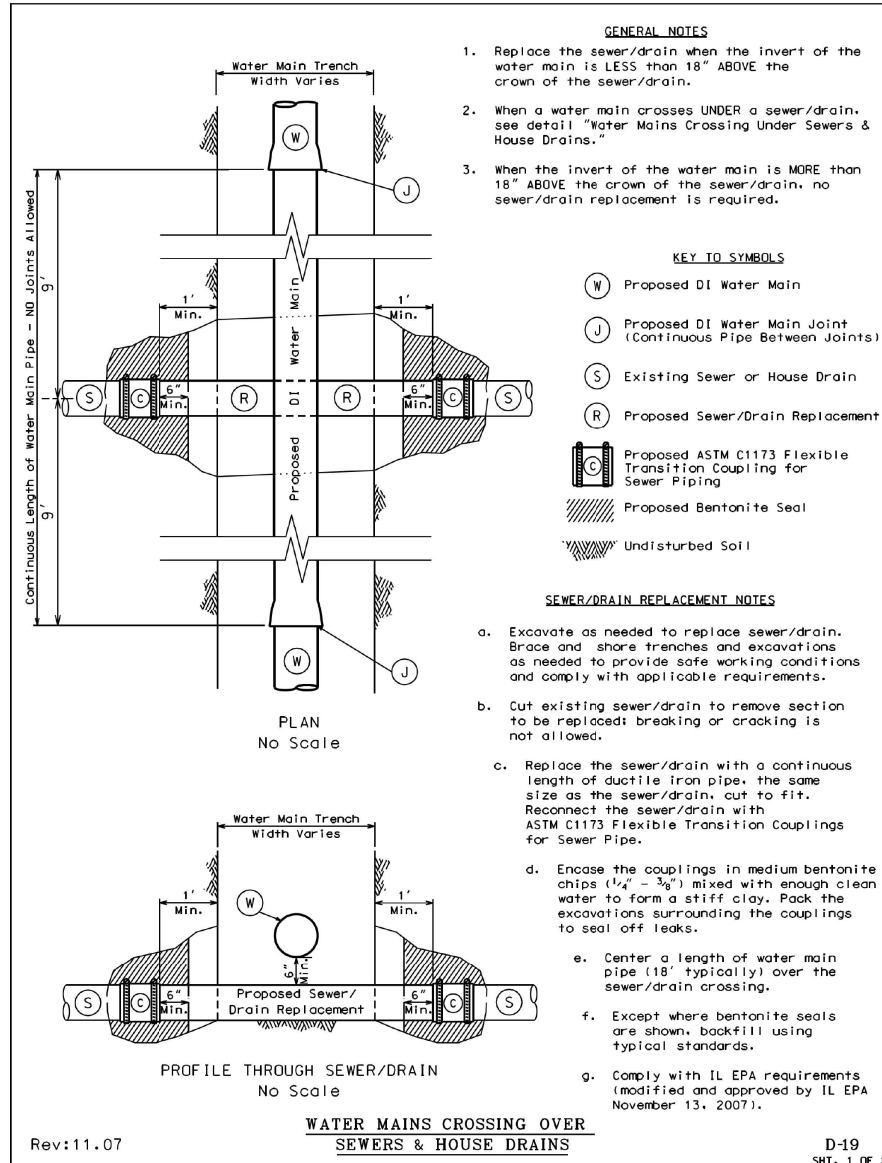
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CHECKED -
DATE - 02/19/14

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 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 12/19/2013

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 DRAWN - MSC
 CHECKED - RBB
 DATE - 12/20/13

