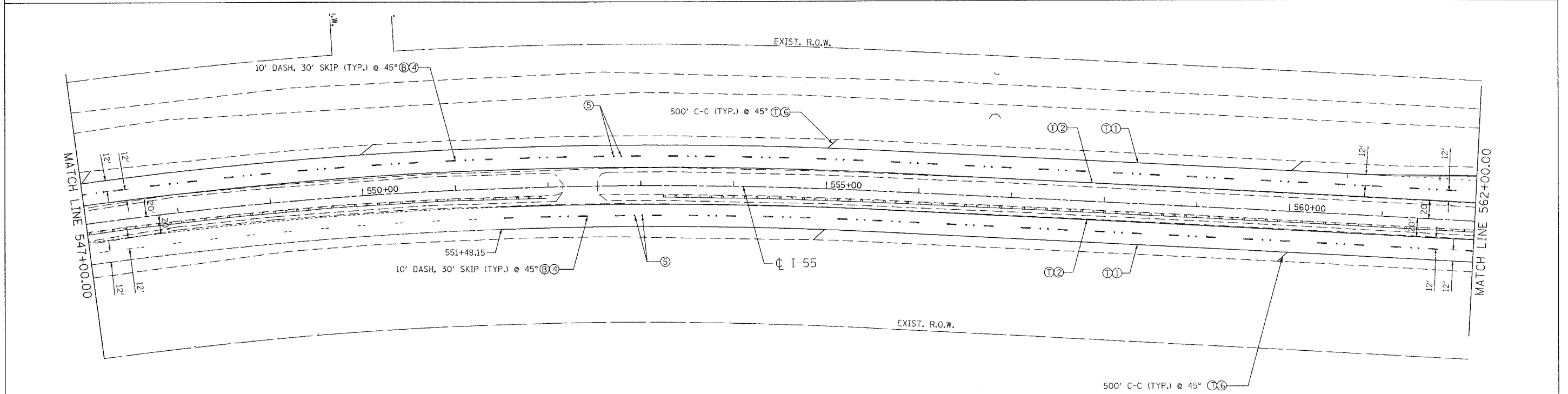
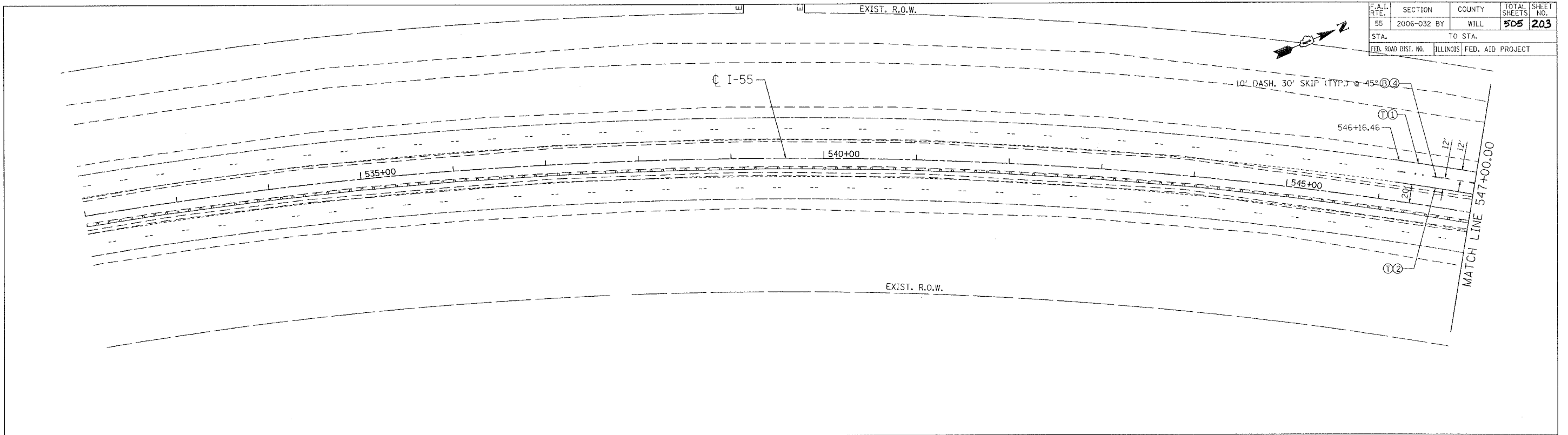






F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	203
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



**PAVEMENT MARKING LEGEND**

- |                                     |  |                             |
|-------------------------------------|--|-----------------------------|
| ① PAVEMENT MARKING LINE 4" (WHITE)  | ⑥ PAVEMENT MARKING LINE 12" (WHITE)  | Ⓣ THERMOPLASTIC (EXTRUDED)  |
| ② PAVEMENT MARKING LINE 4" (YELLOW) | ⑦ PAVEMENT MARKING LINE 12" (YELLOW)   | Ⓟ POLYUREA                  |
| ③ PAVEMENT MARKING LINE 8" (WHITE)  | ⑧ RAISED REFLECTIVE PAVEMENT MARKER (SINGLE, ONE-WAY, CRYSTAL MARKERS @ 40' C-C) | Ⓟ PREFORMED PLASTIC, TYPE B |
| ④ PAVEMENT MARKING LINE 5" (WHITE)  | ⑨ RAISED REFLECTIVE PAVEMENT MARKER (DOUBLE, ONE-WAY, CRYSTAL MARKERS @ 80' C-C) |                             |



DATE 06/22/2006  
EXP. 11/30/2007

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

**PAVEMENT MARKING AND SIGNING PLANS  
FAI 55  
STA. 532+00.00 TO STA. 562+00.00**

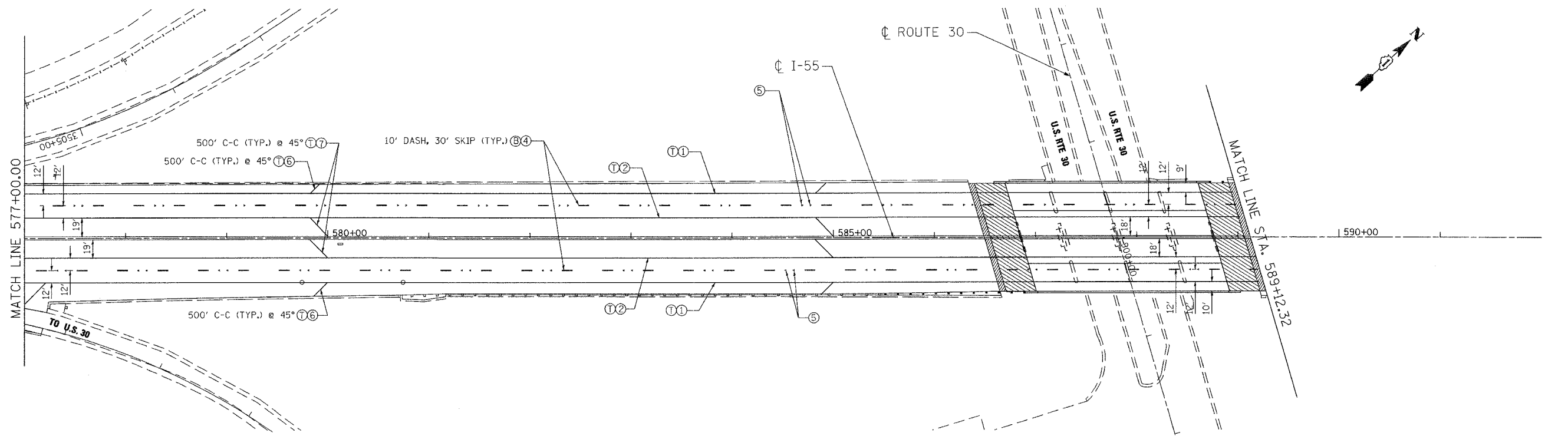
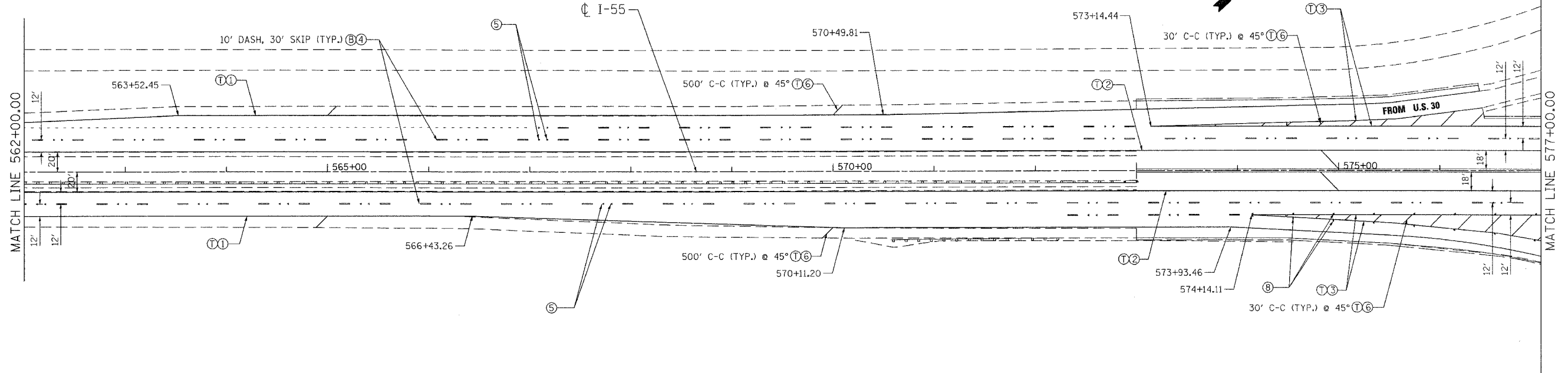
SCALE: 1"=50'  
DATE 07/05/06  
DRAWN BY MW  
CHECKED BY DDH



**TENG & ASSOCIATES, INC.**  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

PLOT DATE = 07/05/06  
 FILE NAME = MFILE  
 PLOT SCALE = AS SHOWN  
 USER NAME = MURPHY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	204
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**PAVEMENT MARKING LEGEND**

- |  |  |                             |
|--|--|-----------------------------|
| ① PAVEMENT MARKING LINE 4" (WHITE)   | ⑥ PAVEMENT MARKING LINE 12" (WHITE)  | ① THERMOPLASTIC (EXTRUDED)  |
| ② PAVEMENT MARKING LINE 4" (YELLOW)  | ⑦ PAVEMENT MARKING LINE 12" (YELLOW)   | ② POLYUREA                  |
| ③ PAVEMENT MARKING LINE 8" (WHITE)   | ⑧ RAISED REFLECTIVE PAVEMENT MARKER (SINGLE, ONE-WAY, CRYSTAL MARKERS @ 40' C-C) | ③ PREFORMED PLASTIC, TYPE B |
| ④ PAVEMENT MARKING LINE 5" (WHITE)   | ⑨ RAISED REFLECTIVE PAVEMENT MARKER (DOUBLE, ONE-WAY, CRYSTAL MARKERS @ 80' C-C) |                             |
| ⑤ RAISED REFLECTIVE PAVEMENT MARKER (SINGLE, ONE-WAY, CRYSTAL MARKERS @ 80' C-C) |  |                             |

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
**PAVEMENT MARKING AND SIGNING PLANS**  
**FAI 55**  
**STA. 562+00.00 TO STA. 589+12.32**

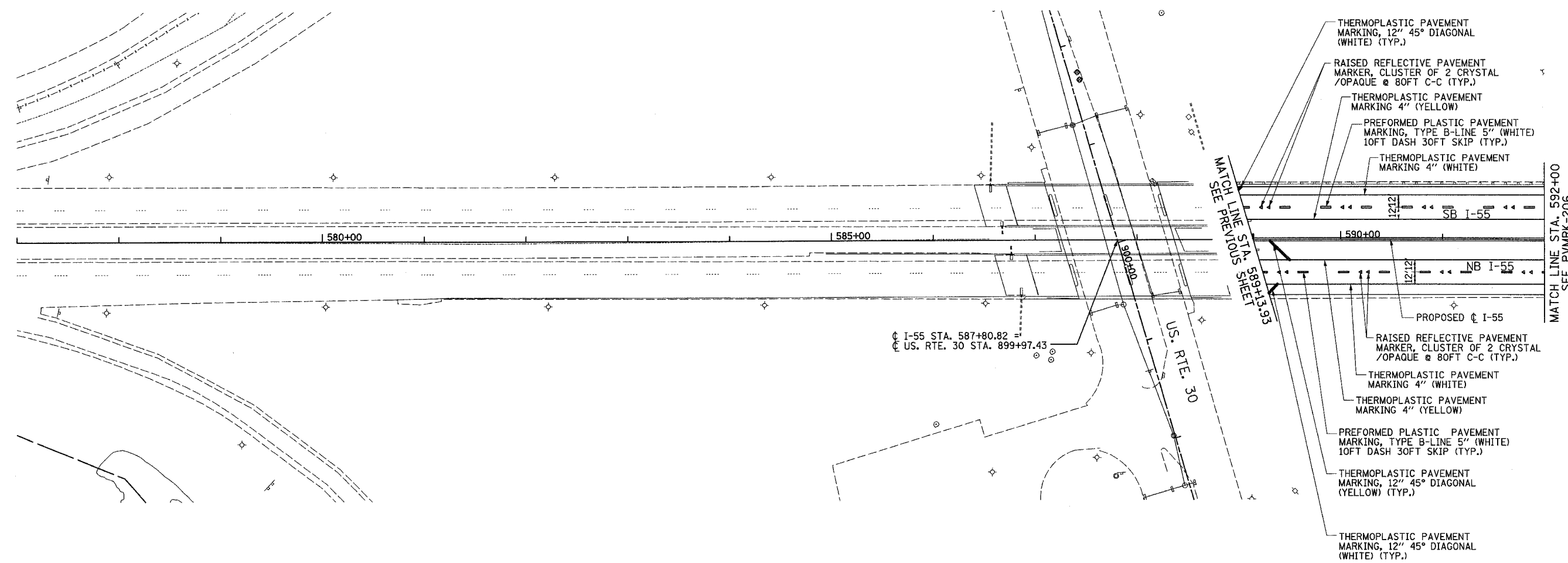
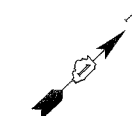
SCALE: 1"=50'  
 DATE 07/05/06  
 DRAWN BY MW  
 CHECKED BY DDH

**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

DATE = 07/05/06  
 FILE NAME = FILE 5  
 PLOT SCALE = AS SHOWN  
 USER NAME = RUSSE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	205
STA.	TO STA.		592+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	PVMRK-205 OF 505	
CONTRACT NO. 60B86				

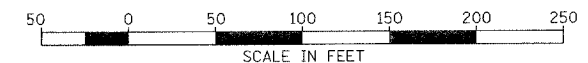


MATCH LINE STA. 587+13.93  
SEE PREVIOUS SHEET

MATCH LINE STA. 592+00  
SEE PVMRK-206

☉ I-55 STA. 587+80.82 =  
☉ US. RTE. 30 STA. 899+97.43

- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)
- RAISED REFLECTIVE PAVEMENT MARKER, CLUSTER OF 2 CRYSTAL / OPAQUE @ 80FT C-C (TYP.)
- THERMOPLASTIC PAVEMENT MARKING 4" (YELLOW)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)
- THERMOPLASTIC PAVEMENT MARKING 4" (WHITE)
- THERMOPLASTIC PAVEMENT MARKING 4" (WHITE)
- THERMOPLASTIC PAVEMENT MARKING 4" (WHITE)
- THERMOPLASTIC PAVEMENT MARKING 4" (YELLOW)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (YELLOW) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)



**DAVID MASON & ASSOCIATES**  
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Structural Engineering  
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445 E. Illinois, Suite 846  
Chicago, IL 60611  
(312) 942-8600

**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

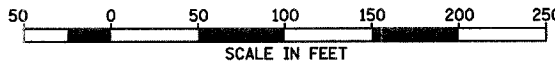
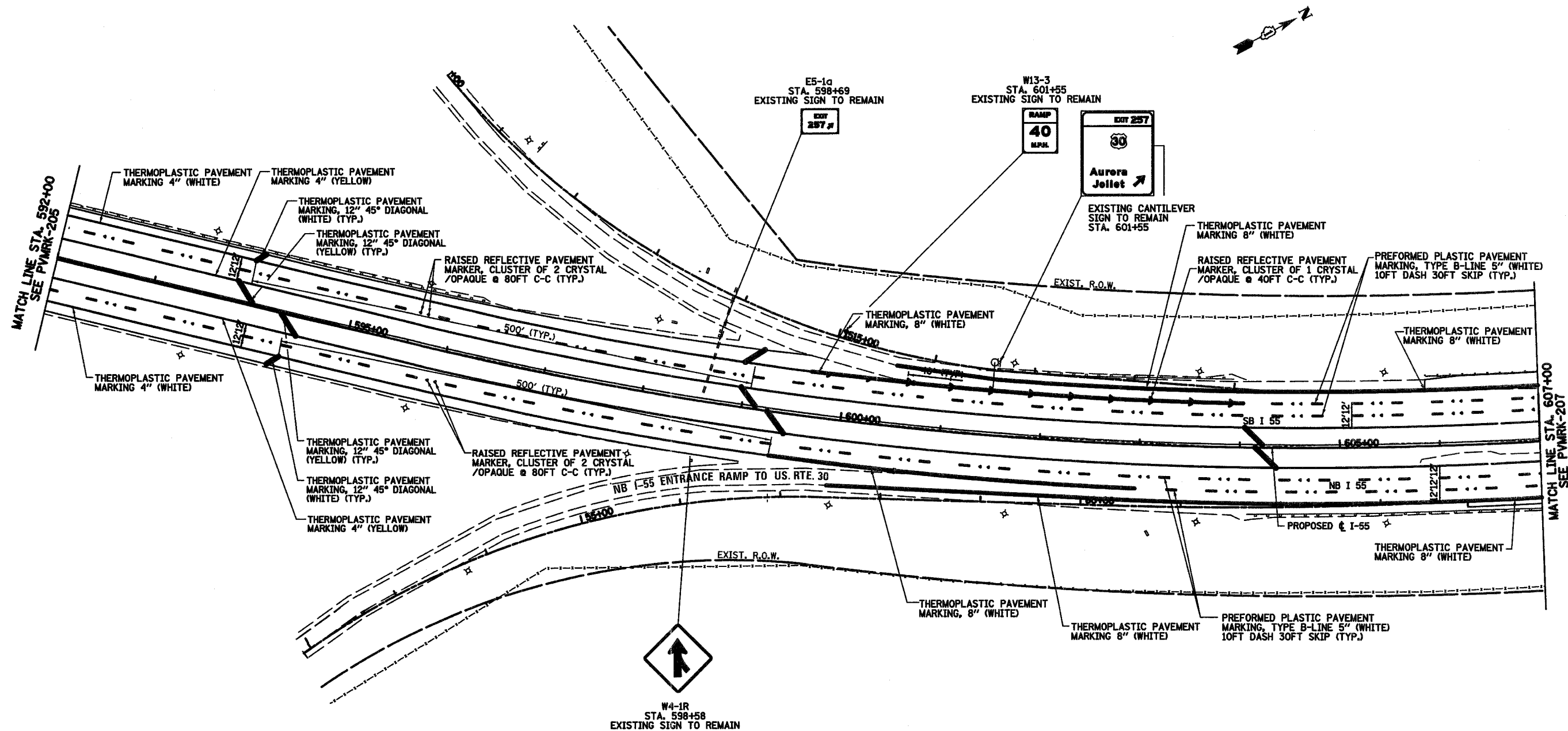
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

PAVEMENT MARKING  
AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 06-30-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	206
STA. 592+00	TO STA. 607+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PVMRK-206 OF 505				
CONTRACT NO. 60886				



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Chicago, IL 60611  
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

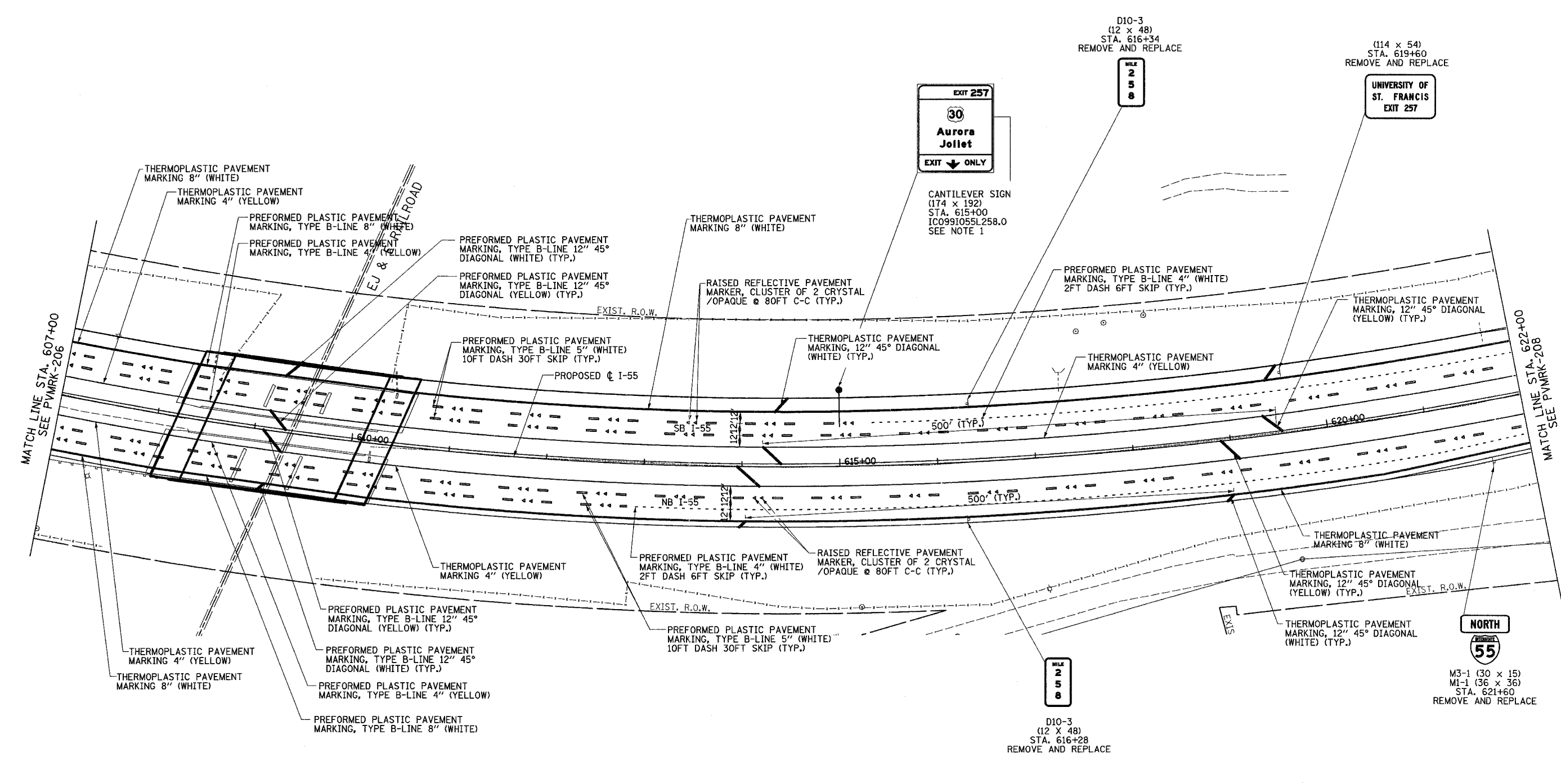
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

PAVEMENT MARKING  
AND SIGNING PLANS

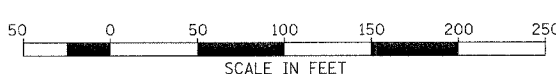
SCALE: 1" = 50'  
DATE: 07-21-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	207
STA. 607+00	TO STA. 622+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		PVMRK-207 OF 505		
		CONTRACT NO. 60886		



**NOTE:**  
 1. CONTRACTOR TO INSTALL A 3 1/2" PVC CONDUIT LARGE RADIUS ELBOW IN THE BASE OF CANTILEVER SIGN FOUNDATION. TOP OF CONDUIT ENTRY INTO FOUNDATION SHALL BE A MINIMUM OF 30" BELOW GRADE. STUB AND CAP FOR FUTURE USE. COST IS INCIDENTAL TO "DRILLED SHAFT CONCRETE FOUNDATIONS."



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 Chicago, IL 60611  
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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

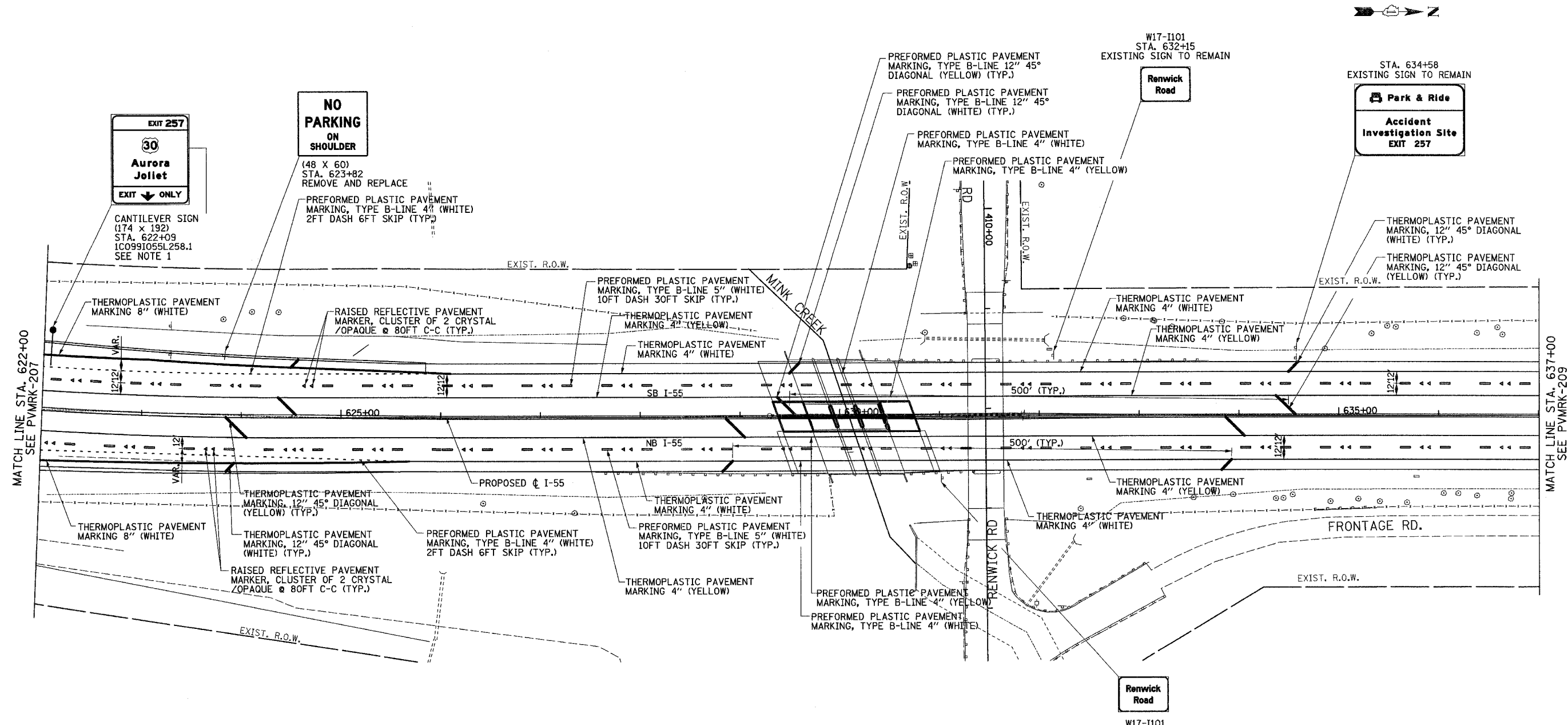
FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

PAVEMENT MARKING  
 AND SIGNING PLANS

SCALE: 1" = 50'  
 DATE: 06-30-06

DRAWN BY: LC, JS TC  
 CHECKED BY: SE

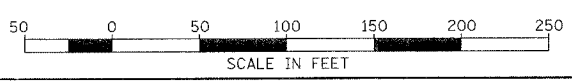
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	208
STA. 622+00	TO STA. 637+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	PVMRK-208 OF 505			
CONTRACT NO. 60B86				



MATCH LINE STA. 622+00  
SEE PVMRK-207

MATCH LINE STA. 637+00  
SEE PVMRK-209

**NOTE:**  
1. CONTRACTOR TO INSTALL A 3 1/2" PVC CONDUIT LARGE RADIUS ELBOW IN THE BASE OF CANTILEVER SIGN FOUNDATION. TOP OF CONDUIT ENTRY INTO FOUNDATION SHALL BE A MINIMUM OF 30" BELOW GRADE. STUB AND CAP FOR FUTURE USE. COST IS INCIDENTAL TO "DRILLED SHAFT CONCRETE FOUNDATIONS."



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAT ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
PAVEMENT MARKING  
AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 06-30-06

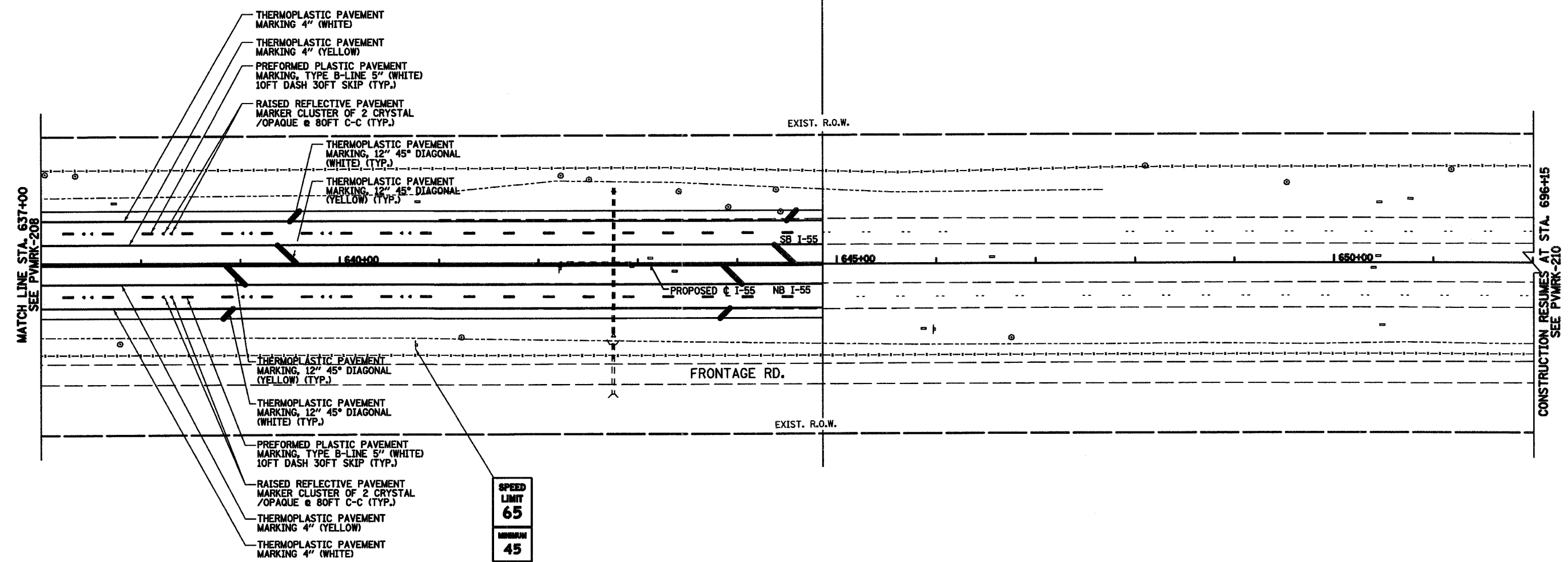
DRAWN BY: LC, JS TC  
CHECKED BY: SE



F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	209
STA. 637+00	TO STA. 652+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		PVMRK-209 OF 505		
CONTRACT NO. 60886				

END PROPOSED PAVEMENT MARKING AND SIGNING | MATCH EXISTING PAVEMENT MARKINGS

STA. 644+85.00



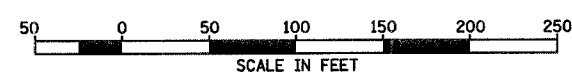
MATCH LINE STA. 637+00  
SEE PVMRK-208

CONSTRUCTION RESUMES AT STA. 696+15  
SEE PVMRK-210

- THERMOPLASTIC PAVEMENT MARKING 4" (WHITE)
- THERMOPLASTIC PAVEMENT MARKING 4" (YELLOW)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)
- RAISED REFLECTIVE PAVEMENT MARKER CLUSTER OF 2 CRYSTAL / OPAQUE @ 80FT C-C (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (YELLOW) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (YELLOW) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)
- THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)
- RAISED REFLECTIVE PAVEMENT MARKER CLUSTER OF 2 CRYSTAL / OPAQUE @ 80FT C-C (TYP.)
- THERMOPLASTIC PAVEMENT MARKING 4" (YELLOW)
- THERMOPLASTIC PAVEMENT MARKING 4" (WHITE)

SPEED LIMIT 65  
MINIMUM 45

R2-4a  
STA. 640+76  
EXISTING SIGN TO REMAIN



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Structural Engineering  
Surveying  
145 E. Illinois, Suite 640  
Chicago, IL 60611  
(312) 942-9680

PARSONS BRINCKERHOFF

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FBI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
PAVEMENT MARKING AND SIGNING PLANS

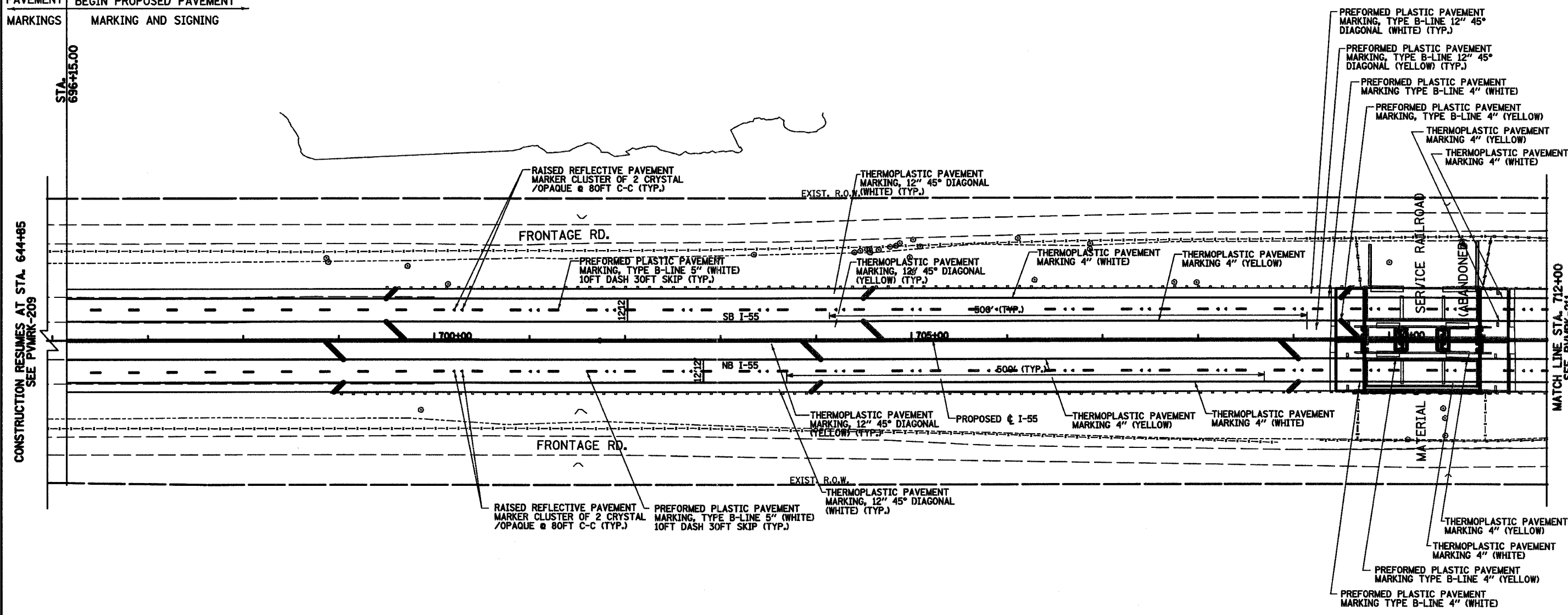
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DATE: 07-21-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

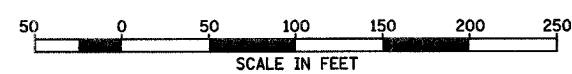
F.A.P. RY. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	210
STA. 697+00	TO STA. 712+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PVMRK-210 OF 505				
CONTRACT NO. 60886				

MATCH EXISTING PAVEMENT MARKINGS  
 BEGIN PROPOSED PAVEMENT MARKING AND SIGNING

STA. 696+15.00  
 CONSTRUCTION RESUMES AT STA. 644+85  
 SEE PVMRK-209



MATCH LINE STA. 712+00  
 SEE PVMRK-211



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 Surveying  
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 Chicago, IL 60611  
 (312) 942-9600

**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 PAVEMENT MARKING  
 AND SIGNING PLANS

SCALE: 1" = 50'  
 DATE: 07-21-06

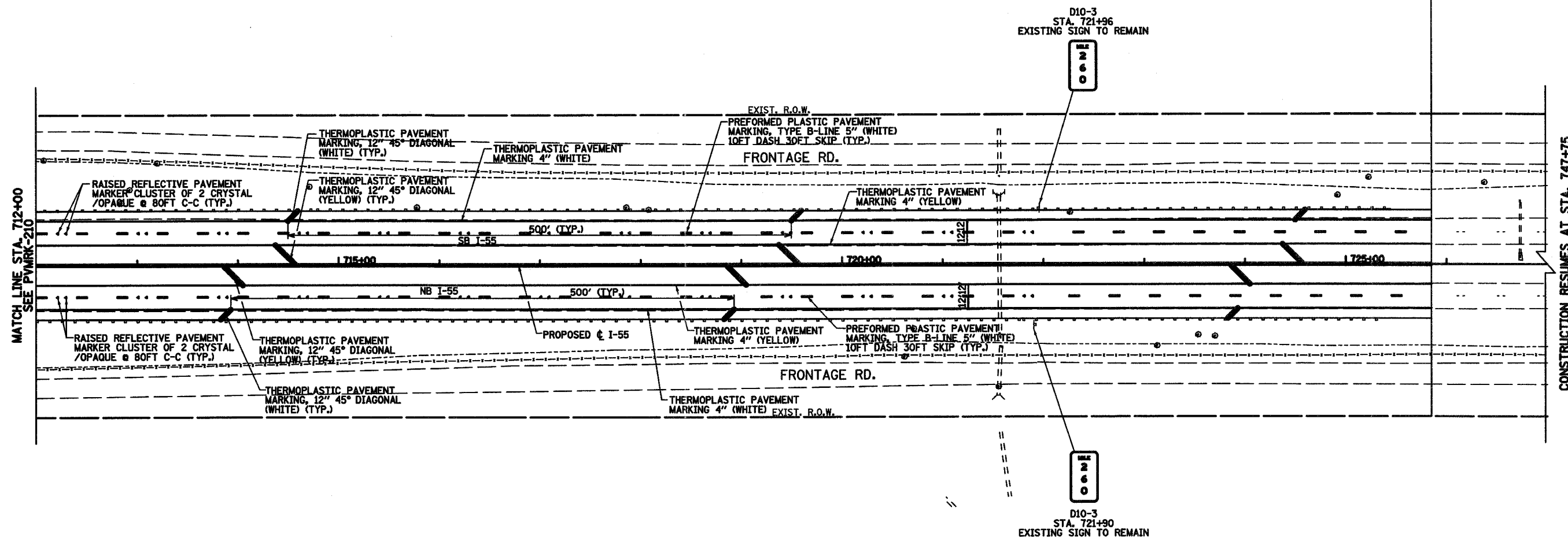
DRAWN BY: LC, JS TC  
 CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	211
STA. 712+00	TO STA. 727+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		PVMRK - 211 OF 505		
CONTRACT NO. 60B86				



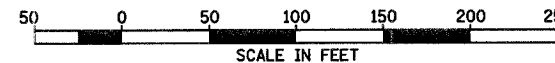
END PROPOSED PAVEMENT MARKING AND SIGNING  
MATCH EXISTING PAVEMENT MARKINGS

STA. 725+65.00



MATCH LINE STA. 712+00  
SEE PVMRK-210

CONSTRUCTION RESUMES AT STA. 747+75  
SEE PVMRK-212



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Chicago, IL 60611  
(312) 942-5600

**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

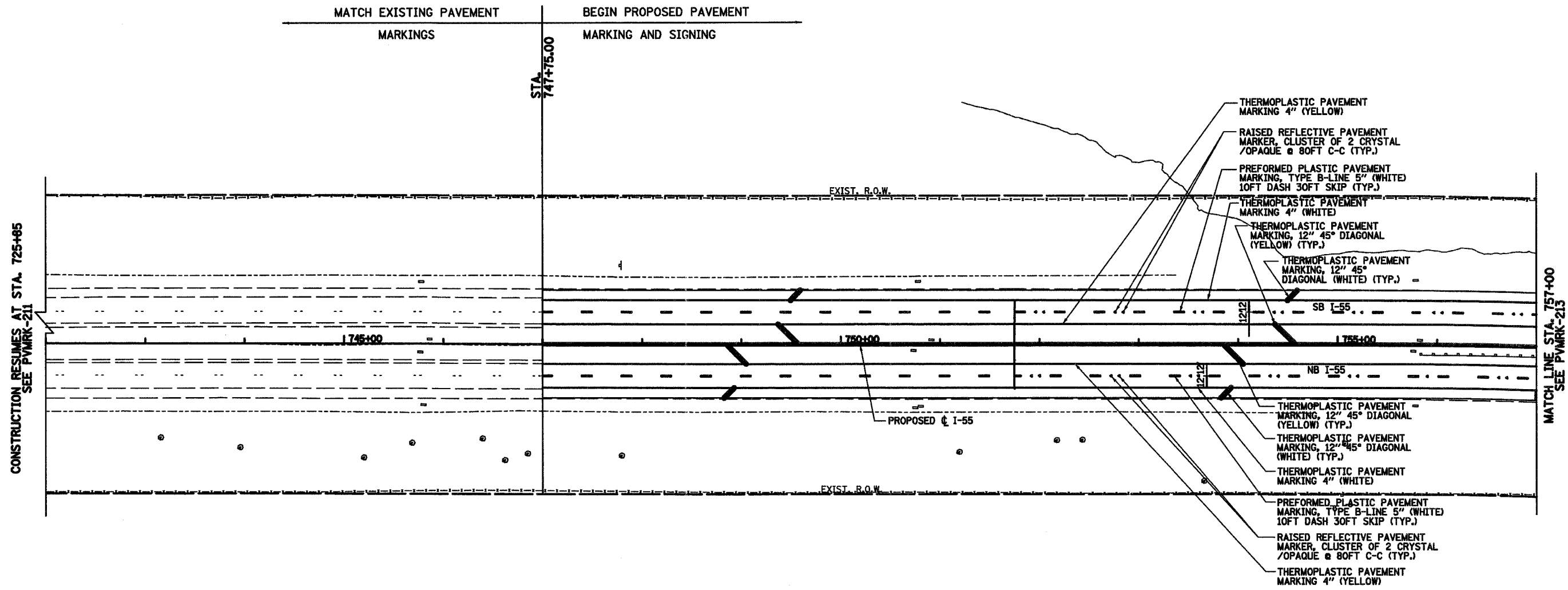
PAVEMENT MARKING AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 07-21-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

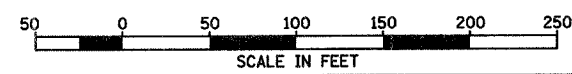
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	212
STA. 742+00	TO STA. 757+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
PVMRK-212 OF 505				
CONTRACT NO. 60886				



CONSTRUCTION RESUMES AT STA. 725+85  
SEE PVMRK-211

MATCH LINE STA. 757+00  
SEE PVMRK-213



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Chicago, IL 60611  
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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
PAVEMENT MARKING  
AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 07-21-06

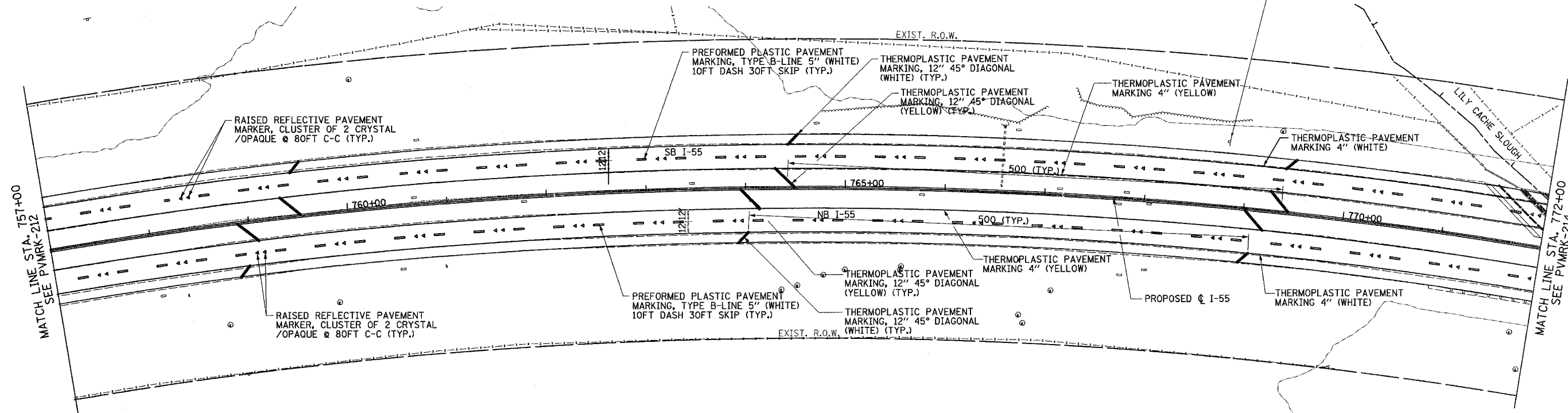
DRAWN BY: LC, JS TC  
CHECKED BY: SE

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	213
STA. 757+00	TO STA. 772+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	PVMRK-213 OF 505			
	CONTRACT NO. 60886			

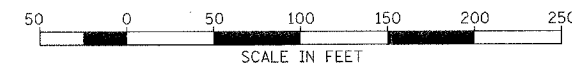
STA. 768+81  
EXISTING SIGN TO REMAIN

SPEED LIMIT  
TRUCKS  
OVER 4 TONS  
HEAVY TRUCKS  
TRAILERS  
**55**



MATCH LINE STA. 757+00  
SEE PVMRK-212

MATCH LINE STA. 772+00  
SEE PVMRK-214



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Chicago, IL 60611  
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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

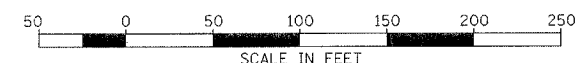
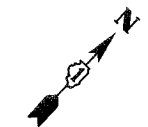
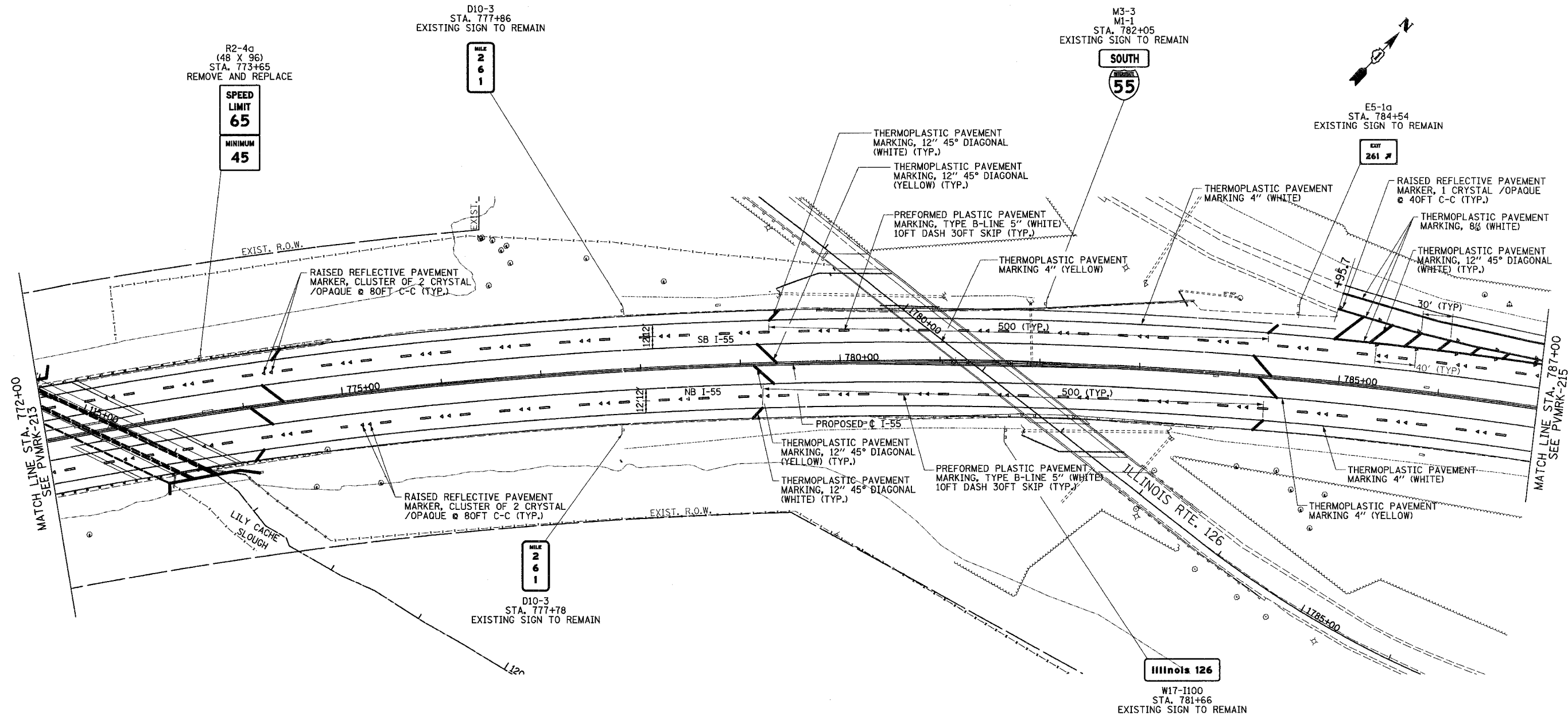
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

PAVEMENT MARKING  
AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 06-30-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	214
STA. 772+00	TO STA. 787+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		PVMRK-214 OF 505		
CONTRACT NO. 60B86				



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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

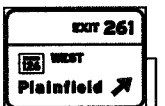
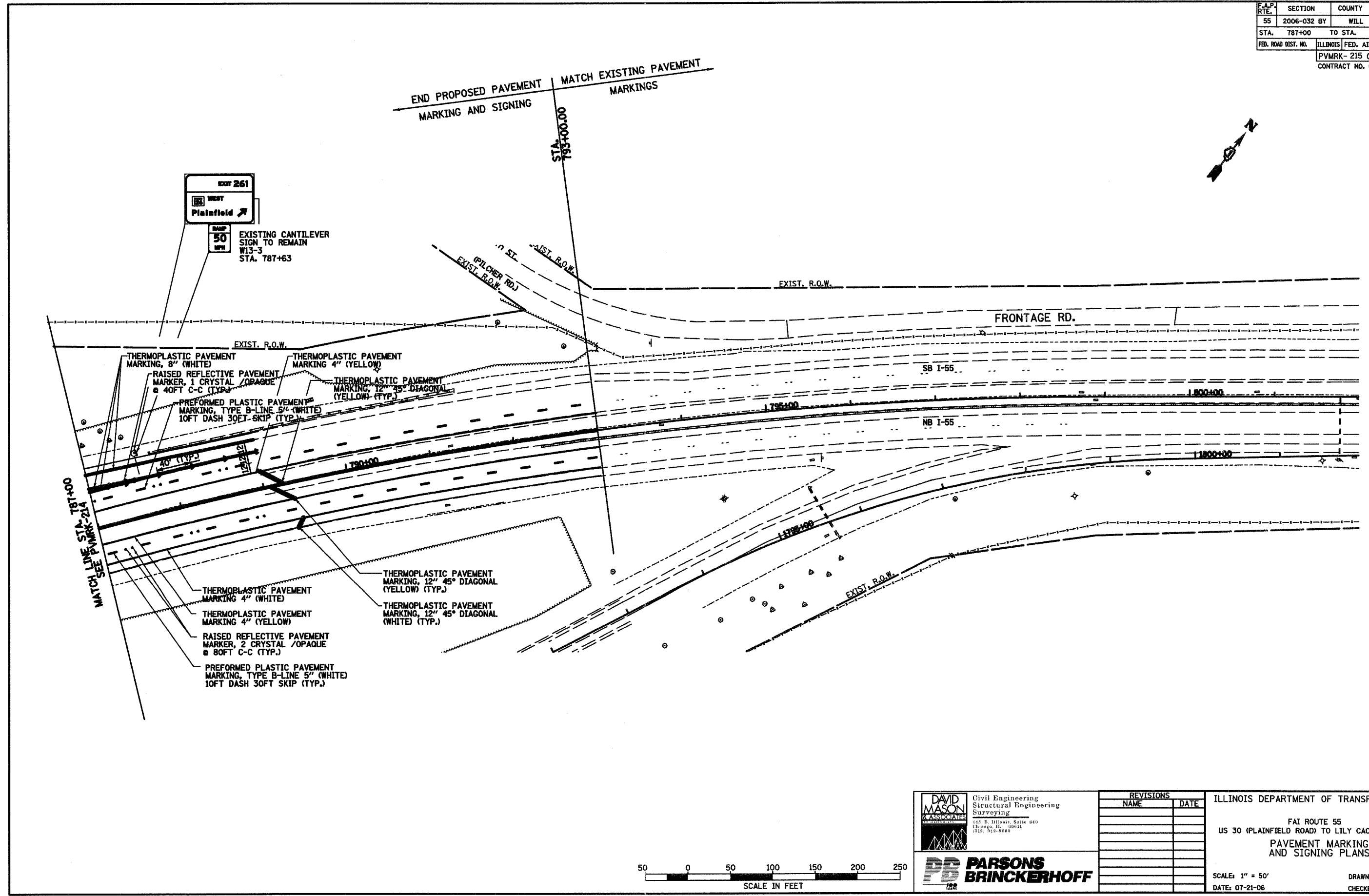
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

PAVEMENT MARKING  
AND SIGNING PLANS

SCALE: 1" = 50'  
DATE: 06-30-06

DRAWN BY: LC, JS TC  
CHECKED BY: SE

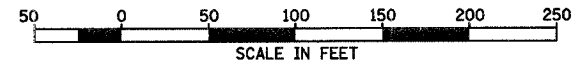
F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	215
STA. 787+00	TO STA. 802+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	PVMRK-215 OF 505			
	CONTRACT NO. 60886			



EXISTING CANTILEVER SIGN TO REMAIN W13-3 STA. 787+63

THERMOPLASTIC PAVEMENT MARKING, 8" (WHITE)  
 RAISED REFLECTIVE PAVEMENT MARKER, 1 CRYSTAL / OPAQUE @ 40FT C-C (TYP.)  
 THERMOPLASTIC PAVEMENT MARKING, 4" (YELLOW)  
 THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (YELLOW) (TYP.)  
 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)

THERMOPLASTIC PAVEMENT MARKING, 4" (WHITE)  
 THERMOPLASTIC PAVEMENT MARKING, 4" (YELLOW)  
 RAISED REFLECTIVE PAVEMENT MARKER, 2 CRYSTAL / OPAQUE @ 80FT C-C (TYP.)  
 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B-LINE 5" (WHITE) 10FT DASH 30FT SKIP (TYP.)  
 THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (YELLOW) (TYP.)  
 THERMOPLASTIC PAVEMENT MARKING, 12" 45° DIAGONAL (WHITE) (TYP.)



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 Chicago, IL 60611  
 (312) 942-8600

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REVISIONS	
NAME	DATE

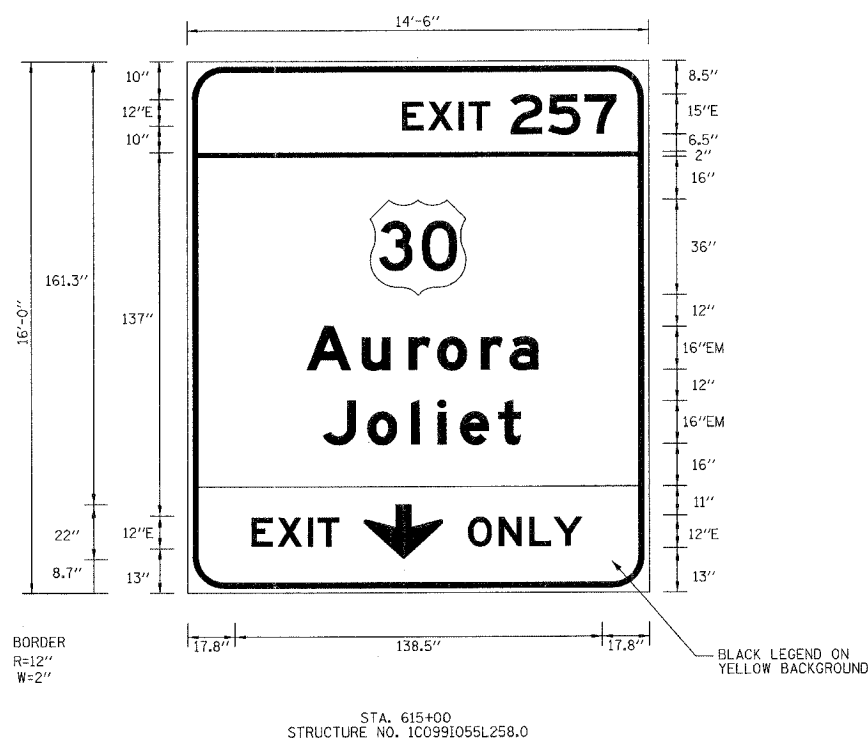
ILLINOIS DEPARTMENT OF TRANSPORTATION

FBI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 PAVEMENT MARKING AND SIGNING PLANS

SCALE: 1" = 50'  
 DATE: 07-21-06

DRAWN BY: LC, JS TC  
 CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	216
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DETLs- 216 OF 505		
		CONTRACT NO. 60886		

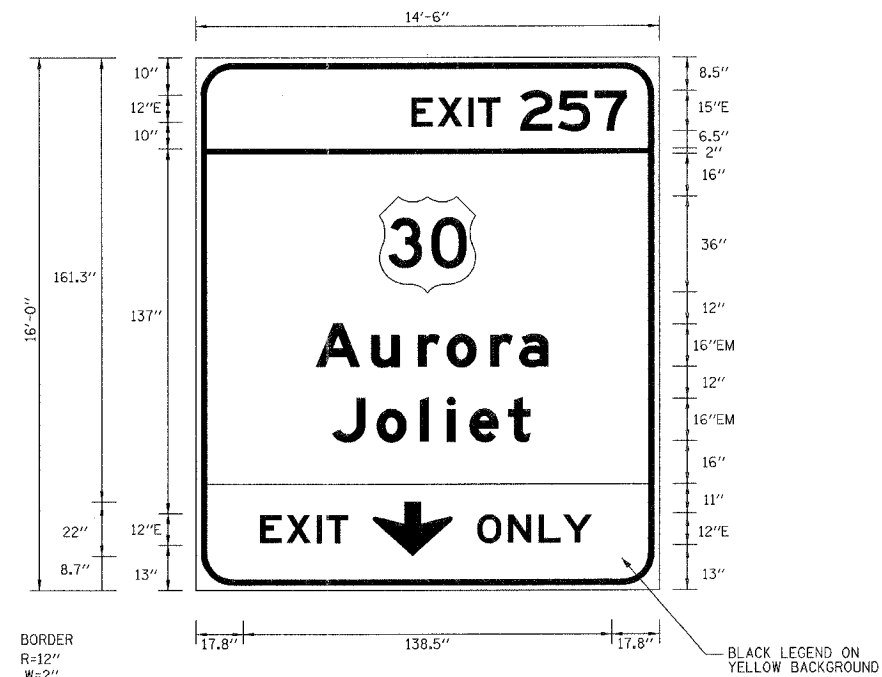


NOTE:  
ALL SIGN PANELS SHALL HAVE  
WHITE LEGEND, GREEN REFLECTORIZED  
BACKGROUND UNLESS NOTED

	Civil Engineering Structural Engineering Surveying 440 E. Illinois, Suite 640 Chicago, IL 60611 (312) 942-5000	REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAI ROUTE 55 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  SIGN PANEL DETAILS  SCALE: 1" = 50' DATE: 06-30-06
		NAME	DATE	
				DRAWN BY: LC, JS, TC CHECKED BY: SE



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	217
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DETLs - 217 OF 505		
CONTRACT NO. 60B86				

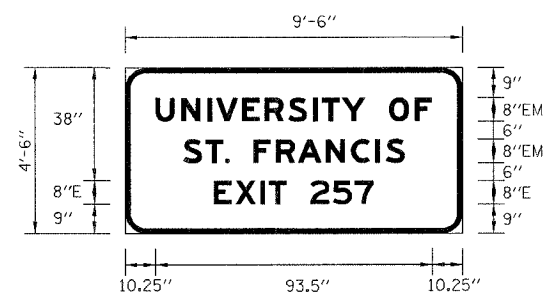


STA. 622+09  
STRUCTURE NO. 1C0991055L258.1

NOTE:  
ALL SIGN PANELS SHALL HAVE  
WHITE LEGEND, GREEN REFLECTORIZED  
BACKGROUND UNLESS NOTED

<p>Civil Engineering Structural Engineering Surveying 445 E. Illinois, Suite 640 Chicago, IL 60611 (312) 942-9800</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NAME</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>		NAME	DATE																							<p>ILLINOIS DEPARTMENT OF TRANSPORTATION FAI ROUTE 55 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH</p> <p>SIGN PANEL DETAILS</p> <p>SCALE: 1" = 50' DATE: 06-30-06</p> <p>DRAWN BY: LC, JS, TC CHECKED BY: SE</p>
	NAME	DATE																									



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	218
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DETAILS- 218 OF 505		
CONTRACT NO. 60B86				



BORDER  
R=6"  
W=1"

STA. 619+60

NOTE:  
ALL SIGN PANELS SHALL HAVE  
WHITE LEGEND, GREEN REFLECTORIZED  
BACKGROUND UNLESS NOTED

 Civil Engineering Structural Engineering Surveying 445 E. Illinois, Suite 640 Chicago, IL 60611 (312) 942-6800	REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAI ROUTE 55 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  SIGN PANEL DETAILS  SCALE: 1" = 50' DATE: 06-30-06
	NAME	DATE	
			DRAWN BY: LC, JS, TC CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	219
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL-219 OF 505	
		CONTRACT NO. 60886		

**GENERAL NOTES**

**DESIGN:** AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

**CONSTRUCTION:** Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

**LOADING:** 90 M.P.H. WIND VELOCITY

**WALKWAY LOADING:** Dead load plus 500 lbs. concentrated live load.

**DESIGN STRESSES:**

Field Units  
 $F_c = 3,500$  p.s.i.  
 $f_y = 60,000$  p.s.i. (reinforcement)

**WELDING:** All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

**MATERIALS:** Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W\*. Stainless steel for slims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

**FASTENERS FOR ALUMINUM TRUSSES:** All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

**U-BOLTS AND EYEBOLTS:** U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

**GALVANIZING:** All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

**ANCHOR RODS:** Shall conform to AASHTO M314 Gr. 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F.

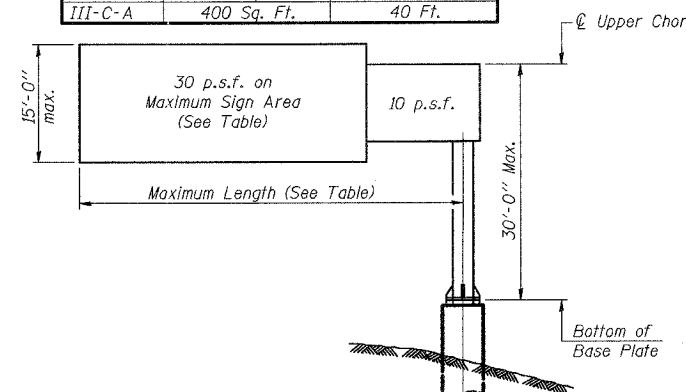
**CONCRETE SURFACES:** All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

**REINFORCEMENT BARS:** Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

\* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D <sub>s</sub>	Total Sign Area
IC0991055L258.0	615+00 SB	II-C-A	26.5	631.20	12.00	16.00	232.00 S.F.
IC0991055L258.1	622+09 SB	II-C-A	26.5	618.22	12.00	16.00	232.00 S.F.

