

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-1-1	COOK	51	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60D74		

D-91-093-08

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAU ROUTE 2943: BURNHAM AVE.  
SECTION: 1212.8-1-1  
OVER STATE STREET,  
IHBRR, CSXRR & GRAND CALUMET RIVER  
BRIDGE REPAIR & RESURFACE APPROACHES  
STRUCTURE NO. 016-0806  
COOK COUNTY  
C-91-093-08

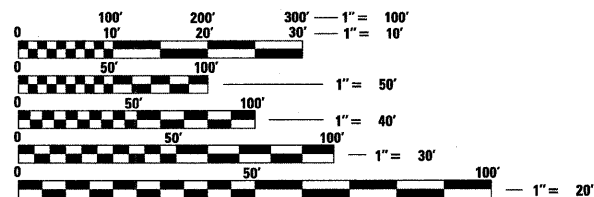
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT: ESP-2943 (016)

IMPROVEMENT LOCATED IN  
THE CITY OF CALUMET CITY

IMPROVEMENT BEGINS  
STA. 224 + 70

2006 ADT = 13,900 VEHICLES PER DAY  
SPEED LIMIT = 40 MPH

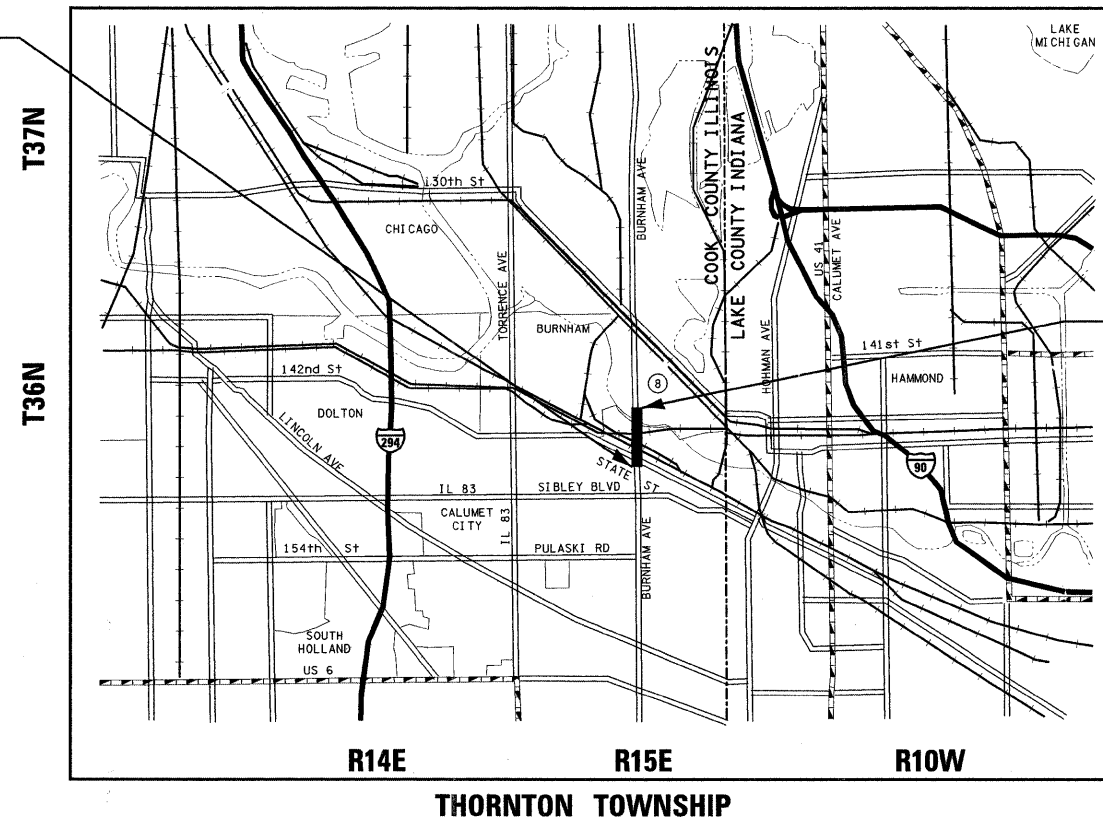


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: MICHELLE AQUINO (847) 705-4606  
PROJECT MANAGER: LONG TRAN (847) 705-4232

CONTRACT NO. 60D74



GROSS & NET LENGTH OF PROJECT = 2482 FT = 0.47 MILE



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

IMPROVEMENT ENDS  
STA. 249 + 52

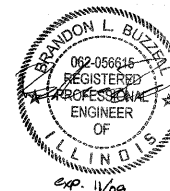
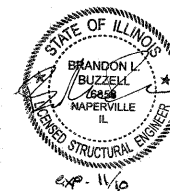
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 9 2009

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

March 13, 20 09  
Charles J. Ingersoll  
ENGINEER OF DESIGN AND ENVIRONMENT

March 13, 20 09  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



**rjngroup** License # 184-000813  
Excellence through Ownership 200 West Front Street  
Wheaton, IL 60187

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OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

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49	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
50	ARTERIAL ROAD INFORMATION SIGN
51	DRIVEWAY ENTRANCE SIGNING

**GENERAL NOTES - ROADWAY**

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800)892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED.)
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 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 AREA.
- 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.
- THE ENGINEER SHALL CONTACT PATRICE HARRIS TRAFFIC FIELD ENGINEER (OR TECHNICIAN), AT (708) 597-9800 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- 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.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM BRIDGE INSPECTORS.
- PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.
- SAW CUTTING OF PAVEMENTS, SHOULDERS, ETC., SHALL BE TO FULL DEPTH AND SHALL RESULT IN A CLEAN, STRAIGHT EDGE ON THE PORTION REMAINING. THE COST OF SAW CUTTING REMOVAL ITEMS SHALL BE INCLUDED IN THE UNIT PRICES OF THESE ITEMS.

**STATE STANDARDS**

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701426-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701601-03	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED PAVEMENT MARKERS

**GENERAL NOTES - TRAFFIC CONTROL & PROTECTION**

- STAGING PROCEDURES PRESENTED ARE THE SUGGESTED SEQUENCE OF OPERATIONS. AT HIS OPTION, THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE STAGING PROPOSAL TO THE ENGINEER FOR HIS APPROVAL.
- TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OF CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
- ALL TEMPORARY PAVEMENT MARKINGS PROPOSED WITHIN THE WORK AREA SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION PHASE CHANGE.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.

PLOT DATE = 1/14/2009  
 PLOT TIME = 11:11:25  
 PLOT USER = jtraney  
 PLOT MODEL = Default



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200 West Front Street  
Wheaton, IL 60187

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DATE - 1-14-2009	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BURNHAM AVE. OVER STATE ST.  
STRUCTURE NO. 016-0806**

**INDEX OF SHEETS, STANDARDS,  
AND GENERAL NOTES**

SCALE: 1:1 SHEET NO. 2 OF 51 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-1-1	COOK	51	2
<b>CONTRACT NO. 60D74</b>				
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>				

100%  
FED.

CONSTRUCTION  
TYPE CODE  
BRIDGE  
SN 016-0806

**SUMMARY OF QUANTITIES**

URBAN  
TOTAL

SFTY-2A  
QUANTITY

CODE NO.	ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	9	9
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	24	24
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	10	10
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	108	108
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	14,500	14,500
50102400	CONCRETE REMOVAL	CU YD	717.3	717.3
50157300	PROTECTIVE SHIELD	SQ YD	2,480	2,480
50300255	CONCRETE SUPERSTRUCTURE	CU YD	763.2	763.2
50300260	BRIDGE DECK GROOVING	SQ YD	13,652	13,652
50300300	PROTECTIVE COAT	SQ YD	2,126	2,126
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	22,920	22,920
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	164	164
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	110,140	110,140
50800515	BAR SPLICERS	EACH	336	336
52000110	PREFORMED JOINT STRIP SEAL	FOOT	389	389
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	42	42
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	122	122
52100530	ANCHOR BOLTS, 1 1/4"	EACH	328	328
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CALMO	4	4
67100100	MOBILIZATION	L SUM	1	1
70101805	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30	30
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1,080	1,080
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2,389	2,389
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	10,741	10,741
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	24	24
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	124	124
78300100	PAVEMENT MARKING REMOVAL	SQ FT	79	79
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	24	24
X030424	SILICONE JOINT SEALER	FOOT	125	125
X0321468	PLUG EXISTING DECK DRAINS	EACH	26	26
X0322185	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	14,500	14,500
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	77	77
X0325115	ADJUSTING DRAINAGE SCUPPERS, TYPE B	EACH	27	27
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5" INCHES)	SQ FT	2,513	2,513
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	10,741	10,741
X0323080	DRAINAGE SCUPPERS, DS-12	EACH	1	1
Z0006202	BRIDGE DECK HYDRO-SCARIFICATION 3/4"	SQ YD	14,500	14,500
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")	SQ FT	16	16
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	30	30
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	229	229
Z0070600	TRAINERS	HOURL	1500	1500
Z0034806	MODULAR EXPANSION JOINT-SWIVEL 6"	FOOT	79	79
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	22	22

\* SPECIALTY ITEM

⊙ Y080

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USER NAME = JTFreedy  
MODEL = Default



200 West Front Street  
Wheaton, IL 60187

DESIGNED -  
DRAWN -  
CHECKED -  
DATE - 1-14-2009

REVISED -  
REVISED -  
REVISED -  
REVISED -

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DEPARTMENT OF TRANSPORTATION

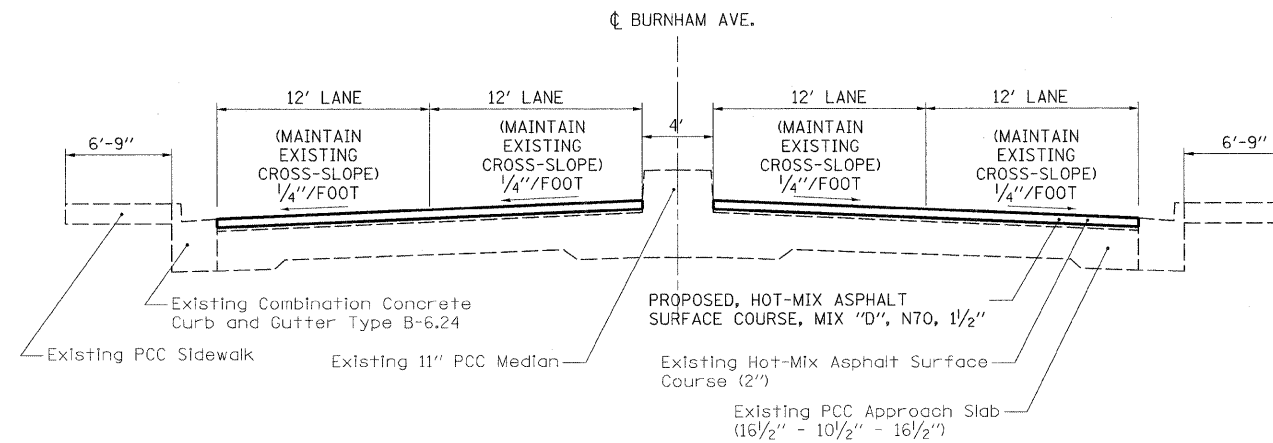
BURNHAM AVE. OVER STATE ST.  
STRUCTURE NO. 016-0806

SUMMARY  
OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-1-1	COOK	51	3
CONTRACT NO. 60D74				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

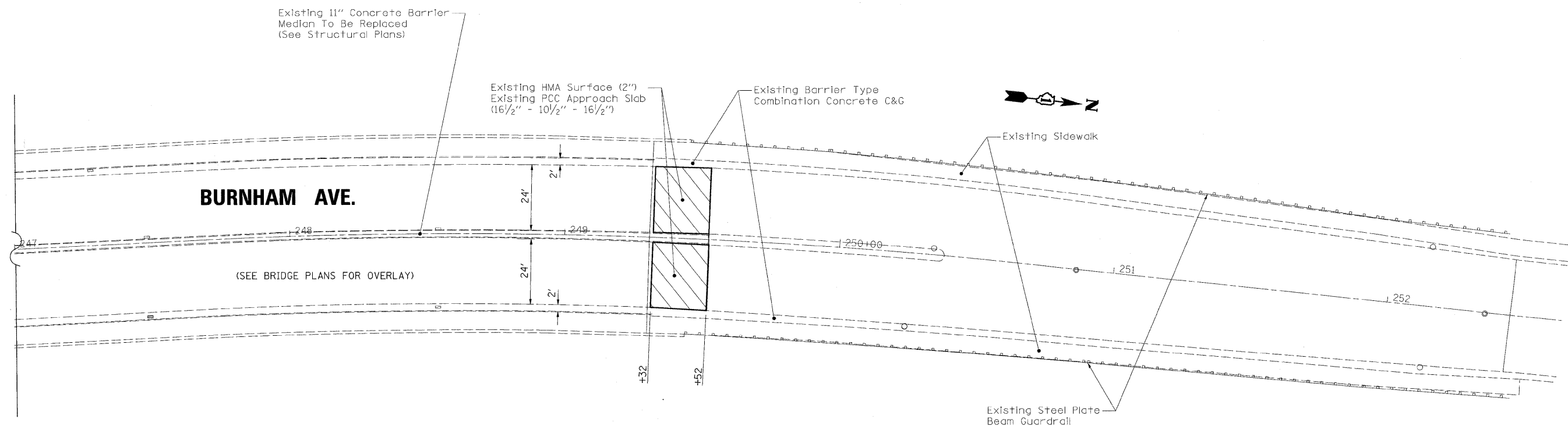
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REV.



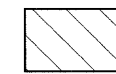
**TYPICAL SECTION - APPROACH SLAB**

STA. 249+32 TO 249+52

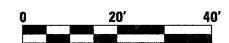


MIXTURE REQUIREMENTS		
MIXTURE USES	AC TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	PG 64-22	4% @ 70 GYR.

NOTE: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN.



PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"  
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"



NOTE: THE APPROACH SLAB ON THE SOUTH END OF THE BRIDGE WILL NOT BE OVERLAID

PLOT DATE = 1/14/2009  
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200 West Front Street  
Wheaton, IL 60187

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STATE OF ILLINOIS  
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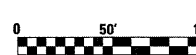
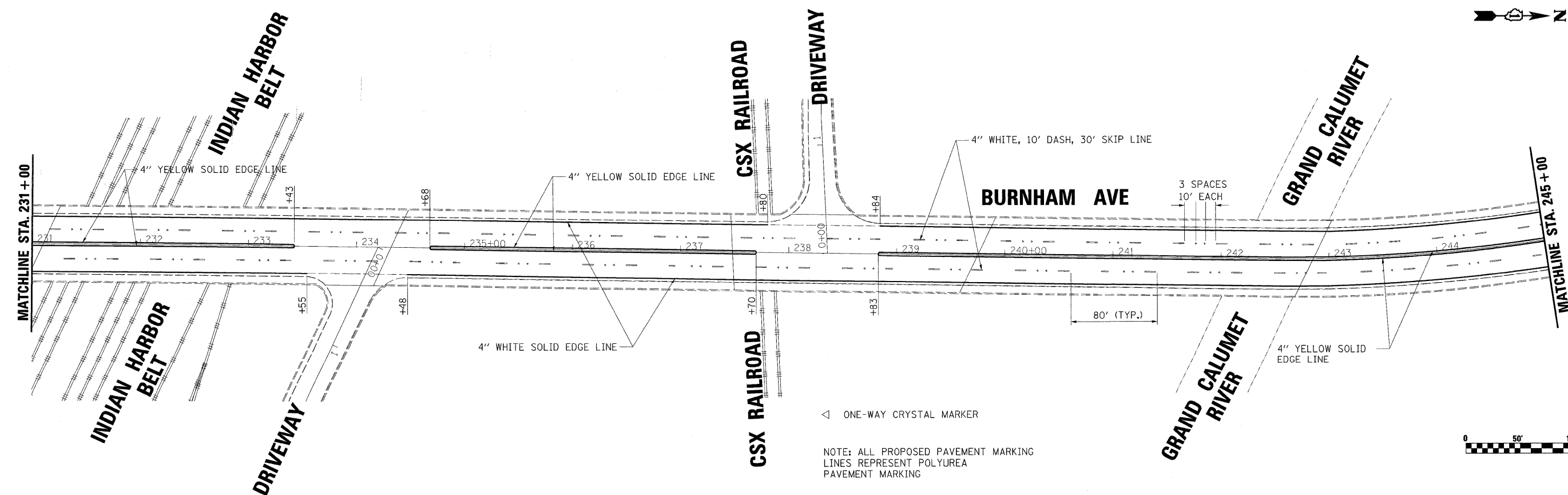
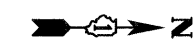
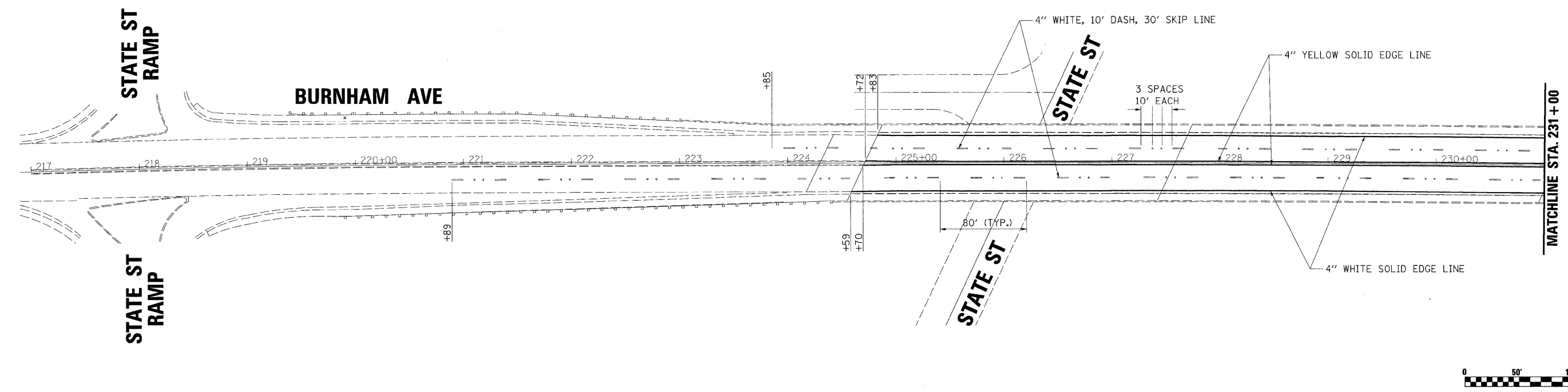
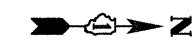
BURNHAM AVE. OVER STATE ST.  
STRUCTURE NO. 016-0806

ROADWAY PLAN

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-1-1	COOK	51	4
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D74	

SCALE: 1"=20' SHEET NO. 4 OF 51 SHEETS STA. TO STA.





◁ ONE-WAY CRYSTAL MARKER

NOTE: ALL PROPOSED PAVEMENT MARKING LINES REPRESENT POLYUREA PAVEMENT MARKING

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 MODEL = 10  
 SHEET = 5

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DATE - 1-14-2009	REVISED -

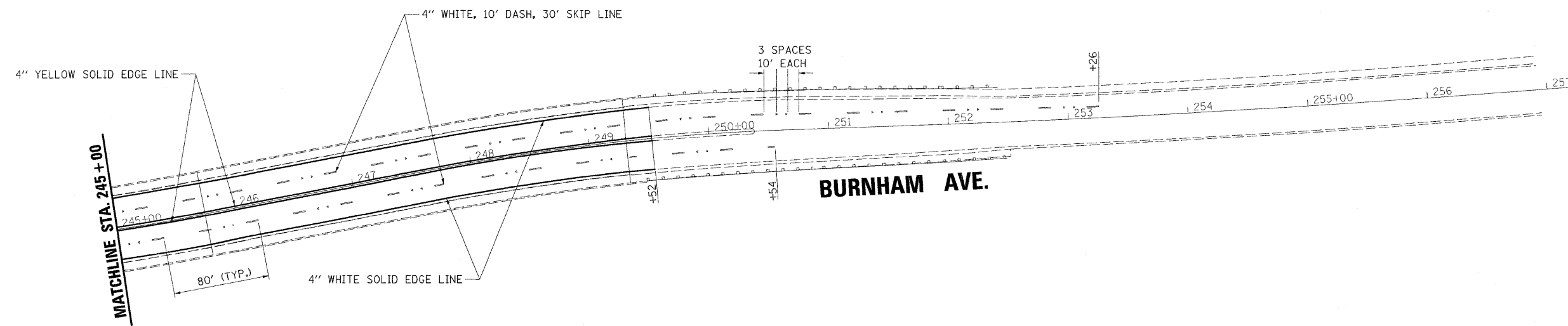
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**BURNHAM AVE. OVER STATE ST.  
 STRUCTURE NO. 016-0806**

**PAVEMENT MARKING  
 PLAN**

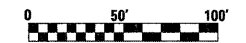
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F.A.U. RTE. 2943	SECTION 1212.8-1-1	COUNTY COOK	TOTAL SHEETS 51	SHEET NO. 5
CONTRACT NO. 60D74				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



◁ ONE-WAY CRYSTAL MARKER

NOTE: ALL PROPOSED PAVEMENT MARKING LINES REPRESENT POLYUREA PAVEMENT MARKING



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**STATE OF ILLINOIS  
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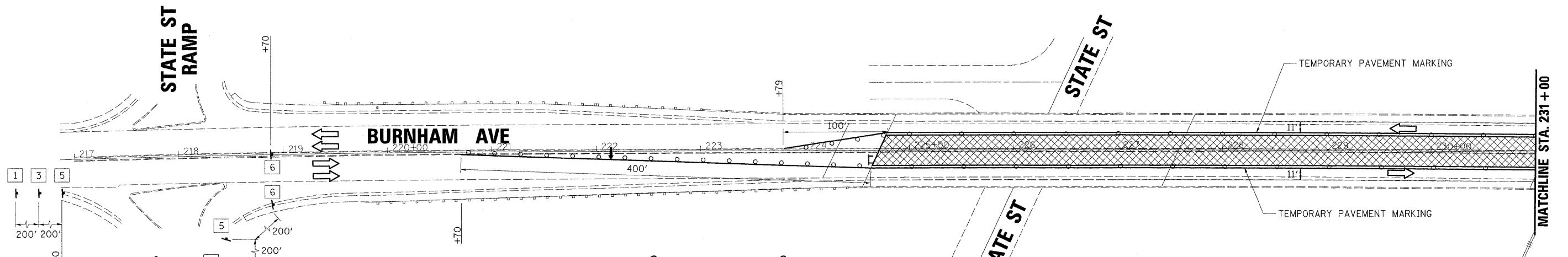
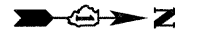
**BURNHAM AVE. OVER STATE ST.  
 STRUCTURE NO. 016-0806**

**PAVEMENT MARKING  
 PLAN**

SCALE: 1"=50' SHEET NO. 6 OF 51 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TRAFFIC CONTROL AND PROTECTION AS PRESENTED IN THESE PLANS AND STANDARDS 701601 & 701801 SHALL BE PAID FOR AS "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" EXCEPT TEMPORARY PAVEMENT MARKING WILL BE PAID FOR PER FOOT OF "WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4'''



**STATE ST RAMP**

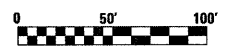
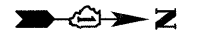
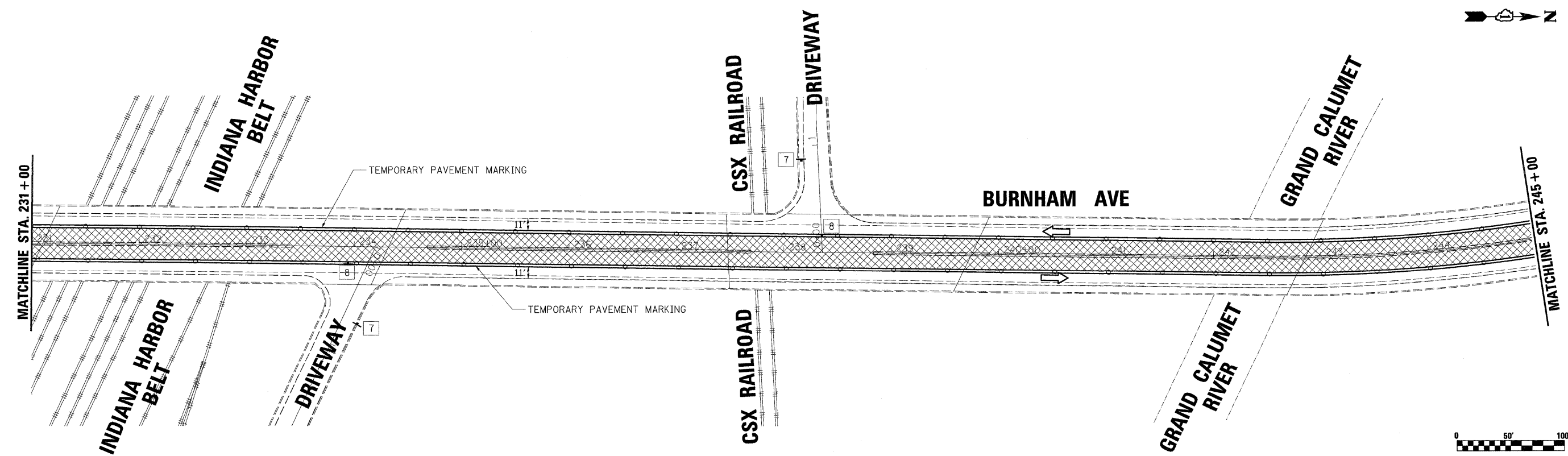
**STATE ST RAMP**

NOTES:  
 PAVEMENT MARKING AND RPM REMOVAL STA. 223+85 TO 253+26 (SOUTHBOUND) AND STA. 220+89 TO 250+54 (NORTHBOUND)  
 SEE TYPICAL CROSS-SECTIONS WITH STAGING IN STRUCTURE PLANS

- LEGEND**
- WORK AREA
  - SIGN
  - TYPE II BARRICADES  
 @ 50' C-C ON TANGENT  
 @ 25' C-C ON TAPERS (TYP.)
  - TYPE III BARRICADE
  - ARROW BOARD
  - FLASHING WARNING BEACON

- 1 ROAD CONSTRUCTION AHEAD  
W20-1(O)-48
- 2 RIGHT LANE CLOSED AHEAD  
W-20-5R(O)-48
- 3 LEFT LANE CLOSED AHEAD  
W20-5L(O)-48
- 4 LANE CLOSURE AHEAD  
W4-2R(O)-48
- 5 LANE CLOSURE AHEAD  
W4-2L(O)-48
- 6 \* WORKERS OR WORKER SIGN  
W-21-I110-48
- 7 ONE WAY  
R3-5R
- 8 NO LEFT TURN  
R6-1 36X12  
R3-2 24X24

\* WORKER SIGN SHALL BE REMOVED OR COVERED WHEN WORKERS ARE NOT PRESENT



PLOT DATE = 1/14/2009  
 FILE NAME = K:\11225583\sheet1\sheet1.dwg  
 PLOT SCALE = 1"=50'  
 MODEL = Stage 1

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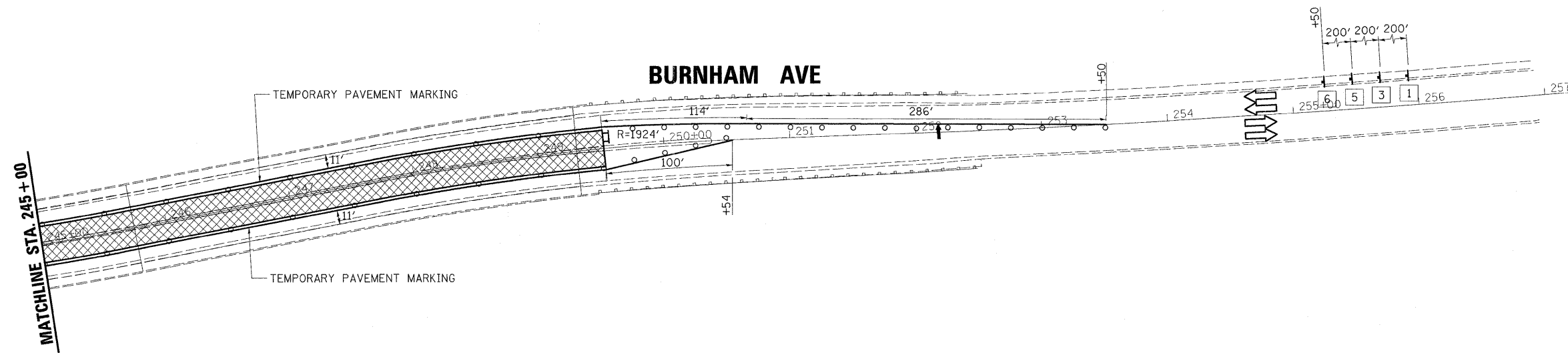
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BURNHAM AVE. OVER STATE ST.**  
**STRUCTURE NO. 016-0806**

**MAINTENANCE OF TRAFFIC**  
**STAGE 1**

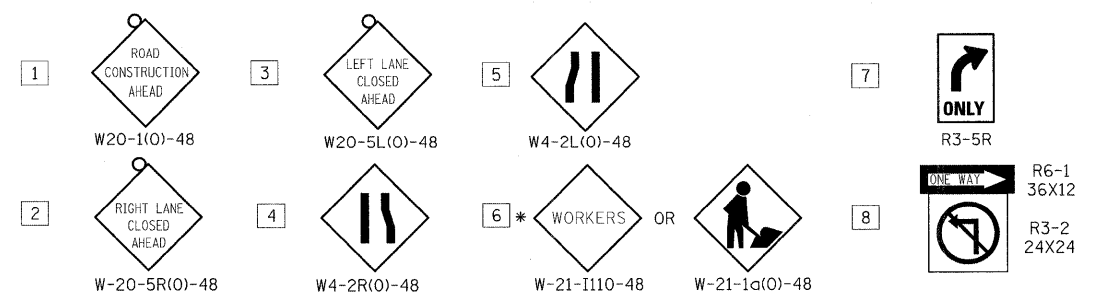
SCALE: 1"=50' SHEET NO. 7 OF 51 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-I-1	COOK	51	7
CONTRACT NO. 60D74				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



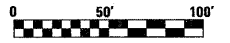
NOTES:  
 PAVEMENT MARKING  
 AND RPM REMOVAL  
 STA. 223+85 TO 253+26 (SOUTHBOUND) AND  
 STA. 220+89 TO 250+54 (NORTHBOUND)  
 SEE TYPICAL CROSS-SECTIONS WITH STAGING  
 IN STRUCTURE PLANS

- LEGEND
- WORK AREA
  - SIGN
  - TYPE II BARRICADES  
 @ 50' C-C ON TANGENT  
 @ 25' C-C ON TAPERS (TYP.)
  - TYPE III BARRICADE
  - ARROW BOARD
  - FLASHING WARNING BEACON



TRAFFIC CONTROL AND PROTECTION AS PRESENTED  
 IN THESE PLANS AND STANDARDS 701601 & 701801  
 SHALL BE PAID FOR AS "TRAFFIC CONTROL AND  
 PROTECTION (SPECIAL)" EXCEPT TEMPORARY PAVEMENT  
 MARKING WILL BE PAID FOR PER FOOT OF "WET  
 REFLECTIVE TEMPORARY TAPE, TYPE III, 4'"

\* WORKER SIGN SHALL BE  
 REMOVED OR COVERED WHEN  
 WORKERS ARE NOT PRESENT



PLOT DATE = 1/14/2009  
 FILE NAME = k:\1122583\Drawings\MOT\_Burnham\ht  
 PLOT SCALE = 1"=50'  
 PLOT NAME = Stationing  
 MODEL = Stage1.dwg



200 West Front Street  
 Wheaton, IL 60187

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 1-14-2009	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

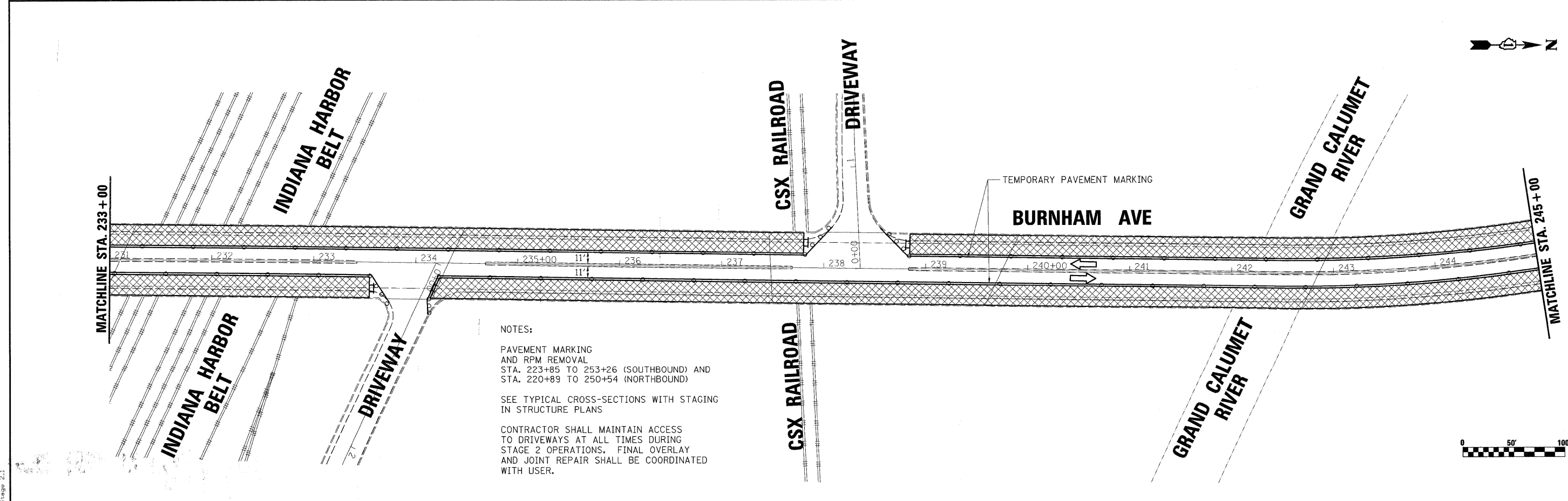
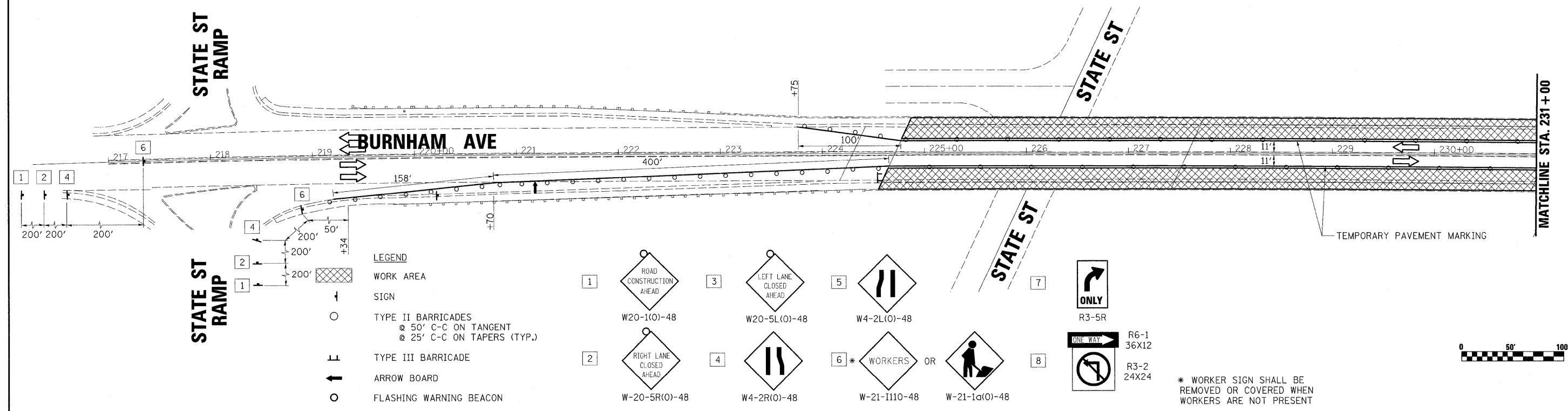
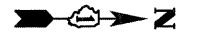
BURNHAM AVE. OVER STATE ST.  
 STRUCTURE NO. 016-0806

MAINTENANCE OF TRAFFIC  
 STAGE 1

F.A.U. RTE. 2943	SECTION 1212.8-1-1	COUNTY COOK	TOTAL SHEETS 51	SHEET NO. 8
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D74	

SCALE: 1"=50' SHEET NO. 8 OF 51 SHEETS STA. TO STA.

TRAFFIC CONTROL AND PROTECTION AS PRESENTED IN THESE PLANS AND STANDARDS 701601 & 701801 SHALL BE PAID FOR AS "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" EXCEPT TEMPORARY PAVEMENT MARKING WILL BE PAID FOR PER FOOT OF "WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4'"



PLOT DATE = 1/14/2009  
 FILE NAME = K:\11225583\Act\1\Aheers\MOT\_Burnham.sht  
 PLOT SCALE = 1"=50'  
 MODEL = Stage 2\_1



200 West Front Street  
Wheaton, IL 60187

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 1-14-2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BURNHAM AVE. OVER STATE ST.  
STRUCTURE NO. 016-0806

MAINTENANCE OF TRAFFIC  
STAGE 2

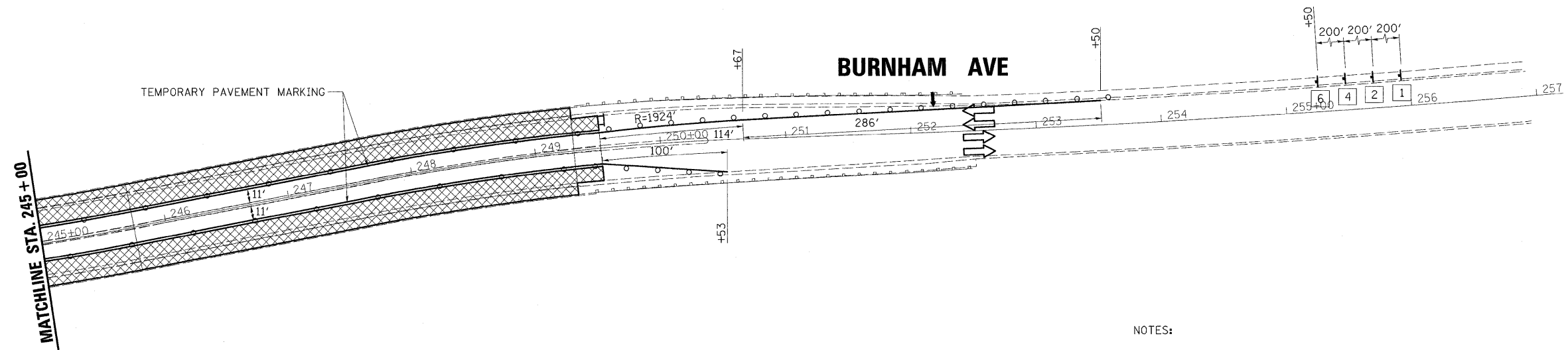
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-I-1	COOK	51	9
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			CONTRACT NO. 60D74	

SCALE: 1"=50'

SHEET NO. 9 OF 51 SHEETS

STA. TO STA.

TRAFFIC CONTROL AND PROTECTION AS PRESENTED IN THESE PLANS AND STANDARDS 701601 & 701801 SHALL BE PAID FOR AS "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" EXCEPT TEMPORARY PAVEMENT MARKING WILL BE PAID FOR PER FOOT OF "WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"



NOTES:

PAVEMENT MARKING AND RPM REMOVAL STA. 223+85 TO 253+26 (SOUTHBOUND) AND STA. 220+89 TO 250+54 (NORTHBOUND)

SEE TYPICAL CROSS-SECTIONS WITH STAGING IN STRUCTURE PLANS

CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES DURING STAGE 2 OPERATIONS. FINAL OVERLAY AND JOINT REPAIR SHALL BE COORDINATED WITH USER.

- LEGEND**
- WORK AREA
  - SIGN
  - TYPE II BARRICADES  
@ 50' C-C ON TANGENT  
@ 25' C-C ON TAPERS (TYP.)
  - TYPE III BARRICADE
  - ARROW BOARD
  - FLASHING WARNING BEACON

- 1 ROAD CONSTRUCTION AHEAD  
W20-1(O)-48
- 2 RIGHT LANE CLOSED AHEAD  
W-20-5R(O)-48
- 3 LEFT LANE CLOSED AHEAD  
W20-5L(O)-48
- 4 TWO LANE CLOSED AHEAD  
W4-2R(O)-48
- 5 NARROW LANE AHEAD  
W4-2L(O)-48
- 6 \* WORKERS OR WORKER  
W-21-1110-48    W-21-1a(O)-48
- 7 ONE WAY  
R3-5R
- 8 NO LEFT TURN  
R6-1 36X12  
R3-2 24X24

\* WORKER SIGN SHALL BE REMOVED OR COVERED WHEN WORKERS ARE NOT PRESENT



PLOT DATE = 1/14/2009  
 FILE NAME = K:\11225583\civil\shhets\MOT\_Burnham.dwg  
 PLOT SCALE = 1"=50'  
 PLOT NAME = Stage 2  
 MODEL = Stage 2

**rjngroup**  
Excellence through Ownership

200 West Front Street  
Wheaton, IL 60187

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 1-14-2009	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BURNHAM AVE. OVER STATE ST.  
STRUCTURE NO. 016-0806

MAINTENANCE OF TRAFFIC  
STAGE 2

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2943	1212.8-I-1	COOK	51	10
CONTRACT NO. 60D74				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

SCALE: 1"=50'    SHEET NO. 10 OF 51 SHEETS    STA.    TO STA.

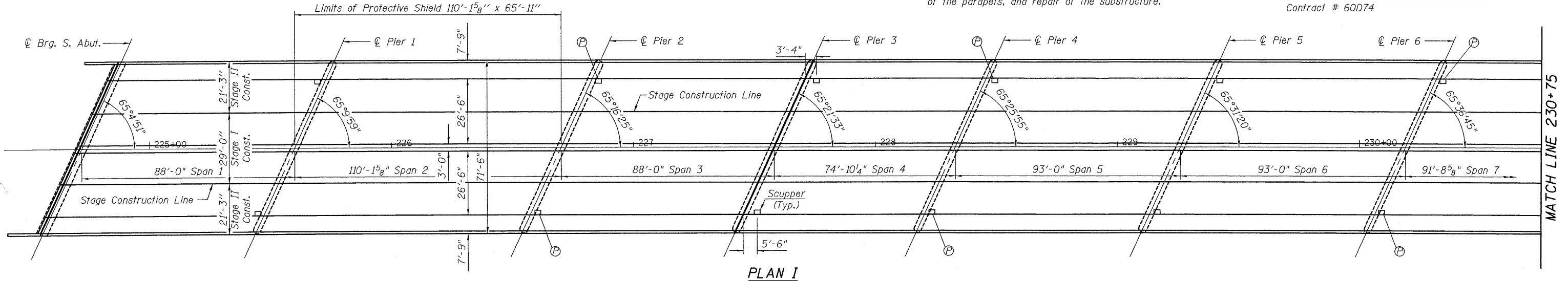
The existing structure was built in 1976. It is a 28 span continuous structure with steel plate girders. The substructure consists of open stub abutments and reinforced column concrete piers. The rehabilitation work will be done utilizing stage construction.