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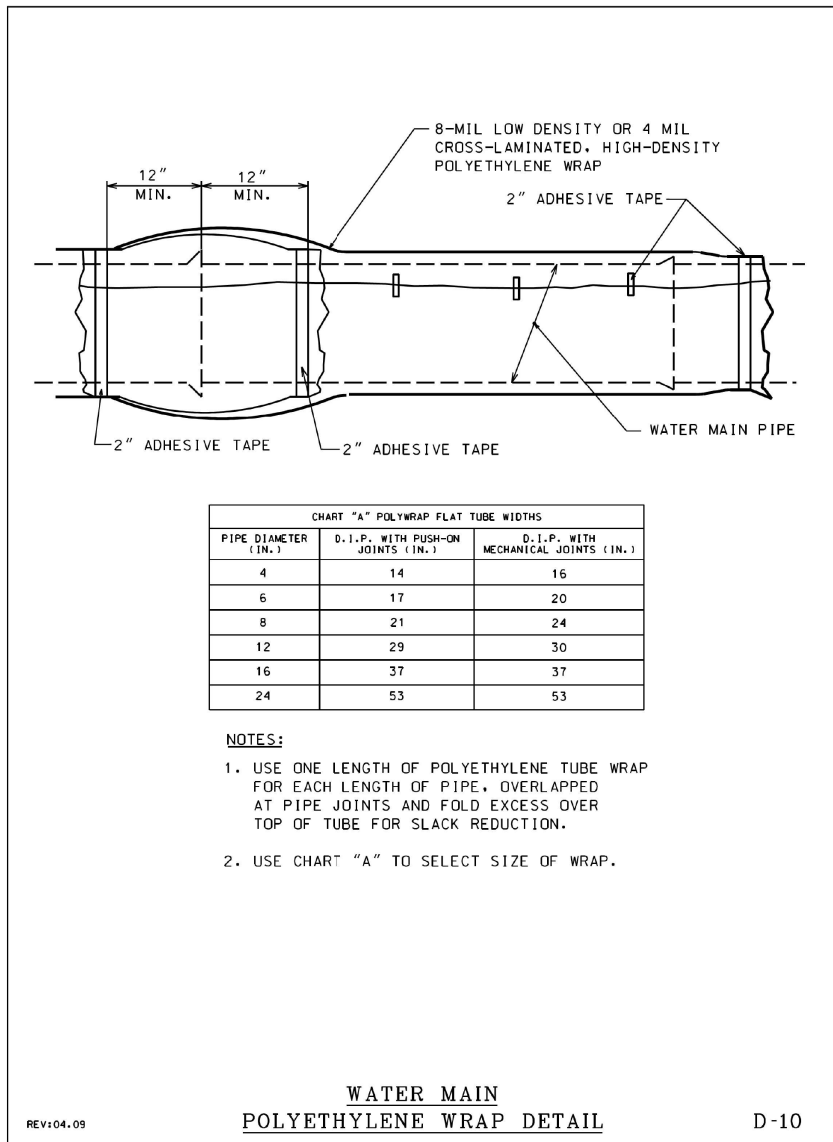
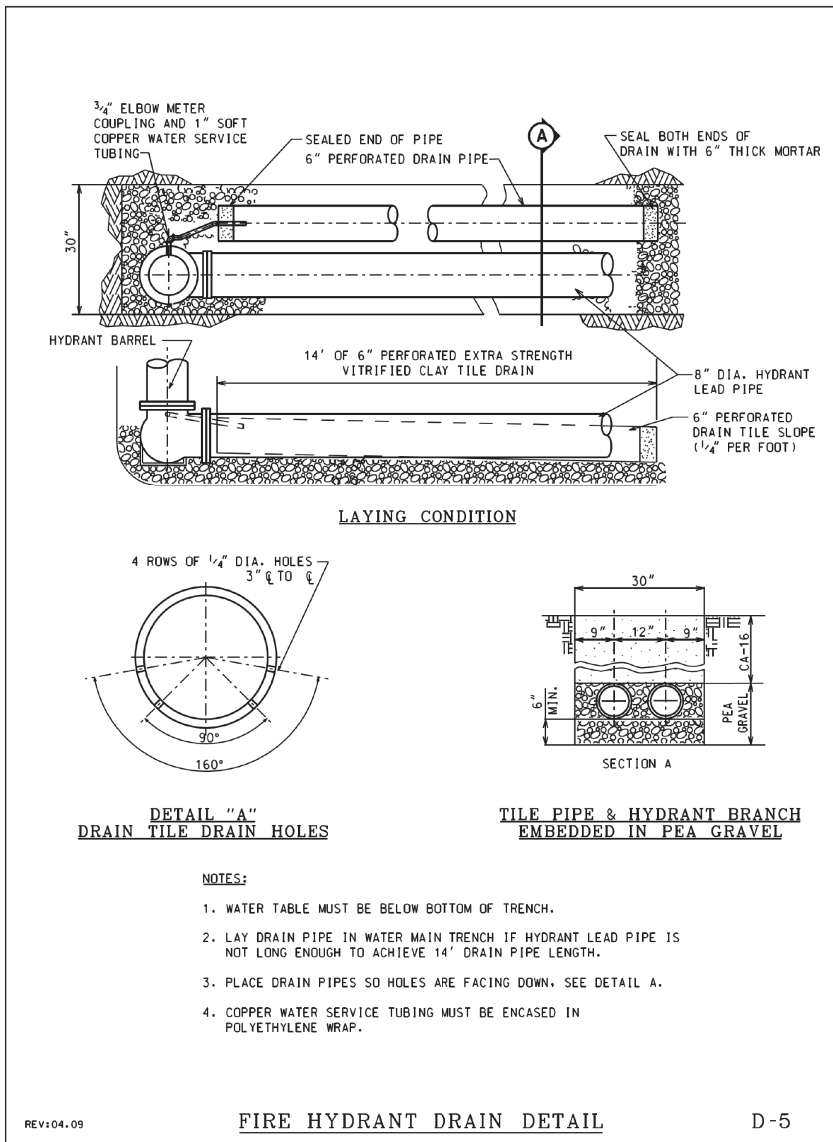
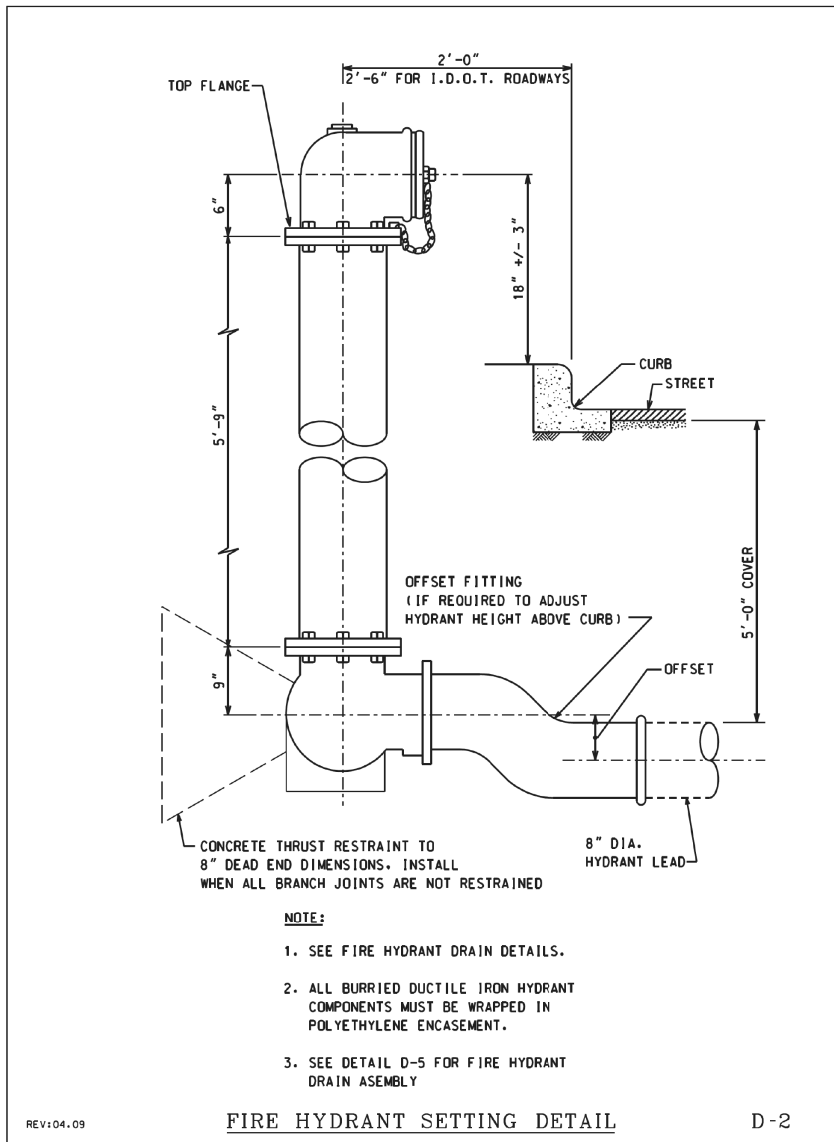
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WATER MAIN DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	251A
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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PLOT SCALE = 20.0000' / in.
PLOT DATE = 12/19/2013

