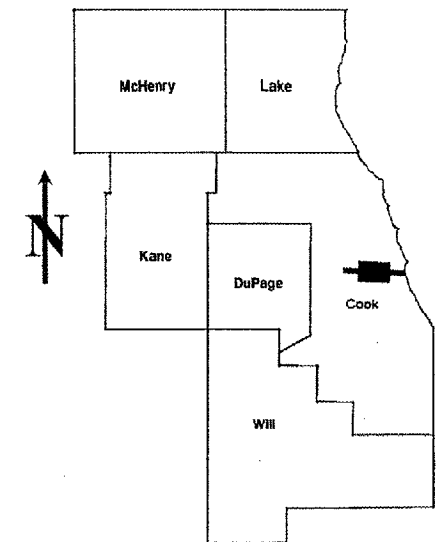


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 347	2525.3-1H-BR	COOK	17	1

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE
PROPOSED HIGHWAY PLANS**

CONTRACT NO. 62956

D-91-209-05



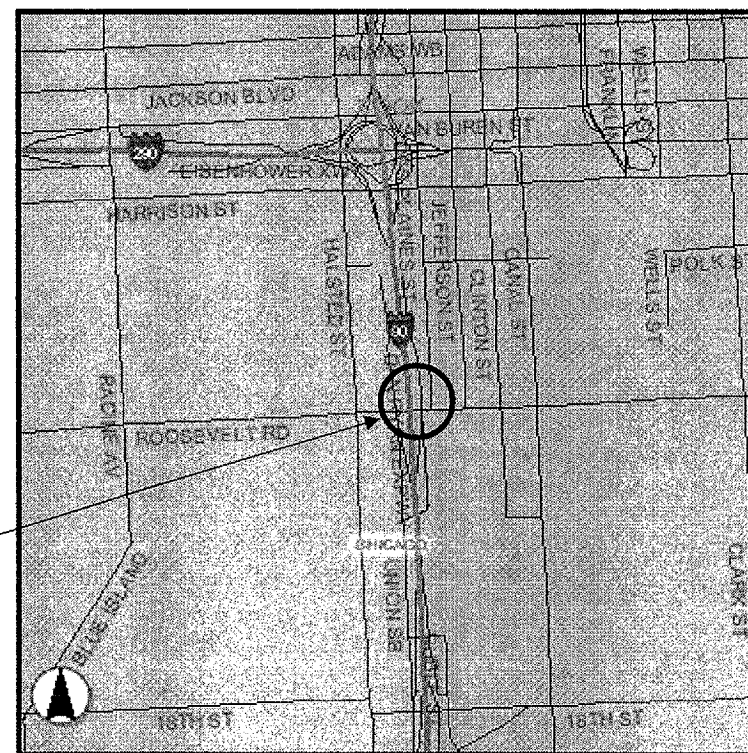
LOCATION OF IMPROVEMENT INDICATED THUS:

FAP 347: ROOSEVELT ROAD
OVER I-90/94 (DAN RYAN EXPRESWAY)
SECTION: 2525.3-1H-BR
BRIDGE REPAIR / BEAM REPLACEMENT
COOK COUNTY
C-91-209-05
SN 016-0478

FOR INDEX OF SHEETS SEE SHEET 2

**IMPROVEMENT LOCATED IN THE
CITY OF CHICAGO**

R14E



**IMPROVEMENT
LOCATION**

TRAFFIC DATA (ROOSEVELT ROAD)

SPEED LIMIT = 30 MPH
2002 ADT = 29,400

TRAFFIC DATA (I-90/94)

SPEED LIMIT = 45 MPH
2003 ADT = 236,100

WEST CHICAGO TOWNSHIP

DISTRICT ONE - DESIGN - PLAN PREPARATION ENGINEER:
KEN ENG / ROBERT BORO (847) 705-4178 (MCHD)

CONTRACT NO. 62956

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: Dec 20 2005
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 3, 2006
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

February 3, 2006
Milton R. Sew
DIRECTOR, DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

C.U.A.N.: CHICAGO UTILITY
ALERT NETWORK
(312)774-7000

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 347	2525.3-1H-BR	COOK	17	2

CONTRACT: 62956

INDEX OF SHEETS

STATE STANDARDS

1	TITLE SHEET
2	INDEX OF SHEETS, STATE STANDARDS
3	GENERAL NOTES
4-5	SUMMARY OF QUANTITIES
6	TRAFFIC STAGING PLANS
7	ELECTRICAL PLAN
8-12	BRIDGE REPAIR PLANS
13	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS & DRIVEWAYS
14-15	CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS
16	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAIL
17	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-03	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-03	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
701446	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701602-02	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701801-03	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-05	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS
STATE STANDARDS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 347	2525.3-1H-BR	COOK	17	3

GENERAL NOTES

CONTRACT 62956

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312)774-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

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

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD (FOR FUTURE REFERENCES), ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY THE ENGINEER.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE CONCRETE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4151 FOR EXPRESSWAY AND (847) 705-4470 FOR ROOSEVELT ROAD A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL CONTACT SCOTT KUZNICKI, TRAFFIC FIELD ENGINEER AT (773) 685-8386, TWO (2) WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

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

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN (7) DAY MINIMUM CURE TIME.

WHEN 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 CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.

THE ADVANCE WARNING SIGN DETAIL FOR ARTERIAL TRAFFIC LOCATED IN THE SPECIAL PROVISIONS FOR "TEMPORARY INFORMATION SIGNING FOR LANE CLOSURES" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 347	2525.3-1H-BR	COOK	17	4

MCHD CLAIM #712896

CONTRACT: 62956

SUMMARY OF QUANTITIES			<i>URBAN</i> CONSTRUCTION TYPE CODE SFTY -2A 100% MCHD
CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES
50102400	CONCRETE REMOVAL	CU YD	53
50300255	CONCRETE SUPERSTRUCTURE	CU YD	53
50300300	PROTECTIVE COAT	SQ YD	144.6
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	25,570
50500505	STUD SHEAR CONNECTORS	EACH	267
50501110	STRUCTURAL STEEL REMOVAL	POUND	25,480
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	8,050
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	103
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1
67100100	MOBILIZATION	L SUM	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	140
<i>XX002293</i>	<i>REMOVE, STORE AND RE-ERECT OVERHEAD SIGN STRUCTURE- BRIDGE MOUNTED</i>	<i>EACH</i>	<i>1</i>
X0322467	TEMPORARY INFORMATION SIGNING FOR LANE CLOSURE	SQ FT	48
X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	1
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAY)	L SUM	1

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 1 OF 2

Rev.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 347	2525.3-1H-BR	COOK	17	5

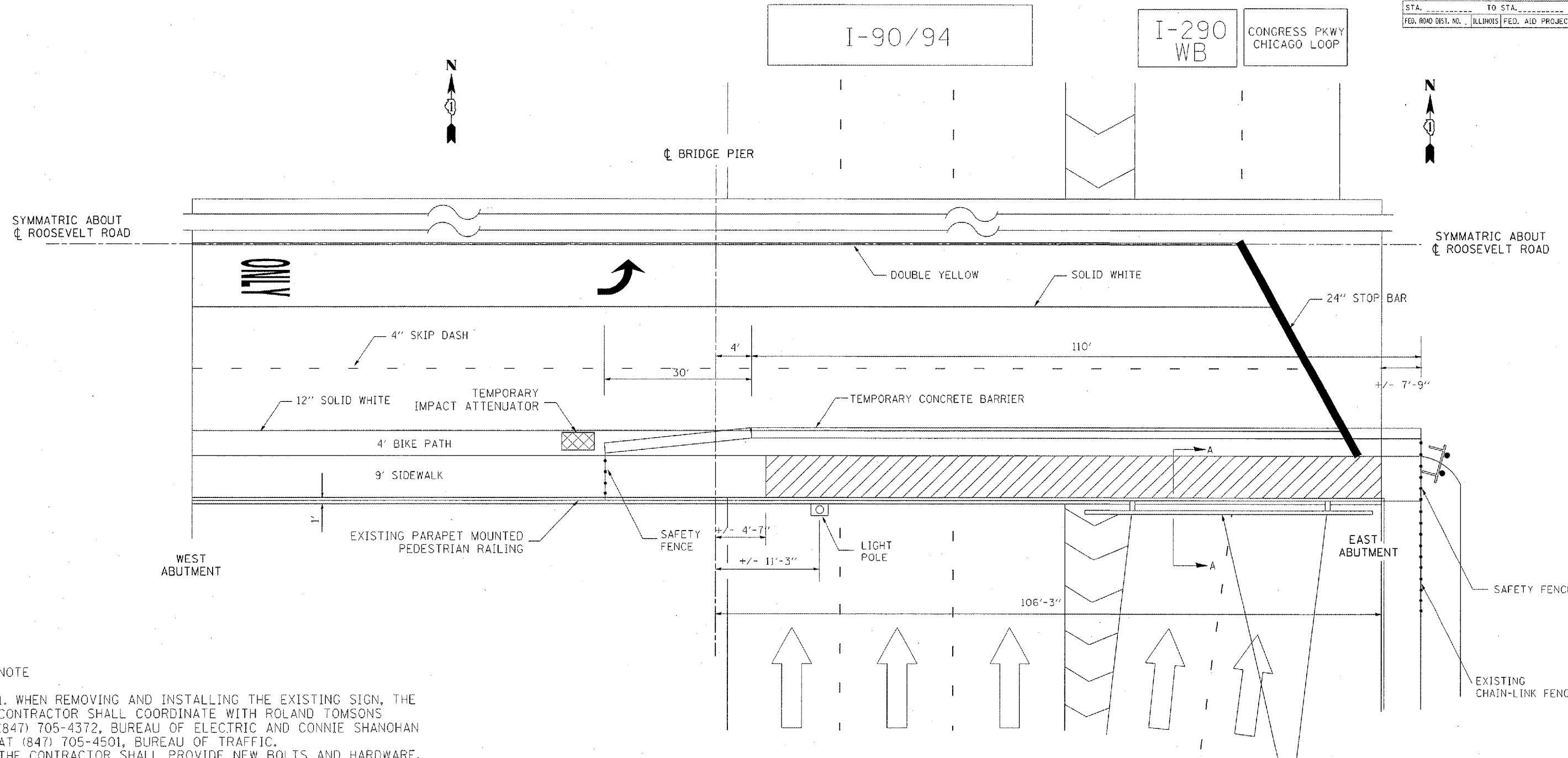
SUMMARY OF QUANTITIES			URBAN CONSTRUCTION TYPE CODE SFTY-2A 100% MCHD
CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES
X8040105	ELECTRIC CONNECTION TO SIGN STRUCTURE (SPECIAL)	EACH	1
Z0003600	BEAM STRAIGHTENING	L SUM	1
ΔZ0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1
Z0047300	PROTECTIVE SHIELD	SQ YD	125
X8040150	REMOVE ELECTRICAL CONNECTION TO SIGN STRUCTURE	EACH	1

Δ SFTY-3N

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SHEET 2 OF 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2525.3-1H-BR	COOK	17	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTE

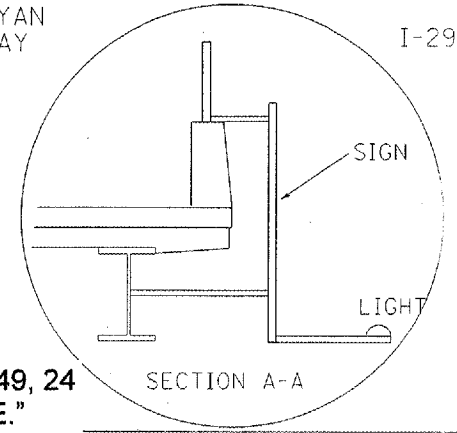
1. WHEN REMOVING AND INSTALLING THE EXISTING SIGN, THE CONTRACTOR SHALL COORDINATE WITH ROLAND TOMSONS (847) 705-4372, BUREAU OF ELECTRIC AND CONNIE SHANOHAN AT (847) 705-4501, BUREAU OF TRAFFIC. THE CONTRACTOR SHALL PROVIDE NEW BOLTS AND HARDWARE, BUT CAN REUSE SUPPORT BRACKETS. THE TRANSFER OF ANY IDOT LIGHTS AFFECTED BY THE SIGN REMOVAL SHALL BE COORDINATED WITH RAO VAITLA AT THE ELECTRICAL MAINTENANCE OFFICE AT (847) 221-3079 BEFORE THE SIGN STRUCTURE IS REMOVED.

