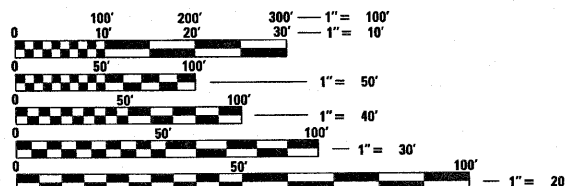


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- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 420401-08 BRIDGE APPROACH PAVEMENT CONNECTOR
- 442001-04 CLASS A PATCHES
- 515001-03 NAME PLATE FOR BRIDGES
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
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- 610001-05 SHOULDER INLET WITH CURB
- 630001-08 STEEL PLATE BEAM GUARDRAIL
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- 642001-01 SHOULDER RUMBLE STRIPS
- 701400-04 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-05 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-07 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
- 701411-06 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP  
FOR SPEEDS ≥ 45 MPH
- 701426-03 LANE CLOSURE, MULTILANE INTERMITTENT OR MOVING OPERATION,  
FOR SPEEDS ≥ 45 MPH
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 780001-02 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS



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

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

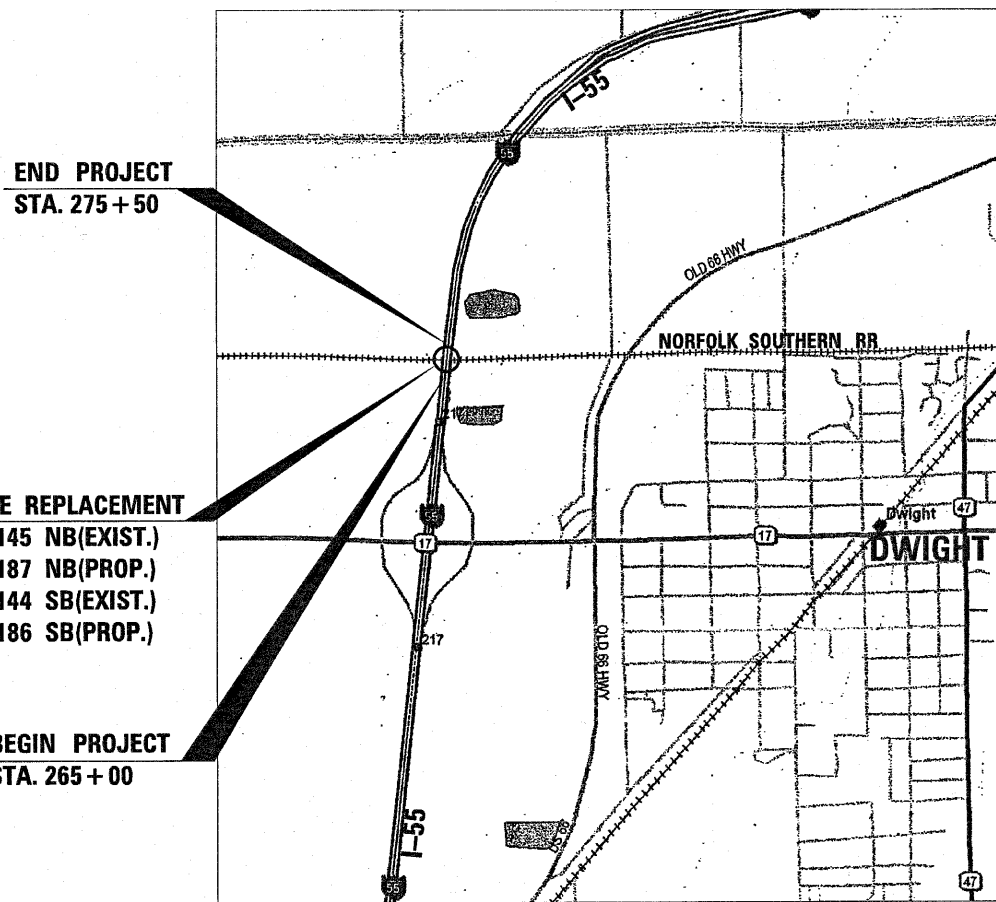
PROJECT ENGINEER: CRAIG REED  
UNIT CHIEF: BRAD DUNCAN  
TOWNSHIP: DWIGHT

CONTRACT NO. 66856

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

**FAI ROUTE 55 (I-55)**  
**SECTION (53-1)HBR & HBR-1**  
**PROJECT ACIM-055-5 (110)218**  
**STRUCTURE REPLACEMENT OVER**  
**NORFOLK SOUTHERN RAILROAD**  
**LIVINGSTON COUNTY**

C-93-103-10



**END PROJECT**  
**STA. 275 + 50**

**STRUCTURE REPLACEMENT**  
**SN 053-0145 NB(EXIST.)**  
**SN 053-0187 NB(PROP.)**  
**SN 053-0144 SB(EXIST.)**  
**SN 053-0186 SB(PROP.)**

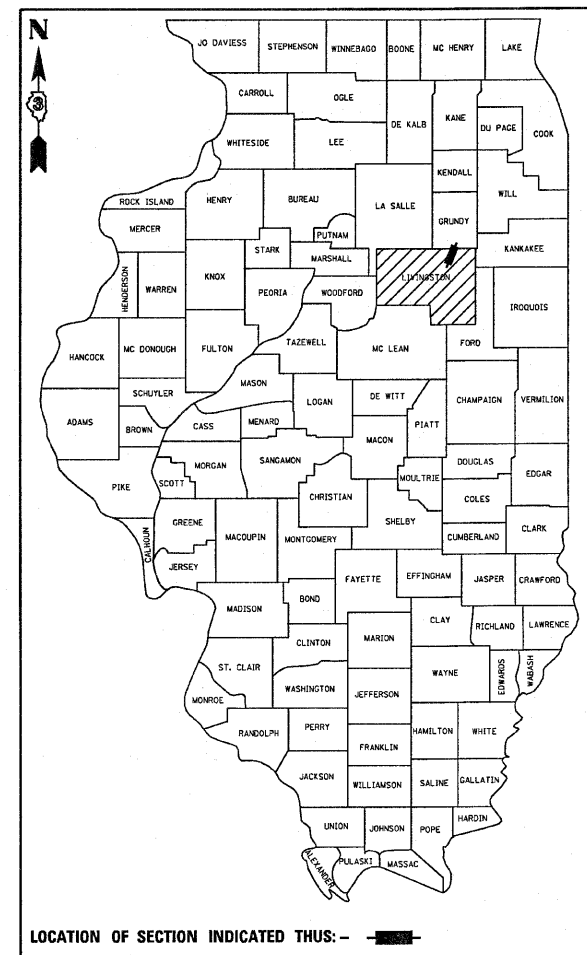
**BEGIN PROJECT**  
**STA. 265 + 00**

**NOT TO SCALE**

GROSS & NET LENGTH = 1050 FT. = 0.20 MILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 66856	

P-93-054-08  
D-93-046-10



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

**FUNCTIONAL CLASSIFICATION**  
**INTERSTATE (RURAL)**

**2009 ADT = 23000**  
**PV = 73.4% SU = 3.2% MU = 23.4%**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED August 12 20 10

George Arman  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 1 20 10

Scott E. Stitt P.E. /s/  
acting ENGINEER OF DESIGN AND ENVIRONMENT

October 1 20 10

Christine M. Reed /s/  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
POLYMERIZED BIT MATERIALS (PRIME COAT)	0.10	GAL / SQ YD
FOR ADDITIONAL HMA LIFTS "FOG COAT"	0.08	GAL / SQ YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: Don Bonial  
ACTING DISTRICT STUDIES & PLANS ENGINEER

DATE: 8/12/10

EXAMINED BY: Hubert J. [Signature]  
DISTRICT CONSTRUCTION ENGINEER

[Signature]  
DISTRICT MATERIALS ENGINEER

[Signature]  
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
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PLOT DATE = Aug 10, 2010 - 11:19:28 AM		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	2
CONTRACT NO. 66856				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

SUMMARY OF QUANTITIES

CODE NO.	ITEM	CONSTRUCTION CODE TYPE:		0005 ROADWAY QUANTITY	0011 EX SN 053-0144(SB) PR SN 053-0186(SB) EX SN 053-0145(NB) PR SN 053-0187(SB)
		UNIT	90% FED. 10% STATE TOTAL QUANTITY		
20200100	EARTH EXCAVATION	CU YD	279	279	
20400800	FURNISHED EXCAVATION	CU YD	394	394	
* 25000300	SEEDING, CLASS 3	ACRE	0.8	0.8	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	73	73	
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	73	73	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	73	73	
* 25100630	EROSION CONTROL BLANKET	SQ YD	3872	3872	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	80	80	
40600115	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1111	1111	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	542	542	
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	878	878	
40600990	TEMPORARY RAMP	SQ YD	129	129	
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	955	955	
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	470	470	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	110	110	
44000100	PAVEMENT REMOVAL	SQ YD	633	633	
<del>44000300</del>	CURB REMOVAL	FOOT	190	190	
44004250	PAVED SHOULDER REMOVAL	SQ YD	<b>3,048</b>	<b>3,048</b>	
44200541	CLASS A PATCHES, TYPE II, 9 INCH	SQ YD	64	64	
44213000	PATCHING REINFORCEMENT	SQ YD	64	64	
44213200	SAW CUTS	FOOT	480	480	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	830	830	
48203040	HOT-MIX ASPHALT SHOULDERS, 10 3/4"	SQ YD	3047	3047	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	962	962	
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1	1	
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1	1	
50157300	PROTECTIVE SHIELD	SQ YD	791	791	
50200100	STRUCTURE EXCAVATION	CU YD	592	592	
50300100	FLOOR DRAINS	EACH	32	32	
50300225	CONCRETE STRUCTURES	CU YD	424.6	424.6	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	716.5	716.5	
50300260	BRIDGE DECK GROOVING	SQ YD	1779	1779	
50300280	CONCRETE ENCASEMENT	CU YD	<b>8.4</b>	<b>8.4</b>	
50300300	PROTECTIVE COAT	SQ YD	2189	2189	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1	
50500505	STUD SHEAR CONNECTORS	EACH	7056	7056	

SUMMARY OF QUANTITIES

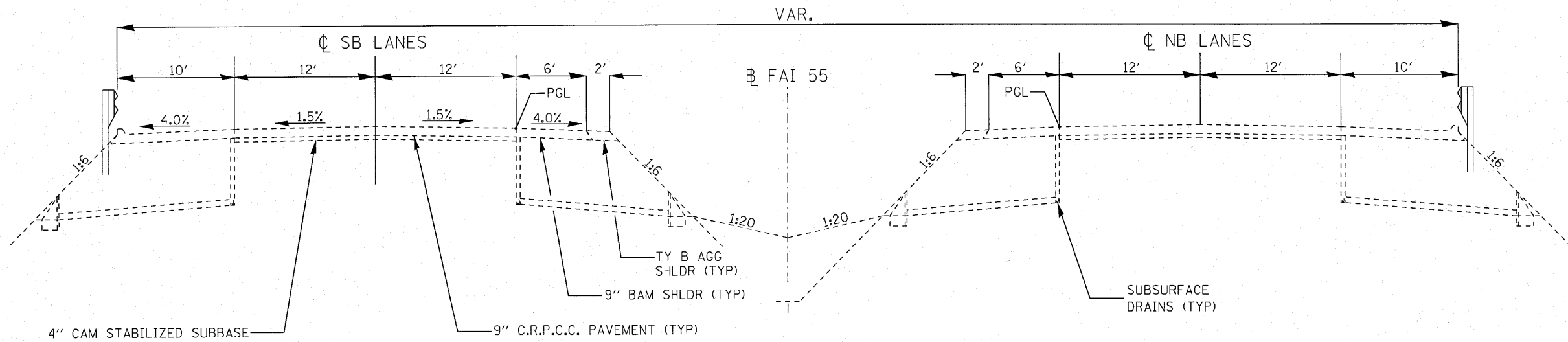
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		UNIT	90% FED. 10% STATE TOTAL QUANTITY		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	237710		237710
50800515	BAR SPLICERS	EACH	1914		1914
51100100	SLOPE WALL 4 INCH	SQ YD	2506		2506
51201600	FURNISHING STEEL PILES HP12X53	FOOT	4256		4256
51202305	DRIVING PILES	FOOT	4256		4256
51203600	TEST PILE STEEL HP12X53	EACH	4		4
51500100	NAME PLATES	EACH	2		2
52100520	ANCHOR BOLTS, 1"	EACH	96		96
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	156		156
<del>60600605</del>	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	313		313
60600605	CONCRETE CURB, TYPE B	FOOT	1654	1654	
61000225	TYPE F INLET BOX, STANDARD 610001	EACH	2	2	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	2075	2075	
* 63000130	STEEL PLATE BEAM GUARD RAIL, TYPE A (SPECIAL)	FOOT	23.4	23.4	
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	2189	2189	
* 63300575	REMOVE AND REERECT RAIL ELEMENT OF EXISTING GUARD RAIL	FOOT	1569	1569	
64200105	SHOULDER RUMBLE STRIP	FOOT	3029	3029	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	10	10	
67100100	MOBILIZATION	L SUM	1	1	
70101220	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411 (SPECIAL)	EACH	2	2	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	170	170	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	16	16	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	415	415	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4150	4150	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	530	530	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	137	137	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1312.5	1312.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1100	1100	
* 78004230	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - 6"	FOOT	530	530	
* 78008210	POLYUREA PAVEMENT MARKING - LINE 4"	FOOT	4450	4450	
* 78008230	POLYUREA PAVEMENT MARKING - LINE 6"	FOOT	100	100	
* 78008240	POLYUREA PAVEMENT MARKING - LINE 8"	FOOT	100	100	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	40	40	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	10	10	

**SUMMARY OF QUANTITIES**

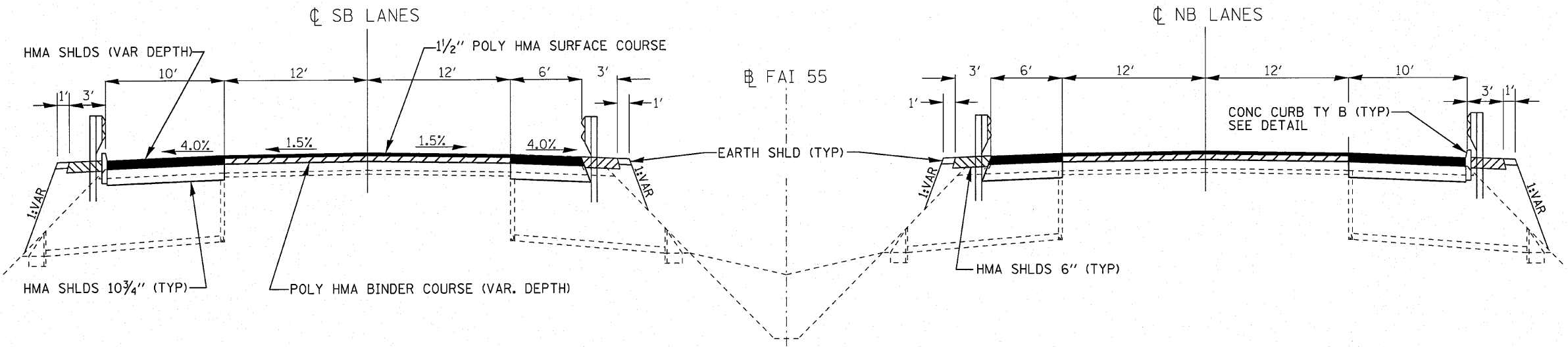
CODE NO.	ITEM	CONSTRUCTION CODE TYPE:		0005	0011
		UNIT	90% FED. 10% STATE TOTAL QUANTITY	ROADWAY QUANTITY	EX SN 053-0144(SB) PR SN 053-0186(SB) EX SN 053-0145(NB) PR SN 053-0187(SB)
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	29	29	
* 78200520	BARRIER WALL MARKERS - TYPE B	EACH	8	8	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	216	216	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	40	40	
X0323586	PIPE DRAIN REMOVAL	FOOT	420	420	
X0326160	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	256		256
X0326867	RADAR SPEED TRAILER	CAL MO	10	10	
X2020502	BRACED EXCAVATION	CU YD	816		816
X5080600	MECHANICAL SPLICERS	EACH	24		24
X6050700	REMOVE INLET BOX	EACH	10	10	
X7010805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	L SUM	1	1	
X7010820	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	L SUM	1	1	
X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	4150	4150	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	288		288

\*SPECIALTY ITEMS

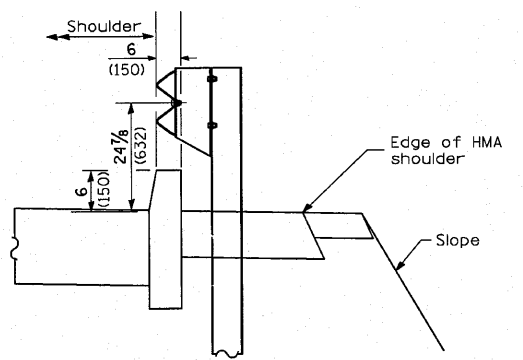
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PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	LIVINGSTON	102	4
PLOT DATE = Aug 11, 2010 - 02:41:34 PM	DATE -	REVISED -	REVISED -		CONTRACT NO. 66856								
											ILLINOIS FED. AID PROJECT		



EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION



CONCRETE CURB DETAIL

MIXTURES TABLE

	POLY HMA SURFACE	POLY HMA BINDER	HMA SHOULDERS 10 3/4"	HMA SHLDS 6" FOR GUARDRAIL STABILIZATION	HMA SHOULDERS
PG GRADE	SBS-PG70-22	SBS-PG70-22	PG64-22	PG58-22	PG58-22
DESIGN AIR VOIDS	4.0% @ N90	4.0% @ N90	4.0% @ N90	2.0% @ N30	4.0% @ N50
MIXTURE COMPOSITION	IL 12.5 OR IL 9.5	IL 19.0	IL 19.0	IL 19.0	IL 12.5 OR IL 9.5
FRICITION					
AGGREGATE	MIXTURE D				MIXTURE C
DENSITY TEST METHOD	CORRELATION	CORRELATION	CORES/ CORRELATION	SATISFACTION OF ENGINEER	CORRELATION

PAVEMENT								
LOCATION	PCC SURF REMOVAL BUTT JOINT	HMA SURF REMOVAL BUTT JOINT	POLY BIT MAT PR CT	POLY HMA BIND CSE IL 19.0 N90	POLY HMA SURF CSE MIX D N90	HMA SHOULDERS	BRIDGE APPR PAVT CONN FLEXIBLE	TEMP RAMP
	SQ YD	SQ YD	GALLON	TON	TON	TON	SQ YD	SQ YD
NORTHBOUND								
265+25 - 266+25	331.3	177.8	77.4		37.1	19.9		22.59
266+25 - 267+00			55.4		37.6	21.5		
267+00 - 269+33			158.8	201	54.8	174.0		13.33
269+33 - 271+44	STRUCTURE OMISSION							
271+44 - 273+85			158.5	198	54.0	174.0		13.33
273+85 - 274+80			62.5		40.8	27.2		
274+80 - 275+50	186.7	124.4	46.0		20.9	13.9		17.79
NB SUBTOTAL	518	302.2	558.6	399	245.2	430.5	0	67
SOUTHBOUND								
265+00 - 265+50	133.3	88.9	32.9		14.9	10.0		17.79
265+50 - 266+05			36.2		23.6	15.7		
266+05 - 269+19			206.5	311	70.3	273.0		13.33
269+19 - 271+30	STRUCTURE OMISSION							
271+30 - 273+90			171.0	245	58.2	194.0		13.33
273+90 - 274+65			49.3		32.2	21.5		
274+65 - 275+50	226.7	151.1	55.9		25.4	16.9		17.79
SB SUBTOTAL	360	240	551.9	556	224.7	531.1	0	62
TOTAL	878	542	1111	955	470	962	0	129

REMOVAL				
LOCATION	PAVEMENT REMOVAL	HMA CURB REMOVAL	PAVED SHOULDER REMOVAL	PCC SHOULDER REMOVAL
	SQ YD	FOOT	SQ YD	SQ YD
NORTHBOUND				
STAGE 1 TRAFFIC				
265+25 - 269+71 RT				495.6
271+23 - 274+60 RT			374.4	
STAGE 2 TRAFFIC				
265+25 - 269+31 LT			270.7	
271+42 - 274+60 LT			212	
269+33 - 269+69	158.4			
271+09 - 271+44	159			
274+60 - 275+50 RT		90		
SOUTHBOUND				
STAGE 1 TRAFFIC				
266+00 - 269+40 LT			377.8	
271+04 - 275+50 LT			495.6	
STAGE 2 TRAFFIC				
266+00 - 269+21 RT			356.7	
271+32 - 275+50 RT			464.4	
269+19 - 269+55	157.3			
270+95 - 271+30	158.4			
265+00 - 266+00		100		
TOTAL	633	190	2552	496

EARTHWORK					
LOCATION STA. TO STA.	EARTH EXCAVATION	UNSUITABLE EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE(+) OR SHORTAGE(-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
NORTHBOUND					
265+25 - 269+63	79	32	36	102	-66
271+14 - 275+50	70	28	32	69	-38
SOUTHBOUND					
265+00 - 269+50	65	26	29	132	-103
271+00 - 275+50	65	26	29	217	-188
TOTAL	279	112	126	520	-394

SHOULDER			
LOCATION	HMA SHOULDER 6"	HMA SHOULDER 10 3/4"	CONC CURB TY B
	SQ YD	SQ YD	FOOT
NORTHBOUND			
STAGE 1 TRAFFIC			
265+25 - 269+71 RT		495.6	
271+23 - 274+60 RT		374.4	
STAGE 2 TRAFFIC			
265+25 - 269+31 LT		270.7	
271+42 - 274+60 LT		212	
265+25 - 269+51 RT	142		
265+89 - 269+46 LT	129.2		
271+32 - 275+50	139.3		
265+25 - 269+36 RT			411
271+47 - 275+50 RT			403
SOUTHBOUND			
STAGE 1 TRAFFIC			
266+00 - 269+40 LT		377.8	
271+04 - 275+50 LT		495.6	
STAGE 2 TRAFFIC			
266+00 - 269+21 RT		356.7	
271+32 - 275+50 RT		464.4	
265+00 - 269+32 LT	144		
271+13 - 275+50 LT	145.7		
271+18 - 274+77 RT	129.9		
265+00 - 269+17 LT			417
271+27 - 275+50 LT			423
TOTAL	830	3047	1654

SEE PAVEMENT SCHEDULE FOR ADDITIONAL HMA SHOULDER CALCULATIONS

STAGING (BARRIER)					
LOCATION	LANE	TEMPORARY CONCRETE BARRIER	REL TEMP CONCRETE BARRIER	IMPACT ATT TEMP (NON-RED) TEST LEVEL 3	IMPACT ATT REL (NON-RED) TEST LEVEL 3
		FOOT	FOOT	EACH	EACH
STAGE 1					
265+50 - 272+25	NB	675		1	
268+45 - 275+00	SB	637.5		1	
STAGE 2					
266+15 - 272+00	NB		575		1
268+60 - 273+95	SB		525		1
TOTAL		1312.5	1100	2	2

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pw\work\p\duncanbd\dms50148\d36	856-sht-details.dgn	DRAWN -	REVISED -			55	(53-1)HBR & HBR-1	LIVINGSTON	102	6	
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 66856					
	PLOT DATE = Aug 11, 2010 - 02:41:03 PM	DATE -	REVISED -			[ILLINOIS] FED. AID PROJECT					
				SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.				

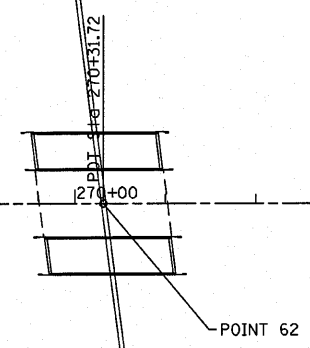
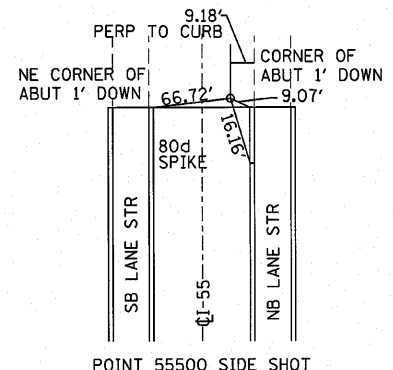
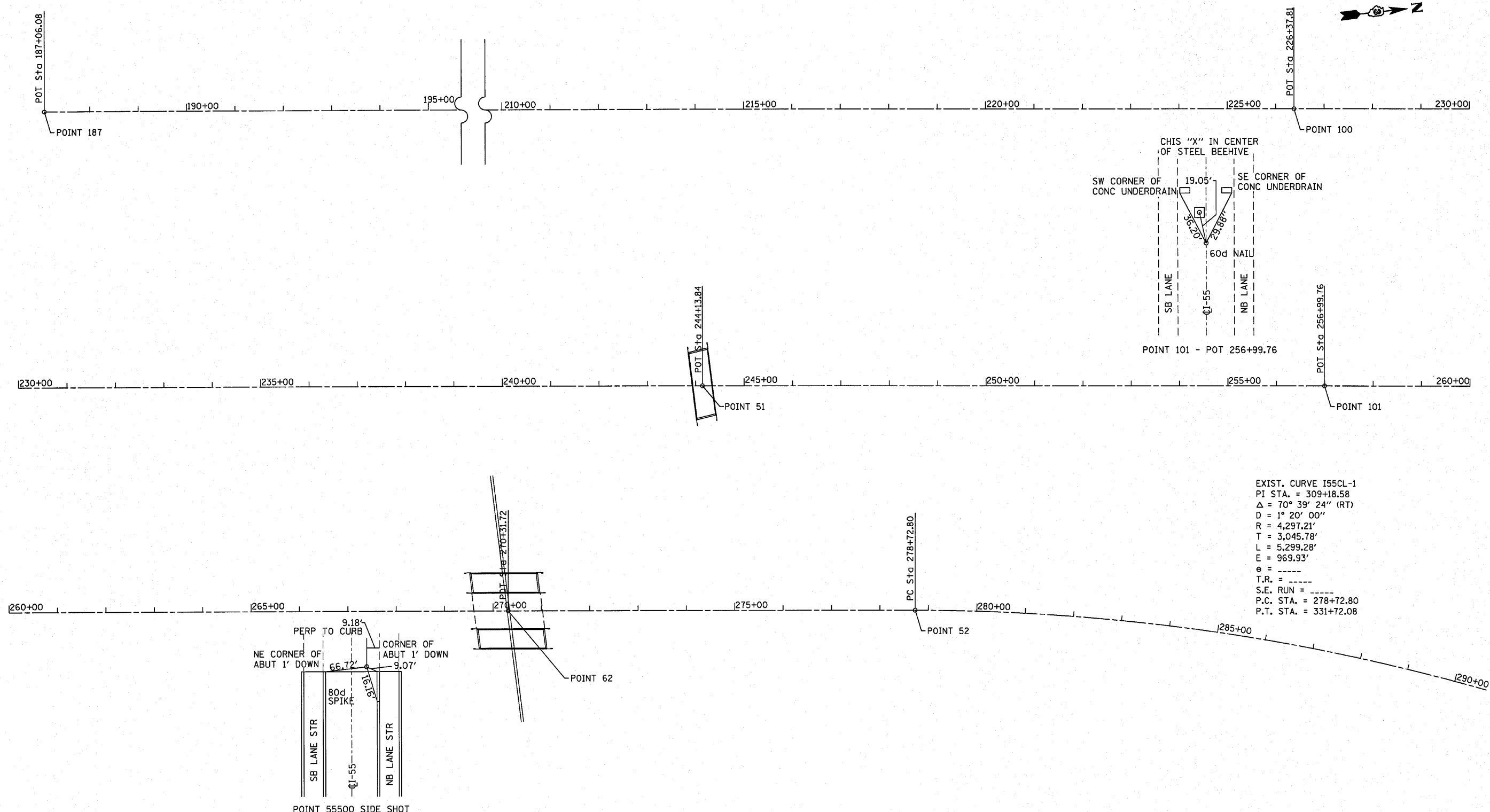
GUARDRAIL											
LOCATION	LANE	REM & REERECT	SPBGR	SPBGR	TRAF BARR	TRAF BARR	TRAF BARR	GUARDRAIL	BARRIER	TERM MARK	GUARDRAIL
		RAIL ELEM OF	TYPE A	TYPE A	TERM	TERM	TERM TY 1	MARKERS	WALL MARKERS	DIRECT	REM
		EX GUARDRAIL	6 FT POSTS	SPECIAL	TYPE 6	TYPE 5	SPEC, TANG	TYPE A	TYPE B	APPLIED	FOOT
		FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
STAGE 1											
265+25 - 269-71 RT	NB	446									
271+23 - 274+60 RT	NB	337									
266+00 - 269+40 LT	SB	340									
271+04 - 275+50 LT	SB	446									
265+25 - 269+72 RT	NB										447
271+23 - 275+50 RT	NB										427
267+85 - 269+61 LT	NB										214
265+00 - 269+41 LT	SB										441
271+04 - 275+50 LT	SB										446
270+97 - 272+79 RT	SB										214
265+25 - 269+51.1 RT	NB		375	8	1			6			
269+51.1 - 271+31.5 RT	NB								2		
271+31.5 - 275+50 RT	NB		400	3.7			1				
266+03 - 269+46.1 LT	NB		250		1			4		1	
269+46.1 - 271+26.6 LT	NB								2		
265+00 - 269+32.2 LT	SB		412.5	5			1	5			
269+32.2 - 271+12.7 LT	SB								2		
271+12.7 - 275+50 LT	SB		387.5	6.7	1			5			
269+37.1 - 271+17.7 RT	SB								2		
271+17.7 - 274+60.8 RT	SB		250		1		1	4		1	
<b>TOTAL</b>		<b>1569</b>	<b>2075</b>	<b>23.4</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>29</b>	<b>8</b>	<b>2</b>	<b>2189</b>

PAVEMENT MARKING											
LOCATION	POLYUREA			PREF PLAS PAVT MARK TY B INLAID 6"	RAISED REFL PAVT MARK EACH	RAISED REFL PAVT MARK BRIDGE EACH	TEMPORARY		SHORT TERM FOOT	PAVT MARK REM SQ FT	WORK ZONE PAVT MARK REM SQ FT
	4"	6"	8"				4"	6"			
	WHITE FOOT	YELLOW FOOT	YELLOW FOOT				FOOT	FOOT			
NORTHBOUND											
265+25 - 275+50				260	20	4		260	205		68
CENTERLINE											
EDGE LINE	2050						2050				
SOUTHBOUND											
265+00 - 275+50				270	20	6		270	210		69
CENTERLINE											
EDGE LINE	2100						2100				
REPLACE REMOVED MARKINGS	300	100	100							216	
STAGE 1 CONSTRUCTION											
STAGE 2 CONSTRUCTION											
<b>TOTAL</b>	<b>4450</b>	<b>100</b>	<b>100</b>	<b>530</b>	<b>40</b>	<b>10</b>	<b>4150</b>	<b>530</b>	<b>415</b>	<b>216</b>	<b>137</b>

DRAINAGE			
LOCATION	REMOVE INLET BOX EACH	PIPE DRAIN REMOVAL FOOT	TYPE F INLET BOX STD 610001 EACH
NORTHBOUND			
266+00 RT	1		1
269+51 LT	1	25	
269+56 RT	1	95	
271+21 LT	1	24	
271+27 RT	1	80	
275+00 RT	1		1
SOUTHBOUND			
269+36 LT	1	70	
269+42 RT	1	24	
271+07 LT	1	77	
271+12 RT	1	25	
<b>TOTAL</b>	<b>10</b>	<b>420</b>	<b>2</b>

SEEDING						
LOCATION	SEEDING CLASS 3 ACRE	EROSION CONTROL BLANKET SQ YD	NITROGEN FERTILIZER NUTRIENT POUND	PHOSPHORUS FERTILIZER NUTRIENT POUND	POTASSIUM FERTILIZER NUTRIENT POUND	TEMP EROS CONT SEEDING POUND
NORTHBOUND						
265+25 - 269+63	0.20	968	18	18	18	20
271+14 - 275+50	0.15	726	14	14	14	15
SOUTHBOUND						
265+00 - 269+50	0.21	1016	19	19	19	21
271+00 - 275+50	0.24	1162	22	22	22	24
<b>TOTAL</b>	<b>0.80</b>	<b>3872</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>80</b>

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
o:\p\work\p\d\uncanbd\dms50148\d36856-shd-deta1.s.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -						55	(53-1)HBR & HBR-1	LIVINGSTON	102	7
PLOT DATE = Aug 11, 2010 - 02:40:55 PM	DATE -	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 66856				
									[ILLINOIS] FED. AID PROJECT				



EXIST. CURVE I55CL-1  
 PI STA. = 309+18.58  
 Δ = 70° 39' 24'' (RT)  
 D = 1° 20' 00''  
 R = 4,297.21'  
 T = 3,045.78'  
 L = 5,299.28'  
 E = 969.93'  
 e = ----  
 T.R. = ----  
 S.E. RUN = ----  
 P.C. STA. = 278+72.80  
 P.T. STA. = 331+72.08

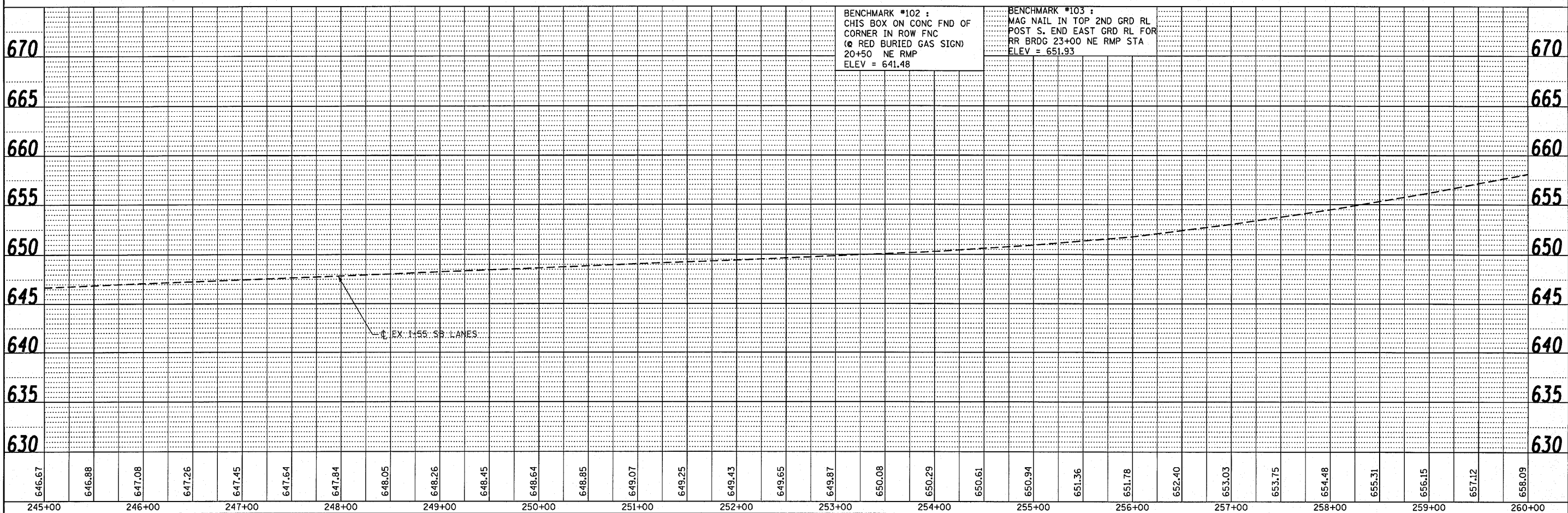
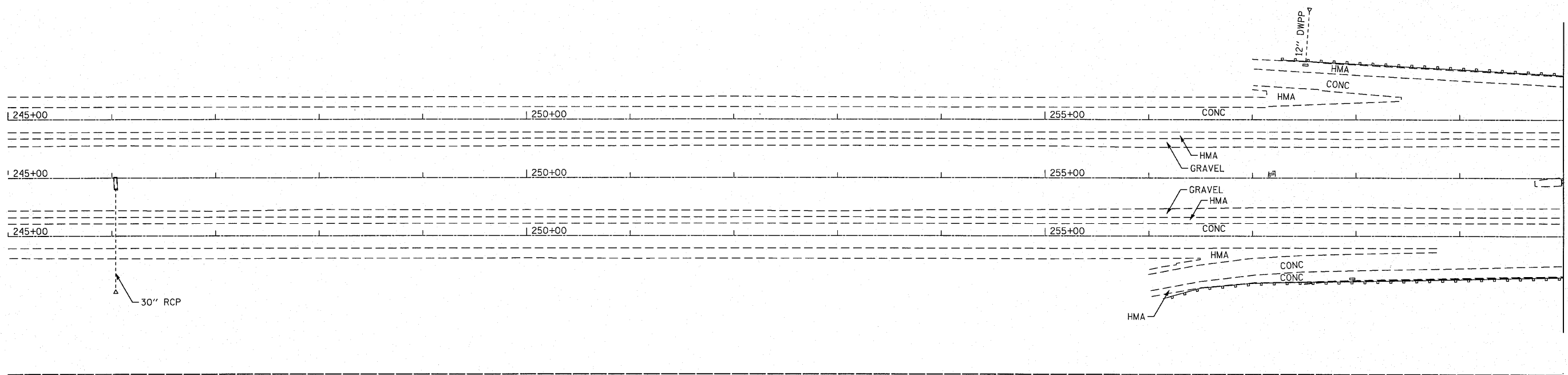
BENCHMARKS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
102	20+50 NE RAMP		641.48	CHIS BOX ON CONC FND OF CORNER IN ROW FNC (RED BURIED GAS SIGN)
103	23+00 NE RAMP		651.93	MAG NAIL IN TOP OF 2ND GRD RAIL POST SOUTH END EAST GUARDRAIL FOR RR BRIDGE
107			675.38	CHIS BOX IN NW CORNER TOP OF PARAPET WALL NB LANE I-55 STRUCTURE OVER RR
104	300+00	CL	654.58	CHIS "X" IN EAST NE BOLT OF LIGHT STANDARD

HORIZONTAL CONTROL POINTS					
POINT	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
187	1606715.0250	951285.9370	187+06.08	0.0001' RT	POT-PERMANENT SURVEY MARKER
100	1610621.0570	951734.7310	226+37.81	0.0404' RT	POT-IRON PIN
51	1612385.4785	951937.3999	244+13.83	0.0000	PI-DRILL HOLE IN "X" ON DECK
101	163662.9900	952084.2670	256+99.76	0.0966' RT	POT-60d NAIL
62	1614986.2591	952236.1965	270+31.72	0.0000	POT-IRON PIN
55500	1615070.4950	952274.4100			SURVEY PT-SIDE SHOT-80d SPIKE
52	1615821.8343	952332.1935	278+72.79	0.0000	PC-PERMANENT SURVEY MARKER



PLAN	SURVEYED	DATE
	ALIGNED	BY
	NOTED	
	CHECKED	
	RT. OF WAY CHECKED	
	NO.	
	PAID FILE NAME	

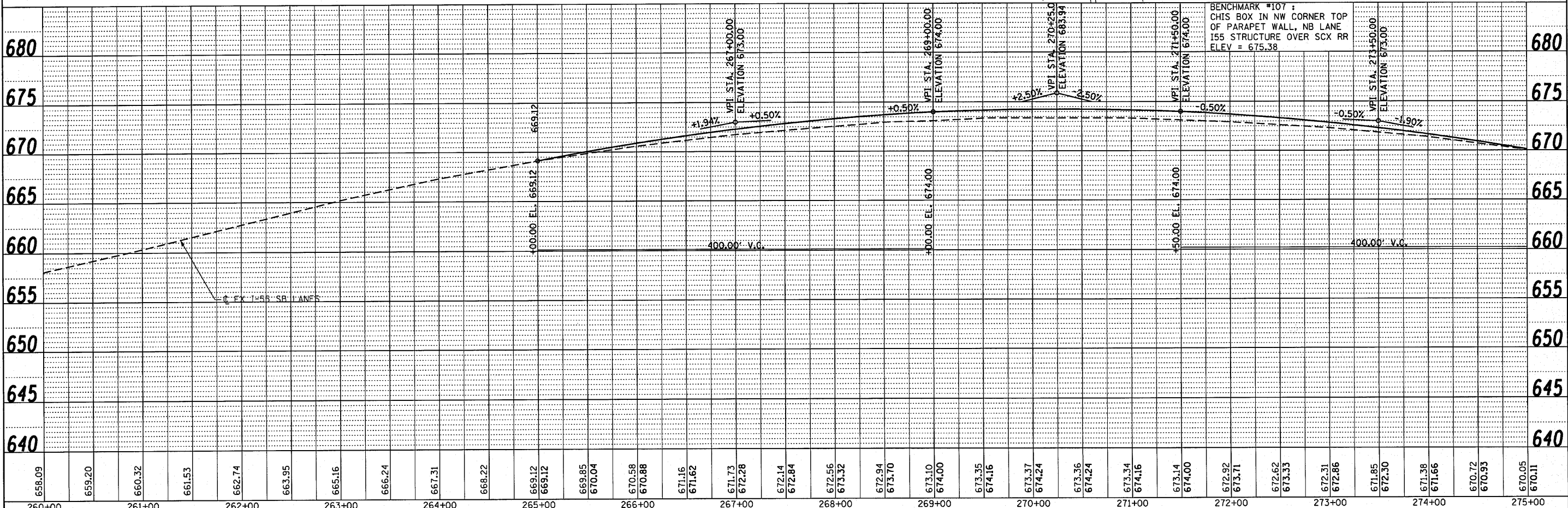
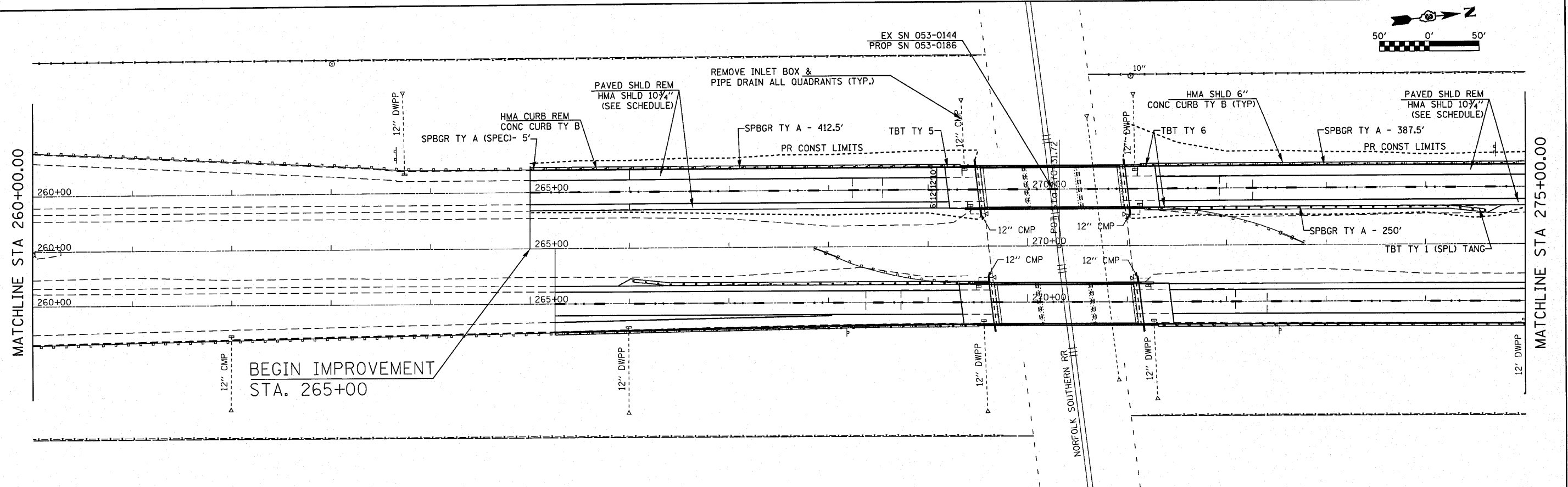
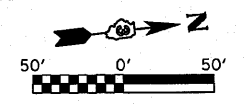
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	STRUCTURE NOTATIONS CHFD	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE SOUTHBOUND</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\duncanbd\dms50148\d366856-shr-p1nprfl.dgn	DRAWN -	REVISED -	55			(53-1)HBR & HBR-1	LIVINGSTON	102	9	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 66856							
PLOT DATE = Aug 11, 2010 - 02:55:50 PM	DATE -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							
CB JOB NO 05024-8				SCALE: 1=50	SHEET NO. 1 OF 3 SHEETS	STA. 245+00.00 TO STA. 260+00.00				

DATE	
BY	
PLAN	
SURVEYED	
ALIGNED	
CHECKED	
NOTE BOOK	
NO.	
FILE NAME	

DATE	
BY	
PROFILE	
SURVEYED	
GRADES	
CHECKED	
NOTE BOOK	
NO.	
STRUCTURE NOTATIONS	



658.09	659.20	660.32	661.53	662.74	663.95	665.16	666.24	667.31	668.22	669.12	669.12	669.85	670.04	670.58	670.88	671.16	671.62	671.73	672.28	672.14	672.84	672.56	673.32	672.94	673.70	673.10	674.00	673.35	674.16	673.37	674.24	673.36	674.24	673.34	674.16	673.14	674.00	672.92	673.71	672.62	673.33	672.31	672.86	671.85	672.30	671.38	671.66	670.72	670.93	670.05	670.11
260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00	269+00	270+00	271+00	272+00	273+00	274+00	275+00																																				

FILE NAME =  
 USER NAME = duncanbd  
 DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

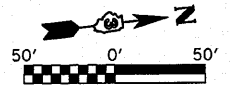
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 PLDT DATE = Aug 11, 2010 - 02:55:35 PM

DESIGNED -  
 REVISIONS:  
 REVISIONS:  
 REVISIONS:

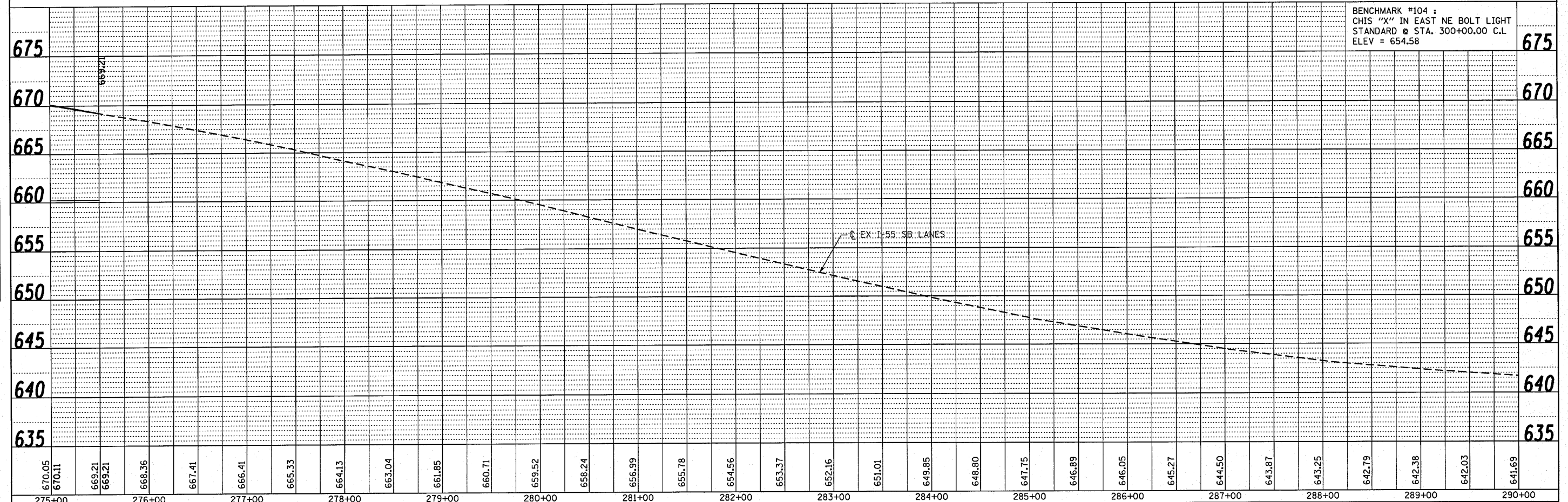
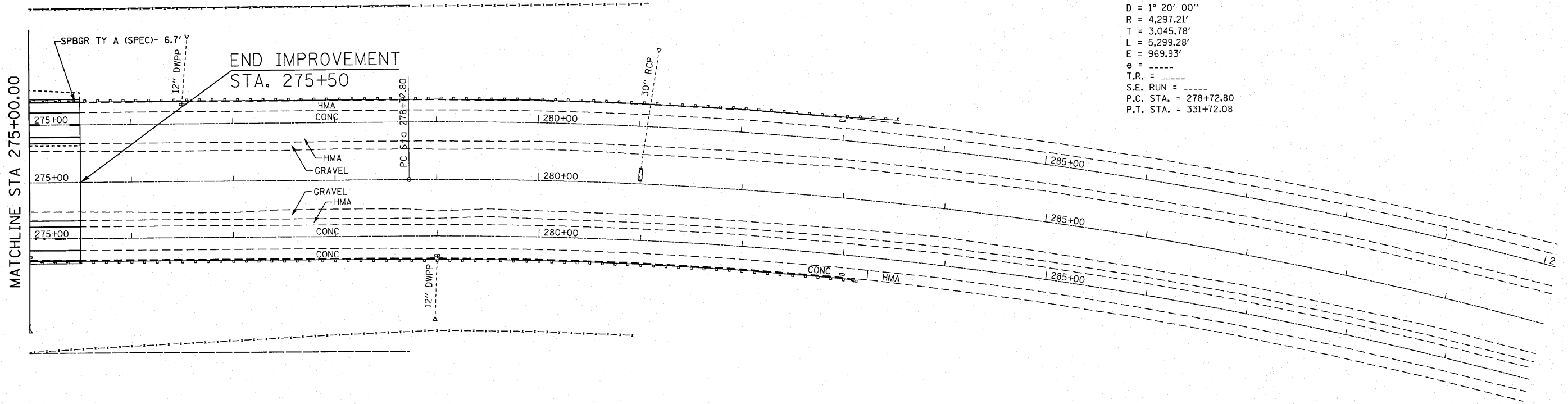
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE SOUTHBOUND  
 SCALE: 1"=50'  
 SHEET NO. 2 OF 3 SHEETS  
 STA. 260+00.00 TO STA. 275+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	10
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EXIST. CURVE 155CL-1  
 PI STA. = 309+18.58  
 $\Delta = 70^\circ 39' 24''$  (RT)  
 $D = 1^\circ 20' 00''$   
 $R = 4,297.21'$   
 $T = 3,045.78'$   
 $L = 5,299.28'$   
 $E = 969.93'$   
 $\theta = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. \text{ RUN} = \text{---}$   
 P.C. STA. = 278+72.80  
 P.T. STA. = 331+72.08



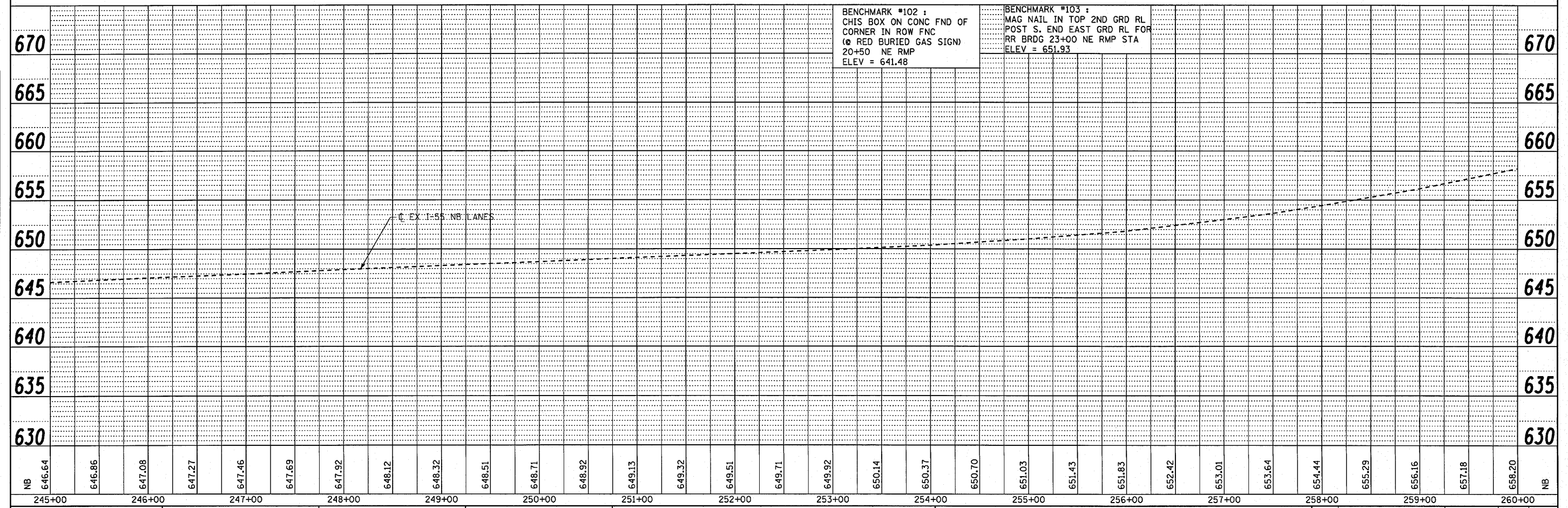
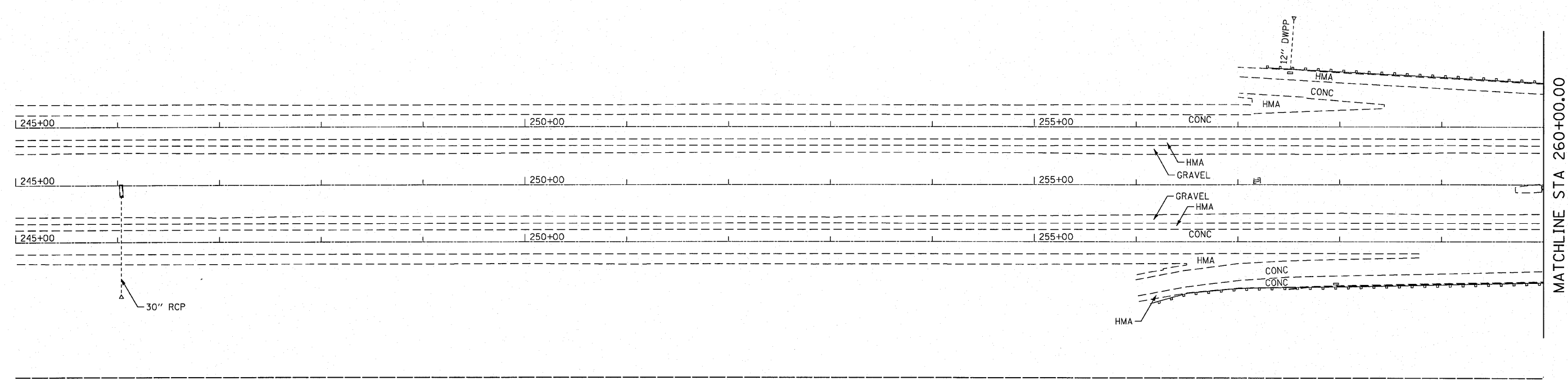
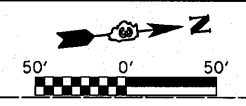
DATE	
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PLAN	
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE SOUTHBOUND</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT SCALE = 50.0000" / IN.		CHECKED -	REVISED -		SCALE: 1=50		SHEET NO. 3 OF 3 SHEETS		STA. 275+00.00 TO STA. 290+00.00		CONTRACT NO. 66856	
PLOT DATE = Aug 11, 2010 - 02:55:29 PM		DATE -	REVISED -		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT			

PLAN	SURVEYED	DATE
NOTE BOOK	ALIGNED	BY
NO.	CHECKED	
	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	GRADES CHECKED	BY
NO.	STRUCTURE NOTATIONS CHECKED	



BENCHMARK #102 :  
CHIS BOX ON CONC FND OF  
CORNER IN ROW FNC  
(@ RED BURIED GAS SIGN)  
20+50 NE RMP  
ELEV = 641.48

BENCHMARK #103 :  
MAG NAIL IN TOP 2ND GRD RL  
POST S. END EAST GRD RL FOR  
RR BRDG 23+00 NE RMP STA  
ELEV = 651.93

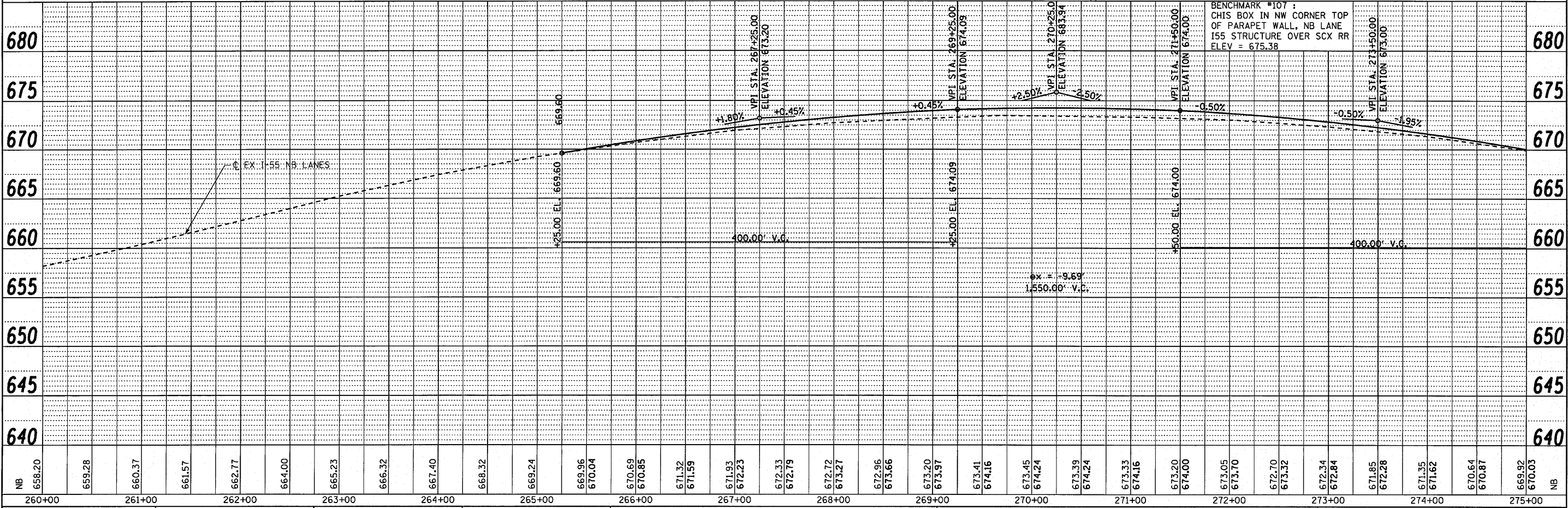
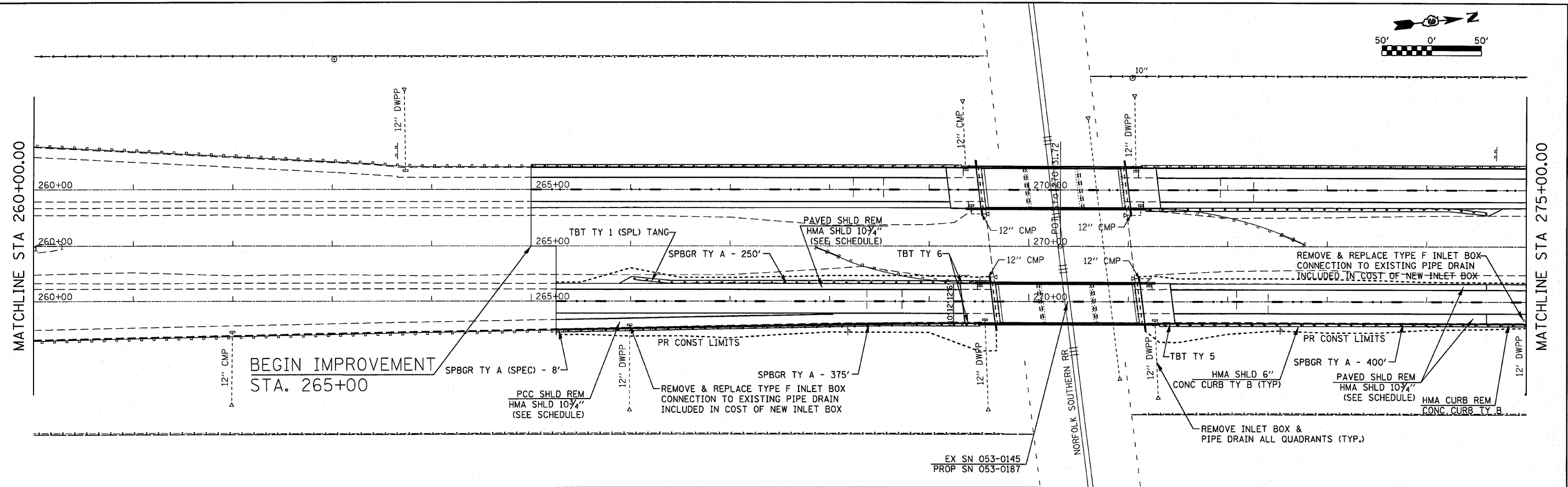
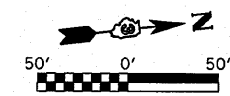
FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE NORTHBOUND</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\dms50148\d366855-shr*plnprfl.dgn		DRAWN -	REVISED -			55	(53-1)HBR & HBR-1	LIVINGSTON	102	12
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 66856				
PLOT DATE = Aug 11, 2010 - 02:55:23 PM		DATE -	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

CB JOB NO 05004-8

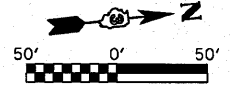
SCALE: 1=50 SHEET NO. 1 OF 3 SHEETS STA. 245+00.00 TO STA. 260+00.00

PLAN	DATE
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REVISIONS	
NO.	
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REVISIONS	
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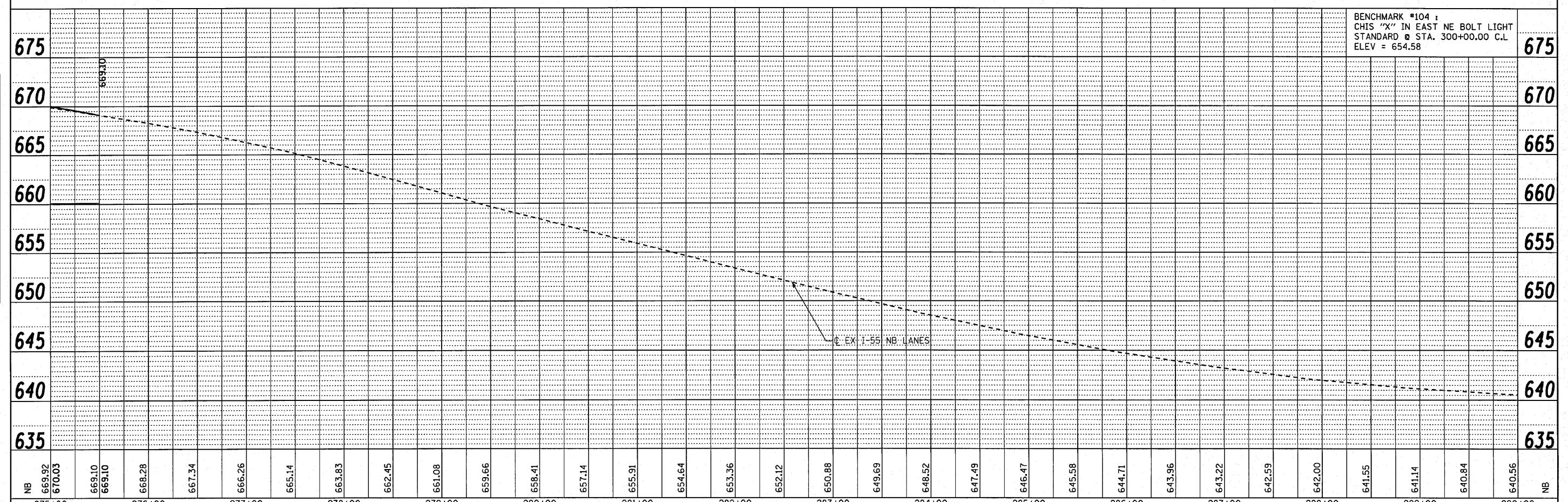
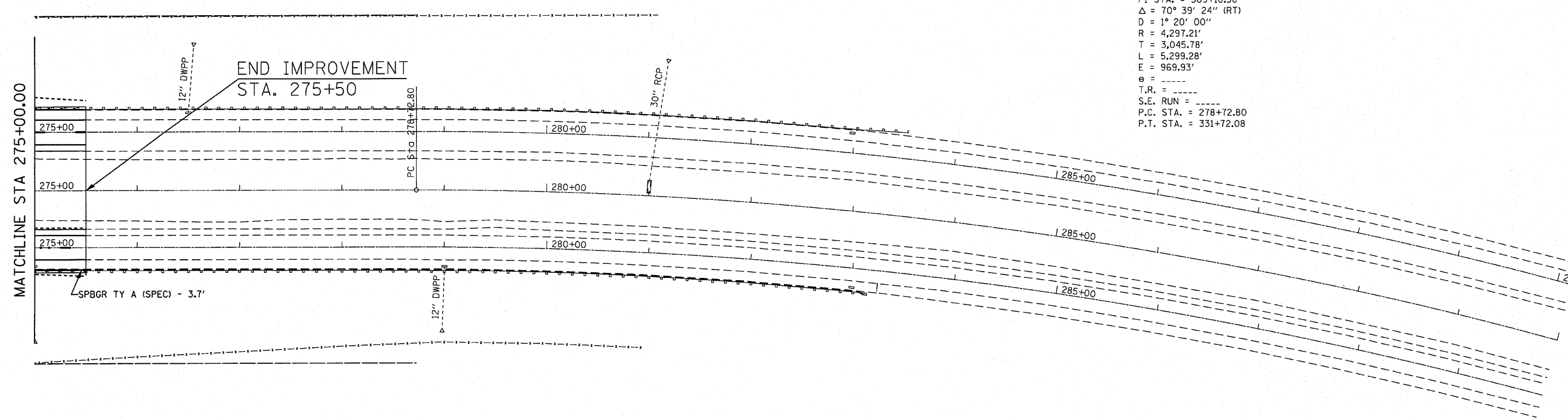
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REVISIONS	
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REVISIONS	
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REVISIONS	
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DATE	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE NORTHBOUND</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwwork\duncanbd\dms50148\d366856-shr-plnpr-f1.dgn	DRAWN -	REVISED -	55			(53-1HBR & HBR-1)	LIVINGSTON	102	13	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 66856							
PLOT DATE = Aug 11, 2010 - 02:55:17 PM	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



