

MAP NAME	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10 (K-1,HB)	MADISON	420	201
STA.	TO STA.			
CONTRACT NO.: 76709				

PROPOSED SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT								
CONCURRENT MOVEMENT PERMITTED	5 OR 6	5 OR 6	7 OR 8	7 OR 8	1 OR 2	1 OR 2	3 OR 4	3 OR 4

PHASE DESIGNATION LEGEND

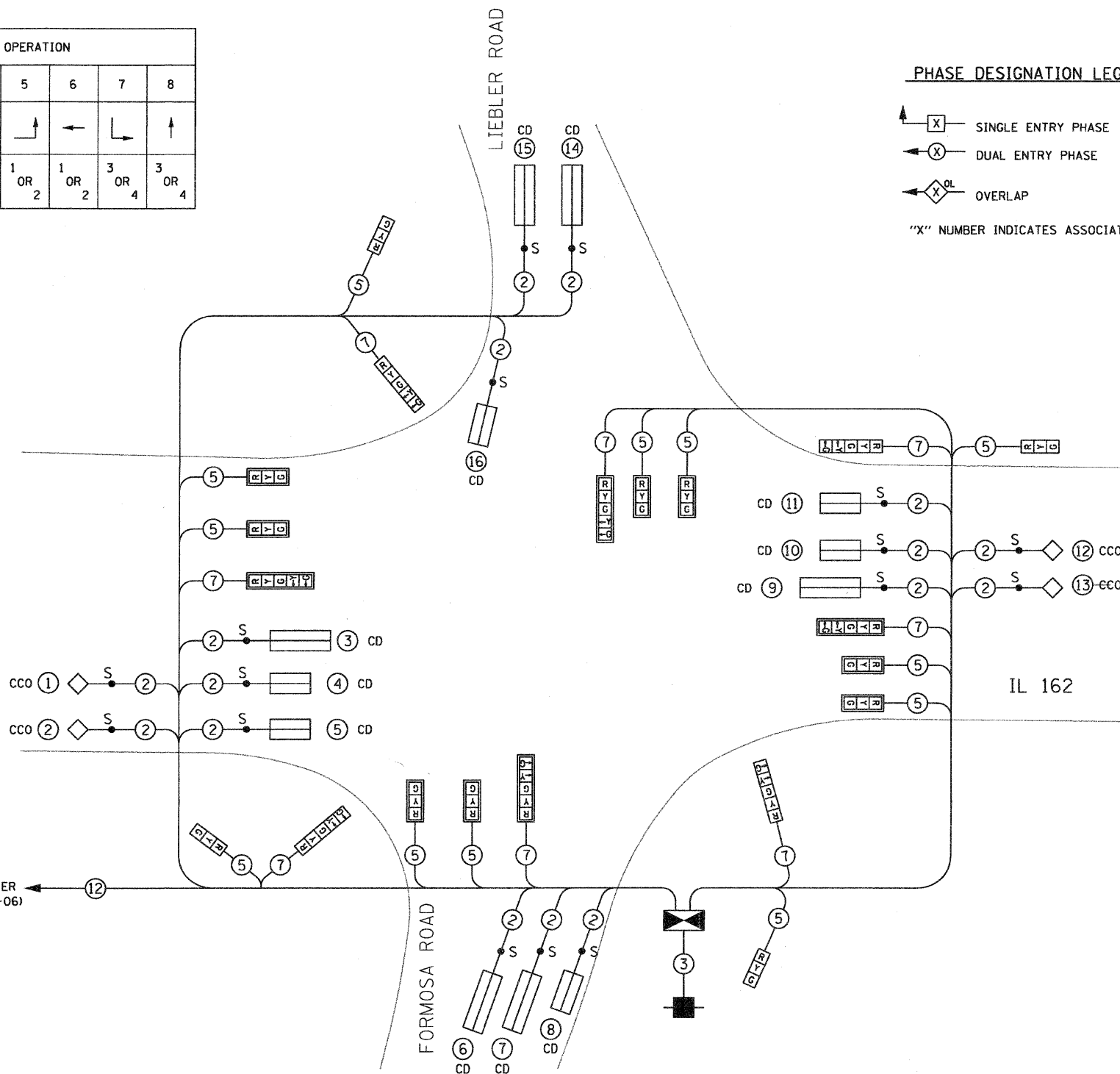
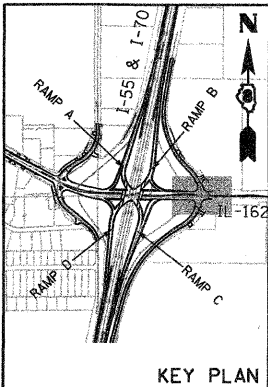
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- "X" NUMBER INDICATES ASSOCIATED PHASE

CABLE PLAN LEGEND

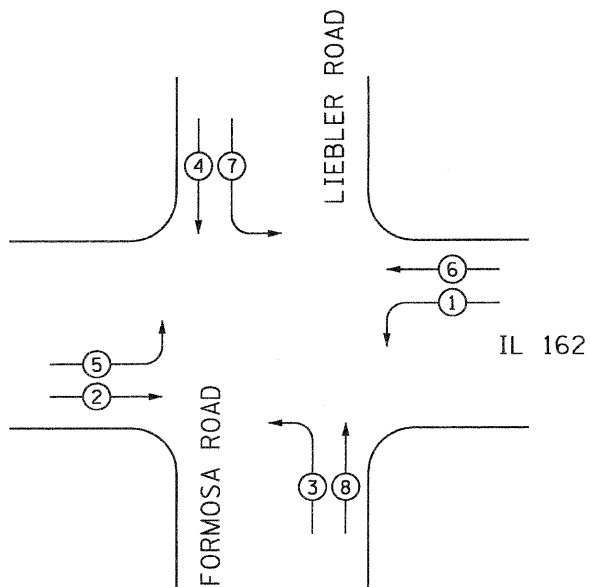
- CONTROLLER
- SERVICE INSTALLATION
- DETECTOR LOOPS
- DETECTOR LOOP LEAD-IN SPLICE
- NUMBER OF CONDUCTORS OR FIBER OPTIC STRANDS
- LEFT TURN - YELLOW
- LEFT TURN - GREEN
- TRAFFIC SIGNAL SECTION 12" - GREEN
- GEOMETRICALLY PROGRAMMED LOUVER (G.P.L.)
- SIGNAL FACE WITH BACKPLATE
RED
YELLOW
GREEN
YELLOW LEFT
GREEN LEFT
- CALL DELAY
- CALL CARRY OVER

DETECTOR LOOP REQUIREMENTS AND CALCULATIONS IL-162 @ LIEBLER/FORMOSA ROAD					
LOOP No. (±)	PHASE	LOOP SIZE	No. OF TURNS	INDUCTANCE (MICROHENRIES)	RESISTANCE (OHMS)
1	2	6'x6'	5	269	3.0
2	2	6'x6'	5	266	3.0
3	5	6'x50' 0	3-6-3	379	3.5
4	2	6'x20' 0	4-8-4	301	2.6
5	2	6'x20' 0	4-8-4	298	2.5
6	3	6'x50' 0	3-6-3	357	3.2
7	8	6'x50' 0	3-6-3	348	2.7
8	8	6'x20' 0	4-8-4	268	1.6
9	1	6'x50' 0	3-6-3	383	3.7
10	6	6'x20' 0	4-8-4	304	2.8
11	6	6'x20' 0	4-8-4	301	2.8
12	6	6'x6'	5	280	3.4
13	6	6'x6'	5	283	3.4
14	7	6'x50' 0	3-6-3	411	4.6
15	4	6'x50' 0	3-6-3	406	4.3
16	4	6'x20' 0	4-8-4	326	3.4

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES



1 PROPOSED TRAFFIC SIGNALS CABLE PLAN
N.T.S.



2 PHASE DESIGNATION DIAGRAM
N.T.S.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED TRAFFIC SIGNALS
CABLE PLAN
IL 162 @ LIEBLER RD./FORMOSA RD.
FAI ROUTE 70
SECTION 60-10K-1, 60-10HB
MADISON COUNTY

DRAWN BY: RPJ CHECKED BY: A. OSHANA, P.E.









TS-08

PLAN	DATE
BY	
CHECKED	
DATE	
NO.	

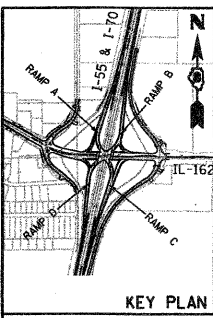
XXXX-XXX - 100T IL 162 over I-55,70 revisions
236-TS-08-east-Cable.dwg
1/28/2009
4:59:00 PM
Robert Swanson

PAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
70	60-10 (K-1,HB)	MADISON	420	202
STA.		TO STA.		
CONTRACT NO.: 76709				

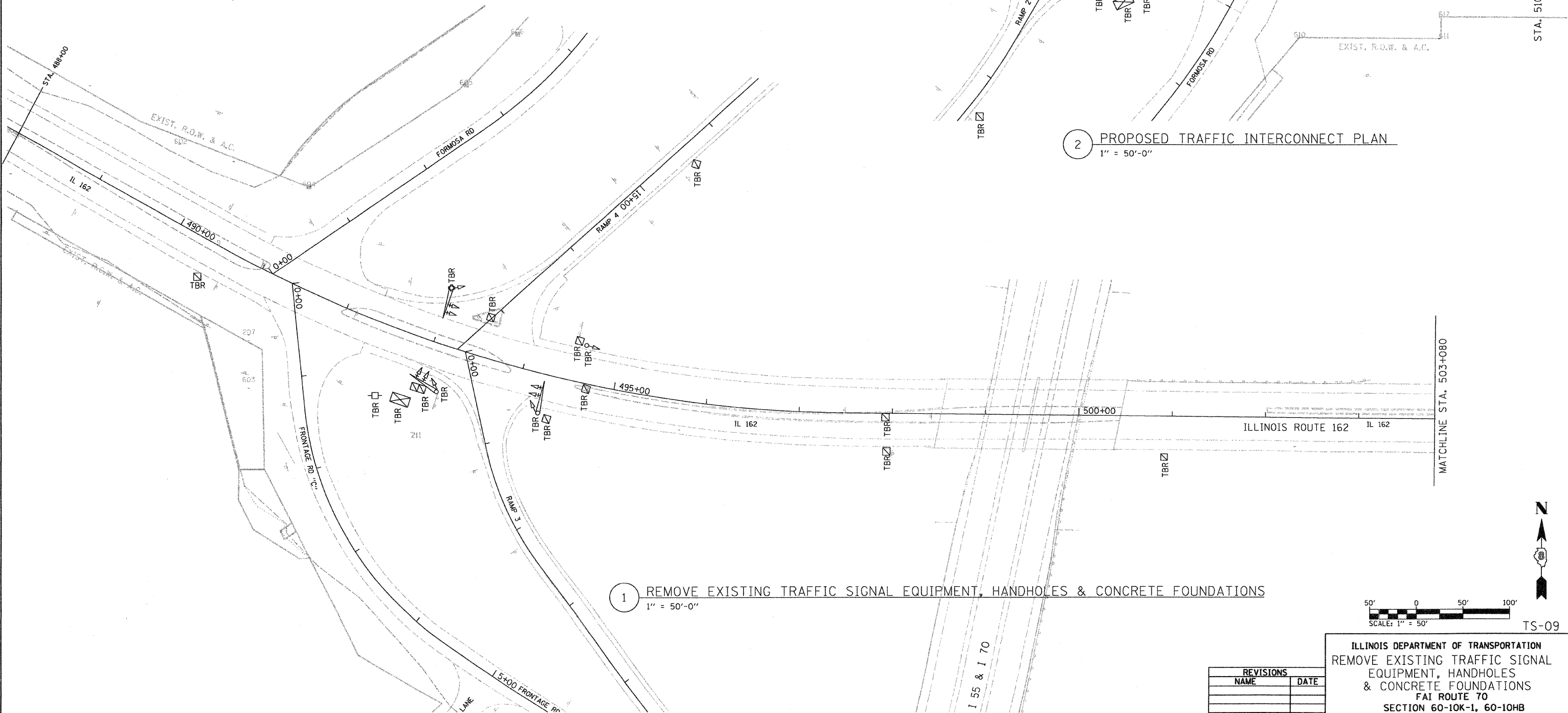
EXISTING TRAFFIC SIGNALS LEGEND

- CONTROLLER 
- SERVICE INSTALLATION 
- SIGNAL HEAD 
- SIGNAL HEAD WITH BACKPLATE 
- SIGNAL POST 
- MAST ARM ASSEMBLY AND POLE, ALUMINUM 
- HANDHOLE 
- DOUBLE HANDHOLE 

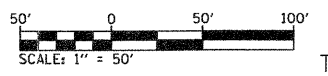
- NOTES**
- TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL REMAIN IN USE DURING CONSTRUCTION UNTIL NEW SIGNALS ARE READY FOR OPERATION.
 - REFER TO LIGHTING PLANS FOR THE REMOVAL OF LIGHT UNITS AND FOUNDATIONS.
 - "TBR" INDICATES EQUIPMENT TO BE REMOVED



PLAN	DATE	BY
SURVEYED		
NOTE BOOK		
NO. OF SHEETS		
NO. OF THIS SHEET		



1 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, HANDHOLES & CONCRETE FOUNDATIONS
1" = 50'-0"



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 REMOVE EXISTING TRAFFIC SIGNAL
 EQUIPMENT, HANDHOLES
 & CONCRETE FOUNDATIONS
 FAI ROUTE 70
 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY

DRAWN BY: RPJ CHECKED BY: A. OSHANA, P.E.

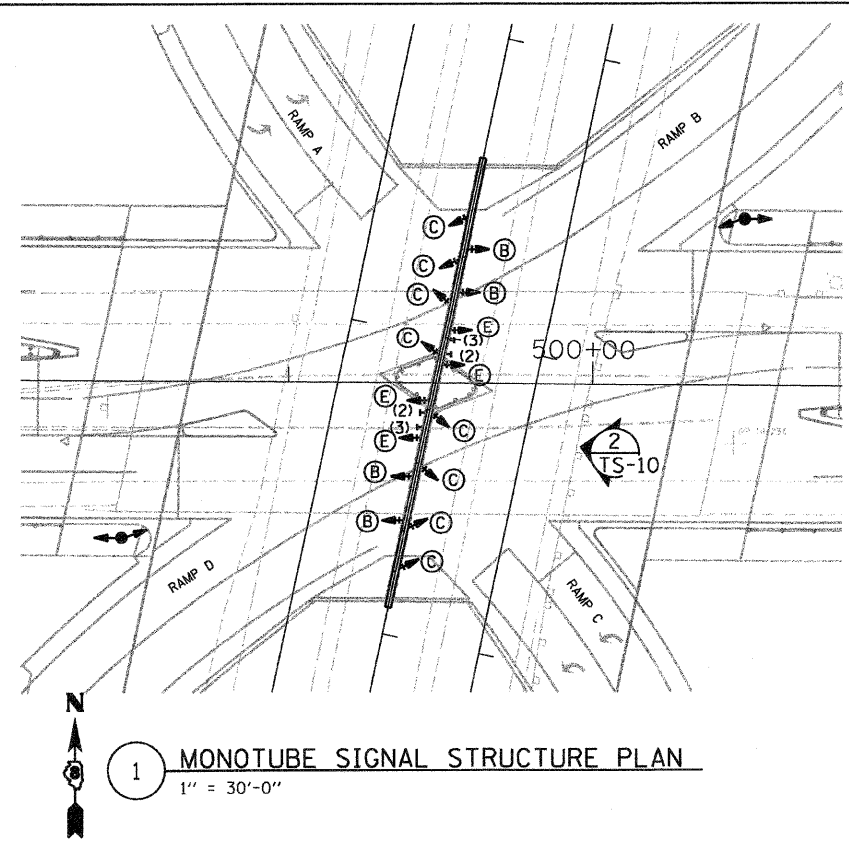
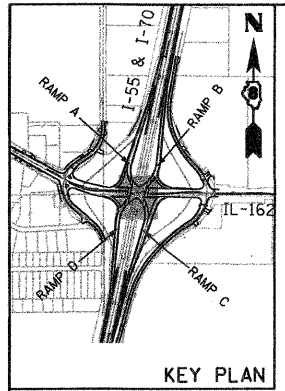
XXXX.XXX - IDOT IL 162 over I-55, 70 revisions
 236-TS-09-Removal_Plan.dwg
 1/28/2009
 9:01:23 PM
 Robert Swanson



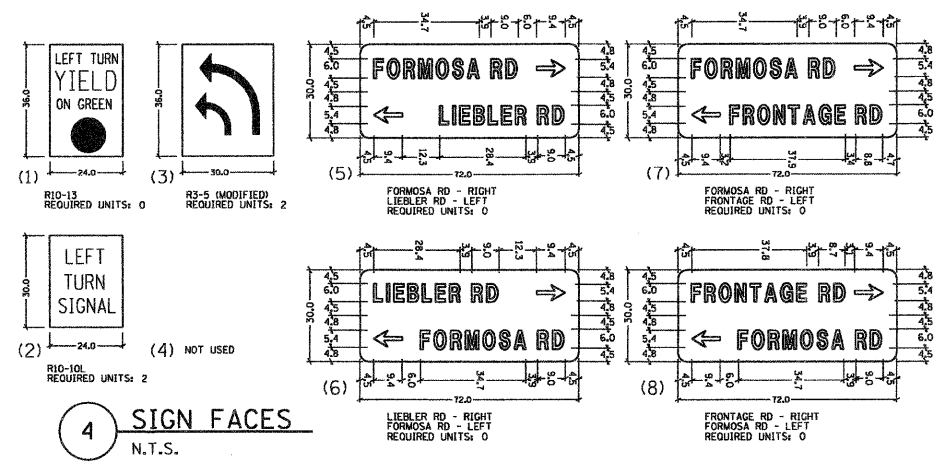
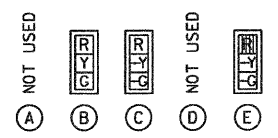
TS-09

APP. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10 (K-1,HB)	MADISON	420	203
STA.		TO STA.		
CONTRACT NO.: 76709				

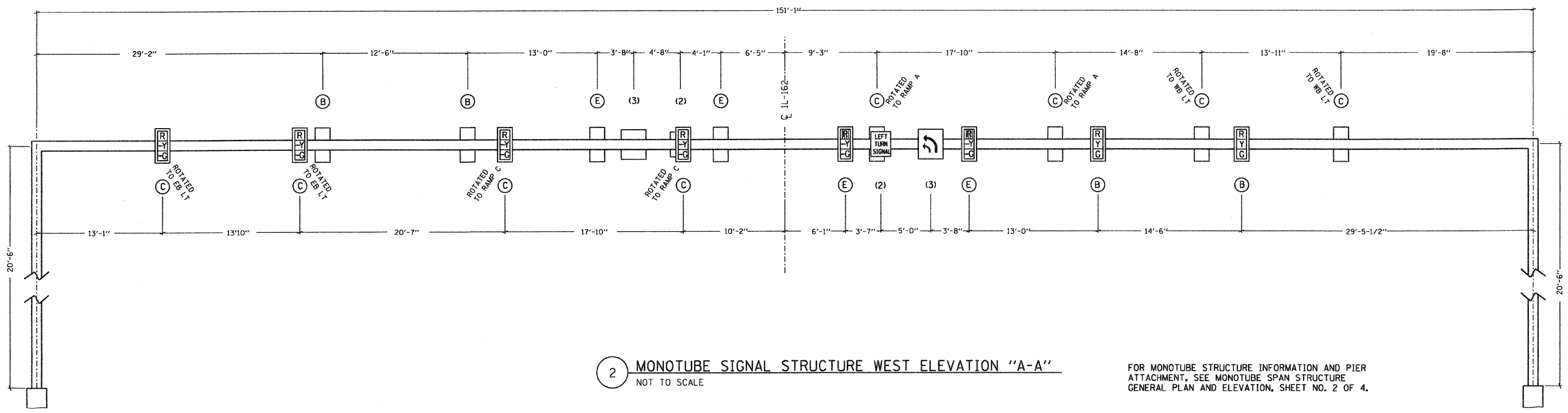
PLAN	NO.	DATE	BY
1	1		
2	2		
3	3		
4	4		
5	5		
6	6		
7	7		
8	8		
9	9		
10	10		



3 TRAFFIC SIGNALS FACES
N.T.S.



4 SIGN FACES
N.T.S.



2 MONOTUBE SIGNAL STRUCTURE WEST ELEVATION "A-A"
NOT TO SCALE

FOR MONOTUBE STRUCTURE INFORMATION AND PIER ATTACHMENT, SEE MONOTUBE SPAN STRUCTURE GENERAL PLAN AND ELEVATION, SHEET NO. 2 OF 4.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MONOTUBE SIGNAL STRUCTURE

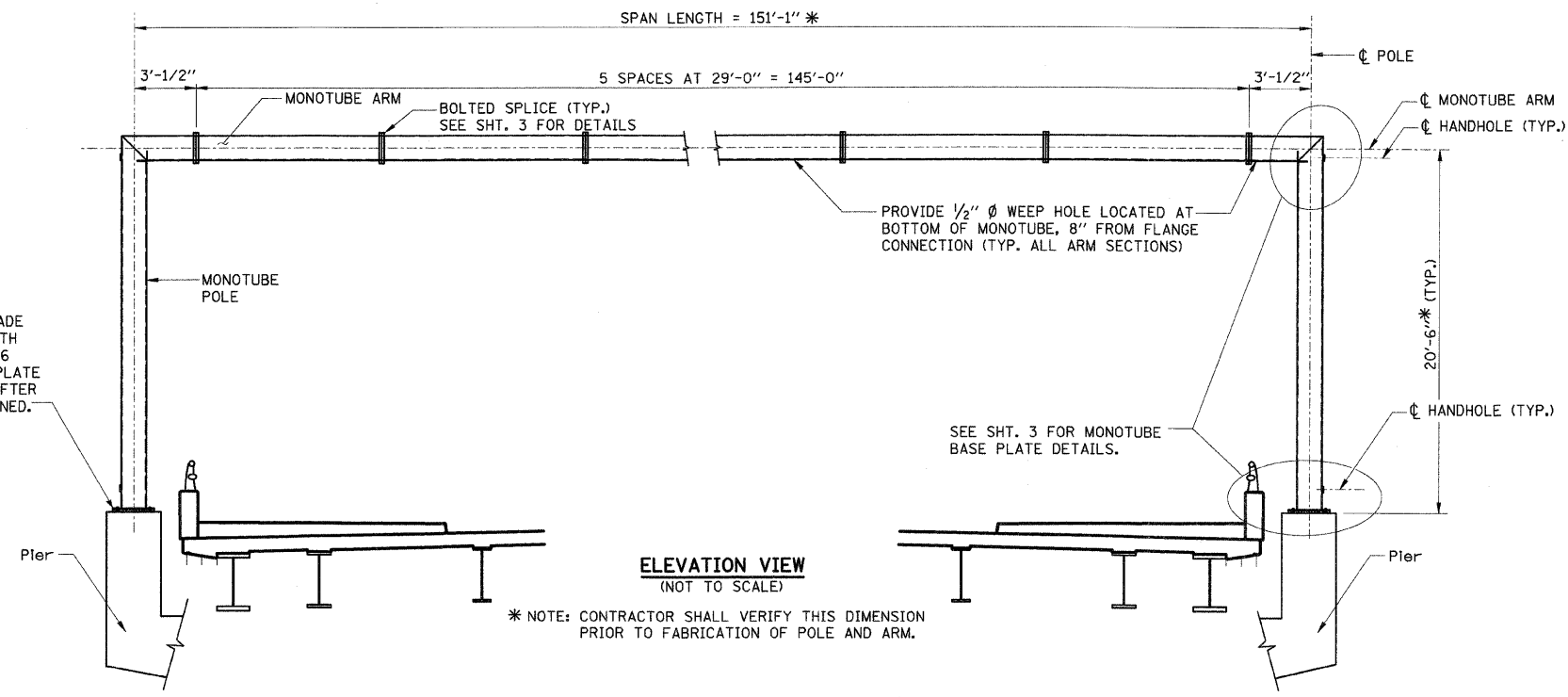
FAI ROUTE 70
SECTION 60-10K-1, 60-10HB
MADISON COUNTY

DRAWN BY: RPJ CHECKED BY: A. OSHANA, P.E.

TS-10

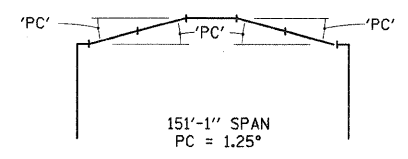
XXXX-XXX - IDOT, IL 162 over I-55.70 revisions
236-TS-10_monotube.dgn
1/28/2009
5:02:30 PM
Robert Swanson

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO		MADISON	420	204
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
* 60-10K-1, 60-10HB CONTRACT NO. 76709				



±2/2" STAINLESS STEEL STANDARD GRADE WIRE CLOTH, 1/4" MAXIMUM OPENING WITH MINIMUM WIRE DIAMETER OF AWG NO. 16 WITH 2" LAP. SECURE TO THE BASE PLATE WITH 3/4" STAINLESS STEEL BANDING AFTER ANCHOR BOLT NUTS ARE FULLY TIGHTENED.

* FIELD VERIFY POLE HEIGHTS PRIOR TO FABRICATION.



CAMBER DETAILS
NOTE: FABRICATE WITH ROLLING CAMBER UP.

ELEVATION VIEW
(NOT TO SCALE)

* NOTE: CONTRACTOR SHALL VERIFY THIS DIMENSION PRIOR TO FABRICATION OF POLE AND ARM.

MONOTUBE SIGNAL STRUCTURE NOTES

- SIGNAL STRUCTURE MATERIALS SHALL BE AS FOLLOWS:
 POLES & MONOTUBE ARM → ASTM A618 GRADE II OR A500 GRADE C
 HANDHOLE FRAME → ASTM A709 GRADE 36
 HANDHOLE COVER → ASTM A607, GRADE 50, 55 OR 60 KSI
 STEEL PLATES → ASTM A709 GRADE 50
 WELD METAL → E70XX
 ANCHOR BOLTS →
 NUTS FOR ANCHOR BOLTS → SEE ANCHOR ROD ASSEMBLY NOTES
 WASHERS FOR ANCHOR BOLTS →
 STAINLESS STEEL SCREWS → AISI TYPE 316
 ALUMINUM NUT COVER → ASTM B26 (356-T6)
- DESIGN SPECIFICATIONS: CURRENT (AT TIME OF LETTING) AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
- PROPOSED LOADING AND CONFIGURATION: AS SHOWN ON SHEET TS-11. TOTAL SIGNAL/SIGN APPLIED WIND AREA NOT TO EXCEED 220 SQ. FT.
- CONSTRUCTION: CURRENT (AT TIME OF LETTING) ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. ("STANDARD SPECIFICATIONS") ALL REFERENCES TO "MAST ARM ASSEMBLY AND POLE" ARE APPLICABLE, UNLESS OTHERWISE NOTED.
- WELDING: ALL WELDS TO BE CONTINUOUS UNLESS OTHERWISE SHOWN. ALL WELDING TO BE DONE IN ACCORDANCE WITH CURRENT AWS D1.1 STRUCTURAL WELDING CODE AND THE STANDARD SPECIFICATIONS.
- FASTENERS: ALL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS M164, GALVANIZED ACCORDING TO M232 (A153). ALL NUTS SHALL BE "LOCKNUTS" WITH NYLON OR STEEL INSERTS AND SEMIFINISHED HEXAGONAL HEADS EQUIVALENT TO THE FINISHED HEAVY HEX SERIES OF THE AMERICAN NATIONAL STANDARD.
- THE DESIGN WIND SPEED IS 90 MPH.
- ALTERNATE DESIGNS FOR THIS STRUCTURE ARE NOT ALLOWED.
- EXCEPT FOR ANCHOR BOLTS, ALL BOLT HOLE DIAMETERS SHALL BE EQUAL TO THE BOLT DIAMETER PLUS 1/16", PRIOR TO GALVANIZING. HOLE DIAMETERS FOR ANCHOR BOLTS SHALL NOT EXCEED THE BOLT DIAMETER PLUS 3/16".
- SIGN PANELS AND SIGNALS ATTACHED TO THE MONOTUBE SHALL BE LOCATED AS SHOWN ON THE TRAFFIC SIGNAL PLANS. WIRE ACCESS HOLES SHALL NOT EXCEED 3/4" IN DIAMETER.
- THE POLE SHALL BE INSTALLED VERTICALLY. ARM CAMBER SHALL BE ACCOUNTED FOR IN THE FLANGE CONNECTIONS.
- ALL SIGNALS SHALL BE INSTALLED VERTICALLY.
- MONOTUBE ARM & POLES SHALL BE FABRICATED FROM ROUND PIPE.
- GALVANIZING: ALL PLATES, SHAPES, AND PIPE SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111.

ANCHOR ROD ASSEMBLY NOTES:

- ALL DIMENSIONS ARE IN FEET AND INCHES EXCEPT AS NOTED.
- ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 105 AND GALVANIZED ACCORDING TO STANDARD SPECIFICATION SECTION 1006.09.
- ANCHOR RODS SHALL MEET CHARPY V-NOTCH (CVN) ENERGY OF 15 FT-LB AT 40° F. NO WELDING SHALL BE PERMITTED ON RODS.
- ALL NUTS AND WASHERS SHALL BE GALVANIZED. GRADE, FINISH AND STYLE OF NUTS AND WASHERS SHALL CONFORM TO THE RECOMMENDATIONS OF ASTM F1554.
- FOR ASSEMBLIES THAT EMPLOY COUPLING NUTS, EACH ROD SHALL BE TURNED HALFWAY INTO COUPLER AND SNUG TIGHTENED.
- FOR ANCHOR ROD INSTALLATION DETAILS, REFER TO SHEET S-61 OF S-68.

SIGN STRUCTURE NUMBER
8M060I055R018.0

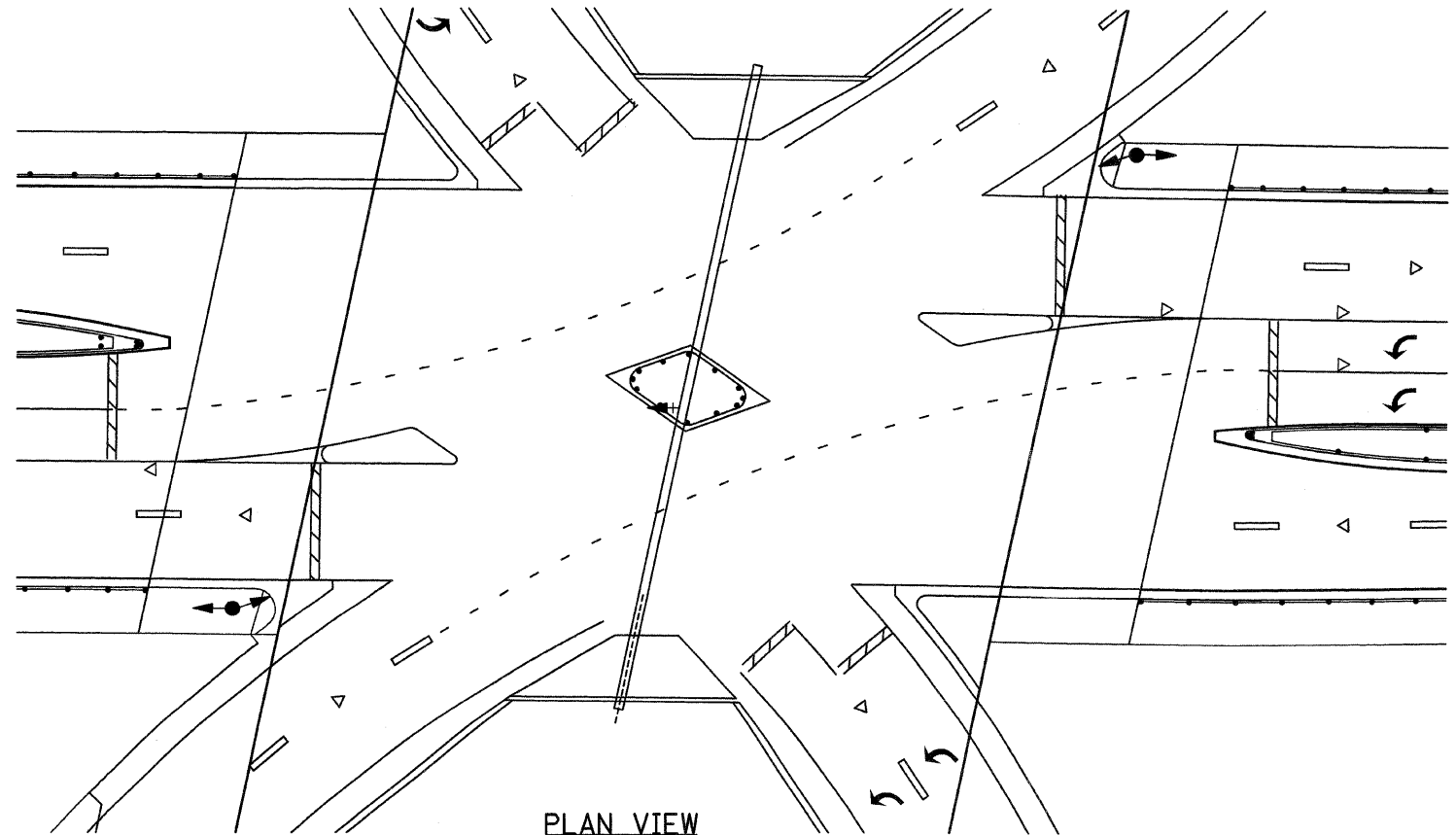
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE TO SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 MONOTUBE SPAN STRUCTURE
 ELEVATION, NOTES & CAMBER DETAILS
 DESIGNED: JAN DRAWN: HJB
 DATE: 4/06 CHECKED: TO CHECKED: JAN

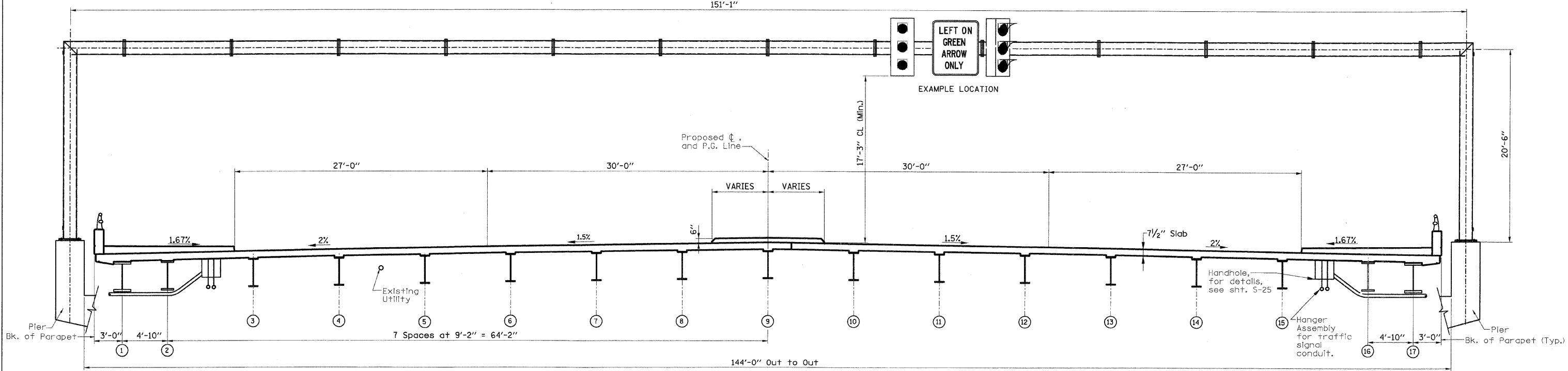
SHT. 1 OF 4

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-9012
 312/553-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	•	MADISON	420	205
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB CONTRACT NO. 76709				



NOTE:
 THE PLAN AND ELEVATION VIEWS ON THIS SHEET SHOW TYPICAL SIGNAL HEADS AND SIGN PANELS CONSIDERED IN DESIGN OF THE MONOTUBE SPAN, AND DO NOT SHOW OTHER APPURTENANT ITEMS THAT ARE SHOWN IN THE TRAFFIC SIGNAL INSTALLATION PLANS. FOR SIGNAL HEAD PLACEMENT, SEE MONOTUBE SIGNAL STRUCTURE SHEET NO. TS-10.



MONOTUBE STRUCTURE ELEVATION
(LOOKING EAST)

SIGN STRUCTURE NUMBER
8M0601055R018.0

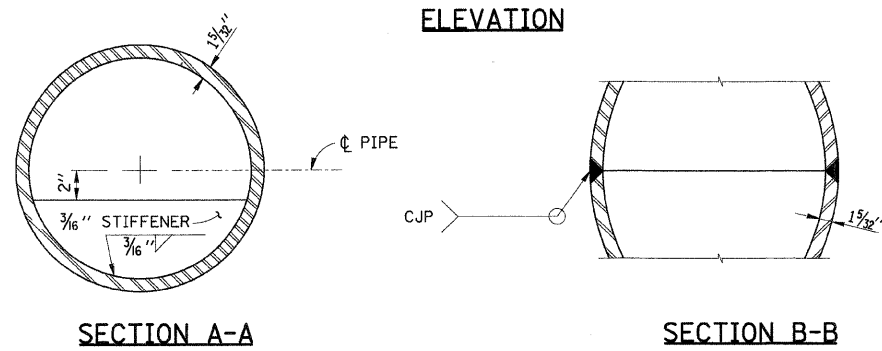
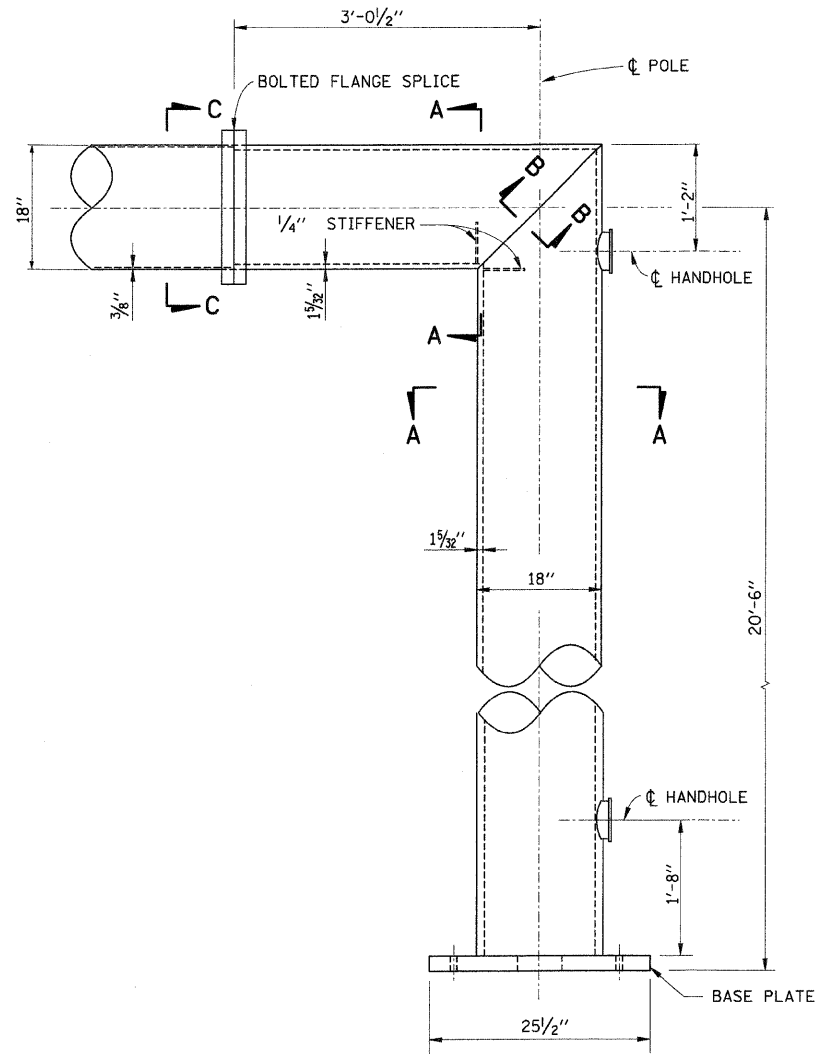
SHT. 2 OF 4



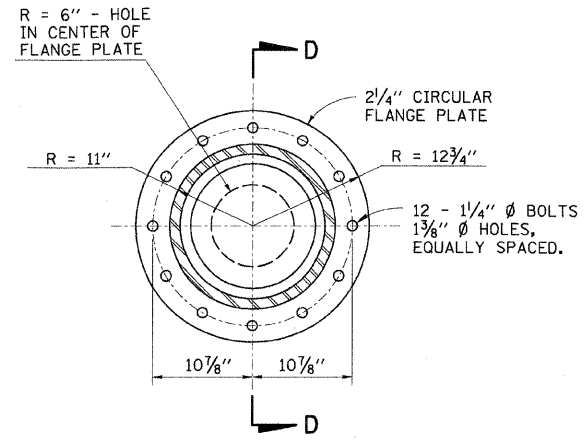
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
MONOTUBE SPAN STRUCTURE
GENERAL PLAN AND ELEVATION
 DESIGNED: JAN DRAWN: HJB
 CHECKED: TO CHECKED: JAN
 DATE: 4/06

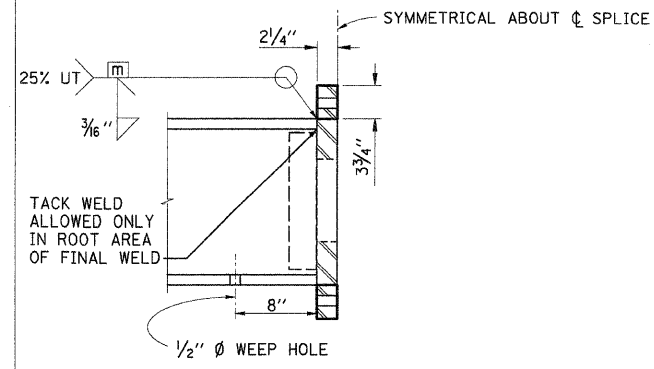
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO		MADISON	420	206
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 60-10K-1, 60-10HB CONTRACT NO. 76709				



MONOTUBE POLE & ARM DETAILS

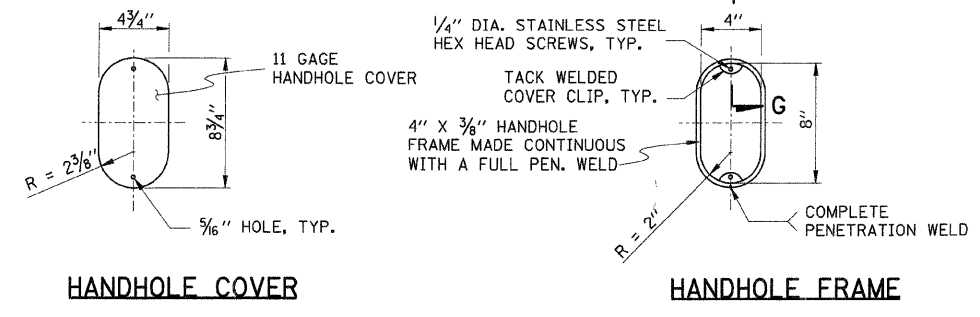


SECTION C-C



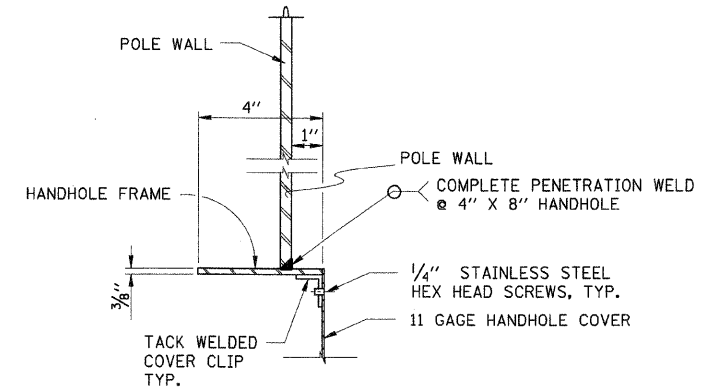
SECTION D-D

MONOTUBE FLANGE SPLICE DETAILS



HANDHOLE COVER

HANDHOLE FRAME



SECTION G-G

MONOTUBE HANDHOLE DETAILS

SIGN STRUCTURE NUMBER
8M0601055R018.0

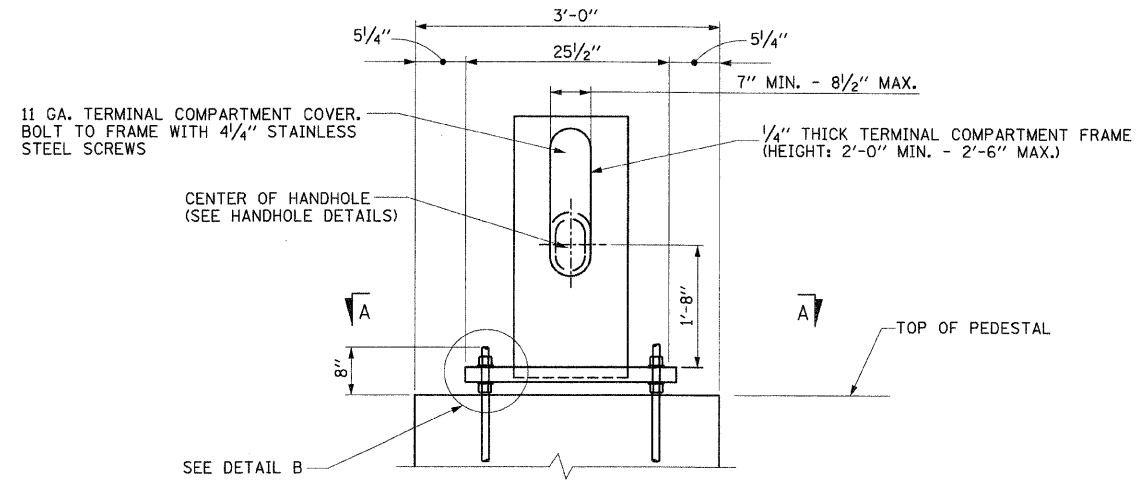
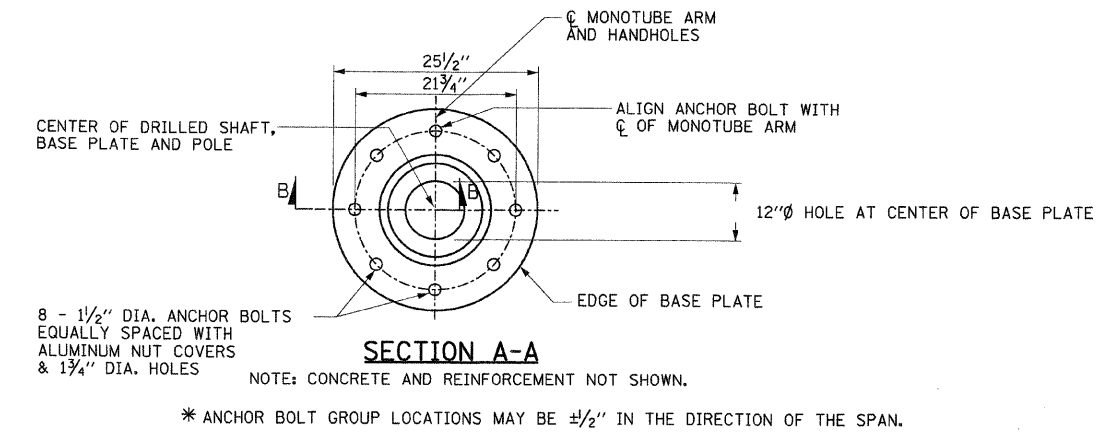
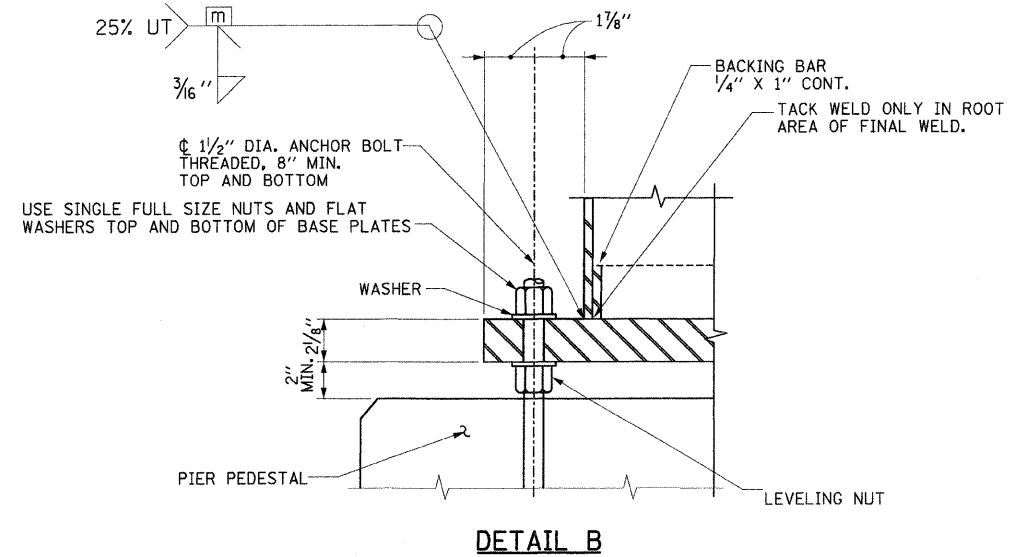
SHT. 3 OF 4



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
MONOTUBE SPAN STRUCTURE
BASE PLATE & ARM
CONNECTION DETAILS
DESIGNED: JAN DRAWN: HJB
DATE: 4/06 CHECKED: TO CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	MADISON	420	207
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
* 60-10K-1, 60-10HB CONTRACT NO. 76709				



SIGN STRUCTURE NUMBER
8M060I055R018.0

SHT. 4 OF 4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
MONOTUBE SPAN STRUCTURE
BASE PLATE & ARM
CONNECTION DETAILS
DESIGNED: JAN DRAWN: HJB
DATE: 4/06 CHECKED: TO CHECKED: JAN

STV Incorporated
Engineers/Architects/Planners/Construction Managers
300 W. Monroe Street, Suite 1650
Chicago, IL 60606-8012
312/933-0655, FAX 312/933-0661

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

Fasteners shall be high strength bolts. Flange splice holes shall be $\frac{15}{16}$ " ϕ for $\frac{7}{8}$ " ϕ bolts. Web splice holes shall be $\frac{13}{16}$ " ϕ for $\frac{3}{4}$ " ϕ bolts.

The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."

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

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.

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

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures", and "Cleaning and Painting New Metal Structures". The color of the final finish coat shall be Interstate Green, Munsell No. 7.5G 4/8. Cost included with Beam Straightening.

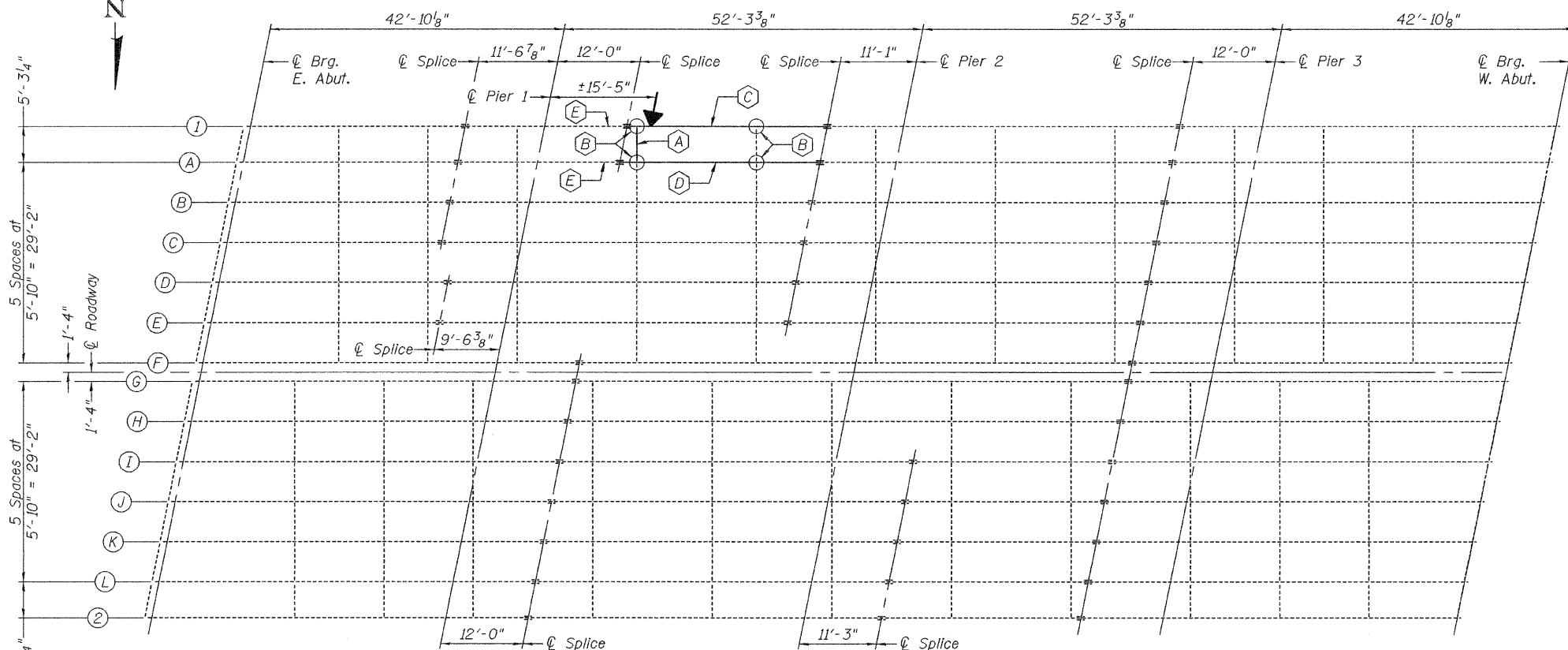
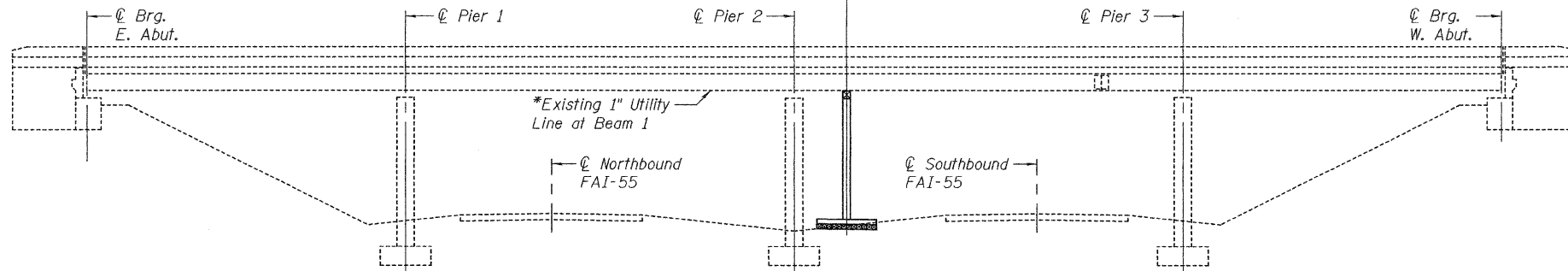
Diaphragm connection holes shall be $\frac{15}{16}$ " ϕ for $\frac{3}{4}$ " ϕ bolts. Two hardened washers shall be required at diaphragm connections.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

The Contractor is responsible for the method of supporting the portion of existing girder to be removed prior to, during cutting and removal operations, and shall ensure that cuts made are smooth and straight.

*Temporarily relocate Utility Line and re-attach to new beam. (See Roadway Plans)

Temporary shoring may be required to facilitate alignment of existing splice. Use 12"x12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. The shoring shall be removed as soon as possible after splice has been completed to minimize Traffic Control in the South Bound Lanes.



SCOPE OF WORK

- (A) Existing Diaphragm to be removed and replaced.
- (B) Existing clip L's top and bottom to be removed and replaced.
- (C) Existing W27x114 Beam segment to be removed and replaced.
- (D) Existing W30x108 Beam segment to be removed and replaced.
- (E) Beam to be straightened.

*BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	9,400
Structural Steel Removal	Pound	5,070
Temporary Slab Support System	L.S.	1
Beam Straightening	L.S.	1
Temporary Shoring and Cribbing	L.S.	1

*For Information Only. Cost included with Removal of Existing Structures.

DESIGNED Victor H. Volitz
CHECKED Adrian J. Halloway
DRAWN
CHECKED VHV ATH

April 10, 2009
EXAMINED D. Carl Peyer SFS
ENGINEER OF STRUCTURAL SERVICES
PASSED Robert C. Adams
ENGINEER OF BRIDGES AND STRUCTURES



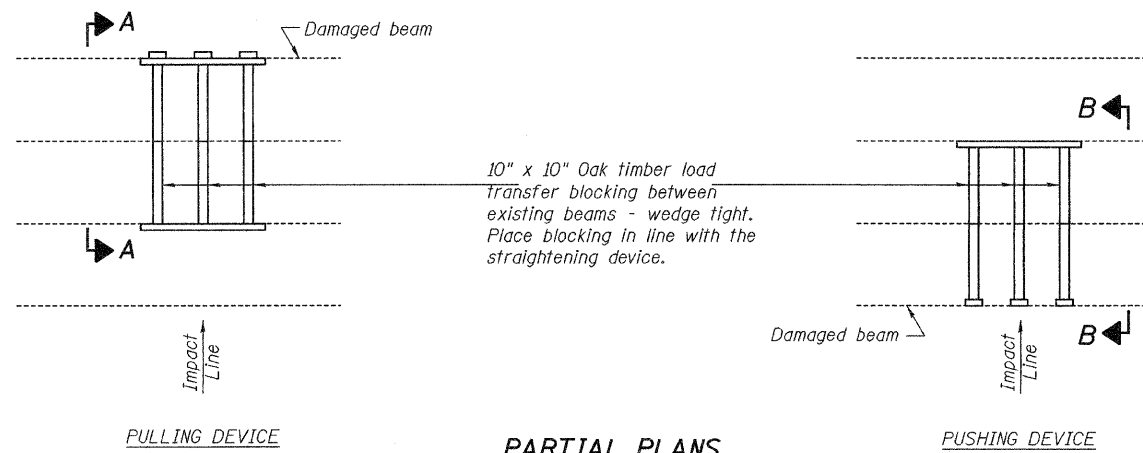
Expires: November 30, 2010

PLAN AND ELEVATION
SN 060-0139

SHEET NO. 1	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	70	60-10HB-4R	Madison	420	207A
5 SHEETS		CONTRACT NO. 76709			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

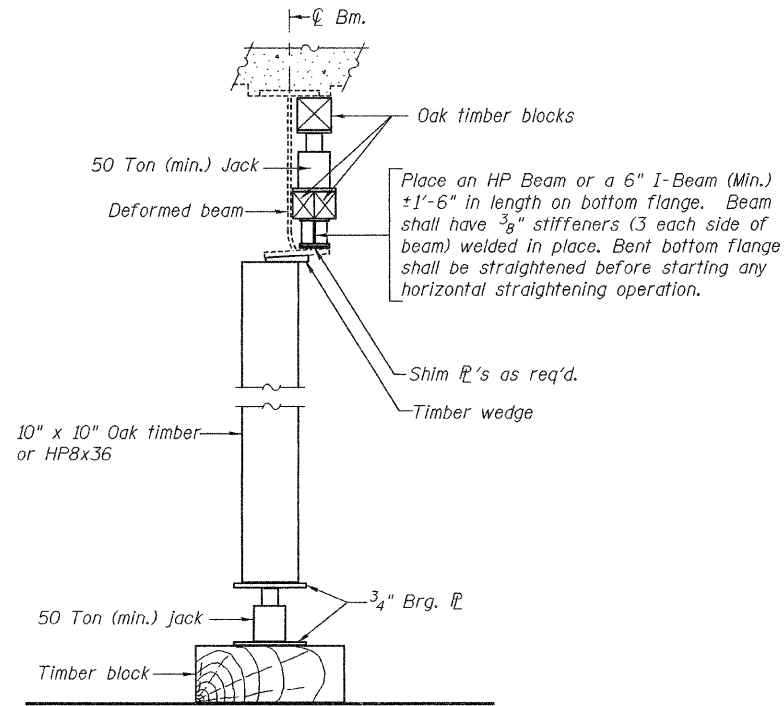
Added Sheet 04/10/09 V.H.V. M.A.C.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

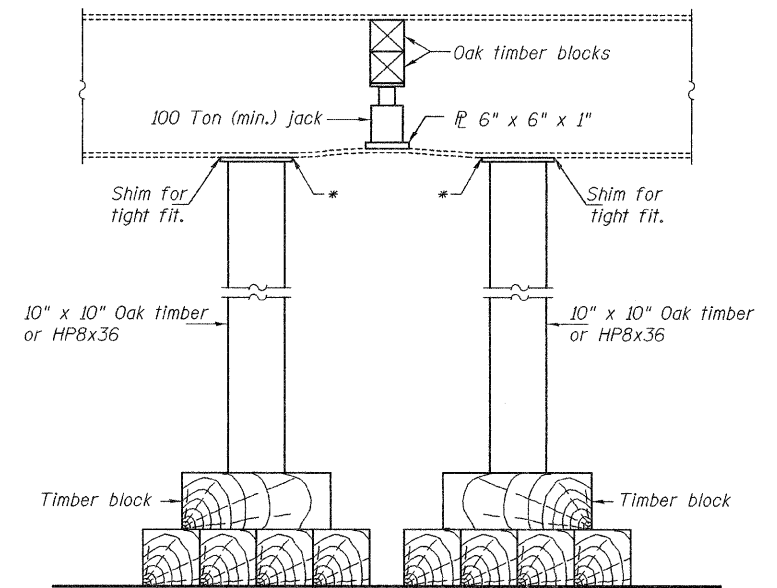


PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

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



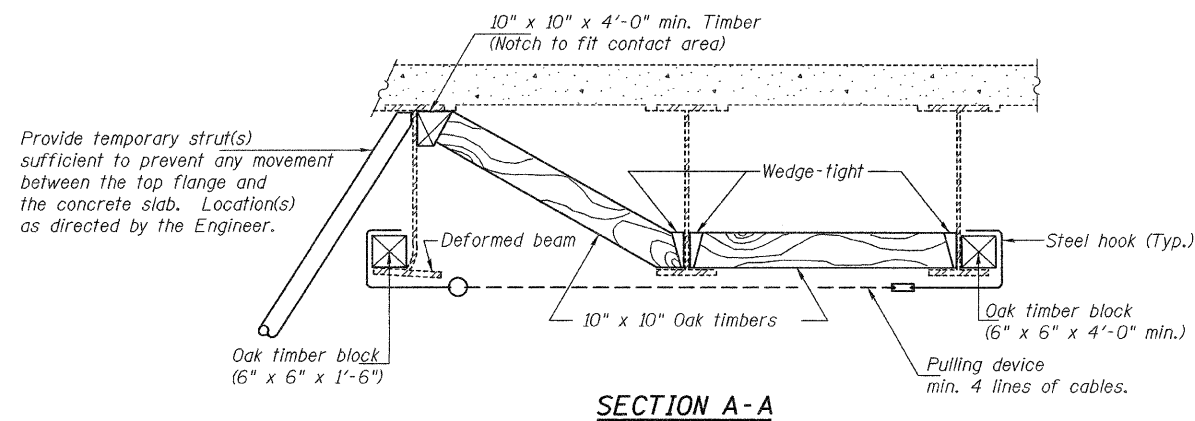
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct flange rotation.)



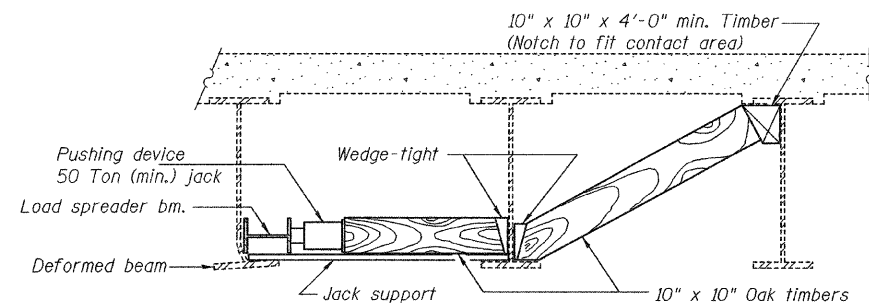
SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)

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

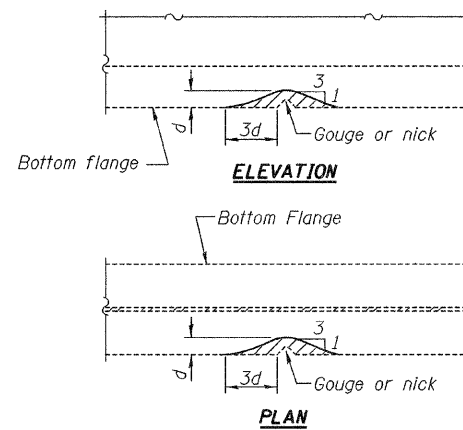
Note:
Braces and jack assembly shall be placed on same side of web.
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



SECTION A-A

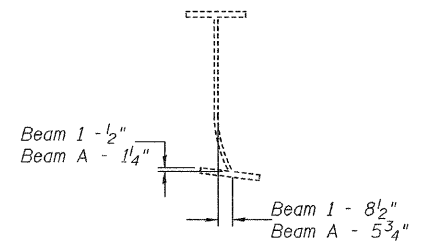


SECTION B-B



GRINDING DETAIL

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



EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking East)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 6'-0".

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

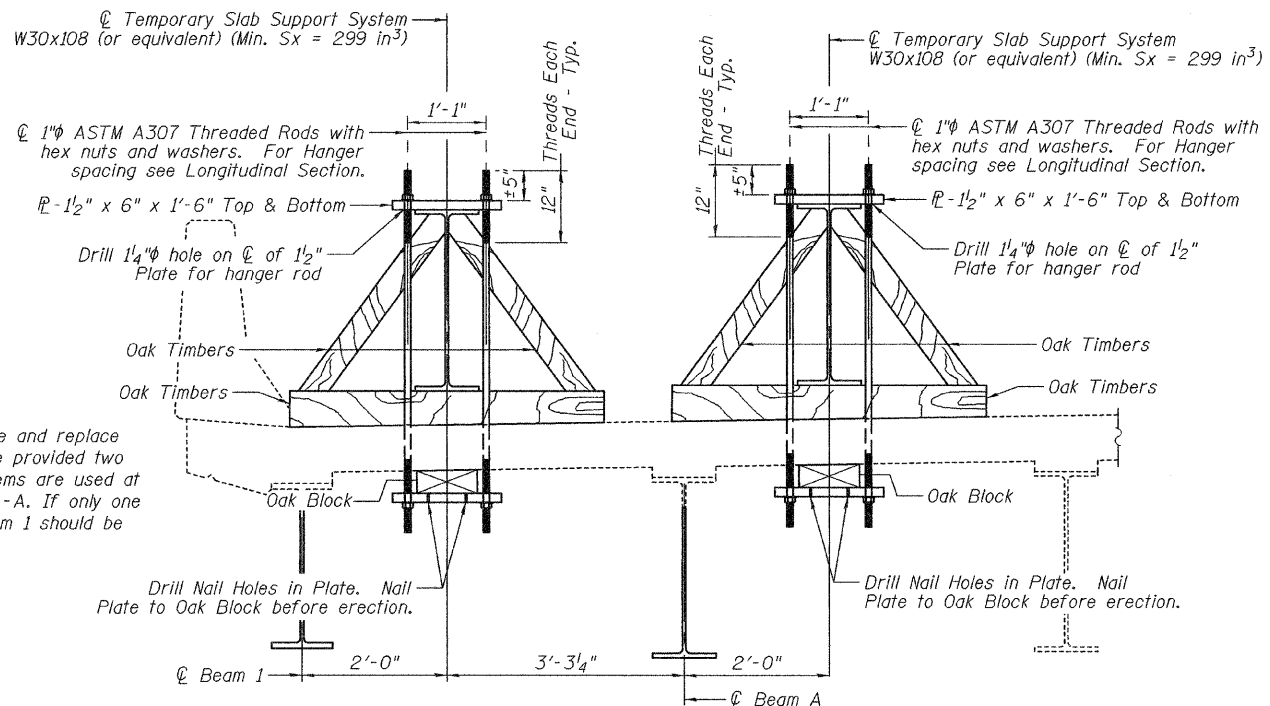
EXAMINED	April 10, 2009
PASSED	Carl Pavesy ENGINEER OF STRUCTURAL SERVICES
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

BEAM STRAIGHTENING DETAILS
SN 060-0139

SHEET NO. 2	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	70	60-10HB-4R	Madison	420	207B
5 SHEETS	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 76709

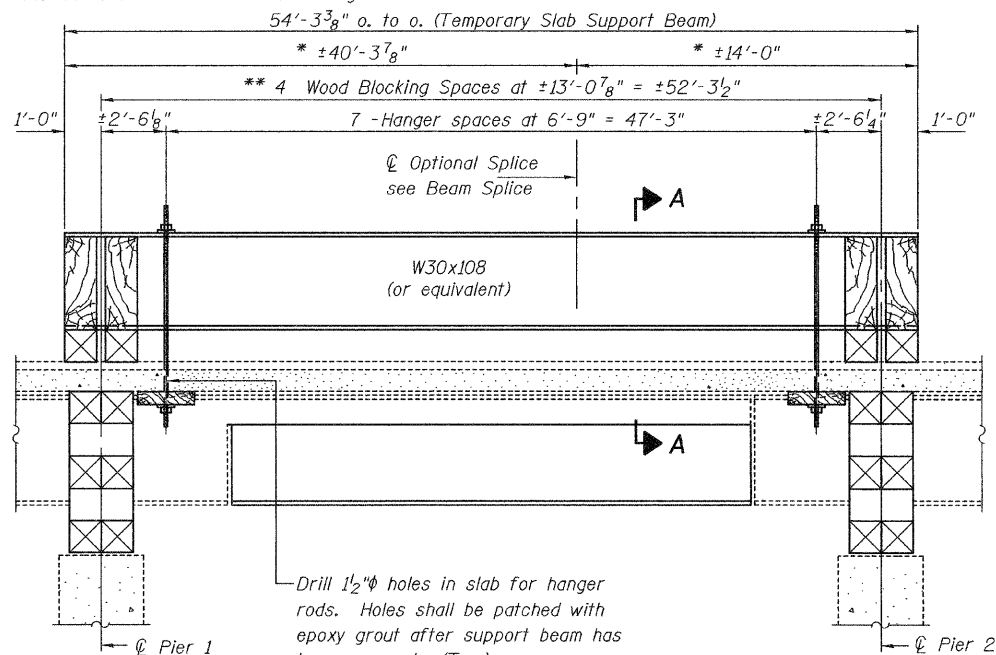
REP-1 1-14-2005
SLT-98-001-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



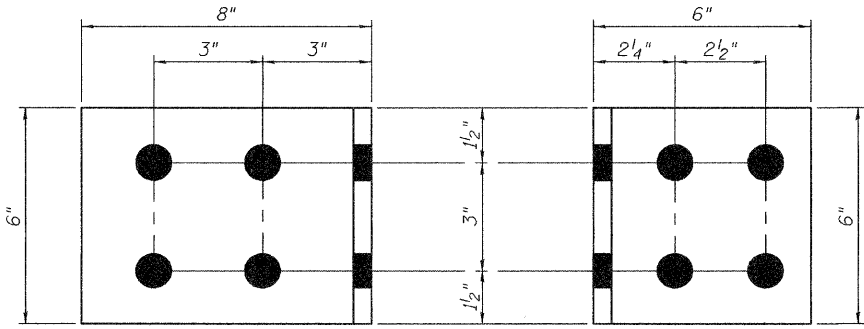
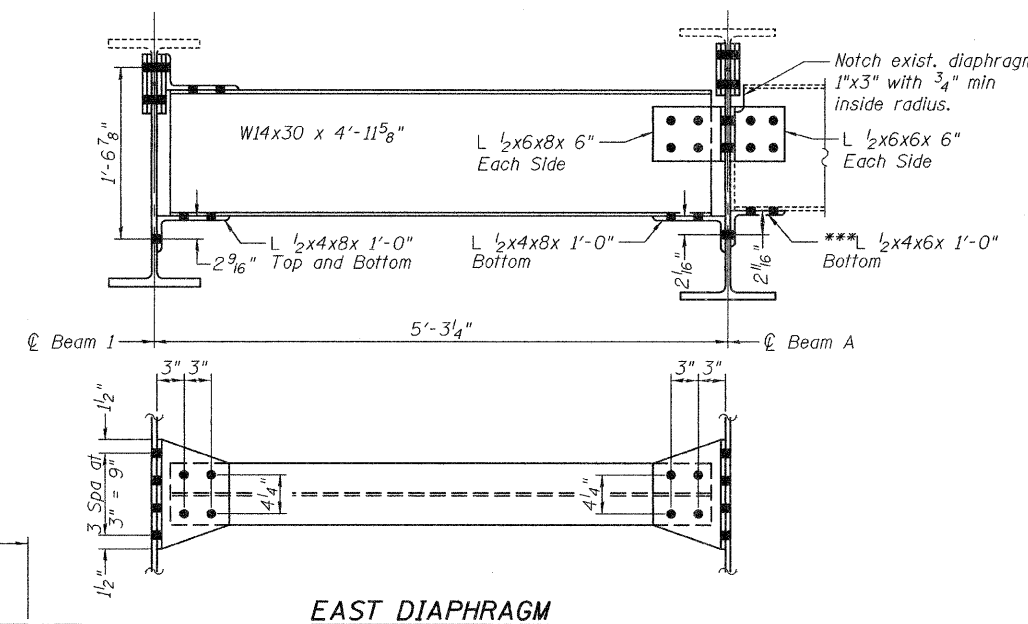
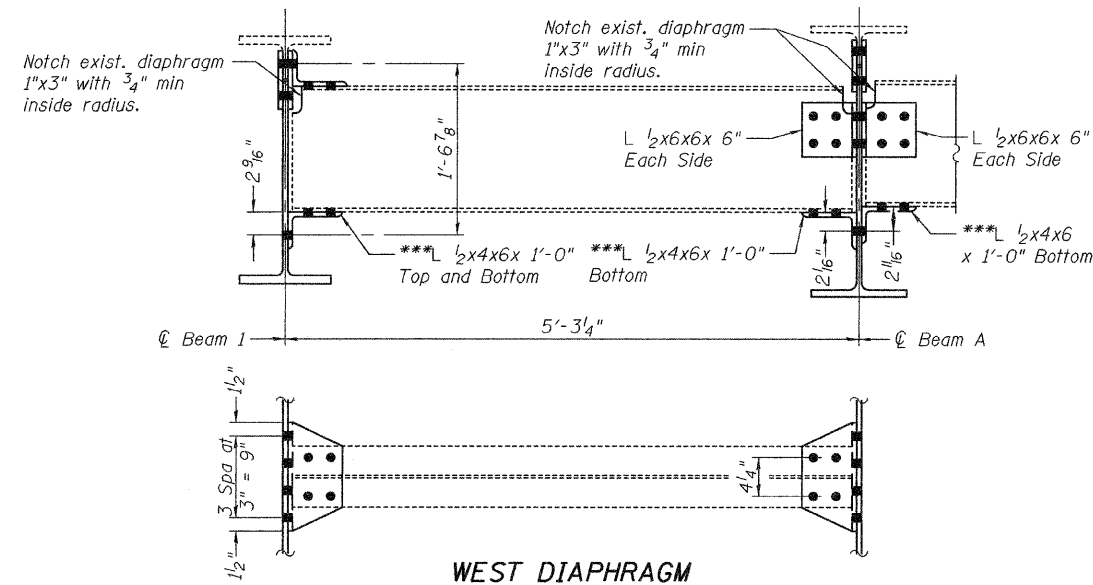
Support Note:
The Contractor may remove and replace both beams at the same time provided two temporary slab support systems are used at locations shown in Section A-A. If only one beam is done at a time, Beam 1 should be completed first.

* These dimensions may vary for available beams in stock.
** Wood blocking is to be installed after beam has been allowed to deflect under its own weight.



LONGITUDINAL SECTION
SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM

***Field drill to match existing diaphragm.



8" LEG **6" LEG**

1/2x6x8x 6" SIDE CLIP ANGLE
(2 Required)
1/2x6x6x 6" SIDE CLIP ANGLE
(6 Required)

REPAIRS A AND B

DECK SUPPORT AND DIAPHRAGM DETAILS
SN 060-0139

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

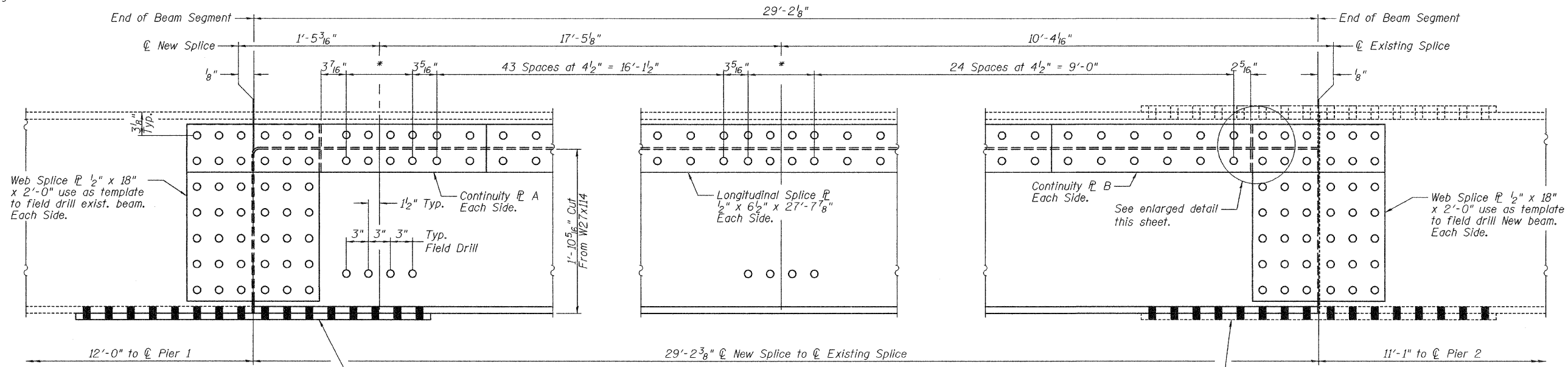
EXAMINED	April 10, 2009
PASSED	Carl Henry ENGINEER OF STRUCTURAL SERVICES
	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES

REP-2 1-27-2000

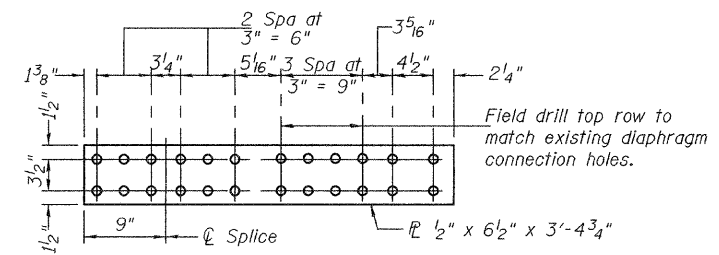
SHEET NO. 3 5 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	70	60-10HB-4R	Madison	420	207C
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 76709	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

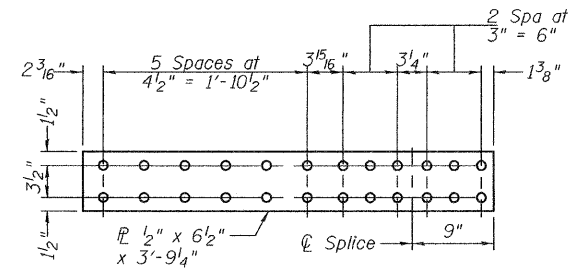
*3 Spaces at 3" = 9"
Field drill top row to
match exist. diaphragm
connection holes.



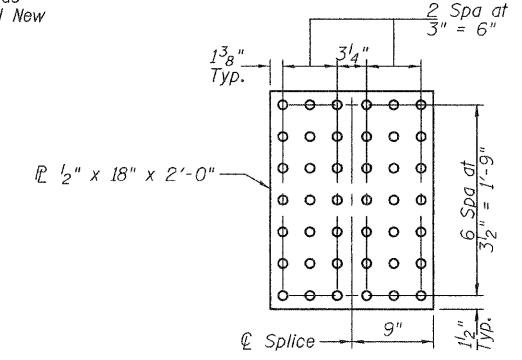
ELEVATION BEAM 1
(Looking South)



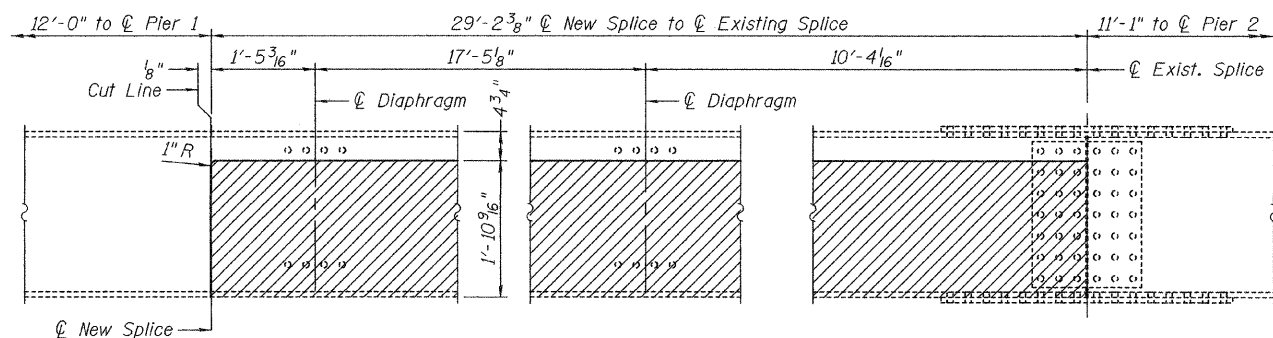
CONTINUITY PL A
(2 Required)



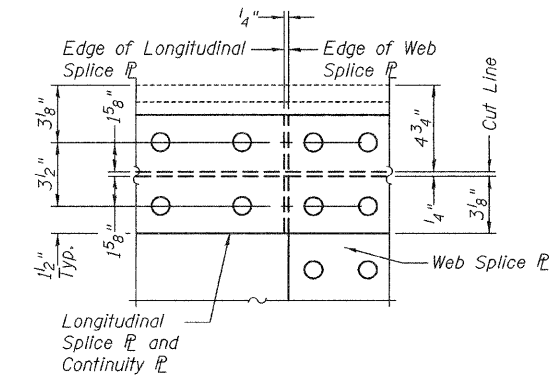
CONTINUITY PL B
(2 Required)



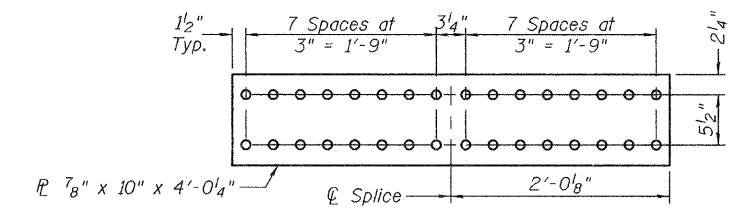
WEB SPLICE PL
(4 Required)



ELEVATION BEAM 1 REMOVAL
(Looking South)



ENLARGED DETAIL
(Opp End Similar)



FLANGE SPLICE PL
(1 Required)

DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

April 10, 2009

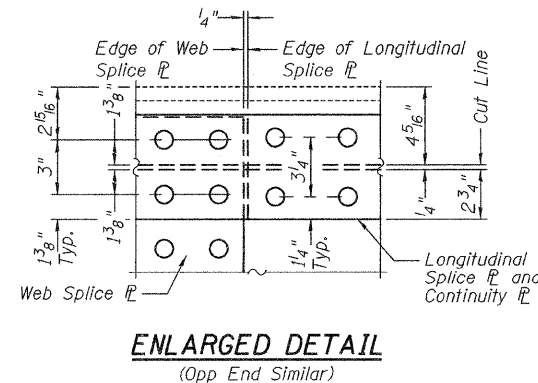
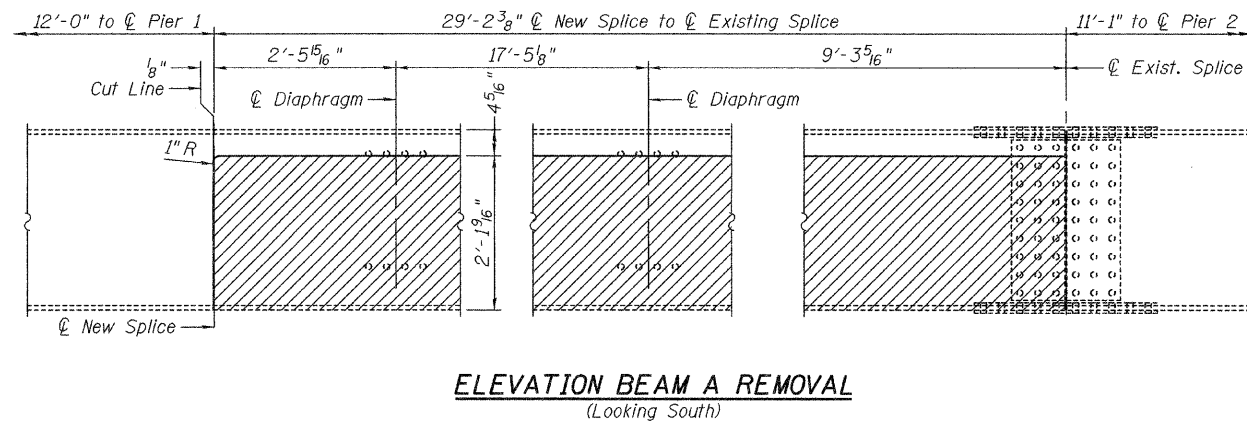
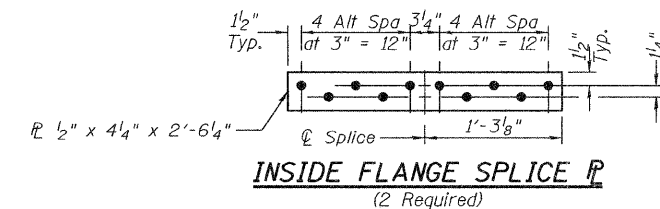
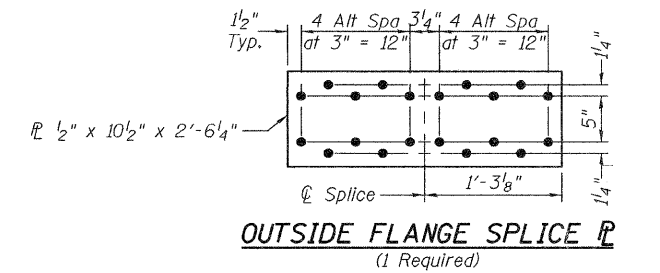
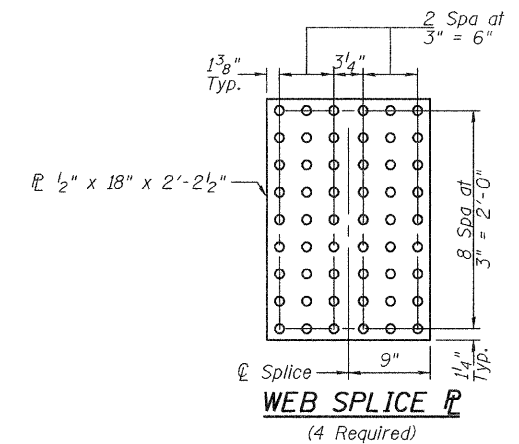
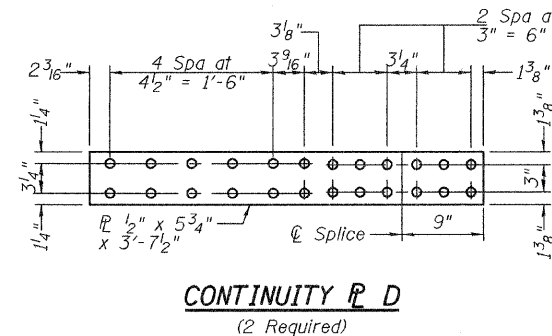
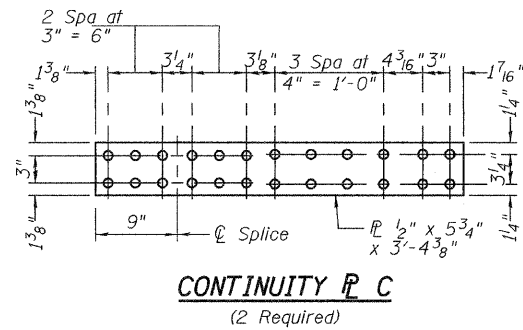
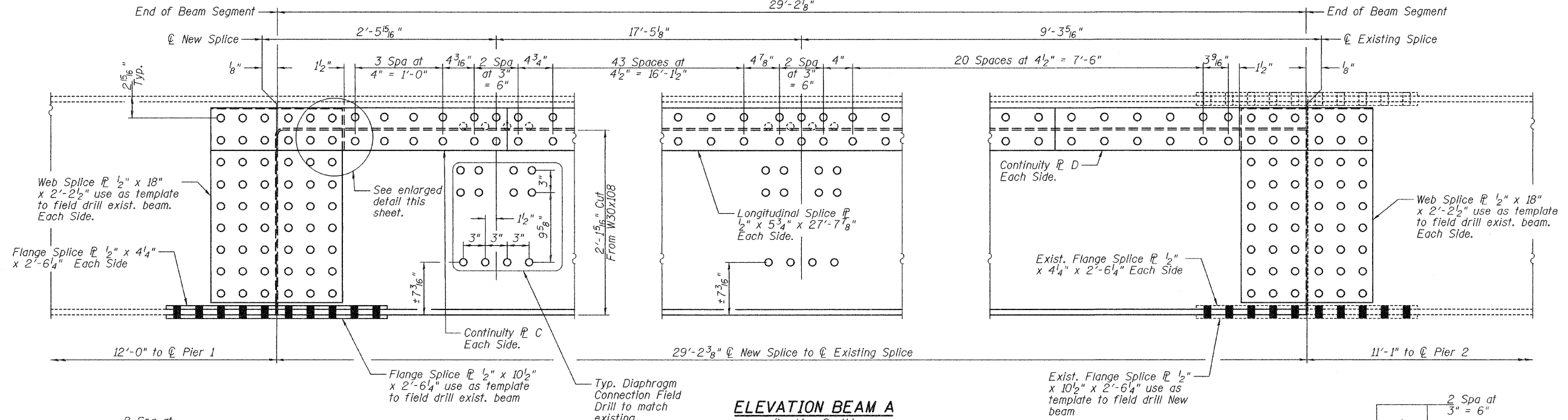
EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES

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

BEAM 1 DETAILS
SN 060-0139

SHEET NO. 4	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	70	60-10HB-4R	Madison	420	207D
5 SHEETS	FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		CONTRACT NO. 76709

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
29'-2 1/8"



BEAM A DETAILS
SN 060-0139

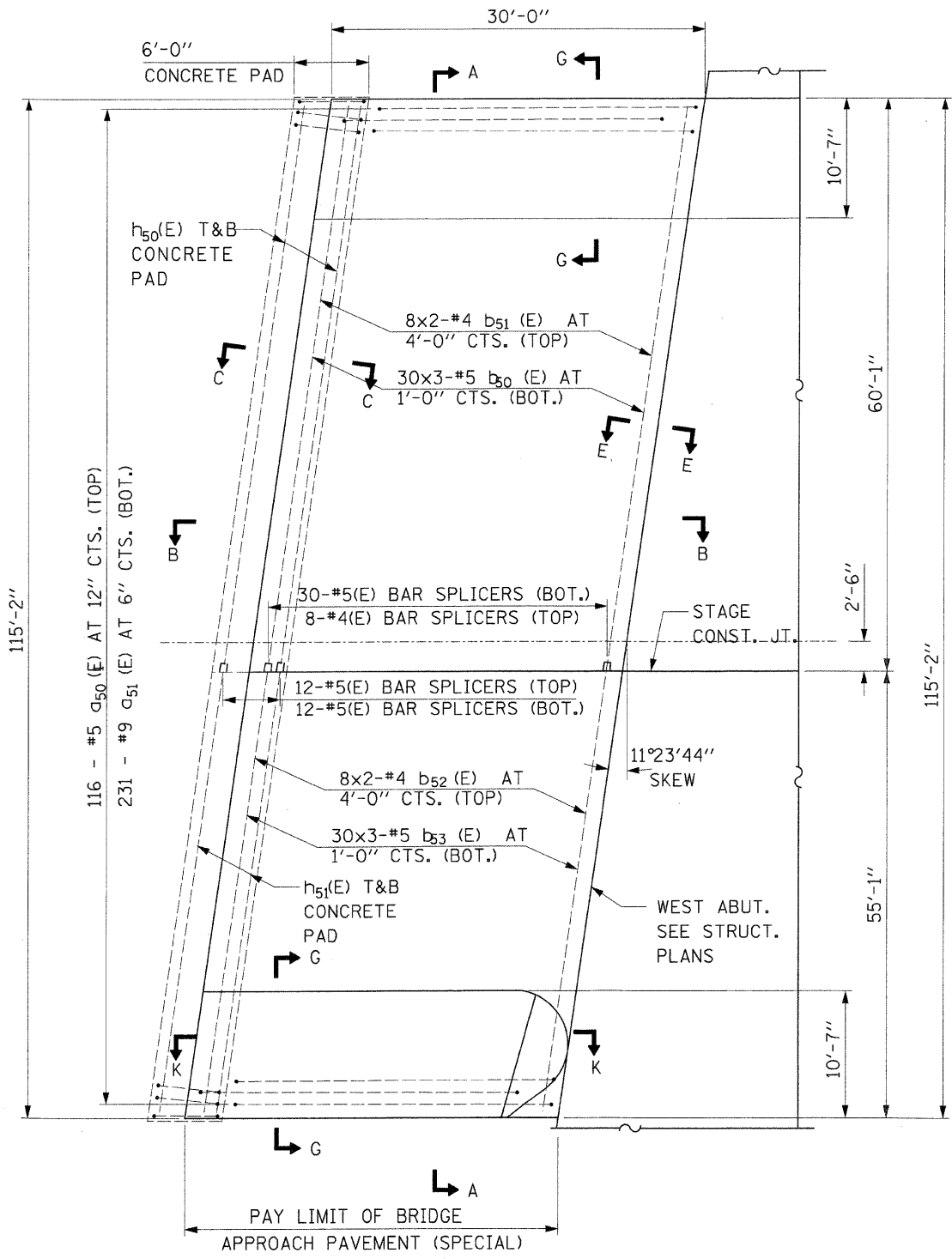
DESIGNED	V.H.V.
CHECKED	A.T.H.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.T.H.

