

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0308	01-00042-07-BR	WILL	58	01
WHA# 1033004		CONTRACT NO. 63617		
ILLINOIS FED. AID PROJECT BRS-0308(104)				

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406 SCHAUMBURG, IL

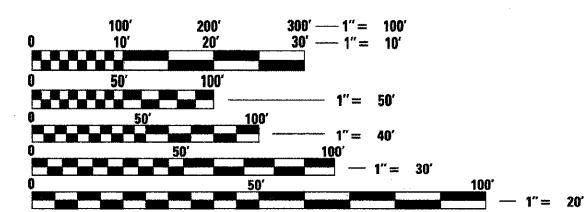
**FOR INDEX OF SHEETS  
SEE SHEET NO. 2**

**STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
- 406201-01 MAILBOX TURNOUT
- 420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR
- 515001-03 NAME PLATE FOR BRIDGES
- 630001-09 STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631031-09 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 666001-01 RIGHT OF WAY MARKERS
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-03 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701321-11 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPE A & B METAL POSTS (FOR SIGNS & MARKERS)
- TC-11 DISTRICT 1 DETAIL  
TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS SNOW-PLOW RESISTANT
- TC-13 DISTRICT 1 DETAIL  
TYPICAL PAVEMENT MARKINGS

**DESIGN DESIGNATION**

DESIGN SPEED: 55 MPH POSTED SPEED: 55 MPH			
FUNCTIONAL CLASSIFICATION	ROUTE	ADT (2032)	% TRUCKS
RURAL MAJOR COLLECTOR	INDIANA AVE. (C.H. 24)	6,537	6.2



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

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

**CONTRACT NO. 63617**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

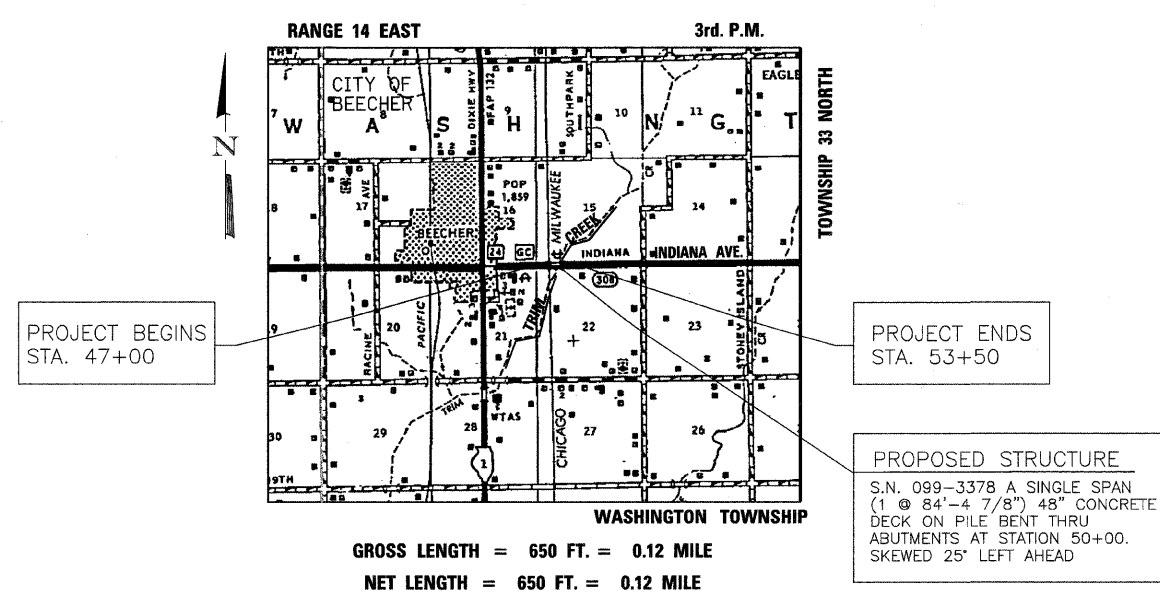
**F.A.S. ROUTE 0308 (C.H. 24)  
INDIANA AVENUE OVER TRIM CREEK  
BRIDGE REPLACEMENT  
SECTION 01-00042-07-BR  
PROJECT NO. BRS-0308(104)  
COUNTY OF WILL**

C-91-146-01



LOCATION OF SECTION INDICATED THUS: —■—

**LOCATION MAP**



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED	JUNE 22 <sup>ND</sup> 2011 <i>[Signature]</i> ENGINEER
PASSED	JULY 18 2011 <i>[Signature]</i> DISTRICT ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	JULY 18 2011 <i>[Signature]</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION I ENGINEER

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

**BRIAN K. CONVERSE**  
062-0484  
LICENSED  
PROFESSIONAL  
ENGINEER  
OF  
ILLINOIS  
DATE: 6/16/2011  
EXPIRES 11/30/11

**WILLETT HOFMANN  
& ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

# INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS & GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-5	TYPICAL SECTIONS
6-8	SCHEDULE OF QUANTITIES
9-10	PLAN AND PROFILE
11	STAGE CONSTRUCTION AND BARRIER LAYOUT
12-13	SOIL EROSION AND SEDIMENT CONTROL PLAN
14	GENERAL PLAN AND ELEVATION
15	CONSTRUCTION STAGING AND TEMPORARY SHEET PILING LAYOUT
16	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
17	RIPRAP AND PILE LAYOUT
18	TOP OF SLAB ELEVATIONS
19	TOP OF WEST APPROACH SLAB ELEVATIONS
20	TOP OF EAST APPROACH SLAB ELEVATIONS
21	SUPERSTRUCTURE
22	SUPERSTRUCTURE DETAILS
23	FRAMING PLAN AND DIAPHRAGM DETAILS
24-25	WEST & EAST BRIDGE APPROACH SLAB DETAILS
26	48" PCC I-BEAM
27	48" PCC I-BEAM DETAILS
28	WEST ABUTMENT DETAILS
29	EAST ABUTMENT DETAILS
30	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
31	METAL SHELL PILE DETAILS
32	BORING LOGS
33-40	CROSS SECTIONS - STAGE 1 CONSTRUCTION
41-48	CROSS SECTIONS - STAGE 2 CONSTRUCTION
49-56	CROSS SECTIONS - FINAL STAGE CONSTRUCTION
57	DISTRICT ONE DETAIL - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
58	DISTRICT ONE DETAIL - TYPICAL PAVEMENT MARKINGS

# GENERAL NOTES

EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, WELLS, OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 AND 501.05 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

EXISTING STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.25.

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS OR CONCRETE SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SURFACE SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING IS TO BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.

ALL TREES LESS THAN 6" DIAMETER WITHIN THE CONSTRUCTION LINES AND SHOWN ON THE PLANS TO BE REMOVED WILL NOT BE PAID FOR UNDER THE BID ITEM OF "TREE REMOVAL". THE COST OF REMOVING THESE TREES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION.

NO OVERHAUL HAS BEEN COMPUTED AND NONE SHALL BE PAID FOR FROM ANY SOURCE.

ANY TEMPORARY SEEDING THAT IS DIRECTED BY THE ENGINEER SHALL BE PAID AS TEMPORARY EROSION CONTROL SEEDING.

BITUMINOUS MATERIALS (PRIME COAT) SHALL BE RC-70 OR SS-1 ON BITUMINOUS AND MC-30 OR P.E.P. ON AGGREGATE AND SHALL BE APPLIED AT THE RATE OF 0.10-0.40 GALLONS PER SQUARE YARD, OR AS DIRECTED BY THE ENGINEER.

ALL PAVEMENT SHALL BE CLEANED AND "FRESH OIL" SIGNS SHALL BE PLACED AT ALL INTERSECTIONS OF THE STREETS PRIOR TO APPLYING BITUMINOUS MATERIALS (PRIME COAT).

AGGREGATE (PRIME COAT) SHALL BE APPLIED AT THE RATE OF 6 POUNDS PER SQUARE YARD OR AS DIRECTED BY THE ENGINEER.

THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION.

ALL DISTURBED GROUND WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE RE-SEEDED (CLASS 2A & 4), FERTILIZED, AND EXCELSIOR BLANKET INSTALLED TO THE SATISFACTION OF THE ENGINEER.

VERTICAL HEADWALLS, DECORATIVE SIGNING, PLANTINGS, SHRUBBERY, AND TREES ARE PROHIBITED INSIDE THE COUNTY RIGHT-OF-WAY.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FIELD TILES, UNDERGROUND AND SURFACE UTILITIES AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS, EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY FIELD TILE THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

ALL CONSTRUCTION TO BE ACCORDING TO IDOT DESIGN AND STANDARD SPECIFICATIONS, MUST ADHERE TO THE WILL COUNTY DEPARTMENT OF HIGHWAYS PERMIT REGULATIONS AND ACCESS CONTROL REGULATIONS, AND SHALL FOLLOW THE LATEST WILL COUNTY STORM WATER MANAGEMENT ORDINANCE AND WILL COUNTY WATER RESOURCE ORDINANCE AT ALL TIMES.

A PROOF ROLL OF THE SUBGRADE IS REQUIRED PRIOR TO PLACING THE AGGREGATE SUB-BASE AND MUST BE OBSERVED BY A CERTIFIED TESTING COMPANY. NOTIFY THE ENGINEER PRIOR TO DOING THE PROOF ROLL.

RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH WCDH REQUIREMENTS AND SHALL BE SUBMITTED IN ELECTRONIC FORMAT.

THE WILL COUNTY DEPARTMENT OF HIGHWAYS MUST BE NOTIFIED A MINIMUM OF TWO (2) WORKING DAYS IN ADVANCE OF ANY NON-EMERGENCY CONSTRUCTION WITHIN THE RIGHT-OF-WAY.

# GENERAL NOTES (CONT.)

THE LOCATION AND ELEVATION OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITIES TO MAKE THE NECESSARY ADJUSTMENTS PRIOR TO THIS CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT THE BEECHER PUBLIC WORKS DEPARTMENT IN ORDER TO HAVE THE EXISTING WATERMAIN SHUT-OFF PRIOR TO EXCAVATION OF THE STREAMBED AND SLOPES OVER THE EXISTING 10" WATERMAIN. THE CONTRACTOR SHALL PROCEED WITH CAUTION WHILE EXCAVATING IN THIS LOCATION AND NOTIFY THE PUBLIC WORKS DEPARTMENT IMMEDIATELY IF THE WATERMAIN IS EXPOSED DURING CONSTRUCTION.

THE UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS INCLUDE:

COMED 1910 S. BRIGGS STREET JOLIET, IL 60433 T: 630-437-3313 ATTN: CRAIG WEBER	AT&T DISTRIBUTION 1000 COMMERCE DRIVE OAK BROOK, IL 60523 T: 630-573-6447 E: mc1365@att.com
--	---

BEECHER PUBLIC WORKS DEPARTMENT  
724 PENFIELD STREET  
PO BOX 1154  
BEECHER, IL 60401  
T: 708-946-2261  
F: 708-946-3764  
ATTN: BUD COWGER  
D: 708-946-3636

A REGIONAL 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS, MONUMENTS, AND RIGHT OF WAY PINS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ALL COUNTY ROW MONUMENTATION (BOUNDARY CORNERS) SHALL BE ACCORDING TO ARTICLE 1.7.13 OF THE PERMIT REGULATIONS UTILIZING THE "WCDH MONUMENTATION STANDARD".

ALL CONSTRUCTION MATERIALS WITHIN THE COUNTY ROW MUST BE IDOT CERTIFIED. DOCUMENTATION OF MATERIAL CERTIFICATION SHALL BE SUBMITTED PRIOR TO ENGINEER APPROVAL. ALL CONSTRUCTION MATERIAL NEEDING INSPECTION SHALL BE DONE ACCORDING TO THE LATEST IDOT PROJECT AND PROCEDURES GUIDE.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER A LIST OF MATERIALS USED AND IDENTIFY THEIR ASSOCIATED IDOT CERTIFICATION, SHALL PROVIDE THE ENGINEER WITH A COPY OF ALL MATERIAL TESTING COMPANY RESULTS, SHALL SIGN AND PROVIDE THE ENGINEER ON A WEEKLY BASIS WEEKLY FIELD REPORTS UTILIZING THE APPROPRIATE IDOT FORM, SHALL SUBMIT TO THE ENGINEER A CERTIFICATION LETTER THAT CERTIFIES COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.

FILE = S:\Struct-1033004-Indiana Avenue.Design\1033004\Cover.dgn

CONTRACT NO. 63617

REVISION	DATE	BY	REMARKS	DRAWN	CHECKED	APPROVED	ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE REPLACEMENT INDIANA AVENUE (CH 24) OVER TRIM CREEK	WILLET HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-784-3381 DESIGN FIRM #184-000918	WILL COUNTY	INDEX OF SHEETS & GENERAL NOTES STRUCTURE NO. 099-3378	SECTION 01-00042-07-BR STA. 47+00	COUNTY WILL STA. 53+50	TOTAL SHEETS 58	SHEET NO. 02
				L.G.N.	G.F.S.	B.K.C.					WHA #:	DATE: 6/9/2011		

# SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				ROADWAY	BRIDGE
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	188	188	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	114	114	
20200100	EARTH EXCAVATION	CU YD	1,565	1,565	
20300100	CHANNEL EXCAVATION	CU YD	1,751		1,751
25000210	SEEDING, CLASS 2A	ACRE	0.61	0.61	
25000310	SEEDING, CLASS 4	ACRE	0.20	0.20	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	56	56	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	56	56	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	56	56	
25100630	EROSION CONTROL BLANKET	SQ YD	2,975	2,975	
25100900	TURF REINFORCEMENT MAT	SQ YD	382	282	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	200	200	
28000305*	TEMPORARY DITCH CHECKS	FOOT	63	63	
28000400	PERIMETER EROSION BARRIER	FOOT	339	339	
28100109	STONE RIPRAP, CLASS A5	SQ YD	1,349		1,349
28100705	STONE DUMPED RIPRAP, CLASS A3	SQ YD	178	178	
28200200	FILTER FABRIC	SQ YD	1,527	178	1,349
35102200	AGGREGATE BASE COURSE, TYPE B 10"	SQ YD	1,450	1,450	
40600100*	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	2,069	2,069	
40600300	AGGREGATE (PRIME COAT)	TON	8	8	
40600990	TEMPORARY RAMP	SQ YD	90	90	
40701956	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4"	SQ YD	1,235	1,235	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	199	199	
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	37	37	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	1,084	1,084	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	208		208
50300100	FLOOR DRAINS	EACH	10		10
50300225	CONCRETE STRUCTURES	CU YD	80.8		80.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	309.9		309.9
50300260	BRIDGE DECK GROOVING	SQ YD	693		693
50300300	PROTECTIVE COAT	SQ YD	797		797
50401005	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 48 IN.	FOOT	602		602
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	70,800		70,800
50800515	BAR SPLICERS	EACH	605		605
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	952		952
51202305	DRIVING PILES	FOOT	952		952
51203200	TEST PILE METAL SHELLS	EACH	2		2
51500100	NAME PLATES	EACH	1		1

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				ROADWAY	BRIDGE
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	126		126
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4		4
63000001+	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	50	50	
63100085+	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
63100167+	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	302	302	
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	8	8	
67000400*	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8		8
67100100	MOBILIZATION	L SUM	1		1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	
70106500+	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	117	117	
70300220*	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,510	2,510	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	36	36	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	949	949	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	240	240	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	240	240	
78000200+	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1,638	1,638	
78008210+	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4"	FOOT	481	481	
78100100+	RAISED REFLECTIVE PAVEMENT MARKER	EACH	14	14	
78100105+	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4	4	
78200410+	GUARDRAIL MARKERS, TYPE A	EACH	14	14	
78201000+	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
X2070304*	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	235		235
X2110100*	TOPSOIL FURNISH AND PLACE, SPECIAL	CU YD	308	308	
X2111000*	TOPSOIL EXCAVATION	CU YD	452	452	
X4404400*	PAVEMENT REMOVAL (SPECIAL)	SQ YD	1,615	1,615	
X4810200*	AGGREGATE SHOULDER REMOVAL	CU YD	90	90	
Z0001050*	AGGREGATE SUBGRADE 12"	SQ YD	1,338	1,338	
Z0004510*	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ YD	248	248	
Z0013798*	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0026407*	TEMPORARY SHEET PILING	SQ FT	1,464		1,464
Z0030250*	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0030350*	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0046304*	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	188		188
Z0076600*	TRAINEES	HOURL	500	500	

\* See Special Provisions.  
+ Specialty Item  
△ Construction Code Type 0042

FILE = S:\Struct\033004-Indiana Avenue.Dgn\1033004\Cover.dgn

REVISION	DATE	BY	REMARKS

DRAWN  
L.G.N.  
CHECKED  
D.L.B.  
APPROVED  
B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

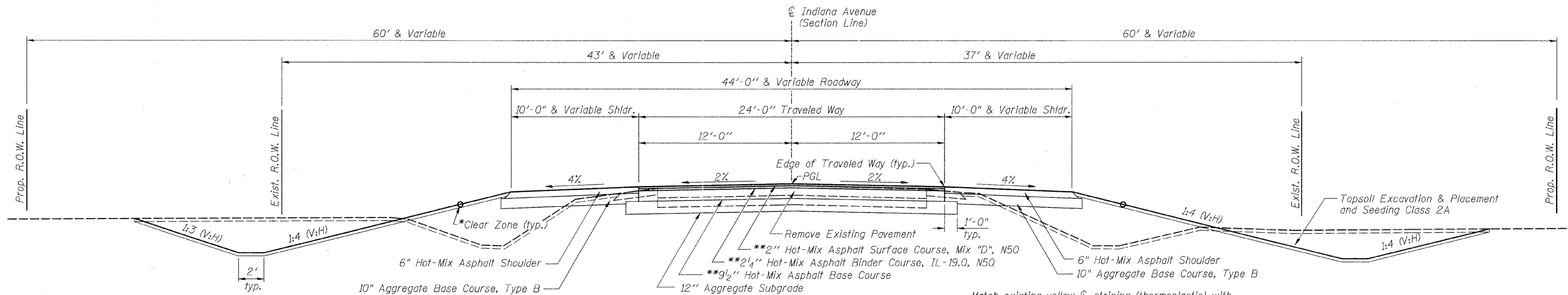


**WILL COUNTY**

**SUMMARY OF QUANTITIES**  
**STRUCTURE NO. 099-3378**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	03
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



**EXISTING/PROPOSED TYPICAL SECTION**

Sta. 47+00.00 to Sta. 47+91.58 and  
Sta. 52+08.49 to Sta. 53+50.00, Indiana Avenue

Match existing yellow  $\mathcal{C}$  striping (thermoplastic) with raised reflective markers installed in accordance with the latest IDOT District 1 standards.

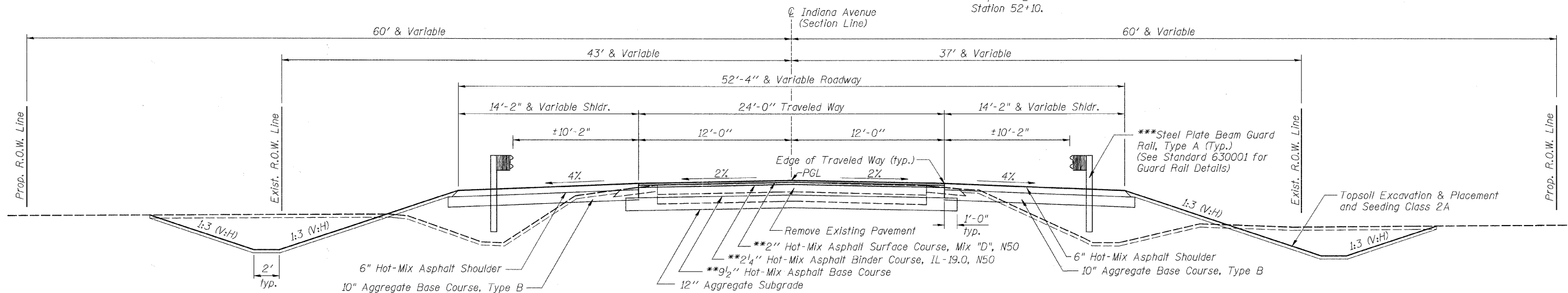
Edge line striping to be 4" solid white line (thermoplastic).

Striping on approach pavement and bridge deck shall be polyurea instead of thermoplastic.

Proposed  $\mathcal{C}$  & Section Line coincide from Station 48+10 to Station 52+10.

\*14' clear zone provided to comply with BLRS 3R Project guidelines

\*\*HMA pavement layers to be payed for as Hot-Mix Asphalt Pavement (Full-Depth), 13<sup>3</sup>/<sub>4</sub>"



**EXISTING/PROPOSED TYPICAL SECTION**

\*\*\*Sta. 47+91.58 to Sta. 49+26.42 and  
Sta. 50+73.58 to Sta. 52+08.49, Indiana Avenue

Match existing yellow  $\mathcal{C}$  striping (thermoplastic) with raised reflective markers installed in accordance with the latest IDOT District 1 standards.

Edge line striping to be 4" solid white line (thermoplastic).

Striping on approach pavement and bridge deck shall be polyurea instead of thermoplastic.

Proposed  $\mathcal{C}$  & Section Line coincide from Station 48+10 to Station 52+10.

\*\*\*Guardrail shall be installed based on final elevation of pavement. Guardrail located from Station: Lt. 48+72.23 to 49+06.42 Lt. 50+93.58 to 51+73.68 Rt. 48+26.32 to 49+06.42 Rt. 50+93.58 to 51+27.77

\*\*\*\*Bridge Approach Pavement Connector (Flexible) (Sta. 49+06.42 to Sta. 49+26.42 and Sta. 50+73.58 to Sta. 50+93.58) shall be constructed to a grade of 2" below finished pavement elevation to allow for 2" to be placed in final stage of construction. See Standard 420401-08 for Bridge Approach Pavement Connector.

FILE = S:\Struct\10330004-Indiana Avenue\Design\10330004\Typicals.edg

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3351 DESIGN PRINC: 815-400-9118

**WILL COUNTY**

**TYPICALS  
STRUCTURE NO. 099-3378  
STA. 47+00.00 - STA. 53+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	04
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

**PAVEMENT STRUCTURAL DESIGN  
COUNTY HIGHWAY 24**

RURAL MAJOR COLLECTOR  
DESIGN YEAR (2032) ADT: 6,537  
% TRUCKS: 6.2

PAVEMENT SECTION PER  
BUREAU OF LOCAL ROADS REVIEW

USE  
2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50  
2 1/4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50  
9 1/2" HOT-MIX ASPHALT BASE COURSE  
12" AGGREGATE SUBGRADE

\*HMA PAVEMENT LAYERS TO BE PAID FOR AS  
HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4"

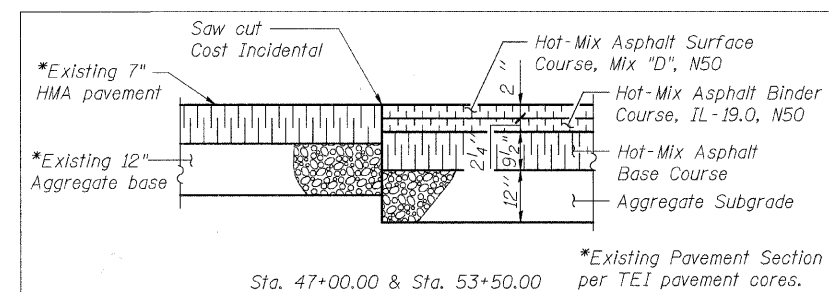
**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

MIXTURE TYPE	AIR VOIDS @ Ndes
FULL-DEPTH PAVEMENT	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM); 2"	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 2 1/4"	4% @ 50 Gyr.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19.0) 9 1/2" (IN 3 LIFTS)	4% @ 50 Gyr.
SHOULDERS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM); 6" (IN 2 LIFTS)	4% @ 50 Gyr.
PAVEMENT CONNECTOR	
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) MIX "D", N50 (IL 9.5 MM)	4% @ 50 Gyr.
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 MM); 3"	4% @ 50 Gyr.

The unit weight used to calculate all HMA Surface mixture quantities is 112 lbs/sq. yd./in.

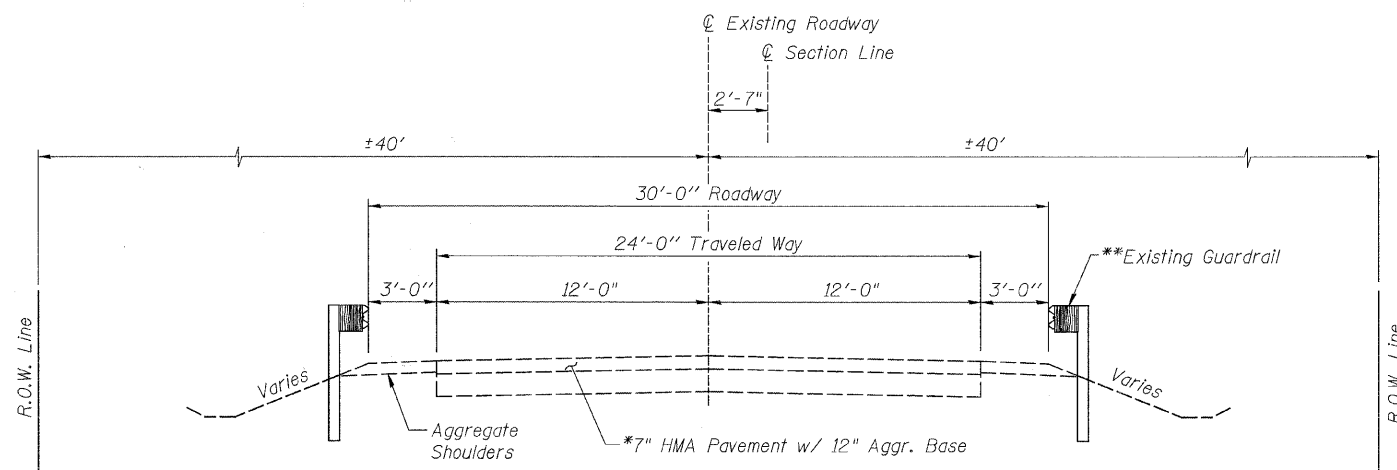
The "AC Type" for Polymerized HMA mixes shall be "SBS/SBR PG 70-22" and for Non-Polymerized HMA the "AC Type" shall be "PG 64-22" unless modified by District One special provisions. For "Percent of RAP" see District One special provisions.

**CORE JOINT DETAIL**



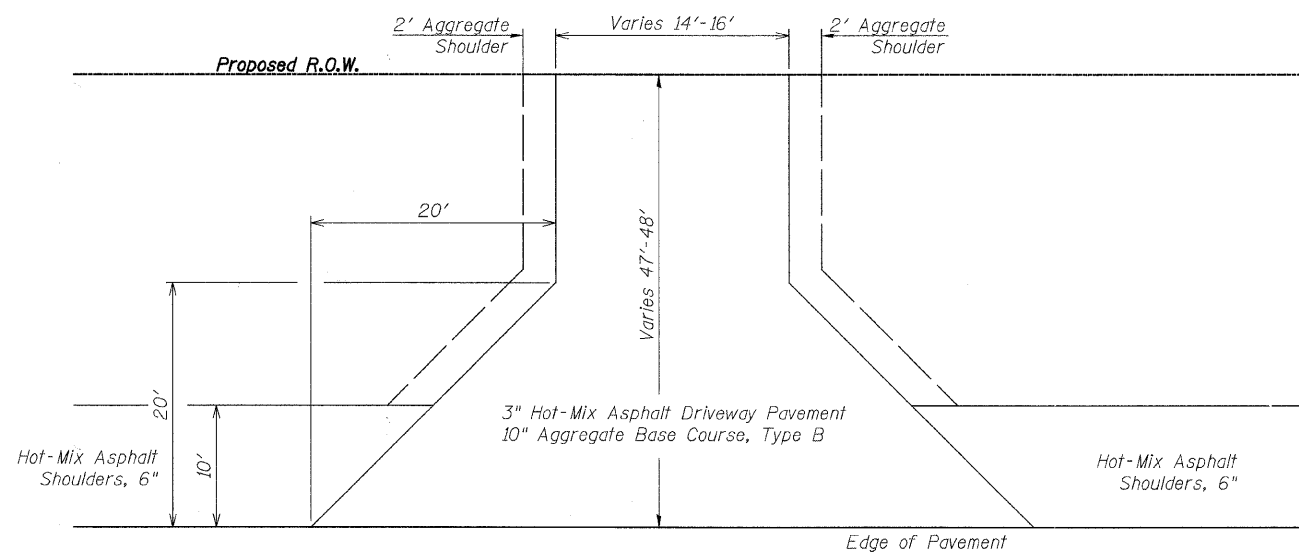
**CH 24 - HORIZONTAL CONTROL POINTS (NAD83-2007)**

PT #	STA.	N	E	EL.	DESCRIPTION
1	17.1' RT. 46+84.6	1,703,214.7644	1,183,204.2035	706.29	IRON PIN
2	17.0' RT. 54+24.8	1,703,232.6055	1,183,944.1655	698.65	IRON PIN



**EXISTING TYPICAL SECTION**

Sta. 45+50.00 to Sta. 55+50.00, Indiana Avenue  
\*Existing Pavement Section per TEI pavement cores.  
\*\*See Special Provision, Salvageable Materials



**TYPICAL PRIVATE ENTRANCE DETAIL**

Right Sta. 51+94 & Left Sta. 52+50

FILE = S:\Struct\10330004-Indiana Avenue.Design\10330004Typicals.dgn

REVISION	DATE	BY	REMARKS

D.L.B.  
CHECKED  
L.G.N.  
APPROVED  
B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN  
ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM #154-000918

**WILL COUNTY**

**TYPICALS  
STRUCTURE NO. 099-3378  
STA. 47+00.00 - STA. 53+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	05
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# SCHEDULE OF QUANTITIES

TEMPORARY RAMP		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00	7	12' X 5'
RT 49+25	7	12' X 5'
RT 50+74	7	12' X 5'
PER 51+94	18	16' X 10'
RT 53+50	7	12' X 5'
STAGE 1 TOTAL	46	
STAGE 2		
LT 47+00	7	12' X 5'
RT 49+25	7	12' X 5'
RT 50+74	7	12' X 5'
PER 52+50	16	14' X 10'
LT 53+50	7	12' X 5'
STAGE 2 TOTAL	44	
PROJECT TOTAL	90	

HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 13 3/4"		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00 TO 49+06	220	
RT 50+94 TO 53+50	274	
STAGE 1 TOTAL	494	
STAGE 2		
LT 47+00 TO 49+06	331	
LT 50+94 TO 53+50	410	
STAGE 2 TOTAL	741	
PROJECT TOTAL	1,235	

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 49+06 TO 49+25	30	
RT 50+63 TO 50+94	55	
STAGE 1 TOTAL	85	
STAGE 2		
LT 49+06 TO 49+37	70	
LT 50+72 TO 50+94	44	
STAGE 2 TOTAL	114	
PROJECT TOTAL	199	

AGGREGATE SHOULDERS, TYPE B 6"		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
PER 51+94	19	FINAL STAGE
PER 52+50	18	FINAL STAGE
PROJECT TOTAL	37	

HOT-MIX ASPHALT SHOULDERS, 6"		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00 TO 49+46	274	
RT 50+33 TO 51+76	136	
RT 52+12 TO 53+50	132	
STAGE 1 TOTAL	542	
STAGE 2		
LT 47+00 TO 49+67	262	
LT 50+54 TO 52+33	210	
LT 52+67 TO 53+50	70	
STAGE 2 TOTAL	542	
PROJECT TOTAL	1,084	

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS		
STATION	FOOT	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 48+78 TO 49+03	25	STAGE 1
LT 50+97 TO 51+22	25	STAGE 2
PROJECT TOTAL	50	

TRAFFIC BARRIER TERMINAL, TYPE 6		
STATION	EACH	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 49+03 TO 49+48	1	
RT 50+31 TO 50+76	1	
STAGE 1 TOTAL	2	
STAGE 2		
LT 49+24 TO 49+69	1	
LT 50+52 TO 50+97	1	
STAGE 2 TOTAL	2	
PROJECT TOTAL	4	

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT		
STATION	EACH	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 48+26 TO 48+78	1	
RT 50+76 TO 51+28	1	
STAGE 1 TOTAL	2	
STAGE 2		
LT 48+72 TO 49+24	1	
LT 51+22 TO 51+74	1	
STAGE 2 TOTAL	2	
PROJECT TOTAL	4	

GUARDRAIL REMOVAL		
STATION	FOOT	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 48+73 TO 49+74	101	
RT 50+17 TO 50+67	50	
STAGE 1 TOTAL	151	
STAGE 2		
LT 49+36 TO 49+86	50	
LT 50+29 TO 51+30	101	
STAGE 2 TOTAL	151	
PROJECT TOTAL	302	

FURNISHING AND ERECTING RIGHT OF WAY MARKERS		
STATION	EACH	REMARKS
INDIANA AVENUE		
47+50 RT 38.54'	1	
47+50 RT 61.44'	1	
47+50 LT 41.49'	1	
47+50 LT 58.59'	1	
53+55 RT 40.04'	1	
53+55 RT 63.57'	1	
53+55 LT 39.96'	1	
53+55 LT 56.43'	1	
PROJECT TOTAL	8	

TEMPORARY BRIDGE TRAFFIC SIGNALS		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 45+70	0.2	
LT 45+90	0.2	
LT 51+95	0.2	PER 51+94
RT 54+50	0.2	
LT 54+75	0.2	
PROJECT TOTAL	1	

SHORT TERM PAVEMENT MARKINGS		
STATION	FOOT	REMARKS
INDIANA AVENUE		
47+00 TO 53+50	65	4" STRIPES 4' @ 40' CENTERS (YLW)
RT 47+00 TO 53+50	26	4" DIAG. STRIPES 4' @ 100' CENTERS (WHT)
LT 47+00 TO 53+50	26	4" DIAG. STRIPES 4' @ 100' CENTERS (WHT)
PROJECT TOTAL	117	

TEMPORARY PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
INDIANA AVENUE		
STAGE 1		
45+30 TO 54+50	921	EDGE LINE (WHT)
STAGE 1 TOTAL	921	
STAGE 2		
45+80 TO 55+15	938	EDGE LINE (WHT)
47+00 TO 53+52	651	EDGE LINE (WHT)
STAGE 2 TOTAL	1,589	
PROJECT TOTAL	2,510	

TEMPORARY PAVEMENT MARKING - LINE 24"		
STATION	FOOT	REMARKS
INDIANA AVENUE		
RT 45+20	12	STOP BAR (WHT)
PER 51+95	12	STOP BAR (WHT)
LT 55+25	12	STOP BAR (WHT)
PROJECT TOTAL	36	

WORK ZONE PAVEMENT MARKING REMOVAL		
STATION	SQ FT	REMARKS
INDIANA AVENUE		
STAGE 1	307	TEMP. PVT. MARKINGS
STAGE 2	530	TEMP. PVT. MARKINGS
STOP BARS	72	TEMP. PVT. MARKINGS
FINAL STAGE	40	SHORT TERM PVT. MARKINGS
PROJECT TOTAL	949	

TEMPORARY CONCRETE BARRIER		
STATION	FOOT	REMARKS
INDIANA AVENUE		
LT 48+80 TO 51+20	240	STAGE 1
PROJECT TOTAL	240	

RELOCATE TEMPORARY CONCRETE BARRIER		
STATION	FOOT	REMARKS
INDIANA AVENUE		
RT 48+80 TO 51+20	240	STAGE 2
PROJECT TOTAL	240	

THERMOPLASTIC PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
INDIANA AVENUE		
LT 47+00 TO 49+26	226	CENTERLINE (YLW)
RT 47+00 TO 49+26	60	CENTERLINE SKIP DASH (YLW)
LT 47+00 TO 49+32	232	EDGE LINE (WHT)
RT 47+00 TO 49+21	221	EDGE LINE (WHT)
LT 50+74 TO 53+50	276	CENTERLINE (YLW)
RT 50+74 TO 53+50	70	CENTERLINE SKIP DASH (YLW)
LT 50+79 TO 53+50	271	EDGE LINE (WHT)
RT 50+68 TO 53+50	282	EDGE LINE (WHT)
PROJECT TOTAL	1,638	

POLYUREA PAVEMENT MARKING TYPE 1 - LINE 4"		
STATION	FOOT	REMARKS
INDIANA AVENUE		
LT 49+26 TO 50+74	147	CENTERLINE (YLW)
RT 49+26 TO 50+74	40	CENTERLINE SKIP DASH (YLW)
LT 49+32 TO 50+79	147	EDGE LINE (WHT)
RT 49+21 TO 50+68	147	EDGE LINE (WHT)
PROJECT TOTAL	481	

See Sheets 14 - 32 for Locations of Structural Pay Items

FILE = S:\Structure\10330004-Indiana Avenue.Dgn\10330004Cover.dgn

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>REVISION</th><th>DATE</th><th>BY</th><th>REMARKS</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	REVISION	DATE	BY	REMARKS													<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>DRAWN</td><td>L.G.N.</td></tr> <tr><td>CHECKED</td><td>D.L.B.</td></tr> <tr><td>APPROVED</td><td>B.K.C.</td></tr> </table>	DRAWN	L.G.N.	CHECKED	D.L.B.	APPROVED	B.K.C.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	 <b>WILLET HOFMANN &amp; ASSOCIATES, INC.</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>808 EAST 2ND STREET, DIVISION, IL 61021-0357</small> <small>T: 815-284-3381 DESIGN FIRM: #184-000918</small>	<b>WILL COUNTY</b>	<b>SCHEDULE OF QUANTITIES</b> <b>STRUCTURE NO. 099-3378</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>SECTION</th><th>COUNTY</th><th>TOTAL SHEETS</th><th>SHEET NO.</th></tr> <tr><td>01-00042-07-BR</td><td>WILL</td><td>58</td><td>07</td></tr> <tr><td>STA. 47+00</td><td>STA. 53+50</td><td></td><td></td></tr> <tr><td>WHA #: 1033004</td><td>DATE: 6/9/2011</td><td></td><td></td></tr> </table>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	07	STA. 47+00	STA. 53+50			WHA #: 1033004	DATE: 6/9/2011		
REVISION	DATE	BY	REMARKS																																									
DRAWN	L.G.N.																																											
CHECKED	D.L.B.																																											
APPROVED	B.K.C.																																											
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																									
01-00042-07-BR	WILL	58	07																																									
STA. 47+00	STA. 53+50																																											
WHA #: 1033004	DATE: 6/9/2011																																											

# SCHEDULE OF QUANTITIES

RAISED REFLECTIVE PAVEMENT MARKER		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 47+00 TO 49+56	3	TWO-WAY AMBER MARKER
LT 47+00 TO 49+56	3	ONE-WAY AMBER MARKER
RT 50+44 TO 53+50	4	TWO-WAY AMBER MARKER
LT 50+44 TO 53+50	4	ONE-WAY AMBER MARKER
PROJECT TOTAL	14	

RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 49+56 TO 50+44	2	TWO-WAY AMBER MARKER
LT 49+56 TO 50+44	2	ONE-WAY AMBER MARKER
PROJECT TOTAL	4	

GUARDRAIL MARKERS, TYPE A		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 48+26 TO 49+49	4	MONODIRECTIONAL CRYSTAL
LT 48+72 TO 49+69	3	MONODIRECTIONAL CRYSTAL
RT 50+31 TO 51+28	3	MONODIRECTIONAL CRYSTAL
LT 50+52 TO 51+74	4	MONODIRECTIONAL CRYSTAL
PROJECT TOTAL	14	

TERMINAL MARKER - DIRECT APPLIED		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 48+26	1	
LT 48+72	1	
RT 51+28	1	
LT 51+74	1	
PROJECT TOTAL	4	

TOPSOIL FURNISH AND PLACE, SPECIAL		
STATION	CU YD	REMARKS
INDIANA AVENUE		
RT 47+00 TO 53+50	185	STAGE 1
LT 47+00 TO 53+50	123	STAGE 2
PROJECT TOTAL	308	

TOPSOIL EXCAVATION		
STATION	CU YD	REMARKS
INDIANA AVENUE		
RT 47+00 TO 53+50	262	STAGE 1
LT 47+00 TO 53+50	190	STAGE 2
PROJECT TOTAL	452	

PAVEMENT REMOVAL (SPECIAL)		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00 TO 49+77	214	
RT 50+17 TO 53+50	248	
STAGE 1 TOTAL	462	
STAGE 2		
LT 47+00 TO 49+86	532	
LT 50+20 TO 53+50	621	
STAGE 2 TOTAL	1,153	
PROJECT TOTAL	1,615	

AGGREGATE SHOULDER REMOVAL		
STATION	CU YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00 TO 49+75	20	APPROX. 8"
RT 50+16 TO 53+50	25	APPROX. 8"
STAGE 1 TOTAL	45	
STAGE 2		
LT 47+00 TO 49+87	21	APPROX. 8"
LT 50+28 TO 53+50	24	APPROX. 8"
STAGE 2 TOTAL	45	
PROJECT TOTAL	90	

AGGREGATE SUBGRADE 12"		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
STAGE 1		
RT 47+00 TO 49+06	243	
RT 50+94 TO 53+50	302	
STAGE 1 TOTAL	545	
STAGE 2		
LT 47+00 TO 49+06	354	
LT 50+94 TO 53+50	439	
STAGE 2 TOTAL	793	
PROJECT TOTAL	1,338	

HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"		
STATION	SQ YD	REMARKS
INDIANA AVENUE		
PER 51+94	130	STAGE 1
PEL 52+50	118	STAGE 2
PROJECT TOTAL	248	

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 48+80	1	STAGE 1
RT 51+20	1	STAGE 1
PROJECT TOTAL	2	

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3		
STATION	EACH	REMARKS
INDIANA AVENUE		
RT 48+80	1	STAGE 2
RT 51+20	1	STAGE 2
PROJECT TOTAL	2	

FILE = S:\Struct\1033004-Indiana Avenue.Dwg\1033004\Cover.dgn

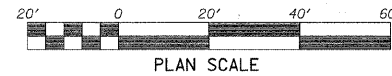
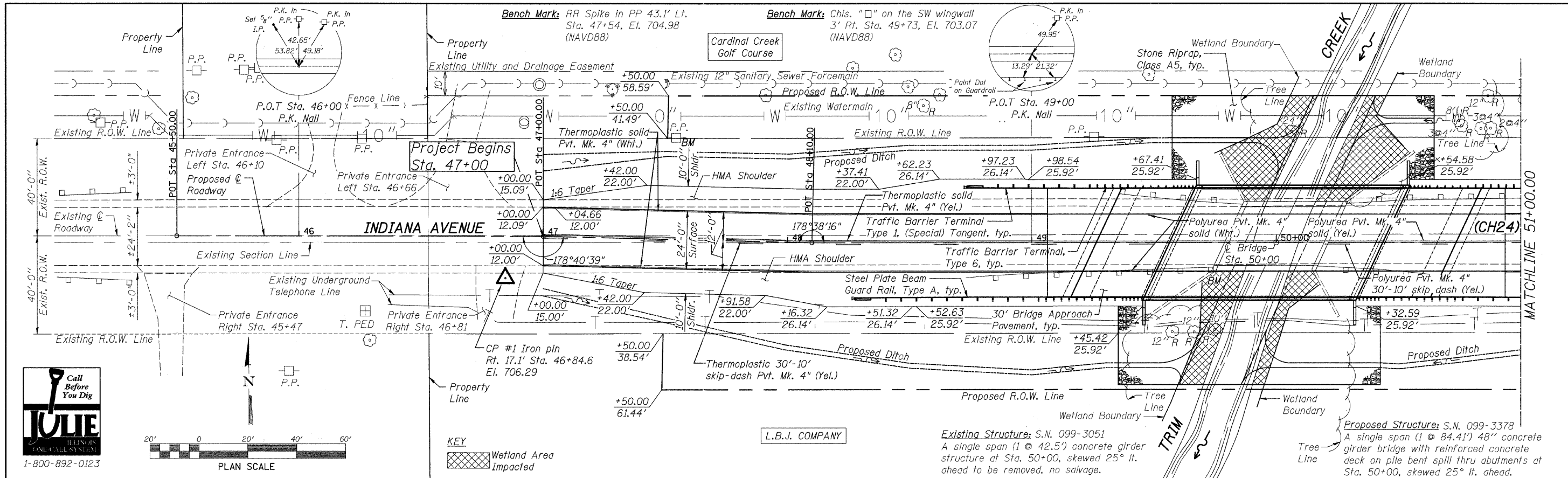
See Sheets 14 - 32 for Locations of Structural Pay Items

CONTRACT NO. 63617

REVISION	DATE	BY	REMARKS	DRAWN L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	 <b>WILLET HOFMANN &amp; ASSOCIATES INC</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>809 EAST 2ND STREET, DIXON, IL 61021-0367</small> <small>T. 815-284-3381 DESIGN FIRM: #184-000918</small>	<b>WILL COUNTY</b>	<b>SCHEDULE OF QUANTITIES</b> <b>STRUCTURE NO. 099-3378</b>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				01-00042-07-BR					WILL			
				STA. 47+00					-	STA. 53+50		
				WHA #:					1033D04	DATE:	6/9/2011	

58 08



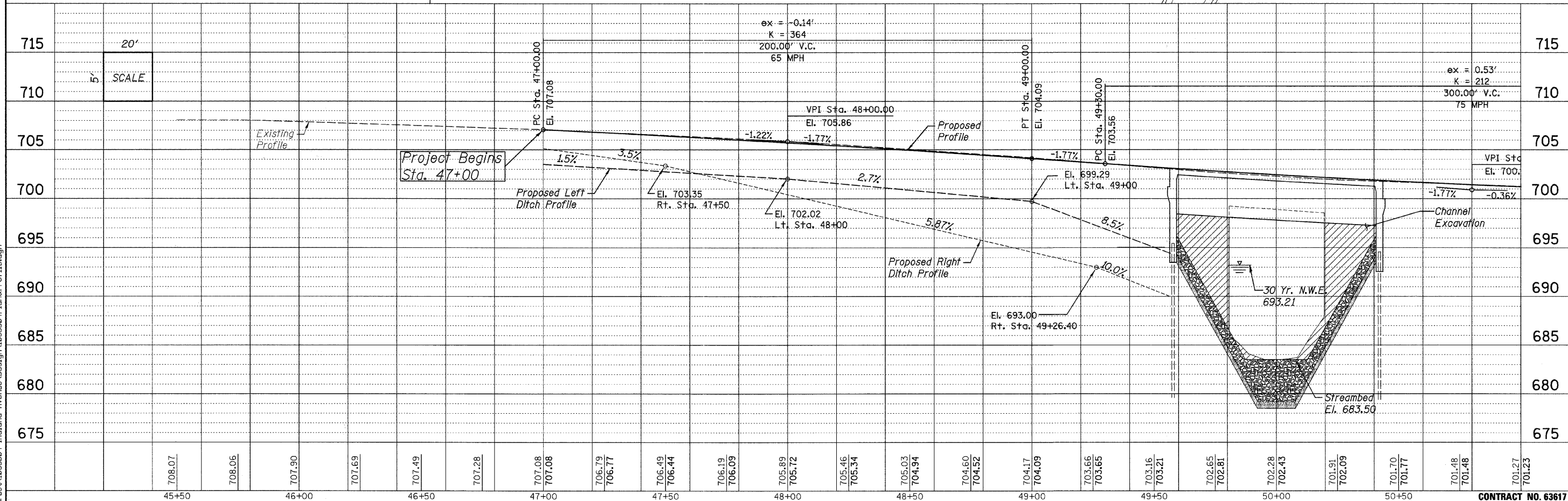


**KEY**  
 Wetland Area Impacted

L.B.J. COMPANY

**Existing Structure:** S.N. 099-3051  
 A single span (1 @ 42.5') concrete girder structure at Sta. 50+00, skewed 25° lt. ahead to be removed, no salvage.