The proposed improvements consist of hydroscarifying the deck, deck slab repairs, replacing the existing expansion joints, removing the longitudinal joint, replacing the existing expansion bearings at the abutments and piers, construction of a latex concrete overlay, repair of the parapets, and repair of the substructure.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2943	1212.8 -I-1	Cook	51	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

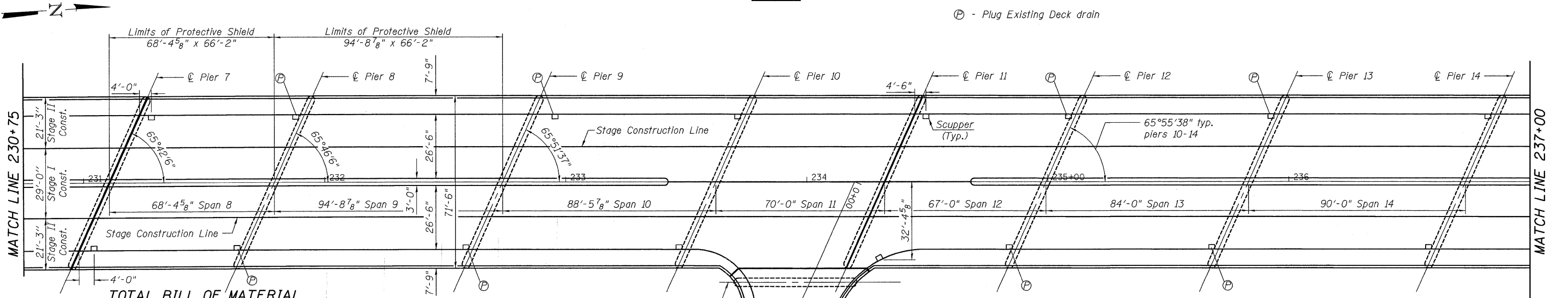
SHEET NO. 1  
35 SHEETS

Contract # 60D74



PLAN I

Ⓟ - Plug Existing Deck drain



PLAN II

MATCH LINE 230+75

MATCH LINE 237+00

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	14,500		14,500
Concrete Removal	Cu. Yd.	717.3		717.3
Bridge Deck Hydro-Scarification, 3/4"	Sq. Yd.	14,500		14,500
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	30		30
Bridge Deck Latex Concrete Overlay, 2 1/4"	Sq. Yd.	14,500		14,500
Jack and Remove Existing Bearings	Each	164		164
Anchor Bolt, 1/4"	Each	328		328
Elastomeric Bearing Assembly, Type I	Each	42		42
Elastomeric Bearing Assembly, Type II	Each	122		122
Furnishing and Erecting Structural Steel	Pound	22,920		22,920
Preformed Joint Strip Seal	Foot	389		389
Modular Expansion Joint, 6"	Foot	229		229
Modular Expansion Joint-Swivel, 6"	Foot	79		79
Concrete Superstructure	Cu. Yd.	763.2		763.2
Protective Shield	Sq. Yd.	2480		2480
Protective Coat	Sq. Yd.	2126		2126
Bridge Deck Grooving	Sq. Yd.	13,652		13,652
Reinforcement Bars, Epoxy Coated	Pound	110,140		110,140
Bar Splacers	Each	336		336
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	746	1767	2513
Structural Repair of Concrete (Depth Greater than 5")	Sq. Ft.		16	16
Temporary Shoring and Cribbing	Each		22	22
Silicone Joint Sealer	Foot	125		125
Drainage Scupper, DS-12	Each	1		1
Plug Existing Deck Drains	Each	26		26
Adjusting Drainage Scuppers, Type B	Each	27		27

INDEX OF SHEETS

- General Plan - I
- General Plan - II
- Elevation
- Typical Cross Sections with Staging
- Expansion Joint Removal at Abutments
- Expansion Joint Replacement at Abutments
- Expansion Joint Removal at Piers 3, 15 & 18
- Expansion Joint Replacement at Piers 3, 15 & 18
- Expansion Joint Removal at Piers 7, 11, 21 & 24
- Expansion Joint Replacement at Piers 7, 11, 21 & 24
- Expansion Joint Rehabilitation Details I
- Expansion Joint Rehabilitation Details II
- Preformed Joint Strip Seal at Abutments and Piers 3, 15 & 18
- Modular Joint at Piers 7, 11 & 21
- Modular Joint at Pier 24
- Modular Joint Details
- Bar Splicer Assembly Details
- Longitudinal Joint and Median Details
- Longitudinal Joint and Median Plan - I
- Longitudinal Joint and Median Plan - II
- Longitudinal Joint and Median Plan - III
- Longitudinal Joint and Median Plan - IV
- Drainage Scupper, DS-12
- Adjusting Drainage Scupper Details

INDEX OF SHEETS (CONT'D)

- Bearing Replacement Details - I
- Bearing Replacement Details - II
- Deck and Parapet Repair Plan - I
- Pier 3 Repairs
- Pier 7 Repairs
- Pier 11 Repairs
- Pier 15 Repairs
- Pier 18 Repairs
- Pier 21 Repairs
- Pier 24 Repairs

See the following sheet for General Notes and Drain Plugging Detail.

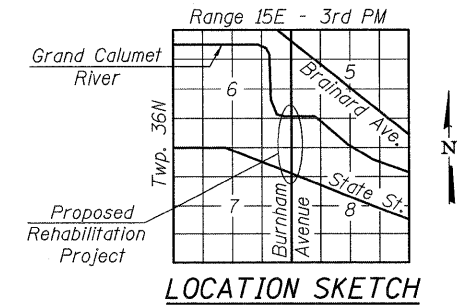
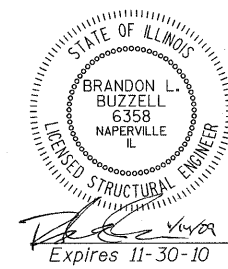
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS 20-44

DESIGN STRESSES

FIELD UNITS  
 f'c = 3,500 psi  
 fy = 60,000 psi (Reinforcement)  
 fy = 36,000 psi (M270 Grade 36)



ILLINOIS DEPARTMENT OF TRANSPORTATION

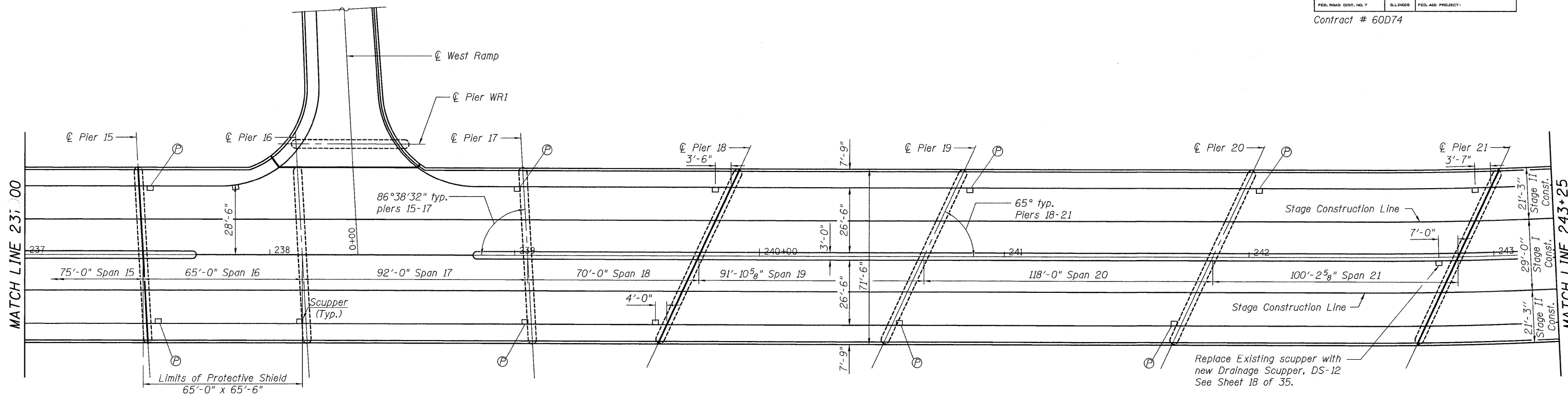
GENERAL PLAN - I  
 BURNHAM AVE OVER STATE ST, R.R. & RIVER  
 FAU RTE 2943 SECTION 1212.8-I-1  
 COOK COUNTY  
 STATION 231+79.04  
 STRUCTURE NO. 016-0806



DATE: 1-14-2009  
 DRAWN BY: LM  
 CHECKED BY: WJW

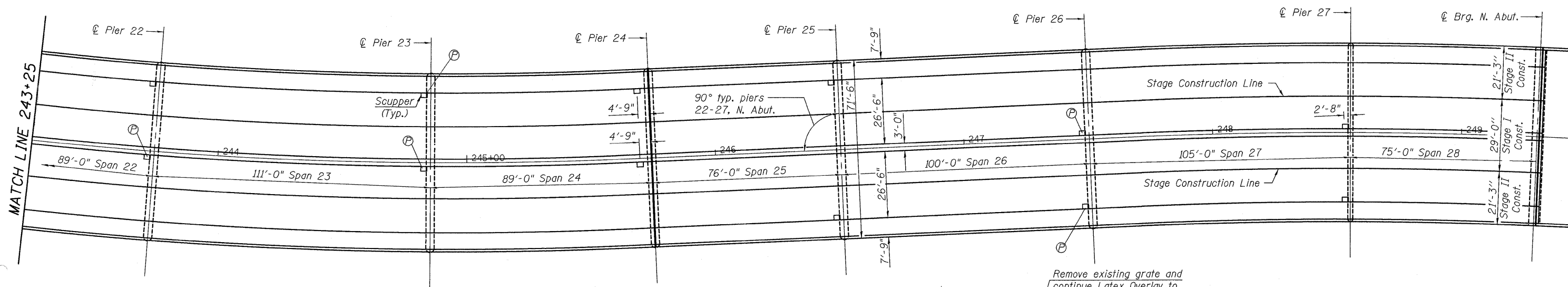
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FAU 2943	1212.8 -I-1	Cook	51	12	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 60D74



⊕ - Plug Existing Deck drain

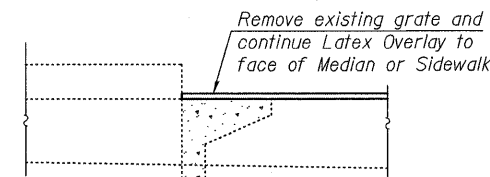
PLAN III



GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60, See Special Provisions.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 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.  
 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.  
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.  
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
 All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.  
 These plans have been prepared from notes received from the Illinois Department of Transportation field maintenance Engineers.  
 Protective Coat shall not be applied over Latex Concrete Overlay.  
 All construction joints shall be bonded.  
 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.



Field drill 3/8" φ hole for 1/4" φ threaded rod 1'-1" long with nuts & washers

Deck Drains shall be eliminated by field drilling a 3/8" φ hole through the bottom of the drain, installing a 1/4" φ threaded rod and filling the drain with concrete.

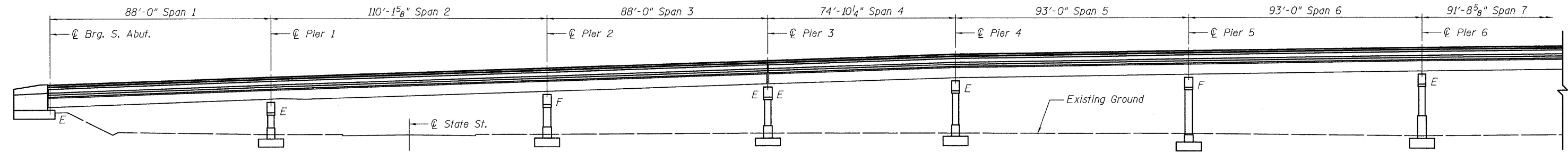
DRAIN PLUGGING DETAIL

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	ILLINOIS DEPARTMENT OF TRANSPORTATION
	GENERAL PLAN - II BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009
	DRAWN BY LM CHECKED BY WJV

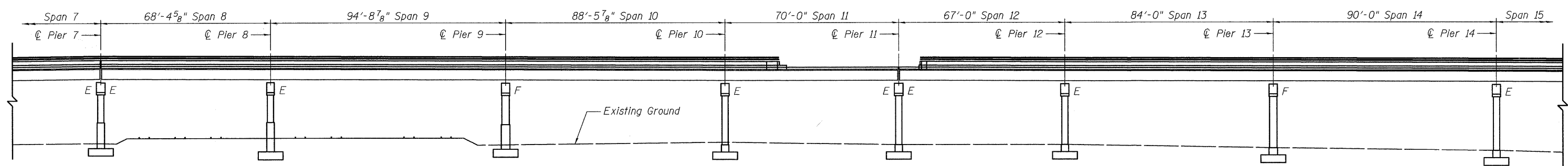


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 35 SHEETS
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

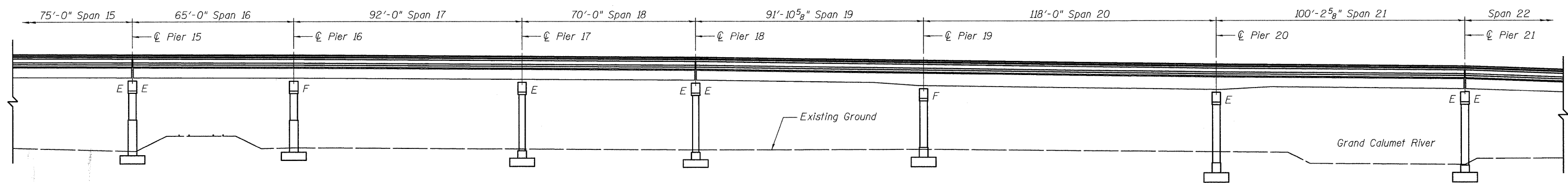
Contract # 60D74



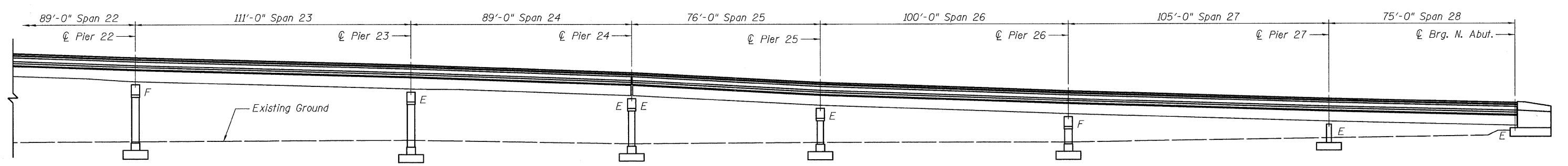
**ELEVATION I**



**ELEVATION II**



**ELEVATION III**



**ELEVATION IV**

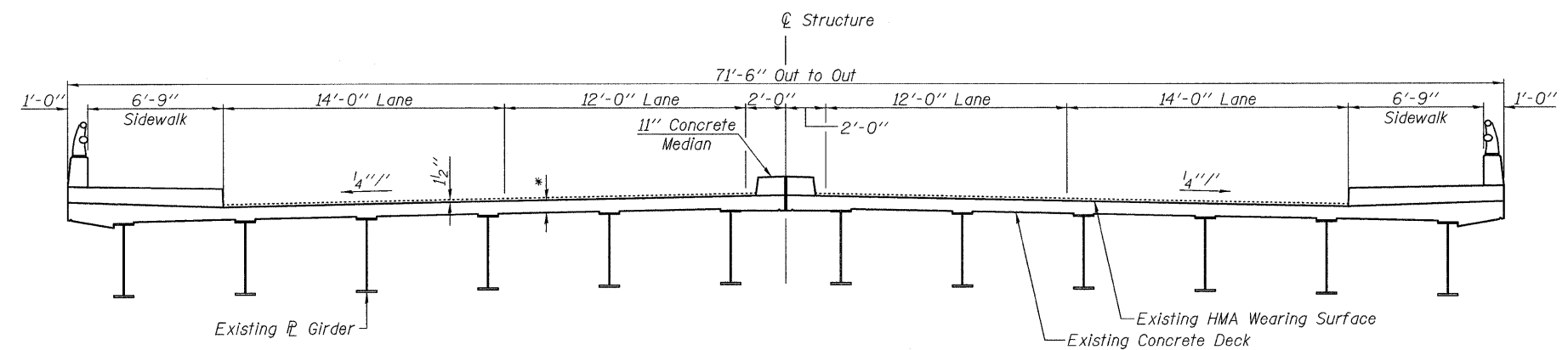
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	ILLINOIS DEPARTMENT OF TRANSPORTATION
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	DATE: 1-14-2009
	DRAWN BY LM CHECKED BY WJV

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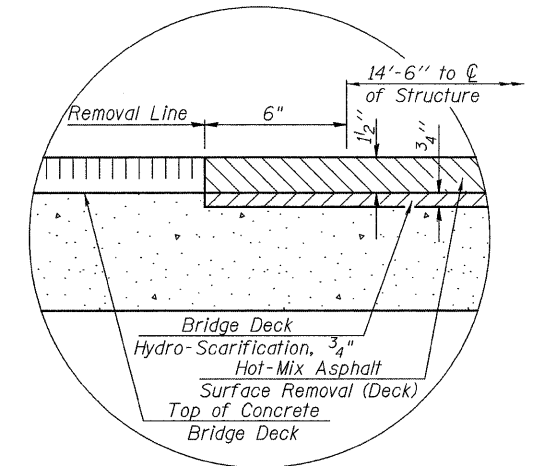
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2943	1212.8 -I-1	Cook	51	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4  
35 SHEETS

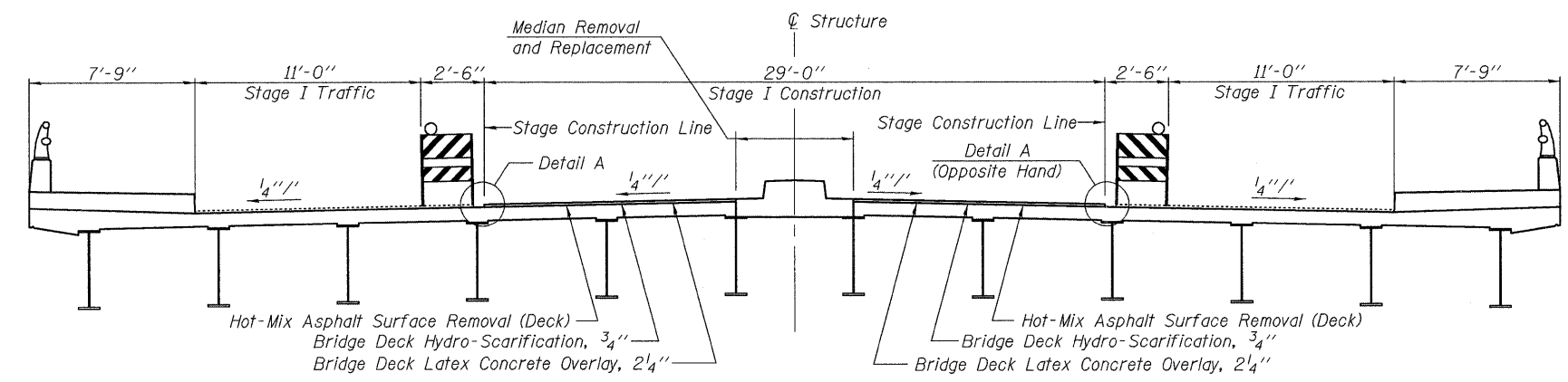
Contract # 60D74



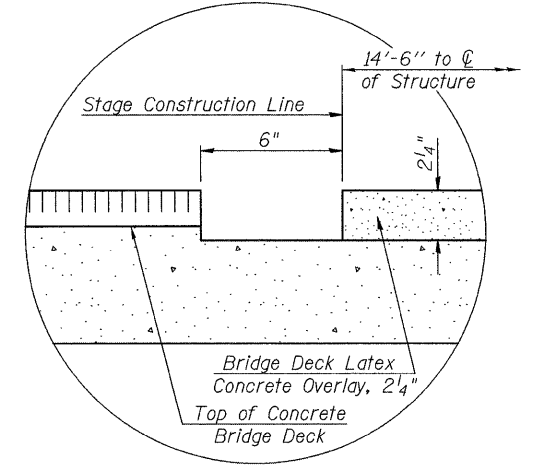
**EXISTING CROSS SECTION**  
\*7 1/2" Slab, Spans 1-3; 8" Slab, Spans 4-28



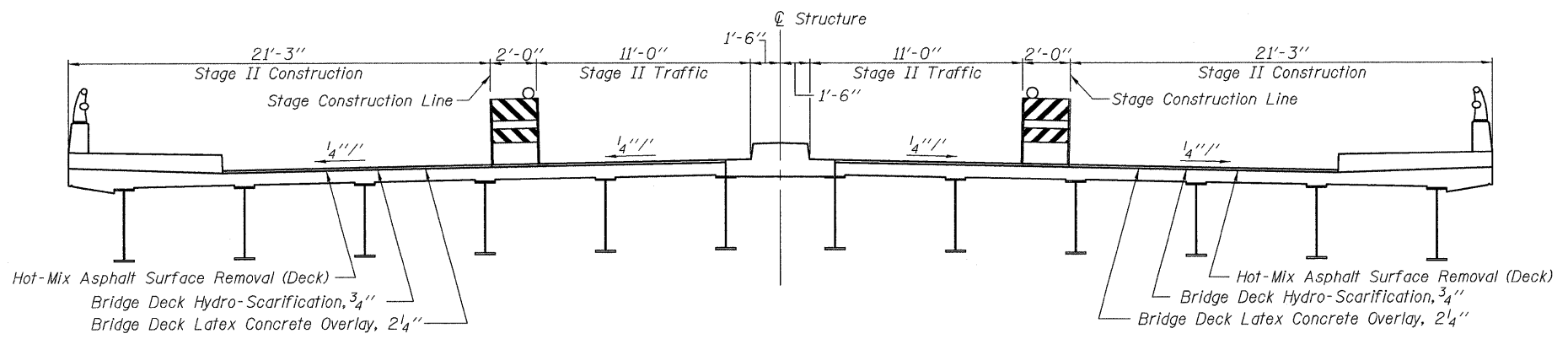
**DETAIL A**  
(Showing Removal)



**STAGE I CROSS SECTION**



**DETAIL A**  
(Showing Proposed)



**STAGE II CROSS SECTION**

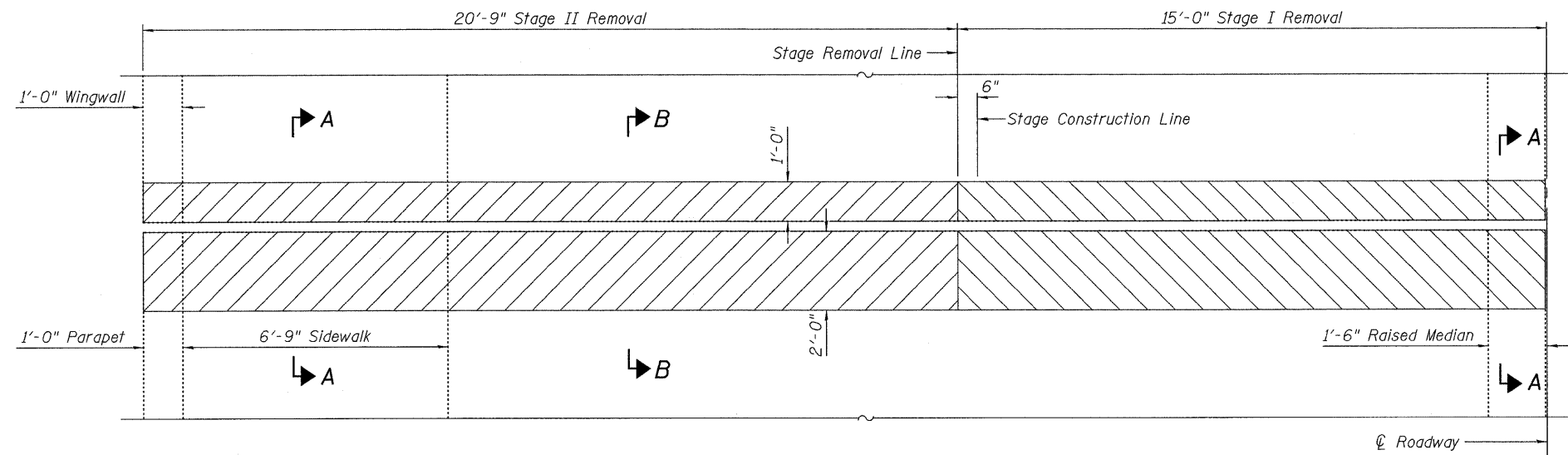
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	ILLINOIS DEPARTMENT OF TRANSPORTATION
	TYPICAL CROSS SECTIONS WITH STAGING BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY
	STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY JMT CHECKED BY WJV

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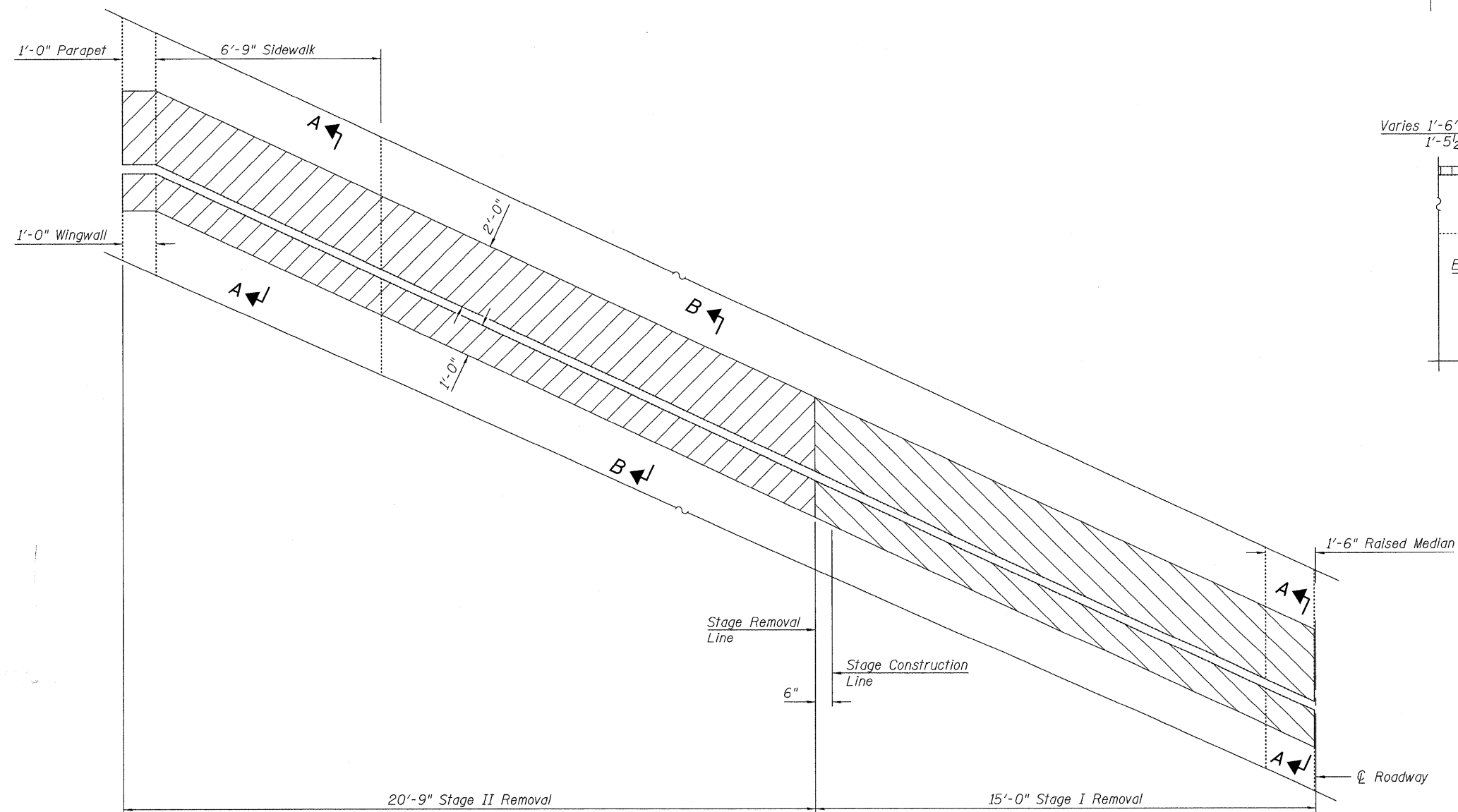
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FAU 2943	1212.8-I-1	Cook	51	15
FED. ROAD DIST. NO. 7	ILL2008	FED. AID PROJECT		

SHEET NO. 5  
35 SHEETS

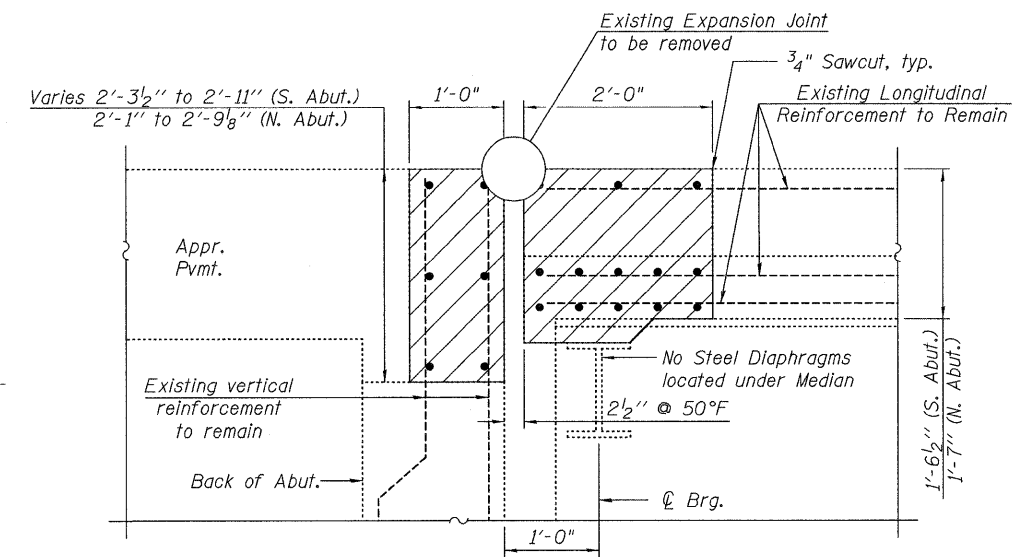
Contract # 60D74



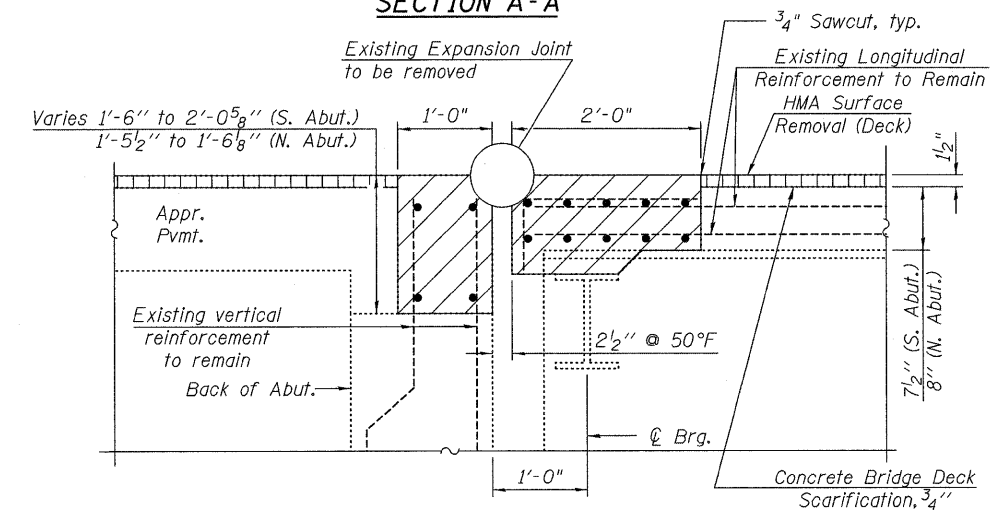
**JOINT REMOVAL HALF PLAN AT NORTH ABUTMENT**  
(West half of North Joint shown, other half similar)



**JOINT REMOVAL HALF PLAN AT SOUTH ABUTMENT**  
(West half of South Joint shown, other half similar)



**SECTION A-A**



**SECTION B-B**

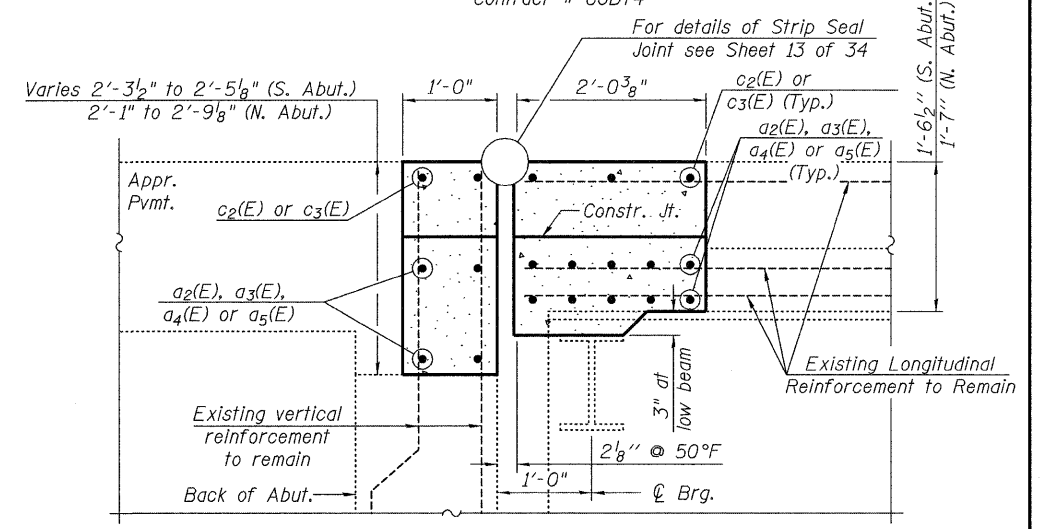
**NOTES:**

- Removal of the existing expansion joints will not be paid for separately but shall be included in the cost for Concrete Removal.
- Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.
- Concrete Removal is included in the Bill of Material on sheet 12 of 35.
- See Sheet 1 and 2 of 35 for skew angle at joint.

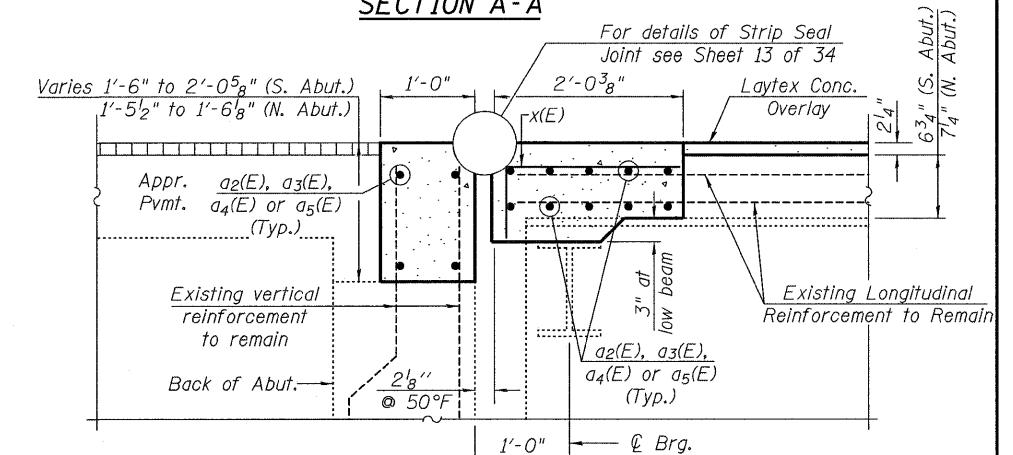
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REMOVAL AT ABUTMENTS BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY: WJV CHECKED BY: BLB</p>

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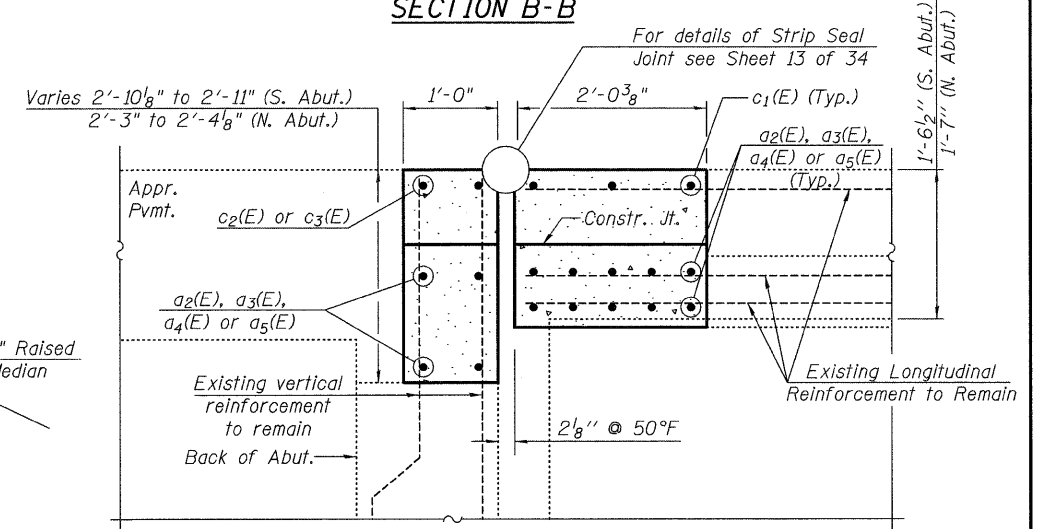
Contract # 60D74



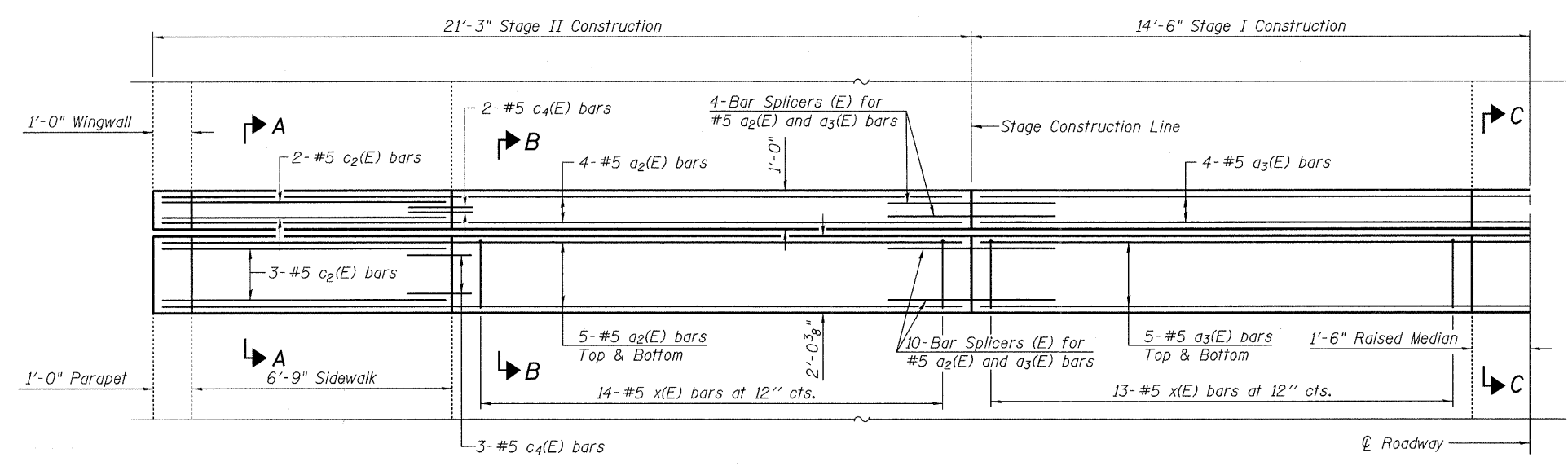
SECTION A-A



SECTION B-B

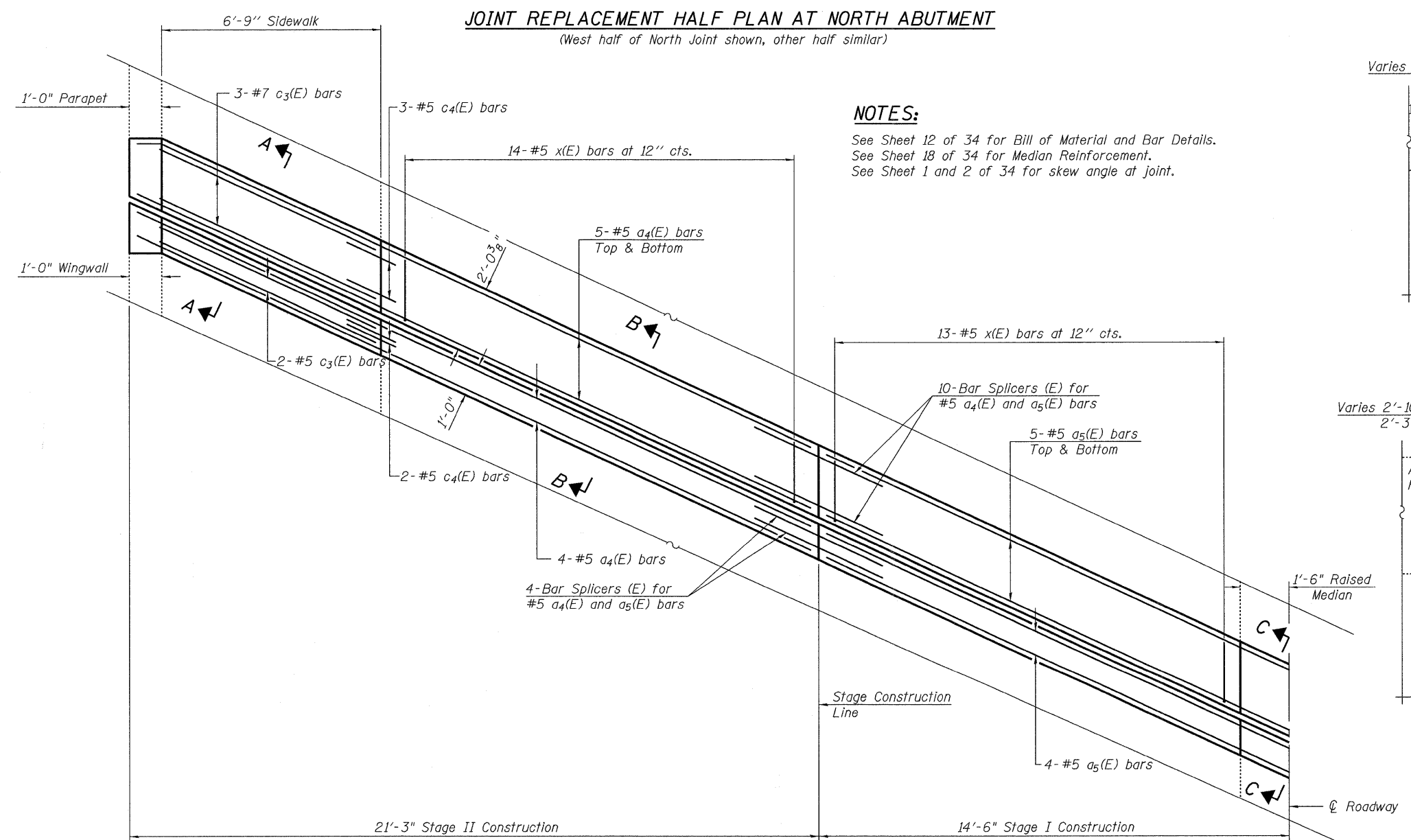


SECTION C-C



JOINT REPLACEMENT HALF PLAN AT NORTH ABUTMENT  
(West half of North Joint shown, other half similar)

**NOTES:**  
See Sheet 12 of 34 for Bill of Material and Bar Details.  
See Sheet 18 of 34 for Median Reinforcement.  
See Sheet 1 and 2 of 34 for skew angle at joint.

