

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	1
		ILLINOIS	CONTRACT NO. 64D83	

D-92-008-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2

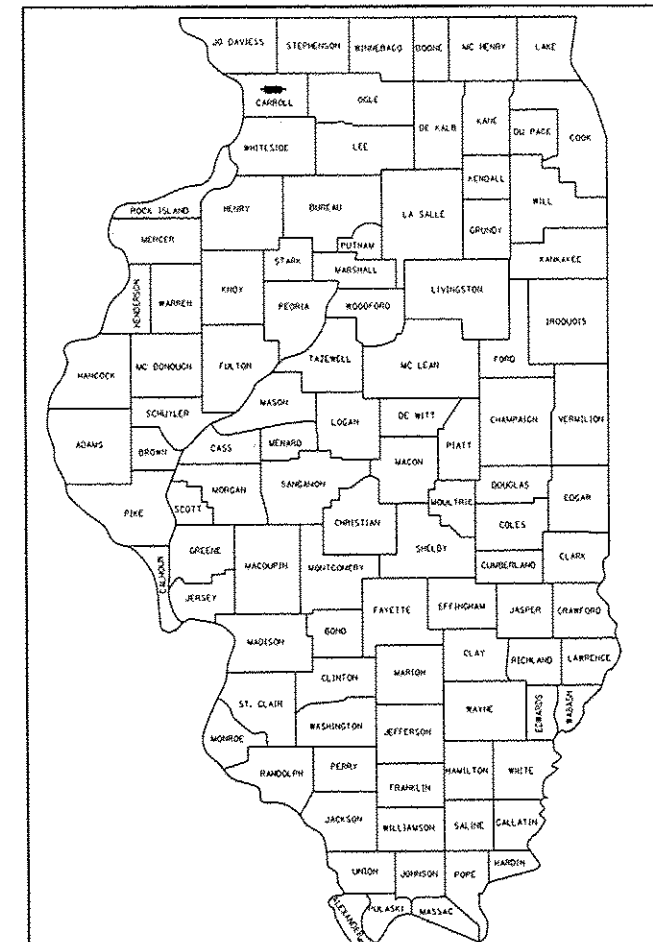
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

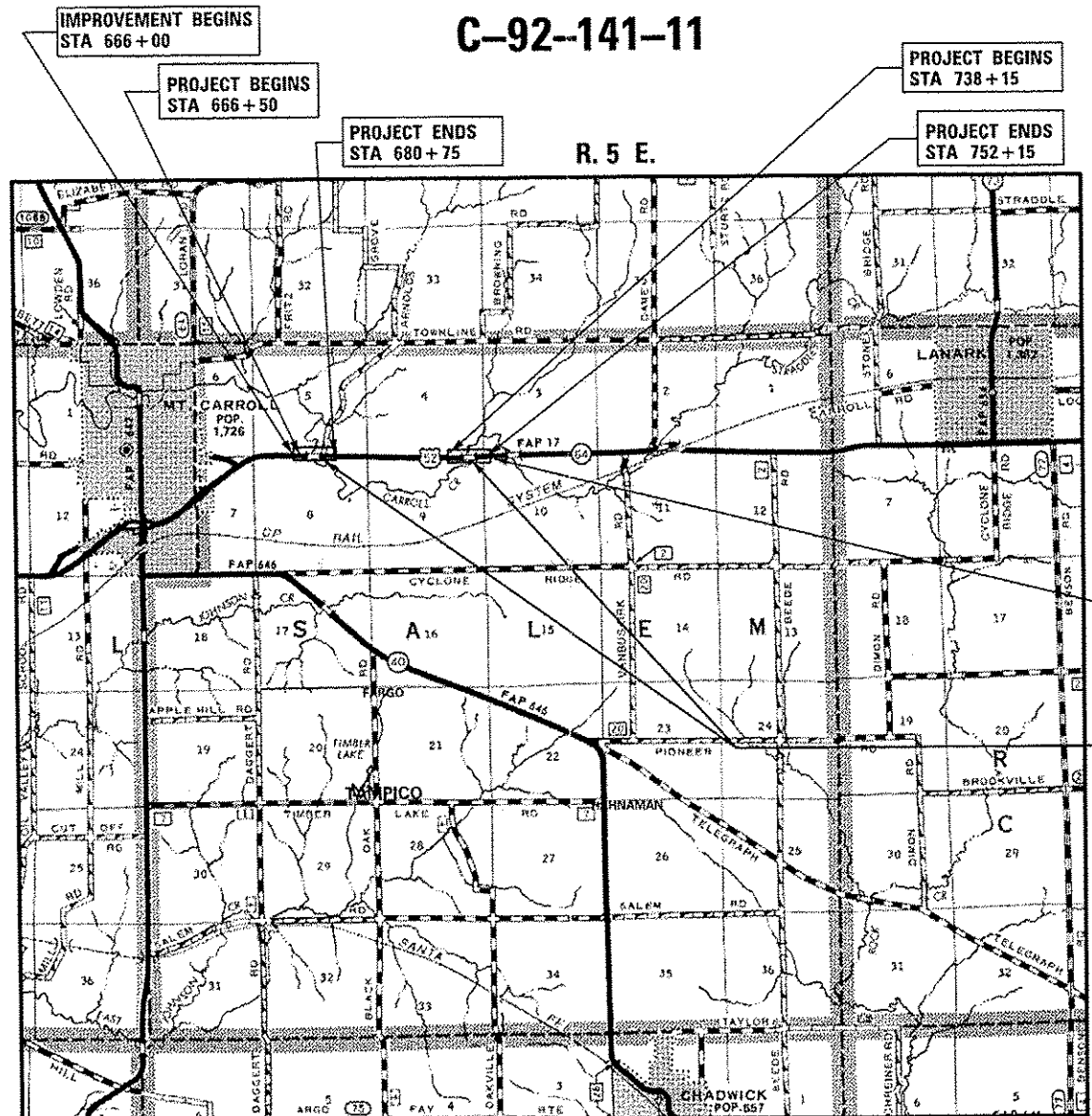
FAP ROUTE 17 (US 52/L 64)
SECTION 4BR-5 & 4BR-6
PROJECT : ACF-0017(129)
BRIDGE REPLACEMENTS
CARROLL COUNTY

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

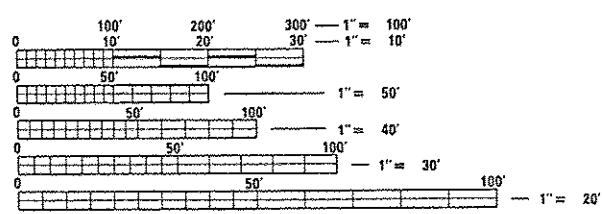
C-92-141-11



LOCATION OF SECTION INDICATED THUS: -



SALEM TOWNSHIP: SECTION 3, 4, 5, 8, 9 & 10



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 JASON FORD (815) 284-5942
PROJECT MANAGER BECKY MARRUFFO (815) 284-5902

CONTRACT NO. 64D83

LOCATION MAP
SALEM TOWNSHIP
SCALE 1" = 0.8 MILE
GROSS LENGTH = 8,664 FT. = 1.64 MILE
NET LENGTH = 2,825 FT. = 0.54 MILE

IMPROVEMENT ENDS STA 752+64

REMOVAL OF EXISTING STRUCTURES NO. 008-0029 (THREE SPAN PPC DECK BEAM BRIDGE ON PILE BENT ABUTMENTS) AND 008-0030 (DOUBLE SPAN PPC DECK BEAM BRIDGE ON STUB ABUTMENTS) AND CONSTRUCTION OF PROPOSED STRUCTURES NO. 008-0049 (THREE SPAN ROLLED STEEL BEAM BRIDGE ON PILE BENT ABUTMENTS) AND 008-0050 (THREE SPAN ROLLED STEEL BEAM BRIDGE ON PILE BENT ABUTMENTS), REMOVAL OF AN EXISTING 7'X4' BOX CULVERT AND CONSTRUCTION OF A 96" EQ. ROUND SIZE PIPE ARCH CULVERT AND ASSOCIATED ROADWAY IMPROVEMENTS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 9 2013
Paul A. Loete
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 16 2013
John D. Baranzelli P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

Aug 16 2013
Omer Osman P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

APPLIES TO SHEETS
1-39 AND 126-150

062-044545
November 30, 2013
Expires


Robert A. Cusick
7-3-13
Date

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS AND HIGHWAY STANDARDS
3-4	GENERAL NOTES AND COMMITMENTS
5-13	SUMMARY OF QUANTITIES
14-15	TYPICAL SECTIONS
16-17	SCHEDULE OF QUANTITIES
18-19	ALIGNMENT, TIES AND BENCHMARKS
20-25	US 52/IL64 PLAN & PROFILE
26	ARNOLDS GROVE ROAD PLAN & PROFILE
27	MAINTENANCE OF TRAFFIC TYPICAL SECTIONS
28-29	MAINTENANCE OF TRAFFIC - STAGE 1
30-31	MAINTENANCE OF TRAFFIC - STAGE 2
32-34	EROSION CONTROL AND LANDSCAPING
35-39	RIGHT-OF-WAY PLANS
40-63	STRUCTURE PLANS - S.N. 008-0049
64-87	STRUCTURE PLANS - S.N. 008-0050
88-94	STRUCTURE PLANS - S.N. 008-1106
95-102	EXISTING STRUCTURE PLANS SN 008-0029 - 1982
103-108	EXISTING STRUCTURE PLANS SN 008-0029 - 2008
109-110	EXISTING STRUCTURE PLANS SN 008-0030 - 1924
111-120	EXISTING STRUCTURE PLANS SN 008-0030 - 1982
121-125	EXISTING STRUCTURE PLANS SN 008-0030 - 2007
126	AGGREGATE DITCH FOR FLEXIBLE LINING (DIST. STD. 21.4)
	HOT-MIX ASPHALT SHOULDER (DIST. STD. 23.4A)
	DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARD RAIL (DIST. STD. 23.4A)
	CONCRETE HEADWALLS FOR PIPE DRAINS (DIST. STD. 27.4)
127	DELINEATOR AND POST ORIENTATION (DIST. STD. 37.4)
	TYPICAL BENCHING ON EXISTING EMBANKMENT (DIST. STD. 50.4)
	LAND SECTION AND REFERENCE MARKERS (DIST. STD. 63.4)
	STOP LINE FOR TEMPORARY SIGNALS (DIST. STD. 99.4)
128	INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES) (DIST. STD. 39.2)
	TYPICAL AGGREGATE BASE SIDEROAD (DIST. STD. 93.2)
129	HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS (DIST. STD. 20.1)
130-132	TYPICAL PAVEMENT MARKINGS (DIST. STD. 41.1)
133	DETAILS OF PLANTING AND BRACNG TREES (DIST. STD 92.1)
134-150	CROSS SECTIONS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREA OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
542401-01	METAL END SECTION FOR PIPE CULVERTS
542411-01	TRAVERSABLE PIPE GRATES
601101-03	
602101-01	CONCRETE HEADWALL FOR PIPE DRAIN
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
609006-05	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCCHMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
665001-02	WOVEN WIRE FENCE
666001-01	RIGHT-OF-WAY MARKERS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 M (15') AWAY
701006-04	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701011-03	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 M (15') AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A AND B METAL POSTS (FOR SIGNS & MARKERS)
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

FILE NAME	USER NAME * #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 <small>Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613</small>	INDEX OF SHEETS AND HIGHWAY STANDARDS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - LCR	REVISED -				17	48R-5 & 48R-6	CARROLL	150	2
PLOT SCALE * #SCALE#		CHECKED - DAZ	REVISED -				CONTRACT NO. 64D83				
PLOT DATE * #DATE#		DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET 1 OF 1	SHEETS	STA.	TO STA.		

GENERAL NOTES

SEE CROSS SECTIONS FOR SPECIAL DITCHES AND BACKSLOPES.

THE REMOVAL OF BITUMINOUS SURFACING LESS THAN 6 INCH THICKNESS NOT ON A RIGID TYPE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE REMOVED AS EARTH EXCAVATION. THE REMOVAL OF BITUMINOUS SURFACING ON A RIGID TYPE BASE OR A THICKNESS OF 6 INCHES OR MORE ON A FLEXIBLE BASE REMOVED IN CONJUNCTION WITH THE BASE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL OF THE TYPE SPECIFIED.

THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL MUST BE FROM THE A HORIZON (ZERO TO 2' DEEP) OF SOIL PROFILES OF LOCAL SOILS.

IT IS ESTIMATED THAT 6,340 CUBIC YARDS OF EARTH WILL BE HAULED TO THE JOB FROM OUTSIDE THE PROJECT LIMITS. A SHRINKAGE FACTOR OF 25% HAS BEEN USED.

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING CLASS 4 OR 2A SHALL BE USED, EXCEPT IN FRONT OF PROPERTIES WHERE THE GRASS WILL BE MOWED, THEN USE SEEDING, CLASS 1. CLASS 2A SHALL BE USED ON FRONT SLOPES AND DITCH BOTTOMS. CLASS 4 SHALL BE USED BEHIND TYPE A GUTTER, ON ALL BACKSLOPES AND AREAS BEHIND THE BACKSLOPE, AND BEYOND THE TOE OF FRONT SLOPE ON FILL SECTIONS WITHOUT DITCHES.

PLACEMENT AND COMPACTION OF THE BACKFILL FOR PROPOSED ACROSS ROAD CULVERTS AND EXISTING ACROSS ROAD CULVERTS THAT ARE REMOVED SHALL CONFORM TO SECTION 502.10 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE MATERIAL SHALL CONFORM TO ARTICLE 208.02 OF THE STANDARD SPECIFICATIONS, AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD LABORATORY DENSITY. ANY MATERIAL CONFORMING TO THE REQUIREMENTS OF ARTICLE 1003.04 OR 1004.05 WHICH HAS BEEN EXCAVATED FROM THE TRENCHES SHALL BE USED FOR BACKFILLING THE TRENCHES. THE ENTIRE EXCAVATION, WITHIN 2 FEET OUTSIDE OF EACH SHOULDER, SHALL BE BACKFILLED WITH TRENCH BACKFILL MATERIAL TO THE BOTTOM OF THE PROPOSED SUBGRADE. IMPERVIOUS MATERIAL SHALL BE USED ON THE OUTER 3 FEET AT EACH END OF THE CULVERT. THIS TRENCH BACKFILL MATERIAL WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CLASS OF CONCRETE INVOLVED OR OTHER UNIT PRICE ITEM OF THE WORK FOR WHICH IT IS REQUIRED.

ALL "AGGREGATE SUBGRADE IMPROVEMENT" (SECTION 303), SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES 311.04, 311.05, 311.05(A), 311.06 AND 311.07. ALL AGGREGATE SUBGRADE THICKNESSES LESS THAN 12 INCHES SHALL BE CONSTRUCTED OF AGGREGATE OF CA02 GRADATION. ALL AGGREGATE SUBGRADE THICKNESSES GREATER THAN 12 INCHES SHALL BE CONSTRUCTED OF CS02.

THE EXISTING HOT-MIX ASPHALT ON PRIVATE AND COMMERCIAL ENTRANCES SHALL BE BLADED OFF OR MILLED AND DISPOSED OF OUTSIDE THE PROJECT LIMITS. THIS COULD BE THE ENTIRE ENTRANCE OR TAPERED AT THE END DEPENDING ON IF THE MAINLINE IS RESURFACED OR MILLED AND RESURFACED. THE COST OF THE BLADING, MILLING, ROLLING, AND DISPOSAL IS INCLUDED IN THE CONTRACT UNIT PRICE FOR INCIDENTAL HOT-MIX ASPHALT SURFACING

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

RESURFACING

Mixture Uses(s):	Surface	Level Binder	Binder
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 9.5FG *	IL 19.0
Friction Aggregate	C	N/A	N/A
20 Year ESAL	0.3	0.3	0.3
Mix Unit Weight	112 lbs/sv/in		

* On projects with less than 2000 tons Level Binder, Growth Curve will be used for Density and IL 9.5 may be used

FULL DEPTH PAVEMENT

Mixture Uses(s):	Surface	Top Lift Binder	All Other Lifts
PG:	PG 64-22	PG 64-22	PG 64-22
Design Air Voids	4.0 @ N50	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 19.0	IL 19.0
Friction Aggregate	C	N/A	N/A
20 Year ESAL	0.3	0.3	0.3
Mix Unit Weight	112 lbs/sv/in		

SHOULDERS

Mixture Uses(s):	Top Lift	All Lower Lifts
PG:	PG 64-22	PG 64-22
Design Air Voids	3 @ N50	2 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5, 12.5, 9.5FG	BAM or IL 19.0
Friction Aggregate	C	N/A
20 Year ESAL	N/A	N/A
Mix Unit Weight	112 lbs/sv/in	

THE CONTRACTOR WILL BE REQUIRED TO FURNISH 5 1/2" HIGH BRASS STENCILS AS APPROVED BY THE ENGINEER AND INSTALL STATIONING AT 250' INTERVALS. STATIONING SHALL BE PLACED ON BOTH LANES OF 2 LANE HIGHWAYS AND ON THE OUTSIDE LANES IN BOTH DIRECTIONS ON 4-LANE HIGHWAYS. THE STATIONS SHALL BE PLACED 6" INSIDE THE PAVEMENT MARKING EDGE SO THEY CAN BE READ FROM THE SHOULDER. THIS WORK WILL BE INCLUDED IN THE COST OF THE FINAL PAVEMENT SURFACE.

REFLECTIVE CRACK CONTROL SHALL BE PLACED ON THE EXISTING SURFACE PRIOR TO ANY RESURFACING, UNLESS PAVEMENT IS MILLED THEN IT WILL BE PLACED ON THE BINDER COURSE.

ON FULL DEPTH PAVEMENT, SHOULDER WIDTHS OF 6 FT. OR LESS MAY BE PLACED, AT THE CONTRACTOR'S OPTION, SIMULTANEOUSLY WITH THE ADJACENT TRAFFIC LANE FOR BOTH THE BINDER AND SURFACE COURSES, PROVIDED THE CROSS SLOPE OF BOTH THE PAVEMENT AND SHOULDER CAN BE SATISFACTORILY OBTAINED. THE SHOULDER WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED ON THE PLANS.

BITUMINOUS AND AGGREGATE PRIME COAT SHALL BE PLACED IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS. THE COST OF THE PRIME COATS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER TON FOR LEVELING BINDER (MACHINE METHOD) OF THE TYPE SPECIFIED.

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

THE NEW NUMBER FOR 008-0029 WILL BE 008-0049, FOR 008-0030 WILL BE 008-0050 AND FOR THE NEW CULVERT WILL BE 008-0116.

THE ADDITIONAL THICKNESS OF PROPOSED PAVEMENT REQUIRED TO MATCH THE BRIDGE APPROACH PAVEMENT, SHOWN IN STANDARD 420401, SHALL BE INCLUDED IN THE COST OF THE PROPOSED PAVEMENT AND NOT PAID FOR SEPARATELY.

REFLECTOR MARKERS TYPE B SHALL BE INSTALLED ON THE TOP OF BRIDGE PARAPET WALLS. THE MARKERS SHALL BE ACCORDING TO STANDARD 635011 AND THE COLOR AND SPACING ACCORDING TO STANDARD 635006, EXCEPT THE MINIMUM IS 2 PER SIDE.

CULVERT & BRIDGE FLOWS MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

THE CONTRACTOR SHALL REMOVE ALL ENTRANCE CULVERTS IN CONDITION FOR REUSE WHICH ARE NOT TO BE LEFT IN PLACE. THEY SHALL BE CLEANED AND STORED ALONG THE RIGHT OF WAY AS DIRECTED. IN NO CASE SHALL THEY BE ROUGHLY HANDLED OR SHOVED BY HEAVY MACHINERY. UNUSABLE MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE. COST OF THE WORK TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

THE PROPOSED PIPES FOR ENTRANCES AND SIDE ROADS SHALL BE PLACED IN LINE WITH THE EXISTING OR PROPOSED DITCH LINE.


CONNECTING BANDS FOR CORRUGATED METAL PIPES SHALL BE METAL AND SHALL BE COATED WITH THE SAME MATERIAL AS THE PIPE SECTIONS. THE CONNECTING BANDS SHALL BE A MINIMUM OF 18" WIDE.

IT IS ANTICIPATED THAT SEVERAL MAILBOXES WILL REQUIRE RELOCATION TO THE APPROACH SIDE OF THE ENTRANCES. WHEN THIS IS DONE, THE CONTRACTOR SHALL BE REQUIRED TO MOUNT THE MAILBOX ON A 4"X 4" WOOD POST 40 INCHES ABOVE THE SHOULDER SURFACE AND EXTENDING TO A MINIMUM OF 24 INCHES INTO THE EMBANKMENT. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE EARTH EXCAVATION. THERE ARE AN ESTIMATED 4 MAILBOXES TO BE RELOCATED.

EMBANKMENT QUANTITIES FOR THE CONSTRUCTION OF THE TRAFFIC BARRIER TERMINALS AS SHOWN IN THE PLANS ARE INCLUDED IN QUANTITIES FOR FURNISHED EXCAVATION.

THE CONTRACTOR SHALL SUPPLY THE RESIDENT ENGINEER WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR THE TYPE OF STEEL PLATE BEAM GUARDRAIL TERMINAL TYPE 1 SPECIAL (TANGENT) OR STEEL PLATE BEAM GUARDRAIL TERMINAL TYPE 1 SPECIAL (FLARED).

GENERAL NOTES CONTINUED ON FOLLOWING SHEET

FILE NAME :	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 <small>Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613</small>	GENERAL NOTES AND COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PILOT SCALE : #SCALE#	CHECKED - DAZ	REVISED -				SCALE: SHEET 1 OF 2 SHEETS		STA. TO STA.		CONTRACT NO. 64083	
	PILOT DATE : #DATE#	DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT					

GENERAL NOTES (CONTINUED)

ONE 16D GALVANIZED NAIL SHALL BE USED TO TOE NAIL THE WOOD BLOCK OUT TO THE WOOD POST ON ALL TRAFFIC BARRIER TERMINAL TYPE I SPECIALS.

DELINEATORS SHALL BE INSTALLED AS SHOWN IN STANDARD 635001, EXCEPT THAT THE POST SHALL BE ROTATED 180° AND ONLY METAL-BACKED DELINEATORS SHALL BE PERMITTED. DELINEATORS SHALL BE PLACED AT THE ENDS OF APPROACH GUARDRAIL TERMINAL SECTIONS, AND AT EACH HEADWALL OR END SECTION OF AR CULVERTS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR DELINEATORS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTING AND MAINTAINING AN ELECTRONIC LOG OF ALL STAKEOUT SURVEY THAT IS PERFORMED ON THE JOB, EITHER BY HIM/HER OR ANY SUB-CONTRACTOR PERFORMING THE STAKEOUT UPON REQUEST, ALL LOGS SHALL BE SUBMITTED TO THE DEPARTMENT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK, BUT SHALL BE CONSIDERED INCLUDED IN THE COST FOR CONSTRUCTION LAYOUT.

PAVEMENT MARKING SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:

1. ALL WORDS, SUCH AS ONLY, SHALL BE 8 FEET HIGH.
2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES, NOT 7 INCHES, AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.
4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAY SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.

THE CONTRACTOR SHALL BEGIN FENCE ERECTION AS SOON AS CLEARING OPERATIONS PERMIT. THE ENGINEER SHALL CONTACT THE LAND OWNERS THREE WEEKS PRIOR TO REMOVING THE EXISTING FENCE. PHONE NUMBERS FOR THE PROPERTY OWNERS CAN BE OBTAINED THROUGH THE IDOT LAND ACQUISITION DEPARTMENT. BEFORE REMOVING EXISTING FENCE FROM AN AREA THAT CONTAINS LIVESTOCK, THE CONTRACTOR SHALL ERECT, ALONG THE PROPOSED RIGHT OF WAY LINES, A TEMPORARY FENCE OR WIRE MEETING THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL CONCENTRATE HIS PERMANENT FENCING OPERATIONS AT THESE LOCATIONS AND AT OTHER SPECIFIC LOCATIONS AS DIRECTED BY THE ENGINEER. THE COST OF ARRANGING WORK AS HEREIN SPECIFIED WILL NOT BE PAID FOR AS A SEPARATE ITEM BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR WOVEN WIRE FENCE. TEMPORARY FENCE SHALL BE PAID FOR BY THE FOOT FOR TEMPORARY FENCE.

TREE PLANTING LAYOUT SHALL BE PERFORMED BY THE DISTRICT LANDSCAPE ARCHITECT. MULCH SHALL BE PLACED 4" THICK AND TO THE DIAMETER AROUND THE TREE AS SHOWN ON DISTRICT STANDARD 92.1. THE MULCH SHALL BE HARDWOOD WOOD CHIPS PLACED ON WEED BARRIER FABRIC. THIS WORK SHALL BE INCLUDED IN THE COST OF THE TREE.

RIGHT-OF-WAY MARKERS WILL BE ERECTED PER HIGHWAY STANDARD 666001 WITH THE BACK FACE OF THE MARKER ON THE RIGHT-OF-WAY LINE, UNLESS THE NEW RIGHT-OF-WAY LINE HAS BEEN SURVEYED AND PINNED. IN WHICH INSTANCE THE RIGHT OF WAY MARKERS WILL BE ERECTED 12 INCHES INSIDE THE NEW RIGHT-OF-WAY LINE. THE METHOD OF INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON- EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

COMMONWEALTH EDISON, 123 ENERGY AVENUE, ROCKFORD, IL 61109
 NICOR GAS CO., 1844 FERRY ROAD, NAPERVILLE, IL 60563-9600
 FRONTIER LEGACY, 124 EAST LINCOLNWAY, MORRISON, IL 61270

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AT 815/284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

THE APPLICABLE PORTIONS OF ARTICLE 105.07 OF THE STANDARD SPECIFICATION SHALL APPLY EXCEPT FOR THE FOLLOWING: THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE VERTICAL DEPTHS OF THE UNDERGROUND UTILITIES WHICH MAY INTERFERE WITH CONSTRUCTION OPERATIONS. THIS WORK WILL NOT BE MEASURED OR PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICE FOR THE ITEM OF CONSTRUCTION INVOLVED.

PER SB 699 (90 DAY UTILITY RELOCATION LAW), ONCE RIGHT-OF-WAY IS CLEAR TO AWARD THE PROJECT, A NOTICE WILL BE SENT TO THE UTILITY COMPANIES INSTRUCTING THEM TO HAVE THEIR FACILITIES RELOCATED WITHIN 90 DAYS. ESTIMATED DATE RELOCATION COMPLETE = AWARD DATE + 100 DAYS.

CADD DATA WILL BE AVAILABLE TO CONTRACTORS AND CONSULTANTS WORKING ON THIS PROJECT. THIS INFORMATION WILL BE PROVIDED UPON REQUEST AS MICROSTATION CADD FILES AND GEOPAK COORDINATE GEOMETRY FILES ONLY. IF DATA IS REQUIRED IN OTHER FORMATS IT WILL BE YOUR RESPONSIBILITY TO MAKE THESE CONVERSIONS. IF ANY DISCREPANCY OR INCONSISTENCY ARISES BETWEEN THE ELECTRONIC DATA AND THE INFORMATION ON THE HARD COPY, THE INFORMATION ON THE HARD COPY SHOULD BE USED. CONTACT THE DISTRICT'S PROJECT ENGINEER TO REQUEST THESE FILES.

TEMPORARY IMPACT ATTENUATORS WILL BE MEASURED AS EACH FOR EACH ATTENUATOR SUPPLIED ON THE JOB AS SPECIFIED IN THE PLANS, AND SHALL INCLUDE THE COST OF RENTING/OWNING THE ATTENUATOR FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, TEMPORARY OF THE TYPE SPECIFIED.

RELOCATE TEMPORARY IMPACT ATTENUATORS WILL BE PAID FOR AS EACH AND WILL BE PAID FOR EACH TIME THE ATTENUATOR IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.

THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS. TEMPORARY CONCRETE BARRIER WILL BE MEASURED IN FEET ALONG THE CENTERLINE OF THE BARRIER AND SHALL INCLUDE THE COST OF RENTING/OWNING THE BARRIER FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.

RELOCATE TEMPORARY CONCRETE BARRIER WILL BE PAID FOR IN FEET ALONG THE CENTERLINE OF THE BARRIER, AND WILL BE PAID FOR EACH TIME THE BARRIER IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.

COMMITMENTS

THERE ARE TWO (2) WETLANDS LOCATED WITHIN THE PROJECT CORRIDOR. THESE WETLAND SITES SHALL BE SHOWN ON THE CONTRACT PLANS.

THE WETLAND (SITE #1) LOCATED LEFT (NORTH) OF STA. 667+00 WILL NOT BE IMPACTED BY THIS PROJECT.

THE WETLAND (SITE #2) LOCATED RIGHT (SOUTH) OF STA. 669+50 WILL NOT BE IMPACTED BEYOND THE PROPOSED TEMPORARY EASEMENT LINE AS SHOWN ON THE PLANS.

PHASE II PLANS WILL BE DESIGNED SO AS NOT TO DRAIN THE REMAINDER OF THE WETLAND SITE #2, WHICH IS BEYOND THE PROPOSED TEMPORARY EASEMENT LINE.

NO CONSTRUCTION ACTIVITIES, INCLUDING EQUIPMENT AND MATERIAL STORAGE, DRIVING VEHICLES AND EQUIPMENT, SHALL TAKE PLACE BEYOND THE CONSTRUCTION LIMITS SHOWN ON THE PLANS TO AVOID FURTHER IMPACTS TO THESE WETLANDS.

WETLAND SITE #2 WILL RECEIVE 0.049 ACR OF IMPACTS. THIS WILL BE MITIGATED AT A 1.5:1.0 RATIO BY PURCHASING 0.74 ACRE OF WETLAND BANK CREDITS FROM THE ADALUSIA SLOUGH WETLAND BANK.


FILE NAME	USER NAME * #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering	Zroka Engineering, P.C. 4216 North Hamitage Chicago, IL 60613	GENERAL NOTES AND COMMITMENTS	F.A.P. RTE. 17	SECTION 4BR-5 & 4BR-6	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 4
#FILE#		DRAWN - LCR	REVISED -		SCALE:		STA. TO STA.					
	PLOT SCALE * #SCALE#	CHECKED - DAZ	REVISED -		SHEET 2 OF 2 SHEETS							CONTRACT NO. 640B3
	PLOT DATE * #DATE#	DATE - 06-28-13	REVISED -									ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CONSTRUCTION CODE TYPE:			TOTAL	0004	0011	0011	0040
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)
542D5551	PIPE CULVERTS, CLASS D, TYPE 1 EQUIVALENT ROUND-SIZE 96"	FOOT	130				130
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	220	220			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	56	56			
20101000	TEMPORARY FENCE	FOOT	435	435			
20200100	EARTH EXCAVATION	CU YD	1770	1770			
20300100	CHANNEL EXCAVATION	CU YD	1068	1068			
20400800	FURNISHED EXCAVATION	CU YD	6340	6340			
21400100	GRADING AND SHAPING DITCHES	FOOT	50	50			
* 25000210	SEEDING, CLASS 2A	ACRE	3.50	3.50			
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	317	317			
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	317	317			
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	317	317			
* Δ 25000750	MOWING	ACRE	3.50	3.50			
* 25100125	MULCH, METHOD 3	ACRE	2.75	2.75			

* SPECIALTY ITEMS.
 Δ Non-participating (100% STATE)


SUMMARY OF QUANTITIES					FUNDING: 80% FED : 20% STATE			
CONSTRUCTION CODE TYPE:			TOTAL	0004	0011	0011	0040	
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)	
* 25100630	EROSION CONTROL BLANKET	SO YD	4132	4132				
* 25100900	TURF REINFORCEMENT MAT	SO YD	368	368				
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	351	351				
28000305	TEMPORARY DITCH CHECKS	FOOT	250	250				
28000400	PERIMETER EROSION BARRIER	FOOT	1840	1840				
28000500	INLET AND PIPE PROTECTION	EACH	8	8				
28100105	STONE RIPRAP, CLASS A3	SO YD	133	133				
28100109	STONE RIPRAP, CLASS A5	SO YD	2812		1364	1400	48	
28200200	FILTER FABRIC	SO YD	2945	133	1364	1400	48	
30300011	AGGREGATE SUBGRADE IMPROVEMENT	TON	726	726				
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	3419	3419				
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SO YD	882	882				
35102400	AGGREGATE BASE COURSE, TYPE B 12"	SO YD	352	352				
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	8119	8119				

SPECIALTY ITEMS

FILE NAME : #FILE#	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	SUMMARY OF QUANTITIES	F.A.P. RTE. 17	SECTION 4BR-5 & 4BR-6	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 6		
	PLOT SCALE : #SCALE#	DRAWN - LCR	REVISED -				SCALE:	SHEET 2 OF 9 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
	PLOT DATE : #DATE#	CHECKED - DAZ	REVISED -										
		DATE - 06-28-13	REVISED -										


SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CODE NO.	ITEM	CONSTRUCTION CODE TYPE:	TOTAL QUANTITY	0004	0011	0011	0040
				ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT		585	585			
40600990	TEMPORARY RAMP		805	805			
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		832	832			
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING		114	114			
44000100	PAVEMENT REMOVAL		111	111			
44004250	PAVED SHOULDER REMOVAL		753	753			
48203021	HOT-MIX ASPHALT SHOULDERS, 6"		2547	2547			
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1		1		1		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2		1			1	
50200100	STRUCTURE EXCAVATION		482		256	226	
50200300	COFFERDAM EXCAVATION		845		381	464	
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES		201		16		185
50201121	COFFERDAM (TYPE 2) (LOCATION=1)		1		1		
50201122	COFFERDAM (TYPE 2) (LOCATION=2)		1		1		

SPECIALTY ITEMS

FILE NAME : #FILE#	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : #SCALE#	DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	7
	PLOT DATE : #DATE#	CHECKED - DAZ	REVISED -				CONTRACT NO. 64DB3			ILLINOIS FED. AID PROJECT	
		DATE - 06-28-13	REVISED -	SCALE:	SHEET 3 OF 9 SHEETS	STA. TO STA.					


SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CONSTRUCTION CODE TYPE:			TOTAL	0004	0011	0011	0040
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)
50201123	COFFERDAM (TYPE 2) (LOCATION - 3)	EACH	1			1	
50201124	COFFERDAM (TYPE 2) (LOCATION - 4)	EACH	1			1	
50300225	CONCRETE STRUCTURES	CU YD	374.6		159.7	184.5	30.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	647.7		330.8	316.9	
50300260	BRIDGE DECK GROOVING	SQ YD	1516		780	736	
50300265	SEAL COAT CONCRETE	CU YD	210.4		98.9	111.5	
50300280	CONCRETE ENCASEMENT	CU YD	8.0		4.0	4.0	
50300300	PROTECTIVE COAT	SQ YD	1884		963	921	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.5	0.5	
50500505	STUD SHEAR CONNECTORS	EACH	9216		4878	4338	
50800105	REINFORCEMENT BARS	POUND	6020				6020
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	193380		96880	96500	
50800515	BAR SPLICERS	EACH	1778		910	868	
51201400	FURNISHING STEEL PILES HP10X42	FOOT	395			395	

SPECIALTY ITEMS

FILE NAME :	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Homewood Chicago, IL 60613	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	DRAWN - LCR	REVISED -	17				4BR-5 & 4BR-6	CARROLL	150	8	
PLOT SCALE : #SCALE#	CHECKED - DAZ	REVISED -	CONTRACT NO. 64083								
PLOT DATE : #DATE#	DATE - 06-28-13	REVISED -	SCALE:	SHEET 4 OF 9 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT					

SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CONSTRUCTION CODE TYPE:			TOTAL	0004	0011	0011	0040
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)
51201600	FURNISHING STEEL PILES HP 12X53	FOOT	1145		425	720	
51201800	FURNISHING STEEL PILES HP 14X73	FOOT	600		600		
51202305	DRIVING PILES	FOOT	2140		1025	1115	
51203400	TEST PILE STEEL HP10X42	EACH	2			2	
51203600	TEST PILE STEEL HP 12X53	EACH	4		2	2	
51203800	TEST PILE STEEL HP 14X73	EACH	2		2		
51204650	PILE SHOES	EACH	60		28	32	
51500100	NAME PLATES	EACH	3		1	1	1
52100510	ANCHOR BOLTS, 3/4"	EACH	48		24	24	
52100520	ANCHOR BOLTS, 1"	EACH	48		24	24	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	118		58	60	
54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	227	227			
54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	164	164			
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	216	216			

SPECIALTY ITEMS

FILE NAME *	USER NAME * USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hamitage Chicago, IL 60613	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE# *	PLOT SCALE * SCALE*	DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	9
	PLOT DATE * DATE*	CHECKED - OAZ	REVISED -				CONTRACT NO. 64083		ILLINOIS FED. AID PROJECT		
		DATE - 06-28-13	REVISED -	SCALE:	SHEET 5 OF 9 SHEETS	STA. TO STA.					


Rev.

SUMMARY OF QUANTITIES					FUNDING: 80% FED : 20% STATE			
		CONSTRUCTION CODE TYPE:	TOTAL	0004	0011	0011	0040	
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)	
54215547	METAL END SECTIONS 12"	EACH	4	4				
54215550	METAL END SECTIONS 15"	EACH	6	6				
54215553	METAL END SECTIONS 18"	EACH	4	4				
54215559	METAL END SECTIONS 24"	EACH	6	6				
54260311	TRAVERSABLE PIPE GRATE	FOOT	422.5				422.5	
60100945	PIPE DRAINS 12"	FOOT	114	114				
60900515	CONCRETE THRUST BLOCKS	EACH	4	4				
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	4	4				
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	300.0	300.0				
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	8				
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	6	6				
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	2	2				
63200310	GUARDRAIL REMOVAL	FOOT	2747	2747				
63500105	DELINEATORS	EACH	8	8				

* SPECIALTY ITEMS

SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CODE NO.	ITEM	CONSTRUCTION CODE TYPE:	TOTAL QUANTITY	0040			
				0004 ROADWAY	0011 SN 008-0029 (EX) SN 008-0049 (PR)	0011 SN 008-0030 (EX) SN 008-0050 (PR)	0011 SN 008-1106 (PR)
66201120	CONCRETE SHOULDER CURB	FOOT	20	20			
66500105	WOVEN WIRE FENCE, 4'	FOOT	435	435			
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	22	22			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7	7			
67100100	MOBILIZATION	L SUM	1	1			
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	2			
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1			
70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	L SUM	1	1			
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	3	3			
* 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	2			
70106700	TEMPORARY RUMBLE STRIPS	EACH	16	16			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6396	6396			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	96	96			

SPECIALTY ITEMS


FILE NAME :	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 <small>Zroka Engineering, P.C. 4216 North Heritage Chicago, IL 60613</small>	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	PLOT SCALE : #SCALE#	DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	11
	CHECKED - DAZ	REVISIED -									
	PLOT DATE : #DATE#	DATE - 06-20-13	REVISED -				SCALE:	SHEET 7 OF 9 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 64D83	

SUMMARY OF QUANTITIES

FUNDING: 80% FED : 20% STATE


CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE TYPE:			
				0004 ROADWAY	0011 SN 008-0029 (EX) SN 008-0049 (PR)	0011 SN 008-0030 (EX) SN 008-0050 (PR)	0040 SN 008-1106 (PR)
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	1162	1162			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	950.0	950.0			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	825	825.0			
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	4			
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	4			
• 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	12120	12120			
• 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	40	40			
78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8			
78200520	BARRIER WALL MARKERS, TYPE B	EACH	8	8			
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	8	8			
78300100	PAVEMENT MARKING REMOVAL	SO FT	2398	2398			
• A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	10	10			
• A2006714	TREE, QUERCUS MACROCARPA (BUR OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	10	10			
• B2001114	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 1-3/4" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	10	10			

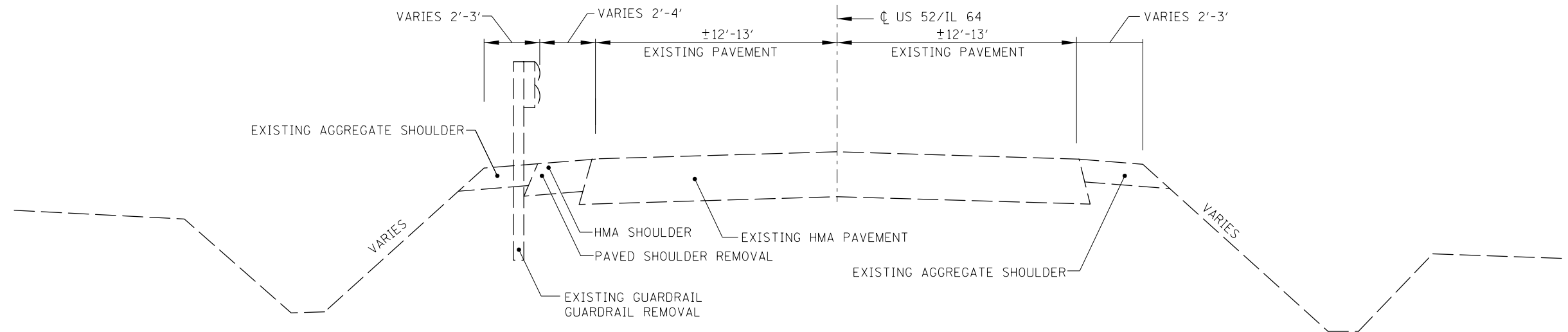
• SPECIALTY ITEMS

FILE NAME : #FILE#	USER NAME : #USER#	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60611	SUMMARY OF QUANTITIES	F.A.P. RTE. 17	SECTION 4BR-5 & 4BR-6	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 12		
	PLOT SCALE : #SCALE#	DRAWN - LCR	REVISED -				SCALE:	SHEET 8 OF 9 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			
	PLOT DATE : #DATE#	CHECKED - DAZ	REVISED -										
		DATE - 06-28-13	REVISED -										

SUMMARY OF QUANTITIES				FUNDING: 80% FED : 20% STATE			
CONSTRUCTION CODE TYPE:			TOTAL	0004	0011	0011	0040
CODE NO.	ITEM	UNIT	QUANTITY	ROADWAY	SN 008-0029 (EX) SN 008-0049 (PR)	SN 008-0030 (EX) SN 008-0050 (PR)	SN 008-1106 (PR)
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	269		112	157	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	62		30	32	
Z0004552	APPROACH SLAB REMOVAL	SO YD	410	410			
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
Z0023600	FILLING EXISTING CULVERTS	EACH	1	1			
Z0026407	TEMPORARY SHEET PILING	SO FT	2335		1364	971	
Z0028415	GEOTECHNICAL REINFORCEMENT	SO YD	3419	3419			
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	276		132	144	
Z0049300	REFERENCING LAND SECTION MARKERS	EACH	1	1			
* Z0054500	ROCK FILL	TON	142				142
Z0062456	TEMPORARY PAVEMENT	SO YD	447	447			

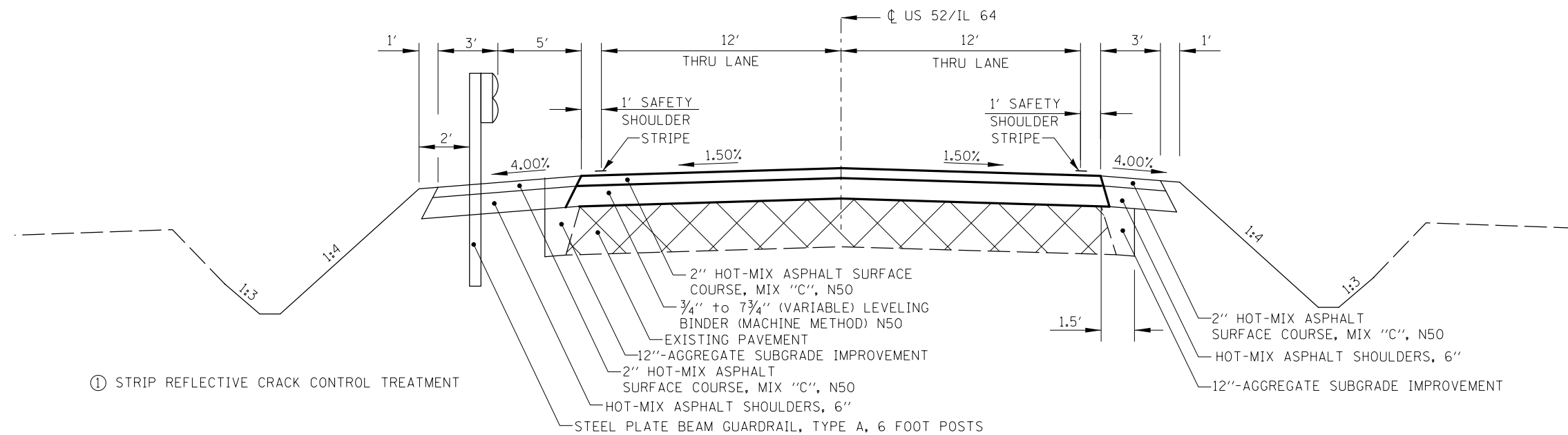
* SPECIALTY ITEMS

FILE NAME #	USER NAME * #USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	DRAWN - LCR	REVISED -	17				4BR-5 & 4BR-6	CARROLL	150	13	
PLOT SCALE * #SCALE*	CHECKED - OAZ	REVISED -	SCALE:				SHEET 9 OF 9	SHEETS STA.	TO STA.	CONTRACT NO. 64D83	
PLOT DATE * #DATE*	DATE - 06-28-13	REVISED -	ILLINOIS FED. AID PROJECT								



EXISTING TYPICAL SECTION

NOTE: LEFT SIDE OF SECTION REFLECTS GEOMETRY AT GUARDRAIL LOCATIONS. RIGHT SIDE REFLECTS GEOMETRY WITHOUT GUARDRAIL. SEE PLANS AND SCHEDULES FOR LIMITS OF GUARDRAIL



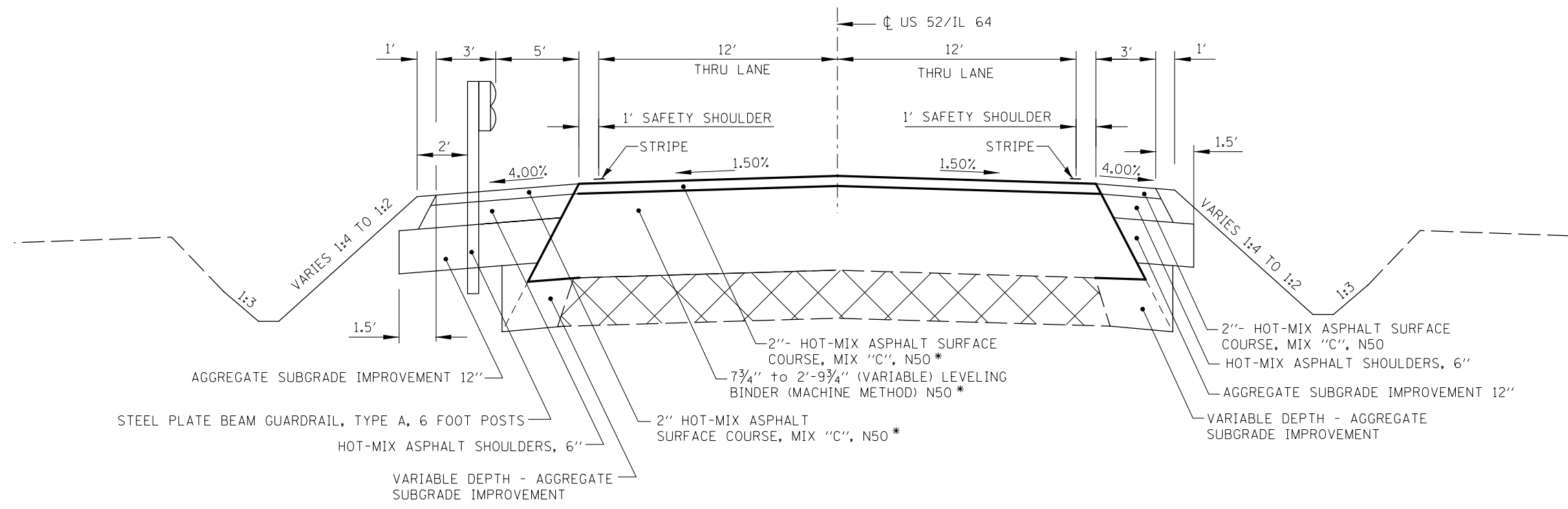
PROPOSED TYPICAL SECTION

STATION 666+70 TO STATION 668+05
 STATION 679+95 TO STATION 680+65
 STATION 738+15 TO STATION 739+25
 STATION 751+15 TO STATION 752+05