EXIST. CURVE I55CL-1  
 PI STA. = 309+18.58  
 $\Delta = 70^\circ 39' 24''$  (RT)  
 $D = 1^\circ 20' 00''$   
 $R = 4,297.21'$   
 $T = 3,045.78'$   
 $L = 5,299.28'$   
 $E = 969.93'$   
 $e =$   
 T.R. =  
 S.E. RUN =  
 P.C. STA. = 278+72.80  
 P.T. STA. = 331+72.08



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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE NORTHBOUND</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\pwork\duncanbd\dms58148\c368566-sht-plnprfl.dgn	DRAWN -	REVISED -	55				(53-1)HR & HBR-1	LIVINGSTON	102	14	
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 66856								
PLOT DATE = Aug 11, 2010 - 02:55:11 PM	DATE -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT								

## SEQUENCE OF WORK

### PRE-STAGE 1

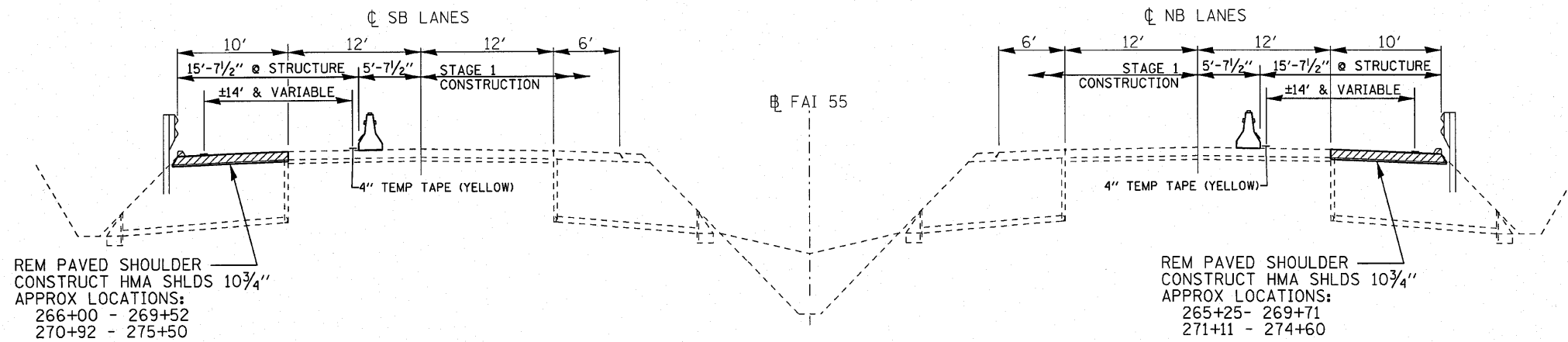
CONSTRUCT 10 3/4" HMA SHOULDERS FOR STAGING OF TRAFFIC  
 REMOVE INLET & PIPE DRAINS (NEAR STRUCTURE) FOR STAGING OF TRAFFIC  
 USE REMOVE & RE-ERECT GUARDRAIL ELEMENT

### STAGE 1

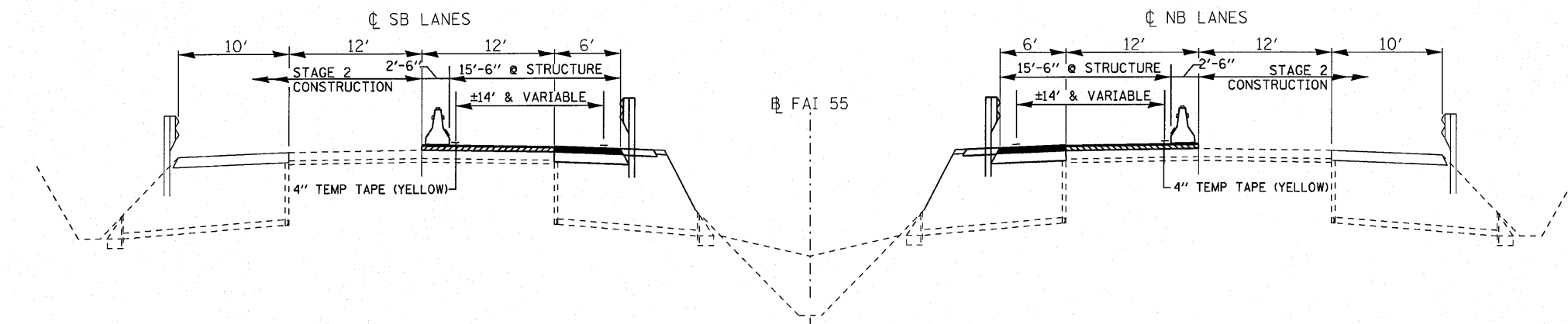
RUN TRAFFIC ON NEW HMA SHOULDERS  
 CONSTRUCT THE FOLLOWING:  
 PROPOSED STRUCTURE  
 PROPOSED POLYMERIZED BINDER COURSE (VAR. DEPTH)  
 PROPOSED POLYMERIZED SURFACE COURSE  
 PROPOSED HMA SHOULDERS 10 3/4"  
 PROPOSED HMA SHOULDERS (VAR. DEPTH)  
 PROPOSED HMA SHOULDERS 6" FOR GUARDRAIL  
 PROPOSED GUARDRAIL

### STAGE 2

RUN TRAFFIC ON NEW STRUCTURE & HMA PAVEMENT  
 CONSTRUCT THE FOLLOWING:  
 PROPOSED STRUCTURE  
 PROPOSED POLYMERIZED BINDER COURSE (VAR. DEPTH)  
 PROPOSED POLYMERIZED SURFACE COURSE  
 PROPOSED HMA SHOULDERS (VAR. DEPTH)  
 PROPOSED CONCRETE CURB TYPE B  
 PROPOSED HMA SHOULDERS 6" FOR GUARDRAIL  
 PROPOSED GUARDRAIL

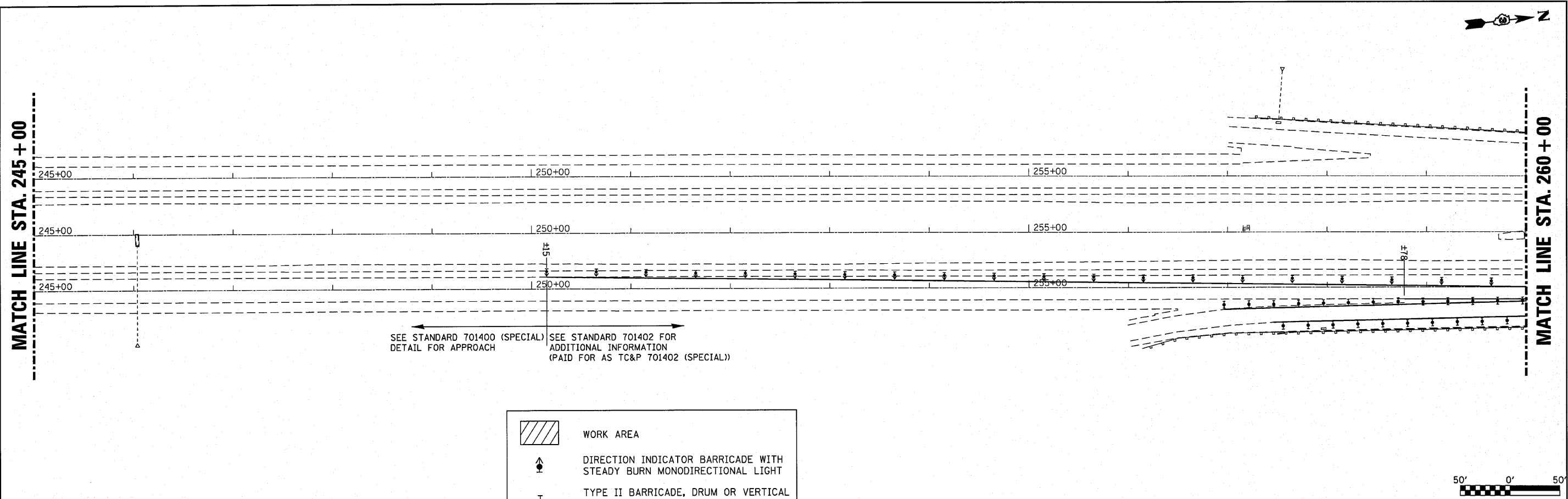


## STAGE 1 TYPICAL

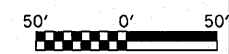
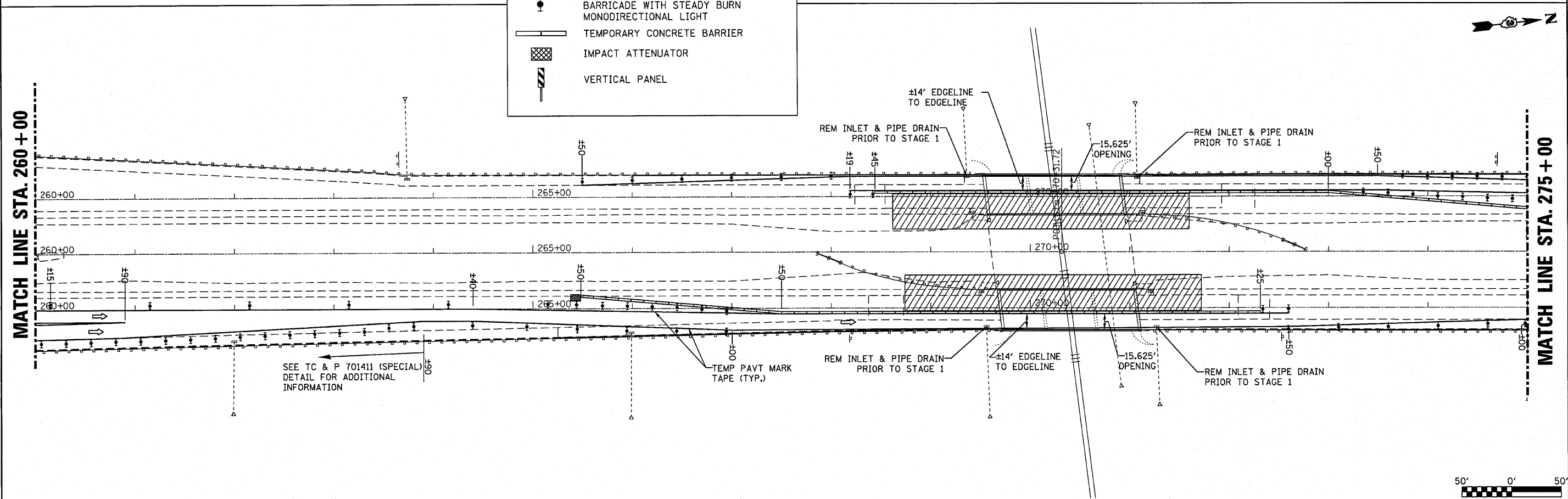
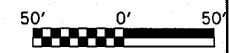


## STAGE 2 TYPICAL

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGING PLANS TYPICALS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\duncanbd\dms58148\d36856-ahtr-staging.DGN	856-ahtr-staging.DGN	DRAWN -	REVISED -		55	(53-1)HBR & HBR-1	LIVINGSTON	102	15			
PLT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	REVISED -		CONTRACT NO. 66856			[ILLINOIS] FED. AID PROJECT				
PLT DATE = Aug 11, 2010 - 02:48:11 PM	DATE -	REVISED -	REVISED -		SCALE:	SHEET NO. 1 OF 5 SHEETS	STA.	TO STA.				



	WORK AREA
	DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	VERTICAL PANEL



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	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		SCALE: 1=50	SHEET NO. 2 OF 5 SHEETS	STA. 245+00 TO STA. 275+00	55	(53-1)HBR & HBR-1	LIVINGSTON	102
PLOT DATE = Aug 11, 2010 - 02:48:05 PM	DATE -	REVISOR -	REVISOR -				CONTRACT NO. 66856 ILLINOIS FED. AID PROJECT				

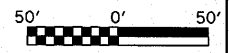
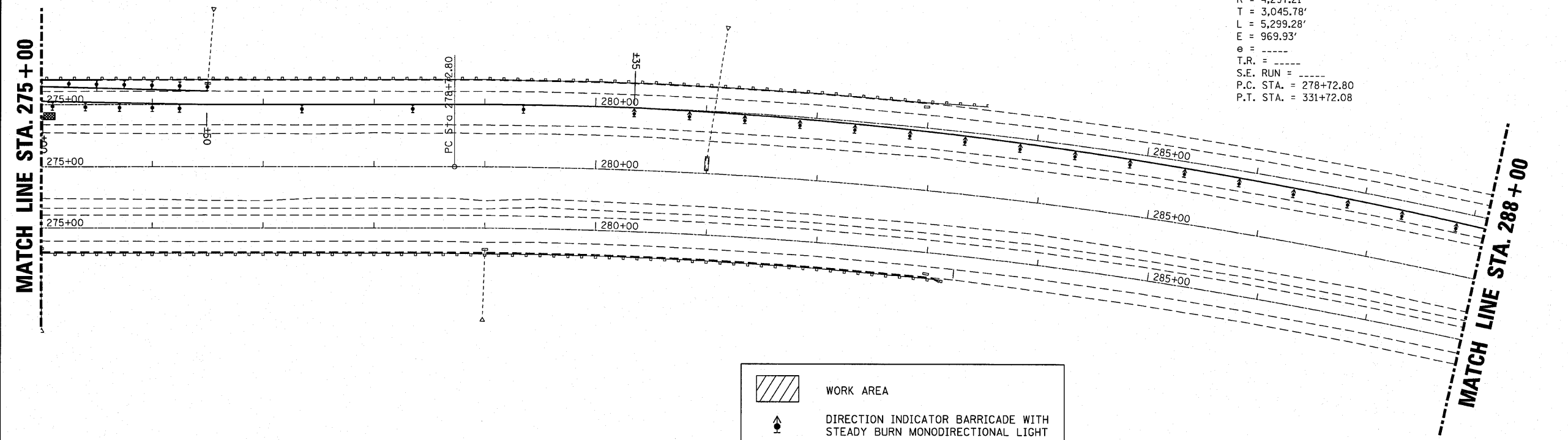




EXIST. CURVE 155CL-1  
 PI STA. = 309+18.58  
 $\Delta = 70^\circ 39' 24''$  (RT)  
 $D = 1^\circ 20' 00''$   
 $R = 4,297.21'$   
 $T = 3,045.78'$   
 $L = 5,299.28'$   
 $E = 969.93'$   
 $e = \text{-----}$   
 $T.R. = \text{-----}$   
 $S.E. \text{ RUN} = \text{-----}$   
 $P.C. \text{ STA.} = 278+72.80$   
 $P.T. \text{ STA.} = 331+72.08$

MATCH LINE STA. 275 + 00

MATCH LINE STA. 288 + 00

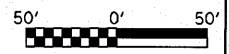
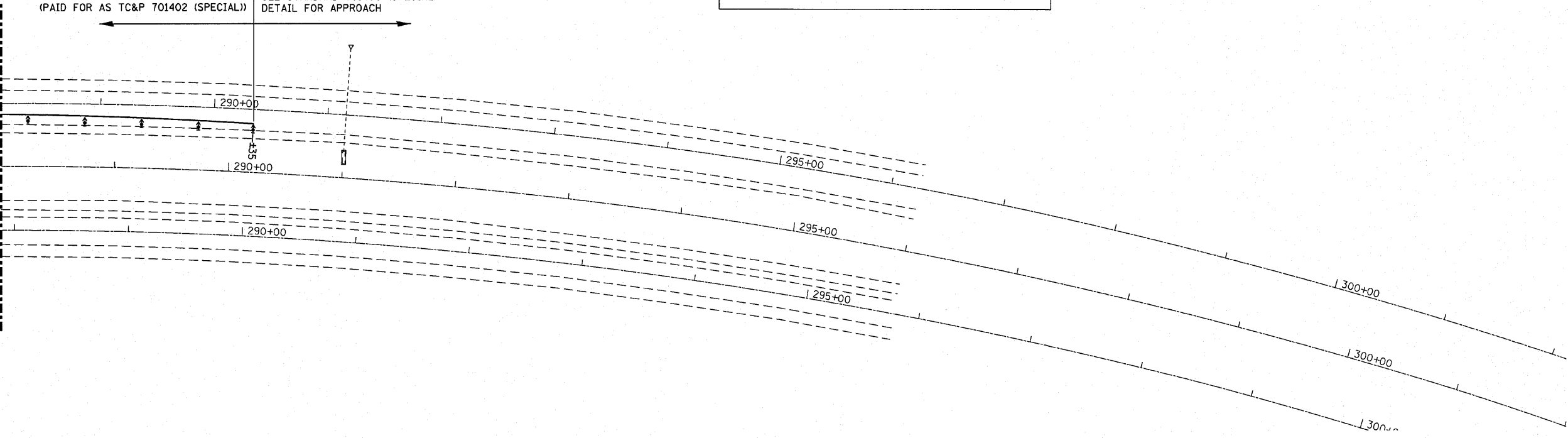


	WORK AREA
	DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	VERTICAL PANEL

SEE STANDARD 701402 FOR ADDITIONAL INFORMATION (PAID FOR AS TC&P 701402 (SPECIAL))

SEE STANDARD 701400 (SPECIAL) DETAIL FOR APPROACH

MATCH LINE STA. 288 + 00



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGING PLANS  
STAGE 1**

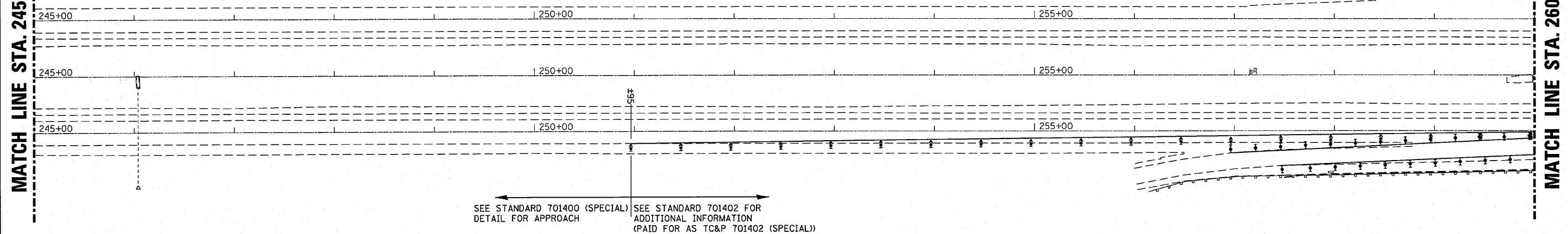
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(S3-1HBR & HBR-1)	LIVINGSTON	102	17
CONTRACT NO. 66856				
ILLINOIS FED. AID PROJECT				



MATCH LINE STA. 245+00

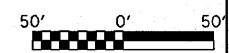
MATCH LINE STA. 260+00



SEE STANDARD 701400 (SPECIAL) DETAIL FOR APPROACH

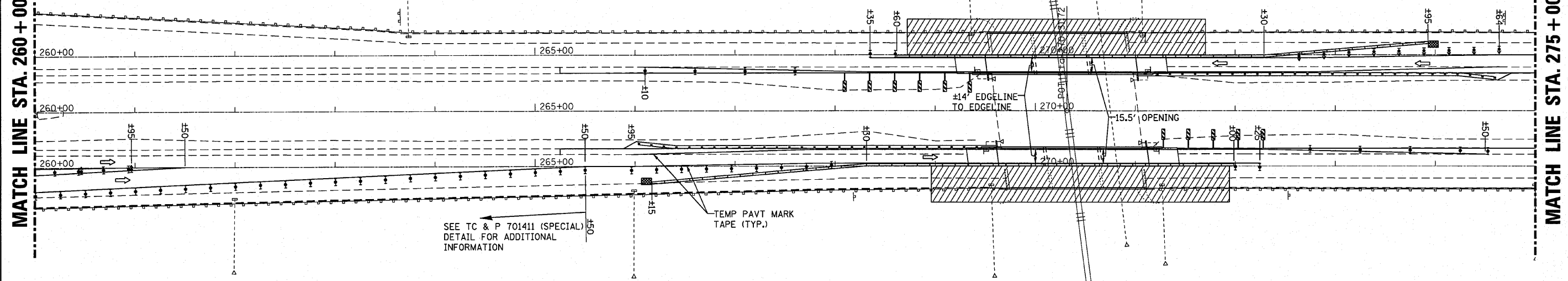
SEE STANDARD 701402 FOR ADDITIONAL INFORMATION (PAID FOR AS TC&P 701402 (SPECIAL))

	WORK AREA
	DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	VERTICAL PANEL



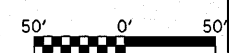
MATCH LINE STA. 260+00

MATCH LINE STA. 275+00



SEE TC & P 701411 (SPECIAL) DETAIL FOR ADDITIONAL INFORMATION

TEMP PAVT MARK TAPE (TYP.)



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	PLOT DATE = Aug 11, 2010 - 02:47:52 PM	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGING PLANS  
STAGE 2**

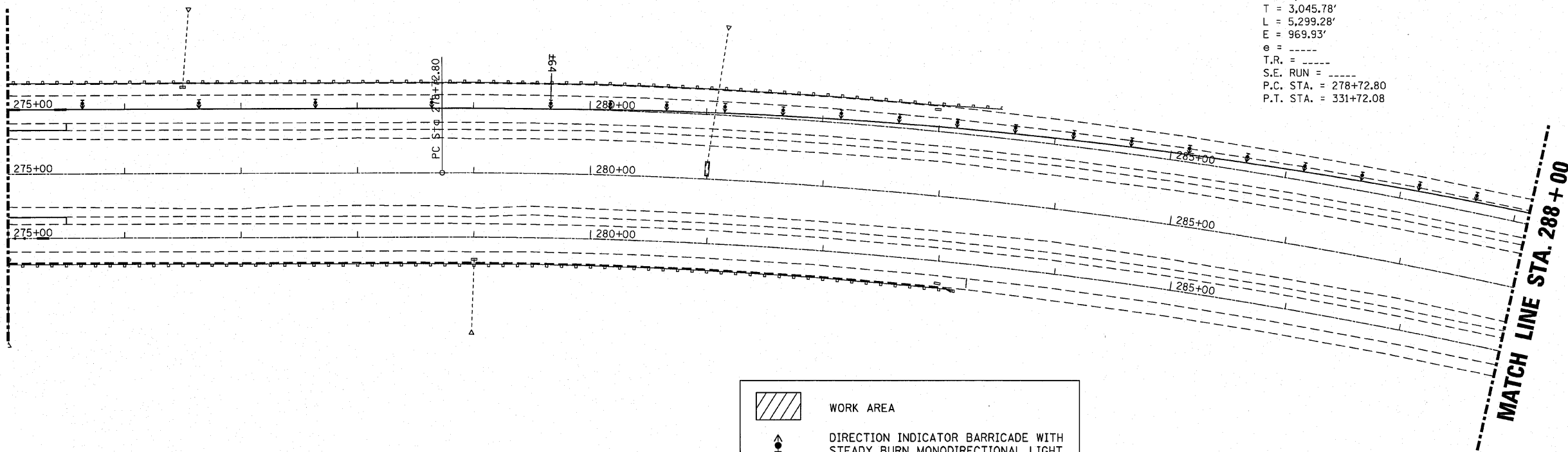
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66856				
ILLINOIS FED. AID PROJECT				

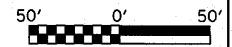


EXIST. CURVE I55CL-1  
 PI STA. = 309+18.58  
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 $D = 1^\circ 20' 00''$   
 $R = 4,297.21'$   
 $T = 3,045.78'$   
 $L = 5,299.28'$   
 $E = 969.93'$   
 $e = \text{-----}$   
 $T.R. = \text{-----}$   
 $S.E. \text{ RUN} = \text{-----}$   
 $P.C. \text{ STA.} = 278+72.80$   
 $P.T. \text{ STA.} = 331+72.08$

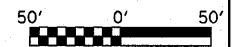
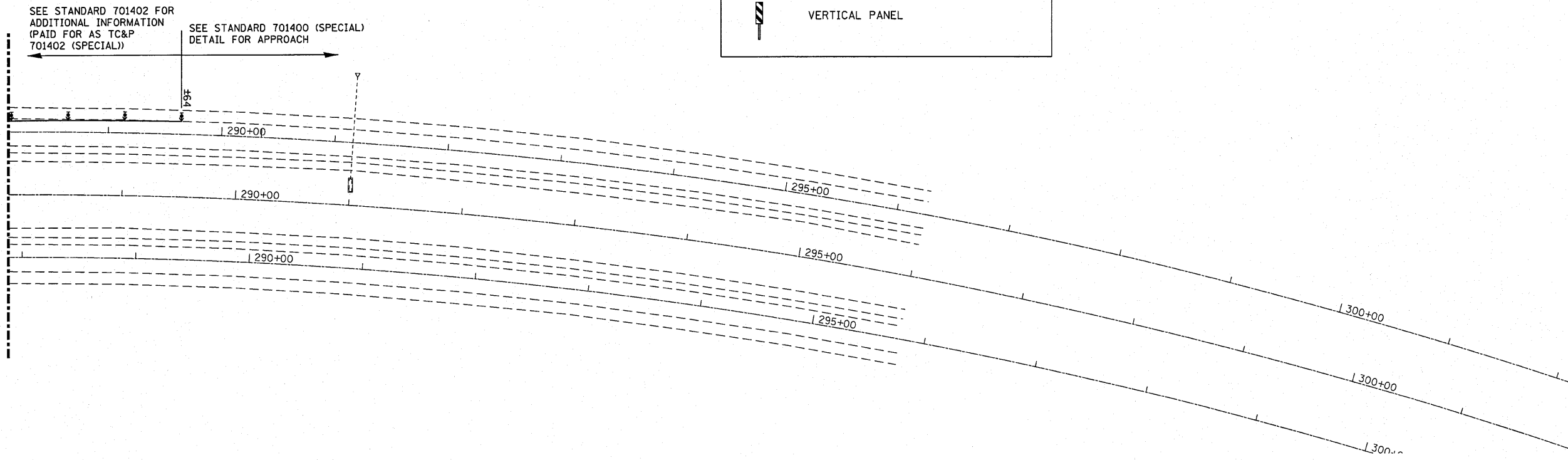
MATCH LINE STA. 275+00



	WORK AREA
	DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	VERTICAL PANEL



MATCH LINE STA. 288+00



SEE STANDARD 701402 FOR ADDITIONAL INFORMATION (PAID FOR AS TC&P 701402 (SPECIAL))

SEE STANDARD 701400 (SPECIAL) DETAIL FOR APPROACH

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
c:\pwork\pwork\pwork\duncanbd\dms50146\d36856-sh1-staging.DGN		DRAWN -	REVISED -
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	PLOT DATE = Aug 11, 2010 - 02:47:47 PM	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STAGING PLANS  
 STAGE 2

SCALE: 1=50 SHEET NO. 5 OF 5 SHEETS STA. 275+00 TO STA. 300+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	19
CONTRACT NO. 66856				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

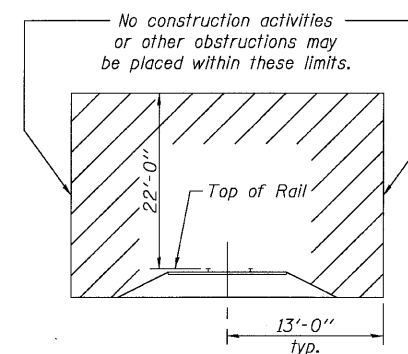
Bench Mark: #38 Spike in RR Tie Fence Post Approx. 175' from Exist. Sect. Line. Elevation: 648.80. Station 47+89 Lt.  
Existing Structure: S.N. 053-0144 (SB) and 053-0145 (NB) built in 1980 as FAI Route 55, Section 53-1VB at Station 270+31.86.  
Each structure consists of 3-Spans of reinforced concrete deck on continuous steel wide flange beams supported by three-column piers on spread footings with creosoted piles and pile bent abutments with concrete piles. 142'-9" back to back of abutments, 42'-0" out to out width. Existing structures to be removed and replaced. Traffic to be maintained using Stage Construction.  
No salvage.

STATION 270+31.86  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.I. RT. 55 SEC. (53-1)BR & BR-1  
LOADING HL-93  
STRUCTURE NO. 053-0187

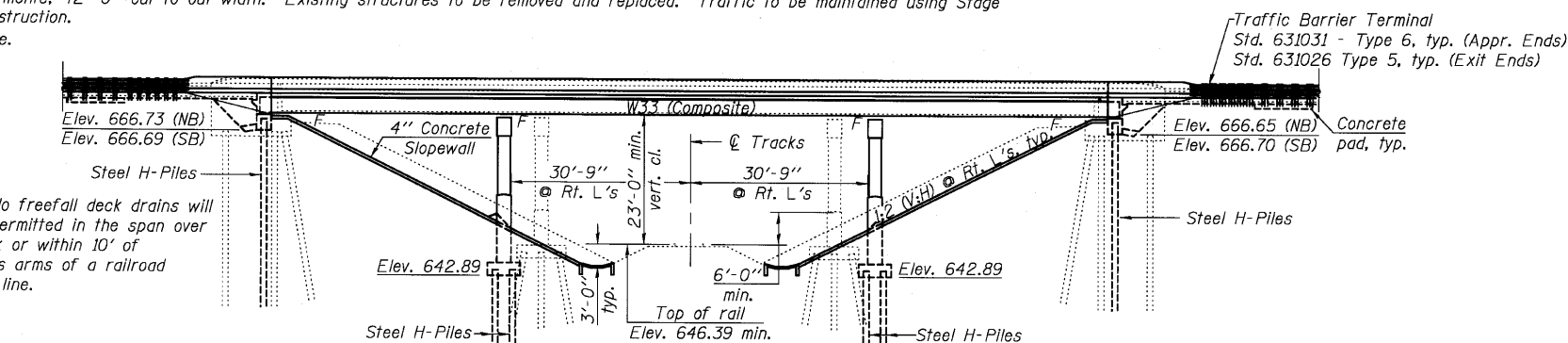
**N.B. NAME PLATE**  
See Std. 515001

STATION 270+31.86  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.I. RT. 55 SEC. (53-1)BR & BR-1  
LOADING HL-93  
STRUCTURE NO. 053-0186

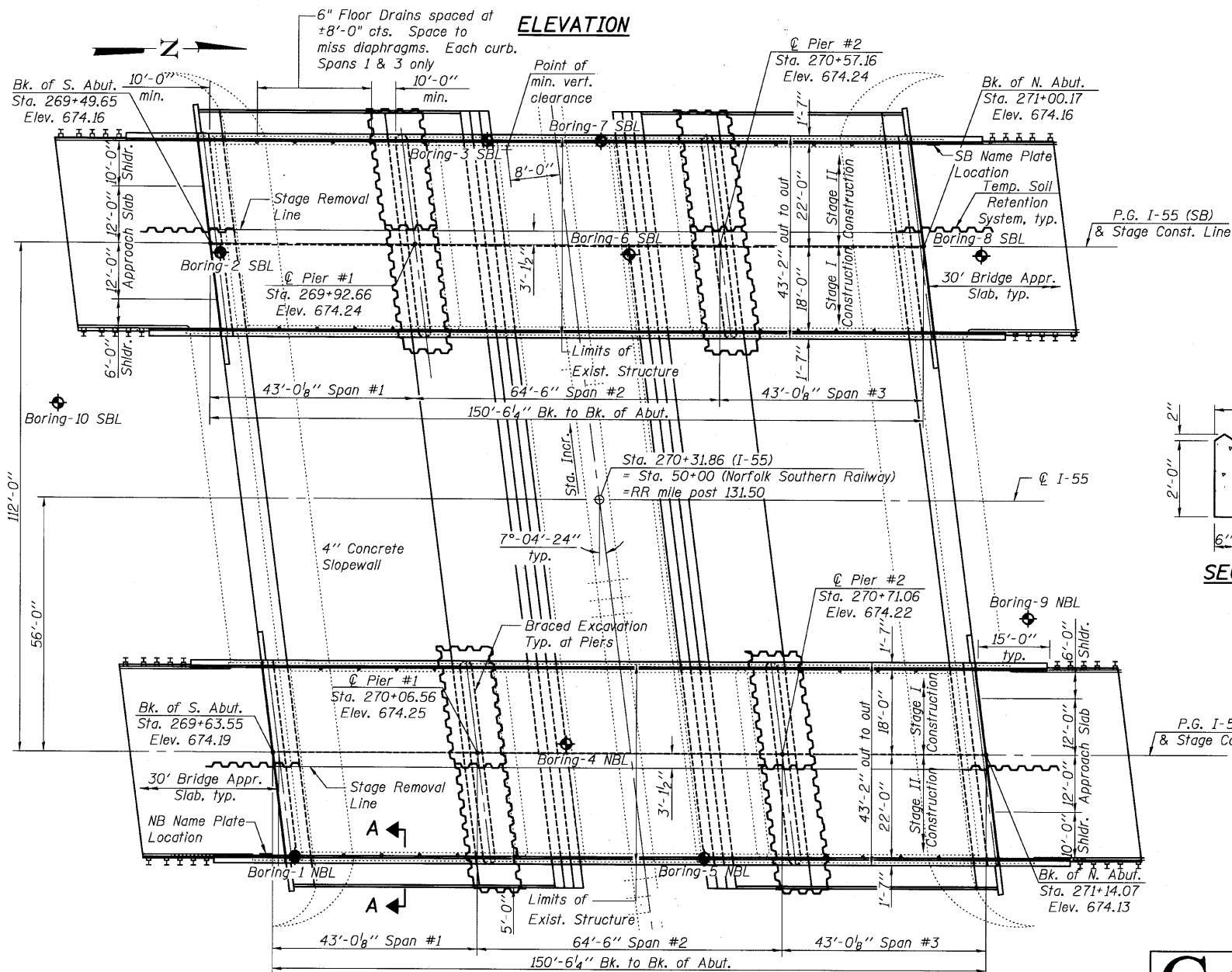
**S.B. NAME PLATE**  
See Std. 515001



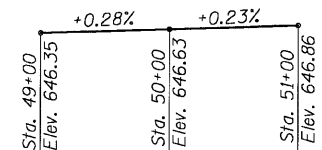
**MINIMUM CONSTRUCTION CLEARANCES**



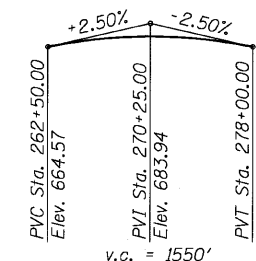
**ELEVATION**



**PLAN**

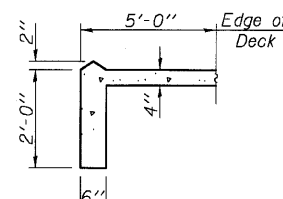


**TOP OF RAIL ELEVATIONS  
NORFOLK SOUTHERN RAILWAY**



**PROFILE GRADE**

Along  $\bar{C}$  I-55 (SB) & I-55 (NB)



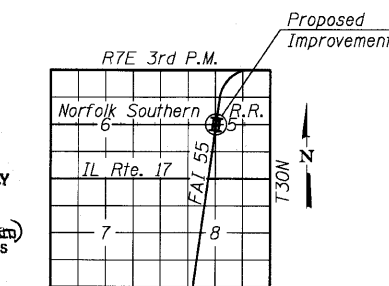
**SECTION A-A**

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**DESIGN SPECIFICATIONS**

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 Interims



**LOCATION SKETCH**

**LOADING HL-93**

Allow 50 #/Sq.Ft. for future wearing surface.

**DESIGN STRESSES**

**FIELD UNITS**

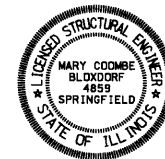
$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinf.)  
 $f_y = 50,000$  (M270 Grade 50W)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Soil Site Class = C  
Design Spectral Acceleration at 1.0 sec ( $S_{D1}$ ) = 0.077g  
Design Spectral Acceleration at 0.2 sec ( $S_{D5}$ ) = 0.13g

**GENERAL PLAN**

**I-55 OVER NORFOLK SOUTHERN RAILWAY  
FAI 55 - SECTION (53-1)HBR & HBR-1  
STATION 270+31.86  
LIVINGSTON COUNTY  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)**



*Mary Coombe Bloxdorf*  
ILLINOIS STRUCTURAL NO. 4859  
EXPIRES 11/30/10  
DATE: 8/10/10

**CB Coombe-Bloxdorf P.C.**  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO. 05004-10  
SCALE  
DATE 8/10/10  
DESIGN BY GB/MCB  
DRAWN BY MML  
CHECKED BY MCB

SHEET NO. 1 42 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(53-1) HBR & HBR-1	LIVINGSTON	102	20
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66856					

PLOT DATE = 8/10/2010  
FILE NAME = 05004-10-01-01.dgn  
PLOT SCALE = 0.0031" / 1" IN.  
USER NAME = GFC

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 3/4 in.  $\phi$ , holes 13/16 in.  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 244,070 lbs. Gr 50W.

All structural steel shall be AASHTO M 270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

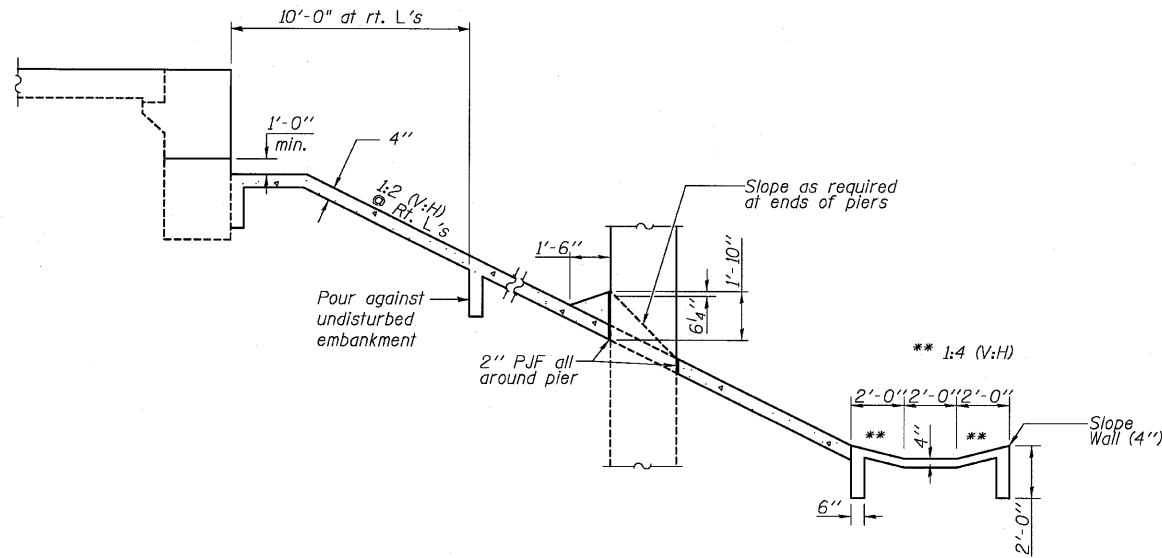
If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



**SECTION THRU SLOPEWALL**

(Horiz. dim. @ Rt. L's)

See roadway plans for ditch elevations

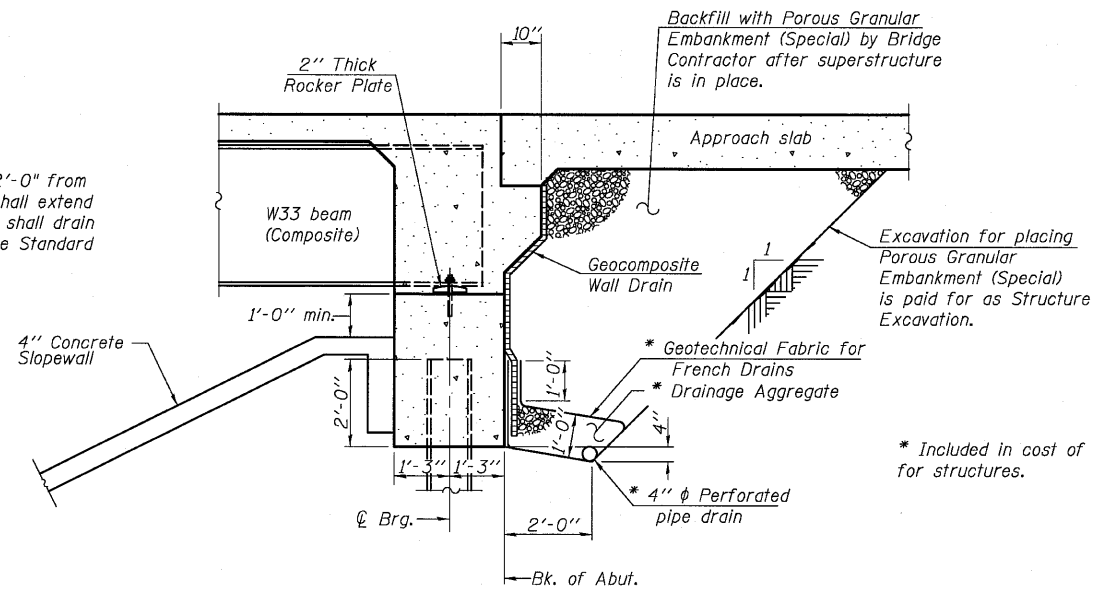
**INDEX OF SHEETS**

- 1 General Plan & Elevation
- 2 General Data
- 3 Footing Layout
- 4 Stage Construction Details
- 5 Temporary Concrete Barrier
- 6-8 Top of Slab Elevations, SB
- 9-11 Top of Slab Elevations, NB
- 12-13 Top of Slab Elevations SB Approach Slabs
- 14-15 Top of Slab Elevations NB Approach Slabs
- 16 Superstructure
- 17 Superstructure Details
- 18 Integral Abutment Diaphragm Details
- 19-21 Bridge Approach Slab Details
- 22 Framing Plan
- 23 Structural Steel Details
- 24 Bearing Details
- 25-26 S. Abutment SB & N. Abutment NB
- 27-28 S. Abutment NB & N. Abutment SB
- 29-30 Piers 1 & 2 NB
- 31-32 Piers 1 & 2 SB
- 33 H-Pile & Encasement Details
- 34 Bar Splicer Details
- 35 Concrete Parapet Slipforming Option
- 36-42 Boring Logs

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		256	256
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Protective Shield	Sq. Yd.	791		791
Structure Excavation	Cu. Yd.		592	592
Floor Drains	Each	32		32
Concrete Structures	Cu. Yd.		424.6	424.6
Concrete Superstructure	Cu. Yd.	716.5		716.5
Bridge Deck Grooving	Sq. Yd.	1779		1779
Concrete Encasement	Cu. Yd.		8.4	8.4
Protective Coat	Sq. Yd.	2189		2189
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	7056		7056
Reinforcement Bars, Epoxy Coated	Pound	174,840	62,870	237,710
Bar Splicers	Each	1566	348	1914
Sloped Wall 4"	Sq. Yd.		2506	2506
Furnishing Steel Piles HP 12x53	Foot		4256	4256
Test Pile Steel HP 12x53	Foot		4	4
Driving Piles	Foot		4256	4256
Name Plates	Each	2		2
Anchor Bolts, 1" $\phi$	Each	96		96
Geocomposite Wall Drain	Sq. Yd.		156	156
Pipe Underdrains for Structures, 4"	Foot		313	313
Temporary Soil Retention System	Sq. Ft.		288	288
Braced Excavation	Cu. Yd.		816	816
Mechanical Splicers	Each		24	24

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 60105 of the Standard Specifications and Highway Standards 601101)



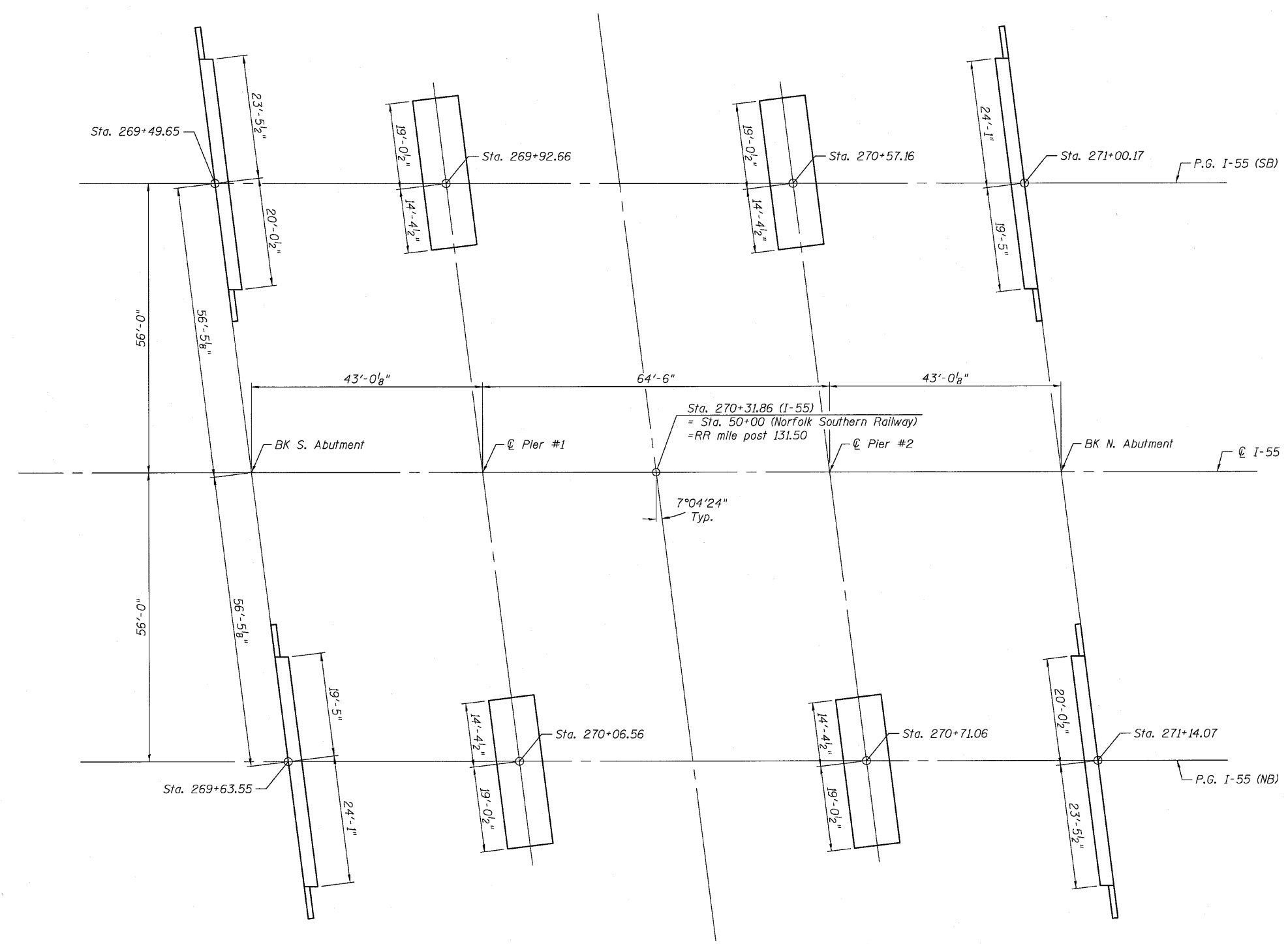
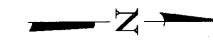
**SECTION THRU INTEGRAL ABUTMENT**

(Horiz. dim. @ Rt. L's)

\* Included in cost of Pipe Underdrains for structures.

**GENERAL DATA**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

<p>Coombe-Bloxdorf P.C.          - CIVIL ENGINEERS -          - STRUCTURAL ENGINEERS -          - LAND SURVEYORS -          Design Firm License No. 184-002703</p>	PROJECT NO. 05004-10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE	55	(53-1) HBR & HBR-1	LIVINGSTON	102	21
	DATE 8/10/10	SHEET NO. 2		CONTRACT NO. 66856		
DESIGN BY GB/MCB	42 SHEETS	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
DRAWN BY MML						
CHECKED BY MCB						



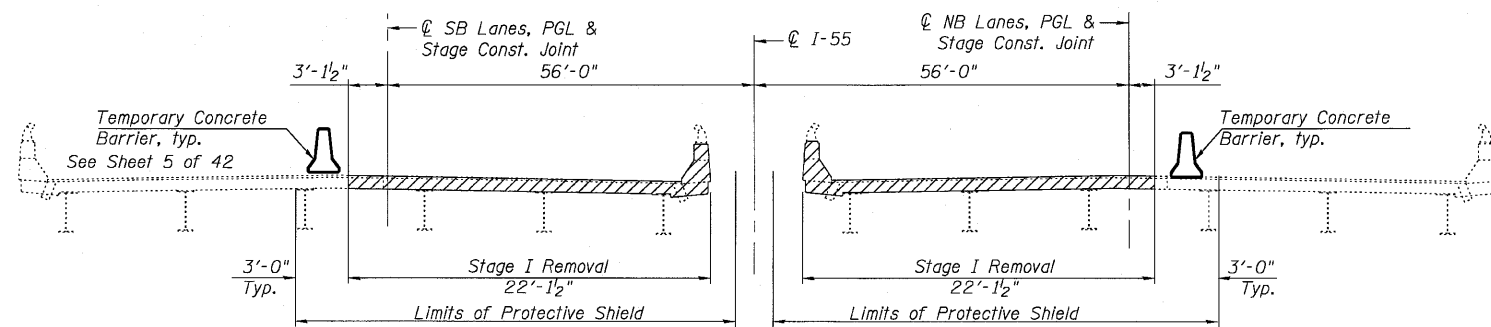
**FOOTING LAYOUT**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

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 USER NAME = CPC

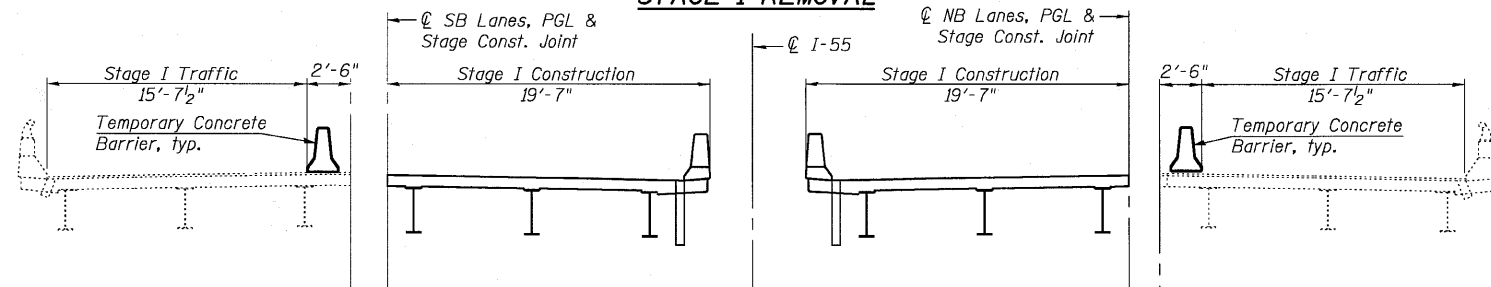
**CB** Coombe-Bloxdorf P.C.  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

PROJECT NO. 05004-10  
 SCALE 3/32" = 1'-0"  
 DATE 8/10/10  
 DESIGN BY CB/MCB  
 DRAWN BY MML  
 CHECKED BY MCB

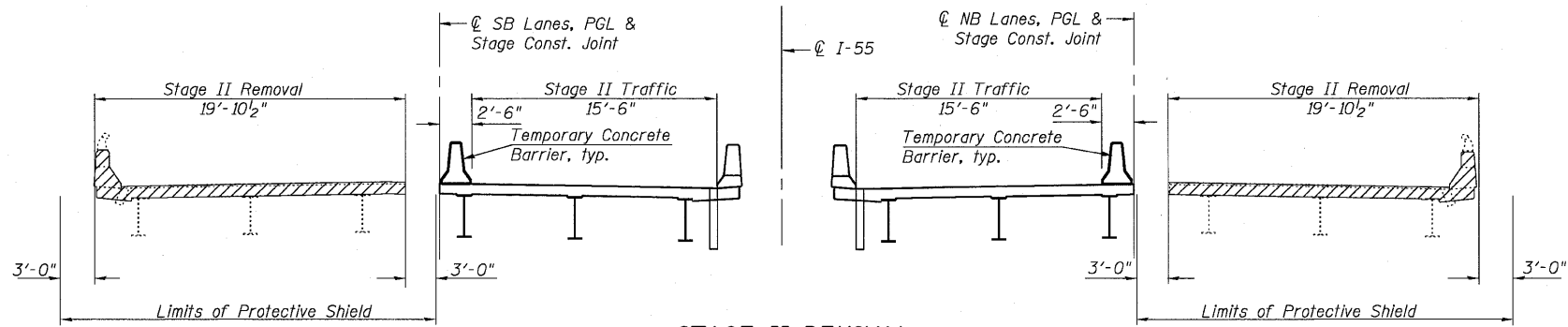
SHEET NO. 3 42 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(53-1) HBR & HBR-1	LIVINGSTON	102	22
			CONTRACT NO. 66856		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



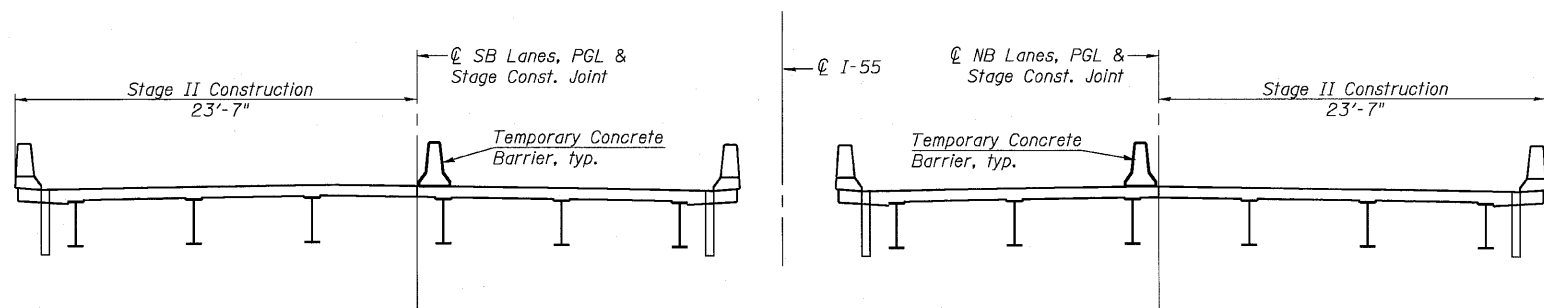
**STAGE I REMOVAL**



**STAGE I CONSTRUCTION**



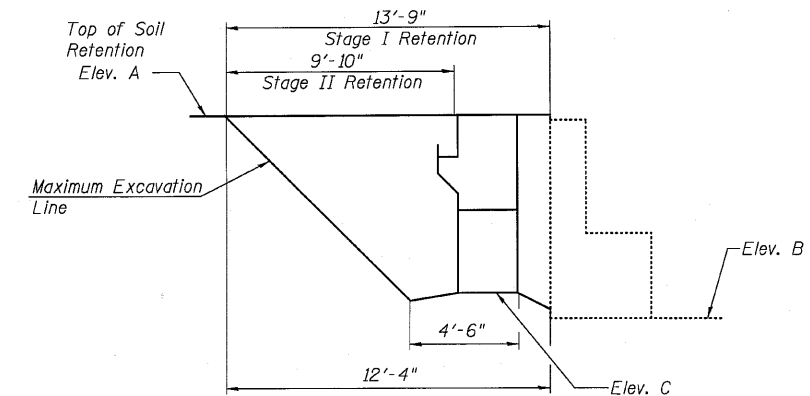
**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**

**NOTES:**

Hatched areas indicate "Removal of Existing Structures".  
 See Roadway Plans for type and quantity of Temporary Concrete Barrier.  
 All cross sections are looking north.  
 Protective Shield shall extend from  $\text{C}$  to  $\text{C}$  of existing piers.  
 Cost of removing existing handrail is included with "Removal of Existing Structures."



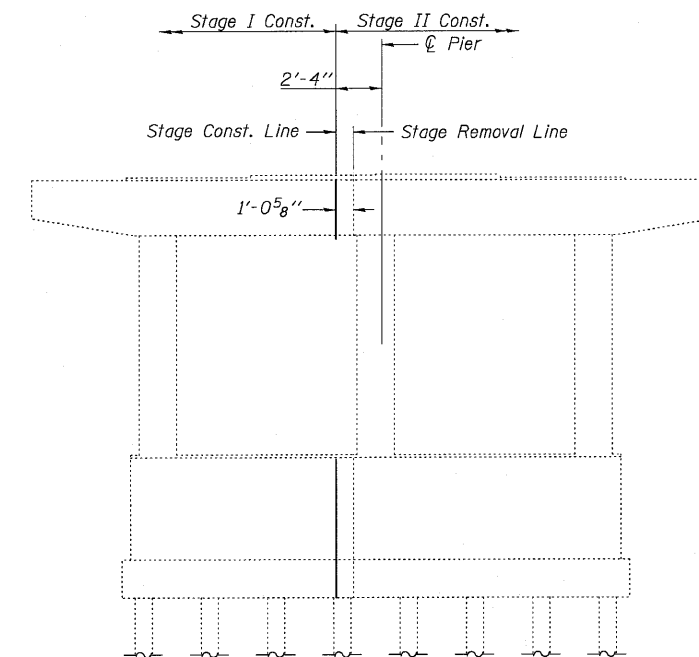
**TEMPORARY SOIL RETENTION SYSTEM**

South Abutment shown. North Abutment similar

**ELEVATIONS 'A', 'B', & 'C'**

Location	Elev. 'A'	Elev. 'B'	Elev. 'C'
South Abut. NBL	674.19	665.64	666.73
North Abut. NBL	674.13	665.56	666.65
South Abut. SBL	674.16	665.60	666.69
North Abut. SBL	674.16	665.61	666.70

Note: A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



**PIER STAGE REMOVAL SKETCH**

(NB Structure looking North shown, SB Structure similar)

Note: Stage Removal Line for Pier is not same as Superstructure

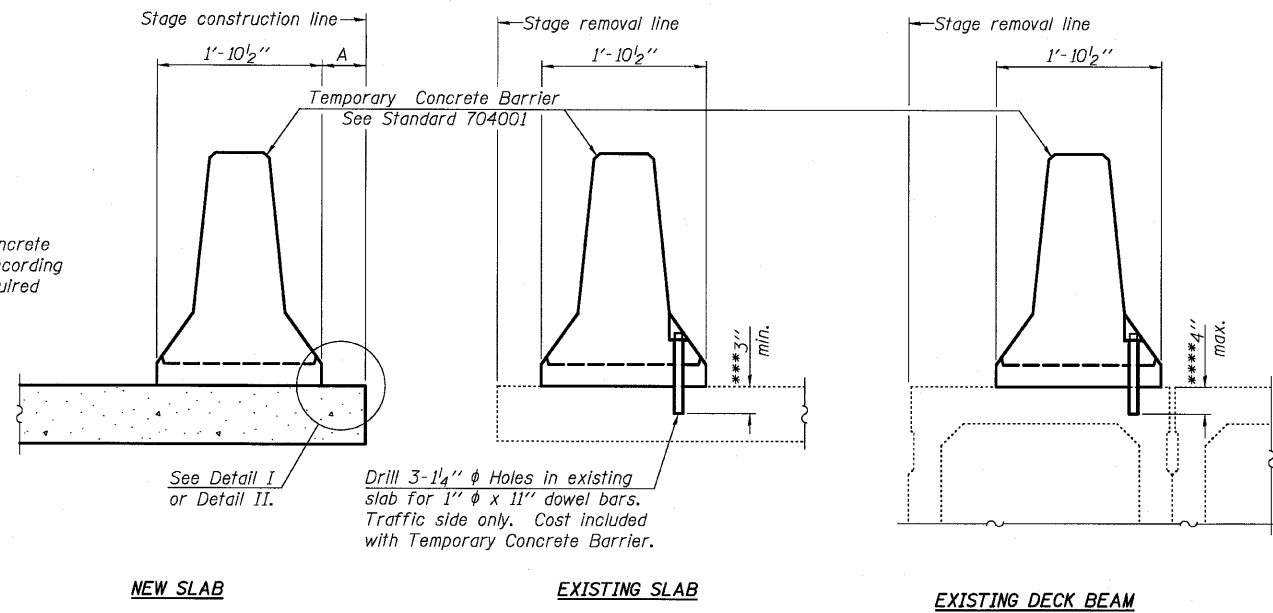
**STAGED CONSTRUCTION DETAILS**

**STRUCTURE NO. 053-0187 (NB)**

**STRUCTURE NO. 053-0186 (SB)**

<b>CB</b> Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE	55	(53-1) HBR & HBR-1	LIVINGSTON	102	23
	DATE 8/10/10	SHEET NO. 4		CONTRACT NO. 66856		
	DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	42 SHEETS	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

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



**NEW SLAB**

**EXISTING SLAB**

**EXISTING DECK BEAM**

**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

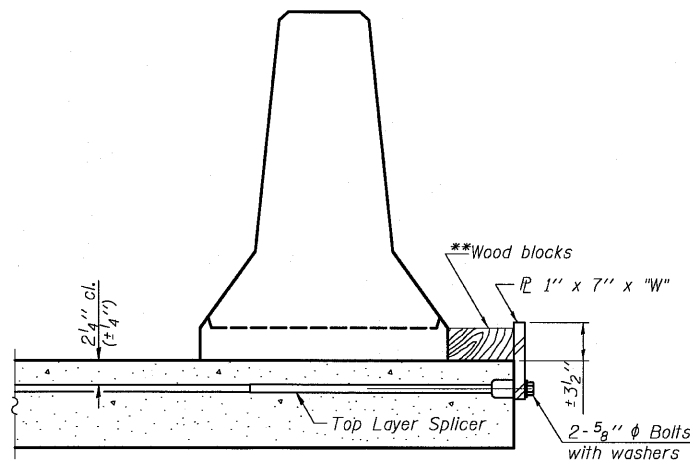
**Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

**Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel PL to the concrete slab 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.

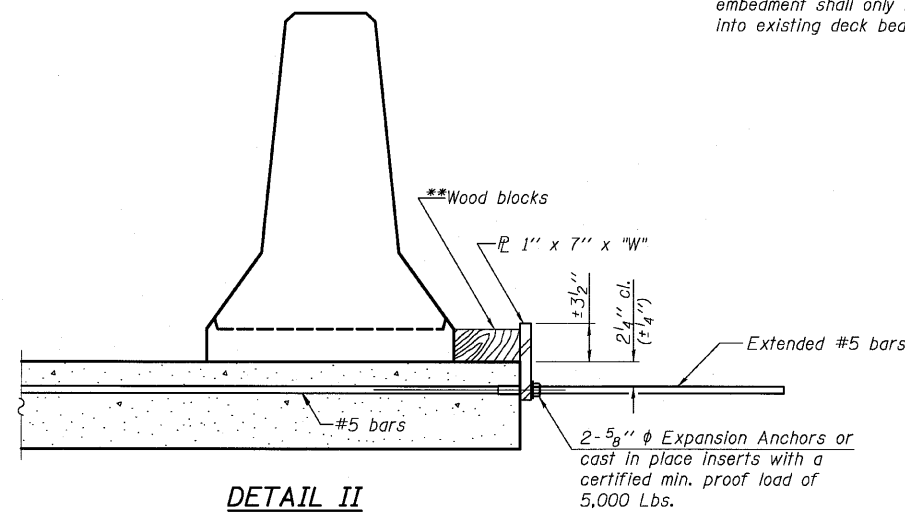
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* 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.