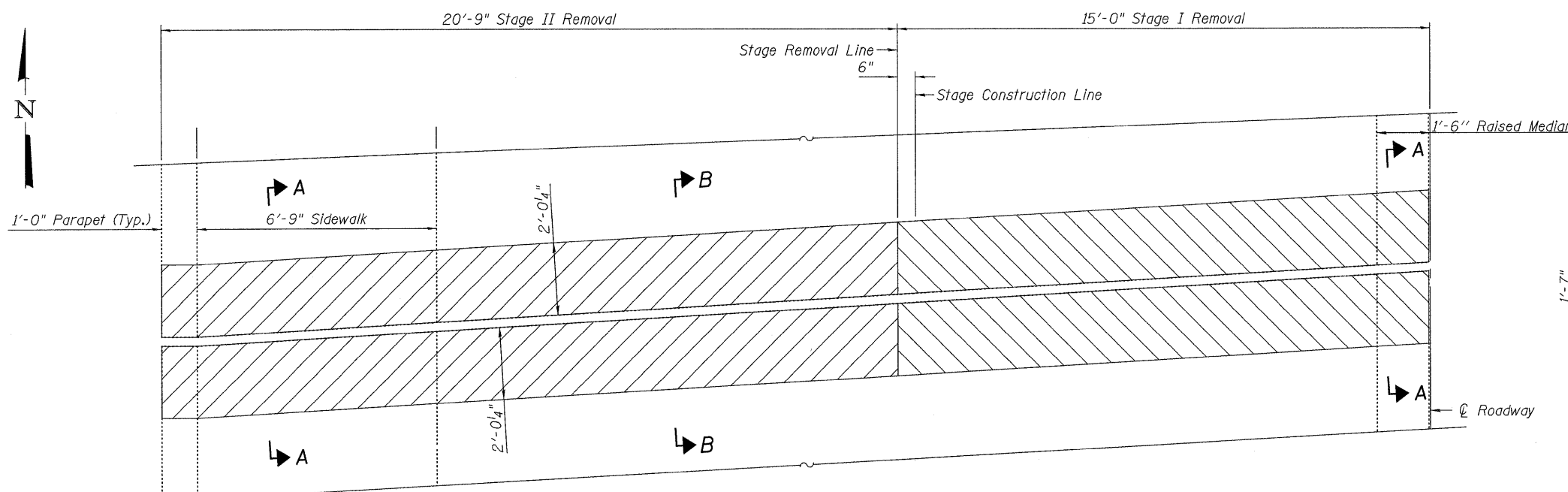


JOINT REPLACEMENT HALF PLAN AT SOUTH ABUTMENT  
(West half of South Joint shown, other half similar)

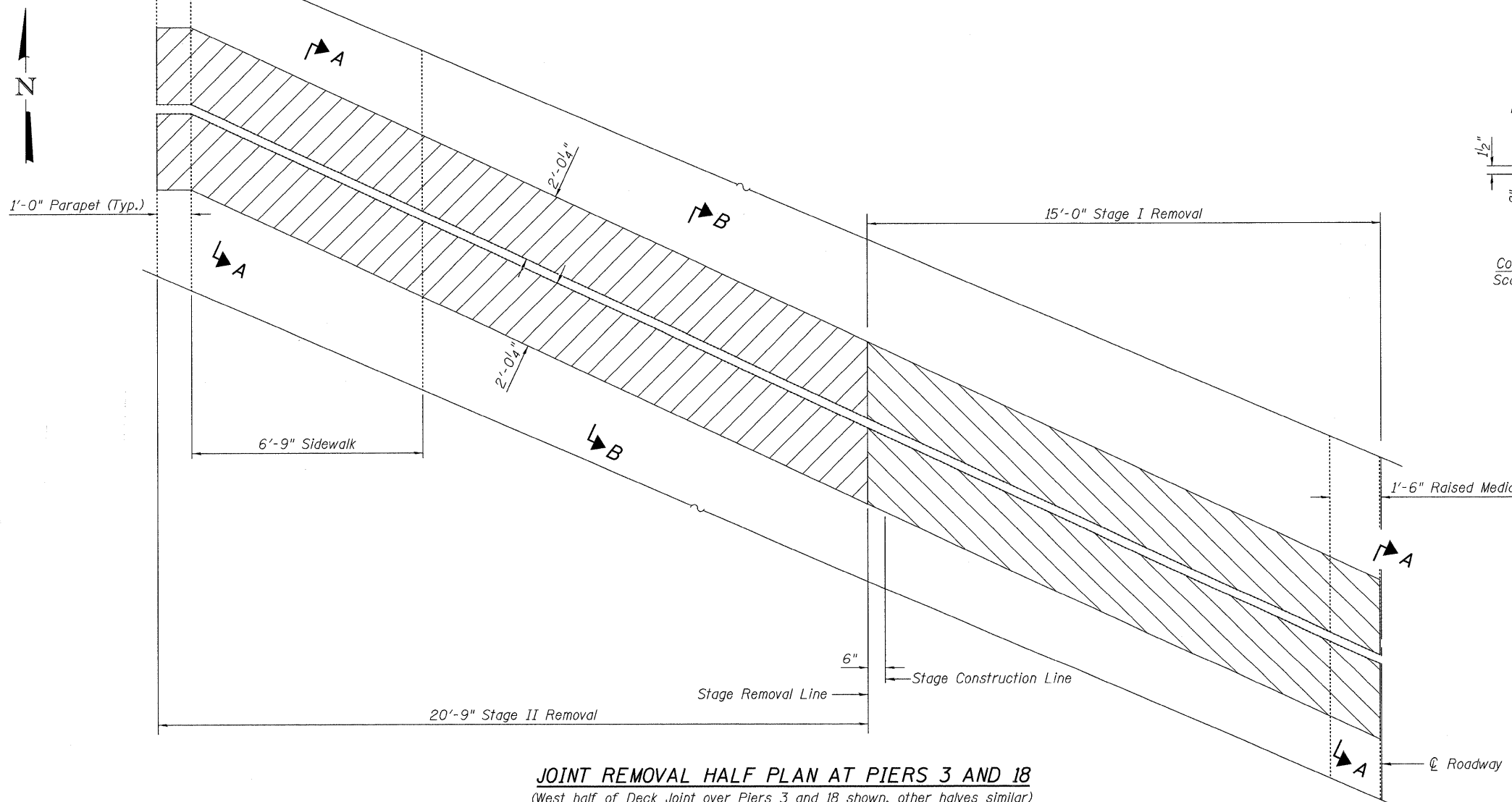
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REPLACEMENT AT ABUTMENTS BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY: WJV CHECKED BY: BLB</p>

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 35 SHEETS
FAU 2943	1212.8 -I-1	Cook	51	17	
FED. ROAD DIST. NO. 7	ILL. DIST.	FED. AID PROJECT			

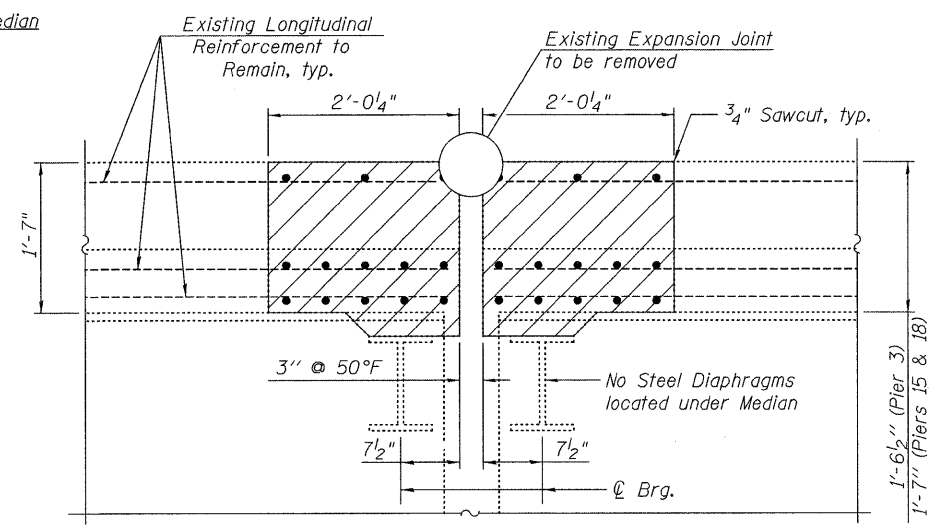
Contract # 60D74



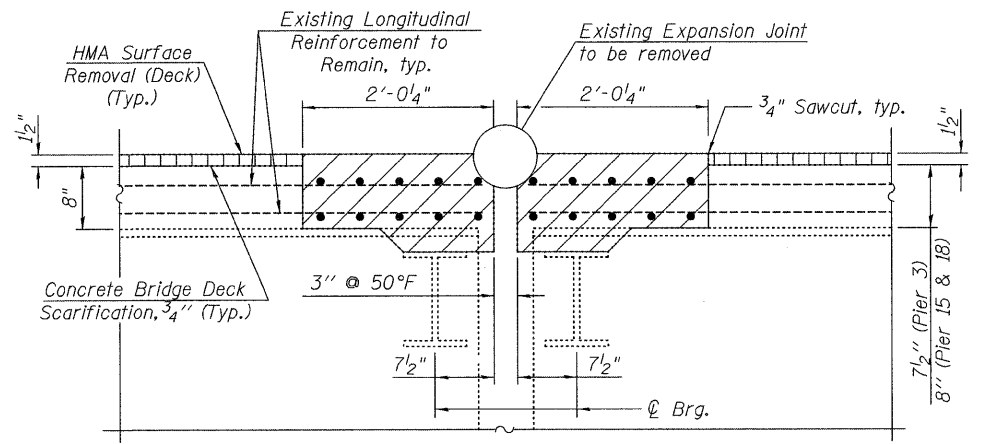
**JOINT REMOVAL HALF PLAN AT PIER 15**  
(West half of Deck Joint over Pier 15 shown, other half similar)



**JOINT REMOVAL HALF PLAN AT PIERS 3 AND 18**  
(West half of Deck Joint over Piers 3 and 18 shown, other halves similar)



**SECTION A-A**



**SECTION B-B**

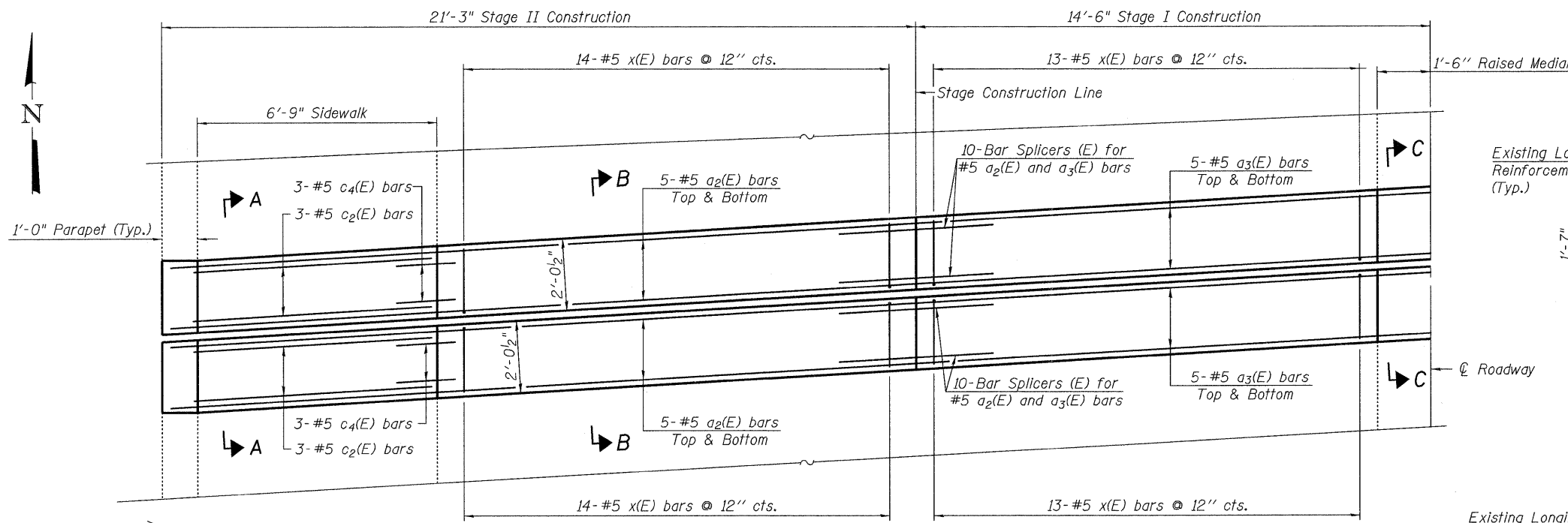
**NOTES:**

- Removal of the existing expansion joints will not be paid for separately but shall be included in the cost for Concrete Removal.
- Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.
- Concrete Removal is included in the Bill of Material on sheet 12 of 35.
- See Sheet 1 and 2 of 35 for skew angle at joint.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REMOVAL AT PIERS 3, 15 & 18 BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: WJV CHECKED BY: BLB

K:\11225503\Structures\Burnham Ave. Over R.R. & River\Final Plans\Exp.Joints.dgn 1/13/2009

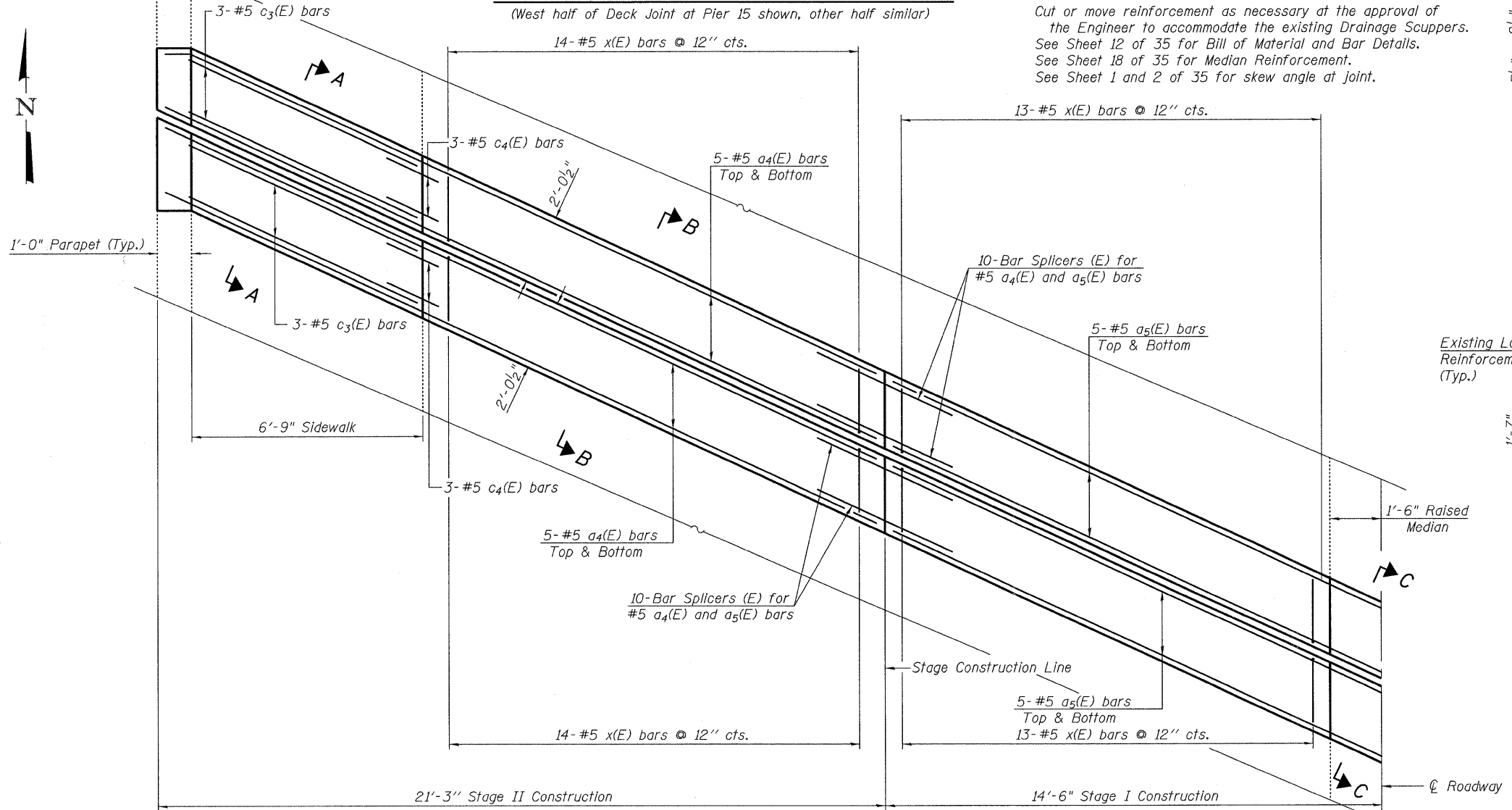
Contract # 60D74



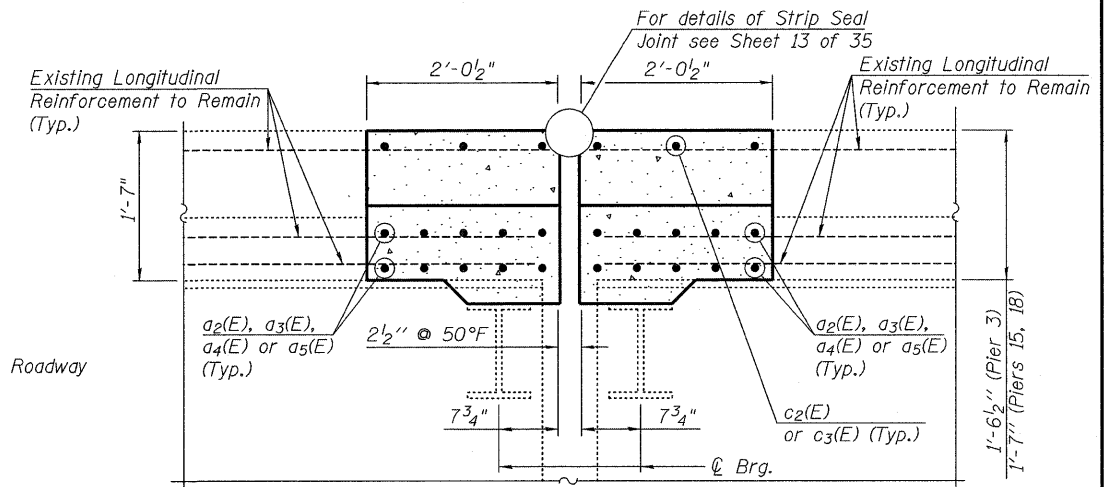
**JOINT CONSTRUCTION HALF PLAN AT PIER 15**  
(West half of Deck Joint at Pier 15 shown, other half similar)

**NOTES:**

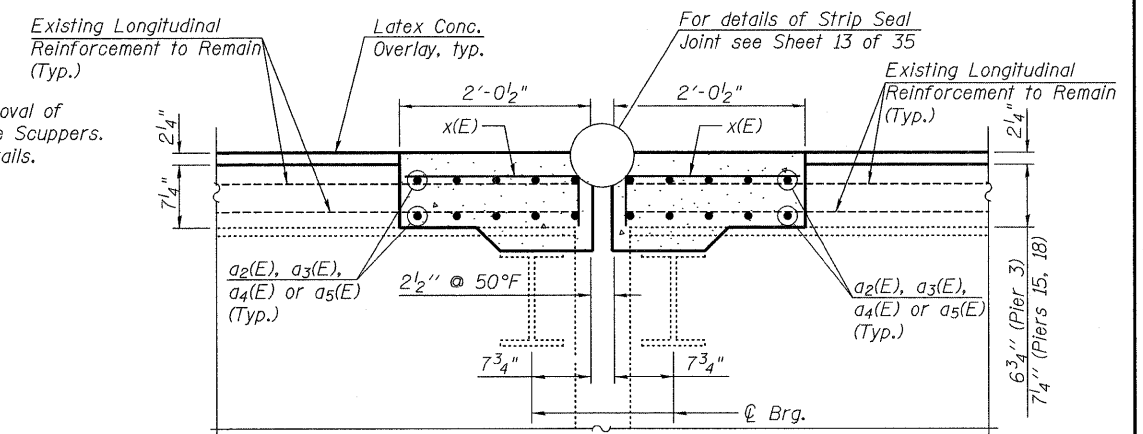
Cut or move reinforcement as necessary at the approval of the Engineer to accommodate the existing Drainage Scuppers. See Sheet 12 of 35 for Bill of Material and Bar Details. See Sheet 18 of 35 for Median Reinforcement. See Sheet 1 and 2 of 35 for skew angle at joint.



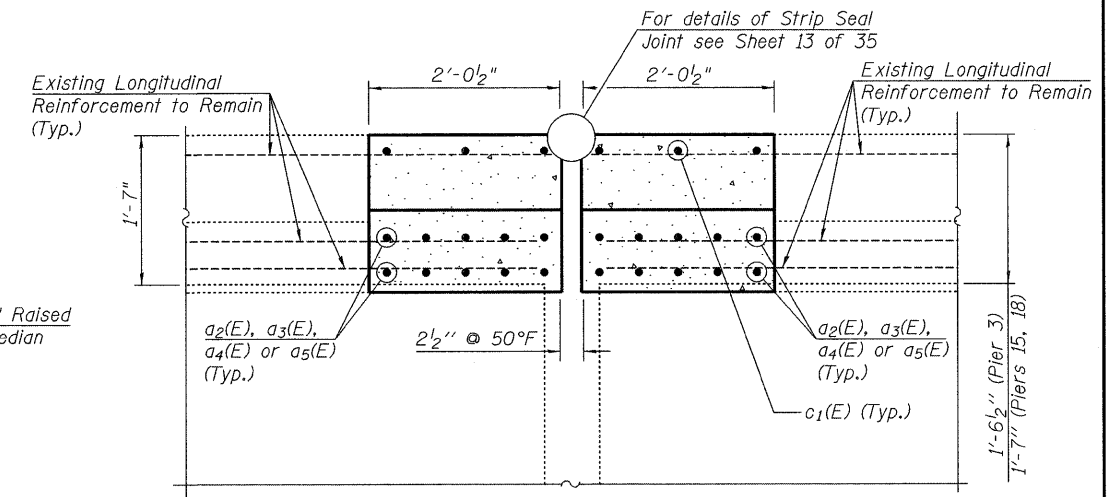
**JOINT CONSTRUCTION HALF PLAN AT PIERS 3 AND 18**  
(West half of Deck Joints at Piers 3 and 18, other halves similar)



**SECTION A-A**



**SECTION B-B**

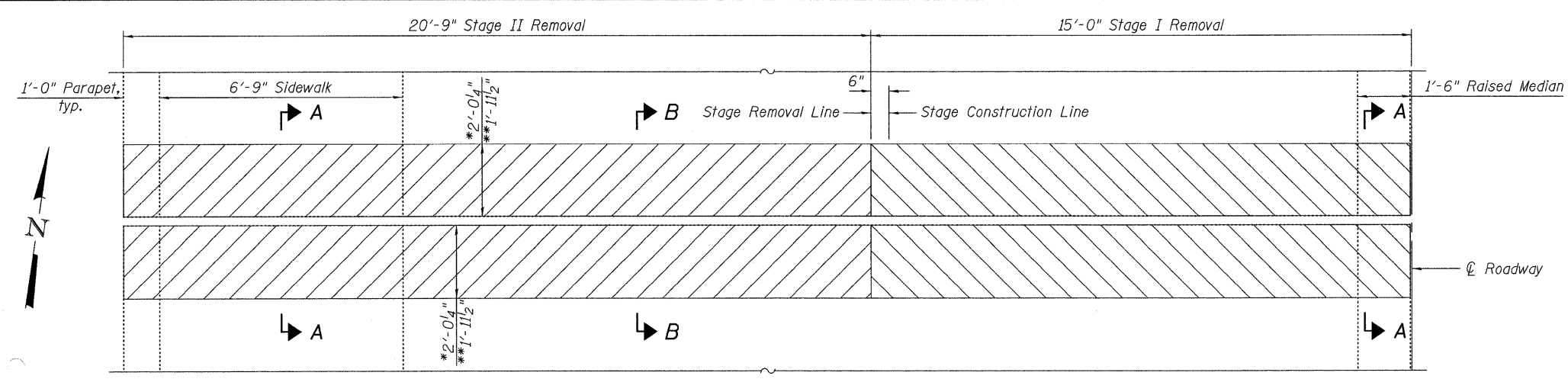


**SECTION C-C**

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REPLACEMENT AT PIERS 3, 15 &amp; 18 BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>	
	<p>DATE: 1-14-2009</p>	<p>DRAWN BY: WJV CHECKED BY: BLB</p>

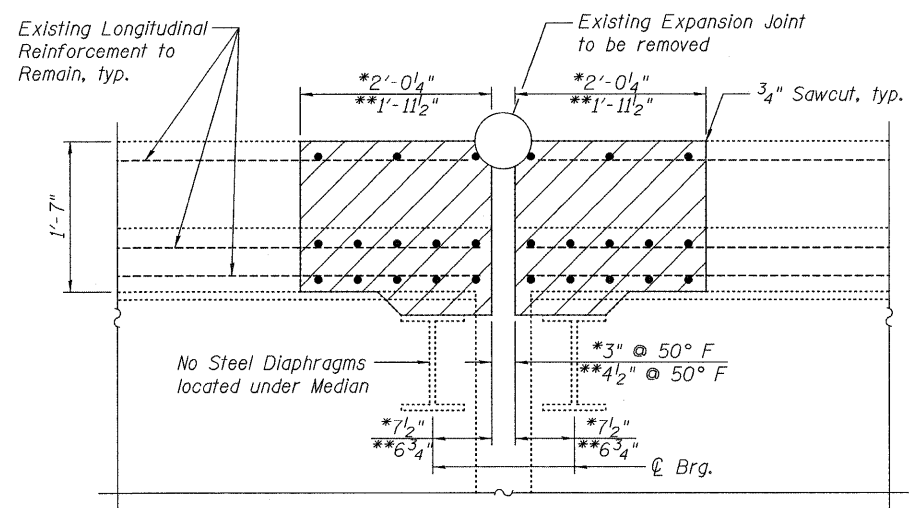
K:\11225593\Structures\Burnham Ave. Over R.R. & River\Final Plans\Exp-Joints.dgn 1/13/2009

Contract # 60D74



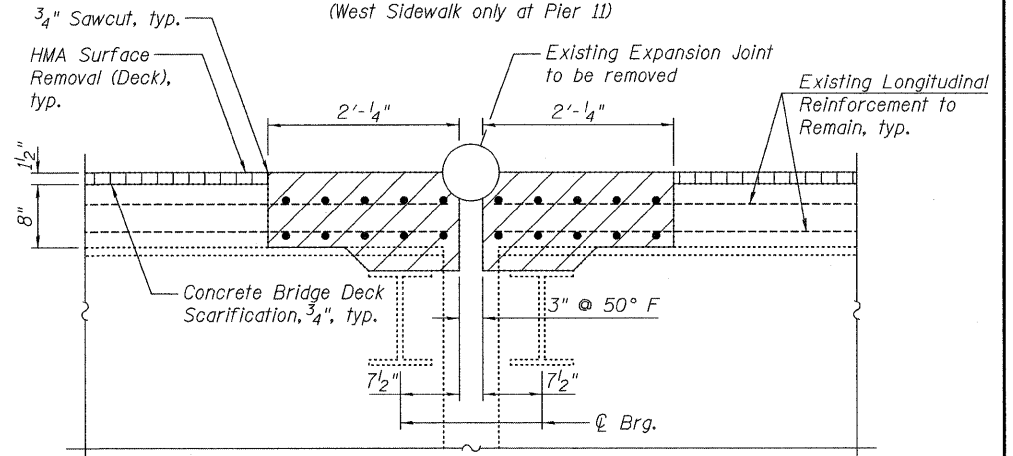
**JOINT REMOVAL HALF PLAN AT PIER 24**

(West half of Deck Joint over Pier 24 shown, other half similar)



**SECTION A-A**

(West Sidewalk only at Pier 11)



**\*SECTION B-B**

**\*\*SECTION B-B**

\* at Piers 11, 21, and SB 24  
\*\* at Piers 7 and NB 24

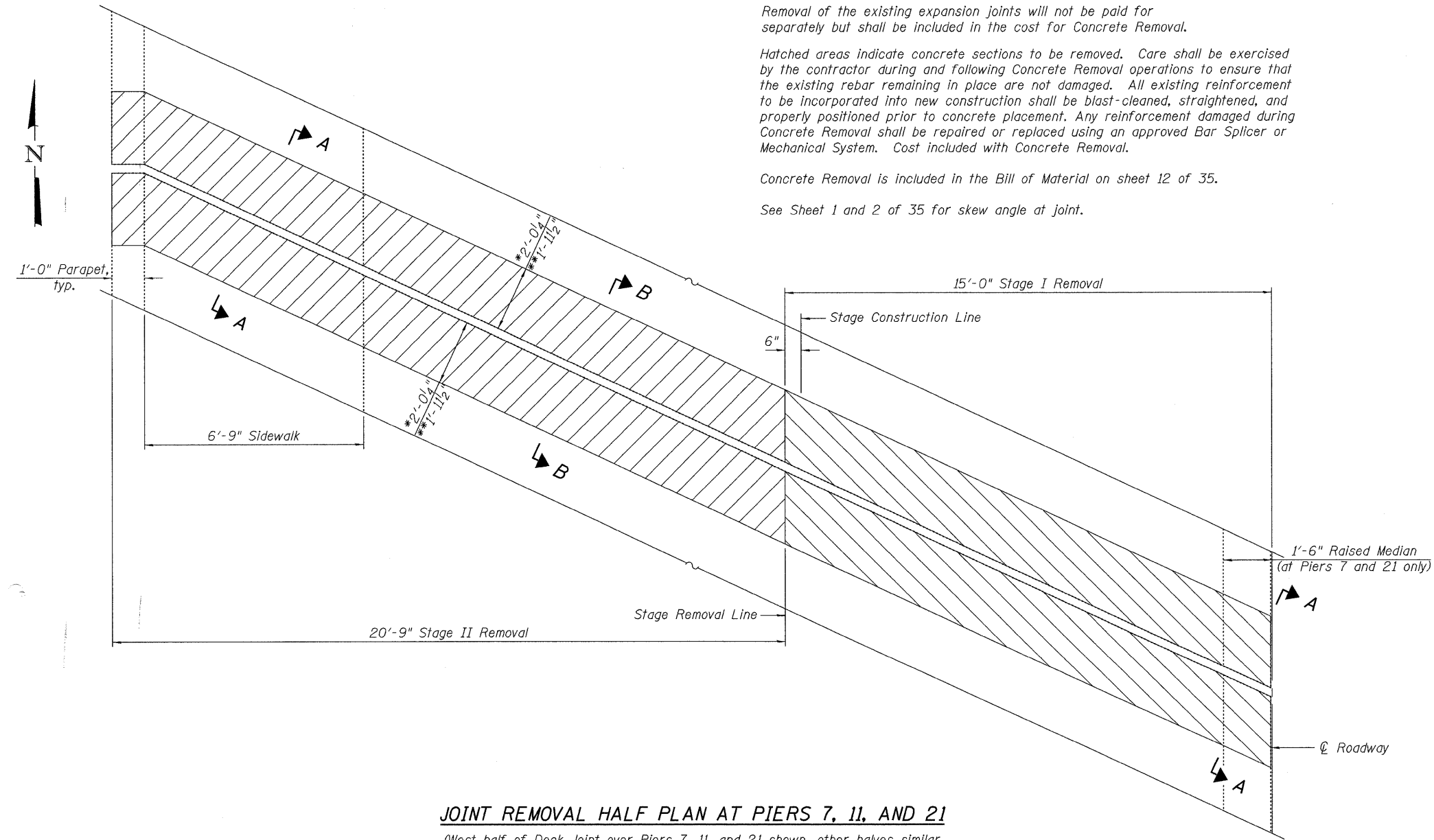
**NOTES:**

Removal of the existing expansion joints will not be paid for separately but shall be included in the cost for Concrete Removal.

Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.

Concrete Removal is included in the Bill of Material on sheet 12 of 35.

See Sheet 1 and 2 of 35 for skew angle at joint.



**JOINT REMOVAL HALF PLAN AT PIERS 7, 11, AND 21**

(West half of Deck Joint over Piers 7, 11, and 21 shown, other halves similar except at Pier 11 which has no Raised Median or East Sidewalk and Parapet)

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REMOVAL AT PIERS 7, 11, 21 &amp; 24 BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p>
	<p>DRAWN BY LCM CHECKED BY BLB</p>
	<p></p>

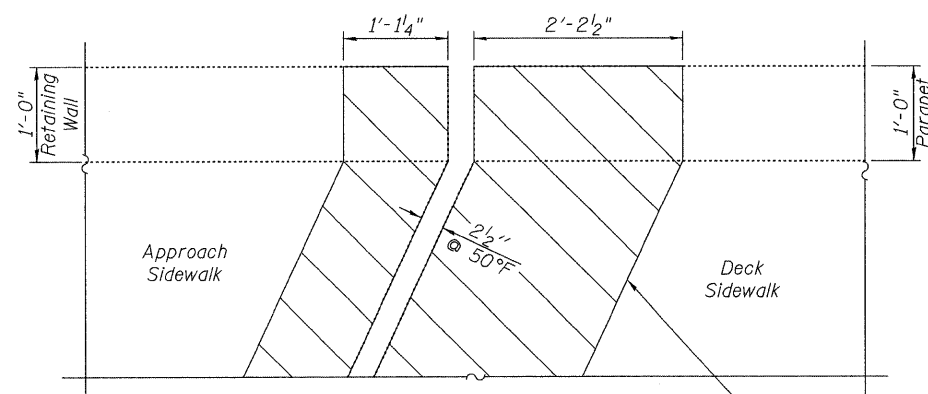






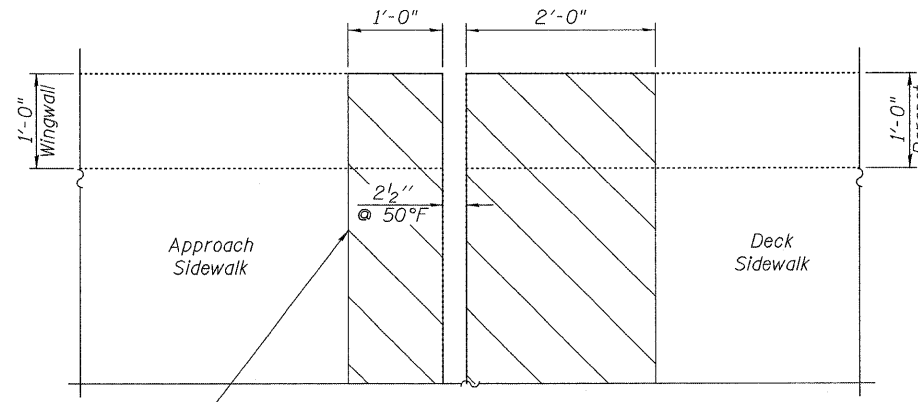
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11
FAU 2943	1212.8 -I-1	Cook	51	21	35 SHEETS
FED. ROAD DIST. NO. 7	BALANCE	FED. AID PROJECT			

Contract # 60D74



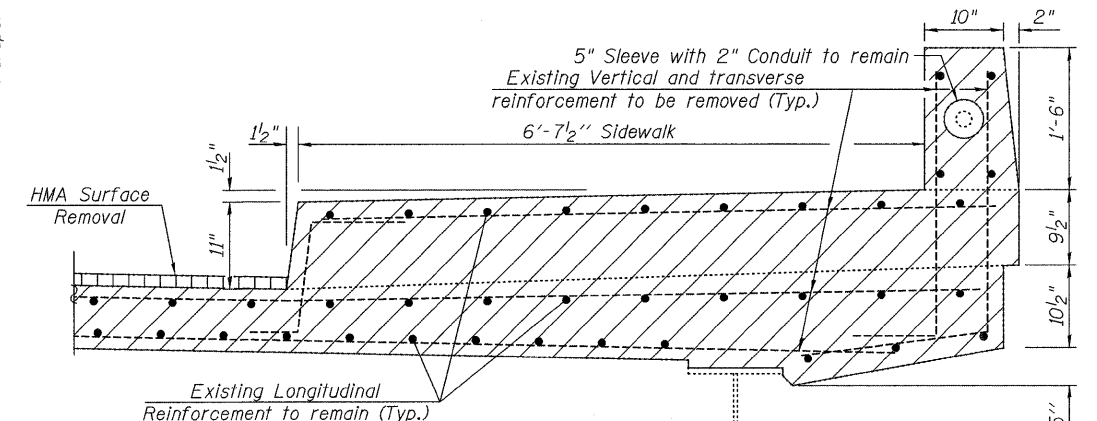
**PLAN - CONCRETE REMOVAL**

(West End of Deck Joint at S. Abut. shown, East End Similar)

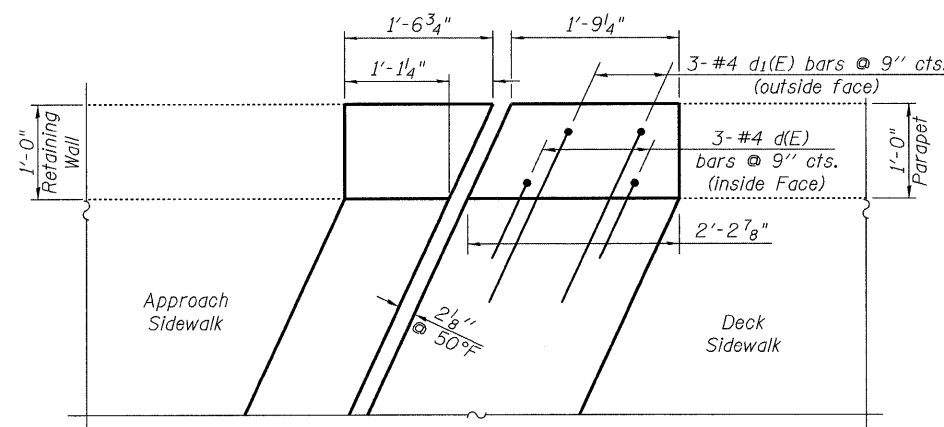


**PLAN - CONCRETE REMOVAL**

(East End of Deck Joint at N. Abut. shown, West End Similar)

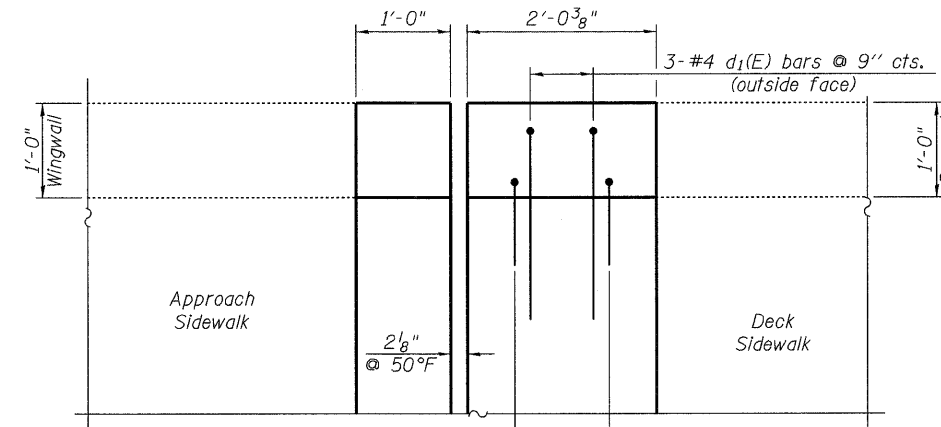


**SECTION THRU SIDEWALK, PARAPET & SOFFIT-CONCRETE REMOVAL**



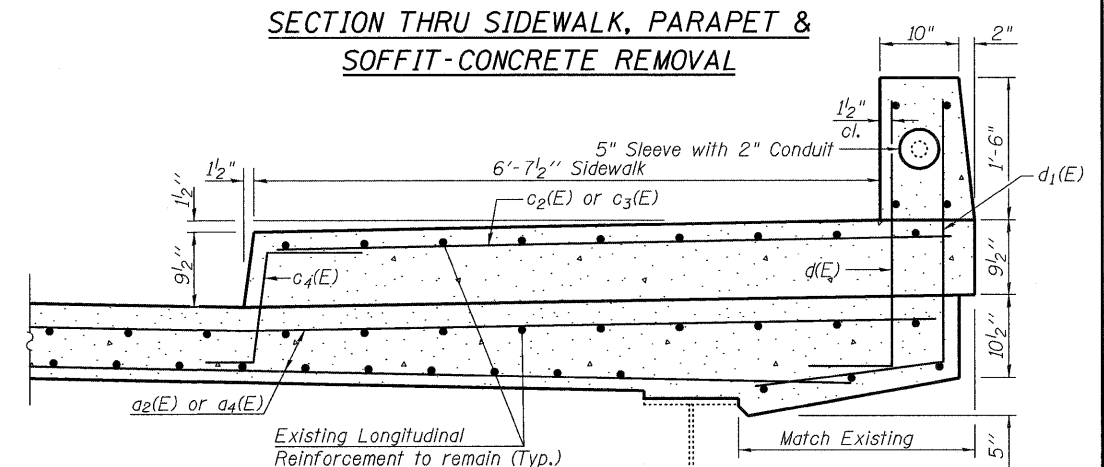
**PLAN - CONCRETE REPLACEMENT**

(West End of Deck Joint at S. Abut.)