April 10, 2009

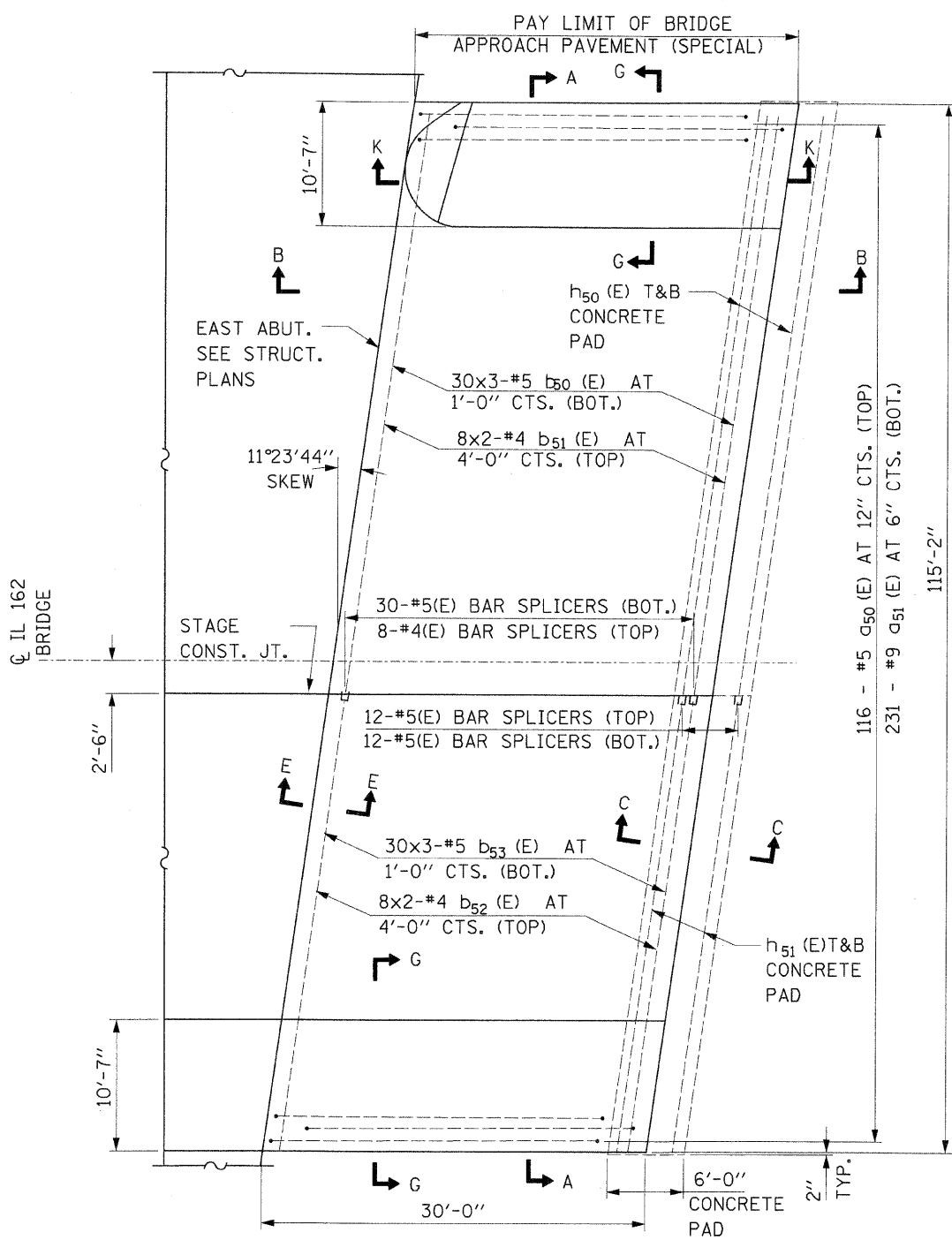
EXAMINED	<i>Carl Perry</i> ENGINEER OF STRUCTURAL SERVICES
PASSED	<i>Ralph E. Anderson</i> ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 5 5 SHEETS	F.A.I. RTE. 70	SECTION 60-10HB-4R	COUNTY Madison	TOTAL SHEETS 420	SHEET NO. 207E
	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 76709		

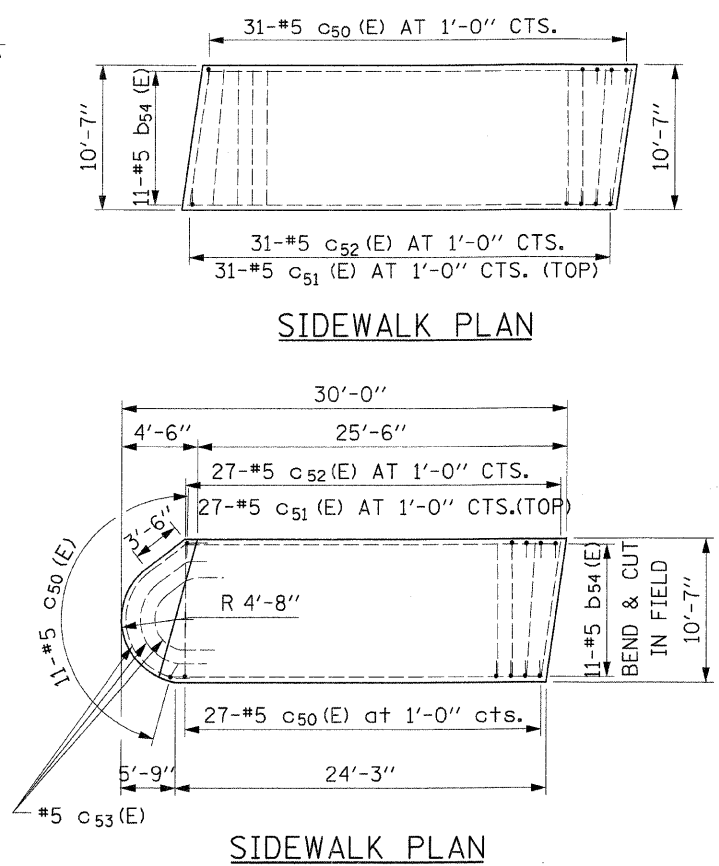
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	208
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB				



BRIDGE APPROACH PAVEMENT PLAN - WEST



BRIDGE APPROACH PAVEMENT PLAN - EAST



GENERAL NOTES

1. SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.
2. SEE STANDARD 420001 FOR DETAILS OF JOINTS NOT SHOWN.
3. REFER TO STRUCTURAL BRIDGE PLANS FOR ABUTMENT.

- MIN. LAP
- #4 = 1'-8"
 - #5 = 2'-2"
4. BLOCK OUT CONCRETE SLEEPER SLAB FOR STEEL PLATE BEAM GUARD RAIL POSTS. COORDINATE WITH STANDARD 631031.

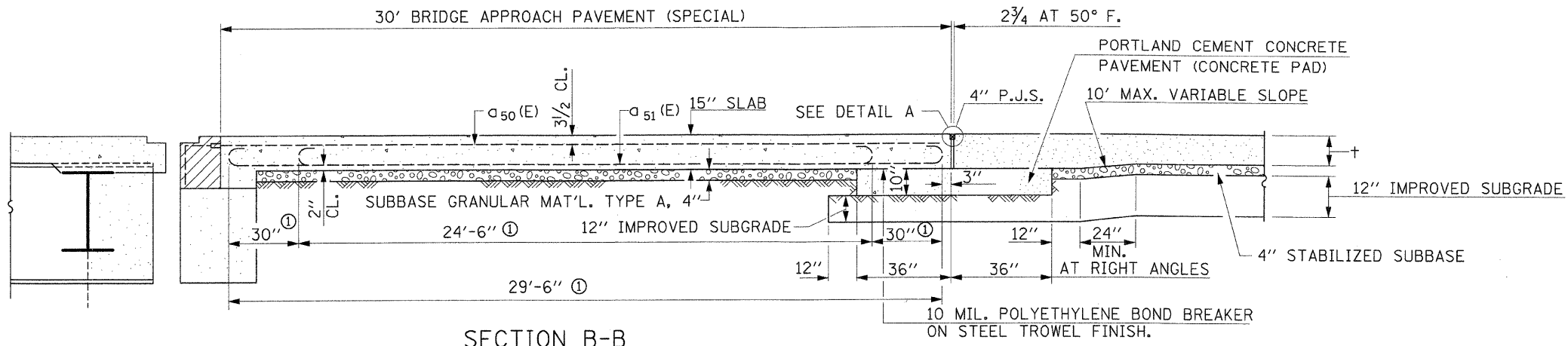
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BRIDGE APPROACH PAVEMENT
 FAI ROUTE 70
 SECTION 60-10K, 60-10-4HB
 MADISON COUNTY

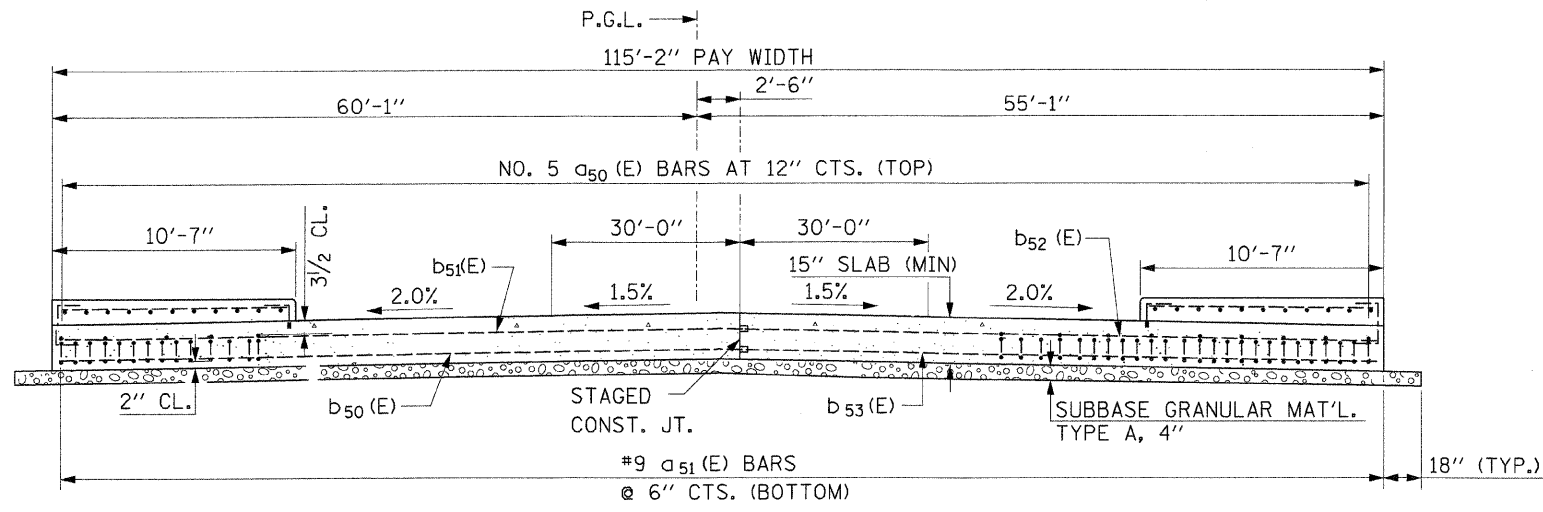
SCALE: NOT TO SCALE
 DATE: 4/06

DRAWN BY: HJB
 CHECKED BY: JAW

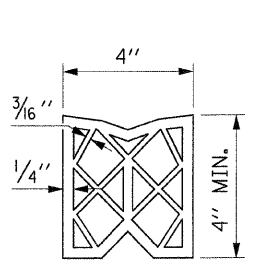
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	•	MADISON	420	209
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• 60-10K-1, 60-10HB				



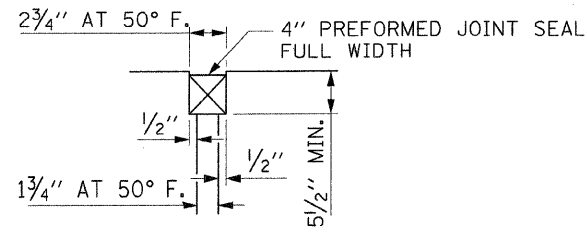
SECTION B-B
 ① STAGGER NO.9 a BARS AS SHOWN ON PLAN - FULL WIDTH



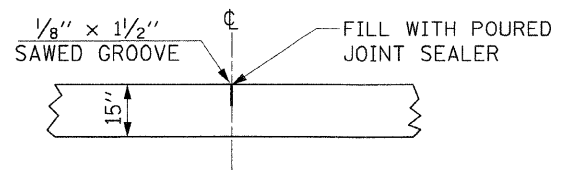
SECTION A-A
 (SEE PLAN FOR DIMENSIONS NOT SHOWN, ALSO SEE STRUCTURAL PLANS)
 ALL REINFORCEMENT BARS SHALL BE EPOXY COATED.



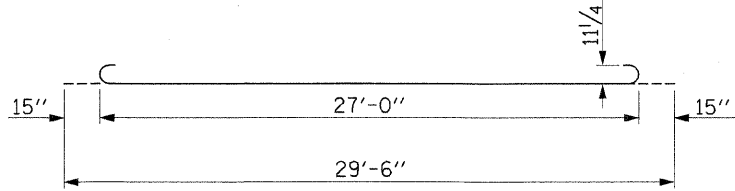
PREFORMED JOINT SEAL



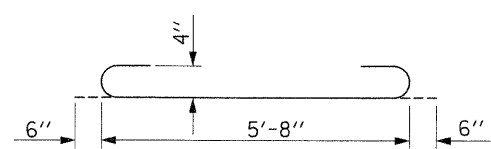
DETAIL A



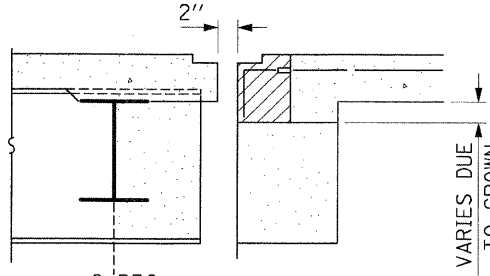
DETAIL B



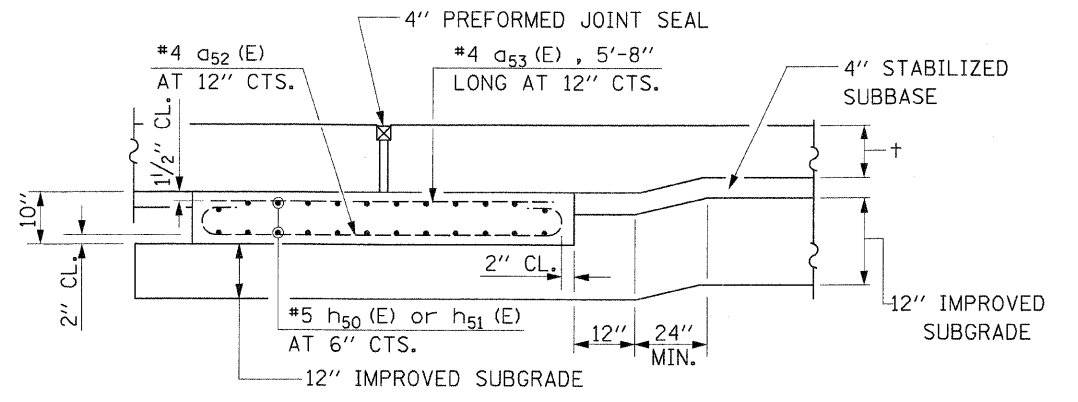
BAR a50 (E)



BAR a52 (E)



SECTION E-E



SECTION C-C - RIGID PAVEMENT
 (SHOWING REINFORCEMENT)

DESIGN STRESSES

FY = 60,000 P.S.I.
 F'C = 3,500 P.S.I.
 N = 8.5

GENERAL NOTES

1. THICKNESS - "+" = THICKNESS OF PAVEMENT
2. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

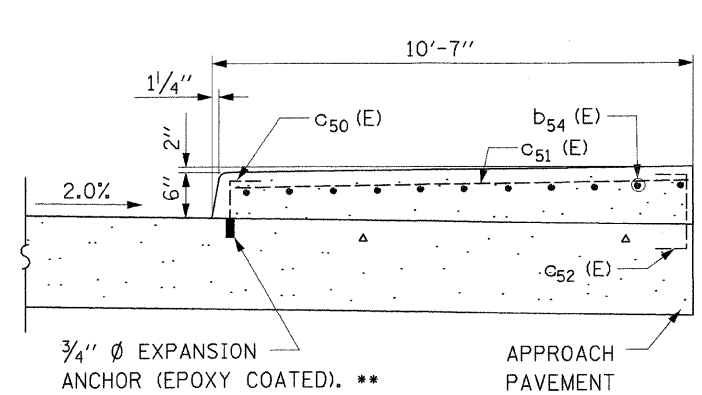
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BRIDGE APPROACH PAVEMENT
 DETAILS
 FAI ROUTE 70
 SECTION 60-10K, 60-10-4HB
 MADISON COUNTY
 SCALE: NOT TO SCALE
 DATE: 4/06
 DRAWN BY: HJB
 CHECKED BY: JAW

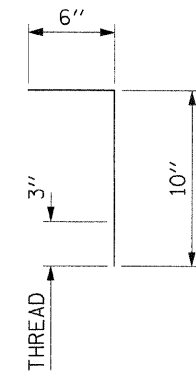
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	210
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB				

BILL OF MATERIAL

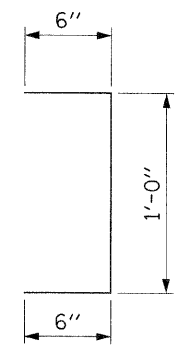
BAR	NO.	SIZE	LENGTH	SHAPE
c ₅₀ (E)	232	#5	29'-6"	⌒
c ₅₁ (E)	462	#9	29'-6"	—
c ₅₂ (E)	232	#4	6'-8"	⌒
c ₅₃ (E)	232	#4	5'-8"	—
b ₅₀ (E)	180	#5	21'-10"	—
b ₅₁ (E)	32	#4	31'-5"	—
b ₅₂ (E)	32	#4	28'-10"	—
b ₅₃ (E)	180	#5	20'-2"	—
* b ₅₄ (E)	44	#5	29'-8"	—
* c ₅₀ (E)	138	#5	1'-4"	⌒
* c ₅₁ (E)	116	#5	10'-2"	—
* c ₅₂ (E)	116	#5	2'-0"	—
* c ₅₃ (E)	6	#5	13'-0"	⌒
h ₅₀ (E)	96	#5	31'-8"	—
h ₅₁ (E)	96	#5	29'-2"	—
* BAR SPLICERS			EACH	124
* REINFORCEMENT BARS, EPOXY COATED			LB	3110
* CONCRETE SUPERSTRUCTURES			C.Y.	27.4
* PREFORMED JOINT SEAL			FOOT	235
* CONCRETE PAD			S.Y.	154
* POLYETHYLENE BOND BREAKER			S.Y.	154
BRIDGE APPROACH PAVEMENT (SPECIAL)			S.Y.	768



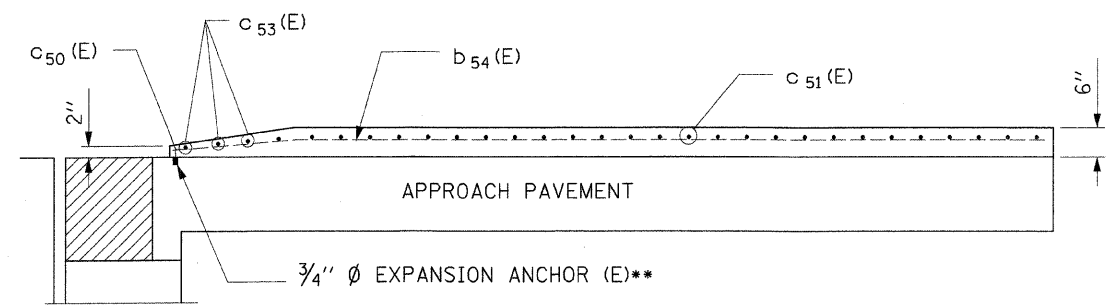
SECTION G-G



BAR c₅₀(E)



BAR c₅₂(E)



SECTION K-K

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

* ITEMS INCLUDED IN THE COST FOR BRIDGE APPROACH PAVEMENT (SPECIAL).

** COST OF MACHINING BAR c₅₀ (E) INCLUDED WITH BRIDGE APPROACH PAVEMENT (SPECIAL).

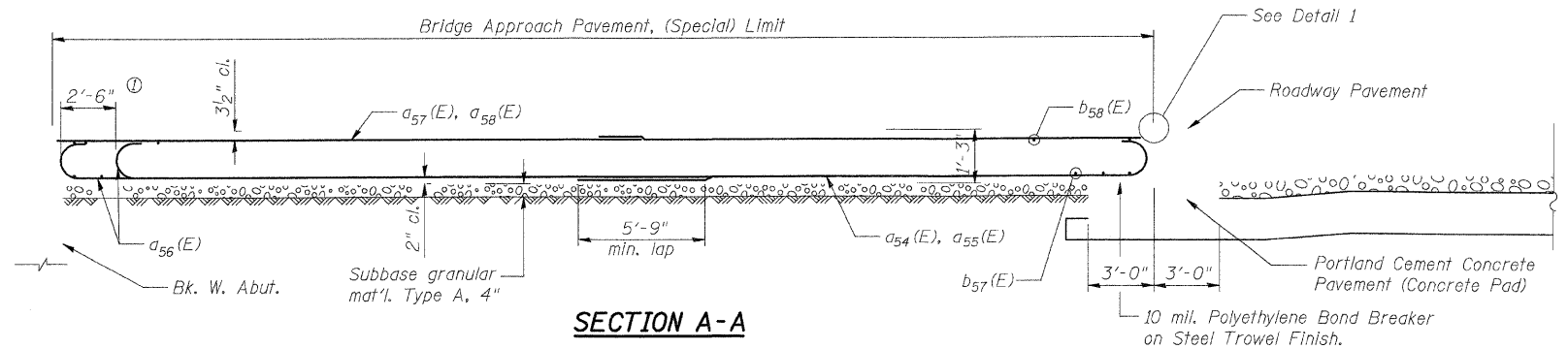
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BRIDGE APPROACH PAVEMENT
 DETAILS
 FAI ROUTE 70
 SECTION 60-10K, 60-10-4HB
 MADISON COUNTY

SCALE: NOT TO SCALE
 DATE: 4/06

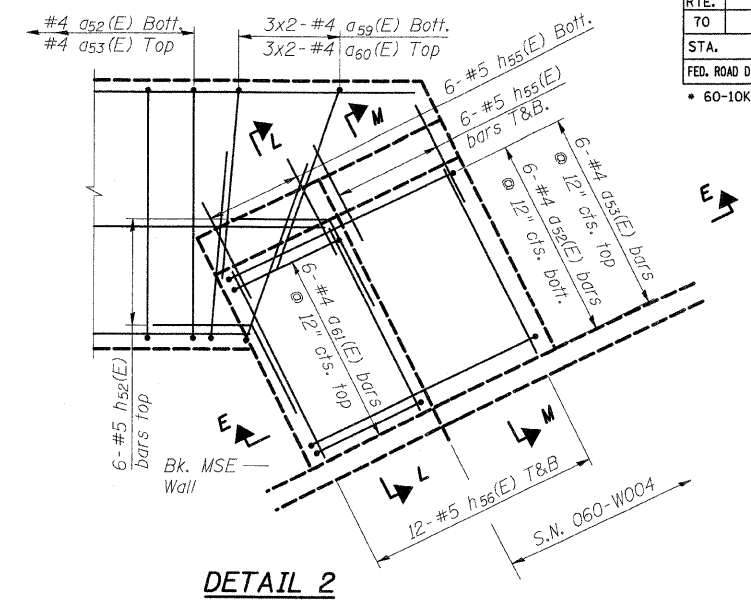
DRAWN BY: HJB
 CHECKED BY: JAW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	211
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB CONTRACT NO. 76709				

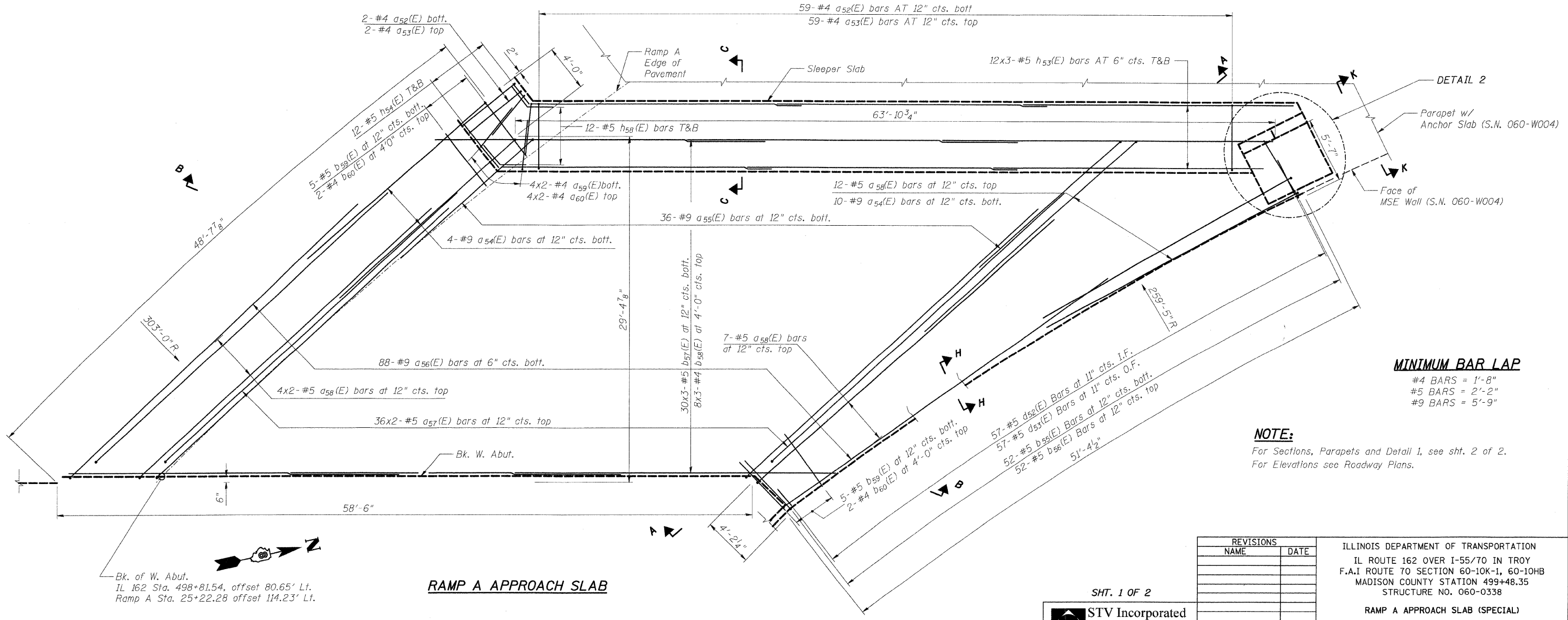


SECTION A-A

① Stagger #9 a56(E) bars as shown on plan - full width



DETAIL 2



RAMP A APPROACH SLAB

Bk. of W. Abut.
IL 162 Sta. 498+81.54, offset 80.65' Lt.
Ramp A Sta. 25+22.28 offset 114.23' Lt.

MINIMUM BAR LAP

- #4 BARS = 1'-8"
- #5 BARS = 2'-2"
- #9 BARS = 5'-9"

NOTE:

For Sections, Parapets and Detail 1, see sht. 2 of 2.
For Elevations see Roadway Plans.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
RAMP A APPROACH SLAB (SPECIAL)
DESIGNED: JAW DRAWN: BTO
CHECKED: BTO CHECKED: JAN
DATE: 4/06

SHT. 1 OF 2

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5915
312.953.0655, FAX 312.953.0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	MADISON	420	212
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 60-10K-1, 60-10HB CONTRACT NO. 76709				

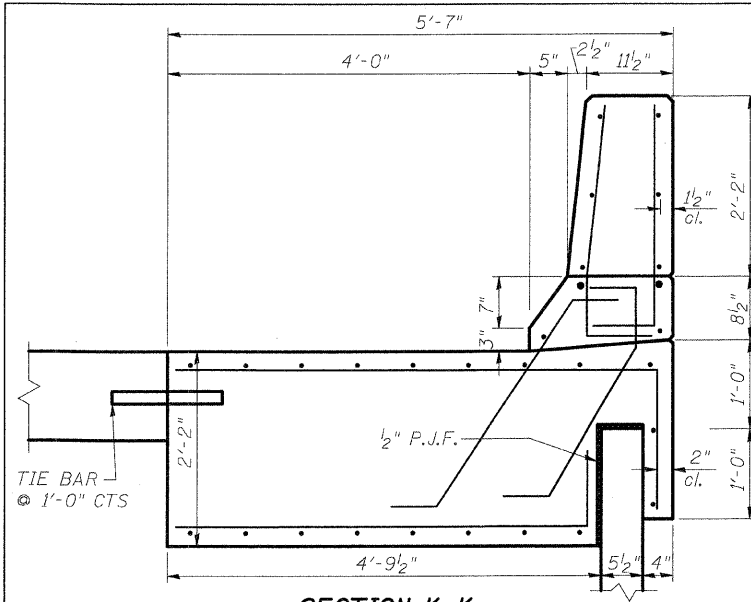
BILL OF MATERIAL RAMP "A"

Bar	No.	Size	Length	Shape
a ₅₂ (E)	67	#4	6'-8"	U
a ₅₃ (E)	67	#4	5'-8"	—
a ₅₄ (E)	14	#9	25'-3"	—
a ₅₅ (E)	36	#9	16'-3"	—
a ₅₆ (E)	88	#9	34'-9"	—
a ₅₇ (E)	72	#5	22'-7"	—
a ₅₈ (E)	27	#5	27'-0"	—
a ₅₉ (E)	14	#4	4'-8"	—
a ₆₀ (E)	14	#4	4'-2"	—
a ₆₁ (E)	6	#4	5'-4"	—
b ₅₅ (E)	52	#5	5'-3"	—
b ₅₆ (E)	52	#5	6'-8"	—
b ₅₇ (E)	90	#5	27'-11"	—
b ₅₈ (E)	24	#4	27'-7"	—
b ₅₉ (E)	10	#5	6'-4"	—
b ₆₀ (E)	4	#4	5'-10"	—
d(E)	59	#5	3'-2"	—
d ₂ (E)	59	#4	3'-2"	—
e ₅₀ (E)	57	#5	3'-0"	—
e ₅₁ (E)	57	#4	3'-0"	—
e ₅₂ (E)	12	#4	16'-10"	—
e ₅₃ (E)	4	#8	28'-7"	—
e ₅₄ (E)	4	#5	27'-5"	—
e ₅₅ (E)	6	#4	18'-4"	—
h ₅₂ (E)	6	#5	4'-4"	—
h ₅₃ (E)	72	#5	22'-8"	—
h ₅₄ (E)	12	#5	8'-11"	—
h ₅₅ (E)	18	#5	2'-4"	—
h ₅₆ (E)	24	#5	4'-6"	—
h ₅₈ (E)	48	#5	4'-4"	—
* Reinforcement Bars, Epoxy Coated	Pound		23,950	
* Concrete	Cu. Yd.		120	
* Preformed Joint Seal	Foot		74	
* Concrete Pad	Sq. Yd.		49	
* Polyethylene Bond Breaker	Sq. Yd.		49	
* Bridge Approach Pavement (Special)	Sq. Yd.		238	

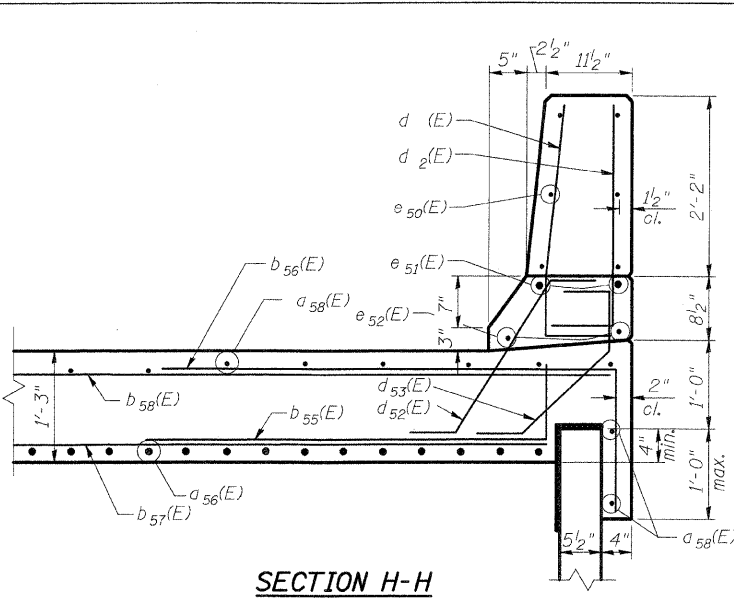
* Items included in the cost for Bridge Approach Pavement, (Special)

NOTES:

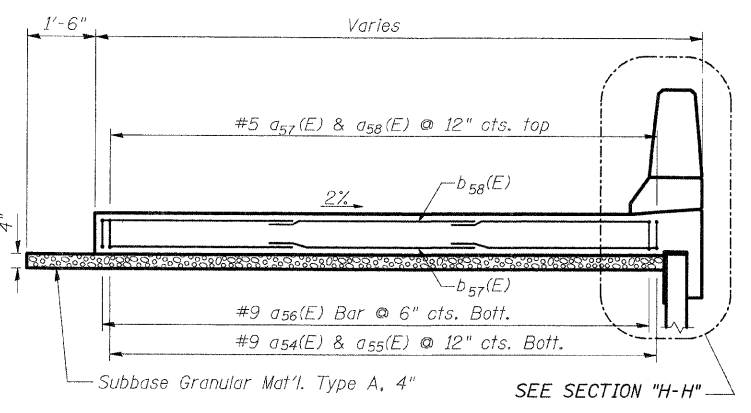
1. Thickness - "t" = thickness of pvmt.



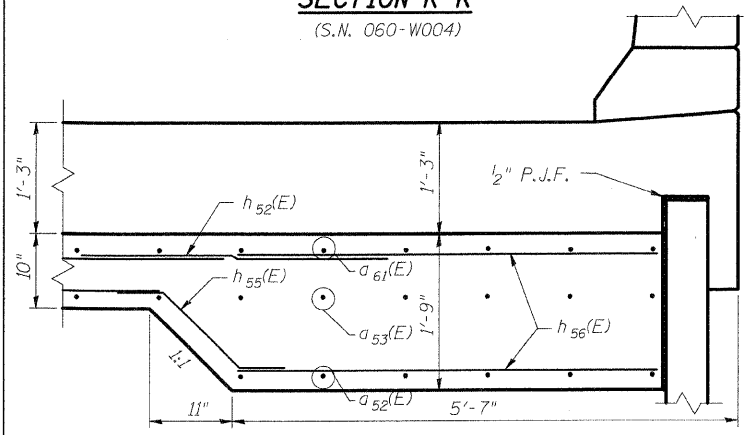
SECTION K-K
(S.N. 060-W004)



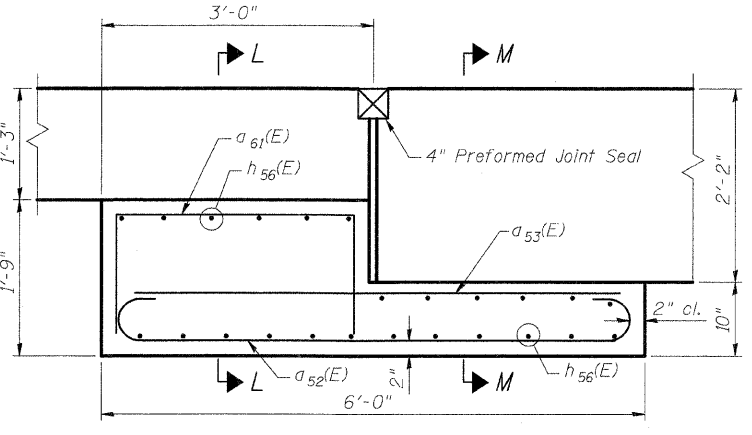
SECTION H-H



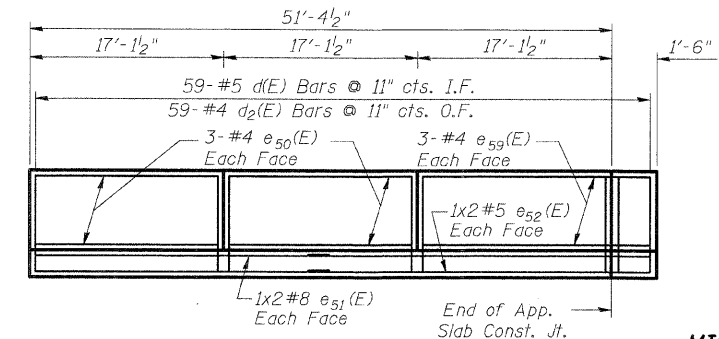
SECTION B-B



SECTION L-L



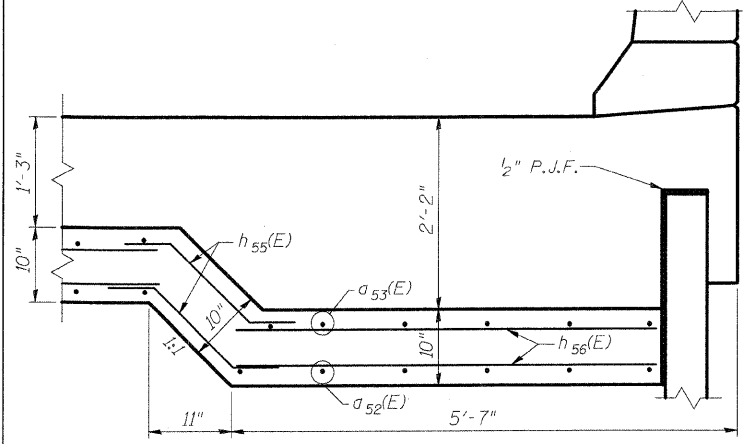
SECTION E-E



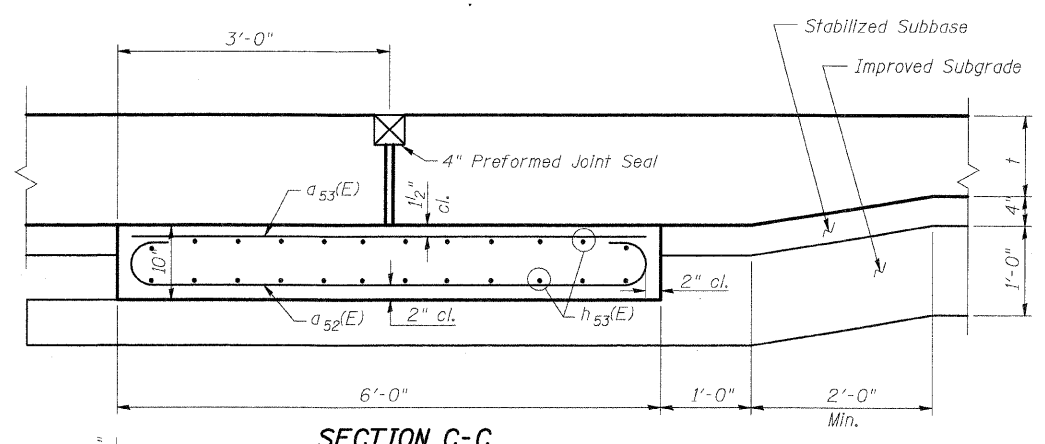
**INSIDE PARAPET ELEVATION AT RAMP "A"
APPROACH SLAB (SPECIAL)**

MINIMUM BAR LAP

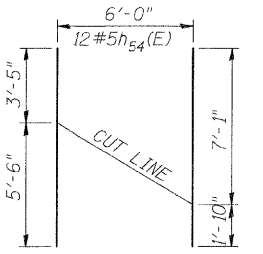
- #4 bars = 1'-8"
- #5 bars = 2'-2"
- #9 bars = 5'-9"



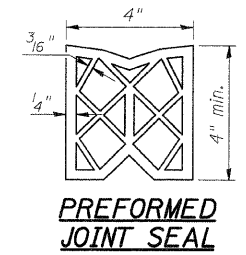
SECTION M-M



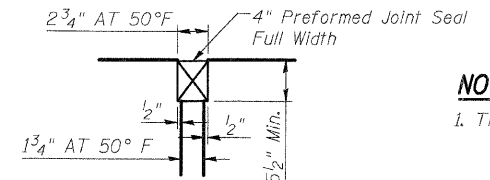
SECTION C-C



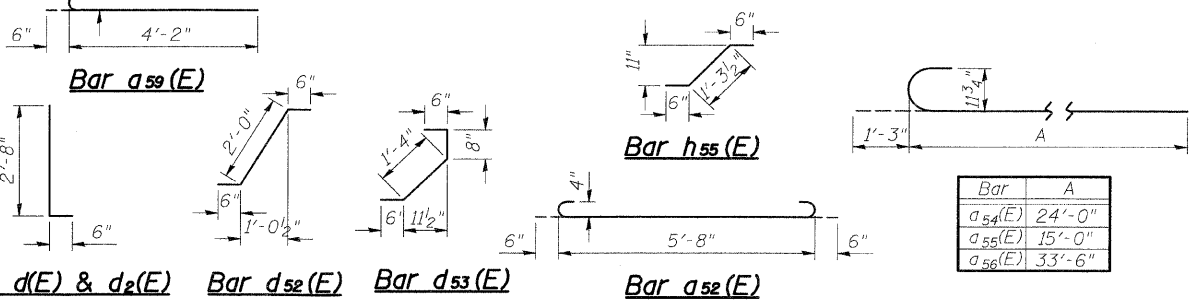
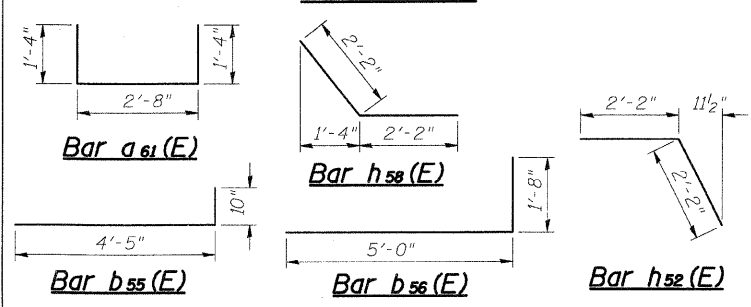
**Bar h54(E)
CUTTING DIAGRAM**



PREFORMED JOINT SEAL



DETAIL 1



Bar	A
a ₅₄ (E)	24'-0"
a ₅₅ (E)	15'-0"
a ₅₆ (E)	33'-6"

SHT. 2 OF 2

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-9012
312/253-0655, FAX 312/253-0661

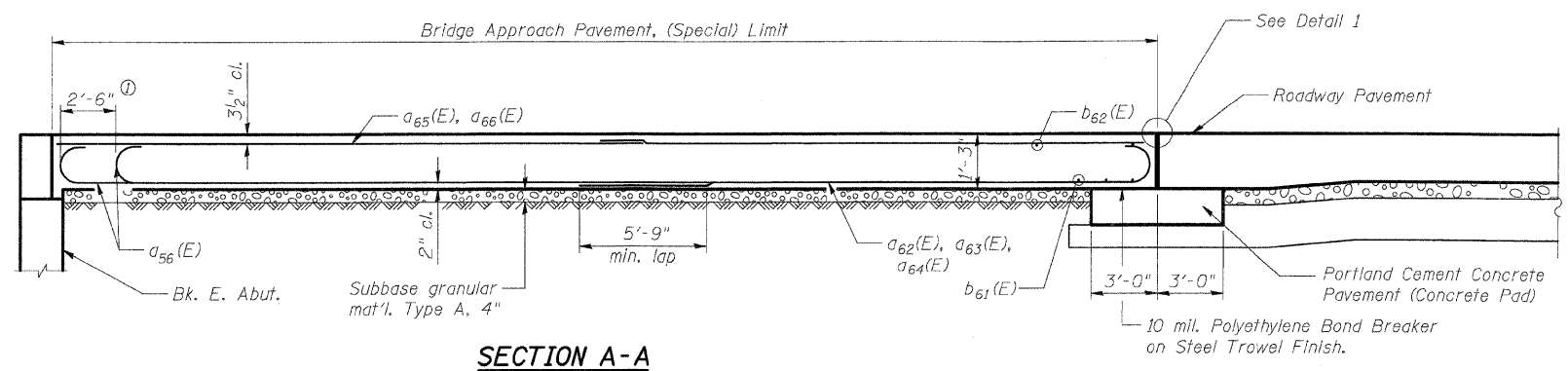
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
RAMP A APPROACH SLAB DETAILS (SPECIAL)

DESIGNED: JAW
CHECKED: BTO
DATE: 4/06

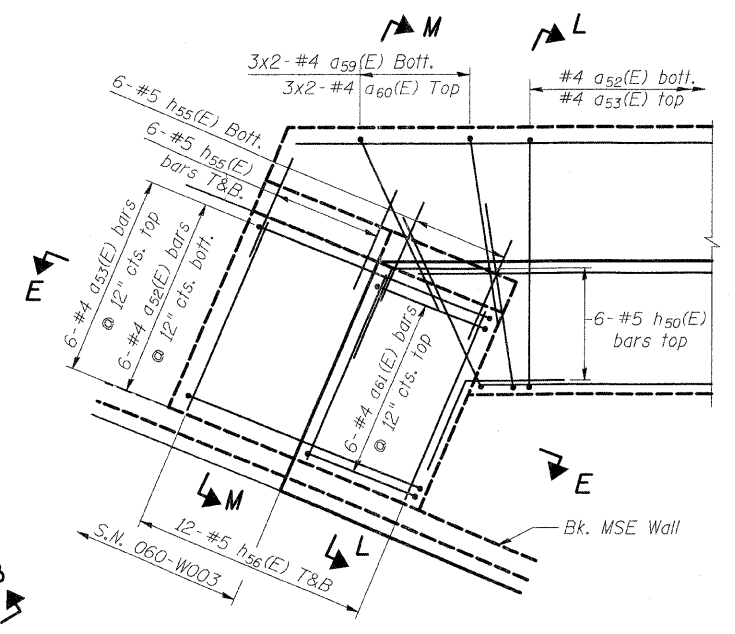
DRAWN: BTO
CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	213
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60-10K-1, 60-10HB CONTRACT NO. 76709				



SECTION A-A

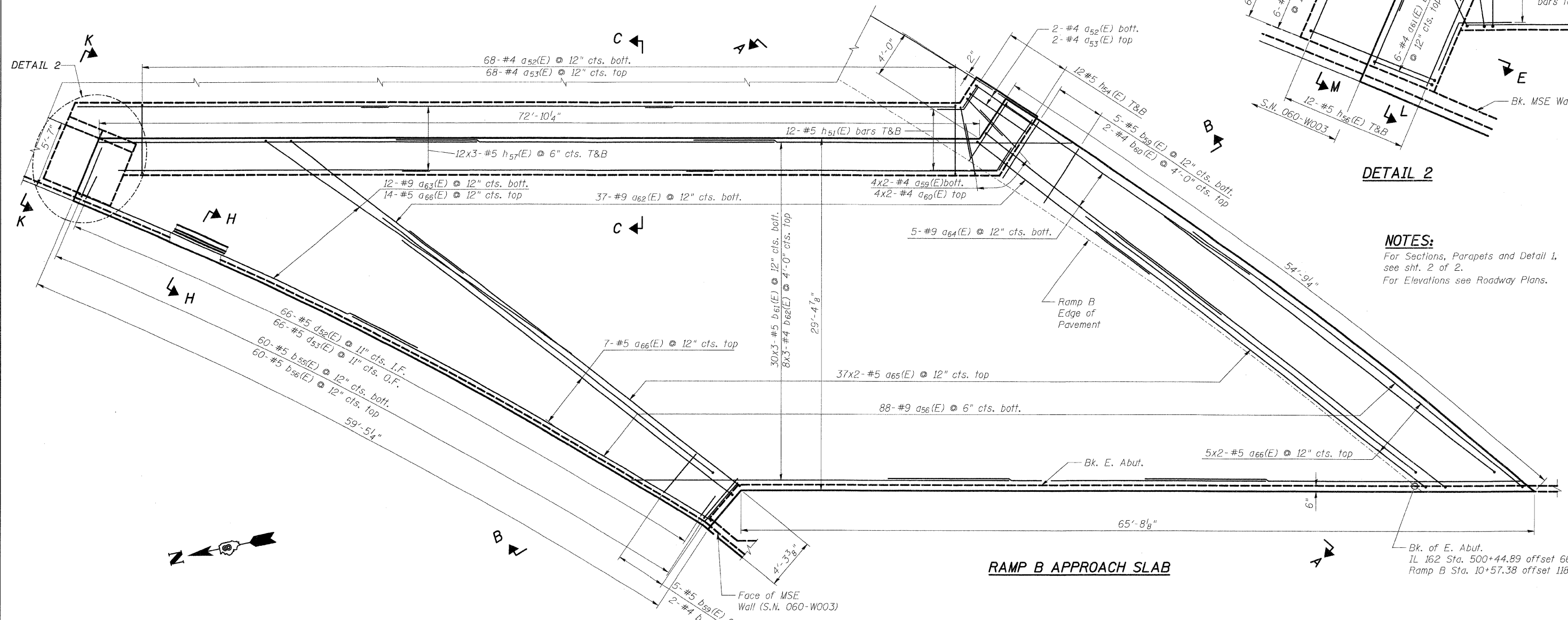
① Stagger #9 a56(E) bars as shown on plan - full width



DETAIL 2

NOTES:

For Sections, Parapets and Detail 1, see shf. 2 of 2.
For Elevations see Roadway Plans.



RAMP B APPROACH SLAB

Bk. of E. Abut.
IL 162 Sta. 500+44.89 offset 66.88' Lt.
Ramp B Sta. 10+57.38 offset 118.34' Lt.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
RAMP B APPROACH SLAB (SPECIAL)
DESIGNED: JAW
CHECKED: BTO
DRAWN: BTO
CHECKED: JAN
DATE: 4/06

SHT. 1 OF 2
STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312-553-0655, FAX 312-553-0661

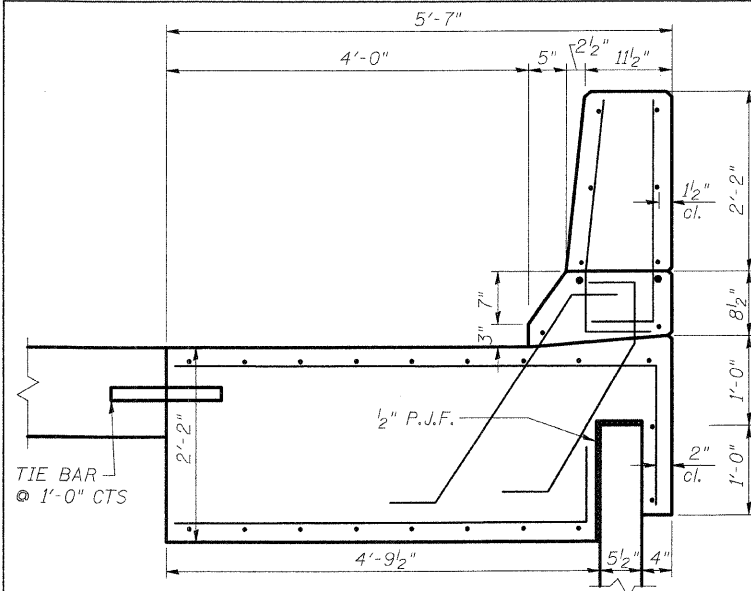
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO		MADISON	420	214
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 60-10K-1, 60-10HB CONTRACT NO. 76709				

BILL OF MATERIAL RAMP "B"

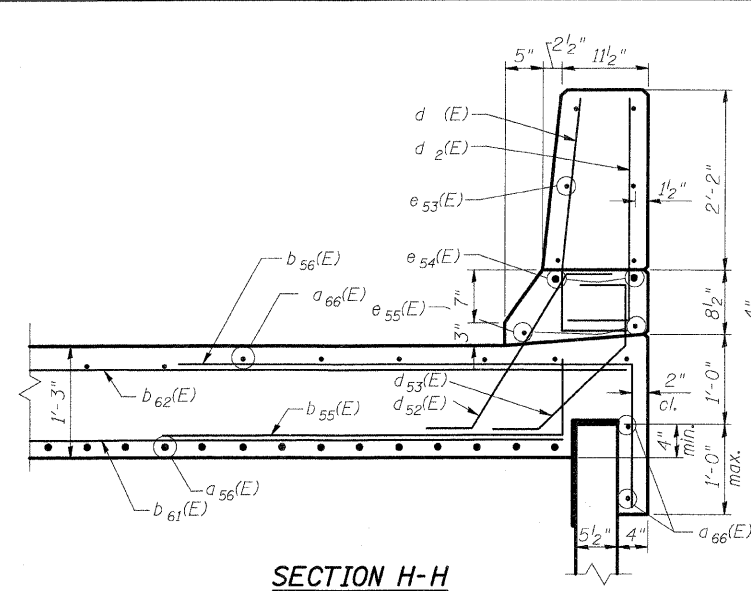
Bar	No.	Size	Length	Shape
a ₅₂ (E)	76	#4	6'-8"	U
a ₅₃ (E)	76	#4	5'-8"	U
a ₅₅ (E)	88	#9	34'-9"	U
a ₅₉ (E)	14	#4	4'-8"	U
a ₆₀ (E)	14	#4	4'-2"	U
a ₆₁ (E)	6	#4	4'-8"	U
a ₆₂ (E)	37	#9	19'-3"	U
a ₆₃ (E)	12	#9	32'-3"	U
a ₆₄ (E)	5	#9	25'-11"	U
a ₆₅ (E)	74	#5	23'-3"	U
a ₆₆ (E)	31	#5	31'-3"	U
b ₅₅ (E)	60	#5	5'-3"	U
b ₅₆ (E)	60	#5	6'-8"	U
b ₅₉ (E)	10	#5	6'-4"	U
b ₆₀ (E)	4	#4	5'-10"	U
b ₆₁ (E)	90	#5	31'-3"	U
b ₆₂ (E)	24	#4	31'-0"	U
d(E)	68	#5	3'-2"	L
d ₂ (E)	68	#4	3'-2"	L
d ₅₂ (E)	66	#5	3'-0"	L
d ₅₃ (E)	66	#4	3'-0"	L
e ₅₃ (E)	12	#4	19'-7"	U
e ₅₄ (E)	4	#8	32'-8"	U
e ₅₅ (E)	4	#5	31'-6"	U
e ₆₀ (E)	6	#4	21'-1"	U
h ₅₀ (E)	6	#5	4'-4"	U
h ₅₁ (E)	24	#5	4'-4"	U
h ₅₄ (E)	12	#5	8'-11"	U
h ₅₅ (E)	18	#5	2'-1"	U
h ₅₆ (E)	24	#5	4'-6"	U
h ₅₇ (E)	72	#5	25'-8"	U

* Reinforcement Bars, Epoxy Coated	Pound	26,130
* Concrete	Cu. Yd.	135.4
* Preformed Joint Seal	Foot	83
* Concrete Pad	Sq. Yd.	55
* Polyethylene Bond Breaker	Sq. Yd.	55
Bridge Approach Pavement (Special)	Sq. Yd.	270

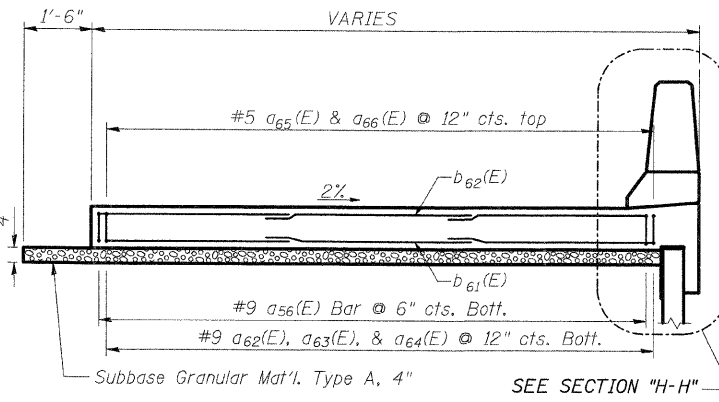
* Items included in the cost for Bridge Approach Pavement, (Special)



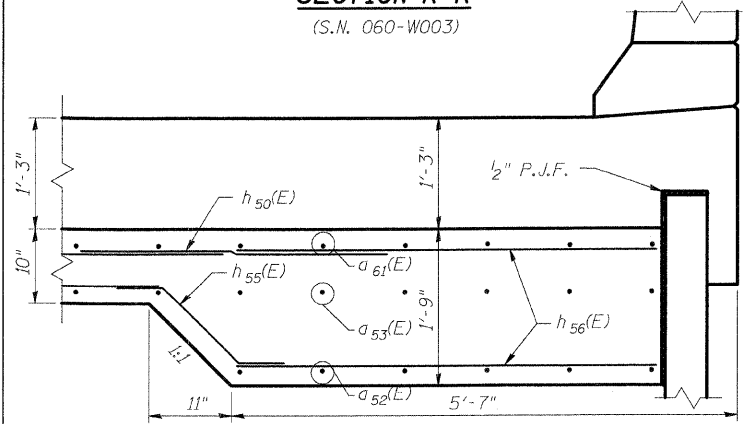
SECTION K-K
(S.N. 060-W003)



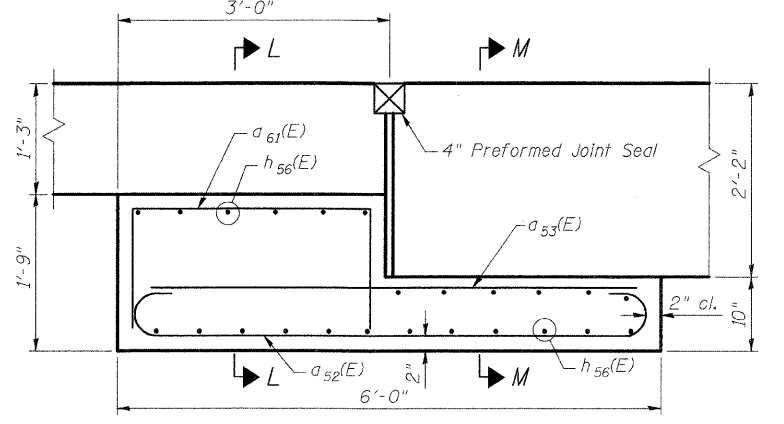
SECTION H-H



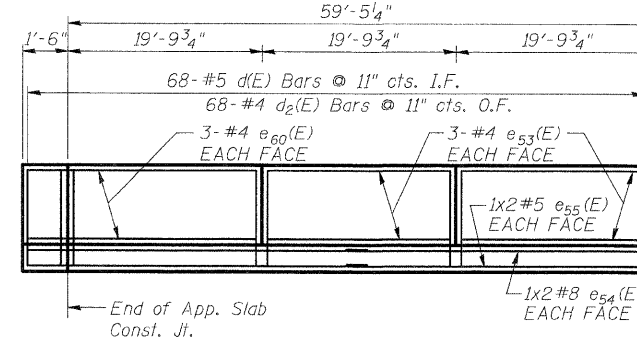
SECTION B-B



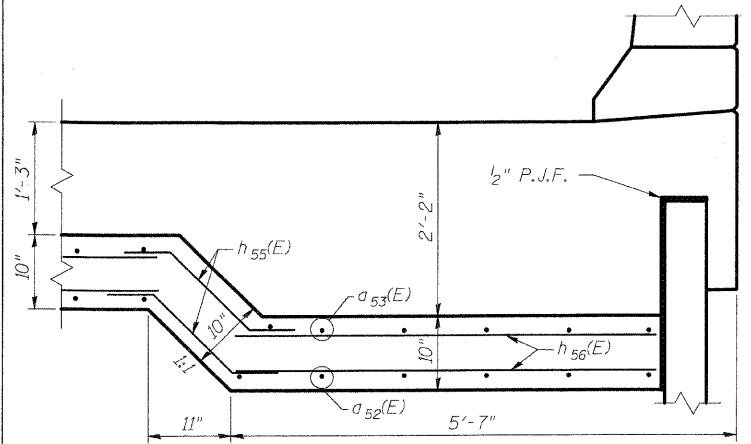
SECTION L-L



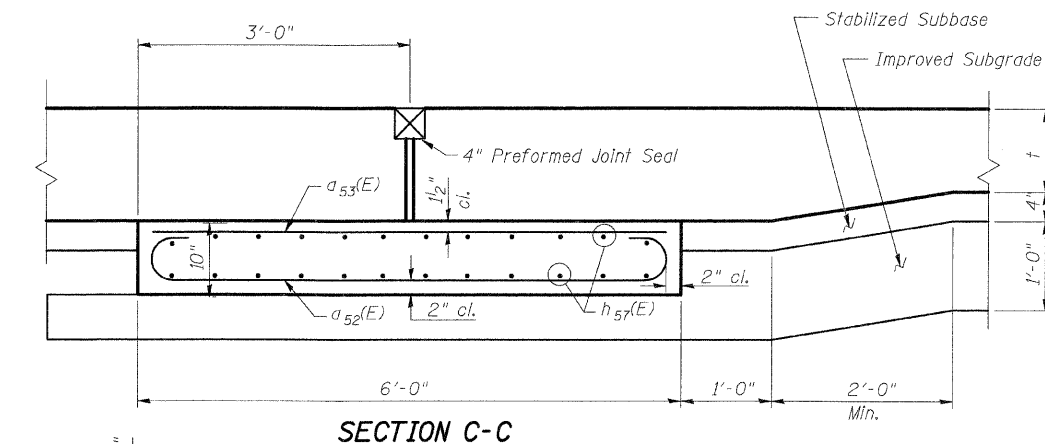
SECTION E-E



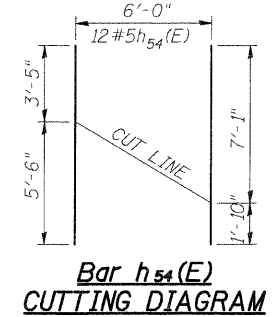
INSIDE PARAPET ELEVATION AT RAMP "B" APPROACH SLAB (SPECIAL)



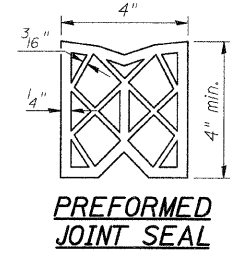
SECTION M-M



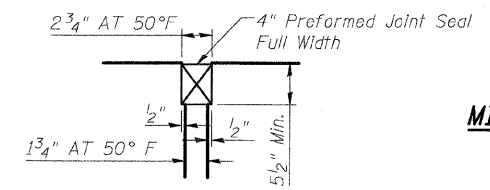
SECTION C-C



Bar h₅₄(E) CUTTING DIAGRAM

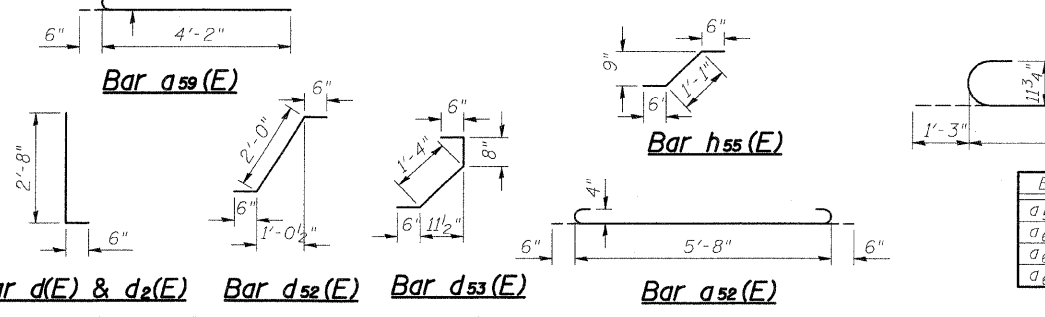
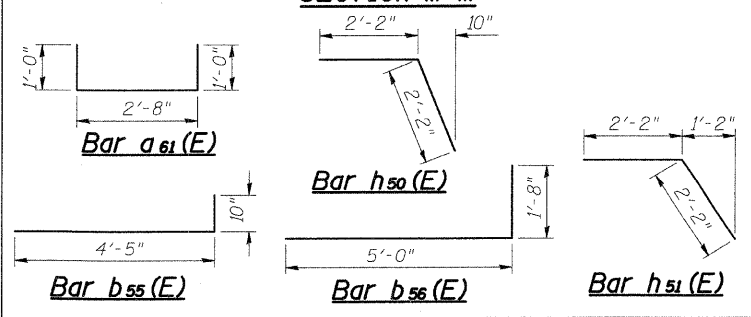


PREFORMED JOINT SEAL



DETAIL 1

MINIMUM BAR LAP
#4 bars = 1'-8"
#5 bars = 2'-2"
#9 bars = 5'-9"



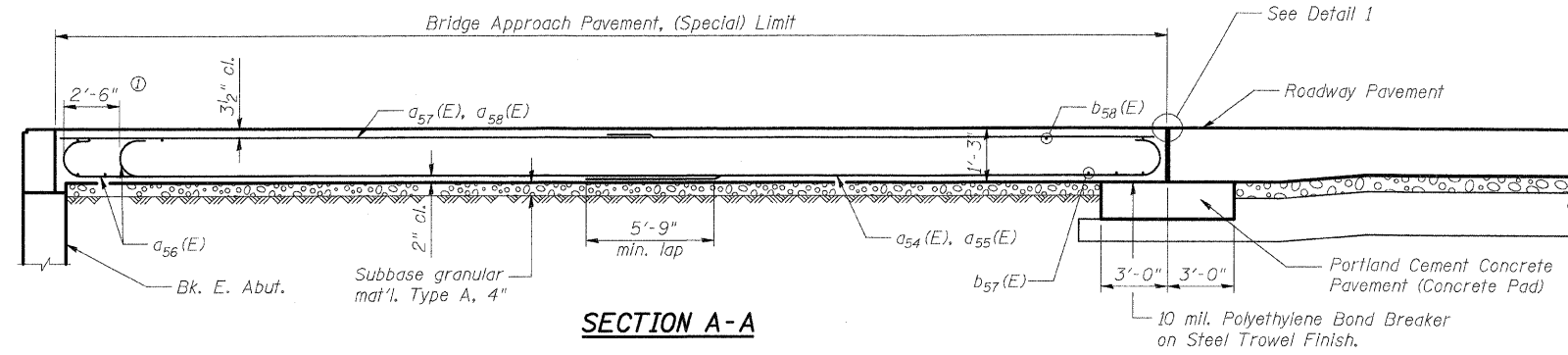
Bar	A
a ₅₆ (E)	33'-6"
a ₆₂ (E)	18'-0"
a ₆₃ (E)	31'-0"
a ₆₄ (E)	24'-8"

SH. 2 of 2
STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/283-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

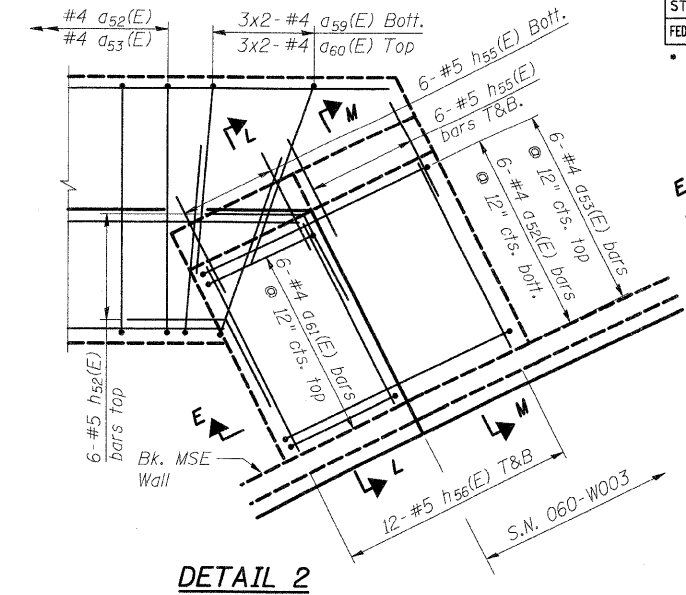
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
RAMP B APPROACH SLAB DETAILS (SPECIAL)
DESIGNED: JAW
CHECKED: BTO
DATE: 4/06
DRAWN: BTO
CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	*	MADISON	420	215
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 60-10K-1, 60-10HB CONTRACT NO. 76709				

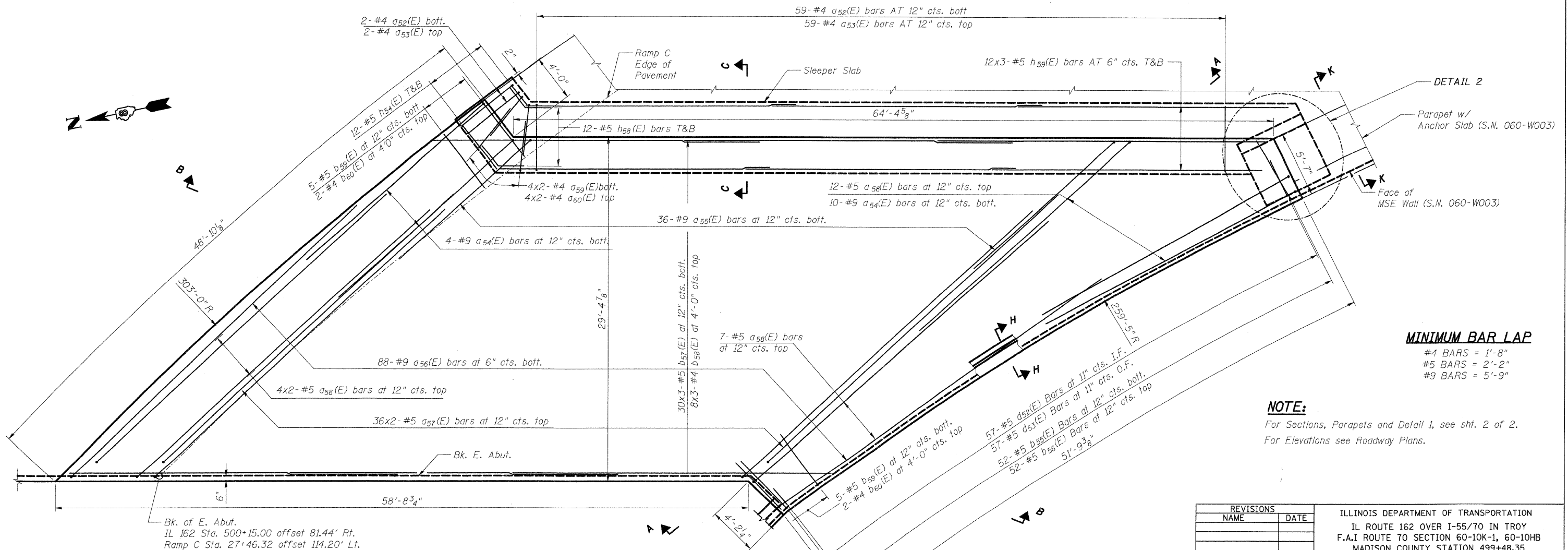


SECTION A-A

① Stagger #9 a56(E) bars as shown on plan - full width



DETAIL 2



RAMP C APPROACH SLAB

Bk. of E. Abut.
IL 162 Sta. 500+15.00 offset 81.44' Rt.
Ramp C Sta. 27+46.32 offset 114.20' Lt.

MINIMUM BAR LAP
#4 BARS = 1'-8"
#5 BARS = 2'-2"
#9 BARS = 5'-9"

NOTE:
For Sections, Parapets and Detail 1, see sht. 2 of 2.
For Elevations see Roadway Plans.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

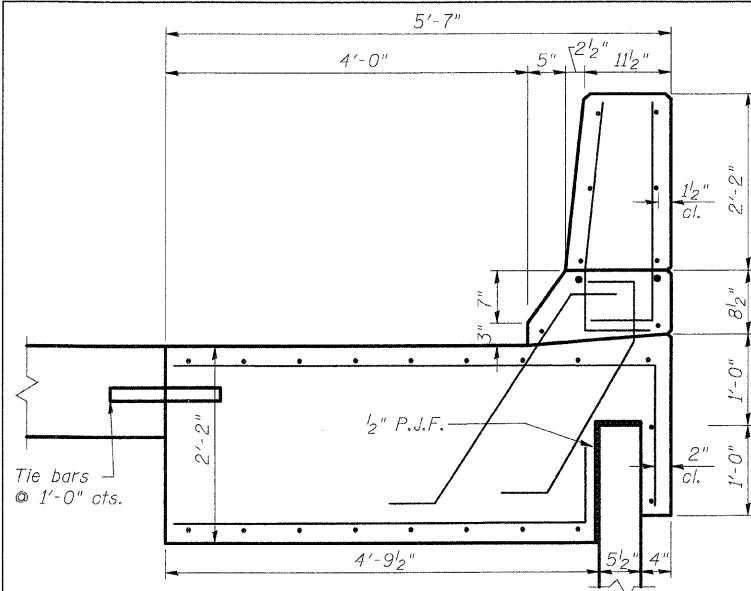
SHT. 1 of 2

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-3015
312/333-0655, FAX 312/533-0661

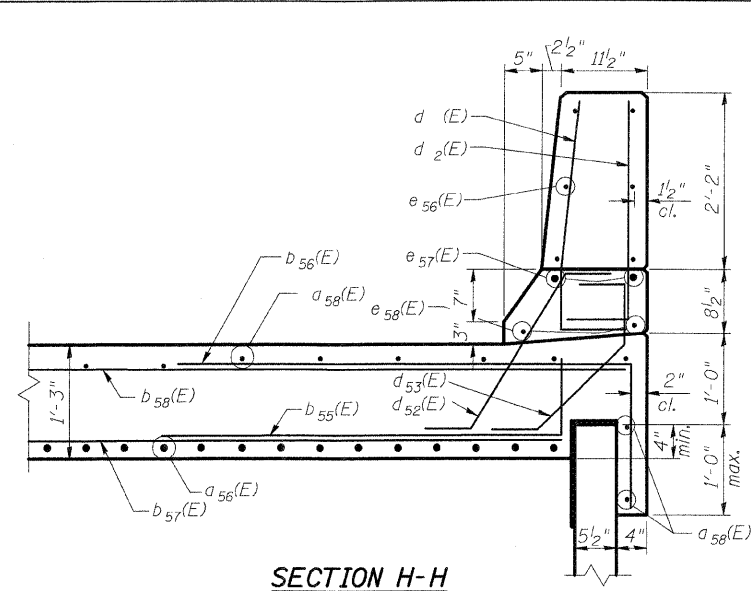
DESIGNED: JAW
CHECKED: BTO
DATE: 4/06

DRAWN: BTO
CHECKED: JAN

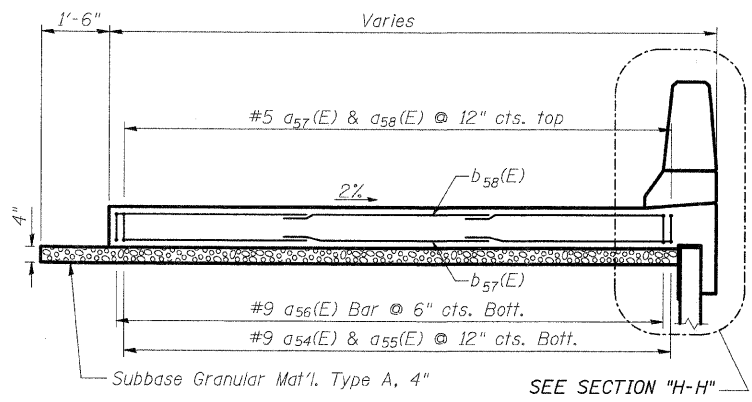
F.A.I. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	MADISON	420	216	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB CONTRACT NO. 76709				



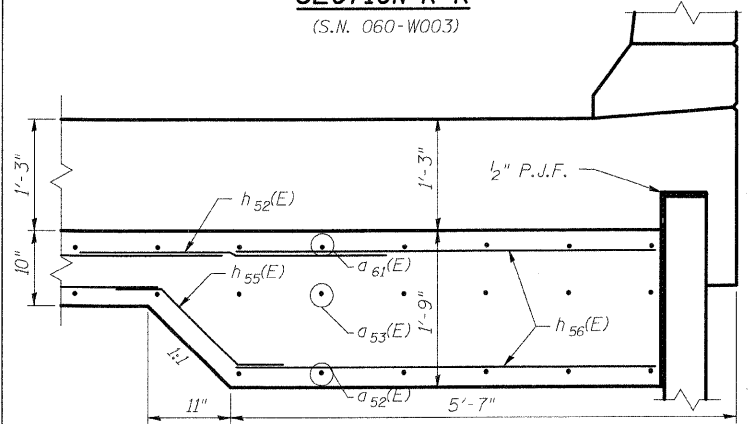
SECTION K-K
(S.N. 060-W003)



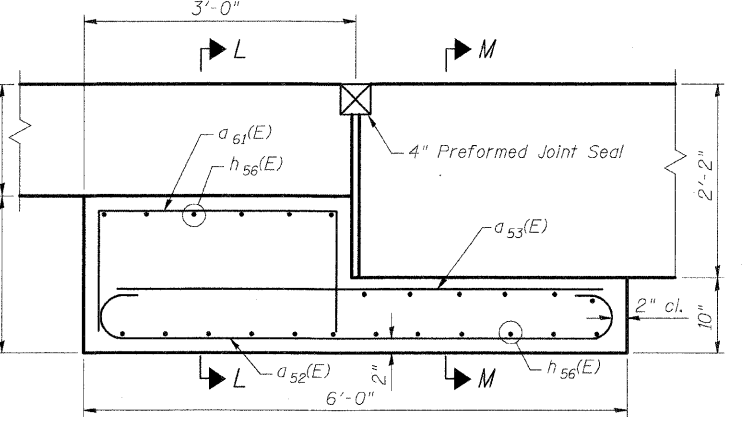
SECTION H-H



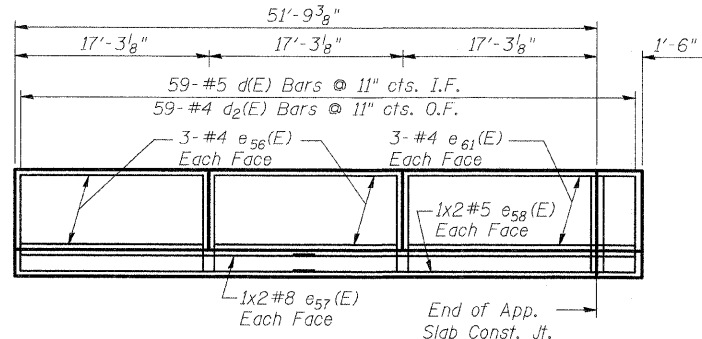
SECTION B-B



SECTION L-L



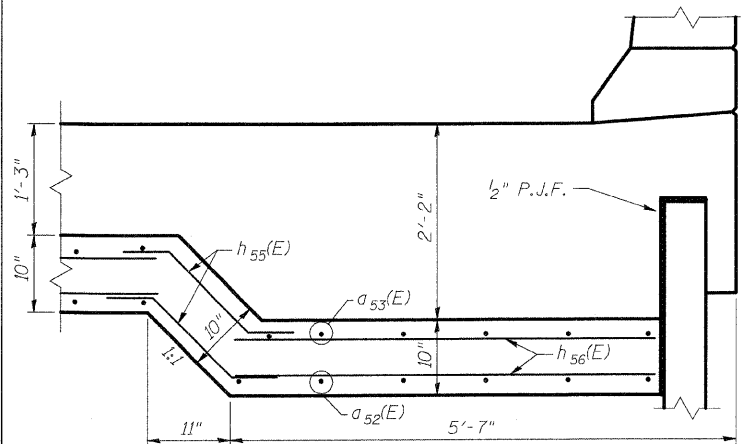
SECTION E-E



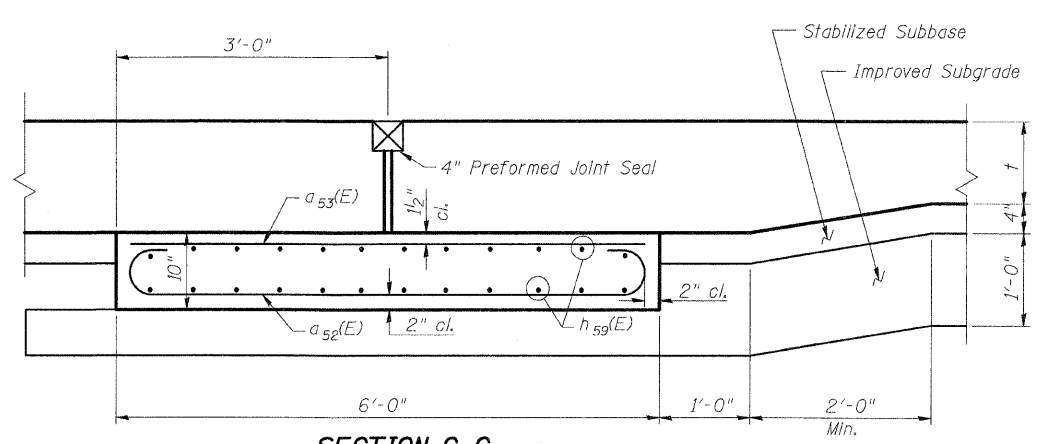
INSIDE PARAPET ELEVATION AT RAMP "C" APPROACH SLAB (SPECIAL)

MINIMUM BAR LAP

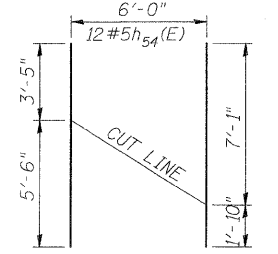
- #4 bars = 1'-8"
- #5 bars = 2'-2"
- #9 bars = 5'-9"



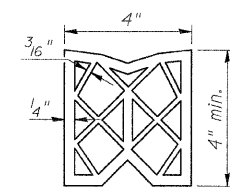
SECTION M-M



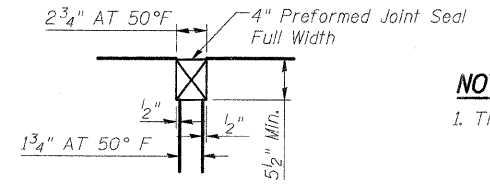
SECTION C-C



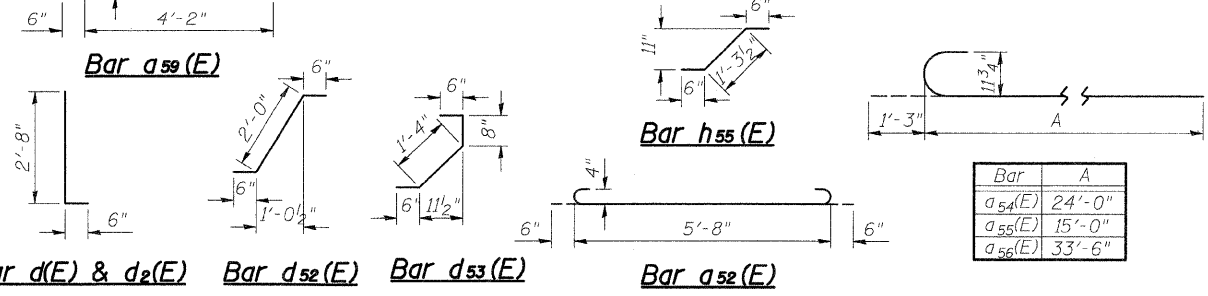
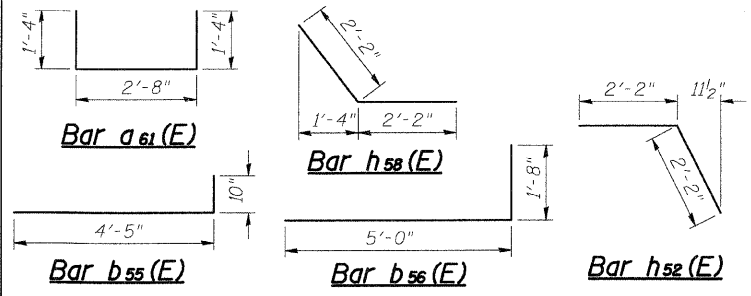
Bar h54(E) CUTTING DIAGRAM



PREFORMED JOINT SEAL



DETAIL 1



Bar	A
a54(E)	24'-0"
a55(E)	15'-0"
a56(E)	33'-6"

SHT. 2 OF 2



REVISIONS	
NAME	DATE

BILL OF MATERIAL RAMP "C"

Bar	No.	Size	Length	Shape
a52(E)	67	#4	6'-8"	┌───┐
a53(E)	67	#4	5'-8"	┌───┐
a54(E)	14	#9	25'-3"	┌───┐
a55(E)	36	#9	16'-3"	┌───┐
a56(E)	88	#9	34'-9"	┌───┐
a57(E)	72	#5	22'-7"	┌───┐
a58(E)	27	#5	27'-0"	┌───┐
a59(E)	14	#4	4'-8"	┌───┐
a60(E)	14	#4	4'-2"	┌───┐
a61(E)	6	#4	5'-4"	┌───┐
b55(E)	52	#5	5'-3"	┌───┐
b56(E)	52	#5	6'-8"	┌───┐
b57(E)	90	#5	27'-11"	┌───┐
b58(E)	24	#4	27'-7"	┌───┐
b59(E)	10	#5	6'-4"	┌───┐
b60(E)	4	#4	5'-10"	┌───┐
d(E)	59	#5	3'-2"	┌───┐
d2(E)	59	#4	3'-2"	┌───┐
d52(E)	57	#5	3'-0"	┌───┐
d53(E)	57	#4	3'-0"	┌───┐
e56(E)	12	#4	17'-0"	┌───┐
e57(E)	4	#8	28'-9"	┌───┐
e58(E)	4	#5	27'-7"	┌───┐
e61(E)	6	#4	18'-6"	┌───┐
h52(E)	6	#5	4'-4"	┌───┐
h54(E)	12	#5	8'-11"	┌───┐
h55(E)	18	#5	2'-4"	┌───┐
h56(E)	24	#5	4'-6"	┌───┐
h58(E)	48	#5	4'-4"	┌───┐
h59(E)	72	#5	22'-10"	┌───┐
Reinforcement Bars, Epoxy Coated		Pound	23,950	
Concrete		Cu. Yd.	120	
Preformed Joint Seal		Foot	74	
Concrete Pad		Sq. Yd.	49	
Polyethylene Bond Breaker		Sq. Yd.	49	
Bridge Approach Pavement (Special)		Sq. Yd.	238	

* Items included in the cost for Bridge Approach Pavement, (Special)

NOTES:

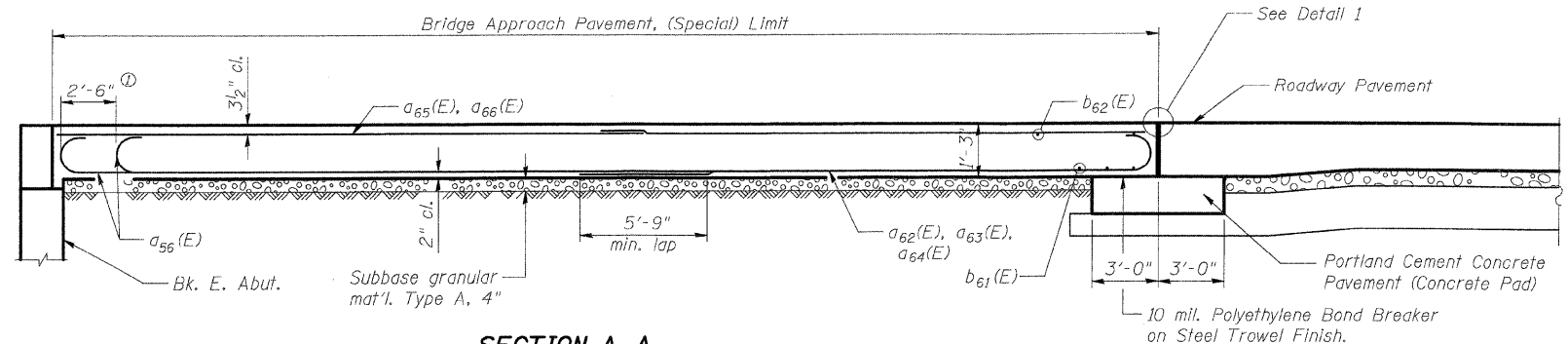
1. Thickness - "t" = thickness of pvmt.

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

RAMP C APPROACH SLAB DETAILS (SPECIAL)

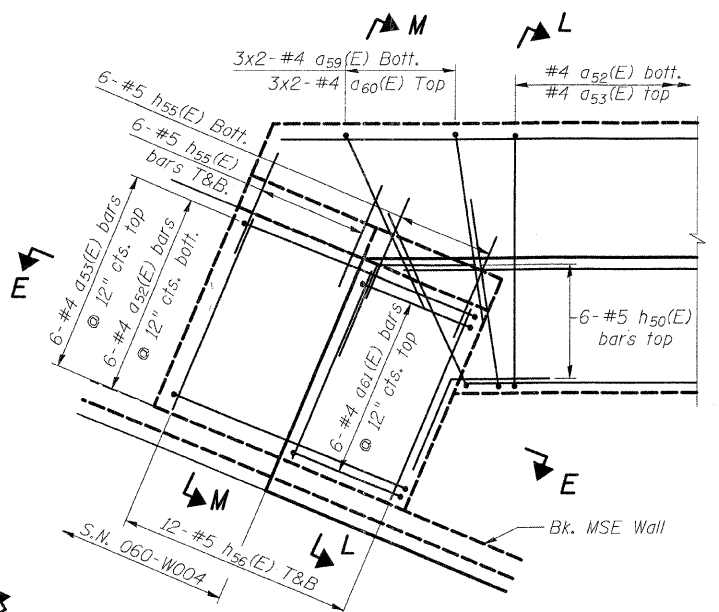
DESIGNED: JAW DRAWN: BTO
CHECKED: BTO CHECKED: JAN
DATE: 4/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	217
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			60-10K-1, 60-10HB CONTRACT NO. 76709	



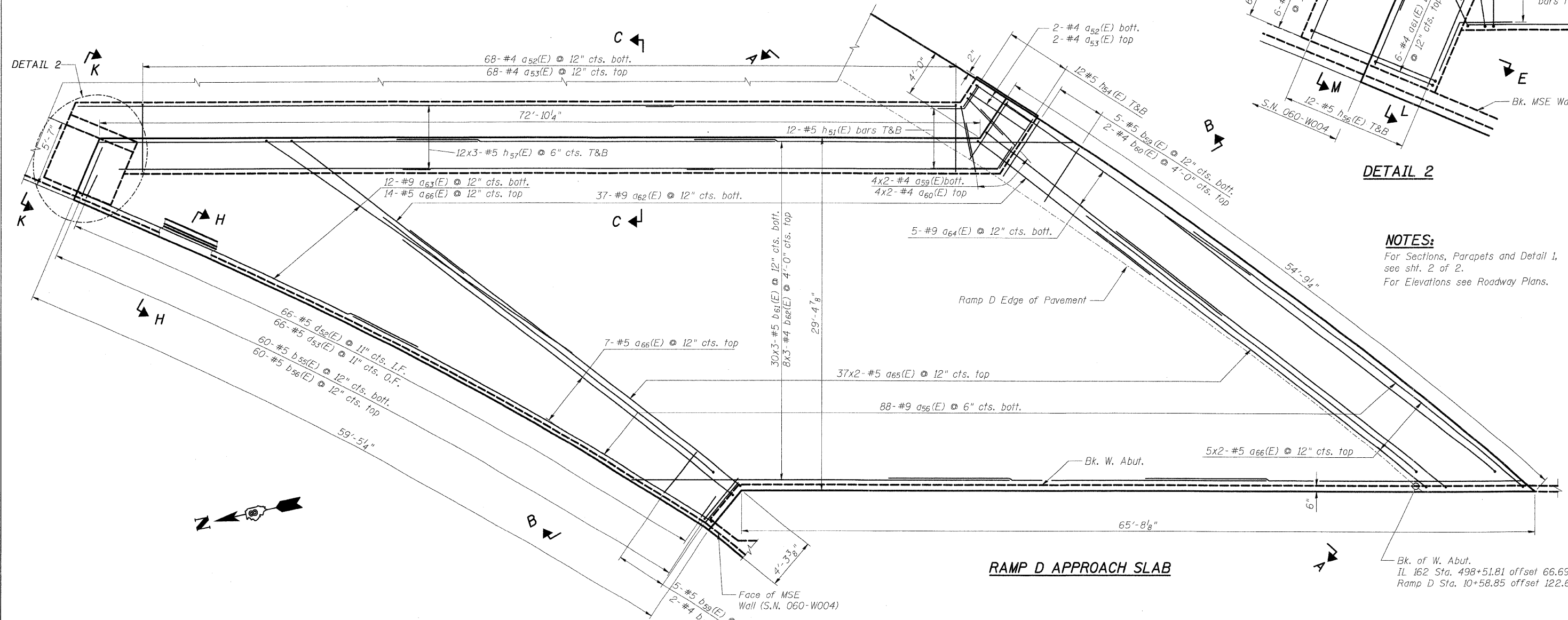
SECTION A-A

① Stagger #9 a56(E) bars as shown on plan - full width



DETAIL 2

NOTES:
 For Sections, Parapets and Detail 1, see sht. 2 of 2.
 For Elevations see Roadway Plans.



