

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEET	SHEET NO.
2729	1617-I-1	COOK	13	1
		ILLINOIS	CONTRACT NO. 60J69	

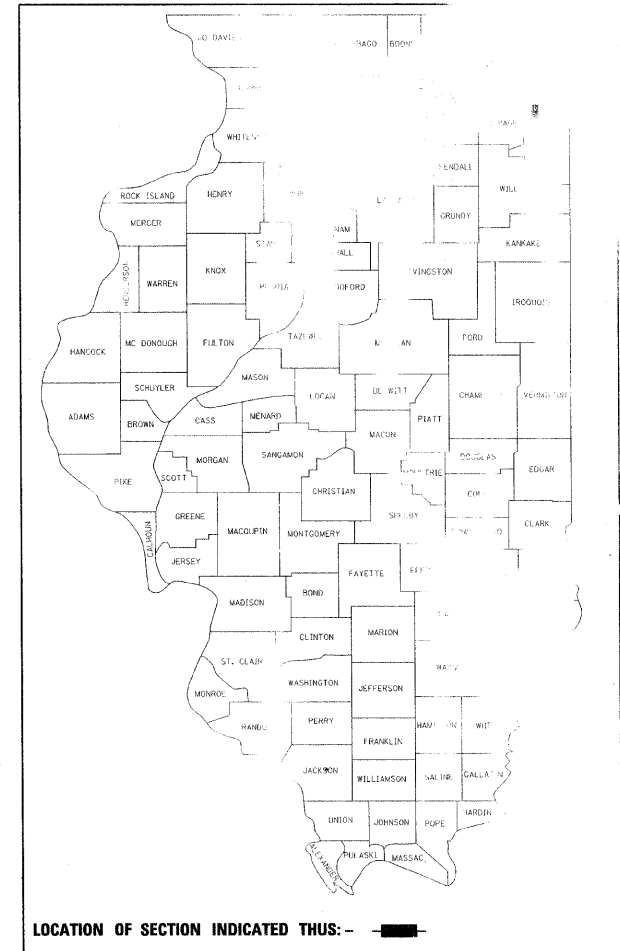
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

**FAU 2729 / EAST RIVER ROAD
SECTION 1617-I-1
AT I-90 KENNEDY EXPWY AND CTA (2 MI. W. OF IL 43)
BRIDGE DECK AND JOINT REPAIRS
PROJECT NUMBER: ACM-2729(002)
COOK COUNTY
C-91-259-10**

LEYDEN TOWNSHIP R 12 E - 3rd PM

D-91-259-10



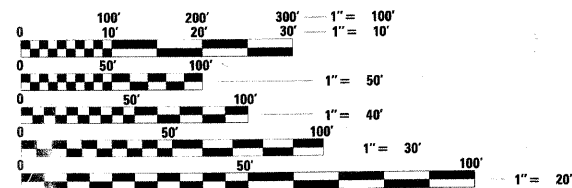
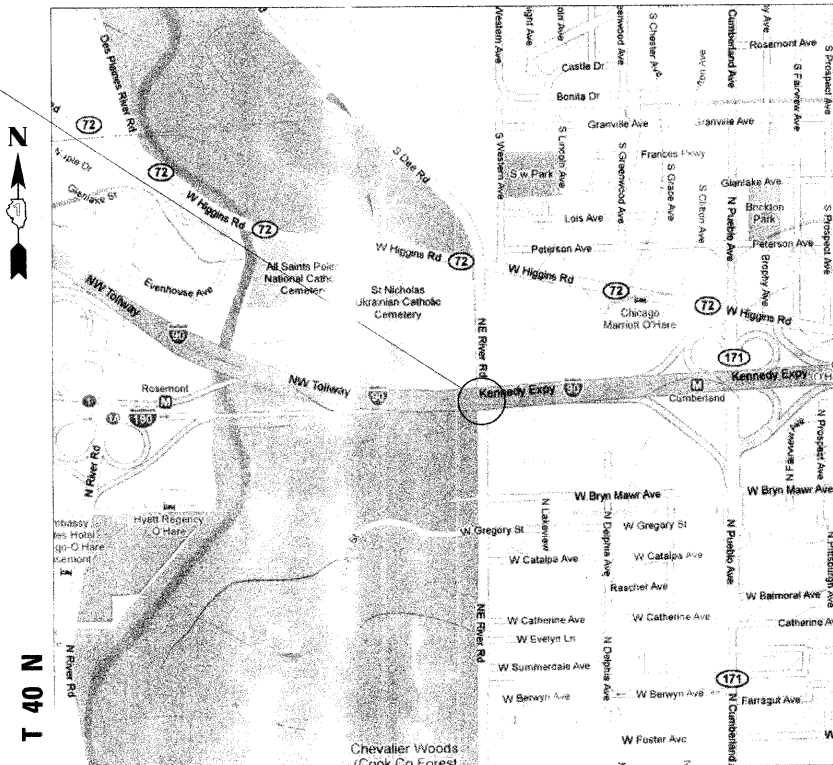
FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION

**COLLECTOR (URBAN)
ADT 20,500 (2006)
SPEED LIMIT 35 MPH**

**IMPROVEMENT LOCATED
IN THE CITY OF CHICAGO**

**IMPROVEMENT LOCATION
EAST RIVER ROAD AT
I-90 KENNEDY EXPRESSWAY
STRUCTURE NO: 016-2124**



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

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

PROJECT MANAGER: MR. STAC KWARTENG (847) 705-4230
PROJECT ENGINEER: MR. BRICE (847) 705-4552

CONTRACT NO. 60J69

LOCATION MAP
GROSS AND NET LENGTH OF IMPROVEMENT = 266.08 FT. = 0.504 MILE

SCOTT E. STITT, INC.
LAMELKA
056236
11-30-2011

**COLLINS
ENGINEERS, INC.**
SUITE 300
60606
+ 9300
PROFESSIONAL DESIGN FIRM
NO. 184-000993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *FEBRUARY 1, 2010*

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

March 19, 2010

Scott E. Stitt, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

March 19, 2010

Christine M. Reed
DIRECTOR OF HIGHWAYS

APPROVED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

1 Title Sheet
2 Index of Sheets, State Standards, General Notes and Summary of Quantities
3-4 Maintenance of Traffic
5-10 Structure Plans S1-S6
11-13 District One Standards
13a Entrance and Exit Ramp Closure Details (TC-8)
13b Single Lane Weave and Multi-Lane Weave (TC-9)
13c Partial Ramp and Shoulder Closure Details (TC-17)
Highway Standards

INDEX OF HIGHWAY STANDARDS

Standard No. Description
000001-05 Standard Symbols, Abbreviations And Patterns
001001-02 Areas Of Reinforcement Rebars
420001-07 Pavement Joints
701901-01 Traffic Control Devices
704001-06 Temporary Concrete Barrier
780001-02 Typical Pavement Markings
781001-03 Typical Applications Raised Reflective Pavement Markers
701400-04 Approach to Lane Closure, Freeway/Expressway
701401-05 Lane Closure, Freeway/Expressway
701445-01 Two Lane Closure, Freeway/Expressway
701411-06 Lane Closure, Multi-Lane, At Exit or Entrance Ramp, For Speeds ≥ 45 mph
701601-06 Urban Lane Closure, Multi-Lane, 1W or 2W With Non-Traversable Median

GENERAL NOTES

- These plans have been prepared from notes received from IDOT Field Maintenance Engineers.
- 10 ft (3 m) transitions shall be used to match proposed items of work to existing items in the field, unless otherwise shown. The transitions shall be paid for at the contract unit price for the proposed item of work specified.
- Where artificial lighting is utilized in night operations, the Contractor shall exercise the utmost precautions in preventing adverse visibility to the motoring public and adjoining residential areas.
- The engineer shall be the sole judge concerning curing time for the various hot-mix asphalt lifts.
- For stabilization, all Type III barricades shall require a minimum of four (4) sandbags per barricade.
- The Resident Engineer must contact the Traffic Control Supervisor at (847)705-4470 at least 72 hours prior to installation of the temporary control devices.
- The Resident Engineer shall contact the CDOT Area Traffic Field Engineer at at least two (2) weeks prior to the placement of permanent pavement markings.
- All pavement markings and raised reflectors affected by the bridge repairs shall be replaced. Nominal quantities have been included in the contract for this work.
- The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
- Do not scale these plans for construction purposes.
- Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.
- During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be considered incidental to the contract.
- All raised reflective pavement markers (bridge) shall be low profile.
- Special attention is called to Article 107.12 regarding railroad flaggers. The name and telephone number of the railroad engineer is Mr. David Heard (312) 681-3862.
- Before beginning any work, the Contractor shall retain and record for future reference, all existing pavement marking lines, symbols and letters (and raised reflective markers) in order that these locations can be re-established for striping. Exact locations of all pavement markings and raised reflective pavement markers shall be as directed by the Engineer.
- The contractor shall obtain approval for all eastbound I-90 lane closures from the Illinois Tollway. The cost of this work shall be considered incidental to Traffic Control and Protection (Expressways).