**Proposed Structure:** S.N. 099-3378  
 A single span (1 @ 84.4') 48" concrete girder bridge with reinforced concrete deck on pile bent spill thru abutments at Sta. 50+00, skewed 25° lt. ahead.



REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**



**WILL COUNTY**

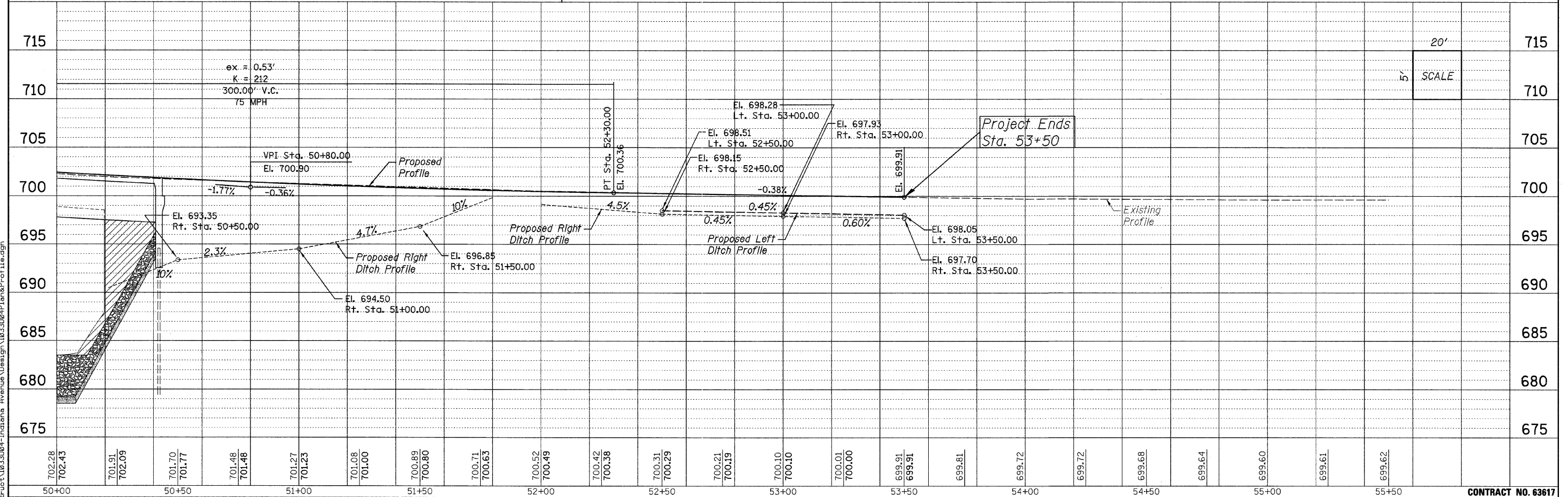
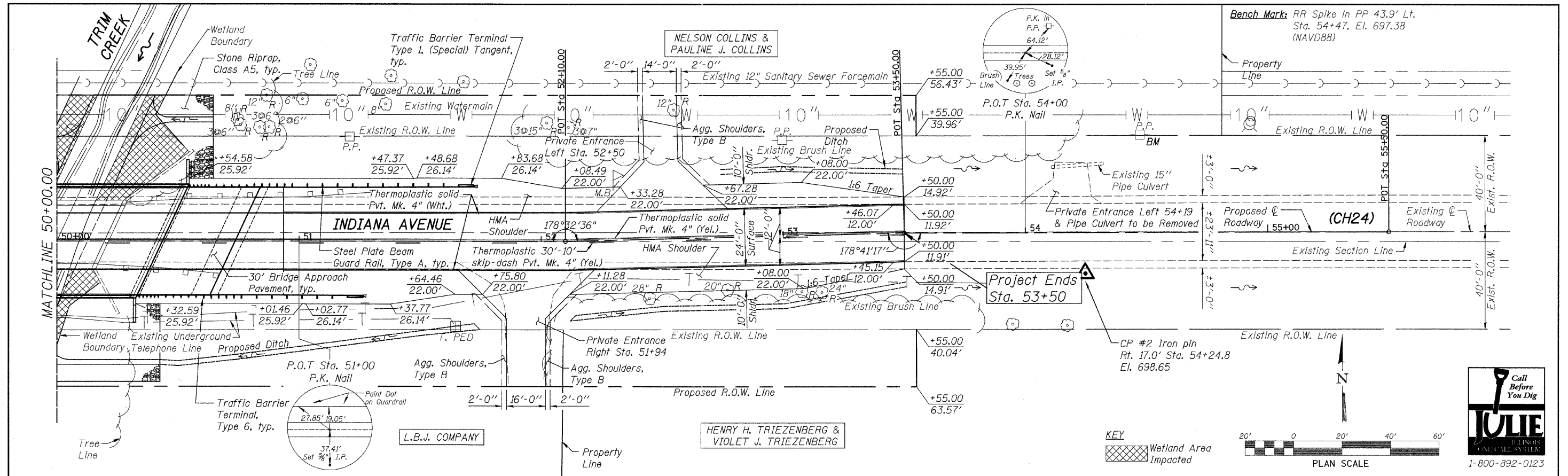
**PLAN & PROFILE**  
**STRUCTURE NO. 099-3378**  
**STA. 45+50.00 - STA. 51+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	09

FILE = S:\Source\1033004-Indiana Avenue\Design\1033004\PI\an&P\of11e.dgn

CONTRACT NO. 63617

DATE: 6/9/2011



REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED G.F.S.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN**  
 ASSOCIATES INC  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3351 DESIGN FIRM: #154-000518

**WILL COUNTY**

**PLAN & PROFILE**  
**STRUCTURE NO. 099-3378**  
**STA. 50+00.00 - STA. 55+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	10
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

FILE = S:\S:\Project\1033004-Indiana Avenue\Design\1033004Plan&Profile.dgn

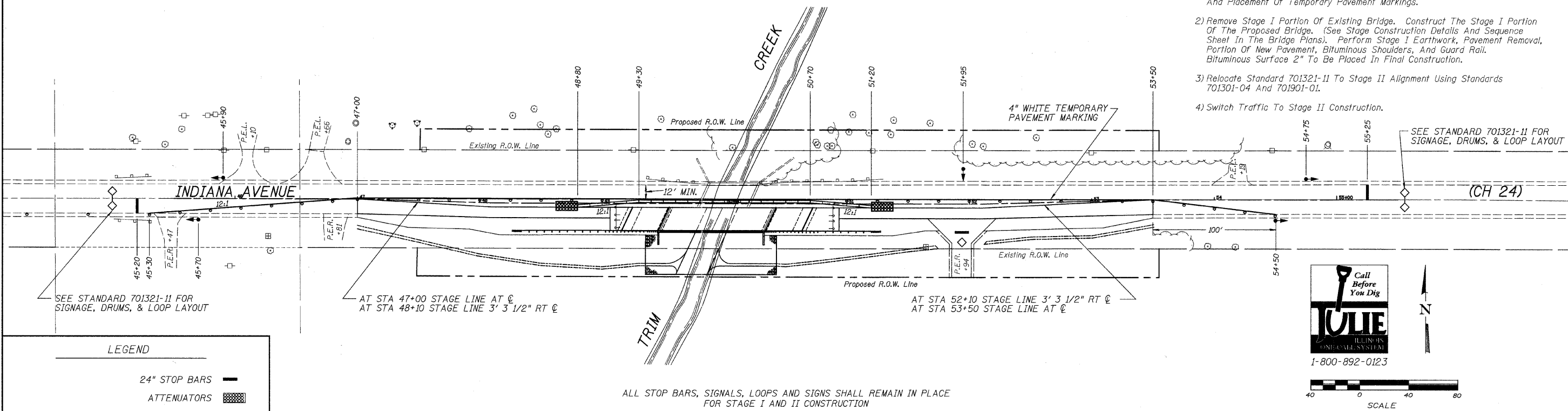


NOTE: SIGNALS AT REST SHALL BE GREEN EAST BOUND

# STAGE I CONSTRUCTION AND BARRIER LAYOUT

## STAGE I CONSTRUCTION

- 1) Install Standard 701321-11 Using Standards 701301-04 & 701901-01, Special Signs "Follow Traffic", The Removal Of Existing Pavement Markings And Placement Of Temporary Pavement Markings.
- 2) Remove Stage I Portion Of Existing Bridge. Construct The Stage I Portion Of The Proposed Bridge. (See Stage Construction Details And Sequence Sheet In The Bridge Plans). Perform Stage I Earthwork, Pavement Removal, Portion Of New Pavement, Bituminous Shoulders, And Guard Rail. Bituminous Surface 2" To Be Placed In Final Construction.
- 3) Relocate Standard 701321-11 To Stage II Alignment Using Standards 701301-04 And 701901-01.
- 4) Switch Traffic To Stage II Construction.



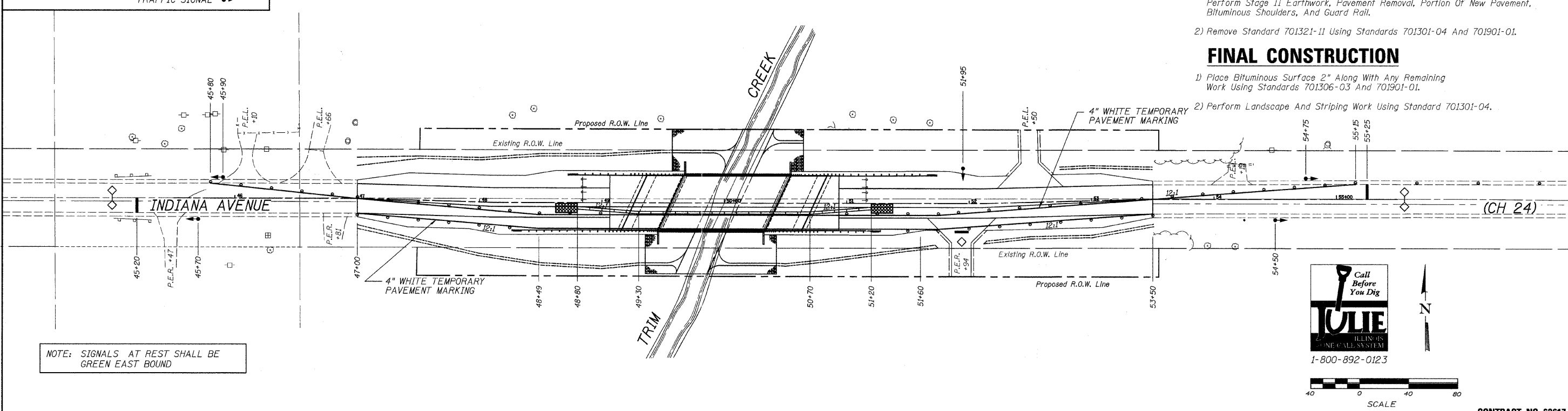
# STAGE II CONSTRUCTION AND BARRIER LAYOUT

## STAGE II CONSTRUCTION

- 1) Remove Remainder Of Existing Bridge. Construct Stage II Portion Of Proposed Bridge. (See Stage Construction Details And Sequence Sheet In Bridge Plans). Perform Stage II Earthwork, Pavement Removal, Portion Of New Pavement, Bituminous Shoulders, And Guard Rail.
- 2) Remove Standard 701321-11 Using Standards 701301-04 And 701901-01.

## FINAL CONSTRUCTION

- 1) Place Bituminous Surface 2" Along With Any Remaining Work Using Standards 701306-03 And 701901-01.
- 2) Perform Landscape And Striping Work Using Standard 701301-04.



FILE = S:\S:\Project\1033004-Indiana Avenue\Design\1033004BarrierLayout.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
CHECKED G.F.S.  
APPROVED B.K.C.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK

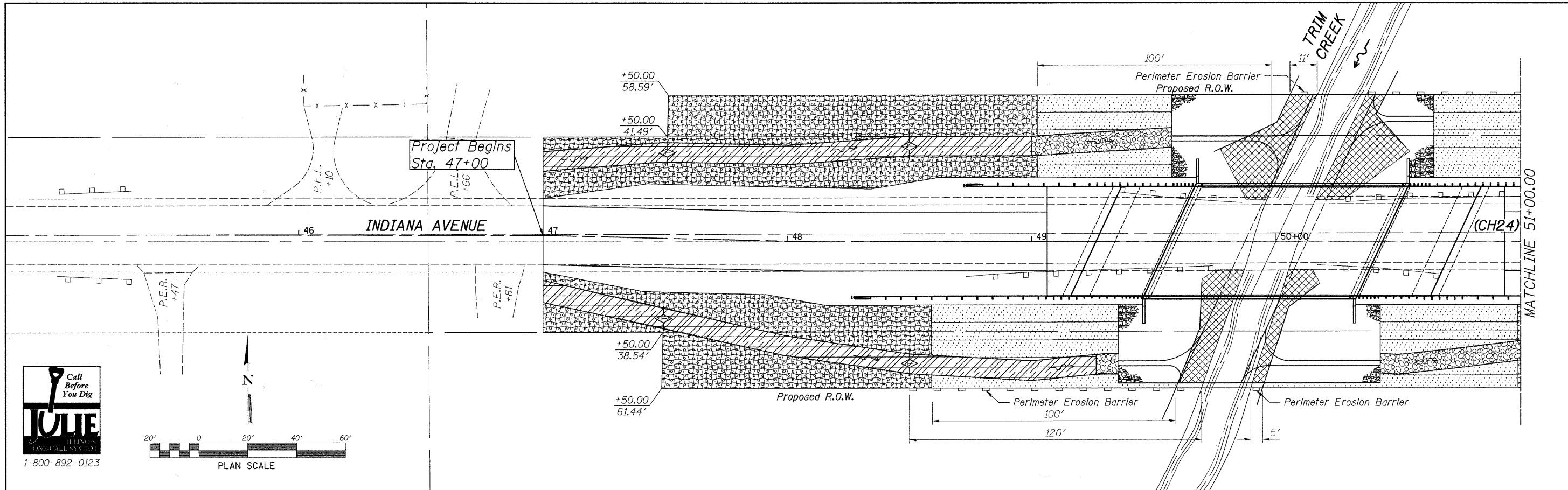
WILLET HOFMANN & ASSOCIATES INC.  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0267  
T: 815-284-3381 DESIGN FIRM: 9184-000918

WILL COUNTY

STAGE CONSTRUCTION AND BARRIER LAYOUT  
STRUCTURE NO. 099-3378  
STA. 44+10.00 - STA. 56+90.00

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	11
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



**STORM WATER POLLUTION PREVENTION PLAN**

The following plan is established and incorporated in the project to direct the contractor in the placement of temporary erosion control systems and to provide a storm sewer water pollution prevention plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments from leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the contractor at the beginning of construction, other items shall be installed by the contractor as directed by the engineer on a case by case situation depending on the contractor's sequence of activities, time of year, and expected weather conditions.

The contractor shall install permanent erosion control systems and seeding within a time frame specified herein and as directed by the engineer, therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. The engineer will determine if any temporary erosion control systems shown in the plan can be deleted and if any additional temporary erosion control systems, which are not included in this plan, shall be added. The contractor shall perform all work as directed by the engineer and as shown in Standard 280001 of the plans.

Section 280, Temporary Erosion Control, of the Standard Specifications additionally supplements this plan.

**SITE DESCRIPTION**

**DESCRIPTION OF CONSTRUCTION ACTIVITY:**

- The project consists of bridge replacement on Indiana Avenue (CH 24) over Trim Creek & approach roadway work thereto.
- Construction includes pavement removal, earth excavation, entrances, channel excavation, various pavement items, bridge items and other miscellaneous items of construction.

**DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:**

- Install perimeter erosion barrier as directed by the Engineer.
- Bridge removal and channel excavation.
- Bridge construction and placement of stone riprap.
- Earth excavation, shaping of ditches and placement of temporary ditch checks.
- Aggregate base, bituminous surface and related appurtenances.
- Placement of permanent erosion control in ditches and around bridge abutments, including seeding, erosion control mulch, and erosion control blanket.

**AREA OF CONSTRUCTION SITE:**

The total area of the construction site is estimated to be 1.74 acres of which 1.69 acres will be disturbed by excavation, grading, and other activities.

**OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:**

- Information of the soils and terrain within the site was obtained from soil borings that were utilized for the development of the proposed temporary erosion control systems.
- Project plan documents, specifications and special provisions, and plan drawings indicating drainage patterns and approximate slopes anticipated after grading activities were utilized for the proposed placement of the temporary erosion control systems.

**CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL**

**DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:**

- The drawings, specifications and special provisions will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices include: temporary seeding, permanent seeding, perimeter erosion barrier, and other appropriate measures as directed by the engineer. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
  - Areas of existing vegetation (wood and grasslands) outside the proposed construction limits shall be identified by the engineer for preserving and shall be protected from construction activities.
  - Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the engineer, along with required tree removal.
  - As soon as reasonable access is available to all locations where water drains away from the project, temporary ditch checks and perimeter erosion barrier shall be installed as called out in this plan and directed by the engineer.
  - Bare and sparsely vegetated ground in highly erodible areas as determined by the engineer shall be temporarily seeded at the beginning of construction where no construction activities are expected within seven days.
  - At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), temporary ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the right-of-way line.
- Establishment of these temporary erosion control measures will have additional benefits to the project, desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and over seeding can be completed.

**DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:**

- During construction, areas outside the construction limits as outlined previously herein shall be protected, the contractor shall not use this area for staging (except as described on the plans and directed by the engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.
  - Within the construction limits, areas which may be susceptible to erosion as determined by the engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
  - Earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
  - As construction proceeds, the contractor shall institute the following as directed by the engineer:
    - Place temporary erosion control facilities at locations shown on the plans.
    - Temporarily seed erodible bare earth on a weekly basis to minimize the amount of erodible surface area within the contract limits.
  - Excavated areas and embankment shall be permanently seeded immediately after final grading, if not, they shall be temporarily seeded if no construction activity in the area is planned for 7 days.
  - Construction equipment shall be stored and fueled only at designated locations, all necessary measures shall be taken to contain any fuel or other pollutant in accordance with EPA water quality regulations, leaking equipment or supplies shall be immediately repaired or removed from the site.
  - The resident engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of 1/2 inch or greater or equivalent snowfall and during the winter shutdown period. The project shall additionally be inspected by the construction field engineer on a bi-weekly basis to determine that erosion control efforts are in place and effective and if other erosion control work is necessary.

- Sediment collected during construction of the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the engineer. The cost of this maintenance shall be included in the unit bid price for various temporary erosion control pay items.
- The temporary erosion control systems shall be removed as directed by the engineer after use is no longer needed or no longer functioning. The cost of this removal shall be included in the unit bid price for various temporary erosion control pay items.

**DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING**

- Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established.
- Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded.

**MAINTENANCE AFTER CONSTRUCTION**

- Construction is complete after acceptance by IDOT's final inspection. Maintenance up to this date will be by the contractor.

**MISCELLANEOUS:**

All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the erosion control plan, prior to the approval and use of the product, the contractor shall submit to the engineer a notarized certification by the producer stating the intended use of the product and that the physical properties required for this application are met or exceeded, the contractor shall provide manufacturer installation procedures to facilitate the engineer in construction inspection.

**LEGEND**

- Perimeter Erosion Barrier
- Seeding, Class 2A
- Seeding, Class 4 (Native Grasses)
- Temporary Ditch Checks
- Erosion Control Blanket
- Turf Reinforcement Mat
- Stone-Dumped Riprap, Class A3
- Wetland Area Impacted

**BILL OF MATERIAL**

Item	Unit	Quantity
Seeding, Class 2A	Acre	0.61
Seeding, Class 4	Acre	0.20
Erosion Control Blanket	Sq. Yd.	2,975
Turf Reinforcement Mat	Sq. Yd.	382
Temporary Ditch Checks	Foot	63
Perimeter Erosion Barrier	Foot	339
Stone-Dumped Riprap, Class A3	Sq. Yd.	178

FILE = S:\Structure\1033004-Indiana Avenue\Design\1033004ErosionControl.dwg

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

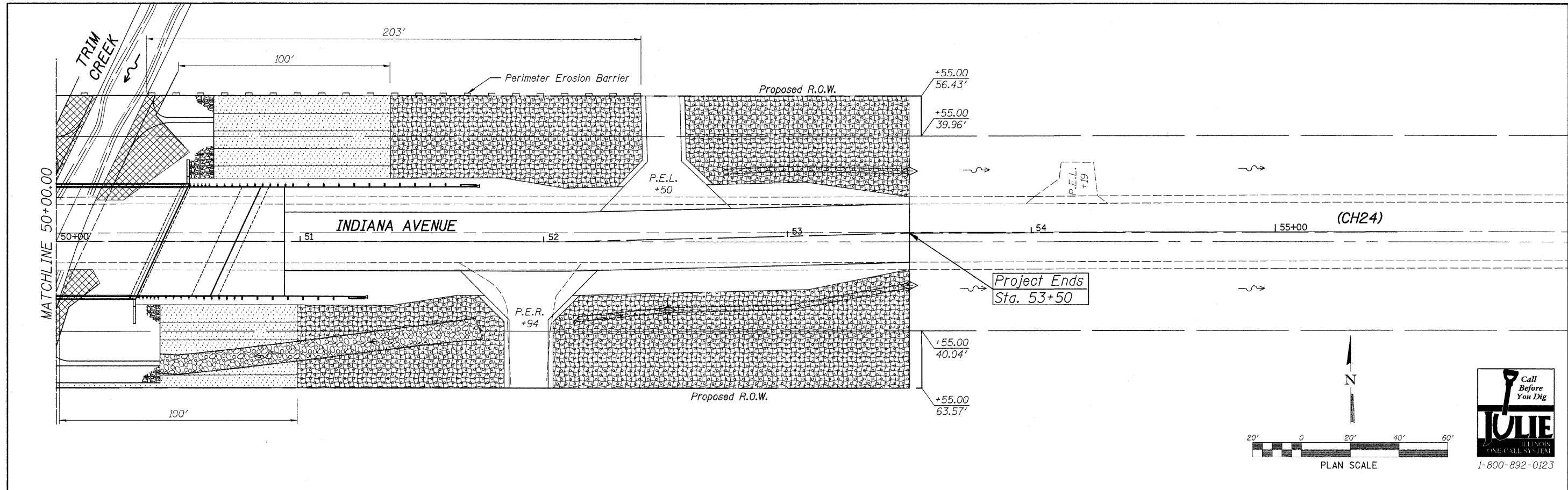
**WILLET HOFMANN**  
 ASSOCIATES INC  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0357  
 T: 815-284-3381 DESIGN FIRM: #164-000918

**WILL COUNTY**









**SOIL EROSION AND SEDIMENT CONTROL PLAN**  
**STRUCTURE NO. 099-3378**  
**STA. 45 + 50.00 - STA. 51 + 00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	12
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



**LEGEND**

-  Perimeter Erosion Barrier
-  Seeding, Class 2A
-  Seeding, Class 4 (Native Grasses)
-  Temporary Ditch Checks
-  Erosion Control Blanket
-  Turf Reinforcement Mat
-  Stone-Dumped Riprap, Class A3
-  Wetland Area Impacted

**EROSION CONTROL NOTES**

Temporary erosion control seeding shall be applied at a rate of 100 lbs. /acres.

Erosion Control Blanket shall be installed to all disturbed areas with slopes equal to or greater than 4V:5H and in critical areas (i.e. detention basin perimeters, streambanks, berms, etc.) immediately upon final grading.

All adjacent streets must be kept clear of debris, inspected daily and cleaned when necessary.

All soil erosion and sediment control practices are referenced from the Illinois Urban Manual.

Temporary Ditch Checks shall comply with Section 280 of the Standard Specifications for Road and Bridge Construction and Standard 280001-05 located in the Proposal. Temporary Ditch Checks shall be aggregate.

Temporary Ditch Checks shall be placed at 100' maximum centers and shall be placed at stations called out in the Schedule of Quantities or as directed by the Engineer.

Erosion Control Blanket shall be placed in ditches as shown on this Erosion Control Plan Sheet and in accordance with Section 251 of the Standard Specifications for Road and Bridge Construction.

The use of green dye in the Erosion Control Blanket is not acceptable.

The use of asphalt as a binder is not acceptable.

All items shall be constructed as shown on Standard 280001 and as directed by the engineer. Maintenance and cleaning of the erosion control items shall be included in the respective erosion control pay item.

**IN-STREAM OR STREAM-SIDE NOTES**

The Contractor shall contact the Corps of Engineers with a proposed Cofferdam Plan meeting the standards listed below. Means and methods for completing work within a waterway must be approved by the Corps prior to commencement of work. The Corps will approve the Cofferdam Plan to ensure it meets the erosion and sediment control standards. However, it is incumbent upon the Contractor to ensure that all cofferdams are constructed to withstand expected flows.

1. Work in the waterway shall be timed to take place during low or no-flow conditions.
2. Water shall be isolated from the in-stream work area using a non-erodible cofferdam (steel sheets, aqua barriers, etc.). Earthen cofferdams are not permissible.
3. Work may not be performed in the water, except for the placement of the materials necessary for the construction of the cofferdam. The cofferdam must be constructed from the upland area and no equipment may enter the water at any time. Once the cofferdam is in place and the isolated area is dewatered, equipment may enter the coffered area to perform the required work.
4. If bypass pumping is necessary, the pump shall be placed on a stable surface or floated to prevent sediment from being sucked into the hose. The bypass discharge shall be placed on a non-erodible, energy dissipating surface prior to rejoining the stream flow and shall not cause erosion of downstream areas. Cleaning or filtering of bypass water is not necessary unless otherwise required.
5. During dewatering of the coffered area, all water must be filtered to remove sediment. Possible options for sediment removal include baffle systems, anionic polymers, dewatering bags, or other appropriate methods. Water shall have sediment removed prior to being re-introduced to the downstream waterway. Discharge water is considered clean if it does not result in a visually identifiable degradation of water clarity.
6. The side slopes shall be reseeded and stabilized with an appropriate erosion control blanket prior to accepting flows. The substrate shall be restored to preconstruction conditions and stable enough to accept flows.
7. All materials used for temporary construction activity will be removed to upland areas immediately following completion of construction activity.

FILE = S:\Struct\10333004-Indiana Avenue.Design\10333004ErosionControl.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN  
ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0357  
T: 815-284-3361 DESIGN FIRM: #184-000918

**WILL COUNTY**

**SOIL EROSION AND SEDIMENT CONTROL PLAN  
STRUCTURE NO. 099-3378  
STA. 50+00.00 - STA. 55+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	13
STA. 47+00 - STA. 53+50			
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617

**EXISTING STRUCTURE: S.N. 099-3051**  
 A Single Span (42'-6") Concrete Girder Structure At Sta. 50+00, Skewed 25° Left Ahead To Be Removed, No Salvage.

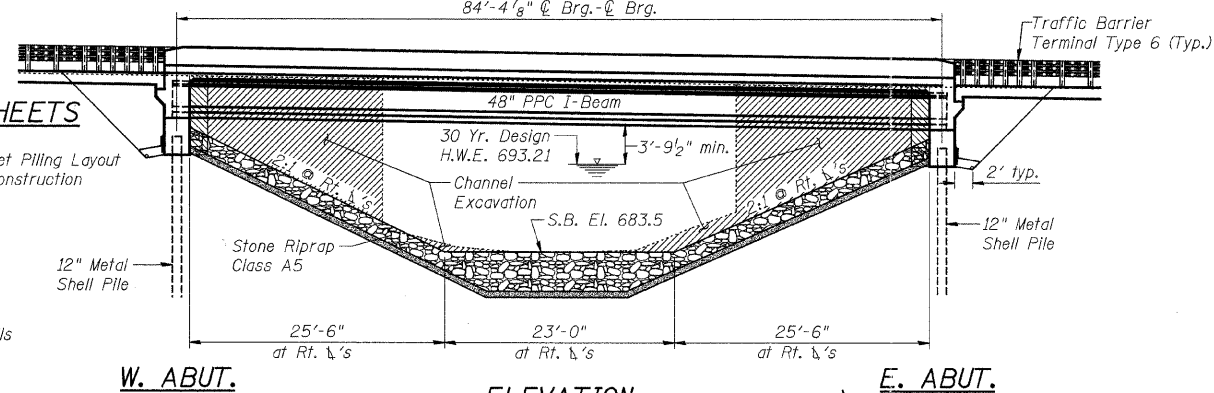
**Bench Mark:** Railroad Spike In 2nd Power Pole W. of Structure, 43.1' Lt. Sta. 47+54, El. 704.98

**Bench Mark:** Chis. "□" on the Southwest Wingwall 3.0' Rt. Sta. 49+73, El. 703.07

**Bench Mark:** Railroad Spike in 3rd. Power Pole E. of Structure, 43.9' Lt. Sta. 54+47, El. 697.38

**INDEX OF STRUCTURAL SHEETS**

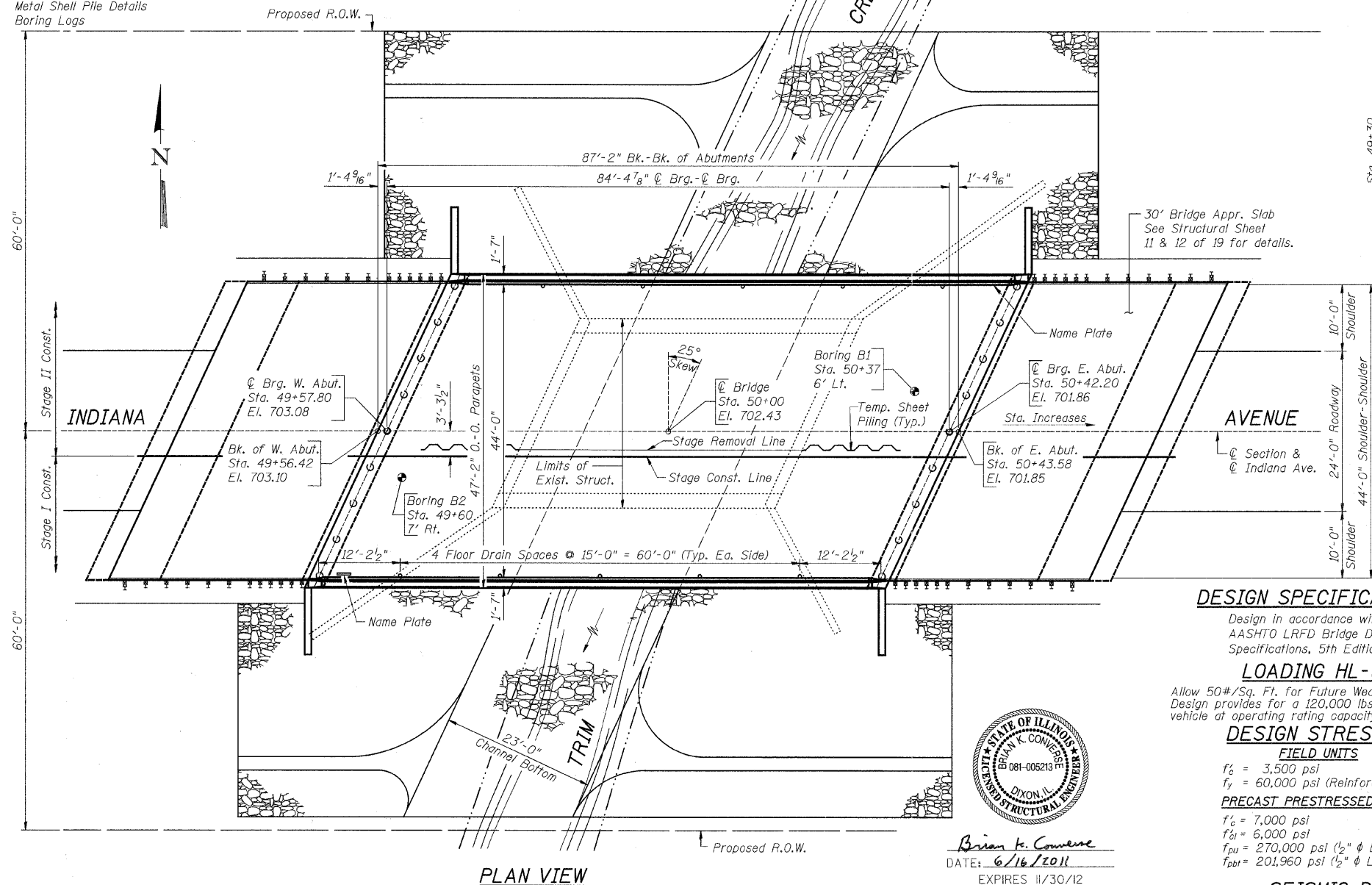
- 1 General Plan And Elevation
- 2 Construction Staging And Temporary Sheet Piling Layout
- 3 Temporary Concrete Barrier For Stage Construction
- 4 Riprap And Pile Layout
- 5 Top of Slab Elevations
- 6 Top of West Approach Slab Elevations
- 7 Top of East Approach Slab Elevations
- 8 Superstructure
- 9 Superstructure Details
- 10 Framing Plan And Diaphragm Details
- 11-12 West & East Bridge Approach Slab Details
- 13 48" PPC I-Beam
- 14 48" PPC I-Beam Details
- 15 West Abutment Details
- 16 East Abutment Details
- 17 Bar Splicer Assembly And Mechanical Splicer Details
- 18 Metal Shell Pile Details
- 19 Boring Logs



**WATERWAY INFORMATION**

DRAINAGE AREA ..... 13.6 SQ. MI.  
 DESIGN DISCHARGE (30 YR.)..... 770 C.F.S.  
 EXISTING OPENING ..... 320 SQ. FT.  
 REQUIRED OPENING ..... 412 SQ. FT.  
 PROPOSED OPENING ..... 412 SQ. FT.  
 CREATED HEAD (30 YR.) ..... < 0.3'  
 100 YR. DISCHARGE..... 950 C.F.S.  
 CREATED HEAD (100 YR.) ..... < 0.5'  
 HIGH WATER ELEV. (100 YR.)..... 694.08'

ITEM	UNIT	SUB.	SUPER.	TOTAL
Channel Excavation	Cu. Yd.	1,751		1,751
Stone Riprap, Class A5	Sq. Yd.	1,349		1,349
Filler Fabric	Sq. Yd.	1,349		1,349
*** Removal Of Existing Structures	Each			1
Structure Excavation	Cu. Yd.	208		208
Floor Drains	Each		10	10
Concrete Structures	Cu. Yd.	80.8		80.8
Concrete Superstructure	Cu. Yd.		309.9	309.9
** Bridge Deck Grooving	Sq. Yd.		693	693
* Protective Coat	Sq. Yd.		797	797
Furnishing & Erecting Precast, Prestressed Concrete I-Beams, 48"	Foot		602	602
Reinforcement Bars (Epoxy Coated)	Pound	6,770	64,030	70,800
Bar Splicers	Each	20	585	605
Furnishing Metal Shell Piles 12"x0.250"	Foot	952		952
Driving Piles	Foot	952		952
Test Pile Metal Shells	Each	2		2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.	126		126
Concrete Headwalls for Pipe Drains	Each	4		4
*** Porous Granular Embankment Special	Cu. Yd.	235		235
*** Temporary Sheet Piling	Sq. Ft.	1,464		1,464
Pipe Underdrains for Structures, 4"	Foot	188		188



**PROFILE GRADE**  
 (Along @ Roadway)

P.I. Sta. = 50+80  
 Elev. = 700.90  
 L = 300'

**NAME PLATE LETTERING**  
 REFER TO STD. 515001-03

TRIM CREEK  
 BUILT 2012 BY  
 WILL COUNTY  
 SECTION 01-00042-07-BR  
 F.A.S. ROUTE 308 STATION 50+00  
 STR. NO. 099-3378 LOADING HL-93

**GENERAL NOTES**

- See Structural Sheet 19 for Boring Data.
- Reinforcement Bars shall be according to the requirements of AASHTO M 31 (M 31M) or M 322 (M 322M), Grade 60 (400) for deformed bars.
- Channel to be transitioned to fit Proposed Structure inside Right of Way. Cost Included in the Unit Price per Cu. Yd. for Channel Excavation. See Roadway Plans.
- The Contractor shall drive One Steel Test Pile in a permanent location at each Abutment, as directed by the Engineer, before ordering the Remainder of Piles.
- Layout of Slope Protection System may be varied in the field to suit ground conditions as directed by the Engineer.
- Temporary Concrete Barriers shall be provided for Stage Construction, See Standard 704001. Pay Item for Temporary Concrete Barrier is Included in Roadway Plans.
- Slip-Forming of Parapets is not allowed.
- \* Includes Top & Inside Face of Parapet & Deck.
- \*\* Includes 30' Bridge Approach Pavements.
- \*\*\* See Special Provisions.

**DESIGN SPECIFICATIONS**

Design in accordance with 2010 AASHTO LRFD Bridge Design Specifications, 5th Edition.  
**LOADING HL-93**  
 Allow 50#/Sq. Ft. for Future Wearing Surface. Design provides for a 120,000 lbs. permit vehicle at operating rating capacity.

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
**PRECAST PRESTRESSED UNITS**  
 $f'_c = 7,000$  psi  
 $f'_a = 6,000$  psi  
 $f_{pu} = 270,000$  psi ( $\frac{1}{2}$ "  $\phi$  Low Lax Strands)  
 $f_{psi} = 201,960$  psi ( $\frac{1}{2}$ "  $\phi$  Low Lax Strands)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.150  
 Design Spectral Acceleration of 0.2 sec. ( $S_{D5}$ ) = 0.096  
 soil Site Class = D

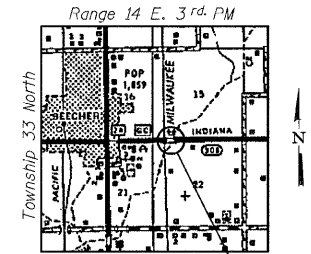
**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	696.25	695.39



Brian K. Converse  
 DATE: 6/16/2011  
 EXPIRES 11/30/12

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO LRFD Bridge Design Specifications'."