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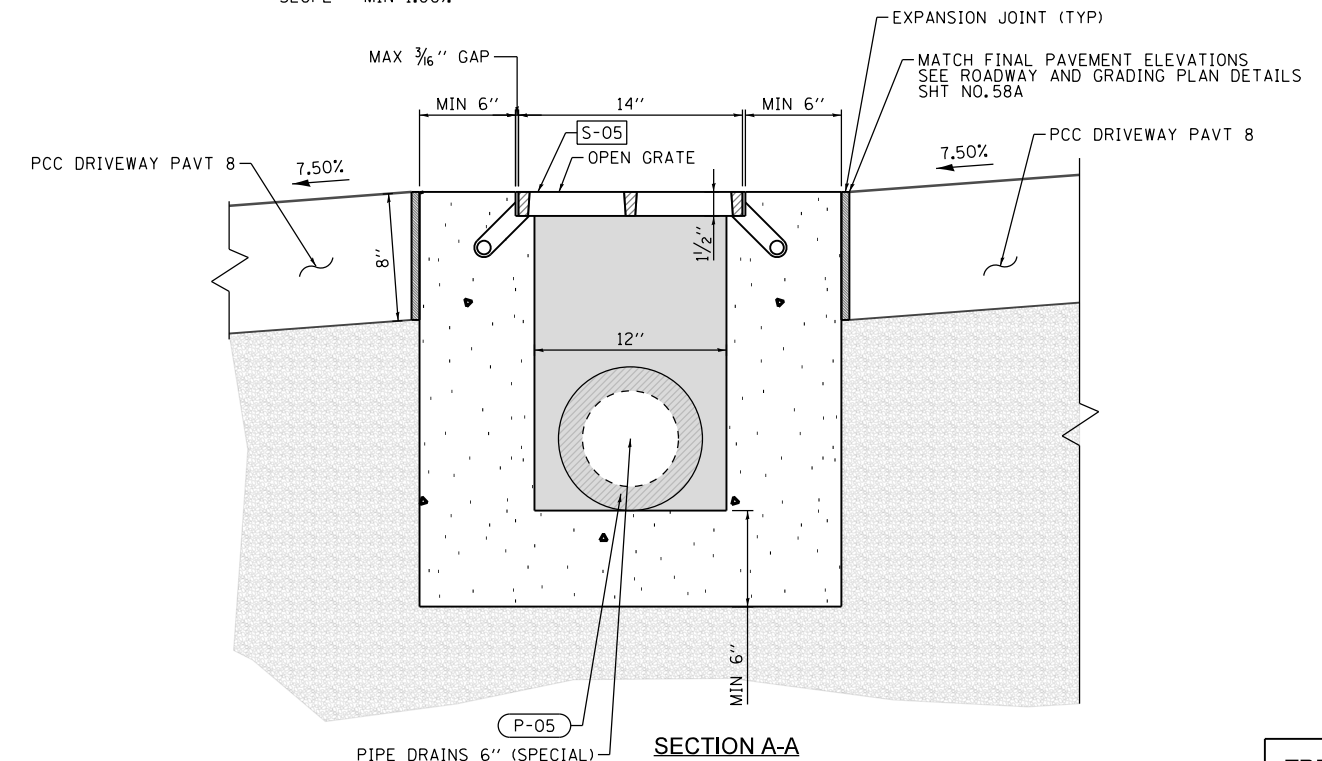
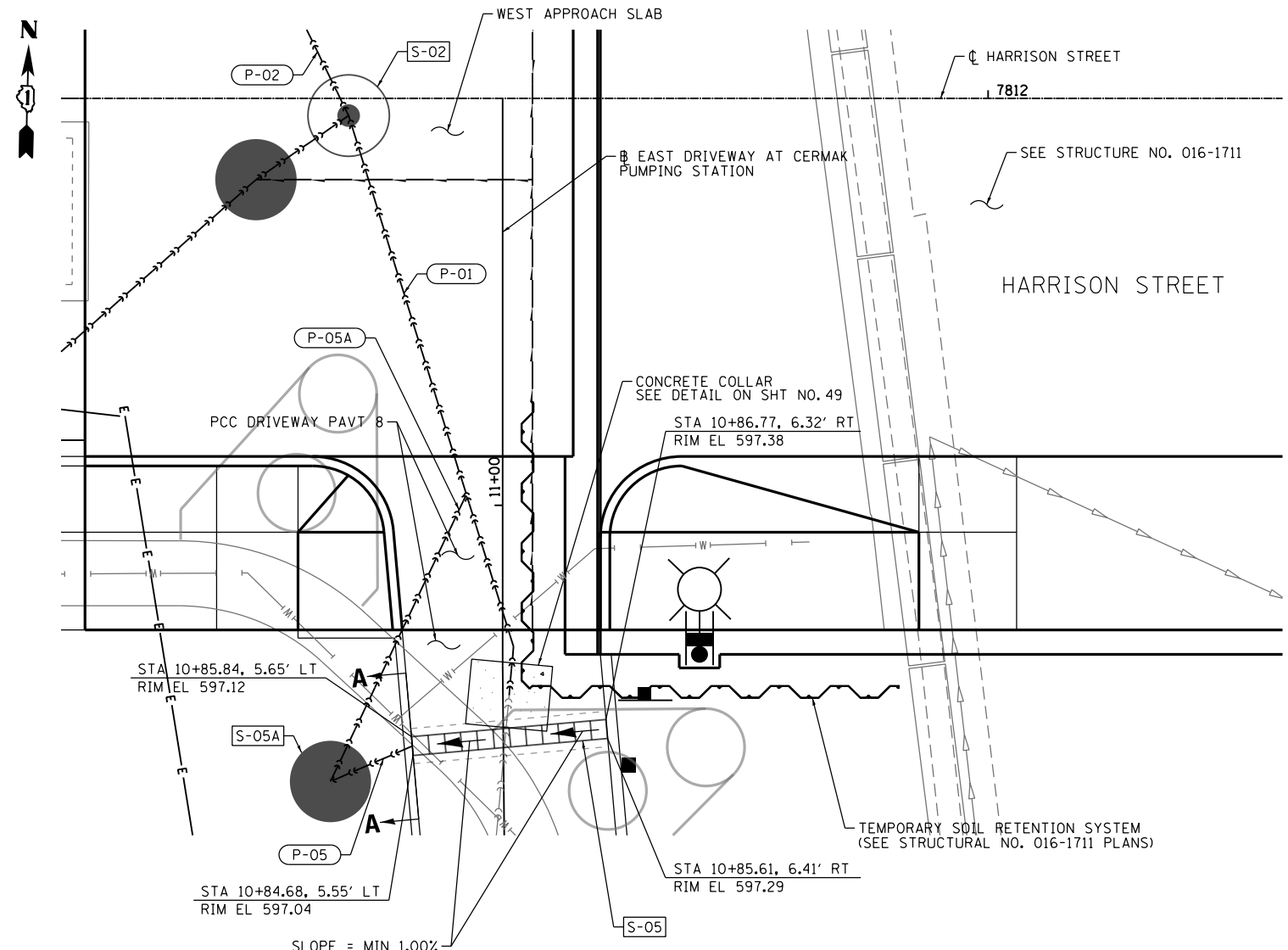
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATER MAIN DETAILS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	251B
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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NOTES:

1. SEE DRAINAGE SCHEDULES FOR RIM AND INVERT ELEVATIONS.
2. THE GRATE USED FOR THE TRENCH DRAIN WILL BE INCLUDED IN THE COST OF TRENCH DRAIN.
3. OUTLET PIPES AND PREFORMED CHANNEL INVERTS SHALL BE SLOPED AT 1.00% OR STEEPER TOWARD OUTLET REGARDLESS OF THE SURFACE SLOPE.
4. TRENCH EXCAVATION MUST ALLOW FOR A MINIMUM OF 6 INCHES OF CONCRETE TO BE PLACED UNDER AND ALONGSIDE THE TRENCH DRAIN SYSTEM.
5. TRENCH DRAINS SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS DETAILS AND SPECIFICATIONS.
6. PROVIDE 1/2" EXPANSION JOINT WITH PREFORMED JOINT FILLER BETWEEN PAVEMENT AND TRENCH DRAIN ENCASEMENT. THIS WILL BE INCLUDED IN THE COST OF TRENCH DRAIN.



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PLOT DATE = 2/21/2014	DATE - 02/19/14	REVISED -

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

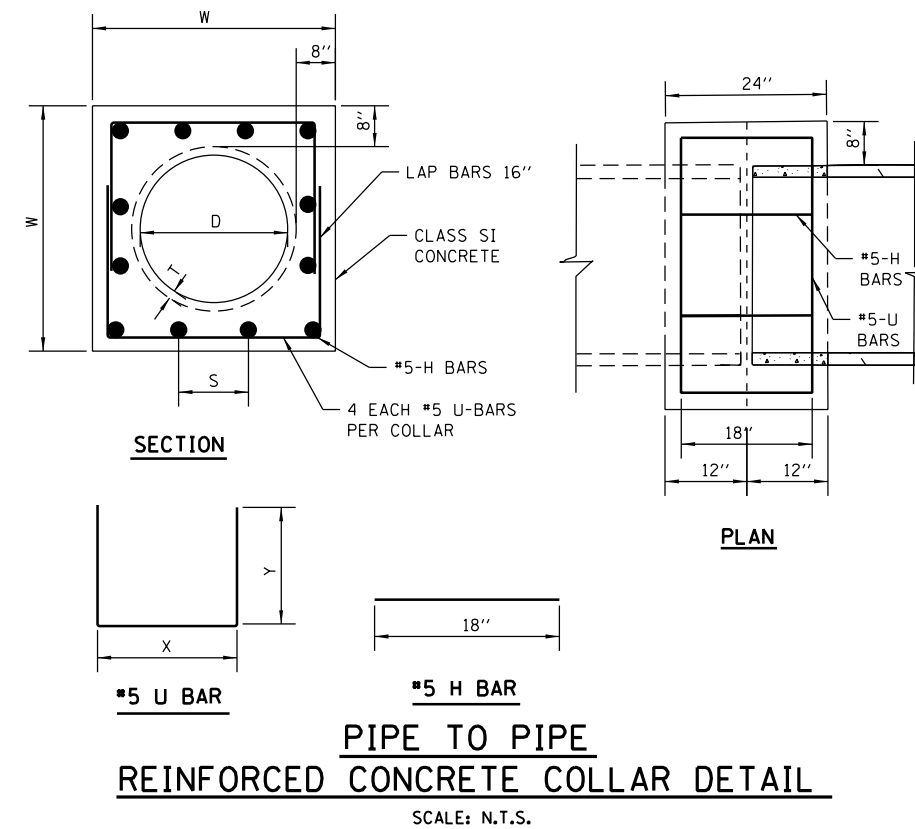
**DRAINAGE DETAILS
TRENCH DRAIN**

SCALE: NTS SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-036R	COUNTY COOK	TOTAL SHEETS 256	SHEET NO. 252
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

TRENCH DRAIN

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CONCRETE 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.
2. ALL CONCRETE SHALL CONFORM TO IDOT SSRBC ARTICLE 1020.04, CLASS SI, WITH A COMPRESSIVE STRENGTH OF 3500 PSI.
3. 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 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.

D	T	W	U BAR				H BAR			CONCRETE COLLAR	REINFORCEMENT BARS, EPOXY COATED
			X	Y	QUANTITY	TOTAL LENGTH	S	QUANTITY	TOTAL LENGTH		
RCP DIA	PIPE THICKNESS	WIDTH	(IN)	(IN)	(EACH)	(FT)	(IN)	(EACH)	(FT)	(CU YD)	(LBS)
60	6	88	82	49	4	60	10 1/8	32	48	1.9	113



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

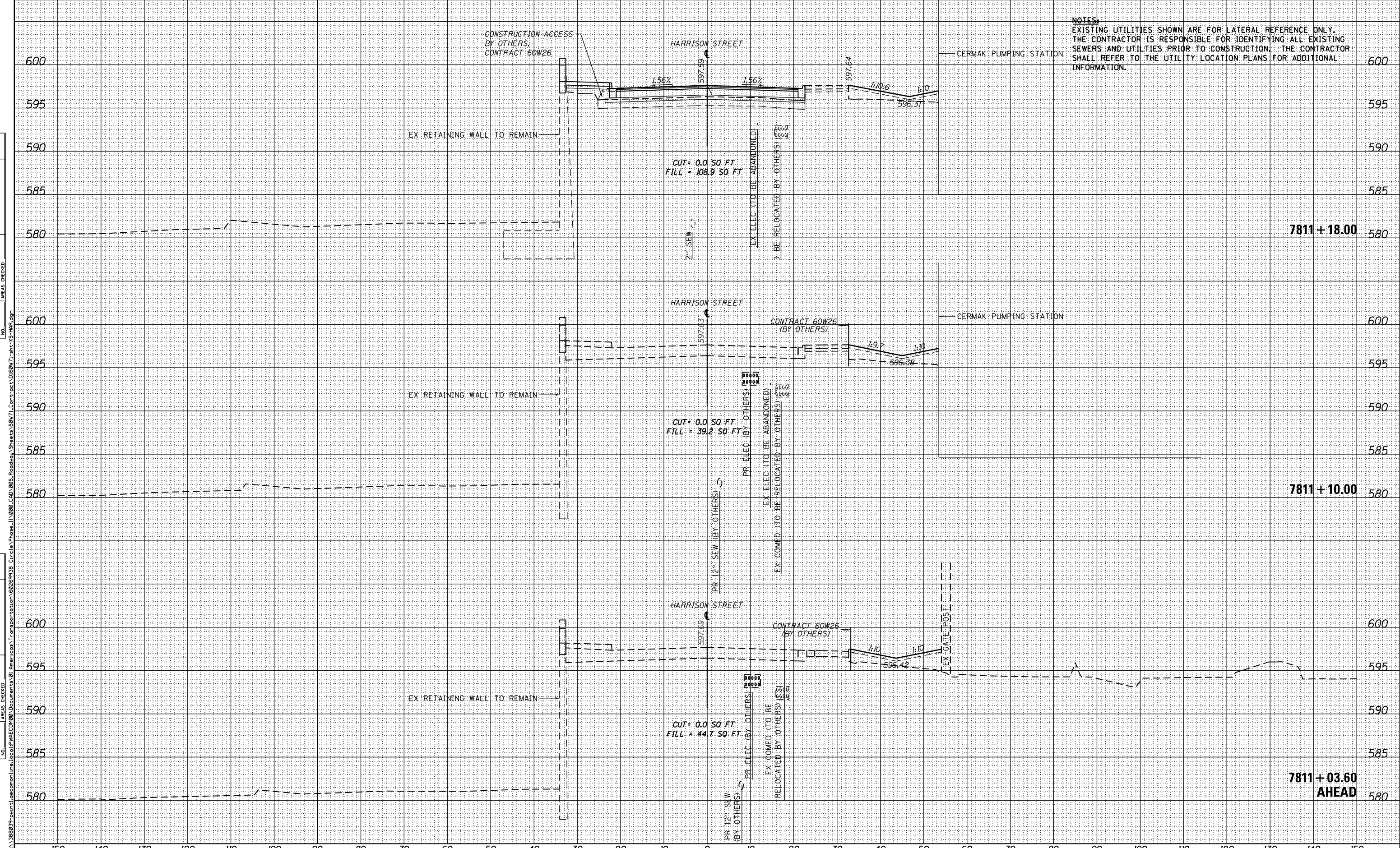
DRAINAGE DETAILS
CONCRETE COLLAR

SCALE: NTS SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	253
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

DATE	
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NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



NOTES:
 EXISTING UTILITIES SHOWN ARE FOR LATERAL REFERENCE ONLY.
 THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL EXISTING
 SEWERS AND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR
 SHALL REFER TO THE UTILITY LOCATION PLANS FOR ADDITIONAL
 INFORMATION.