SUMMARY OF QUANTITIES

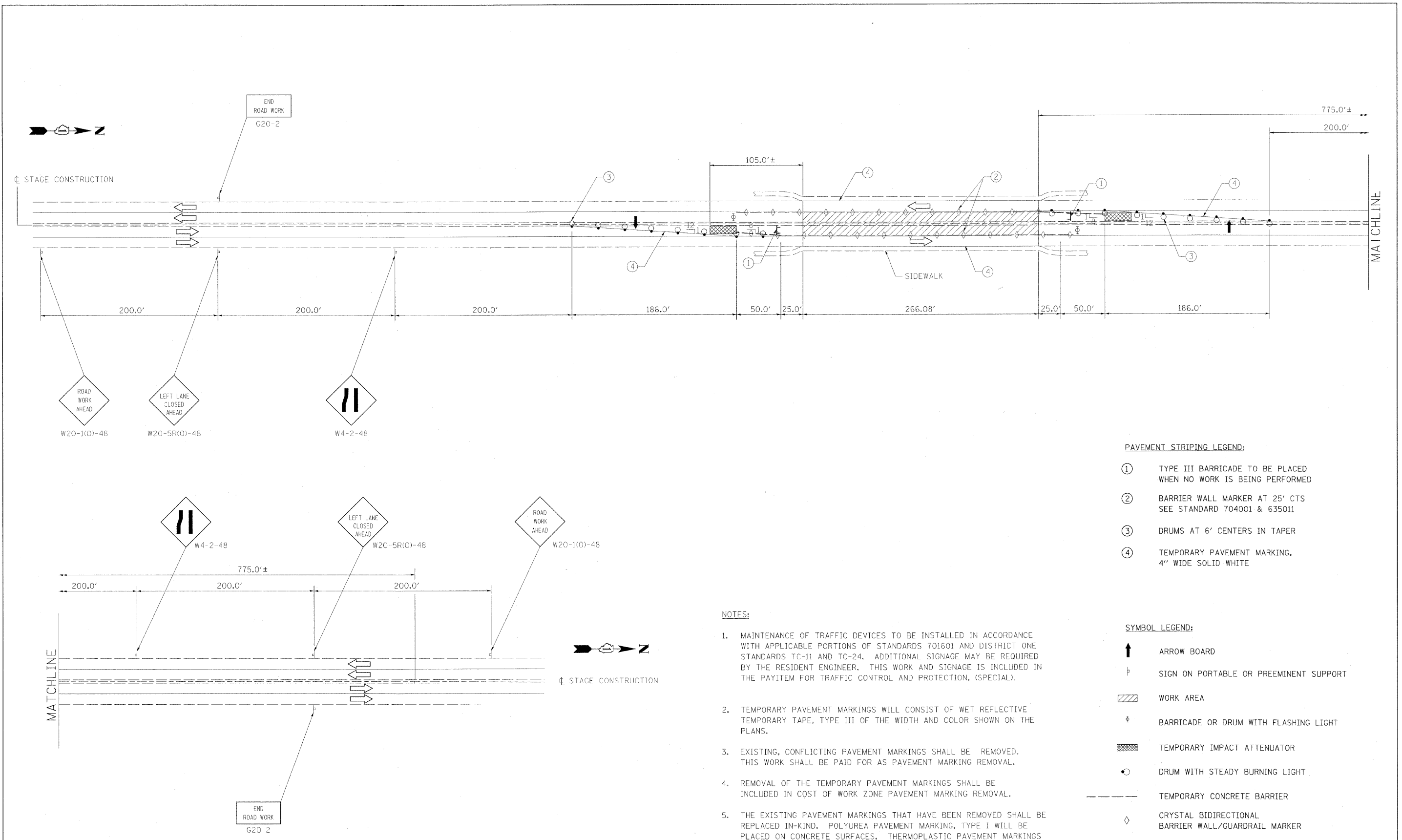
URBAN
CONSTR. TYPE CODE
STRUCTURE X281-2A
FEDERAL 80%
STATE 20%

CODE	ITEM DESCRIPTION	UNIT	QUANTITY	
50157301	Protective Shield (Permanent)	Sq.Yd.	1,238	1,238
67000400	Engineer's Field Office, Type A	Cal.Mo.	2	2
67100100	Mobilization	L Sum	1	1
70101800	Traffic Control and Protection, (Special)	L Sum	1	1
70301000	Work Zone Pavement Marking Removal	Sq.Ft.	860	860
70400100	Temporary Concrete Barrier	Foot	860	860
70400200	Relocate Temporary Concrete Barrier	Foot	860	860
* 78000200	Thermoplastic Pavement Marking - Line 4"	Foot	270	270
* 78008210	Polyurea Pavement Marking Type I - Line 4"	Foot	670	670
* 78100100	Raised Reflective Pavement Marker	Each	10	10
* 78100105	Raised Reflective Pavement Marker (Bridge)	Each	10	10
78100200	Temporary Raised Reflective Pavement Marker	Each	10	10
78300100	Pavement Marking Removal	Sq.Ft.	310	310
78300200	Raised Reflective Pavement Marker Removal	Each	10	10
X0320887	Polymer Concrete	Cu.Ft.	27.8	27.8
X0321743	Silicone Joint Sealer, 1"	Foot	254.4	254.4
X0321744	Silicone Joint Sealer, 2"	Foot	63.6	63.6
X0322256	Temporary Information Signaling	Sq.Ft.	50	50
X0322933	Silicone Joint Sealer, 2.5"	Foot	63.6	63.6
X0325775	Wet Reflective Temporary Tape, Type III, 4 Inch	Foot	2,600	2,600
Z0016002	Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	16.0	16.0
Z0016200	Deck Slab Repair (Partial)	Sq.Yd.	117.3	117.3
Z0030250	Impact Attenuators, Temporary (Non-Redirective), Test Level 3	Each	2	2
Z0030350	Impact Attenuators, Relocate (Non-Redirective), Test Level 3	Each	2	2
Z0048665	Railroad Protective Liability Insurance	L Sum	1	1
⊙ Z0076600	Tranees	Hour	500	500
X7011015	Traffic Control and Protection (Expressways)	L Sum	1	1
85000300	Maintenance of Existing Traffic Signal Installation	L Sum	1	1
X0325737	Temporary Traffic Signal Timing	Each	2	2

* Denotes Specialty Item

⊙ Y080

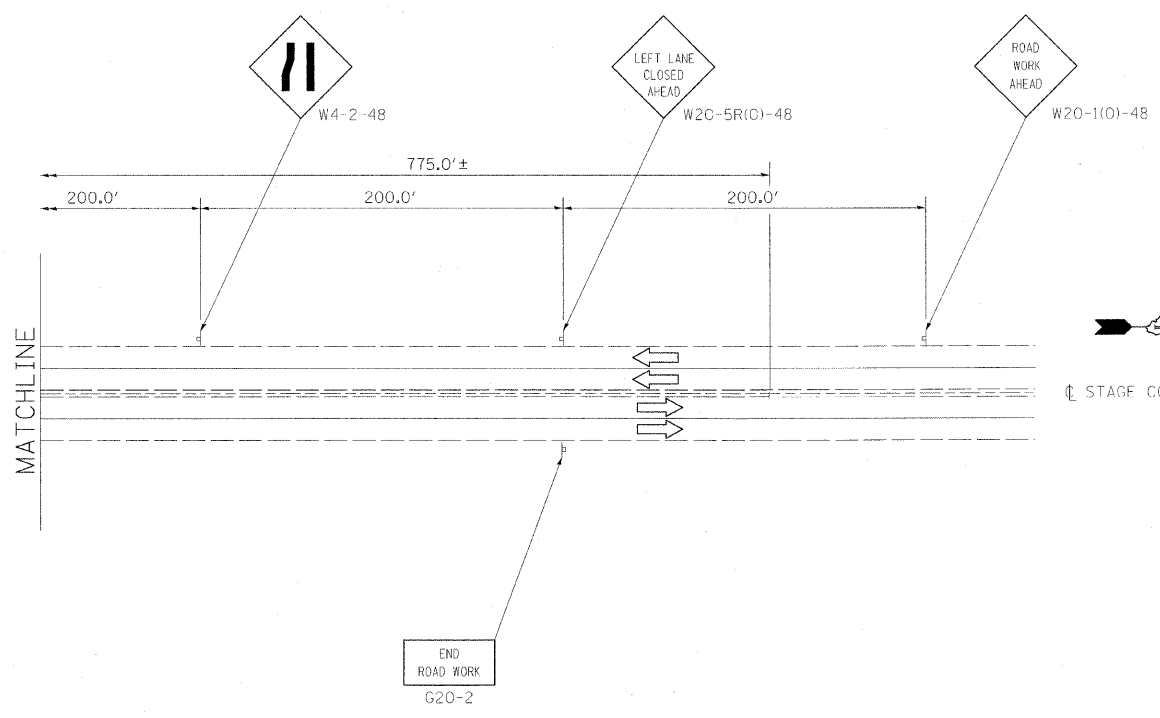
FILE NAME =	USER NAME = IDOT(eng)	DESIGNED - J.W. KOONCE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES AND SUMMARY OF QUANTITIES FAU 2729EAST RIVER ROAD OVER I-90	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
D160169-aht-gennote-NO_REV_CLOUD.dgn		DRAWN - D. REDZIC	REVISED -			2729	1617-I-1	COOK	13	2	
		CHECKED - J.W. KOONCE	REVISED -			CONTRACT NO. 60J69					
		DATE - JANUARY, 2010	REVISED -			ILLINOIS FED. AID PROJECT					