** ALL HMA MIXTURES HAVE A UNIT WEIGHT (MIX) = 112 LBS/SQ. YD./INCH

NOTE: LEFT SIDE OF SECTION REFLECTS GEOMETRY AT GUARDRAIL LOCATIONS
 RIGHT SIDE REFLECTS GEOMETRY WITHOUT GUARDRAIL. SEE PLANS AND SCHEDULES FOR LIMITS OF GUARDRAIL

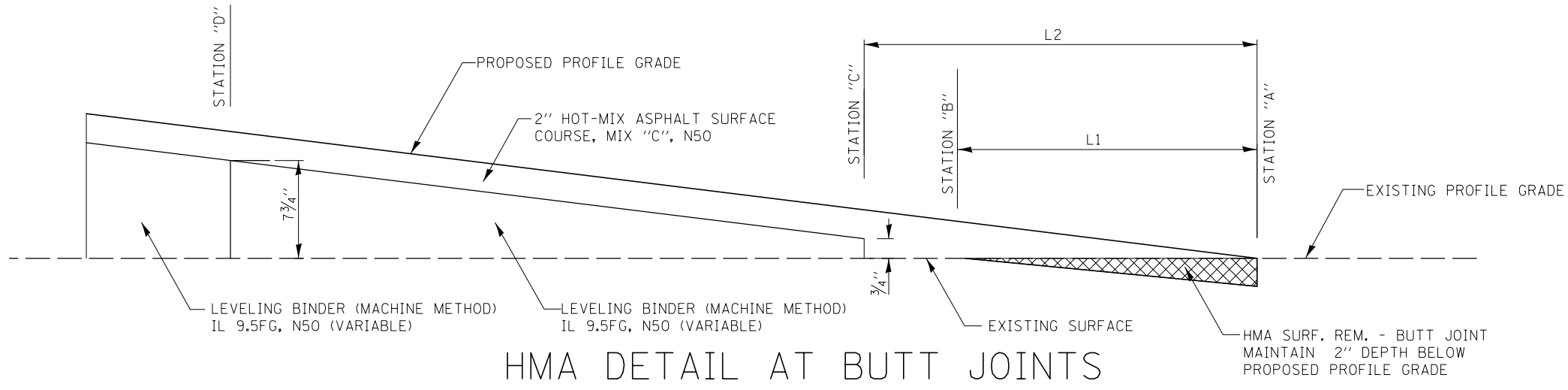
FILE NAME =	USER NAME = \$USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	TYPICAL SECTIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$		DRAWN - LCR	REVISED -			17	4BR-5 & 4BR-6	CARROLL	150	14		
PLOT SCALE = \$SCALE*		CHECKED - DAZ	REVISED -			CONTRACT NO. 64D83						
PLOT DATE = \$DATE*		DATE - 06-28-13	REVISED -			ILLINOIS FED. AID PROJECT						



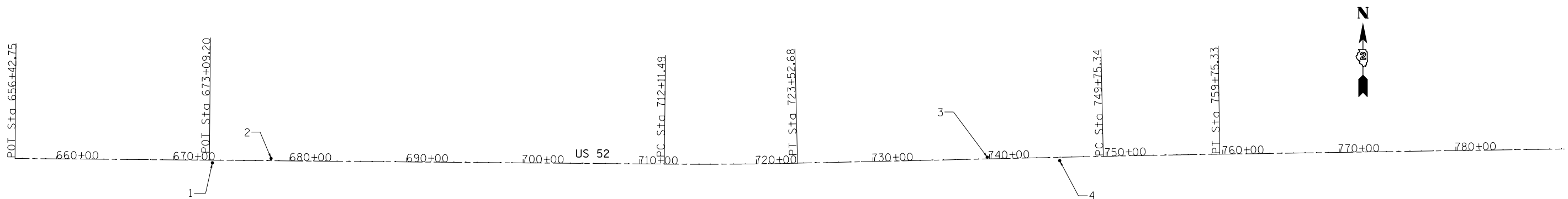
PROPOSED TYPICAL SECTION
 STATION 668+05 TO STATION 673+10
 STATION 675+16 TO STATION 679+95
 STATION 739+25 TO STATION 743+07
 STATION 745+01 TO STATION 751+15

NOTE: LEFT SIDE OF SECTION REFLECTS GEOMETRY AT GUARDRAIL LOCATIONS
 RIGHT SIDE REFLECTS GEOMETRY WITHOUT GUARDRAIL. SEE PLANS AND SCHEDULES
 FOR LIMITS OF GUARDRAIL

* ALL HMA MIXTURES HAVE A UNIT WEIGHT
 (MIX) = 112 LBS/SQ. YD./INCH



STATION				LENGTH	
"A"	"B"	"C"	"D"	L1	L2
666+00	666+60	666+70	668+05	60'	70'
681+30	680+75	680+65	679+95	55'	65'
737+50	738+00	738+15	739+25	50'	65'
752+50	752+15	752+05	751+15	35'	45'



Beginning chain US52 description
 =====

Point 1243 N 1,977,225.2886 E 2,354,081.2810 Sta 656+42.7462
 Course from 1243 to 200 90° 30' 29.9089" Dist 1,666.4568'
 Point 200 N 1,977,210.5046 E 2,355,747.6722 Sta 673+09.2030
 Course from 200 to PC 210 90° 29' 40.5622" Dist 3,902.2863'

Curve Data

Curve 210
 P.I. Station 717+82.1291 N 1,977,171.8929 E 2,360,220.4317
 Delta = 1° 46' 31.6887" (LT)
 Degree = 0° 09' 20.0906"
 Tangent = 570.6399'
 Length = 1,141.1884'
 Radius = 36,827.0457'
 External = 4.4208'
 Long Chord = 1,141.1428'
 Mid. Ord. = 4.4203'
 P.C. Station 712+11.4893 N 1,977,176.8189 E 2,359,649.8131
 P.T. Station 723+52.6777 N 1,977,184.6487 E 2,360,790.9290
 C.C. N 2,014,002.4924 E 2,359,967.7152

Course from PT 210 to PC 220 88° 43' 08.8734" Dist 2,622.6588'

Curve Data

Curve 220
 P.I. Station 754+75.3365 N 1,977,254.4511 E 2,363,912.8075
 Delta = 0° 24' 48.9331" (RT)
 Degree = 0° 02' 28.8940"
 Tangent = 500.0000'
 Length = 999.9957'
 Radius = 138,531.3474'
 External = 0.9023'
 Long Chord = 999.9935'
 Mid. Ord. = 0.9023'
 P.C. Station 749+75.3365 N 1,977,243.2744 E 2,363,412.9324
 P.T. Station 759+75.3321 N 1,977,262.0192 E 2,364,412.7502
 C.C. N 1,838,746.5419 E 2,366,509.5943

Course from PT 220 to PC 230 89° 07' 57.8066" Dist 3,405.9847'

Curve Data

Curve 230
 P.I. Station 798+72.4839 N 1,977,321.0075 E 2,368,309.4555
 Delta = 1° 02' 02.8325" (RT)
 Degree = 0° 06' 18.9885"
 Tangent = 491.1670'
 Length = 982.3074'
 Radius = 54,425.0768'
 External = 2.2163'
 Long Chord = 982.2941'
 Mid. Ord. = 2.2162'
 P.C. Station 793+81.3169 N 1,977,313.5731 E 2,367,818.3447
 P.T. Station 803+63.6243 N 1,977,319.5772 E 2,368,800.6205
 C.C. N 1,922,894.7311 E 2,368,642.1359

Course from PT 230 to PC 240 90° 10' 00.6390" Dist 1,495.6423'

Curve Data

Curve 240
 P.I. Station 820+74.2665 N 1,977,314.5959 E 2,370,511.2555
 Delta = 3° 11' 50.8781" (LT)
 Degree = 0° 44' 37.6434"
 Tangent = 215.0000'
 Length = 429.8884'
 Radius = 7,703.2218'
 External = 2.9998'
 Long Chord = 429.8326'
 Mid. Ord. = 2.9986'
 P.C. Station 818+59.2665 N 1,977,315.2219 E 2,370,296.2564
 P.T. Station 822+89.1549 N 1,977,325.9628 E 2,370,725.9548
 C.C. N 1,985,018.4110 E 2,370,318.6880

Course from PT 240 to PC 250 86° 58' 09.7609" Dist 1,998.2201'

Curve Data

Curve 250
 P.I. Station 845+57.3750 N 1,977,445.8829 E 2,372,991.0026
 Delta = 5° 19' 40.3977" (RT)
 Degree = 0° 59' 14.4872"
 Tangent = 270.0000'
 Length = 539.6108'
 Radius = 5,802.9414'
 External = 6.2779'
 Long Chord = 539.4164'
 Mid. Ord. = 6.2711'
 P.C. Station 842+87.3750 N 1,977,431.6081 E 2,372,721.3802
 P.T. Station 848+26.9859 N 1,977,435.0602 E 2,373,260.7856
 C.C. N 1,971,636.7826 E 2,373,028.1798

Course from PT 250 to PC 260 92° 17' 50.1586" Dist 5,590.6011'

Curve Data

Curve 260
 P.I. Station 907+24.9723 N 1,977,198.6446 E 2,379,154.0319
 Delta = 15° 01' 44.9717" (LT)
 Degree = 2° 27' 31.6512"
 Tangent = 307.3853'
 Length = 611.2416'
 Radius = 2,330.2410'
 External = 20.1864'
 Long Chord = 609.4907'
 Mid. Ord. = 20.0130'
 P.C. Station 904+17.5870 N 1,977,210.9659 E 2,378,846.8936
 P.T. Station 910+28.8286 N 1,977,266.3890 E 2,379,453.8592
 C.C. N 1,979,539.3341 E 2,378,940.2993

Course from PT 260 to PC 270 77° 16' 05.1870" Dist 551.3968'

Curve Data

Curve 270
 P.I. Station 918+73.7705 N 1,977,452.6050 E 2,380,278.0257
 Delta = 11° 43' 11.3084" (RT)
 Degree = 2° 00' 11.6753"
 Tangent = 293.5451'
 Length = 585.0417'
 Radius = 2,860.1510'
 External = 15.0242'
 Long Chord = 584.0223'
 Mid. Ord. = 14.9457'
 P.C. Station 915+80.2254 N 1,977,387.9109 E 2,379,991.6983
 P.T. Station 921+65.2671 N 1,977,457.7900 E 2,380,571.5250
 C.C. N 1,974,598.0852 E 2,380,622.0446

Course from PT 270 to PC 280 88° 59' 16.4954" Dist 6,091.2812'

Curve Data

Curve 280
 P.I. Station 988+98.2602 N 1,977,576.7168 E 2,387,303.4676
 Delta = 1° 06' 23.7737" (RT)
 Degree = 0° 05' 10.4117"
 Tangent = 641.7119'
 Length = 1,283.3839'
 Radius = 66,448.7877'
 External = 3.0985'
 Long Chord = 1,283.3640'
 Mid. Ord. = 3.0984'
 P.C. Station 982+56.5483 N 1,977,565.3821 E 2,386,661.8558
 P.T. Station 995+39.9322 N 1,977,575.6582 E 2,387,945.1787
 C.C. N 1,911,126.9610 E 2,387,835.5601

Course from PT 280 to PC 290 90° 05' 40.2691" Dist 658.3613'

Curve Data

Curve 290
 P.I. Station 1006+98.2935 N 1,977,573.7473 E 2,389,103.5384
 Delta = 2° 48' 54.9376" (LT)
 Degree = 0° 16' 53.6977"
 Tangent = 500.0000'
 Length = 999.7988'
 Radius = 20,347.7627'
 External = 6.1423'
 Long Chord = 999.6982'
 Mid. Ord. = 6.1404'
 P.C. Station 1001+98.2935 N 1,977,574.5721 E 2,388,603.5391
 P.T. Station 1011+98.0923 N 1,977,597.4813 E 2,389,602.9748
 C.C. N 1,997,922.3071 E 2,388,637.1062

Course from PT 290 to 96 87° 16' 45.3315" Dist 492.6826'

Point 96 N 1,977,620.8680 E 2,390,095.1020 Sta 1016+90.7749

=====
 Ending chain US52 description

FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	ALIGNMENT, TIES AND BENCHMARKS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL	DRAWN - LCR	REVISED -	17					4BR-5 & 4BR-6	CARROLL	150	18	
PLOT SCALE = *SCALE*	CHECKED - DAZ	REVISED -	CONTRACT NO. 64D83									
PLOT DATE = *DATE*	DATE - 06-28-13	REVISED -	ILLINOIS FED. AID PROJECT									
				SCALE:	SHEET 1 OF 2 SHEETS	STA.	TO STA.					

HORIZONTAL CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
1	1977187.7290	2355773.3500	747.8100	US52	673+35.0765	22.5531' RT	GPS CONTROL POINT, PIN
2	1977225.8130	2356276.7150	754.2760	US52	678+38.0939	19.8747' LT	GPS CONTROL POINT, PIN
3	1977236.6620	2362418.1730	768.3080	US52	739+80.6778	15.6257' LT	GPS CONTROL POINT, PIN
4	1977206.5480	2363039.2220	768.7100	US52	746+00.8985	28.3634' RT	GPS CONTROL POINT, PIN

SURVEY WORK POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
100	1977174.4940	2357812.5740	824.3170	US52	693+74.3387	18.1844' RT	TRAVERSE STATION, PIN
101	1977167.3860	2358553.4430	835.4620	US52	701+15.2415	18.8967' RT	TRAVERSE STATION, PIN

BENCH MARKS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
401	1977229.6463	2355817.3366	751.6605	US52	673+78.6996	19.7424' LT	DISK, HANDRAIL
402	1977261.7532	2356287.6027	752.4485	US52	678+48.6710	55.9076' LT	POWER POLE, BENCH TIE
403	1977187.8144	2362394.8560	768.6719	US52	739+56.2747	32.6885' RT	POWER POLE, BENCH TIE
404	1977208.9564	2362773.0818	768.6350	US52	743+34.8786	20.0065' RT	DISK, HEADWALL
454	1977496.8042	2385087.9703	809.5061	US52	966+81.6970	40.7672' RT	BOLT, SIGN FOUNDATION

APPARENT PROPERTY CORNERS

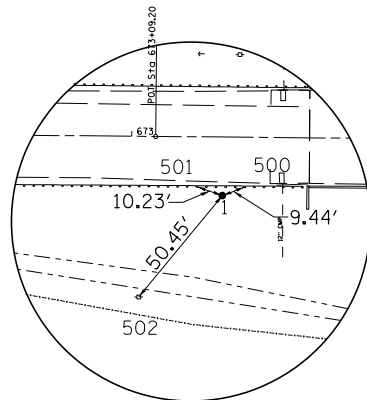
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
700	1977184.3870	2358336.6531	833.9663	US52	698+98.3129	3.7677' RT	SECTION CORNER, PK NAIL
701	1977322.4051	2368981.8220	804.1772	US52	805+44.8168	3.3555' LT	SECTION CORNER, PK NAIL
702	1977397.3838	2374332.8387	825.8243	US52	858+99.6876	5.3262' LT	SECTION CORNER, PK NAIL
703	1977360.0992	2374350.8975	825.9582	US52	859+19.2264	31.2046' RT	WITNESS CORNER, PIN
704	1977286.8265	2377034.8038	862.1386	US52	886+03.9127	3.1636' LT	QUARTER CORNER, PIN
705	1977315.3954	2377057.1012	863.1124	US52	886+25.0470	32.6034' LT	WITNESS CORNER, PIN
706	1977235.2015	2377071.4410	862.5088	US52	886+42.5898	46.9513' RT	WITNESS CORNER, PIN
707	1977363.8828	2379734.4676	818.1588	US52	913+24.0240	33.2536' LT	SECTION CORNER, PIN
708	1977433.6288	2379733.6686	818.5150	US52	913+38.6159	101.4608' LT	SECTION CORNER, PIN
709	1977532.7255	2384522.9085	816.0113	US52	961+17.3578	5.1294' LT	SECTION CORNER, PK NAIL
711	1977607.9581	2388278.3805	864.1045	US52	998+73.0803	32.8495' LT	R.O.W. CORNER, PIPE
712	1977634.5269	2389857.3173	857.2841	US52	1014+53.9066	24.9307' LT	SECTION CORNER, PIN

REFERENCE TIES

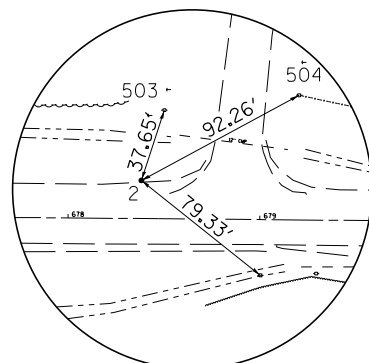
POINT	CHAIN	STATION	OFFSET	DESCRIPTION
500	US52	673+43.6989	18.7026' RT	GUARDPOST, SHINER
501	US52	673+25.6466	18.5944' RT	GUARDPOST, SHINER
502	US52	673+03.0973	61.5583' RT	POWER POLE, SHINER
503	US52	678+48.6834	56.0068' LT	POWER POLE, SHINER
504	US52	679+18.3430	65.3862' LT	POWER POLE, SHINER
505	US52	739+56.3302	32.7633' RT	POWER POLE, SHINER
506	US52	739+09.3750	33.4329' RT	R.O.W. MARKER, BACK
507	US52	745+91.4879	20.7474' RT	GUARDPOST, SHINER
508	US52	745+85.2804	20.3084' RT	GUARDPOST, SHINER
509	US52	745+79.0546	20.8398' RT	GUARDPOST, SHINER

CURVE POINT NUMBERS

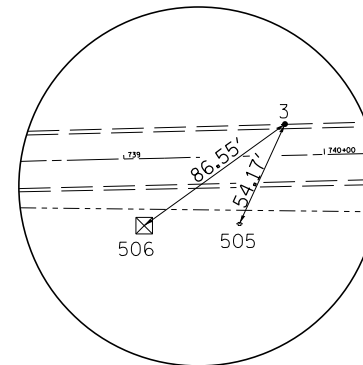
CHAIN	CURVE	PI	CC	PC	PT
US52	210	210	211	212	213
US52	220	220	221	222	223
US52	230	230	231	232	233
US52	240	240	241	242	243
US52	250	250	251	252	253
US52	260	260	261	262	263
US52	270	270	271	272	273
US52	280	280	281	282	283
US52	290	290	291	292	293



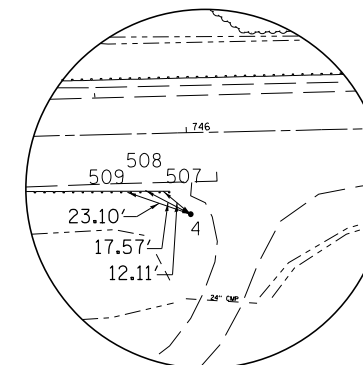
HORIZONTAL CONTROL # 1



HORIZONTAL CONTROL # 2



HORIZONTAL CONTROL # 3



HORIZONTAL CONTROL # 4

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	PLOT DATE = *DATE*	DATE - 06-28-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

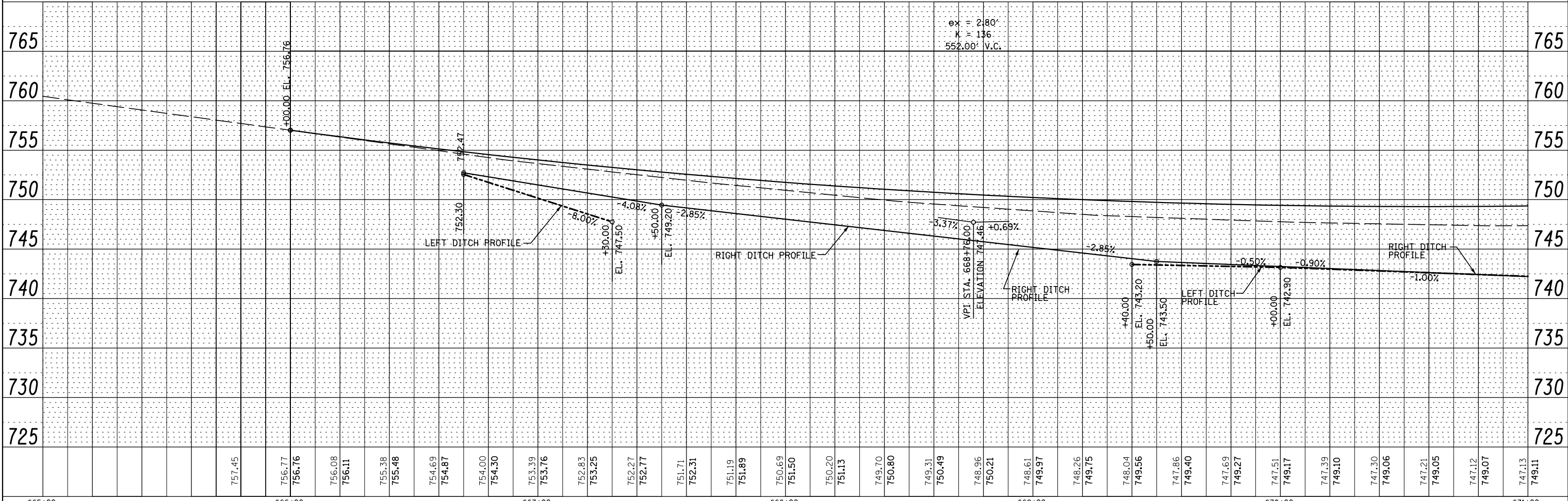
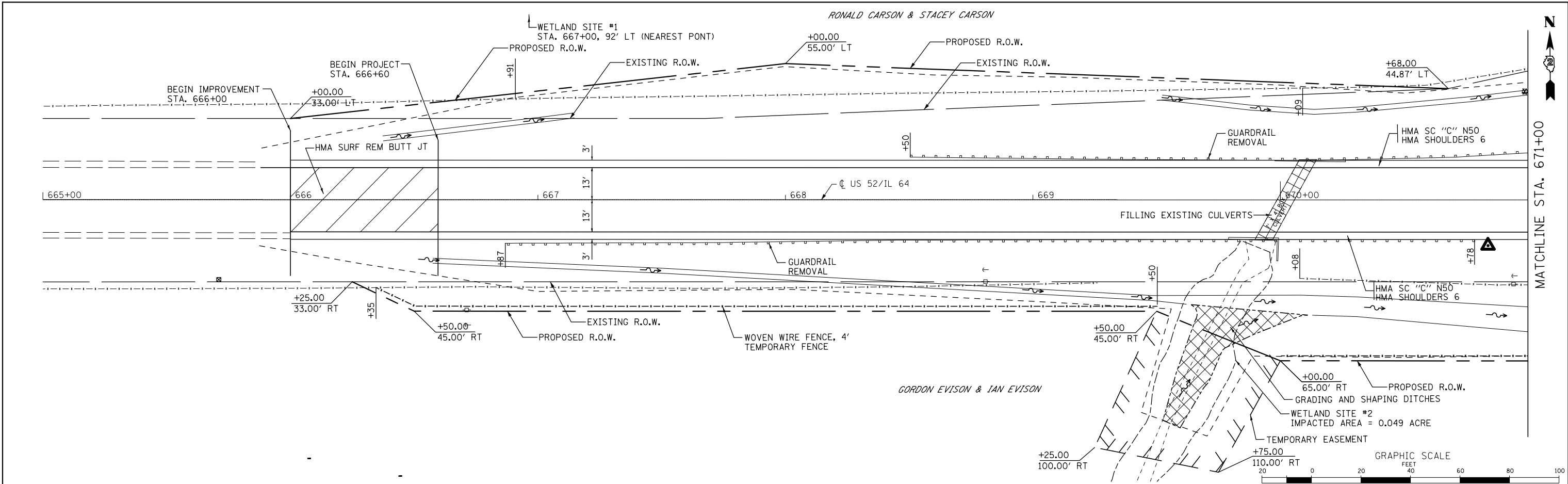
ALIGNMENT, TIES AND BENCHMARKS

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	19
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

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

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



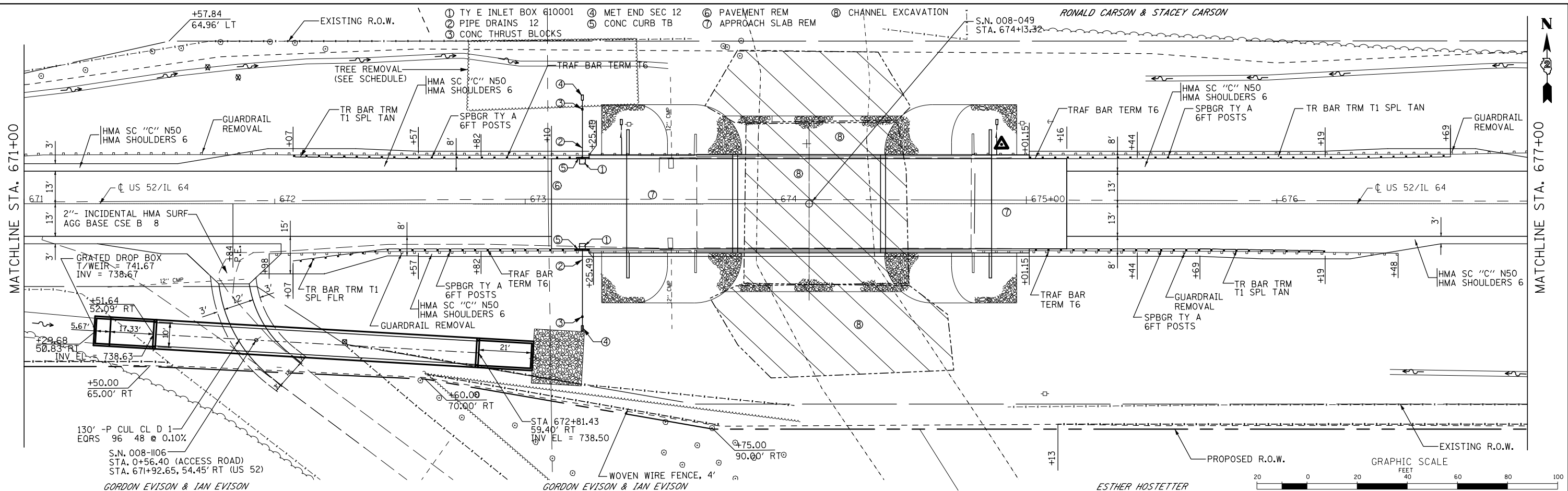
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FILEL	PLOT SCALE = *SCALE*	CHECKED - DAZ	REVISED -				CONTRACT NO. 64D83						
	PLOT DATE = *DATE*	DATE - 05-17-13	REVISED -				ILLINOIS FED. AID PROJECT						
SHEET 1 OF 6 SHEETS													

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

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE		
	NOTATIONS CHECKED		
	NO.		

RONALD CARSON & STACEY CARSON

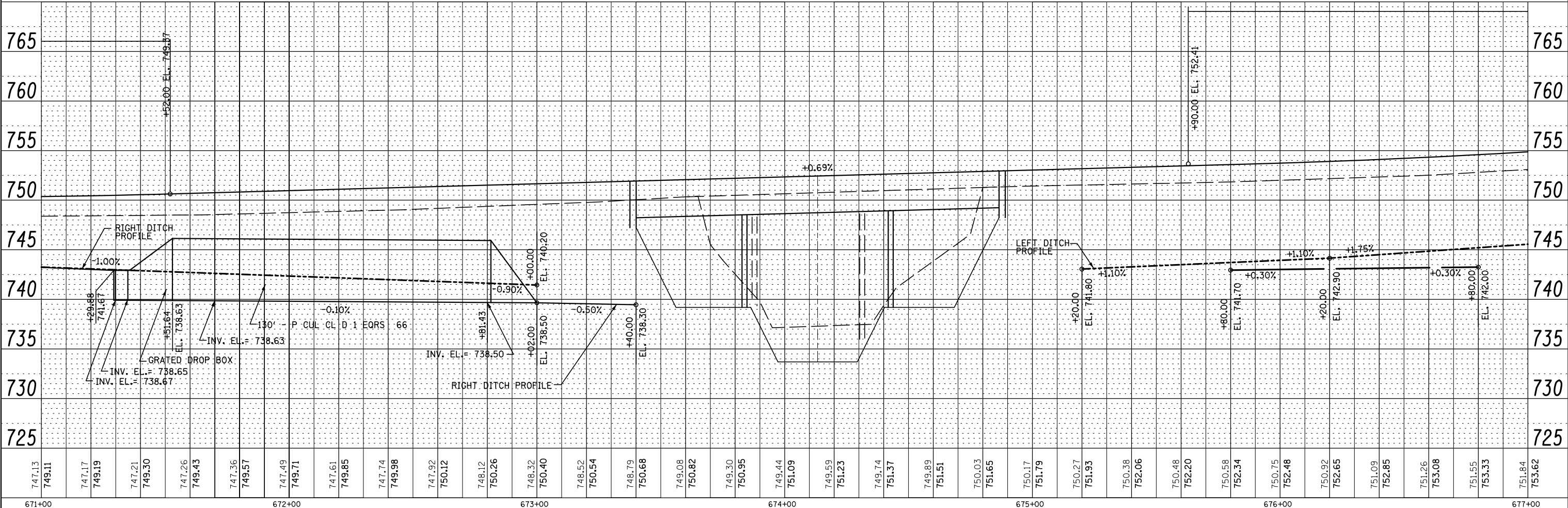
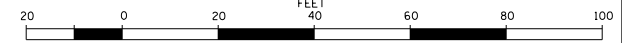
S.N. 008-049
STA. 674+13.32



GORDON EVISON & IAN EVISON

GORDON EVISON & IAN EVISON

ESTHER HOSTETTER



747.13	749.11	747.17	749.19	747.21	749.30	747.26	749.43	747.36	749.57	747.49	749.71	747.61	749.85	747.74	749.98	747.92	750.12	748.12	750.26	748.32	750.40	748.52	750.54	748.79	750.68	749.08	750.82	749.30	750.95	749.44	751.09	749.59	751.23	749.74	751.37	749.89	751.51	750.03	751.65	750.17	751.79	750.27	751.93	750.38	752.06	750.48	752.20	750.58	752.34	750.75	752.48	750.92	752.65	751.09	752.85	751.26	753.08	751.55	753.33	751.84	753.62								
671+00										672+00										673+00										674+00										675+00										676+00										677+00									

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FILEL		DRAWN - LCR	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN AND PROFILE

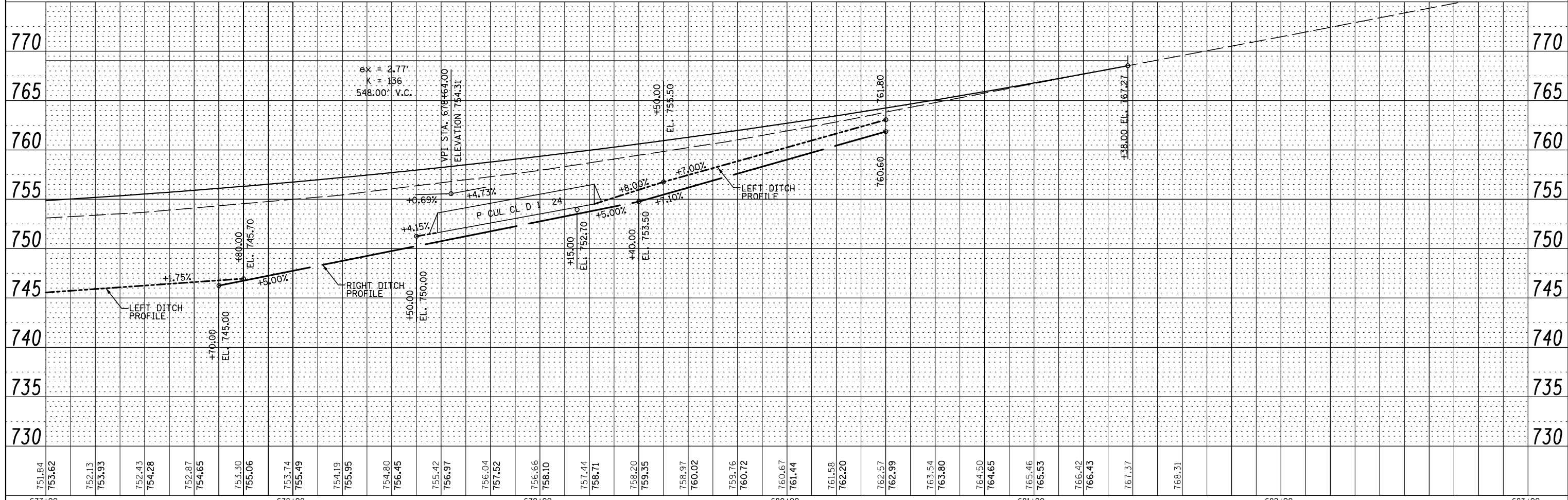
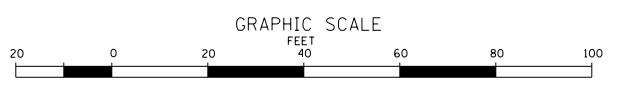
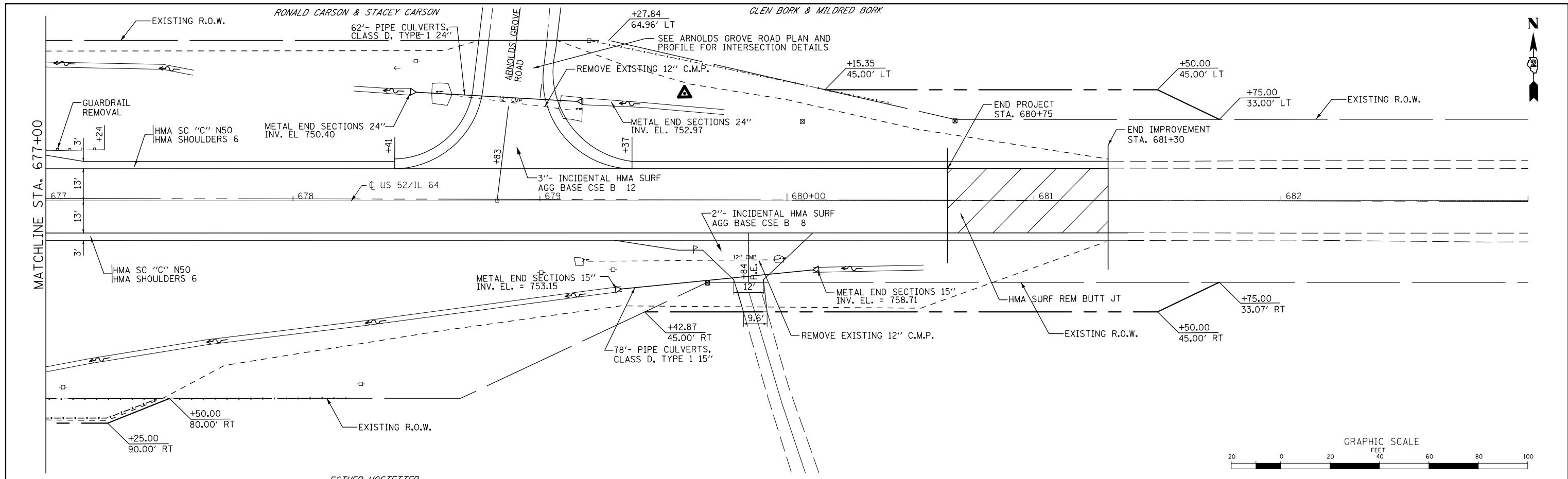
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4 BR-5 & 4BR-6	CARROLL	150	21
CONTRACT NO. 64D83				

SHEET 1 OF 6 SHEETS STA. 671+00 TO STA. 677+00

ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	
	NO.	
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	FILE NAME	

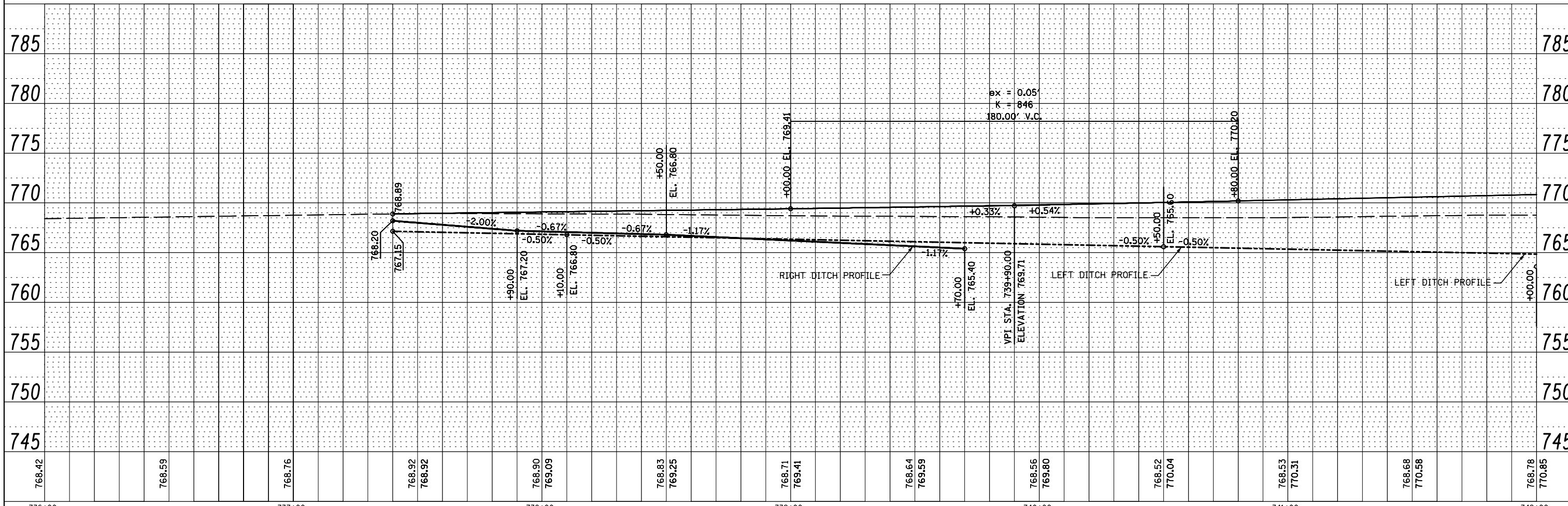
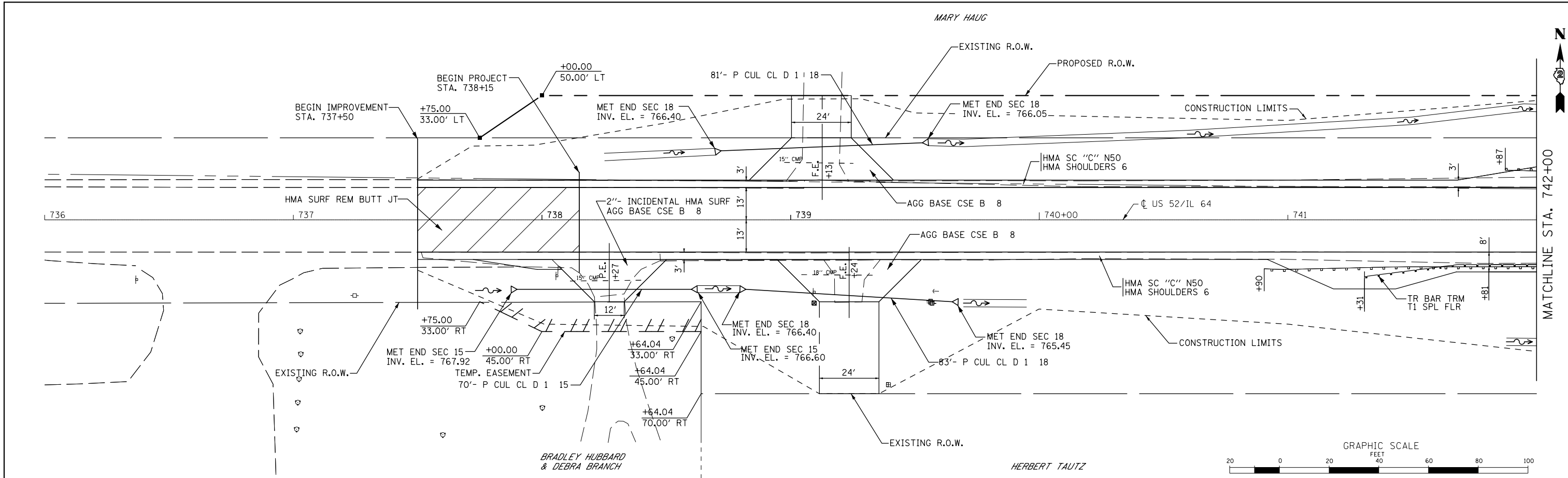
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	PLOTTED	BY
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	STRUCTURE	
	NOTATIONS	
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	NO.	



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FILEL		DRAWN - LCR	REVISED -					17	4 BR-5 & 4BR-6	CARROLL	150	22
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		DATE - 05-17-13	REVISED -					ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNMENT CHECKED	
	NOTE BOOK NO.	
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PROFILE	SURVEYED	DATE
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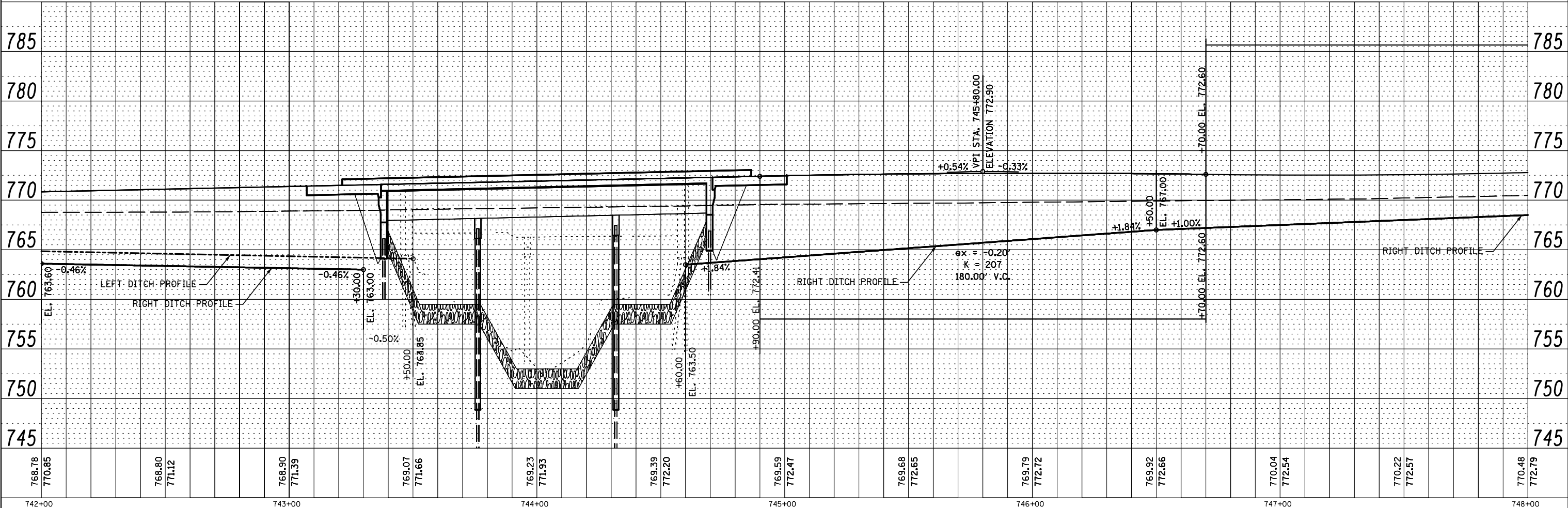
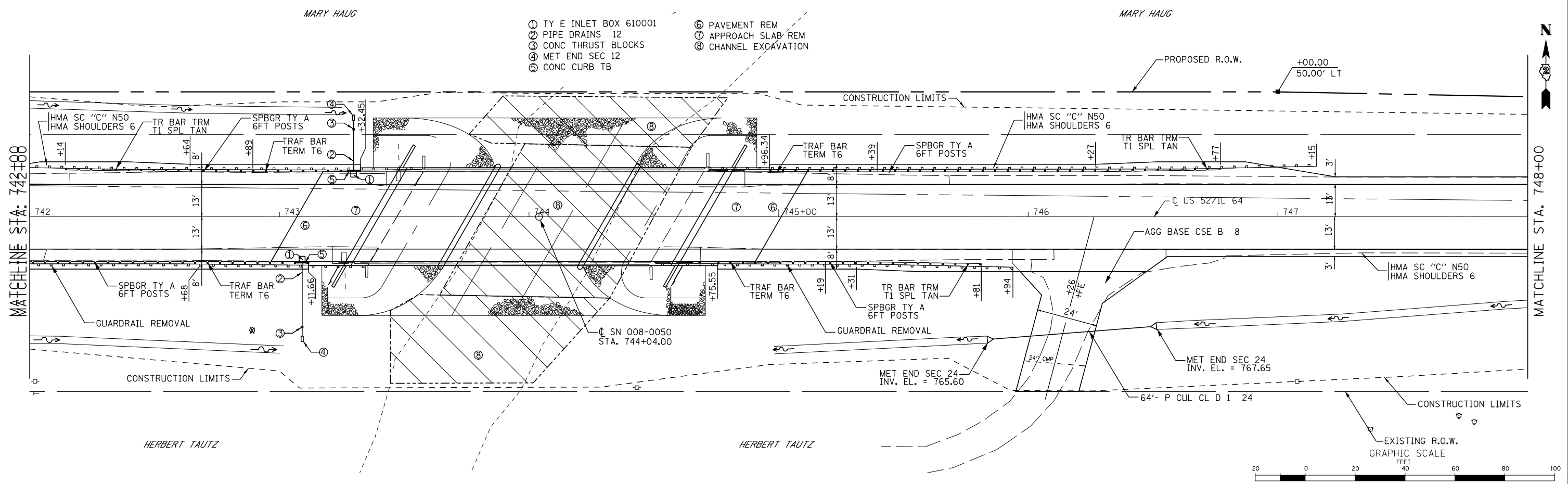
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FILEL		DRAWN - LCR	REVISED -				17	4 BR-5 & 4BR-6	CARROLL	150	23		
PLOT SCALE = *SCALE*		CHECKED - DAZ	REVISED -				CONTRACT NO. 64D83						
PLOT DATE = *DATE*		DATE - 05-17-13	REVISED -				ILLINOIS FED. AID PROJECT						

SHEET 4 OF 6 SHEETS STA. 737+40 TO STA. 742+00

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNED		
	CHECKED		
	NO. _____		
	FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES		
	CHECKED		
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	STRUCTURE		
	NOTATIONS		
	CHKD		

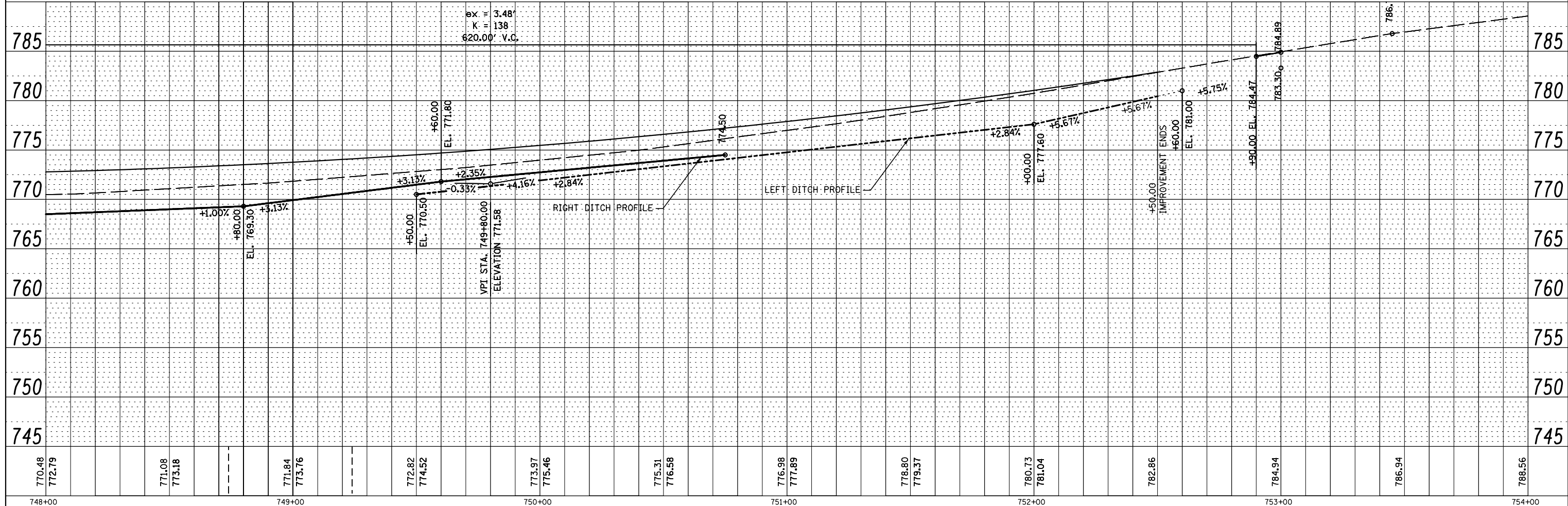
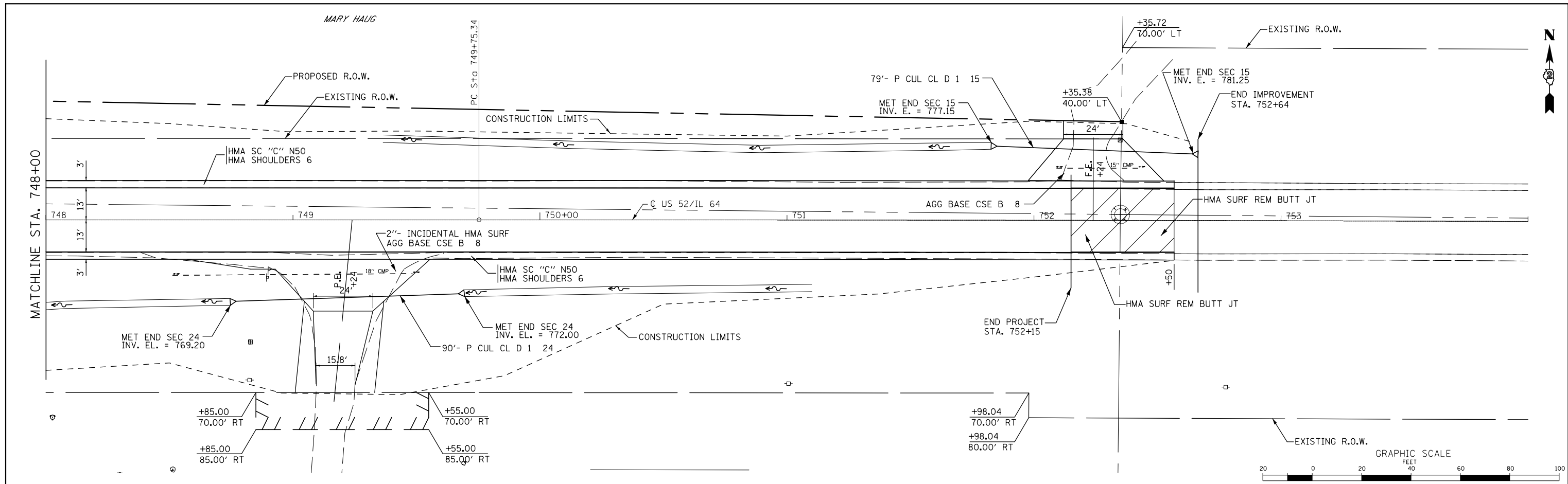
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- ② PIPE DRAINS 12
- ③ CONC THRUST BLOCKS
- ④ MET END SEC 12
- ⑤ CONC CURB TB
- ⑥ PAVEMENT REM
- ⑦ APPROACH SLAB REM
- ⑧ CHANNEL EXCAVATION



FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO. 17 4 BR-5 & 4BR-6 CARROLL 150 24 CONTRACT NO. 64DB3
FILEL		DRAWN - LCR	REVISED -			
		CHECKED - DAZ	REVISED -			
		DATE - 05-17-13	REVISED -			
SHEET 5 OF 6 SHEETS STA. 742+00 TO STA. 748+00						ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
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	NO.	

