

LEGEND

- THERMOPLASTIC PAVEMENT MARKING LETTERS AND SYMBOLS (WHITE)
- THERMOPLASTIC PAVEMENT MARKING LINE 4"
- THERMOPLASTIC PAVEMENT MARKING LINE 4" (YELLOW EDGE LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 8"
 (WHITE EDGE LINE)
- THERMOPLASTIC PAVEMENT MARKING LINE 8" (WHITE DIAGONALS SPACED @ 10' CENTERS)
- THERMOPLASTIC PAVEMENT MARKING LINE 12"
 (WHITE DIAGONALS SPACED @ 500' CENTERS)
- THERMOPLASTIC PAVEMENT MARKING LINE 12"
 (YELLOW DIAGONALS SPACED @ 500" CENTERS)
- 8 THERMOPLASTIC PAVEMENT MARKING LINE 12"
 (WHITE GORE DIAGONALS SPACED @ 30' CENTERS)
- 9 THERMOPLASTIC PAVEMENT MARKING LINE 24" (WHITE)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, INLAID, LINE 4" (WHITE 2' DASH, 6' SKIP)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, INLAID, LINE 8" (WHITE 3' DASH, 9' SKIP)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B, INLAID, LINE 5" (WHITE 10' DASH, 30' SKIP)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 4" (WHITE EDGE LINE)

- POLYUREA PAVEMENT MARKING TYPE 1, LINE 4" (YELLOW EDGE LINE)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 8"
 (WHITE EDGE LINE)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 5" (WHITE 10' DASH, 30' SKIP)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 12"
 (WHITE GORE DIAGONALS SPACED @ 30' CENTERS)
- RAISED REFLECTIVE PAVEMENT MARKER (1-WAY YELLOW / OPAQUE)
- RAISED REFLECTIVE PAVEMENT MARKER (1-WAY CRYSTAL / OPAQUE)
- (WHITE EDGE LINE)
- 21) THERMOPLASTIC PAVEMENT MARKING LINE 6" (WHITE THRU LANE LINE)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 12"
 (YELLOW DIAGONALS SPACED @ 500" CENTERS)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 12"
 (WHITE DIAGONALS SPACED @ 500' CENTERS)
- POLYUREA PAVEMENT MARKING TYPE 1, LETTERS AND SYMBOLS (WHITE)
- POLYUREA PAVEMENT MARKING TYPE 1, LINE 8" (WHITE 3" DASH, 9" SKIP)
- 6) POLYUREA PAVEMENT MARKING TYPE 1, LINE 4" (WHITE 2' DASH, 6' SKIP)

NOTE:

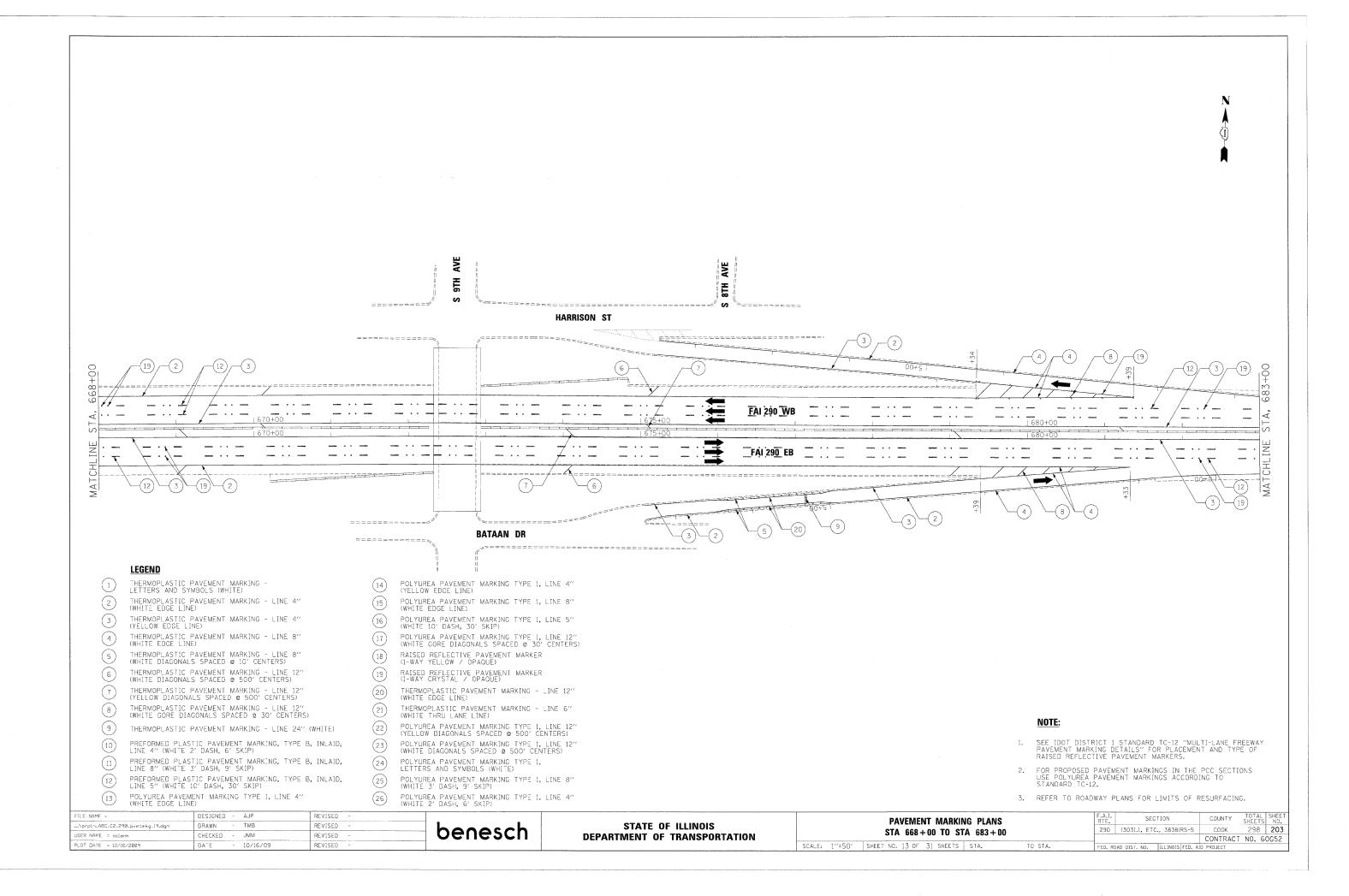
- 1. SEE IDOT DISTRICT I STANDARD TC-12 "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" FOR PLACEMENT AND TYPE OF RAISED REFLECTIVE PAVEMENT MARKERS.
- FOR PROPOSED PAVEMENT MARKINGS IN THE PCC SECTIONS USE POLYUREA PAVEMENT MARKINGS ACCORDING TO STANDARD TC-12.
- 3. REFER TO ROADWAY PLANS FOR LIMITS OF RESURFACING.

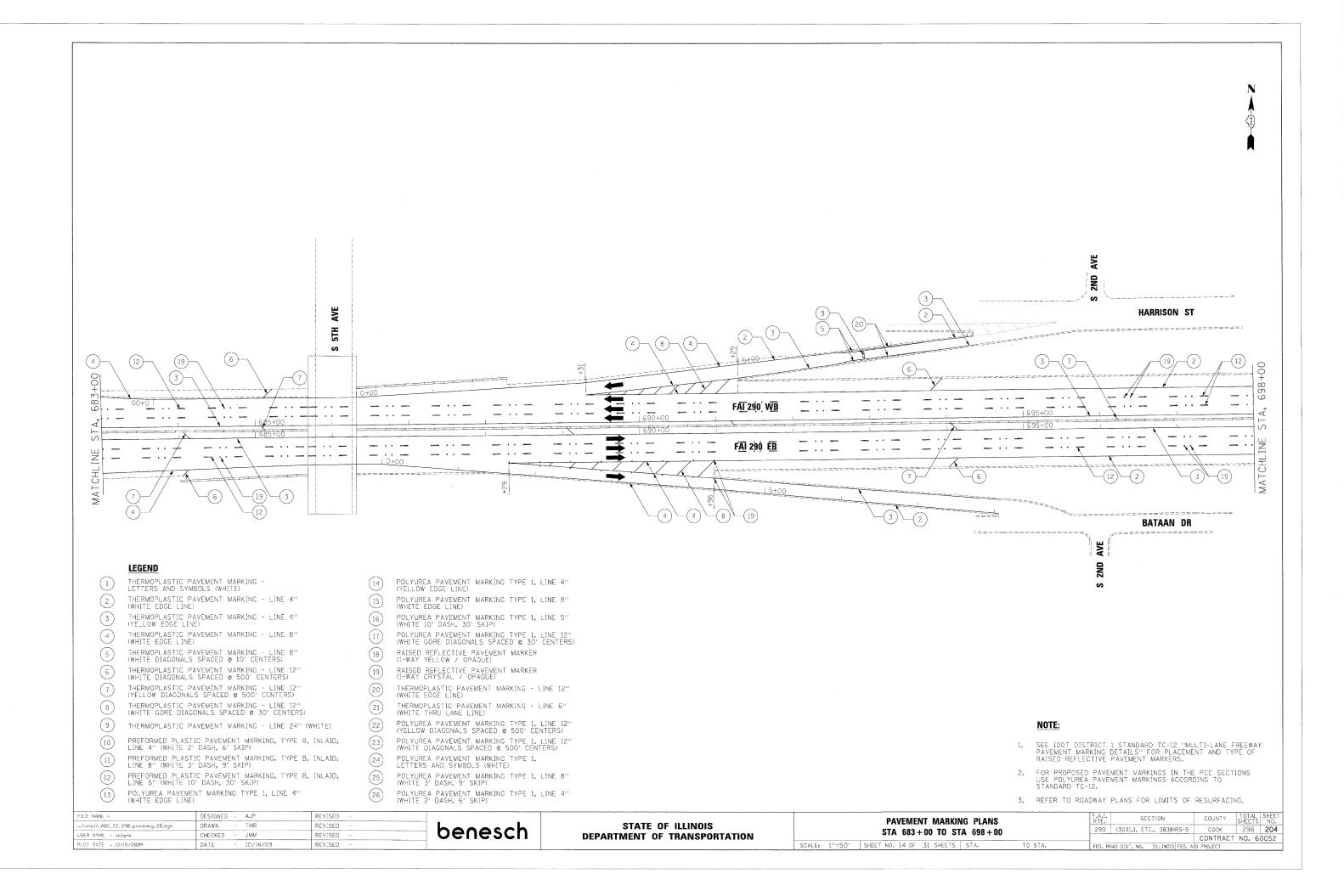
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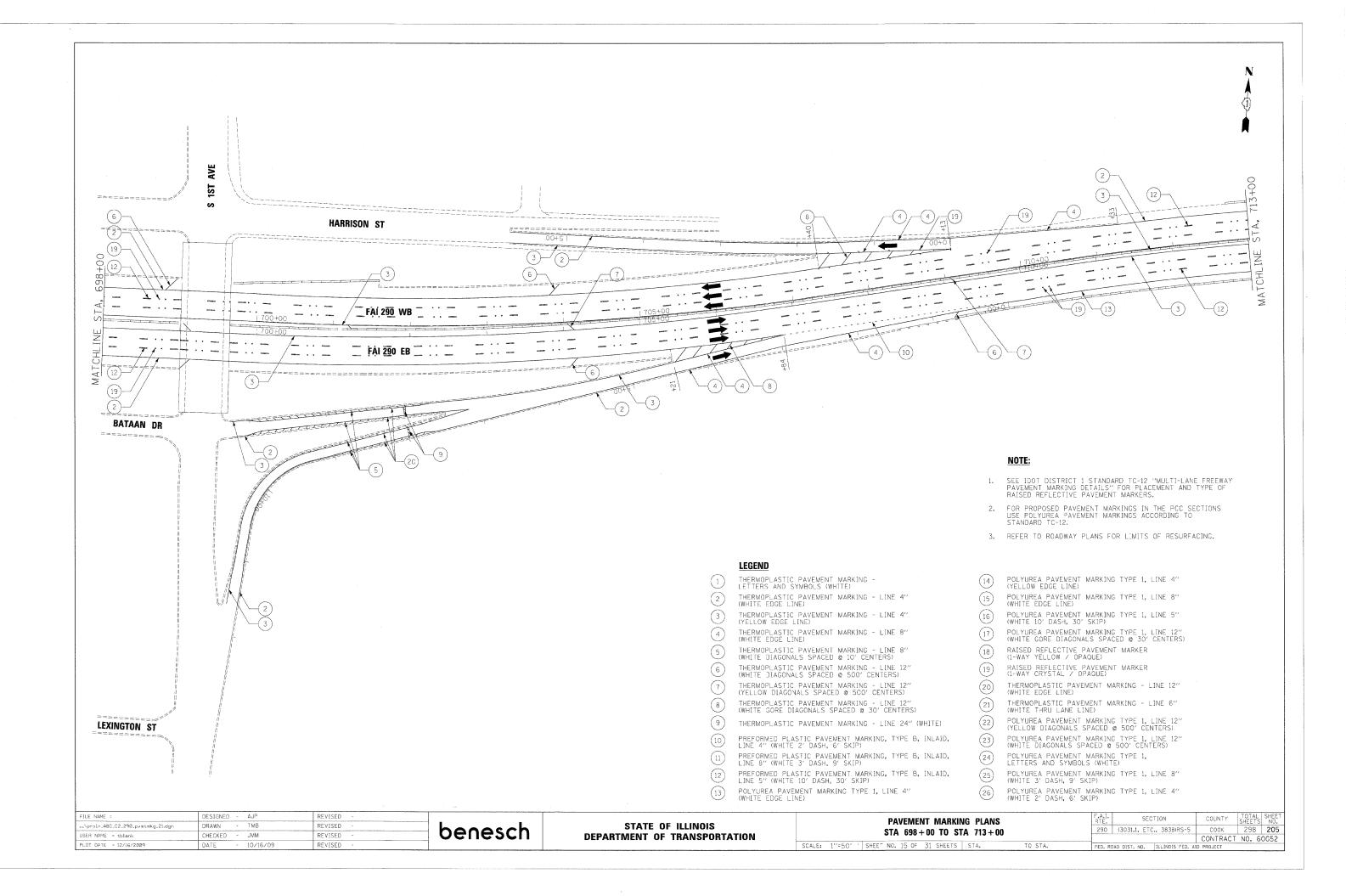
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLANS	F.A.I. SECTION		COUNTY	TOTAL	SHEET NO.
STA 653+00 TO STA 668+00	290	(3031.1, ETC., 3838)RS-5	COOK	298	202
OIR OUT TO THE DOUT OF			CONTRACT	NO. 60)G52
SCALE: 1"=50' SHEET NO. 12 OF 31 SHEETS STA. TO STA.	FED. RO	DAD DIST. NO. ILLINOIS FED. A	D PROJECT		

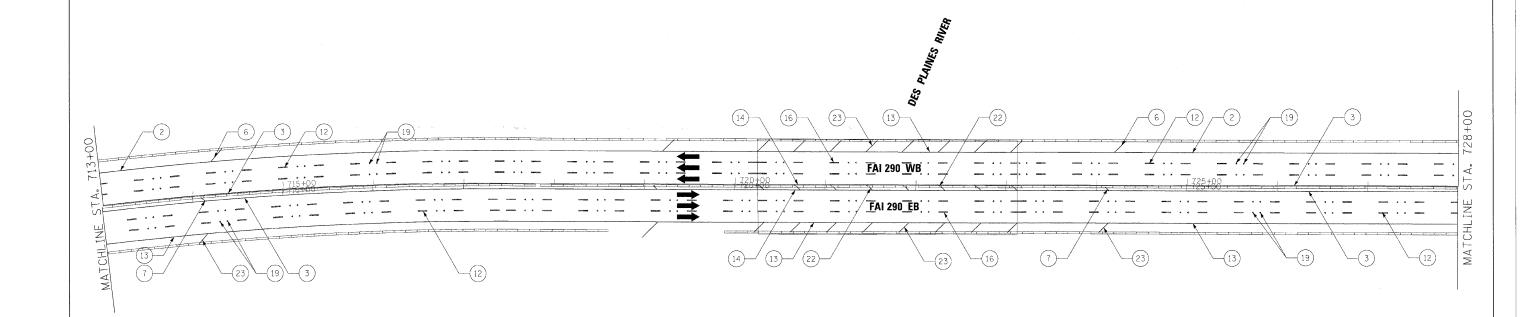






- 1. SEE IDOT DISTRICT 1 STANDARD TC-12 "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" FOR PLACEMENT AND TYPE OF RAISED REFLECTIVE PAVEMENT MARKERS.
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 (WHITE DIAGONALS SPACED @ 10" CENTERS)
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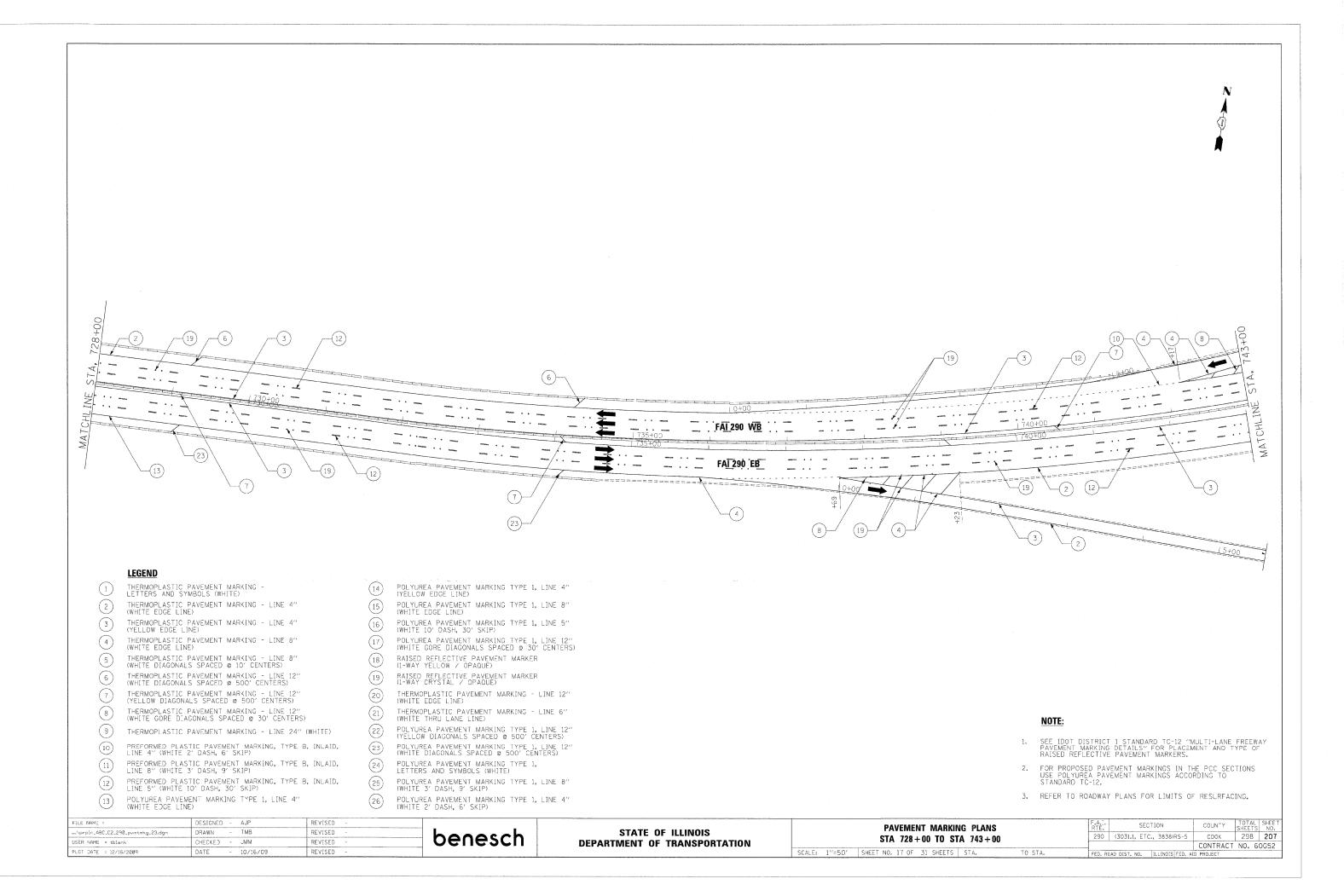
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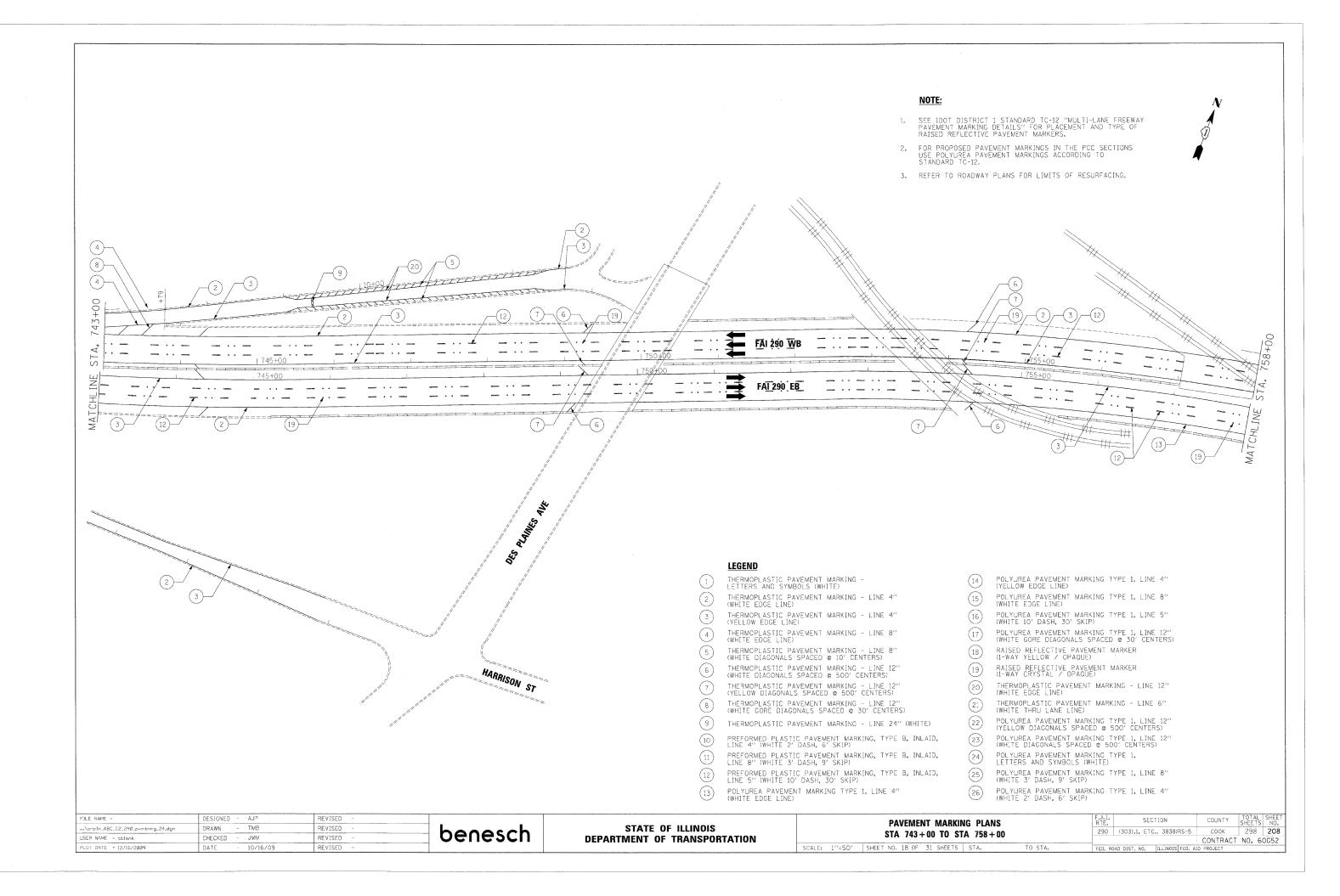
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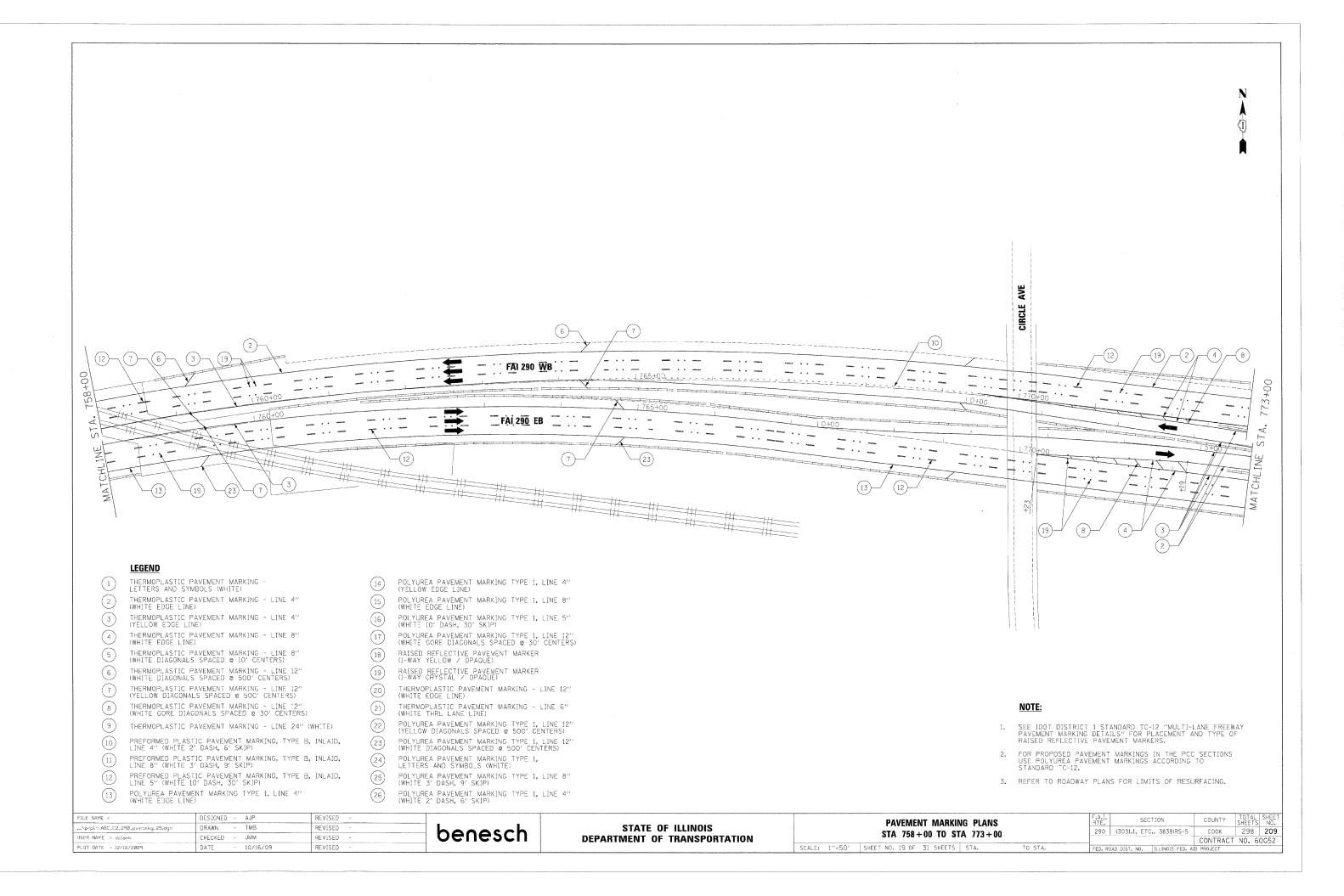
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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SCALE:	1"=50"	SHEET NO.	16 OF	31	SHEETS	STA.	

F.A.I. RTE.	SEC	CTION			COUNTY TO		SHEET NO.
290	(3031.1, ETC., 3838)RS-5				COOK	298	206
					CONTRACT	NO. 6	0G52
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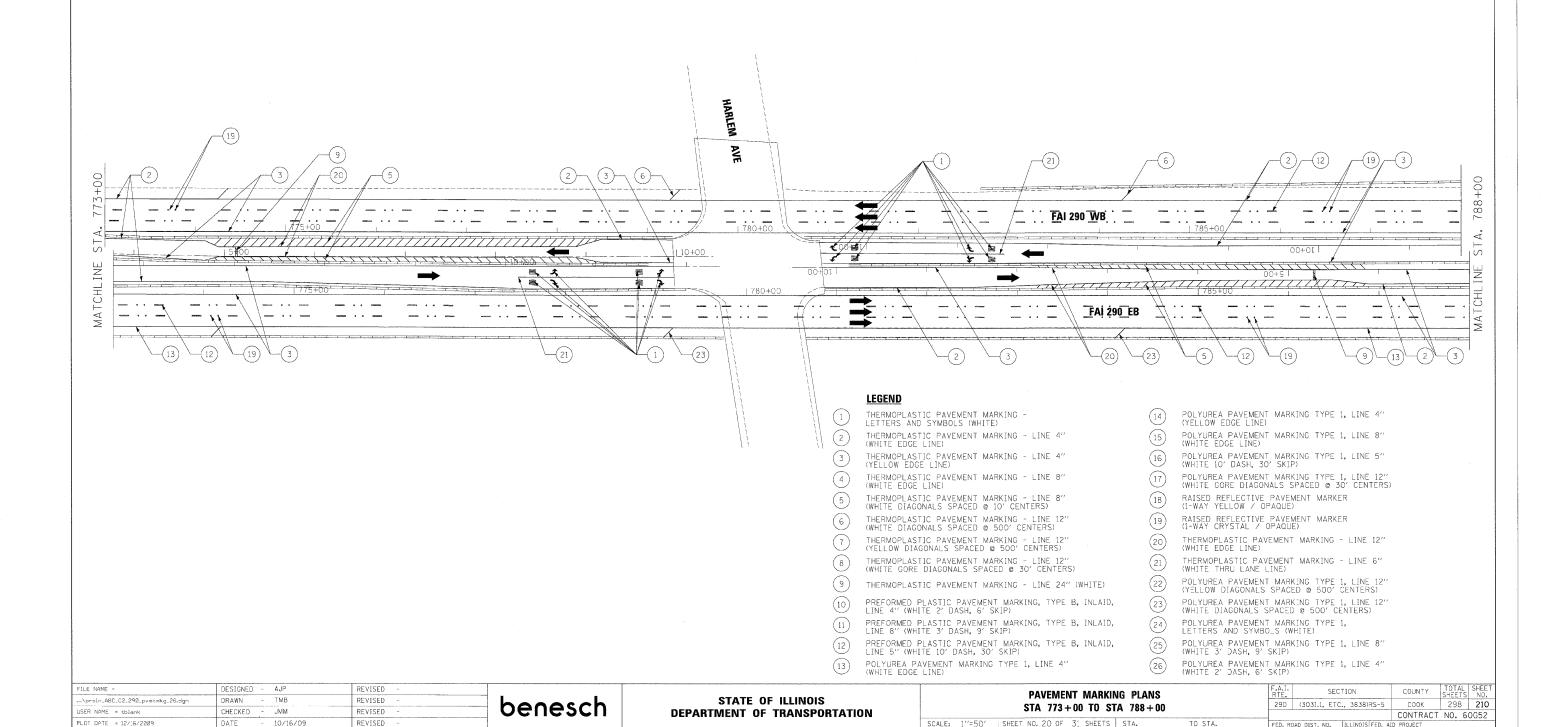




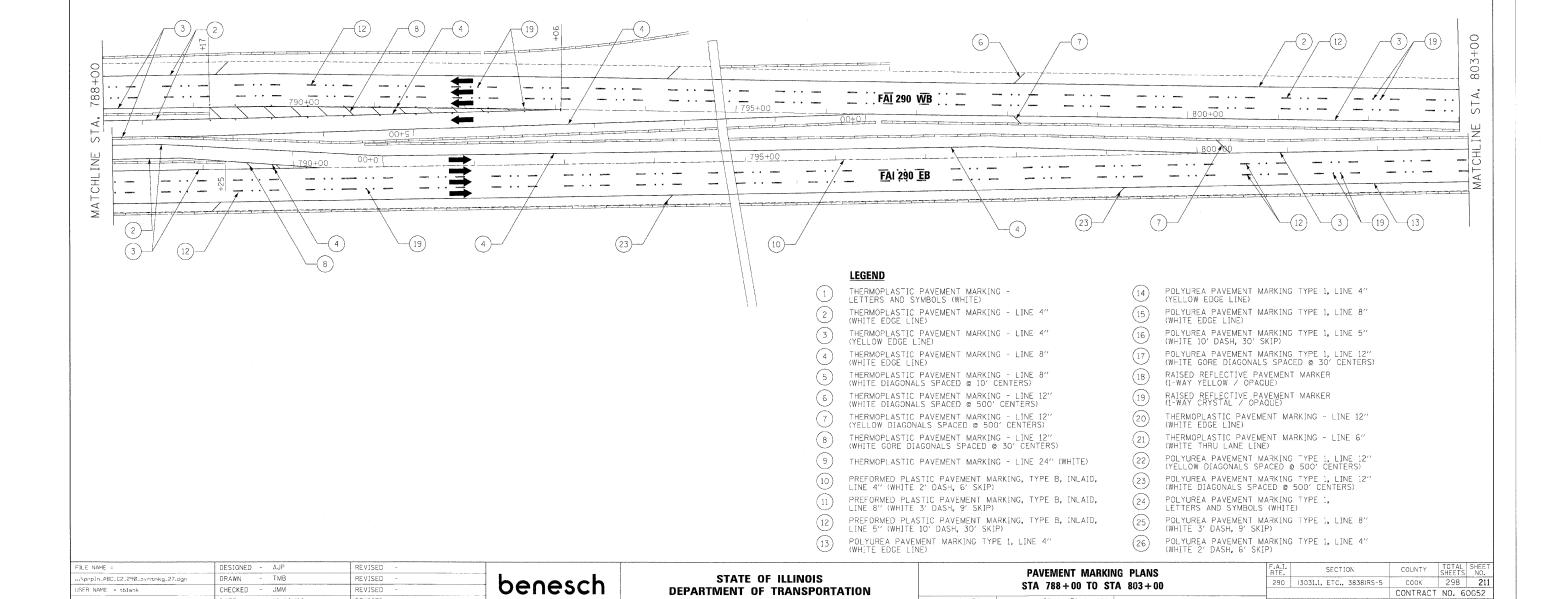
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- SEE IDCT DISTRICT 1 STANDARD TC-12 "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" FOR PLACEMENT AND TYPE OF RAISED REFLECTIVE PAVEMENT MARKERS.
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POLYUREA PAVEMENT MARKING TYPE 1, LINE 4" (WHITE 2' DASH, 6' SKIP)

290 (3031.1, ETC., 3838)RS-5

FED. ROAD DIST. NO.

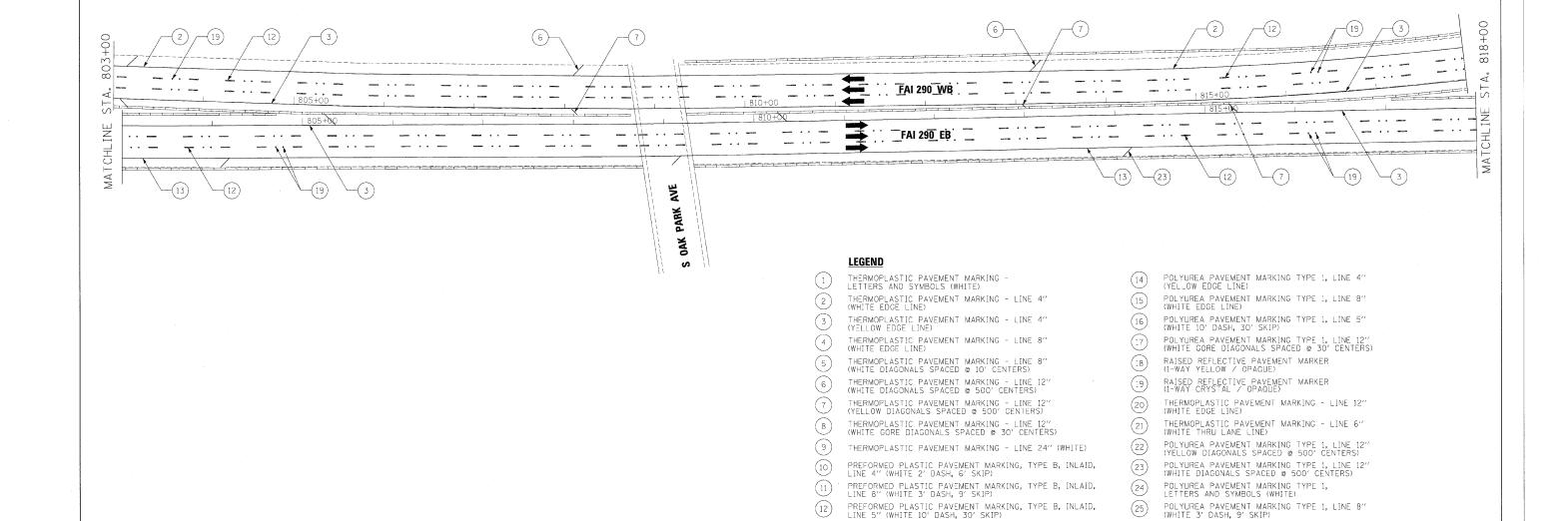


TOTAL SHEET NO. 298 212

CONTRACT NO. 60G52

COUNTY

COOK



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STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

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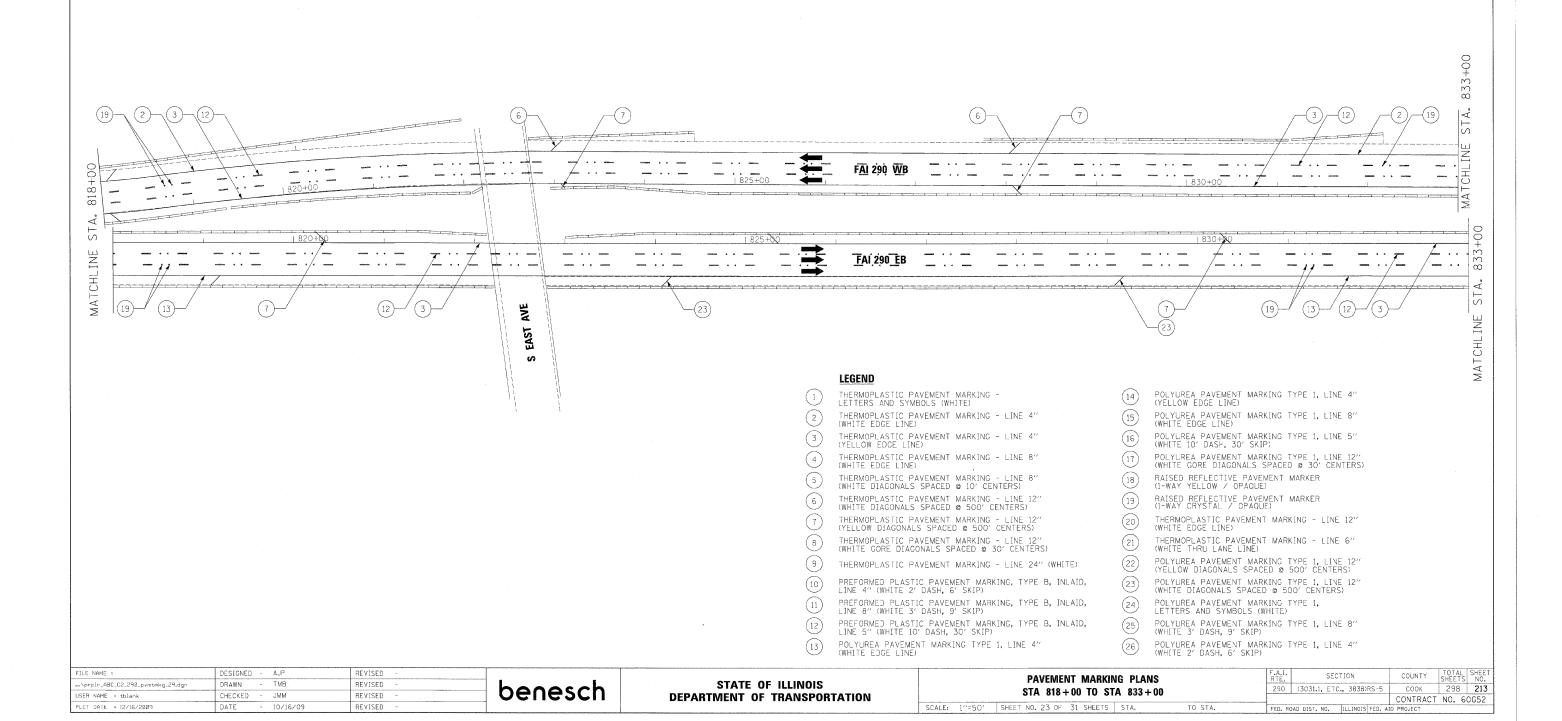
POLYUREA PAVEMENT MARKING TYPE 1, LINE 4" (WHITE EDGE LINE)