- PAVEMENT STRIPING LEGEND:**
- ① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED
 - ② BARRIER WALL MARKER AT 25' CTS SEE STANDARD 704001 & 635011
 - ③ DRUMS AT 6' CENTERS IN TAPER
 - ④ TEMPORARY PAVEMENT MARKING, 4" WIDE SOLID WHITE

- SYMBOL LEGEND:**
- ↑ ARROW BOARD
 - ⊥ SIGN ON PORTABLE OR PREEMINENT SUPPORT
 - ▨ WORK AREA
 - ⊕ BARRICADE OR DRUM WITH FLASHING LIGHT
 - ⊗ TEMPORARY IMPACT ATTENUATOR
 - DRUM WITH STEADY BURNING LIGHT
 - TEMPORARY CONCRETE BARRIER
 - ◇ CRYSTAL BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

- NOTES:**
1. MAINTENANCE OF TRAFFIC DEVICES TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARDS 701601 AND DISTRICT ONE STANDARDS TC-11 AND TC-24. ADDITIONAL SIGNAGE MAY BE REQUIRED BY THE RESIDENT ENGINEER. THIS WORK AND SIGNAGE IS INCLUDED IN THE PAYITEM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
 2. TEMPORARY PAVEMENT MARKINGS WILL CONSIST OF WET REFLECTIVE TEMPORARY TAPE, TYPE III OF THE WIDTH AND COLOR SHOWN ON THE PLANS.
 3. EXISTING, CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL.
 4. REMOVAL OF THE TEMPORARY PAVEMENT MARKINGS SHALL BE INCLUDED IN COST OF WORK ZONE PAVEMENT MARKING REMOVAL.
 5. THE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN REMOVED SHALL BE REPLACED IN-KIND. POLYUREA PAVEMENT MARKING, TYPE I WILL BE PLACED ON CONCRETE SURFACES. THERMOPLASTIC PAVEMENT MARKINGS WILL BE PLACED ON HMA SURFACES.



FILE NAME = D:\60J69\stg-staging.dgn	USER NAME = IDOT(eng)	DESIGNED - J.M. HAMELKA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST RIVER ROAD AT I-90 KENNEDY EXPRESSWAY SUGGESTED TRAFFIC CONTROL AND STAGING PLAN - STAGE I		F.A.U. RTE. 2729	SECTION 1617-I-1	COUNTY COOK	TOTAL SHEETS 13	SHEET NO. 3
	PLOT SCALE = 50.0000' / IN.	CHECKED - J.W. KOONCE	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	CONTRACT NO. 60J69 ILLINOIS FED. AID PROJECT			
PLOT DATE = 5/18/2010	DATE - JANUARY, 2010	REVISED -	REVISED -								

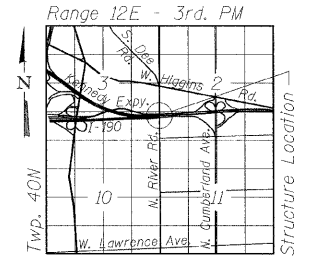
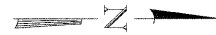
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure:

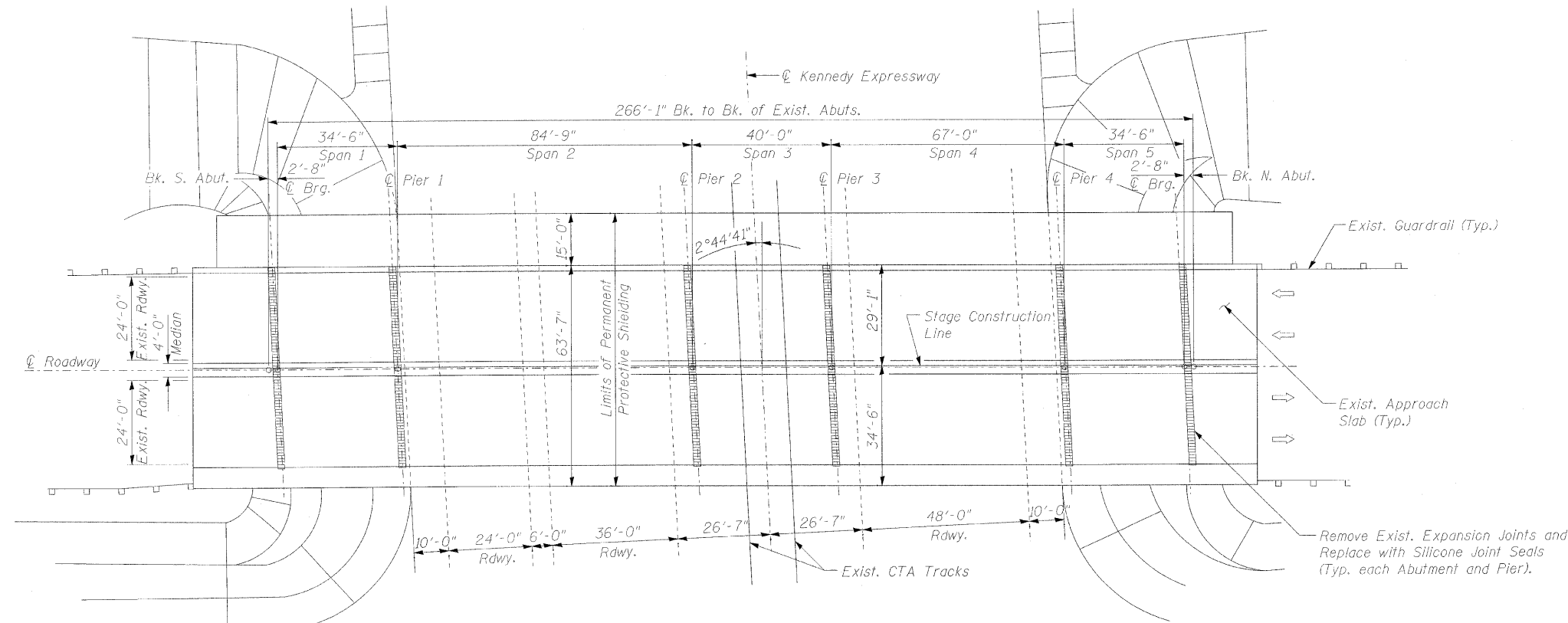
The existing structure is a five span prestressed concrete beam bridge with a 7.5 inch reinforced concrete deck with no overlay. The original structure was built in 1958 as Section 267-1617-15D. In 1981 the structure was widened and deck repairs were performed.

Staged construction shall be utilized to maintain traffic during construction.