**LOCATION SKETCH**

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004GPE.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

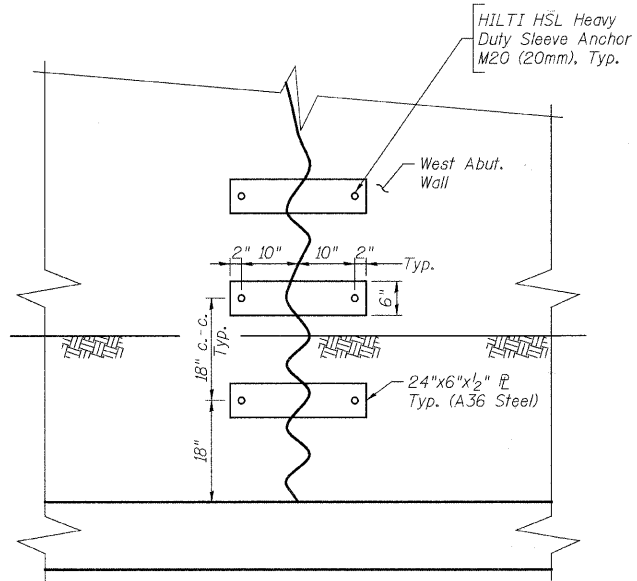
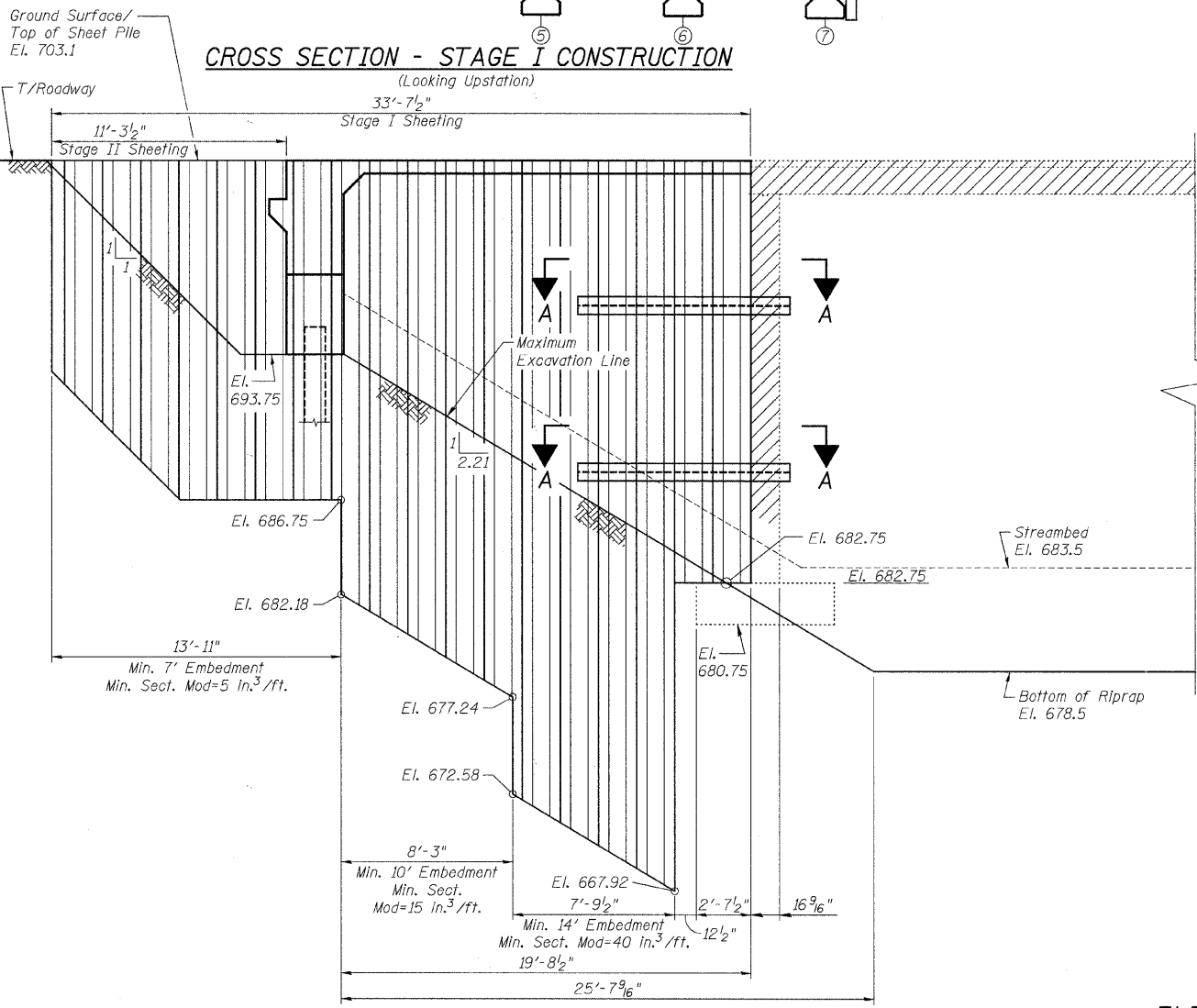
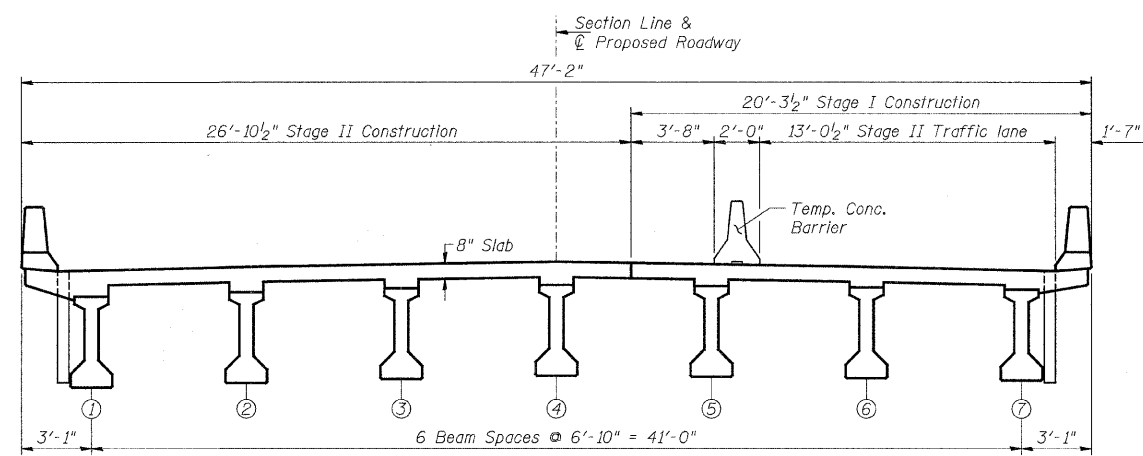
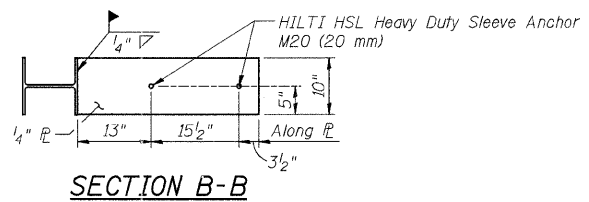
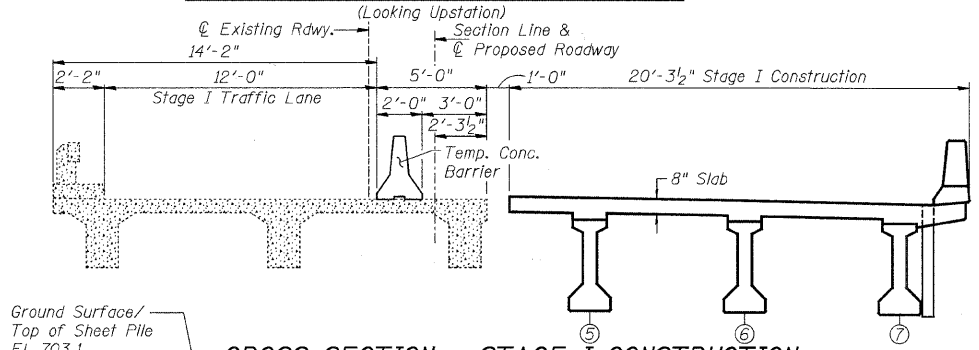
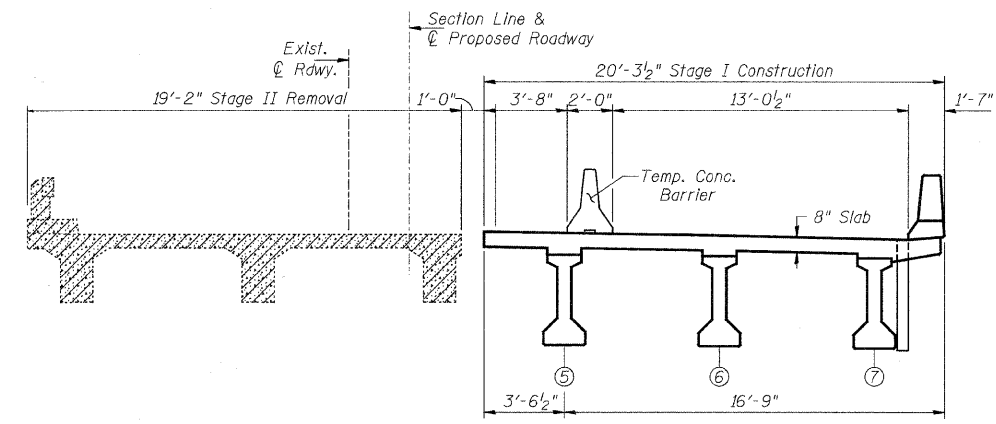
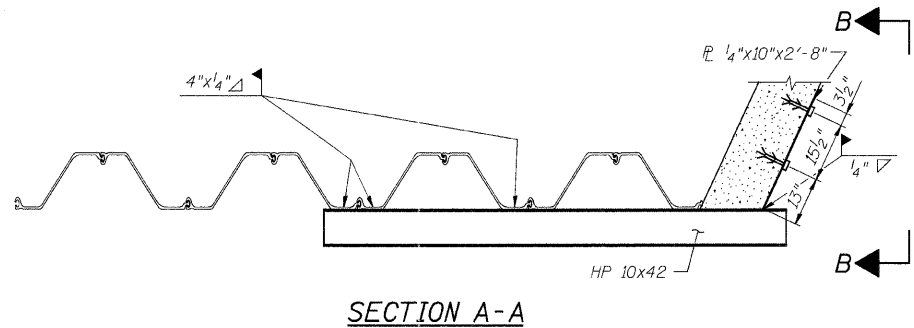
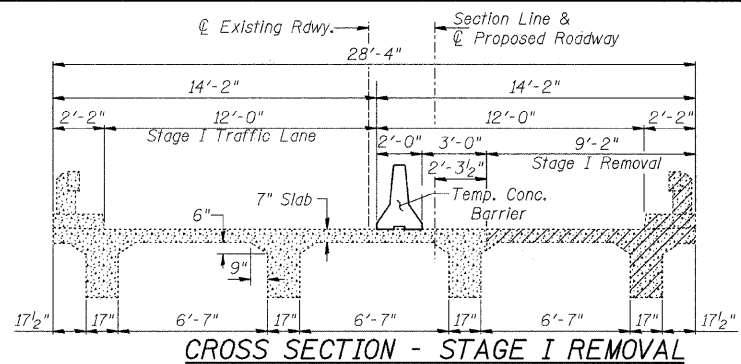
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-264-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**GENERAL PLAN AND ELEVATION**  
**STRUCTURE NO. 099-3378**  
**STRUCTURAL SHEET NO. 1 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	14
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



CROSS SECTION - STAGE II CONSTRUCTION (Looking Upstation)

**NOTES:**

- Hatched area indicates "Removal Of Existing Structure."
- Temporary Concrete Barriers shall be provided for stage construction, see Standard 637001. Pay Item for "Temporary Concrete Barrier" is included in the Roadway Plans.
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer. The calculations shall be prepared and sealed by and Illinois Licensed Structural Engineer.
- The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for "Temporary Sheet Piling."
- Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate driving equipment for the soil conditions indicated on the boring logs.
- All associated costs for the Cracked Abutment Wall Temporary Support System shall be included in the cost for "Temporary Sheet Piling."
- Anchor bolt threads shall not be in the plane of shear.
- Steel plate shall be grade 36 ksi or greater.

**BILL OF MATERIAL**

Item	Unit	Total
Temporary Sheet Piling	Sq. Ft.	1347

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004\Stage.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-009118

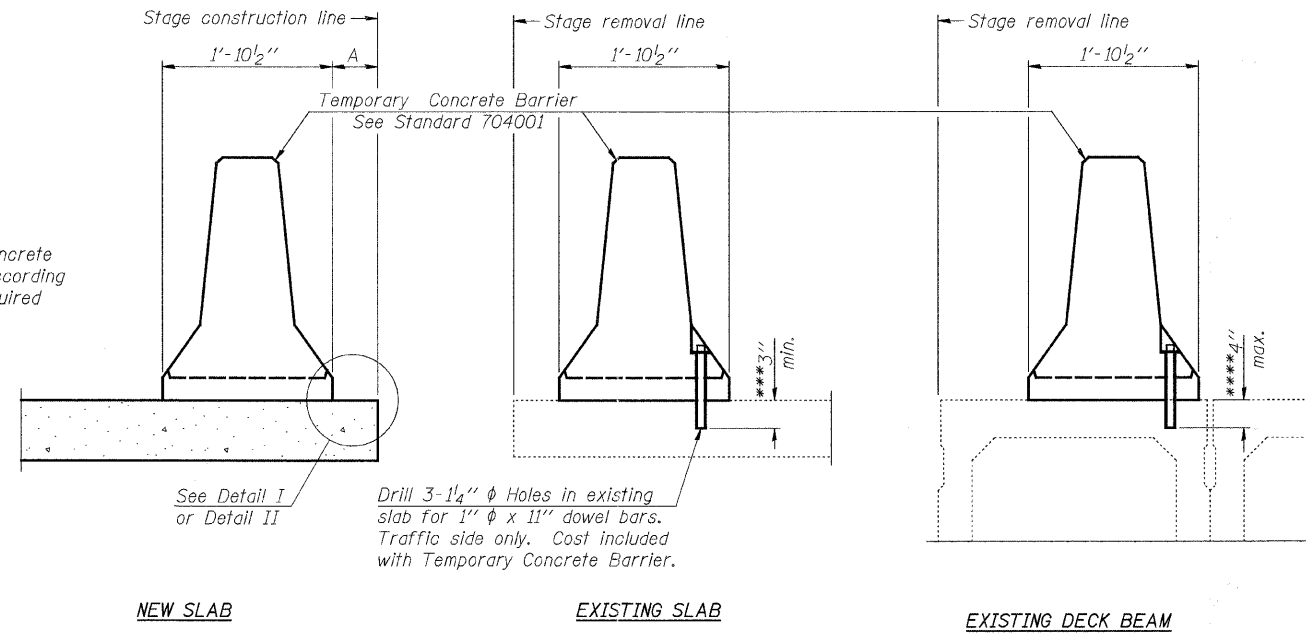
**WILL COUNTY**

**CONSTRUCTION STAGING AND TEMPORARY SHEET PILING LAYOUT  
STRUCTURE NO. 099-3378  
STRUCTURAL SHEET NO. 2 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	15
STA. 47+00	STA. 53+00		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

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".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES:**

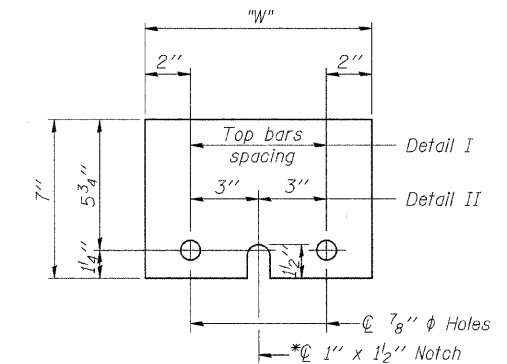
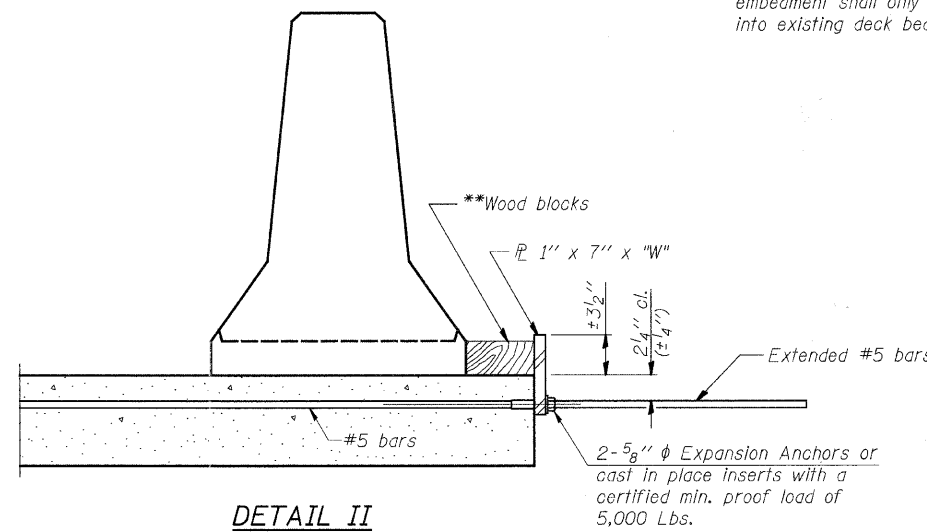
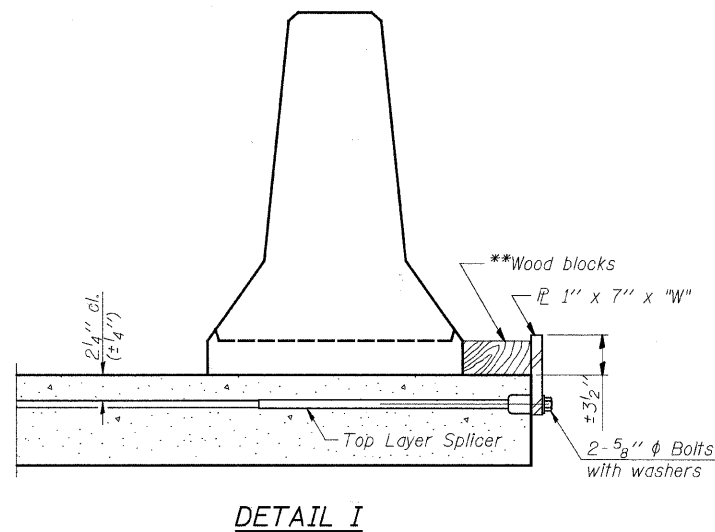
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" 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.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**STEEL RETAINER PL 1" x 7" x "W"**  
\*Required only with Detail II

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004Barrier.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
CHECKED M.C.W.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO. 099-3378**

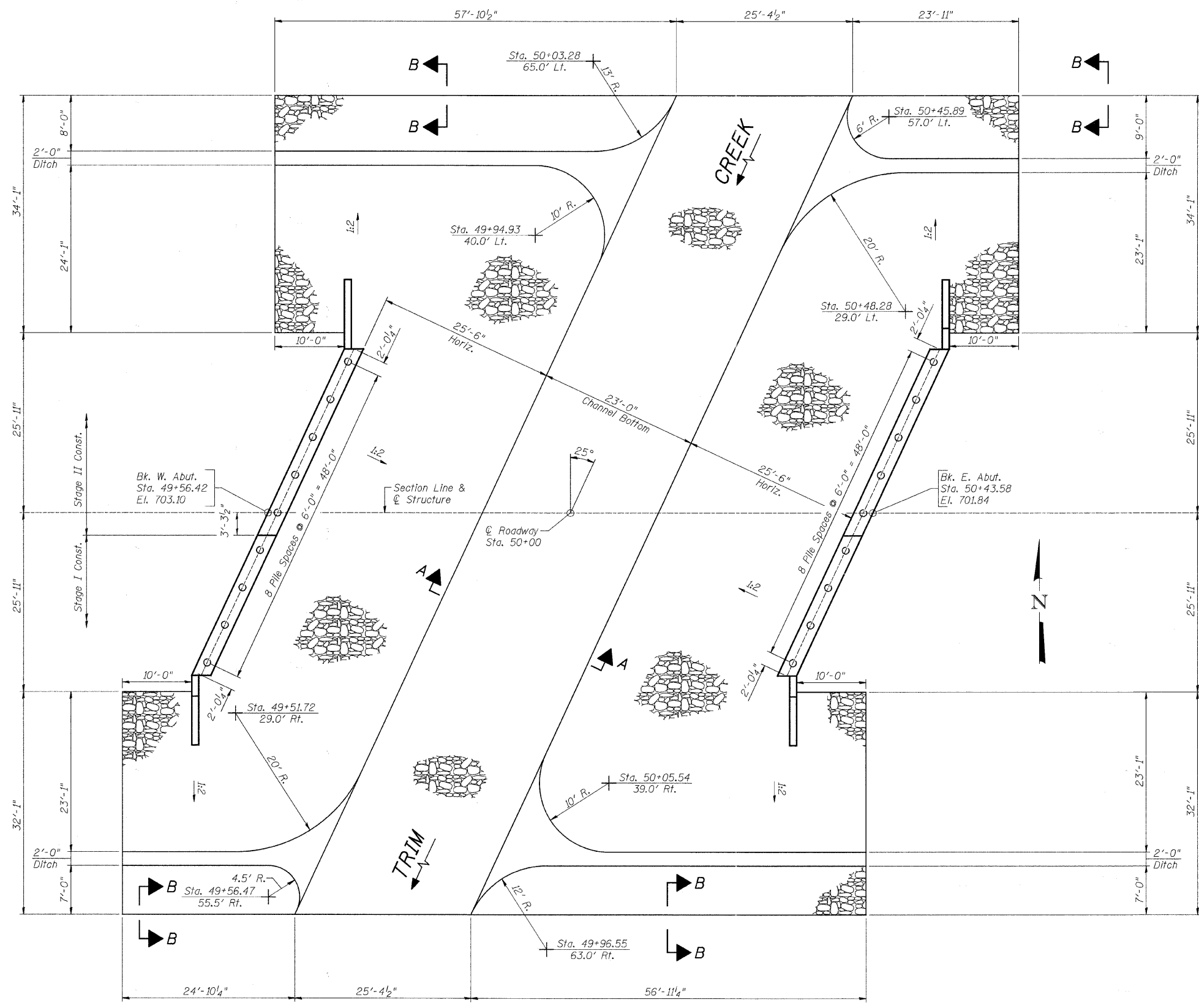
STRUCTURAL SHEET NO. 3 OF 19 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	16
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

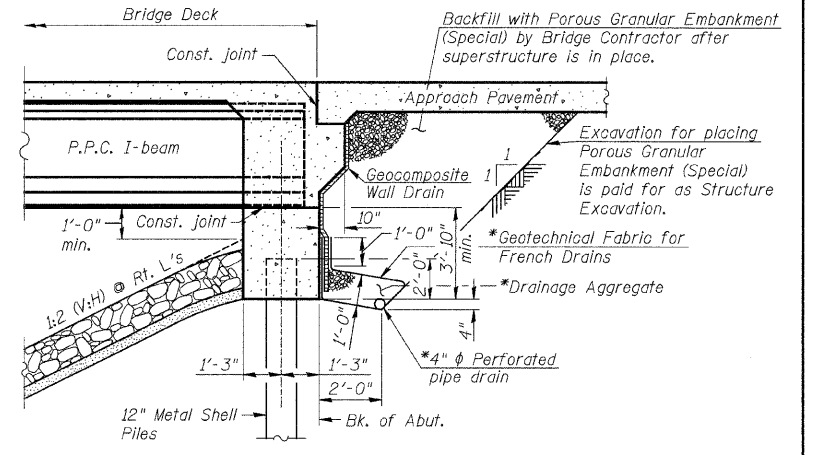
CONTRACT NO. 63617



FILE = S:\Struct\1033004-Indiana Avenue Design\Structural Drawings\1033004Riprap.dgn

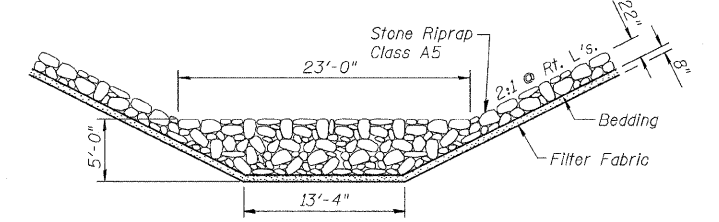


PLAN

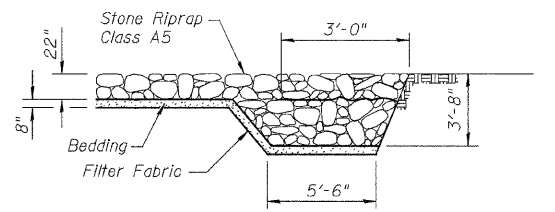


SECTION THRU INTEGRAL ABUTMENT  
(Horiz. dim. @ Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures.  
**NOTE:**  
 All drainage system components shall extend to 2'-0" from the end of each 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 601101).



SEC A-A



SEC B-B

STONE RIPRAP ANCHOR DETAILS

BILL OF MATERIAL

Item	Unit	Total
Stone Riprap, Class A5	Sq. Yd.	1,349
Filter Fabric	Sq. Yd.	1,349

REVISION	DATE	BY	REMARKS

DRAWN: R.D.A.  
 CHECKED: M.C.W.  
 APPROVED: B.K.C.  
**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

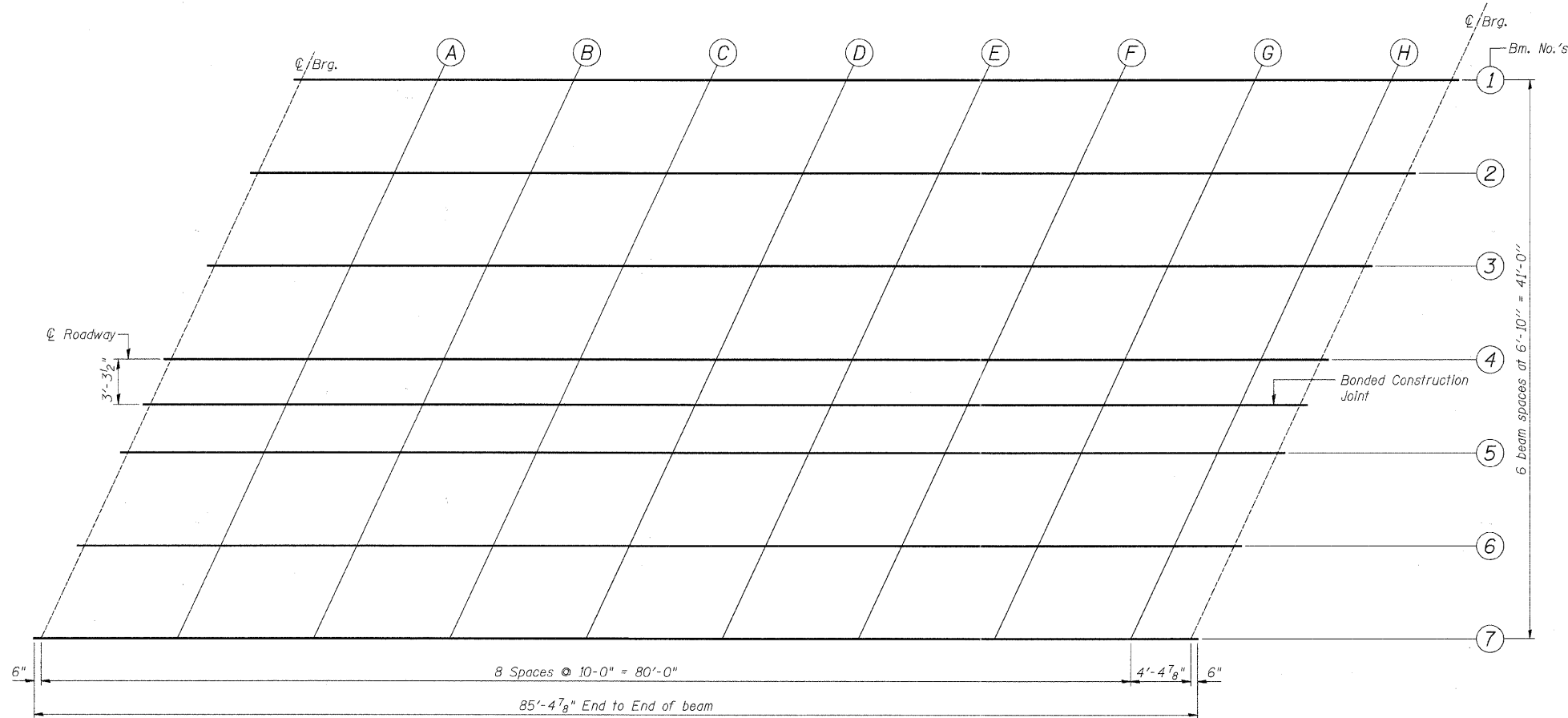
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: A184-000918

**WILL COUNTY**

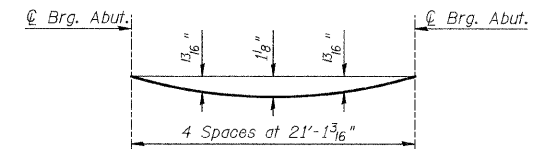
**RIPRAP AND PILE LAYOUT  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 4 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	17
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

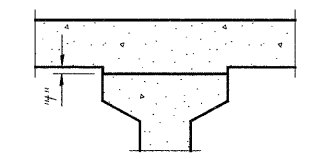


FRAMING PLAN



DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete, excluding beams).

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



To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "f" above top flanges of beams.

FILLET HEIGHTS

Beam ①

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+67.36	20.50	702.56	702.56
A	49+77.36	20.50	702.40	702.44
B	49+87.36	20.50	702.25	702.31
C	49+97.36	20.50	702.10	702.19
D	50+07.36	20.50	701.96	702.05
E	50+17.36	20.50	701.82	701.91
F	50+27.36	20.50	701.69	701.76
G	50+37.36	20.50	701.56	701.60
H	50+47.36	20.50	701.43	701.45
☉ Brg. E. Abut.	50+51.76	20.50	701.38	701.38

Beam ②

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+64.17	13.67	702.75	702.75
A	49+74.17	13.67	702.60	702.63
B	49+84.17	13.67	702.44	702.51
C	49+94.17	13.67	702.29	702.38
D	50+04.17	13.67	702.15	702.24
E	50+14.17	13.67	702.01	702.10
F	50+24.17	13.67	701.87	701.94
G	50+34.17	13.67	701.74	701.79
H	50+44.17	13.67	701.61	701.63
☉ Brg. E. Abut.	50+48.57	13.67	701.56	701.56

Beam ③

Location	Station	Offset Lt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+60.99	6.83	702.92	702.92
A	49+70.99	6.83	702.76	702.80
B	49+80.99	6.83	702.61	702.67
C	49+90.99	6.83	702.45	702.54
D	50+00.99	6.83	702.31	702.40
E	50+10.99	6.83	702.17	702.26
F	50+20.99	6.83	702.03	702.10
G	50+30.99	6.83	701.90	701.94
H	50+40.99	6.83	701.77	701.78
☉ Brg. E. Abut.	50+45.39	6.83	701.71	701.71

Beam ④

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+57.80	0.00	703.08	703.08
A	49+67.80	0.00	702.92	702.95
B	49+77.80	0.00	702.76	702.83
C	49+87.80	0.00	702.61	702.69
D	49+97.80	0.00	702.46	702.55
E	50+07.80	0.00	702.32	702.41
F	50+17.80	0.00	702.18	702.25
G	50+27.80	0.00	702.04	702.09
H	50+37.80	0.00	701.91	701.93
☉ Brg. E. Abut.	50+42.20	0.00	701.86	701.86

Bonded Construction Joint

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+56.26	3.29	703.05	703.05
A	49+66.26	3.29	702.89	702.93
B	49+76.26	3.29	702.73	702.80
C	49+86.26	3.29	702.58	702.67
D	49+96.26	3.29	702.43	702.53
E	50+06.26	3.29	702.29	702.38
F	50+16.26	3.29	702.15	702.22
G	50+26.26	3.29	702.01	702.06
H	50+36.26	3.29	701.88	701.90
☉ Brg. E. Abut.	50+40.67	3.29	701.83	701.83

Beam ⑤

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+54.61	6.83	703.03	703.03
A	49+64.61	6.83	702.86	702.90
B	49+74.61	6.83	702.70	702.77
C	49+84.61	6.83	702.55	702.63
D	49+94.61	6.83	702.40	702.49
E	50+04.61	6.83	702.26	702.35
F	50+14.61	6.83	702.12	702.19
G	50+24.61	6.83	701.98	702.03
H	50+34.61	6.83	701.85	701.86
☉ Brg. E. Abut.	50+39.01	6.83	701.79	701.79

Beam ⑥

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+51.43	13.67	702.96	702.96
A	49+61.43	13.67	702.80	702.83
B	49+71.43	13.67	702.64	702.70
C	49+81.43	13.67	702.48	702.57
D	49+91.43	13.67	702.33	702.43
E	50+01.43	13.67	702.19	702.28
F	50+11.43	13.67	702.04	702.12
G	50+21.43	13.67	701.91	701.95
H	50+31.43	13.67	701.77	701.79
☉ Brg. E. Abut.	50+35.83	13.67	701.72	701.72

Beam ⑦

Location	Station	Offset Rt.	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. W. Abut.	49+48.24	20.50	702.88	702.88
A	49+58.24	20.50	702.71	702.74
B	49+68.24	20.50	702.55	702.61
C	49+78.24	20.50	702.39	702.47
D	49+88.24	20.50	702.24	702.33
E	49+98.24	20.50	702.09	702.18
F	50+08.24	20.50	701.95	702.02
G	50+18.24	20.50	701.81	701.86
H	50+28.24	20.50	701.67	701.69
☉ Brg. E. Abut.	50+32.64	20.50	701.62	701.62

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004 TopofSlab.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
CHECKED M.C.W.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN  
ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0567  
T. 815-234-3381 DESIGN PRJ# 184-00918

**WILL COUNTY**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 099-3378**

**STRUCTURAL SHEET NO. 5 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	18
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

**LEFT EDGE OF APPROACH PAVEMENT**

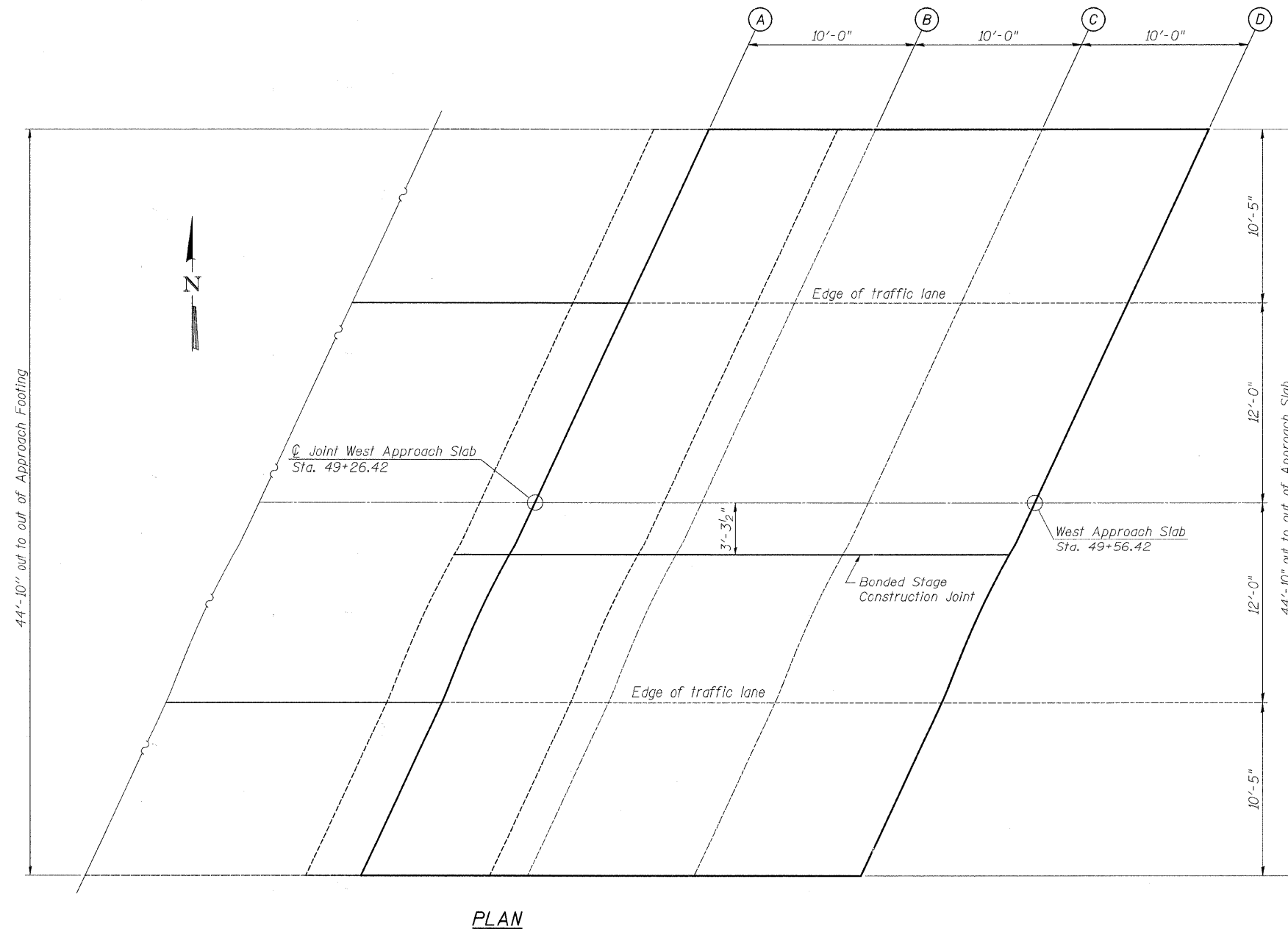
Location	Station	Offset Lt.	Theoretical Grade Elevations
A	49+36.87	22.42	703.03
B	49+46.87	22.42	702.86
C	49+56.87	22.42	702.69
D	49+66.87	22.42	702.53

**LEFT EDGE OF TRAFFIC LANE**

Location	Station	Offset Lt.	Theoretical Grade Elevations
A	49+32.01	12.00	703.33
B	49+42.01	12.00	703.16
C	49+52.01	12.00	702.99
D	49+62.01	12.00	702.82

**CENTERLINE**

Location	Station	Offset	Theoretical Grade Elevations
A	49+26.42	0.00	703.62
B	49+36.42	0.00	703.44
C	49+46.42	0.00	703.27
D	49+56.42	0.00	703.10



**BONDED CONSTRUCTION JOINT**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	49+24.88	3.29	703.59
B	49+34.88	3.29	703.42
C	49+44.88	3.29	703.25
D	49+54.88	3.29	703.08

**RIGHT EDGE OF TRAFFIC LANE**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	49+20.82	12.00	703.53
B	49+30.82	12.00	703.35
C	49+40.82	12.00	703.18
D	49+50.82	12.00	703.01

**RIGHT EDGE OF APPROACH PAVEMENT**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	49+15.96	22.42	703.40
B	49+25.96	22.42	703.22
C	49+35.96	22.42	703.05
D	49+45.96	22.42	702.87

FILE = S:\Struct\103300\Indiana Avenue\Design\Structural\Drawings\103300\Top\WestApproachSlabElevations.dgn

REVISION	DATE	BY	REMARKS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK

**WILLET HOFMANN & ASSOCIATES INC**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, OGDON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

WILL COUNTY

TOP OF WEST APPROACH SLAB ELEVATIONS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 6 OF 19 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	19
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

**LEFT EDGE OF APPROACH PAVEMENT**

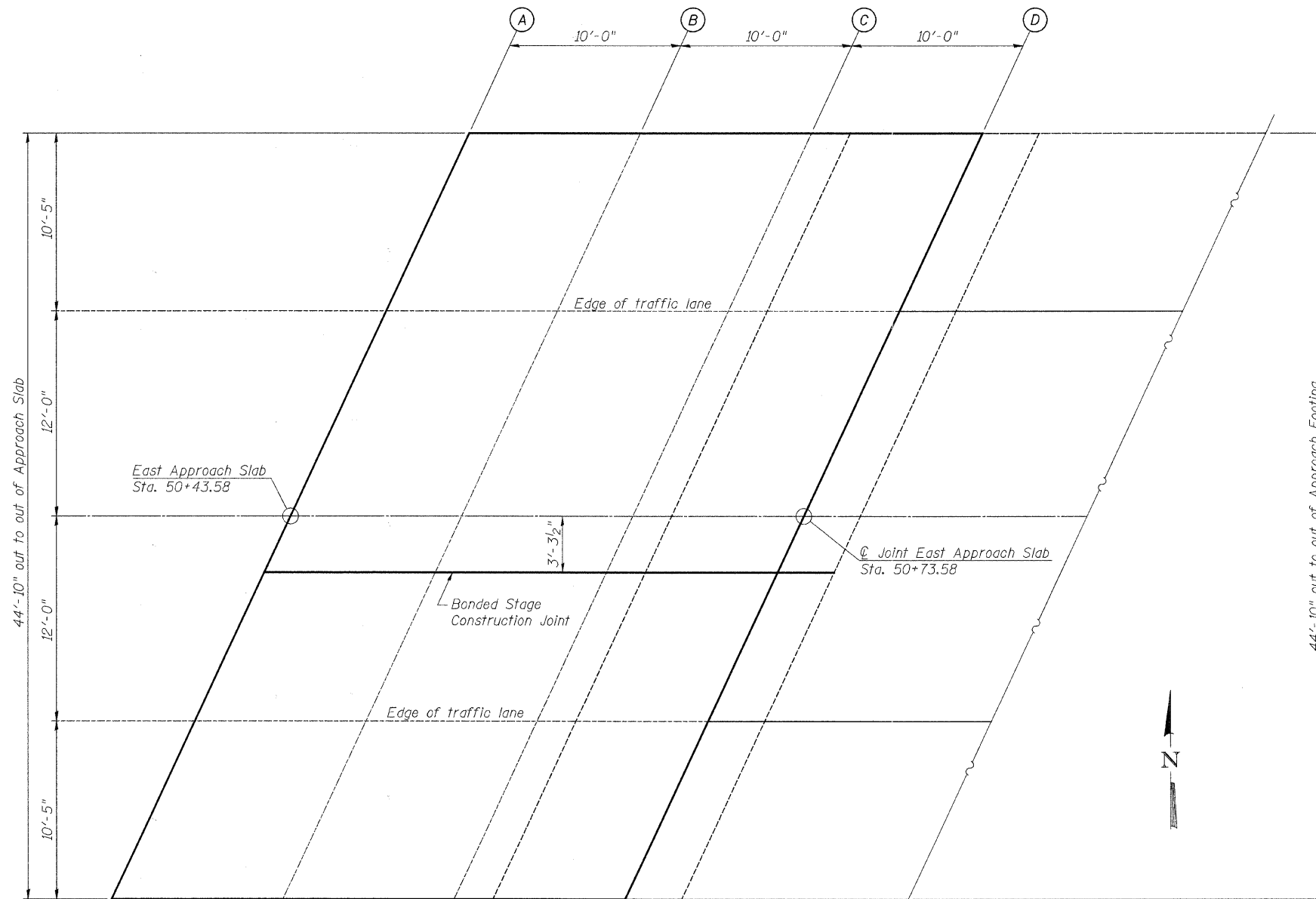
Location	Station	Offset Lt.	Theoretical Grade Elevations
A	50+54.04	22.42	701.32
B	50+64.04	22.42	701.20
C	50+74.04	22.42	701.08
D	50+84.04	22.42	700.98

**LEFT EDGE OF TRAFFIC LANE**

Location	Station	Offset Lt.	Theoretical Grade Elevations
A	50+49.18	12.00	701.59
B	50+59.18	12.00	701.47
C	50+69.18	12.00	701.36
D	50+79.18	12.00	701.25

**CENTERLINE**

Location	Station	Offset	Theoretical Grade Elevations
A	50+43.58	0.00	701.84
B	50+53.58	0.00	701.72
C	50+63.58	0.00	701.60
D	50+73.58	0.00	701.49



**PLAN**

**BONDED STAGE CONSTRUCTION JOINT**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	50+42.04	3.29	701.81
B	50+52.04	3.29	701.69
C	50+62.04	3.29	701.57
D	50+72.04	3.29	701.45

**RIGHT EDGE OF TRAFFIC LANE**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	50+37.99	12.00	701.73
B	50+47.99	12.00	701.60
C	50+57.99	12.00	701.48
D	50+67.99	12.00	701.37

**RIGHT EDGE OF APPROACH PAVEMENT**

Location	Station	Offset Rt.	Theoretical Grade Elevations
A	50+33.13	22.42	701.57
B	50+43.13	22.42	701.45
C	50+53.13	22.42	701.32
D	50+63.13	22.42	701.21

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004\Top of East Approach Slab Elevations.dgn

REVISION	DATE	BY	REMARKS

DRAWN	R.D.A.
CHECKED	M.C.W.
APPROVED	B.K.C.