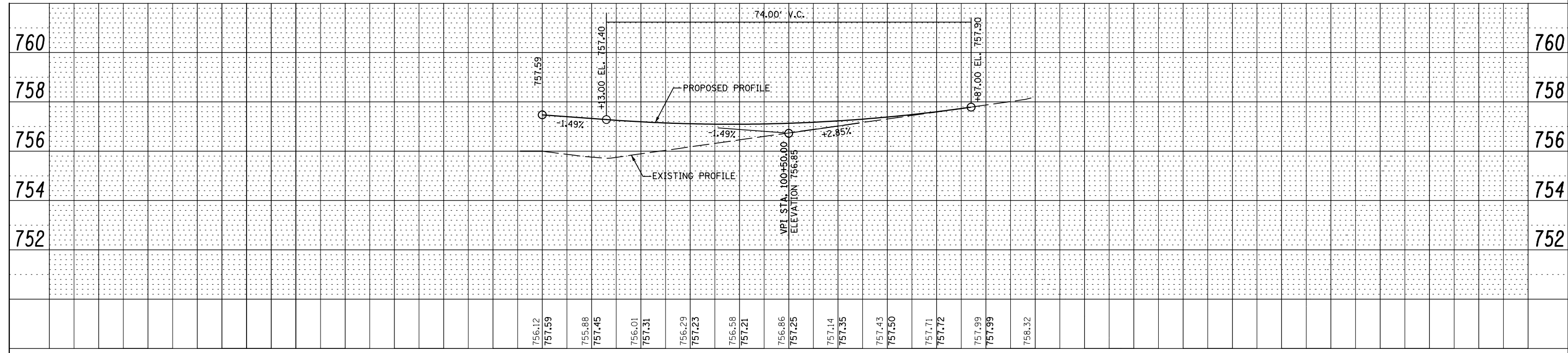
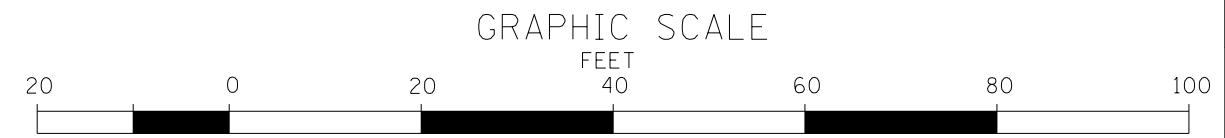
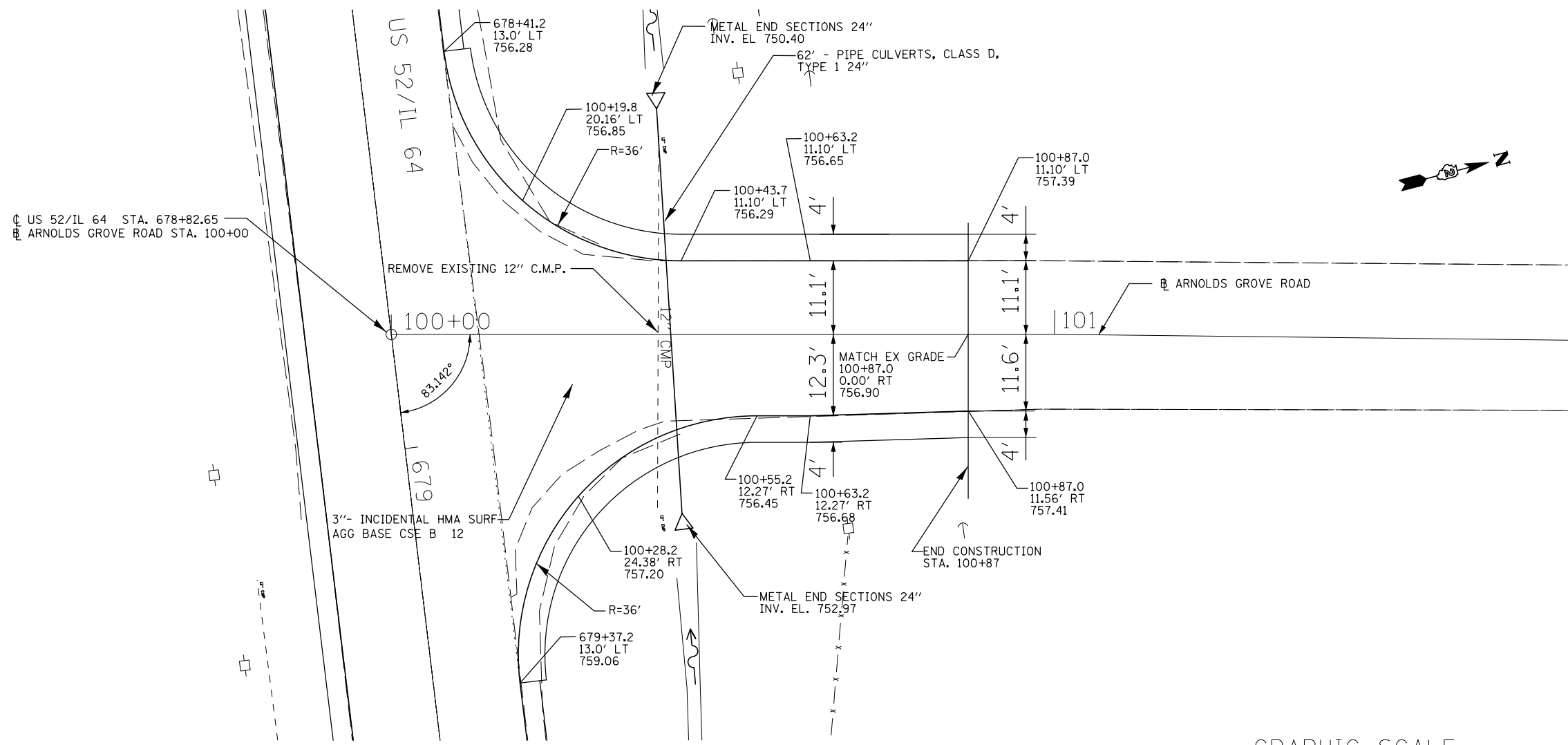


FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	PLAN AND PROFILE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - LCR	REVISED -				17	4 BR-5 & 4BR-6	CARROLL	150	25		
PLOT SCALE = *SCALE*		CHECKED - DAZ	REVISED -				CONTRACT NO. 64D83						
PLOT DATE = *DATE*		DATE - 05-17-13	REVISED -				ILLINOIS FED. AID PROJECT						

SHEET 6 OF 6 SHEETS STA. 748+00 TO STA. 752+64

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

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



FILE NAME =	USER NAME = \$USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	PLAN AND PROFILE ARNOLDS GROVE ROAD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$		DRAWN - LCR	REVISED -					17	4 BR-5 & 4BR-6	CARROLL	150	26
PLOT SCALE = \$SCALE*		CHECKED - DAZ	REVISED -					CONTRACT NO. 64D83				
PLOT DATE = \$DATE*		DATE - 05-17-13	REVISED -					ILLINOIS FED. AID PROJECT				
				SHEET 1 OF 1 SHEETS		STA.	TO STA.					

PRE-STAGE 1 CONSTRUCTION NOTES

INSTALL TRAFFIC CONTROL PER STANDARD 701326.

CONSTRUCT CULVERT (SN 008-1106) AT PRIVATE ENTRANCE AT STA 671+84, PLACING PROPOSED EMBANKMENT AS NECESSARY.

REROUTE FLOW FROM EXISTING CULVERT TO PROPOSED CULVERT.

FILL EXISING 7' X 4' CULVERT AT 670+04 AND PLACE EMBANKMENT AT ENDS OF CULVERT TO CREATE PROPOSED DITCHES.

CONSTRUCT TEMPORARY PAVEMENT TO BE USED FOR STAGE 1 TRAFFIC

STAGE 1 CONSTRUCTION NOTES

INSTALL TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIER, SIGNS AND ETC. ACCORDING TO DETAILS AND TRAFFIC CONTROL STANDARD 701321 MAINTAINING ALL TRAFFIC ON THE EASTBOUND LANE.

REMOVE STAGE 1 PORTION OF THE EXISTING BRIDGE STRUCTURES, WESTBOUND GUARDRAIL AND PAVEMENT AS SHOWN ON THE PLANS.

CONSTRUCT THE STAGE 1 PORTION OF THE PROPOSED STRUCTURES, AND APPROACH PAVEMENT,

CONSTRUCT TEMPORARY RAMP TO TRANSITION FROM PROPOSED PAVEMENT (BRIDGE AND BRIDGE APPROACH) CONSTRUCTED IN STAGE 1 TO EXISTING PAVEMENT,

CONSTRUCT TEMPORARY PAVEMENT FOR PORTION OF SHOULDERS UNDER STAGE 2 TRAFFIC AS SHOWN ON STAGE 2 MAINTENANCE OF TRAFFIC PLANS

CONSTRUCT WESTBOUND PROPOSED GUARDRAIL TO THE END OF THE BRIDGE APPROACH.

STAGE 2 CONSTRUCTION NOTES

RELOCATE THE TRAFFIC CONTROL PER STANDARD 701321 AND AS DETAILED IN THESE PLANS. REDIRECT TRAFFIC TO THE WESTBOUND.

REMOVE THE STAGE 2 PORTION OF THE EXISTING BRIDGE STRUCTURES, GUARDRAIL AND PAVEMENT AS SHOWN ON THE PLANS.

CONSTRUCT THE STAGE 2 PORTION OF THE PROPOSED STRUCTURES, APPROACH PAVEMENT, REMAINING CULVERTS AND GUARDRAIL.

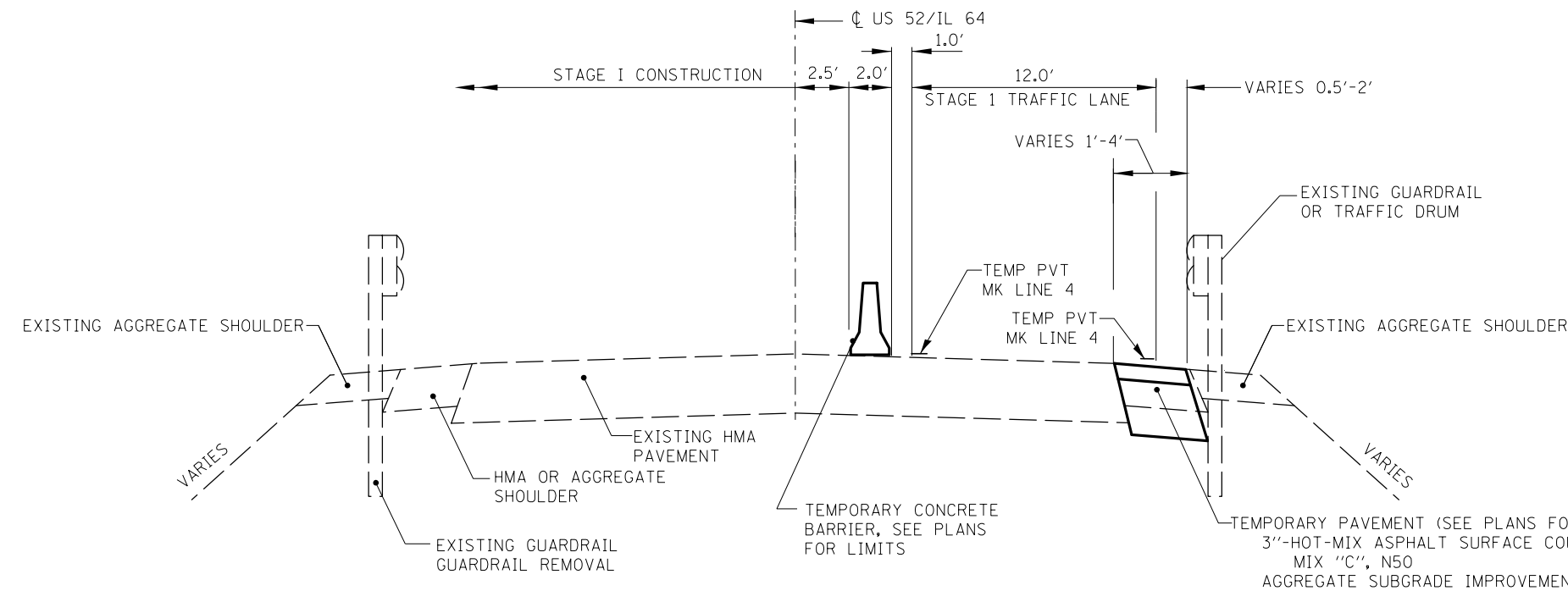
REMOVE TRAFFIC SIGNALS AND ETC. CALLED FOR IN STANDARD 701321.

STAGE 3 CONSTRUCTION NOTES

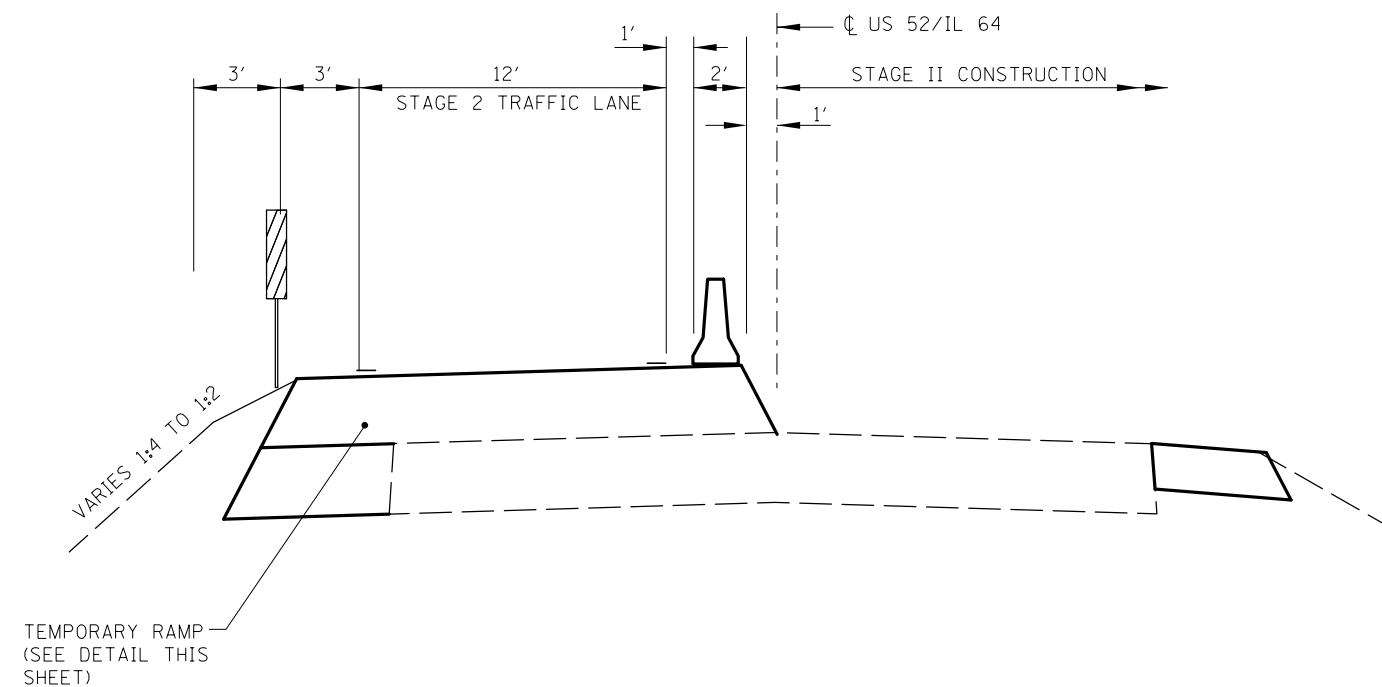
PERFORM GRADE CHANGE USING LEVELING BINDER, BINDER, AND SURFACE COURSES USING STANDARD 701201

PLACE PAVEMENT MARKINGS AND ALL REMAINING WORK USING STANDARD 701201.

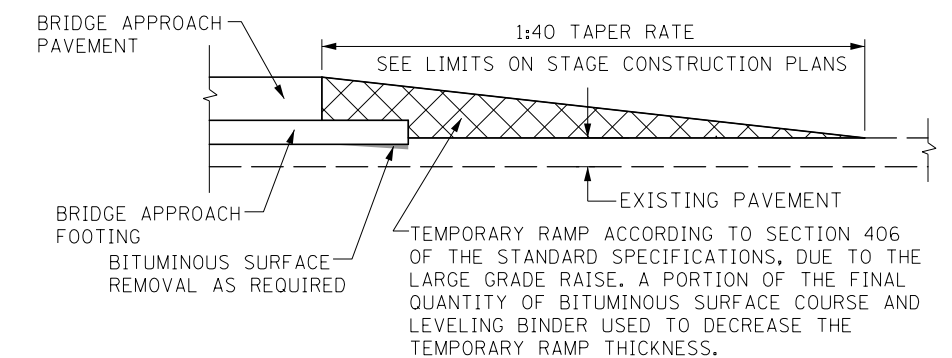
NOTE: A MAXIMUM 2" DROP-OFF IS ALLOWED BETWEEN OPEN LANES AT THE END OF EACH DAY.



STAGE 1 TYPICAL SECTION



STAGE 2 TYPICAL SECTION



TEMPORARY RAMP
TAPER DETAIL

FILE NAME =	USER NAME = #USER#	DESIGNED - RAC	REVISED -
#FILE#		DRAWN - LCR	REVISED -
		CHECKED - DAZ	REVISED -
		DATE - 06-28-13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

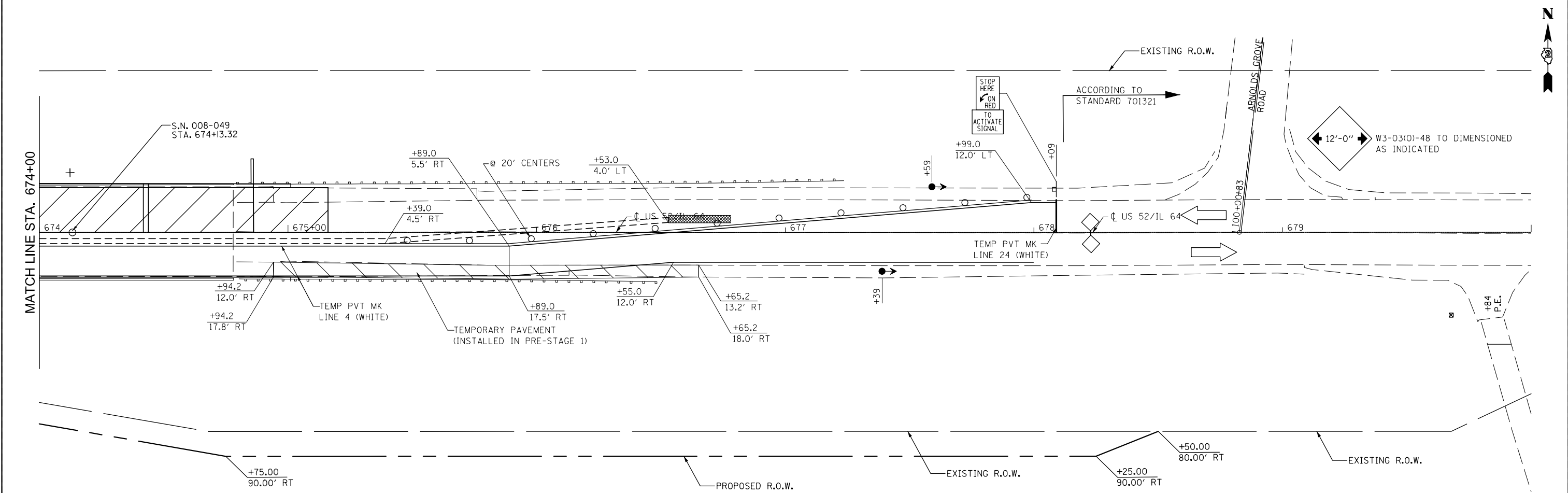
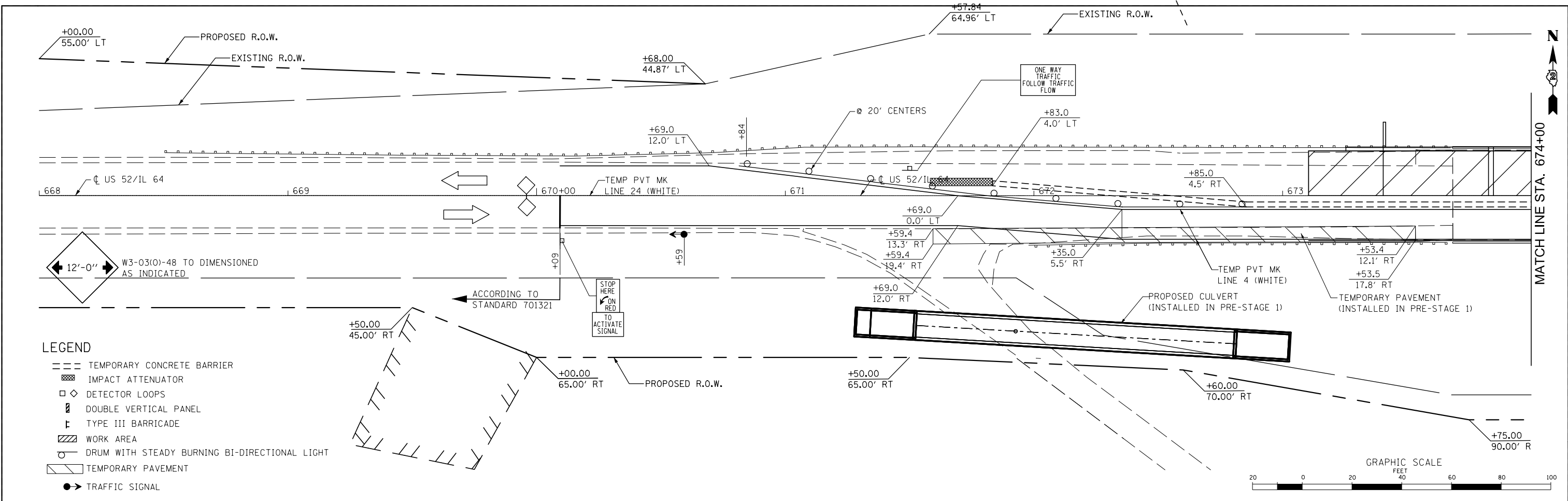
ZROKA
engineering

Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

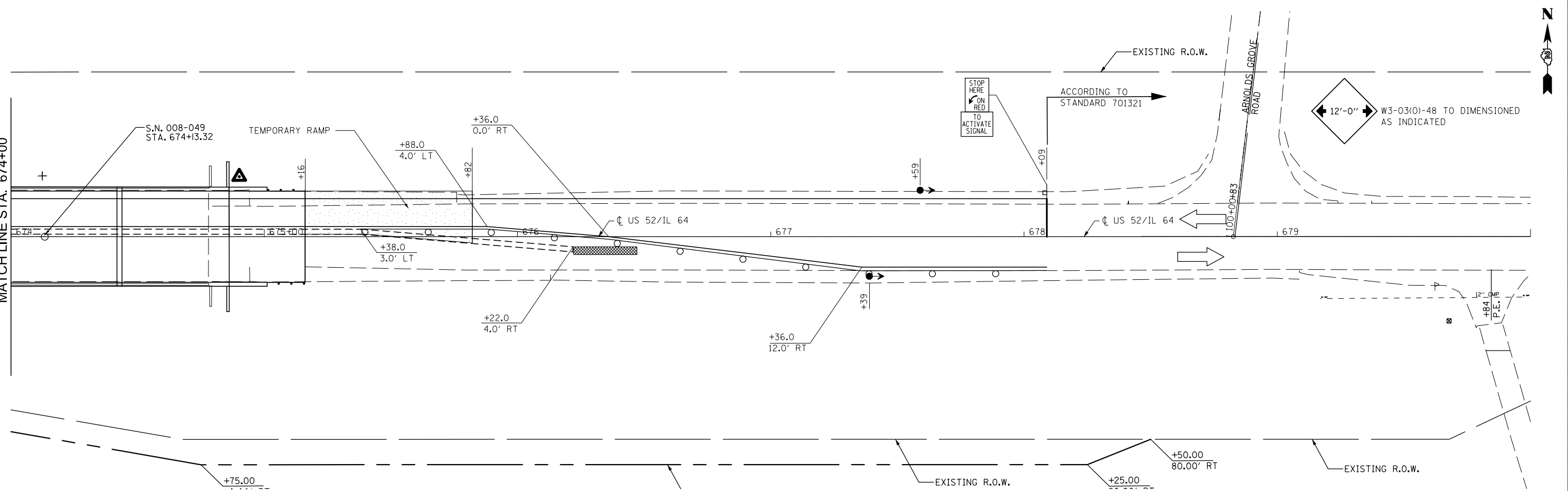
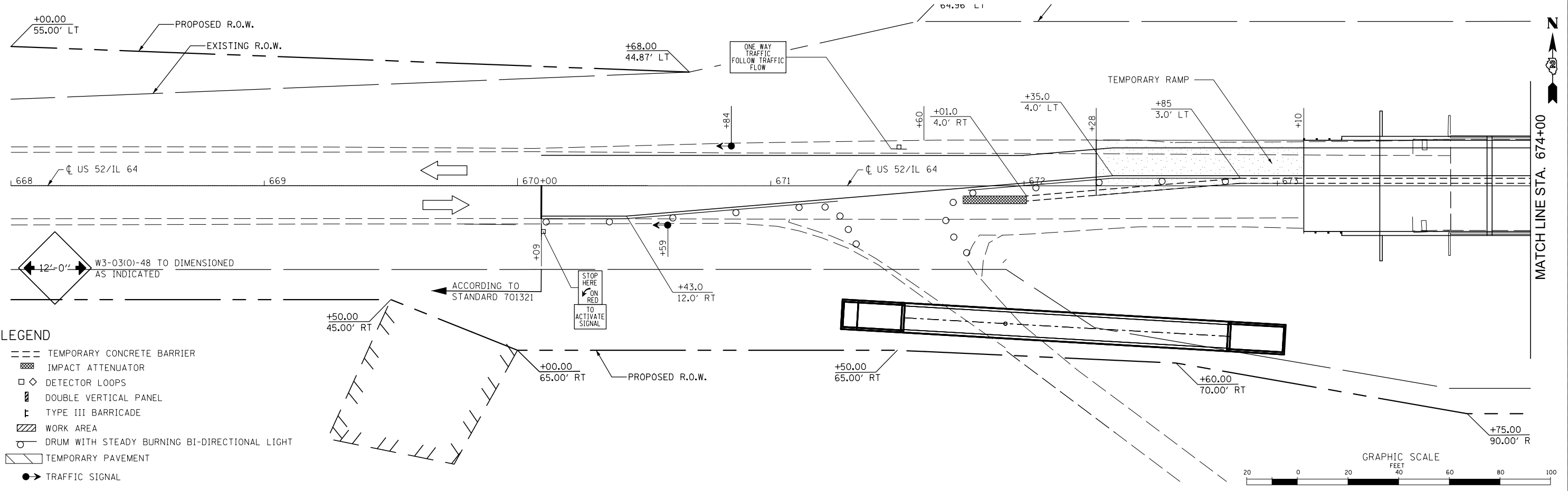
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

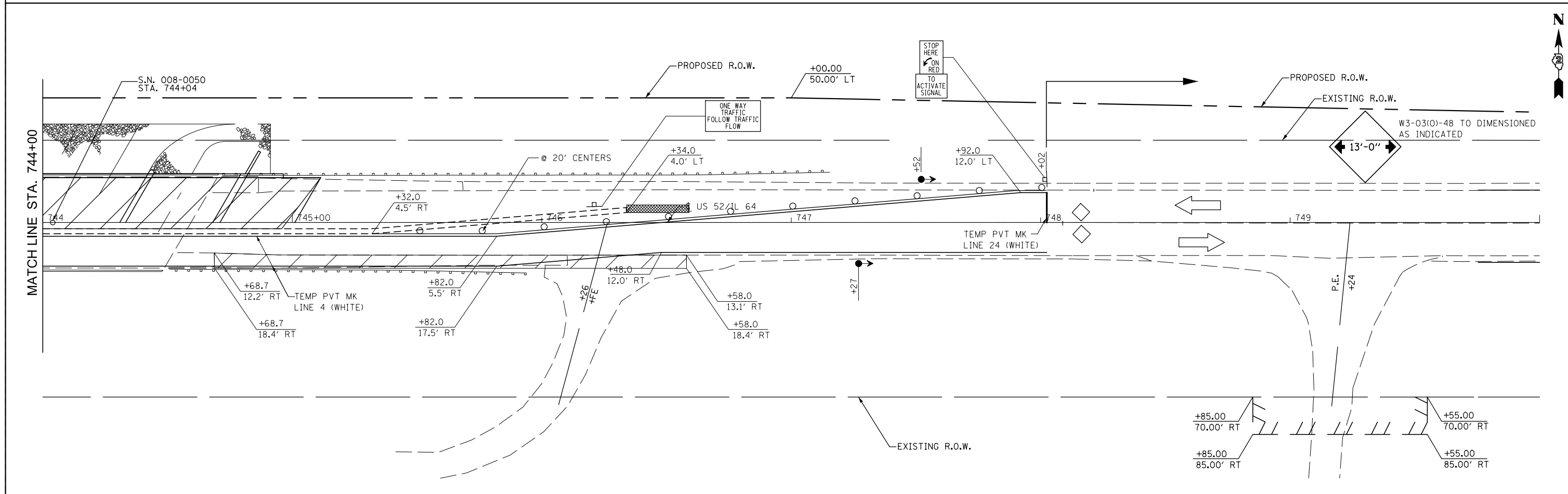
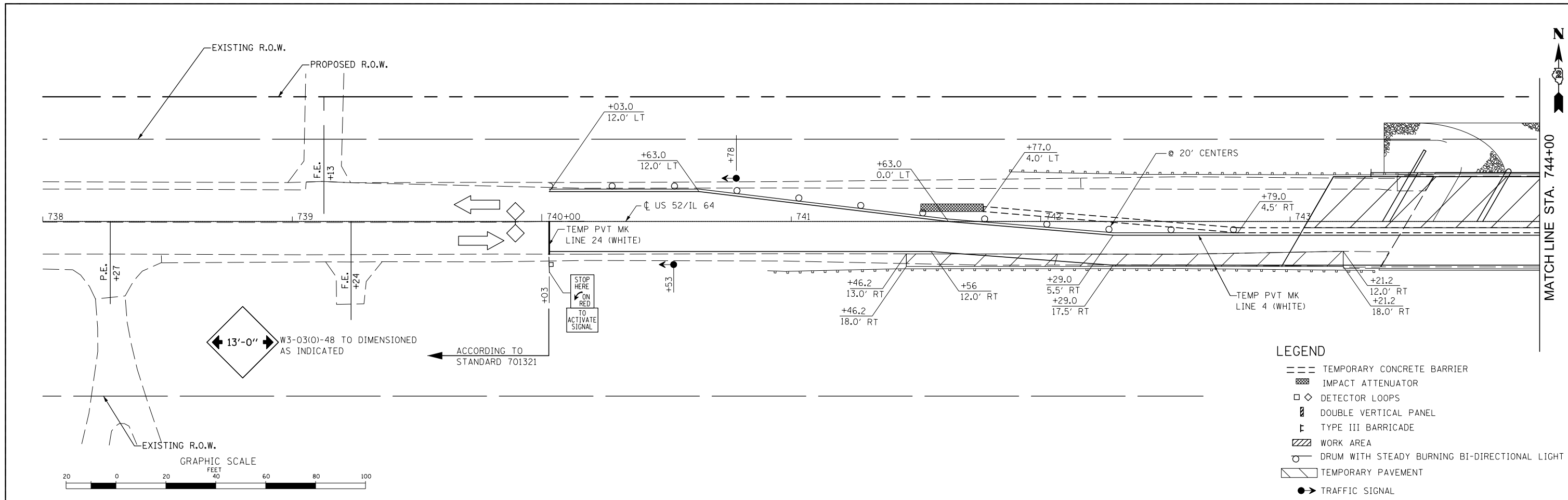
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	27
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



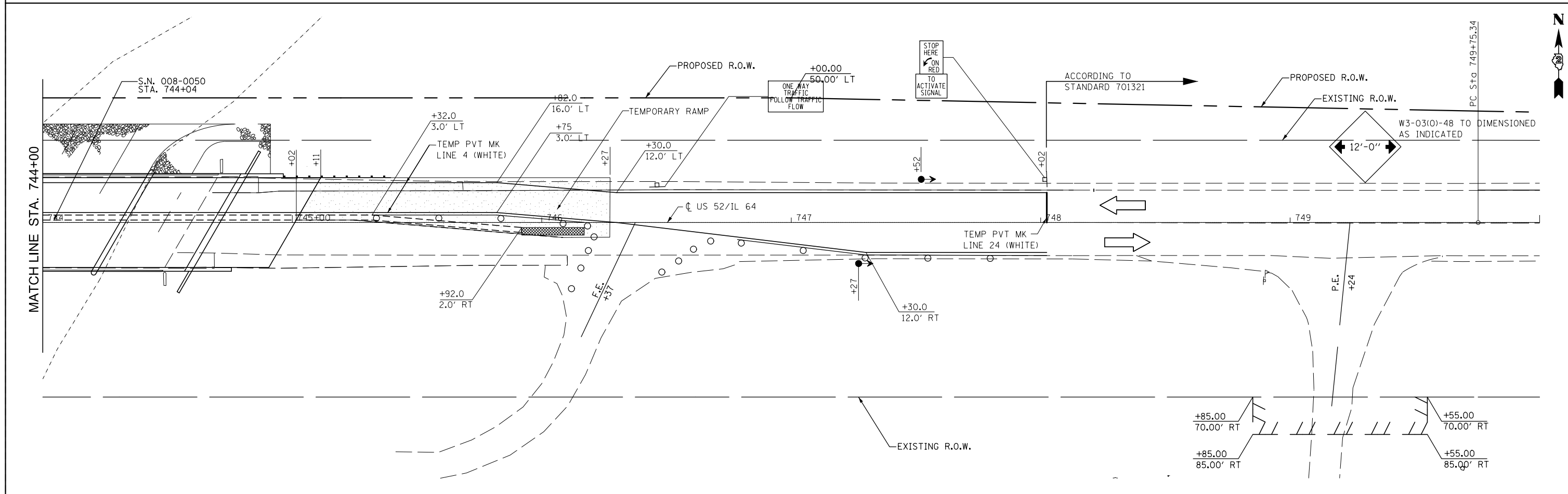
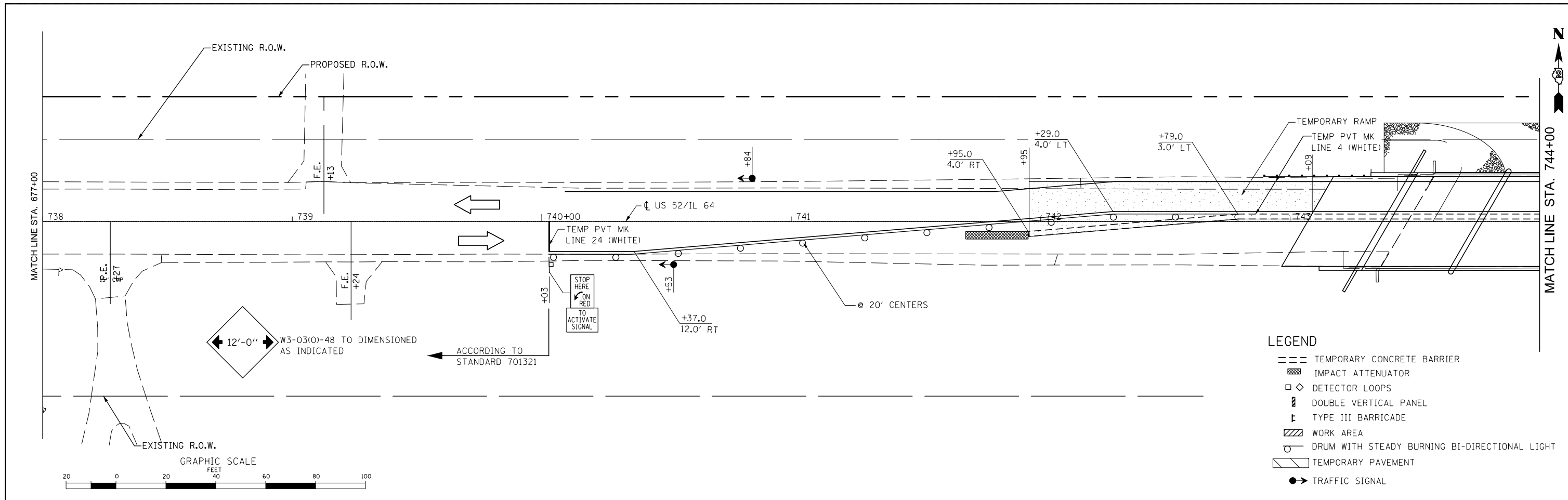
FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	 <small>Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613</small>	MAINTENANCE OF TRAFFIC STAGE 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILE#		DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	28	
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PLOT DATE = *DATE*		DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT					
				SCALE:		SHEET 1 OF 2 SHEETS		STA. TO STA.				



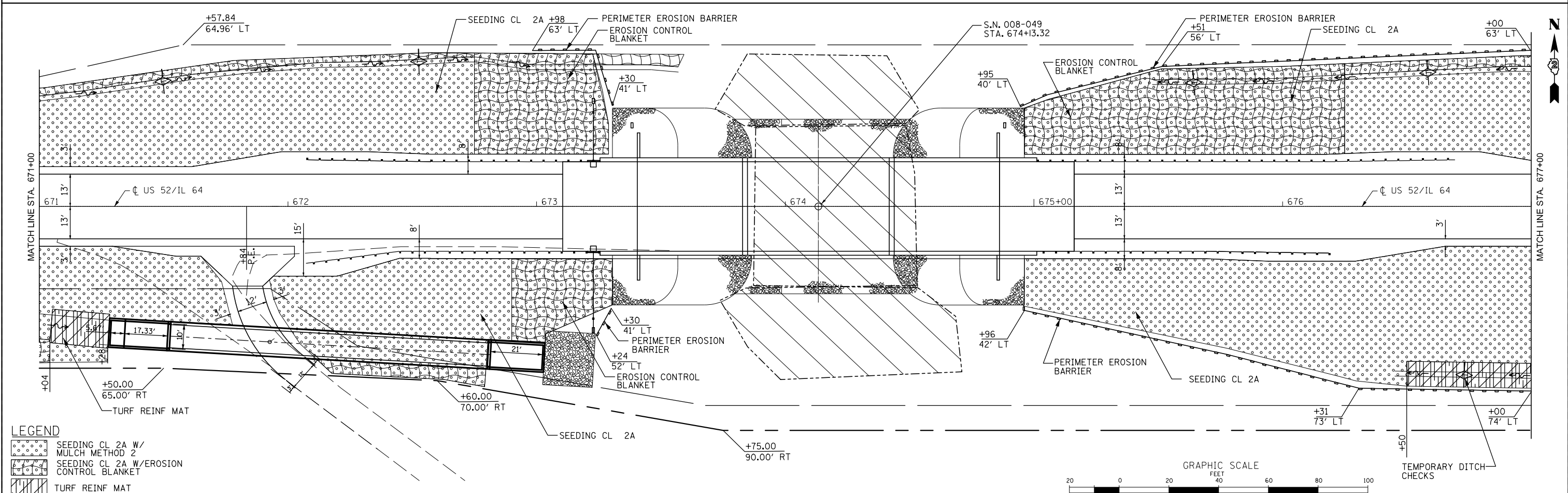
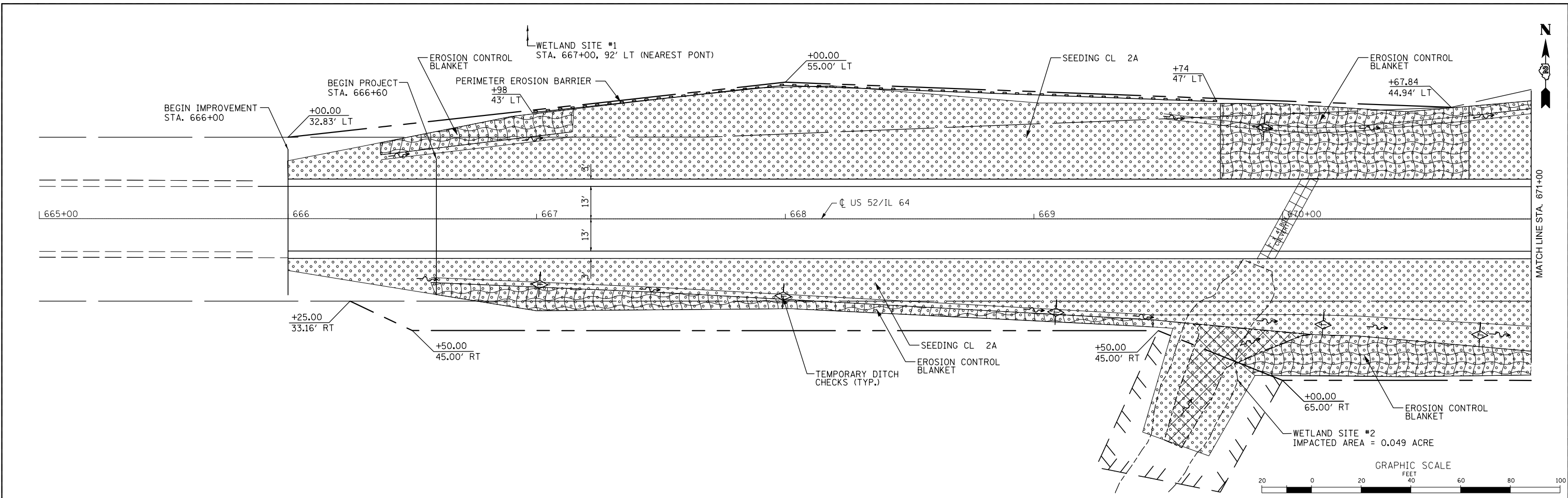
FILE NAME =	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	MAINTENANCE OF TRAFFIC STAGE 2		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$		DRAWN - LCR	REVISED -			17	4BR-5 & 4BR-6	CARROLL	150	29		
PLOT SCALE = \$SCALE\$		CHECKED - DAZ	REVISED -			CONTRACT NO. 64D83						
PLOT DATE = \$DATE\$		DATE - 06-28-13	REVISED -			ILLINOIS FED. AID PROJECT						



FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	MAINTENANCE OF TRAFFIC STAGE 1	F.A.P. R.T.E. = 17	SECTION = 4BR-5 & 4BR-6	COUNTY = CARROLL	TOTAL SHEETS = 150	SHEET NO. = 30			
	PLOT SCALE = *SCALE*	CHECKED - DAZ	REVISED -				SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.		CONTRACT NO. 64D83					
	PLOT DATE = *DATE*	DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT							



FILE NAME =	USER NAME = \$USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	MAINTENANCE OF TRAFFIC STAGE 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILE#		DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	31	
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PLOT DATE = \$DATE*		DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT					
				SCALE:		SHEET 2 OF 2 SHEETS		STA. TO STA.				