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sq. Ft.	40 Ft.



**DESIGN WIND LOADING DIAGRAM**

Parameters shown are basis for I.D.O.T. Standards  
 Installations not within dimensional limits shown  
 require special analysis for all components.

① After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.

**Note:**  
 Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

**TOTAL BILL OF MATERIAL**

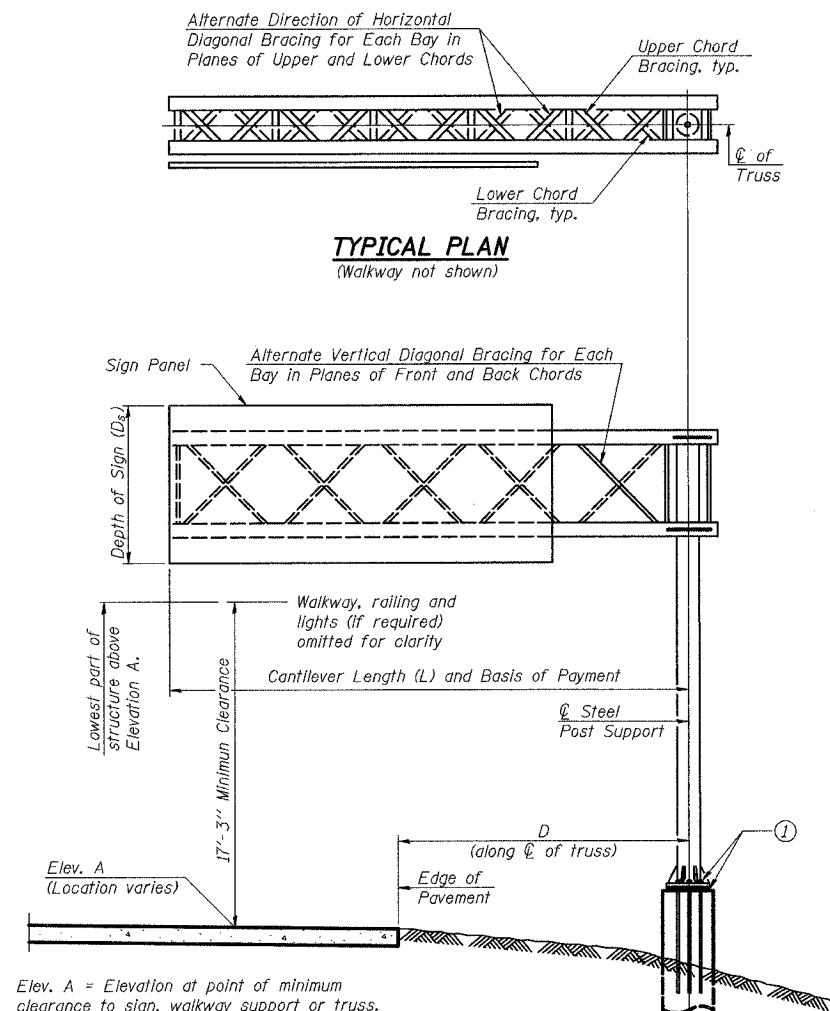
ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE I-C-A	Foot	
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE II-C-A	Foot	53.00
OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	
OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	33.00
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	18.52

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REVISIONS	
NAME	DATE

**OSC-A-1** 1-7-05  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 CANTILEVER SIGN STRUCTURES  
 GENERAL PLAN & ELEVATION  
 ALUMINUM TRUSS & STEEL POST  
 SCALE: DATE: 06-30-06 DRAWN BY: LC, JS, TC  
 CHECKED BY: SE



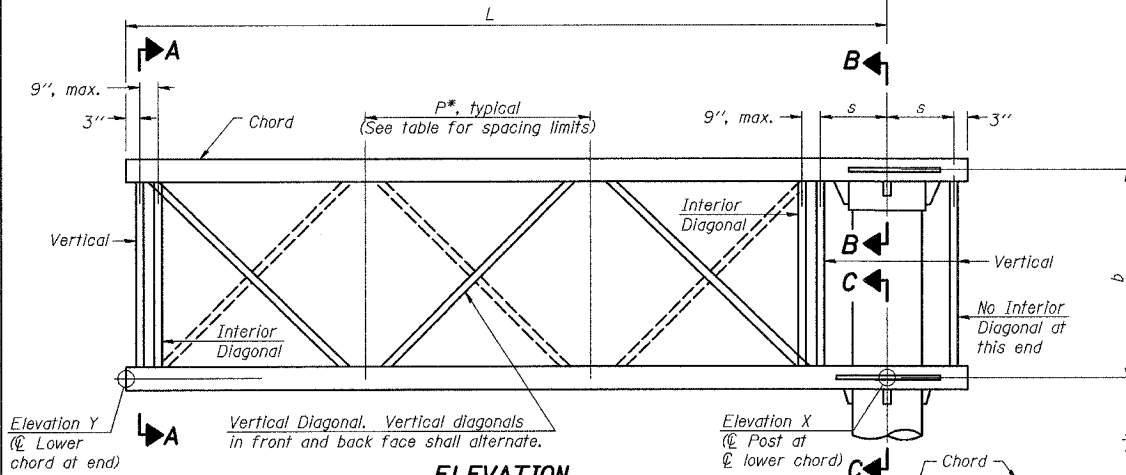
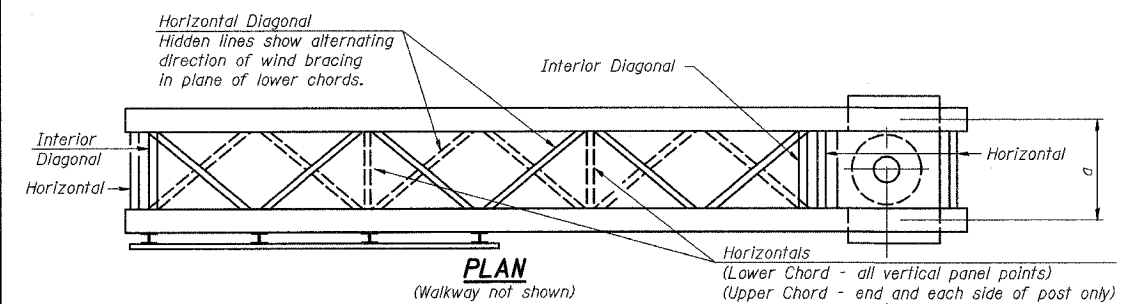
**TYPICAL ELEVATION**

Looking in Direction of Traffic

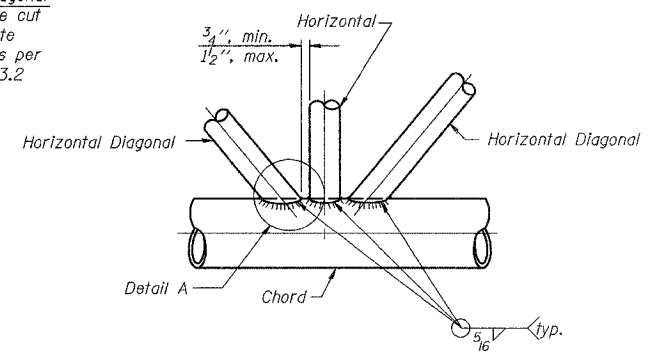
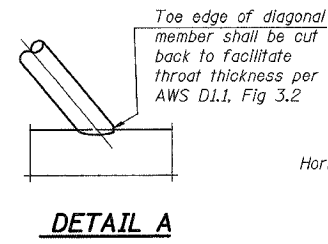
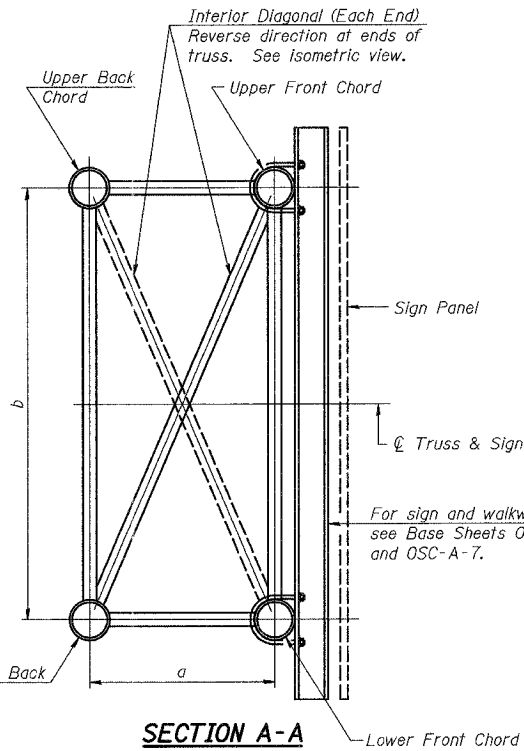
Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

NUMBER	REVISION	DATE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	220
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	DETAILS- 220 OF 505
CONTRACT NO. 60B86				

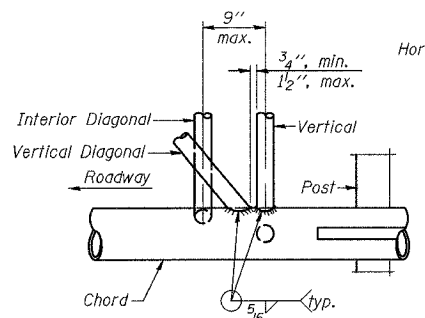


**ELEVATION**  
(Sign and walkway omitted for clarity)  
**TYPICAL TRUSS UNIT**  
For Section B-B and Section C-C, see Base Sheet OSC-A-3.

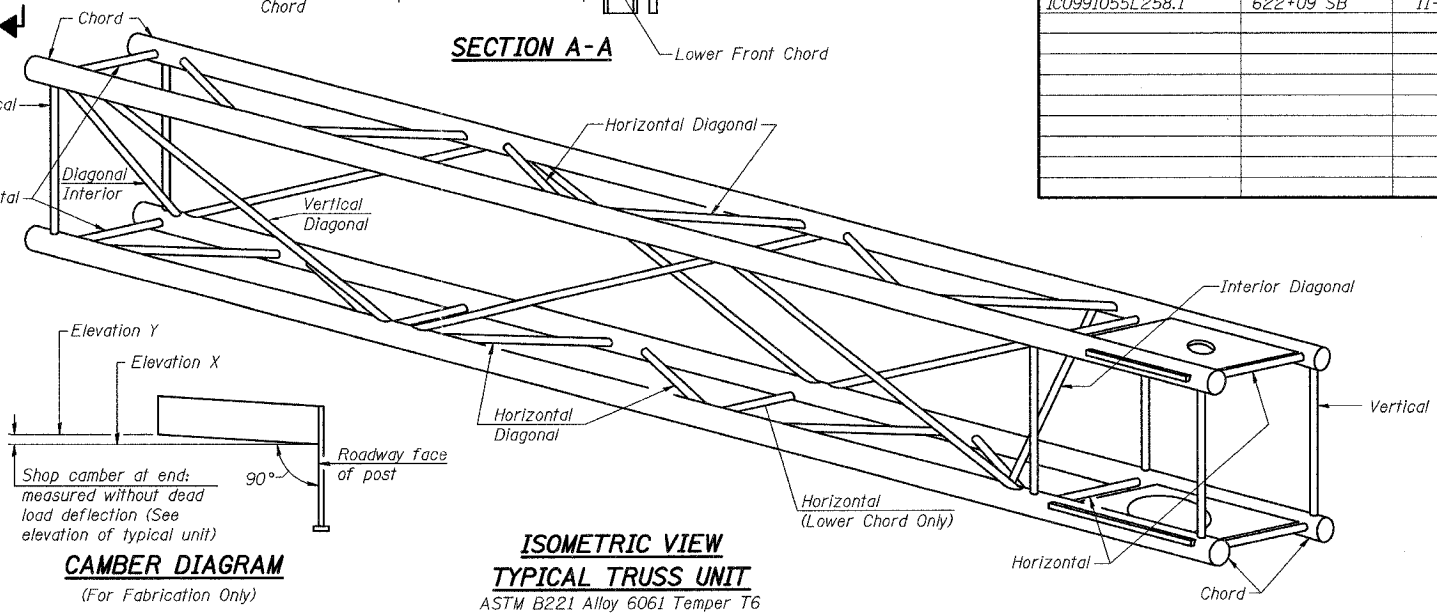


**TRUSS INTERIOR JOINT DETAIL**

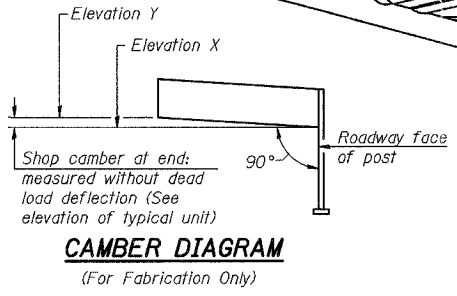
Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
IC0991055L258.0	615+00 SB	II-C-A	26.5	7	42"
IC0991055L258.1	622+09 SB	II-C-A	26.5	7	42"



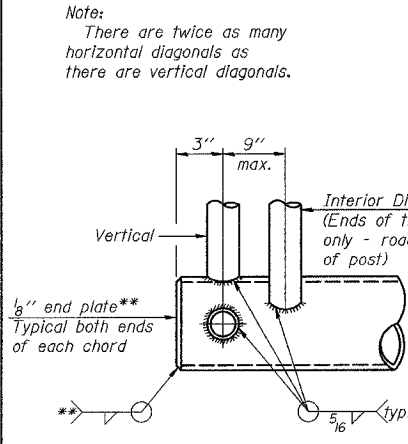
**POST END JOINT DETAIL**



**ISOMETRIC VIEW**  
**TYPICAL TRUSS UNIT**  
ASTM B221 Alloy 6061 Temper T6



**CAMBER DIAGRAM**  
(For Fabrication Only)



**CANTILEVER END JOINT DETAIL**  
\*\* Contractor may alternatively use standard aluminum drive-fit cap to close ends.

**SHOP CAMBER TABLE**

Unit Length (L)	Shop Camber at End
15'	1 1/2"
16'-17'	1 3/4"
18'-20'	2"
21'-22'	2 1/4"
23'-25'	2 1/2"
26'-27'	2 3/4"
28'-30'	3"
31'-32'	3 1/4"
33'-35'	3 1/2"
36'-37'	4"
38'-40'	4 1/2"

**TRUSS UNIT TABLE**

Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals	
					O.D.	Wall	O.D.	Wall
I-C-A	24"	54"	16"	36" min. to 48" max.	5"	5/16"	2 1/2"	5/16"
II-C-A	36"	66"	21"	42" min. to 54" max.	6 1/2"	5/16"	3 1/4"	5/16"
III-C-A (35' Max.)	36"	84"	21"	48" min. to 66" max.	7"	3/8"	3 1/2"	3/8"
III-C-A (>35' to 40')	36"	84"	21"	48" min. to 66" max.	8"	3/8"	3 1/2"	3/8"

\*P =  $\frac{L-s-3"}{\# \text{ Panels}}$

NUMBER	REVISION	DATE

**OSC-A-2** 1-7-05

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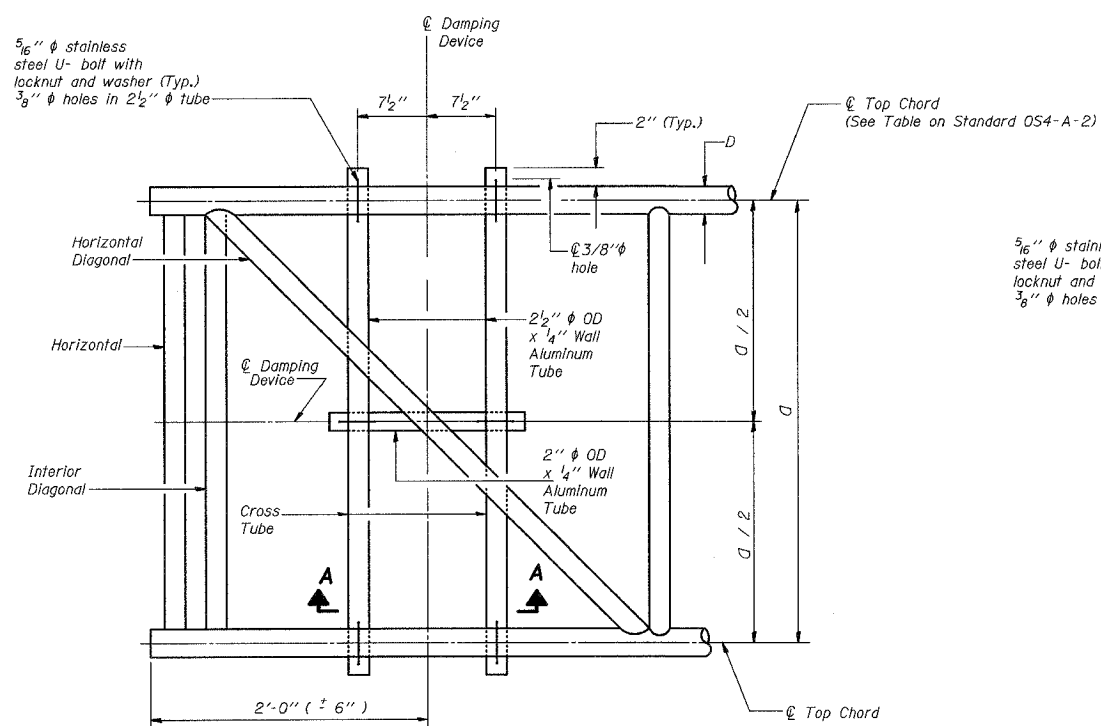
**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

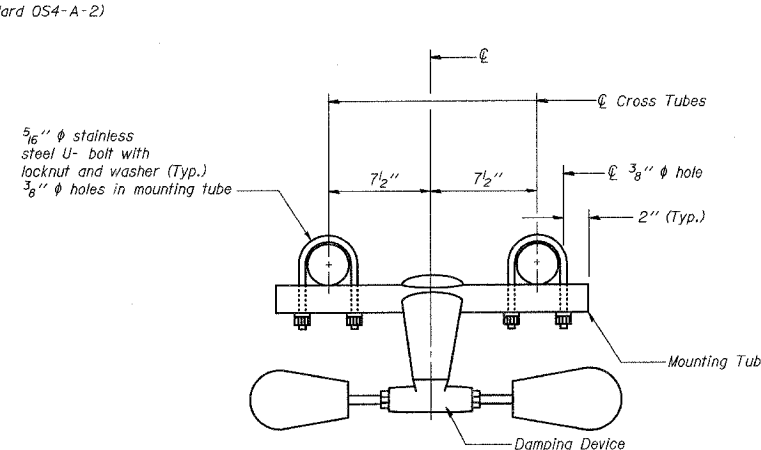
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
CANTILEVER SIGN STRUCTURES  
TRUSS DETAILS  
ALUMINUM TRUSS & STEEL POST

SCALE: DATE: 06-30-06  
DRAWN BY: LC, JS, TC  
CHECKED BY: SE

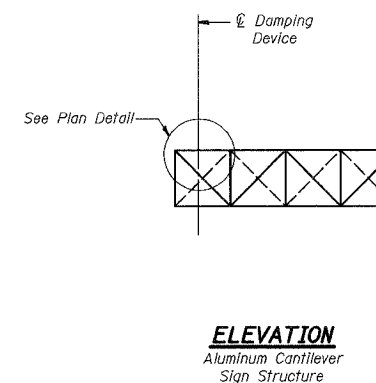
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	221
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		DETL-221 OF 505		
		CONTRACT NO. 60B86		



**PLAN DETAIL**



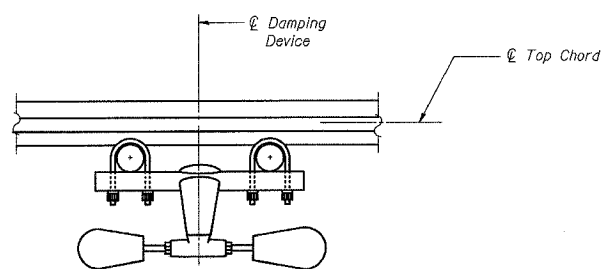
**TRUSS DAMPING DEVICE CONNECTION DETAIL**



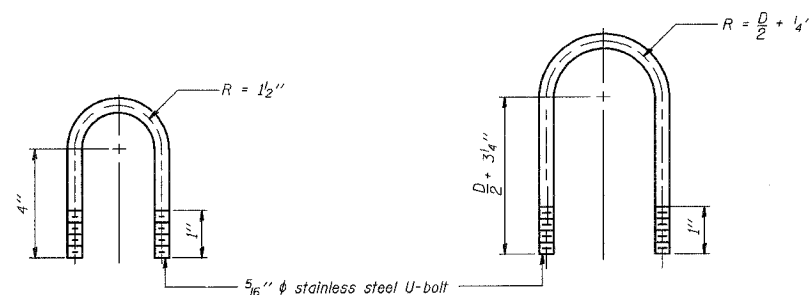
**ELEVATION**  
Aluminum Cantilever Sign Structure

**GENERAL NOTES**

- Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum)
- Materials: Aluminum tubes shall be ASTM B221 alloy 6061 Temper T6
- Fasteners: U-bolts shall be produced from ASTM A276 Type, 304, 304L, 316 or 316L, Condition A, cold finish, or an equivalent material acceptable to the Engineer. All nuts shall be stainless steel conforming to ASTM A194, Grade 8 (AISI 8 Type 304) or Grade 8F (AISI Type 303). The nuts shall be "locknuts" with nylon or steel inserts and semifinished hexagonal heads equivalent to the finished hex series of the American National Standards. All washers shall be stainless steel conforming to ASTM A240, Type 302 or 304.



**SECTION A-A**



**DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL**  
(Typical)

**TOP CHORD TO CROSS TUBE U-BOLT DETAIL**  
(Typical)

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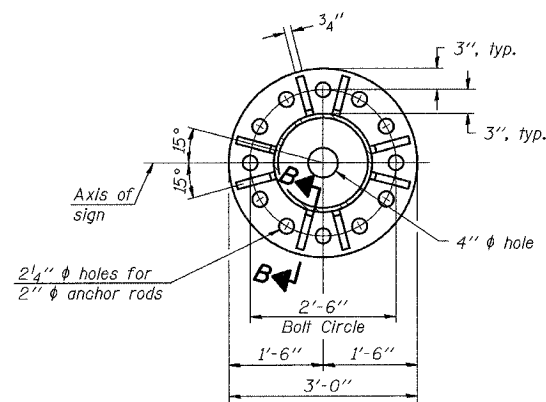
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
CANTILEVER SIGN STRUCTURES  
DAMPING DEVICE

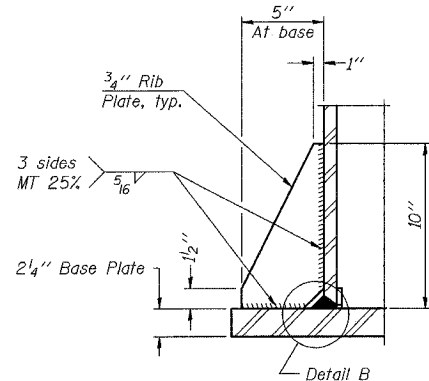
SCALE: 1" = 50'  
DATE: 06-30-06

DRAWN BY: LC, JS, TC  
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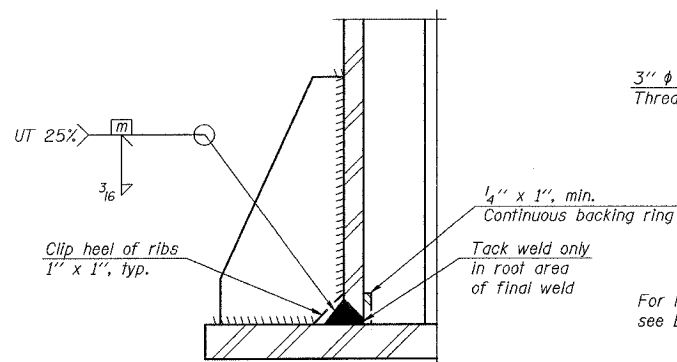




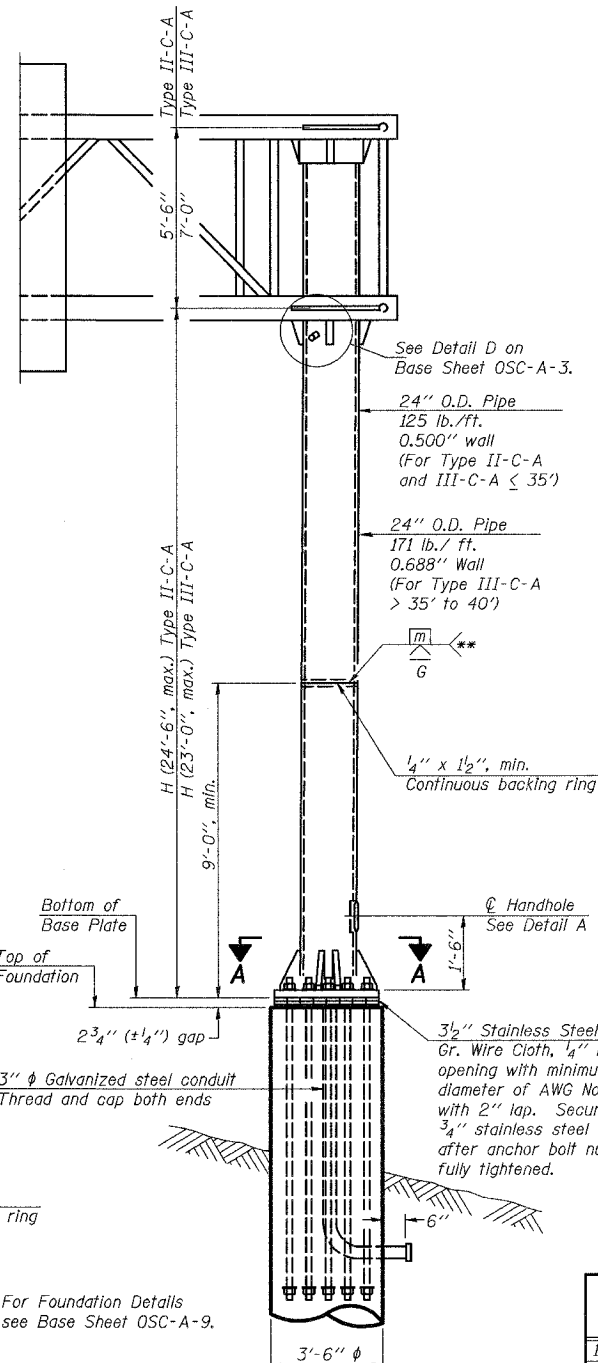
**SECTION A-A**



**SECTION B-B**

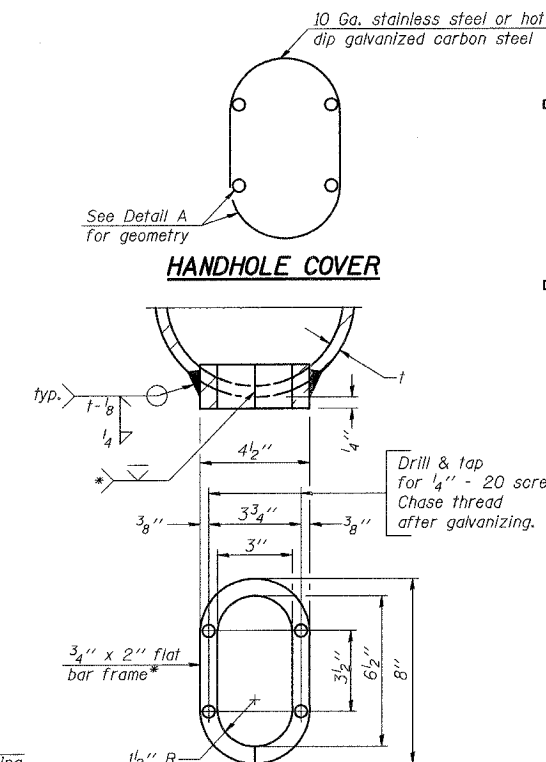


**DETAIL B**  
(Typical rib)



**FRONT ELEVATION**

NUMBER	REVISION	DATE

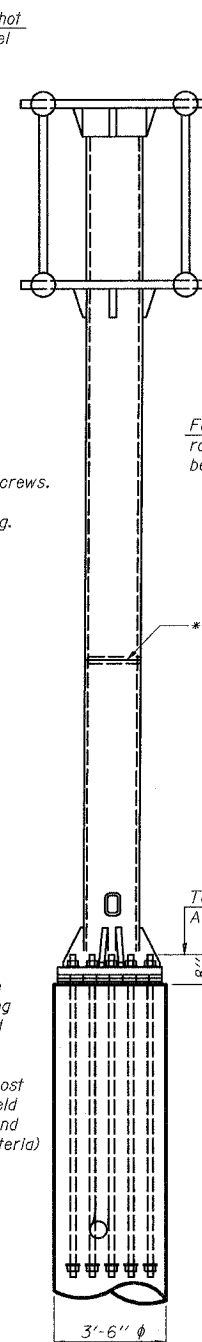


**DETAIL A**

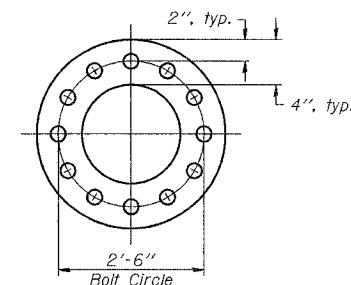
Provide 8" x 4 1/2" cover. Outside corners = 2 1/4" radius. Provide 4 - 5/16"  $\phi$  holes in cover for 1/4" - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

\* Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 min or less.

\*\* Butt welded joint in post is only allowed for post heights (H) over 20 ft. in length. If used, weld procedure must be preapproved by Engineer and joint shall receive 100% RT or UT (tension criteria) at Contractor's expense.

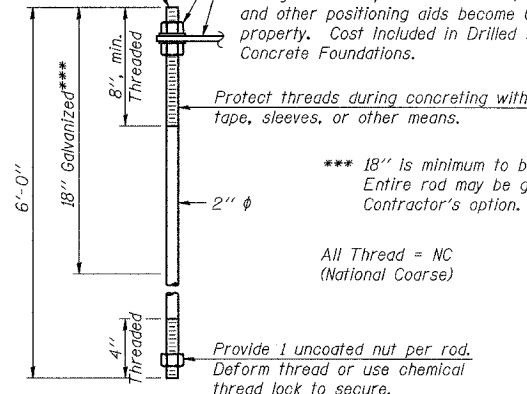


**SIDE ELEVATION**



**SUGGESTED POSITIONING PLATE**

Utilize positioning plate and temporary nuts with leveling nuts or other Engineer approved methods to maintain anchor bolts' alignment during concrete placement. Plate, extra nuts and other positioning aids become Contractor's property. Cost Included in Drilled Shaft Concrete Foundations.



**ANCHOR ROD DETAIL**

Anchor rods shall conform to AASHTO M314 Grade 55 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18" (minimum) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide an unfinished nut at bottom, a hexagon locknut and washer above base plate and a leveling nut and washer below base plate. Nuts shall each be tightened with 200 lb.-ft. minimum torque against base plate. Before or after threading, but before galvanizing, each anchor rod shall be ultrasonically tested (UT) by a Level II or III inspector, qualified in accord with ANSI guidelines, using a straight beam, 1/2"  $\phi$  3.5 mhz. transducer, to insure no rejectable flaws exist in the upper 18" (tension criteria). Cost of testing included in Drilled Shaft Concrete Foundations.

Structure Number	Station	H
IC0991055L258.0	615+00 SB	24'
IC0991055L258.1	622+09 SB	24'

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**PARSONS BRINCKERHOFF**

REVISIONS	
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**OSC-A-5** 1-7-05

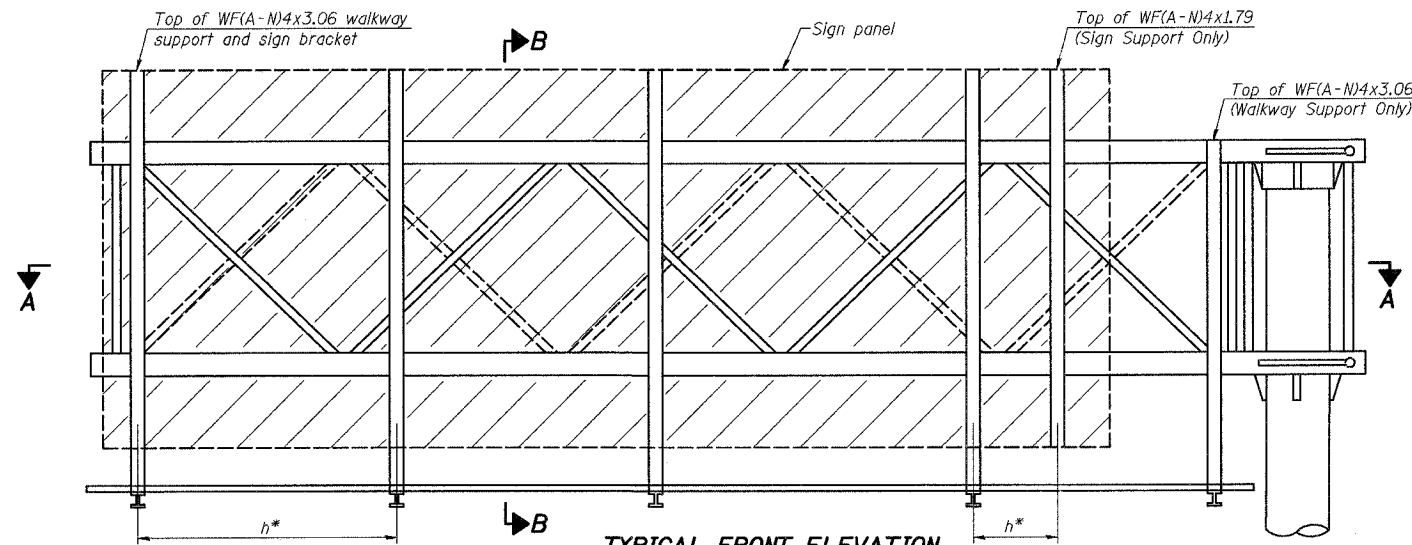
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

CANTILEVER SIGN STRUCTURES  
TYPE II-C-A & III-C-A TRUSS SUPPORT POST  
ALUMINUM TRUSS & STEEL POST

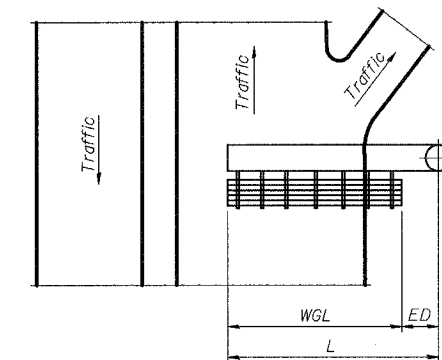
SCALE: DATE: 06-30-06

DRAWN BY: LC, JS, TC  
CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	224
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL-224 OF 505	
CONTRACT NO. 60886				

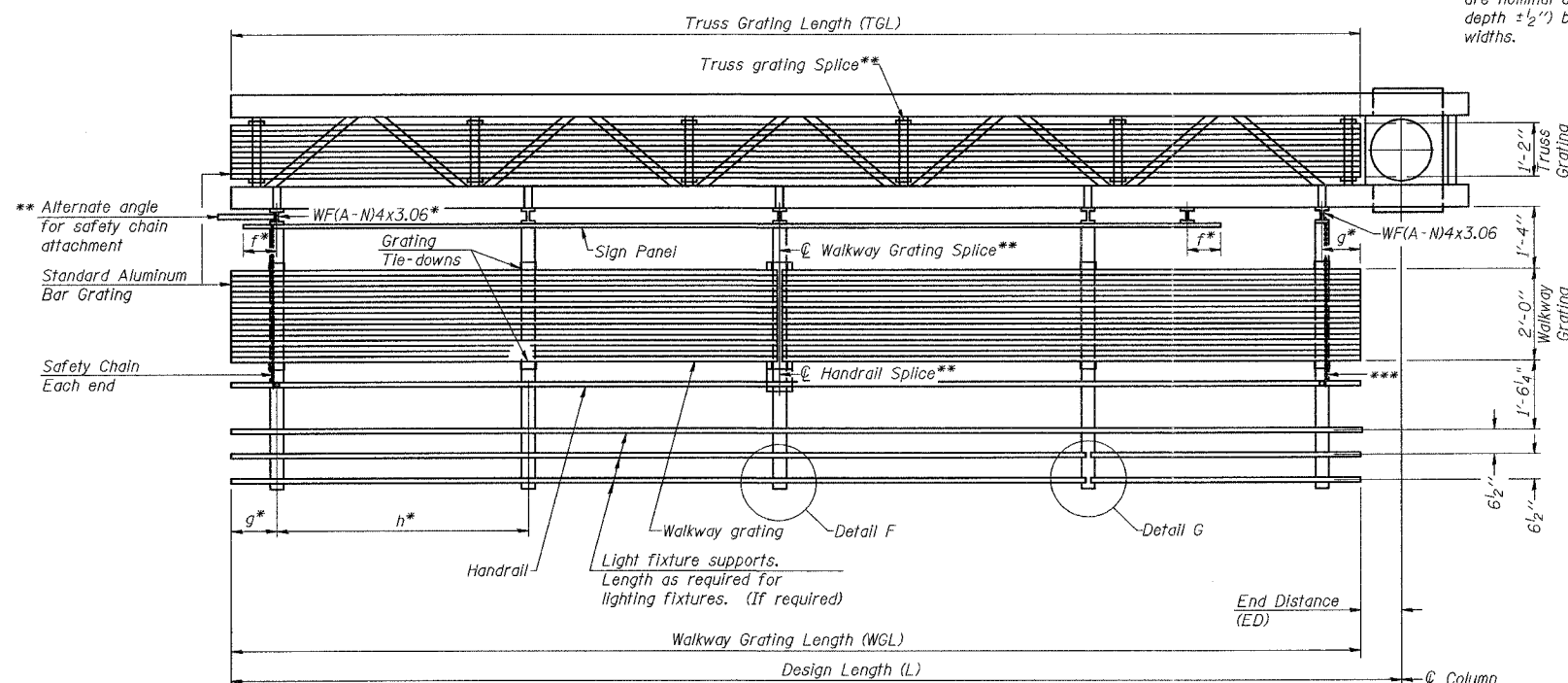


**TYPICAL FRONT ELEVATION**  
With lights and handrail omitted for clarity.



**PLAN WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath truss varies)

Walkway and truss grating dimensions are nominal and may vary (width ± 1/2", depth ± 1/2") based on available standard widths.



**SECTION A-A**

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices. \*\* Use and location of handrail or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left( \frac{\text{Post O.D.}}{2} + 6'' \right)$$

NUMBER	REVISION	DATE

Structure Number	Station	WGL	ED	TGL
IC0991055L258.0	615+00 SB	16'-6"	10'	25'
IC0991055L258.1	622+09 SB	16'-6"	10'	25'

- Notes:
- \* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
    - f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
    - g = 12" maximum, 4" minimum (End of walkway to center of nearest bracket)
    - h = 6'-0" maximum (center to center sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
  - \*\*\* If walkway bracket at safety chain location is behind sign, add angle to bracket.
- For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.  
For details of handrail, handrail splice, safety chain and Details F and G, see Base Sheet OSC-A-8.

**BRACKET TABLE**

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
8'-0"	14'-0"	2
14'-0"	20'-0"	3
20'-0"	26'-0"	4
26'-0"	32'-0"	5
		6

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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

**OSC-A-6** 1-7-05

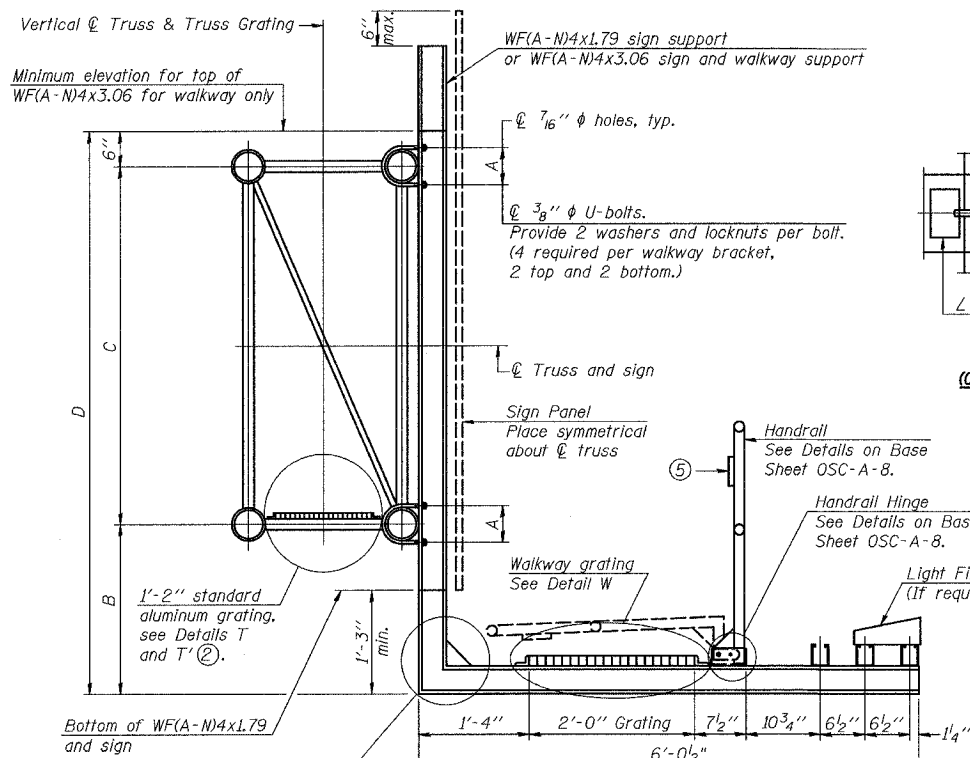
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

CANTILEVER SIGN STRUCTURES  
ALUMINUM WALKWAY DETAILS  
ALUMINUM TRUSS & STEEL POST

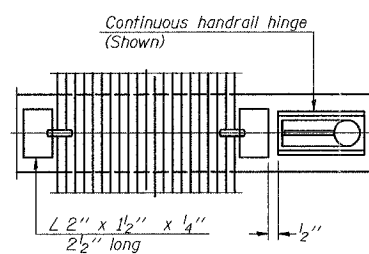
SCALE: DRAWN BY: LC, JS, TC  
DATE: 06-30-06 CHECKED BY: SE



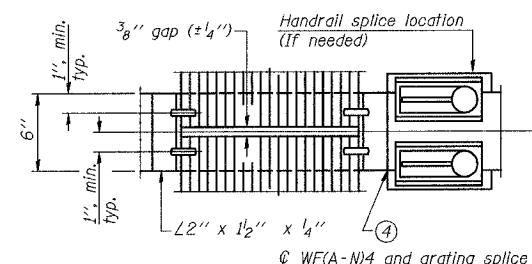
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	225
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL-225 OF 505	
CONTRACT NO. 60866				



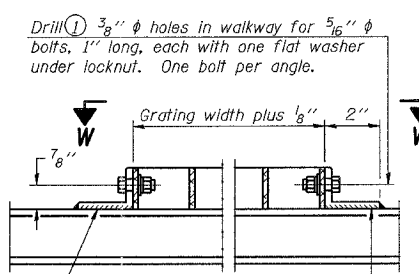
**SECTION B-B**



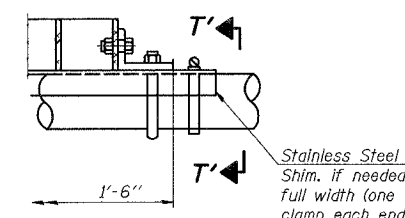
**(CONTINUOUS WALKWAY GRATING)**



**(AT WALKWAY GRATING SPLICE)**

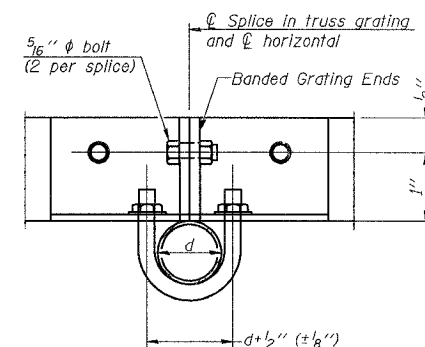


**DETAIL W**  
(Walkway grating)

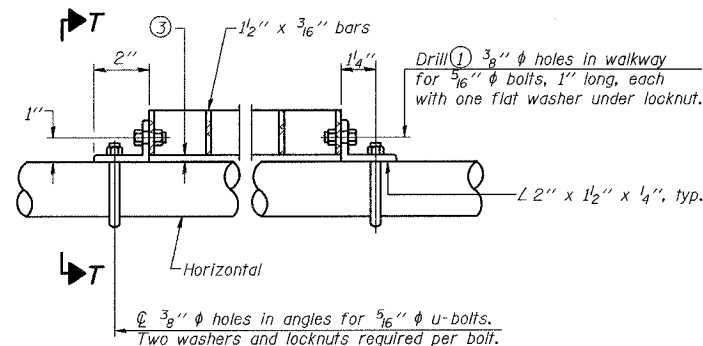


**DETAIL T'**

(Truss grating splice)  
Details not shown same as Detail T.  
Alternate materials may be used subject to the Engineer's review and approval.

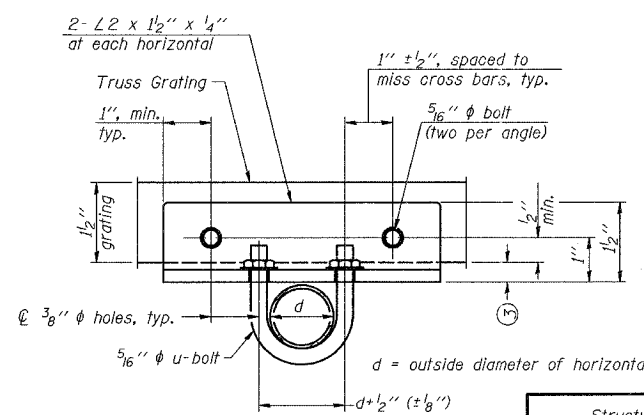


**SECTION T'-T'**

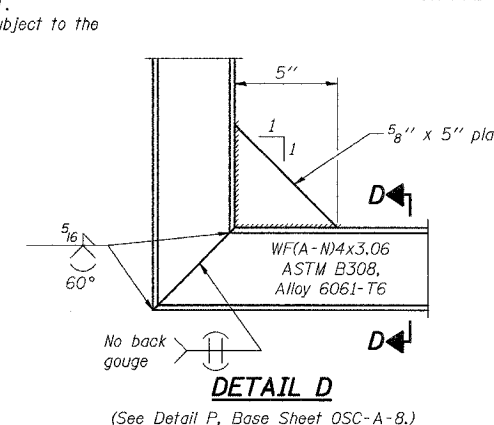


**DETAIL T**

(Truss grating at horizontal)

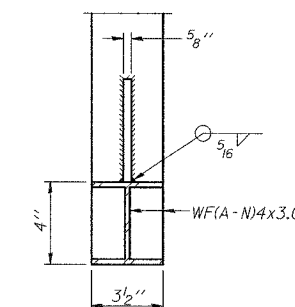


**SECTION T-T**



**DETAIL D**

(See Detail P, Base Sheet OSC-A-8.)



**SECTION D-D**

NUMBER	REVISION	DATE

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- When truss grating must be spliced, use suggested detail or other methods subject to the Engineer's review and approval. Locate splice to avoid interference between cross bars and bolt locations.
- Tube to grating gap may vary from 0 to 1/2", max. to align walkway, allow for camber, etc.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OSC-A-8)
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

Structure Number	Station	A	B	C	D
IC0991055L258.0	615+00 SB	7'8"	6'-6"	5'-6"	12'-6"
IC0991055L258.1	622+09 SB	7'8"	6'-6"	5'-6"	12'-6"

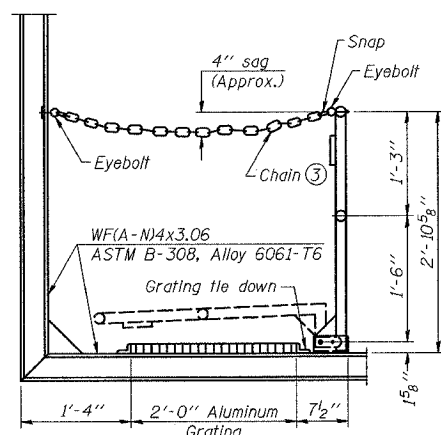
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Structural Engineering  
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446 E. Illinois, Suite 640  
Chicago, IL 60611  
(312) 942-9690

**PB PARSONS BRINCKERHOFF**

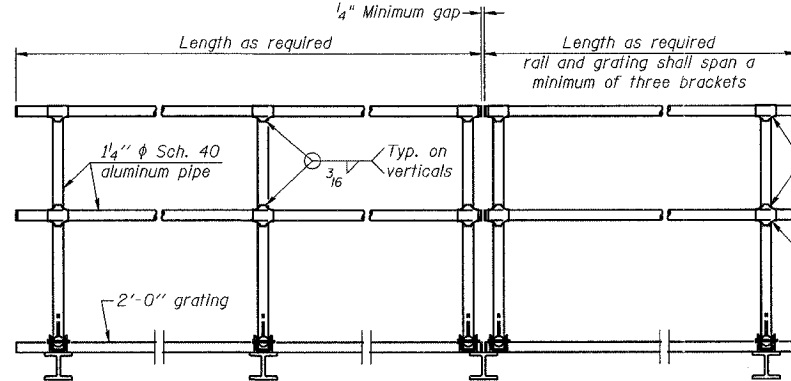
REVISIONS	
NAME	DATE

**OSC-A-7** 1-7-05  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
CANTILEVER SIGN STRUCTURES  
WALKWAY DETAILS  
ALUMINUM TRUSS & STEEL POST  
SCALE: DRAWN BY: LC, JS, TC  
DATE: 06-30-06 CHECKED BY: SE

FINAL



**SIDE ELEVATION**  
(Showing Safety Chain W/O Sign)



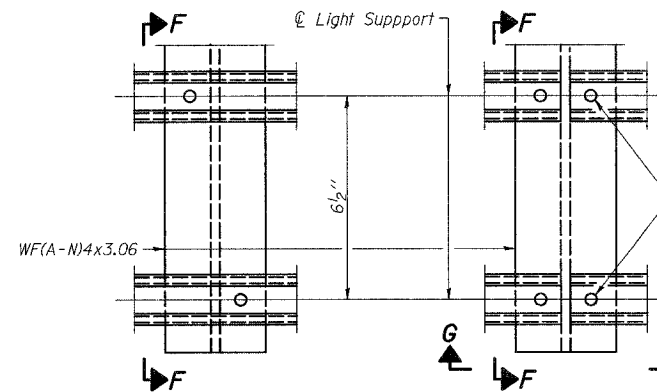
**FRONT ELEVATION**

**HANDRAIL DETAILS**

Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.

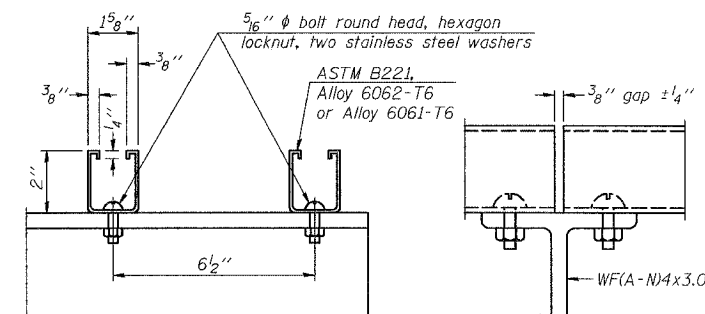
① Install standard force-fit end caps or weld 1/8\"/>

② Horizontal handrail member shall be continuous thru fitting. Provide 7/16\"/>



**DETAIL F**

**DETAIL G**

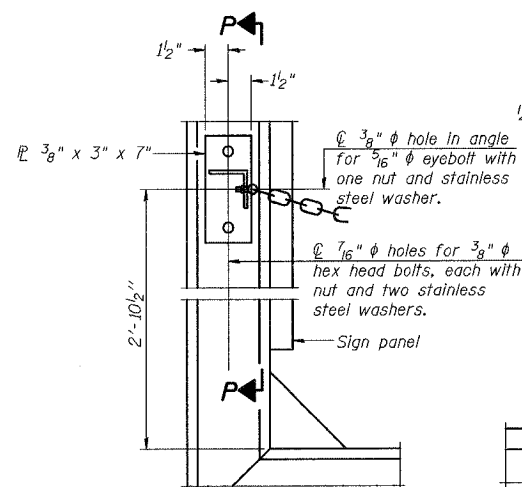


**SECTION F-F**

**SECTION G-G**

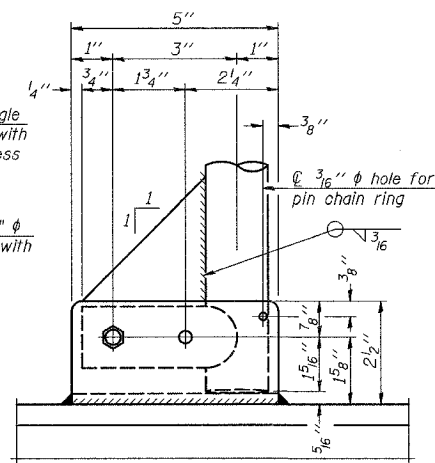
**LIGHTING FIXTURE MOUNTS (IF REQUIRED)**

⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

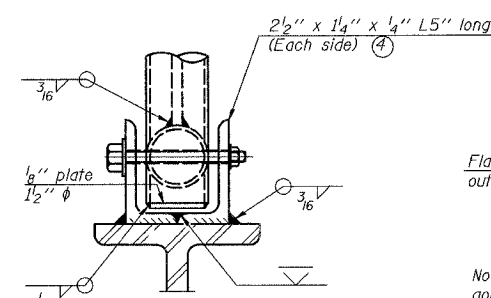


**ALTERNATE SAFETY CHAIN ATTACHMENT**  
(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

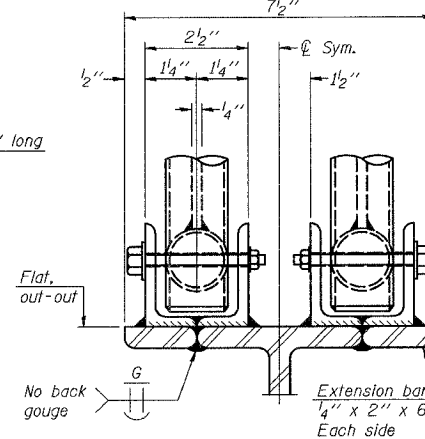


**SIDE ELEVATION**



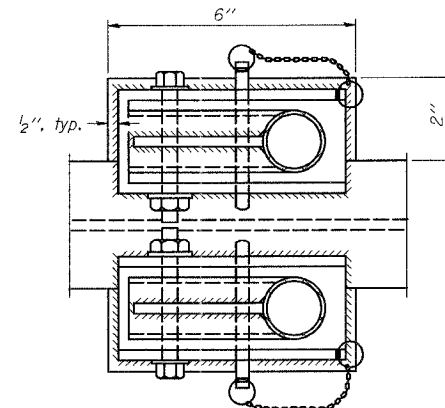
**FRONT ELEVATION**

Details not shown same as "ELEVATION" at right.



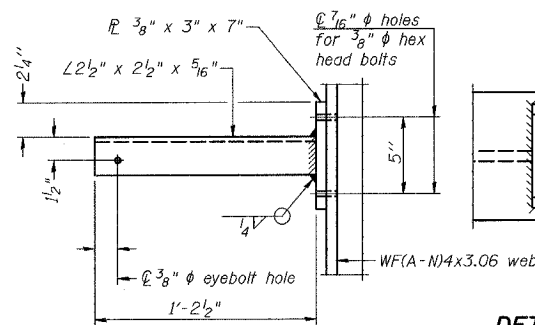
**ELEVATION AT HANDRAIL JOINT**

Details not shown same as "FRONT ELEVATION"

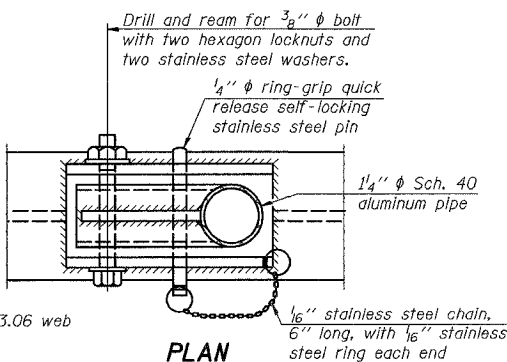


**PLAN AT HANDRAIL JOINT**

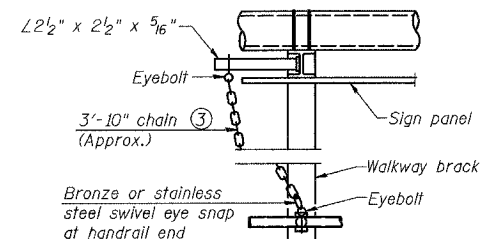
Details not shown same as "PLAN"



**SECTION P-P**



**PLAN**  
**DETAIL E HANDRAIL HINGE**



**SAFETY CHAIN**

One required for each end of each walkway.