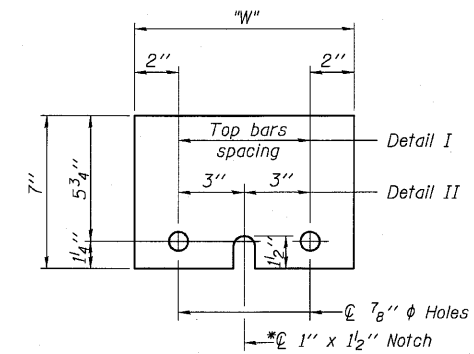
**DETAIL I**



**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"



**STEEL RETAINER PL 1" x 7" x 10"**

\* Required only with Detail II

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)**

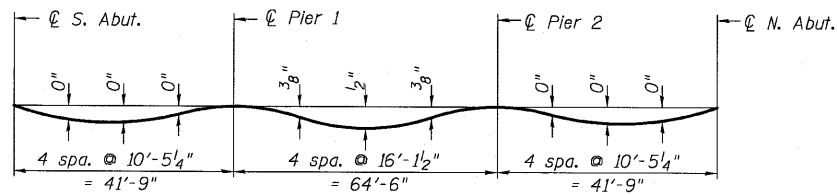
**CB Coombe-Bloxdorf P.C.**  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO. 05004-10  
SCALE  
DATE 8/10/10  
DESIGN BY GB/MCB  
DRAWN BY MML  
CHECKED BY MCB

SHEET NO. 5  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	24
CONTRACT NO. 66856				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



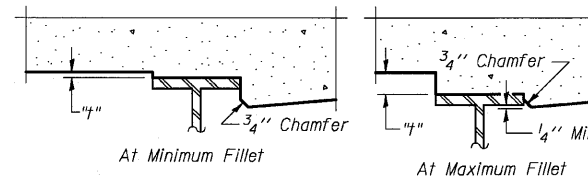


**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

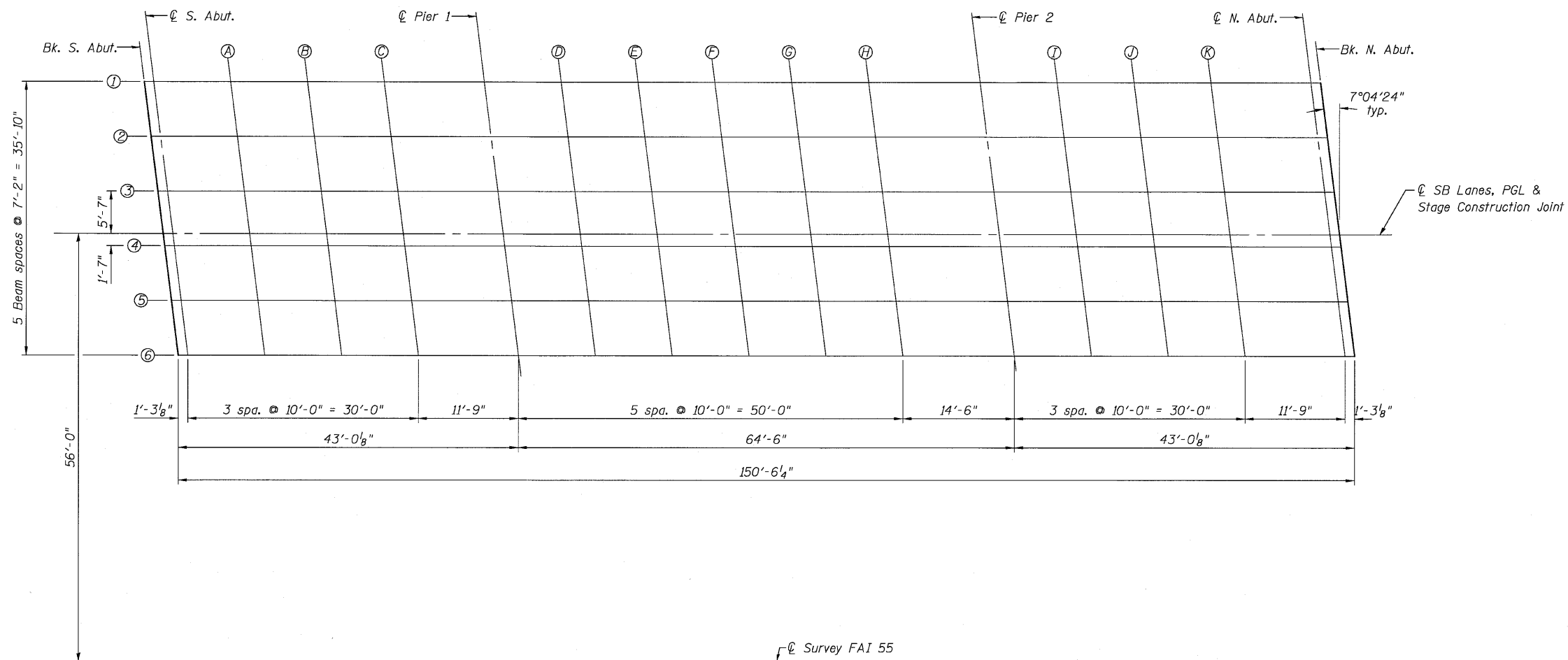
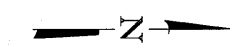
**Note:**

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



To determine "t": After all structural steel has 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 Deflection" shown on Sheets 7 & 8 of 42, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0186 (SB)**

E-S

11-1-09

**CB Coombe-Bloxdorf P.C.**  
-CIVIL ENGINEERS-  
-STRUCTURAL ENGINEERS-  
-LAND SURVEYORS-  
Design Firm License No. 184-002703

PROJECT NO. 05004-10  
SCALE:  
DATE 8/10/10  
DESIGN BY CB/MCB  
DRAWN BY MML  
CHECKED BY MCB

SHEET NO. 6  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	25
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66856		

FILE NAME = ...0530186\_0187\_66856-06-top-ab.dgn  
PLOT SCALE = 8x11 1/2" / IN.  
USER NAME = CFC.

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26947.18	-75.92	673.81	673.81
CL S. Abut	26948.46	-75.92	673.81	673.81
A	26958.46	-75.92	673.83	673.84
B	26968.46	-75.92	673.85	673.86
C	26978.46	-75.92	673.87	673.87
CL Pier 1	26990.19	-75.92	673.88	673.88
D	27000.19	-75.92	673.89	673.91
E	27010.19	-75.92	673.90	673.93
F	27020.19	-75.92	673.90	673.95
G	27030.19	-75.92	673.90	673.94
H	27040.19	-75.92	673.90	673.92
CL Pier 2	27054.69	-75.92	673.89	673.89
I	27064.69	-75.92	673.88	673.88
J	27074.69	-75.92	673.86	673.87
K	27084.69	-75.92	673.85	673.85
CL N. Abut.	27096.46	-75.92	673.82	673.82
Bk. of N. Abut.	27097.70	-75.92	673.82	673.82

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26948.07	-68.75	673.95	673.95
CL S. Abut	26949.36	-68.75	673.96	673.96
A	26959.36	-68.75	673.98	673.98
B	26969.36	-68.75	674.00	674.00
C	26979.36	-68.75	674.01	674.01
CL Pier 1	26991.08	-68.75	674.03	674.03
D	27001.08	-68.75	674.04	674.05
E	27011.08	-68.75	674.04	674.08
F	27021.08	-68.75	674.05	674.09
G	27031.08	-68.75	674.05	674.09
H	27041.08	-68.75	674.04	674.07
CL Pier 2	27055.58	-68.75	674.03	674.03
I	27065.58	-68.75	674.02	674.02
J	27075.58	-68.75	674.01	674.01
K	27085.58	-68.75	673.99	673.99
CL N. Abut.	27097.36	-68.75	673.96	673.96
Bk. of N. Abut.	27098.59	-68.75	673.96	673.96

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26948.96	-61.58	674.07	674.07
CL S. Abut	26950.25	-61.58	674.07	674.07
A	26960.25	-61.58	674.10	674.10
B	26970.25	-61.58	674.12	674.12
C	26980.25	-61.58	674.13	674.13
CL Pier 1	26991.97	-61.58	674.15	674.15
D	27001.97	-61.58	674.16	674.17
E	27011.97	-61.58	674.16	674.19
F	27021.97	-61.58	674.16	674.21
G	27031.97	-61.58	674.16	674.20
H	27041.97	-61.58	674.16	674.18
CL Pier 2	27056.47	-61.58	674.15	674.15
I	27066.47	-61.58	674.14	674.14
J	27076.47	-61.58	674.12	674.12
K	27086.47	-61.58	674.10	674.11
CL N. Abut.	27098.25	-61.58	674.08	674.08
Bk. of N. Abut.	27099.48	-61.58	674.07	674.07


**SB LANES, PROFILE GRADE LINE AND STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26949.65	-56.00	674.16	674.16
CL S. Abut	26950.95	-56.00	674.16	674.16
A	26960.95	-56.00	674.19	674.19
B	26970.95	-56.00	674.21	674.21
C	26980.95	-56.00	674.22	674.22
CL Pier 1	26992.66	-56.00	674.24	674.24
D	27002.66	-56.00	674.24	674.26
E	27012.66	-56.00	674.25	674.28
F	27022.66	-56.00	674.25	674.29
G	27032.66	-56.00	674.25	674.29
H	27042.66	-56.00	674.25	674.27
CL Pier 2	27057.16	-56.00	674.24	674.24
I	27067.16	-56.00	674.22	674.22
J	27077.16	-56.00	674.21	674.21
K	27087.16	-56.00	674.19	674.19
CL N. Abut.	27098.95	-56.00	674.16	674.16
Bk. of N. Abut.	27100.17	-56.00	674.16	674.16

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26949.85	-54.42	674.14	674.14
CL S. Abut	26951.15	-54.42	674.14	674.14
A	26961.15	-54.42	674.16	674.17
B	26971.15	-54.42	674.18	674.18
C	26981.15	-54.42	674.20	674.20
CL Pier 1	26992.86	-54.42	674.21	674.21
D	27002.86	-54.42	674.22	674.23
E	27012.86	-54.42	674.23	674.26
F	27022.86	-54.42	674.23	674.27
G	27032.86	-54.42	674.23	674.26
H	27042.86	-54.42	674.22	674.25
CL Pier 2	27057.36	-54.42	674.21	674.21
I	27067.36	-54.42	674.20	674.20
J	27077.36	-54.42	674.18	674.19
K	27087.36	-54.42	674.16	674.17
CL N. Abut.	27099.15	-54.42	674.14	674.14
Bk. of N. Abut.	27100.37	-54.42	674.14	674.14

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

 <b>Coombe-Bloxdorf P.C.</b> -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 7  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102 SHEET NO. 26
	CONTRACT NO. 66856			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT


**BEAM 5**

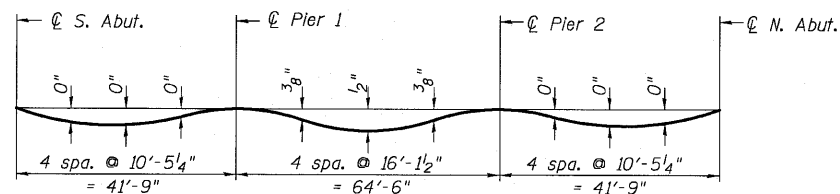
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26950.74	-47.25	674.03	674.03
CL S. Abut	26952.04	-47.25	674.03	674.03
A	26962.04	-47.25	674.05	674.05
B	26972.04	-47.25	674.07	674.07
C	26982.04	-47.25	674.08	674.09
CL Pier 1	26993.75	-47.25	674.10	674.10
D	27003.75	-47.25	674.11	674.12
E	27013.75	-47.25	674.11	674.14
F	27023.75	-47.25	674.11	674.16
G	27033.75	-47.25	674.11	674.15
H	27043.75	-47.25	674.11	674.13
CL Pier 2	27058.25	-47.25	674.10	674.10
I	27068.25	-47.25	674.08	674.08
J	27078.25	-47.25	674.07	674.07
K	27088.25	-47.25	674.05	674.05
CL N. Abut.	27100.04	-47.25	674.02	674.02
Bk. of N. Abut.	27101.26	-47.25	674.02	674.02

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut	26951.63	-40.08	673.90	673.90
CL S. Abut	26952.94	-40.08	673.90	673.90
A	26962.94	-40.08	673.92	673.93
B	26972.94	-40.08	673.94	673.94
C	26982.94	-40.08	673.96	673.96
CL Pier 1	26994.64	-40.08	673.97	673.97
D	27004.64	-40.08	673.98	673.99
E	27014.64	-40.08	673.98	674.01
F	27024.64	-40.08	673.98	674.03
G	27034.64	-40.08	673.98	674.02
H	27044.64	-40.08	673.98	674.00
CL Pier 2	27059.14	-40.08	673.97	673.97
I	27069.14	-40.08	673.95	673.95
J	27079.14	-40.08	673.94	673.94
K	27089.14	-40.08	673.92	673.92
CL N. Abut.	27100.94	-40.08	673.89	673.89
Bk. of N. Abut.	27102.15	-40.08	673.89	673.89

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0186 (SB)**

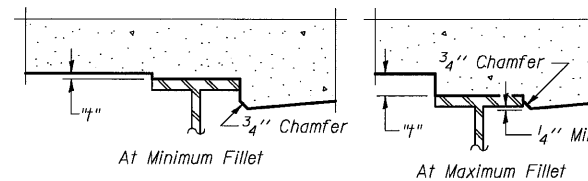
 <b>Coombe-Bloxdorf P.C.</b> -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY CHECKED BY MML MCB	SHEET NO. 8  42 SHEETS	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 27
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 66856				



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

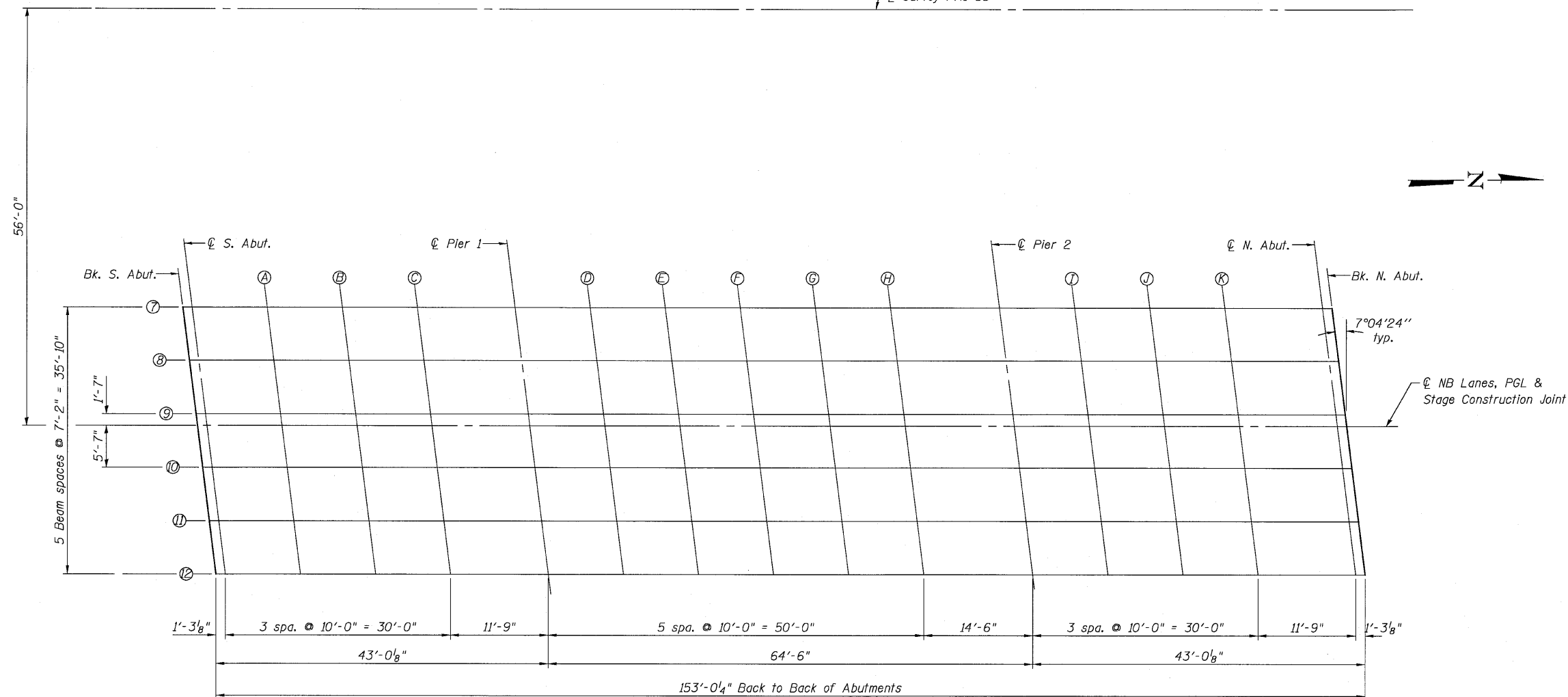
Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "t": After all structural steel has 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 Deflection" shown on Sheets 10 & 11 of 42, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

Survey FAI 55



**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

<b>GB</b> Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 9  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1 COUNTY LIVINGSTON FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	TOTAL SHEETS 102 SHEET NO. 28 CONTRACT NO. 66856
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E-S

11-1-09

FILE NAME = \\0530186.0187-66856-09-Top-nb.dgn  
 PLOT SCALE = 62.822118 1/2" / IN.  
 USER NAME = DCL

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26961.57	40.08	673.92	673.92
CL S. Abut.	26962.83	40.08	673.92	673.92
A	26972.83	40.08	673.94	673.94
B	26982.83	40.08	673.96	673.96
C	26992.83	40.08	673.97	673.97
CL Pier 1	27004.58	40.08	673.98	673.98
D	27014.58	40.08	673.98	674.00
E	27024.58	40.08	673.98	674.02
F	27034.58	40.08	673.98	674.02
G	27044.58	40.08	673.98	674.02
H	27054.58	40.08	673.97	673.99
CL Pier 2	27069.08	40.08	673.95	673.95
I	27079.08	40.08	673.94	673.94
J	27089.08	40.08	673.92	673.92
K	27099.08	40.08	673.90	673.90
CL N. Abut.	27110.83	40.08	673.87	673.87
Bk. of N. Abut.	27112.09	40.08	673.86	673.86

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26962.46	47.25	674.05	674.05
CL S. Abut.	26963.72	47.25	674.05	674.05
A	26973.72	47.25	674.07	674.08
B	26983.72	47.25	674.09	674.09
C	26993.72	47.25	674.10	674.10
CL Pier 1	27005.47	47.25	674.11	674.11
D	27015.47	47.25	674.11	674.13
E	27025.47	47.25	674.11	674.15
F	27035.47	47.25	674.11	674.15
G	27045.47	47.25	674.11	674.15
H	27055.47	47.25	674.10	674.12
CL Pier 2	27069.97	47.25	674.08	674.08
I	27079.97	47.25	674.07	674.07
J	27089.97	47.25	674.05	674.05
K	27099.97	47.25	674.02	674.03
CL N. Abut.	27111.72	47.25	673.99	673.99
Bk. of N. Abut.	27112.98	47.25	673.99	673.99

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26963.35	54.42	674.17	674.17
CL S. Abut.	26964.61	54.42	674.17	674.17
A	26974.61	54.42	674.19	674.19
B	26984.61	54.42	674.20	674.21
C	26994.61	54.42	674.21	674.21
CL Pier 1	27006.36	54.42	674.22	674.22
D	27016.36	54.42	674.23	674.24
E	27026.36	54.42	674.23	674.26
F	27036.36	54.42	674.23	674.27
G	27046.36	54.42	674.22	674.26
H	27056.36	54.42	674.21	674.23
CL Pier 2	27070.86	54.42	674.19	674.19
I	27080.86	54.42	674.18	674.18
J	27090.86	54.42	674.16	674.16
K	27100.86	54.42	674.13	674.14
CL N. Abut.	27112.61	54.42	674.10	674.10
Bk. of N. Abut.	27113.87	54.42	674.10	674.10


**☉ NB LANES, PROFILE GRADE LINE AND STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26963.55	56.00	674.19	674.19
CL S. Abut.	26964.81	56.00	674.19	674.19
A	26974.81	56.00	674.21	674.22
B	26984.81	56.00	674.23	674.23
C	26994.81	56.00	674.24	674.24
CL Pier 1	27006.56	56.00	674.25	674.25
D	27016.56	56.00	674.25	674.27
E	27026.56	56.00	674.25	674.28
F	27036.56	56.00	674.25	674.29
G	27046.56	56.00	674.24	674.28
H	27056.56	56.00	674.24	674.26
CL Pier 2	27071.06	56.00	674.22	674.22
I	27081.06	56.00	674.20	674.20
J	27091.06	56.00	674.18	674.19
K	27101.06	56.00	674.16	674.16
CL N. Abut.	27112.81	56.00	674.13	674.13
Bk. of N. Abut.	27114.07	56.00	674.12	674.13

**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26964.24	61.58	674.10	674.10
CL S. Abut.	26965.50	61.58	674.11	674.11
A	26975.50	61.58	674.12	674.13
B	26985.50	61.58	674.14	674.14
C	26995.50	61.58	674.15	674.15
CL Pier 1	27007.25	61.58	674.16	674.16
D	27017.25	61.58	674.16	674.18
E	27027.25	61.58	674.16	674.20
F	27037.25	61.58	674.16	674.20
G	27047.25	61.58	674.16	674.19
H	27057.25	61.58	674.15	674.17
CL Pier 2	27071.75	61.58	674.13	674.13
I	27081.75	61.58	674.11	674.11
J	27091.75	61.58	674.09	674.10
K	27101.75	61.58	674.07	674.07
CL N. Abut.	27113.50	61.58	674.04	674.04
Bk. of N. Abut.	27114.76	61.58	674.03	674.03

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

 <b>Coombe-Bloxdorf P.C.</b> - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 10  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 29
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 66856			

**BEAM 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26965.13	68.75	673.99	673.99
CL S. Abut.	26966.39	68.75	673.99	673.99
A	26976.39	68.75	674.01	674.01
B	26986.39	68.75	674.02	674.03
C	26996.39	68.75	674.03	674.04
CL Pier 1	27008.14	68.75	674.04	674.04
D	27018.14	68.75	674.05	674.06
E	27028.14	68.75	674.05	674.08
F	27038.14	68.75	674.04	674.09
G	27048.14	68.75	674.04	674.08
H	27058.14	68.75	674.03	674.05
CL Pier 2	27072.64	68.75	674.01	674.01
I	27082.64	68.75	673.99	673.99
J	27092.64	68.75	673.97	673.98
K	27102.64	68.75	673.95	673.95
CL N. Abut.	27114.39	68.75	673.92	673.92
Bk. of N. Abut.	27115.65	68.75	673.91	673.91

**BEAM 12**


Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	26966.02	75.92	673.85	673.85
CL S. Abut.	26967.28	75.92	673.85	673.85
A	26977.28	75.92	673.87	673.87
B	26987.28	75.92	673.88	673.89
C	26997.28	75.92	673.89	673.89
CL Pier 1	27009.03	75.92	673.90	673.90
D	27019.03	75.92	673.90	673.92
E	27029.03	75.92	673.90	673.94
F	27039.03	75.92	673.90	673.94
G	27049.03	75.92	673.89	673.93
H	27059.03	75.92	673.89	673.91
CL Pier 2	27073.53	75.92	673.87	673.87
I	27083.53	75.92	673.85	673.85
J	27093.53	75.92	673.83	673.83
K	27103.53	75.92	673.80	673.81
CL N. Abut.	27115.28	75.92	673.77	673.77
Bk. of N. Abut.	27116.54	75.92	673.77	673.77

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

E-S

11-1-09

FILE NAME = ...0530186.0187-66856-11-10a2-rb.dgn  
PLOT SCALE = 0.10000000 1/4" / 1"  
USER NAME = CPC

 <b>Coombe-Bloxdorf P.C.</b> -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. 05004-10	SHEET NO. 11	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE		55	(53-1) HBR & HBR-1	LIVINGSTON	102	30
	DATE 8/10/10	DESIGN BY GB/MCB	42 SHEETS	CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

**W. EDGE OF SHOULDER**

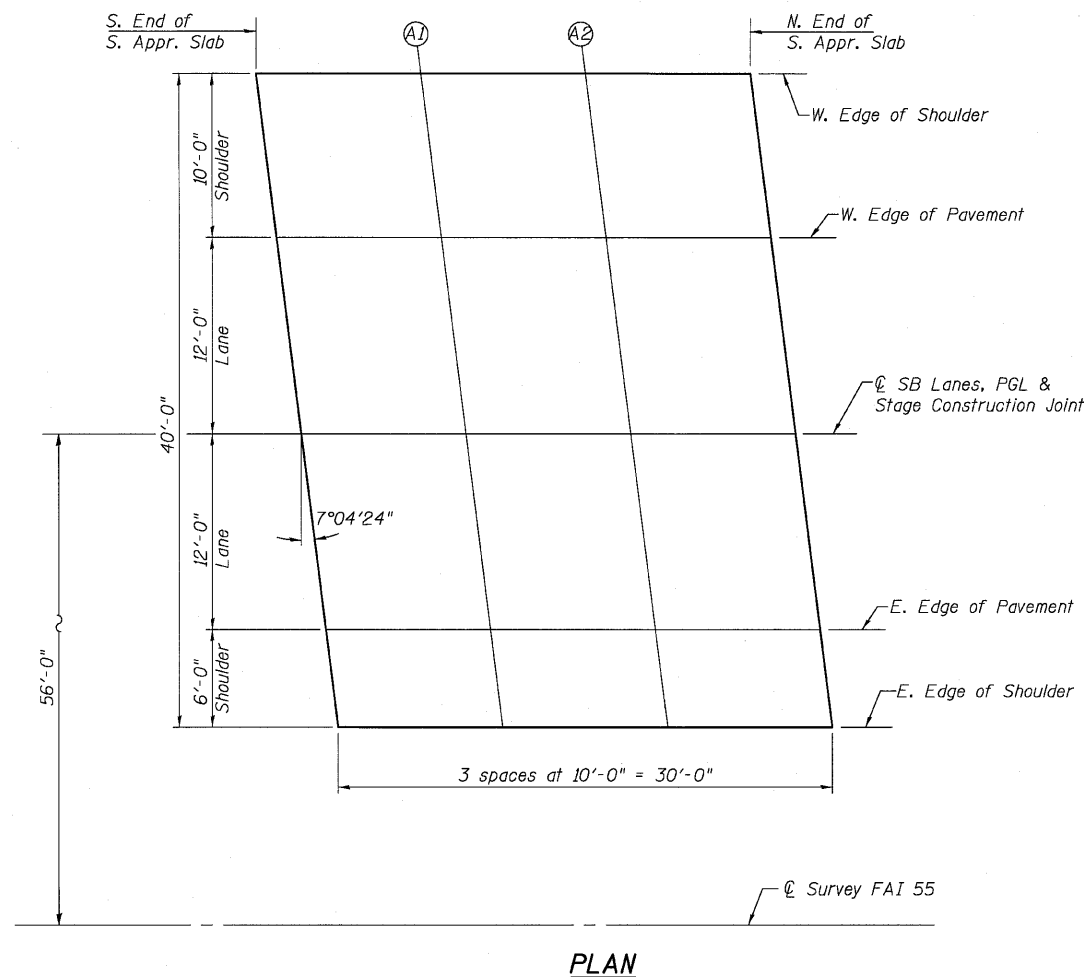
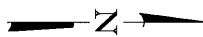
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr.	26916.92	-78.00	673.67
A1	26926.92	-78.00	673.71
A2	26936.92	-78.00	673.74
N. End of S. Appr.	26946.92	-78.00	673.76

**WEST EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr.	26918.16	-68.00	673.88
A1	26928.16	-68.00	673.91
A2	26938.16	-68.00	673.94
N. End of S. Appr.	26948.16	-68.00	673.97

**SB LANES, PGL & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr.	26919.65	-56.00	674.07
A1	26929.65	-56.00	674.11
A2	26939.65	-56.00	674.14
N. End of S. Appr.	26949.65	-56.00	674.16



**E. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr.	26921.14	-44.00	673.89
A1	26931.14	-44.00	673.92
A2	26941.14	-44.00	673.95
N. End of S. Appr.	26951.14	-44.00	673.97

**E. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr.	26921.88	-38.00	673.77
A1	26931.88	-38.00	673.80
A2	26941.88	-38.00	673.83
N. End of S. Appr.	26951.88	-38.00	673.86

**TOP OF SOUTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 053-0186 (SB)**

E-AS

11-1-09

PLAN

**CB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO.	05004-10
SCALE	
DATE	8/10/10
DESIGN BY	GB/MCB
DRAWN BY	MML
CHECKED BY	MCB

SHEET NO. 12  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	31
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66856				

FILE NAME = ...  
PLOT SCALE = 5/8" = 1' / IN.  
USER NAME = CFC

**W. EDGE OF SHOULDER**

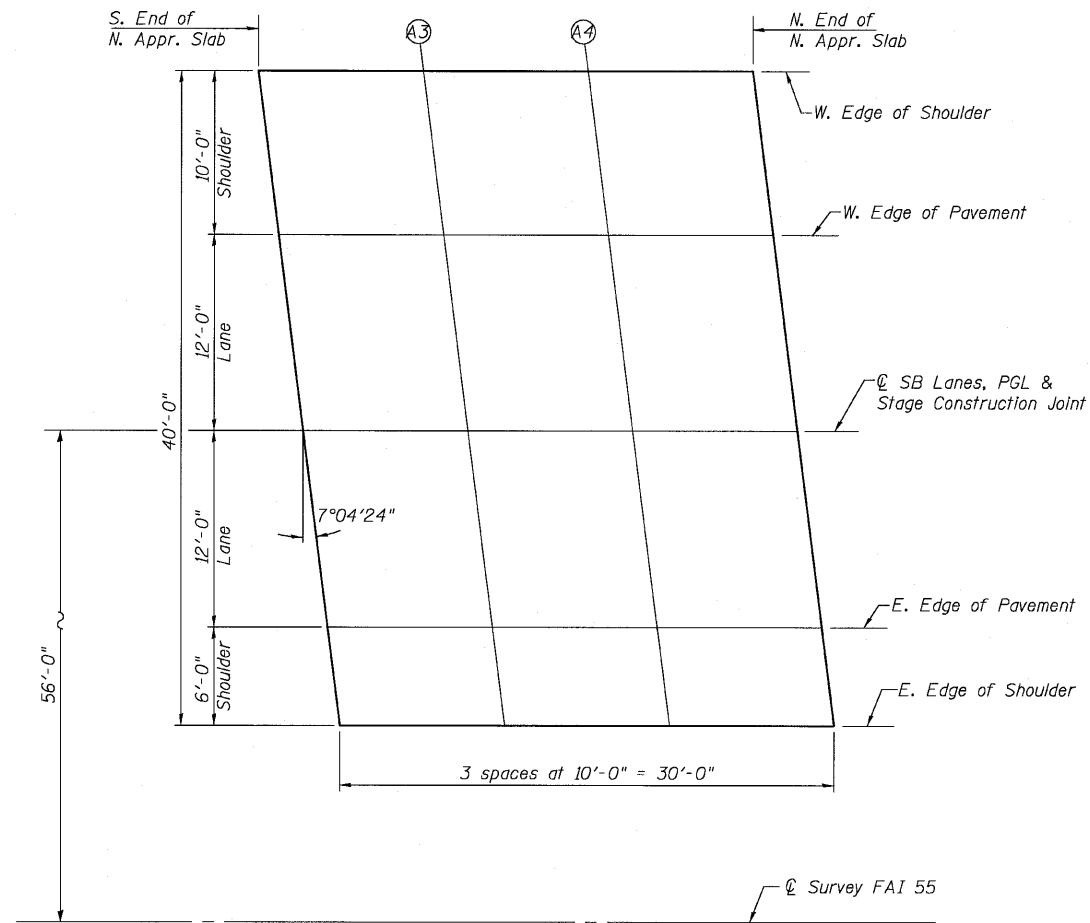
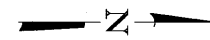
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Apr. A3	27097.44	-78.00	673.78
A3	27107.44	-78.00	673.75
A4	27117.44	-78.00	673.72
N. End of N. Apr.	27127.44	-78.00	673.69

**W. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Apr. A3	27098.68	-68.00	673.97
A3	27108.68	-68.00	673.95
A4	27118.68	-68.00	673.92
N. End of N. Apr.	27128.68	-68.00	673.89

**☉ SB LANES, PGL & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Apr. A3	27100.17	-56.00	674.16
A3	27110.17	-56.00	674.14
A4	27120.17	-56.00	674.11
N. End of N. Apr.	27130.17	-56.00	674.07



**PLAN**

**E. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Apr. A3	27101.66	-44.00	673.97
A3	27111.66	-44.00	673.94
A4	27121.66	-44.00	673.91
N. End of N. Apr.	27131.66	-44.00	673.88

**E. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Apr. A3	27102.40	-38.00	673.85
A3	27112.40	-38.00	673.82
A4	27122.40	-38.00	673.79
N. End of N. Apr.	27132.40	-38.00	673.76

**TOP OF NORTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 053-0186 (SB)**

E-AS

11-1-09

**CB Coombe-Bloxdorf P.C.**  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO.	05004-10
SCALE	
DATE	8/10/10
DESIGN BY	CB/MCB
DRAWN BY	MML
CHECKED BY	MCB

SHEET NO. 13  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	32
CONTRACT NO. 66856				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FILE NAME = \\0530186\_0187-66856-13-11-09-ab.dgn  
PLOT SCALE = 5/8"=1'-0" / IN.  
USER NAME = CFC



**W. EDGE OF SHOULDER**

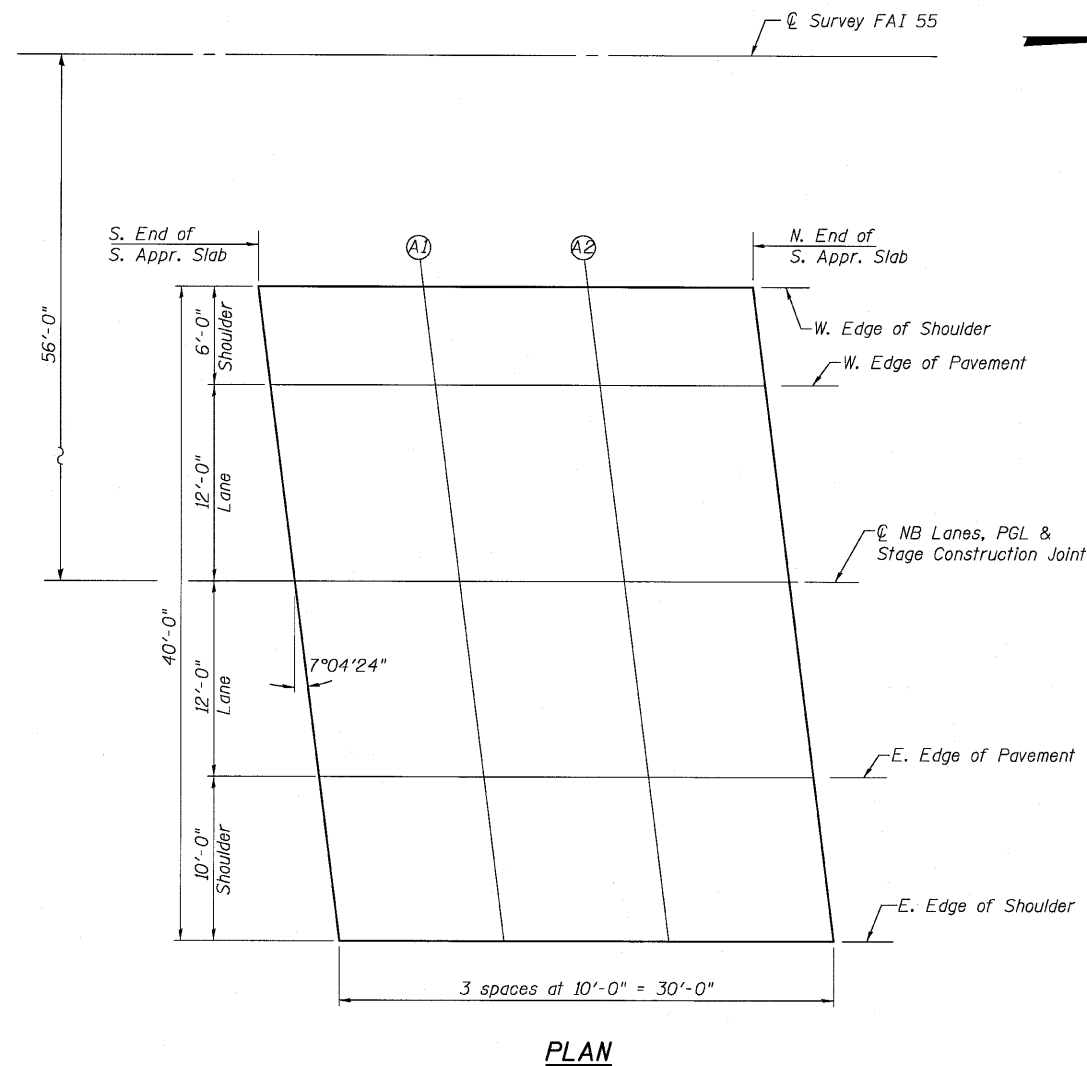
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprpr.	26931.32	38.00	673.80
A1	26941.32	38.00	673.83
A2	26951.32	38.00	673.85
N. End of S. Aprpr.	26961.32	38.00	673.88

**W. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprpr.	26932.06	44.00	673.92
A1	26942.06	44.00	673.95
A2	26952.06	44.00	673.98
N. End of S. Aprpr.	26962.06	44.00	674.00

**☉ NB LANES, PGL & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprpr.	26933.55	56.00	674.12
A1	26943.55	56.00	674.15
A2	26953.55	56.00	674.17
N. End of S. Aprpr.	26963.55	56.00	674.19



**PLAN**

**E. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprpr.	26935.04	68.00	673.93
A1	26945.04	68.00	673.96
A2	26955.04	68.00	673.98
N. End of S. Aprpr.	26965.04	68.00	674.00

**E. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Aprpr.	26936.28	78.00	673.74
A1	26946.28	78.00	673.76
A2	26956.28	78.00	673.79
N. End of S. Aprpr.	26966.28	78.00	673.81

**TOP OF SOUTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

E-AS

11-1-09

**CB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO. 05004-10  
SCALE  
DATE 8/10/10  
DESIGN BY GB/MCB  
DRAWN BY MML  
CHECKED BY MCB

SHEET NO. 14  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	33
CONTRACT NO. 66856				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FILE NAME = 0530187\_0187-66856-14.dgn  
PLOT SCALE = 1/8" = 1'-0"  
USER NAME = CPL

**W. EDGE OF SHOULDER**

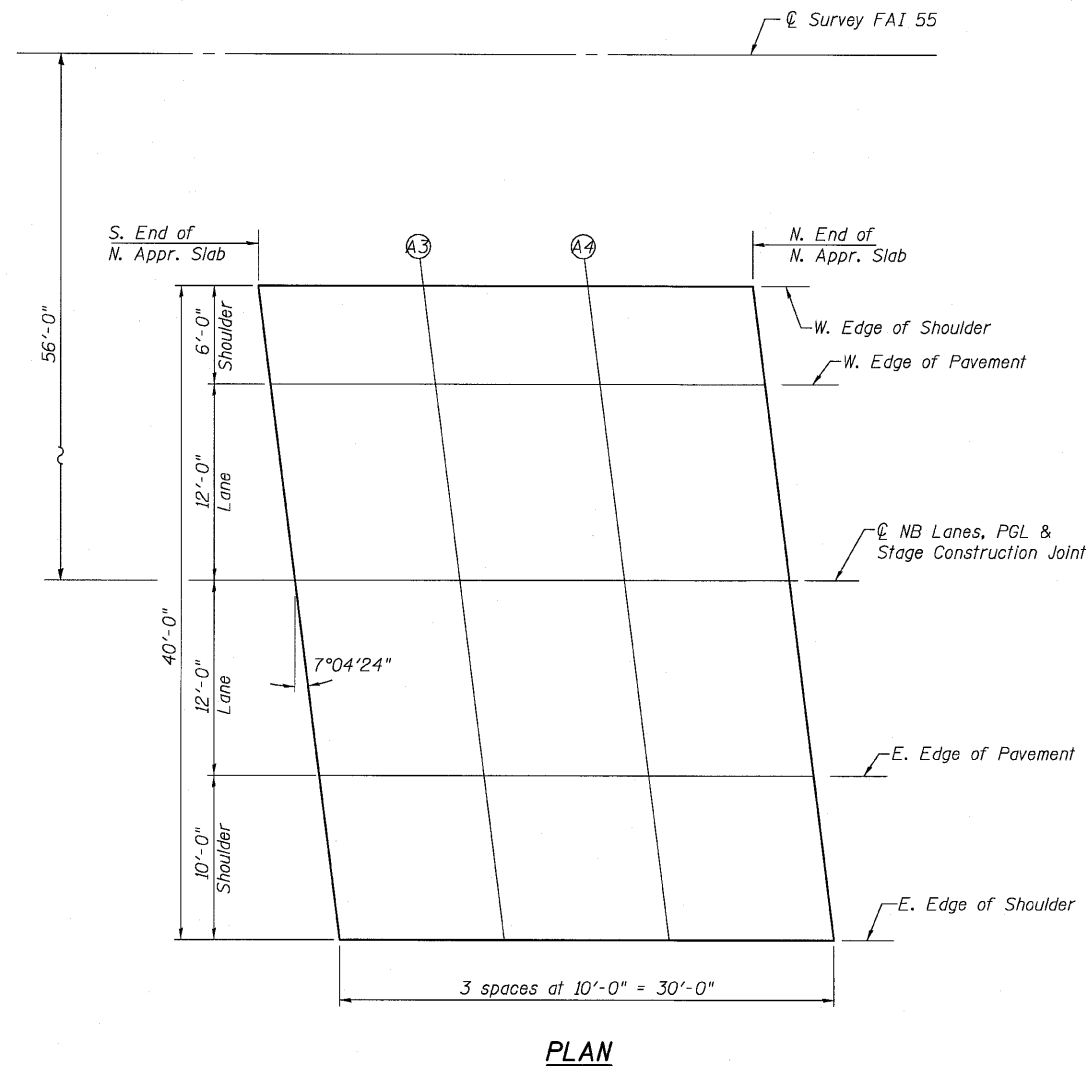
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Aprpr.	27111.84	38.00	673.82
A3	27121.84	38.00	673.79
A4	27131.84	38.00	673.76
N. End of N. Aprpr.	27141.84	38.00	673.72

**W. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Aprpr.	27112.58	44.00	673.94
A3	27122.58	44.00	673.91
A4	27132.58	44.00	673.88
N. End of N. Aprpr.	27142.58	44.00	673.84

**☉ NB LANES, PGL & STAGE CONSTRUCTION JOINT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Aprpr.	27114.07	56.00	674.13
A3	27124.07	56.00	674.09
A4	27134.07	56.00	674.06
N. End of N. Aprpr.	27144.07	56.00	674.02



**E. EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Aprpr.	27115.56	68.00	673.93
A3	27125.56	68.00	673.90
A4	27135.56	68.00	673.87
N. End of N. Aprpr.	27145.56	68.00	673.83

**E. EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Aprpr.	27116.80	78.00	673.73
A3	27126.80	78.00	673.70
A4	27136.80	78.00	673.66
N. End of N. Aprpr.	27146.80	78.00	673.62

**TOP OF NORTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 053-0187 (NB)**

E-AS

11-1-09

**GB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

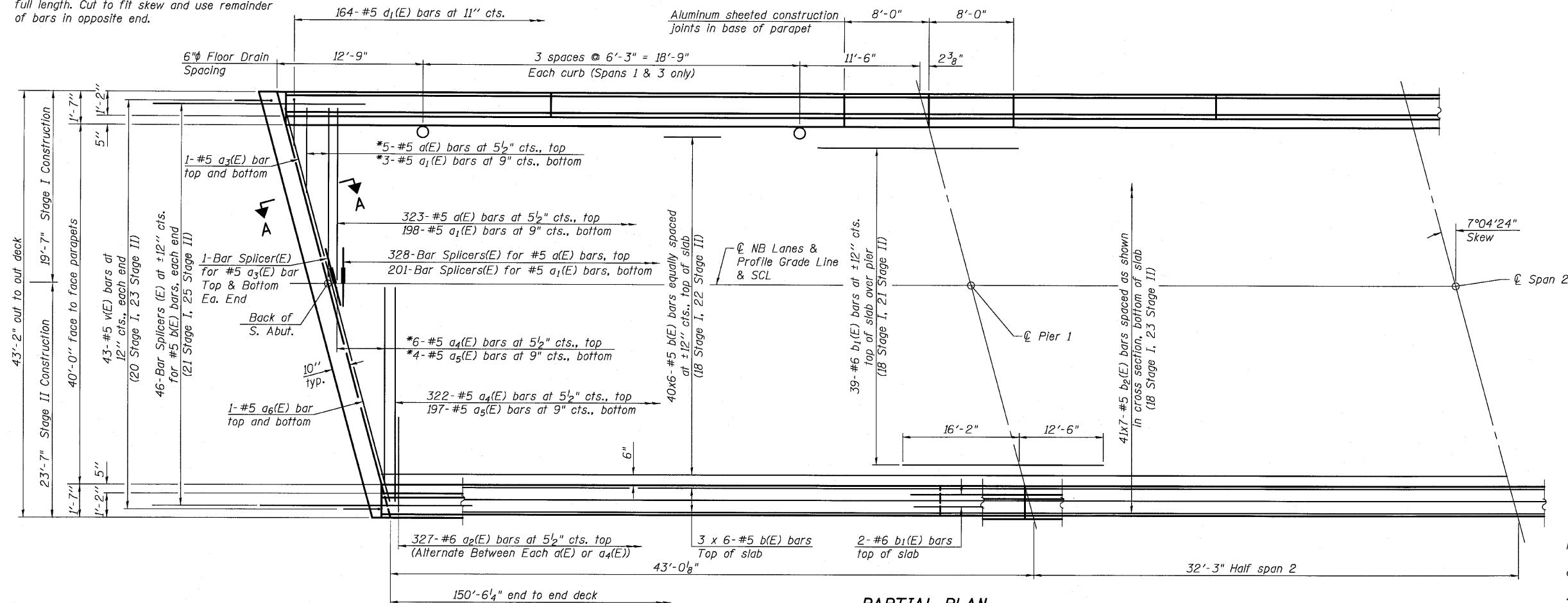
PROJECT NO. 05004-10  
SCALE  
DATE 8/10/10  
DESIGN BY GB/MCB  
DRAWN BY MML  
CHECKED BY MCB

SHEET NO. 15  
42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	34
CONTRACT NO. 66856				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FILE NAME = 0530187\_0187-66856-15-11-09-nb.dgn  
PLOT SCALE = 5/8" = 1' / IN.  
USER NAME = CFC

\* Order a(E), a<sub>1</sub>(E), a<sub>4</sub>(E) and a<sub>5</sub>(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

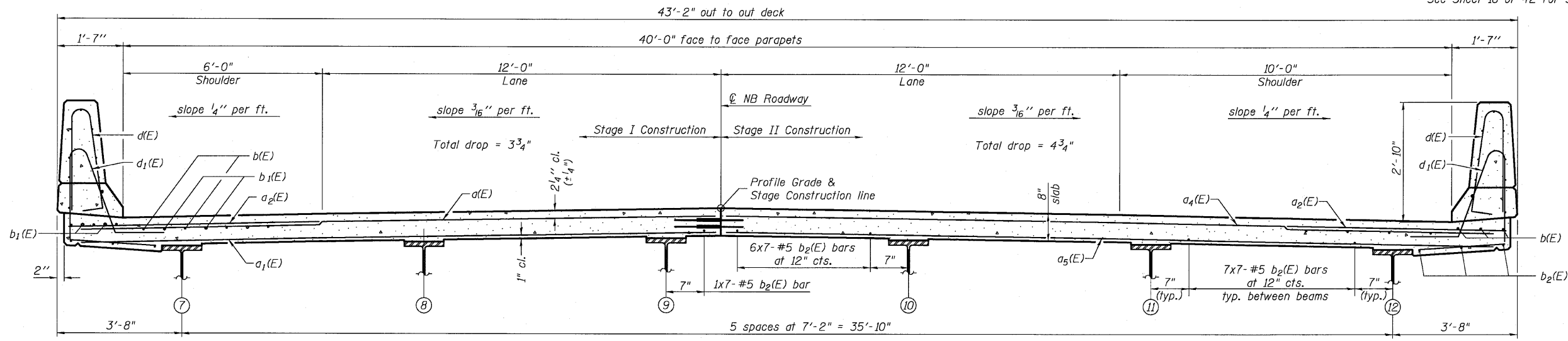


**PARTIAL PLAN**  
(SB Similar, mirrored)

**MINIMUM BAR LAP**

#5 Bar = 2'-7"

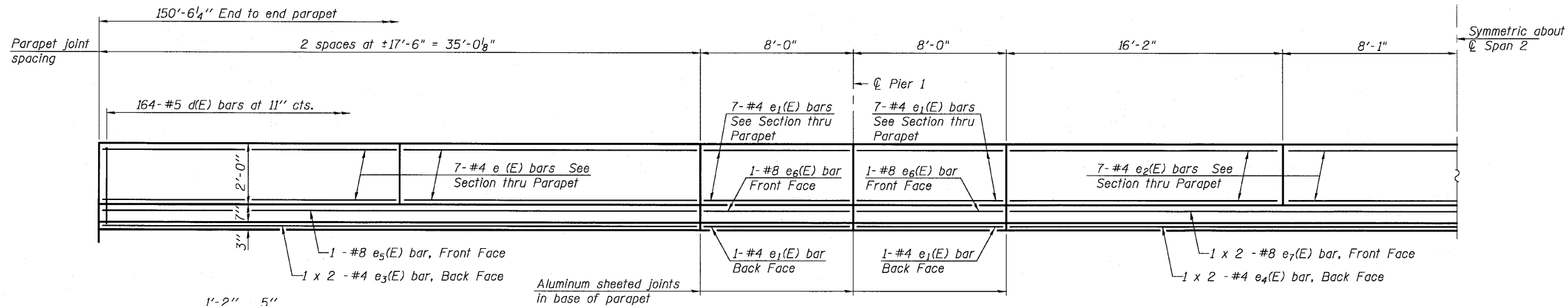
Notes:  
See Sheet 17 of 42 for superstructure details and Bill of Material.  
Bars indicated thus 40 x 6-#5 etc. indicates 40 lines of bars with 6 lengths per line.  
See Sheet 17 of 42 for parapet reinforcement.  
See Sheet 18 of 42 for Section A-A.



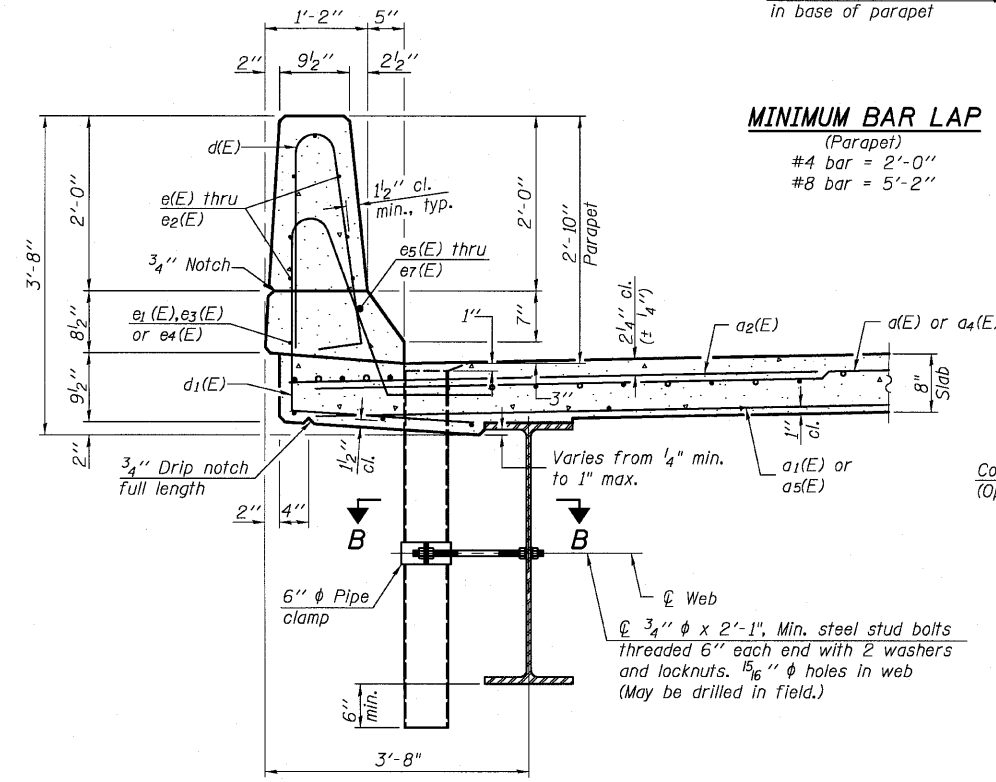
**CROSS SECTION**  
(Looking North, NB)  
(SB Similar, opposite)

**SUPERSTRUCTURES**  
**STRUCTURE NO. 053-0186 (SB)**  
**STRUCTURE NO. 053-0187 (NB)**

<b>Coombe-Bloxdorf P.C.</b> - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY CB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 16  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 35
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 66856			

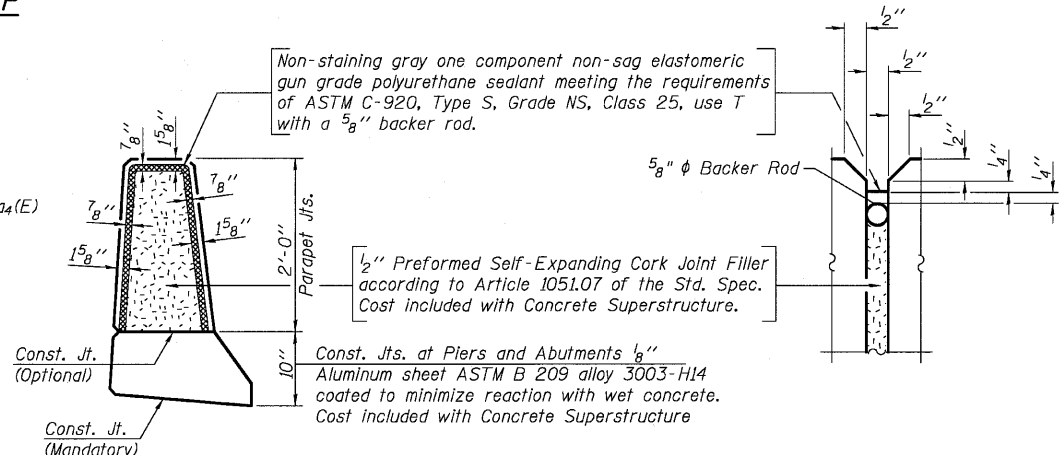


**INSIDE ELEVATION OF PARAPET**



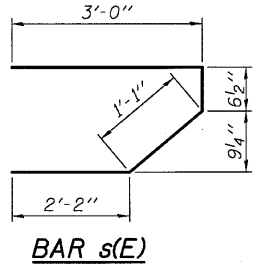
**SECTION THRU PARAPET**

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

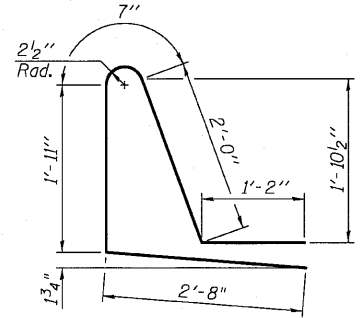


**PARAPET JOINT DETAILS**

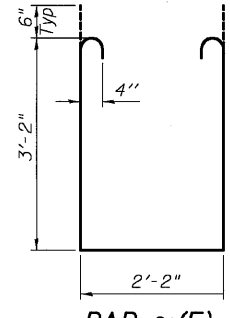
**Notes:**  
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to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



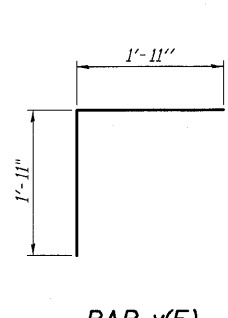
**BAR s(E)**



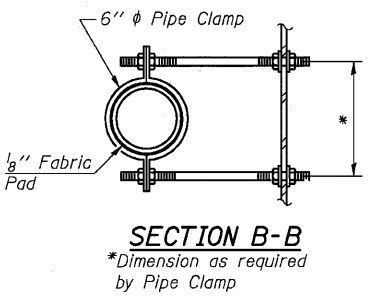
**BAR d1(E)**



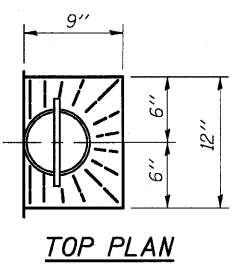
**BAR s1(E)**



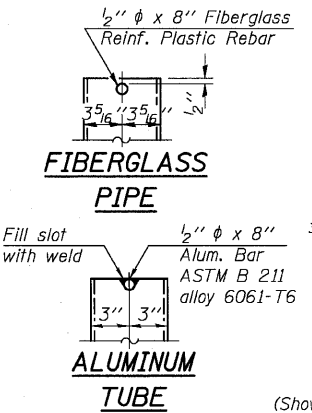
**BAR v(E)**



**SECTION B-B**  
\*Dimension as required by Pipe Clamp

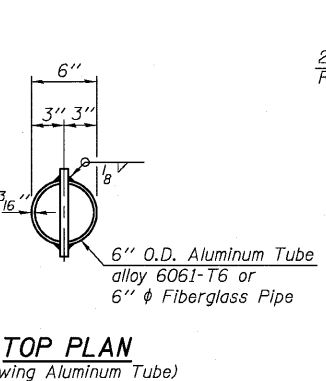


**TOP PLAN**

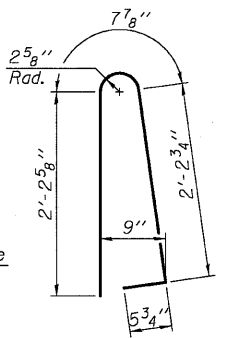


**FIBERGLASS PIPE**

**ALUMINUM TUBE**



**TOP PLAN**  
(Showing Aluminum Tube)



**BAR d(E)**

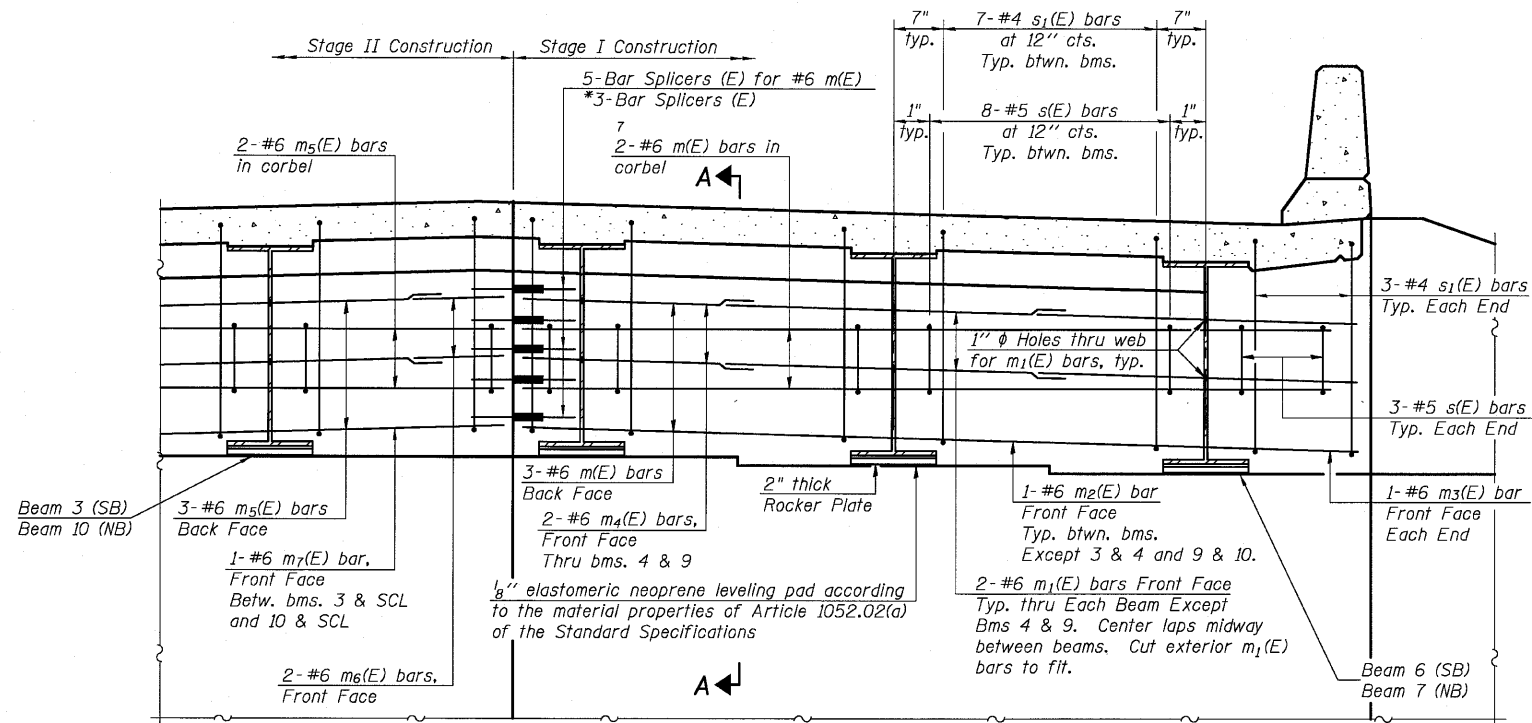
**TWO SUPERSTRUCTURES**  
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	656	#5	19'-1"	—
a1(E)	402	#5	18'-9"	—
a2(E)	1308	#6	6'-6"	—
a3(E)	8	#5	18'-11"	—
a4(E)	656	#5	23'-1"	—
a5(E)	402	#5	22'-9"	—
a6(E)	8	#5	22'-11"	—
b(E)	552	#5	27'-3"	—
b1(E)	172	#6	28'-8"	—
b2(E)	574	#5	23'-8"	—
d(E)	656	#5	5'-7"	⌋
d1(E)	656	#5	8'-4"	⌋
e(E)	112	#4	17'-2"	—
e1(E)	128	#4	7'-8"	—
e2(E)	84	#4	15'-10"	—
e3(E)	16	#4	18'-4"	—
e4(E)	8	#4	25'-1"	—
e5(E)	8	#8	34'-8"	—
e6(E)	16	#8	7'-8"	—
e7(E)	8	#8	26'-8"	—
m(E)	20	#6	19'-4"	—
m1(E)	40	#6	10'-7"	—
m2(E)	16	#6	6'-10"	—
m3(E)	8	#6	3'-4"	—
m4(E)	8	#6	6'-8"	—
m5(E)	20	#6	23'-4"	—
m6(E)	8	#6	3'-7"	—
m7(E)	4	#6	5'-3"	—
s(E)	184	#5	6'-10"	⌋
s1(E)	164	#4	9'-6"	⌋
v(E)	172	#5	3'-10"	⌋
Reinforcement Bars, Epoxy Coated		Pound	116,270	
Concrete Superstructure		Cu. Yds.	453.3	
Bar Splicers (E)		Each	1282	

Bars indicated thus 1 x 2 - #4 etc. indicates 1 line of bars with 2 lengths per line.

**SUPERSTRUCTURE DETAILS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

<p><b>Coombe-Bloxdorf P.C.</b> - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703</p>	PROJECT NO. 05004-10 SCALE: _____ DATE 8/10/10 DESIGN BY CB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 17  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102 SHEET NO. 36
	CONTRACT NO. 66856			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



\* Special Bar Splacers to be lapped with  $m_4(E)$  &  $m_7(E)$  bars. See sheet 34 of 42 for detail.

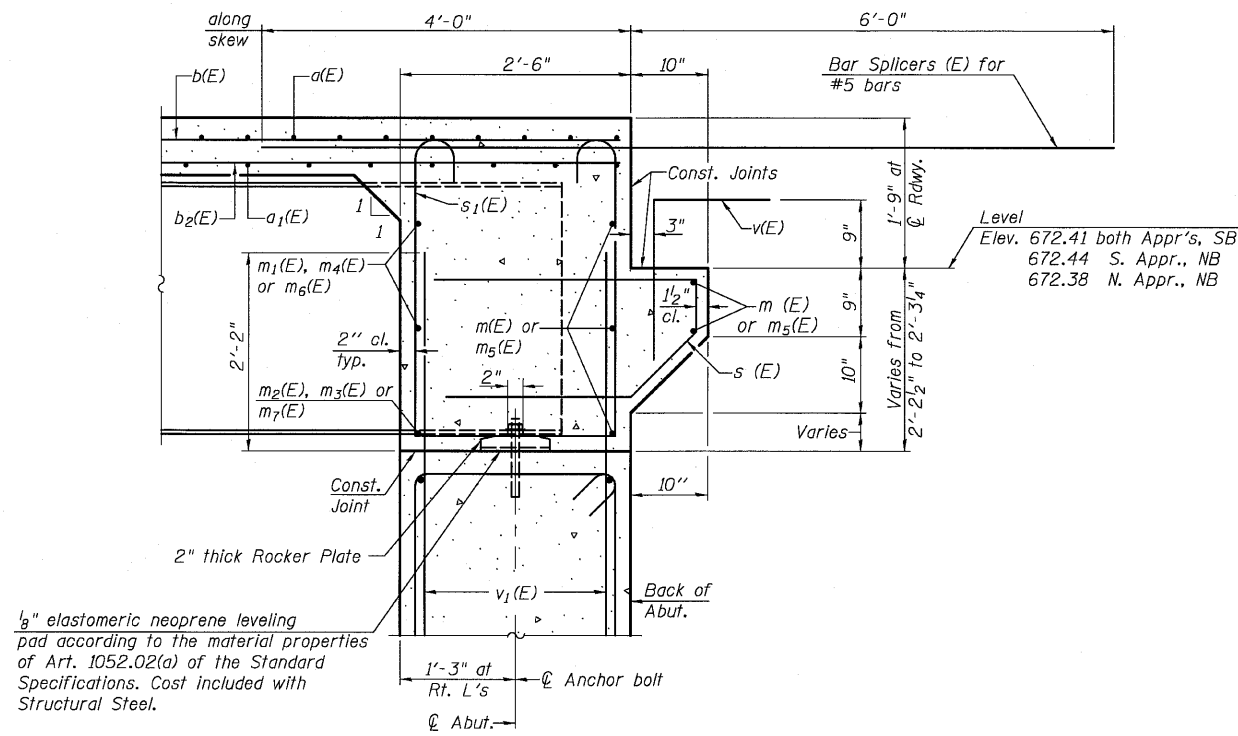
**DIAPHRAGM ELEVATION AT ABUTMENT**

(Looking North, SB)  
(Looking South, NB)

Notes:  
Reinforcement bars in diaphragm are billed with superstructure on sheet 17 of 42.  
Concrete in diaphragm is included with Concrete Superstructure on sheet of 17 of 42.  
For details of bars  $s(E)$  &  $s_1(E)$  see sheet 17 of 42.  
The  $s(E)$  and  $s_1(E)$  bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

**MIN. BAR LAP**

#6 bar = 3'-4"



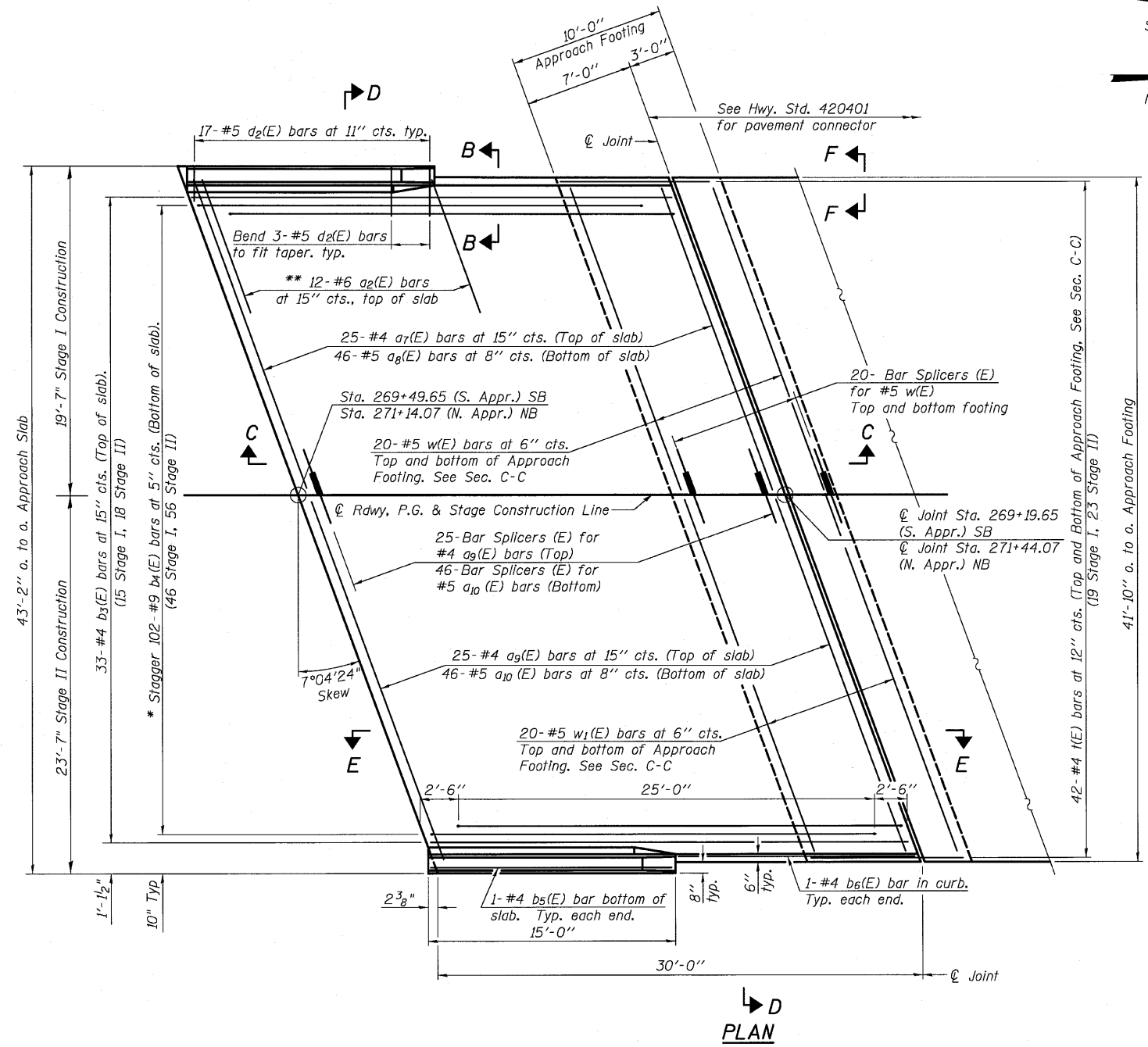
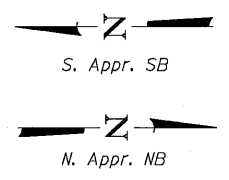
**SECTION A-A**

Dimensions at right angles to abutment, except as shown.