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PLOT DATE = 2/18/2014	DATE - 02/19/14	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

HARRISON STREET CROSS SECTION

SCALE: 1:5V,1:10H SHEET 1 OF 5 SHEETS STA. 7811+03.60 TO STA. 7811+18.00

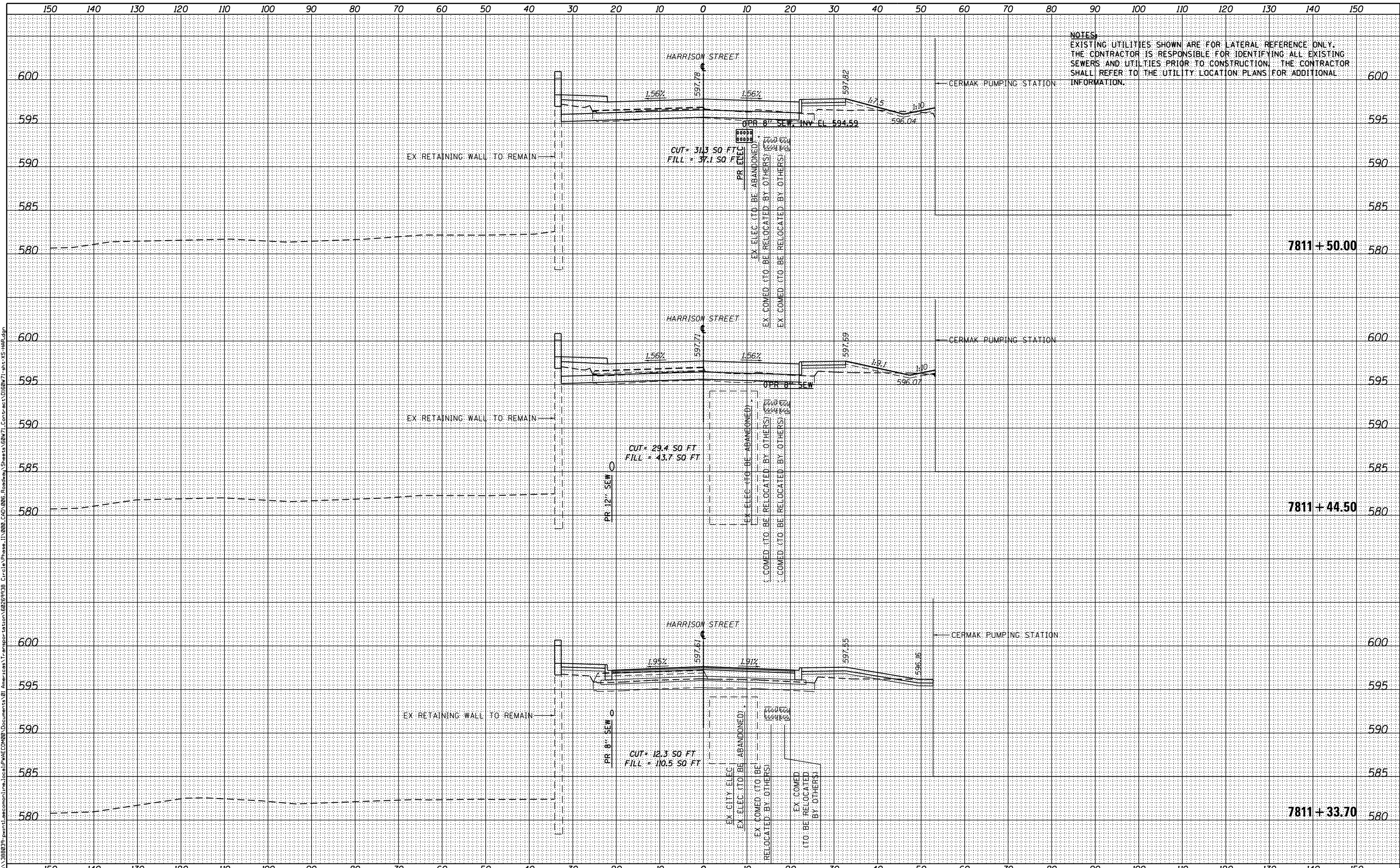
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ILLINOIS FED. AID PROJECT				