RAMP D APPROACH SLAB



SHT. 1 OF 2



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

RAMP D APPROACH SLAB (SPECIAL)
 DESIGNED: JAW
 CHECKED: BTO
 DATE: 4/06
 DRAWN: BTO
 CHECKED: JAN

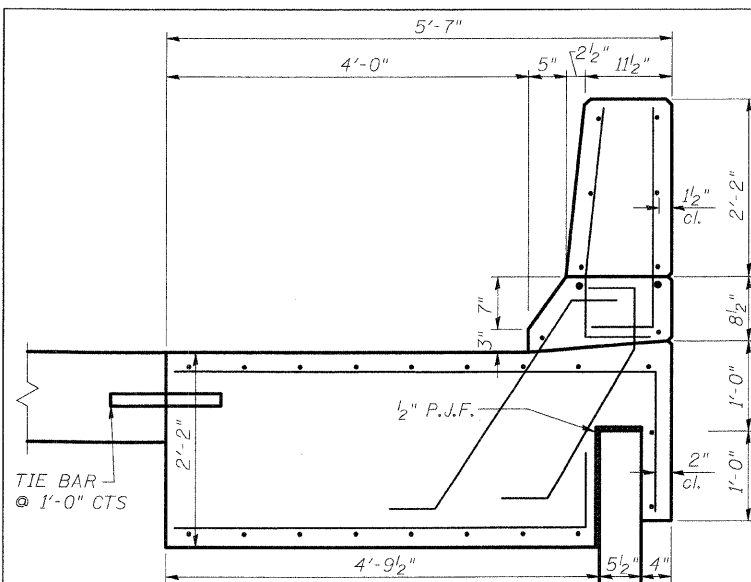
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	218
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	• 60-10K-1, 60-10HB CONTRACT NO. 76709			

BILL OF MATERIAL RAMP "D"

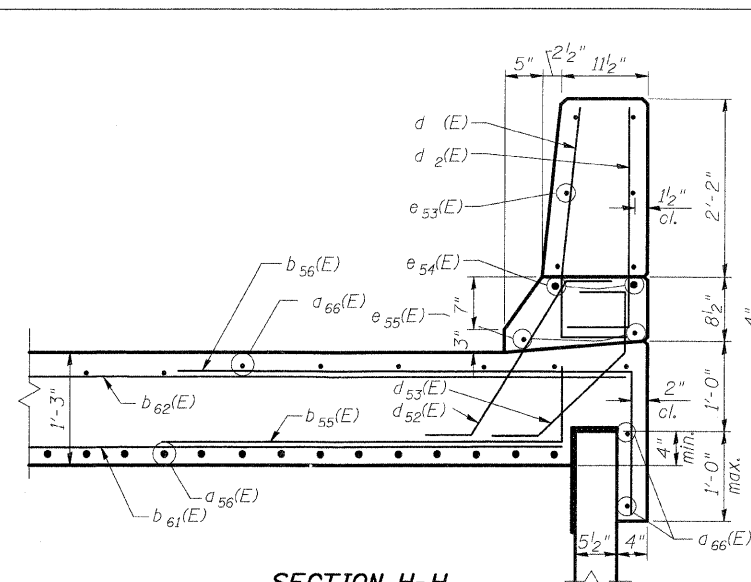
Bar	No.	Size	Length	Shape
a ₅₂ (E)	76	#4	6'-8"	U
a ₅₃ (E)	76	#4	5'-8"	U
a ₅₆ (E)	88	#9	34'-9"	U
a ₅₉ (E)	14	#4	4'-8"	U
a ₆₀ (E)	14	#4	4'-2"	U
a ₆₁ (E)	6	#4	4'-8"	U
a ₆₂ (E)	37	#9	19'-3"	U
a ₆₃ (E)	12	#9	32'-3"	U
a ₆₄ (E)	5	#9	25'-11"	U
a ₆₅ (E)	74	#5	23'-3"	U
a ₆₆ (E)	31	#5	31'-3"	U
b ₅₅ (E)	60	#5	5'-3"	U
b ₅₆ (E)	60	#5	6'-8"	U
b ₅₉ (E)	10	#5	6'-4"	U
b ₆₀ (E)	4	#4	5'-10"	U
b ₆₁ (E)	90	#5	31'-3"	U
b ₆₂ (E)	24	#4	31'-0"	U
d(E)	68	#5	3'-2"	L
d ₂ (E)	68	#4	3'-2"	L
d ₅₂ (E)	66	#5	3'-0"	J
d ₅₃ (E)	66	#4	3'-0"	J
e ₅₃ (E)	12	#4	19'-7"	U
e ₅₄ (E)	4	#8	32'-8"	U
e ₅₅ (E)	4	#5	31'-6"	U
e ₆₀ (E)	6	#4	21'-1"	U
h ₅₀ (E)	6	#5	4'-4"	U
h ₅₁ (E)	24	#5	4'-4"	U
h ₅₄ (E)	12	#5	8'-11"	U
h ₅₅ (E)	18	#5	2'-1"	U
h ₅₆ (E)	24	#5	4'-6"	U
h ₅₇ (E)	72	#5	25'-8"	U

* Reinforcement Bars, Epoxy Coated	Pound	26,130
* Concrete	Cu. Yd.	135.4
* Preformed Joint Seal	Foot	83
* Concrete Pad	Sq. Yd.	55
* Polyethylene Bond Breaker	Sq. Yd.	55
Bridge Approach Pavement (Special)	Sq. Yd.	270

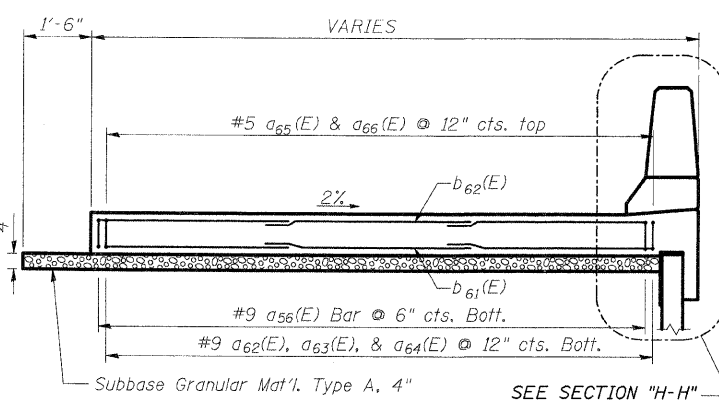
* Items included in the cost for Bridge Approach Pavement, (Special)



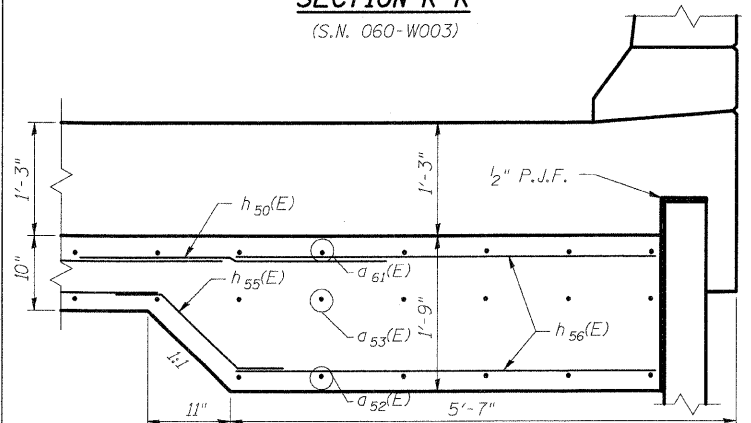
SECTION K-K
(S.N. 060-W003)



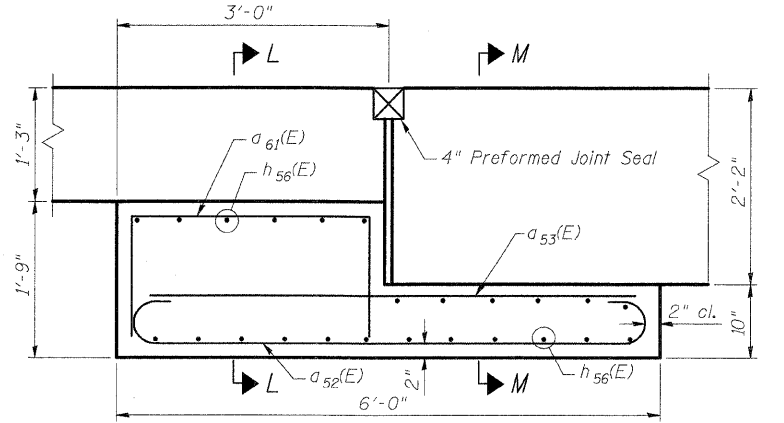
SECTION H-H



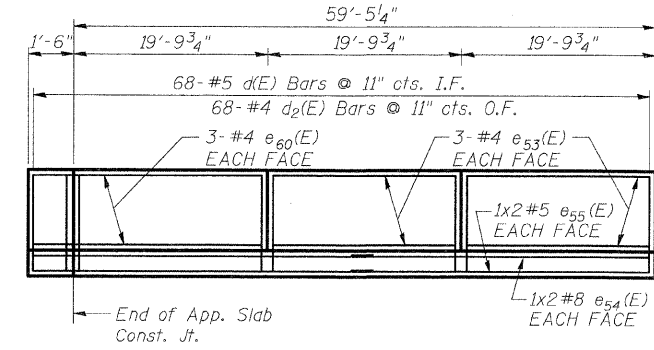
SECTION B-B



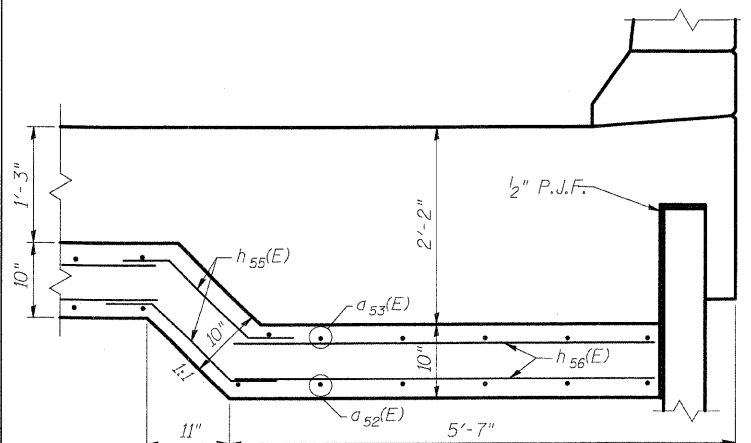
SECTION L-L



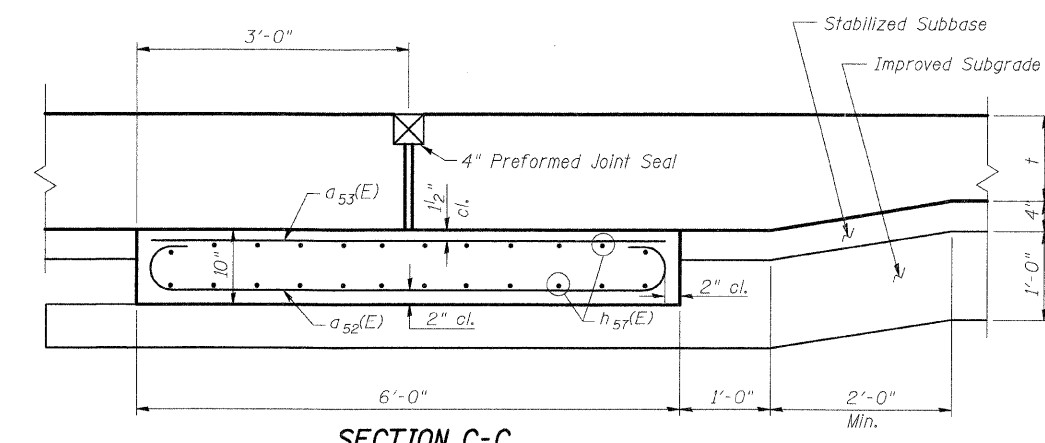
SECTION E-E



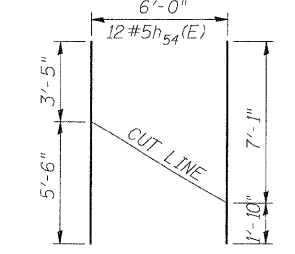
INSIDE PARAPET ELEVATION AT RAMP "B" APPROACH SLAB (SPECIAL)



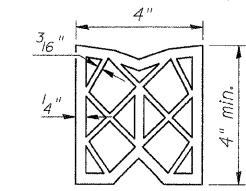
SECTION M-M



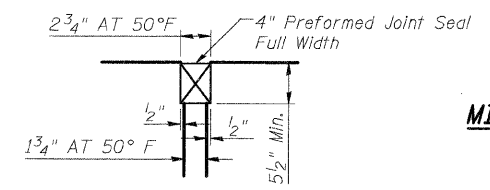
SECTION C-C



Bar h₅₄(E) CUTTING DIAGRAM



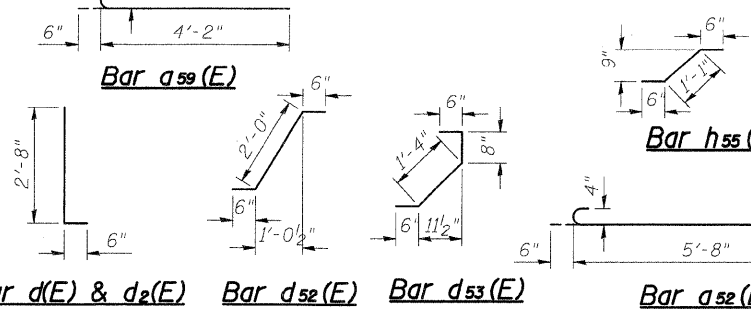
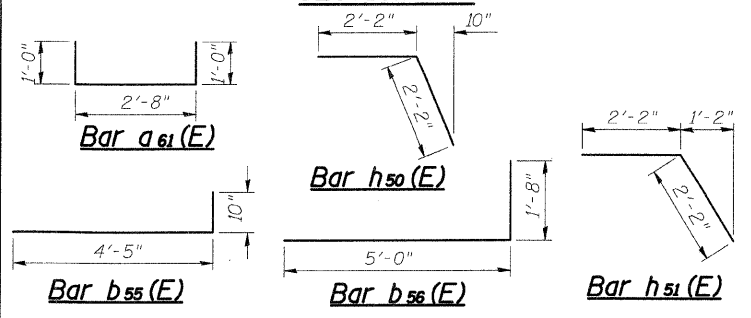
PREFORMED JOINT SEAL



DETAIL 1

MINIMUM BAR LAP

- #4 bars = 1'-8"
- #5 bars = 2'-2"
- #9 bars = 5'-9"



Bar	A
a ₅₆ (E)	33'-6"
a ₆₂ (E)	18'-0"
a ₆₃ (E)	31'-0"
a ₆₄ (E)	24'-8"

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312.553.9655, FAX 312.553.0661

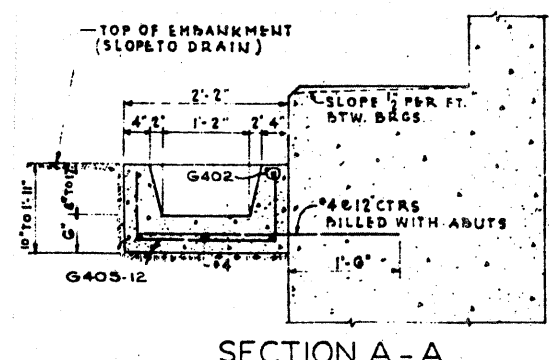
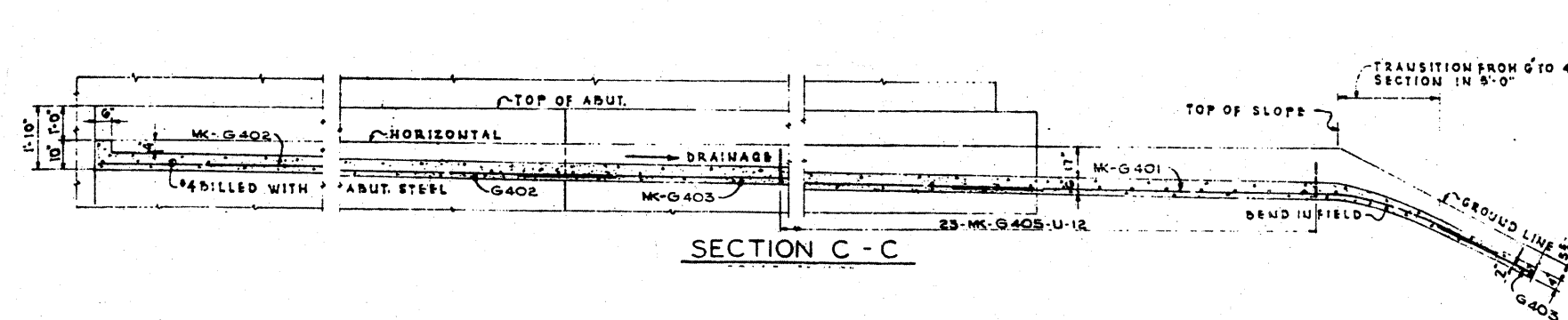
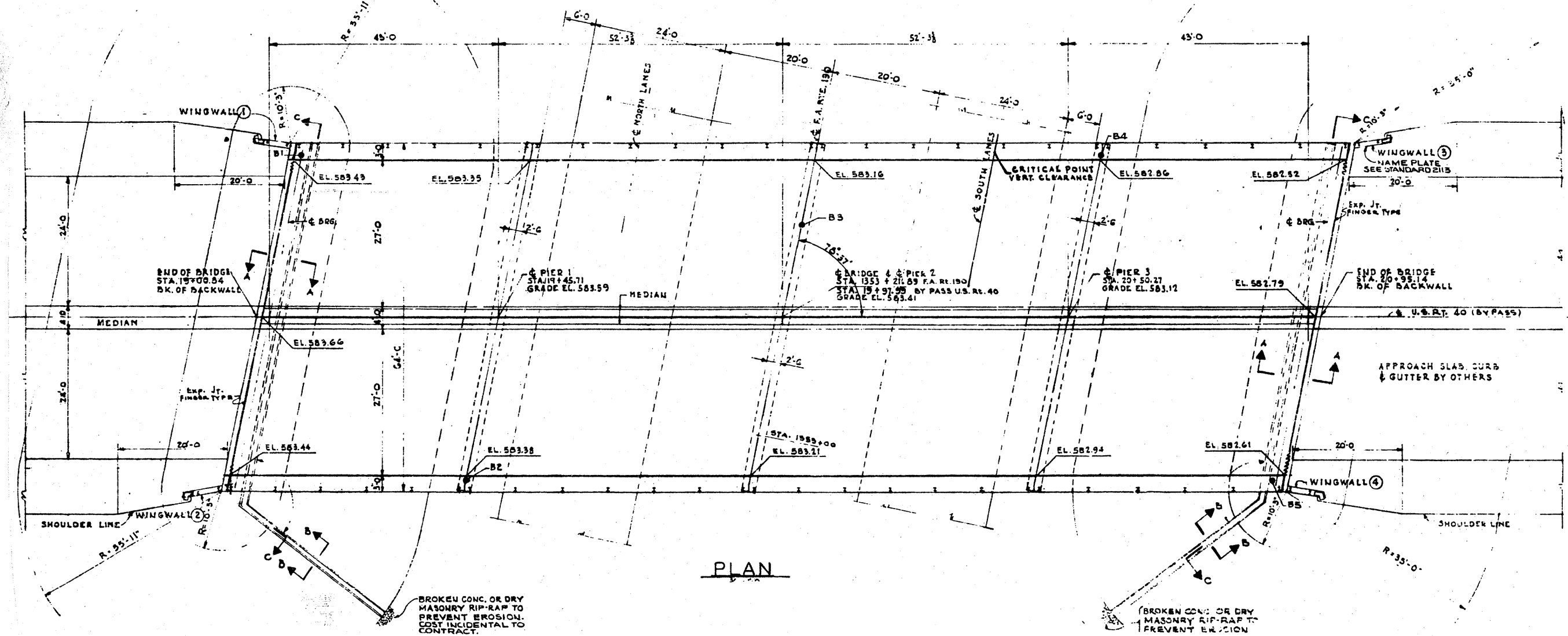
SHT. 2 of 2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

RAMP D APPROACH SLAB DETAILS (SPECIAL)

DESIGNED: JAW
CHECKED: BTO
DRAWN: BTO
CHECKED: JAN
DATE: 4/06



NOT TO SCALE

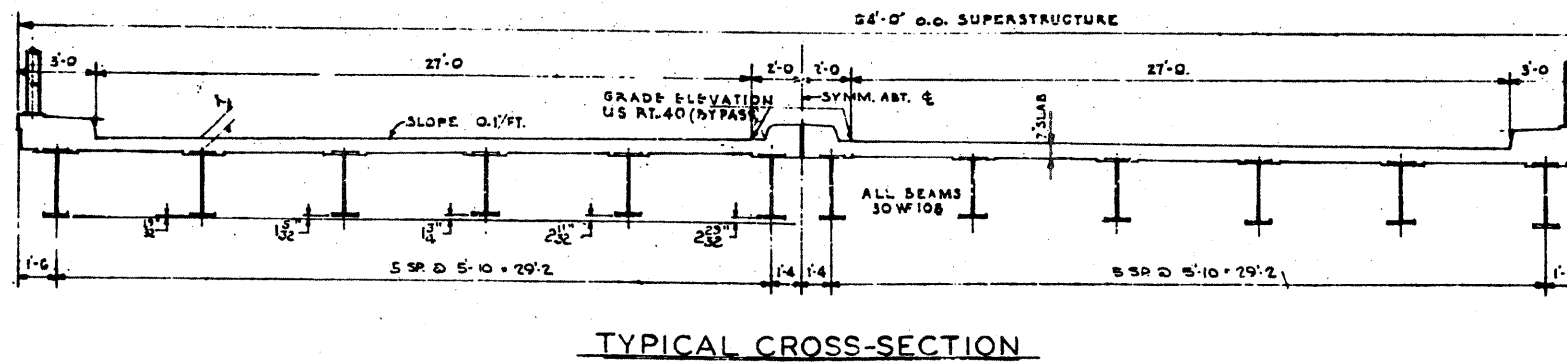
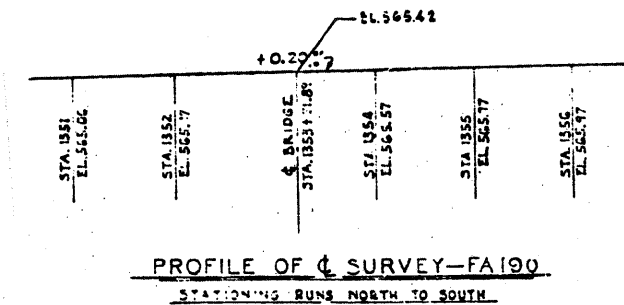
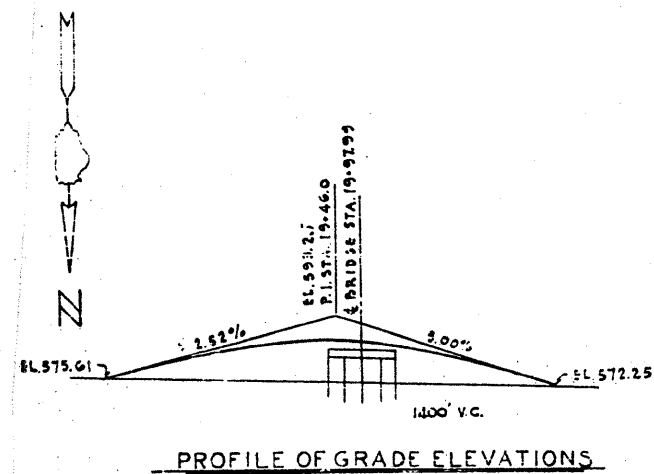
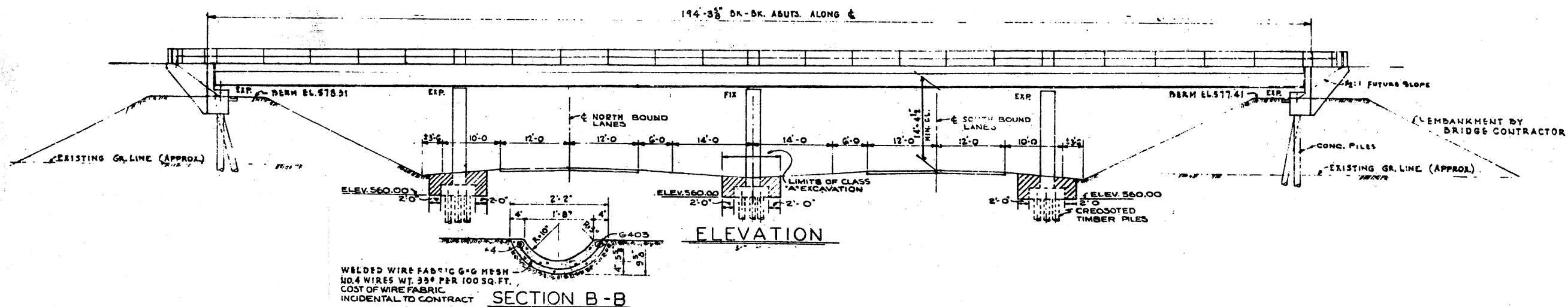
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
#FILE#		DRAWN -	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
PLAN VIEW

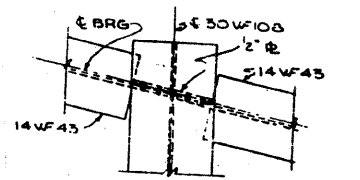
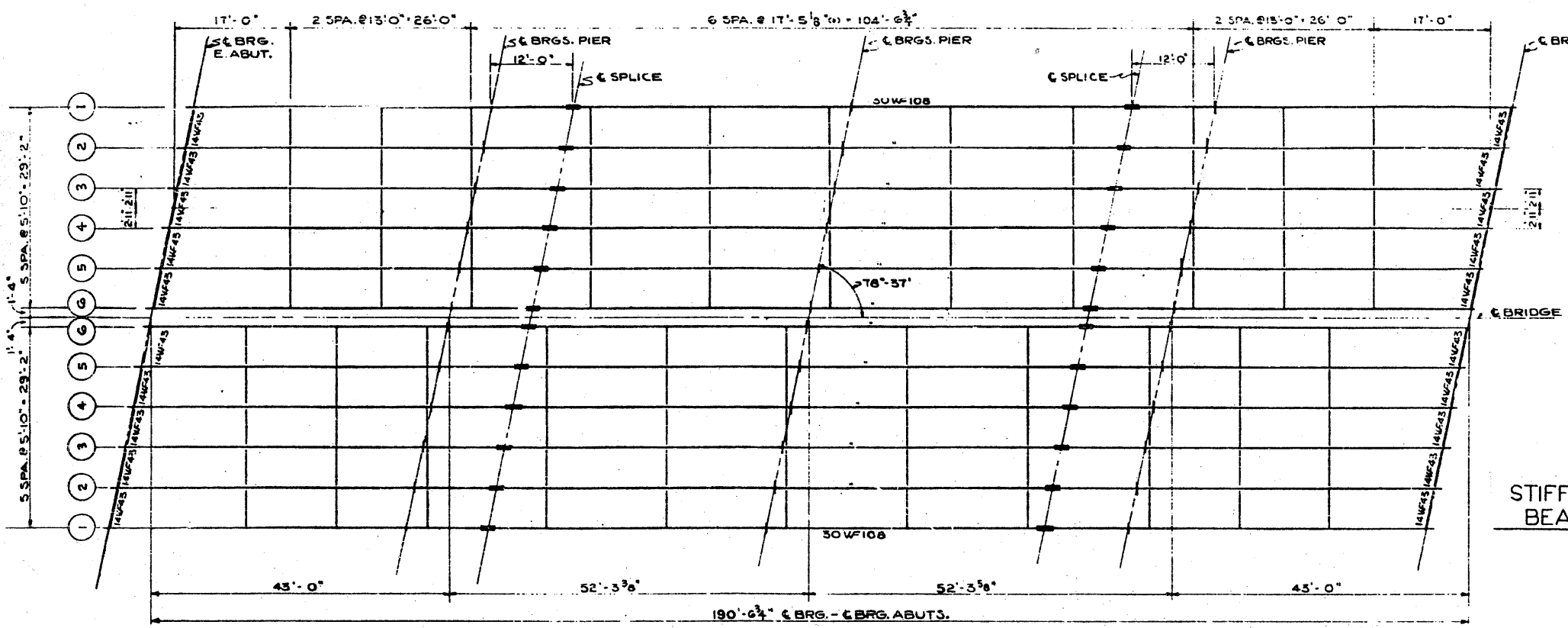
SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-106-1, 60-106B	MADISON	420	218A
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 76709	

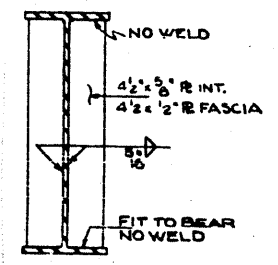


NOT TO SCALE

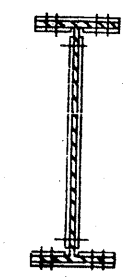
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE PLANS ELEVATION & CROSS SECTION	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			70	60-106-1-60-106B	MADISON	420	218B	
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -			CONTRACT NO. 76709					
	PLOT DATE = #DATE#	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
						SCALE: _____		SHEET NO. _____ OF _____ SHEETS		STA. _____ TO STA. _____	



SECTION BB

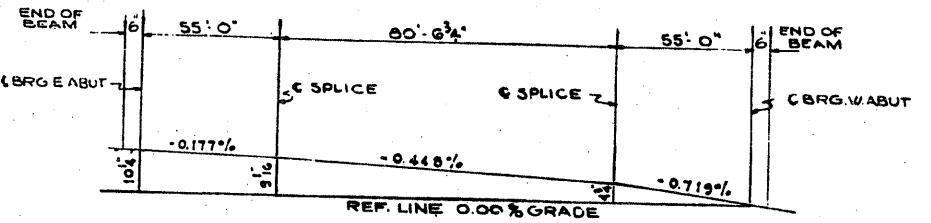


STIFFENERS OVER C OF BEARINGS ON PIERS

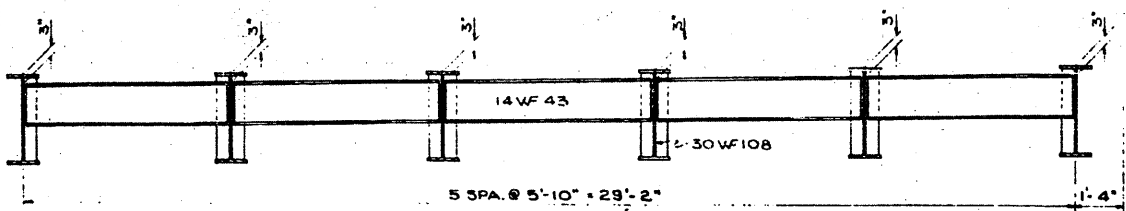


SECTION C-C

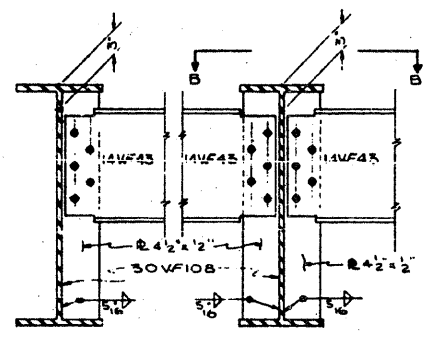
FRAMING PLAN



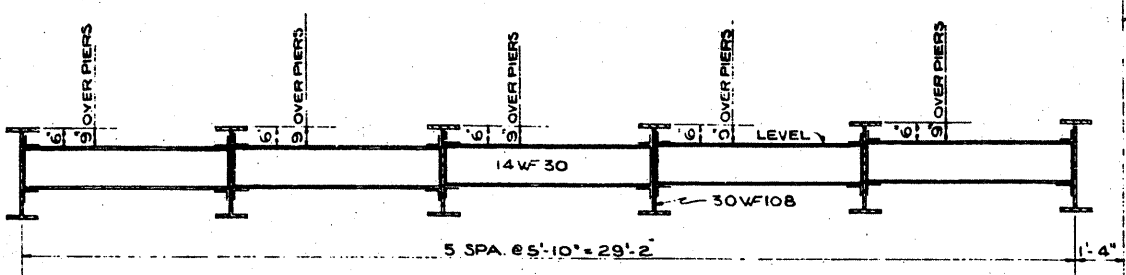
BEAM FABRICATION DIAGRAM



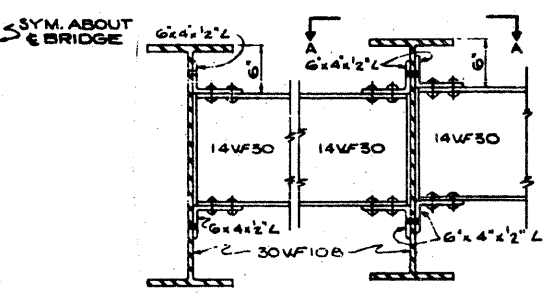
END DIAPHRAGMS
SCALE 3/8" = 1'-0"



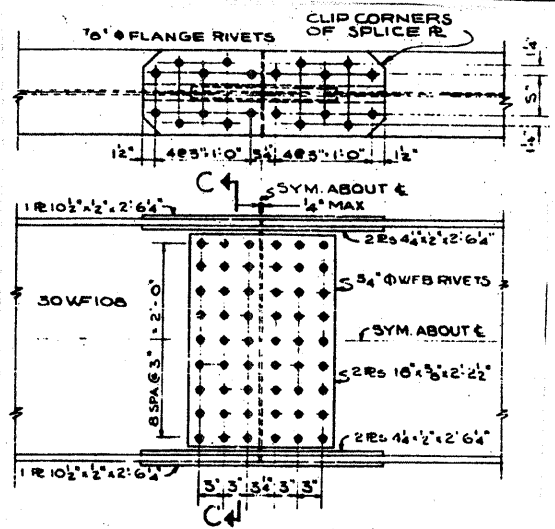
END DIAPHRAGM DETAILS
SCALE 1" = 1'-0"



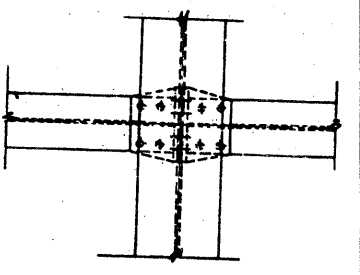
INTERMEDIATE DIAPHRAGMS



INTERMEDIATE DIAPHRAGM DETAILS



BEAM SPLICE DETAIL



SECTION A-A

NOT TO SCALE

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISD -
#FILE#		DRAWN -	REVISD -
		CHECKED -	REVISD -
		DATE -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
FRAMING PLANS

SCALE: _____ SHEET NO. _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10X-1-60-10XB	MADISON	420	218C
FED. ROAD DIST. NO. _____ [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 16709	

BENCH MARK

CP#35, Iron Pin w/Cap, Sta. 502+30.81, 37.37' Rt, El. 582.812

EXISTING STRUCTURE

Structure S.N. 060-0139 was built in 1956 as U. S. Route 40 Bypass over F. A. Route 190 (U. S. Route 66). It was widened and the deck reconstructed in 1978. The four span structure was built on concrete piles at the abutments and timber piles at the piers. The composite reinforced concrete deck is supported by continuous steel beams that are 27" deep at the fascia and 30" deep elsewhere. The back to back abutment length is 194'-0" and the deck is 75'-2" out to out.

During construction of the new structure, staged construction will be utilized to maintain one lane of traffic in each direction.

No salvage.

Bk. of W. Abut.
IL 162 Sta. 498+81.54 offset 80.65' Lt.
Ramp A Sta. 25+22.85 offset 114.23' Lt.

STATION 499+48.35
BUILT 200... BY
STATE OF ILLINOIS
F.A.I. RT. 70 SEC. 60-10HB
LOADING HS20
STR. NO. 060-0338

NAME PLATE

See Std. 515001

NOTE: For Name Plate location, see sht. S-59.

LOADING HS20

Allow 50 lbs/ft² future wearing surface

DESIGN SPECIFICATION

2002 AASHTO Std. Spec, 17th edition

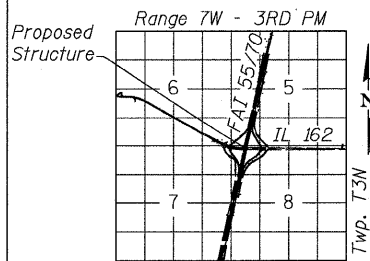
DESIGN STRESSES

NEW CONSTRUCTION

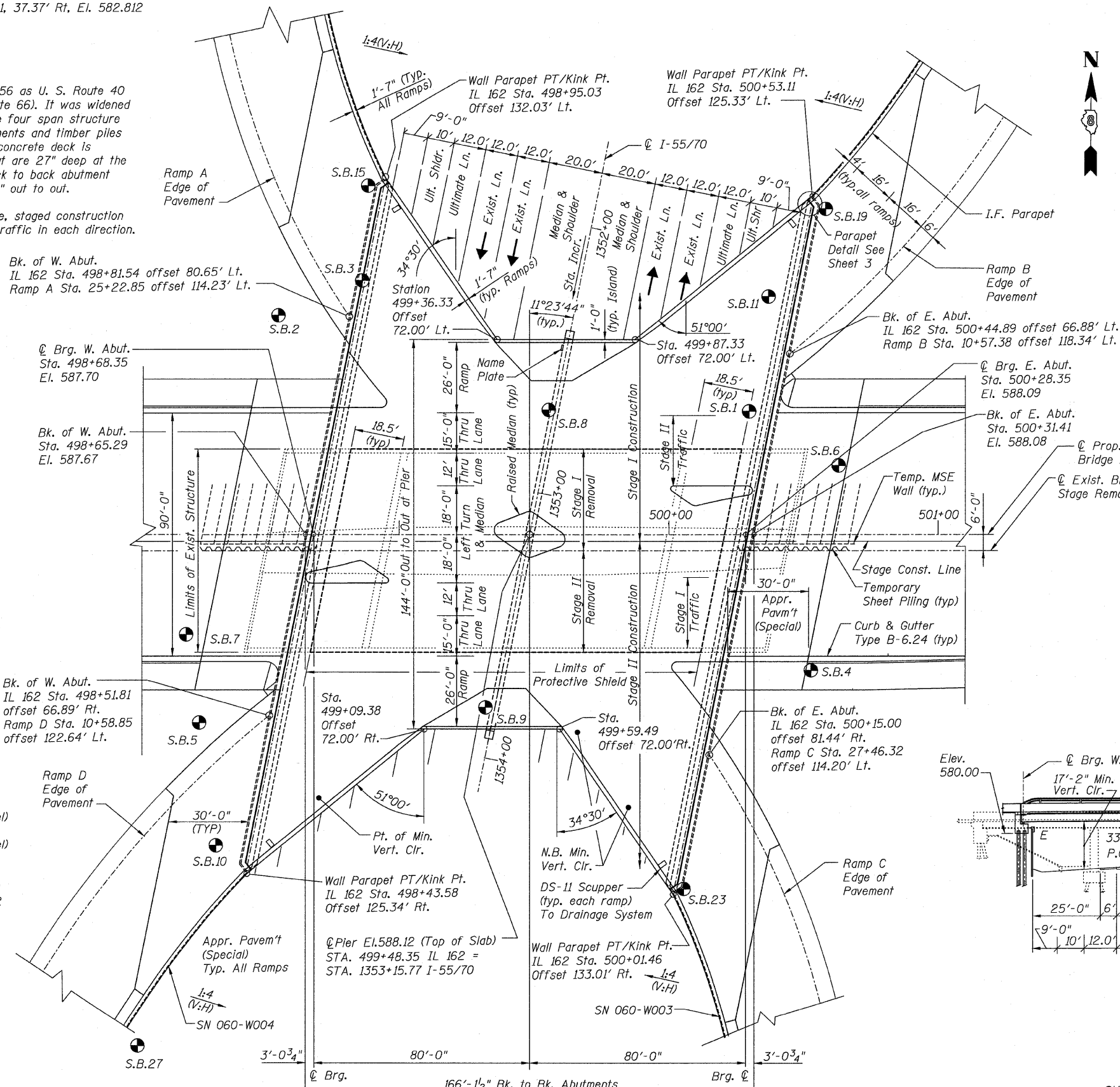
f'c = 3,500 psi (concrete)
fy = 60,000 psi (reinforcement)
fy = 36,000 psi (AASHTO M-270, Gr.36 struc. steel)
fy = 50,000 psi (AASHTO M-270, Gr.50 struc. steel)

SEISMIC DATA

Seismic Performance Category (SPC)= B
Bedrock Acceleration Coefficient (A)= .12
Site Coefficient (S) = 1.5



LOCATION SKETCH



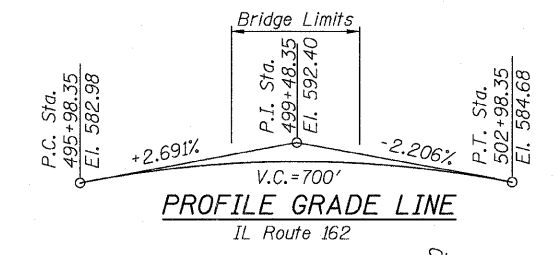
PLAN

NOTES:

1. See General Notes on Sht. S-03.
2. All existing utilities attached to bridge shall be maintained during and after construction.
3. For ramp and abutment walls, see Dwg. for S.N. 060-W006 (east) and 060-W004 (west).
4. Offsets are measured from ϕ IL Rt. 162 to back of parapet.

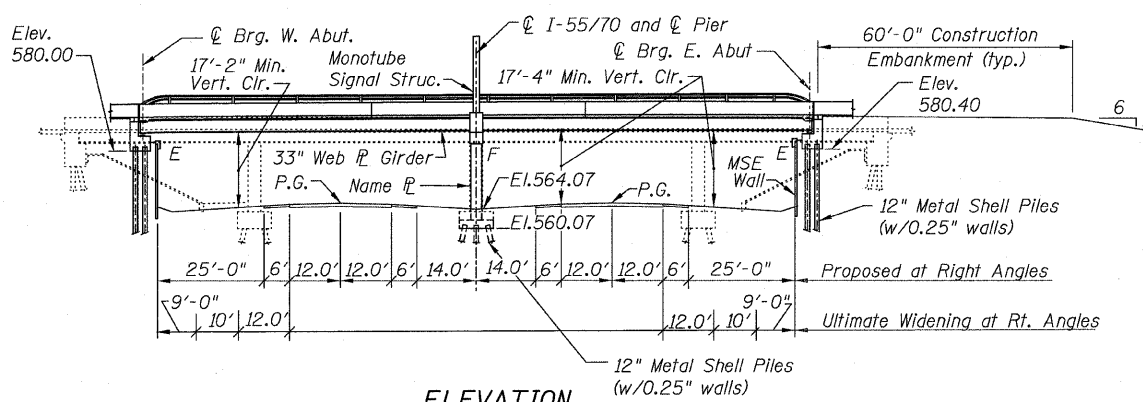
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	219
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709



PROFILE GRADE LINE
IL Route 162
NB & SB I-55/70

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



ELEVATION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-3015
312/553-0655, FAX 312/553-0661

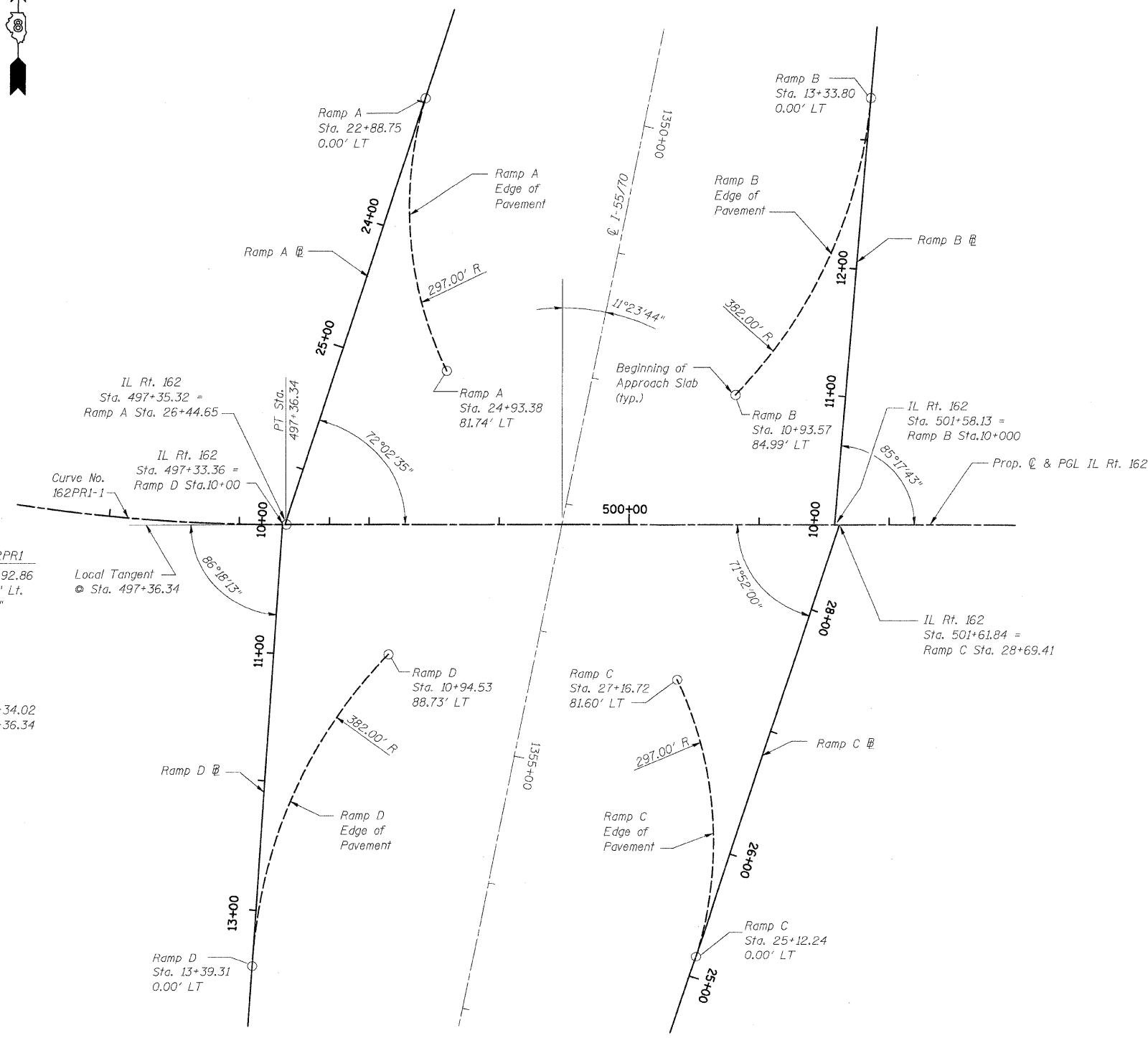
GENERAL PLAN
DESIGNED: AWH
CHECKED: JAN
DRAWN: BTO
CHECKED: AWH

SHT. S-01 OF S-68

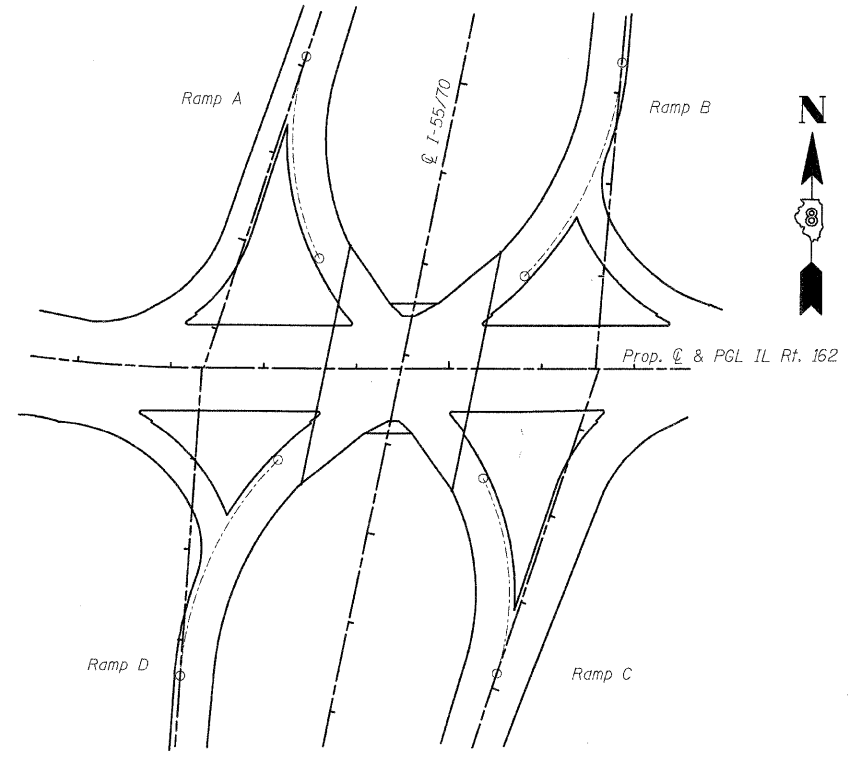
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	220
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



PLAN-SURVEY



PLAN-RAMPS &

Curve No. 162PRI-1
 PI Sta. 493+92.86
 $\Delta = 28^{\circ}58'09''$ Lt.
 $D = 4^{\circ}07'29''$
 $T = 358.84'$
 $R = 1389.08'$
 $L = 702.33'$
 $E = 45.60'$
 $\theta = NC$
 $T.R. = N/A$
 $PC Sta. 490+34.02$
 $PT Sta. 497+36.34$

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

BRIDGE GEOMETRY

DESIGNED: BTO
 CHECKED: AWH
 DRAWN: BTO
 CHECKED: AWH

DATE: 03/06

SHT. S-02 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	221
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{5}{8}$ " diameter, open holes $\frac{5}{16}$ " diameter, unless otherwise noted.
- Calculated weight of Structural Steel:
AASHTO (M270 GR 50) = 748,170 pounds
AASHTO (M270 GR 36) = 68,490 pounds
- No field welding is permitted except as specified in the contract documents.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams, the tension flanges and webs of the plate girders, and all splice plate material except fill plates.
- Materials, fabrication welding, and non-destructive testing for the members identified as Fracture Critical Member and member components (F.C.M.) in the contract plans shall conform to the requirements of Section 12 of the current ANSI / AASHTO / AWS / D 1.5 Bridge Welding Code.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ ". Adjustments shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
- Concrete Sealer shall be applied to the seat area of the East and West Abutments.
- When the deck pour is stopped for the day at one or more of the Transverse Bonded Construction joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:
 - At least 72 hours shall have elapsed from the end of the previous pour.
 - The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
- In addition to all other requirements of section 512 of the Standard Specifications, splices for the 12" metal shell piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.
- The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
- All construction joints shall be bonded.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06b of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures."
- Slipforming of the parapets is not allowed.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Wherever reference is made to Neoprene Expansion Joint in these plans it shall be interpreted to mean Preformed Joint Strip Seal.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Removal of Existing Structures	EACH			1
Structure Excavation	CU YD	401		401
Preformed Joint Strip Seal	FOOT		524	524
Concrete Structures	CU YD	770		770
Concrete Superstructure	CU YD		858	858
Bridge Deck Grooving	SQ YD		2935	2935
Protective Coat	SQ YD		3456	3456
Furnishing and Erecting Structural Steel	L.S.		1	1
Stud Shear Connectors	EACH		16981	16981
Reinforcement Bars, Epoxy Coated	POUND	89390	233410	322800
Aluminum Railing, Type L	FOOT		408	408
Furnishing Metal Shell Piles 12" x 0.250"	FOOT	15910		15910
Driving Piles	FOOT	15910		15910
Test Pile Metal Shells	EACH	3		3
Temporary Sheet Piling	SQ FT	3000		3000
Name Plates	EACH	1		1
Concrete Sealer	SQ FT	1415		1415
Temporary Mechanically Stabilized Earth Wall	SQ FT	1600		1600
Drainage Scuppers, DS-II	EACH		4	4
Drainage System	L.S.		1	1
High Load Multi-Rotation Bearings, Fixed-250 K	EACH		13	13
High Load Multi-Rotation Bearings, Guided Expansion, 100 K	EACH		26	26
High Load Multi-Rotation Bearings, Guided Expansion, 350 K	EACH		2	2
High Load Multi-Rotation Bearings, Guided Expansion, 650 K	EACH		2	2
High Load Multi-Rotation Bearings, Non-Guided Expansion, 50 K	EACH		8	8
High Load Multi-Rotation Bearings, Non-Guided Expansion, 75 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 100 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 150 K	EACH		6	6
High Load Multi-Rotation Bearings, Non-Guided Expansion, 200 K	EACH		4	4
Bar Splicers	EACH	567	672	1239
Protective Shield	SQ YD		1146	1146
Anchor Bolts, 1"	EACH	224		224
Anchor Bolts, 1 1/4"	EACH	52		52
Anchor Bolts, 1 1/2"	EACH	20		20

INDEX OF SHEETS

- | | |
|---------------------------------------------------------------|---------------------------------------|
| S-01 General Plan | S-60 Pier Plan & Elevation - Stage II |
| S-02 Bridge Geometry | S-61 Pier Details |
| S-03 General Notes, B.O.M., & Index of Sheets | S-62 Pier & Pile Details |
| S-04 Foundation Plan | S-63 Bar Splicer Assembly |
| S-05 Temp. Sheet Piling & Temp. MSE Wall | S-64 Boring Logs |
| S-06 Existing Structure Removal | S-65 Boring Logs |
| S-07 Stage Construction Deck Sections | S-66 Boring Logs |
| S-08 Temporary Concrete Barrier | S-67 Boring Logs |
| S-09 Screed Plan - IL 162 | S-68 Boring Logs |
| S-10 Deck Elevations - IL 162 | |
| S-11 Deck Elevations - IL 162 | |
| S-12 Screed Plan-Ramps A thru D | |
| S-13 Ramps A&B Deck Elevations | |
| S-14 Ramps C&D Deck Elevations | |
| S-15 Deck Key Plan & Pour Sequence | |
| S-16 Deck Plan - IL 162 | |
| S-17 Deck Plan-Ramps A & B-Top Bars | |
| S-18 Deck Plan-Ramps A & B-Bottom Bars | |
| S-19 Deck Plan-Ramps C & D-Top Bars | |
| S-20 Deck Plan-Ramps C & D-Bottom Bars | |
| S-21 Deck Cross Section - IL 162 | |
| S-22 Deck Cross Sections - Ramps A & B | |
| S-23 Deck Cross Sections - Ramp C & D | |
| S-24 Deck Details | |
| S-25 Electrical Details | |
| S-26 North & South Island Details | |
| S-27 Parapet Detail at Ramp Corners | |
| S-28 Parapet Elevations & Details-Ramps A, B, & North Island | |
| S-29 Parapet Elevations - Ramps B, C, & South Island | |
| S-30 Superimposed Median Details | |
| S-31 Superstructure B.O.M. | |
| S-32 Expansion Joint Details | |
| S-33 Preformed Joint Strip Seal | |
| S-34 Bridge Drainage System | |
| S-35 Drainage Scupper, DS-II | |
| S-36 Type L Railing | |
| S-37 Framing Key Plan | |
| S-38 Framing Plan - IL 162 | |
| S-39 Framing Plan - Ramps A & B | |
| S-40 Framing Plan - Ramps C & D | |
| S-41 Elevation - Girders 1 & 17 | |
| S-42 Elevation - Girders 2 & 16 | |
| S-43 Elevation - Girders 3 thru 15, Top of Girder Elevations | |
| S-44 Elevation - Ramp Girders, Top of Girder Elevations | |
| S-45 Moment and Reaction Tables - Ramp Girders | |
| S-46 Moment and Reaction Tables - Girders 1 Thru 17 | |
| S-47 Steel Details - Splices | |
| S-48 Steel Details - Diaphragms & Bearing Stiffeners | |
| S-49 Steel Details - Diaphragms & Ramp Connections | |
| S-50 High Load Multi-Rotation Bearings - Fixed and Non-Guided | |
| S-51 High Load Multi-Rotation Bearings - Guided Expansion | |
| S-52 Not Used | |
| S-53 East Abutment Plan & Elevation - Stage I | |
| S-54 East Abutment Plan & Elevation - Stage II | |
| S-55 East Abutment Details | |
| S-56 West Abutment Plan & Elevation - Stage I | |
| S-57 West Abutment Plan & Elevation - Stage II | |
| S-58 West Abutment Details | |
| S-59 Pier Plan & Elevation - Stage I | |

SHT. S-03 OF S-68



REVISIONS	
NAME	DATE

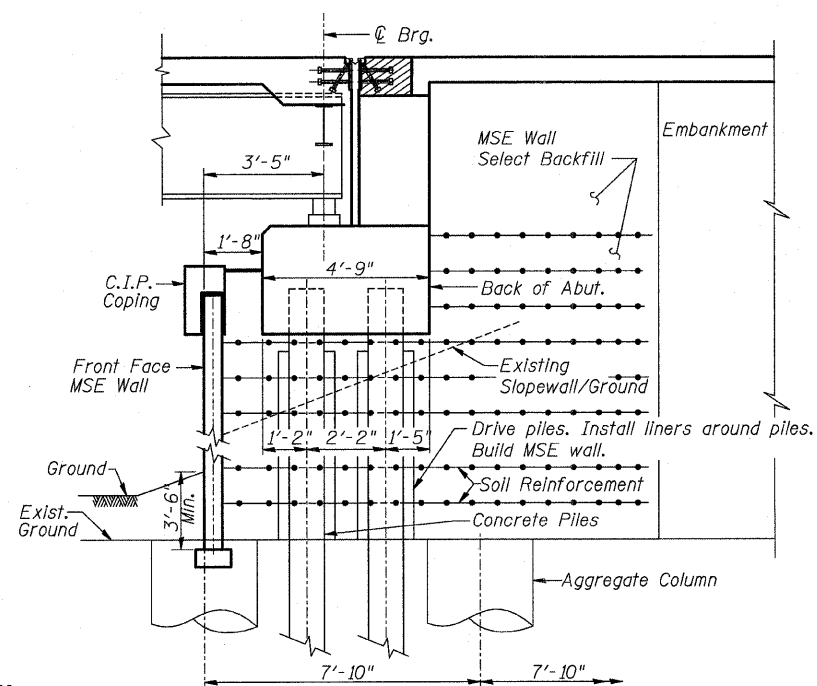
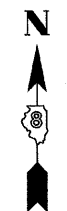
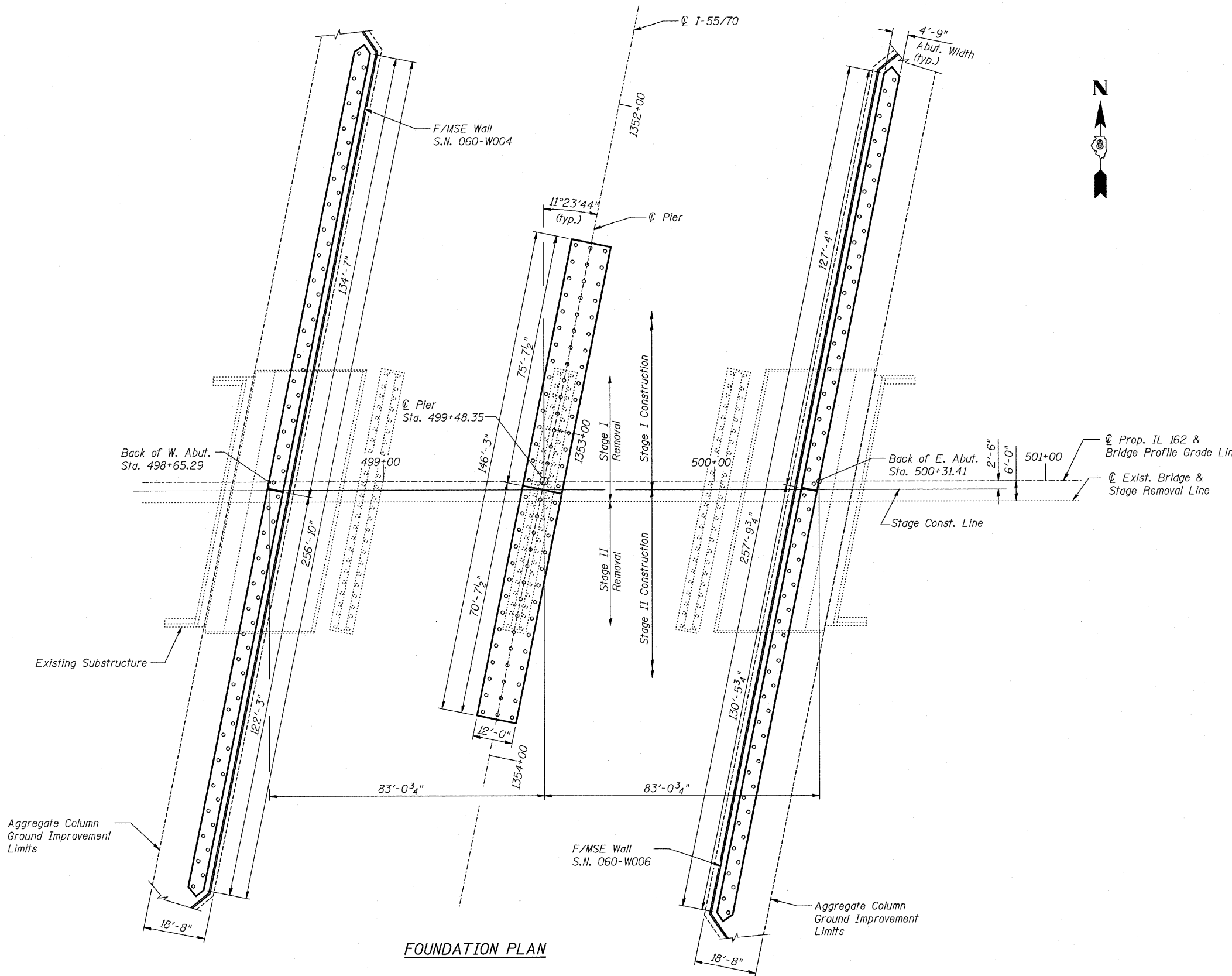
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

GENERAL NOTES, B.O.M., & INDEX OF SHEETS

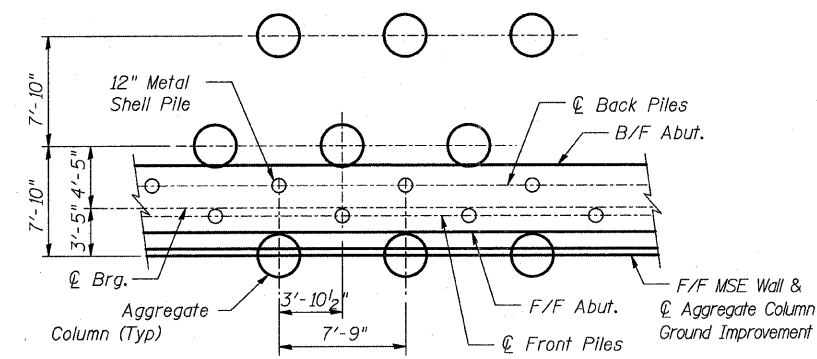
DESIGNED: BTO
DRAWN: BTO
DATE: 03/06
CHECKED: AWH
CHECKED: AWH

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	222
STA.	TO STA.			
	ILLINOIS		FED. AID PROJECT	

CONTRACT NO. 76709



SECTION AT ABUTMENT
(Dimensions @ Rt. L's)



TYPICAL AGGREGATE COLUMN GROUND IMPROVEMENT/PILE LAYOUT

Contractor shall alternate aggregate column and pile spacing as shown.

NOTES:

1. For Abutment pile layout, see Shts. S-53, S-54, S-56, & S-57.
2. For Pier Pile layout, see Shts. S-59 & S-60.
3. Details for Aggregate Column Ground Improvement and Mechanically Stabilized Earth (MSE) walls are shown on drawings for Structure No. 060-W004 and 060-W006.
4. Drill Aggregate Columns before driving piles.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

FOUNDATION PLAN

DESIGNED: BTO DRAWN: BTO
CHECKED: AWH CHECKED: AWH
DATE: 03/06

SHT. S-04 OF S-68



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1.60-10HB	MADISON	420	223	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

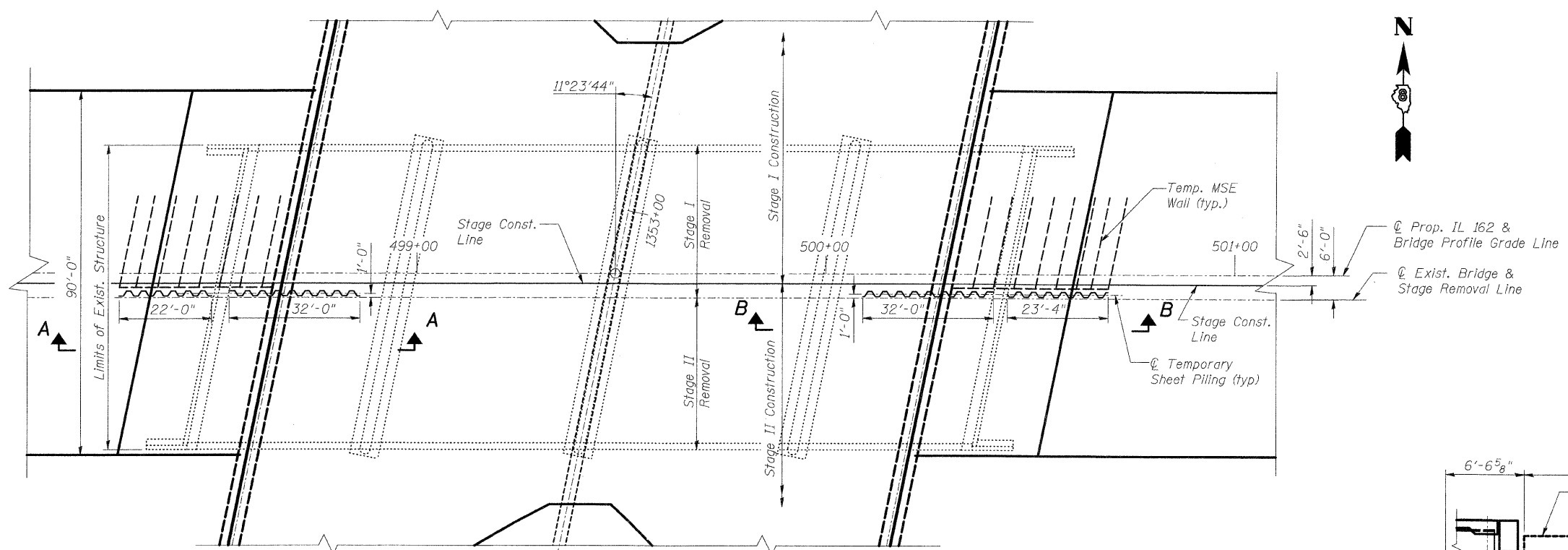
CONTRACT NO. 76709

BILL OF MATERIAL

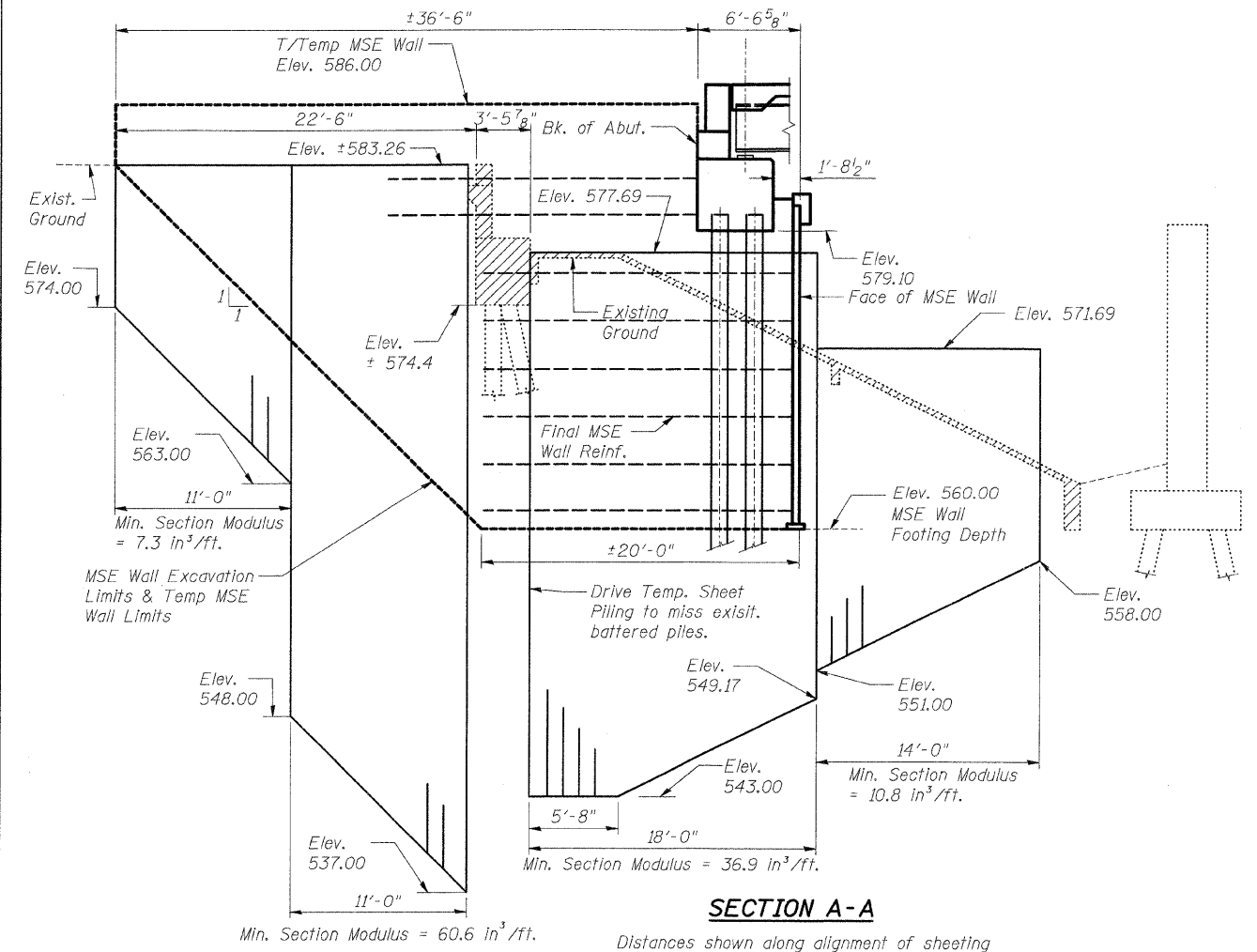
Item	Unit	Total
Temporary Sheet Piling	SQ FT	3000
Temporary Mechanically Stabilized Earth Wall	SQ FT	1600

NOTE:

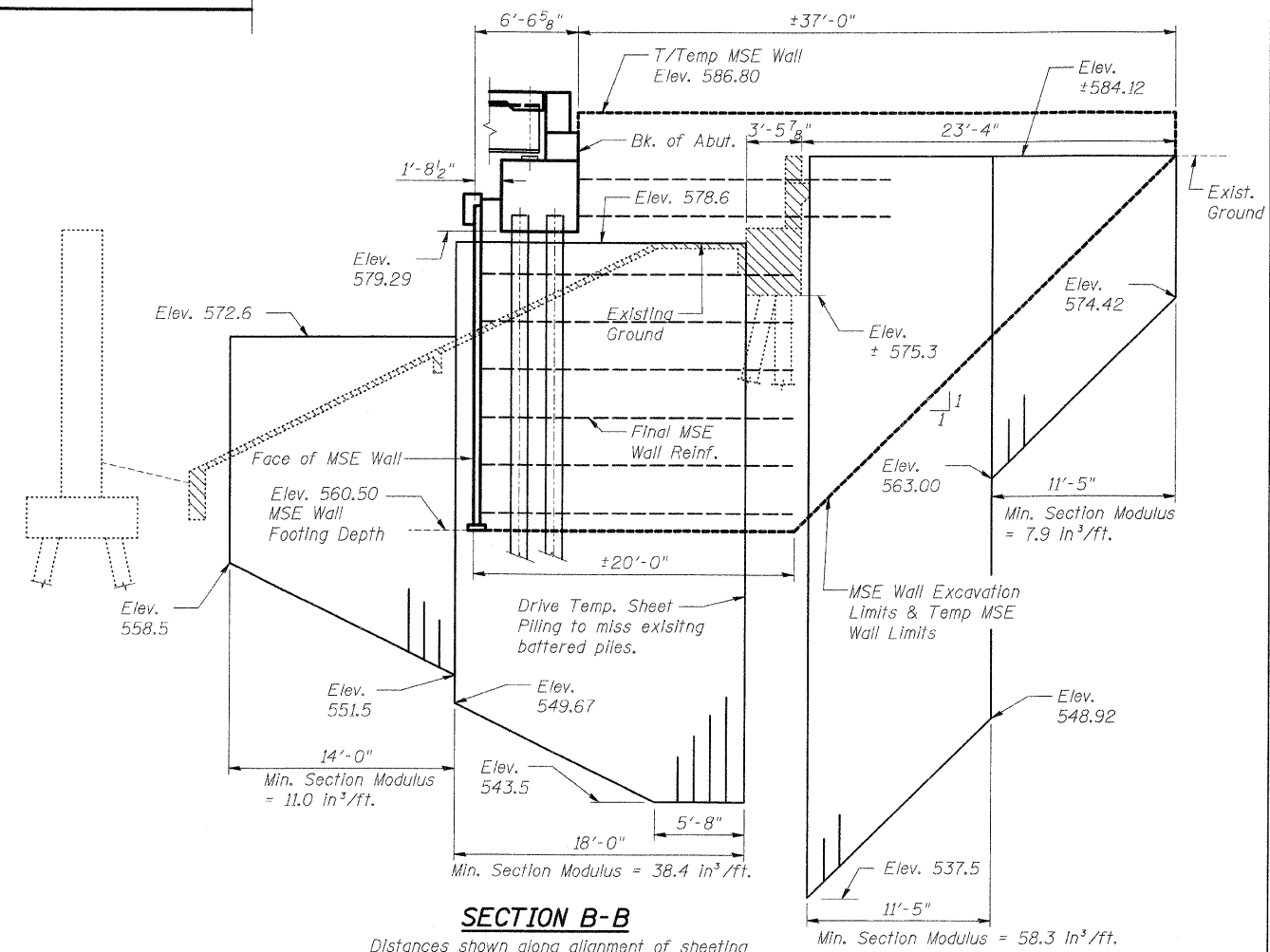
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the engineer.
- See civil drawings for roadway soil retainage requirements.



PLAN - TEMP. SHEET PILING & TEMP. MSE WALL



SECTION A-A



SECTION B-B

Distances shown along alignment of sheeting

REVISIONS	
NAME	DATE

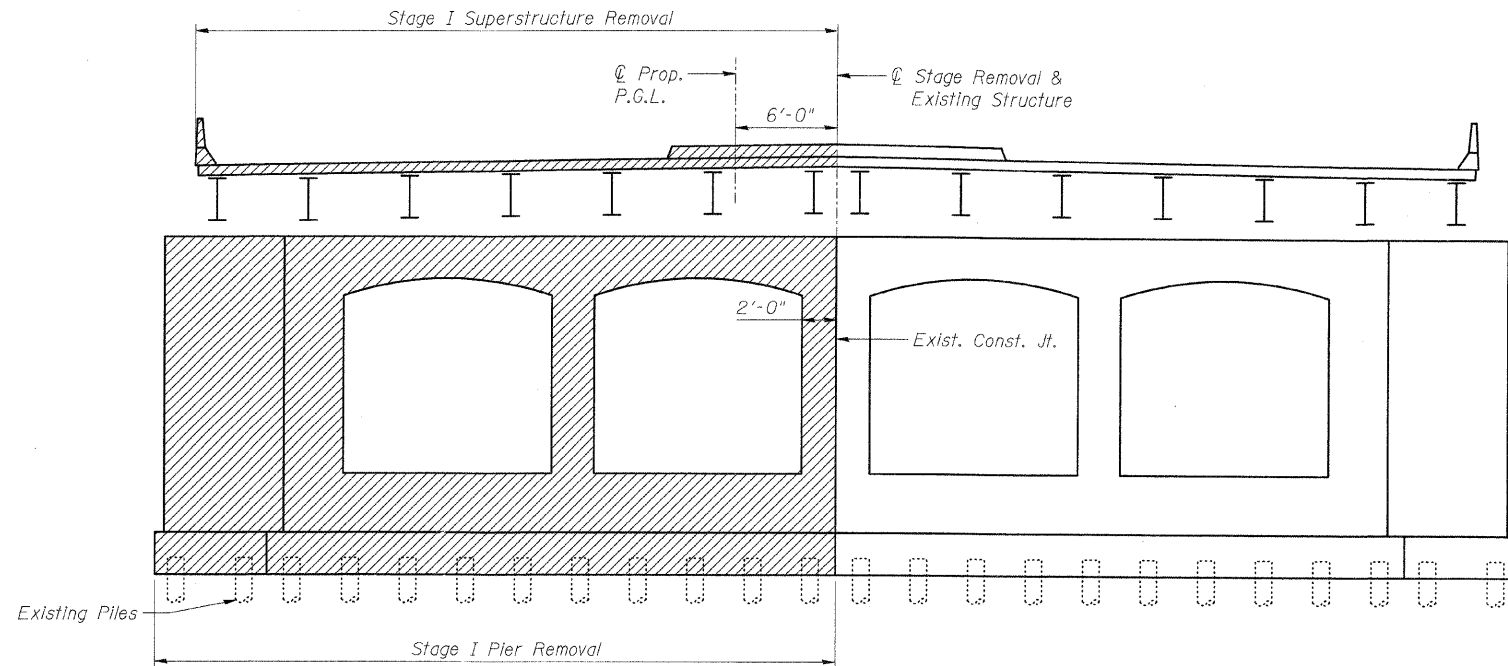
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
**TEMPORARY SHEET PILING
 & TEMPORARY MSE WALL**
 DESIGNED: BTO
 CHECKED: AWH
 DATE: 03/06
 DRAWN: BTO
 CHECKED: AWH

SHT. S-05 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-8015
 312/553-0655, FAX 312/553-0661

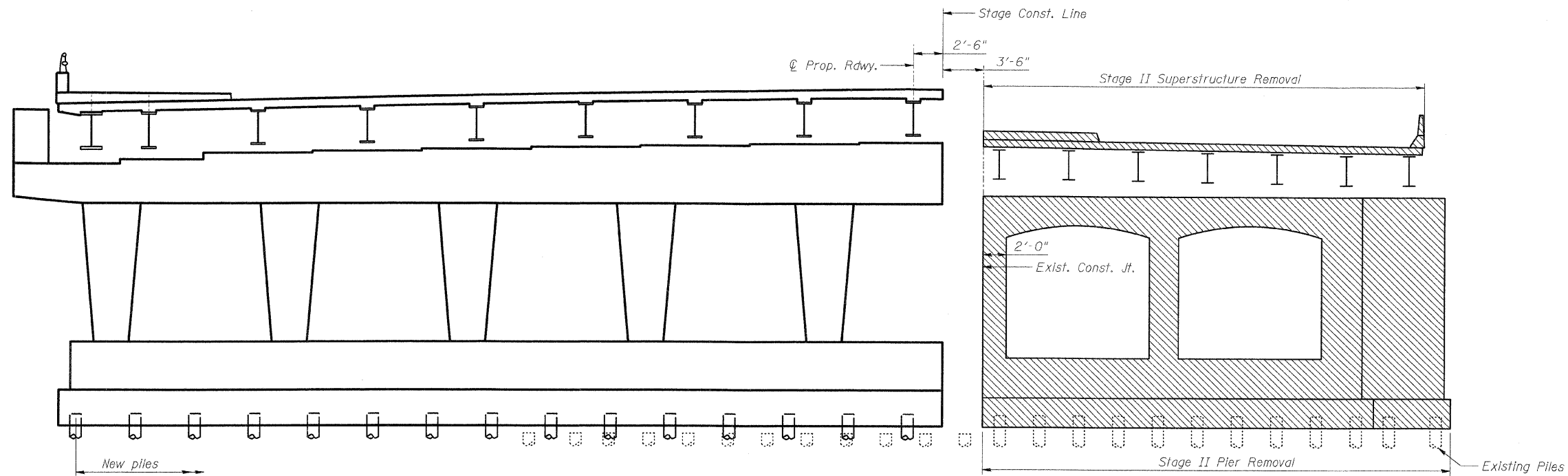
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	224
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



EXISTING CENTER PIER REMOVAL-STAGE I

(Looking East)



EXISTING CENTER PIER REMOVAL-STAGE II

(Looking East)

NOTE:

Removal of existing abutments similar. Existing timber piles at pier to be cut below proposed footing. Existing concrete piles at abutments to be removed to top of MSE wall footing.

SHT. S-06 OF S-68



REVISIONS	
NAME	DATE

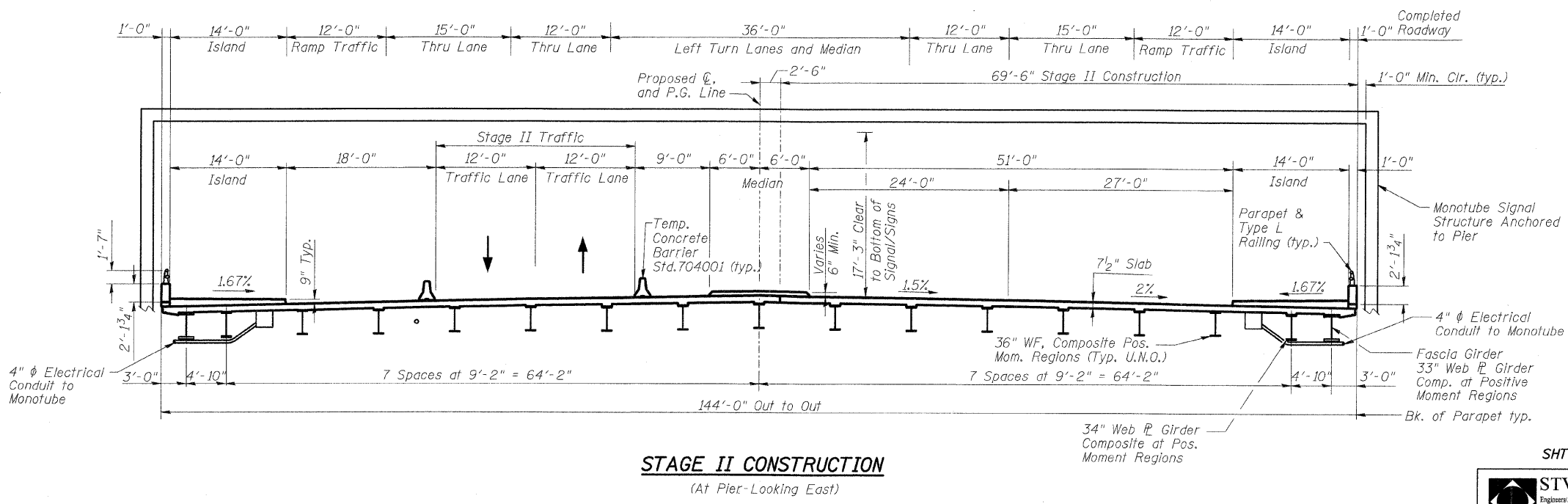
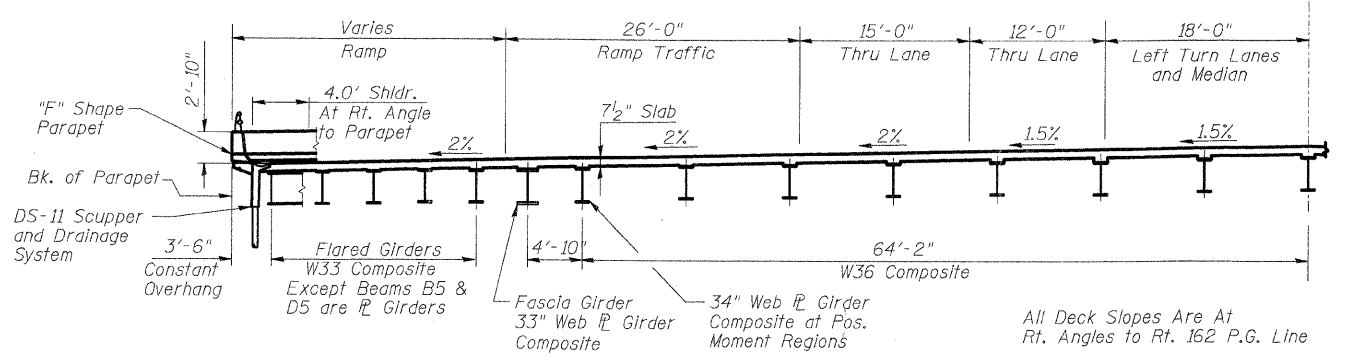
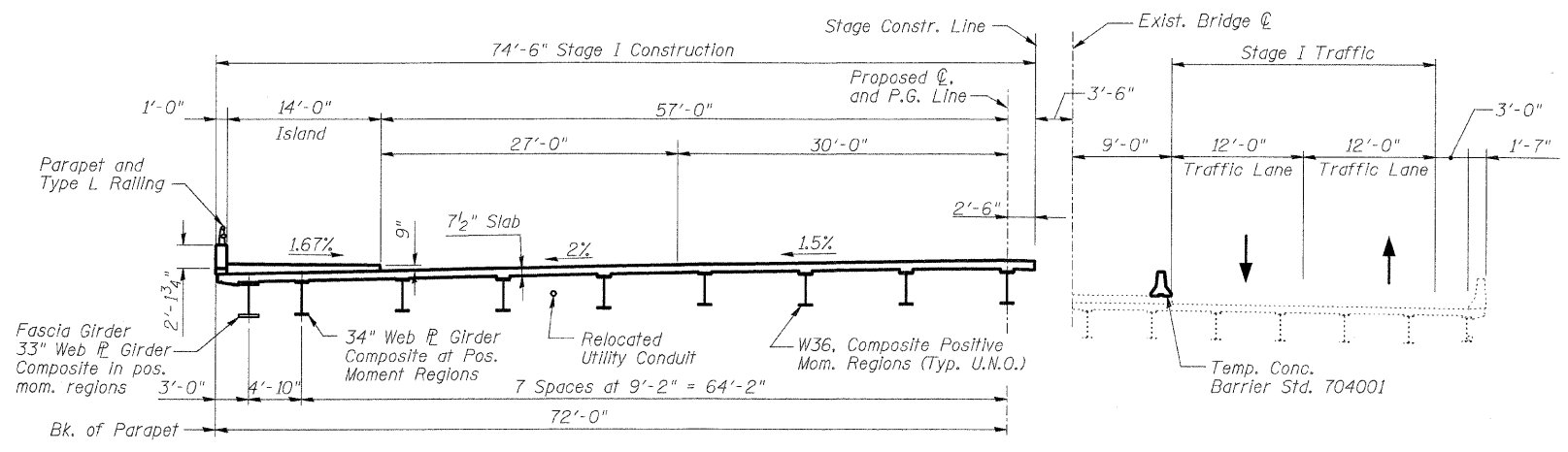
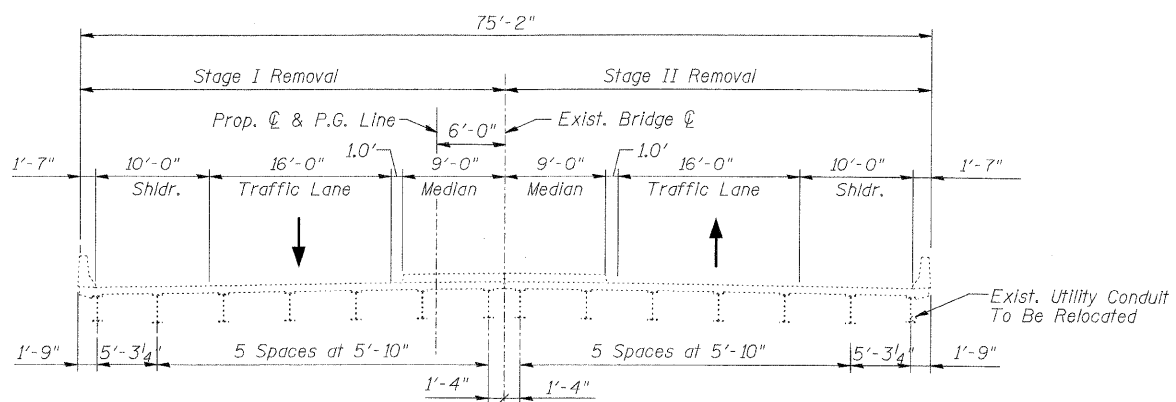
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

EXISTING STRUCTURE REMOVAL

DESIGNED: BTO DRAWN: BTO
 CHECKED: AWH CHECKED: AWH
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	225
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709



- NOTES:**
- See Sheet S-08 for Temporary Concrete Barrier.
 - See Roadway Plans for quantity of Temporary Concrete Barrier.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE TO SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

STAGE CONSTRUCTION DECK SECTIONS

DESIGNED: BTO
CHECKED: AWH

DRAWN: BTO
CHECKED: AWH

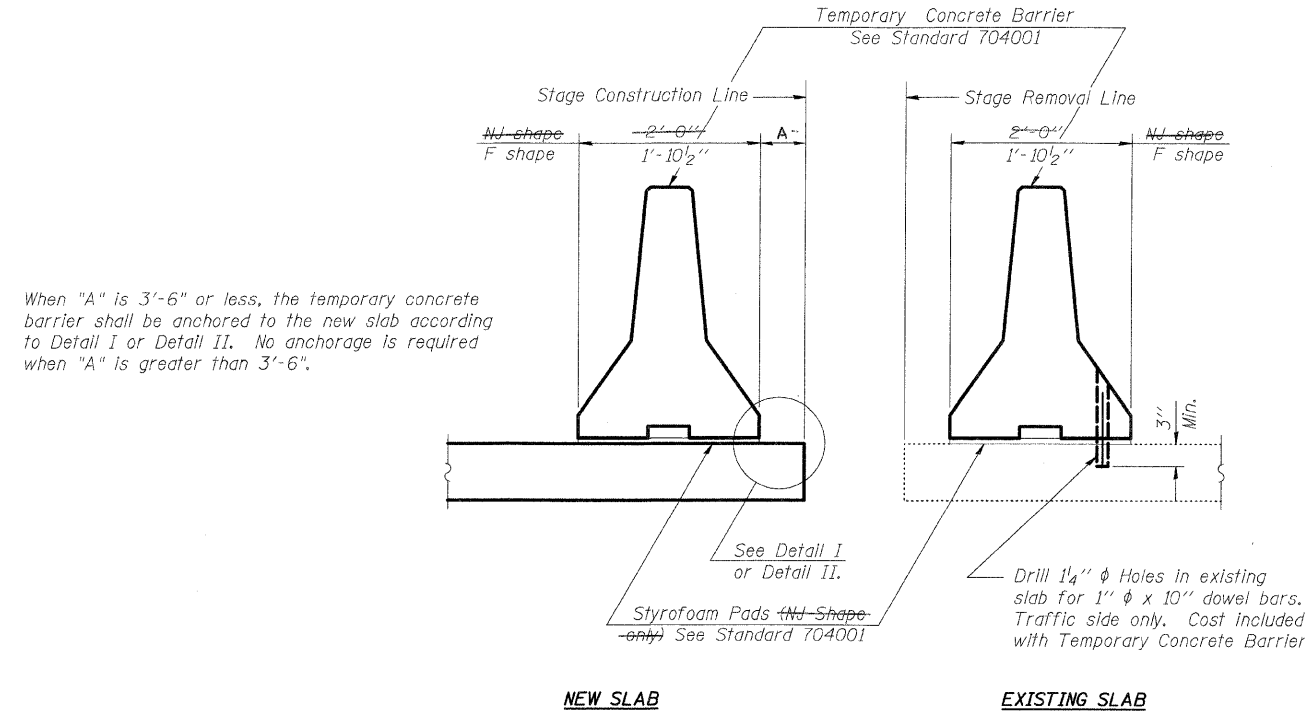
DATE: 03/06

SHT. S-07 OF S-68

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0653, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	226
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



SECTIONS THRU SLAB

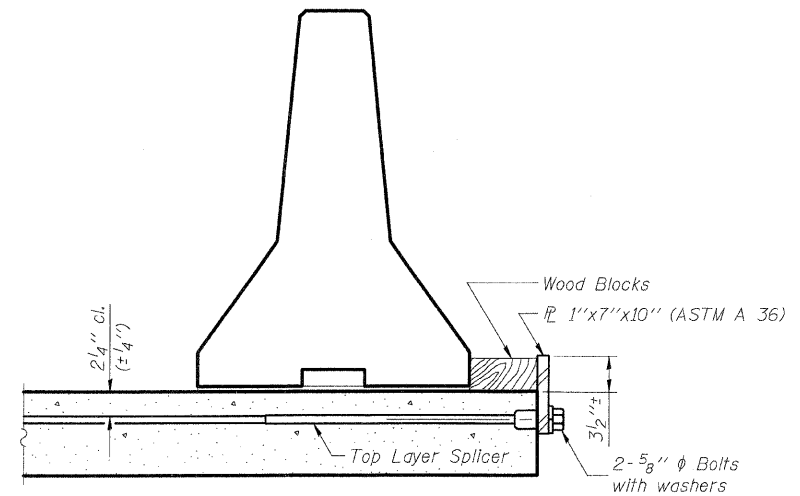
NOTES:

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab with 2-5/8" φ Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

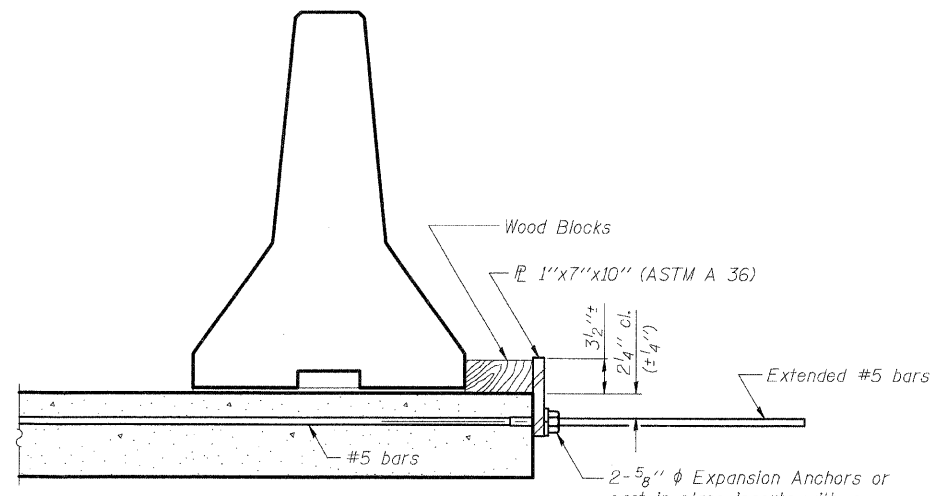
Cost of anchorage is included with Temporary Concrete Barrier.

See civil drawings for Quantity of Temporary Concrete Barrier.



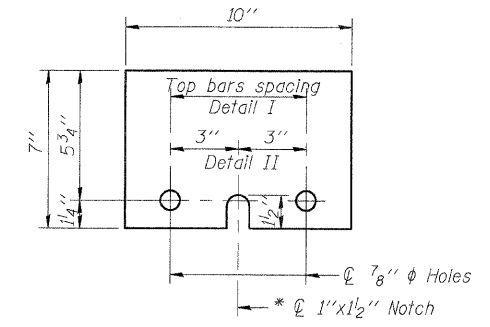
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



1"x7"x10"

* Required only with Detail II

R-27 9-01-03 (Notes Modified)

SHT. S-08 OF S-68



REVISIONS	
NAME	DATE

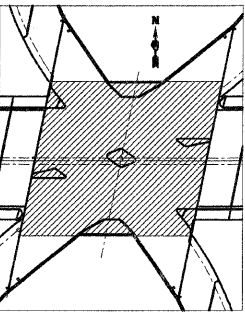
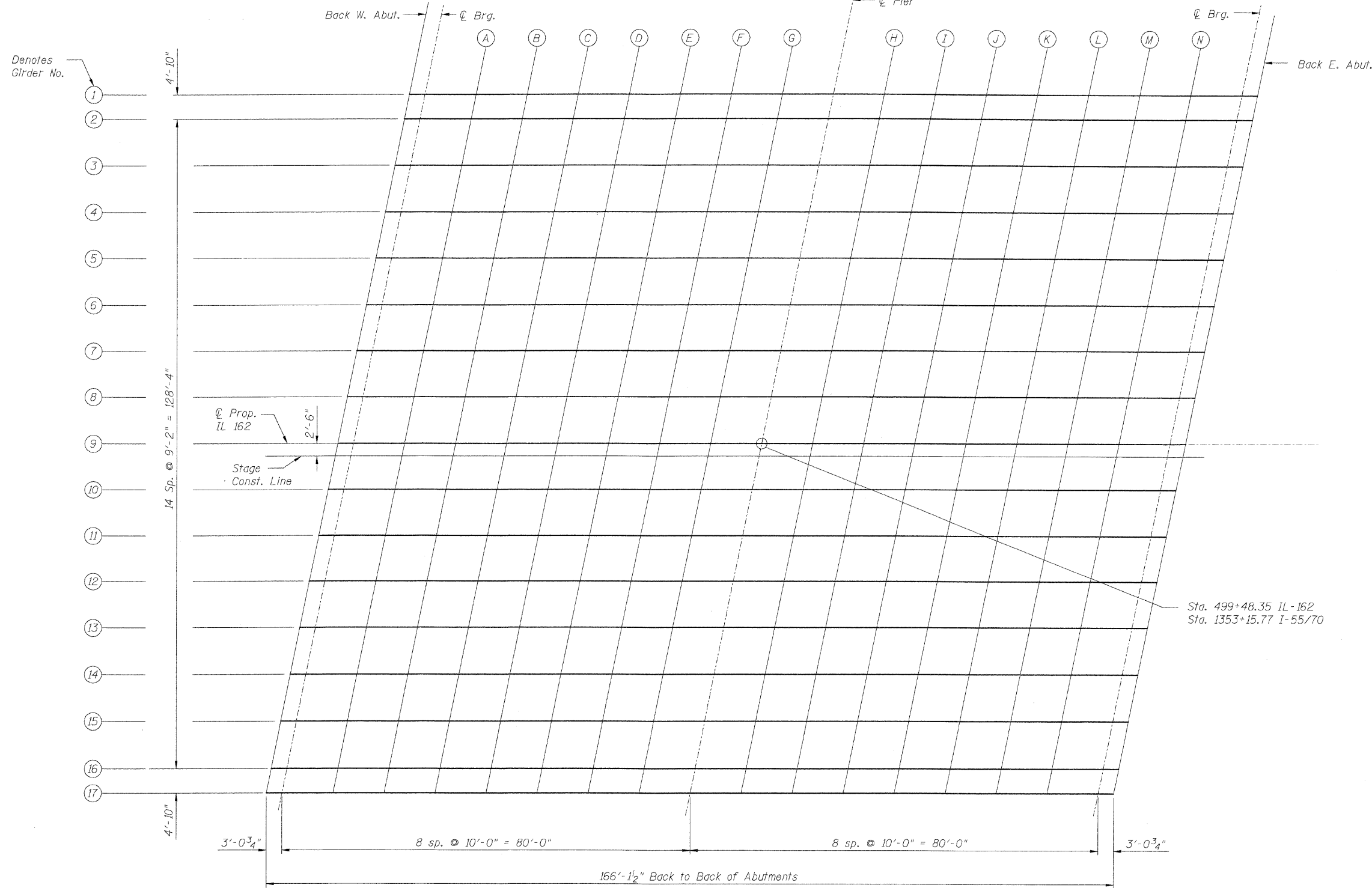
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

TEMPORARY CONCRETE BARRIER

DESIGNED: BTO DRAWN: BTO
DATE: 03/06 CHECKED: JAN CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	227
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709



KEY PLAN

SCREED PLAN

NOTE:
For additional information on top of deck elevations, see Shts. S-10 & S-11.