2. WHEN REMOVING AND INSTALLING THE EXISTING LIGHT POLE, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO. COST INCLUDED WITH CONCRETE REMOVAL. THE CONTRACTOR SHALL CONTACT BRUCE SPYCHALA AT (312) 746-5049, 24 HOURS MINIMUM BEFORE ANY WORK COMMENCES ON THE LIGHT POLE.

3. CLOSE SOUTH SIDEWALK AND BIKE PATH PER STATE STANDARD 701801. COST OF SAFETY FENCE INCLUDED IN COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701801.

* "THE CONTRACTOR SHALL CONTACT BRUCE SPYCHALA, AT (312)746-5049, 24 HOURS MINIMUM BEFORE ANY WORK COMMENCES ON THE LIGHT POLE."

- TYPE III BARICADE WITH FLASHING LIGHTS
- WORK AREA
- SIGN OR SIGN W/ STEADY BURN LIGHT AS SHOWN
- TEMPORARY CONCRETE BARRIER



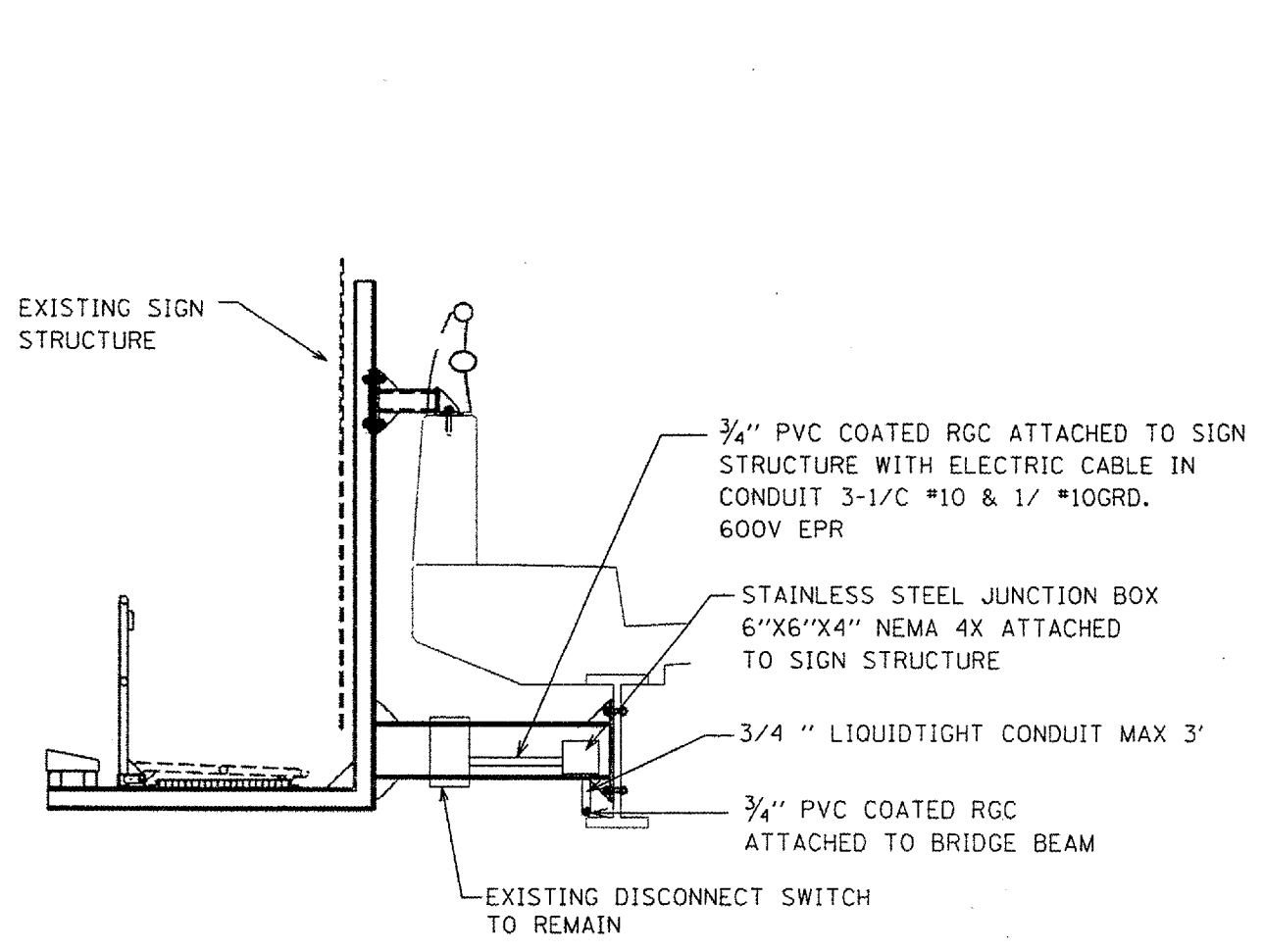
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL PLAN
 ROOSEVELT ROAD
 OVER DAN RYAN (I-90/94)
 SCALE: VERT. N.T.S. DRAWN BY: SJK
 DATE: HORIZ. N.T.S. CHECKED BY:

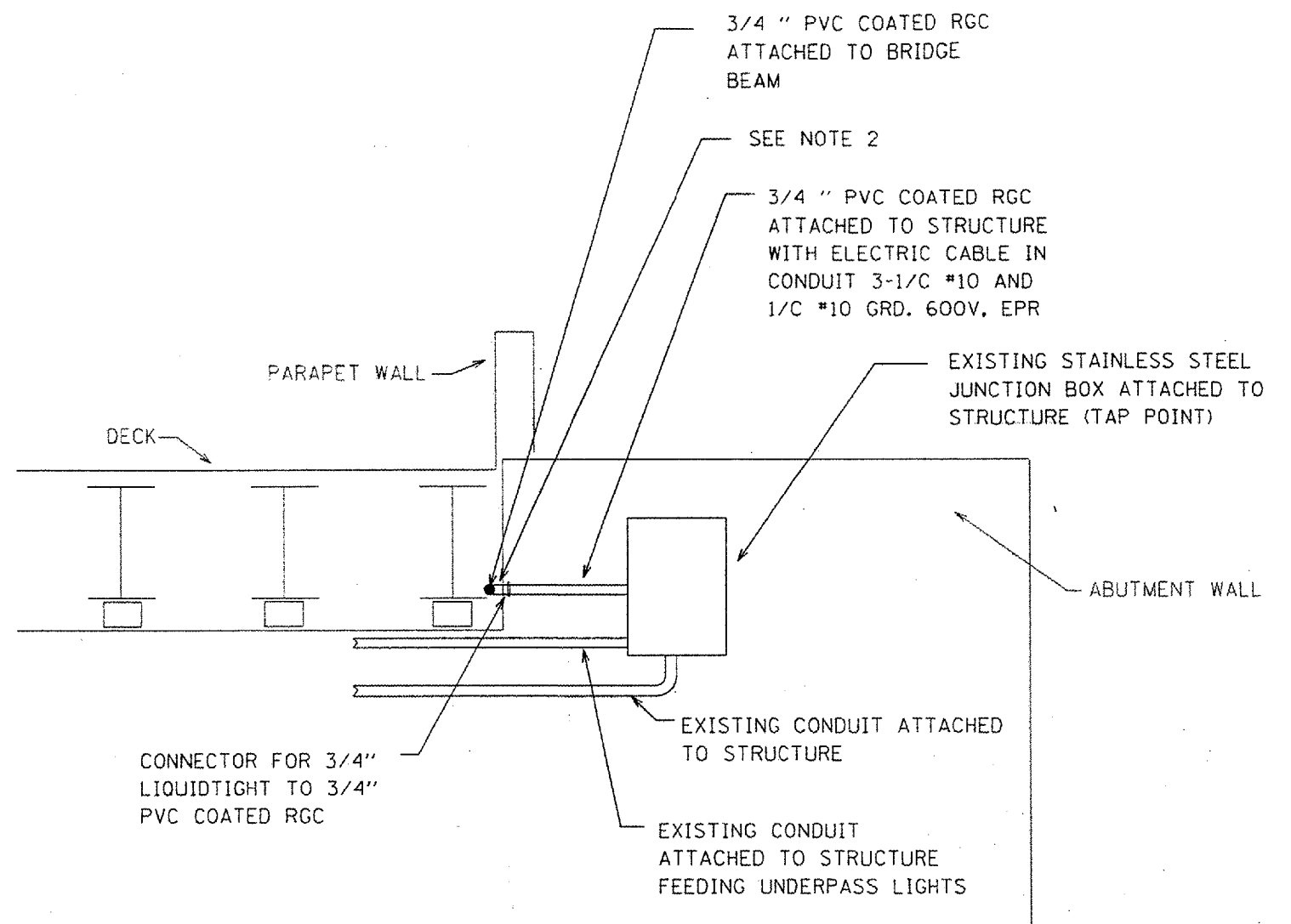
PLOT DATE: 11/28/2006
 FILE NAME: c:\p\projects\m233804\m233804.dwg
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: bbnal

Rev.

F.A.D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	25253-14	COOK	14	7
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SIDE VIEW OF SIGN STRUCTURE



SIDE VIEW OF ABUTMENT WALL

NOTES:

1. BEFORE THE EXISTING SIGN IS REMOVED THE CONTRACTOR SHALL DISCONNECT POWER AND REMOVE ALL WIRES AND CONDUITS FROM THE EXISTING DISCONNECT SWITCH TO THE EXISTING JUNCTION BOX ATTACHED TO THE ABUTMENT WALL (TAP POINT).
2. 3/4" LIQUIDTIGHT FLEX CONDUIT (MAX 3') SHALL BE USED AT THE TRANSITION POINT FROM THE ABUTMENT WALL TO THE BRIDGE BEAM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ELECTRICAL PLAN
 ROOSEVELT ROAD
 OVER DAN RYAN (I-90/94)
 SCALE: VERT. _____
 HORIZ. _____
 DATE _____
 DRAWN BY _____
 CHECKED BY _____

PLOT DATE: 12/17/2005
 PLOT SCALE: 1/8" = 1'-0"
 REFERENCE: WIRE#

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 347	SECTION	COUNTY Cook	SHEET NO. 17	SHEET NO. 1 5 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract Number: 62956

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Diaphragm connection holes shall be $\frac{5}{16}$ " ϕ for $\frac{3}{4}$ " ϕ bolts. Two hardened washers shall be required at diaphragm connections.

After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

Prior to pouring the new concrete deck, all loose rust, loose mill scale and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of Furnishing and Erecting Structural Steel.