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 DATE - 02/19/14

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

HARRISON STREET CROSS SECTION

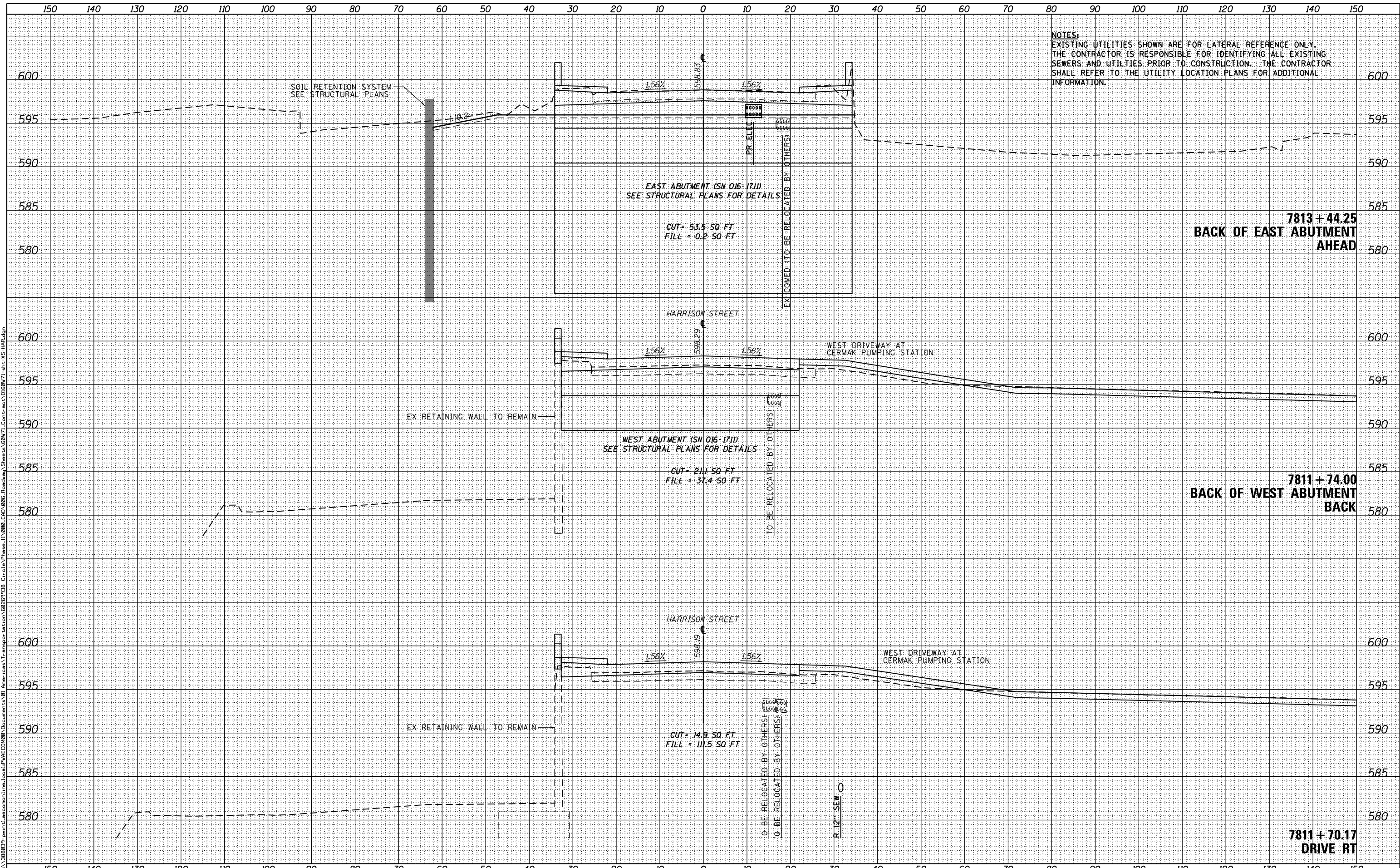
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	254A
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HARRISON STREET CROSS SECTION

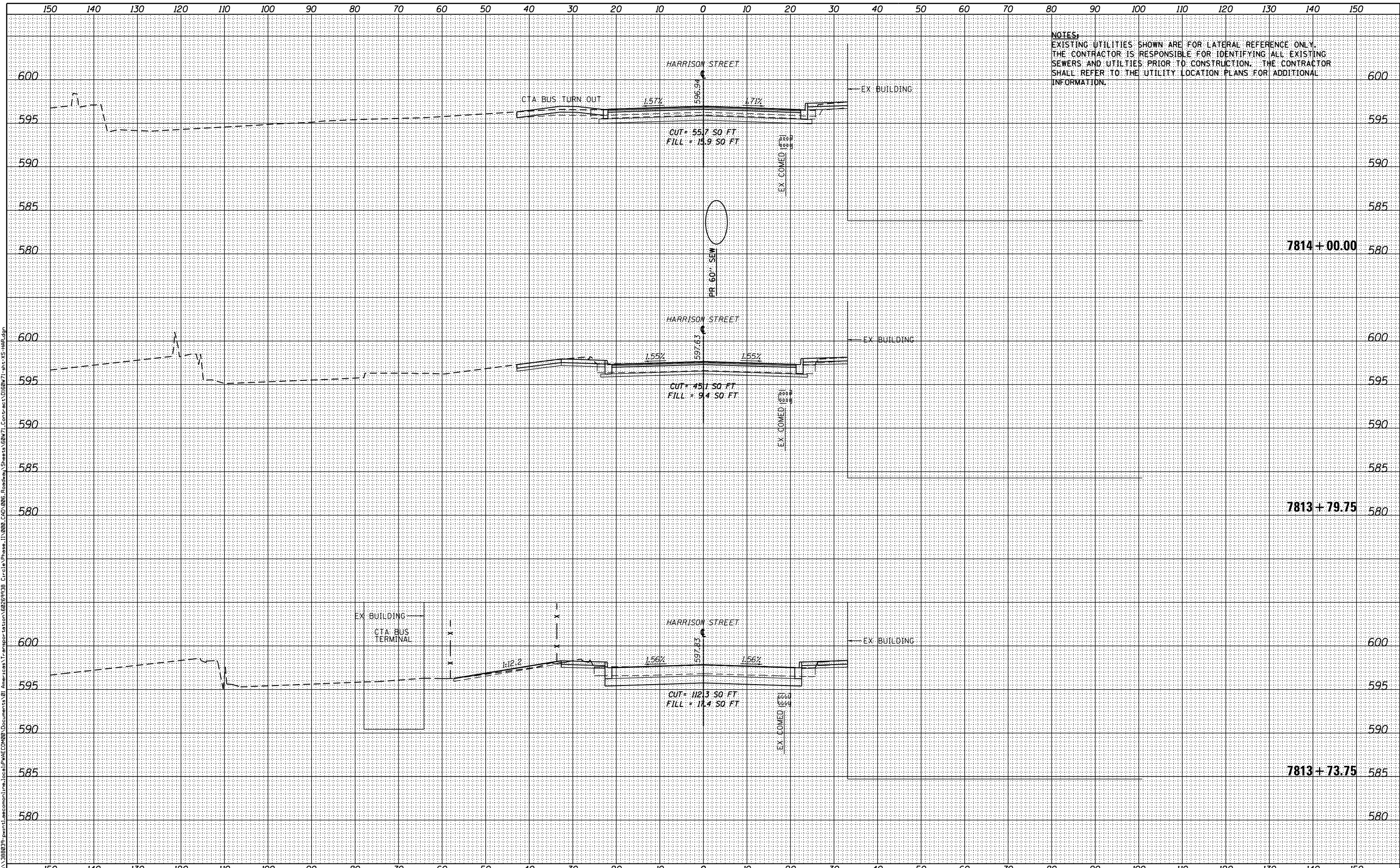
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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NOTES:
EXISTING UTILITIES SHOWN ARE FOR LATERAL REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL EXISTING SEWERS AND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REFER TO THE UTILITY LOCATION PLANS FOR ADDITIONAL INFORMATION.