SHT. S-09 OF S-68

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

SCREENED PLAN - IL 162
DESIGNED: BTO DRAWN: BTO
CHECKED: JAN CHECKED: JAN
DATE: 03/06

Girder 1

Girder 2

Girder 3

Girder 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49879.195 49882.257	-69.000 -69.000	586.550 586.572	586.550 586.572
A	49892.257	-69.000	586.661	586.661
B	49902.257	-69.000	586.899	586.740
C	49912.257	-69.000	586.752	586.804
D	49922.257	-69.000	586.798	586.850
E	49932.257	-69.000	586.837	586.879
F	49942.257	-69.000	586.869	586.895
G	49952.257	-69.000	586.914	586.903
€ Pier	49962.257	-69.000	586.912	586.912
H	49972.257	-69.000	586.923	586.932
I	49982.257	-69.000	586.927	586.953
J	49992.257	-69.000	586.924	586.966
K	50002.257	-69.000	586.914	586.986
L	50012.257	-69.000	586.897	586.949
M	50022.257	-69.000	586.873	586.915
N	50032.257	-69.000	586.842	586.865
€ E. Abut. Brg. & E. Abut.	50042.257 50045.320	-69.000 -69.000	586.804 586.791	586.804 586.791

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49878.221 49881.283	-64.167 -64.167	586.639 586.661	586.639 586.661
A	49891.283	-64.167	586.729	586.760
B	49901.283	-64.167	586.790	586.842
C	49911.283	-64.167	586.844	586.904
D	49921.283	-64.167	586.890	586.947
E	49931.283	-64.167	586.930	586.974
F	49941.283	-64.167	586.963	586.989
G	49951.283	-64.167	586.988	586.997
€ Pier	49961.283	-64.167	587.007	587.007
H	49971.283	-64.167	587.019	587.027
I	49981.283	-64.167	587.023	587.049
J	49991.283	-64.167	587.021	587.065
K	50001.283	-64.167	587.012	587.069
L	50011.283	-64.167	586.996	587.056
M	50021.283	-64.167	586.972	587.024
N	50031.283	-64.167	586.942	587.023
€ E. Abut. Brg. & E. Abut.	50041.283 50044.346	-64.167 -64.167	586.905 586.892	586.905 586.892

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49876.374 49879.436	-55.000 -55.000	586.809 586.832	586.809 586.832
A	49889.436	-55.000	586.901	586.941
B	49899.436	-55.000	586.963	587.035
C	49909.436	-55.000	587.018	587.108
D	49919.436	-55.000	587.066	587.154
E	49929.436	-55.000	587.107	587.177
F	49939.436	-55.000	587.140	587.182
G	49949.436	-55.000	587.167	587.181
€ Pier	49959.436	-55.000	587.187	587.187
H	49969.436	-55.000	587.200	587.214
I	49979.436	-55.000	587.206	587.248
J	49989.436	-55.000	587.205	587.276
K	49999.436	-55.000	587.197	587.286
L	50009.436	-55.000	587.182	587.272
M	50019.436	-55.000	587.161	587.233
N	50029.436	-55.000	587.132	587.172
€ E. Abut. Brg. & E. Abut.	50039.436 50042.499	-55.000 -55.000	587.096 587.083	587.096 587.083

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49874.526 49877.588	-45.833 -45.833	586.979 587.002	586.979 587.002
A	49887.588	-45.833	587.072	587.112
B	49897.588	-45.833	587.135	587.208
C	49907.588	-45.833	587.191	587.281
D	49917.588	-45.833	587.241	587.329
E	49927.588	-45.833	587.283	587.353
F	49937.588	-45.833	587.318	587.360
G	49947.588	-45.833	587.346	587.360
€ Pier	49957.588	-45.833	587.368	587.368
H	49967.588	-45.833	587.382	587.395
I	49977.588	-45.833	587.389	587.431
J	49987.588	-45.833	587.390	587.460
K	49997.588	-45.833	587.383	587.471
L	50007.588	-45.833	587.372	587.459
M	50017.588	-45.833	587.349	587.421
N	50027.588	-45.833	587.321	587.361
€ E. Abut. Brg. & E. Abut.	50037.588 50040.651	-45.833 -45.833	587.286 587.274	587.286 587.274

Girder 5

Girder 6

Girder 7

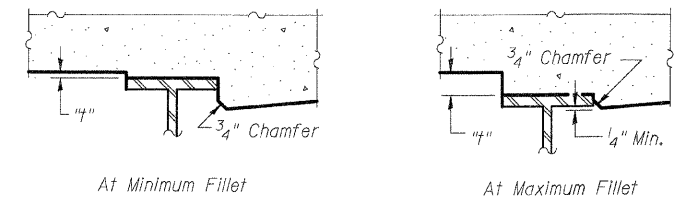
Girder 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49872.678 49875.740	-36.667 -36.667	587.148 587.171	587.148 587.171
A	49885.740	-36.667	587.243	587.283
B	49895.740	-36.667	587.307	587.380
C	49905.740	-36.667	587.365	587.455
D	49915.740	-36.667	587.415	587.504
E	49925.740	-36.667	587.459	587.529
F	49935.740	-36.667	587.496	587.537
G	49945.740	-36.667	587.525	587.538
€ Pier	49955.740	-36.667	587.548	587.548
H	49965.740	-36.667	587.563	587.576
I	49975.740	-36.667	587.572	587.614
J	49985.740	-36.667	587.573	587.644
K	49995.740	-36.667	587.568	587.657
L	50005.740	-36.667	587.556	587.646
M	50015.740	-36.667	587.536	587.609
N	50025.740	-36.667	587.510	587.550
€ E. Abut. Brg. & E. Abut.	50035.740 50038.803	-36.667 -36.667	587.477 587.465	587.477 587.465

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49870.831 49873.893	-27.500 -27.500	587.304 587.328	587.304 587.328
A	49883.893	-27.500	587.401	587.441
B	49893.893	-27.500	587.467	587.540
C	49903.893	-27.500	587.526	587.616
D	49913.893	-27.500	587.578	587.666
E	49923.893	-27.500	587.622	587.693
F	49933.893	-27.500	587.660	587.702
G	49943.893	-27.500	587.691	587.704
€ Pier	49953.893	-27.500	587.715	587.715
H	49963.893	-27.500	587.732	587.745
I	49973.893	-27.500	587.742	587.783
J	49983.893	-27.500	587.745	587.815
K	49993.893	-27.500	587.741	587.829
L	50003.893	-27.500	587.729	587.819
M	50013.893	-27.500	587.711	587.784
N	50023.893	-27.500	587.686	587.727
€ E. Abut. Brg. & E. Abut.	50033.893 50036.956	-27.500 -27.500	587.654 587.643	587.654 587.643

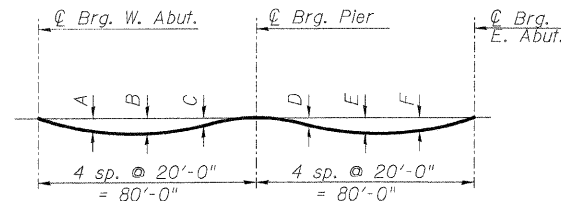
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49868.983 49872.045	-18.333 -18.333	587.427 587.451	587.427 587.451
A	49882.045	-18.333	587.526	587.566
B	49892.045	-18.333	587.593	587.666
C	49902.045	-18.333	587.653	587.743
D	49912.045	-18.333	587.706	587.795
E	49922.045	-18.333	587.752	587.823
F	49932.045	-18.333	587.791	587.833
G	49942.045	-18.333	587.823	587.837
€ Pier	49952.045	-18.333	587.849	587.849
H	49962.045	-18.333	587.867	587.880
I	49972.045	-18.333	587.876	587.920
J	49982.045	-18.333	587.882	587.953
K	49992.045	-18.333	587.879	587.966
L	50002.045	-18.333	587.869	587.959
M	50012.045	-18.333	587.853	587.926
N	50022.045	-18.333	587.829	587.869
€ E. Abut. Brg. & E. Abut.	50032.045 50035.108	-18.333 -18.333	587.798 587.787	587.798 587.787

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49867.136 49870.198	-9.167 -9.167	587.550 587.574	587.550 587.574
A	49880.198	-9.167	587.650	587.690
B	49890.198	-9.167	587.718	587.791
C	49900.198	-9.167	587.780	587.870
D	49910.198	-9.167	587.834	587.923
E	49920.198	-9.167	587.882	587.952
F	49930.198	-9.167	587.922	587.964
G	49940.198	-9.167	587.956	587.969
€ Pier	49950.198	-9.167	587.982	587.982
H	49960.198	-9.167	588.001	588.015
I	49970.198	-9.167	588.014	588.056
J	49980.198	-9.167	588.019	588.090
K	49990.198	-9.167	588.018	588.106
L	50000.198	-9.167	588.009	588.099
M	50010.198	-9.167	587.994	588.067
N	50020.198	-9.167	587.971	588.012
€ E. Abut. Brg. & E. Abut.	50030.198 50033.261	-9.167 -9.167	587.942 587.931	587.942 587.931



To determine fillet height "4", measure elevations at intervals as shown after all steel has been erected. Add this number to the slab thickness and subtract the sum from the "Theoretical Grade Elev. Adjusted for Dead Load Deflection." This equals the fillet height above the girders.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

GIRDER	A	B	C	D	E	F
1/17	1/2"	5/8"	5/16"	5/16"	5/8"	1/2"
2/16	5/8"	1/16"	5/16"	5/16"	1/16"	5/8"
3-15	7/8"	1/16"	1/2"	1/2"	1/16"	7/8"

NOTE:

See Sheet S-09 for Screenshot.

REVISIONS	
NAME	DATE

Girder 9 & C Prop. Rdwy.

Stage Const. Line

Girder 10

Girder 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49865.288 49868.350	0.000 0.000	587.672 587.697	587.672 587.697
A	49878.350	0.000	587.774	587.814
B	49888.350	0.000	587.844	587.917
C	49898.350	0.000	587.906	587.996
D	49908.350	0.000	588.051	588.051
E	49918.350	0.000	588.011	588.081
F	49928.350	0.000	588.094	588.094
G	49938.350	0.000	588.087	588.100
C Pier	49948.350	0.000	588.115	588.115
H	49958.350	0.000	588.136	588.149
I	49968.350	0.000	588.150	588.191
J	49978.350	0.000	588.156	588.227
K	49988.350	0.000	588.156	588.245
L	49998.350	0.000	588.149	588.239
M	50008.350	0.000	588.135	588.208
N	50018.350	0.000	588.113	588.154
C E. Abut. Brg. & Back E. Abut.	50028.350 50031.413	0.000 0.000	588.085 588.075	588.085 588.075

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49864.784 49867.846	2.500 2.500	587.631 587.656	587.631 587.656
A	49877.846	2.500	587.733	587.773
B	49887.846	2.500	587.803	587.876
C	49897.846	2.500	587.866	587.956
D	49907.846	2.500	587.922	588.011
E	49917.846	2.500	587.971	588.042
F	49927.846	2.500	588.013	588.055
G	49937.846	2.500	588.048	588.061
C Pier	49947.846	2.500	588.076	588.076
H	49957.846	2.500	588.097	588.111
I	49967.846	2.500	588.112	588.153
J	49977.846	2.500	588.119	588.189
K	49987.846	2.500	588.119	588.207
L	49997.846	2.500	588.112	588.202
M	50007.846	2.500	588.098	588.171
N	50017.846	2.500	588.077	588.118
C E. Abut. Brg. & Back E. Abut.	50027.846 50030.909	2.500 2.500	588.049 588.039	588.049 588.039

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49863.440 49866.502	9.167 9.167	587.520 587.545	587.520 587.545
A	49876.502	9.167	587.623	587.663
B	49886.502	9.167	587.694	587.767
C	49896.502	9.167	587.758	587.848
D	49906.502	9.167	587.815	587.903
E	49916.502	9.167	587.865	587.935
F	49926.502	9.167	587.908	587.950
G	49936.502	9.167	587.944	587.957
C Pier	49946.502	9.167	587.973	587.973
H	49956.502	9.167	587.995	588.008
I	49966.502	9.167	588.010	588.052
J	49976.502	9.167	588.018	588.089
K	49986.502	9.167	588.019	588.108
L	49996.502	9.167	588.013	588.103
M	50006.502	9.167	588.000	588.073
N	50016.502	9.167	587.980	588.021
C E. Abut. Brg. & Back E. Abut.	50026.502 50029.565	9.167 9.167	587.954 587.944	587.954 587.944

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49861.593 49864.655	18.333 18.333	587.366 587.392	587.366 587.392
A	49874.655	18.333	587.471	587.512
B	49884.655	18.333	587.544	587.617
C	49894.655	18.333	587.609	587.699
D	49904.655	18.333	587.667	587.756
E	49914.655	18.333	587.719	587.789
F	49924.655	18.333	587.763	587.805
G	49934.655	18.333	587.800	587.813
C Pier	49944.655	18.333	587.831	587.831
H	49954.655	18.333	587.854	587.867
I	49964.655	18.333	587.870	587.912
J	49974.655	18.333	587.880	587.950
K	49984.655	18.333	587.882	587.971
L	49994.655	18.333	587.877	587.967
M	50004.655	18.333	587.865	587.939
N	50014.655	18.333	587.847	587.888
C E. Abut. Brg. & Back E. Abut.	50024.655 50027.718	18.333 18.333	587.822 587.812	587.822 587.812

Girder 12

Girder 13

Girder 14

Girder 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49859.745 49862.807	27.500 27.500	587.213 587.239	587.213 587.239
A	49872.807	27.500	587.320	587.360
B	49882.807	27.500	587.393	587.466
C	49892.807	27.500	587.450	587.550
D	49902.807	27.500	587.520	587.608
E	49912.807	27.500	587.572	587.643
F	49922.807	27.500	587.618	587.660
G	49932.807	27.500	587.656	587.670
C Pier	49942.807	27.500	587.688	587.688
H	49952.807	27.500	587.713	587.726
I	49962.807	27.500	587.730	587.772
J	49972.807	27.500	587.741	587.811
K	49982.807	27.500	587.745	587.833
L	49992.807	27.500	587.741	587.831
M	50002.807	27.500	587.731	587.804
N	50012.807	27.500	587.714	587.754
C E. Abut. Brg. & Back E. Abut.	50022.807 50025.870	27.500 27.500	587.689 587.680	587.689 587.680

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49857.898 49860.960	36.667 36.667	587.026 587.053	587.026 587.053
A	49870.960	36.667	587.135	587.175
B	49880.960	36.667	587.209	587.282
C	49890.960	36.667	587.277	587.367
D	49900.960	36.667	587.338	587.427
E	49910.960	36.667	587.392	587.463
F	49920.960	36.667	587.439	587.481
G	49930.960	36.667	587.479	587.492
C Pier	49940.960	36.667	587.512	587.512
H	49950.960	36.667	587.538	587.551
I	49960.960	36.667	587.557	587.598
J	49970.960	36.667	587.569	587.639
K	49980.960	36.667	587.574	587.662
L	49990.960	36.667	587.572	587.662
M	50000.960	36.667	587.562	587.635
N	50010.960	36.667	587.546	587.587
C E. Abut. Brg. & Back E. Abut.	50020.960 50024.023	36.667 36.667	587.523 587.515	587.523 587.515

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49856.050 49859.112	45.833 45.833	586.826 586.853	586.826 586.853
A	49869.112	45.833	586.937	586.977
B	49879.112	45.833	587.013	587.086
C	49889.112	45.833	587.082	587.172
D	49899.112	45.833	587.144	587.233
E	49909.112	45.833	587.199	587.270
F	49919.112	45.833	587.248	587.289
G	49929.112	45.833	587.289	587.302
C Pier	49939.112	45.833	587.323	587.323
H	49949.112	45.833	587.350	587.363
I	49959.112	45.833	587.370	587.412
J	49969.112	45.833	587.384	587.454
K	49979.112	45.833	587.390	587.478
L	49989.112	45.833	587.389	587.479
M	49999.112	45.833	587.381	587.454
N	50009.112	45.833	587.367	587.407
C E. Abut. Brg. & Back E. Abut.	50019.112 50022.175	45.833 45.833	587.345 587.337	587.345 587.337

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49854.202 49857.264	55.000 55.000	586.627 586.654	586.627 586.654
A	49867.264	55.000	586.738	586.779
B	49877.264	55.000	586.816	586.889
C	49887.264	55.000	586.886	586.976
D	49897.264	55.000	586.950	587.038
E	49907.264	55.000	587.006	587.077
F	49917.264	55.000	587.056	587.097
G	49927.264	55.000	587.098	587.111
C Pier	49937.264	55.000	587.134	587.134
H	49947.264	55.000	587.162	587.175
I	49957.264	55.000	587.184	587.225
J	49967.264	55.000	587.198	587.269
K	49977.264	55.000	587.206	587.254
L	49987.264	55.000	587.206	587.256
M	49997.264	55.000	587.200	587.273
N	50007.264	55.000	587.186	587.227
C E. Abut. Brg. & Back E. Abut.	50017.264 50020.327	55.000 55.000	587.166 587.158	587.166 587.158

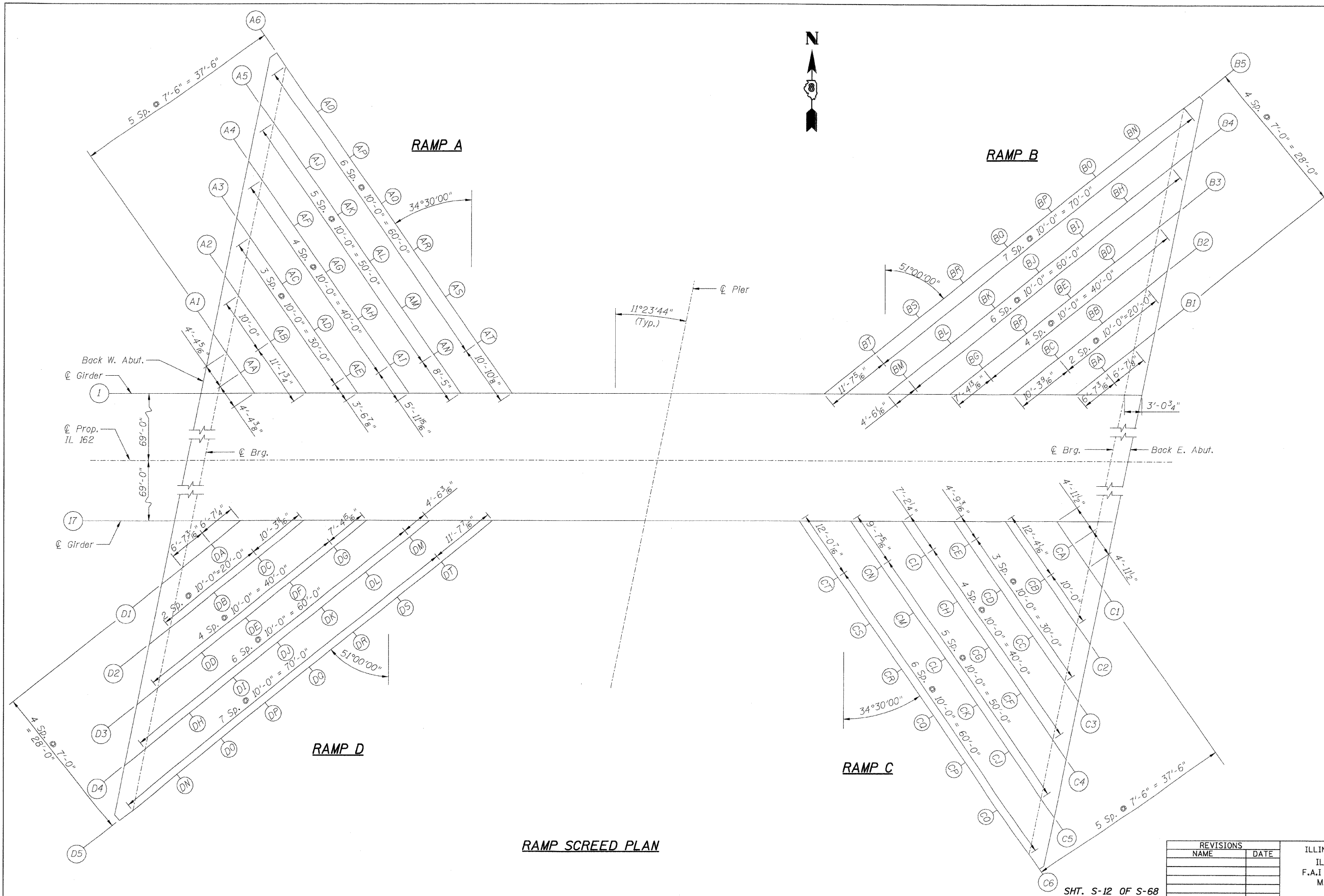
Girder 16

Girder 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut. & W. Abut. Brg.	49852.355 49855.417	64.167 64.167	586.426 586.454	586.426 586.454
A	49865.417	64.167	586.540	586.571
B	49875.417	64.167	586.619	586.671
C	49885.417	64.167	586.690	586.751
D	49895.417	64.167	586.755	586.812
E	49905.417	64.167	586.813	586.857
F	49915.417	64.167	586.864	586.890
G	49925.417	64.167	586.907	586.916
C Pier	49935.417	64.167	586.944	586.944
H	49945.417	64.167	586.974	586.983
I	49955.417	64.167	586.997	587.023
J	49965.417	64.167	587.013	587.057
K	49975.417	64.167	587.02	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	230
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



RAMP SCREED PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

SCREEN PLAN-RAMPS A THRU D

DESIGNED: BTO
 CHECKED: JAN
 DATE: 03/06

DRAWN: BTO
 CHECKED: JAN

SHT. S-12 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/233-0653, FAX 312/253-0661

GIRDER A6

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49892.18	0	585.417	585.417
⊕ W. Brg.	49894.02	0	585.482	585.482
AO	49899.69	0	585.681	586.412
AP	49905.35	0	585.878	587.240
AQ	49911.02	0	586.072	587.729
AR	49916.68	0	586.265	587.946
AS	49922.34	0	586.455	587.841
AT	49928.01	0	586.642	587.435
⊕ Girder 1	49934.15	0	586.843	586.843

GIRDER B5

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50055.34	0	585.673	585.673
⊕ E. Brg.	50052.61	0	585.731	585.731
BN	50044.84	0	585.892	586.497
BO	50037.07	0	586.050	587.258
BP	50029.29	0	586.203	587.670
BO	50021.52	0	586.352	588.062
BR	50013.75	0	586.496	588.002
BS	50005.98	0	586.637	587.899
BT	49998.21	0	586.773	587.475
⊕ Girder 1	49989.19	0	586.926	586.926

GIRDER A5

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49887.63	0	585.577	585.577
⊕ W. Brg.	49891.96	0	585.674	585.674
AJ	49897.62	0	585.874	586.448
AK	49903.29	0	586.071	587.036
AL	49908.95	0	586.267	587.426
AM	49914.62	0	586.460	587.387
AN	49920.28	0	586.651	587.134
⊕ Girder 1	49925.05	0	586.809	586.809

GIRDER B4

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50054.10	0	585.880	585.880
⊕ E. Brg.	50050.44	0	585.956	585.956
BH	50042.67	0	586.117	586.599
BI	50034.90	0	586.273	587.125
BJ	50027.12	0	586.425	587.472
BK	50019.35	0	586.573	587.513
BL	50011.58	0	586.716	587.415
BM	50003.81	0	586.855	587.072
⊕ Girder 1	50000.31	0	586.917	586.917

GIRDER A4

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49885.57	0	585.768	585.768
⊕ W. Brg.	49889.90	0	585.865	585.865
AF	49895.56	0	586.066	586.353
AG	49901.23	0	586.264	586.693
AH	49906.89	0	586.461	586.843
AI	49912.55	0	586.654	586.826
⊕ Girder 1	49918.21	0	586.851	586.851

GIRDER B3

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50051.93	0	586.105	586.105
⊕ E. Brg.	50048.27	0	586.182	586.182
BD	50040.50	0	586.341	586.606
BE	50032.73	0	586.496	586.897
BF	50024.96	0	586.647	587.020
BG	50017.18	0	586.793	586.989
⊕ Girder 1	50011.43	0	586.899	586.899

GIRDER A3

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49883.50	0	585.958	585.958
⊕ W. Brg.	49887.83	0	586.057	586.057
AC	49893.50	0	586.258	586.363
AD	49899.16	0	586.457	586.578
AE	49904.83	0	586.654	586.695
⊕ Girder 1	49906.85	0	586.724	586.724

GIRDER B2

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50049.76	0	586.331	586.331
⊕ E. Brg.	50046.10	0	586.407	586.407
BB	50038.33	0	586.565	586.624
BC	50030.56	0	586.719	586.778
⊕ Girder 1	50022.56	0	586.873	586.873

GIRDER A2

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49881.44	0	586.148	586.148
⊕ W. Brg.	49885.77	0	586.247	586.247
AB	49891.43	0	586.450	586.472
⊕ Girder 1	49897.75	0	586.673	586.673

GIRDER B1

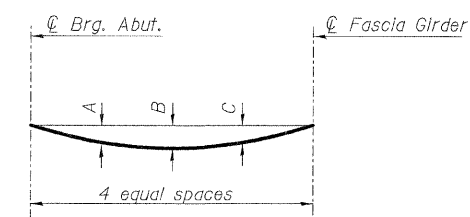
LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50047.59	0	586.556	586.556
⊕ E. Brg.	50043.93	0	586.632	586.632
BA	50038.80	0	586.735	586.738
⊕ Girder 1	50033.68	0	586.838	586.838

GIRDER A1

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49879.38	0	586.338	586.338
⊕ W. Brg.	49883.71	0	586.438	586.438
AA	49886.18	0	586.527	586.528
⊕ Girder 1	49888.65	0	586.615	586.615

GIRDER	LOCATION		
	A	B	C
A1	0.001	0.001	0.001
A2	0.017	0.023	0.017
A3	0.097	0.136	0.097
A4	0.330	0.463	0.330
A5	0.839	1.178	0.839
A6	1.294	1.817	1.294
B1	0.002	0.003	0.002
B2	0.052	0.073	0.052
B3	0.314	0.440	0.314
B4	0.777	1.091	0.777
B5	1.233	1.73	1.233

(Deflections are in inches)



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

NOTE:

See Sht. S-12 for ramp screed plan.
For ramp beams, screed points are not offset, but are along beam ⊕.

SHT. S-13 OF S-68



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

RAMPS A&B DECK ELEVATIONS

DESIGNED: BTO DRAWN: BTO
CHECKED: JAN CHECKED: JAN

DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1.60-10HB	MADISON	420	232
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

GIRDER C6

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50004.31	0	585.670	585.670
⊕ E. Brg.	50002.48	0	585.727	585.727
CO	49996.81	0	585.898	586.617
CP	49991.15	0	586.067	587.419
CO	49985.48	0	586.234	587.876
CR	49979.82	0	586.399	588.100
CS	49974.16	0	586.561	587.972
CT	49968.49	0	586.721	587.586
⊕ Girder 17	49961.68	0	586.911	586.911

GIRDER D5

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49841.35	0	585.153	585.153
⊕ W. Brg.	49844.09	0	585.224	585.224
DN	49851.86	0	585.424	586.028
DO	49859.63	0	585.619	586.827
DP	49867.40	0	585.810	587.276
DO	49875.18	0	585.996	587.706
DR	49882.95	0	586.179	587.685
DS	49890.72	0	586.357	587.619
DT	49898.49	0	586.531	587.233
⊕ Girder 17	49907.52	0	586.728	586.728

GIRDER C5

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50006.91	0	585.856	585.856
⊕ E. Brg.	50004.54	0	585.928	585.928
CJ	49998.89	0	586.101	586.664
CK	49993.21	0	586.271	587.226
CL	49987.55	0	586.438	587.612
CM	49981.88	0	586.604	587.550
CN	49976.22	0	586.767	587.308
⊕ Girder 17	49970.78	0	586.922	586.922

GIRDER D4

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49842.60	0	585.366	585.366
⊕ W. Brg.	49846.26	0	585.461	585.461
DH	49854.03	0	585.659	586.140
DI	49861.80	0	585.853	586.705
DJ	49869.57	0	586.042	587.089
DK	49877.35	0	586.228	587.168
DL	49885.12	0	586.409	587.108
DM	49892.89	0	586.586	586.803
⊕ Girder 17	49896.40	0	586.664	586.664

GIRDER C4

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50008.97	0	586.057	586.057
⊕ E. Brg.	50006.60	0	586.130	586.130
CF	50000.94	0	586.303	586.583
CG	49995.28	0	586.474	586.896
CH	49989.61	0	586.642	587.033
CI	49983.95	0	586.809	587.010
⊕ Girder 17	49979.88	0	586.927	586.927

GIRDER D3

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49844.77	0	585.602	585.602
⊕ W. Brg.	49848.43	0	585.696	585.696
DD	49856.20	0	585.893	586.158
DE	49863.97	0	586.086	586.487
DF	49871.74	0	586.275	586.648
DG	49879.52	0	586.459	586.655
⊕ Girder 17	49885.27	0	586.593	586.593

GIRDER C3

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50011.03	0	586.258	586.258
⊕ E. Brg.	50008.67	0	586.331	586.331
CC	50003.00	0	586.505	586.608
CD	49997.34	0	586.677	586.801
CE	49991.68	0	586.846	586.899
⊕ Girder 17	49988.98	0	586.926	586.926

GIRDER D2

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49854.26	0	585.906	585.906
⊕ W. Brg.	49850.60	0	585.932	585.932
DB	49858.37	0	586.128	586.186
DC	49866.14	0	586.319	586.379
⊕ Girder 17	49874.15	0	586.512	586.512

GIRDER C2

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50013.10	0	586.459	586.459
⊕ E. Brg.	50010.73	0	586.532	586.532
CB	50005.07	0	586.707	586.729
⊕ Girder 17	49998.08	0	586.919	586.919

GIRDER D1

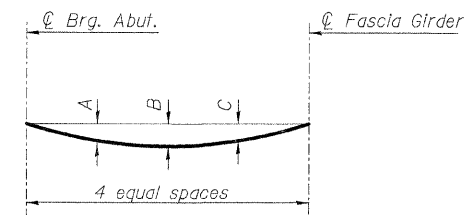
LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back W. Abut.	49856.43	0	586.141	586.141
⊕ W. Brg.	49852.77	0	586.167	586.167
DA	49857.90	0	586.296	586.299
⊕ Girder 17	49863.03	0	586.423	586.423

GIRDER C1

LOCATION	STA.	OFFSET	THEORETICAL GRADE ELEVATION	THEOR. GRADE ELEV. ADJ. FOR DEAD LOAD DEFL.
Back E. Abut.	50015.16	0	586.659	586.659
⊕ E. Brg.	50012.80	0	586.733	586.733
CA	50009.99	0	586.820	586.821
⊕ Girder 17	50007.18	0	586.907	586.907

GIRDER	LOCATION		
	A	B	C
C1	0.001	0.001	0.001
C2	0.017	0.023	0.017
C3	0.097	0.136	0.097
C4	0.330	0.463	0.330
C5	0.839	1.178	0.839
C6	1.294	1.817	1.294
D1	0.002	0.003	0.002
D2	0.052	0.073	0.052
D3	0.314	0.440	0.314
D4	0.777	1.091	0.777
D5	1.233	1.73	1.233

(Deflections are in inches)



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

NOTE:

See Sht. S-12 for ramp screed plan.

For ramp beams screed points are not offset, but are along beam ⊕.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

RAMP'S C&D DECK ELEVATIONS

DESIGNED: BTO
CHECKED: JAN
DATE: 03/06

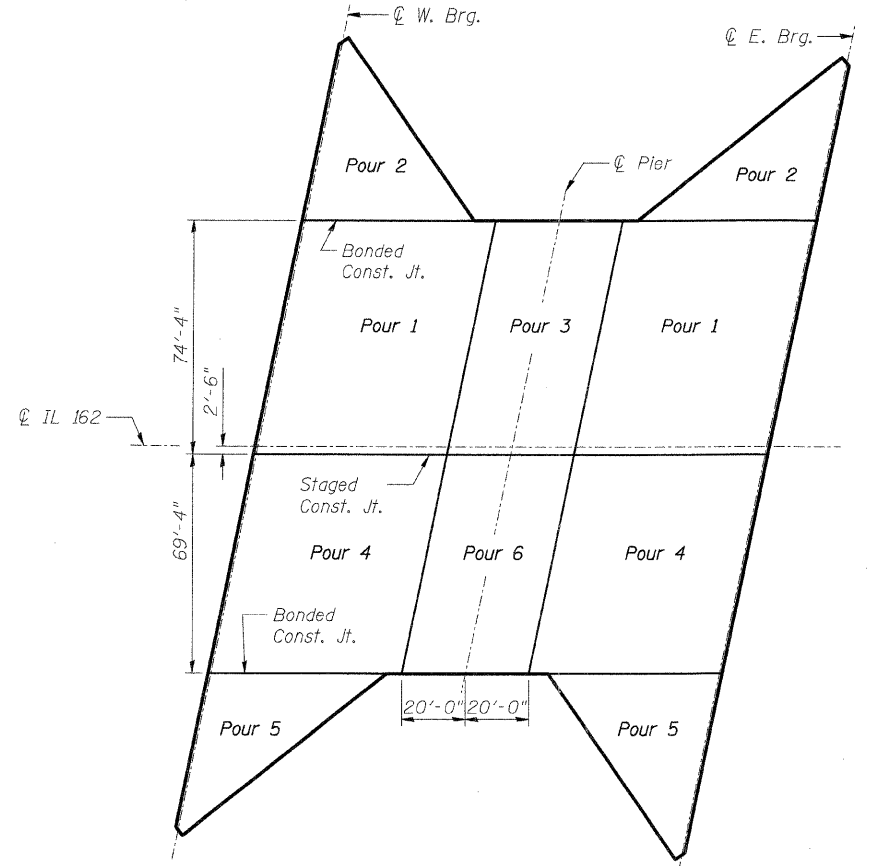
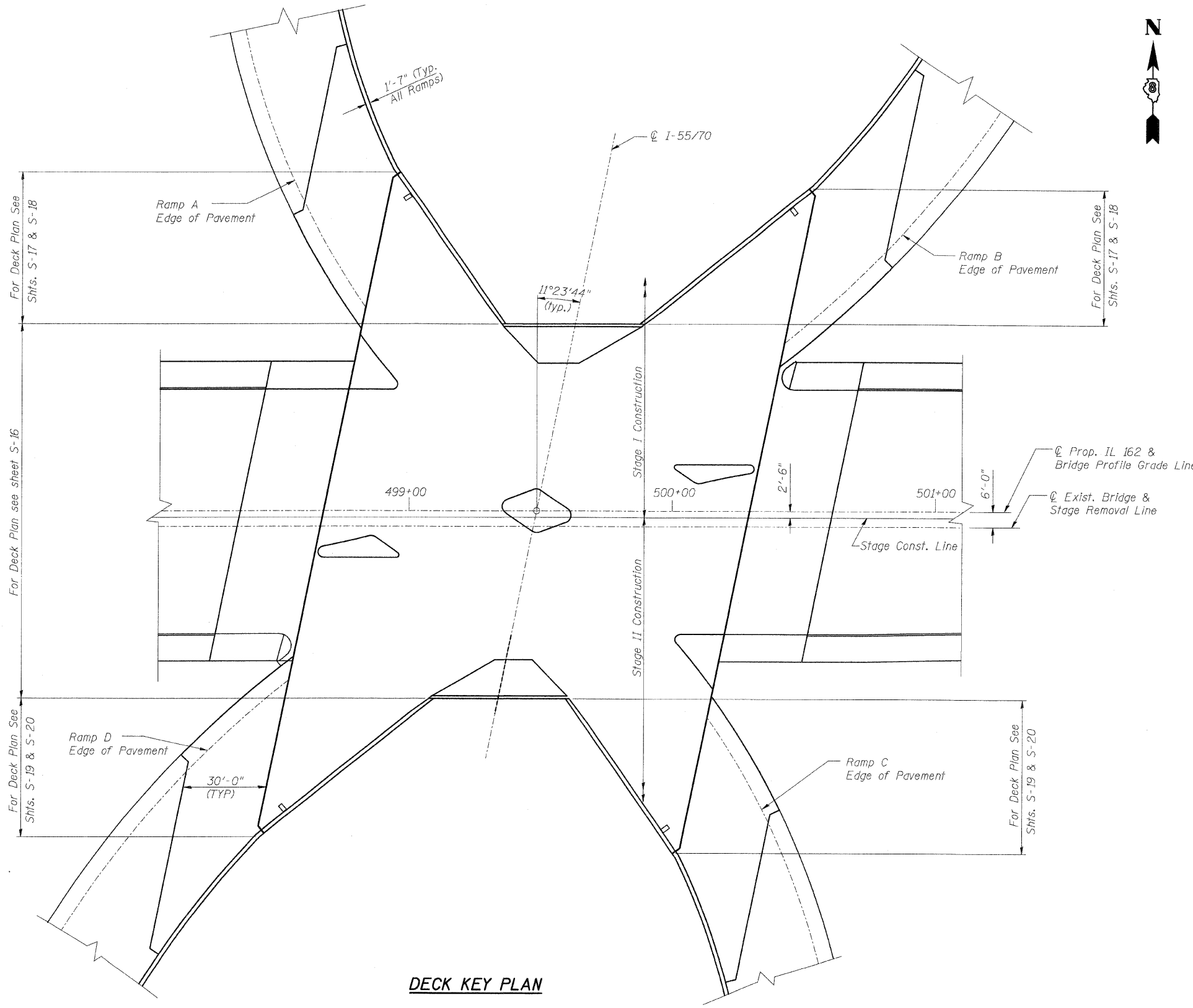
DRAWN: BTO
CHECKED: JAN

SHT. S-14 OF S-68



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1,60-10HB	MADISON	420	233	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



NOTES:

1. For parapet and railing details see sheets S-27 thru S-29.
2. For superimposed median details see Sht. S-30.
For island details, see Sht. S-26.
3. Work this sheet with S-16 thru S-24.
4. The pour sequence shall not be changed without the approval of the engineer.
5. Superimposed medians 1, 2, & 3 shall be poured after stage II deck is in place.

SHT. S-15 OF S-68



REVISIONS	
NAME	DATE

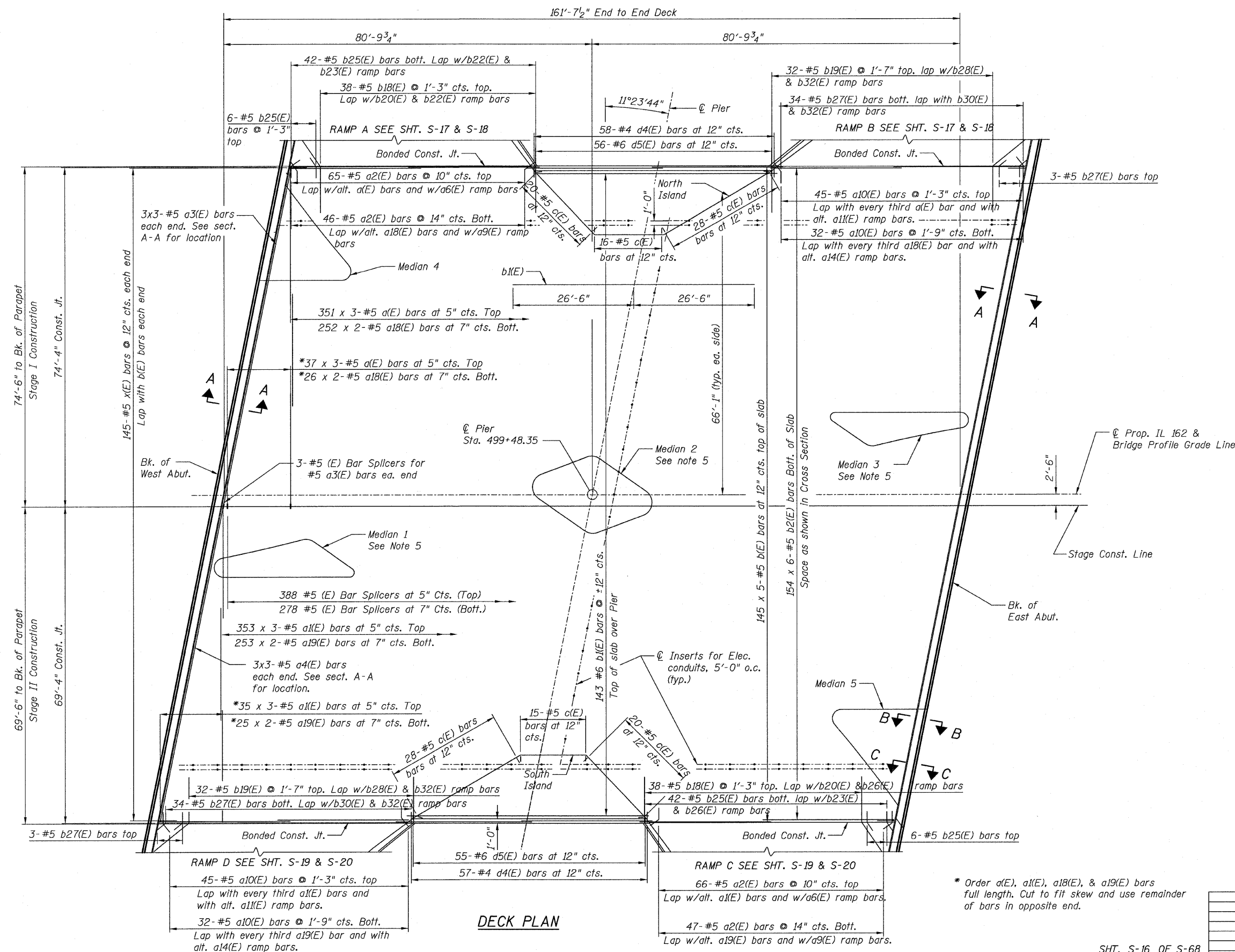
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

DECK KEY PLAN & POUR SEQUENCE

DESIGNED: AWB DRAWN: BTO
 CHECKED: BTO CHECKED: JAN
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	234
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

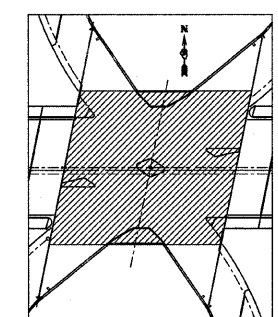
CONTRACT NO. 76709



NOTES:

1. Bars Indicated thus 145x5-#5 etc. indicates 145 lines of bars with 5 lengths per line.
2. Reinforcing Bar designated (E) Shall be Epoxy Coated.
3. Expansion Anchors Required at Medians See Sht. S-30 for Superimposed Median Details.
4. See Sht. S-26 for Island details.
5. Superimposed medians 1, 2, & 3 shall be poured after Stage II deck is in place.
6. For Sections A-A, B-B, & C-C, see Sht. S-24.

Minimum Lap
 #5 Bars - 2'-2"
 #6 Bars - 2'-7"



KEY PLAN

* Order a(E), a1(E), a18(E), & a19(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

DECK PLAN

SHT. S-16 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

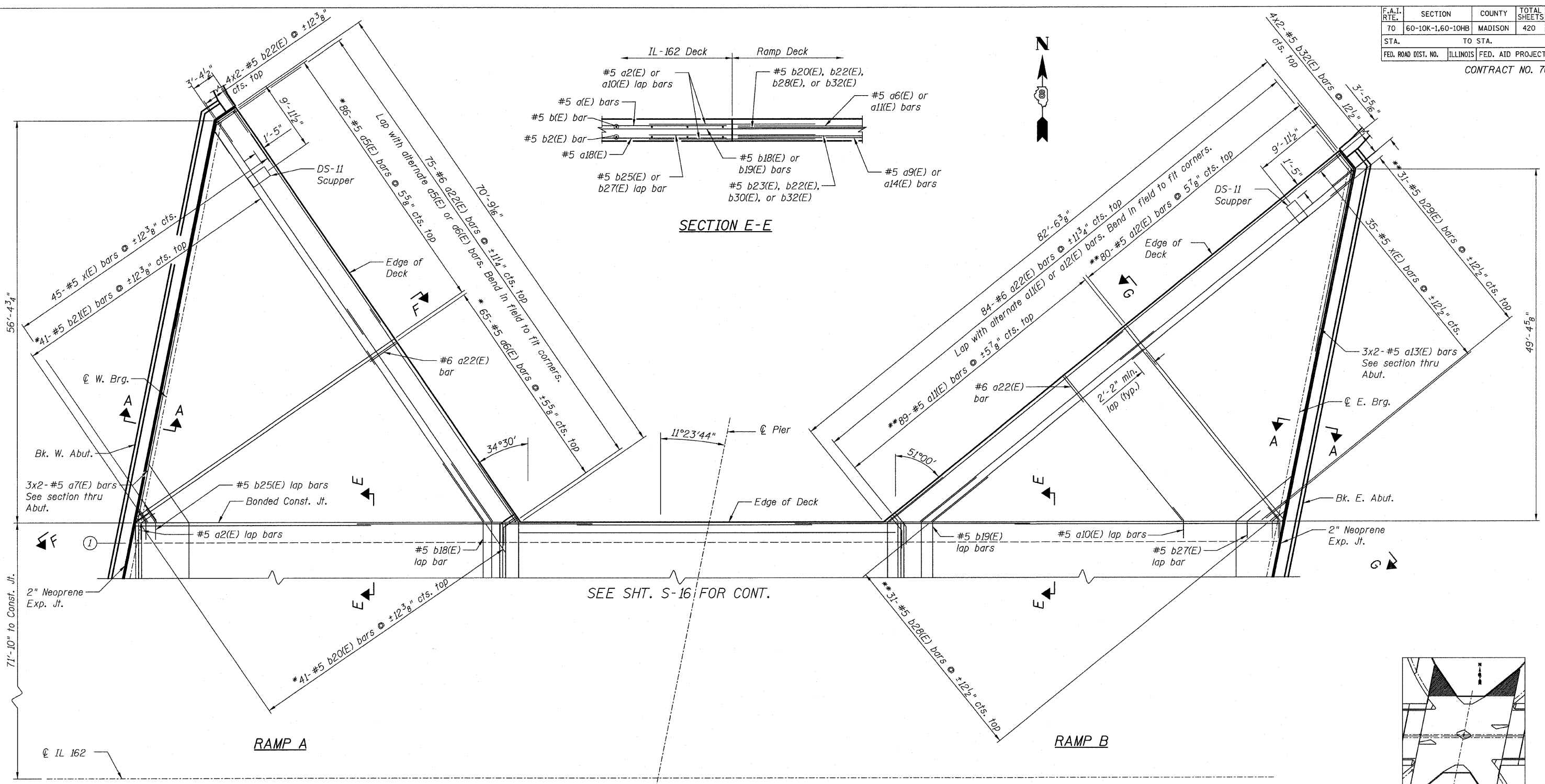
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

DECK PLAN - IL 162

DESIGNED: BTO DRAWN: BTO
 DATE: 03/06 CHECKED: JAW CHECKED: JAW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	235
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

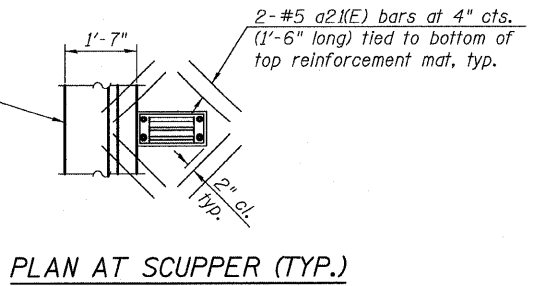


SECTION E-E

SEE SHT. S-16 FOR CONT.

DECK PLAN - RAMPS A & B TOP BARS

KEY PLAN



- NOTES:**
1. Bars designated (E) shall be Epoxy Coated
 2. See Sht. S-22 for sections F-F & G-G.
 3. For section thru ramp parapet see Sht. S-24.
 4. For Parapet Elevation see Sht. S-28.
 5. For Reinforcement Bar List and BOM, see Sht. S-31.
 6. For Scupper Details, see Sht. S-35.
 7. For Section thru Abut., see Sht. S-24.

*Order a5(E), a6(E), b20(E), & b21(E) bars full length. Cut to fit skew and use remainder of bars in Ramp C.

**Order a11(E), a12(E), b28(E), & b29(E) bars full length. Cut to fit skew and use remainder of bars in Ramp D.

SHT. S-17 OF S-68

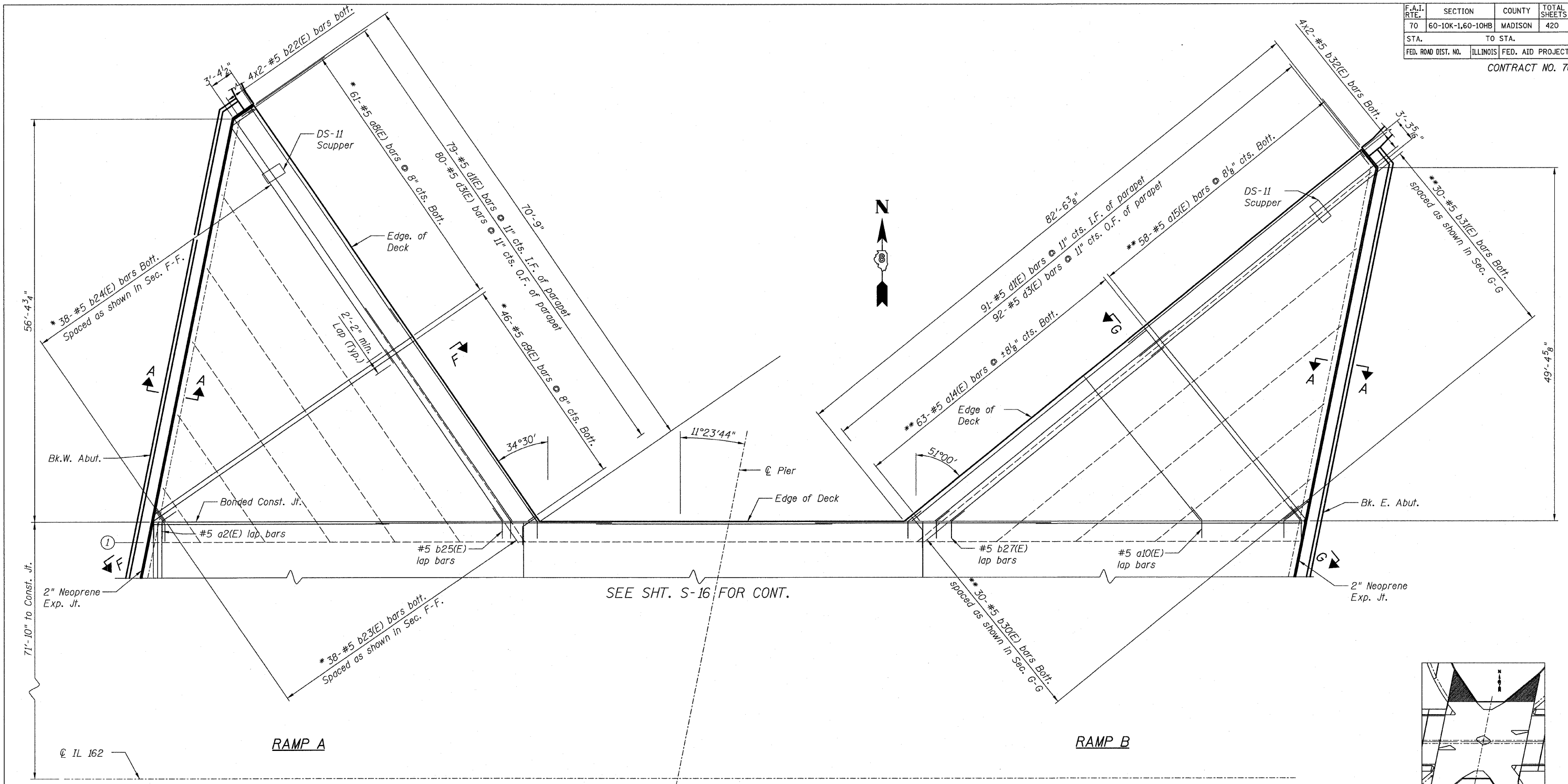
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 DECK PLAN
 RAMPS A & B - TOP BARS
 DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	236
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



SEE SHT. S-16 FOR CONT.

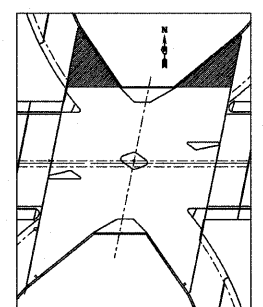
DECK PLAN - RAMPS A & B BOTTOM BARS

NOTES:

1. Bars designated (E) shall be Epoxy Coated
2. See Sht. S-22 for sections F-F & G-G.
3. For section thru ramp parapet, see Sht. S-24.
4. For Parapet Elevation see Sht. S-28.
5. For Reinforcement Bar List and BOM, see Sht. S-31.
6. For Scupper Details, see Sht. S-35.

*Order a8(E), a9(E), b23(E), & b24(E) bars full length. Cut to fit skew and use remainder of bars in Ramp C.

**Order a14(E), a15(E), b30(E), & b31(E) bars full length. Cut to fit skew and use remainder of bars in Ramp D.



KEY PLAN

REVISIONS	
NAME	DATE

SHT. S-18 OF S-68

STV Incorporated
Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

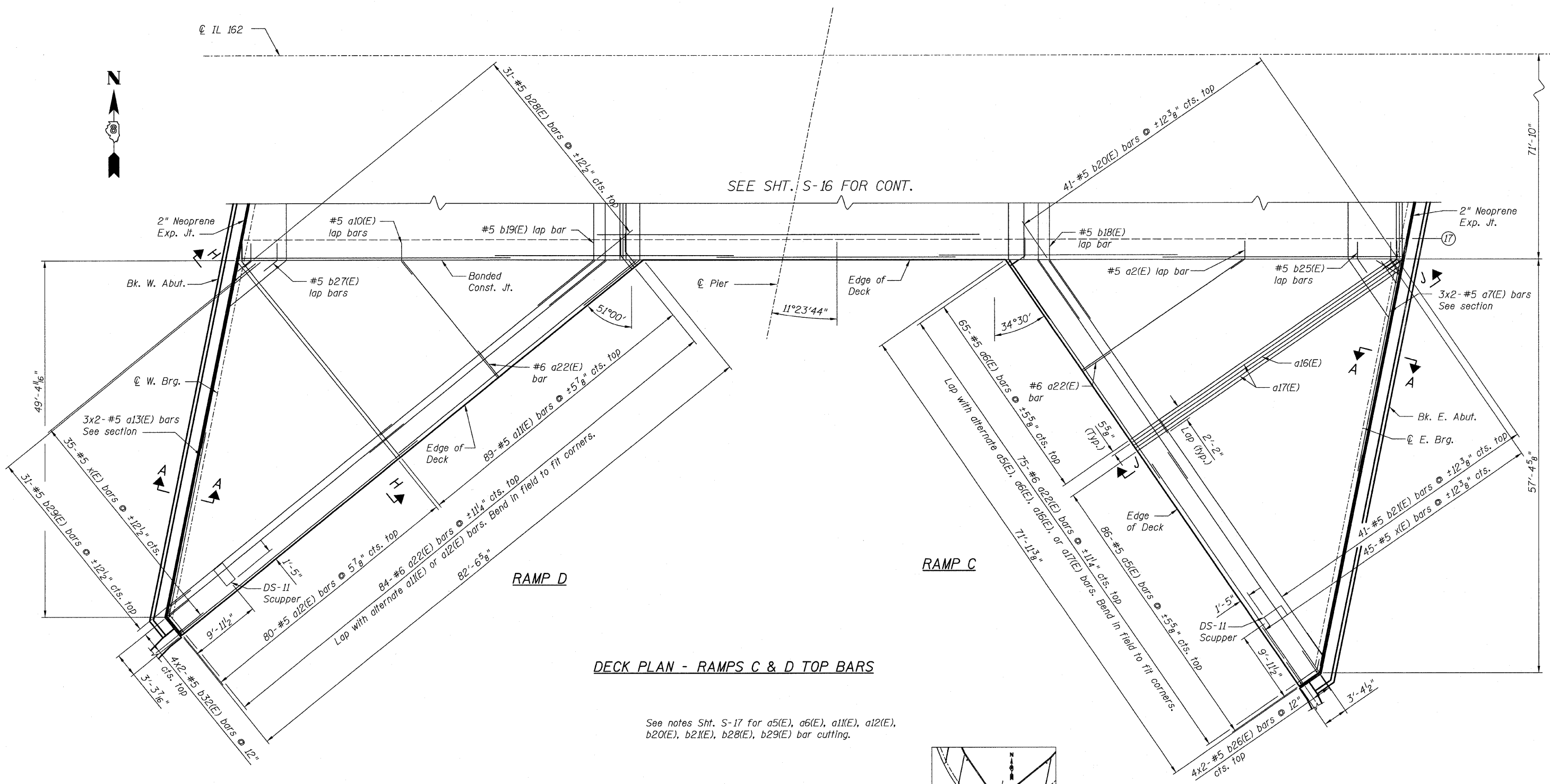
**DECK PLAN
 RAMPS A & B - BOTTOM BARS**

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW

DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	237
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



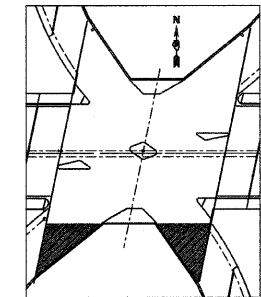
SEE SHT. S-16 FOR CONT.

DECK PLAN - RAMPS C & D TOP BARS

See notes Sht. S-17 for a5(E), a6(E), a11(E), a12(E), b20(E), b21(E), b28(E), b29(E) bar cutting.

NOTES:

1. Bars designated (E) shall be Epoxy Coated
2. See Sht. S-23 for sections H-H & J-J.
3. For section thru ramp parapet, see sht. S-24.
4. For Parapet Elevation see Sht. S-29.
5. For Reinforcement Bar List and BOM, see Sht. S-31.
6. For Scupper Details, see Sht. S-35.



KEY PLAN

SHT. S-19 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

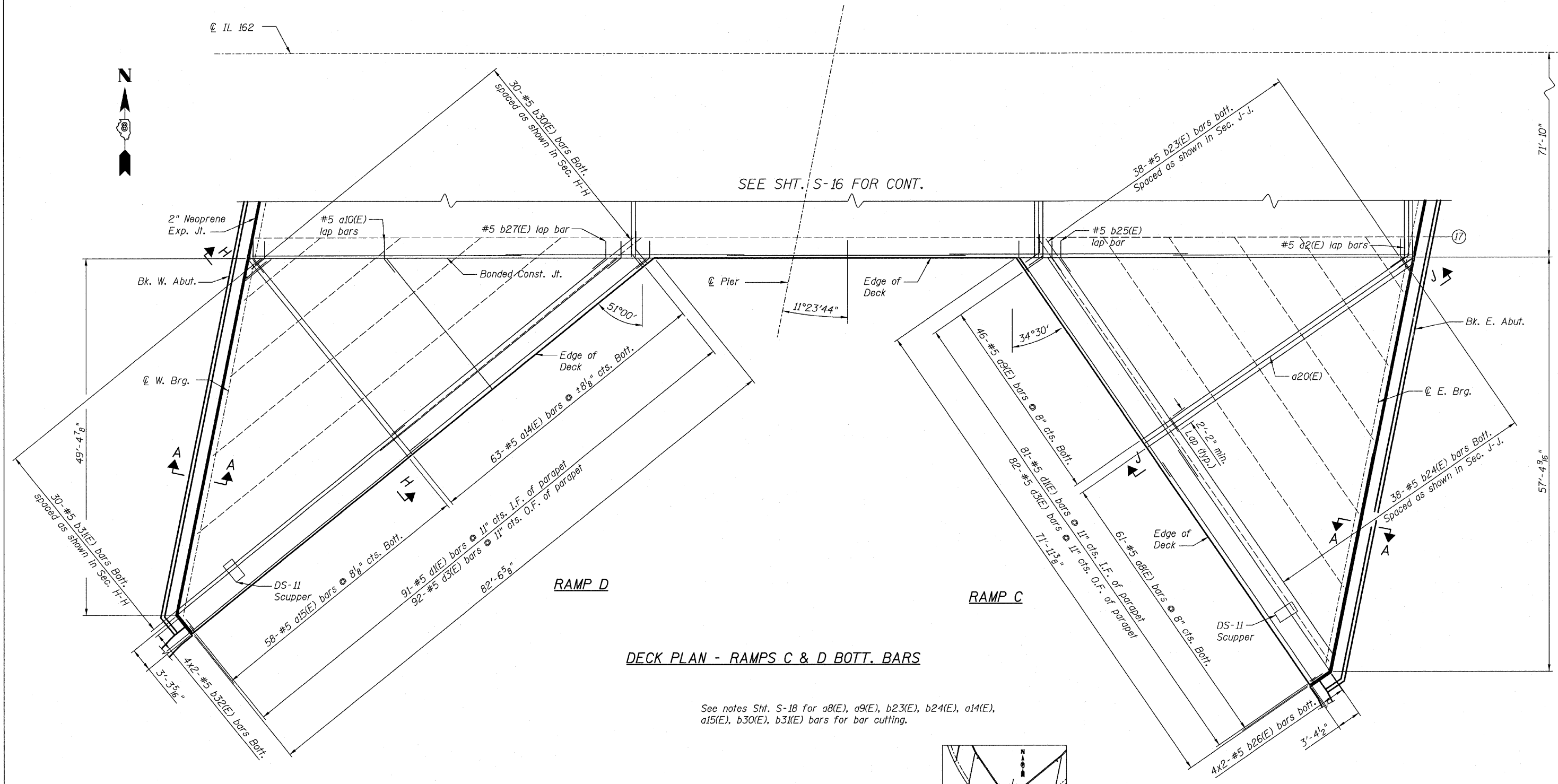
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 DECK PLAN
 RAMPS C & D - TOP BARS

DESIGNED: BTO
 CHECKED: JAW

DATE: 03/06
 DRAWN: BTO
 CHECKED: JAW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	238
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

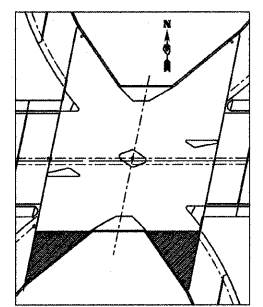


SEE SHT. S-16 FOR CONT.

DECK PLAN - RAMPS C & D BOTT. BARS

See notes Sht. S-18 for a8(E), a9(E), b23(E), b24(E), a14(E), a15(E), b30(E), b31(E) bars for bar cutting.

- NOTES:**
1. Bars designated (E) shall be Epoxy Coated
 2. See Sht. S-23 for sections H-H & J-J.
 3. For Parapet Elevation see Sht. S-29.
 4. For Reinforcement Bar List and BOM, see Sht. S-31.
 5. For Scupper Details, see Sht. S-35.



KEY PLAN

SHT. S-20 OF S-68

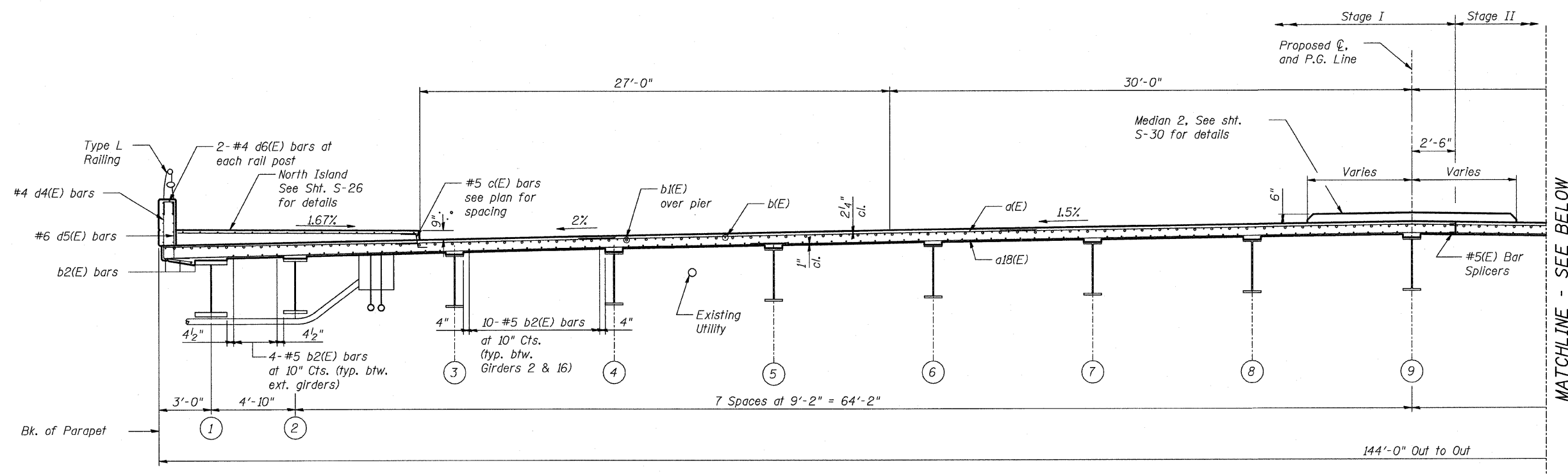
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

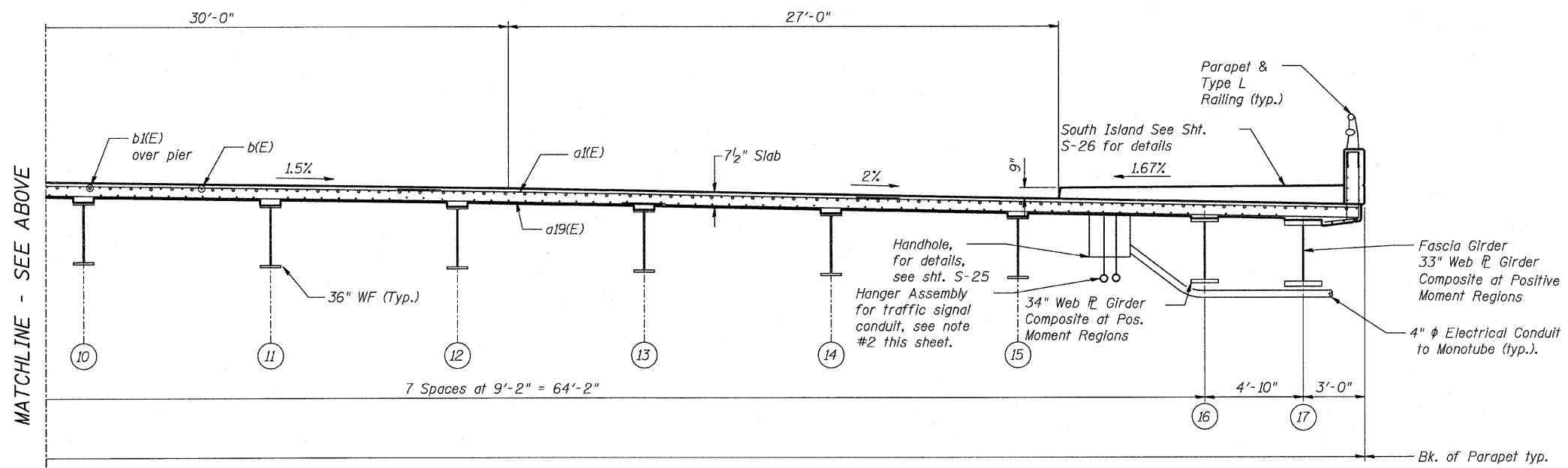
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 DECK PLAN
 RAMPS C & D - BOTTOM BARS
 DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	239
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



MATCHLINE - SEE BELOW



MATCHLINE - SEE ABOVE

DECK CROSS SECTION AT PIER

NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete inserts for traffic signal conduits. Refer to Traffic Signal plans for details. The cost of of installation included with the pay item, "Concrete Superstructure".

SHT. S-21 OF S-68

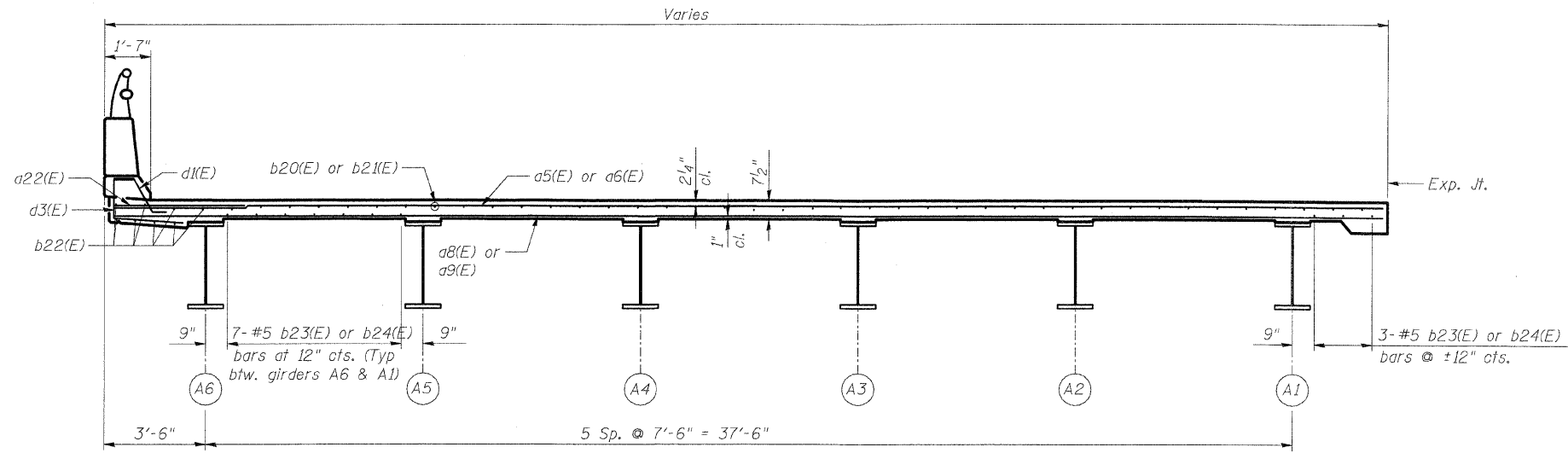


REVISIONS	
NAME	DATE

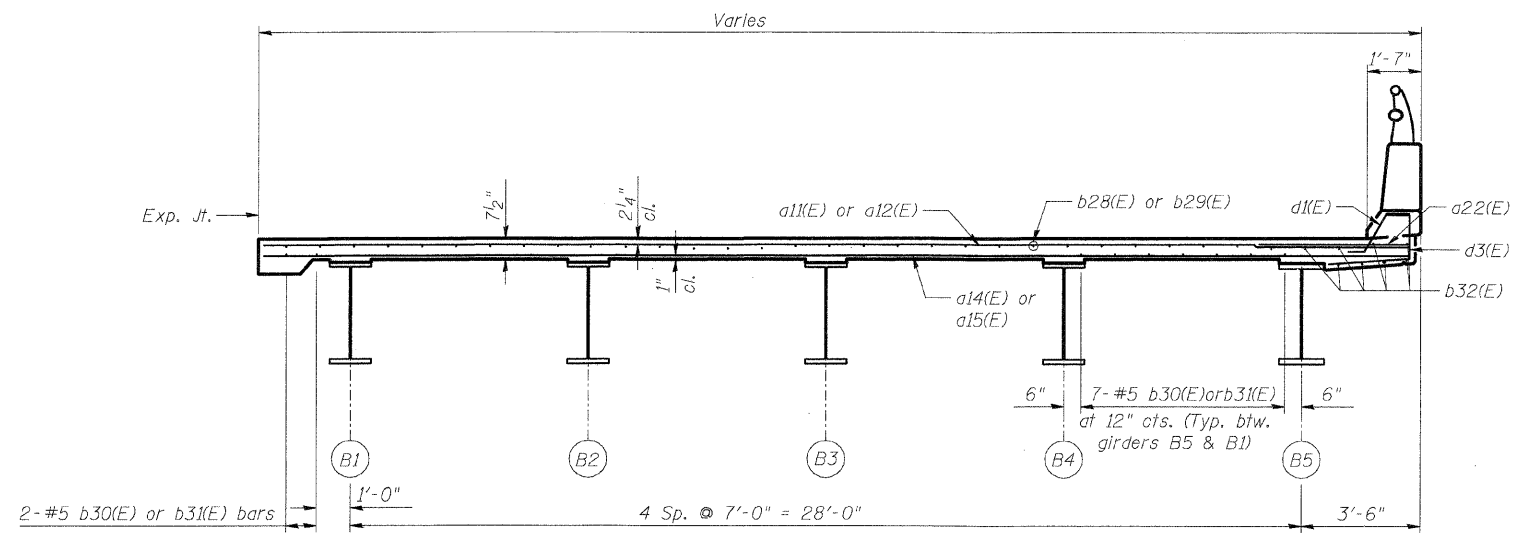
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 DECK CROSS SECTION - IL 162
 DESIGNED: BTO DRAWN: BTO
 DATE: 03/06 CHECKED: JAW CHECKED: JAW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	240
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



DECK CROSS SECTION F-F



DECK CROSS SECTION G-G

NOTES:

1. Reinforcement Bars designated (E) shall be epoxy coated.
2. For locations of sections F-F & G-G see Shts. S-17 & S-18.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

DECK CROSS SECTIONS - RAMPS A & B

DESIGNED: BTO
 CHECKED: JAW
 DATE: 03/06

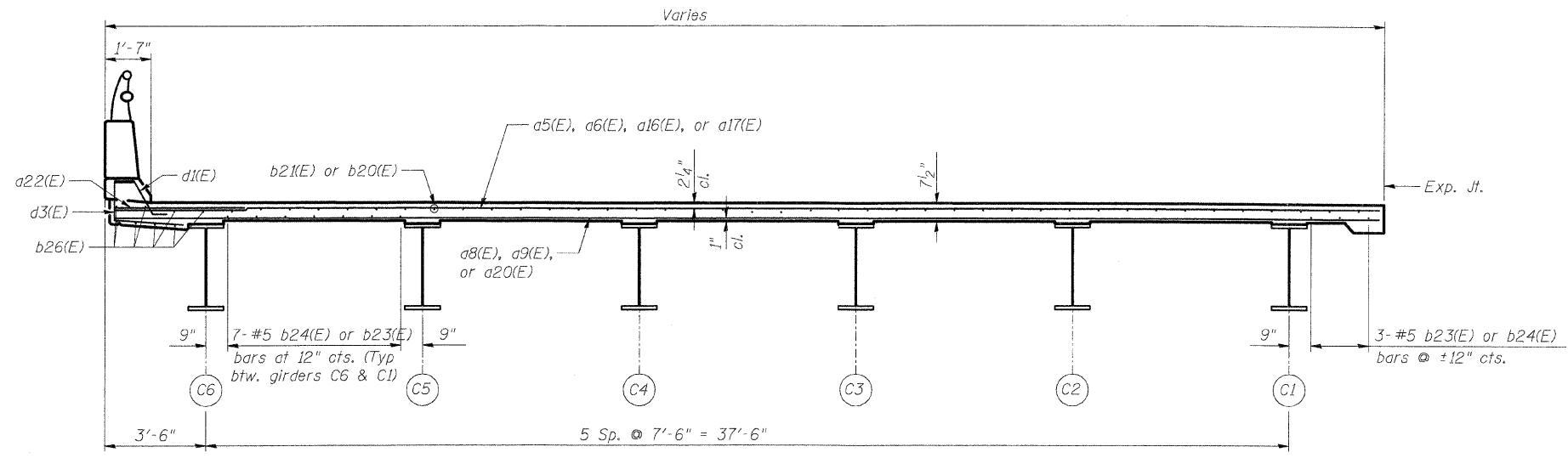
DRAWN: BTO
 CHECKED: JAW

SHT. S-22 OF S-68

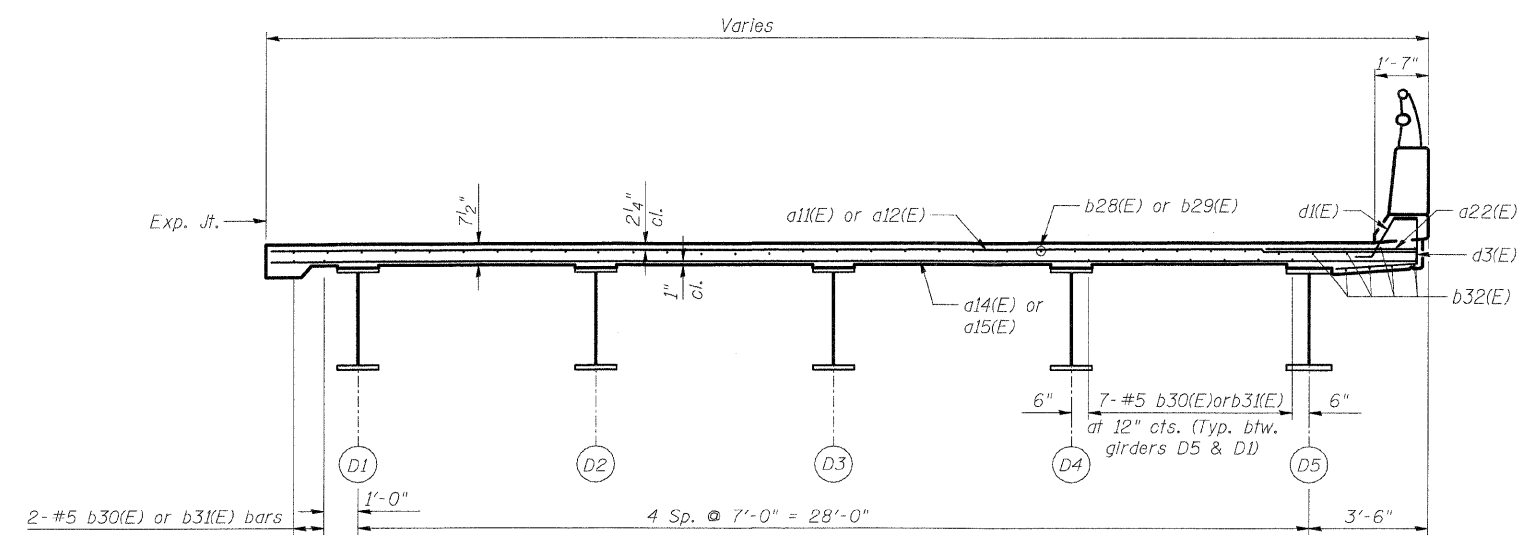
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/855-0655, FAX 312/855-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1, 60-10HB	MADISON	420	241
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



DECK CROSS SECTION J-J



DECK CROSS SECTION H-H

NOTES:

1. Reinforcement Bars designated (E) shall be epoxy coated.
2. For locations of sections H-H & J-J see Shts. S-19 & S-20.

SHT. S-23 OF S-68



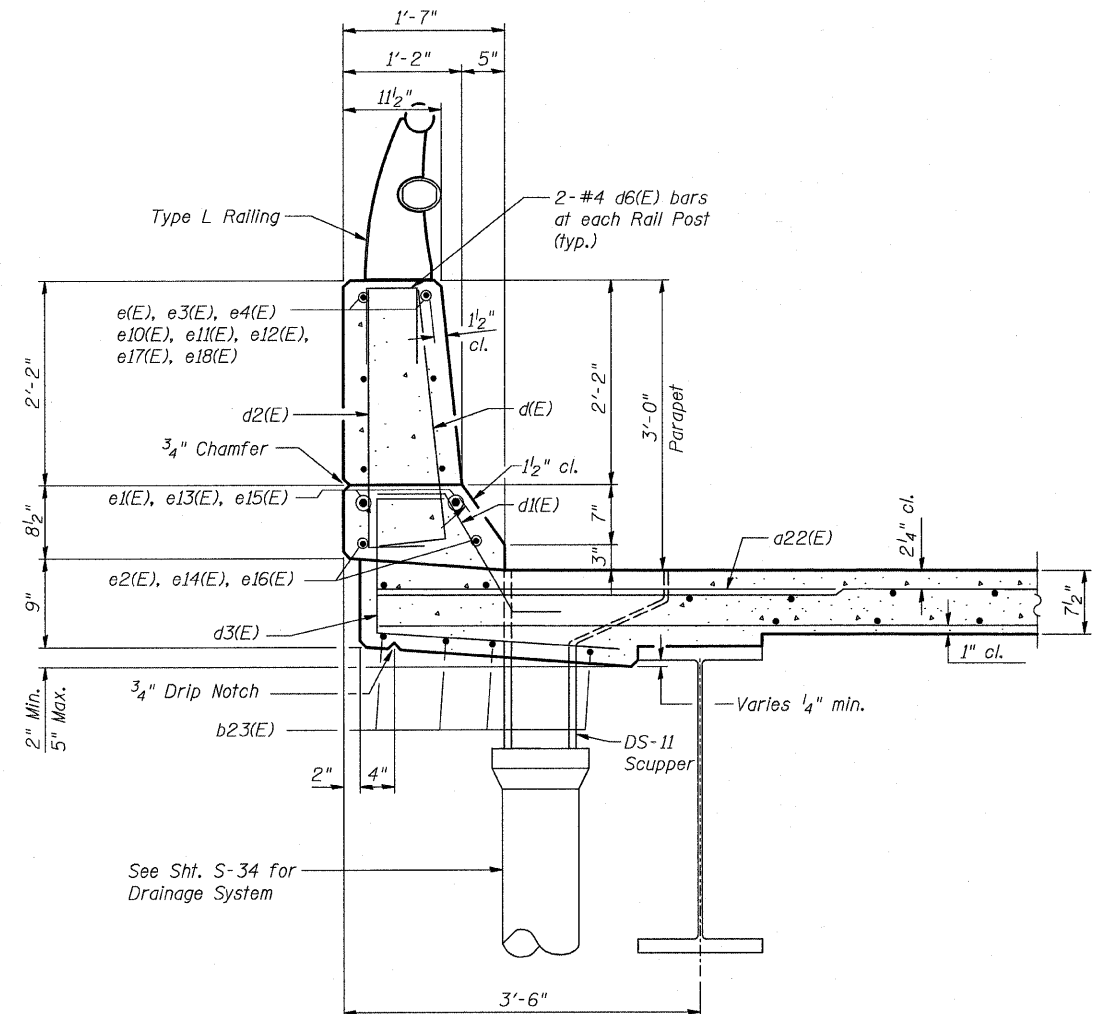
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

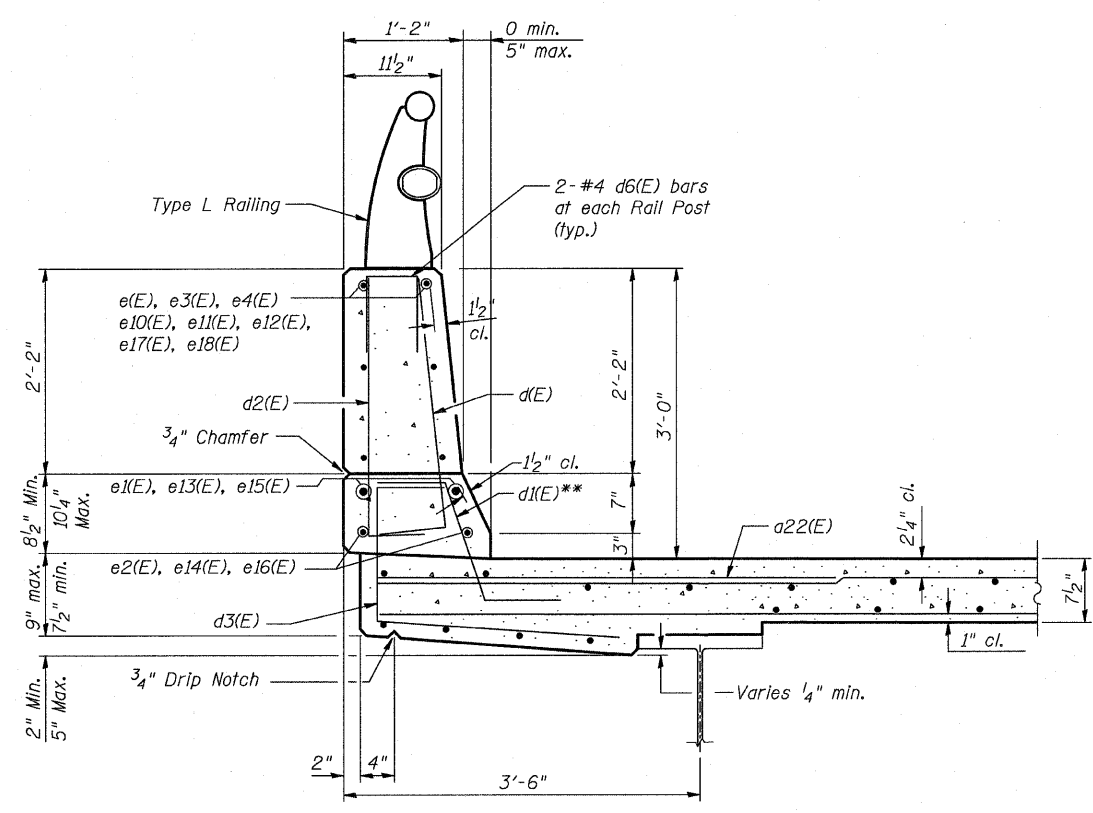
DECK CROSS SECTIONS - RAMPS C & D
 DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	242
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709



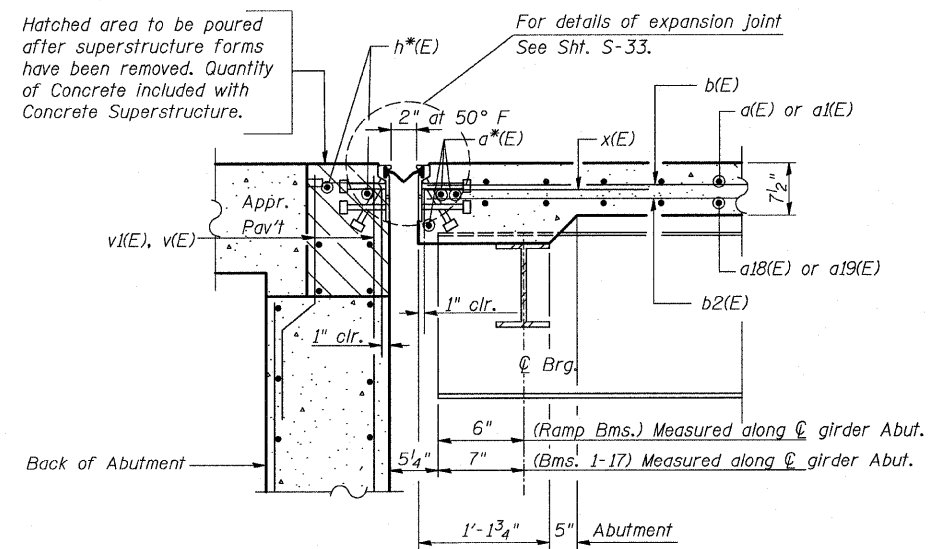
SECTION THROUGH RAMP PARAPET (TYP.)



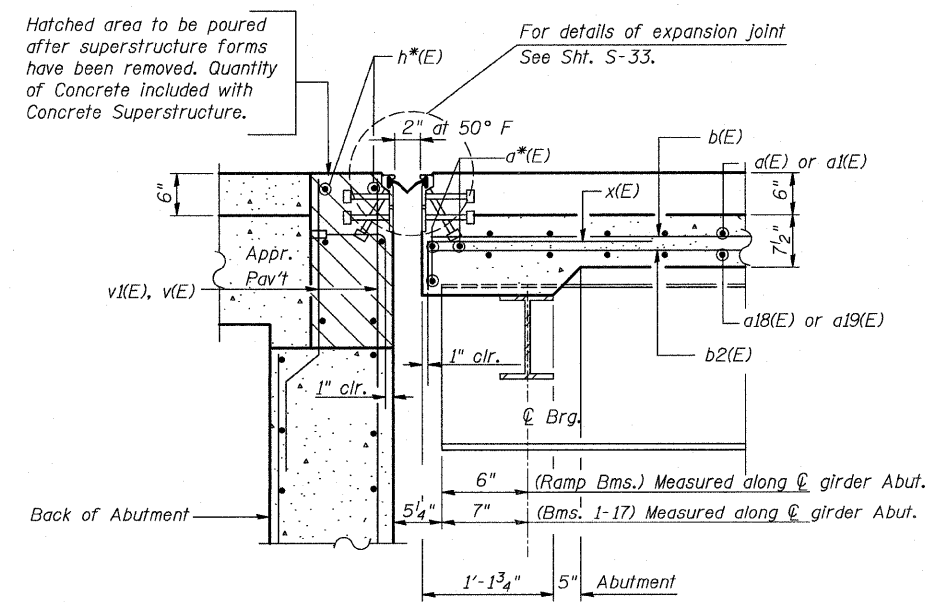
SECTION D-D

NOTES:

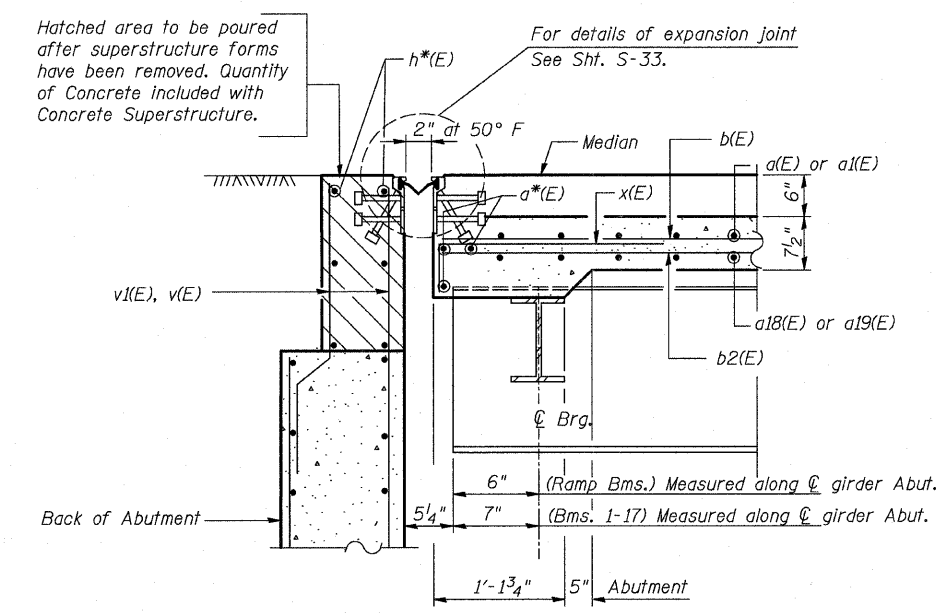
1. For location of section D-D, see sht. S-27.
2. For location of sections A-A, B-B, C-C, see sht S-32.
3. * - Indicates for bar designation, see Deck or Abutment plans.
4. For section through Island Parapet See Sht. S-26.
5. ** - Adjust in field as required.



SECTION A-A
(⊙ Abutments w/ approach slab)



SECTION B-B
(⊙ Abutments w/ approach slab & median)



SECTION C-C
(⊙ Abutments w/o approach slab)

SHT. S-24 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312/553-4655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

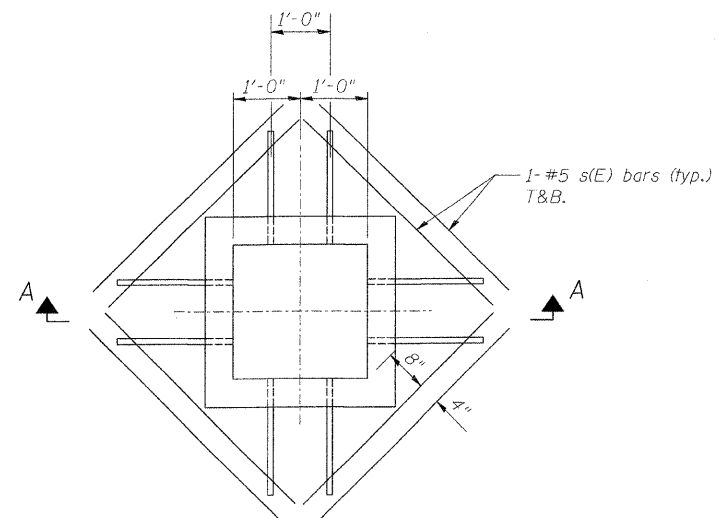
DECK DETAILS

DESIGNED: BTO DRAWN: BTO
 CHECKED: BG CHECKED: BG

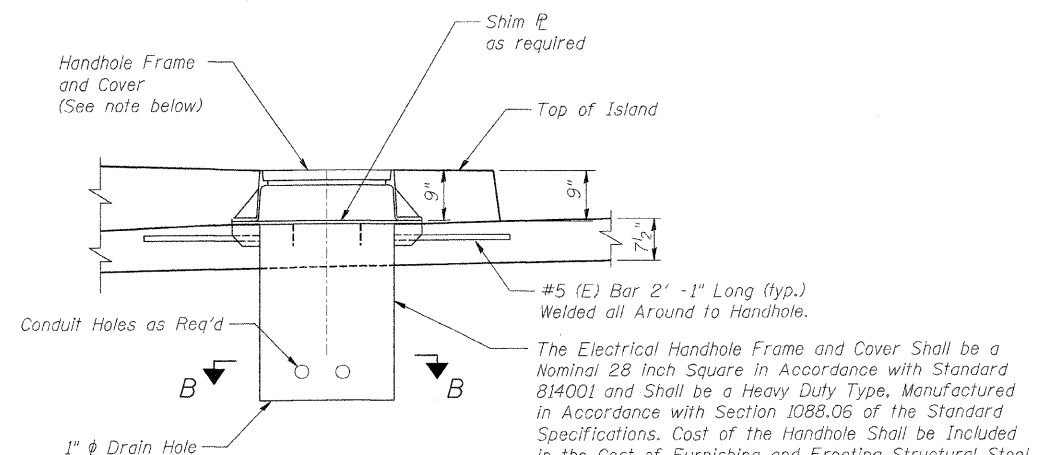
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	243
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

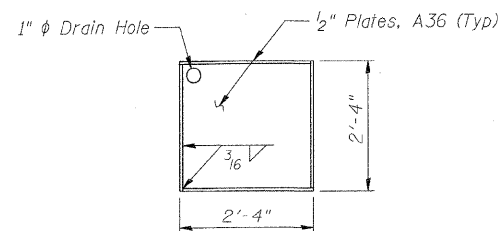
CONTRACT NO. 76709



PLAN



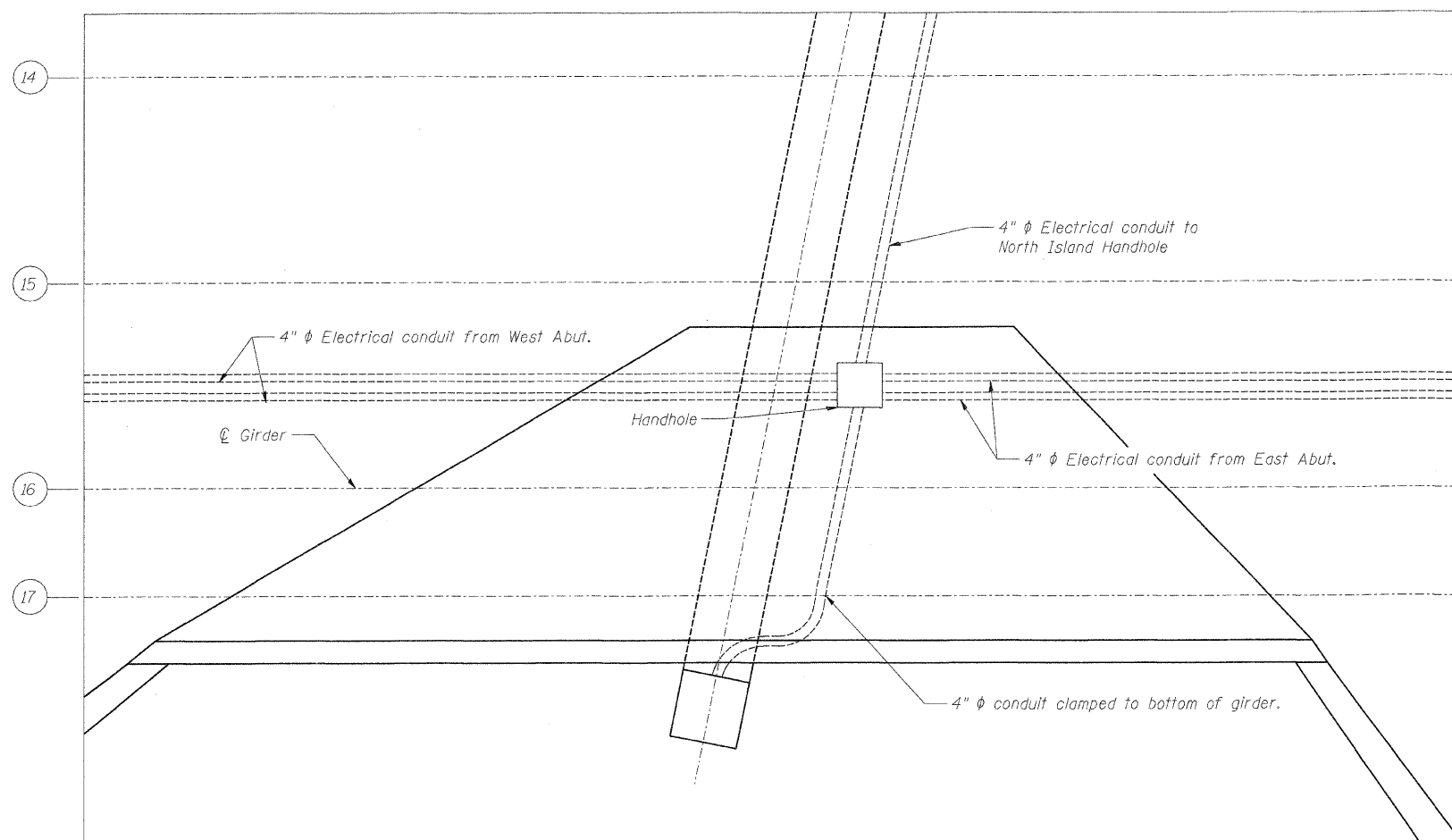
SECTION A-A
HANDHOLE INSTALLATION



SECTION B-B

NOTE:

The Handhole and Handhole Frame and Cover shall be installed level. The deck and sidewalk concrete shall be placed to match the flange plate of the handhole and the rim of the frame and cover.