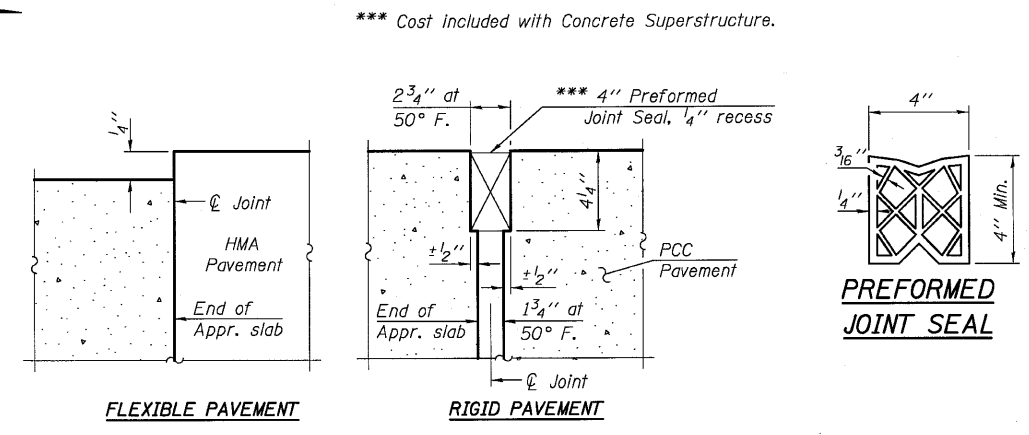
**INTEGRAL ABUTMENT  
DIAPHRAGM DETAILS  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)**

<b>GB</b> Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 18	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 37
		42 SHEETS	CONTRACT NO. 66856		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

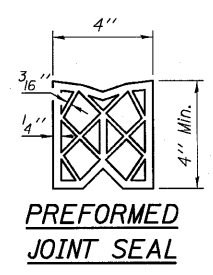
Notes:  
See sheet 21 of 42 for Sections C-C & D-D and View E-E.  
a<sub>7</sub>(E) thru a<sub>10</sub>(E) bar spacings measured along  $\perp$  Rdwy.



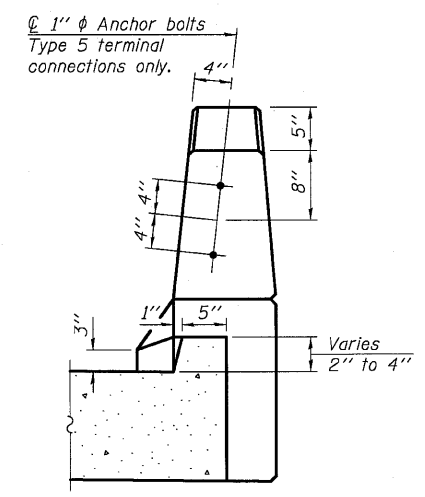
\* Tilt #9 b<sub>4</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>7</sub>(E) or a<sub>9</sub>(E) bars, typ. each parapet.



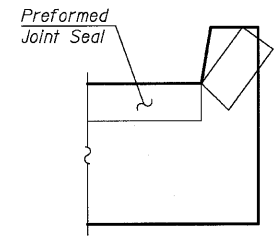
DETAIL A



PREFORMED JOINT SEAL



VIEW B-B



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

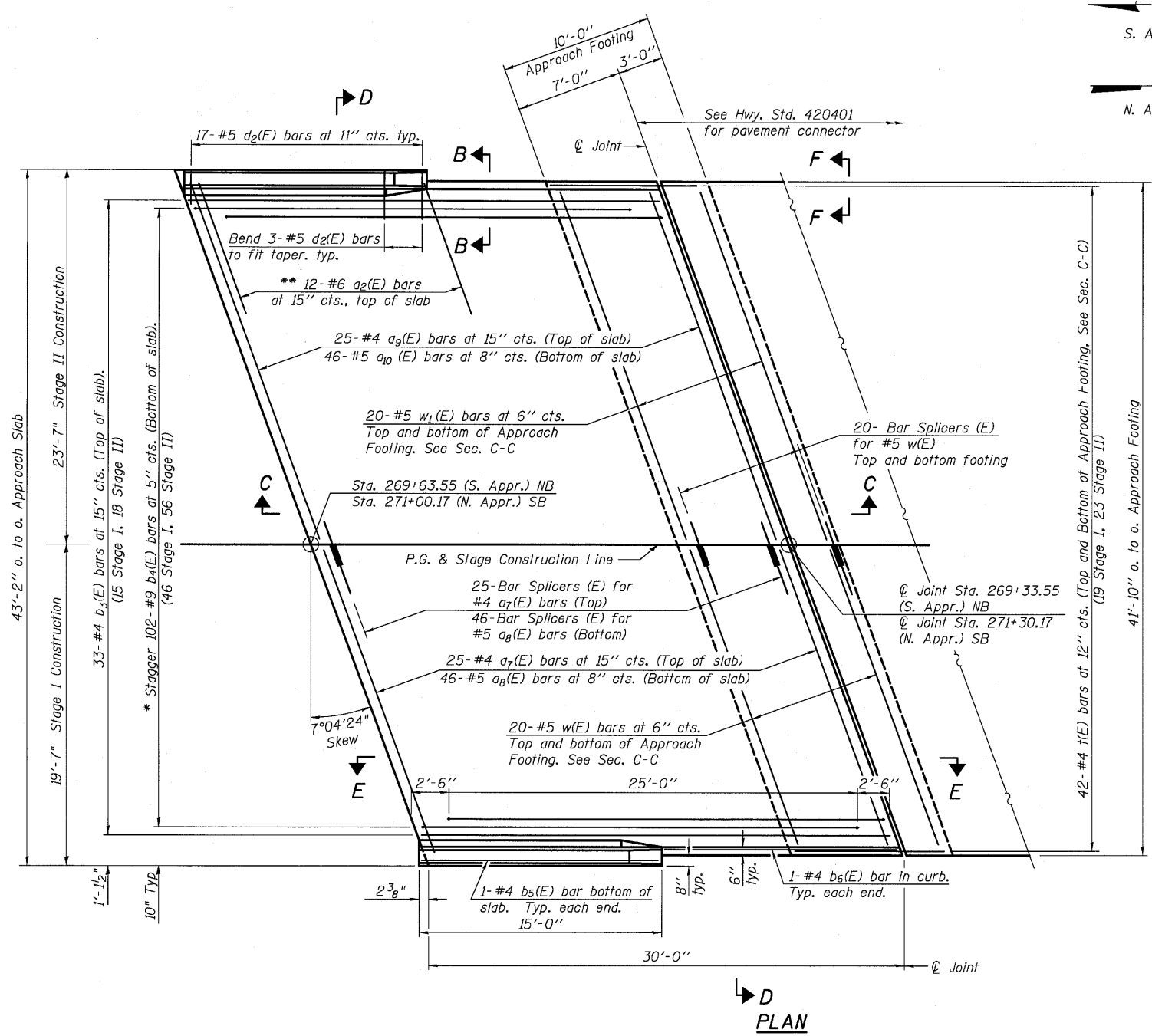
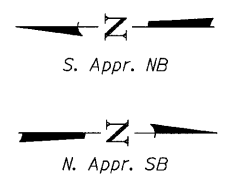
<b>Coombe-Bloxdorf P.C.</b> - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY CB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 19 42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102 SHEET NO. 38	CONTRACT NO. 66856
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

BA-R

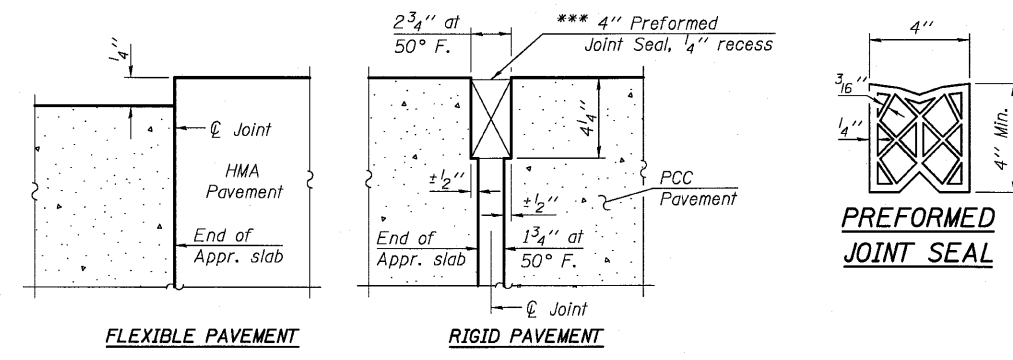
11-1-09

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USER NAME = CFC

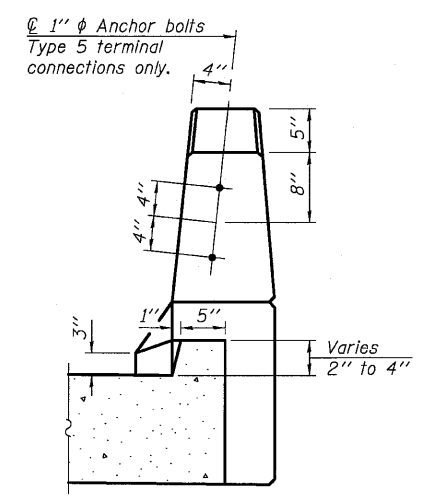
Notes:  
See sheet 21 of 42 for Sections C-C & D-D and View E-E.  
a<sub>7</sub>(E) thru a<sub>10</sub>(E) bar spacings measured along  $\phi$  Rdwy.



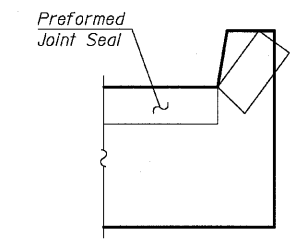
\* Tilt #9 b<sub>4</sub>(E) bars as required to maintain clearance.  
\*\* Space between a<sub>7</sub>(E) or a<sub>8</sub>(E) bars, typ. each parapet.



**DETAIL A**



**VIEW B-B**



**VIEW F-F**

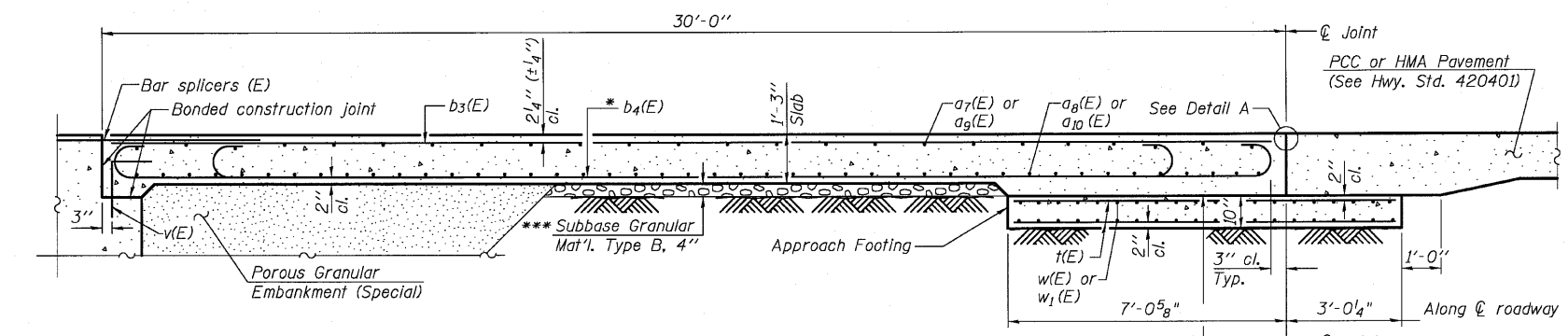
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

**BRIDGE APPROACH SLAB DETAILS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

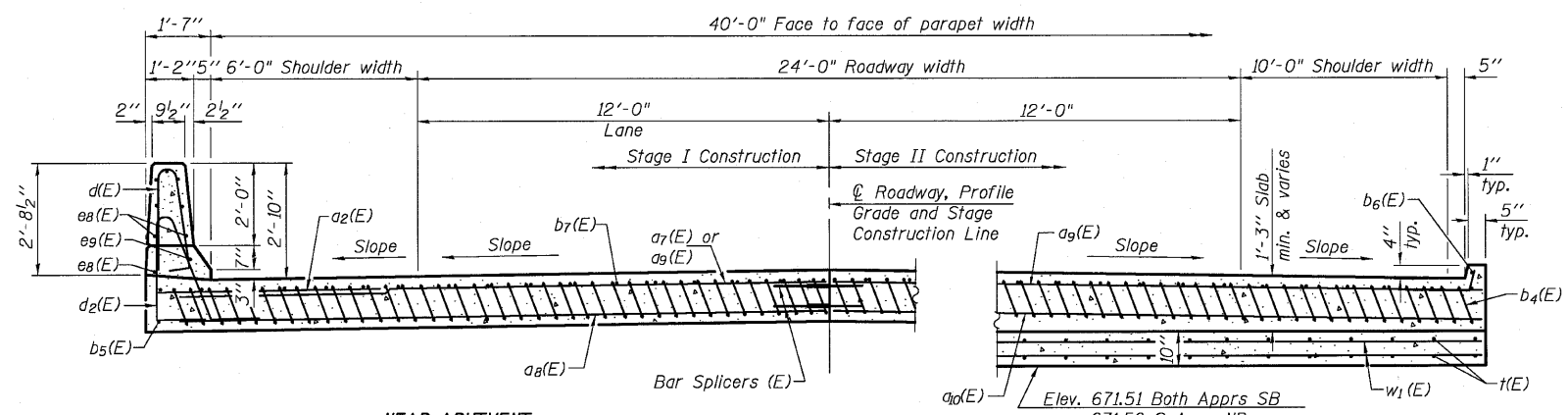
<p>Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703</p>	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 20  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102 SHEET NO. 39
	CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

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USER NAME = CPC

Notes:  
 See sheet 19 or 20 of 42 for Detail A and View B-B.  
 Approach slab and parapet concrete 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 sheet 17 of 42.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 For bar splicer details, see sheet 34 of 42.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 42.  
 For additional parapet details, see sheet 17 of 42.



SECTION C-C



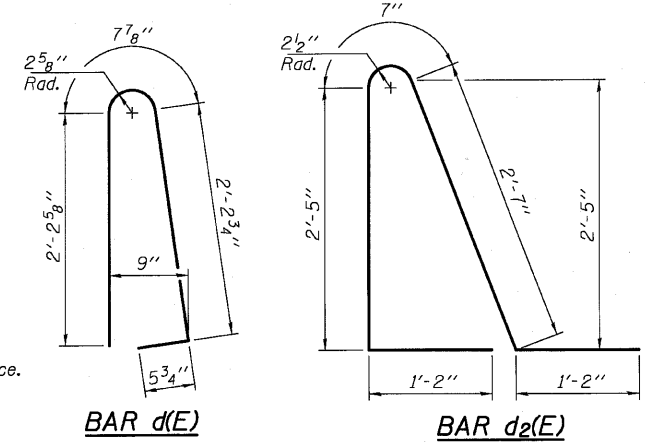
SECTION D-D

(See Plan for dimensions not shown)  
 Looking North, NB  
 Looking South, SB

NEAR ABUTMENT

AT APPROACH FOOTING

Elev. 671.51 Both Apprs SB  
 671.56 S Appr NB  
 671.46 N Appr NB  
 (Level out to out)



BAR d(E)

BAR d2(E)

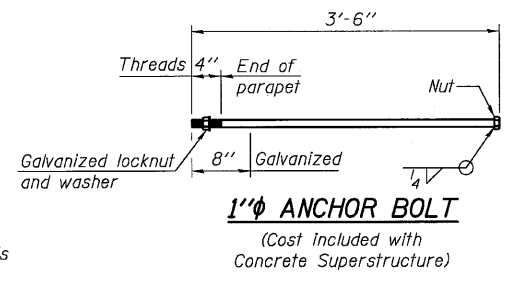
\* Tilt #9 b4(E) bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

FOUR APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	96	#6	6'-6"	—
a7(E)	100	#4	18'-9"	—
a8(E)	184	#5	18'-9"	—
a9(E)	100	#4	22'-9"	—
a10(E)	184	#5	22'-9"	—
b3(E)	132	#4	29'-8"	—
b4(E)	408	#9	29'-9"	—
b5(E)	8	#4	14'-8"	—
b6(E)	8	#4	14'-5"	—
d(E)	136	#5	5'-7"	—
d2(E)	136	#5	7'-11"	—
e8(E)	64	#4	14'-8"	—
e9(E)	8	#8	14'-8"	—
t(E)	336	#4	9'-9"	—
w(E)	160	#5	18'-9"	—
w1(E)	160	#5	22'-9"	—
Concrete Superstructure		Cu. Yd.	263.2	
Concrete Structures		Cu. Yd.	51.8	
Reinforcement Bars, Epoxy Coated		Pound	67,680	
Bar Splicers (E)		Each	444	

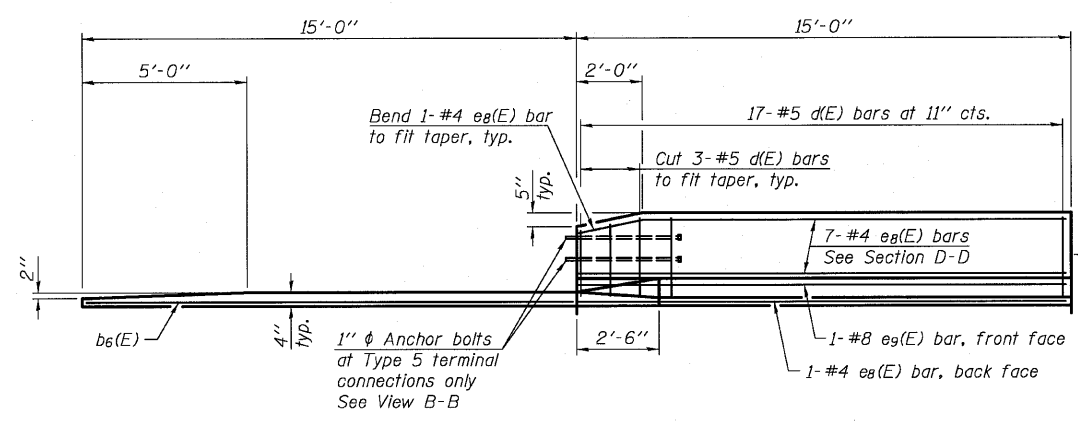
See Note A  
 See Note B

Note A: 58,570 (Superstr) 9110 (Substr)  
 Note B: 284 (Superstr) 160 (Substr)



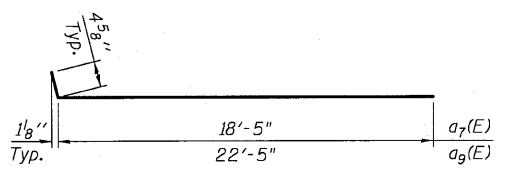
1" ANCHOR BOLT

(Cost included with Concrete Superstructure)

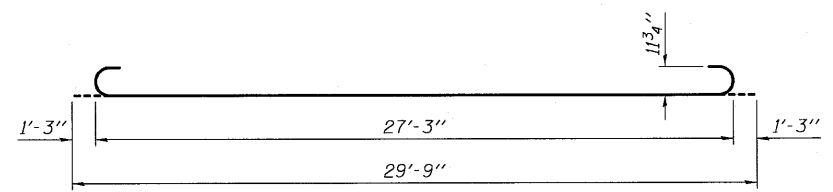


VIEW E-E

See sheet 17 of 42 for parapet joint details



BAR a7(E) or a9(E)

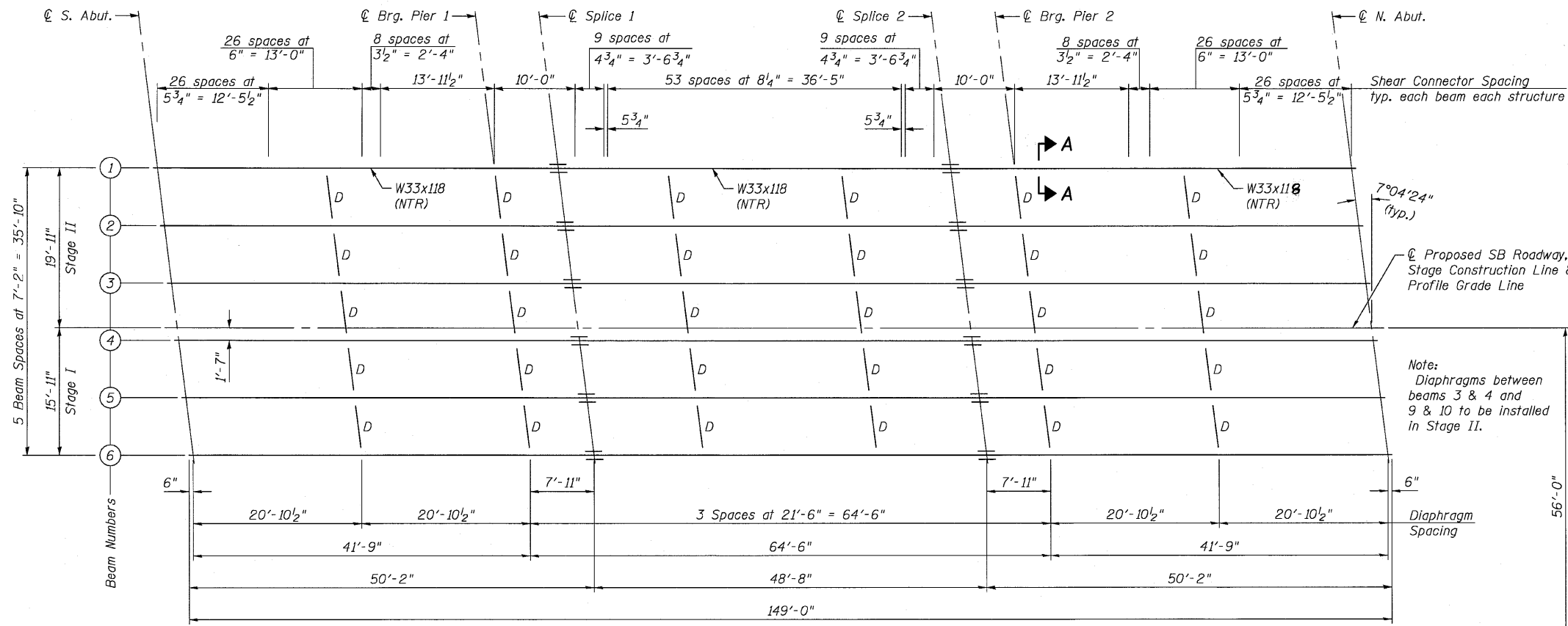


BAR b4(E)

BRIDGE APPROACH SLAB DETAILS  
 S.N. 053-0187 (NB) & 053-0186 (SB)

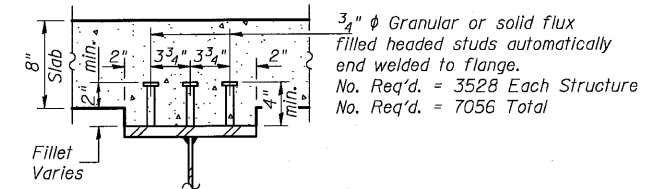
<b>CB</b> Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 21 42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1 COUNTY LIVINGSTON TOTAL SHEETS 102 SHEET NO. 40	CONTRACT NO. 66856 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
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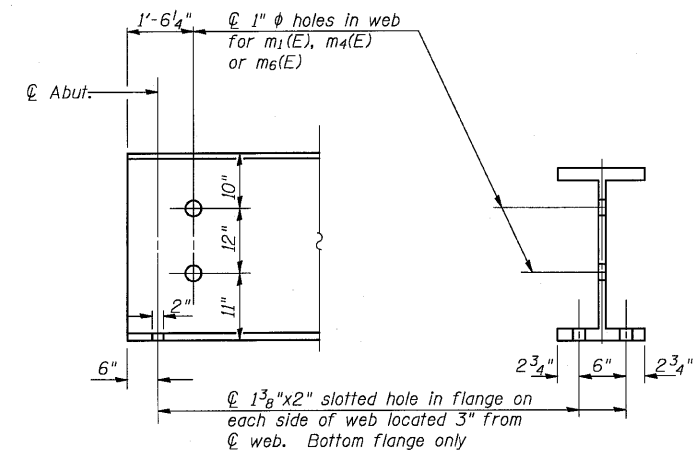
**NOTES:**

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods. See sheet 23 of 42 for Diaphragm Details.



**SECTION A-A**

Note: Diaphragms between beams 3 & 4 and 9 & 10 to be installed in Stage II.



**END OF BEAM DETAIL**  
(Showing Hole Locations)

**FRAMING PLAN**

All beams shall be AASHTO M270 Grade 50W and shall meet Notch Toughness Requirements. See sheet 23 of 42 for Top of Beam Elevations.

**STEEL FRAMING PLAN**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

**CB Coombe-Bloxdorf P.C.**  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO.	05004-10
SCALE	
DATE	8/10/10
DESIGN BY	
DRAWN BY	CFC
CHECKED BY	

SHEET NO. 22  
42 SHEETS

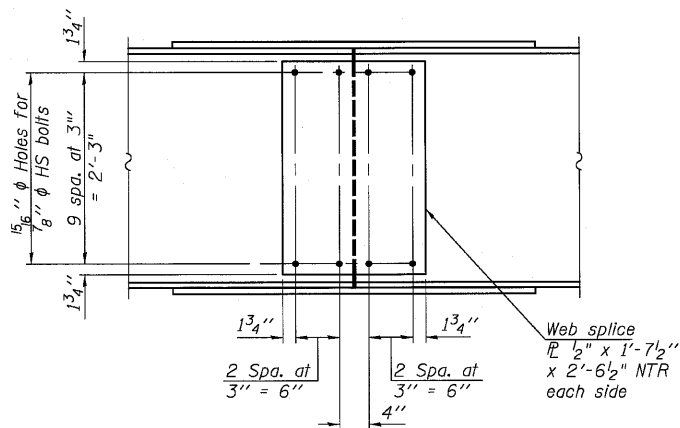
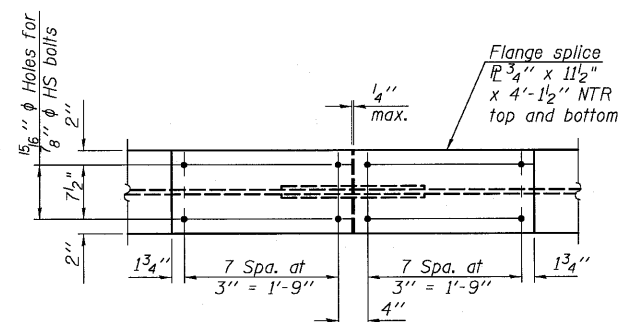
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	41
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		CONTRACT NO. 66856		

\*\*\* TOP OF BEAM ELEVATIONS

South Bound Structure						
Location	Bm. 1	Bm. 2	Bm. 3	Bm. 4	Bm. 5	Bm. 6
CL S. Abut	673.10	673.25	673.37	673.43	673.32	673.19
CL Brg. Pier 1	673.13	673.27	673.39	673.45	673.34	673.21
CL Splice 1	673.13	673.28	673.39	673.46	673.35	673.22
CL Splice 2	673.14	673.28	673.40	673.46	673.34	673.21
CL Brg. Pier 2	673.13	673.28	673.39	673.45	673.34	673.21
CL N. Abut.	673.11	673.25	673.37	673.43	673.31	673.18

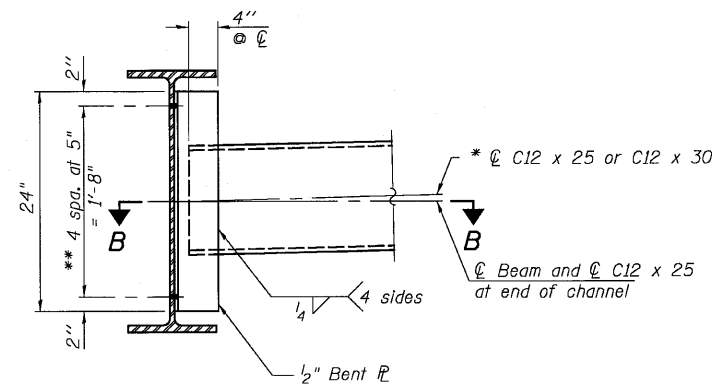
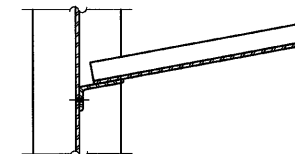
North Bound Structure						
Location	Bm. 7	Bm. 8	Bm. 9	Bm. 10	Bm. 11	Bm. 12
CL S. Abut	673.21	673.35	673.46	673.40	673.28	673.14
CL Brg. Pier 1	673.22	673.35	673.46	673.40	673.28	673.14
CL Splice 1	673.22	673.35	673.46	673.40	673.28	673.14
CL Splice 2	673.20	673.33	673.44	673.38	673.26	673.12
CL Brg. Pier 2	673.20	673.32	673.44	673.37	673.25	673.11
CL N. Abut.	673.16	673.28	673.40	673.33	673.21	673.06

\*\*\* For Fabrication Only



**SPLICE 1 AND 2 DETAIL**  
 (12 required, each structure)  
 (24 Required, Total)

Note:  
 All splice bolts shall be AASHTO M164/ASTM 325 Type 3.  
 NTR Denotes plates to meet Notch Toughness Requirements, Zone 2.  
 All Structural Steel shall be AASHTO M270 Grade 50W.



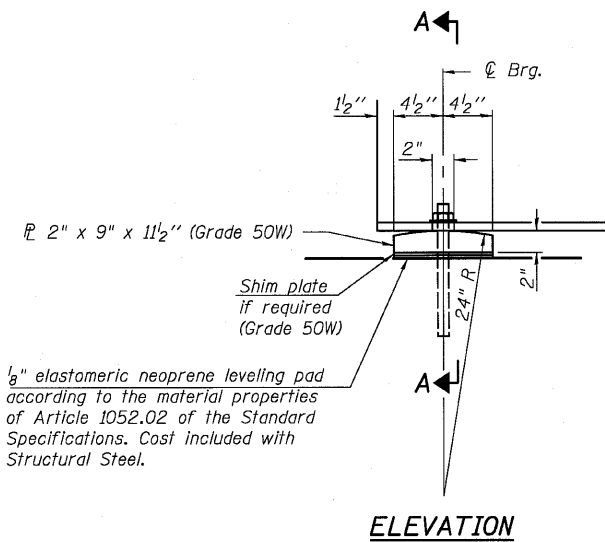
Note:  
 Two hardened washers required for each set of oversized holes.

\* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

\*\*  $\frac{3}{4}$ "  $\phi$  HS bolts,  $\frac{15}{16}$ "  $\phi$  holes

**STRUCTURAL STEEL DETAILS**  
 S.N. 053-0186 (SB) & 053-0187 (NB)

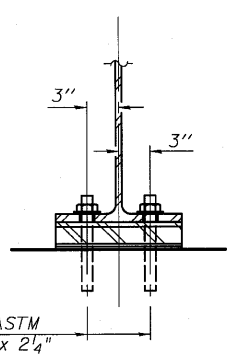
Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 23 42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1 COUNTY LIVINGSTON FEDERAL ROAD DIST. NO. ILLINOIS	TOTAL SHEETS 102 SHEET NO. 42 CONTRACT NO. 66856 FED. AID PROJECT
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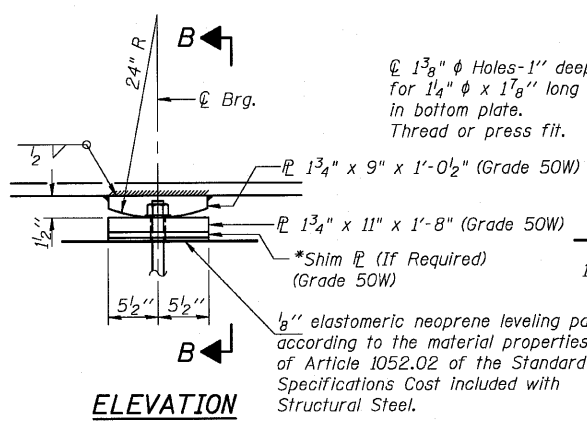
1/2" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

1"  $\phi$  x 12" anchor bolts (ASTM F1554, Grade 36) with 2 1/4" x 2 1/4" x 5/16"  $\phi$  washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2"  $\phi$  holes in bearing plate. Contractor has the option of cast in place or drilled installation.

ELEVATION

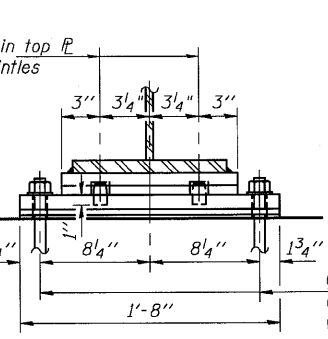


SECTION A-A

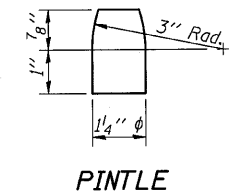


1 3/8"  $\phi$  Holes-1" deep in top  $\phi$  for 1 1/4"  $\phi$  x 1 1/8" long pintles in bottom plate. Thread or press fit.

ELEVATION



SECTION B-B



PINTLE

FIXED BEARING AT PIERS 1 AND 2

FIXED BEARING AT ABUTMENTS

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Piers	0.6 Sp. 2
$I_s$	(in <sup>4</sup> )	5900	5900	5900
$I_c(n)$	(in <sup>4</sup> )	16269		16269
$I_c(3n)$	(in <sup>4</sup> )	12167		12167
$S_s$	(in <sup>3</sup> )	359	359	359
$S_c(n)$	(in <sup>3</sup> )	534		534
$S_c(3n)$	(in <sup>3</sup> )	485		485
$S_{xi}$	(in <sup>3</sup> )			
DC1	(k/')	0.867	0.867	0.867
MDC1	(k)	76	265	187
DC2	(k/')	0.15	0.15	0.15
MDC2	(k)	13	45	32
DW	(k/')	0.33	0.33	0.33
MDW	(k)	29	102	72
$M\ddot{L} + IM$	(k)	439	481	548
$M_u$ (Strength I)	(k)	923	1381	1341
$\phi_f M_n$	(k)	2783		2683
$f_s$ DC1	(ksi)	2.5	8.9	6.3
$f_s$ DC2	(ksi)	0.3	1.5	0.8
$f_s$ DW	(ksi)	0.7	3.4	1.8
$f_s$ 1.3( $\ddot{L} + IM$ )	(ksi)	12.8	20.9	16.0
$f_s$ (Service II)	(ksi)	16.3	34.7	24.7
$f_s$ (Total)(Strength I)	(ksi)		46.2	
$F_{or}$ (Service II)	(ksi)			
$V_r$	(k)	33		32
$F_{or}$	(ksi)			

\* Compact Sections  
\*\* Non-Compact Sections

INTERIOR GIRDER REACTION TABLE			
		Abutments	Piers
$R_{DC1}$	(k)	11.7	52.4
$R_{DC2}$	(k)	2.0	9.0
$R_{DW}$	(k)	4.5	20.2
$R\ddot{L}$	(k)	49.5	96.4
$R_I$	(k)	13.2	21.9
$R_{Total}$	(k)	80.9	199.9

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).

$I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).

$I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).

DC1: Un-factored non-composite dead load (kips/ft.).  
MDC1: Un-factored moment due to non-composite dead load (kip-ft.).  
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).  
MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).  
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).  
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).  
 $M\ddot{L} + IM$ : Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).  
 $M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M\ddot{L} + IM$   
 $\phi_f M_n$ : Compact composite positive moment capacity computed according to Article A6.10.7.1 (kip-ft.).  
 $f_s$  (Service II): Sum of stresses as computed from the moments below (ksi).  
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M\ddot{L} + IM$   
 $f_s$  (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M\ddot{L} + IM$   
 $V_r$ : Maximum factored shear range computed according to Article 6.10.10.

NOTES

Two 1/2 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on the plans. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

BILL OF MATERIAL

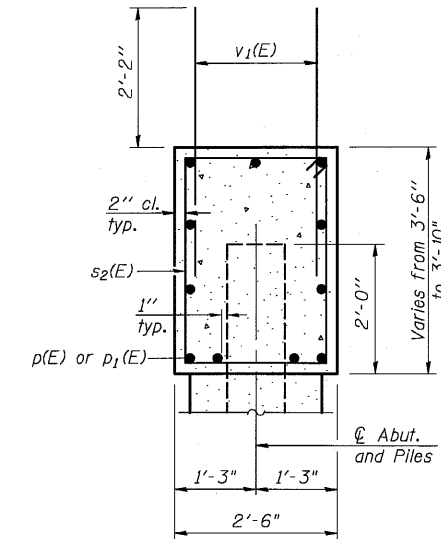
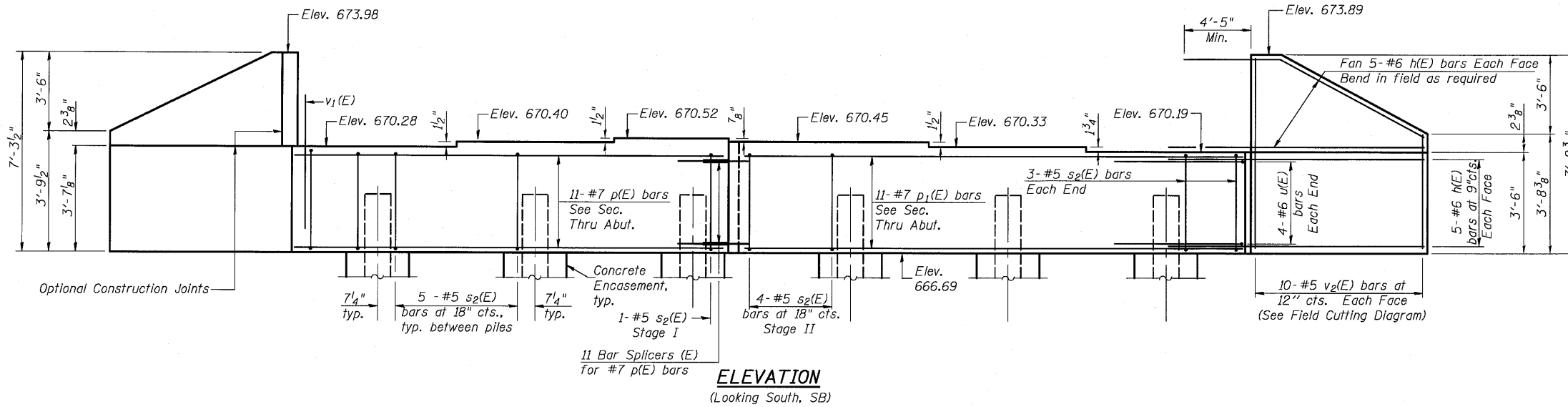
ITEM	Unit	Total
Anchor Bolts, 1" $\phi$	Each	96

BEARING DETAILS  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)

<p>Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703</p>	PROJECT NO. OS004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 24 42 SHEETS	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 45
	CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FILE NAME = 0530186.0187-66856-24-bear.mxd.dgn  
PLOT SCALE = 0.1029397 1" = 10'  
USER NAME = CFC

Notes:  
Pour steps monolithically with cap.

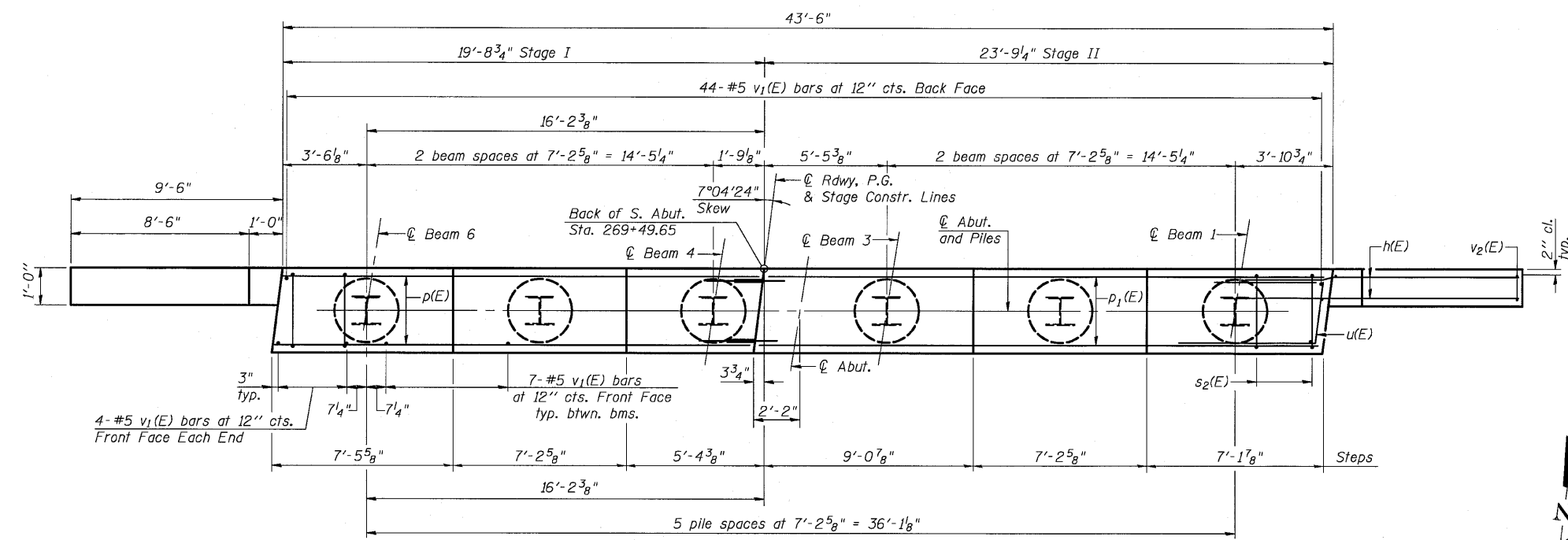


SEC. THRU ABUT.

ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h(E)	40	#6	13'-11"	—	
p(E)	11	#7	19'-5"	—	
p1(E)	11	#7	23'-5"	—	
s2(E)	31	#5	11'-7"	□	
u(E)	8	#6	10'-11"	┌	
v1(E)	87	#5	4'-4"	—	
v2(E)	20	#5	10'-2"	—	
Structure Excavation				Cu. Yd.	148
Concrete Structures				Cu. Yd.	18.8
Reinforcement Bars, Epoxy Coated				Pound	2910
Furnishing Steel Piles, HP 12x53				Foot	168
Driving Piles				Foot	168
Concrete Encasement				Cu. Yd.	2.1
Bar Splicers (E)				Each	11

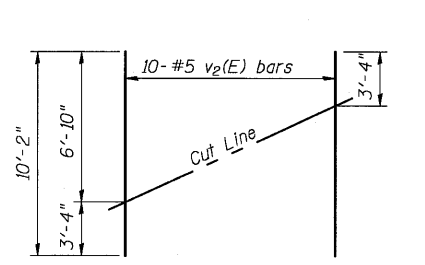
For details of Bar Splicers, see sheet 34 of 42.  
For details of piles and Concrete Encasement, see sheet 33 of 42.



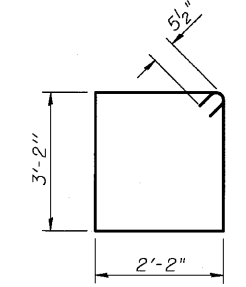
PLAN

PILE DATA

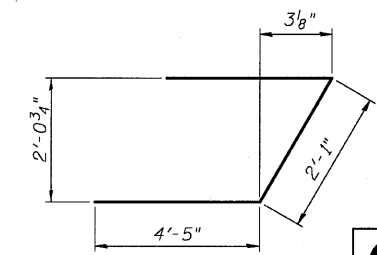
Type: HP 12x53  
Nominal Required Bearing: 280 Kips  
Factored Resistance Available: 140 Kips  
Est. Length: 28'  
No. Production Piles: 6  
No. Test Piles: 0



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



BAR s2(E)



BAR u(E)

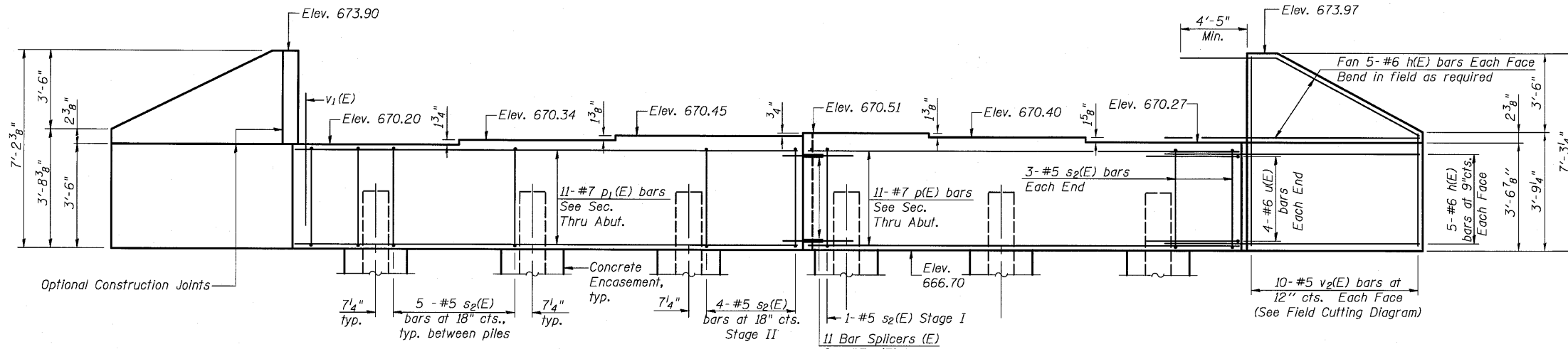
**CB** Coombe-Bloxdorf P.C.  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO. 05004-10  
SCALE  
DATE 8/10/10  
DESIGN BY GB/MCB  
DRAWN BY MML  
CHECKED BY MCB

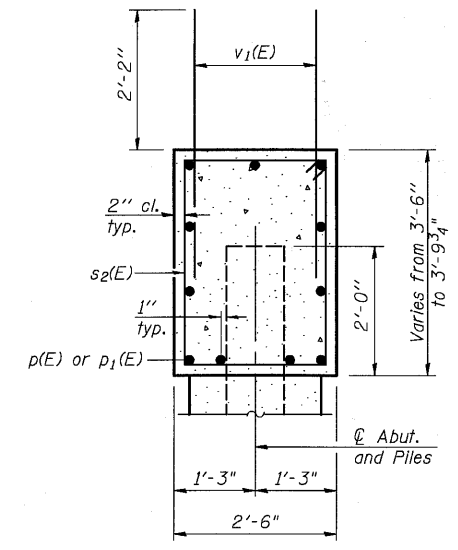
SHEET NO. 25 42 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	55	(53-1) HBR & HBR-1	LIVINGSTON	102	44
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66856					

SOUTH ABUTMENT SB  
STRUCTURE NO. 053-0186 (SB)

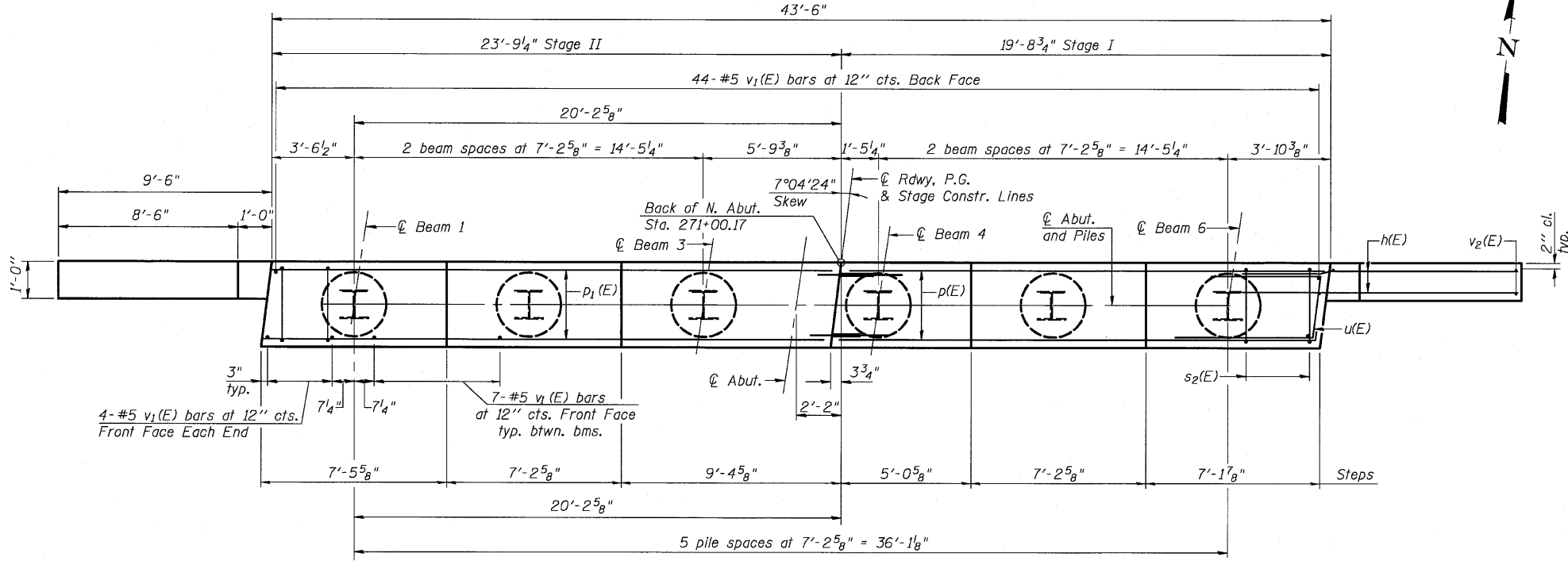
Notes:  
 Pour steps monolithically with cap.



**ELEVATION**  
 (Looking North, SB)



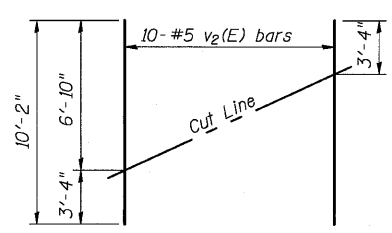
**SEC. THRU ABUT.**



**PLAN**

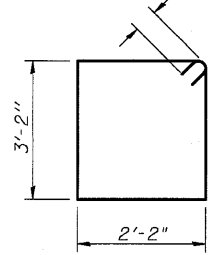
**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 262 Kips  
 Factored Resistance Available: 131 Kips  
 Est. Length: 28'  
 No. Production Piles: 5  
 No. Test Piles: 1

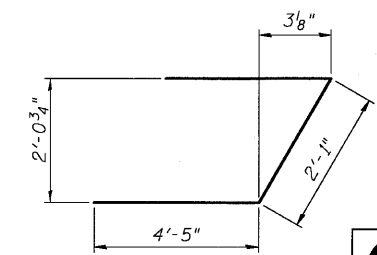


**FIELD CUTTING DIAGRAM**

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR s2(E)**



**BAR u(E)**

**ABUTMENT BILL OF MATERIAL**

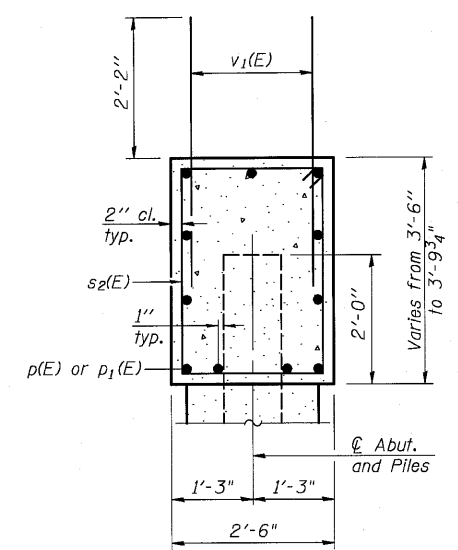
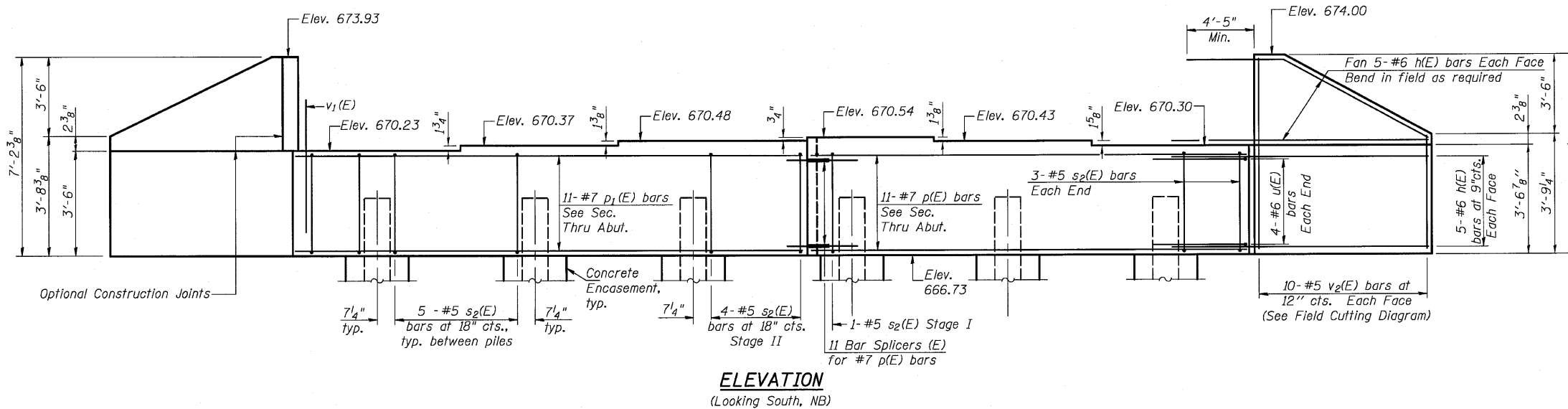
Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-11"	—
p(E)	11	#7	19'-5"	—
p1(E)	11	#7	23'-5"	—
s2(E)	31	#5	11'-7"	□
u(E)	8	#6	10'-11"	┌
v1(E)	87	#5	4'-4"	—
v2(E)	20	#5	10'-2"	—
Structure Excavation		Cu. Yd.	148	
Concrete Structures		Cu. Yd.	18.8	
Reinforcement Bars, Epoxy Coated		Pound	2910	
Furnishing Steel Piles, HP 12x53		Foot	140	
Driving Piles		Foot	140	
Test Pile, HP 12x53		Each	1	
Concrete Encasement		Cu. Yd.	2.1	
Bar Splicers (E)		Each	11	

For details of Bar Splicers, see sheet 34 of 42.  
 For details of piles and Concrete Encasement, see sheet 33 of 42.

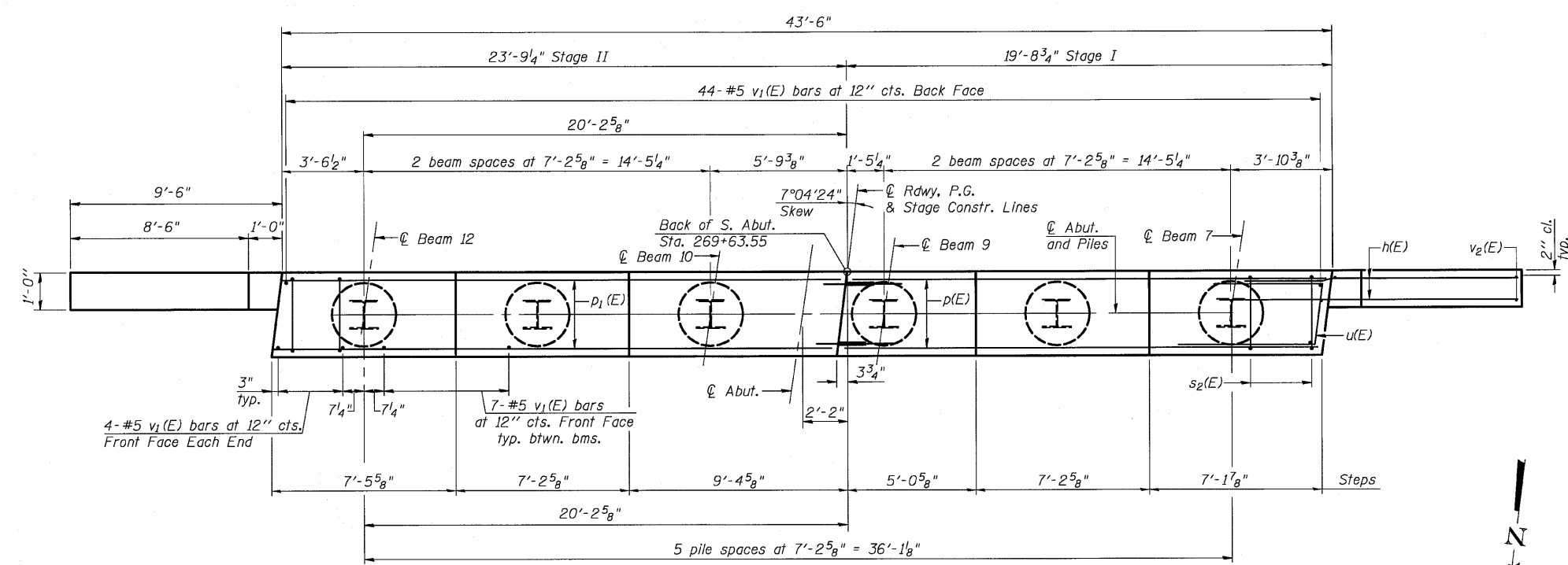
**NORTH ABUTMENT SB  
 STRUCTURE NO. 053-0186 (SB)**

 Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 26 42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY ILLINOIS TOTAL SHEETS 102	SHEET NO. 45
	FEDERAL ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 66856		

Notes:  
Pour steps monolithically with cap.



SEC. THRU ABUT.



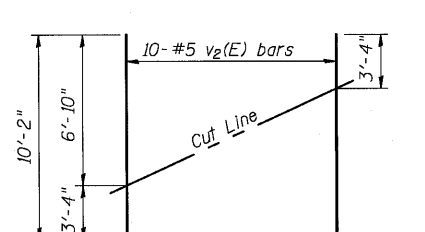
ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-11"	—
p(E)	11	#7	19'-5"	—
p1(E)	11	#7	23'-5"	—
s2(E)	31	#5	11'-7"	□
u(E)	8	#6	10'-11"	┘
v1(E)	87	#5	4'-4"	—
v2(E)	20	#5	10'-2"	—
Structure Excavation				Cu. Yd. 148
Concrete Structures				Cu. Yd. 18.8
Reinforcement Bars, Epoxy Coated				Pound 2910
Furnishing Steel Piles, HP 12x53				Foot 140
Driving Piles				Foot 140
Test Pile, HP 12x53				Each 1
Concrete Encasement				Cu. Yd. 2.1
Bar Splicers (E)				Each 11

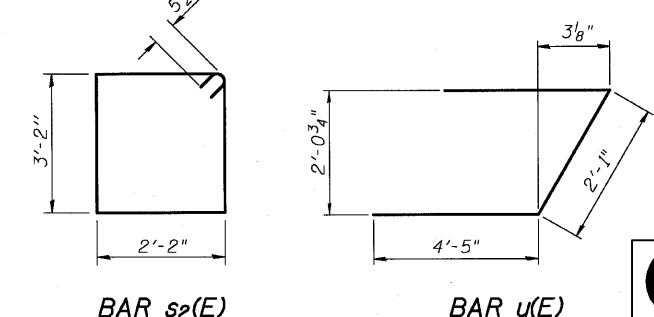
For details of Bar Splicers, see sheet 34 of 42.  
For details of piles and Concrete Encasement, see sheet 33 of 42.

PILE DATA

Type: HP 12x53  
Nominal Required Bearing: 280 Kips  
Factored Resistance Available: 140 Kips  
Est. Length: 28'  
No. Production Piles: 5  
No. Test Piles: 1



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



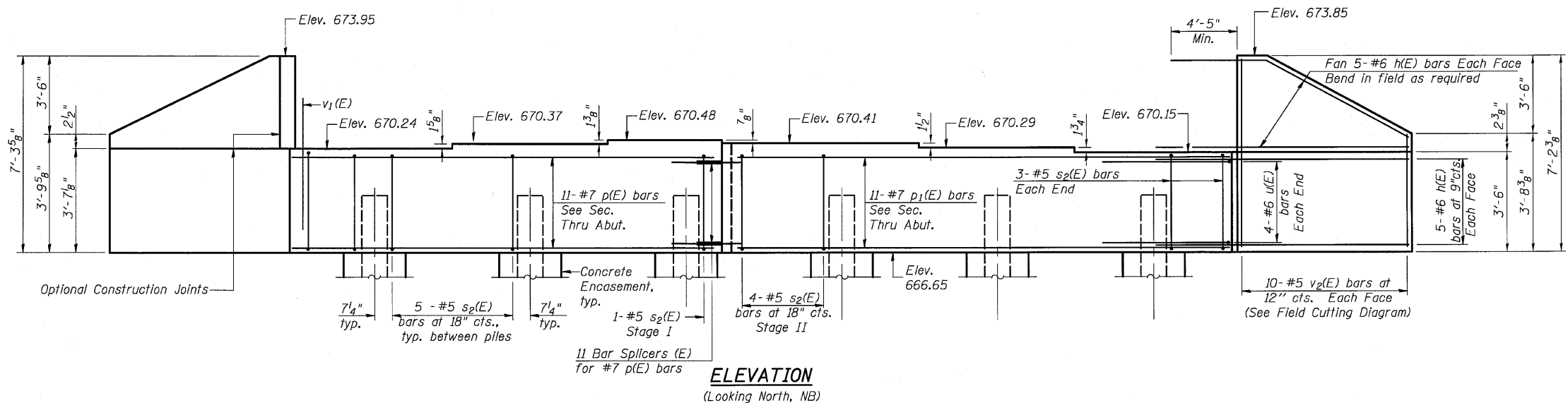
BAR s2(E)      BAR u(E)

SOUTH ABUTMENT NB  
STRUCTURE NO. 053-0187 (NB)

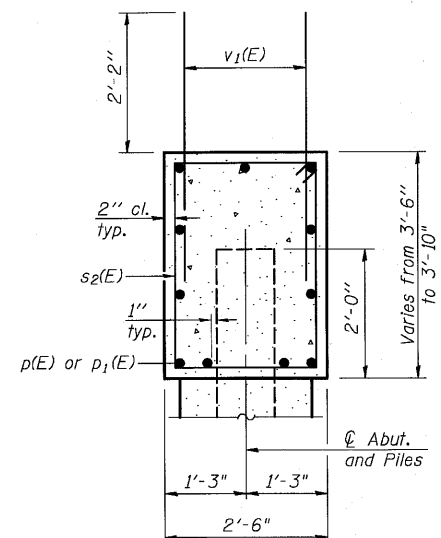
<b>GB</b> Coombe-Bloxdorf P.C. -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. 05004-10	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 46
	SCALE 1/4" = 1'-0"	DATE 8/10/10	CONTRACT NO. 66856		ILLINOIS FED. AID PROJECT	
SHEET NO. 27		42 SHEETS		FED. ROAD DIST. NO.		