**ALTERNATE SAFETY CHAIN ATTACHMENT**

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

③ 3/16\"/>

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

NUMBER	REVISION	DATE

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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

**OSC-A-8** 1-7-05

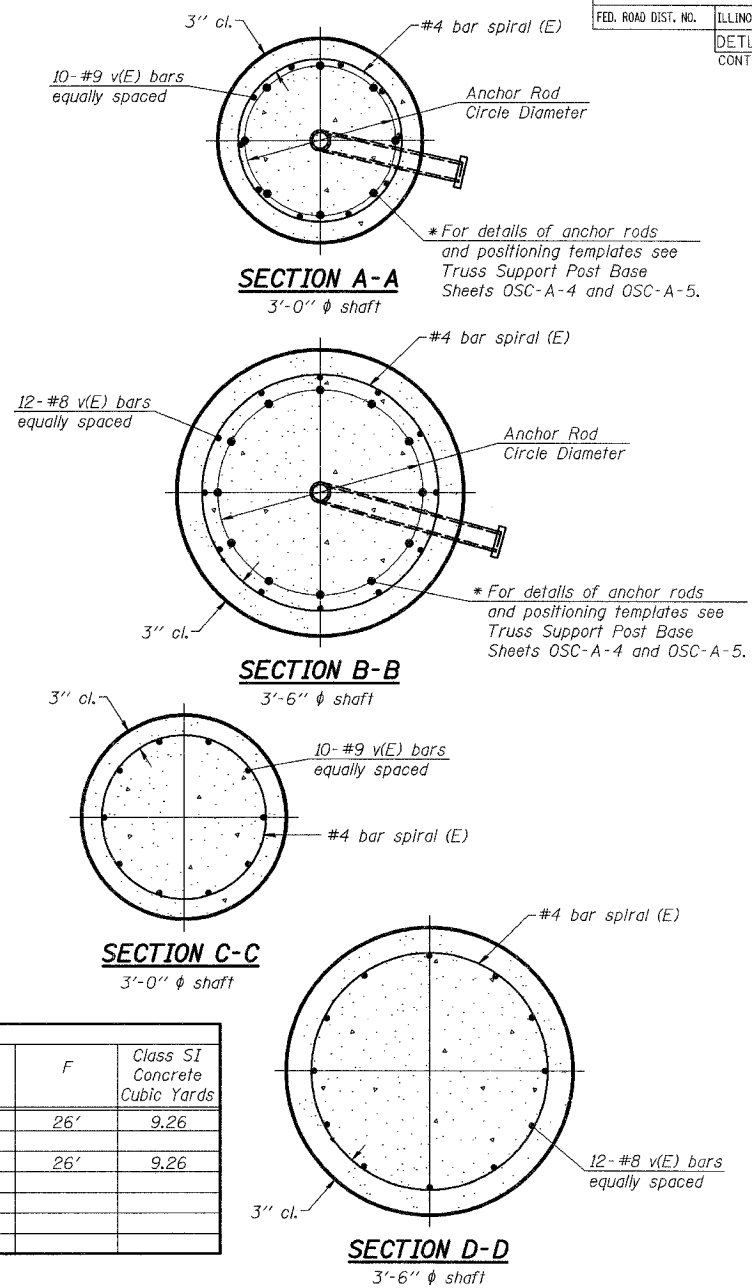
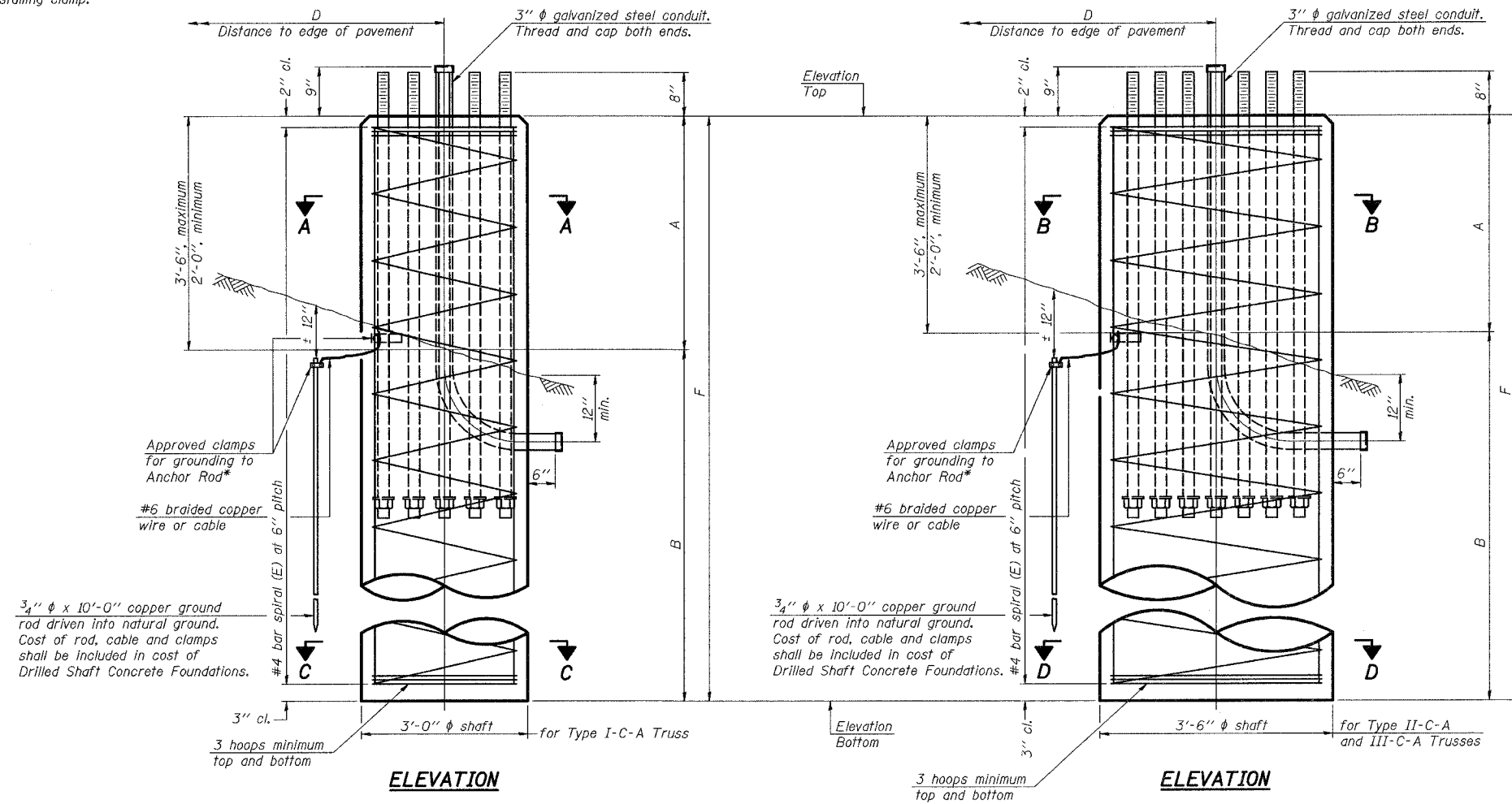
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

CANTILEVER SIGN STRUCTURES  
HANDRAIL DETAILS  
ALUMINUM TRUSS & STEEL POST

SCALE: DRAWN BY: LC, JS, TC  
DATE: 06-30-06 CHECKED BY: SE

**FINAL**

\* Grind anchor rod to bright finish at ground clamp location before installing clamp.



**NOTES:**  
 The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength ( $Q_u$ ) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.  
 If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.  
 No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.  
 Concrete shall be placed monolithically, without construction joints.  
 Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.  
 A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	$Q_u$	A	B	F	Class SI Concrete Cubic Yards
IC0991055L258.0	615+00 SB	II-C-A	3.5	631.20	605.20	$\geq 1.25$ TSF	3'-6"	22.5	26'	9.26
IC0991055L258.1	622+09 SB	II-C-A	3.5	618.22	592.22	$\geq 1.25$ TSF	3'-6"	22.5	26'	9.26

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (in)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

NUMBER	REVISION	DATE

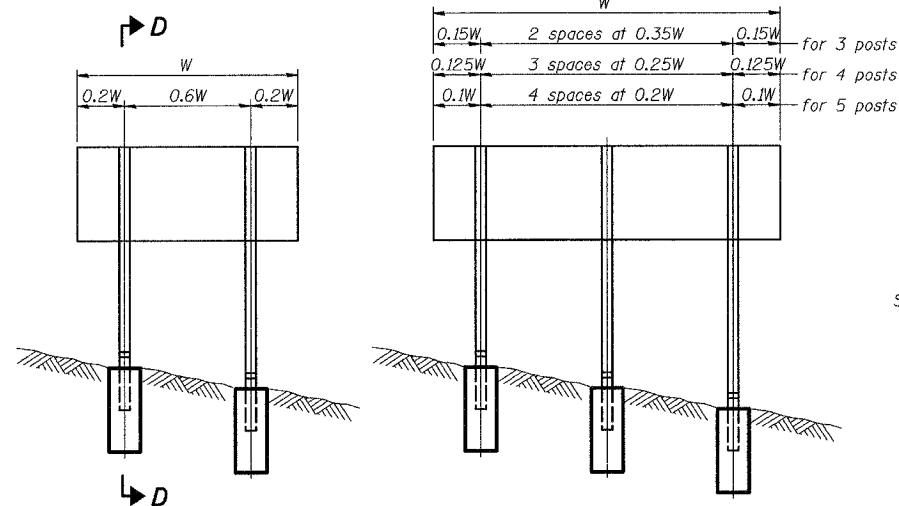
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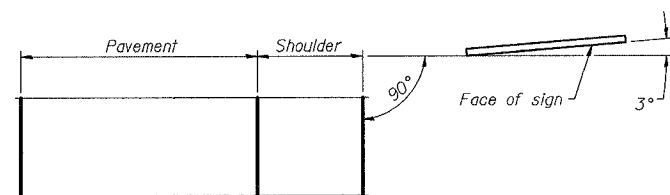
NAME	DATE

**OSC-A-9** 1-7-05  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 CANTILEVER SIGN STRUCTURES  
 DRILLED SHAFT  
 ALUMINUM TRUSS & STEEL POST  
 SCALE: DRAWN BY: LC, JS, TC  
 DATE: 06-30-06 CHECKED BY: SE

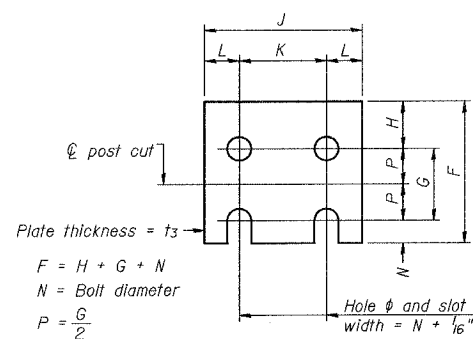
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	228
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL-228 OF 505	
CONTRACT NO. 60866				



**ELEVATION**



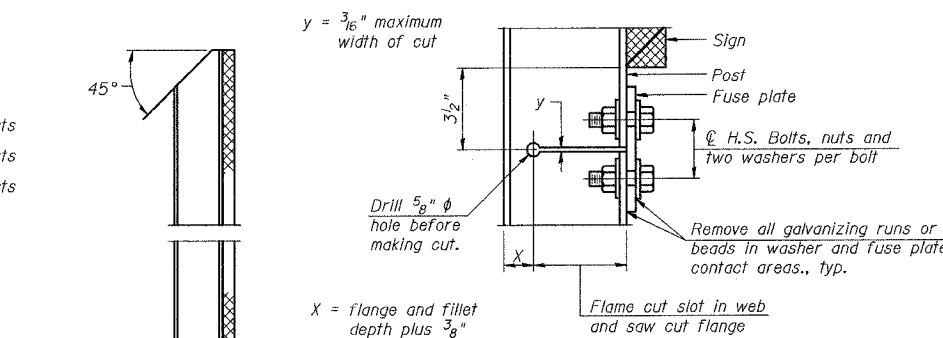
**LOCATION SKETCH**



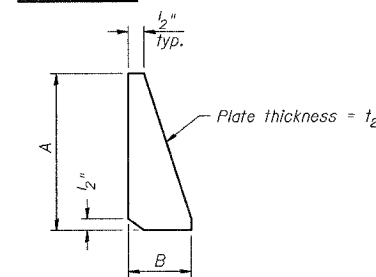
**FUSE PLATE DETAIL**  
(Install with notches down.)

FUSE PLATE DATA		
N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"

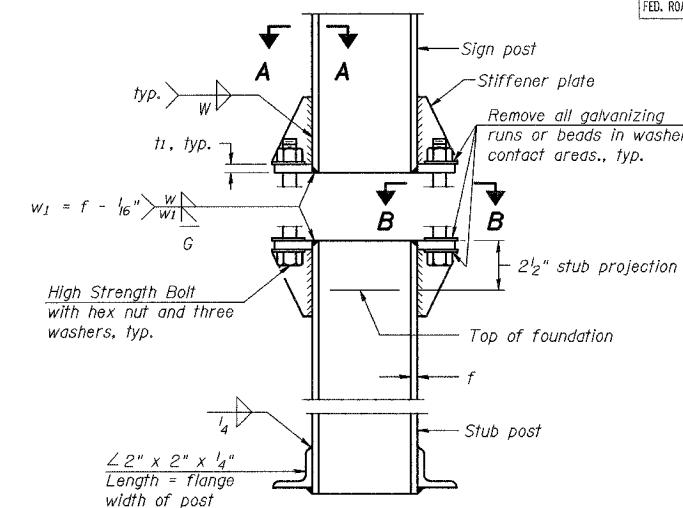
$F = H + G + N$   
 $N = \text{Bolt diameter}$   
 $P = \frac{G}{2}$



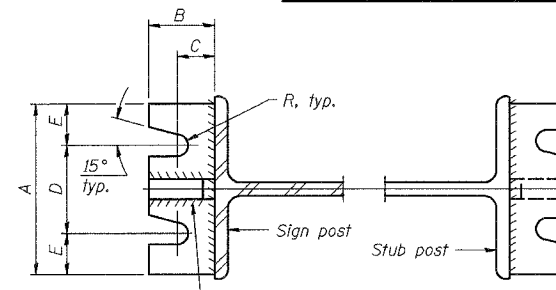
**DETAIL H**



**STIFFENER PLATE DETAIL**  
(See table for dimensions.)

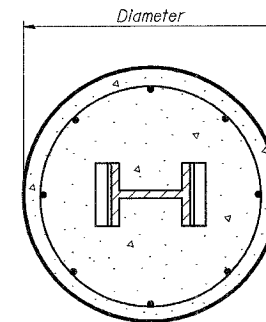


**ELEVATION SIGN POST & STUB POST**

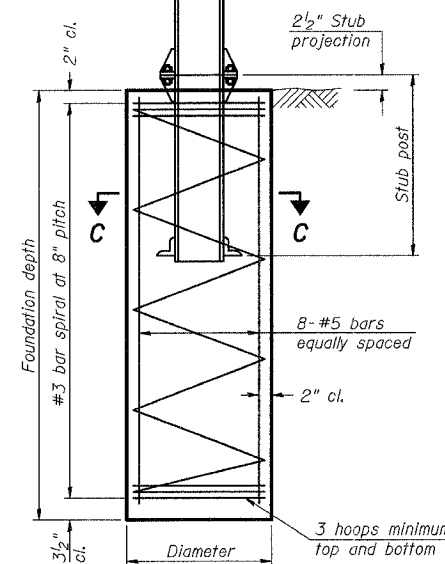


**SECTION A-A**

**SECTION B-B**



**SECTION C-C**



**SECTION D-D**

**GENERAL NOTES**

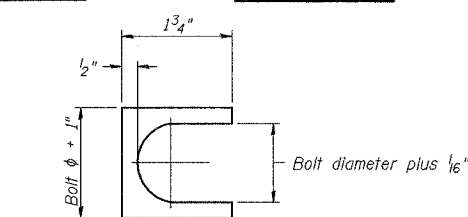
Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

DESIGN STRESSES:  
 Structural steel - 20,000 p.s.i.  
 Reinforcing steel - 20,000 p.s.i.  
 Concrete - 1,400 p.s.i.  
 Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6", min. of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.



**SHIM DETAIL**

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

NUMBER	REVISION	DATE

**BAW-A-1** 1-7-05 (Sheet 1 of 2)

Civil Engineering  
 Structural Engineering  
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 Chicago, IL 60611  
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REVISIONS	
NAME	DATE

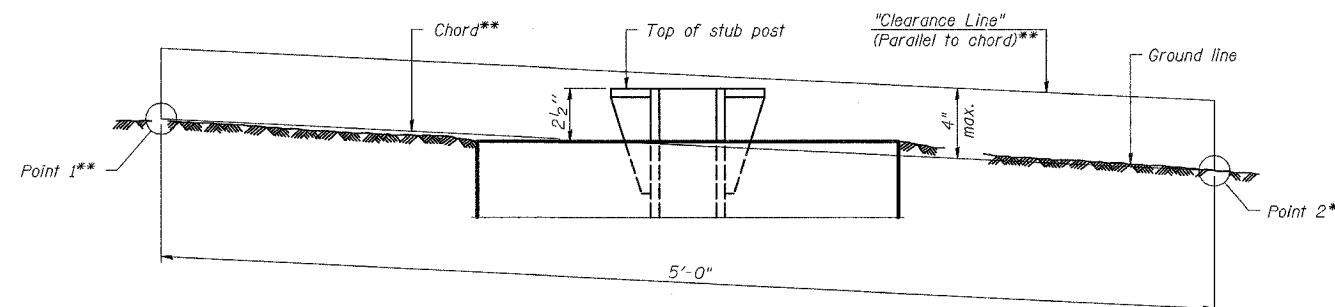
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 BREAK-AWAY WIDE FLANGE  
 STEEL SIGN POST DETAILS  
 SCALE: DATE: 06-30-06  
 DRAWN BY: LC, JS, TC  
 CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	229
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DETL-229 OF 505		
		CONTRACT NO. 60886		

POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA								FUSE PLATE DATA						
	Foundation		Reinforcement				Stub Post Length	Bolt Size	A	B	C	D	E	t <sub>1</sub>	t <sub>2</sub>	R	W	J	K	L	t <sub>3</sub>	
	Diameter	Minimum Depth	Concrete (1) cu. yds.	Vertical Bars Length	Bar Spirals Diameter	Bar Spirals Length																lbs. (2)
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-3"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1 1/2"	1/4"	4"	2 1/4"	7/8"	1/4"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	5/8" x 3/4"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1 1/2"	1/4"	6"	3 1/2"	1 1/4"	3/8"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8 1/2"	79'-0"	78	2'-6"	3/4" x 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	1 1/2"	5/16"	5 1/4"	2 3/4"	1 1/4"	3/8"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2 1/2"	105'-0"	92	3'-0"	3/4" x 3/4"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	1 1/2"	5/16"	5 3/4"	2 3/4"	1 1/2"	1/2"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2 1/2"	112'-0"	98	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	5/32"	3/8"	5 3/4"	2 3/4"	1 1/2"	5/8"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2 1/2"	119'-0"	107	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	5/32"	3/8"	6 1/2"	3 1/2"	1 1/2"	5/8"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8 1/2"	145'-0"	113	3'-0"	7/8" x 4"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	5/32"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8 1/2"	153'-0"	122	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	11/32"	3/8"	6 3/4"	3 1/2"	1 5/8"	1/2"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8 1/2"	162'-0"	130	3'-6"	1" x 4 1/2"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	11/32"	3/8"	7"	3 1/2"	1 3/4"	1/2"

\*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE												
	Sign Depth												
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
W6x9	1/2" x 1 1/2"	1/2" x 1 1/2"	1/2" x 1 1/2"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"	5/8" x 1 3/4"
W6x15	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W8x18	1/2" x 1 3/4"	1/2" x 1 3/4"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W10x22	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W10x26	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W12x26	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W14x30	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W14x38	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"
W16x45	1/2" x 2"	1/2" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"	5/8" x 2"



**ELEVATION**  
**GROUND LINE & STUB POST**

\*\* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

- ① Quantity includes all concrete necessary for one foundation.
- ② Includes reinforcement bars and spiral hooping for one foundation.

NUMBER	REVISION	DATE

**DAVID MASON & ASSOCIATES**  
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Structural Engineering  
Surveying  
416 E. Illinois, Suite 610  
Chicago, IL 60611  
(312) 942-5800

**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

**BAW-A-2** 1-7-05 (Sheet 2 of 2)

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

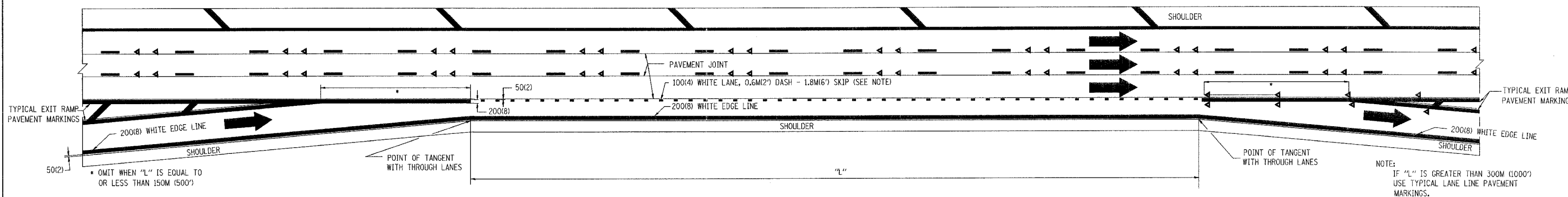
BREAK-AWAY WIDE FLANGE  
STEEL SIGN POST TABLES

SCALE: DRAWN BY: LC, JS, TC  
DATE: 06-30-06 CHECKED BY: SE

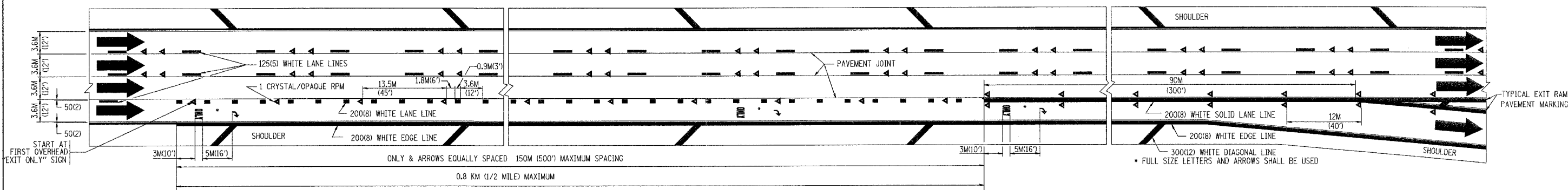
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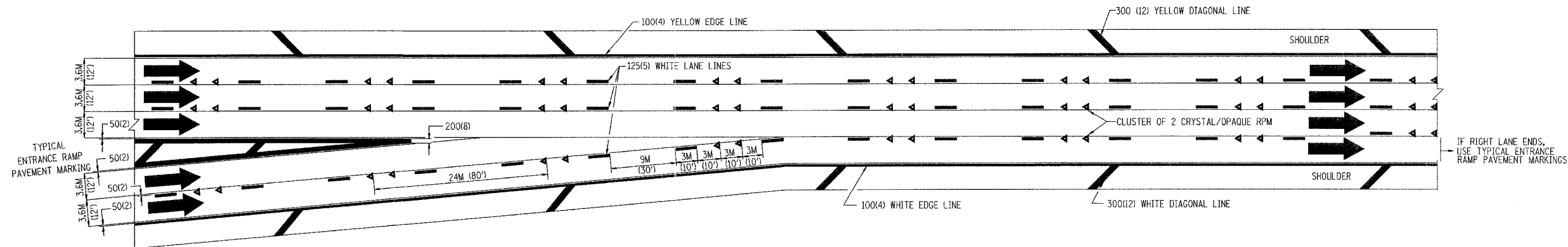
CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
			505
			231
STA.		TO STA.	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



**TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS**



**TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS**



**TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS**

PLOT DATE = 01/20/06  
 FILE NAME = K:\asphalt\pl12.dgn  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = jaygo

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**MULTI-LANE FREEWAY  
 PAVEMENT MARKING  
 DETAILS**  
 SCALE: NONE  
 DATE: 3/1/2006  
 DRAWN BY C.A.D.D.  
 CHECKED BY  
 TC12 SHEET 2 OF 2  
 REVISION DATE: 02/28/06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	232
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL-232 OF 505	
CONTRACT NO. 60886				

SIGN REMOVAL SCHEDULE											
SIGN DESIGNATION	STATION	REMOVE SIGN PANEL		REMOVE SIGN PANEL TYPE (EACH)	REMOVE SIGN PANEL TYPE ASSEMBLY (EACH)	REMOVE GROUND MOUNTED SIGN SUPPORT (EACH)	REMOVE CONCRETE FOUNDATION		REMOVE OVERHEAD SIGN STRUCTURE		
		SIZE (IN X IN)	AREA (SQ FT)				GROUND MOUNT (EACH)	OVER HEAD (EACH)	SPAN (EACH)	CANTILEVER (EACH)	BRIDGE MOUNTED (EACH)
D10-3	616+28 NB	12 X 48	4.00	1	A						
D10-3	616+34 SB	12 X 48	4.00	1	A						
GUIDE SIGN	619+60 SB	48 X 30	10.00	2	B						
M1-1	621+60 NB	48 X 48	16.00	2	B						
M3-1	621+60 NB	30 X 15	3.13	1							
NO PARKING	623+82 SB	18 X 24	3.00	1	A						
R2-4a	773+65 SB	48 X 96	32.00	3		1	1				
TOTAL											
REMOVE SIGN PANEL ASSEMBLY TYPE A					3						
REMOVE SIGN PANEL ASSEMBLY TYPE B					2						
REMOVE SIGN PANEL TYPE 3			32.00								
REMOVE GROUND MOUNTED SIGN SUPPORT						1					
REMOVE CONCRETE FOUNDATION - GROUND MOUNT							1				

NOTE:  
ALL SIGN PANELS SHALL HAVE  
WHITE LEGEND, GREEN REFLECTORIZED  
BACKGROUND UNLESS NOTED

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**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

SIGN PANEL DETAILS

SCALE: DATE: 06-30-06

DRAWN BY: LC, JS, TC  
CHECKED BY: SE



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	233
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	DETL- 233 OF 505	
CONTRACT NO. 60B86				

GROUND MOUNTED SIGN PANEL LAYOUT														
SIGN DESIGNAION	STATION	SIGN PANEL			MILE POST MARKER ASSEMBLY (EACH)	SIGN PANEL TYPE (EACH)	SIGN SUPPORT - BREAKAWAY					POST TYPE	WEIGHT (LBS)	CONC. FDN (CU. FT)
		W (ln)	H (ln)	AREA (sq. ft)			P1 (ft)	P2 (ft)	CLEAR HEIGHT P1	CLEAR HEIGHT P2	TOTAL (ft)			
D10-3	616+28 NB	12	48	4.00	1		16.51		10.50		16.51	TELESCOPING STEEL		0.7
D10-3	616+34 SB	12	48	4.00	1		13.79		7.80		13.79	TELESCOPING STEEL		0.7
GUIDE SIGN	619+60 SB	114	54	42.75		3	15.77		9.00		15.77	W6 X 9	141.93	0.7
M1-1	621+60 NB	48	48	16.00		2	13.04		5.50		13.04	WOOD		0.7
M3-1	621+60 NB	30	15	3.13		1								
NO PARKING	623+82 SB	48	60	20.00		2	12.32		8.30		12.32	WOOD		0.7
R2-4a	773+65 SB	48	96	32.00		3	18.92		8.67		18.92	W6 X 9	170.28	0.7
TOTAL														
MILE POST MARKER ASSEMBLY					2									
SIGN PANEL TYPE 1				3.13										
SIGN PANEL TYPE 2				36.00										
SIGN PANEL TYPE 3				74.75										
STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY												312.21		
TELESCOPING STEEL SIGN SUPPORT													30.30	
WOOD SIGN SUPPORT													25.36	
CONCRETE FOUNDATIONS													4.20	

NOTE:  
ALL SIGN PANELS SHALL HAVE  
WHITE LEGEND, GREEN REFLECTORIZED  
BACKGROUND UNLESS NOTED

**DAVID MASON & ASSOCIATES**  
Civil Engineering  
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445 E. Illinois, Suite 640  
Chicago, IL 60611  
(312) 842-8600

**PARSONS BRINCKERHOFF**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

SIGN PANEL DETAILS

SCALE:  
DATE: 06-30-06

DRAWN BY: LC, JS, TC  
CHECKED BY: SE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	234
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
BORING-01 OF 01				

### BORING ST-2

BLOOM CONSULTANTS, LLC		BORING LOG		CHICAGO, ILLINOIS				
JOB NO: BM3-1148		CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION		BORING NO: ST-2				
PROJECT: I-55 Improvements - U.S. Route 30 to Weber Road - Will County, IL		STATION: 615+00		SURF ELEV: 629.2				
LOCATION: Cantilevered Sign Structure at Sta 615+00 - Southbound		OFFSET: 56' Lt		BORING RIG & METHOD: CME-75 w/Hollow Stem Augers				
DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	WATER CONTENT %	STRAIN %	WATER CONTENT %
	0.0-1.0	627.8	8" Bituminous Concrete 10" Sand A-1-a		Auger 5			2
	1.0-2.5		FILL: Br Clay A-6; trace Organic matter noted @ 3.5 - 4.5'	13	4-4 (3.5)			13
	3.5-5.0	623.7		16	2-4	2.6	15	25
	6.0-7.5	621.2	FILL: Br Clay Loam A-6	16	5-4-6	1.8	15	13
10	8.5-10.0			18	2-5-7	1.7	15	16
	11.0-12.5			16	2-6-9	2.9	15	16
	13.5-15.0		FILL: Br Clay A-6	18	4-6-9	2.8	15	18
	16.0-17.5			18	4-6-9	4.2	15	16
20	18.5-20.0			16	4-7-10	2.9	15	18
	23.5-25.0	605.8	Hard to Very Stiff Gr Clay A-6  Design Bottom Level of Drilled Pier = Elev. 600.9619	14	7-8-10	(4.0)		22
30	28.5-30.0			18	6-8-12	3.9	15	18
	33.5-35.0	595.9		18	1-3-7	1.3	15	20
	36.0-37.5	591.7	Stiff Gr Clay A-6  Boring terminated at 37.5'	18	4-7-7	1.6	15	18
REMARKS		Automatic Hammer Used.		()		Denotes Calibrated Penetrometer Estimate		
WATER	Dry FT. ELEV.	DURING DRILLING	CORE SIZE	IN. DATE:	Mar 22, 06			
WATER	FT. ELEV.	AT COMPLETION	CASING LENGTH	FT. DRILLER:	Badala			
WATER	Dry FT. ELEV.	AFTER 1/4 HRS.	CASING DIAMETER	IN. INSPECTOR:	Allemana			

### BORING ST-3

BLOOM CONSULTANTS, LLC		BORING LOG		CHICAGO, ILLINOIS				
JOB NO: BM3-1148		CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION		BORING NO: ST-3				
PROJECT: I-55 Improvements - U.S. Route 30 to Weber Road - Will County, IL		STATION: 622+10		SURF ELEV: 617.2				
LOCATION: Cantilevered Sign Structure at Sta 622+09 - Southbound		OFFSET: 56' Lt		BORING RIG & METHOD: CME-75 w/Hollow Stem Augers				
DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	WATER CONTENT %	STRAIN %	WATER CONTENT %
	0.0-1.0	615.9	7" Bituminous Concrete 9" Sand A-1-a		Auger 4			6
	1.0-2.5			14	5-7			13
	3.5-5.0			14	3-6-8	1.9	15	14
	6.0-7.5		FILL: Br Clay Loam A-6	16	6-8-11	3.1	15	14
10	8.5-10.0	606.7		16	5-10-11	3.5	15	18
	11.0-12.5	604.2	FILL: Br & Gr Clay A-7-6	18	6-8-11	4.5	15	24
	13.5-15.0		FILL: Br Clay A-6	8	4-6-8	(4.6)		17
	16.0-17.5			14	3-6-9	3.4	15	18
20	18.5-20.0		Very Stiff Br Clay A-6	16	4-7-10	3.0	15	19
	23.5-25.0	593.8	Medium Dense Gr Silt A-4  Design Bottom Level of Drilled Pier = Elev. 590.030	18	8-11-12			18
	28.5-30.0	589.9		18	3-4-6			21
	33.5-35.0	583.8	Medium Dense Gr Sandy Loam A-2-4  - Cobbles noted at 33'	18	10-37			5
		582.2	Dense Gr Sand A-1-a  Boring terminated at 35'	18				
REMARKS		Automatic Hammer Used.		()		Denotes Calibrated Penetrometer Estimate		
WATER	29 FT. ELEV.	588.2	DURING DRILLING	CORE SIZE	IN. DATE:	Mar 22, 06		
WATER	FT. ELEV.	AT COMPLETION	CASING LENGTH	FT. DRILLER:	Badala			
WATER	Caved@24FT. ELEV.	593.2	AFTER 1/4 HRS.	CASING DIAMETER	IN. INSPECTOR:	Allemana		

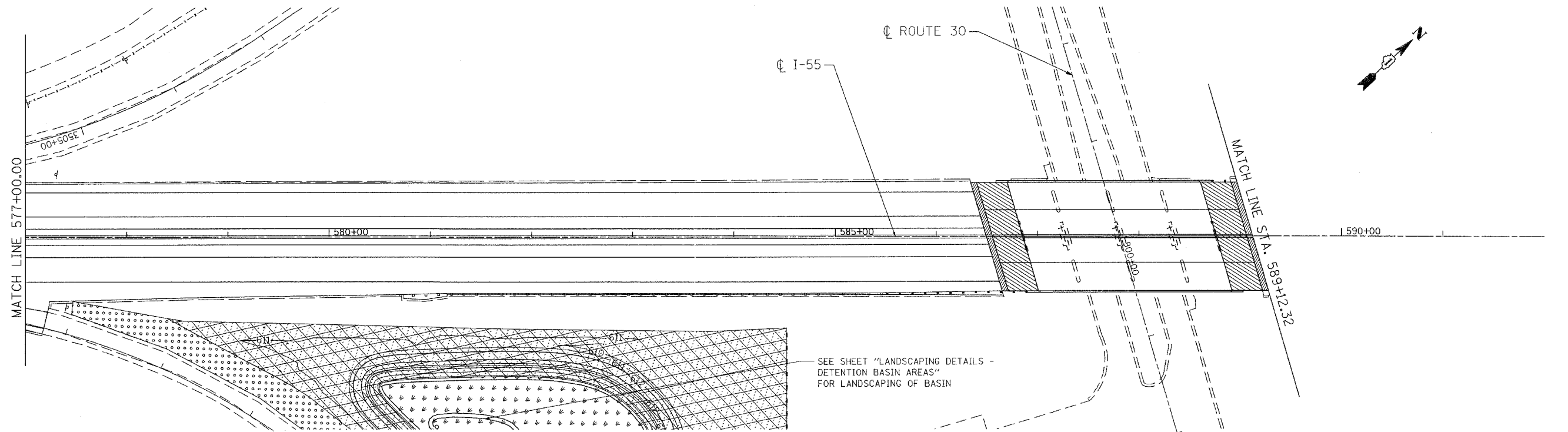
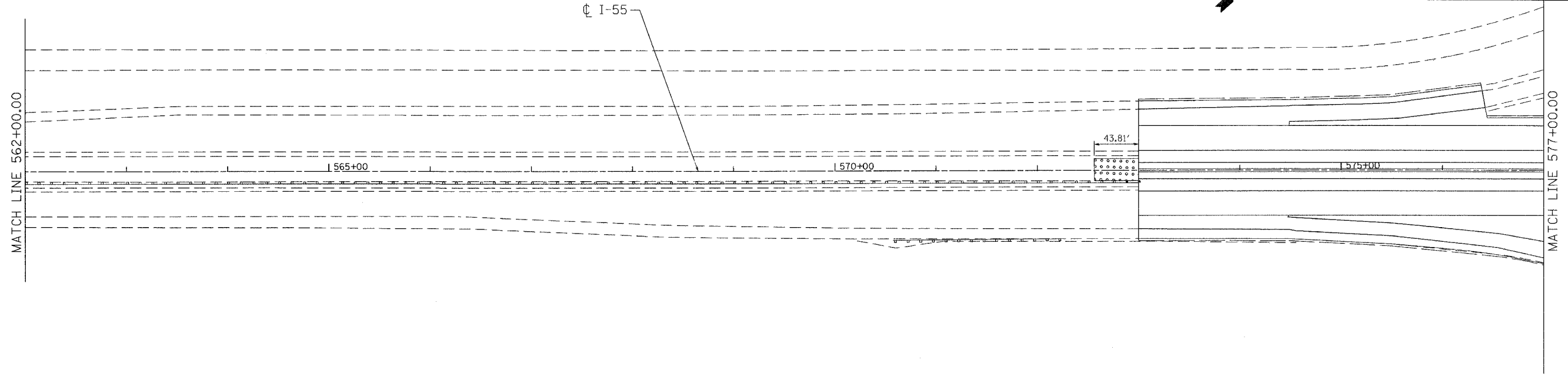
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 CANTILEVERED SIGN  
 STRUCTURE BORING LOGS  
 SCALE: 1" = 50'  
 DATE: 06-30-06  
 DRAWN BY: ALR  
 CHECKED BY: DVS


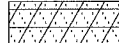
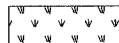


FINAL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL.	505	235
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LANDSCAPING LEGEND

-  SEEDING CLASS 2A WITH TOPSOIL FURNISH AND PLACE, 6" AND EROSION CONTROL BLANKET
-  SEEDING CLASS 4 WITH COMPOST FURNISH AND PLACE, 4" AND EROSION CONTROL BLANKET
-  SEEDING, CLASS 4B (MODIFIED) WITH COMPOST FURNISH AND PLACE, 4" AND MULCH METHOD 2

REVISIONS	
NAME	DATE

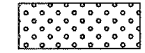
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
**LANDSCAPING DETAILS**  
**FAI 55**  
**STA. 562+00.00 TO STA. 589+12.32**  
 SCALE: 1"=50'  
 DATE: 07/05/06  
 DRAWN BY: MW  
 CHECKED BY: DDH  
**TENG**  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

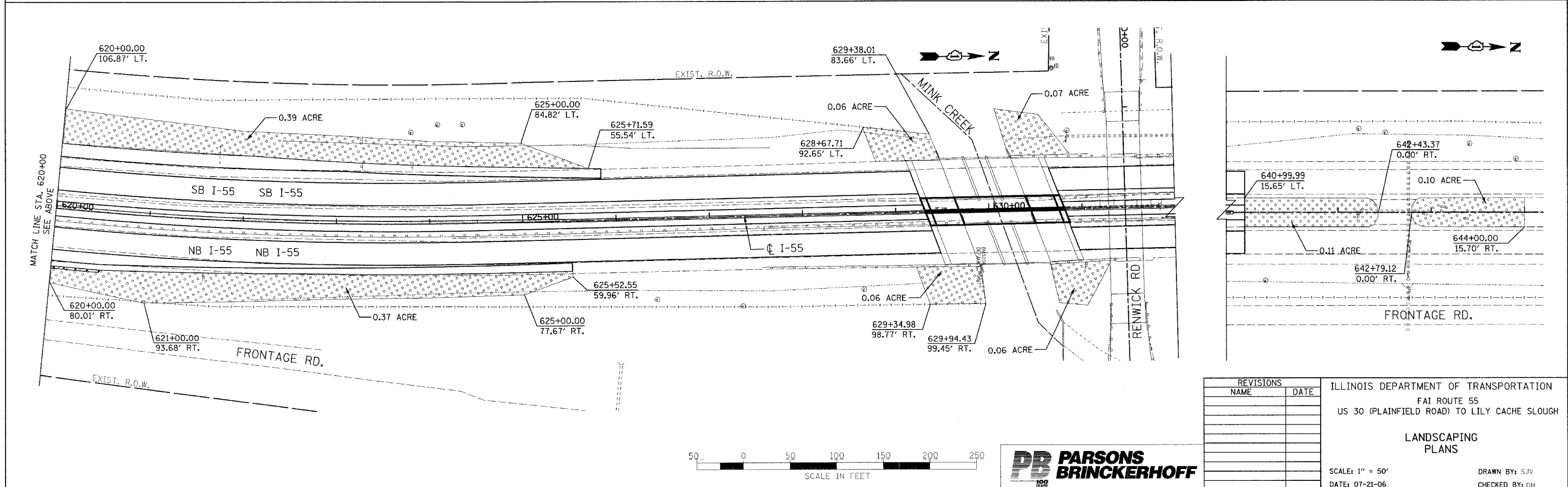
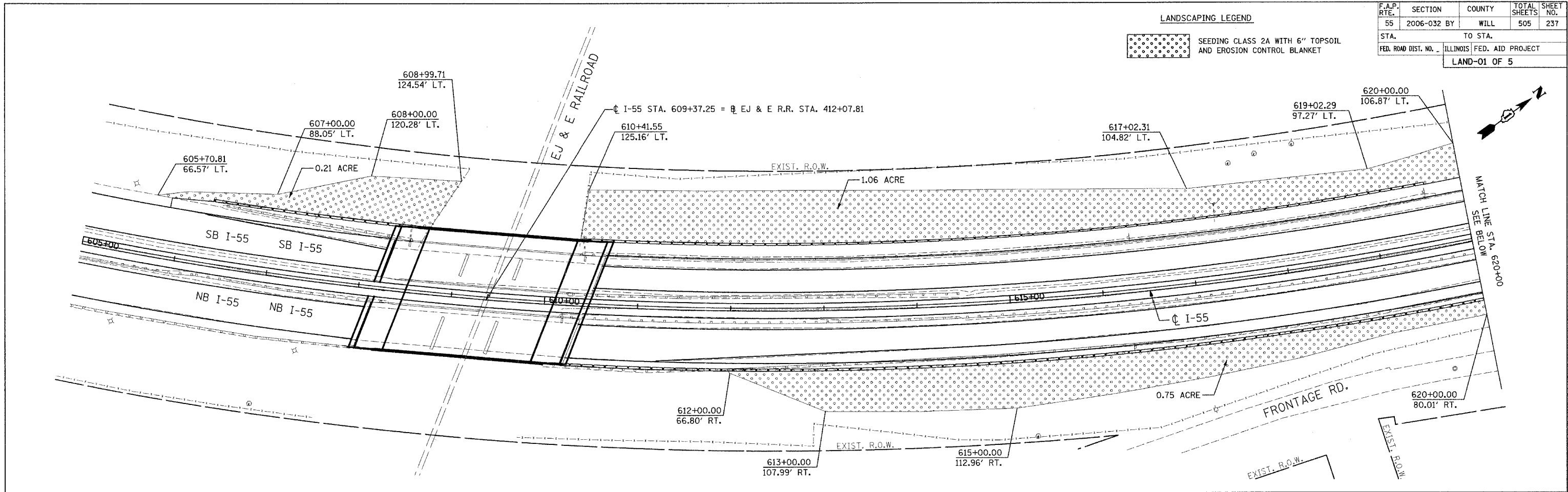
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 FILE NAME = 07/05/06  
 PLOT SCALE = 1"=50'  
 USER NAME = MORCOM



LANDSCAPING LEGEND

 SEEDING CLASS 2A WITH 6" TOPSOIL AND EROSION CONTROL BLANKET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	237
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
LAND-01 OF 5				



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

LANDSCAPING PLANS

SCALE: 1" = 50'  
 DATE: 07-21-06


DRAWN BY: SJV  
 CHECKED BY: DM

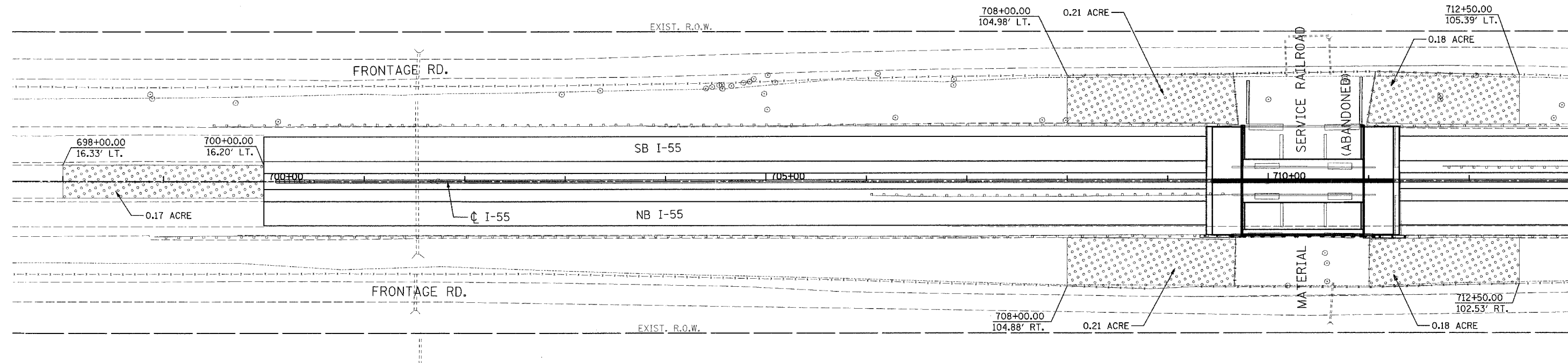


FINAL

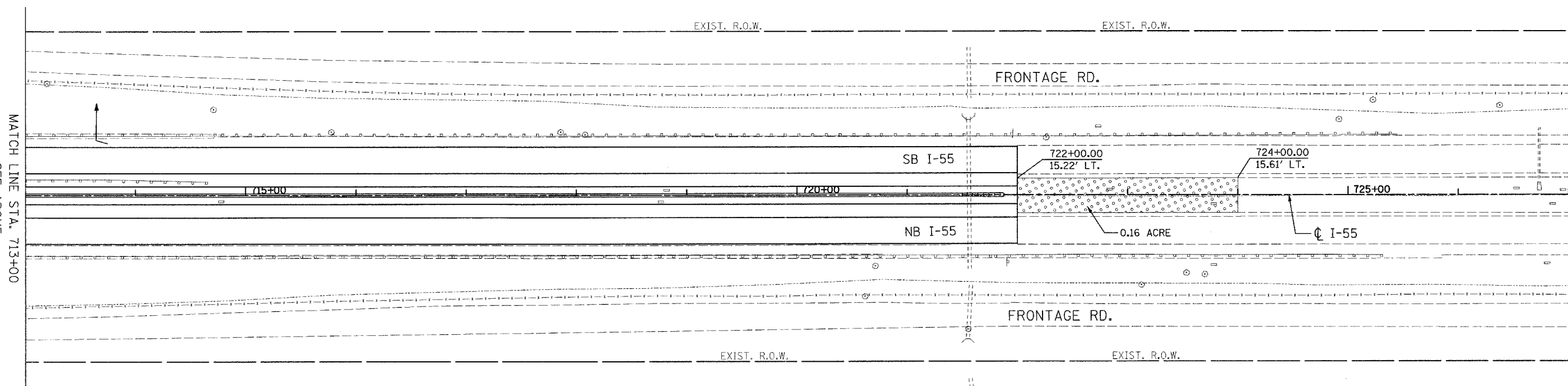
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	238
STA. 697+00		TO STA. 712+00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
LAND-02 OF 5				

LANDSCAPING LEGEND

 SEEDING CLASS 2A WITH 6" TOPSOIL AND EROSION CONTROL BLANKET



MATCH LINE STA. 713+00  
SEE BELOW



MATCH LINE STA. 713+00  
SEE ABOVE

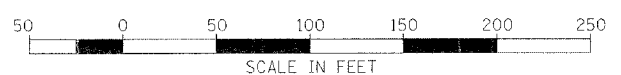
PROPOSED CONDITION

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

LANDSCAPING PLANS

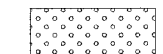
SCALE: 1" = 50'  
DATE: 07-21-06  
DRAWN BY: ALR  
CHECKED BY: DM



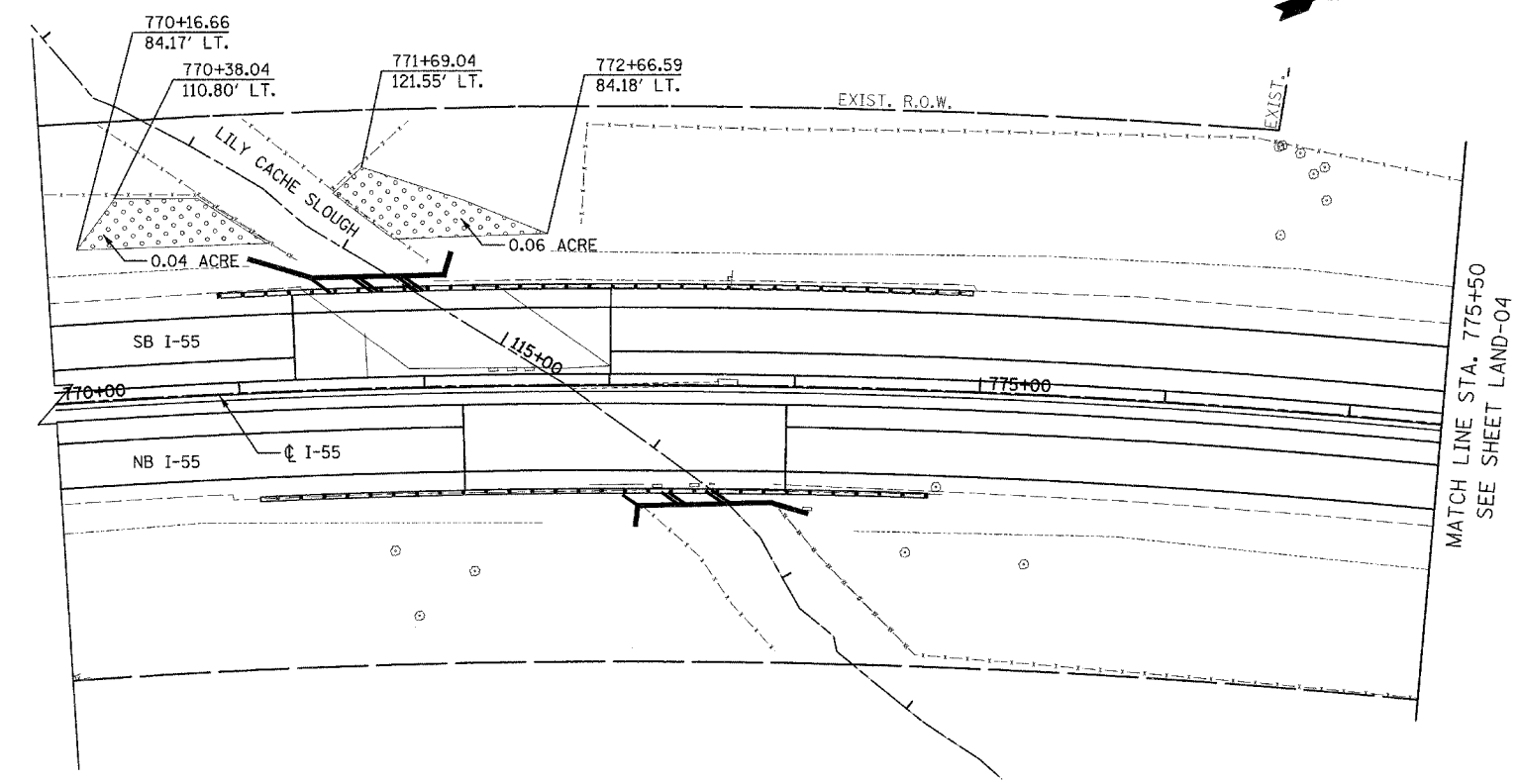
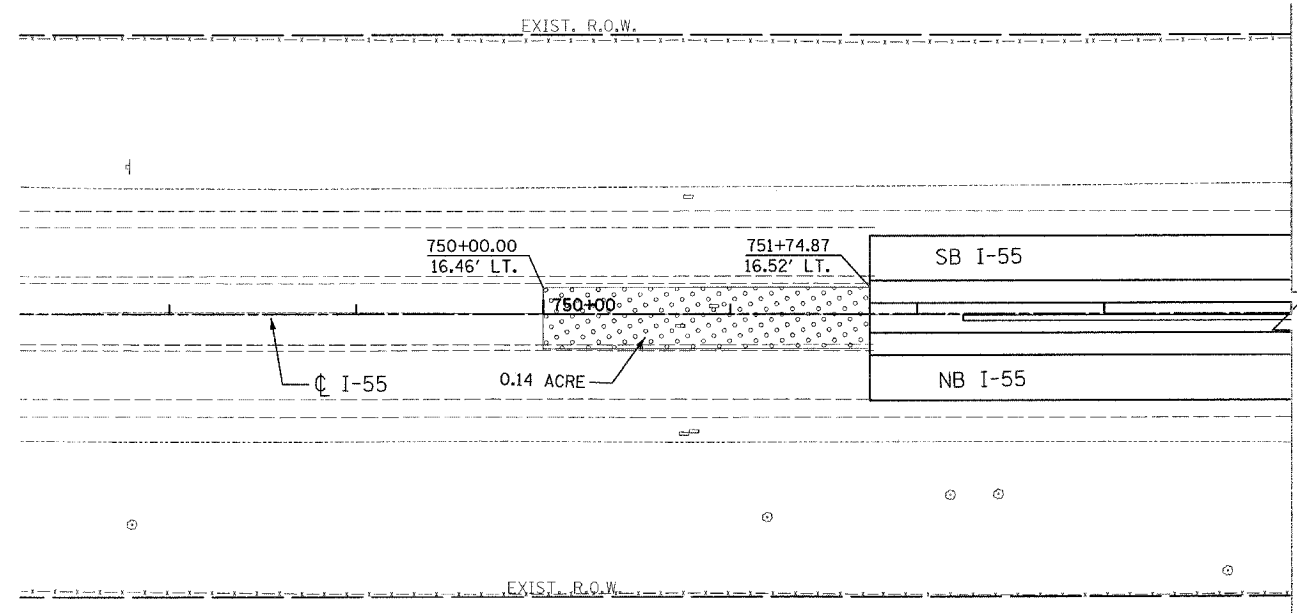
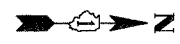
FINAL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL.	505	239
STA. 697+00		TO STA. 712+00		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
LAND-03 OF 5				

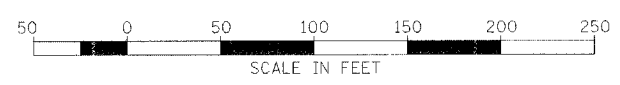
LANDSCAPING LEGEND



SEEDING CLASS 2A WITH 6" TOPSOIL AND EROSION CONTROL BLANKET



MATCH LINE STA. 775+50  
SEE SHEET LAND-04




REVISIONS	
NAME	DATE

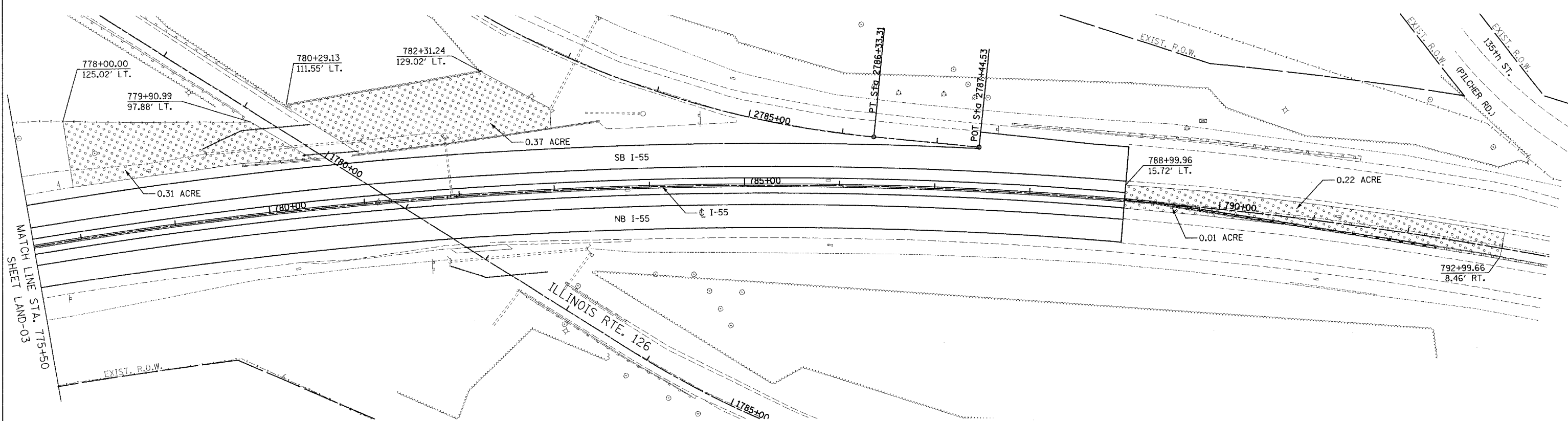
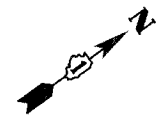
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
**LANDSCAPING PLANS**  
 SCALE: 1" = 50'  
 DATE: 07-21-06  
 DRAWN BY ALR  
 CHECKED BY DM

FINAL

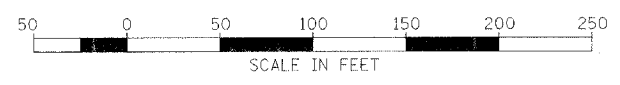
LANDSCAPING LEGEND

 SEEDING CLASS 2A WITH 6" TOPSOIL AND EROSION CONTROL BLANKET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	240
STA. 697+00		TO STA. 712+00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
LAND-04 OF 5				



MATCH LINE STA. 715+50 SHEET LAND-03



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

LANDSCAPING PLANS

SCALE: 1" = 50'  
 DATE: 07-21-06

DRAWN BY: ALR  
 CHECKED BY: DM

FINAL

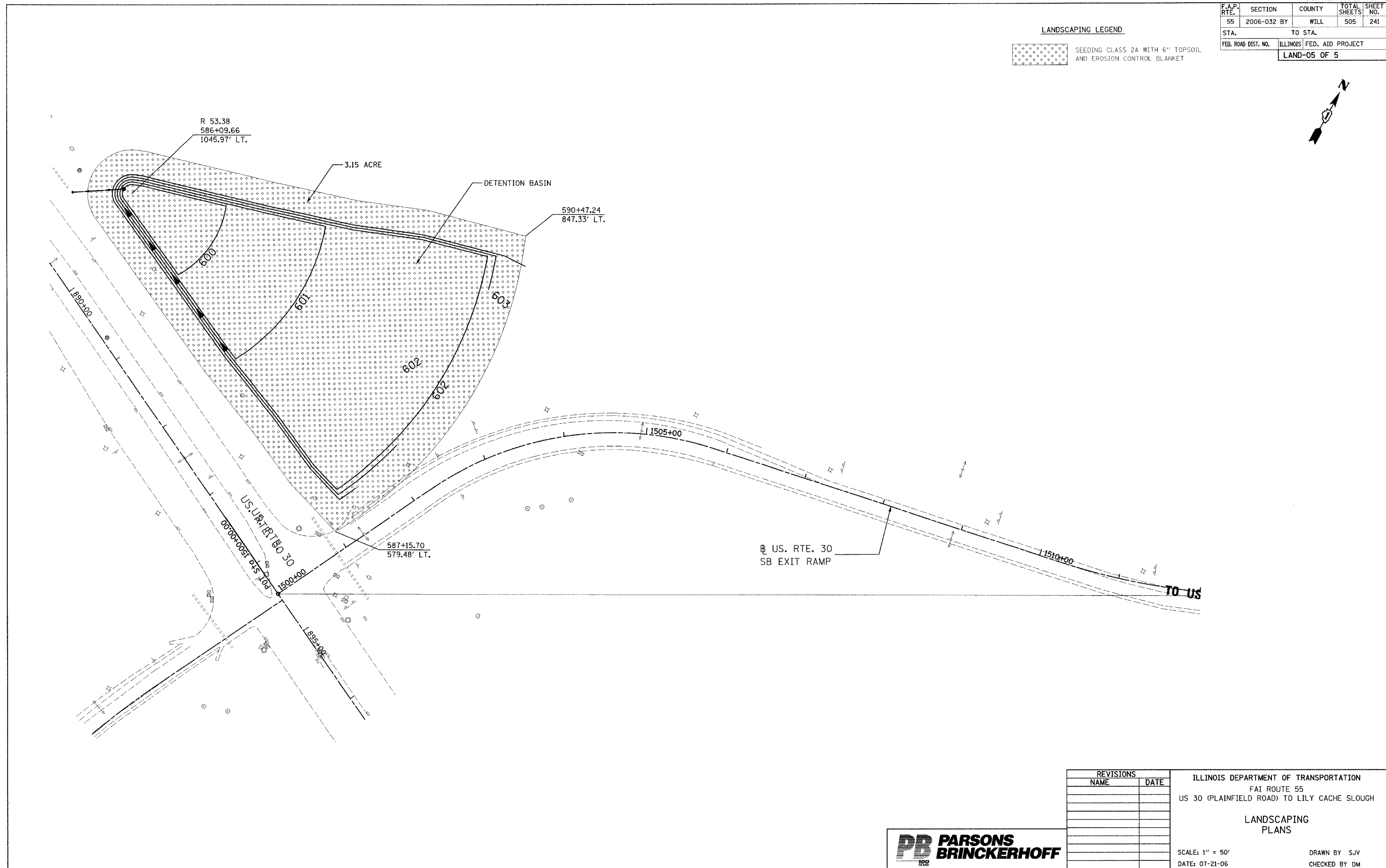


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	241
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		LAND-05 OF 5		

LANDSCAPING LEGEND



SEEDING CLASS 2A WITH 6" TOPSOIL AND EROSION CONTROL BLANKET



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

LANDSCAPING PLANS

SCALE: 1" = 50'  
 DATE: 07-21-06

DRAWN BY SJV  
 CHECKED BY DM



FINAL

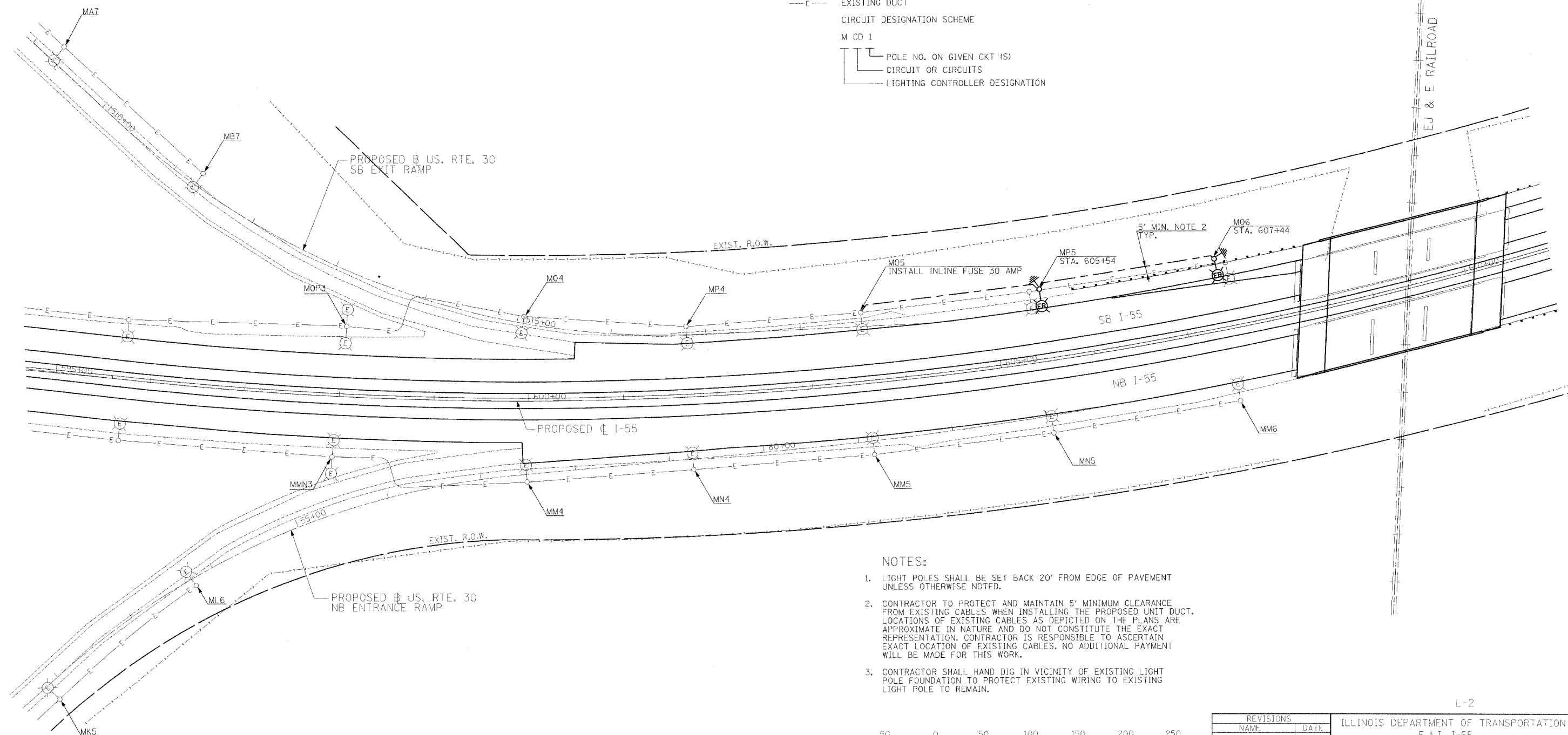
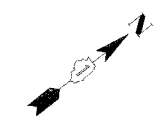




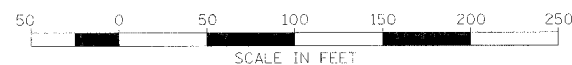
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55	2006-032 BY	WILL	505	244
STA. 592+00	TO STA. 608+00			
FED. ROAD DIST. NO.:	ILLINOIS FED. AID PROJECT			
	L-2		OF 6	

**LEGEND**

- EXISTING LIGHTING UNIT RELOCATED TO NEW FOUNDATION, 47.5' MOUNTING HEIGHT ALUMINUM POLE, 15' MAST ARM AND 400W HPS LUMINAIRE WITH NEW TRANSFORMER BASE
- EXISTING LIGHTING UNIT
- GROUND ROD
- UNIT DUCT, WITH 3-1/8 NO.4 AND 1/8 NO.6 GROUND (EPR-TYPE RHW), 1 1/4" DIA., POLYETHYLENE-UNLESS OTHERWISE NOTED
- EXISTING DUCT
- CIRCUIT DESIGNATION SCHEME**
- M CD 1**
- POLE NO. ON GIVEN CKT (S)
- CIRCUIT OR CIRCUITS
- LIGHTING CONTROLLER DESIGNATION



- NOTES:**
- LIGHT POLES SHALL BE SET BACK 20' FROM EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  - CONTRACTOR TO PROTECT AND MAINTAIN 5' MINIMUM CLEARANCE FROM EXISTING CABLES WHEN INSTALLING THE PROPOSED UNIT DUCT. LOCATIONS OF EXISTING CABLES AS DEPICTED ON THE PLANS ARE APPROXIMATE IN NATURE AND DO NOT CONSTITUTE THE EXACT REPRESENTATION. CONTRACTOR IS RESPONSIBLE TO ASCERTAIN EXACT LOCATION OF EXISTING CABLES. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
  - CONTRACTOR SHALL HAND DIG IN VICINITY OF EXISTING LIGHT POLE FOUNDATION TO PROTECT EXISTING WIRING TO EXISTING LIGHT POLE TO REMAIN.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. I-55  
 US 30 (PLAINFIELD ROAD) TO  
 LILY CACHE SLOUGH  
 PROPOSED LIGHTING PLAN

SCALE: 1" = 50'  
 DATE: 07-21-06

DRAWN BY: VG  
 CHECKED BY: PV

**SINGH** 300 W. 324TH ST. CHICAGO, IL 60606  
 SINGH & ASSOCIATES, INC. TEL: (312) 679-0240  
 CONSULTING ENGINEERS FAX: (312) 629-8449

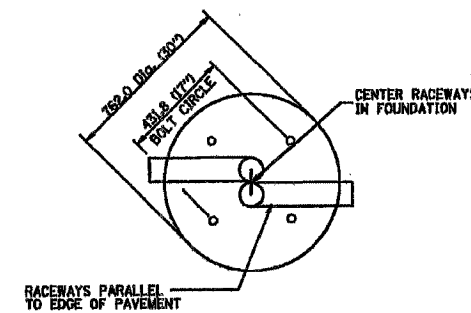
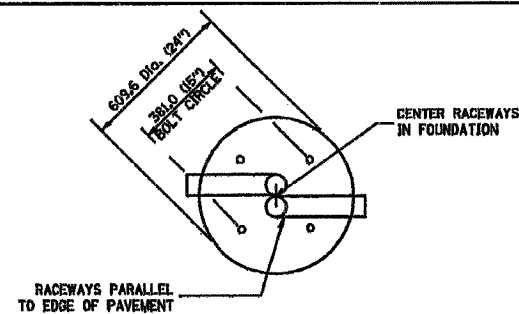
**PB PARSONS BRINCKERHOFF**

FINAL



LIGHT POLE FOUNDATION DEPTH TABLE  
12.192M (40 FT.) TO 14.478M (47.5 FT.) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Cu = 0.375 TON/SO. FT.	3.96M (13'-0")	4.57M (15'-0")
MEDIUM CLAY Cu = 0.75 TON/SO. FT.	2.09M (9'-6")	3.23M (10'-9")
STIFF CLAY Cu = 1.50 TON/SO. FT.	2.13M (7'-0")	2.44M (8'-0")
LOOSE SAND φ = 34°	2.74M (9'-0")	3.05M (10'-0")
MEDIUM SAND φ = 37.5°	2.52M (8'-3")	2.74M (9'-0")
DENSE SAND φ = 40°	2.36M (7'-9")	2.74M (9'-0")

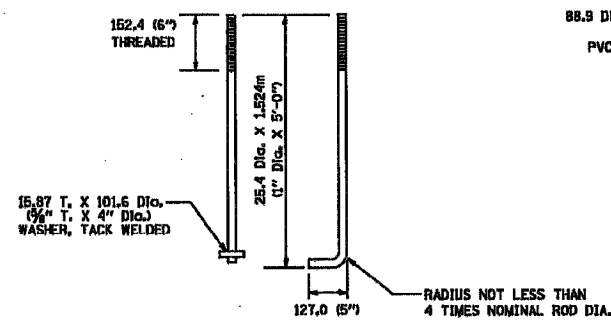


TOP VIEW

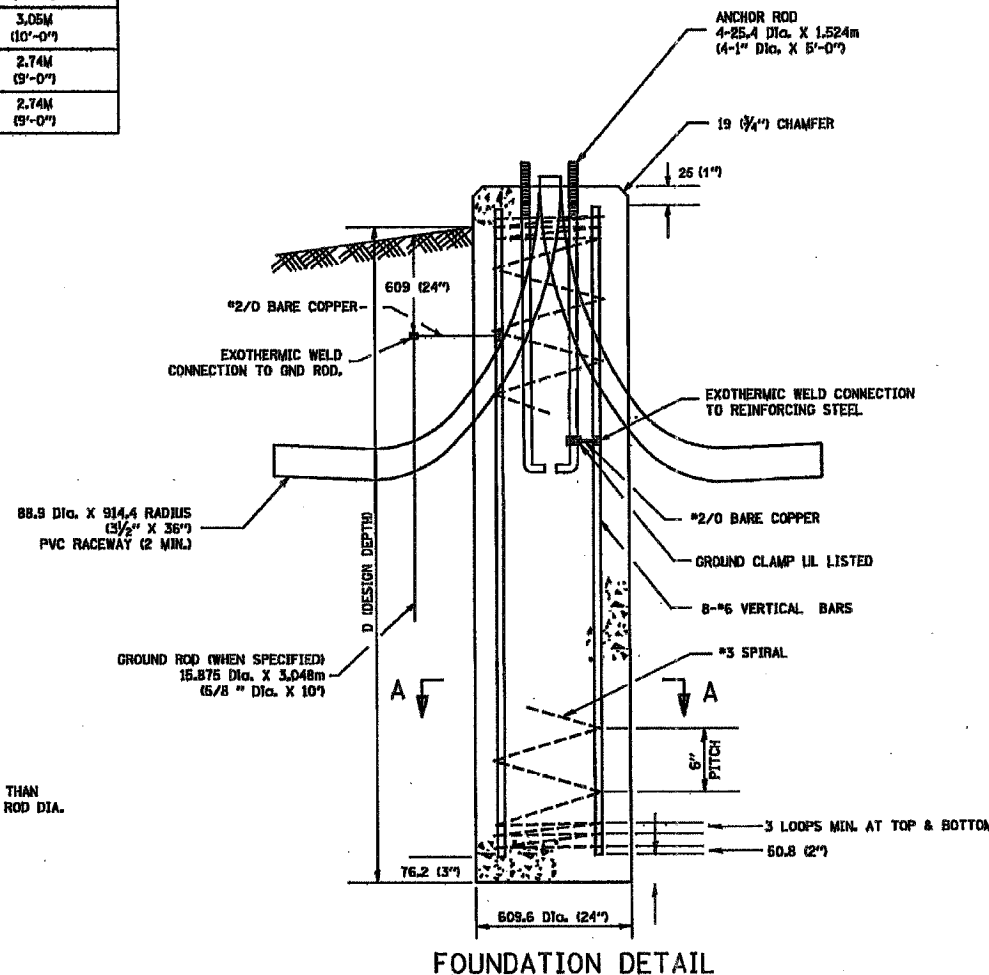
TOP VIEW

NOTES

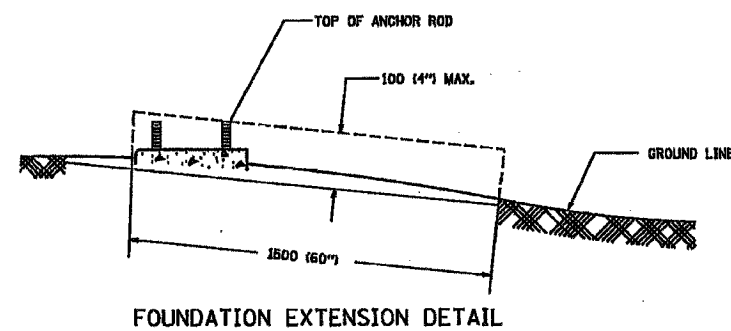
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 1.5M (60 IN.) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 20MM (3/4-IN.).
- THE CONCRETE SHALL BE CLASS SL. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1654 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 150 MM (6 INCHES) WITH A MINIMUM OF 75 MM (3 INCHES) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 69.9MM (2 3/4") ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 162.4MM (6") PITCH OR MAY SUBSTITUTE #3 TIES AT 304.8MM (12") O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 25.4MM (1") ABOVE THE TOP OF THE FOUNDATION.
- TOP BOLT CIRCLE OF THE TRANSFORMER BASE TO MATCH EXISTING POLE. BOTTOM BOLT CIRCLE OF THE TRANSFORMER BASE IS TO MATCH THE FOUNDATION BOLT CIRCLE.