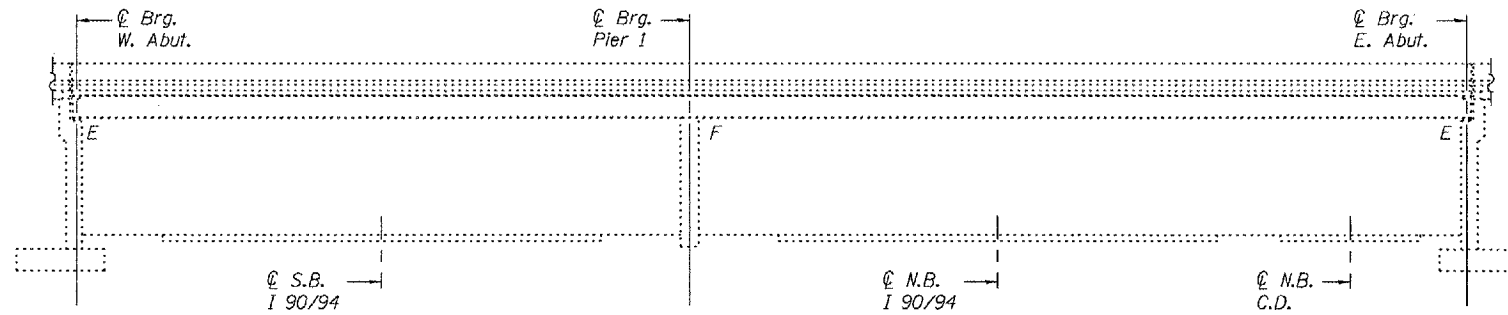
The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of new structural steel except where otherwise noted. All coats shall be applied in the shop. The color of the urethane finish coat shall match the existing color on the beam section to be replaced. See Special Provision "Cleaning and Painting New Metal Structures".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

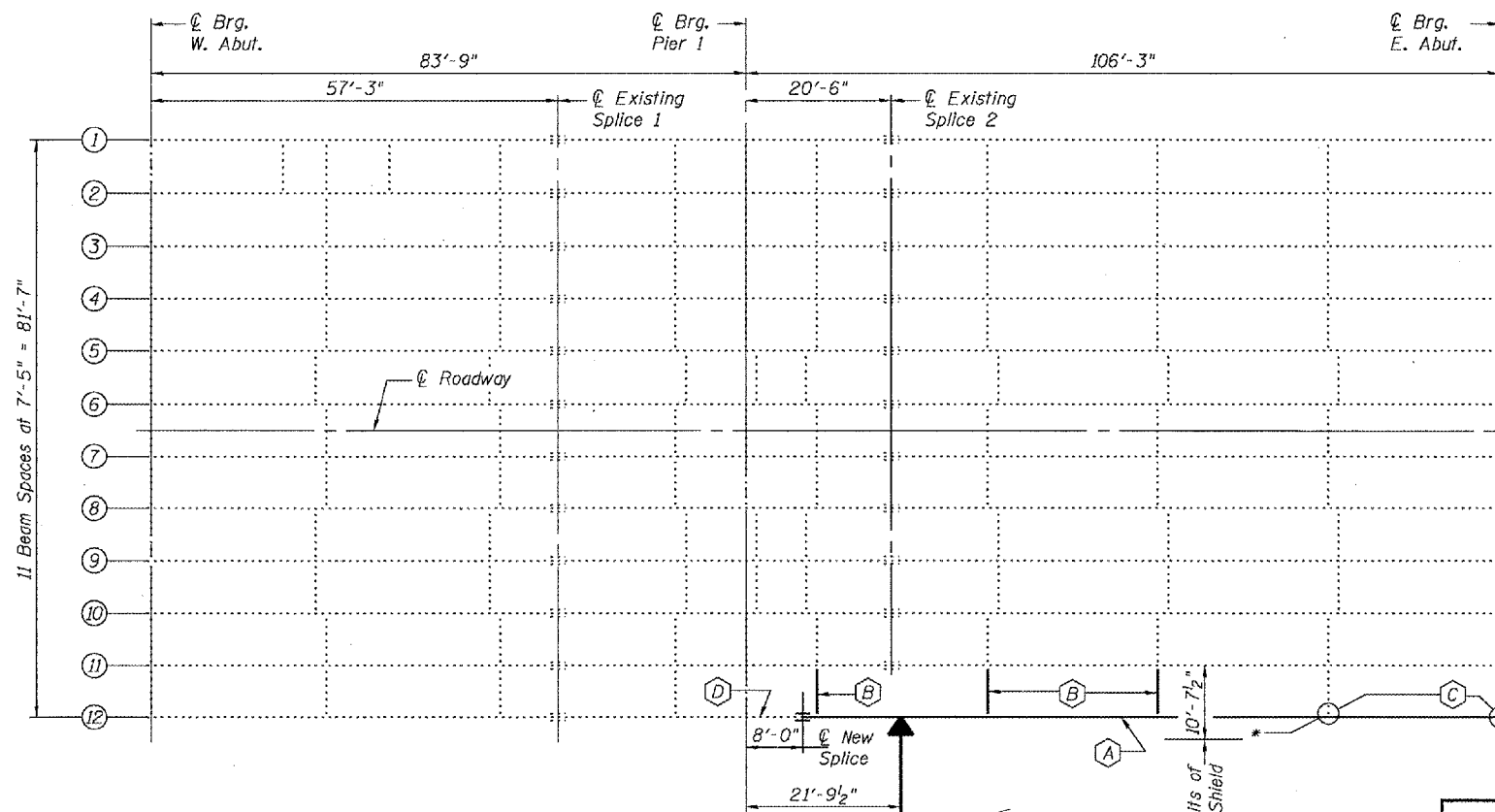
Joint plates and attached bars shall be shop painted with the inorganic zinc rich primer. No field paint required.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Fasteners shall be high strength bolts. Flange and Web splice holes shall be $\frac{5}{16}$ " ϕ for $\frac{7}{8}$ " ϕ bolts.



ELEVATION

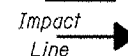


*Existing clip angle to be removed using the air-arc method and grind smooth all weld material remaining on the diaphragm flanges. Cost included with Structural Steel Removal.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	53
Concrete Superstructure	Cu. Yd.	53
Furnishing and Erecting Structural Steel	Pound	25,570
Structural Steel Removal	Pound	25,480
Beam Straightening	L.S.	1
Stud Shear Connectors	Each	267
Protective Coat	Sq. Yd.	144.6
Removing and Re-erecting Existing Railing	Foot	103
Reinforcement Bars, Epoxy Coated	Pound	8,050
Protective Shield	Sq. Yd.	125

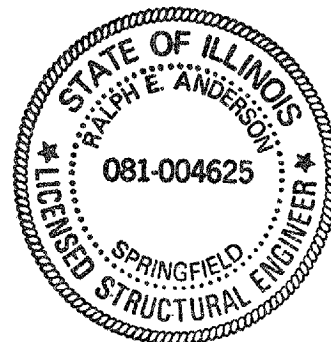
PLAN



- (A) Remove and replace Beam Segment.
- (B) Remove and replace existing Diaphragms and Clip angles.
- (C) Remove and replace existing Clip angles.
- (D) Beam Straightening required.

DESIGNED *Alan T. Holloway*
CHECKED *Paul Bluff*
DRAWN *[Signature]*
CHECKED *ATH / S.F.B.*

EXAMINED *John A. Morris*
PASSED *Ralph E. Anderson*



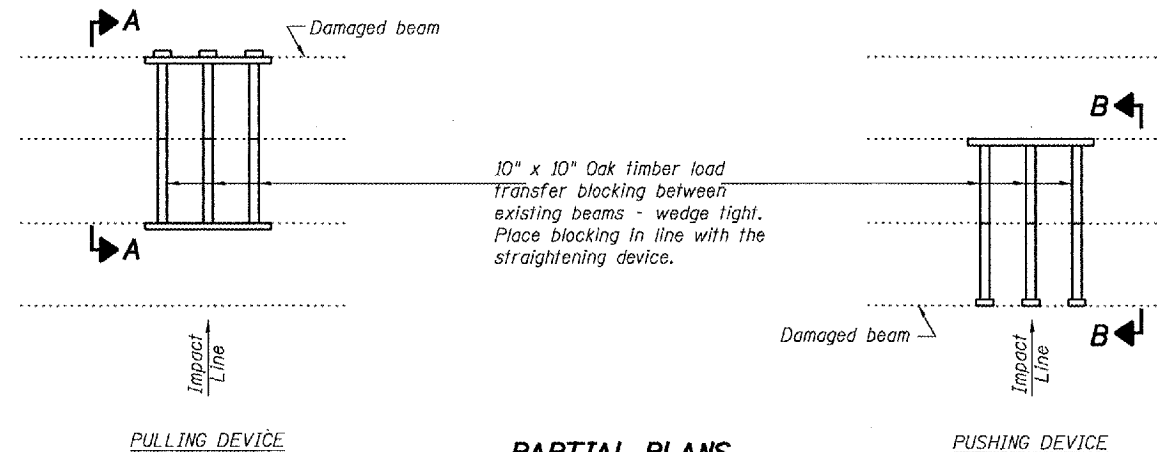
Expires November 30, 2006

PLAN AND ELEVATION
F.A.I. RT. 90/94
COOK COUNTY
SN 016-0478

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

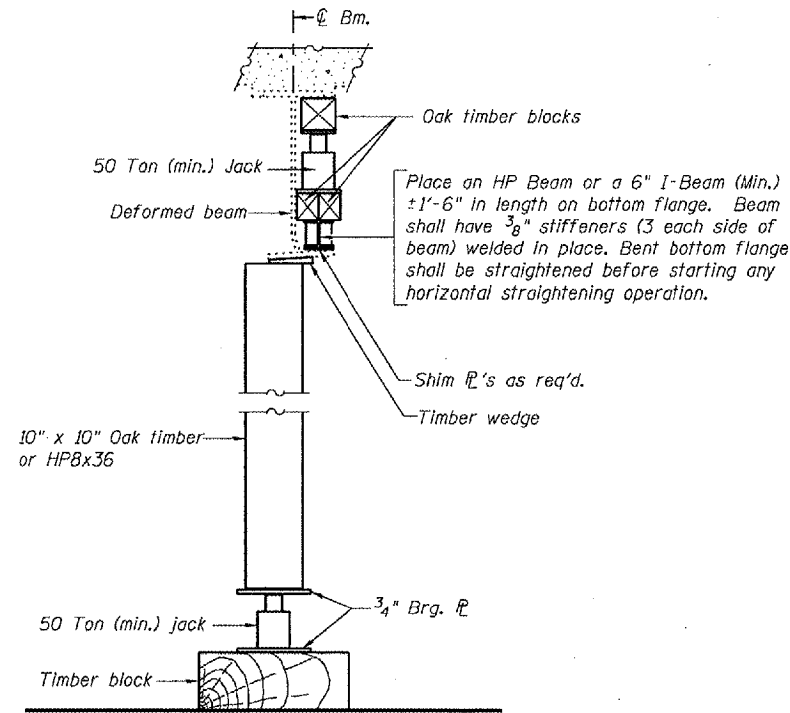
ROUTE NO. FAP 347	SECTION	COUNTY Cook	TOTAL SHEETS 17	SHEET NO. 9	SHEET NO. 2 5 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract Number: 62956

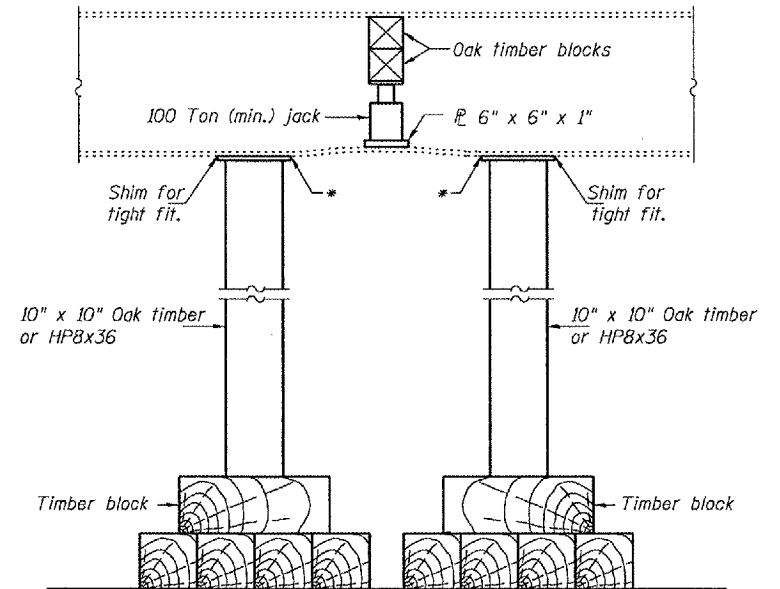


PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

Straightening force shall be maintained on all load transfer blocking during beam straightening.