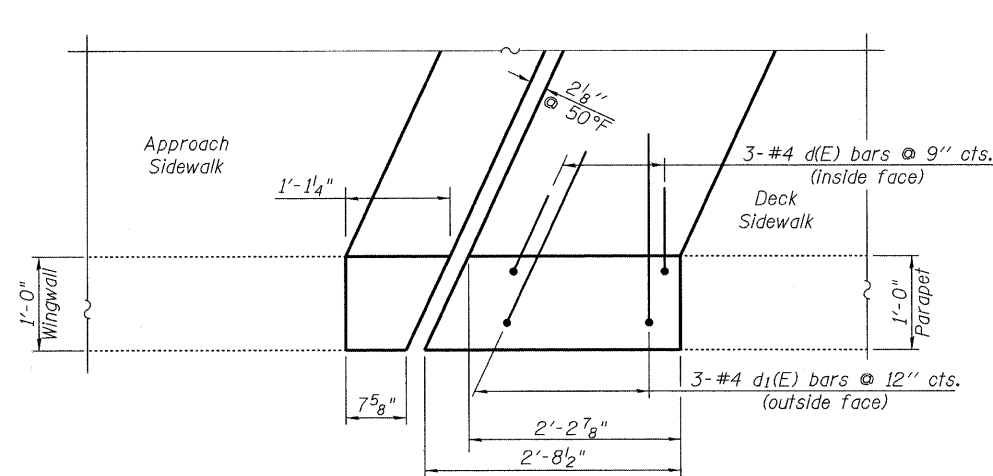


**PLAN - CONCRETE REPLACEMENT**

(East End of Deck Joint at N. Abut. shown, West End Similar)

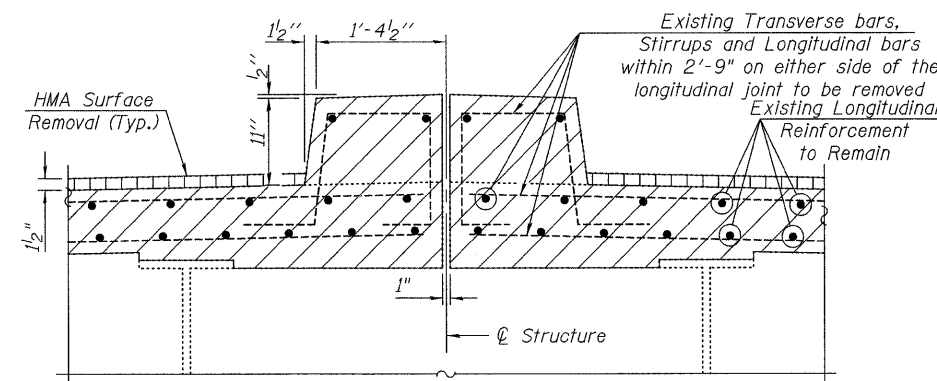


**SECTION THRU SIDEWALK, PARAPET & SOFFIT-CONCRETE REPLACEMENT**

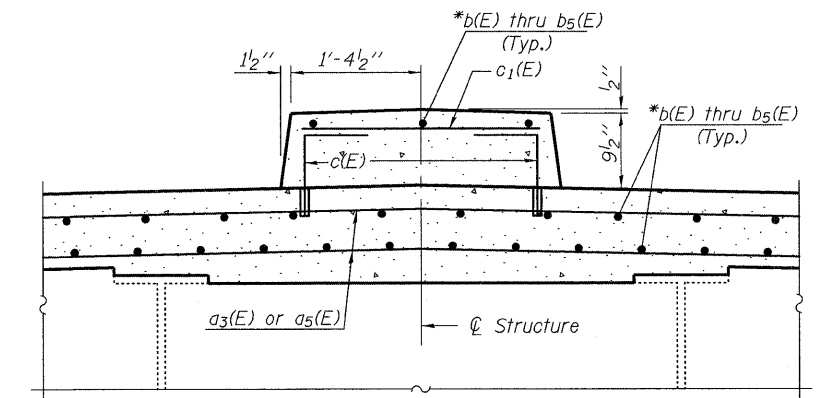


**PLAN - CONCRETE REPLACEMENT**

(East End of Deck Joint at S. Abut.)



**SECTION THRU MEDIAN CONCRETE REMOVAL**



**SECTION THRU MEDIAN CONCRETE REPLACEMENT**

\* See sheet 20 of 35 for longitudinal reinforcement

**NOTES:**

See Sheet 18 of 35 for Median Reinforcement.  
See Sheet 12 of 35 for Bill of Material and bar Details.  
Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.

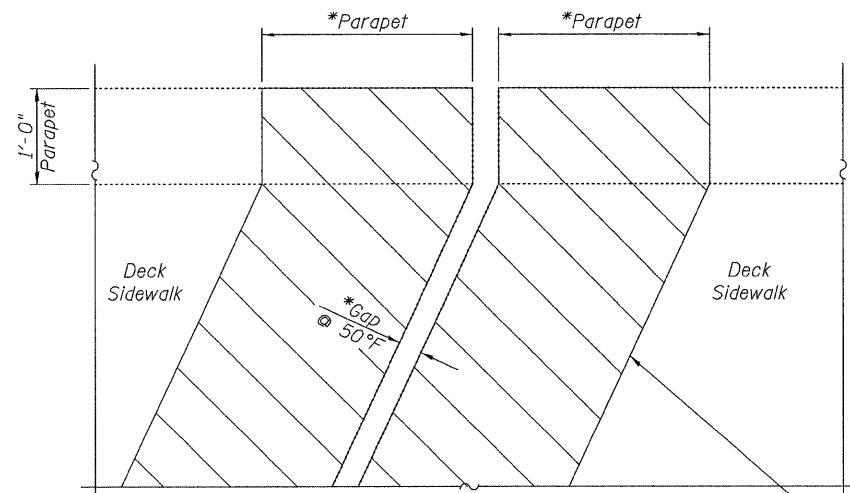
For simplicity, only proposed reinforcement critical to parapet replacement is shown. Interference is expected from the existing aluminum rail posts. The Contractor shall remove and reerect the existing bridge rail and post to complete the work as detailed. The existing aluminum rail post shall be reconnected to the reconstructed parapet utilizing the existing mounting bracket. Care shall be taken not to damage the existing bracket. The base of the rail post shall be sealed with two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer. All labor, equipment, and materials necessary for removing and reinstalling the bridge rail and bridge rail post shall be included in the cost for Concrete Superstructure.

**rjngroup**  
Excellence through Ownership  
200 West Front Street  
Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
EXPANSION JOINT REHABILITATION  
DETAILS I  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806

DATE: 1-14-2009  
DRAWN BY: WJV  
CHECKED BY: BLB

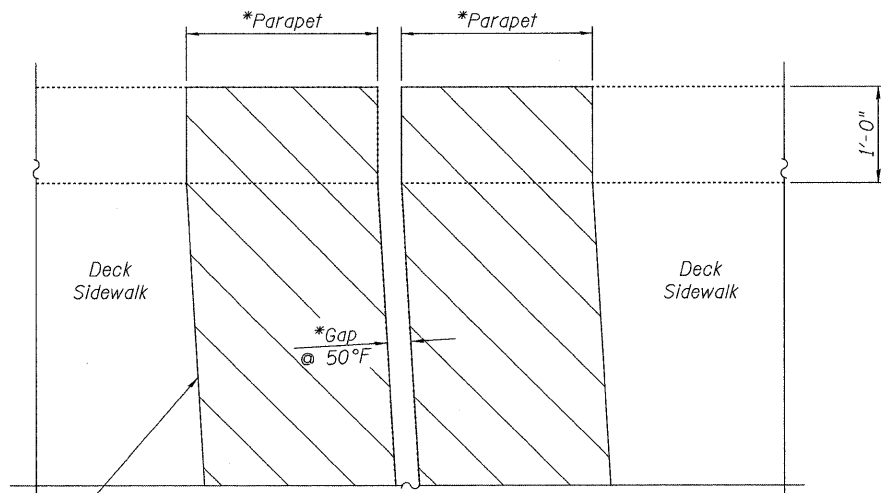
Contract # 60D74



**PLAN - CONCRETE REMOVAL**

(West ends of Deck Joints at Piers 3, 7, 11, 18, and 21 Shown, East ends similar except for Pier 11 which has no Sidewalk or Parapet)

3/4" maximum sawcut (Typ. on all exposed of parapet and soffit at construction joint)



**PLAN - CONCRETE REMOVAL**

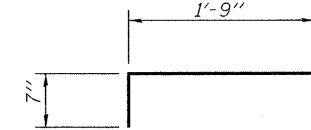
(West end of Deck Joint at Pier 15 shown, East end at Pier 15 and both ends at Pier 24 Similar)

**\*CONCRETE PARAPET  
REMOVAL DIMENSIONS**

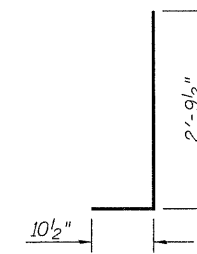
Location	Skew	Parapet	Gap
Pier 3	24° 38' 27"	2'-2 5/8"	3"
Pier 7	24° 17' 54"	2'-1 3/4"	4 1/2"
Pier 11	24° 4' 22"	2'-2 1/2"	3"
Pier 15	3° 21' 28"	2'-0 1/4"	3"
Pier 18	25°	2'-2 3/4"	3"
Pier 21	25°	2'-2 3/4"	3"
Pier 24W	0°	2'-0 1/4"	3"
Pier 24E	0°	1'-1 1/2"	4 1/2"

**BILL OF MATERIAL**

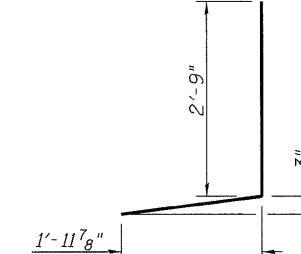
Bar	No.	Size	Length	Shape
a <sub>2</sub> (E)	108	#5	20'-10"	—
a <sub>3</sub> (E)	54	#5	28'-9"	—
a <sub>4</sub> (E)	228	#5	22'-11"	—
a <sub>5</sub> (E)	114	#5	31'-8"	—
c <sub>2</sub> (E)	34	#5	7'-6"	—
c <sub>3</sub> (E)	64	#5	8'-3"	—
c <sub>4</sub> (E)	98	#5	2'-8"	┌
d(E)	90	#4	3'-8"	┌
d <sub>1</sub> (E)	90	#4	4'-9"	┌
x(E)	878	#5	2'-4"	┌
Concrete Removal			Cu. Yd.	98.2
Reinforcement Bars, Epoxy Coated			Pound	16,920
Concrete Superstructure			Cu. Yd.	100.2
Bar Splicers			Each	336
Protective Coat			Sq. Yd.	318



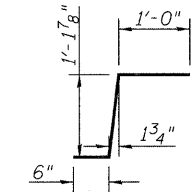
**x(E) bars**



**d(E) bars**



**d<sub>1</sub>(E) bars**



**c<sub>4</sub>(E) bars**

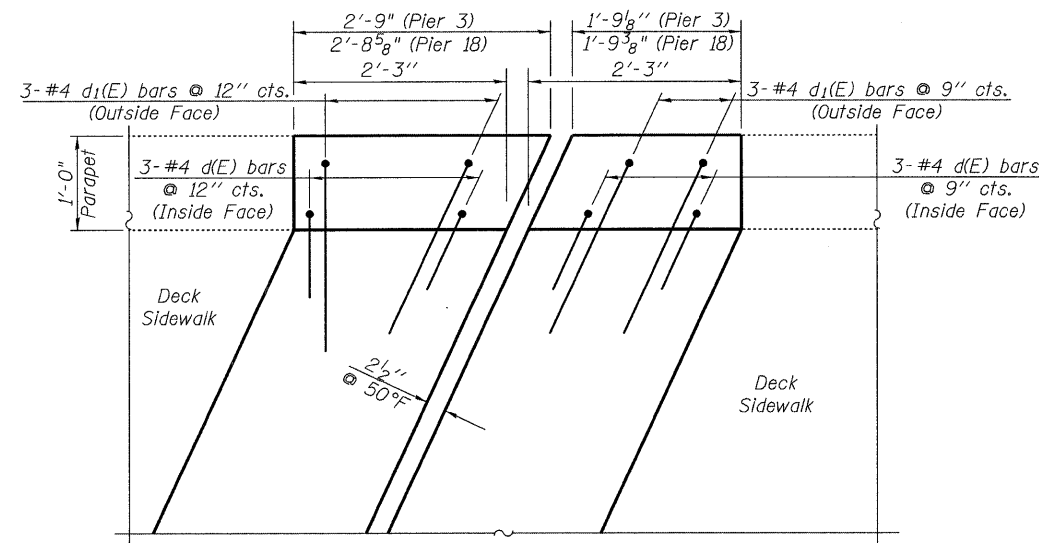
**NOTES:**

For simplicity, only proposed reinforcement critical to parapet replacement is shown. See Sheet 11 of 35 for details at Median and Sidewalk.

Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.

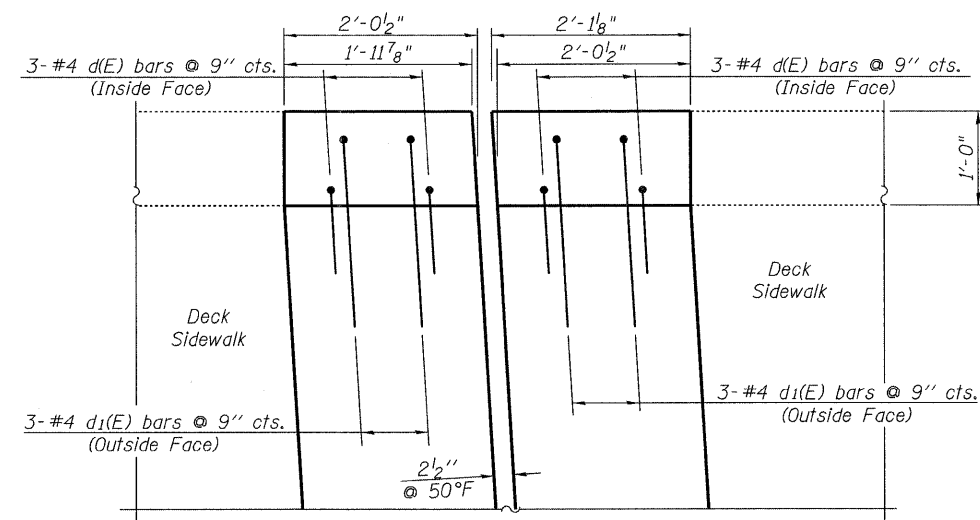
Interference is expected from the existing aluminum rail posts. The Contractor shall remove and reerect the existing bridge rail and post to complete the work as detailed. The existing aluminum rail post shall be reconnected to the reconstructed parapet utilizing the existing mounting bracket. Care shall be taken not to damage the existing bracket. The base of the rail post shall be sealed with two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer. All labor, equipment, and materials necessary for removing and reinstalling the bridge rail and bridge rail post shall be included in the cost for Concrete Superstructure.

Care shall be taken to avoid damaging the existing electrical conduit located directly under the edge of deck on the East side of the Expansion Joint at Pier 11. When replacing the Joint at this location, extra concrete may be needed under the deck to accommodate a Support Box for the Modular Expansion Joint, similar to Section C-C on sheet 10 of 35. Any extra concrete used shall not interfere with the existing electrical conduit.



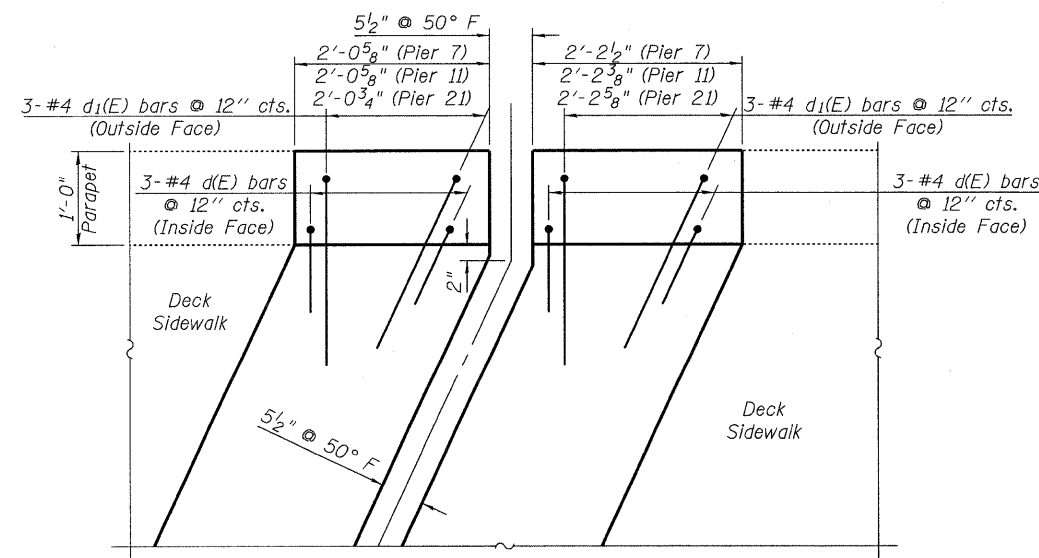
**PLAN - CONCRETE REPLACEMENT**

(West ends of Deck Joints at Piers 3 and 18 Shown, East ends similar)



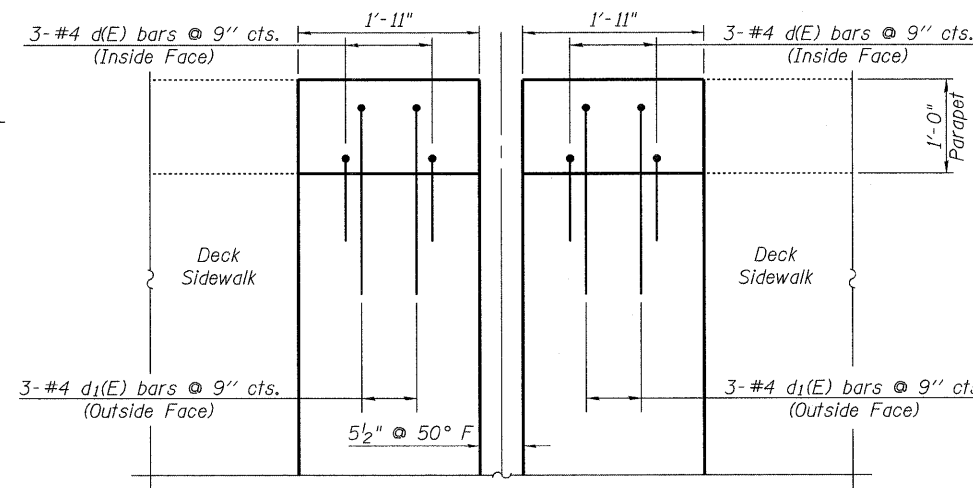
**PLAN - CONCRETE REPLACEMENT**

(West end of Deck Joint at Pier 15 shown, East end similar)



**PLAN - CONCRETE REPLACEMENT**

(West ends of Deck Joints at Piers 7, 11, and 21 Shown, East ends similar except for Pier 11 which has no Sidewalk or Parapet)



**PLAN - CONCRETE REPLACEMENT**

(West end of Deck Joint at Pier 24 shown, East end similar)

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION EXPANSION JOINT REHABILITATION DETAILS II BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p>
	<p>DRAWN BY: WJV CHECKED BY: BLB</p>
	<p></p>

K:\11225903\Structures\Burnham Ave. Over R.R. & River\Final Plans\Exp\_Joints.dgn 1/13/2009

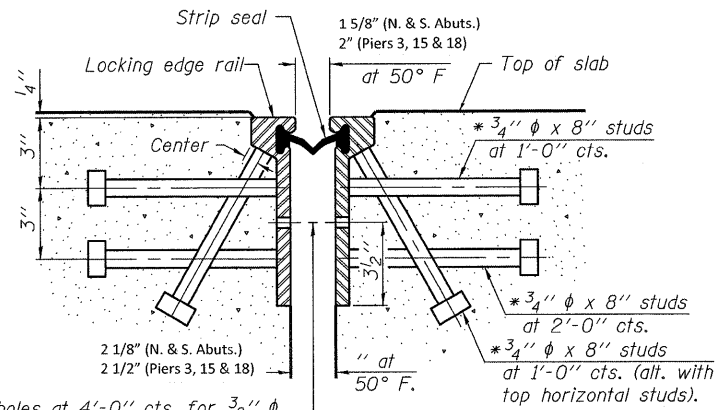
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2943	1212.8-I-1	Cook	51	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13

35 SHEETS

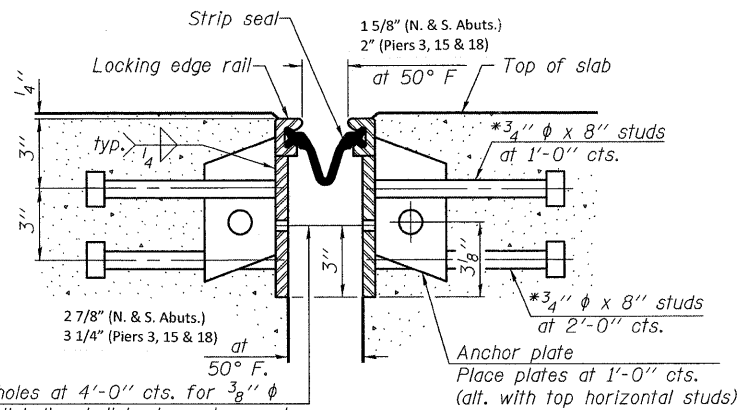
Contract # 60D74

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



7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT



7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

Notes:

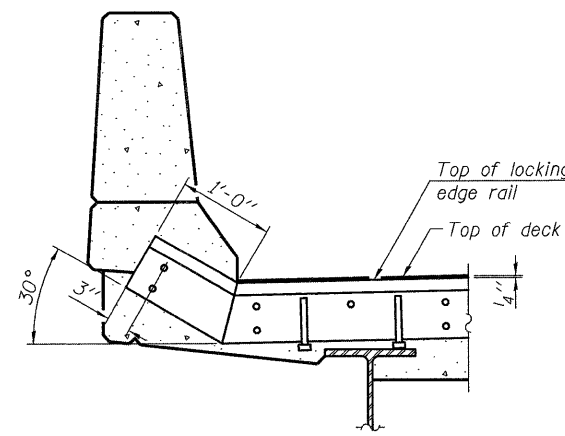
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 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.

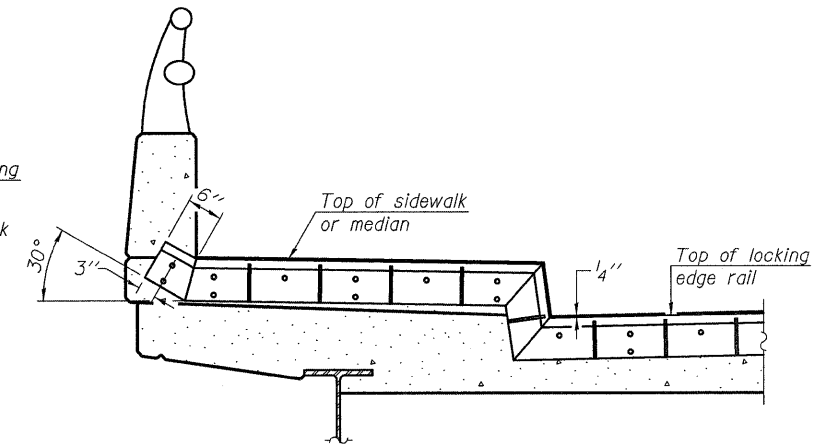
The manufacturer's recommended installation methods shall be followed.

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 made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



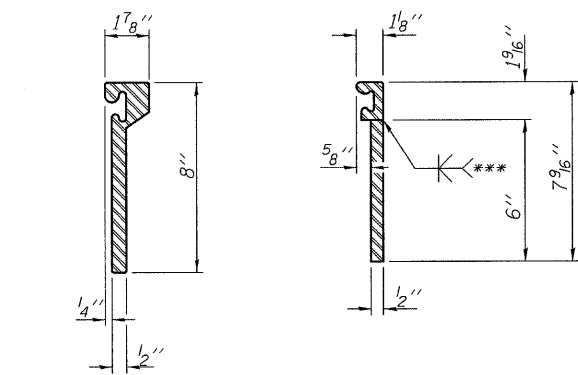
AT PARAPET



AT SIDEWALK OR MEDIAN

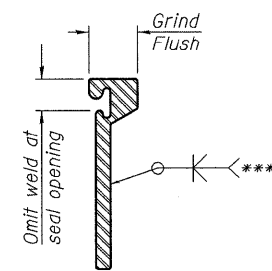
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS



ROLLED EXTRUDED RAIL

WELDED RAIL

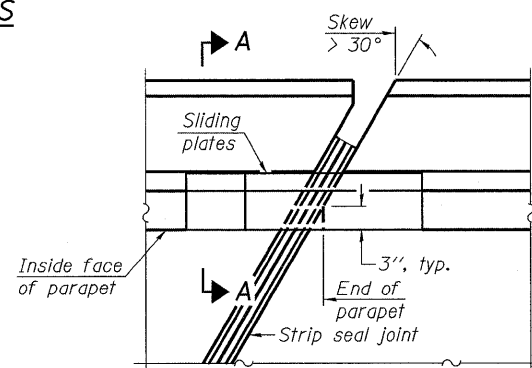


\*\*\*Back gouge not required if complete joint penetration is verified by mock-up.

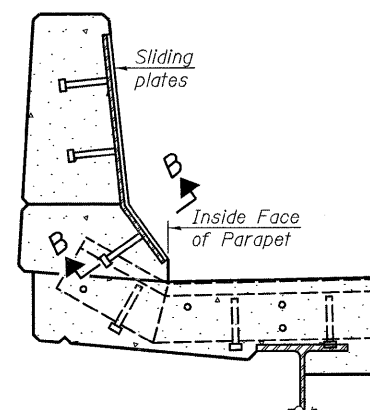
LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

LOCKING EDGE RAILS

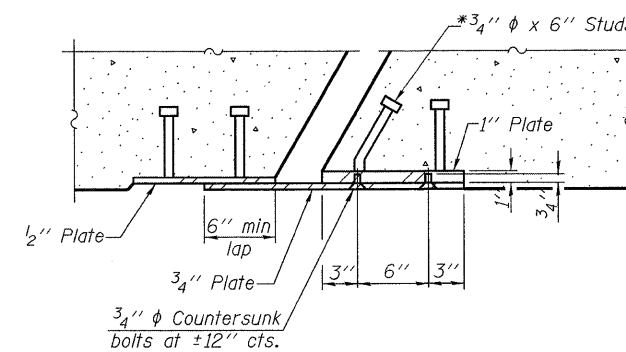


PLAN



SECTION A-A

POINT BLOCK DETAILS (for skews > 30°)



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	389

**rjngroup**  
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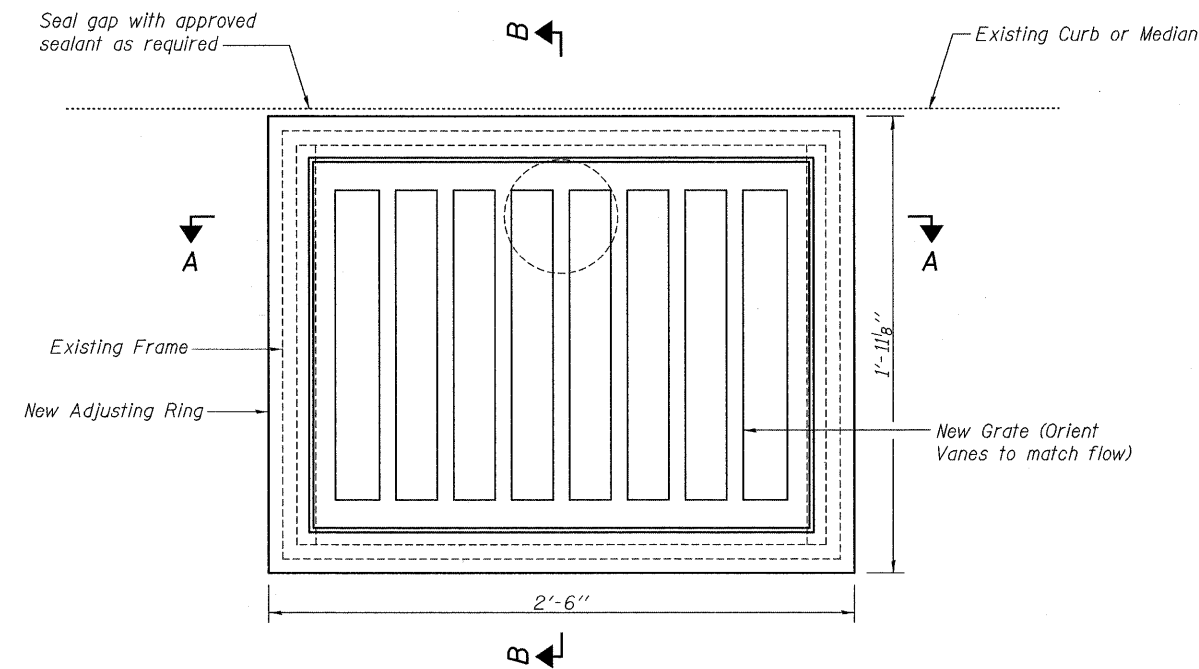
200 West Front Street  
Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PREFORMED JOINT STRIP SEAL  
AT ABUTMENTS AND PIERS 3, 15 & 18  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806

DATE: 1-14-2009

DRAWN BY WJV  
CHECKED BY BLB

Contract # 60D74



PLAN OF TYPE B SCUPPER

See Sheets 1 and 2 of 35 for scupper locations.

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Cast iron parts shall be unfinished.

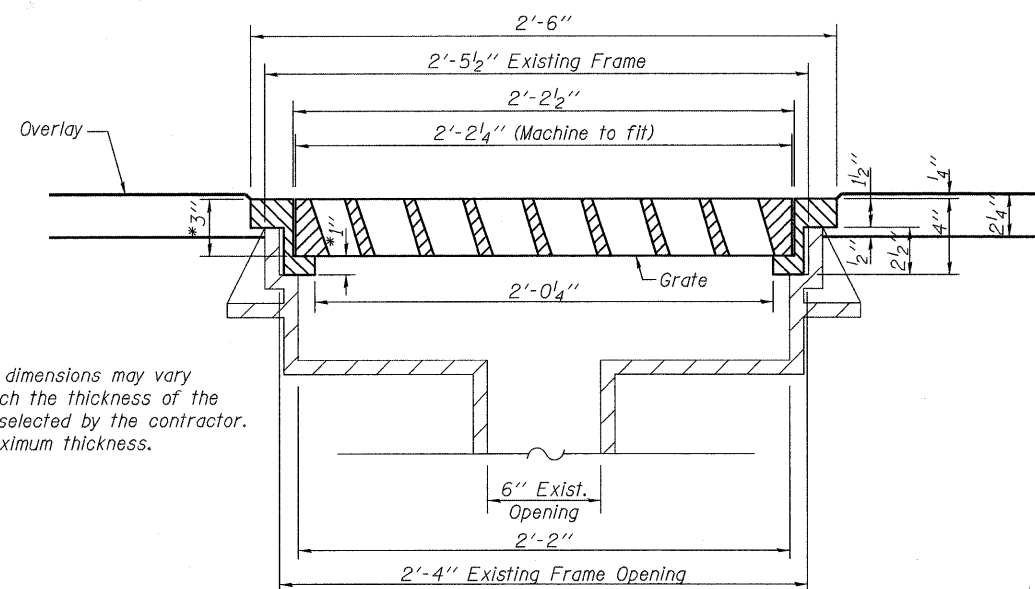
Adjusting ring and grates shall be from Neenah or approved equal. Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron adjusting ring. Fillet or full penetration welds may be used for weldments. Details shall be submitted to the engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel adjusting rings shall be galvanized according to AASHTO M111.

Provide a 1/8" fillet weld around perimeter of new adjusting ring to secure to existing scupper. Electrode shall be compatible with cast iron. Prior to welding, all exposed surfaces of the existing scupper shall be completely cleaned.

Cost of the Adjusting Ring and Grate, cleaning the existing scupper, and welding the new adjusting ring, including complete installation of the adjusting ring and grate, as well as the removal and disposal of the existing Grate, shall be paid for at the contract unit price each for Adjusting Drainage Scuppers, Type B.

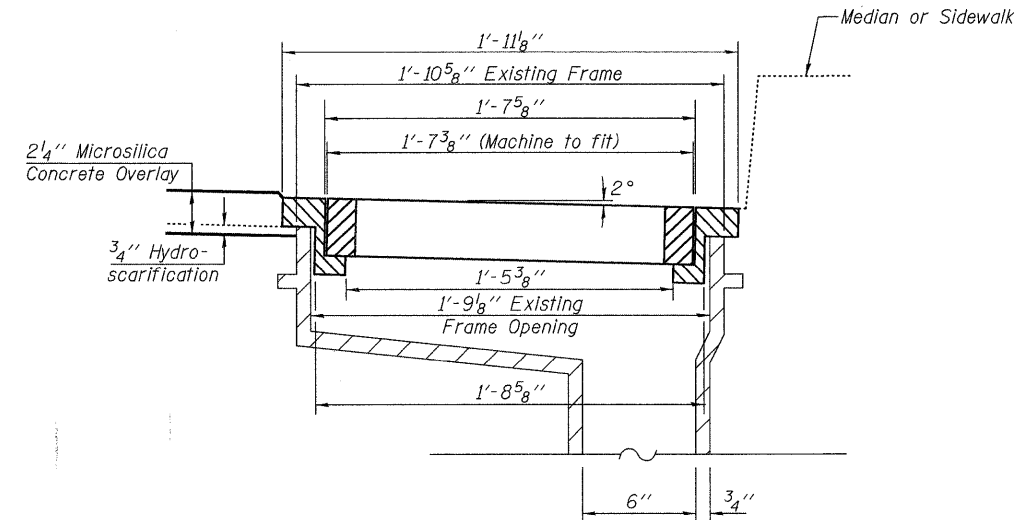
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the Scuppers.

Some existing median scuppers are recessed into the existing median. Contractor shall coordinate median reconstruction with scupper grate replacement so that adequate clearance is provided for new scupper adjusting rings.



SECTION A-A

\*These dimensions may vary to match the thickness of the grate selected by the contractor. 3" maximum thickness.



SECTION B-B

All Draft Angles are 3°.

BILL OF MATERIAL

Item	Unit	Quantity
Adjusting Drainage Scuppers, Type B	Each	27

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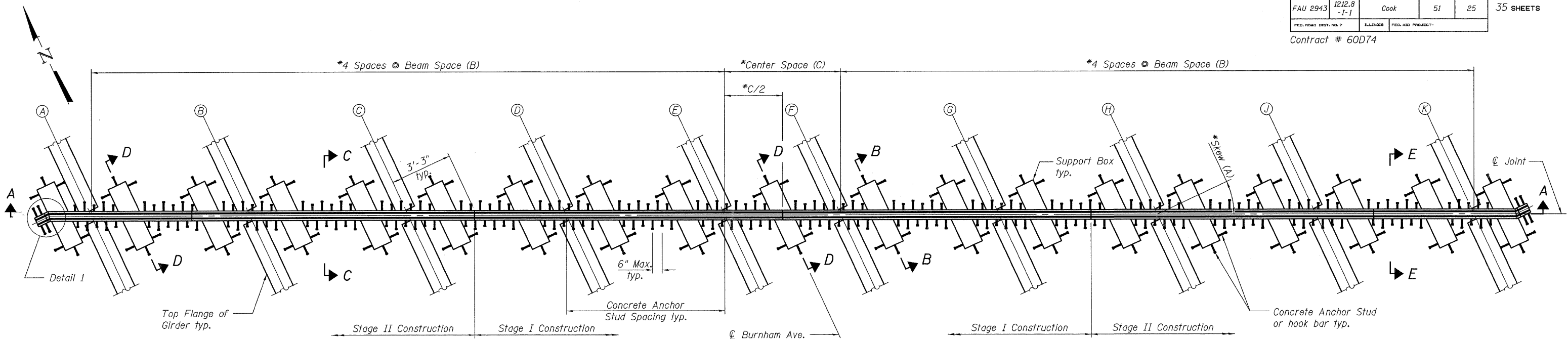
200 West Front Street  
Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ADJUSTING DRAINAGE SCUPPER  
DETAILS  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806

DATE: 1-14-2009

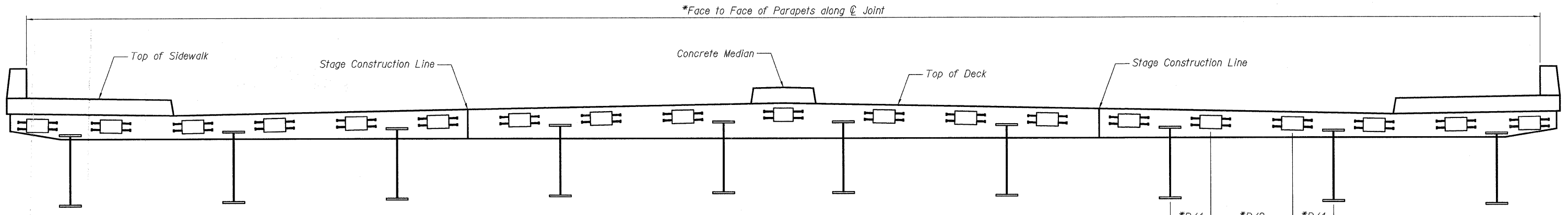
DRAWN BY BLB  
CHECKED BY JMT

Contract # 60D74



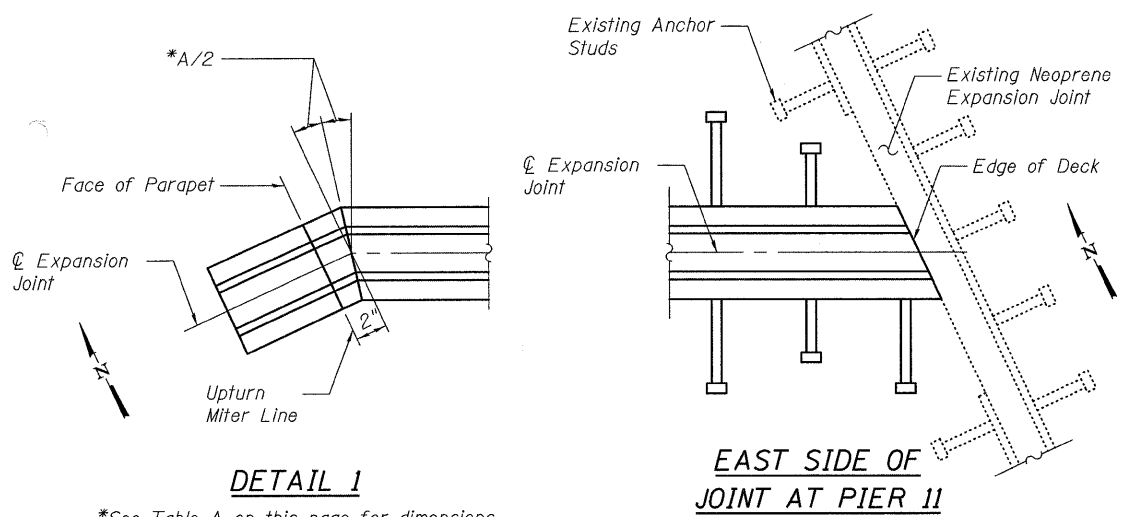
**PLAN - MODULAR EXPANSION JOINT**

Joint at Piers 7, 11 and 21 shown  
See sheet 15 of 35 for Section A-A of Joint at Pier 21  
East end of Joint at Pier 11 continues straight to edge of deck  
\*See Table A on this page for dimensions



**SECTION A-A**

Joint at Piers 7 and 11 shown  
The Deck at Pier 11 has no Raised Median or East Sidewalk and Parapet  
\*See Table A on this page for dimensions



**DETAIL 1**

\*See Table A on this page for dimensions

**EAST SIDE OF JOINT AT PIER 11**

Contractor shall exercise care when removing Concrete to avoid damage to Existing Anchor Studs to remain in place

**NOTES:**

- See sheet 15 of 35 for Modular Expansion Joint notes and Bill of Material
- See sheet 16 of 35 for Sections B-B, C-C, D-D, and E-E.

**TABLE A**

Location	Type of Expansion Joint	Longitudinal Movement along C Bridge	Differential Movement at Face of Parapets	Skew (A)	Beam Space (B)	Center Space (C)	Face to Face of Parapets
Pier 7	Modular, 6"	4 <sup>3</sup> / <sub>8</sub> "	0"	24° 17' 54"	8'-2 <sup>3</sup> / <sub>8</sub> "	6'-0 <sup>3</sup> / <sub>8</sub> "	76'-3"
Pier 11	Modular, 6"	3 <sup>7</sup> / <sub>8</sub> "	0"	24° 4' 22"	8'-2 <sup>5</sup> / <sub>8</sub> "	6'-0 <sup>1</sup> / <sub>4</sub> "	**77'-9 <sup>1</sup> / <sub>2</sub> "
Pier 21	Modular-Swivel, 6"	3 <sup>7</sup> / <sub>8</sub> "	± <sup>1</sup> / <sub>4</sub> "	25° 0' 0"	8'-3 <sup>1</sup> / <sub>4</sub> "	6'-0 <sup>3</sup> / <sub>8</sub> "	76'-8 <sup>1</sup> / <sub>4</sub> "
Pier 24	Modular, 6"	4 <sup>3</sup> / <sub>4</sub> "	0"	0°	7'-6"	5'-6"	69'-6"

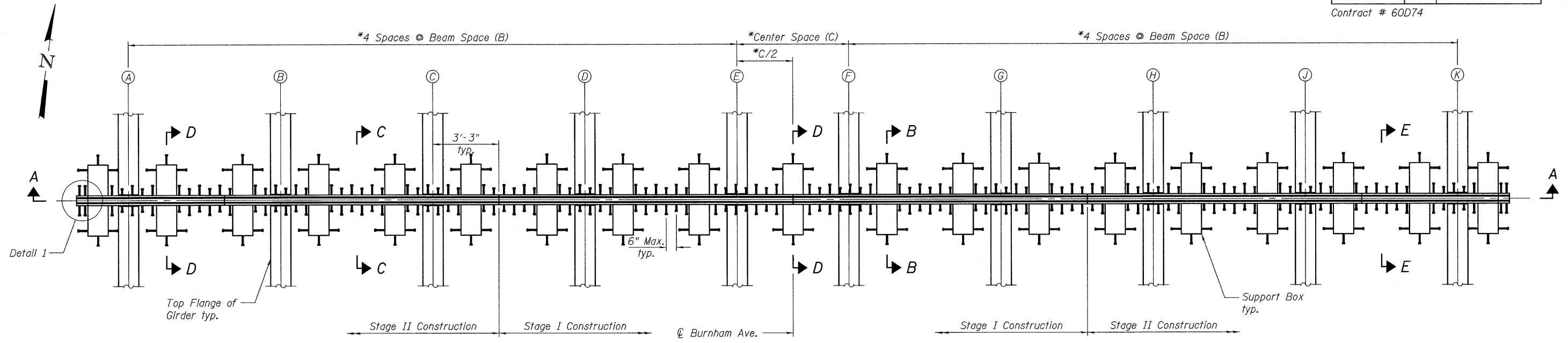
\*\*The East side of the Deck at Pier 11 has no Sidewalk or Parapet. Dimension shown is from the Face of the West Parapet to the East edge of the Deck along the Joint.