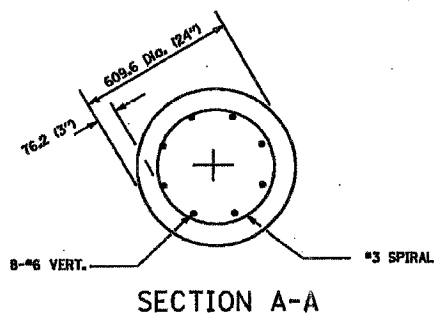
ANCHOR ROD DETAIL



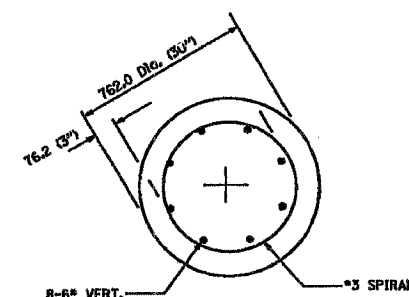
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

PLANT DATE: 2/21/2006  
 FILE NAME: 2006032101.dwg  
 USER: JMM  
 PLOT NAME: 2006032101.dwg

**SINGH**  
 SINGH & ASSOCIATES, INC.  
 CONSULTING ENGINEERS

REVISIONS	
NAME	DATE
NOTE 15	07/21/06

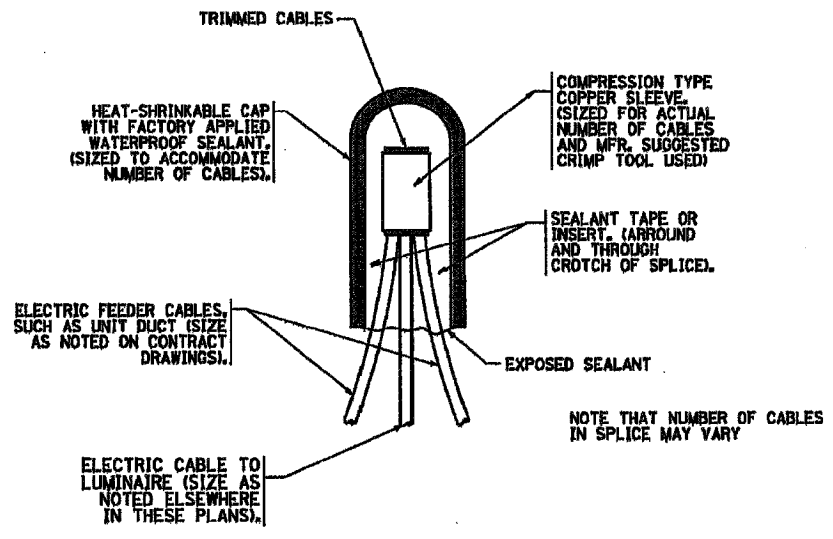
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 LIGHT POLE FOUNDATION  
 12.192M (40') TO 14.478M (47 1/2') M.H.  
 381 (15") BOLT CIRCLE

SCALE: NONE  
 DATE: 7/21/2006

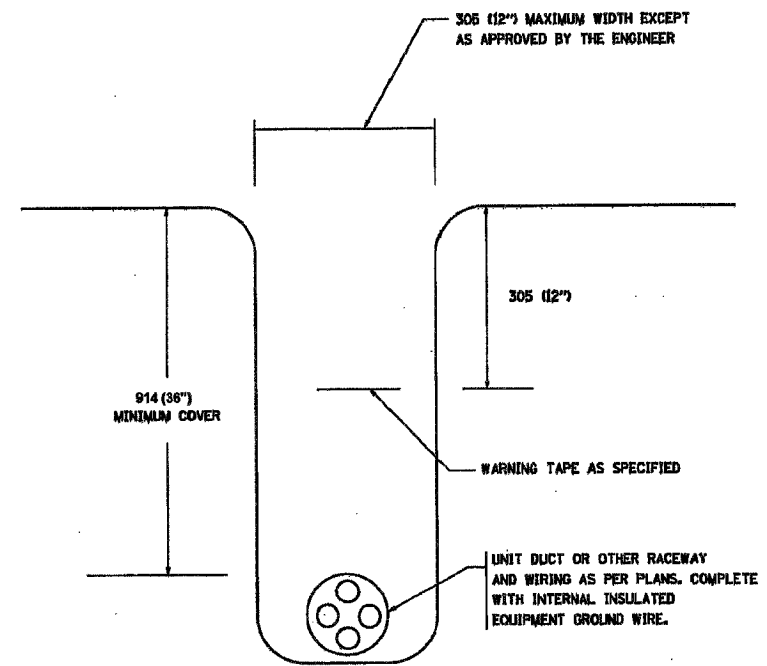
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 BE301  
 REVISION DATE: 04/22/02



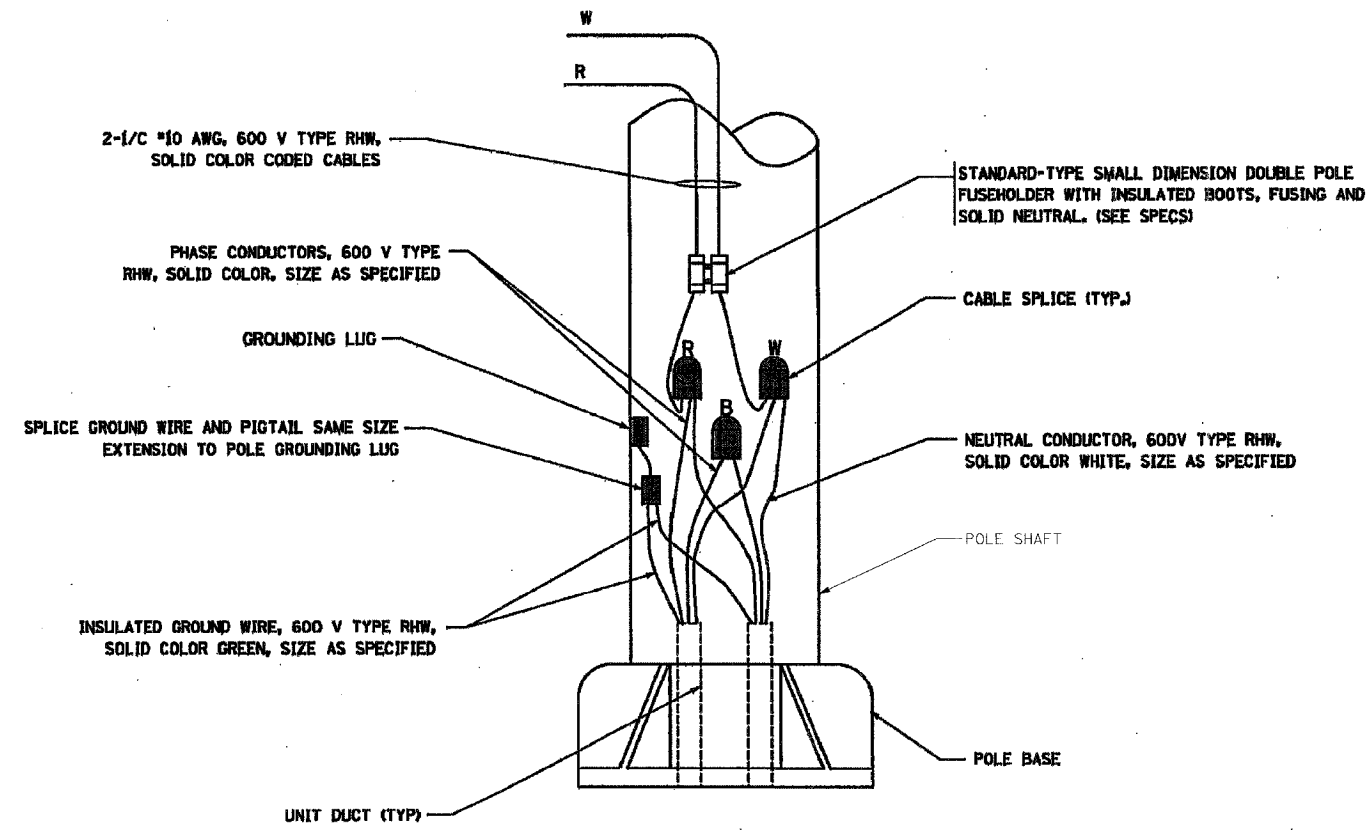
CONTRACT NO.			
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505 248
STA.		TO STA.	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



TYPICAL SPLICE DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.

PLOT DATE: 07/21/06  
 PLOT NAME: 2006-032-032.dwg  
 PLOT SCALE: 1/8" = 1'-0"  
 USER: JMC

L-6

REVISIONS	
NAME	DATE
TRENCH DETAIL	07/21/06

ILLINOIS DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS

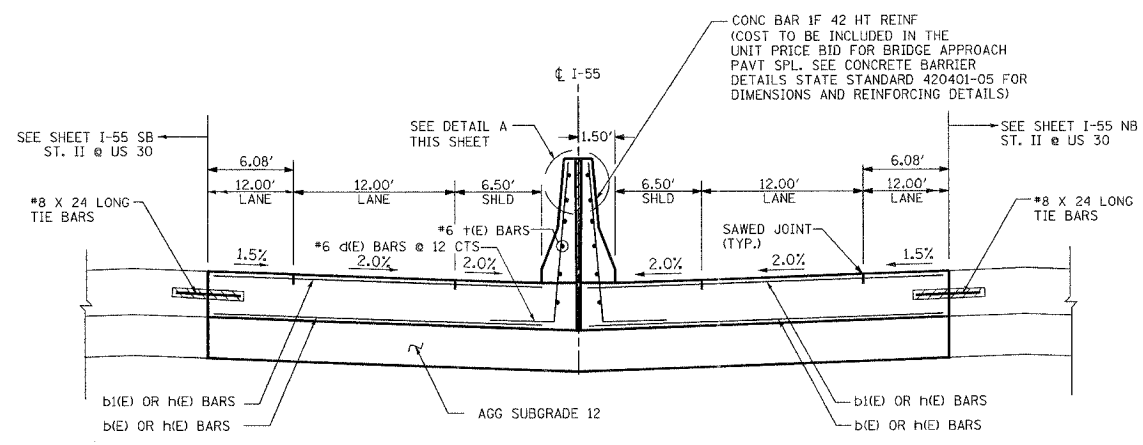
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DRAWN BY: CHECKED BY: BE-702 REVISION DATE:

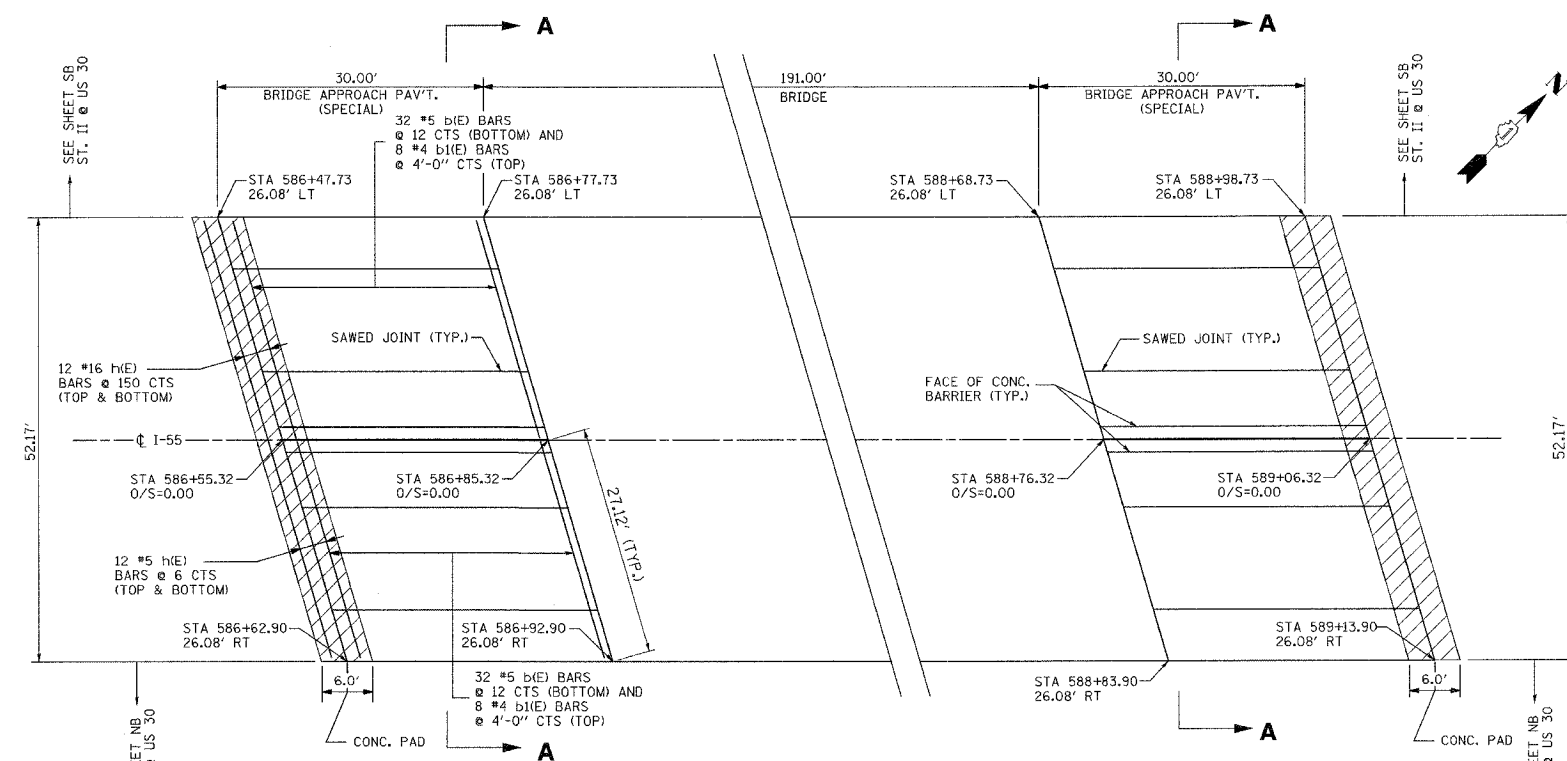
**SINGH**  
 SINGH & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 300 W. ADAMS ST.  
 CHICAGO, IL 60606  
 TEL: (312) 629-0240  
 FAX: (312) 629-8449



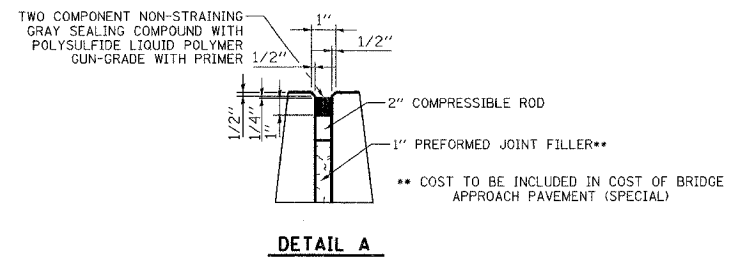
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	249
STA. 586+00.00		TO STA. 589+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION A-A: I-55 ML ST. I @ US 30



PLAN: I-55 ML ST. I @ US 30



DETAIL A

NOTES:

- ALL DIMENSIONS ARE IN FEET (') UNLESS OTHERWISE NOTED.
- ALL REINFORCING BARS SHALL BE EPOXY COATED.
- DETAILING NOT SHOWN ON THIS SHEET SHALL CONFORM TO STATE STANDARD 420401 (BRIDGE APPROACH PAVEMENT).
- THE UNIT PRICE BID FOR BRIDGE APPROACH PAVEMENT (SPECIAL) SHALL INCLUDE TIE BARS, PREFORMED JOINT SEAL, POLYETHYLENE BOND BREAKER, AGGREGATE SUBGRADE, REINFORCEMENT BARS, THE CONCRETE PAD (INCLUDING REINFORCEMENT AND EXCAVATION), CONCRETE BARRIERS (INCLUDING ALL CONCRETE AND REINFORCEMENT), AND ALL OTHER ITEMS NECESSARY TO COMPLETE THIS ITEM OF WORK.

BILL OF MATERIALS  
I-55 ML SOUTHWEST AT US 30

Bar	No.	Size #	Length (feet)	Shape
a (E)	100	9	30.99	○
a <sub>1</sub> (E)	50	5	30.74	—
a <sub>2</sub> (E)	50	4	6.76	—
a <sub>3</sub> (E)	50	4	5.58	—
b (E)	64	5	26.95	—
b <sub>1</sub> (E)	16	4	26.95	—
h (E)	48	5	26.95	—
d (E)	64	6	5.94	—
t (E)	12	6	30.00	—

Item	Unit	Total
* Concrete Structures	Cu Yd	80.4
* Reinforcement Bars, Epoxy Coated	Pound	17,100
* Preformed Joint Seal	Foot	54.2
* Polyethylene Bond Breaker	Sq Yd	36.2
* Concrete Pad	Sq Yd	36.2
* Bridge Approach Pavement (Special)	Sq Yd	173.6
* Tie Bars	Each	32
* Aggregate Subgrade 12"	Sq Yd	173.6

BILL OF MATERIALS  
I-55 ML NORTHEAST AT US 30

Bar	No.	Size #	Length (feet)	Shape
a (E)	100	9	30.99	○
a <sub>1</sub> (E)	50	5	30.74	—
a <sub>2</sub> (E)	50	4	6.76	—
a <sub>3</sub> (E)	50	4	5.58	—
b (E)	64	5	26.95	—
b <sub>1</sub> (E)	16	4	26.95	—
h (E)	48	5	26.95	—
d (E)	64	6	5.94	—
t (E)	12	6	30.00	—

Item	Unit	Total
* Concrete Structures	Cu Yd	80.4
* Reinforcement Bars, Epoxy Coated	Pound	17,100
* Preformed Joint Seal	Foot	54.2
* Polyethylene Bond Breaker	Sq Yd	36.2
* Concrete Pad	Sq Yd	36.2
* Bridge Approach Pavement (Special)	Sq Yd	173.6
* Tie Bars	Each	32
* Aggregate Subgrade 12"	Sq Yd	173.6

\* ITEM INCLUDED IN THE COST OF BRIDGE APPROACH PAVEMENT (SPECIAL).

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

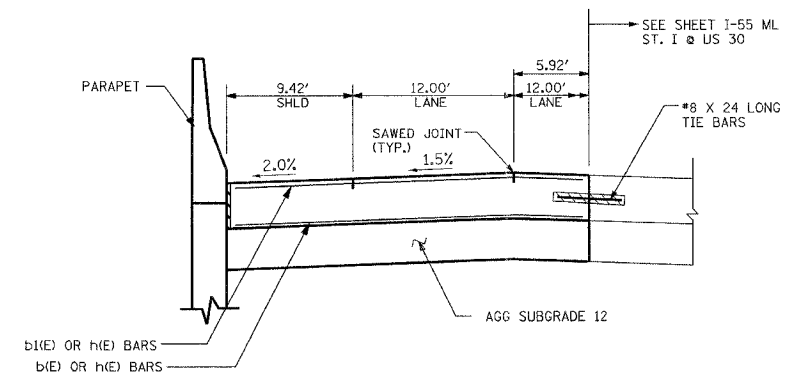
ROADWAY DETAILS  
BRIDGE APPROACH PAVT (SPECIAL)  
I-55 OVER US 30 (STAGE I)

SCALE: N.T.S. DRAWN BY GJF  
DATE 07/21/06 CHECKED BY DDH

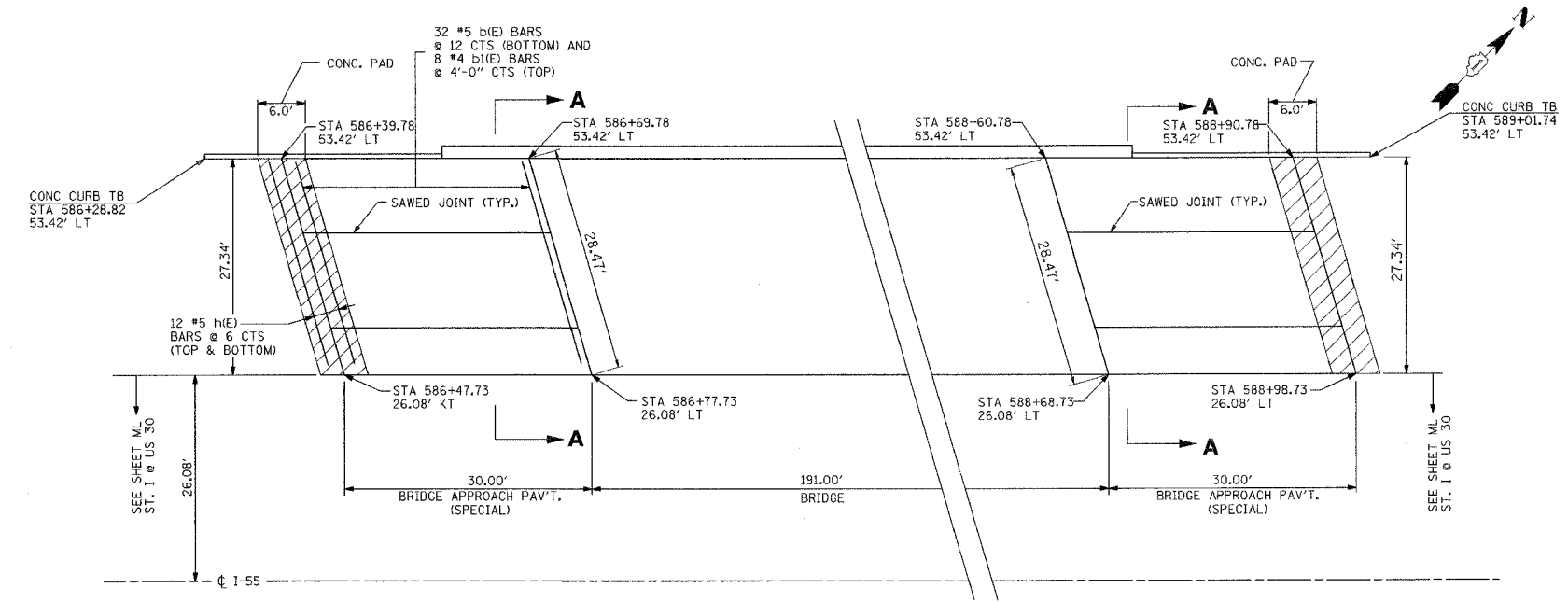
**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

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PLOT SCALE = 0.5000  
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CONTRACT NO. 60B86				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
55	2006-032 BY	WILL	505	250
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



SECTION A-A: I-55 SB ST. II @ US 30



PLAN: I-55 SB ST. II @ US 30

BILL OF MATERIALS  
I-55 SB SOUTHWEST AT US 30

Bar	No.	Size #	Length (feet)	Shape
a (E)	56	9	30.99	○
a <sub>1</sub> (E)	28	5	30.74	—
a <sub>2</sub> (E)	28	4	6.76	—
a <sub>3</sub> (E)	28	4	5.58	—
b (E)	32	5	28.30	—
b <sub>1</sub> (E)	8	4	28.30	—
h (E)	24	5	28.30	—
d (E)	-	-	-	—
t (E)	-	-	-	—

Item	Unit	Total
* Concrete Structures	Cu Yd	38.0
* Reinforcement Bars, Epoxy Coated	Pound	8,821
* Preformed Joint Seal	Foot	30.1
* Polyethylene Bond Breaker	Sq Yd	19.1
* Concrete Pad	Sq Yd	19.1
* Bridge Approach Pavement (Special)	Sq Yd	91.1
* Tie Bars	Each	-
* Aggregate Subgrade 12"	Sq Yd	91.1

BILL OF MATERIALS  
I-55 SB NORTHEAST AT US 30

Bar	No.	Size #	Length (feet)	Shape
a (E)	56	9	30.99	○
a <sub>1</sub> (E)	28	5	30.74	—
a <sub>2</sub> (E)	28	4	6.76	—
a <sub>3</sub> (E)	28	4	5.58	—
b (E)	32	5	28.30	—
b <sub>1</sub> (E)	8	4	28.30	—
h (E)	24	5	28.30	—
d (E)	-	-	-	—
t (E)	-	-	-	—

Item	Unit	Total
* Concrete Structures	Cu Yd	38.0
* Reinforcement Bars, Epoxy Coated	Pound	8,821
* Preformed Joint Seal	Foot	30.1
* Polyethylene Bond Breaker	Sq Yd	19.1
* Concrete Pad	Sq Yd	19.1
* Bridge Approach Pavement (Special)	Sq Yd	91.1
* Tie Bars	Each	-
* Aggregate Subgrade 12"	Sq Yd	91.1

\* ITEM INCLUDED IN THE COST OF BRIDGE APPROACH PAVEMENT (SPECIAL).

NOTES:

1. ALL DIMENSIONS ARE IN FEET (') UNLESS OTHERWISE NOTED.
2. ALL REINFORCING BARS SHALL BE EPOXY COATED.
3. DETAILING NOT SHOWN ON THIS SHEET SHALL CONFORM TO STATE STANDARD 420401 (BRIDGE APPROACH PAVEMENT).
4. THE UNIT PRICE BID FOR BRIDGE APPROACH PAVEMENT (SPECIAL) SHALL INCLUDE TIE BARS, PREFORMED JOINT SEAL, POLYETHYLENE BOND BREAKER, AGGREGATE SUBGRADE, REINFORCEMENT BARS, THE CONCRETE PAD (INCLUDING REINFORCEMENT AND EXCAVATION), CONCRETE BARRIERS (INCLUDING ALL CONCRETE AND REINFORCEMENT), AND ALL OTHER ITEMS NECESSARY TO COMPLETE THIS ITEM OF WORK.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAT ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH

ROADWAY DETAILS  
BRIDGE APPROACH PAV'T (SPECIAL)  
SB I-55 OVER US 30 (STAGE II)

SCALE: N.T.S. DRAWN BY GJF  
DATE 07/21/06 CHECKED BY DDH

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

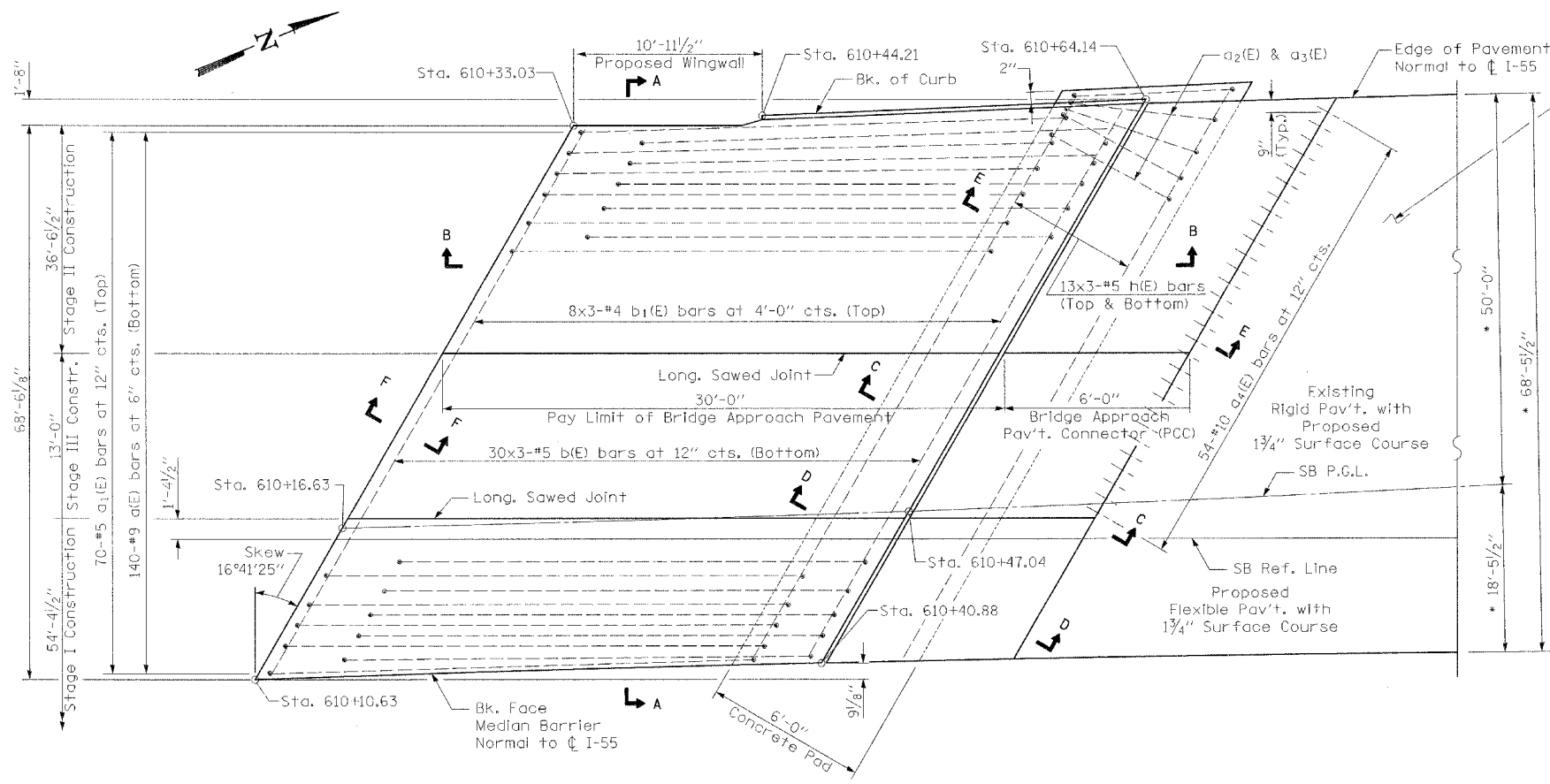
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 BJA\ZFKCJ



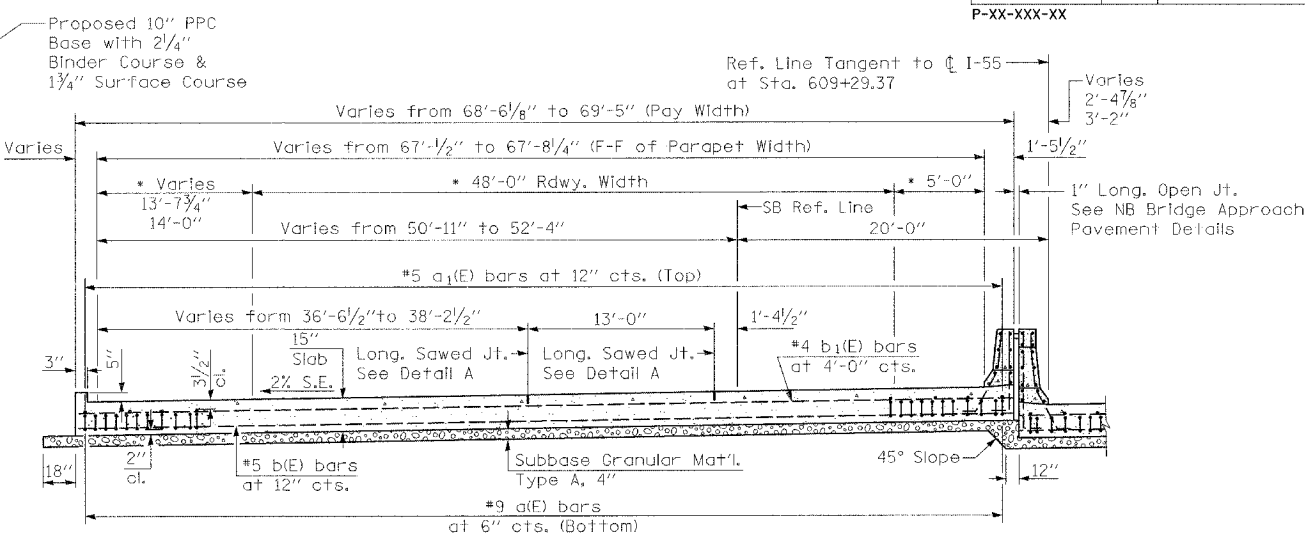




F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	#TOT#	254
STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT		
P-XX-XXX-XX				

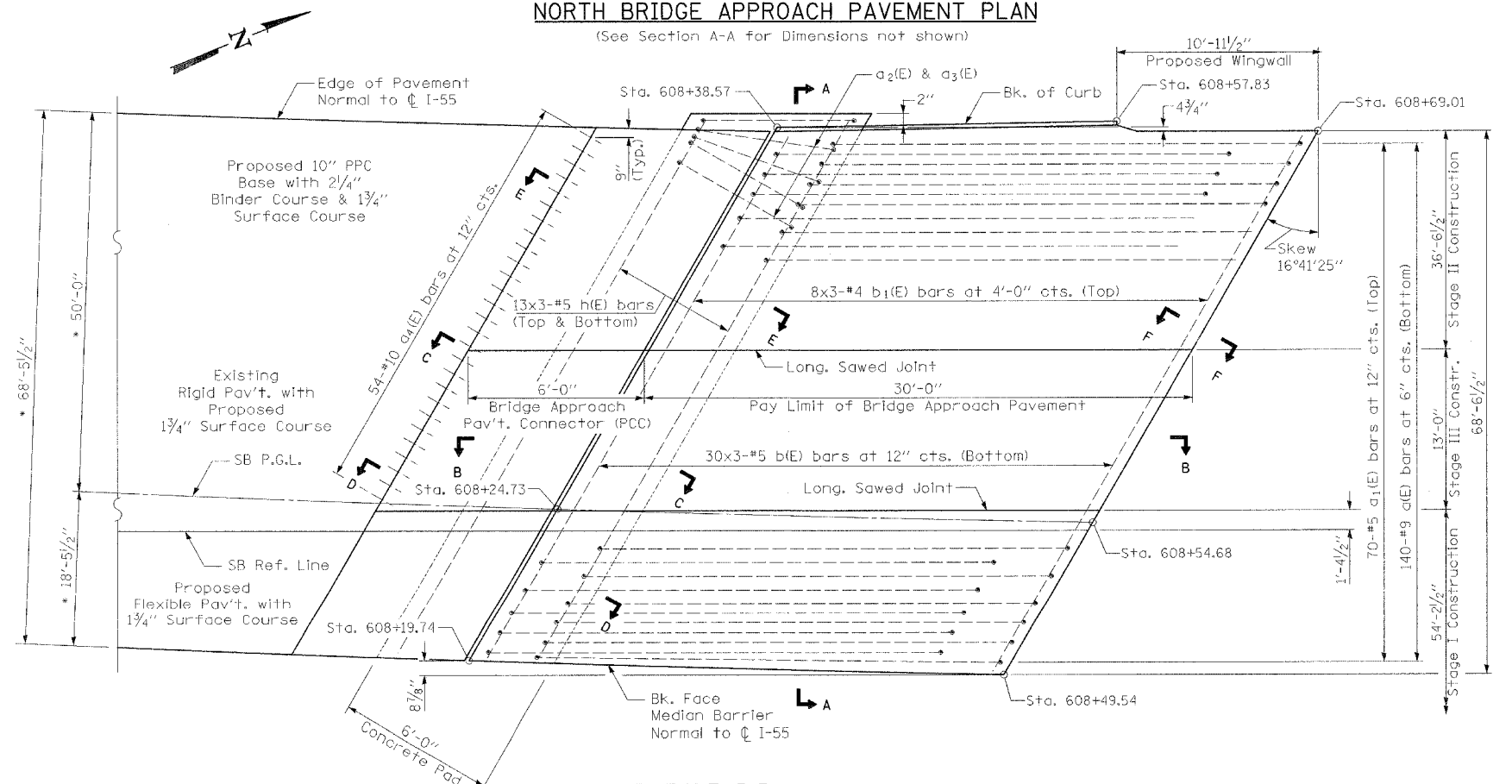


**I-55 OVER EJ&E R.R. NORTH BRIDGE APPROACH PAVEMENT PLAN**  
(See Section A-A for Dimensions not shown)

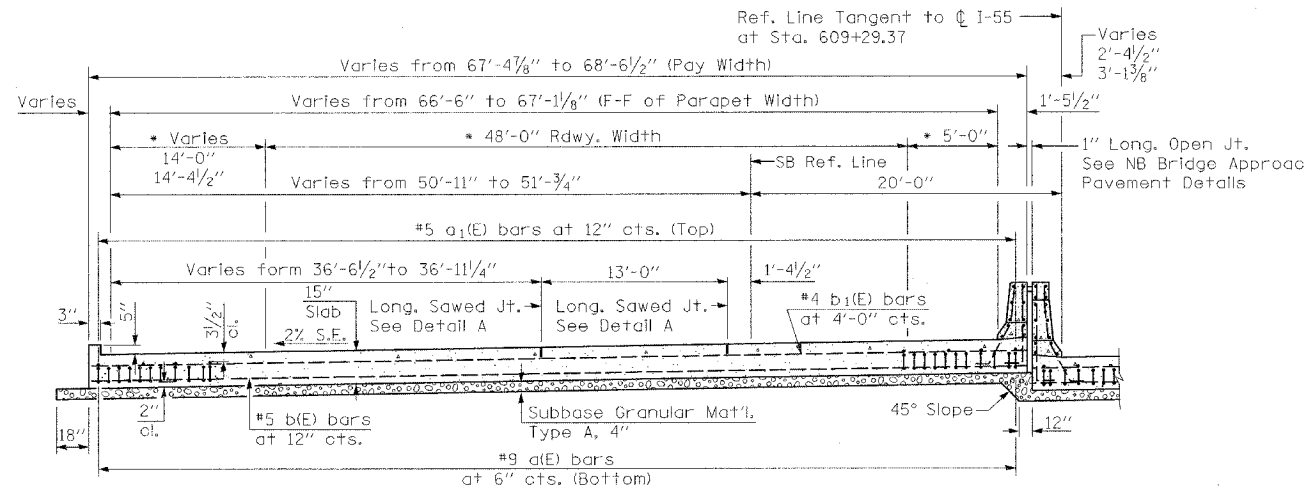


**SECTION A-A - NORTH END**

\* Designates radial dimensions normal to  $\phi$  I-55



**I-55 OVER EJ&E R.R. SOUTH BRIDGE APPROACH PAVEMENT PLAN**  
(See Section A-A for Dimensions not shown)



**SECTION A-A - SOUTH END**

\* Designates radial dimensions normal to  $\phi$  I-55

**GENERAL NOTES**

- THICKNESS-"t"=Thickness of Pavement.
- For Profiles, see Roadway Plans.
- For Wingwall Details, See Bridge Plans.
- If two or more lane widths are poured at a time, a longitudinal sawed joint may be used at the lane edges. See Detail A.
- Reinforcement Bars designated "E" shall be Epoxy Coated.
- Approach Pavement Concrete Median Barriers shall be constructed and paid for in accordance with Sections 503 and 508 of the IDOT Standard Specifications.
- Protective Coat shall be applied to the Top and Traffic Faces of the Median Barriers.

**DESIGN STRESSES**

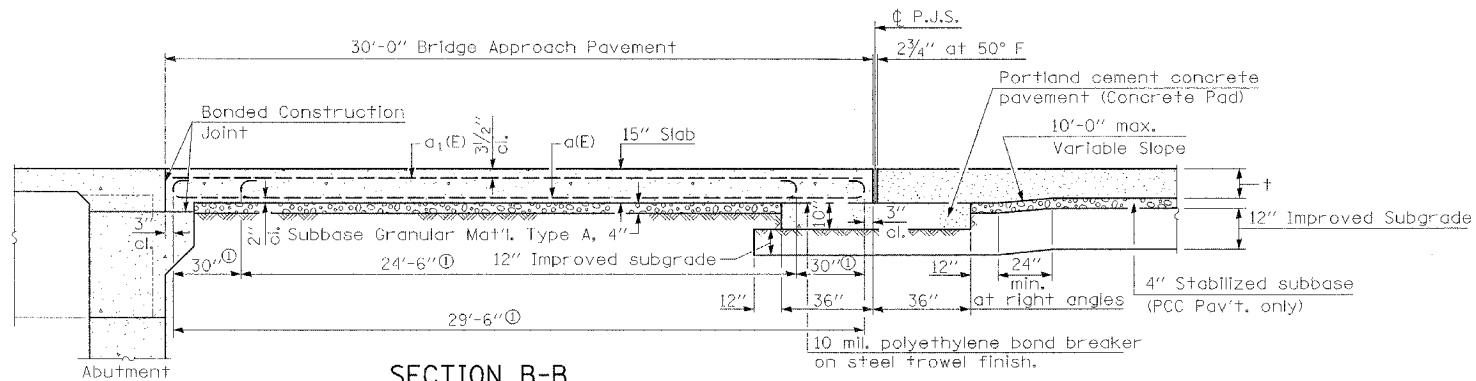
$f_y = 60,000$  P.S.I.  
 $f'_c = 3,500$  P.S.I.  
 $n = 8.5$

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
I-55 OVER EJ&E R.R.  
SB BRIDGE APPROACH PAVEMENT  
PLAN & SECTIONS  
STANDARD 420401 (SPECIAL)  
SCALE: NONE DRAWN BY SBC  
DATE: 06-30-06 CHECKED BY JOZ

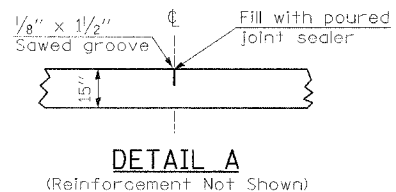


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	\$TOT#	255
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT P-XX-XXX-XX		



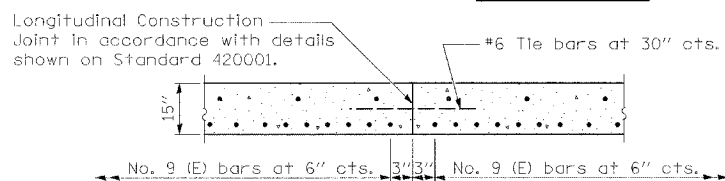
SECTION B-B

① Stagger No. 9 a bars as shown on plan - full width



DETAIL A

(Reinforcement Not Shown)

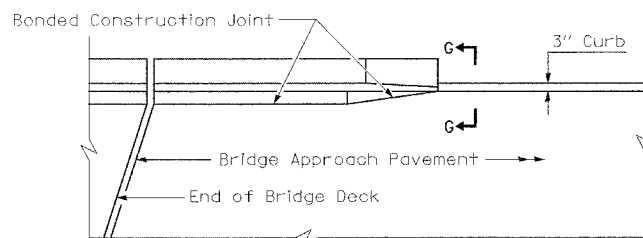


SECTION F-F

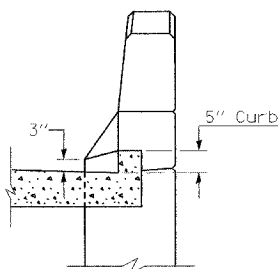
Longitudinal Construction Joint in accordance with details shown on Standard 420001.

**OPTION LONGITUDINAL CONSTRUCTION JOINT**

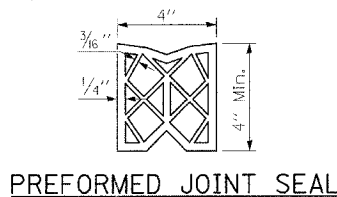
As approved by the Engineer, the Contractor may elect to reduce widths of pour by use of an Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



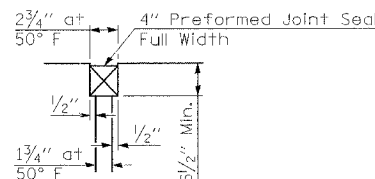
PARAPET TO CURB TRANSITION



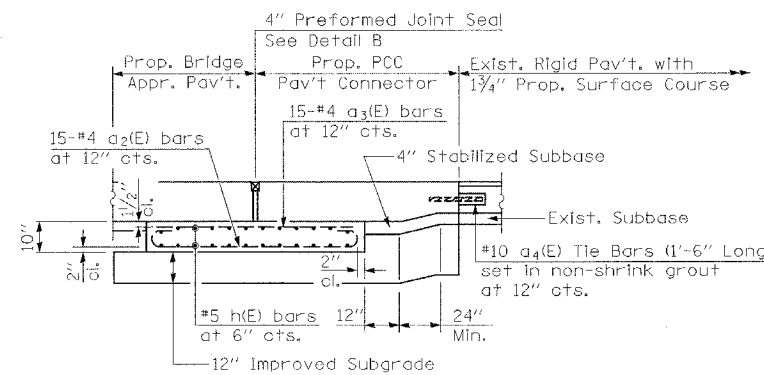
SECTION G-G



PREFORMED JOINT SEAL

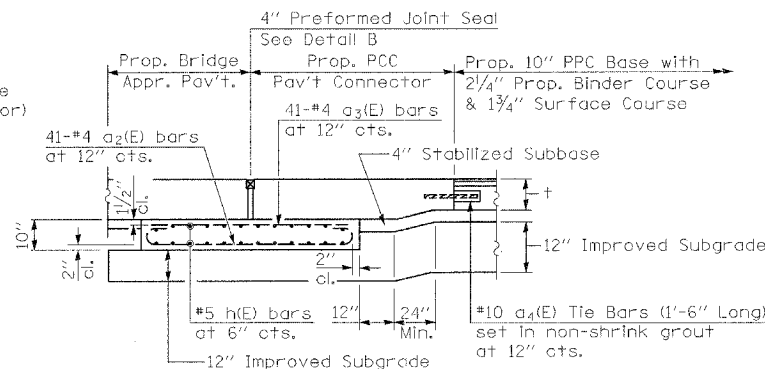


DETAIL B



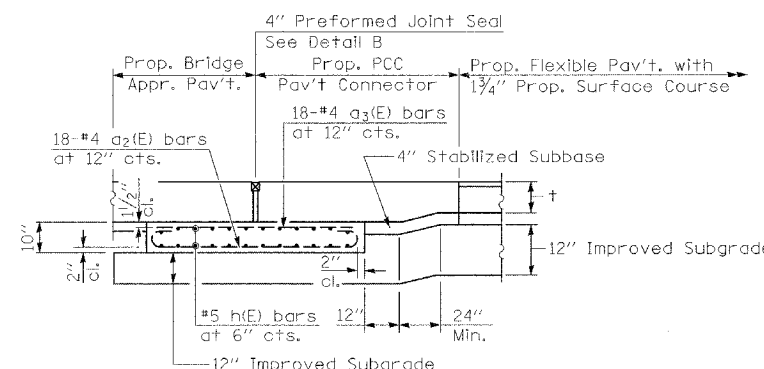
SECTION C-C - RIDID PAVEMENT

(Showing Reinforcement)



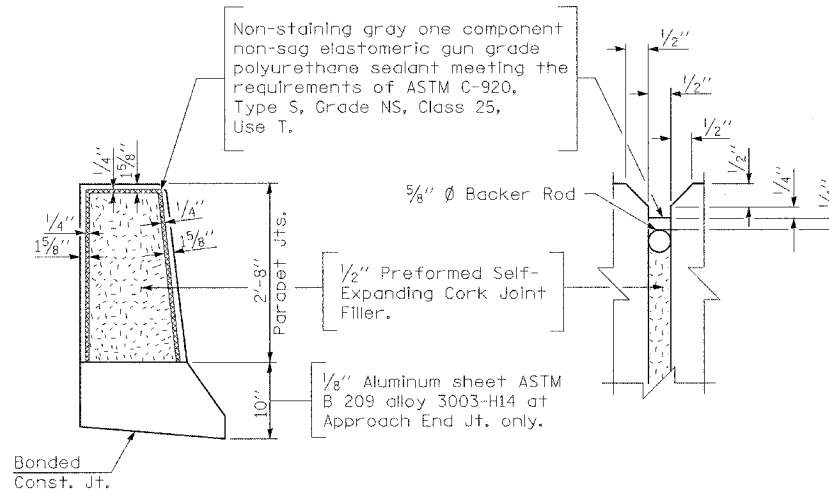
SECTION E-E - RIDID PAVEMENT

(Showing Reinforcement)

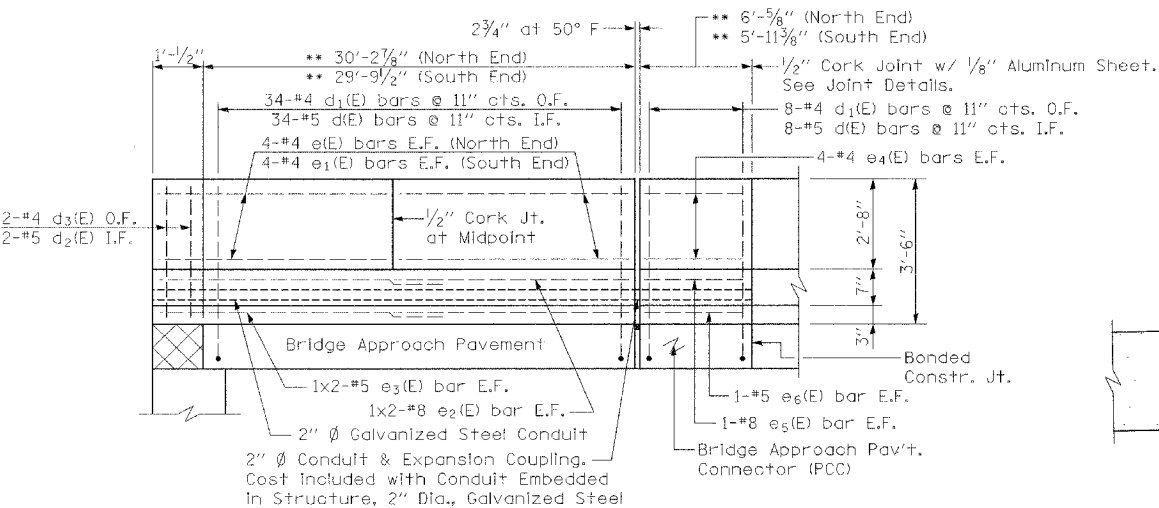


SECTION D-D - FLEXIBLE PAVEMENT

(Showing Reinforcement)

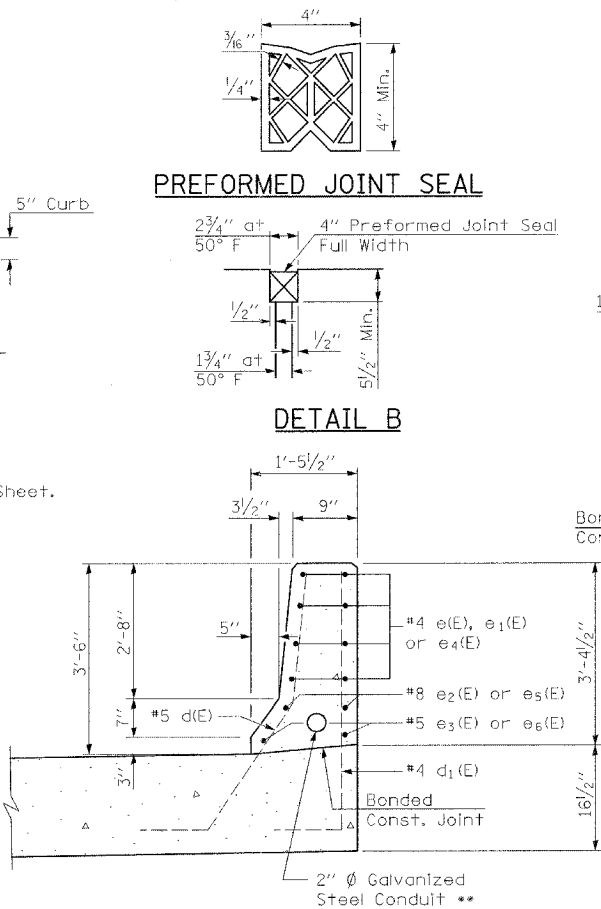


MEDIAN BARRIER JOINT DETAILS



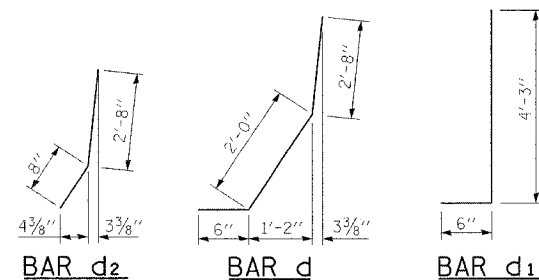
MEDIAN BARRIER ELEVATION

\*\* Dimensions measured along front face of barrier.



SECTION THRU MEDIAN BARRIER

\*\* Maintain a minimum of 1" clearance from all reinforcement bars in barrier.



**\* BAR SCHEDULE NB APPROACH PAVEMENT**

Bar	No.	Size	Length	Shape	
a(E)	280	#9	29'-6"	—	
a1(E)	140	#5	29'-6"	—	
a2(E)	148	#4	6'-8"	—	
a3(E)	148	#4	5'-8"	—	
a4(E)	108	#10	1'-6"	—	
b(E)	180	#5	25'-8"	—	
b1(E)	48	#4	25'-4"	—	
h(E)	156	#5	25'-8"	—	
Reinforcement Bars, Epoxy Coated				Pound	44,120

**BILL OF MATERIALS**

Bridge Approach Pavement (Special)	Sq. Yd.	458
Bridge Approach Pavement Connector (PCC) Special	Sq. Yd.	91.7

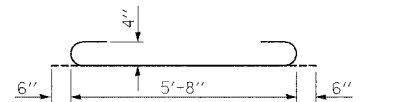
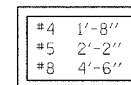
\* For Information Only.