FILE NAME = 05004-10-0187-66856-27-abutments.dgn  
 PLOT SCALE = 0.1029397 1/4" / 1"  
 USER NAME = CFC

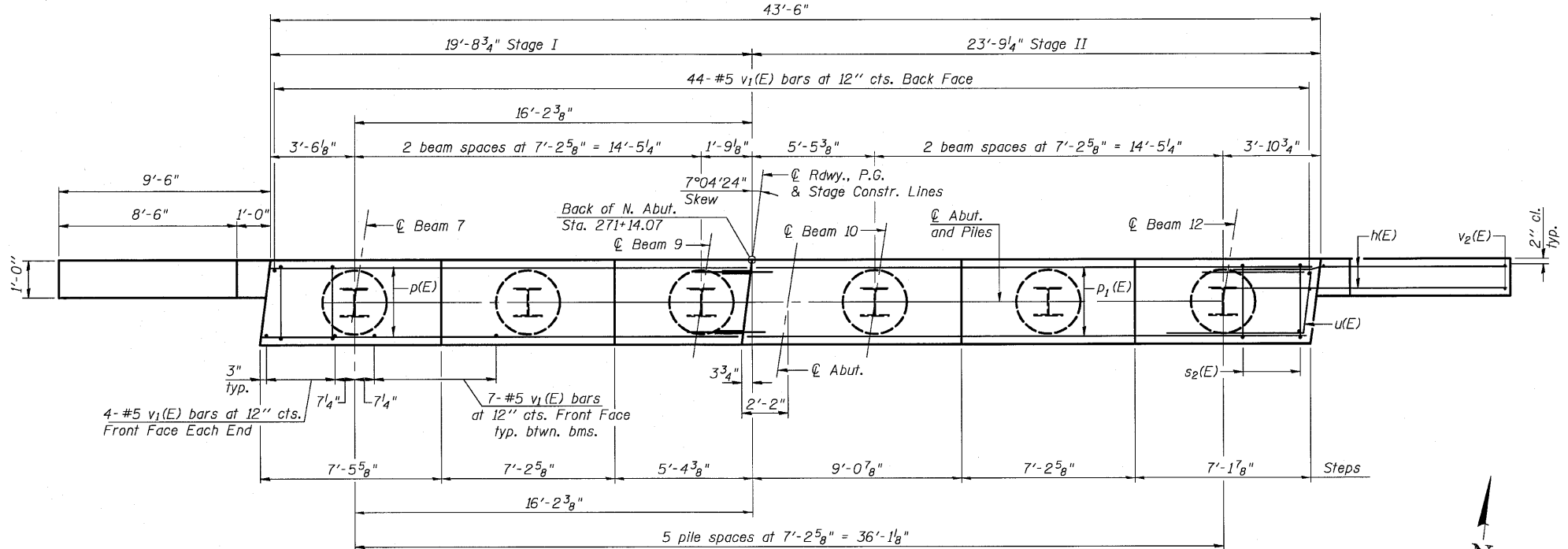
Notes:  
Pour steps monolithically with cap.



ELEVATION  
(Looking North, NB)



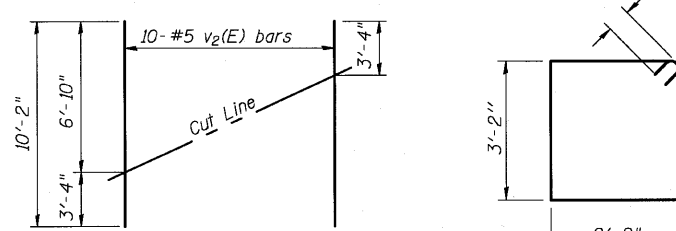
SEC. THRU ABUT.



PLAN

PILE DATA

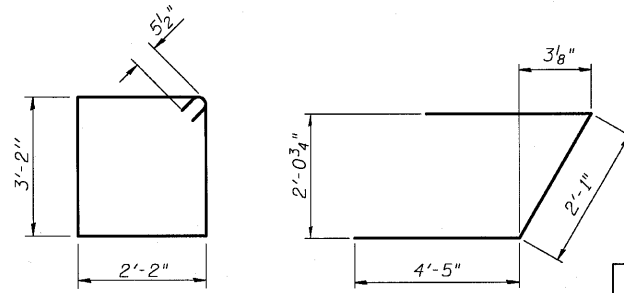
Type: HP 12x53  
Nominal Required Bearing: 262 Kips  
Factored Resistance Available: 131 Kips  
Est. Length: 28'  
No. Production Piles: 6  
No. Test Piles: 0



FIELD CUTTING DIAGRAM

Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.

BAR s2(E)




BAR u(E)

ABUTMENT  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-11"	—
p(E)	11	#7	19'-5"	—
p1(E)	11	#7	23'-5"	—
s2(E)	31	#5	11'-7"	□
u(E)	8	#6	10'-11"	∟
v1(E)	87	#5	4'-4"	—
v2(E)	20	#5	10'-2"	—
Structure Excavation			Cu. Yd.	148
Concrete Structures			Cu. Yd.	18.8
Reinforcement Bars, Epoxy Coated			Pound	2910
Furnishing - Piles, HP 12x53			Foot	168
Driving Piles			Foot	168
Concrete Encasement			Cu. Yd.	2.1
Bar Splicers (E)			Each	11

For details of Bar Splicers, see sheet 34 of 42.  
For details of piles and Concrete Encasement, see sheet 33 of 42.

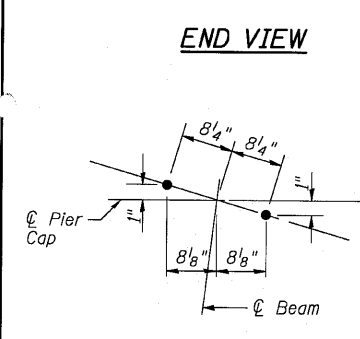
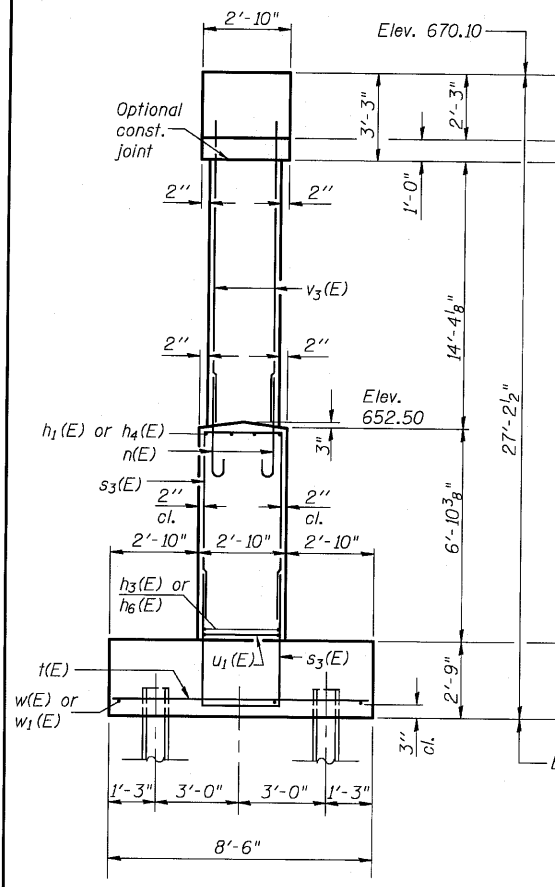
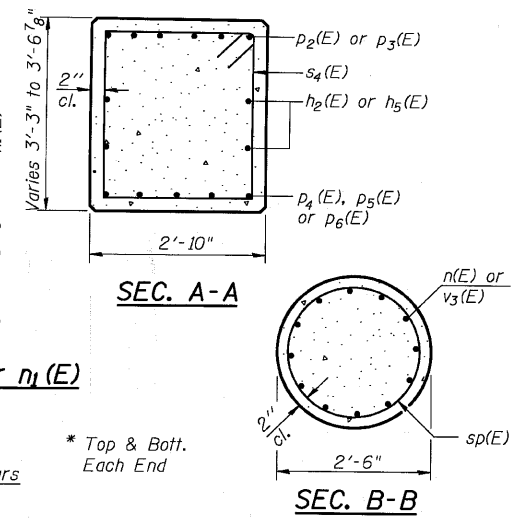
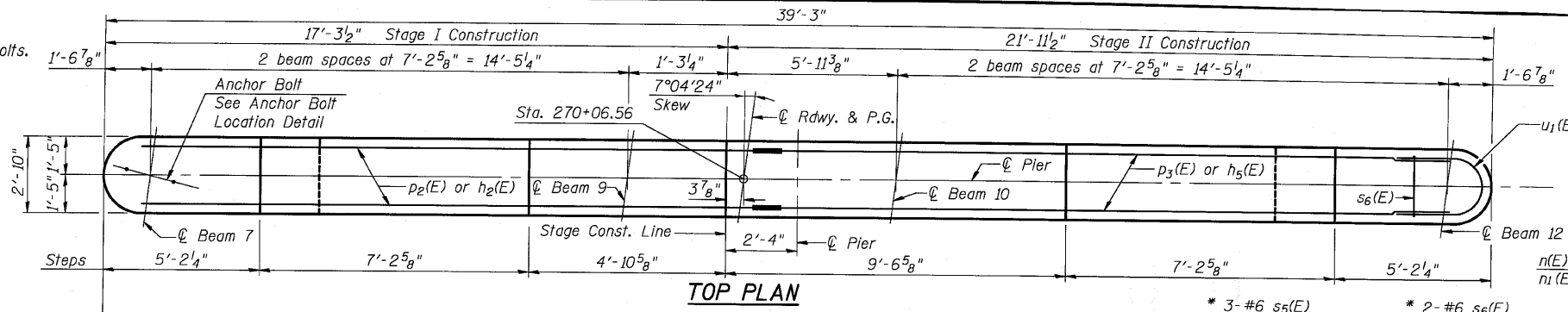
NORTH ABUTMENT NB  
STRUCTURE NO. 053-0187 (NB)

 Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 47
	SCALE 8/10/10	SHEET NO. 28				
	DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	42 SHEETS	CONTRACT NO. 66856			
			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 33 of 42.

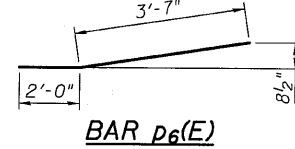
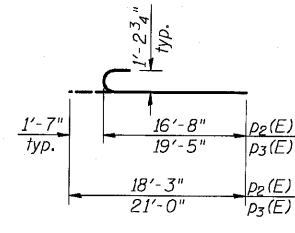
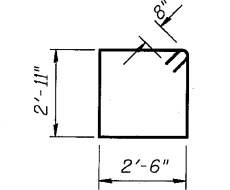
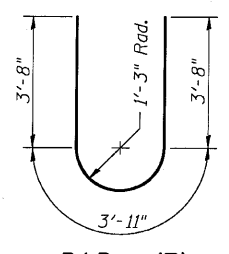
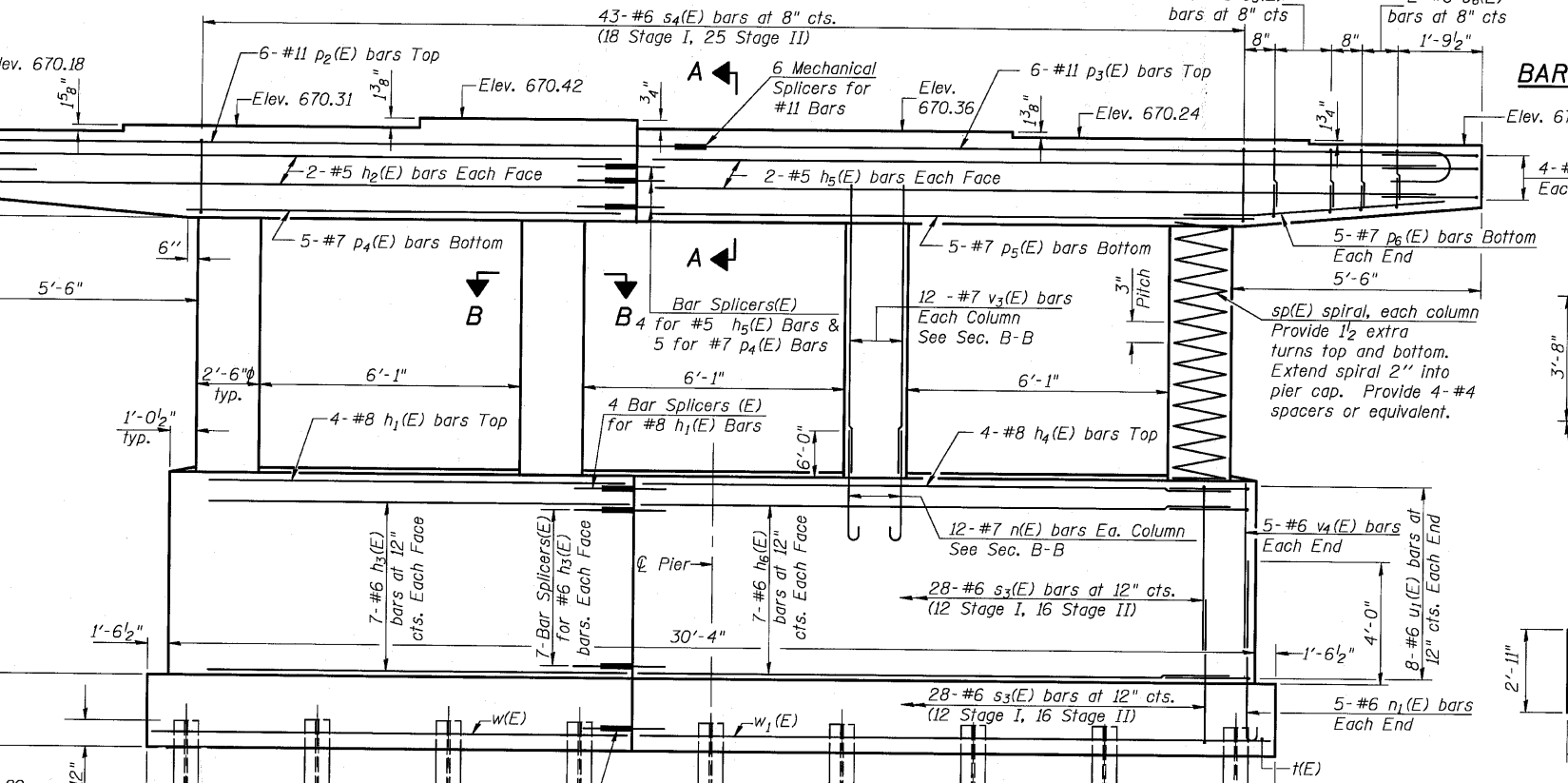
**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 363 kip  
 Factored Resistance Available: 182 kip  
 Est. Length: 52'  
 No. Production Piles: 18  
 No. Test Piles: 0



**Dimensions A & B**

BAR	A	B
s3(E)	2'-6"	5'-6"
s5(E)	2'-6"	2'-4"
s6(E)	2'-6"	2'-2"



**BILL OF MATERIAL**

Bar No.	Size	Length	Shape
h1(E)	4 # 8	11'-2"	—
h2(E)	4 # 5	15'-8"	—
h3(E)	14 # 6	11'-2"	—
h4(E)	4 # 8	15'-11"	—
h5(E)	4 # 5	20'-4"	—
h6(E)	14 # 6	15'-11"	—
n(E)	48 # 7	11'-8"	—
n1(E)	10 # 6	7'-2"	—
p2(E)	6 # 11	18'-3"	—
p3(E)	6 # 11	21'-0"	—
p4(E)	5 # 7	12'-1"	—
p5(E)	5 # 7	16'-9"	—
p6(E)	10 # 7	5'-7"	—
s3(E)	56 # 6	13'-6"	—
s4(E)	43 # 6	12'-2"	—
s5(E)	12 # 6	7'-2"	—
s6(E)	8 # 6	6'-10"	—
sp(E)	4 # 4	14'-9"	—
k(E)	34 # 8	8'-2"	—
u1(E)	24 # 6	11'-3"	—
v3(E)	48 # 7	15'-9"	—
v4(E)	10 # 6	6'-6"	—
w(E)	9 # 7	14'-0"	—
w1(E)	9 # 7	18'-8"	—
Braced Excavation	Cu. Yd.	204	
Concrete Structures	Cu. Yd.	74.4	
Reinforcement Bars, Epoxy Coated	Pound	10,530	
Furnishing Steel Piles, HP 12x53	Foot	936	
Driving Piles, HP 12x53	Foot	936	
Test Pile, Steel HP 12x53	Each	0	
Bar Splicers	Each	36	
Mechanical Splicers	Each	6	

\*\* Length is height of spiral.  
**PIER 1**  
**STRUCTURE NO. 053-0187 (NB)**

**Coombe-Bloxdorf P.C.**  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

PROJECT NO. 05004-10  
 SCALE 1/8" = 1'-0"  
 DATE 8/10/10  
 DESIGNED BY GB/MCB  
 DRAWN BY MML  
 CHECKED BY MCB

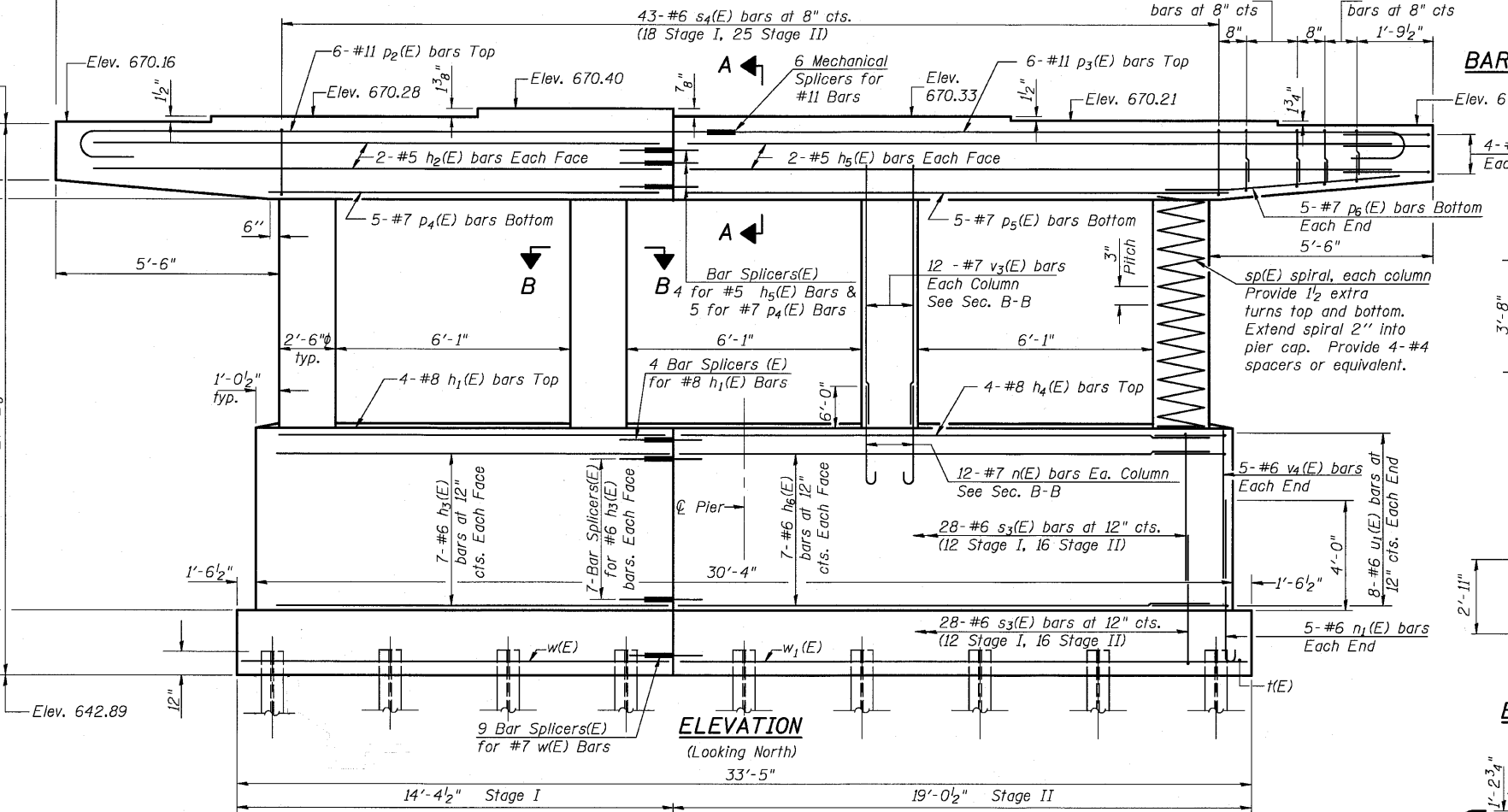
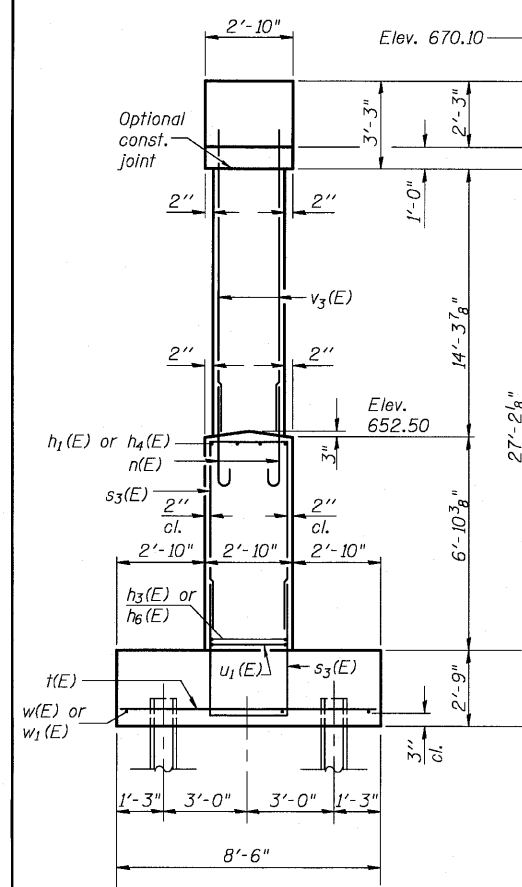
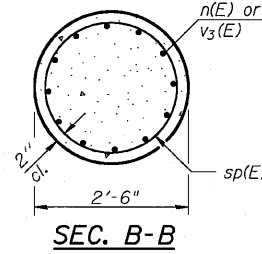
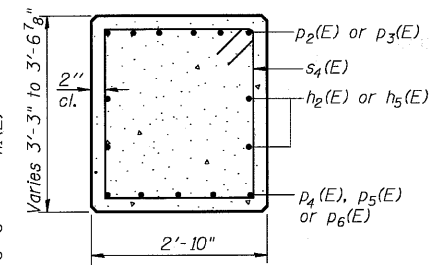
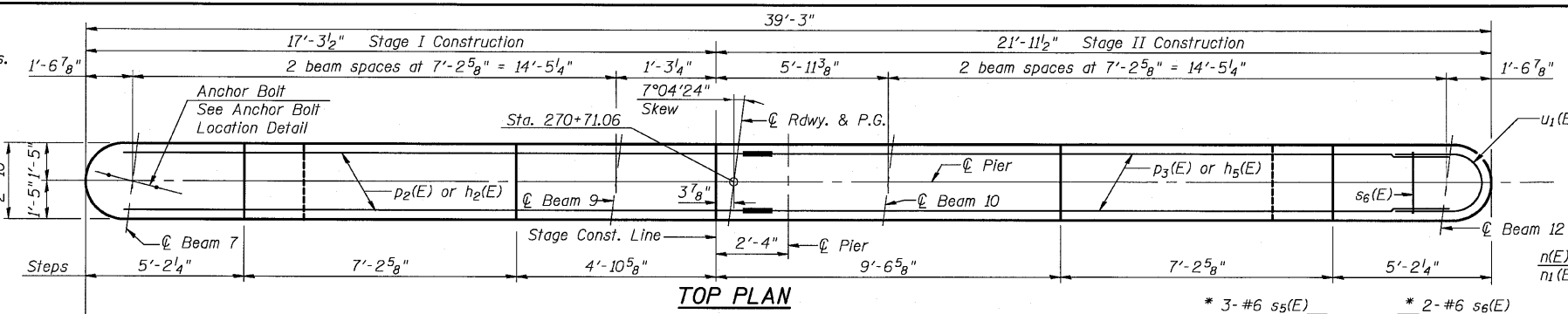
SHEET NO. 29	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 48
42 SHEETS	CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 33 of 42.

**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 363 kip  
 Factored Resistance Available: 182 kip  
 Est. Length: 52'  
 No. Production Piles: 18  
 No. Test Piles: 0



**BAR n(E) or v3(E)**

**BAR u1(E)**

**BAR s4(E)**

**BAR p2(E) or p3(E)**

**BAR p6(E)**

**BILL OF MATERIAL**

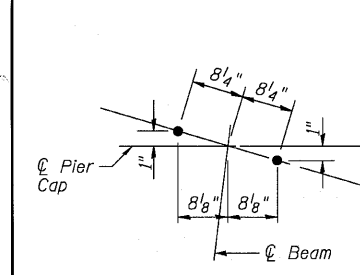
Bar	No.	Size	Length	Shape	
h1(E)	4	# 8	11'-2"	—	
h2(E)	4	# 5	15'-8"	—	
h3(E)	14	# 6	11'-2"	—	
h4(E)	4	# 8	15'-11"	—	
h5(E)	4	# 5	20'-4"	—	
h6(E)	14	# 6	15'-11"	—	
n(E)	48	# 7	11'-8"	U	
ni(E)	10	# 6	7'-2"	U	
p2(E)	6	# 11	18'-3"	U	
p3(E)	6	# 11	21'-0"	U	
p4(E)	5	# 7	12'-1"	—	
p5(E)	5	# 7	16'-9"	—	
p6(E)	10	# 7	5'-7"	—	
s3(E)	56	# 6	13'-6"	U	
s4(E)	43	# 6	12'-2"	U	
s5(E)	12	# 6	7'-2"	—	
s6(E)	8	# 6	6'-10"	U	
sp(E)	4	# 4	14'-9"	W	
t(E)	34	# 8	8'-2"	—	
u1(E)	24	# 6	11'-3"	U	
v3(E)	48	# 7	15'-9"	—	
v4(E)	10	# 6	6'-6"	—	
w(E)	9	# 7	14'-0"	—	
w1(E)	9	# 7	18'-8"	—	
Braced Excavation				Cu. Yd.	204
Concrete Structures				Cu. Yd.	74.4
Reinforcement Bars, Epoxy Coated				Pound	10,530
Furnishing Steel Piles, HP 12x53				Foot	936
Driving Piles				Foot	936
Test Pile, Steel HP 12x53				Each	0
Bar Splicers				Each	36
Mechanical Splicers				Each	6

\*\* Length is height of spiral.

**PIER 2**

**STRUCTURE NO. 053-0187 (NB)**

**END VIEW**



**BAR s3(E), s5(E) or s6(E)**

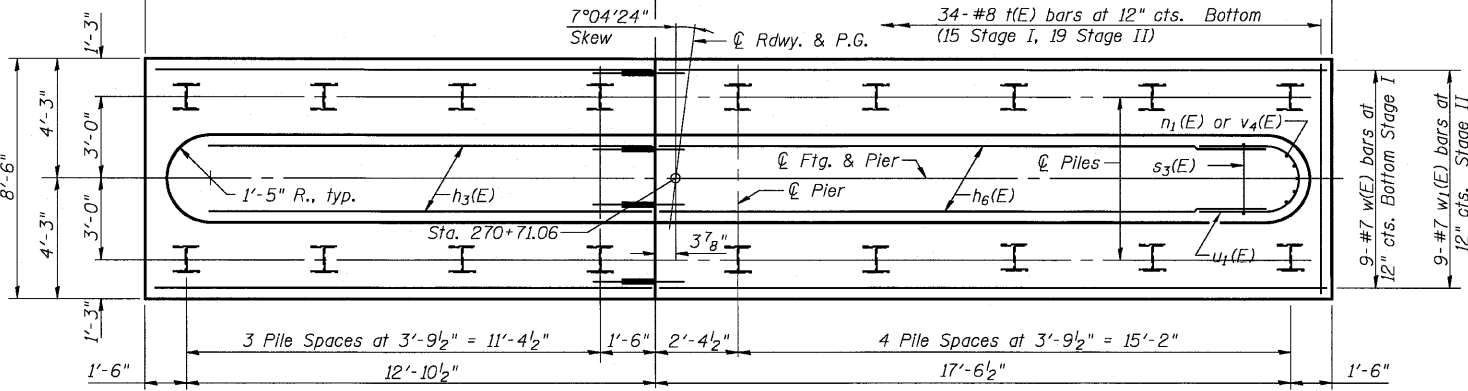
**Dimensions A & B**

BAR	A	B
s3(E)	2'-6"	5'-6"
s5(E)	2'-6"	2'-4"
s6(E)	2'-6"	2'-2"

**ANCHOR BOLT LOCATION DETAIL**



**FOOTING PLAN**



**Coombe-Bloxdorf P.C.**  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

PROJECT NO. 05004-10  
 SCALE: 1/4" = 1'-0"  
 DATE: 8/10/10  
 DESIGNED BY: GB/MCB  
 DRAWN BY: MML  
 CHECKED BY: MCB

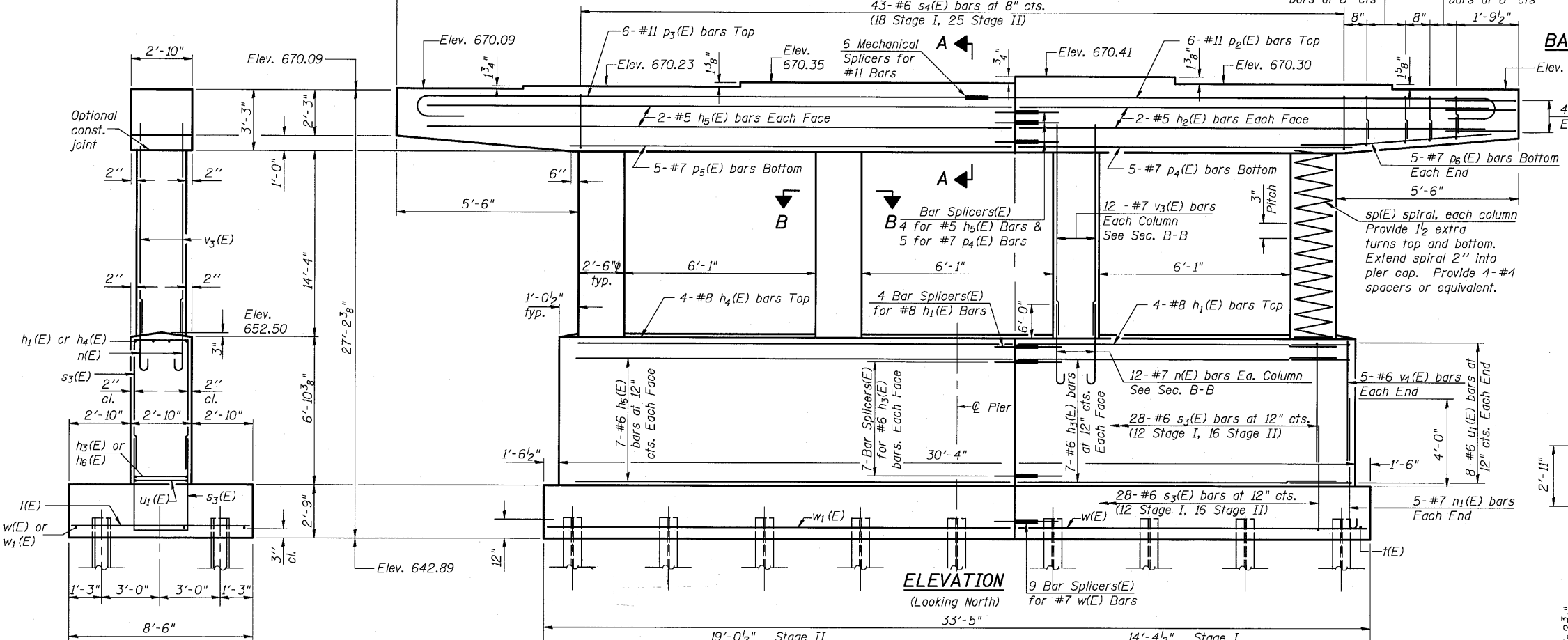
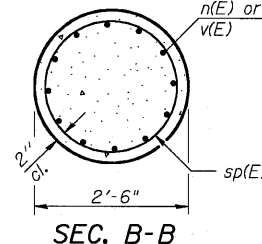
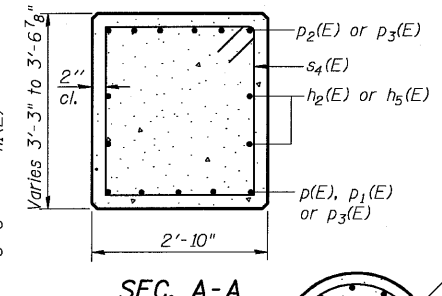
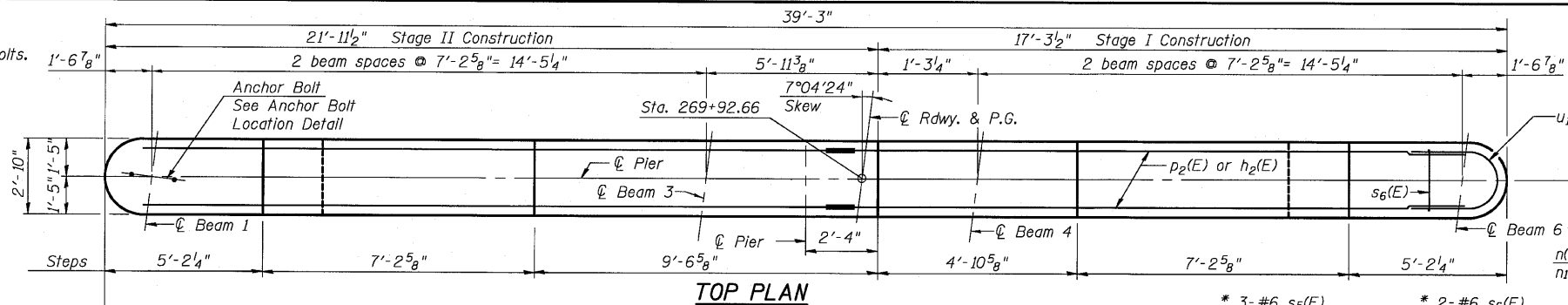
SHEET NO. 30  
 42 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	49
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 66856		

Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Four steps monolithically with cap.  
 For details of piles, see sheet 33 of 42.

**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 317 kip  
 Factored Resistance Available: 159 kip  
 Est. Length: 52'  
 No. Production Piles: 17  
 No. Test Piles: 1



**BAR n(E) or n1(E)**

**BAR u1(E)**

**BAR s4(E)**

**BAR p2(E) or p3(E)**

**BAR p6(E)**

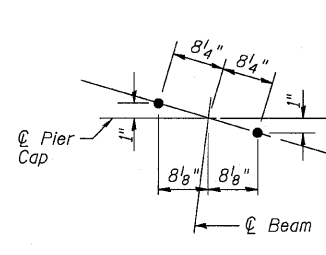
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	4	# 8	11'-2"	—
h2(E)	4	# 5	15'-8"	—
h3(E)	14	# 6	11'-2"	—
h4(E)	4	# 8	15'-11"	—
h5(E)	4	# 5	20'-4"	—
h6(E)	14	# 6	15'-11"	—
n(E)	48	# 7	11'-8"	U
n1(E)	10	# 6	7'-2"	U
p2(E)	6	# 11	18'-3"	U
p3(E)	6	# 11	21'-0"	U
p4(E)	5	# 7	12'-1"	—
p5(E)	5	# 7	16'-9"	—
p6(E)	10	# 7	5'-7"	—
s3(E)	56	# 6	13'-6"	U
s4(E)	43	# 6	12'-2"	U
s5(E)	12	# 6	7'-2"	U
s6(E)	8	# 6	6'-10"	U
sp(E)	4	# 4	14'-9"	W
t(E)	34	# 8	8'-2"	—
u1(E)	24	# 6	11'-3"	U
v3(E)	48	# 7	15'-9"	—
v4(E)	10	# 6	6'-6"	—
w(E)	9	# 7	14'-0"	—
w1(E)	9	# 7	18'-8"	—
Braced Excavation		Cu. Yd.	204	
Concrete Structures		Cu. Yd.	74.4	
Reinforcement Bars, Epoxy Coated		Pound	10,530	
Furnishing Steel Piles, HP 12x53		Foot	884	
Driving Piles		Foot	884	
Test Pile Steel, HP 12x53		Each	1	
Bar Splicers		Each	36	
Mechanical Splicers		Each	6	

\*\* Length is height of spiral.

**PIER 1  
 STRUCTURE NO. 053-0186 (SB)**

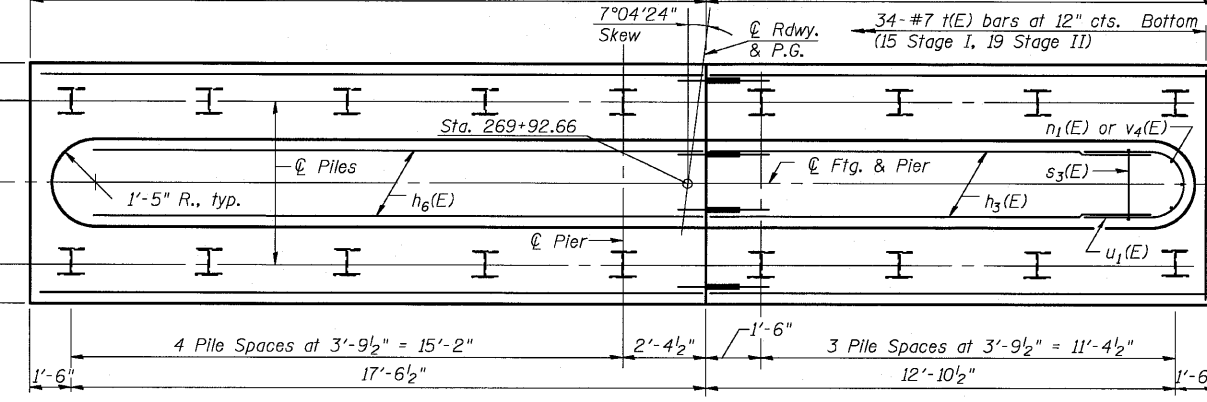
**END VIEW**



**ANCHOR BOLT LOCATION DETAIL**

**Dimensions A & B**

BAR	A	B
s3(E)	2'-6"	5'-6"
s5(E)	2'-6"	2'-4"
s6(E)	2'-6"	2'-2"



**FOOTING PLAN**

**Coombe-Bloxdorf P.C.**  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

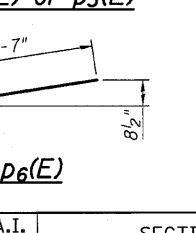
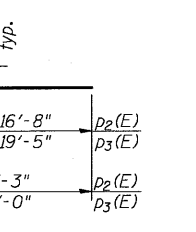
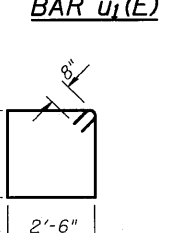
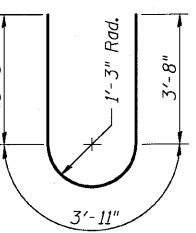
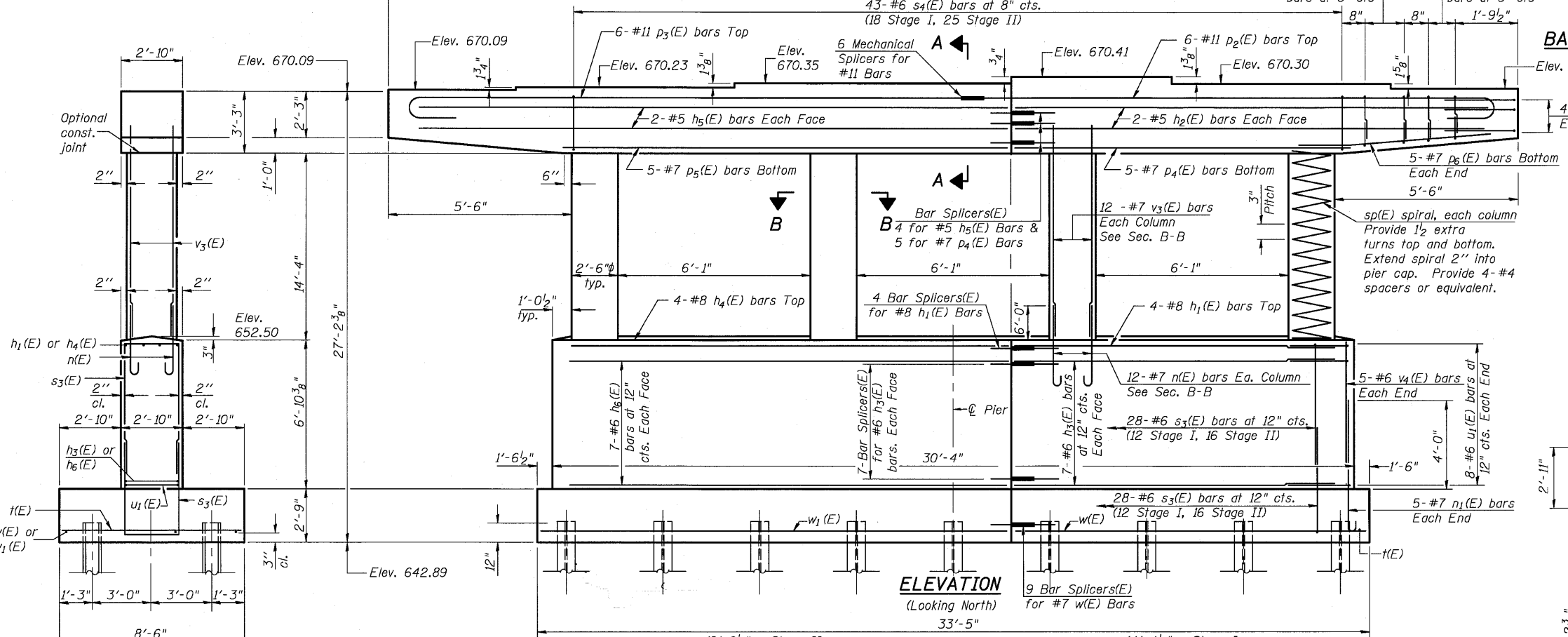
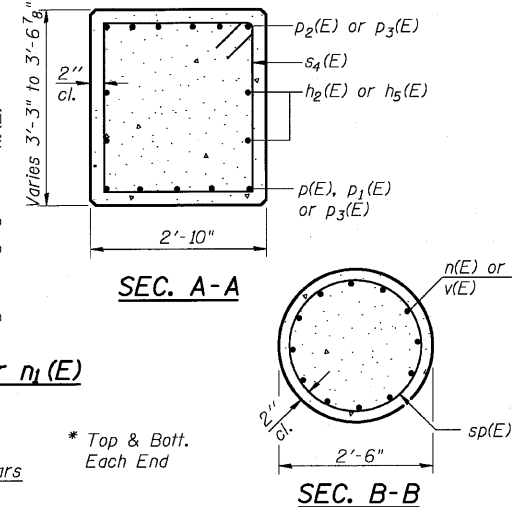
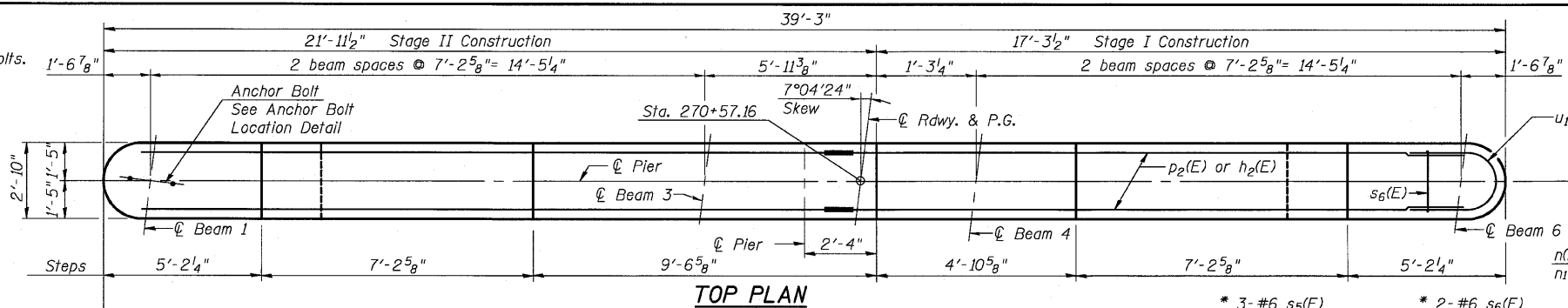
PROJECT NO. 05004-10  
 SCALE  
 DATE 8/10/10  
 DESIGN BY GB/MCB  
 DRAWN BY MML  
 CHECKED BY MCB

SHEET NO. 31	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 50
42 SHEETS	CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Four steps monolithically with cap.  
 For details of piles, see sheet 33 of 42.

**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 317 kip  
 Factored Resistance Available: 159 kip  
 Est. Length: 52'  
 No. Production Piles: 17  
 No. Test Piles: 1



**BILL OF MATERIAL**

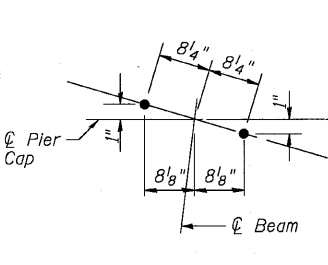
Bar	No.	Size	Length	Shape
h1(E)	4	# 8	11'-2"	—
h2(E)	4	# 5	15'-8"	—
h3(E)	14	# 6	11'-2"	—
h4(E)	4	# 8	15'-11"	—
h5(E)	4	# 5	20'-4"	—
h6(E)	14	# 6	15'-11"	—
n(E)	48	# 7	11'-8"	U
n1(E)	10	# 6	7'-2"	U
p2(E)	6	# 11	18'-3"	U
p3(E)	6	# 11	21'-0"	U
p4(E)	5	# 7	12'-1"	—
p5(E)	5	# 7	16'-9"	—
p6(E)	10	# 7	5'-7"	—
s3(E)	56	# 6	13'-6"	U
s4(E)	43	# 6	12'-2"	U
s5(E)	12	# 6	7'-2"	U
s6(E)	8	# 6	6'-10"	U
sp(E)	4	# 4	14'-9"	—
t(E)	34	# 8	8'-2"	—
u1(E)	24	# 6	11'-3"	U
v3(E)	48	# 7	15'-9"	—
v4(E)	10	# 6	6'-6"	—
w(E)	9	# 7	14'-0"	—
w1(E)	9	# 7	18'-8"	—
Braced Excavation		Cu. Yd.	204	
Concrete Structures		Cu. Yd.	74.4	
Reinforcement Bars, Epoxy Coated		Pound	10,530	
Furnishing Steel Piles, HP 12x53		Foot	884	
Driving Piles		Foot	884	
Test Pile Steel, HP 12x53		Each	1	
Bar Splicers		Each	36	
Mechanical Splicers		Each	6	

\*\* Length is height of spiral.

**PIER 2**

STRUCTURE NO. 053-0186 (SB)

**END VIEW**

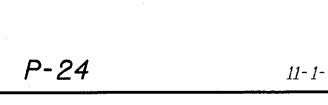


BAR s3(E), s5(E) or s6(E)

Dimensions A & B

BAR	A	B
s3(E)	2'-6"	5'-6"
s5(E)	2'-6"	2'-4"
s6(E)	2'-6"	2'-2"

**ANCHOR BOLT LOCATION DETAIL**

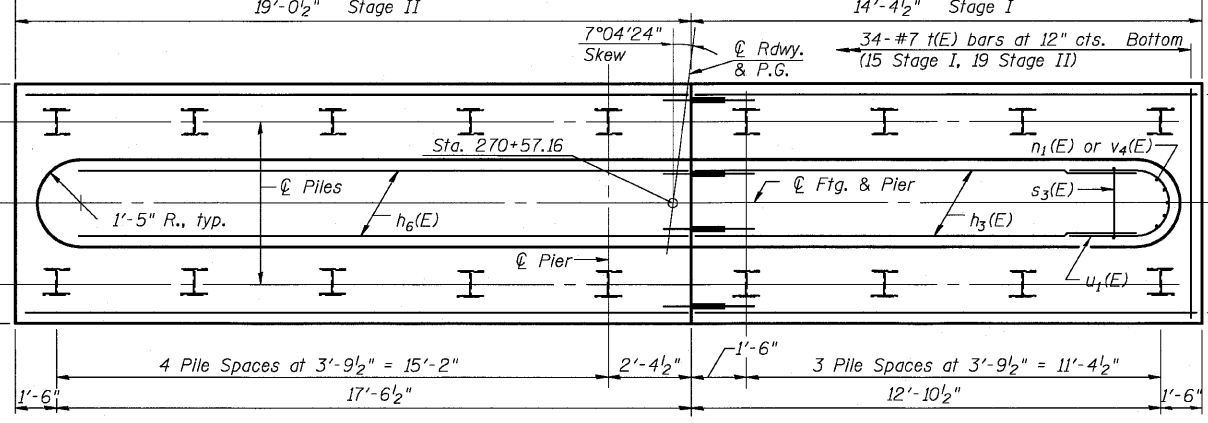


**ELEVATION**

(Looking North)

33'-5"

**FOOTING PLAN**

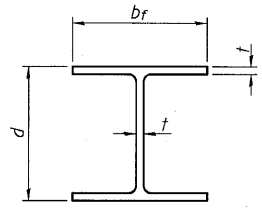


**Coombe-Bloxdorf P.C.**  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

PROJECT NO. 05004-10  
 SCALE: AS SHOWN  
 DATE: 8/10/10  
 DESIGN BY: CB/MCB  
 DRAWN BY: MML  
 CHECKED BY: MCB

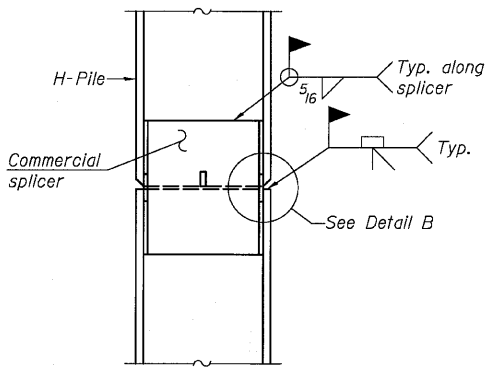
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42 SHEETS	55	(53-1) HBR & HBR-1	LIVINGSTON	102	51
			CONTRACT NO. 66856		
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

FILE NAME = ...  
 PLOT SCALE = ...  
 USER NAME = ...

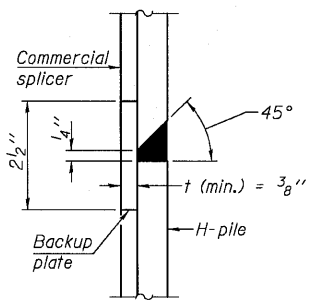


**STEEL PILE TABLE**

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

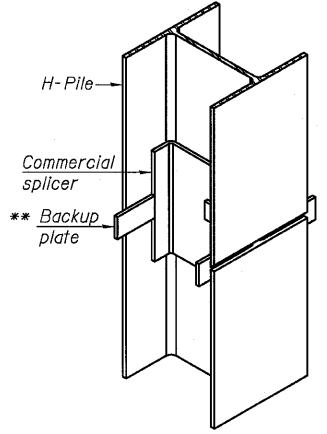


**ELEVATION**

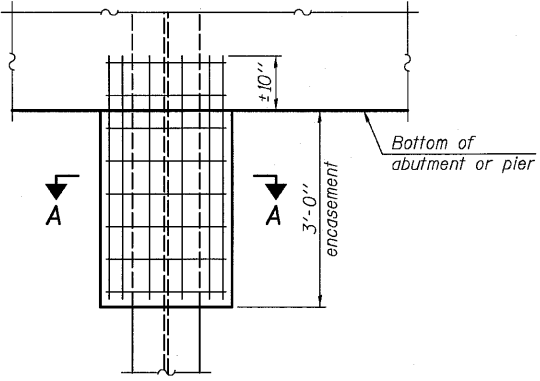


**DETAIL "B"**

**WELDED COMMERCIAL SPLICE**

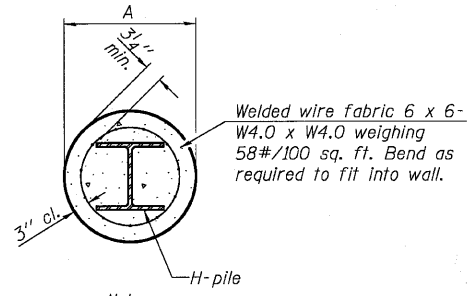


**ISOMETRIC VIEW**



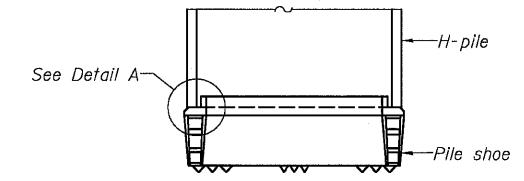
**ELEVATION**

**PILE ENCASEMENT**



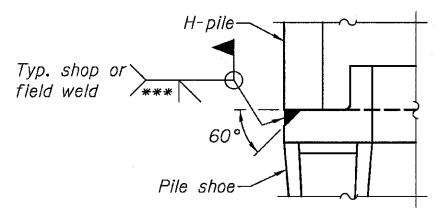
**SECTION A-A**

Note: Forms for encasement may be omitted when soil conditions permit.

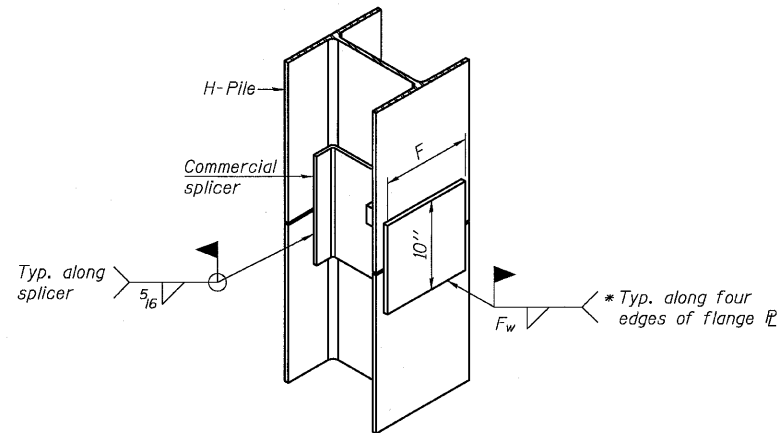


**ELEVATION**

**H-PILE SHOE ATTACHMENT**



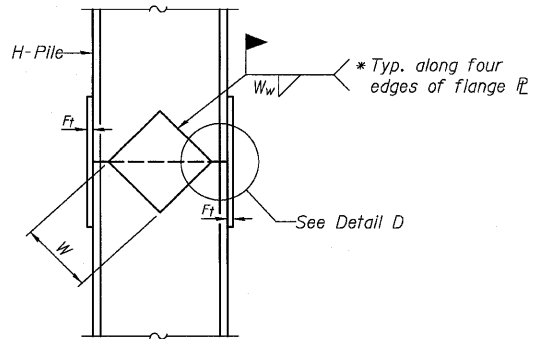
**DETAIL A**



**ISOMETRIC VIEW**

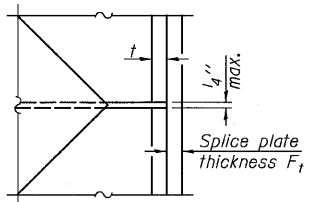
**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).



**ELEVATION**

**WELDED PLATE FIELD SPLICE**



**DETAIL D**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

**HP PILE DETAILS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

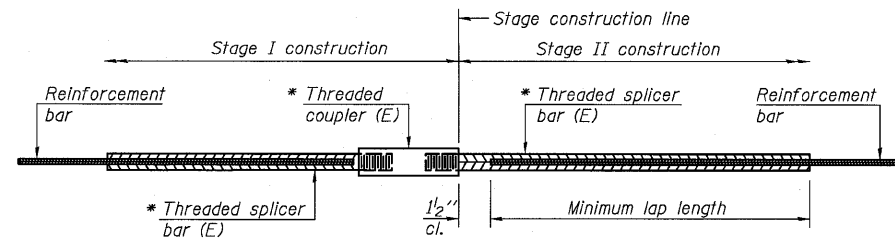
**Coombe-Bloxdorf P.C.**  
- CIVIL ENGINEERS -  
- STRUCTURAL ENGINEERS -  
- LAND SURVEYORS -  
Design Firm License No. 184-002703

PROJECT NO.	05004-10
SCALE	
DATE	8/10/10
DESIGN BY	GB/MCB
DRAWN BY	MML
CHECKED BY	MCB

SHEET NO. 33	42 SHEETS
--------------	-----------

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1) HBR & HBR-1	LIVINGSTON	102	52
CONTRACT NO. 66856				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

FILE NAME = ...0530186\_0187-66856-33- HP-Pile-dbf.dgn  
 PLOT SCALE = 0.100000000000000000 / IN.  
 USER NAME = CFC.



**STANDARD BAR SPLICER ASSEMBLY**

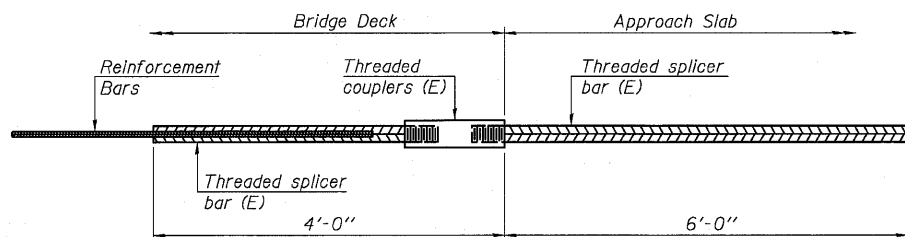
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

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

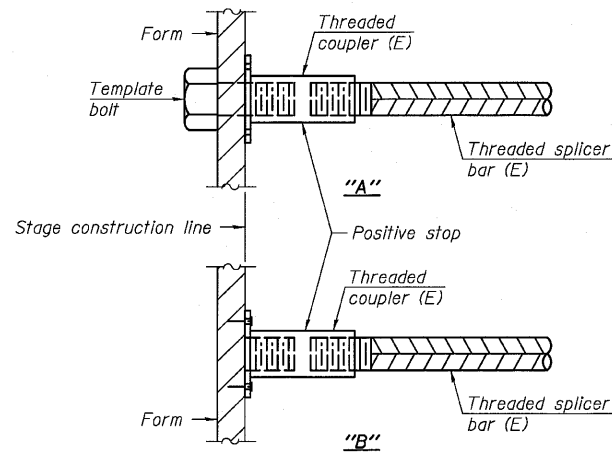
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
slab at SCL	#5	1066	3
end diaphragms	#6	12	4
corbel	#6	8	3
abut. cap	#7	44	4
pier footing	#7	36	4
pier crashwall	#6	56	4
pier crashwall	#8	16	4
pier cap	#5	16	4
pier cap	#7	20	3
Appr slab @ SCL	#4	100	4
Appr slab @ SCL	#5	184	3
Appr ftg at SCL	#5	160	3



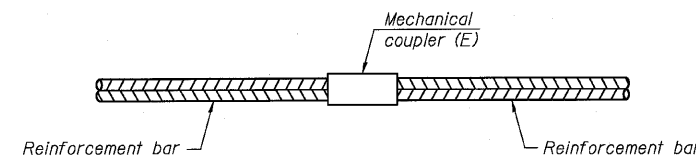
**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = 184



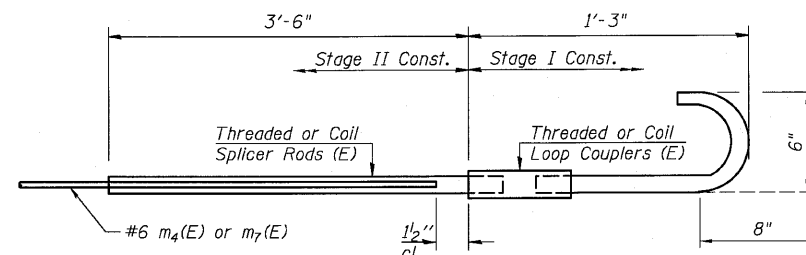
**INSTALLATION AND SETTING METHODS**

"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
piers	# 11	24

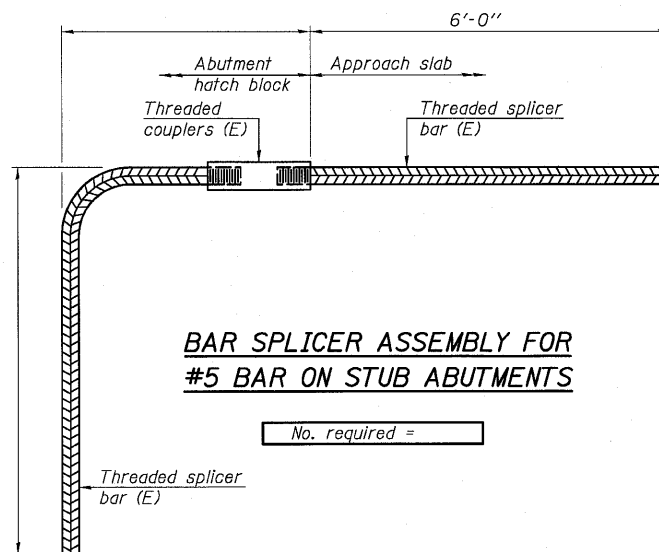


**SPECIAL BAR SPLICERS IN DIAPHRAGM**

No. required = 12

**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.



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

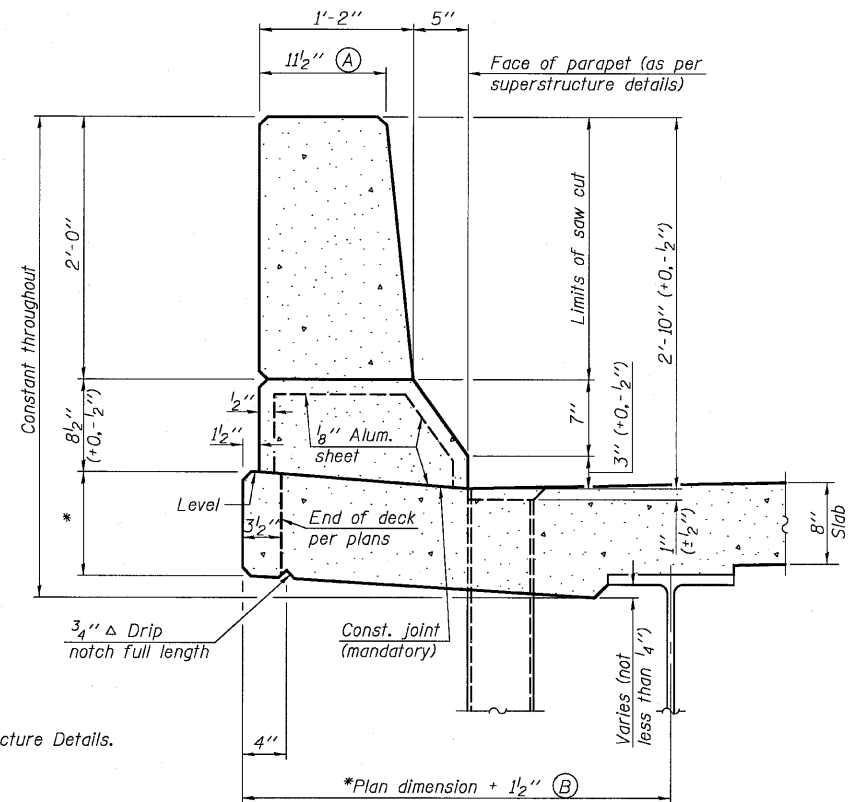
No. required =

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
 STRUCTURE NO. 053-0187 (NB)  
 STRUCTURE NO. 053-0186 (SB)**

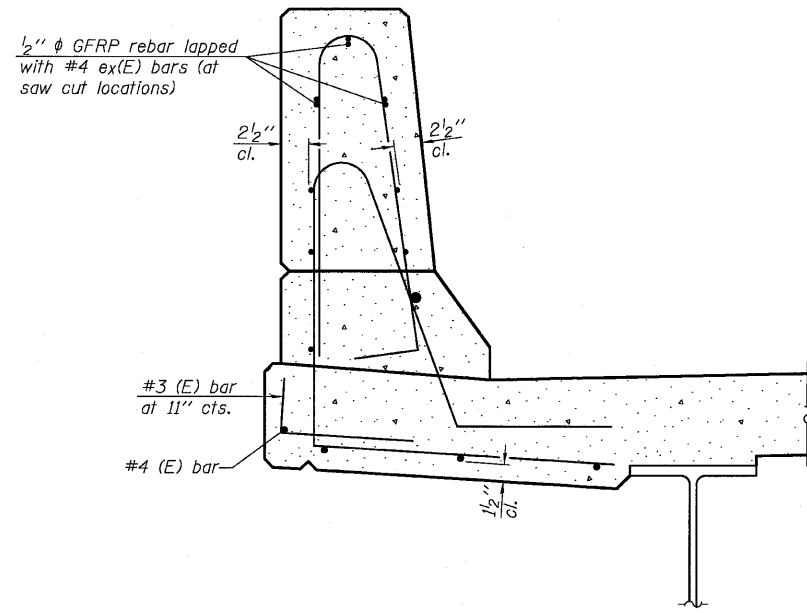
**CB** Coombe-Bloxdorf P.C.  
 - CIVIL ENGINEERS -  
 - STRUCTURAL ENGINEERS -  
 - LAND SURVEYORS -  
 Design Firm License No. 184-002703

PROJECT NO. 05004-10  
 SCALE  
 DATE 8/10/10  
 DESIGN BY GB/MCB  
 DRAWN BY MML  
 CHECKED BY MCB

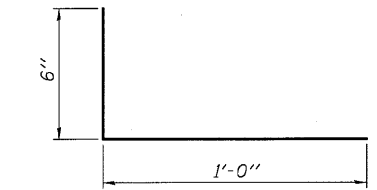
SHEET NO. 34	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42 SHEETS	55	(53-1) HBR & HBR-1	LIVINGSTON	102	53
				CONTRACT NO. 66856	
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



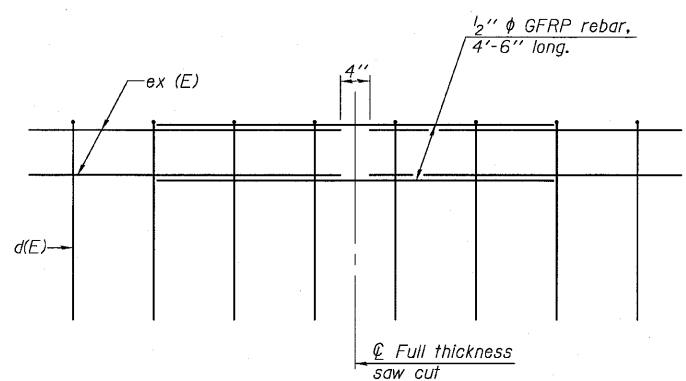
**SECTION**  
(Showing dimensions)



**SECTION**  
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



**#3 (E) BAR**



**GFRP REBAR STIFFENING DETAIL**  
(Place as shown in parapet section at each parapet joint location.)

**CONCRETE PARAPET  
SLIPFORMING OPTION  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)**

<b>CB</b> Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10 SCALE DATE 8/10/10 DESIGN BY GB/MCB DRAWN BY MML CHECKED BY MCB	SHEET NO. 35  42 SHEETS	F.A.I. RTE. 55 SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 54
	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66856		

\* See Superstructure Details.



### SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	BLOW COUNT	DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)
053-0145	270+32			Stiff, Brownish Black, Silty Clay								
			3.9						1.8	22.0		
			10						1.6	28.8		
			8						4.4	14.3		
			17						2.6	15.2		
			14						2.3	16.2		
			13						2.2	16.2		
			12						2.9	17.3		
			15						3.1	15.9		
			14						2.4	23.2		
			7						2.8	19.8		
			8						2.8	22.2		

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



### SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	BLOW COUNT	DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)
053-0145	270+32			Very Stiff, Gray, Clay Till (continued)								
			16						2.1	28.2		
			568.50						4.4	14.3		
			17						2.6	15.2		
			14						2.3	16.2		
			13						2.2	16.2		
			12						2.9	17.3		
			15						3.1	15.9		
			14						2.4	23.2		
			7						2.8	19.8		
			8						2.8	22.2		

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



### SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	BLOW COUNT	DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)	UCS (tsf)	BULGE (in)	SHEAR (tsf)	PENETROMETER (ft)
053-0144	270+32			Stiff, Brownish Black, Silty Clay								
			6.0						2.0	26.9		
			638.70						6			
			8						2.0	24.1		
			8						2.3	27.8		
			9						2.4	23.8		
			20						3.1	12.0		
			631.70						6.8	18.8		
			11						2.6	17.9		
			8						2.2	18.3		
			626.70						1.8	18.2		
			6						2.9	19.5		
			7						1.6	24.9		

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

BORING LOGS  
STRUCTURE NO. 053-0187 (NB)  
STRUCTURE NO. 053-0186 (SB)

<b>CB</b> Coombe-Bloxdorf P.C. -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. OS004-10	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SCALE 8/10/10	55	(53-1) HBR & HBR-1	LIVINGSTON	102	55
	DATE 8/10/10	SHEET NO. 36		CONTRACT NO. 66856		
	DESIGN BY GB/MCB	42 SHEETS		ILLINOIS FED. AID PROJECT		
	DRAWN BY MML					
	CHECKED BY MCB					

FILE NAME = ...80530186-0187-66856-36-bor-log.dgn  
PLOT SCALE = 0.10000000  
USER NAME = CFC



# SOIL BORING LOG

Page 2 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0144  
 Station 270+32

BORING NO. 2 SBL  
 Station 259+52  
 Offset 52.00ft Lt.  
 Ground Surface Elev. 641.2 ft

Surface Water Elev. \_\_\_\_\_ ft  
 Stream Bed Elev. \_\_\_\_\_ ft

Groundwater Elev.:  
 First Encounter \_\_\_\_\_ ft  
 Upon Completion \_\_\_\_\_ ft  
 After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
21	5.7 B	13.6		Hard, Gray, Clay Till
16	4.0 B	14.3		
15	3.7 B	15.6		
17	4.7 B	14.4		
18	4.9 B	14.8		
19	4.4 B	14.1		
14	2.9 B	17.1		Very Stiff, Gray, Clay Till
12				End of Boring

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



# SOIL BORING LOG

Page 1 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0145  
 Station 270+32

BORING NO. 3 SBL  
 Station 270+08  
 Offset 76.00ft Lt.  
 Ground Surface Elev. 641.5 ft

Surface Water Elev. \_\_\_\_\_ ft  
 Stream Bed Elev. \_\_\_\_\_ ft

Groundwater Elev.:  
 First Encounter \_\_\_\_\_ ft  
 Upon Completion \_\_\_\_\_ ft  
 After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
8	1.8 B	20.4		Stiff, Brownish Black, Silty Clay
6	1.5 B	24.2		Stiff, Brown and Gray, Mottled, Clay
7	1.4 B	26.3		
16	4.2 S	19.6		Hard, Gray, Clay Till
11	3.1 B	21.6		Very Stiff, Gray, Clay Till
8	2.3 B	22.5		
8	1.8 B	24.0		Stiff, Gray, Clay Till
12	3.3 B	23.0		Very Stiff, Gray, Clay Till

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



# SOIL BORING LOG

Page 2 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 053-0145  
 Station 270+32

BORING NO. 3 SBL  
 Station 270+08  
 Offset 76.00ft Lt.  
 Ground Surface Elev. 641.5 ft

Surface Water Elev. \_\_\_\_\_ ft  
 Stream Bed Elev. \_\_\_\_\_ ft

Groundwater Elev.:  
 First Encounter \_\_\_\_\_ ft  
 Upon Completion \_\_\_\_\_ ft  
 After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

DEPTH (ft)	BULGE (in)	UCS (tsf)	MOISTURE (%)	DESCRIPTION
6	6.0 S	13.2		Hard, Gray, Clay Till
23				
7	1.8 B	25.0		
27	7.5 B	13.0		
20	4.4 B	15.6		
16	4.0 B	15.4		
17	3.6 B	15.8		Very Stiff, Gray, Clay Till
12	2.2 B	16.8		
12	2.6 B	19.5		
13	2.2 B	22.1		
16	3.7 B	18.1		
16	2.8 B	15.8		End of Boring

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

**BORING LOGS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

 <b>Coombe-Bloxdorf P.C.</b> - CIVIL ENGINEERS - - STRUCTURAL ENGINEERS - - LAND SURVEYORS - Design Firm License No. 184-002703	PROJECT NO. 05004-10	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 56
	SCALE	DATE 8/10/70	DESIGN BY GB/MCB	CONTRACT NO. 66856		
	SHEET NO. 37	42 SHEETS	DRAWN BY MML	ILLINOIS FED. AID PROJECT		

FILE NAME = J:\0530186\_0187-66856-37-borings.dgn  
 PLOT SCALE = 0.0109387 in / in  
 USER NAME = E CFC





SOIL BORING LOG

Page 1 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for SOIL BORING LOG data including STRUCT. NO., BORING NO., and soil layers with blow count and depth data.

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



SOIL BORING LOG

Page 2 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for SOIL BORING LOG data including STRUCT. NO., BORING NO., and soil layers with blow count and depth data.

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



SOIL BORING LOG

Page 1 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for SOIL BORING LOG data including STRUCT. NO., BORING NO., and soil layers with blow count and depth data.

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

BORING LOGS STRUCTURE NO. 053-0187 (NB) STRUCTURE NO. 053-0186 (SB)

Professional Engineer/Engineer-Geologist stamp for Coombe-Bloxdorf P.C. including project info, scale, date, and sheet count.

FILE NAME = J:\0530186\_0187-66856-38-borings.dgn PLOT SCALE = 0.1023937 "/ IN USER NAME = E C L



SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. (First Encounter, Upon Completion, After).

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



SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. (First Encounter, Upon Completion, After).

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



SOIL BORING LOG

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for Depth (ft), Blows (B), SPT (S), and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. (First Encounter, Upon Completion, After).

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

BORING LOGS STRUCTURE NO. 053-0187 (NB) STRUCTURE NO. 053-0186 (SB)

Coombe-Bloxdorf P.C. - CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS - Design Firm License No. 184-002703

Table with project details: PROJECT NO. 05004-10, SHEET NO. 39, DATE 8/10/70, DESIGN BY GB/MCB, CHECKED BY MML, F.A.I. RTE. 55, SECTION (53-1) HBR & HBR-1, COUNTY LIVINGSTON, TOTAL SHEETS 102, SHEET NO. 58, CONTRACT NO. 66856, FED. ROAD DIST. NO., ILLINOIS FED. AID PROJECT

FILE NAME = ...0530186\_0187\_66856\_39-bor-logs.dgn PLOT SCALE = 0.1029387 1" / IN. USER NAME = CPC.



# SOIL BORING LOG

Page 1 of 2  
Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski  
SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E  
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H				B L O C K				U C S				M O I S T			
	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	
Brownish Black, Silty Clay 639.30																
Very Stiff, Brown, Mottled, Clay Till 636.80		11	2.4	18.0												
Hard, Brown, Clay Till 614.80		16	5.9	18.3												
Hard, Gray, Clay Till 629.80		17	5.7	18.4												
Very Stiff, Gray, Clay Till 609.30		14	4.6	18.1												
		9	2.9	19.9												
		8	2.9	21.0												
		9	3.3	18.6												

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



# SOIL BORING LOG

Page 2 of 2  
Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski  
SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E  
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H				B L O C K				U C S				M O I S T			
	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	
Very Stiff, Gray, Clay Till (continued) 595.30																
		15	3.6	25.0												
		14	4.5	14.0												
		15	3.6	16.0												
		12	3.6	17.0												
		12	3.6	16.0												
		9	2.6	18.0												
		8	2.6	17.0												
End of Boring																

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



# SOIL BORING LOG

Page 1 of 2  
Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Safranski  
SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E  
COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station BORING NO. Station Offset Ground Surface Elev.	D E P T H				B L O C K				U C S				M O I S T			
	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)	
Brownish Black, Silty Clay 639.50																
Hard, Brown, Clay Till 637.00		9	4.5	21												
Very Stiff, Brown, Clay Till 614.50		7	3.3	21												
Hard, Gray, Clay Till 629.50		11	5.4	18												
Very Stiff, Gray, Clay Till (continued)																
		12	4.2	19												
		9	2.6	21												
		8	3.6	21												
		9	2.3	23												

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

## BORING LOGS STRUCTURE NO. 053-0187 (NB) STRUCTURE NO. 053-0186 (SB)

PROJECT NO. 05004-10	SCALE	DATE 8/10/70	DESIGN BY GB/MCB	DRAWN BY MML	CHECKED BY MCB	SHEET NO. 40 42 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							55	(53-1) HBR & HBR-1	LIVINGSTON	102	59
							CONTRACT NO. 66856				
							ILLINOIS FED. AID PROJECT				

**GB** Coombe-Bloxdorf P.C.  
-CIVIL ENGINEERS-  
-STRUCTURAL ENGINEERS-  
-LAND SURVEYORS-  
Design Firm License No. 184-002703



SOIL BORING LOG

Page 2 of 2

Date 10/19/71

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY J. Sefranski

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for STRUCT. NO., STATION, BORING NO., STATION, OFFSET, GROUND SURFACE ELEV., and soil properties (D, B, U, M, P, L, C, O, T, H, W, S, Qu, T) with values in ft and (%)

Soil boring log data table with columns for elevation, soil description, blow count (D, B, U, M), and penetration test (P, L, C, O, T) results.

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



SOIL BORING LOG

Page 1 of 2

Date 7/16/08

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY LM

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for STRUCT. NO., STATION, BORING NO., STATION, OFFSET, GROUND SURFACE ELEV., and soil properties (D, B, U, M, P, L, C, O, T, H, W, S, Qu, T) with values in ft and (%)

Soil boring log data table with columns for elevation, soil description, blow count (D, B, U, M), and penetration test (P, L, C, O, T) results.

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



SOIL BORING LOG

Page 2 of 2

Date 7/16/08

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY LM

SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E

COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns for STRUCT. NO., STATION, BORING NO., STATION, OFFSET, GROUND SURFACE ELEV., and soil properties (D, B, U, M, P, L, C, O, T, H, W, S, Qu, T) with values in ft and (%)

Soil boring log data table with columns for elevation, soil description, blow count (D, B, U, M), and penetration test (P, L, C, O, T) results.

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

BORING LOGS
STRUCTURE NO. 053-0187 (NB)
STRUCTURE NO. 053-0186 (SB)

Professional seal and title block for Coombe-Bloxdorf P.C. CIVIL ENGINEERS, STRUCTURAL ENGINEERS, LAND SURVEYORS. Design Firm License No. 184-002703. SHEET NO. 41, 42 SHEETS. F.A.I. RTE. 55, SECTION (53-1) HBR & HBR-1, COUNTY LIVINGSTON, TOTAL SHEETS 102, SHEET NO. 60, CONTRACT NO. 66856, FED. ROAD DIST. NO. ILLINOIS, FED. AID PROJECT

FILE NAME = ...BORING.dgn
PLOT SCALE = 0.10000000 1" = 10'
USER NAME = DFC



**SOIL BORING LOG**

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY LM  
 SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E  
 COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station	Offset	Ground Surface Elev.	D (ft)	B (ft)	U (tsf)	M (%)	Description				D (ft)	B (ft)	U (tsf)	M (%)			
								Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter					Upon Completion	After	Hrs.
053-0144 270+32	10 NBL 269+18	20.00ft Lt	672.53															
								Augered Black Silty Clay Loam (Fill) and Gray Silty Clay Loam Till (Fill)										
			670.03					Hard Gray Silty Clay Loam Till (Fill) With Some Concrete Debris										
			668.03					Hard Brown Silty Clay Loam Till (Fill)										
			665.53					Hard Gray Silty Clay Loam Till (Fill)										
								Hard Brown Silty Clay Loam Till (Fill)										
								Hard Brown/Black Silty Clay and Brown Silty Clay Loam Till (Fill)										
								Very Stiff Green/Brown/Black Silty Clay (Fill)										
								Very Stiff Brown/Gray Silty Clay Loam Till										
								Hard Grown Silty Clay Loam Till										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)  
 BBS, from 137 (Rev. 8-99)



**SOIL BORING LOG**

ROUTE FAI 55 (I-55) DESCRIPTION FAI-55 over New York Central R.R. LOGGED BY LM  
 SECTION 53-1VB LOCATION NW 1/4, SEC. 5, TWP. 30N, RNG. 7E  
 COUNTY Livingston DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	BORING NO. Station	Offset	Ground Surface Elev.	D (ft)	B (ft)	U (tsf)	M (%)	Description				D (ft)	B (ft)	U (tsf)	M (%)			
								Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter					Upon Completion	After	Hrs.
053-0144 270+32	10 NBL 269+18	20.00ft Lt	672.53					Hard Grown Silty Clay Loam Till (continued)										
								Hard Dark Gray Silty Clay Loam/Clay Till (continued)										
								Very Stiff Gray Silty Clay Loam/Silty Clay Till With Free Water @ 50'										
								End of Boring										
								Very Stiff Gray Clay With Pockets Silty Clay										
								Hard Dark Gray Silty Clay Loam/Clay Till										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)  
 BBS, from 137 (Rev. 8-99)

**BORING LOGS**  
**STRUCTURE NO. 053-0187 (NB)**  
**STRUCTURE NO. 053-0186 (SB)**

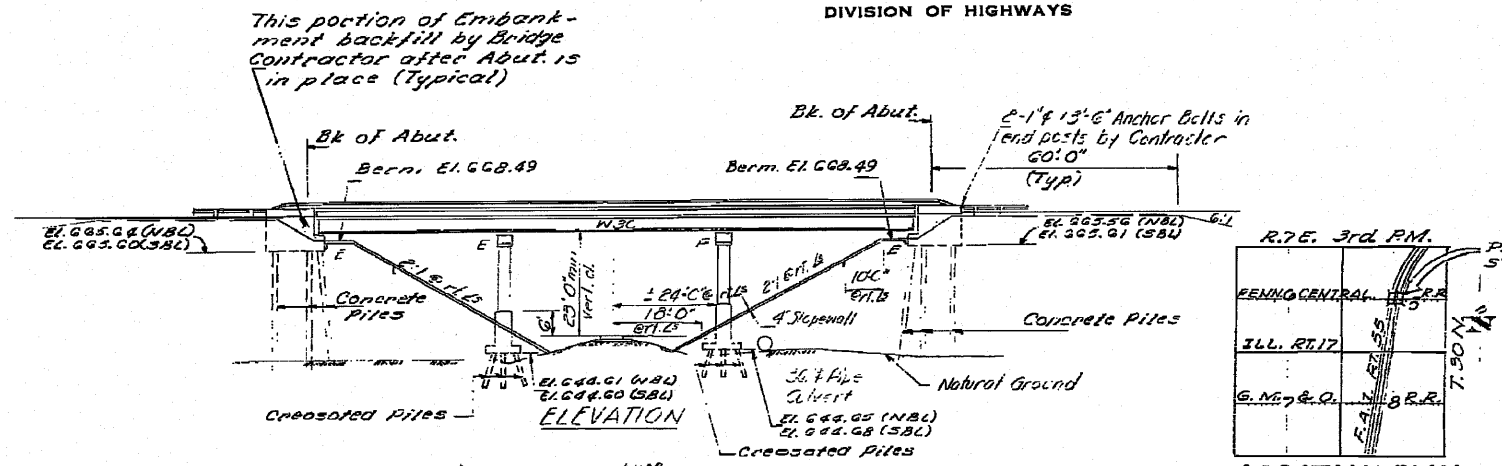
 -CIVIL ENGINEERS- -STRUCTURAL ENGINEERS- -LAND SURVEYORS- Design Firm License No. 184-002703	PROJECT NO. 05004-10	F.A.I. RTE. 55	SECTION (53-1) HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 41
	SCALE 8/10/10	DATE 8/10/10	DESIGN BY CB/MCB	CONTRACT NO. 66856		
	DRAWN BY MML	CHECKED BY MCB	SHEET NO. 42		ILLINOIS FED. AID PROJECT	

FILE NAME = ...0530186\_0187\_66856-42-borlogs.dgn  
 PLOT SCALE = 0.10000000 1/10  
 USER NAME = CPC

BM: #38 RR Spike in RR Tie Fence Post Approx. 175'  
 Encl. Sect. Line Elev. 602.60 Sta. 47189.11

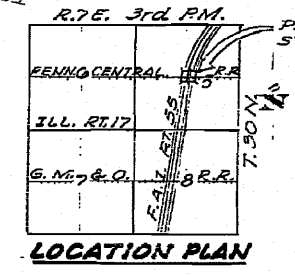
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	ILLINOIS	102	62

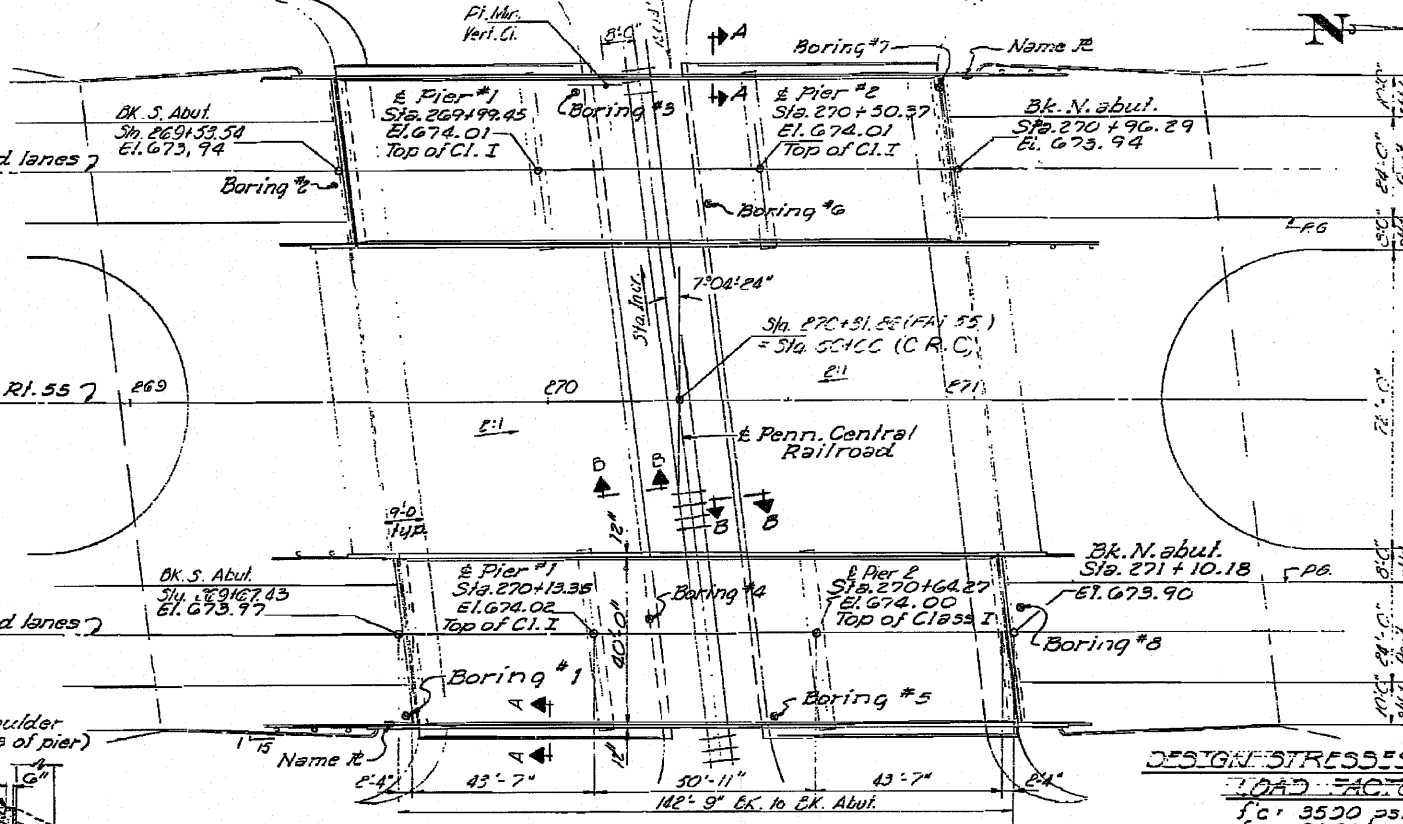
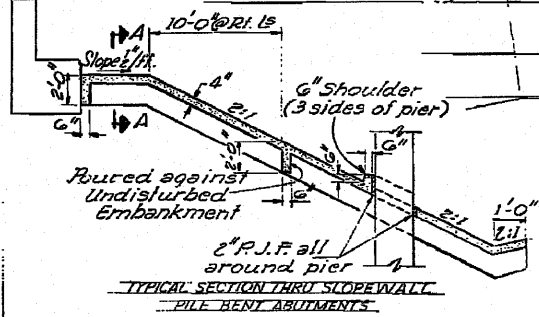
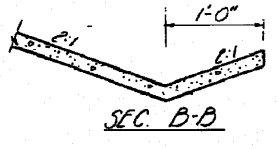
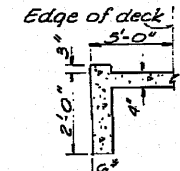


STATION 270+31.86  
 BUILT BY  
 STATE OF ILLINOIS  
 EAST ST. SEC. 55-17B  
 F.A. PROJ. 16-55-517B/209  
 LOADING HS20 & ALL  
 STR. NO. \*

NAME PLATE  
 S.D. 2112  
 \*Structure Number to be  
 supplied by District.



**GENERAL NOTES**  
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.  
 Fasteners shall be high strength bolts. Bolts 3/8" diam. holes 1/2" unless otherwise noted.  
 Calculated weight of Structural Steel = 267,420 Lbs.  
 The basic lead silico chromate paint system shall be used for shop and field painting Structural Steel.  
 Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted, only when approved by the Engineer.  
 Anchor bolts shall be set before bolting diaphragms over supports.  
 Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 100#/sq. ft.  
 The Contractor shall drive one concrete pile at each of the following: South abut., South bound lanes, North abut., North bound lanes. One creosoted timber test pile at Pier 2, South bound lanes & one creosoted timber test pile at Pier one, North bound lanes.  
 These piles shall be driven under the direction of the Engineer before ordering remainder of piles.  
 Concrete piles at abutments shall be driven in holes precored through the embankment in accordance with Article 513.09 (c) of the Standard Specifications.  
 The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments & piers.  
 The concrete rail section above the mandatory construction joint at the top slab shall be constructed of Class X Concrete except if aggregates shall conform to the requirements of standard concrete.  
 Projective coat shall not be applied to surfaces to which waterproofing Membrane System is applied.



**DESIGN STRESSES - JK. SLAB**  
**LOAD FACTOR**  
 f<sub>c</sub> = 3500 psi  
 f<sub>y</sub> = 60,000 psi (Grade 60)  
 Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. V-3 or M-53 Grade 60.

**DESIGN STRESSES**  
 f<sub>c</sub> = 1,400 psi (Curb, parapet, Sit.)  
 f<sub>c</sub> = 2,000 psi (Reinf. Duro, Parapet & Sit.)  
 f<sub>c</sub> = 20,000 psi (Struct.)  
 f<sub>c</sub> = 75 psi (F.F.)  
 n = 10  
 Allow 25% sq. ft. for future W.S.

**TOTAL BILL OF MATERIAL**

Item	Unit	Super.	Sub.	Refs.
Minimum Rebar	Lin. Ft.	650	350	
Test Piles (Concrete)	Each	2	2	
Test Piles (Timber)	Each	2	2	
Preformed Joint Sealer	Lin. Ft.	170	170	
Class X Concrete	Cu. Yds.	365.8	384.4	750.2
Protective Coat	Sq. Yds.	242	252	
Reinforcement Bars	Lbs.	26,080	5,480	187,594
Slope Wall (4")	Sq. Yds.			2,500
Name Plates	Each			2
Concrete Piles	Lin. Ft.			2,218
Creosoted Piles (Up to 20')	Lin. Ft.			437
Structural Steel	Volume			1
Creosoted Piles (20' to 38')	Lin. Ft.			1,005

DESIGNED: S.W. T. 3/1/FA  
 CHECKED: Charles K...  
 DRAWN: d. Mullerix  
 CHECKED: C.G.  
 EXAMINED: [Signature]  
 PASSED: [Signature]  
 APPROVED: [Signature]  
 DATE: April 10 1972

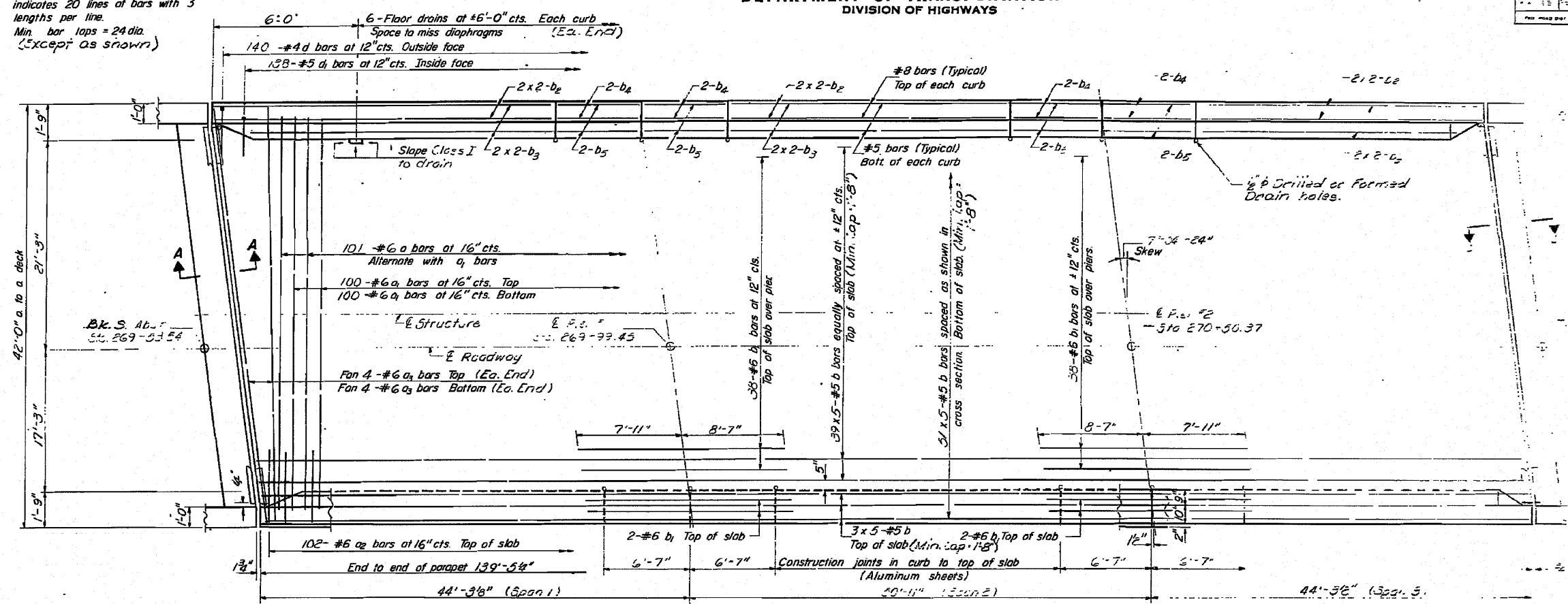
F.A. PROJ. 16-55-517B/209  
**GENERAL PLAN & ELEVATION**  
 CONSOLIDATED RAIL CORP.  
 F.A. 55 SECTION 53-17B  
 LIVINGSTON COUNTY  
 STATION 270+31.86

LOADING HS 20-44 & ALL

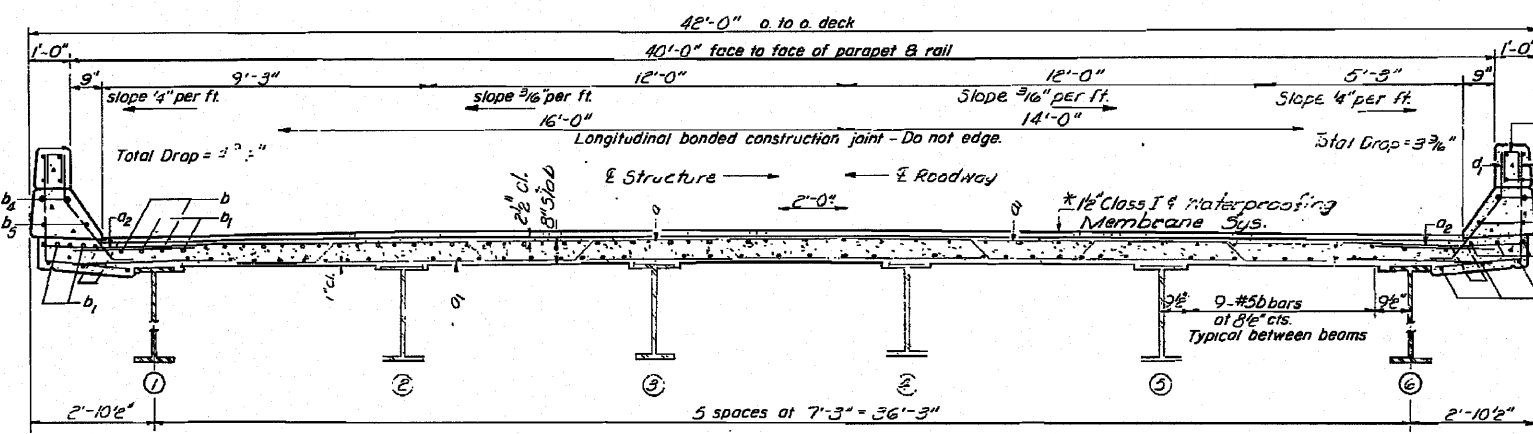
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

ROUTE NO.	SHEET NO.	CO.-MILE	TOTAL SHEETS	SHEET NO.
				6
				26 SHEETS

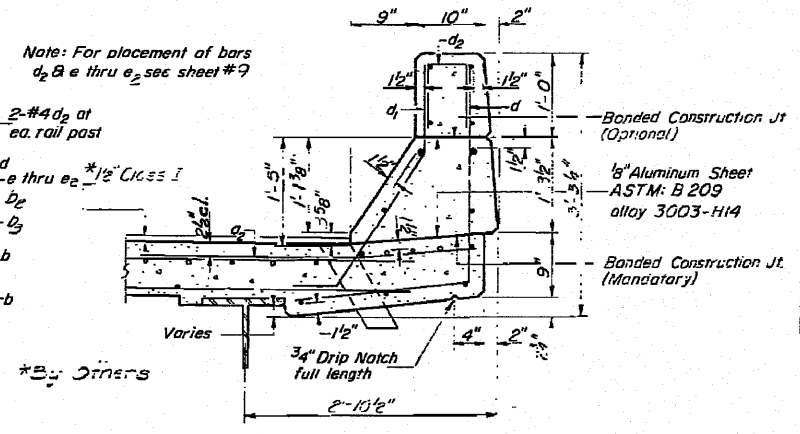
Note:  
Bars indicated thus 20 x 3-#5 etc.  
indicates 20 lines of bars with 3  
lengths per line.  
Min. bar laps = 24 dia.  
(Except as shown)



PLAN



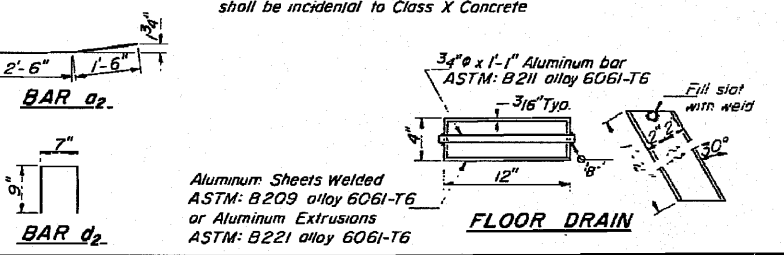
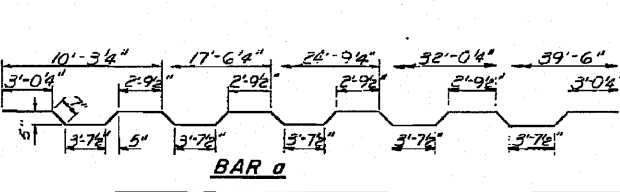
CROSS SECTION  
(LOOKING NORTH)



CURB SECTION

DESIGNED	SMEN, T.M.F.A.
CHECKED	[Signature]
DRAWN	Ben Robinson
CHECKED	CG J.T.

EXAMINED	[Signature]
PASSED	[Signature]
APPROVED	[Signature]



BILL OF MATERIAL

Bar No	Size	Length	Shape
a	#6	41'-2"	~
a1	#6	25'-0"	~
a2	#6	4'-0"	~
a3	#6	4'-5"	~
b	#5	2'-2"	~
b1	#6	16'-6"	~
b2	#6	9'-9"	~
b3	#6	2'-5"	~
b4	#6	5'-	~
b5	#6	12'-4"	~
d	#4	4'-9"	~
d1	#5	5'-5"	~
d2	#4	2'-1"	~
Reinforcement Bars			Lbs 2,500
Class X Concrete			Cu Yds 75.9

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet

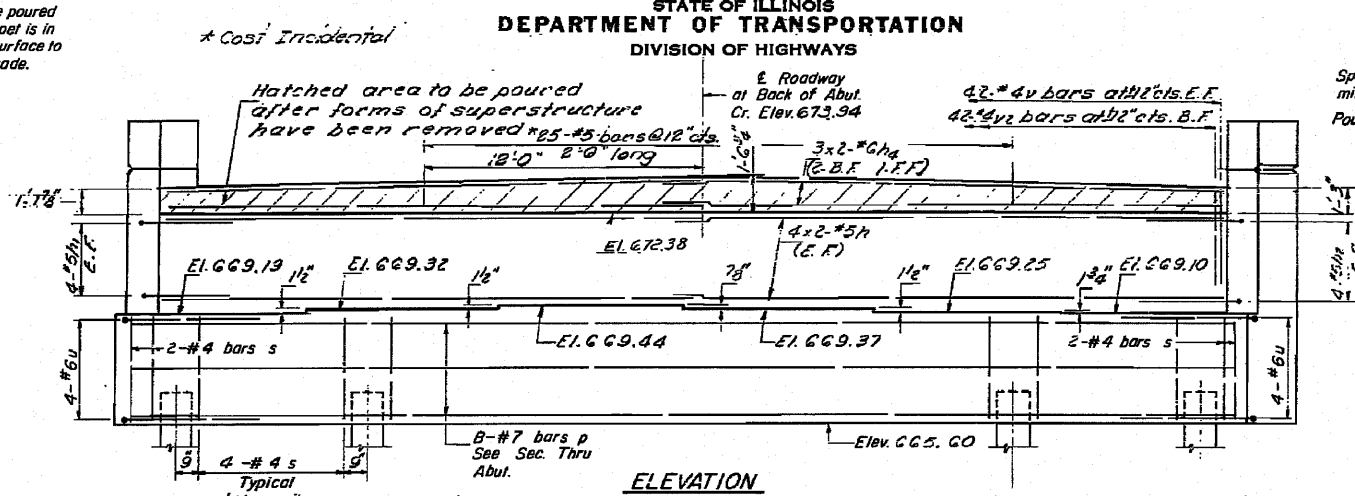
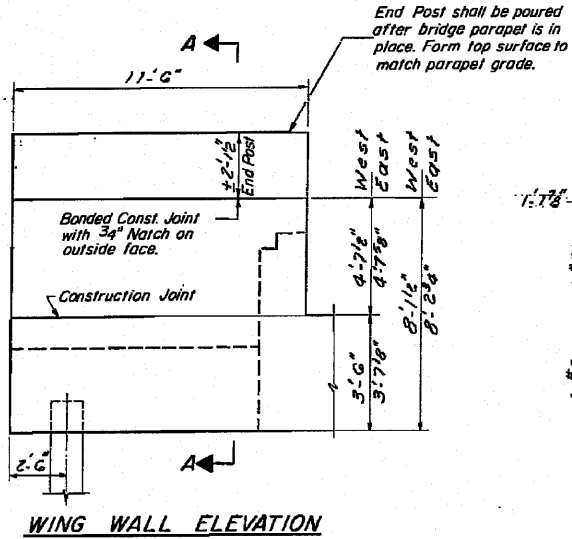
**SUPERSTRUCTURE**  
SOUTH BOUND LANE  
I-4 TO I-55  
LIVINGSTON COUNTY  
STA 27+35.36

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING STRUCTURE FOR INFORMATION ONLY	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pw_work\p1dot\duncanbd\dms50148\d365856-sht-detail.dgn		DRAWN -	REVISED -			55	(53-DHBR & HBR-1)	IROQUOIS	102	63
PLOT SCALE = 50,0000 / IN.		CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 66856		
PLOT DATE = Aug 11, 2010 - 02:28:24 PM		DATE -	REVISED -					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		

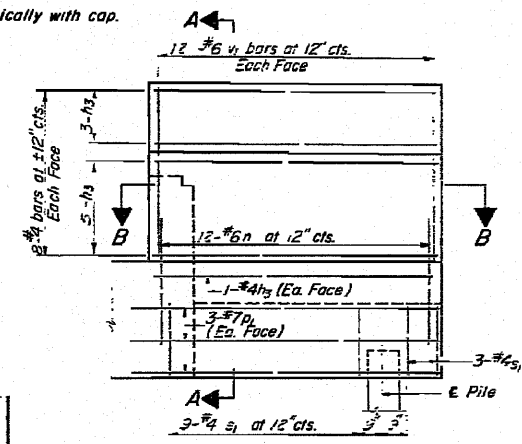
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-DHBR & HBR-1)	IROQUOIS	102	64

22 SHEETS

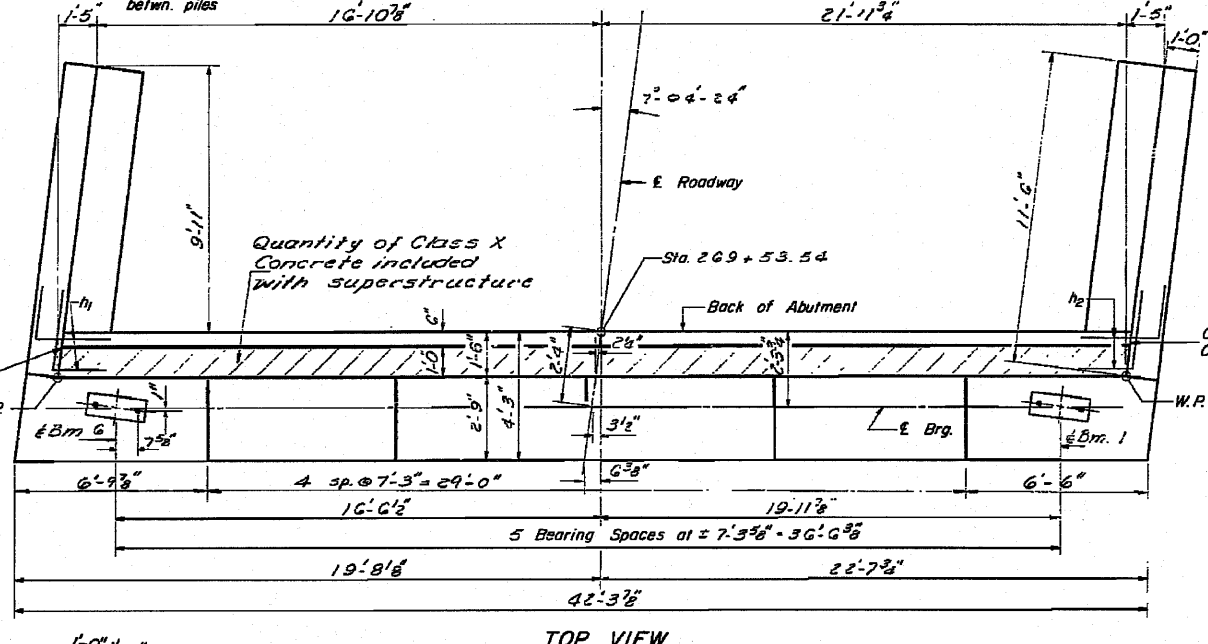
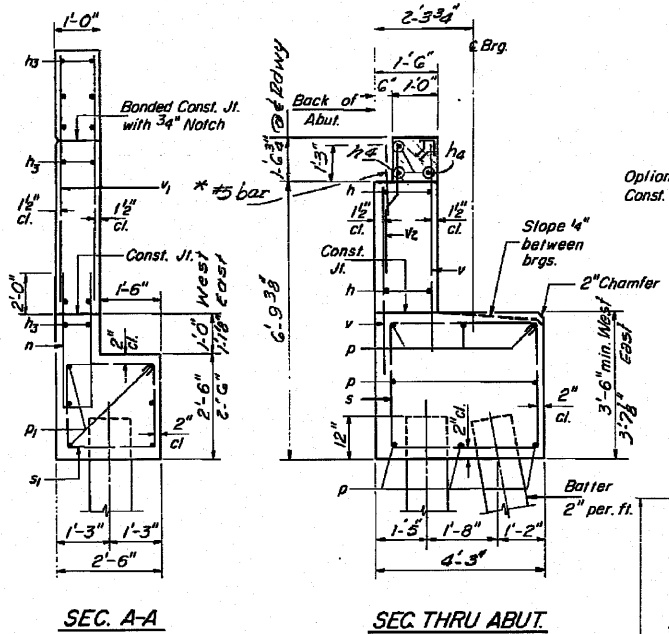


Space reinforcement in cap to miss anchor balls.  
Four steps monolithically with cap.



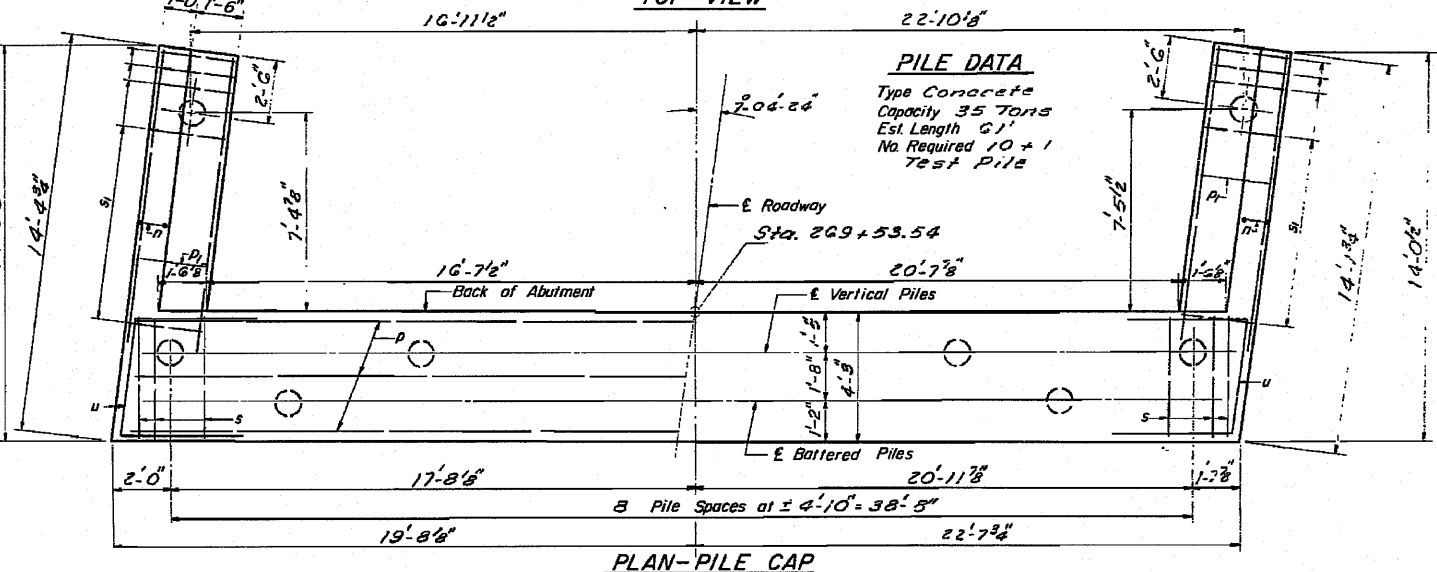
**BAR V2**

**SEC. B-B**



**PILE DATA**

Type Concrete  
Capacity 35 Tons  
Est Length 61'  
No Required 10 + 1  
Test Pile



**BAR S & S**

**BAR D**

**BAR U**

**BAR h2**

**BAR h1**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	10	#5	20'-3"	—
h1	8	#5	5'-0"	L
h2	8	#5	5'-0"	L
h3	30	#4	11'-3"	—
h4	5	#5	20'-3"	—
n	20	#6	9'-3"	L
p	8	#7	42'-0"	—
D	12	#7	13'-0"	—
s	30	#4	16'-11"	□
S	22	#4	9'-5"	□
u	8	#6	10'-0"	□
v	20	#4	5'-6"	—
v1	48	#6	5'-6"	—
v2	42	#6	3'-9"	—
Class X Concrete				Cu. Yds. 43.0
Reinforcement Bars				Lbs. 3740
Concrete Piles				Lin. Ft. 210
Test Piles Concrete				Ea. 1

**SO. ABUT. SO. BD. LANE  
K.A.I. RT 55 SEC. 53-1VB  
LIVINGSTON COUNTY  
STATION 270+31.86**

DESIGNED: SHEN, T.J. A. F. H.  
CHECKED: Mr. [Signature]  
DRAWN: J.M.  
CHECKED: S.T.

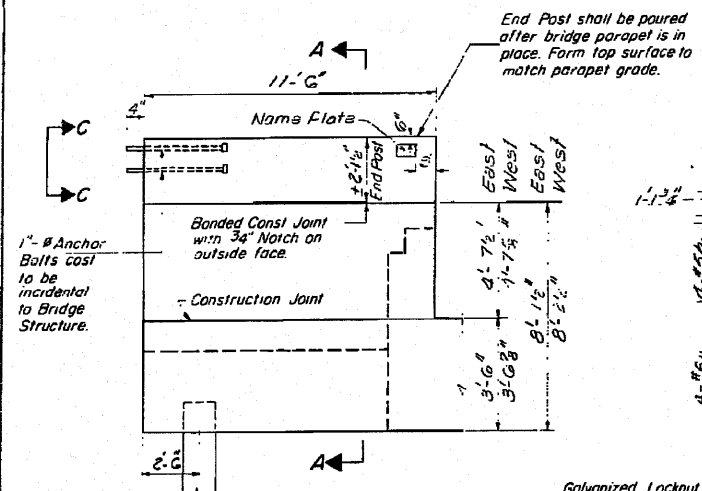
EXAMINED: [Signature]  
PASSED: [Signature]  
APPROVED: [Signature]

A-9-R (10-14) 3-23-71

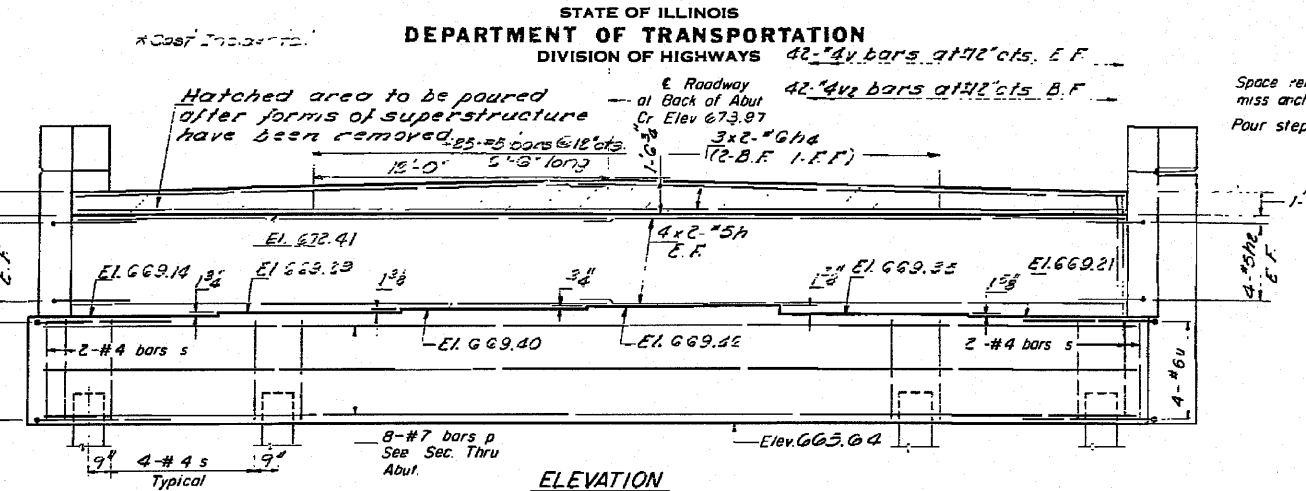


STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

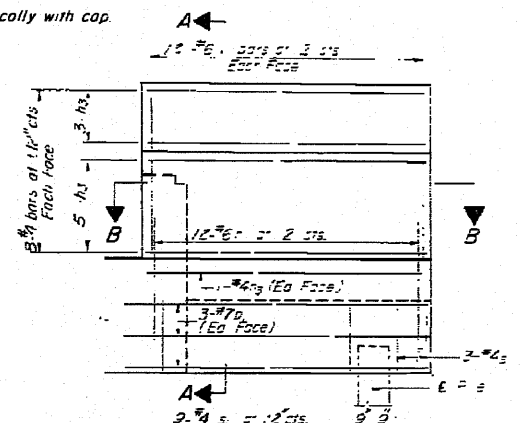
5-22' NO. 12  
 22'-00"



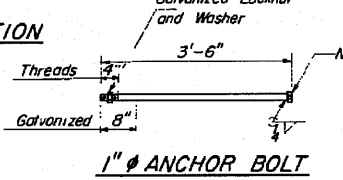
WING WALL ELEVATION



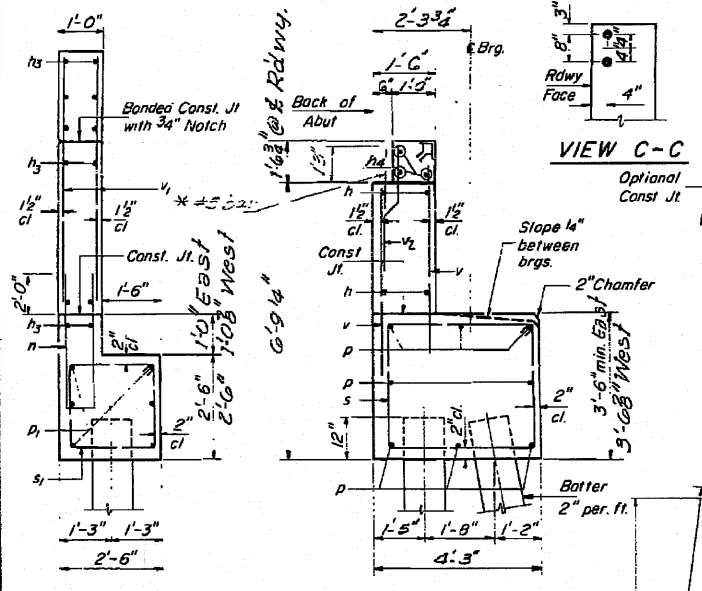
ELEVATION



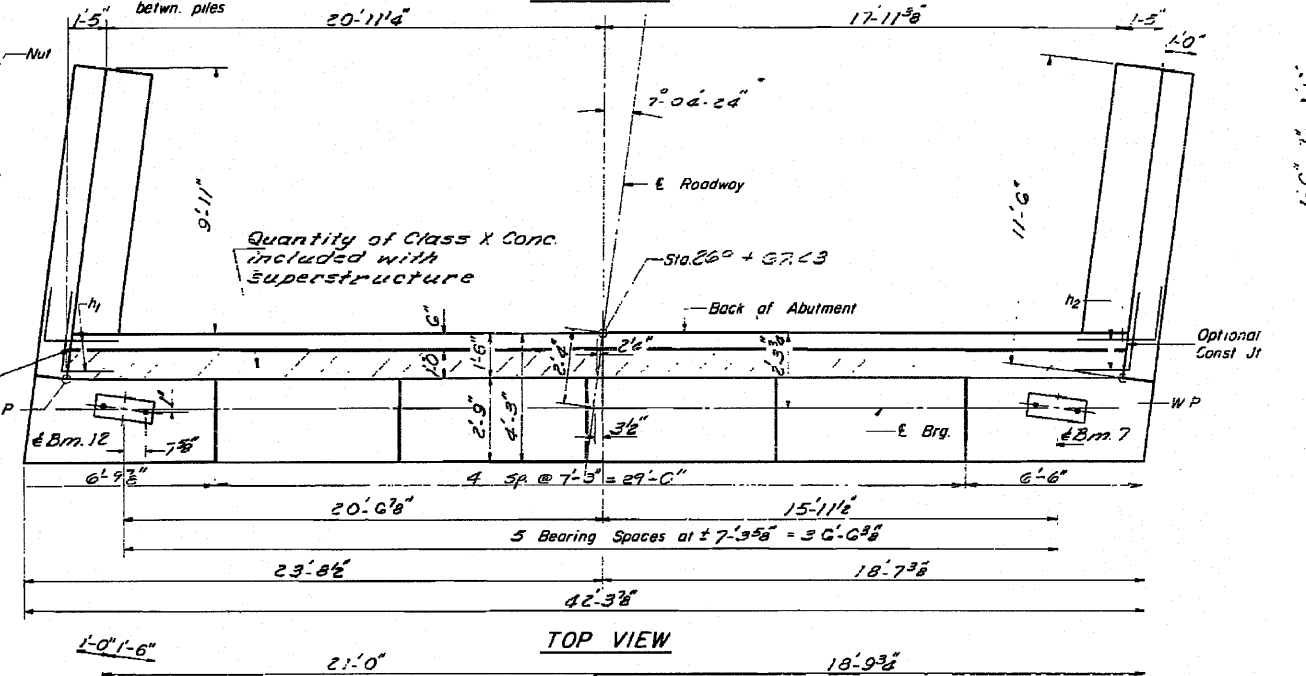
WING WALL ELEVATION Reinforcement



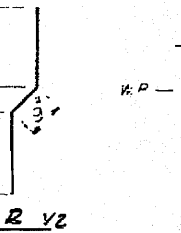
1" ANCHOR BOLT



VIEW C-C



TOP VIEW



BAR V2

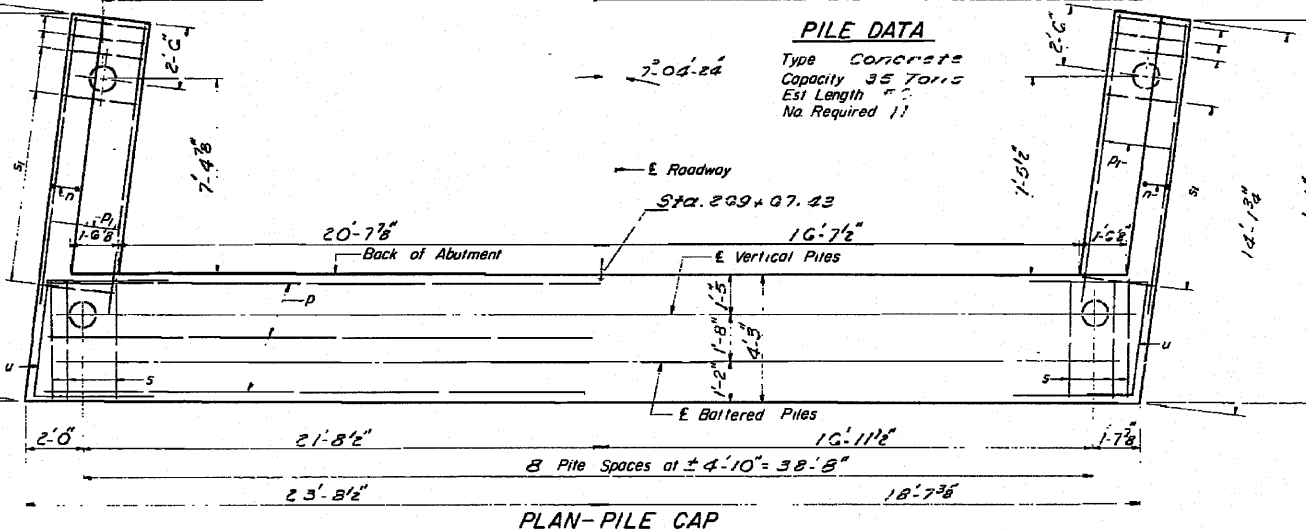
BILL OF MATERIAL

Bz	No	Size	Length	5'GCB
1	2	#5	3'-5"	
2	8	#5	3'-5"	
3	2	#5	3'-5"	
4	3	#4	11'-3"	
5	2	#6	20'-9"	
1	24	#6	3'-3"	
2	8	#7	42'-0"	
3	2	#7	3'-0"	
4	30	#6	10'-0"	
5	24	#4	3'-5"	
6	2	#6	10'-0"	
1	24	#4	3'-3"	
2	28	#5	3'-3"	
3	22	#6	3'-3"	
Class X Concrete 2.00 42.0				
Reinforcement Bars 1.50 57.50				
Concrete Piles 1.00 31.5				

SEC. A-A

SEC. THRU ABUT.

PILE DATA  
 Type Concrete  
 Capacity 35 Tons  
 Est Length 20'  
 No Required 11



PLAN-PILE CAP

BARs & S.

BAR n

BAR u

BAR h2

BAR h1

SO ABUT. NO. BD. LANE  
 F.A.I. RT. 55 SEC. 53-1VB  
 LIVINGSTON COUNTY  
 STATION 270+31.56

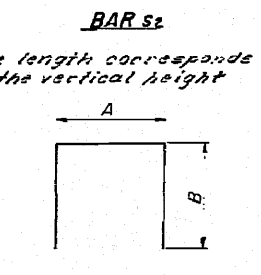
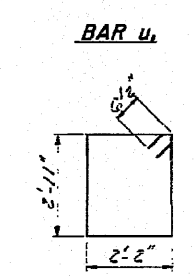
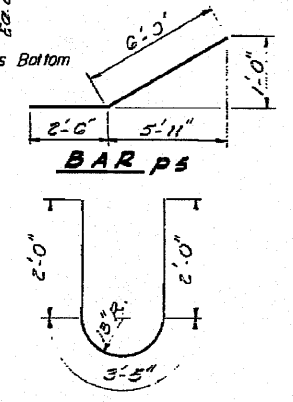
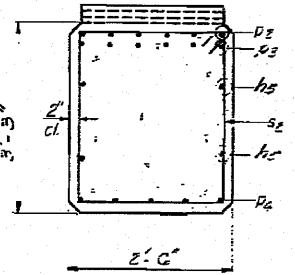
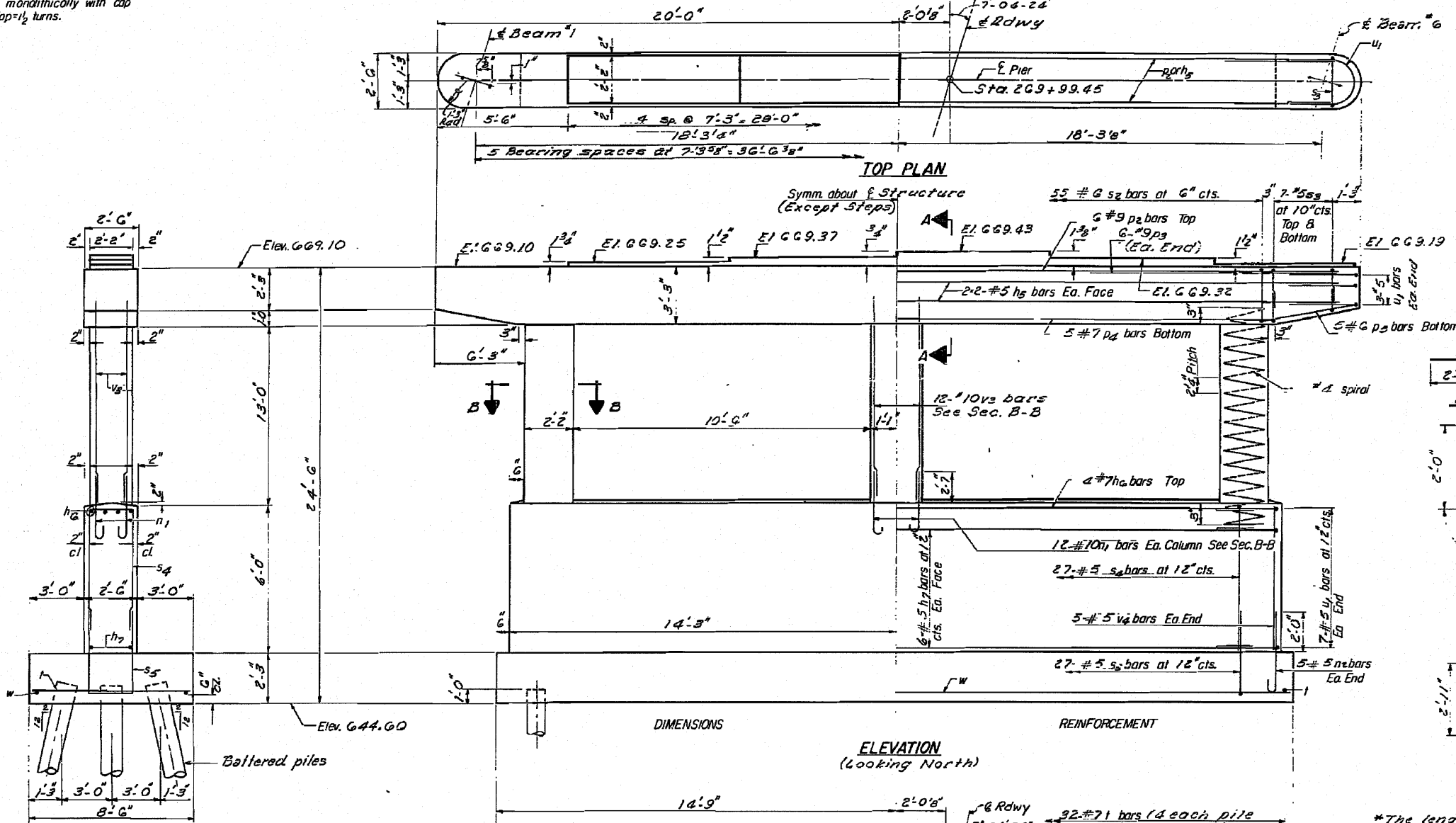
DESIGNED: MEN. T. A. I. F. A.  
 CHECKED: J. K. S. B. I. R.  
 DRAWN: J. K. S. B. I. R.  
 CHECKED: S. T.  
 EXAMINED: [Signature]  
 PASSED: [Signature]  
 APPROVED: [Signature]

A-9-R (10-140) 3-23-71

**NOTES:**  
 Space Reinforcement in cap to miss anchor bolts.  
 All edges shall have standard 3/4" chamfer except as noted.  
 Pour steps monolithically with cap  
 Min Spiral lap=1/2 turns.

STATE OF ILLINOIS  
**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	52-112		102	66
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**ABB DIMENSIONS**

Bar	A	B
s3	2'-2"	2'-1"
s4	2'-2"	5'-3"
s5	2'-2"	3'-9"

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shoos
h2	8	#5	19'-5"	
h3	4	#7	26'-5"	
h7	12	#5	26'-5"	
n1	32	#10	6'-0"	
n2	10	#5	6'-0"	
p2	6	#9	37'-6"	
p3	12	#9	12'-6"	
p4	5	#7	28'-0"	
p5	10	#6	8'-0"	
s2	55	#6	11'-3"	
s3	28	#5	6'-4"	
s4	27	#5	12'-8"	
s5	27	#5	9'-8"	
sp	3	#4	13'-6"	WWWW
t	32	#7	13'-3"	
u	20	#5	7'-5"	
v3	36	#10	15'-0"	
v4	10	#5	5'-9"	
w	8	#7	29'-3"	

**PILE DATA**  
 Type: *Crested*  
 Capacity: 24 Tons  
 Est. Length: 23'  
 No. Required: 24

Preliminary

DESIGNED	STEN, T. A. F. A.	EXAMINED	1972
CHECKED	Chapman	PASSED	
DRAWN	J. Keseler	APPROVED	
CHECKED	S.T.		