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 CHECKED - DBM
 DATE - 02/19/14

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

HARRISON STREET CROSS SECTION

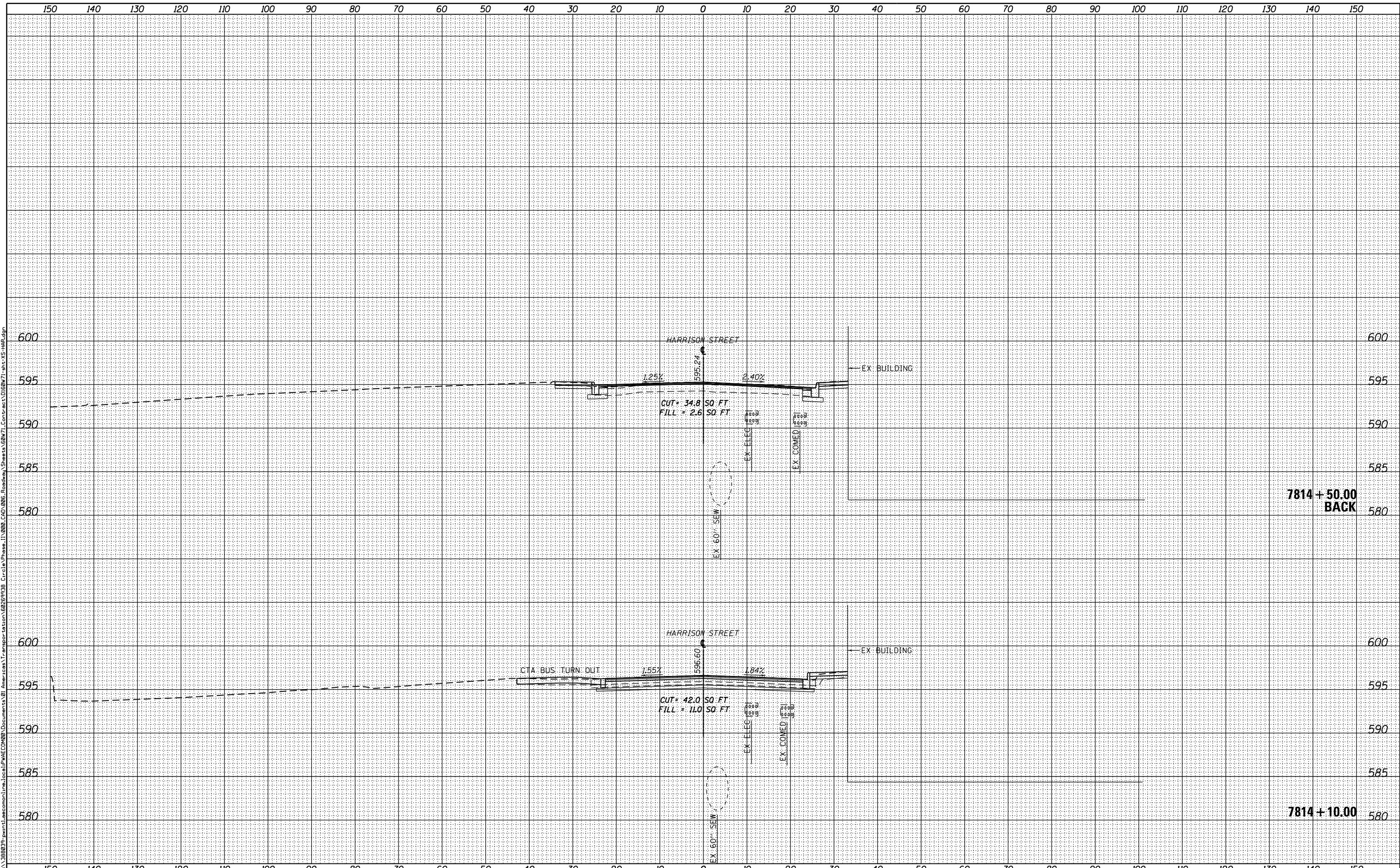
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	255A
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				

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NOTE BOOK	PLOTTED
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DATE	
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

HARRISON STREET CROSS SECTION

SCALE: 1:5V,1:10H SHEET 5 OF 5 SHEETS STA. 7814+10.00 TO STA. 7814+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	256
CONTRACT NO. 60W71				
ILLINOIS FED. AID PROJECT				