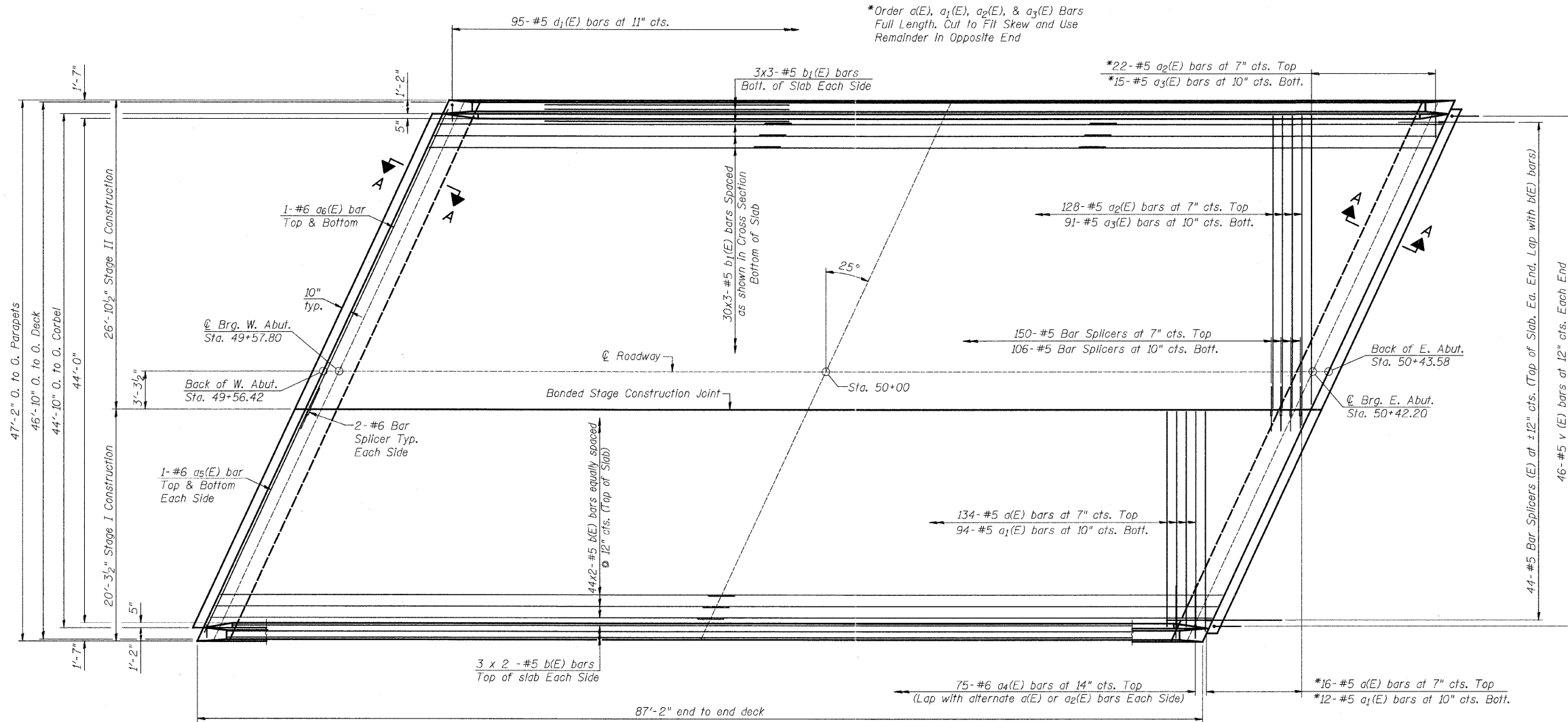
**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILL COUNTY**

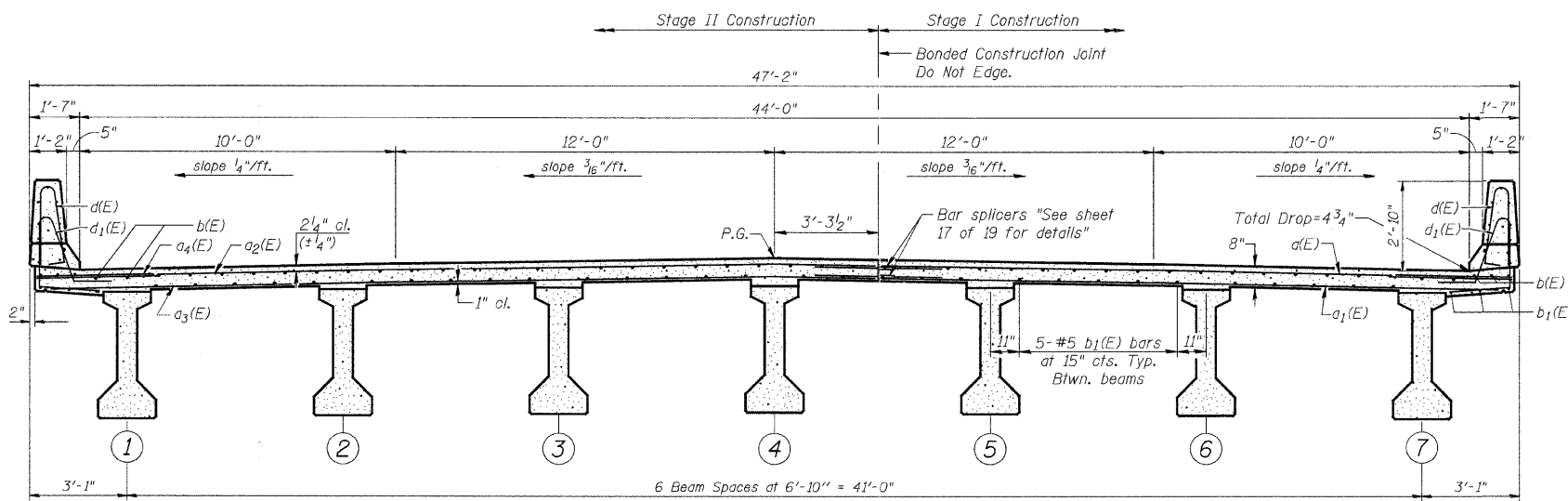
**TOP OF EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 099-3378**  
STRUCTURAL SHEET NO. 7 OF 19 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	20
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



PLAN



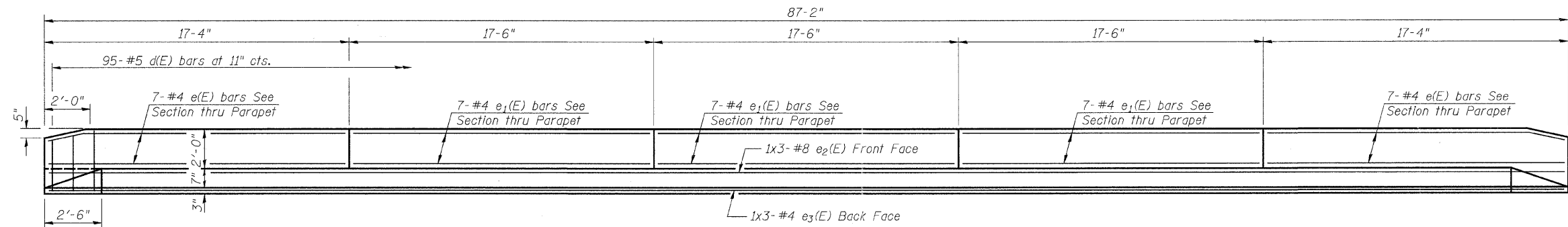
CROSS SECTION  
(Looking Upstream)

MIN. BAR LAPS	
BAR	LAP
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"

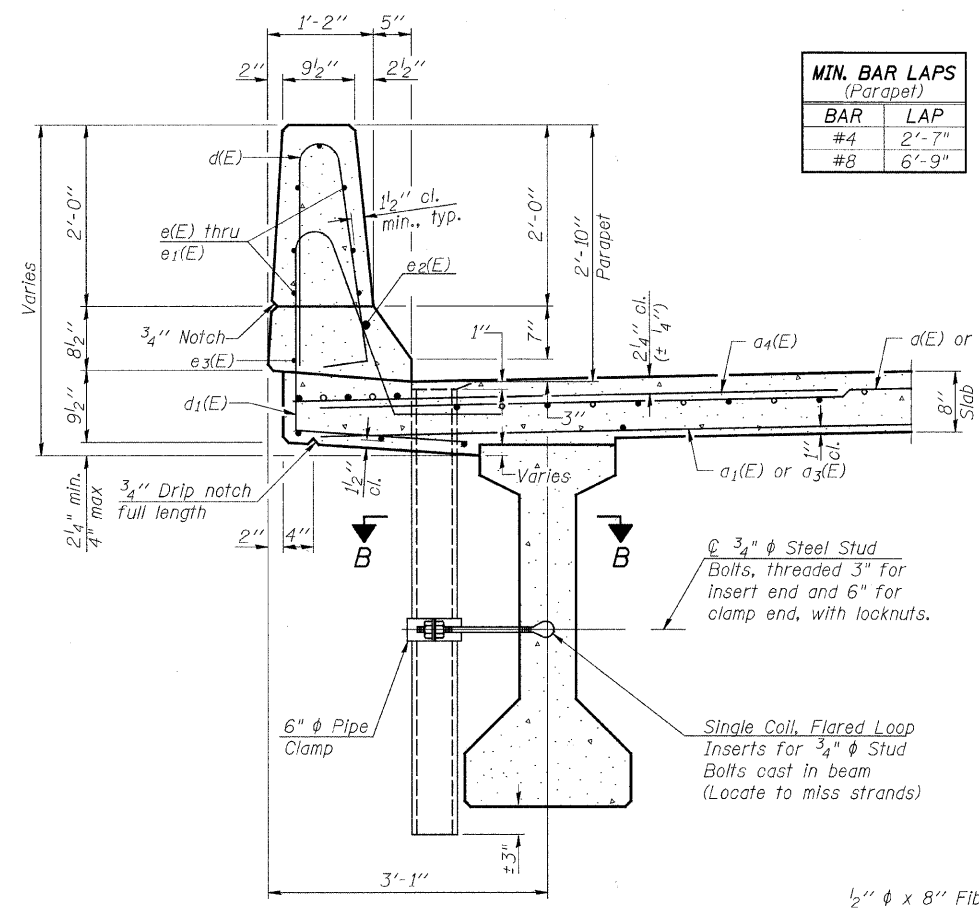
**NOTES:**  
 See Sheet 9 of 19 for superstructure Bill of Material.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
 See Sheet 9 of 19 for parapet reinforcement.  
 See Sheet 10 of 19 for sections at abutments.

FILE: S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004\Superstructure.dgn

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISION	DATE	BY	REMARKS					<table border="1"> <tr> <td>DRAWN</td> <td>R.D.A.</td> </tr> <tr> <td>CHECKED</td> <td>M.C.W.</td> </tr> <tr> <td>APPROVED</td> <td>B.K.C.</td> </tr> </table>		DRAWN	R.D.A.	CHECKED	M.C.W.	APPROVED	B.K.C.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>		<b>WILLET HOFMANN &amp; ASSOCIATES INC</b> ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3381 DESIGN FIRM: #184-000918		<b>WILL COUNTY</b>		<b>SUPERSTRUCTURE</b> <b>STRUCTURE NO. 099-3378</b> <b>STRUCTURAL SHEET NO. 8 OF 19 SHEETS</b>		<b>CONTRACT NO. 63617</b> <table border="1"> <thead> <tr> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> </thead> <tbody> <tr> <td>01-00042-07-BR</td> <td>WILL</td> <td>58</td> <td>21</td> </tr> <tr> <td>STA. 47+00</td> <td>STA. 53+50</td> <td> </td> <td> </td> </tr> <tr> <td>WHA #: 1033D04</td> <td>DATE: 6/9/2011</td> <td> </td> <td> </td> </tr> </tbody> </table>		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	21	STA. 47+00	STA. 53+50			WHA #: 1033D04	DATE: 6/9/2011		
REVISION	DATE	BY	REMARKS																																										
DRAWN	R.D.A.																																												
CHECKED	M.C.W.																																												
APPROVED	B.K.C.																																												
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																										
01-00042-07-BR	WILL	58	21																																										
STA. 47+00	STA. 53+50																																												
WHA #: 1033D04	DATE: 6/9/2011																																												

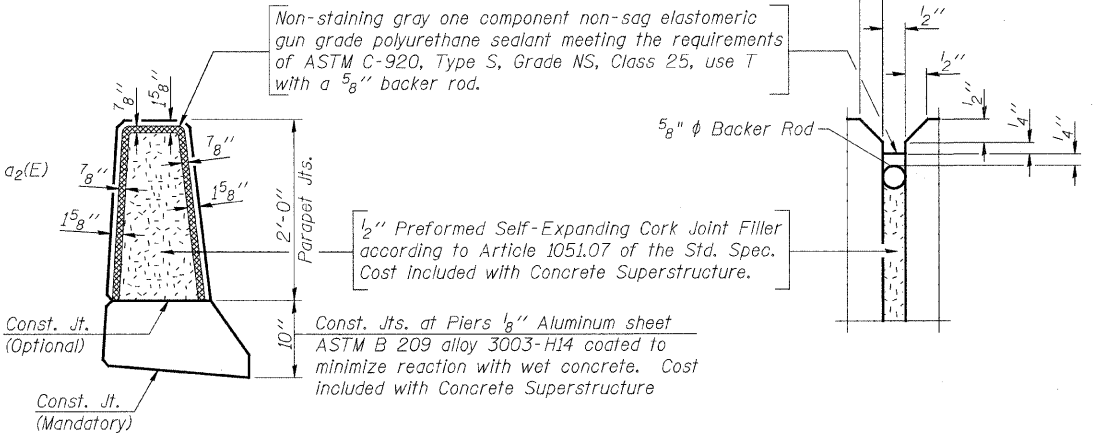


**INSIDE ELEVATION OF PARAPET**



**SECTION THRU PARAPET**

MIN. BAR LAPS (Parapet)	
BAR	LAP
#4	2'-7"
#8	6'-9"

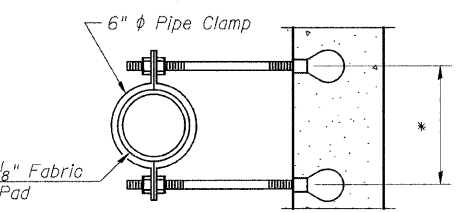


**PARAPET JOINT DETAILS**

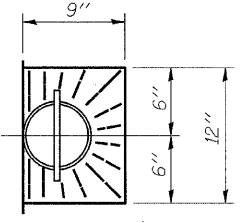
**NOTES:**  
 The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

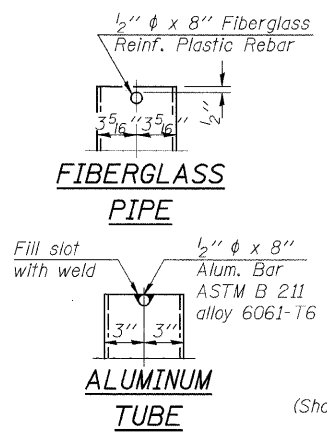
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.



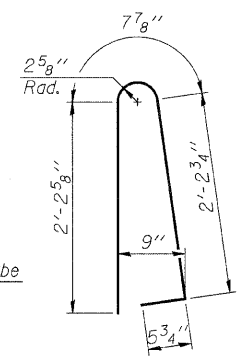
**SECTION B-B**



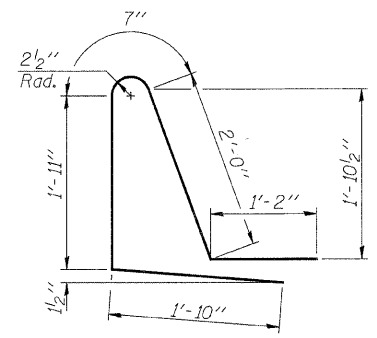
**TOP PLAN**



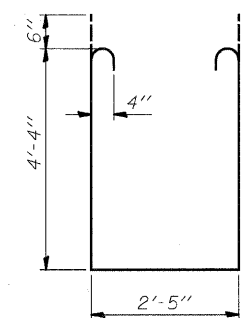
**TOP PLAN (Showing Aluminum Tube)**



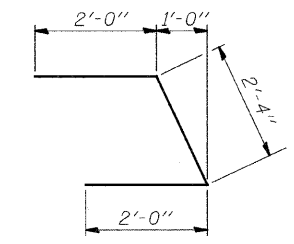
**BAR d(E)**



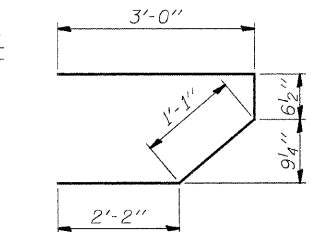
**BAR d1(E)**



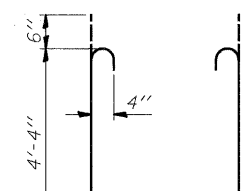
**BAR s1(E)**



**BAR u(E)**



**BAR s(E)**



**BAR v(E)**

**SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	150	#5	19'-10"	
a <sub>1</sub> (E)	106	#5	19'-10"	
a <sub>2</sub> (E)	150	#5	26'-5"	
a <sub>3</sub> (E)	106	#5	26'-5"	
a <sub>4</sub> (E)	150	#6	5'-8"	
a <sub>5</sub> (E)	4	#6	21'-11"	
a <sub>6</sub> (E)	4	#6	29'-2"	
b(E)	100	#5	45'-1"	
b <sub>1</sub> (E)	108	#5	31'-1"	
d(E)	190	#5	5'-7"	
d <sub>1</sub> (E)	190	#5	7'-6"	
e(E)	28	#4	17'-0"	
e <sub>1</sub> (E)	42	#4	17'-2"	
e <sub>2</sub> (E)	6	#4	30'-8"	
e <sub>3</sub> (E)	6	#8	33'-5"	
m(E)	4	#6	21'-11"	
m <sub>1</sub> (E)	4	#6	29'-2"	
m <sub>2</sub> (E)	6	#6	21'-11"	
m <sub>3</sub> (E)	6	#6	29'-2"	
m <sub>4</sub> (E)	4	#6	21'-11"	
m <sub>5</sub> (E)	4	#6	29'-2"	
m <sub>6</sub> (E)	4	#6	2'-0"	
m <sub>7</sub> (E)	12	#6	4'-11"	
s(E)	84	#5	6'-3"	
s <sub>1</sub> (E)	84	#4	12'-1"	
u(E)	16	#4	2'-10"	
v(E)	92	#5	6'-4"	
Floor Drains			Each	10
Concrete Superstructure			Cu. Yds.	172.5
Bridge Deck Grooving			Sq. Yds.	407
Protective Coat			Sq. Yds.	497
Reinforcement Bars, Epoxy Coated			Pound	29,230
Bar Splicers			Each	363

**NOTES:**  
 Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 1 x 3-#8 etc. indicates 1 line of bars with 3 lengths per line.

Reinforcement bars shall be according to the requirements of AASHTO M 31 (M 31M) or M 322 (M 322M), Grade 60 (400) for deformed bars.

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004SuperstructureDetail.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED M.C.W.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

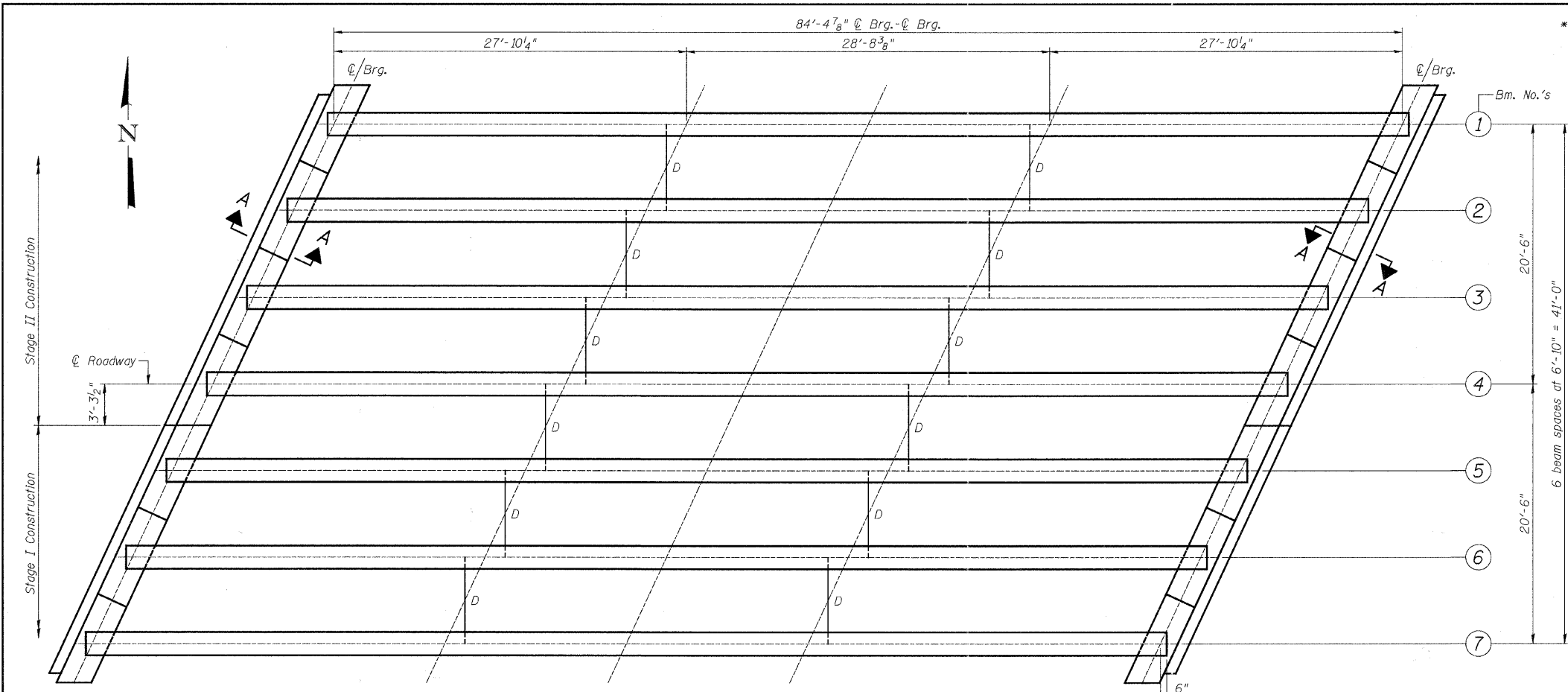
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**SUPERSTRUCTURE DETAILS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 9 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	22
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



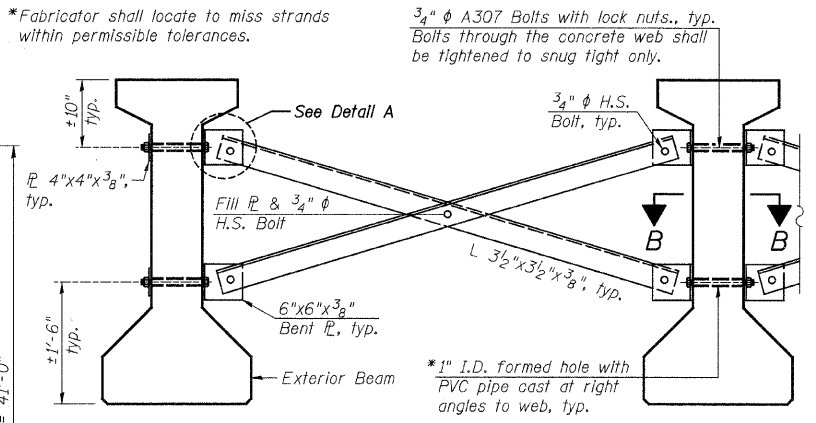
**BEAM MOMENT TABLE**

	Interior	0.5 Span
J	(in <sup>4</sup> )	144,118
J'	(in <sup>4</sup> )	404,013
S <sub>b</sub>	(in <sup>3</sup> )	6,834
S <sub>b</sub> '	(in <sup>3</sup> )	11,463
S <sub>t</sub>	(in <sup>3</sup> )	5,355
S <sub>t</sub> '	(in <sup>3</sup> )	31,677
DC1	(k/')	1.283
M <sub>DC1</sub>	(k')	1.143
DC2	(k/')	0.129
M <sub>DC2</sub>	(k')	115
DW	(k/')	0.342
M <sub>DW</sub>	(k')	305
M <sub>k + JM</sub>	(k')	1,377.3

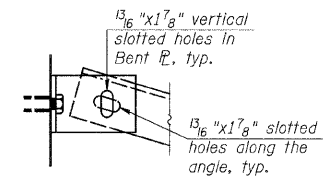
**BEAM REACTION TABLE**

	Interior	at Abutment
R <sub>DC1</sub>	(k)	54.1
R <sub>DC2</sub>	(k)	5.4
R <sub>DW</sub>	(k)	14.4
R <sub>k + JM</sub>	(k)	82
R <sub>Total</sub>	(k)	155.9

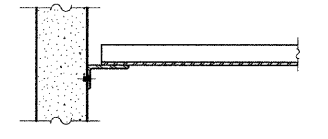
**FRAMING PLAN**



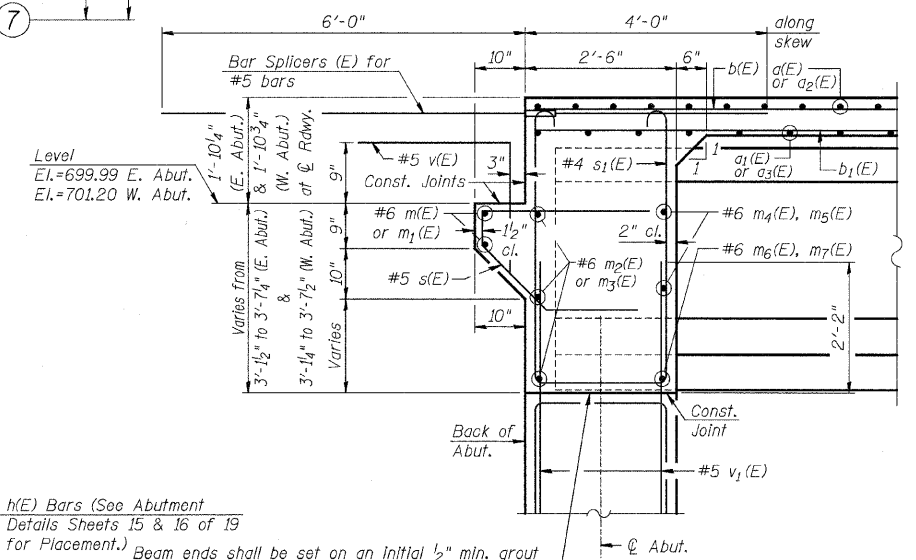
**PERMANENT BRACING DETAILS**



**DETAIL A**

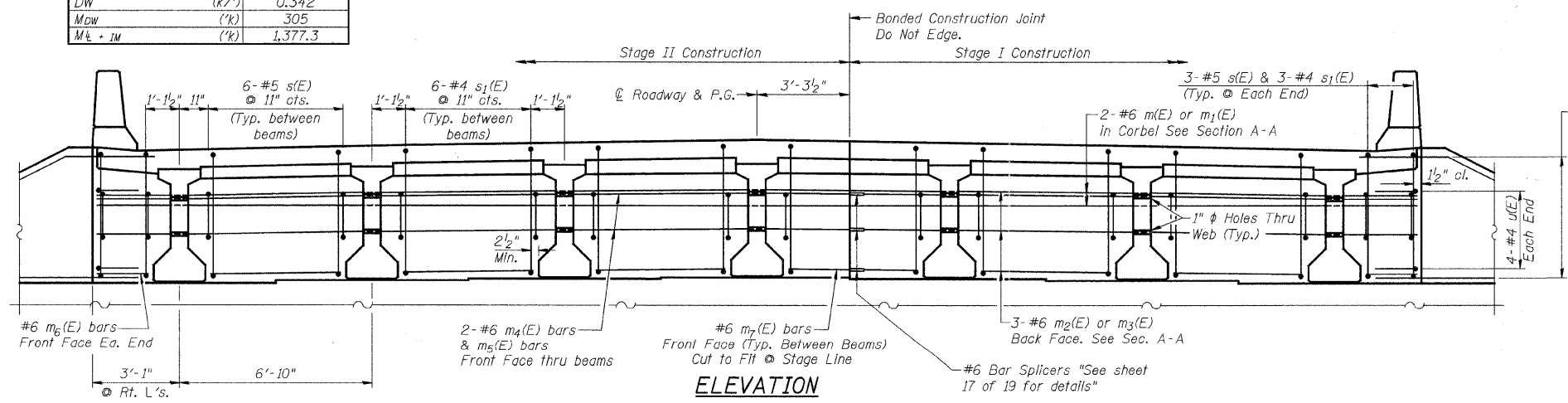


**SECTION B-B**



**SECTION A-A**

**NOTE:**  
 s(E) & s<sub>1</sub>(E) bars are to be placed parallel to the beams. All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted. Two hardened washers are required for each set of oversized holes. All holes shall be 5/16" φ unless otherwise noted. 3/16" x 3" x 3" plate washers are required over all slotted holes. All bolts shall be galvanized according to AASHTO M232. Bracing shall be installed as beams are erected and tightened as soon as possible during erection. Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams. Bracing between beam lines 4 & 5 shall be completed after deck has been poured.



**ELEVATION DIAPHRAGM AT ABUTMENT**

(East Abutment Looking East)  
 (West Abutment Similar)

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004-Framing.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

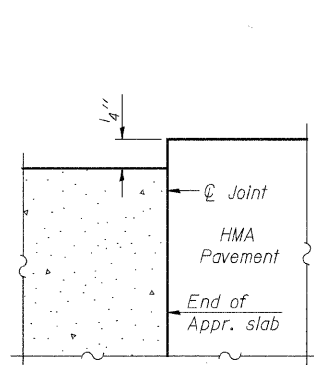
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0267  
 T: 815-284-3381 DESIGN FIRM: 815-600918

**WILL COUNTY**

**FRAMING PLAN AND DIAPHRAGM DETAILS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 10 OF 19 SHEETS**

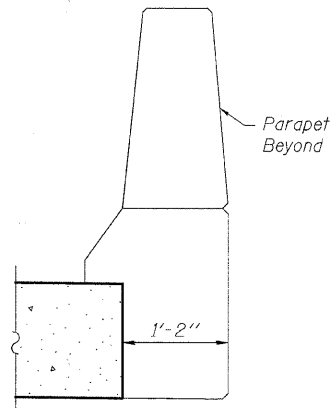
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	23
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

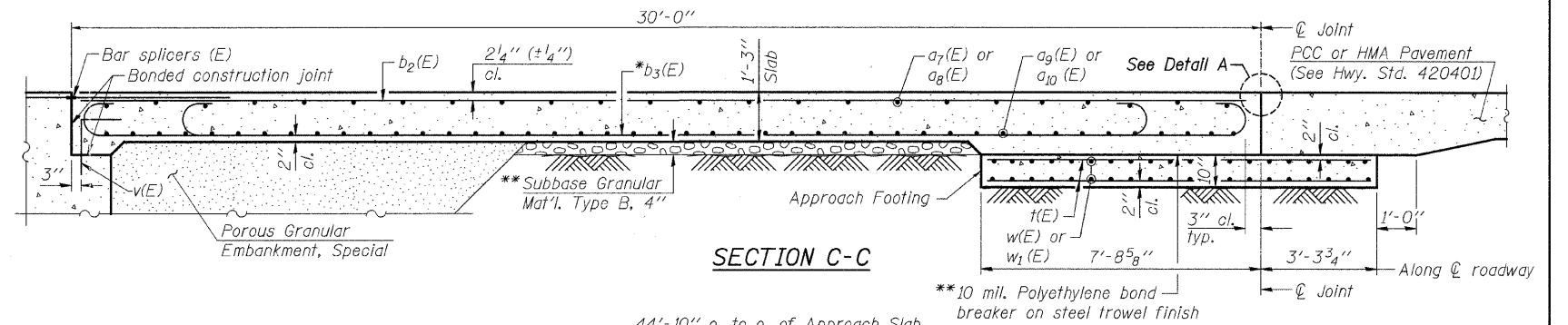


FLEXIBLE PAVEMENT

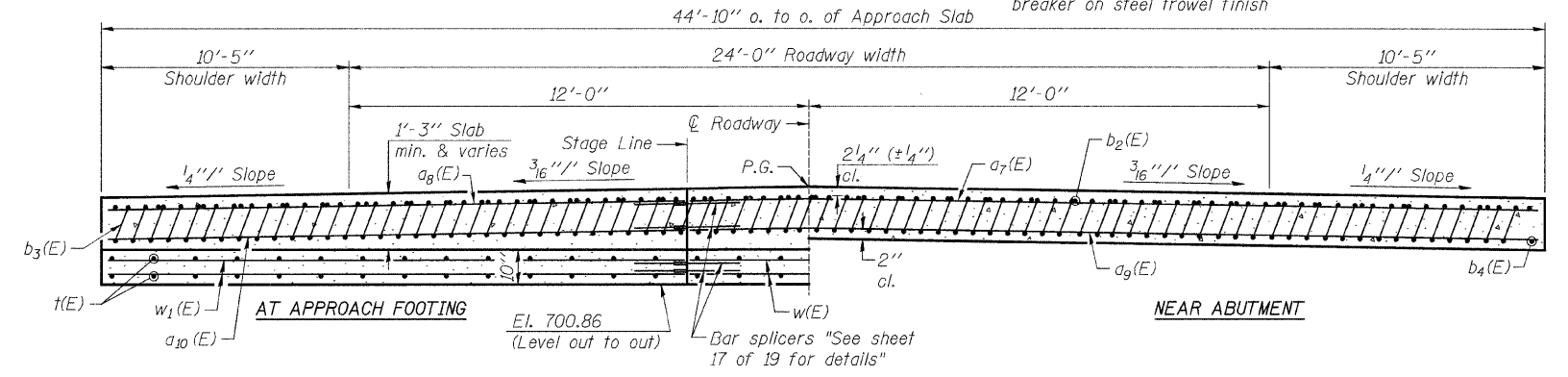
DETAIL A



VIEW B-B



SECTION C-C

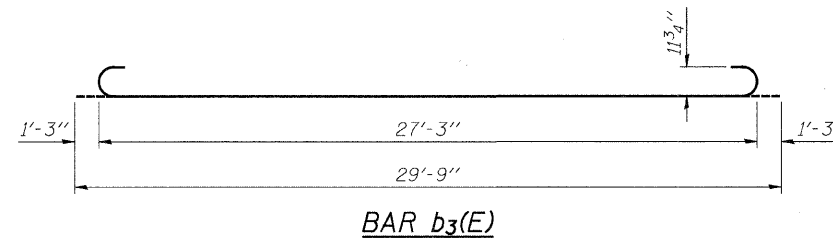


SECTION D-D

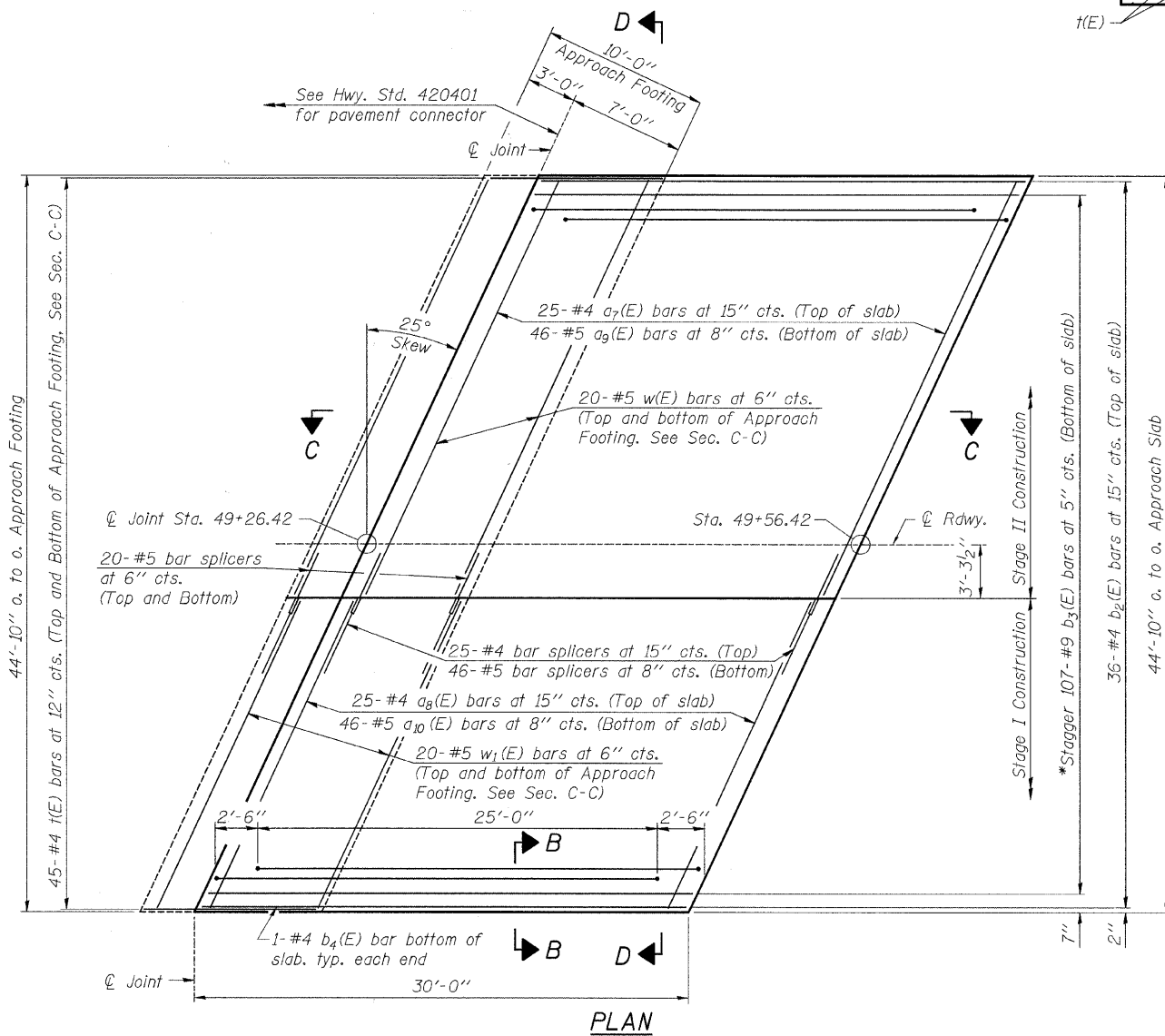
(See Plan for dimensions not shown.)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a7(E)	25	#4	28'-0"	—
a8(E)	25	#4	20'-8"	—
a9(E)	46	#5	28'-0"	—
a10(E)	46	#5	20'-8"	—
b2(E)	36	#4	29'-8"	—
b3(E)	107	#9	29'-9"	—
b4(E)	2	#4	29'-8"	—
t(E)	90	#4	10'-9"	—
w(E)	40	#5	28'-0"	—
w1(E)	40	#5	20'-8"	—
Concrete Structures			Cu. Yd.	15.3
Concrete Superstructure			Cu. Yd.	69.2
Bridge Deck Grooving			Sq. Yd.	143
Protective Coat			Sq. Yd.	150
Reinforcement Bars, Epoxy Coated			Pound	17,400
Bar Splicers			Each	111



BAR b3(E)



PLAN

**NOTES:**

- a7(E) through a10(E) bar spacings measured along  $\text{C.Rdwy.}$
- Approach slab shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For v(E) bar details, see Structural Sheet 9 of 19.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- For Bar Splicer Assembly Details, see Structural Sheet 17 of 19.
- Cost of excavation for approach footing included with Concrete Structures.
- For Porous Granular Embankment, Special and drainage treatment details, see Structural Sheet 4 of 19.
- For additional parapet details, see Structural Sheet 9 of 19.
- \* Tilt #9 b4(E) bars as required to maintain clearance.
- \*\* Cost included with Concrete Superstructure.

FILE = S:\Struct\1023004-Indiana Avenue\Design\Structural Drawings\1023004WestApproachSlabDetails.dgn

REVISION	DATE	BY	REMARKS

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK

WILLET HOFMANN ASSOCIATES INC  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0567  
 T: 815-284-3351 DESIGN FIRM: #154-000918

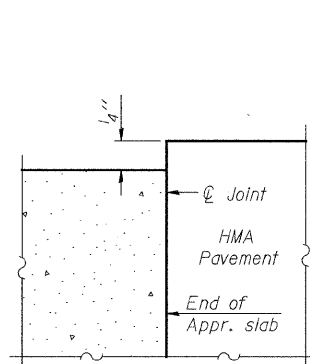
WILL COUNTY

WEST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 11 OF 19 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	24
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

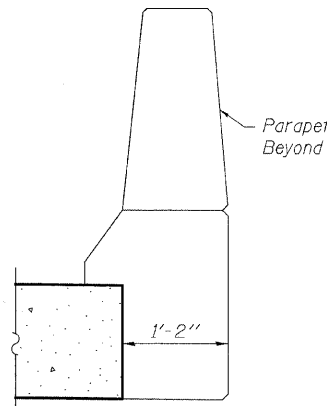
CONTRACT NO. 63617



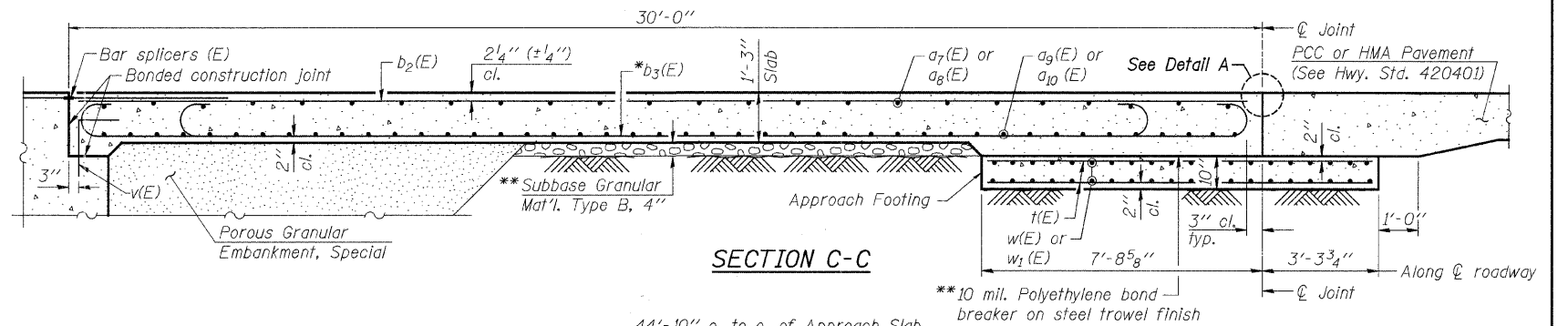


FLEXIBLE PAVEMENT

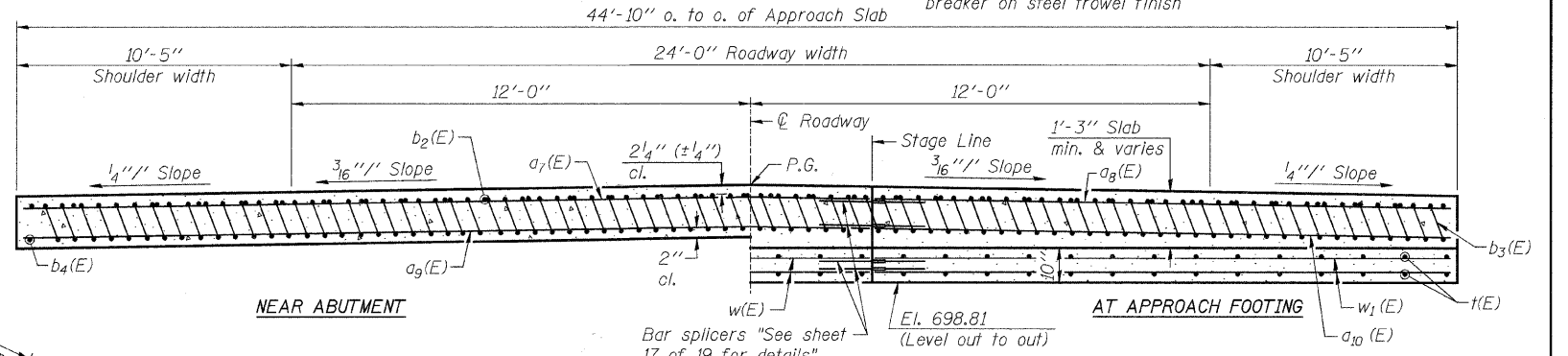
DETAIL A



VIEW B-B



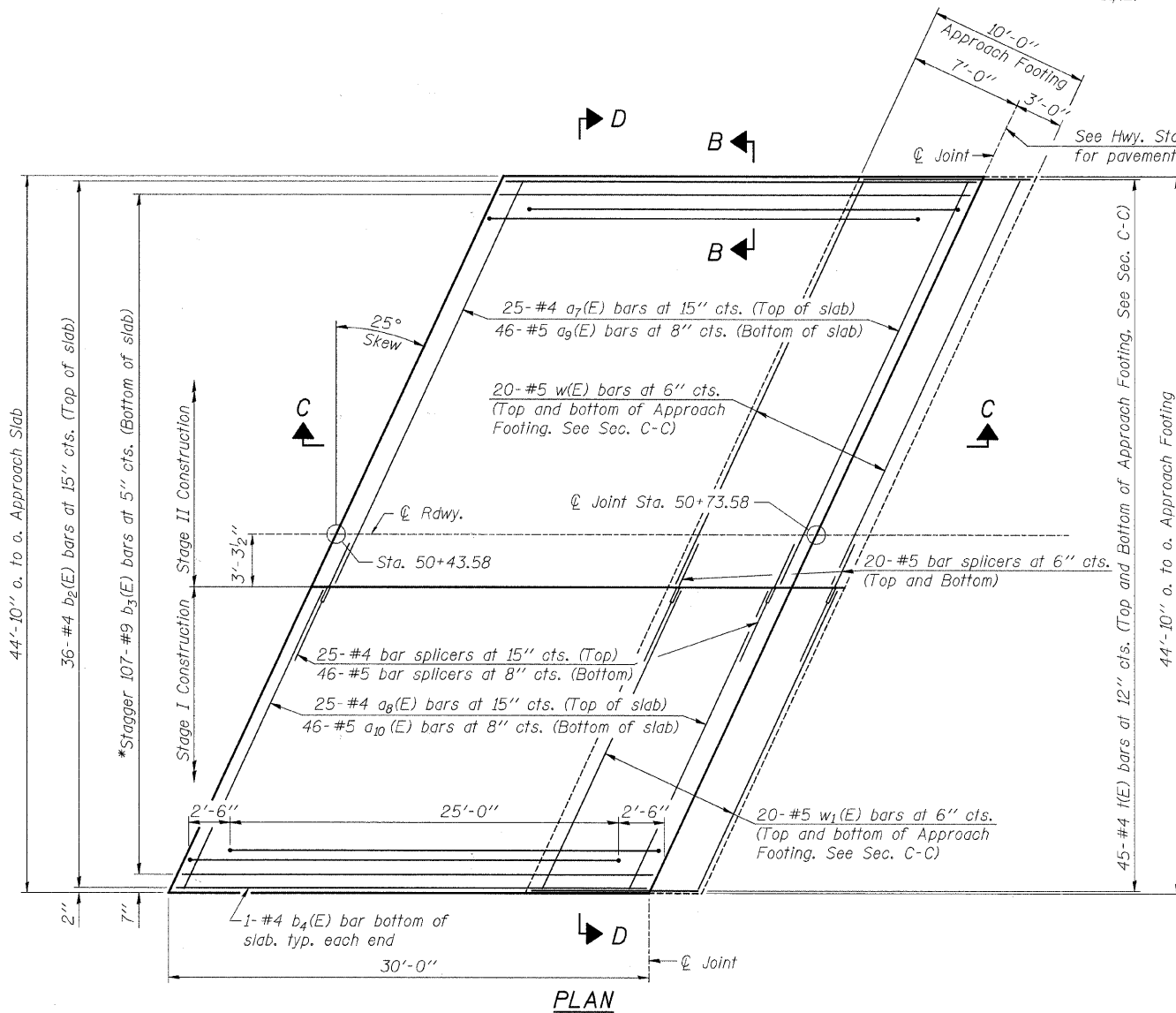
SECTION C-C



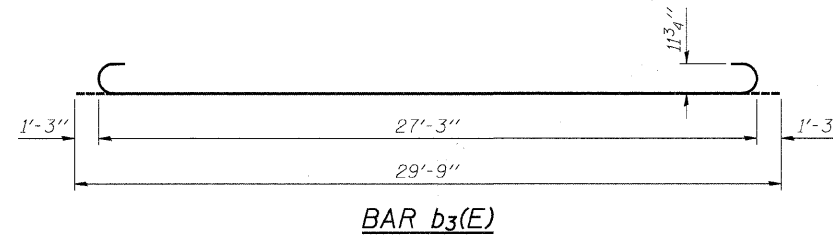
NEAR ABUTMENT

SECTION D-D

(See Plan for dimensions not shown.)