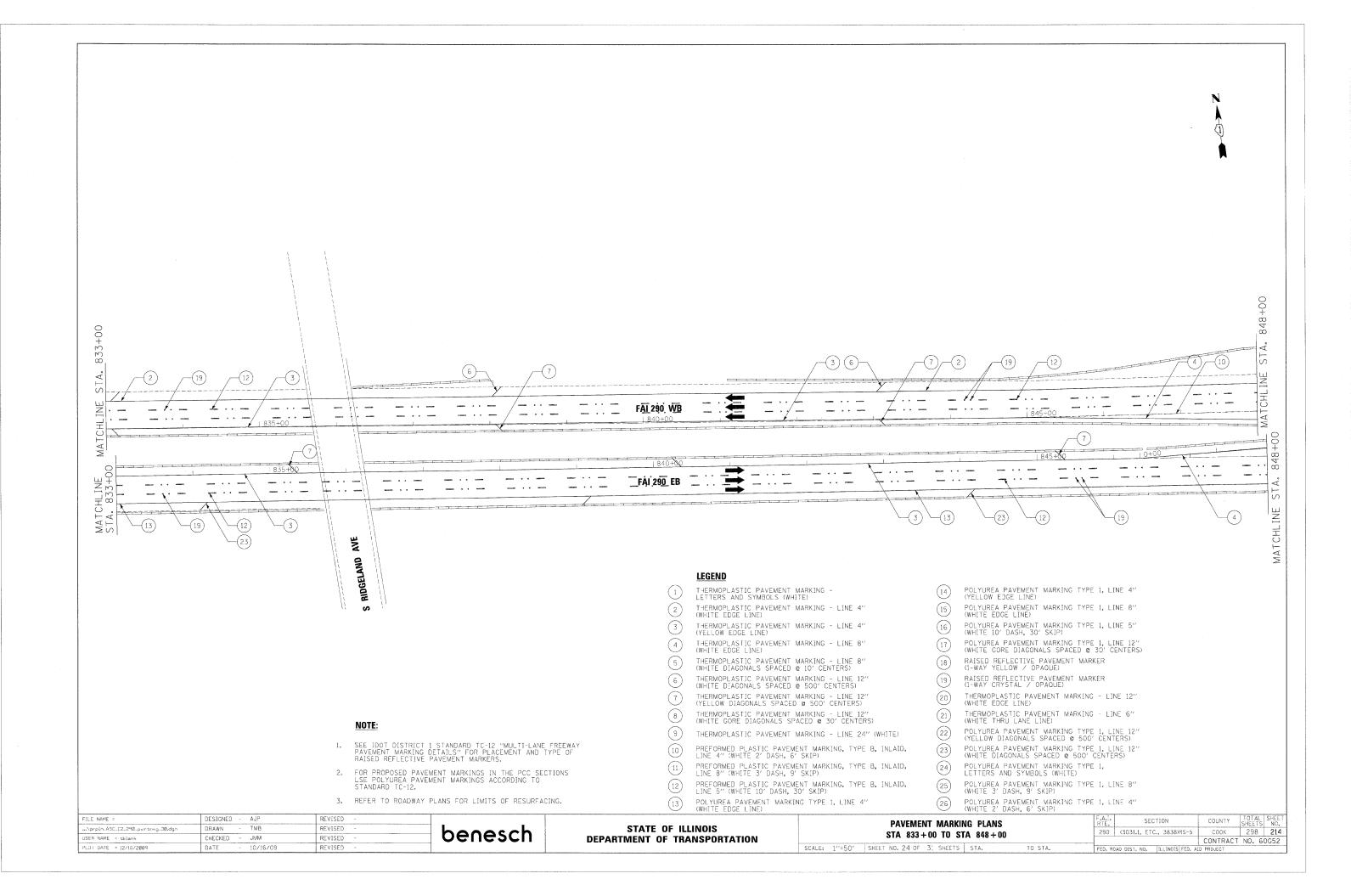
PAVEMENT MARKING PLANS

STA 803+00 TO STA 818+00

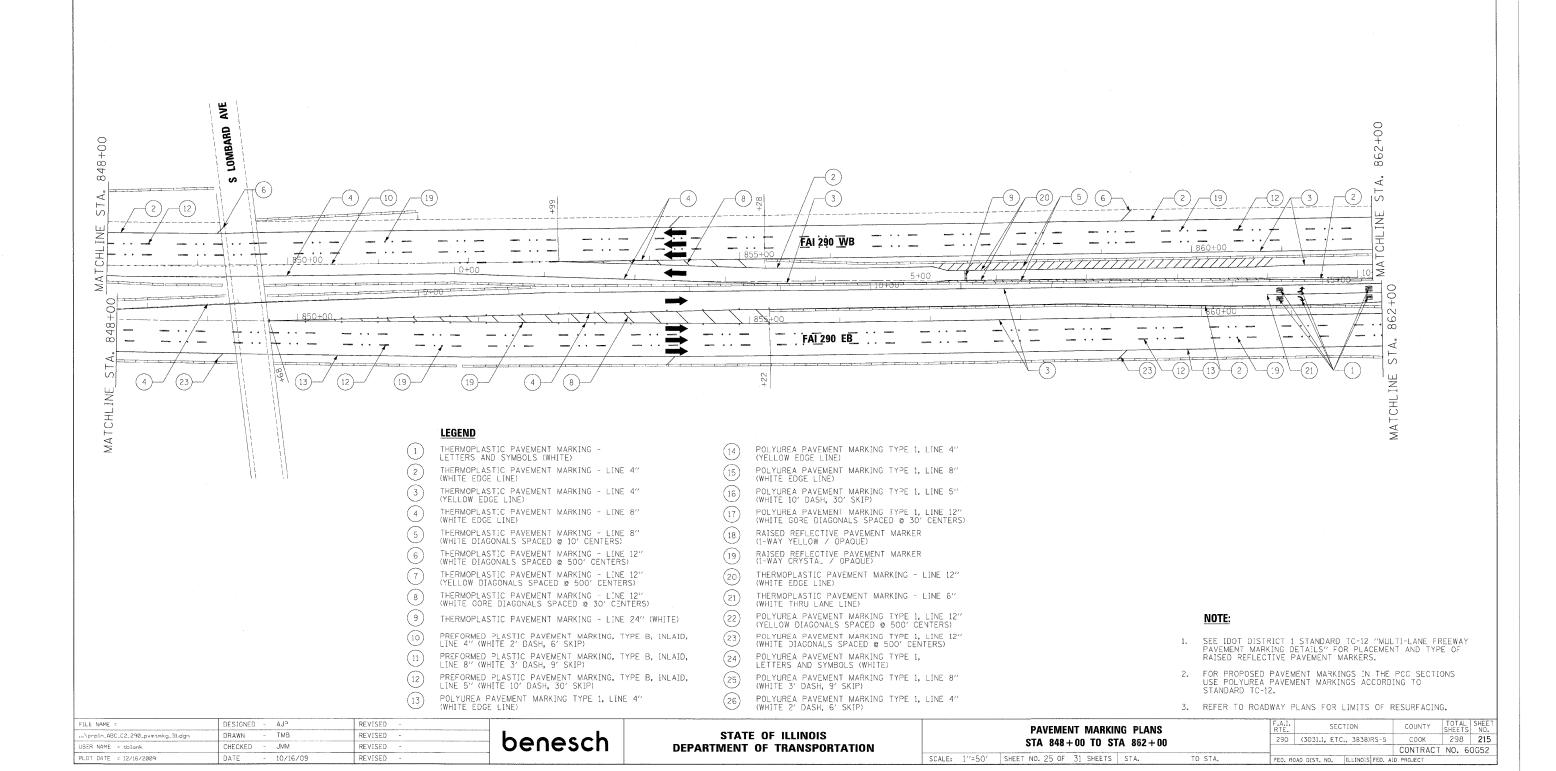
- SEE IDOT DISTRICT 1 STANDARD TC-12 "MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS" FOR PLACEMENT AND TYPE OF RAISED REFLECTIVE PAVEMENT MARKERS.
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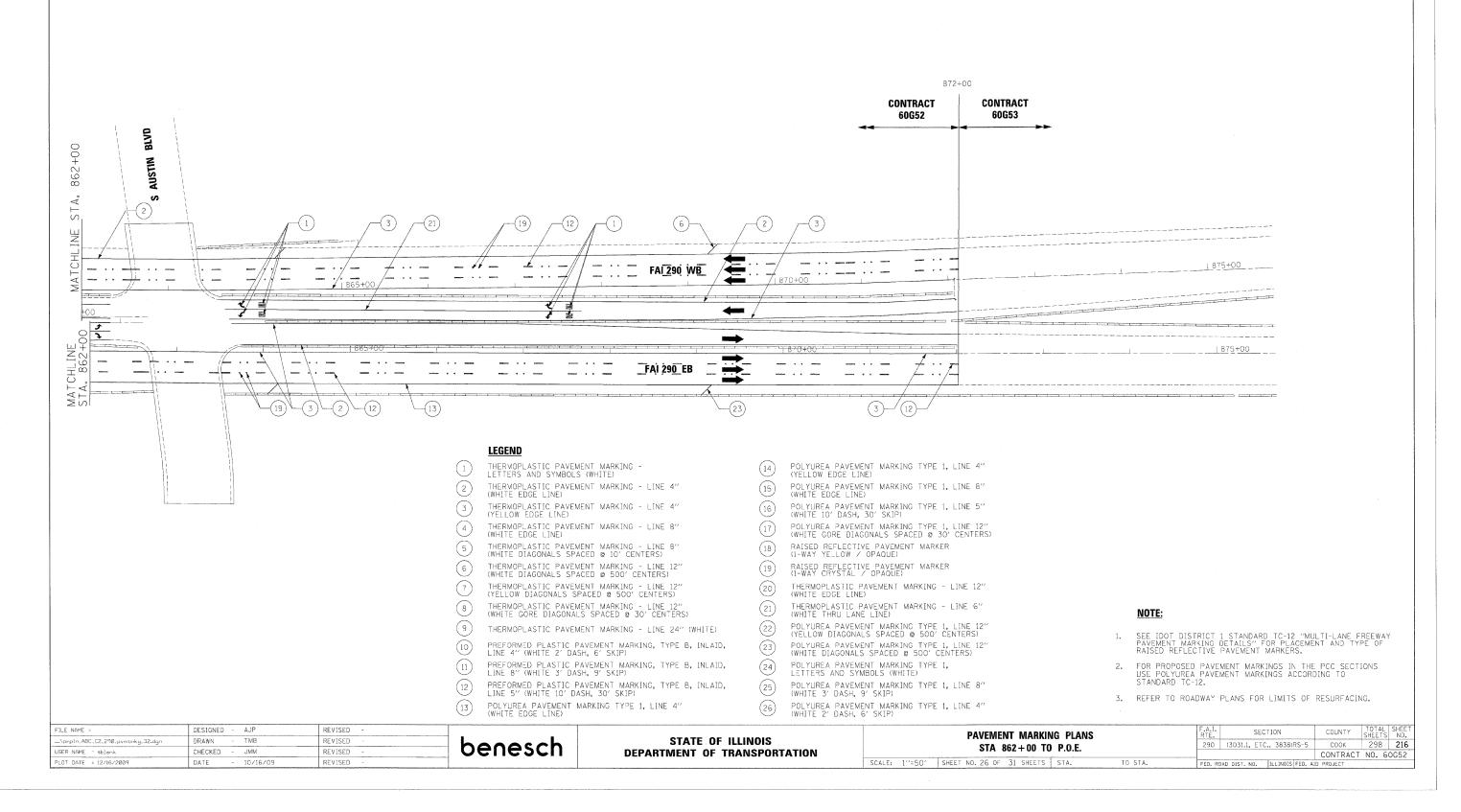


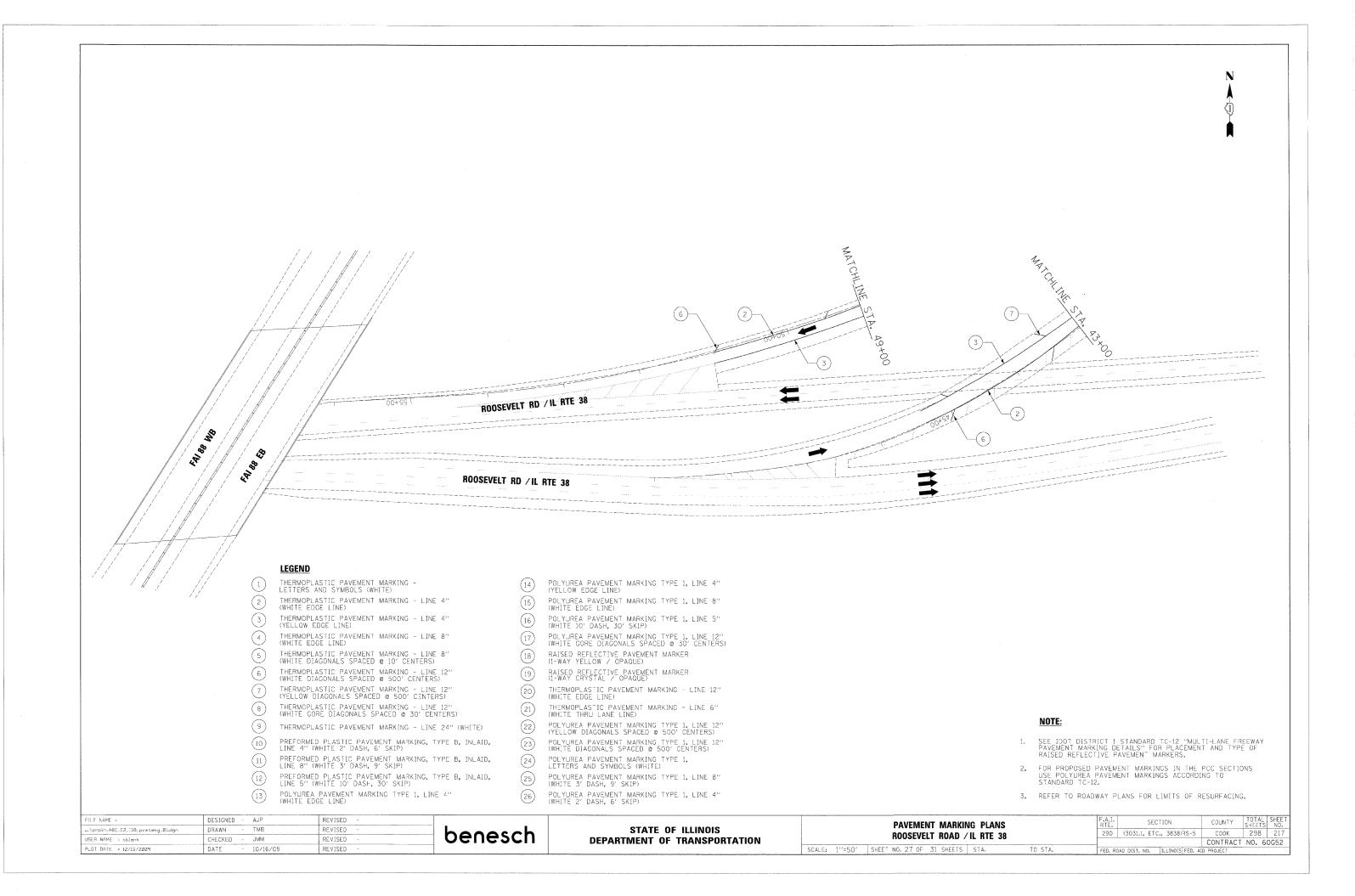


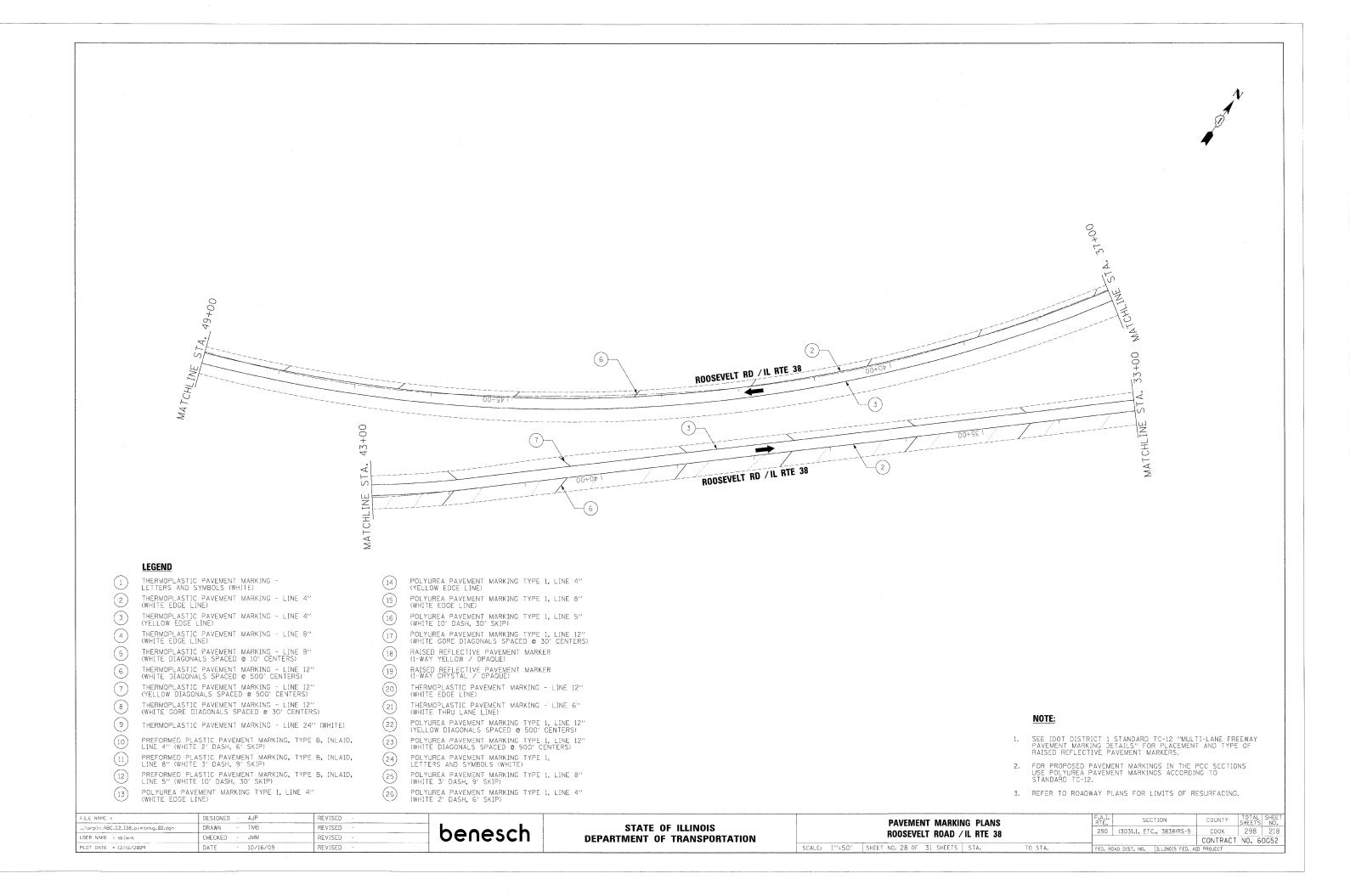


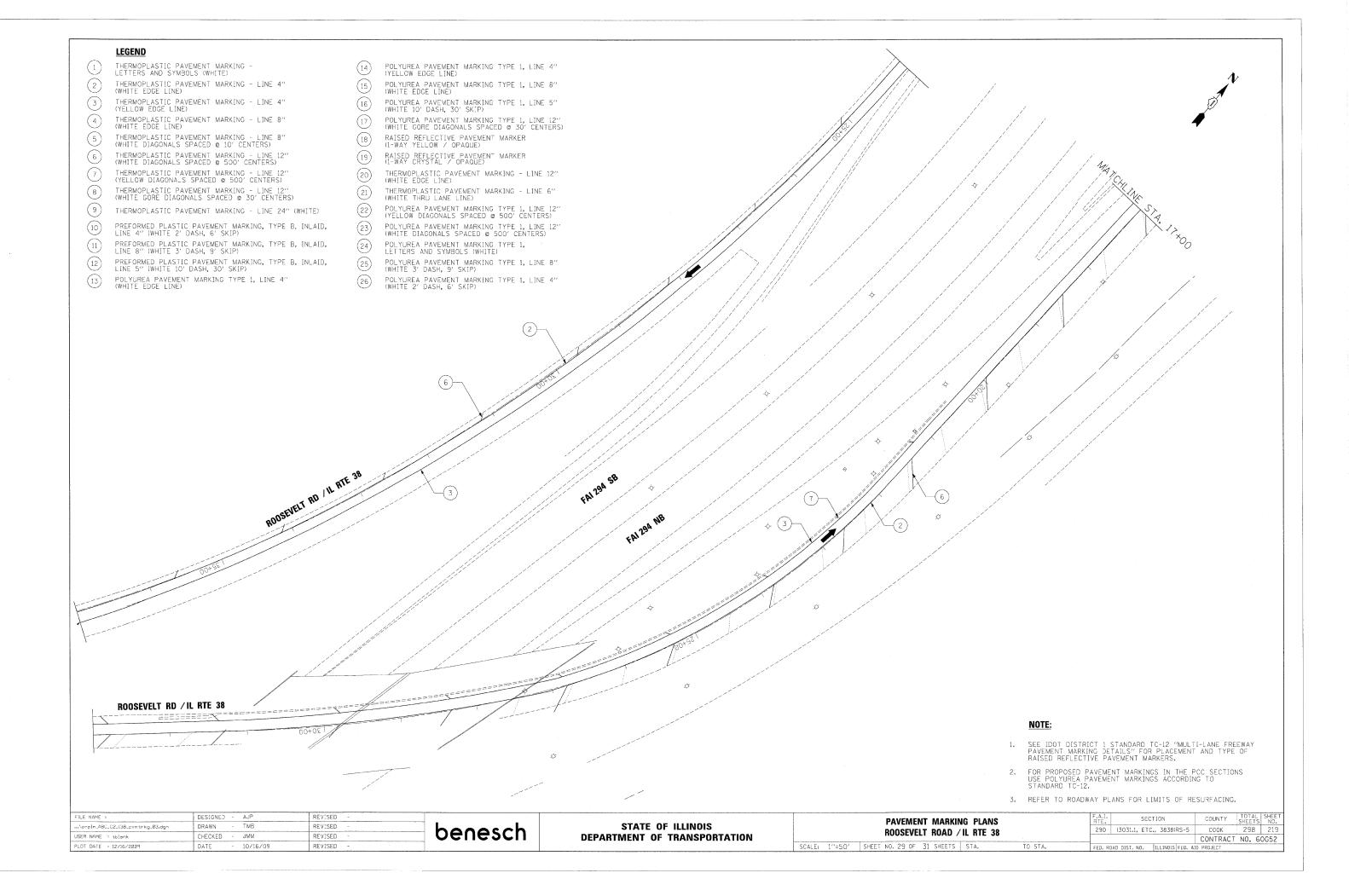


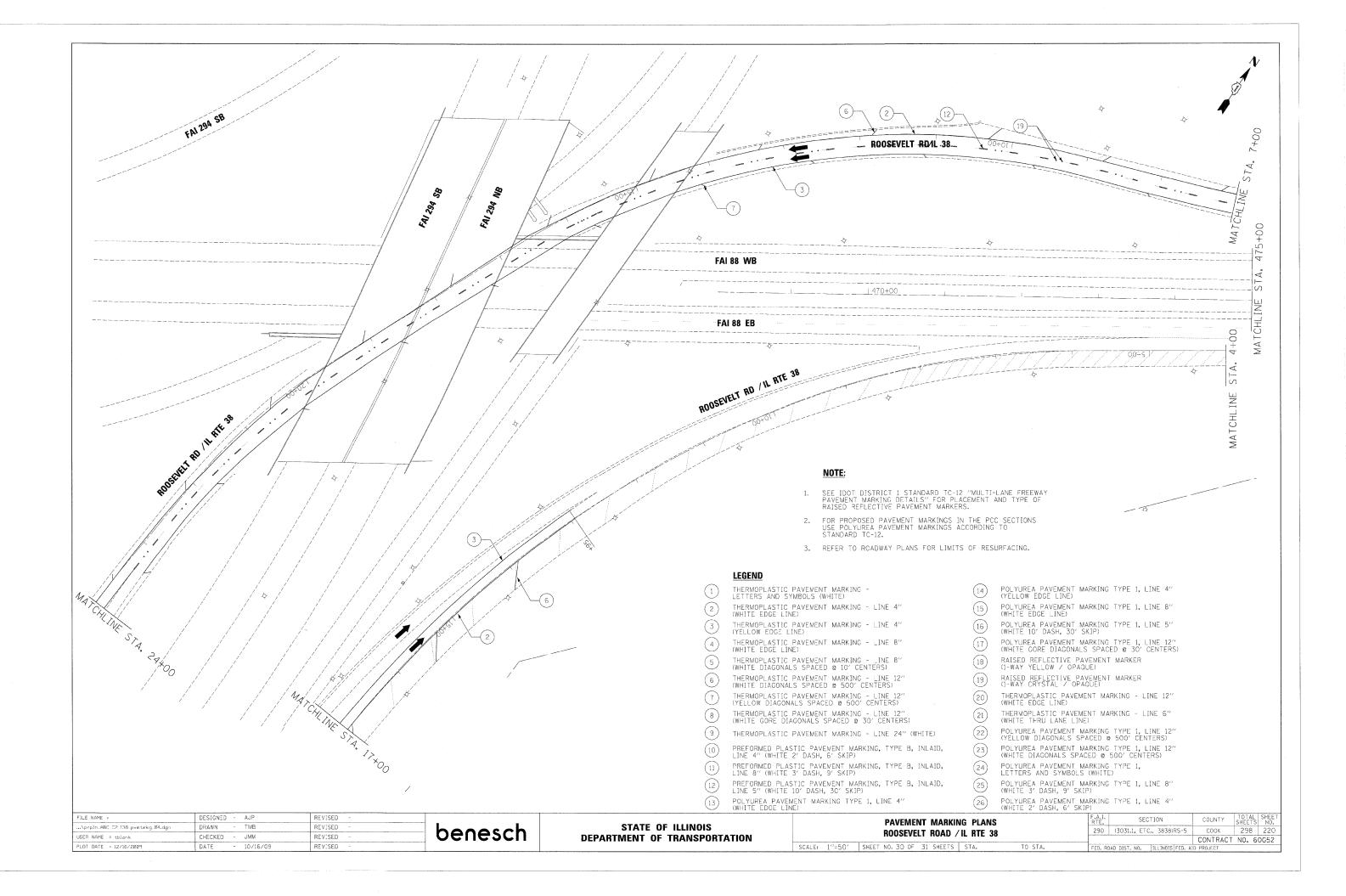


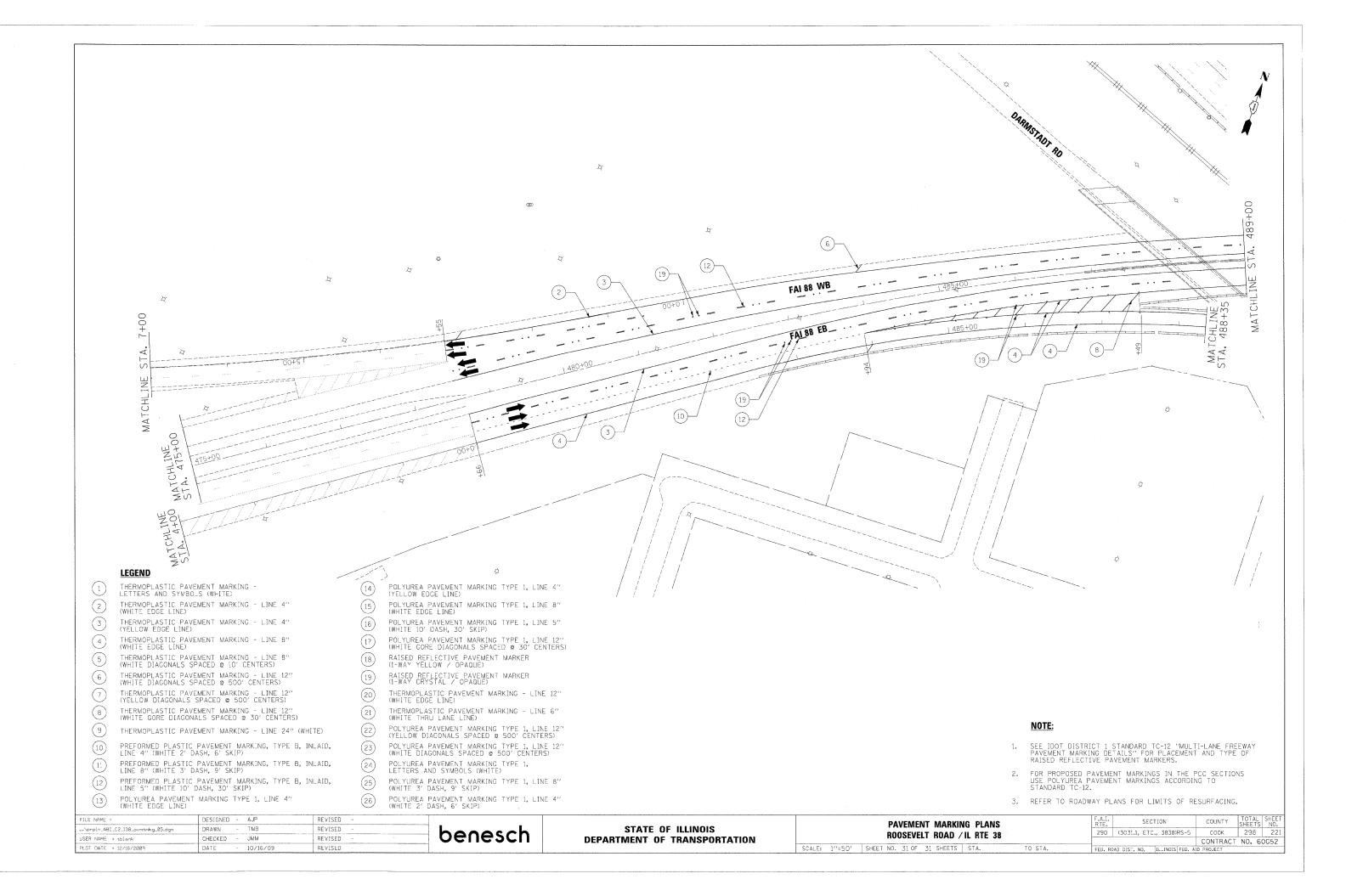












The structure is a four-span continuous steel structure (composite) with a 7.5-inch reinforced concrete deck and

The original structure was built in 1953 and is in Section (3738 & 3838) R-1. In 1984, the bridge was widened and redecked, expansion joints were reconstructed, substructure was repaired, and the superstructure was cleaned and painted. In 1997, the expansion joints were reconstructed und approach slabs were repaired. In 2001, the deck was widened and the substructure was repaired.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

* Measured Radial

** Measured along Local Tangent at Sta. 459+00

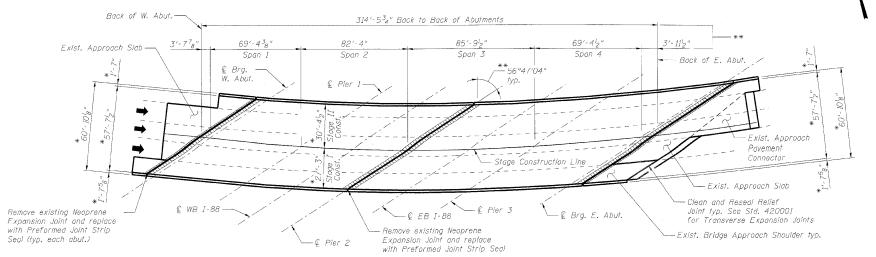
No salvage.

DMS/TJJ

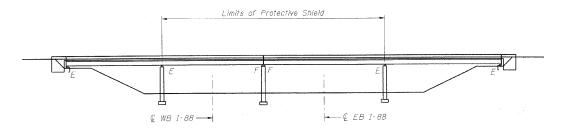
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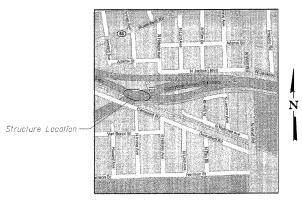
Stage construction shall be utilized to maintain traffic during construction.



PLAN



ELEVATION



LOCATION SKETCH

EFS/AAY CHECKED CHECKED AAY

alfred benesch & company benesch Surveyors - Planners 205 North Michigan Avenue, Sulte 2400 Chicago, Illinois 60601 312-865-0450 Job No. 10050

SHEET NO.1	
9 SHEETS	

D. 1	F.A.I. RTE.		SEC
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TS			
	FED. RO	DAD DIST. I	٧٥.

for Highway Bridges, 17th Edition

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

DESIGN STRESSES

f'c = 3,500 psi fy = 60,000 psi

SCOPE OF WORK

- 1. Repair bridge deck.
- 2. Repair approach slub.
- 3. Reconstruct deck joints at each abutment and Pier 2 with preformed joint strip seal.
- 4. Clean and reseal relief joints at the end of approach pavement connectors.
- 5. Apply concrete sealer to parapets, abutment seats and backwalls, and Pier 2 seats.



STRUCTURE NO. 016-0085 TOTAL SHEET SHEETS NO. CTION COUNTY C., 3838)RS-5 COOK 298 222 CONTRACT NO. 60G52 ILLINOIS FED. AID PROJECT

GENERAL PLAN AND ELEVATION I-290 EB OVER I-88 COOK COUNTY

STATION 459+00

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

DESIGNED - DMS/TJJ

DRAWN

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60, See Special Provisions.
- 2. Reinforcement bars designated (E) shall be epoxy coated.
- 3. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

 As directed by the Engineer, existing construction accessories welded to the

top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrani testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding a inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld dreas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

- 4. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the parapets, abutment and Pier 2 seats, and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included with Concrete Sealer.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 7. Stage construction shall be utilized to maintain traffic during construction.
- 8. The Contractor shall exercise care during removal of existing joints to ensure that the slab, beams and diaphragms' integrity will not be detrimentally impacted. The Contractor shall repair any damage(s) to the slab, beams and diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.
- Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Notes, Bill of Material and Index of Sheets
- 3. Stage Construction Details
- 4. Bridge Deck And Approach Slab Repairs 5. Expansion Joint Repairs 1 of 2
- 6. Expansion Joint Repairs 2 of 2
- 7. Expansion Joint Details
- 8. Preformed Joint Strip Seal
- 9. Bar Splicer Assembly Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	46.7		46.7
Protective Shield	Sq. Yd.	130		130
Concrete Superstructure	Cu. Yd.	46.7		46.7
Reinforcement Bars, Epoxy Coated	Pound	6,180		6,180
Bar Splicers	Each	38		38
Preformed Joint Strip Seal	Foot	328.0		328.0
Concrete Sealer	Sq. Ft.	26,310	1,592	27,902
Approach Slab Repair (Parlial Depth)	Sq. Yd.	10.0		10.0
Deck Slab Repair (Partial)	Sq. Yd.	5.6		5.6
Clean & Reseal Relief Joint	Foot	104.0		104.0

GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-0085

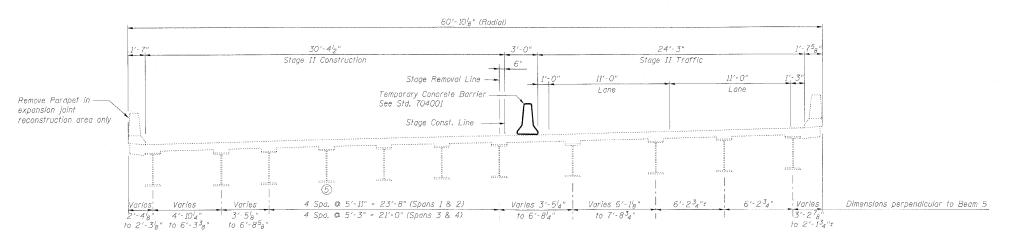
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alfred benesch & company benesch Engineers · Surveyors · Planners 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10050

SHEET NO. 2 9 SHEETS

F.A.I. RTE. TOTAL SHEET NO. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 298 COOK 223 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

STAGE I CROSS SECTION (Looking East)



STAGE II CROSS SECTION (Looking East)

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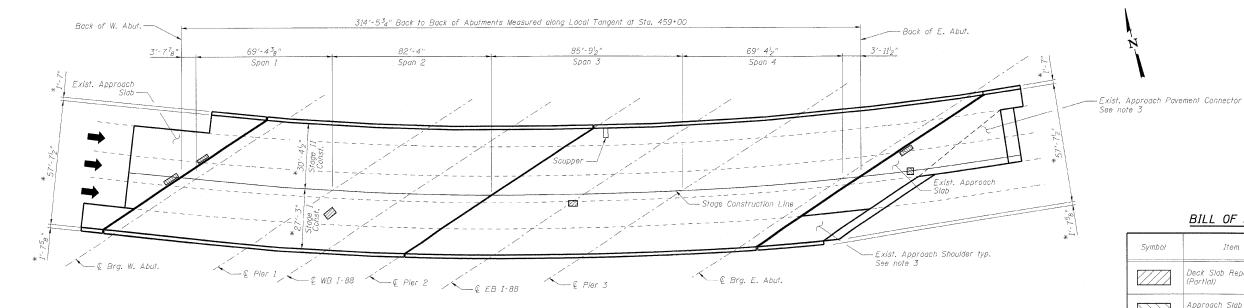
For quantity of Temporary Concrete Barrier, see roadway plans.

STAGE CONSTRUCTION DETAILS STRUCTURE NO. 016-0085

benesch alfred benesch & company Engineers - Surveyors - Planners Stort Michigan Avenue Suite 2400 Chicago, Illinois 60601 306 No. 10050

SHEET NO. 3 9 SHEETS

SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK 298 224 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT

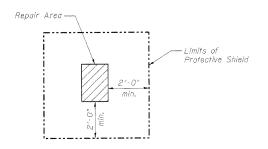


BILL OF MATERIAL

Symbol	Item	Unit	Quantity
	Deck Slab Repair (Partial)	Sq. Yd.	5.6
	Approach Slab Repair (Partial Depth)	Sq. Yd.	10.0
	Protective Shield	Sq. Yd.	130

PLAN

* Measured Radial



PROTECTIVE SHIELD DETAIL

Notes:

- Deck and approach slab repair areas are estimated based on visual inspection completed in June 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- 2. Protective Shield, required for deck slab and/or parapet repairs, shall be installed according to Article 501.03 of the Standard Specifications. For limits of Protective Shield, see Protective Shield Detail on this sheet and Elevation on General Plan and Elevation sheet.
- 3. The Engineer shall determine the type and quantity of Class A patching and the quantity of Mixture for Cracks, Joints and Flangeways. Estimated quantities are included in the overall Summary of Quantities in Roadway Plans.

BRIDGE DECK AND APPROACH SLAB REPAIRS STRUCTURE NO. 016-0085

COUNTY

298

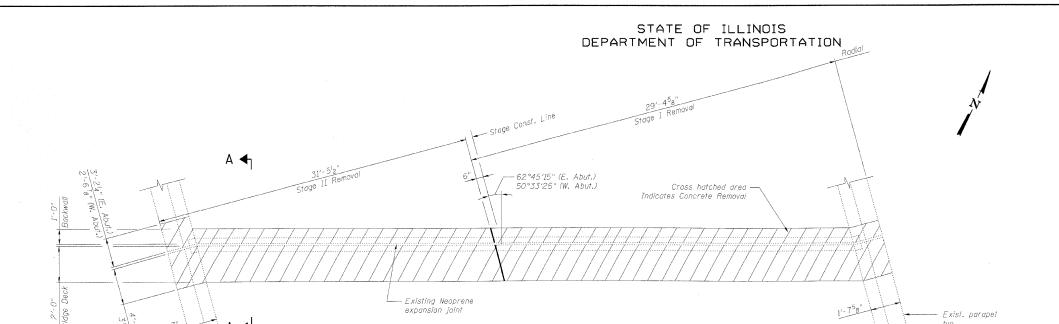
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Engineers · Surveyors · Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-965-0450 Job Not. 10050

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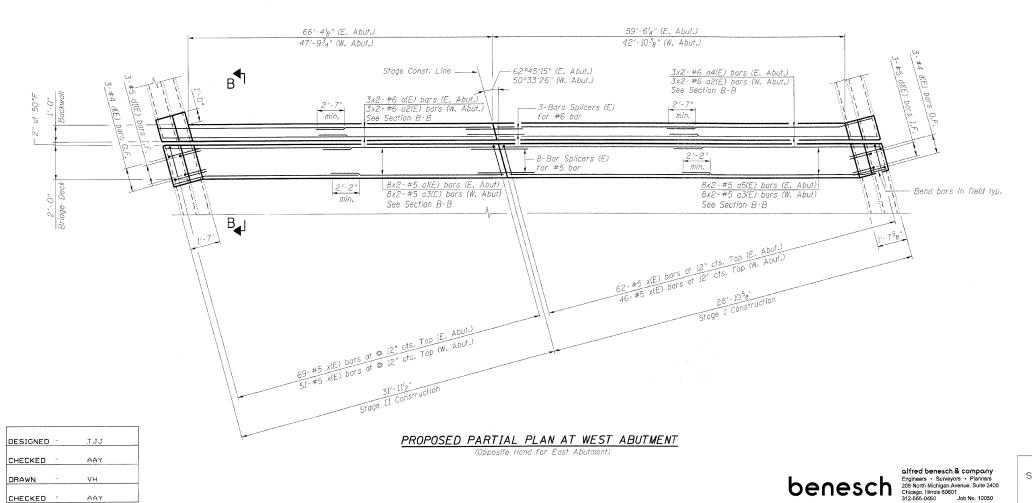
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	290	(3031.1, ETC.	, 3838)	RS-5	СООК
SHEETS					CONTRA
	FED. RO	DAD DIST. NO.	ILLINOIS	FED.	AID PROJECT

225 CONTRACT NO. 60G52

DMS/TJJ DESIGNED EFS/AAY DRAWN RMG CHECKED -AAY



EXISTING PARTIAL PLAN AT WEST ABUTMENT



CHECKED

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	6	#6	351-9"	
a1(E)	16	#5	35′-9"	
a2(E)	12	#6	26′-3"	
a3(E)	32	#5	26'-3"	
04(E)	6	#6	32'-5"	
a5(E)	16	#5	32'-5"	
d(E)	12	#4	5′-3″	
d1(E)	12	#5	3′-11″	
x(E)	228	#5	2'-3"	
Item			Unit	Total
Concrete Removal			Cu. Yd.	30,7
Concrete Superstructure			Cu. Yd.	30.7
Reinforcen Epoxy Coa			Pound	3,730

Notes:

- bars with 2 lengths per line.
- 2. I.F. denotes Inside Face,
- Bar Splicer Assembly Details sheet.