LEGEND

	SEEDING CL 2A W/ MULCH METHOD 2
	SEEDING CL 2A W/EROSION CONTROL BLANKET
	TURF REINF MAT

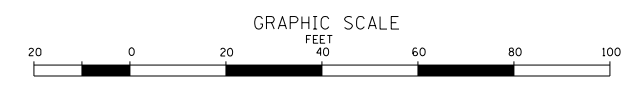
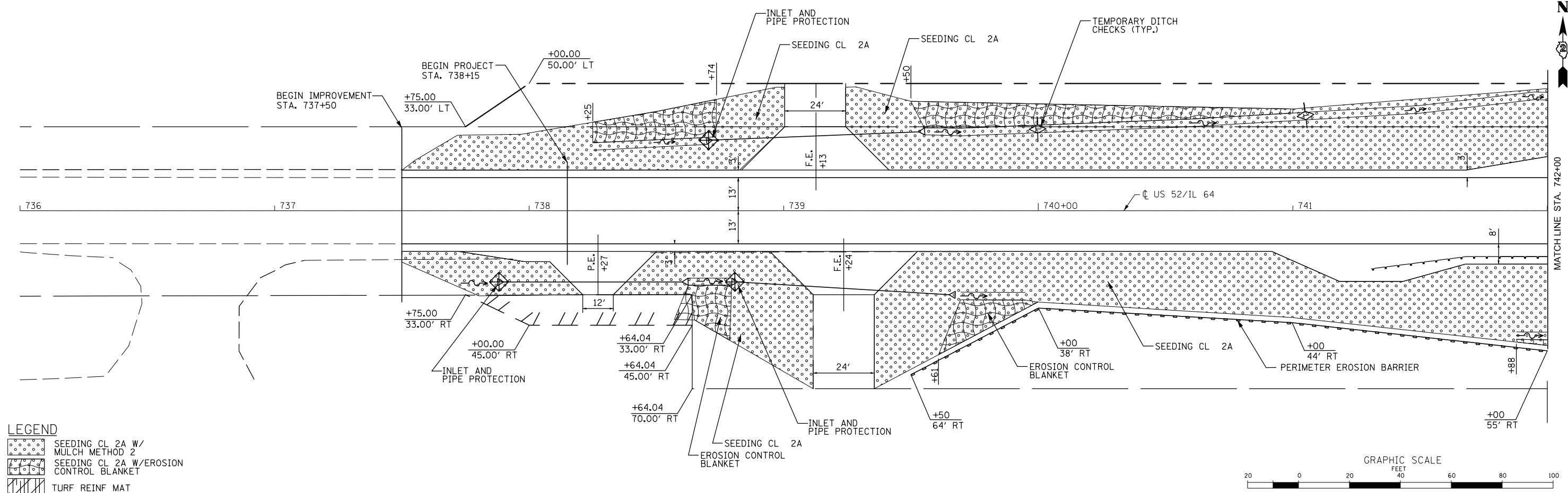
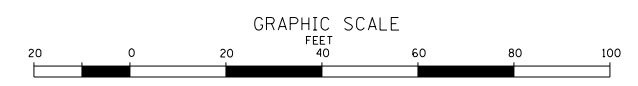
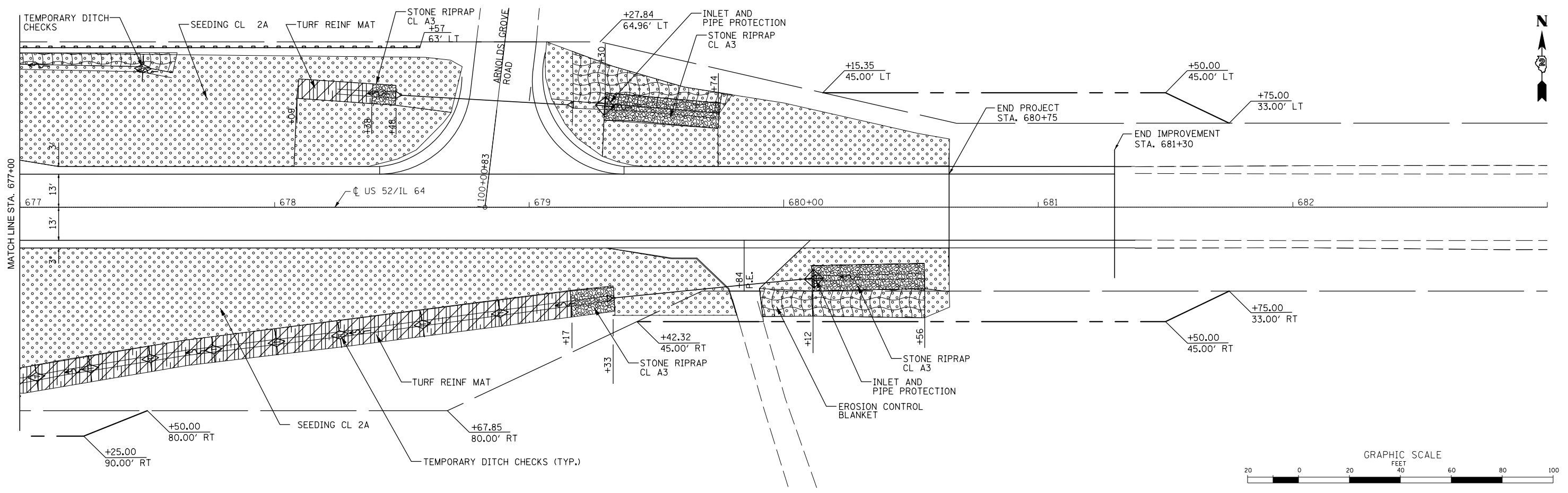
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	PLOT DATE = *DATE*	DATE - 06-28-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ZROKA
engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

EROSION CONTROL AND LANDSCAPING
SCALE: SHEET OF SHEETS STA. 666+00 TO STA. 677+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	32
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



LEGEND

	SEEDING CL 2A W/ MULCH METHOD 2
	SEEDING CL 2A W/EROSION CONTROL BLANKET
	TURF REINF MAT

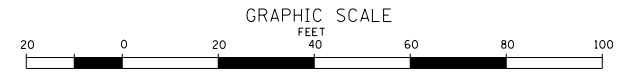
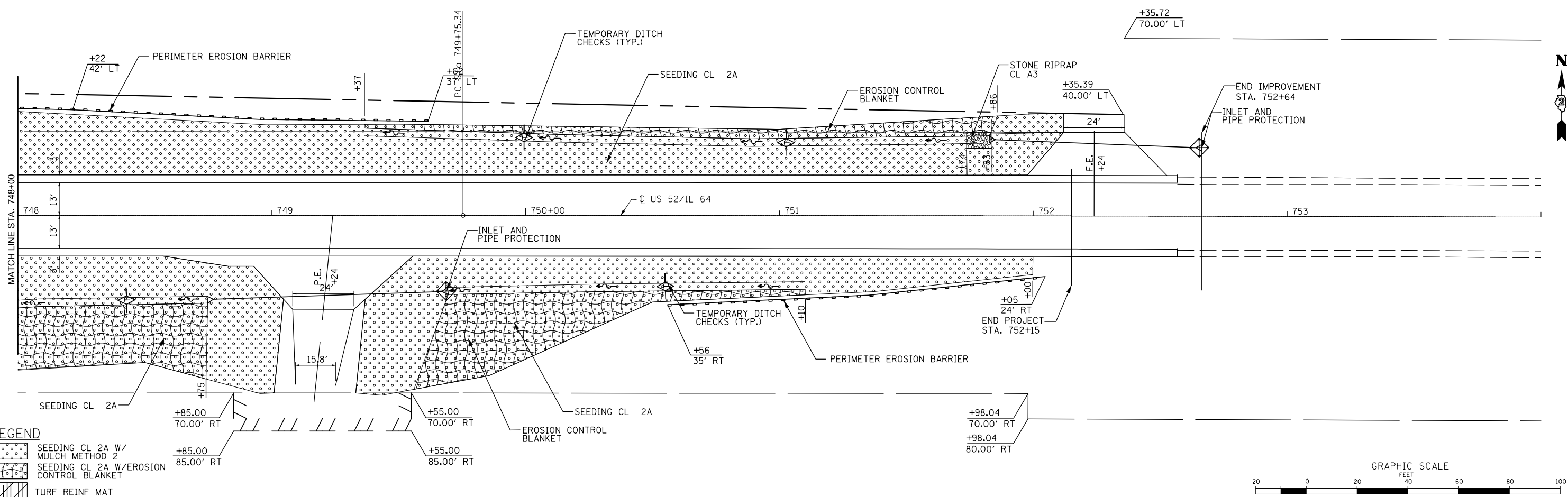
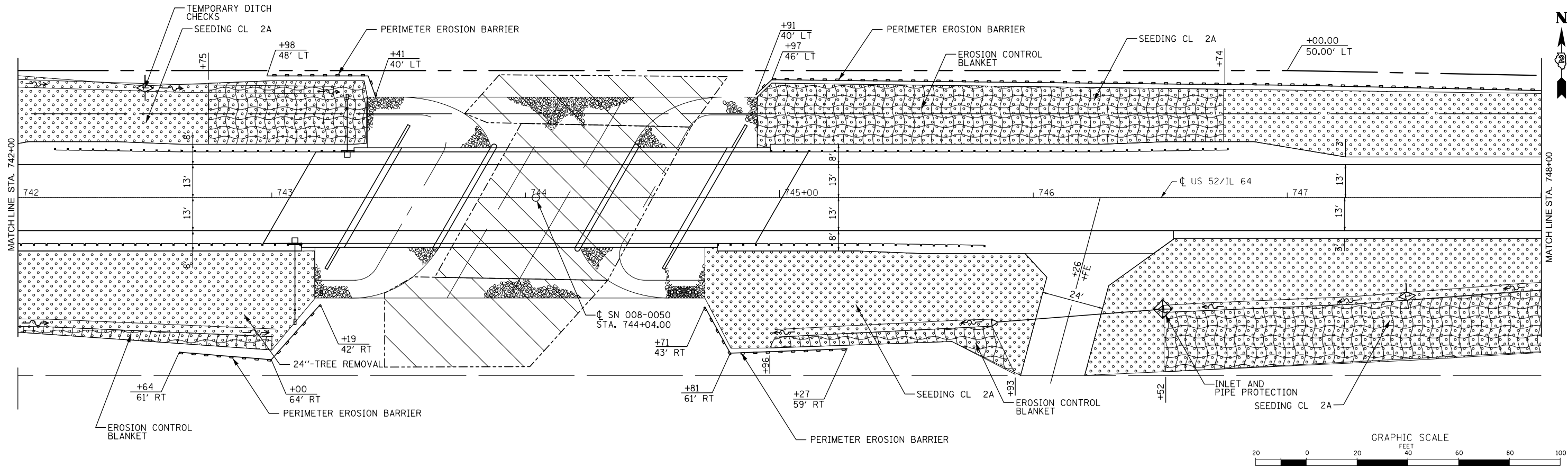
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		CHECKED - DAZ	REVISED -
		DATE - 06-28-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ZROKA
engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

EROSION CONTROL AND LANDSCAPING
SCALE: SHEET OF SHEETS STA. 677+00 TO STA. 742+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	33
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



LEGEND

	SEEDING CL 2A W/ MULCH METHOD 2
	SEEDING CL 2A W/EROSION CONTROL BLANKET
	TURF REINF MAT

FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -
*FILE#		DRAWN - LCR	REVISED -
		CHECKED - DAZ	REVISED -
		DATE - 06-28-13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



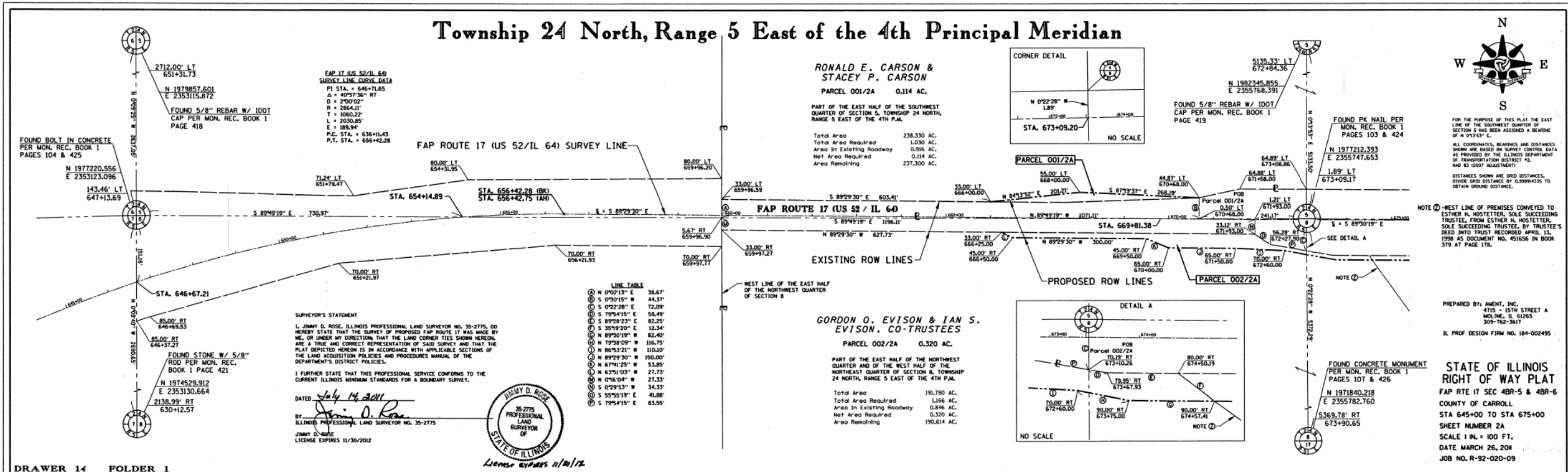
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

EROSION CONTROL AND LANDSCAPING

SCALE: SHEET OF SHEETS STA. 742+00 TO STA. 752+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5 & 4BR-6	CARROLL	150	34
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

Township 24 North, Range 5 East of the 4th Principal Meridian

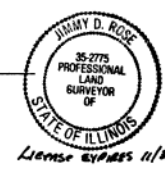


FAP 17 (US 52/IL 64) SURVEY LINE CURVE DATA
 PI STA. = 646+71.65
 Δ = 40°57'36" RT
 D = 700.00'
 R = 2864.11'
 T = 1060.22'
 L = 2030.85'
 E = 189.94'
 P.C. STA. = 636+11.43
 P.T. STA. = 656+42.28

RONALD E. CARSON & STACEY P. CARSON
 PARCEL 001/2A 0.114 AC.
 PART OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 24 NORTH, RANGE 5 EAST OF THE 4TH P.M.
 Total Area 238.330 AC.
 Total Area Required 1.030 AC.
 Area In Existing Roadway 0.916 AC.
 Net Area Required 0.114 AC.
 Area Remaining 237.300 AC.

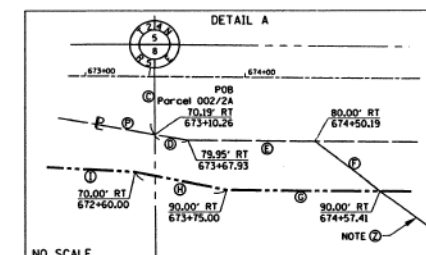
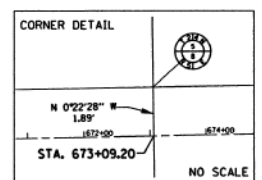
GORDON O. EIVISON & IAN S. EIVISON, CO-TRUSTEES
 PARCEL 002/2A 0.320 AC.
 PART OF THE EAST HALF OF THE NORTHWEST QUARTER AND OF THE WEST HALF OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 24 NORTH, RANGE 5 EAST OF THE 4TH P.M.
 Total Area 191.780 AC.
 Total Area Required 1.156 AC.
 Area In Existing Roadway 0.846 AC.
 Net Area Required 0.320 AC.
 Area Remaining 190.614 AC.

SURVEYOR'S STATEMENT
 I, JIMMY D. ROSE, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775, DO HEREBY STATE THAT THE SURVEY OF PROPOSED FAP ROUTE 17 WAS MADE BY ME, OR UNDER MY DIRECTION THAT THE LAND CORNER TIES SHOWN HEREON ARE A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY AND THAT THE PLAT DEPICTED HEREON IS IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE LAND ACQUISITION POLICIES AND PROCEDURES MANUAL OF THE DEPARTMENT'S DISTRICT POLICIES.
 I FURTHER STATE THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
 DATED July 14, 2011
 BY Jimmy D. Rose
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775
 JIMMY D. ROSE
 LICENSE EXPIRES 11/30/2012



LINE TABLE

① N 0°02'13" E	38.67'
② S 0°30'15" W	44.37'
③ S 0°22'28" E	72.09'
④ S 89°54'15" E	58.49'
⑤ S 89°28'23" E	82.25'
⑥ S 35°19'20" E	12.34'
⑦ N 89°50'15" W	82.40'
⑧ N 79°38'02" W	116.75'
⑨ N 86°53'21" W	110.10'
⑩ N 89°29'30" W	150.00'
⑪ N 67°41'25" W	53.89'
⑫ N 63°51'03" W	21.73'
⑬ N 0°16'04" W	21.33'
⑭ S 0°29'53" E	34.33'
⑮ S 55°55'19" E	41.88'
⑯ S 79°54'15" E	83.55'



FOR THE PURPOSE OF THIS PLAT THE EAST LINE OF THE SOUTHWEST QUARTER OF SECTION 5 HAS BEEN ASSIGNED A BEARING OF N 0°13'37" E.
 ALL COORDINATES, BEARINGS AND DISTANCES SHOWN ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT #2.
 HAD AS (COORD. ADJUSTMENT)
 DISTANCES SHOWN ARE GRID DISTANCES. DIVIDE GRID DISTANCE BY 0.99984330 TO OBTAIN GROUND DISTANCE.
 NOTE ① - WEST LINE OF PREMISES CONVEYED TO ESTHER N. HOSTETTER, SOLE SUCCEEDING TRUSTEE, FROM ESTHER N. HOSTETTER, SOLE SUCCEEDING TRUSTEE, BY TRUSTEE'S DEED INTO TRUST RECORDED APRIL 15, 1998 AS DOCUMENT NO. 451656 IN BOOK 379 AT PAGE 178.

PREPARED BY: AMENT, INC.
 4715 - 15TH STREET A
 MORTON, IL 61265
 309-762-3617
 IL PROF DESIGN FIRM NO. 184-002495

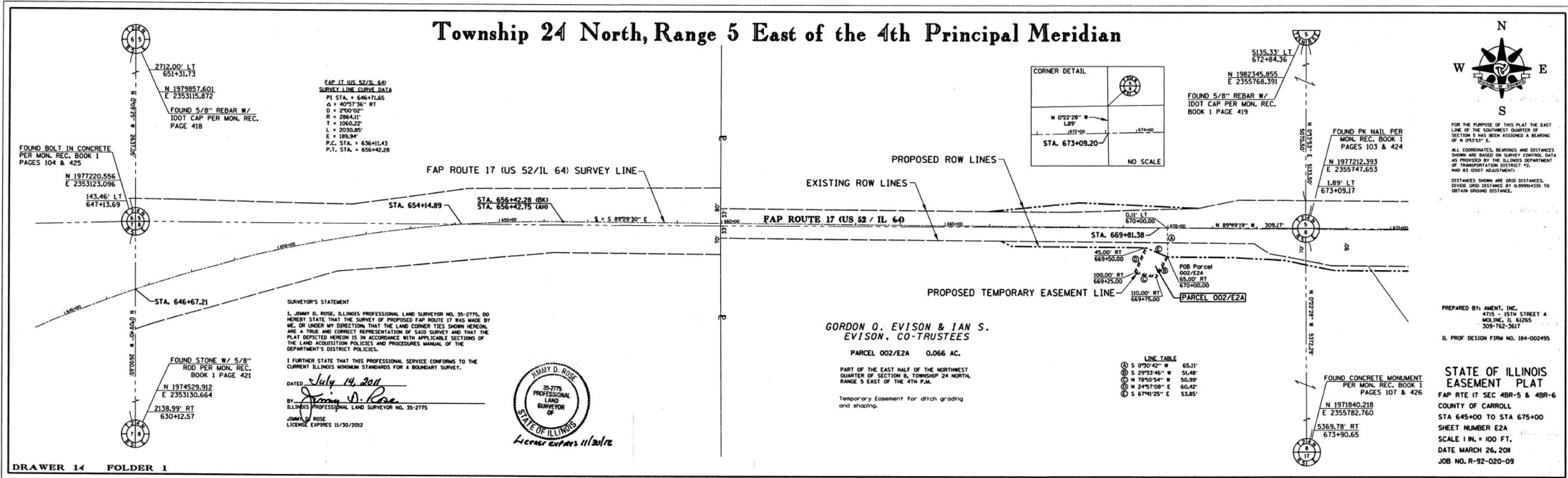
STATE OF ILLINOIS
RIGHT OF WAY PLAT
 FAP RTE IT SEC 4BR-5 & 4BR-6
 COUNTY OF CARROLL
 STA 645+00 TO STA 675+00
 SHEET NUMBER 2A
 SCALE 1 IN. = 100 FT.
 DATE MARCH 26, 2011
 JOB NO. R-92-020-09

DRAWER 14 FOLDER 1

JUL 19 2011

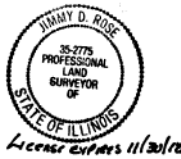
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FILEL		DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	35
PLOT SCALE = *SCALE*		CHECKED - DAZ	REVISED -				CONTRACT NO. 64DB3			ILLINOIS FED. AID PROJECT	
PLOT DATE = *DATE*		DATE - 06-28-13	REVISED -				SCALE:	SHEET 1 OF 3 SHEETS	STA. TO STA.		

Township 24 North, Range 5 East of the 4th Principal Meridian



**FAP RT. US 52/IL 64
SURVEY LINE CURVE DATA**
 PI STA. = 646+71.65
 Δ = 40°37'36" RT
 D = 2700.00'
 R = 2864.11'
 T = 1060.22'
 L = 2030.85'
 E = 185.94'
 P.C. STA. = 636+11.43
 P.T. STA. = 656+42.28

SURVEYOR'S STATEMENT
 I, JIMMY D. ROSE, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775, DO HEREBY STATE THAT THE SURVEY OF PROPOSED FAP ROUTE 17 WAS MADE BY ME, OR UNDER MY DIRECTION, THAT THE LAND CORNER TIES SHOWN HEREON ARE A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY AND THAT THE PLAT DEPICTED HEREON IS IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE LAND ACQUISITION POLICIES AND PROCEDURES MANUAL OF THE DEPARTMENT'S DISTRICT POLICIES.
 I FURTHER STATE THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
 DATED July 14, 2011
 BY: Jimmy D. Rose
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775
 JIMMY D. ROSE
 LICENSE EXPIRES 11/30/2012



GORDON O. EVISON & IAN S. EVISON, CO-TRUSTEES

PARCEL 002/E2A 0.066 AC.
 PART OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 8, TOWNSHIP 24 NORTH, RANGE 5 EAST OF THE 4TH P.M.
 Temporary Easement for ditch grading and shaping.

LINE TABLE

① S 0°30'42" W	65.11'
② S 29°53'46" W	54.48'
③ N 78°10'54" W	50.99'
④ N 24°57'08" E	60.42'
⑤ S 67°41'25" E	53.85'



FOR THE PURPOSE OF THIS PLAT THE EAST LINE OF THE SOUTHWEST QUARTER OF SECTION 5 HAS BEEN ASSIGNED A BEARING OF N 0°13'53" E.
 ALL COORDINATES, BEARINGS AND DISTANCES SHOWN ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT #2, ROAD 83 (2007 ADJUSTMENT).
 DISTANCES SHOWN ARE GRID DISTANCES. DIVIDE GRID DISTANCE BY 0.99994335 TO OBTAIN GROUND DISTANCE.

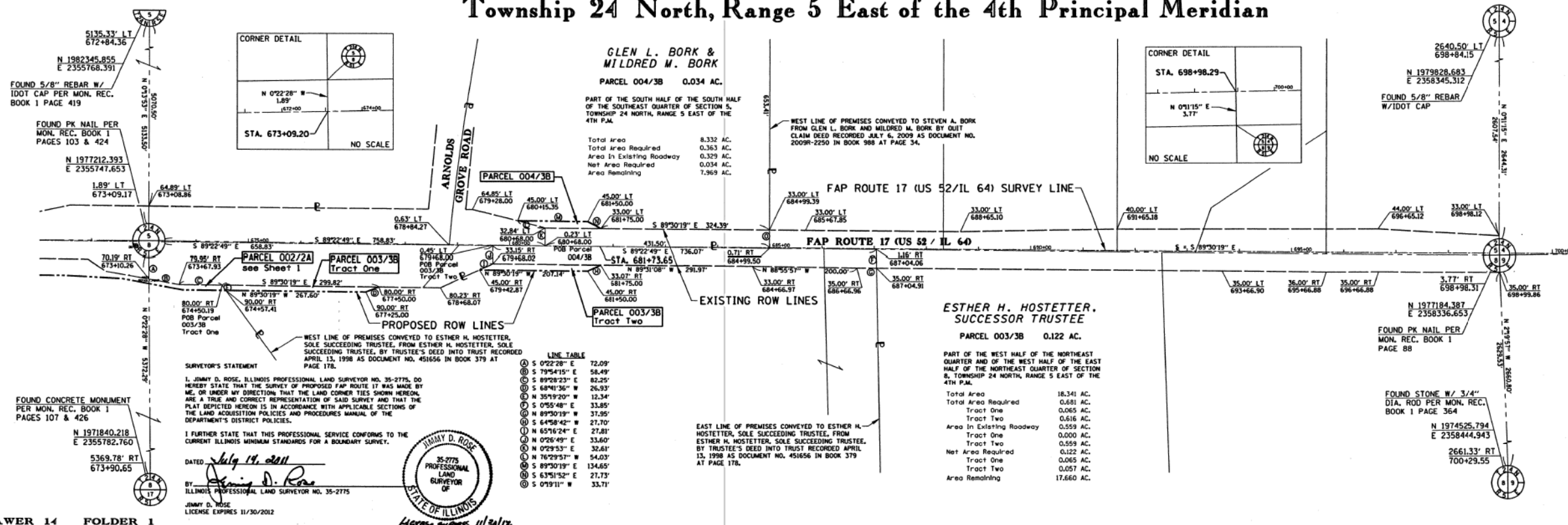
PREPARED BY: AMENT, INC.
 4715 - 15TH STREET A
 Moline, IL 61265
 309-762-3617
 IL PROF DESIGN FIRM NO. 184-002495

STATE OF ILLINOIS EASEMENT PLAT
 FAP RTE 17 SEC 4BR-5 & 4BR-6
 COUNTY OF CARROLL
 STA 645+00 TO STA 675+00
 SHEET NUMBER E2A
 SCALE 1 IN. = 100 FT.
 DATE MARCH 26, 2011
 JOB NO. R-92-020-09

DRAWER 14 FOLDER 1

FILE NAME =	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	RIGHT-OF-WAY PLANS SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILE#		DRAWN - LCR	REVISED -			17	4BR-5 & 4BR-6	CARROLL	150	36	
PLOT SCALE = *SCALE*		CHECKED - DAZ	REVISED -			CONTRACT NO. 64DB3					
PLOT DATE = *DATE*		DATE - 06-28-13	REVISED -			ILLINOIS FED. AID PROJECT					

Township 24 North, Range 5 East of the 4th Principal Meridian



N
W E
S

FOR THE PURPOSE OF THIS PLAT THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 5 HAS BEEN ASSIGNED A BEARING OF N 0°13'37" E.

ALL COORDINATES, BEARINGS AND DISTANCES SHOWN ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT #2, AND BY GROUND MEASUREMENTS.

DISTANCES SHOWN ARE GRID DISTANCES. DIVIDE GRID DISTANCE BY 0.99994333 TO OBTAIN GROUND DISTANCE.

PREPARED BY: AMENT, INC.
4715 - 15TH STREET A
MOLINE, IL 61205
309-762-3611
IL PROF DESIGN FIRM NO. 184-002495

STATE OF ILLINOIS
RIGHT OF WAY PLAT
FAP RTE 17 SEC 4BR-5 & 4BR-6
COUNTY OF CARROLL
STA 672+00 TO STA 700+00
SHEET NUMBER 3B
SCALE 1 IN. = 100 FT.
DATE MARCH 26, 2011
JOB NO. R-92-020-09

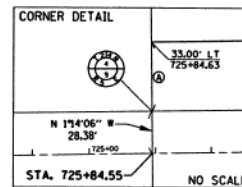
Township 24 North, Range 5 East of the 4th Principal Meridian

MARY HAUG, TRUSTEE

PARCEL 005/4A 0.503 AC.

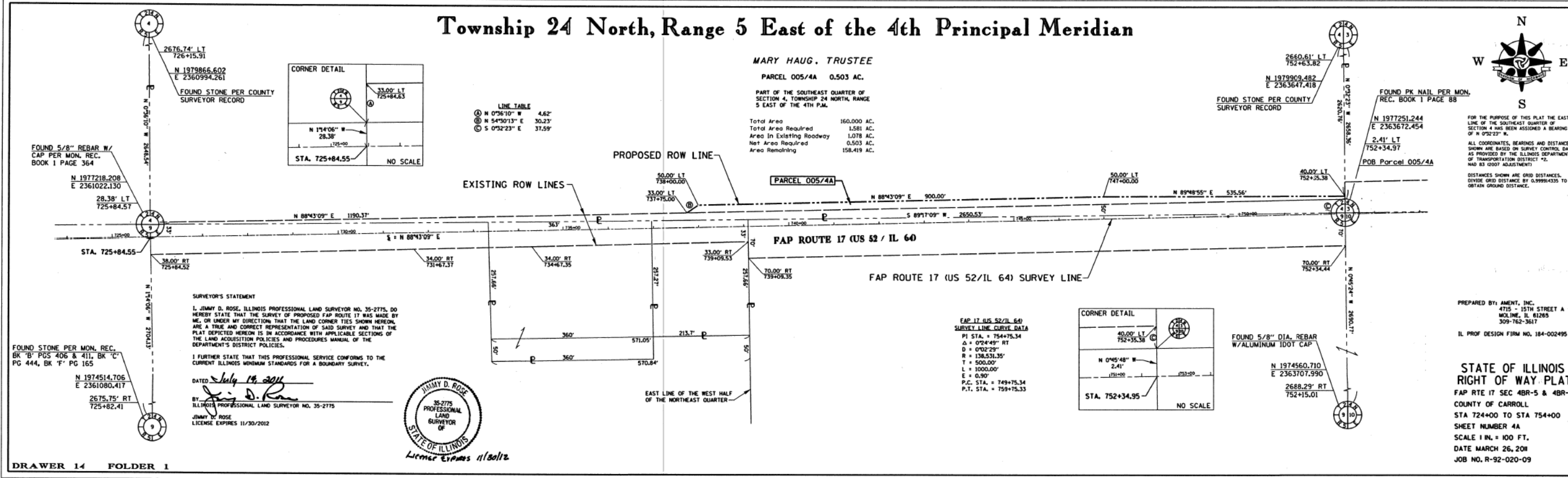
PART OF THE SOUTHEAST QUARTER OF SECTION 4, TOWNSHIP 24 NORTH, RANGE 5 EAST OF THE 4TH P.M.

Total Area 160,000 AC.
Total Area Required 1,581 AC.
Area in Existing Roadway 1,078 AC.
Net Area Required 0,503 AC.
Area Remaining 158,419 AC.



LINE TABLE

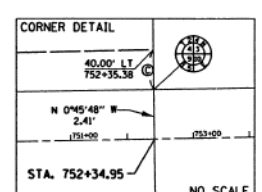
N 0°56'10" W	4.62'
N 54°30'13" E	30.23'
S 0°32'23" E	37.59'



SURVEYOR'S STATEMENT
I, JIMMY D. ROSE, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775, DO HEREBY STATE THAT THE SURVEY OF PROPOSED FAP ROUTE 17 WAS MADE BY ME, OR UNDER MY DIRECTION THAT THE LAND CORNER TIES SHOWN HEREON ARE A TRUE AND CORRECT REPRESENTATION OF SAID SURVEY AND THAT THE PLAT DEPICTED HEREON IS IN ACCORDANCE WITH APPLICABLE SECTIONS OF THE LAND ACQUISITION POLICIES AND PROCEDURES MANUAL OF THE DEPARTMENT'S DISTRICT POLICIES.
I FURTHER STATE THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
DATED July 14, 2011
BY Jimmy D. Rose
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2775
JIMMY D. ROSE
LICENSE EXPIRES 11/30/2012



FAP 17 (US 52/IL 64) SURVEY LINE CURVE DATA
P.I. STA. = 754+75.34
Δ = 0°24'49" RT
D = 0°30'29"
R = 138,531.35'
T = 500.00'
L = 1000.00'
E = 0.90'
P.C. STA. = 749+75.34
P.T. STA. = 759+75.33



FOR THE PURPOSE OF THIS PLAT THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 4 HAS BEEN ASSIGNED A BEARING OF N 0°52'23\"/>

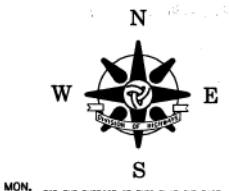
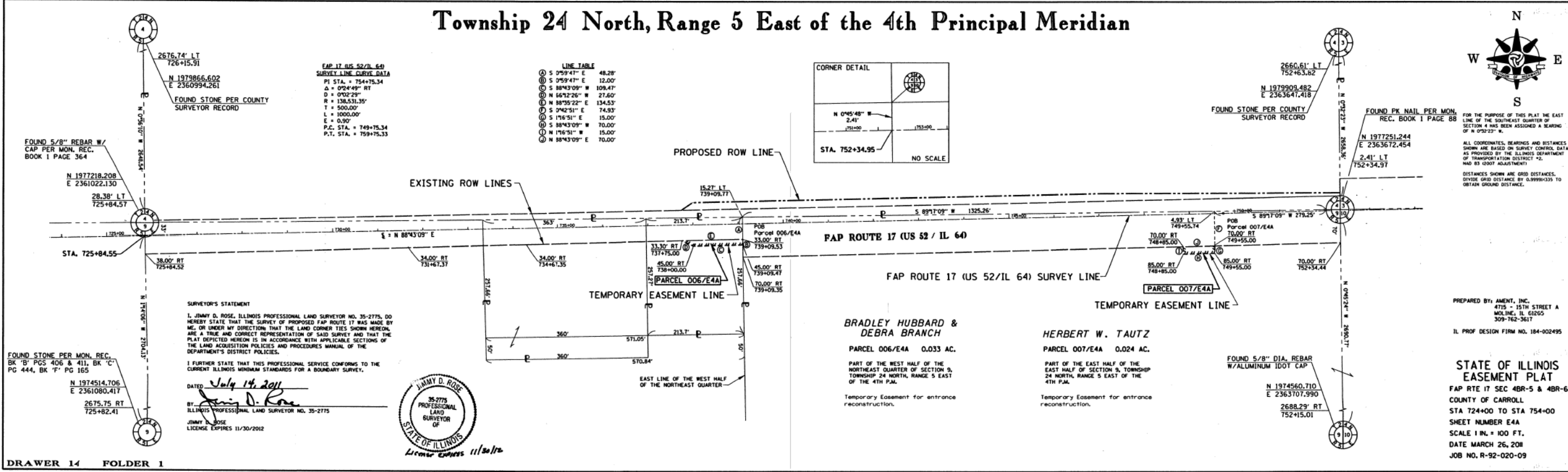
PREPARED BY: AMENT, INC.
4715 - 15TH STREET A
MOLINE, IL 61265
309-762-3617
ILL. PROF. DESIGN FIRM NO. 184-002495

STATE OF ILLINOIS
RIGHT OF WAY PLAT
FAP RTE 17 SEC 4BR-5 & 4BR-6
COUNTY OF CARROLL
STA 724+00 TO STA 754+00
SHEET NUMBER 4A
SCALE 1 IN. = 100 FT.
DATE MARCH 26, 2011
JOB NO. R-92-020-09

DRAWER 14 FOLDER 1

FILE NAME =	USER NAME = \$USER\$	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	RIGHT-OF-WAY PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILEL\$		DRAWN - LCR	REVISED -				17	4BR-5 & 4BR-6	CARROLL	150	38
PLOT SCALE = \$SCALE\$		CHECKED - DAZ	REVISED -				CONTRACT NO. 64DB3				
PLOT DATE = \$DATE\$		DATE - 06-28-13	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.						

Township 24 North, Range 5 East of the 4th Principal Meridian



FOR THE PURPOSE OF THIS PLAT THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 4 HAS BEEN ASSIGNED A BEARING OF N 0°32'23" W.

ALL COORDINATES, BEARINGS AND DISTANCES SHOWN ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT #2. HAD 83 0307 ADJUSTMENT.

DISTANCES SHOWN ARE GRID DISTANCES. DIVIDE GRID DISTANCE BY 0.999981335 TO OBTAIN GROUND DISTANCE.

PREPARED BY: AMENT, INC.
 4715 - 15TH STREET A
 MOBILE, IL 61205
 309-762-3617
 IL PROF DESIGN FIRM NO. 184-002495

STATE OF ILLINOIS
EASEMENT PLAT
 FAP RTE 17 SEC 4BR-5 & 4BR-6
 COUNTY OF CARROLL
 STA 724+00 TO STA 754+00
 SHEET NUMBER E4A
 SCALE 1 IN. = 100 FT.
 DATE MARCH 26, 2011
 JOB NO. R-92-020-09

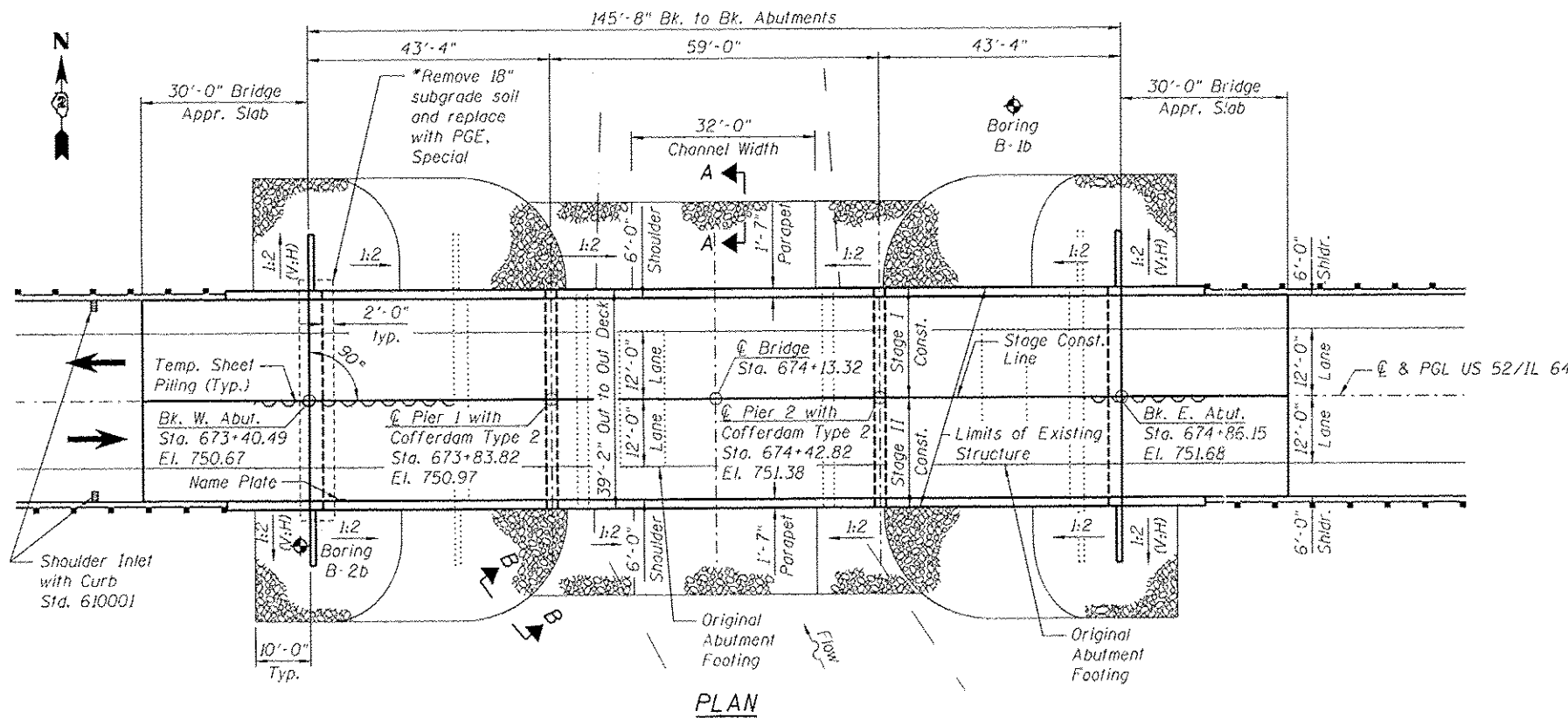
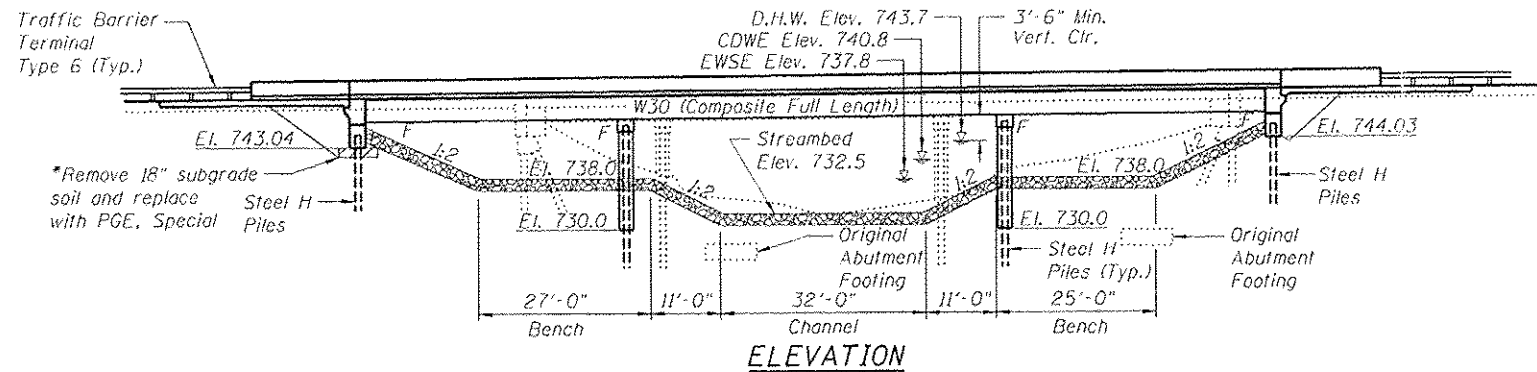
FILE NAME = *FILEL\$	USER NAME = *USER*	DESIGNED - RAC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ZROKA engineering	Zroka Engineering, P.C. 4216 North Hermitage Chicago, IL 60613	F.A.P. RTE. 17	SECTION 4BR-5 & 4BR-6	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 39
	PLOT SCALE = *SCALE*	CHECKED - DAZ	REVISED -				CONTRACT NO. 64D83			ILLINOIS FED. AID PROJECT	
PLOT DATE = *DATE*	DATE - 06-28-13	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.							

Bench Mark: Chiseled "C" on NW wingwall, Elev. 747.08

Existing Structure: S.N. 008-0029 originally constructed in 1983 as F.A. Route 17 Section 4BR-2. Three simple span PPC Deck Beams superstructure supported on pile bent abutments and pile encased solid wall piers. In 2003, asphalt overlay was removed and replaced with 5" reinforced concrete wearing surface as FA17, Section (4BR-1 & 4BR-2)M. In 2008, four PPC Deck Beams were replaced as FA17, Section (4BR-2)D & (4BR-1)D. Bk. to Bk. abutments is 112'-10³/₄" and Out to Out width is 39'-2".

Existing structure shall be removed and replaced. Traffic to be maintained utilizing stage construction.

Existing steel shoring to be removed and taken to the nearest IDOT maintenance yard for salvage.



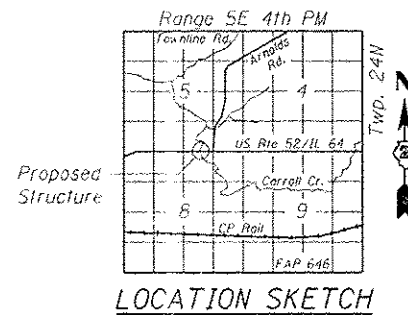
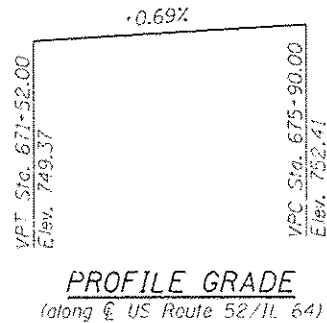
* Geofabric shall be installed at the base of undercut excavation, cost included with PGE, Special. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field. Work paid for as Removal and Disposal of Unsuitable Material for Structures.