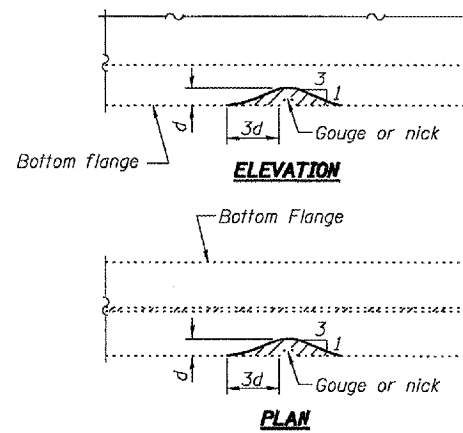
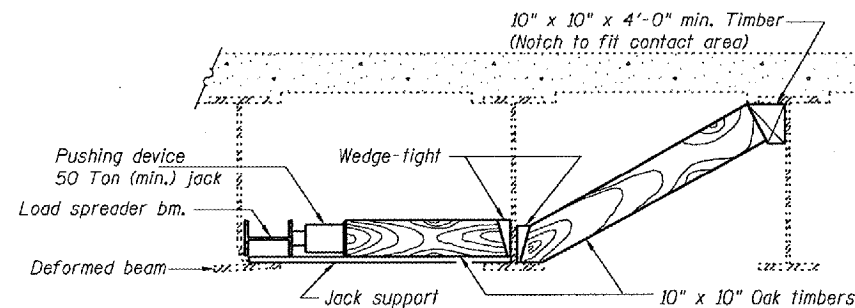
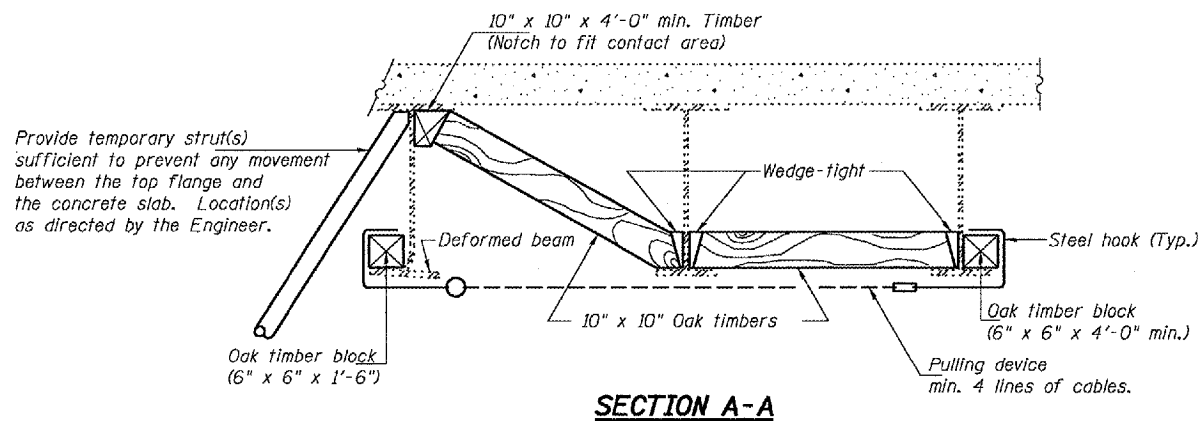
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)



SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)

* Edge of plate shall line up with edge of deformation.

Note:
Braces and jack assembly shall be placed on same side of web.
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.

EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking West)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 7'-6".

BEAM STRAIGHTENING DETAILS

F.A.I. RT. 90/94
COOK COUNTY
SN 016-0478

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

January 18, 2006

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES

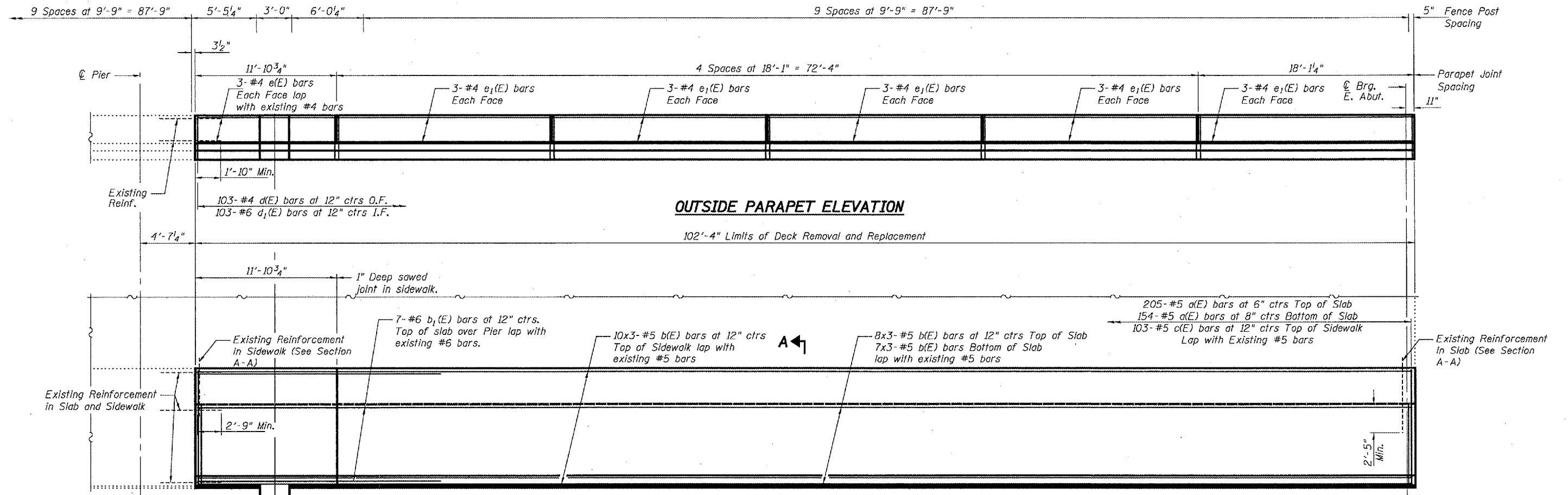
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REP-1 1-14-2005

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAP 347	SECTION	COUNTY Cook	TOTAL SHEETS 17	SHEET NO. 10	SHEET NO. 3 5 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract Number: 62956



OUTSIDE PARAPET ELEVATION

102'-4" Limits of Deck Removal and Replacement

PARTIAL DECK PLAN

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included with Concrete Removal.

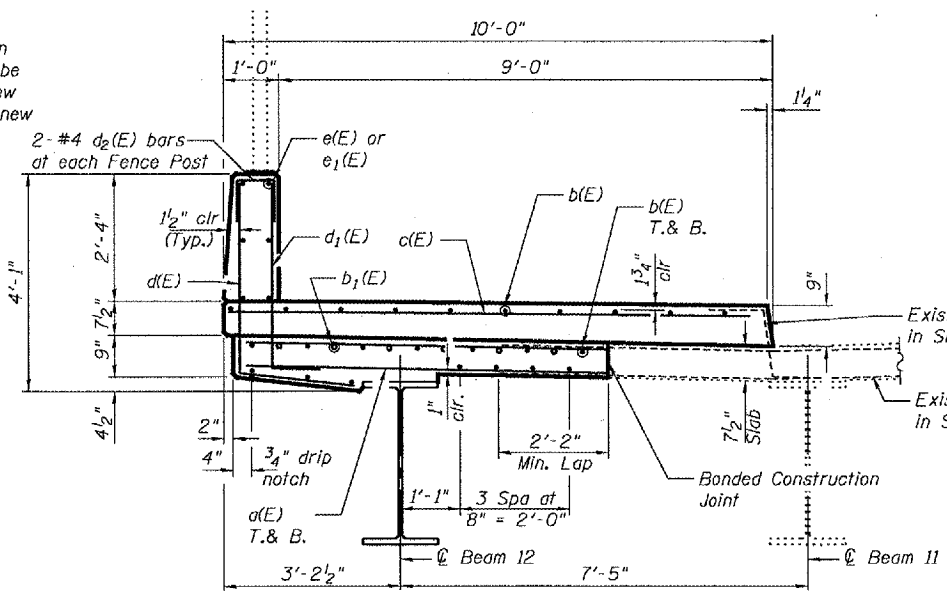
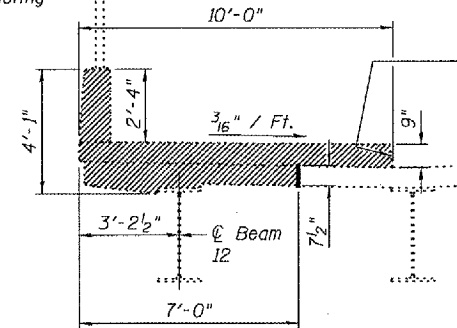
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	359	#5	6'-7"	—
b(E)	75	#5	35'-6"	—
b1(E)	7	#6	20'-5"	—
c(E)	103	#5	9'-6"	—
d(E)	103	#4	5'-6"	L
d1(E)	103	#6	4'-4"	L
d2(E)	24	#4	2'-1"	U
d3(E)	3	#6	4'-2"	L
d4(E)	5	#6	8'-11"	U
e(E)	6	#4	11'-7"	—
e1(E)	30	#4	17'-9"	—
Concrete Removal		Cu. Yd.	53	
Concrete Superstructure		Cu. Yd.	53	
Reinforcing Bars, Epoxy Coated		Lbs.	8,050	

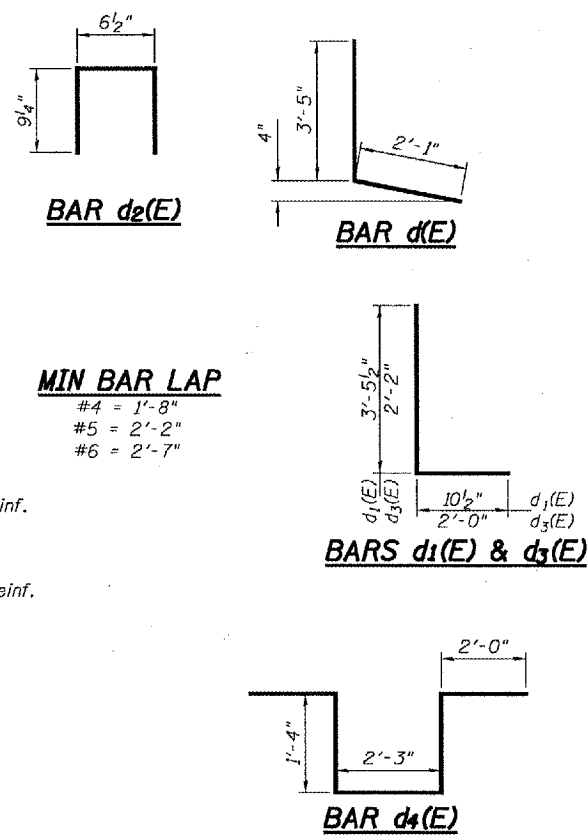
Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

SIDEWALK AND SLAB DETAILS
F.A.I. RT. 90/94
COOK COUNTY
SN 016-0478

**SECTION A-A
SHOWING CONCRETE REMOVAL**



SECTION A-A



Existing fence to be removed, stored and re-erected. Cost included in Removing and Re-erecting Existing Railing.

Hatched area indicates area of concrete removal.

Existing 6" leg of PJS within concrete removal area shall be salvaged and glued to the new joint angle prior to pouring new concrete. Cost included with Concrete Removal.