PLAN



BAR b3(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	25	#4	28'-0"	—
a8(E)	25	#4	20'-8"	—
a9(E)	46	#5	28'-0"	—
a10(E)	46	#5	20'-8"	—
b2(E)	36	#4	29'-8"	—
b3(E)	107	#9	29'-9"	—
b4(E)	2	#4	29'-8"	—
t(E)	90	#4	10'-9"	—
w(E)	40	#5	28'-0"	—
w1(E)	40	#5	20'-8"	—
Concrete Structures		Cu. Yd.	15.3	
Concrete Superstructure		Cu. Yd.	68.2	
Bridge Deck Grooving		Sq. Yd.	143	
Protective Coat		Sq. Yd.	150	
Reinforcement Bars, Epoxy Coated		Pound	17,400	
Bar Splicers		Each	111	

NOTES:

- a7(E) through a10(E) bar spacings measured along  $\phi$  Rdwy.
- Approach slab shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For v(E) bar details, see Structural Sheet 9 of 19.
- The approach footing maximum applied service bearing pressure (Gmax) = 2.0 ksf.
- For Bar Splicer Assembly Details, see Structural Sheet 17 of 19.
- Cost of excavation for approach footing included with Concrete Structures.
- For Porous Granular Embankment, Special and drainage treatment details, see Structural Sheet 4 of 19.
- For additional parapet details, see Structural Sheet 9 of 19.
- \*Tilt #9 b4(E) bars as required to maintain clearance.
- \*\*Cost included with Concrete Superstructure.

FILE = S:\Struct\0933004-Indiana Avenue\Design\Structural Drawings\0933004EastApproachSlabDetails.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED M.C.W.  
 APPROVED B.K.C.  
**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

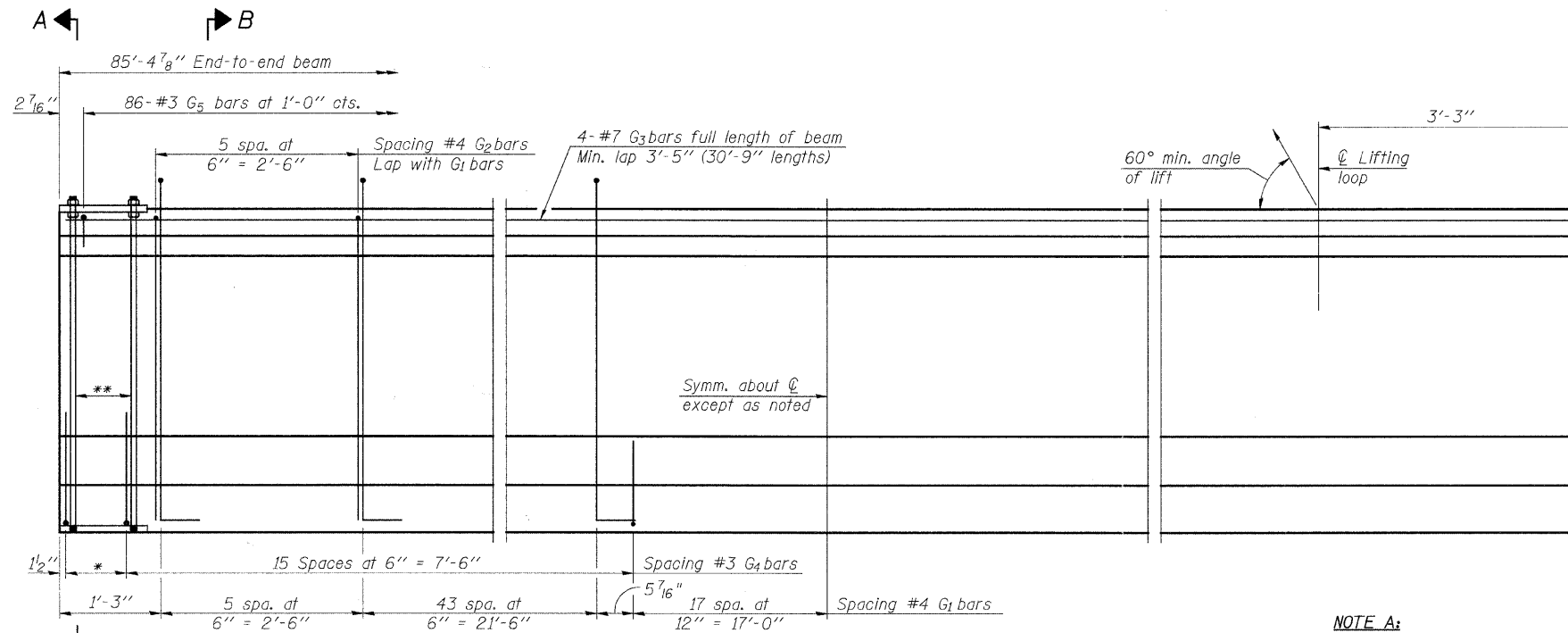
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 309 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-00918

WILL COUNTY

**EAST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 12 OF 19 SHEETS**

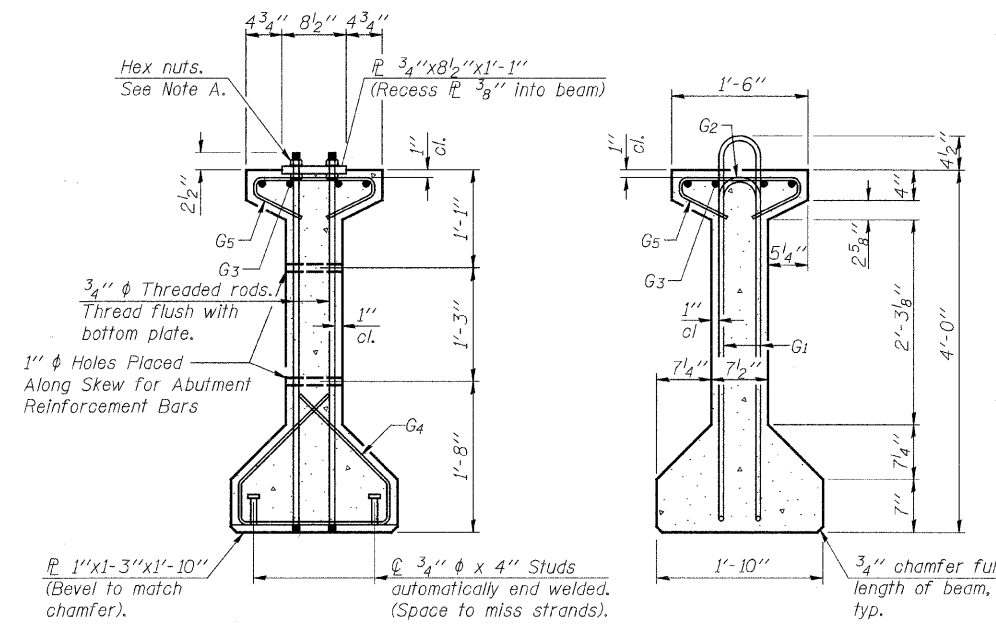
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	25
STA. 47+00	STA. 53+50		
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

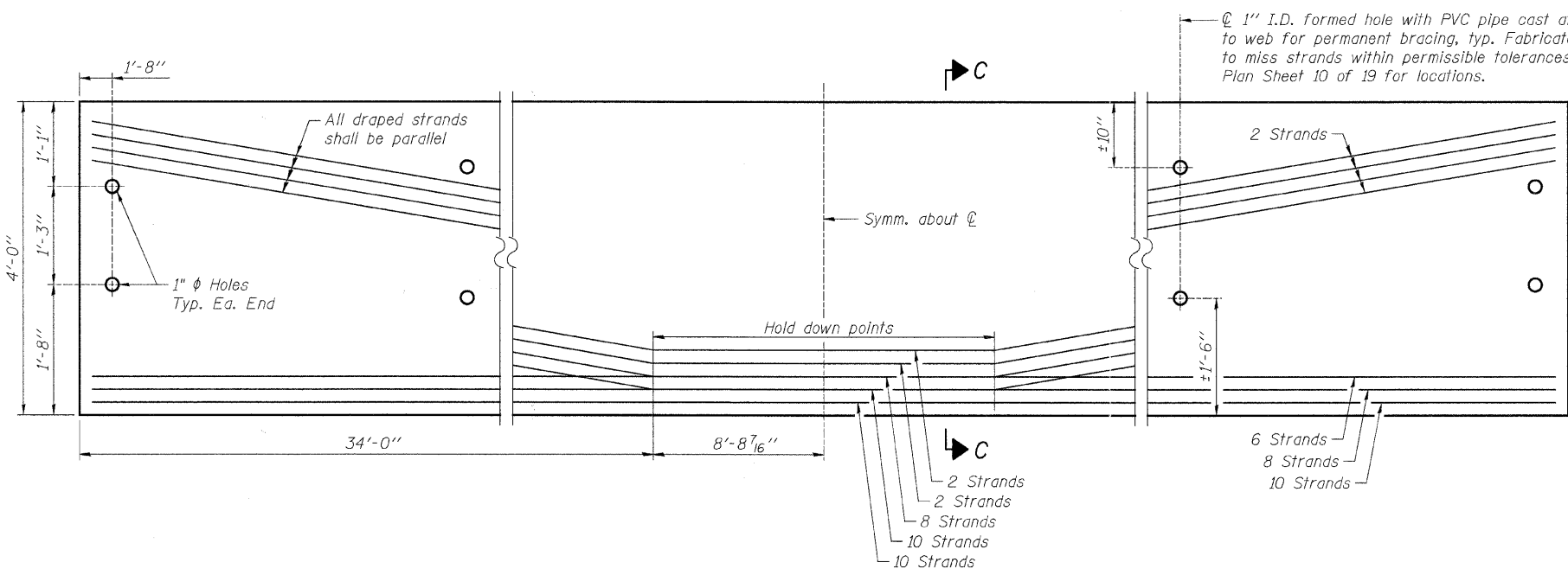
\* 3 spaces at 3" = 9".  
\*\* 4-3/4" φ threaded dowel rods at 3" cts., Each Face.



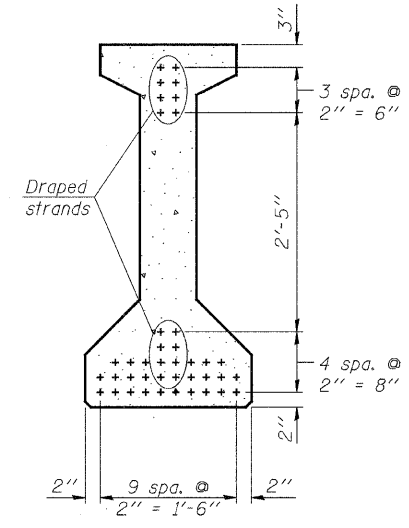
**SECTION A-A**

**SECTION B-B**

**NOTE A:**  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



**ELEVATION OF BEAM**  
(Showing prestressing steel)



**SECTION C-C**

**\*\*\*BAR LIST  
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G <sub>1</sub>	133	#4	9'-6"	∩L
G <sub>2</sub>	12	#4	7'-11"	∩
G <sub>3</sub>	12	#7	30'-9"	—
G <sub>4</sub>	38	#3	5'-3"	∩
G <sub>5</sub>	86	#3	2'-9"	∩

\*\*\*For information only

**NOTES:**  
See sheet 14 of 19 for additional details and Bill of Material.

Required release strength, f'ci, shall be 6,000 psi.

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004\Beam.dgn

**NOTES:**

Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

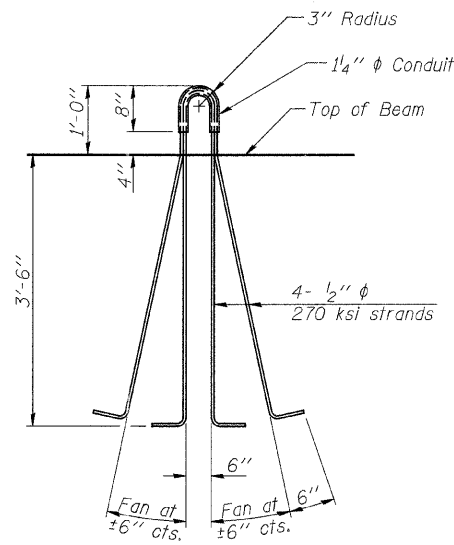
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling.

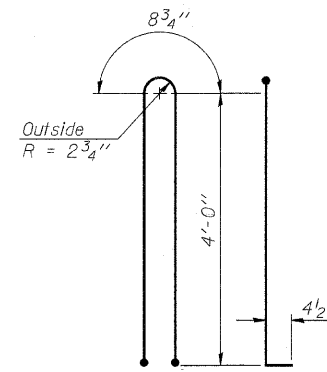
The top and bottom plates shall be AASHTO M270 Grade 50.

The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.

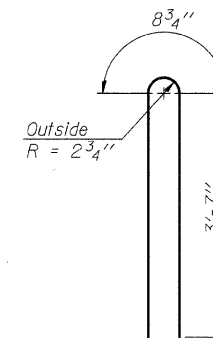
Threaded rods shall be ASTM F 1554 Grade 55.



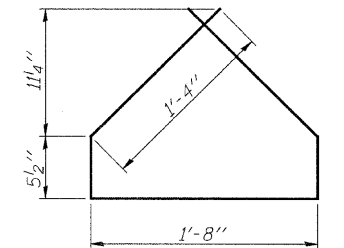
**LIFTING LOOP DETAIL**



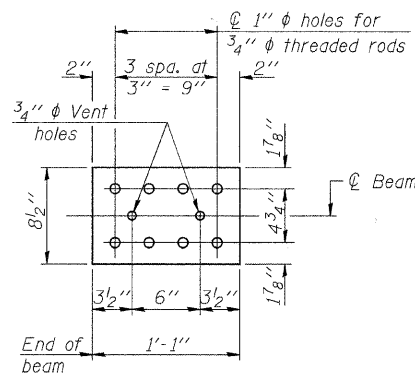
**BAR G1**



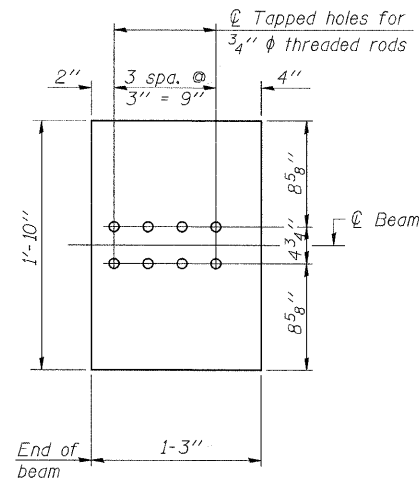
**BAR G2**



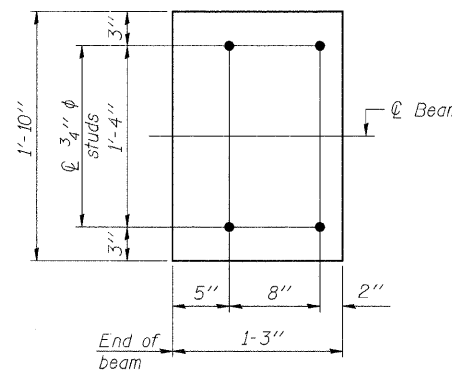
**BAR G4**



**TOP PLATE**



**BOTTOM PLATE**  
(Showing threaded rods)



**BOTTOM PLATE**  
(Showing studs)

**NOTE:**  
See bearing details for pintle hole locations when required.

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 48"	Foot	602

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004Beam.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
CHECKED M.C.W.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN  
ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

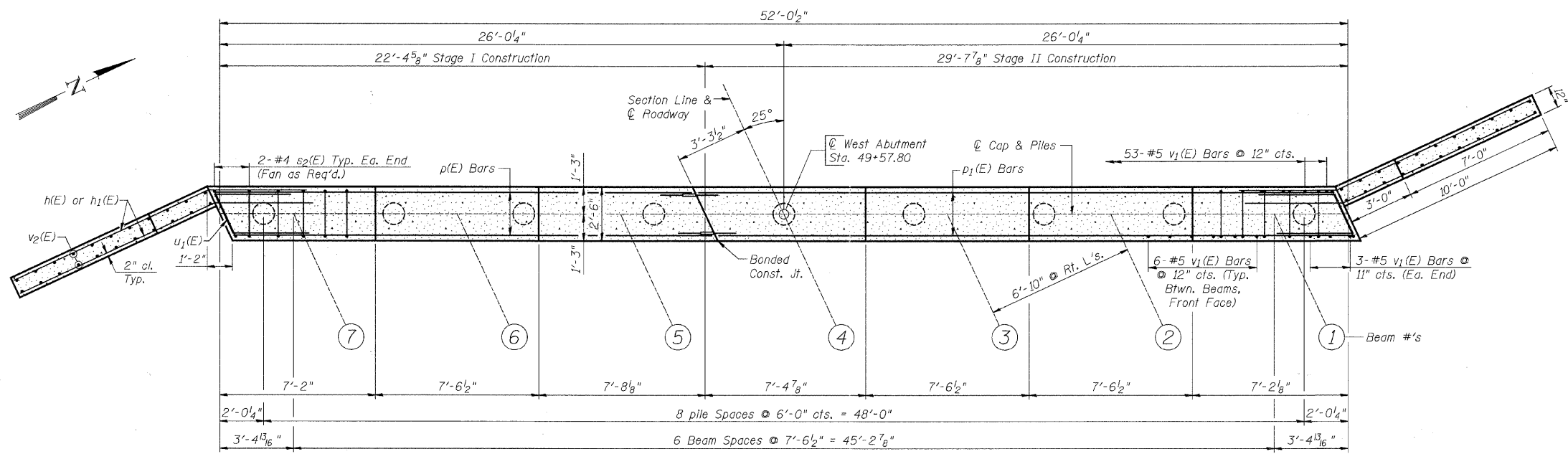
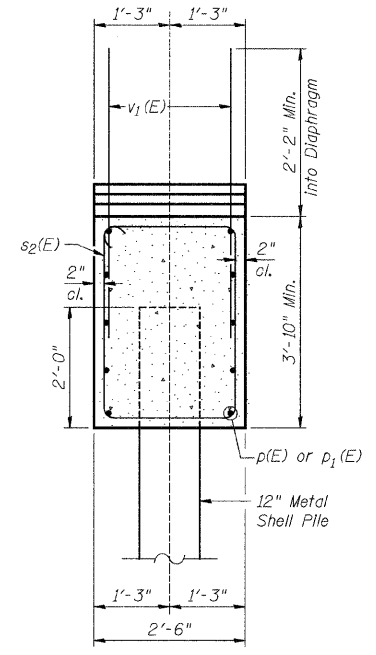
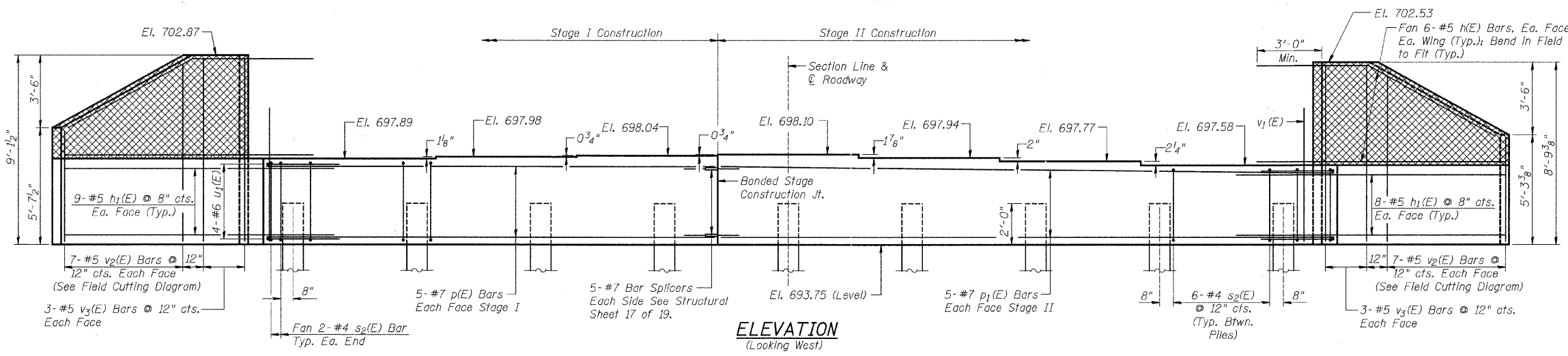
**WILL COUNTY**

**48" PPC I-BEAM DETAILS  
STRUCTURE NO. 099-3378**

**STRUCTURAL SHEET NO. 14 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	27
STA. 47+00 - STA. 53+50			
WHA #: 1033004	DATE: 6/9/2011		

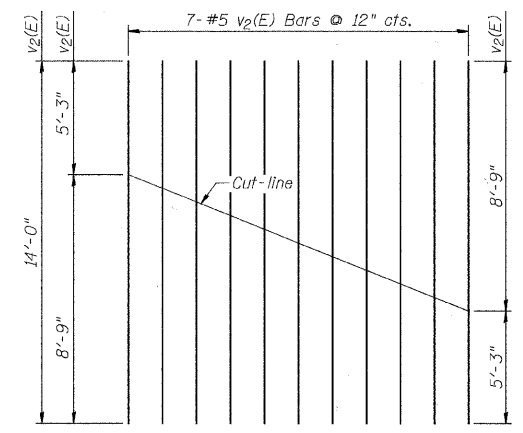
**CONTRACT NO. 63617**



SECTION THRU ABUT.  
(RT. L'S)

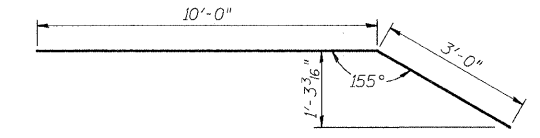
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	24	#5	13'-0"	—
h <sub>1</sub> (E)	34	#5	13'-0"	—
p(E)	10	#7	22'-0"	—
p <sub>1</sub> (E)	10	#7	29'-3"	—
s <sub>2</sub> (E)	52	#5	12'-1"	□
u <sub>1</sub> (E)	8	#6	9'-4"	—
v <sub>1</sub> (E)	95	#5	5'-0"	—
v <sub>2</sub> (E)	14	#5	14'-0"	—
v <sub>3</sub> (E)	12	#5	8'-9"	—
Structure Excavation			Cu. Yd.	104
Concrete Structures			Cu. Yd.	25.2
Reinforcement Bars (Epoxy Coated)			Pound	3,410
Bar Splicers			Each	10
Furnishing Metal Shell Piles 12"x0.250"			Foot	488
Driving Piles			Foot	488
Test Pile Metal Shells			Each	1
Geocomposite Wall Drain			Sq. Yd.	63
Concrete Headwalls for Pipe Drains			Each	2
Pipe Underdrains for Structures, 4"			Foot	94
Porous Granular Embankment, Special			Cu. Yd.	120

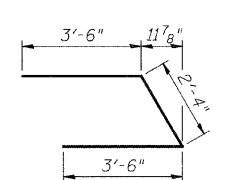


**FIELD CUTTING DIAGRAM v<sub>2</sub>(E) BARS**  
Order v<sub>2</sub>(E) bars full length. Cut as shown and use remainder of bars in opposite face

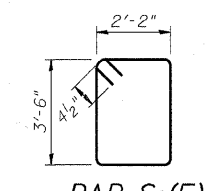
**PILE DATA**  
Type: Metal Shell 12" φ x 0.250"  
Nominal Required Bearing: 318 kips/pile  
Factored Resistance Available: 175 kips/pile  
Est. Length: 61'  
No. Production Piles: 8  
No. Test Piles: 1



**BAR h(E)**



**BAR u<sub>1</sub>(E)**



**BAR s<sub>2</sub>(E)**

**NOTES:**

- Hatched area of wings to be poured after beams are in place.
- Reinforcement bars designated (E) shall be epoxy coated.
- Reinforcement bars shall be according to the requirements of AASHTO M 31 (M 31M) or M 322 (M 322M), Grade 60 (400) for deformed bars.
- All exposed edges shall have standard 3/4" chamfers except as noted.
- Pour steps monolithically with cap.
- Fan s<sub>2</sub>(E) bars as required at Stage Line.

FILE = S:\Struct\10330044-Indiana Avenue\Design\Structural Drawings\10330044\WAbut.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

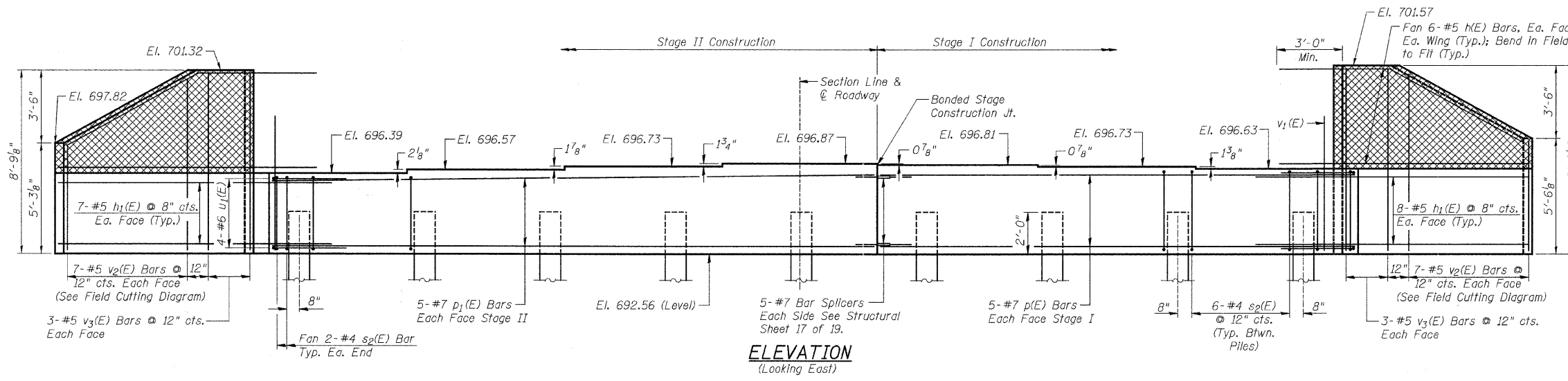
**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-294-3381 DESIGN PRAC: #154-000918

**WILL COUNTY**

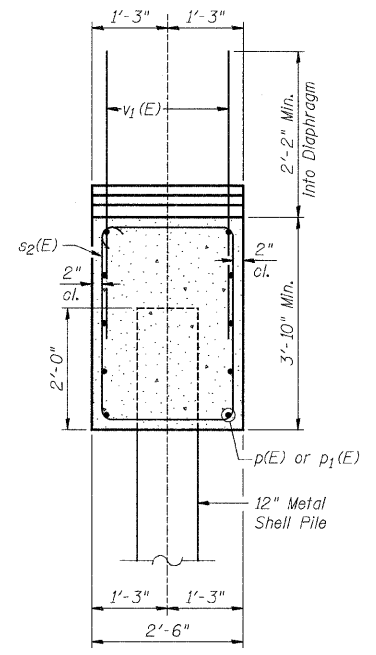
**WEST ABUTMENT DETAILS  
STRUCTURE NO. 099-3378  
STRUCTURAL SHEET NO. 15 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	28
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

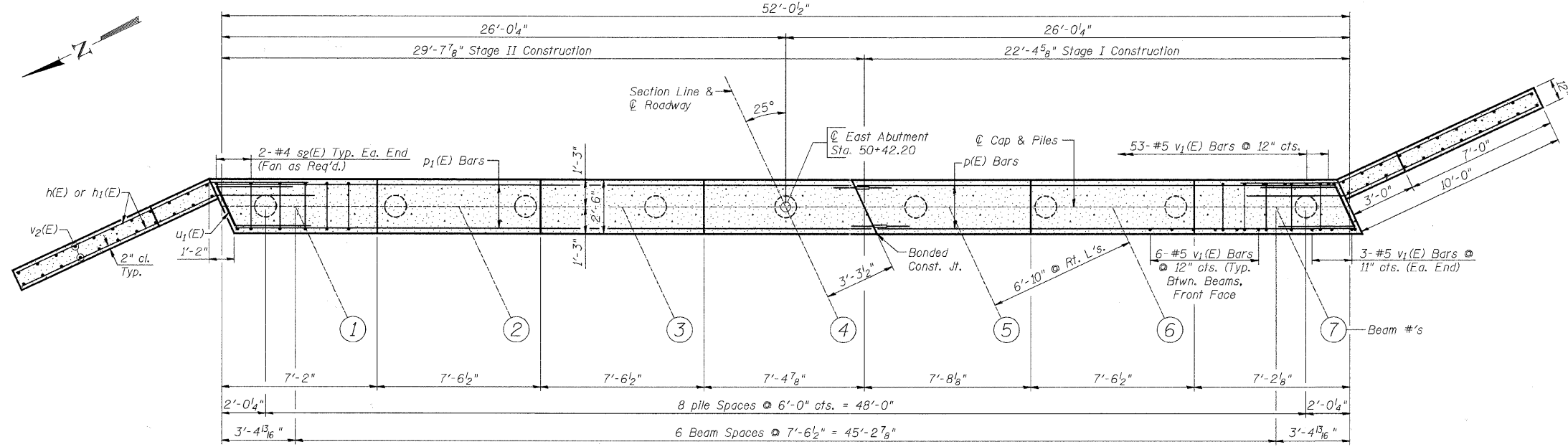
CONTRACT NO. 63617



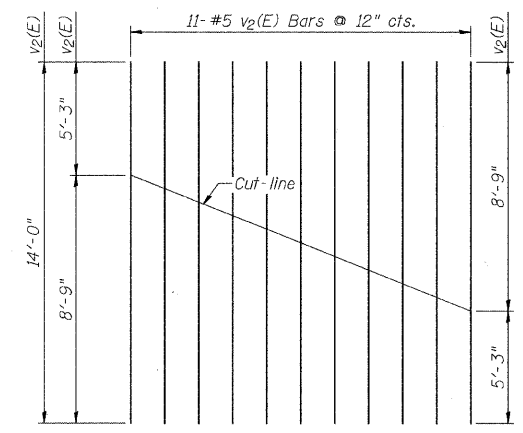
**ELEVATION**  
(Looking East)



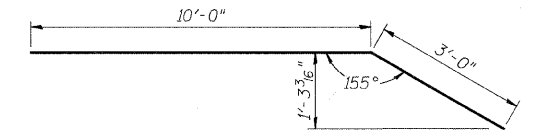
**SECTION THRU ABUT.**  
(@ RT. L's)



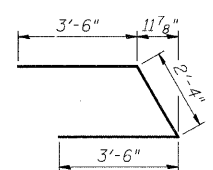
**PLAN**



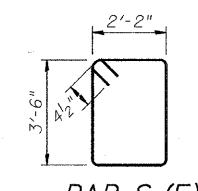
**FIELD CUTTING DIAGRAM v2(E) BARS**  
Order v2(E) bars full length. Cut as shown and use remainder of bars in opposite face



**BAR h(E)**



**BAR u1(E)**



**BAR s2(E)**

**PILE DATA**

Type: Metal Shell 12" φ x 0.250"  
Nominal Required Bearing: 318 kips/pile  
Factored Resistance Available: 175 kips/pile  
Est. Length: 58'  
No. Production Piles: 8  
No. Test Piles: 1

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	24	#5	13'-0"	—
h1(E)	30	#5	13'-0"	—
p(E)	10	#7	22'-0"	—
p1(E)	10	#7	29'-3"	—
s2(E)	52	#5	12'-1"	□
u1(E)	8	#6	9'-4"	∟
v1(E)	95	#5	5'-0"	—
v2(E)	14	#5	14'-0"	—
v3(E)	12	#5	8'-9"	—
Structure Excavation			Cu. Yd.	104
Concrete Structures			Cu. Yd.	25
Reinforcement Bars (Epoxy Coated)			Pound	3,360
Bar Splitters			Each	10
Furnishing Metal Shell Piles 12"x0.250"			Foot	464
Driving Piles			Foot	464
Test Pile Metal Shells			Each	1
Geocomposite Wall Drain			Sq. Yd.	63
Concrete Headwalls for Pipe Drains			Each	2
Pipe Underdrains for Structures, 4"			Foot	94
Porous Granular Embankment, Special			Cu. Yd.	115

**NOTES:**

- Hatched area of wings to be poured after beams are in place.
- Reinforcement bars designated (E) shall be epoxy coated.
- Reinforcement bars shall be according to the requirements of AASHTO M 31 (M 31M) or M 322 (M 322M), Grade 60 (400) for deformed bars.
- All exposed edges shall have standard 3/4" chamfers except as noted.
- Pour steps monolithically with cap.
- Fan s2(E) bars as required at Stage Line.

FILE = S:\Structure\Indiana Avenue\Design\Structural Drawings\1033004\Abut.edgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

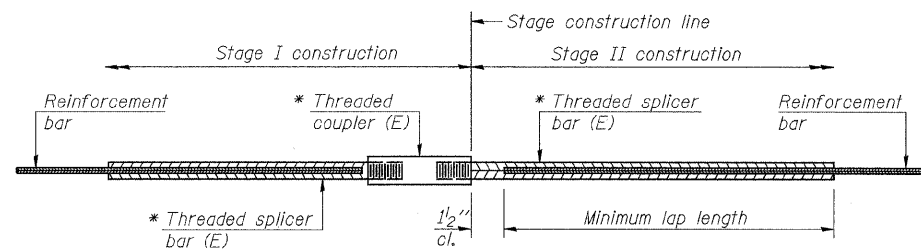
**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0387  
T: 815-284-3581 DESIGN FIRM: #184-000918

**WILL COUNTY**

**EAST ABUTMENT DETAILS**  
**STRUCTURE NO. 099-3378**  
**STRUCTURAL SHEET NO. 16 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	29
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



**STANDARD BAR SPLICER ASSEMBLY**

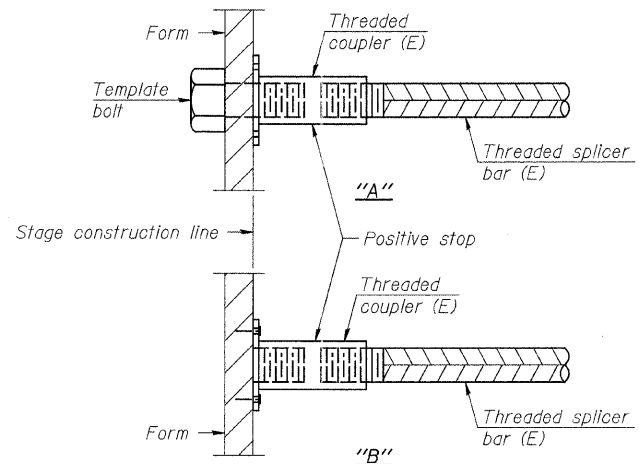
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

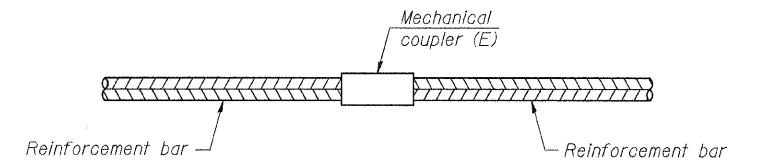
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	256	Table 3
Deck	#6	4	Table 3
East Abutment	#7	10	Table 3
West Abutment	#7	10	Table 3
Diaphragms	#6	15	Table 3
West Approach Slab	#4	25	Table 3
West Approach Slab	#5	86	Table 3
East Approach Slab	#4	25	Table 3
East Approach Slab	#5	86	Table 3



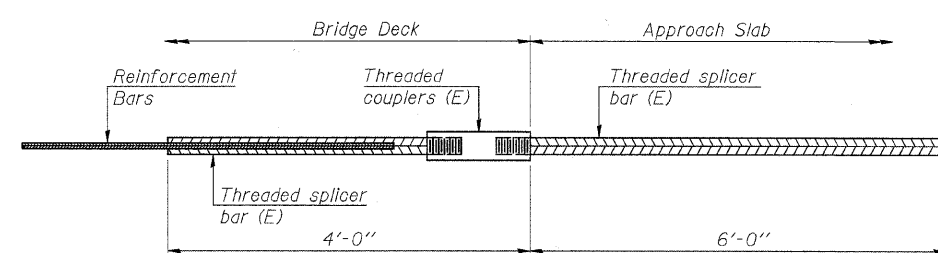
**INSTALLATION AND SETTING METHODS**

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



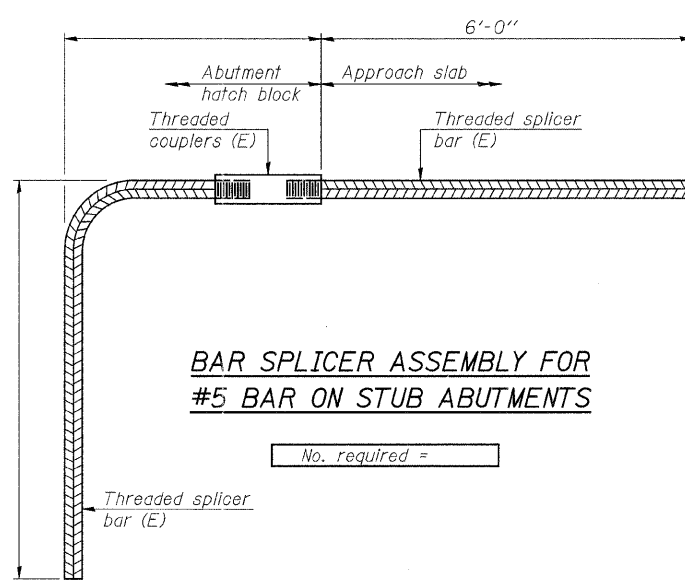
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = 88



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES:**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE = S:\S-Struct\1033004-Indiana Avenue\Design\Structural\Drawings\1033004\Splicer.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED M.C.W.  
 APPROVED B.K.C.  
**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

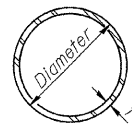
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-254-3381 DESIGN FIRM: #184-060918

**WILL COUNTY**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 17 OF 19 SHEETS**

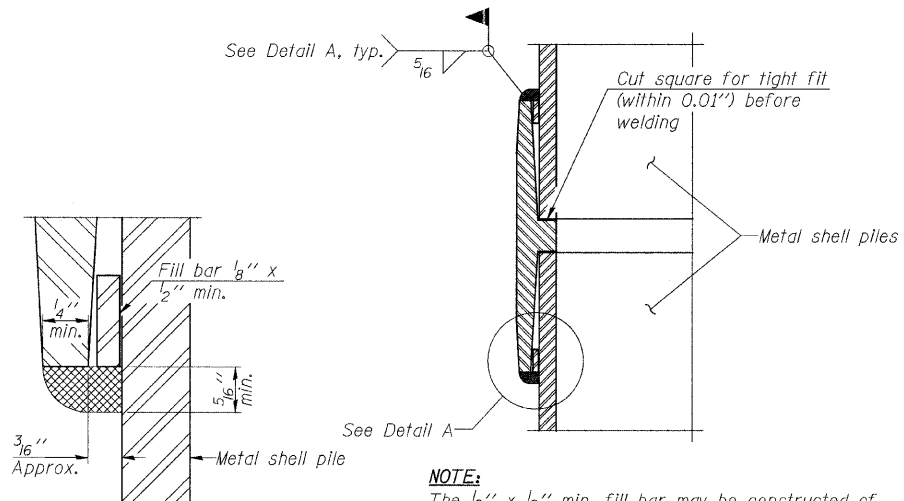
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	30
STA. 47+00 - STA. 53+50			
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



**METAL SHELL PILE TABLE**

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



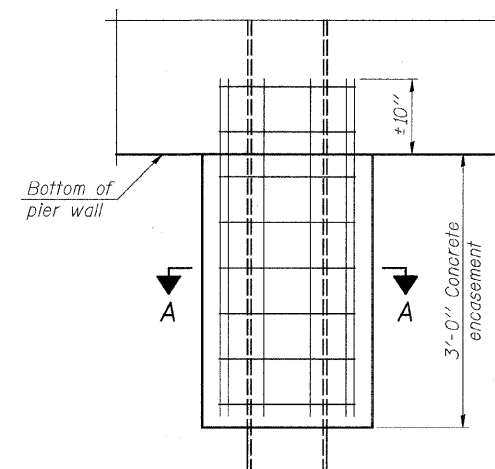
**DETAIL A**

**NOTE:**

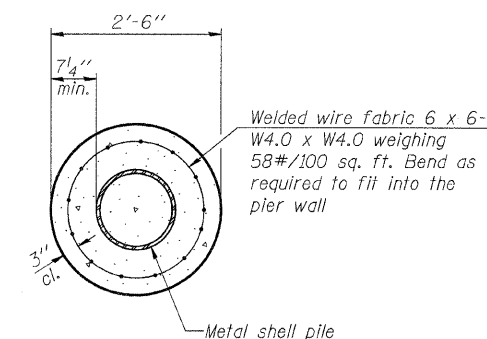
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.

Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



**ELEVATION**

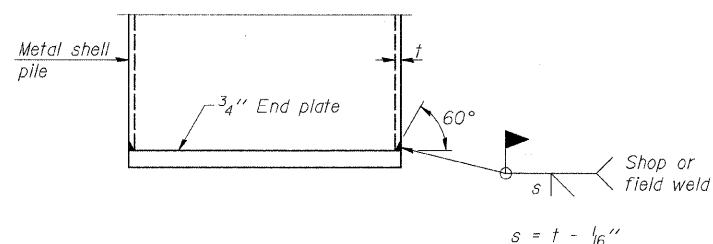


**SECTION A-A**

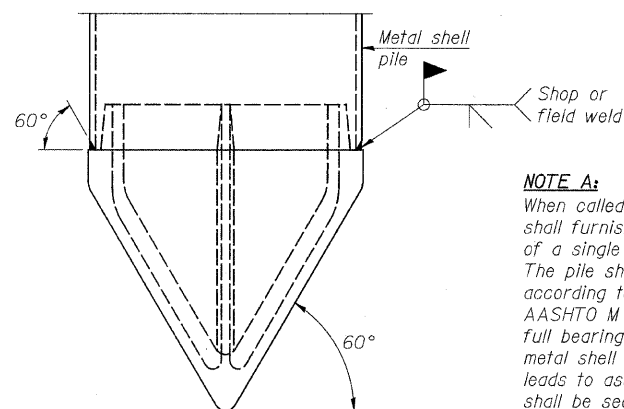
**NOTE:**

Forms for encasement may be omitted when soil conditions permit.