PLAN - CONDUIT LOCATION

South end shown, North end similar

REVISIONS	
NAME	DATE

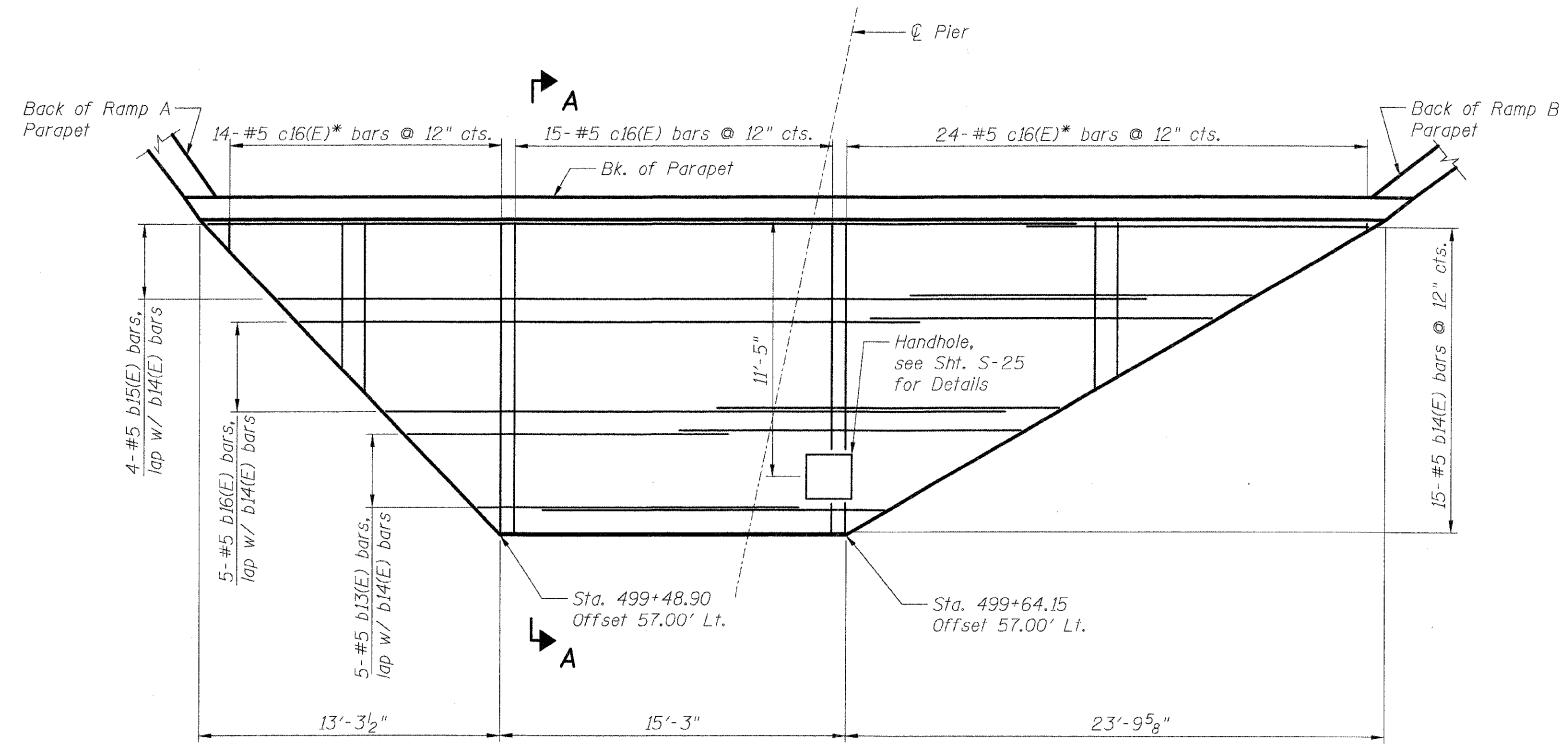
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 ELECTRICAL DETAILS
 DESIGNED: BTO DRAWN: BTO
 DATE: 03/06 CHECKED: BG CHECKED: BG

SHT. S-25 OF S-68

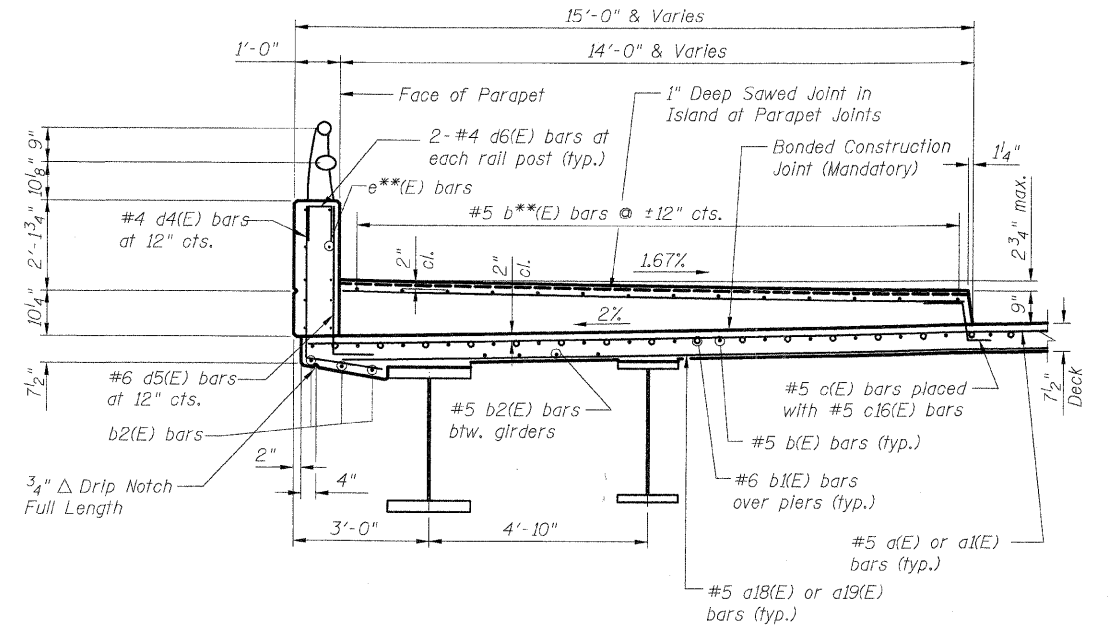
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312/553-0653, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1,60-10HB	MADISON	420	244	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



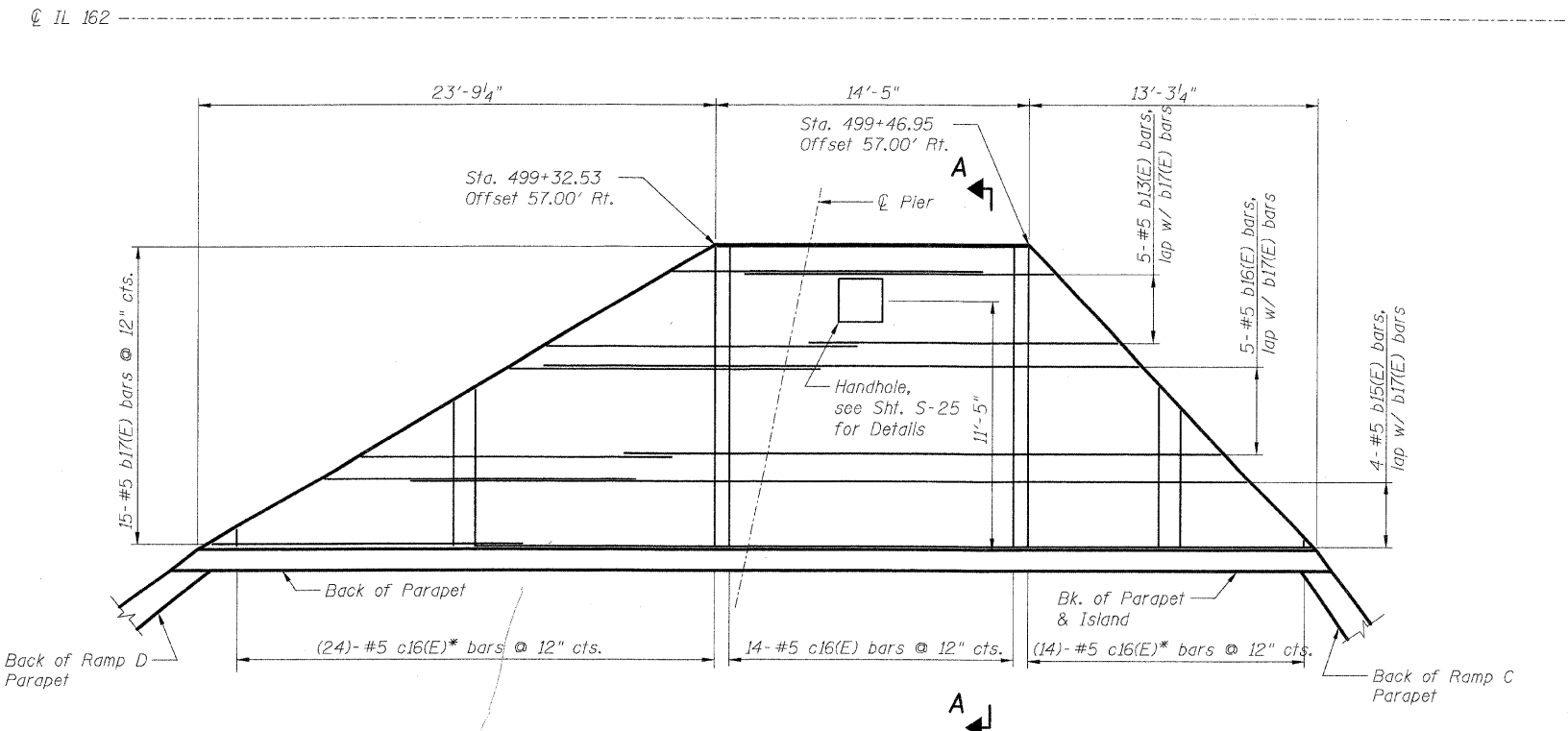
PLAN NORTH ISLAND



SECTION A-A

NOTE:

** - Indicates for bar designation see deck plans, parapet elevations and diaphragm elevation.



PLAN SOUTH ISLAND

*Order c16(E) bars full length. Cut to fit skew and use remainder of bars in opposite island.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 NORTH & SOUTH ISLAND DETAILS

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW

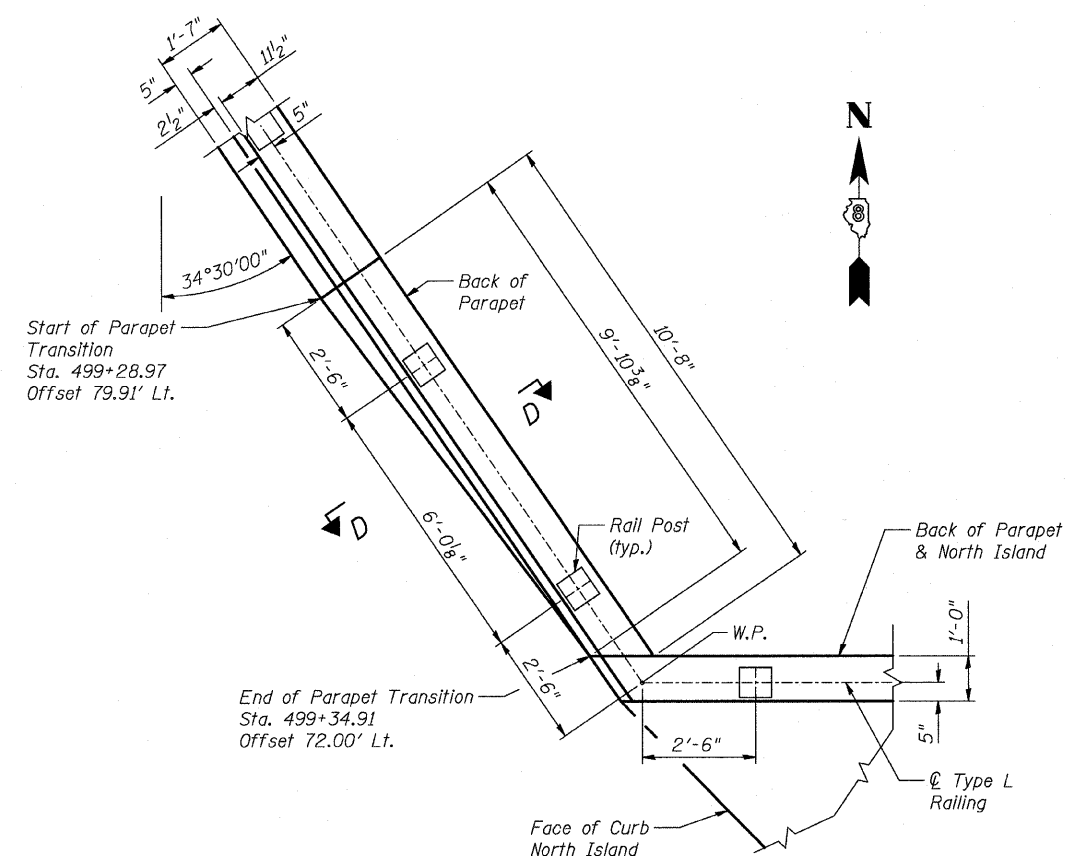
DATE: 03/06

SHT. S-26 OF S-68

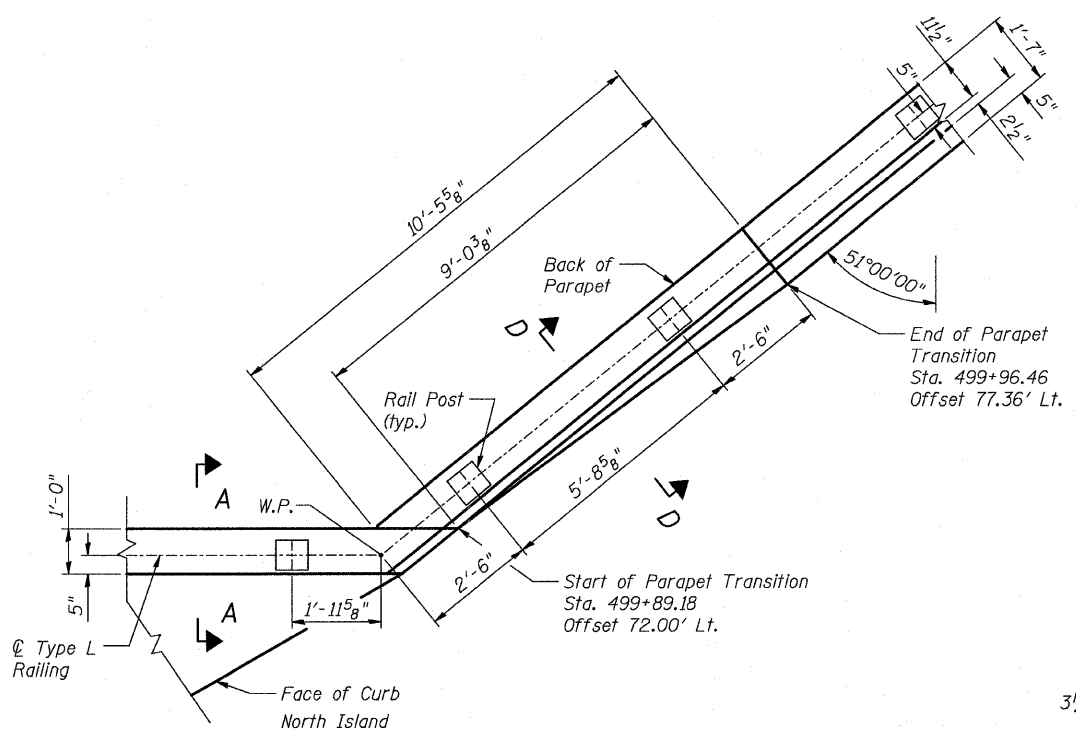
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 300 W. Monroe Street, Suite 1650
 Chicago, IL 60606-4012
 312/553-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	245
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

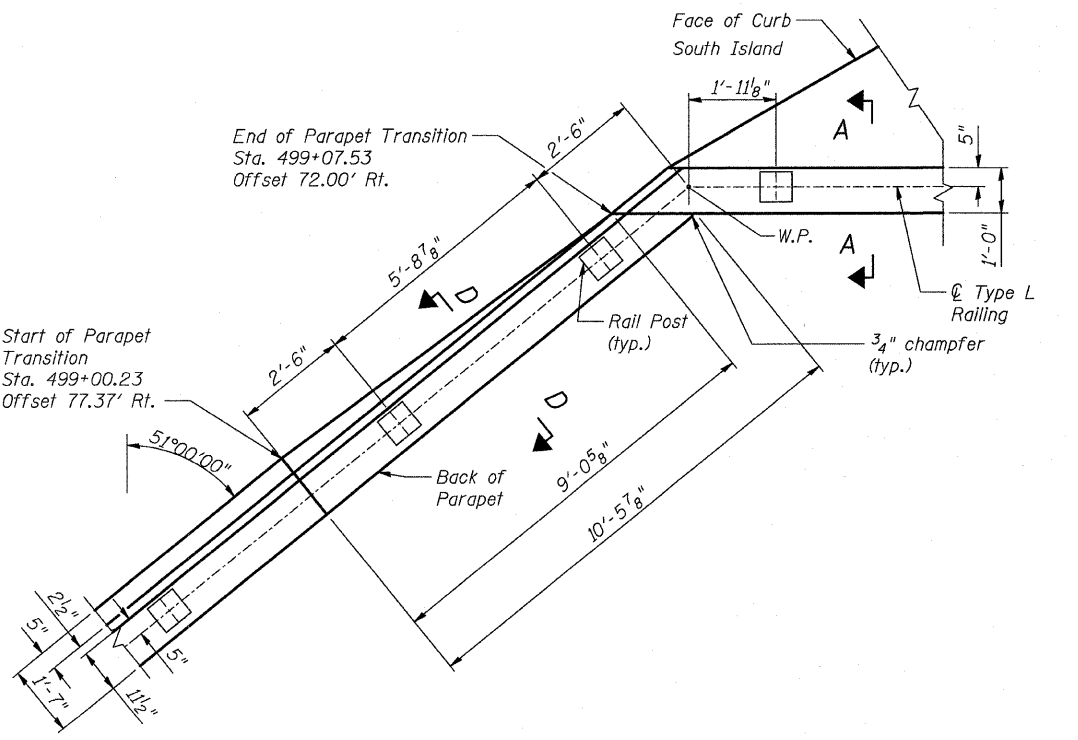
CONTRACT NO. 76709



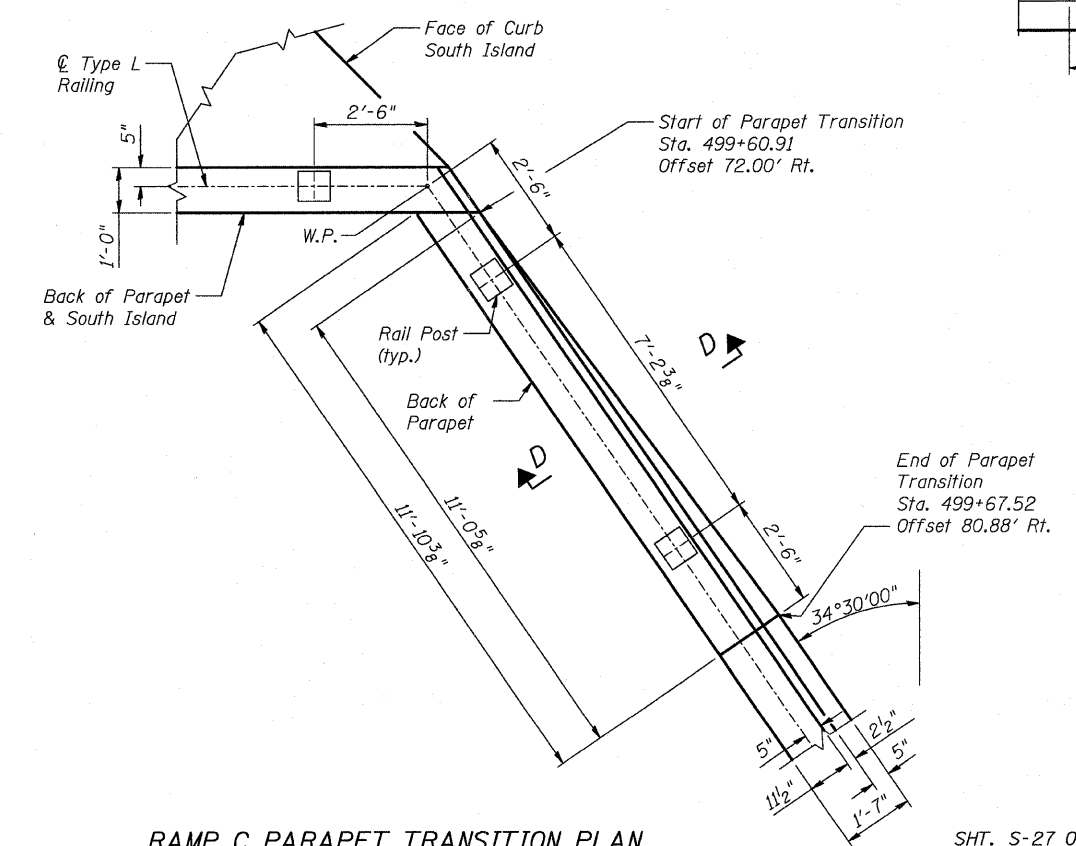
RAMP A PARAPET TRANSITION PLAN



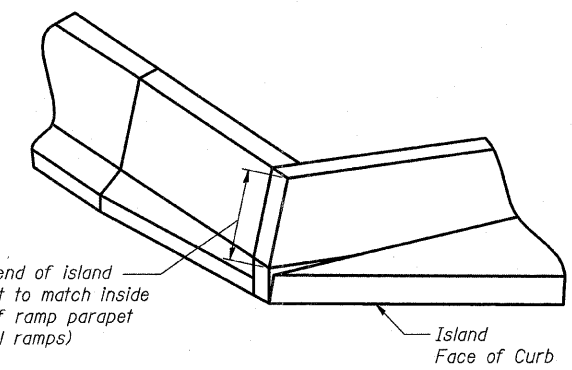
RAMP B PARAPET TRANSITION PLAN



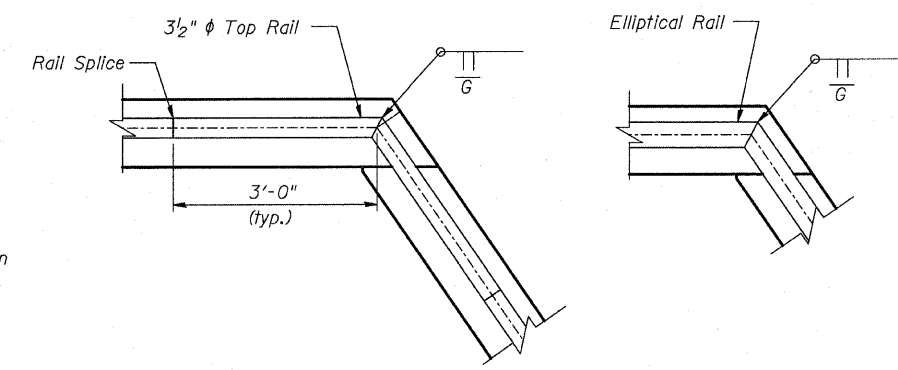
RAMP D PARAPET TRANSITION PLAN



RAMP C PARAPET TRANSITION PLAN



RAMP A INSIDE PARAPET ISOMETRIC VIEW



RAILING TRANSITION CONN. DETAIL (TYP.)

See Sht. S-36 for Railing Details

NOTES:

1. For section A-A, see Sht. S-26.
2. For section D-D, see Sht. S-24.
3. For typical section thru ramp parapet, see Sht. S-24.

SHT. S-27 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

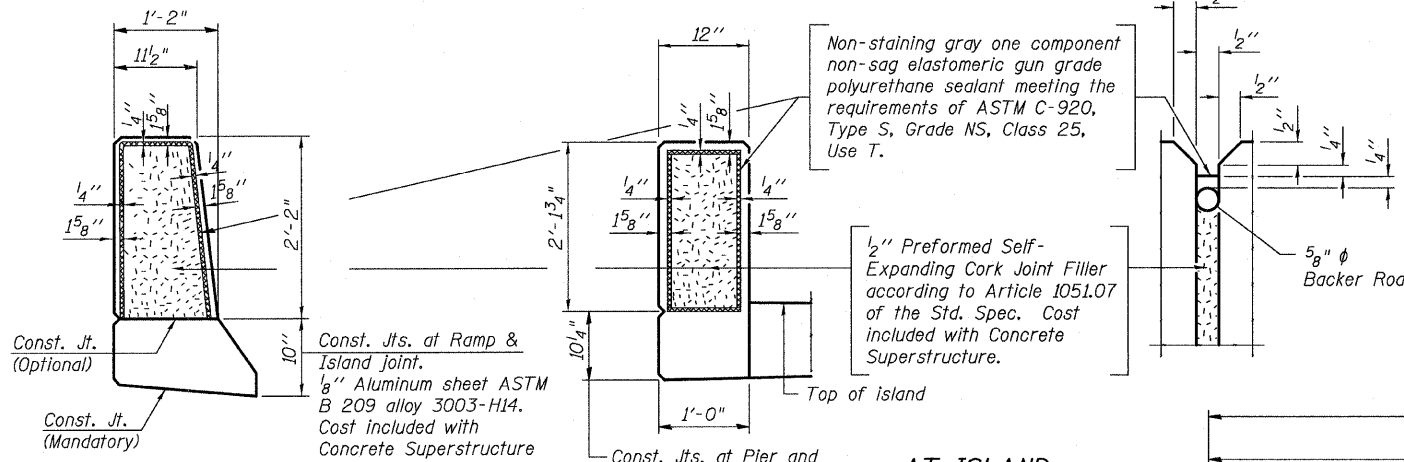
PARAPET DETAIL AT RAMP CORNERS

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW

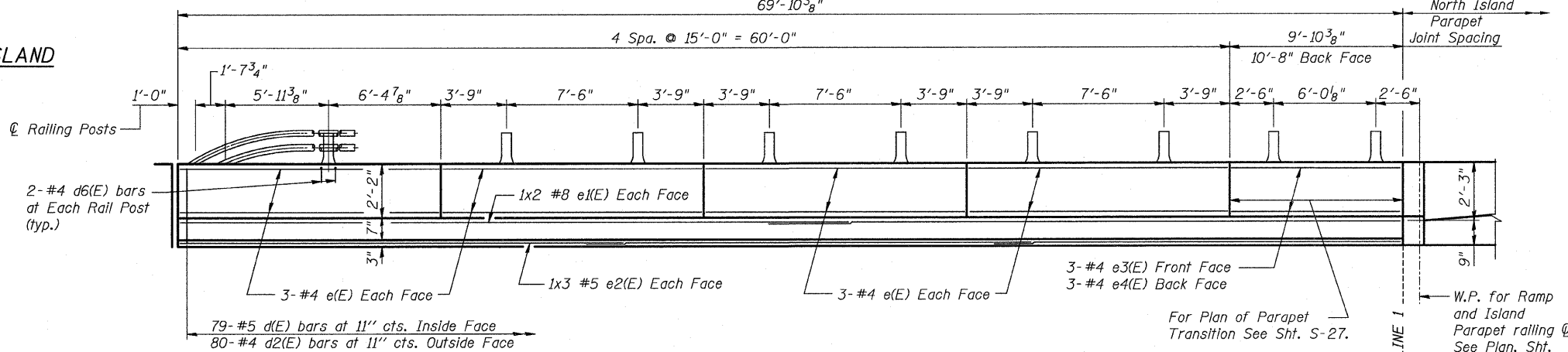
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	246
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

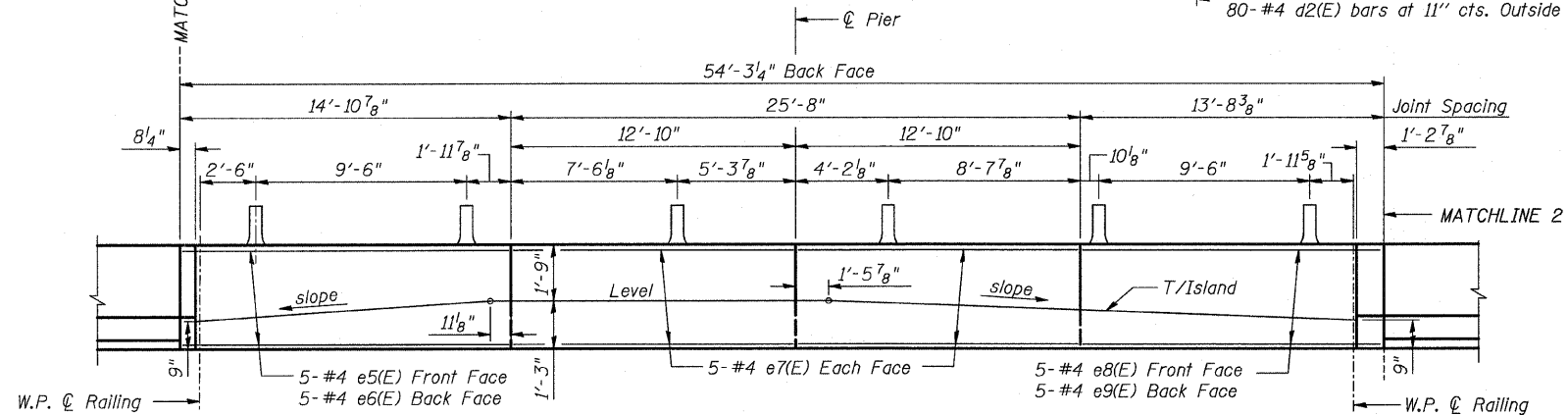
CONTRACT NO. 76709



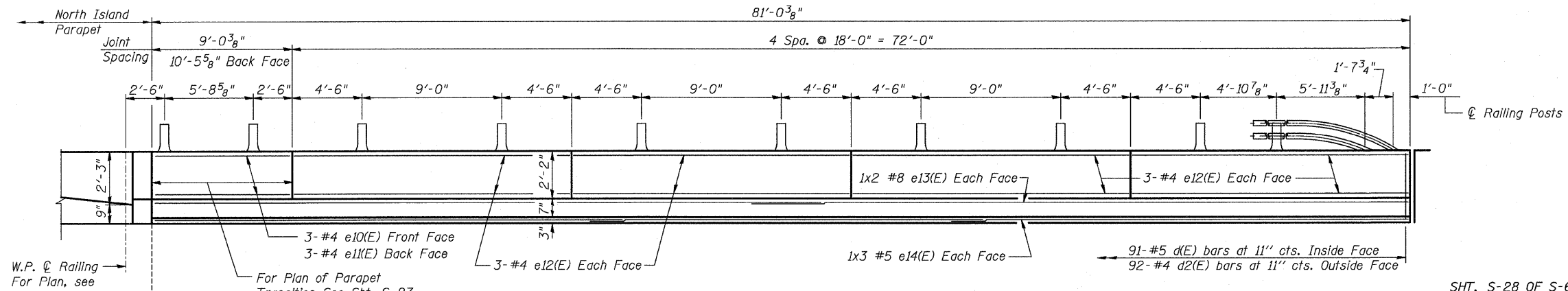
PARAPET JOINT DETAILS



INSIDE ELEVATION OF RAMP A PARAPET



INSIDE ELEVATION OF NORTH ISLAND PARAPET



INSIDE ELEVATION OF RAMP B PARAPET

MIN. BAR LAP
 #5 - 2'-2"
 #8 - 4'-6"

REVISIONS	
NAME	DATE

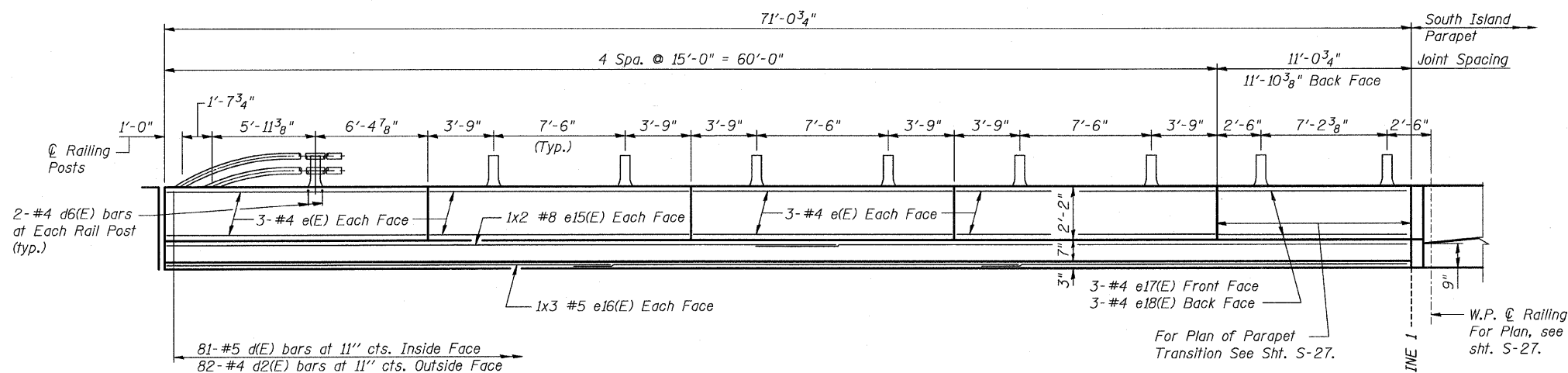
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 PARAPET ELEVATIONS & DETAILS
 RAMPS A, B, & NORTH ISLAND
 DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW
 DATE: 03/06



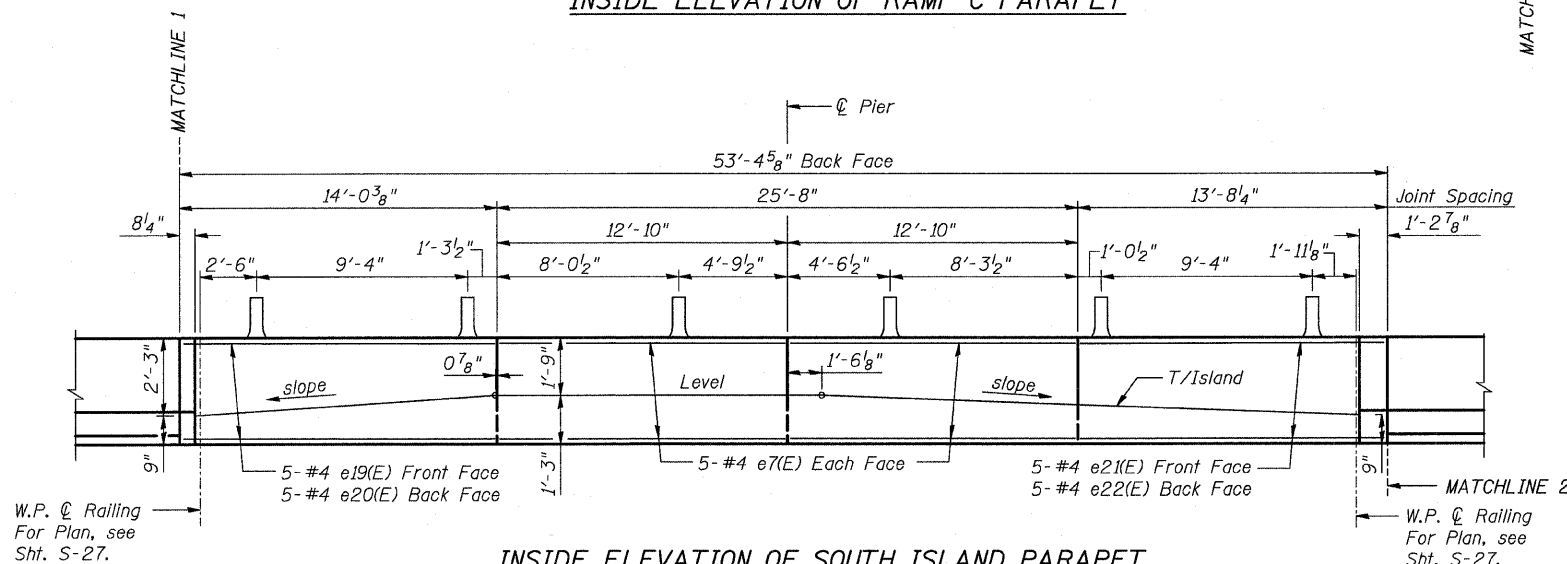
SHT. S-28 OF S-68

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	247
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

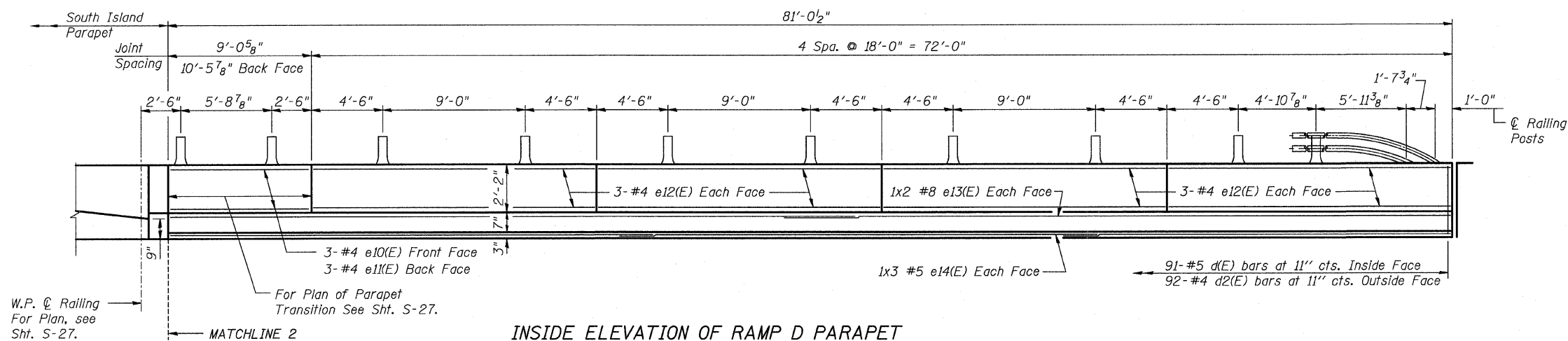
CONTRACT NO. 76709



INSIDE ELEVATION OF RAMP C PARAPET



INSIDE ELEVATION OF SOUTH ISLAND PARAPET



INSIDE ELEVATION OF RAMP D PARAPET

MIN. BAR LAP

- #5 - 2'-2"
- #8 - 4'-6"

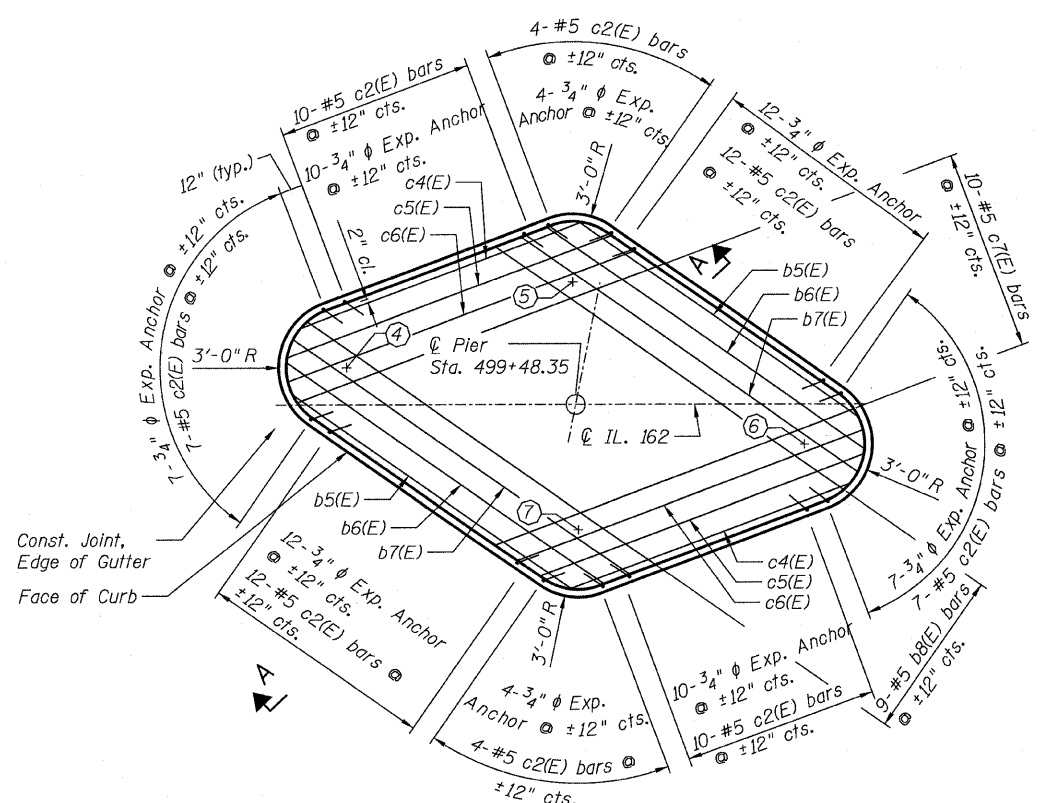
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 PARAPET ELEVATIONS
 RAMPS B, C, & SOUTH ISLAND

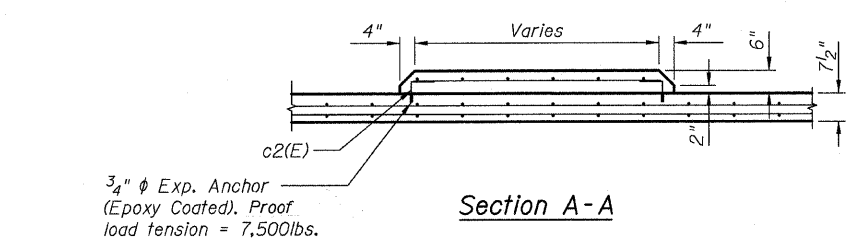
DESIGNED: BTO DRAWN: BTO
 CHECKED: JAW CHECKED: JAW

SHT. S-29 OF S-68

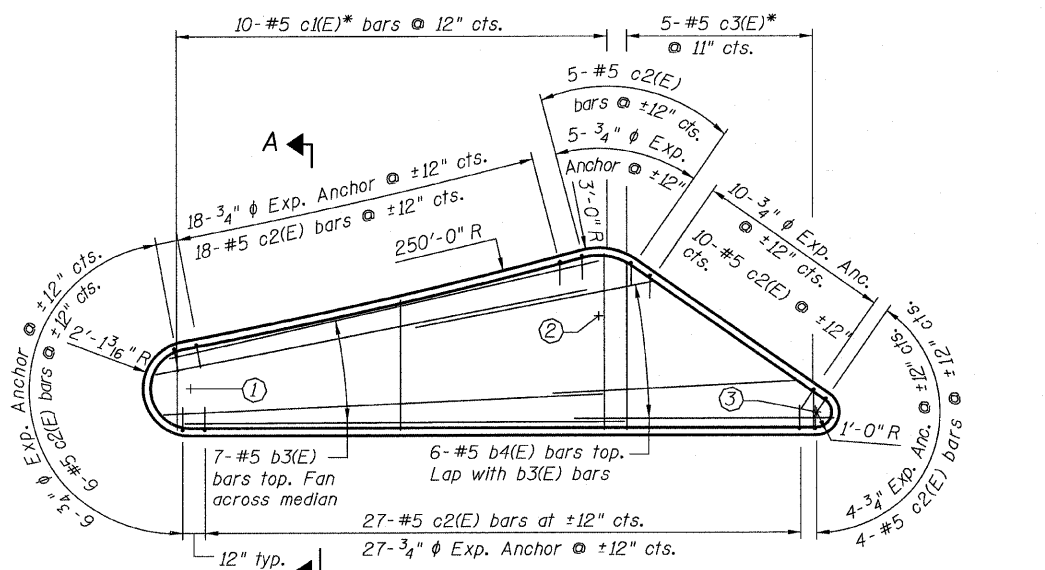




MEDIAN 2 PLAN



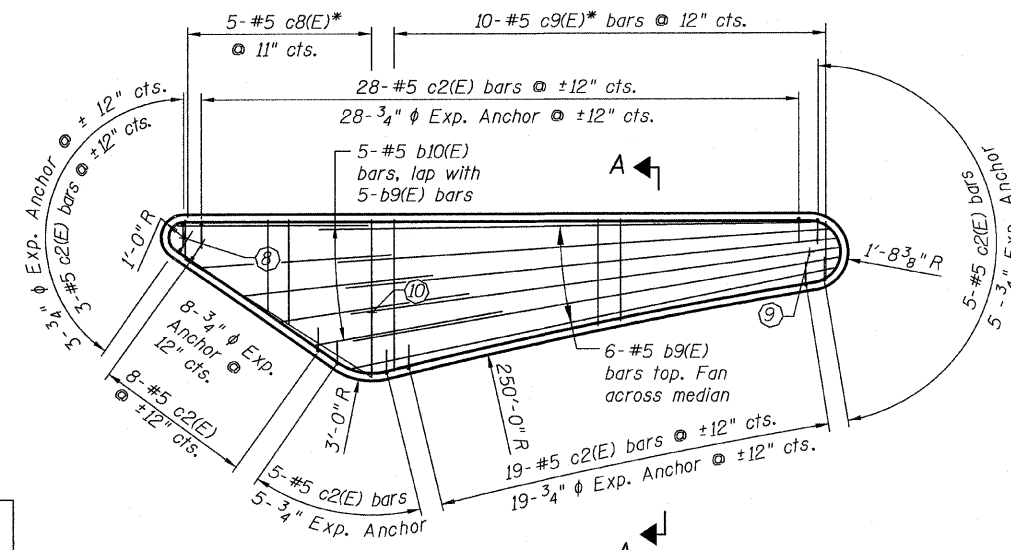
Section A-A



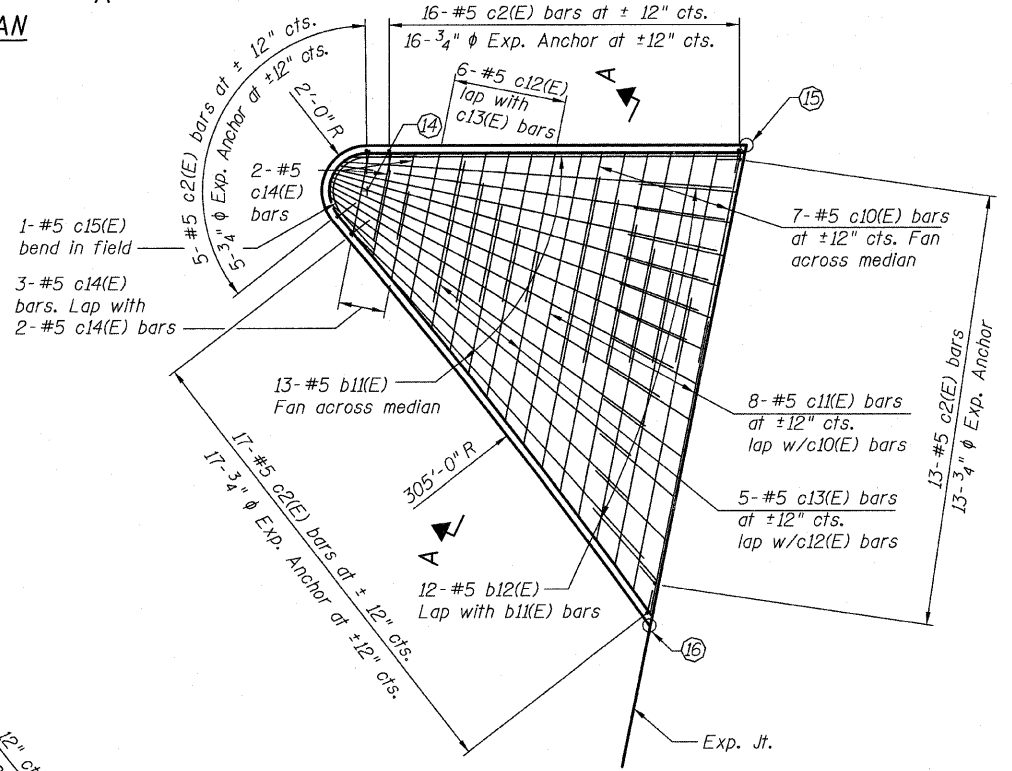
MEDIAN 1 PLAN

TABLE A
CENTER OF RADIUS &
EDGE OF MEDIAN FACE

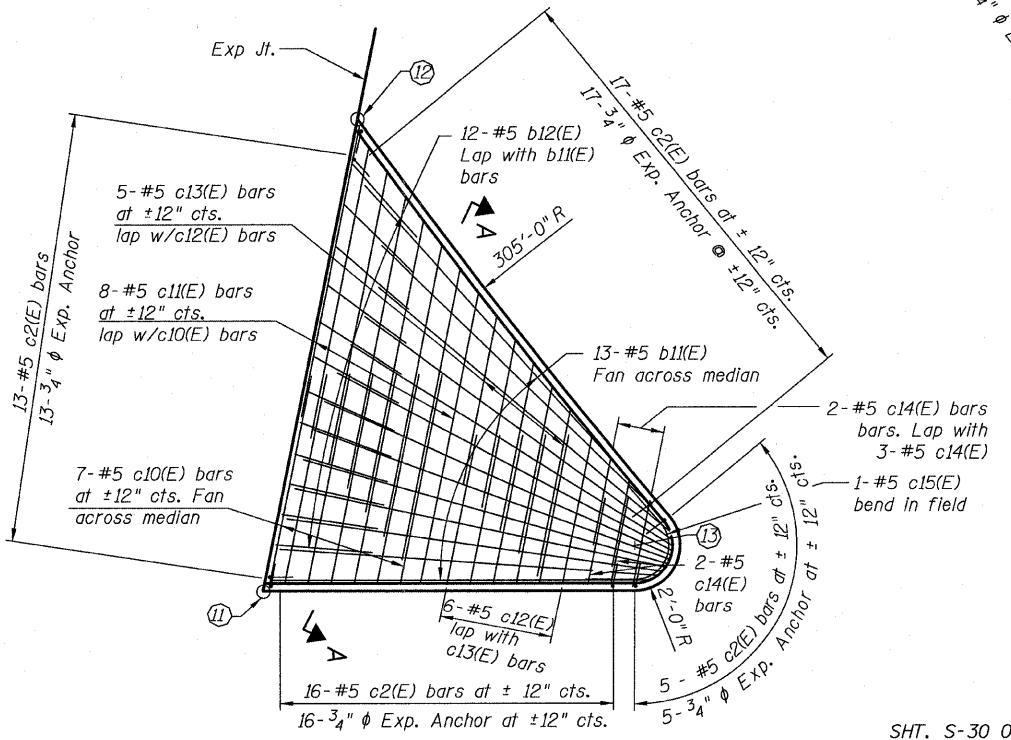
Point	IL 162 STA.	IL 162 OFFSET
1	498+67.42	15.90 ft Rt.
2	498+85.45	12.73 ft Rt.
3	498+95.08	17.00 ft Rt.
4	499+38.24	1.68 ft Lt.
5	499+48.24	5.44 ft Lt.
6	499+58.47	1.68 ft Rt.
7	499+48.47	5.44 ft Rt.
8	500+01.64	17.00 ft Lt.
9	500+29.28	16.30 ft Lt.
10	500+09.95	13.65 ft Lt.
11	498+77.01	47.00 ft Lt.
12	498+81.19	67.76 ft Lt.
13	498+93.40	49.00 ft Lt.
14	500+03.04	49.00 ft Lt.
15	500+19.69	47.00 ft Rt.
16	500+15.43	68.08 ft Rt.



MEDIAN 3 PLAN



MEDIAN 5 PLAN



MEDIAN 4 PLAN

- NOTES:
- ① Indicates center of median face radius or edge of median face. See Table A this sheet.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - For Bill of Material, see Sht. S-31.
 - * - Order bars full length. Cut to fit skew and use remainder of bars in opposite end.

REVISIONS	
NAME	DATE

SHT. S-30 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312.555-0655, FAX 312.553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1.60-10HB	MADISON	420	249
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1,164	5	26'-2"	—
a1(E)	1,164	5	24'-6"	—
a2(E)	224	5	4'-8"	—
a3(E)	18	5	26'-7"	—
a4(E)	18	5	24'-8"	—
a5(E)	86	5	47'-2"	—
a6(E)	65	5	44'-6"	—
a7(E)	12	5	30'-3"	—
a8(E)	61	5	47'-2"	—
a9(E)	46	5	44'-6"	—
a10(E)	154	5	4'-8"	—
a11(E)	89	5	35'-7"	—
a12(E)	80	5	38'-1"	—
a13(E)	12	5	26'-1"	—
a14(E)	63	5	35'-9"	—
a15(E)	58	5	38'-1"	—
a16(E)	1	5	45'-0"	—
a17(E)	2	5	44'-6"	—
a18(E)	556	5	38'-2"	—
a19(E)	556	5	35'-8"	—
a20(E)	1	5	45'-0"	—
a21(E)	32	5	1'-6"	—
a22(E)	318	6	4'-6"	—
b(E)	725	5	34'-0"	—
b1(E)	143	6	53'-0"	—
b2(E)	924	5	28'-9"	—
b3(E)	7	5	20'-5"	—
b4(E)	6	5	11'-10"	—
b5(E)	2	5	15'-0"	—
b6(E)	2	5	17'-1"	—
b7(E)	2	5	18'-1"	—
b8(E)	9	5	18'-9"	—
b9(E)	6	5	21'-9"	—
b10(E)	5	5	9'-9"	—
b11(E)	26	5	16'-10"	—
b12(E)	24	5	4'-5"	—
b13(E)	10	5	14'-2"	—
b14(E)	15	5	15'-1"	—
b15(E)	8	5	38'-5"	—
b16(E)	10	5	27'-5"	—
b17(E)	15	5	14'-3"	—
b18(E)	76	5	20'-0"	—
b19(E)	61	5	20'-0"	—
b20(E)	41	5	31'-5"	—
b21(E)	41	5	42'-0"	—
b22(E)	16	5	36'-4"	—
b23(E)	38	5	31'-8"	—
b24(E)	38	5	42'-3"	—
b25(E)	96	5	4'-8"	—
b26(E)	16	5	36'-11"	—
b27(E)	74	5	4'-8"	—
b28(E)	31	5	41'-8"	—
b29(E)	31	5	41'-2"	—
b30(E)	30	5	41'-6"	—
b31(E)	30	5	42'-4"	—
b32(E)	32	5	42'-3"	—
c(E)	48	4	14'-9"	—
c1(E)	4	8	37'-6"	—
c2(E)	6	5	24'-11"	—
c3(E)	3	4	9'-8"	—
c4(E)	3	4	10'-5"	—
c5(E)	5	4	14'-0"	—
c6(E)	5	4	14'-8"	—
c7(E)	40	4	12'-7"	—
c8(E)	5	4	12'-3"	—
c9(E)	5	4	13'-5"	—
c10(E)	6	4	8'-10"	—
c11(E)	6	4	10'-3"	—
c12(E)	48	4	17'-9"	—
c13(E)	8	8	43'-5"	—
c14(E)	12	5	28'-11"	—
c15(E)	4	8	38'-1"	—
c16(E)	6	5	25'-4"	—
e1(E)	3	4	10'-10"	—
e2(E)	3	4	11'-8"	—
e3(E)	5	4	13'-1"	—
e4(E)	5	4	13'-9"	—
e5(E)	5	4	12'-2"	—
e6(E)	5	4	13'-5"	—
e7(E)	32	5	4'-0"	—
e8(E)	450	5	4'-1"	—
s(E)	32	5	4'-0"	—
x(E)	450	5	4'-1"	—

Bar	No.	Size	Length	Shape
c(E)	127	5	2'-5"	—
c1(E)	10	5	11'-3"	—
c2(E)	306	5	1'-7"	—
c3(E)	5	5	9'-1"	—
c4(E)	2	5	13'-3"	—
c5(E)	2	5	15'-3"	—
c6(E)	2	5	16'-4"	—
c7(E)	10	5	16'-11"	—
c8(E)	5	5	8'-7"	—
c9(E)	10	5	9'-2"	—
c10(E)	14	5	9'-9"	—
c11(E)	16	5	13'-1"	—
c12(E)	12	5	6'-9"	—
c13(E)	10	5	7'-7"	—
c14(E)	10	5	3'-10"	—
c15(E)	2	5	7'-9"	—
c16(E)	67	5	14'-8"	—

d(E)	342	5	3'-2"	L
d1(E)	342	5	2'-5"	L
d2(E)	346	4	3'-2"	L
d3(E)	346	4	3'-11"	L
d4(E)	115	4	5'-1"	L
d5(E)	111	6	4'-3"	L
d6(E)	124	4	2'-0"	L

e(E)	48	4	14'-9"	—
e1(E)	4	8	37'-6"	—
e2(E)	6	5	24'-11"	—
e3(E)	3	4	9'-8"	—
e4(E)	3	4	10'-5"	—
e5(E)	5	4	14'-0"	—
e6(E)	5	4	14'-8"	—
e7(E)	40	4	12'-7"	—
e8(E)	5	4	12'-3"	—
e9(E)	5	4	13'-5"	—
e10(E)	6	4	8'-10"	—
e11(E)	6	4	10'-3"	—
e12(E)	48	4	17'-9"	—
e13(E)	8	8	43'-5"	—
e14(E)	12	5	28'-11"	—
e15(E)	4	8	38'-1"	—
e16(E)	6	5	25'-4"	—
e17(E)	3	4	10'-10"	—
e18(E)	3	4	11'-8"	—
e19(E)	5	4	13'-1"	—
e20(E)	5	4	13'-9"	—
e21(E)	5	4	12'-2"	—
e22(E)	5	4	13'-5"	—

Reinforcement Bars, Epoxy Coated	Pound	233,410
Concrete Superstructure	Cu. Yds.	858

NOTES:

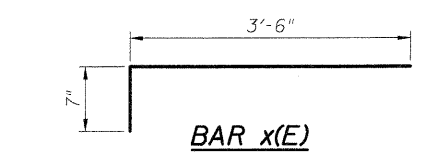
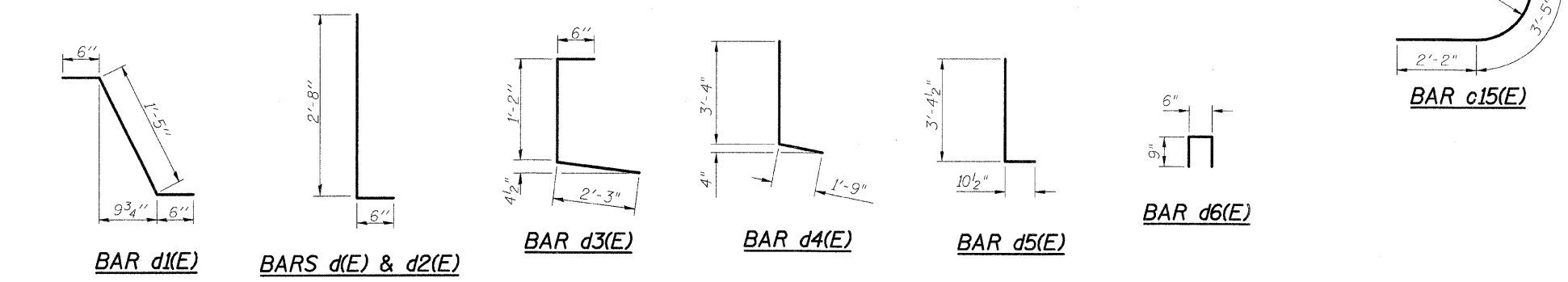
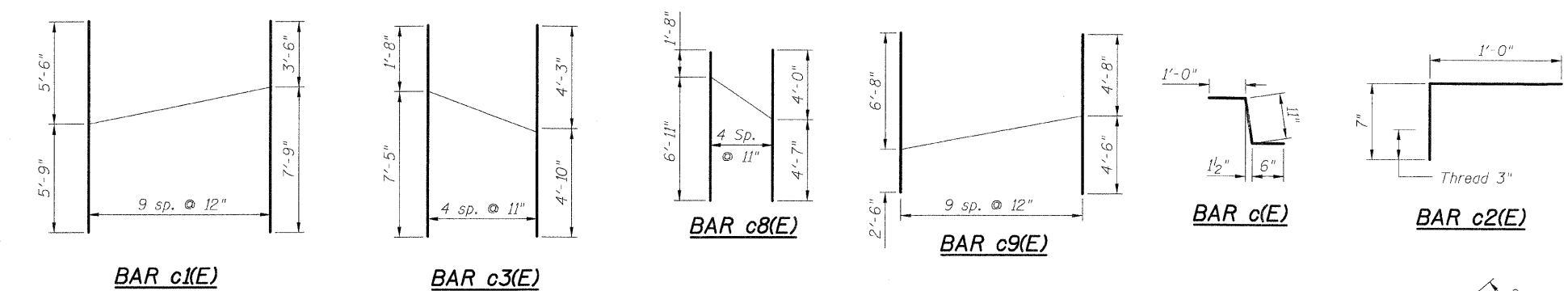
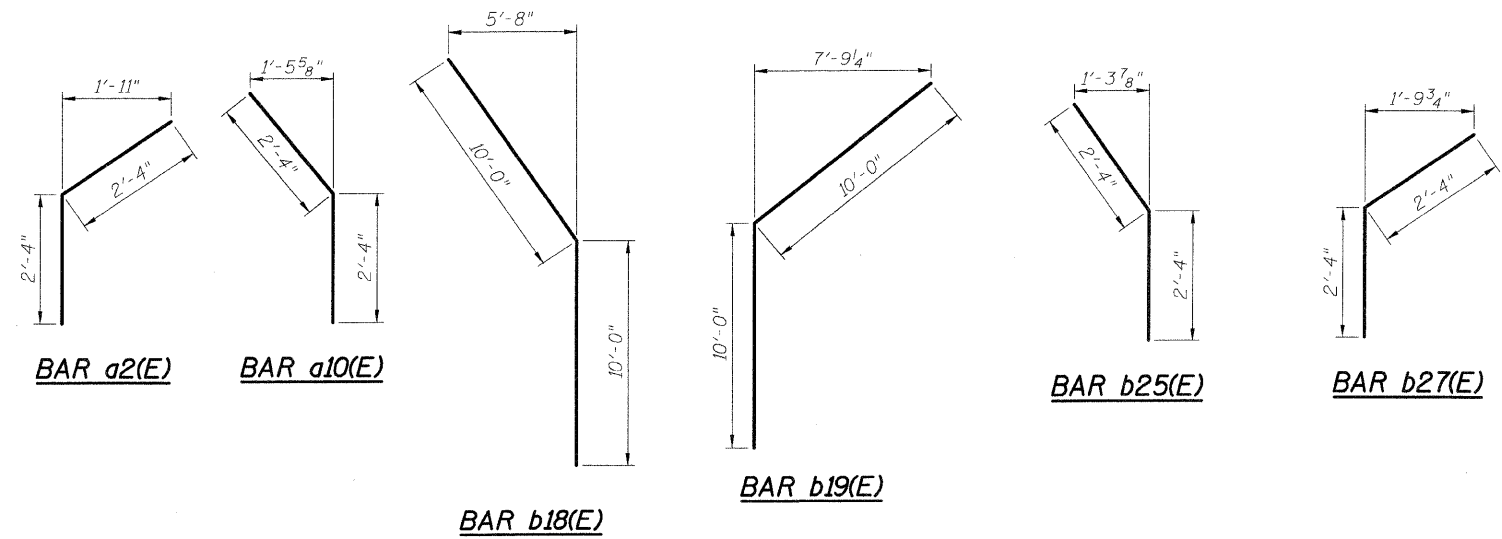
1. Reinforcement bars designated (E) shall be Epoxy Coated.
2. All Expansion Anchors shall be Epoxy Coated and included in the cost of "Reinforcement Bars, Epoxy Coated".

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 SUPERSTRUCTURE B.O.M.
 DESIGNED: BTO DRAWN: BTO
 DATE: 03/06 CHECKED: JAW CHECKED: JAW

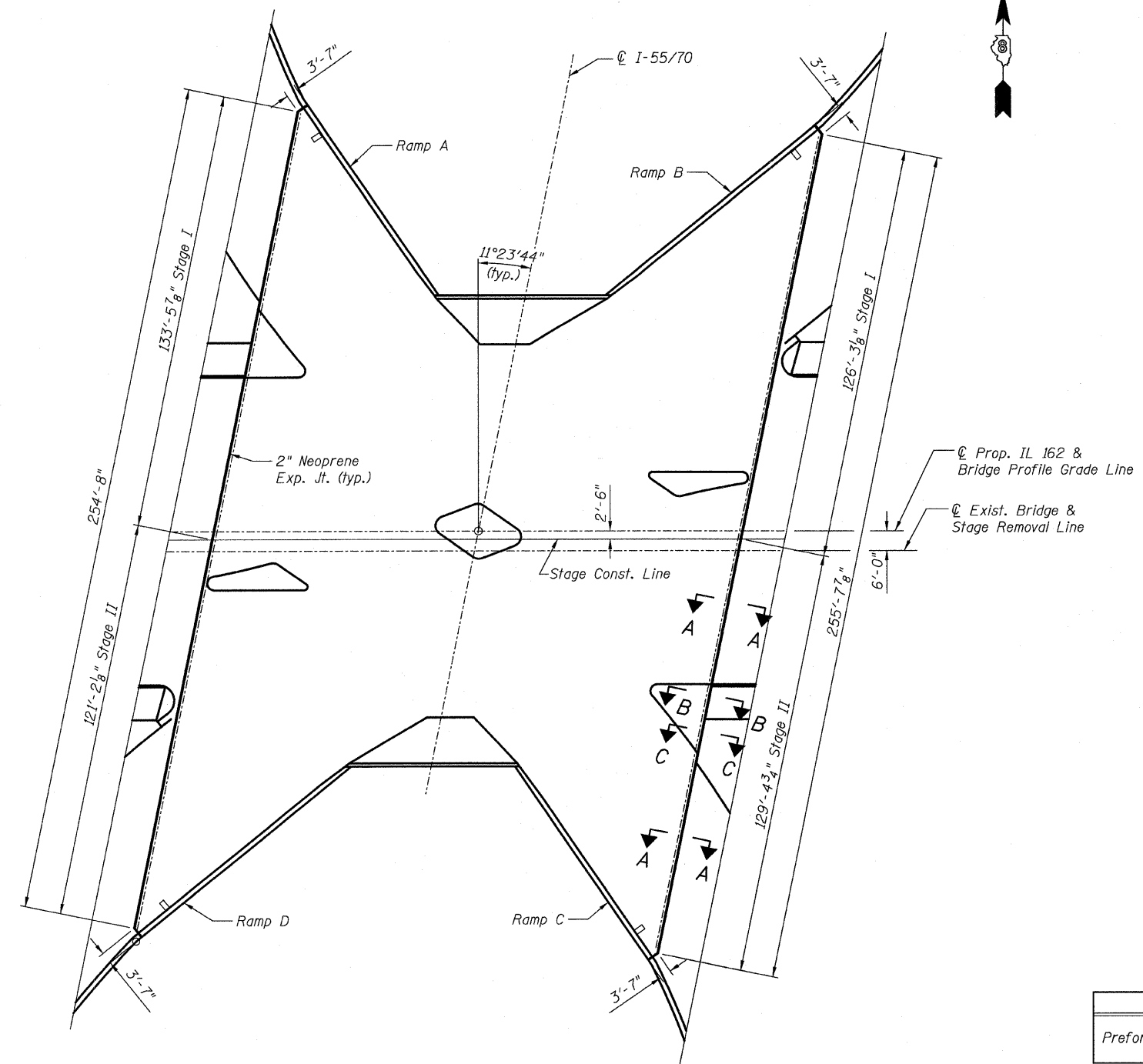
SHT. S-31 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-8015
 312/353-0655, FAX 312/353-0661



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	250
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



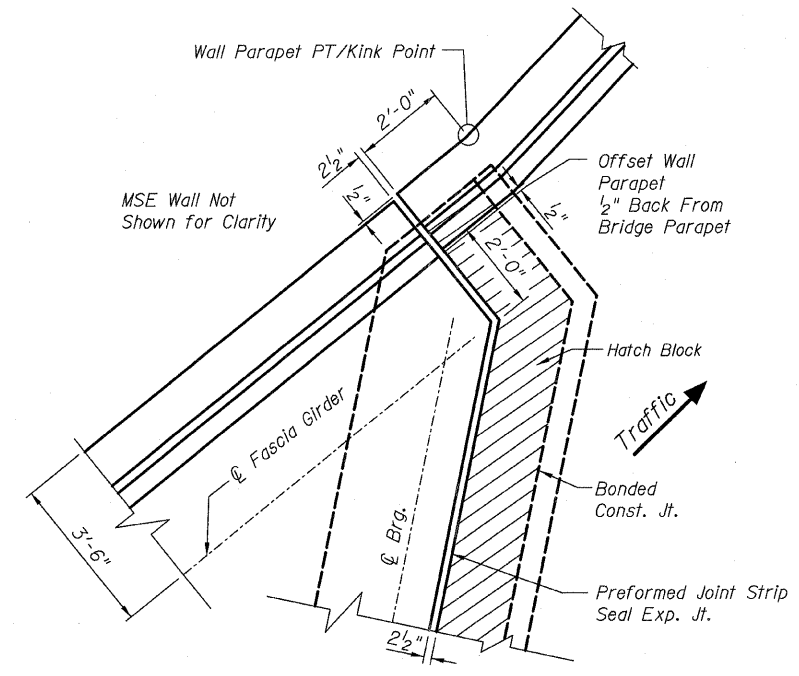
PLAN

BILL OF MATERIAL

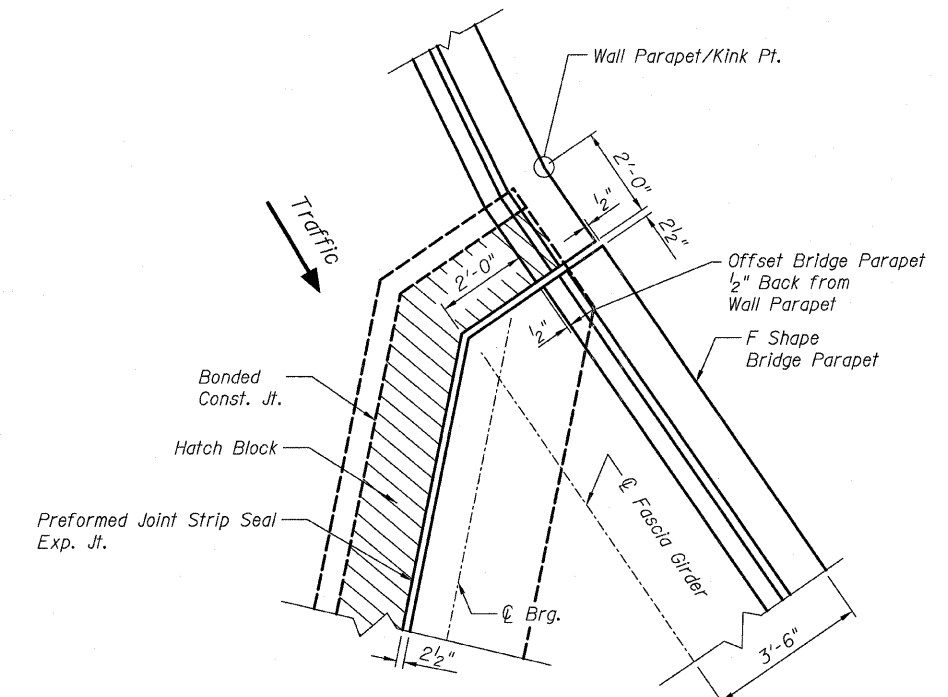
Item	Unit	Total
Preformed Joint Strip Seal	Foot	524

NOTES:

1. For Expansion Joint Installation details, see sht S-33.
2. See Sht. S-24 for sections A-A, B-B, & C-C.
3. See Shts. S-54 & S-56 for Medians 4 & 5 Abut. backwall details.

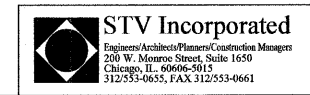


PARAPET DETAIL (RAMPS B&D)



PARAPET DETAIL (RAMPS A&C)

SHT. S-32 OF S-68



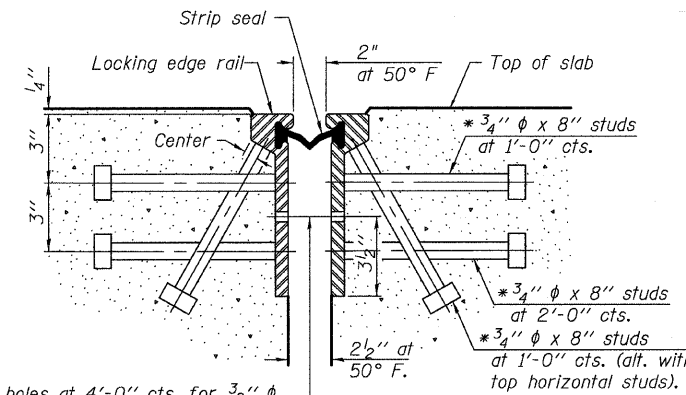
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 EXPANSION JOINT DETAILS
 DESIGNED: BTO DRAWN: BTO
 CHECKED: JAN CHECKED: JAN
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	251
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

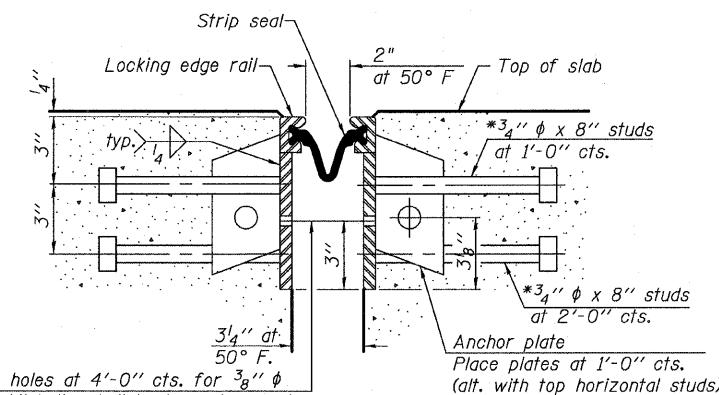
CONTRACT NO. 76709

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



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

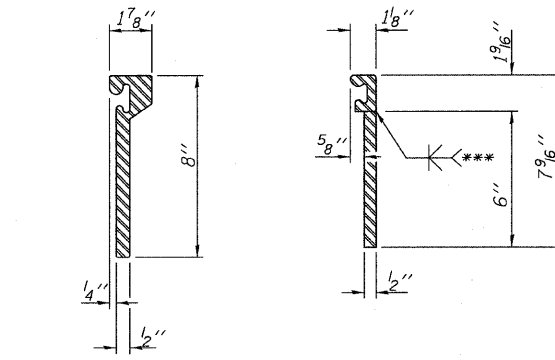
SECTION THRU ROLLED RAIL JOINT



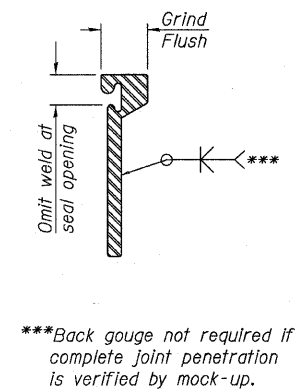
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

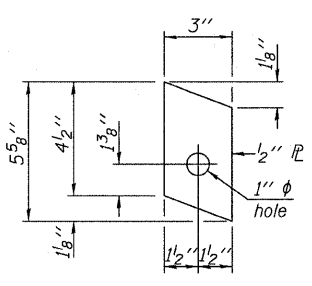
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement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



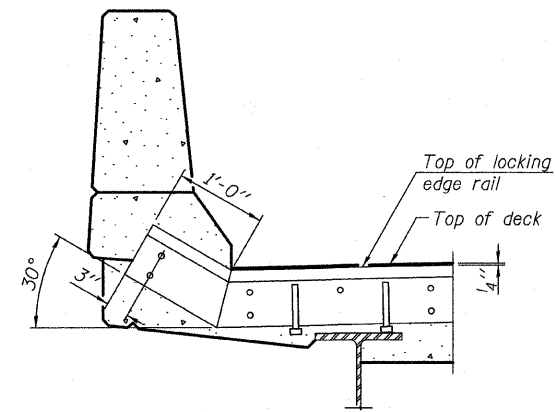
ROLLED EXTRUDED RAIL WELDED RAIL



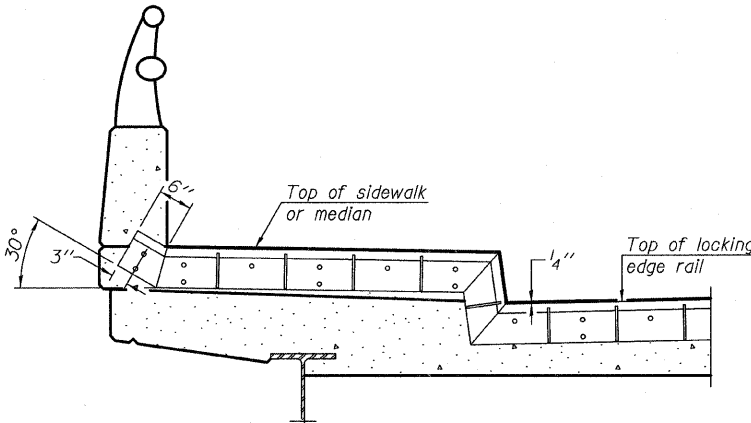
LOCKING EDGE RAIL SPLICE
 The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE (for welded rail)

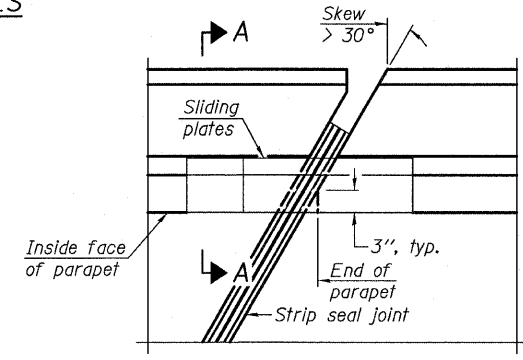


AT PARAPET

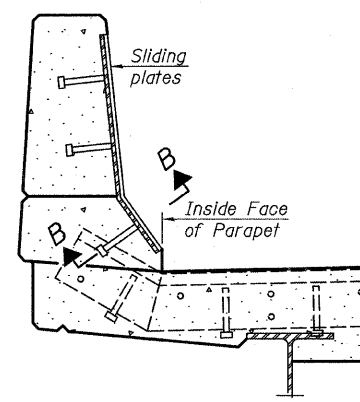


AT SIDEWALK OR MEDIAN
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

LOCKING EDGE RAILS

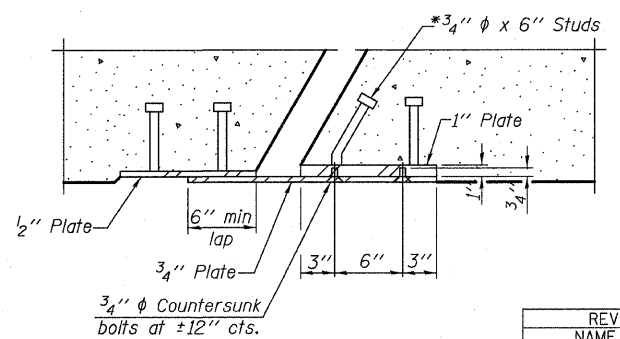


PLAN



SECTION A-A
 POINT BLOCK DETAILS (for skews > 30°)

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	524

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 PREFORMED JOINT STRIP SEAL
 DESIGNED: BTO DRAWN: BTO
 CHECKED: BG CHECKED: BG
 DATE: 03/06

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/533-0655, FAX 312/533-0661

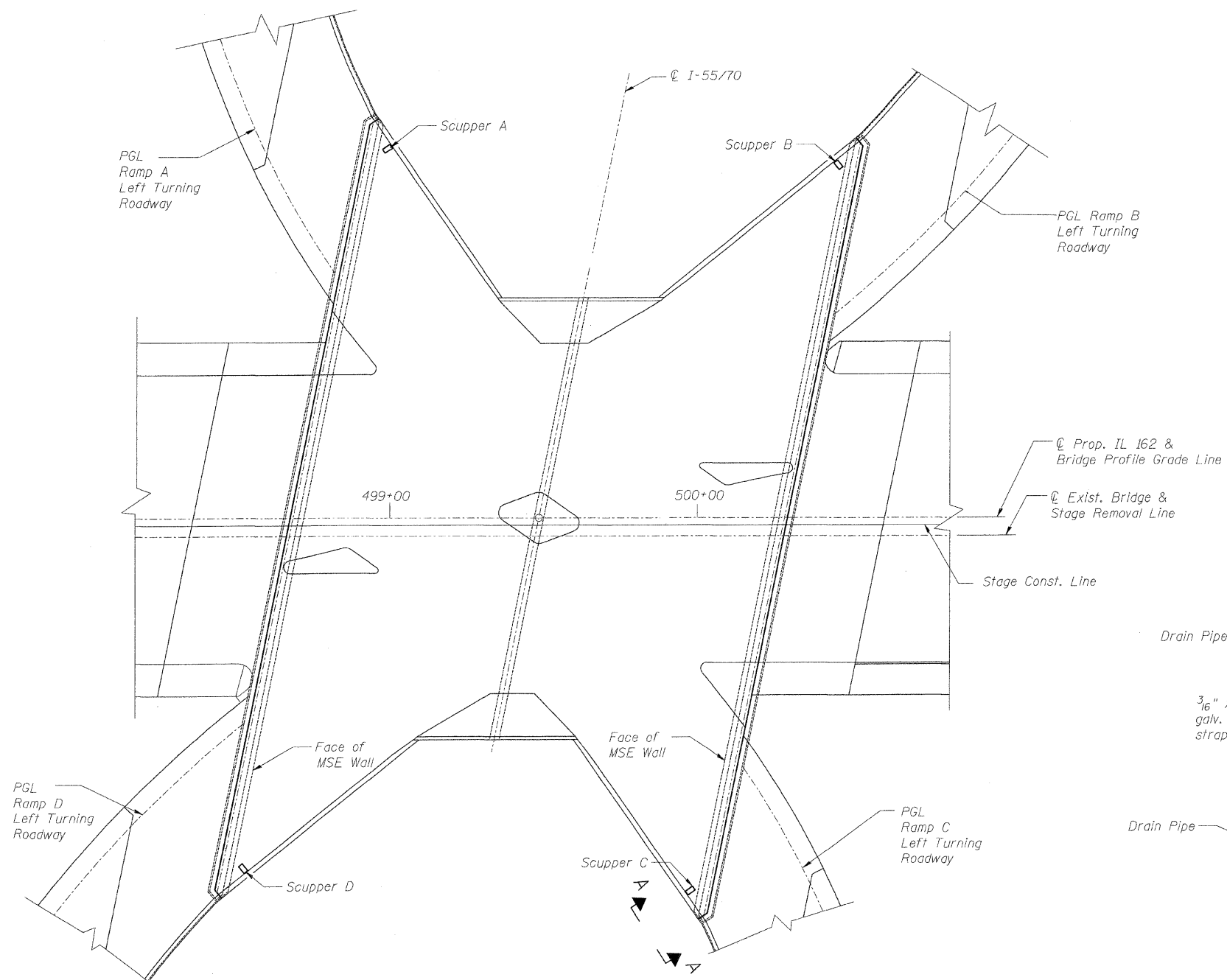
SHT. S-33 OF S-68

EJ-SSJ

10-1-08

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	252
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709

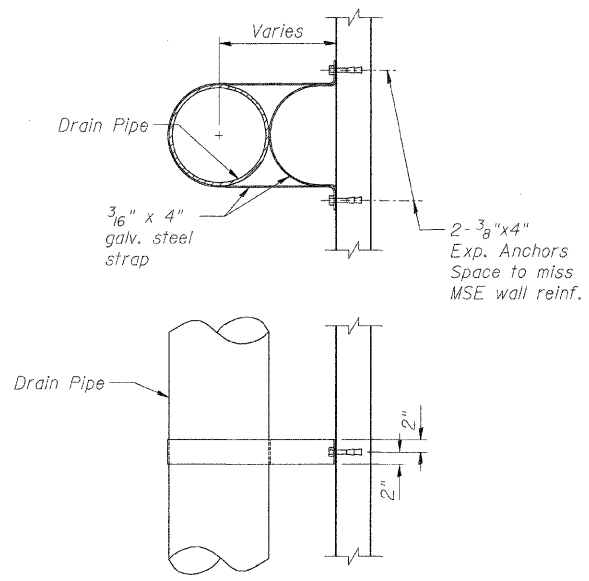


PLAN

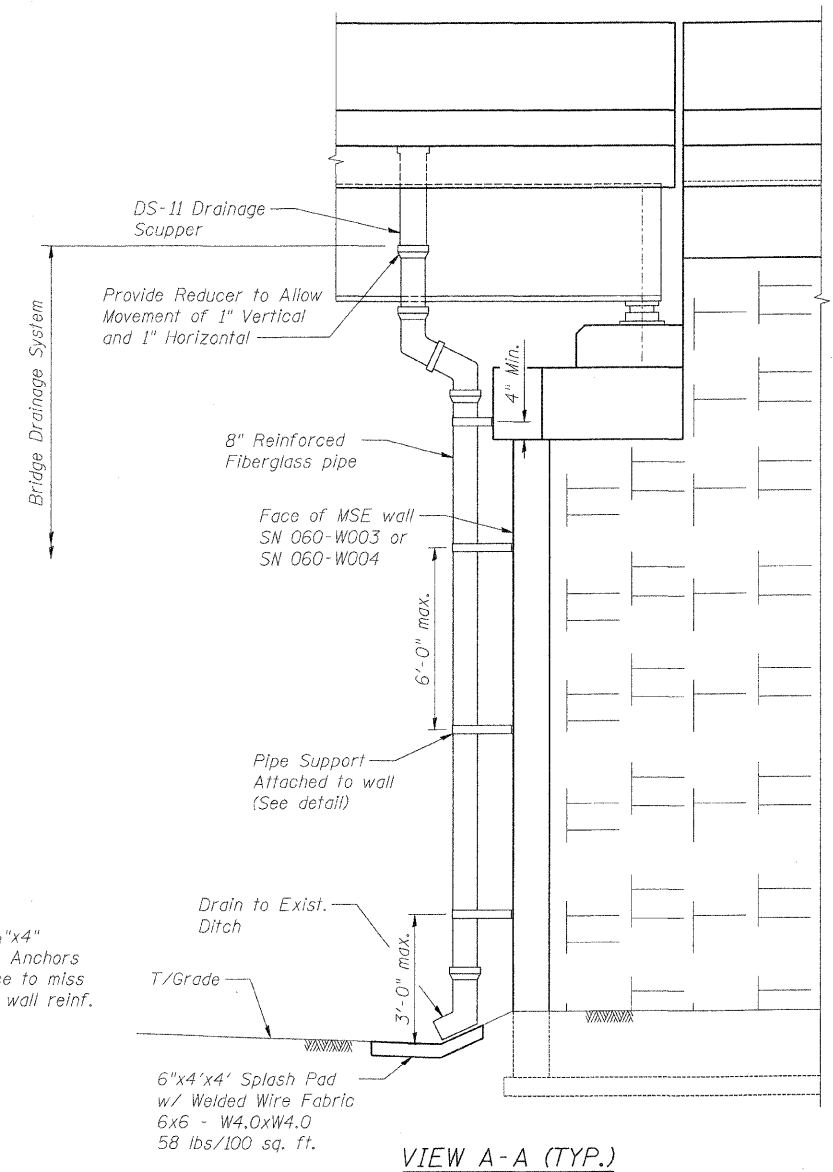
Scupper	Station	Offset
A	49900.65	121.13 (L)
B	50044.68	116.41 (L)
C	49995.84	122.11 (R)
D	49852.01	116.42 (R)

SCUPPER LOCATION TABLE

- NOTES:**
 1. See S-24 for section thru ramp parapet.
 2. For Scupper locations, see deck plans S-17 thru S-20.



PIPE BRACKET DETAIL AT MSE WALL



VIEW A-A (TYP.)

BILL OF MATERIAL

Item	Unit	Total
Drainage System	L.S.	1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

BRIDGE DRAINAGE SYSTEM

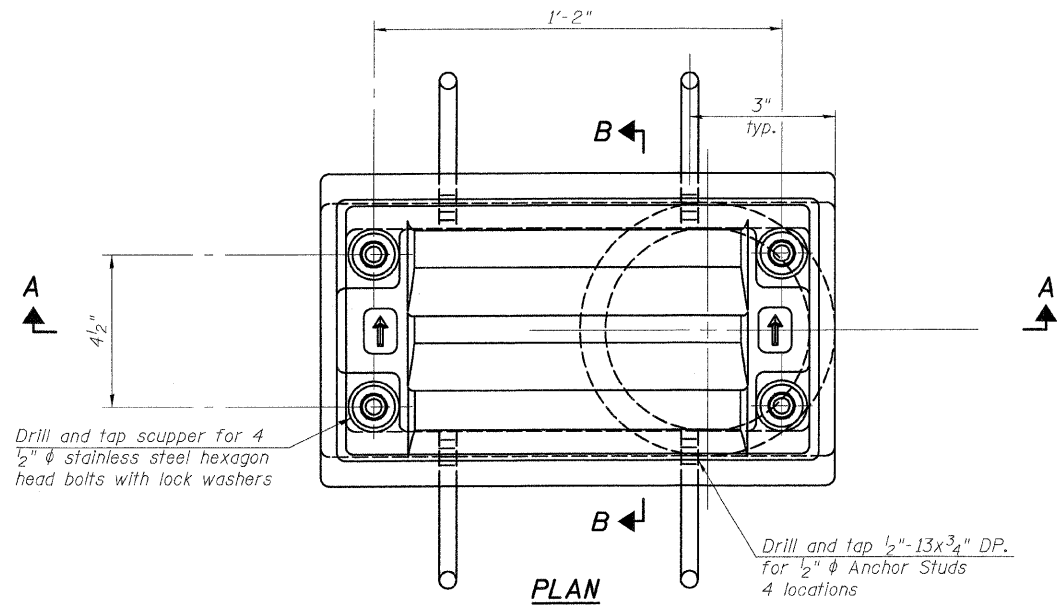
DESIGNED: JAN
 CHECKED: AWH
 DATE: 03/06
 DRAWN: BTO
 CHECKED: JAN

SHT. S-34 OF S-68

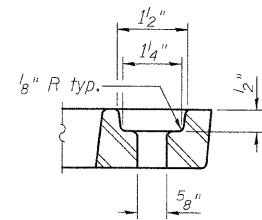
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312/233-0653, FAX 312/253-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	253
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

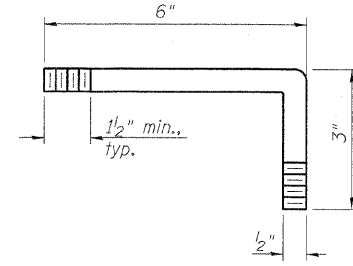
CONTRACT NO. 76709



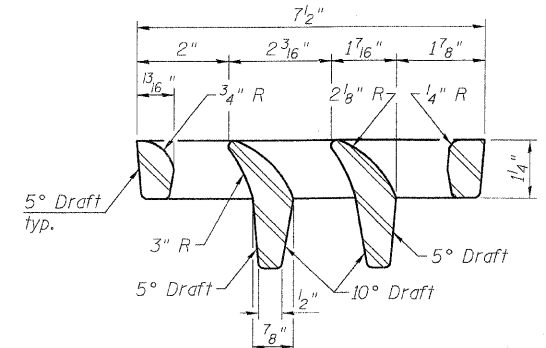
PLAN



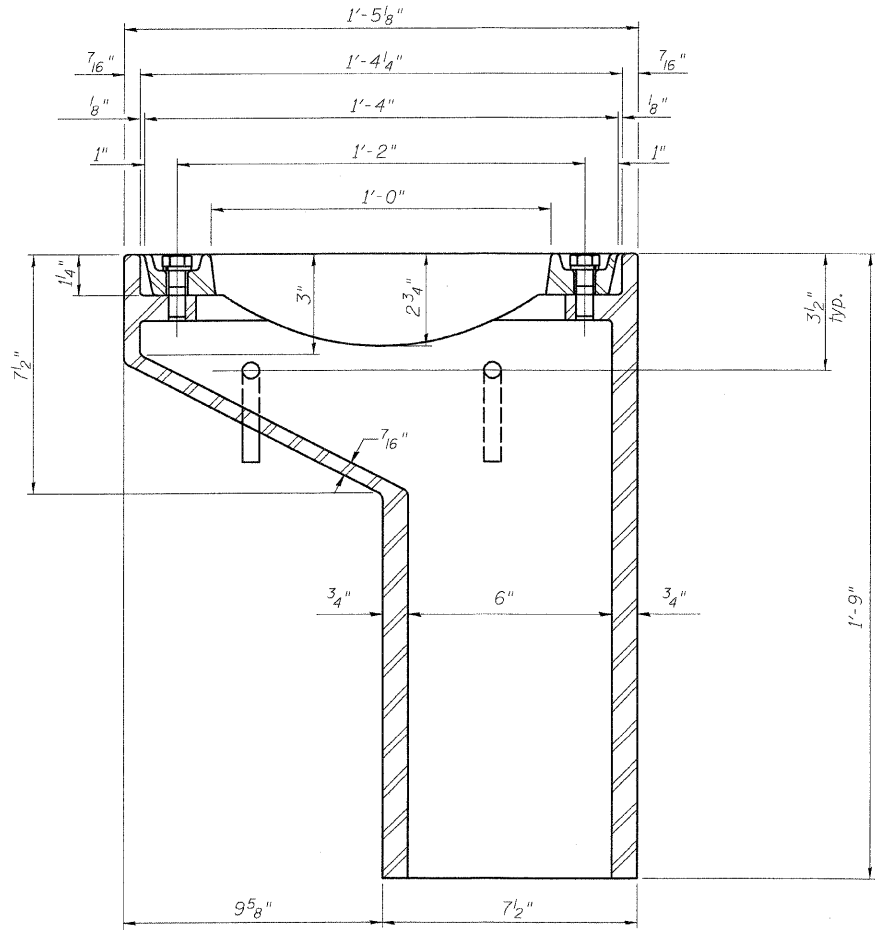
BOLT HOLE DETAIL



ANCHOR STUD DETAIL

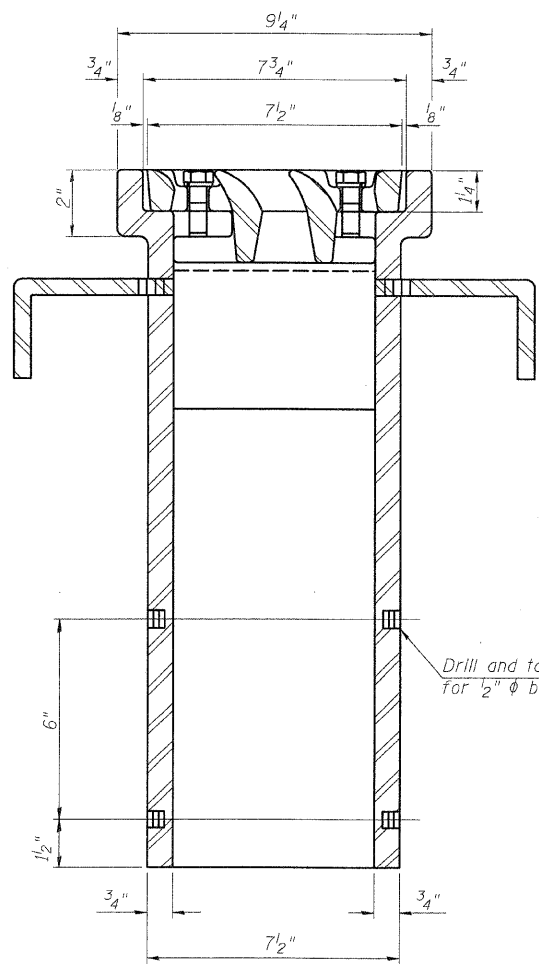


VANE GRATE DETAIL



SECTION A-A

See Sht. S-24 for scupper location relative to parapet.