4, x(E) bar spacing measured along skew.

EXPANSION JOINT REPAIRS 1 of 2 STRUCTURE NO. 016-0085

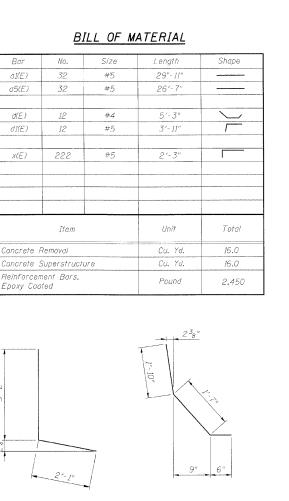
COUNTY

CONTRACT NO. 60G52

TOTAL SHEET NO.

298 226

SHEET NO.5	F.A.I. RTE.	SEC	TION		COUNTY
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9 SHEETS					CONTRA
	FED. R	DAD DIST. NO.	ILLINOIS	FED.	AID PROJECT



Notes:

BAR d(E)

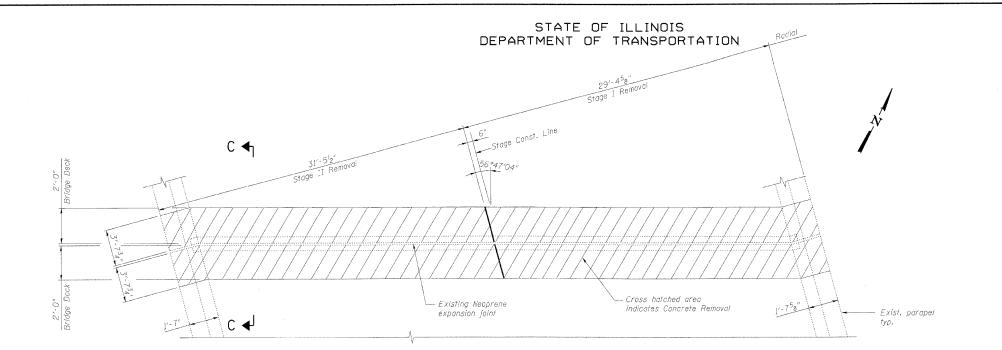
- 1. Bars indicated thus 8x2-#5 etc. indicates 8 lines of bars with 2 lengths per line.
- 2. I.F. denotes Inside Face. O.F. denotes Outside Face.
- 3. Work this sheet with Expansion Joint Details sheet and Bar Splicer Assembly Details sheet,
- 4. x(E) bar spacing measured along skew.

EXPANSION JOINT REPAIRS 2 of 2 STRUCTURE NO. 016-0085

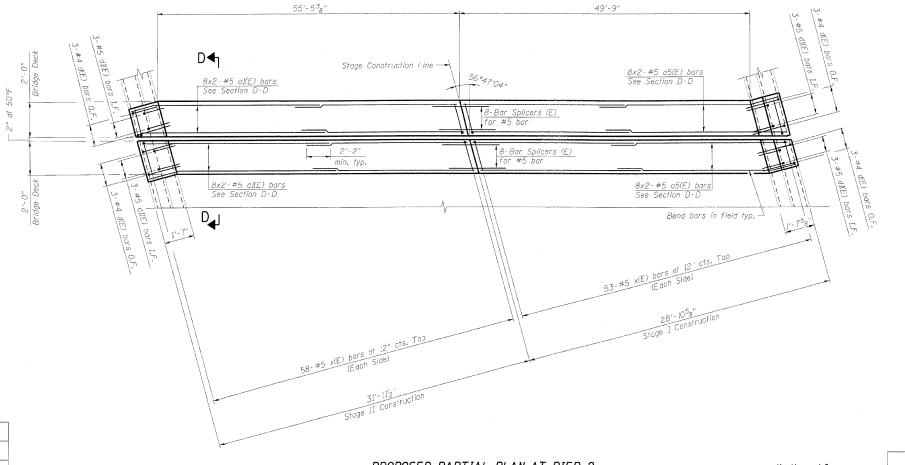
BAR dI(E)

BAR x(E)

SHEET NO. 6	F.A.I. RTE.	SEC ⁻	TION	COUNTY	TOTAL SHEETS	SHEET NO.
	290	(3031.1, ETC.	, 3838)RS-5	СООК	298	227
9 SHEETS				CONTRACT	NO. 60)G52
	FED. RO	OAD DIST. NO.	ILLINOIS FED. A	AID PROJECT		



EXISTING PARTIAL PLAN AT PIER 2

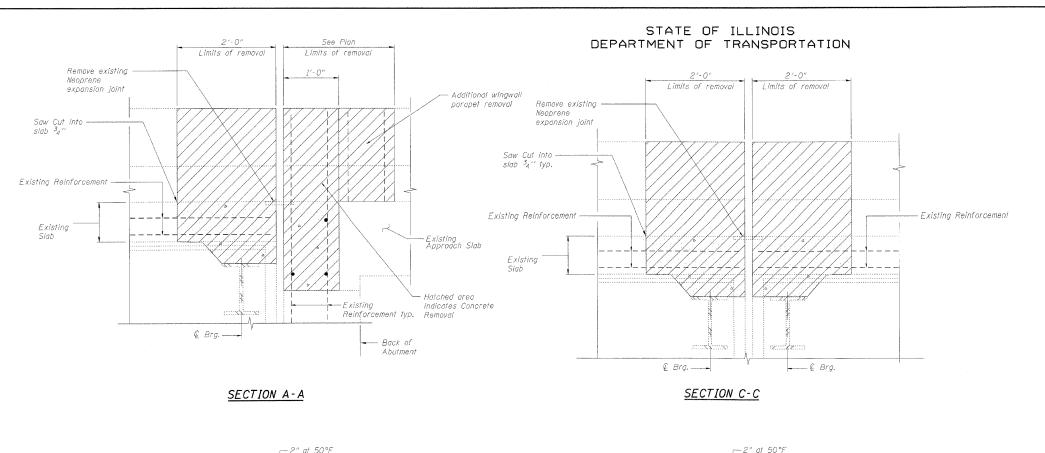


DESIGNED VН DRAWN CHECKED AAY

TJJ

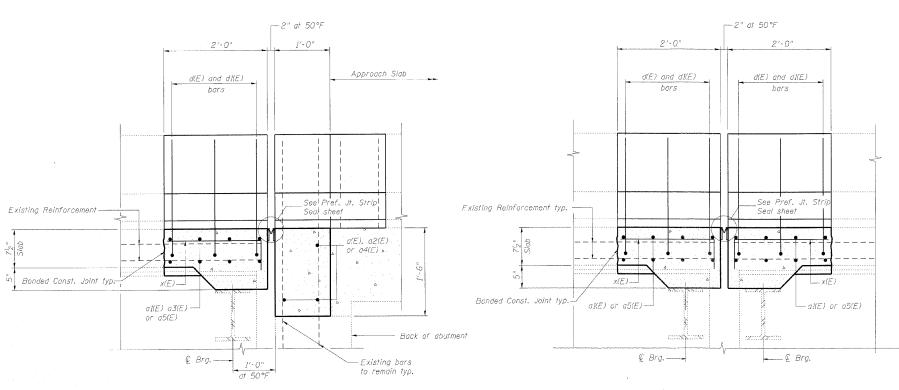
PROPOSED PARTIAL PLAN AT PIER 2

benesch & company Engineers · Surveyors · Planners Go North Michigan Avenue, Sulte 2400 Chicago, Illinois 60801 312-685-0450 Job No. 10050



Notes:

- 1. Existing reinforcement bars extending into the concrete removal area shall be blast-cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be repaired or replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- 2. Existing reinforcement bars in the concrete removal area parallel to the expansion joints shall be removed.
- 3. Removal and disposal of the existing expansion joints will not be paid for separately, but shall be included with the cost of Concrete Removal.
- 4. If existing name plate falls within the limits of Concrete Removal, it shall be removed and reinstalled in its original location in accordance with IDOT Std. 515001. Cost included with Concrete Superstructure.
- 5. If existing guardrail and/or end shoe fall within the limits of Concrete Removal, they shall be removed and reinstalled in their original location in accordance with District 1 Std. BM-21. Cost included with Concrete Superstructure.
- 6. Work this sheet with Expansion Joint Repairs sheet.

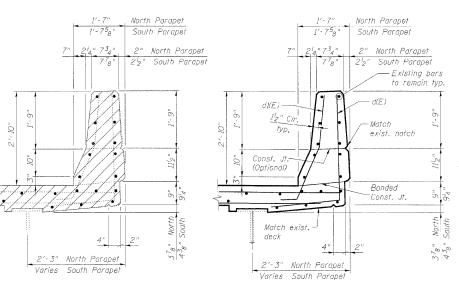


SECTION B-B

TJJ

DESIGNED -CHECKED

DRAWN CHECKED



EXISTING PARAPET SECTION

PROPOSED PARAPET SECTION

EXPANSION JOINT DETAILS STRUCTURE NO. 016-0085

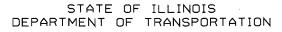
benesch Engineers · Surveyors · Planners · 205 North Michagan Avenue. Suite 2400 Chicago, Illinois 60001 312-585-0450 Job No. 10050

SECTION D-D

alfred benesch & company

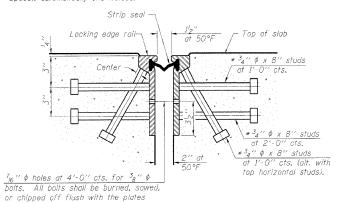
SHEET 9 SHI

NO. 7	F.A.I. RTE.	SECTION			COUNTY	TOT. SHEE	AL TS	SHEE NO.
	290	(3031.1, ETC.	, 3838)F	S-5	COOK	298	8	228
HEETS					CONTRACT	NO.	60	G52
	FED. R	DAD DIST. NO.	ILLINOIS	FED. A	ID PROJECT			



* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

after forms are removed, typ.



Strip seal-Locking edge rail at 50°F Top of slab Anchor plate Place plates at 1'-0'' cts. (alt. with top horizontal studs) $\frac{7_{16}}{bolts}$, ϕ holes at 4'-0" cts. for $\frac{3_8}{bolts}$, ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates

SECTION THRU

WELDED RAIL JOINT

The strip seal shall be made continuous and shall have a minimum thickness of '4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches. The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching

strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

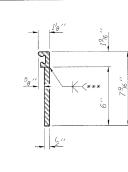
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications

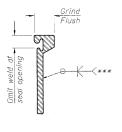
shall be mode at no additional cost to the State.

All steel components shall be galvanized after fabrication occording to Article 520,03 of the Standard Specifications.

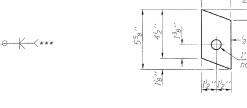
SECTION THRU ROLLED RAIL JOINT

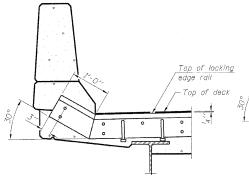


LOCKING EDGE RAILS

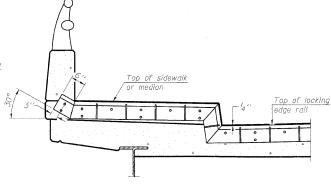


***Back gouge not required if complete joint penetration





AT PARAPET



AT SIDEWALK OR MEDIAN Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See

manufacturer's recommendation.

ANCHOR P

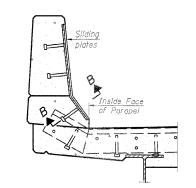
ROLLED EXTRUDED RAIL WELDED RAIL

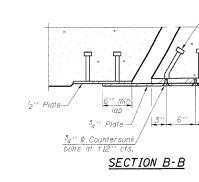
LOCKING EDGE

Inside face of parapet

rail groove shall be free of weld residue.

RAIL SPLICE





BILL OF MATERIAL

PLAN

SECTION A-A

POINT BLOCK DETAILS

TYPICAL END TREATMENTS

-*3₄ " \$ x 6 " Studs

PREFORMED JOINT STRIP SEAL STRUCTURE NO. 016-0085

benesch alfred benesch & company
Engineers - Surveyors - Planners
Sto North Michigan Avenue, Sulte 2400
Chicago, Illinois 60801
Grid-865-4650 Jeb No. 10050

SHEET NO. 8 9 SHEETS

F.A.I. RTE. TOTAL SHEET NO. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK 298 229 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

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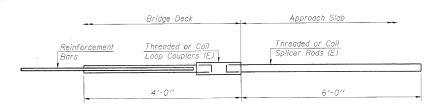
10 - 1 - 08

WELDED SECTIONS

- Wire Connector

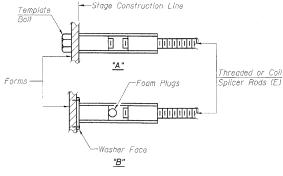
BAR SPLICER ASSEMBLY ALTERNATIVES

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



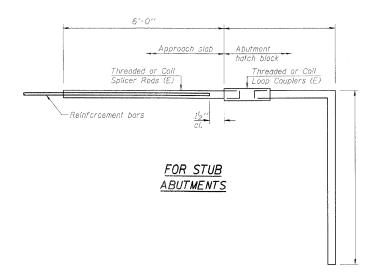
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Min. Capacity = 23.0 kips - tension in. Pull-out Strength = 12.3 kips - tension



INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt. "B": Set bar splicer assembly by nalling to wood forms or cementing to steel forms.
(E): Indicates epoxy coating.



	Bai	Splicer	for	#5	bar		
Min.	Capacity	= 23.0	kips	- 1	ensio	n	
Min.	Pull-out	Strength	= 12	2.3	kips		tension

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and fied to the splicer rods or dowel bars. Bar splicer assemblies shall be epoxy coated according to the requirements for

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

Splicer assembly satisfies the following requirements:

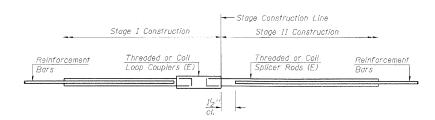
Minimum Capacity
(Tension in kips) = 1.25 x fy x A_t

Minimum *Pull-out Strength
(Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

	BAR SPLIC	CER ASSEMBLI	ES		
		Strength Requirements			
	Splicer Rod or Dowel Bar Length		Min. Pull-Out Strength kips - tension		
#4	1'-8''	14.7	7.9		
#5	2'-2''	23.0	12.3		
#6	2'-7''	33.1	17.4		
#7	3′-5′′	45.1	23.8		
#8	4'-6''	58.9	31.3		
#9	5′-9′′	75.0	39.6		
#10	7′-3′′	95.0	50.3		
#11	9'-0''	117.4	61.8		



<u>STANDARD</u>

Bar Size	No. Assemblies Required	Location
#5	32	Deck
#6	6	Deck
		Deck
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

BAR SPLICER ASSEMBLY DETAILS STRUCTURE NO. 016-0085

benesch alfred benesch & company Engineers · Surveyors · Planners Company Engineers · Surveyors · Planners (So North Michigan Avenue, Sulfe 2400 Chicago, Illinois 60601) 306 No. 10050

F.A.I. RTE. SECTION SHEET NO. 9 290 (3031.1, ETC., 3838)RS-5 9 SHEETS

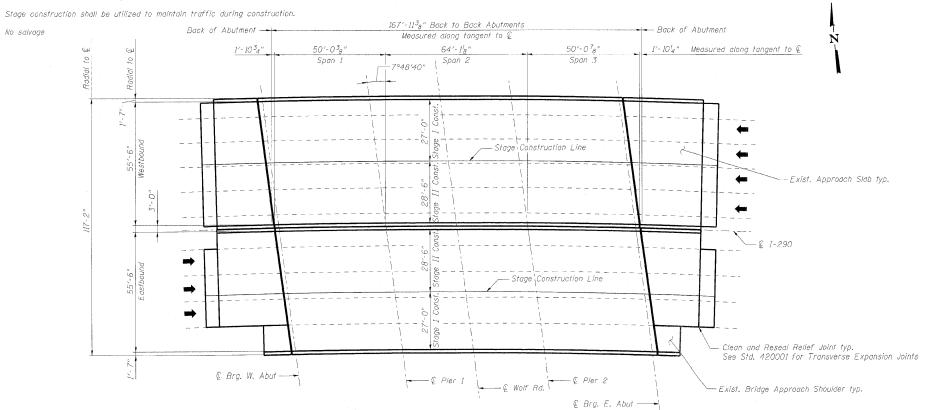
TOTAL SHEET SHEETS NO. COUNTY COOK 298 230 CONTRACT NO. 60G52 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

DESIGNED JJJ CHECKED AAY RMG DRAWN AAY BSD-1

10-1-08

No salvage

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



DESIGN SPECIFICATIONS

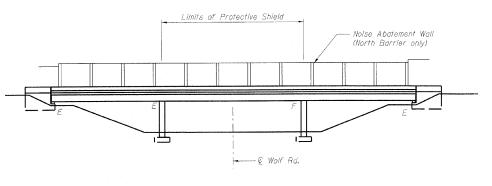
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

f'c = 3,500 psi fy = 60,000 psi

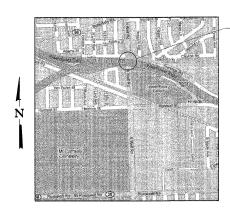
SCOPE OF WORK

- 1. Repair bridge deck,
- 2. Repair approach slab.
- 3. Repair parapet with formed concrete repair.
- 4. Clean and reseal relief joints at the end of the approach slabs.
- 5. Replace preformed joint seal with silicone joint seal.
- 6. Apply concrete sealer to bridge deck, parapets, approach slabs, abutments seats and backwalls.



PLAN

ELEVATION



LOCATION SKETCH



GENERAL PLAN AND ELEVATION I-290 OVER WOLF ROAD COOK COUNTY STATION 508+12 STRUCTURE NO. 016-0086

DESIGNED	DMS
CHECKED -	EFS
DRAWN -	RMG
CHECKED	KWS

benesch alfred benesch & company Engineers - Surveyors - Planners Ok North Michigan Avenue, Stutie 2400 Chicago, Illinois 60801 Job No. 10050

SHE	ΕT	NO.	1
4	SH	EETS	3

-Structure Location

FT NO. 1	F.A.I. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.	
L1 110. 1	290	(3031.1, ETC	., 3838)	RS-5	СООК	298	231
SHEETS					CONTRACT	NO. 6	0G52
	FED. RO	ON TRID DAG	THINOIS	FED	AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

DESIGNED -

DMS

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- 2. Reinforcement bars designated (E) shall be epoxy coated.
- 3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 4. Concrete Sealer shall be applied to the bridge deck, parapets, approach slabs, abutment seats and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included in Concrete
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 6. Stage construction shall be utilized to maintain traffic during construction.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Notes, Bill of Material and Index of Sheets
- 3. Stage Construction Details
- 4. Bridge Deck, Approach Slab and Parapet Repairs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield	Sq. Yd.	127		127
Concrete Sealer	Sq. Ft.	26,094	1,280	27,374
Silicone Joint Sealer	Foot	237.0		237.0
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	10		10
Approach Slab Repair (Partial Depth)	Sq, Yd.	20.6		20.6
Deck Slab Repair (Partial)	Sq. Yd.	38.3		38.3
Cleaning and Painting Exposed Rebar (Special)	Sq. Ft.	10		10
Clean & Reseal Relief Joint	Foot	144.0		144.0

GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-0086

COOK

CHECKED DRAWN RMG CHECKED KWS

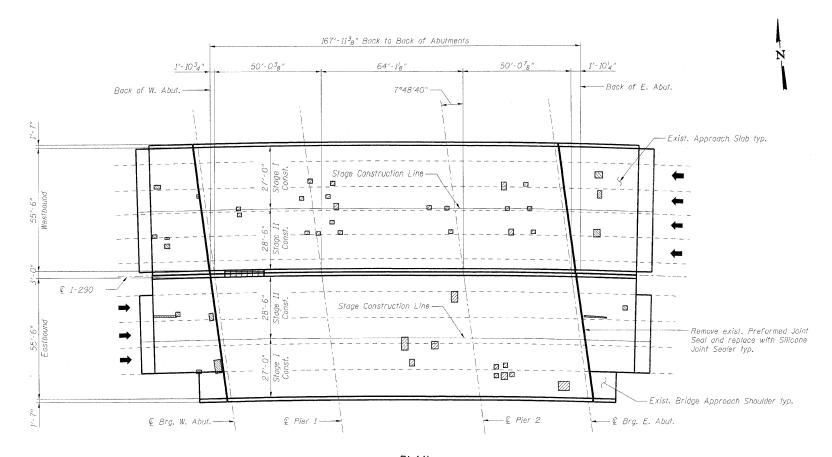
difred benesch & company Engineers · Surveyors · Planners So North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0405 Job No. 10050

SECTION COUNTY SHEET NO. 2 290 (3031.1, ETC., 3838)RS-5 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

298 232

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION € I-290 58′-7" 27'-0" Stage I Construction 25'-6" Stage I Traffic 25'-6" Stage I Traffic Stage I Construction Lane Lane — Stage Const. Line Stage Const. Line --Temporary Concrete Barrier See Std. 704001 typ. 8 Spa**. ©** 6'-1'₈" = 48'-9" 8 Spa. @ 6'-1'₈" = 48'-9" STAGE I CROSS SECTION - € 1-290 28'-6" 28'-6" 24'-0" Stage II Traffic Stage II Construction Stage II Traffic Stage II Construction Lane Lane — Stage Const. Line Stage Const. Line ---· Temporary Concrete Barrier See Std. 704001 typ. Varies : 8 Spa. 🛭 6'-1'₈" = 48'-9" 8 Spa. @ 6′-1′₈″ = 48′-9″ Note: STAGE CONSTRUCTION DETAILS STAGE II CROSS SECTION For quantity of Temporary Concrete Barrier, see roadway plans. STRUCTURE NO. 016-0086 DESIGNED MFB TOTAL SHEET NO. SECTION SHEET NO. 3 DRAWN 290 (3031.1, ETC., 3838)RS-5 COOK 298 233 MFB 4 SHEETS CHECKED CONTRACT NO. 60G52 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



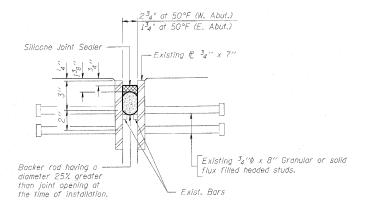
BILL OF MATERIAL

Symbol	Item	Unit	Quantity
	Deck Slab Repair (Partial)	Sq. Yd.	38.3
	Approach Slab Repair (Partial Depth)	Sq. Yd.	20.6
	Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	10
	Cleaning & Painting Exposed Rebar (Special)	Sq. Ft.	10
	Protective Shield	Sg. Yd.	12-7
	Silicone Joint Sealer	Foot	237.0

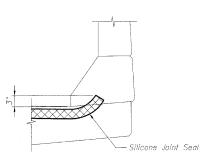
PROTECTIVE SHIELD DETAIL

Repair Area ---

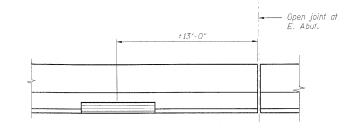
PLAN



SILICONE JOINT SEALER DETAIL



SILICONE JOINT SEAL TREATMENT AT PARAPET



INSIDE ELEVATION - EASTBOUND MEDIAN PARAPET

Notes:

Protective Shield

- 1. Deck and approach slab repair areas are estimated based on visual inspection completed in June 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- 2. Protective Shield, required for deck slab and/or parapet repairs, shall be installed according to Article 501.03 of the Standard Specifications. For limits of Protective Shield, see Protective Shield Detail on this sheet and Elevation on General Plan and Elevation sheet.
- The Engineer shall determine extent, location & type of parapet repairs in the field. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- 4. Existing Preformed Joint Seal shall be removed and all surfaces cleaned prior to installation of Silicone Joint Sealer, Cost included in Silicone Joint
- The Contractor shall exercise extreme care with the existing conduit in sections of the parapet to be repaired and to protect and support the conduit. The Contractor will be required to repair any damage done to the conduit to the satisfaction of the Engineer. No splicing will be allowed to any cable damage resulting from this work, instead the Contractor will be required to repair the entire span of any damaged cable at no additional cost to the Department.

BRIDGE DECK, APPROACH SLAB AND PARAPET REPAIRS STRUCTURE NO. 016-0086

SHEET NO. 4	F.
4 SHEETS	

. 4	F.A.I. RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.
	290	(3031.1, ETC	., 3838)RS-5	COOK	298	234
S				CONTRACT	NO. 60	G52
	FED R	OAD DIST NO	THE THOTS FED	ATD PROJECT		

DESIGNED DMS CHECKED EFS RMG DRAWN CHECKED KWS

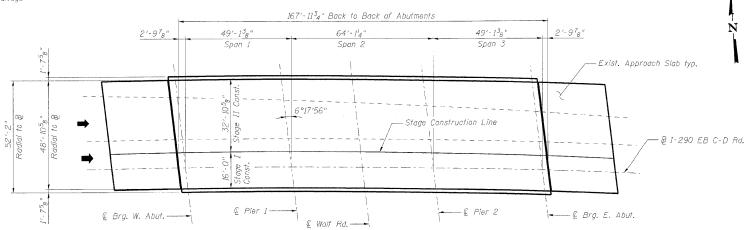
benesch alfred benesch & company Engineers · Surveyors · Planners of So North Michigan Avenue, Sutte 2400 Chicago, Illinois 60001 (312-685-465) Job No. 100500

Existing Structure: Existing Bridge No. 016-2758 was built in 2001. The structure is a three-span continuous, composite steel bridge with a $7_2^{\prime\prime}$

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

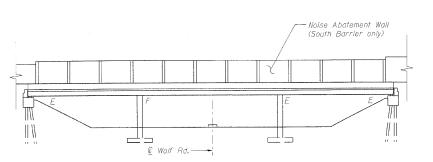
Stage construction shall be utilized to maintain traffic during

No salvage



PLAN

EXPIRATION DATE 11-30- 10 DATE 11/16/09



ELEVATION

-	DMS
-	EFS
_	RMG
	KINO
-	KWS



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Sealer	Sq. Ft.	12,524	*	12,524

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

SCOPE OF WORK

Apply concrete sealer to bridge deck, parapets and approach slabs.

GENERAL NOTES

- 1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the bridge deck, parapets, and approach slabs. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included in Concrete Sealer.
- 3. Stage construction shall be utilized to maintain traffic during construction.

GENERAL PLAN AND ELEVATION I-290 EB C-D ROAD OVER WOLF ROAD COOK COUNTY STATION 507+54 STRUCTURE NO. 016-2758

COUNTY

COOK

TOTAL SHEET NO.

235

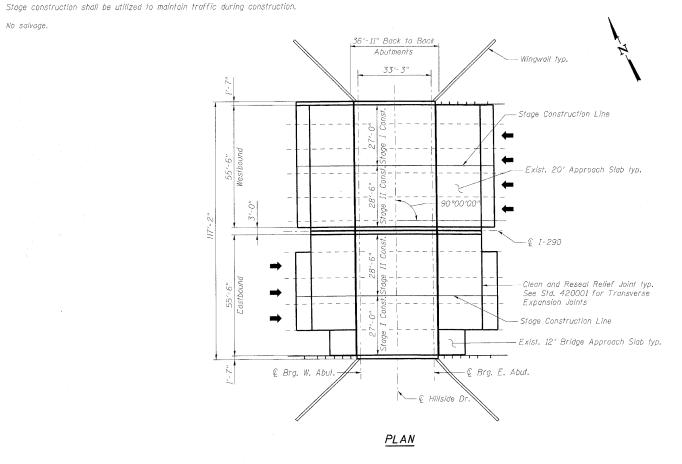
298

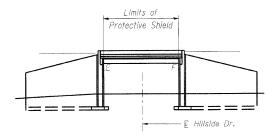
CONTRACT NO. 60G52

benesch alfred benesch & compony Engineers · Surveyors · Planners of So North Michigan Avenue, Suffe 2400 Chicago, Illinois 60801 (312-685-0450) Job No. 100500

- Structure Location

F.A.I. RTE. SECTION SHEET NO. 1 (3031.1, ETC., 3838)RS-5 1 SHEETS FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT No salvage.





ELEVATION

DESIGNED -DMS EFS CHECKED RMG DRAWN CHECKED -KJN

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

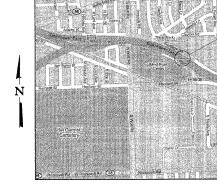
f'c = 3,500 psi fy = 60,000 psi

SCOPE OF WORK

- 1. Repair bridge deck.
- 2. Repair approach slab.
- 3. Repair of abutments.
- 4. Clean and reseal relief joints at end of approach slabs.
- 5. Replace preformed joint seal with silicone joint seal.
- 6. Apply concrete sealer to bridge decks, parapets, approach slabs, abutment seats and backwalls,



- Structure Location



LOCATION SKETCH

GENERAL PLAN AND ELEVATION I-290 OVER HILLSIDE DRIVE COOK COUNTY STATION 525+44 STRUCTURE NO. 016-0986

benesch alfred benesch & company Engineers - Surveyors - Planners (Sie North Michigan Avenue, Suite 2400 Chicago, Illinois 60801 (312-656-365) Job No. 10050

SHE	ΕT	NO.	1	-
5	SH	EET9	3	-

EET NO. 1 RT	F.A.I. RTE.	SECTION	COUNTY TOTA		SHEET NO.
	290	(3031.1, ETC., 3838)RS-5	COOK	298	236
SHEETS			CONTRACT	NO. 60)G52
FFD. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- 2. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scape of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the bridge deck, parapets, approach slabs, abutment seats and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included in Concrete Sealer.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- 5. Stage construction shall be utilized to maintain traffic during construction.
- 6. The Contractor shall exercise care during removal of existing joints to ensure that the slab, beams and diaphragms integrity will not be detrimentally impacted. The Contractor shall repair any damage(s) to the slab, beams and diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Notes, Bill of Material and Index of Sheets
- 3. Stage Construction Details
- 4, Bridge Deck and Approach Slab Repairs
- 5. Abutment Repair Details

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Shield	Sq. Yd.	85		85
Concrete Sealer	Sq. Ft.	8,588	790	9,378
Silicone Joint Sealer	Foot	222.0		222.0
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		50	50
Approach Slab Repair (Partial Depth)	Sq. Yd.	20.0		20.0
Deck Slab Repair (Partial)	Sq. Yd.	10.0		10.0
Temporary Shoring & Cribbing	Each		6	6
Clean & Reseal Relief Joint	Foot	144.0		144.0

GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-0986

alfred benesch & company
Engineers · Surveyors · Planners
205 North Michigan Avenue, Surte 2400
Chicago, Illinois 60601
312-565-0450 Job Not. 10050

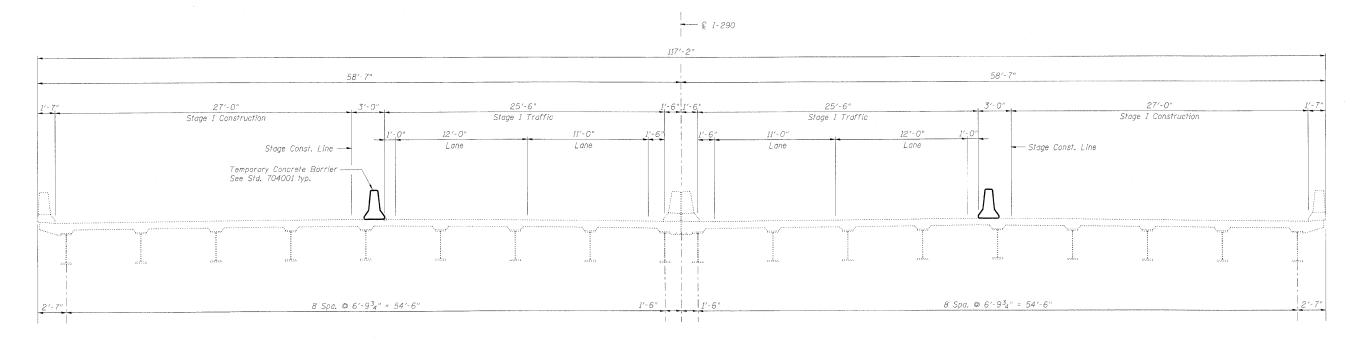
SHEET NO. 2 5 SHEETS

TOTAL SHEET NO. F.A.I. RTE. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK 298 237 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT

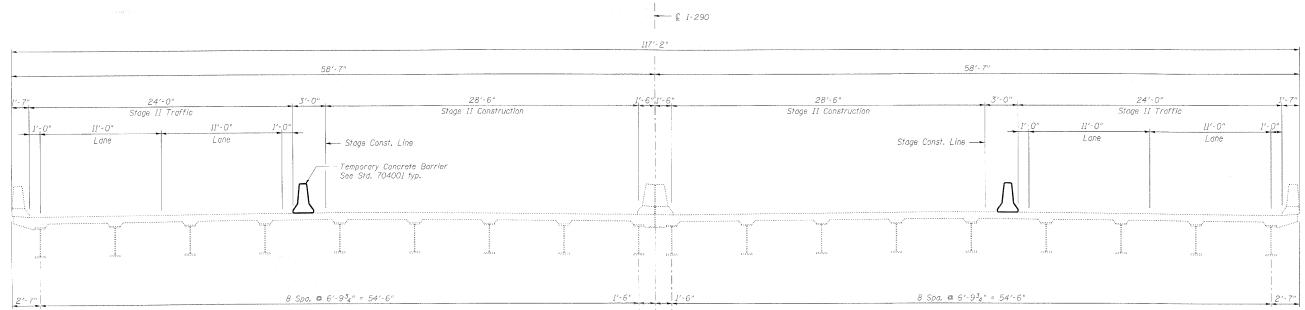
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DESIGNED -

DMS



STAGE I CROSS SECTION



Note:

For quantity of Temporary Concrete Barrier, see roadway plans.

STAGE II CROSS SECTION (Looking East)

STAGE CONSTRUCTION DETAILS STRUCTURE NO. 016-0986

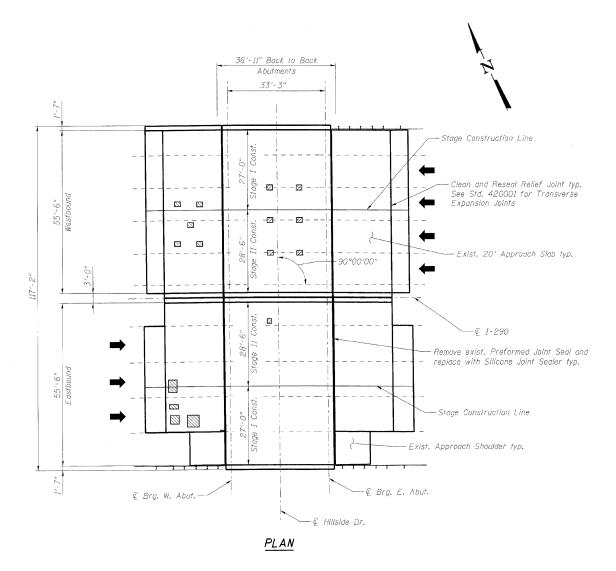
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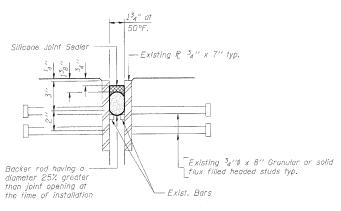
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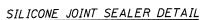
alfred benesch & company
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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10050

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F.A.I. RTE.	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
290	(3031.1, ETC.	, 3838)RS-	5	СООК	298	238
				CONTRACT	NO. 60)G52
FED. R	DAD DIST. NO.	ILLINOIS FED). AI	D PROJECT		





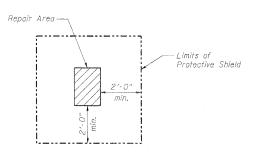


DESIGNED

CHECKED

DMS

KJN



PROTECTIVE SHIELD DETAIL

benesch alfred benesch & company Engineers - Surveyors - Planners Cho North Michigan Avenue, Guite 2400 Chicago, Illinois 60001 30b No. 10050

BILL OF MATERIAL

Symbol	Item	Unit	Quantity
	Deck Slab Repair (Parlial)	Sq. Yd.	10.0
	Approach Slab Repair (Partial Depth)	Sq. Yd.	20.0
	Protective Shield	Sg. Yd.	85
	Silicone Jaint Sealer	Foot	222.0

<u>Notes:</u>

- 1. Deck and approach slab repair areas are estimated based on visual inspection completed in June 2009, Actual repair areas and locations shall be determined by the Engineer in the field and shown on the As-Built plans.
- 2. Protective Shield, required for deck slab and/or parapet repairs, shall be installed according to Article 501.03 of the Standard Specifications. For limits of Protective Shield, see Protective Shield Detail on this sheet and Elevation on General Plan and Elevation detail,
- 3. Existing Preformed Joint Seal shall be removed and all surfaces cleaned prior to installation of Silicone Joint Sealer, Cost included in Silicone Joint Sealer.

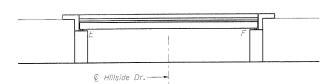
BRIDGE DECK AND APPROACH SLAB REPAIRS STRUCTURE NO. 016-0986

TOTAL SHEET NO. SECTION COUNTY SHEET NO. 4 290 (3031.1, ETC., 3838)RS-5 COOK 298 239 5 SHEETS CONTRACT NO. 60G52 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Temporary Shoring and Cribbing— Temporary Shoring and Cribbing— Structure EAST ABUTMENT ELEVATION (Looking East) Temporary Shoring and Cribbing— Temporary Shoring and Cribbing— — € Structure Notes: 1. The abutment repairs are estimated based on visual inspections completed in June 2009. Temporary Shoring and Cribbing shall be provided per the Special Provisions for "Structural Repair of Concrete" and "Temporary Shoring and Cribbing". WEST ABUTMENT ELEVATION BILL OF MATERIAL (Looking West) 3. Interference is expected from existing conduits. The Contractor shall remove and reerect or Interference is expected from existing conduits. The Contractor shall remove and reerect of temporarily support the existing conduits to complete the work as detailed. When the work is completed the conduits shall be reconnected to the reconstructed abutment or pier utilizing the existing mounting brackets or new mounting brackets. All labor, equipment, and materials necessary for romoving and reinstalling or temporarily supporting the existing counduits shall be included in the cost for Structural Repair of Concrete (Depth Equal to or Less than 5 Structural Repair of BEAM REACTIONS (KIPS) Concrete (Depth Equal to or Less than 5 Inches) 50 4. The labulated beam reactions were taken from the existing construction plans. The Contractor shall verify that the equipment used to support the beams is sufficient to carry these loads in addition to any temporary construction loads. DEAD LOAD TOTAL Temporary Shoring and Cribbing LOAD Each 17.5 32.0 9.6 59.1 ABUTMENT REPAIR DETAILS DESIGNED STRUCTURE NO. 016-0986 EFS CHECKED TOTAL SHEET SHEETS NO. SECTION COUNTY difred benesch & company Engineers · Surveyors · Planners 205 North Michigan Avanus, Suite 2400 Chicago, Illinois 60801 312-268-0450 Job No. 10050 SHEET NO. 5 DRAWN 290 (3031.1, ETC., 3838)RS-5 COOK 298 240 CHECKED KJN 5 SHEETS CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

Stage construction shall be utilized to maintain traffic during

PLAN



ELEVATION

DESIGNED DMS CHECKED DRAWN RMG CHECKED

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Sealer	Sq.: Ft.	5,442		5,442

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

f'c = 3,500 psi fy = 60,000 psi

SCOPE OF WORK

Apply concrete sealer to bridge deck, parapets and approach slabs:

GENERAL NOTES

- I. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work. for the work.
- Concrete Sealer shall be applied to the bridge deck, parapets, and approach slabs.
 All surfaces to be sealed shall be cleaned thoroughly prior to sealer application.
 Cost included in Concrete Sealer.
- 3. Stage construction shall be utilized to maintain traffic during construction.

GENERAL PLAN AND ELEVATION I-290 EB C-D ROAD OVER HILLSIDE DRIVE COOK COUNTY STATION 524+16 STRUCTURE NO. 016-2759

benesch & company
Engineers · Surveyors · Planners
Schorth Michagen Avenue, Sutte 2400
Chicago, Illinois 90801
Job No. 10050

LOCATION SKETCH

EXPIRATION DATE 11-30- 10 DATE 11/16/09

Structure Location -

SHEET NO. 1 1 SHEETS

TOTAL SHEET NO. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 СООК 298 241 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

— Clean and Reseai Relief Joint typ. See Std. 420001 for Transverse

Expansion Joints

No salvage.

107'-6" Back to Back of Abutments 32'-3" 9" Span 3 Back of E. Abut. 41'-6" Span 2 — Exist. Bridge Approach Shoulder typ. — Exist. 20' Approach Slab typ. Stage Construction Line — - 90°-00′-00" Stage Construction Line —

PLAN

Addison Creek

© Brg. W. Abut.

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN SPECIFICATIONS

DESIGN STRESSES

f'c = 3,500 psi fy = 60,000 psi

SCOPE OF WORK

- 1. Repair bridge decks.
- 2. Repair approach slabs.
- 3. Repair median parapets with formed concrete repair.
- 4. Clean and reseal relief joints at end of approach slabs.
- 5. Replace preformed joint seals with silicone joint seals,
- 6. Apply concrete sealer to bridge decks, parapets, approach slabs, abutment seats and backwalls.