**CONCRETE ENCASEMENT AT PIERS**



**END PLATE ATTACHMENT**

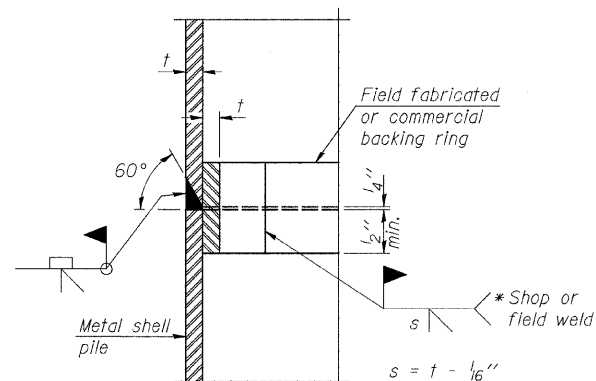


**METAL SHELL PILE SHOE ATTACHMENT**

(See Note A)

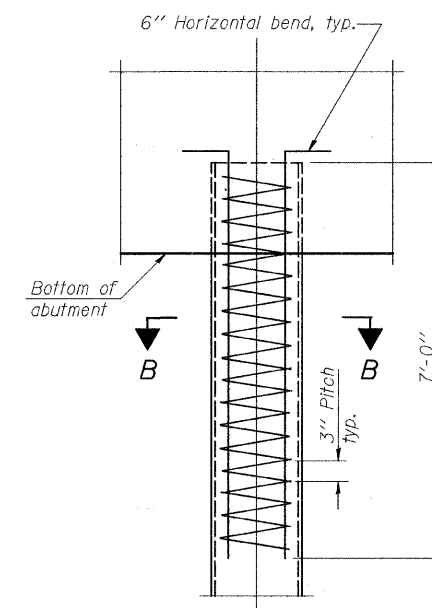
**NOTE A:**

When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

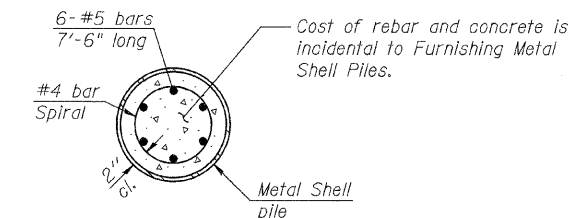


**COMPLETE PENETRATION WELD SPLICE**

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



**ELEVATION**



**SECTION B-B**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**

**NOTE:**

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

FILE = S:\Struct\1033004-Indiana Avenue\Design\Structural Drawings\1033004\PP11.dwg

REVISION	DATE	BY	REMARKS

DRAWN	R.D.A.
CHECKED	M.C.W.
APPROVED	B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
BRIDGE REPLACEMENT  
INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN  
ASSOCIATES INC**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0987  
T: 315-294-3391 DESIGN FIRM: #194-00018

**WILL COUNTY**

**METAL SHELL PILE DETAILS  
STRUCTURE NO. 099-3378**

**STRUCTURAL SHEET NO. 18 OF 19 SHEETS**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	31
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

**CONTRACT NO. 63617**

testing engineers, inc. 1417 CHICAGO AVE., P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE 815/288-1488  
 2447 N. CENTRAL AVENUE ROCKFORD, ILLINOIS 61101 PHONE 815/964-8030

LOG OF BORING NO. B1

PROJECT: PROPOSED BRIDGE, SECTION 01-00042-07-BR, WASHINGTON R.D. JOB NO. 4593.03  
 OWNER: WILL COUNTY HIGHWAY DEPARTMENT ORDER NO. \_\_\_\_\_  
 ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.  
 LOCATION: SW 1/4 OF SEC. 15, T33N, R14E OF THE 3RD P.M.; WILL COUNTY, ILLINOIS  
 BORING 6' LEFT OF STATION 50+37

DATUM: B.M. = CENTERLINE OF INDIANA AVENUE AT STATION 50+00, ESTIMATED ELEVATION = 702.4

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	TESTS	N	Q <sub>u</sub>	w%
701.7	BITUMINOUS SURFACE = 7.0"	0.0						
701.1		0.6	1	SS		11		
	FILL - Medium dense to very loose gray CRUSHED STONE	5	2	SS		6		
		10	3	SS		3		
		15	4	SS		3		
		20	5	SS		2		
688.7	Stiff yellowish gray SILTY CLAY, trace sand	13.0	6	SS		4	1.09	24.0
683.7	Very soft gray SILTY CLAY	18.0	7	SS		2	0.16	48.7
679.7		22.0	8	SS		10	2.52	18.6
		30	9	SS		12	2.52	17.1
		35	10	SS		14	2.91	17.7
663.7	Loose gray SAND, trace gravel	38.0						
662.5	Stiff gray SILTY CLAY, trace sand, trace gravel	39.2	11	SS		6	1.55	21.8
		40						

Drilled By GROFF Checked JAC  
 Inspector \_\_\_\_\_  
 Boring Started 11/13/02  
 Boring Completed 11/13/02  
 Sheet 1 of 2 Sheets

WATER LEVELS  
 While Drilling -38.0' (663.7)  
 On Completion DCI -6.0'  
 After Hours BACKFILLED  
 After Hours

testing engineers, inc. 1417 CHICAGO AVE., P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE 815/288-1488  
 2447 N. CENTRAL AVENUE ROCKFORD, ILLINOIS 61101 PHONE 815/964-8030

LOG OF BORING NO. B1

PROJECT: PROPOSED BRIDGE, SECTION 01-00042-07-BR, WASHINGTON R.D. JOB NO. 4593.03  
 OWNER: WILL COUNTY HIGHWAY DEPARTMENT ORDER NO. \_\_\_\_\_  
 ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.  
 LOCATION: SW 1/4 OF SEC. 15, T33N, R14E OF THE 3RD P.M.; WILL COUNTY, ILLINOIS  
 BORING 6' LEFT OF STATION 50+37

DATUM: B.M. = CENTERLINE OF INDIANA AVENUE AT STATION 50+00, ESTIMATED ELEVATION = 702.4

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	TESTS	N	Q <sub>u</sub>	w%
	Continued from Sheet 1	40						
659.7	Stiff gray SILTY CLAY, trace sand, trace gravel	42.0						
	Medium dense gray fine to coarse SAND	45	12	SS		13		
662.7	Medium dense gray fine SAND, trace gravel	49.0	13	SS		25		
648.7	Medium dense gray SAND, trace to some fine gravel, trace silt, trace clay	53.0	14	SS		25		
642.7	Stiff gray SANDY CLAY, trace gravel	58.0	15	SS		18	1.40	13.7
640.7		60						
		65	16	SS		16	6.21	15.3
	Hard gray SILTY CLAY, trace sand, trace gravel	70	17	SS		36	4.48	14.6
		75.0	18	SS		29	6.01	14.8
626.7	END OF BORING							

Drilled By GROFF Checked JAC  
 Inspector \_\_\_\_\_  
 Boring Started 11/13/02  
 Boring Completed 11/13/02  
 Sheet 2 of 2 Sheets

WATER LEVELS  
 While Drilling -38.0' (663.7)  
 On Completion DCI -6.0'  
 After Hours BACKFILLED  
 After Hours

testing engineers, inc. 1417 CHICAGO AVE., P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE 815/288-1488  
 2447 N. CENTRAL AVENUE ROCKFORD, ILLINOIS 61101 PHONE 815/964-8030

LOG OF BORING NO. B2

PROJECT: PROPOSED BRIDGE, SECTION 01-00042-07-BR, WASHINGTON R.D. JOB NO. 4593.03  
 OWNER: WILL COUNTY HIGHWAY DEPARTMENT ORDER NO. \_\_\_\_\_  
 ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.  
 LOCATION: SW 1/4 OF SEC. 15, T33N, R14E OF THE 3RD P.M.; WILL COUNTY, ILLINOIS  
 BORING 7' RIGHT OF STATION 49+60

DATUM: B.M. = CENTERLINE OF INDIANA AVENUE AT STATION 50+00, ESTIMATED ELEVATION = 702.4

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	TESTS	N	Q <sub>u</sub>	w%
701.7	BITUMINOUS PAVEMENT = 7.0"	0.0						
701.1		0.8	1	SS		14		
	FILL - Medium dense to very loose gray CRUSHED STONE	5	2	SS		5		
		10	3	SS		3		
692.3	Medium gray to black SANDY CLAY	9.4	4	SS		4	0.8 P	15.4
690.7	Medium to stiff black SILTY CLAY, trace sand	11.0	5	SS		5	0.74	38.2
684.7	Medium yellowish brown CLAYEY SILT	17.0	6	SS		4	1.24	35.9
679.7	Stiff gray SILTY CLAY, trace sand, trace gravel	22.0	7	SS		2	0.78	57.2
674.7		27.0	8	SS		6	1.94	19.4
		30	9	SS		9	2.41	17.3
		35	10	SS		13	5.04	16.4
	Very stiff and hard brownish gray SILTY CLAY, trace sand, trace gravel, thin seam of wet sand at -39.8'	35						
		40	11	SS		16	2.72	17.3

Drilled By GROFF Checked JAC  
 Inspector \_\_\_\_\_  
 Boring Started 11/13/02  
 Boring Completed 11/13/02  
 Sheet 1 of 2 Sheets

WATER LEVELS  
 While Drilling -37.8' (663.9)  
 On Completion NONE  
 After Hours BACKFILLED  
 After Hours

testing engineers, inc. 1417 CHICAGO AVE., P.O. BOX 548 DIXON, ILLINOIS 61021 PHONE 815/288-1488  
 2447 N. CENTRAL AVENUE ROCKFORD, ILLINOIS 61101 PHONE 815/964-8030

LOG OF BORING NO. B2

PROJECT: PROPOSED BRIDGE, SECTION 01-00042-07-BR, WASHINGTON R.D. JOB NO. 4593.03  
 OWNER: WILL COUNTY HIGHWAY DEPARTMENT ORDER NO. \_\_\_\_\_  
 ARCHITECT-ENGINEER: WILLETT, HOFMANN & ASSOCIATES, INC.  
 LOCATION: SW 1/4 OF SEC. 15, T33N, R14E OF THE 3RD P.M.; WILL COUNTY, ILLINOIS  
 BORING 7' RIGHT OF STATION 49+60

DATUM: B.M. = CENTERLINE OF INDIANA AVENUE AT STATION 50+00, ESTIMATED ELEVATION = 702.4

ELEV.	SOIL DESCRIPTION	DEPTH	SAMPLE NO.	TYPE	TESTS	N	Q <sub>u</sub>	w%
	Continued from Sheet 1	40						
665.7	Very stiff and hard brownish gray SILTY CLAY, trace sand, trace gravel, thin seam of wet sand at -39.8'	46.0	12	SS		12	2.41	17.6
	Medium dense gray fine to coarse SAND	50	13	SS		27		
647.7	Medium dense gray SAND, some gravel, trace silt, trace clay	54.0	14	SS		13		
639.7		60	15	SS		14		
		65	16	SS		16	3.69	12.5
	Very stiff gray SILTY CLAY, trace to some sand, trace gravel	70	17	SS		15	2.13	13.5
629.7	Medium dense yellowish gray fine SAND, trace gravel	72.0	18	SS		24		
626.7	END OF BORING	75.0						

Drilled By GROFF Checked JAC  
 Inspector \_\_\_\_\_  
 Boring Started 11/13/02  
 Boring Completed 11/13/02  
 Sheet 2 of 2 Sheets

WATER LEVELS  
 While Drilling -37.8' (663.9)  
 On Completion NONE  
 After Hours BACKFILLED  
 After Hours

FILE = S:\Struct\09330094-Indiana Avenue\Design\Structural Drawings\09330094-Boring.dgn

REVISION	DATE	BY	REMARKS

DRAWN R.D.A.  
 CHECKED M.C.W.  
 APPROVED B.K.C.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK

WILLETT HOFMANN & ASSOCIATES, INC.  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T. 815-284-3381 DESIGN FIRM #184-000918

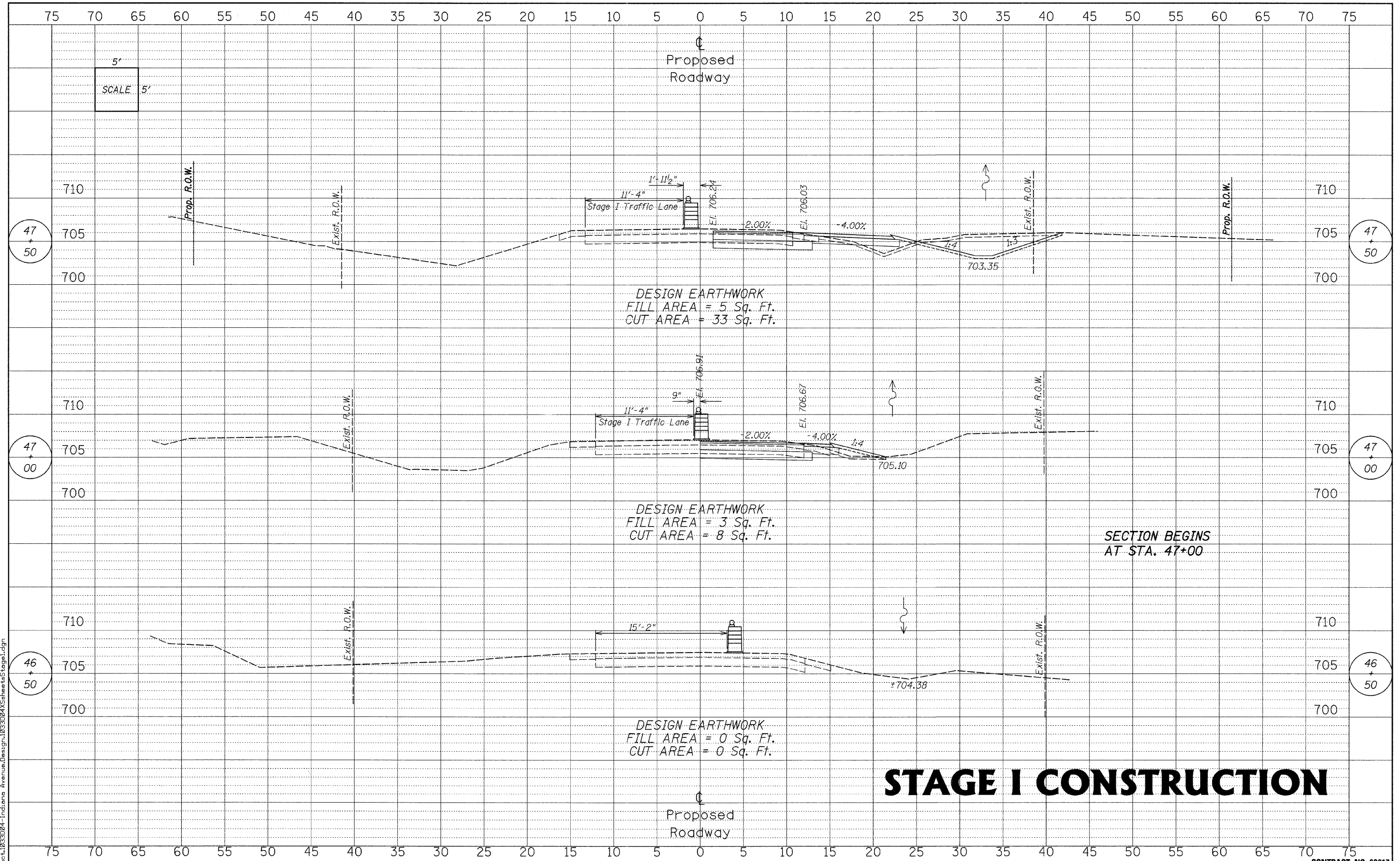
WILL COUNTY

BORING LOGS  
 STRUCTURE NO. 099-3378  
 STRUCTURAL SHEET NO. 19 OF 19 SHEETS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	32
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617





DESIGN EARTHWORK  
 FILL AREA = 5 Sq. Ft.  
 CUT AREA = 33 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 3 Sq. Ft.  
 CUT AREA = 8 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 0 Sq. Ft.  
 CUT AREA = 0 Sq. Ft.

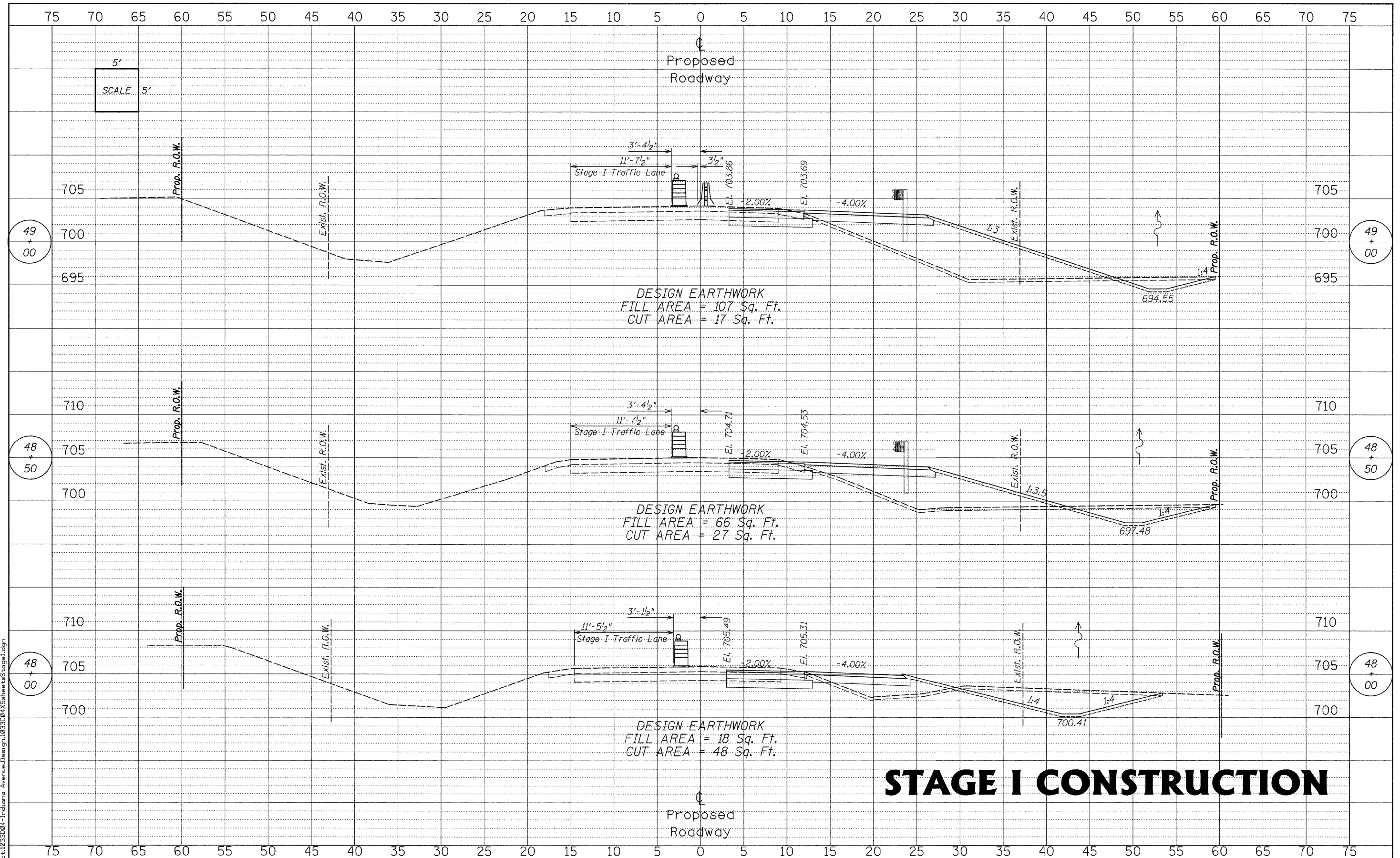
SECTION BEGINS  
 AT STA. 47+00

# STAGE I CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue Design\1033004\Sheets\Stage1.dgn

REVISION		DATE	BY	REMARKS	DRAWN	L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	<b>WILLETTS HOFMANN &amp; ASSOCIATES INC.</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> 809 EAST 2ND STREET, DIXON, IL 61021-0367 T. 815-284-3381 DESIGN FIRM: #184-000918	<b>WILL COUNTY</b>	<b>STAGE 1 CONSTRUCTION</b> <b>STRUCTURE NO. 099-3378</b>		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
						01-00042-07-BR				WILL	58	33			
						STA. 47+00				STA. 53+50					
						WHA #: 1033004				DATE: 6/9/2011					

CONTRACT NO. 63617

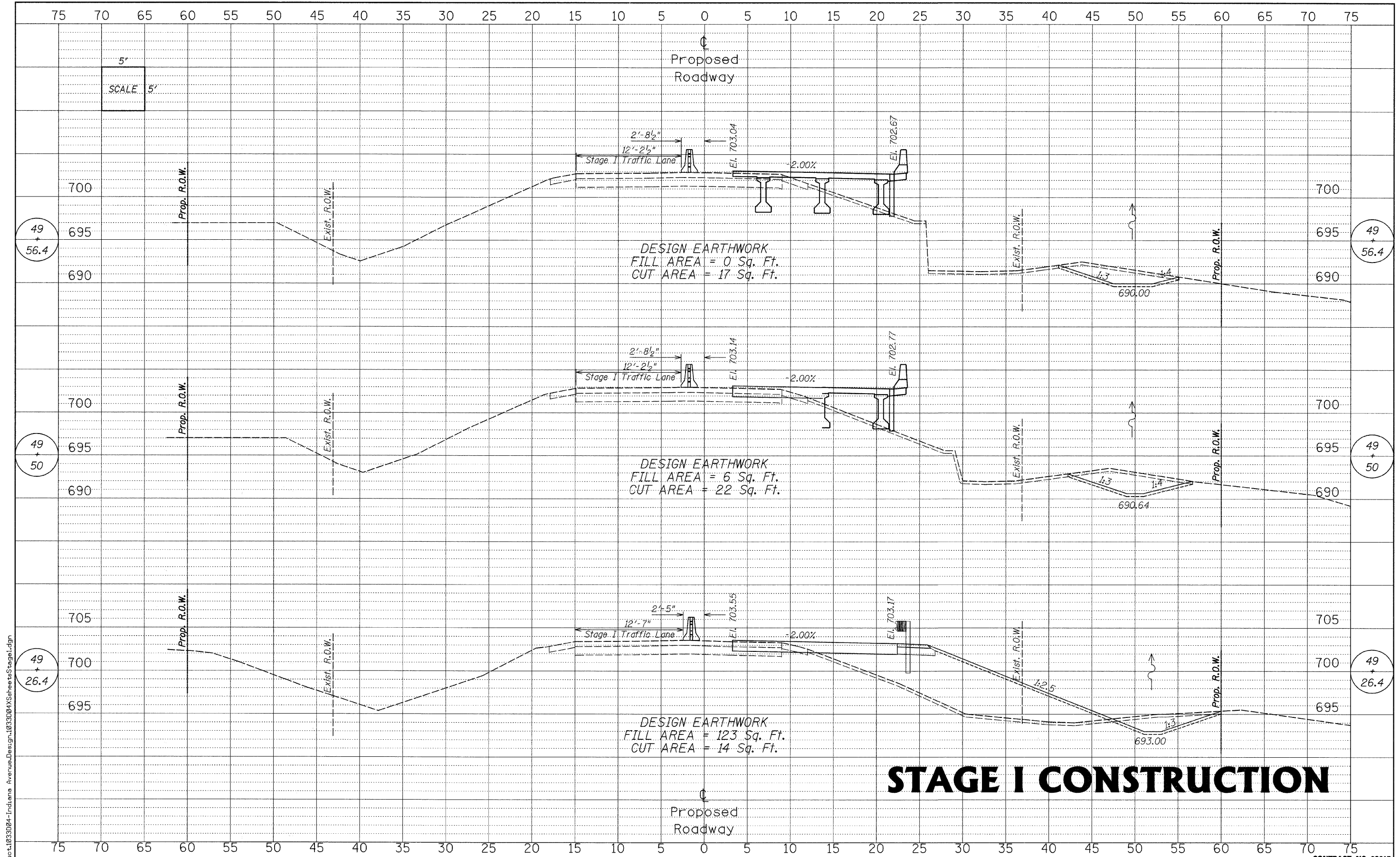


# STAGE I CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue Design\1033004\Sheets\Stage1.dgn

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			REVISION	DATE	BY	REMARKS					<b>DRAWN</b> L.G.N. <b>CHECKED</b> G.F.S. <b>APPROVED</b> B.K.C.		<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>		<b>WILLET HOFMANN</b> ASSOCIATES INC. <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> 809 EAST 2ND STREET, DIXON, IL 61021-0357 T: 815-284-3381 DESIGN FIRM: #184-00018		<b>WILL COUNTY</b>		<b>STAGE 1 CONSTRUCTION</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 48+00.00 - STA. 49+00.00</b>		<b>SECTION</b> 01-00042-07-BR <b>STA. 47+00 - STA. 53+50</b> <b>WHA #:</b> 1033004		<b>COUNTY</b> WILL <b>DATE:</b> 6/9/2011		<b>TOTAL SHEETS</b> 58		<b>SHEET NO.</b> 34	
REVISION	DATE	BY	REMARKS																									

CONTRACT NO. 63617



# STAGE I CONSTRUCTION

FILE = S:\Struct\1033D04-Indiana Avenue.Des\gn\1033D04\Sheets\Stage1.dgn

REVISION	DATE	BY	REMARKS

**DRAWN**  
L.G.N.  
**CHECKED**  
G.F.S.  
**APPROVED**  
B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

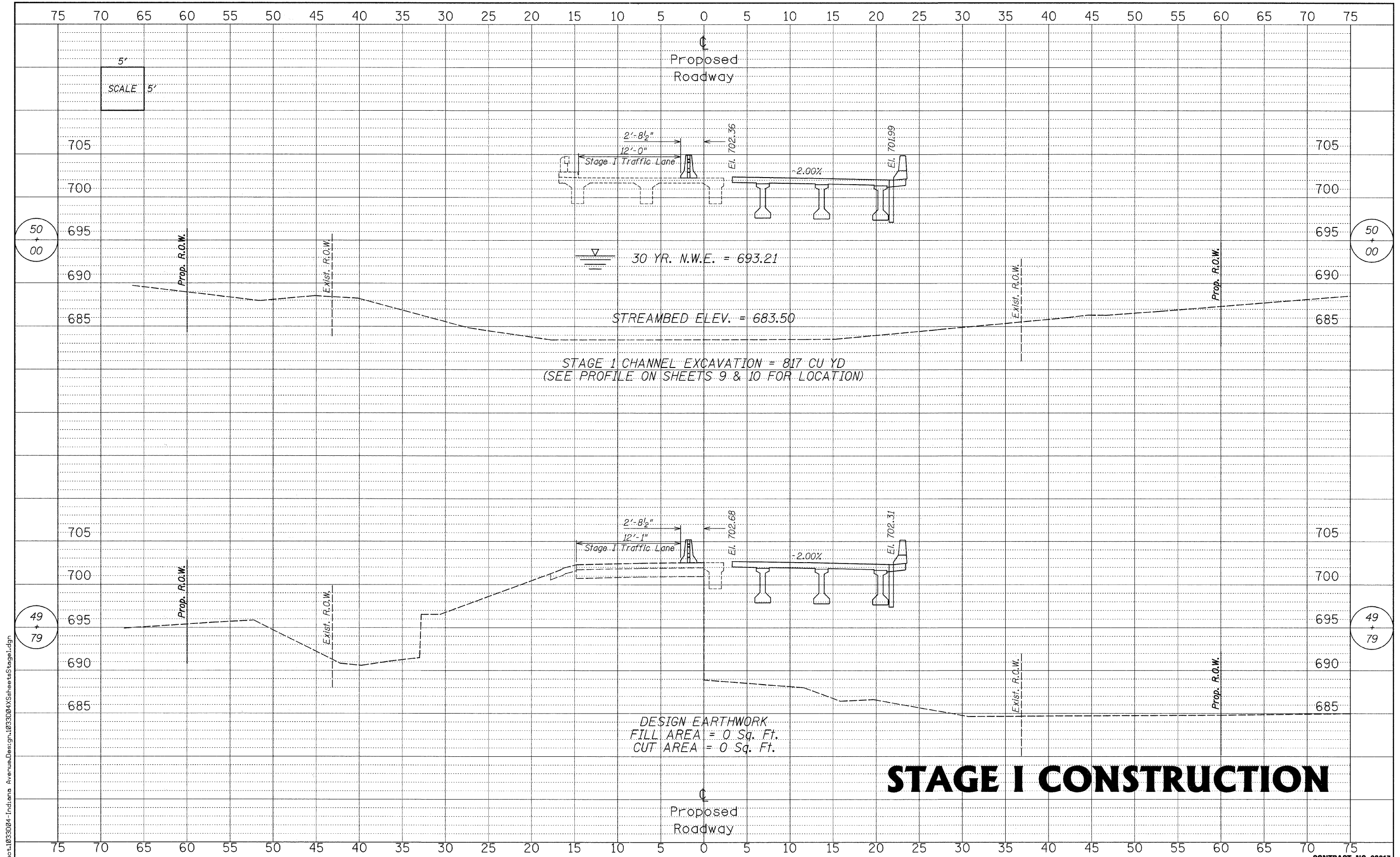
**WILLET HOFMANN ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**STAGE 1 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 49+26.40 - STA. 49+56.40**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>35</td> </td>	WILL <td>58</td> <td>35</td>	58	35
STA. 47+00	STA. 53+50		
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



STAGE 1 CHANNEL EXCAVATION = 817 CU YD  
(SEE PROFILE ON SHEETS 9 & 10 FOR LOCATION)

DESIGN EARTHWORK  
FILL AREA = 0 Sq. Ft.  
CUT AREA = 0 Sq. Ft.

# STAGE I CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue\Design\1033004\Sheets\Stage1.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
CHECKED G.F.S.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

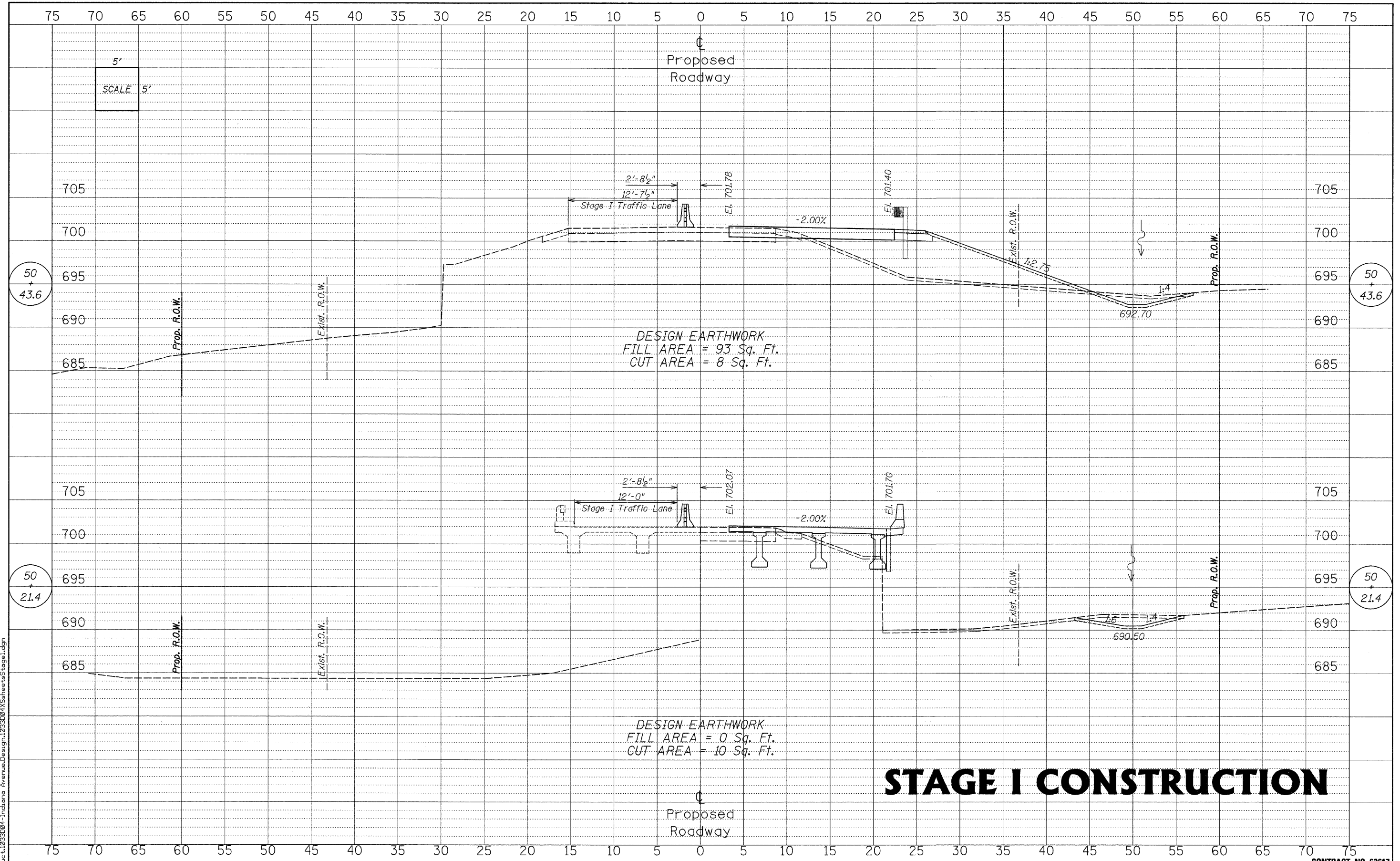
**WILLET HOFMANN ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FROM: 6184-000918

**WILL COUNTY**

**STAGE 1 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 49+79.00 - STA. 50+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>36</td> </td>	WILL <td>58</td> <td>36</td>	58	36
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



DESIGN EARTHWORK  
 FILL AREA = 93 Sq. Ft.  
 CUT AREA = 8 Sq. Ft.

DESIGN EARTHWORK  
 FILL AREA = 0 Sq. Ft.  
 CUT AREA = 10 Sq. Ft.

# STAGE I CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue Design\1033004\Sheets\Stage1.dgn

REVISION	DATE	BY	REMARKS

**DRAWN** L.G.N.  
**CHECKED** G.F.S.  
**APPROVED** B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

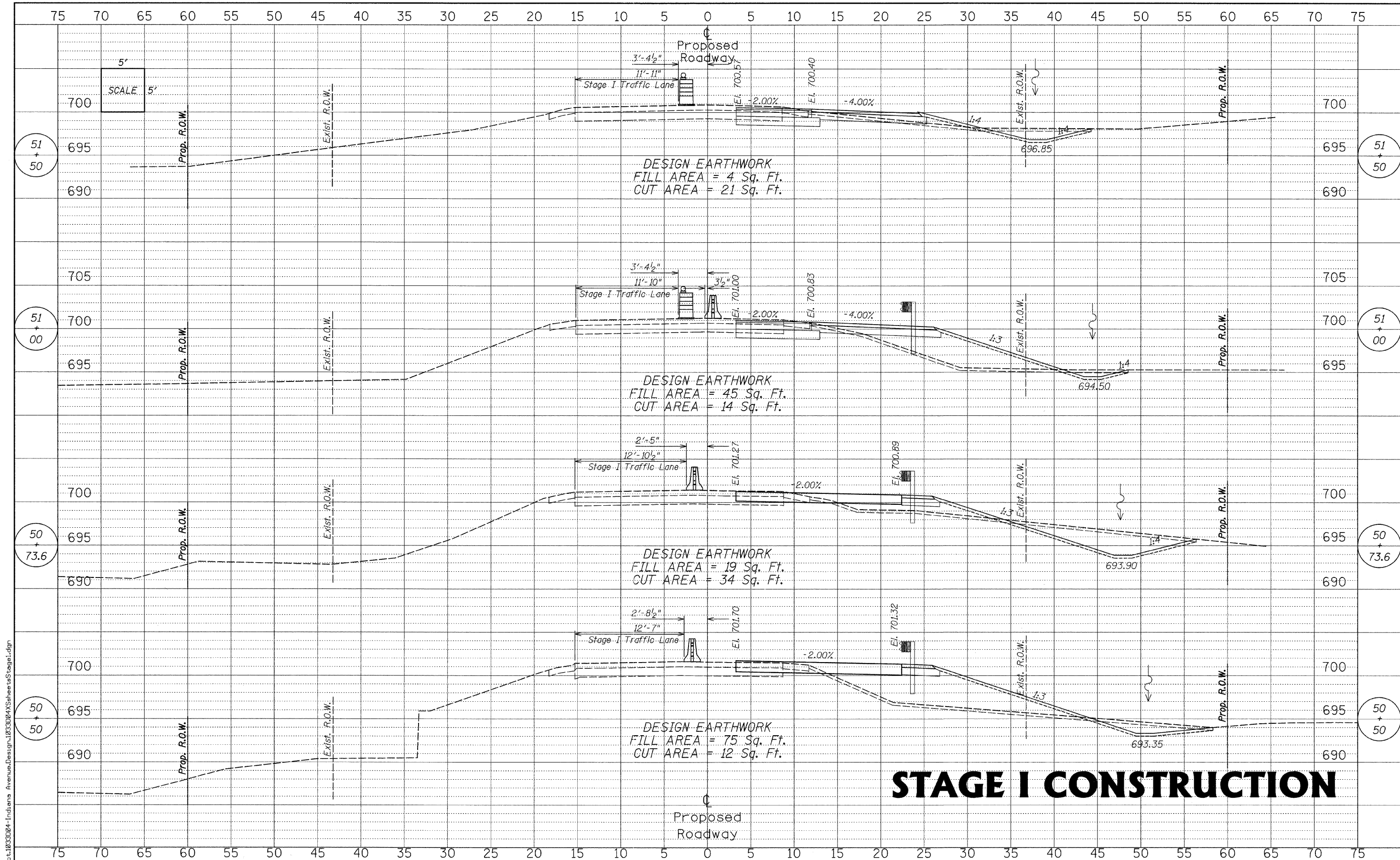
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T. 815-284-5381 DESIGN FIRM: #184-00018

**WILL COUNTY**

**STAGE 1 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 50+21.40 - STA. 50+43.60**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	37
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE I CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue Design\1033004\Scheer\Stage1.dgn

REVISION	DATE	BY	REMARKS

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

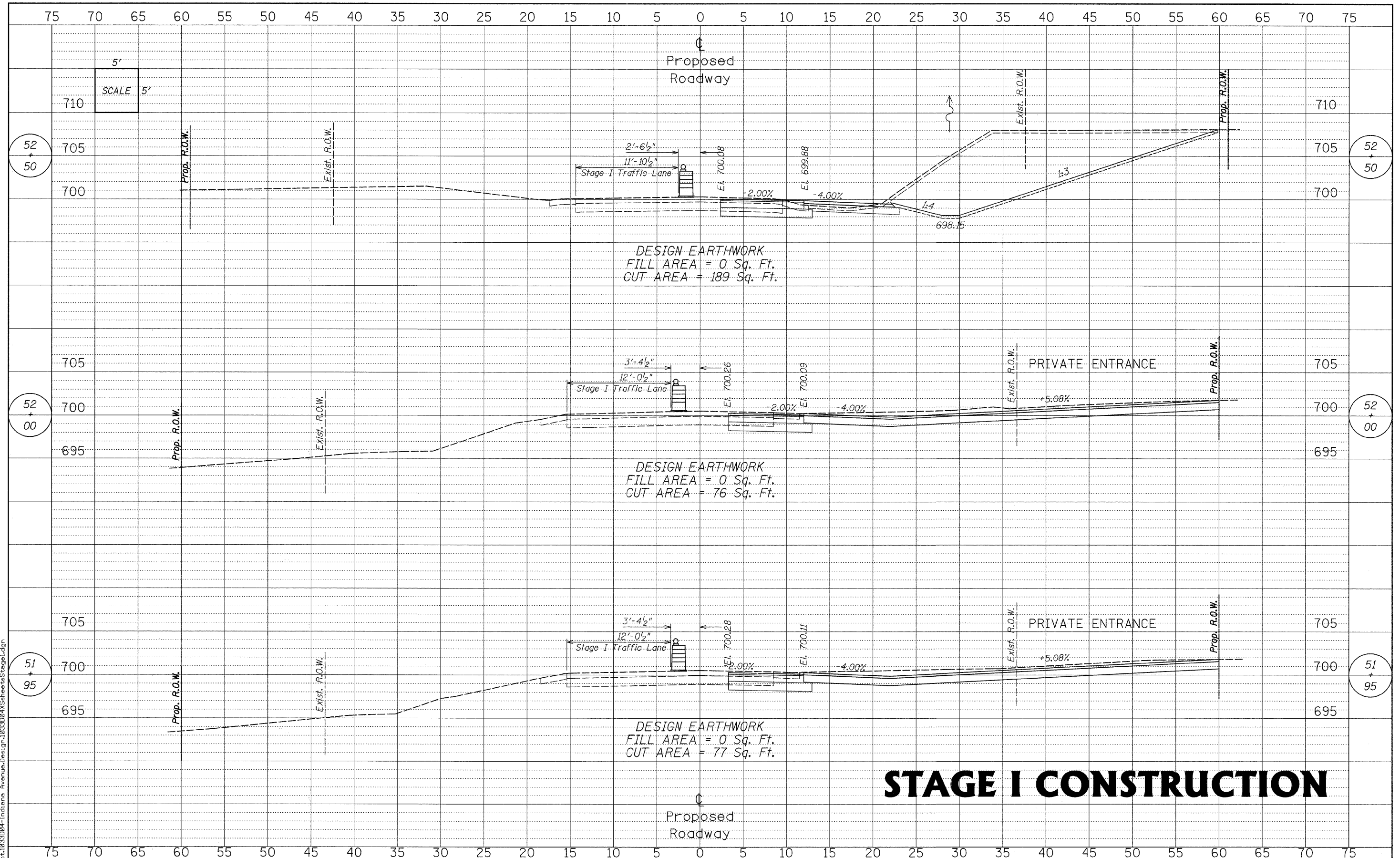
**WILLET HOFMANN**  
 ASSOCIATES INC.  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3331 DESIGN FIRM: #154-00918

**WILL COUNTY**

**STAGE 1 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 50+50.00 - STA. 51+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	38
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

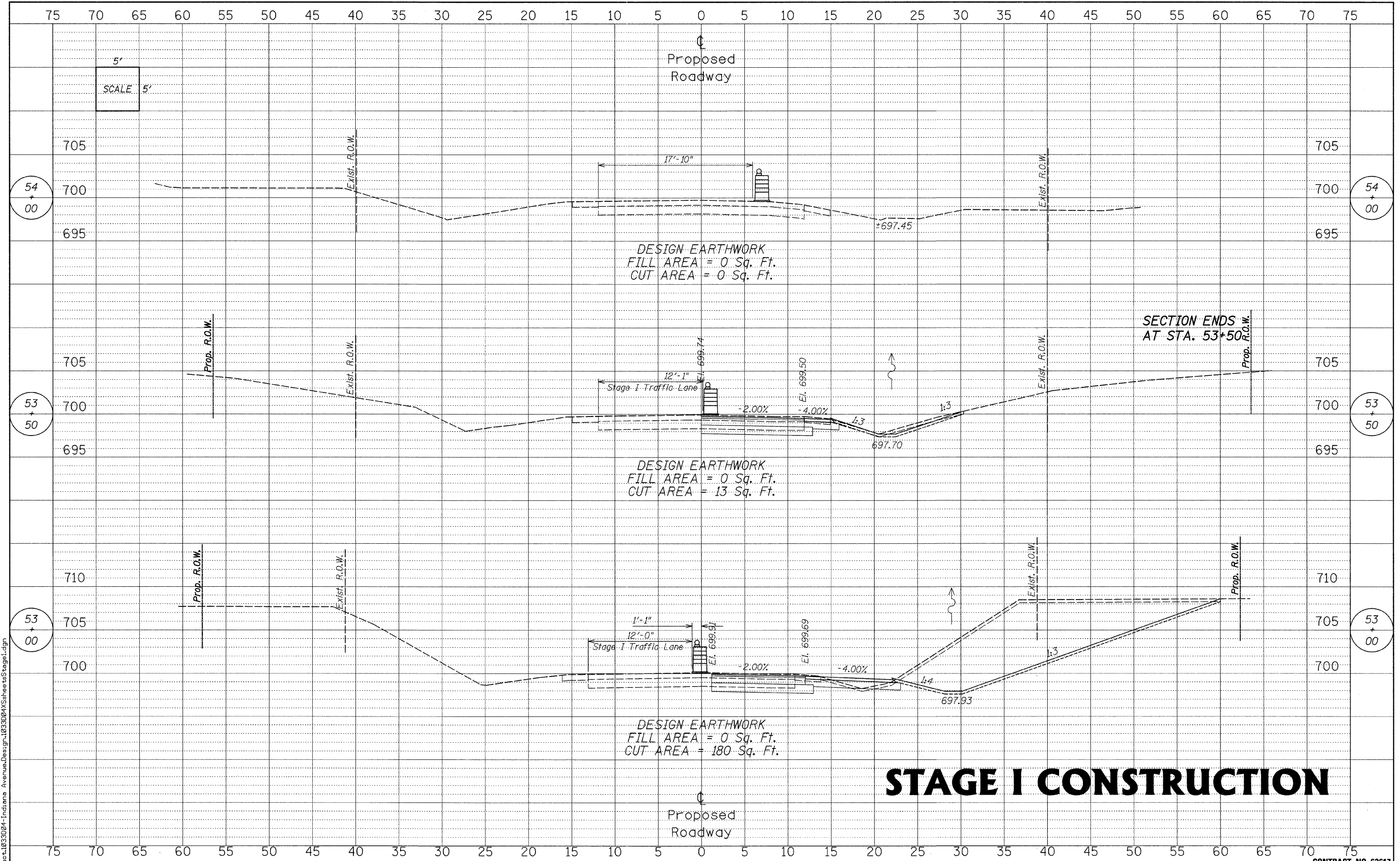
CONTRACT NO. 63617



# STAGE I CONSTRUCTION

FILE = S:\Struct\1033D04-Indiana Avenue\Design\1033D04\Sheets\Stage1.dgn

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISION	DATE	BY	REMARKS													<table border="1"> <tr> <td>DRAWN</td> <td>L.G.N.</td> </tr> <tr> <td>CHECKED</td> <td>G.F.S.</td> </tr> <tr> <td>APPROVED</td> <td>B.K.C.</td> </tr> </table>	DRAWN	L.G.N.	CHECKED	G.F.S.	APPROVED	B.K.C.	<p><b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b>  <b>BRIDGE REPLACEMENT</b>  <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b></p>	<p><b>WILLET HOFMANN ASSOCIATES INC</b>          ENGINEERING ARCHITECTURE LAND SURVEYING          809 EAST 2ND STREET, DIXON, IL 61021-0367          T: 315-264-3361 DESIGN FIRM: #184-000918</p>	<p><b>WILL COUNTY</b></p>	<p><b>CROSS SECTIONS</b>  <b>STRUCTURE NO. 099-3378</b>  <b>STA. 51+95.00 - STA. 52+50.00</b></p>	<table border="1"> <tr> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>01-00042-07-BR</td> <td>WILL</td> <td>58</td> <td>39</td> </tr> <tr> <td>STA. 47+00</td> <td>STA. 53+50</td> <td> </td> <td> </td> </tr> <tr> <td>WHA #: 1033D04</td> <td>DATE: 6/9/2011</td> <td> </td> <td> </td> </tr> </table>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	39	STA. 47+00	STA. 53+50			WHA #: 1033D04	DATE: 6/9/2011			<p>CONTRACT NO. 63617</p>
REVISION	DATE	BY	REMARKS																																													
DRAWN	L.G.N.																																															
CHECKED	G.F.S.																																															
APPROVED	B.K.C.																																															
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																													
01-00042-07-BR	WILL	58	39																																													
STA. 47+00	STA. 53+50																																															
WHA #: 1033D04	DATE: 6/9/2011																																															