P-24 10-5-70

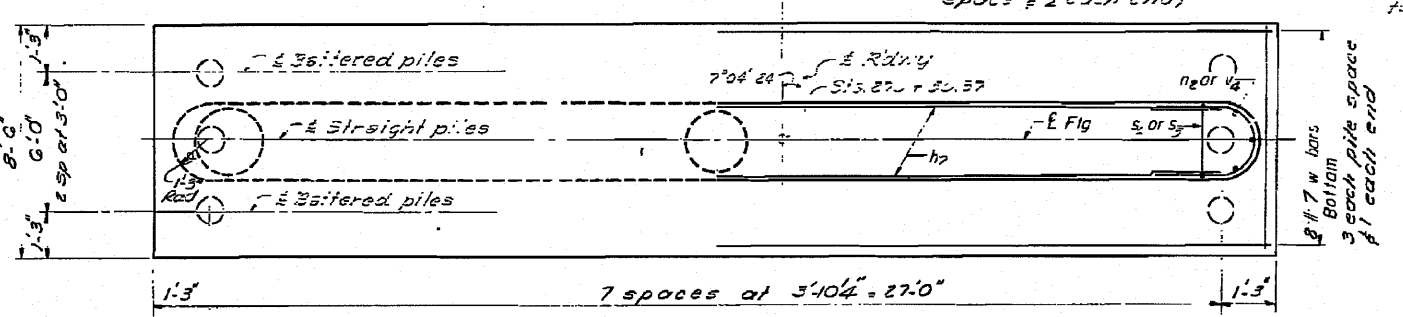
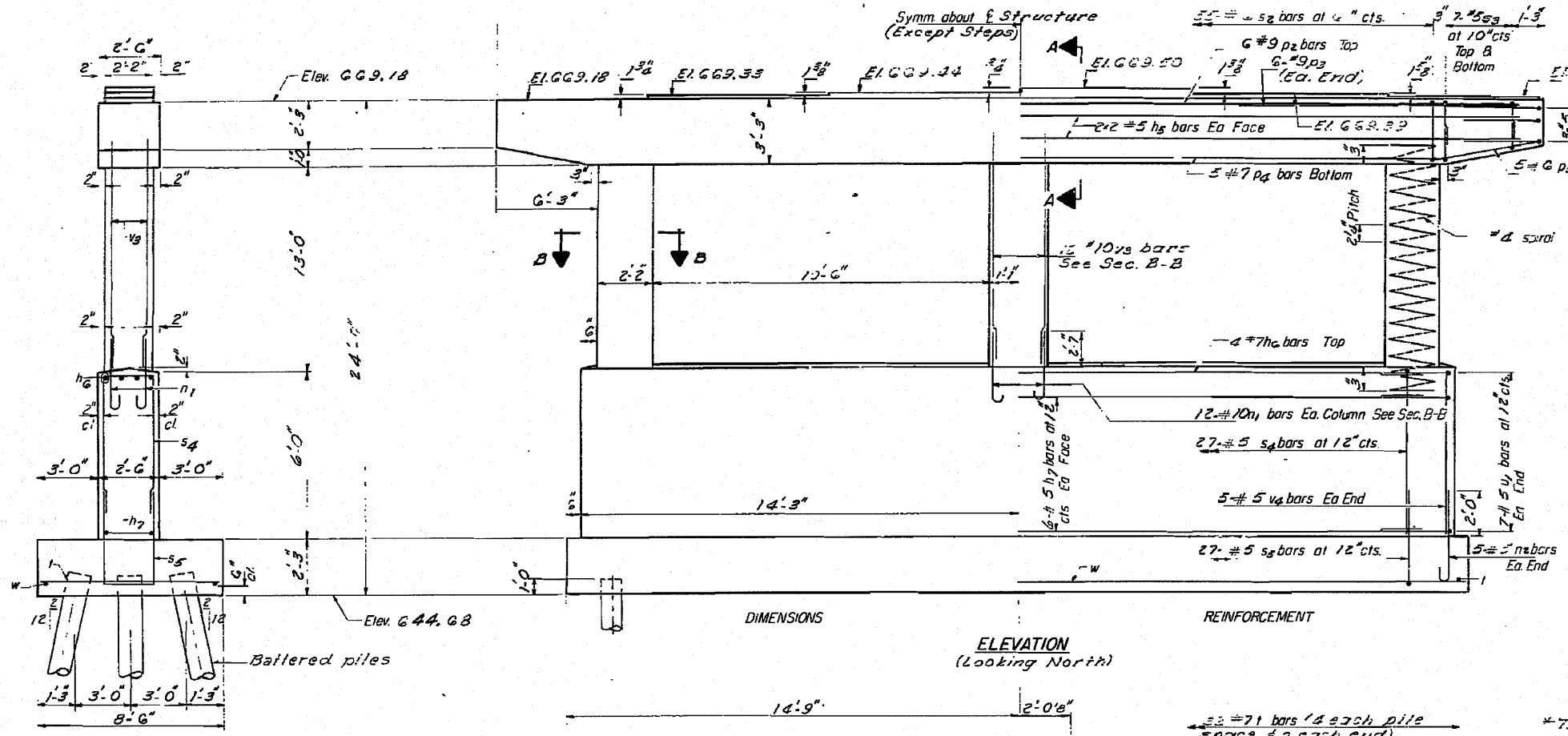
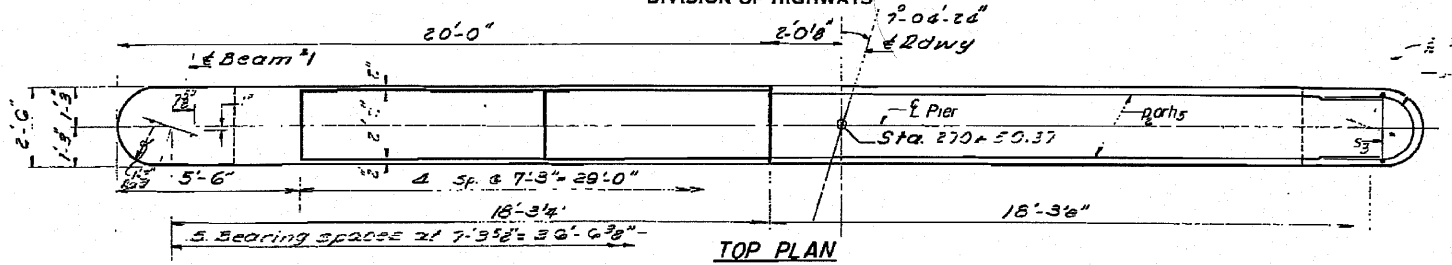
**Class X Concrete** Cu. Yds. 53.1  
**Reinforcement Bars** Lbs. 9630  
**Crested Piles** Lbs. 552  
 \*\* Includes angle spacers

**PIER 1, 50. B.D. LANE**  
**R.T. 55 SEC. 58-1VB**  
**LIVINGSTON COUNTY**  
**STATION 270+91.86**

**NOTES:**  
 Space Reinforcement in cap to miss anchor bolts.  
 All edges shall have standard 3/4 chamfer except as noted.  
 Pour steps monolithically with cap  
 All 5/8" dia. 1/2 turns.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

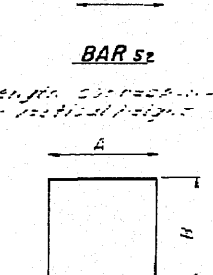
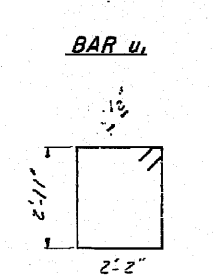
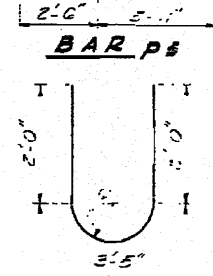
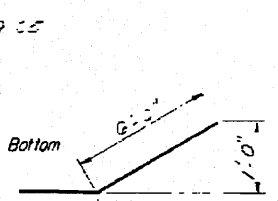
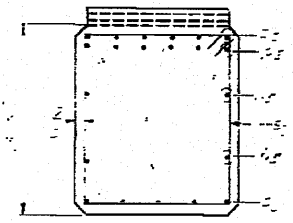
PROJECT NO.	55-118B
SHEET NO.	102
TOTAL SHEETS	67
CONTRACT NO.	66856



**PILE DATA**  
 Type Created  
 Capacity 24 Tons  
 Est. Length 19  
 No. Required 23 Piles + 1 Test Pile

Preliminary  
 DESIGNED: SHEN, T.S.A., FA  
 CHECKED: [Signature]  
 DRAWN: J. Kessler  
 CHECKED: S.T.  
 EXAMINED: [Signature] 1972  
 PASSED: [Signature]  
 APPROVED: [Signature]

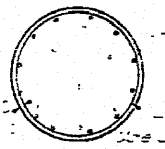
P-24 0-5-70



**ABB DIMENSIONS**

Bar	A	B
S2	2'-2"	2'-11"
S4	2'-2"	3'-5"
S5	2'-2"	3'-9"

SEC. A-A

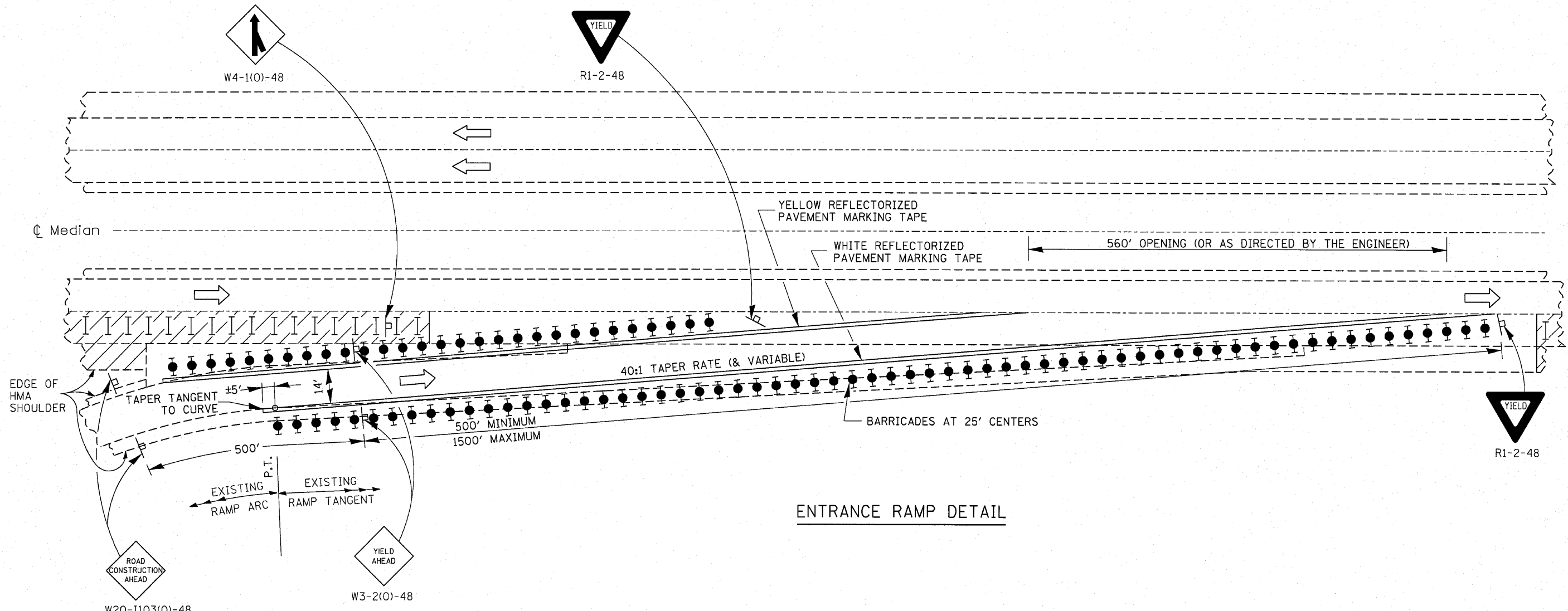


SEC. B-B

**BILL OF MATERIAL**

Bar	No.	Size	Length	Notes
S2	8	#5	13'-0"	
S4	4	#5	13'-0"	
S5	12	#5	13'-0"	
S1	20	#5	13'-0"	
S2	10	#5	13'-0"	
S3	6	#5	13'-0"	
S4	12	#5	13'-0"	
S5	10	#5	13'-0"	
S6	10	#5	13'-0"	
S7	10	#5	13'-0"	
S8	10	#5	13'-0"	
S9	10	#5	13'-0"	
S10	10	#5	13'-0"	
S11	10	#5	13'-0"	
S12	10	#5	13'-0"	
S13	10	#5	13'-0"	
S14	10	#5	13'-0"	
S15	10	#5	13'-0"	
S16	10	#5	13'-0"	
S17	10	#5	13'-0"	
S18	10	#5	13'-0"	
S19	10	#5	13'-0"	
S20	10	#5	13'-0"	
S21	10	#5	13'-0"	
S22	10	#5	13'-0"	
S23	10	#5	13'-0"	
S24	10	#5	13'-0"	
S25	10	#5	13'-0"	
S26	10	#5	13'-0"	
S27	10	#5	13'-0"	
S28	10	#5	13'-0"	
S29	10	#5	13'-0"	
S30	10	#5	13'-0"	
S31	10	#5	13'-0"	
S32	10	#5	13'-0"	
S33	10	#5	13'-0"	
S34	10	#5	13'-0"	
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S41	10	#5	13'-0"	
S42	10	#5	13'-0"	
S43	10	#5	13'-0"	
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S94	10	#5	13'-0"	
S95	10	#5	13'-0"	
S96	10	#5	13'-0"	
S97	10	#5	13'-0"	
S98	10	#5	13'-0"	
S99	10	#5	13'-0"	
S100	10	#5	13'-0"	

PIER 2, S.O.B.D. LANE  
 R.I. RT 55, SEC. 59-1VB  
 LIVINGSTON COUNTY  
 STATION 270+31.86



ENTRANCE RAMP DETAIL

- SYMBOLS**
- WORK AREA
  - SIGN
  - TYPE II BARRICADES OR DRUMS WITH STEADY BURNING MONODIRECTIONAL LIGHT
  - TYPE II BARRICADES OR DRUMS
  - DRUMS WITH STEADY BURNING MONODIRECTIONAL LIGHT

**GENERAL NOTES**

THIS DETAIL IS USED WHERE, AT ANY TIME ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES REQUIRE A LANE CLOSURE LONGER THAN 5 DAYS AND IS IN CLOSE PROXIMITY OF AN EXIT OR ENTRANCE RAMP AND SUPPLEMENTS OTHER TRAFFIC CONTROL STANDARDS FOR LANE CLOSURES.

THESE DETAILS ALSO APPLY WHEN WORK IS BEING PERFORMED IN THE LEFT LANES AND THE RAMPS ENTER AND EXIT ON THE LEFT. UNDER THESE CONDITIONS, THE EXIT SIGN ARROW AND THE SIDE ROAD SYMBOL SIGN SHALL BE CHANGED.

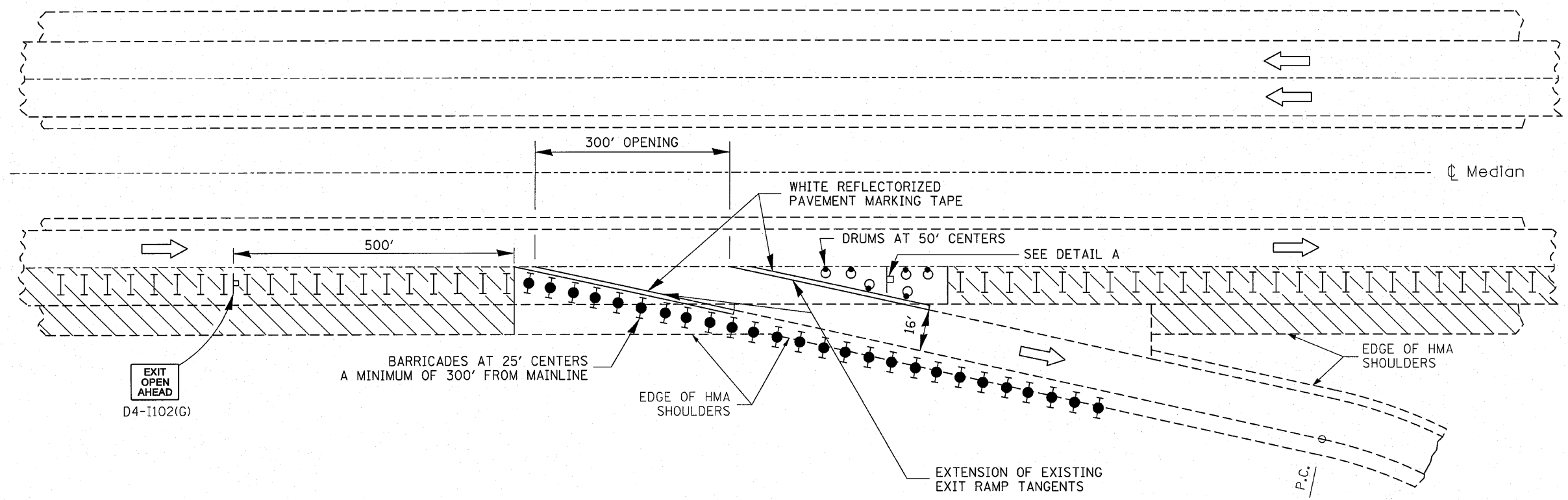
SEE STANDARD 701411 FOR LANE CLOSURES OF 5 DAYS OR LESS.

TEMPORARY PAVEMENT MARKING TAPE INCLUDED IN THE COST OF THIS PAY ITEM.

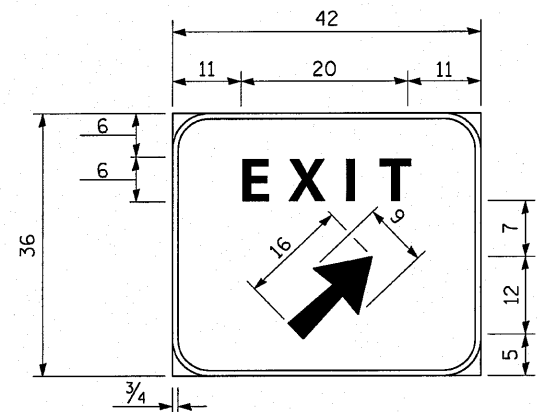
All dimensions are in inches (millimeters) unless otherwise shown.

NOT TO SCALE

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	PLT SCALE = 50.0000' / IN.	DRAWN - MLV	REVISED -				55	(53-1)HBR & HBR-1	LIVINGSTON	102	68
PLT DATE = Aug 11, 2010 - 02:21:03 PM	CHECKED -	DATE - 11/20/08	REVISED -	SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.		CONTRACT NO. 66856		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



EXIT RAMP DETAIL



Background - Green  
 Border and legend - White  
 "D" size letters

EXIT SIGN - SPECIAL

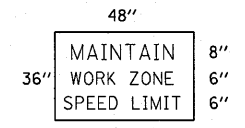
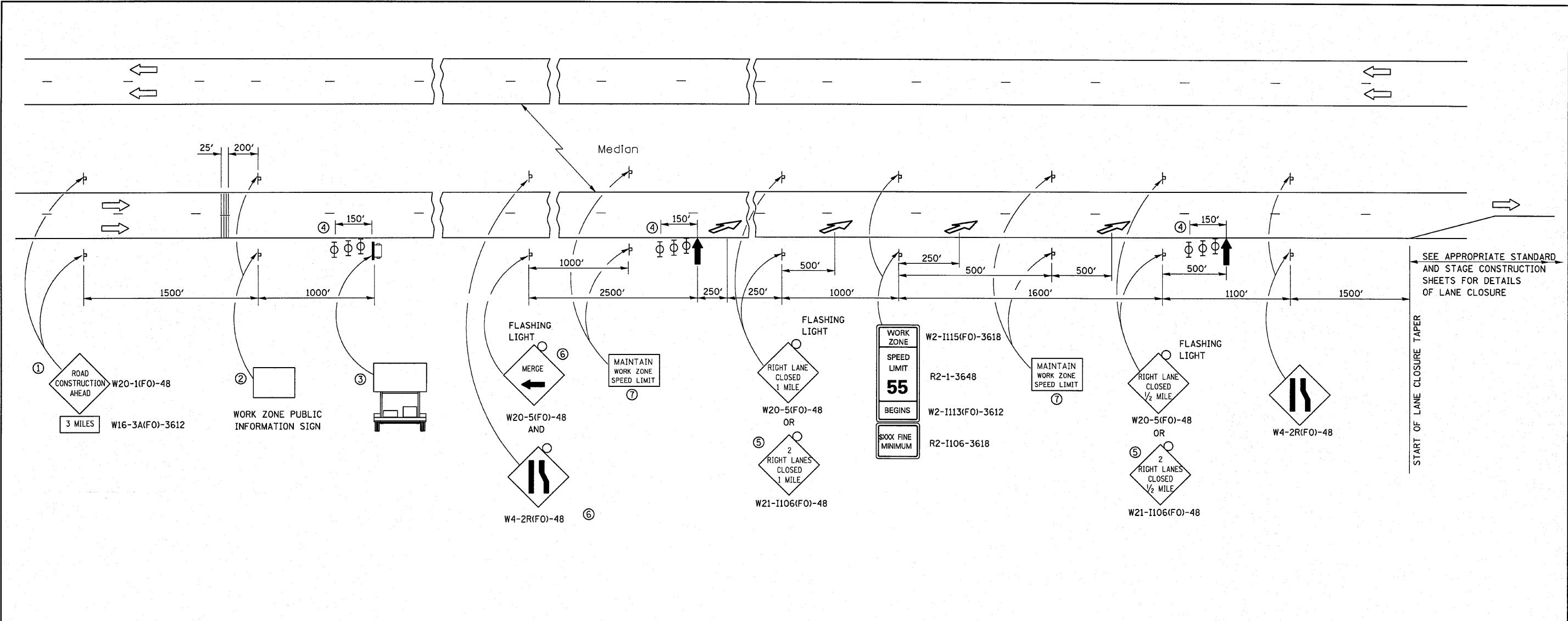
DETAIL A

(To be utilized where distance between the two rows of channelizing devices is 6' in width.)

NOT TO SCALE

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

FILE NAME =	USER NAME = duncanbd	DESIGNED - SD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC CONTROL AND PROTECTION STANDARD 701411 (SPECIAL)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pwork\pwork\duncanbd\dms50146\d36856-shr-details.dgn	DRAWN - MLV	REVISED -	55			(53-1)HBR & HBR-1	LIVINGSTON	102	69	
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- ⑦ 48"x36" FLUORESCENT ORANGE SIGN WITH BLACK LETTERS.
- ↑ ARROW BOARD
- ☐ PORTABLE CHANGEABLE MESSAGE SIGN
- ⌋ SIGN
- ⊕ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT
- ↘ LANE DROP ARROW - SEE STANDARD 780001
- ▨ TEMPORARY THERMOPLASTIC RUMBLE STRIPS

- ① THE ROAD CONSTRUCTION AHEAD SIGN SHALL BE LOCATED 3 MILES IN ADVANCE OF THE PROJECT LIMITS.
- ② THE MESSAGE AND SIZE OF THE WORK ZONE PUBLIC INFORMATION SIGN SHALL BE AS SPECIFIED BY THE DEPARTMENT.
- ③ TO BE PLACED IN THE MEDIAN WHEN FEASIBLE. THE MESSAGE BOARD SHALL BE USED TO DISPLAY STATUS OF LANES WITHIN THE PROJECT. THE PRIMARY MESSAGES SHALL BE:  
"RIGHT LANE CLOSED" / " x MILES AHEAD"  
"LEFT LANE CLOSED" / " x MILES AHEAD"  
"ALL LANES OPEN"
- ④ THREE, TYPE II BARRICADES, DRUMS, OR VERTICAL BARRICADES AT 50' CENTERS.
- ⑤ THIS SIGN SHALL BE USED WHEN 2 LANES ARE CLOSED.
- ⑥ WHEN THE LEFT LANE IS CLOSED, SWITCH THESE TWO SIGNS AND THE DIRECTION OF THE MERGE ARROW.

**GENERAL NOTE:**

THIS STANDARD IS USED WHERE AT ANY TIME A LANE IS CLOSED ON A FREEWAY/EXPRESSWAY.

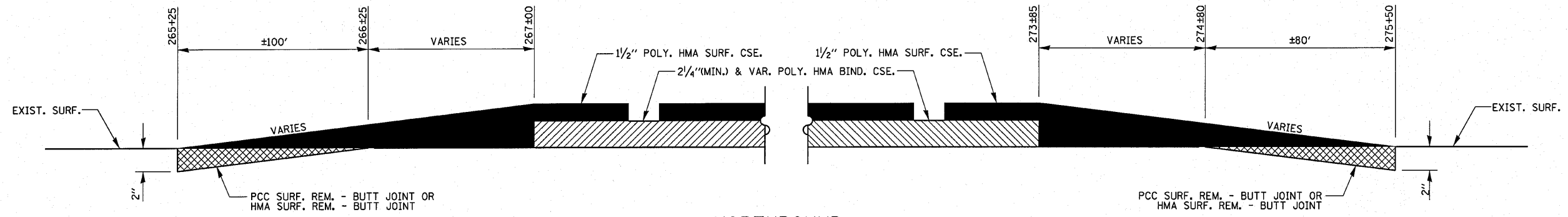
WHEN THE LEFT LANE IS CLOSED, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR THE RIGHT LANE CLOSED SIGNS.

THE FIRST TWO SIGNS AND THE MESSAGE BOARD ARE STATIONARY. THE OTHER SIGNS AND ARROWBOARDS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED DISTANCE FROM THE START OF THE LANE CLOSURE TAPER(S).

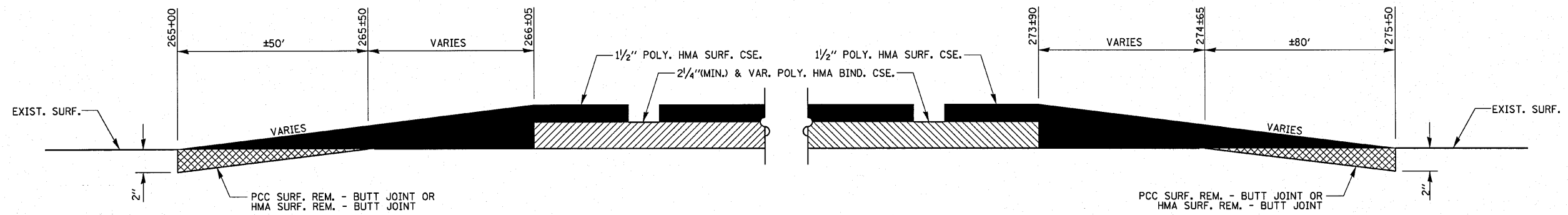
SEE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

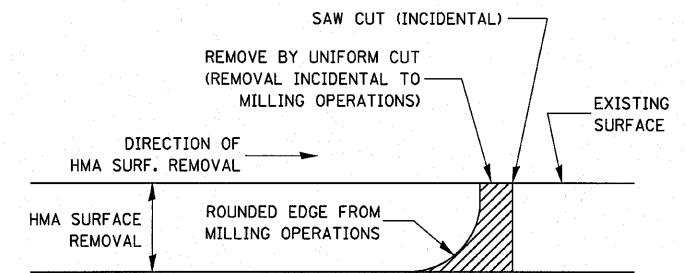
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NORTHBOUND



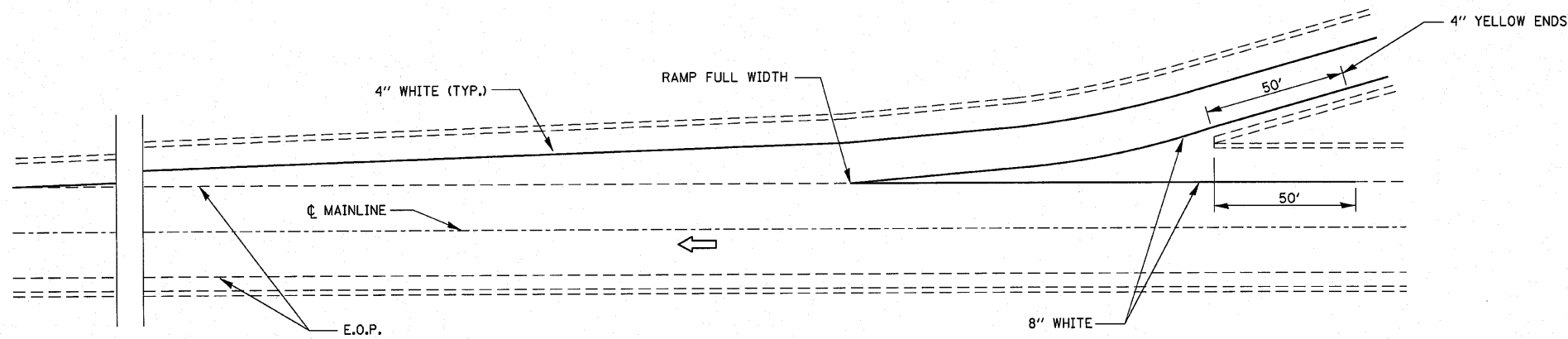
SOUTHBOUND



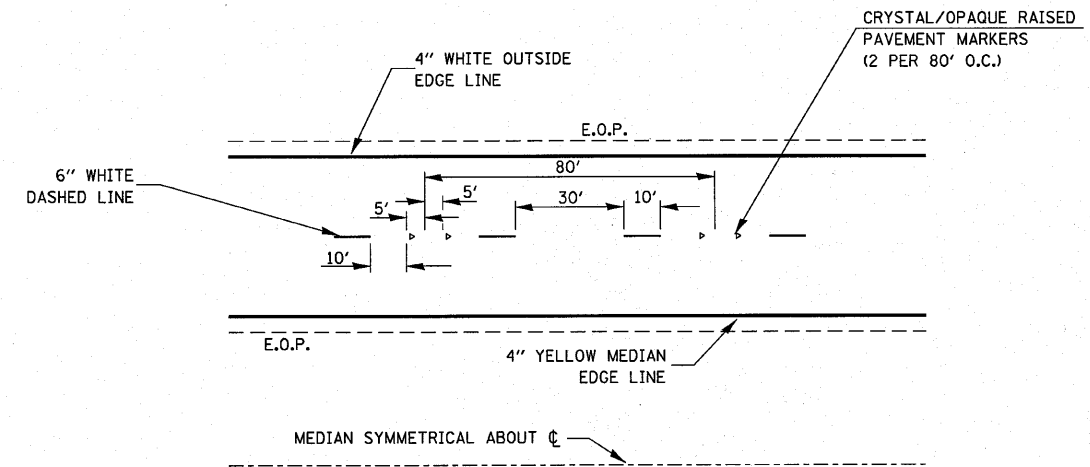
NOTE:  
 WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE,  
 THEN A SAW CUT SHALL BE USED TO MANUFACTURE  
 A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL.  
 THE ENGINEER SHALL BE THE SOLE JUDGE  
 CONCERNING THE USE OF THIS DETAIL

**HMA DETAIL AT BUTT JOINTS**

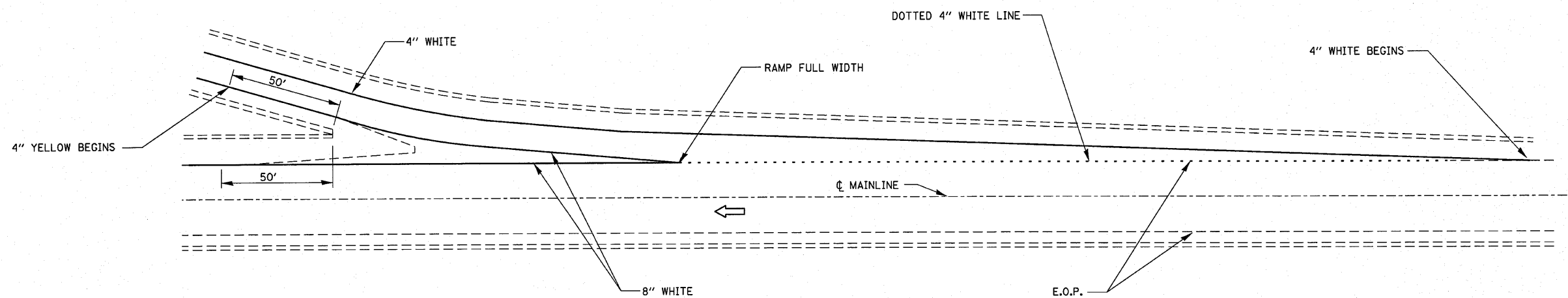
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PLOT SCALE = 50.0000 / IN.		CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 66856				
PLOT DATE = Aug 11, 2010 - 02:20:43 PM		DATE -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							



**TYPICAL PAVEMENT MARKING FOR ENTRANCE RAMP TERMINALS**



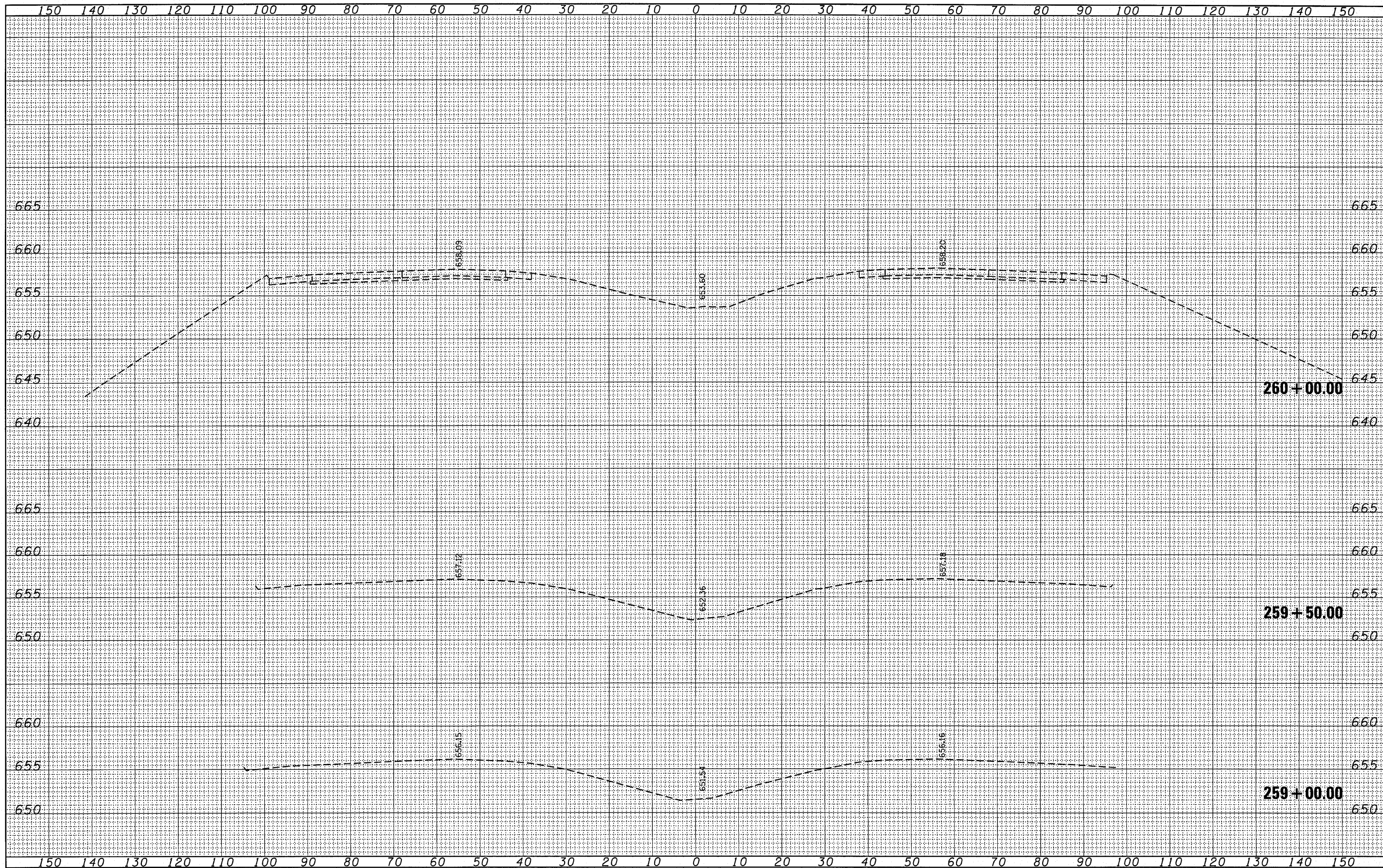
**TYPICAL PAVEMENT MARKINGS**



**TYPICAL PAVEMENT MARKINGS FOR EXIT RAMP TERMINALS**

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DETAILS</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -		SCALE:		SHEET NO. OF SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
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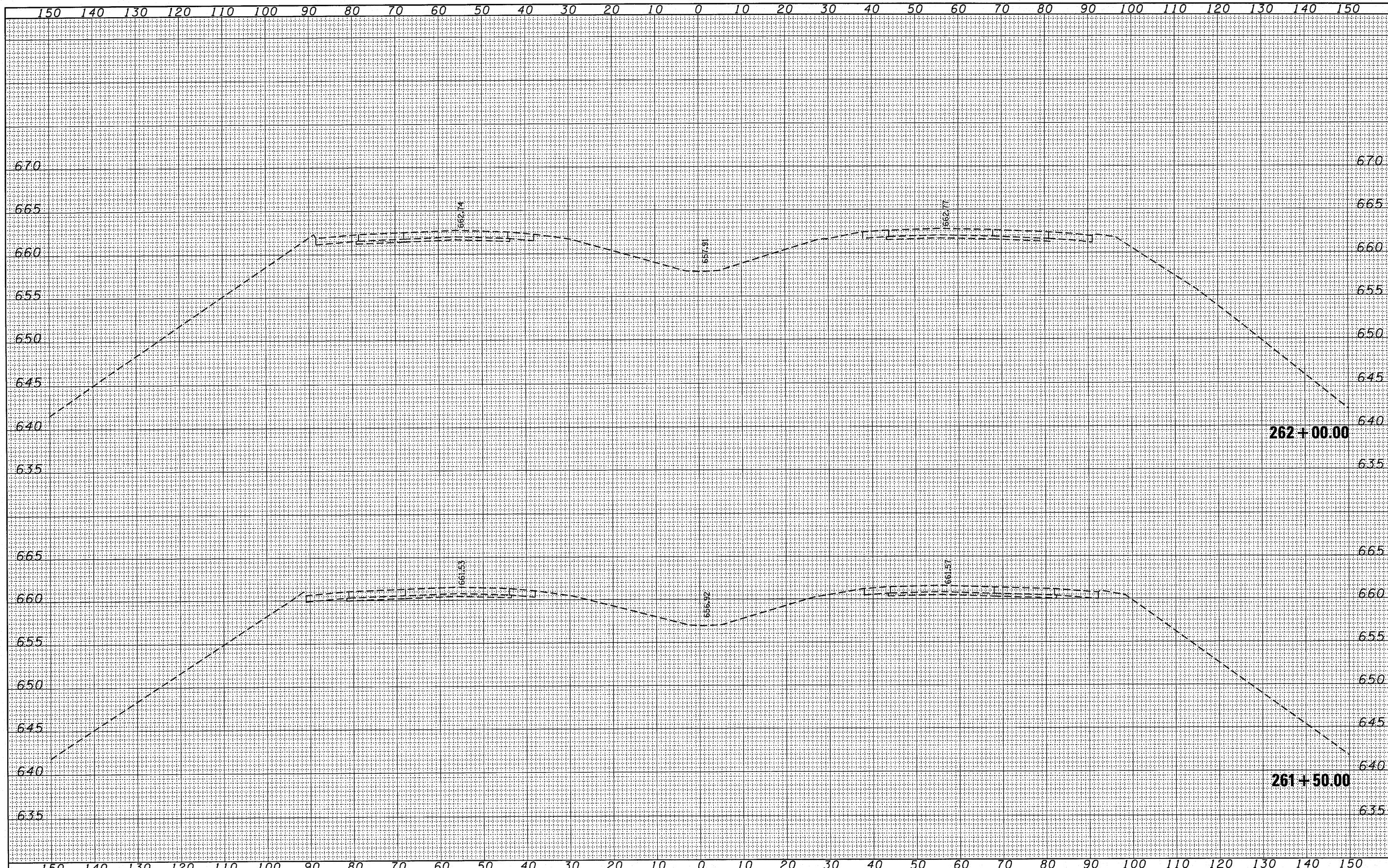


FINAL SURVEY	BY	DATE
REVISIONS		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
REVISIONS		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
CHECKED		
NO.		

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CHECKED -	REVISED -		CONTRACT NO. 66856							
PLOT SCALE = 10.0000' / IN.		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
CB JOB NO 05004-8	PLOT DATE = Aug 11, 2010 - 03:32:47 PM			SCALE:	SHEET NO. 1 OF 30 SHEETS	STA. 259+00.00 TO STA. 260+00.00						



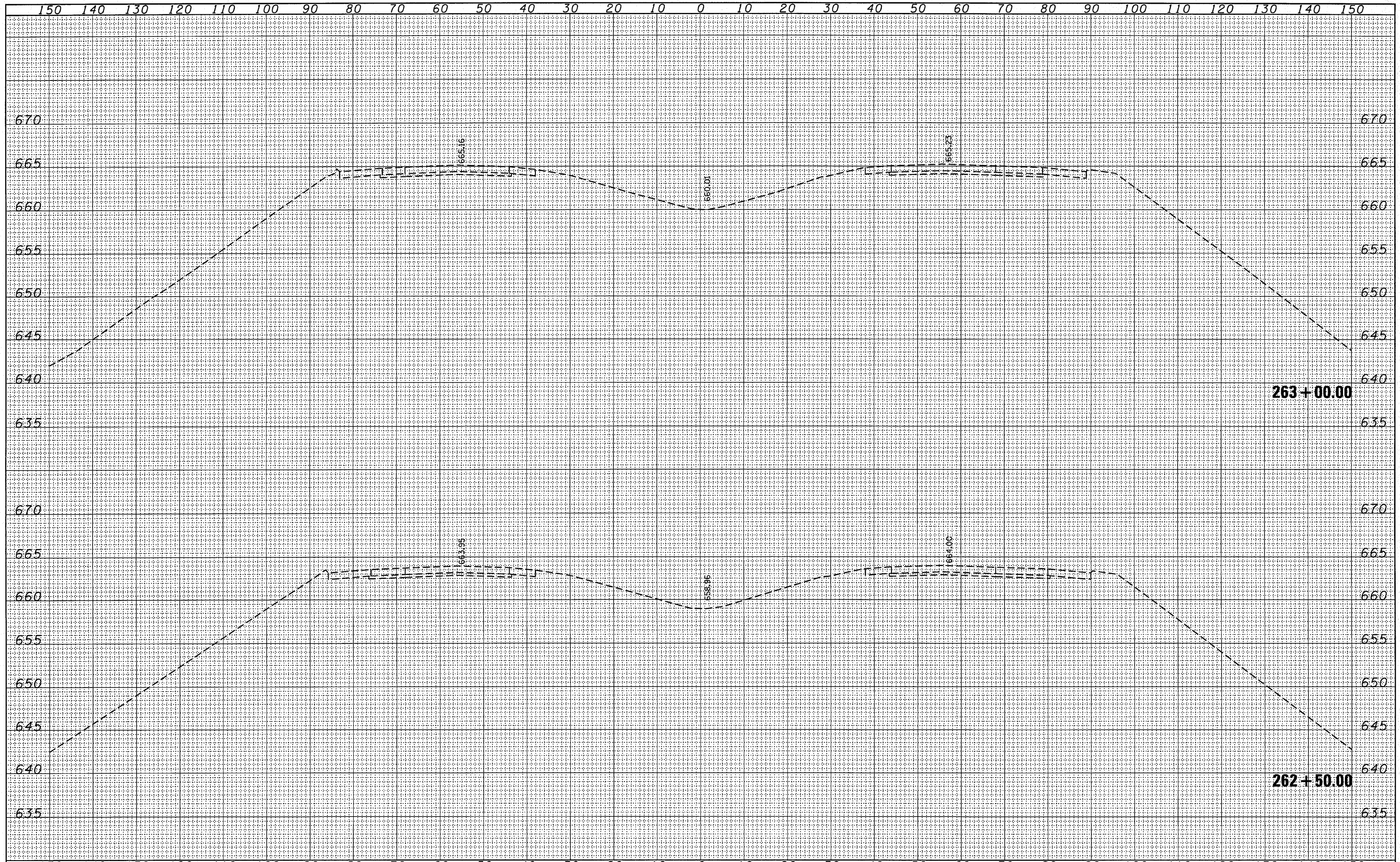


FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CB JOB NO 05004-8



FINAL SURVEY NO.	DATE
DESIGNED	BY
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

ORIGINAL SURVEY NO.	DATE
DESIGNED	BY
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

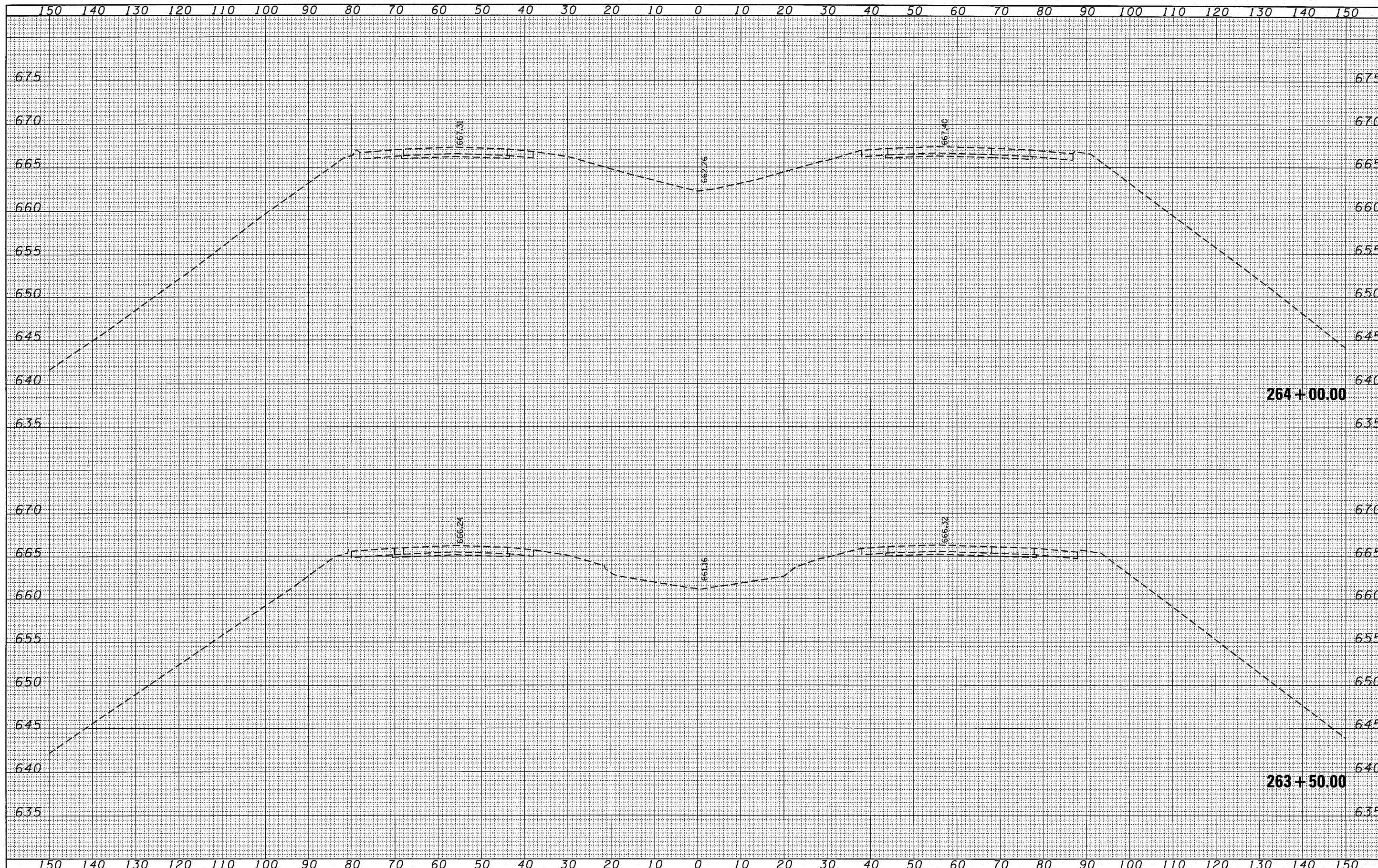
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DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**  
 SCALE: SHEET NO. 4 OF 30 SHEETS STA. 262+50.00 TO STA. 263+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	76
FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT
CONTRACT NO. 66856				



DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
FILE NAME	
ORIGINAL SURVEY	
NOTED BOOK	
NO.	
REVISIONS	
PLANNED	
TEMPLATE	
AREAS	
CHECKED	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
FILE NAME	
ORIGINAL SURVEY	
NOTED BOOK	
NO.	
REVISIONS	
PLANNED	
TEMPLATE	
AREAS	
CHECKED	

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 CB JOB NO 05004-8

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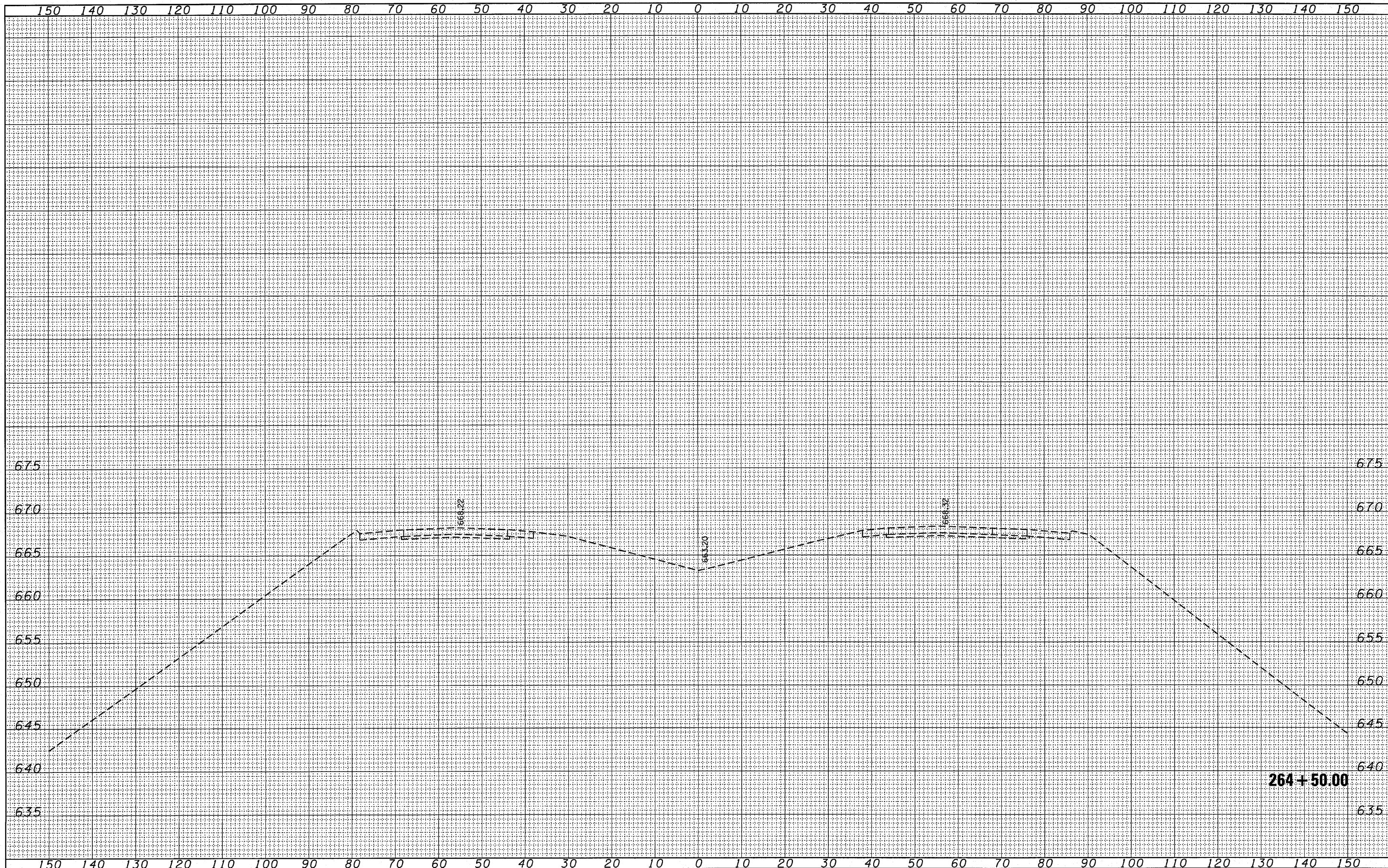
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	-
REVISED	-
REVISED	-
REVISED	-
REVISED	-

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: SHEET NO. 5 OF 30 SHEETS STA. 263+50.00 TO STA. 264+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66856				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



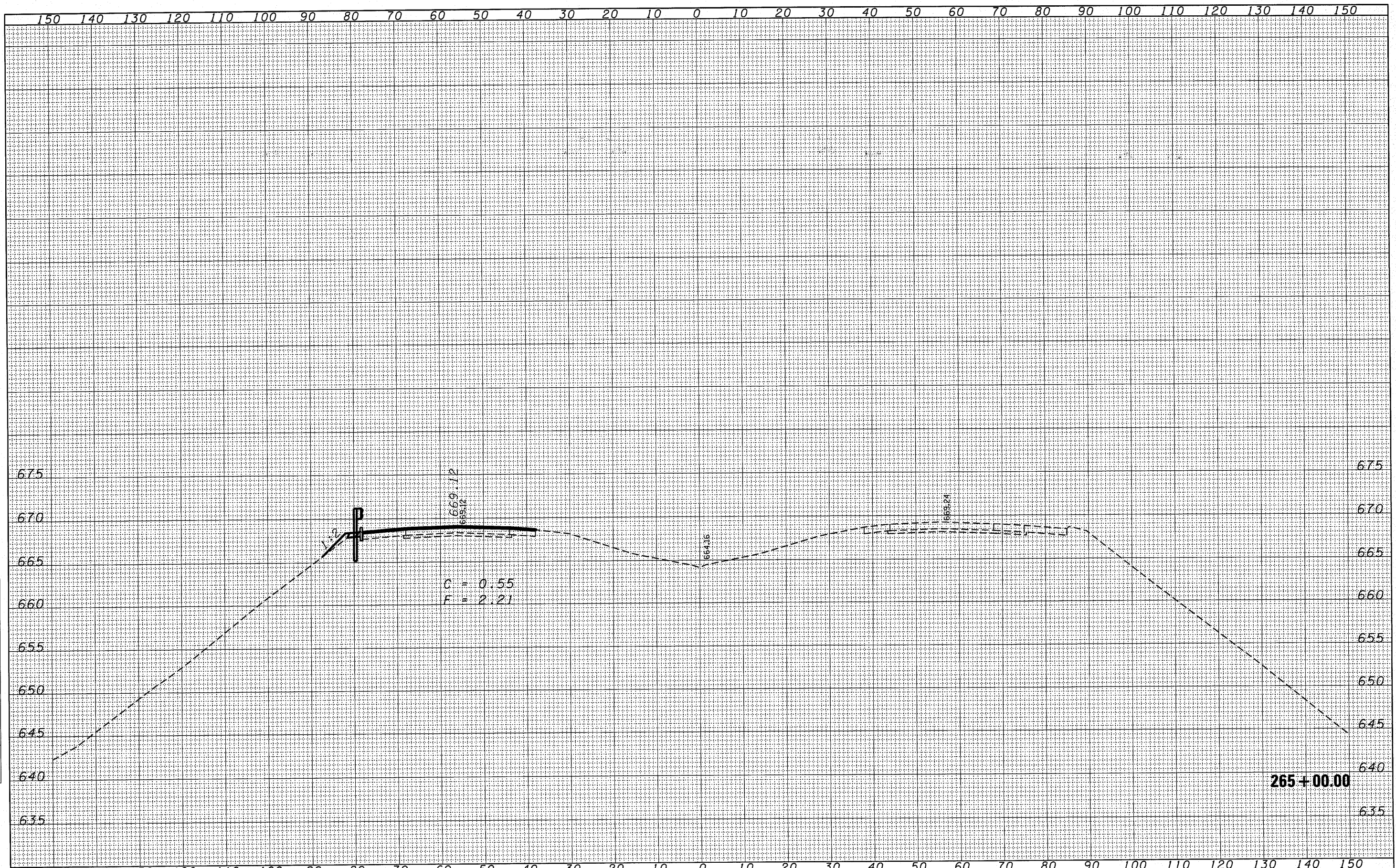
FINAL SURVEY	DATE
SPRINTED	BY
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	
NO.	

ORIGINAL SURVEY	DATE
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FILE NAME =	USER NAME = dunoanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = Aug 11, 2018 - 03:32:05 PM		DATE -	REVISED -		FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				
CB JOB NO 05004-8								CONTRACT NO. 66856				

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

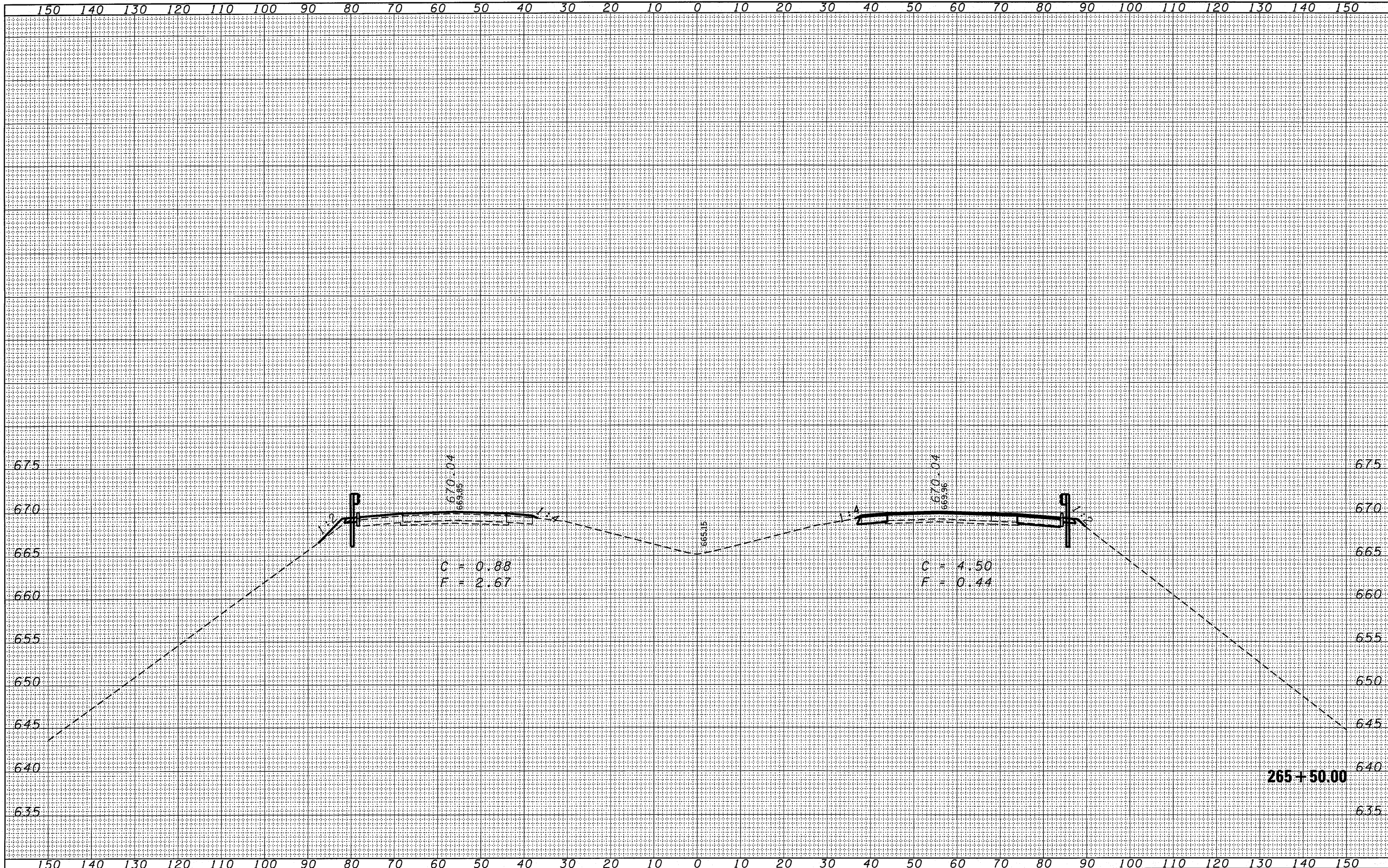
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED



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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE. 55	SECTION (53-1)HBR & HBR-1	COUNTY LIVINGSTON	TOTAL SHEETS 102	SHEET NO. 79
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PLOT SCALE = 10.0000' / IN.		CHECKED -	REVISED -									
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CB JOB NO 05004-8

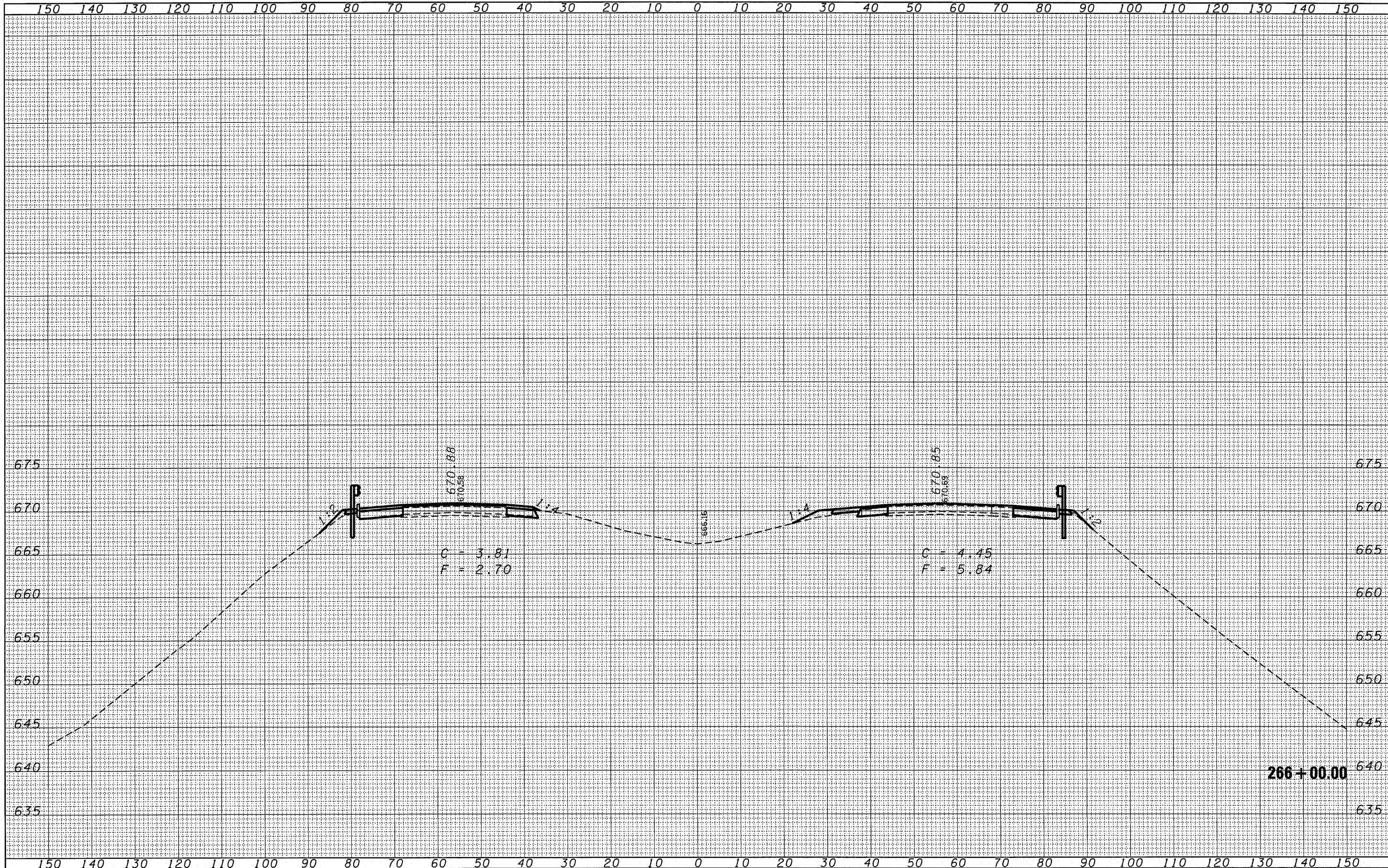


DATE	BY	FINAL SURVEY	SURVEYED
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FILE NAME -	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pw_work\pwidot\duncanbd\dms50148\368856-sh	ssht.dgn	DRAWN -	REVISED -		SCALE:	SHEET NO. 8 OF 30 SHEETS	STA. 265+50.00 TO STA. 265+50.00	55	(53-1)HBR & HBR-1	LIVINGSTON	102	80
PLOT SCALE = 10.0000' / IN.		CHECKED -	REVISED -					CONTRACT NO. 66856				
PLOT DATE = Aug 11, 2010 - 03:31:51 PM		DATE -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





FINAL SURVEY	SURVEYED	BY	DATE
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pw_work\pwwdot\duncanbd\dms50148\va366856-shr-xsh.t.dgn	PLLOT SCALE = 10.0000' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO. 9 OF 30 SHEETS	STA. 266+00.00 TO STA. 266+00.00	55	(53-1)HBR & HBR-1	LIVINGSTON	102	81
CB JOB NO 05004-8	PLLOT DATE = Aug 11, 2018 - 8:31:31 PM	CHECKED -	REVISED -									
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								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