EXPIRATION DATE 11-30- 10

DATE 11/16/09

Structure Location -

LOCATION SKETCH

GENERAL PLAN AND ELEVATION I-290 OVER ADDISON CREEK COOK COUNTY STATION 594+10 STRUCTURE NO. 016-0088

SHEET NO. 1 -		F.A.I. RTE.	SEC.	TION		COUNTY	TOT	AL TS	SHEE NO.
		290	(3031.1, ETC., 3838)RS-5		COOK	298		242	
						CONTRACT	NO.	60	G52
		FED. RO	DAD DIST. NO.	ILLINOIS	FED.	AID PROJECT			

-- Noise Wall

ELEVATION

DESIGNED -EFS CHECKED DRAWN RMG CHECKED KJN

benesch alfred benesch & company Engineers · Surveyors · Planners Cho Sto North Michigan Avenue, Sulte 2400 Chicago, Illinois 60001 312-655-0450 Job No. 10050

GENERAL NOTES

- 1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the bridge deck, top and inside faces of parapets, approach slabs, abutment seats and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included
- 4. Stage construction shall be utilized to maintain traffic during construction.

INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Notes, Bill of Material and Index of Sheets
- 3. Stage Construction Details
- 4. Bridge Deck and Approach Slab Repairs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Sealer	Sq. Ft.	18,001	600	18,601
Silicone Joint Sealer	Foot	228.0		228.0
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	32		32
Approach Slab Repair (Partial Depth)	Sq. Yd.	24.4		24.4
Deck Slab Repair (Partial)	Sq. Yd.	18.6		18.6
Clean & Reseal Relief Joint	Foot	189.0		189.0

GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-0088

alfred benesch & company benesch Surveyors - Planners 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60001 312-665-0450 Job No. 10050

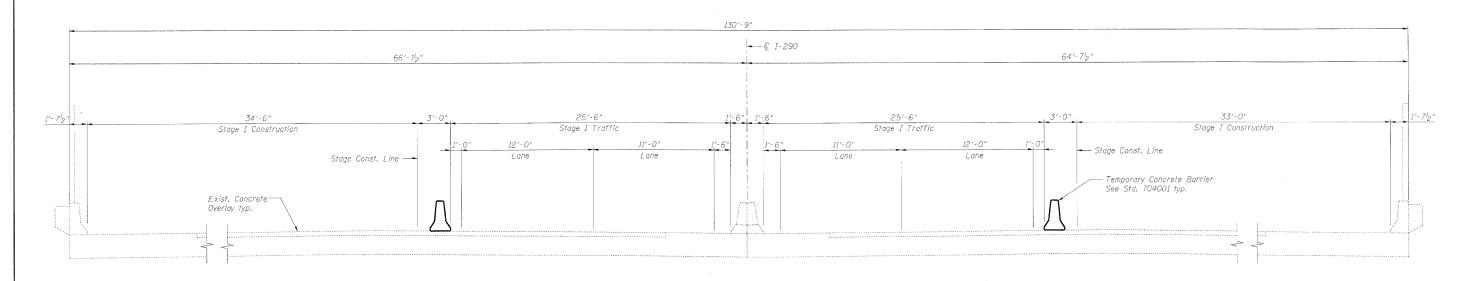
SECTION COUNTY SHEET NO. 2 290 (3031.1, ETC., 3838)RS-5 COOK 4 SHEETS CONTRACT NO. 60G52 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TOTAL SHEET SHEETS NO. 298 243

DESIGNED -DMS EFS CHECKED

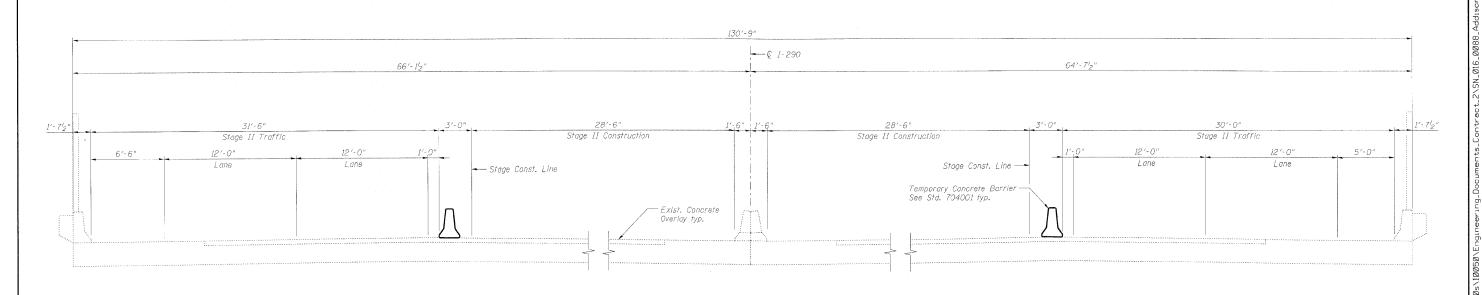
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STAGE I CROSS SECTION

(Looking East)



STAGE II CROSS SECTION

For quantity of Temporary Concrete Barrier, see roadway plans.

STAGE CONSTRUCTION DETAILS

STRUCTURE NO. 016-0088

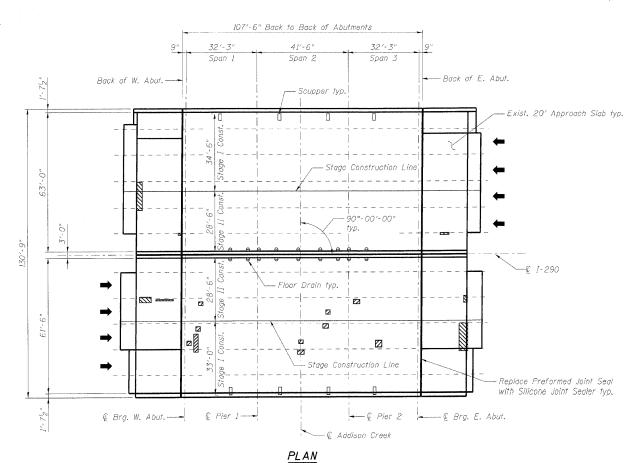
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MFB DESIGNED -DRAWN CHECKED KJN

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Engineers · Surveyors · Planners
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-665-0450 Joh No. 10050

SECTION COUNTY SHEET NO. 3 290 (3031.1, ETC., 3838)RS-5 4 SHEETS CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

298 244



SILICONE JOINT SEALER TREATMENT AT PARAPET

Silicone Joint Sealer

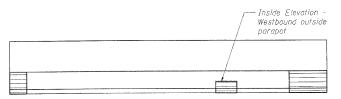
SILICONE JOINT SEALER DETAIL

the time of installation.

BILL OF MATERIAL

Symbol	Item	Unit	Quantity
	Deck Slab Repair (Partial)	Sg. Yd.	18.6
	Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	32
	Approach Slab Repair (Partial Depth)	Sq. Yd.	24.4
	Silicone Joint Sealer	Foot	228.0

INSIDE ELEVATION - EASTBOUND MEDIAN PARAPET



INSIDE ELEVATION - WESTBOUND MEDIAN PARAPET (Unless Noted Otherwise)

DECICNED	_	DMS
DESIGNED		DIMA
CHECKED	-	EFS
DRAWN	-	RMG
CHECKED	-	KJN

Notes:

- 1. Deck and approach slab repair areas are estimated based on visual inspection completed in June 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- 2. Deck drains (downspouts, floor drains and scuppers) shall be cleaned with the bridge deck prior to application of the Concrete Sealer, Cost of cleaning the deck drains is included with Concrete Sealer.
- 3. Cost of Removal of existing preformed joint seal is included with Silicone Joint Sealer,

BRIDGE DECK AND APPROACH SLAB REPAIRS STRUCTURE NO. 016-0088

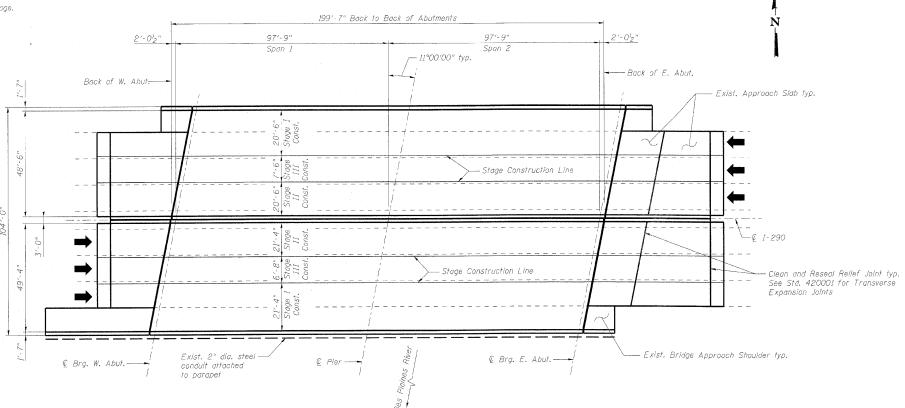
difred benesch & company Enginers - Surveyors - Planners So North Michigan Avenue, Suite 2400 Chicago, Illinois 60801 312-565-0450 Job No. 10050

SHEET NO. 4 4 SHEETS

TOTAL SHEET SHEETS NO. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK 298 245 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

Stage construction shall be utilized to maintain traffic during construction.

No salvage.



DESIGN SPECIFICATIONS

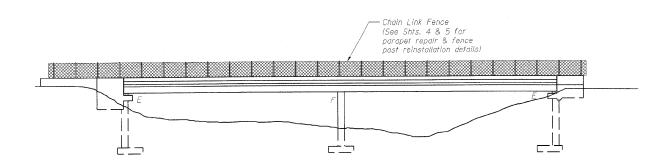
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

f'c = 3,500 psi fy = 60,000 psi

SCOPE OF WORK

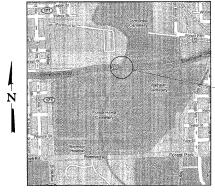
- 1. Repair bridge decks.
- 2. Repair approach slabs.
- 3. Remove and reinstall chain link fence posts and base plates, including concrete repair along eastbound outside parapet.
- 4. Clean and reseal relief joints at end of approach slabs.
- 5. Replace preformed joint seals with silicone joint seals.
- 6. Apply concrete sealer to bridge decks, parapets, approach slabs, abutment seats and backwalls.



ELEVATION

PLAN

DESIGNED DMS EFS CHECKED RMG CHECKED KJN



LOCATION SKETCH



GENERAL PLAN AND ELEVATION I-290 OVER DES PLAINES RIVER

> COOK COUNTY STATION 721+68 STRUCTURE NO. 016-0090

benesch alfred benesch & company
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205 North Michigan Avenue, Sutte 2400
(Chicago, Illinois 60801
312-565-0450 Job No. 10050

— Structure Location

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T NO. 1 SHEETS	F.A.I. RTE.	SEC	TION		COUNTY TOTAL SHEETS		SHEET NO.
	290	(3031.1, ETC.	., 3838)	₹S-5	COOK	298	246
SHEETS					CONTRACT	NO. 60)G52
	FED. RO	DAD DIST. NO.	ILLINOIS	FED. A	ID PROJECT		

<u>GENERAL NOTES</u>

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. Sec Special Provisions.

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

Concrete Sealer shall be applied to the bridge decks, top and inside faces of parapets, approach slabs, abutment seats and abutment backwalls. All surfaces to be sealed shall be cleaned thoroughly prior to sealer application. Cost included in Concrete Sealer.

Stage construction shall be utilized to maintain traffic during construction.

INDEX OF SHEETS

- 1. General Plan and Elevation
 2. General Notes, Bill of Material and Index of Sheets
 3. Stage Construction Details
 4. Bridge Deck and Approach Slab Repairs

- 5. Chain Link Fence Post and Bridge Parapet Repairs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Sealer	Sq.` Ft.	28,100	1,327	29,427
Silicone Joint Sealer	Foot	199.5		199.5
Approach Slab Repair (Partial Depth)	Sq. Yd.	49.0		49.0
Deck Slab Repair (Partial)	Sq. Yd.	10.0		10.0
Clean & Reseal Relief Joint	Foot	217.5		217.5
Remove and Reinstall Chain Link Fence Fost	Each	7		7

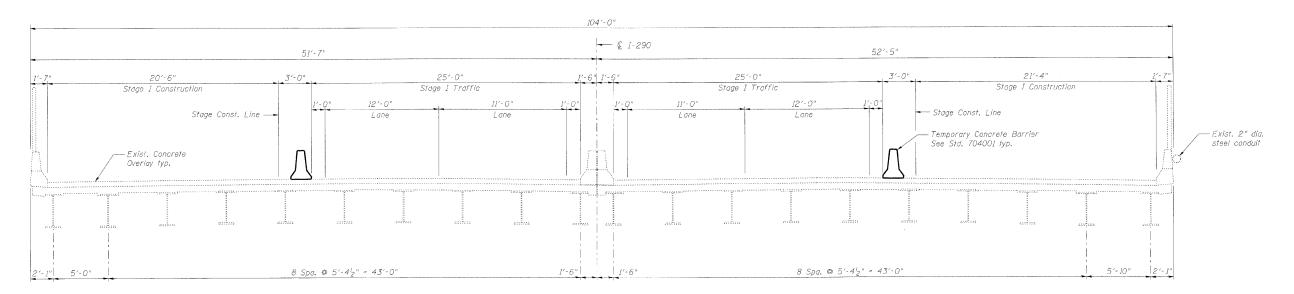
GENERAL NOTES, BILL OF MATERIAL AND INDEX OF SHEETS STRUCTURE NO. 016-0090

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Chicago. Illinos 60801
312-565-0450
Job No. 10050

SHEET NO. 2 5 SHEETS

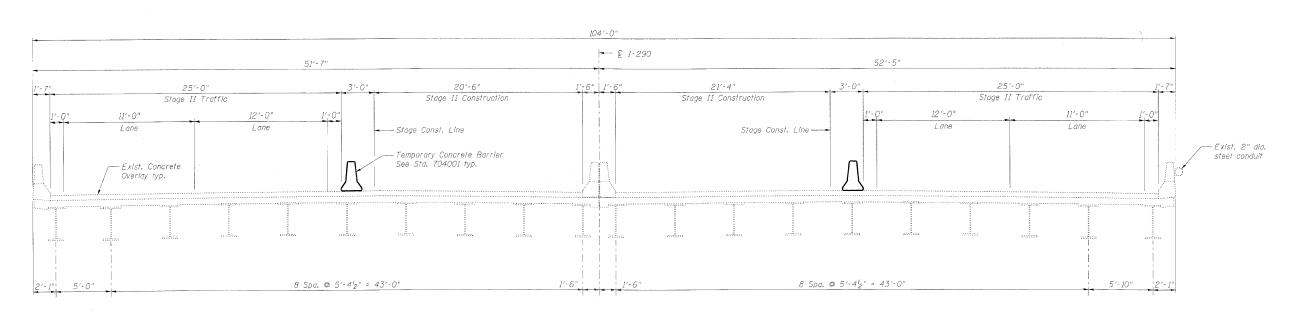
TOTAL SHEET NO. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK 298 247 CONTRACT NO. 60G52 FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

DESIGNED -DMS CHECKED EFS RMG DRAWN CHECKED -KJN



STAGE I CROSS SECTION

(Looking East)



STAGE II CROSS SECTION

Lookina Fast)

Note: For quantity of Temporary Concrete Barrier, see roadway plans.

Stage III Note:

Bridge deck and approach slab repairs between Stage I and Stage II construction lines shall be performed over a weekend using IDOT District I Std. TC-25 Center Lane Closure. See Maintenance of Traffic Plans. Concrete for Stage III patching shall be Class PP-2.

STAGE CONSTRUCTION DETAILS STRUCTURE NO. 016-0090

benesch

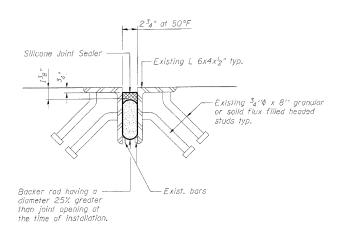
	alfred benesc	h & company
_	Engineers • Surve	
7		Avenue, Suite 2400
•	Chicago, Illinois 608 312-565-0450	Job No. 10050
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SHEET NO. 3		F.A.I. RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.
		290	(3031.1, ETC.,	3838)RS-5	соок	298	248
	5 SHEETS				CONTRACT	NO. 60	G52
		FED. R	DAD DIST. NO. I	LLINOIS FED.	AID PROJECT		

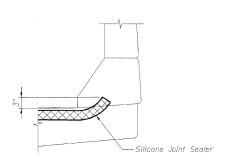
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CHECKED - MAC
DRAWN - VH
CHECKED - KJN

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PLAN



SILICONE JOINT SEALER DETAIL



SILICONE JOINT SEALER TREATMENT AT PARAPET

DESIGNED -DMS CHECKED EFS DRAWN CHECKED KJN



alfred benesch & company Engineers - Surveyors - Planners 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60801 312-685-0450 Job No. 10080

Stage III Note:

Bridge deck and approach slab repairs between Stage I and Stage II construction lines shall be performed over a weekend using IDOT District 1 Std. TC-25 Center Lane Closure. See Maintenance of Traffic Plans. Concrete for Stage III patching shall be Class PP-2.

BILL OF MATERIAL

Symbol	Item	Unit	Quantity
	Deck Slab Repair (Partial)	Sq. Yd.	10.0
	Approach Slab Repair (Partial Depth)	Sq. Yd.	49.0
	Silicone Joint Sealer	Foot	199.5

Notes:

- Deck and approach slab repair areas are estimated based on visual inspection completed in June 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- Deck drains (downspouts, floor drains and scuppers) shall be cleaned with the bridge deck prior to application of the Concrete Sealer. Cost of cleaning the deck drains is included with Concrete Sealer.
- 3. The construction joint between the approach slab and backwall closure pour, adjacent to the existing preformed joint seal, shall be cleaned and sealed with hot-poured joint sealer according to Section 452 of the Std. Specifications. Cost included with "Concrete Sealer".
- 4. Cost of Removal of existing preformed joint seal is included with Silicone Joint

BRIDGE DECK AND APPROACH SLAB REPAIRS STRUCTURE NO. 016-0090

SHEET NO. 4	F.A.I. RTE.	SEC ⁻	TION		COUNTY	TOTAL SHEETS	SHEET NO.
	290	(3031.1, ETC., 3838)RS-5			COOK	298	249
5 SHEETS					CONTRACT	NO. 60	G52
	FED. RO	DAD DIST. NO.	ILLINOIS	FED. A	AID PROJECT		

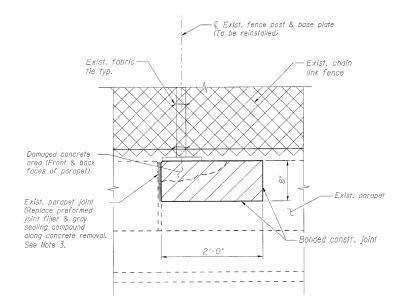
TOTAL SHEET NO.

250

298

CONTRACT NO. 60G52

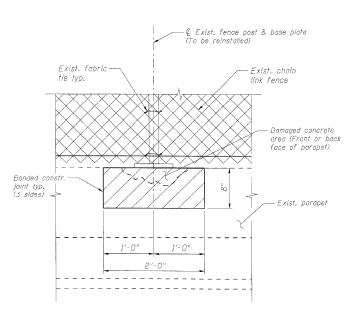
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION - REPAIR AT PARAPET JOINT

(2 Locations)

Limits of Concrete Removal & Replacement (See Note 6)

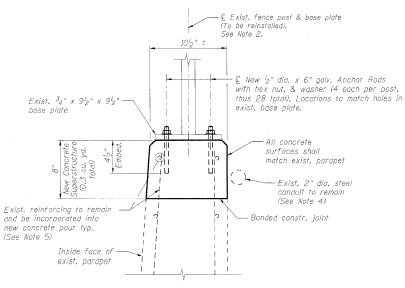


INSIDE ELEVATION - REPAIR AWAY FROM PARAPET JOINT

(5 Locations

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Remove and Reinstall Chain Link Fence Post	Each	7



TYPICAL SECTION AT PARAPET REPAIR

Notes:

- 1. Work this sheet with sheets 1 and 4.
- 2. The existing fence post and base plate have twisted, causing localized damage to the existing concrete parapet and several anchor rods. The existing fence post and base plate shall be removed and reinstalled with the new concrete parapet repair. The fence post and base plate shall be realigned and centered across the parapet to match the existing non-damaged fence posts and base plates. The new anchor rods shall be cast-in-place. Drilling and setting of the anchor rods is prohibited.
- 3. The existing parapet joint shall be replaced using a ½" Preformed Self-Expanding Cork Joint Filier according to Article 1051.07 of the Std. Spec., and non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-290, Type S, Grade NS, Class 25, Use T, to match the existing joint installation.
- 4. The Contractor shall exercise extreme care with the existing steel conduit attached to the back face of the parapet to be removed, and to protect and support the conduit. The Contractor will be required to repair any damage done to the conduit to the satisfaction of the Engineer. No splicing will be allowed to any cable damage resulting from this work, instead the Contractor will be required to repair the entire span of any damaged cable at no addditional cost to the Department.
- 5. Existing reinforcement bars extending into the concrete removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be repaired or replaced with an approved bar splicer or anchorage system. Cost included with "Remove and Reinstall Chain Link Fence Post".
- The Contractor shall ensure that all concrete parapet to be removed is contained and not allowed to fall into the Des Plaines River. If Protective Shield is necessary, then the cost shall be included in "Remove and Reinstall Chain Link Fence Post".
- 7. The cost of concrete removal, concrete superstructure, preformed joint filler, gray sealing compound, chain link fence fabric ties, threaded anchor rods, nuts and washers is included with "Remove and Reinstall Chain Link Fence Post". See Special Provision.

CHAIN LINK FENCE POST AND BRIDGE PARAPET REPAIRS STRUCTURE NO. 016-0090

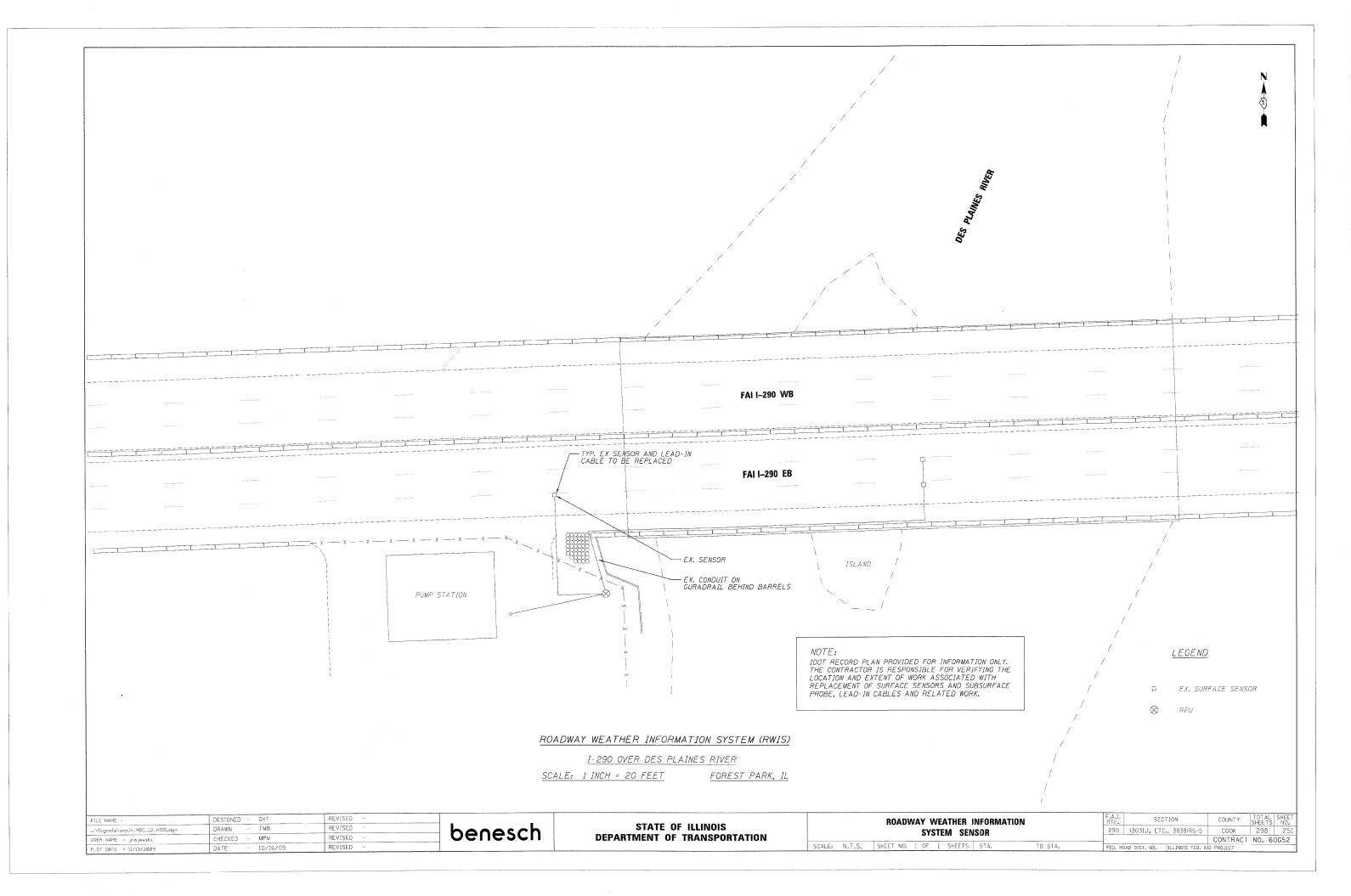
COUNTY

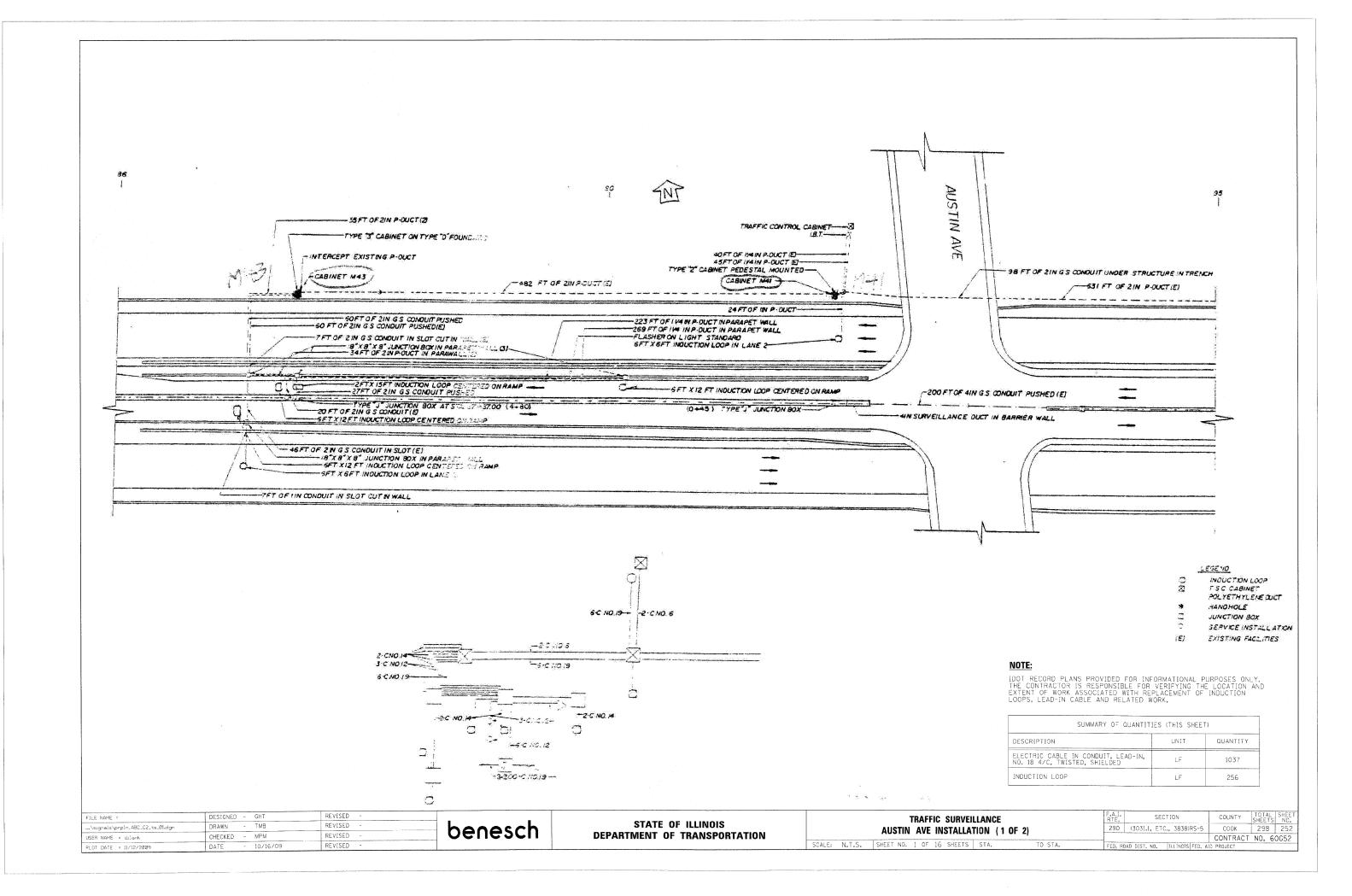
alfred benesch & company

SHEET NO. 5	F.A.I. RTE.	SECTION	COUNT
	290	(3031.1, ETC., 3838)RS-5	СООК
5 SHEETS			CONTRA
	FED. RO	DAD DIST. NO. ILLINOIS FED. A	ID PROJECT

DESIGNED KWS CHECKED DRAWN RMG CHECKED KJN

benesch Engineers · Surveyors · Planners 205 North Michigan Avenue, Suite 2400 Chicago. Illinois 60601 312-365-0450 Job No. 10050





- REMOVE POLE MOUNTED CABINET (E) - TYPE "3" CABINET ON TYPE "0" FOUNDATION (E) "L36) BIT SHL'O 1.7 16 22 14 15 76FT of ZIN G.S. CONDUIT PUSHED (E)
AEMONF POLE MOUNTED CABINET (E)
18. BARRIER WALL (E) TET OF ZIN GS COMOUNT ATT, STR. AFTOF 11/4 IN POUCTIE)-RETAINING WALL -14 FT of ZIN. P-DUCT (E) OUTBOUND EXIT SSFT of ZIN GS.CONOUIT IN SLOTIET - IOFT X GFT INDUCTION LOOP IE AN SURVEILLANCE DUCT IN BARRIER WALL FOUNDATION NBOUND ENTRANCE RETAINING WALL OFT X 6 FT INDUCTION LOOP CENTERED ON RAMP (E) G-SFTX SFT INDUCTION IN LANE FIE 15 17 20 21 22 PCC SHL'D

INDUCTION LOOP
POLYETHYLENE DUCT
QS. CONDUIT
O PILL POINT
HANDHOLE
HEAVY OUTYHAND HOLE
TS. CABINET
O SERVICE INSTALLATION
(E). EXISTING FACILITIES
(R) REMOVE SXISTING FACILITIES

NOTE:

IDOT RECORD PLANS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND
EXTENT OF WORK ASSOCIATED WITH REPLACEMENT OF INDUCTION
LOOPS, LEAD-IN CABLE AND RELATED WORK.

SUMMARY OF QUANTITIES (THIS SHEET)								
DESCRIPTION	UNIT	QUANTITY						
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	377						
INDUCTION LOOP	LF	104						

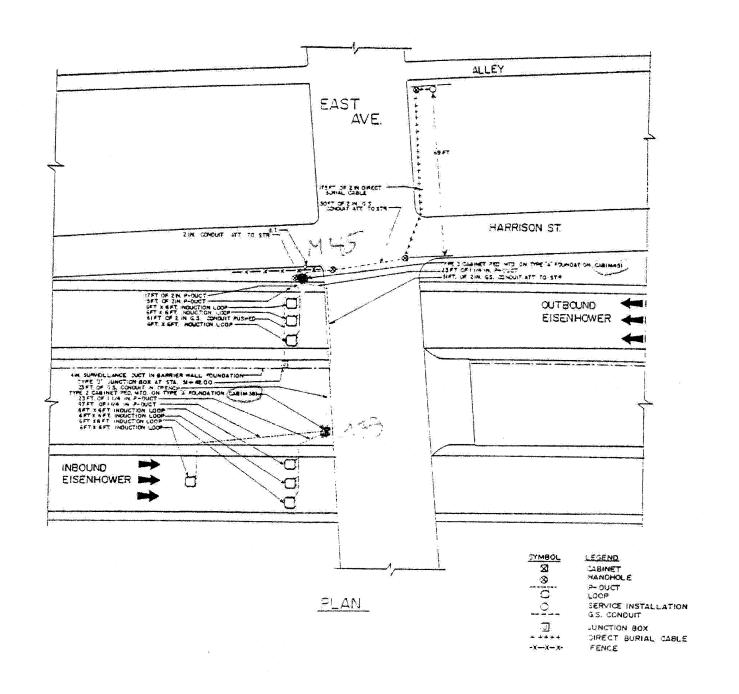
FILE NAME +	DESIGNED			REVISED	-	
\s;gnals\prpIn_ABC_C2_ts_02.dgn	DRAWN	-	ТМВ	REVISED	-	benesch
USER NAME = tblank	CHECKED	-	MPM	REVISED	-	Oellescii
PLOT DATE = 11/12/2009	DATE	-	10/16/09	REVISED	-	

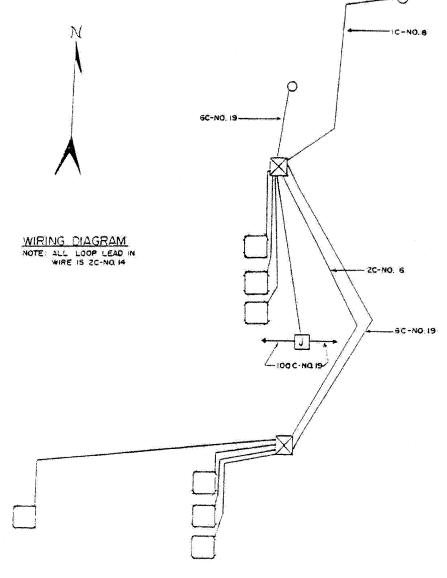
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SURVEILLANCE						
	AUSTIN AVE INSTALLATION (2 OF 2)	2'				
SCALE: N.T.S.	SHEET NO. 2 OF 16 SHEETS STA. TO STA.	FE				

We suit the second of the second

	F.A.I. RTE. SECTION						COUNTY	TOTAL	SHEET NO.
	290	(3031.	ı, ETC	., 3838)		COOK	298	253	
-						CONTRACT	NO. 6	0G52	
	FED. R	DAD DIST.	NO,	ILLINOIS	FED.	AID	PROJECT		





NOTE:

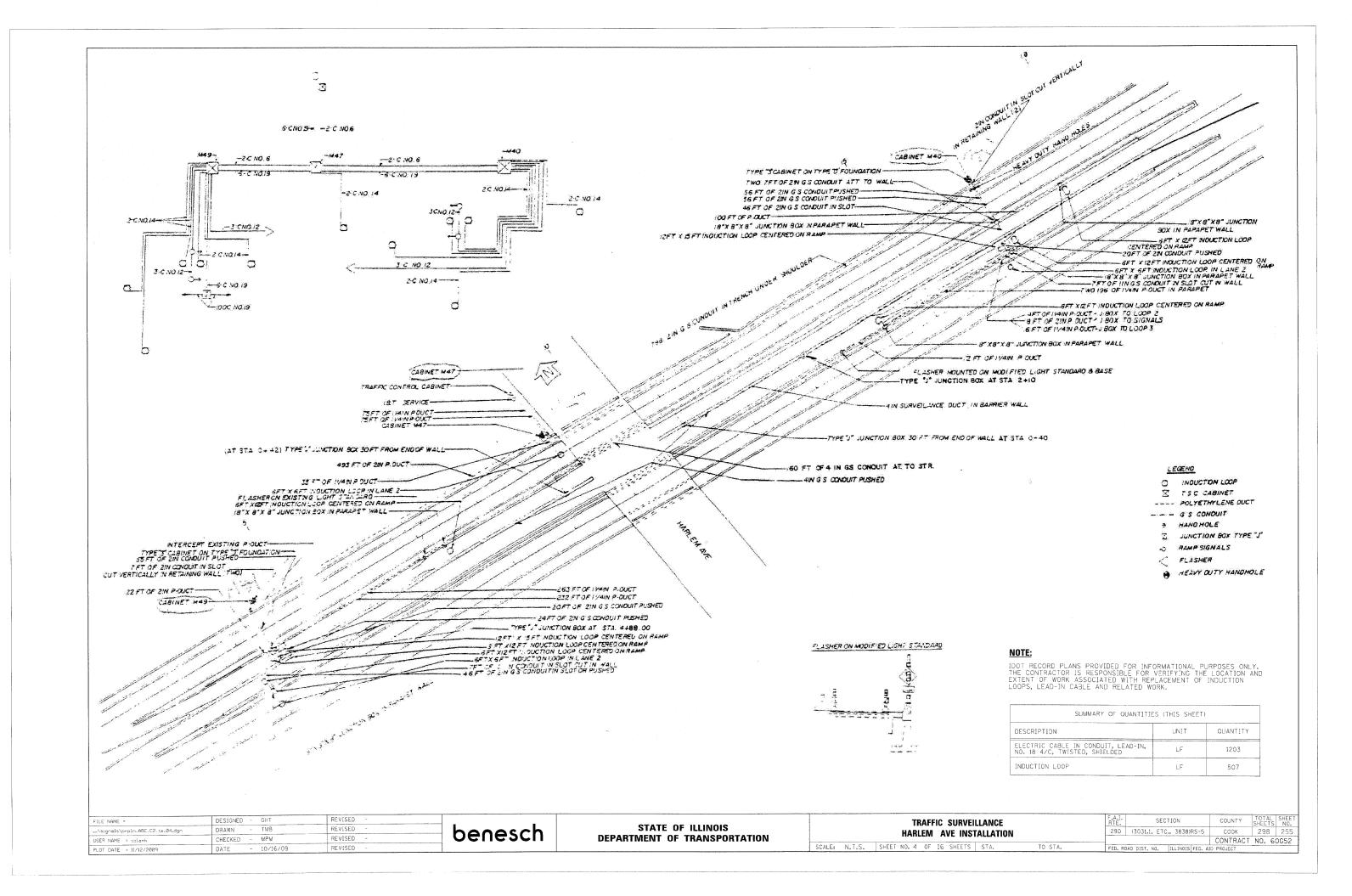
IDOT RECORD PLANS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND EXTENT OF WORK ASSOCIATED WITH REPLACEMENT OF INDUCTION LOOPS, LEAD-IN CABLE AND RELATED WORK.