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

January 18, 2006
EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

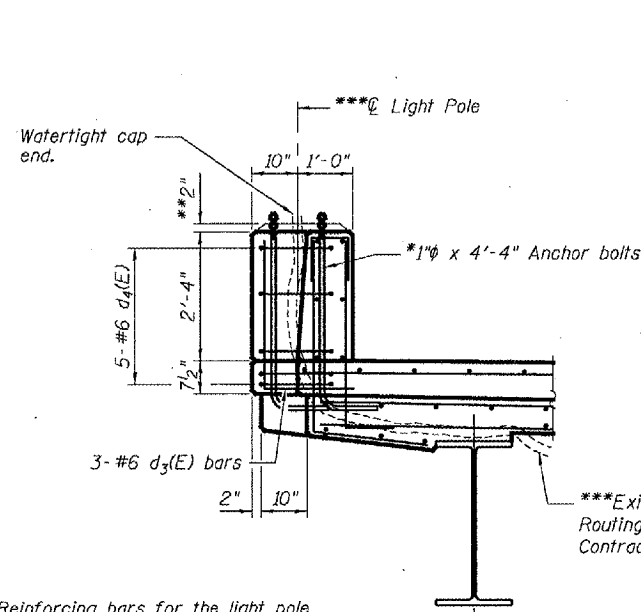
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAP 347		Cook	17	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4

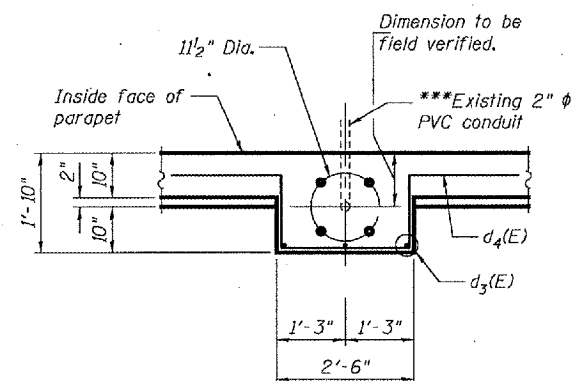
5 SHEETS

Contract Number: 62956

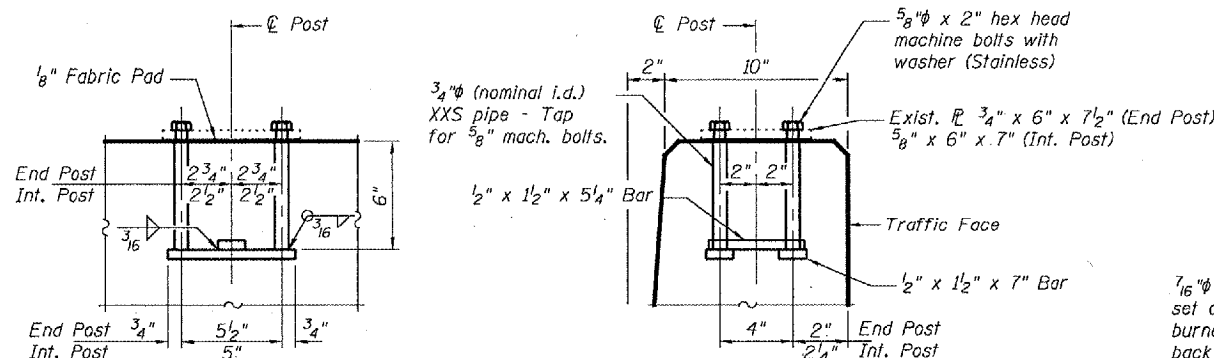


Reinforcing bars for the light pole base are included in the Bill of Material on Sheet 3 of 5.

SECTION AT LIGHTPOLE

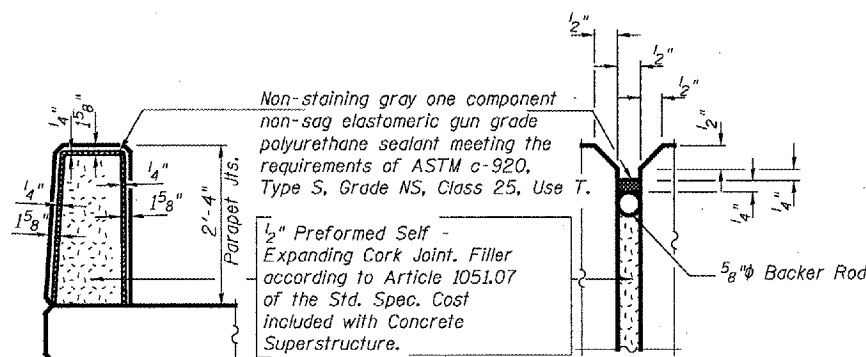


PLAN AT LIGHTPOLE BASE

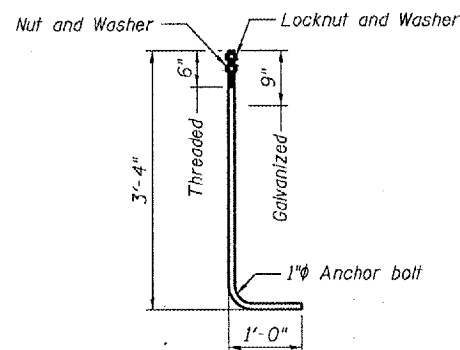


FENCE POST ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8" anchor rods. Embedment shall be according to the manufacturer's specifications. Cost included with Removing and Re-erecting Existing Railing.



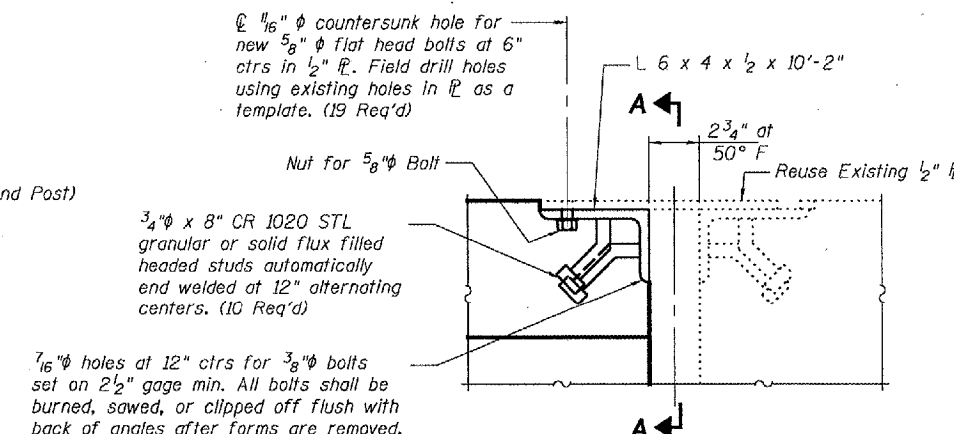
PARAPET JOINT DETAILS



LIGHT POLE ANCHOR BOLT

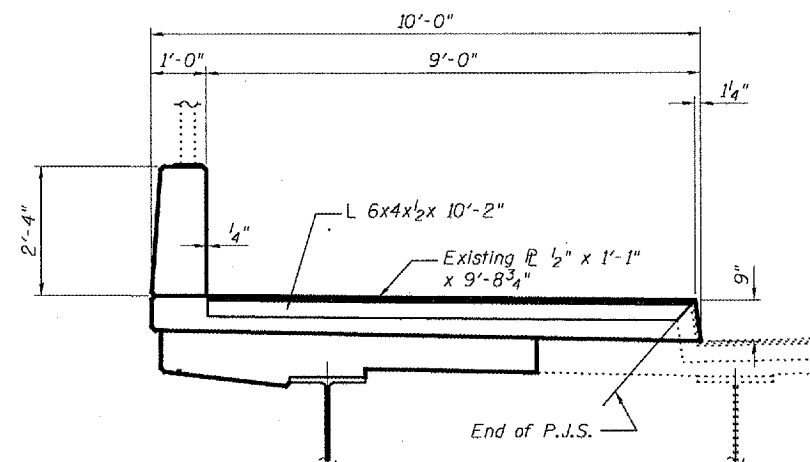
(Existing Anchor Bolts shall not be reused)
Contractor to verify existing anchor bolt diameter and length with the City of Chicago and replace in-kind.

* Provide 2 flat washers, 1 regular nut and 1 locknut for each bolt. All nuts and washers must be galvanized. Cost included with Concrete Superstructure.
** Grout mixture shall consist of 1 part sand, 1 part cement and 1 part pea gravel. The grout shall contain water for a 1" slump. Cost included with Concrete Superstructure.
*** Existing light pole shall be removed, and re-erected at the location shown on sheet 3 of 5. Any damage to the light pole or lighting system shall be repaired or replaced at the contractor's expense. The cast in place section of 2" PVC conduit may be replaced at the contractor's discretion. Cost included with Concrete Removal.

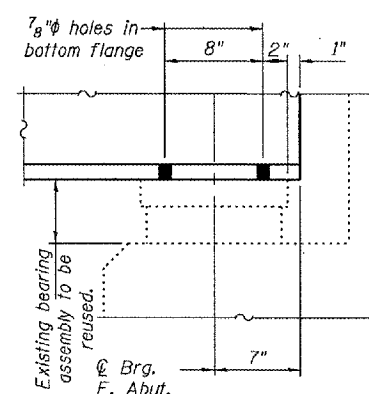


TYPICAL SIDEWALK JOINT SECTION

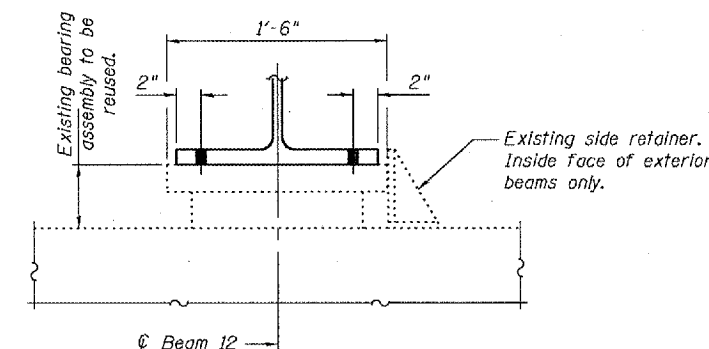
(Existing R to be bolted to new angle prior to placing concrete)



SECTION A-A



ELEVATION



SECTION

EXISTING EAST ABUTMENT BEARING

MISCELLANEOUS SLAB DETAILS

F.A.I. RT. 90/94
COOK COUNTY
SN 016-0478

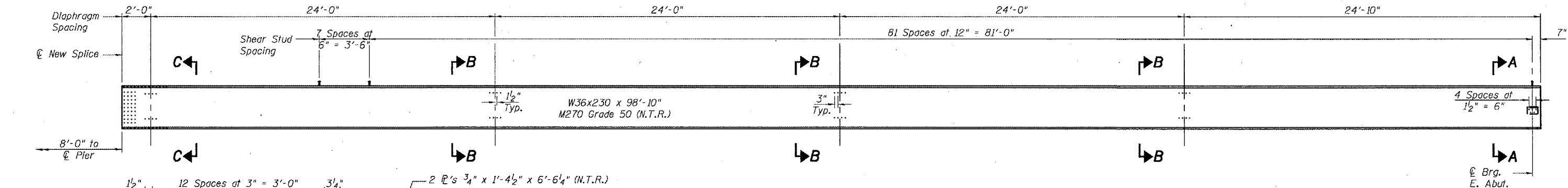
DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

EXAMINED	John A. Morris ENGINEER OF STRUCTURAL SERVICES
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

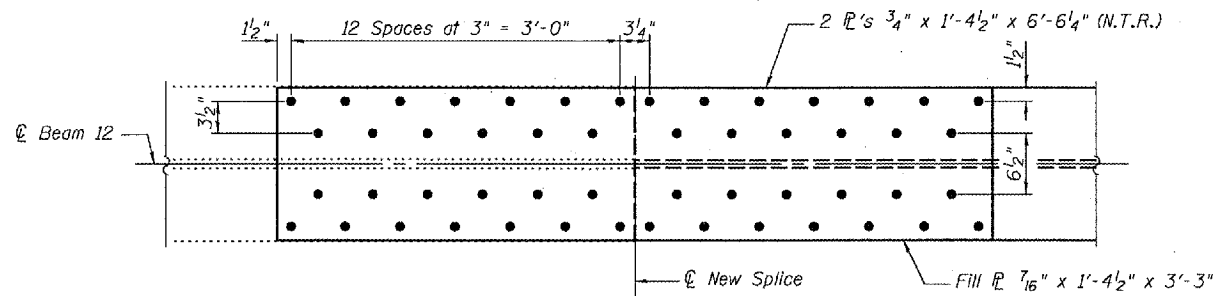
January 18, 2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