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
MODULAR JOINT  
AT PIERS 7, 11 & 21  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806

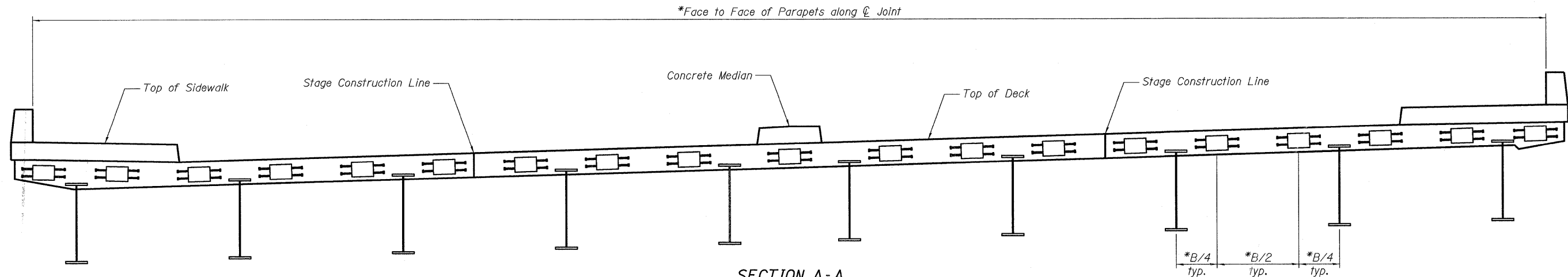
DATE: 1-14-2009

DRAWN BY LCM  
CHECKED BY BLB



**PLAN - MODULAR EXPANSION JOINT**

Joint at Pier 24 shown  
\*See Table A on page 14 of 34 for dimensions



**SECTION A-A**

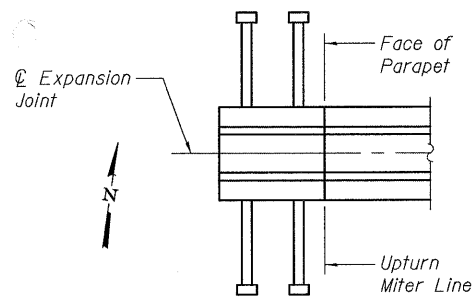
Joint at Piers 21 and 24 shown  
\*See Table A on page 14 of 34 for dimensions

**NOTES:**

1. Modular Expansion Joint shall be designed in accordance with the 2002 AASHTO Specifications for HS-20 truck loading with impact.
2. The expansion joint device shall be prefabricated modular assembly with multiple support bars and separation beams providing a continuous seal across the joint.
3. Joint shall be fabricated and installed according to the manufacturer's recommendations and as shown in Special Provisions for Modular Expansion Joint and as approved by the Engineer.
4. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
5. All steel for the sliding plates (cover plates) shall be galvanized by the hot dip process in the shop according to AASHTO M111 (ASTM A123).
6. Modular Expansion Joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
7. All Splices of center beams and edge beams located in the roadway shall be full penetration welds. (Upturn splices within parapet may be partial penetration welds).
8. No aluminum components shall be allowed.
9. See sheet 10 of 35 for deck reinforcement plans.
10. Provide Temporary Support of End of Modular Joint by tying Studs to Deck Reinforcement.
11. Modular Expansion Joint shall be shipped in one piece unless noted.
12. All exposed structural steel elements such as separation beams, edge beams, support bars, sliding plate assemblies, and cover plates shall be fabricated with AASHTO M270 grade 50 ksi steel.
13. Concrete Anchor studs attached to the modular expansion joint shall conform to the requirements of article 1006.32 of the Standard Specifications. The cost of all Concrete Anchor Studs shall be included with "Modular Expansion Joint, 6" or "Modular Expansion Joint-Swivel, 6".
14. See sheet 16 of 35 for Sections B-B, C-C, D-D, and E-E

**BILL OF MATERIAL**

Item	Unit	Total
Modular Expansion Joint, 6"	Foot	229
Modular Expansion Joint-Swivel, 6"	Foot	79

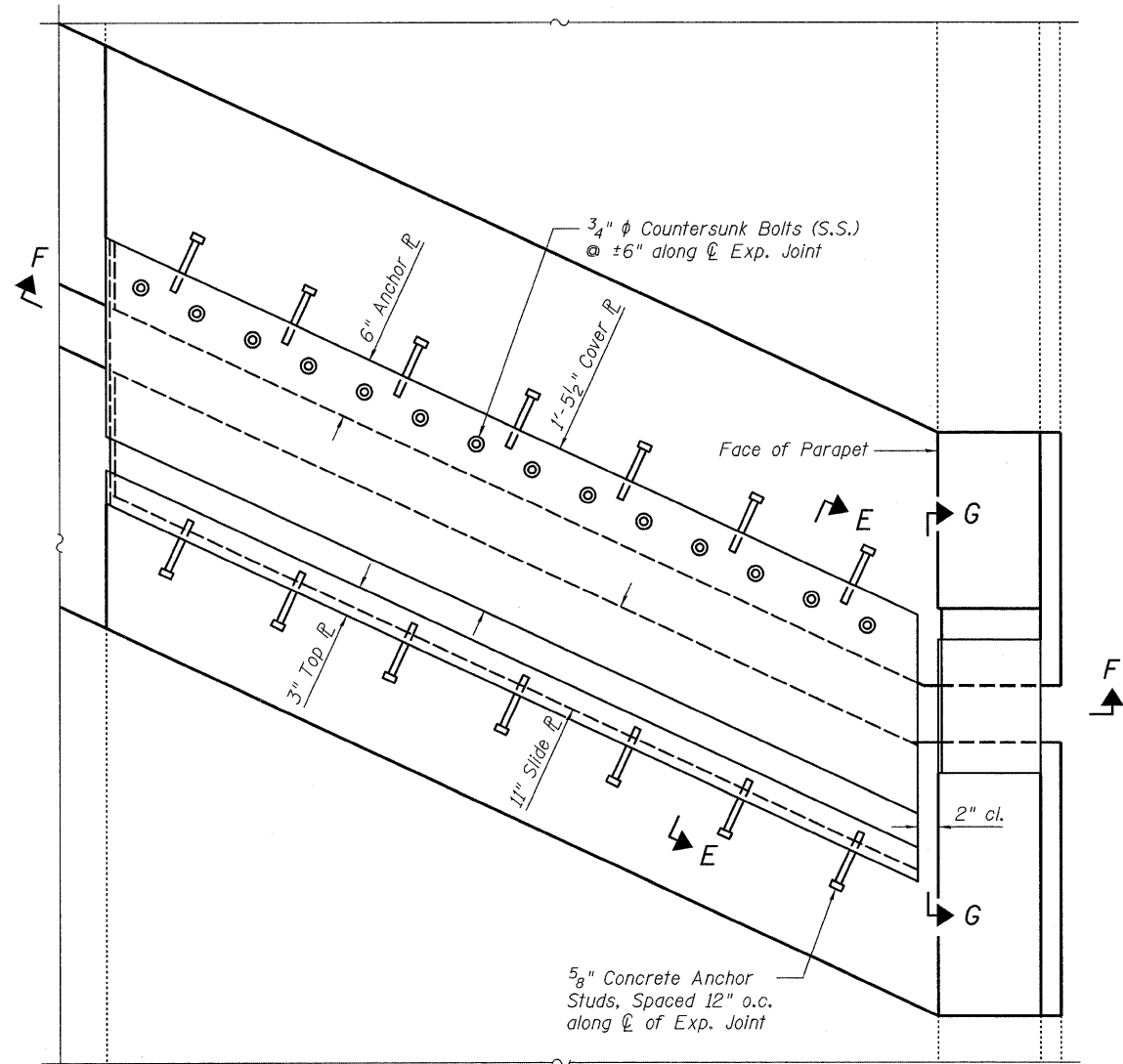


**DETAIL 1**

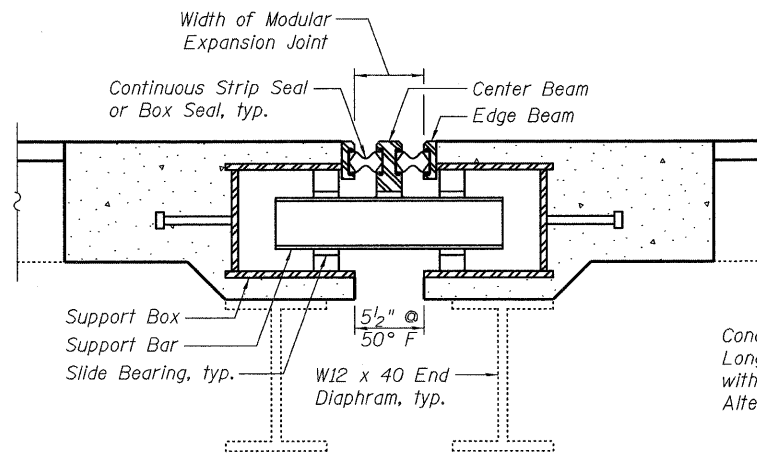
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION MODULAR JOINT AT PIER 24 BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY LCM CHECKED BY BLB</p>

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 17 35 SHEETS
FAU 2943	1212.8 -I-1	Cook	51	27	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 60D74

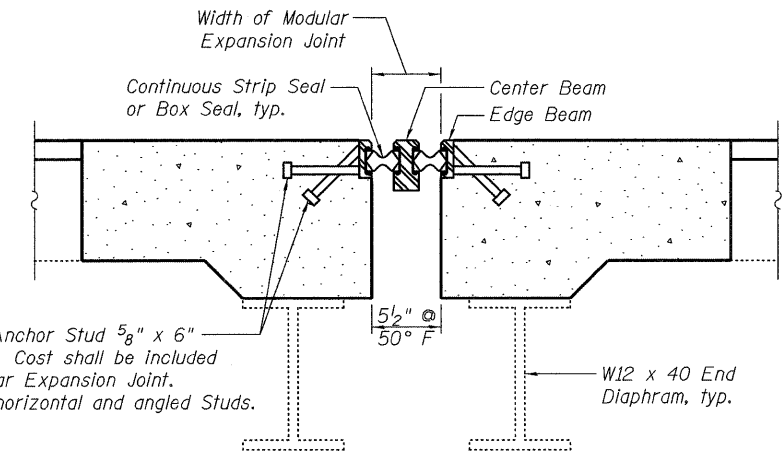


**SIDEWALK COVER PLATE PLAN**  
Slide Plate over Concrete Median similar



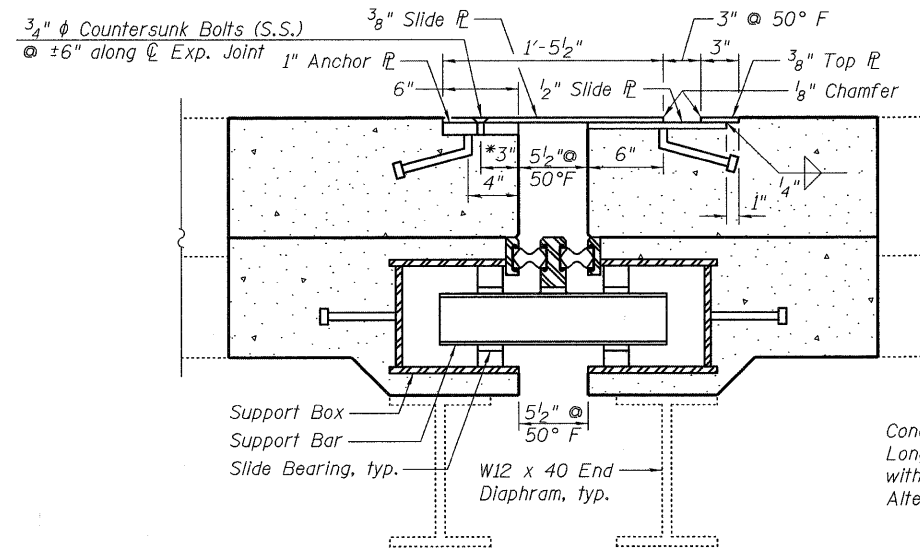
**SECTION B-B**

All Dimensions at Right Ls



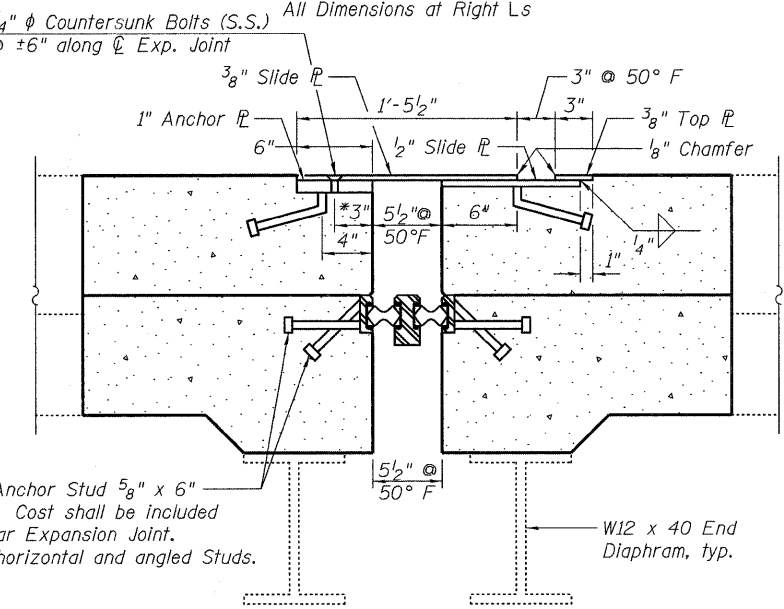
**SECTION C-C**

All Dimensions at Right Ls



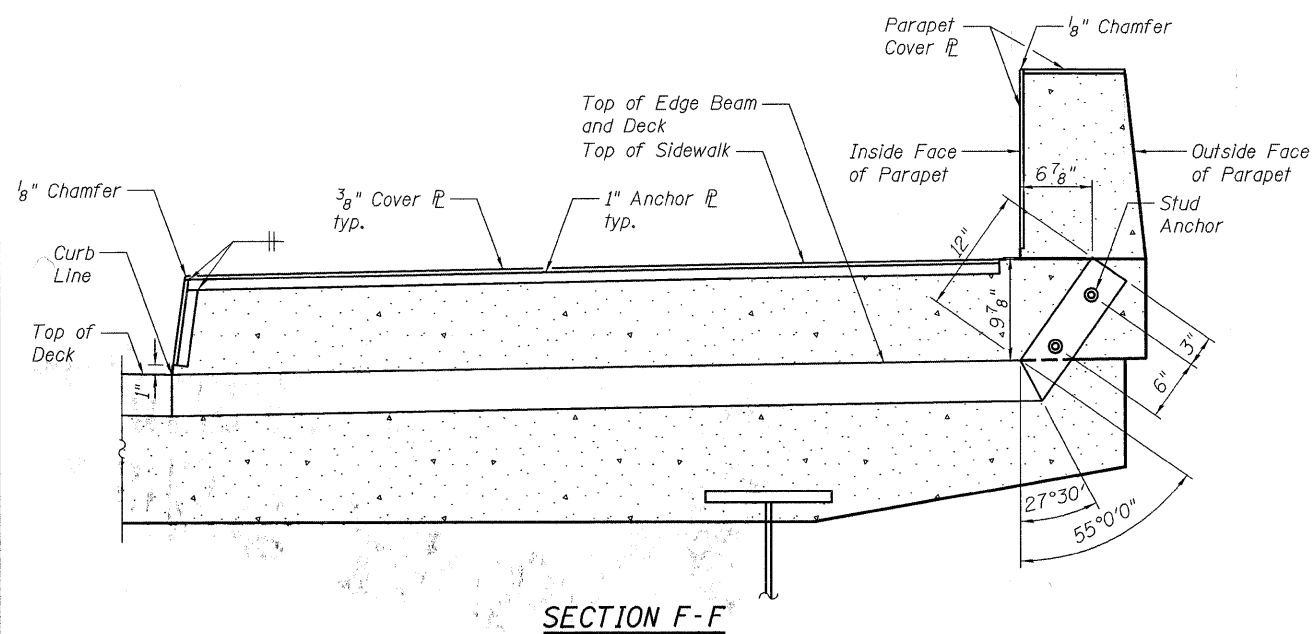
**SECTION D-D**

All Dimensions at Right Ls  
Section at Median does not have End Diaphragm

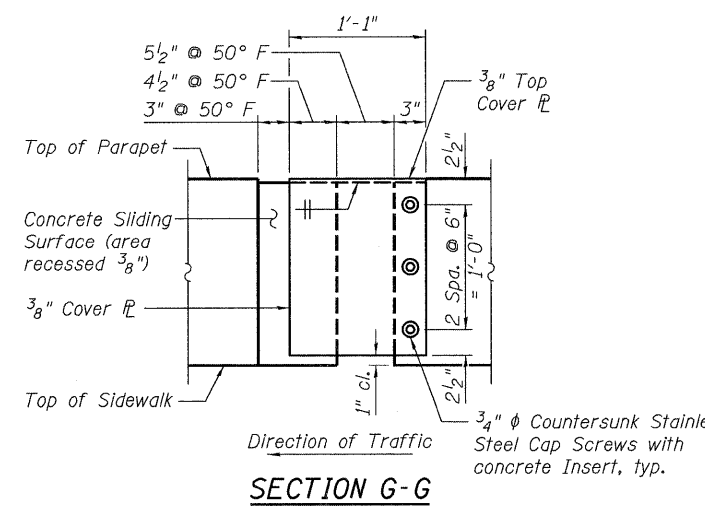


**SECTION E-E**

All Dimensions at Right Ls



**SECTION F-F**



**SECTION G-G**

\*3/4"  $\phi$  Countersunk Bolts (S.S.)  
 $\odot \pm 6"$  along  $\perp$  Exp. Joint

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
MODULAR JOINT DETAILS  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806  
DATE: 1-14-2009  
DRAWN BY LCM  
CHECKED BY BLB

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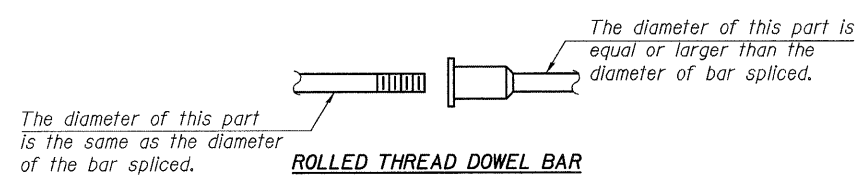
Contract # 60D74

**NOTES**

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 tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
 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:

- ① Minimum Capacity =  $1.25 \times f_y \times A_f$   
(Tension in kips)
  - ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_f$   
(Tension in kips)
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_f$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

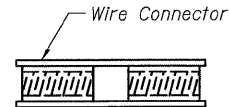
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



**ROLLED THREAD DOWEL BAR**



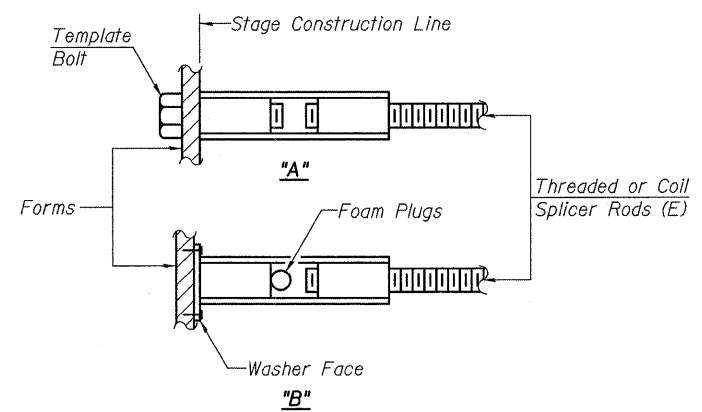
**\*\* ONE PIECE**



**WELDED SECTIONS**

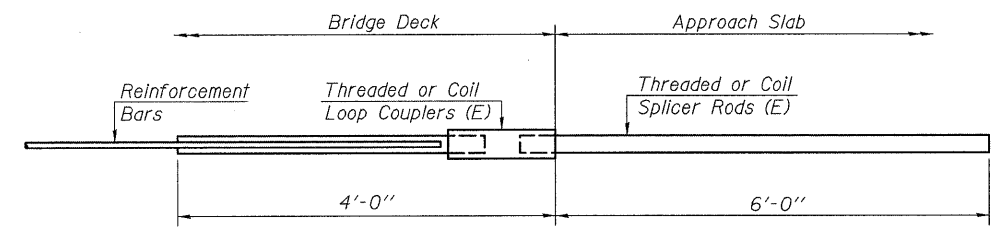
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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



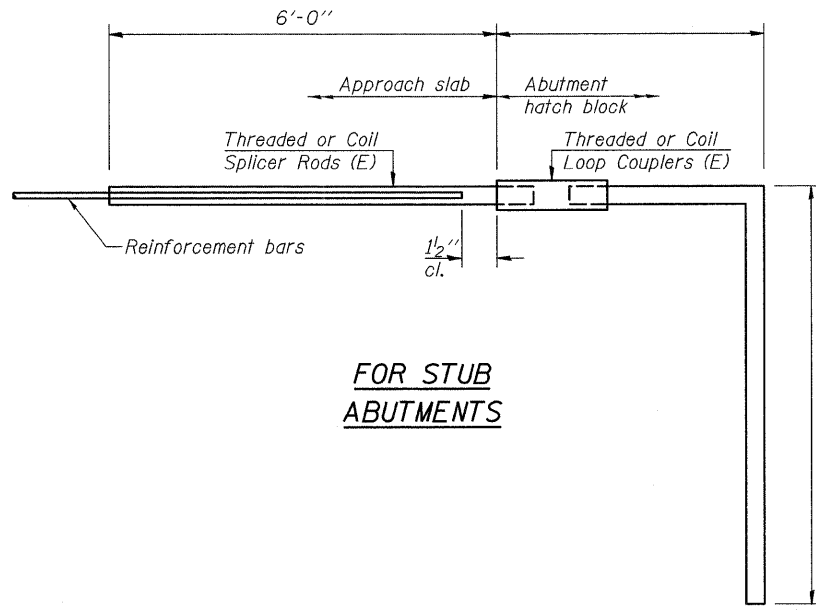
**INSTALLATION AND SETTING METHODS**

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



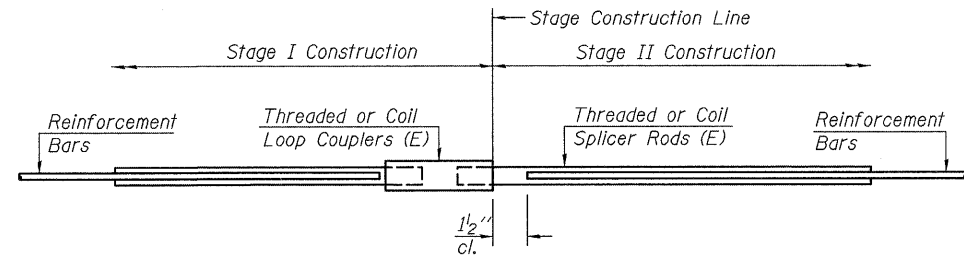
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



**FOR STUB ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



**STANDARD**

Bar Size	No. Assemblies Required	Location
#5	28	Deck @ S. Abut.
#5	40	Deck @ Pier 3
#5	40	Deck @ Pier 7
#5	40	Deck @ Pier 11
#5	40	Deck @ Pier 15
#5	40	Deck @ Pier 18
#5	40	Deck @ Pier 21
#5	40	Deck @ Pier 24
#5	28	Deck @ S. Abut.

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BAR SPLICER ASSEMBLY DETAILS  
 BURNHAM AVE OVER STATE ST, R.R. & RIVER  
 FAU RTE 2943 SECTION 1212.8-I-1  
 COOK COUNTY  
 STATION 231+79.04  
 STRUCTURE NO. 016-0806  
 DATE: 1-14-2009  
 DRAWN BY: WJV  
 CHECKED BY: BLB

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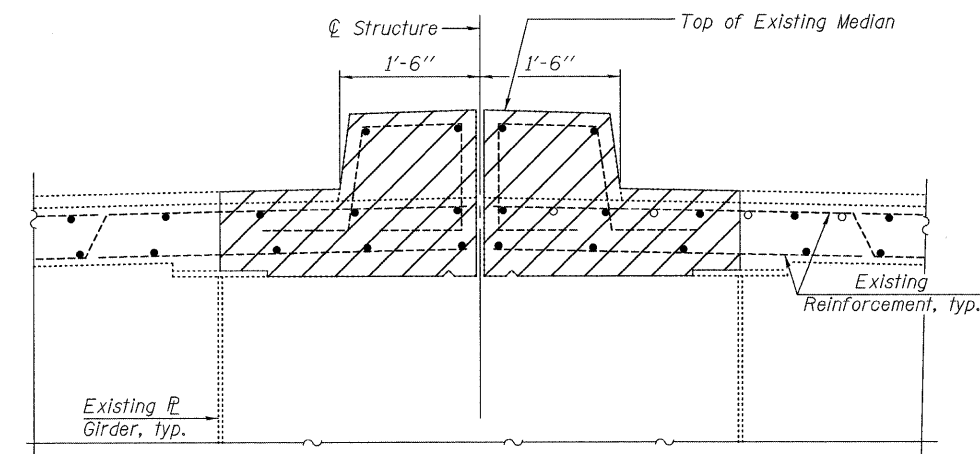


Contract # 60D74

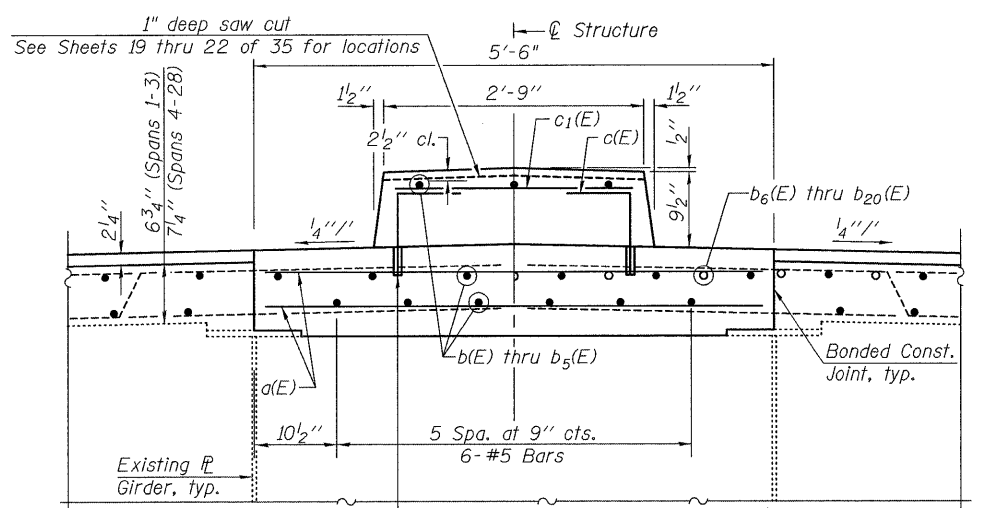
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	5718	#5	5'-3"	—
a <sub>1</sub> (E)	48	#5	4'-0"	—
b(E)	585	#5	30'-0"	—
b <sub>1</sub> (E)	180	#5	30'-7"	—
b <sub>2</sub> (E)	288	#5	28'-0"	—
b <sub>3</sub> (E)	30	#5	29'-0"	—
b <sub>4</sub> (E)	3	#5	20'-0"	—
b <sub>5</sub> (E)	189	#5	31'-2"	—
b <sub>6</sub> (E)	12	#6	37'-3"	—
b <sub>7</sub> (E)	6	#6	39'-3"	—
b <sub>8</sub> (E)	12	#6	31'-4"	—
b <sub>9</sub> (E)	6	#6	35'-8"	—
b <sub>10</sub> (E)	6	#6	30'-8"	—
b <sub>11</sub> (E)	6	#6	34'-1"	—
b <sub>12</sub> (E)	6	#6	28'-3"	—
b <sub>13</sub> (E)	6	#6	25'-5"	—
b <sub>14</sub> (E)	6	#6	29'-6"	—
b <sub>15</sub> (E)	6	#6	34'-4"	—
b <sub>16</sub> (E)	6	#6	29'-9"	—
b <sub>17</sub> (E)	18	#6	40'-1"	—
b <sub>18</sub> (E)	12	#6	44'-5"	—
b <sub>19</sub> (E)	6	#6	31'-11"	—
b <sub>20</sub> (E)	6	#6	34'-10"	—
c(E)	2212	#5	1'-10"	┌
c <sub>1</sub> (E)	4424	#5	2'-6"	—
Concrete Removal		Cu. Yd.	619.1	
Reinforcement Bars, Epoxy Coated		Pound	93,220	
Concrete Superstructure		Cu. Yd.	663.0	
Protective Coat		Sq. Yd.	1725	

Bars indicated thus 6 x 2-#5 etc. indicates 6 line of bars with 2 lengths per line.

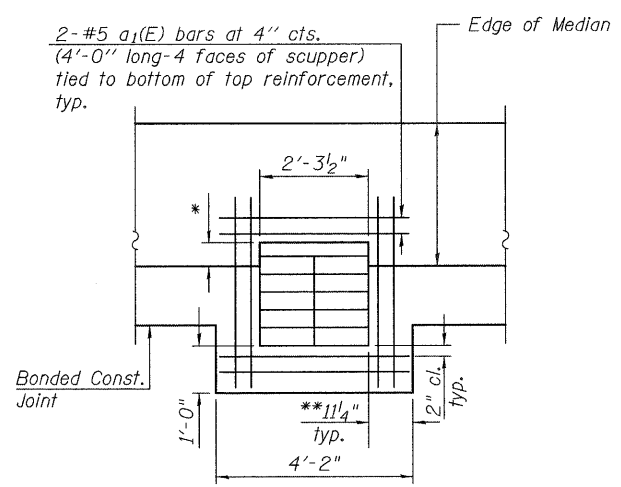


**SECTION A-A (EXISTING)**



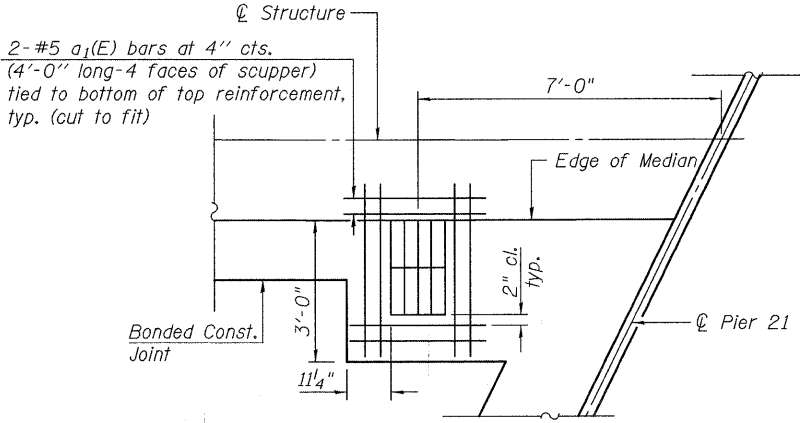
**SECTION A-A (PROPOSED)**

AT MIDSPAN Ferrule Loop Slab Insert Proof Load = 6,600 lbs. Cost Included with Reinforcement Bars, Epoxy Coated. NEAR PIERS



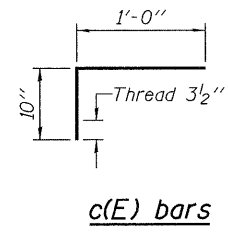
**REINFORCEMENT AT TYPICAL DRAINAGE SCUPPER**

Cut longitudinal reinforcement to clear drainage scuppers. \*Match the existing dimension in the field. \*\*U.N.O.



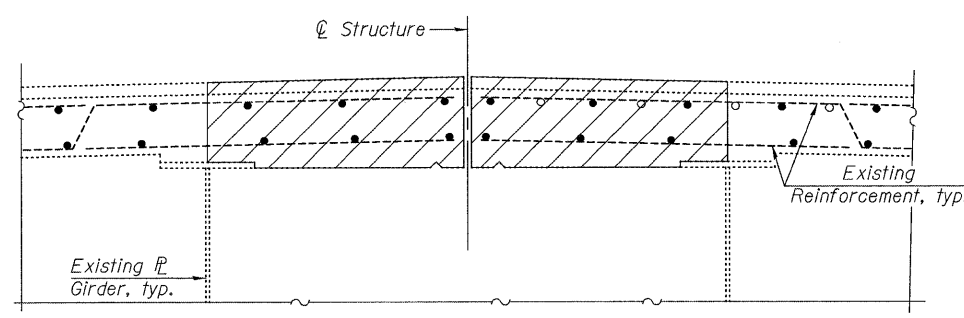
**DRAINAGE SCUPPER, DS-12 STATION 242+85**

Cut longitudinal reinforcement to clear drainage scuppers.

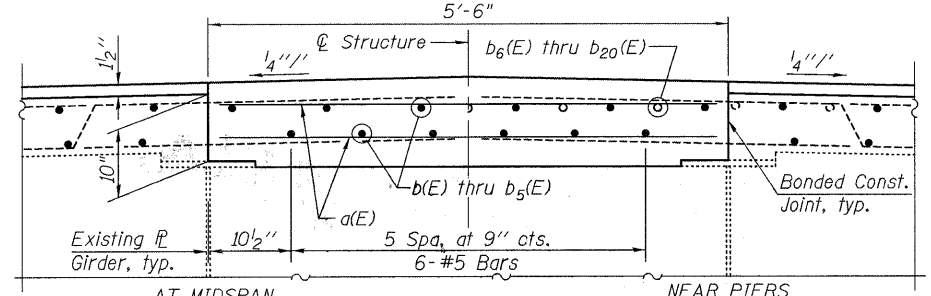


**NOTES:**

Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost included with Concrete Removal.  
Min. Lap Length for #5 bars = 1'-4".  
Location of drainage scuppers found on Sheets 22 and 23 of 35.  
Remove and Clean existing drainage scuppers adjacent to the median, then replace the existing drainage scuppers so that the rim is flush with the top surface of the proposed overlay. Cost included with Concrete Removal.  
U.N.O. = Unless Noted Otherwise  
See Sheet 24 of 35 for Drainage Scupper, DS-12.



**SECTION B-B (EXISTING)**



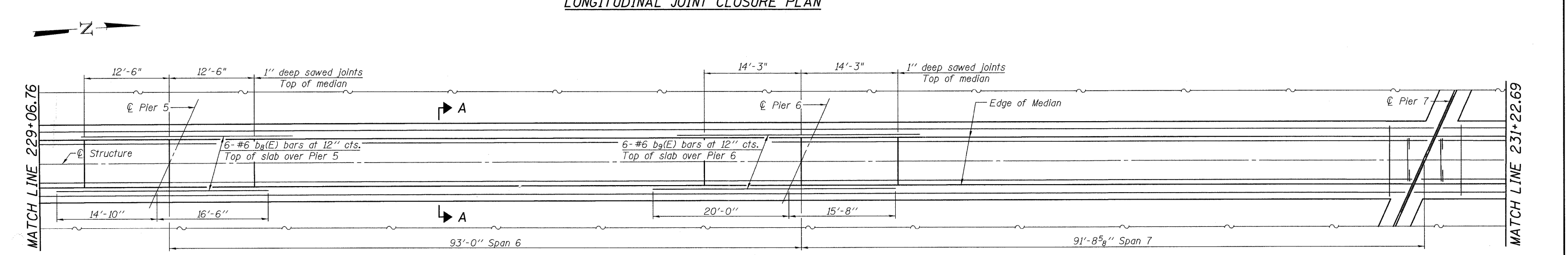
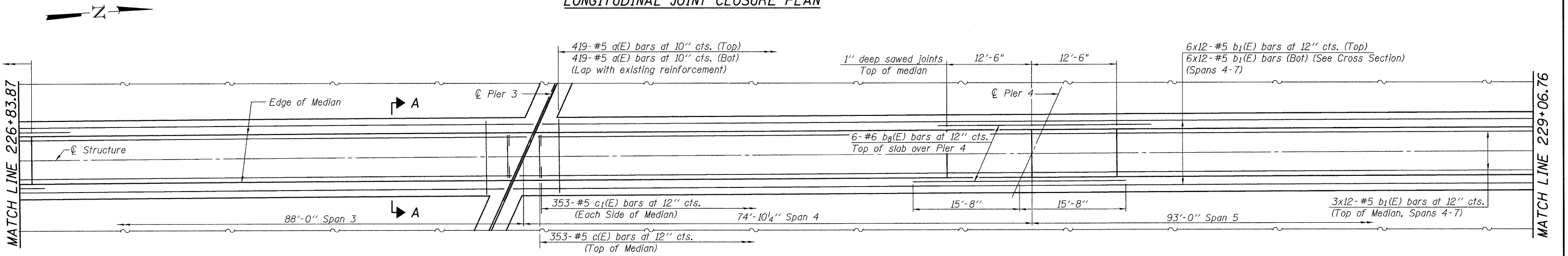
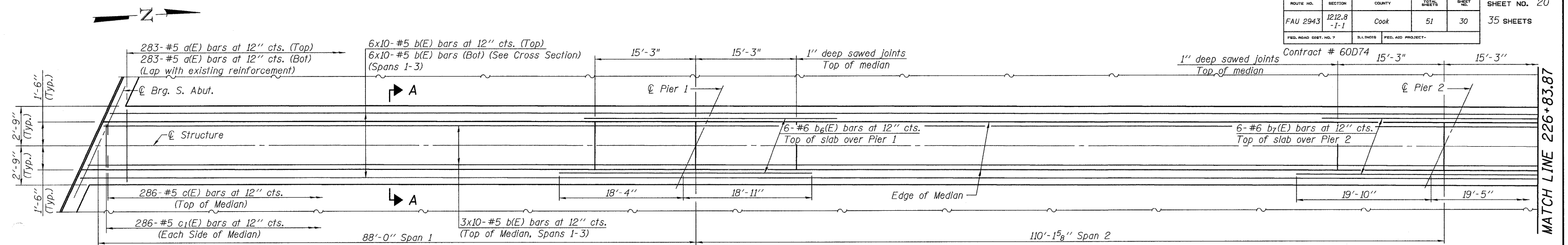
**SECTION B-B (PROPOSED)**

AT MIDSPAN NEAR PIERS

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Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
LONGITUDINAL JOINT AND  
MEDIAN DETAIL  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806  
DATE: 1-14-2009  
DRAWN BY JMT  
CHECKED BY WJV

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20
FAU 2943	1212.8-I-1	Cook	51	30	35 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



**NOTE:**  
Section A-A, B-B and Notes for this sheet are on Sheet 19 of 35.  
See Expansion Joint Replacement Sheets for additional reinforcement.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION LONGITUDINAL JOINT AND MEDIAN PLAN - I BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY JMT CHECKED BY WJV

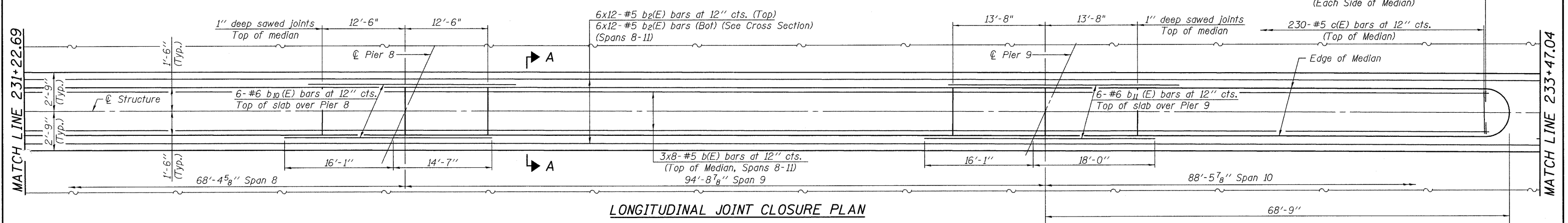
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 21 35 SHEETS
FAU 2943	1212.8 -I-1	Cook	51	31	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 60D74

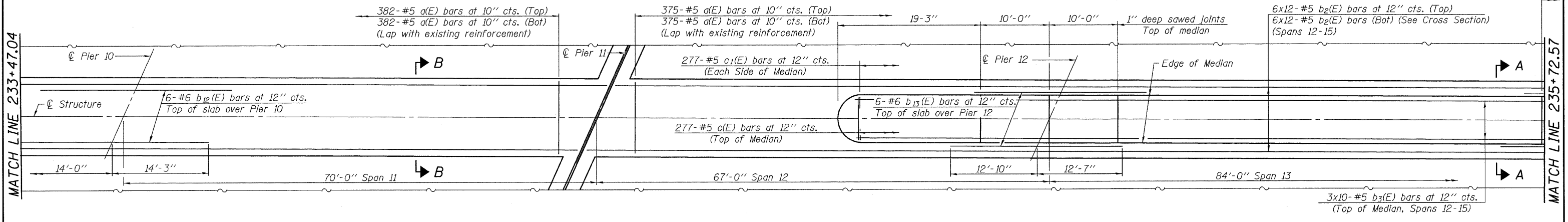
MATCH LINE 231+22.69

MATCH LINE 233+47.04



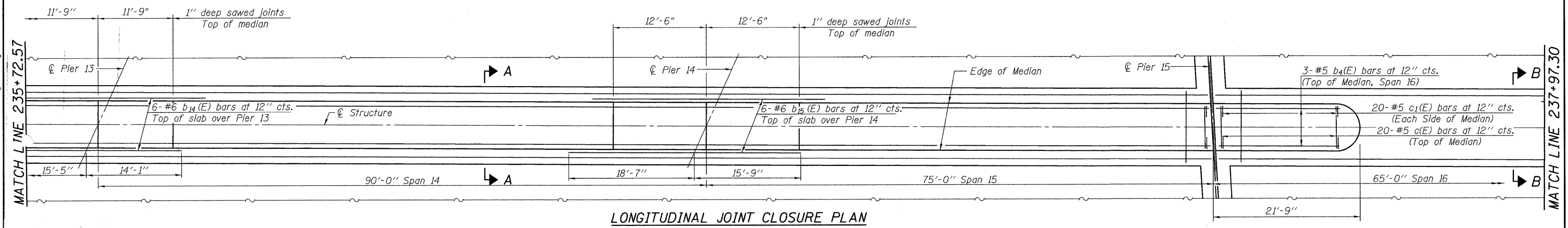
MATCH LINE 233+47.04

MATCH LINE 235+72.57



MATCH LINE 235+72.57

MATCH LINE 237+97.30



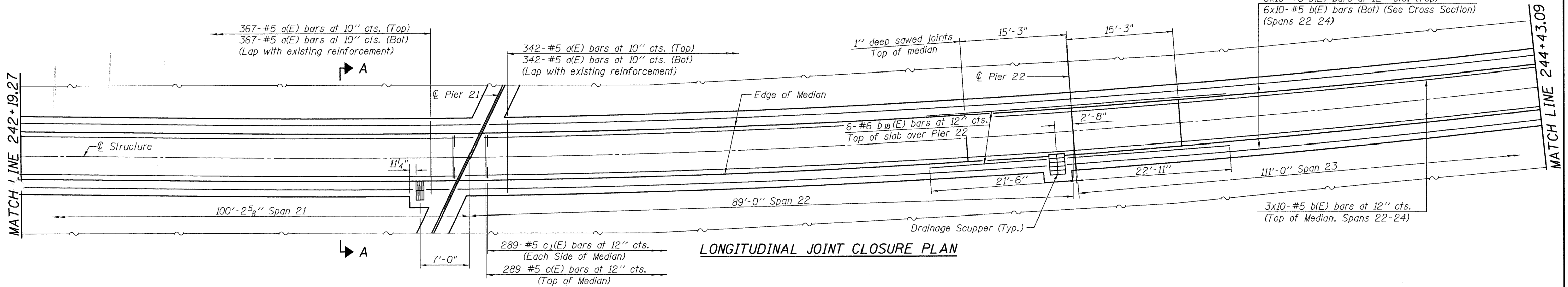
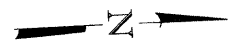
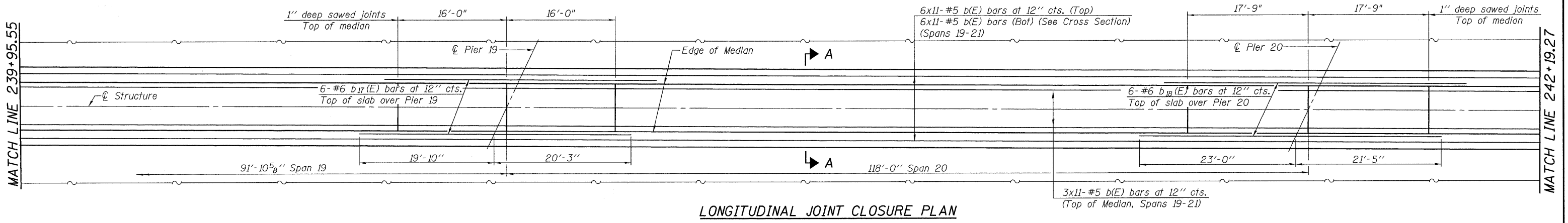
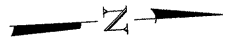
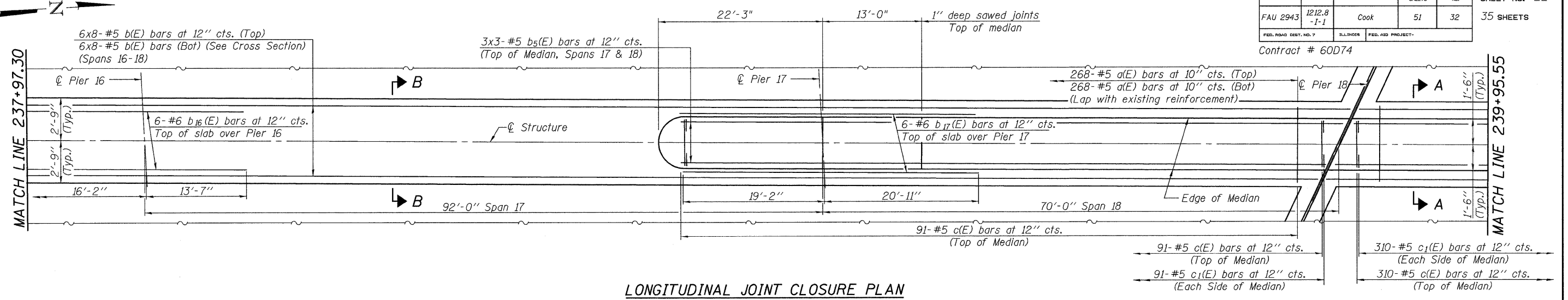
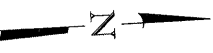
**NOTE:**  
Section A-A, B-B and Notes for this sheet are on Sheet 19 of 35.  
See Expansion Joint Replacement Sheets for additional reinforcement.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION LONGITUDINAL JOINT AND MEDIAN PLAN - II BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22 35 SHEETS
FAU 2943	1212.8 -I-1	Cook	51	32	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