APPROVED
For Structural Adequacy Only

Dr. Carl R. ...
Engineer of Bridges & Structures



Dan ... 6-22-13
Signature Date
November 30, 2014
Expires



INDEX OF SHEETS

- SA-1. General Plan & Elevation
- SA-2. General Data
- SA-3. Stage Construction Details
- SA-4. Temporary Concrete Barrier for Stage Construction
- SA-5. Top of Slab Elevations 1
- SA-6. Top of Slab Elevations 2
- SA-7. Top of Slab Elevations 3
- SA-8. West Approach Top of Slab Elevations
- SA-9. East Approach Top of Slab Elevations
- SA-10. Superstructure
- SA-11. Superstructure Details
- SA-12. Integral Abutment Diaphragm Details
- SA-13. Bridge Approach Slab Details 1
- SA-14. Bridge Approach Slab Details 2
- SA-15. Framing Plan
- SA-16. Structural Steel Details
- SA-17. Bearing Details
- SA-18. West Abutment
- SA-19. East Abutment
- SA-20. Pier 1
- SA-21. Pier 2
- SA-22. Bar Splicer Assembly and Mechanical Splicer Details
- SA-23. HP Pile Details
- SA-24. Boring Logs

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

FIELD UNITS

$f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration @ 1.0 sec (S_{D1}) = 0.055
Design Spectral Acceleration @ 0.2 sec (S_{D5}) = 0.090
Soil Site Class = C

GENERAL PLAN & ELEVATION
US 52/IL 64 OVER CARROLL CREEK
SECTION 4BR-5
F.A.P. RTE. 17
CARROLL COUNTY
STA. 674+13.32
STRUCTURE NO. 008-0049

<p>ZROKA Engineering, P.C. 4216 North Hermitage Chicago, IL 60613</p>	USER NAME = SAW	DESIGNED = JLA	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION S.N. 008-0049	F.A.P. RTE. 17	SECTION 4BR-5	COUNTY CARROLL	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 0:2,000 1" = 200'	CHECKED = DAZ	REVISED =						150	40
	PLOT DATE = 6/27/2013	DRAWN = SAW	REVISED =						CONTRACT NO. 64083	ILLINOIS FED. AID PROJECT

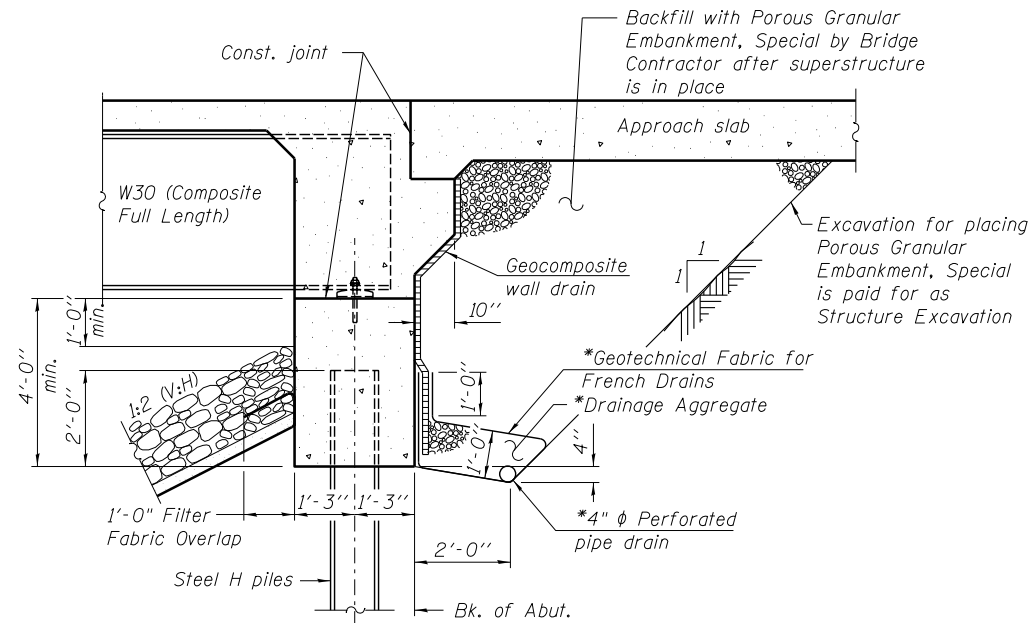
GENERAL NOTES

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
- Calculated weight of structural steel = 122,350 pounds.
- All structural steel shall be AASHTO M 270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- 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 shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- Slipforming of the parapets is not allowed.
- Current Ratings on File for Existing Structure

Inventory: HS 16.5
 Operating: HS 28.2
 Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

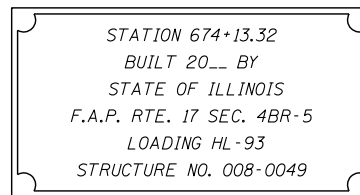
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.



SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrain for Structures 4"

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend from the wingwall on the low side until intersecting with the side slopes. The pipe shall drain into a concrete headwall. (See Article 601.05 of the Standard Specifications and Highway Standard 601101.)



NAME PLATE

See Std. 515001

DESIGN SCOUR ELEVATION TABLE

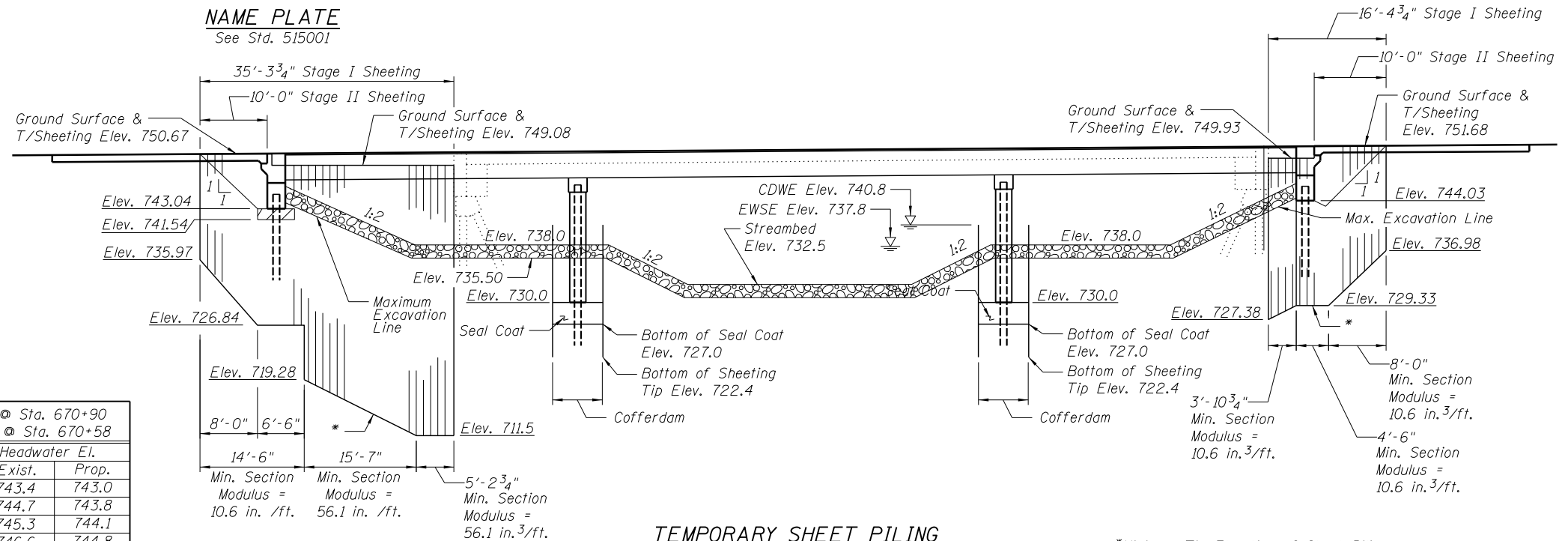
W. Abut.	Pier 1	Pier 2	E. Abut.
743.0	730.0	730.0	744.0

WATERWAY INFORMATION

Drainage Area = 40.6 sq. mi. Exist. Low Grade Elev. = 747.11 @ Sta. 670+90
 Prop. Low Grade Elev. = 749.05 @ Sta. 670+58

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Ten Year	10	2700	478	797	743.0	743.7	0.4	0.0	743.4	743.0
Design	50	4210	537	883	743.7	744.0	1.0	0.1	744.7	743.8
Base	100	4880	563	921	744.0	744.1	1.2	0.1	745.3	744.1
Max. Calc.	500	6530	617	997	744.6	746.6	2.0	0.3	746.6	744.8

10-Year Velocity through Existing Bridge = 5.6 fps
 10-Year Velocity through Proposed Bridge = 3.4 fps



TEMPORARY SHEET PILING & COFFERDAM DETAIL

(Looking North)

*Minimum Tip Elevation of Sheet Piling

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		112	112
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.		16	16
Stone Riprap Class A5	Sq. Yd.		1,364	1,364
Filter Fabric	Sq. Yd.		1,364	1,364
Removal of Existing Structures No. 1	Each		1	1
Structure Excavation	Cu. Yd.		256	256
Cofferdam Excavation	Cu. Yd.		381	381
Cofferdam (Type 2) (Location-1)	Each		1	1
Cofferdam (Type 2) (Location-2)	Each		1	1
Concrete Structures	Cu. Yd.		159.7	159.7
Concrete Superstructure	Cu. Yd.	330.8		330.8
Bridge Deck Grooving	Sq. Yd.	780		780
Seal Coat Concrete	Cu. Yd.		98.9	98.9
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	963		963
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	4,878		4,878
Reinforcement Bars, Epoxy Coated	Pound	76,300	20,580	96,880
Bar Splicers	Each	710	200	910
Furnishing Steel Piles HP12x53	Foot		425	425
Furnishing Steel Piles HP14x73	Foot		600	600
Driving Piles	Foot		1,025	1,025
Test Pile Steel HP12x53	Each		2	2
Test Pile Steel HP14x73	Each		2	2
Pile Shoes	Each		28	28
Name Plates	Each	1		1
Anchor Bolts, 3/4"	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		58	58
Pipe Underdrains for Structures 4"	Foot		132	132
Temporary Sheet Piling	Sq. Ft.		1,364	1,364
Asbestos Bearing Pad Removal	Each		30	30

GENERAL DATA
 S.N. 008-0049

SHEET NO. SA-2 OF SA-24 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	41
CONTRACT NO. 64DB3				

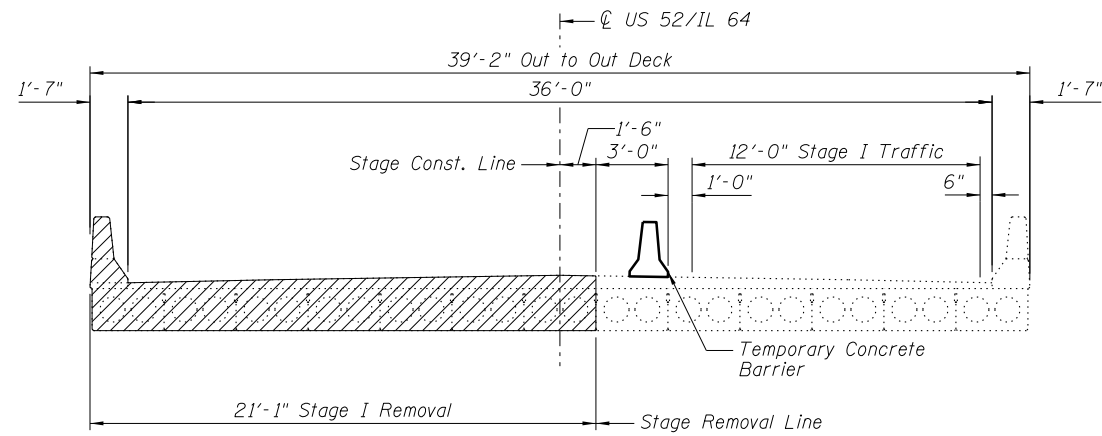
ILLINOIS FED. AID PROJECT



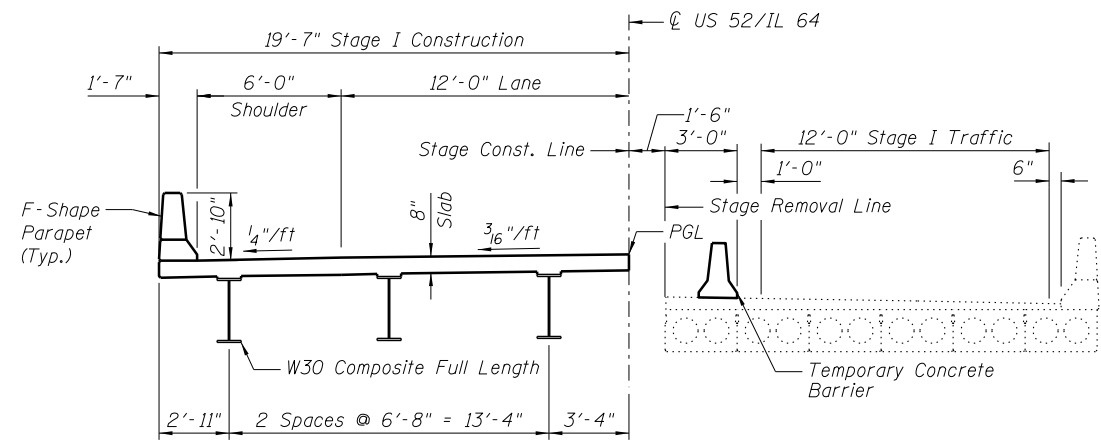
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 CHECKED - DAZ
 DRAWN - SAW
 CHECKED - JLA

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

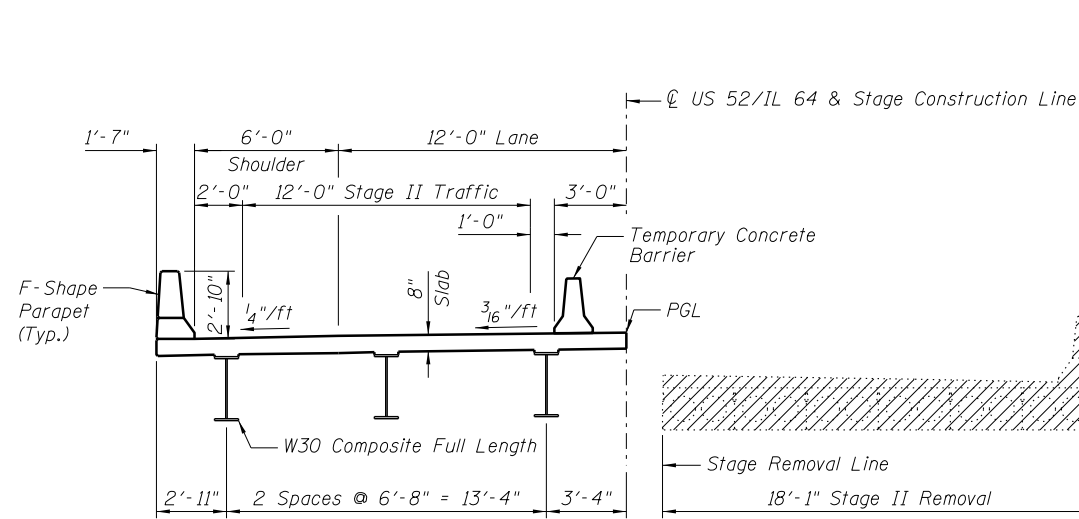
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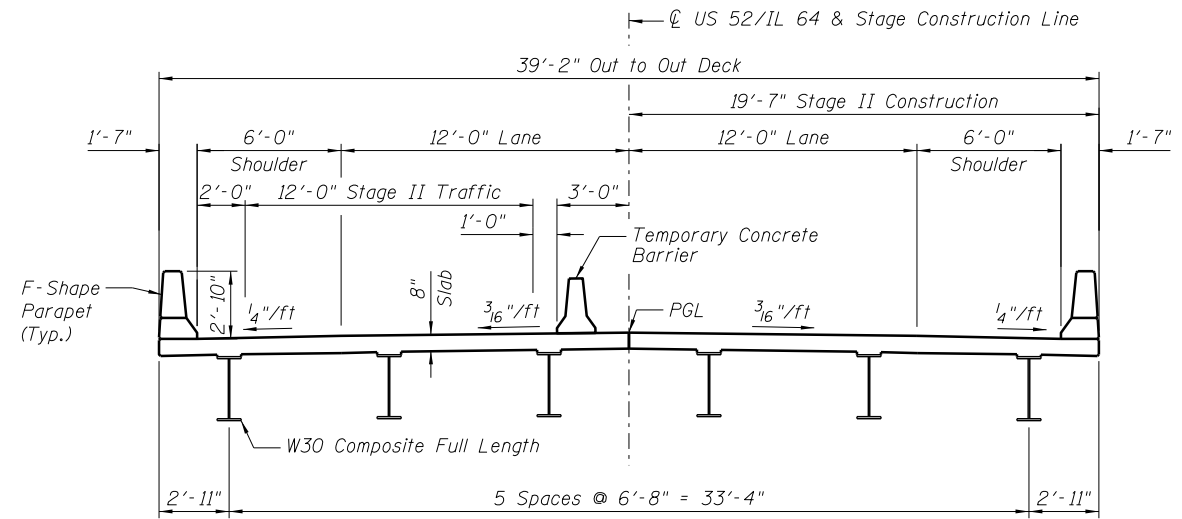
STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

Notes:

For quantity of Temporary Concrete Barrier, see roadway plans.

Hatched areas indicate Removal of Existing Structures.

For details of Temporary Concrete Barrier, see Sheet SA-4 of SA-24.

FILE NAME = ...E4DB3-SN0080049-003-StageCon.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

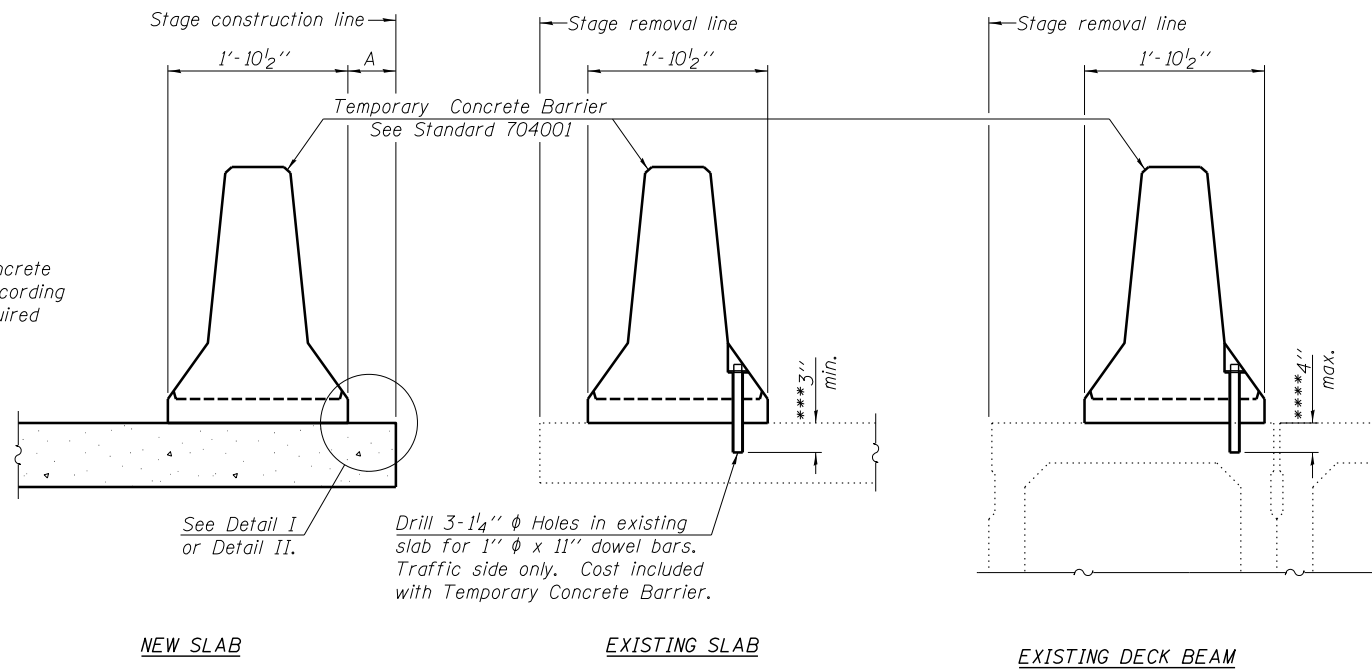
**STAGE CONSTRUCTION DETAILS
S.N. 008-0049**

SHEET NO. SA-3 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	42
CONTRACT NO. 64D83				

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

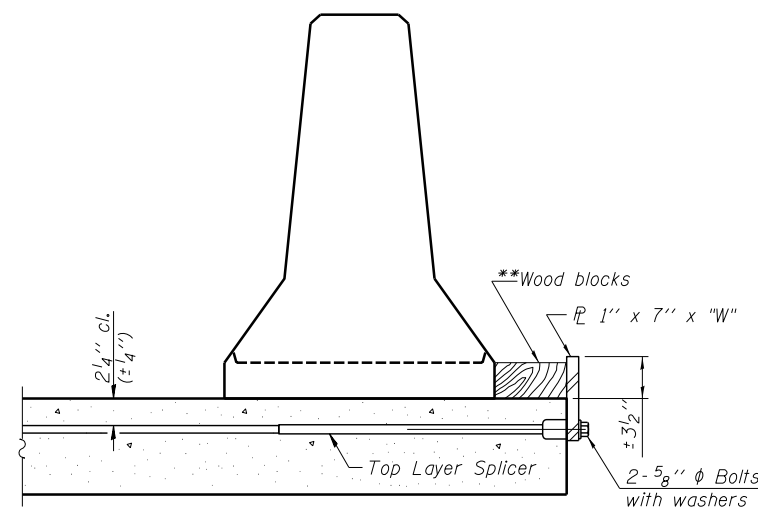
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

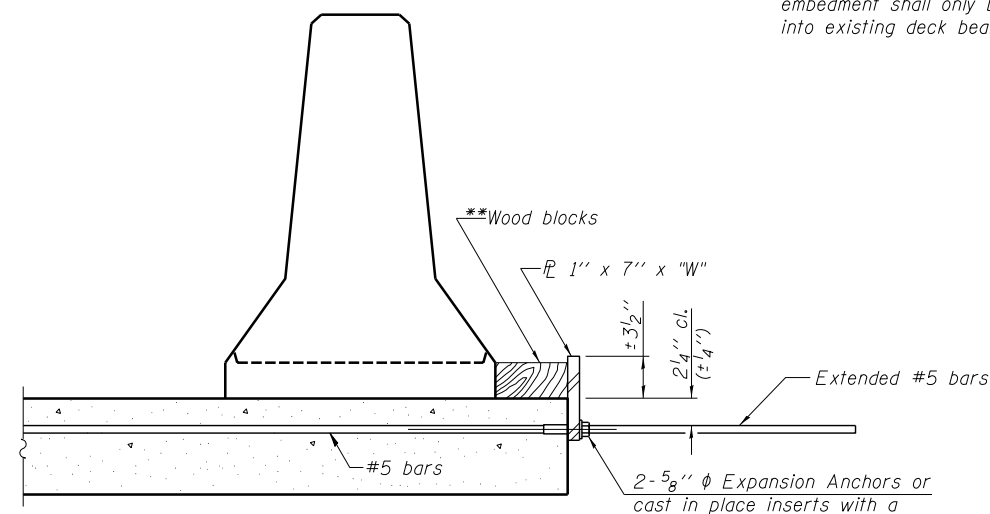
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



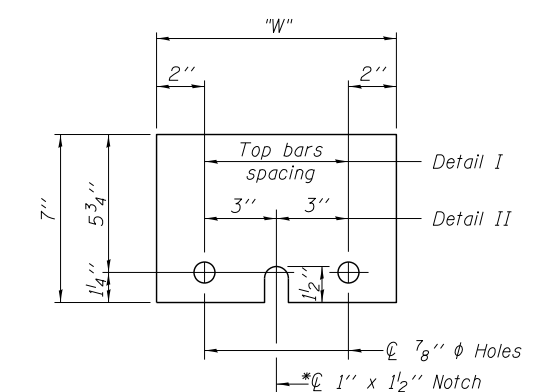
DETAIL I



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 "W"

* Required only with Detail II

R-27 7-1-10



USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000 't' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
S.N. 008-0049**

SHEET NO. SA-4 OF SA-24 SHEETS

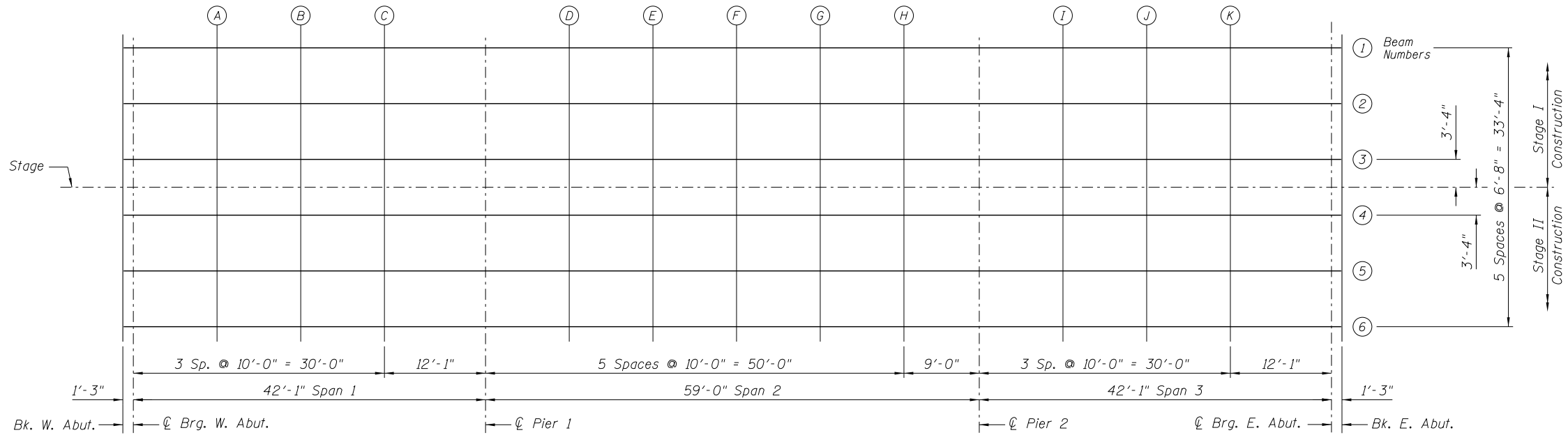
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	43
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

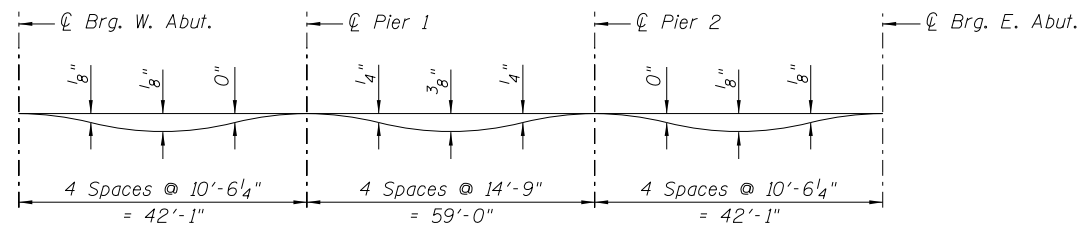
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℄ & PGL US52/IL64 & Stage Construction Line



PLAN FOR TOP OF SLAB ELEVATIONS

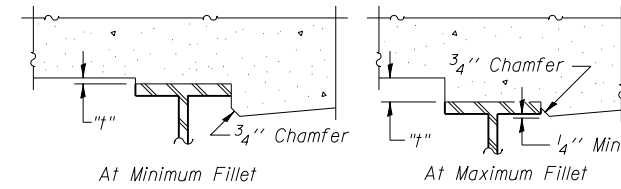


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection", as shown on Sheets SA-6 and SA-7.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets SA-6 and SA-7, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS

FILE NAME = ...E4DB3-SN0080049-005-TSE1.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 1
S.N. 008-0049

SHEET NO. SA-5 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	44
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	-16.67	750.39	750.39
☉ Brg. W. Abut.	673+41.74	-16.67	750.39	750.39
A	673+51.74	-16.67	750.46	750.47
B	673+61.74	-16.67	750.53	750.54
C	673+71.74	-16.67	750.60	750.60
☉ Pier 1	673+83.82	-16.67	750.68	750.68
D	673+93.82	-16.67	750.75	750.76
E	674+03.82	-16.67	750.82	750.84
F	674+13.82	-16.67	750.89	750.92
G	674+23.82	-16.67	750.96	750.98
H	674+33.82	-16.67	751.03	751.04
☉ Pier 2	674+42.82	-16.67	751.09	751.09
I	674+52.82	-16.67	751.16	751.16
J	674+62.82	-16.67	751.23	751.24
K	674+72.82	-16.67	751.30	751.31
☉ Brg. E. Abut.	674+84.90	-16.67	751.38	751.38
Bk. E. Abut.	674+86.15	-16.67	751.39	751.39

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	-10.00	750.51	750.51
☉ Brg. W. Abut.	673+41.74	-10.00	750.52	750.52
A	673+51.74	-10.00	750.59	750.60
B	673+61.74	-10.00	750.66	750.67
C	673+71.74	-10.00	750.73	750.73
☉ Pier 1	673+83.82	-10.00	750.81	750.81
D	673+93.82	-10.00	750.88	750.89
E	674+03.82	-10.00	750.95	750.97
F	674+13.82	-10.00	751.02	751.05
G	674+23.82	-10.00	751.09	751.11
H	674+33.82	-10.00	751.16	751.17
☉ Pier 2	674+42.82	-10.00	751.22	751.22
I	674+52.82	-10.00	751.29	751.29
J	674+62.82	-10.00	751.36	751.37
K	674+72.82	-10.00	751.43	751.44
☉ Brg. E. Abut.	674+84.90	-10.00	751.51	751.51
Bk. E. Abut.	674+86.15	-10.00	751.52	751.52

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	-3.33	750.62	750.62
☉ Brg. W. Abut.	673+41.74	-3.33	750.63	750.63
A	673+51.74	-3.33	750.70	750.71
B	673+61.74	-3.33	750.77	750.78
C	673+71.74	-3.33	750.83	750.83
☉ Pier 1	673+83.82	-3.33	750.92	750.92
D	673+93.82	-3.33	750.99	751.00
E	674+03.82	-3.33	751.06	751.08
F	674+13.82	-3.33	751.12	751.15
G	674+23.82	-3.33	751.19	751.21
H	674+33.82	-3.33	751.26	751.27
☉ Pier 2	674+42.82	-3.33	751.32	751.32
I	674+52.82	-3.33	751.39	751.39
J	674+62.82	-3.33	751.46	751.47
K	674+72.82	-3.33	751.53	751.54
☉ Brg. E. Abut.	674+84.90	-3.33	751.61	751.61
Bk. E. Abut.	674+86.15	-3.33	751.62	751.62

☉ & PGL US52/IL64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	0.00	750.67	750.67
☉ Brg. W. Abut.	673+41.74	0.00	750.68	750.68
A	673+51.74	0.00	750.75	750.76
B	673+61.74	0.00	750.82	750.83
C	673+71.74	0.00	750.89	750.89
☉ Pier 1	673+83.82	0.00	750.97	750.97
D	673+93.82	0.00	751.04	751.05
E	674+03.82	0.00	751.11	751.13
F	674+13.82	0.00	751.18	751.21
G	674+23.82	0.00	751.25	751.27
H	674+33.82	0.00	751.31	751.32
☉ Pier 2	674+42.82	0.00	751.38	751.38
I	674+52.82	0.00	751.45	751.45
J	674+62.82	0.00	751.51	751.52
K	674+72.82	0.00	751.58	751.59
☉ Brg. E. Abut.	674+84.90	0.00	751.67	751.67
Bk. E. Abut.	674+86.15	0.00	751.68	751.68

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 2
S.N. 008-0049

SHEET NO. SA-6 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	45
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	3.33	750.62	750.62
☉ Brg. W. Abut.	673+41.74	3.33	750.63	750.63
A	673+51.74	3.33	750.70	750.71
B	673+61.74	3.33	750.77	750.78
C	673+71.74	3.33	750.83	750.83
☉ Pier 1	673+83.82	3.33	750.92	750.92
D	673+93.82	3.33	750.99	751.00
E	674+03.82	3.33	751.06	751.08
F	674+13.82	3.33	751.12	751.15
G	674+23.82	3.33	751.19	751.21
H	674+33.82	3.33	751.26	751.27
☉ Pier 2	674+42.82	3.33	751.32	751.32
I	674+52.82	3.33	751.39	751.39
J	674+62.82	3.33	751.46	751.47
K	674+72.82	3.33	751.53	751.54
☉ Brg. E. Abut.	674+84.90	3.33	751.61	751.61
Bk. E. Abut.	674+86.15	3.33	751.62	751.62

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	10.00	750.51	750.51
☉ Brg. W. Abut.	673+41.74	10.00	750.52	750.52
A	673+51.74	10.00	750.59	750.60
B	673+61.74	10.00	750.66	750.67
C	673+71.74	10.00	750.73	750.73
☉ Pier 1	673+83.82	10.00	750.81	750.81
D	673+93.82	10.00	750.88	750.89
E	674+03.82	10.00	750.95	750.97
F	674+13.82	10.00	751.02	751.05
G	674+23.82	10.00	751.09	751.11
H	674+33.82	10.00	751.16	751.17
☉ Pier 2	674+42.82	10.00	751.22	751.22
I	674+52.82	10.00	751.29	751.29
J	674+62.82	10.00	751.36	751.37
K	674+72.82	10.00	751.43	751.44
☉ Brg. E. Abut.	674+84.90	10.00	751.51	751.51
Bk. E. Abut.	674+86.15	10.00	751.52	751.52

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	673+40.49	16.67	750.39	750.39
☉ Brg. W. Abut.	673+41.74	16.67	750.39	750.39
A	673+51.74	16.67	750.46	750.47
B	673+61.74	16.67	750.53	750.54
C	673+71.74	16.67	750.60	750.60
☉ Pier 1	673+83.82	16.67	750.68	750.68
D	673+93.82	16.67	750.75	750.76
E	674+03.82	16.67	750.82	750.84
F	674+13.82	16.67	750.89	750.92
G	674+23.82	16.67	750.96	750.98
H	674+33.82	16.67	751.03	751.04
☉ Pier 2	674+42.82	16.67	751.09	751.09
I	674+52.82	16.67	751.16	751.16
J	674+62.82	16.67	751.23	751.24
K	674+72.82	16.67	751.30	751.31
☉ Brg. E. Abut.	674+84.90	16.67	751.38	751.38
Bk. E. Abut.	674+86.15	16.67	751.39	751.39

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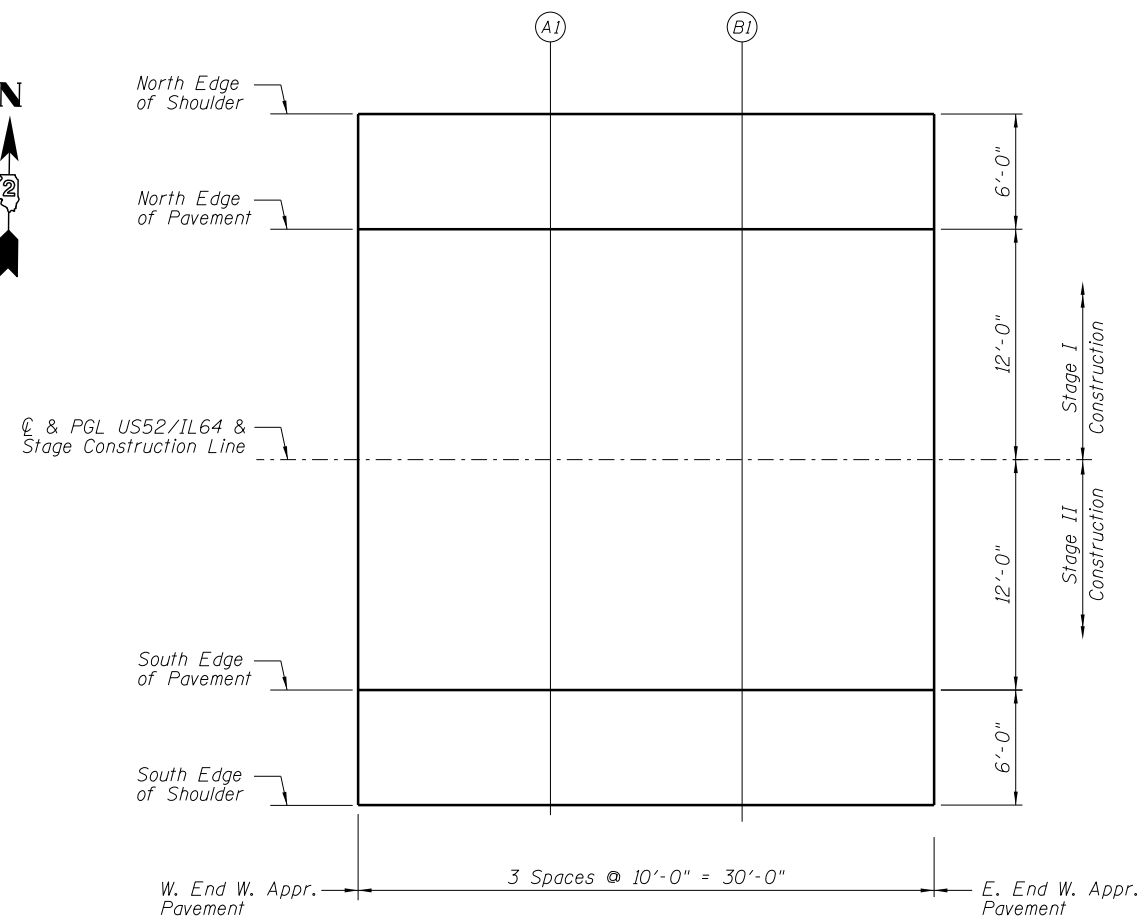
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 3
S.N. 008-0049**

SHEET NO. SA-7 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	46
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				



PLAN FOR TOP OF SLAB ELEVATIONS

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	673+10.49	-18.00	750.15
A1	673+20.49	-18.00	750.22
B1	673+30.49	-18.00	750.29
E. End W. Appr. Pvmt.	673+40.49	-18.00	750.36

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	673+10.49	-12.00	750.28
A1	673+20.49	-12.00	750.35
B1	673+30.49	-12.00	750.41
E. End W. Appr. Pvmt.	673+40.49	-12.00	750.48

Centerline & PGL US 52/IL 64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	673+10.49	0.00	750.46
A1	673+20.49	0.00	750.53
B1	673+30.49	0.00	750.60
E. End W. Appr. Pvmt.	673+40.49	0.00	750.67

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	673+10.49	12.00	750.28
A1	673+20.49	12.00	750.35
B1	673+30.49	12.00	750.41
E. End W. Appr. Pvmt.	673+40.49	12.00	750.48

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	673+10.49	18.00	750.15
A1	673+20.49	18.00	750.22
B1	673+30.49	18.00	750.29
E. End W. Appr. Pvmt.	673+40.49	18.00	750.36

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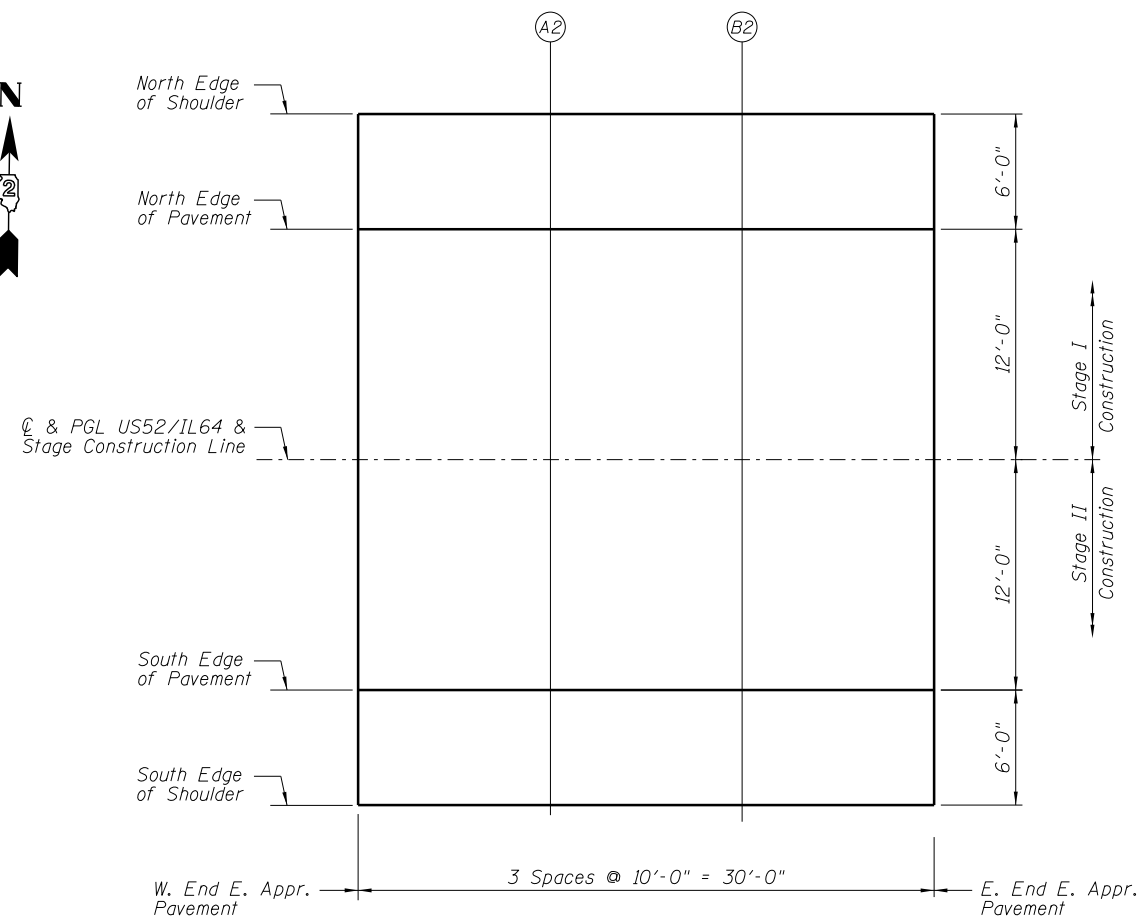
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH TOP OF SLAB ELEVATIONS
S.N. 008-0049**

SHEET NO. SA-8 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	47
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				



PLAN FOR TOP OF SLAB ELEVATIONS

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	674+86.15	-18.00	751.36
A2	674+96.15	-18.00	751.43
B2	675+06.15	-18.00	751.50
E. End E. Appr. Pvmt.	675+16.15	-18.00	751.57

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	674+86.15	-12.00	751.49
A2	674+96.15	-12.00	751.56
B2	675+06.15	-12.00	751.63
E. End E. Appr. Pvmt.	675+16.15	-12.00	751.70

CL & PGL US 52/IL 64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	674+86.15	0.00	751.68
A2	674+96.15	0.00	751.74
B2	675+06.15	0.00	751.81
E. End E. Appr. Pvmt.	675+16.15	0.00	751.88

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	674+86.15	12.00	751.49
A2	674+96.15	12.00	751.56
B2	675+06.15	12.00	751.63
E. End E. Appr. Pvmt.	675+16.15	12.00	751.70

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	674+86.15	18.00	751.36
A2	674+96.15	18.00	751.43
B2	675+06.15	18.00	751.50
E. End E. Appr. Pvmt.	675+16.15	18.00	751.57

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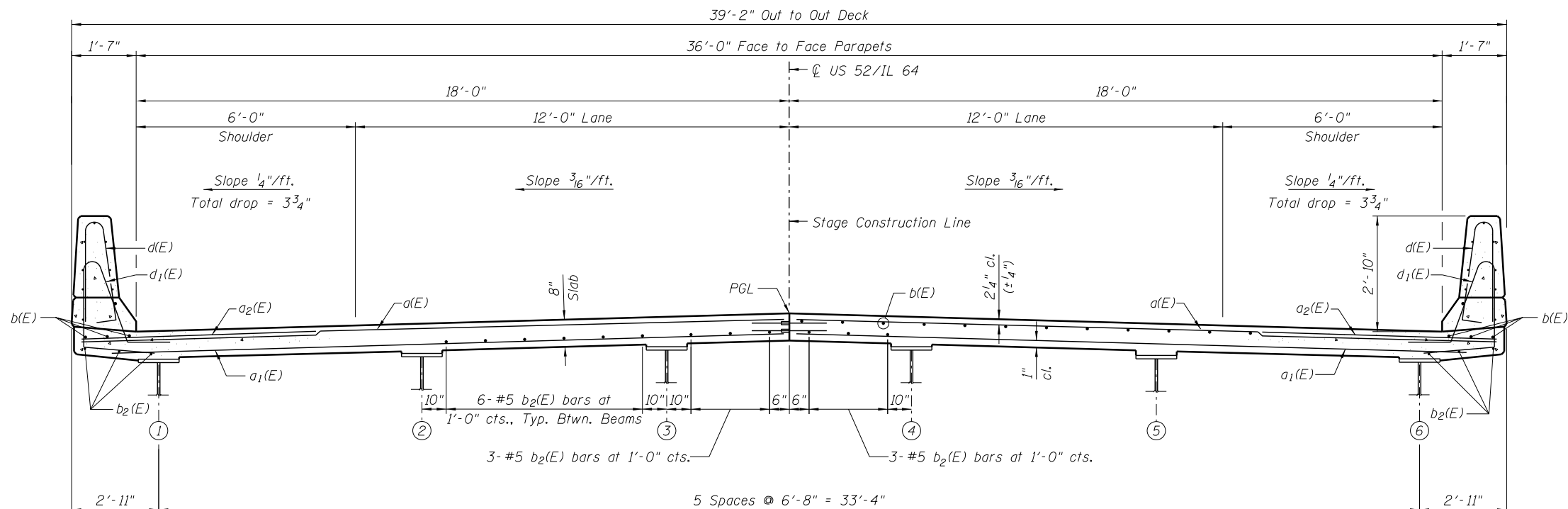
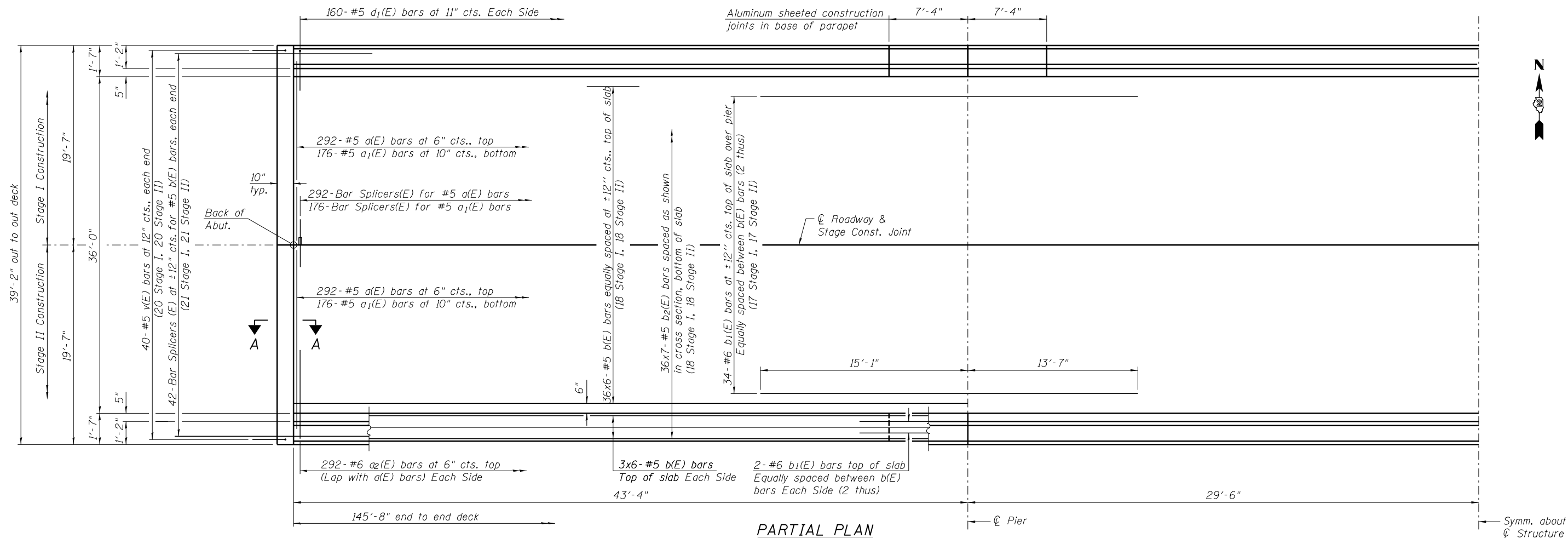
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST APPROACH TOP OF SLAB ELEVATIONS
S.N. 008-0049**

SHEET NO. SA-9 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	48
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

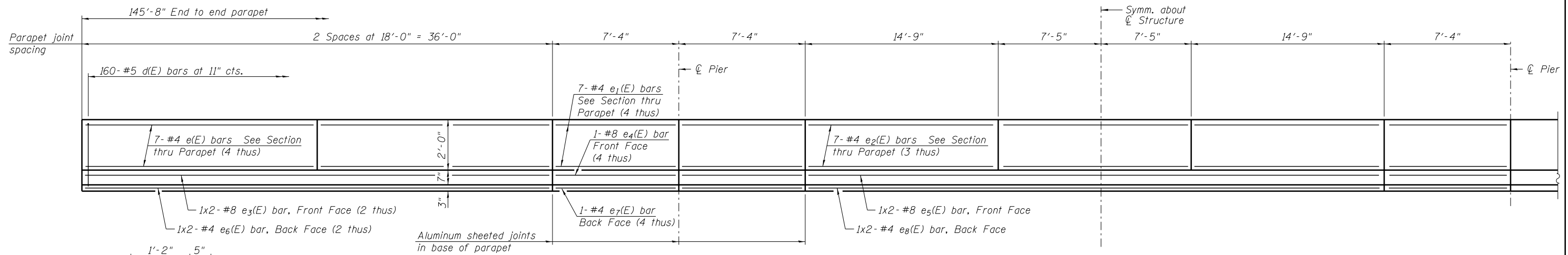


MIN. BAR LAP
#5 Bar = 3'-3"

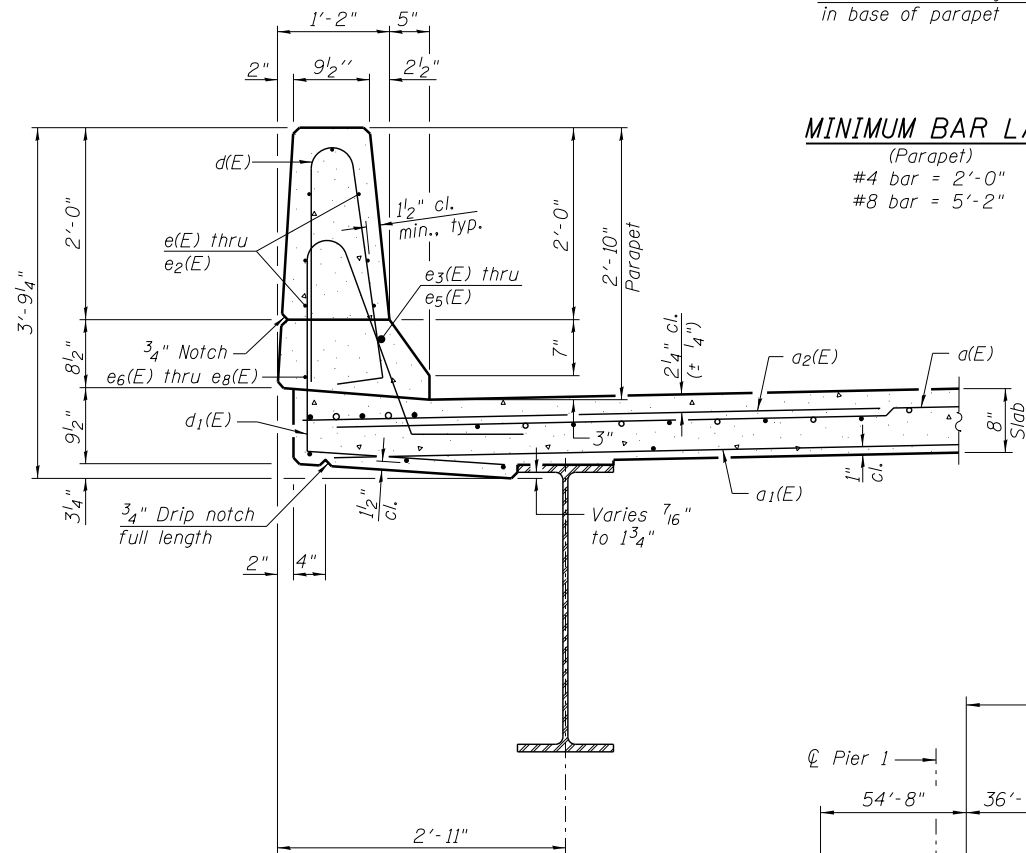
Notes:
See Sheet SA-11 of SA-24 for superstructure details and Bill of Material.
Bars indicated thus 36x6-#5 etc. indicates 36 lines of bars with 6 lengths per line.
See Sheet SA-11 of SA-24 for parapet reinforcement.
See Sheet SA-12 of SA-24 for Section A-A.