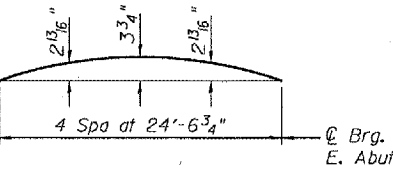
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5AP		Cook	17	12
Contract Number: 62956				



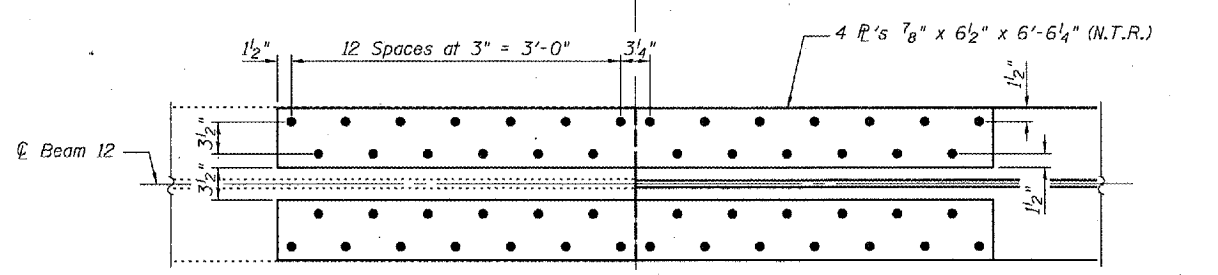
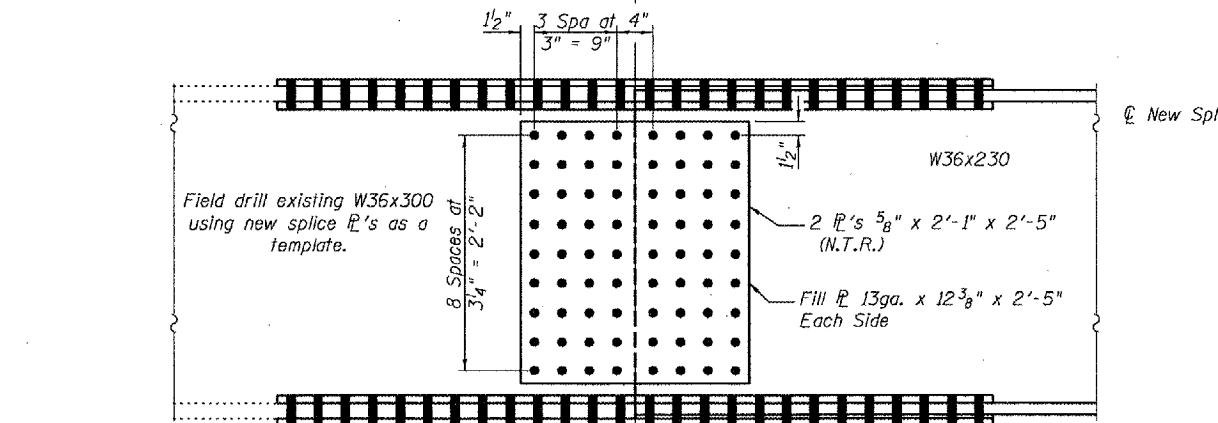
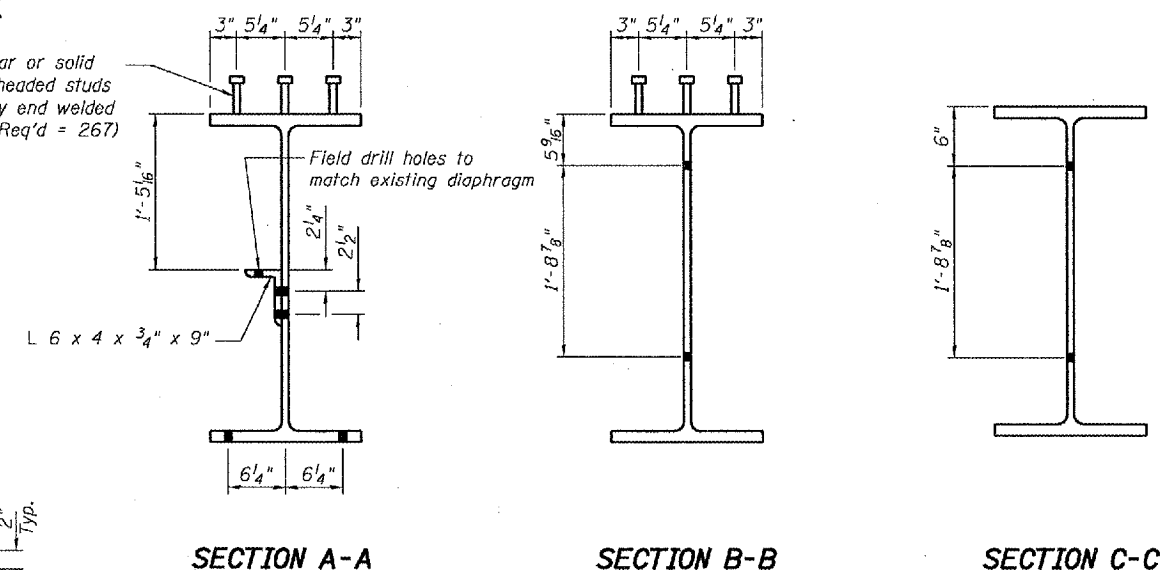
ELEVATION BEAM 12



3/4" Granular or solid flux-filled headed studs automatically end welded (Typ.) (no. Req'd = 267)

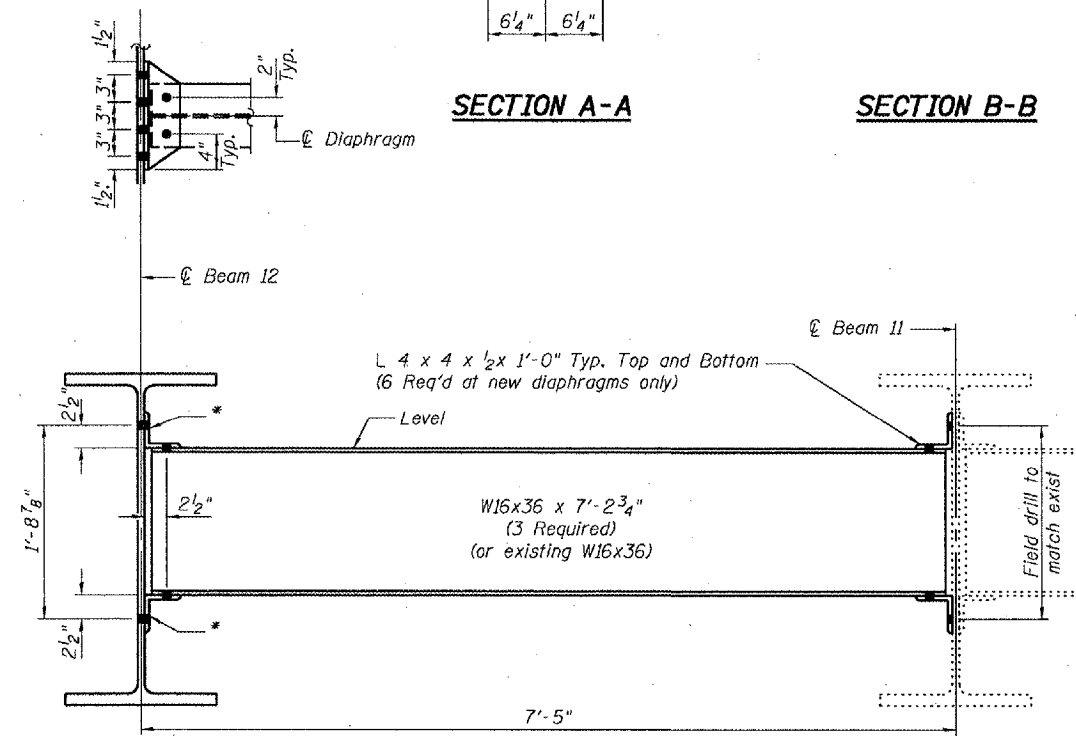


CAMBER DIAGRAM



NEW SPLICE
M270 - Grade 50

*Provide temporary bolts and clip angles with slotted holes on vertical leg to allow beam to deflect 2 1/2" at mid-point during deck pour. Bolts shall be finger tightened only. After the deck has cured and prior to pouring sidewalk and parapets, replace with permanent bolts and L 4 x 4 x 1/2 x 1'-0". Field drill holes in vertical leg using holes in new beam as template. (No. Req'd = 8 permanent, 8 temporary). Cost of temporary clip angles and bolts is included with Furnishing and Erecting Structural Steel.



TYPICAL INTERMEDIATE DIAPHRAGM DETAIL

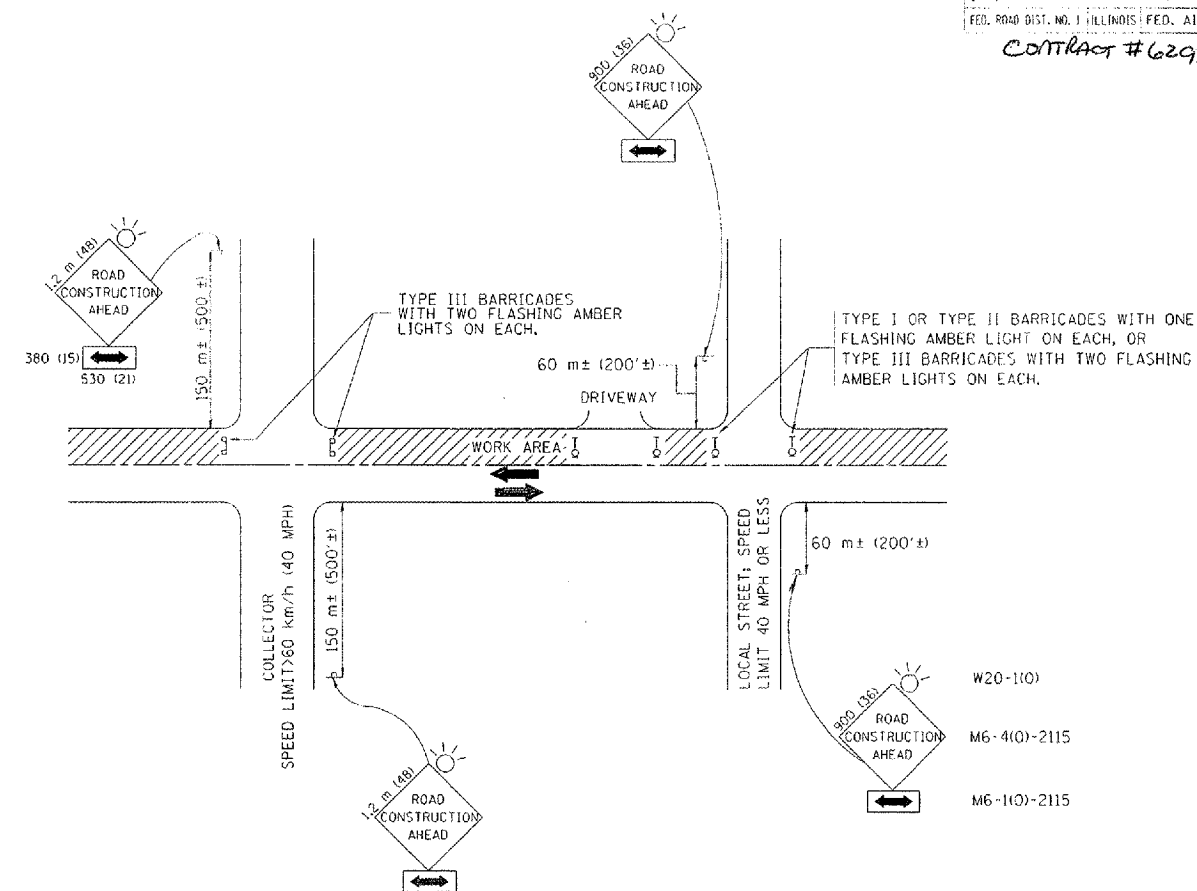
N.T.R. - indicates Notch Toughness Requirements. (See General Notes)

DESIGNED	A.T.H.
CHECKED	S.J.B.
DRAWN	Drew Christopher
CHECKED	A.T.H. S.J.B.