SECTION B-B

Drill and tap 1/2"-13x1/2" DP. for 1/2" ϕ bolts. (4 locations)

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.
- The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. 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 cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
- 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-11.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

DRAINAGE SCUPPER, DS 11

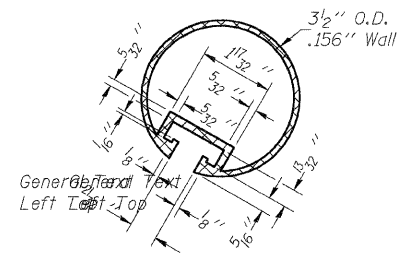
DESIGNED: BTO
CHECKED: JAN
DATE: 03/06
DRAWN: BTO
CHECKED: JAN

SHT. S-35 OF S-68

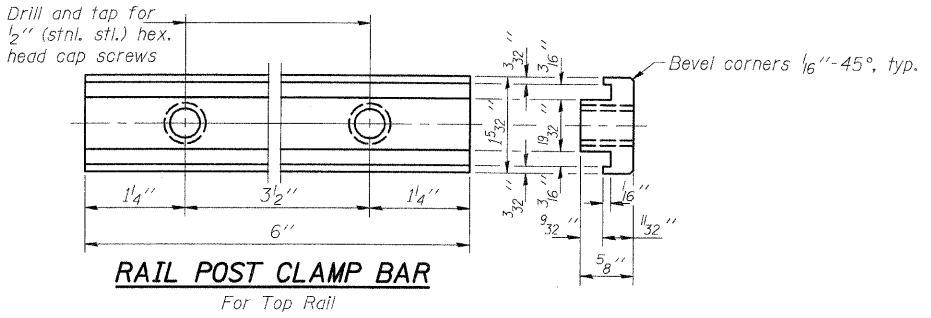
STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1, 60-10HB	MADISON	420	254	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

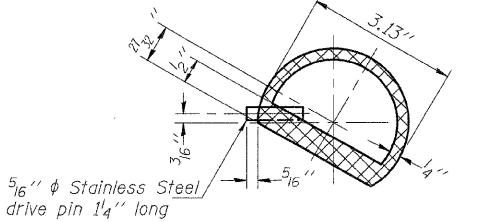


SECTION THRU TOP RAIL

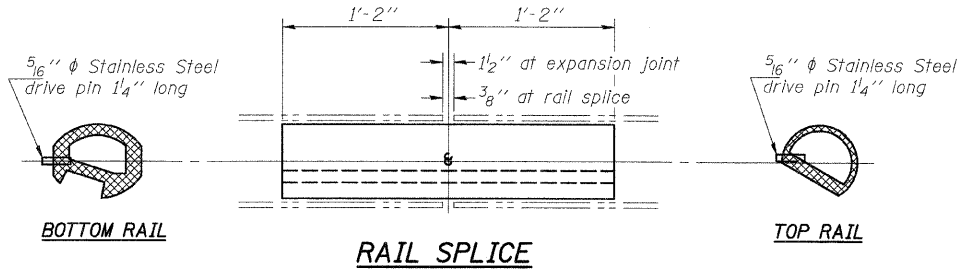


RAIL POST CLAMP BAR
For Top Rail

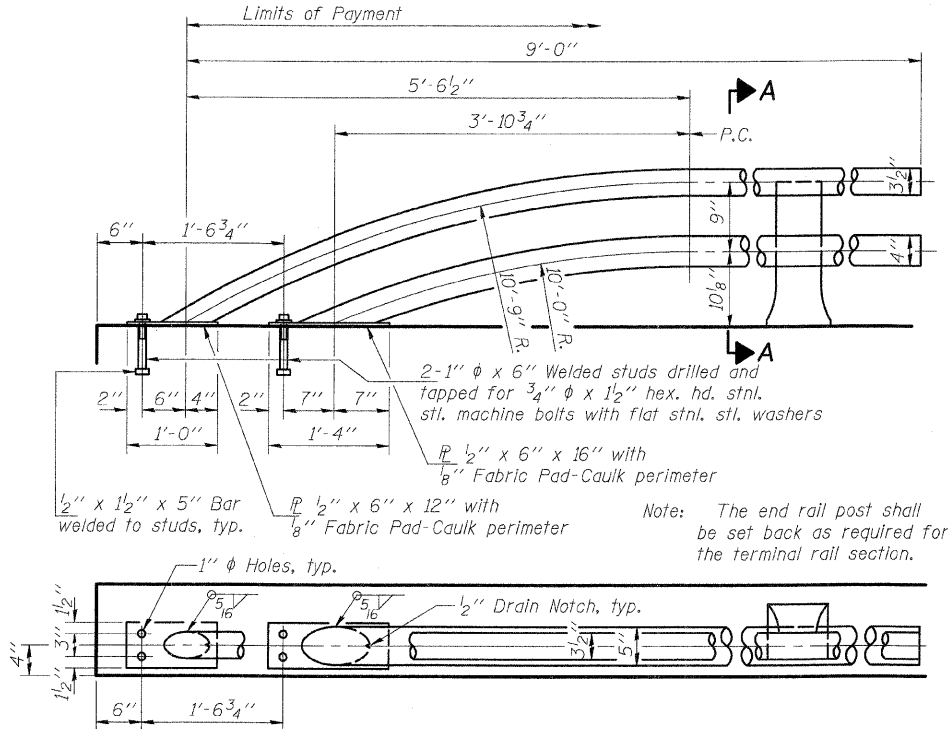
Notes: All Posts shall be normal to parapet.
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for ALUMINUM RAILING, TYPE L.
Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.



SECTION THRU SPLICE
For Top Rail



RAIL SPLICE

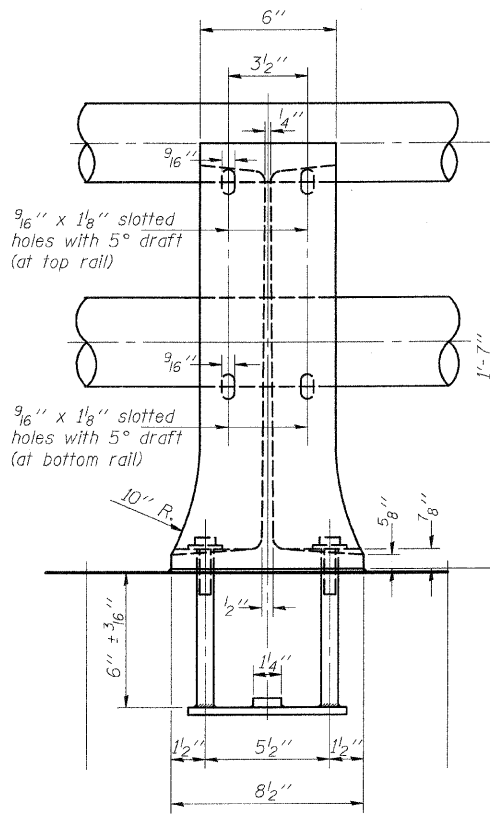


RAIL TERMINAL SECTION

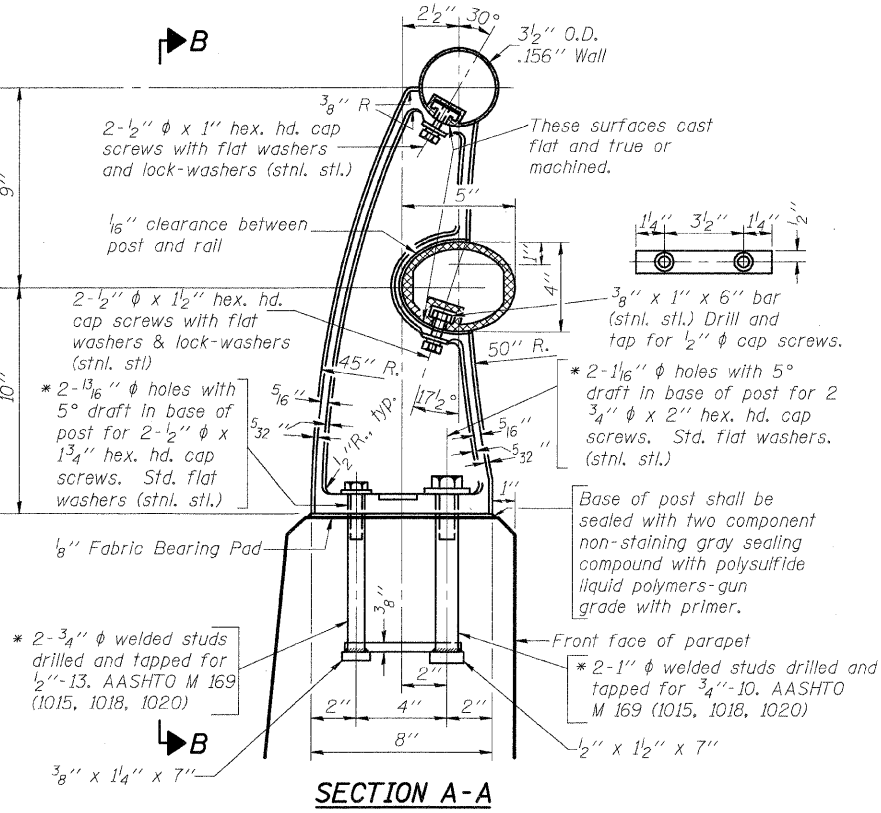
BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	408

TYPE L ALUMINUM RAILING

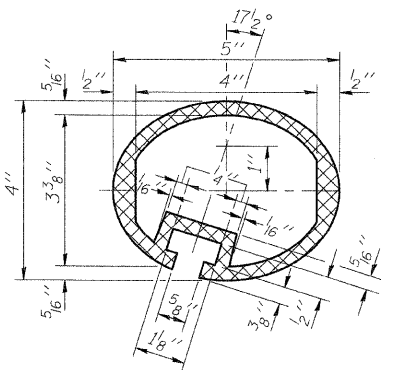


VIEW B-B

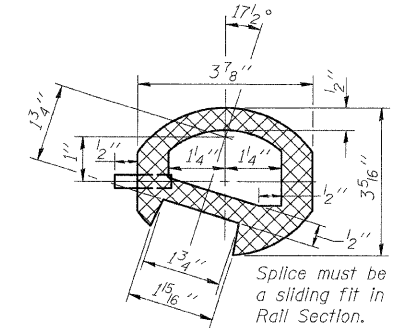


SECTION A-A

RAIL POST DETAILS



SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE

* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting stainless steel anchor rods of the same diameter and grade as the specified cap screws. Embedment shall be according to the manufacturer's specifications.

SHT. S-36 OF S-68

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1550
Chicago, IL 60606-5013
312-553-0055, FAX 312-553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

TYPE L RAILING

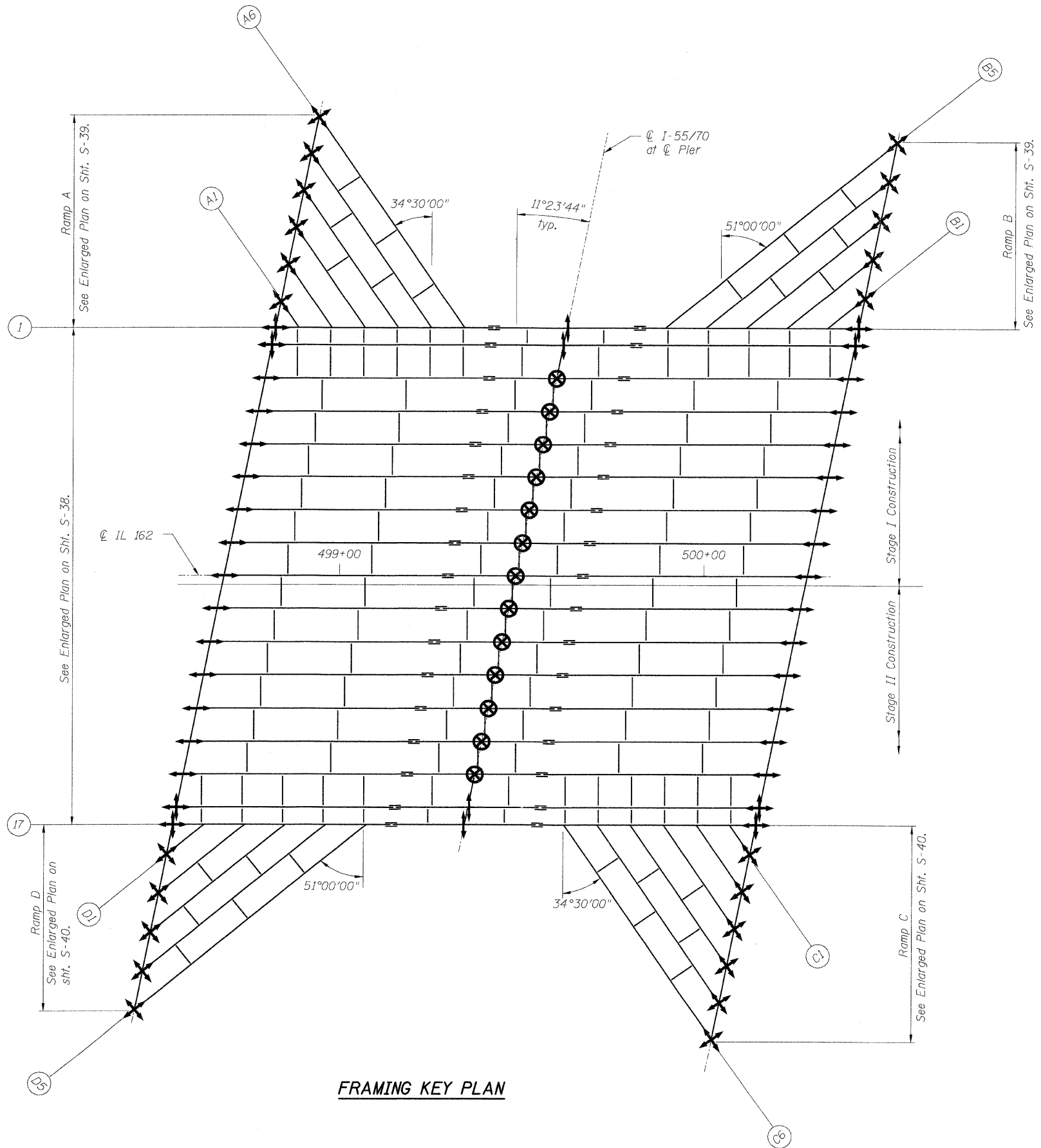
DESIGNED: BTO
CHECKED: JAN

DRAWN: BTO
CHECKED: JAN

DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1,60-10HB	MADISON	420	255
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



FRAMING KEY PLAN

- LEGEND:**
- Guided Bearing ↔ Direction of Movement
 - ✱ Non-Guided Bearing ✱ Direction of Movement
 - ⊗ Fixed Bearing

SHT. S-37 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-4015
 312/553-9655, FAX 312/553-0661

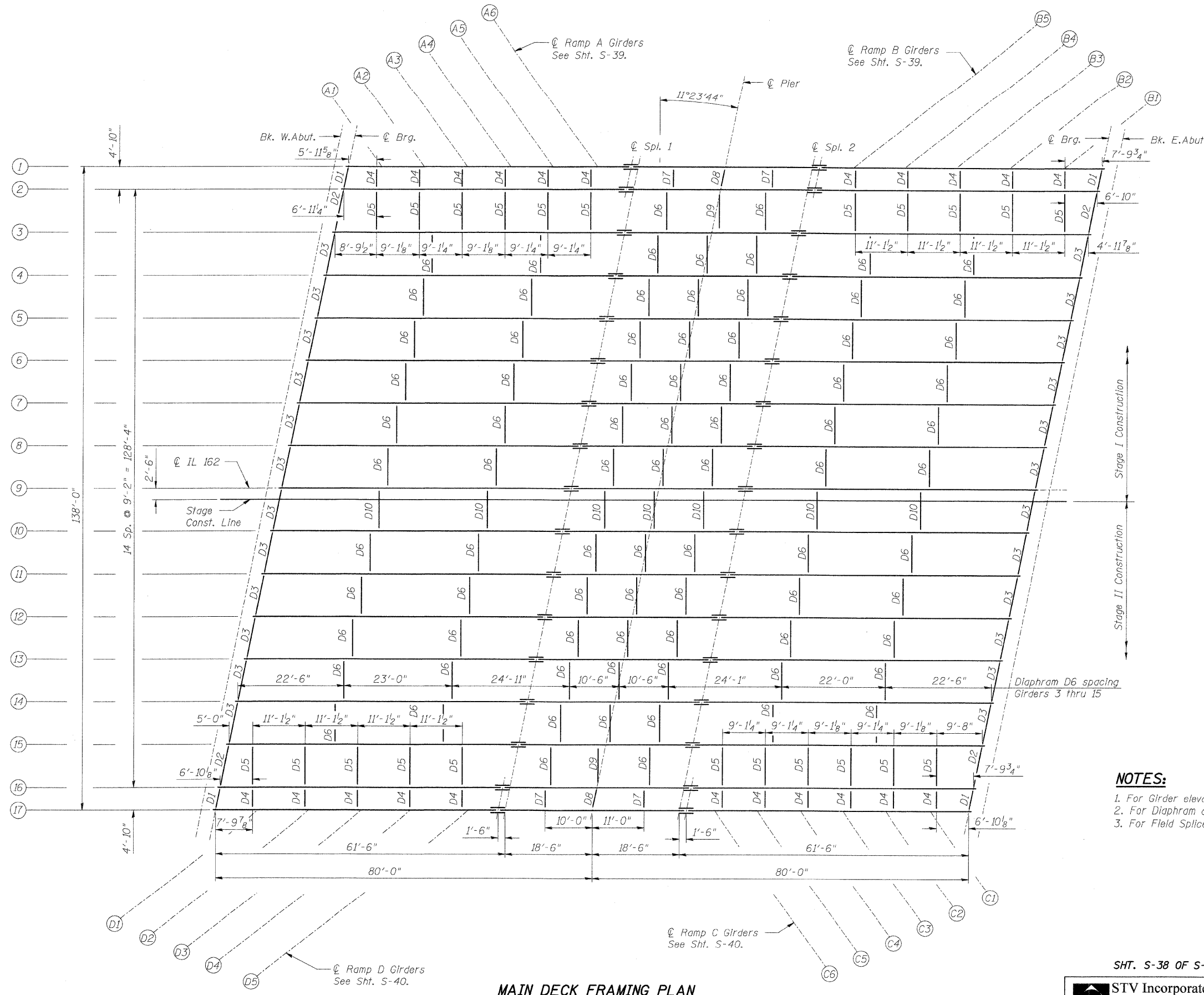
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

FRAMING KEY PLAN

DESIGNED: BTO DRAWN: BTO
 CHECKED: AWB CHECKED: JAN
 DATE: 03/06

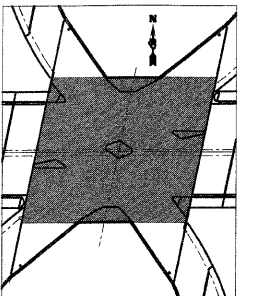
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	256
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76709				



MAIN DECK FRAMING PLAN

NOTES:

1. For Girder elevations see Shts. S-41 thru S-43.
2. For Diaphragm details see Shts S-48 & S-49.
3. For Field Splice details see Sht. S-47.



KEY PLAN

REVISIONS	
NAME	DATE

SHT. S-38 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-2013
 312-953-0655, FAX 312-953-0661

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

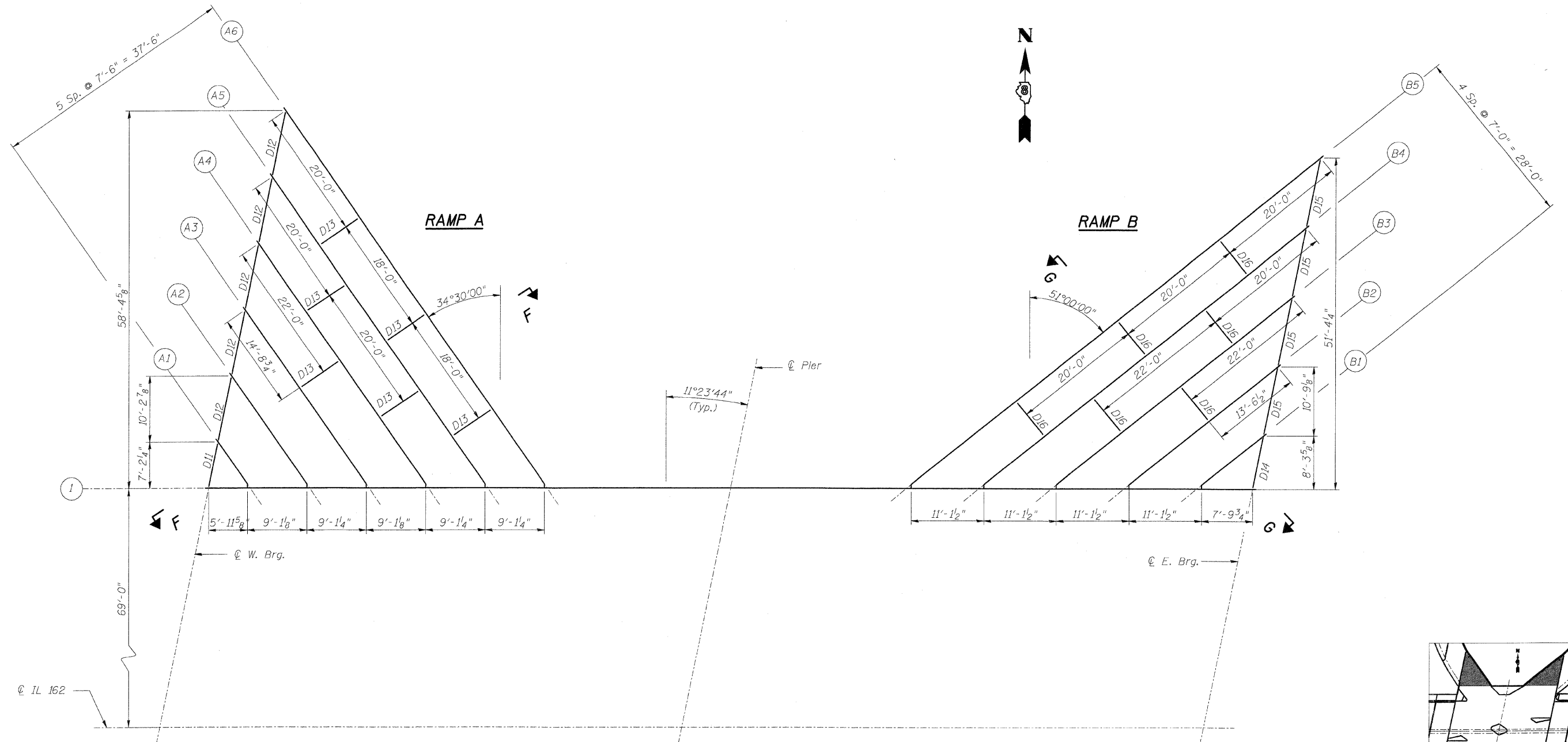
FRAMING PLAN - IL 162

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAN CHECKED: JAN

DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1,60-10HB	MADISON	420	257
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



RAMP A&B FRAMING PLAN

NOTES:

1. For Girder elevations see Sht. S-44.
2. For Diaphragm details see Shts. S-48 & S-49.
3. For Sections F-F & G-G, see Sht. S-22.

SHT. S-39 OF S-68

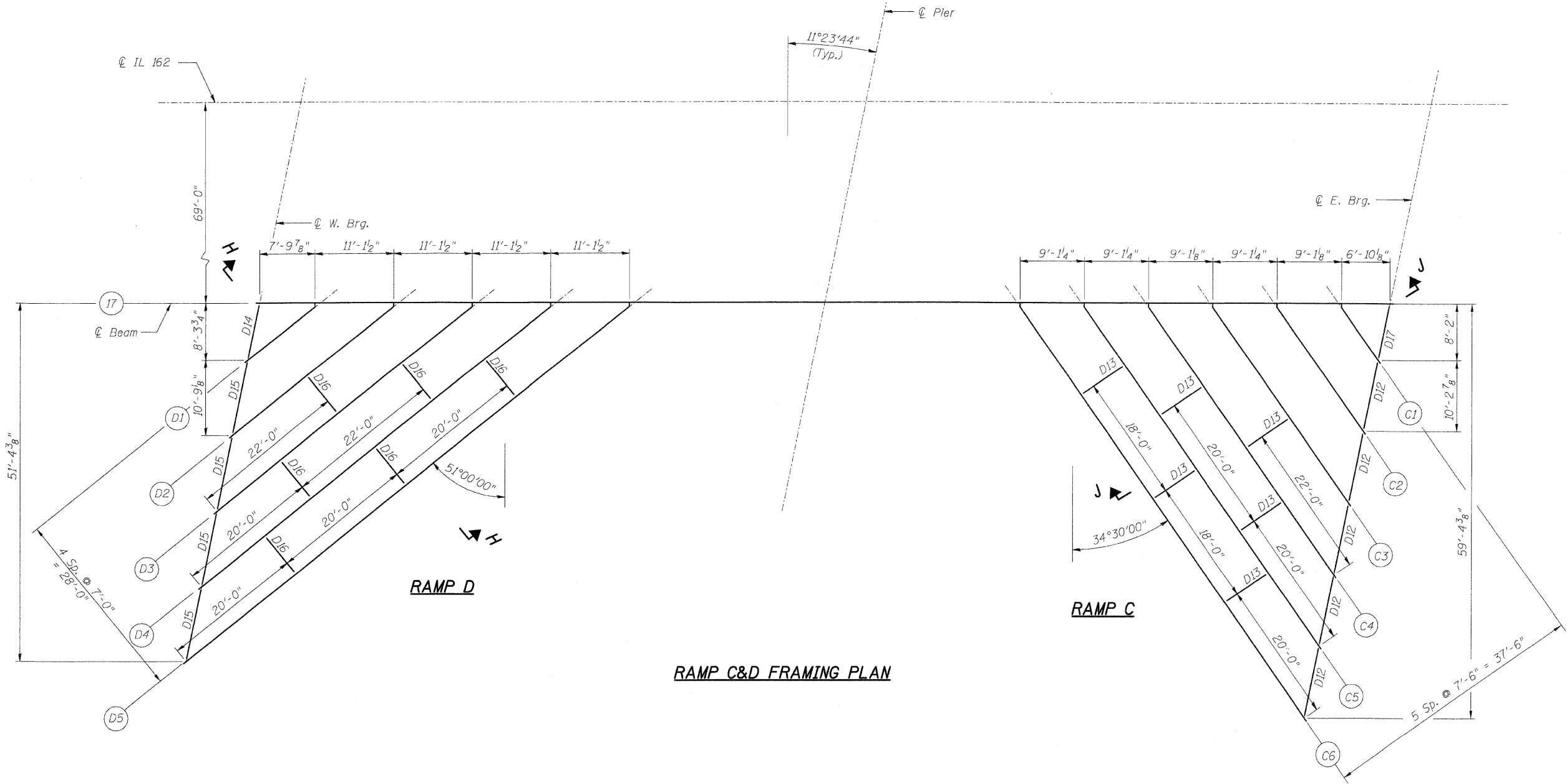


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
FRAMING PLAN - RAMPS A & B
 DESIGNED: AWB DRAWN: BTO
 DATE: 03/06 CHECKED: JAN CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	258
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



RAMP C&D FRAMING PLAN

- NOTES:**
1. For Girder elevations see Sht. S-44.
 2. For Diaphragm details see Shts. S-48 & S-49.
 3. For Sections H-H & J-J, see Sht. S-23.

SHT. S-40 OF S-68



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

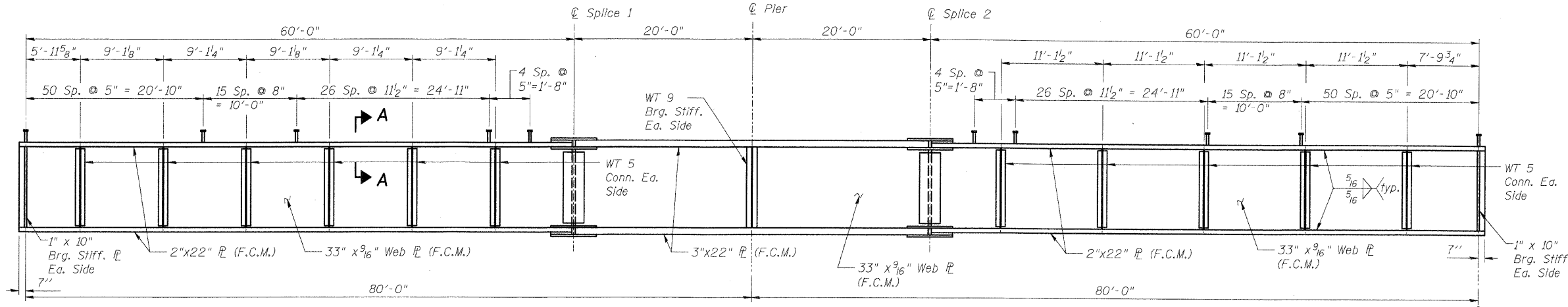
FRAMING PLAN - RAMPS C & D

DESIGNED: AWH DRAWN: BTO
 CHECKED: JAN CHECKED: JAN

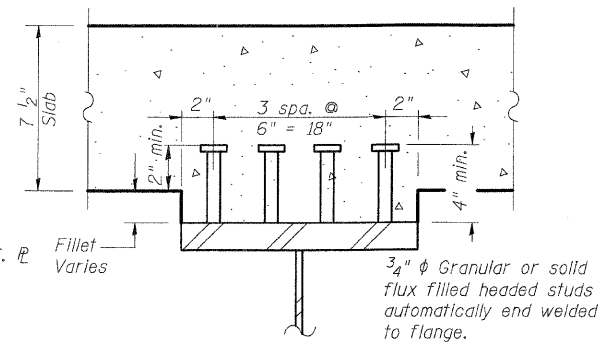
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1,60-10HB	MADISON	420	259	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

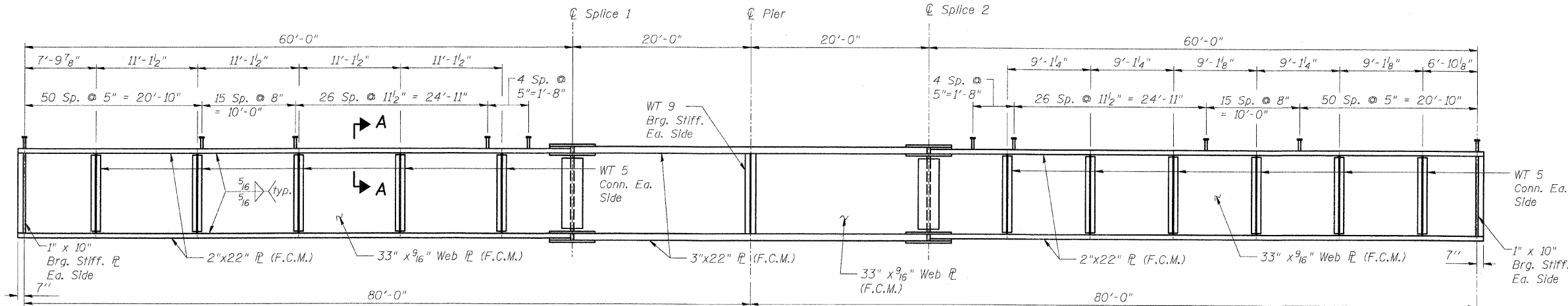
CONTRACT NO. 76709



ELEVATION GIRDER 1
(Looking North)



SECTION A-A



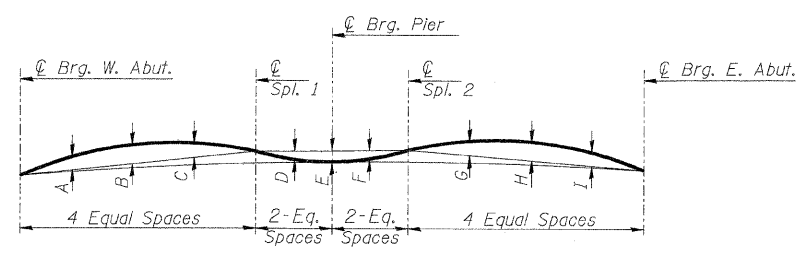
ELEVATION GIRDER 17
(Looking North)

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	1536

TOP OF WEB ELEVATIONS
(For Fabrication Only)

GIRDER	WEST ABUT. BRG.	℄ SPLICE 1	℄ PIER	℄ SPLICE 2	EAST ABUT. BRG.
1	585.718	585.890	585.877	585.948	585.950
2	585.870	586.088	586.077	586.149	586.114
16	585.662	585.989	586.014	586.122	586.196
17	585.494	585.783	585.810	585.919	586.039



CAMBER DIAGRAM

GIRDER	A	B	C	D	E	F	G	H	I
1	1/2	5/8	1/2	1/8	1/2	1/8	1/2	5/8	1/2
2	1/2	3/4	1/2	1/8	1/2	1/8	1/2	3/4	1/2
16	1/2	3/4	1/2	1/8	1/2	1/8	1/2	3/4	1/2
17	1/2	5/8	1/2	1/8	1/2	1/8	1/2	5/8	1/2

CAMBER VALUES
(Dimensions in inches)

NOTES:

1. F.C.M. denotes fracture critical member or Member Component.
2. For splice details, see Sht. S-47.
3. For Bearing Stiffener details, see Sht. S-48.
4. For Ramp Beam connection details, see Sht. S-49.
5. All steel shown on this sheet shall be AASHTO M270 Grade 50.

SHT. S-41 OF S-68



REVISIONS	
NAME	DATE

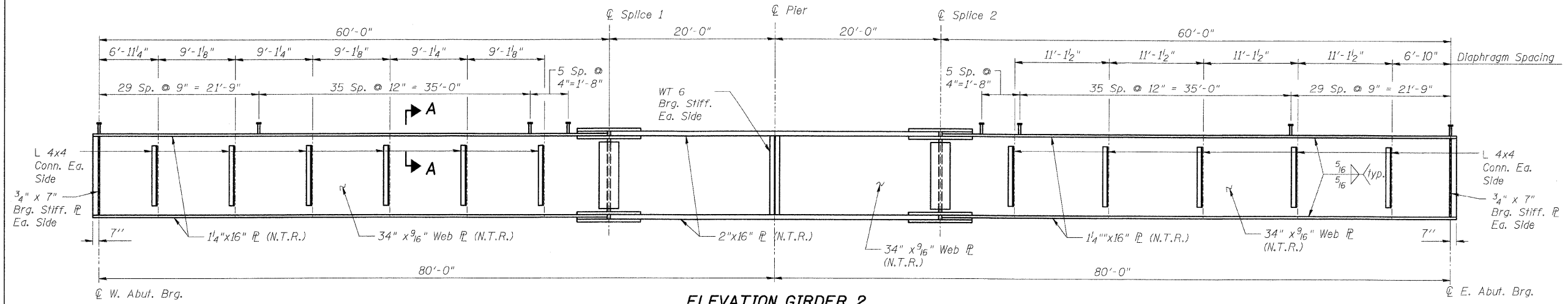
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

ELEVATION - GIRDERS 1 & 17

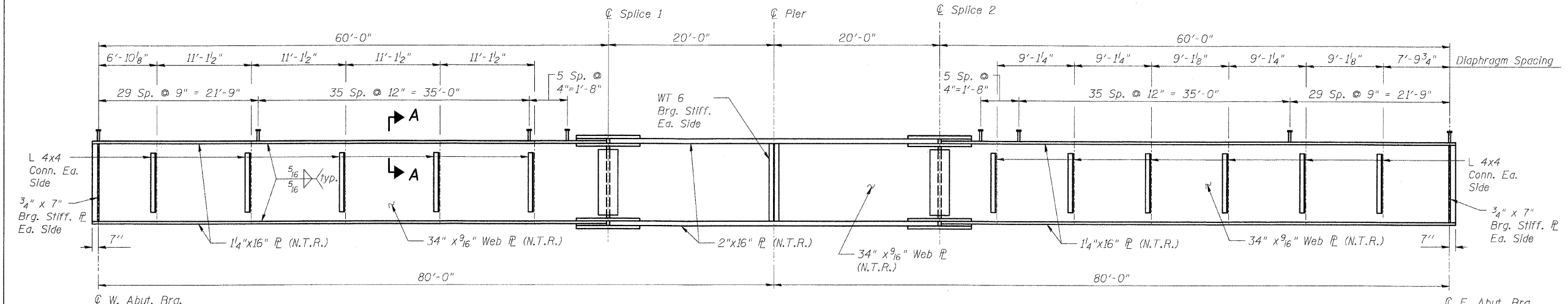
DESIGNED: AWH
CHECKED: JAN
DATE: 03/06
DRAWN: BTO
CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1,60-10HB	MADISON	420	260
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

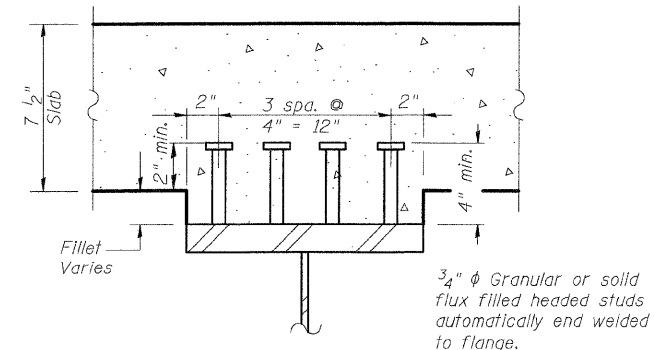
CONTRACT NO. 76709



ELEVATION GIRDER 2
(Looking North)



ELEVATION GIRDER 16
(Looking North)



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	1120

NOTES:

1. N.T.R. denotes members to which notch toughness requirements are applicable.
2. For splice details, see Sht. S-47.
3. For Bearing Stiffener details, see Sht. S-48.
4. For Diaphragm details, see Sht. S-48 & S-49.
5. All steel shown on this sheet shall be AASHTO M270 Grade 50.

SHT. S-42 OF S-68

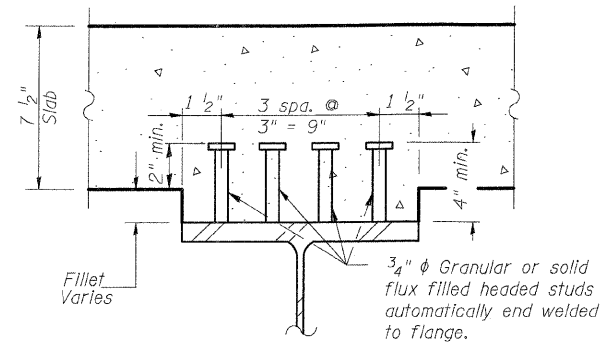
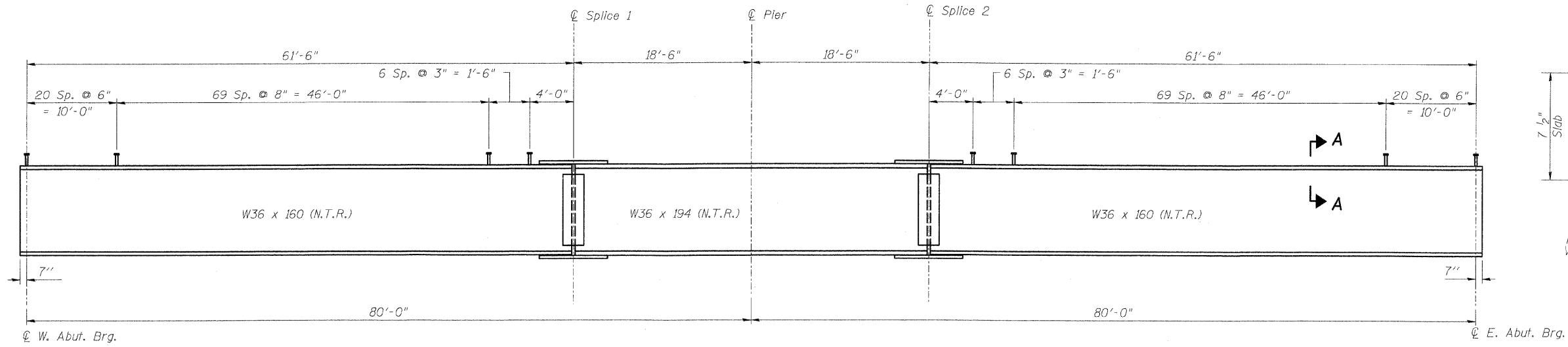
STV Incorporated
Engineers/Architects/Planners/Construction Managers
 100 W. Madison Street, Suite 1650
 Chicago, IL 60605-5015
 312/353-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
ELEVATION - GIRDERS 2 & 16
 DESIGNED: AWH
 DRAWN: BTO
 DATE: 03/06
 CHECKED: JAN
 CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	261
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



SECTION A-A

ELEVATION GIRDERS 3-15

TOP OF GIRDER ELEVATION (GIRDERS 3-15)
(For Fabrication Only)

GIRDER	WEST ABUT. BRG.	℄ SPLICE 1	℄ PIER	℄ SPLICE 2	EAST ABUT. BRG.
3	586.165	586.385	586.415	586.446	586.429
4	586.335	586.562	586.595	586.628	586.620
5	586.504	586.740	586.775	586.811	586.810
6	586.661	586.905	586.942	586.980	586.988
7	586.784	587.036	587.076	587.116	587.132
8	586.907	587.167	587.209	587.252	587.275
9	587.030	587.298	587.343	587.388	587.419
10	586.878	587.153	587.201	587.248	587.287
11	586.725	587.008	587.058	587.108	587.155
12	586.572	586.863	586.916	586.968	587.023
13	586.386	586.685	586.739	586.794	586.857
14	586.186	586.494	586.551	586.607	586.678
15	585.987	586.302	586.361	586.421	586.500

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	9984

NOTES:

- N.T.R. denotes members to which notch toughness requirements are applicable.
- For splice details, see Sht. S-47.
- For Diaphragm details, see Shts. S-48 & S-49.
- All steel shown on this sheet shall be AASHTO M270 Grade 50.

SHT. S-43 OF S-68

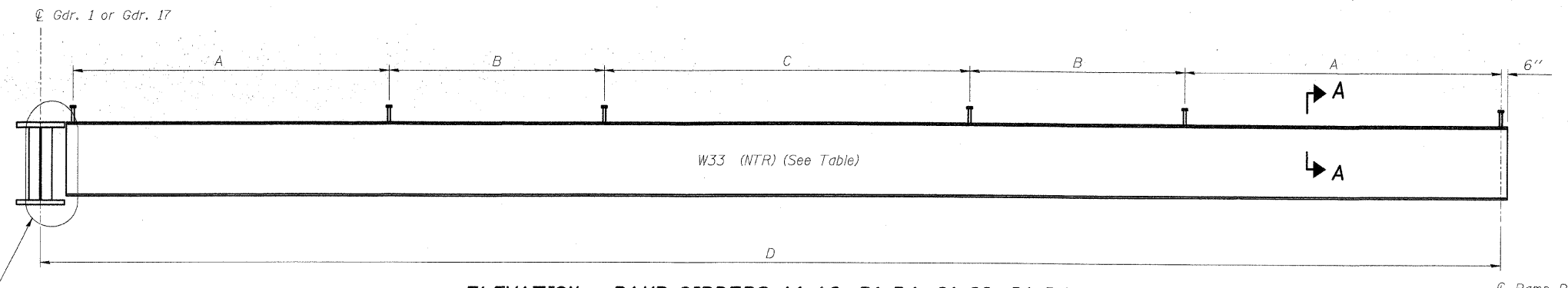


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 ELEVATION - GIRDERS 3 THRU 15
 TOP OF GIRDER ELEVATIONS
 DESIGNED: BTO DRAWN: BTO
 CHECKED: RPM CHECKED: BJG
 DATE: 03/06

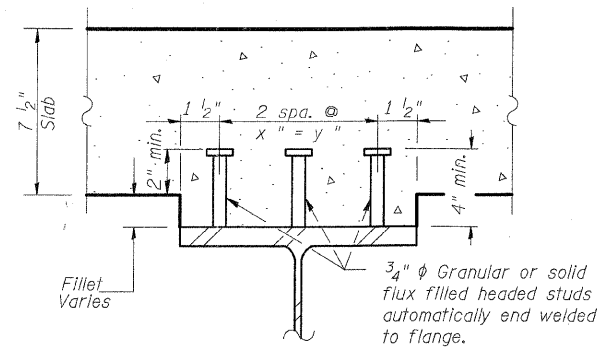
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1,60-10HB	MADISON	420	262
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CONTRACT NO. 76709



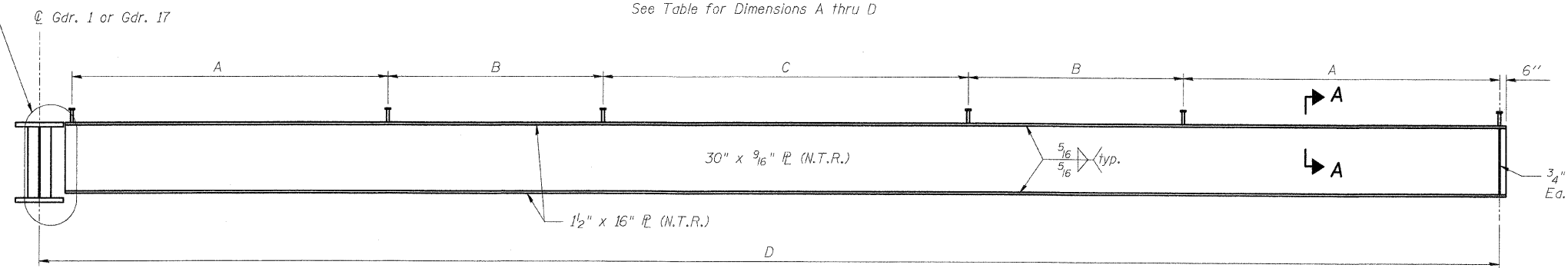
ELEVATION - RAMP GIRDERS A1-A6, B1-B4, C1-C6, D1-D4

See Table for Dimensions A thru D



SECTION A-A

SIZE	x	y
W33x118	4 1/4"	8 1/2"
W33x152	4 1/4"	8 1/2"
33" P.G.	6 1/2"	13"



ELEVATION - RAMP GIRDERS B5 & D5

See Table for Dimensions A thru D

RAMP GIRDERS

GIRDER	SIZE	A	B	C	D
A1	W33x118	3 sp. @ 14" = 3'-6"	-	-	8'-8 5/8"
A2	W33x118	12 sp. @ 4" = 4'-0"	10 sp. @ 4" = 3'-4"	10 sp. @ 5" = 4'-2"	21'-1 3/4"
A3	W33x118	10 sp. @ 6" = 5'-0"	11 sp. @ 7" = 6'-5"	14 sp. @ 7" = 8'-2"	33'-6 7/8"
A4	W33x118	20 sp. @ 6" = 10'-0"	6 sp. @ 10" = 5'-0"	10 sp. @ 10" = 8'-4"	45'-11 7/8"
A5	W33x118	25 sp. @ 6" = 12'-6"	14 sp. @ 8" = 9'-4"	13 sp. @ 11" = 11'-11"	58'-5"
A6	W33x152	30 sp. @ 6" = 15'-0"	18 sp. @ 8" = 12'-0"	14 sp. @ 12" = 14'-0"	70'-10 1/8"

GIRDER	SIZE	A	B	C	D
B1	W33x118	5 sp. @ 12" = 5'-0"	-	-	13'-2 1/2"
B2	W33x118	11 sp. @ 6" = 5'-6"	11 sp. @ 6" = 5'-6"	11 sp. @ 6" = 5'-6"	30'-3 1/2"
B3	W33x118	22 sp. @ 7" = 12'-10"	8 sp. @ 10" = 6'-8"	6 sp. @ 10" = 5'-0"	47'-4 3/4"
B4	W33x152	25 sp. @ 7" = 14'-7"	12 sp. @ 9" = 9'-0"	14 sp. @ 12" = 14'-0"	64'-6"
B5	P.G.	30 sp. @ 7" = 17'-6"	15 sp. @ 10" = 12'-6"	15 sp. @ 14" = 17'-6"	81'-7 1/4"

GIRDER	SIZE	A	B	C	D
C1	W33x118	4 sp. @ 12" = 4'-0"	-	-	9'-11"
C2	W33x118	12 sp. @ 4" = 4'-0"	10 sp. @ 5" = 4'-2"	9 sp. @ 5" = 3'-9"	22'-2 1/8"
C3	W33x118	10 sp. @ 6" = 5'-0"	11 sp. @ 7" = 6'-5"	16 sp. @ 7" = 9'-4"	34'-9 1/8"
C4	W33x118	20 sp. @ 6" = 10'-0"	12 sp. @ 8" = 8'-0"	10 sp. @ 10" = 8'-4"	47'-2 1/4"
C5	W33x118	25 sp. @ 6" = 12'-6"	14 sp. @ 8" = 9'-4"	14 sp. @ 11" = 12'-10"	59'-7 3/8"
C6	W33x152	30 sp. @ 6" = 15'-0"	18 sp. @ 8" = 12'-0"	15 sp. @ 12" = 15'-0"	72'-0 3/8"

GIRDER	SIZE	A	B	C	D
D1	W33x118	5 sp. @ 12" = 5'-0"	-	-	13'-2 3/8"
D2	W33x118	11 sp. @ 6" = 5'-6"	11 sp. @ 6" = 5'-6"	11 sp. @ 6" = 5'-6"	30'-3 5/8"
D3	W33x118	22 sp. @ 7" = 12'-10"	8 sp. @ 10" = 6'-8"	6 sp. @ 10" = 5'-0"	47'-4 7/8"
D4	W33x152	25 sp. @ 7" = 14'-7"	12 sp. @ 9" = 9'-0"	14 sp. @ 12" = 14'-0"	64'-6 1/8"
D5	P.G.	30 sp. @ 7" = 17'-6"	15 sp. @ 10" = 12'-6"	15 sp. @ 14" = 17'-6"	81'-7 3/8"

TOP OF GIRDER ELEVATIONS

(For Fabrication Only)

GIRDER	W. ABUT. BRG.	℄ GIRDER 1
A1	585.771	585.928
A2	585.581	585.985
A3	585.390	586.036
A4	585.199	586.082
A5	585.007	586.122
A6	584.816	586.156

GIRDER	E. ABUT. BRG.	℄ GIRDER 17
C1	586.066	586.219
C2	585.865	586.232
C3	585.665	586.238
C4	585.463	586.239
C5	585.262	586.234
C6	585.060	586.224

GIRDER	E. ABUT. BRG.	℄ GIRDER 1
B1	585.965	586.150
B2	585.740	586.185
B3	585.515	586.212
B4	585.290	586.229

GIRDER	W. ABUT. BRG.	℄ GIRDER 17
D1	585.500	585.736
D2	585.265	585.825
D3	585.030	585.905
D4	584.794	585.977

TOP OF WEB ELEVATIONS

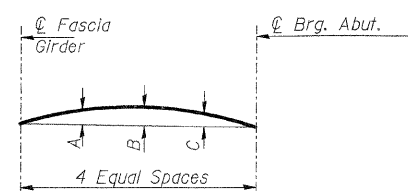
(For Fabrication Only)

GIRDER	E. ABUT. BRG.	℄ GIRDER 1
B5	584.918	586.113

GIRDER	W. ABUT. BRG.	℄ GIRDER 17
D5	584.412	585.915

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	4341



CAMBER DIAGRAM

GIRDER	A	B	C
B5 & D5	1 3/8"	2 3/8"	1 3/8"

CAMBER VALUES

(Dimensions in inches)

NOTES:

- All structural steel shall meet notch toughness requirements (N.T.R.).
- All steel shown on this sheet shall be AASHTO M270 Grade 50.
- See Sht. S-49 for ramp connection detail.
- See Shts. S-50 for floating bearing details.
- See Shts. S-48 & S-49 for diaphragm locations.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
**ELEVATION - RAMP GIRDERS
 TOP OF GIRDER ELEVATIONS**
 DESIGNED: JAN DRAWN: BTO
 CHECKED: BTO CHECKED: JAN
 DATE: 03/06

SHT. S-44 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-2915
 312/933-0655, FAX 312/553-0661

MOMENT AND REACTION TABLES - RAMP GIRDERS

	Girder A1 & C1	Girder A2 & C2	Girder A3 & C3	Girder A4 & C4	Girder A5 & C5	Girder A6 & C6	Girder B1 & D1	Girder B2 & D2	Girder B3 & D3	Girder B4 & D4	Girder B5 & D5
	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span	0.5 Span
<i>I_s</i> (in ⁴)	5900	5900	5900	5900	5900	8160	5900	5900	5900	8160	13182
<i>I_c</i> (n) (in ⁴)	-	16429	16564	16960	17852	23069	-	16242	16682	22198	28227
<i>I_c</i> (3n) (in ⁴)	-	12263	12349	12600	13168	16459	-	12045	12321	16032	20781
<i>S_s</i> (in ³)	359	359	359	359	359	487	359	359	359	487	799
<i>S_c</i> (n) (in ³)	-	537	540	547	565	746	-	535	544	728	1033
<i>S_c</i> (3n) (in ³)	-	488	490	496	510	664	-	485	492	653	944
<i>Z</i> (in ³)	-	-	-	-	-	-	-	-	-	-	-
<i>DL</i> (k/')	0.86	0.86	0.86	0.86	0.86	0.83	0.81	0.81	0.81	0.84	0.90
<i>M_{dl}</i> (' k)	10.5	53	129	238	380	537	17.6	93	227	439	749
<i>s DL</i> (k/')	0.46	0.46	0.46	0.46	0.53	0.72	0.46	0.46	0.46	0.53	0.72
<i>M_{sdl}</i> (' k)	5.7	29	70	129	237	470	10.1	53	130	276	603
<i>M_{ll}</i> (' k)	54.1	122	243	394	545	652	67.2	182	370	565	727
<i>M</i> (Imp) (' k)	16.2	37	73	114	148	166	20.2	55	107	149	176
<i>5/3[M_{ll} + M(Imp)]</i> (' k)	117	264	527	847	1155	1363	146	395	796	1189	1504
<i>M_a</i> (' k)	173	450	945	1578	2303	3081	225	704	1499	2476	3714
<i>M_u</i> (' k)	1729	2611	2915	2915	2915	3484	1729	2816	2816	3463	4568
<i>f_s</i> DL non-comp (ksi)	0.35	1.8	4.3	8.0	12.7	13.2	0.59	3.1	7.6	10.8	11.3
<i>f_s</i> DL (comp) (ksi)	-	0.7	1.7	3.1	5.6	8.5	0.34	1.3	3.2	5.1	7.7
<i>f_s</i> 5/3[M _{ll} + M(Imp)] (ksi)	-	5.9	11.7	18.6	24.5	21.9	-	8.9	17.5	19.6	17.5
<i>f_s</i> (Overload) (ksi)	-	8.4	17.8	29.6	42.8	43.6	-	13.3	28.3	35.5	36.4
<i>f_s</i> (total) (ksi)	0.24	-	-	-	-	-	0.32	-	-	-	-
<i>VR</i> (k)	28.4	38.9	46.7	50.8	52.6	50.2	26.6	41.2	47.4	49.5	48.2
Girder Reaction Table											
	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia	Abut. or Fascia
<i>R_{dl}</i> (k)	6.5	14.7	22.9	31.1	41.4	55.9	8.4	19.3	30.1	44.4	66.3
<i>R_{ll}</i> (k)	21.8	29.9	35.9	39.4	41.4	40.0	20.4	31.7	36.8	39.2	38.8
<i>Imp.</i> (k)	6.5	9.0	10.8	11.4	11.2	10.2	6.1	9.5	10.7	10.3	9.4
<i>R</i> (Total) (k)	34.9	53.6	69.6	81.9	94.0	106.1	34.9	60.5	77.6	93.9	114.5

I_s and *S_s* are the moment of inertia and section modulus of the steel section used in computing *f_s* (Total & Overload).

I_c(n) and *S_c(n)* are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

I_c(3n) and *S_c(3n)* are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

M_a (Applied Moment) = 1.3[M_{ll} + M_{sdl} + 5₃(M_{ll} + M(Imp))].

The Plastic Moment capacity (*M_u*) is computed according to AASHTO 10.48.1 and 10.50.1.1.


f_s (Overload) is the sum of the stresses due to *M_{ll}* + *M_{sdl}* + 5₃(M_{ll} + M(Imp)).

f_s (Total) (Non-compact section) is the sum of the stresses due to 1.3[M_{ll} + M_{sdl} + 5₃(M_{ll} + M(Imp))].

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
**MOMENT AND REACTION TABLES
 RAMP GIRDERS**
 DESIGNED: JAN
 CHECKED: BTO
 DATE: 03/06
 DRAWN: BTO
 CHECKED: JAN

SHT. S-45 OF S-68



STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312.553-0655, FAX 312.553-0661

MOMENT AND REACTION TABLES - GIRDERS 1 THRU 17

		Girder 1			Girder 2			Girders 3 thru 15		Girder 16			Girder 17		
		0.4 Sp. 1	Pier	0.6 Sp. 2	0.4 Sp. 1	Pier	0.6 Sp. 2	0.4 Sp.1 / 0.6 Sp.2	Pier	0.4 Sp. 1	Pier	0.6 Sp. 2	0.4 Sp. 1	Pier	0.6 Sp. 2
<i>I_s</i>	(in ⁴)	28664	44550	28664	14268	22578	14268	9750	12100	14268	22578	14268	28664	44550	28664
<i>I_c</i> (n)	(in ⁴)	50600		50600	31550		31550	25062		31550		31550	50600		50600
<i>I_c</i> (3n)	(in ⁴)	38257		38257	23230		23230	18317		23230		23230	38257		38257
<i>S_s</i>	(in ³)	1549	2285	1549	782	1188	782	542	664	782	1188	782	1549	2285	1549
<i>S_c</i> (n)	(in ³)	1870		1870	1027		1027	783		1027		1027	1870		1870
<i>S_c</i> (3n)	(in ³)	1719		1719	938		938	707		938		938	1719		1719
<i>Z</i>	(in ³)		2529			1315			767		1315			2529	
<i>DL</i>	(k/')	2.32	1.74	2.29	1.11	1.82	1.14	1.05	1.53	1.14	1.82	1.11	2.29	1.74	2.32
<i>M_{dl}</i>	(' k)	1031	3477	985	560	1707	556	496	1100	556	1707	560	985	3477	1031
<i>s DL</i>	(k/')	0.48		0.48	0.61		0.59	0.48		0.61		0.59	1.24		1.28
<i>M_{s DL}</i>	(' k)	612		584	301		286	252		286		301	584		612
<i>M_{LL}</i>	(' k)	2086	1943	1697	1173	1043	1080	805	572	1080	1043	1173	1697	1943	2086
<i>M</i> (Imp)	(' k)	562	525	458	317	281	292	196	140	292	281	317	458	525	562
<i>5/3[M_{LL} + M(Imp)]</i>	(' k)	4414	4114	3592	2483	2207	2287	1728	1068	2287	2207	2483	3592	4114	4414
<i>M_a</i>	(' k)	7874	9868	6709	4348	5087	4069	3218	2818	4069	5087	4348	6709	9868	7874
<i>M_u</i>	(' k)	7896	10538	7896	4736	5479	4736	3921	3196	4736	5479	4736	7896	10538	7896
<i>f_s DL non-comp</i>	(ksi)	8.0	18.3	7.6	8.6	17.2	8.5	11.0	19.9	8.5	17.2	8.6	7.6	18.3	8.0
<i>f_s DL (comp)</i>	(ksi)	4.3		4.1	3.9		3.7	4.3		3.7		3.9	4.1		4.3
<i>f_s 5/3[M_{LL} + M(Imp)]</i>	(ksi)	28.3	21.6	23.1	29.0	22.3	26.7	26.5	19.3	26.7	22.3	29.0	23.1	21.6	28.3
<i>f_s (Overload)</i>	(ksi)	40.6	39.9	34.8	41.5	39.5	38.9	41.7	39.2	38.9	39.5	41.5	34.8	39.9	40.6
<i>VR</i>	(k)	120.0		113.5	63.5		73.8	69.9		73.8		63.53	113.5		120.0

		Girder 1			Girder 2			Girders 3 thru 15		Girder 16			Girder 17		
		W. Abutment	Pier	E. Abutment	W. Abutment	Pier	E. Abutment	Abutments	Pier	W. Abutment	Pier	E. Abutment	W. Abutment	Pier	E. Abutment
<i>R_{DL}</i>	(k)	79.1	373.6	74.3	60.0	193.4	53.7	45.4	153.0	53.7	193.4	60.0	74.3	373.6	79.1
<i>R_{LL}</i>	(k)	83.3	189.8	75.9	43.7	106.3	50.9	51.6	73.6	50.9	106.3	43.7	75.9	189.8	83.3
<i>Imp.</i>	(k)	22.5	57.2	20.5	11.8	28.7	13.7	12.6	18.0	13.7	28.7	11.8	20.5	57.2	22.5
<i>R (Total)</i>	(k)	184.9	620.6	170.7	115.6	328.4	118.3	109.6	244.6	118.3	328.4	115.6	170.7	620.6	184.9

I_s and *S_s* are the moment of inertia and section modulus of the steel section used in computing *f_s* (Total & Overload).

I_c(n) and *S_c(n)* are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

I_c(3n) and *S_c(3n)* are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

M_a (Applied Moment) = 1.3[M_{DL} + M_{sDL} + 5₃(M_L + M(Imp))].

The Plastic Moment capacity (*M_u*) is computed according to AASHTO 10.48.1 and 10.50.1.1.

f_s (Overload) is the sum of the stresses due to *M_{DL}* + *M_{sDL}* + 5₃(M_L + M(Imp)).

f_s (Total) (Non-compact section) is the sum of the stresses due to 1.3[M_{DL} + M_{sDL} + 5₃(M_L + M(Imp))].

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
**MOMENT AND REACTION TABLES
 GIRDERS 1 THRU 17**
 DESIGNED: BTO DRAWN: JAN
 DATE: 03/06 CHECKED: JAN CHECKED: BTO

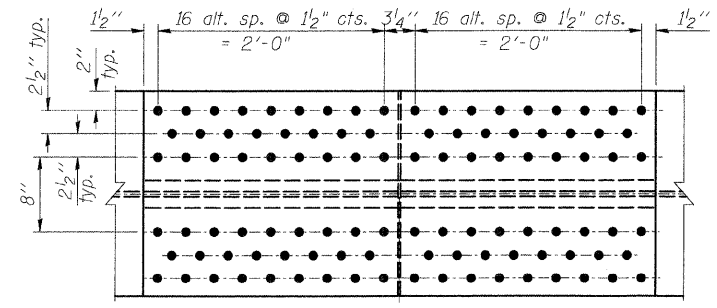
SHT. S-46 OF S-68



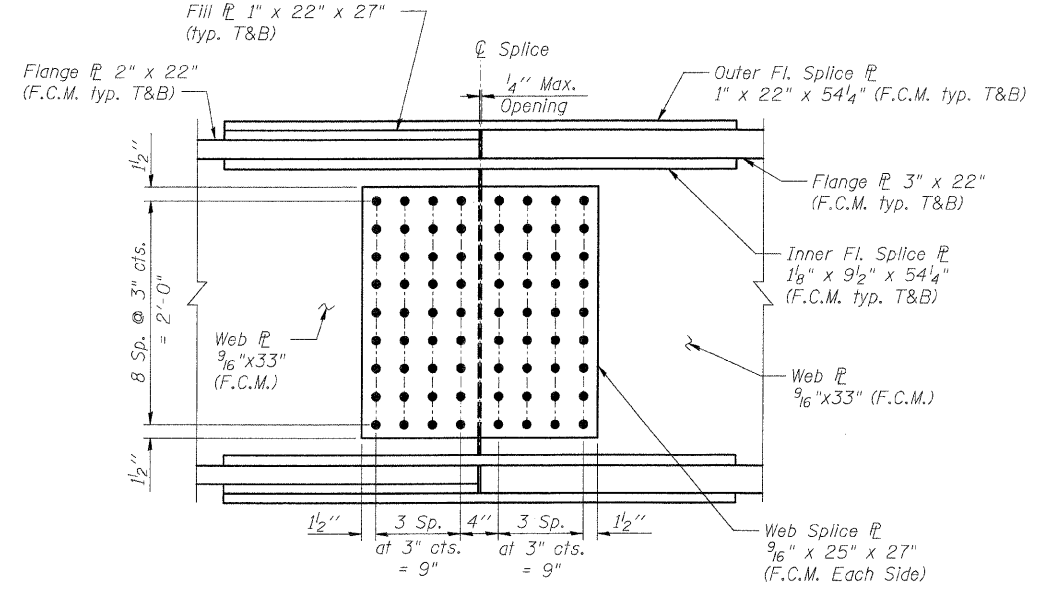
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312.583.0655, FAX 312.553.0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	265
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

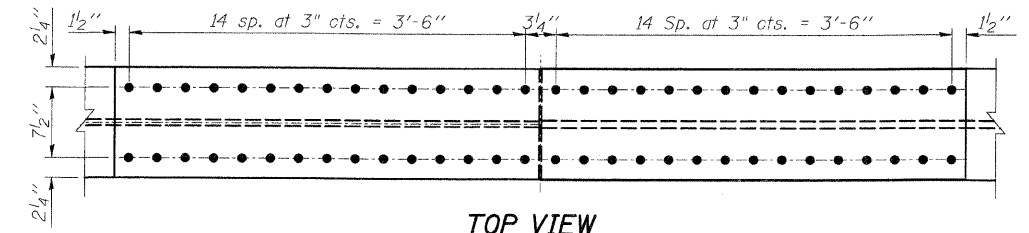


TOP VIEW

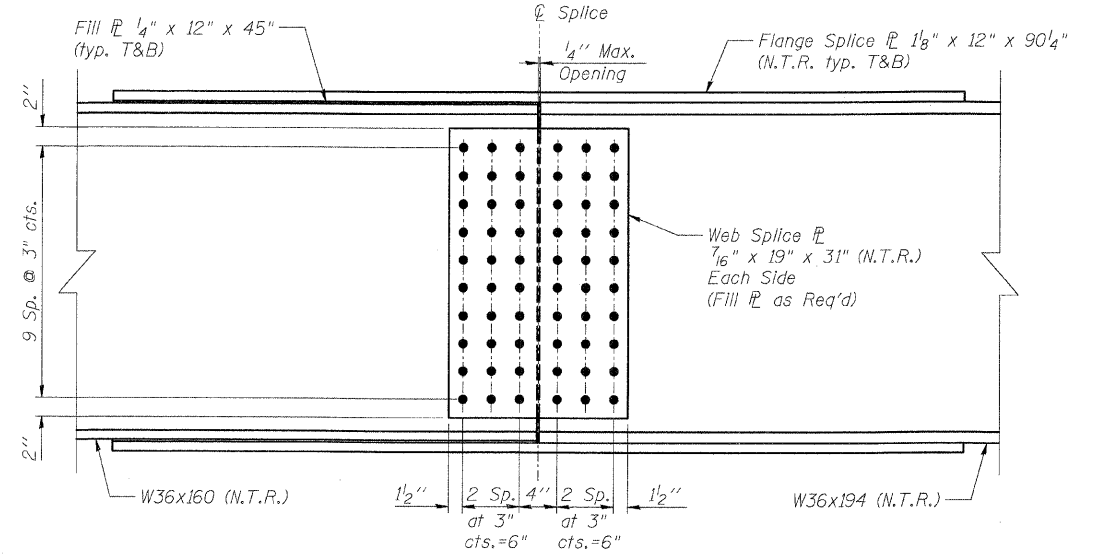


ELEVATION

SPLICE (GIRDERS 1 & 17)

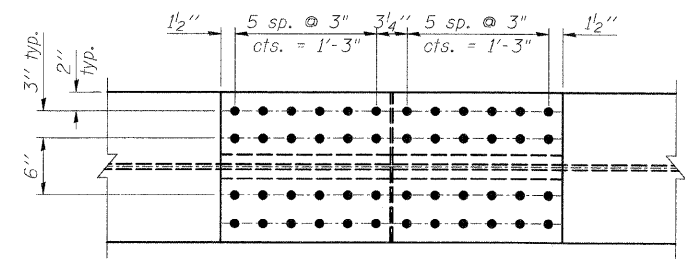


TOP VIEW

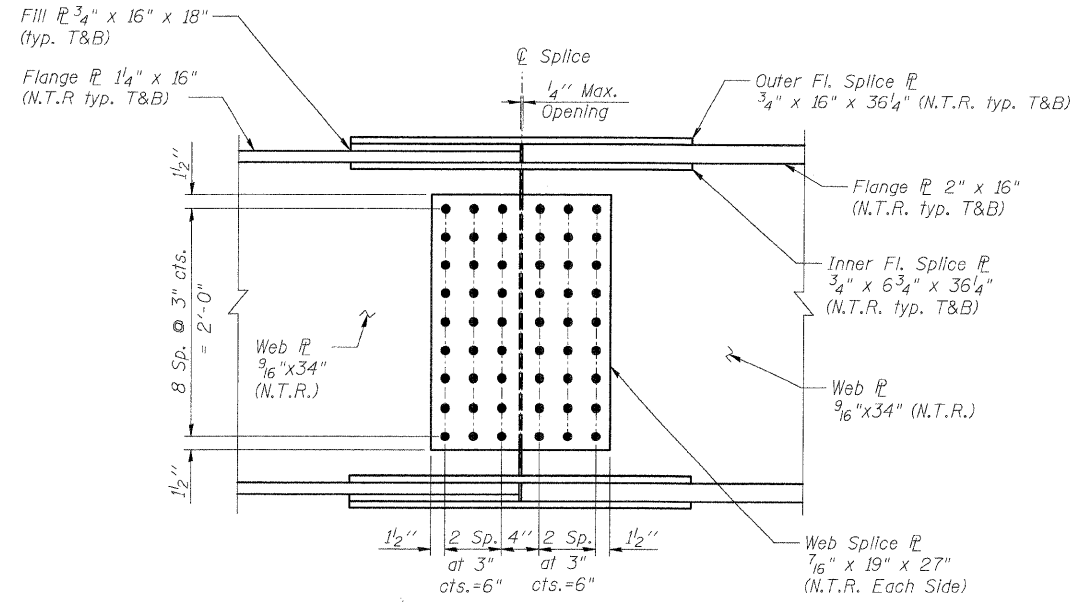


ELEVATION

SPLICE (GIRDERS 3-15)



TOP VIEW



ELEVATION

SPLICE (GIRDERS 2 & 16)

NOTES:

1. F.C.M. denotes Fracture Critical Member.
2. N.T.R. denotes members to which notch toughness requirements are applicable.
3. Structural steel for splice plates shall be AASHTO M270 Grade 50.
4. High Strength bolts shall conform to AASHTO M-164 specification. Bolts shall be 7/8" ϕ , open holes 15/16" ϕ .

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

STEEL DETAILS - SPLICES

DESIGNED: BTO
 CHECKED: JAN
 DATE: 03/06

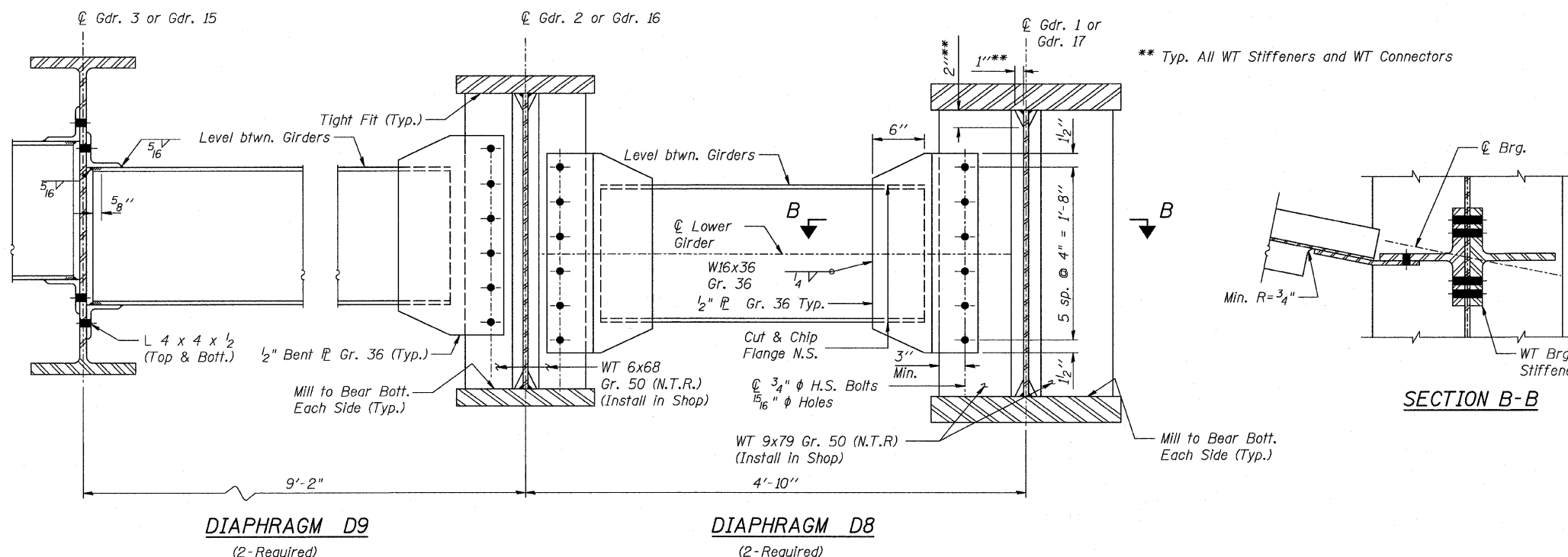
DRAWN: BTO
 CHECKED: JAN

SHT. S-47 OF S-68

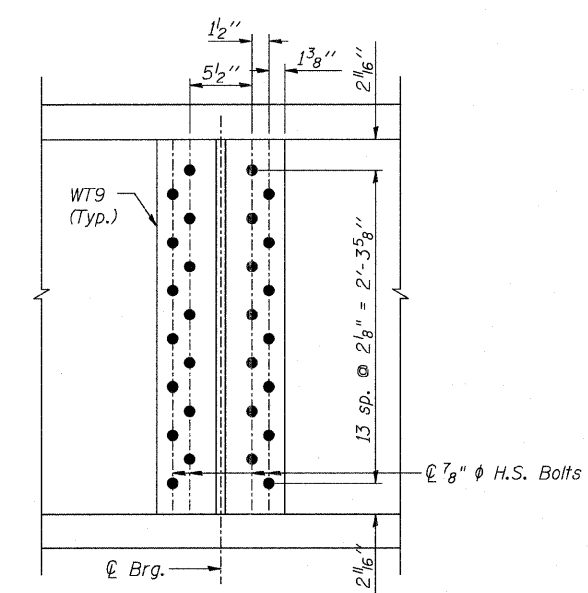
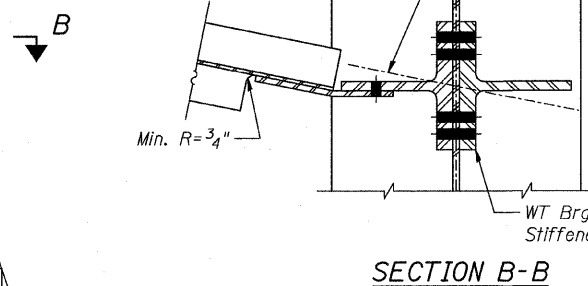
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-2015
 312/553-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	60-10K-1,60-10HB	MADISON	420	266
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

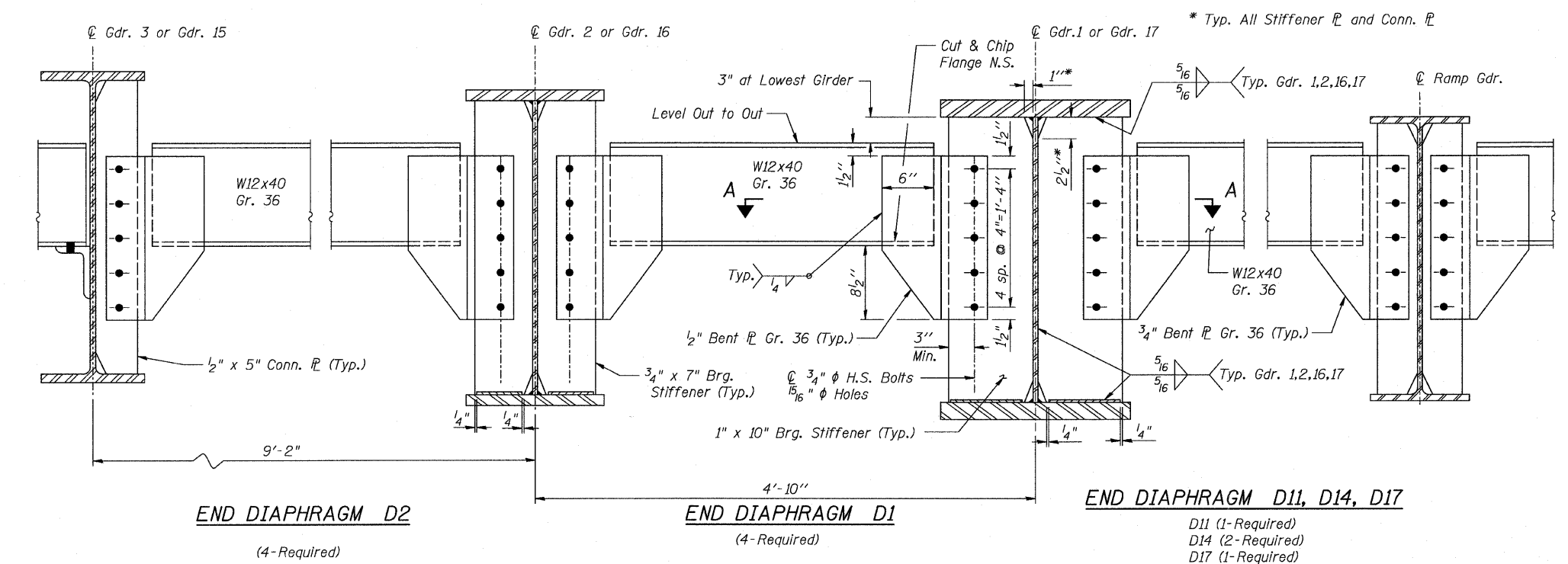
CONTRACT NO. 76709



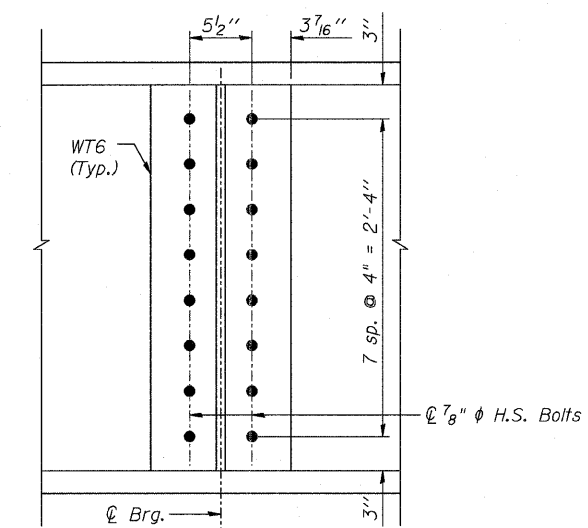
** Typ. All WT Stiffeners and WT Connectors



GIRDER 1 & 17 BRG. STIFFENER
DETAIL AT PIER

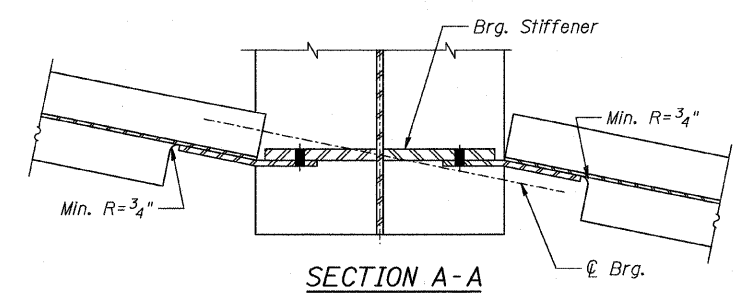


* Typ. All Stiffener PL and Conn. PL



GIRDER 2 & 16 BRG.
STIFFENER DETAIL AT PIER

Notes:
1. Two hardened washers shall be required over all oversize holes for diaphragms.
2. All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



SHT. S-48 OF S-68

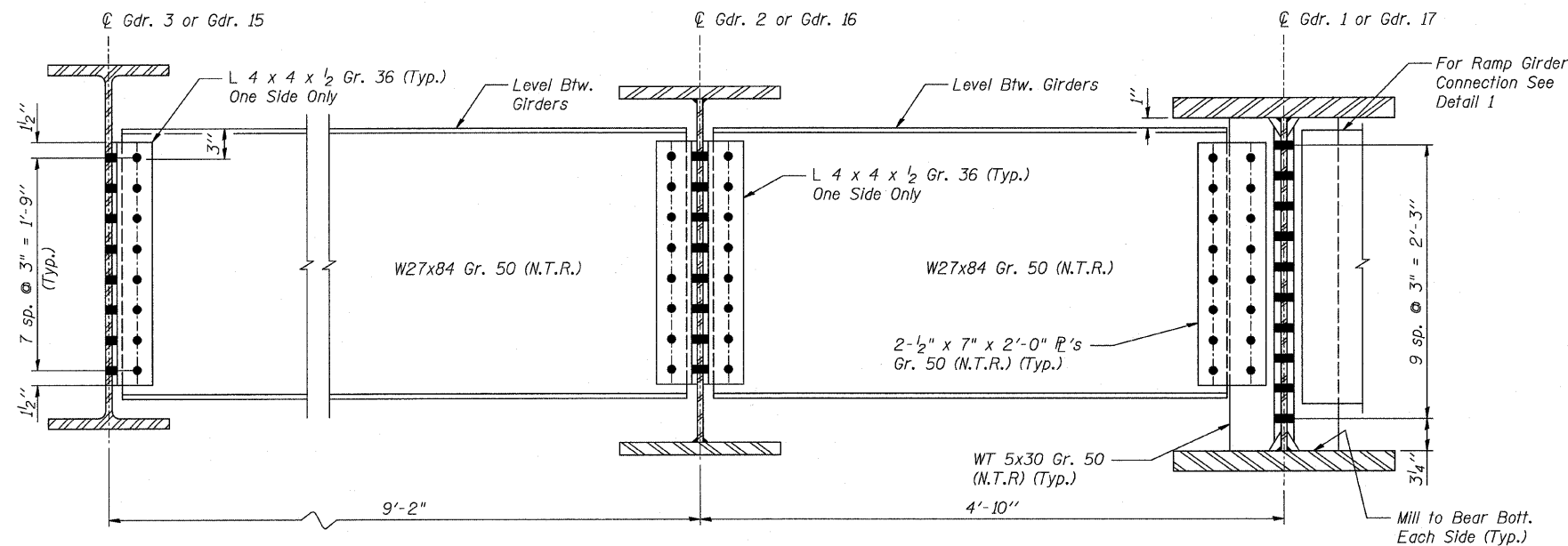
STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312.253-0655, FAX 312.553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
STEEL DETAILS
DIAPHRAGMS & BEARING STIFFENERS
DESIGNED: BTO DRAWN: BTO
CHECKED: JAN CHECKED: JAN
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	267
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



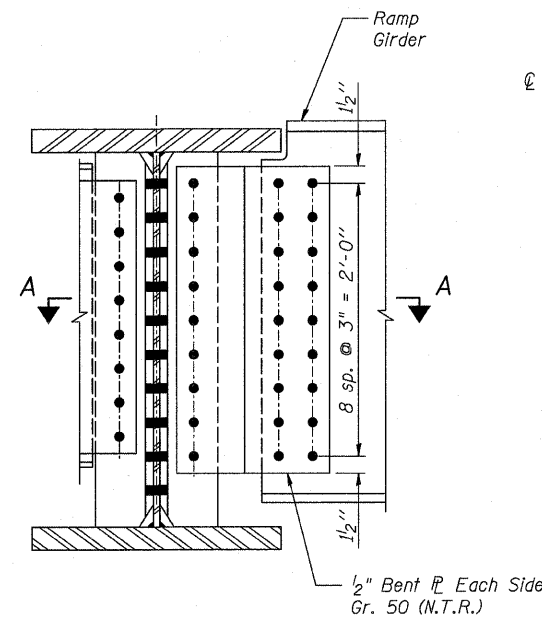
DIAPHRAGM D5

(22-Required)

DIAPHRAGM D4

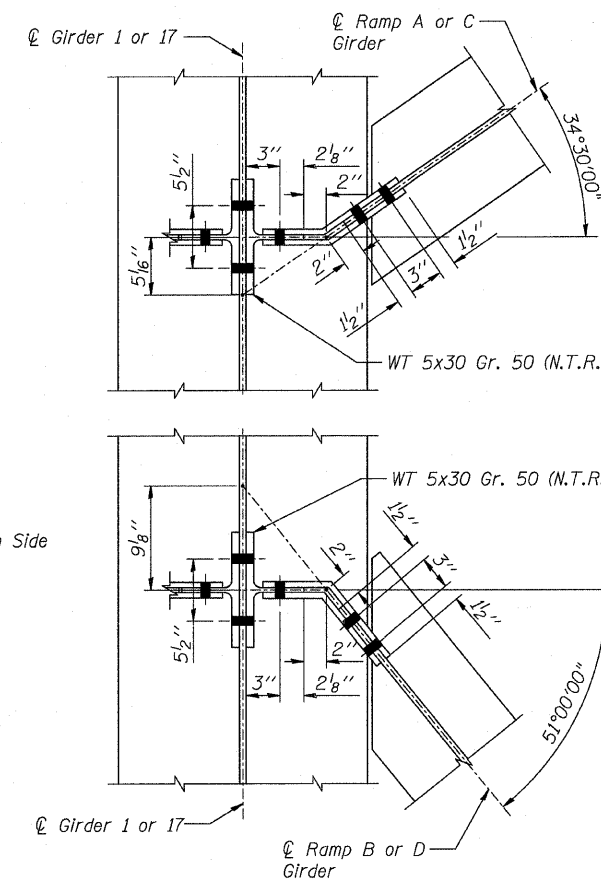
(22-Required)

7/8" ϕ H.S. Bolts with 1/16" ϕ holes unless noted otherwise



DETAIL 1

For location of Detail 1, see Sht. S-44.

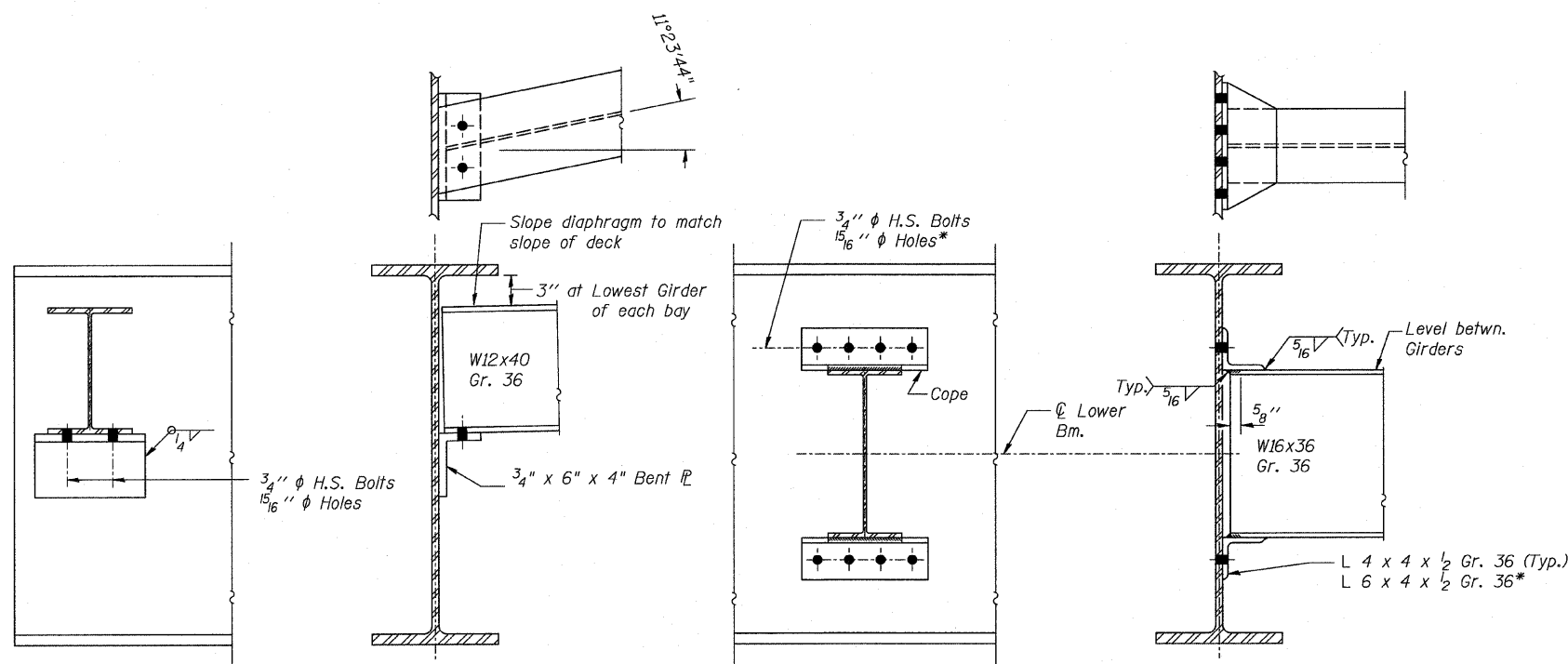


SECTION A-A

7/8" ϕ H.S. Bolts with 1/16" ϕ holes unless noted otherwise

Notes:

- Two hardened washers shall be required over all oversize holes for diaphragms. Position slots so bolts start at one end with no concrete load and finish near the opposite end of the slots under deck load.
- All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



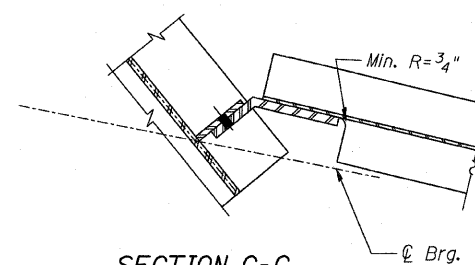
END DIAPHRAGM D3

D3 (24-Required)

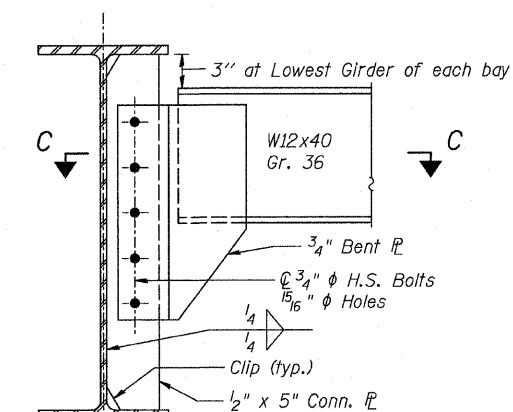
DIAPHRAGM D6, D7, D10, D13, D16

D6 (81-Required)
D7 (4-Required)
D10 (7-Required)
D13 (12-Required)
D16 (12-Required)

* Provide 1 5/16" x 2" vertical slotted holes in 6 x 4 x 1/2 (LLV) angles for diaphragms D10 in stage construction bay, Stage II side. 5/16" structural plate washers shall be placed over slotted holes. Slotted hole bolts shall be finger-tightened prior to the deck pour and fully-tightened after completion of the deck pour.