**BAR SCHEDULE MEDIAN BARRIERS**

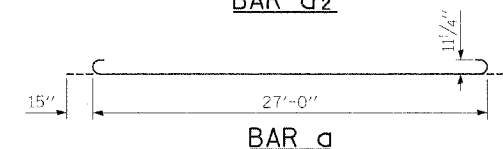
Bar	No.	Size	Length	Shape	
e(E)	16	#4	15'-4"	—	
e1(E)	16	#4	15'-11"	—	
e2(E)	8	#8	17'-11"	—	
e3(E)	8	#5	16'-9"	—	
e4(E)	16	#4	5'-9"	—	
e5(E)	4	#8	5'-9"	—	
e6(E)	4	#5	5'-9"	—	
d(E)	84	#5	5'-2"	—	
d1(E)	84	#4	4'-9"	—	
d2(E)	4	#5	3'-4"	—	
d3(E)	4	#4	3'-1"	—	
Concrete Structures				Cu. Yd.	9.9
Reinforcement Bars, Epoxy Coated				Pound	1,740
Protective Coat				Sq. Yd.	35
Conduit Embedded in Structure, 2" Dia., Galvanized Steel				Foot	75

**BILL OF MATERIALS**

**MIN. BAR LAPS**



BAR a2



BAR a

REVISIONS	
NAME	DATE

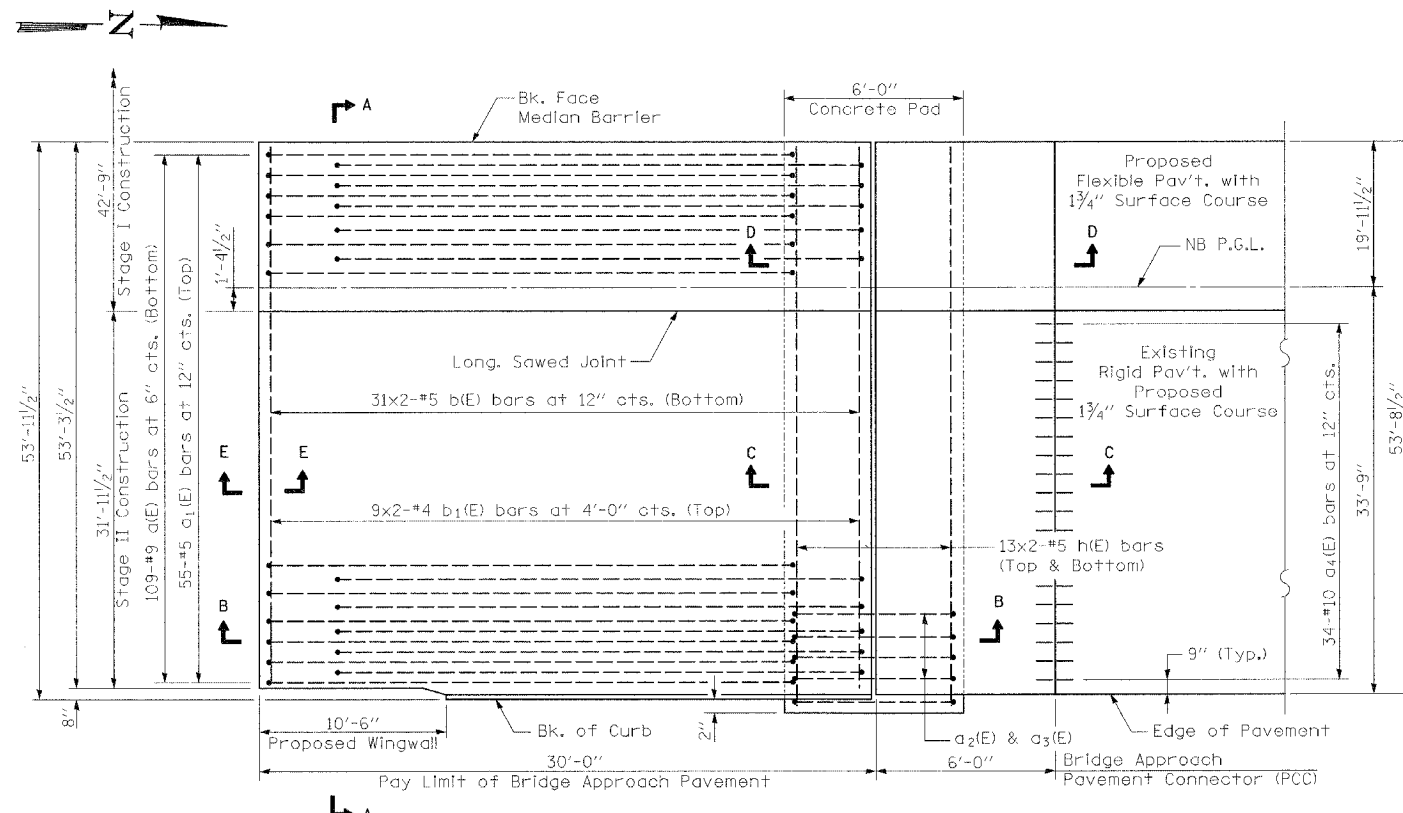
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 I-55 OVER EJ&E R.R.  
 SB BRIDGE APPROACH PAVEMENT DETAILS  
 STANDARD 420401 (SPECIAL)

SCALE: NONE  
 DATE: 06-30-06  
 DRAWN BY: SBC  
 CHECKED BY: JOZ



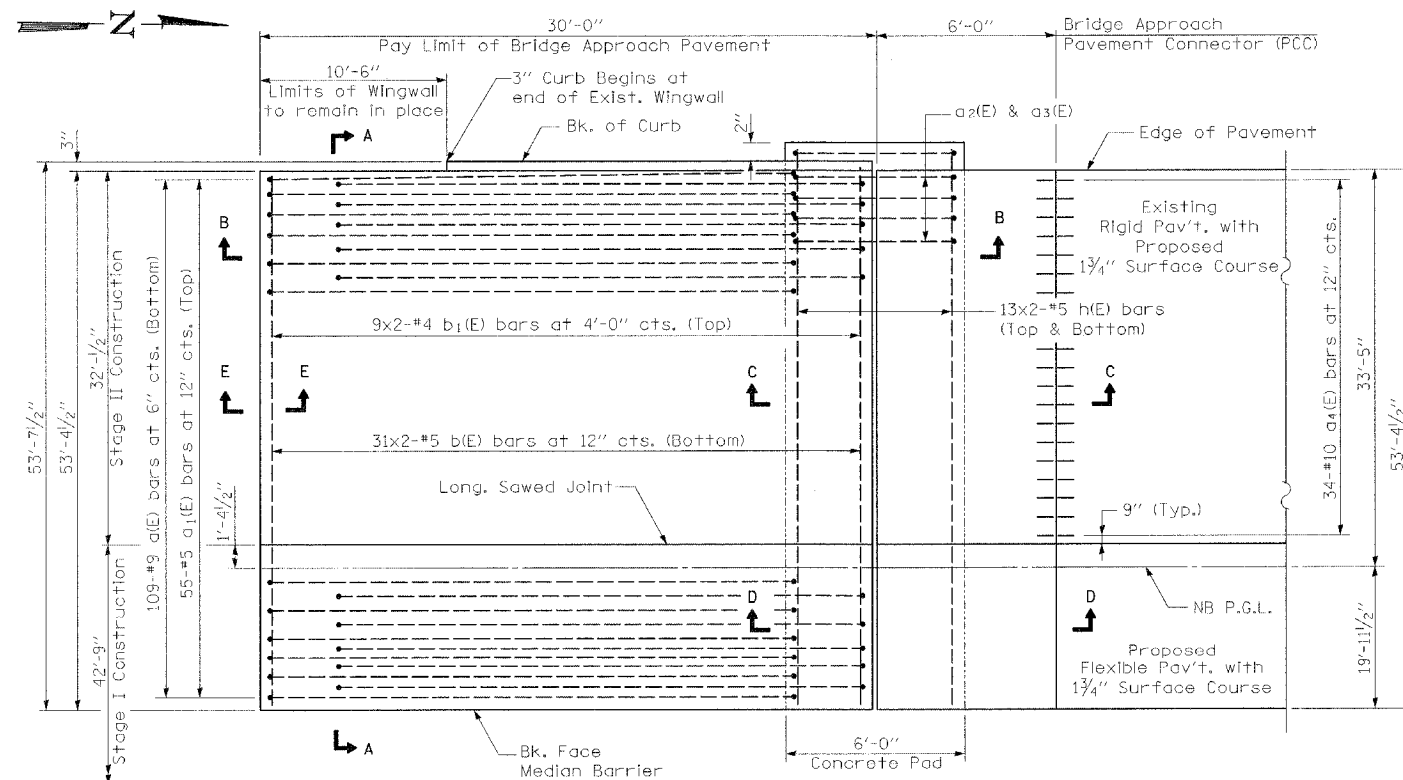
FINAL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	#TOT#	256
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		
P-XX-XXX-XX				



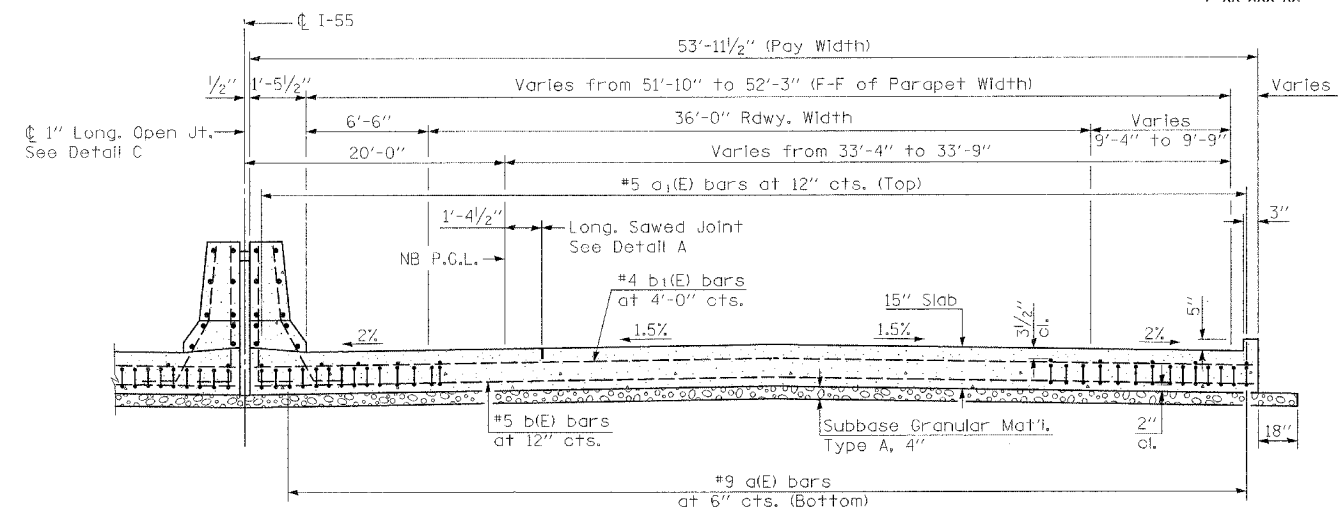
**I-55 OVER MS (ABANDONED) R.R.  
NB BRIDGE APPROACH PAVEMENT PLAN**

(See Section A-A for Dimensions not shown)  
(North Approach End Shown, South Approach End Similar)

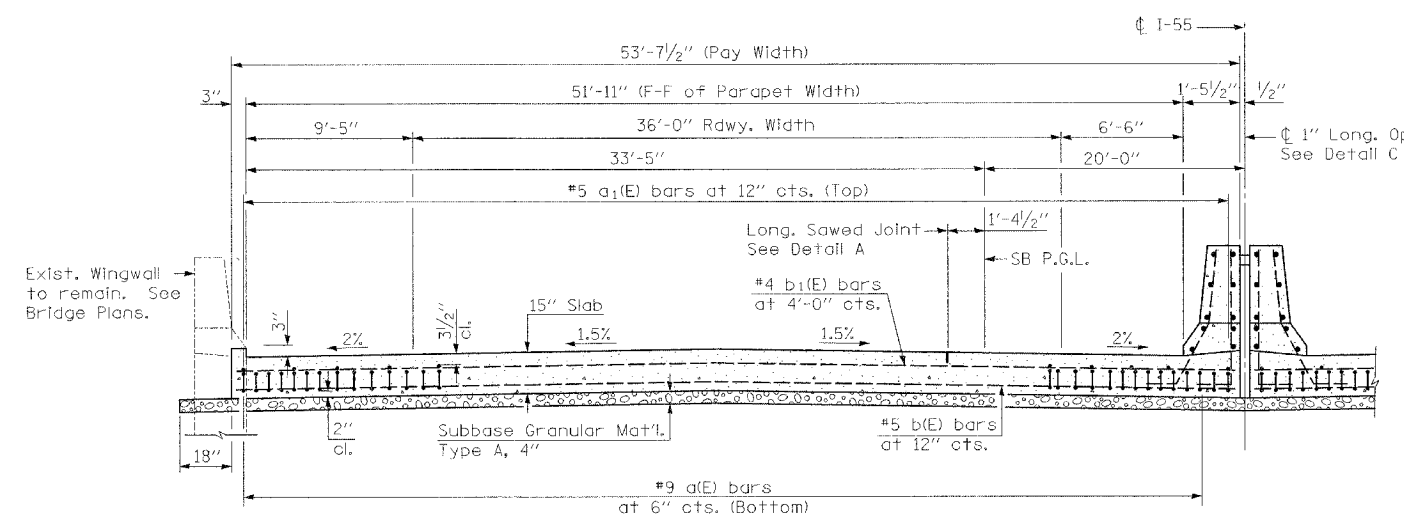


**I-55 OVER MS (ABANDONED) R.R.  
SB BRIDGE APPROACH PAVEMENT PLAN**

(See Section A-A for Dimensions not shown)  
(North Approach End Shown, South Approach End Similar)



**SECTION A-A - NB BRIDGE APPROACH PAVEMENT**  
(North Approach End Shown, South Approach End Similar)



**SECTION A-A - SB BRIDGE APPROACH PAVEMENT**  
(North Approach End Shown, South Approach End Similar)

**GENERAL NOTES**

- THICKNESS-"t"=Thickness of Pavement.
- For Profiles, see Roadway Plans.
- For Wingwall Details, See Bridge Plans.
- If two or more lane widths are poured at a time, a longitudinal sawed joint may be used at the lane edges. See Detail A.
- Reinforcement Bars designated "(E)" shall be Epoxy Coated.
- Approach Pavement Concrete Median Barriers shall be constructed and paid for in accordance with Sections 503 and 508 of the IDOT Standard Specifications.
- Protective Coat shall be applied to the Top and Traffic Faces of the Median Barriers.

**DESIGN STRESSES**

$f_y = 60,000$  P.S.I.  
 $f'_c = 3,500$  P.S.I.  
 $n = 8.5$

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
I-55 OVER MS (ABANDONED) R.R.  
BRIDGE APPROACH PAVEMENT  
PLAN & SECTIONS  
STANDARD 420401 (SPECIAL)  
SCALE: NONE DRAWN BY SBC  
DATE: 06-30-06 CHECKED BY JQZ

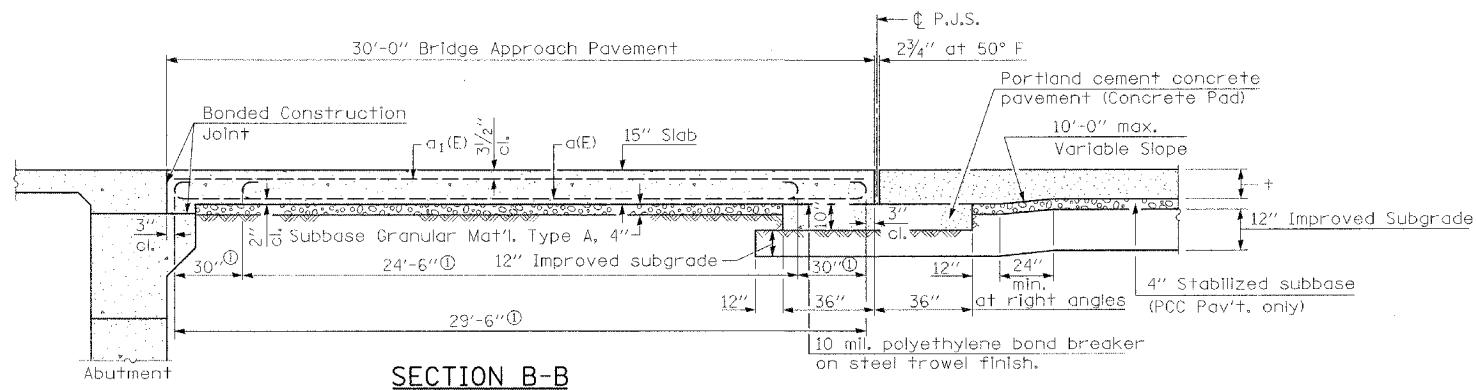






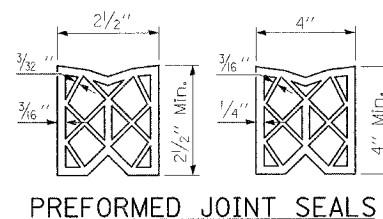


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	#TOT#	253
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		
P-XX-XXX-XX				

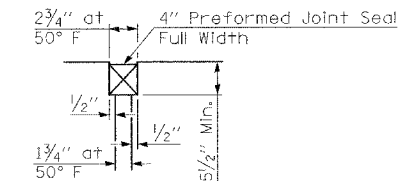


SECTION B-B

Ⓢ Stagger No. 9 a bars as shown on plan - full width



PREFORMED JOINT SEALS



DETAIL B

**\* BAR SCHEDULE APPROACH PAVEMENT**

Bar	No.	Size	Length	Shape
a(E)	124	#9	29'-6"	—
a <sub>1</sub> (E)	64	#5	29'-6"	—
a <sub>2</sub> (E)	68	#4	6'-8"	—
a <sub>3</sub> (E)	68	#4	5'-8"	—
b(E)	116	#5	15'-6"	—
b <sub>1</sub> (E)	32	#4	15'-6"	—
b <sub>2</sub> (E)	80	#6	2'-0"	—
h(E)	104	#5	15'-6"	—
Reinforcement Bars, Epoxy Coated		Pound	19,100	

**BILL OF MATERIALS**

Bridge Approach Pavement (Special)	Sq. Yd.	199
Bridge Approach Pavement Connector (PCC) Special	Sq. Yd.	40

\* For Information Only.

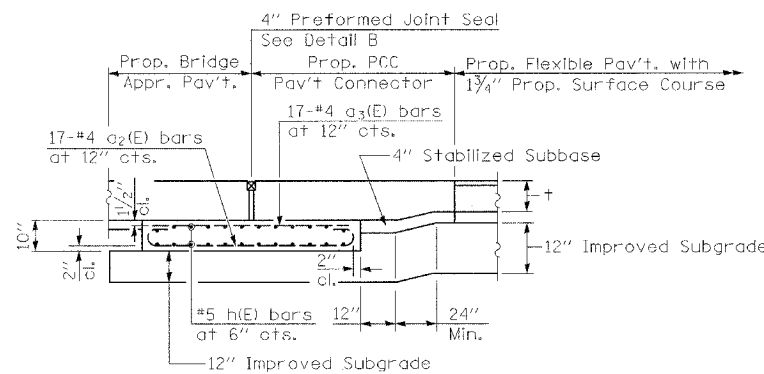
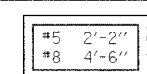
**BAR SCHEDULE MEDIAN BARRIERS**

Bar	No.	Size	Length	Shape
e(E)	64	#4	14'-8"	—
e <sub>1</sub> (E)	16	#8	17'-3"	—
e <sub>2</sub> (E)	16	#5	16'-1"	—
e <sub>3</sub> (E)	32	#4	5'-8"	—
e <sub>4</sub> (E)	8	#8	5'-8"	—
e <sub>5</sub> (E)	8	#5	5'-8"	—
d(E)	168	#5	5'-2"	—
d <sub>1</sub> (E)	168	#4	4'-9"	—

**BILL OF MATERIALS**

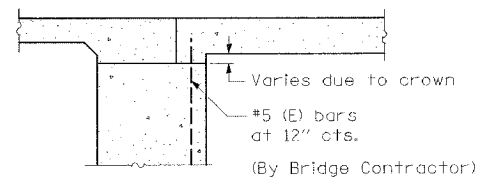
Concrete Structures	Cu. Yd.	19.2
Reinforcement Bars, Epoxy Coated	Pound	3,370
Protective Coat	Sq. Yd.	68
Preformed Joint Seal, 2 1/2"	Foot	72
Conduit Embedded In Structure, 2" Dia., Galvanized Steel	Foot	144

**MIN. BAR LAPS**

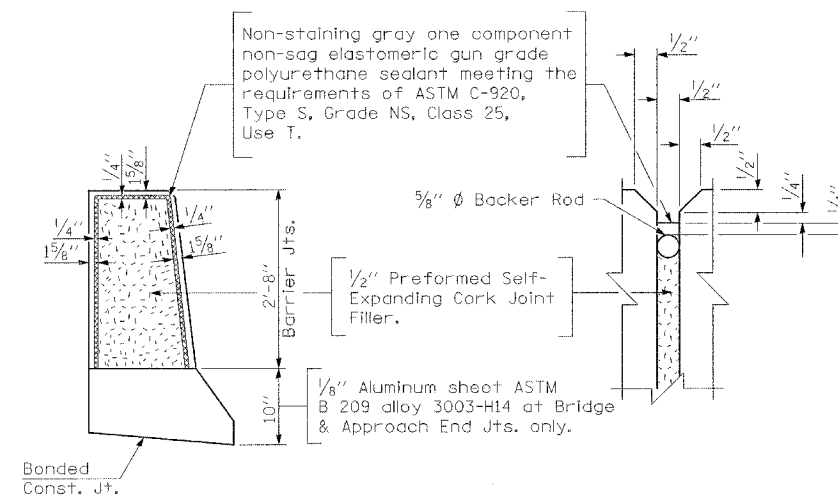


SECTION C-C - FLEXIBLE PAVEMENT

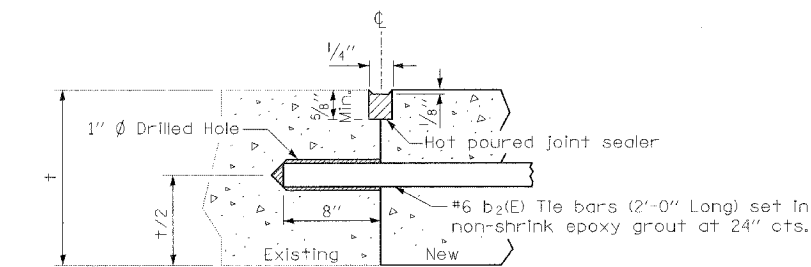
(Showing Reinforcement)



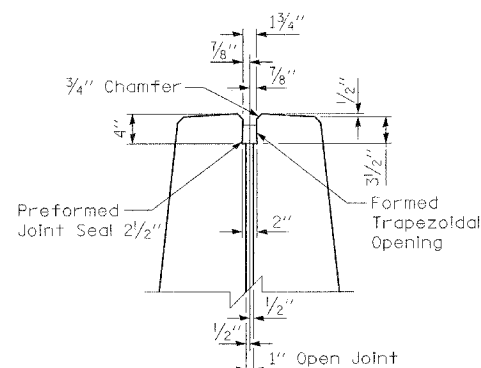
SECTION D-D



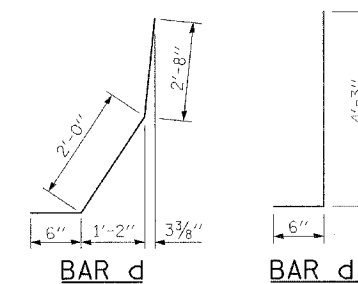
MEDIAN BARRIER JOINT DETAILS



DETAIL A LONGITUDINAL JOINT

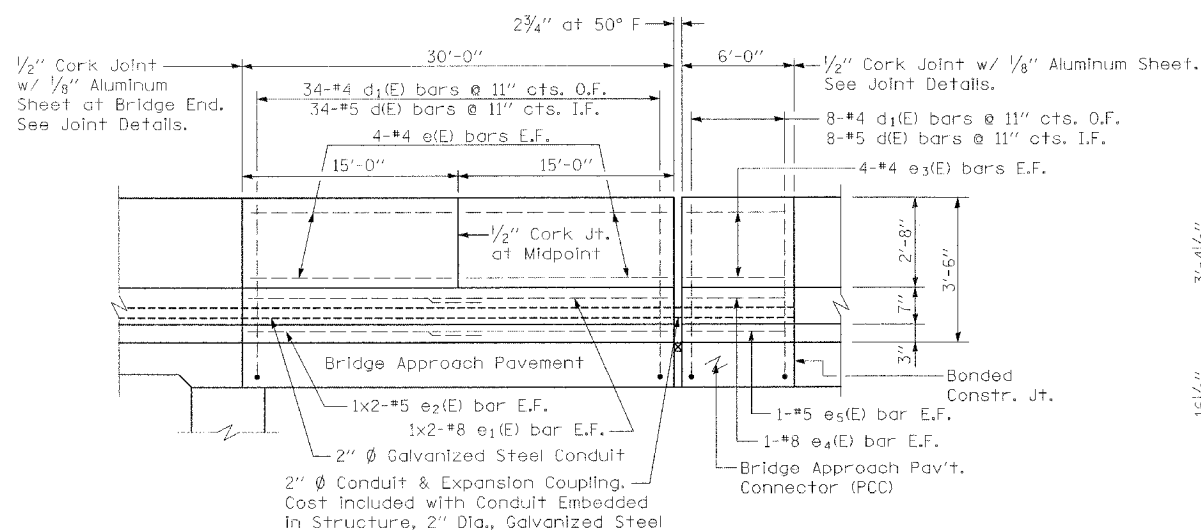


DETAIL C

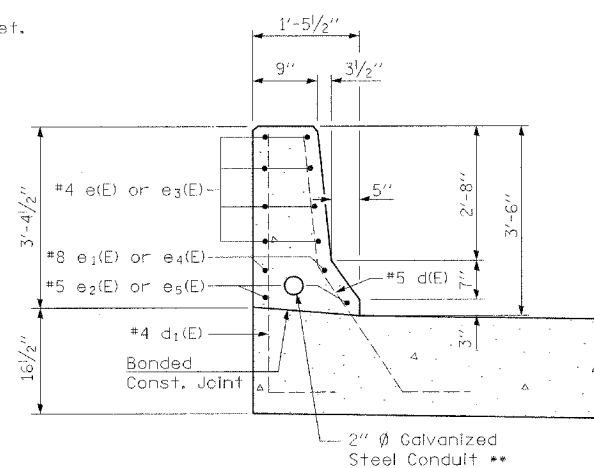


BAR d

BAR d1

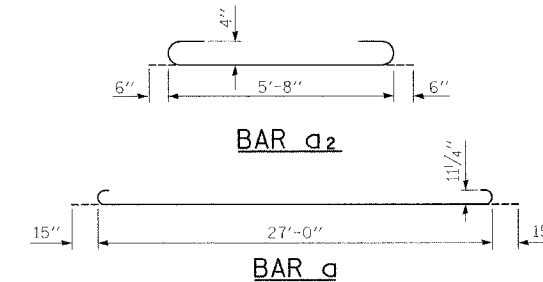


MEDIAN BARRIER ELEVATION



SECTION THRU MEDIAN BARRIER

\*\* Maintain a minimum of 1" clearance from all reinforcement bars in barrier.



BAR a<sub>2</sub>

BAR a

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 I-55 OVER MINK CREEK  
 BRIDGE APPROACH PAVEMENT DETAILS  
 STANDARD 420401 (SPECIAL)  
 SCALE: NONE  
 DATE: 06-30-06  
 DRAWN BY: SBC  
 CHECKED BY: JOZ





F.A.I. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	261
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**INDEX OF SHEETS**

- SC-1 GENERAL PLAN & ELEVATION
- SC-2 GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL
- SC-3 CONSTRUCTION STAGING
- SC-4 CANTILEVER FORMING BRACKETS
- SC-5 EXISTING STRUCTURE REMOVAL
- SC-6 TEMPORARY SOIL RETENTION SYSTEM & MISCELLANEOUS DETAILS
- SC-7 SUBSTRUCTURE LAYOUT
- SC-8 SCREED PLAN & DEAD LOAD DEFLECTIONS
- SC-9 TOP OF SLAB ELEVATIONS - I
- SC-10 TOP OF SLAB ELEVATIONS - II
- SC-11 TOP OF SLAB ELEVATIONS - III
- SC-12 I-55 SOUTHBOUND DECK PLAN & CROSS SECTION
- SC-13 I-55 NORTHBOUND DECK PLAN & CROSS SECTION
- SC-14 PARAPET ELEVATION & SECTIONS
- SC-15 DECK & PARAPET DETAILS & BAR LISTS
- SC-16 EXPANSION JOINT DETAILS - I
- SC-17 EXPANSION JOINT DETAILS - II
- SC-18 SCUPPER DETAILS
- SC-19 FRAMING PLAN & BEAM ELEVATION
- SC-20 SPLICE DETAILS, MOMENT & REACTION TABLES, TOP OF BEAM ELEVATIONS
- SC-21 DIAPHRAGM DETAILS
- SC-22 BEARING DETAILS
- SC-23 ANCHOR BOLT DETAILS
- SC-24 NORTH ABUTMENT - SB, SOUTH ABUTMENT - NB WIDENING - 1
- SC-25 NORTH ABUTMENT - SB, SOUTH ABUTMENT - NB WIDENING - 2
- SC-26 NORTH ABUTMENT - NB, SOUTH ABUTMENT - SB WIDENING - 1
- SC-27 NORTH ABUTMENT - NB, SOUTH ABUTMENT - SB WIDENING - 2
- SC-28 PIER 1 WIDENING
- SC-29 PIER 2 WIDENING
- SC-30 PIER 3 WIDENING
- SC-31 PIER 1 REPAIR ELEVATIONS
- SC-32 PIER 2 REPAIR ELEVATIONS
- SC-33 PIER 3 REPAIR ELEVATIONS
- SC-34 BAR SPLICER DETAILS
- SC-35 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- SC-36 BORING LOGS - I
- SC-37 BORING LOGS - II
- SC-38 BORING LOGS - III

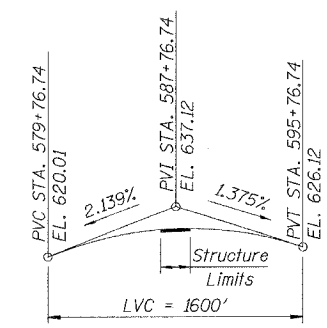
**GENERAL NOTES**

- \* 1. Fasteners shall be high strength bolts. Bolts  $\frac{7}{8}$ "  $\phi$ , open holes  $\frac{5}{16}$ "  $\phi$  unless otherwise noted.
- 2. Calculated weight of Structural Steel \*\*: M 270 Grade 50 = 103,270 lbs.  
M 270 Grade 36 = 12,220 lbs.  
Calculated weight of Anchor Bolts \*\*\* = 340 lbs.  
\*\* Structural Steel to be erected under pay item Erecting Structural Steel. The listed weights include weight of structural framing, low profile fixed bearings, side retainers, adjusting shim plates for bearings and bolts.  
\*\*\* Anchor bolts to be furnished and installed under pay item Furnishing and Erecting Structural Steel.
- \* 3. All structural steel shall be AASHTO M270 Grade 50, unless noted otherwise.
- 4. Field welding of construction accessories will not be permitted to beams.
- 5. Anchor bolts shall be set before bolting diaphragms over supports.
- \* 6. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
- 7. Reinforcement bars shall conform to the requirements of AASTHO M31 or M322 Grade 60.
- 8. Partial depth saw cutting of the existing concrete deck over top of the beam flanges shall be permitted. See Special Provision for "Removal of Existing Non-Composite Bridge Decks".
- 9. Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft..
- 10. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
- 11. Protective Coat shall not be applied to the surfaces to which Waterproofing Membrane System is applied.
- 12. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch. Adjustment 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, will be provided by the Fabrication Contractor for each bearing. In addition to all other plates or shims. For Type I Elastomeric Bearings, two  $\frac{1}{8}$ " adjusting shims will be provided by the Fabrication Contractor for each bearing and placed as detailed.
- 13. The Contractor shall drive 5 test piles, one at each abutment and pier, in a permanent location as directed by the Engineer before ordering the remainder of piles.
- 14. Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All the heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.  
  
All existing construction accessories welded to the top flange over the pier(s) between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that cannot be removed by grinding approximately  $\frac{1}{4}$  inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.
- 15. Bridge Seat Sealer shall be applied to the seat area of the newly constructed abutments.
- 16. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead in this project.
- 17. All construction joints shall be bonded.
- 18. 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 503.06 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.

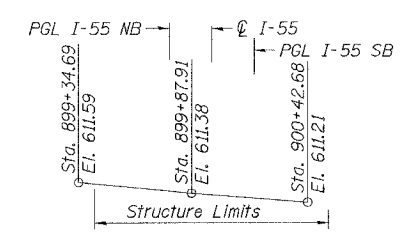
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu Yd		144	144
Concrete Removal	Cu Yd		54.4	54.4
Removal of Existing Concrete Deck	Each	2		2
Structure Excavation	Cu Yd		240	240
Preformed Joint Seal 2 1/2"	Ft	188.5		188.5
Bridge Joint System (Expansion), 1-5/8"	Ft	233.0		233.0
Concrete Structures	Cu Yd		184.4	184.4
Concrete Superstructure	Cu Yd	609.6		609.6
Bridge Deck Grooving	Sq Yd	2,176		2,176
Protective Coat	Sq Yd	2,598	3	2,601
Erecting Elastomeric Bearing Assembly, Type I	Each	8		8
Erecting Elastomeric Bearing Assembly, Type II	Each	8		8
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq Ft		20	20
Structural Repair of Concrete (Depth Greater Than 5")	Sq Ft		5	5
Erecting Structural Steel	L Sum	0.3		0.3
Furnishing and Erecting Structural Steel	Lb	340		340
Stud Shear Connectors	Each	14,436		14,436
Reinforcement Bars, Epoxy Coated	Lb	147,880	26,660	174,540
Slope Wall 4 Inch	Sq Yd		181	181
Furnishing Steel Piles HP12x53	Ft		1,234	1,234
Driving Steel Piles	Ft		1,234	1,234
Test Pile Steel HP12x53	Each		5	5
Metal Shoes	Each		39	39
Braced Excavation	Cu Yd		92	92
Name Plates	Each	2		2
Bridge Seat Sealer	Sq Ft		148	148
Epoxy Crack Sealing	Ft		60	60
Geocomposite Wall Drain	Sq Yd		36	36
Pipe Underdrains for Structures 4"	Ft		90	90
Conduit Embedded in Structure, 2" dia., Galvanized Steel	Ft	377		377
Drainage Scuppers, DS-11	Each	24		24
Temporary Soil Retention System	Sq Ft		78	78
Bar Splicers	Each	1,110	296	1,406
Protective Shield	Sq Yd	998		998

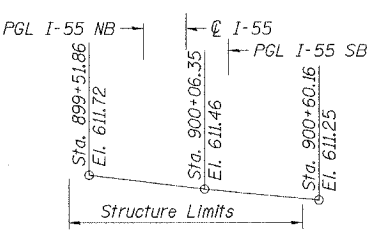
- 19. The organic zinc rich primer/epoxy/urethane paint system shall be used by the Fabrication Contractor for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and 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. See Special Provision for Cleaning and Painting New Metal Structures.  
The Erection Contractor shall use care when working with beams. Touch up in the field will be performed by the Erection Contractor. The cost for touch up painting shall be included in the contract unit price for Erecting Structural Steel.
  - 20. See Special Provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
  - 21. Existing concrete surfaces against which concrete will be poured shall be clean and free of laitance and shall be roughened to a full amplitude of  $\frac{1}{4}$  inch. Existing surfaces include abutments and backwalls. Cost included with Concrete Structures as applicable.
- \* These notes included in erection contract For Information Only.



**PROFILE OF PGL I-55 NB & SB**  
(Developed from Survey Data)



**PROFILE OF U.S. ROUTE 30 WB**  
(From Survey)



**PROFILE OF U.S. ROUTE 30 EB**  
(From Survey)

STATION 587+80.82  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 55  
SECTION 2006-032 BY  
LOADING HS20 & ALT.  
STR. NO. 099-0016  
(Southbound Structure)

**NAME PLATE**  
See Std. 515001  
See Sht. SC-14 for location

STATION 587+80.82  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 55  
SECTION 2006-032 BY  
LOADING HS20 & ALT.  
STR. NO. 099-0017  
(Northbound Structure)

**NAME PLATE**  
See Std. 515001  
See Sht. SC-14 for location

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

**SHT. SC-2 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAL ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

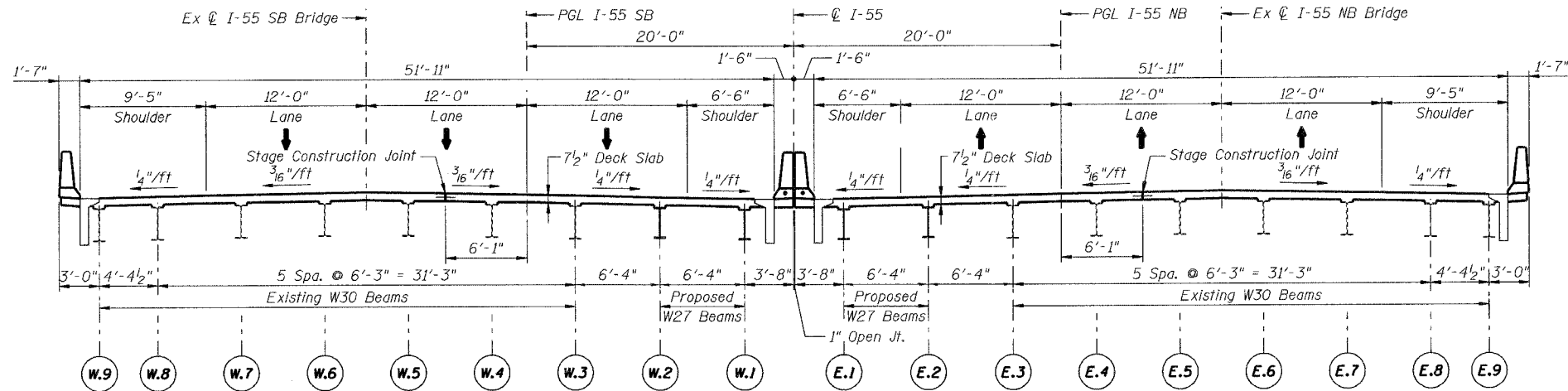
**GENERAL NOTES, INDEX OF SHEETS & TOTAL BILL OF MATERIAL**

SCALE: DRAWN BY PA  
DATE 07/21/06 CHECKED BY MJK

**TENG**  
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

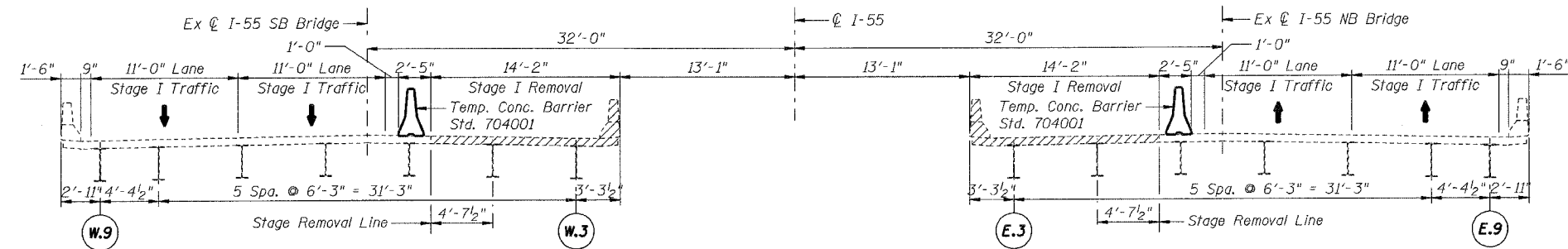
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F.A.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY WILL	505	262
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



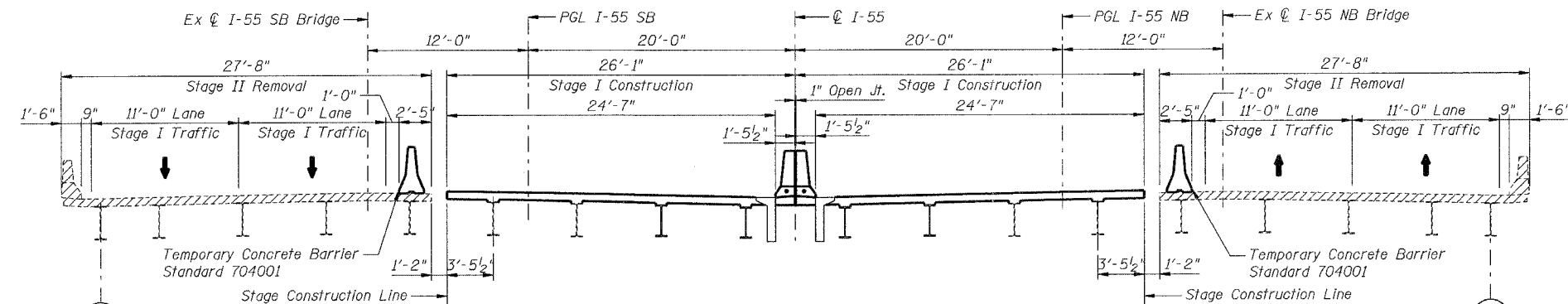
**PROPOSED CROSS SECTION**

(Looking North)



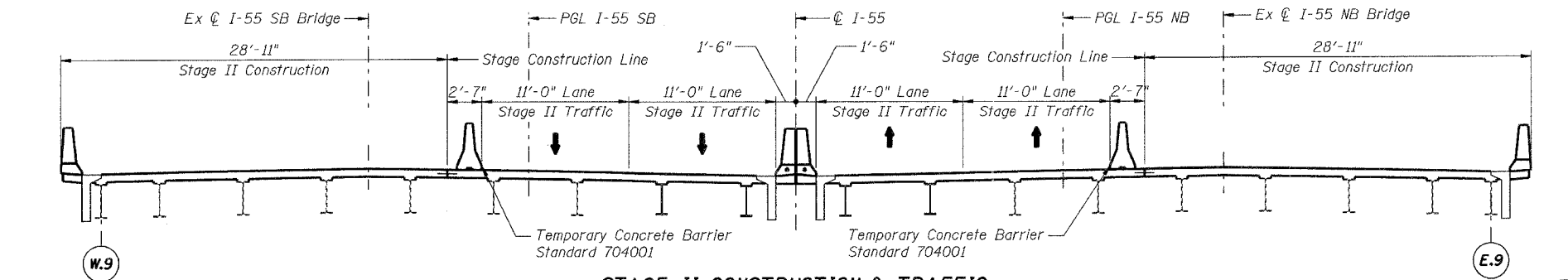
**EXISTING STRUCTURES - STAGE I REMOVAL & TRAFFIC**

(Looking North)



**STAGE I CONSTRUCTION & TRAFFIC & STAGE II REMOVAL**

(Looking North)



**STAGE II CONSTRUCTION & TRAFFIC**

(Looking North)

**Note:**

1. The existing deck contains a cathodic protection system. The system and its appurtenances shall be disabled and removed. The cost of this work shall be included with Removal of Existing Concrete Deck. See Sht. SC-5 for location of cathodic protection system electrical box to be removed as a part of this work.

**LEGEND:**

Removal of Existing Concrete Deck

SHT. SC-3 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**CONSTRUCTION STAGING**

SCALE: DATE: 07/05/06  
 DRAWN BY: PA  
 CHECKED BY: MJK

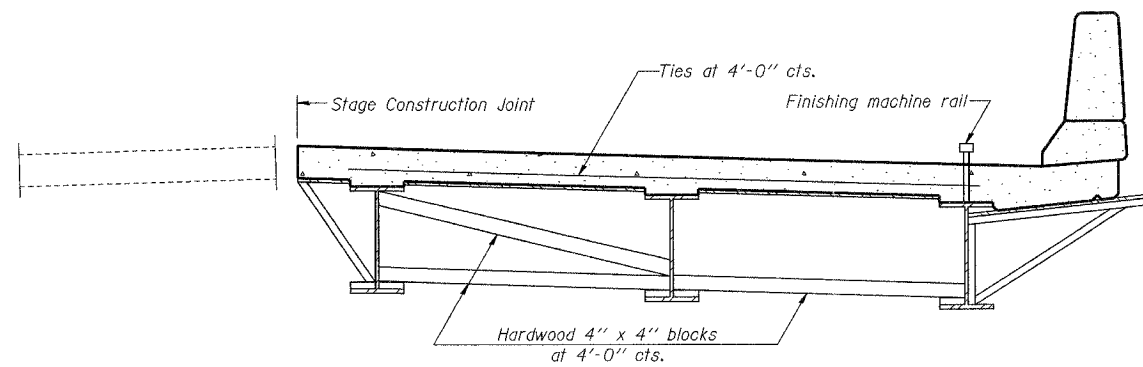
**TENG**

TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



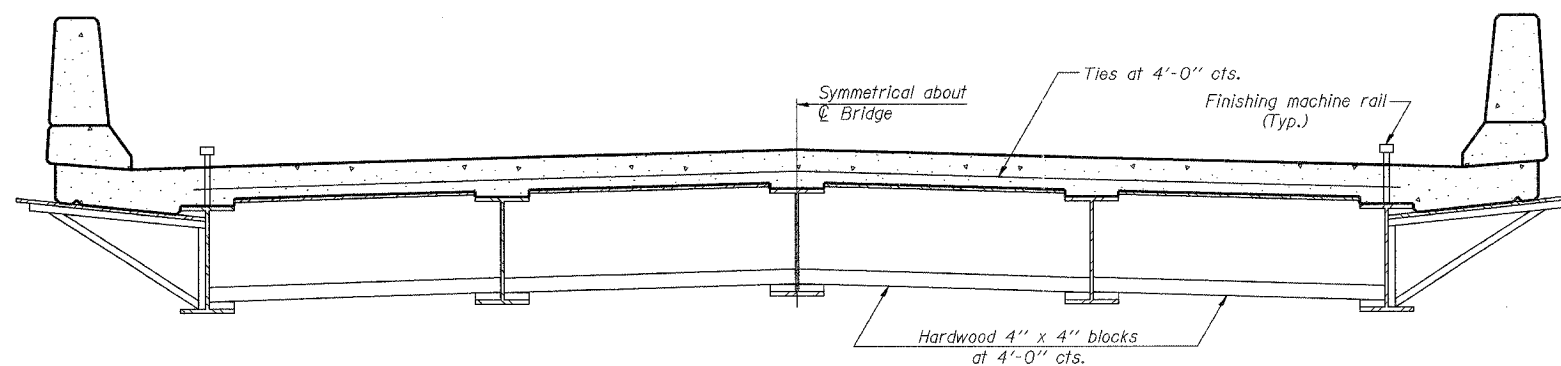
**FORM BRACES FOR  
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR  
STANDARD CONSTRUCTION**

**CANTILEVER FORMING BRACKETS  
FOR SUPERSTRUCTURES WITH  
W27 BEAMS AND SMALLER**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

SHT. SC-4 OF 38

REVISIONS	
NAME	DATE

**CANTILEVER FORMING BRACKETS**

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK

**TENG**

TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

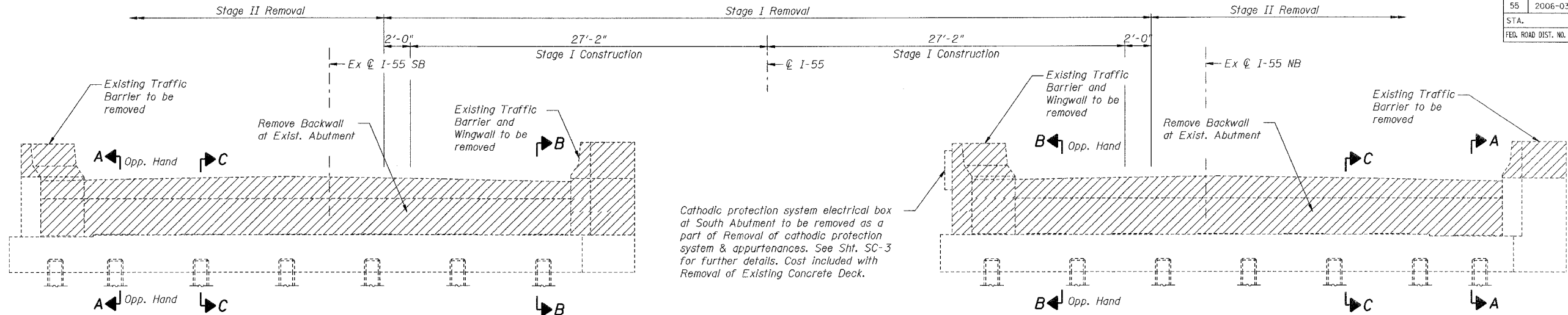
**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

SB-1

10-22-04

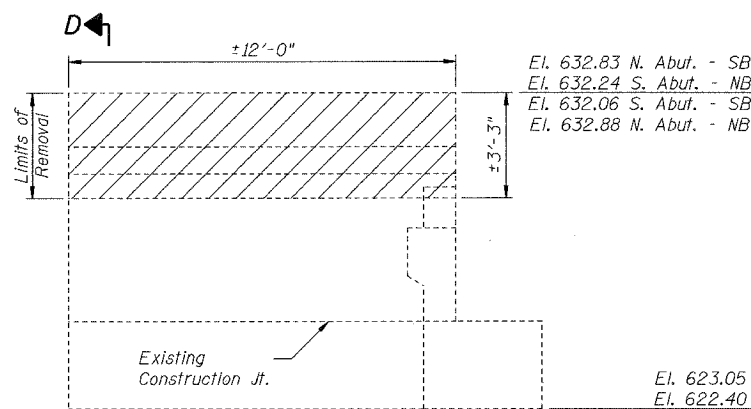
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	264
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

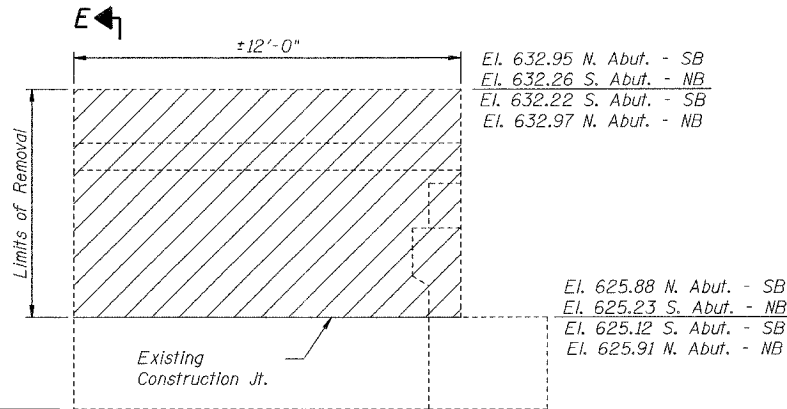


**ABUTMENT ELEVATION - TYPICAL**

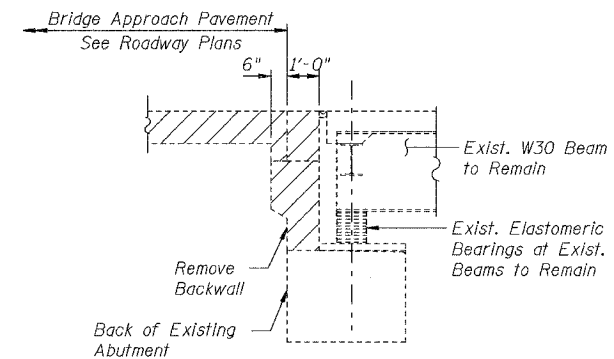
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(S. Abut. Similar)  
(Dimensions along front face of Back Wall)



**ELEVATION A-A  
OUTSIDE WINGWALL**



**ELEVATION B-B  
INSIDE WINGWALL**



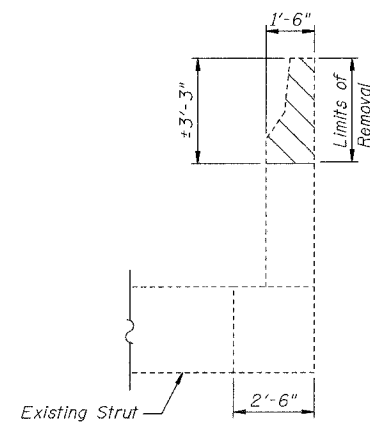
**SECTION C-C**

**BILL OF MATERIAL**

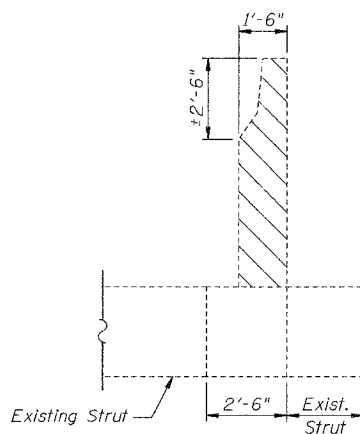
Item	Unit	Total
Concrete Removal	Cu. Yd.	54.4

**LEGEND:**

Concrete Removal



**SECTION D-D**



**SECTION E-E**

SHT. SC-5 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**EXISTING STRUCTURE REMOVAL**

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

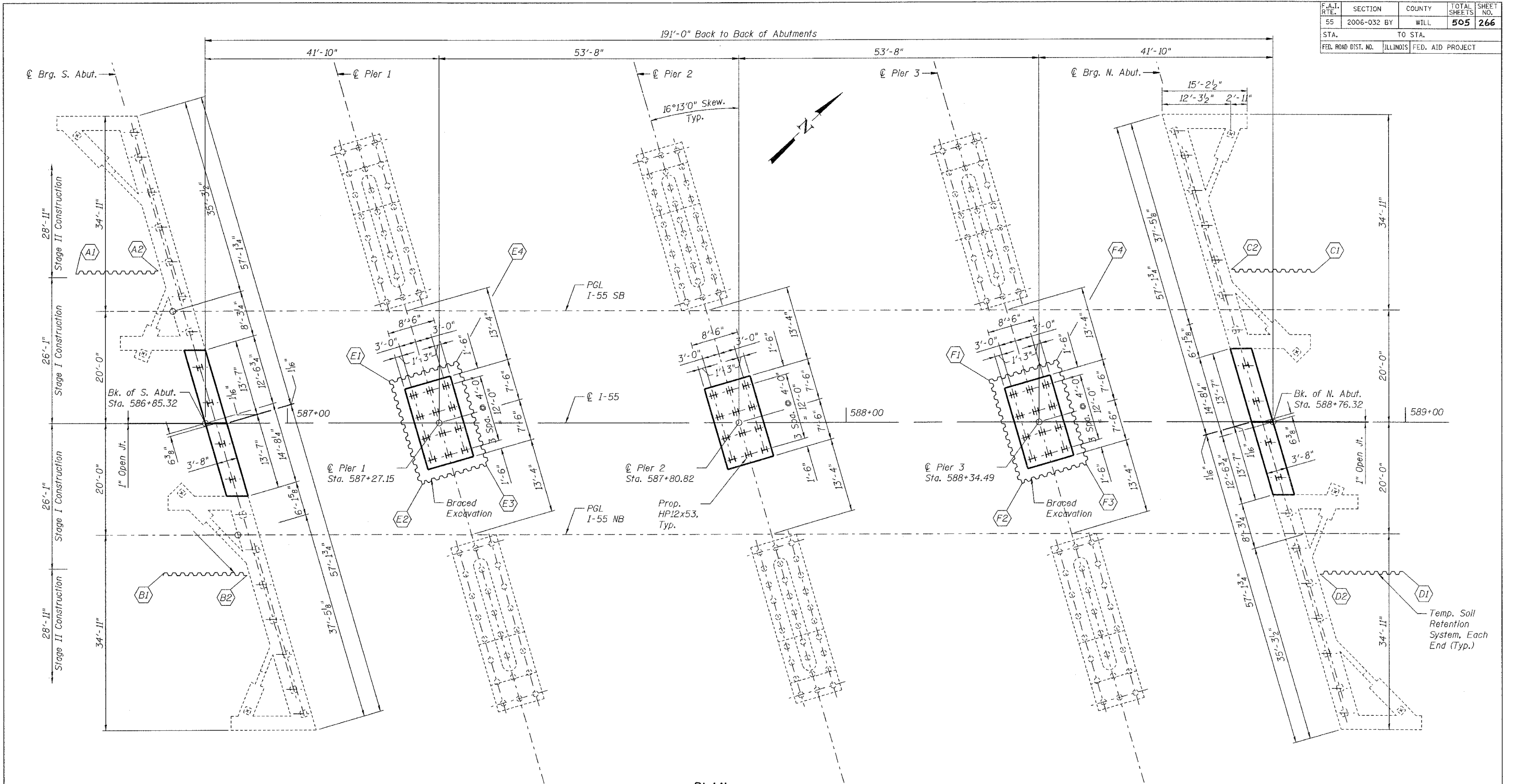
**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	266
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAN

**LEGEND:**  
 Braced Excavation or Temporary Soil Retention System

**Notes:**  
 1. See Sht. SC-6 for location of Temporary Soil Retention System and Braced Excavation.

SHT. SC-7 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**SUBSTRUCTURE LAYOUT**

SCALE: DRAWN BY PA  
 DATE 07/05/06 CHECKED BY MJK



TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

PLOT DATE = 08/17/06  
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	268
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**GIRDER W.9**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+70.20	-52.00	629.39	629.39
CL Brg S Abut	586+72.28	-52.00	629.41	629.41
A	586+82.28	-52.00	629.47	629.47
B	586+92.28	-52.00	629.52	629.52
C	587+02.28	-52.00	629.58	629.58
CL Brg Pier 1	587+12.03	-52.00	629.63	629.63
D	587+22.03	-52.00	629.68	629.68
E	587+32.03	-52.00	629.73	629.73
F	587+42.03	-52.00	629.78	629.78
G	587+52.03	-52.00	629.82	629.82
CL Brg Pier 2	587+65.70	-52.00	629.88	629.88
H	587+75.70	-52.00	629.92	629.92
I	587+85.70	-52.00	629.96	629.96
J	587+95.70	-52.00	629.99	629.99
K	588+05.70	-52.00	630.03	630.03
CL Brg Pier 3	588+19.36	-52.00	630.07	630.07
L	588+29.36	-52.00	630.10	630.10
M	588+39.36	-52.00	630.12	630.12
N	588+49.36	-52.00	630.15	630.15
CL Brg N Abut	588+59.11	-52.00	630.17	630.17
Bk N Abut	588+61.20	-52.00	630.17	630.17

**GIRDER W.8**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+71.47	-47.63	629.49	629.49
CL Brg S Abut	586+73.55	-47.63	629.51	629.51
A	586+83.55	-47.63	629.57	629.57
B	586+93.55	-47.63	629.62	629.63
C	587+03.55	-47.63	629.68	629.68
CL Brg Pier 1	587+13.30	-47.63	629.73	629.73
D	587+23.30	-47.63	629.78	629.79
E	587+33.30	-47.63	629.83	629.84
F	587+43.30	-47.63	629.88	629.89
G	587+53.30	-47.63	629.92	629.93
CL Brg Pier 2	587+66.97	-47.63	629.98	629.98
H	587+76.97	-47.63	630.02	630.02
I	587+86.97	-47.63	630.05	630.07
J	587+96.97	-47.63	630.09	630.10
K	588+06.97	-47.63	630.12	630.13
CL Brg Pier 3	588+20.64	-47.63	630.16	630.16
L	588+30.64	-47.63	630.19	630.19
M	588+40.64	-47.63	630.22	630.22
N	588+50.64	-47.63	630.24	630.25
CL Brg N Abut	588+60.39	-47.63	630.26	630.26
Bk N Abut	588+62.47	-47.63	630.26	630.26

**GIRDER W.7**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+73.29	-41.38	629.62	629.62
CL Brg S Abut	586+75.37	-41.38	629.63	629.63
A	586+85.37	-41.38	629.69	629.70
B	586+95.37	-41.38	629.75	629.76
C	587+05.37	-41.38	629.81	629.81
CL Brg Pier 1	587+15.12	-41.38	629.86	629.86
D	587+25.12	-41.38	629.91	629.91
E	587+35.12	-41.38	629.96	629.97
F	587+45.12	-41.38	630.00	630.02
G	587+55.12	-41.38	630.05	630.06
CL Brg Pier 2	587+68.79	-41.38	630.10	630.10
H	587+78.79	-41.38	630.14	630.15
I	587+88.79	-41.38	630.18	630.19
J	587+98.79	-41.38	630.21	630.23
K	588+08.79	-41.38	630.24	630.26
CL Brg Pier 3	588+22.45	-41.38	630.29	630.29
L	588+32.45	-41.38	630.31	630.32
M	588+42.45	-41.38	630.34	630.35
N	588+52.45	-41.38	630.36	630.37
CL Brg N Abut	588+62.20	-41.38	630.38	630.38
Bk N Abut	588+64.29	-41.38	630.38	630.38

**GIRDER W.6**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+75.10	-35.13	629.73	629.73
CL Brg S Abut	586+77.19	-35.13	629.74	629.74
A	586+87.19	-35.13	629.80	629.81
B	586+97.19	-35.13	629.86	629.87
C	587+07.19	-35.13	629.91	629.92
CL Brg Pier 1	587+16.94	-35.13	629.96	629.96
D	587+26.94	-35.13	630.01	630.02
E	587+36.94	-35.13	630.06	630.08
F	587+46.94	-35.13	630.11	630.12
G	587+56.94	-35.13	630.15	630.16
CL Brg Pier 2	587+70.60	-35.13	630.21	630.21
H	587+80.60	-35.13	630.25	630.25
I	587+90.60	-35.13	630.28	630.30
J	588+00.60	-35.13	630.32	630.33
K	588+10.60	-35.13	630.35	630.36
CL Brg Pier 3	588+24.27	-35.13	630.39	630.39
L	588+34.27	-35.13	630.41	630.42
M	588+44.27	-35.13	630.44	630.45
N	588+54.27	-35.13	630.46	630.47
CL Brg N Abut	588+64.02	-35.13	630.48	630.48
Bk N Abut	588+66.10	-35.13	630.48	630.48

**GIRDER W.5**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+76.92	-28.88	629.74	629.74
CL Brg S Abut	586+79.01	-28.88	629.75	629.75
A	586+89.01	-28.88	629.81	629.82
B	586+99.01	-28.88	629.87	629.88
C	587+09.01	-28.88	629.92	629.93
CL Brg Pier 1	587+18.76	-28.88	629.97	629.97
D	587+28.76	-28.88	630.02	630.03
E	587+38.76	-28.88	630.07	630.09
F	587+48.76	-28.88	630.12	630.13
G	587+58.76	-28.88	630.16	630.17
CL Brg Pier 2	587+72.42	-28.88	630.21	630.21
H	587+82.42	-28.88	630.25	630.26
I	587+92.42	-28.88	630.29	630.30
J	588+02.42	-28.88	630.32	630.34
K	588+12.42	-28.88	630.35	630.36
CL Brg Pier 3	588+26.09	-28.88	630.39	630.39
L	588+36.09	-28.88	630.42	630.42
M	588+46.09	-28.88	630.44	630.45
N	588+56.09	-28.88	630.47	630.47
CL Brg N Abut	588+65.84	-28.88	630.48	630.48
Bk N Abut	588+67.92	-28.88	630.49	630.49