January 18, 2006	
EXAMINED	John A. Morris
ENGINEER OF STRUCTURAL SERVICES	
PASSED	Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES	

BEAM DETAILS
F.A.I. RT. 90/94
COOK COUNTY
SN 016-0478

CONTRACT #62956



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

NOTES:

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

1. SIDE ROAD WITH A SPEED LIMIT OF 60 km/h (40 MPH) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 900x900 (36x36) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 60 m (200') IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 1.2 m x 1.2 m (48x48) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 150 m (500') IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

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

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

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

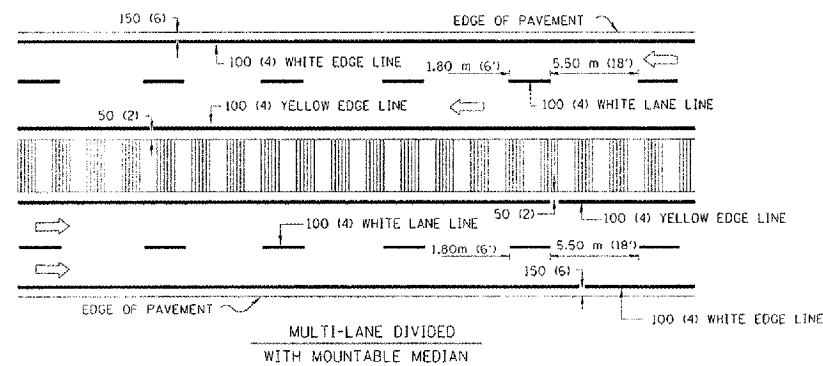
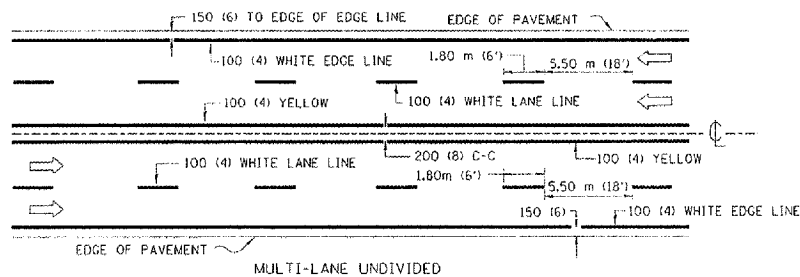
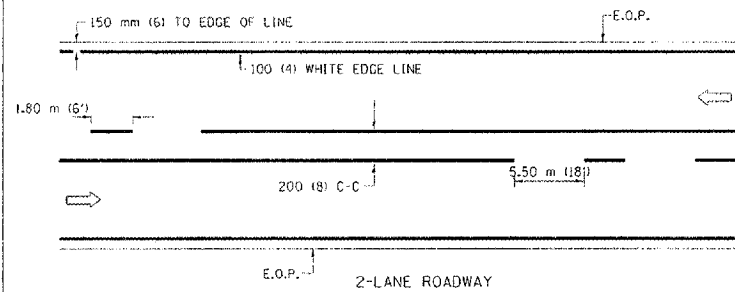
REVISIONS	
NAME	DATE
LHA	6/789
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: VERT.
 HORIZ.
 DATE 10/18/2002

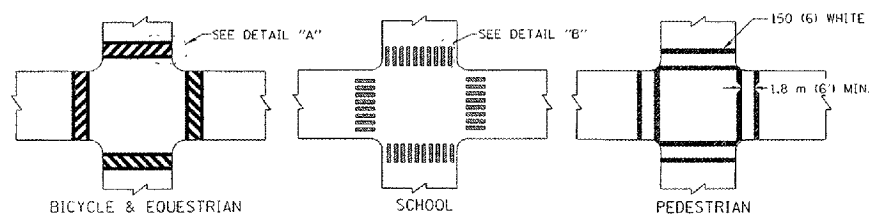
DRAWN BY
 CHECKED BY
 TC-10

CONTRACT #02956

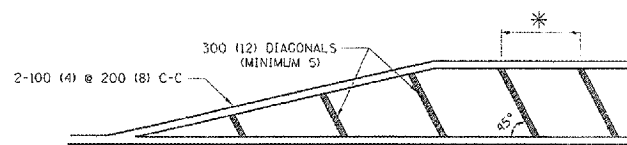


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



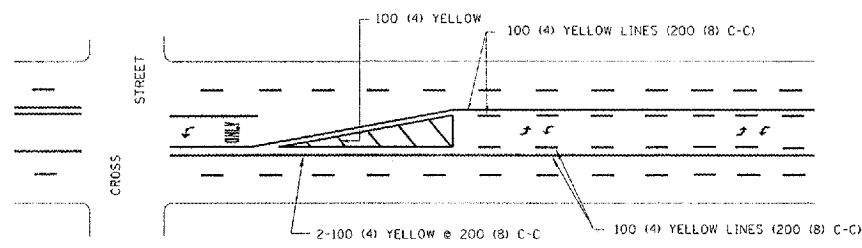
TYPICAL CROSSWALK MARKING



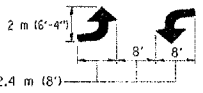
* FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

PAINTED MEDIANS

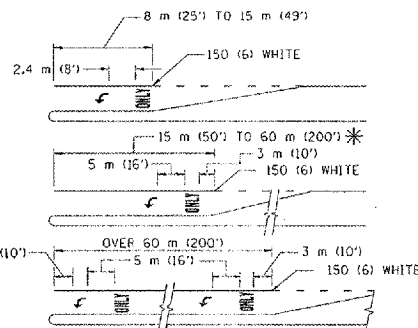
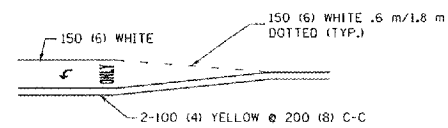


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 60 m (200') TO 90 m (300') INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

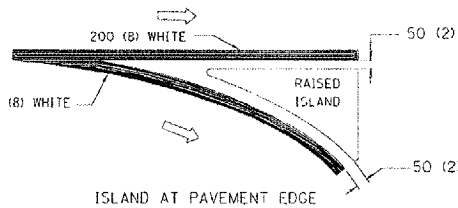
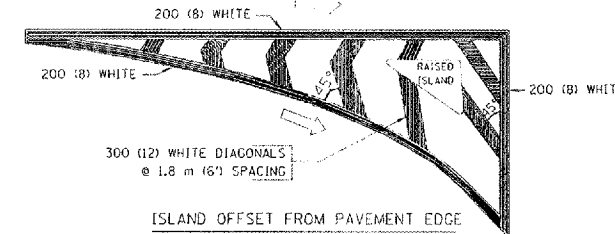


FULL SIZE LETTERS 2.4 m (8') AND ARROWS SHALL BE USED. AREA = 1.47 m² (15.8 SQ. FT.) ONLY AREA = 2.13 m² (22.9 SQ. FT.)

* TURN LANES IN EXCESS OF 120 m (400') IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

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

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 millimeters (inches) unless otherwise shown.

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO
 TYPICAL PAVEMENT
 MARKINGS

REVISIONS		
NAME	DATE	
T. RAMMACHER	12/07/00	

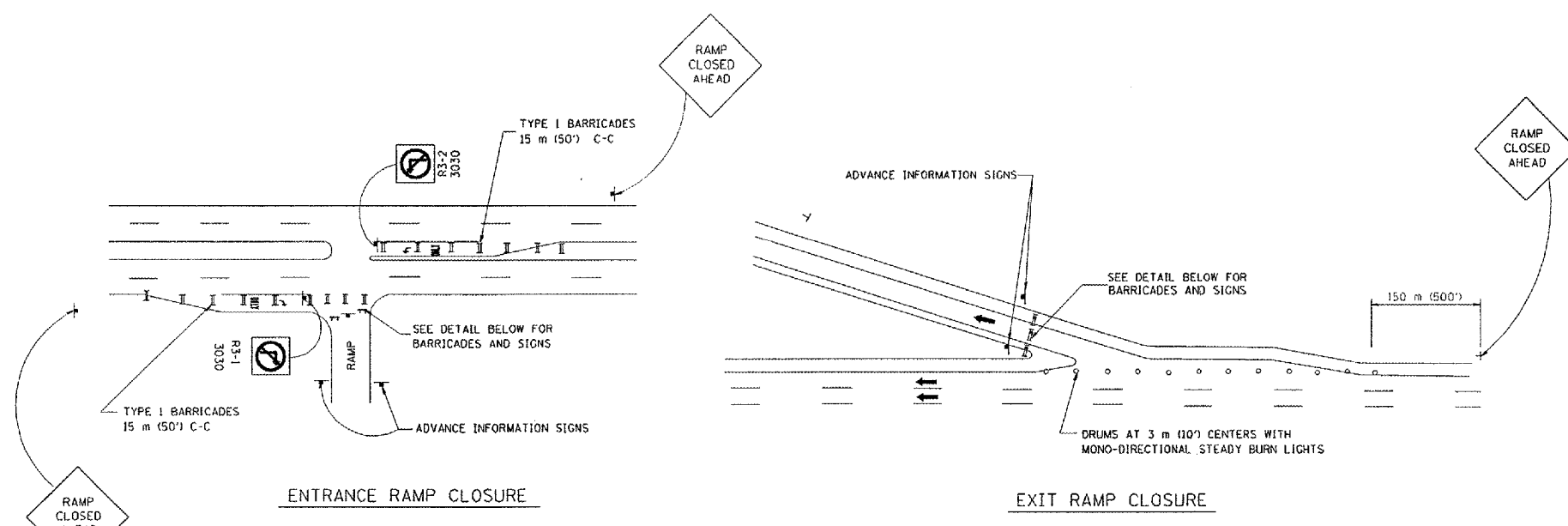
SCALE: NONE
 DATE: 10/18/2002

DRAWN BY: CADD
 CHECKED BY: TC-24

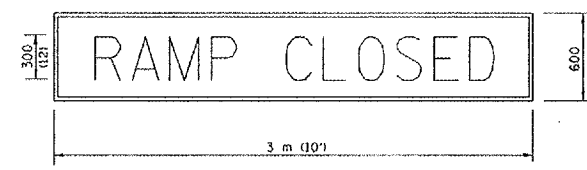
REVISION DATE: 12/07/00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	2625.9-14-R	COOK	17	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT #62956