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	49
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



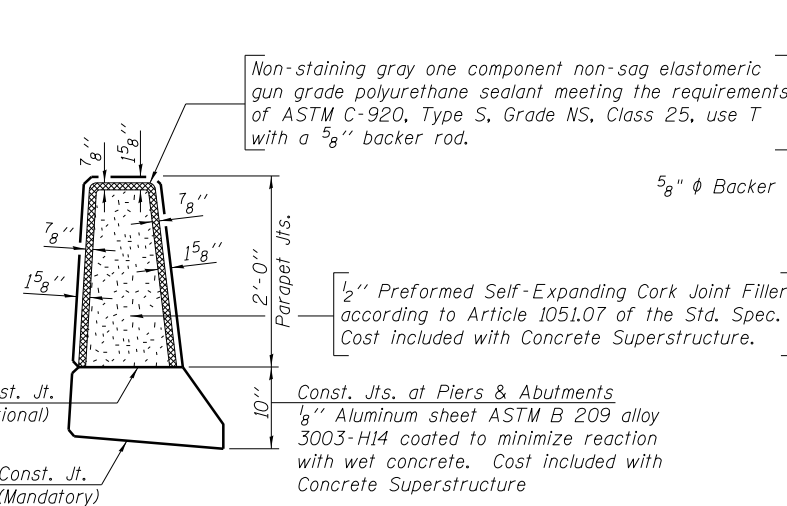
INSIDE ELEVATION OF PARAPET



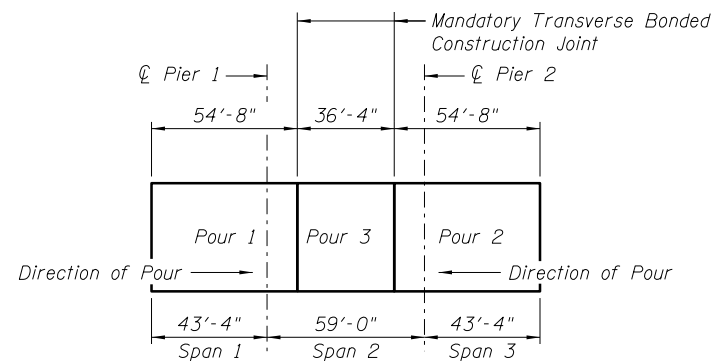
SECTION THRU PARAPET

MINIMUM BAR LAP

(Parapet)
 #4 bar = 2'-0"
 #8 bar = 5'-2"



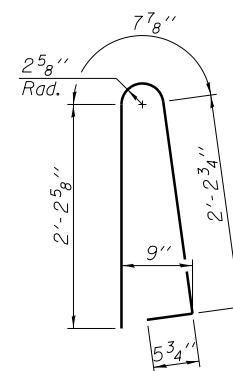
PARAPET JOINT DETAILS



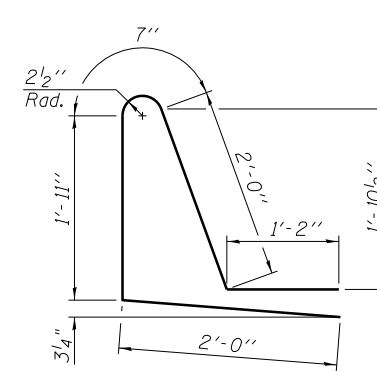
DECK POURING SEQUENCE

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

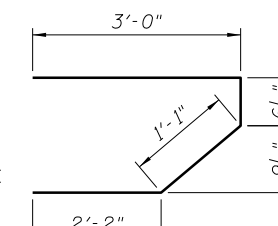
1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.



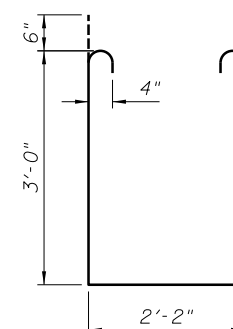
BAR d(E)



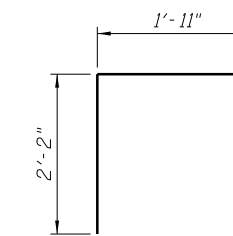
BAR d1(E)



BAR s(E)



BAR s1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	584	#5	19'-1"	—
a1(E)	352	#5	18'-9"	—
a2(E)	584	#6	6'-6"	—
b(E)	252	#5	27'-0"	—
b1(E)	76	#6	28'-8"	—
b2(E)	252	#5	23'-7"	—
d(E)	320	#5	5'-7"	U
d1(E)	320	#5	7'-8"	U
e(E)	56	#4	17'-8"	—
e1(E)	56	#4	7'-0"	—
e2(E)	42	#4	14'-6"	—
e3(E)	8	#8	20'-5"	—
e4(E)	8	#8	7'-0"	—
e5(E)	4	#8	24'-7"	—
e6(E)	8	#4	18'-10"	—
e7(E)	8	#4	7'-0"	—
e8(E)	4	#4	23'-0"	—
m(E)	20	#6	19'-3"	—
m1(E)	24	#6	8'-8"	—
m2(E)	8	#6	6'-4"	—
m3(E)	4	#6	2'-8"	—
m4(E)	4	#6	3'-1"	—
s(E)	84	#5	6'-10"	┌
s1(E)	84	#4	9'-2"	┌
v(E)	80	#5	4'-1"	└
Reinforcement Bars, Epoxy Coated		Pound	50,030	
Concrete Superstructure		Cu. Yd.	209.5	

Bars indicated thus: 1x2-#8 etc. indicates 1 line of bars with 2 lengths per line.

FILE NAME = ...E40B3-SN0080049-011-SupDet.dgn



Zroka Engineering, P.C.
 4216 North Hermitage
 Chicago, IL 60613

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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

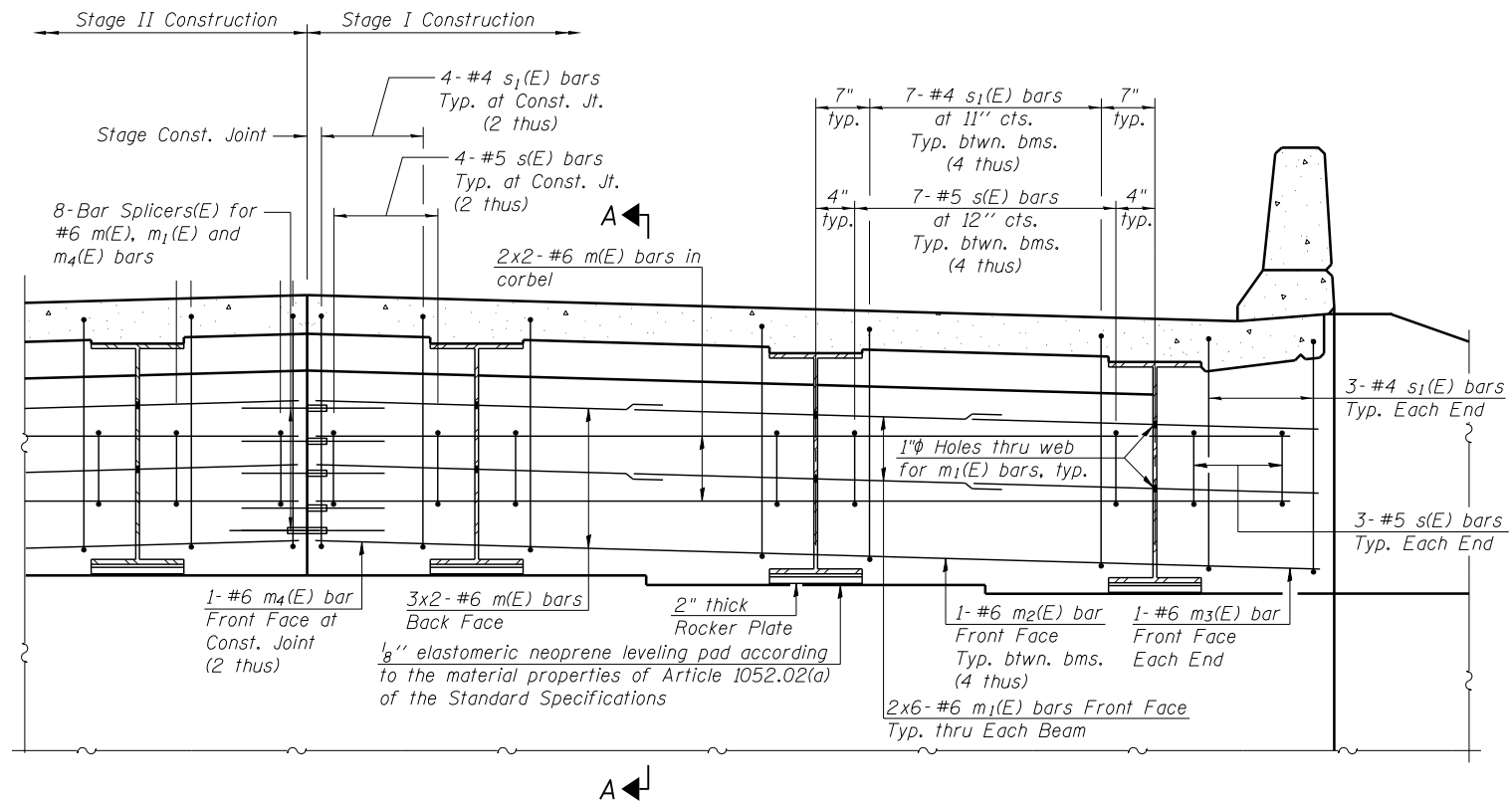
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
 S.N. 008-0049

SHEET NO. SA-11 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	50
CONTRACT NO. 64D83				

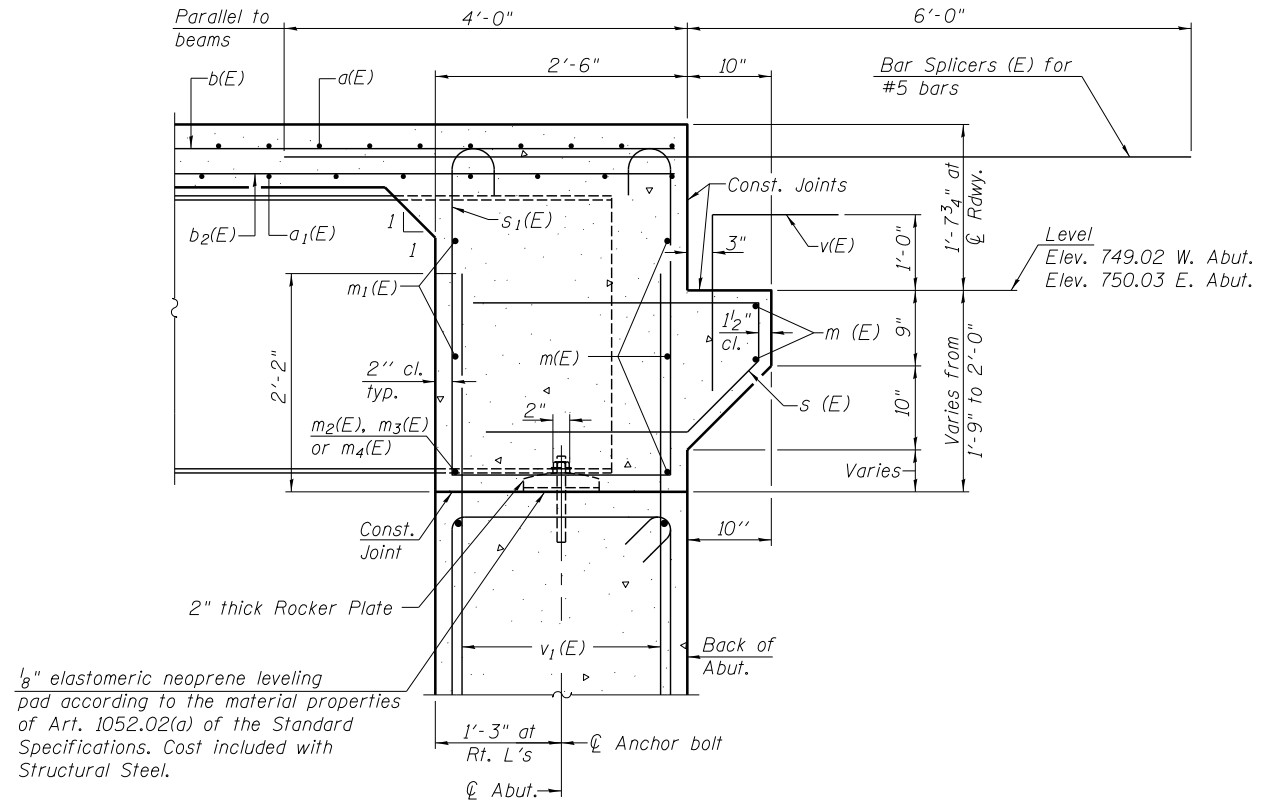
ILLINOIS FED. AID PROJECT



DIAPHRAGM ELEVATION AT WEST ABUTMENT
(East Abutment Similar)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet SA-11 of SA-24.
 Concrete in diaphragm is included with Concrete Superstructure on sheet SA-11 of SA-24.
 For details of bars s(E) & s1(E) see sheet SA-11 of SA-24.
 The s(E) and s1(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.

FILE NAME = ...E4083-SN0080049-012-DiaphragmDetails.dgn

SI-DS1

1-27-12

ZROKA engineering
 Zroka Engineering, P.C.
 4216 North Hermitage
 Chicago, IL 60613

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INTEGRAL ABUTMENT DIAPHRAGM DETAILS
S.N. 008-0049

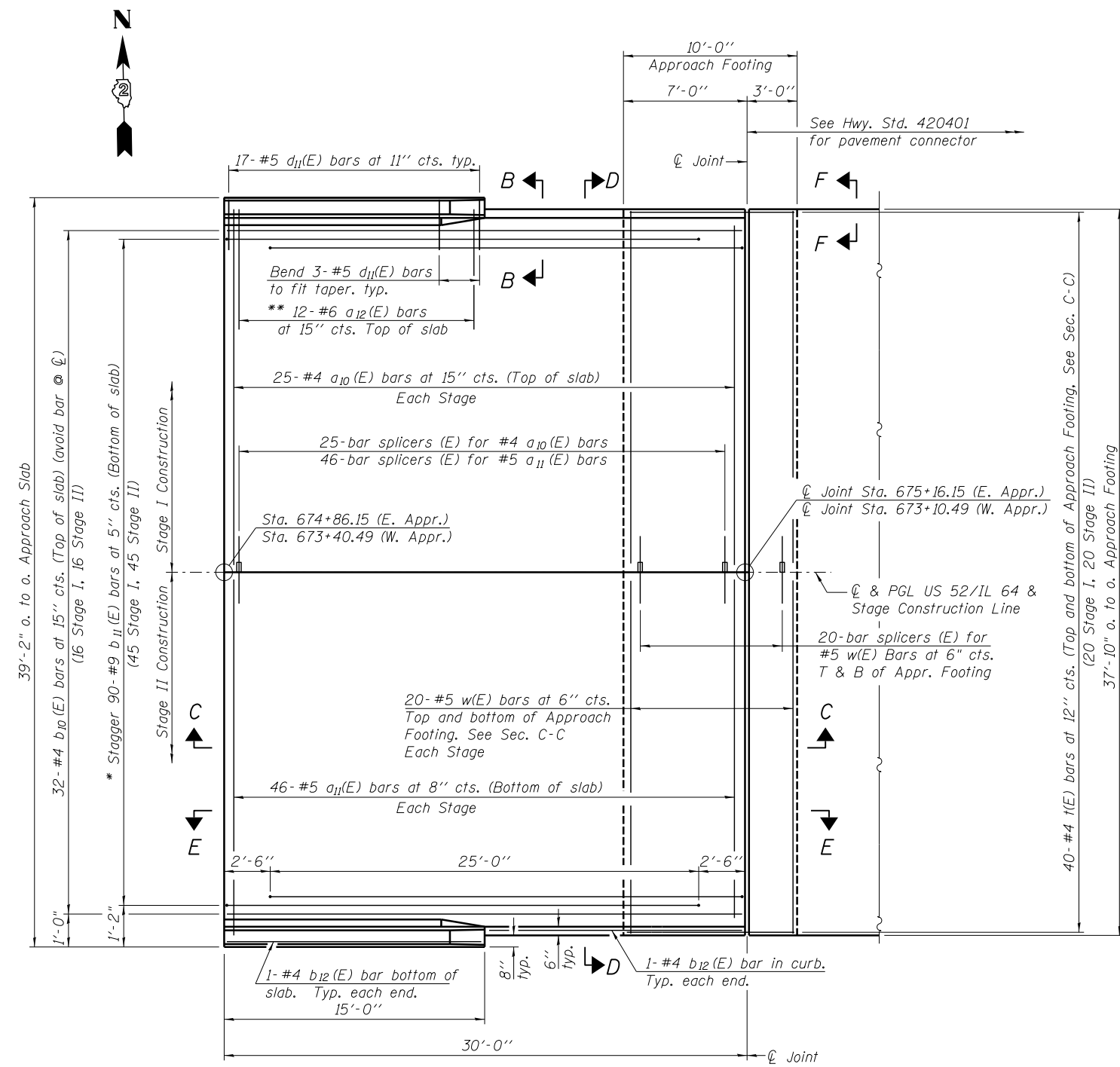
SHEET NO. SA-12 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	51
CONTRACT NO. 64D83				

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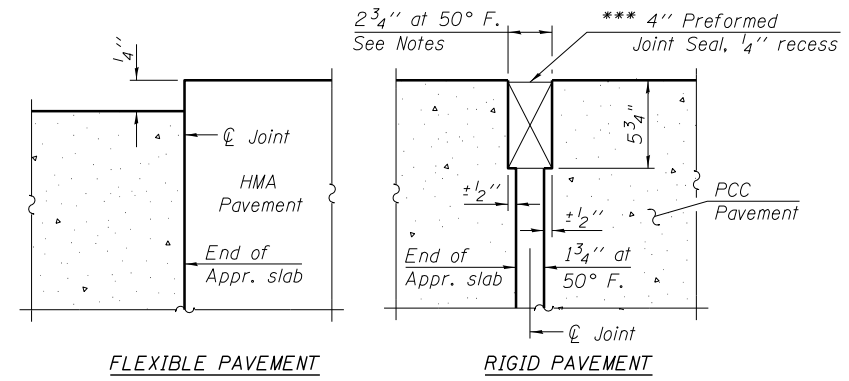
Notes:
 See sheet SA-14 of SA-24 for Sections C-C & D-D and View E-E.
 $a_{10}(E)$ and $a_{11}(E)$ bar spacings measured along \varnothing Rdwy.
 The joint opening shall be determined per Article 520.04 except that on jointless structures. The distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1\frac{1}{2}$ " for installation purposes.

*** Cost included with Concrete Superstructure.

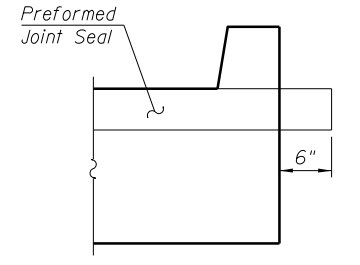
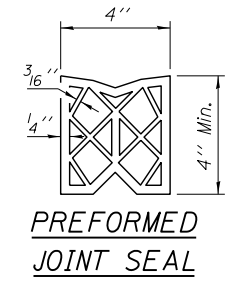


EAST APPROACH SLAB PLAN
 (West Approach Slab Similar)

* Tilt #9 b11(E) bars as required to maintain clearance.
 ** Space between a10(E) bars, typ. ea. parapet.

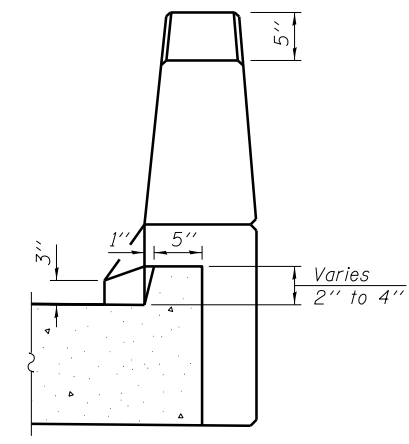


DETAIL A



VIEW F-F

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



VIEW B-B

FILE NAME = ...E4DB3-SN0080049-013-Appr-Slab1.dgn

BA-0 1-27-12



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	CHECKED - JLA	REVISED -

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BRIDGE APPROACH SLAB DETAILS 1
S.N. 008-0049

SHEET NO. SA-13 OF SA-24 SHEETS

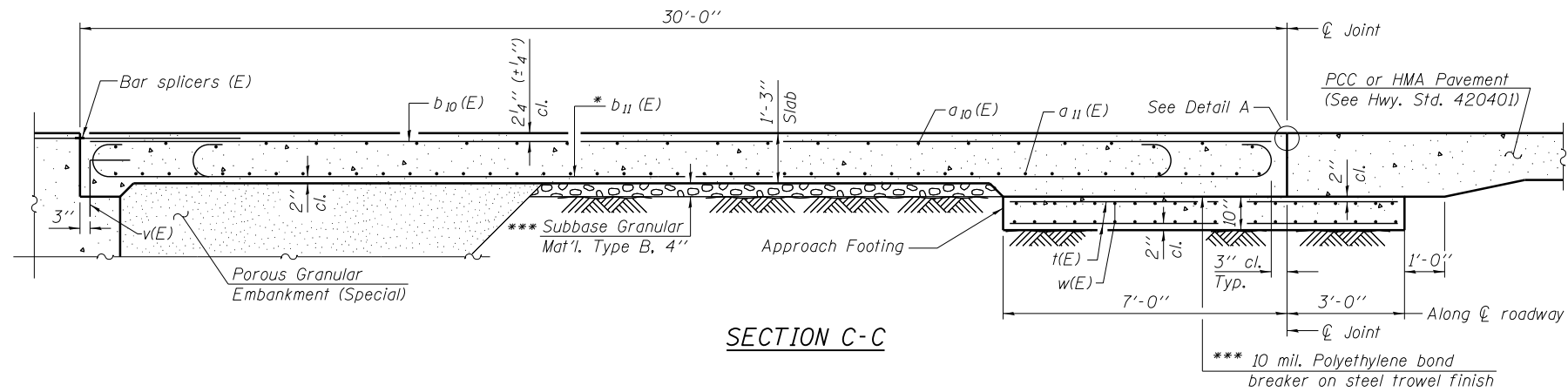
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CONTRACT NO. 64DB3				

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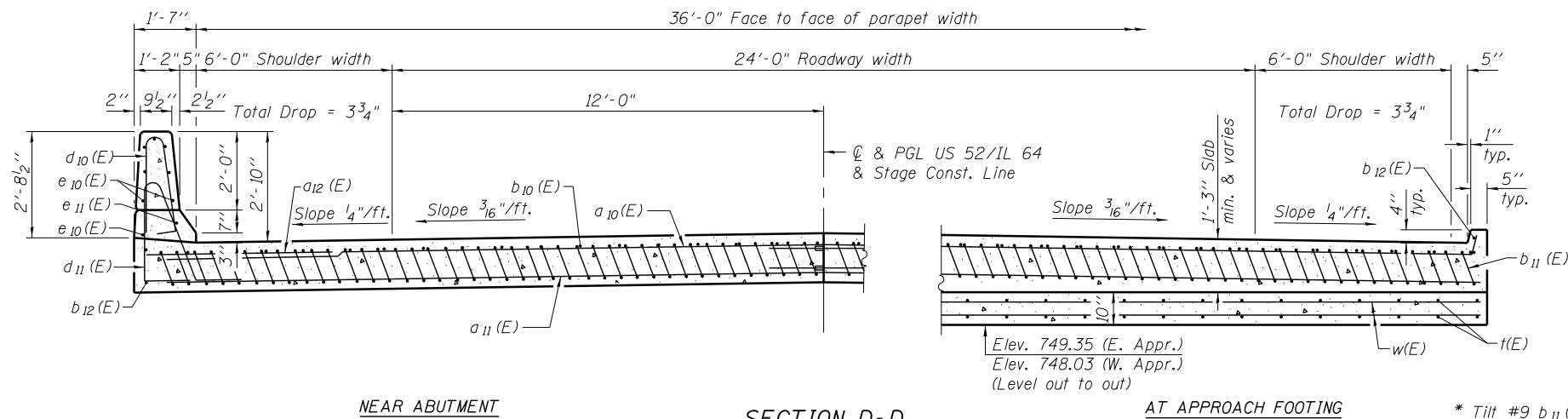
(Sheet 1 of 2)

Notes:

See sheet SA-13 of SA-24 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 SA-11 of SA-24.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet SA-22 of SA-24.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet SA-2 of SA-24.
 For additional parapet details, see sheet SA-11 of SA-24.



SECTION C-C



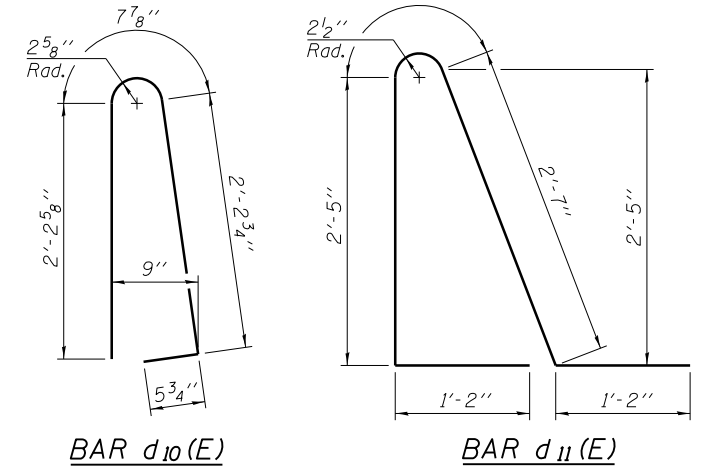
NEAR ABUTMENT

SECTION D-D

(See Plan for dimensions not shown)

AT APPROACH FOOTING

* Tilt #9 b11(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

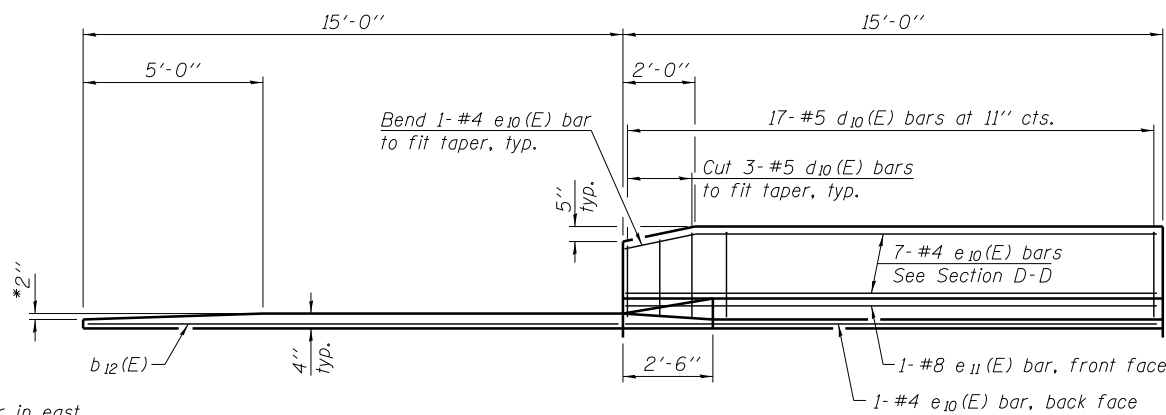


BAR d10(E)

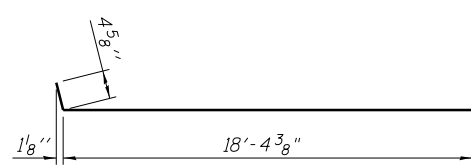
BAR d11(E)

TWO APPROACHES
 BILL OF MATERIAL

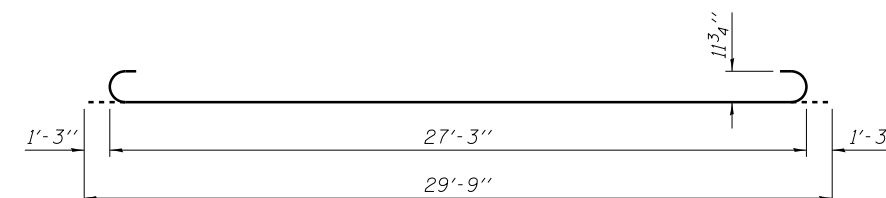
Bar	No.	Size	Length	Shape
a10(E)	100	#4	18'-9"	—
a11(E)	184	#5	18'-7"	—
a12(E)	48	#6	6'-6"	—
b10(E)	64	#4	29'-8"	—
b11(E)	180	#9	29'-9"	—
b12(E)	8	#4	14'-8"	—
d10(E)	68	#5	5'-7"	U
d11(E)	68	#5	7'-11"	U
e10(E)	32	#4	14'-8"	—
e11(E)	4	#8	14'-8"	—
t(E)	160	#4	9'-8"	—
w(E)	160	#5	18'-7"	—
Concrete Superstructure	Cu. Yd.		121.3	
Concrete Structures	Cu. Yd.		23.4	
Reinforcement Bars, Epoxy Coated	Pound		30,400	



VIEW E-E



BAR a10(E)



BAR b11(E)

(Sheet 2 of 2)

BA-0 1-27-12



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BRIDGE APPROACH SLAB DETAILS 2
 S.N. 008-0049

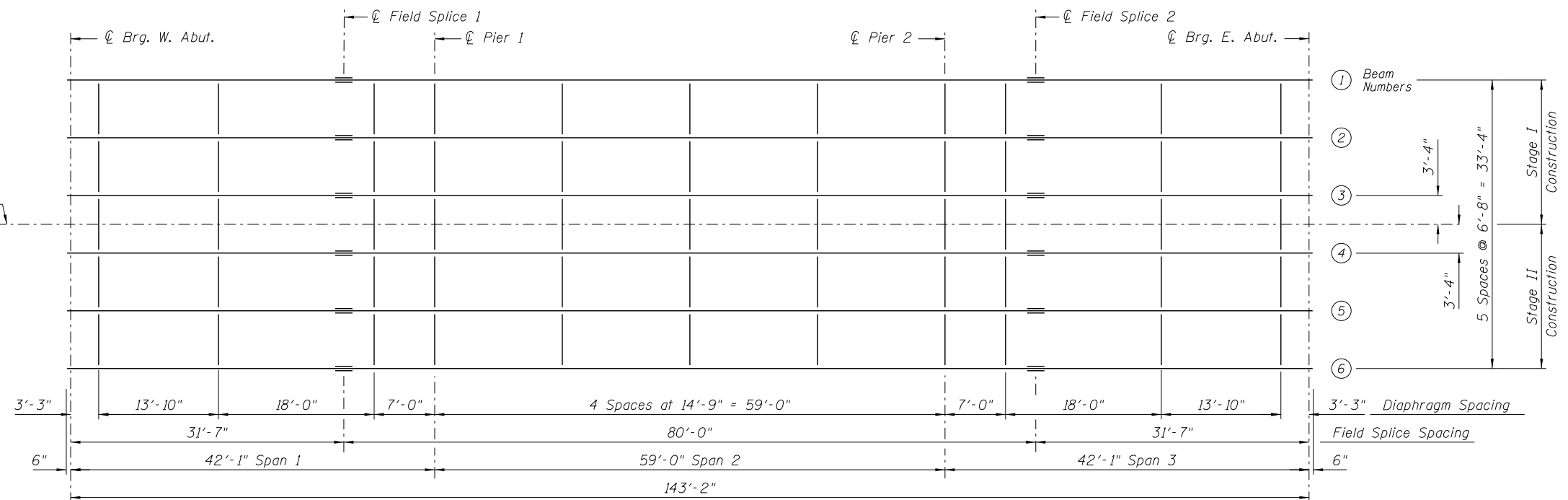
SHEET NO. SA-14 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	53
				CONTRACT NO. 64D83
ILLINOIS FED. AID PROJECT				

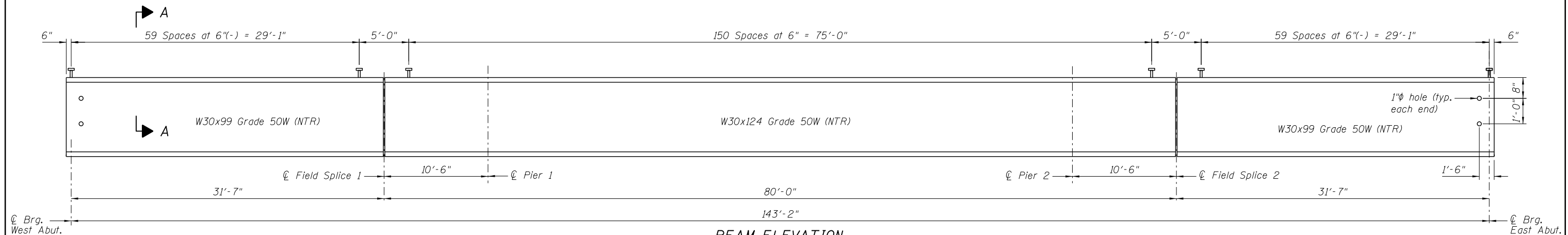
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☐ & PGL US 52/IL 64 & Stage Construction Line

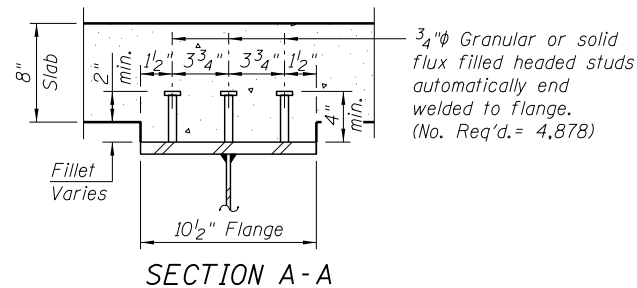


FRAMING PLAN



BEAM ELEVATION

Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



SECTION A-A

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Beam	☐ Brg. W Abut.	☐ Field Splice 1	☐ Pier 1	☐ Pier 2	☐ Field Splice 2	☐ Brg. E. Abut.
1	749.686	749.842	749.914	750.321	750.394	750.674
2	749.815	749.970	750.042	750.450	750.522	750.802
3	749.919	750.074	750.147	750.554	750.626	750.907
4	749.919	750.074	750.147	750.554	750.626	750.907
5	749.815	749.970	750.042	750.450	750.522	750.802
6	749.686	749.842	749.914	750.321	750.394	750.674

The elevation shown at the ☐ Field Splice 1 and ☐ Field Splice 2 is the Top of Beam Elevation for the W30x124.

Notes:

All dimensions are horizontal.

Work this sheet with Sheets SA-16 & SA-17 of SA-24.

Note:
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



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FRAMING PLAN
S.N. 008-0049

SHEET NO. SA-15 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	54
CONTRACT NO. 64D83				

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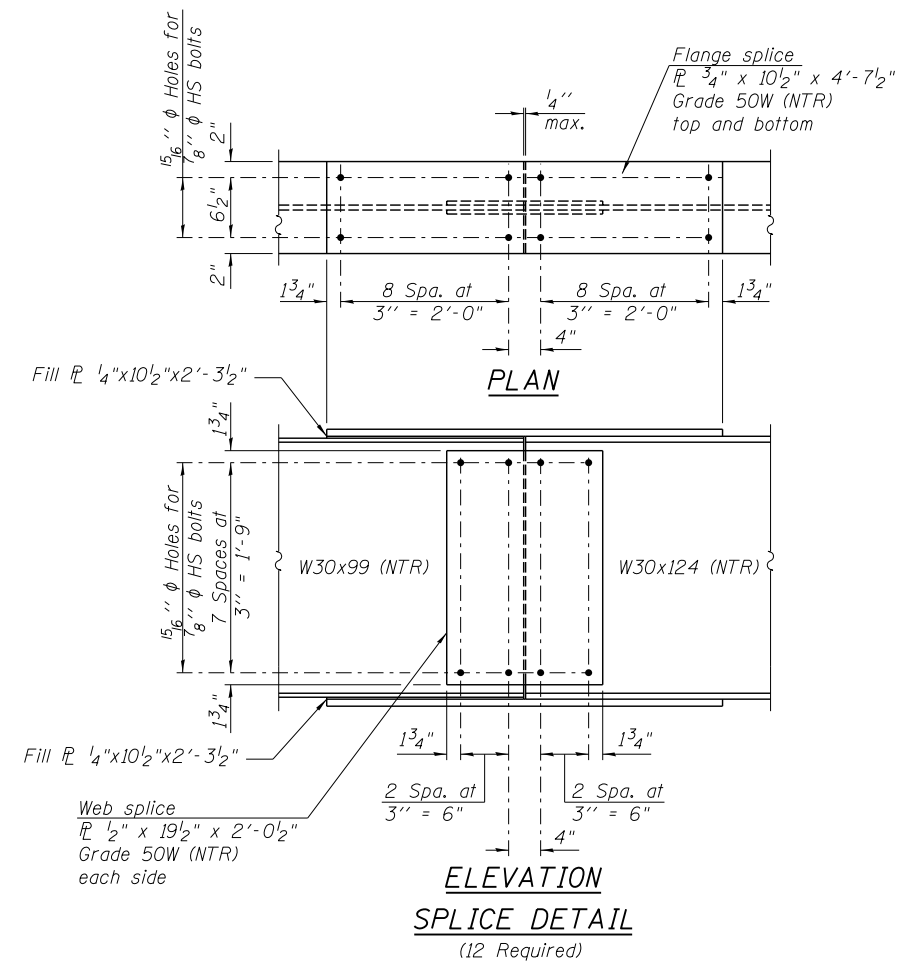
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INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in ⁴)	3990	5360
$I_c(n)$	(in ⁴)	12344	15330
$I_c(3n)$	(in ⁴)	9154	11188
$I_c(cr)$	(in ⁴)		7467
S_s	(in ³)	269	355
$S_c(n)$	(in ³)	426	540
$S_c(3n)$	(in ³)	385	486
$S_c(cr)$	(in ³)		413
DC1	(k/')	.833	.850
MDC1	(k)	85.5	228.6
DC2	(k/')	.150	.150
MDC2	(k)	15.7	40.3
DW	(k/')	.300	.300
MDW	(k)	31.5	80.7
$M_{\frac{1}{2}} + 1M$	(k)	407.6	389.3
M_u (Strength I)	(k)	887	1129
$\phi_r M_n$	(k)	2216	--
f_s DC1	(ksi)	3.9	7.8
f_s DC2	(ksi)	.5	1.2
f_s DW	(ksi)	1.0	2.3
f_s ($\frac{1}{2} + 1M$)	(ksi)	11.5	11.3
f_s (Service II)	(ksi)	20.3	26.0
$0.95R_n F_y f$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	--	34.5
$\phi_r F_n$	(ksi)	--	38.5
V_r	(k)	14.4	20.0

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
RDC1	(k)	12.1
RDC2	(k)	2.2
RDW	(k)	4.4
$R_{\frac{1}{2}} + 1M$	(k)	61.2
RTotal	(k)	79.9

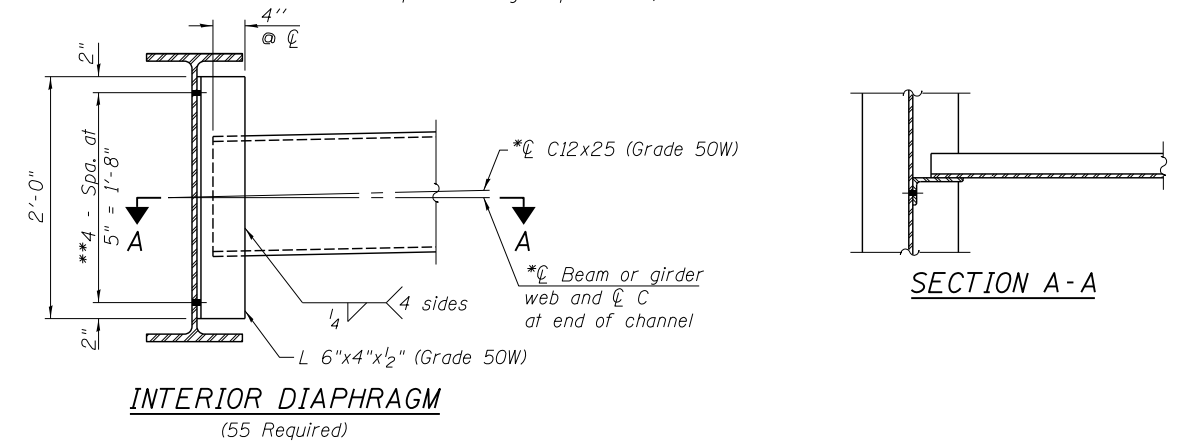
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: 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) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).
- $I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).
- 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.).
- $M_{\frac{1}{2}} + 1M$: Un-factored live load moment plus dynamic load allowance (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
- $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\frac{1}{2}} + 1M$
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
- M_{DC1} / S_{nc}
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
- $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
- $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
- f_s ($\frac{1}{2} + 1M$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
- $M_{\frac{1}{2}} + 1M / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.
- f_s (Service II): Sum of stresses as computed below (ksi).
- $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (\frac{1}{2} + 1M)$
- $0.95R_n F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
- $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (\frac{1}{2} + 1M)$
- $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V_r : Maximum factored shear range in span computed according to Article 6.10.10.

Note:
 $M_{\frac{1}{2}} + 1M$ and $R_{\frac{1}{2}}$ include the effects of centrifugal force and superelevation.



Fasteners shall be AASHTO A325 Type 3 bolts.
 Bolts 7/8" dia., holes 15/16" dia.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



Note:
 Two hardened washers required for each set of oversized holes.
 *Alternate channels C12X30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
 **3/4" ϕ HS bolts, 15/16" ϕ holes. In Stage II Beam 4, 3/4" ϕ HS bolts, 13/16" x 17/8" slots. Bolts in slots shall be finger tight until the second stage pour is complete.
 Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load, allowing maximum displacement without laterally stressing main members.