**STAGE CONSTRUCTION JOINT**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+77.73	-26.08	629.70	629.70
CL Brg S Abut	586+79.82	-26.08	629.71	629.71
A	586+89.82	-26.08	629.77	629.78
B	586+99.82	-26.08	629.83	629.84
C	587+09.82	-26.08	629.88	629.89
CL Brg Pier 1	587+19.57	-26.08	629.93	629.93
D	587+29.57	-26.08	629.98	629.99
E	587+39.57	-26.08	630.03	630.05
F	587+49.57	-26.08	630.08	630.09
G	587+59.57	-26.08	630.12	630.13
CL Brg Pier 2	587+73.23	-26.08	630.17	630.17
H	587+83.23	-26.08	630.21	630.22
I	587+93.23	-26.08	630.25	630.26
J	588+03.23	-26.08	630.28	630.30
K	588+13.23	-26.08	630.31	630.32
CL Brg Pier 3	588+26.90	-26.08	630.35	630.35
L	588+36.90	-26.08	630.38	630.38
M	588+46.90	-26.08	630.40	630.41
N	588+56.90	-26.08	630.42	630.43
CL Brg N Abut	588+66.65	-26.08	630.44	630.44
Bk N Abut	588+68.73	-26.08	630.45	630.45

**GIRDER W.4**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+78.74	-22.63	629.65	629.65
CL Brg S Abut	586+80.82	-22.63	629.67	629.67
A	586+90.82	-22.63	629.72	629.73
B	587+00.82	-22.63	629.78	629.79
C	587+10.82	-22.63	629.83	629.84
CL Brg Pier 1	587+20.57	-22.63	629.88	629.88
D	587+30.57	-22.63	629.93	629.94
E	587+40.57	-22.63	629.98	630.00
F	587+50.57	-22.63	630.03	630.04
G	587+60.57	-22.63	630.07	630.08
CL Brg Pier 2	587+74.24	-22.63	630.12	630.12
H	587+84.24	-22.63	630.16	630.17
I	587+94.24	-22.63	630.20	630.21
J	588+04.24	-22.63	630.23	630.25
K	588+14.24	-22.63	630.26	630.27
CL Brg Pier 3	588+27.91	-22.63	630.30	630.30
L	588+37.91	-22.63	630.33	630.33
M	588+47.91	-22.63	630.35	630.36
N	588+57.91	-22.63	630.37	630.38
CL Brg N Abut	588+67.66	-22.63	630.39	630.39
Bk N Abut	588+69.74	-22.63	630.39	630.39

**PGL I-55 SB**

LINE	Q I-55 STATION	Q I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+79.50	-20.00	629.62	629.62
CL Brg S Abut	586+81.59	-20.00	629.63	629.63
A	586+91.59	-20.00	629.69	629.69
B	587+01.59	-20.00	629.74	629.75
C	587+11.59	-20.00	629.80	629.80
CL Brg Pier 1	587+21.34	-20.00	629.85	629.85
D	587+31.34	-20.00	629.90	629.90
E	587+41.34	-20.00	629.94	629.96
F	587+51.34	-20.00	629.99	630.01
G	587+61.34	-20.00	630.03	630.04
CL Brg Pier 2	587+75.00	-20.00	630.09	630.09
H	587+85.00	-20.00	630.12	630.13
I	587+95.00	-20.00	630.16	630.17
J	588+05.00	-20.00	630.19	630.21
K	588+15.00	-20.00	630.22	630.23
CL Brg Pier 3	588+28.67	-20.00	630.26	630.26
L	588+38.67	-20.00	630.29	630.29
M	588+48.67	-20.00	630.31	630.32
N	588+58.67	-20.00	630.33	630.34
CL Brg N Abut	588+68.42	-20.00	630.35	630.35
Bk N Abut	588+70.50	-20.00	630.35	630.35

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 PLOT SCALE = 1/8"=1'-0"  
 USER NAME =

**Notes:**  
 1. Work this sheet with Sht. SC-8.

**SHT. SC-9 OF 38**

REVISIONS	
NAME	DATE

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**TOP OF SLAB ELEVATIONS - I**

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK

**TENG**  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	270
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**GIRDER E.4**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+91.90	22.63	629.73	629.73
CL Brg S Abut	586+93.98	22.63	629.74	629.74
A	587+03.98	22.63	629.80	629.80
B	587+13.98	22.63	629.85	629.86
C	587+23.98	22.63	629.90	629.90
CL Brg Pier 1	587+33.73	22.63	629.95	629.95
D	587+43.73	22.63	630.00	630.00
E	587+53.73	22.63	630.04	630.06
F	587+63.73	22.63	630.08	630.10
G	587+73.73	22.63	630.12	630.13
CL Brg Pier 2	587+87.40	22.63	630.17	630.17
H	587+97.40	22.63	630.21	630.21
I	588+07.40	22.63	630.24	630.26
J	588+17.40	22.63	630.27	630.29
K	588+27.40	22.63	630.30	630.31
CL Brg Pier 3	588+41.07	22.63	630.33	630.33
L	588+51.07	22.63	630.36	630.36
M	588+61.07	22.63	630.38	630.39
N	588+71.07	22.63	630.40	630.40
CL Brg N Abut	588+80.82	22.63	630.41	630.41
Bk N Abut	588+82.90	22.63	630.42	630.42

**STAGE CONSTRUCTION JOINT**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+92.91	26.08	629.79	629.79
CL Brg S Abut	586+94.99	26.08	629.80	629.80
A	587+04.99	26.08	629.86	629.86
B	587+14.99	26.08	629.91	629.92
C	587+24.99	26.08	629.96	629.96
CL Brg Pier 1	587+34.74	26.08	630.01	630.01
D	587+44.74	26.08	630.05	630.06
E	587+54.74	26.08	630.10	630.11
F	587+64.74	26.08	630.14	630.16
G	587+74.74	26.08	630.18	630.19
CL Brg Pier 2	587+88.41	26.08	630.23	630.23
H	587+98.41	26.08	630.27	630.27
I	588+08.41	26.08	630.30	630.31
J	588+18.41	26.08	630.33	630.35
K	588+28.41	26.08	630.36	630.37
CL Brg Pier 3	588+42.07	26.08	630.39	630.39
L	588+52.07	26.08	630.41	630.42
M	588+62.07	26.08	630.43	630.44
N	588+72.07	26.08	630.45	630.46
CL Brg N Abut	588+81.82	26.08	630.47	630.47
Bk N Abut	588+83.91	26.08	630.47	630.47

**GIRDER E.5**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+93.72	28.88	629.84	629.84
CL Brg S Abut	586+95.80	28.88	629.85	629.85
A	587+05.80	28.88	629.91	629.91
B	587+15.80	28.88	629.96	629.97
C	587+25.80	28.88	630.01	630.01
CL Brg Pier 1	587+35.55	28.88	630.06	630.06
D	587+45.55	28.88	630.10	630.11
E	587+55.55	28.88	630.15	630.16
F	587+65.55	28.88	630.19	630.20
G	587+75.55	28.88	630.23	630.24
CL Brg Pier 2	587+89.22	28.88	630.28	630.28
H	587+99.22	28.88	630.31	630.32
I	588+09.22	28.88	630.34	630.36
J	588+19.22	28.88	630.37	630.39
K	588+29.22	28.88	630.40	630.41
CL Brg Pier 3	588+42.88	28.88	630.44	630.44
L	588+52.88	28.88	630.46	630.46
M	588+62.88	28.88	630.48	630.49
N	588+72.88	28.88	630.50	630.50
CL Brg N Abut	588+82.63	28.88	630.51	630.51
Bk N Abut	588+84.72	28.88	630.52	630.52

**GIRDER E.6**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+95.54	35.13	629.85	629.85
CL Brg S Abut	586+97.62	35.13	629.86	629.86
A	587+07.62	35.13	629.91	629.92
B	587+17.62	35.13	629.97	629.98
C	587+27.62	35.13	630.02	630.02
CL Brg Pier 1	587+37.37	35.13	630.06	630.06
D	587+47.37	35.13	630.11	630.12
E	587+57.37	35.13	630.15	630.17
F	587+67.37	35.13	630.19	630.21
G	587+77.37	35.13	630.23	630.24
CL Brg Pier 2	587+91.04	35.13	630.28	630.28
H	588+01.04	35.13	630.32	630.32
I	588+11.04	35.13	630.35	630.36
J	588+21.04	35.13	630.38	630.40
K	588+31.04	35.13	630.41	630.42
CL Brg Pier 3	588+44.70	35.13	630.44	630.44
L	588+54.70	35.13	630.46	630.47
M	588+64.70	35.13	630.48	630.49
N	588+74.70	35.13	630.50	630.51
CL Brg N Abut	588+84.45	35.13	630.52	630.52
Bk N Abut	588+86.54	35.13	630.52	630.52

**GIRDER E.7**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+97.35	41.38	629.76	629.76
CL Brg S Abut	586+99.44	41.38	629.77	629.77
A	587+09.44	41.38	629.83	629.83
B	587+19.44	41.38	629.88	629.89
C	587+29.44	41.38	629.93	629.93
CL Brg Pier 1	587+39.19	41.38	629.97	629.97
D	587+49.19	41.38	630.02	630.03
E	587+59.19	41.38	630.06	630.08
F	587+69.19	41.38	630.10	630.12
G	587+79.19	41.38	630.14	630.15
CL Brg Pier 2	587+92.85	41.38	630.19	630.19
H	588+02.85	41.38	630.23	630.23
I	588+12.85	41.38	630.26	630.27
J	588+22.85	41.38	630.29	630.30
K	588+32.85	41.38	630.31	630.32
CL Brg Pier 3	588+46.52	41.38	630.35	630.35
L	588+56.52	41.38	630.37	630.37
M	588+66.52	41.38	630.39	630.40
N	588+76.52	41.38	630.41	630.41
CL Brg N Abut	588+86.27	41.38	630.42	630.42
Bk N Abut	588+88.35	41.38	630.42	630.42

**GIRDER E.8**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	586+99.17	47.63	629.65	629.65
CL Brg S Abut	587+01.25	47.63	629.67	629.67
A	587+11.25	47.63	629.72	629.73
B	587+21.25	47.63	629.77	629.78
C	587+31.25	47.63	629.82	629.82
CL Brg Pier 1	587+41.00	47.63	629.87	629.87
D	587+51.00	47.63	629.91	629.92
E	587+61.00	47.63	629.95	629.97
F	587+71.00	47.63	629.99	630.01
G	587+81.00	47.63	630.03	630.04
CL Brg Pier 2	587+94.67	47.63	630.08	630.08
H	588+04.67	47.63	630.12	630.12
I	588+14.67	47.63	630.15	630.16
J	588+24.67	47.63	630.17	630.19
K	588+34.67	47.63	630.20	630.21
CL Brg Pier 3	588+48.34	47.63	630.23	630.23
L	588+58.34	47.63	630.26	630.26
M	588+68.34	47.63	630.27	630.28
N	588+78.34	47.63	630.29	630.30
CL Brg N Abut	588+88.09	47.63	630.31	630.31
Bk N Abut	588+90.17	47.63	630.31	630.31

**GIRDER E.9**

LINE	© I-55 STATION	© I-55 OFFSET (ft)	THEORETICAL GRADE ELEVATIONS (ft)	ELEVATIONS ADJUSTED FOR D.L. DEFLECTIONS (ft)
Bk S Abut	587+00.44	52.00	629.57	629.57
CL Brg S Abut	587+02.53	52.00	629.58	629.58
A	587+12.53	52.00	629.64	629.64
B	587+22.53	52.00	629.69	629.69
C	587+32.53	52.00	629.74	629.74
CL Brg Pier 1	587+42.28	52.00	629.78	629.78
D	587+52.28	52.00	629.83	629.83
E	587+62.28	52.00	629.87	629.88
F	587+72.28	52.00	629.91	629.92
G	587+82.28	52.00	629.95	629.96
CL Brg Pier 2	587+95.94	52.00	630.00	630.00
H	588+05.94	52.00	630.03	630.03
I	588+15.94	52.00	630.06	630.07
J	588+25.94	52.00	630.09	630.10
K	588+35.94	52.00	630.11	630.12
CL Brg Pier 3	588+49.61	52.00	630.15	630.15
L	588+59.61	52.00	630.17	630.17
M	588+69.61	52.00	630.19	630.19
N	588+79.61	52.00	630.20	630.21
CL Brg N Abut	588+89.36	52.00	630.22	630.22
Bk N Abut	588+91.44	52.00	630.22	630.22

**Notes:**

1. Work this sheet with Sht. SC-8.

SHT. SC-11 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

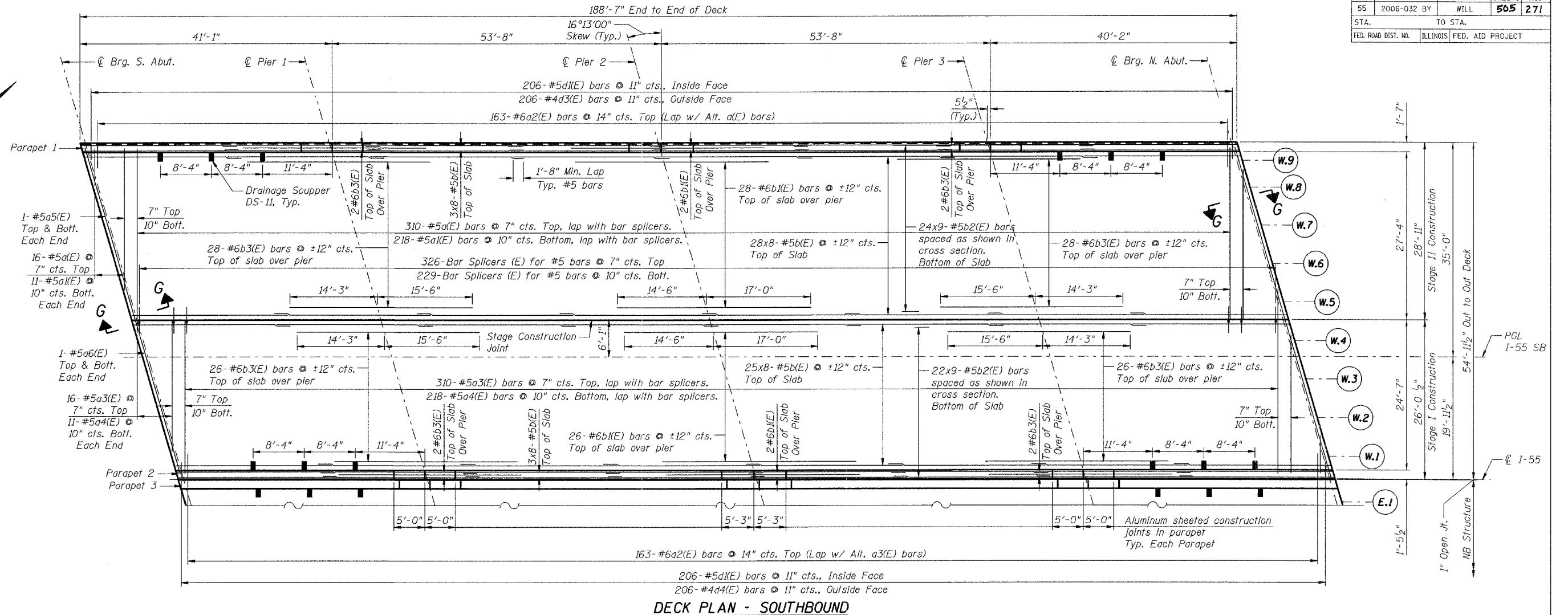
**TOP OF SLAB ELEVATIONS - III**

SCALE: \_\_\_\_\_ DRAWN BY: PA  
 DATE: 07/05/06 CHECKED BY: MJK  
**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

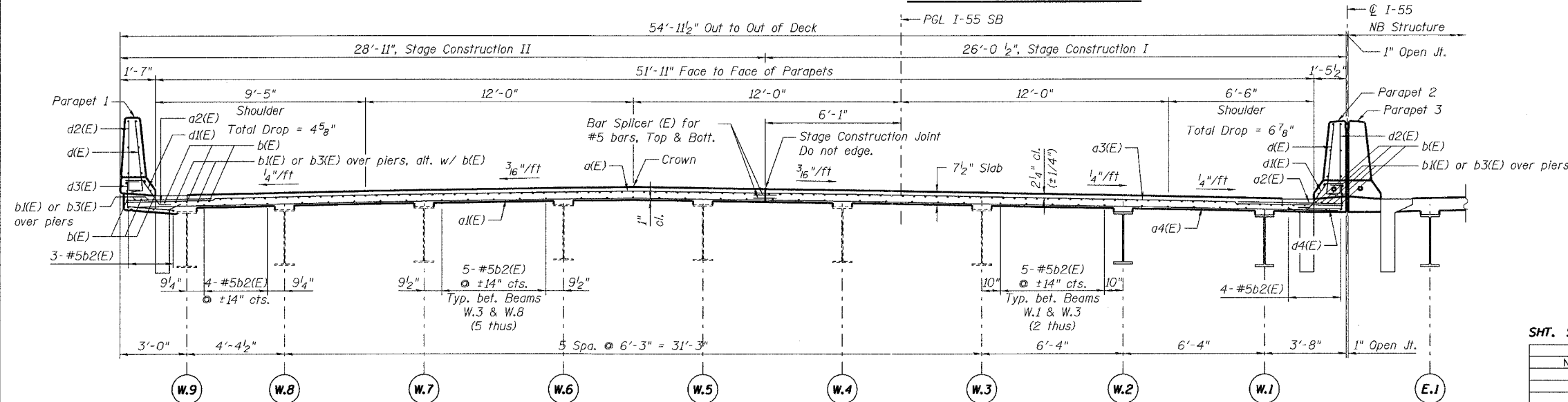
**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

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 PLOT SCALE = AS CALLED  
 USER NAME = MJB  
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	271
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**DECK PLAN - SOUTHBOUND**



**CROSS-SECTION - SOUTHBOUND**

**Notes:**

1. Work this sheet with Shts. SC-14 thru SC-18.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus, 20x3-#5 etc., indicates 20 lines of bars with 3 lengths per line.
4. See Sht. SC-34 for bar splicer details.
5. See Sht. SC-15 for Reinforcement Bar List and Bill of Material.
6. See Sht. SC-15 for Section G-G.
7. Order a(E), a1(E), a3(E) and a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

**SHT. SC-12 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**I-55 SOUTHBOUND DECK PLAN & CROSS SECTION**

SCALE: DRAWN BY PA  
 DATE 07/05/06 CHECKED BY MJK

**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

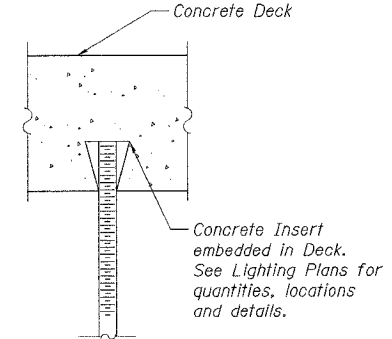
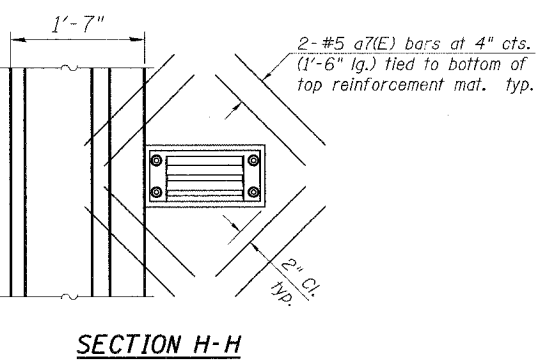
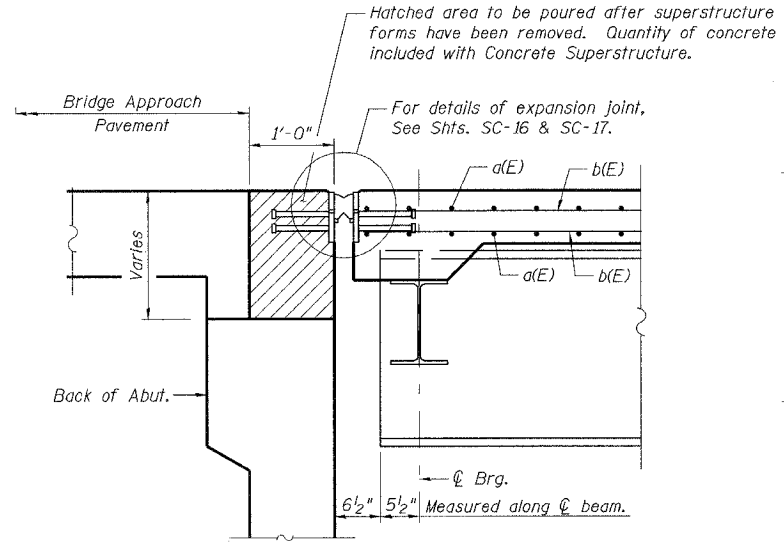
**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

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**DECK INSERTS FOR UNDERDECK LIGHTING**

The cost of installation of inserts for light fixtures, junction boxes and conduits shall be included with Concrete Superstructure.

**BAR LIST**  
(For Each Parapet)

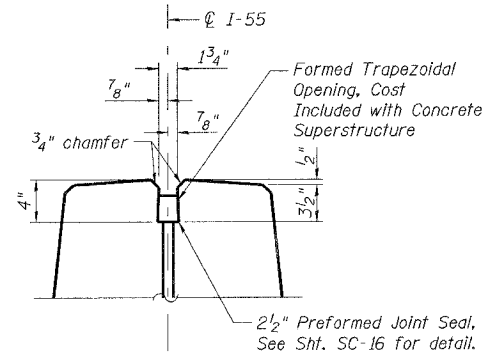
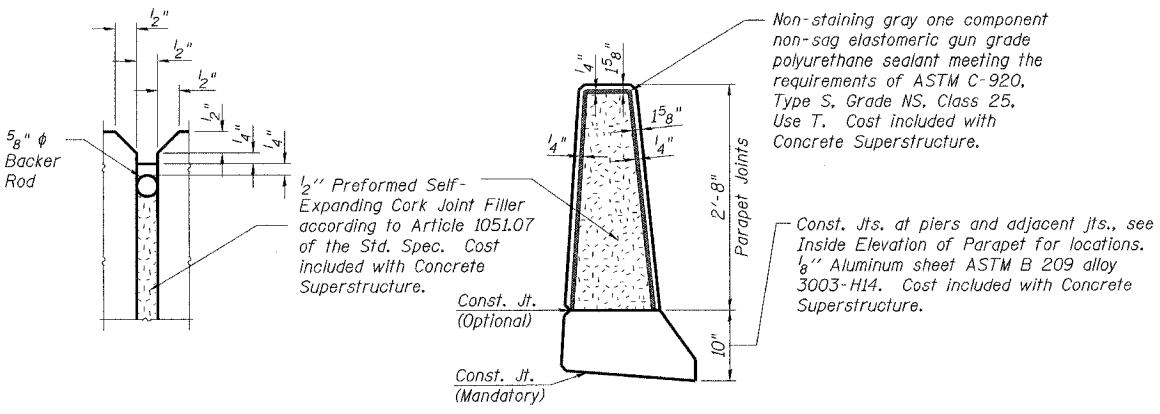
Bar	No.	Size	Length	Shape
a(E)	226	#5	3'-8"	┌
d2(E)	226	#4	3'-8"	┌
e(E)	12	#4	15'-3"	—
e1(E)	12	#4	19'-8"	—
e2(E)	24	#4	4'-8"	—
e3(E)	12	#4	4'-11"	—
e4(E)	36	#4	14'-1"	—
e5(E)	8	#8	20'-1"	—
e6(E)	8	#8	4'-9"	—
e7(E)	4	#8	5'-0"	—
e8(E)	8	#8	24'-0"	—
e9(E)	8	#5	18'-11"	—
e10(E)	8	#5	22'-10"	—
e11(E)	8	#5	4'-9"	—
e12(E)	4	#5	5'-0"	—

**BAR LIST**  
(For Each Deck)

Bar	No.	Size	Length	Shape
a(E)	326	#5	28'-2"	—
a1(E)	229	#5	28'-2"	—
a2(E)	326	#6	4'-6"	—
a3(E)	326	#5	26'-0"	—
a4(E)	229	#5	26'-0"	—
a5(E)	4	#5	29'-4"	—
a6(E)	4	#5	27'-1"	—
a7(E)	96	#5	1'-6"	—
b(E)	480	#5	25'-0"	—
b1(E)	58	#6	31'-6"	—
b2(E)	414	#5	22'-5"	—
b3(E)	116	#6	29'-9"	—
d1(E)	452	#5	2'-5"	┌
d3(E)	226	#4	3'-8"	┌
d4(E)	226	#5	3'-8"	┌

**Notes:**

1. Work this sheet with Shts. SC-12 thru SC-18.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus, 20x3-#5 etc., indicates 20 lines of bars with 3 lengths per line.
4. See Sht. SC-34 for bar splicer details.
5. Order a(E), a1(E), a3(E) and a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end. See Bar Cutting Diagrams this Sheet.



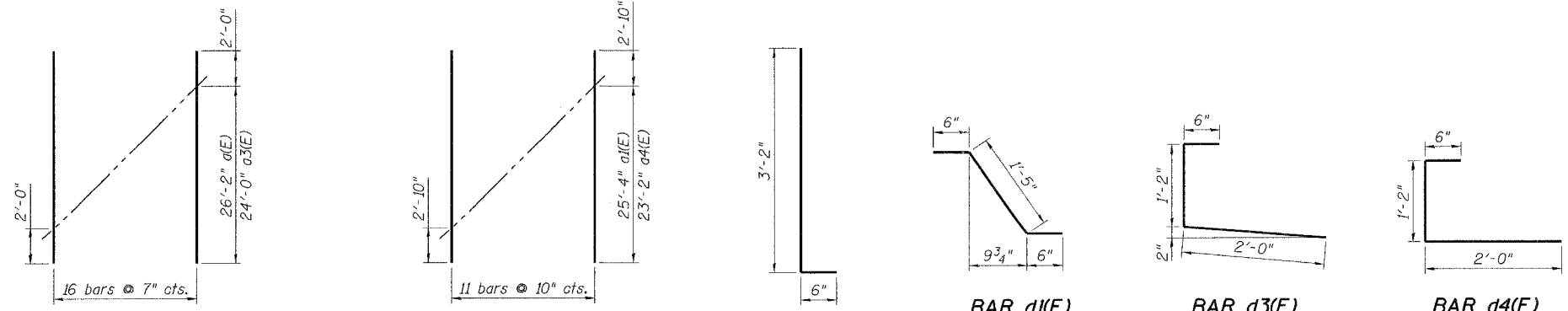
**BILL OF MATERIAL**  
(For Each Deck)

Item	Unit	Total
Concrete Superstructure	Cu. Yd.	256.9
Bridge Deck Grooving	Sq. Yd.	1,088
Protective Coat	Sq. Yd.	1,090
Reinforcement Bars, Epoxy Coated	Pound	66,620
Bar Splicers	Each	555

**BILL OF MATERIAL**  
(For All Parapets)

Item	Unit	Total
Preformed Joint Seal 2 1/2"	Foot	188.5
Concrete Superstructure	Cu. Yd.	95.8
Protective Coat*	Sq. Yd.	418
Reinforcement Bars, Epoxy Coated	Pound	14,640
Name Plates	Each	2
Conduit Embedded in Structure, 2" dia., Galvanized Steel	Foot	377

\* Quantity includes top and inside surfaces of parapets.



**BAR CUTTING DIAGRAMS**

**SHT. SC-15 OF 38**

REVISIONS	
NAME	DATE

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAT ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

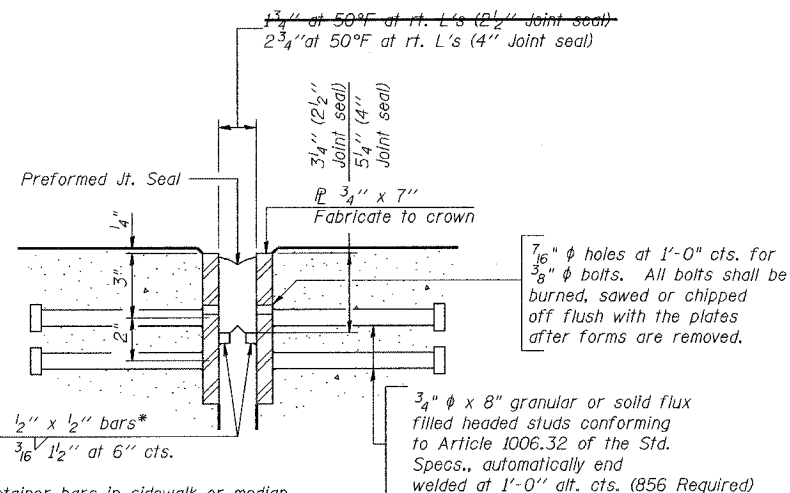
**DECK & PARAPET  
 DETAILS & BAR LISTS**

SCALE: DRAWN BY PA  
 DATE 07/21/06 CHECKED BY MJK

**TENG**  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

PLOT DATE = 07/21/06  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = BUSER  
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 BA-ZEKKJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



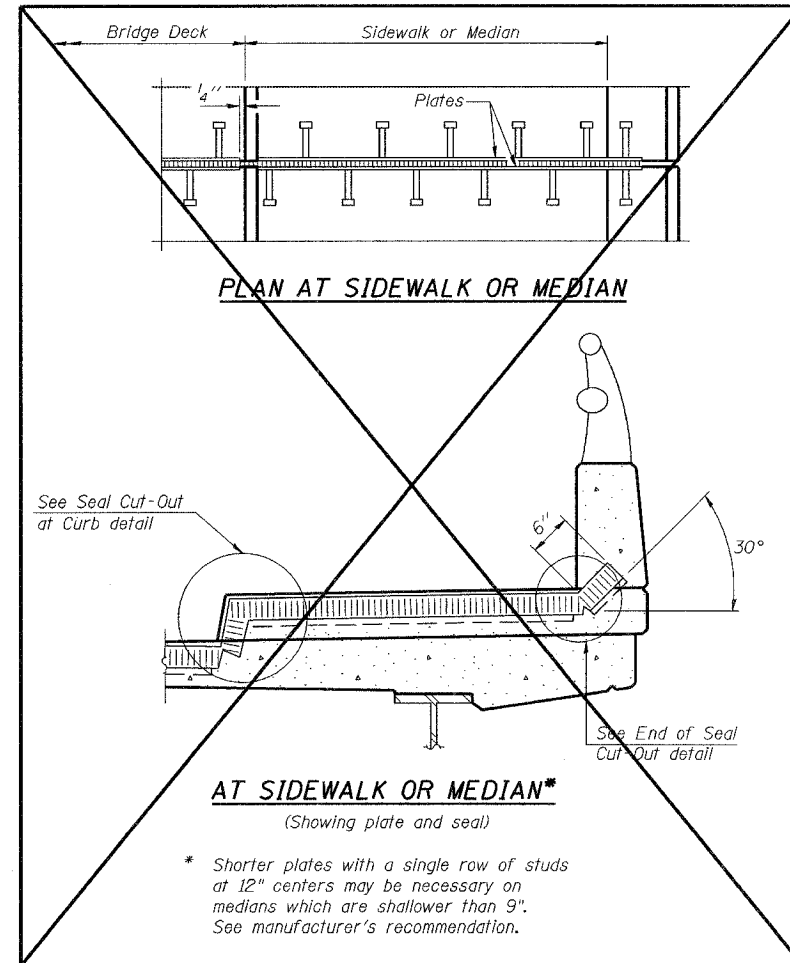
\*Cut retainer bars in sidewalk or median 6" short of the sidewalk or median face.

**SECTION THRU EXPANSION JOINT**  
(2 1/2" and 4" joint seals)

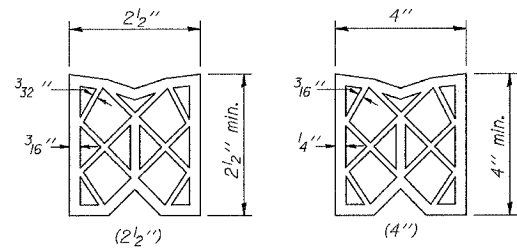
Design Movement	Required Preformed Joint Seal Size	Required Strip Seal Rated movement
1"	2 1/2"	1"
1 5/8"	4"	2"

**GENERAL NOTES**

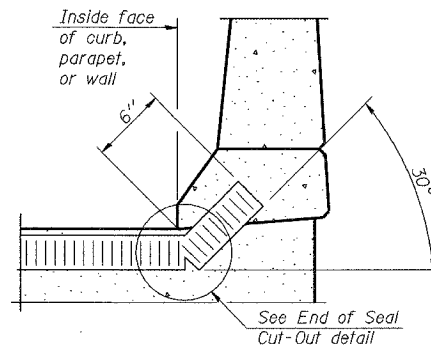
Furnish steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be 3/16". Seal space with silicone sealant suitable for structural steel.



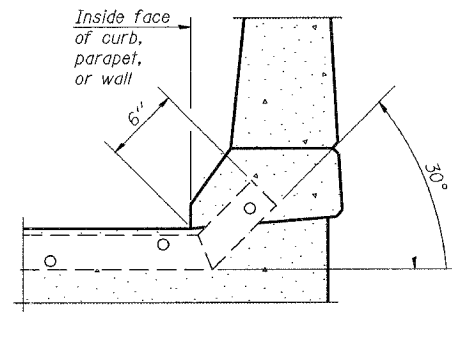
**PLAN AT SIDEWALK OR MEDIAN**



**PREFORMED JOINT SEAL**

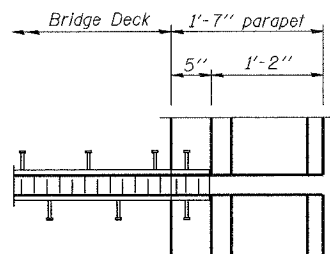


**AT CURB, PARAPET, OR WALL**  
(Showing seal)

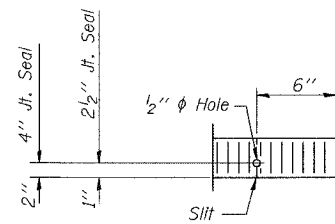


**AT CURB, PARAPET, OR WALL**  
(Showing plate)

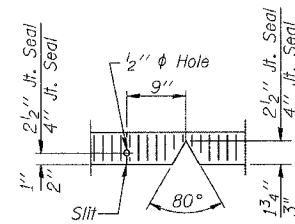
**TYPICAL END TREATMENTS**



**PLAN AT PARAPET**



**END OF SEAL CUT-OUT**



**SEAL CUT-OUT AT CURB**

**BILL OF MATERIAL**

Item	Unit	Total
Bridge Joint System (Expansion), 1-5/8"	Foot	233.0

(Sheet 1 of 2)

**BRIDGE JOINT SYSTEM - EXPANSION**  
**(PREFORMED JOINT SEAL)**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**EXPANSION JOINT DETAILS - I**

SHT. SC-16 OF 38

REVISIONS	
NAME	DATE

SCALE: DRAWN BY PA  
DATE 07/05/06 CHECKED BY MJK

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

**TENG**

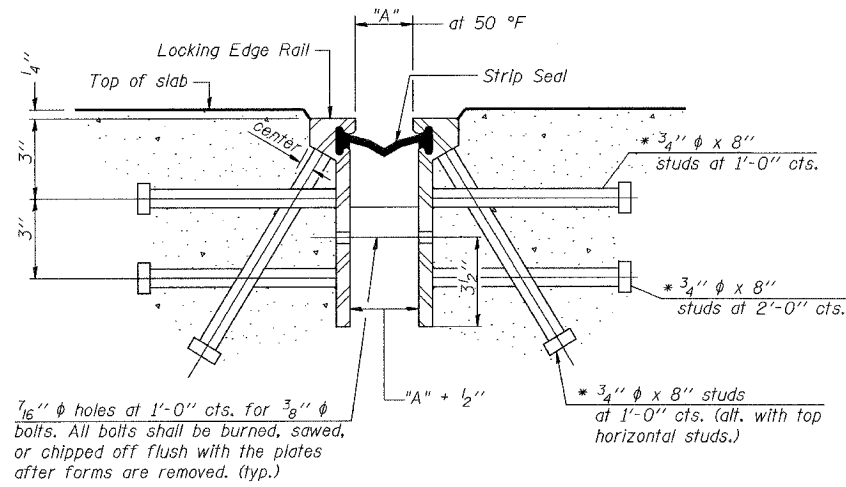
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

EJ-BJS

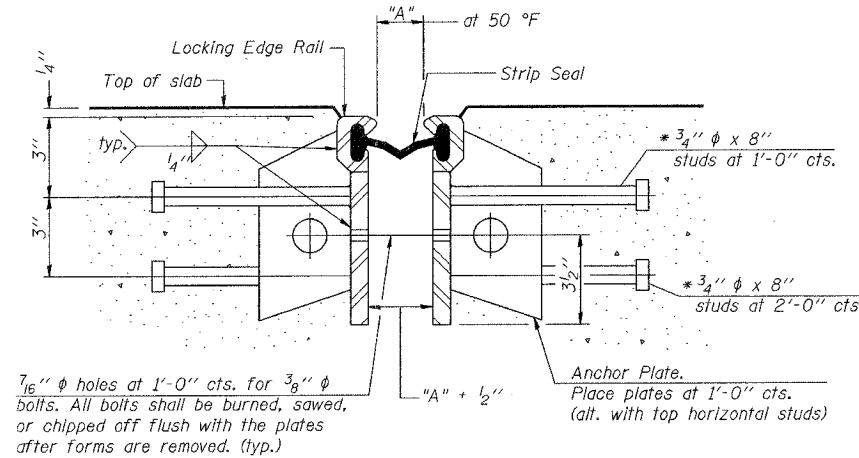
10-22-04

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FILE NAME = #FILE#  
PLOT SCALE = #SCALE#  
USER NAME = #USER#

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	276
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



Required Strip Seal rated movement	"A"
1"	1/8"
2"	1 3/4"



**GENERAL 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.

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.

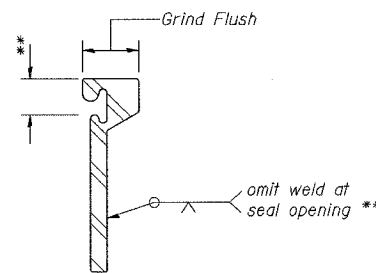
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal 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.

**SECTION THRU ROLLED RAIL EXP. JOINT**  
(1,080 Studs Required)

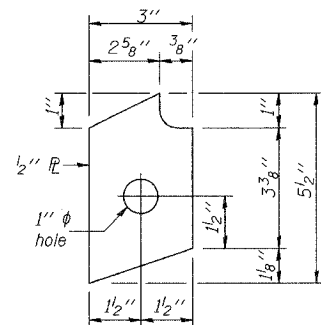
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

**SECTION THRU WELDED RAIL EXP. JOINT**  
(664 Studs Required)  
(416 Anchor Plates Required)

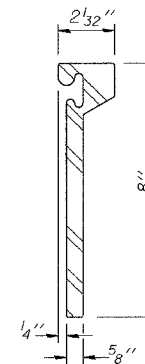


**LOCKING EDGE RAIL SPLICE**

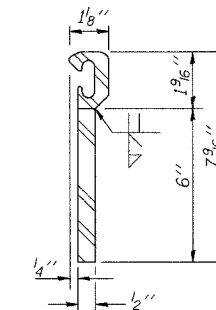
The inside of the locking edge rail groove shall be free of weld residue.



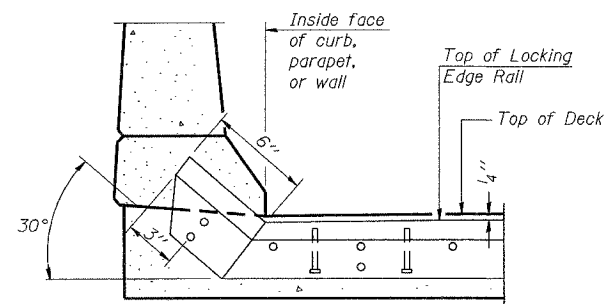
**ANCHOR PLATE**  
(for welded rail)



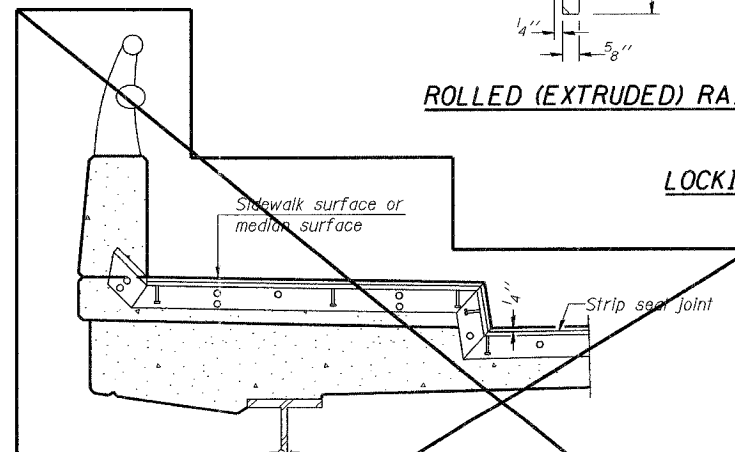
**ROLLED (EXTRUDED) RAIL**



**WELDED RAIL**



**AT CURB, PARAPET, OR WALL**



**AT SIDEWALK OR MEDIAN\***

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

**TYPICAL END TREATMENTS**

**LOCKING EDGE RAILS**

(Sheet 2 of 2)  
**BRIDGE JOINT SYSTEM - EXPANSION**  
**(ALTERNATE - STRIP SEAL)**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FBI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**EXPANSION JOINT DETAILS - II**

SHT. SC-17 OF 38

REVISIONS	
NAME	DATE

SCALE: DATE 07/05/06  
DRAWN BY PA  
CHECKED BY MJK

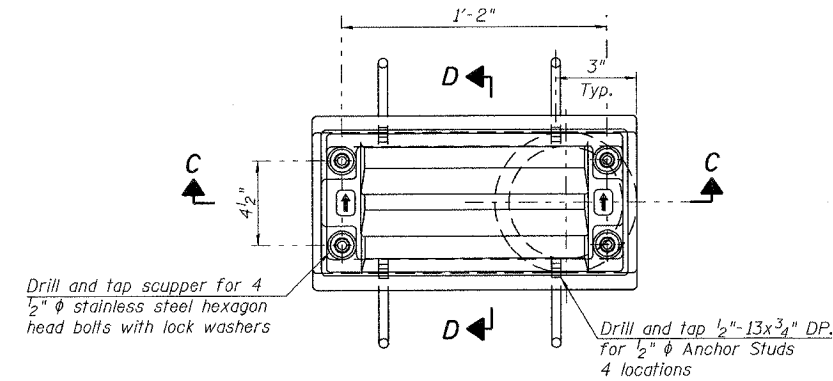
**TENG**  
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

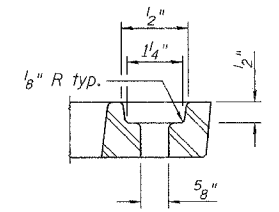
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 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = MURPHY

EJ-BJS 10-22-04

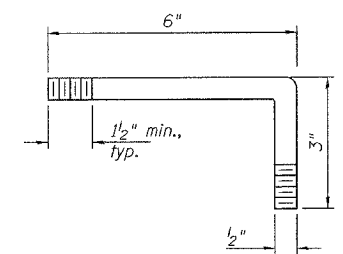
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	277
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



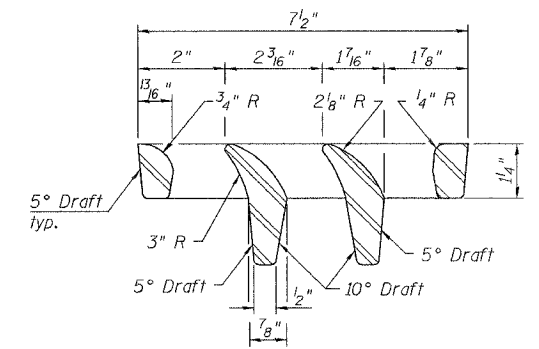
PLAN



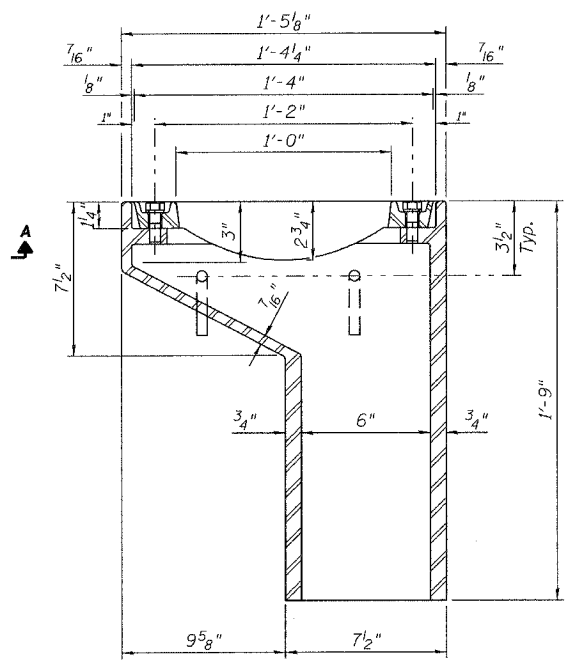
BOLT HOLE DETAIL



ANCHOR STUD DETAIL

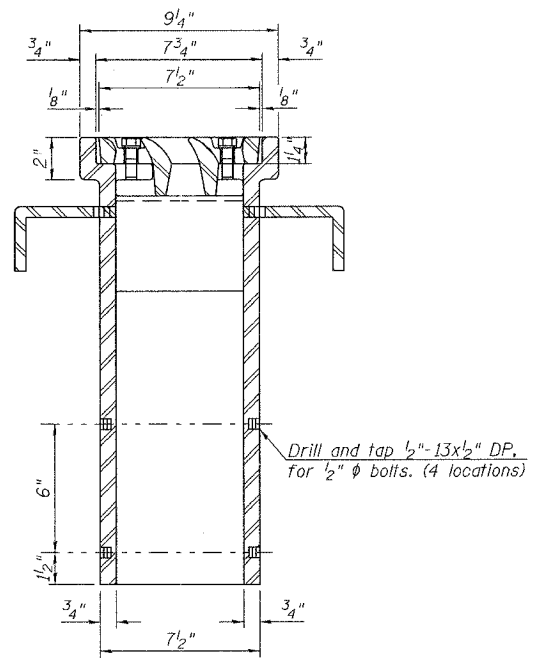


VANE GRATE DETAIL



SECTION C-C

See Sht. SC-14 for scupper location relative to parapet.



SECTION D-D

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	Total
Drainage Scupper, DS-11	Each	24

SHT. SC-18 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.A. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

SCUPPER DETAILS

SCALE: DRAWN BY PA  
 DATE: 07/05/06 CHECKED BY MJK

MORCOM, N.V., INC.  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

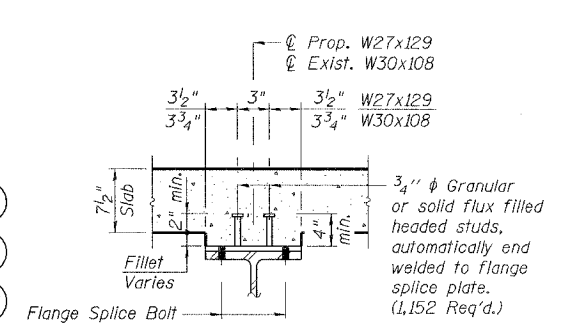
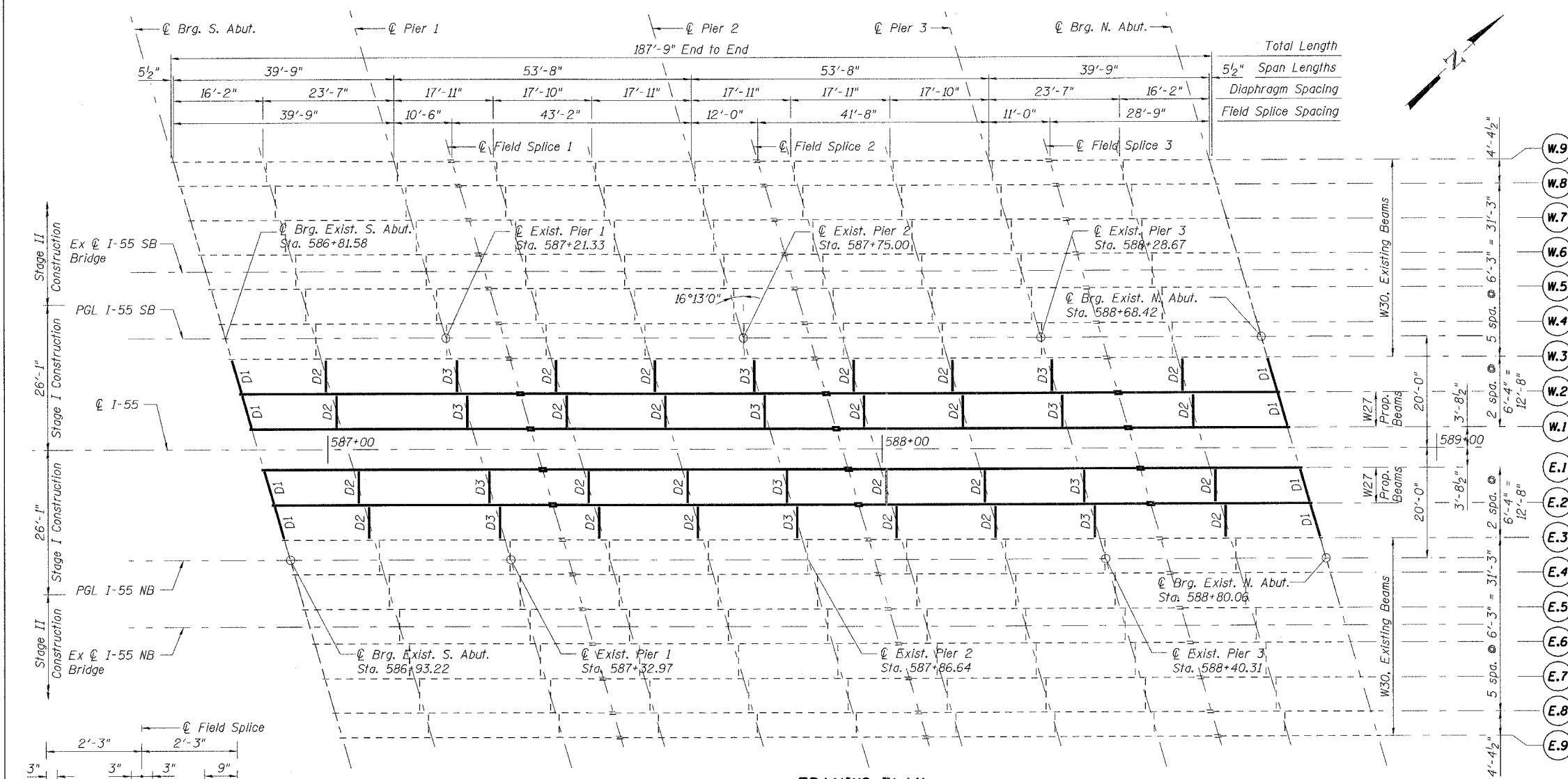
TENG  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

8-11-02

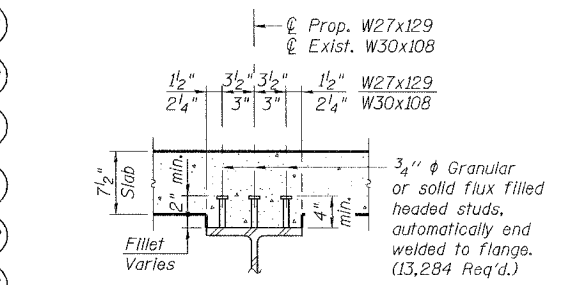
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 USER NAME = MJK

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CONTRACT NO. 60886			
F.A.1. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY WILL	505	278
STA. TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



**SHEAR CONNECTOR DETAIL AT FIELD SPLICE**

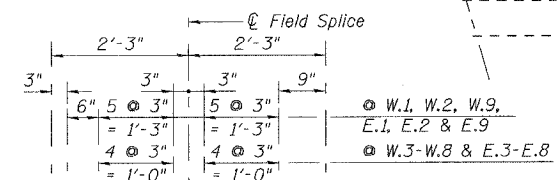


**SHEAR CONNECTOR DETAIL**

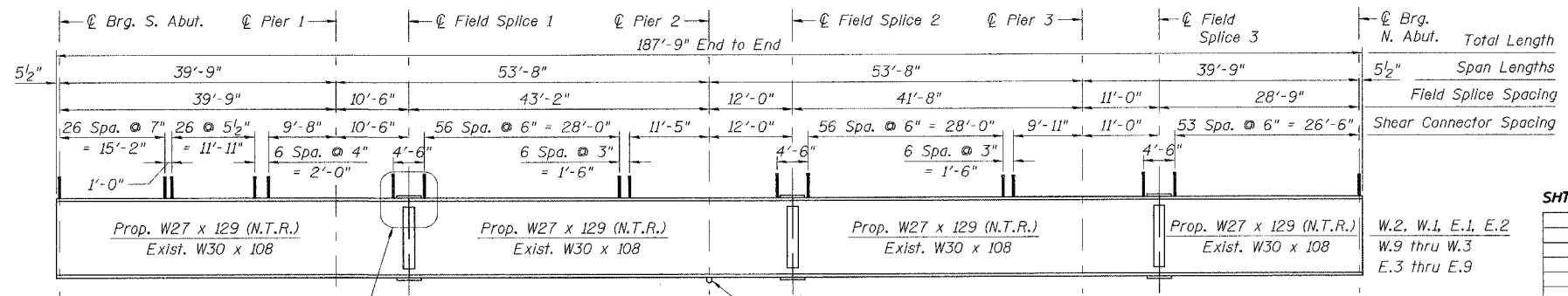
**BILL OF MATERIAL**

Item	Unit	Total
Shear Stud Connectors	Each	14,436

- Notes:**
- N.T.R. denotes steel is subject to Supplemental Requirements for Notch Toughness (Zone 2).
  - For field splice details, see Sht. SC-20.
  - For diaphragm details, see Sht. SC-21.
  - Rocker plate of fixed bearing welded by Fabrication Contractor. See Sht. SC-22 for this detail.



**DETAIL A**  
(Flange Splice Bolts not shown for Clarity)



**BEAM ELEVATION**

**SHT. SC-19 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAL ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**FRAMING PLAN & BEAM ELEVATION**

SCALE: DRAWN BY PA  
 DATE 07/21/06 CHECKED BY MJK



**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

PLOT DATE = 07/21/06  
 PLOT SCALE = 1/8" = 1'-0"  
 USER NAME = MUSER

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	279
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

**GIRDER E.2 & W.2 MOMENT TABLE**  
(Composite in Positive Moment Areas Only)

	0.4 Span 1 & 4	Pier 1 & 3	0.5 Span 2 & 3	Pier 2
$I_s$	(in <sup>4</sup> ) 4,760	4,760	4,760	4,760
$I_c$ (n)	(in <sup>4</sup> ) 12,620	-	12,620	-
$I_c$ (sn)	(in <sup>4</sup> ) 9,317	-	9,317	-
$S_s$	(in <sup>3</sup> ) 345	345	345	345
$Sc$ (n)	(in <sup>3</sup> ) 500	-	500	-
$Sc$ (sn)	(in <sup>3</sup> ) 453	-	453	-
$Z$	(in <sup>3</sup> ) -	395	-	395
$\bar{p}$	(k/ft.) 0.75	1.17	0.75	1.17
$M\bar{p}$	(k) 76	241	94	279
$s\bar{p}$	(k/ft.) 0.42	-	0.42	-
$Ms\bar{p}$	(k) 49	-	67	-
$M\bar{k}$	(k) 218	135	281	153
$M$ (Imp)	(k) 66	39	79	43
$S_3[M\bar{k} + M$ (Imp)]	(k) 474	292	601	328
$Ma$	(k) 778	693	990	789
$Mu$	(k) 2,459	-	2,688	-
$fs\bar{p}$ non-comp (k.s.i.)	2.7	8.4	3.3	9.7
$fs\bar{p}$ (comp) (k.s.i.)	1.3	-	1.8	-
$fs^{S_3}(\bar{k} + Imp)$ (k.s.i.)	11.4	10.2	14.4	11.4
$fs$ (Overload) (k.s.i.)	15.4	18.6	19.5	21.1
$fs$ (Total) (k.s.i.)	-	24.2	-	27.4
$VR$	(k) 50.0	-	51.0	-

**TOP OF BEAM ELEVATIONS**  
(For Fabrication use only)

Beam	℄ Brg. S. Abut.	℄ Pier 1	℄ Field Splice 1	℄ Pier 2	℄ Field Splice 2	℄ Pier 3	℄ Field Splice 3	℄ Brg. N. Abut.
W.2	628.81	629.03	629.09	629.26	629.32	629.44	629.47	629.52
W.1	628.69	628.91	628.97	629.14	629.19	629.31	629.34	629.39
E.1	628.71	628.92	628.98	629.15	629.20	629.31	629.35	629.40
E.2	628.85	629.06	629.12	629.29	629.34	629.45	629.48	629.53

**BEARING SEAT ELEVATIONS**  
(For Information Only)

Beam	S. Abut.	Pier 1	Pier 2	Pier 3	N. Abut.
W.2	626.06	626.33	626.75	626.73	626.77
W.1	625.94	626.20	626.63	626.61	626.64
E.1	625.95	626.21	626.64	626.61	626.64
E.2	626.09	626.35	626.78	626.75	626.78

**GIRDER E.2 & W.2 REACTION TABLE**

	Abut.	Pier 1 & 3	Pier 2
$R\bar{p}$	(k) 17.1	59.9	64.1
$R\bar{k}$	(k) 34.8	41.1	42.1
$Imp.$	(k) 10.4	12.0	11.8
$R$ (Total)	(k) 62.4	113.0	117.9

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

$I_{c(n)}$  and  $Sc_{(n)}$  are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

$I_{c(sn)}$  and  $Sc_{(sn)}$  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.

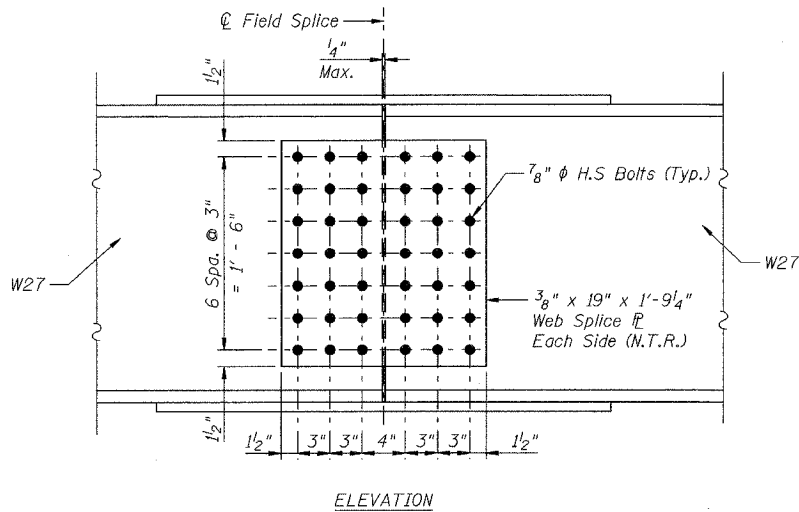
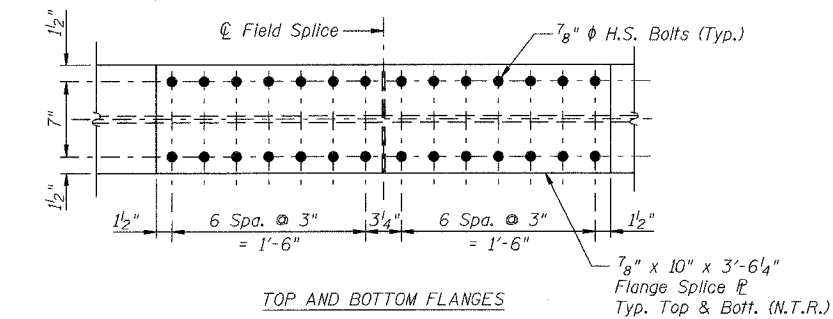
$Z$  is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

$Ma$  (Applied Moment) =  $1.3[M\bar{p} + Ms\bar{p} + S_3(M\bar{k} + M(imp))]$ .

The Plastic Moment capacity ( $Mu$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1.

$fs$  (Overload) is the sum of the stresses due to  $M\bar{p} + Ms\bar{p} + S_3(M\bar{k} + M(imp))$ .

$fs$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[M\bar{p} + Ms\bar{p} + S_3(M\bar{k} + M(imp))]$ .



**SPLICE DETAILS**

**Notes:**

1. Work this Sheet with Sht. SC-19.
2. N.T.R. denotes steel is subject to Supplemental Requirements for Notch Toughness (Zone 2).
3. H.S. bolts shall be AASHTO M 164 (ASTM A 325).