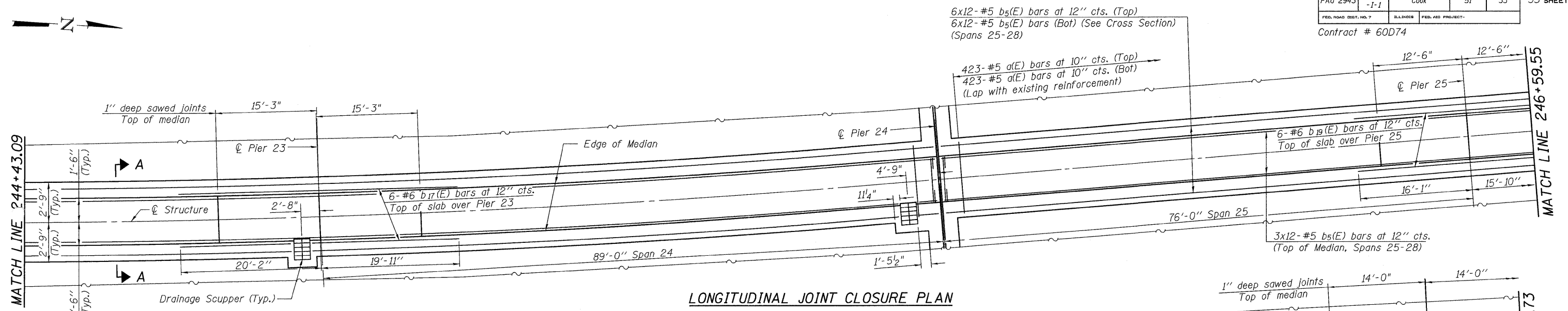
Contract # 60D74



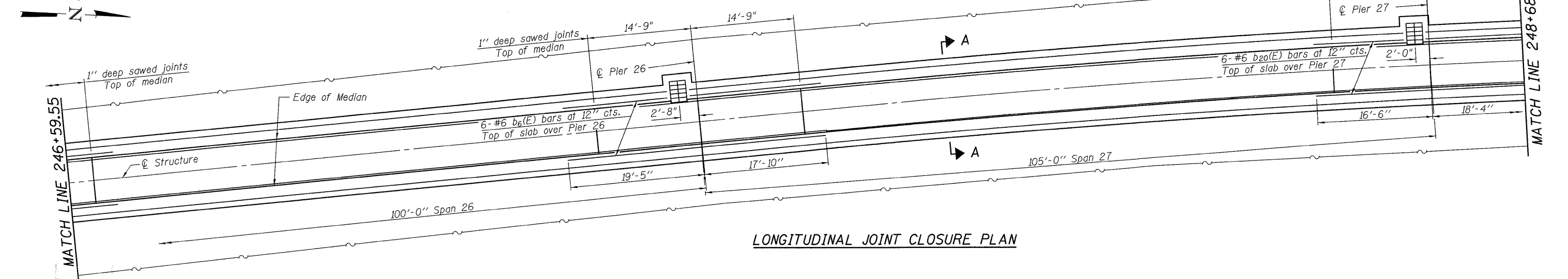
**NOTE:**  
 Section A-A, B-B, Drainage Scupper details and Notes for this sheet are on Sheet 19 of 35.  
 See Expansion Joint Replacement Sheets for additional reinforcement.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION LONGITUDINAL JOINT AND MEDIAN PLAN - III BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

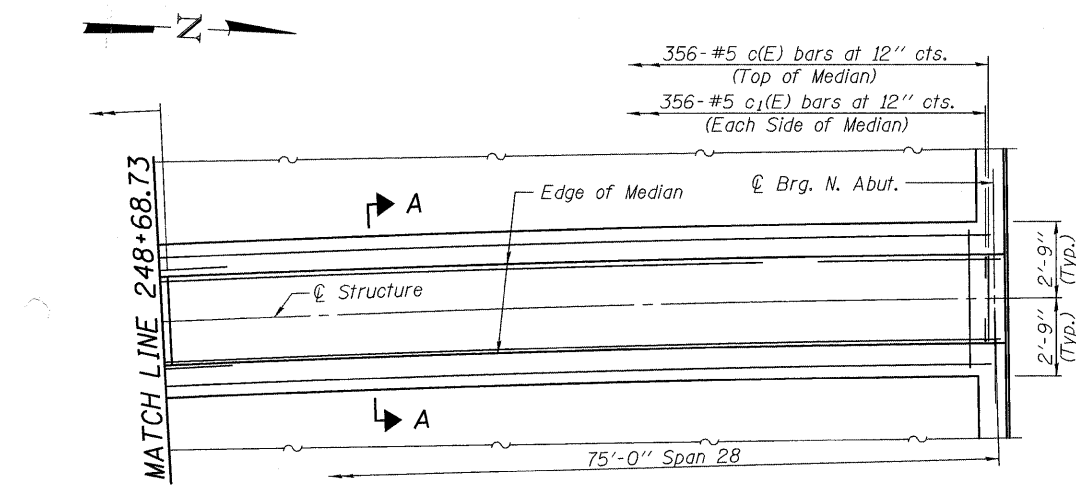
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LONGITUDINAL JOINT CLOSURE PLAN



LONGITUDINAL JOINT CLOSURE PLAN



LONGITUDINAL JOINT CLOSURE PLAN

**NOTE:**  
Section A-A, B-B, Drainage Scupper details and Notes for this sheet are on Sheet 19 of 35.  
See Expansion Joint Replacement Sheets for additional reinforcement.

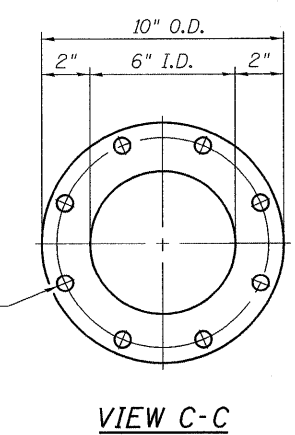
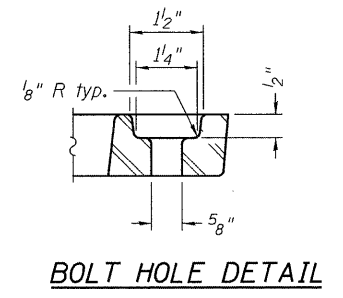
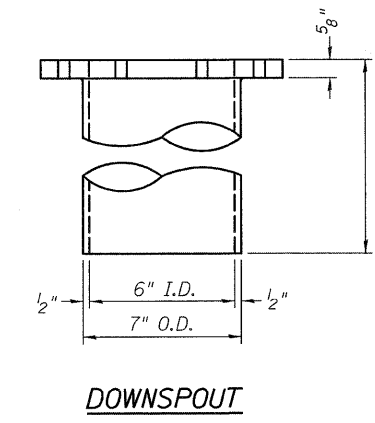
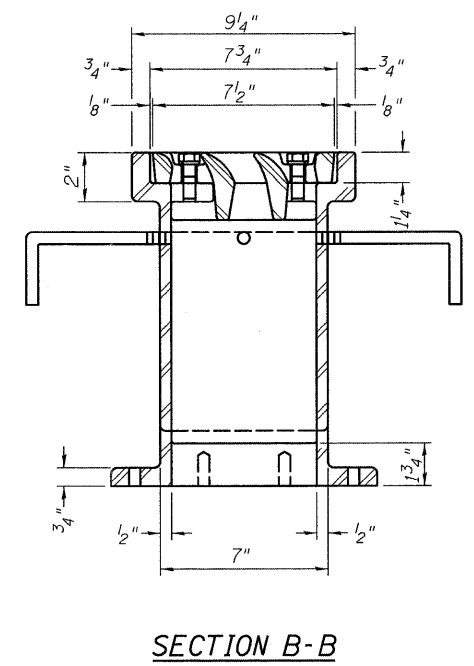
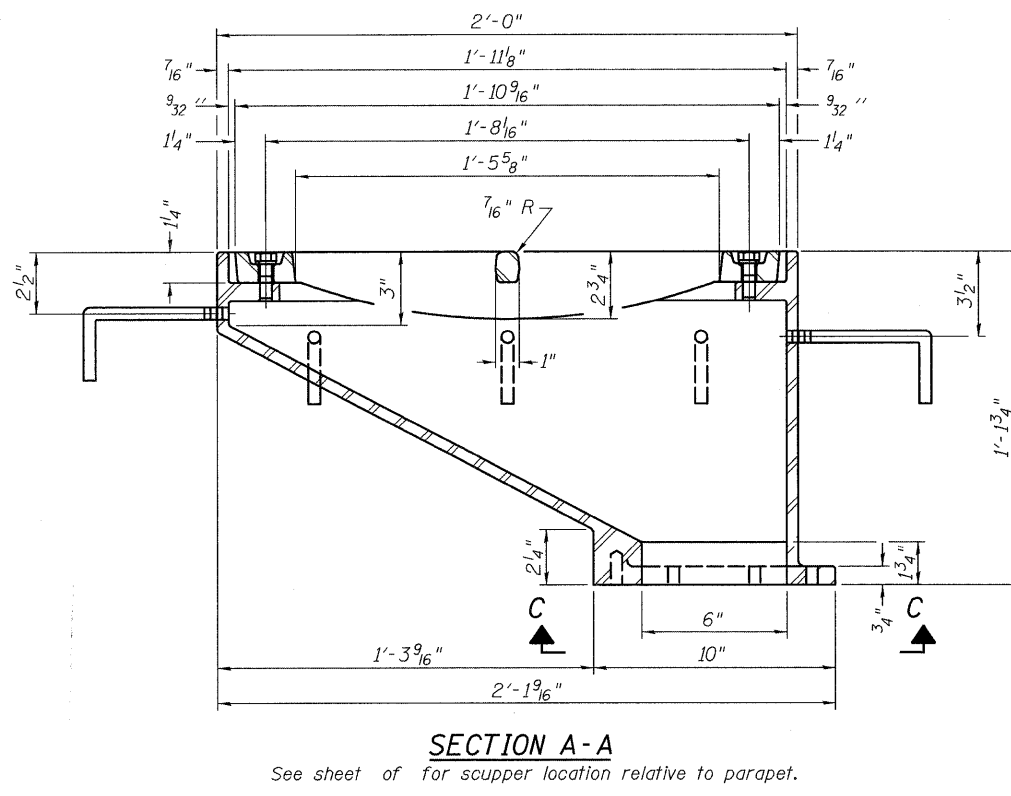
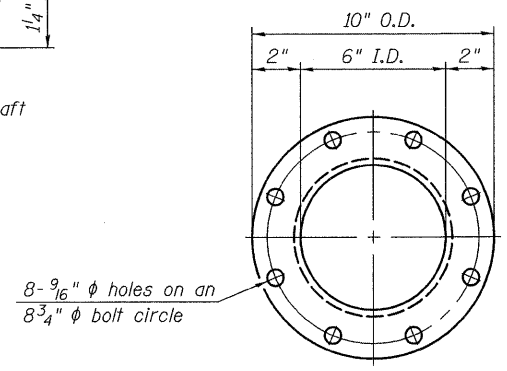
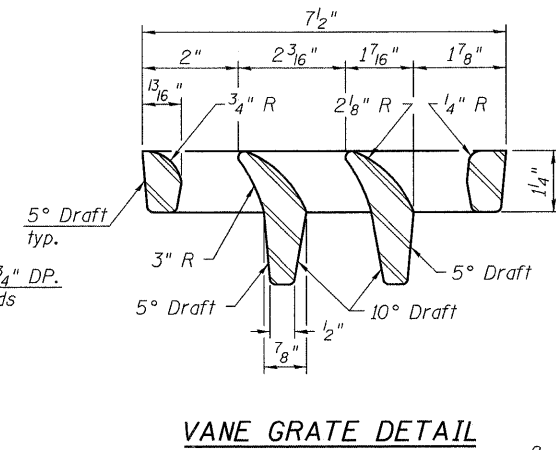
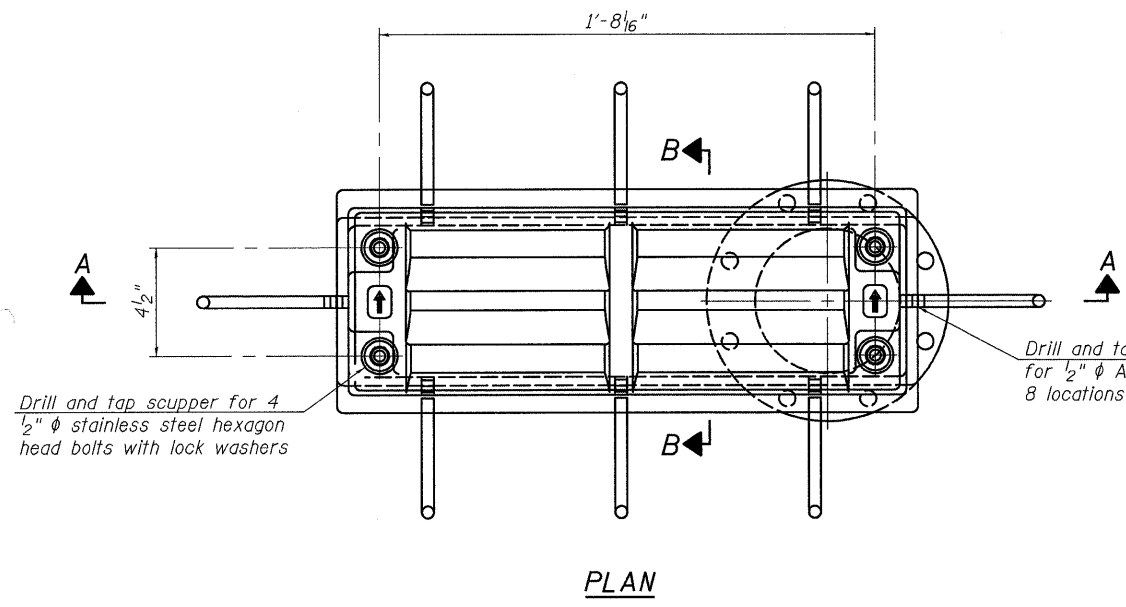
 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION LONGITUDINAL JOINT AND MEDIAN PLAN - IV BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

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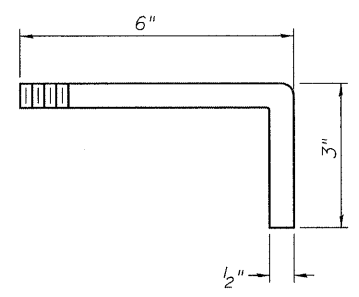
Contract # 60D74

**Notes:**

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.  
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



Drill and tap 8 holes for 1/2"-13 bolts on an 8 3/4"  $\phi$  bolt circle. (2 blind holes are 1/4" deep, 6 thru holes)



**BILL OF MATERIAL**

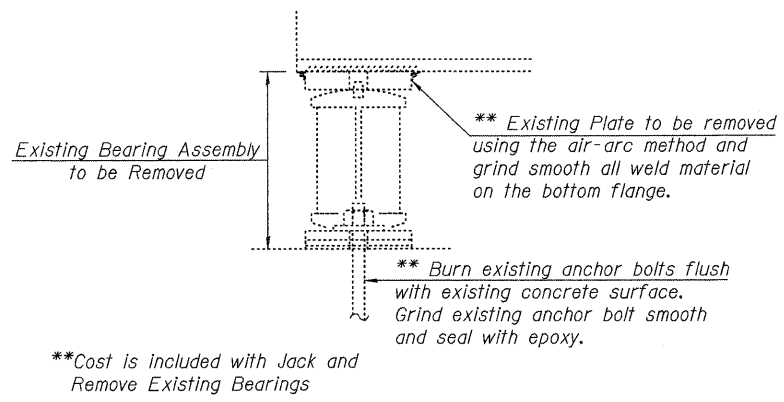
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	1

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p>DRAINAGE SCUPPER, DS-12</p> <p>BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER</p> <p>FAU RTE 2943 SECTION 1212.8-I-1</p> <p>COOK COUNTY</p> <p>STATION 231+79.04</p> <p>STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY JMT CHECKED BY WJV</p>

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Contract # 60D74



**NOTES**

Anchor bolts shall be ASTM F1554 all-thread (or Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers at Type I bearings may be installed in holes drilled before or after members are in place.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I or Elastomeric Bearing Assembly, Type II.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

For Type II Elastomeric Bearing Assemblies, The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

For Type II Elastomeric Bearing Assemblies, Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

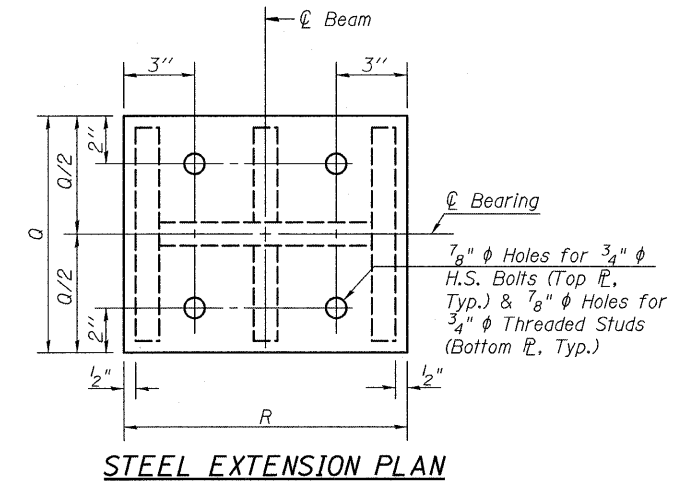
Weight of Shim Plates and Steel Extensions included with Furnishing and Erecting Structural Steel.

\*\*Cost is included with Jack and Remove Existing Bearings

**JACK AND REMOVE EXISTING BEARING**

**JACKING PROCEDURES**

1. Prior to commencing any work at the bearings, the contractor shall submit plans for Jacking for approval by the Engineer.
2. Jacking shall be limited so that the maximum lift transversely between adjacent beams is 1/8". See Special Provision for Jack and Remove Existing Bearings.
3. Minimum Jack capacity is 65 Tons.



**REACTION TABLE**

Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
Q Brg. S. Abut.	37.1	38.1	9.0	84.2
Q S. Brg. Pier 3	35.5	37.9	8.9	82.3
Q N. Brg. Pier 3	36.6	46.5	11.7	94.8
Q S. Brg. Pier 7	49.6	47.8	11.1	108.5
Q N. Brg. Pier 7	31.9	45.9	11.9	89.7
Q S. Brg. Pier 11	35.7	45.9	11.8	93.4
Q N. Brg. Pier 11	34.5	45.9	12.0	92.4
Q S. Brg. Pier 15	45.5	47.7	11.0	104.2
Q N. Brg. Pier 15	31.4	45.6	12.1	89.1
Q S. Brg. Pier 18	43.3	47.4	11.2	101.9
Q N. Brg. Pier 18	45.6	47.7	11.0	104.3
Q S. Brg. Pier 21	50.5	48.0	10.7	109.2
Q N. Brg. Pier 21	55.6	48.6	10.5	114.7
Q S. Brg. Pier 24	47.3	47.5	11.1	105.9
Q N. Brg. Pier 24	41.4	23.3	5.8	70.5
Q Brg. N. Abut.	40.0	23.2	5.8	69

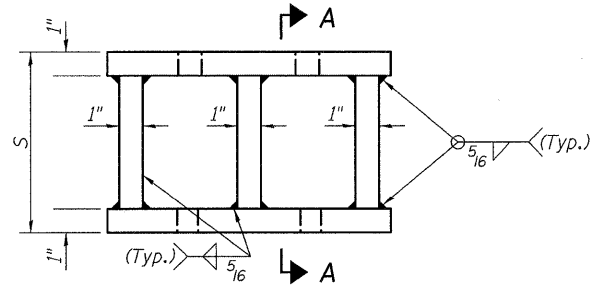
**SHIM TABLE**

Bearing Location	Size	*Girder												
		A	B	C	D	E	F	G	H	J	K	L	M	
Q Brg. S. Abut.	10" x 26 1/2"	-	7/16"	-	7/16"	-	3/8"	-	-	-	-	-	-	-
Q S. Brg. Pier 3	10" x 12"	-	-	-	8"	-	-	-	7/16"	-	-	-	-	-
Q N. Brg. Pier 3	10" x 26 1/2"	8"	1/4"	-	-	3/16"	3/16"	-	-	-	-	-	3/16"	-
Q S. Brg. Pier 7	11" x 26 1/2"	-	-	-	-	1/8"	-	-	-	-	-	-	-	-
Q N. Brg. Pier 7	10" x 26 1/2"	-	-	-	-	8"	-	-	-	-	-	-	-	-
Q S. Brg. Pier 11	10" x 26 1/2"	-	-	-	-	-	1/8"	3/8"	-	-	-	-	-	-
Q N. Brg. Pier 11	10" x 26 1/2"	-	-	-	-	-	-	5/16"	-	-	-	-	-	-
Q S. Brg. Pier 15	11" x 26 1/2"	-	-	-	1/2"	5/16"	5/16"	-	-	-	-	-	-	-
Q N. Brg. Pier 15	10" x 12"	-	-	-	1/16"	-	-	7/16"	7/16"	7/16"	7/16"	7/16"	7/16"	7/16"
Q S. Brg. Pier 18	11" x 26 1/2"	-	-	-	-	1/4"	9/16"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
Q N. Brg. Pier 18	11" x 12"	-	-	-	-	-	3/8"	-	-	-	-	-	-	-
Q S. Brg. Pier 21	11" x 26 1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
Q N. Brg. Pier 21	11" x 16"	-	-	-	-	-	-	-	-	-	-	-	-	-
Q S. Brg. Pier 24	11 x 31"	-	-	-	-	-	-	-	-	-	-	1/8"	3/16"	-
Q N. Brg. Pier 24	10" x 26 1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-
Q Brg. N. Abut.	10" x 26 1/2"	-	-	-	-	-	-	-	-	-	-	-	-	-

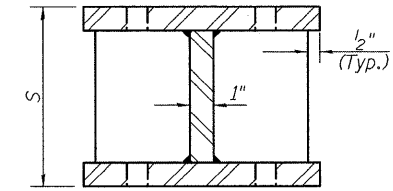
\*Girder A is the furthest West at all locations

**BEARING DIMENSIONS**

Bearing Location	Bearing Type	Elastomer							Top Plate				Bottom Plate				Side Retainers				Steel Extension				Bot. Flange tr (max.)
		A	B	C	N <sub>p</sub>	T <sub>p</sub>	N <sub>s</sub>	T <sub>s</sub>	D	E	F	G	H	J	K	L	M	P	Q	R	S				
Q Brg. S. Abut.	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10 1/2"	14"	1 1/2"	1 7/8"	10"	26 1/2"	1 1/4"	6"	6 1/8"	21 3/4"	10 1/2"	12"	7"	1 1/8"			
Q S. Brg. Pier 3	Type I	9"	12"	3 1/8"	7	3/8"	6	3/32"	10"	14"	1 1/2"	-	-	-	4 3/4"	6 1/8"	21 3/4"	10"	12"	9 1/2"	7/8"				
Q N. Brg. Pier 3	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10 1/4"	14"	1 5/8"	1 7/8"	10"	26 1/2"	1 3/8"	6"	6 1/8"	21 3/4"	10 1/4"	12"	6 1/8"	3/4"			
Q S. Brg. Pier 7	Type II	10"	14"	4 1/8"	6	1/8"	5	1/8"	11 1/2"	16"	1 3/4"	1 3/4"	11"	26 1/2"	1 3/8"	6"	5 1/8"	21 3/4"	11 1/2"	12"	6 3/4"	1 3/8"			
Q N. Brg. Pier 7	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10 1/4"	14"	1 5/8"	1 5/8"	10"	26 1/2"	1 1/4"	5 3/4"	6 1/8"	21 3/4"	10 1/4"	12"	7 1/8"	3/4"			
Q S. Brg. Pier 11	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10"	14"	1 5/8"	1 5/8"	10"	26 1/2"	1 3/8"	5 3/4"	6 1/8"	21 3/4"	10"	12"	7"	3/4"			
Q N. Brg. Pier 11	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10"	14"	1 5/8"	1 5/8"	10"	26 1/2"	1 3/8"	5 3/4"	6 1/8"	21 3/4"	10"	12"	7"	3/4"			
Q S. Brg. Pier 15	Type II	10"	14"	4 1/8"	6	1/8"	5	1/8"	11 1/2"	16"	1 3/4"	1 3/4"	11"	26 1/2"	1 1/4"	6"	5 1/8"	21 3/4"	11 1/2"	12"	6 1/8"	1 1/4"			
Q N. Brg. Pier 15	Type I	9"	12"	2 1/4"	5	3/8"	4	3/32"	10"	14"	1 5/8"	-	-	-	3 7/8"	6 1/8"	21 3/4"	10"	12"	10 3/8"	3/4"				
Q S. Brg. Pier 18	Type II	10"	14"	4 1/8"	7	1/8"	6	1/8"	11 1/4"	16"	1 3/4"	1 3/4"	11"	26 1/2"	1 1/4"	6 1/2"	5 1/8"	21 3/4"	11 1/4"	12"	6 3/8"	1"			
Q N. Brg. Pier 18	Type I	10"	14"	3 1/4"	6	1/8"	5	1/8"	11"	16"	1 3/4"	-	-	-	5"	5 1/8"	21 3/4"	11"	12"	9 1/4"	3/4"				
Q S. Brg. Pier 21	Type II	10"	14"	4 1/8"	7	1/8"	6	1/8"	11 3/4"	16"	1 3/4"	2"	11"	26 1/2"	1 3/8"	6 3/4"	5 1/8"	21 3/4"	11 3/4"	12"	6 1/8"	3/4"			
Q N. Brg. Pier 21	Type I	10"	14"	3 3/8"	7	1/8"	6	1/8"	11"	16"	1 7/8"	-	-	-	5 3/4"	7 3/8"	26 1/4"	11"	16"	8 1/2"	1 1/2"				
Q S. Brg. Pier 24	Type II	10"	14"	4 1/8"	6	1/8"	5	1/8"	11 3/4"	16"	1 3/4"	2 1/8"	11"	31"	1 1/2"	6 3/8"	7 3/8"	26 1/4"	11 3/4"	16"	6 1/2"	1 1/8"			
Q N. Brg. Pier 24	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10 1/4"	14"	1 3/4"	1 3/4"	10"	26 1/2"	1 1/4"	5 1/8"	6 1/8"	21 3/4"	10 1/4"	12"	6 3/8"	1"			
Q Brg. N. Abut.	Type II	9"	12"	4 1/8"	7	3/8"	6	3/32"	10 1/2"	14"	1 3/8"	1 5/8"	10"	26 1/2"	1 1/4"	5 3/4"	6 1/8"	21 3/4"	10 1/2"	12"	6 3/4"	1"			



**STEEL EXTENSION ELEVATION**

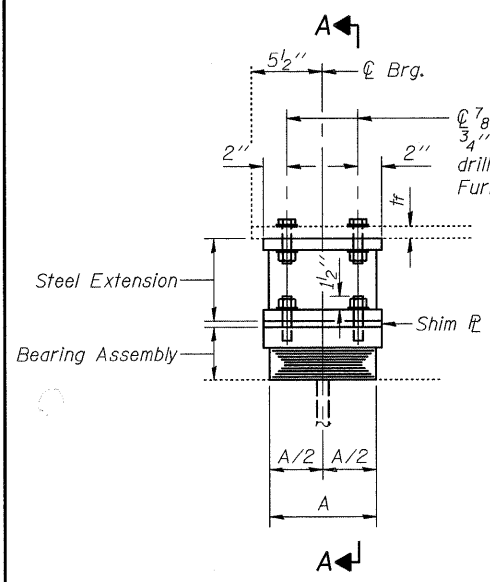


**SECTION A-A**

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	ILLINOIS DEPARTMENT OF TRANSPORTATION
	BEARING REPLACEMENT DETAILS - I BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY
	STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: LM CHECKED BY: BLB

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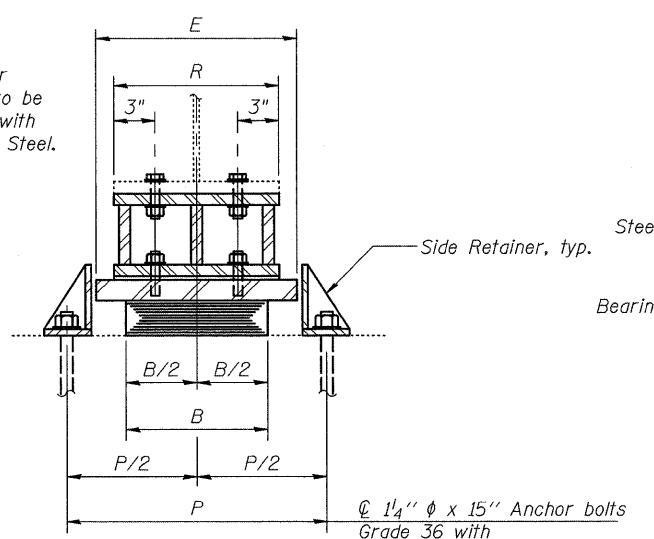
Contract # 60D74



**ELEVATION**

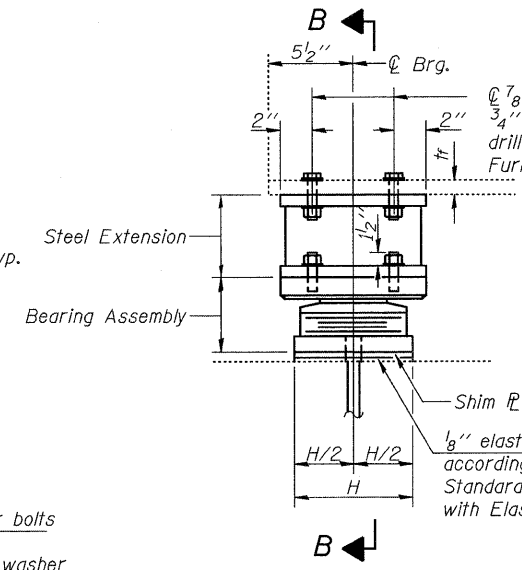
Total Height does not include Shim Plates

**TYPE I ELASTOMERIC EXP. BRG.**



**SECTION A-A**

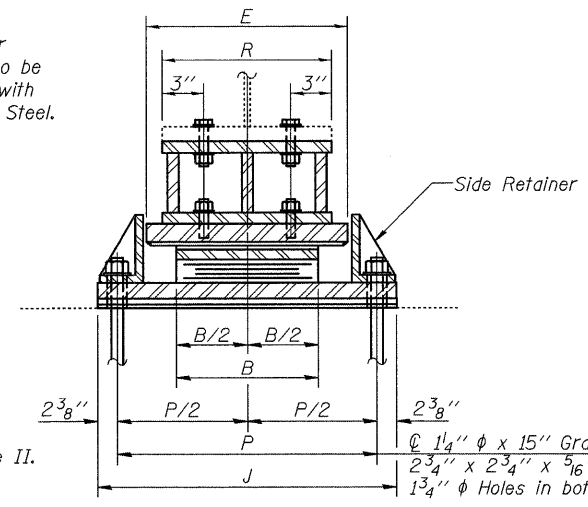
1 1/4"  $\phi$  x 15" Anchor bolts  
Grade 36 with  
2 3/4" x 2 3/4" x 5/16"  $\mathbb{P}$  washer  
under nut



**ELEVATION**

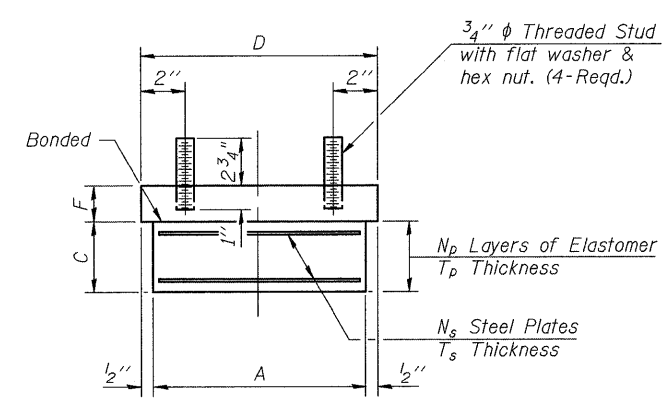
Total Height does not include Shim Plates

**TYPE II ELASTOMERIC EXP. BRG.**



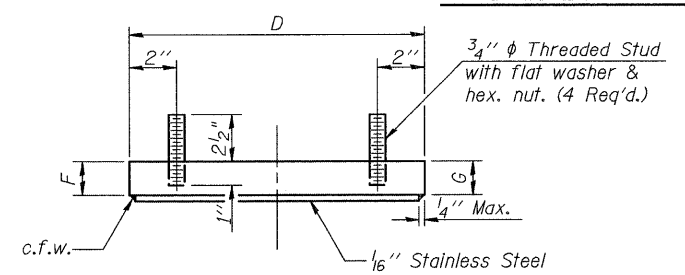
**SECTION B-B**

1 1/4"  $\phi$  x 15" Grade 36 Anchor bolts with  
2 3/4" x 2 3/4" x 5/16"  $\mathbb{P}$  washer under nut.  
1 3/4"  $\phi$  Holes in bottom  $\mathbb{P}$ .

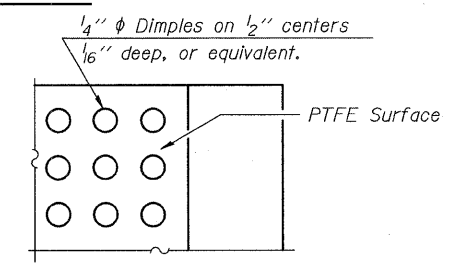


**BEARING ASSEMBLY**

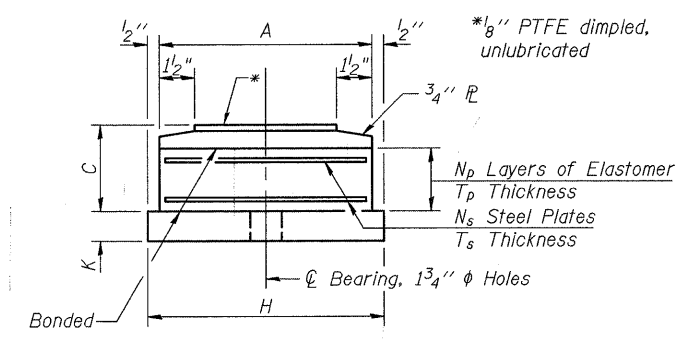
Note:  
Shim plates shall not be placed  
under Bearing Assembly.



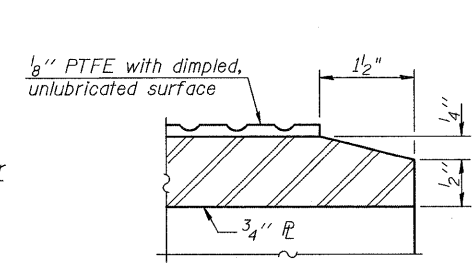
**TOP BEARING ASSEMBLY**



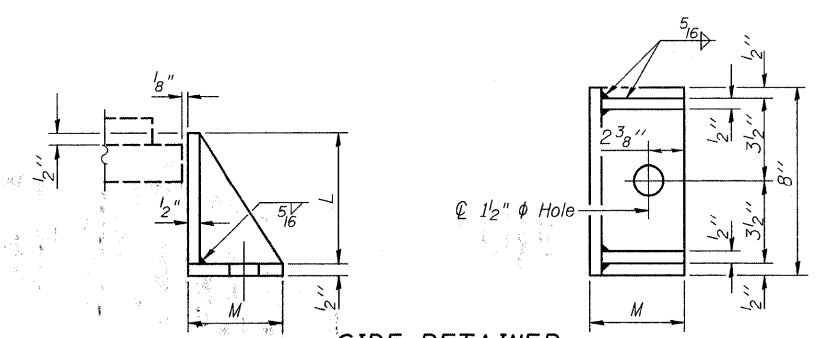
**PLAN-PTFE SURFACE**



**BOTTOM BEARING ASSEMBLY**

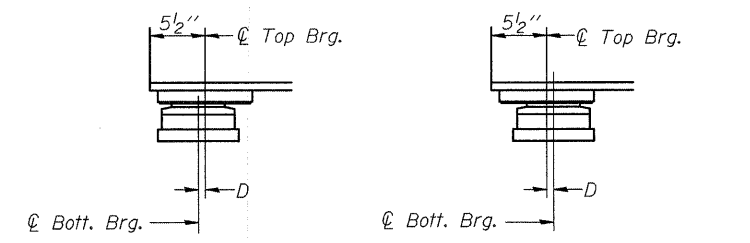


**SECTION THRU PTFE**



**SIDE RETAINER**

Equivalent rolled angle with stiffeners  
will be allowed in lieu of welded plates.



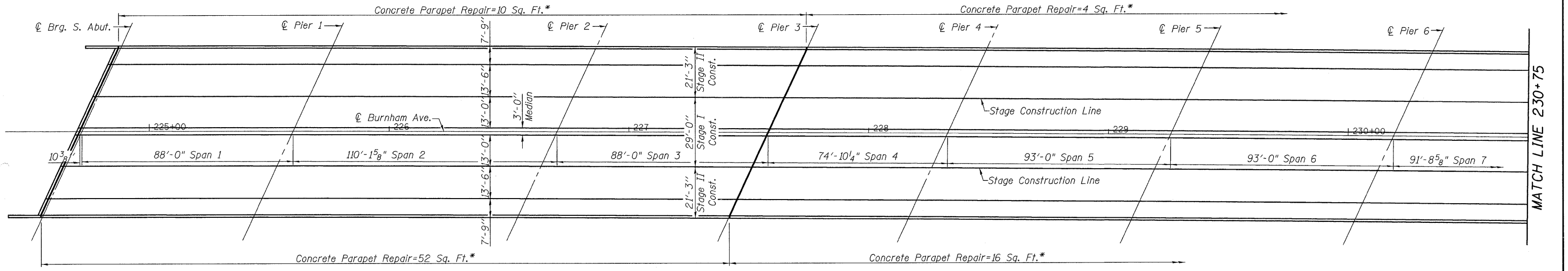
**SETTING ANCHOR BOLTS AT TYPE II EXP. BRG.**  
D=1/8" per each 100' of expansion for every 15° temp.  
change from the normal temp. of 50°F.