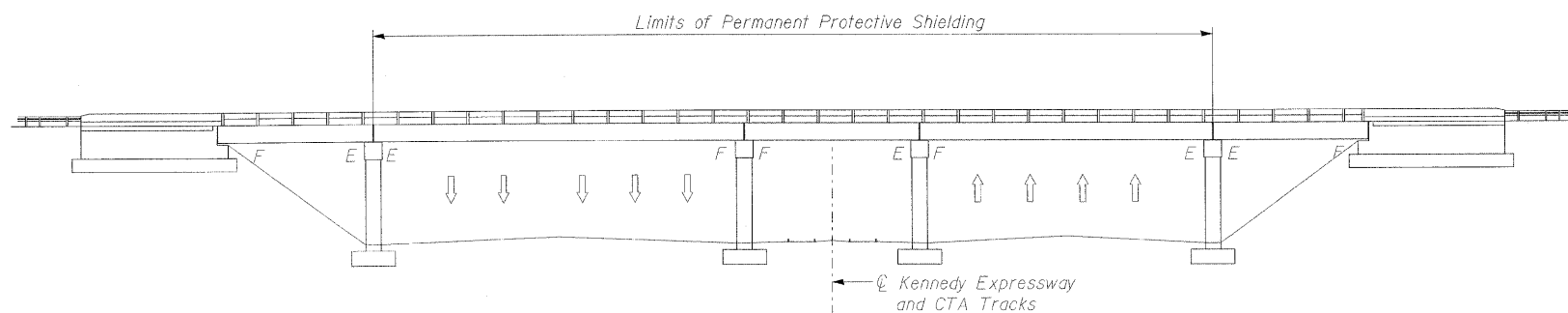
No salvage.



LOCATION SKETCH



PLAN



ELEVATION

DESIGN SPECIFICATIONS

AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi

SCOPE OF WORK

1. Repair bridge deck.
2. Reconstruct deck joints at each abutment and pier with silicone seals and polymer concrete.
3. Permanent protective shielding.

NOTES:

1. Permanent Protective Shield shall be installed according to the details contained herein and according to the Special Provisions. For limits of Protective Shield see General Plan and Elevation sheet.
2. Contractor is advised that a portion of the Permanent Protective Shielding is to be installed over tracks operated by the Chicago Transit Authority (CTA).
3. The Contractor shall be responsible for coordinating the installation of the Permanent Protective Shield with the CTA. All cost for coordination shall be included in the pay item for "Permanent Protective Shield."



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2010

GENERAL PLAN AND ELEVATION
F.A.U. ROUTE 2729 SEC. 1617-I-1
EAST RIVER ROAD AT
I-90 KENNEDY EXPRESSWAY
COOK COUNTY
STATION 73+75.00
STRUCTURE NO. 016-2124

DESIGNED	JWK
CHECKED	JMH
DRAWN	DR
CHECKED	JWK

EXAMINED	January, 2010
PASSED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S1 OF S6 SHEETS	F.A.U. RTE. 2729	SECTION 1617-I-1	COUNTY COOK	TOTAL SHEETS 13	SHEET NO. 5
	CONTRACT NO. 60J69				
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Notes, Bill of Materials and Index of Sheets
- S3. Stage Construction Details
- S4. Bridge Deck and Approach Slab Repairs
- S5. Silicone Joint Sealer with Polymer Concrete Nosing
- S6. Permanent Protective Shielding

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.
2. Stage construction shall be utilized to maintain traffic during construction.
3. 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, diaphragms caused by his operation as directed by the Engineer at no additional cost to the Department.
4. Cost for removal and disposal of Existing Expansion Joints is included in the Polymer Concrete.
5. The removal and reattachment of guardrail, hand rail, steel railings, traffic barrier terminal, and etcetera required for repair work (e.g. transverse joint replacement or structural repair of concrete) shall be included in the contract unit price of the work item being performed.

TOTAL BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	QUANTITY
Protective Shield (Permanent)	Sq. Yd.	1,238
Polymer Concrete	Cu. Ft.	27.8
Silicone Joint Sealer, 1"	Foot	254.4
Silicone Joint Sealer, 2"	Foot	63.6
Silicone Joint Sealer, 2.5"	Foot	63.6
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	16.0
Deck Slab Repair (Partial)	Sq. Yd.	117.3

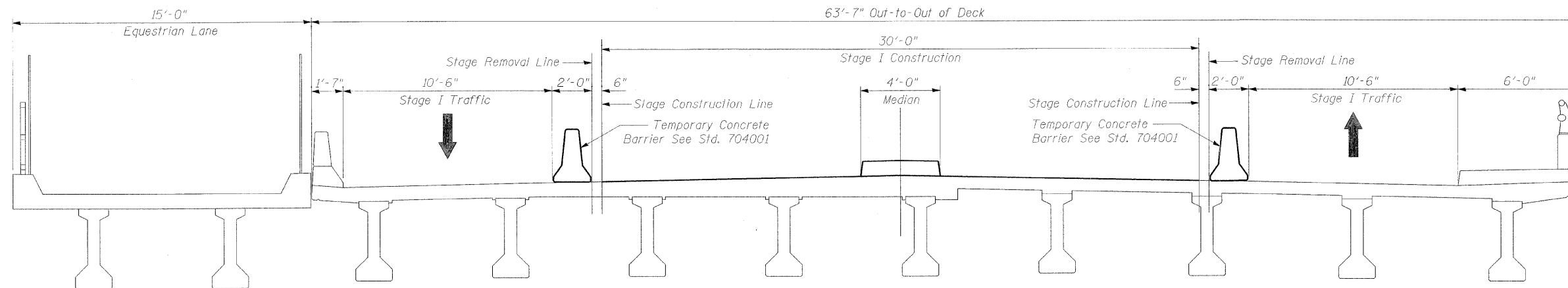
GENERAL NOTES, BILL OF MATERIALS
AND INDEX OF SHEETS
STRUCTURE NO. 016-2124

DESIGNED <i>JWK</i>
CHECKED <i>JMH</i>
DRAWN <i>DR</i>
CHECKED <i>JWK</i>

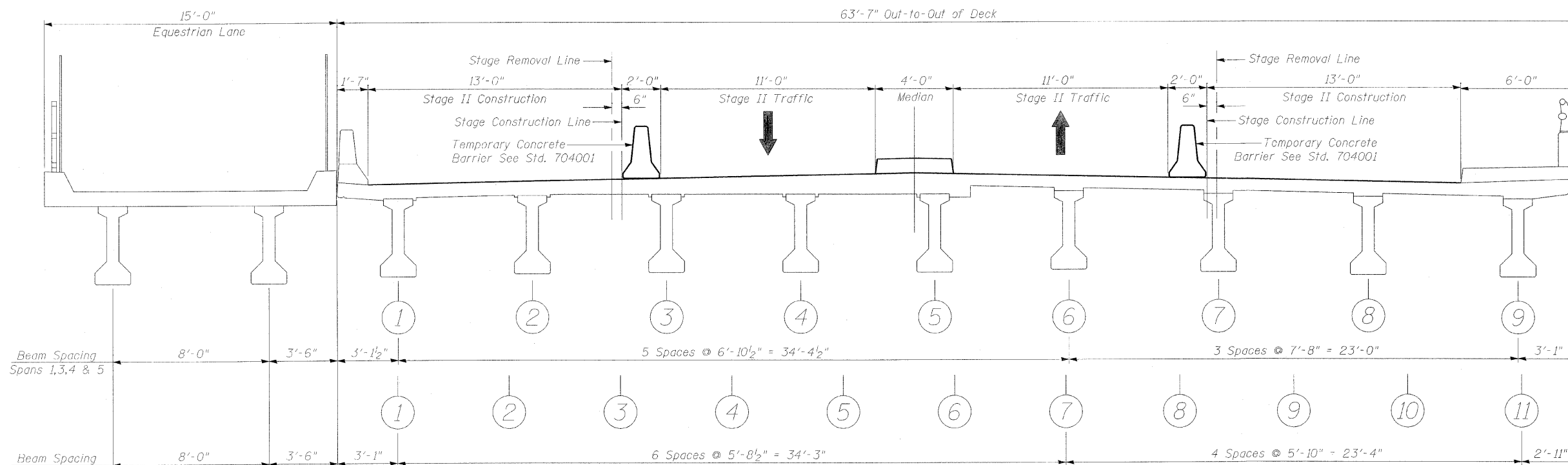
2010
EXAMINED _____
<small>ENGINEER OF STRUCTURAL SERVICES</small>
PASSED _____
<small>ENGINEER OF BRIDGES AND STRUCTURES</small>

SHEET NO. S2 OF S6 SHEETS	F.A.U. RTE. 2729	SECTION 1617-I-1	COUNTY COOK	TOTAL SHEETS 13	SHEET NO. 6
	CONTRACT NO. 60J69				
<small>ILLINOIS FED. AID PROJECT</small>					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE I CROSS SECTION
(Looking North)