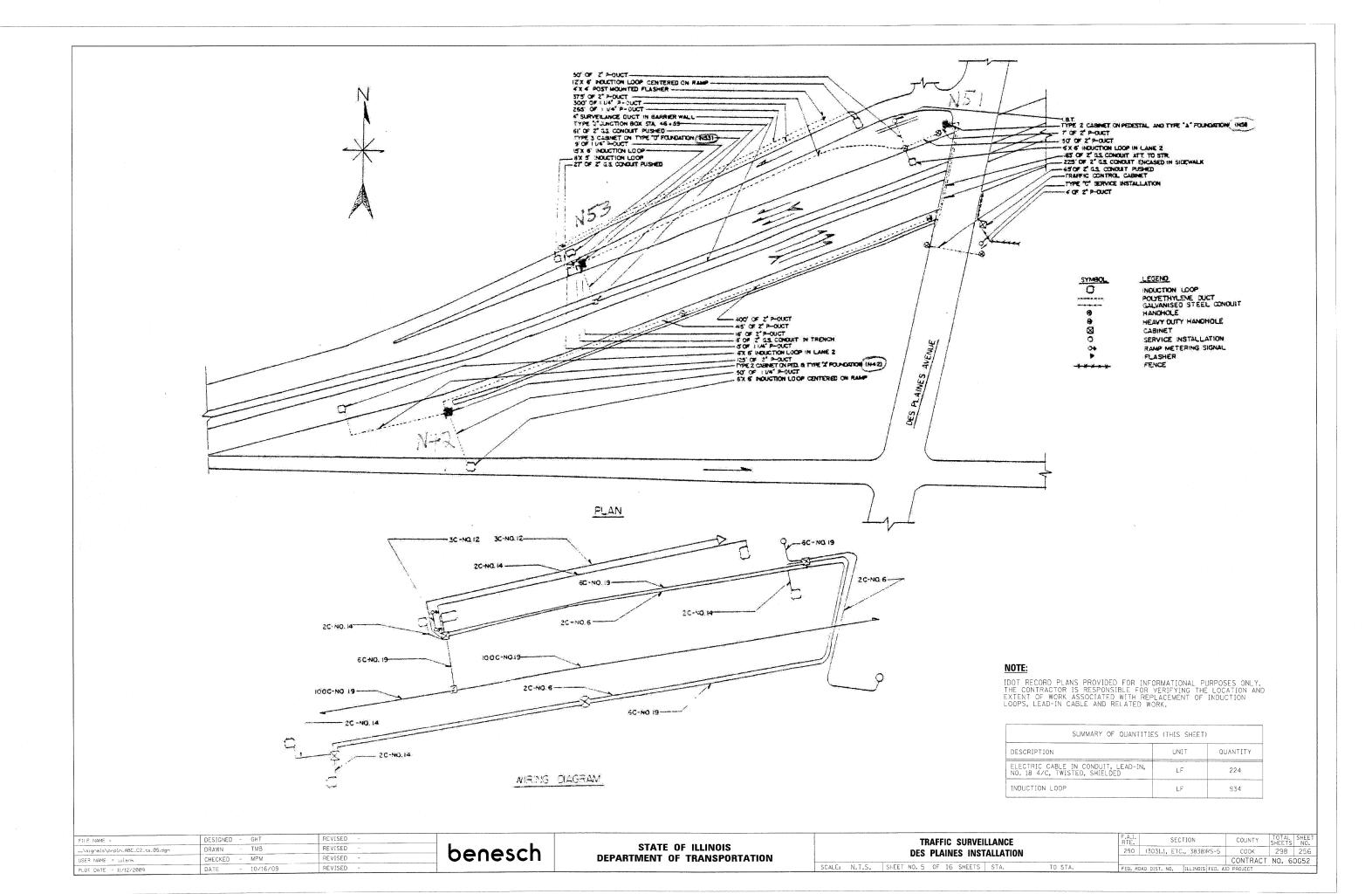
	SUMMARY OF QUANTITIES(THIS SHEET)			
	DESCRIPTION	UNIT	QUANTITY	
Egypte X 12 h have broken grown by	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	214	
	INDUCTION LOOP	LF	266	

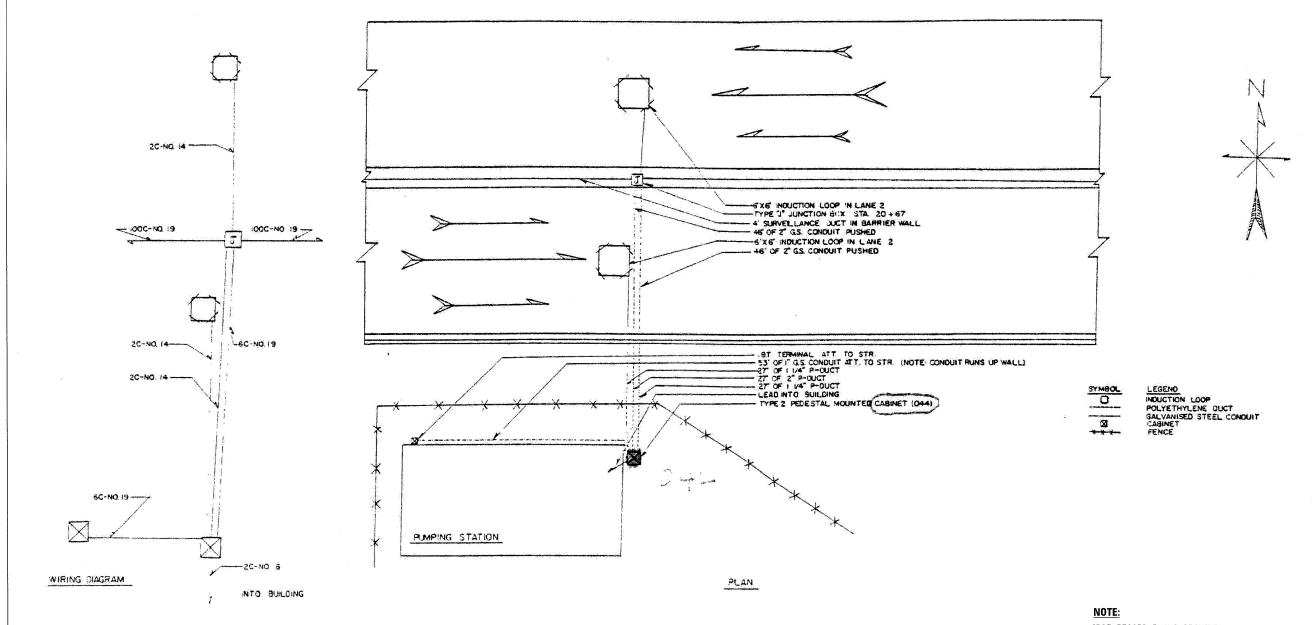
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Ι.	\aignala\prpln_ABC_C2_ts_03.dgn	DRAWN - TMB	REVISED -	benesch
T	JSER NAME = tblank	CHECKED - MPM	REVISED -	Denesch
-	PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SURVEILLANCE	F.A.I. RTE.	SE	CTION	COUNTY	TOTAL	SHEET NO.
EAST AVE INSTALLATION	290	(3031.1, ET	C., 3838)RS-5	COOK	298	254
				CONTRACT	NO.	60G52
ALE: N.T.S. SHEET NO. 3 OF 16 SHEETS STA. TO STA.	FED. RC	OAD DIST. NO.	ILLINOIS FED. AI	D PROJECT		



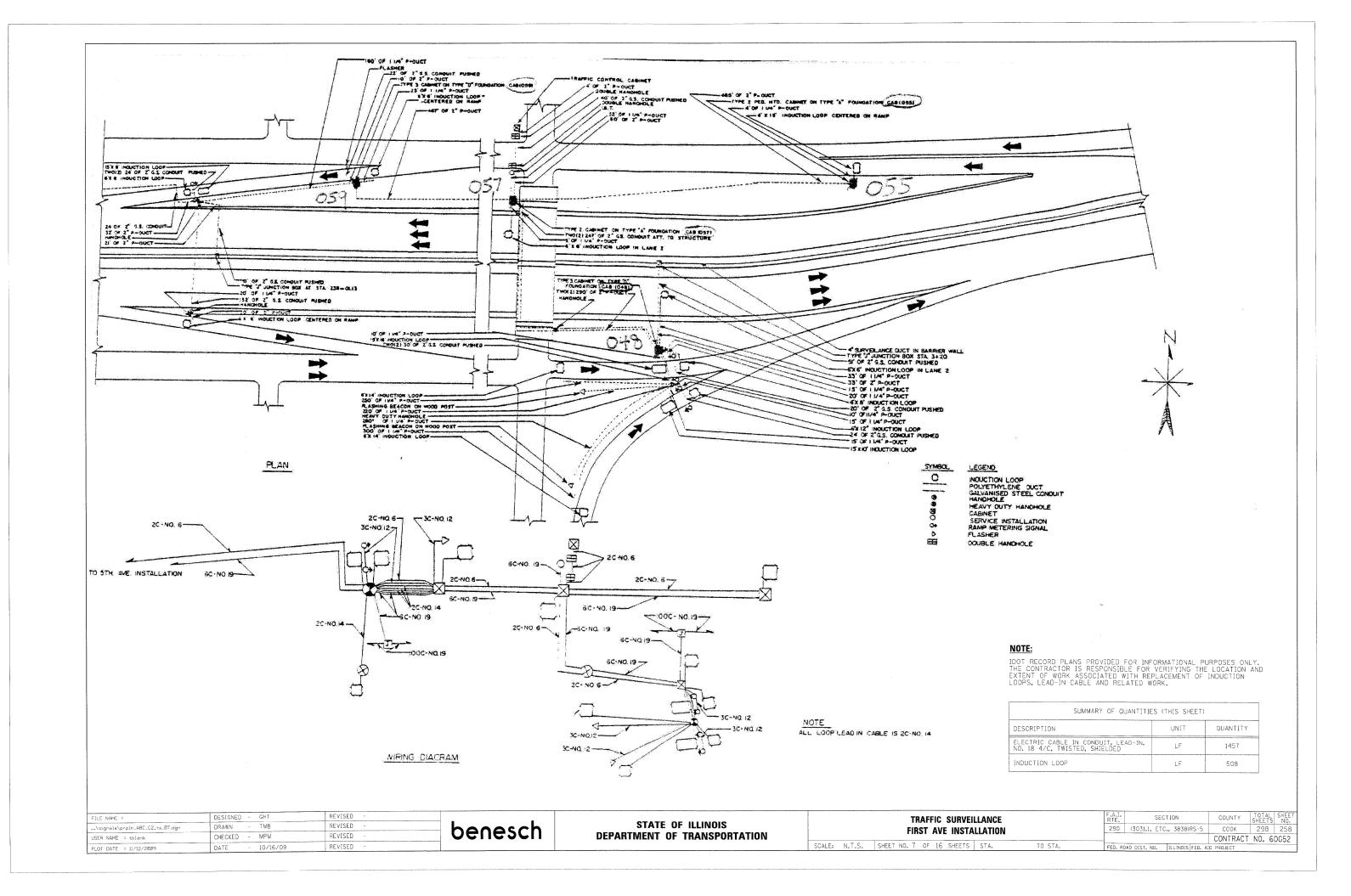


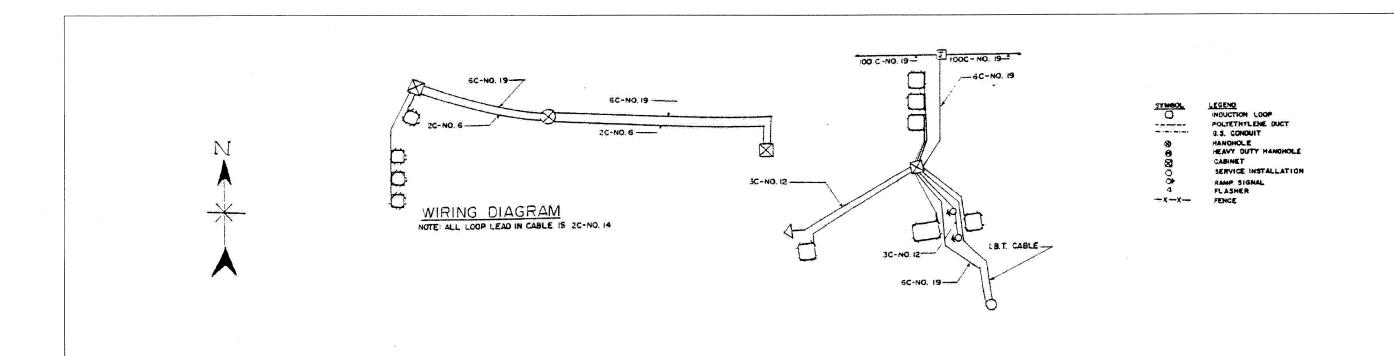


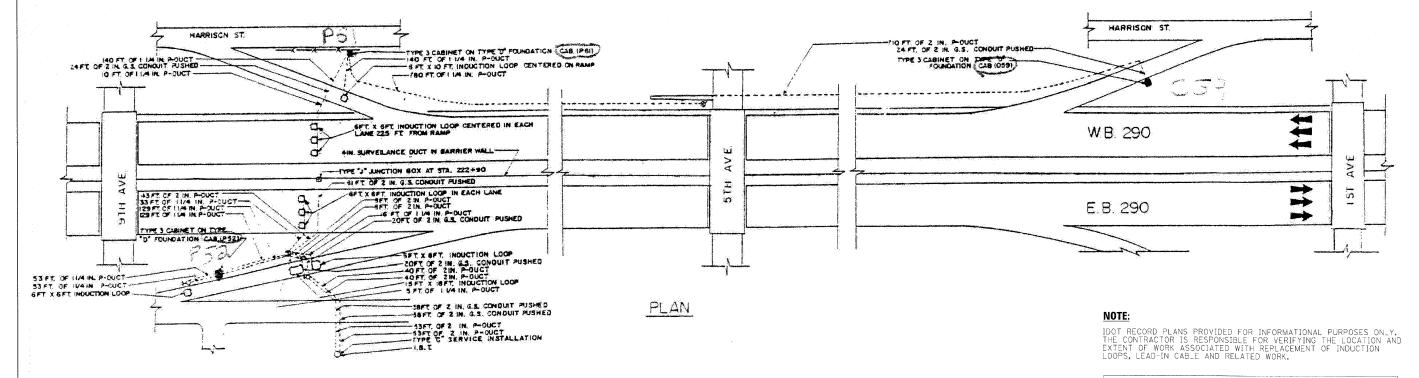
IDOT RECORD PLANS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND EXTENT OF WORK ASSOCIATED WITH REPLACEMENT OF INDUCTION LOOPS, LEAD-IN CABLE AND RELATED WORK.

SUMMARY OF QUANTITIE	ES (THIS SHEET)	
DESCRIPTION	TINU	QUANTITY
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	122
INDUCTION LOOP	LF	76

FILE NAME =\signals\prpln.A8C_C2_ts_06.dgn	DESIGNED - GHT DRAWN - TMB	REVISED - REVISED -	benesch	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SURVEILLANCE DES PLAINES RIVER INSTALLATION	F.A.I. SECTION COUNTY TOTAL SHEET SHORT NO. 290 (3031.1, ETC., 3838)RS-5 COOK 298 257
USER NAME = tblank PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -	CONCOUNT	DEFAITMENT OF TRANSPORTATION	SCALE: N.T.S. SHEET NO. 6 OF 16 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

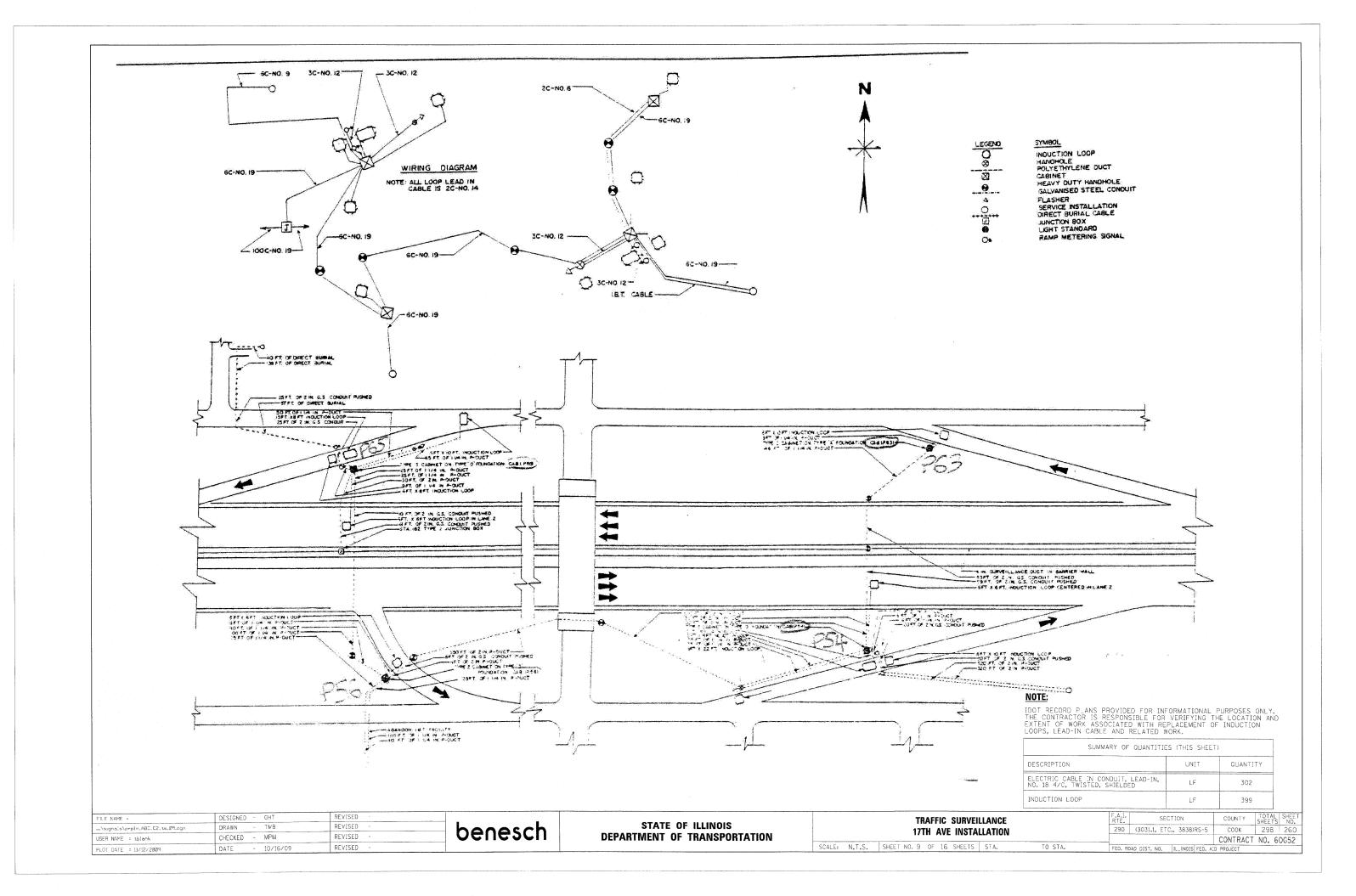


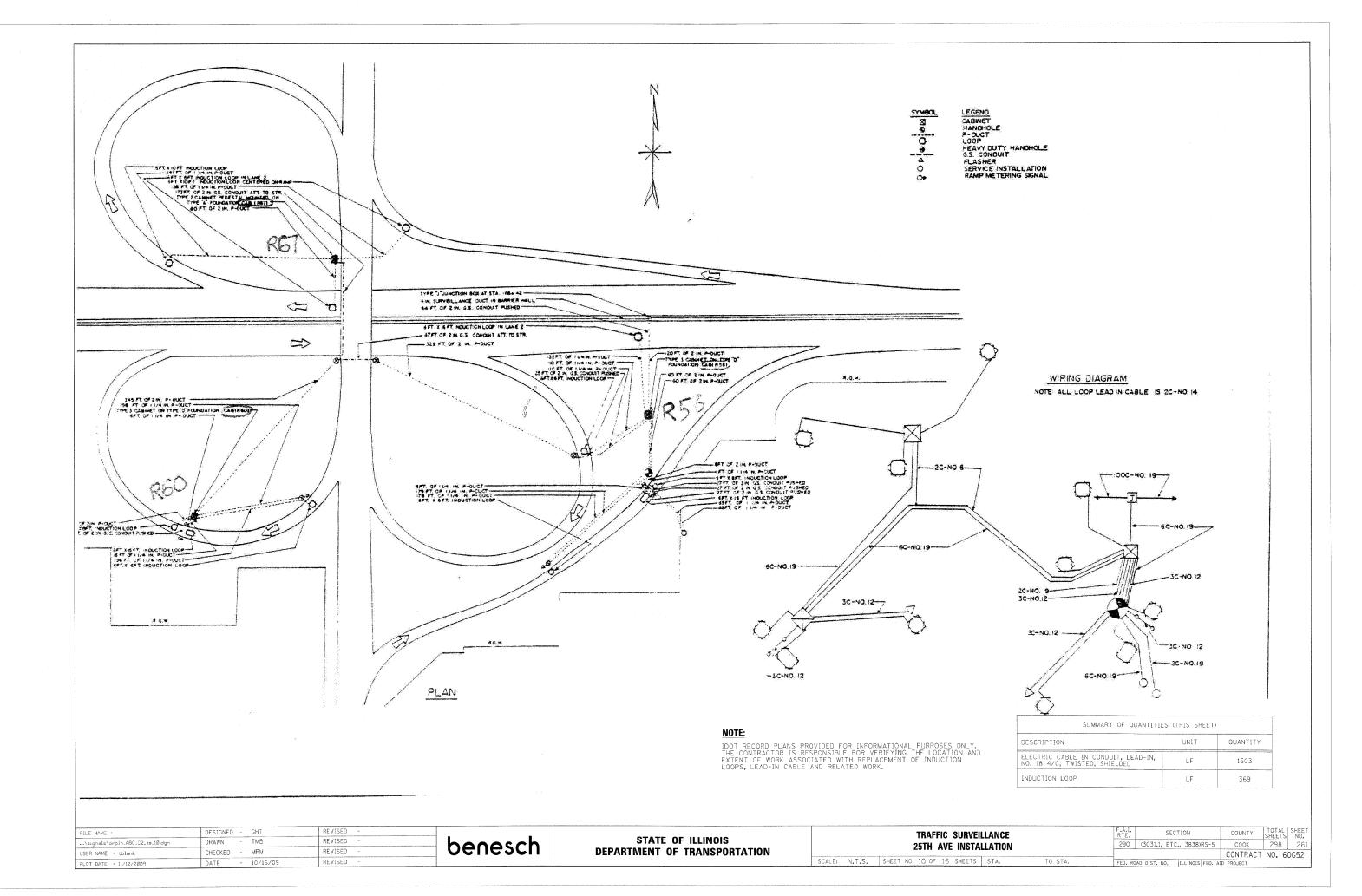


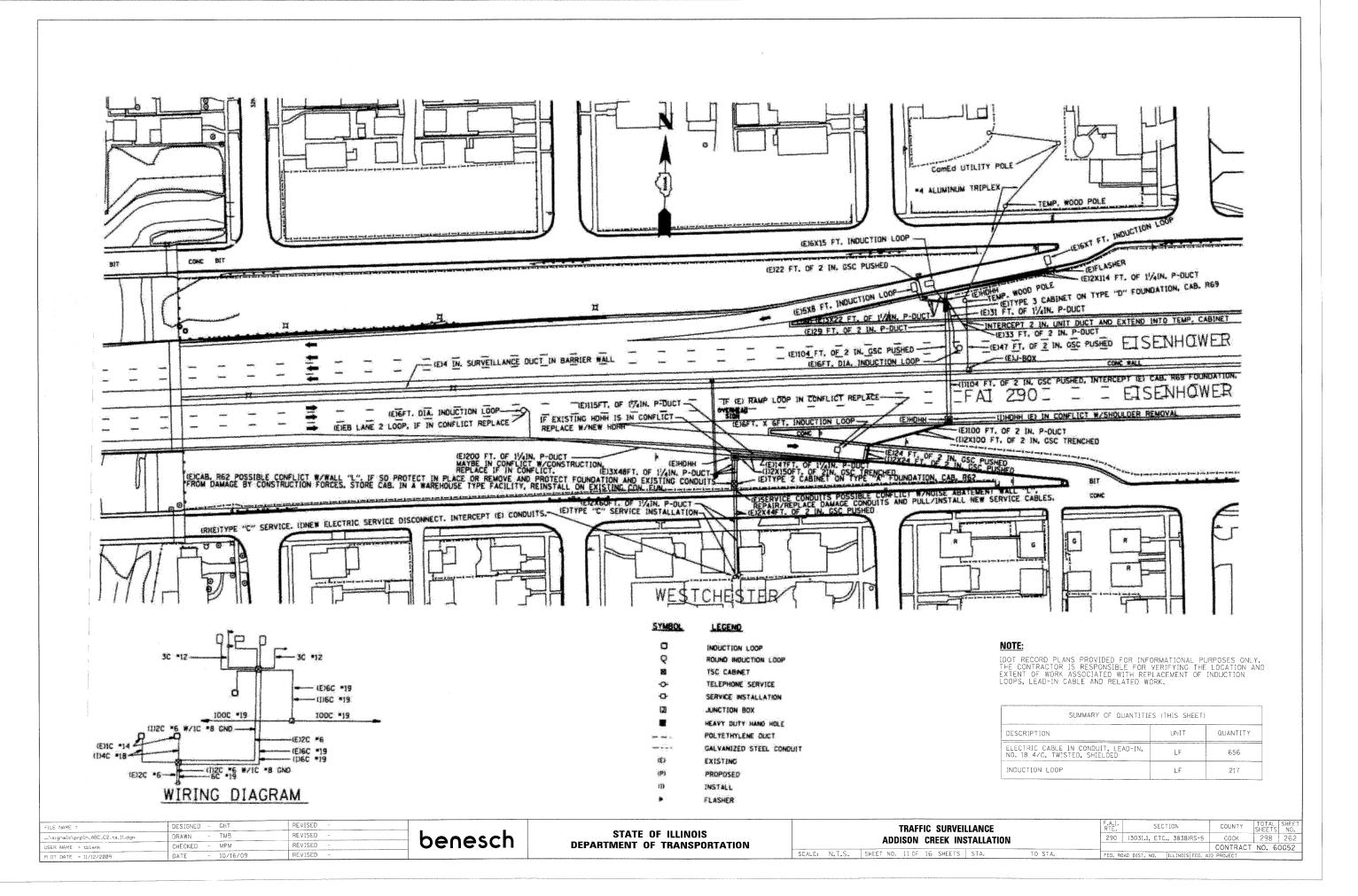


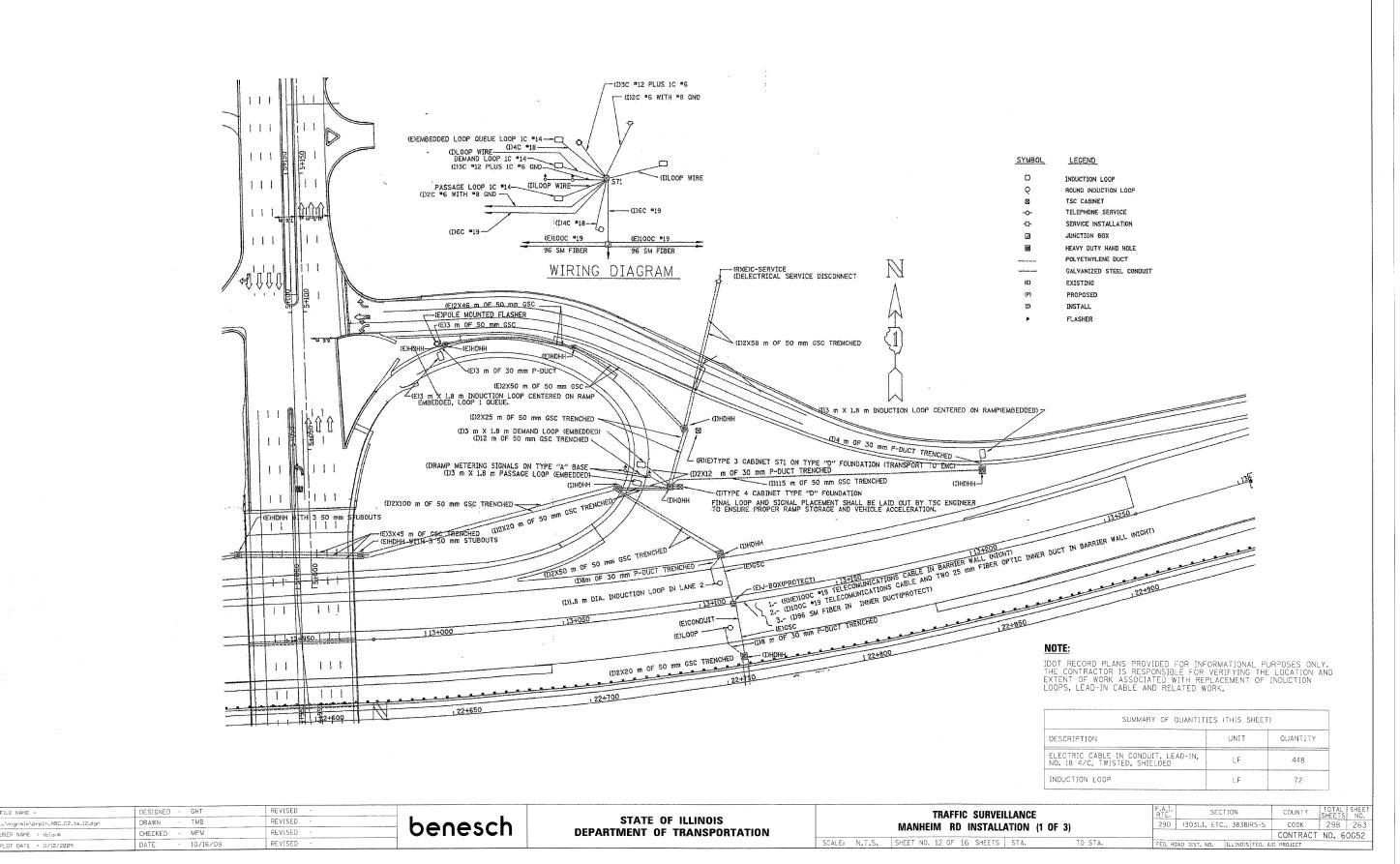
SUMMARY OF QUANTITIES (THIS SHEET)								
DESCRIPTION	UNIT	QUANTITY						
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	1316						
INDUCTION LOOP	LF	378						

ľ	FILE NAME =	DESIGNED - GHT		REVISED -			TRAFFIC SURVEILLANCE	F.A.I. RTE. SECTION	COUNTY TOTAL SHEET
	\signals\prpln_ABC_C2_ts_08.cgn	DRAWN - TMB		REVISED -	benesch	STATE OF ILLINOIS	1ST, 5TH & 9TH AVE INSTALLATION	290 (3031.1, ETC., 3838)RS-5	COOK 298 259
	USER NAME = tblank	CHECKED - MPM		REVISED -	Oenesch	DEPARTMENT OF TRANSPORTATION	COME. N.T.C. CUEST NO. 9 OF 16 SUESTS STA. TO STA		CONTRACT NO. 60G52
	PLOT DATE = 11/12/2009	DATE - 10/1	6/09	KEAIZED -			SCALE: N.I.S. SHEET NO. O OF TO SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. A	ID PROJECT

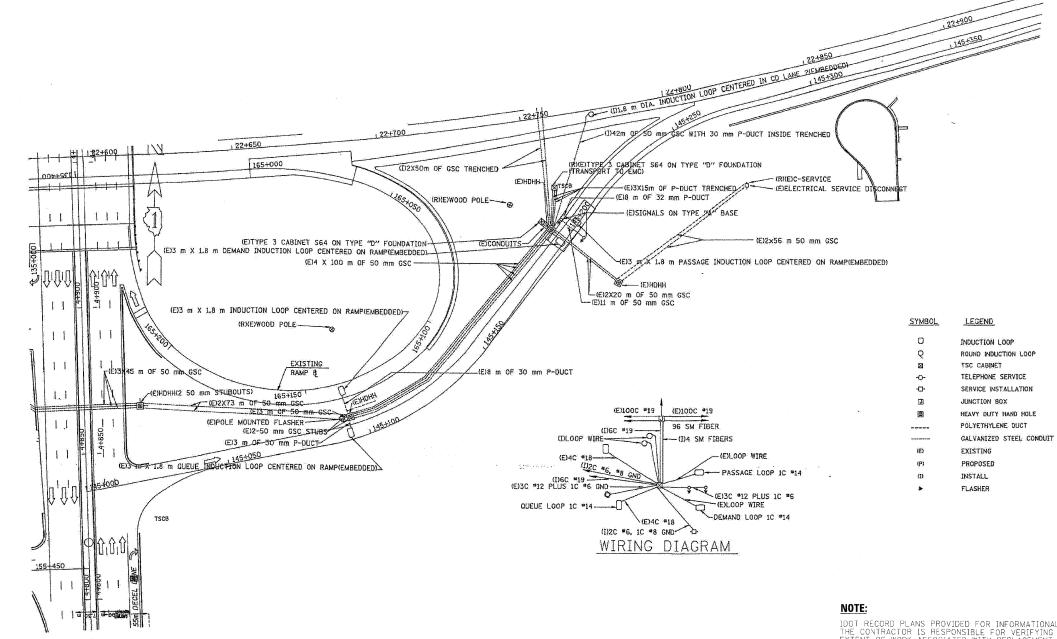








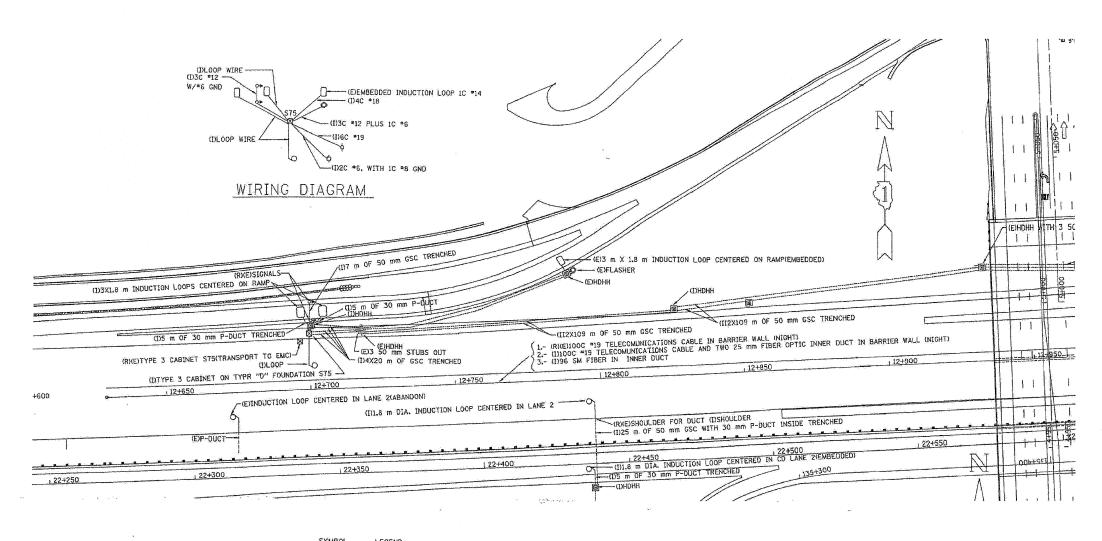
FILE NAME =



IDOT RECORD PLANS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND EXTENT OF WORK ASSOCIATED WITH REPLACEMENT OF INDUCTION LOOPS, LEAD-IN CABLE AND RELATED WORK.

SUMMARY OF QUANTIT	IES (THIS SHEET	¯)
DESCRIPTION	UNIT	QUANTITY
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	198
INDUCTION LOOP	LF	21

FILE NAME =\signals\prpln_ABC_C2_te_13.dgn	DESIGNED - GHT DRAWN - TMB CHECKED - MPM	REVISED - REVISED - BEVISED - BEVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SURVEILLANCE MANHEIM RD INSTALLATION (2 OF 3)	F.A.I. SECTION COUNTY TOTAL SHEET SHEET NO.
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -		SCALE: N.T.S. SHEET NO. 13 OF 16 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



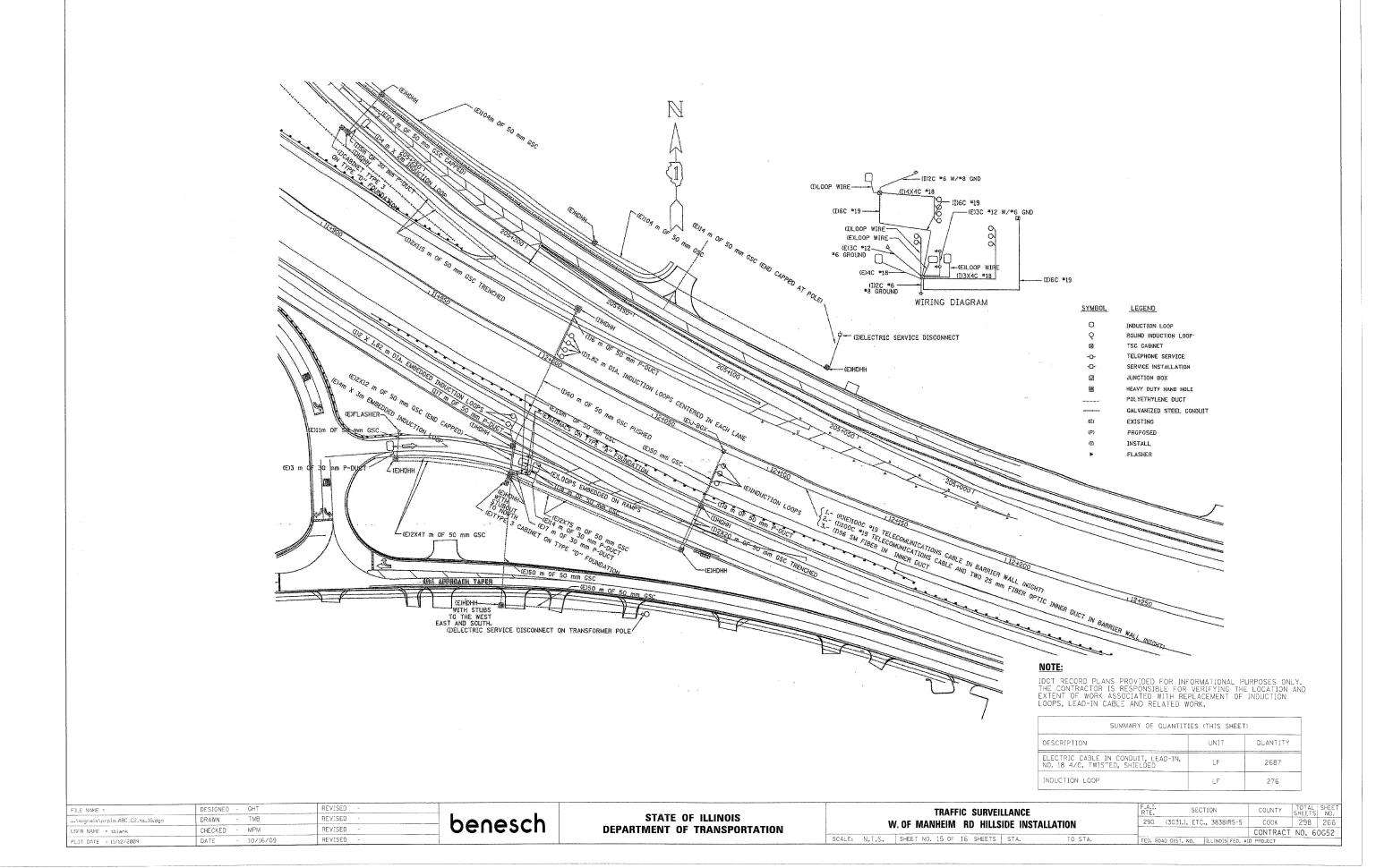
LEGEND
INDUCTION LOOP
TSC CABINET
TELEPHONE SERVICE
SERVICE INSTALLATION
JUNCTION BOX
HEAVY DUTY HAND HOLE
POLYETHYLENE DUCT
GALVANIZED STEEL CONDUIT
EXISTING
PROPOSED
INSTALL
FLASHER

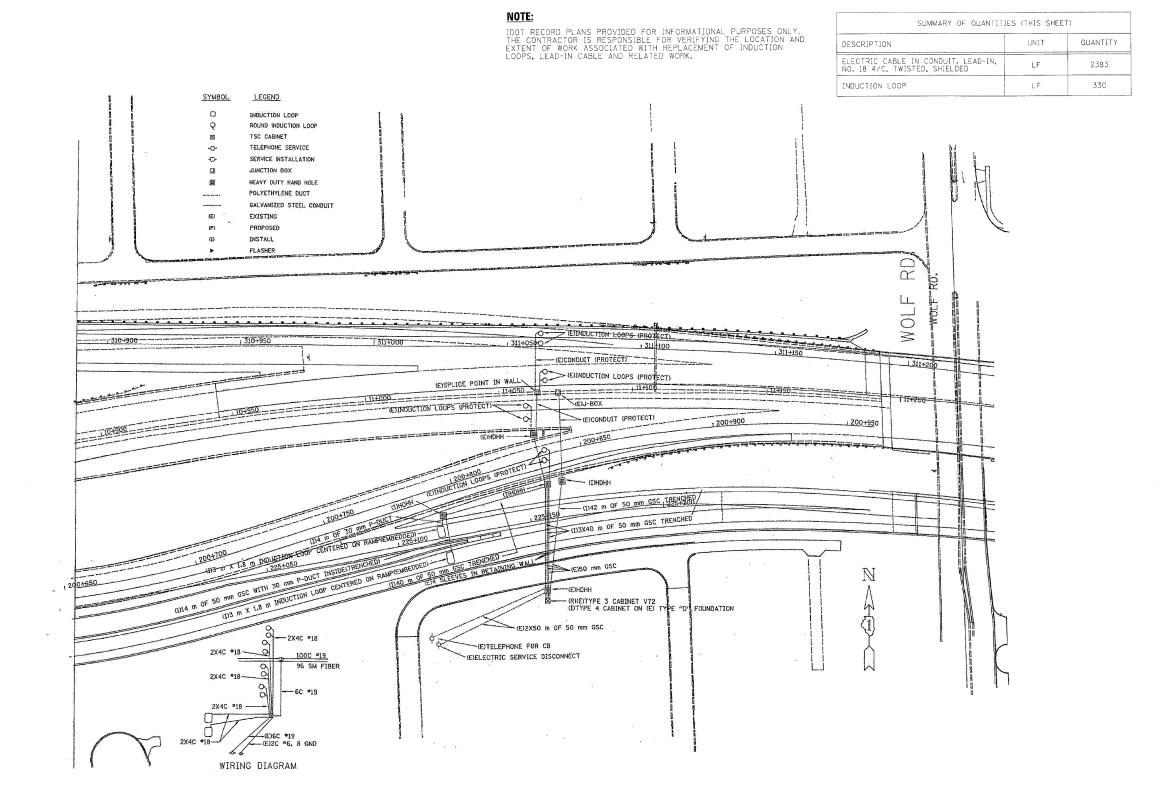
NOTE:

IDOT RECORD PLANS PROVIDED FOR INFORMATIONAL PURPOSES ONLY, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND EXTENT OF WORK ASSOCIATED WITH REPLACEMENT OF INDUCTION LOOPS, LEAD-IN CABLE AND RELATED WORK.