**NOTE**  
See Sheet 25 of 35 for Table of Dimensions.

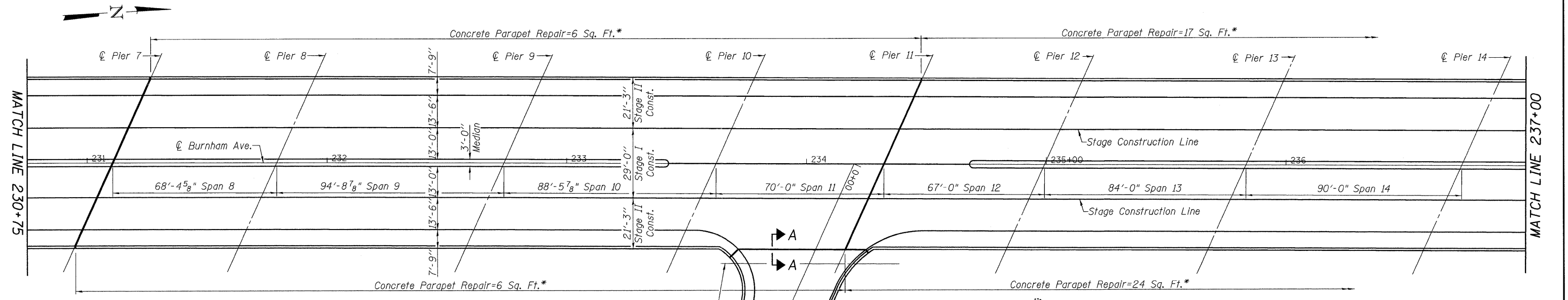
 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION
	BEARING REPLACEMENT DETAILS - II BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009
	DRAWN BY L.M. CHECKED BY BLB



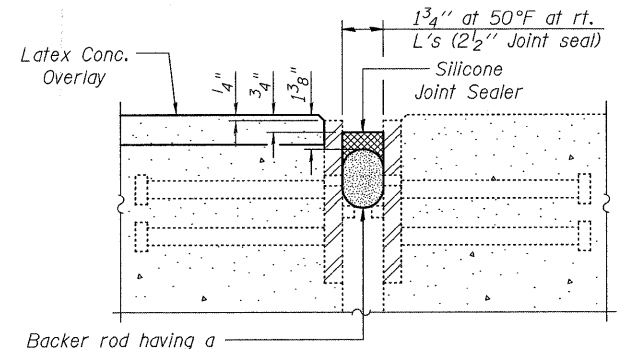
Contract # 60D74



PLAN

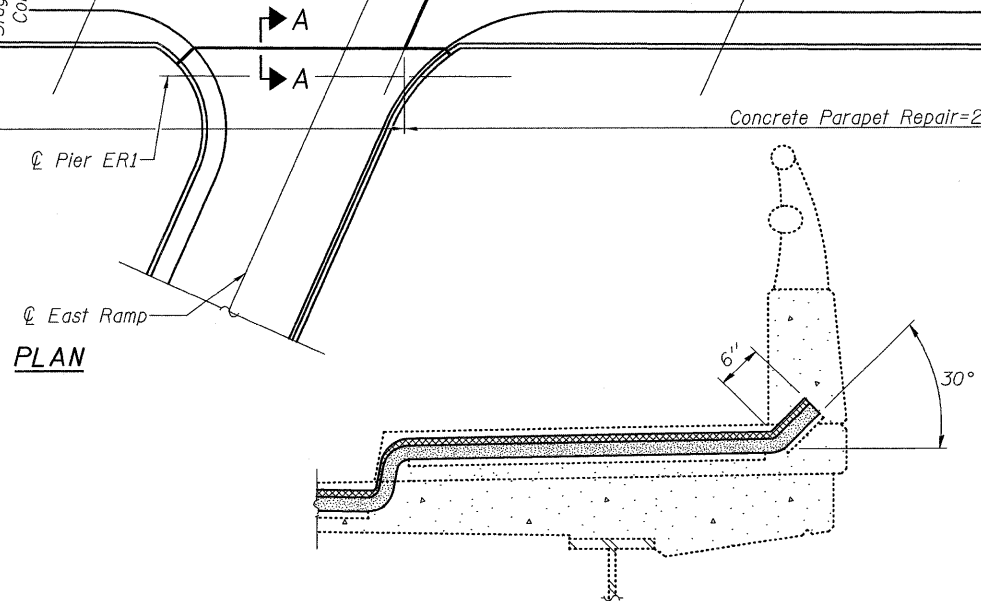


PLAN



SECTION A-A

Backer rod having a diameter 25% greater than joint opening at the time of installation



SILICONE JOINT SEALER AT SIDEWALK  
(Showing existing plate)

**NOTE**  
See sheet 28 of 35 for Bill of Material and additional Notes.

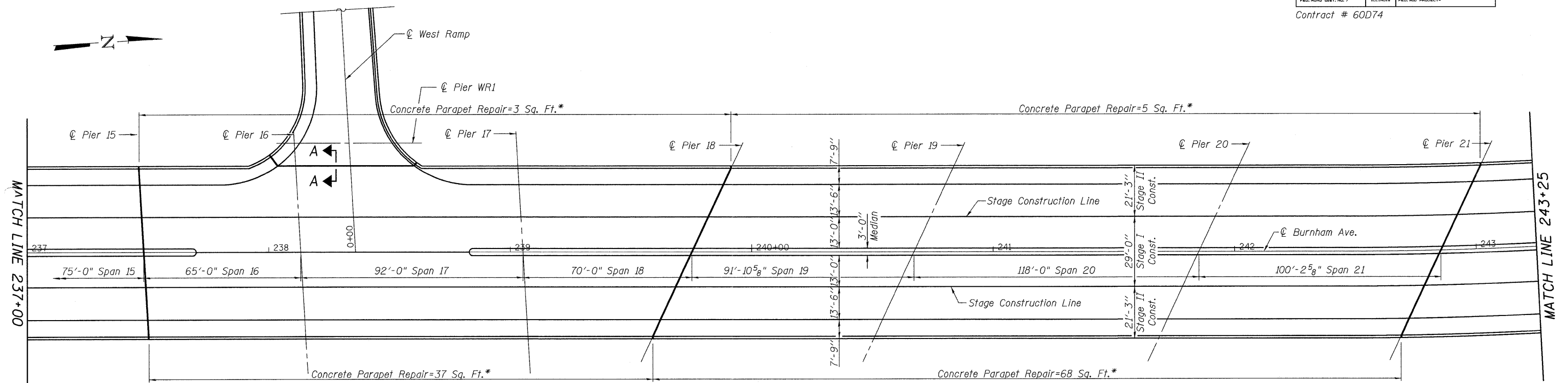
**rjngroup**  
Excellence through Ownership  
200 West Front Street  
Wheaton, IL 60187

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DECK AND PARAPET  
REPAIR PLAN - I  
BURNHAM AVE OVER STATE ST, R.R. & RIVER  
FAU RTE 2943 SECTION 1212.8-I-1  
COOK COUNTY  
STATION 231+79.04  
STRUCTURE NO. 016-0806

DATE: 1-14-2009  
DRAWN BY: JMT  
CHECKED BY: WJV

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Contract # 60D74



**NOTES**

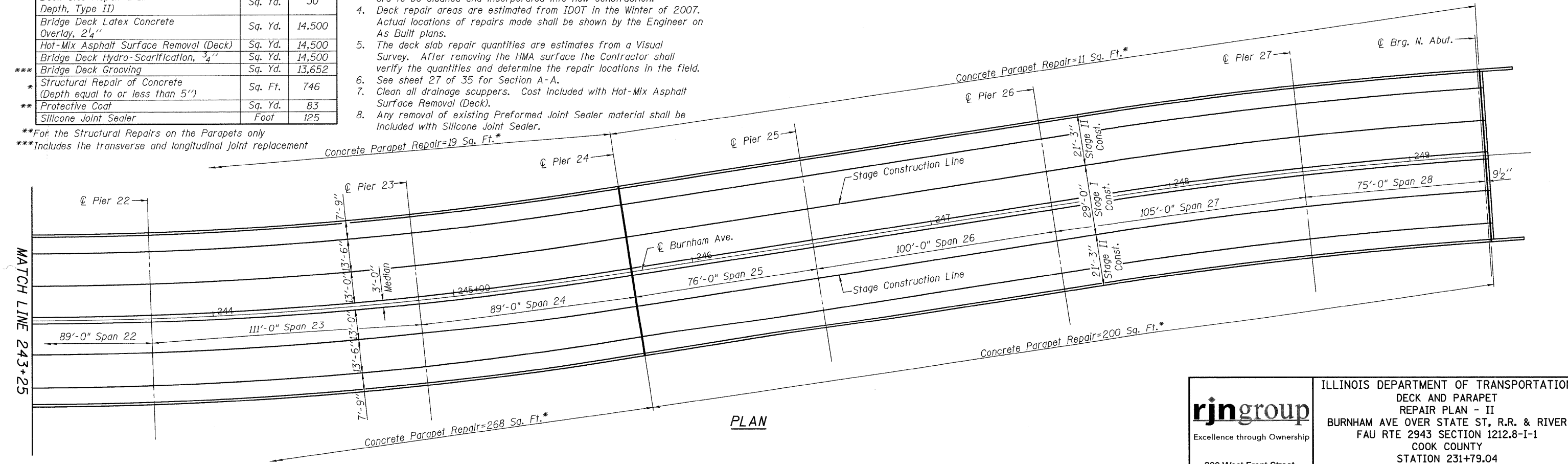
- Existing HMA surface shall be removed from entire deck.
- Entire existing deck to be Hydro-Scarified 3/4" and overlaid with 2 1/4" Latex Concrete.
- Existing reinforcement bars & dowel rods extending into new concrete are to be cleaned and incorporated into new construction.
- Deck repair areas are estimated from IDOT in the Winter of 2007. Actual locations of repairs made shall be shown by the Engineer on As Built plans.
- The deck slab repair quantities are estimates from a Visual Survey. After removing the HMA surface the Contractor shall verify the quantities and determine the repair locations in the field.
- See sheet 27 of 35 for Section A-A.
- Clean all drainage scuppers. Cost included with Hot-Mix Asphalt Surface Removal (Deck).
- Any removal of existing Preformed Joint Sealer material shall be included with Silicone Joint Sealer.

**PLAN**

**BILL OF MATERIAL**  
(Quantity for Entire Deck)

Item	Unit	Quantity
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	30
Bridge Deck Latex Concrete Overlay, 2 1/4"	Sq. Yd.	14,500
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	14,500
Bridge Deck Hydro-Scarification, 3/4"	Sq. Yd.	14,500
*** Bridge Deck Grooving	Sq. Yd.	13,652
* Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	746
** Protective Coat	Sq. Yd.	83
Silicone Joint Sealer	Foot	125

\*\*For the Structural Repairs on the Parapets only  
\*\*\*Includes the transverse and longitudinal joint replacement



**PLAN**

<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION DECK AND PARAPET REPAIR PLAN - II BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY JMT CHECKED BY WJV</p>

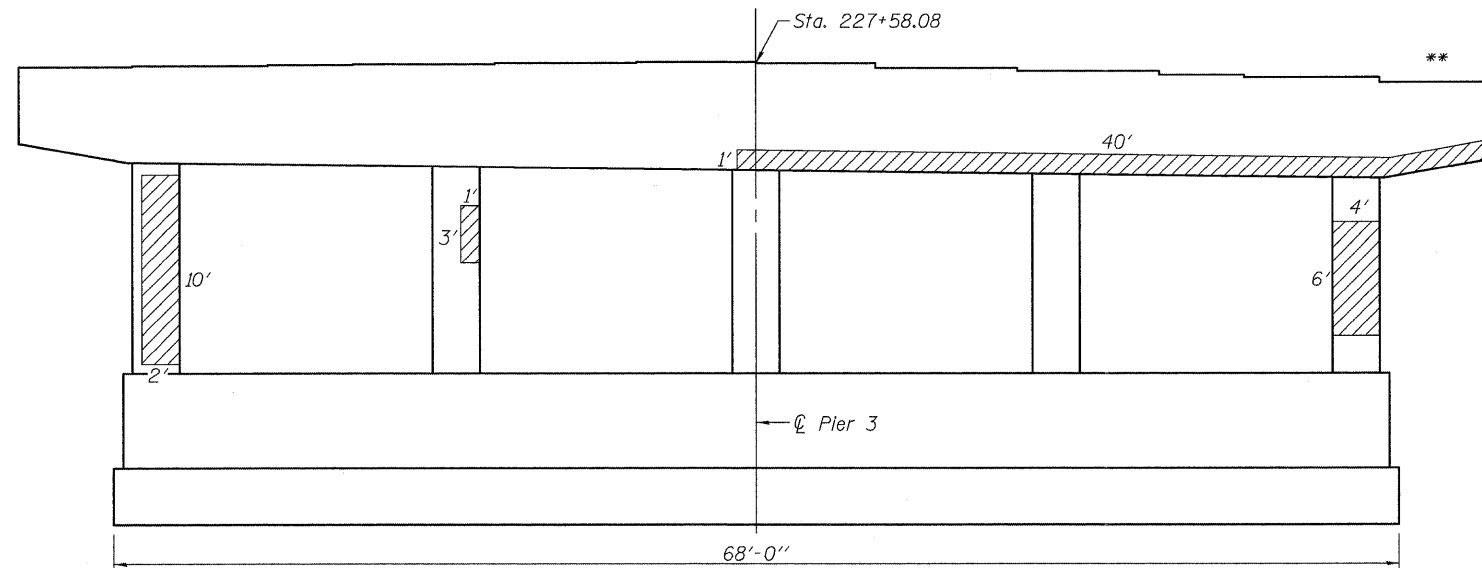
K:\11225593\Structures\Burnham Ave. Over R.R. & River\Final\Plans\Repairs.dgn 1/13/2009

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2943	1212.8 -I-1	Cook	51	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

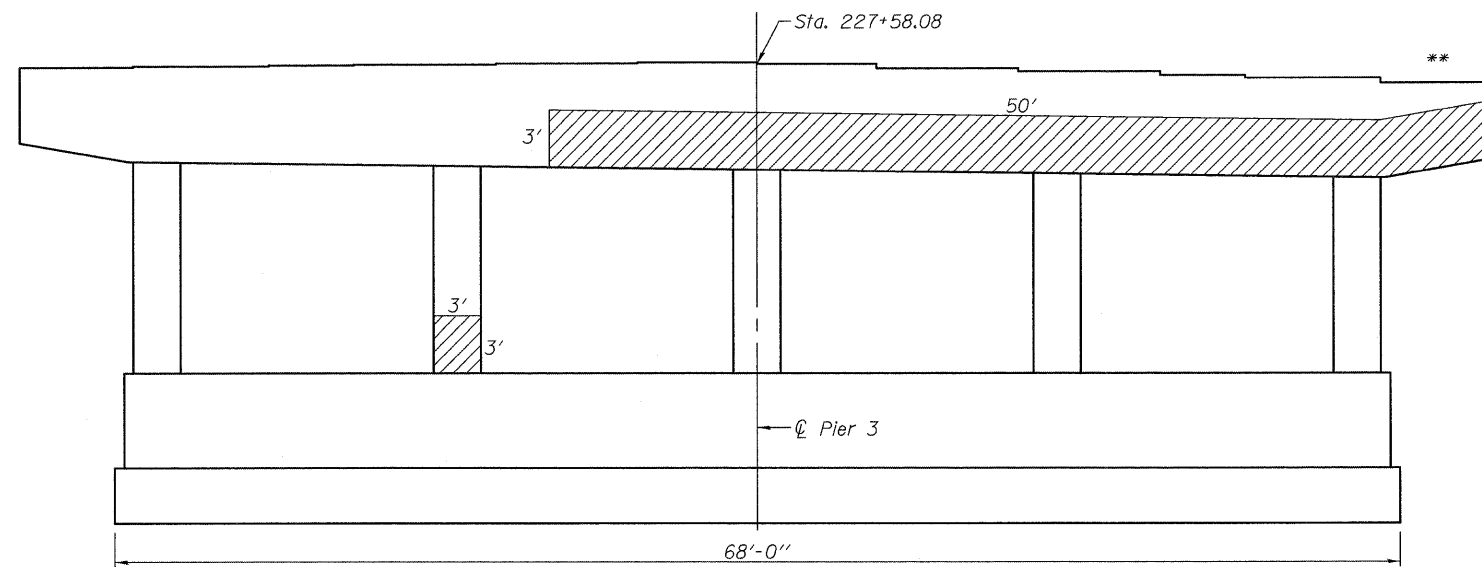
SHEET NO. 29

35 SHEETS

Contract # 60D74



**PIER 3-SOUTH FACE ELEVATION**



**PIER 3-NORTH FACE ELEVATION**

**REACTION TABLE**


Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
Q S. Brg. Pier 3	35.5	37.9	8.9	82.3
Q N. Brg. Pier 3	36.6	46.5	11.7	94.8

**BILL OF MATERIAL**

Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	246
Temporary Shoring and Cribbing	Each	2


**NOTE:**

\*\* Indicates location for Temporary Shoring and Cribbing

 Structural Repair of Concrete (Depth equal to or less than 5")

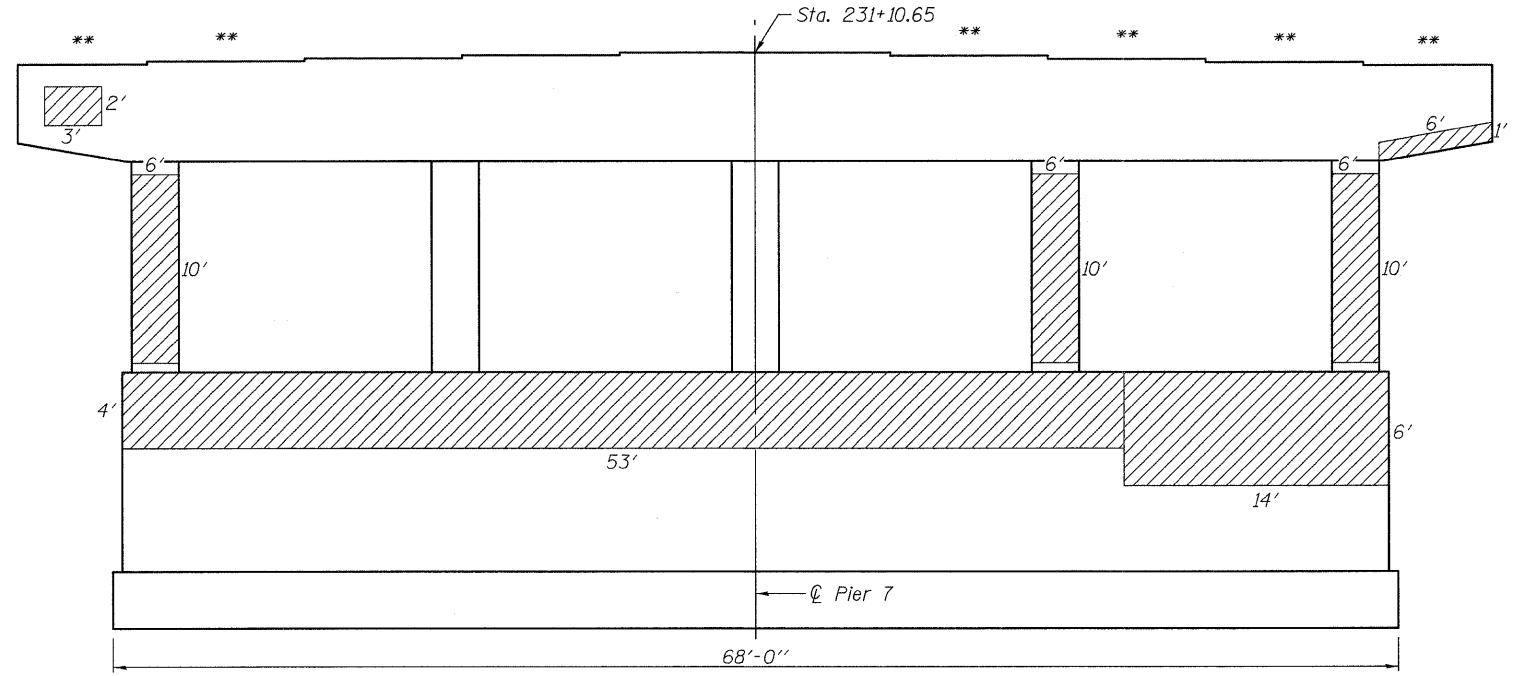
Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").

Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

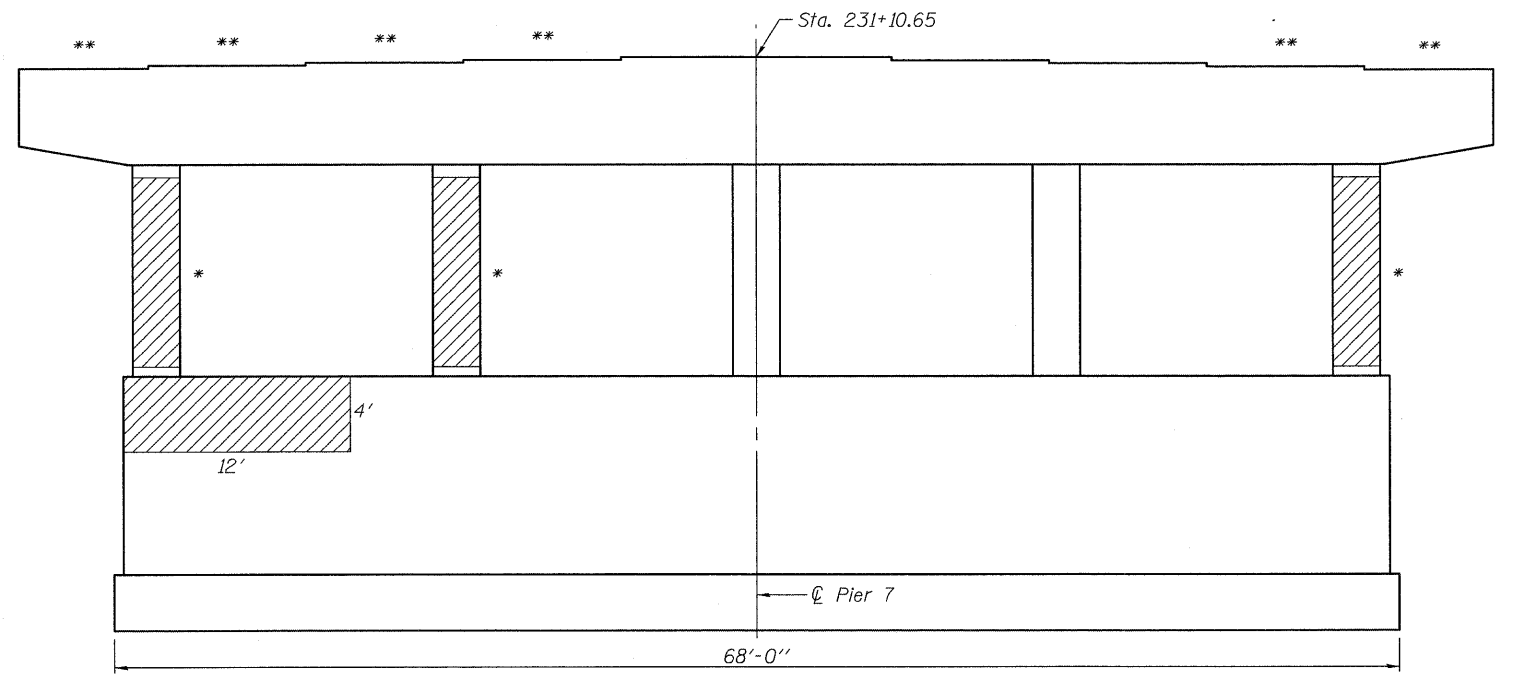
 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION PIER 3 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

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Contract # 60D74



**PIER 7-SOUTH FACE ELEVATION**



**PIER 7-NORTH FACE ELEVATION**

**REACTION TABLE**

Bearing Location	Reaction (kips)			R <sub>Total</sub>
	R <sub>Q</sub>	R <sub>L</sub>	Impact	
C S. Brg. Pier 7	49.6	47.8	11.1	108.5
C N. Brg. Pier 7	31.9	45.9	11.9	89.7

**BILL OF MATERIAL**

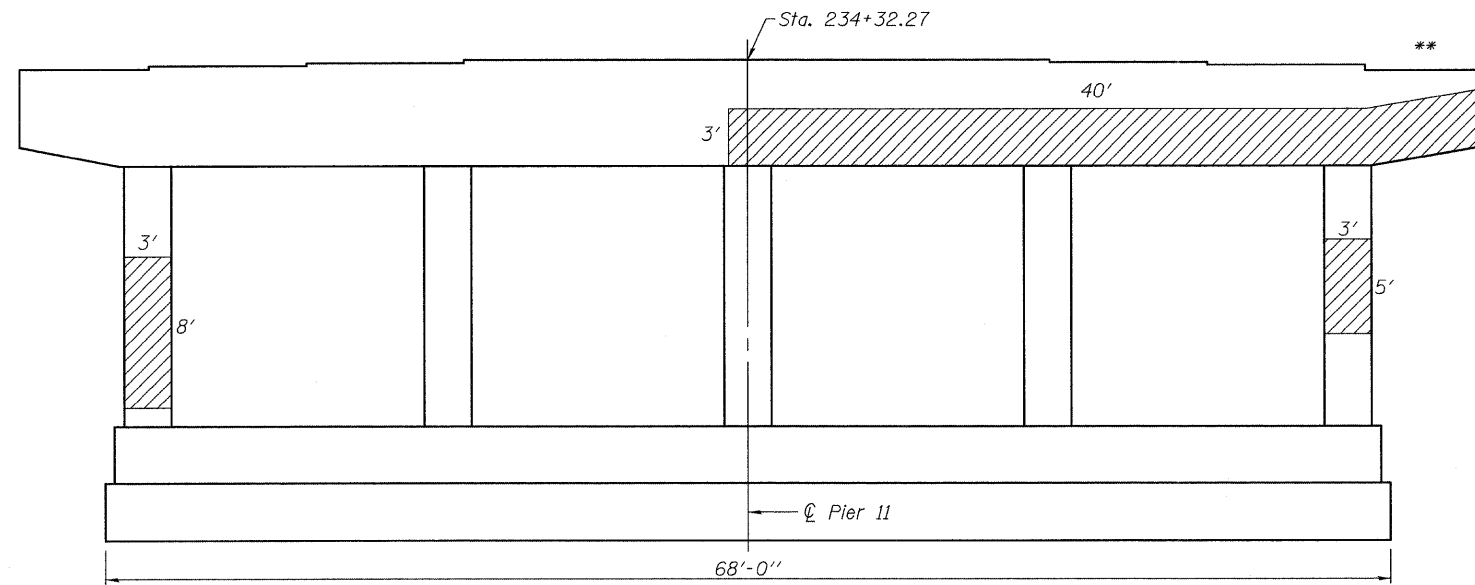
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	536
Temporary Shoring and Cribbing	Each	12

**NOTES:**

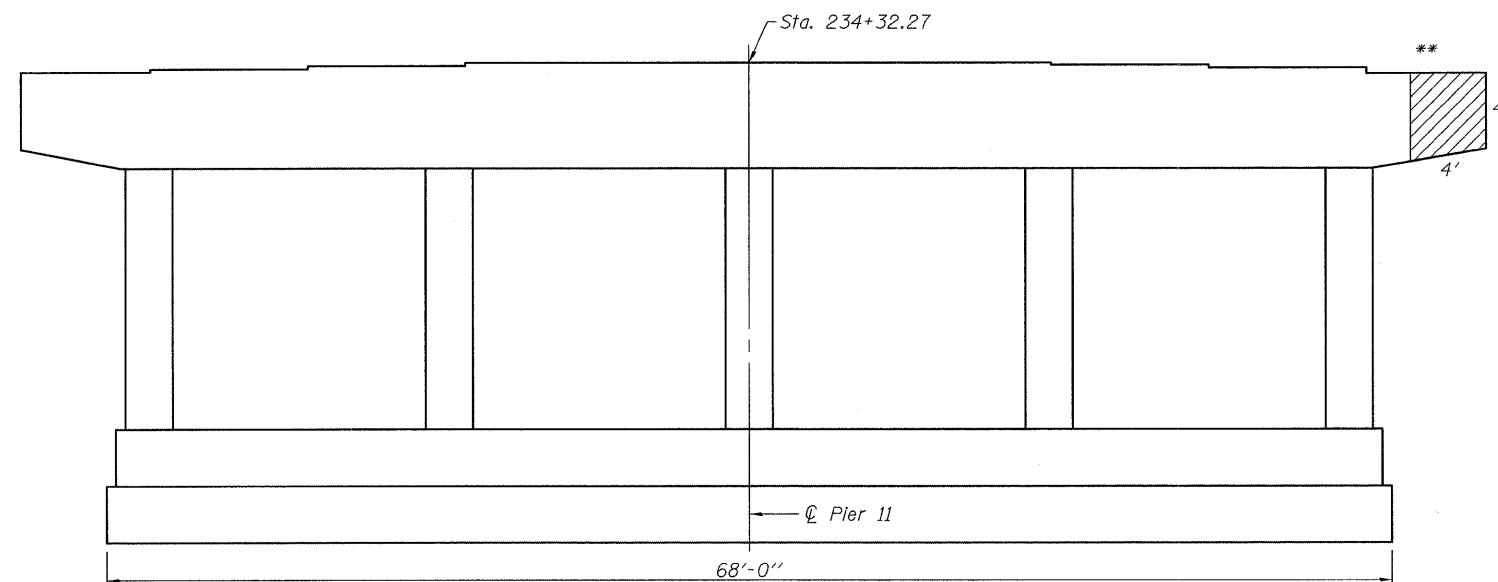
- \* The dimensions are included in the South Face Elevation.
  - \*\* Indicates location for Temporary Shoring and Cribbing
  - Structural Repair of Concrete (Depth equal to or less than 5")
- Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION
	PIER 7 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
DATE: 1-14-2009	DRAWN BY JMT CHECKED BY WJV

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**PIER 11-NORTH FACE ELEVATION**



**PIER 11-SOUTH FACE ELEVATION**

**REACTION TABLE**

Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
C S. Brq. Pier 11	35.7	45.9	11.8	93.4
C N. Brq. Pier 11	34.5	45.9	12.0	92.4

**BILL OF MATERIAL**

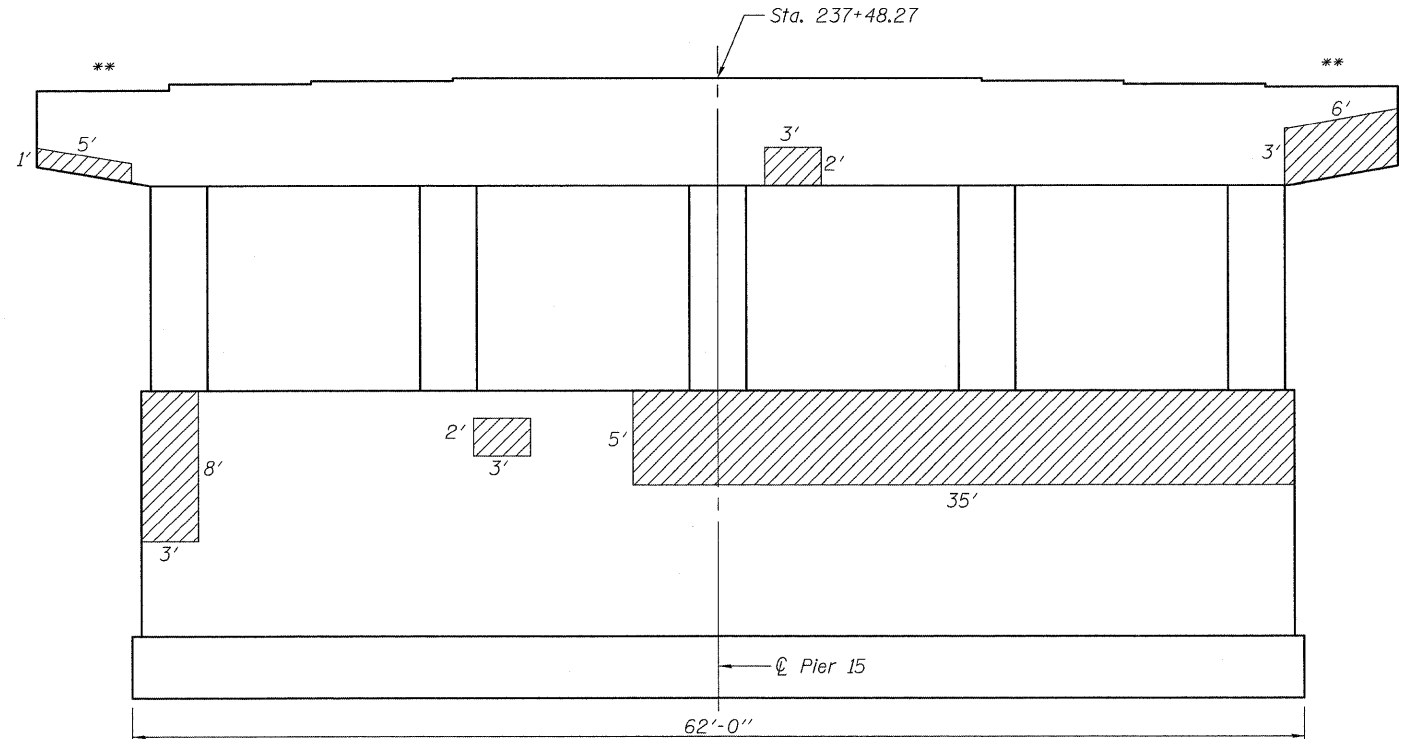
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	175
Temporary Shoring and Cribbing	Each	2

**NOTE:**

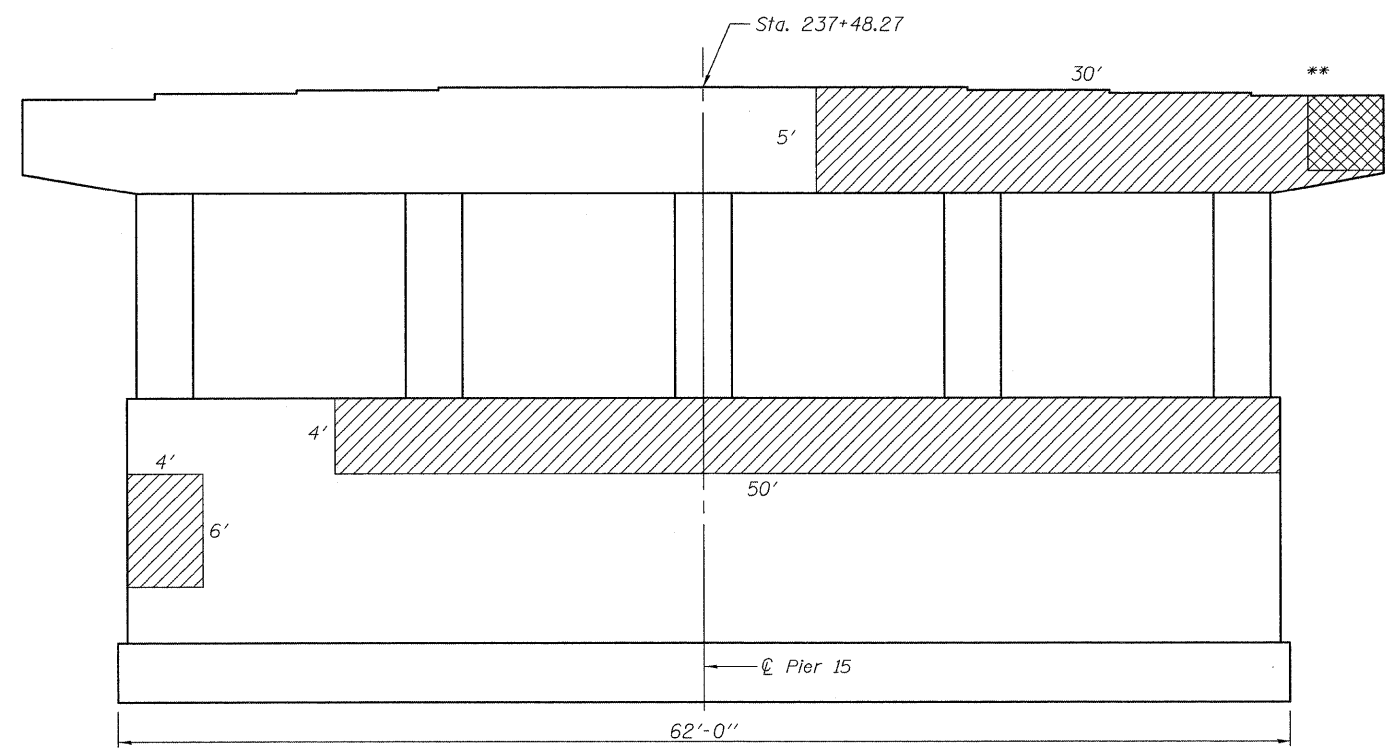
- \*\* Indicates locations of Temporary Shoring and Cribbing
- Structural Repair of Concrete (Depth equal to or less than 5")
- Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION  PIER 11 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

Contract # 60D74



PIER 15-NORTH FACE ELEVATION



PIER 15-SOUTH FACE ELEVATION

REACTION TABLE

Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
C S. Brg. Pier 15	45.5	47.7	11.0	104.2
C N. Brg. Pier 15	31.4	45.6	12.1	89.1

BILL OF MATERIAL

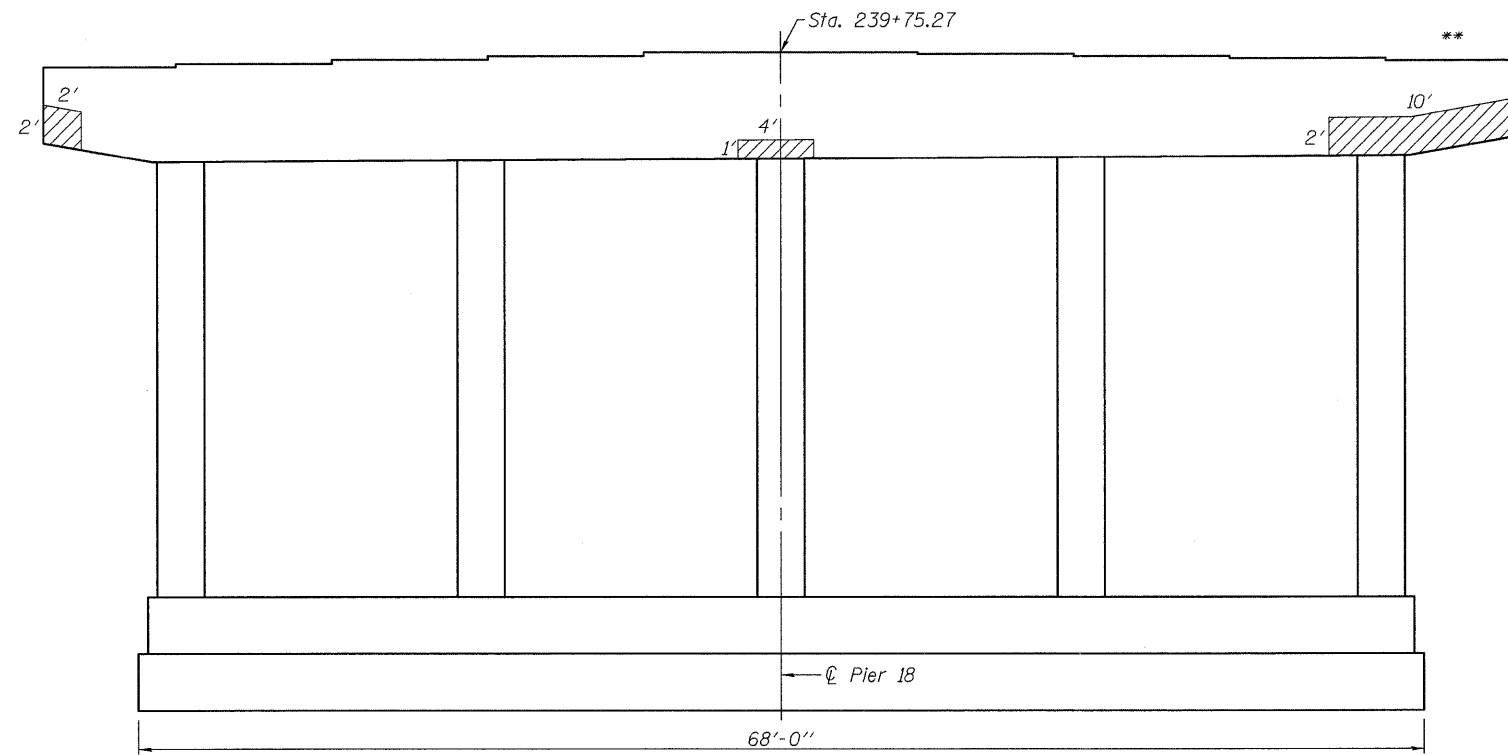
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5')	Sq. Ft.	592
Structural Repair of Concrete (Depth Greater than 5')	Sq. Ft.	16
Temporary Shoring And Cribbing	Each	3

NOTE:

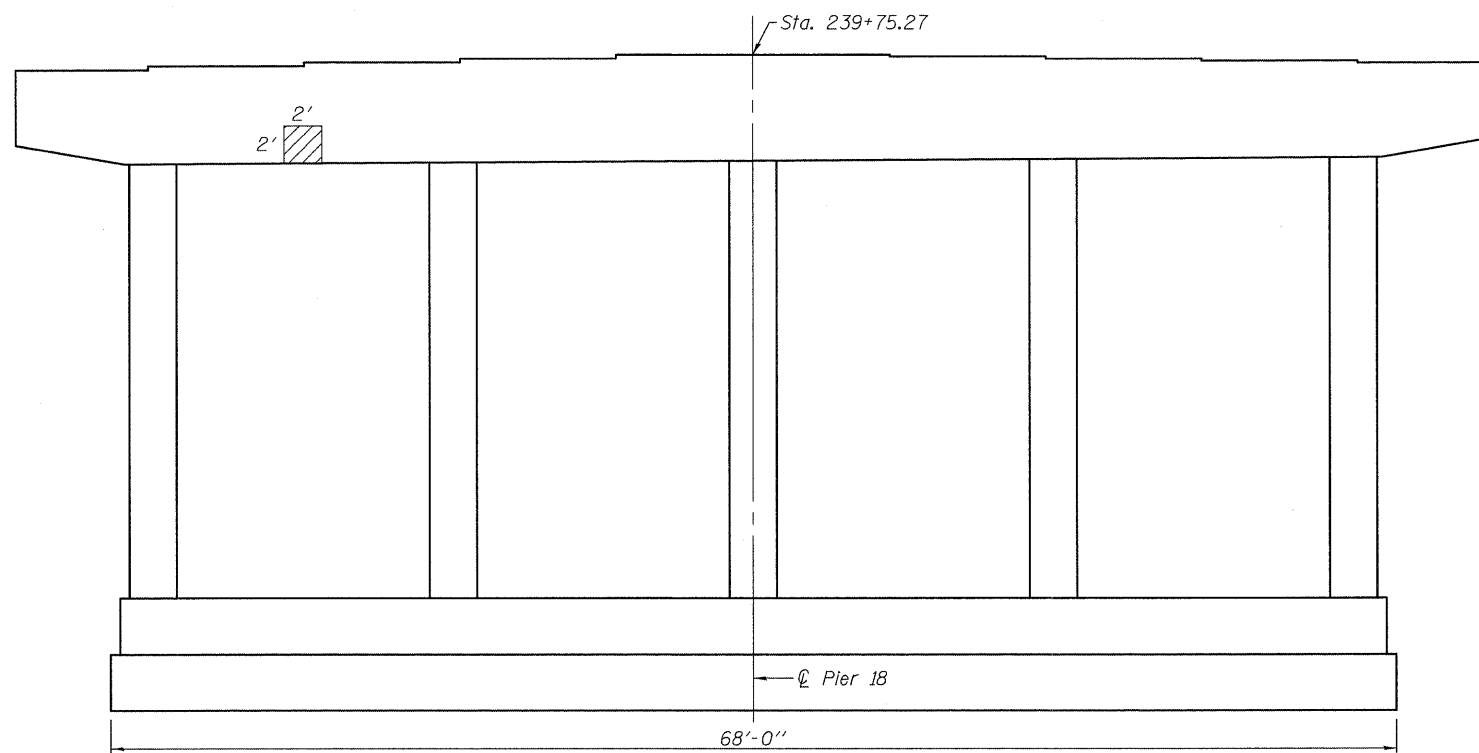
- \*\* Indicates location for Temporary Shoring and Cribbing
  - Structural Repair of Concrete (Depth Greater than 5')
  - Structural Repair of Concrete (Depth equal to or less than 5')
- Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5').
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION  PIER 15 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

Contract # 60D74



**PIER 18-NORTH FACE ELEVATION**



**PIER 18-SOUTH FACE ELEVATION**

**REACTION TABLE**

Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
Q S. Brg. Pier 18	43.3	47.4	11.2	101.9
Q N. Brg. Pier 18	45.6	47.7	11.0	104.3

**BILL OF MATERIAL**

Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5')	Sq. Ft.	32
Temporary Shoring and Cribbing	Each	1

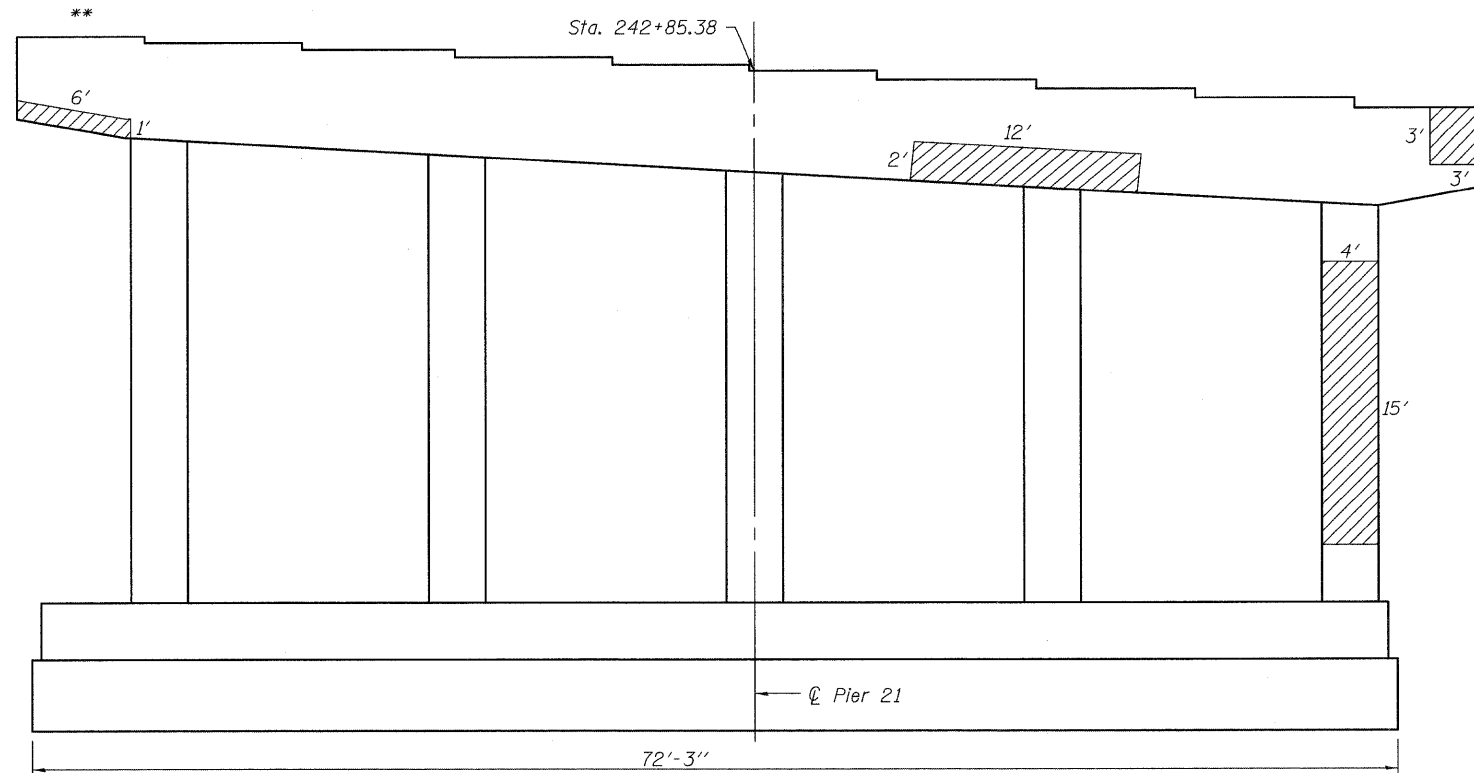
**NOTE:**

- \*\* Indicates location of Temporary Shoring and Cribbing
- Structural Repair of Concrete (Depth equal to or less than 5")  
Detach the downspout from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