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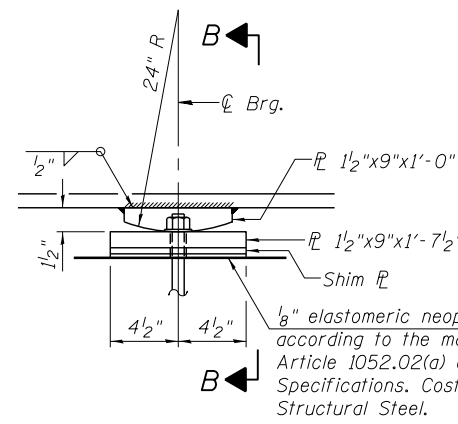
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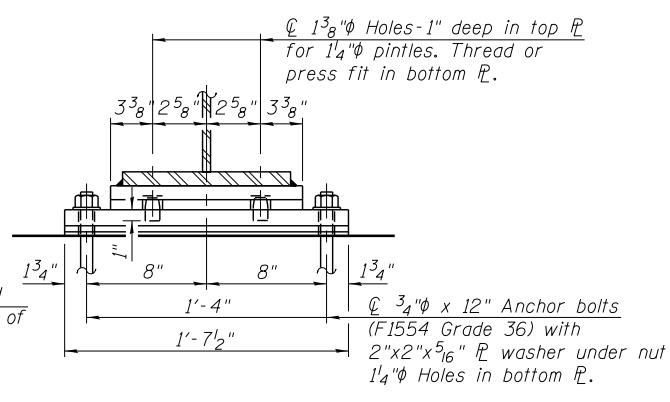
STRUCTURAL STEEL DETAILS
 S.N. 008-0049

SHEET NO. SA-16 OF SA-24 SHEETS

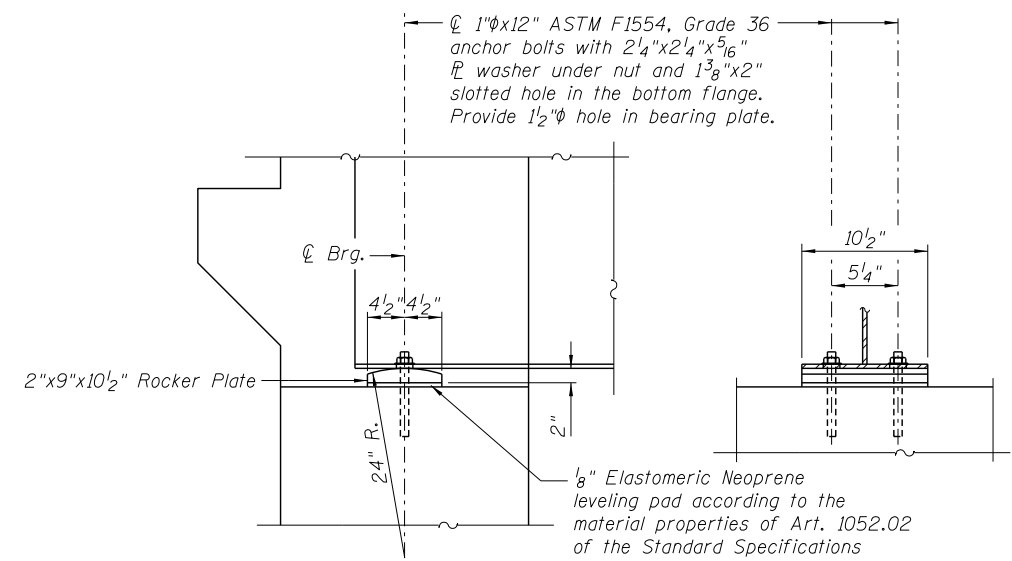
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17	4BR-5	CARROLL	150	55
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



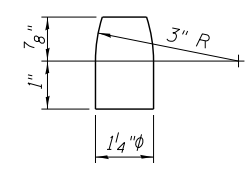
ELEVATION AT PIER



SECTION B-B



ABUTMENT BEARING DETAILS



PINTLE

PIER BEARING DETAILS

Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Two 3/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 All plates and pintles shall conform to the requirements of AASHTO M 270 Grade 50W.

BILL OF MATERIAL

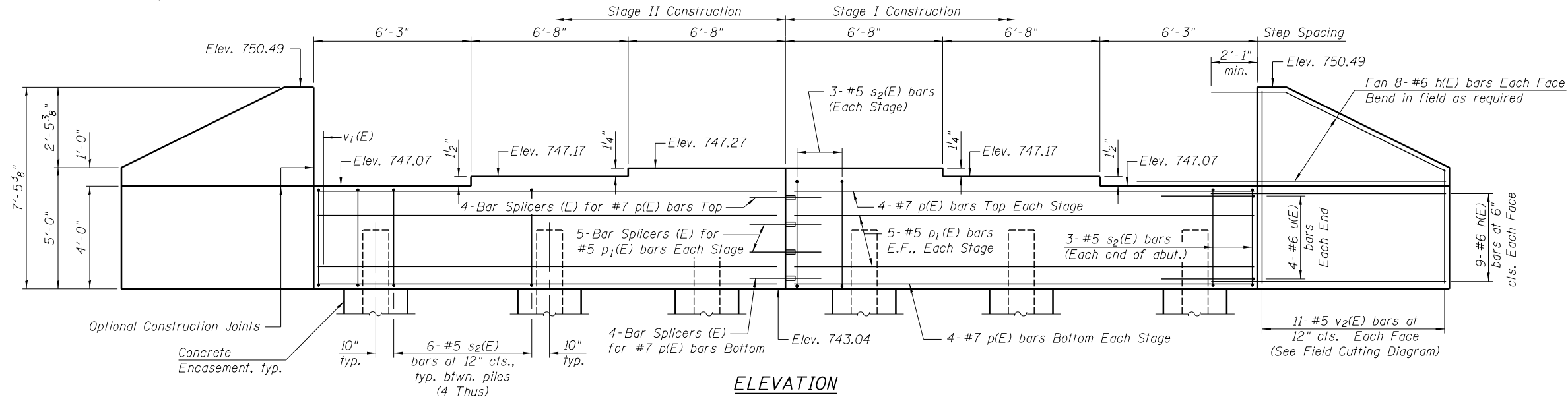
Item	Unit	Total
Anchor Bolts, 3/4"	Each	24
Anchor Bolts, 1"	Each	24

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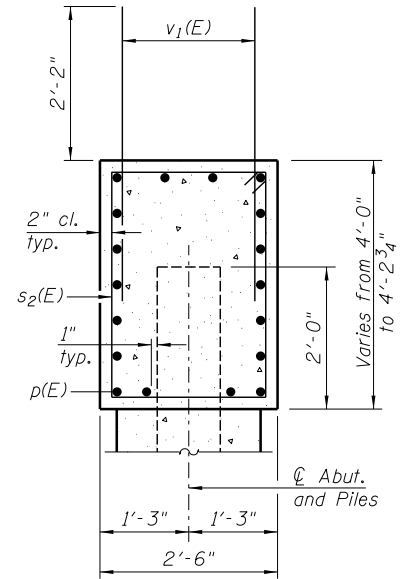
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64D83				
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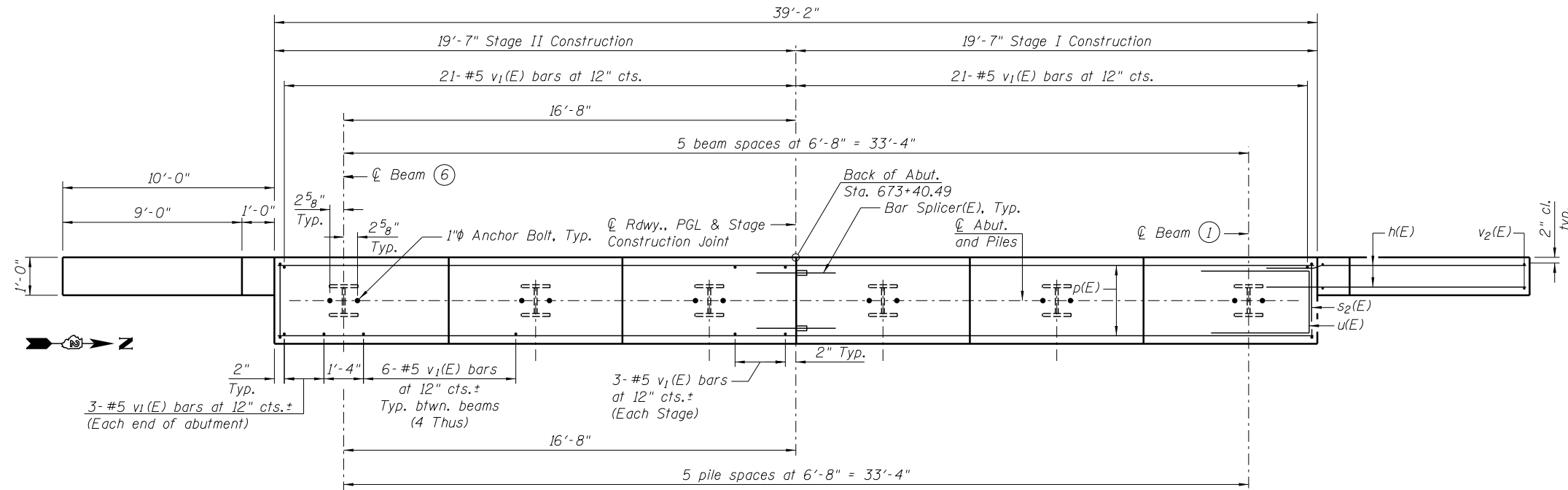
Notes:
Pour steps monolithically with cap.



ELEVATION



SEC. THRU ABUT.



PLAN

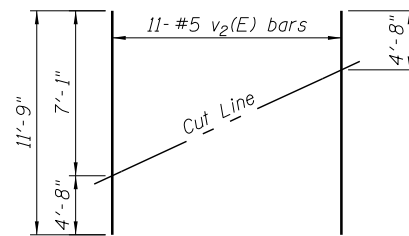
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	68	#6	12'-0"	—
p(E)	16	#7	19'-3"	—
p1(E)	20	#5	19'-3"	—
s2(E)	36	#5	12'-7"	□
u(E)	8	#6	10'-11"	□
v1(E)	78	#5	4'-4"	—
v2(E)	22	#5	11'-9"	—
Structure Excavation			Cu. Yd.	129
Concrete Structures			Cu. Yd.	19.6
Reinforcement Bars, Epoxy Coated			Pound	3,480
Furnishing Steel Piles, HP12x53			Foot	230
Test Pile Steel, HP12x53			Each	1
Driving Piles			Foot	230
Concrete Encasement			Cu. Yd.	2.0
Pile Shoes			Each	6

For details of Bar Splicers, see sheet SA-22 of SA-24.
For details of piles and Concrete Encasement, see sheet SA-23 of SA-24.
Space reinforcement in cap to miss anchor bolts.

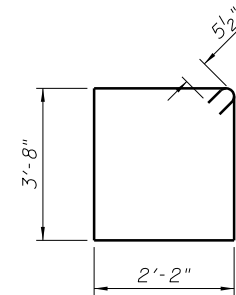
PILE DATA

Type: Steel HP12x53 with Pile Shoes
Nominal Required Bearing: 419k
Factored Resistance Available: 230k
Est. Length: 46.0'
No. Production Piles: 5
No. Test Piles: 1

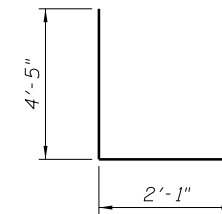


FIELD CUTTING DIAGRAM

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



BAR s2(E)



BAR u(E)

FILE NAME = ...E4DB3-SN0080049-018-WeasAbut.dgn



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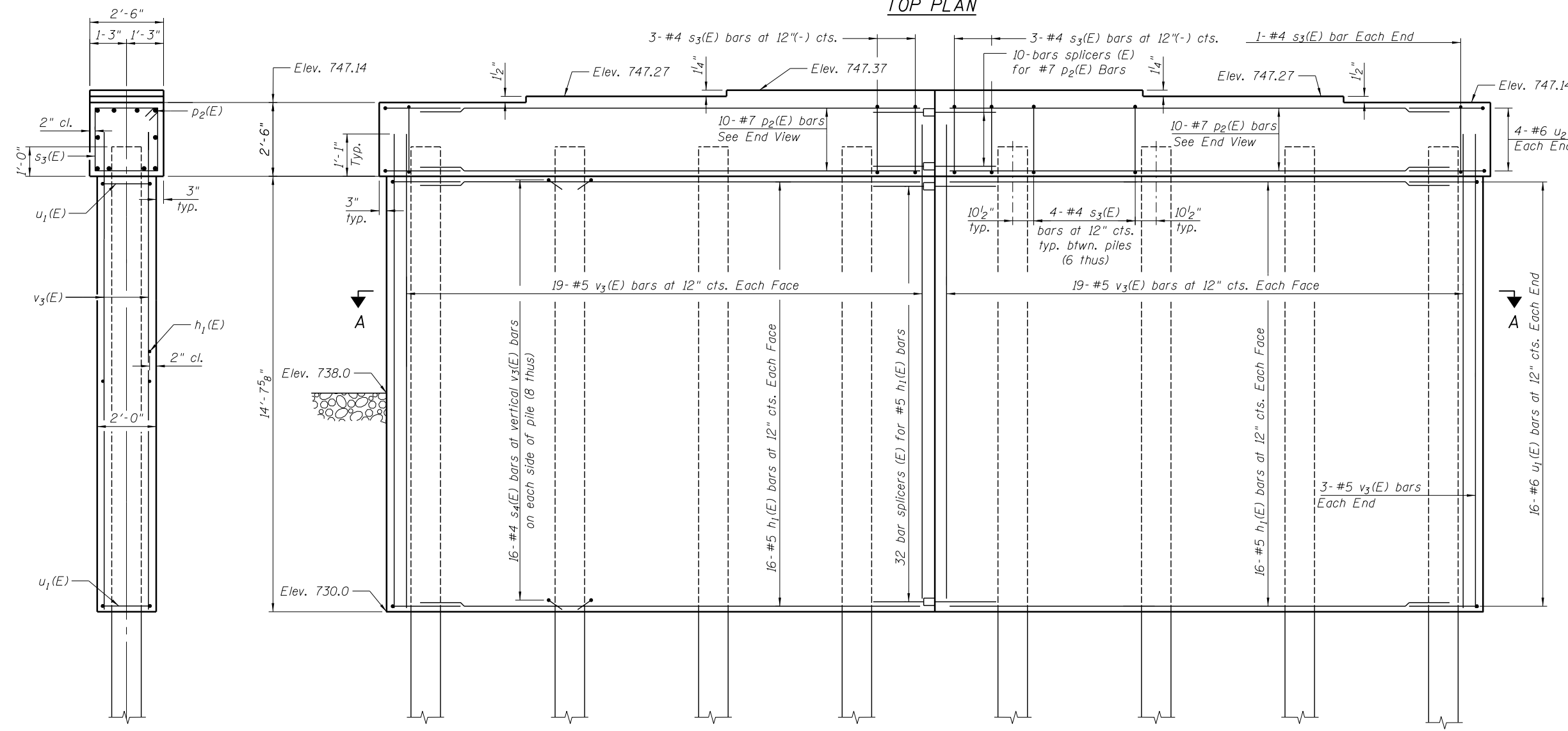
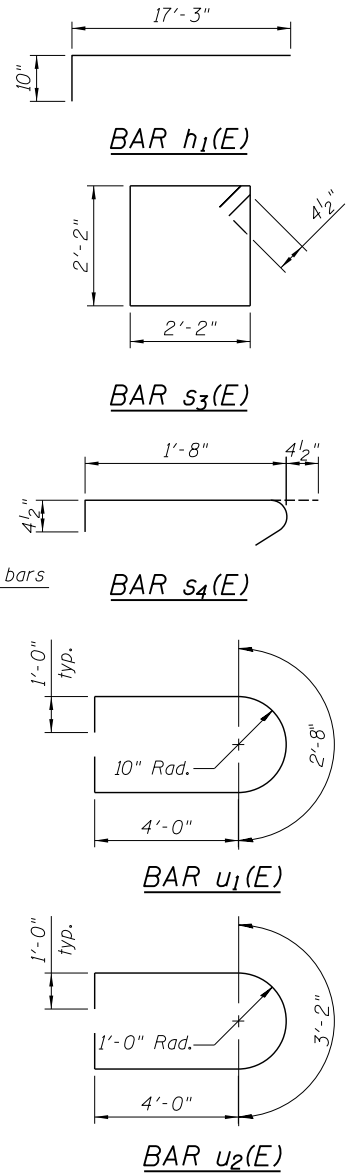
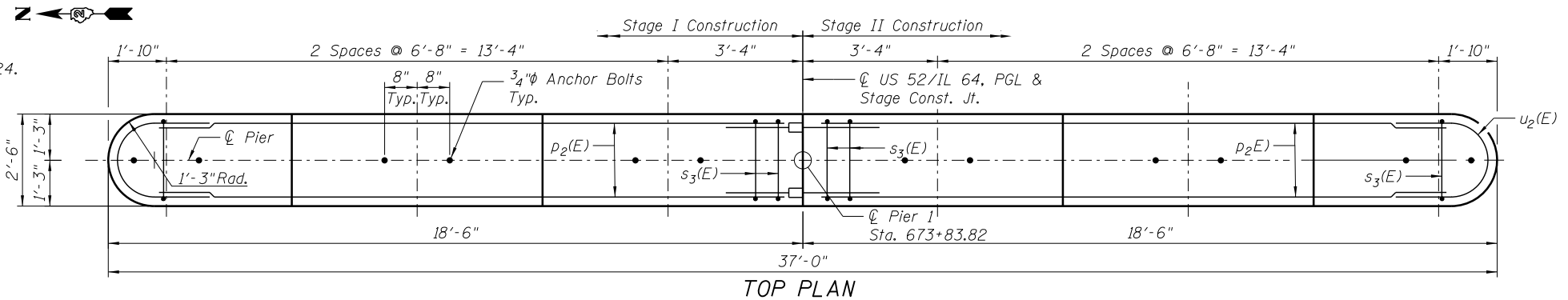
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT
S.N. 008-0049**

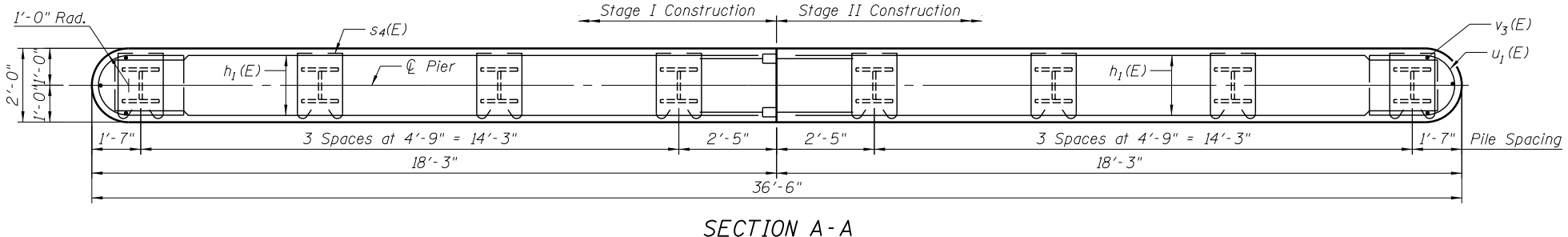
SHEET NO. SA-18 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	57
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

Notes:
 For Pile Details See Sheet SA-23 of SA-24.
 For Bar Splicer Details See Sheet SA-22 of SA-24.
 Cofferdam (Type 2) (Location 1) at Pier 1.



END VIEW



PILE DATA
 Type: HP14x73 with Pile Shoes
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 317 kips
 Est. Length: 46.6'
 No. Production Piles: 7
 No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	64	#5	18'-1"	—
p ₂ (E)	20	#7	17'-1"	—
s ₃ (E)	32	#5	9'-5"	□
s ₄ (E)	256	#4	2'-5"	┌
u ₁ (E)	32	#6	12'-8"	⊔
u ₂ (E)	8	#6	13'-2"	⊔
v ₃ (E)	82	#5	15'-6"	—
Cofferdam Excavation		Cu. Yd.	191	
Concrete Structures		Cu. Yd.	48.0	
Reinforcement Bars, Epoxy Coated		Pound	4,730	
Furnishing Steel Piles HP14x73		Foot	326	
Test Pile Steel HP14x73		Each	1	
Driving Piles		Foot	326	
Pile Shoes		Each	8	
Cofferdam (Type 2) (Location 1)		Each	1	

FILE NAME = ...E4DB3-SN0080049-020-Pier-1.dgn



USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 8/19/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

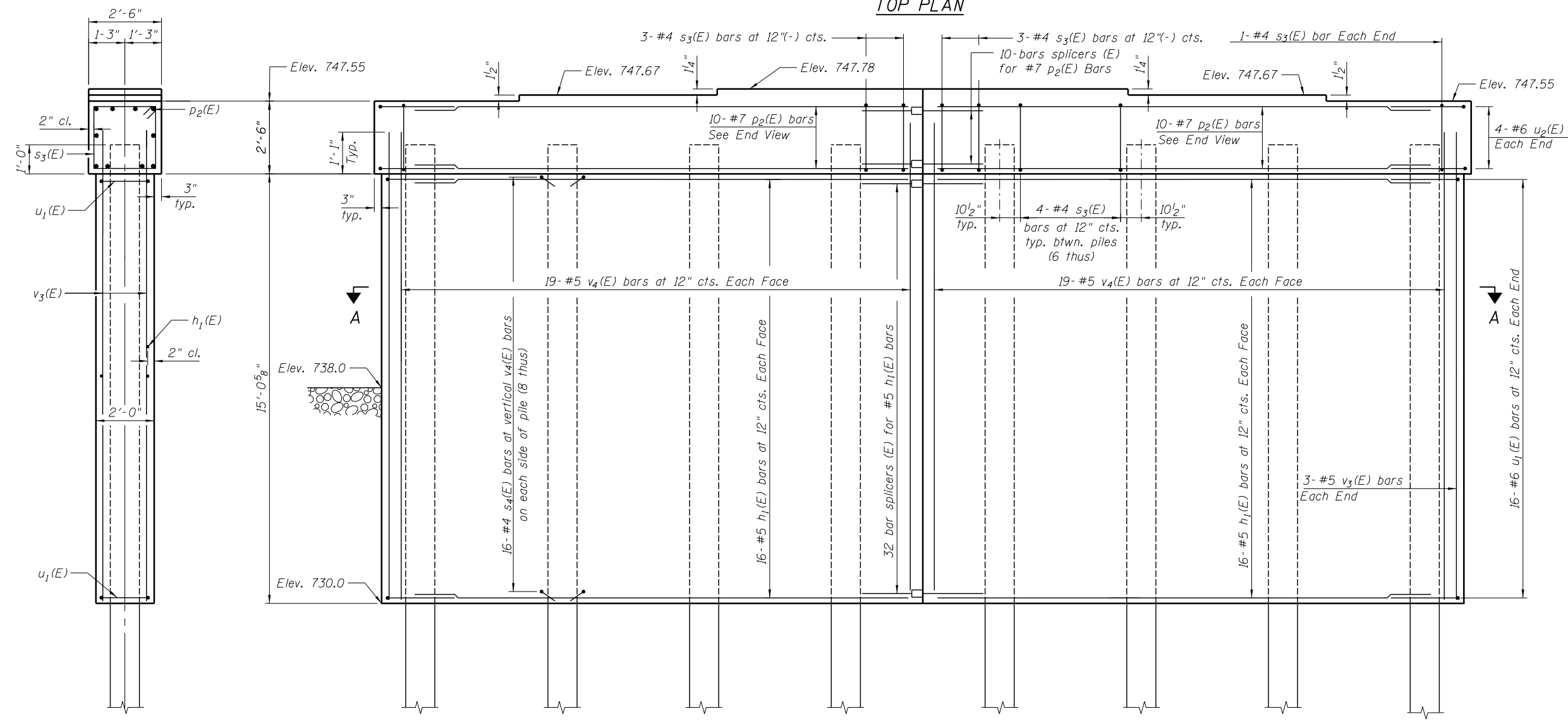
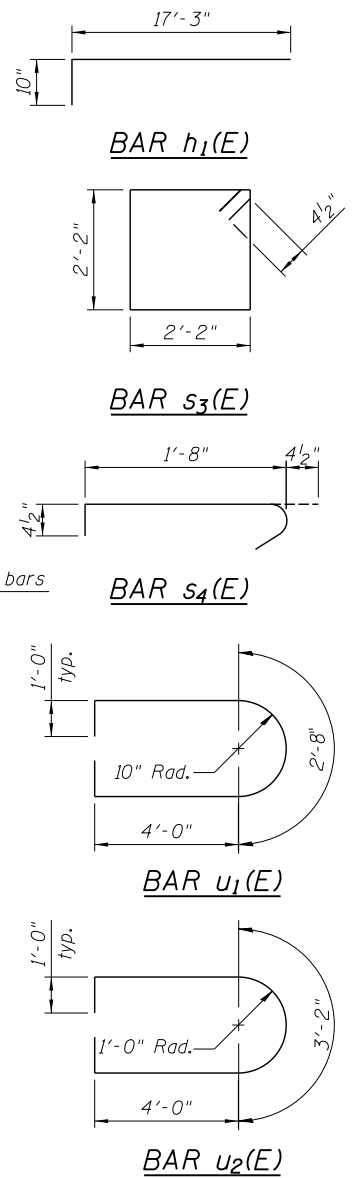
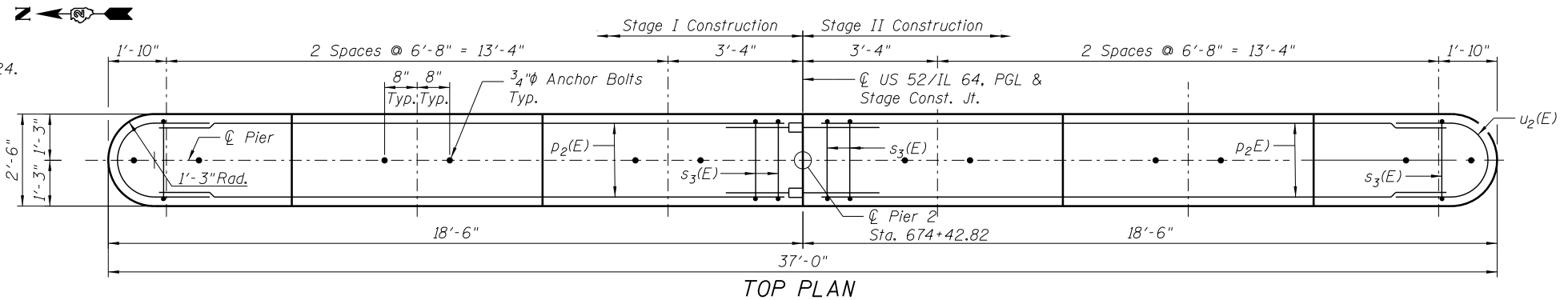
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 1
 S.N. 008-0049

SHEET NO. SA-20 OF SA-24 SHEETS

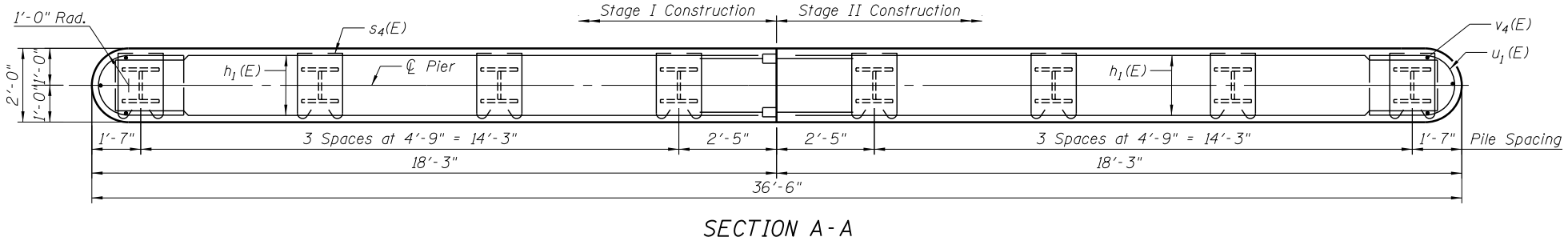
F.A.P. RTE. 17	SECTION 4BR-5	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 59
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

Notes:
 For Pile Details See Sheet SA-23 of SA-24.
 For Bar Splicer Details See Sheet SA-22 of SA-24.
 Cofferdam (Type 2) (Location 2) at Pier 2.



END VIEW

PILE DATA
 Type: HP14x73 with Pile Shoes
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 317 kips
 Est. Length: 39.1'
 No. Production Piles: 7
 No. Test Piles: 1



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	64	#5	18'-1"	—
p ₂ (E)	20	#7	17'-1"	—
s ₃ (E)	32	#5	9'-5"	□
s ₄ (E)	256	#4	2'-5"	┌┐
u ₁ (E)	32	#6	12'-8"	⊔
u ₂ (E)	8	#6	13'-2"	⊔
v ₄ (E)	82	#5	15'-11"	—
Cofferdam Excavation		Cu. Yd.	190	
Concrete Structures		Cu. Yd.	49.1	
Reinforcement Bars, Epoxy Coated		Pound	4,760	
Furnishing Steel Piles HP14x73		Foot	274	
Test Pile Steel HP14x73		Each	1	
Driving Piles		Foot	274	
Pile Shoes		Each	8	
Cofferdam (Type 2) (Location 2)		Each	1	

FILE NAME = ...E4DB3-SN0080049-021-Pier-2.dgn



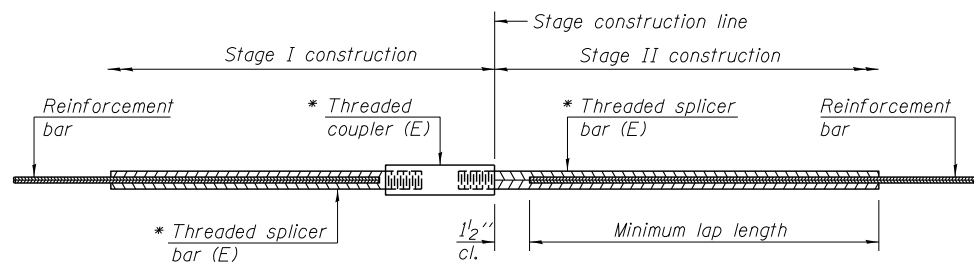
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PLOT DATE = 8/19/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PIER 2
 S.N. 008-0049**

SHEET NO. SA-21 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	60
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

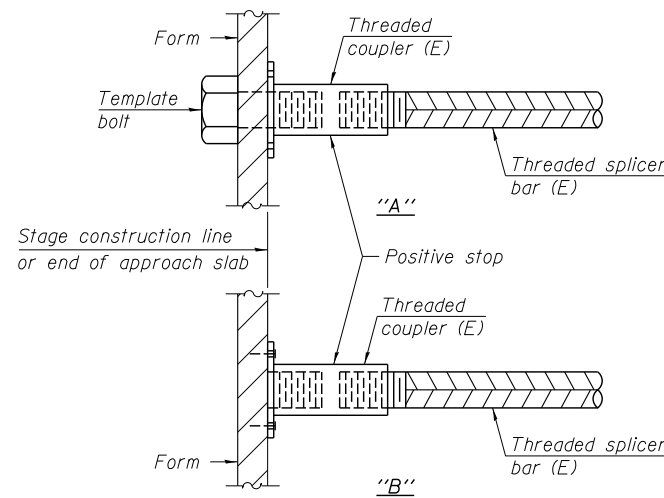
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

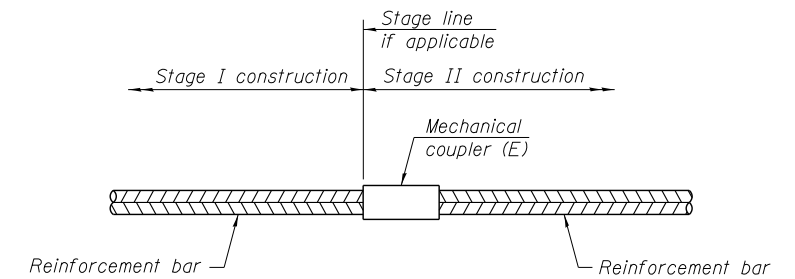
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	468	3
Abut. Diaphragm	#6	16	4
Approach	#4	50	4
Approach	#5	92	3
Approach Footing	#5	80	3
Abutment	#7	16	4
Abutment	#5	20	4
Pier	#7	20	4
Pier	#5	64	4



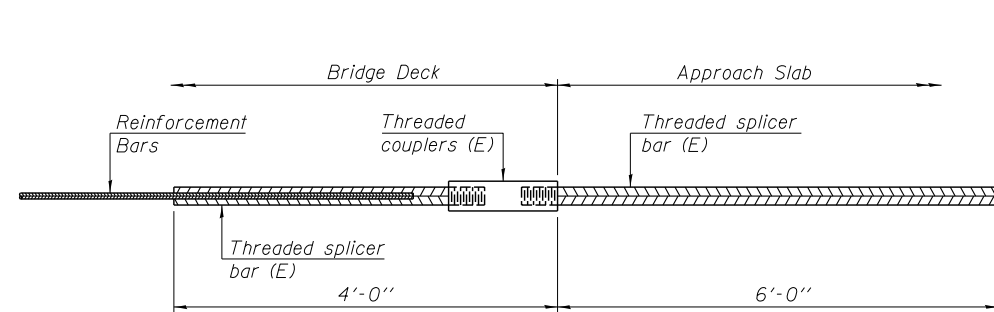
INSTALLATION AND SETTING METHODS

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



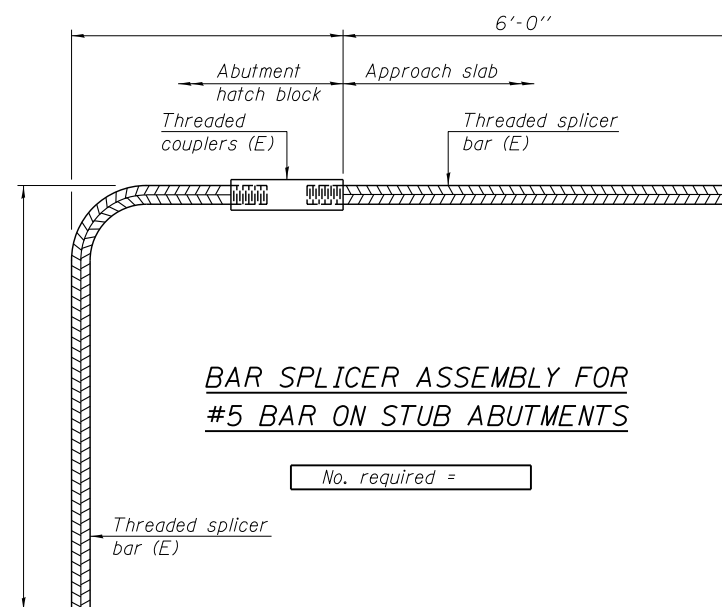
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 84



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE NAME = ...E4083-SN0080049-022-BarSplicers.dgn

BSD-1

1-27-12



Zroka Engineering, P.C.
 4216 North Hermitage
 Chicago, IL 60613

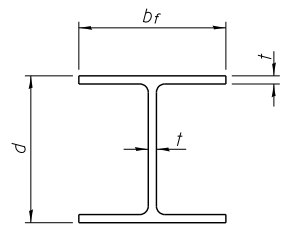
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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 S.N. 008-0049

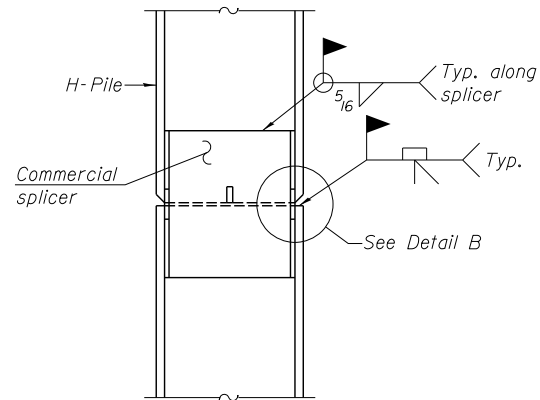
SHEET NO. SA-22 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	61
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

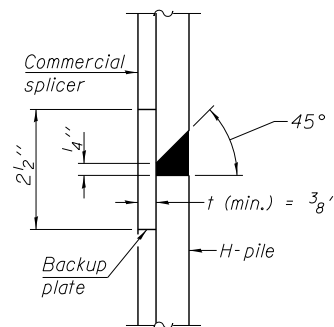


STEEL PILE TABLE

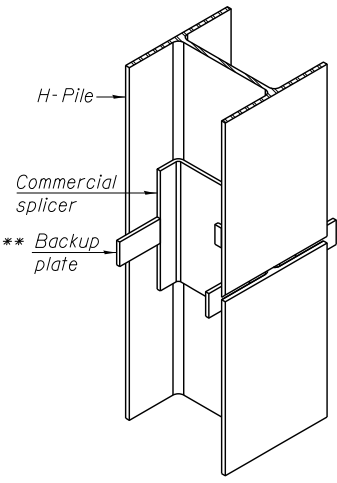
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

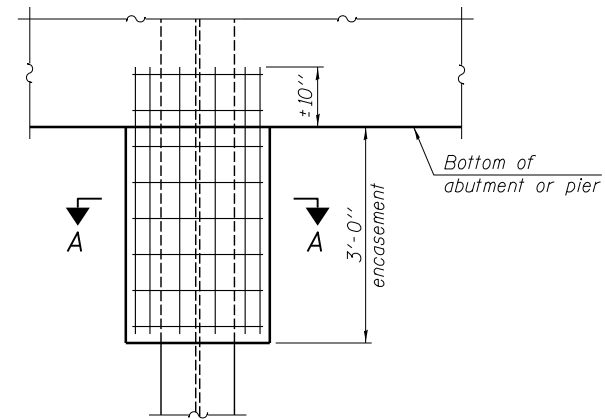


DETAIL "B"

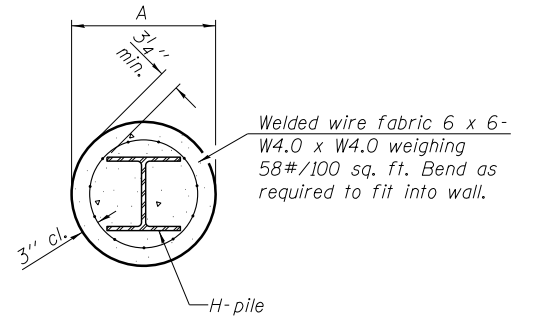


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

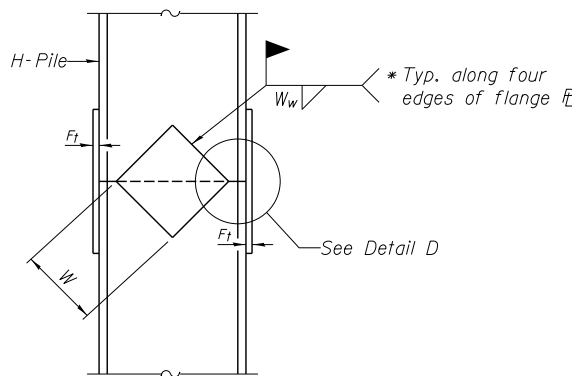


ELEVATION

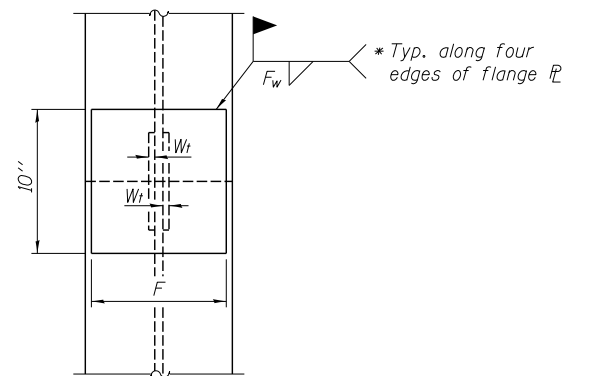


SECTION A-A

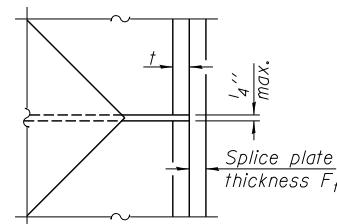
PILE ENCASEMENT



ELEVATION



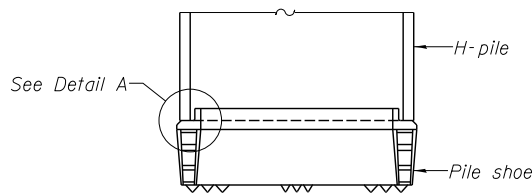
END VIEW



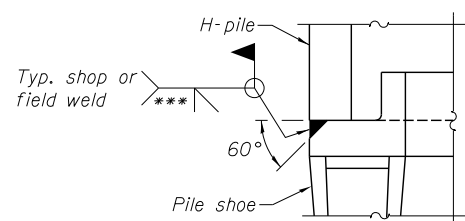
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	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"

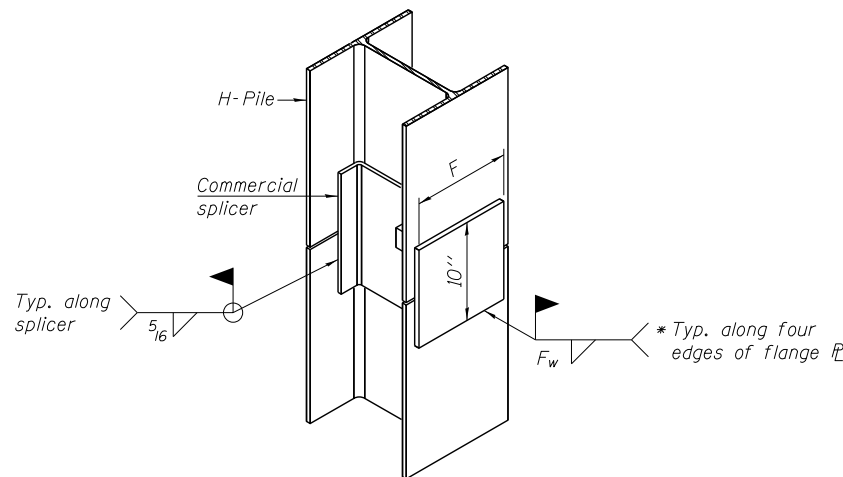


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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.).

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

FILE NAME = ...E4DB3-SN0080049-023-HPP11es.dgn

F-HP 7-1-10



USER NAME = SAW	DESIGNED - JLA	REVISED -
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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

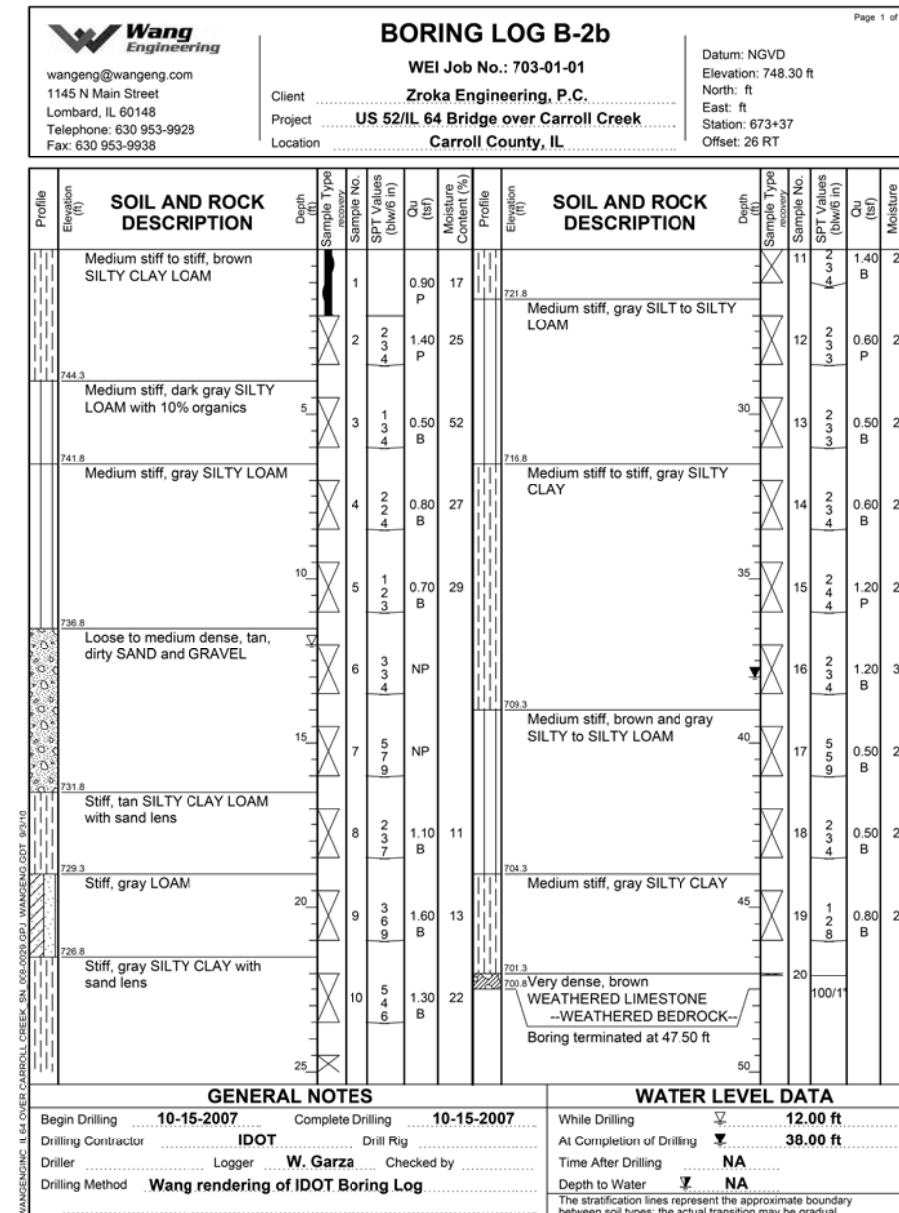
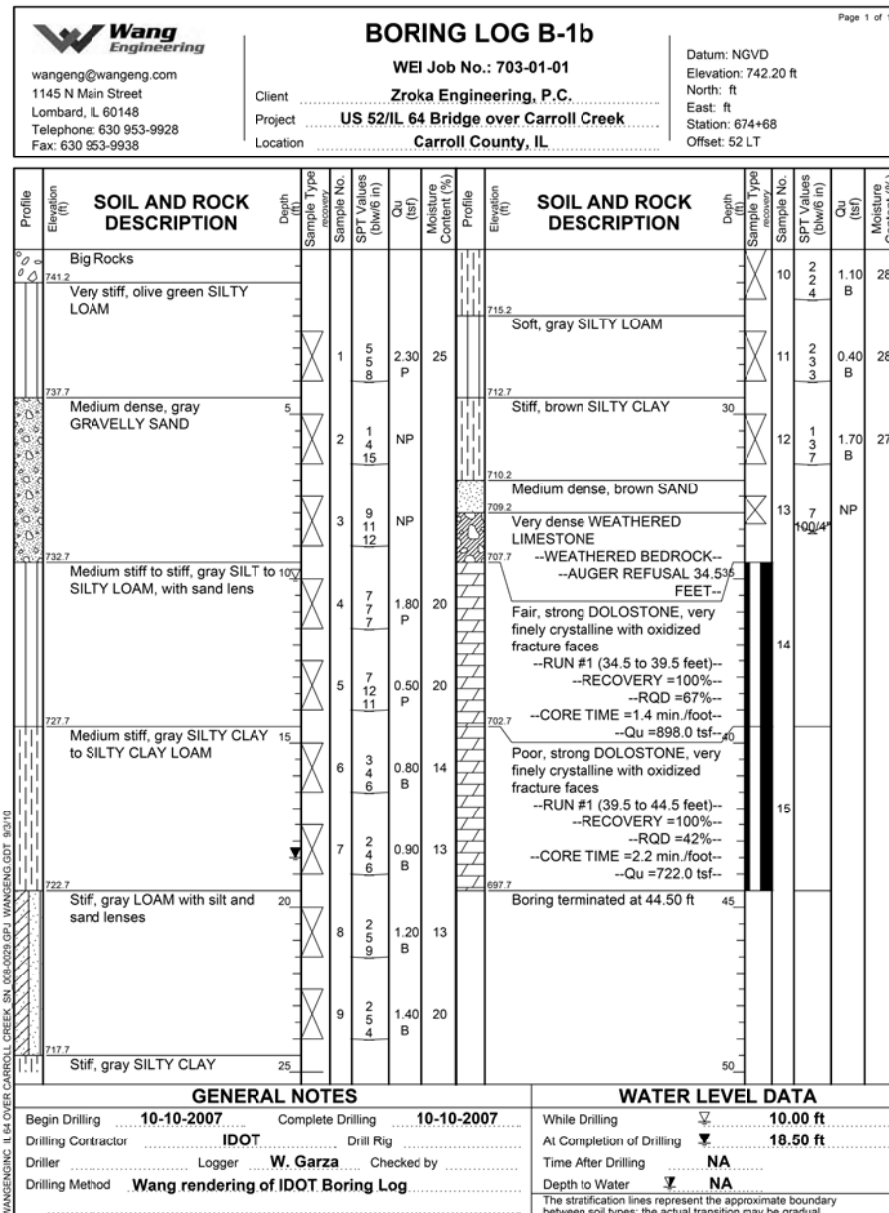
HP PILE DETAILS
S.N. 008-0049

SHEET NO. SA-23 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	62
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

SOIL BORING B-1b

SOIL BORING B-2b



FILE NAME = ...E4DB3-SN0080049-024-Bor-Ing-ogs1.dgn



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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISIED -
	CHECKED - JLA	REVISIED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS
 S.N. 008-0049

SHEET NO. SA-24 OF SA-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	63
CONTRACT NO. 64DB3				

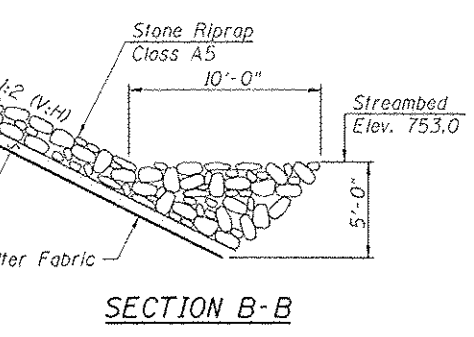
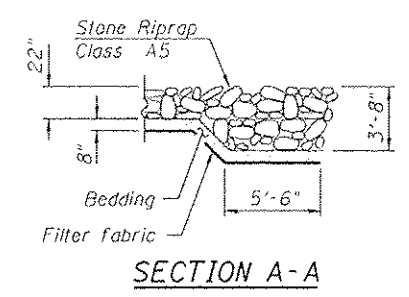
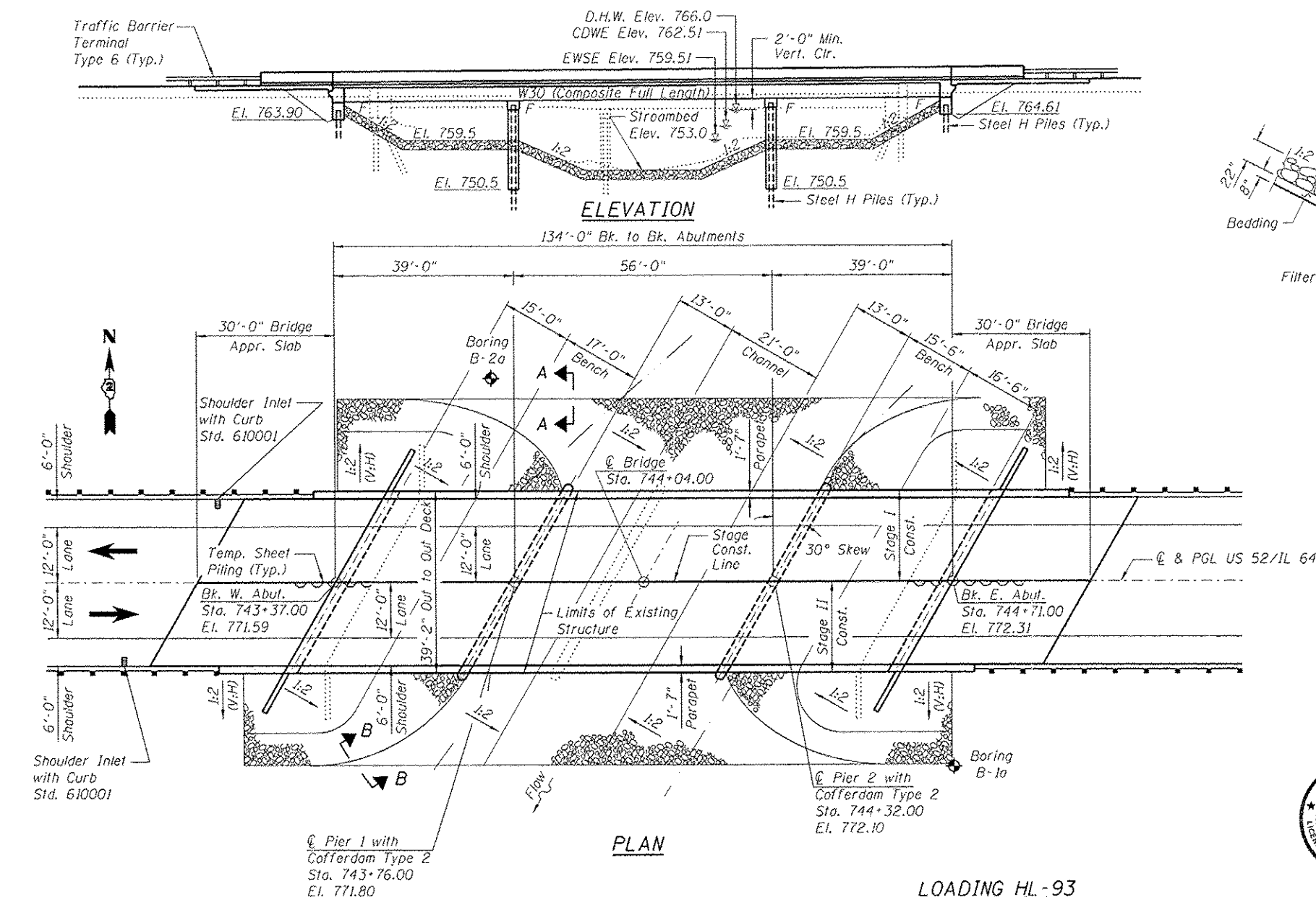
ILLINOIS FED. AID PROJECT

Bench Mark: Disc on headwall, Sta. 743+34.88, 20' Rt., Elev. 768.64

Existing Structure: S.N. 008-0030 originally constructed in 1983 as F.A. Route 17 Section 4BR-1. Two simple span PPC Deck Beams superstructure supported on stub abutments and a pile encased solid wall pier. In 2003, asphalt overlay was removed and replaced with 5" reinforced concrete wearing surface as FA17, Section (4BR-1 & 4BR-2)M. In 2008, four PPC Deck Beams were replaced as FAP17, Section (4BR-2)D & (4BR-1)D. Bk. to Bk. abutments is 116'-3" and Out to Out width is 39'-2".