SUMMARY OF QUANTITI	ES (THIS SHEE	T)
DESCRIPTION	UNIT	YTITMAUQ
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	LF	96
INDUCTION LOOP	L F**	84

FILE NAME =\eignals\prpln_ABC_C2_ts_14.dgn	DESIGNED - GHT DRAWN - TMB	REVISED - REVISED -	benesch	STATE OF ILLINOIS	TRAFFIC SURVEILLANCE MANHEIM RD INSTALLATION (3 OF 3)		SECTION 31.1, ETC., 3838)RS-5	COUNTY	TOTAL SHEETS	HEET NO. 265
USER NAME = tblank	CHECKED - MPM	REVISED -	Oellescii	DEPARTMENT OF TRANSPORTATION	,			CONTRACT	NO. 60	352
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -			SCALE: N.T.S. SHEET NO. 14 OF 16 SHEETS STA. TO STA.	FED. ROAD DE	ST. NO. ILLINOIS FED. AI	PROJECT		



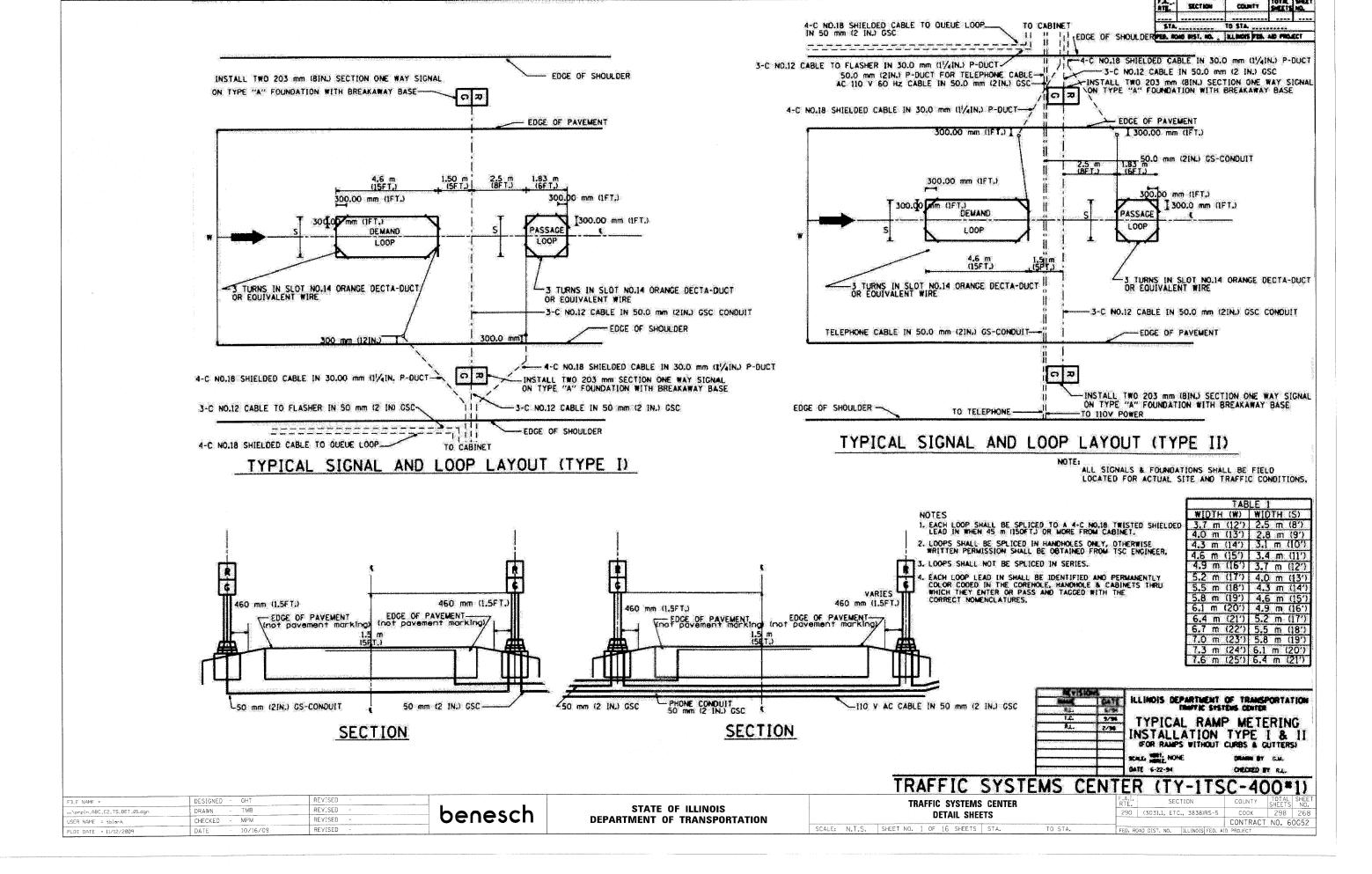


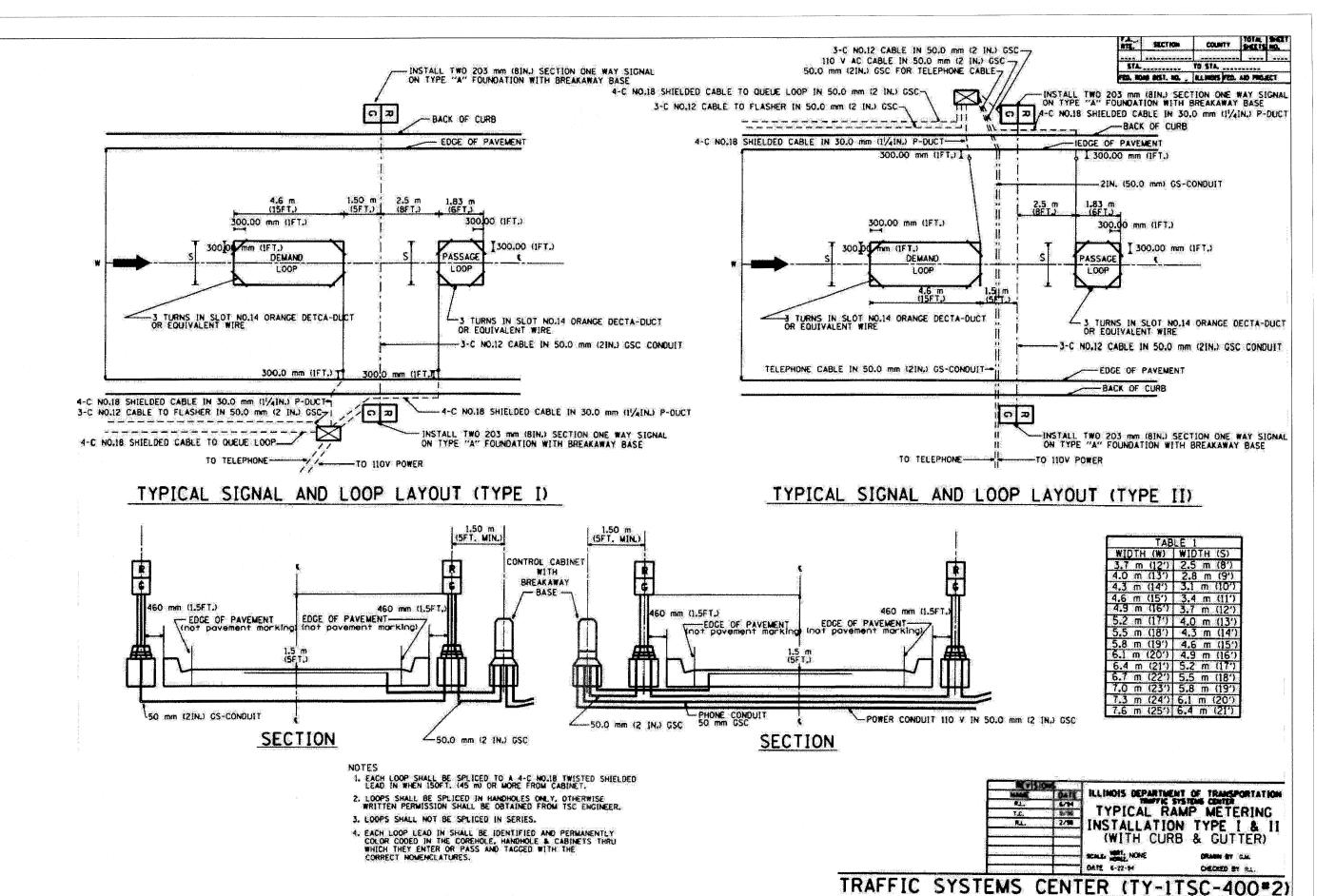
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\signals\prpIn_ABC_C2_ts_17.dgn	DRAWN	-	TMB	REVISED.	* .
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PLOT DATE = 11/12/2009	DATE	-	10/16/09	REVISED.	

benesch

STATI	E OF	: ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

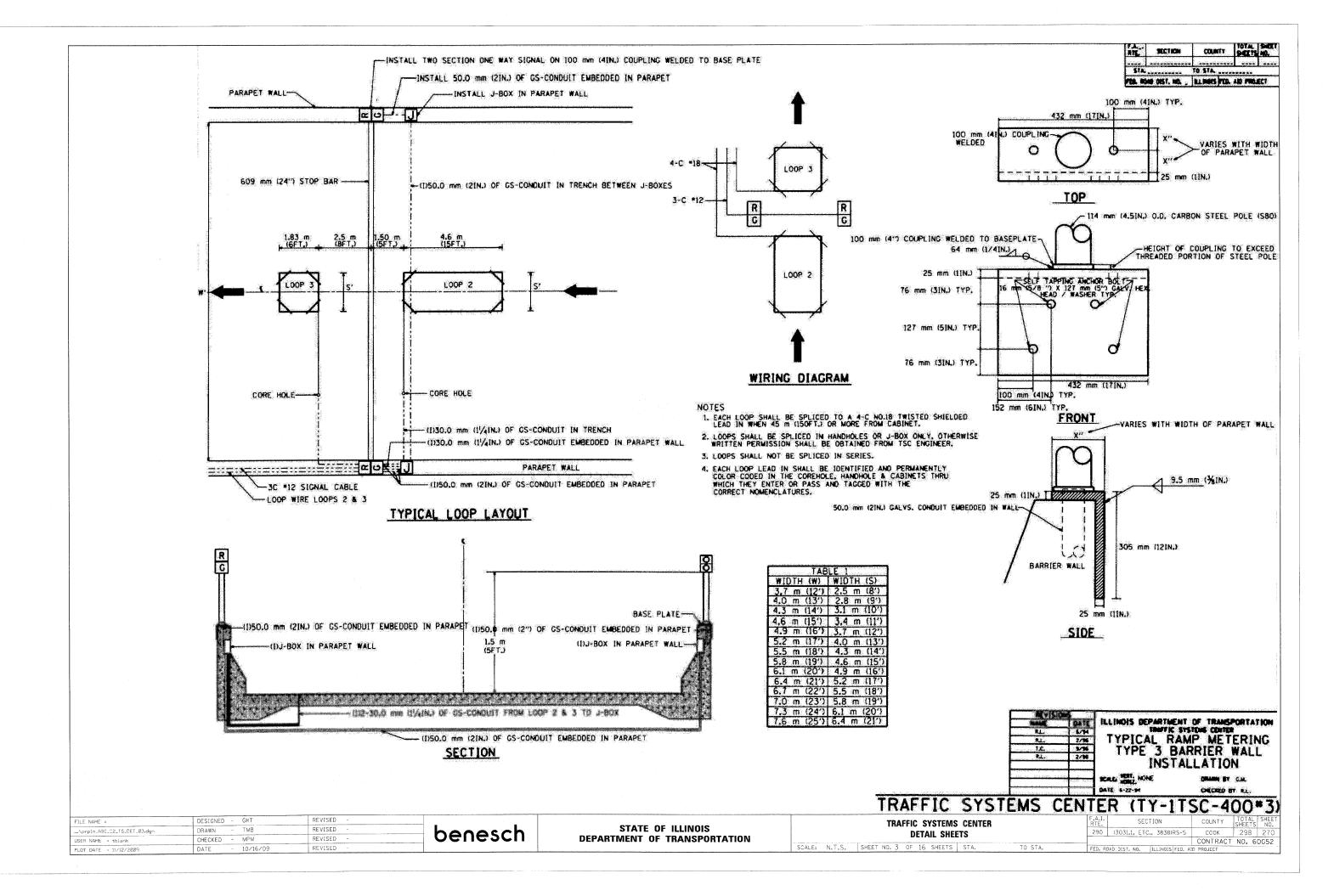
		TRAFF	C SURVEI	LLANCE		F.A.I. RTE.	SEC	TION	COUNTY	TOTAL SHEETS	SHEET NO.
		WOLF	RD INSTA	LLATION		290	(3031.1, ETC	., 3838)RS-5	COOK	298	267
									CONTRAC	T NO. 6	0G52
CALE:	N.T.S.	SHEET NO. 16 OF	16 SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS FED. A	ID PROJECT		

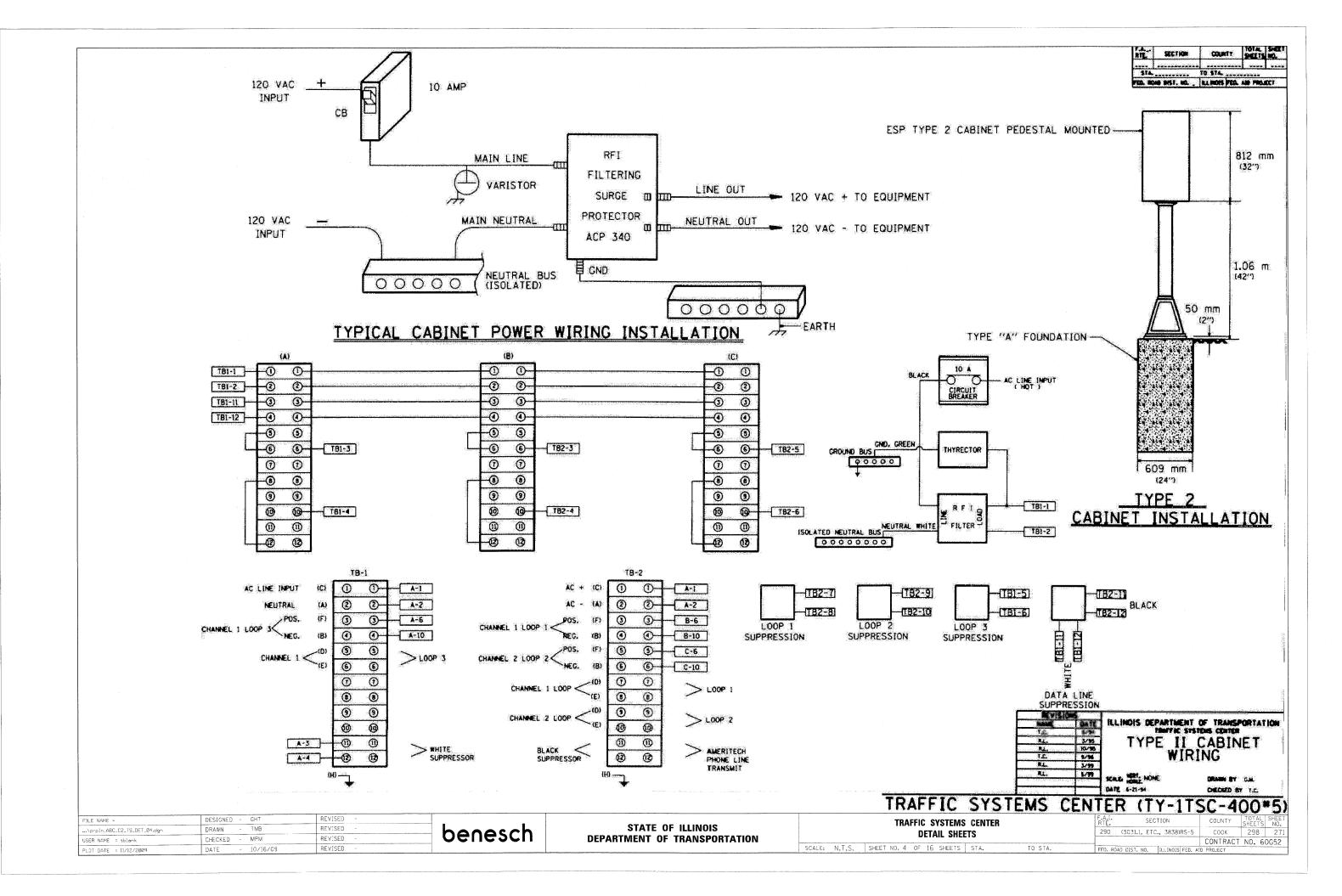


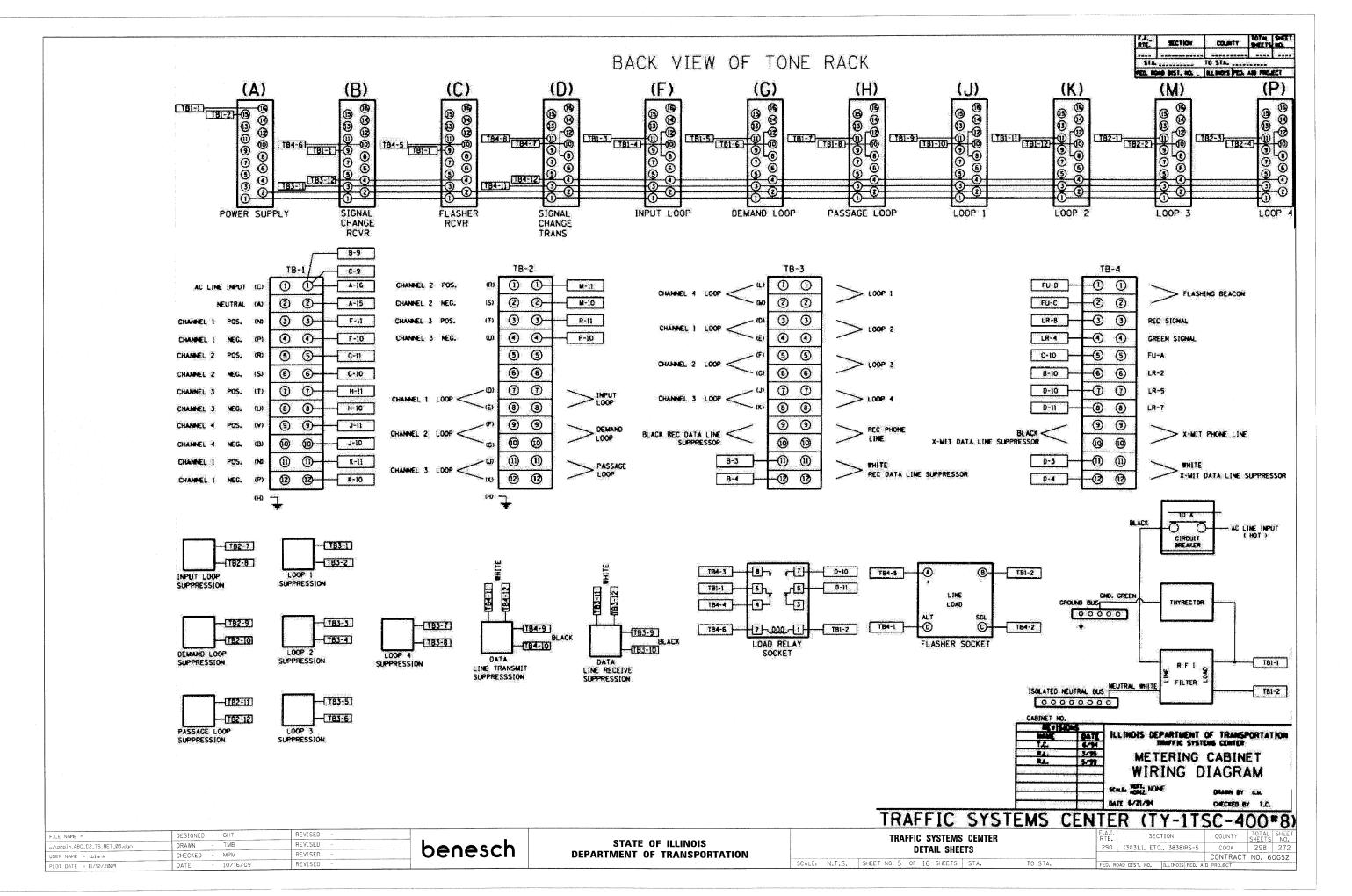


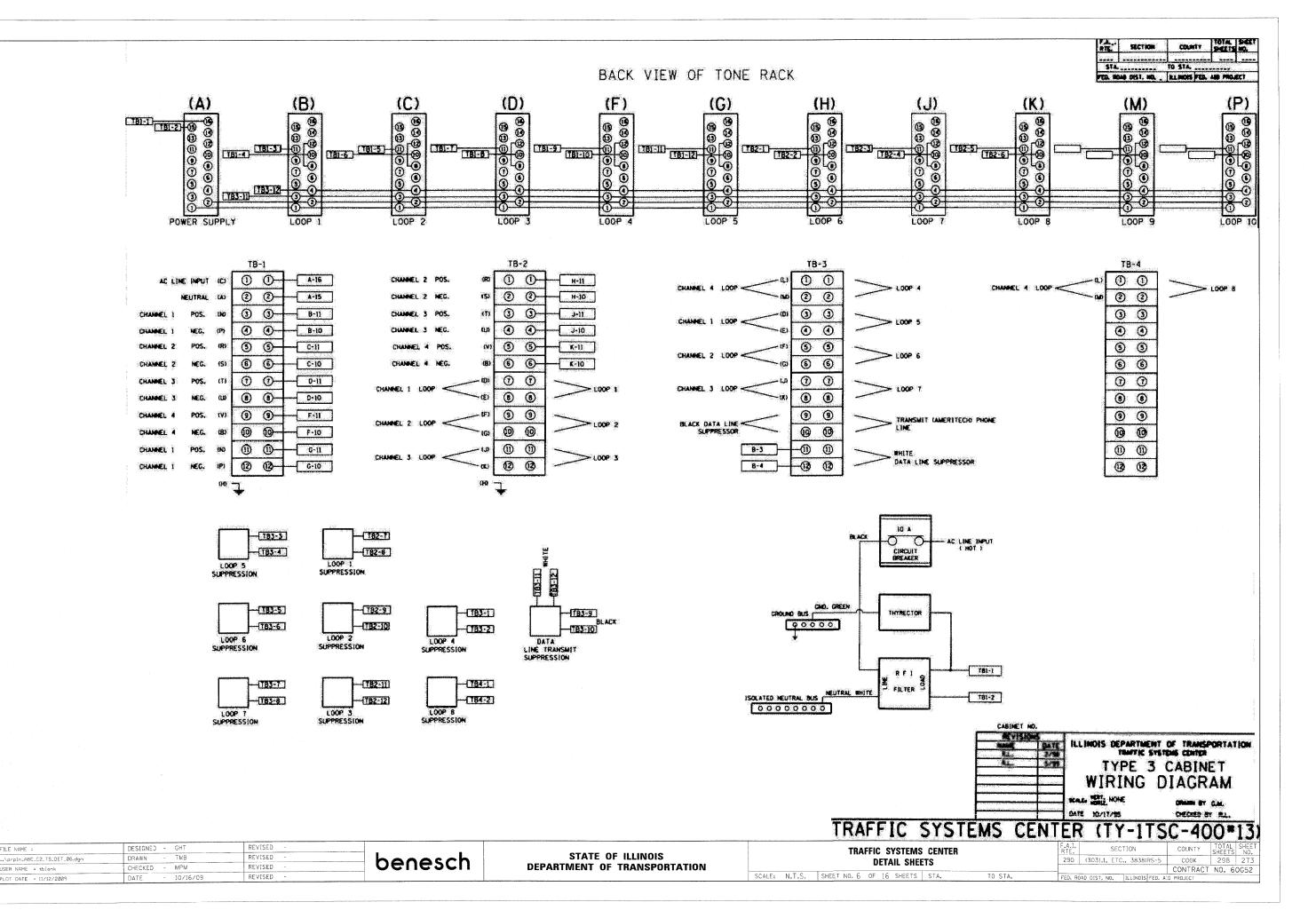
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\prpln_ABC_C2_TS_DET_02.dgn	DRAWN - TMB	REVISED -	benesch
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PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -	

TRAFFIC SYSTEMS CENTER	F.A.I. RTE.	SECTION	CONTRACTOR OF A STATE OF	TOTAL SHEETS	CALL THE STATE OF THE STATE OF
DETAIL SHEETS	290	(3031.1, ETC., 3838)RS-5	COOK	298	269
SCALE: N.T.S. SHEET NO. 2 OF 16 SHEETS STA. TO STA.	FED. RO	DAD DIST. NO.	CONTRACT D PROJECT	NU. 6	0652

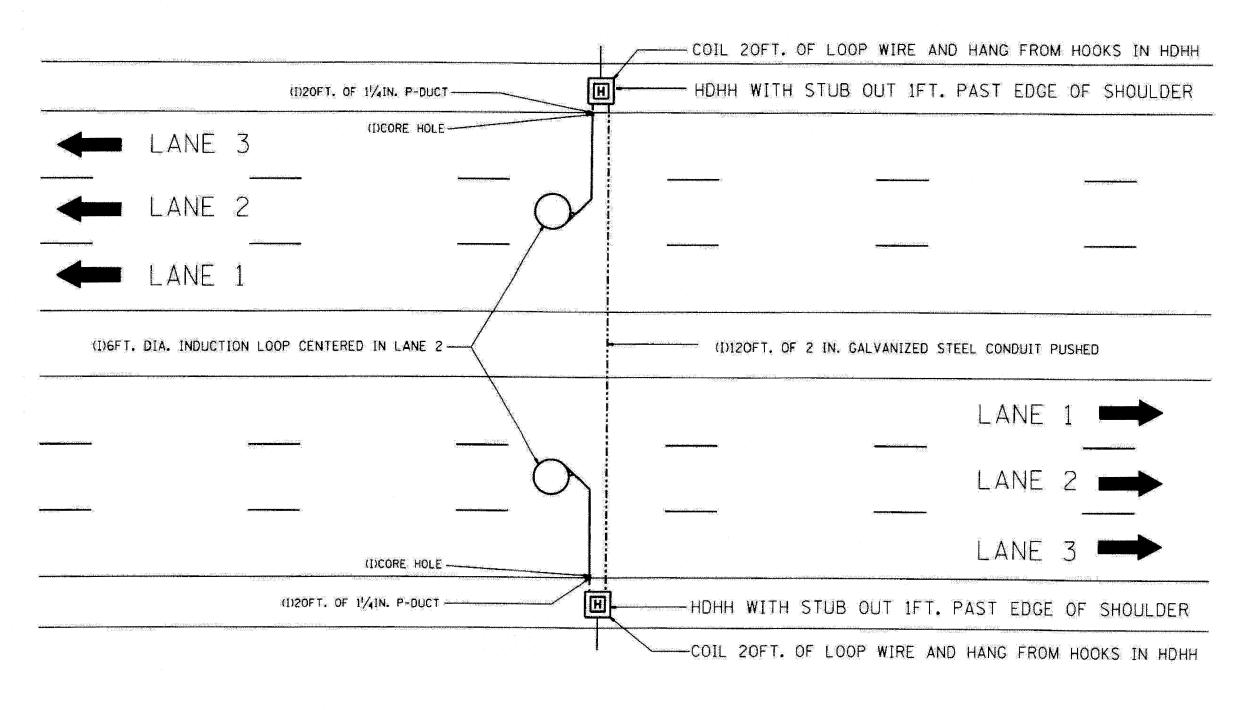








FILE NAME =



NOTE:

THE COST OF LOOP WIRE IN HOHH IS INCIDENTAL TO THE INDUCTION LOOP. IT SHALL NOT BE MEASURE FOR PAYMENT.

INSTALL AT STATIONS.

ONE LANE COUNT STATION

ONE LANE COUNT STATION

FRANCE ONLY CALL

ORGANIC OF TRANSPORTATION

ONE LANE COUNT STATION

FRANCE OF THE ORGANIC OF TRANSPORTATION

TRAFFIC SYSTEMS CENTER (TY-1TSC-400*31)

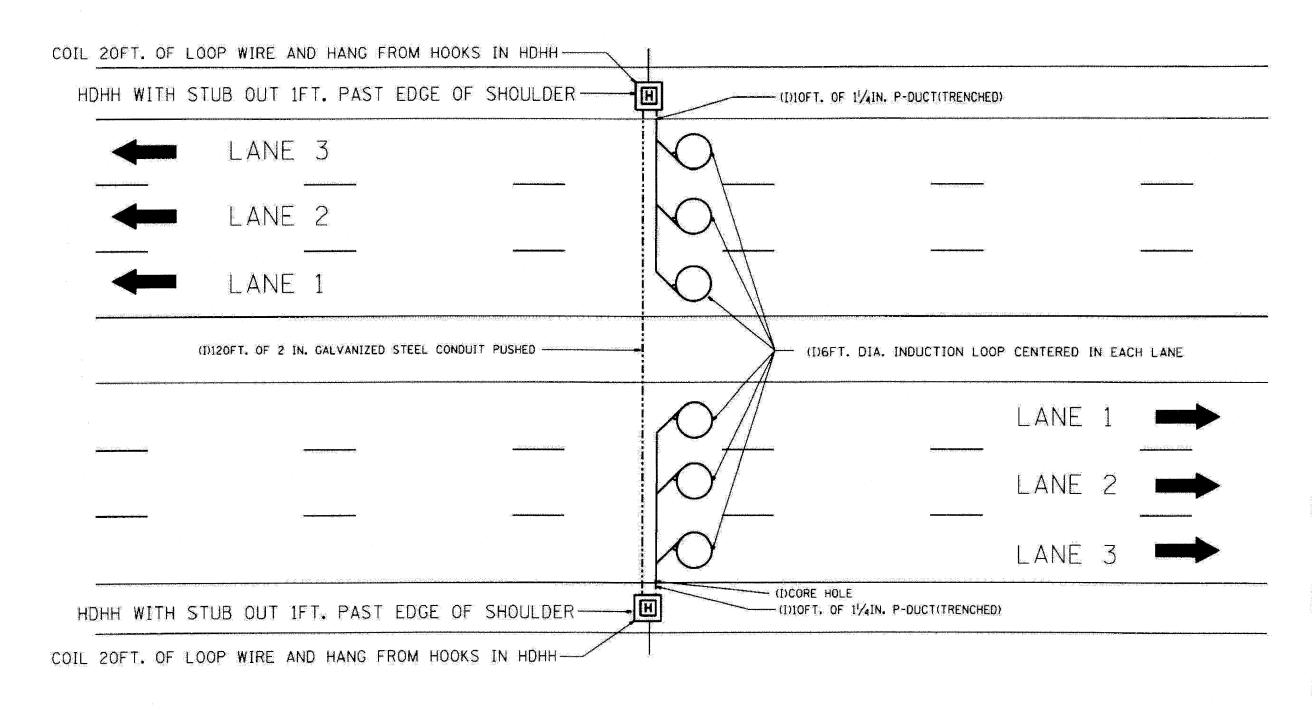
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\prpln_ABC_C2_TS_DET_07.dgn	DRAWN - TMB	REVISED -	hoosch	
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PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SYSTEMS CENTER
DETAIL SHEETS
T NO. 7 OF 16 SHEETS STA

F.A.I. SECTION COUNTY TOTAL SHEETS NO.
290 (3031.1, ETC., 3838)RS-5 COOK 298 274

CONTRACT NO. 60652



NOTE:

THE COST OF LOOP WIRE IN HOHH IS INCIDENTAL TO THE INDUCTION LOOP. IT SHALL NOT BE MEASURE FOR PAYMENT.

INSTALL AT STATIONS.

3 LANE COUNT STATION

SALE WATE NONE DIRECTOR OF THE STATE OF THE STAT

TRAFFIC SYSTEMS CENTER (TY-1TSC-400*32

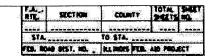
TRAFFIC SYSTEMS CENTER FAEL SECTION COUNTY STREETS NO. SHEETS NO. SHEE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

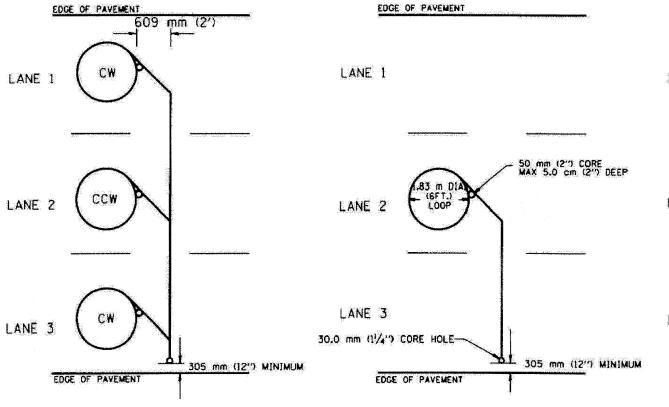
DETAIL SHEETS

SCALE: N.T.S. SHEET NO. 8 OF 16 SHEETS STA. TO STA.

| RTE. | SECTION COUNTY SHEETS NO. | 298 275 | CONTRACT NO. 60652 | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT



EDGE OF PAVEMENT



LANE 2

CCW

LANE 2

LANE 2

LANE 3

CW

LANE 3

30.0 mm (11/4") CORE HOLE

EDGE OF PAVEMENT

EDGE OF PAVEMENT

LANE 3

TO MINIMUM

EDGE OF PAVEMENT

LANE 3

TO MINIMUM

EDGE OF PAVEMENT

TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY

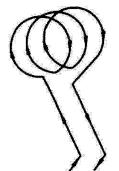
TYPICAL 1.83 m (62) DIA. INDUCTION LOOP

LAYOUT FOR LANE 2

TYPICAL 1.83 m (6') DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY

TYPICAL 1.83 m (6') DIA. INDUCTION LOOP

LAYOUT FOR LANE 2



WIRING DETAILS

NOTES

1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.

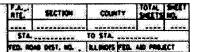
EDGE OF PAVEMENT

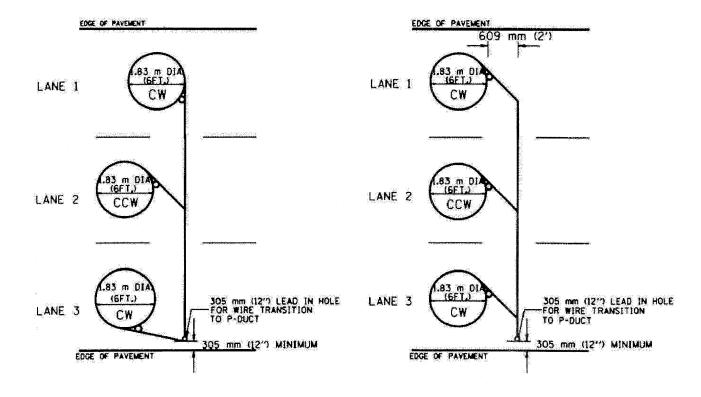
- 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
- 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
- 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

i			in anatomical in an anatomical paragraph	
1	eus.	DATE	LLINOIS DEPARTME	NT OF TRANSPORTATION
		1/16		SYSTEMS CONTENTS
			INST	ROUND LOOP ALLATION
1	2000 S200 APRES S2	-		
Negotiano.			CALL TO NONE	ORANN BY CA.
CONTRACT.	La reconstrui		ATE 6-22-94	CHECKED BY MA.

TRAFFIC SYSTEMS CENTER (TY-1TSC-418*1)

FILE NAME =\prpIn_ABC_CZ_TS_DET_Ø9.dgn	DESIGNED - GHT DRAWN - TMB	REVISED - REVISED -	benesch	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SYSTEMS CENTER DETAIL SHEETS	F.A.I. SECTION COUNTY TOTAL SHEETS 290 (3031.1, ETC., 3838)RS-5 COOK 298	HEET NO. 276
USER NAME = tblank PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -	oenesen	DEPARTMENT OF TRANSPORTATION	SCALE: N.T.S. SHEET NO. 9 OF 16 SHEETS STA. TO STA.	CONTRACT NO. 600 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	52





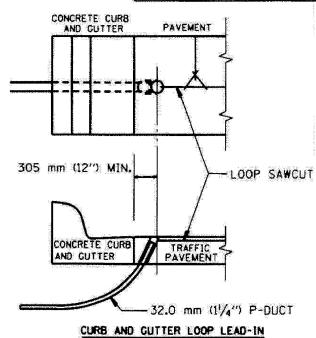
NOTES

- 1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
- 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
- 3. LOOPS SHALL NOT BE SPLICED IN SERIES.

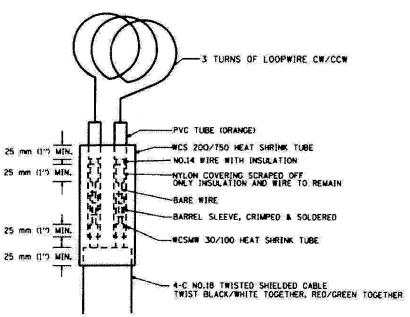
TYPICAL 1.83 m (6FT.) DIA. INDUCTION LOOP CORE DRILL

LAYOUT FOR MULTIPLE LANE ROADWAY

4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



TRANSITION DETAIL



MINIMUM 25 mm (1") HEAT SHRINK TUBING OVERLAP ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

LOOP SPLICING REQUIREMENTS

	0416	ILLINOIS DEPARTME	NT OF TRANSPORTATION
RL.	6/94	TRAFFIC S	astons conto
T.C.	10/96	EXI	STING
			UCTION LOOP
		TYP	ICALS
	211	MALE WITH HOHE	CRAME BY G.M.
		OATE 5-22-94	DECIED BY RL.

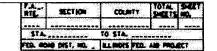
TRAFFIC SYSTEMS CENTER (TY-1TSC-418"2

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL 1.83 m (6') DIA. INDUCTION LOOP CORE DRILL

LAYOUT FOR MULTIPLE LANE ROADWAY

		T	RAFFI	cs	YSTEMS	CENT	ER
			D	ET/	VIL SHE	ETS	
N.T.S.	SHEET	NO.	10 OF	16	SHEETS	STA.	



-LOOP SAWCUT

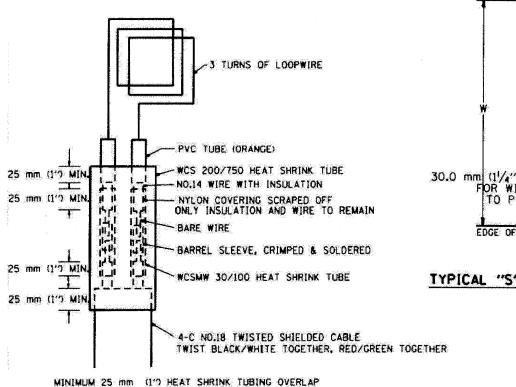
PAVEMENT

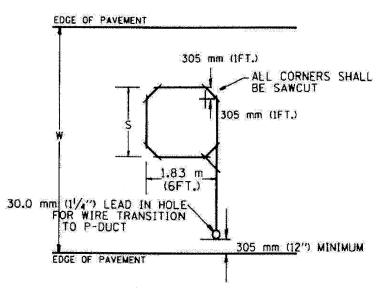
305 mm (1FT.

305 mm (1FT.)

TRAFFIC .
PAVEMENT

-30.0 mm (11/41N.) P-DUCT





TYPICAL "S" FT. BY 1.83 m (6FT.) INDUCTION LOOP
SAWCUT LAYOUT FOR RAMPS

CURB AND GUTTER LOOP LEAD-IN
TRANSITION DETAIL

-EDGE OF SHOULDER OR START OF CURB AND GUTTER

CURB AND GUTTER

CONCRETE CURB

AND GUTTER

LOOP SPLICING REQUIREMENTS

ON WIRE, PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL

TAB	LE 1
WIDTH (W)	WIDTH (S)
3.7 m (12')	2.5 m (8')
4.0 m (13')	2.8 m (9')
4.3 m (14')	3.1 m (10')
4.6 m (15')	3.4 m (11')
4.9 m (16')	3.7 m (12')
5.2 m (17')	4.0 m (13')
5.5 m (18')	4.3 m (14')
5.8 m (19")	4.6 m (15')
6.1 m (20')	4.9 m (16")
6.4 m (21')	5.2 m (17')
6.7 m (22')	5.5 m (18')
7.0 m (23')	5.8 m (19')
7.3 m (24')	6.1 m (20')
7.6 m (25')	6.4 m (21')

NOTES

- 1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 45 m (150FT.) OR MORE FROM CABINET.
- 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
- 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
- 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.