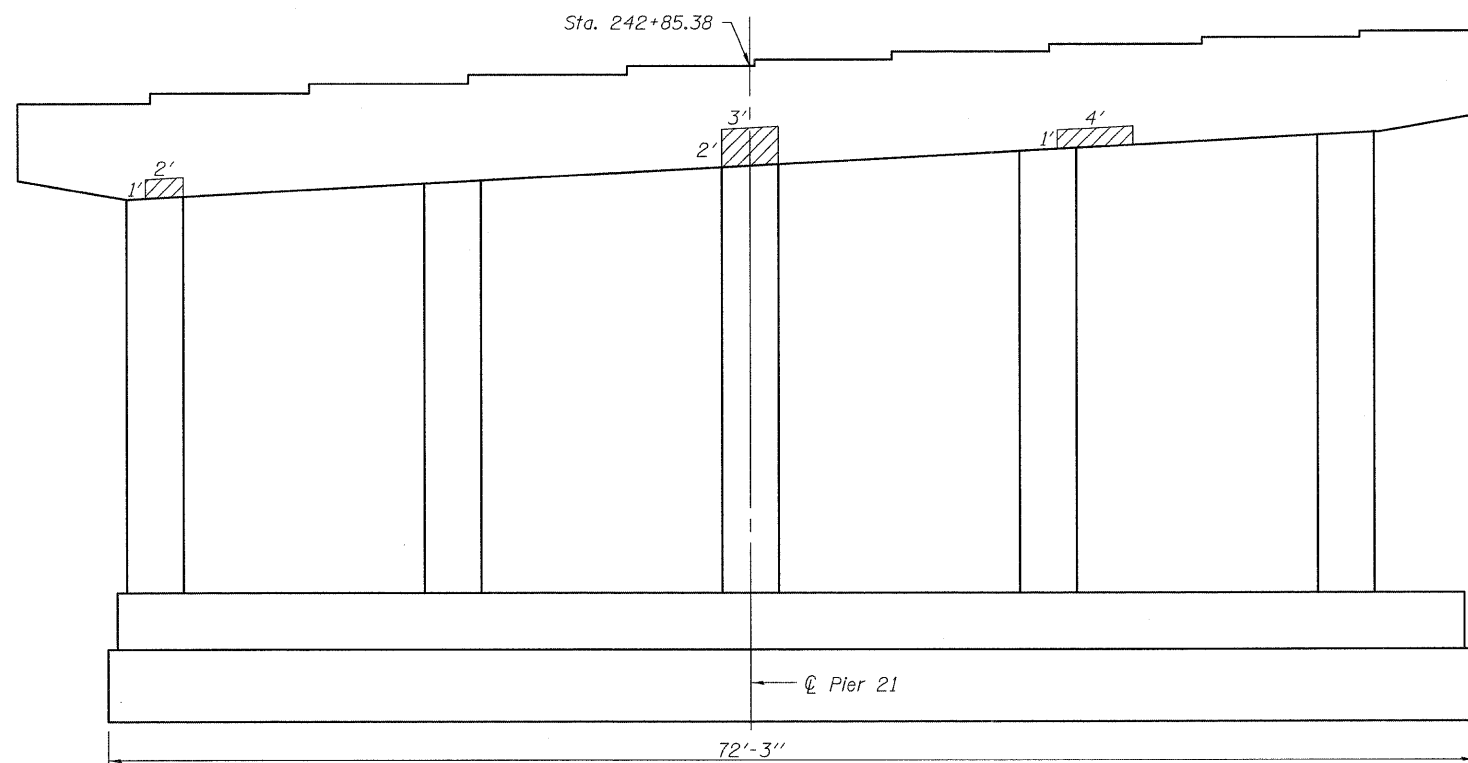
 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION
	PIER 18 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
DATE: 1-14-2009	DRAWN BY JMT CHECKED BY WJV



Contract # 60D74



**PIER 21-NORTH FACE ELEVATION**



**PIER 21-SOUTH FACE ELEVATION**

**REACTION TABLE**

Bearing Location	Reaction (klps)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
Q S. Brq. Pier 21	50.5	48.0	10.7	109.2
Q N. Brq. Pier 21	55.6	48.6	10.5	114.7

**BILL OF MATERIAL**

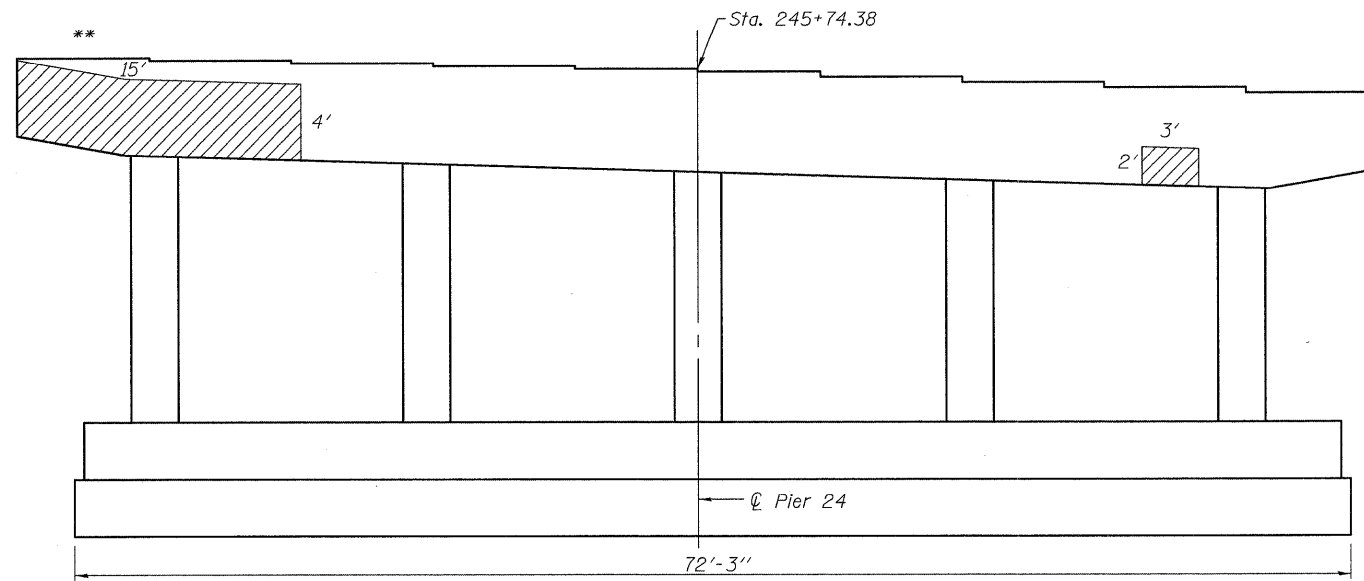
Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	111
Temporary Shoring and Cribbing	Each	1

**NOTE:**

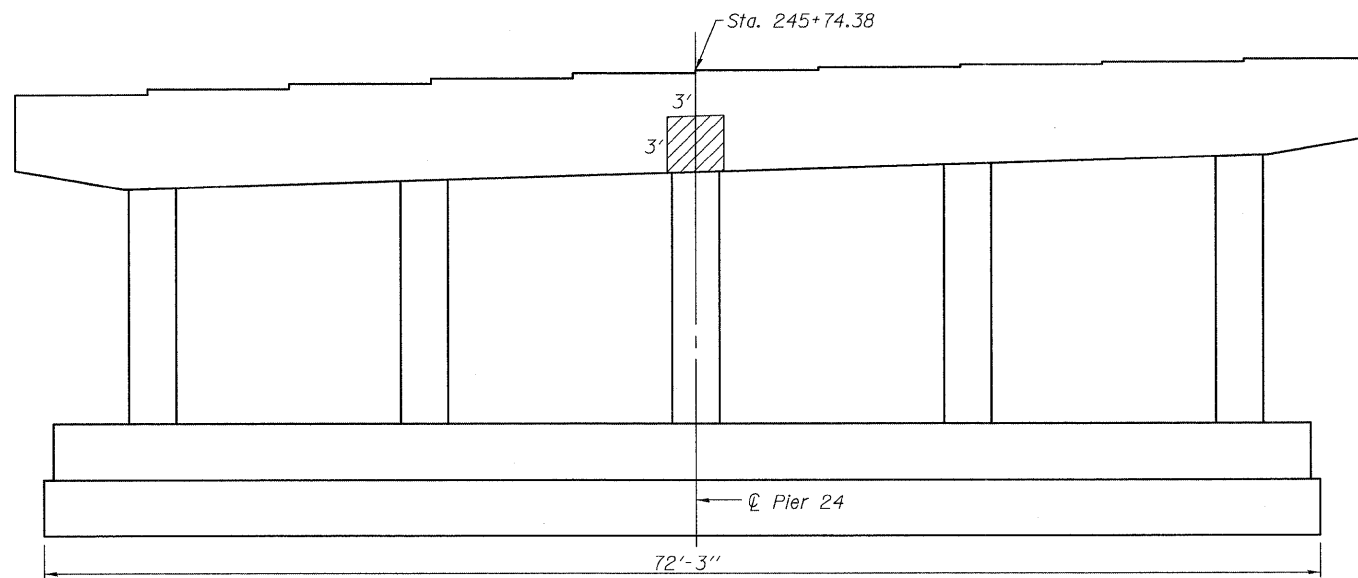
- \*\* Indicates location of Temporary Shoring and Cribbing
- Structural Repair of Concrete (Depth equal to or less than 5")  
Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

 Excellence through Ownership 200 West Front Street Wheaton, IL 60187	ILLINOIS DEPARTMENT OF TRANSPORTATION PIER 21 REPAIRS BURNHAM AVE OVER STATE ST, R.R. & RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806
	DATE: 1-14-2009 DRAWN BY: JMT CHECKED BY: WJV

Contract # 60D74



**PIER 24-NORTH FACE ELEVATION**



**PIER 24-SOUTH FACE ELEVATION**

**REACTION TABLE**

Bearing Location	Reaction (kips)			
	R <sub>Q</sub>	R <sub>L</sub>	Impact	R <sub>Total</sub>
@ S. Brg. Pier 24	47.3	47.5	11.1	105.9
@ N. Brg. Pier 24	41.4	23.3	5.8	70.5

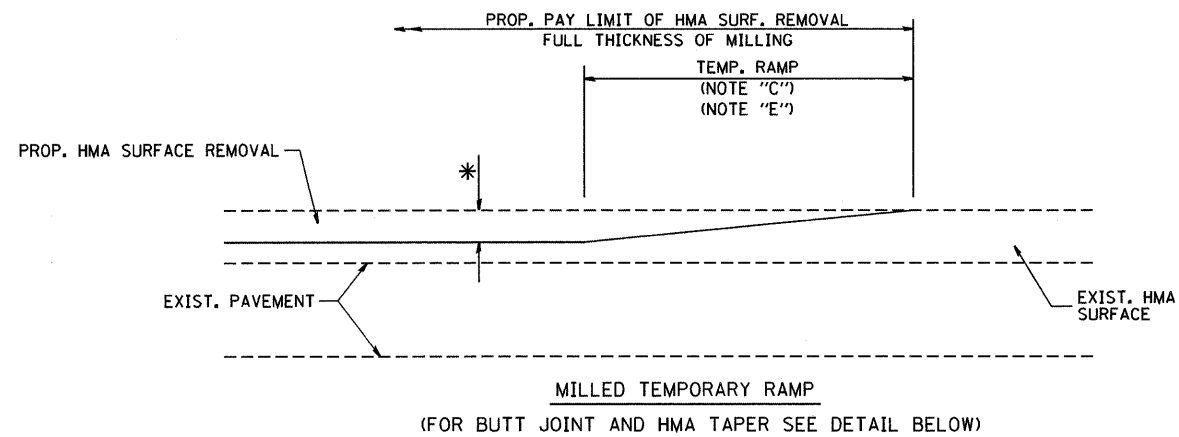
**BILL OF MATERIAL**

Item	Unit	Quantity
Structural Repair of Concrete (Depth equal to or less than 5")	Sq. Ft.	75
Temporary Shoring and Cribbing	Each	1

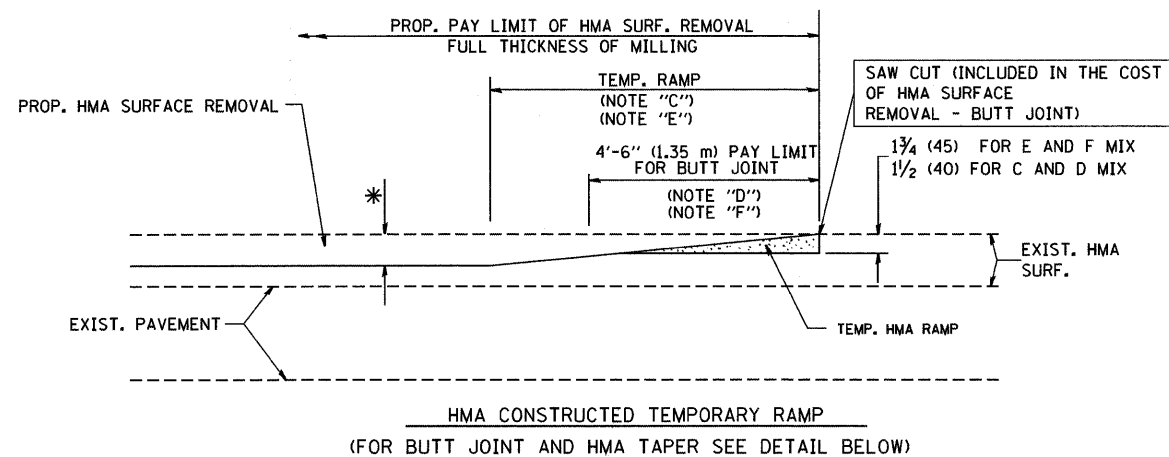
**NOTE:**

- \*\* Indicates location for Temporary Shoring and Cribbing
- Structural Repair of Concrete (Depth equal to or less than 5")  
Detach the downspouts from the pier if necessary and reattach once the work is complete. Cost included with Structural Repair of Concrete (Depth equal to or less than 5").
- Structural Repair of Concrete will not be allowed on any two adjacent columns at the same time, except in locations supported by Temporary Shoring and Cribbing. Work on an adjacent column shall not begin until the required curing period has elapsed on the previous column repair.

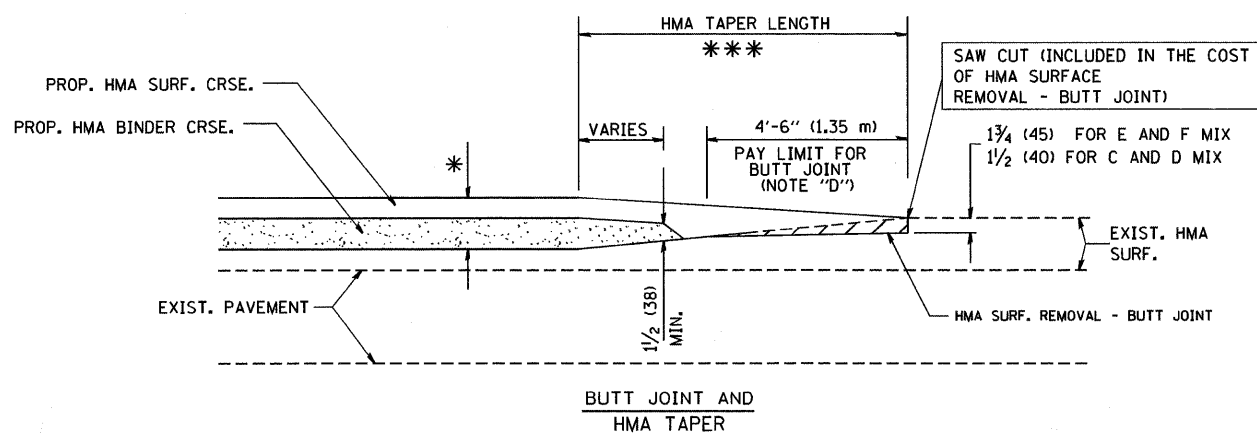
<p>Excellence through Ownership</p> <p>200 West Front Street Wheaton, IL 60187</p>	<p>ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p>PIER 24 REPAIRS BURNHAM AVE OVER STATE ST, R.R. &amp; RIVER FAU RTE 2943 SECTION 1212.8-I-1 COOK COUNTY STATION 231+79.04 STRUCTURE NO. 016-0806</p>
	<p>DATE: 1-14-2009</p> <p>DRAWN BY JMT CHECKED BY WJV</p>



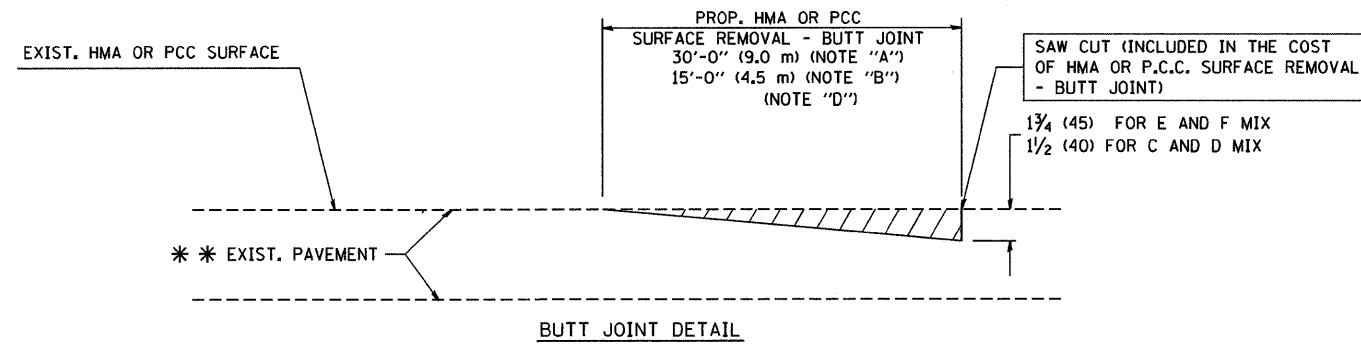
**OPTION 1**



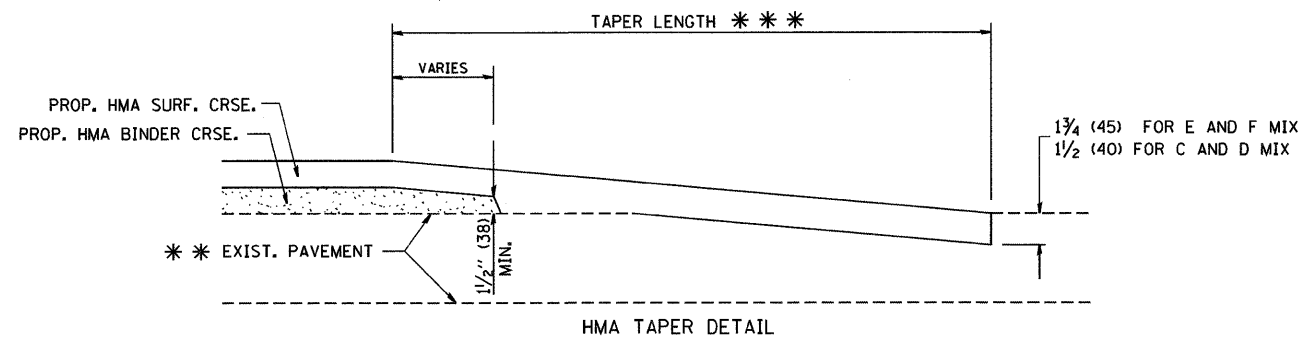
**OPTION 2  
TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**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'-0" (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.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

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

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

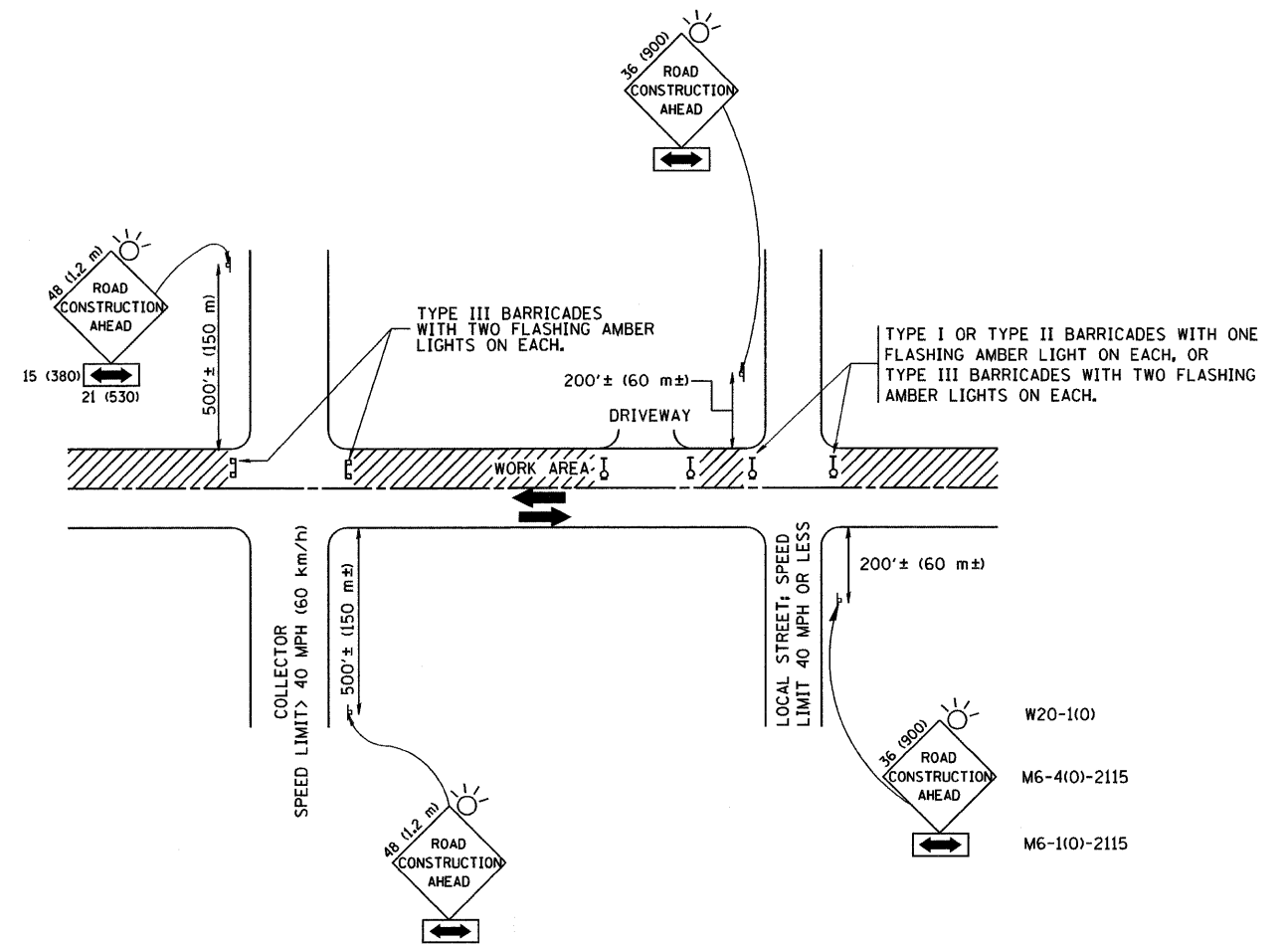
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = goglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
294	1212.8-1-1	COOK	51	46
BD400-05 BD32		CONTRACT NO. 60D74		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

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

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

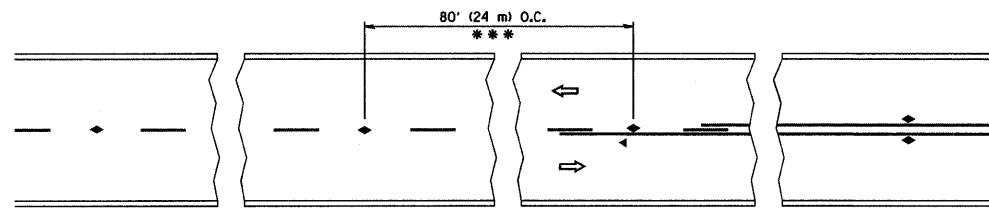
All dimensions are in millimeters (Inches) unless otherwise shown.

FILE NAME =	USER NAME = geglentobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\dststd\22x34\tcl0.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

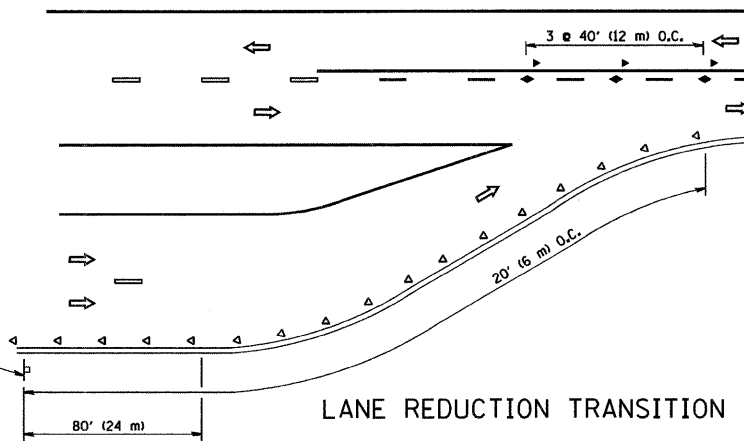
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
294	1212.8-1-1	COOK	51	47
TC-10		CONTRACT NO. 60D74		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

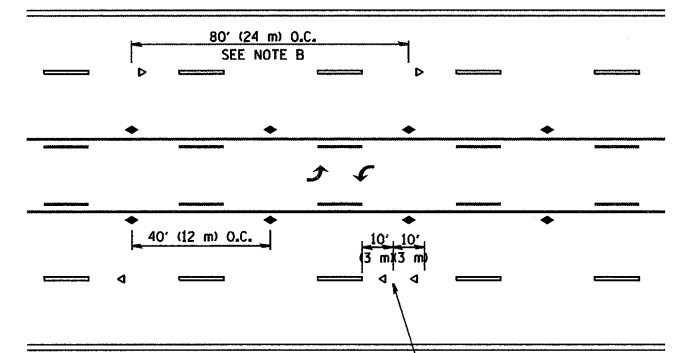


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

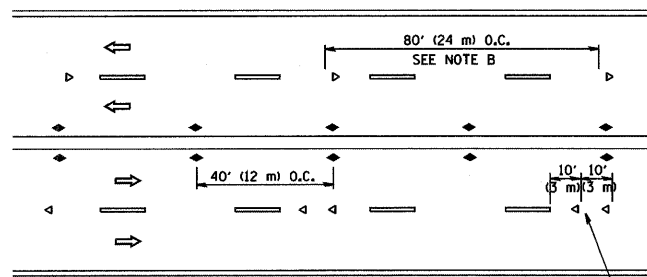
TWO-LANE/TWO-WAY



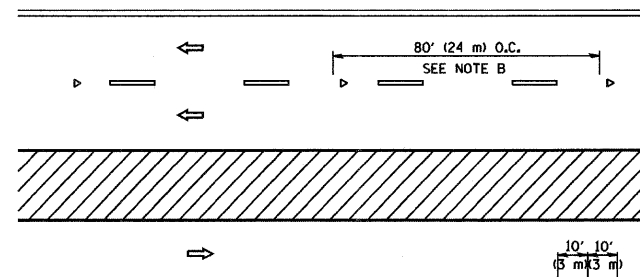
LANE REDUCTION TRANSITION



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

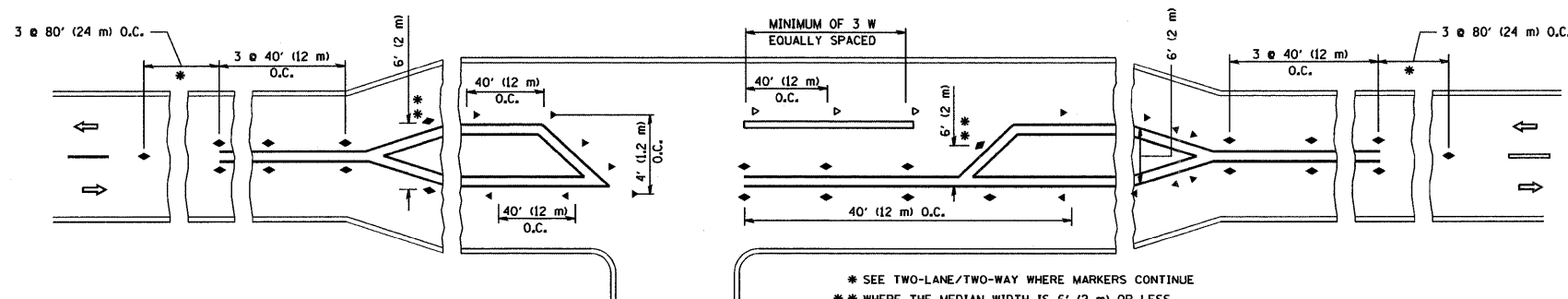
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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.

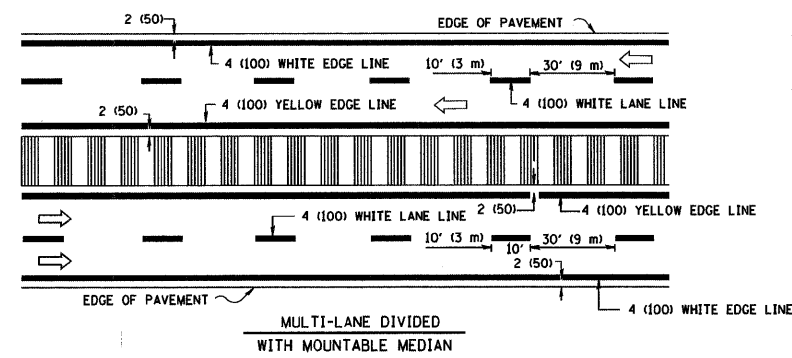
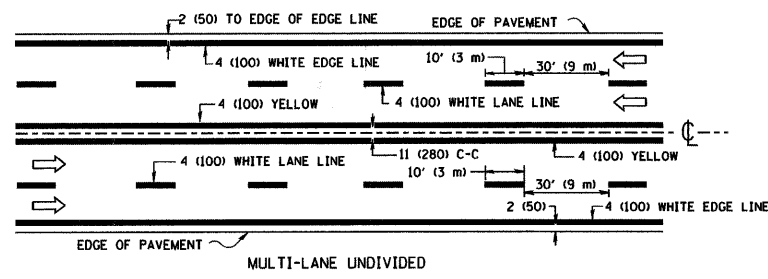
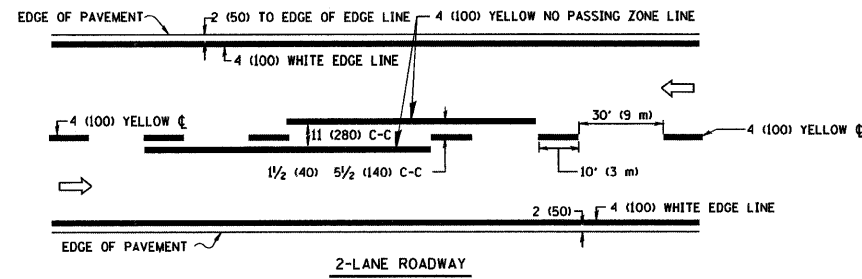


LEFT TURN

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

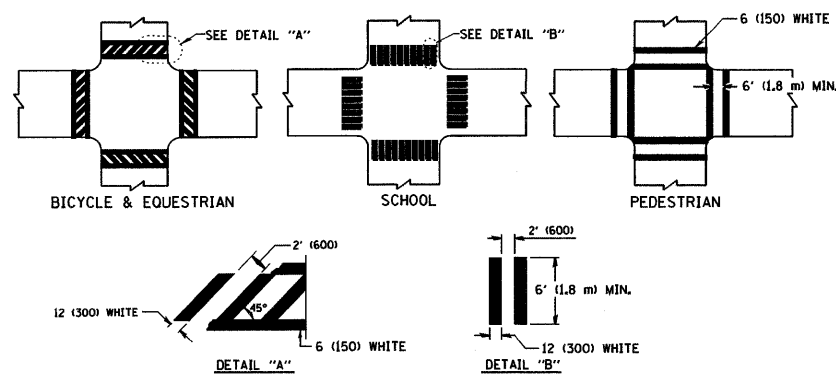
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\diststd\22x34\td11.dgn	USER NAME = goglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS		F.A.I. RTE. 294	SECTION 1212.8-1	COUNTY COOK	TOTAL SHEETS 51	SHEET NO. 48
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60D74	
PLOT DATE = 1/4/2008	CHECKED -	DATE -	REVISED - T. RAMMACHER 01-06-00				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

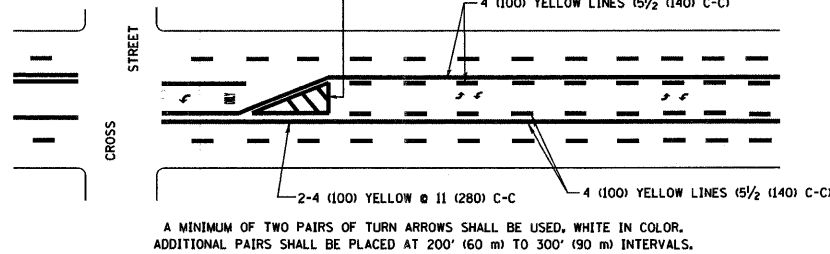
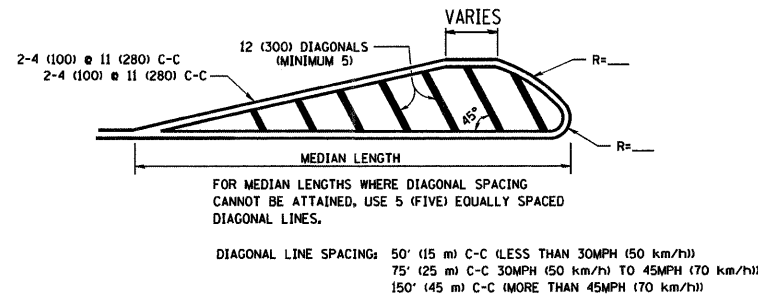
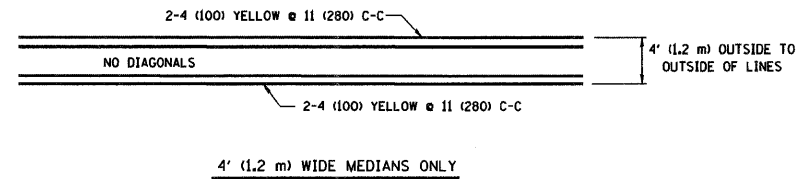


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

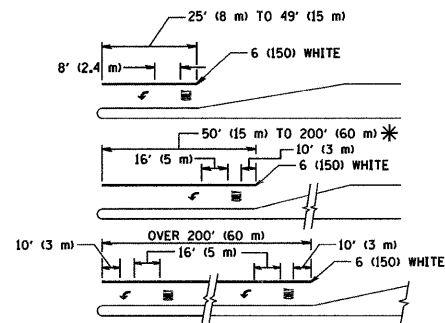
**TYPICAL LANE AND EDGE LINE MARKING**



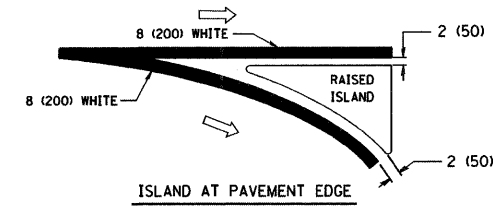
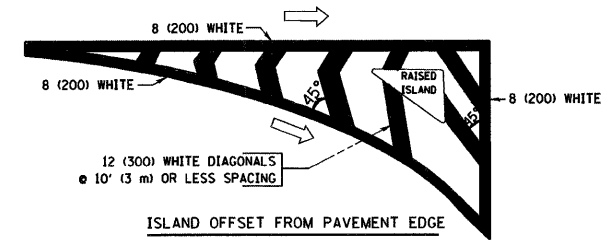
**TYPICAL CROSSWALK MARKING**



**TYPICAL PAINTED MEDIAN MARKING**



**TYPICAL TURN LANE MARKING**

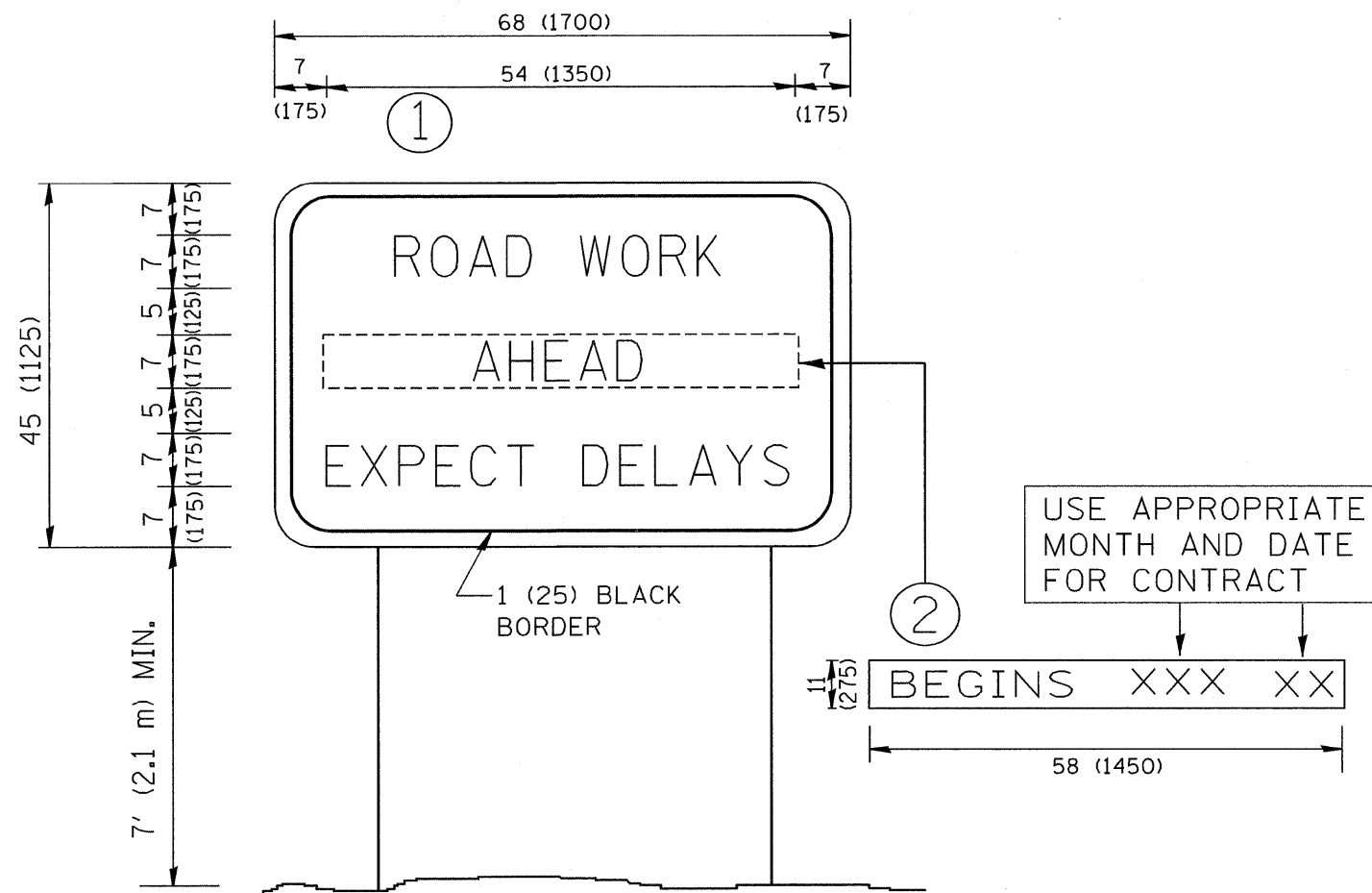


**TYPICAL ISLAND MARKING**

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 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 m) 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' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) 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° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK; IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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



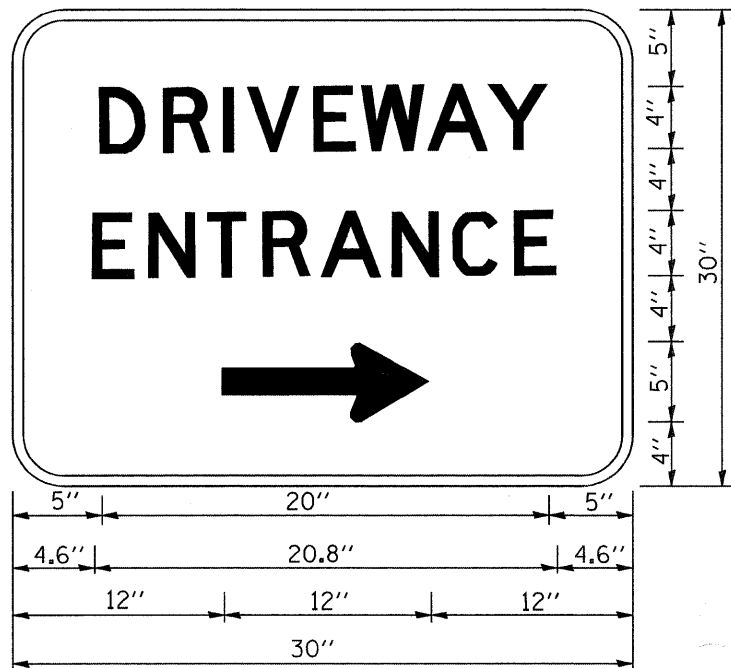
**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = geglentobt	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - R. MIRS 12-11-97			294	1212.8-1-1	COOK	51	50	
		PLOT SCALE = 50.000' / IN.	REVISED - T. RAMMACHER 02-02-99			<b>TC-22</b>		CONTRACT NO. 60D74			
		PLOT DATE = 1/4/2008	REVISED - C. JUCIUS 01-31-07			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	





3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = goglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY ENTRANCE SIGNING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
294	1212.8-1-1	COOK	51	51
<b>TC-26</b>			<b>CONTRACT NO. 60D74</b>	
<small>FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT</small>				