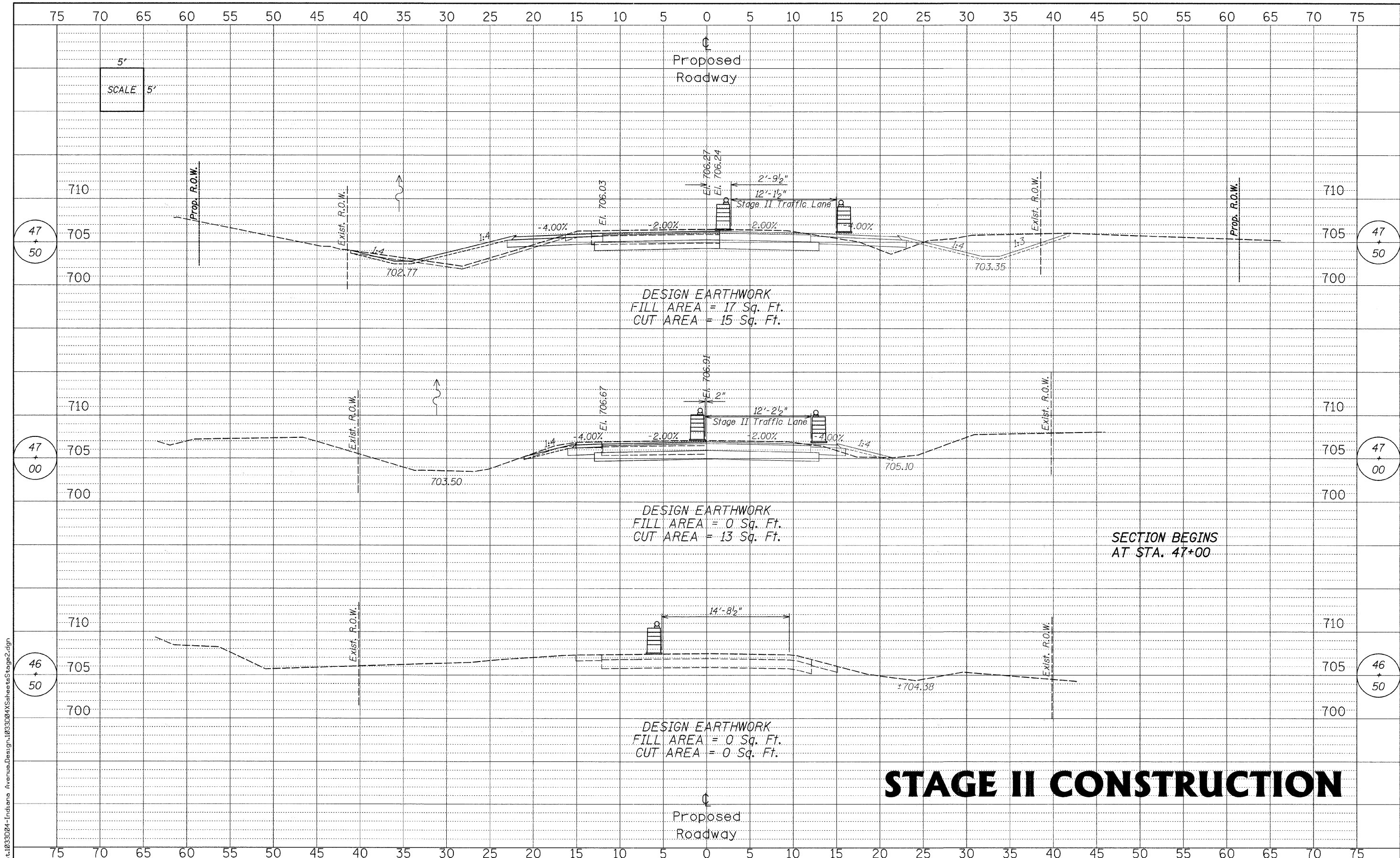
FILE = S:\Struct\1033004-Indiana Avenue.Design\1033004\Sheets\Stage1.dgn

# STAGE I CONSTRUCTION

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISION	DATE	BY	REMARKS					<table border="1"> <tr> <td>DRAWN L.G.N.</td> <td rowspan="3"> <b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b>  <b>BRIDGE REPLACEMENT</b>  <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b> </td> </tr> <tr> <td>CHECKED G.F.S.</td> </tr> <tr> <td>APPROVED B.K.C.</td> </tr> </table>	DRAWN L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	CHECKED G.F.S.	APPROVED B.K.C.	<p><b>WILLET HOFMANN ASSOCIATES INC</b>  <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small>        809 EAST 2ND STREET, DIXON, IL 61021-0367        T: 815-284-3381 DESIGN FIRM #154-00918</p>	<b>WILL COUNTY</b>	<b>STAGE 1 CONSTRUCTION</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 53+00.00 - STA. 54+00.00</b>	<table border="1"> <tr> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>01-00042-07-BR <td>WILL <td>58</td> <td>40</td> </td></td></tr> <tr> <td>STA. 47+00</td> <td>STA. 53+50</td> <td></td> <td></td> </tr> <tr> <td>WHA #: 1033004</td> <td>DATE: 6/9/2011</td> <td></td> <td></td> </tr> </table>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR <td>WILL <td>58</td> <td>40</td> </td>	WILL <td>58</td> <td>40</td>	58	40	STA. 47+00	STA. 53+50			WHA #: 1033004	DATE: 6/9/2011		
REVISION	DATE	BY	REMARKS																															
DRAWN L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>																																	
CHECKED G.F.S.																																		
APPROVED B.K.C.																																		
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																															
01-00042-07-BR <td>WILL <td>58</td> <td>40</td> </td>	WILL <td>58</td> <td>40</td>	58	40																															
STA. 47+00	STA. 53+50																																	
WHA #: 1033004	DATE: 6/9/2011																																	

CONTRACT NO. 63617

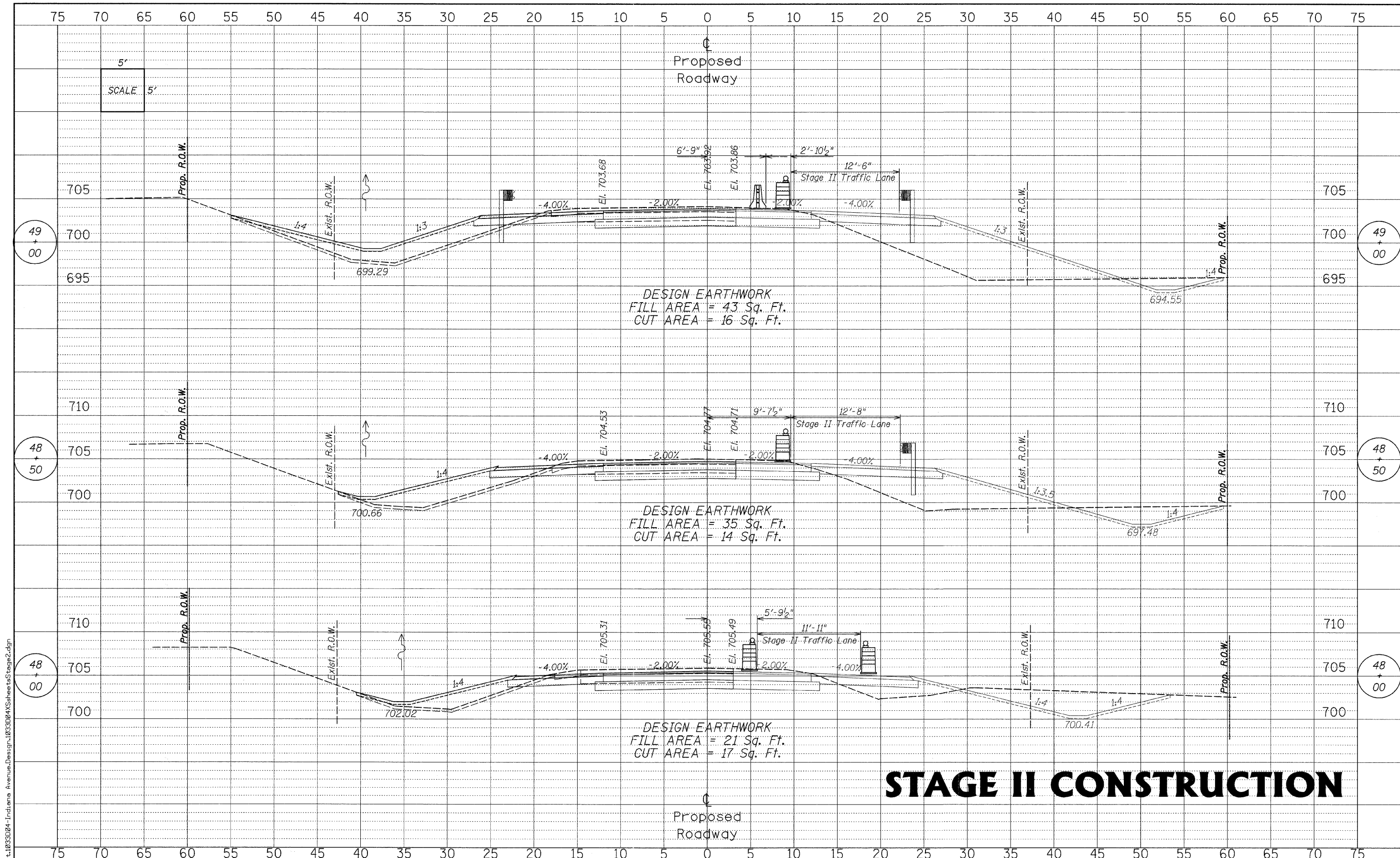




# STAGE II CONSTRUCTION

FILE = S:\Structure\1033D04-Indiana Avenue\Design\1033D04\Sheets\Stage2.dgn

<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>				<b>WILLET HOFMANN ASSOCIATES INC.</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>809 EAST 2ND STREET, DIXON, IL 61021-0367</small> <small>T: 815-284-3381 DESIGN FIRM: #184-005918</small>		<b>WILL COUNTY</b>		<b>STAGE 2 CONSTRUCTION</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 46+50.00 - STA. 47+50.00</b>		<b>CONTRACT NO. 63617</b>	
REVISION	DATE	BY	REMARKS	DRAWN	CHECKED	APPROVED	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
				L.G.N.	G.F.S.	B.K.C.	01-00042-07-BR	WILL	58	41	
							STA. 47+00 - STA. 53+50	DATE: 6/9/2011			
							WHA #: 1033D04				



FILE = S:\Structure\1033D04-Indiana Avenue Design\1033D04\Sheet\Stage2.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
CHECKED G.F.S.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

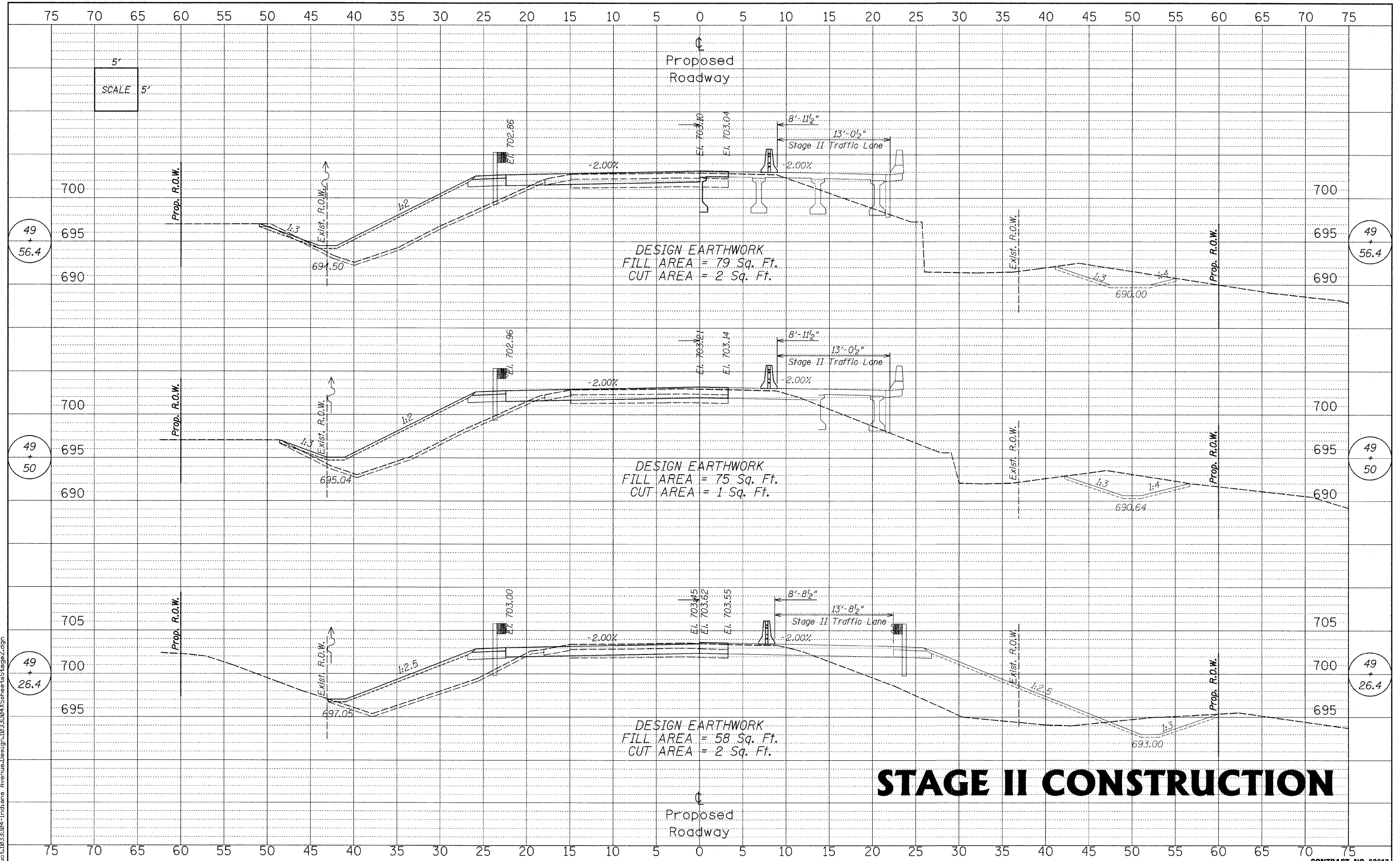
**WILLET HOFMANN ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-00018

**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 48+00.00 - STA. 49+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>42</td> </td>	WILL <td>58</td> <td>42</td>	58	42
STA. 47+00 - STA. 53+50 <td> </td> <td> </td> <td> </td>			
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



FILE = S:\Structure\1033D04-Indiana Avenue\Design\1033D04\Sheets\Stage2.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
 CHECKED G.F.S.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

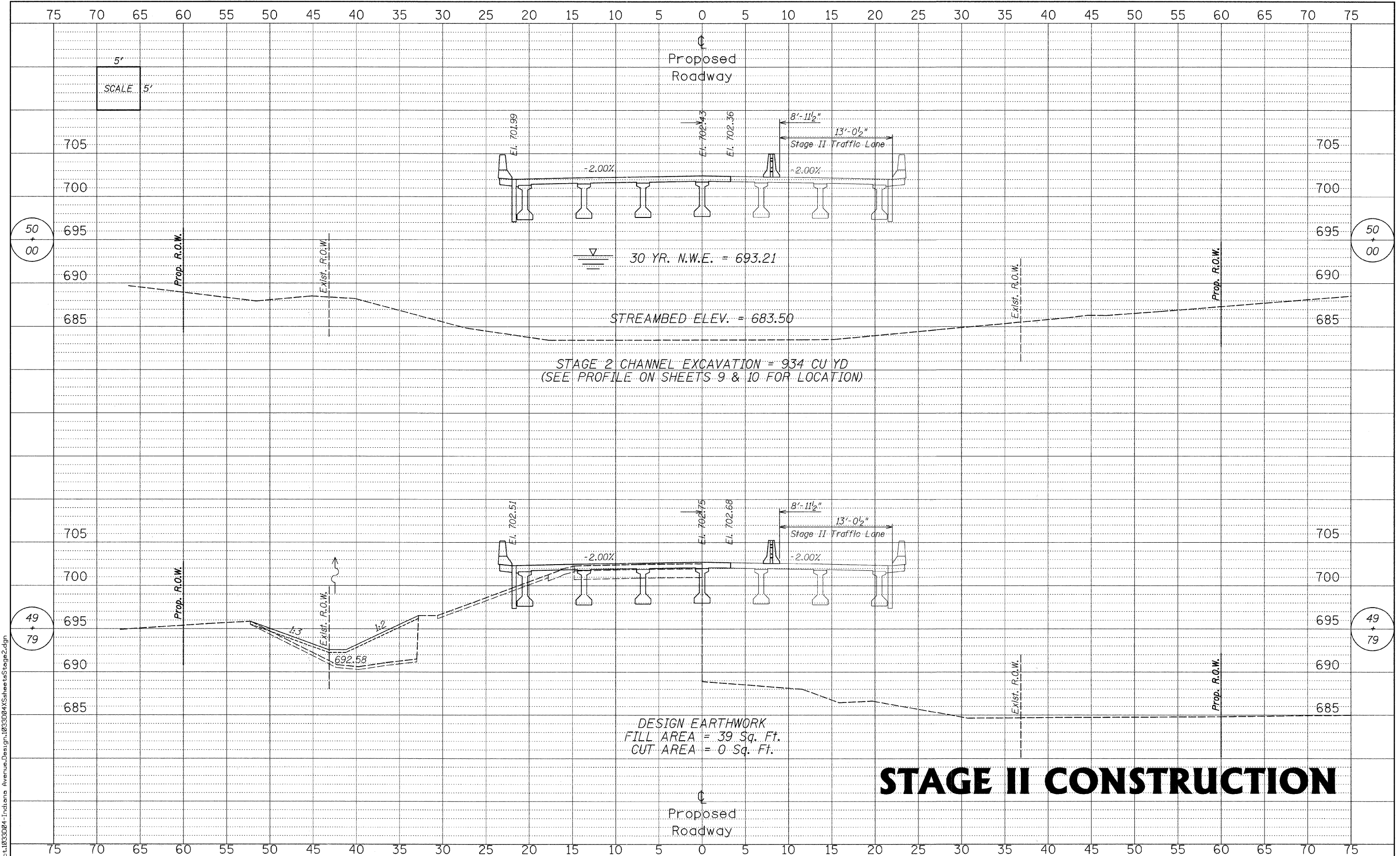
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-234-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 49+26.40 - STA. 49+56.40**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	43
STA. 47+00	STA. 53+50		
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE II CONSTRUCTION

FILE = S:\Struct\1033D04-Indiana Avenue\Design\1033D04\Sheets\Stage2.dgn

REVISION	DATE	BY	REMARKS

DRAWN: L.G.N.  
 CHECKED: G.F.S.  
 APPROVED: B.K.C.  
**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

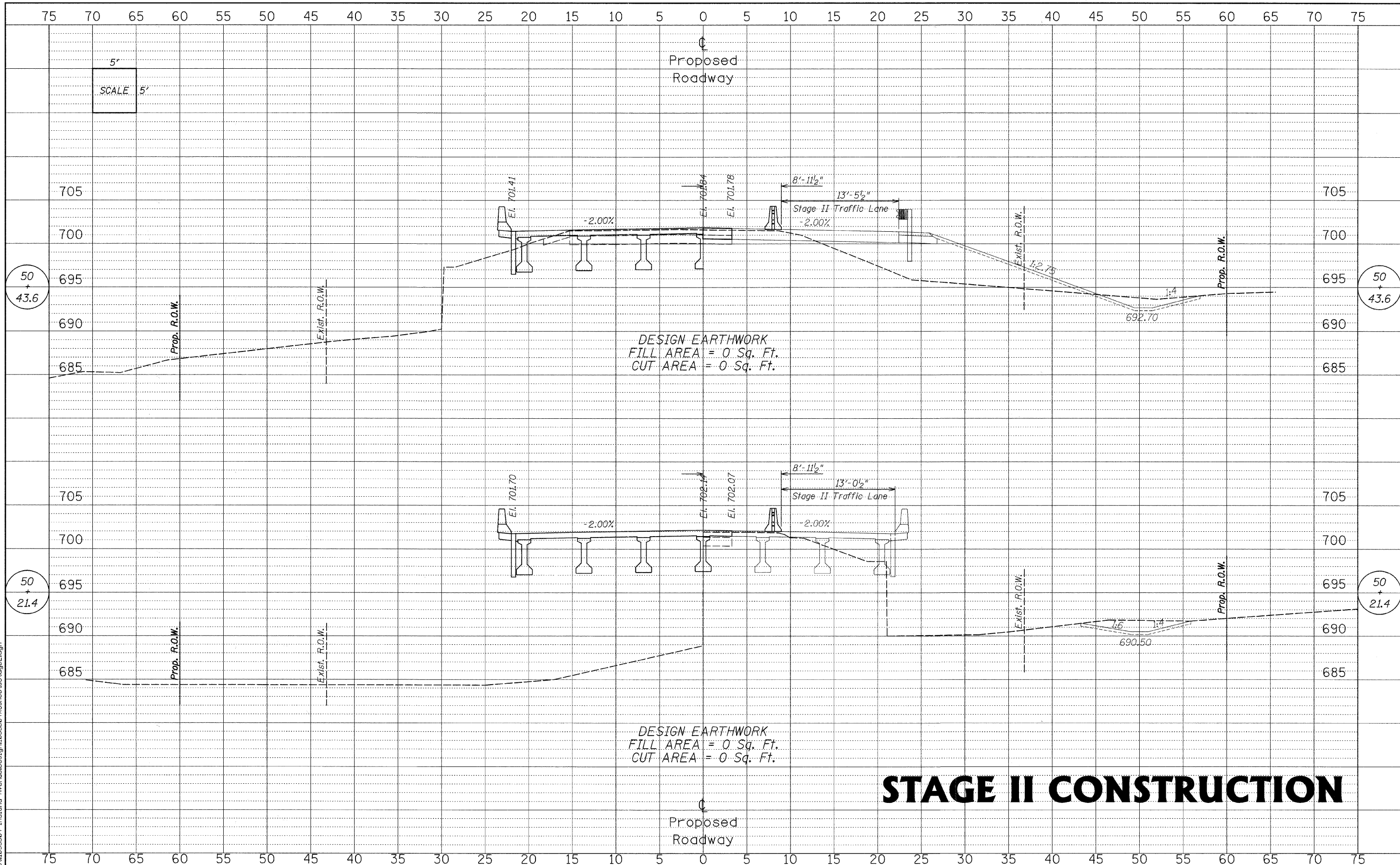

**WILLETTS HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-264-3381 DESIGN FIRM: #184-009918

**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 49+79.00 - STA. 50+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	44
STA. 47+00	STA. 53+50		
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE II CONSTRUCTION

FILE = S:\Structure\1033004-Indiana Avenue.Design\1033004\Sheets\Stage2.dgn

REVISION	DATE	BY	REMARKS

DRAWN: L.G.N.  
 CHECKED: G.F.S.  
 APPROVED: B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

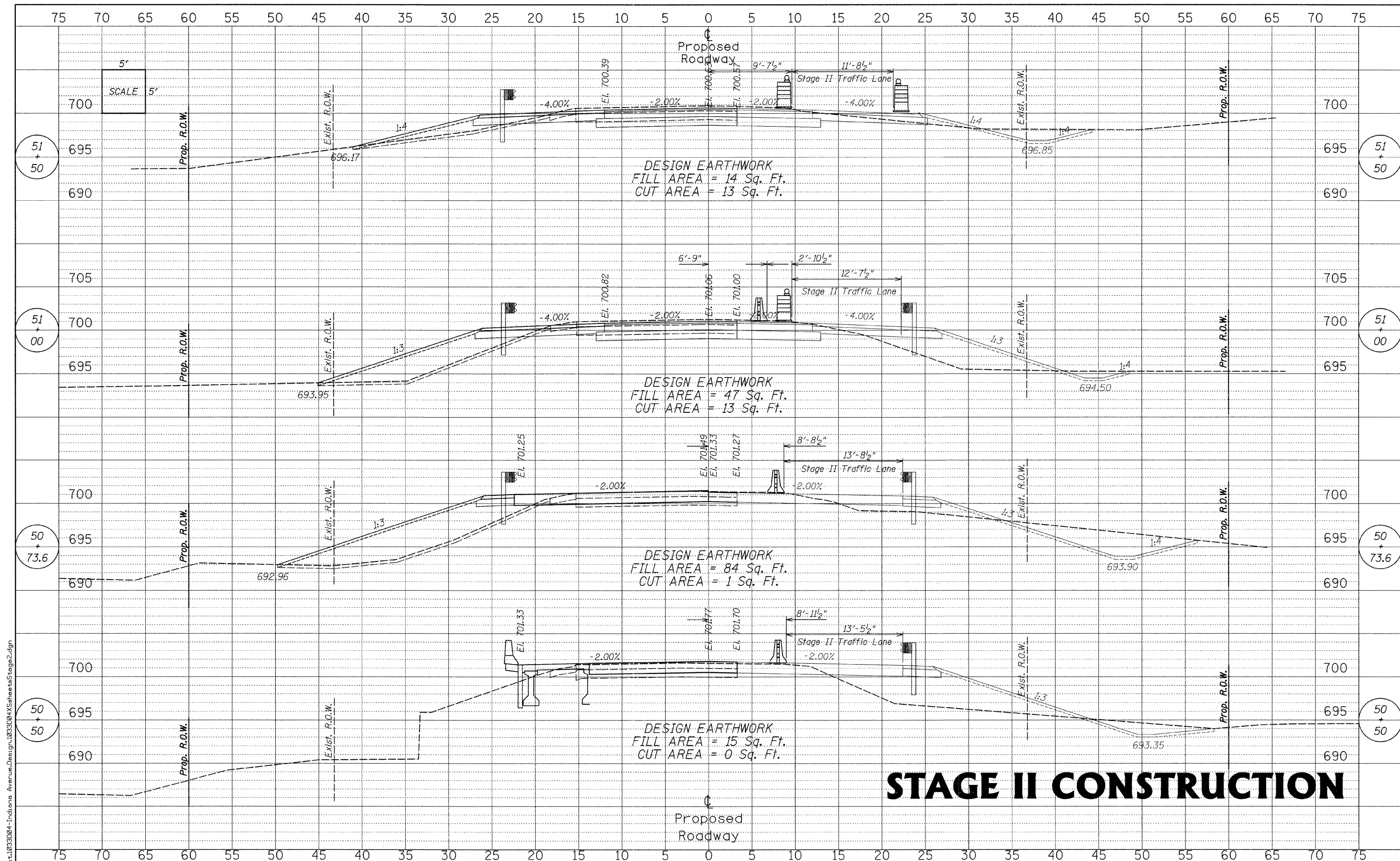
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FAX: 815-284-3318

**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 50 + 21.40 - STA. 50 + 43.6**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	45
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE II CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue\Design\1033004\Sheets\Stage2.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
 CHECKED G.F.S.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

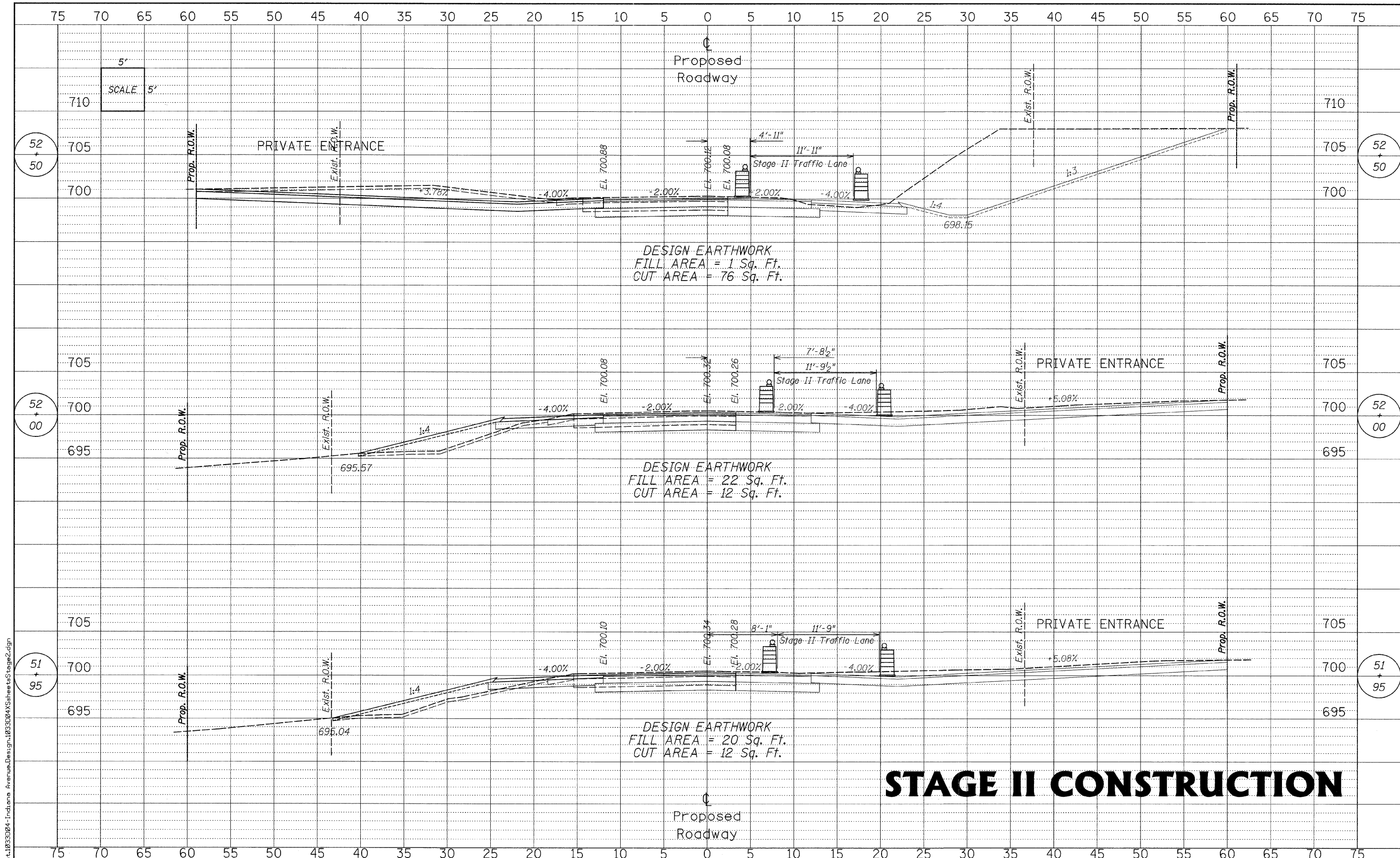
**WILLET HOFMANN**  
 ASSOCIATES INC.  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3331 DESIGN FAX: #184-009918

**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 50+50.00 - STA. 51+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	46
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE II CONSTRUCTION

FILE = S:\Struct\1033004-Indiana Avenue.Dwg\1033004\Sheets\Stage2.dwg

REVISION	DATE	BY	REMARKS

**DRAWN** L.G.N.  
**CHECKED** G.F.S.  
**APPROVED** B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

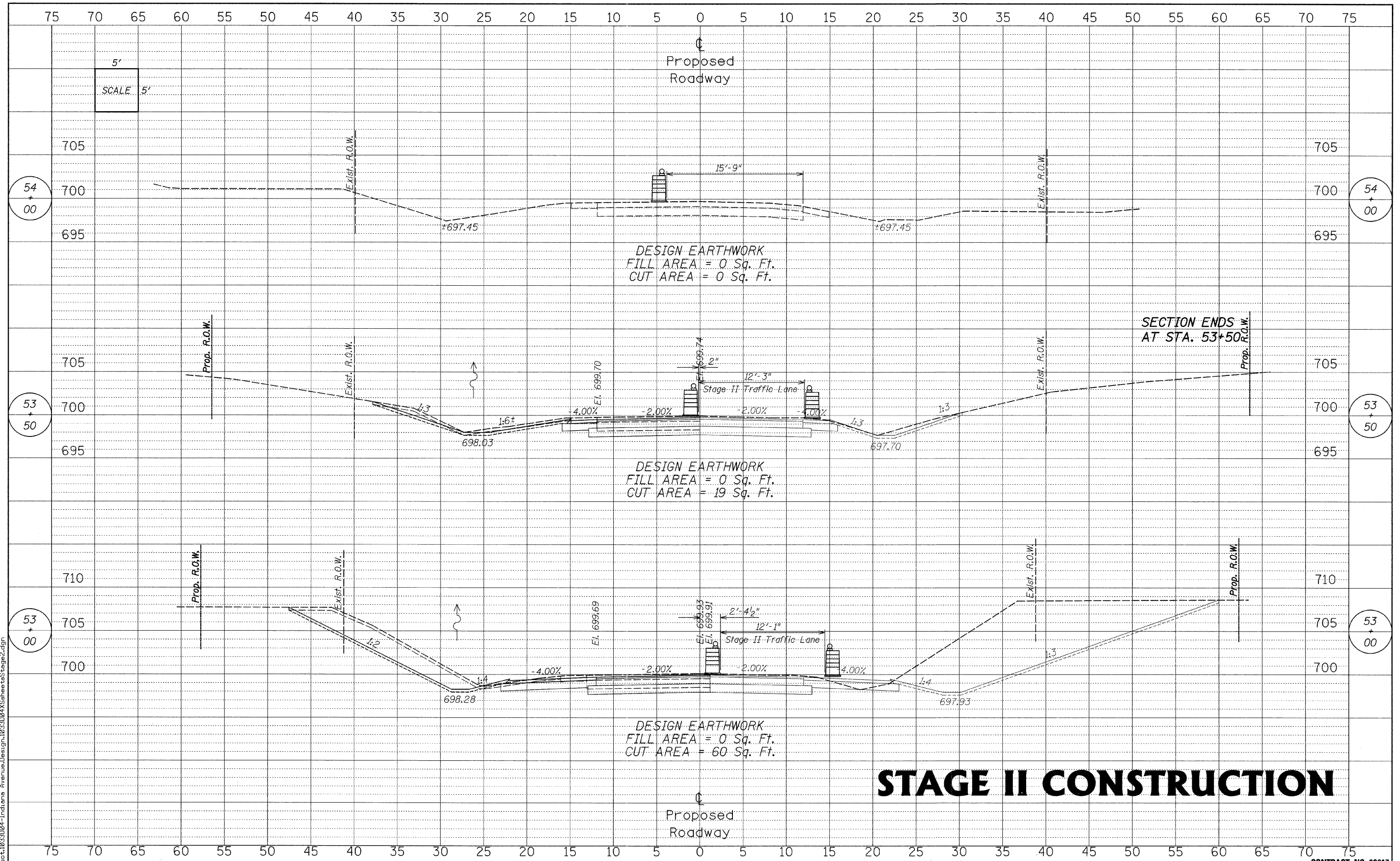


**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
**WILL COUNTY**

**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 51+95.00 - STA. 52+50.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>47</td> </td>	WILL <td>58</td> <td>47</td>	58	47
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# STAGE II CONSTRUCTION

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
CHECKED G.F.S.  
APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN & ASSOCIATES INC.**  
ENGINEERING ARCHITECTURE LAND SURVEYING  
809 EAST 2ND STREET, DIXON, IL 61021-0367  
T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

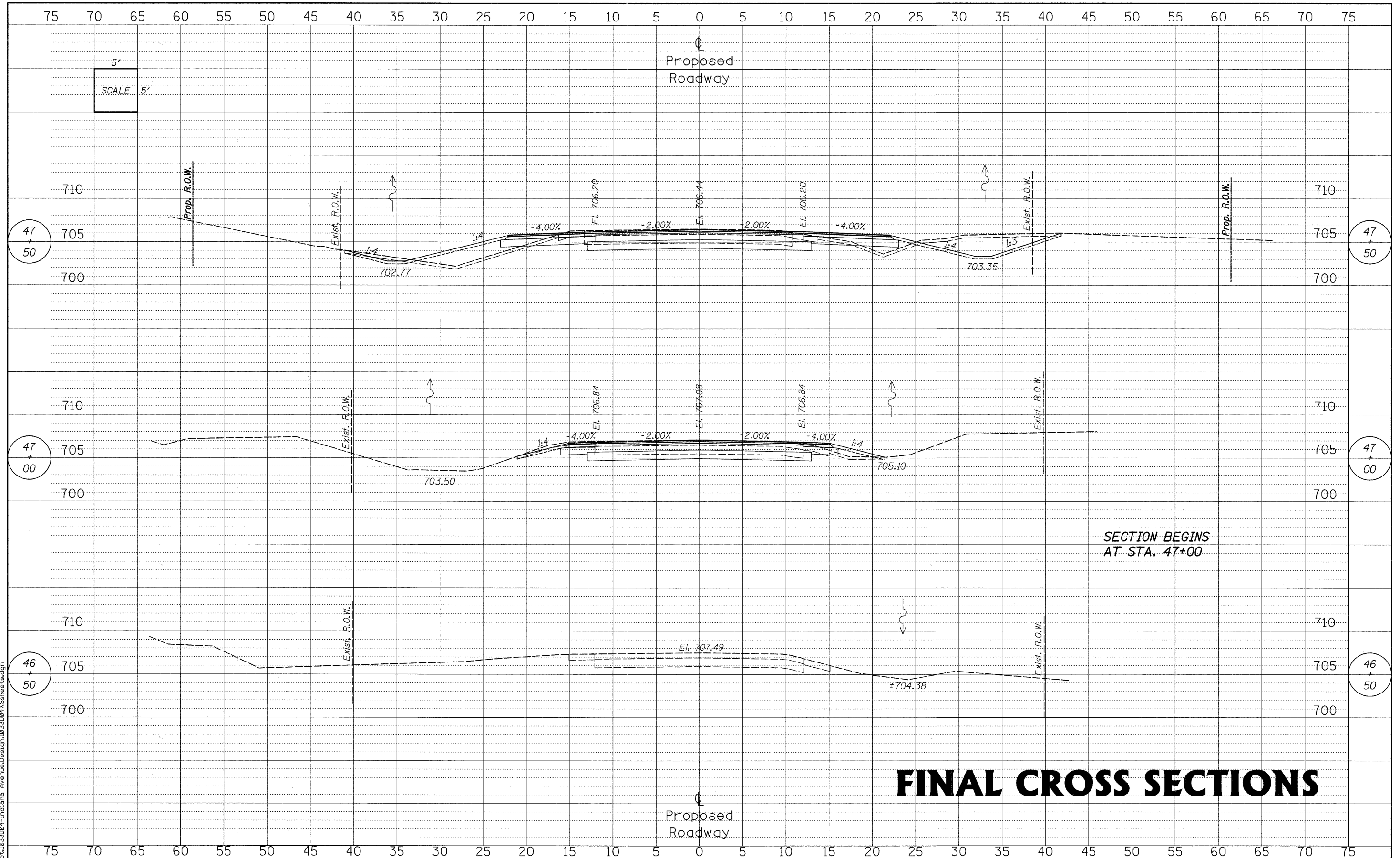
**STAGE 2 CONSTRUCTION**  
**STRUCTURE NO. 099-3378**  
**STA. 53+00.00 - STA. 54+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>48</td> </td>	WILL <td>58</td> <td>48</td>	58	48
STA. 47+00 - STA. 53+50 <td> </td> <td> </td> <td> </td>			
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

FILE = S:\Struct\1033004-Indiana Avenue\Design\1033004\Schets\Stage2.dgn



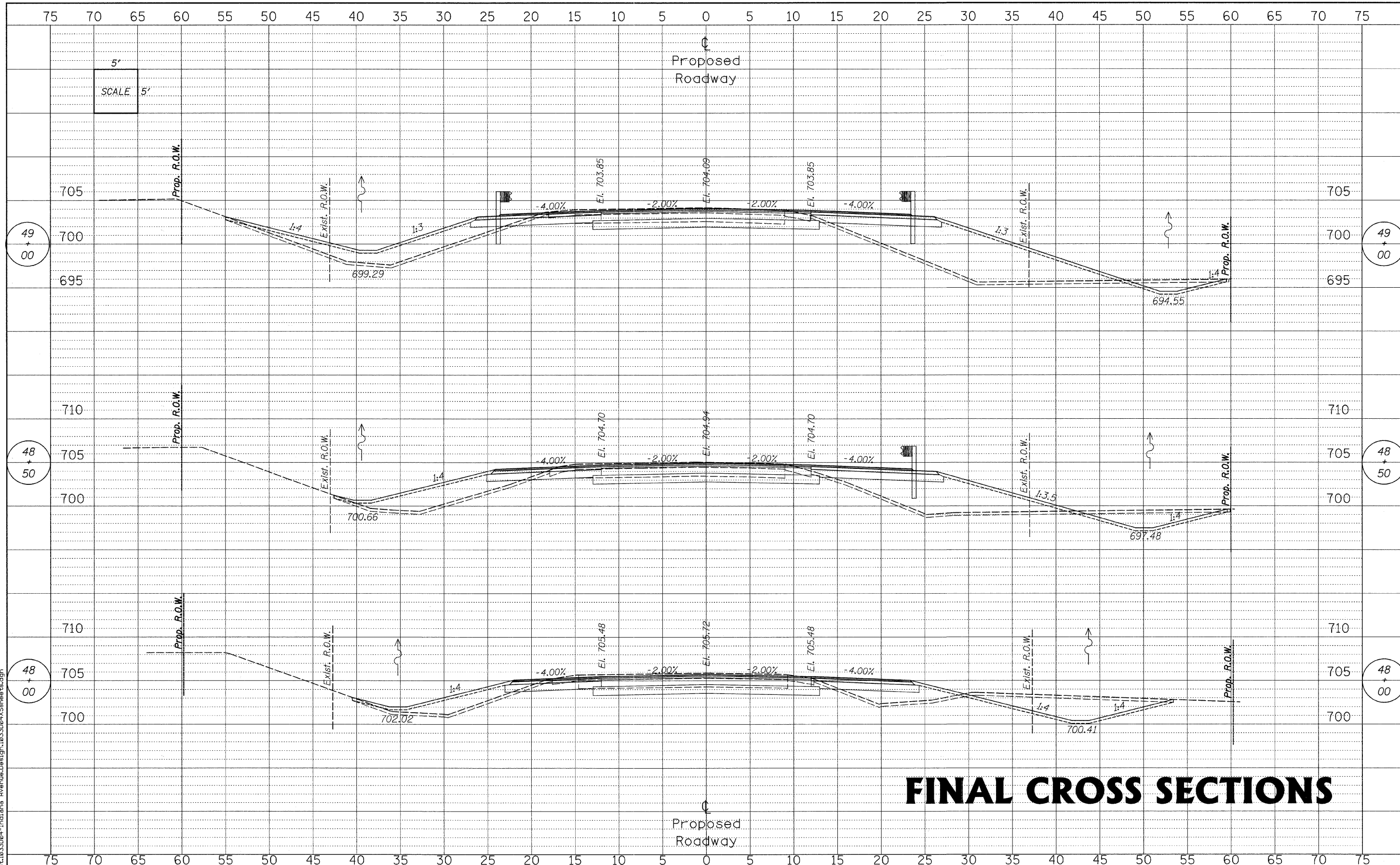


# FINAL CROSS SECTIONS

FILE = S:\Structure\1033D04-Indiana Avenue.Design\1033D04\Schaefer.dgn

<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			REVISION	DATE	BY	REMARKS					<table border="1"> <tr> <td>DRAWN L.G.N.</td> <td rowspan="3"> <b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b>  <b>BRIDGE REPLACEMENT</b>  <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b> </td> </tr> <tr> <td>CHECKED G.F.S.</td> </tr> <tr> <td>APPROVED B.K.C.</td> </tr> </table>		DRAWN L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	CHECKED G.F.S.	APPROVED B.K.C.	 <b>WILLET HOFMANN ASSOCIATES INC.</b> ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3381 DESIGN FIRM: #184-000918		<b>WILL COUNTY</b>		<b>FINAL CROSS SECTIONS</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 46+50.00 - STA. 47+50.00</b>		<table border="1"> <tr> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>01-00042-07-BR</td> <td>WILL</td> <td>58</td> <td>49</td> </tr> <tr> <td>STA. 47+00</td> <td>STA. 53+50</td> <td> </td> <td> </td> </tr> <tr> <td>WHA #: 1033D04</td> <td>DATE: 6/9/2011</td> <td> </td> <td> </td> </tr> </table>		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	49	STA. 47+00	STA. 53+50			WHA #: 1033D04	DATE: 6/9/2011		
REVISION	DATE	BY	REMARKS																																					
DRAWN L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>																																							
CHECKED G.F.S.																																								
APPROVED B.K.C.																																								
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																					
01-00042-07-BR	WILL	58	49																																					
STA. 47+00	STA. 53+50																																							
WHA #: 1033D04	DATE: 6/9/2011																																							