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	LILLINOIS DEPARTME	MT OF TRANSPORTATION STREET
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R.L. 05/9		
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TRAFFIC SYSTEMS CENTER (TY-1TSC-418*3

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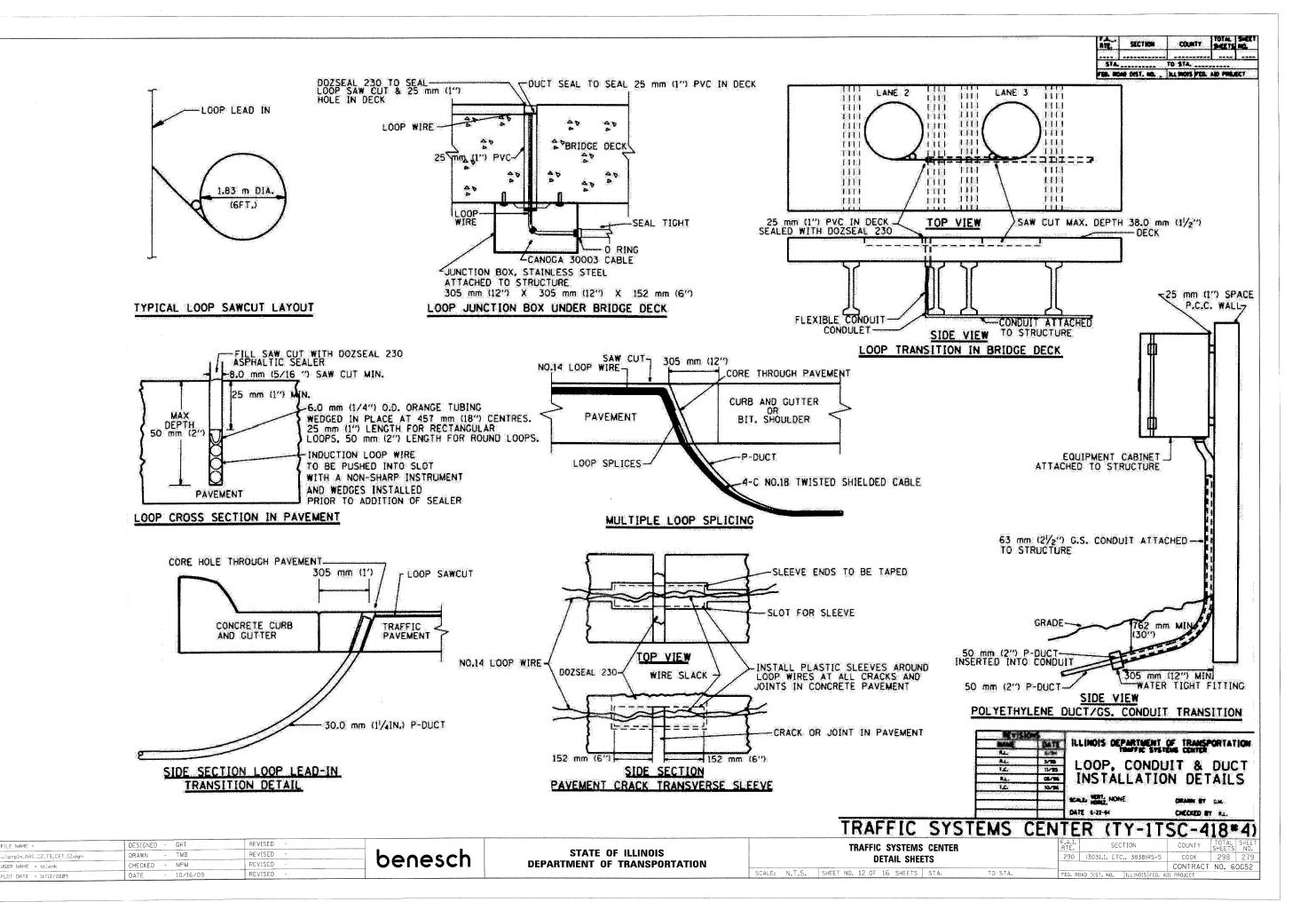
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 - 10/16/09
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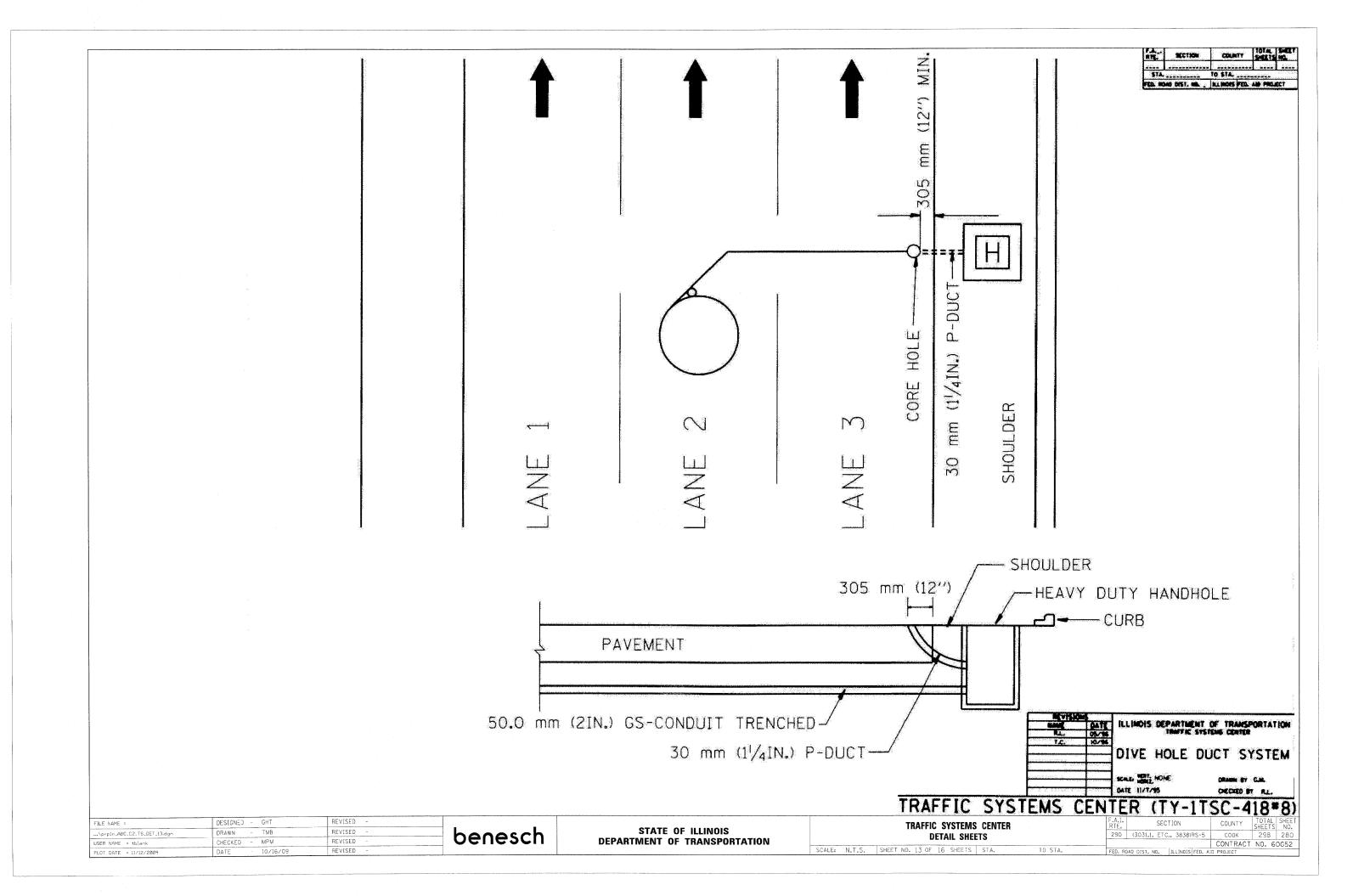
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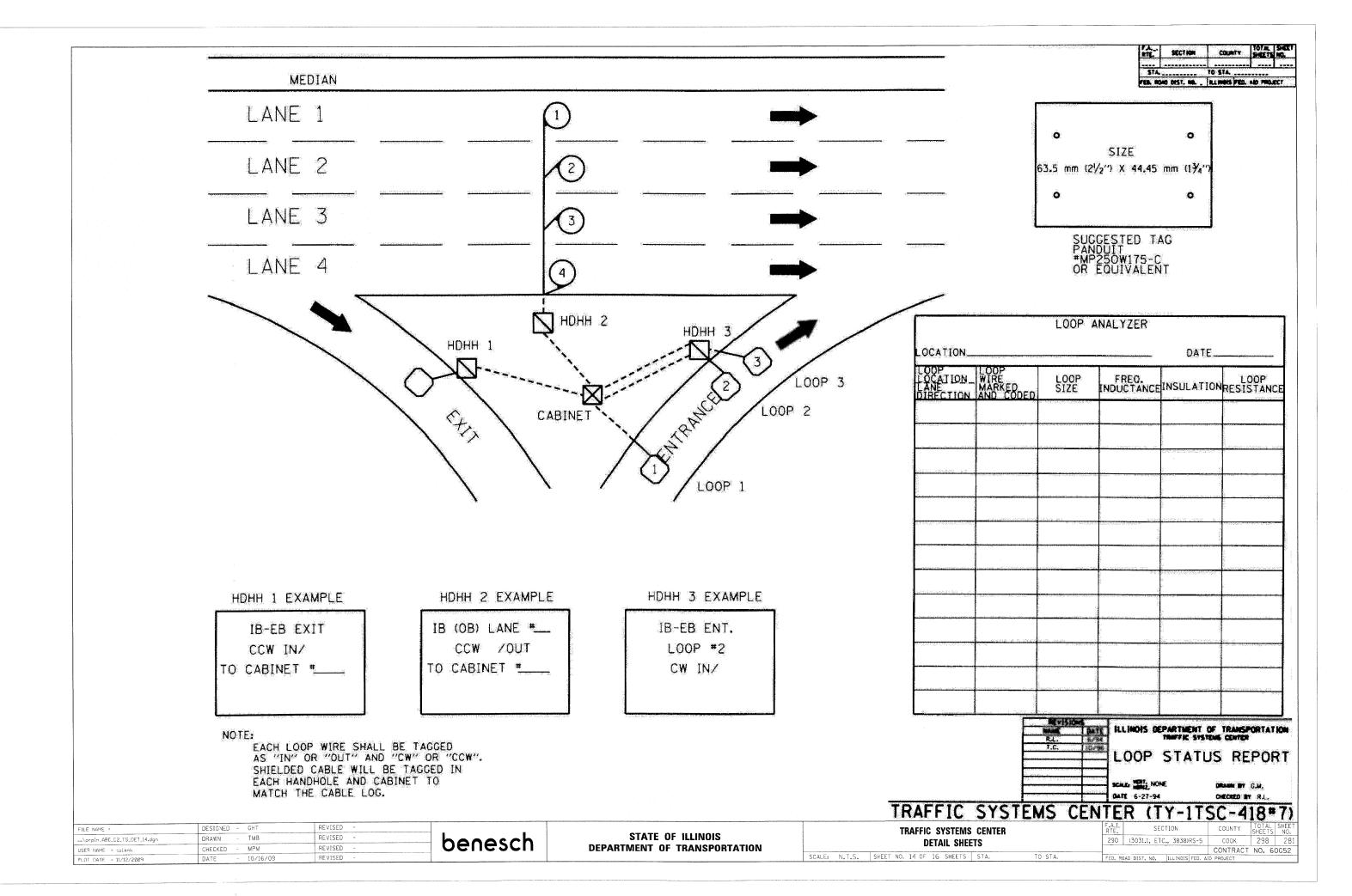
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

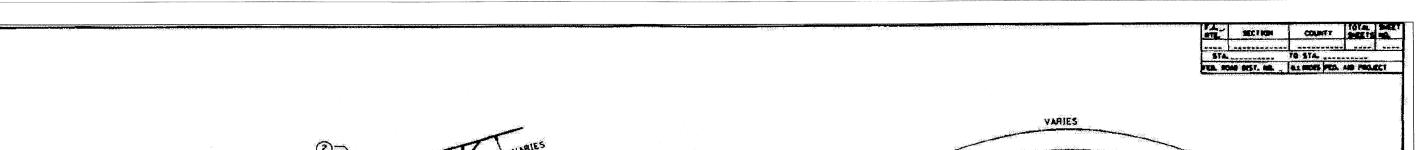
TRAFFIC SYSTEMS CENTER DETAIL SHEETS

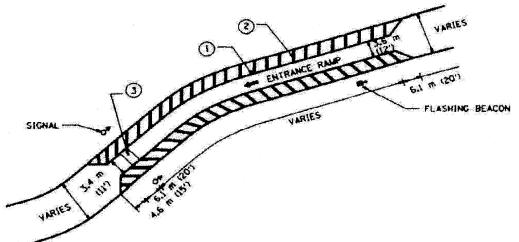
F.A.I. RTE. SECTION COUNTY TOTAL SHEET NO. 290 (3031.1, ETC., 3838)RS-5 COOK 298 278 CONTRACT NO. 60652

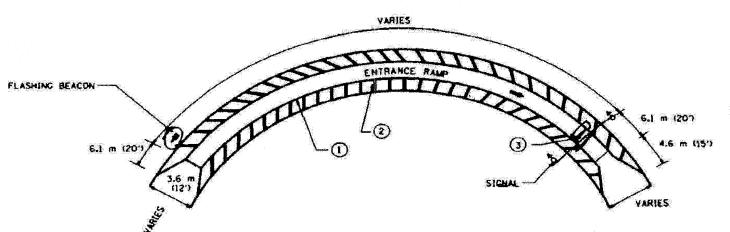












PAVIMENT MARKING

- 1 305 mm (12'9 WHITE CHANNEL MARKINGS
- 203 mm (8") WHITE CROSS-HATCHING AT 3.05 m (10") INTERVALS
- 3 609 mm 124") WHITE STOP BAR CENTERED BETWEEN SIGNALS

SIGNAL
VARIES

OF (121)

ENTRANCE RAME
ENTRANCE RAME
FLASHING BEACON

PLASHING BEACON

FRONTAGE ROAD

TYPICAL RAMP
METERING STRIPING

SCHOOL STRIPING

METERING STRIPING

SCHOOL STRIPING

METERING STRIPING

MATERIAL STRIP

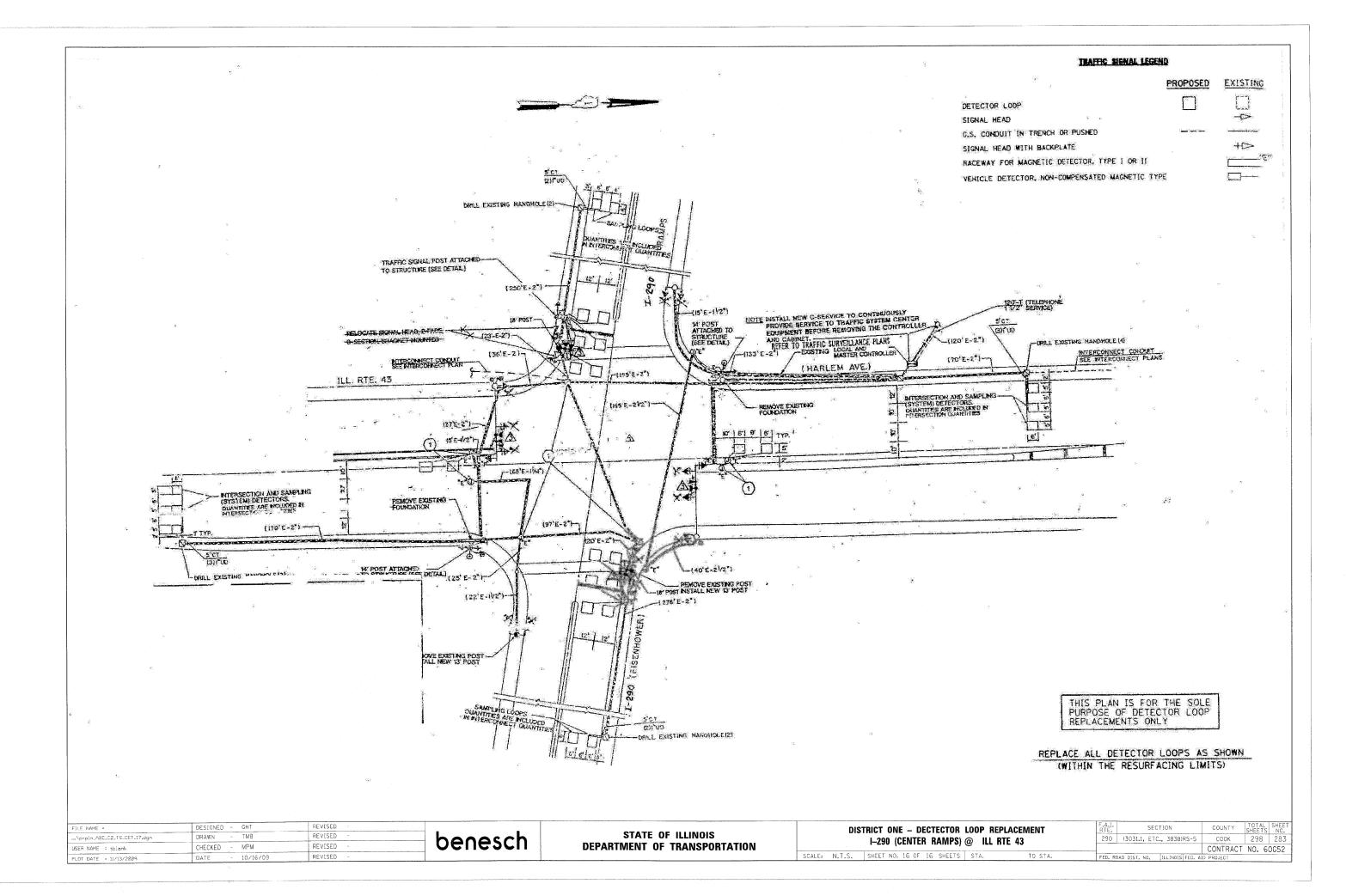
MATERIAL STRIPING

MATERIAL STRIPING

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TRAFFIC SYSTEMS CENTER (TY-1TSC-500*1)

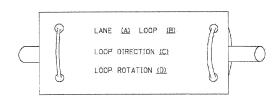
FILE NAME =	DESIGNED - GHT	REVISED -			TRAFFIC SYSTEMS CENTER	F.A.I. SECTION	COUNTY TOTAL SHEET
\prpln_ABC_C2_TS_DET_16.dgn	DRAWN - TMB	REVISED -	benesch	STATE OF ILLINOIS	DETAIL SHEETS	290 (3031.1, ETC., 3838)RS-5	COOK 298 282
USER NAME = tblank	CHECKED - MPM	REVISED -	Ochesch	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 60G52
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED ~			SCALE: N.T.S. SHEET NO. 15 OF 16 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. A	AID PROJECT
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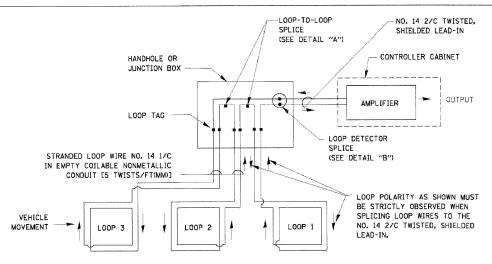
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

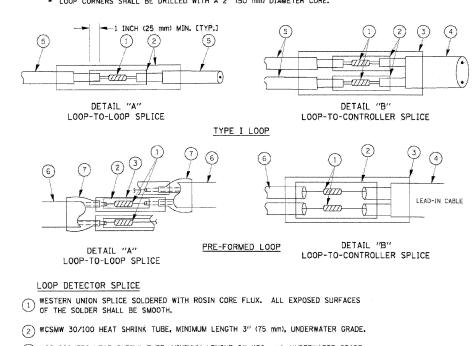


- A. LANE I IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETECTOR LOOP WIRING SCHEMATIC

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



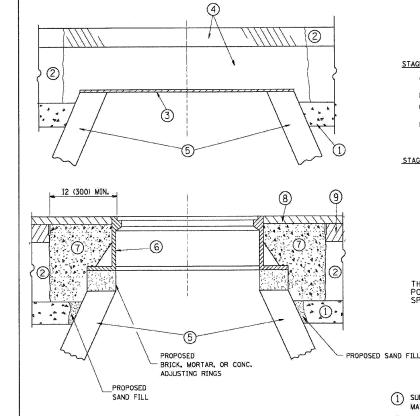
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR
 BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = kentheptixeybo	DESIGNED - DAD	REVISED -				ONE.	F.A.	SECTION	COUNTY	TOTAL SHEET
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	DIST					EPLACEMENT
		I-290 (CE	NTER	RAMPS)	@ ILL	RTE 43
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	F.A.I, RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
	290	(3031.1, ETC., 3838)RS-5	соок	298	283
_			CONTRACT	NO. 6	0052
	FED, RO	DAD DIST. NO. ILLINOIS FED. AI	D PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

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

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

LEGEND

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

9 PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

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

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

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

BD-08

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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benesch

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

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.

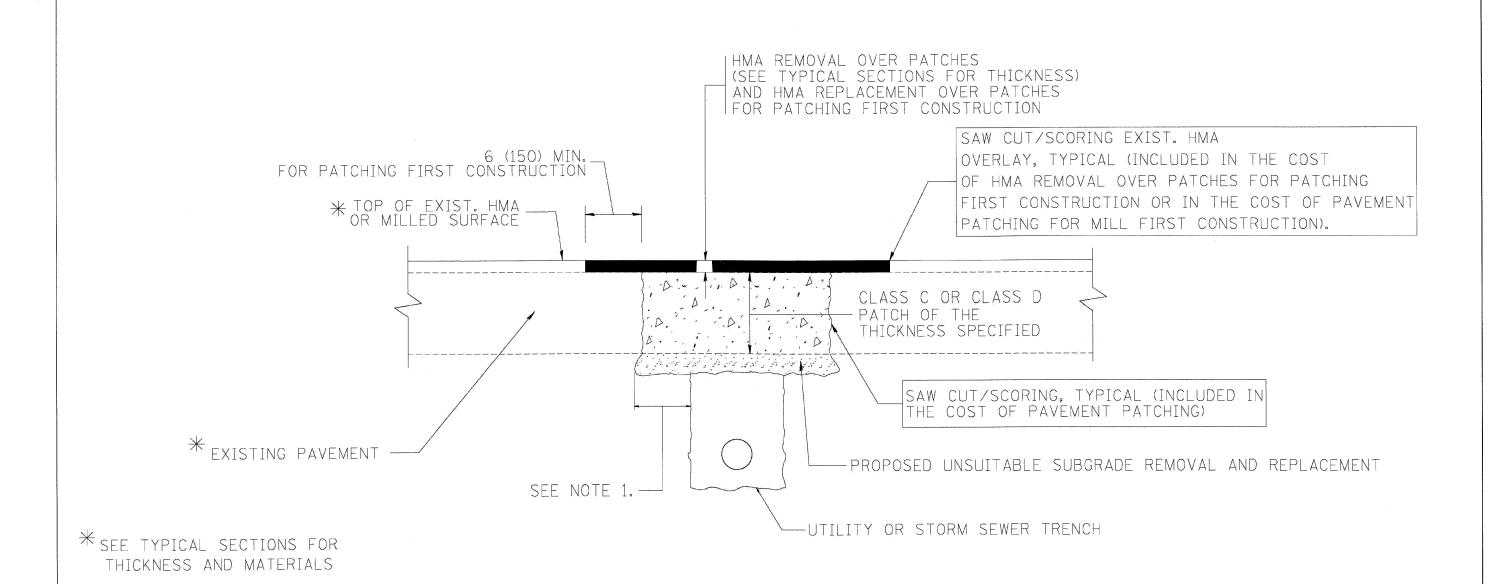
IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

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.

	FF	AMES AND	LIDS	ADJUST	MENT \	NITH MILLIN	VG	F.A.I. RTE.	SEC.	LIOV	COUNTY	TOTAL SHEETS	SHEET NO.
								290	(3031.1, ETC	, 3838)RS-5	COOK	298	284
											CONTRACT	NO. 6	OG52
SCALE;	N.T.S.	SHEET NO. 1	OF 15	SHEETS	STA.	TO S	STA.	FED. RC	AD DIST. NO.	ILLINOIS FED. AI	ID PROJECT		



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)

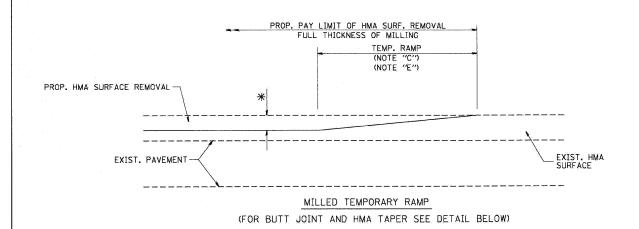
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

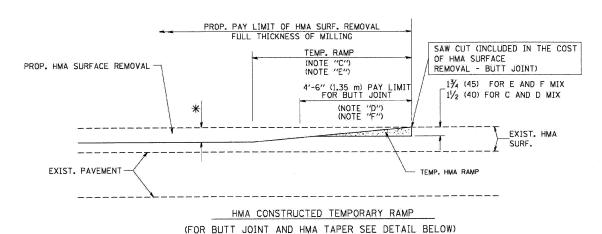
- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

 $$BD\!\!-\!\!22$$ ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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\prpln_A8C_C2_D1_8D-22.dgn	DRAWN - TMB	REVISED - benes	~h	STATE OF ILLINOIS	PAV	EMENT PATCHING FOR HMA SURFACE	D PAVEIVIEN!	290 (3031.1, ETC., 3838)RS-5	соок 298 285
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PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -			JUNELL IN. 1.J.	SHEET 140: 2 OF 13 SHEETS STAR	10 31A.	FED. ROAD DIST. NO. ILLINOIS FED. AL	D PROJECT

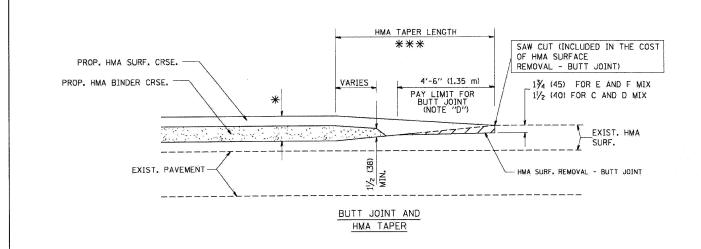


OPTION 1



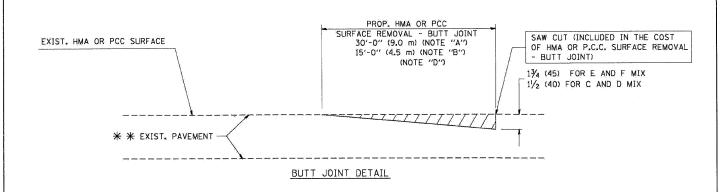
OPTION 2

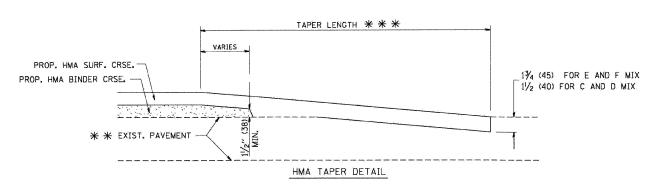
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

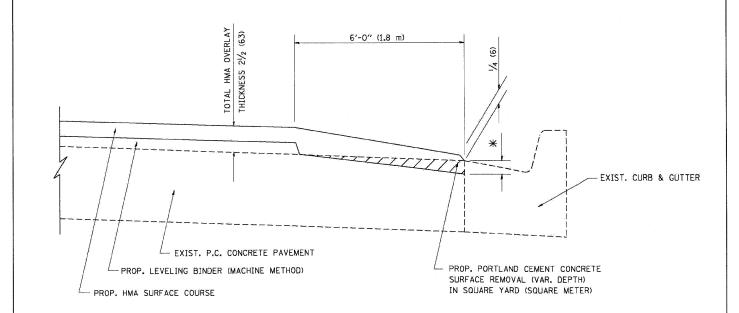
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-O"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

BASIS OF PAYMENT:

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

BD-32
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS

OTHERWISE SHOWN.



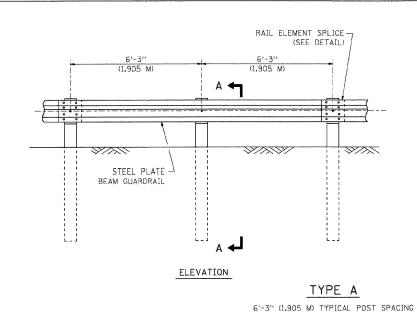
HMA TAPER AT EDGE OF P.C.C PAVEMENT

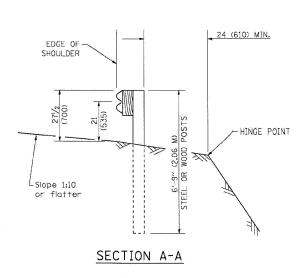
HMA SURFACE		LEVELING BINDER	
MIX	THICKNESS	THICKNESS	* MILLING AT GUTTER FLAG
C OR D	11/2 (38)	1 (25)	11/4 (33)
F	1¾ (44)	¾ (19)	11/2 (38)

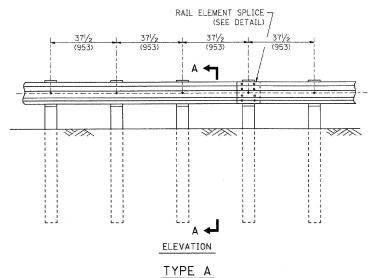
BD-33
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS
OTHERWISE SHOWN.

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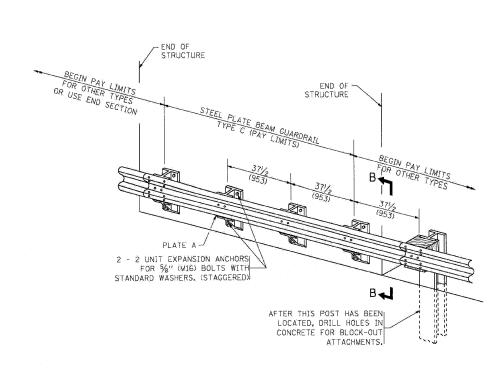
	HMA TAPER AT EDGE OF PCC PAVEMENT					SECTION	COUNTY	TOTAL	SHEET NO.
						(3031.1, ETC., 3838)RS-5	COOK	298	287
							CONTRACT	NO. 6	0G52
	SCALE: N.T.S.	SHEET NO. 4 OF 15 SHEETS	STA.	TO STA.		DAD DIST, NO. ILLINOIS FED. AL	D PROJECT		

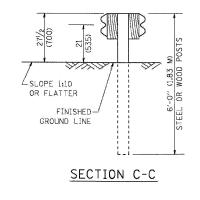


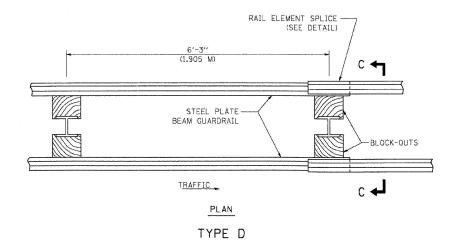




371/2 (953) CLOSED POST SPACING







DOUBLE STEEL PLATE BEAM GUARDRAIL 6'-3" (1.905 M) TYPICAL POST SPACING

CONCRETE STRUCTURE

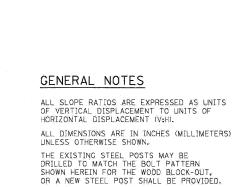
9/8
(232)

STEEL BLOCK OUTS ONLY

SLOPE 1:10
OR FLATTER

FINISHED
GROUND LINE

SECTION B-B



SCALE: N.T.S.

THIS DETAIL IS APPLICABLE TO THE GUARDRAIL SYSTEM USED PRIOR TO JANUARY 1, 2007. FOR DETAILS ON THE MIDWEST GUARDRAIL SYSTEM, SEE STANDARD 630001.

BM-21

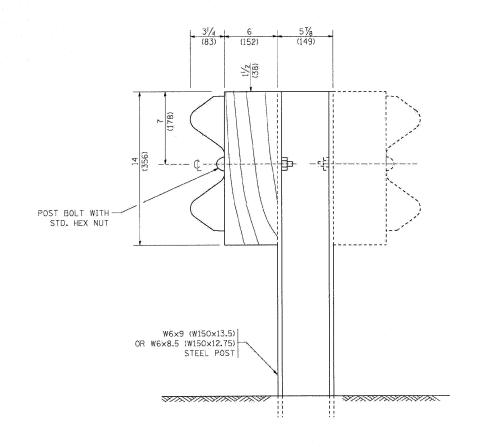
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PLOT DATE = 11/12/2009	DATE	-	10/16/09	REVISED -	
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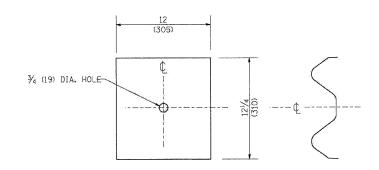
TYPE C

37/2 (953) BLOCK-OUT SPACING

REMOVE AND REERECT GUARDRAIL	F.A.I. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	290	(3031.1, ETC., 3838)RS-5	COOK	298	288
			CONTRACT	NO. 6	0G52
SHEET NO. 5 OF 15 SHEETS STA. TO STA.	FED. R	DAD DIST. NO. ILLINOIS FED. A	ID PROJECT		



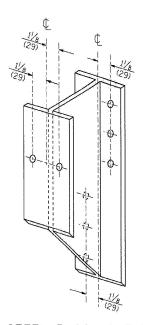
STEEL POST CONSTRUCTION



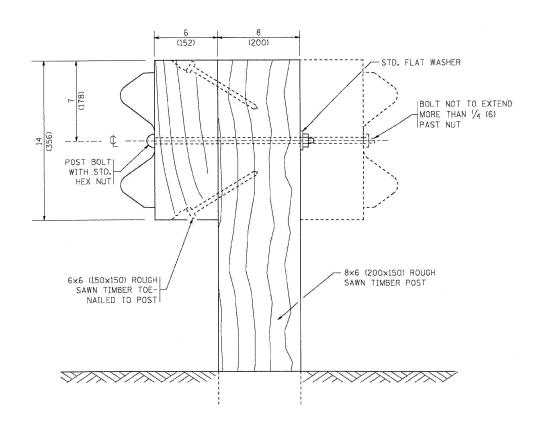
NOTE:

PLATE A SHALL BE PLACED BETWEEN RAIL ELEMENT AND BLOCK-OUT AT NON-SPLICE MOUNTING POINTS ONLY WHEN STEEL BLOCK-OUTS ARE USED.

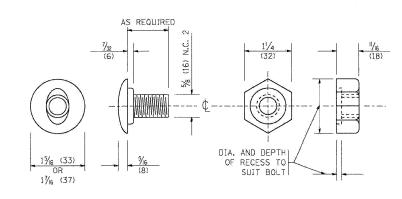
PLATE A



STEEL BLOCK-OUT DETAIL



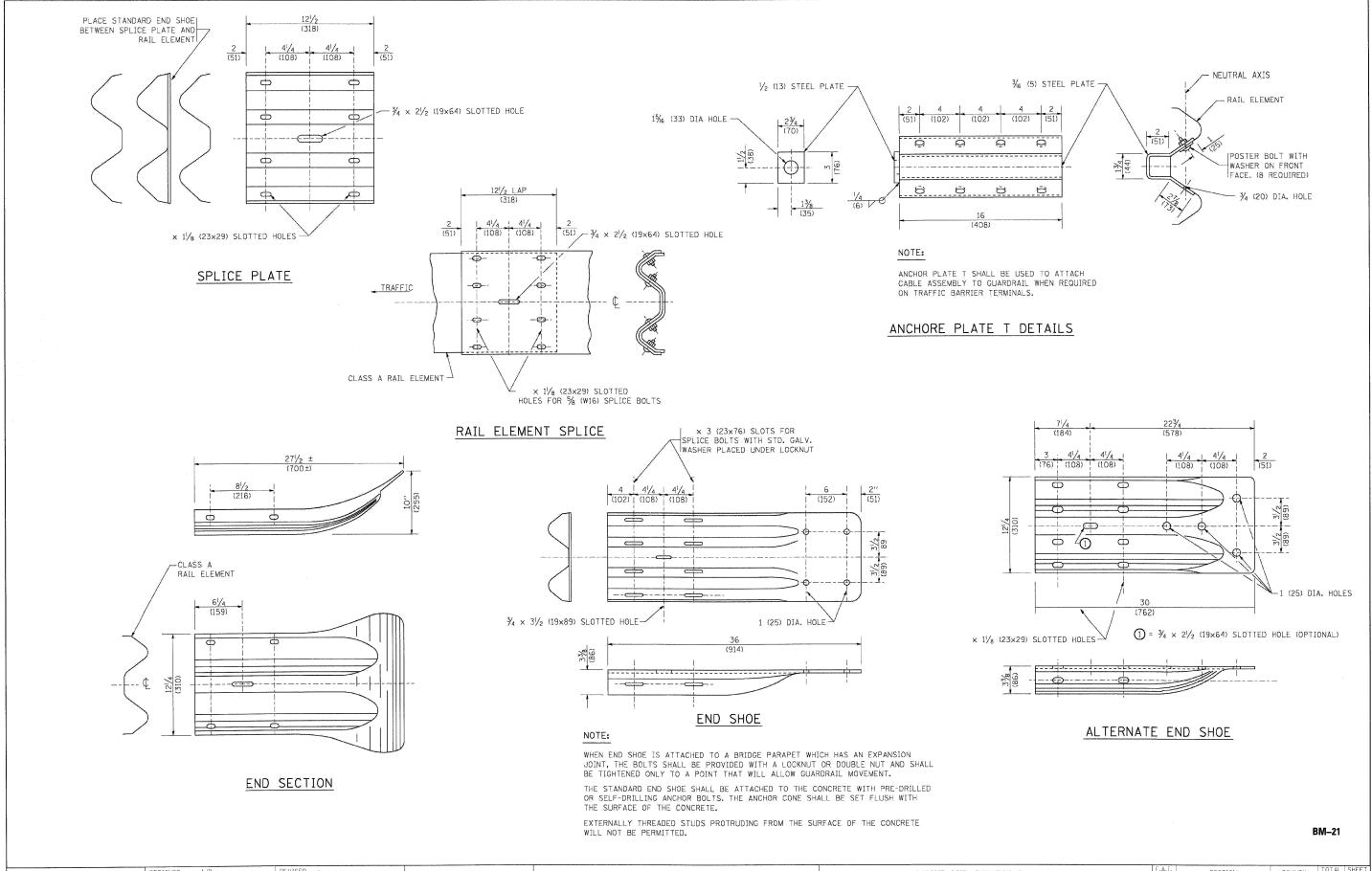
WOOD POST CONSTRUCTION



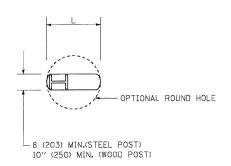
POST OR SPLICE BOLT & NUT

BM-21

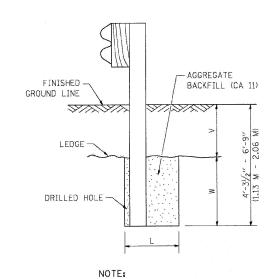
FBE NAME =	DESIGNED - AJP	REVISED -			REMOVE AND REERECT GUARDRAIL	F.A.I. RTE. SECTION	COUNTY TOTAL SHEET
\prpln_ABC_C2_D1_BM-21B.dgn	DRAWN TMB	REVISED ~	benesch	STATE OF ILLINOIS	HEMOTE AND HELHEUT GOARDHALE	290 (3031.1, ETC., 3838)RS-5	COOK 298 289
JSER NAME = tblank	CHECKED - JMM	REVISED -	Oellescii	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 60G52
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -			SCALE: N.I.S. SHEET NO. 6 OF 15 SHEETS STA. 10 STA.	FED, ROAD DIST, NO. ILLINOIS FED. AI	D PROJECT



SECTION COUNTY TOTAL SHEE SHEETS NO. DESIGNED -REMOVE AND REERECT GUARDRAIL FILE NAME = STATE OF ILLINOIS ТМВ ..\prpln_ABC_C2_D1_BM-21C.dgr DRAWN benesch COOK 298 290 CONTRACT NO. 60G52 CODK 290 (3031.1, ETC., 3838)RS-5 **DEPARTMENT OF TRANSPORTATION** CHECKED SCALE: N.T.S. SHEET NO. 7 OF 15 SHEETS STA. REVISED PLOT DATE = 11/12/2009 DATE 10/16/09



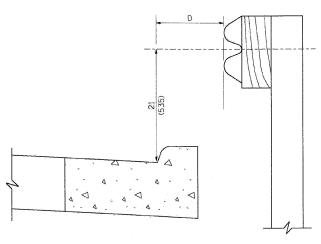
PLAN



LEDGE LINE IS TOP OF ROCK LEDGE OR HARD SLAG FILL.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

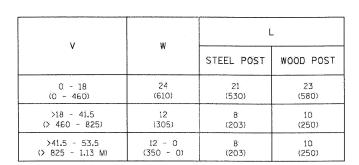


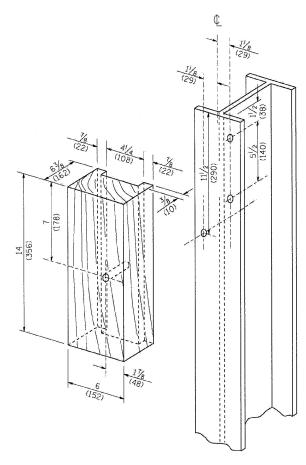
NOTE:

IF IT IS NECESSARY FOR D TO BE MORE THAN 12 (300) AND LESS THAN 10'-0" (3.0 M) TYPE M-2 (M-5) CURB AND CUTTER (STD. 606001) SHALL BE USED IN FRONT OF AND IN ADVANCE OF THE GUARDRAIL.