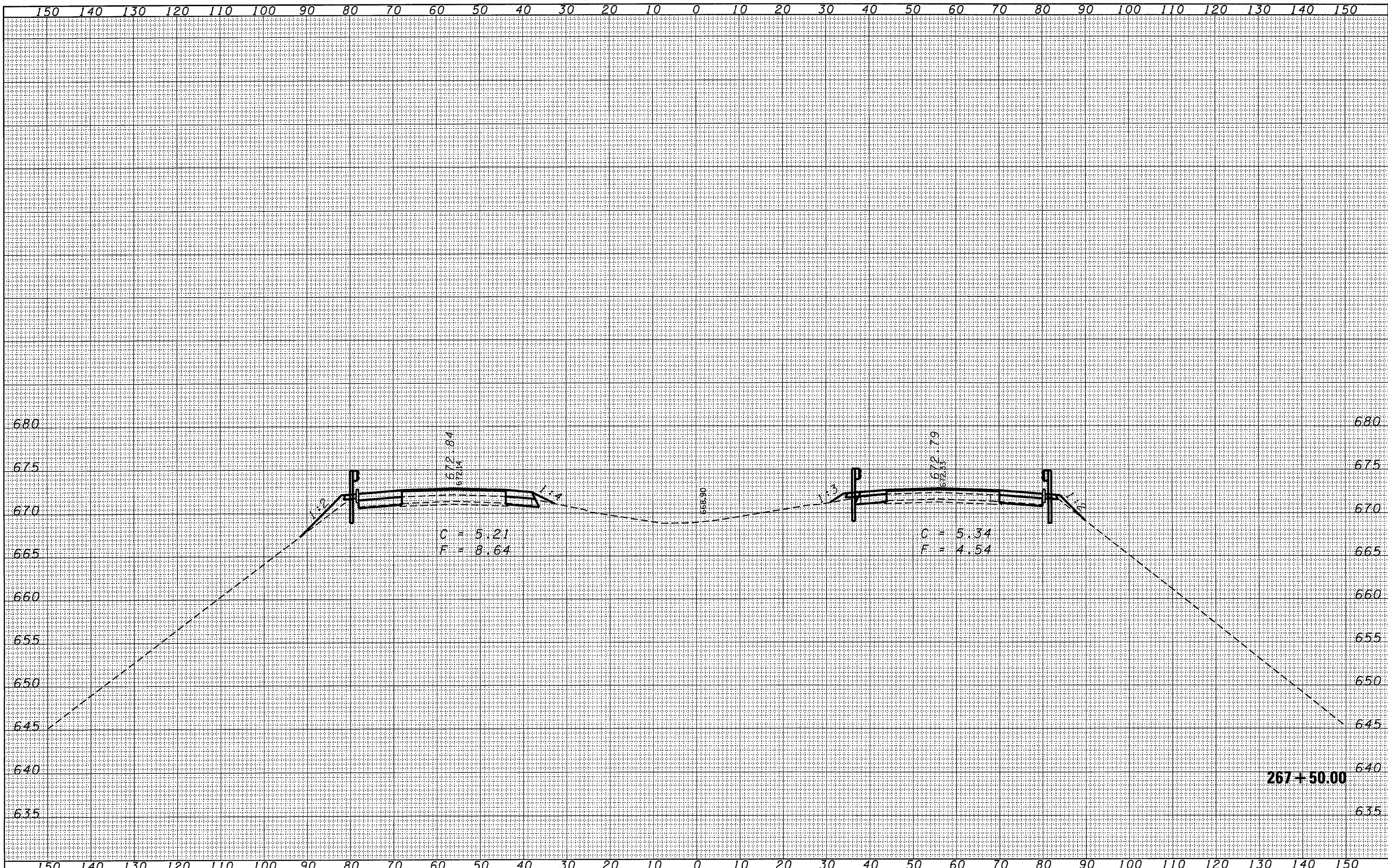




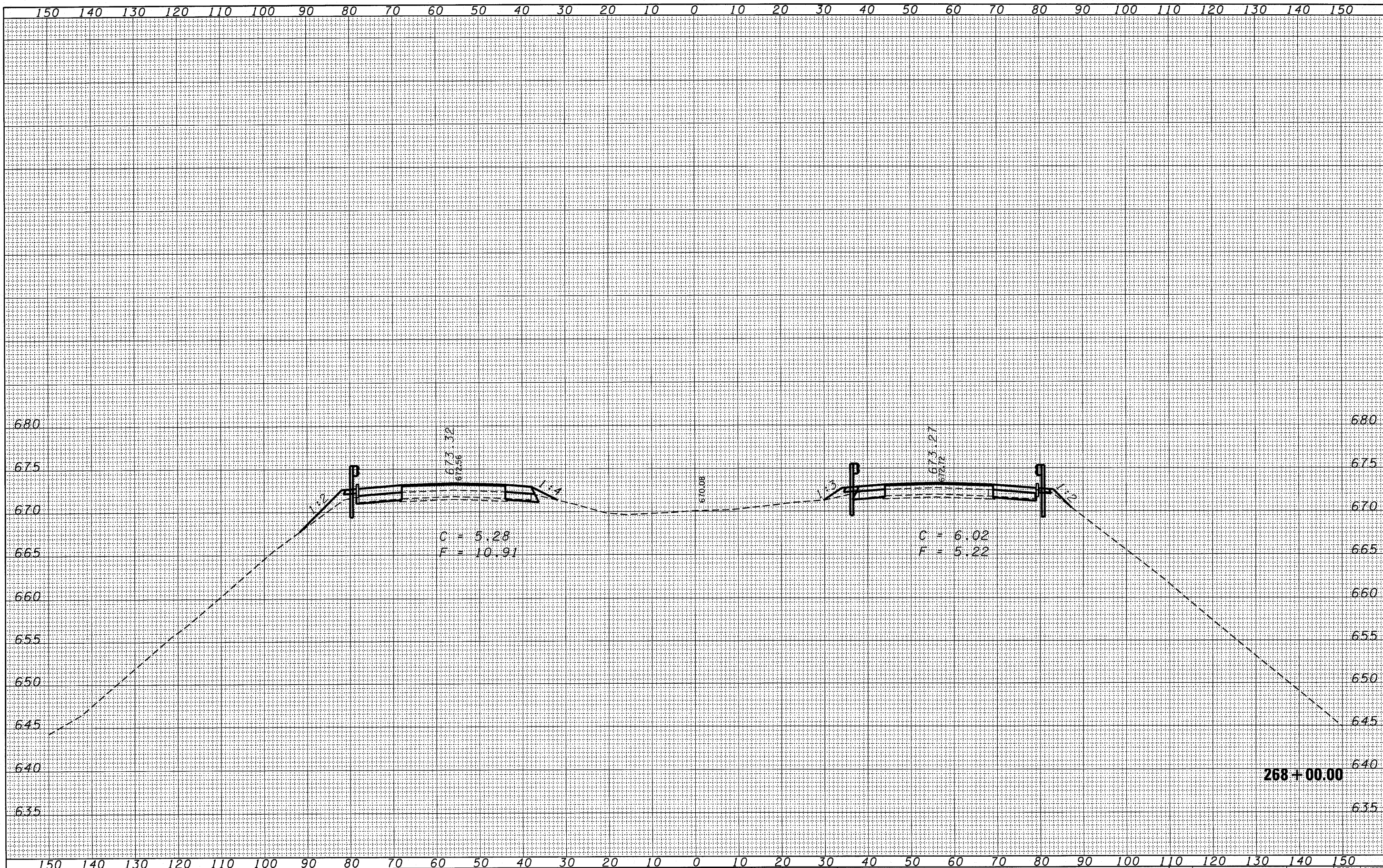
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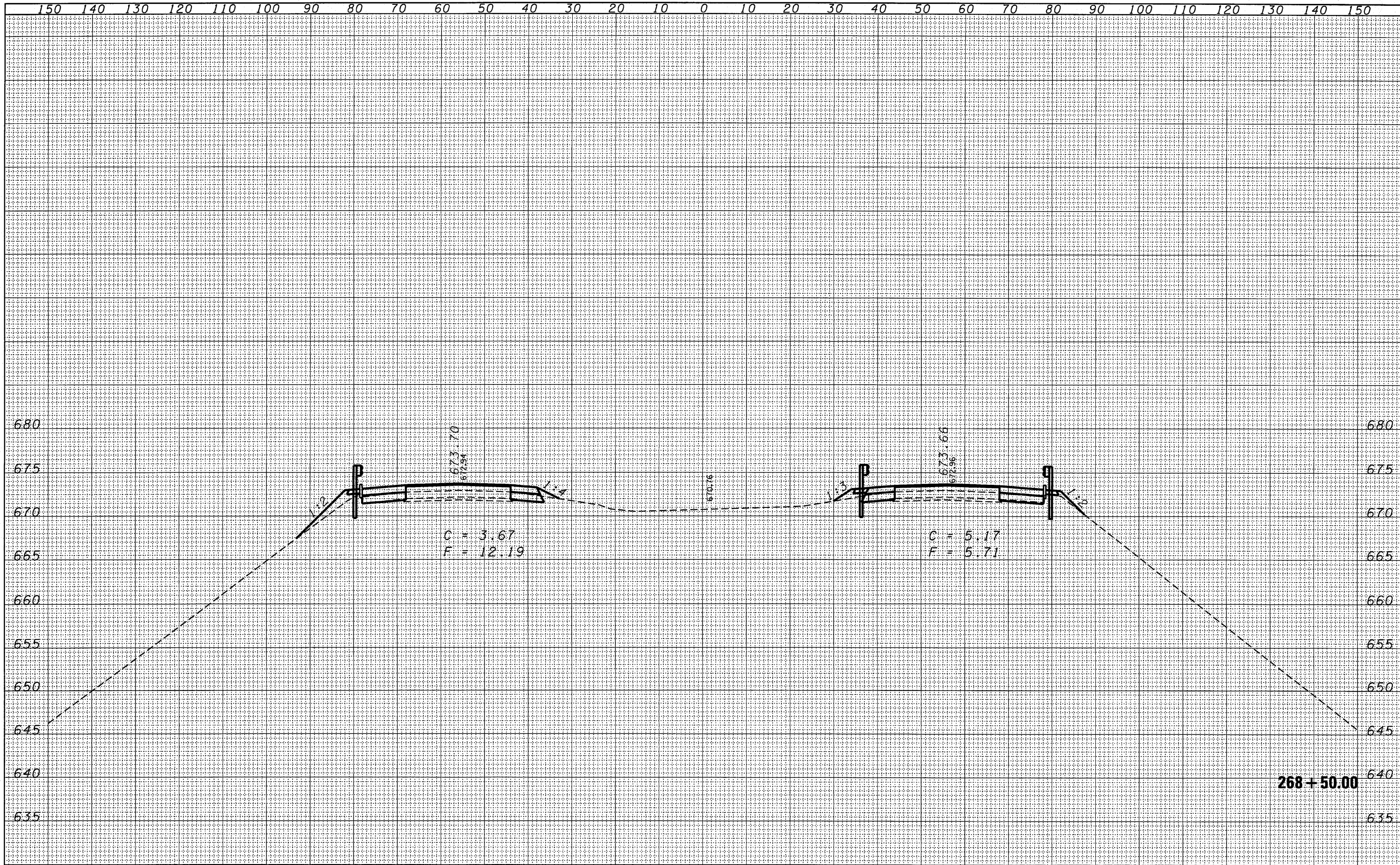
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PLOT SCALE = 18.0000' / IN.		CHECKED -	REVISED -					CONTRACT NO. 66856				
PLOT DATE = Aug 11, 2010 - 03:31:09 PM		DATE -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
CB JOB NO 05004-0								SCALE:	SHEET NO. 12 OF 30 SHEETS	STA. 267+50.00 TO STA. 267+50.00		



FINAL SURVEY	SURVEYED	DATE
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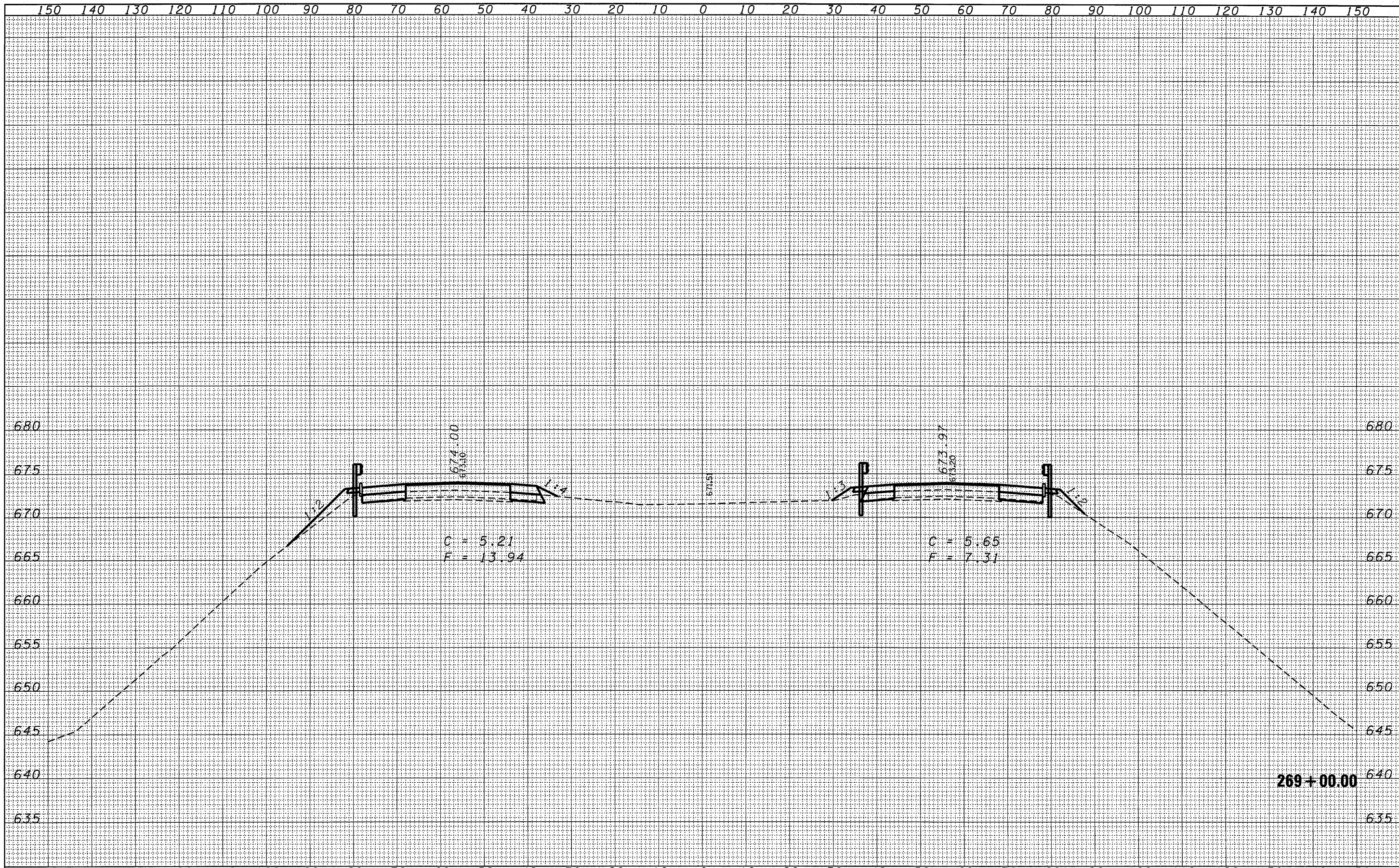
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ea\pwwork\pwwork\duncenbd\dms50148\d366856-sh	PLT SCALE = 10.0000' / IN.	DRAWN -	REVISED -		SCALE:	55	(53-1)HBR & HBR-1	LIVINGSTON	102	85			
CB JOB NO 05004-8	PLT DATE = Aug 11, 2018 - 03:27:51 PM	CHECKED -	REVISED -		SHEET NO. 13 OF 30 SHEETS	STA. 268+00.00 TO STA. 268+00.00	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				
		DATE -	REVISED -				CONTRACT NO. 66856						



FINAL SURVEY	SURVEYED	BY	DATE
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CB JOB NO 05824-8	PLLOT DATE = Aug 11, 2018 - 03:27:45 PM	CHECKED -	REVISED -					CONTRACT NO. 66856				
		DATE -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



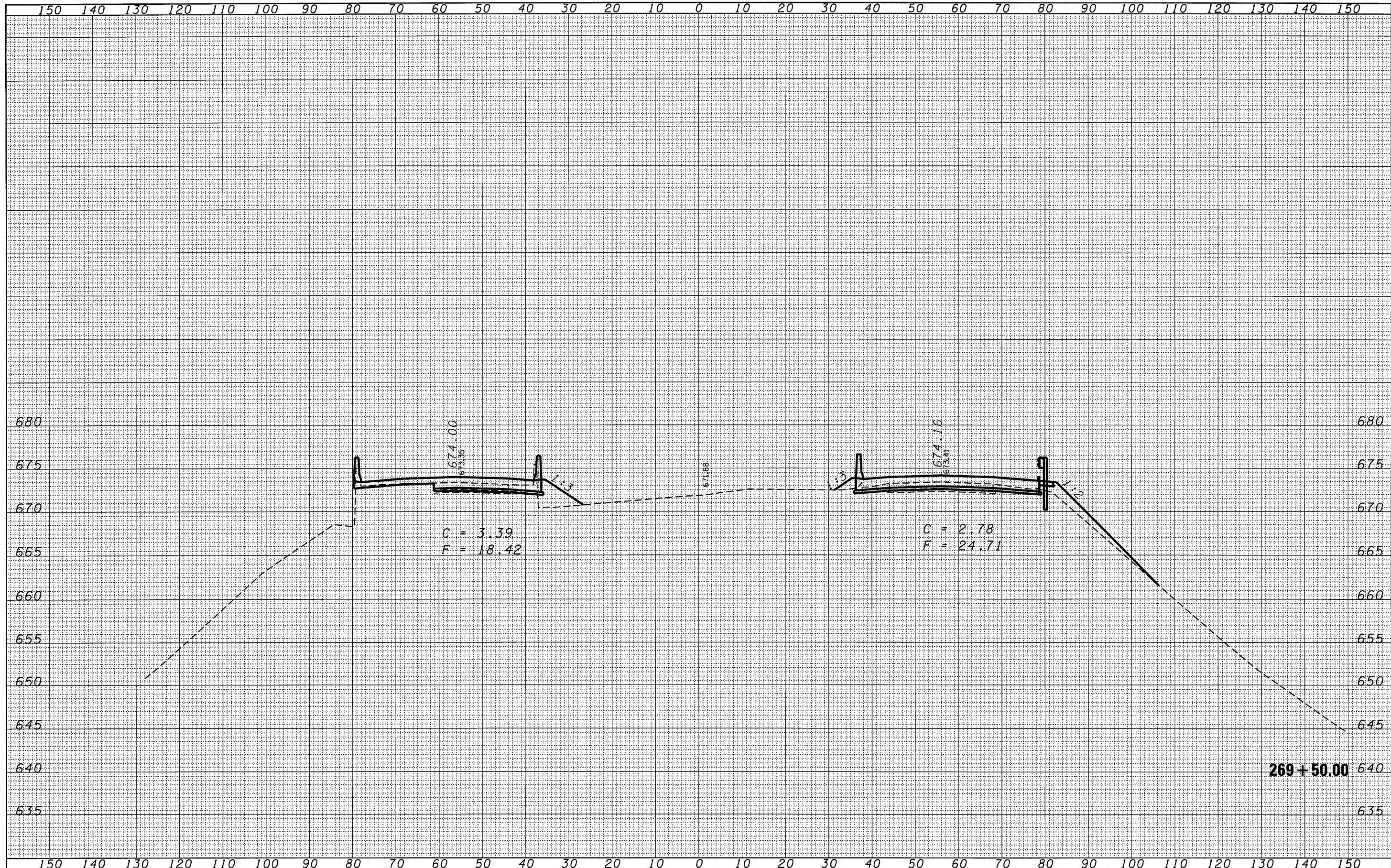
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = Aug 11, 2010 - 03:27:38 PM	DATE -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT									
CB JOB NO 05004-8			SCALE:					SHEET NO. 15 OF 30 SHEETS	STA. 269+00.00 TO STA. 269+00.00			

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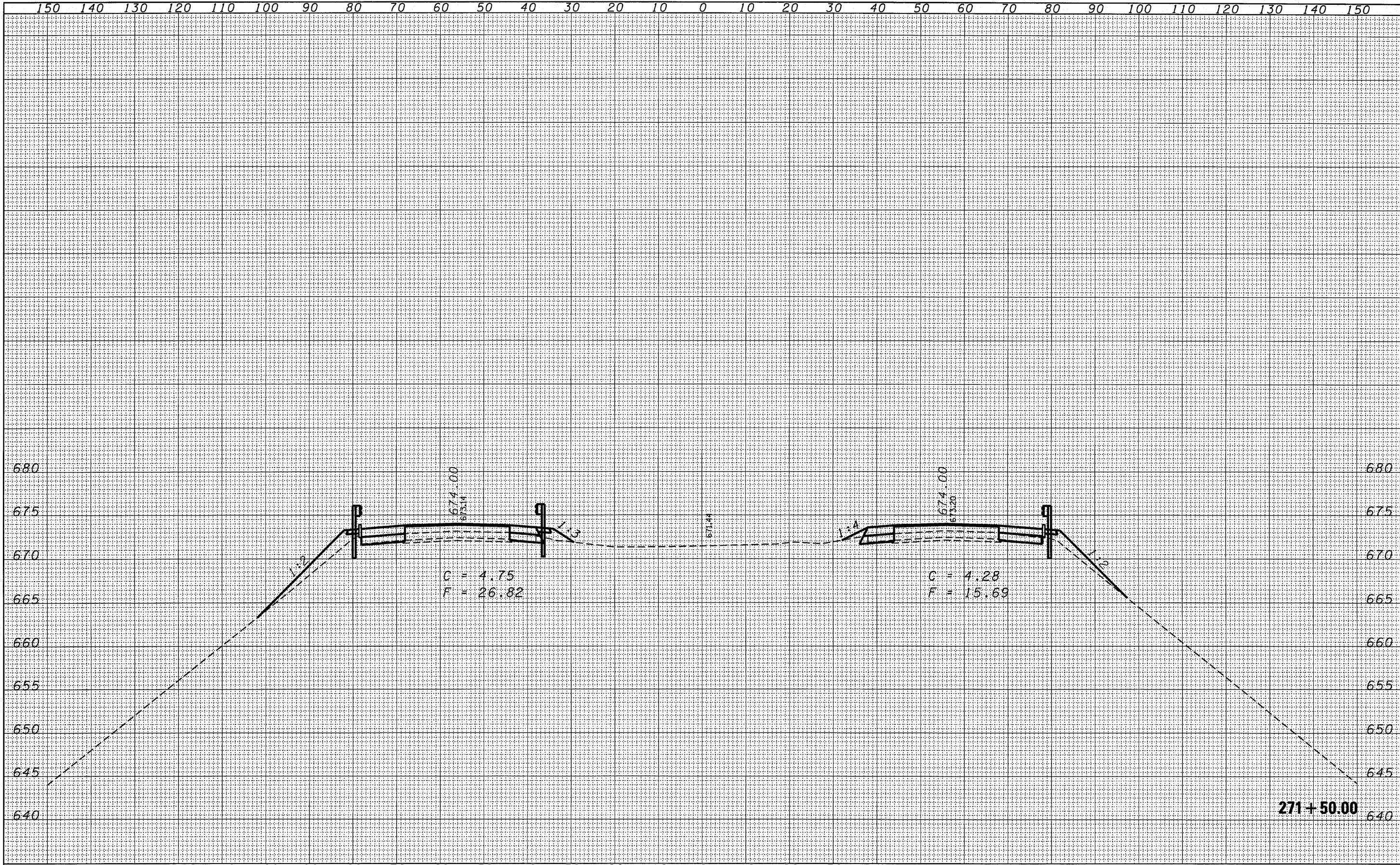
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CB JOB NO 05884-8	PLOT SCALE = 10.0000' / IN.	CHECKED -	REVISED -					CONTRACT NO. 66856				
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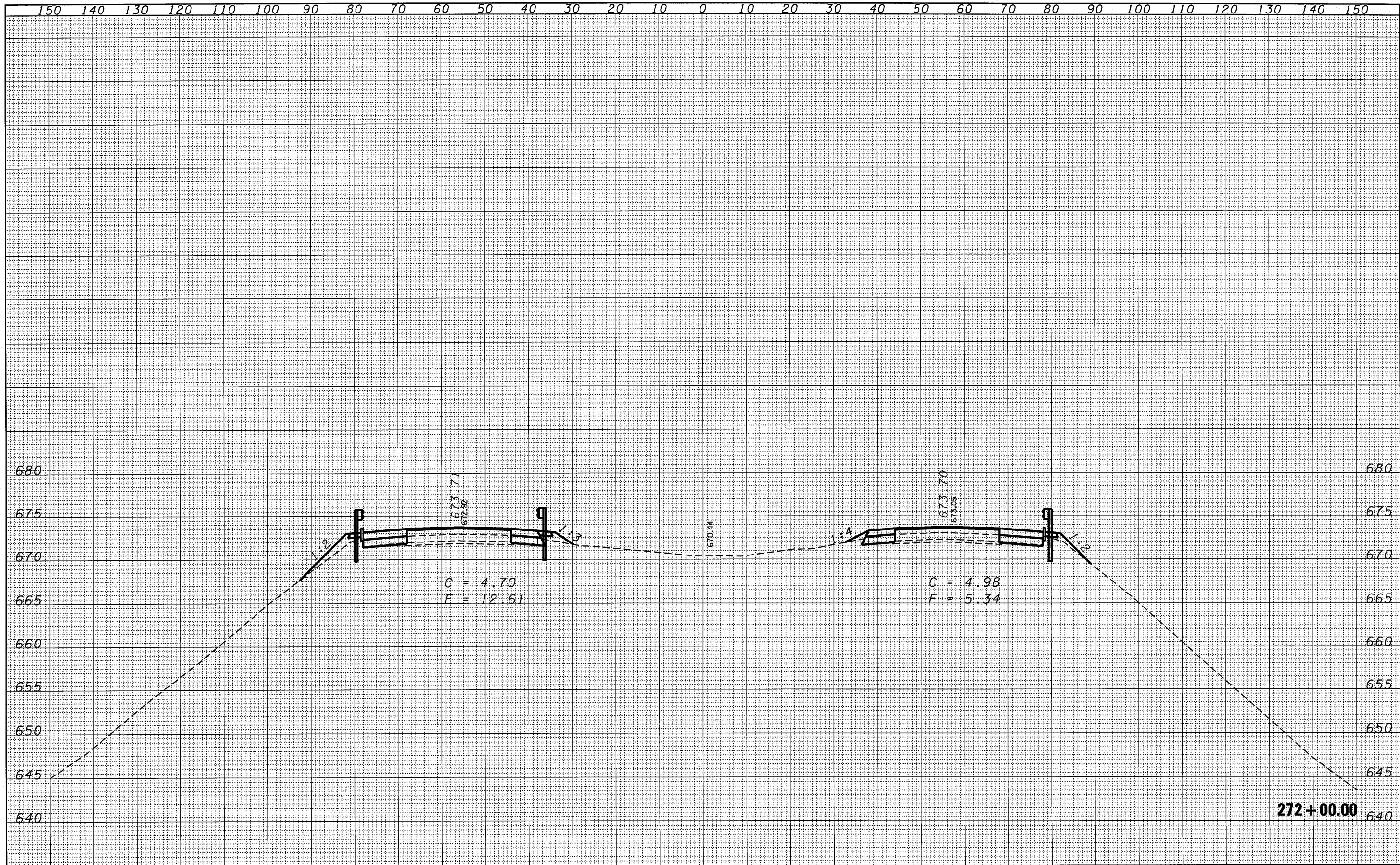




FINAL SURVEY	SURVEYED	DATE
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CB JOB NO 05984-8				SCALE:		SHEET NO. 18 OF 30 SHEETS		STA. 271+50.00 TO STA. 271+50.00		



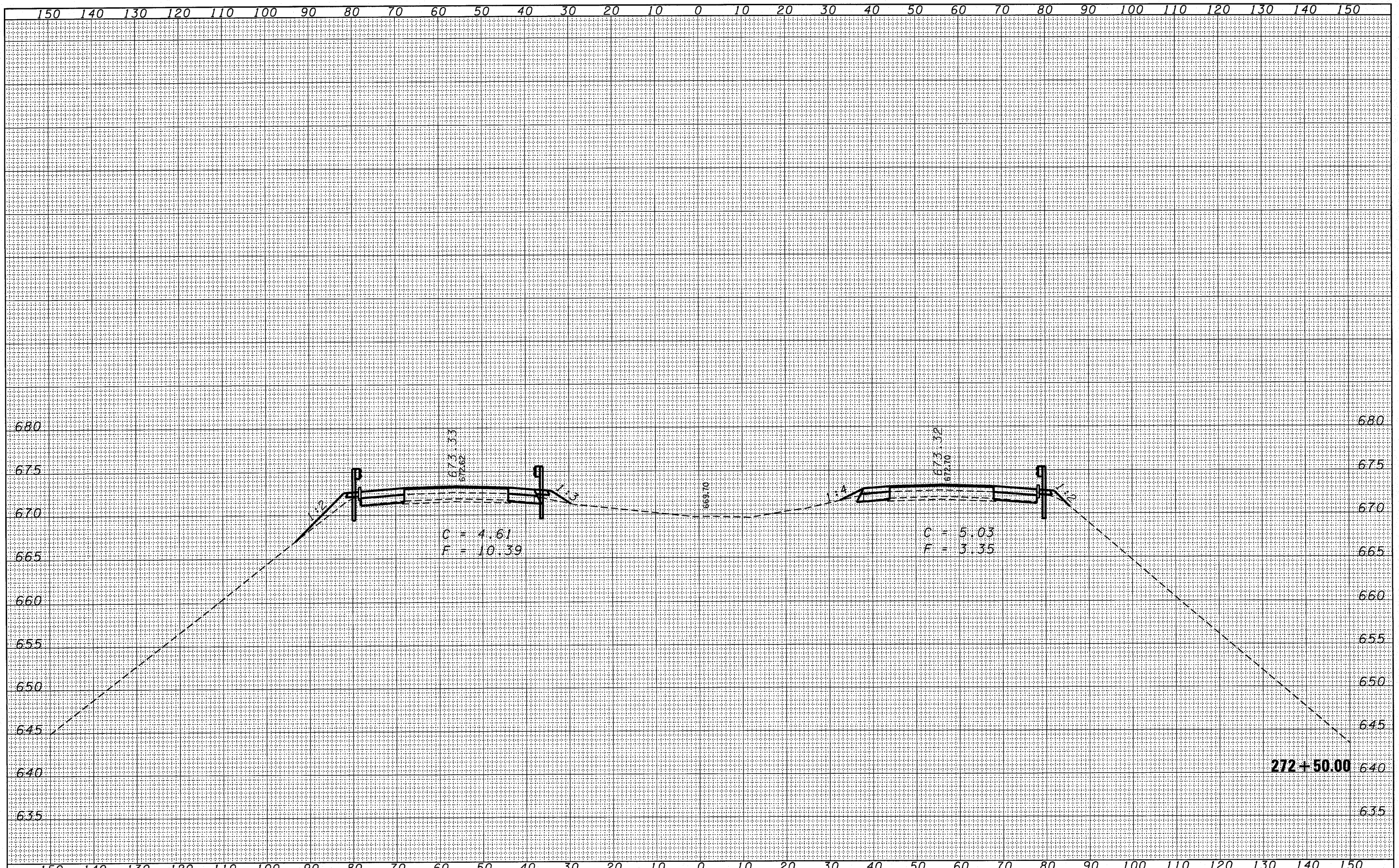
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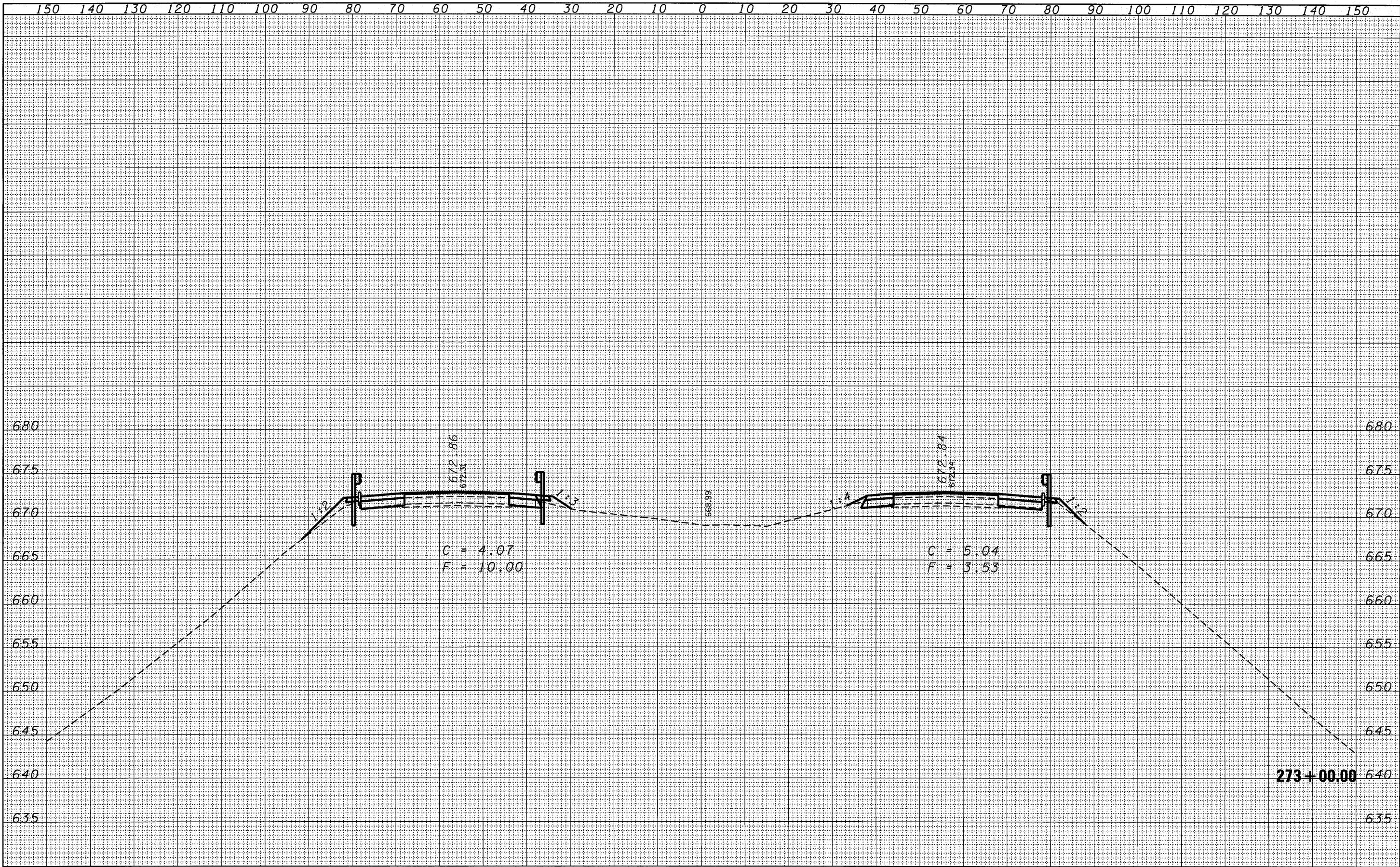
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CB JOB NO 05804-B	PLLOT DATE = Aug 11, 2010 - 03:27:07 PM	CHECKED -	REVISED -					CONTRACT NO. 66856				
		DATE -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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CB JOB NO 05004-8	PLT DATE = Aug 11, 2010 - 03:27:00 PM	CHECKED -	REVISED -								CONTRACT NO. 66856	
		DATE -	REVISED -								FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

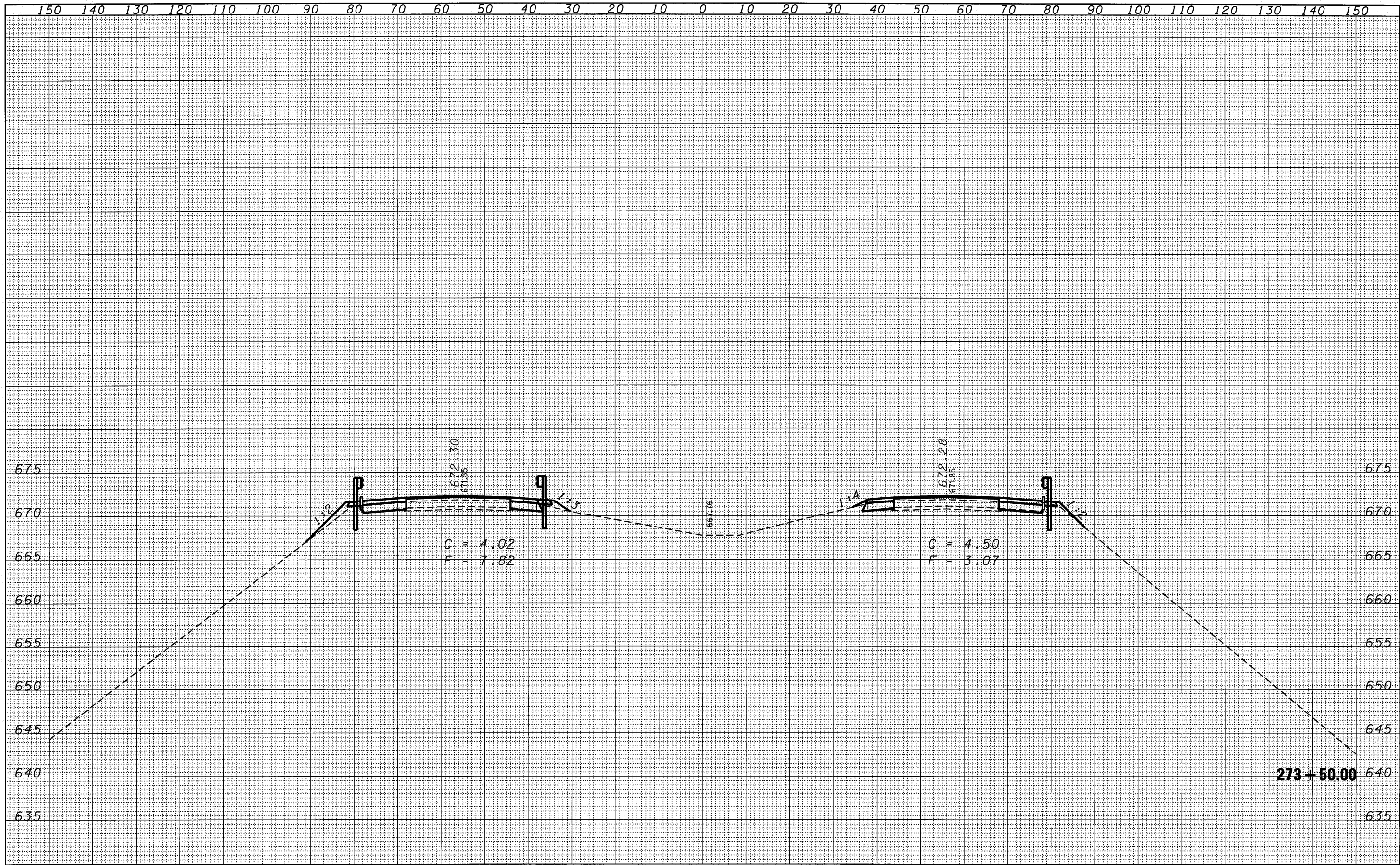


FINAL SURVEY	SURVEYED	BY	DATE
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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CB JOB NO 05084-8



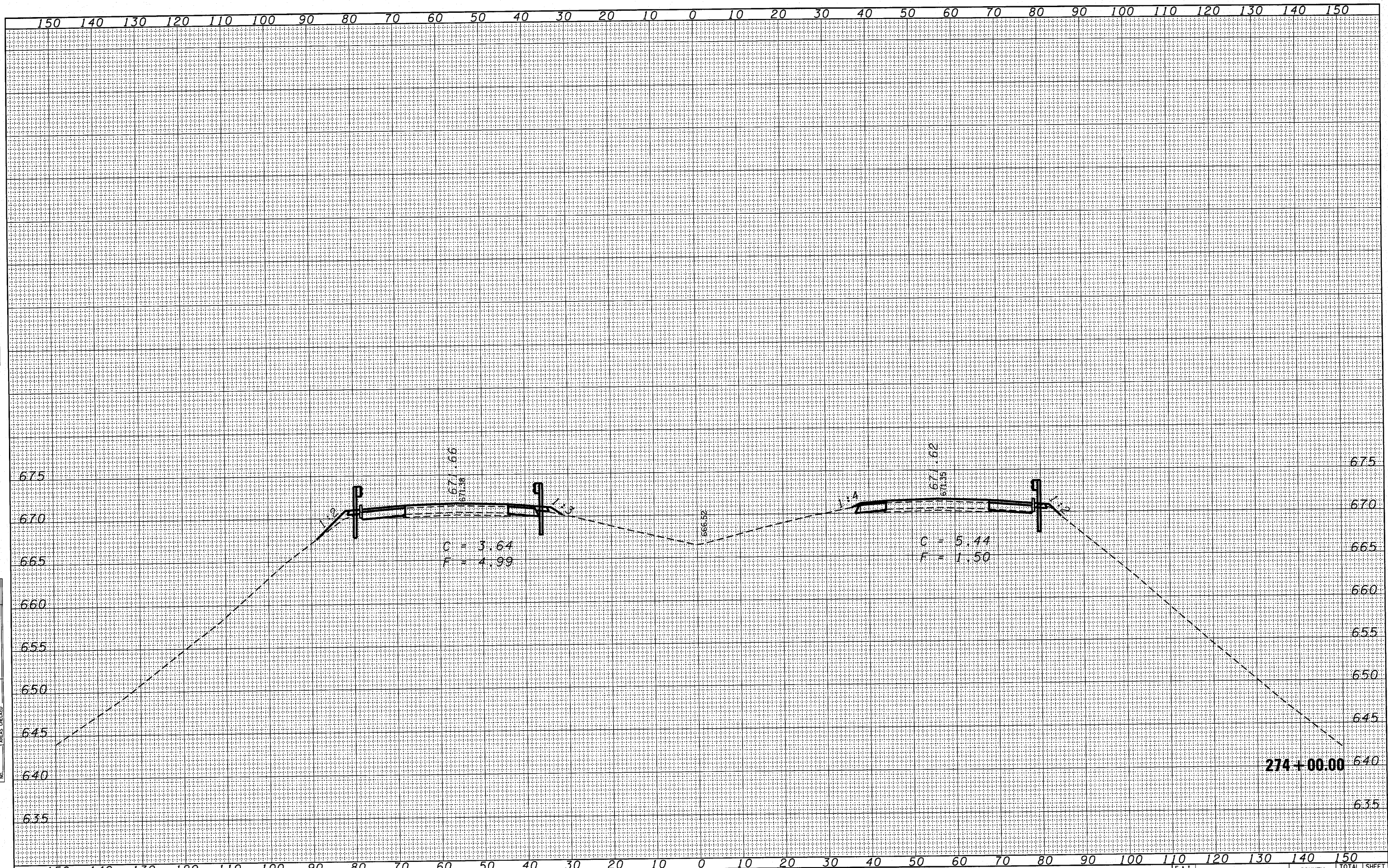
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\pwisdot\duncanbd\dms58148\d366886-shr-xasht.dgn	DRAWN -	REVISED -	55			(53-1HBR & HBR-1)	LIVINGSTON	102	94	
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CB JOB NO 05884-8				SCALE: SHEET NO. 22 OF 30 SHEETS STA. 273+50.00 TO STA. 273+50.00						

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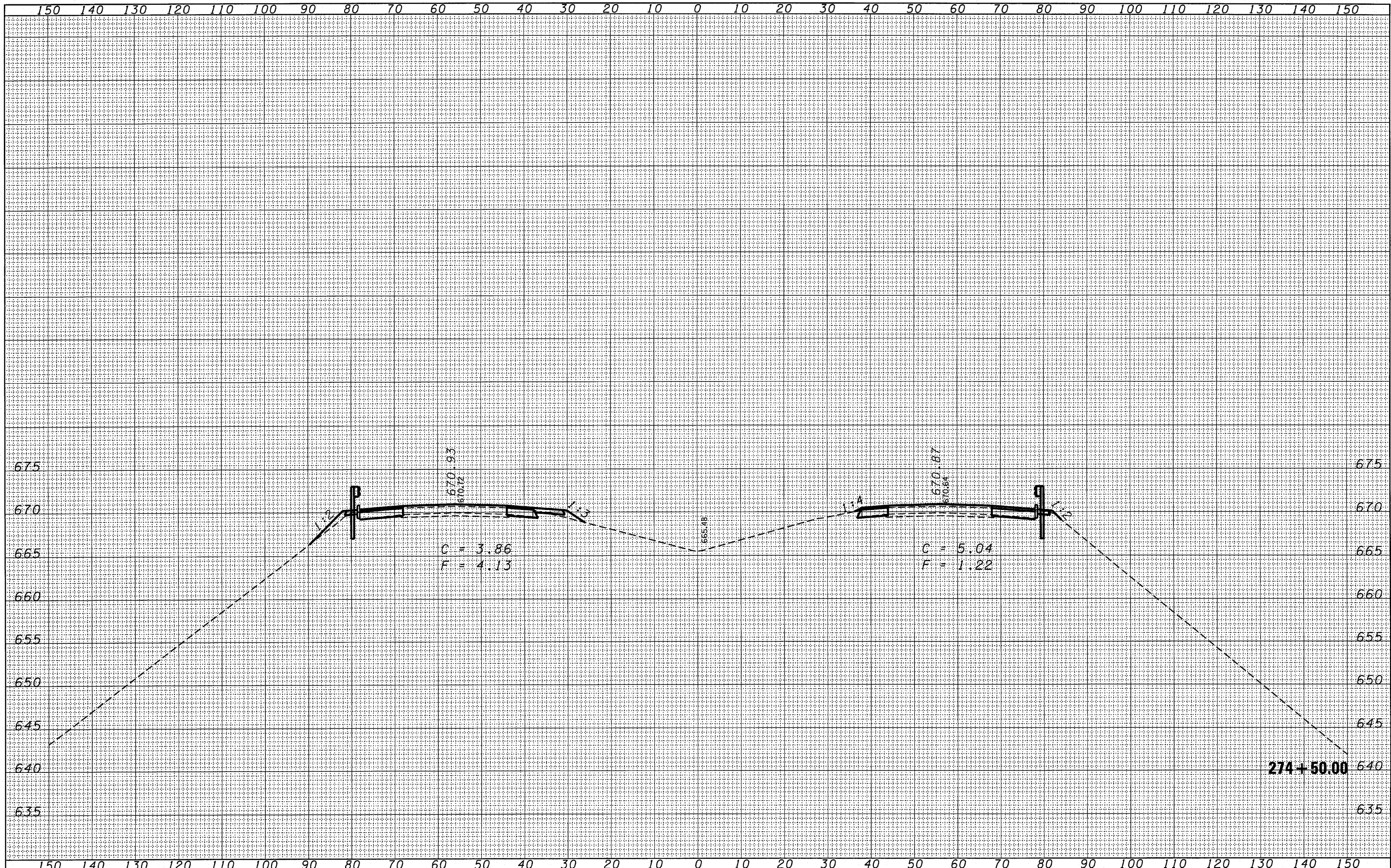


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CB JOB NO 05004-8

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

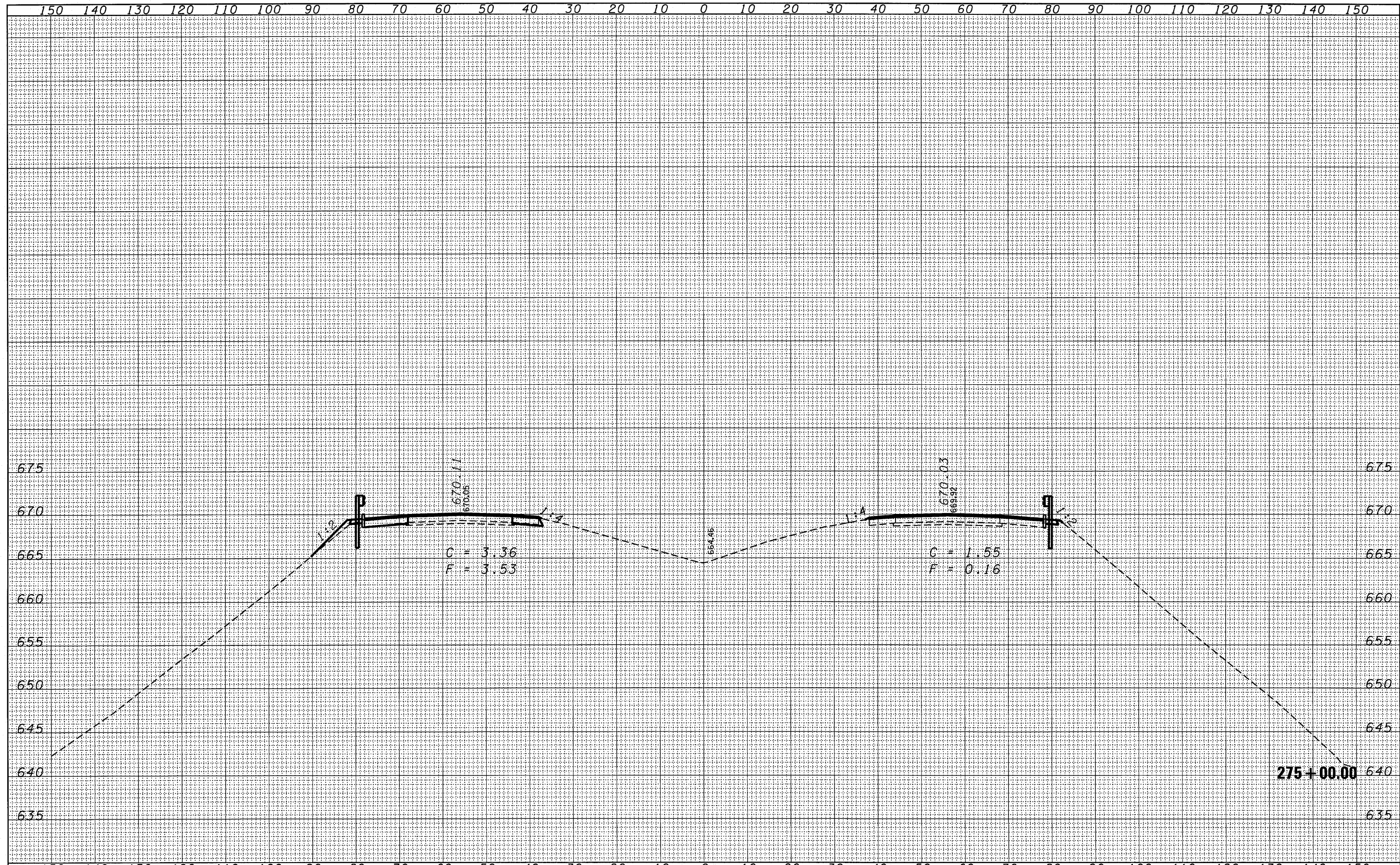
SCALE: SHEET NO. 24 OF 30 SHEETS STA. 274+50.00 TO STA. 274+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66856				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

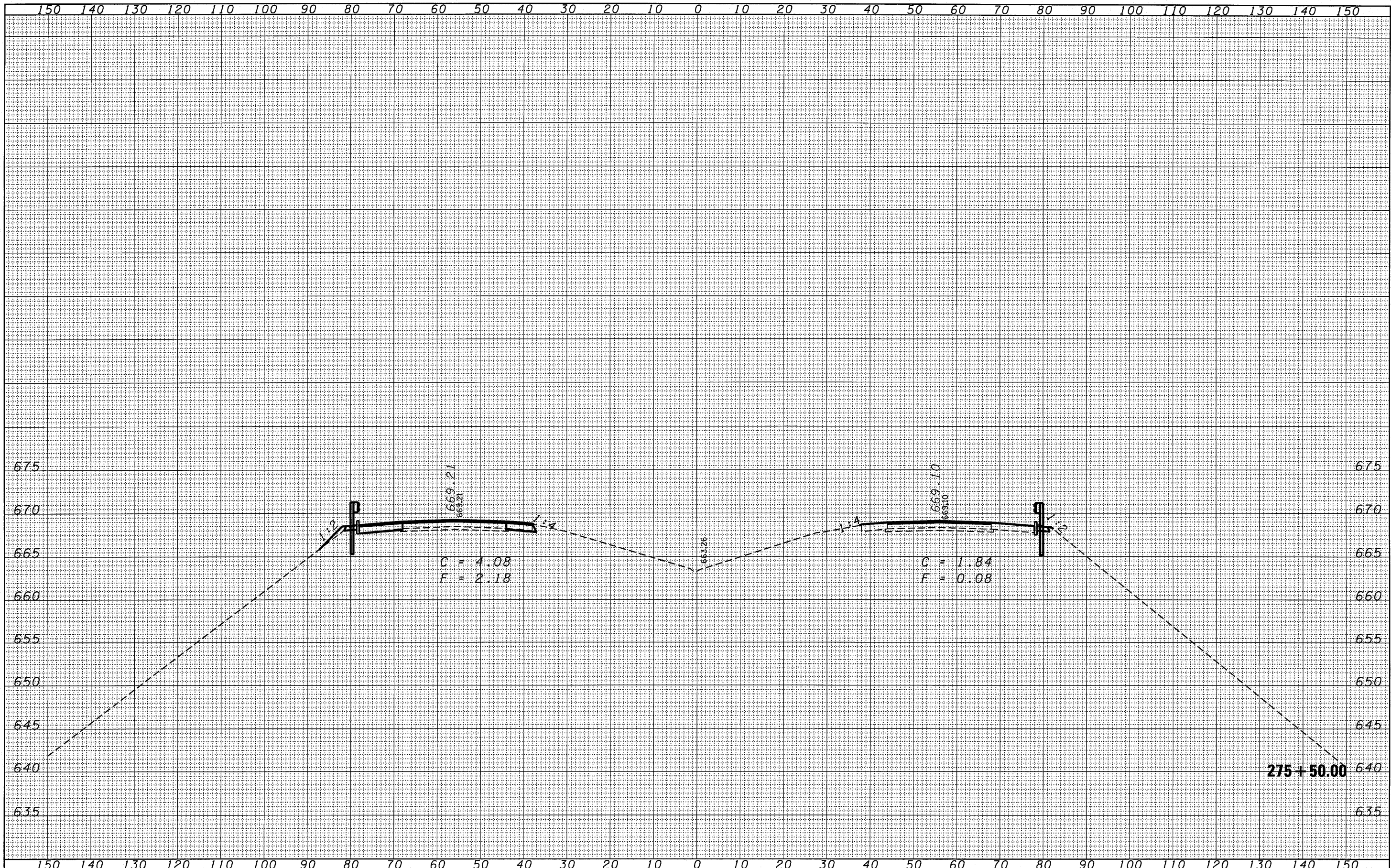


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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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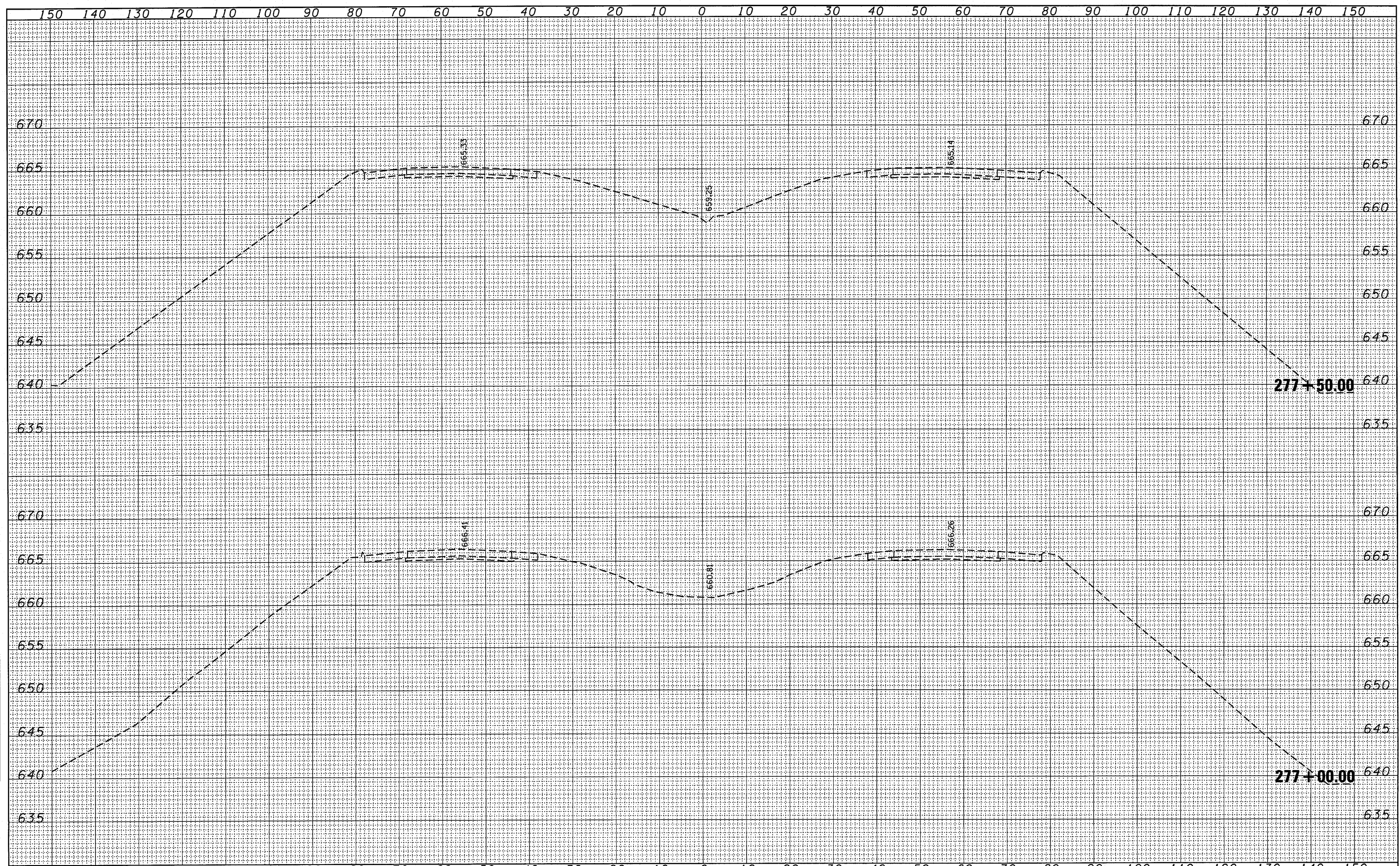
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FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE -	REVISED -					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



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 TEMPLATE \_\_\_\_\_  
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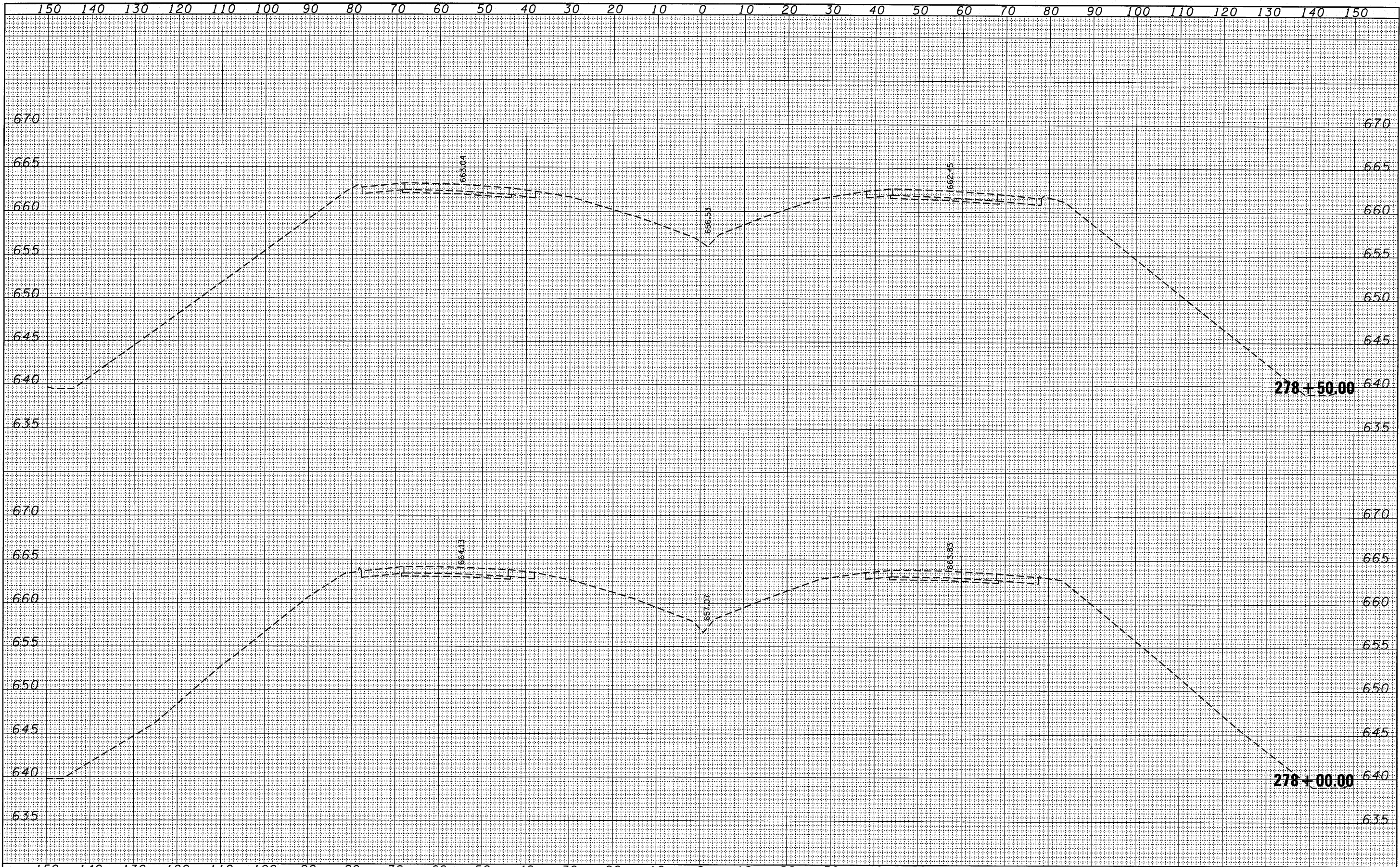
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ct:\p\work\p\work\p\duncanbd\dms50148\d366856-sh\csht.dgn		DRAWN -	REVISED -		55	(53-1)HBR & HBR-1	LIVINGSTON	102	100			
		CHECKED -	REVISED -		SCALE:		SHEET NO. 28 OF 30 SHEETS		STA. 277+00.00 TO STA. 277+50.00		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
		DATE -	REVISED -		CONTRACT NO. 66856							

CB JOB NO 05004-8

PLOT SCALE = 10.0000' / IN.  
 PLOT DATE = Aug 11, 2010 - 03:25:45 PM

FINAL SURVEY	DATE
SURVEYED	BY
REVISIONS	
NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
REVISIONS	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

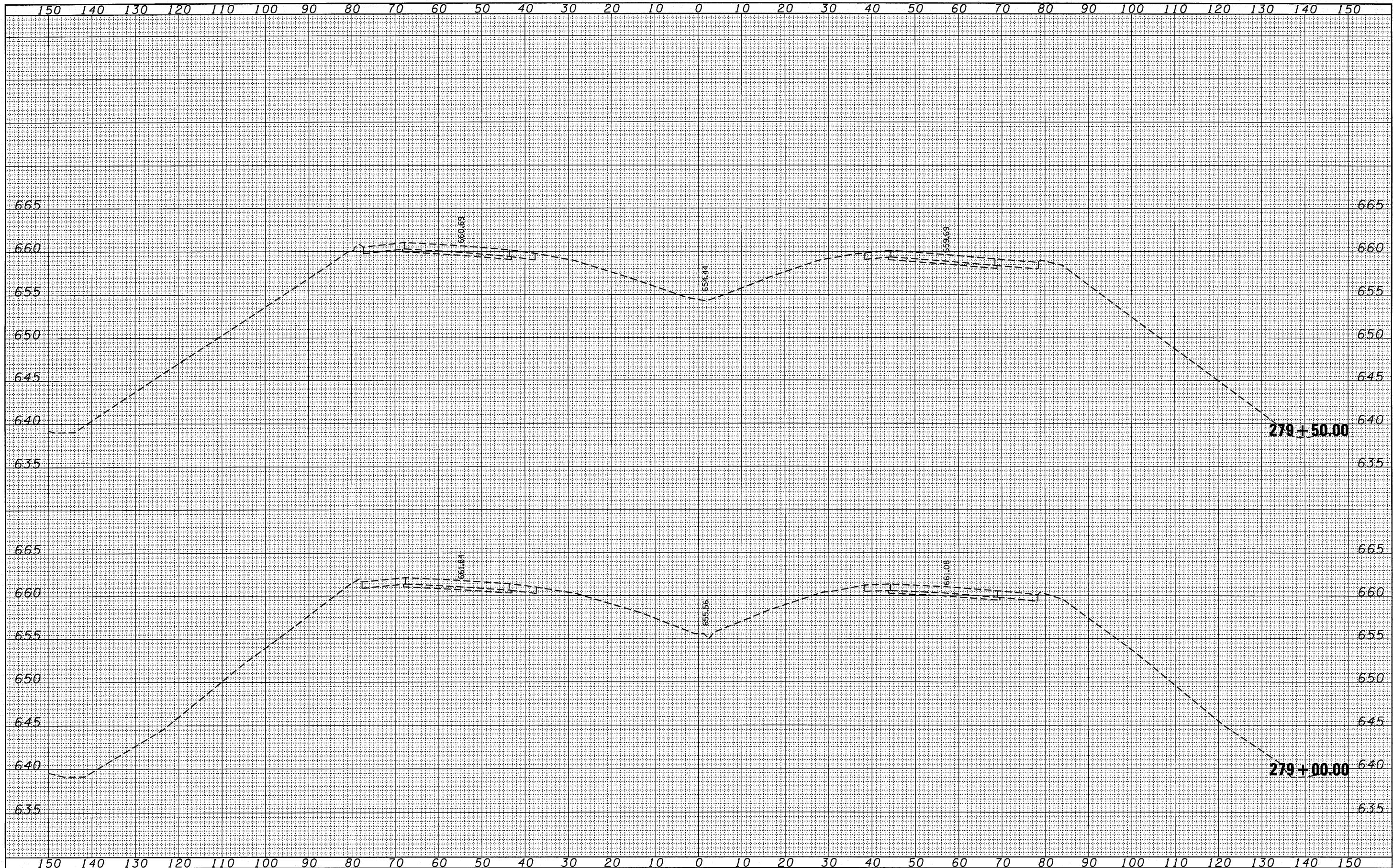
**CROSS SECTIONS**

SCALE: SHEET NO. 29 OF 30 SHEETS STA. 278+00.00 TO STA. 278+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	101
FED. ROAD DIST. NO.			CONTRACT NO. 66856	
ILLINOIS			FED. AID PROJECT	

DATE	
BY	
FINAL SURVEY	
TEMP. DATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
TEMP. DATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = duncanbd	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: SHEET NO. 30 OF 30 SHEETS STA. 279+00.00 TO STA. 279+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(53-1)HBR & HBR-1	LIVINGSTON	102	102
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66856	

CB JOB NO 05004-8 PLOT SCALE = 10.0000' / IN. PLOT DATE = Aug 11, 2010 - 03:25:31 PM