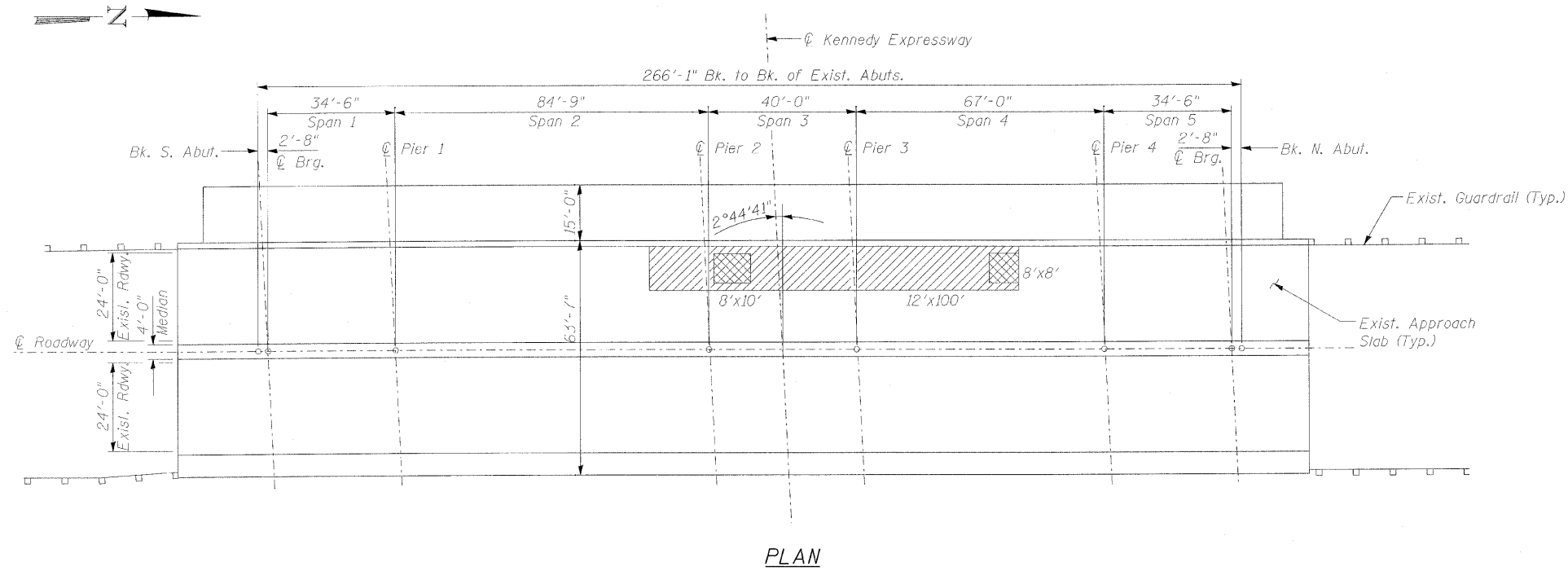
STAGE II CROSS SECTION
(Looking North)

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-2124



DESIGNED <i>JWK</i>	January, 2010
CHECKED <i>JMH</i>	EXAMINED
DRAWN <i>DR</i>	ENGINEER OF STRUCTURAL SERVICES
CHECKED <i>JWK</i>	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S3 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2729	1617-I-1	COOK	13	7
CONTRACT NO. 60J69					
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Deck Slab Repair (Partial)	Sq. Yd.	117.3
	Deck Slab Repair (Full Depth - Type II)	Sq. Yd.	16.0

NOTES:

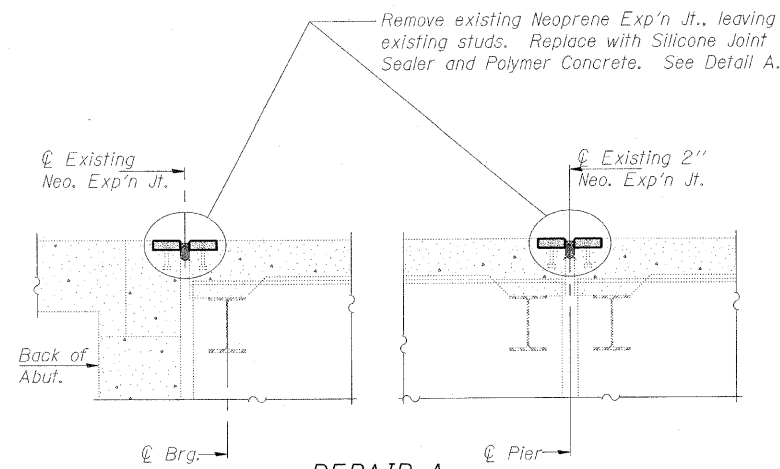
- Deck slab repair areas are estimated based on visual inspection completed in October 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- Deck slab repairs to be done after permanent protective shield has been installed.

DESIGNED <i>JWK</i>	January, 2010
CHECKED <i>JMH</i>	EXAMINED
DRAWN <i>DR</i>	ENGINEER OF STRUCTURAL SERVICES
CHECKED <i>JWK</i>	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

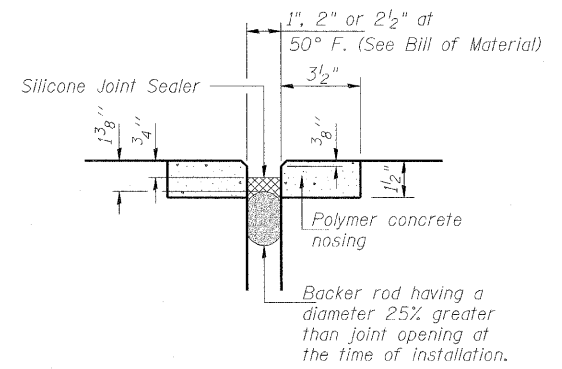
**BRIDGE DECK AND
APPROACH SLAB REPAIRS
STRUCTURE NO. 016-2124**

SHEET NO. S4 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2729	1617-1-1	COOK	13	8
CONTRACT NO. 60J69					
ILLINOIS FED. AID PROJECT					

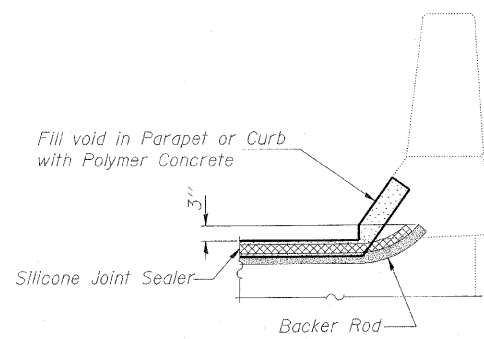
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



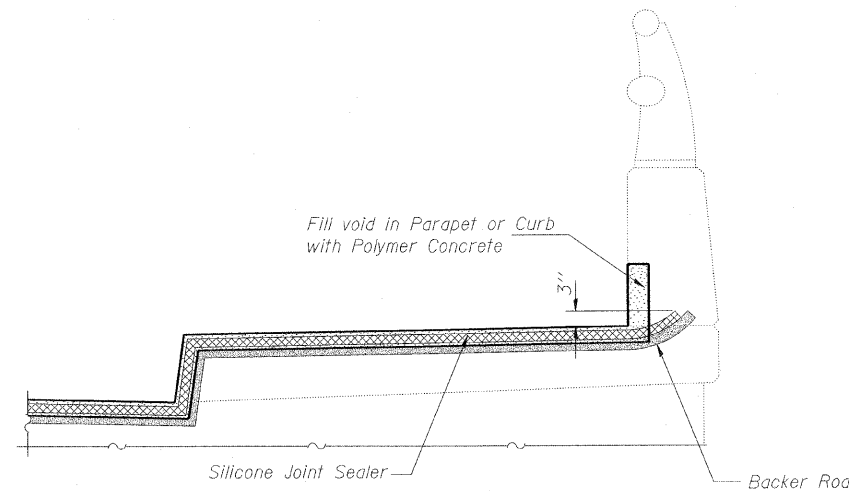
**REPAIR A
JOINT REPLACEMENT**



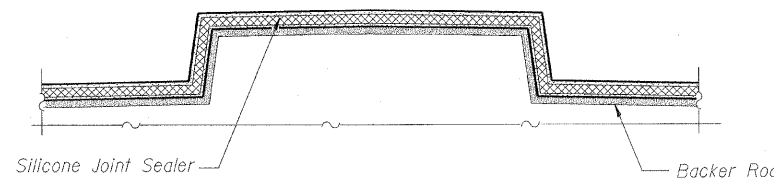
**DETAIL A
SILICONE JOINT SEALER DETAIL**