**SHT. SC-20 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**SPLICE DETAILS,  
MOMENT & REACTION TABLES,  
TOP OF BEAM ELEVATIONS**

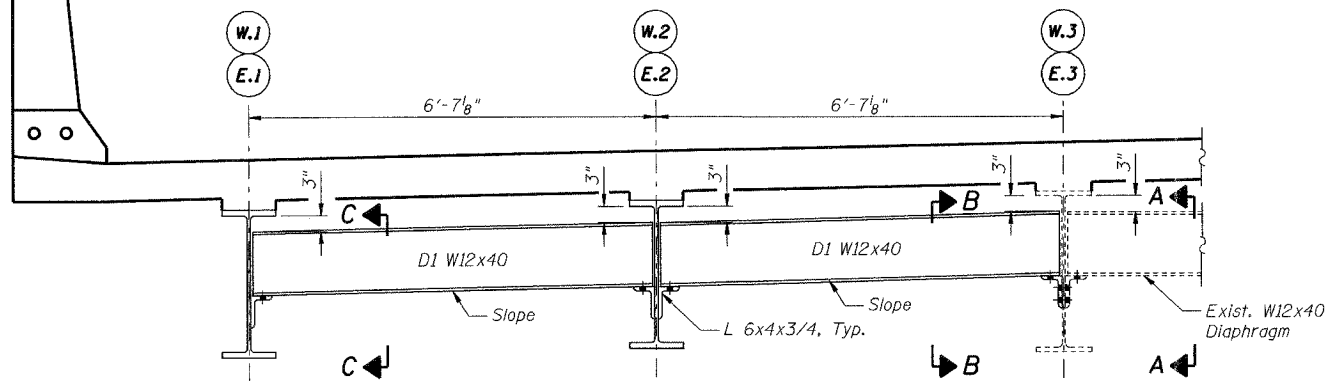
SCALE: DATE: 07/05/06 DRAWN BY PA CHECKED BY MJK

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

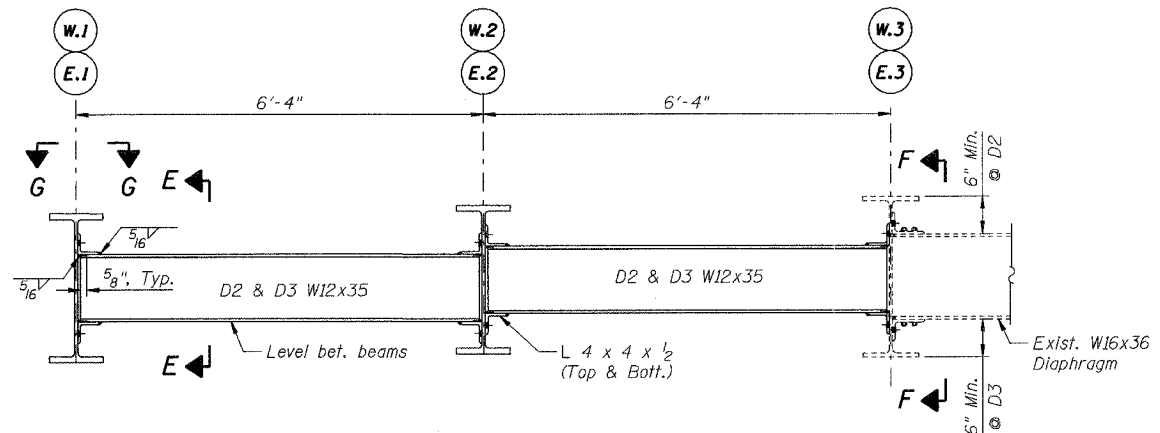
**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

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PLT SCALE = #SCALE#  
USER NAME = #USER#  
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C:\CUI\HAZ

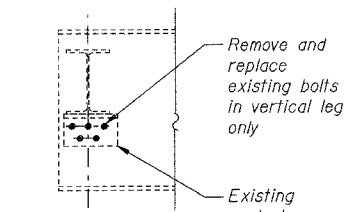
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL.	505	280
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



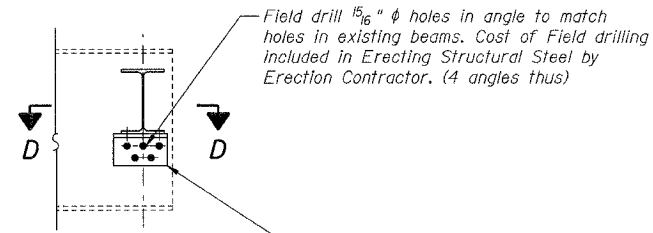
**END DIAPHRAGM D1**  
(8 Required)



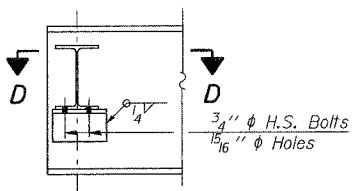
**INTERIOR DIAPHRAGM D2 & D3**  
(D2 - 24 Required)  
(D3 - 12 Required)



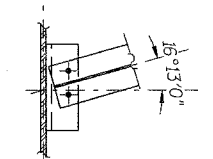
**SECTION A-A**  
(At beams E.3 & W.3)



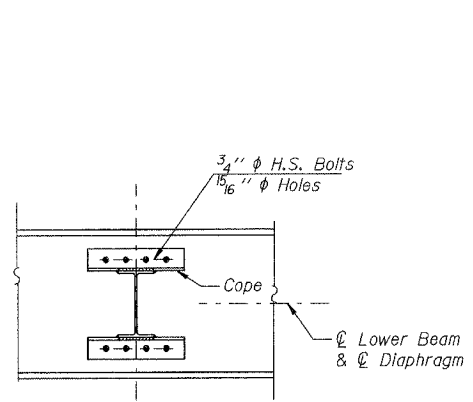
**SECTION B-B**  
(At beams E.3 & W.3)



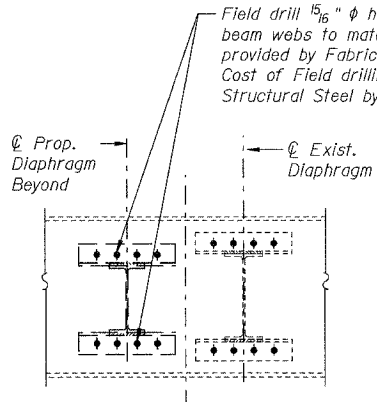
**SECTION C-C**  
(At beams E.1, E.2, W.1 & W.2)



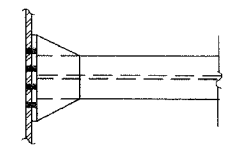
**SECTION D-D**



**SECTION E-E**



**SECTION F-F**



**SECTION G-G**

**Note:**  
1. Two hardened washers shall be required over all oversize holes for diaphragms.

PLOT DATE = 05/15/06  
 FILE NAME = 05/15/06...  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = MJB

SHT. SC-21 OF 38

REVISIONS	
NAME	DATE

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

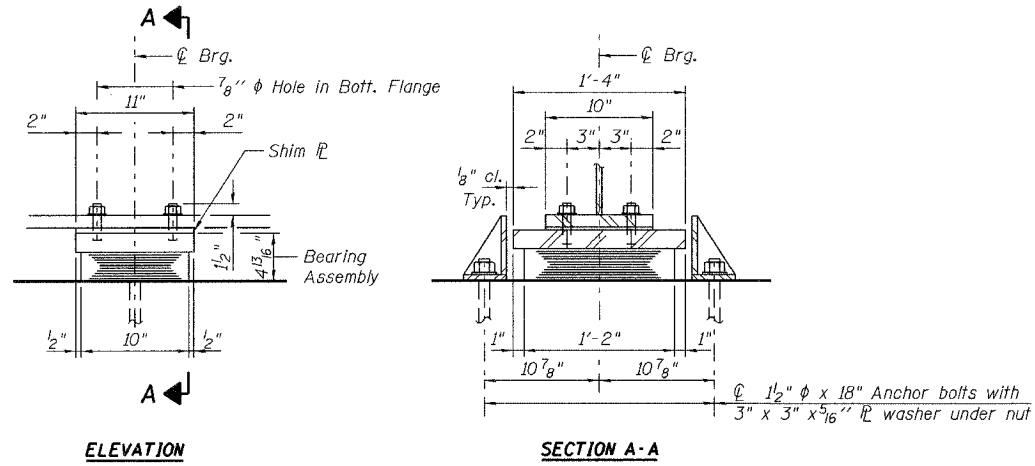
**DIAPHRAGM DETAILS**

SCALE: DRAWN BY PA  
DATE 07/05/06 CHECKED BY MJK

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

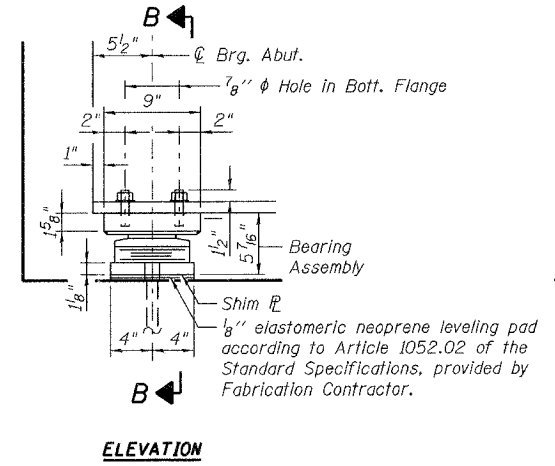


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



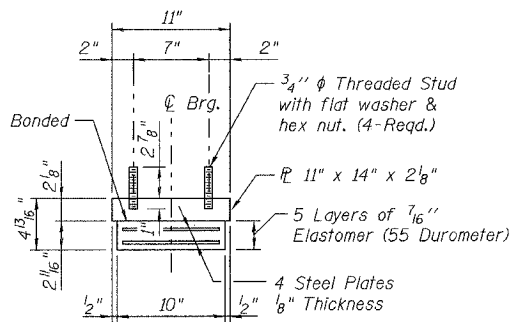
ELEVATION

SECTION A-A



ELEVATION

SECTION B-B

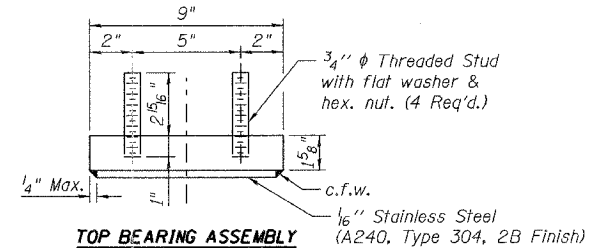


BEARING ASSEMBLY

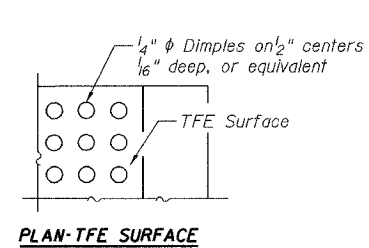
Note: Shim plates shall not be placed under Bearing Assembly.

**TYPE I ELASTOMERIC EXP. BRG. AT PIERS 1 & 3**

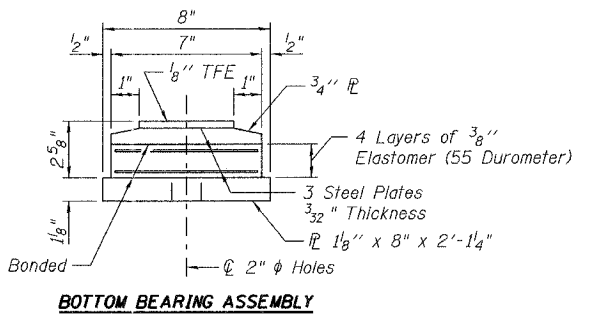
(8 Thus)



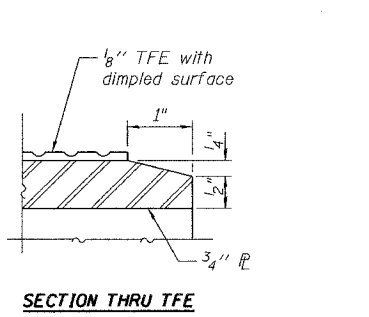
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



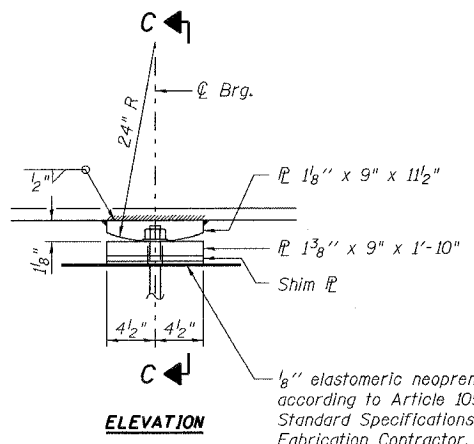
BOTTOM BEARING ASSEMBLY



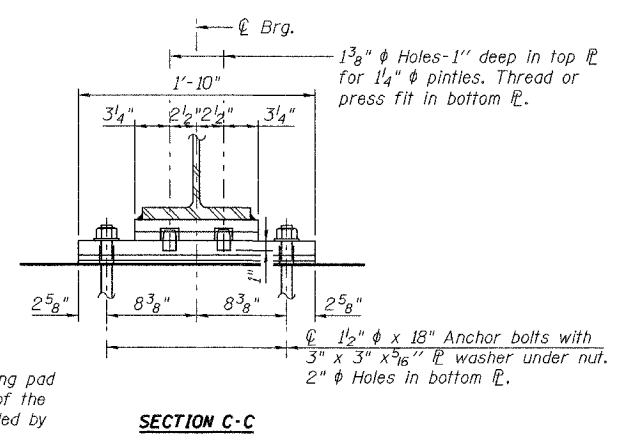
SECTION THRU TFE

Note: The 1/8 inch TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

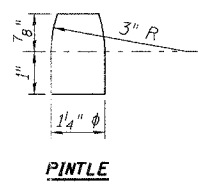
Bonding of 1/8 inch TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



ELEVATION



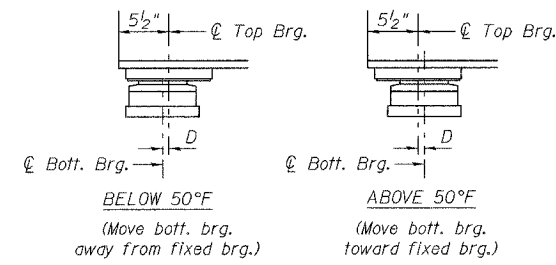
SECTION C-C



PINTLE

**FIXED BEARING AT PIER 2**

(4 Thus)

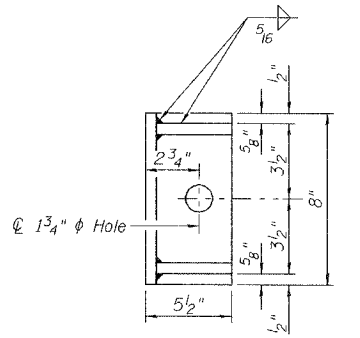


SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8 inch per each 100 feet of expansion for every 15 degrees temperature change from the normal temperature of 50 degrees Fahrenheit.

**TYPE II ELASTOMERIC EXP. BRG. AT S. & N. ABUT.**

(8 Thus)



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

**BILL OF MATERIAL**

Item	Unit	Total
Erecting Elastomeric Bearing Assembly, Type I	Each	8
Erecting Elastomeric Bearing Assembly, Type II	Each	8
Furnishing and Erecting Structural Steel	Pound	340

**Notes:**

- Anchor bolts shall be furnished and installed under the pay item Furnishing and Erecting Structural Steel.
- All steel bearing plates shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.
- Fixed bearing assemblies including pintles, shim plates, adjusting shims, and elastomeric neoprene leveling pads will be furnished by the Fabrication Contractor.
- Adjusting shim plates shall be placed as required during erection, see General Notes on Sht. SC-2.
- Anchor bolts at fixed bearings may be built into the masonry.
- See Sht. SC-20 for Bearing Seat elevations.
- See Sht. SC-23 for Anchor Bolt installation.

**SHT. SC-22 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**BEARING DETAILS**

SCALE: DATE: 07/05/06  
 DRAWN BY: PA  
 CHECKED BY: MJK

**TENG**  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

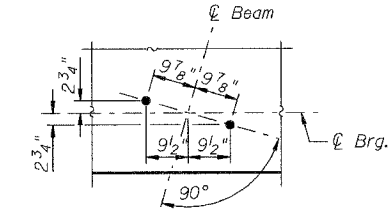
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 FILE NAME = BFILE14  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = RUGEN



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	283
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**BAR LIST - EACH**  
(N. Abut. SB)  
(S. Abut. NB)

Bar	No.	Size	Length	Shape
d(E)	6	#6	3'-7"	
h(E)	4	#5	26'-10"	
h1(E)	2	#5	13'-3"	
h2(E)	6	#5	27'-11"	
h3(E)	4	#6	27'-11"	
h4(E)	4	#6	26'-10"	
h5(E)	5	#4	11'-9"	
h6(E)	1	#4	12'-3"	
p(E)	8	#7	13'-3"	
p1(E)	4	#5	13'-3"	
s(E)	16	#6	14'-4"	
u(E)	3	#6	7'-6"	
v(E)	64	#5	2'-3"	
v1(E)	64	#6	4'-0"	
v2(E)	16	#6	3'-10"	
v3(E)	16	#6	4'-5"	
v4(E)	48	#6	3'-8"	
v5(E)	48	#6	3'-2"	
v6(E)	112	#6	2'-2"	
v7(E)	13	#6	4'-8"	
v8(E)	13	#6	4'-10"	



**ANCHOR BOLT INSTALLATION DETAIL**

**Bearing Seat Elevation**

Beams	N. Abut.-SB	S. Abut.-NB
W.2	626.764	-
W.1	626.639	-
E.1	-	625.938
E.2	-	626.084

**BILL OF MATERIAL**  
(N. Abutment SB & NB)

Item	Unit	Total
Porous Granular Embankment, Special	Cu. Yd.	72
Structure Excavation	Cu. Yd.	88
Concrete Structures	Pound	32.6
Reinforcement Bars, Epoxy Coated	Pound	6,300
Bridge Seat Sealer	Sq. Ft.	74
Geocomposite Wall Drain	Sq. Yd.	18
Bar Splicers	Each	148

**BILL OF MATERIAL**  
(S. Abutment SB & NB)

Item	Unit	Total
Porous Granular Embankment, Special	Cu. Yd.	72
Structure Excavation	Cu. Yd.	88
Concrete Structures	Pound	32.6
Reinforcement Bars, Epoxy Coated	Pound	6,300
Bridge Seat Sealer	Sq. Ft.	74
Geocomposite Wall Drain	Sq. Yd.	18
Bar Splicers	Each	148

**Notes:**

1. Work this sheet with Sht. SC-6 and SC-25.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For anchor bolt details, see Sht. SC-23.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. E.F. = Each Face, I.F. = Inside Face, O.F. = Outside Face
7. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
8. For sections J-J, K-K and P-P, see Sht. SC-25.
9. For Pile Data, see Sht. SC-26.

**SHT. SC-24 OF 38**

REVISIONS	
NAME	DATE

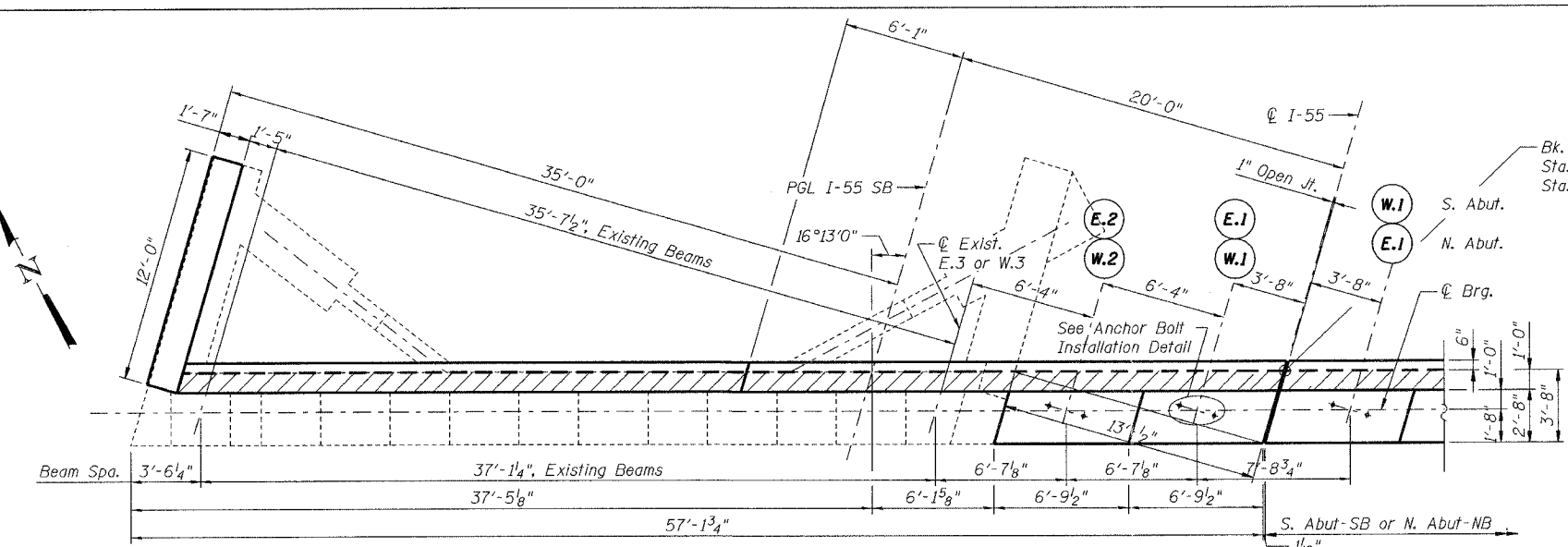
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**NORTH ABUTMENT - SB,  
 SOUTH ABUTMENT - NB  
 WIDENING - 1**

SCALE: \_\_\_\_\_ DRAWN BY: PA  
 DATE: 07/05/06 CHECKED BY: MJK

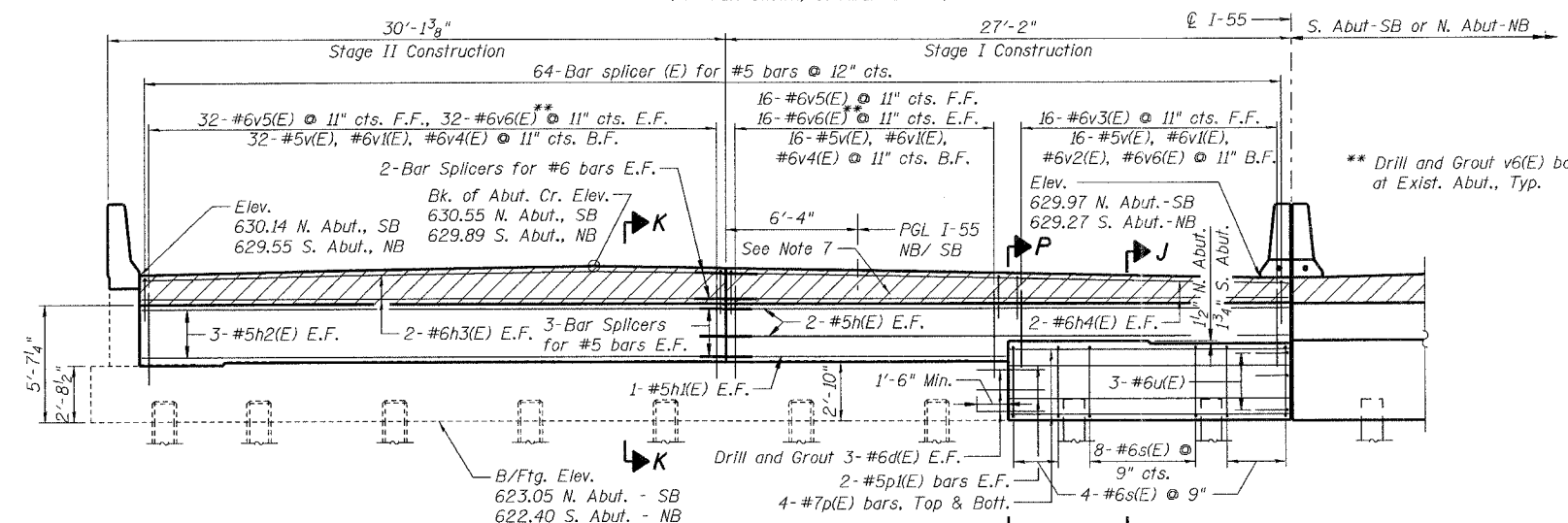
**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS



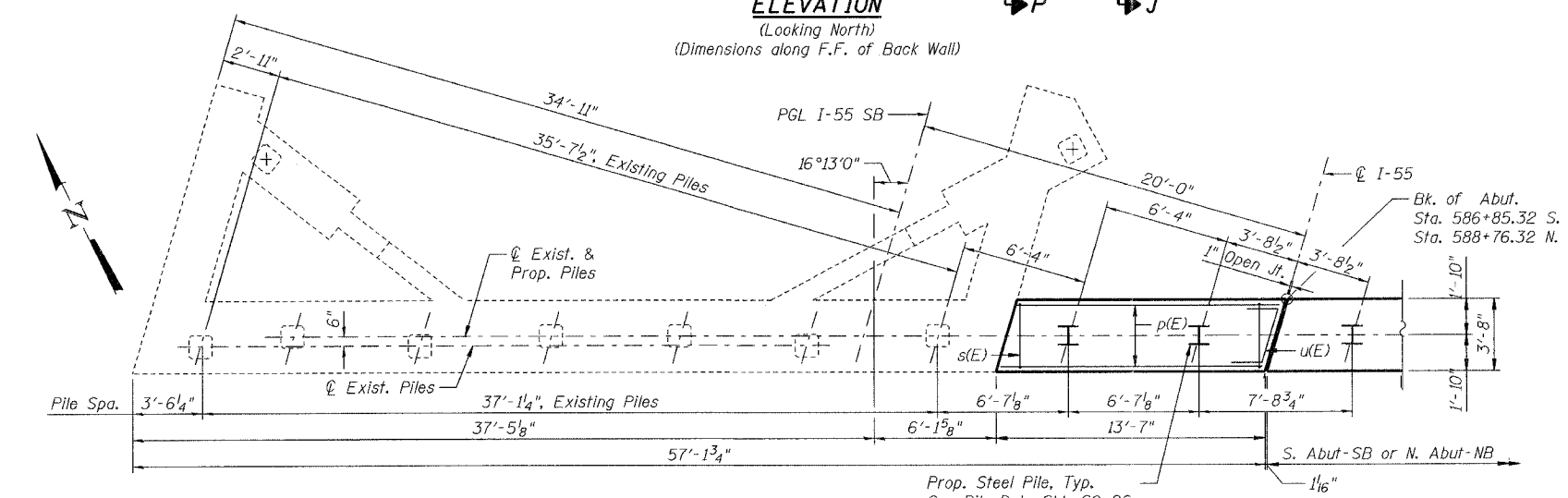
**TOP VIEW**

(N. Abut. Shown, S. Abut. Similar)



**ELEVATION**

(Looking North)  
 (Dimensions along F.F. of Back Wall)



**PLAN - PILE CAP**

(N. Abut. Shown, S. Abut. Similar)

PLOT DATE = 05/01/06  
 PLOT NAME = MJD  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = MJD

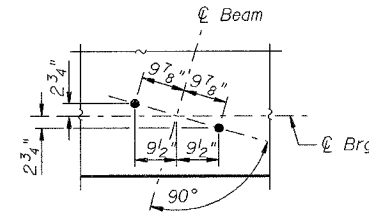


F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	285
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**BAR LIST - EACH**

(N. Abut. NB)  
(S. Abut. SB)

Bar	No.	Size	Length	Shape
d(E)	6	#6	3'-7"	
h(E)	4	#5	26'-10"	
h1(E)	2	#5	13'-3"	
h2(E)	6	#5	27'-11"	
h3(E)	4	#6	27'-11"	
h4(E)	4	#6	26'-10"	
h5(E)	5	#4	11'-9"	
h6(E)	1	#4	12'-3"	
p(E)	8	#7	13'-3"	
p1(E)	4	#5	13'-3"	
s(E)	16	#6	14'-4"	
u(E)	3	#6	7'-6"	
v(E)	64	#5	2'-3"	
v1(E)	64	#6	4'-0"	
v2(E)	16	#6	3'-10"	
v3(E)	16	#6	4'-5"	
v4(E)	48	#6	3'-8"	
v5(E)	48	#6	3'-2"	
v6(E)	112	#6	2'-2"	
v7(E)	13	#6	4'-8"	
v8(E)	13	#6	4'-10"	



**ANCHOR BOLT  
INSTALLATION DETAIL**

**Bearing Seat Elevation**

Beams	S. Abut-SB	N. Abut-NB
W.2	626.052	-
W.1	625.938	-
E.1	-	626.639
E.2	-	626.774

**PILE DATA**  
(N. Abut.)

Type: Steel HP12x53  
w/ Metal Shoes  
Driven to Refusal  
Design Capacity:  
Required Bearing:  
Estimated Length:  
Number Required:

**PILE DATA**  
(S. Abut.)

Type: Steel HP12x53  
w/ Metal Shoes  
Driven to Refusal  
Design Capacity:  
Required Bearing:  
Estimated Length:  
Number Required:

**Notes:**

1. Work this sheet with Sht. SC-6 and SC-27.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For anchor bolt details, see Sht. SC-23.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. E.F. = Each Face, I.F. = Inside Face, O.F. = Outside Face
7. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
8. For sections R-R and S-S, see Sht. SC-27.
9. For section P-P, see Sht. SC-25.

**SHT. SC-26 OF 38**

REVISIONS	
NAME	DATE

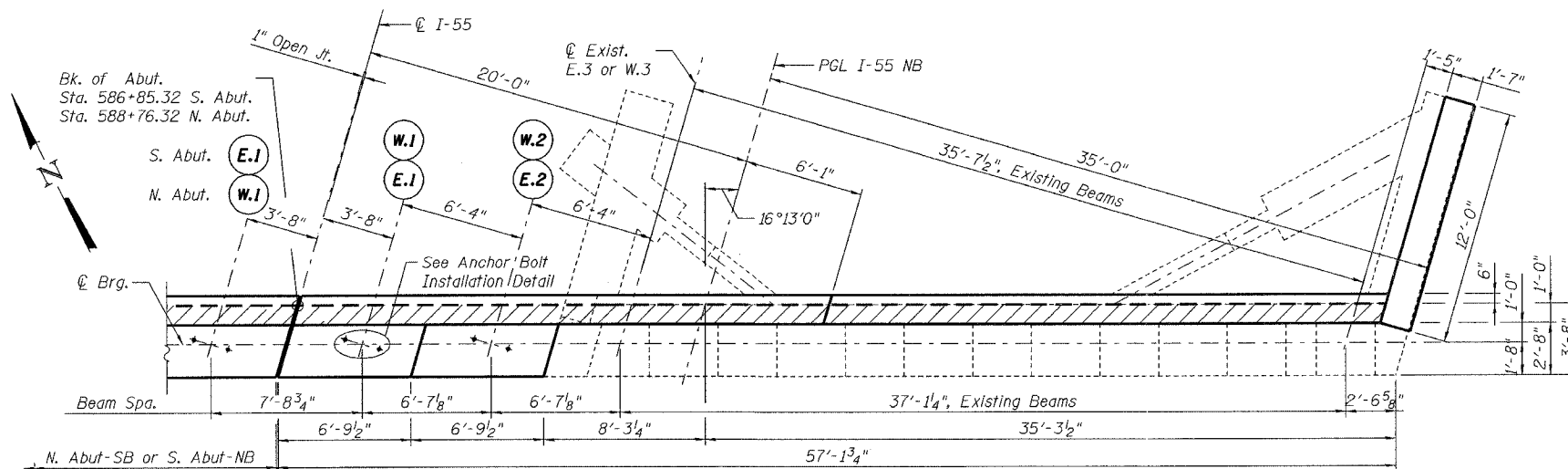
ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILLY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.A. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**NORTH ABUTMENT - NB,  
SOUTH ABUTMENT - SB  
WIDENING - 1**

SCALE: DRAWN BY PA  
DATE 07/05/06 CHECKED BY MJK

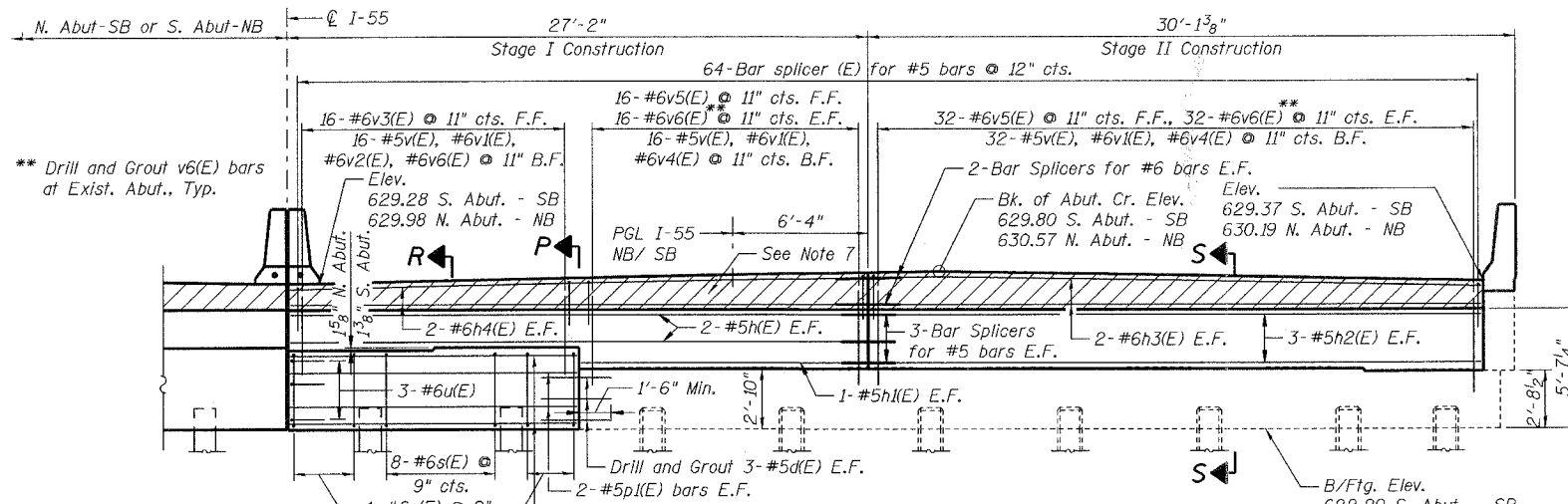
**TENG**  
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS



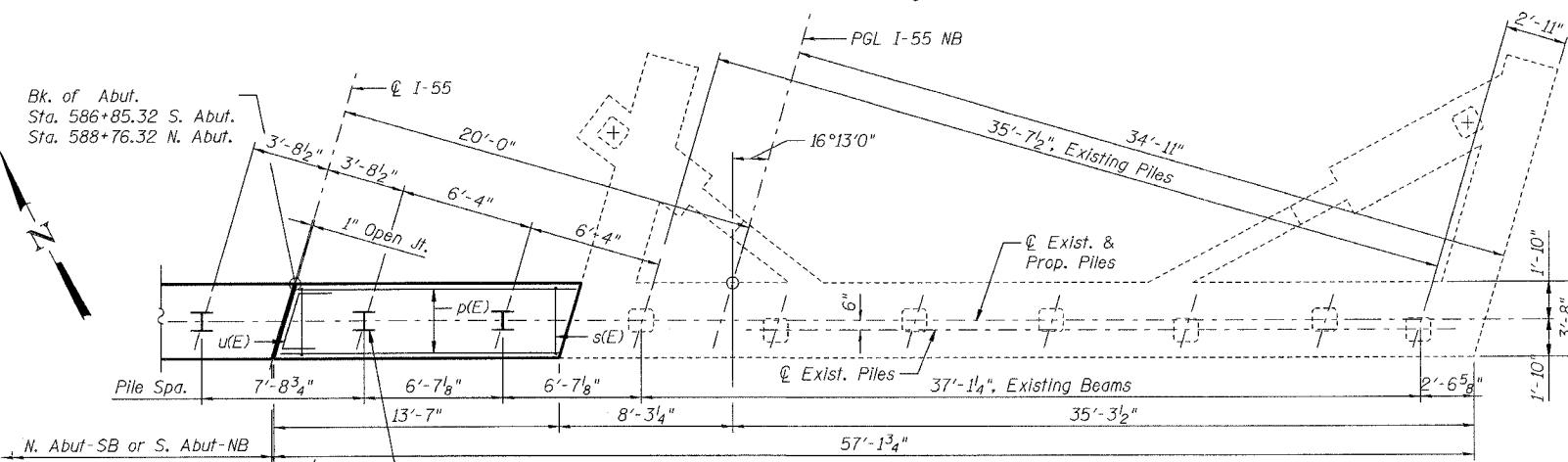
**TOP VIEW**

(N. Abut. Shown, S. Abut. Similar)



**ELEVATION**

(Looking North)  
(Dimensions along F.F. of Backwall)



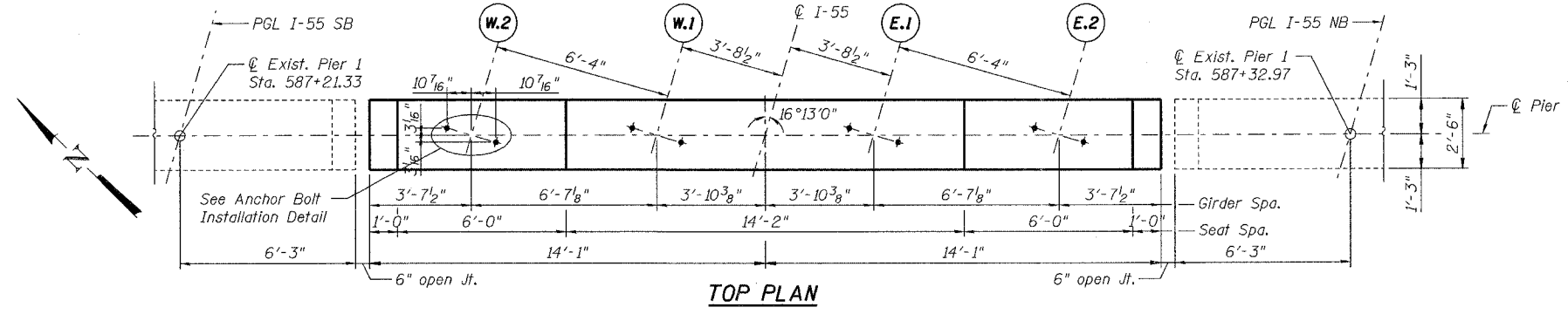
**PLAN - PILE CAP**

(N. Abut. Shown, S. Abut. Similar)

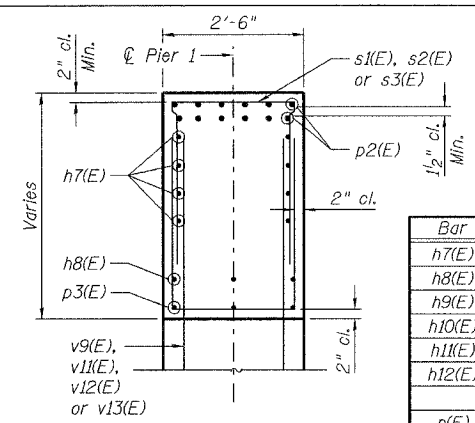
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 DATE = 08/01/06  
 PLOT SCALE = AS SHOWN  
 USER NAME = BUSIER#



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032	WILL	505	287
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TOP PLAN



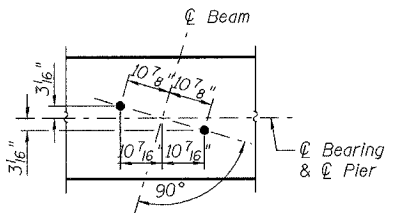
SECTION V-V

BAR LIST

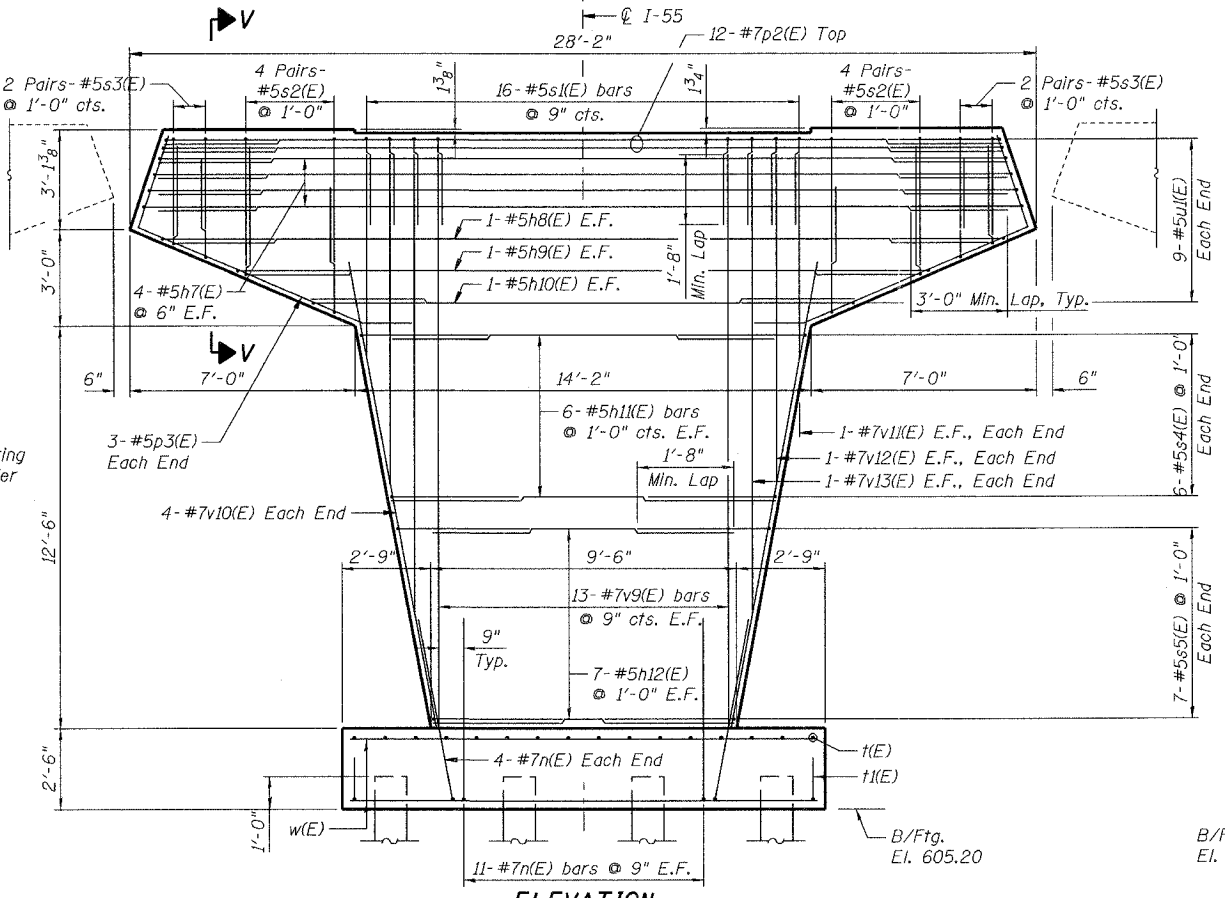
Bar	No.	Size	Length	Shape
h7(E)	8	#5	26'-10"	—
h8(E)	2	#5	26'-7"	—
h9(E)	2	#5	22'-0"	—
h10(E)	2	#5	17'-4"	—
h11(E)	12	#5	11'-10"	—
h12(E)	14	#5	9'-3"	—
n(E)	30	#7	6'-5"	⌋
p2(E)	12	#7	26'-0"	—
p3(E)	6	#5	12'-2"	⌋
s1(E)	16	#5	6'-10"	⌋
s2(E)	16	#5	10'-6"	⌋
s3(E)	8	#5	8'-2"	⌋
s4(E)	12	#5	9'-8"	⌋
s5(E)	14	#5	7'-6"	⌋
t1(E)	16	#5	8'-2"	—
t1(E)	14	#8	10'-10"	⌋
u1(E)	18	#5	9'-2"	⌋
v9(E)	26	#7	17'-8"	—
v10(E)	8	#7	14'-11"	—
v11(E)	2	#7	6'-1"	—
v12(E)	2	#7	10'-1"	—
v13(E)	2	#7	14'-1"	—
w(E)	17	#5	14'-8"	—

**Bearing Seat Elevation**

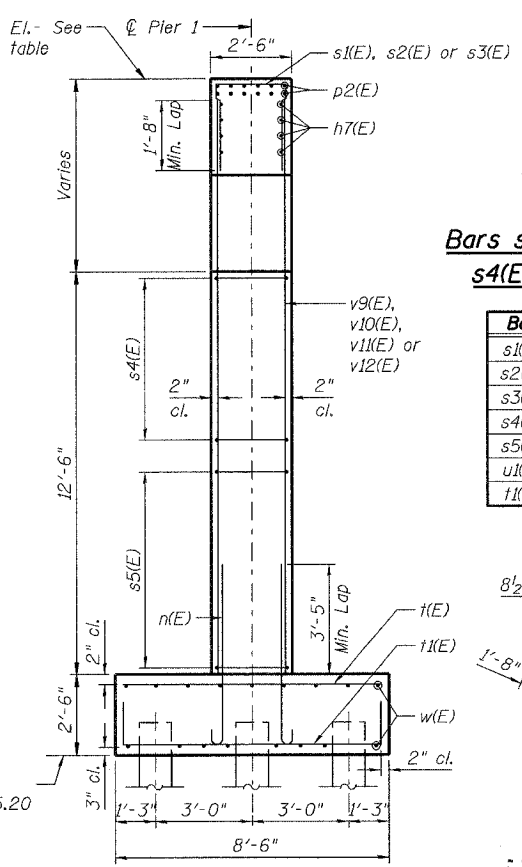
Beams	Elevation
W.2	626.32
W.1	626.20
E.1	626.20
E.2	626.35



ANCHOR BOLT INSTALLATION DETAIL



ELEVATION



END VIEW

Bars s1(E), s2(E), s3(E), s4(E), s5(E) & u1(E)

Bar	A	B
s1(E)	2'-8"	2'-2"
s2(E)	4'-2"	2'-2"
s3(E)	3'-0"	2'-2"
s4(E)	3'-9"	2'-2"
s5(E)	2'-8"	2'-2"
u1(E)	3'-6"	2'-2"
t1(E)	1'-4"	8'-2"

Bar p3(E)

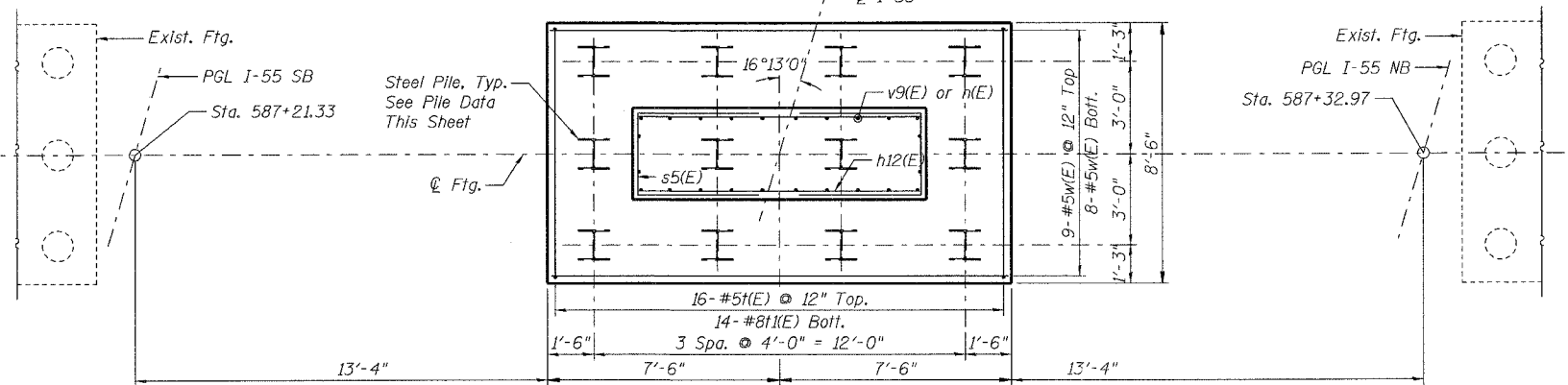


Bar n(E)



PILE DATA

Type: Steel HP12x53 w/ Metal Shoes  
 Design Capacity: Driven to Refusal  
 Required Bearing: -  
 Estimated Length: 31.8 ft  
 Number Required: 11 + 1 Test Pile



FOOTING PLAN

BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu. Yd.	39.2
Reinforcement Bars, Epoxy Coated	Pound	4,620
Furnishing Steel Piles, HP12x53	Foot	341
Driving Steel Piles	Foot	341
Test Pile Steel HP12x53	Each	1
Metal Shoes	Each	11
Braced Excavation	Cu. Yd.	48

- Notes:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Space reinforcement in piers to miss anchor bolts.
  3. Pour steps monolithically with cap.
  4. All edges shall have standard 3/4" chamfers, except as noted.
  5. E.F. indicates Each Face.
  6. See Sht. SC-22 for bearing details.
  7. See Sht. SC-23 for anchor bolt details.

SHT. SC-28 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+60.82, SECTION 2006-032 BY  
 WILL COUNTY

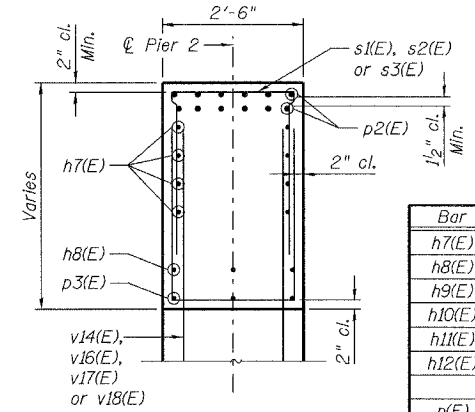
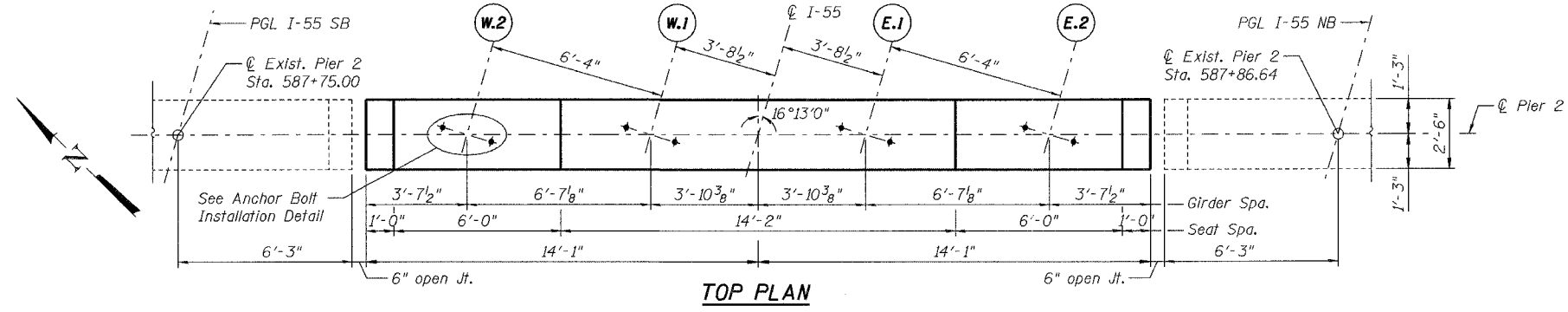
PIER 1 WIDENING

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK  
**TENG** TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

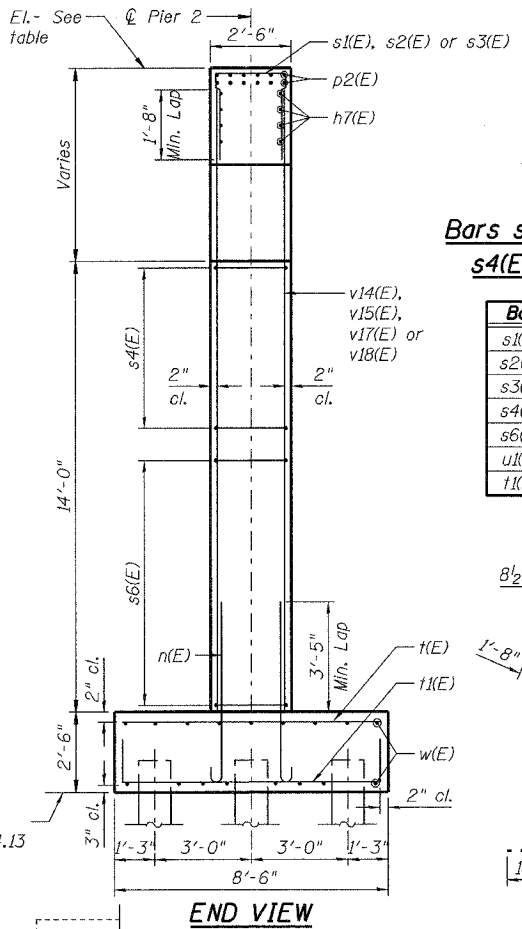
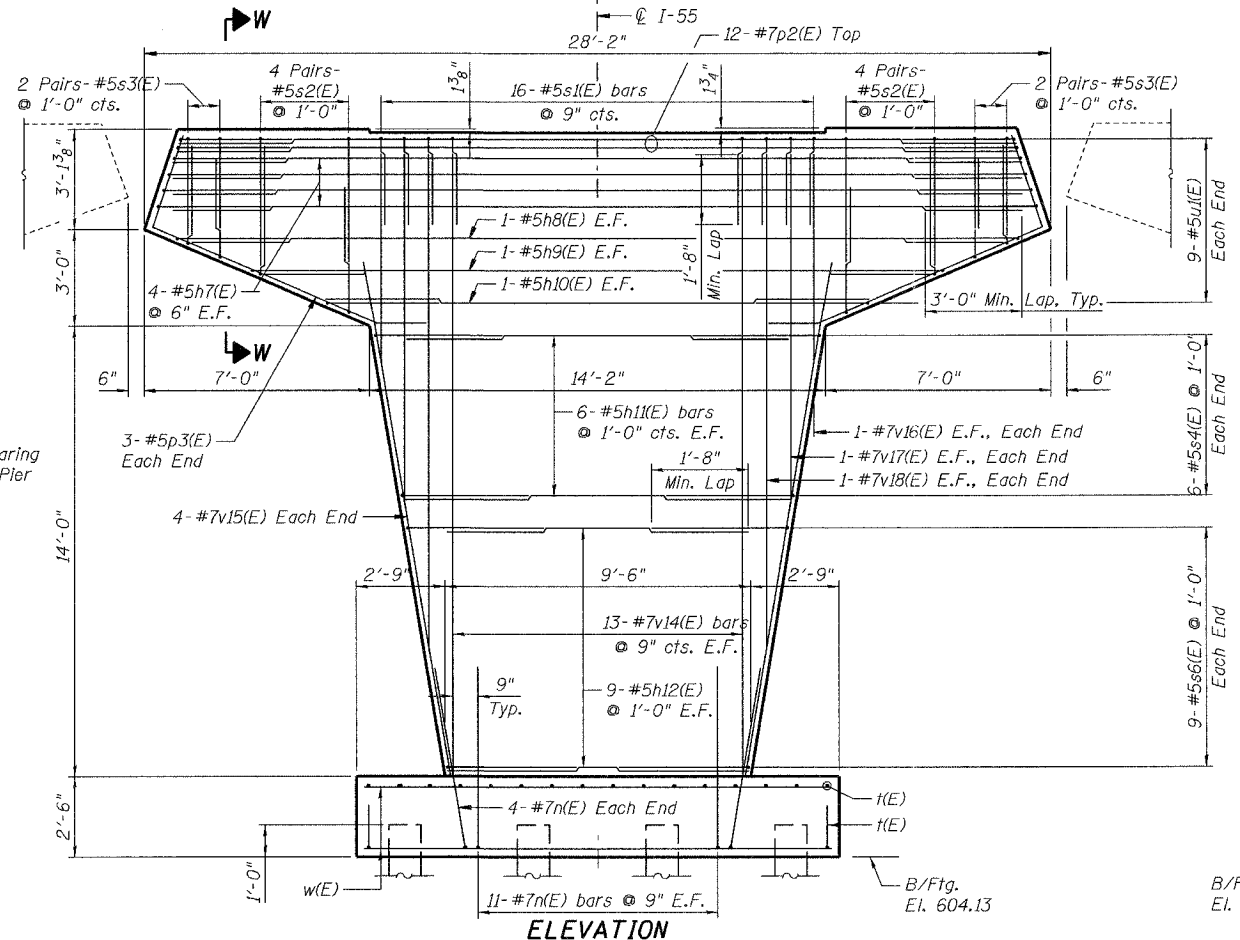
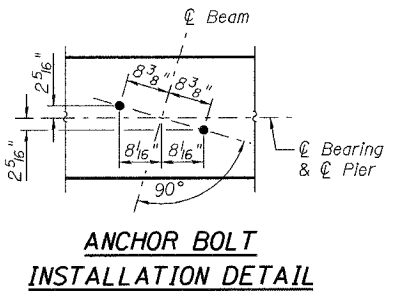


**BAR LIST**

Bar	No.	Size	Length	Shape
h7(E)	8	#5	26'-10"	
h8(E)	2	#5	26'-7"	
h9(E)	2	#5	22'-0"	
h10(E)	2	#5	17'-4"	
h11(E)	12	#5	11'-10"	
h12(E)	18	#5	9'-3"	
n(E)	30	#7	6'-5"	
p2(E)	12	#7	26'-0"	
p3(E)	6	#5	12'-2"	
s1(E)	16	#5	6'-10"	
s2(E)	16	#5	10'-6"	
s3(E)	8	#5	8'-2"	
s4(E)	12	#5	9'-8"	
s6(E)	18	#5	8'-0"	
t1(E)	16	#5	8'-2"	
t1(E)	14	#8	10'-10"	
u1(E)	18	#5	9'-2"	
v14(E)	26	#7	19'-2"	
v15(E)	8	#7	16'-6"	
v16(E)	2	#7	7'-7"	
v17(E)	2	#7	11'-7"	
v18(E)	2	#7	15'-7"	
w(E)	17	#5	14'-8"	

**Bearing Seat Elevation**

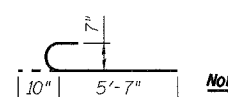
Beams	Elevation
W.2	626.74
W.1	626.63
E.1	626.63
E.2	626.78



**Bars s1(E), s2(E), s3(E), s4(E), s6(E) & u1(E)**

Bar	A	B
s1(E)	2'-8"	2'-2"
s2(E)	4'-0"	2'-2"
s3(E)	3'-0"	2'-2"
s4(E)	4'-3"	2'-2"
s6(E)	2'-11"	2'-2"
u1(E)	3'-6"	2'-2"
t1(E)	1'-4"	8'-2"

**Bar p3(E)**



**Bar n(E)**



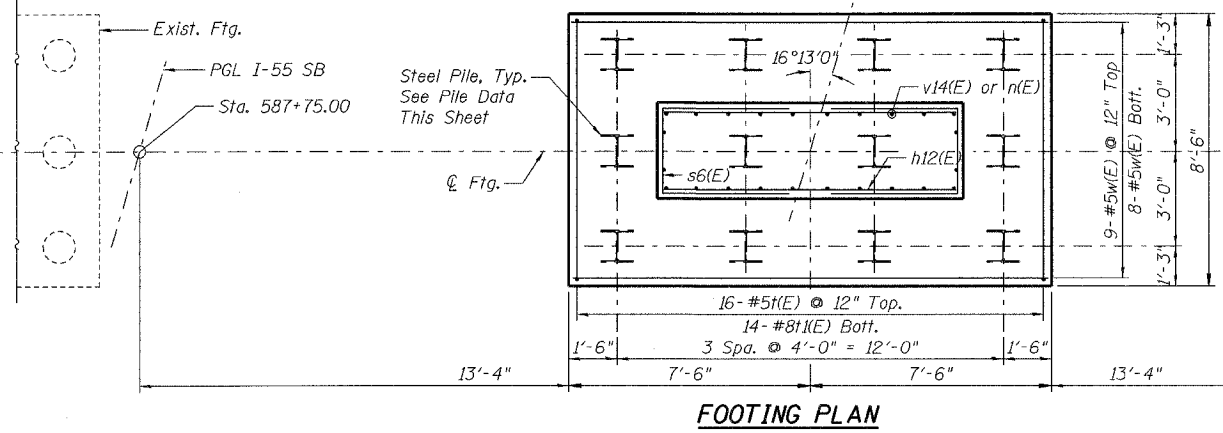
**BILL OF MATERIAL**

Item	Unit	Total
Structure Excavation	Cu. Yd.	64
Concrete Structures	Cu. Yd.	40.8
Reinforcement Bars, Epoxy Coated	Pound	4,820
Furnishing Steel Piles, HP12x53	Foot	286
Driving Steel Piles	Foot	286
Test Pile Steel HP12x53	Each	1
Metal Shoes	Each	11

- Notes:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Space reinforcement in piers to miss anchor bolts.
  3. Pour steps monolithically with cap.
  4. All edges shall have standard 3/4" chamfers, except as noted.
  5. E.F. indicates Each Face.
  6. See Sht. SC-22 for bearing details.
  7. See Sht. SC-23 for anchor bolt details.