SECTION C-C



END DIAPHRAGM D12, D15

D12 (10-Required)
D15 (8-Required)

SHT. S-49 OF S-68



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

STEEL DETAILS
DIAPHRAGMS & RAMP CONNECTIONS

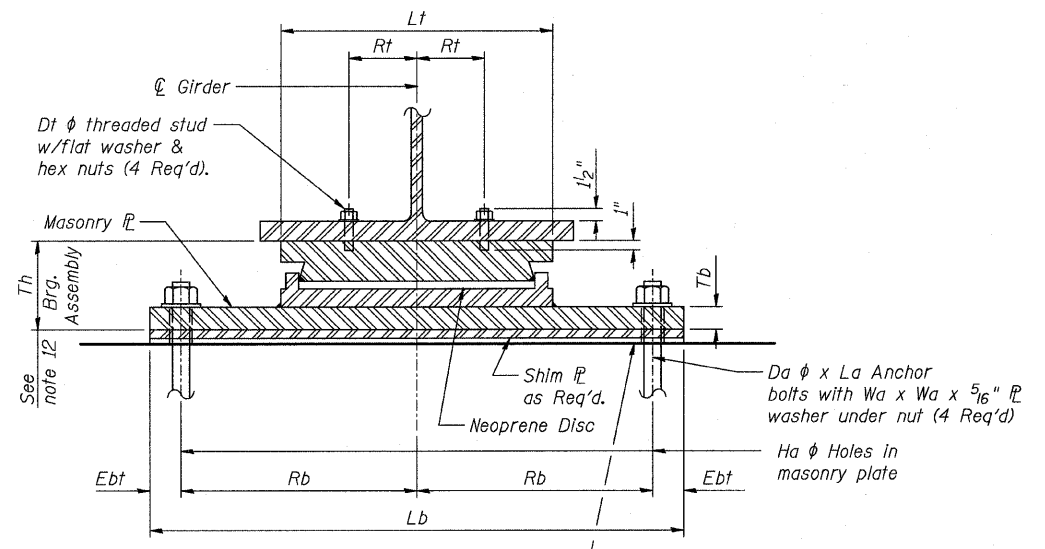
DESIGNED: JAN
CHECKED: BTO
DATE: 03/06
DRAWN: BTO
CHECKED: JAN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	268
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709

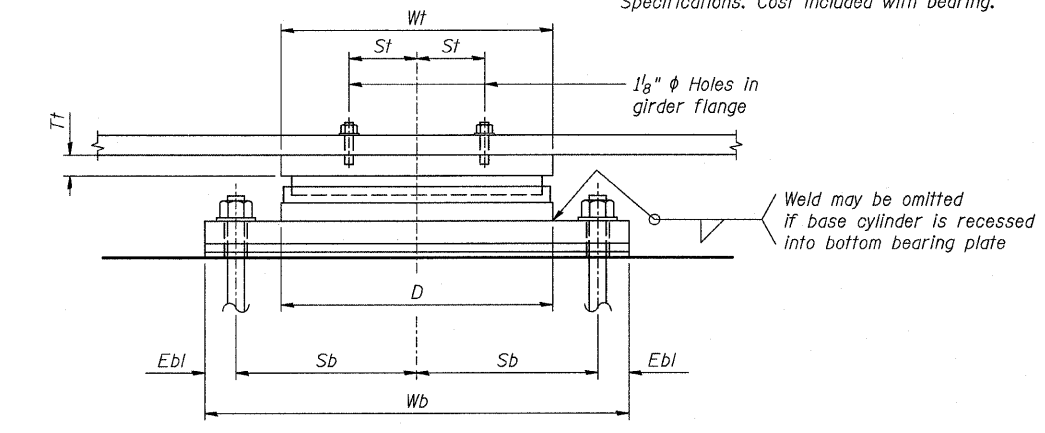
NOTES:

- All steel for floating bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise specified.
- Anchor bolts shall be ASTM F1554 allthread (or an Engineer-approved alternate material) Grade 55 of the diameters specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. Anchor bolts at fixed bearings may be either cast-in-place or installed in holes drilled after the supporting member is in place. Anchor bolts for expansion bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after the members are in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Adjusting shim plates shall be placed under masonry plates as required during erection. See general notes on Sht. S-03.
- The Dimensions shown are for a specific Manufacturer's product. See Special Provision regarding changes to dimensions and details.
- Information not shown regarding the size of the bearing top plate, piston and base assemblies shall be determined by the manufacturer and shall meet the following requirements:
 Vertical Load Capacity: See Schedule
 Lateral Load Capacity: See Schedule
 Rotation from horizontal: 0.02 radians
 Movement Capacities: See Schedule
- The sliding coefficient of friction shall not exceed 3 percent.
- Certification of compliance to proof load and sliding coefficient of friction requirements in accordance with AASHTO 18.3.5.3 shall be provided with shop drawing submittal.
- The bearings shall be blocked during the erection of structural steel. The Contractor shall submit the Erection Procedure for approval by the Engineer.
- For Design Dead Load and Live Loads, see girder moment tables.
- Work this sheet with sht. S-51.
- For location of bearing type, see Sht. S-37.
- Contractor shall adjust bridge seat elevations and/or shim bearings as required for actual bearing height Th.



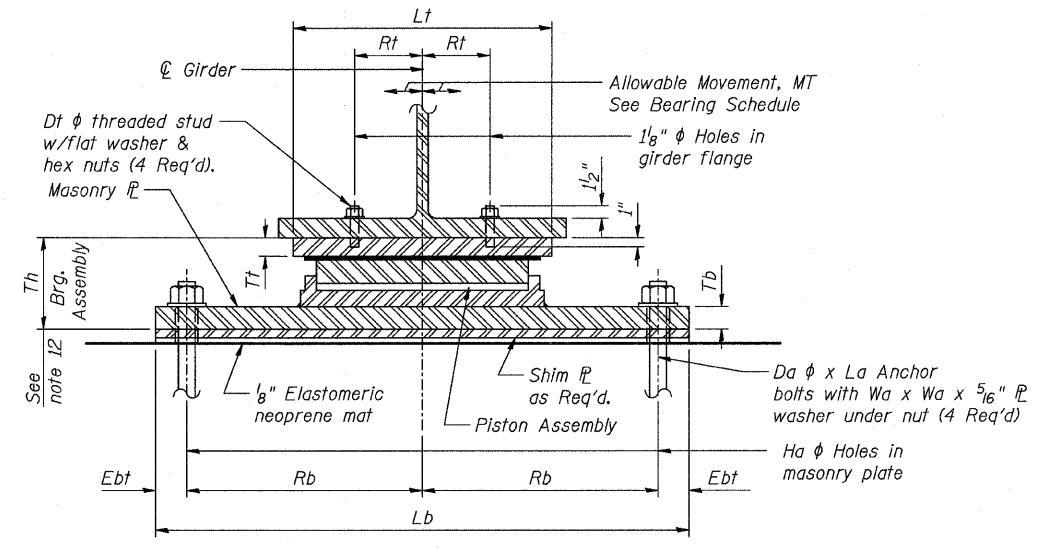
SECTION

1/8" Elastomeric neoprene leveling pad according to Art. 1052.02 of the Standard Specifications. Cost included with bearing.



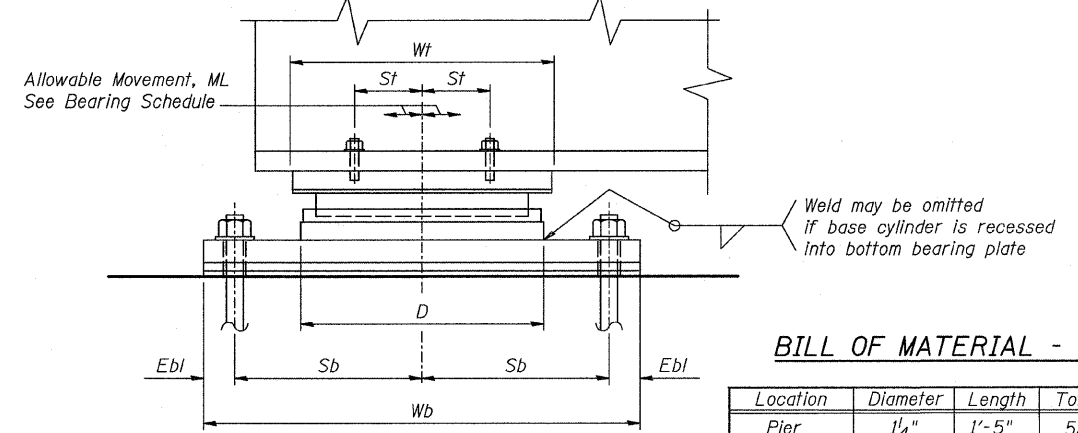
ELEVATION

FIXED BEARING



SECTION

Allowable Movement, ML See Bearing Schedule



ELEVATION

NON-GUIDED EXPANSION BEARING

BILL OF MATERIAL - ANCHORS

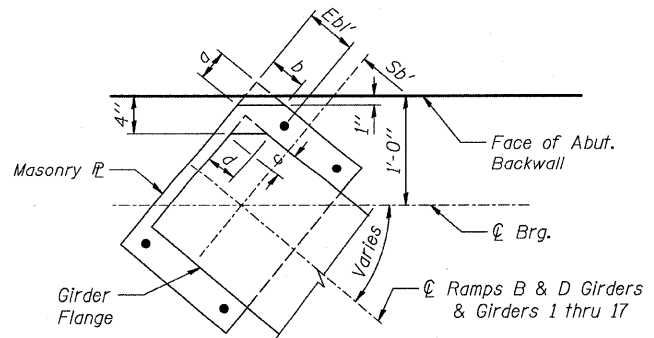
Location	Diameter	Length	Total	Type
Pier	1 1/4"	1'-5"	52	ASTM F1554
E. Abutment	1"	1'-2"	56	ASTM F1554
W. Abutment	1"	1'-2"	64	ASTM F1554

BILL OF MATERIAL - BEARINGS

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed, 250K	Each	13
Floating Bearing, Non-Guided Expansion, 50K	Each	8
Floating Bearing, Non-Guided Expansion, 75K	Each	6
Floating Bearing, Non-Guided Expansion, 100K	Each	6
Floating Bearing, Non-Guided Expansion, 150K	Each	6
Floating Bearing, Non-Guided Expansion, 200K	Each	4

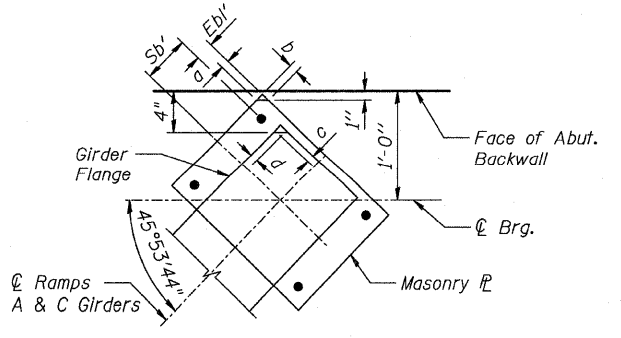
BEARING SCHEDULE

Type	Vertical Capacity K	Lateral Capacity K	Quantity Each	Location	Girders	Guided Expansion	ML in	MT in	Th in	D in	Top Plate/Bearing Assembly						Masonry Plate										
											Lt in	Wt in	Dt in	Tt in	St in	Rt in	Lb in	Wb in	Tb in	Sb* in	Rb in	Ebl* in	Ebt in	Da in	La in	Ha in	Wa in
High Load Multi-Rotation Bearings, Fixed, 250K	250	110	13	Pier	3-15	-	-	-	5.75	13.13	13.125	13.125	1	2.375	4.5	4.5	21.50	16.63	1	5.625	8.063	2.688	2.188	1.25	17	1.75	2.75
High Load Multi-Rotation Bearings, Non-Guided Expansion, 50K	50	-	8	Abutment	A1,A2,B1,B2,C1,C2,D1,D2	-	2	0.5	4.75	6.5	6.50	8.75	1	1.5	2.5	2	19	12.25	1	4.375	7.75	1.75	1.75	1	14	1.5	2.25
High Load Multi-Rotation Bearings, Non-Guided Expansion, 75K	75	-	6	Abutment	A3,A4,B3,C3,C4,D3	-	2	0.5	5	7.5	7.50	9.625	1	1.5	3	2	19	13.13	1.25	4.8125	7.75	1.75	1.75	1	14	1.5	2.25
High Load Multi-Rotation Bearings, Non-Guided Expansion, 100K	100	-	6	Abutment	A5,A6,B4,C5,C6,D4	-	2	0.5	5	8.5	8.50	10.5	1	1.5	3	2.25	19	14.0	1.25	5.25	7.75	1.75	1.75	1	14	1.5	2.25
High Load Multi-Rotation Bearings, Non-Guided Expansion, 150K	150	-	6	Abutment	2,16,B5,D5	-	2	0.5	5.25	9.5	9.50	11.125	1	1.5	3.5	2.75	23.5	14.75	1.5	5.625	10	1.75	1.75	1	14	1.5	2.25
High Load Multi-Rotation Bearings, Non-Guided Expansion, 200K	200	-	4	Abutment	1,17	-	2	1	6.1875	12	12	13	1	1.750	4.5	4.00	29.5	16.5	2	6.5	13	1.75	1.75	1	14	1.5	2.25



GIRDER	a	b	c	d
B5,D5	3 1/4"	4"	2 9/16"	3 3/8"
B4,D4	3 1/4"	7 3/8"	3 3/8"	1 1/2"
B3,D3	3 3/8"	3 3/8"	3 3/8"	3 3/8"
A5,A6,C5,C6	7 3/8"	7 3/8"	1 1/2"	3 3/8"
A3,A4,C3,C4	1 1/2"	1 1/2"	3 3/8"	3 3/8"
B1,B2,D1,D2	-	-	-	-
A1,A2,C1,C2	-	-	3 3/8"	3 3/8"
1,17	-	-	5 1/4"	1 1/8"
2,16	-	-	2 1/4"	1 1/2"
3-15	-	-	-	-

MASONRY PLATE & GIRDER FLANGE CORNER CLIP



GIRDER	Sb'	Ebl'
B4,D4	4.813"	2.188"
B5,D5	2.063"	5.313"
A5,A6,C5,C6	5.063"	1.938"

* Dimensions Sb' and Ebl' required due to backwall interference at Abutments. See Masonry Plate & Girder Flange Corner Clip sketches for location of Sb' and Ebl'.

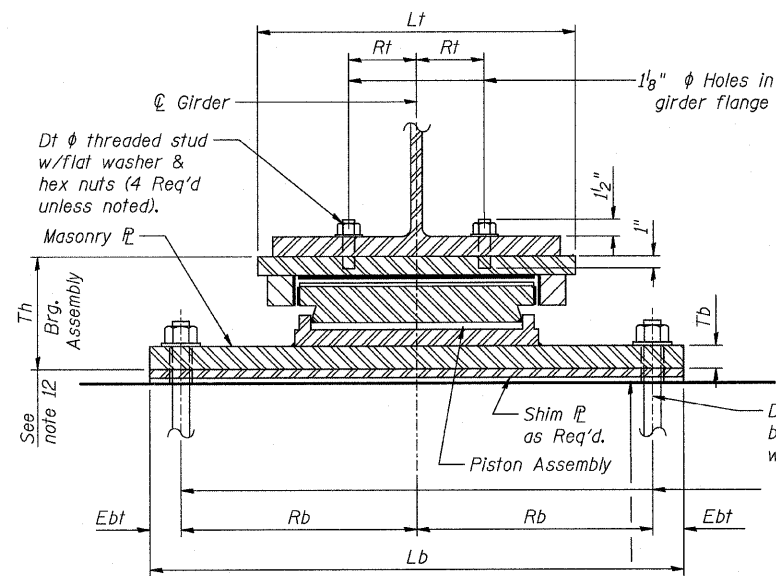
SHT. S-50 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3013
 312.953-0655, FAX 312.533-0661

REVISIONS	
NAME	DATE

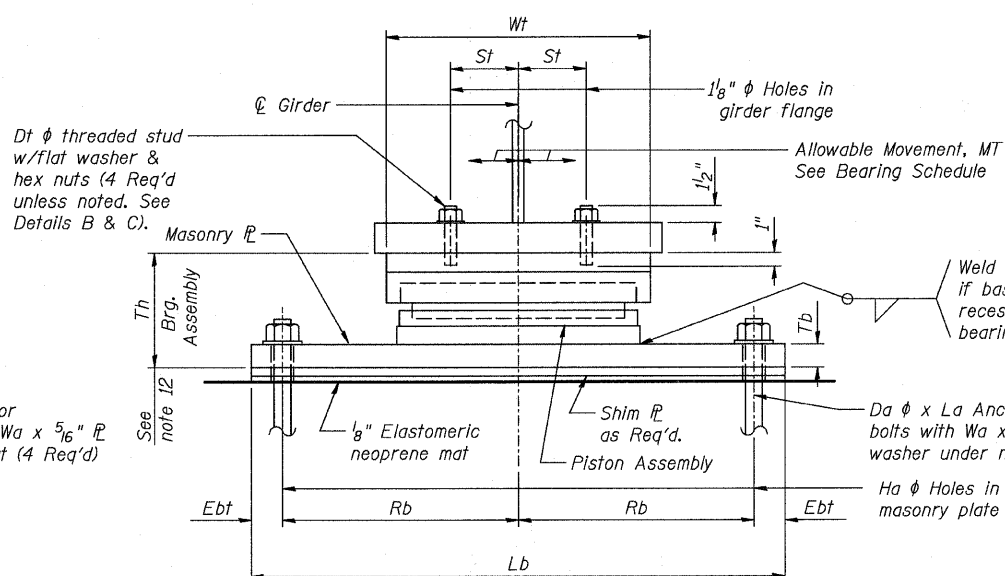
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 HIGH LOAD MULTI-ROTATION BEARINGS
 - FIXED AND NON-GUIDED

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAN CHECKED: JAN
 DATE: 03/06



SECTION

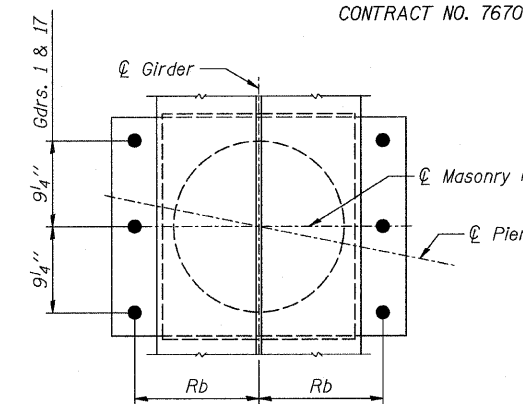
1/8" Elastomeric neoprene leveling pad according to Art. 1052.02 of the Standard Specifications. Cost included with bearing.



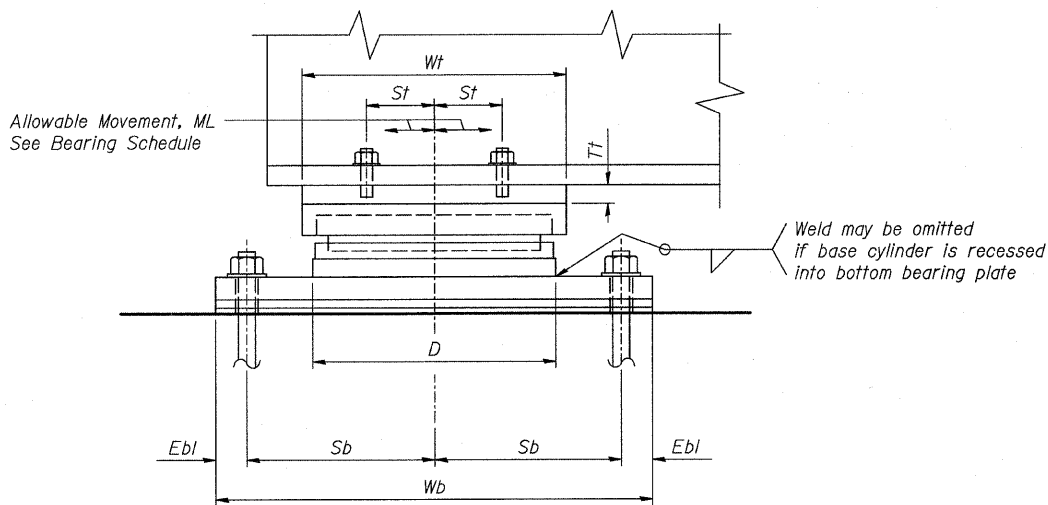
ELEVATION

Weld may be omitted if base cylinder is recessed into bottom bearing plate

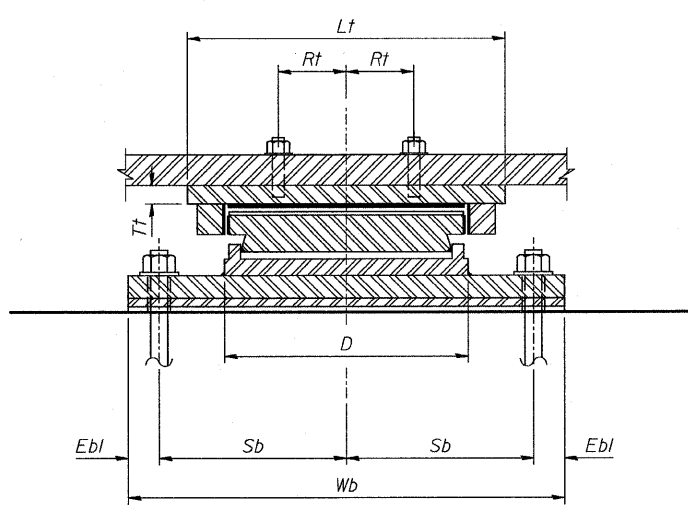
Da φ x La Anchor bolts with Wa x Wa x 5/16" PL washer under nut (4 Req'd Gdr. 2&16 6 Req'd Gdr. 1&17)



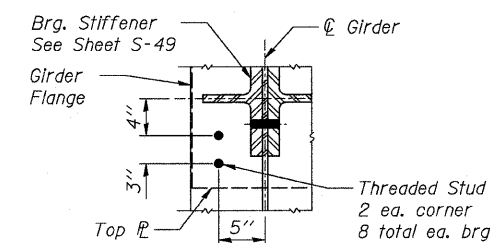
DETAIL "A"



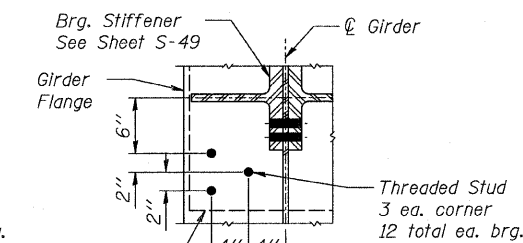
ELEVATION



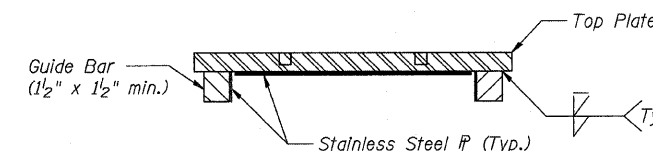
SECTION



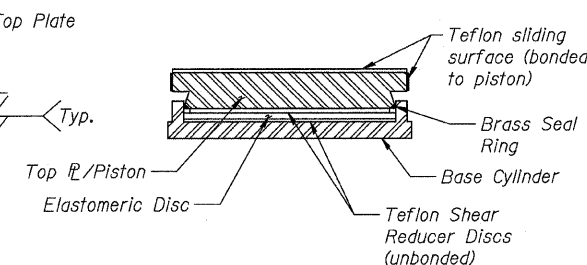
DETAIL "B"



DETAIL "C"



TOP PLATE ASSEMBLY



PISTON ASSEMBLY

GUIDED EXPANSION BEARING - LONGITUDINAL TO GIRDER

GUIDED EXPANSION BEARING - TRANSVERSE TO GIRDER

BEARING SCHEDULE

Type	Vertical Capacity K	Lateral Capacity K	Quantity Each	Location	Girders	Guided Expansion	ML in	MT in	Th in	D in	Top Plate/Bearing Assembly						Masonry Plate										
											Lt in	Wt in	Dt in	Tt in	St in	Rt in	Lb in	Wb in	Tb in	Sb in	Rb in	Ebl in	Ebt in	Dσ in	La in	Ha in	Wa in
High Load Multi-Rotation Bearings, Guided Expansion, 100K	100	50	26	Abutment	3-15	Long.	2	-	6.601	7.5	12.50	10	1	1.5	3	4.25	20	11.0	1.5	3.75	8.25	1.75	1.75	1	14	1.5	2.25
High Load Multi-Rotation Bearings, Guided Expansion, 350K	350	135	2	Pier	2,16	Transv.	-	2	8.625	13.5	19.25	15.75	1	2.25	Detail B	Detail B	28.75	17.00	1.75	5	10.875	3.5	2.625	1.5	20	2	3
High Load Multi-Rotation Bearings, Guided Expansion, 650K	650	250	2	Pier	1,17	Transv.	-	2	10.875	18.375	24.25	20.75	1	3	Detail C	Detail C	32	23.75	2	Detail A	13.375	2.625	2.625	1.5	20	2	3

BILL OF MATERIAL - ANCHORS

Location	Diameter	Length	Total	Type
Pier	1/2"	1'-10"	20	ASTM F1554
E. Abutment	1"	1'-2"	52	ASTM F1554
W. Abutment	1"	1'-2"	52	ASTM F1554

BILL OF MATERIAL - BEARINGS

Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion, 100K	Each	26
High Load Multi-Rotation Bearings, Guided Expansion, 350K	Each	2
High Load Multi-Rotation Bearings, Guided Expansion, 650K	Each	2

NOTES:

- For notes see Sht. S-50.
- Work this sheet with Sht. S-50.
- For location of bearing type, see Sht. S-37.

SHT. S-51 OF S-68

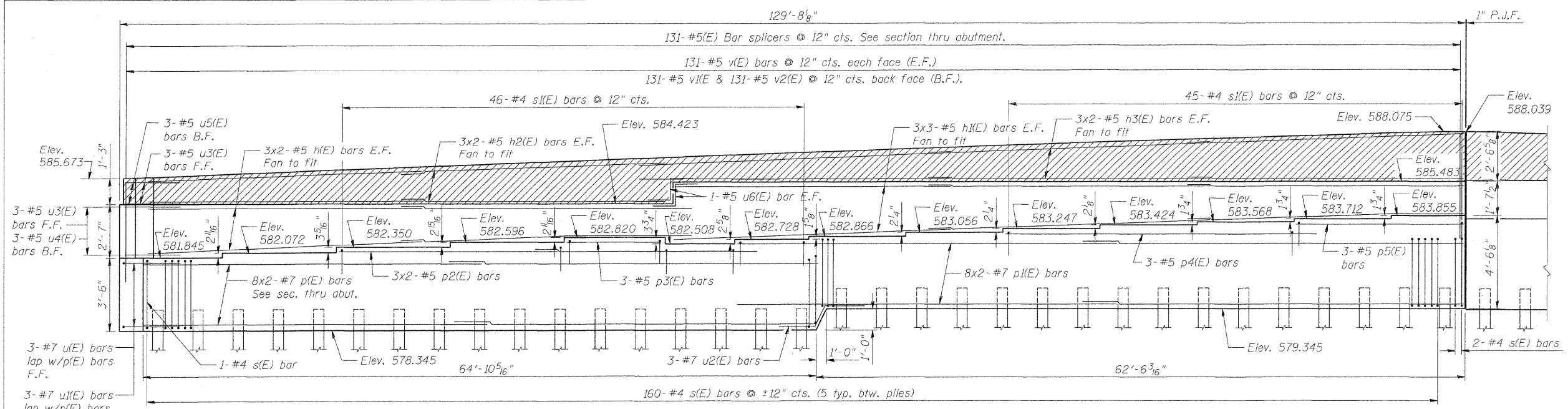


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
 HIGH LOAD MULTI-ROTATION BEARINGS
 - GUIDED EXPANSION

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAN CHECKED: JAN
 DATE: 03/06

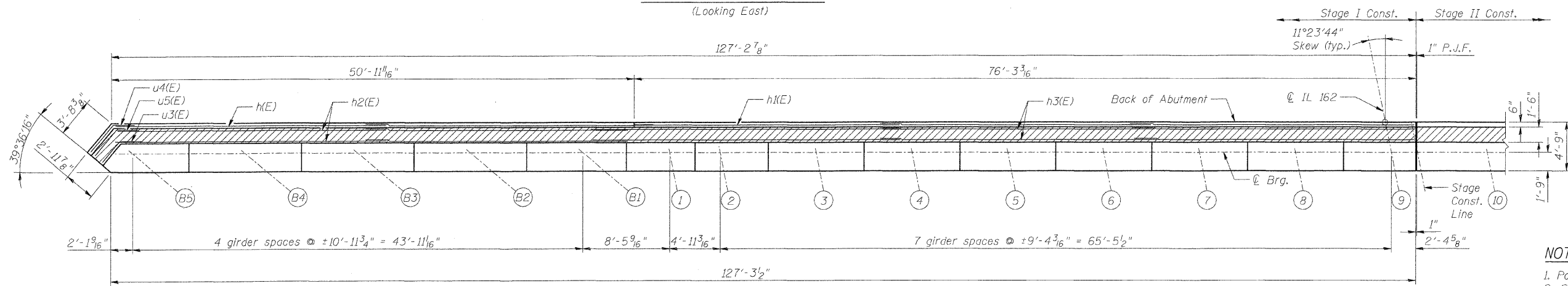
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1,60-10HB	MADISON	420	271	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76709				



ELEVATION - STAGE I
(Looking East)

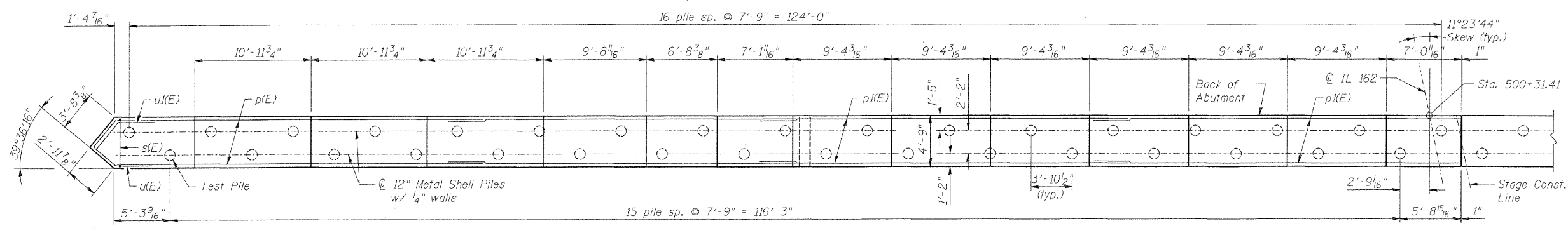
PILE DATA
Type: 12" ϕ Metal Shell, w/ 1/4" wall
Nominal Required Bearing: 355 kips
Allowable Resistance Available: 80 kips
Est. Length: 86 ft
No. Required: 32 plus 1 Test Pile

The metal Shell piles shall be according to ASTM A252 Grade 3.



TOP VIEW - STAGE I

- NOTES:**
1. Pour steps monolithically with abutment.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Bars designated (E) shall be epoxy coated.
 4. F.F. indicates Front Face
E.F. indicates Each Face
B.F. indicates Back Face
 5. For Bill of Material, sections and details, see Sht. S-55.



PILE CAP PLAN - STAGE I

Min. Lap
#5 bars = 2'-2"
#7 bars = 3'-5"

SHT. S-53 OF S-68

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

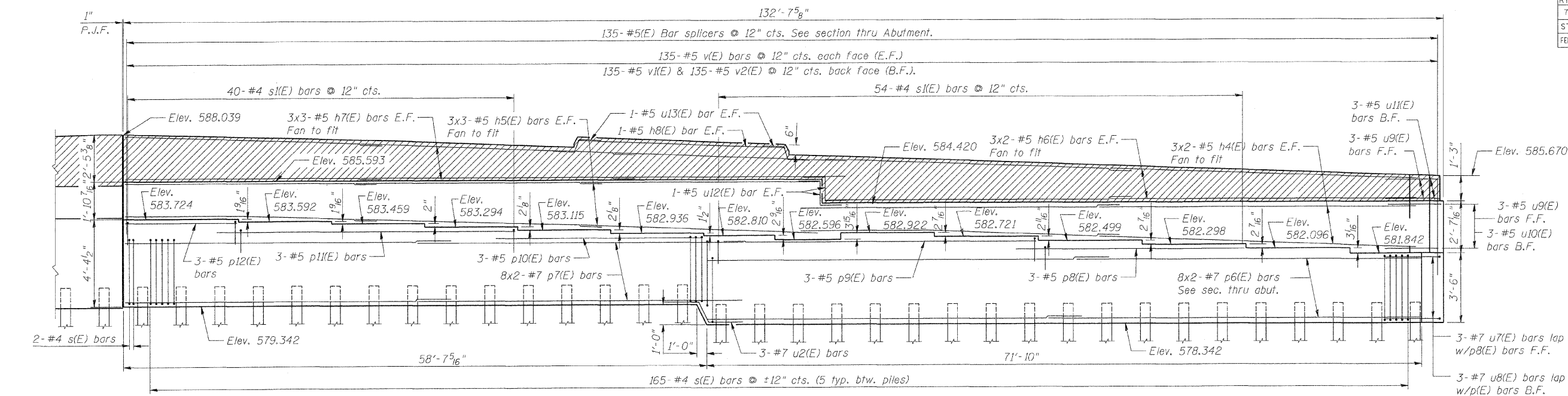
EAST ABUTMENT PLAN & ELEVATION - STAGE I

DESIGNED: BTO DRAWN: BTO
CHECKED: JAN CHECKED: JAW

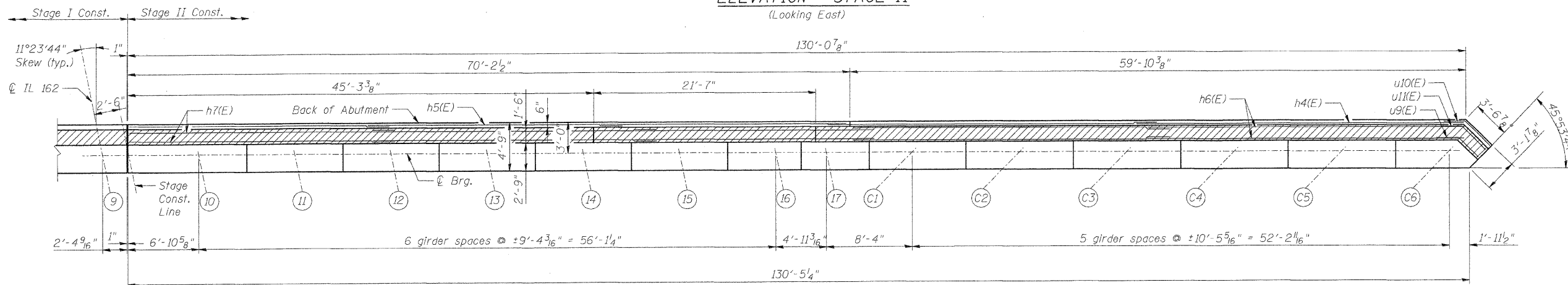
DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	272
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

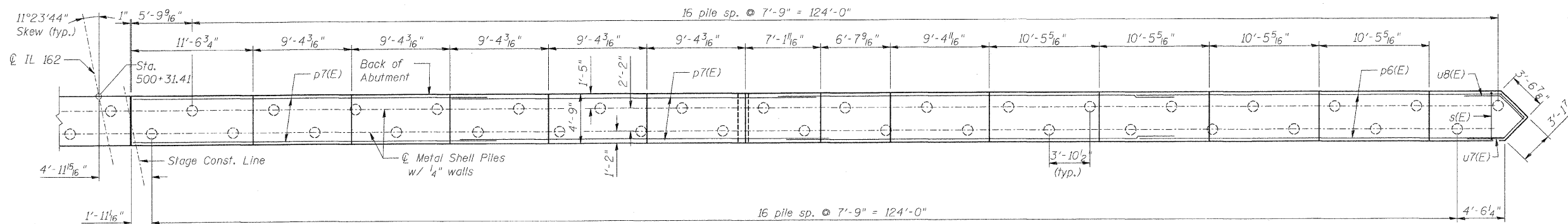
CONTRACT NO. 76709



ELEVATION - STAGE II
(Looking East)



TOP VIEW - STAGE II



PILE CAP PLAN - STAGE II

PILE DATA

Type: 12" ϕ Metal Shell, w/ 1/4" wall
Nominal Required Bearing: 355 kips
Allowable Resistance Available: 80 kips
Est. Length: 86 ft
No. Required: 34

The Metal Shell piles shall be according to ASTM A252 Grade 3.

NOTE:

For notes, see Sht. S-53.

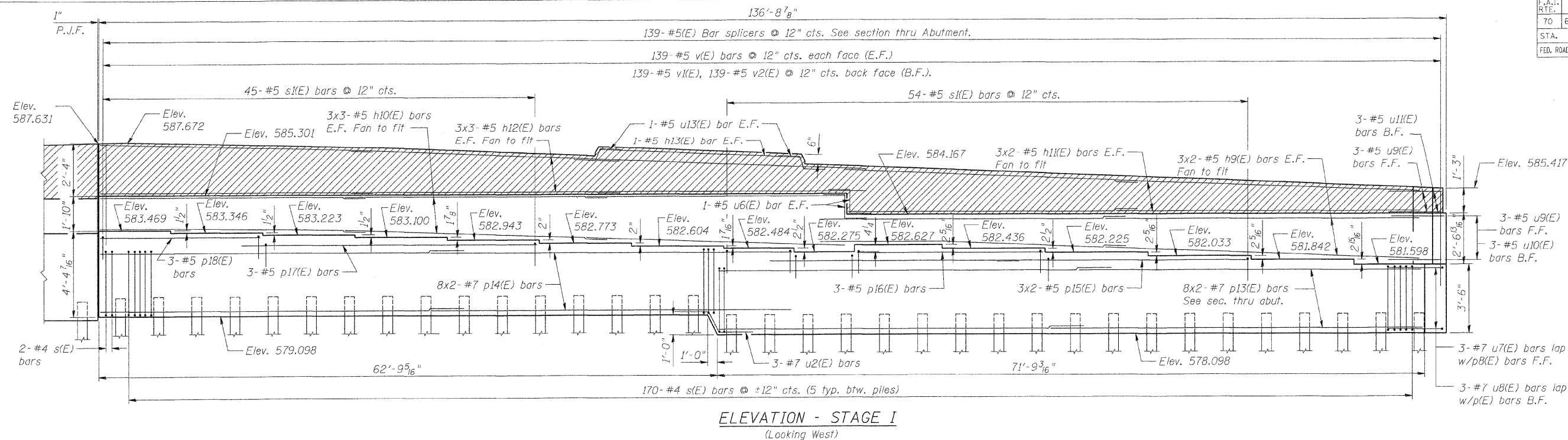
SHT. S-54 OF S-68



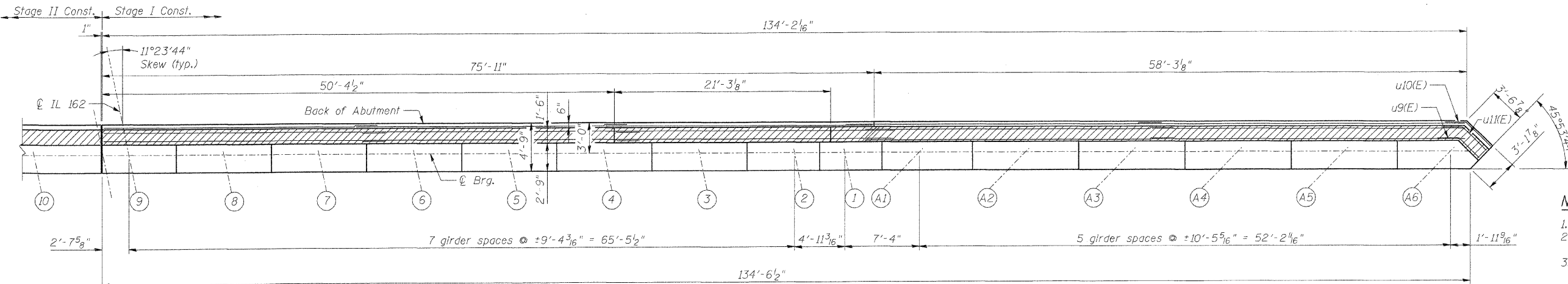
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
EAST ABUTMENT PLAN & ELEVATION - STAGE II
DESIGNED: BTO DRAWN: BTO
DATE: 03/06 CHECKED: JAN CHECKED: JAW

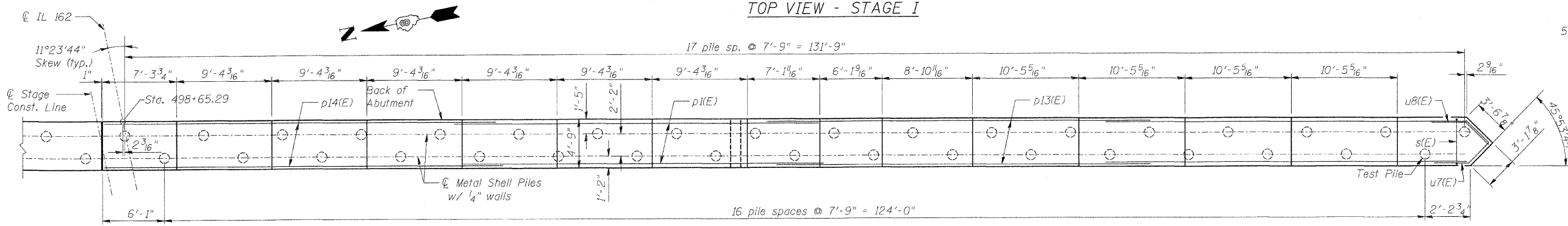
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO 60-10K-1,60-10HB	MADISON	420	274	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 76709				



ELEVATION - STAGE I
(Looking West)



TOP VIEW - STAGE I



PILE CAP PLAN - STAGE I

PILE DATA
 Type: 12" ϕ Metal Shell, w/ 1/4" wall
 Nominal Required Bearing: 355 kips
 Allowable Required Available: 80 kips
 Est. Length: 86 ft
 No. Required: 34 plus 1 Test Pile

The Metal Shell piles shall be according to ASTM A252 Grade 3.

- NOTES:**
1. Pour steps monolithically with abutment.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Bars designated (E) shall be epoxy coated.
 4. F.F. indicates Front Face
E.F. indicates Each Face
B.F. indicates Back Face
 5. For Bill of Material, sections and details, see Sht. S-58.

Min. Lap
 #5 bars = 2'-2"
 #7 bars = 3'-5"

REVISIONS	
NAME	DATE

SHT. S-56 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-2015
 312.553.0655, FAX 312.553.0661

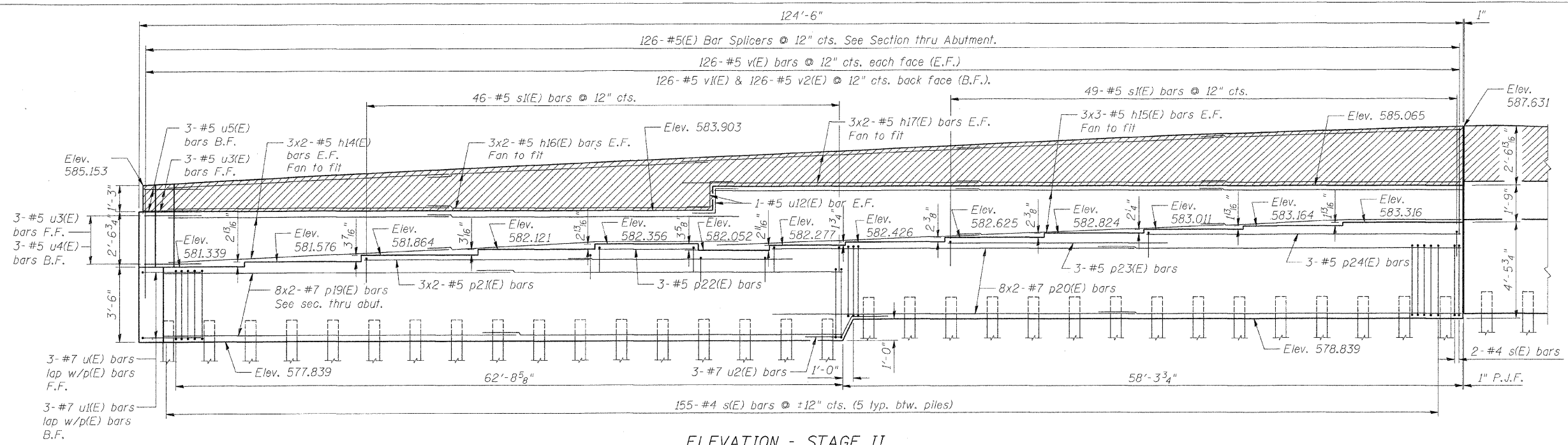
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

WEST ABUTMENT PLAN & ELEVATION - STAGE I

DESIGNED: JAW DRAWN: BTO
 CHECKED: BTO CHECKED: JAW
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	275
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709

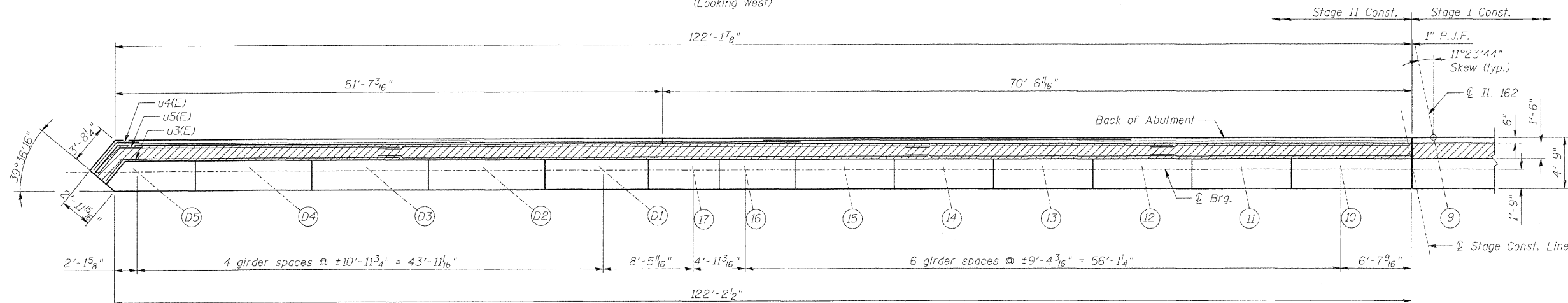


ELEVATION - STAGE II
(Looking West)

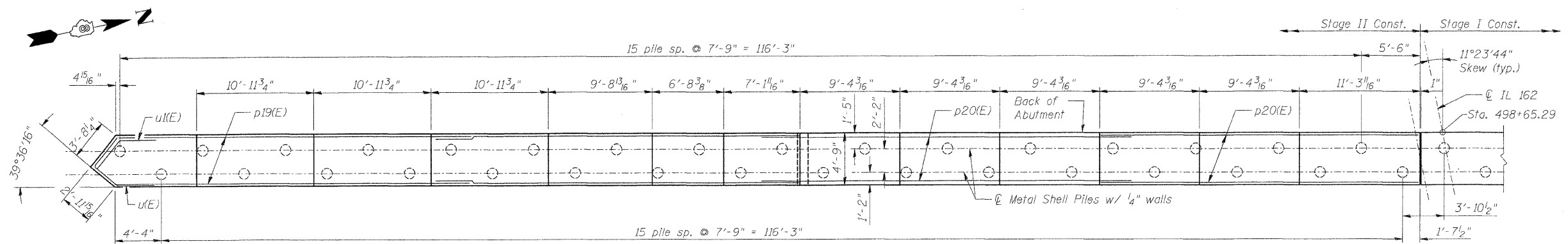
PILE DATA

Type: 12" ϕ Metal Shell, w/ $\frac{1}{4}$ " wall
 Nominal Required Bearing: 355 kips
 Allowable Resistance Available: 80 kips
 Est. Length: 86 ft
 No. Required: 32

The Metal Shell piles shall be according to ASTM A252 Grade 3.



TOP VIEW - STAGE II



PILE CAP PLAN - STAGE II

NOTE:
1. For notes, see Sht. S-56.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338
WEST ABUTMENT PLAN & ELEVATION - STAGE II
 DESIGNED: JAW
 CHECKED: BTO
 DATE: 03/06
 DRAWN: BTO
 CHECKED: JAW

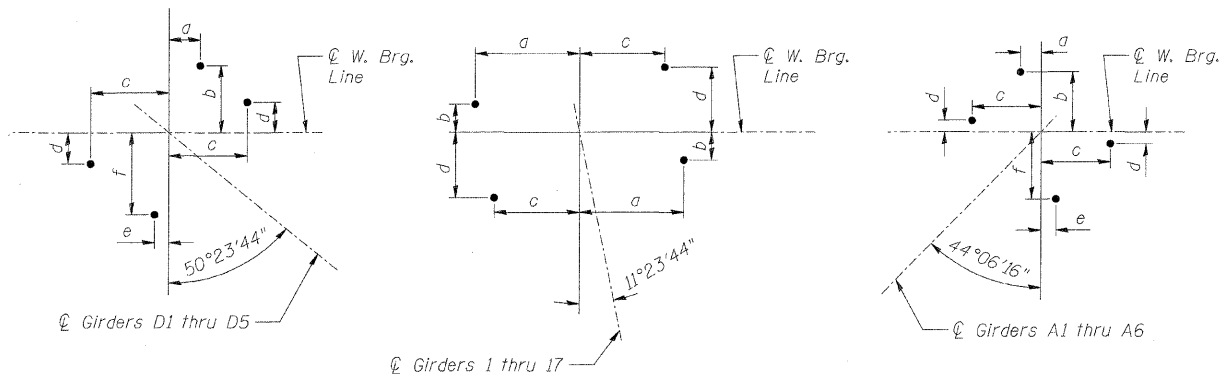
SHT. S-57 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-2015
 312.233.0655, FAX 312.553.0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	276
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 76709				

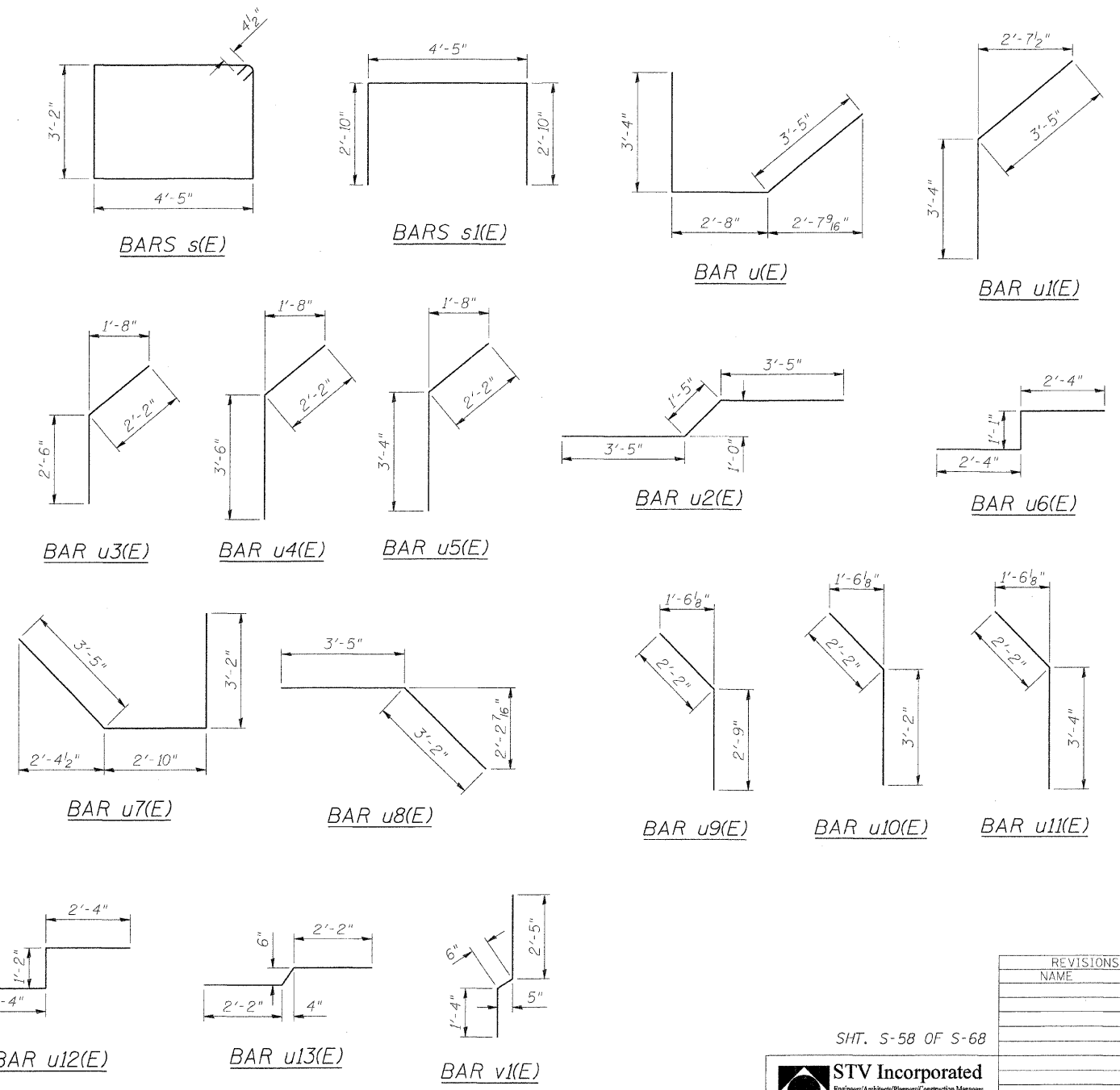
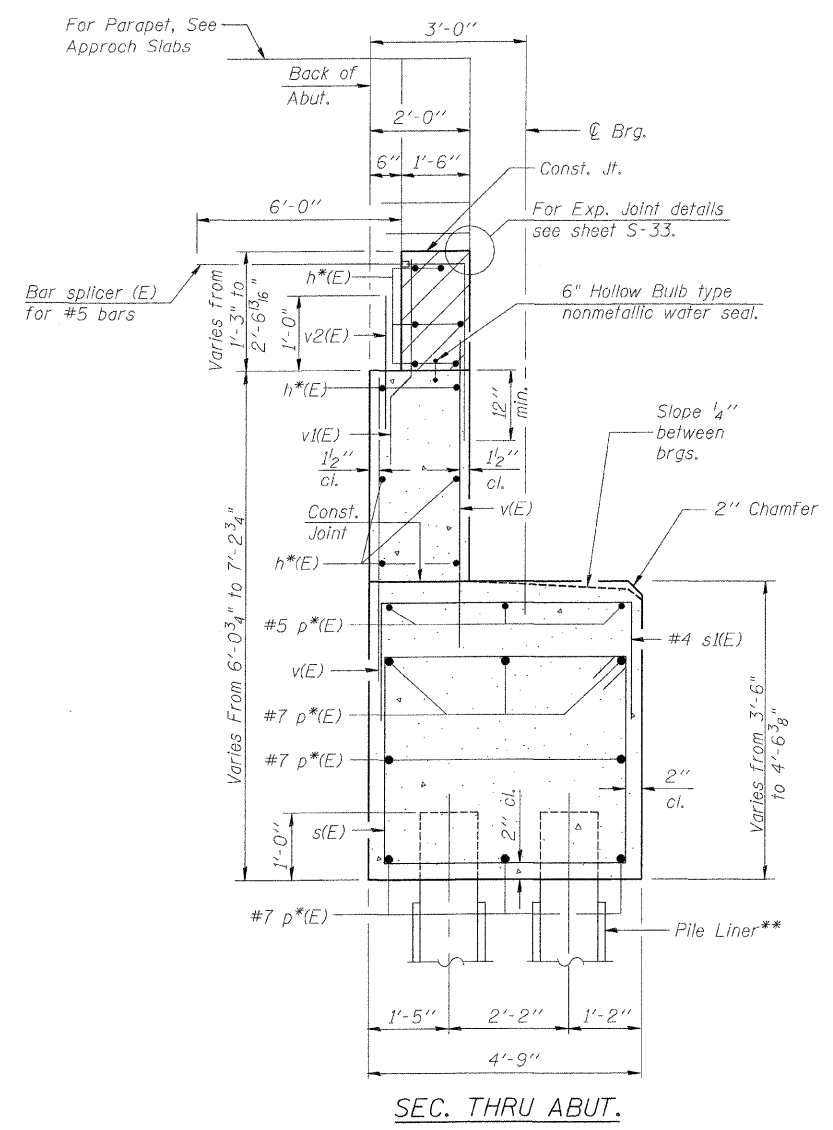
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h9(E)	12	#5	30'-1"	
h10(E)	18	#5	26'-8"	
h11(E)	12	#5	30'-3"	
h12(E)	18	#5	27'-6"	
h13(E)	2	#5	21'-0"	
h14(E)	12	#5	27'-11"	
h15(E)	18	#5	24'-11"	
h16(E)	12	#5	26'-8"	
h17(E)	18	#5	25'-7"	
p13(E)	16	#7	37'-6"	
p14(E)	16	#7	36'-7"	
p15(E)	6	#5	28'-0"	
p16(E)	3	#5	19'-0"	
p17(E)	3	#5	20'-0"	
p18(E)	3	#5	16'-3"	
p19(E)	16	#7	33'-1"	
p20(E)	16	#7	34'-1"	
p21(E)	6	#5	21'-3"	
p22(E)	3	#5	9'-6"	
p23(E)	3	#5	20'-8"	
p24(E)	3	#5	29'-8"	
s(E)	329	#4	15'-11"	
s1(E)	194	#4	10'-1"	
u(E)	3	#7	9'-5"	
u1(E)	3	#7	6'-9"	
u2(E)	6	#7	8'-3"	
u3(E)	6	#5	4'-8"	
u4(E)	3	#5	5'-8"	
u5(E)	3	#5	5'-6"	
u6(E)	4	#5	5'-9"	
u7(E)	3	#7	9'-5"	
u8(E)	3	#7	6'-7"	
u9(E)	6	#5	4'-11"	
u10(E)	3	#5	5'-4"	
u11(E)	3	#5	5'-6"	
u12(E)	4	#5	5'-10"	
u13(E)	4	#5	4'-11"	
v(E)	530	#5	4'-10"	
v1(E)	265	#4	4'-3"	
v2(E)	265	#5	2'-6"	
Concrete Structures	Cu. Yd.	218		
Reinforcement Bars, Epoxy Coated	Pound	18,160		
Test Pile Metal Shell	Each	1		
Furnishing Metal Pile Shells 12" x 0.250"	Foot	5,676		
Driving Piles	Foot	5,676		



GIRDER	a	b	c	d	e	f
D1,D2	19 1/8"	8 3/4"	8 5/8"	3 5/8"	1 9/16"	8 3/4"
D3	1 1/4"	9"	8 5/8"	2 7/8"	1 1/4"	9 1/8"
D4	1 1/4"	9"	9"	2 5/8"	7/8"	9 5/8"
D5	4 3/4"	9"	10 1/8"	4 1/8"	2 1/8"	11 5/8"
1,17	14"	3 1/8"	11 1/8"	8 1/8"	-	-
2,16	10 5/8"	3 9/8"	8 1/8"	7 1/2"	-	-
3-15	7 3/8"	2 1/8"	7 3/8"	5 5/8"	-	-
A1,A2	2 1/2"	8 3/8"	8 3/8"	2 1/2"	2 1/2"	8 3/8"
A3,A4	2 1/4"	8 7/8"	8 5/8"	1 5/8"	2 1/4"	8 7/8"
A5,A6	2 1/8"	9"	9 1/4"	1 5/8"	1 5/8"	9 3/8"

ANCHOR BOLT LAYOUT WEST ABUTMENT



- NOTES:**
- Hatched area to be poured after superstructure falsework has been removed. Quantity of concrete included with Concrete Superstructure.
 - * - Indicates for bar designation see abutment plan and elevation.
 - ** - Pile Liner shall be included in the cost of "Furnishing Metal Pile Shells 12". Do not fill annulus between pile and pile liner. Provide filter fabric around top of liner.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - For details of Bar splicers, see Sht. S-63.

SHT. S-58 OF S-68

STV Incorporated
 Engineers/Architects/Planners/Contractors Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/833-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

WEST ABUTMENT DETAILS

DESIGNED: JAW DRAWN: BTO
 DATE: 03/06 CHECKED: BTO CHECKED: JAW

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	277
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 76709				

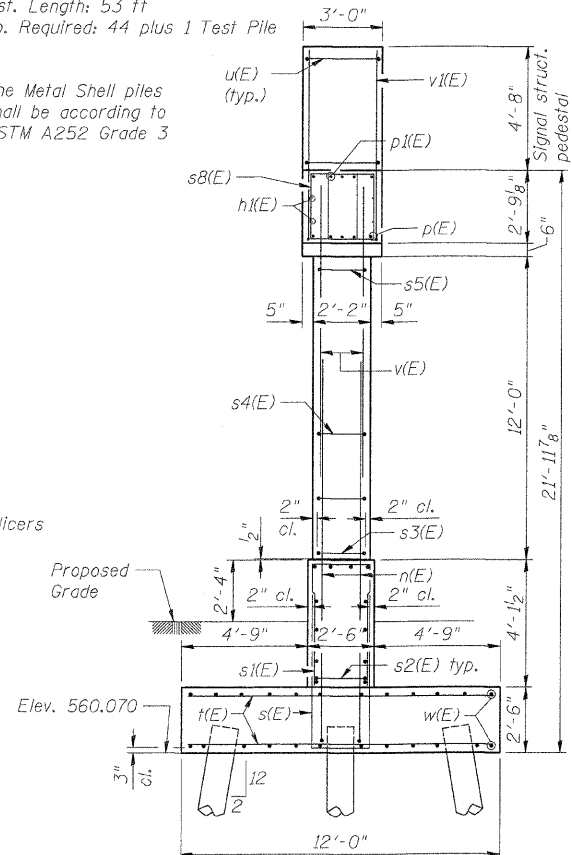
Size	Lap
#5	3'-0"
#6	3'-7"
#7	3'-5"
#8	4'-6"
#9	5'-9"

MIN. BAR LAP
Unless noted otherwise

PILE DATA

Type: 12" ϕ Metal Shell w/ $\frac{1}{4}$ " wall
Nominal Required Bearing: 355 kips
Allowable Resistance Available: 80 kips
Est. Length: 53 ft
No. Required: 44 plus 1 Test Pile

The Metal Shell piles shall be according to ASTM A252 Grade 3

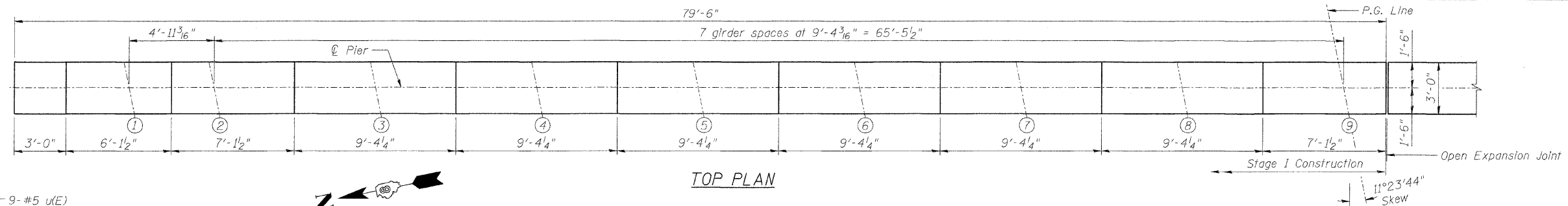


END VIEW

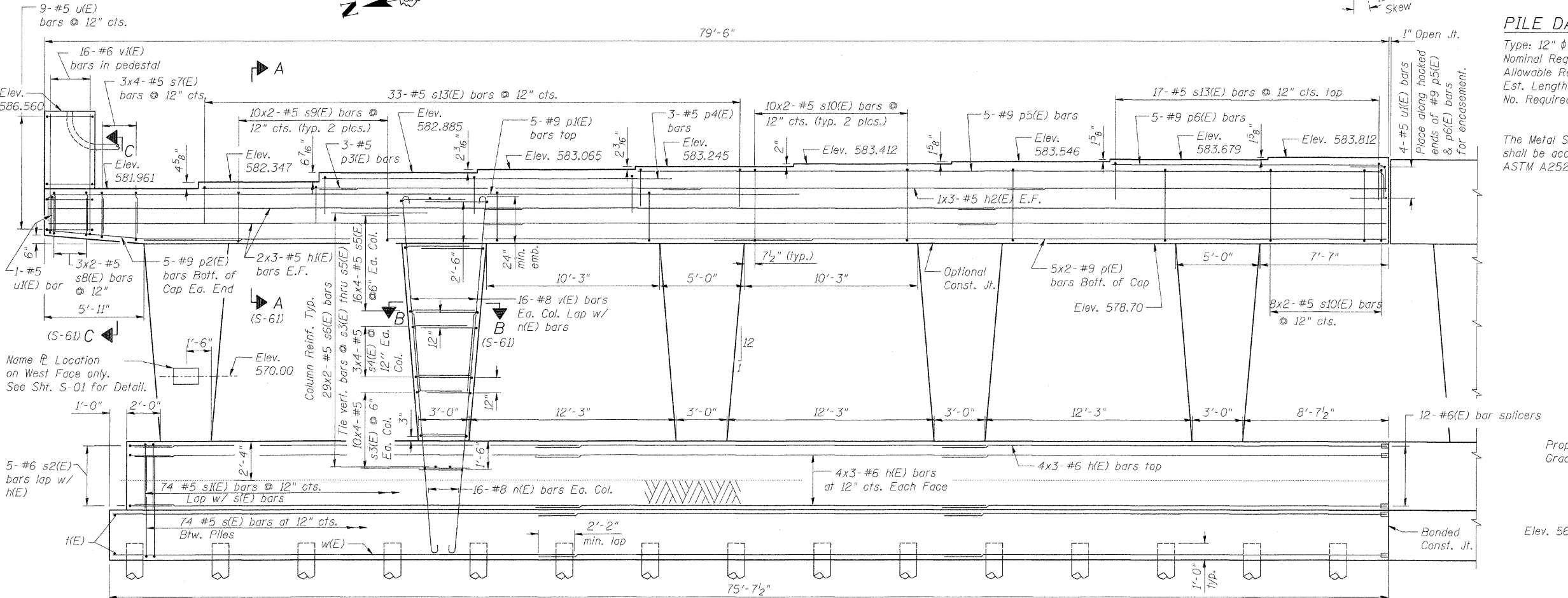
NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. Work this sht. with Sht. S-60 thru S-62.
4. All edges shall have standard $\frac{3}{4}$ " chamfer except as noted.
5. Cut existing timber piles below proposed bottom of footing.

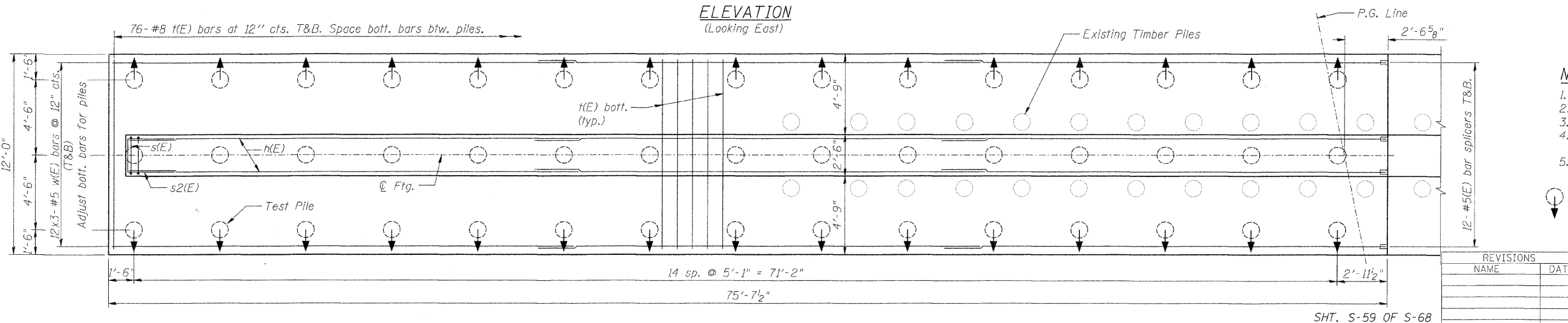
⊙ Denotes Battered Pile (2:12)



TOP PLAN



ELEVATION
(Looking East)



FOOTING PLAN

REVISIONS	NAME	DATE

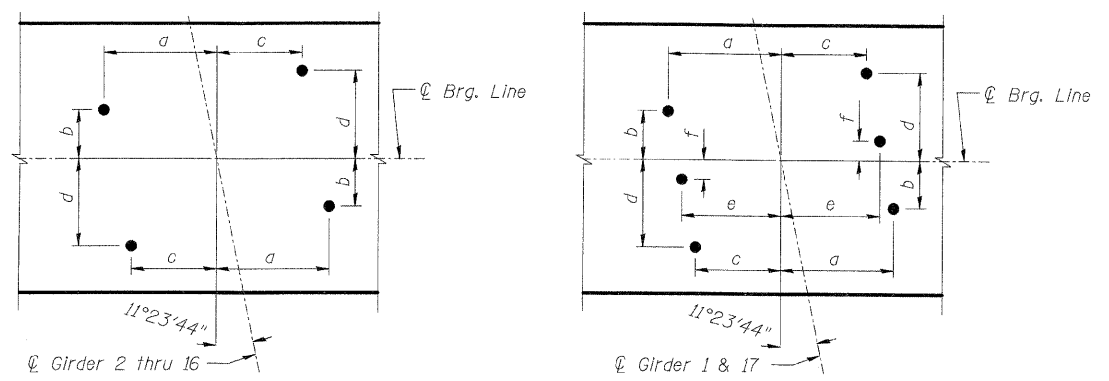
STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0655, FAX 312/553-0661

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338
PIER PLAN & ELEVATION - STAGE I
DESIGNED: BTO
DRAWN: BTO
DATE: 03/06
CHECKED: AWH
CHECKED: AWH

SHT. S-59 OF S-68

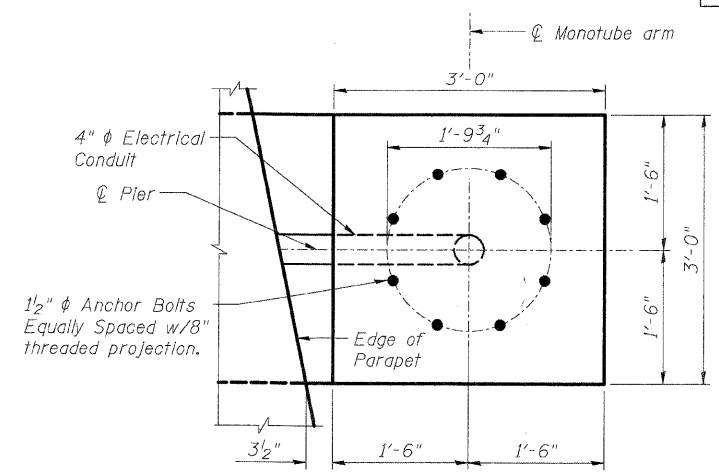
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	279
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



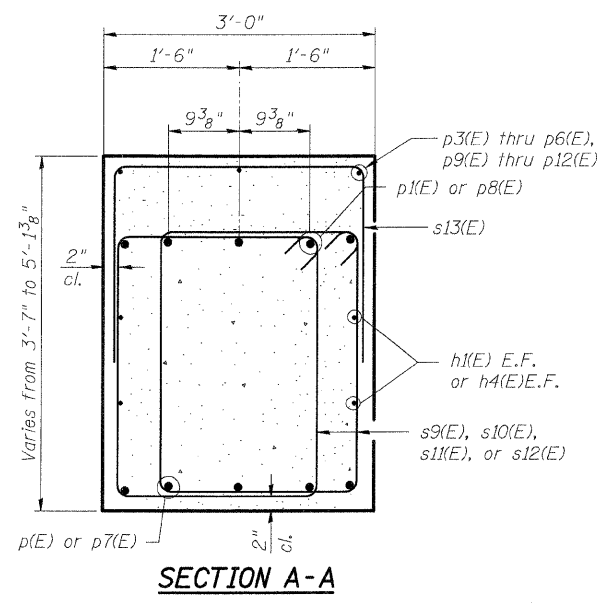
	a	b	c	d	e	f
1,17	14 ¹⁵ / ₁₆ "	6 ⁷ / ₁₆ "	11 ⁵ / ₁₆ "	11 ⁴ / ₁₆ "	13 ¹ / ₁₆ "	2 ⁵ / ₈ "
2,16	11 ⁵ / ₈ "	2 ³ / ₄ "	9 ¹¹ / ₁₆ "	7 ¹ / ₁₆ "	-	-
3-15	9"	3 ¹⁵ / ₁₆ "	6 ¹³ / ₁₆ "	7 ¹ / ₈ "	-	-

ANCHOR BOLT LAYOUT

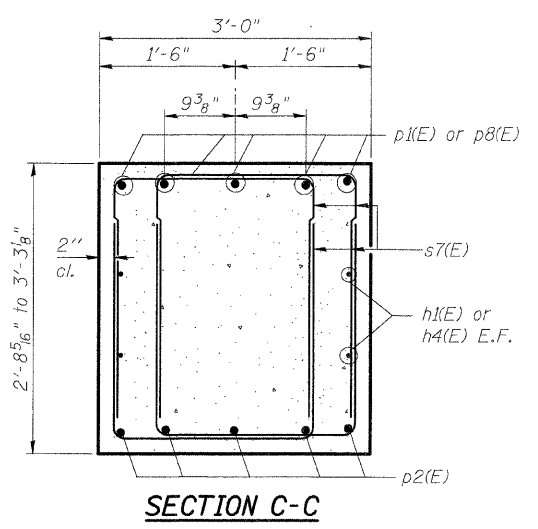


MONOTUBE ANCHOR BOLT LAYOUT

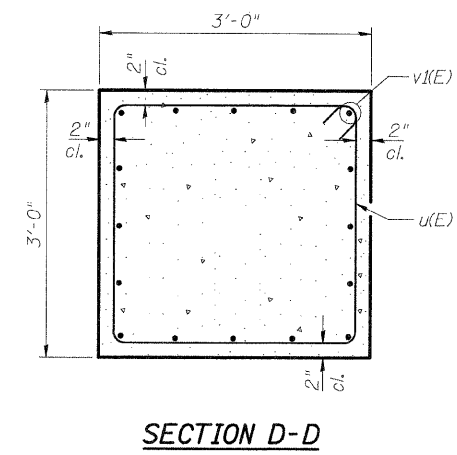
Note: Monotube Anchor bolts shall be ASTM F1554 Grade 55ksi.



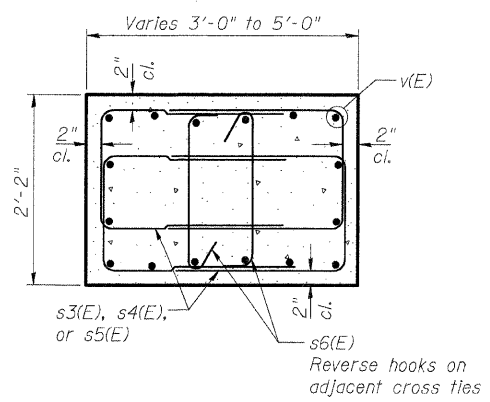
SECTION A-A



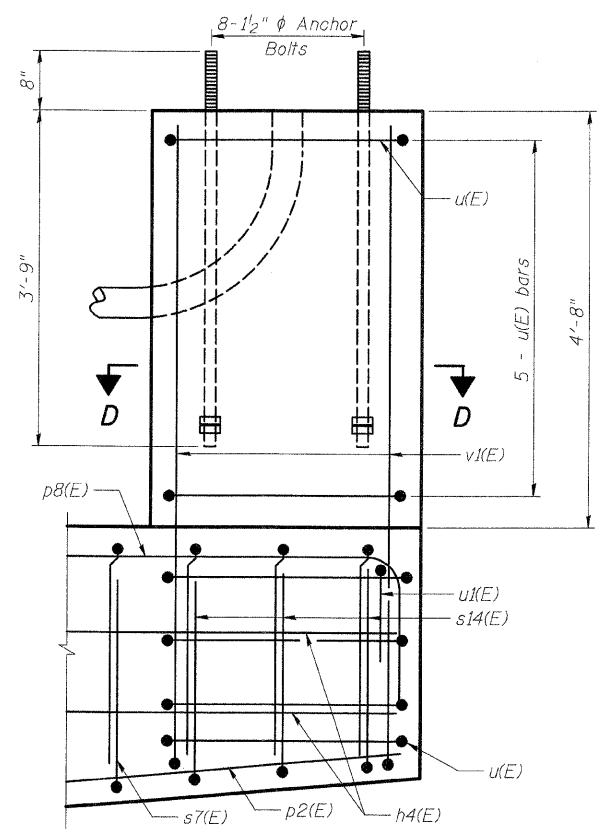
SECTION C-C



SECTION D-D



SECTION B-B



DETAIL 1

South end shown, north end similar

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

PIER DETAILS

DESIGNED: BTO DRAWN: BTO
 CHECKED: AWB CHECKED: AWB

DATE: 03/06

SHT. S-61 OF S-68

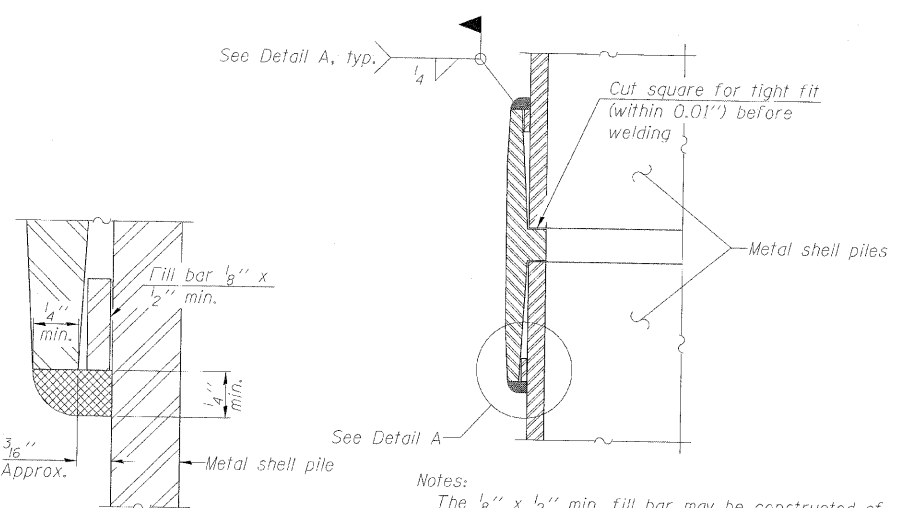
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/253-0655, FAX 312/553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	280
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 76709				

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#6	27'-3"	□
h1(E)	12	#5	28'-4"	□
h2(E)	6	#5	23'-0"	□
h3(E)	36	#6	25'-6"	□
h4(E)	12	#5	26'-9"	□
h5(E)	6	#5	21'-4"	□
n(E)	160	#8	14'-10"	□
p(E)	10	#9	39'-9"	□
p1(E)	5	#9	46'-1"	□
p2(E)	10	#9	11'-6"	□
p3(E)	3	#5	9'-1"	□
p4(E)	3	#5	20'-8"	□
p5(E)	5	#9	45'-10"	□
p6(E)	5	#9	17'-10"	□
p7(E)	10	#9	37'-3"	□
p8(E)	5	#9	46'-1"	□
p9(E)	3	#5	9'-2"	□
p10(E)	3	#5	20'-6"	□
p11(E)	5	#9	39'-3"	□
p12(E)	3	#5	11'-2"	□
s(E)	143	#5	11'-2"	□
s1(E)	143	#5	10'-0"	□
s2(E)	10	#6	9'-8"	□
s3(E)	400	#5	6'-8"	□
s4(E)	120	#5	8'-0"	□
s5(E)	640	#5	9'-0"	□
s6(E)	580	#5	2'-9½"	□
s7(E)	24	#5	7'-5"	□
s8(E)	6	#5	7'-1"	□
s9(E)	40	#5	11'-3"	□
s10(E)	56	#5	13'-11"	□
s11(E)	40	#5	11'-1"	□
s12(E)	46	#5	13'-9"	□
s13(E)	95	#5	7'-0"	□
s14(E)	6	#5	6'-11"	□
t(E)	294	#8	11'-6"	□
u(E)	18	#5	11'-7"	□
u1(E)	6	#5	6'-8"	□
v(E)	160	#8	12'-11"	□
v1(E)	32	#6	8'-0"	□
w(E)	72	#5	26'-7"	□
w1(E)	72	#5	24'-11"	□
Structure Excavation	Cu. Yd.	401		
Concrete Structures	Cu. Yd.	331		
Reinforcement Bars, Epoxy Coated	Pound	53,920		
Test Pile Metal Shell	Each	1		
Furnishing Metal Pile Shells 12" x 0.250"	Foot	4558		
Driving Piles	Foot	4558		

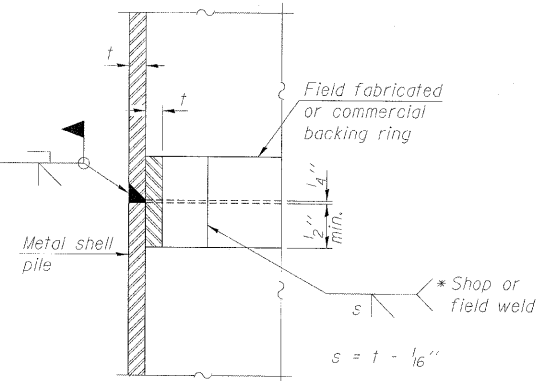
Reinforcement Bars designated (E) shall be epoxy coated
NOTE:
 Work this sheet with Shts. S-59 thru S-61.



DETAIL A

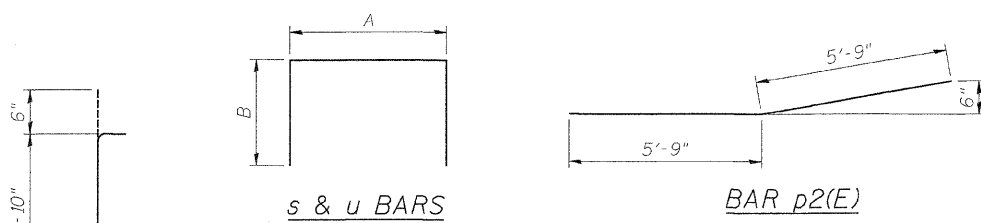
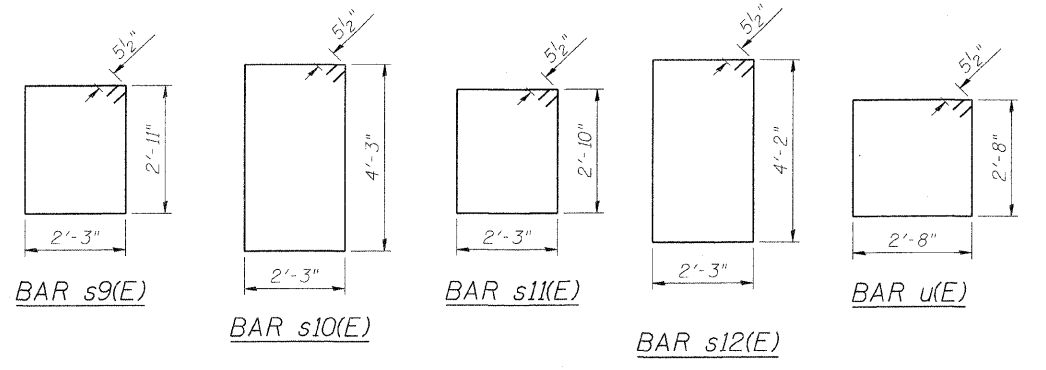
Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



COMPLETE PENETRATION WELD SPLICE

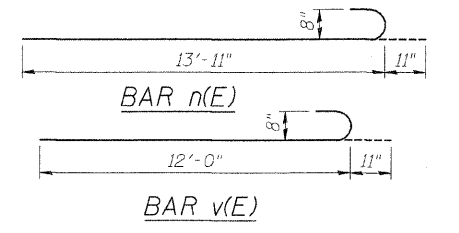
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**s & u BARS
 A & B DIMENSIONS**

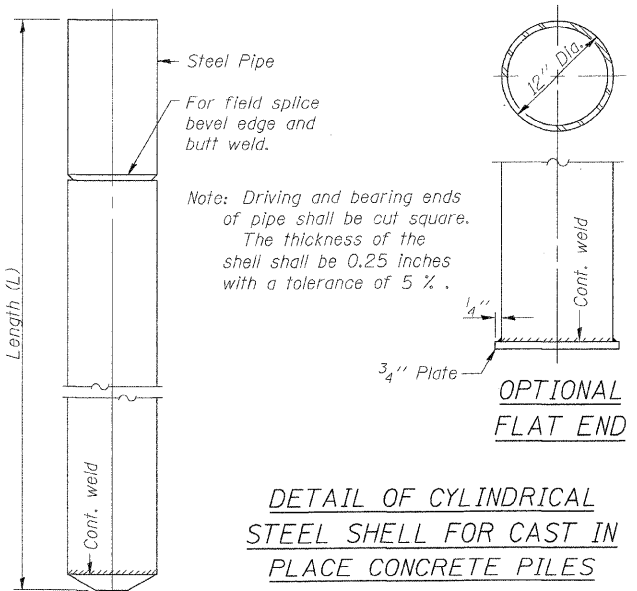
Bar	A	B
s(E)	2'-2"	4'-6"
s1(E)	2'-2"	3'-11"
s2(E)	2'-2"	3'-9"
s3(E)	1'-4"	2'-8"
s4(E)	1'-4"	3'-4"
s5(E)	1'-4"	3'-10"
s7(E)	2'-3"	2'-7"
s8(E)	2'-3"	2'-5"
s13(E)	2'-8"	2'-2"
s14(E)	2'-3"	2'-4"
u1(E)	2'-8"	2'-0"

BAR s6(E)

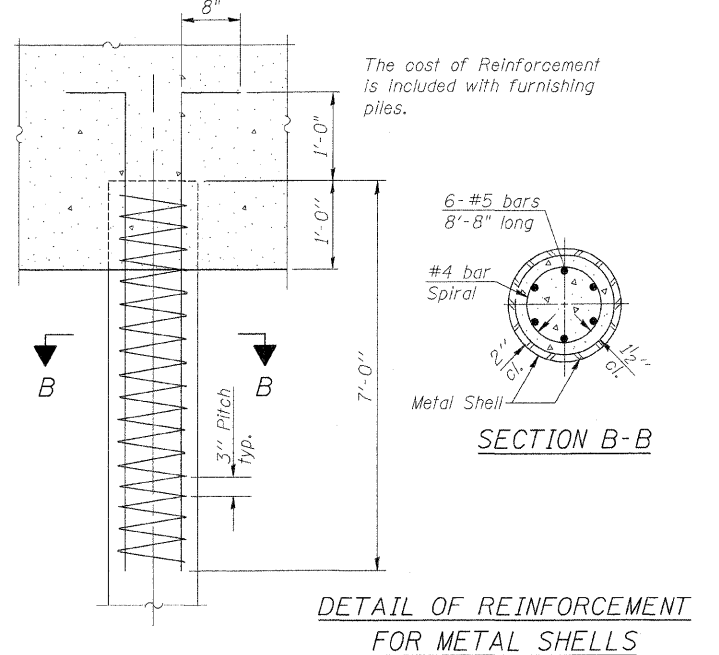


C & D DIMENSIONS

Bar	C	D
p1(E)	44'-6"	1'-7"
p5(E)	44'-3"	1'-7"
p6(E)	16'-3"	1'-7"
p8(E)	44'-6"	1'-7"
v1(E)	7'-0"	1'-0"



DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



DETAIL OF REINFORCEMENT FOR METAL SHELLS

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

SHT. S-62 OF S-68



REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

PIER & PILE DETAILS
 DESIGNED: BTO DRAWN: BTO
 DATE: 03/06 CHECKED: AWB CHECKED: AWB

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:

- Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

The diameter of this part is the same as the diameter of the bar spliced.

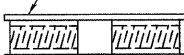
The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

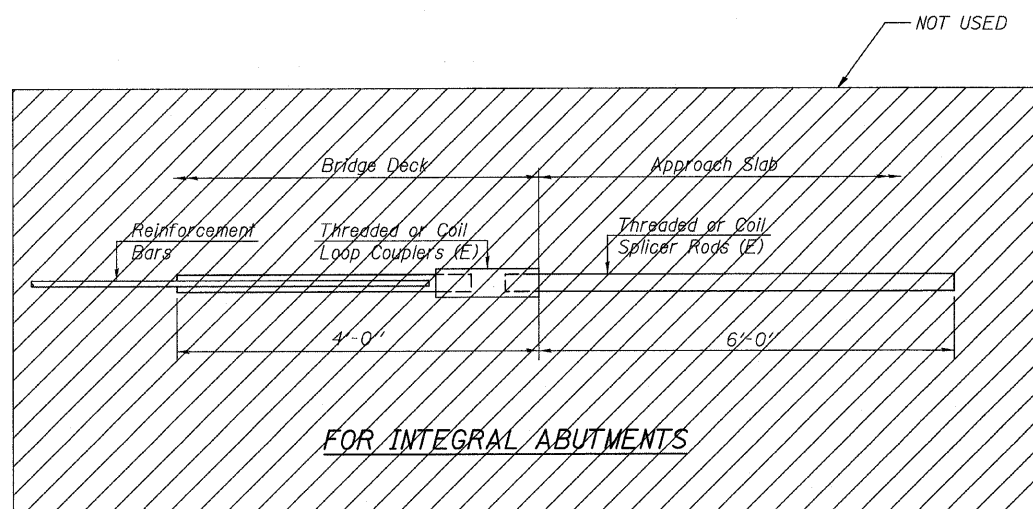
Wire Connector



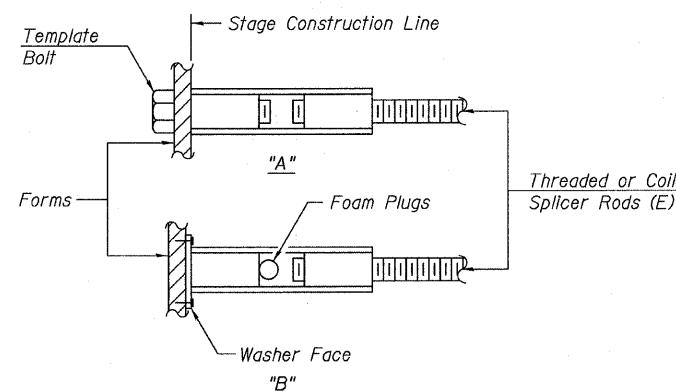
WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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

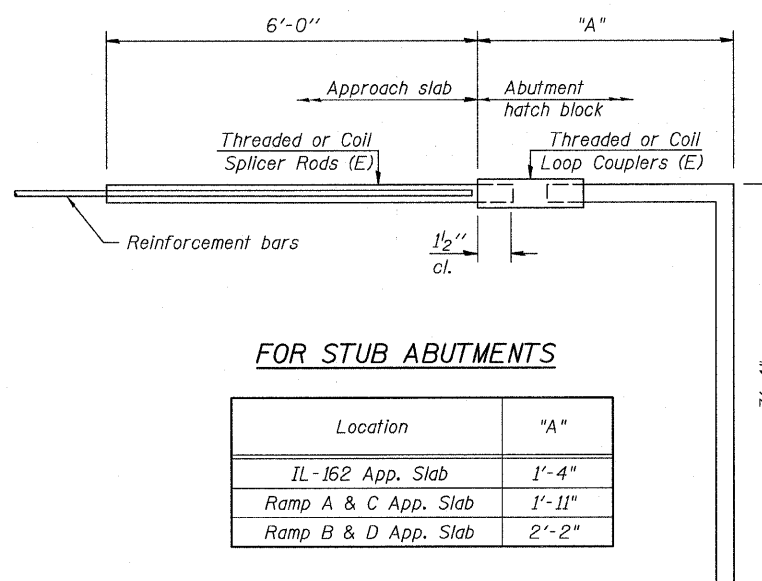


FOR INTEGRAL ABUTMENTS



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.