**TYPICAL END OF SEAL TREATMENT
AT WEST PARAPET**
(Looking South)



**TYPICAL END OF SEAL TREATMENT
AT EAST PARAPET**
(Looking North)



**TYPICAL SEAL TREATMENT
AT MEDIAN**
(Looking North)

BILL OF MATERIAL

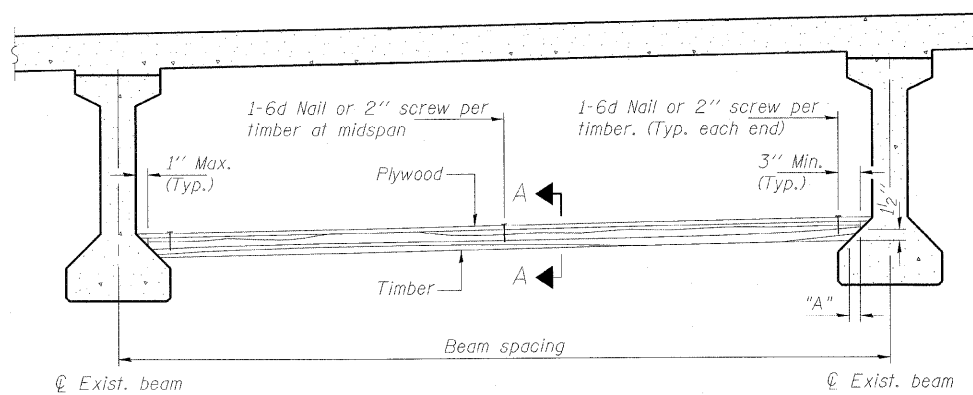
ITEM DESCRIPTION	UNIT	QUANTITY
Silicone Joint Sealer, 1" (At S. Abut., Pier 2, Pier 3 and N. Abut.)	Foot	254.4
Silicone Joint Sealer, 2" (At Pier 4)	Foot	63.6
Silicone Joint Sealer, 2 1/2" (At Pier 1)	Foot	63.6
Polymer Concrete	Cu. Ft.	27.8

**SILICONE JOINT SEALER WITH
POLYMER CONCRETE NOSING
STRUCTURE NO. 016-2124**

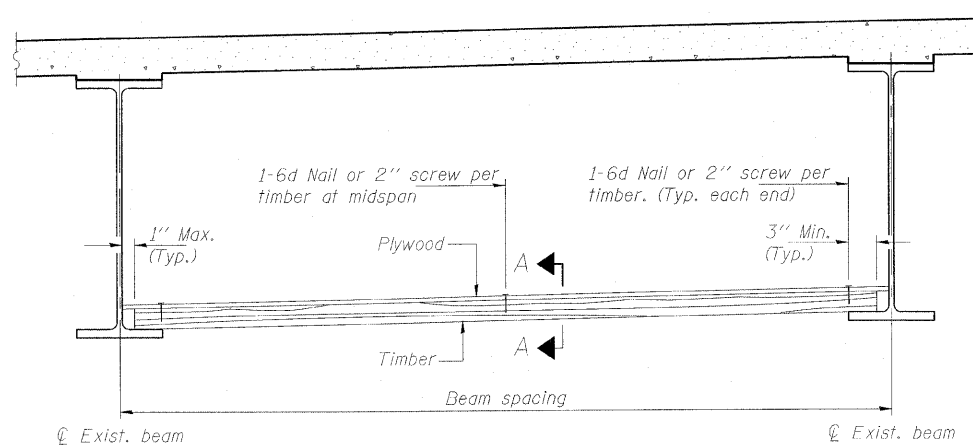
DESIGNED <i>JWK</i>	2010
CHECKED <i>JMH</i>	EXAMINED
DRAWN <i>DR</i>	PASSED
CHECKED <i>JWK</i>	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S5 OF S6 SHEETS	F.A.U. RTE. 2729	SECTION 1617-I-1	COUNTY COOK	TOTAL SHEETS 13	SHEET NO. 9
	CONTRACT NO. 60J69				
ILLINOIS FED. AID PROJECT					

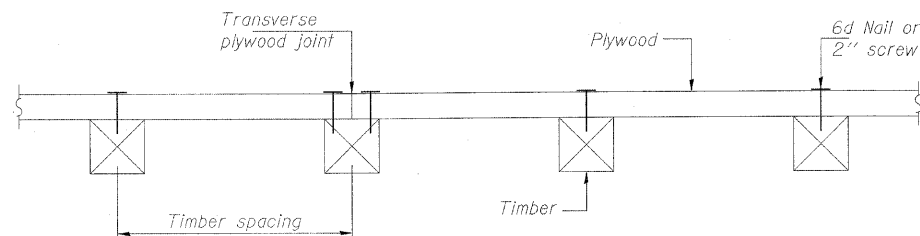
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PPC I-BEAMS AND BULB-T'S



STEEL BEAMS



SECTION A-A

DESIGNED JWK
CHECKED JMH
DRAWN DR
CHECKED JWK

2010
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

PPS-1 01-22-09

Notes: See special provision for Permanent Protective Shield System.
Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
All timber shall be treated.
Plywood shall be 5/8" rated Exterior type plywood by APA.
Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
Transverse plywood joints shall be supported by timbers.
When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
Design load = 200 psf.

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T'S

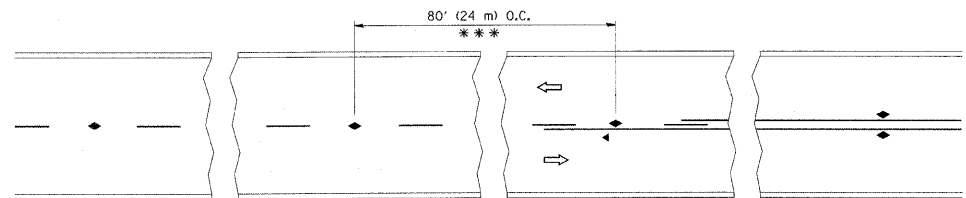
BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 3/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

BILL OF MATERIAL

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	1238

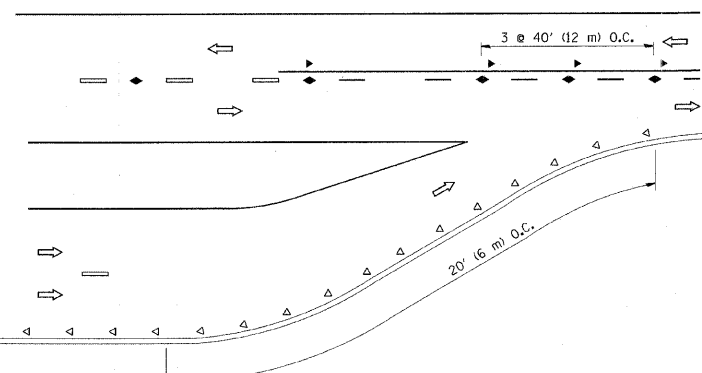
PERMANENT PROTECTIVE SHIELD
STRUCTURE NO. 016-2124

SHEET NO. S6 OF S6 SHEETS	F.A.U. RTE. 2729	SECTION 1617-I-1	COUNTY COOK	TOTAL SHEETS 13	SHEET NO. 10
CONTRACT NO. 60J69					
ILLINOIS FED. AID PROJECT					

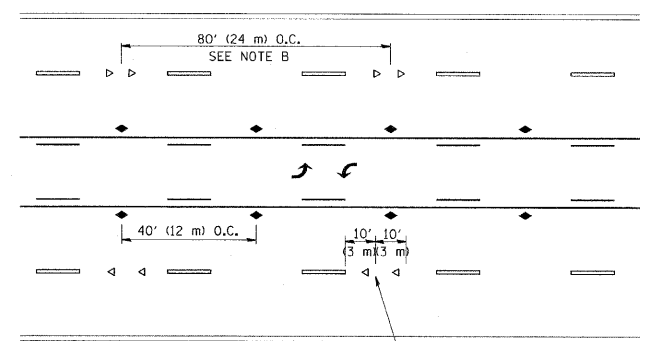


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

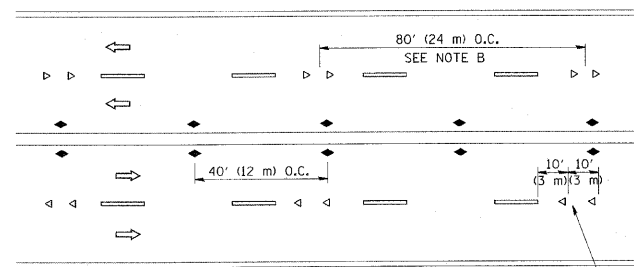
TWO-LANE/TWO-WAY



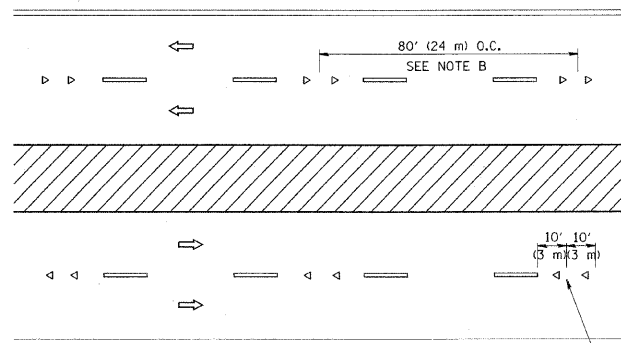
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