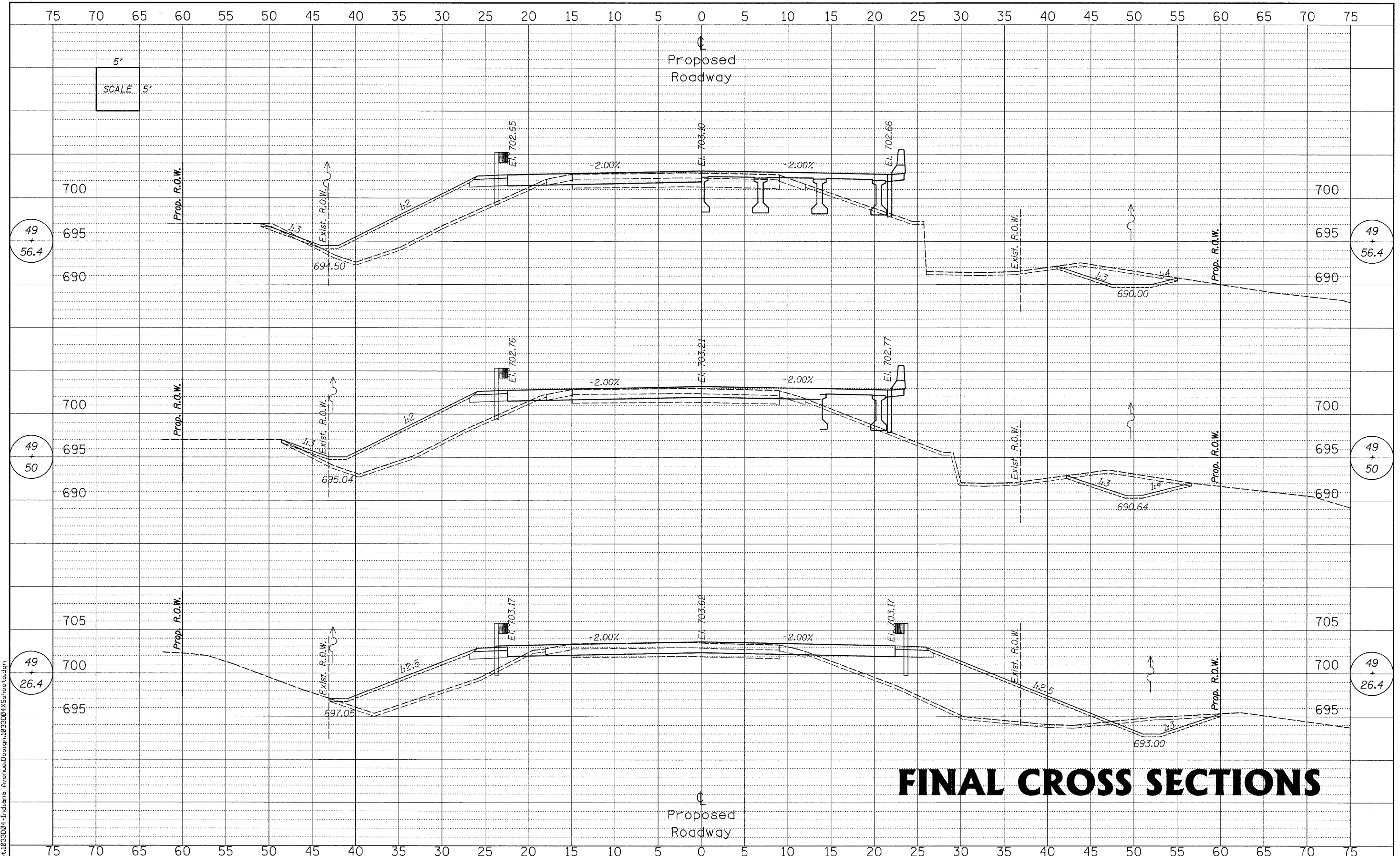
CONTRACT NO. 63617



# FINAL CROSS SECTIONS

FILE = S:\Structure\1033004-Indiana Avenue.Design\1033004\Sheets.dgn

<table border="1"> <tr><th>REVISION</th><th>DATE</th><th>BY</th><th>REMARKS</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>				REVISION	DATE	BY	REMARKS													DRAWN L.C.N. CHECKED G.F.S. APPROVED B.K.C.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	<b>WILLET HOFMANN &amp; ASSOCIATES INC</b> ENGINEERING ARCHITECTURE LAND SURVEYING 809 EAST 2ND STREET, DIXON, IL 61021-0367 T: 815-284-3351 DESIGN FIRM: #184-000918	<b>WILL COUNTY</b>	<b>FINAL CROSS SECTIONS</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 48+00.00 - STA. 49+00.00</b>	<table border="1"> <tr><th>SECTION</th><th>COUNTY</th><th>TOTAL SHEETS</th><th>SHEET NO.</th></tr> <tr><td>01-00042-07-BR</td><td>WILL</td><td>58</td><td>50</td></tr> <tr><td>STA. 47+00</td><td>STA. 53+50</td><td> </td><td> </td></tr> <tr><td>WHA #: 1033004</td><td>DATE: 6/9/2011</td><td> </td><td> </td></tr> </table>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	50	STA. 47+00	STA. 53+50			WHA #: 1033004	DATE: 6/9/2011			<b>CONTRACT NO. 63617</b>
REVISION	DATE	BY	REMARKS																																							
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																																							
01-00042-07-BR	WILL	58	50																																							
STA. 47+00	STA. 53+50																																									
WHA #: 1033004	DATE: 6/9/2011																																									



# FINAL CROSS SECTIONS

FILE = S:\Struct\1033004-Indiana Avenue.Design\1033004\Sheets.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
 CHECKED G.F.S.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

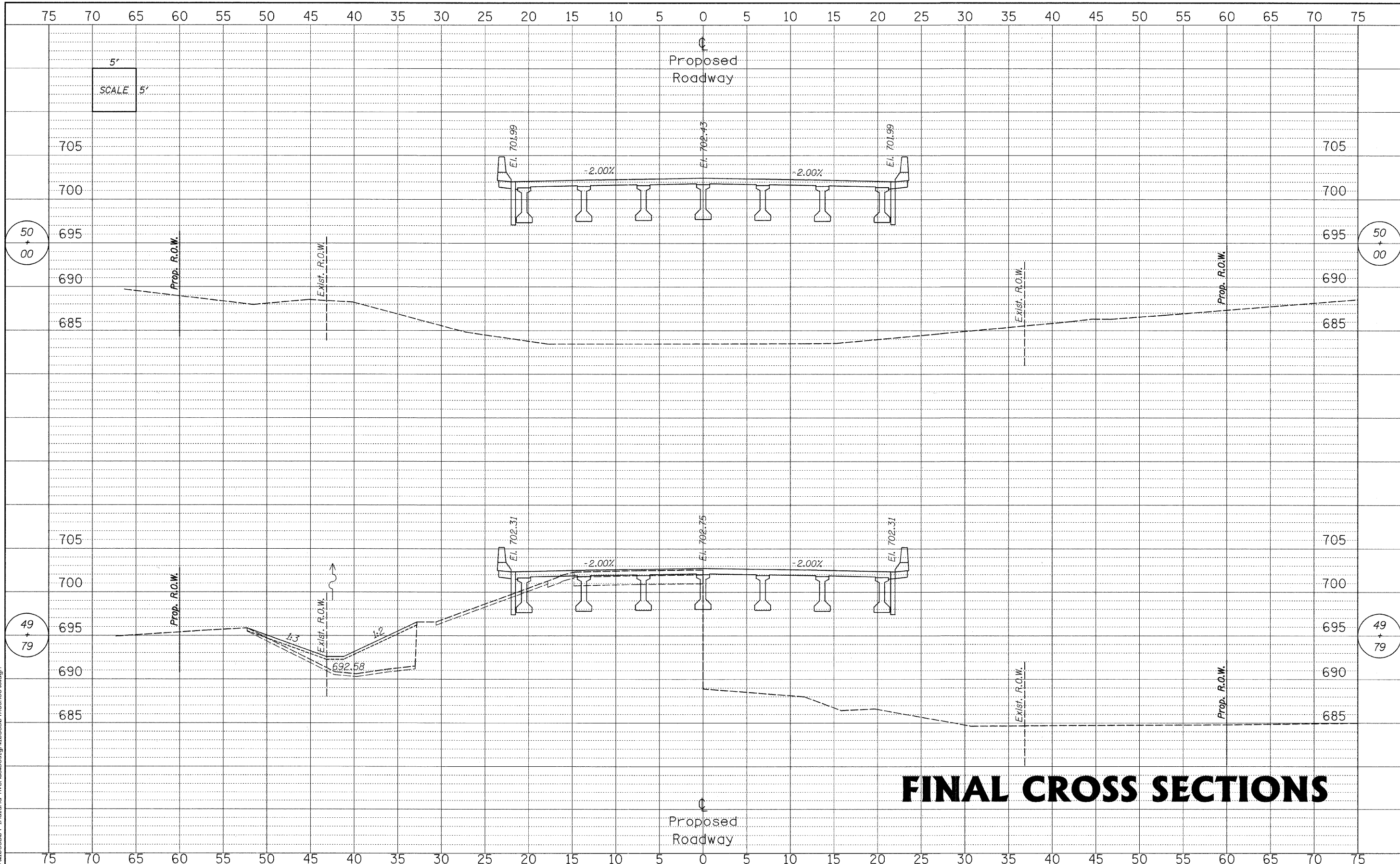
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**FINAL CROSS SECTIONS**  
**STRUCTURE NO. 099-3378**  
**STA. 49+26.40 - STA. 49+56.40**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>51</td> </td>	WILL <td>58</td> <td>51</td>	58	51
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617



# FINAL CROSS SECTIONS

FILE = S:\Struct\1033D04-Indiana Avenue.Design\1033D04\Sheets.dgn

REVISION	DATE	BY	REMARKS

DRAWN: L.G.N.  
 CHECKED: G.F.S.  
 APPROVED: B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION**  
**BRIDGE REPLACEMENT**  
**INDIANA AVENUE (CH 24) OVER TRIM CREEK**

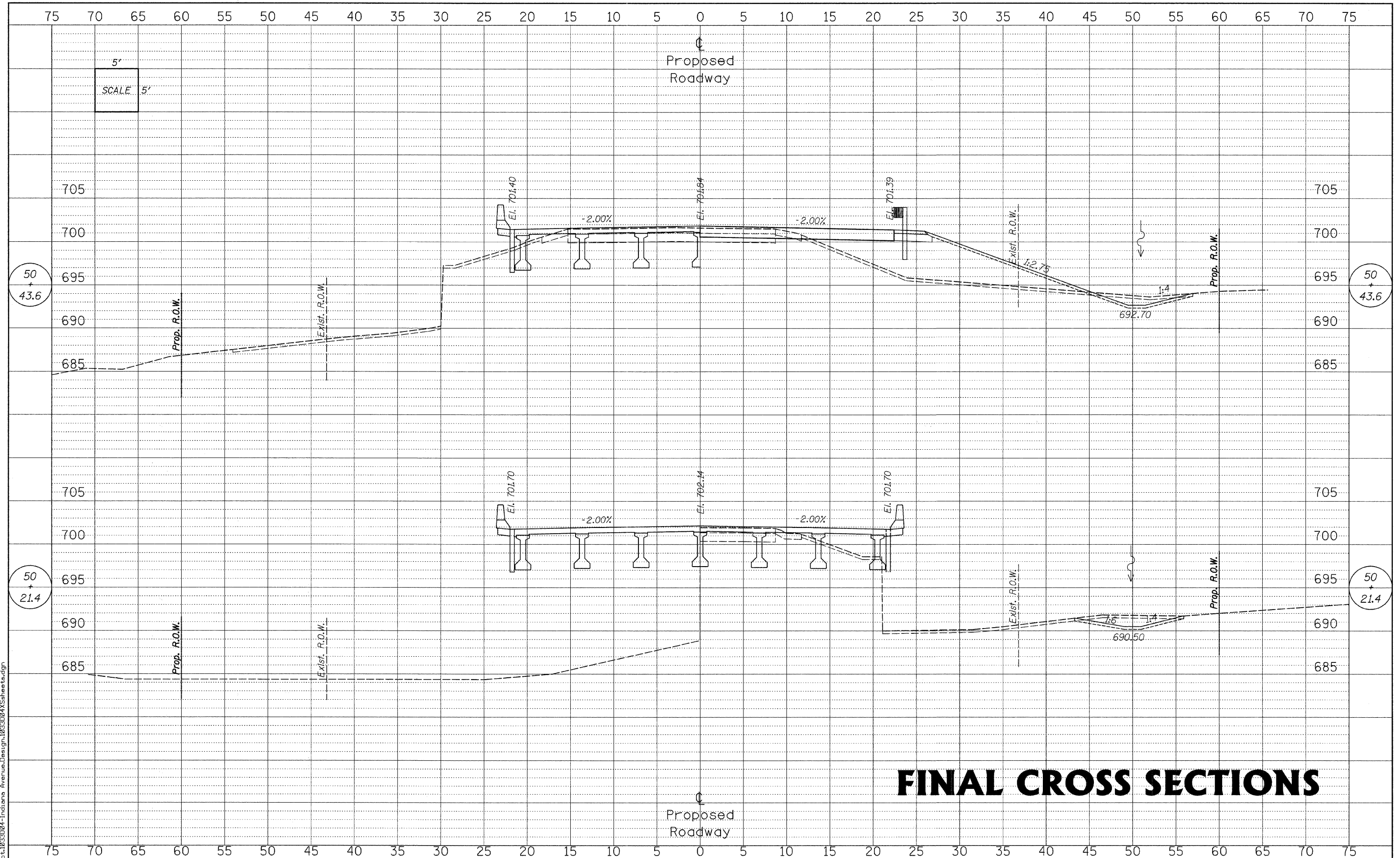


WILL COUNTY

**FINAL CROSS SECTIONS**  
**STRUCTURE NO. 099-3378**  
**STA. 49+79.00 - STA. 50+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR <td>WILL <td>58</td> <td>52</td> </td>	WILL <td>58</td> <td>52</td>	58	52
STA. 47+00	STA. 53+50		
WHA #: 1033D04	DATE: 6/9/2011		

CONTRACT NO. 63617



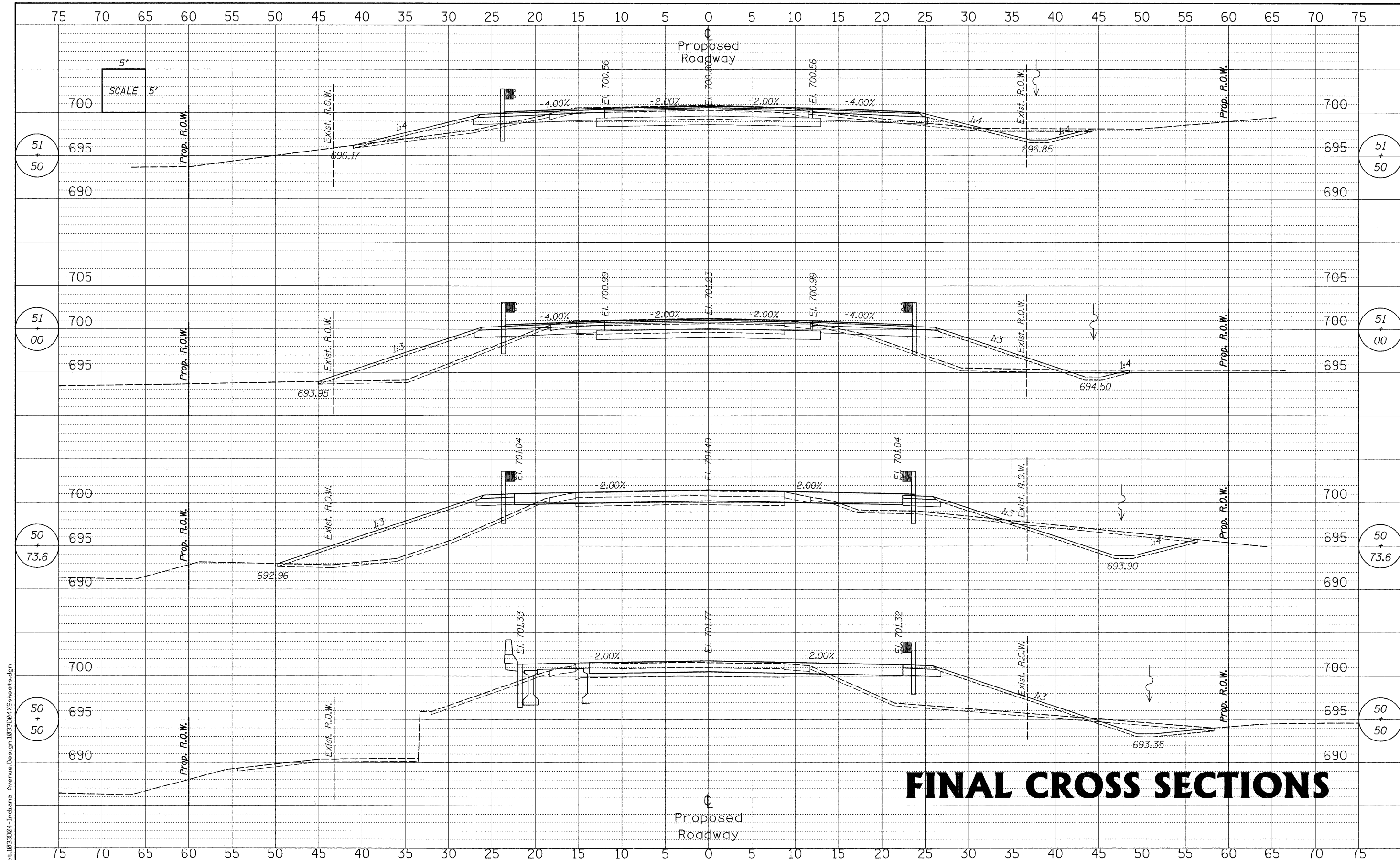
# FINAL CROSS SECTIONS

FILE = S:\Structure\1033004-Indiana Avenue.Design\1033004\Sheets.dgn

REVISION	DATE	BY	REMARKS	DRAWN	L.G.N.	CHECKED	G.F.S.	APPROVED	B.K.C.

<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>		<b>WILLET HOFMANN &amp; ASSOCIATES INC.</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>809 EAST 2ND STREET, DIXON, IL 61021-0367</small> <small>T: 815-254-1381 DESIGN FIRM #184-060918</small>	<b>WILL COUNTY</b>	<b>FINAL CROSS SECTIONS</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 50 + 21.4 - STA. 50 + 43.6</b>	<table border="1"> <tr> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>01-00042-07-BR</td> <td>WILL</td> <td>58</td> <td>53</td> </tr> <tr> <td>STA. 47+00</td> <td>STA. 53+50</td> <td> </td> <td> </td> </tr> <tr> <td>WHA #: 1033004</td> <td>DATE: 6/9/2011</td> <td> </td> <td> </td> </tr> </table>	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	01-00042-07-BR	WILL	58	53	STA. 47+00	STA. 53+50			WHA #: 1033004	DATE: 6/9/2011		
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																		
01-00042-07-BR	WILL	58	53																		
STA. 47+00	STA. 53+50																				
WHA #: 1033004	DATE: 6/9/2011																				

CONTRACT NO. 63617



# FINAL CROSS SECTIONS

FILE = S:\Struct\1033004-Indiana Avenue.Design\1033004\Kshheets.dgn

REVISION	DATE	BY	REMARKS

DRAWN L.G.N.  
 CHECKED G.F.S.  
 APPROVED B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

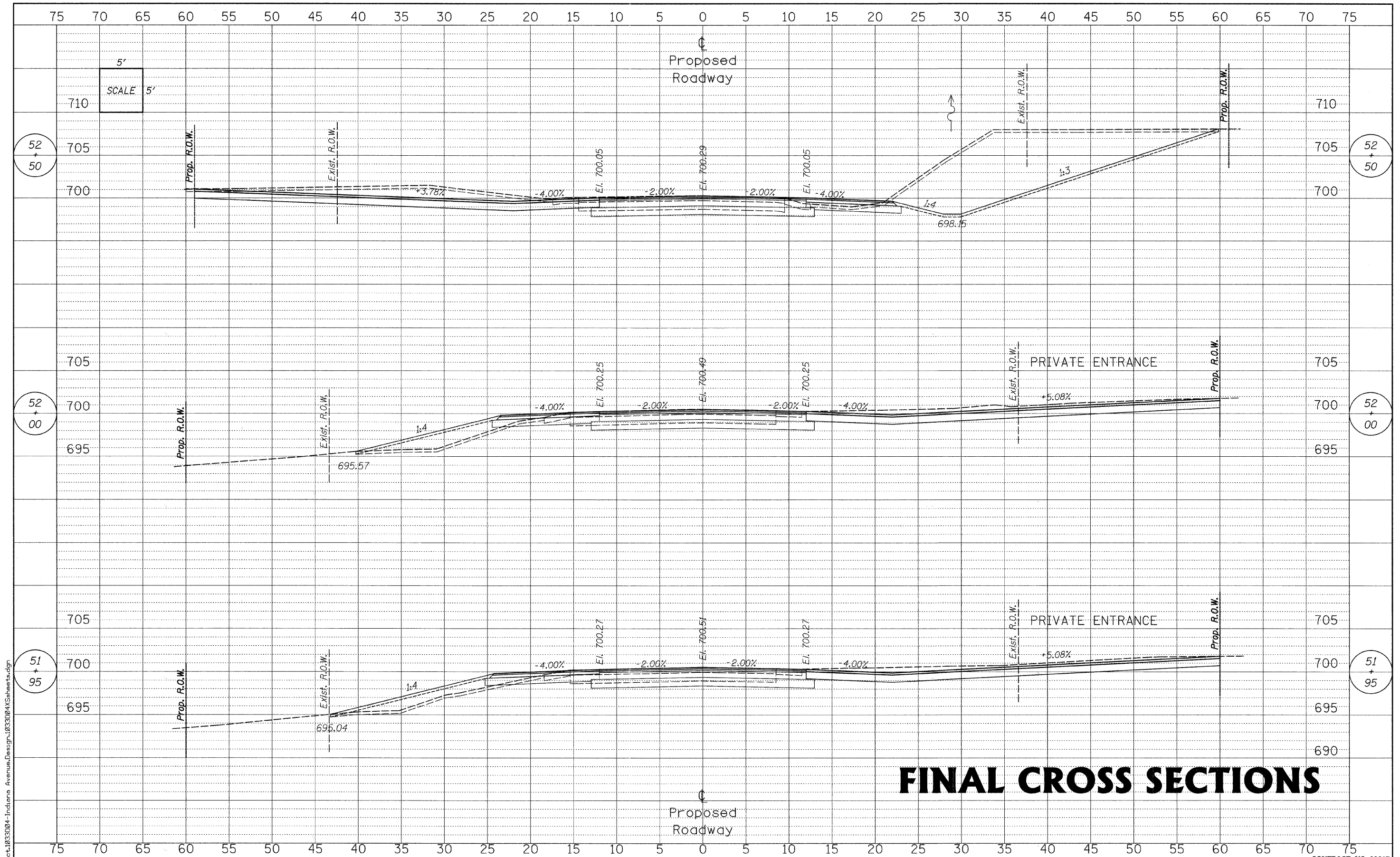
**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 899 EAST 2ND STREET, OGDON, IL 61021-0367  
 T: 815-284-3381 DESIGN FIRM: #184-000918

**WILL COUNTY**

**FINAL CROSS SECTIONS  
 STRUCTURE NO. 099-3378**  
 STA. 50+50.00 - STA. 51+50.00

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	54
STA. 47+00	STA. 53+50		
WHA #: 1033004	DATE: 6/9/2011		

CONTRACT NO. 63617

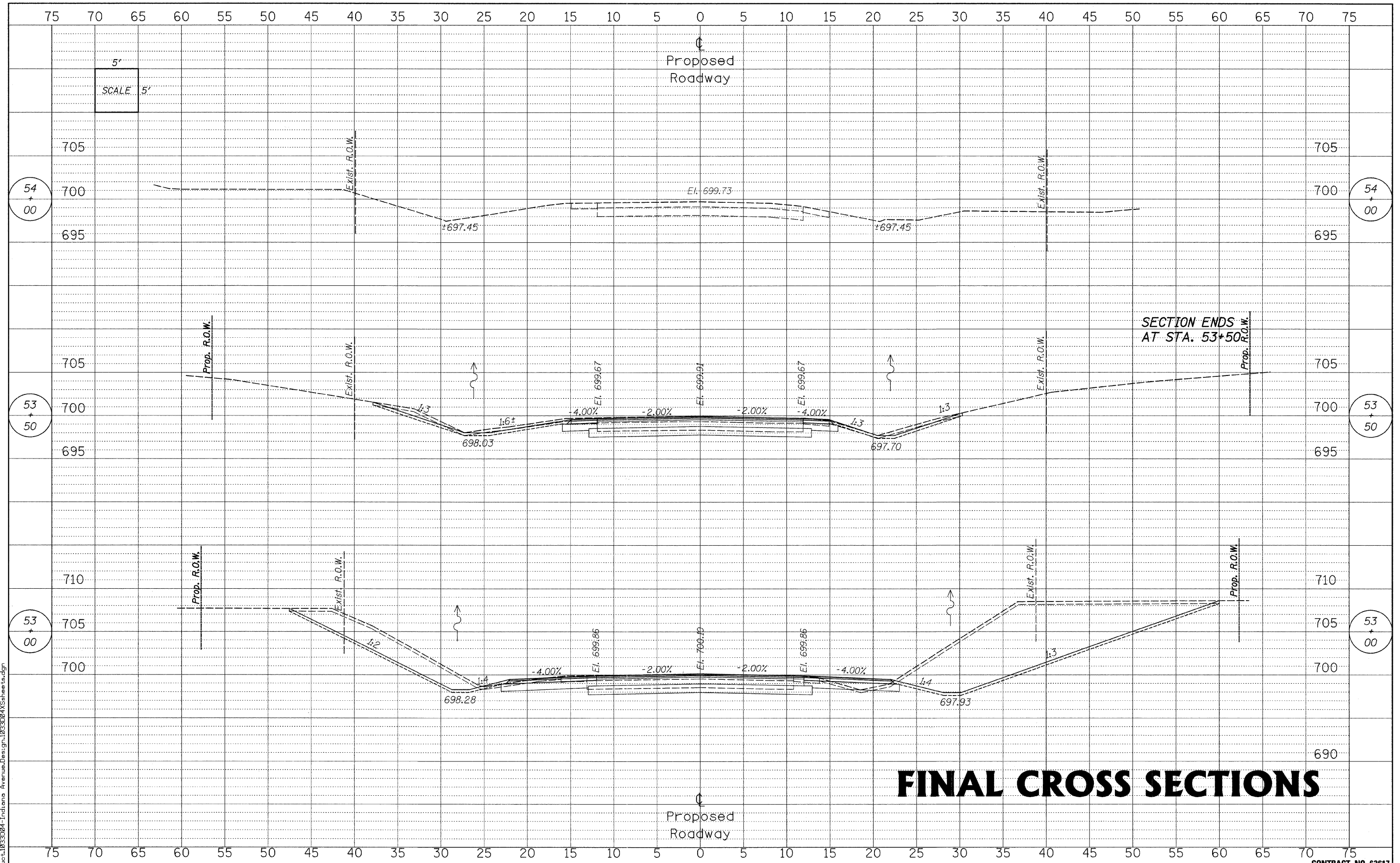


# FINAL CROSS SECTIONS

FILE = S:\Struct\1033004-Indiana Avenue\Design\1033004\XSheets.dgn

<b>REVISION</b>	<b>DATE</b>	<b>BY</b>	<b>REMARKS</b>	<b>DRAWN</b> L.G.N.	<b>ILLINOIS DEPARTMENT OF TRANSPORTATION</b> <b>BRIDGE REPLACEMENT</b> <b>INDIANA AVENUE (CH 24) OVER TRIM CREEK</b>	 <b>WILLET HOFMANN &amp; ASSOCIATES INC.</b> <small>ENGINEERING ARCHITECTURE LAND SURVEYING</small> <small>809 EAST 2ND STREET, DIXON, IL 61021-0367</small> <small>T: 815-284-3381 DESIGN FIRM: #184-000918</small>	<b>WILL COUNTY</b>	<b>FINAL CROSS SECTIONS</b> <b>STRUCTURE NO. 099-3378</b> <b>STA. 51+95.00 - STA. 52+50.00</b>	<b>SECTION</b> 01-00042-07-BR STA. 47+00 - STA. 53+50 WHA #: 1033004	<b>COUNTY</b> WILL DATE: 6/9/2011	<b>TOTAL SHEETS</b> 58	<b>SHEET NO.</b> 55	

CONTRACT NO. 63617



FILE = S:\Struct\1033004-Indiana Avenue.Design\1033004\Sheets.dgn

REVISION	DATE	BY	REMARKS

**DRAWN** L.G.N.  
**CHECKED** G.F.S.  
**APPROVED** B.K.C.

**ILLINOIS DEPARTMENT OF TRANSPORTATION  
 BRIDGE REPLACEMENT  
 INDIANA AVENUE (CH 24) OVER TRIM CREEK**

**WILLET HOFMANN & ASSOCIATES INC.**  
 ENGINEERING ARCHITECTURE LAND SURVEYING  
 809 EAST 2ND STREET, DIXON, IL 61021-0367  
 T: 815-294-3301 DESIGN FIRM: #184-000918

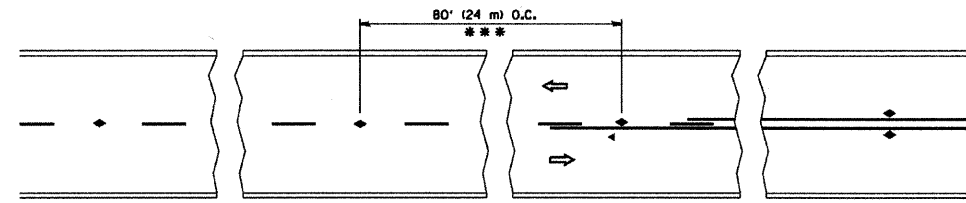
**WILL COUNTY**

**FINAL CROSS SECTIONS  
 STRUCTURE NO. 099-3378**  
**STA. 53+00.00 - STA. 54+00.00**

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
01-00042-07-BR	WILL	58	56
STA. 47+00 - STA. 53+50			
WHA #: 1033004	DATE: 6/9/2011		

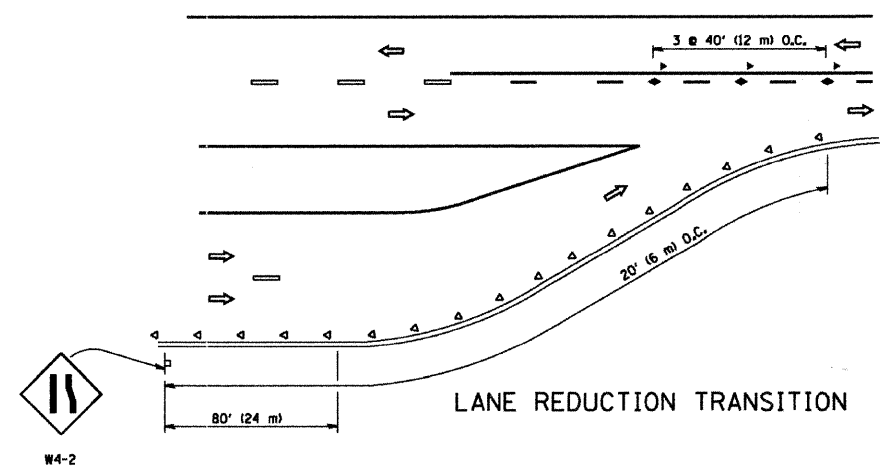
CONTRACT NO. 63617



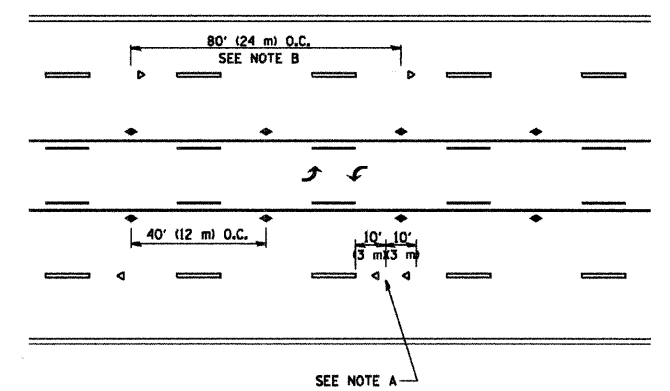


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

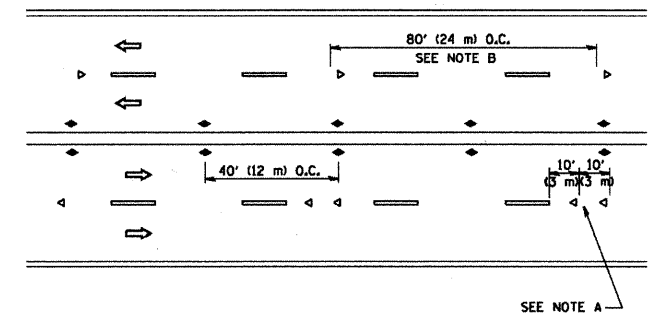
TWO-LANE/TWO-WAY



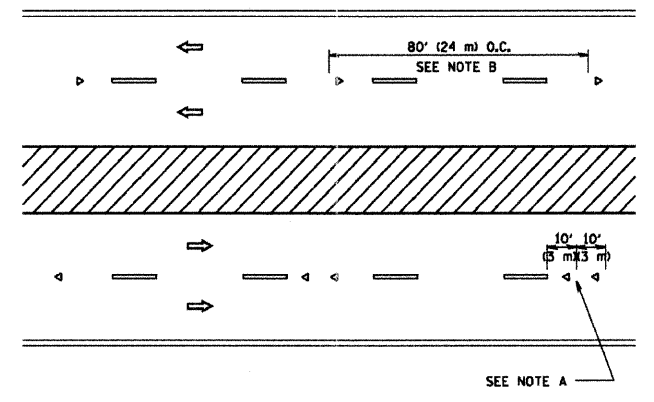
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

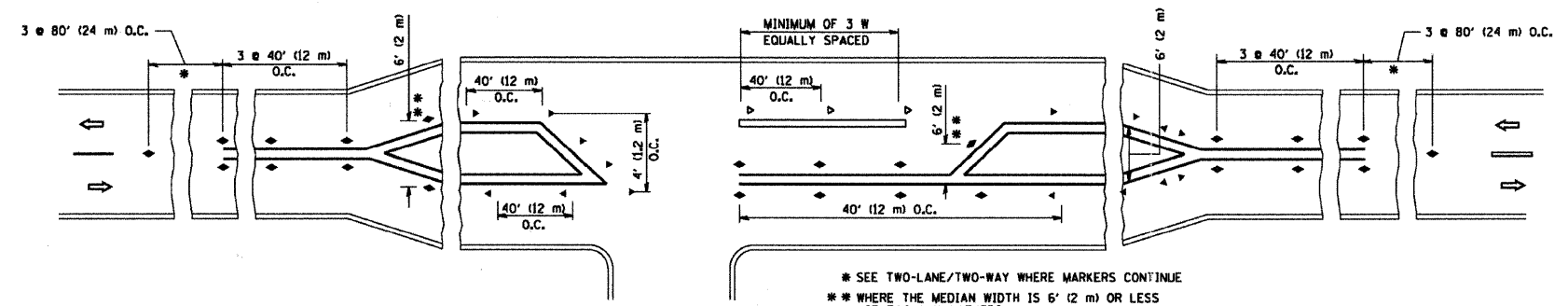
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◀ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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



LEFT TURN

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

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

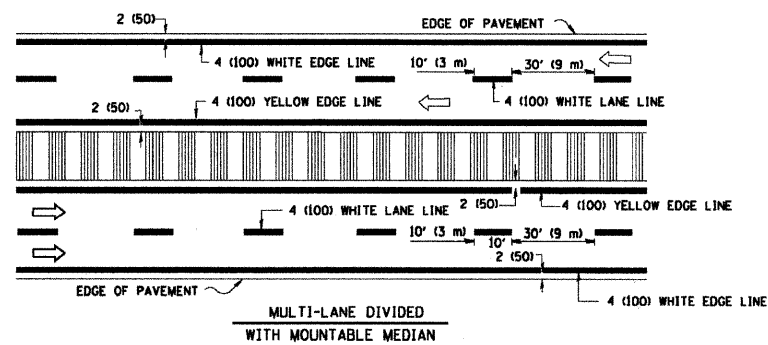
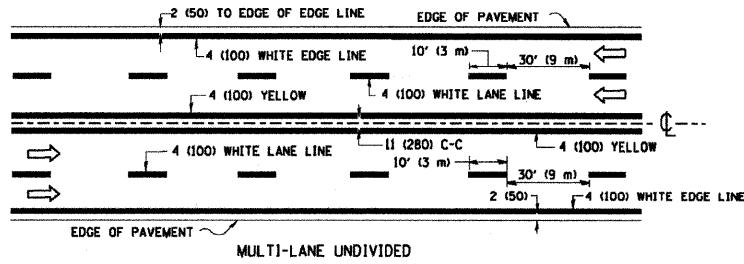
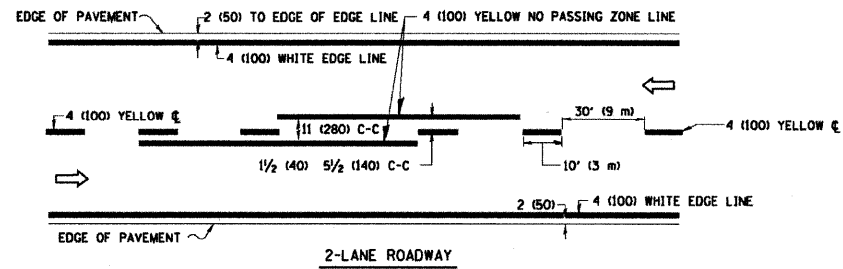
FILE NAME = S:\Structure\10333004-Indiana Avenue\Design\10333004-DetailDetail.dgn

USER NAME =	DESIGNED - G.F.S.	REVISED -
PLOT SCALE =	DRAWN - R.D.A.	REVISED -
PLOT DATE =	CHECKED - B.K.C.	REVISED -
	DATE - 6/9/2011	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

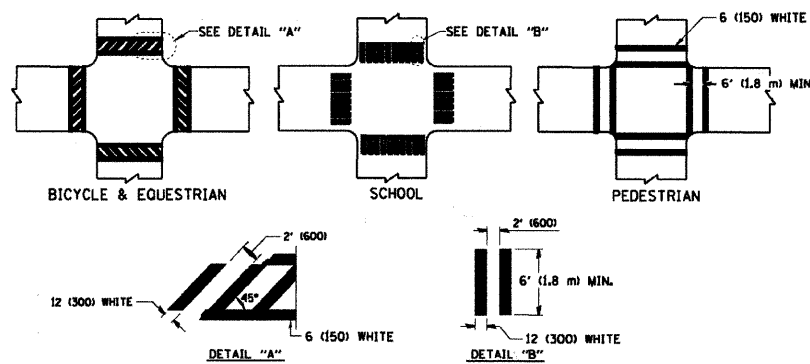
DISTRICT ONE DETAIL TC-11		
STRUCTURE NO. 099-3378		
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 47+00.00 TO STA. 53+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0308	01-00042-07-BR	WILL	58	57
WHA# 10333004		CONTRACT NO. 63617		
ILLINOIS FED. AID PROJECT BRS-0308(104)				

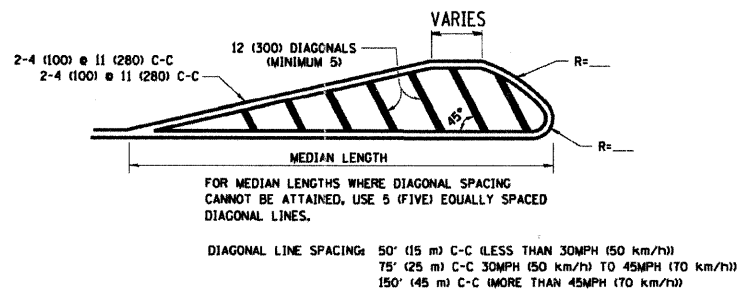
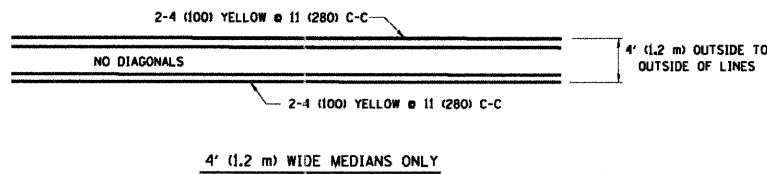


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

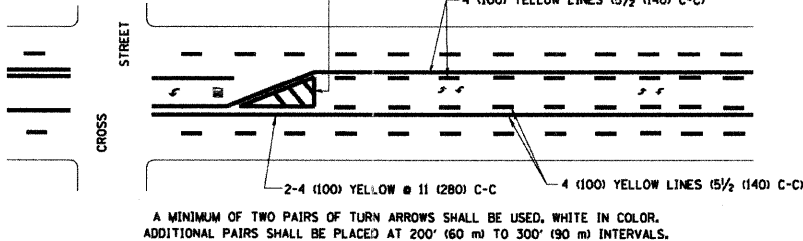
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

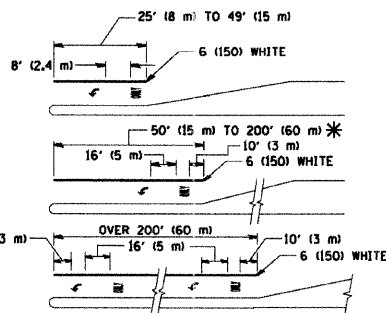


MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

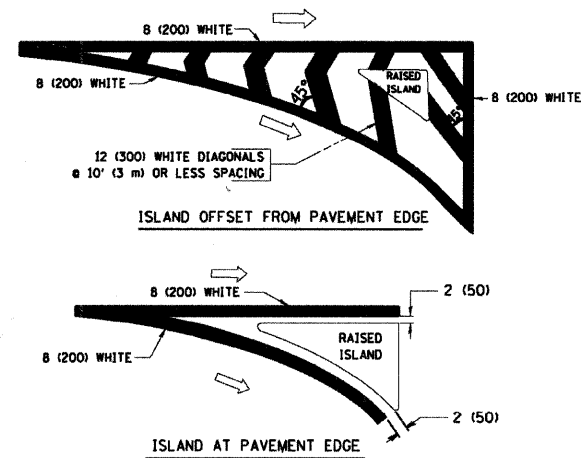


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) (AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>))

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD T80001 AREA OF "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD T80001.

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

FILE NAME = S:\Structure\10333004-Indiana Avenue\Design\10333004\_Detail.dwg

USER NAME =	DESIGNED - G.F.S.	REVISED -
PLOT SCALE =	DRAWN - R.D.A.	REVISED -
PLOT DATE =	CHECKED - B.K.C.	REVISED -
	DATE - 6/9/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAIL TC-13  
STRUCTURE NO. 099-3378

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0308	01-00042-07-BR	WILL	58	58
WHA# 10333004		CONTRACT NO. 63617		
ILLINOIS FED. AID PROJECT BR5-0308104				

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. 47+00.00 TO STA. 53+50.00