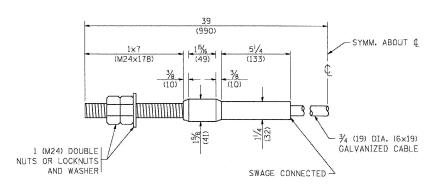
GUARDRAIL PLACED BEHIND CURB

(D = 0 DESIRABLE TO 12 (300) MAXIMUM)





WOOD BLOCK-OUT AND STEEL POST DETAILS

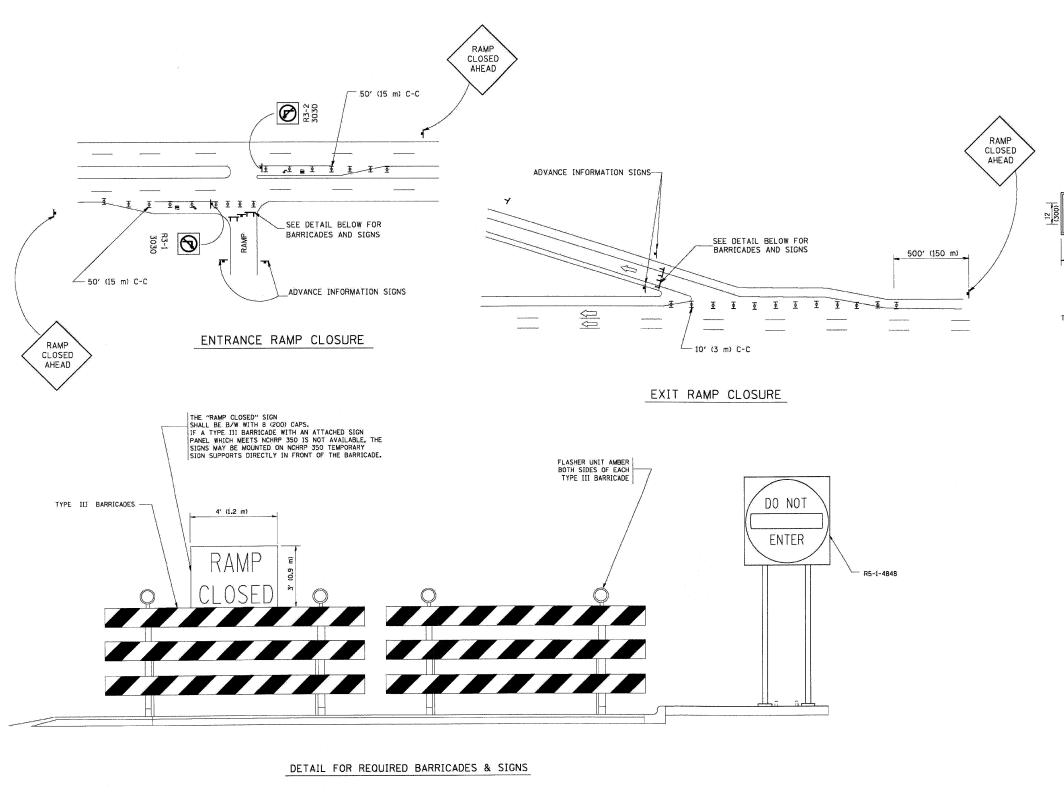


CABLE ASSEMBLY

(40,000 LBS (18,100 KG) MIN. BREAKING STRENGTH)
TIGHTEN TO TAUT TENSION

BM-21

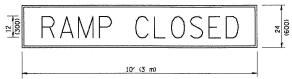
FILE NAME =	DESIGNED - AJP	REVISED -			REMOVE AND REERECT GUARDRAIL	F.A.I. SECTION	COUNTY TOTAL SHEET
\prpln_ABC_C2_D1_BM=21D.dgn	DRAWN TMB	REVISED -	benesch	STATE OF ILLINOIS		290 (3031.1, ETC., 3838)RS-5	соок 298 291
USER NAME = tblenk	CHECKED - JMM	REVISED -	Oellescii	DEPARTMENT OF TRANSPORTATION			CONTRACT NO. 60G52
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -			SCALE: N.T.S. SHEET NO. 8 OF 15 SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AI	ID PROJECT



SYMBOLS

- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHT

RAMP CLOSURE ADVANCE WARNING SIGN

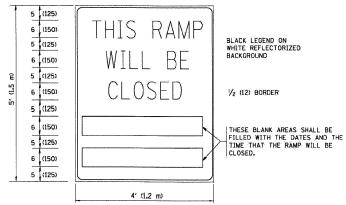


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



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

GENERAL NOTES:

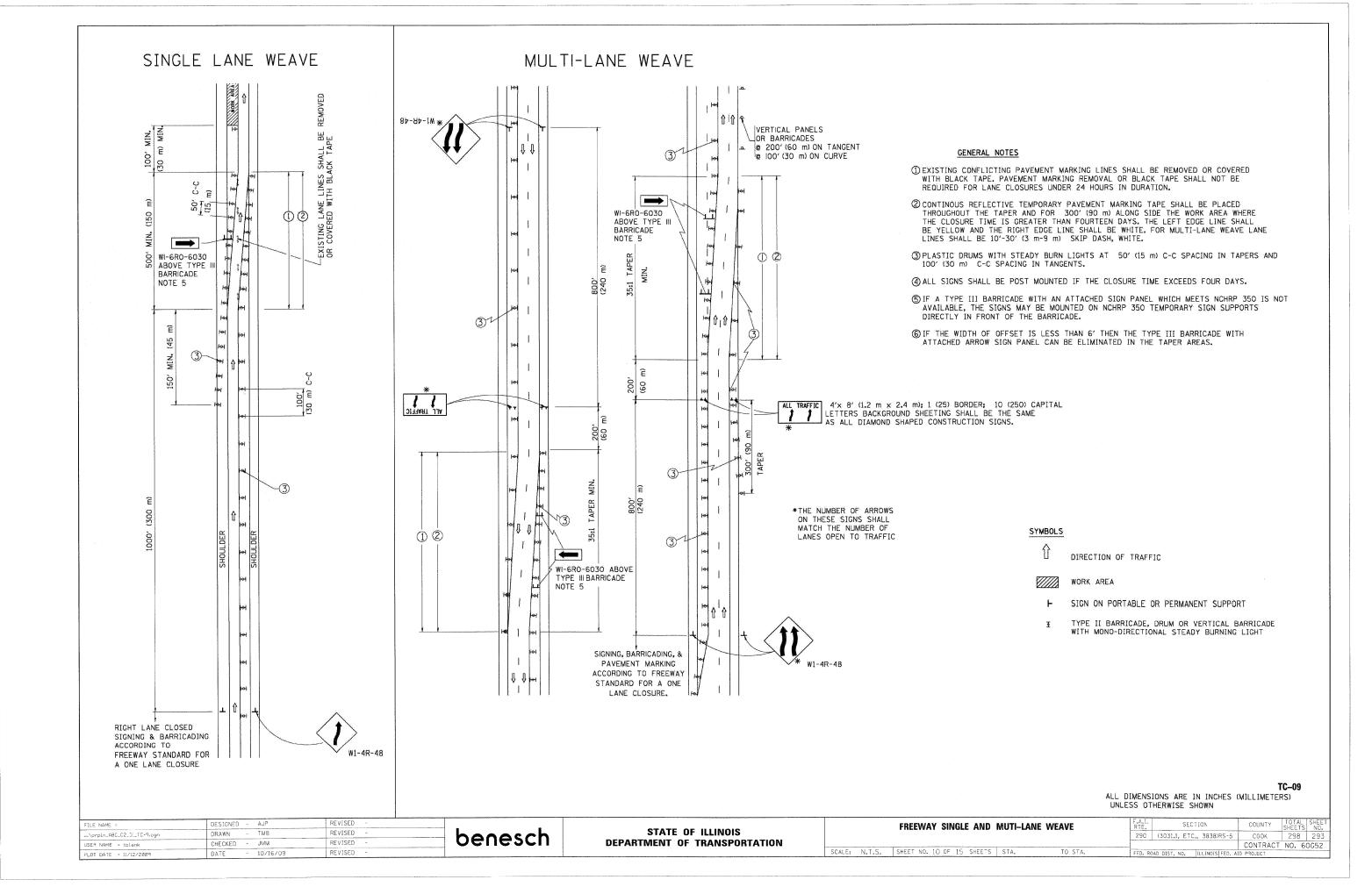
- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- 2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- 4. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- 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 TWENTY FOUR 24 HOURS IN LENGTH.

TC-

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

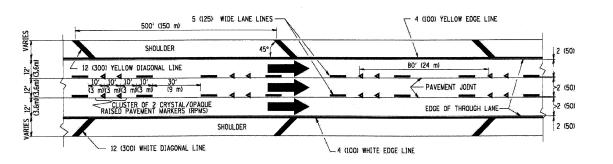
FILE NAME =	DESIGNED -	AJP	REVISED -	
\prpln_ABC_C2_D1_TC-8.ogn	DRAWN -	ТМВ	REVISED -	benesch
USER NAME = tblank	CHECKED -	JMM	REVISED -	OGHG3CH
PLOT DATE = 11/12/2009	DATE -	10/16/09	REVISED -	

	EN	ENTRANCE AND EXIT RAMP CLOSURE DETAILS			F.A.I. RTE.	SEC	TION	COUNTY	TOTAL	SHEET NO.		
							290	(3031.1, ETC	., 3838)RS-5	соок	298	292
And 100 and 10								CONTRACT	NO. 6	0G52		
SCALE:	N.T.S.	SHEET NO. 9	OF 15	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.	ILLINOIS FED. A	ID PROJECT		



THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH

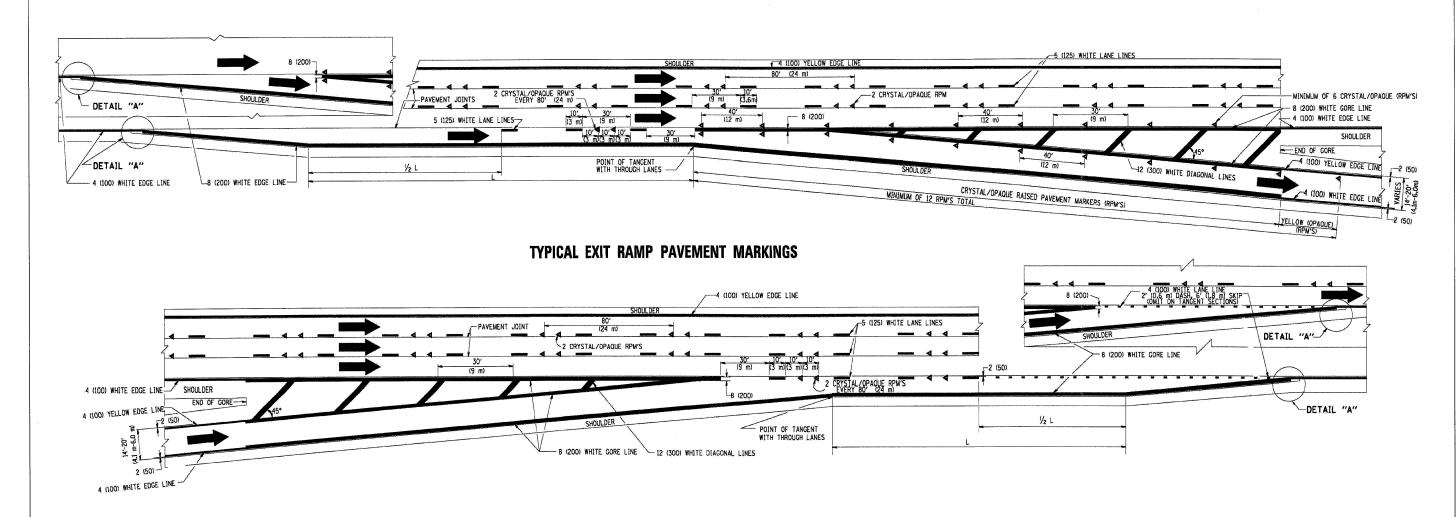
THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



TYPICAL EDGE LINES & LANE LINES

- NOTES:
 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 SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
- 3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC

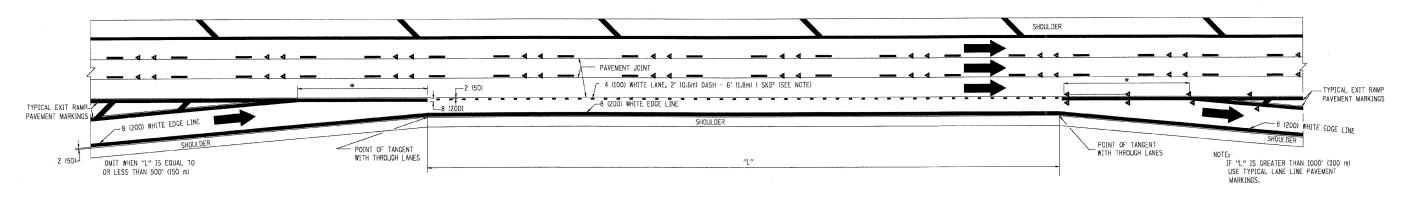




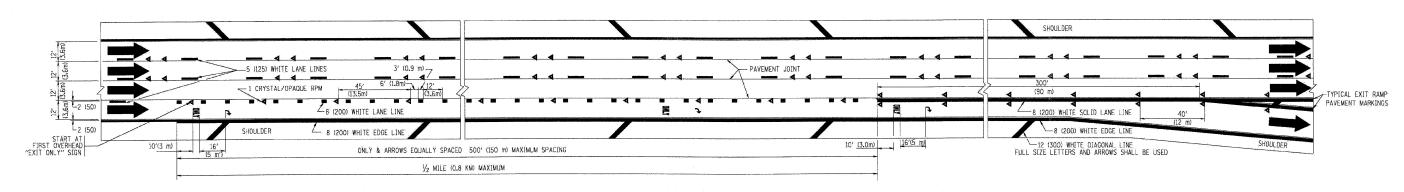
TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

TC-12

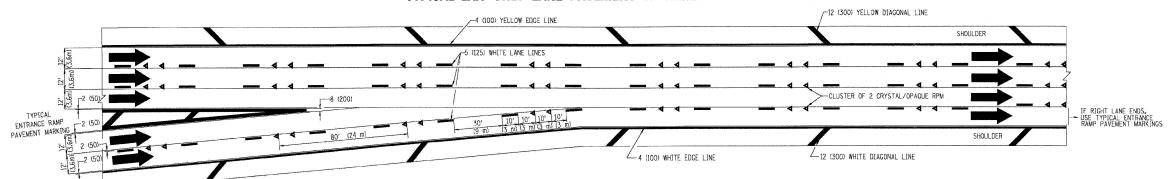
FILE NAME =\prpln_ABC_C2_D1_TC-12A.dgn	DESIGNED - AJP DRAWN - TMB	REVISED - REVISED -	boosch	STATE OF ILLINOIS	MULTI-LANE FREEWAY PAVEMENT MARKING	F.A.I. SECTION COUNTY 290 (3031.1, ETC., 3838)RS-5 COOK	TOTAL SHEET NO.
USER NAME : tblank	CHECKED - JMM	REVISED -	benesch	DEPARTMENT OF TRANSPORTATION		CONTRAC	CT NO. 60G52
PLOT DATE = 11/12/2009	DATE - 10/16/09	REVISED -			SCALE: N.T.S. SHEET NO. 11 OF 15 SHEETS STA. TO STA.	FED. ROAD DIST, NO. ILLINOIS FED. AID PROJECT	



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



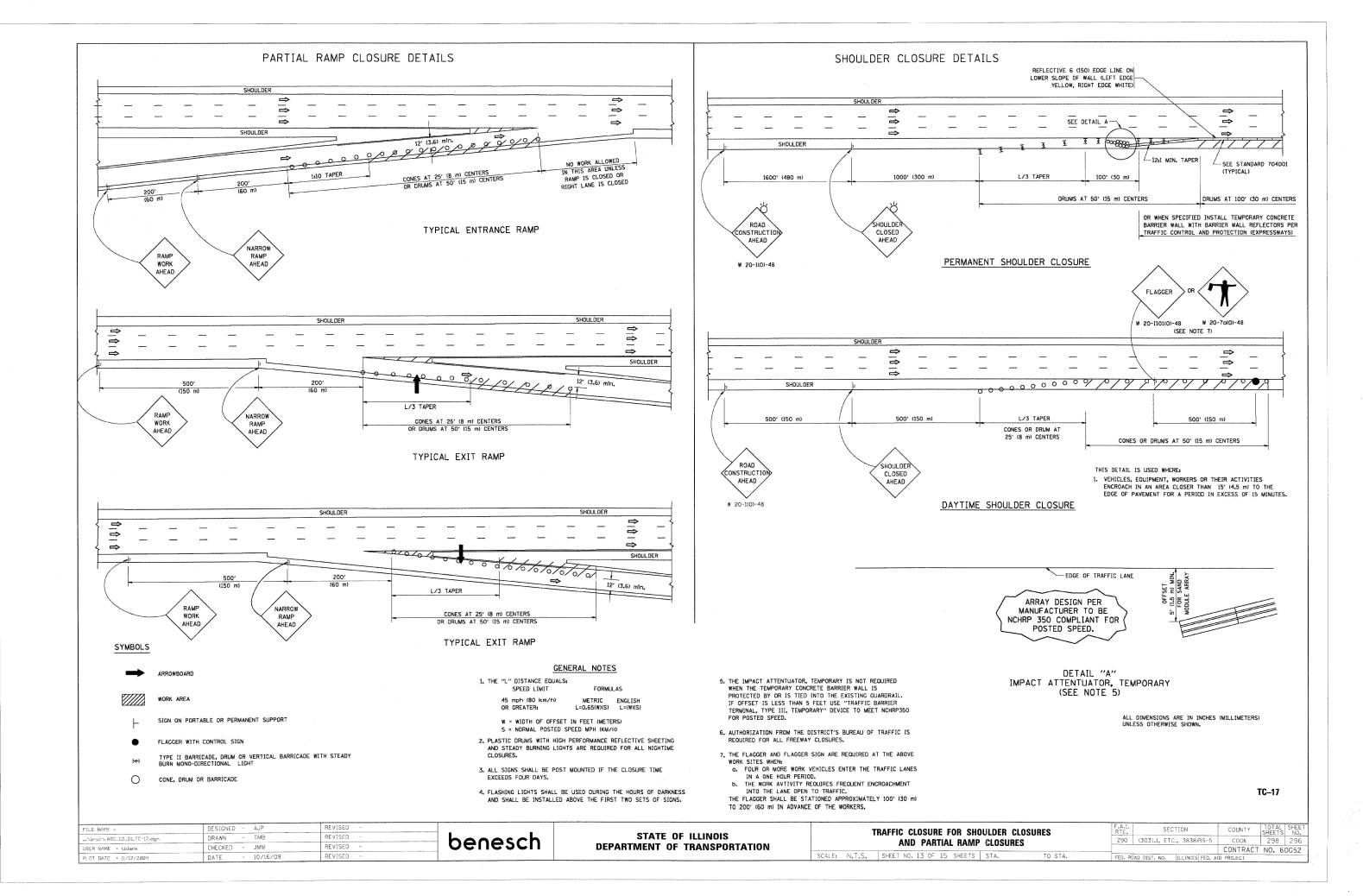
TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

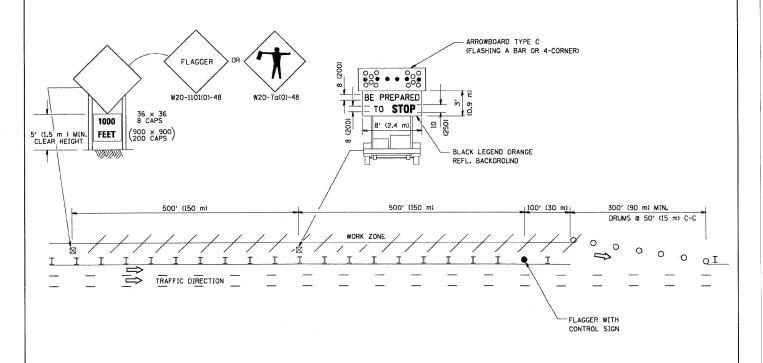
TC-12

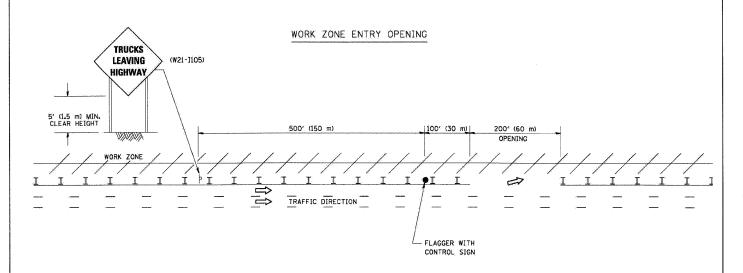
FILE NAME =	DESIGNED - AJP	REVISED -		OTATE OF HIMOIO	MULTI-LANE FREEWAY PAVEMENT MARKING	F.A.I. SECTION COUNTY TOTAL SHEET NO.
\prpln_ABC_C2_D1_TC-128.dgn	DRAWN - TMB	REVISED -	henesch	STATE OF ILLINOIS		290 (3031.1, ETC., 3838)RS-5 COOK 298 295
USER NAME = tblenk	CHECKED - JMM	REVISED -	Oenesch	DEPARTMENT OF TRANSPORTATION	SCALE: N.T.S. SHEET NO. 12 OF 15 SHEETS STA. TO STA.	FED. BOAD DIST. NO. HILLINGIS FED. AID PROJECT



SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING





NOTES:

- The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
- 2. Work Zone Exit Openings should be a minimum of one half mile apart.
- 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 $% \left(1\right) =\left(1\right) +\left(1\right) +\left($

TC-18

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

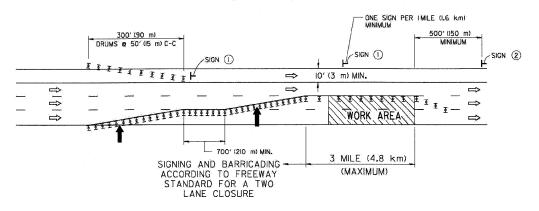
FILE NAME =	DESIGNED - AJP	REVISED -	_
\prpln_ABC_C2_D1_TC-18.ogn	DRAWN - TMB	REVISED -	haaasch
USER NAME = tblank	CHECKED - JMM	REVISED -	benesch
	2.75 10.000.000	DEVISED -	

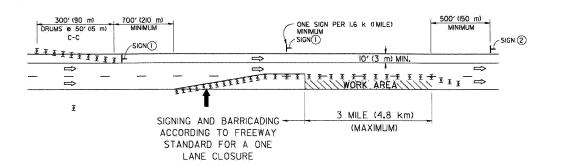
		SIGNING FOR FLAGG	NG OPERATION	S AT	F.A.I. RTE.	SEC.	TION	COUNTY	TOTAL	SHEET NC.
		WORK ZONE	OPENINGS		290	(3031.1, ETC	., 3838)RS-5	COOK	298	297
								CONTRACT	NO. 6	OG52
ı	SCALE: N.T.S.	SHEET NO. 14 OF 15 SHEETS	STA.	TO STA.	FED. RC	DAD DIST. NO.	ILLINOIS FED. AI	D PROJECT		

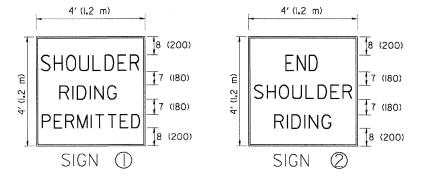
CENTER LANE CLOSURE TYPE I CHECK BARRICADES AT 100' (30 m) CENTERS > DRUMS AT 50' (15 m) CENTERS 06) W20-I101 (0)-48 FLAGGER ORANGE FLAGS 18×18 W20-7o(0)-48 (450×450) W12-1-48 (150 们 LANE CLOSED *w20-5-48 SIGNING & BARRICADING ACCORDING TO FREEWAY STANDARD FOR A ONE LANE CLOSURE I. DAY OPERATIONS: CONES SHALL BE USED AT 25' (8 m) CENTERS ON TAPERS AND AT 50' (15 m) CENTERS ON TANGENTS. 2. NIGHT OPERATIONS: DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA. 3.CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS. INSTALLATION SEQUENCE 1. CLOSE LANES 1&2 WORKING AREA 2. ERECT INSIDE LANE 2 TAPER WORKING AREA 3. OPEN LANE 2 BY RELOCATING FIRST TAPER 4. REMOVE CLOSURE IN REVERSE ORDER

SHOULDER LANE

NOTE: CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.







6 (150) SERIES "C" LEGEND BLACK LEGEND WHITE REFLECT, BACKGROUND 1(25) BORDER

SYMBOLS

DIRECTION OF TRAFFIC

ARROWBOARD

WORK AR

SIGN WITH 18×18 (450×450) ORANGE FLAGS ATTACHED **

► SIGN ON PORTABLE OR PERMANENT SUPPORT *

TYPE IIBARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURN LIGHT

SCALE: N.T.S.

TC-25

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5 (1.5 m).

FILE NAME = .	DESIGNED -	AJP	KENIZED -	_
\prpln_A3C_C2_D1_TC-25.dgn	DRAWN -	ТМВ	REVISED -	benesch
USER NAME = tblank	CHECKED -	JMM	REVISED -	Ochesch
PLOT DATE = 11/12/2009	DATE -	10/16/09	REVISED -	

TRAFFIC CONTROL DETAILS FOR FREEWAY	F	F.A.I. RTE.	SECT	TION	COUNTY	TOTAL SHEETS	SHEET NO.
CENTER LANE CLOSURE SHOULDER LANE		290	(3031.1, ETC.	, 3838)RS-5	COOK	298	298
CUEST NO. 15 OF 15 CUESTO OT .					CONTRACT	NO. 60	OG52
SHEET NO. 15 OF 15 SHEETS STA. TO S	STA.	FED. RO	AD DIST, NO.	THE INDIS FED. AL	ID PROJECT		

EASTBOUND SIGN SCHEDULE	DIM	ING PANEL ENSIONS	PROPOSE DIMEN	SIONS	REMOVE SIGN PANEL-TYPE 1	REMOVE SIGN PANEL-TYPE 2		REMOVE SIGN PANEL ASSEMBLY - TYPE A	REMOVE SIGN PANEL ASSEMBLY TYPE B	SIGN PANEL TYPE 1	SIGN PANEL TYPE 2	SIGN PANEL TYPE 3	WOOD SIGN SUPPORT	TELESCOPING STEEL SIGN SUPPORT	REMOVAL OF SIGN LIGHTING, NO SALVAGE
SIGN NO. STATION LEGEND/DESCRIPTION EB-TR-48 496+20 290 EAST - CHICAGO) HEIGHT (FT)			(SQ FT)	(SQ FT)	(SQ FT)	EACH	EACH	(SQ FT)		(SQ FT)	(FOOT)	(FOOT)	(EACH)
EB-TR-48	17.0 20.5	10.0	17.0 20.5	10.0			170.0					170.0			1.0
EB-WP-49A 501+36 W4-3R	4.0	4.0	4.0	12.0 4.0			246.0		1.0		16.0	246.0	18.0		1.0
EB-WP-50 502+00 EXIT 17	6.0	5.0	6.0	5.0					1.0		16.0	30.0	36.0	-	<u> </u>
EB-WP-50A	4.0 5.8	4.0	4.0	4.0					1.0		16.0		18.0		
EB-TS-50C1 522+82 M3-2	2.5	1.5 1.3	5.8 2.5	1.5 1.3				1.0		8.8				18.0	ļ
EB-TS-50C2 522+82 M1-1-3 (I 290)		D STD (9FT2)	PER MUTCD					1.0		3.1 9.0				18.0	
EB-TS-50E 526+26 R2-1 (55 MPH)	4.0	5.0	4.0	5.0					1.0	3.0	20.0			18.0	
EB-WP-50D	4.0 19.0	4.0	4.0	4.0					1.0		16.0		18.0		
EB-PM-51A 541+20 TRUCKS - USE - 2 - RIGHT - LANES	4.0	12.0 5.0	19.0	12.0 5.0		20.0	228.0					228.0			1.0
EB-TR-52 550+10 EXIT 17A - 12 20 45 SOUTH - MANNHEIM RD - EXIT ONLY	27.0	8.5	20.5	12.5		20.0	229.5				20.0	256.3			1.0
EB-WP-52A 554+46 W13-3 (30 MPH)	3.0	4.0	4.0	5.0					1.0		20.0	20010	18.0		
EB-TR-53 550+10 EXIT 17B - 12 20 45 NORTH - MANNHEIM RD - 1/4 MILE EB-WP-54 555+50 EXIT 17A	27 . 0 7 . 5	8.0 5.0	19.5 7.0	12.0			216.0					234.0			1.0
EB-TS-54A 560+12 W4-1R	4.0	4.0	4.0	5.0 4.0		 			1.0 1.0		16.0	35.0	36.0	100	
EB-WP-54B+ 563+30 US RT 12-20-45 - MANNHEIM RD	9.4	2.5	9.4	2.5					1.0		16.0 23.5		36.0	18.0	
EB-BM-55 563+50 EXIT 17B - 12 20 45 NORTH - MANNHEIM RD EB-TS-55A 566+37 W13-3 (20 MPH)	20.5	10.0	20.5	10.0			205.0					205.0			1.0
EB-BM-56 563+50 290 EAST - CHICAGO	3.0 12.0	4.0 8.0	4.0 12.0	5.0 8.0			96.0		1.0		20.0	06.0		18.0	
EB-BM-57 563+50 EXITS 18A-B - 25TH AVE - 3/4 MILE	13.5	8.0	13.5	8.0			96.0 108.0					96.0 108.0		-	1.0
EB-WP-58 567+60 EXIT 17B	7.5	5.0	7.0	5.0			37.5					35.0	36.0		110
EB-TS-58A 568+49 W9-1 EB-TS-58B 570+37 W4-1R	4.0 4.0	4.0	4.0	4.0 4.0					1.0		16.0			18.0	
EB-PM-58C 575+70 W4-2R	4.0	4.0	4.0	4.0		16.0			1.0		16.0 16.0			18.0	<u> </u>
EB-WP-58D+ 577+60 WESTCHESTER BLVD	10.8	1.5	10.8	1.5		1010			1.0		16.3		36.0		
EB-BM- 59 577+80 EXIT 18A - SOUTH - 25TH AVE - 1/2 MILE	13.0	10.0	13.0	10.0			130.0					130.0			1.0
EB-WP-59A 582+70 W4-3R EB-TS-59B 590+80 R2-1 (55 MPH)	4.0 4.0	4.0 5.0	4.0	4.0 5.0					1.0		16.0		18.0		
EB-TS-59C1 593+38 M3-2	2.5	1.3	2.5	1.3	***************************************			1.0	1.0	3.1	20.0			18.0	
EB-TS-59C2 593+38 M1-1-3 (I 290)		D STD (9FT2)	PER MUTCD					1.0		9.0				18.0	
EB-CL-60	14.0	8.0	14.0	8.0			112.0					112.0			1.0
EB-TR-62 600+00 EXIT 18B - NORTH - 25TH AVE - 1/4 MILE	13.0 13.5	7.5 7.5	13.0 13.5	7.5 8.5			97.5					97.5			1.0
EB-TR-63 600+00 RIGHT LANE - ENDS - X	14.0	10.0	14.0	10.0			101.3 140.0					114.8 140.0		+	1.0
EB-TR-64 600+00 EXIT 18A - SOUTH -25TH AVE	17.0	7.5	17.0	7.5			127.5					127.5			1.0
EB-PM-64A 600+42 W13-3 (25 MPH) EB-WP-65 602+50 EXIT 18A	7.5	4.0	4.0	5.0		12.0					20.0				
EB-TS-65A 614+37 W4-1R	4.0	5.0 4.0	7.0	5.0 4.0					1.0		16.0	35.0	36.0	40.0	
EB-TS-65B 618+44 25TH AVE	6.3	1.5	6.3	1.5			***************************************		1.0		16.0 9.4			18.0	
EB-BM-66 618+50 EXIT 19A - 17TH AVE - 1/4 MILE EB-BM-67 618+50 EXIT 18B - NORTH - 25TH AVE	13.0	8.5	13.0	8.5			110.5					110.5		10,0	1.0
EB-BM-67	17.0 5.5	8.5 1.5	17.0 5.5	8.5 1.5			144.5	ļ	****			144.5			1.0
EB-PM-67A 620+76 W13-3 (25 MPH)	3.0	4.0	4.0	5.0		12.0		1.0	· · · · · · · · · · · · · · · · · · ·	8.3	20.0				i
EB-WP-68 621+80 EXIT 18B	7.5	5.0	7.0	5.0		12.10			1.0		20.0	35.0	36.0		
EB-TS-68A 624+89 W4-1R EB-CL-69 636+00 EXIT 19A - 17TH AVE	4.0	4.0	4.0	4.0					1.0		16.0			18.0	<u> </u>
EB-PM-69A 638+48 W13-3 (25 MPH)	16.0 3.0	7.0 4.0	16.0	7.0 5.0		12.0	112.0					112.0			1.0
EB-WP-70 639+20 EXIT 19A	7.5	5.0	7.0	5.0		12.0			1.0		20.0	35.0	36.0		
EB-PM-70A 644+45 TRUCKS - USE - 2 - RIGHT - LANES	4.0	5.0	4.0	5.0		20.0					20.0	33.0	20.0		
EB-TS-70B* 645+40 17TH AVE EB-BM-71 645+50 EXIT 20 - IL 171 - 1ST AVE - 1 MILE	6.1 11.5	1.5 8.5	6.1	1.5					1.0		9.1			18.0	
EB-BM-71E 645+50 14FT 3IN	5.5	1.5	11.5 5.5	9.5 1.5	8.3	ļ	97.8			8,3		109.3		+	1.0
EB-TS-71A 651+88 W4-1R	4.0	4.0	4.0	4.0				· · · · · · · · · · · · · · · · · · ·	1.0	0.3	16.0			18.0	
EB-TS-71B 662+16 R2-1 (55 MPH)	4.0	5.0	4.0	5.0					1.0		20.0			18.0	
EB-TS-71C1 665+11 M3-2 EB-TS-71C2 665+11 M1-1-3 (I 290)	2.5 PER MUTC	1.3 D STD (9FT ²)	2.5 PER MUTCD	1.3 STD (9FT2)		-		1.0		3.1				18.0	<u> </u>
EB-WP-71F 662+00 14FT 3IN	4.0	4.0	4.0	4.0				1.0	1.0	9.0	16.0		36.0		i
EB-BM-72 672+30 LEFT EXIT 21B - IL 43 HARLEM AVE - LEFT 1 3/4 MILES	20.5	9.5	20.5	9.5			194.8				10.0	194.8	20.0	 	1.0
EB-BM-73 672+30 EXIT 21 A - DES PLAINES AVE - 3/4 MILE	21.0	9,5	21.0	9.5			199.5		****			199.5			1.0
EB-BM-74 672+30 EXIT 20 - IL 171 - 1ST AVE - 1/4 MILE EB-BM-74A• 672+30 9TH AVE	11.5 5.7	9.5 1.5	11.5 5.7	10.0 1.5	8.5		109.3			8.5		115.0			1.0
EB-WP-74B 678+20 W4-1R	4.0	4.0	4.0	4.0	6,0				1.0	8.5	16.0		18.0	 	
EB-TS-74C 684+75 R2-1 (55 MPH)	4.0	5.0	4.0	5.0					1.0	<u> </u>	20.0		10,0	18.0	
EB-PM-74D 684+75 R2-1 (55 MPH) EB-BM-75 685+50 EXIT 20 - IL 171 - 1ST AVE	4.0	5.0	4.0	5.0		20.0					20.0				
EB-BM-75A 685+50 EXIT 20 - IL 1/1 - IST AVE EB-BM-75A 685+50 5TH AVE	14.5 5.7	7.0 1.5	14.5 5.7	8.0 1.5	8.5		101.5			0.5		116.0			1.0
EB-BM-75B 685+50 14FT 4IN	5.5	1.5	5.5	1.5	8.3	 				8.5 8.3				+	ſ
EB-WP-76 690+80 EXIT 20	6.0	5.0	6.0	5.0					1.0			30.0	36.0	36.0	
EB-PM-76A 690+82 W13-3 (30 MPH) EB-TS-76B* 698+85 ILL RTE 171 - 1ST AVE	3.0 7.2	4.0	4.0	5.0		12.0					20.0				<u></u>
EB-WP-76C 704+91 W4-1R	4.0	2.5 4.0	7.2	2.5 4.0					1.0		17.9		10.0	18.0	<u> </u>
EB-PM-76D1 708+94 M3-2	2.5	1.3	2.5	1.3	3.1				1.0	3.1	16.0		18.0	-	·
EB-PM-76D2 708+94 M1-1-3 (I 290)		D STD (9FT2)	PER MUTCD	STD (9FT2)	9.0					9.0				+	
EB-PM-76E 712+43 R2-1 (55 MPH) EB-PM-76F 715+30 END - TRUCK - LANE - RESTRICTIONS	4.0	5.0	4.0	5.0		20.0					20.0				<u> </u>
EB-PM-76G 715+30 END - TRUCK - LANE - RESTRICTIONS	4.0	5.0 5.0	4.0	5.0 5.0		20.0					20.0				
EB-TR-77 715+30 LEFT EXIT 21B - IL 43 HARLEM AVE - LEFT 1 MILE	17.0	10.5	17.0	10.5		20.0	178.5				20.0	178.5		 	1.0
						**************************************					<u> </u>	2,010			

*EXISTING SIGN DIMENSIONS NOT AVAILABLE; PROPOSED SIGN DIMENSIONS USED

FILE NAME =	DESIGN	ED -	SEW	REVISED -			l							F.A.I	I.	SECTI	ON	COUNTY	TOTAL SHE	ĒΤ
\$FILEL\$	DRAWN	-	SEW	REVISED -	LIN ENGINEERING,LTD.	STATE OF ILLINOIS				SCHED	ULE OF Q	UANTITIES		RTE.	-				SHEETS NO	-
USER NAME = \$USER\$	CHECKE	D -	FML	REVISED -	Consulting Engineers	DEPARTMENT OF TRANSPORTATION								290	(30	31.1, ETC.,	3838)RS-5	COOK	413 29	3
PLOT DATE ≈ \$DATE\$	DATE	-	12/2009	REVISED -	Chieffen, minois Westmont, minois	DEI AITIMENT OF THANSFORT	SCALE:	N.T.S.	SHEET NO	0. 1 OF 4	SHEETS	STA.	TO STA.		POAD D	er no in	LLINOIS FED. AI	CONTRACT	NO. 60G52	4
														I rev.	ROAD D	St. NO. III	LLINUIS FED. AL	7 FROUECT		

C		EDULE (CONTINUED)		ING PANEL ENSIONS		ED PANEL		REMOVE SIGN PANEL-TYPE 2		REMOVE SIGN PANEL ASSEMBLY - TYPE A	PANEL	SIGN PANEL TYPE 1	SIGN PANEL TYPE 2	SIGN PANEL TYPE 3	WOOD SIGN SUPPORT	TELESCOPING STEEL SIGN SUPPORT	REMOVAL OF SIGN LIGHTING, NO SALVAGE
SIGN NO.			WIDTH (FT	HEIGHT (FT)	WIDTH (FT)	HEIGHT (FT)	(SQ FT)	(SQ FT)	(SQ FT)	EACH	EACH	(SQ FT)	(SQ FT)	(SQ FT)	(FOOT)	(FOOT)	(EACH)
EB-TR-78		EXIT 21A - DES PLAINES AVE - 1/2 MILE	18.5	7.5	18.5	7.5			138.8			100 177	100 1 1/	138.8	41 0017	(1 0017	1.0
EB-WP-78A		DES PLAINES RIVER	4.0	2.0	7.8	2.5		 		1.0			19.4	13010	18.0		1.0
EB-CL-79	734+30	EXIT 21A - DES PLAINES - AVE	18.5	8.5	18.5	8.5	,,,,	-	157.3					157.3	10.0		1.0
		W13-3 (30 MPH)	3.0	4.0	4.0	5.0		12.0					20-0	1 10110			
EB-WP-80		EXIT 21A	7.5	5.0	7.0	5.0					1.0			35.0	36.0	 	
EB-TR-81		LEFT EXIT 21B - IL 43 HARLEM AVE - LEFT 1/2 MILE	18.5	10.5	18.5	10.5			194.3				l	194.3			1.0
EB-TR-82	741+70	LEFT EXIT 23A - AUSTIN BLVD - LEFT 2 MILES	18.5	7.5	18.5	7.5			138.8					138.8			1.0
EB-15-82A*	(48+99	DES PLAINES AVE	7.8	2.5	7.8	2.5					1.0		19.4			18.0	
EB-BM-83		LEFT EXIT 21B - IL 43 - HARLEM AVE	19.5	9.5	19.5	9.5			185.3					185.3			1.0
		CIRCLE AVE	7.0	1.5	7.0	1.5		10.5					10.5	 			
EB-PM-83B		W13-3 (30 MPH)	3.0	4.0	4.0	5.0		12.0					20.0	†			
EB-WP-84		EXIT 21B	7.5	5.0	7.0	5.0					1.0			35.0	36.0		
		ILL RTE 43 - HARLEM AVE	7.7	2.5	7.7	2.5		19.2					19.2			<u> </u>	
EB-TS-84B	789+15		4.0	4.0	4.0	4.0					1.0		16.0			18.0	
EB-BM-84C+			7.0	1.5	7.0	1.5		10.5					10.5	·		10.0	
EB-PM-84D1			2.5	1.3	2.5	1.3	3.1					3.1					~~~~~
		M1-1-3 (I 290)	PER MUTO	D STD (9FT2)	PER MUTCD	STD (9FT2)	9,0					9.0					
		R2-1 (55 MPH)	4.0	5.0	4.0	5.0		20.0					20.0			<u> </u>	
EB-BM-85		LEFT EXIT 23A - AUSTIN BLVD - LEFT 3/4 MILE	15.5	8.5	15.5	8.5			131.8					131.8			1.0
EB-BM-86		EXIT 23B - CENTRAL AVE - RIGHT 1 1/4 MILES	17.5	8.5	17.5	8.5			148.8					148.8			1.0
		OAK PARK AVE	8.8	1.5	8.8	1.5		13.1					13.1	1,010			
	812+35	TRUCKS - USE - 2 - RIGHT - LANES	4.0	5.0	4.0	5.0		20.0					20.0				
EB-GM-87	820+80	CHICAGO CITY LIMITS 1 - CHICAGO DOWNTOWN 9	24.5	5.0	25.5	5.5			122.5					140.3			
EB-BM-88		LEFT EXIT 23A - AUSTIN BLVD - LEFT 1/2 MILE	18.0	8.0	18.0	8.0			144.0					144.0			1.0
EB-BM-88A+		EAST AVE	6.0	1.5	6.0	1.5	9.0					9.0					
		RIDGELAND AVE	9.3	1.5	9.3	1.5		13.9					13.9				,ma
EB-BM-89		LEFT EXIT 23A - AUSTIN BLVD - 6000 W	20.5	7.5	20.5	7.5			153.8					153.8	***************************************		1.0
		LOMBARD AVE	8.5	1.5	8.5	1.5		12.8					12.8	100.0	· · · · · · · · · · · · · · · · · · ·		
EB-PM-89B		W13-3 (30 MPH)	3.0	4.0	4.0	5.0		12.0					20.0				
EB-WP-90		EXIT 23A	7.5	5.0	7.0	5.0					1.0		2010	35.0	36.0		
		EXIT 24B - IL 50 CICERO AVE - 1 1/4 MILES	20.0	9.5	20.0	9.5	***************************************		190.0					190.0	2010		1.0
		EXIT 23B - CENTRAL AVE - RIGHT 1/4 MILE	16.0	9.5	16.0	9.5			152.0					152.0			1.0
		AUSTIN BLVD - 6000 W	7.7	2.5	7.7	2.5		19.2					19.2	102.0			1,2
EB-WP-92B	871+89	W4-3L	4.0	4.0	4.0	4.0					1.0		16.0	 	18.0		
											***		1010	 	10.0		
					EASTBOU	ND SUBTOTAL	67	360	5350	9	36	121	891	5760	630	396	34

*EXISTING SIGN DIMENSIONS NOT AVAILABLE; PROPOSED SIGN DIMENSIONS USED

FILE NAME =	DESIGNED	-	SEW	REVISED	-	
≎FILEL\$	DRAWN	-	SEW	REVISED	-	
USER NAME = \$USER\$	CHECKED	-	FML	REVISED	-	
PLOT DATE = \$DATE\$	DATE	-	12/2009	REVISED	-	

LIN ENGINEERING,LTD.									
Consulting	Engineers								
Chatham, Illinois	Westmont, Illinois								

STATI	E OI	F ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

SCHEDULE OF QUANTITIES		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE.	
			290	(3031.1, ETC., 3838)RS-5	COOK	413	300
SCALE: N.T.S. SHEET NO. 2	OF 4 SHEETS STA.	TO STA.	FED. RO	DAD DIST. NO. ILLINOIS FED. AI	CONTRACT	NO. 6	0G52