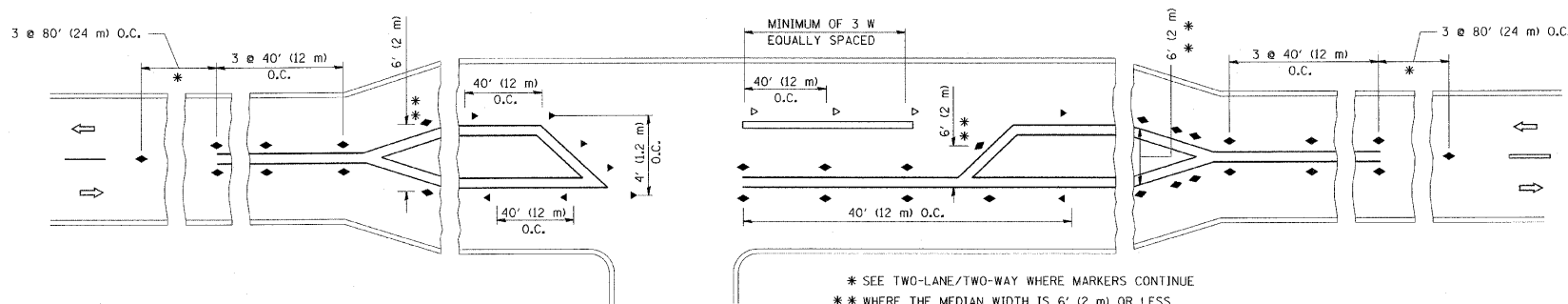
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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

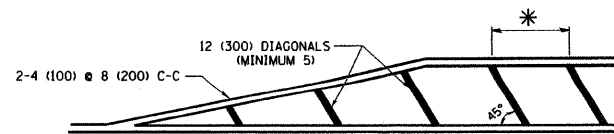
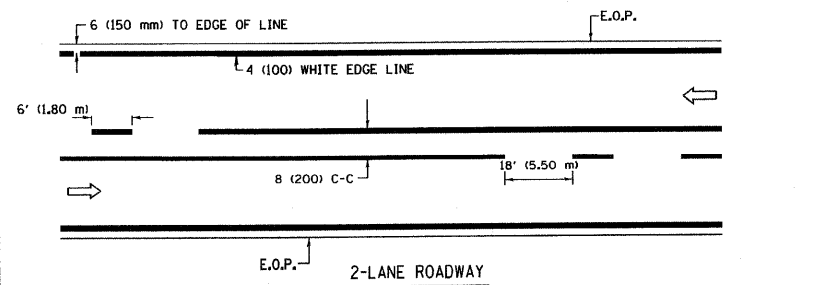


LEFT TURN

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

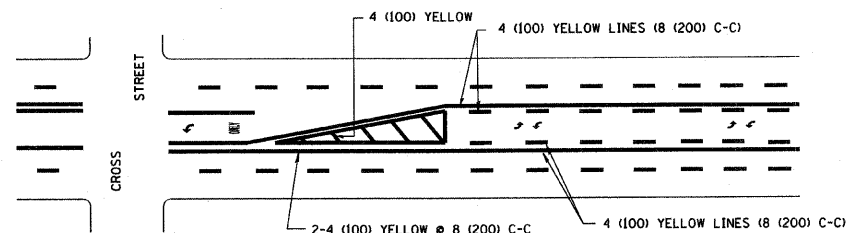
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drsvakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
os\pwork\pindot\drsvakosgn\d2186315\to1.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			2729	1617-I-1	COOK	13	11
		CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	TC-11		
		DATE -	REVISED - C. JUCIUS 09-09-09		CONTRACT NO. 60J69							
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

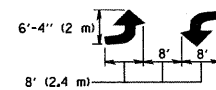


* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 * DIAGONAL LINE SPACING: 20' (6.1 m) C-C

PAINTED MEDIANS

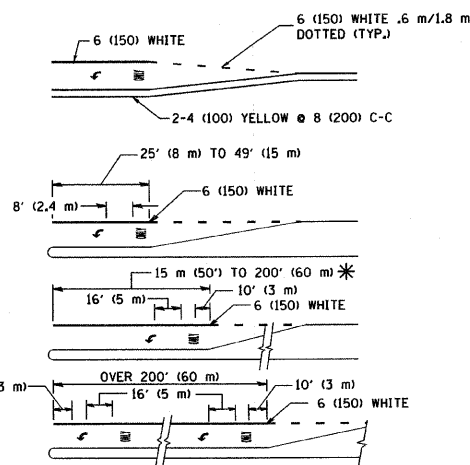


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

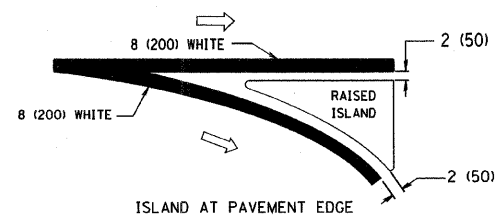
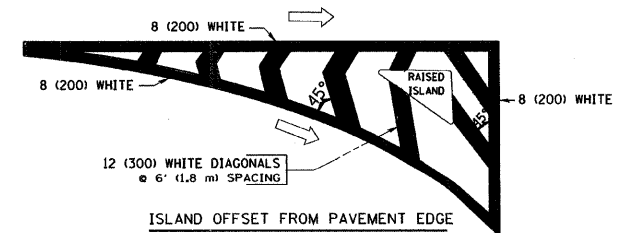
TYPICAL PAINTED MEDIAN MARKING



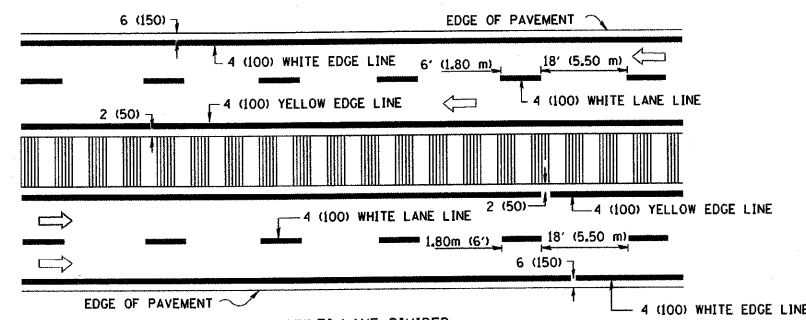
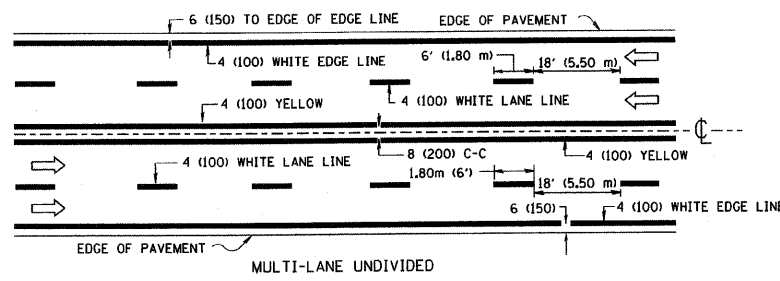
FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.
 * AREA = 15.8 SQ. FT. (1.47 m²) AREA = 22.9 SQ. FT. (2.13 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