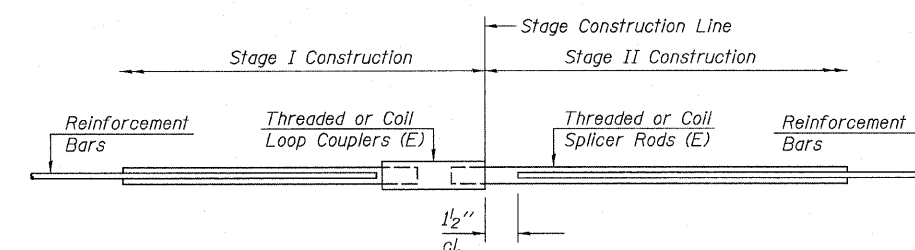


FOR STUB ABUTMENTS

Location	"A"
IL-162 App. Slab	1'-4"
Ramp A & C App. Slab	1'-11"
Ramp B & D App. Slab	2'-2"

Bar Splicer for #5 bar	
Min. Capacity =	23.0 kips - tension
Min. Pull-out Strength =	12.3 kips - tension
No. Required =	531

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	24	Pier
#6	12	Pier
#5	672	Deck

BAR SPLICER ASSEMBLY DETAILS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

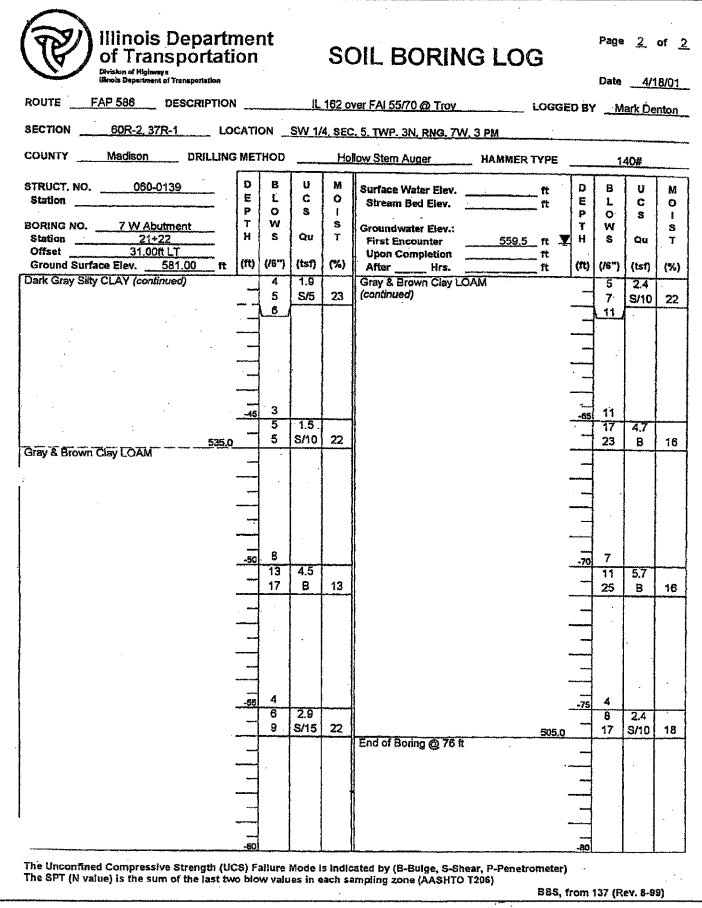
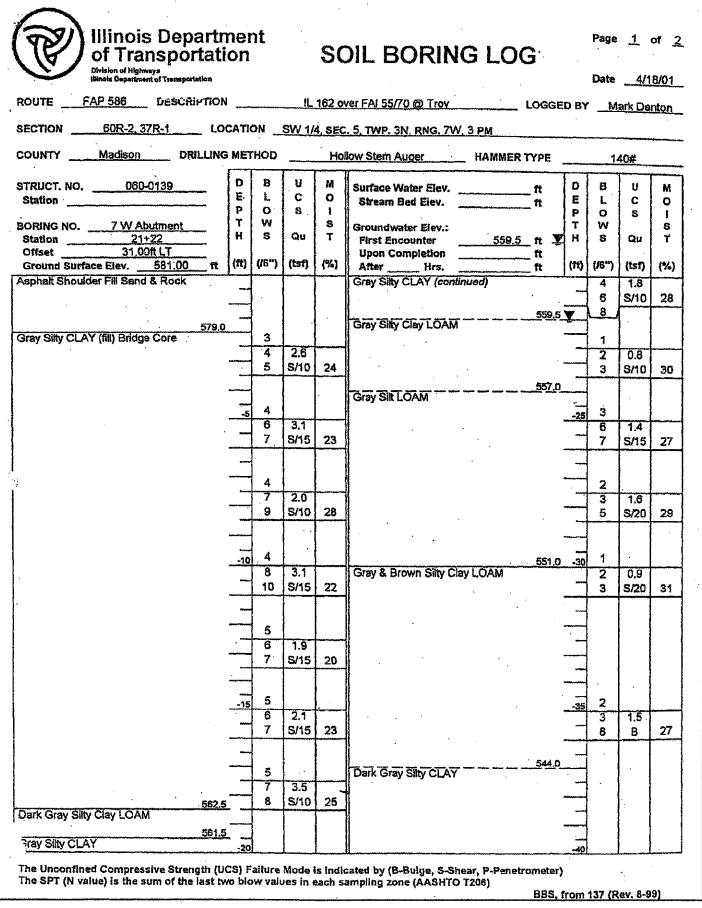
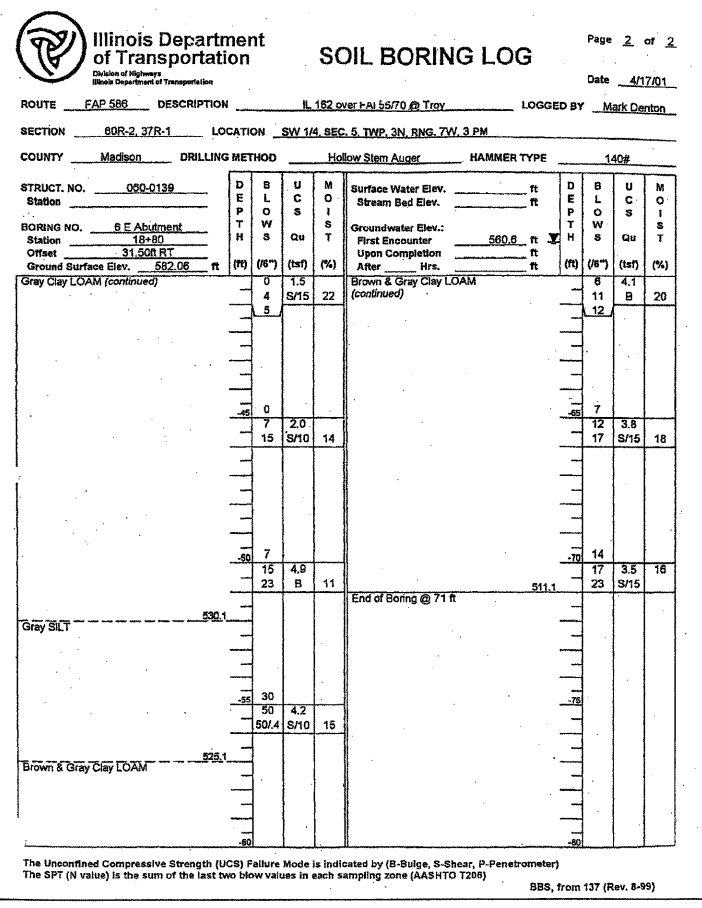
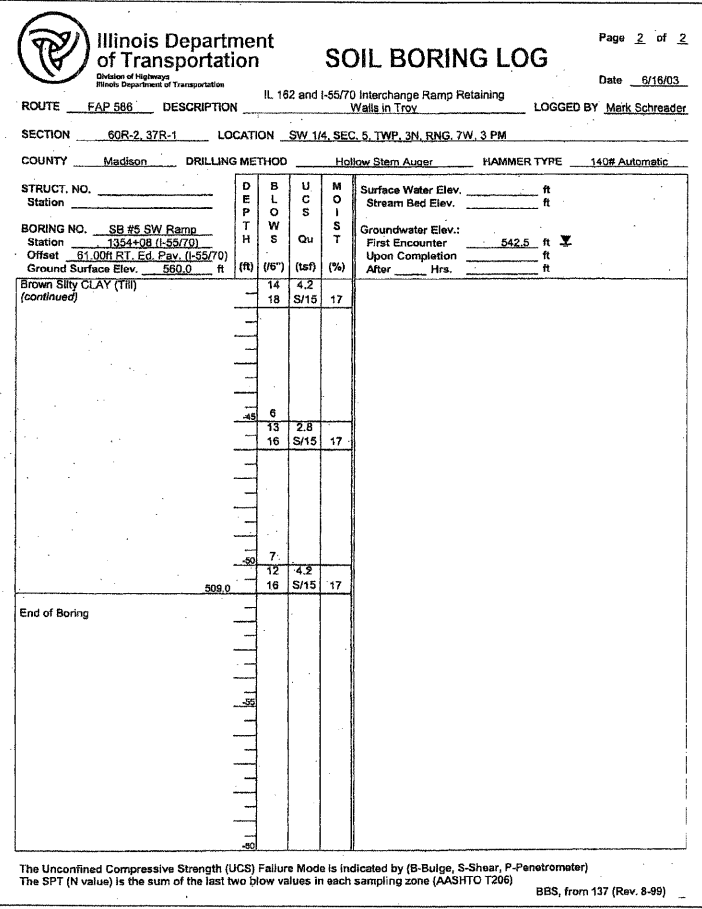
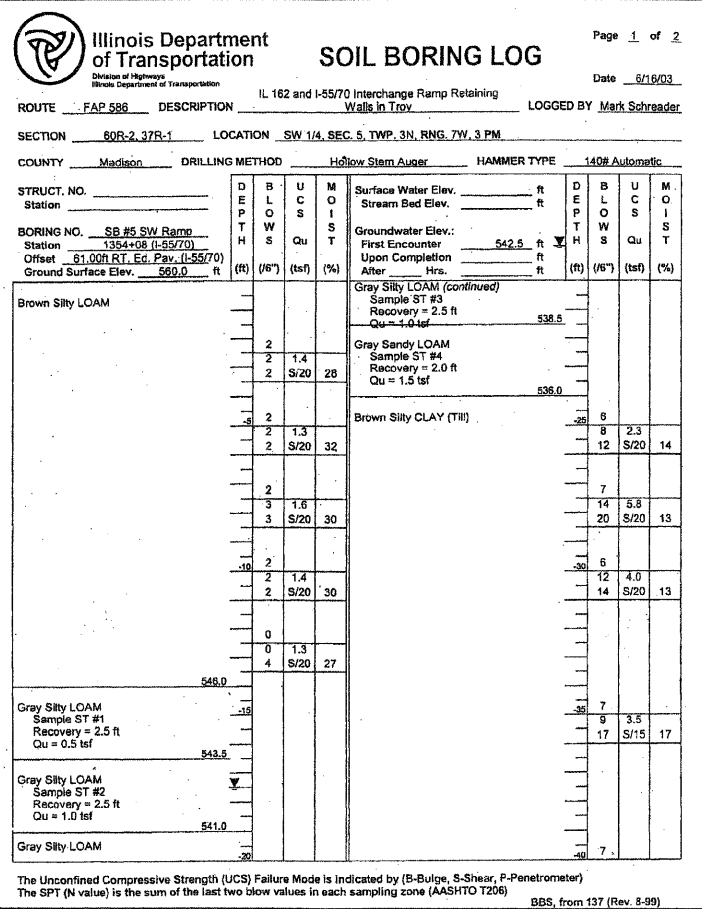
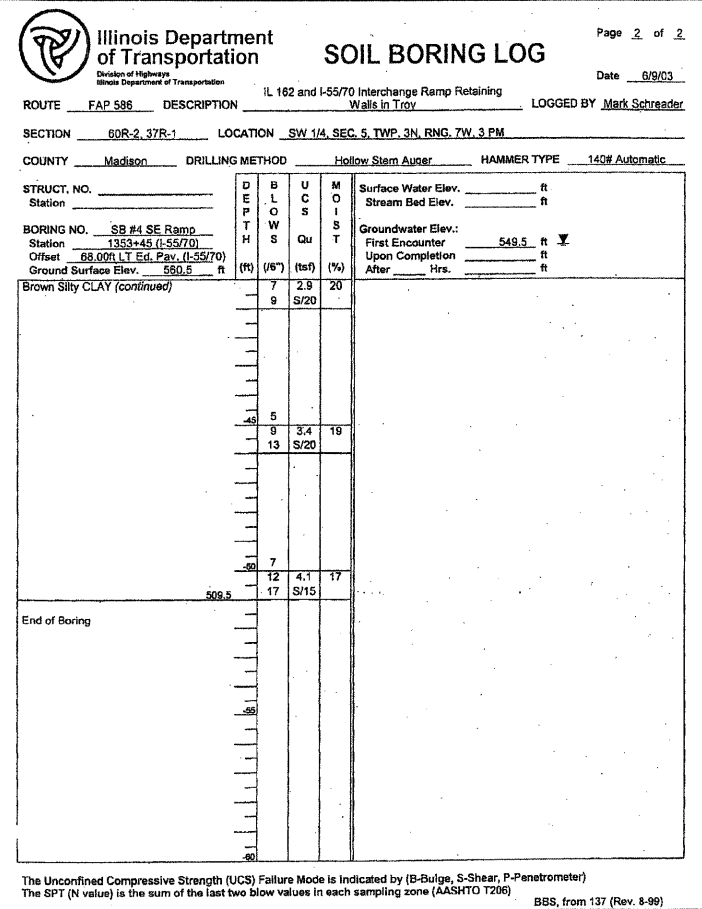
BAR SPLICER ASSEMBLY

DESIGNED: BTO
 CHECKED: JAN
 DATE: 03/06

DRAWN: BTO
 CHECKED: JAN

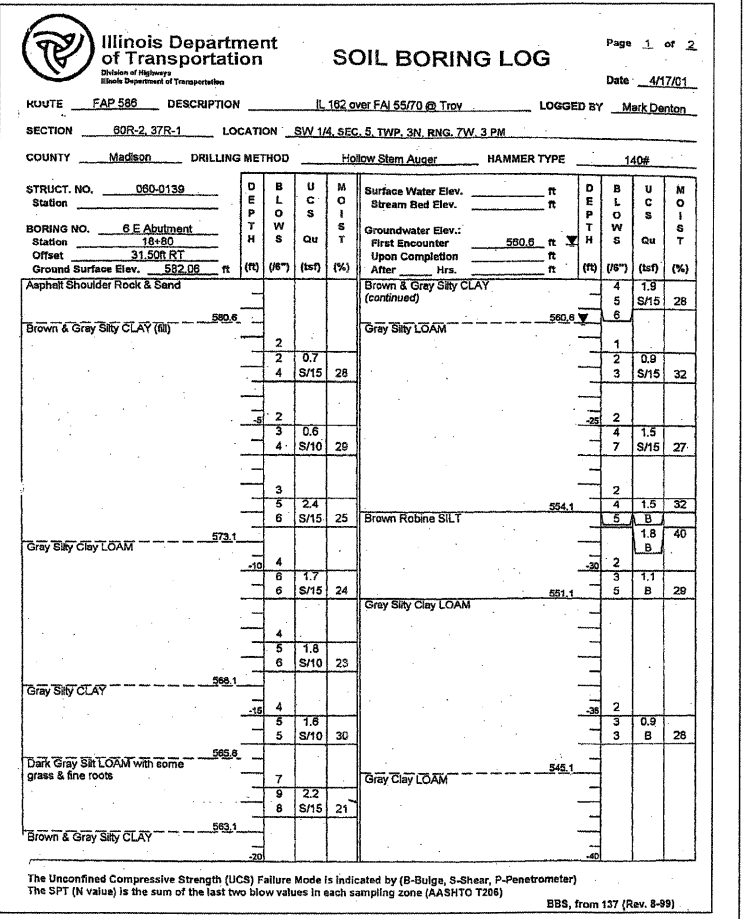
SHT. S-63 OF S-68





F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60-10K-1, 60-10HB	MADISON	420	283	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76709



SHT. S-65 OF S-68

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

BORING LOGS

DESIGNED: BTO
DRAWN: BTO
CHECKED: JAN
DATE: 03/06



SOIL BORING LOG

Date 4/19/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Gray CLAY and Brown & Gray Silty Clay LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/19/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Gray Silty CLAY and Brown Clay LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/20/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Gray Silty Clay LOAM and Brown Robine SILT.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/20/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Gray SHALE slightly weathered & ground up.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/23/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Gray Silty CLAY and Brown & Gray Silty Clay LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/23/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Brown Clay LOAM and Brown & Gray Silty CLAY.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Values: 60-10K-1, 60-10HB, MADISON, 420, 284.

CONTRACT NO. 76709



SOIL BORING LOG

Date 4/20/01

Table with columns for soil type, depth, and test results. Includes data for Surface Water Elev., Stream Bed Elev., and various soil layers like Brown & Gray Silty CLAY and Gray Silty CLAY.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)

BBS, from 137 (Rev. 8-99)

SHT. S-66 OF S-68

Table with columns: REVISIONS, NAME, DATE. Includes a blank table for recording revisions.

ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 162 OVER I-55/70 IN TROY F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB MADISON COUNTY STATION 499+48.35 STRUCTURE NO. 060-0338

BORING LOGS DESIGNED: BTO DRAWN: BTO DATE: 03/06 CHECKED: JAN CHECKED: JAN

CONTRACT NO. 76709

Illinois Department of Transportation SOIL BORING LOG Page 1 of 2
 Date 4/24/01
 ROUTE FAP 586 DESCRIPTION IL 162 over FAI 55/70 @ Troy LOGGED BY Mark Denton
 SECTION 60R-2, 37R-1 LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Drill Rig HAMMER TYPE 140#

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 11 NE Corner Cone										
Station 134+08										
Offset 84.00R RT										
Ground Surface Elev. 565.10	(ft)	(#)	(tsf)	(%)						
Brown Silty CLAY (ft)										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 2 of 2
 Date 4/24/01
 ROUTE FAP 586 DESCRIPTION IL 162 over FAI 55/70 @ Troy LOGGED BY Mark Denton
 SECTION 60R-2, 37R-1 LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Drill Rig HAMMER TYPE 140#

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 11 NE Corner Cone										
Station 134+08										
Offset 84.00R RT										
Ground Surface Elev. 565.10	(ft)	(#)	(tsf)	(%)						
Brown & Gray Clay LOAM (continued)										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 1 of 2
 Date 1/28/05
 ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MHPMK
 SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 060-W001										
Station 1352+01										
Offset 84.00R Right										
Ground Surface Elev. 560.57	(ft)	(#)	(tsf)	(%)						
Gray-Brown Silty Clay LOAM										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 2 of 2
 Date 1/28/05
 ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MHPMK
 SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 060-W001										
Station 1352+01										
Offset 84.00R Right										
Ground Surface Elev. 560.57	(ft)	(#)	(tsf)	(%)						
Gray-Brown CLAY (continued)										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 1 of 2
 Date 1/28/05
 ROUTE 586 DESCRIPTION East Retaining Wall LOGGED BY MHPMK
 SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 060-W002										
Station 1351+75										
Offset 84.00R Left										
Ground Surface Elev. 562.89	(ft)	(#)	(tsf)	(%)						
Gray-Brown Silty Clay LOAM										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 2 of 2
 Date 1/28/05
 ROUTE 586 DESCRIPTION East Retaining Wall LOGGED BY MHPMK
 SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 060-W002										
Station 1351+75										
Offset 84.00R Left										
Ground Surface Elev. 562.89	(ft)	(#)	(tsf)	(%)						
Gray-Brown CLAY (continued)										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation SOIL BORING LOG Page 1 of 2
 Date 1/28/05
 ROUTE 586 DESCRIPTION East Retaining Wall LOGGED BY MHPMK
 SECTION 60-10-4HB LOCATION NW 1/4, SEC. 6, TWP. 3N, RNG. 7W, 3 PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO.	DEPT	BL	UC	MO	Surface Water Elev.	Stream Bed Elev.	DEPT	BL	UC	MO
Station	H	O	S	I	ft	ft	H	O	S	I
BORING NO. 060-W002										
Station 1354+33										
Offset 82.00R Left										
Ground Surface Elev. 563.08	(ft)	(#)	(tsf)	(%)						
Gray-Brown SILT										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

SHT. S-67 OF S-68

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STATION 499+48.35
 STRUCTURE NO. 060-0338

BORING LOGS

DESIGNED: BTO DRAWN: BTO
 CHECKED: JAN CHECKED: JAN
 DATE: 03/06

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	60-10K-1,60-10HB	MADISON	420	286
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76709

Illinois Department of Transportation
Division of Highways
Shirley Geotechnical, Inc.

SOIL BORING LOG

Page 2 of 2
Date 1/28/05

ROUTE 588 DESCRIPTION East Retaining Wall LOGGED BY MH/PMK

SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. 060-W002
Station 1354+33

BORING NO. SB-23
Station 1355+30
Offset 82.00R Left
Ground Surface Elev. 563.06 ft

DEPTH	DESCRIPTION	MOISTURE (%)	LIQUIDITY (%)	PLASTICITY (%)	UNCONF. COMPRESSIVE STRENGTH (CS)
0	Surface Water Elev. NA ft				
0	Stream Bed Elev. NA ft				
0	Groundwater Elev. NA ft				
0	First Encounter Upon Completion 557.1 ft				
0	After 21 Days 562.6 ft				
0	Ground Surface Elev. 563.06 ft				
1	Gray-Brown CLAY (continued)				
5					
6		3.0	21.8		
9		S/20			
11		4.6	17.8		
18		S/20			
18.00	End of Boring				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Shirley Geotechnical, Inc.

SOIL BORING LOG

Page 1 of 2
Date 1/24/05

ROUTE 588 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK

SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. 060-W001
Station 1355+30

BORING NO. SB-27
Station 1355+30
Offset 105.00R Right
Ground Surface Elev. 562.27 ft

DEPTH	DESCRIPTION	MOISTURE (%)	LIQUIDITY (%)	PLASTICITY (%)	UNCONF. COMPRESSIVE STRENGTH (CS)
0	Surface Water Elev. NA ft				
0	Stream Bed Elev. NA ft				
0	Groundwater Elev. NA ft				
0	First Encounter Upon Completion 546.3 ft				
0	After 25 Days 562.3 ft				
0	Ground Surface Elev. 562.27 ft				
0	TOPSOIL				
1	Dark Gray Silty CLAY				
2		2.1	26.2		
3		B/15			
5	Gray-Brown Silty CLAY				
1					
2		0.6	27.7		
2		B/20			
5	Gray-Brown Silty CLAY LOAM				
2					
8	Dark Gray Silty LOAM, with Organics				
9					
9					
10	Brown CLAY				
3					
7		3.4	12.0		
11		S/20			
12	Field shear vane test at 10.0 Feet				
12		6.5	15.0		
29		S/20			
27	Dark Gray SILT				
8					
12					
29					
29					
2		0.9	27.0		
3		B/20			
5	Gray Clay LOAM				
1					
2		0.5	19.3		
4		S/20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Shirley Geotechnical, Inc.

SOIL BORING LOG

Page 2 of 2
Date 1/24/05

ROUTE 588 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK

SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. 060-W001
Station 1355+30

BORING NO. SB-27
Station 1355+30
Offset 105.00R Right
Ground Surface Elev. 562.27 ft

DEPTH	DESCRIPTION	MOISTURE (%)	LIQUIDITY (%)	PLASTICITY (%)	UNCONF. COMPRESSIVE STRENGTH (CS)
0	Surface Water Elev. NA ft				
0	Stream Bed Elev. NA ft				
0	Groundwater Elev. NA ft				
0	First Encounter Upon Completion 546.3 ft				
0	After 25 Days 562.3 ft				
0	Ground Surface Elev. 562.27 ft				
0	Brown CLAY (continued)				
3					
6		2.9	16.2		
11		S/20			
10		4.0	16.7		
13		S/15			
13.00	End of Boring				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

SHT. S-68 OF S-68



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STATION 499+48.35
STRUCTURE NO. 060-0338

BORING LOGS

DESIGNED: BTO
CHECKED: JAN
DRAWN: BTO
CHECKED: JAN

DATE: 03/06

BENCH MARK

CP#35, Iron Pin w/Cap, Sta. 502+30.81, 37.37' Rt. El. 582.812

EXISTING STRUCTURE

Bridge S.N. 060-0139 was built in 1956 as U. S. Route 40 Bypass over F. A. Route 190 (U. S. Route 66). It was widened and the deck reconstructed in 1978. The four span structure was built on concrete piles at the abutments and timber piles at the piers. The back to back abutment length is 194'-0" and the deck is 75'-2" out to out.

During construction of the new structure, staged construction will be utilized to maintain one lane of traffic in each direction.

No salvage.

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi (concrete)
 $f_y = 60,000$ psi (reinforcement)

PRECAST UNIT

$f'_c = 4,500$ psi (precast panels)

DESIGN SPECIFICATION

2002 AASHTO Std. Spec, 17th edition

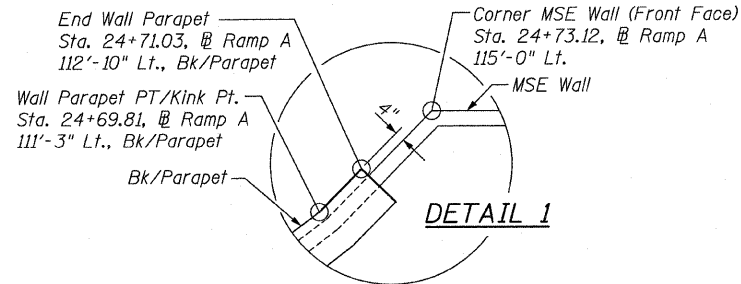
NOTE

Wall is built in Conjunction with New Bridge, S.N. 060-0338.

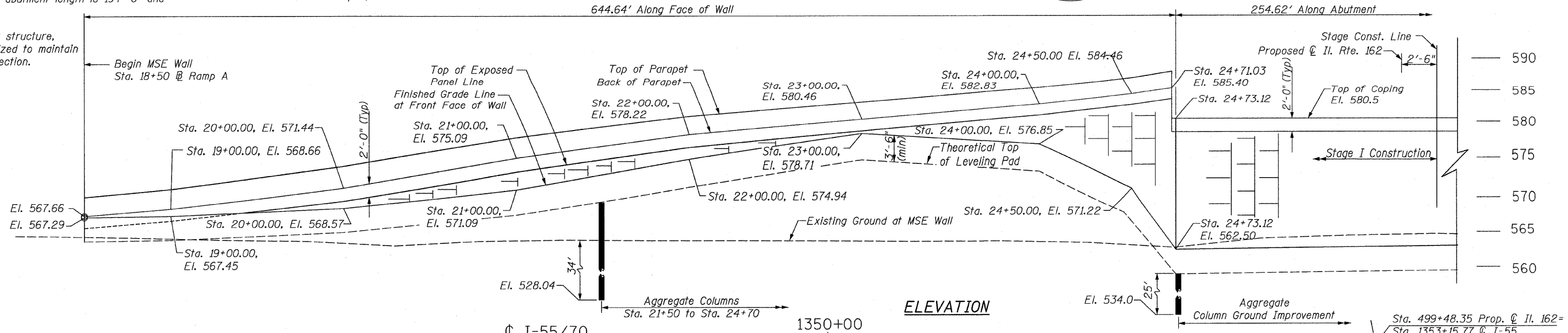
STATION 18+50
 BUILT 200 BY
 STATE OF ILLINOIS
 F.A.I. RT. 70
 SEC. 60-10K-1, 60-10HB
 LOADING HS20
 STR. NO. 060-W004

NAME PLATE

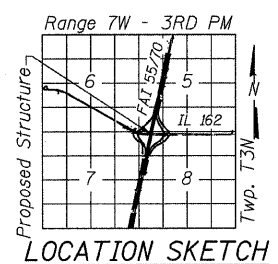
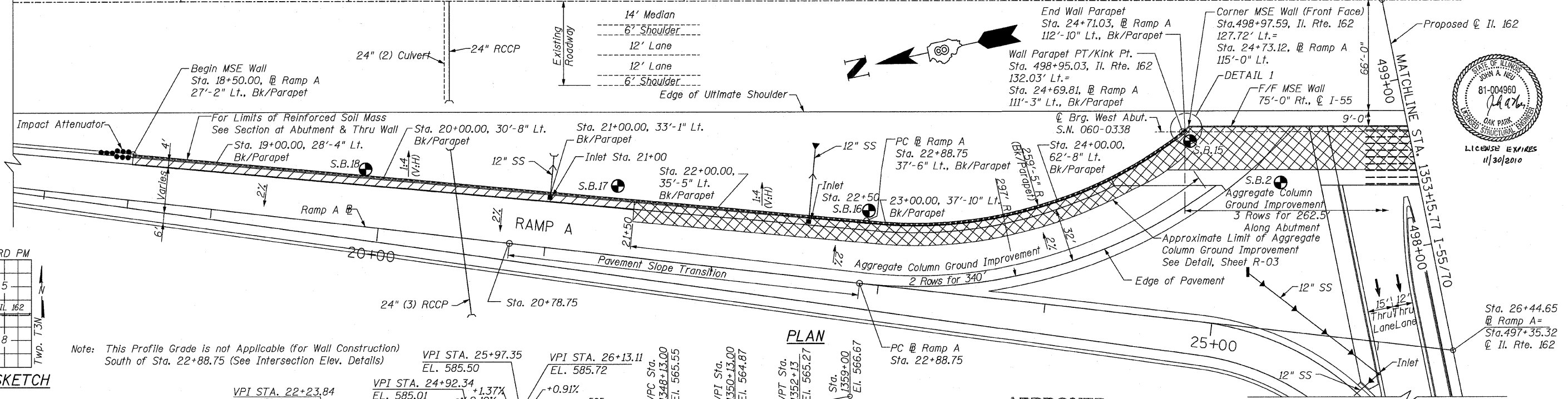
See Std. 515001
 NOTE: For Name Plate Location, see Sht. R-04



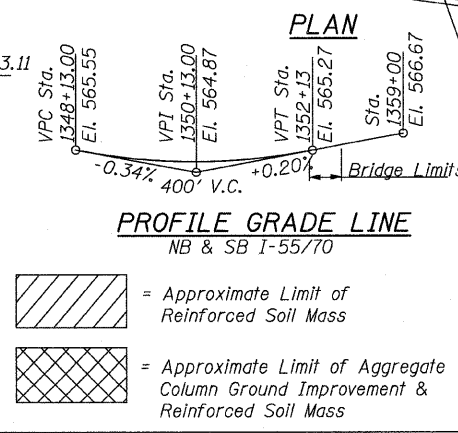
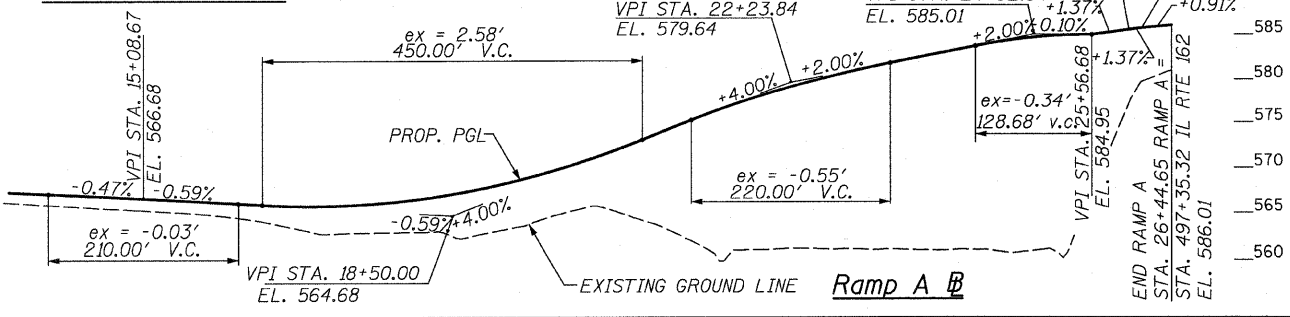
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	287
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60-10K-1, 60-10HB	CONTRACT NO. 76709			



1345+00 1350+00 1355+00 1360+00 1365+00 1370+00 1375+00 1380+00 1385+00 1390+00 1395+00 1400+00



Note: This Profile Grade is not Applicable (for Wall Construction) South of Sta. 22+88.75 (See Intersection Elev. Details)

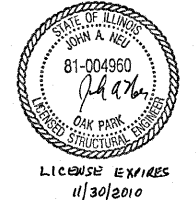


APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

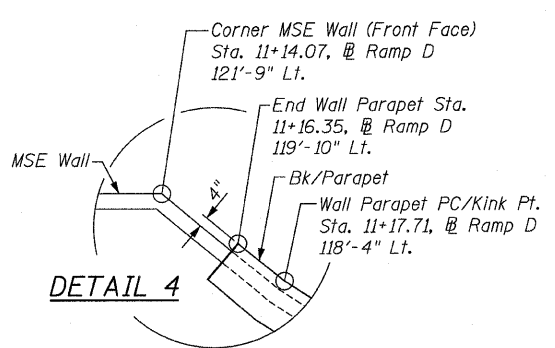
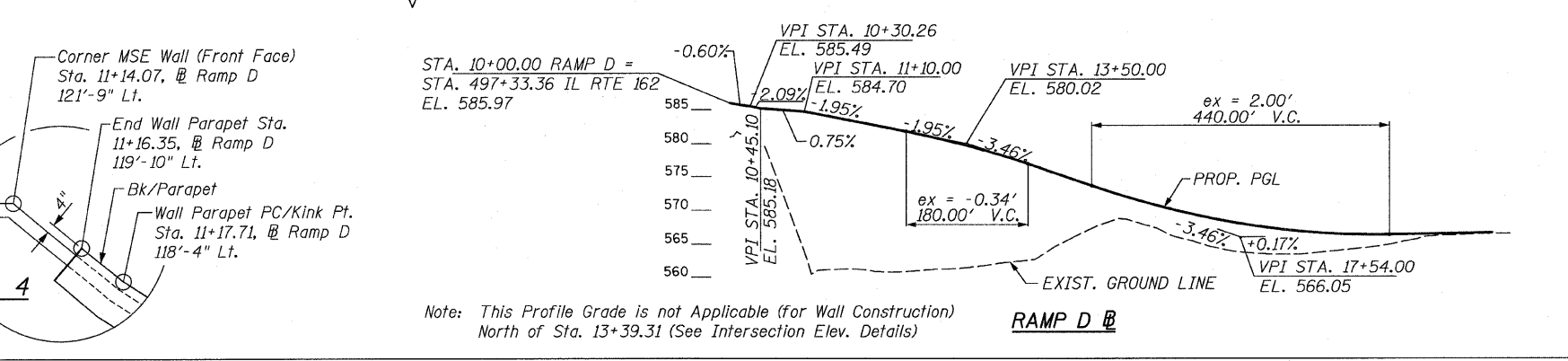
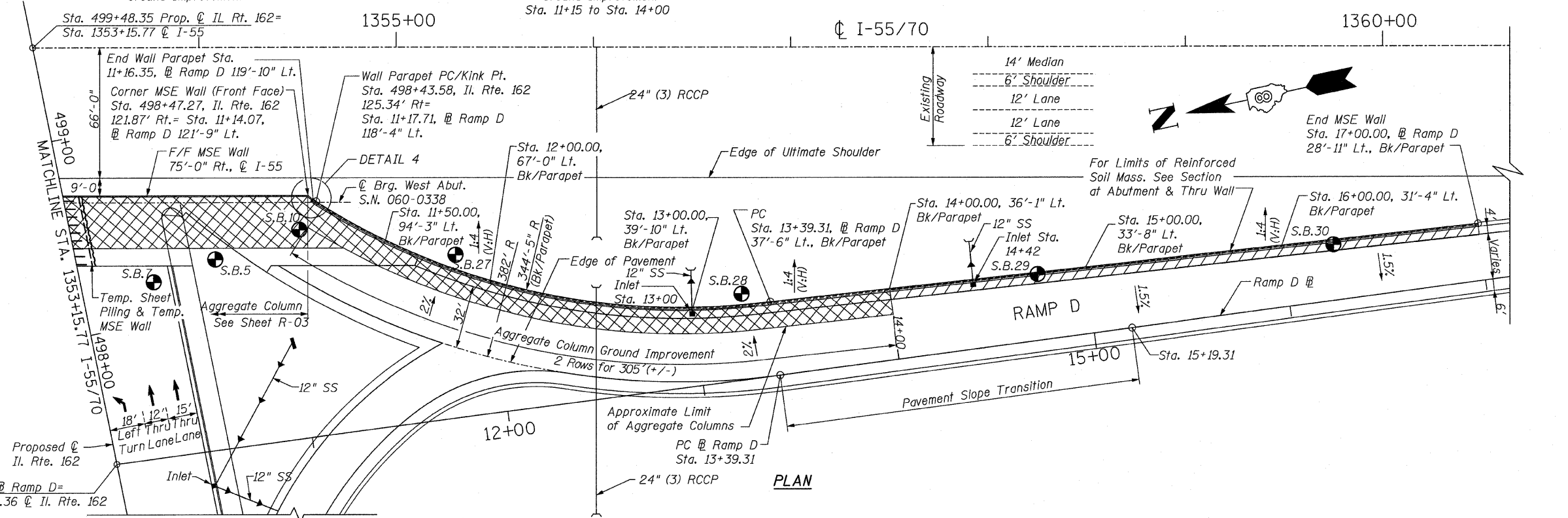
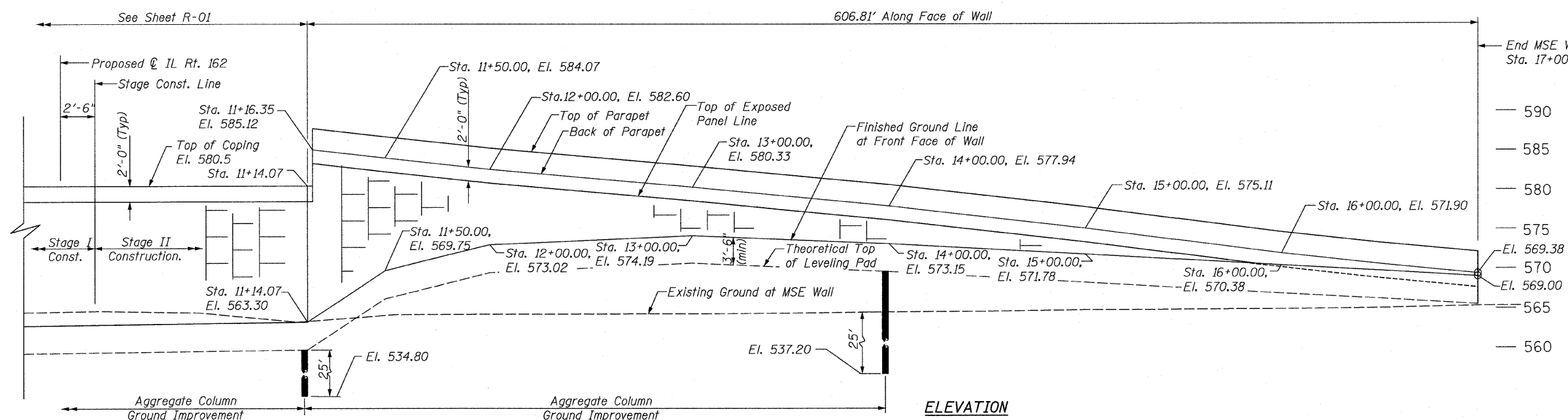


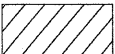

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I. ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004
GENERAL PLAN I
 DATE: 05/2006
 DRAWN: AWH
 CHECKED: JAN



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	•	MADISON	420	288
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB CONTRACT NO. 76709				



 = Approximate Limit of Reinforced Soil Mass
 = Approximate Limit of Aggregate Column Ground Improvement & Reinforced Soil Mass

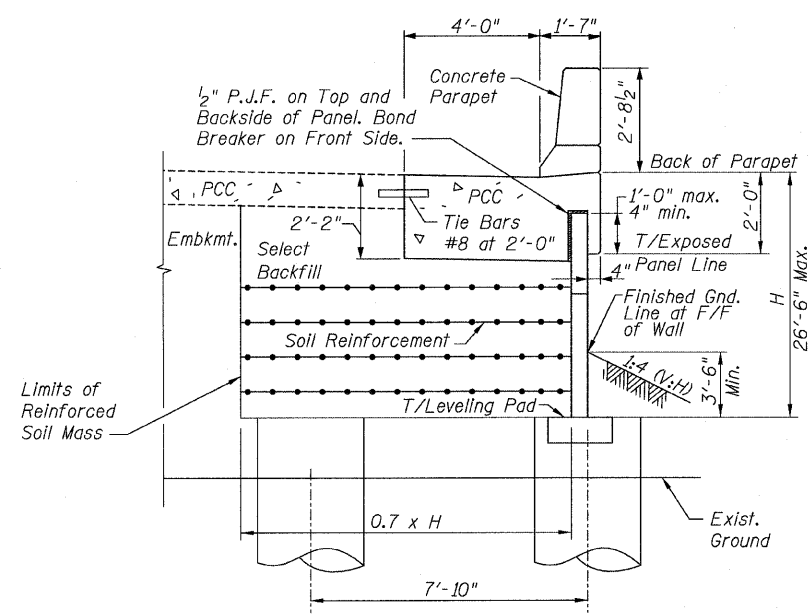
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004
 GENERAL PLAN II
 DATE: 05/2006
 DRAWN: AWB
 CHECKED: JAN

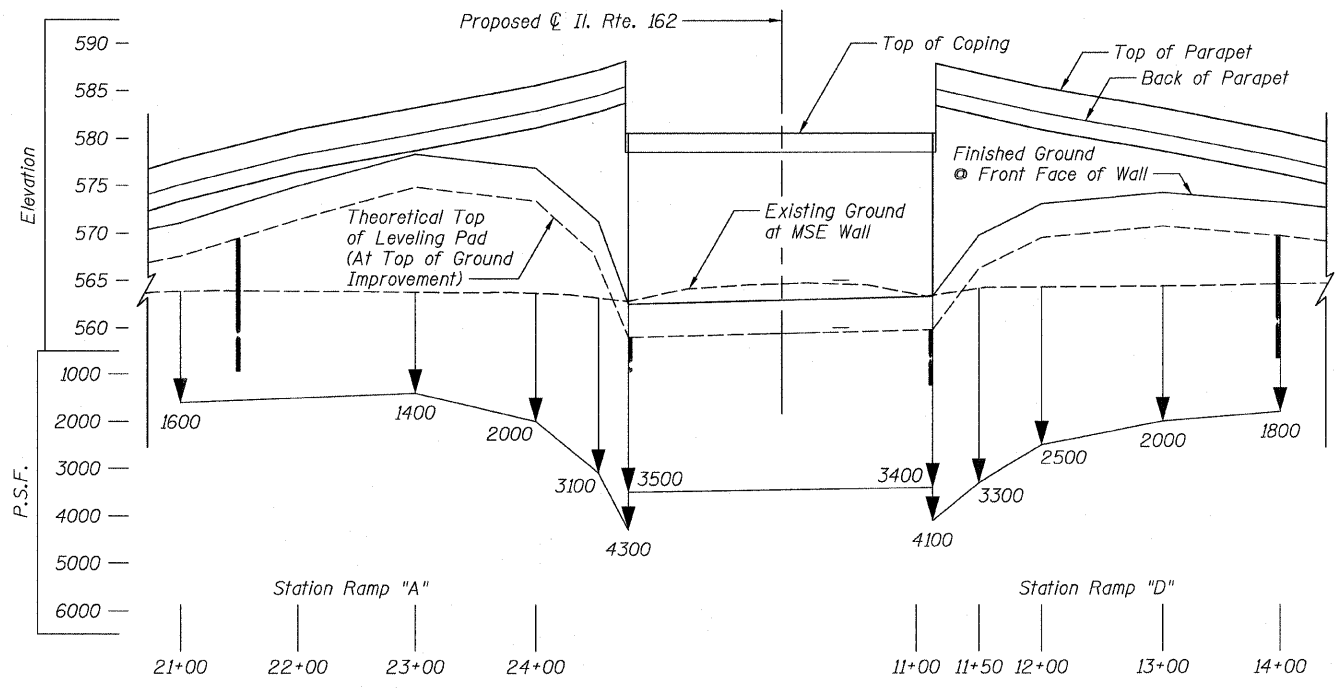
Sht. R-02 of R-14
 **STV Incorporated**
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/533-0655, FAX 312/533-0661

Note: This Profile Grade is not Applicable (for Wall Construction)
 North of Sta. 13+39.31 (See Intersection Elev. Details)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	289
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60-10K-1, 60-10HB	CONTRACT NO. 76709			



SECTION THRU WALL



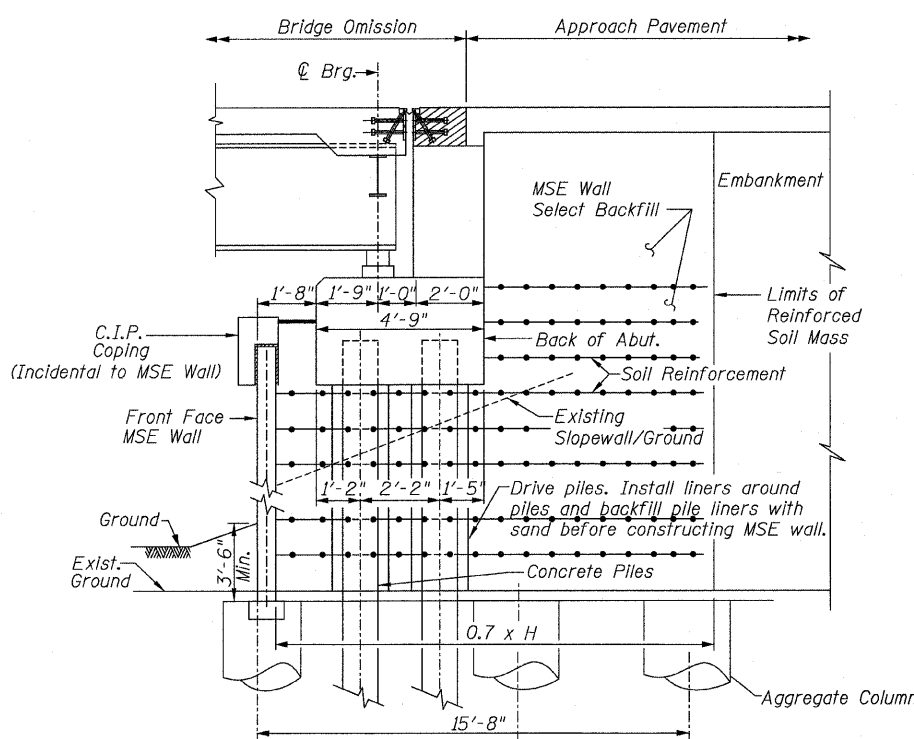
EQUIVALENT UNIFORM SERVICE BEARING PRESSURE
(At Top of Ground Improvement)

INDEX OF SHEETS

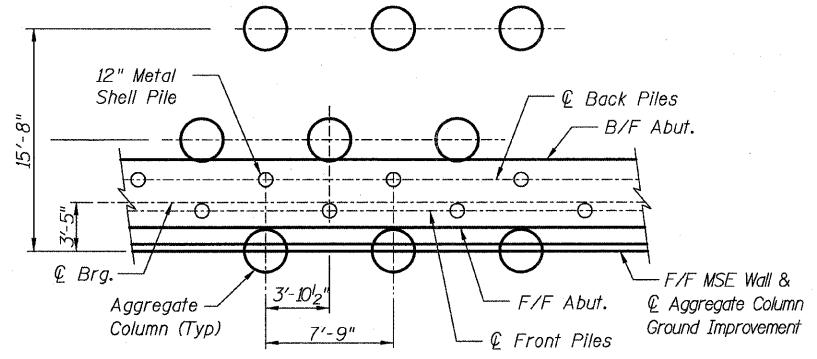
- R-01 General Plan I
- R-02 General Plan II
- R-03 Index of Sheets, General Notes, BOM, Wall Sections & Aggregate Column Ground Improvement Layout
- R-04 Parapet Elevations & Shoulder Plans Ramp A
- R-05 Parapet Elevations & Shoulder Plans Ramp A
- R-06 Parapet Elevation & Shoulder Plan Ramp A
- R-07 Parapet Elevations & Shoulder Plans Ramp D
- R-08 Parapet Elevations & Shoulder Plans Ramp D
- R-09 Parapet Elevation & Shoulder Plan Ramp D
- R-10 Parapet & Anchorage Slab Details Ramp A & D
- R-11 Boring Logs
- R-12 Boring Logs
- R-13 Boring Logs
- R-14 Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Structures	CU YD	625
Protective Coat	SQ YD	996
Reinforcement Bars, Epoxy Coated	POUND	66,690
Name Plates	EACH	1
Mechanically Stabilized Earth Retaining Wall	SQ FT	16,400
Aggregate Column Ground Improvement	CU YD	4,280

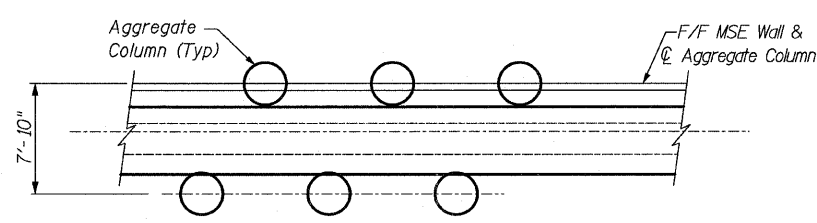


SECTION AT ABUTMENT
(Dimensions @ Rt. L's)



TYPICAL AGGEGATE COLUMN GROUND IMPROVEMENT/PILE LAYOUT
(SHOWN AT ABUTMENT)

Contractor shall alternate aggregate column and pile spacing as shown.



TYPICAL AGGEGATE COLUMN GROUND IMPROVEMENT LAYOUT
(SHOWN AT RAMP WALL)

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be Epoxy Coated.
2. All edges shall have a 3/4" chamfer unless otherwise noted.
3. Sawed construction joints, and construction joints in shoulders, and grooved joints and expansion joints in parapets, shall be colinear with sawed construction joints in PCC pavement (jointed).
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60
5. All construction joints shall be bonded.

REVISIONS	
NAME	DATE

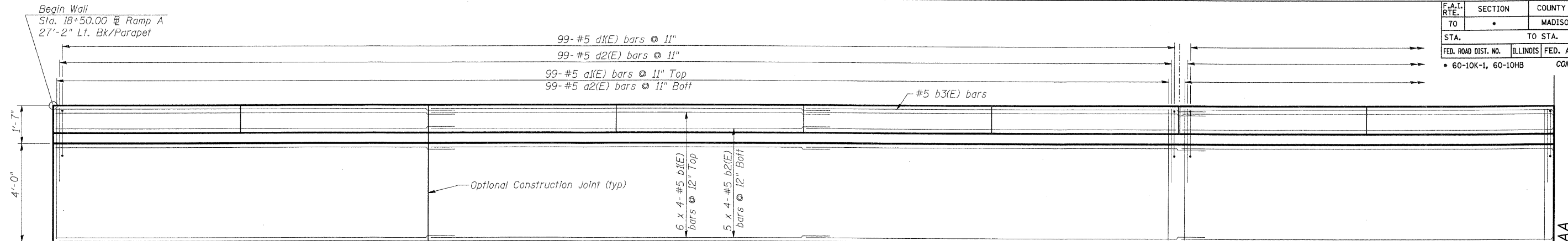
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I. ROUTE TO SECTION 60-10K-1, 60-10HB
MADISON COUNTY STA. 18+50 TO STA. 17+00
STRUCTURE NO. 060-W004

INDEX OF SHEETS, GENERAL NOTES, BOM
WALL SECTIONS & AGGREGATE COLUMN
GROUND IMPROVEMENT LAYOUT
RAMP A & D DRAWN BY KM
DATE: 05/2006 CHECKED BY BJG

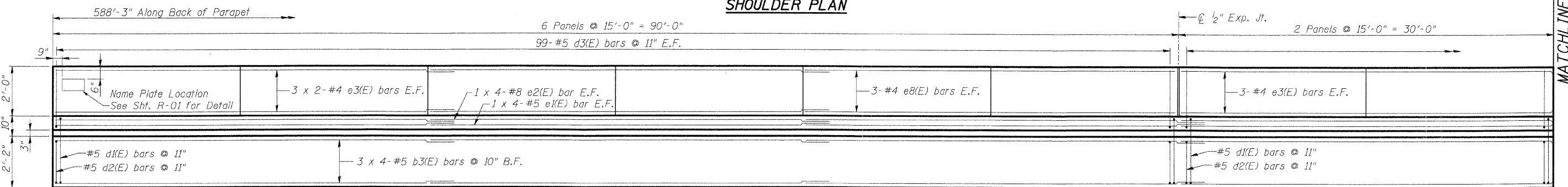
Sht. R-03 of R-14

STV Incorporated
Engineers/Architects/Planners/Construction Managers
209 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312/553-0655, FAX 312/553-0661

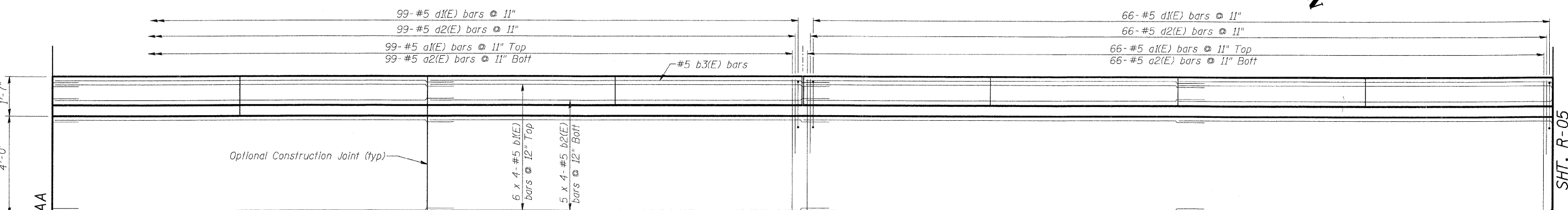
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	290
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60-10K-1, 60-10HB		CONTRACT NO. 76709		



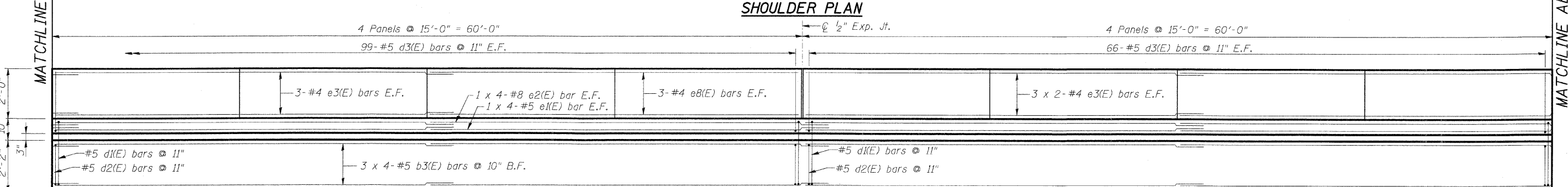
SHOULDER PLAN



INSIDE PARAPET ELEVATION



SHOULDER PLAN



INSIDE PARAPET ELEVATION



MATCHLINE AA

MATCHLINE AA

MATCHLINE AB SHT. R-05

B.F. = Back Face
E.F. = Each Face

MIN. BAR LAP

- #4 - 1'-4"
- #5 - 2'-2"
- #8 - 4'-6"

Sht. R-04 of R-14

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312.555-0655, FAX 312.553-0661

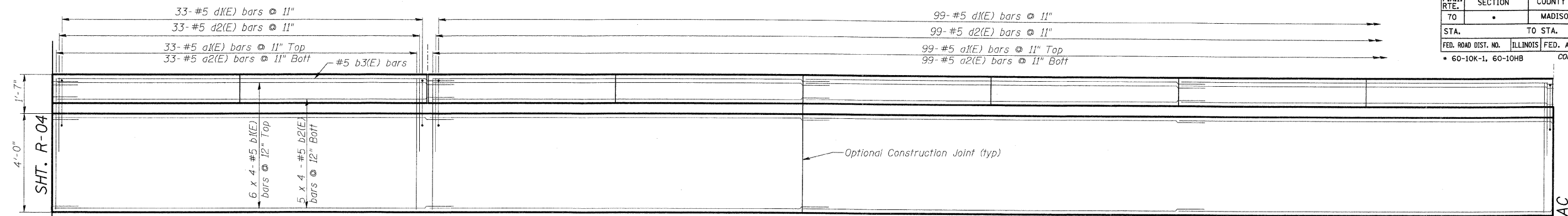
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STA. 18+50 TO STA. 17+00
STRUCTURE NO. 060-W004

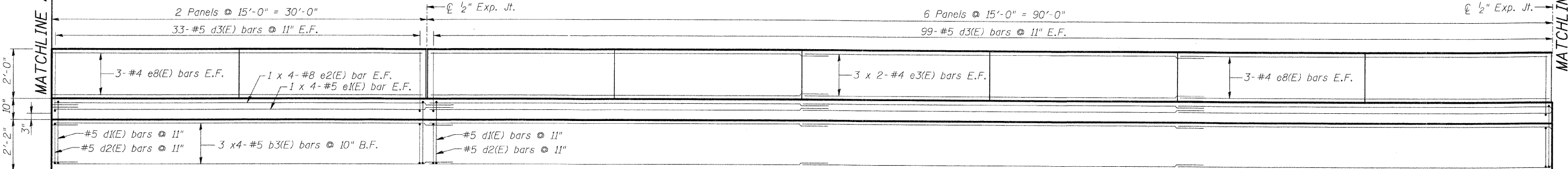
**PARAPET ELEVATIONS & SHOULDER PLANS
RAMP A**

DATE: 05/2006
DRAWN BY: KM
CHECKED BY: BJC

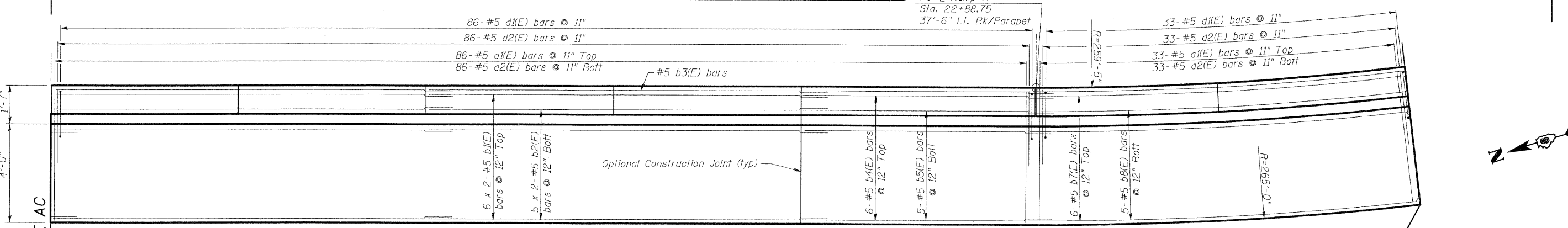
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	291
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
60-10K-1, 60-10HB		CONTRACT NO. 76709		



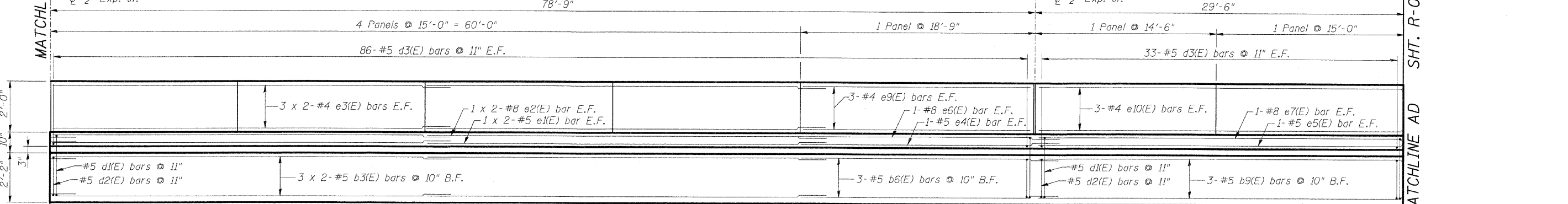
SHOULDER PLAN



INSIDE PARAPET ELEVATION



SHOULDER PLAN



INSIDE PARAPET ELEVATION

MIN. BAR LAP

- #4 - 1'-4"
- #5 - 2'-2"
- #8 - 4'-6"

Sht. R-05 of R-14

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1630
 Chicago, IL 60606-5015
 312-253-0655, FAX 312-553-0661

REVISIONS	
NAME	DATE

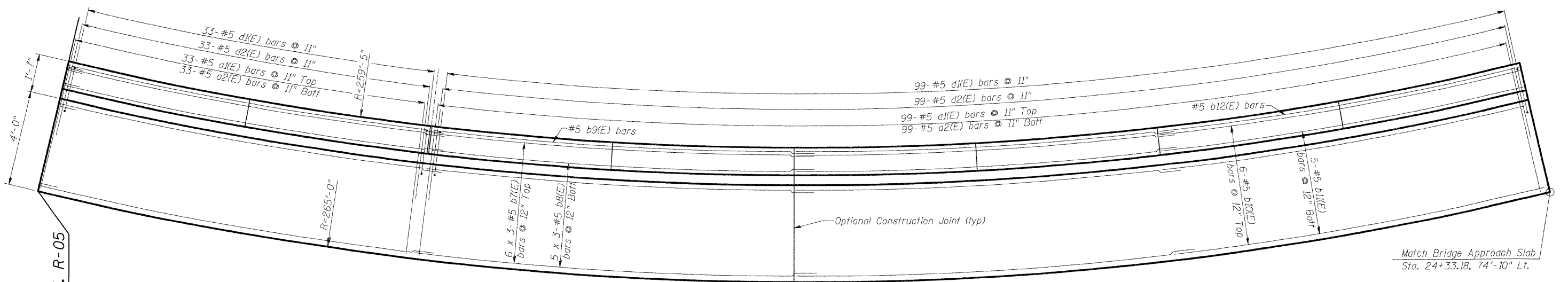
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004

**PARAPET ELEVATIONS & SHOULDER PLANS
 RAMP A**

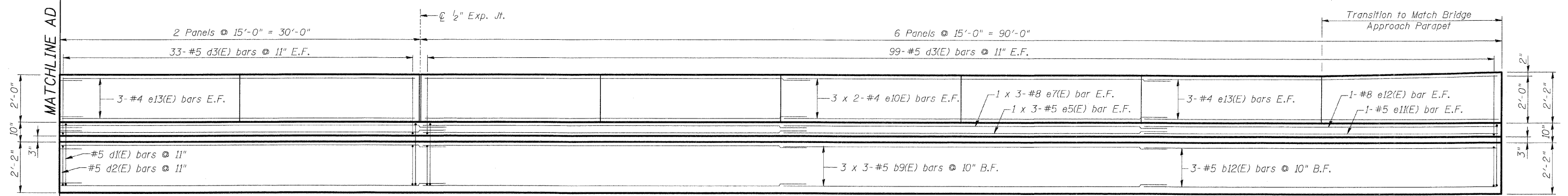
DATE: 05/2006
 DRAWN BY: KM
 CHECKED BY: BJB



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	292
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB			CONTRACT NO. 76709	



SHOULDER PLAN



INSIDE PARAPET ELEVATION

MATCHLINE AD SHT. R-05

MIN. BAR LAP

- #4 - 1'-4"
- #5 - 2'-2"
- #8 - 4'-6"

Sht. R-06 of R-14

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60665-5015
 312.553-0655, FAX 312.553-0661

REVISIONS	
NAME	DATE

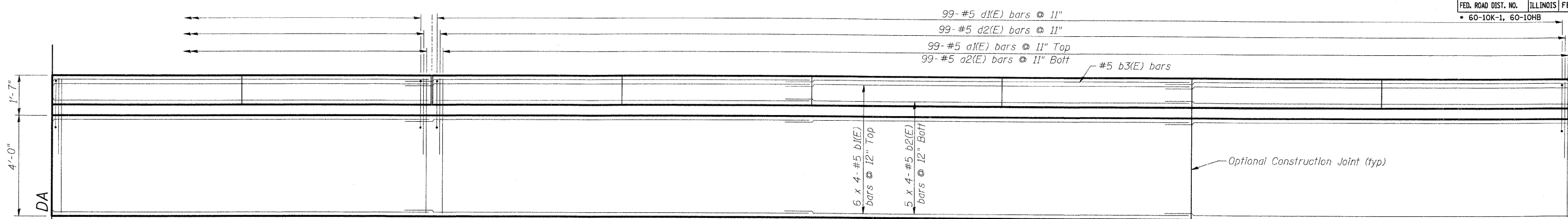
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004

**PARAPET ELEVATION & SHOULDER PLAN
 RAMP A**

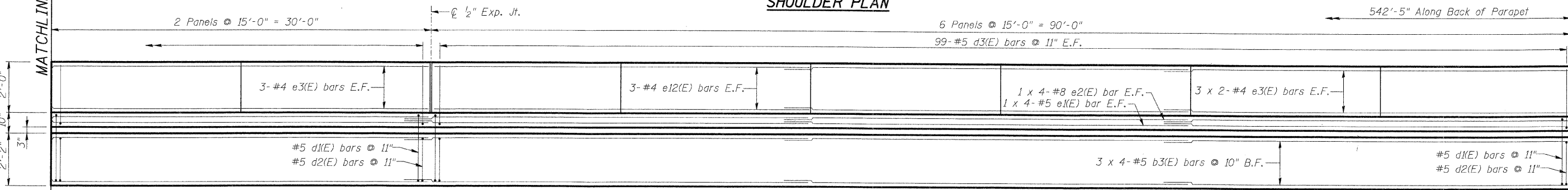
DATE: 05/2006

DRAWN BY: KM
 CHECKED BY: BJK

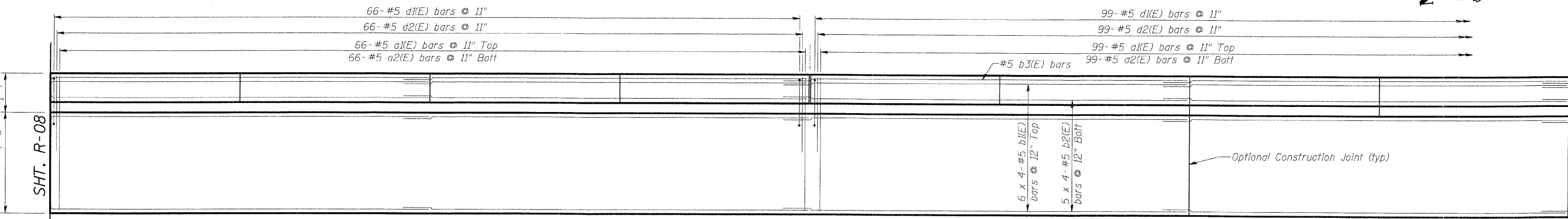
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	•	MADISON	420	293
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• 60-10K-1, 60-10HB			CONTRACT NO. 76709	



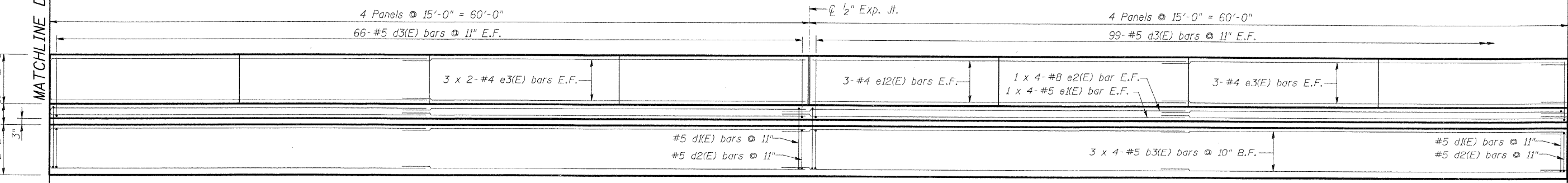
SHOULDER PLAN



INSIDE PARAPET ELEVATION



SHOULDER PLAN



INSIDE PARAPET ELEVATION

MIN. BAR LAP

- #4 - 1'-4"
- #5 - 2'-2"
- #8 - 4'-6"

Sht. R-07 of R-14

STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-3015
 312/553-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

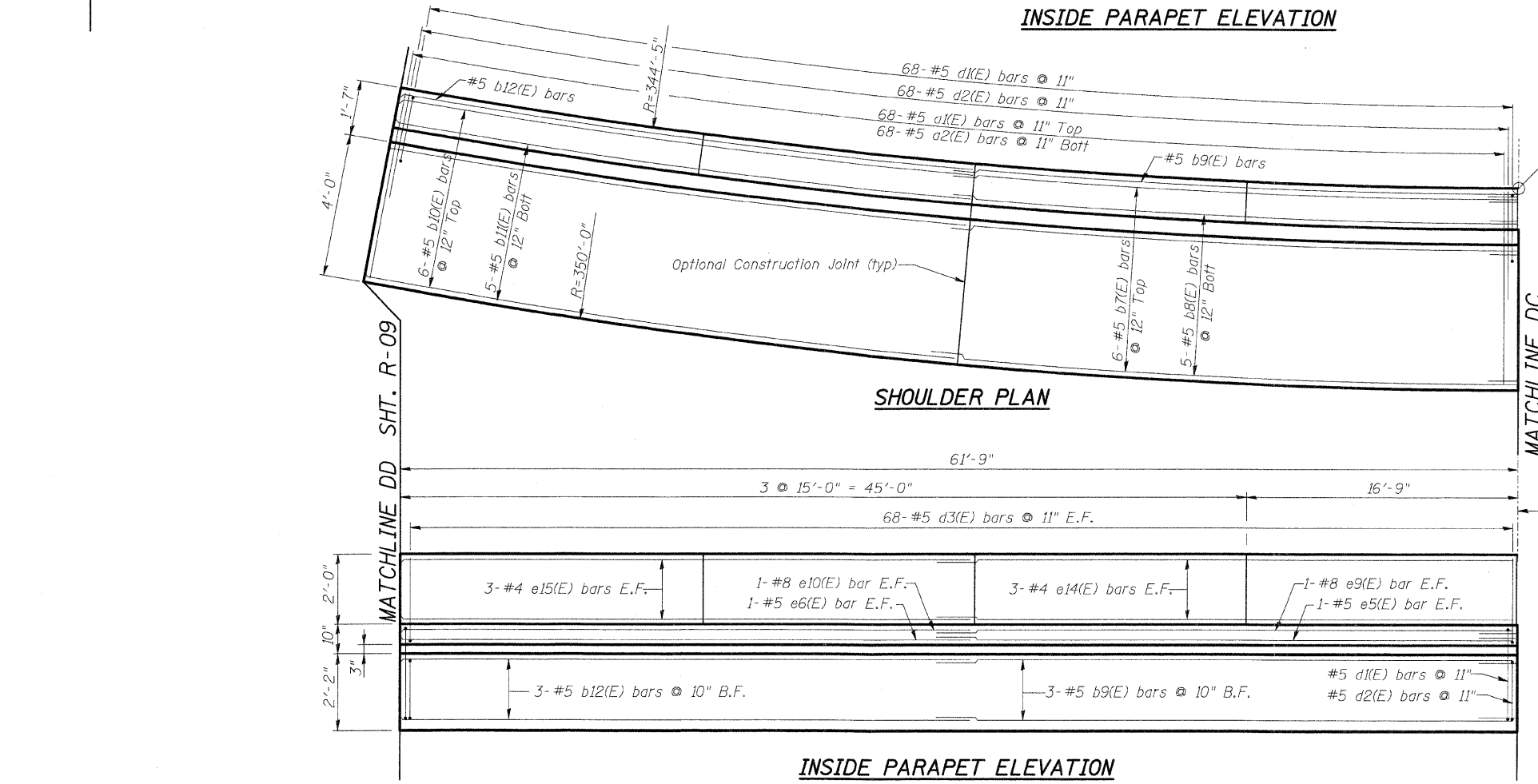
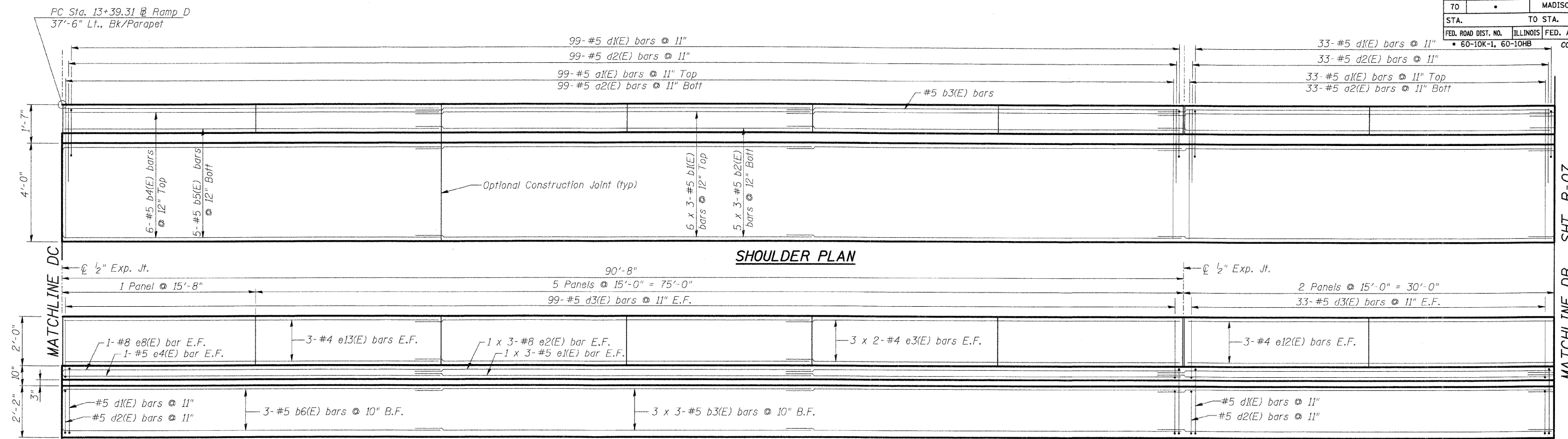
ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004

**PARAPET ELEVATIONS & SHOULDER PLANS
 RAMP D**

DATE: 05/2006

DRAWN BY: KM
 CHECKED BY: BJC

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	294
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60-10K-1, 60-10HB		CONTRACT NO. 76709		



MIN. BAR LAP

- #4 - 1'-4"
- #5 - 2'-2"
- #8 - 4'-6"

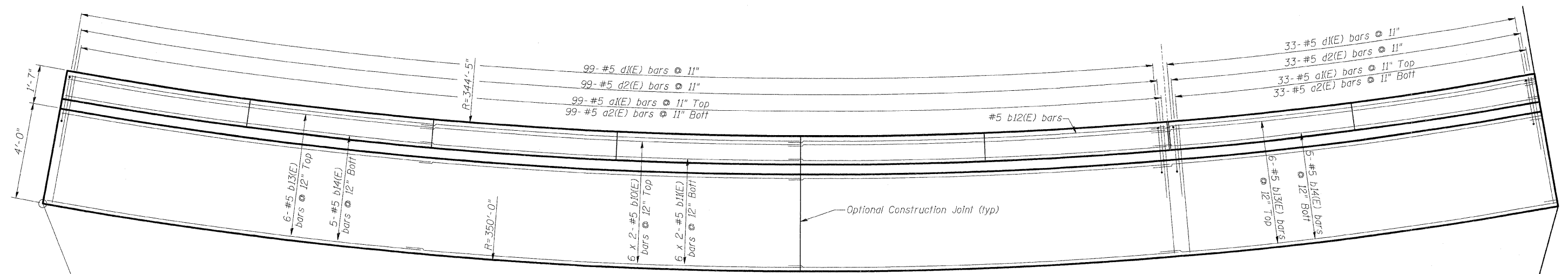
REVISIONS	
NAME	DATE

Sht. R-08 of R-14
STV Incorporated
Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/553-0635, FAX 312/553-0661

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004

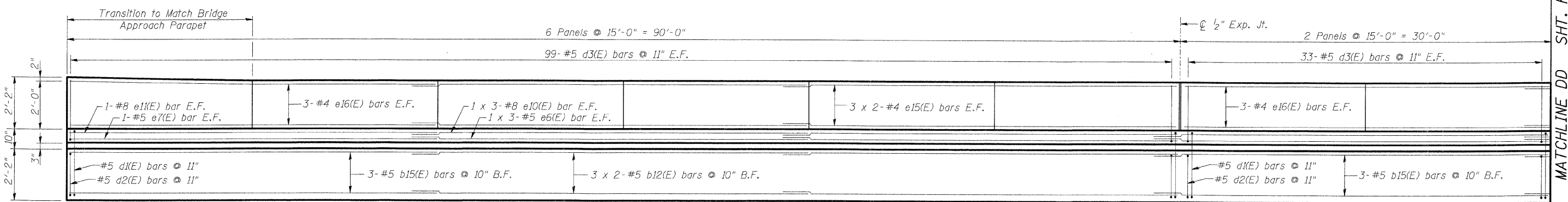
PARAPET ELEVATIONS & SHOULDER PLANS
 RAMP D
 DRAWN BY KM
 CHECKED BY BJG
 DATE: 05/2006

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70		MADISON	420	295
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
60-10K-1, 60-10HB		CONTRACT NO. 76709		



Match Bridge Approach Slab
Sta. 11+63.06, 79'-7 1/2" Lt.

SHOULDER PLAN



INSIDE PARAPET ELEVATION

MATCHLINE DD SHT. R-08

MIN. BAR LAP
 #4 - 1'-4"
 #5 - 2'-2"
 #8 - 4'-6"

Sht. R-09 of R-14

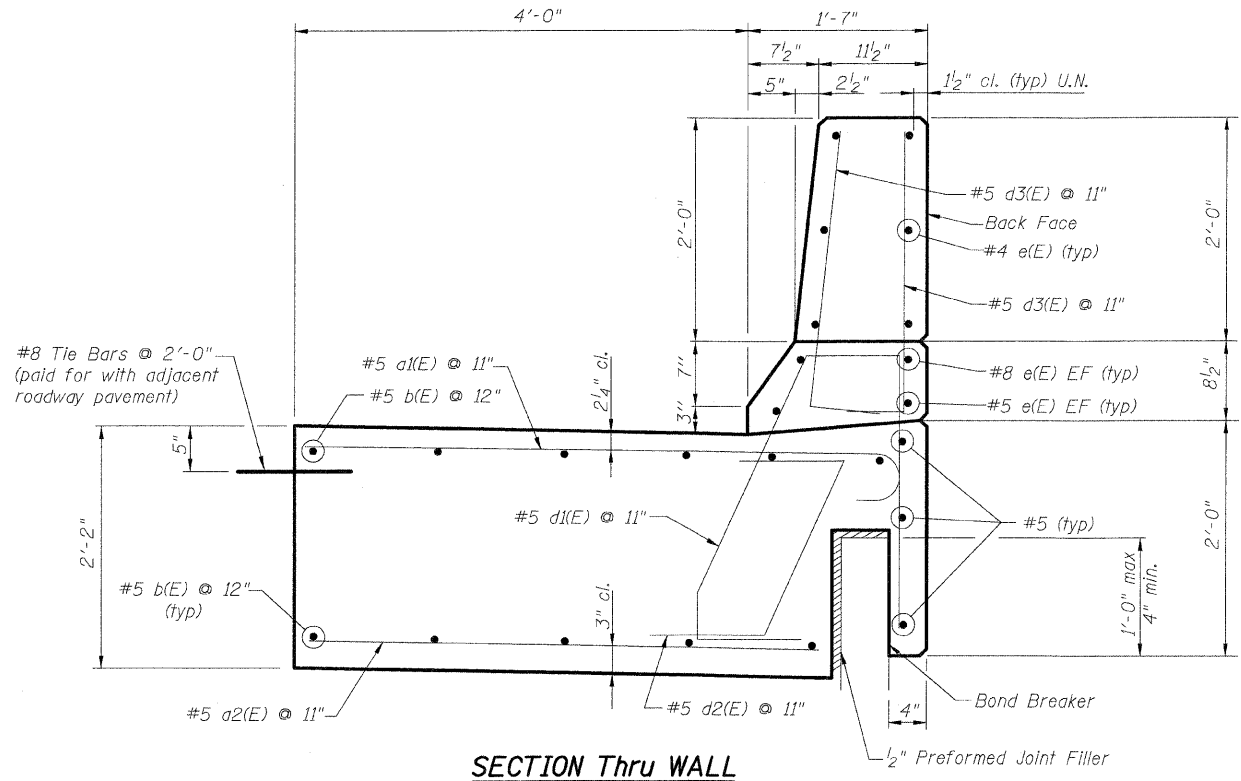
STV Incorporated
 Engineers/Architects/Planners/Construction Managers
 200 W. Monroe Street, Suite 1650
 Chicago, IL 60606-5015
 312/253-0655, FAX 312/553-0661

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL ROUTE 162 OVER I-55/70 IN TROY
 F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
 MADISON COUNTY STA. 18+50 TO STA. 17+00
 STRUCTURE NO. 060-W004

**PARAPET ELEVATION & SHOULDER PLAN
 RAMP D**

DATE: 05/2006
 DRAWN BY: KM
 CHECKED BY: BJB



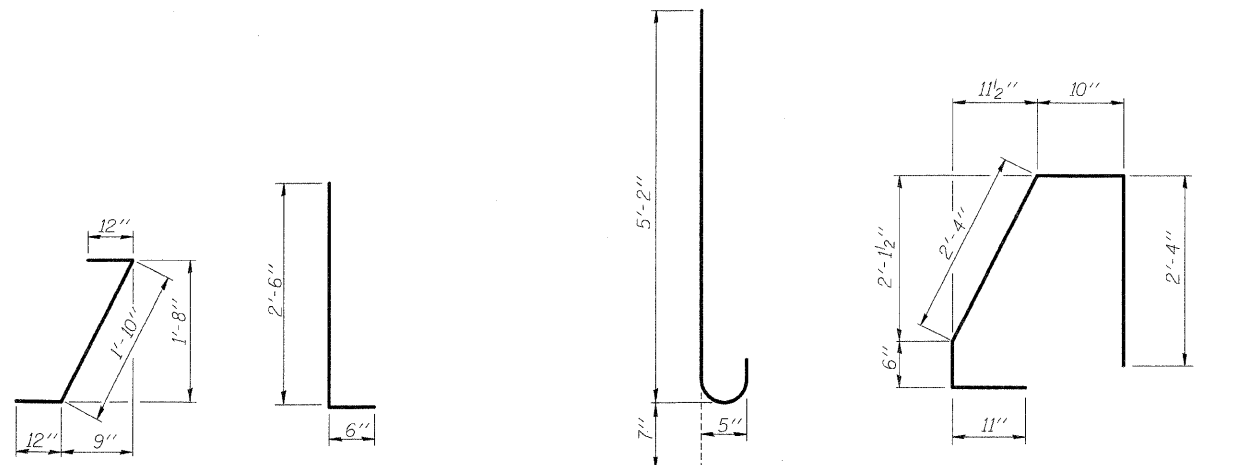
NOTE:
Parapet Stem Height Varies from 2'-0" to 2'-2" at Bridge Approach Parapet.

**BILL OF MATERIAL
RAMP A**

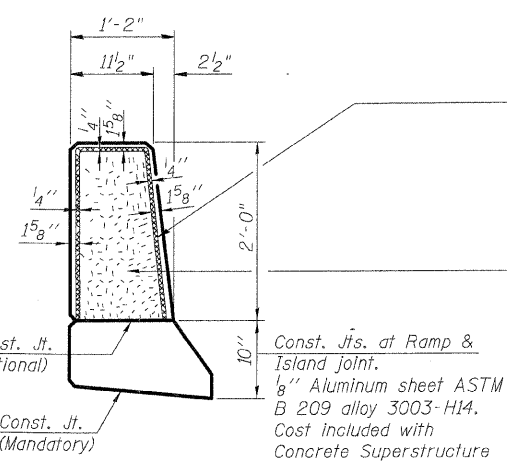
Reinforcing		Bar Length		Shape
Bar	No.	Size	Feet	Inches
a1(E)	647	5	5	9
a2(E)	647	5	4	4
b1(E)	84	5	32	4
b2(E)	70	5	32	3
b3(E)	42	5	32	2
b4(E)	6	5	21	1
b5(E)	5	5	21	0
b6(E)	3	5	20	11
b7(E)	24	5	33	0
b8(E)	20	5	32	11
b9(E)	12	5	32	10
b10(E)	6	5	30	6
b11(E)	5	5	30	5
b12(E)	3	5	30	4
d1(E)	647	5	6	11
d2(E)	647	5	3	10
d3(E)	1,294	5	3	0
e1(E)	28	5	32	2
e2(E)	28	8	34	6
e3(E)	60	4	31	4
e4(E)	2	5	20	11
e5(E)	8	5	32	10
e6(E)	2	8	23	3
e7(E)	8	8	35	2
e8(E)	24	4	29	8
e9(E)	6	4	18	5
e10(E)	18	4	32	0
e11(E)	2	5	30	4
e12(E)	2	8	30	4
e13(E)	12	4	30	4
Reinforcement Bars, Epoxy Coated		Pound	34,750	
Concrete Structures		CU YD	325	
Protective Coat		SQ YD	518	

**BILL OF MATERIAL
RAMP D**

Reinforcing		Bar Length		Shape
Bar	No.	Size	Feet	Inches
a1(E)	596	5	5	9
a2(E)	596	5	4	4
b1(E)	66	5	32	4
b2(E)	55	5	32	3
b3(E)	33	5	32	2
b4(E)	6	5	32	7
b5(E)	5	5	32	6
b6(E)	3	5	32	5
b7(E)	6	5	34	7
b8(E)	5	5	34	6
b9(E)	3	5	34	5
b10(E)	18	5	32	10
b11(E)	15	5	32	9
b12(E)	9	5	32	8
b13(E)	12	5	30	4
b14(E)	10	5	30	3
b15(E)	6	5	30	2
d1(E)	596	5	6	11
d2(E)	596	5	3	10
d3(E)	1,192	5	3	0
e1(E)	22	5	32	2
e2(E)	22	8	34	6
e3(E)	48	4	31	4
e4(E)	2	5	32	10
e5(E)	2	5	34	5
e6(E)	8	5	32	8
e7(E)	2	5	30	2
e8(E)	2	8	35	2
e9(E)	2	8	36	9
e10(E)	8	8	35	0
e11(E)	2	8	30	2
e12(E)	18	4	29	8
e13(E)	6	4	30	4
e14(E)	6	4	33	7
e15(E)	18	4	31	10
e16(E)	12	4	30	2
Reinforcement Bars, Epoxy Coated		Pound	31,940	
Concrete Structures		CU YD	300	
Protective Coat		SQ YD	478	



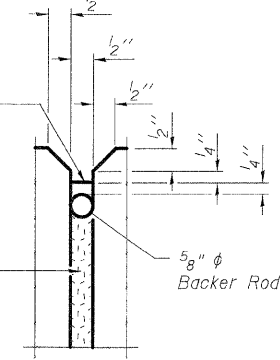
BAR d2(E) **BAR d3(E)** **BAR a1(E)** **BAR d1(E)**



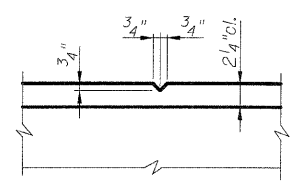
Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, Use T.

1/2" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

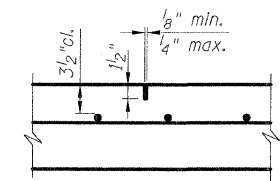
EXPANSION JOINT AT PARAPET DETAIL



PARAPET CONSTRUCTION JOINT DETAIL



GROOVE JOINT DETAIL



SAWED CONTRACTION JOINT DETAIL

NOTES:

1. Reinforcement bars designated (E) shall be Epoxy Coated.
2. Bars indicated thus: 3 x 2-#4 etc. Indicates 3 lines of bars with 2 lengths per line.
3. Bundle bars according to Ramp A or Ramp D.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
IL ROUTE 162 OVER I-55/70 IN TROY
F.A.I ROUTE 70 SECTION 60-10K-1, 60-10HB
MADISON COUNTY STA. 18+50 TO STA. 17+00
STRUCTURE NO. 060-W004

**PARAPET & ANCHORAGE SLAB DETAILS
RAMP A & D**

DATE: 05/2006
DRAWN BY: KM
CHECKED BY: BJG

Sht. R-10 of R-14

STV Incorporated
Engineers/Architects/Planners/Construction Managers
200 W. Monroe Street, Suite 1650
Chicago, IL 60606-5015
312-553-0655, FAX 312-553-0661

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	*	MADISON	420	297
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 60-10K-1, 60-10HB CONTRACT NO. 76709				

Illinois Department of Transportation
SOIL BORING LOG
 Page 1 of 2
 Date 4/15/03

ROUTE FAP 586 DESCRIPTION IL 162 and I-55/70 Interchange Ramp Retaining Walls in Troy LOGGED BY Mark Schreder

SECTION 60R-2, 37R-1 LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. _____ Station _____

BORING NO. SB #2 NW Ramp
 Station 1352+55 (I-55/70)
 Offset 63.00 RT Ed. Pav. (I-55/70)
 Ground Surface Elev. 560.5 ft

DEPTH (ft)	SOIL TYPE	WATER	TEMPERATURE	SPT (blows)	REMARKS
0	Gray Silty Clay LOAM				
2				2	
3				3	
5				5	
7				7	
9				9	
11				11	
13				13	
15				15	
17				17	
19				19	
21				21	
23				23	
25				25	
27				27	
29				29	
31				31	
33				33	
35				35	
37				37	
39				39	
41				41	
43				43	
45				45	
47				47	
49				49	
51				51	
53				53	
55				55	
57				57	
59				59	
61				61	
63				63	
65				65	
67				67	
69				69	
71				71	
73				73	
75				75	
77				77	
79				79	
81				81	
83				83	
85				85	
87				87	
89				89	
91				91	
93				93	
95				95	
97				97	
99				99	
101				101	
103				103	
105				105	
107				107	
109				109	
111				111	
113				113	
115				115	
117				117	
119				119	
121				121	
123				123	
125				125	
127				127	
129				129	
131				131	
133				133	
135				135	
137				137	
139				139	
141				141	
143				143	
145				145	
147				147	
149				149	
151				151	
153				153	
155				155	
157				157	
159				159	
161				161	
163				163	
165				165	
167				167	
169				169	
171				171	
173				173	
175				175	
177				177	
179				179	
181				181	
183				183	
185				185	
187				187	
189				189	
191				191	
193				193	
195				195	
197				197	
199				199	
201				201	
203				203	
205				205	
207				207	
209				209	
211				211	
213				213	
215				215	
217				217	
219				219	
221				221	
223				223	
225				225	
227				227	
229				229	
231				231	
233				233	
235				235	
237				237	
239				239	
241				241	
243				243	
245				245	
247				247	
249				249	
251				251	
253				253	
255				255	
257				257	
259				259	
261				261	
263				263	
265				265	
267				267	
269				269	
271				271	
273				273	
275				275	
277				277	
279				279	
281				281	
283				283	
285				285	
287				287	
289				289	
291				291	
293				293	
295				295	
297				297	
299				299	
301				301	
303				303	
305				305	
307				307	
309				309	
311				311	
313				313	
315				315	
317				317	
319				319	
321				321	
323				323	
325				325	
327				327	
329				329	
331				331	
333				333	
335				335	
337				337	
339				339	
341				341	
343				343	
345				345	
347				347	
349				349	
351				351	
353				353	
355				355	
357				357	
359				359	
361				361	
363				363	
365				365	
367				367	
369				369	
371				371	
373				373	
375				375	
377				377	
379				379	
381				381	
383				383	
385				385	
387				387	
389				389	
391				391	
393				393	
395				395	
397				397	
399				399	
401				401	
403				403	
405				405	
407				407	
409				409	
411				411	
413				413	
415				415	
417				417	
419				419	
421				421	
423				423	
425				425	
427				427	
429				429	
431				431	
433				433	
435				435	
437				437	
439				439	
441				441	
443				443	
445				445	
447				447	
449				449	
451				451	
453				453	
455				455	
457				457	
459				459	
461				461	
463				463	
465				465	
467				467	
469				469	
471				471	
473				473	
475				475	
477				477	
479				479	
481				481	
483				483	
485				485	
487				487	
489				489	
491				491	
493				493	
495				495	
497				497	
499				499	
501				501	
503				503	
505				505	
507				507	
509				509	
511				511	
513				513	
515				515	
517				517	
519				519	
521				521	
523				523	

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 1 of 2
Date 1/26/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1348+60					NA	NA				
					548.1	559.8				
					548.1	559.8				
					552.08	562.08				
					2	1.2	29.4	2	1.0	24.2
					3	S/10		3	B/15	
					1	0.7	33.3	2	1.1	39.8
					2	S/20		3	B/15	
					1	0.5	30.7	3	1.5	24.4
					2	S/20		3	S/20	
					1	0.3	32.4	2	0.8	19.8
					3	S/20		5	S/20	
					1	0.3	34.7	2	2.9	18.0
					2	B/20		12	S/20	
					1	0.3	36.8	6	2.3	20.5
					2	S/20		9	S/20	
					1	0.7	30.5	5	9	
					2	B/20		12	S/20	
					1	0.7	27.4	5	12	
					4	B/15		12	S/20	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-89)

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 2 of 2
Date 1/26/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1348+60					NA	NA				
					548.1	559.8				
					548.1	559.8				
					552.08	562.08				
					2	1.0	30.3	2	0.8	35.4
					4	B/20		3	B/20	
					1	0.6	26.2	3	1.4	25.4
					2	S/20		4	S/20	
					1	1.0	25.8	2	1.3	26.7
					4	S/20		5	S/20	
					1	0.4	26.5	2	1.7	20.7
					2	B/20		4	S/15	
					1	0.0	31.2	1	0.0	31.2
					2	B/20		2	B/20	
					1	0.4	67.3	1	0.4	67.3
					2	B/20		2	B/20	
					1	0.5	33.3	1	0.5	33.3
					2	B/15		2	B/15	
					1	0.5	43.6	1	0.5	43.6
					2	B/20		2	B/20	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-89)

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 1 of 2
Date 1/26/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1347+10					NA	NA				
					552.4	566.3				
					552.4	566.3				
					552.4	561.9				
					2	1.0	30.3	2	0.8	35.4
					4	B/20		3	B/20	
					1	0.6	26.2	3	1.4	25.4
					2	S/20		4	S/20	
					1	1.0	25.8	2	1.3	26.7
					4	S/20		5	S/20	
					1	0.4	26.5	2	1.7	20.7
					2	B/20		4	S/15	
					1	0.0	31.2	1	0.0	31.2
					2	B/20		2	B/20	
					1	0.4	67.3	1	0.4	67.3
					2	B/20		2	B/20	
					1	0.5	33.3	1	0.5	33.3
					2	B/15		2	B/15	
					1	0.5	43.6	1	0.5	43.6
					2	B/20		2	B/20	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-89)

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 2 of 2
Date 1/26/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION SW 1/4, SEC. 5, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1347+10					NA	NA				
					552.4	566.3				
					552.4	561.9				
					552.4	562.27				
					2	1.0	30.3	2	0.8	35.4
					4	B/20		3	B/20	
					1	0.6	26.2	3	1.4	25.4
					2	S/20		4	S/20	
					1	1.0	25.8	2	1.3	26.7
					4	S/20		5	S/20	
					1	0.4	26.5	2	1.7	20.7
					2	B/20		4	S/15	
					1	0.0	31.2	1	0.0	31.2
					2	B/20		2	B/20	
					1	0.4	67.3	1	0.4	67.3
					2	B/20		2	B/20	
					1	0.5	33.3	1	0.5	33.3
					2	B/15		2	B/15	
					1	0.5	43.6	1	0.5	43.6
					2	B/20		2	B/20	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-89)

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 1 of 2
Date 1/24/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1355+30					NA	NA				
					546.3	517.3				
					546.3	517.3				
					552.27	562.27				
					2	0.2	26.7	2	0.2	26.7
					3	B/15		2	S/20	
					1	0.6	27.7	1	0.6	27.7
					2	B/20		4	S/20	
					1	0.8	16.5	3	0.8	16.5
					2	B/20		4	S/20	
					1	2.9	16.2	8	2.9	16.2
					11	S/20		11	S/20	
					1	2.0	14.0	8	2.0	14.0
					9	S/20		9	S/20	
					3	3.4	12.0	7	3.4	12.0
					11	S/20		11	S/20	
					1	6.5	15.0	12	6.5	15.0
					20	S/20		20	S/20	
					1	0.9	27.0	2	0.9	27.0
					3	B/20		3	B/20	
					1	0.5	19.3	5	2.8	17.4
					4	S/20		11	S/15	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-89)

Illinois Department of Transportation
Division of Highways
Shively Geotechnical, Inc.

SOIL BORING LOG Page 2 of 2
Date 1/24/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK
SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM
COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. Station	D E P T H S	B L O W S Q u T	U C S T	M O I S	Surface Water Elev.		D E P T H S	B L O W S Q u T	U C S T	M O I S
					NA ft	ft				
060-W001 1355+30					NA	NA				
					546.3	517.3				
					546.3	517.3				
					552.27	562.27				
					2	0.2	26.7	2	0.2	26.7
					3	B/15		2	S/20	
					1	0.6	27.7	1	0.6	27.7
					2	B/20		4	S/20	
					1	0.8	16.5	3	0.8	16.5
					2	B/20		4	S/20	
					1	2.9	16.2	8	2.9	16.2
					11	S/20		11	S/20	
					1	2.0	14.0	8		

Illinois Department of Transportation
Division of Highways
Shelby Construction, Inc.

SOIL BORING LOG Page 1 of 2
Date 1/24/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK

SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. 060-W001 Station 1359+75 BORING NO. SB-28 Station 1359+75 Offset 125.00R Right Ground Surface Elev. 561.61 ft (ft) (ft) (ft) (ft) (%)

DEPTH (ft)	U	C	M	SOIL	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (ft)	Days	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
2				Dark Gray-Brown Silty Clay LOAM															
3				Dark Gray-Brown Silty Clay LOAM															
54.3				Dark Gray-Brown Silty Clay LOAM															
1				Dark Gray-Brown Silty Clay LOAM															
2				Dark Gray-Brown Silty Clay LOAM															
28.2				Dark Gray-Brown Silty Clay LOAM															
1				Dark Gray-Brown Silty Clay LOAM															
2				Dark Gray-Brown Silty Clay LOAM															
30.3				Dark Gray-Brown Silty Clay LOAM															
4				Dark Gray-Brown Silty Clay LOAM															
10				Dark Gray-Brown Silty Clay LOAM															
12				Dark Gray-Brown Silty Clay LOAM															
13.0				Dark Gray-Brown Silty Clay LOAM															
533.61				Dark Gray-Brown CLAY															
5				Dark Gray-Brown CLAY															
9				Dark Gray-Brown CLAY															
3.9				Dark Gray-Brown CLAY															
12.9				Dark Gray-Brown CLAY															
21				Dark Gray-Brown CLAY															
21				Dark Gray-Brown CLAY															
25.3				Dark Gray-Brown CLAY															
25.3				Dark Gray-Brown CLAY															
25.7				Dark Gray-Brown CLAY															
2				Dark Gray-Brown CLAY															
3				Dark Gray-Brown CLAY															
1.4				Dark Gray-Brown CLAY															
27.8				Dark Gray-Brown CLAY															
3				Dark Gray-Brown CLAY															
5				Dark Gray-Brown CLAY															
8				Dark Gray-Brown CLAY															
8				Dark Gray-Brown CLAY															
20.5				Dark Gray-Brown CLAY															
2				Dark Gray-Brown CLAY															
4				Dark Gray-Brown CLAY															
2.2				Dark Gray-Brown CLAY															
20.5				Dark Gray-Brown CLAY															

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Shelby Construction, Inc.

SOIL BORING LOG Page 2 of 2
Date 1/24/05

ROUTE 586 DESCRIPTION West Retaining Wall LOGGED BY MH/PMK

SECTION 60-10-4HB LOCATION NW 1/4, SEC. 8, TWP. 3N, RNG. 7W, 3rd PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140-lb Hydraulic

STRUCT. NO. 060-W001 Station 1359+75 BORING NO. SB-28 Station 1359+75 Offset 125.00R Right Ground Surface Elev. 561.61 ft (ft) (ft) (ft) (%)

DEPTH (ft)	U	C	M	SOIL	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (ft)	Days	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
5				Dark Gray-Brown CLAY															
8				Dark Gray-Brown CLAY															
17.3				Dark Gray-Brown CLAY															
8				Dark Gray-Brown CLAY															
3.0				Dark Gray-Brown CLAY															
17.3				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
3.1				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															
17.8				Dark Gray-Brown CLAY															
14				Dark Gray-Brown CLAY															