**PILE DATA**

Type: Steel HP12x53 w/ Metal Shoes  
 Design Capacity: Driven to Refusal  
 Required Bearing: -  
 Estimated Length: 26.4 ft  
 Number Required: 11 + 1 Test Pile



**SHT. SC-29 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**PIER 2 WIDENING**

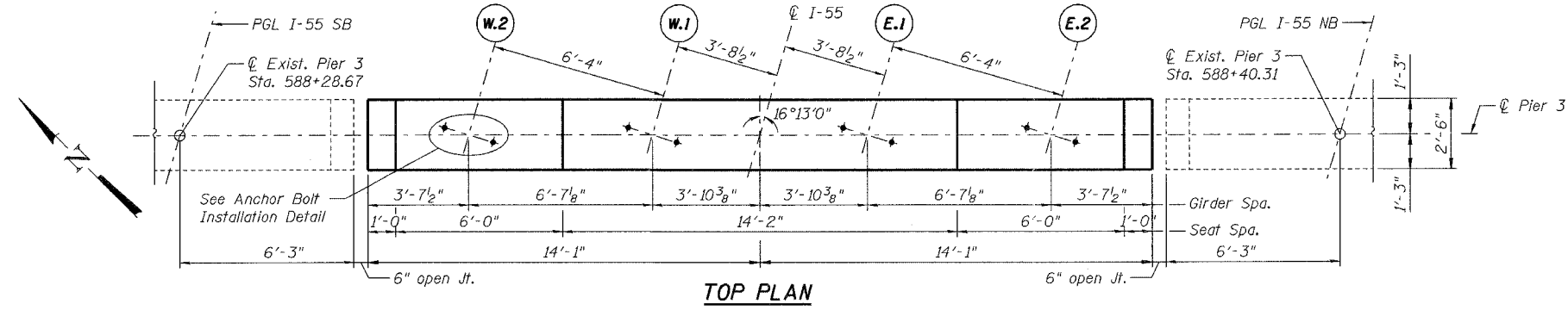
SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK  
**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

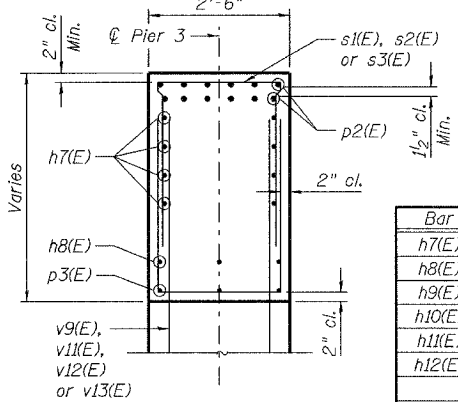
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 PLOT NAME = PIER 2  
 PLOT SCALE = AS CALLED  
 USER NAME = RUSSEB



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	289
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP PLAN



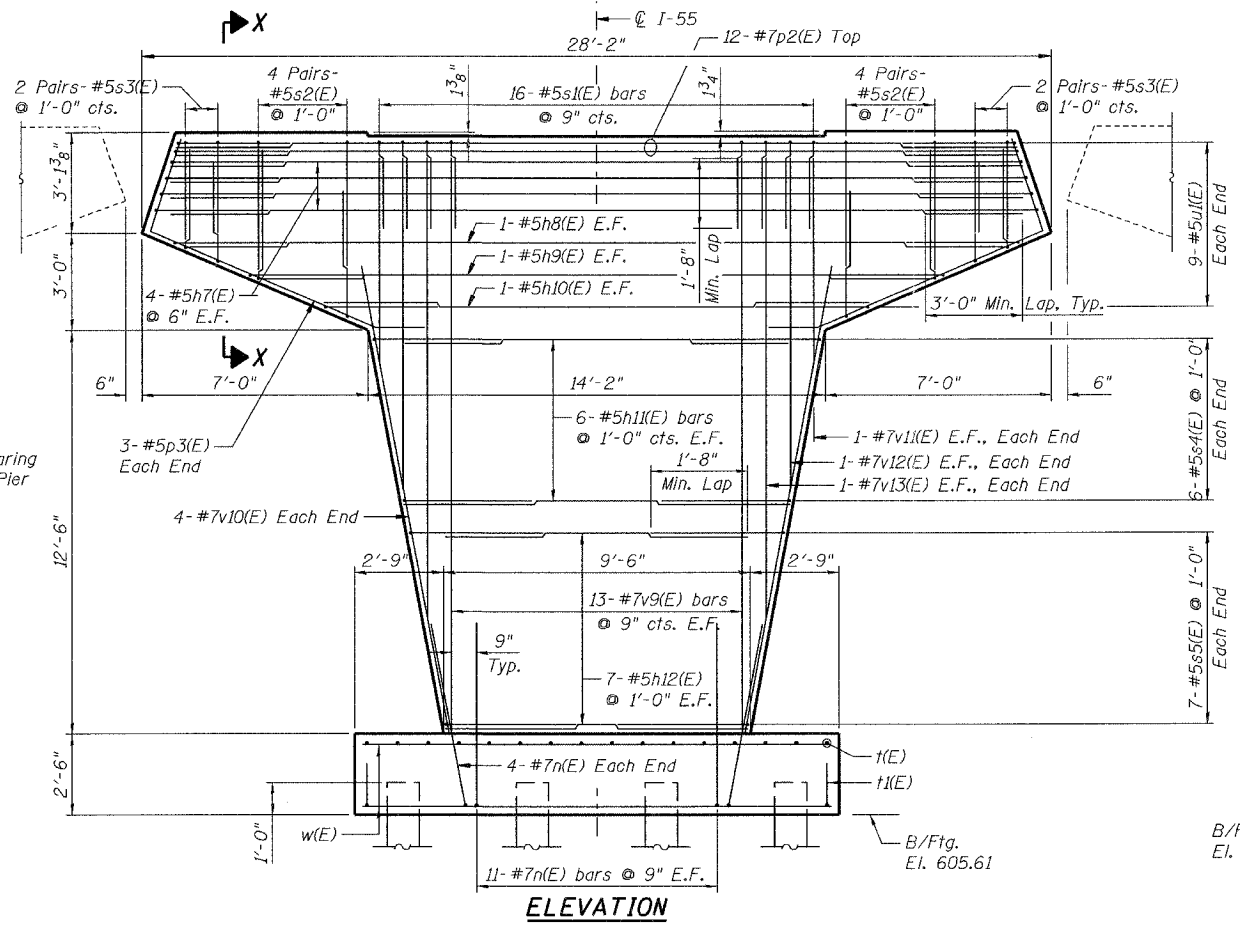
SECTION X-X

BAR LIST

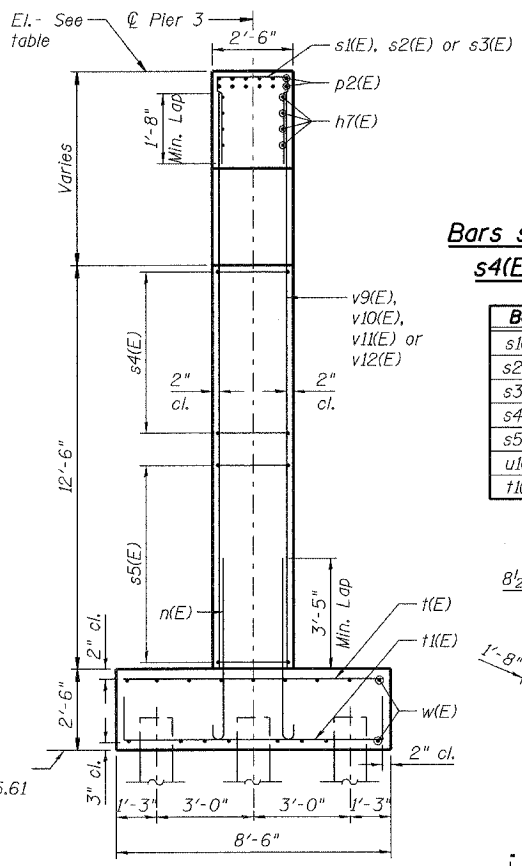
Bar	No.	Size	Length	Shape
h7(E)	8	#5	26'-10"	
h8(E)	2	#5	26'-7"	
h9(E)	2	#5	22'-0"	
h10(E)	2	#5	17'-4"	
h11(E)	12	#5	11'-10"	
h12(E)	14	#5	9'-3"	
n(E)	30	#7	6'-5"	
p2(E)	12	#7	26'-0"	
p3(E)	6	#5	12'-2"	
s1(E)	16	#5	6'-10"	
s2(E)	16	#5	10'-6"	
s3(E)	8	#5	8'-2"	
s4(E)	12	#5	9'-8"	
s5(E)	14	#5	7'-6"	
t(E)	16	#5	8'-2"	
t1(E)	14	#8	10'-10"	
u1(E)	18	#5	9'-2"	
v9(E)	26	#7	17'-8"	
v10(E)	8	#7	14'-11"	
v11(E)	2	#7	6'-1"	
v12(E)	2	#7	10'-1"	
v13(E)	2	#7	14'-1"	
w(E)	17	#5	14'-8"	

**Bearing Seat Elevation**

Beams	Elevation
W.2	626.73
W.1	626.61
E.1	626.61
E.2	626.74



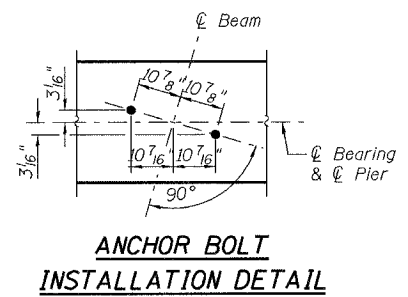
ELEVATION



END VIEW

Bars s1(E), s2(E), s3(E), s4(E), s5(E) & u1(E)

Bar	A	B
s1(E)	2'-8"	2'-2"
s2(E)	4'-2"	2'-2"
s3(E)	3'-0"	2'-2"
s4(E)	3'-9"	2'-2"
s5(E)	2'-8"	2'-2"
u1(E)	3'-6"	2'-2"
t1(E)	1'-4"	8'-2"



ANCHOR BOLT INSTALLATION DETAIL

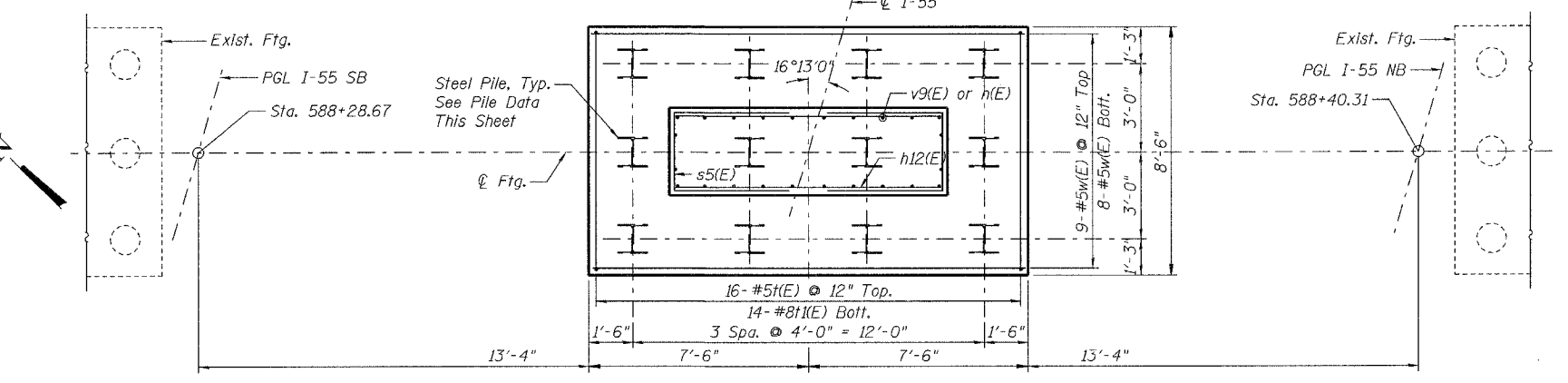
**PILE DATA**

Type: Steel HP12x53 w/ Metal Shoes  
 Design Capacity: Driven to Refusal  
 Required Bearing: -  
 Estimated Length: 28.9 ft  
 Number Required: 11 + 1 Test Pile

**BILL OF MATERIAL**

Item	Unit	Total
Concrete Structures	Cu. Yd.	39.2
Reinforcement Bars, Epoxy Coated	Pound	4,620
Furnishing Steel Piles, HP12x53	Foot	308
Driving Steel Piles	Foot	308
Test Pile Steel HP12x53	Each	1
Metal Shoes	Each	11
Braced Excavation	Cu. Yd.	44

- Notes:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Space reinforcement in piers to miss anchor bolts.
  3. Four steps monolithically with cap.
  4. All edges shall have standard 3/4" chamfers, except as noted.
  5. E.F. indicates Each Face.
  6. See Sht. SC-22 for bearing details.
  7. See Sht. SC-23 for anchor bolt details.



FOOTING PLAN

SHT. SC-30 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

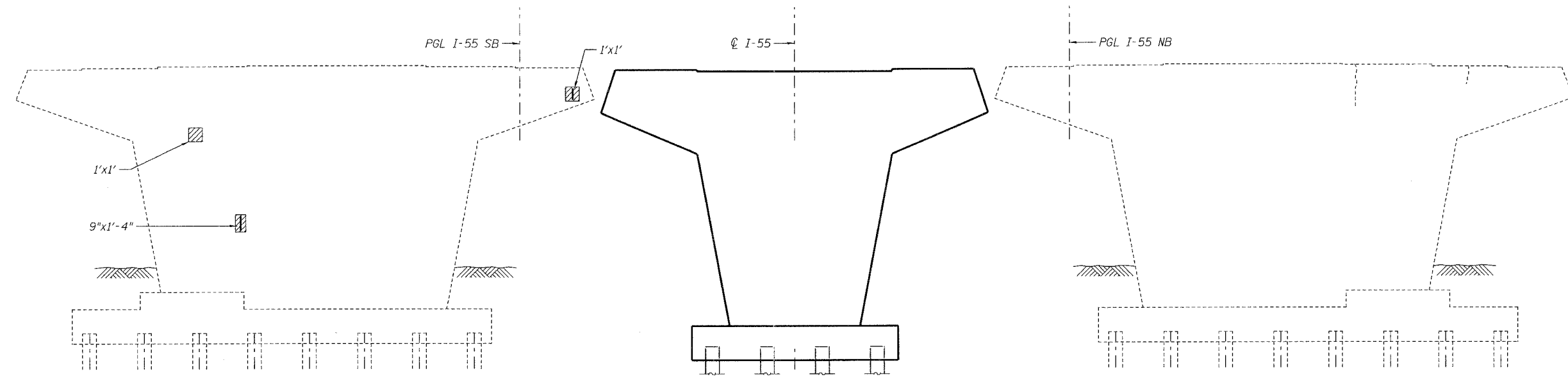
PIER 3 WIDENING

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK  
 TENG ENGINEERS/ARCHITECTS-PLANNERS CHICAGO, ILLINOIS

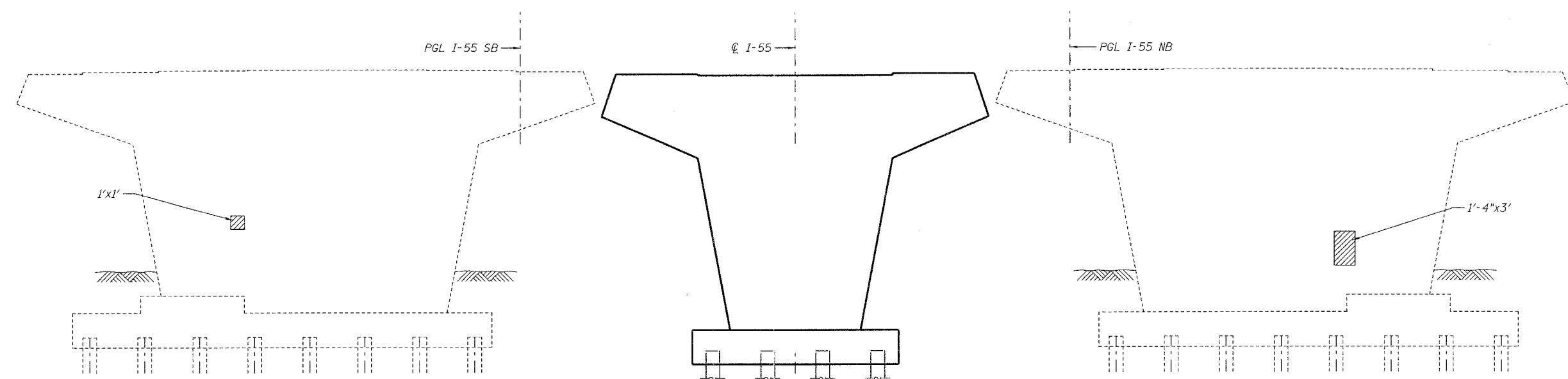
MORCOM, N.V., INC.  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	290
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**PIER 1**  
(Looking North)



**PIER 1**  
(Looking South)

**LEGEND**

- Structural Repair of Concrete
- Exposed Reinforcement
- Hairline Crack

**Notes:**

1. Areas of repair are based upon inspection surveys conducted May 2003 and increased by a factor of 1.25 to compensate for further deterioration. The type of repair (depth) quantities are assumed and shall be determined by the Engineer. The Engineer shall document actual locations and types of repairs on As-Built plans.
2. Seal cracks in piers, greater than 1/16" wide, with Epoxy Crack Sealing as identified by the Engineer.
3. Apply protective coat to new concrete surfaces of structurally repaired concrete.

**BILL OF MATERIAL - PIER 1**

Item	Unit	Total
Structural Repair of Concrete (depth equal to or less than 5")	Sq Ft	8
Structural Repair of Concrete (depth greater than 5")	Sq Ft	2
Epoxy Crack Sealing	Ft	30
Protective Coat	Sq Yd	1

**SHT. SC-31 OF 38**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**PIER 1 REPAIR ELEVATIONS**

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK

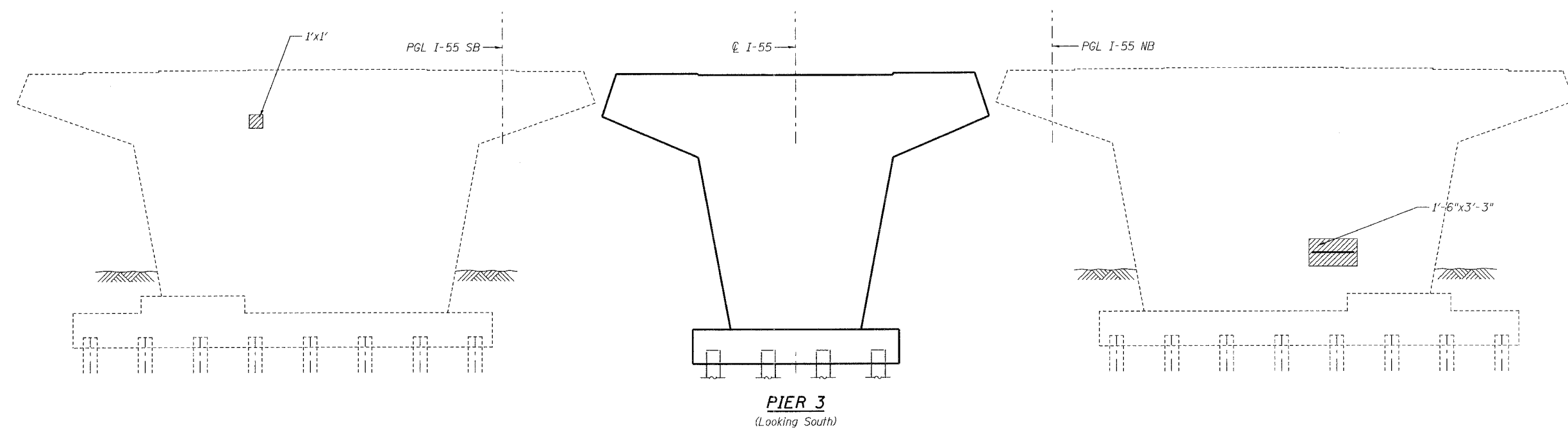
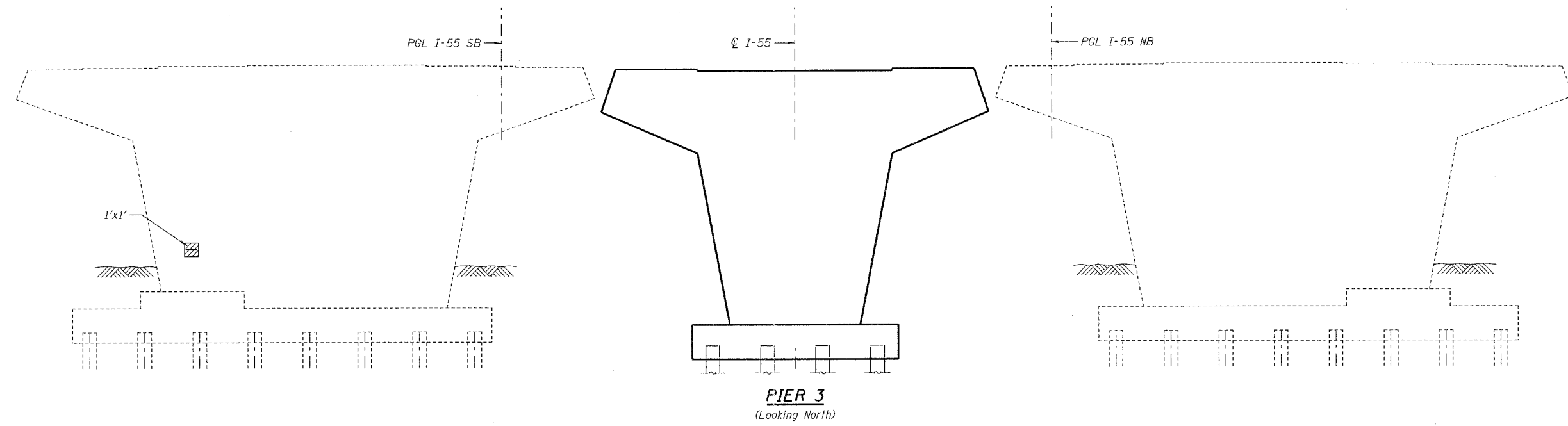
**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	565	292
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**LEGEND**

- Structural Repair of Concrete
- Exposed Reinforcement
- Hairline Crack

**Notes:**

1. Areas of repair are based upon inspection surveys conducted May 2003 and increased by a factor of 1.25 to compensate for further deterioration. The type of repair (depth) quantities are assumed and shall be determined by the Engineer. The Engineer shall document actual locations and types of repairs on As-Built plans.
2. Seal cracks in piers, greater than 1/6" wide, with Epoxy Crack Sealing as identified by the Engineer.
3. Apply protective coat to new concrete surfaces of structurally repaired concrete.

**BILL OF MATERIAL - PIER 3**

Item	Unit	Total
Structural Repair of Concrete (depth equal to or less than 5")	Sq Ft	8
Structural Repair of Concrete (depth greater than 5")	Sq Ft	2
Epoxy Crack Sealing	Ft	10
Protective Coat	Sq Yd	1

**SHT. SC-33 OF 38**

REVISIONS	
NAME	DATE

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
FAI ROUTE 55  
US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
STA. 587+80.82, SECTION 2006-032 BY  
WILL COUNTY

**PIER 3 REPAIR ELEVATIONS**

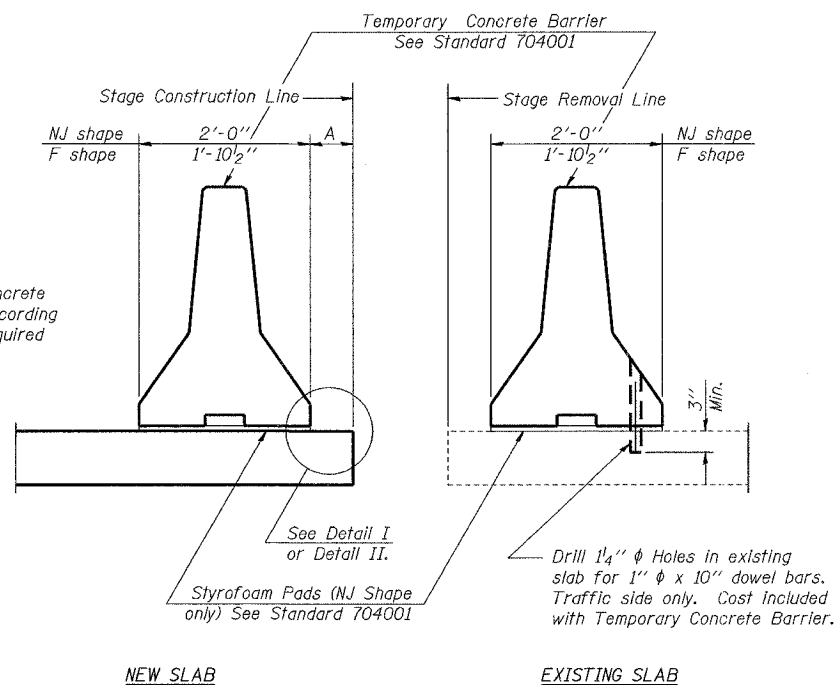
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DATE: 07/05/06 CHECKED BY: MJK

**TENG** TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
CHICAGO, ILLINOIS

PLOT DATE = 06/28/06  
 FILE NAME = RFILE\*  
 PLOT SCALE = ASSCALE\*  
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

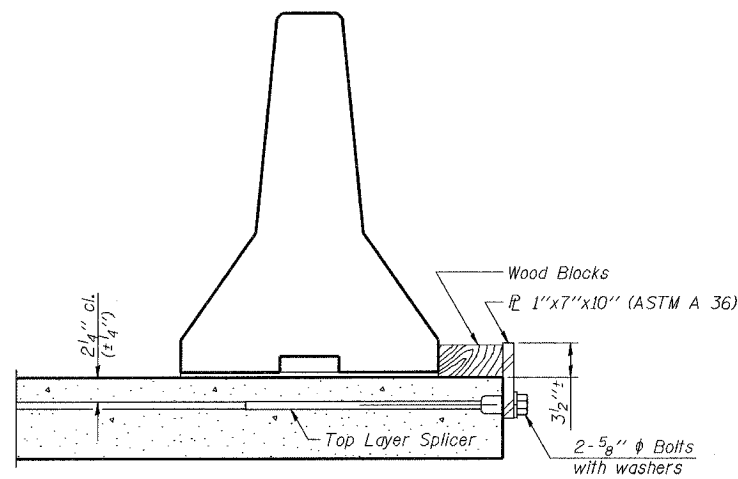


When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

**NOTES**

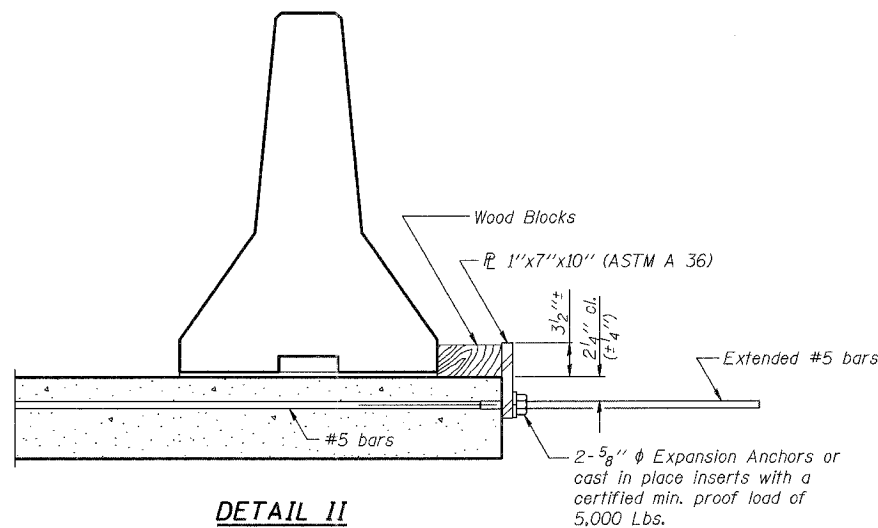
- Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 1"x7"x10" steel  $\bar{R}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.
- Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel  $\bar{R}$  to the concrete slab with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

**SECTIONS THRU SLAB**



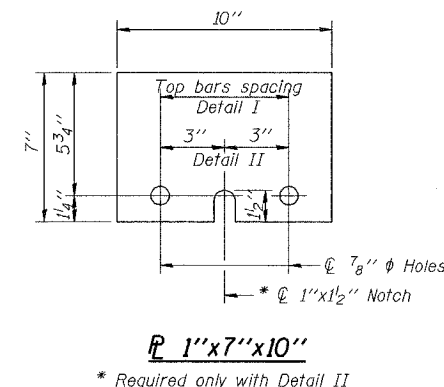
**DETAIL I**

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.



PLOT DATE = 04/26/06  
 FILE NAME = R-27.DWG  
 PLOT SCALE = 1/8"=1'-0"  
 USER NAME = JGARDNER  
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R-27

10-22-04

SHT. SC-35 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION**

SCALE: DATE 07/05/06 DRAWN BY PA CHECKED BY MJK

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS

**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

CONTRACT NO. 60B86	
F.A.I. RTE.	SECTION COUNTY TOTAL SHEETS SHEET NO.
55	2006-032 BY WILL 565 295
STA. TO STA.	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

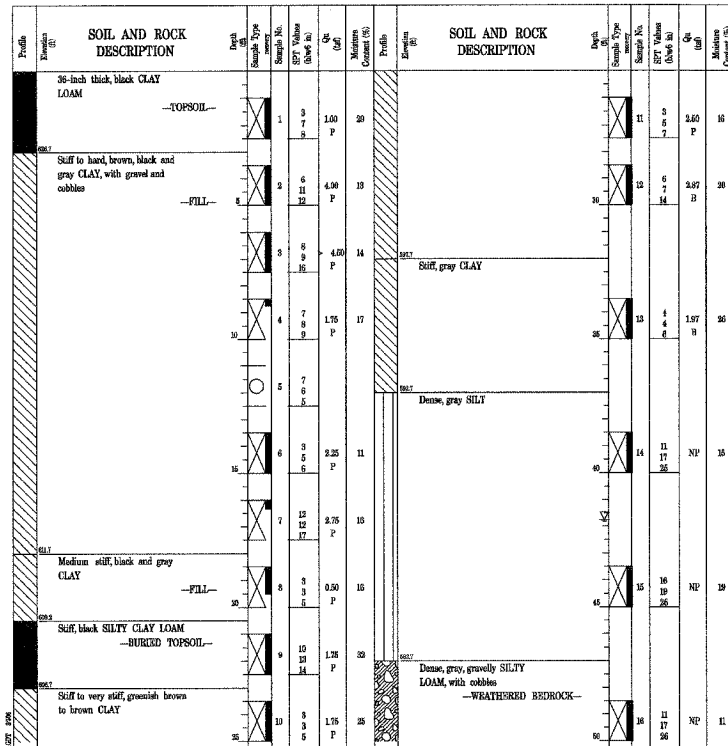
**W** Wang Engineering, Inc.  
Geotechnical Engineering and Environmental Services  
wangeng@wangeng.com  
1145 Main Street  
Lombard, IL 60148  
Telephone: 630 953-9995  
Fax: 630 953-9998

**BORING LOG US30-01** Page 1 of 1

Client: **WRI Job No: 555-11-01**  
IDOT Project D-91-132-05

Date: NGVD  
Elevation: 628.74 ft  
North: 1790881.69 ft  
East: 3892993.41 ft  
Station: 587+45  
Offset: 18.7'

Project: **I-55 Improvements**  
Location: **Will County, Illinois**



**GENERAL NOTES**

Begin Drilling: 01-04-2006 Complete Drilling: 01-04-2006  
Drilling Contractor: DLZ Industrial, LLC Drill Rig: D-120 TMR  
Driller: J & J Logger: R. Panero Checked by: R. Data  
Drilling Method: 3.25 IDA HSA Boring backfilled upon completion

**WATER LEVEL DATA**

Water Drilling:  41.75 ft  
At Completion of Drilling:  NA  
Time After Drilling: NA  
Depth to Water:  NA  
The stratification lines represent the approximate boundary between soil types. The actual location may be varied.

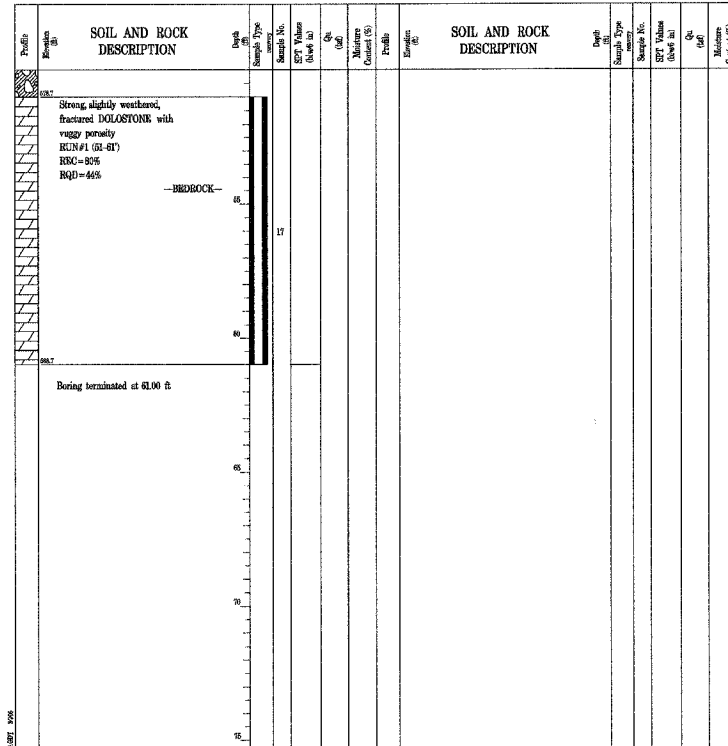
**W** Wang Engineering, Inc.  
Geotechnical Engineering and Environmental Services  
wangeng@wangeng.com  
1145 Main Street  
Lombard, IL 60148  
Telephone: 630 953-9995  
Fax: 630 953-9998

**BORING LOG US30-01** Page 1 of 1

Client: **WRI Job No: 555-11-01**  
IDOT Project D-91-132-05

Date: NGVD  
Elevation: 628.74 ft  
North: 1790881.69 ft  
East: 3892993.41 ft  
Station: 587+45  
Offset: 18.7'

Project: **I-55 Improvements**  
Location: **Will County, Illinois**



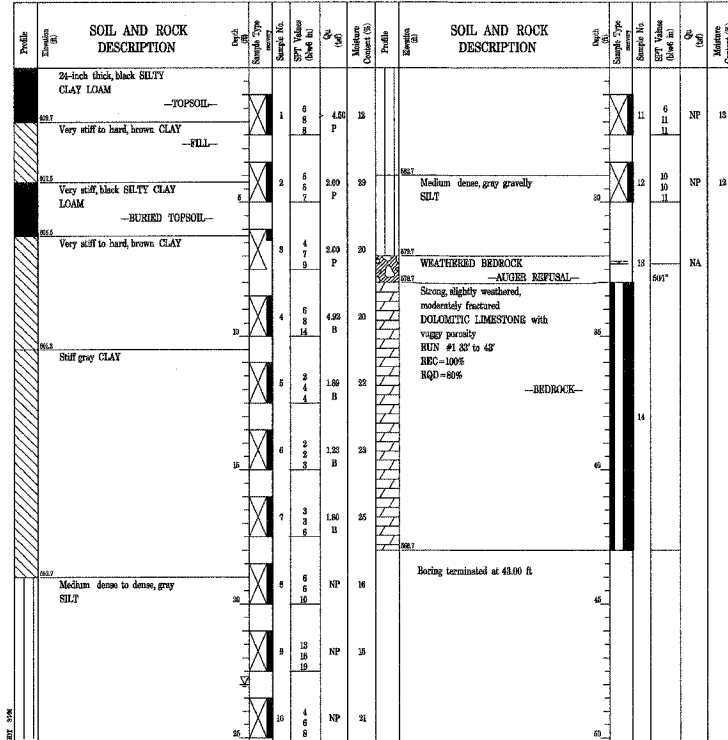
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	296
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**Wing Engineering, Inc.**  
 Consulting Geotechnical and Environmental Engineers  
 1145 Main Street  
 Lombard, IL 60148  
 Telephone: 630-953-9928  
 Fax: 630-953-9930

**BORING LOG US30-03**

WHI Job No: 555-11-01  
 Client: DOT Project D-91-182-05  
 Project: I-55 Improvements  
 Location: Will County, Illinois

Date: NGVD  
 Elevation: 511.71 ft  
 North: 179679.75 ft  
 East: 209923.13 ft  
 Station: 501+90  
 Offset: 357



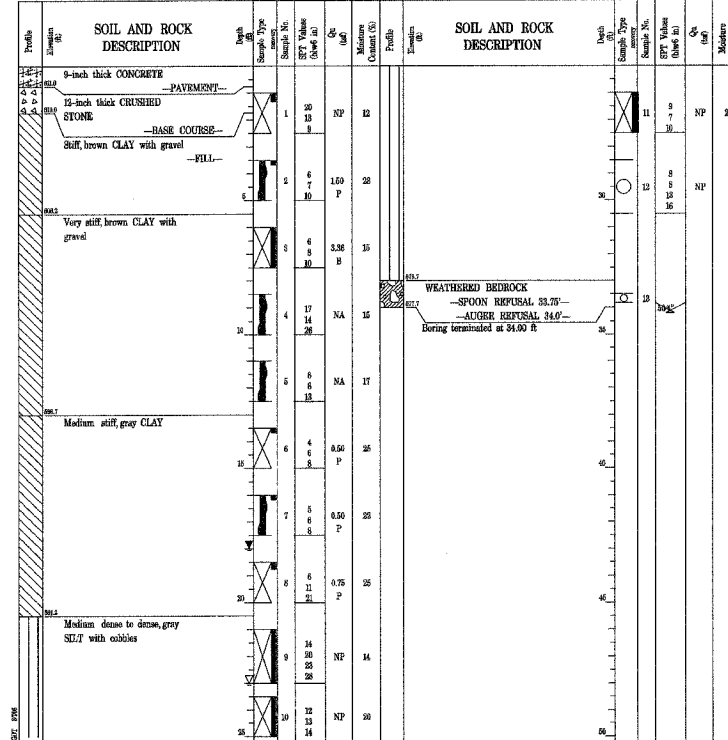
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	12-30-2005	Complete Drilling	12-30-2005
Drilling Contractor	DI2 Industrial, LLC	Drill Rig	D-120 TMR
Driller	J & J	Logger	B. Panzano
Checked by	E. Data	Time After Drilling	NA
Drilling Method	3.25 IDA HSA Boring backfilled upon completion	Depth to Water	NA

**Wing Engineering, Inc.**  
 Consulting Geotechnical and Environmental Engineers  
 1145 Main Street  
 Lombard, IL 60148  
 Telephone: 630-953-9928  
 Fax: 630-953-9930

**BORING LOG US30-04**

WHI Job No: 555-11-01  
 Client: DOT Project D-91-182-05  
 Project: I-55 Improvements  
 Location: Will County, Illinois

Date: NGVD  
 Elevation: 511.71 ft  
 North: 179679.75 ft  
 East: 209923.13 ft  
 Station: 501+28  
 Offset: 182



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	12-29-2005	Complete Drilling	12-29-2005
Drilling Contractor	DI2 Industrial, LLC	Drill Rig	D-120 TMR
Driller	J & J	Logger	B. Panzano
Checked by	E. Data	Time After Drilling	NA
Drilling Method	3.25 IDA HSA Boring backfilled upon completion	Depth to Water	NA

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SHT. SC-37 OF 38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

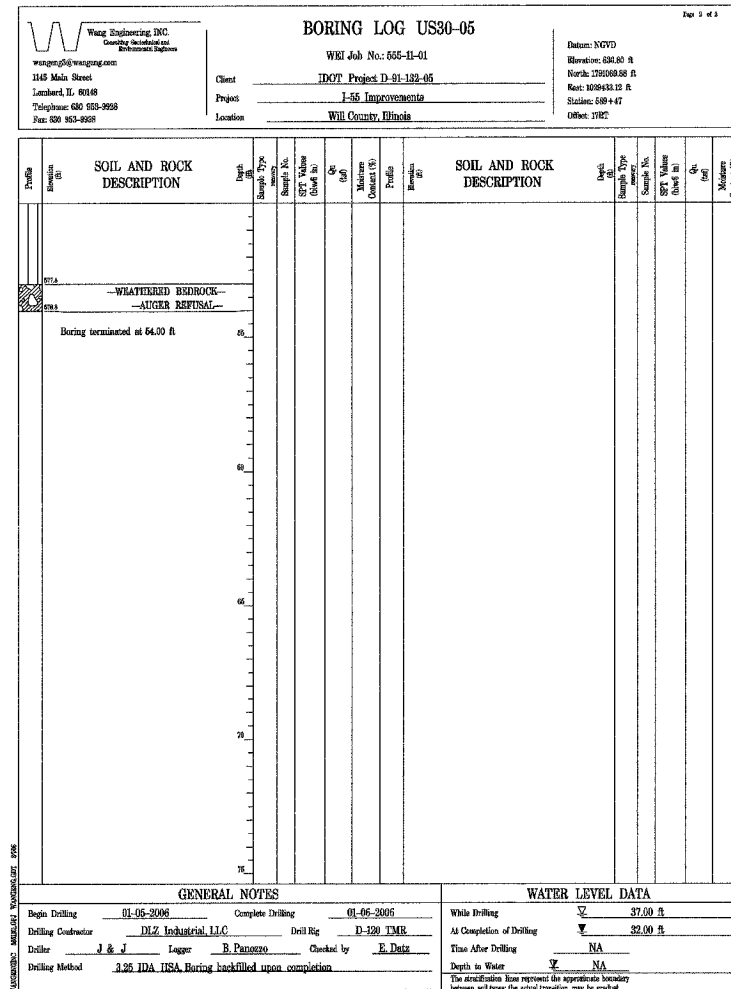
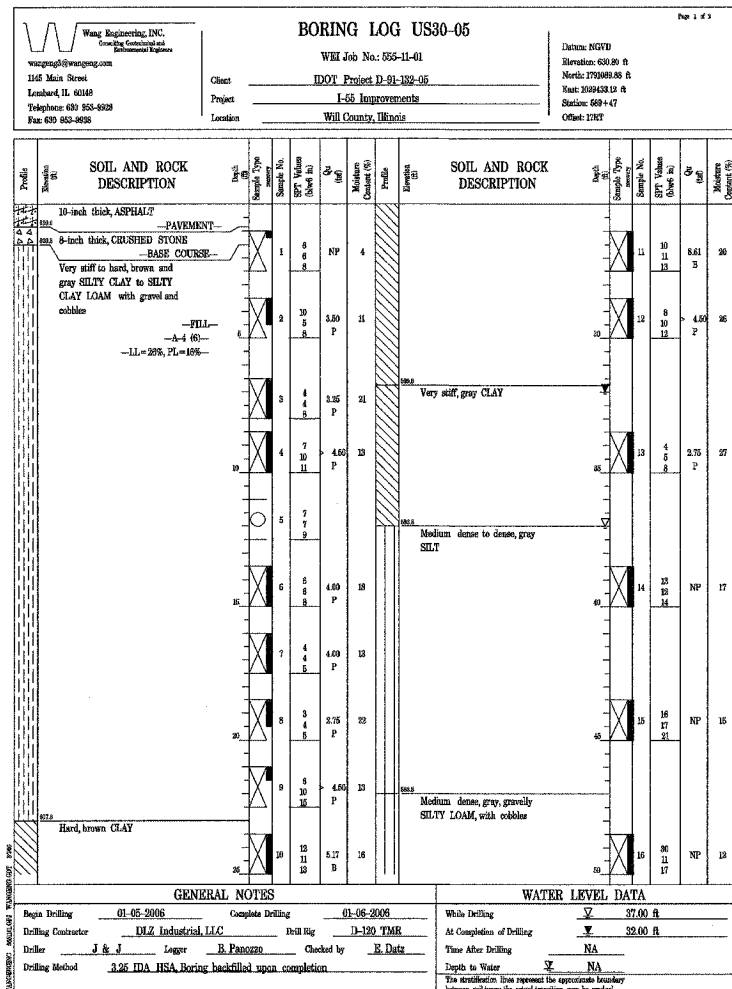
**BORING LOGS - II**

SCALE: \_\_\_\_\_ DRAWN BY PA  
 DATE 07/05/06 CHECKED BY M.K.  
**TENG** TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS

**MORCOM, N.V., INC.**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2006-032 BY	WILL	505	297
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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SHT. SC-38 OF 38

REVISIONS	
NAME	DATE

**MORCOM, N.V., INC.**  
CONSULTING ENGINEERS  
CHICAGO, ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 FAI ROUTE 55  
 US 30 (PLAINFIELD ROAD) TO LILY CACHE SLOUGH  
 SB & NB I-55 OVER US RTE. 30, S.N. 099-0016 & 099-0017  
 STA. 587+80.82, SECTION 2006-032 BY  
 WILL COUNTY

**BORING LOGS - III**

SCALE: \_\_\_\_\_ DRAWN BY: PA  
 DATE: 07/05/06 CHECKED BY: MJK

**TENG**  
 TENG & ASSOCIATES, INC.  
 ENGINEERS/ARCHITECTS/PLANNERS  
 CHICAGO, ILLINOIS



**GENERAL NOTES:**

- \* 1. Fasteners shall be high strength bolts. Bolts 7/8" φ, open holes 15/16" φ, unless otherwise noted.
2. Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
3. Field welding of construction accessories will not be permitted to beams.
4. Anchor bolts shall be set before bolting diaphragms over supports.
- \* 5. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
6. Reinforcement bars shall conform to the requirements of AASHTO M 31M or M322 Grade 60.
7. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2 inch adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, two 1/2 inch adjusting shims shall be provided for each bearing and placed as detailed.
9. The contractor shall drive one test pile in a permanent location at each substructure element as directed by the Engineer before ordering the remainder of piles.
10. Bridge Seat Sealer shall be applied to the seat area of both abutments.
11. Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04. All existing construction accessories welded to the top flange over the pier between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.
12. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. Prepare the surface and paint the existing steel structures in areas that will be in contact with the new steel. See special provisions for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
13. Partial depth saw cutting of the existing concrete deck over the top of the beam flanges shall be permitted. See Special Provisions for Removal of Existing Non-Composite Bridge Decks.
- \* 14. The Organic Zinc-Rich/Epoxy/Urethane Paint System shall be used by the Fabrication Contractor 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 in the field. The color of the final finish coat for all new interior steel surfaces shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures". The Erection Contractor shall use care when working with beams. Touch up in the field will be performed by the Erection Contractor. The cost for touch up painting shall be included in the contract unit price for Erecting Structural Steel.
- \* 15. Calculated weight of structural steel = 205,840 lbs.
16. All Construction joints shall be bonded.

\* These notes included in Mainline Contract for information only.

DESIGNED	S.CHELBIAN
CHECKED	J.GRAINAWI
DRAWN	S.CHELBIAN
CHECKED	J.GRAINAWI

Date: 7/21/2006

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATE	SHEET NO.	SHEET NO. 2
FAI-55	**	WILL	505	299	44 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\*\* SECTION 2006-032 BY  
CONTRACT NO. 60B86

**INDEX OF SHEETS**

1. General Plan & Elevation, Index
2. General Notes & Bill of Material
3. Construction Stages
4. Substructure Layout
5. Top of Slab Elevation Layout
6. Top of Slab Elevations I
7. Top of Slab Elevations II
8. Top of Slab Elevations III
9. SB Deck Plan & Section
10. NB Deck Plan & Section
11. Superstructure Details I
12. Superstructure Details II
13. Bridge Joint System - Expansion (Preformed Joint Seal)
14. Bridge Joint System - Expansion (Alternate Strip Seal)
15. Drainage Scupper, DS-II
16. Drainage Scupper, DS-33
17. Framing Plan
18. Structural Steel Details I
19. Structural Steel Details II
20. Structural Steel Details III
21. Elastomeric Bearing Assembly, Type I
22. Elastomeric Bearing Assembly, Type II
23. South Abutment Widening I
24. South Abutment Widening II
25. South Abutment Details
26. Pier No. 1 Widening
27. Pier No. 2 Widening
28. Pier No. 1 & 2 Details
29. North Abutment Widening I
30. North Abutment Widening II
31. North Abutment Details
32. Substructure Repairs I (SB)
33. Substructure Repairs II (NB)
34. Crib Retaining Wall Widening & Details
35. Anchor Bolt Details
36. Bar Splicer Details
37. Temporary Concrete Barrier
38. Cantilever Forming Brackets
39. Boring Logs I
40. Boring Logs II
41. Boring Logs III
42. Boring Logs VI
43. Boring Logs V
44. Boring Logs IV

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		116	116
Concrete Removal	Cu. Yd.	55.3	28.4	83.7
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		457	457
Floor Drains	Each	4		4
Preformed Joint Seal, 2 1/2"	Foot	158.5		158.5
Concrete Structures	Cu. Yd.		382.6	382.6
Concrete Superstructure	Cu. Yd.	460.6		460.6
Bridge Deck Grooving	Sq. Yd.	1,514		1,514
Protective Coat **	Sq. Yd.	2,622		2,622
Erecting Elastomeric Bearing Assembly, Type I	Each	11		11
Erecting Elastomeric Bearing Assembly, Type II	Each	8		8
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	91		91
Erecting Structural Steel	L. Sum	0.55		0.55
Furnishing and Erecting Structural Steel *	Pound	230		230
Shear Stud Connectors	Each	7,413		7,413
Reinforcement Bars, Epoxy Coated	Pound	97,850	35,090	132,940
Bituminous Coated Aggregate Slopewall, 6"	Sq. Yd.		399	399
Furnishing Steel Piles HP10x42	Foot		2,510	2,510
Driving Steel Piles	Foot		2,510	2,510
Test Pile Steel HP10x42	Each		4	4
Metal Shoes	Each		76	76
Temporary Sheet Piling	Sq. Ft.		958	958
Name Plates	Each	2		2
Bridge Seat Sealer	Sq. Ft.		231	231
Epoxy Crack Sealing	Foot	45		45
Geocomposite Wall Drain	Sq. Yd.		72	72
Pipe Underdrains For Structures 4"	Foot		132	132
Conduit Embedded in Structure, 2" Dia., Galvanized Steel	Foot	318		318
Precast Modular Retaining Wall	Sq. Ft.		368	368
Drainage Scuppers DS-33	Each	1		1
Drainage Scuppers DS-II	Each	1		1
Bridge Joint System (Expansion), 1"	Foot	137.7		137.7
Bridge Joint System (Expansion), 1 1/2"	Foot	137.7		137.7
Temporary Soil Retention System	Sq. Ft.		171	171
Bar Splicers	Each	926	456	1,382
Protective Shield	Sq. Yd.	599.1		599.1

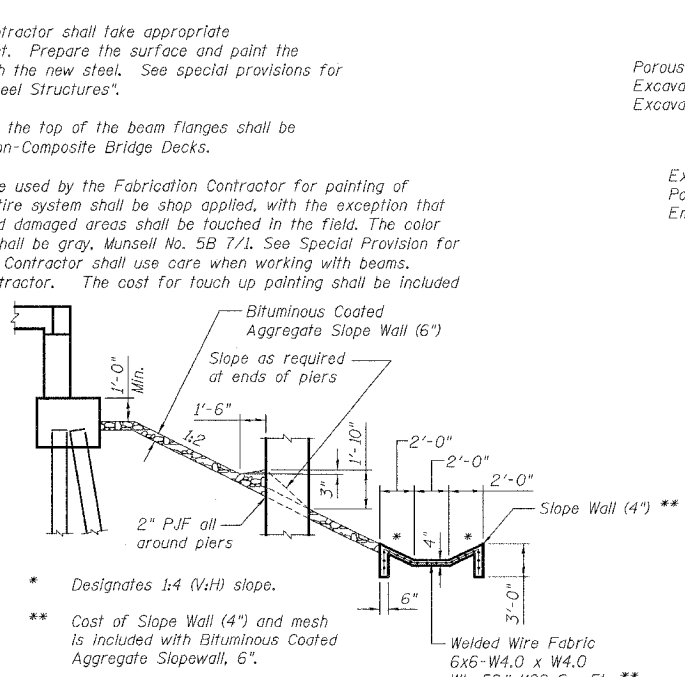
\* For Anchor Bolts Only.  
\*\* Quantity shown includes existing construction. Apply in accordance with Section 503.19 of the standard specifications.

STATION 609+29.37  
REBUILT BY  
STATE OF ILLINOIS  
FAI RT. 55 SEC. 2006-032 BY  
LOADING HS20 & ALT.  
STR. NO. 099-0018

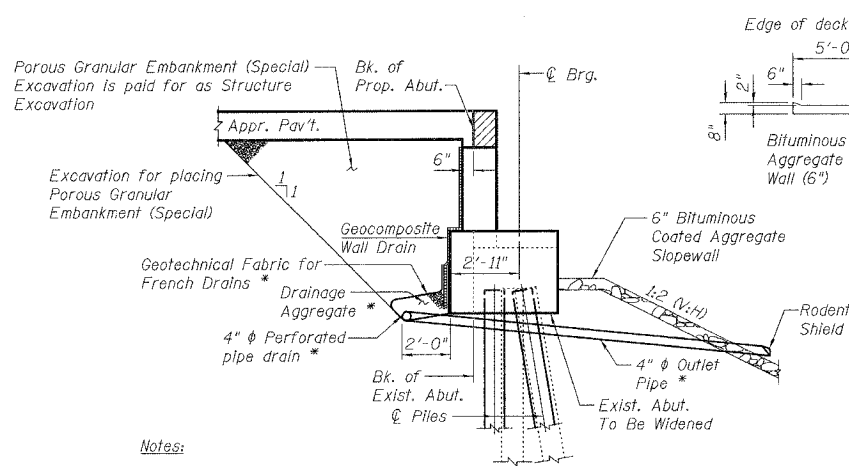
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See Std. 515001

STATION 609+29.37  
REBUILT BY  
STATE OF ILLINOIS  
FAI RT. 55 SEC. 2006-032 BY  
LOADING HS20 & ALT.  
STR. NO. 099-0019

**NAME PLATE**  
See Std. 515001

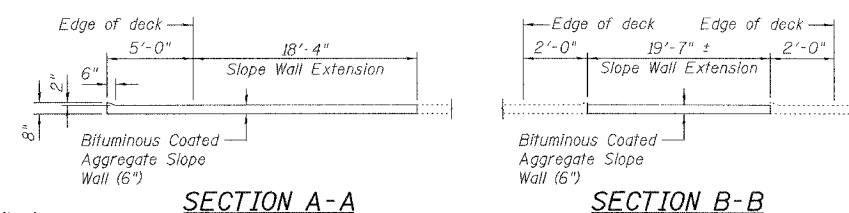


**SECTION THRU SLOPEWALL AT SOUTH ABUTMENT**  
(Dimensions @ Rt. L's)



- Notes:**
1. \* Included in the cost of Pipe Underdrains for Structures.
  2. For S.N. 099-0019, the north and south abutment drainage system components shall extend to 2'-0" from the end of each outside wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).
  3. Connect 4" φ Perforated Pipe Drain to 4" φ Outlet Pipe and extend until it intersects and passes through slopewall. The end of the Outlet Pipe shall be protected by a permanent Rodent Shield. Rodent Shield shall be according to Section 601 of the Standard Specifications and cost shall be included with Pipe Underdrain for Structures, 4".

**SECTION THRU ABUTMENTS**  
(Dimensions @ Rt. L's)



**SECTION A-A**

**SECTION B-B**

- Notes:**
1. The new name plate for the NB structure shall be located next to the existing name plate. The name plate shall be attached to the existing concrete using concrete anchors and set in a bed of epoxy. Concrete anchors and epoxy shall be subject to approval of the Engineer. Cost included with Name Plate.
  2. The existing name plate for the SB structure shall be cleaned and relocated next to the new name plate. Cost included with Name Plate.



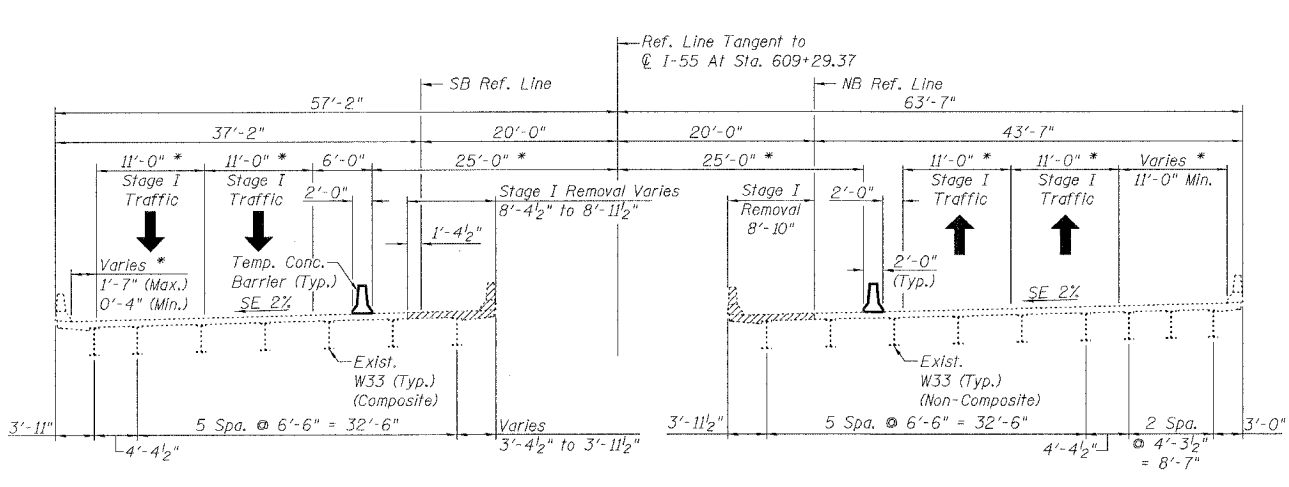
**GENERAL NOTES & BILL OF MATERIAL I-55 OVER EJ&E RR**  
FAI ROUTE 55-SEC. 2006-032 BY  
WILL COUNTY  
STA. 609+29.37  
STRUCTURE NO. 099-0018 (NB)  
STRUCTURE NO. 099-0019 (SB)

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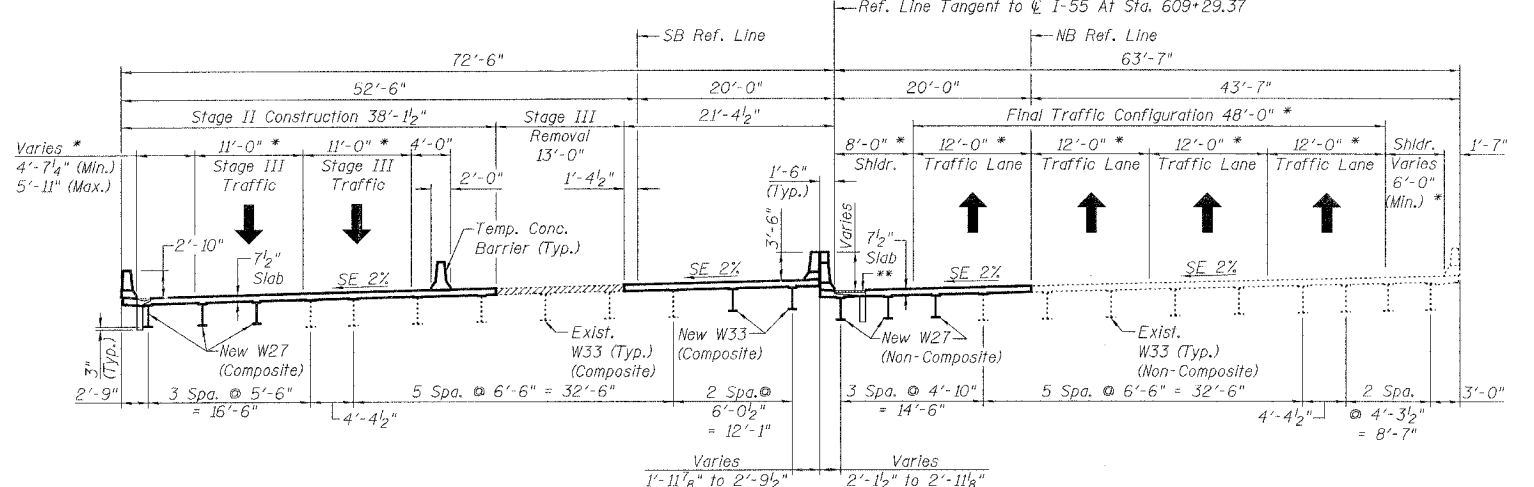
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
FAI-55	**	WILL	505	300
44 SHEETS				

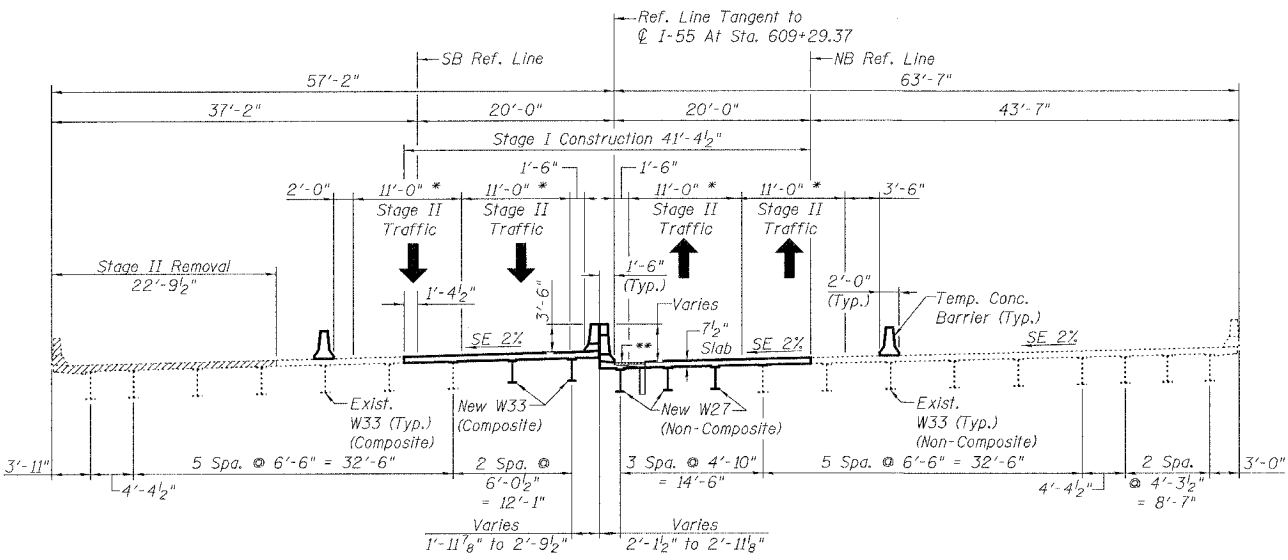
\*\* SECTION 2006-032 BY  
CONTRACT NO. 60B86



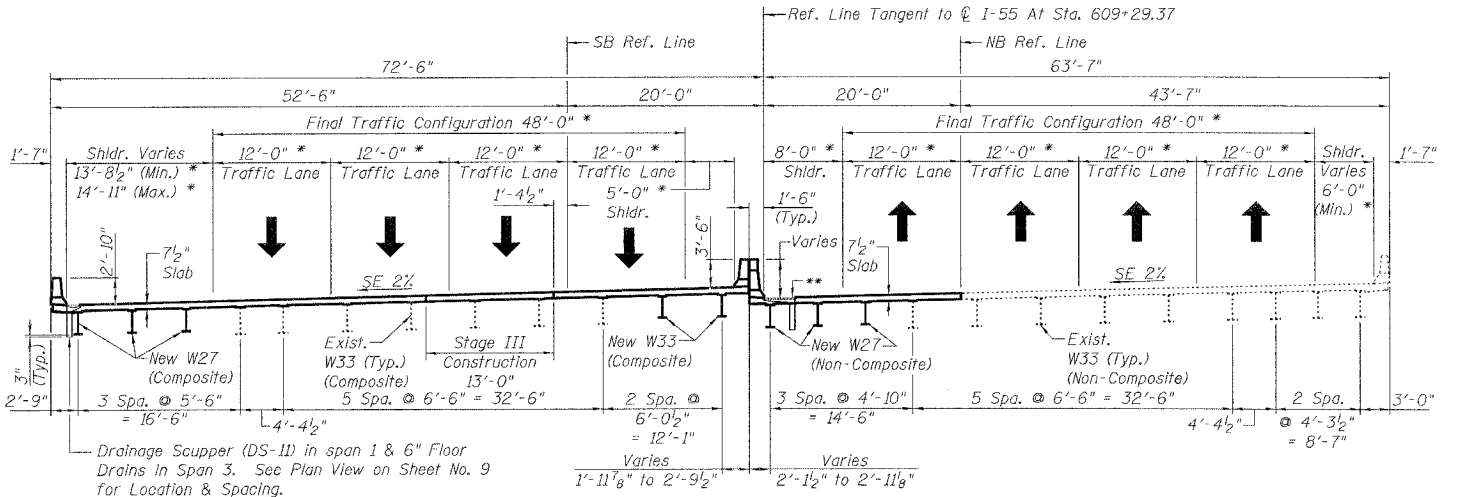
STAGE I REMOVAL



STAGE II CONSTRUCTION / STAGE III REMOVAL



STAGE I CONSTRUCTION / STAGE II REMOVAL



STAGE III CONSTRUCTION / PROPOSED SECTION

- Notes:
1. For Temporary Concrete Barrier Details, See Sheet No. 37.
  2. \* Designates radial dimensions normal to  $\phi$  I-55.
  3. \*\* Designates Drainage Scupper (DS-33) in Span 1 and 6" Floor Drains in Span 3. See Plan View on Sheet No. 10 for location and spacing.
  4. All Cross Sections are Looking North.

**LEGEND**

Hatched Area Indicates SB Removal of Existing Concrete Deck & NB Concrete Removal

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Removal of Existing Concrete Deck	Each	1
Concrete Removal	Cu. Yd.	55.3

DESIGNED	S.CHELBIAN
CHECKED	J.GRAINAWI
DRAWN	S.CHELBIAN
CHECKED	J.GRAINAWI

Date: 6/30/2006



STAGE CONSTRUCTION  
I-55 OVER EJ&E R.R.  
FAI ROUTE 55-SEC. 2006-032 BY  
WILL COUNTY  
STA. 609+29.37  
STRUCTURE NO. 099-0018 (NB)  
STRUCTURE NO. 099-0019 (SB)

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