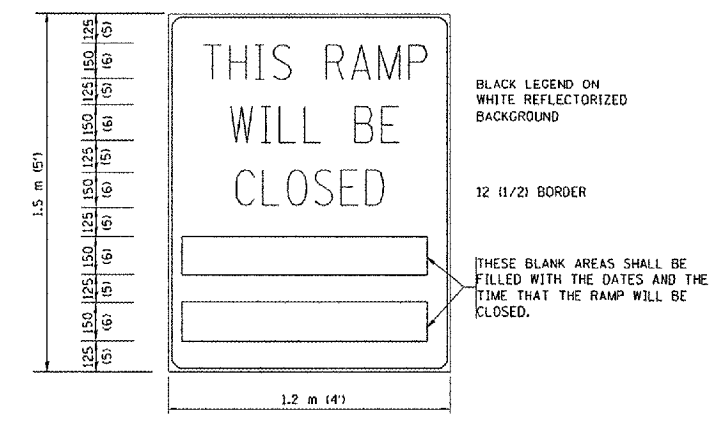


RAMP CLOSURE ADVANCE WARNING SIGN

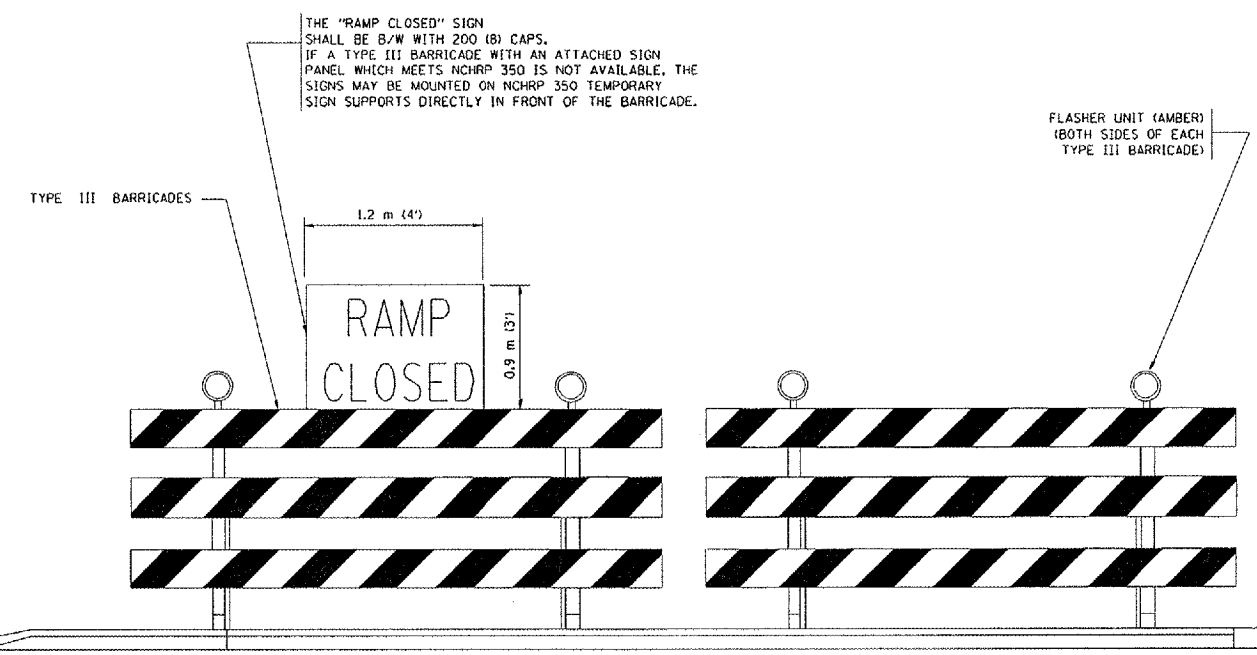


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND
25 (1) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND
12 (1/2) BORDER
THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.
THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, A MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.



DETAIL FOR REQUIRED BARRICADES & SIGNS

- GENERAL NOTES:
1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 700 (28) HIGH.
 2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
 3. A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
 4. FOR DAYTIME RAMP CLOSURES, LASTING 6 HOURS OR LESS, THE CONTRACTOR MAY ELIMINATE THE ADVANCE WARNING SIGNS ON THE EXIT GUIDE SIGNS.
 5. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
 6. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION.
 7. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.

- NOTES:
1. CONES MAY BE SUBSTITUTED FOR TYPE I AND TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28" IN HEIGHT.
 2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
 3. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS.
 4. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

FREWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

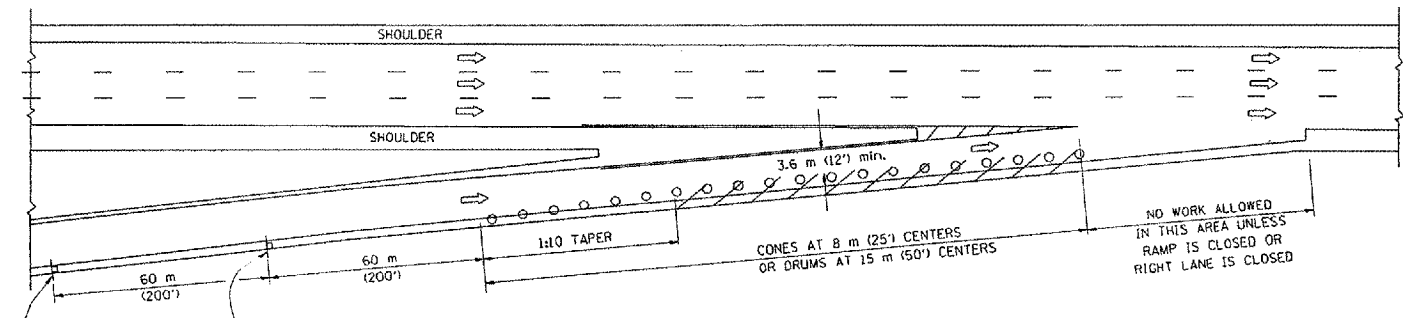
REVISIONS	
NAME	DATE
DWS	2-83
DWS	1/90
DWS	9/94
DWS	12/94
DWS/JAF	12/02
Revise devices to meet NCHRP 350	4/03

SCALE: NONE
DATE: 05/06/2003
DRAWN BY: TC-B
CHECKED BY: TC-B

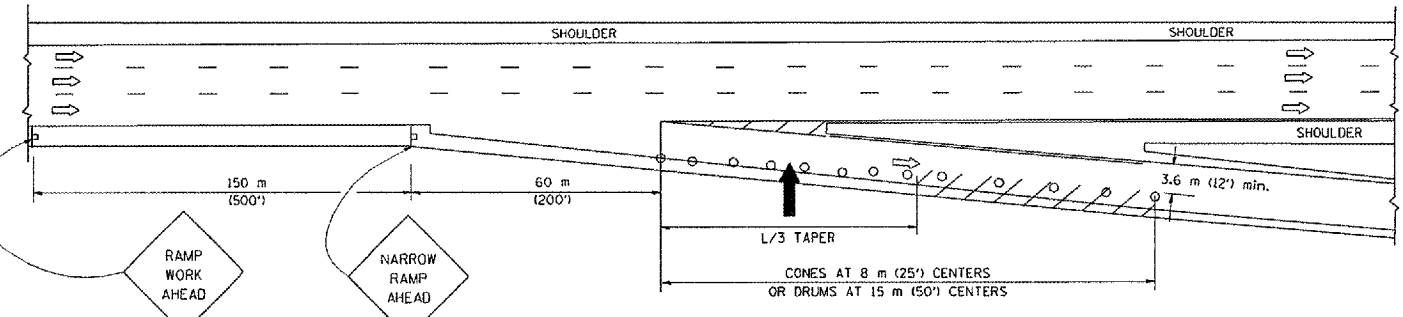
F.A.P. SITE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347225-14-8A	COOK		17	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PARTIAL RAMP CLOSURE DETAILS

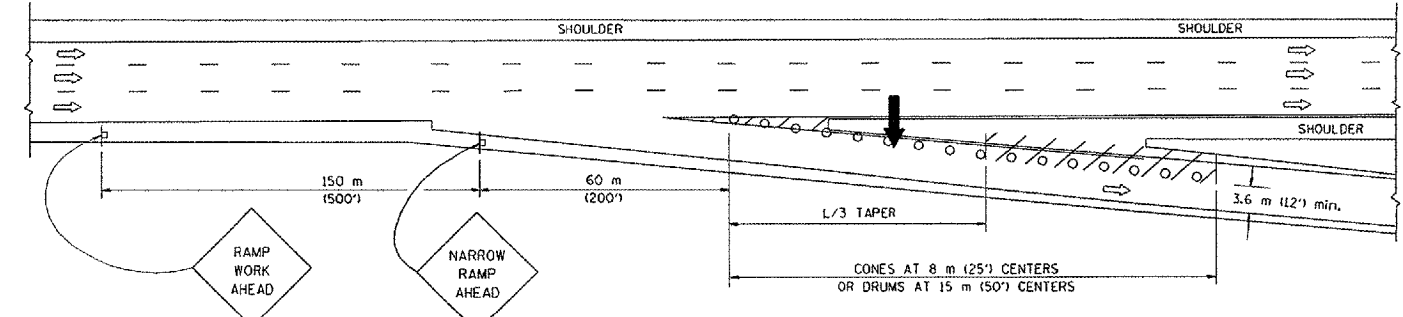
SHOULDER CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

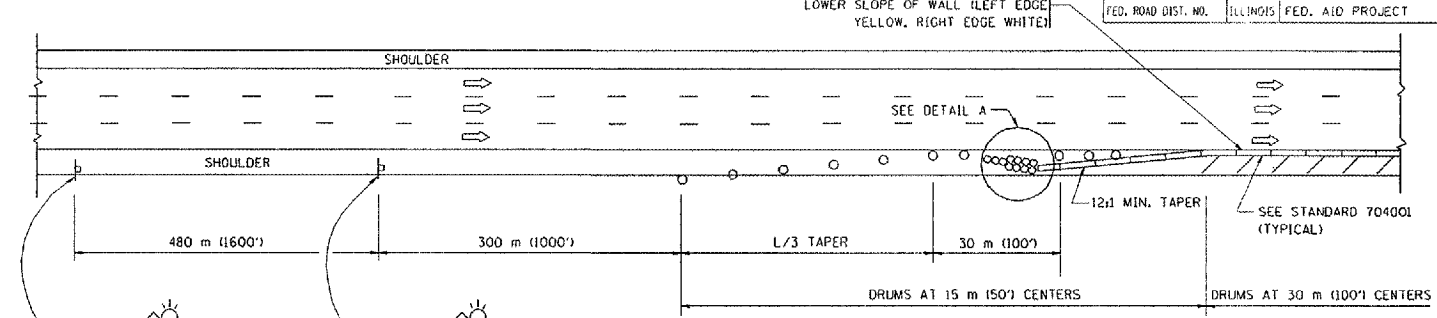
SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- CONES - 700 (28) IN HEIGHT

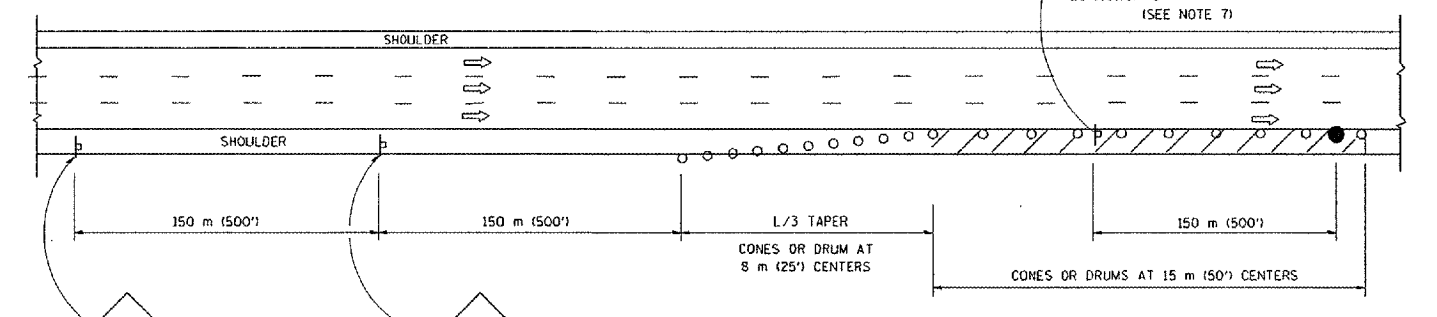
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
80 km/h (45 mph) OR GREATER:	METRIC: $L=0.65(W/S)$ ENGLISH: $L=(W/S)$
	W = WIDTH OF OFFSET IN METERS (FEET)
	S = NORMAL POSTED SPEED KM/H (MPH)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

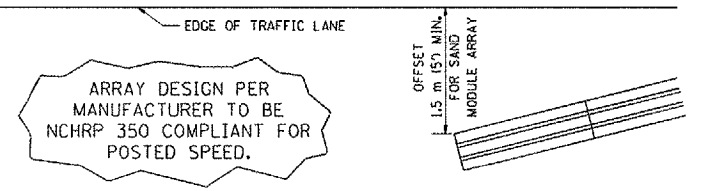


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

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



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

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS OUTSIDE THE CLEAR ZONE OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK ACTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 30 m (100') TO 60 m (200') IN ADVANCE OF THE WORKERS.

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
 ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS
 FOR FREEWAY
 SHOULDER CLOSURES
 PARTIAL RAMP CLOSURES

SCALE: NONE
 DATE: 05/06/2003
 DRAWN BY: DWS
 DESIGNED BY: DWS
 CHECKED BY: TC-17