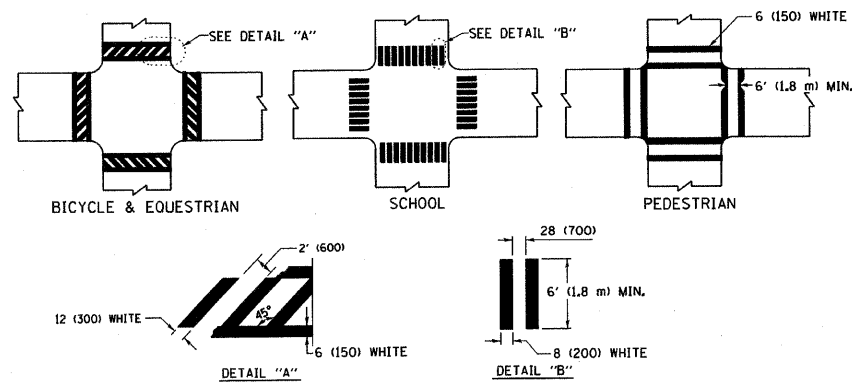


TYPICAL ISLAND MARKING



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

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH; 8 (200) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 8 (200) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2'-4' (700) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	8 (200) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS; 20' (6.1 m) (LESS THAN 30 MPH (50 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "R"=3.6 SQ. FT. (0.33m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)

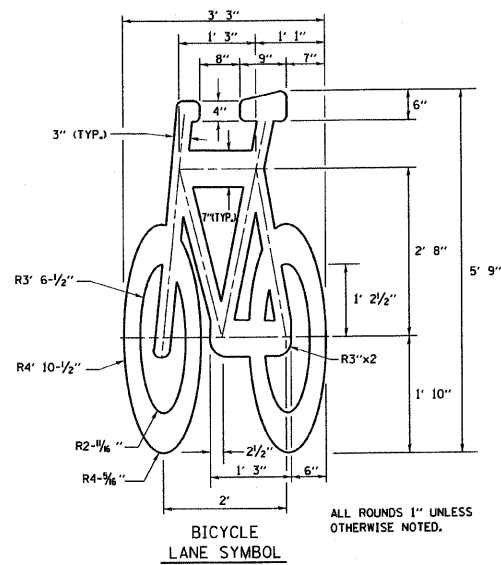
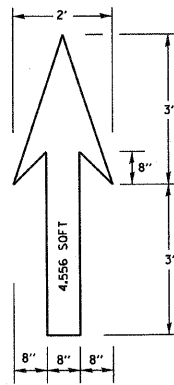
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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

FILE NAME = W:\dststd\22x34\to24.dgn	USER NAME = gggionobt	DESIGNED -	REVISED -T. RAMMACHER 12-07-00
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

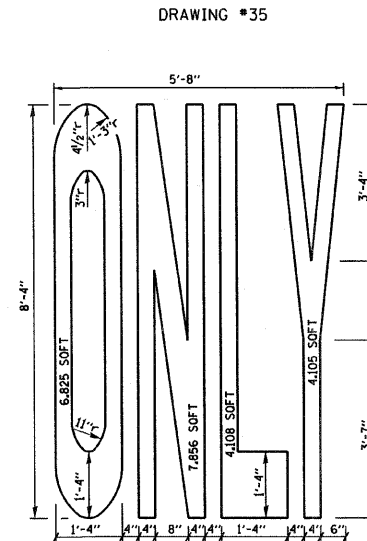
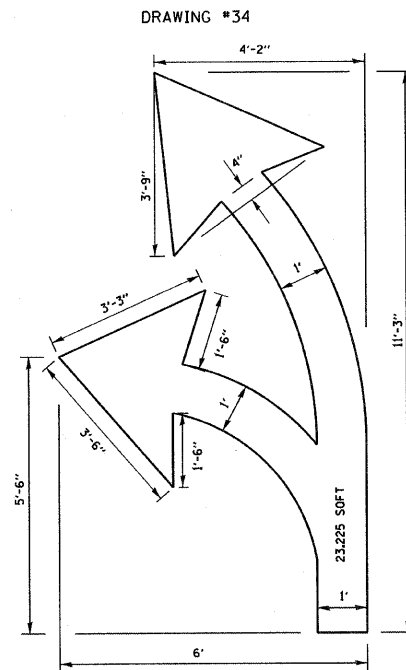
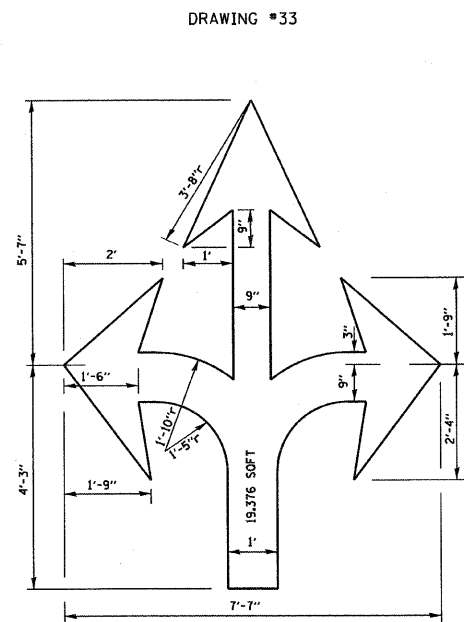
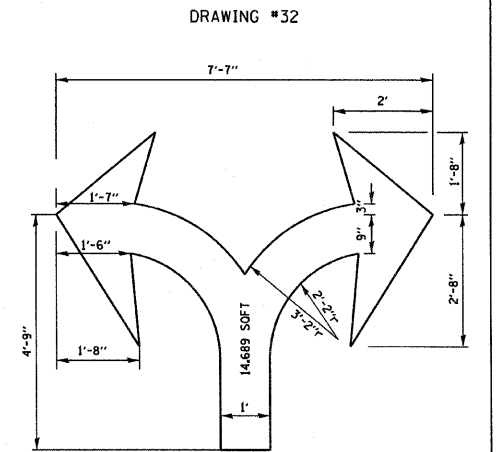
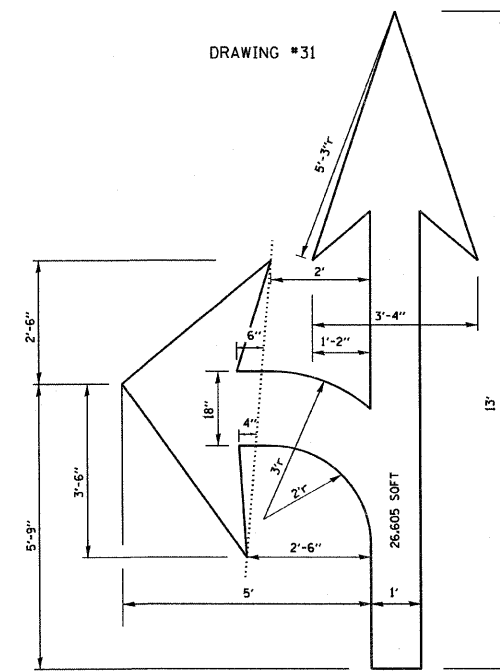
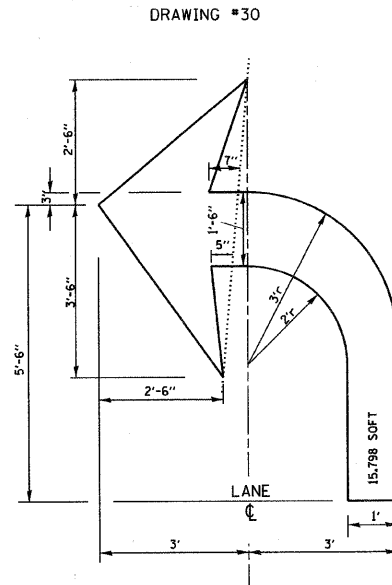
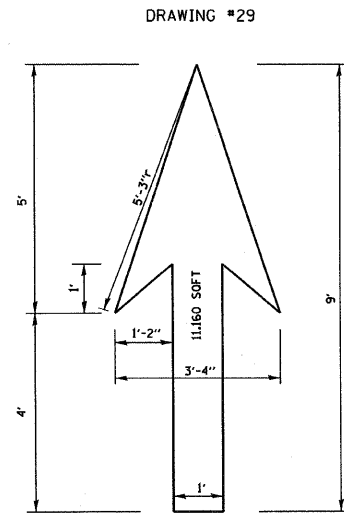
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CITY OF CHICAGO		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		2729	1617-I-1	COOK	13	12
SCALE: NONE		SHEET NO. 1 OF 2 SHEETS		STA.	TO STA.	
		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT		CONTRACT NO. 60J69		



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

TYPICAL BIKE LANE SYMBOLS
 DRAWING #28



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

FILE NAME = W:\distad\22x34\to24.dgn	USER NAME = gegl1enobt	DESIGNED -	REVISED - T. RAMMACHER 12-07-00
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.V. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2729	1617-I-1	COOK	13	13
TC-24			CONTRACT NO. 60J69	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				