Existing structure shall be removed and replaced. Traffic to be maintained utilizing stage construction.

Existing steel shoring to be removed and taken to the nearest IDOT maintenance yard for salvage.



INDEX OF SHEETS

- SB-1. General Plan and Elevation
- SB-2. General Data
- SB-3. Stage Construction Details
- SB-4. Temporary Concrete Barrier for Stage Construction
- SB-5. Top of Slab Elevations 1
- SB-6. Top of Slab Elevations 2
- SB-7. Top of Slab Elevations 3
- SB-8. West Approach Top of Slab Elevations
- SB-9. East Approach Top of Slab Elevations
- SB-10. Superstructure
- SB-11. Superstructure Details
- SB-12. Integral Abutment Diaphragm Details
- SB-13. Bridge Approach Slab Details 1
- SB-14. Bridge Approach Slab Details 2
- SB-15. Framing Plan
- SB-16. Structural Steel Details
- SB-17. Bearing Details
- SB-18. West Abutment
- SB-19. East Abutment
- SB-20. Pier 1
- SB-21. Pier 2
- SB-22. Bar Splicer Assembly and Mechanical Splicer Details
- SB-23. HP Pile Details
- SB-24. Boring Logs

WATERWAY INFORMATION

Drainage Area = 38.8 sq. mi. Exist. Low Grade Elev. = 768.73 @ Sta. 740+70
 Prop. Low Grade Elev. = 769.42 @ Sta. 739+00

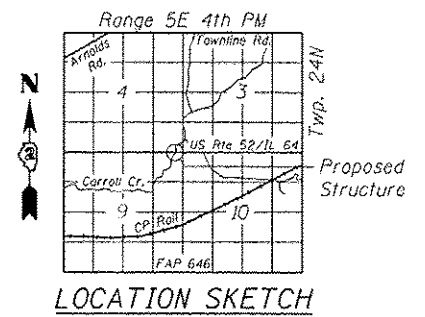
Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten Year	10	2670	676	697	765.0	0.2	0.0	765.2	765.1
Design	50	4170	768	796	766.0	1.1	0.3	767.1	766.3
Base	100	4840	792	827	766.3	1.0	0.4	767.3	766.7
Max. Calc.	500	6480	805	889	766.9	1.3	0.8	768.1	767.7

10-Year Velocity through Existing Bridge = 3.9 fps
 10-Year Velocity through Proposed Bridge = 3.8 fps

DESIGN SCOUR ELEVATION TABLE

W. Abut.	Pier 1	Pier 2	E. Abut.
763.9	750.5	750.5	764.6

STATE OF ILLINOIS
 DEBORAH A. BRIDGEMAN
 LICENSED PROFESSIONAL ENGINEER
 081-005152
 Signature: *Deborah A. Bridgeman* Date: 6-27-13
 November 30, 2014
 Expires



LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

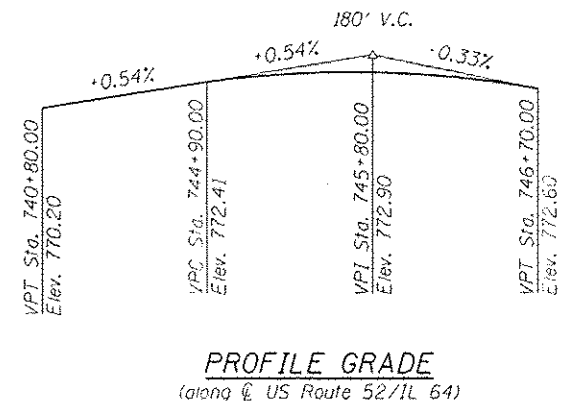
FIELD UNITS

- $f_c = 3,500$ psi
- $f_y = 60,000$ psi (reinforcement)
- $f_y = 50,000$ psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration @ 1.0 sec (S_{D1}) = 0.055
 Design Spectral Acceleration @ 0.2 sec (S_{D5}) = 0.091
 Soil Site Class = C

APPROVED
 For Structural Adequacy Only
Deborah A. Bridgeman
 Engineer of Bridges & Structures



PROFILE GRADE
 (along & US Route 52/IL 64)

GENERAL PLAN & ELEVATION
US 52/IL 64 OVER CARROLL CREEK
SECTION 4BR-6
F.A.P. RTE. 17
CARROLL COUNTY
STA. 744+04.00
STRUCTURE NO. 008-0050



DESIGNED	CHECKED	DRAWN	CHECKED
LAS	JLA	SAW	LAS
REVISED	REVISED	REVISED	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
 S.N. 008-0050
 SHEET NO. SB-1 OF SB-24 SHEETS

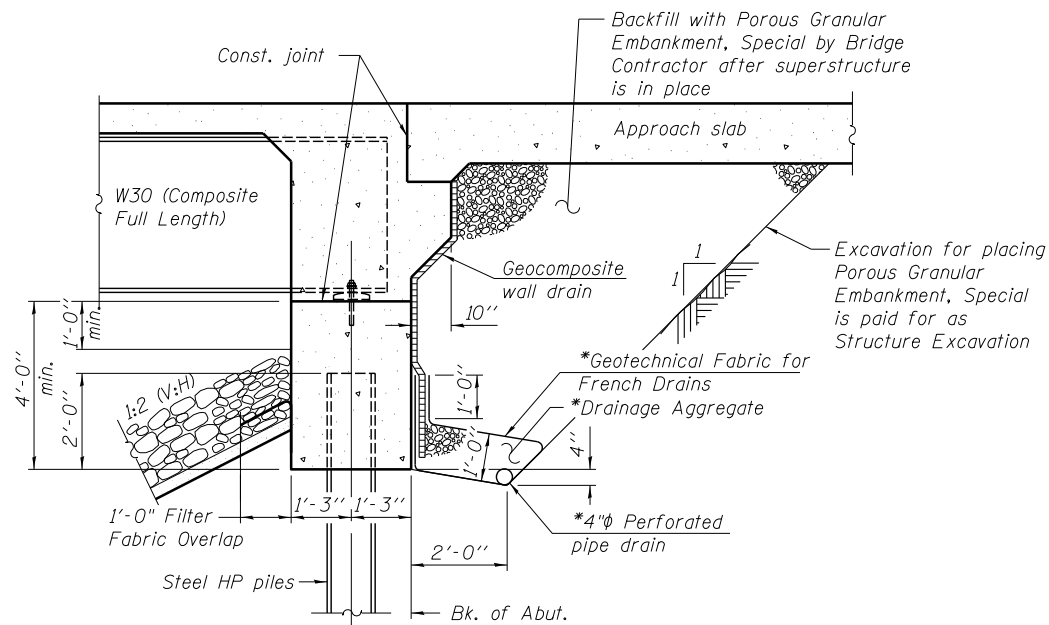
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	64

CONTRACT NO. 64083
 ILLINOIS FED. AID PROJECT

GENERAL NOTES

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ in. dia., holes $\frac{15}{16}$ in. dia., unless otherwise noted.
- Calculated weight of structural steel = 105,750 pounds.
- All structural steel shall be AASHTO M 270 Grade 50W.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.
- If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
- Slipforming of the parapets is not allowed.
- Current Ratings on File for Existing Structure
Inventory: HS 13.5
Operating: HS 27.6
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.



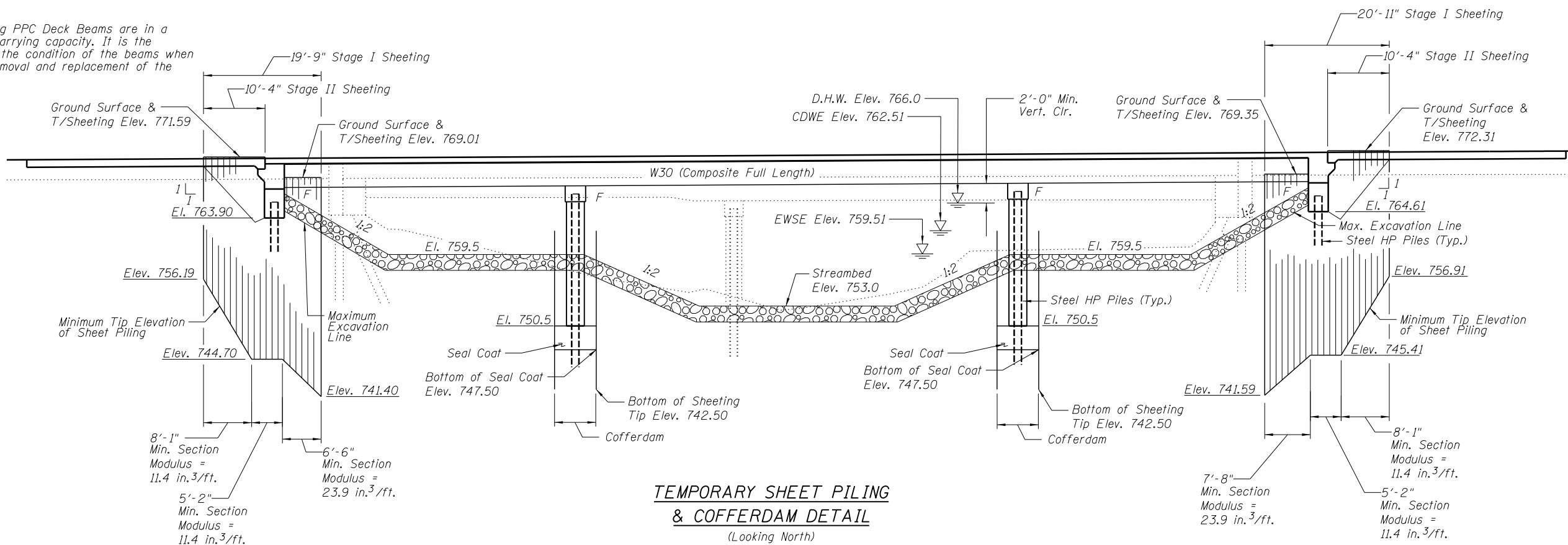
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrain for Structures 4"

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend from the wingwall on the low side until intersecting with the side slopes. The pipe shall drain into a concrete headwall. (See Article 601.05 of the Standard Specifications and Highway Standard 601101.)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		157	157
Stone Riprap Class A5	Sq. Yd.		1,400	1,400
Filter Fabric	Sq. Yd.		1,400	1,400
Removal of Existing Structures No. 2	Each		1	1
Structure Excavation	Cu. Yd.		226	226
Cofferdam Excavation	Cu. Yd.		464	464
Cofferdam (Type 2) (Location-3)	Each		1	1
Cofferdam (Type 2) (Location-4)	Each		1	1
Concrete Structures	Cu. Yd.		184.5	184.5
Concrete Superstructure	Cu. Yd.	316.9		316.9
Bridge Deck Grooving	Sq. Yd.	736		736
Seal Coat Concrete	Cu. Yd.		111.5	111.5
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	921		921
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	4,338		4,338
Reinforcement Bars, Epoxy Coated	Pound	73,990	22,510	96,500
Bar Splicers	Each	672	196	868
Furnishing Steel Piles HP10x42	Foot		395	395
Furnishing Steel Piles HP12x53	Foot		720	720
Driving Piles	Foot		1,115	1,115
Test Pile Steel HP10x42	Each		2	2
Test Pile Steel HP12x53	Each		2	2
Pile Shoes	Each		32	32
Name Plates	Each	1		1
Anchor Bolts, $\frac{3}{4}$ "	Each		24	24
Anchor Bolts, 1"	Each		24	24
Geocomposite Wall Drain	Sq. Yd.		60	60
Pipe Underdrains for Structures 4"	Foot		144	144
Temporary Sheet Piling	Sq. Ft.		971	971
Asbestos Bearing Pad Removal	Each		32	32



STATION 744+04.00
BUILT 20... BY
STATE OF ILLINOIS
F.A.P. RTE. 17 SEC. 4BR-6
LOADING HL-93
STRUCTURE NO. 008-0050

NAME PLATE
See Std. 515001

TEMPORARY SHEET PILING & COFFERDAM DETAIL
(Looking North)

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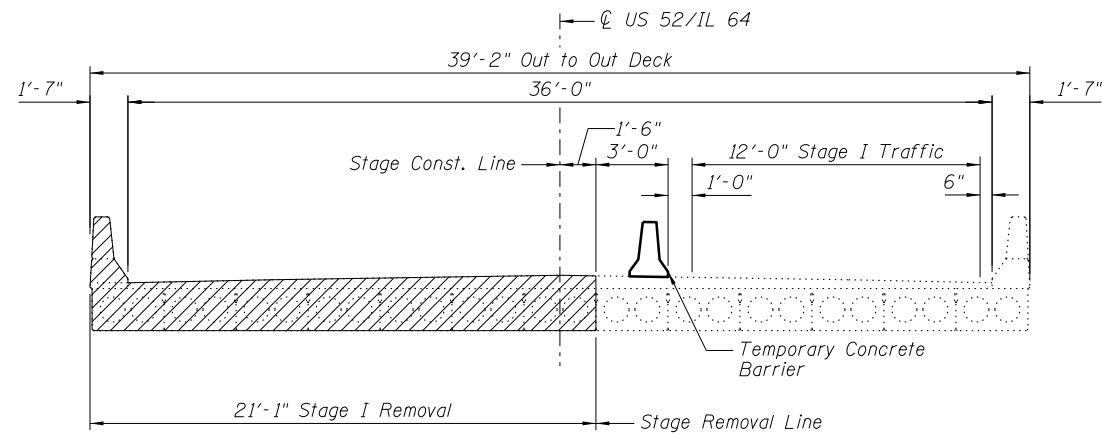
**STATE OF ILLINOIS
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**GENERAL DATA
S.N. 008-0050**

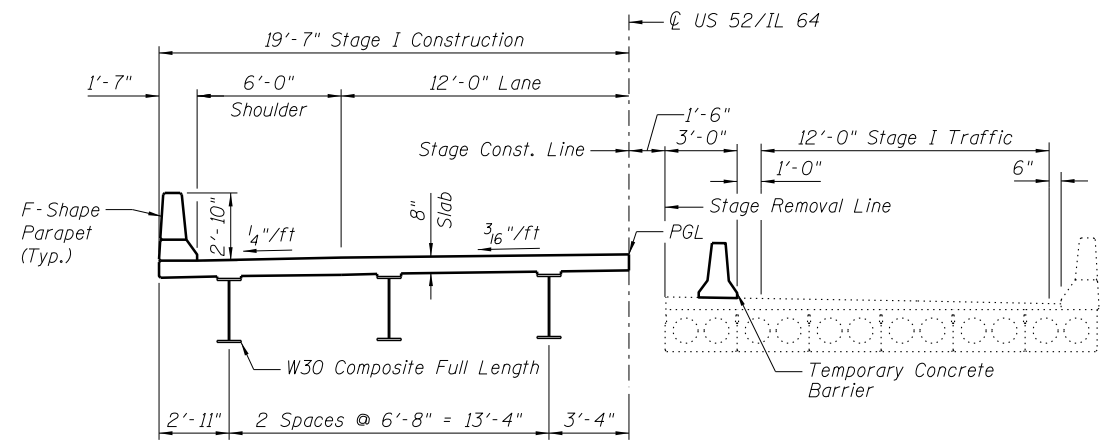
SHEET NO. SB-2 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	65
CONTRACT NO. 64DB3				

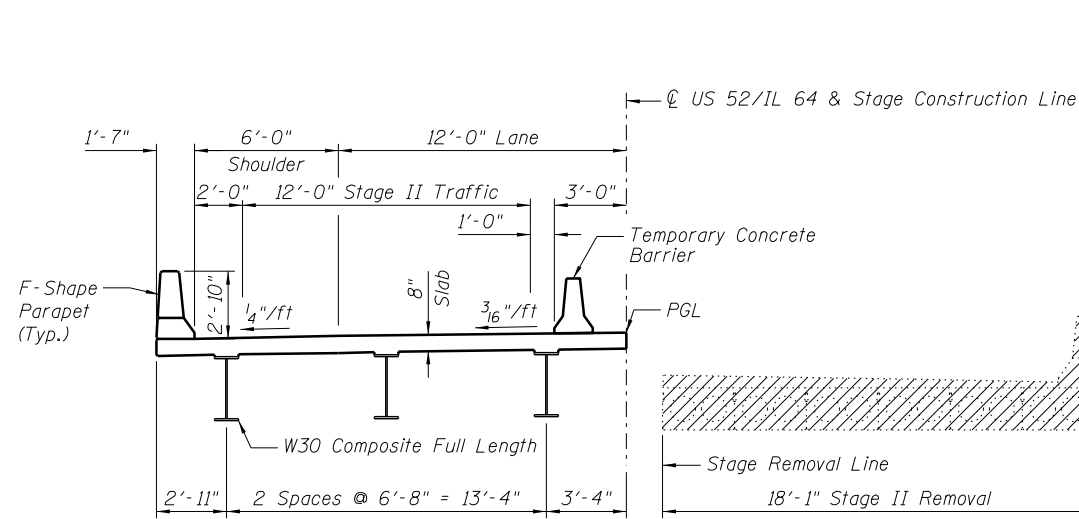
ILLINOIS FED. AID PROJECT



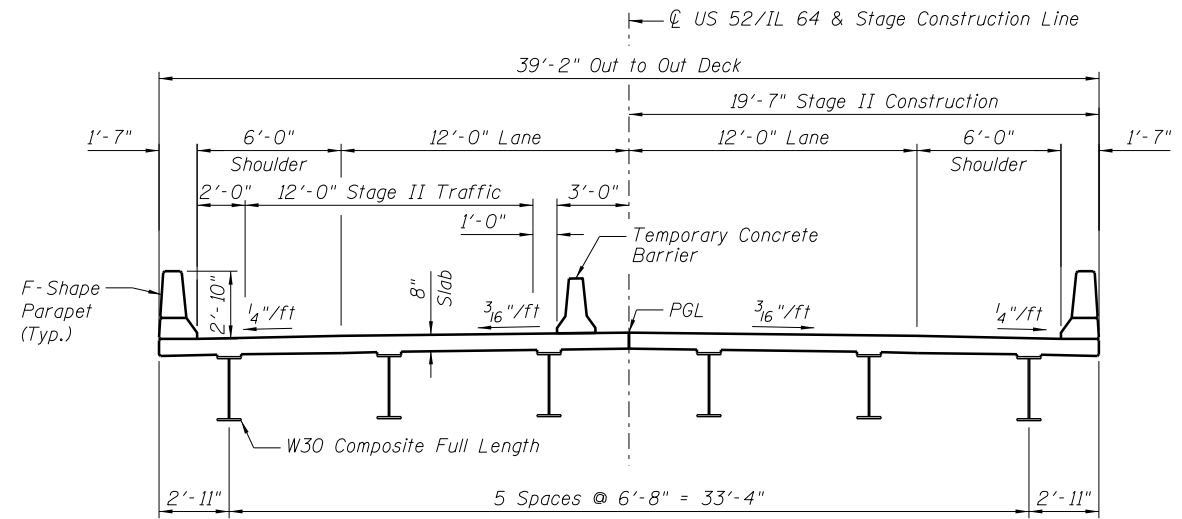
STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

Notes:

For quantity of Temporary Concrete Barrier, see roadway plans.

Hatched areas indicate Removal of Existing Structures.

For details of Temporary Concrete Barrier, see Sheet SB-4 of SB-24.

FILE NAME = ...E4DB3-SN0080050-003-StageCon.dgn



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Chicago, IL 60613

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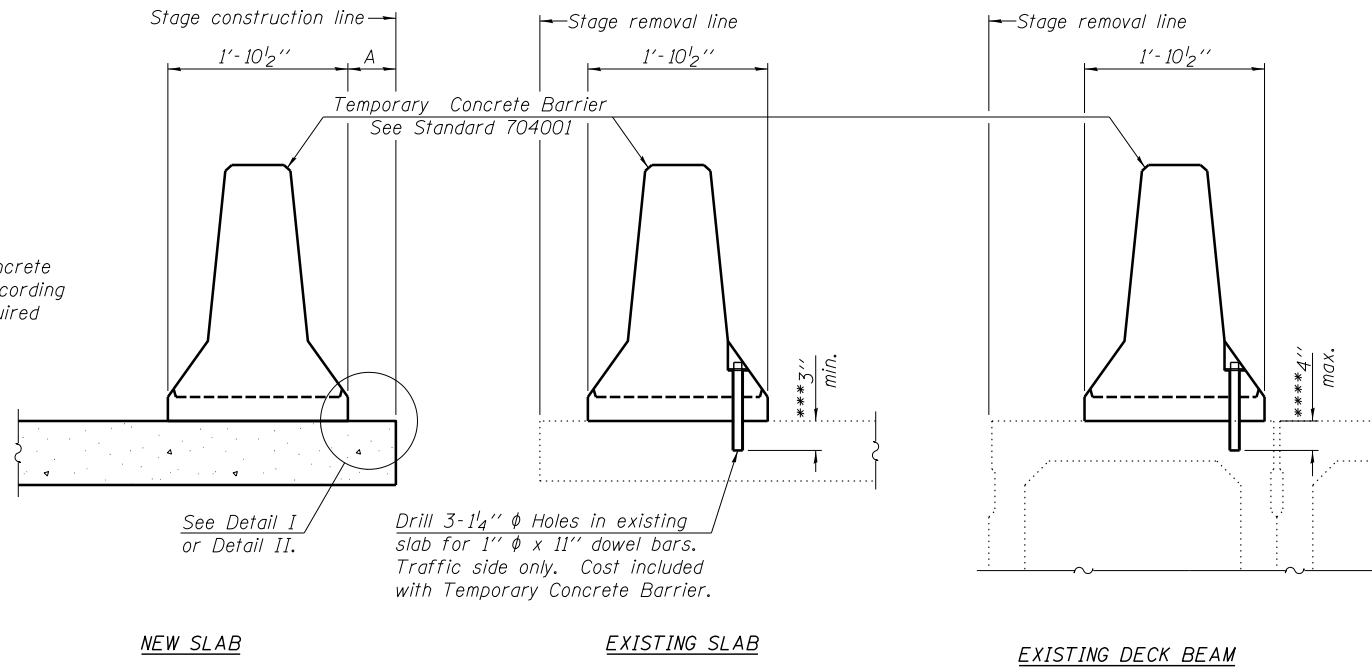
**STAGE CONSTRUCTION DETAILS
S.N. 008-0050**

SHEET NO. SB-3 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	66
CONTRACT NO. 64D83				

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

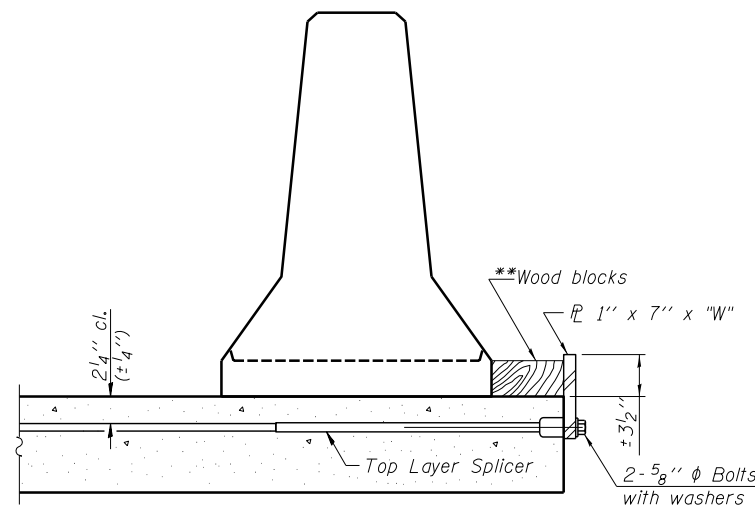
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

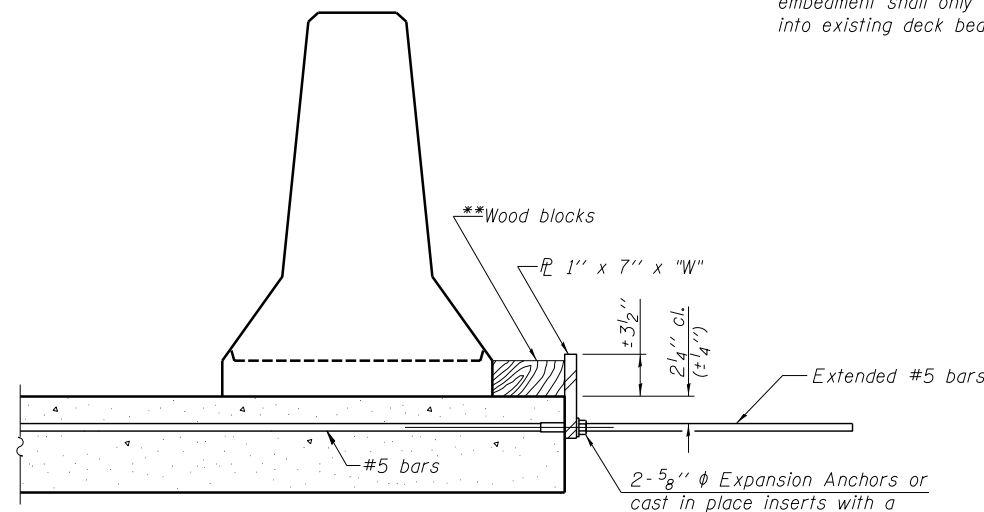
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

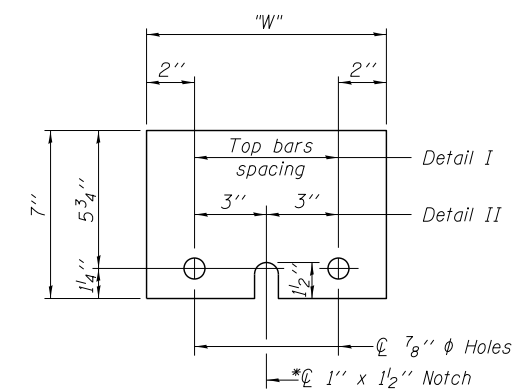
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

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

"W" = Top bars spacing + 4"

R-27

7-1-10



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

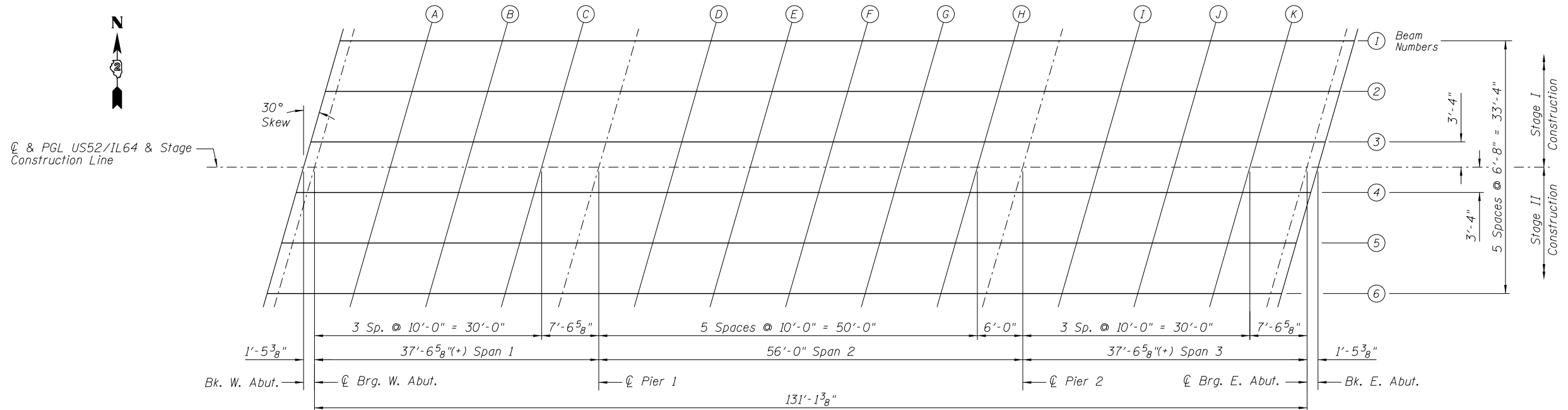
**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
S.N. 008-0050**

SHEET NO. SB-4 OF SB-24 SHEETS

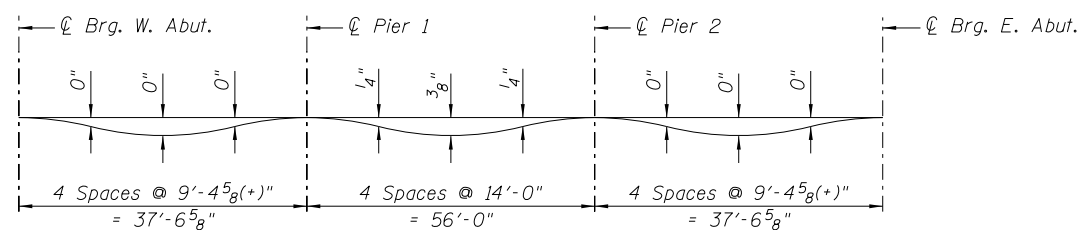
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	67
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

FILE NAME = ...E4D83-SN0080050-004-TCB.dgn



PLAN FOR TOP OF SLAB ELEVATIONS

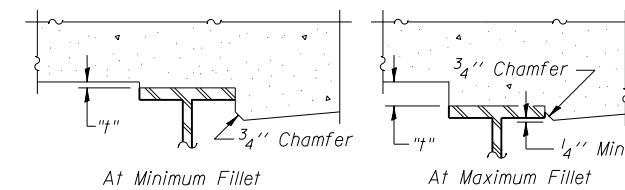


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on Sheets SB-6 and SB-7.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets SB-6 and SB-7, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS

FILE NAME = ...E4DB3-SN0080050-005-TSE1.dgn



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PLOT DATE = 6/26/2013	CHECKED - LAS	REVISED -

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DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 1
S.N. 008-0050

SHEET NO. SB-5 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	68
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+46.62	-16.67	771.35	771.35
☉ Brg. W. Abut.	743+48.07	-16.67	771.36	771.36
A	743+58.07	-16.67	771.42	771.43
B	743+68.07	-16.67	771.47	771.48
C	743+78.07	-16.67	771.52	771.52
☉ Pier 1	743+85.62	-16.67	771.56	771.56
D	743+95.62	-16.67	771.62	771.63
E	744+05.62	-16.67	771.67	771.69
F	744+15.62	-16.67	771.73	771.76
G	744+25.62	-16.67	771.78	771.80
H	744+35.62	-16.67	771.83	771.84
☉ Pier 2	744+41.62	-16.67	771.87	771.87
I	744+51.62	-16.67	771.92	771.92
J	744+61.62	-16.67	771.98	771.99
K	744+71.62	-16.67	772.03	772.04
☉ Brg. E. Abut.	744+79.18	-16.67	772.07	772.07
Bk. E. Abut.	744+80.62	-16.67	772.08	772.08

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+42.77	-10.00	771.46	771.46
☉ Brg. W. Abut.	743+44.22	-10.00	771.47	771.47
A	743+54.22	-10.00	771.52	771.53
B	743+64.22	-10.00	771.58	771.59
C	743+74.22	-10.00	771.63	771.63
☉ Pier 1	743+81.77	-10.00	771.67	771.67
D	743+91.77	-10.00	771.73	771.74
E	744+01.77	-10.00	771.78	771.80
F	744+11.77	-10.00	771.83	771.86
G	744+21.77	-10.00	771.89	771.91
H	744+31.77	-10.00	771.94	771.95
☉ Pier 2	744+37.77	-10.00	771.97	771.97
I	744+47.77	-10.00	772.03	772.03
J	744+57.77	-10.00	772.08	772.09
K	744+67.77	-10.00	772.14	772.15
☉ Brg. E. Abut.	744+75.33	-10.00	772.18	772.18
Bk. E. Abut.	744+76.77	-10.00	772.19	772.19

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+38.92	-3.33	771.54	771.54
☉ Brg. W. Abut.	743+40.37	-3.33	771.55	771.55
A	743+50.37	-3.33	771.61	771.62
B	743+60.37	-3.33	771.66	771.67
C	743+70.37	-3.33	771.71	771.71
☉ Pier 1	743+77.92	-3.33	771.76	771.76
D	743+87.92	-3.33	771.81	771.82
E	743+97.92	-3.33	771.86	771.88
F	744+07.92	-3.33	771.92	771.95
G	744+17.92	-3.33	771.97	771.99
H	744+27.92	-3.33	772.03	772.04
☉ Pier 2	744+33.92	-3.33	772.06	772.06
I	744+43.92	-3.33	772.11	772.11
J	744+53.92	-3.33	772.17	772.18
K	744+63.92	-3.33	772.22	772.23
☉ Brg. E. Abut.	744+71.48	-3.33	772.26	772.26
Bk. E. Abut.	744+72.92	-3.33	772.27	772.27

☉ & PGL US52/IL64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+37.00	0.00	771.59	771.59
☉ Brg. W. Abut.	743+38.44	0.00	771.59	771.59
A	743+48.44	0.00	771.65	771.66
B	743+58.44	0.00	771.70	771.71
C	743+68.44	0.00	771.76	771.76
☉ Pier 1	743+76.00	0.00	771.80	771.80
D	743+86.00	0.00	771.85	771.86
E	743+96.00	0.00	771.91	771.93
F	744+06.00	0.00	771.96	771.99
G	744+16.00	0.00	772.01	772.03
H	744+26.00	0.00	772.07	772.08
☉ Pier 2	744+32.00	0.00	772.10	772.10
I	744+42.00	0.00	772.15	772.15
J	744+52.00	0.00	772.21	772.22
K	744+62.00	0.00	772.26	772.27
☉ Brg. E. Abut.	744+69.56	0.00	772.30	772.30
Bk. E. Abut.	744+71.00	0.00	772.31	772.31

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 2
S.N. 008-0050**

SHEET NO. SB-6 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	69
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+35.08	3.33	771.52	771.52
☉ Brg. W. Abut.	743+36.52	3.33	771.53	771.53
A	743+46.52	3.33	771.59	771.60
B	743+56.52	3.33	771.64	771.65
C	743+66.52	3.33	771.69	771.69
☉ Pier 1	743+74.08	3.33	771.73	771.73
D	743+84.08	3.33	771.79	771.80
E	743+94.08	3.33	771.84	771.86
F	744+04.08	3.33	771.90	771.93
G	744+14.08	3.33	771.95	771.97
H	744+24.08	3.33	772.00	772.01
☉ Pier 2	744+30.08	3.33	772.04	772.04
I	744+40.08	3.33	772.09	772.09
J	744+50.08	3.33	772.15	772.16
K	744+60.08	3.33	772.20	772.21
☉ Brg. E. Abut.	744+67.63	3.33	772.24	772.24
Bk. E. Abut.	744+69.08	3.33	772.25	772.25

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+31.23	10.00	771.40	771.40
☉ Brg. W. Abut.	743+32.67	10.00	771.41	771.41
A	743+42.67	10.00	771.46	771.47
B	743+52.67	10.00	771.51	771.52
C	743+62.67	10.00	771.57	771.57
☉ Pier 1	743+70.23	10.00	771.61	771.61
D	743+80.23	10.00	771.66	771.67
E	743+90.23	10.00	771.72	771.74
F	744+00.23	10.00	771.77	771.80
G	744+10.23	10.00	771.83	771.85
H	744+20.23	10.00	771.88	771.89
☉ Pier 2	744+26.23	10.00	771.91	771.91
I	744+36.23	10.00	771.97	771.97
J	744+46.23	10.00	772.02	772.03
K	744+56.23	10.00	772.07	772.08
☉ Brg. E. Abut.	744+63.78	10.00	772.12	772.12
Bk. E. Abut.	744+65.23	10.00	772.12	772.12

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	743+27.38	16.67	771.25	771.25
☉ Brg. W. Abut.	743+28.82	16.67	771.26	771.26
A	743+38.82	16.67	771.31	771.32
B	743+48.82	16.67	771.37	771.38
C	743+58.82	16.67	771.42	771.42
☉ Pier 1	743+66.38	16.67	771.46	771.46
D	743+76.38	16.67	771.51	771.52
E	743+86.38	16.67	771.57	771.59
F	743+96.38	16.67	771.62	771.65
G	744+06.38	16.67	771.68	771.70
H	744+16.38	16.67	771.73	771.74
☉ Pier 2	744+22.38	16.67	771.76	771.76
I	744+32.38	16.67	771.82	771.82
J	744+42.38	16.67	771.87	771.88
K	744+52.38	16.67	771.93	771.94
☉ Brg. E. Abut.	744+59.93	16.67	771.97	771.97
Bk. E. Abut.	744+61.38	16.67	771.97	771.97

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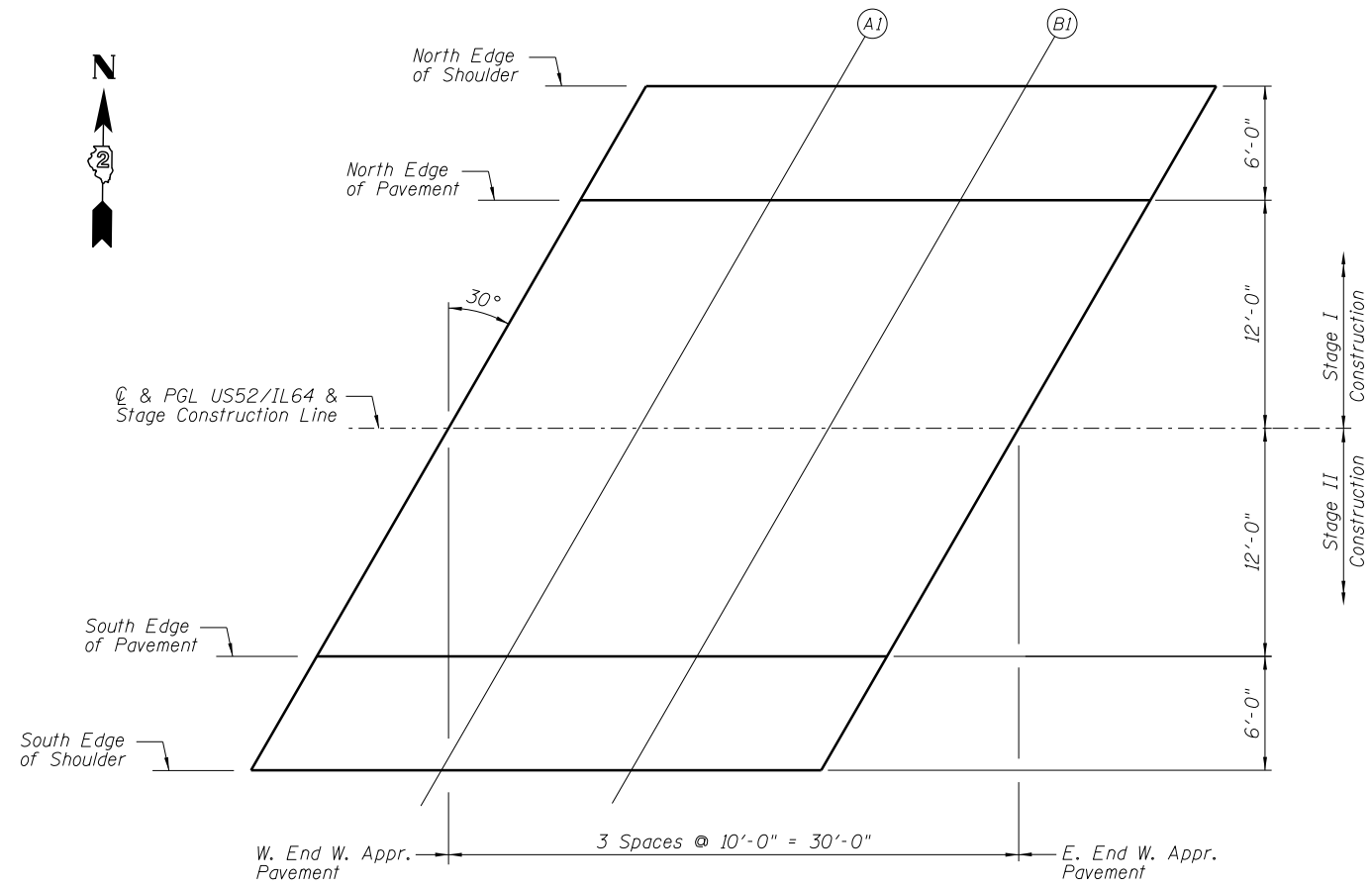
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 3
S.N. 008-0050**

SHEET NO. SB-7 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	70
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				



PLAN FOR TOP OF SLAB ELEVATIONS

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	743+17.39	-18.00	771.17
A1	743+27.39	-18.00	771.22
B1	743+37.39	-18.00	771.28
E. End W. Appr. Pvmt.	743+47.39	-18.00	771.33

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	743+13.93	-12.00	771.27
A1	743+23.93	-12.00	771.33
B1	743+33.93	-12.00	771.38
E. End W. Appr. Pvmt.	743+43.93	-12.00	771.44

C & PGL US 52/IL 64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	743+07.00	0.00	771.42
A1	743+17.00	0.00	771.48
B1	743+27.00	0.00	771.53
E. End W. Appr. Pvmt.	743+37.00	0.00	771.59

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	743+00.07	12.00	771.20
A1	743+10.07	12.00	771.25
B1	743+20.07	12.00	771.31
E. End W. Appr. Pvmt.	743+30.07	12.00	771.36

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	742+96.61	18.00	771.06
A1	743+06.61	18.00	771.11
B1	743+16.61	18.00	771.16
E. End W. Appr. Pvmt.	743+26.61	18.00	771.22

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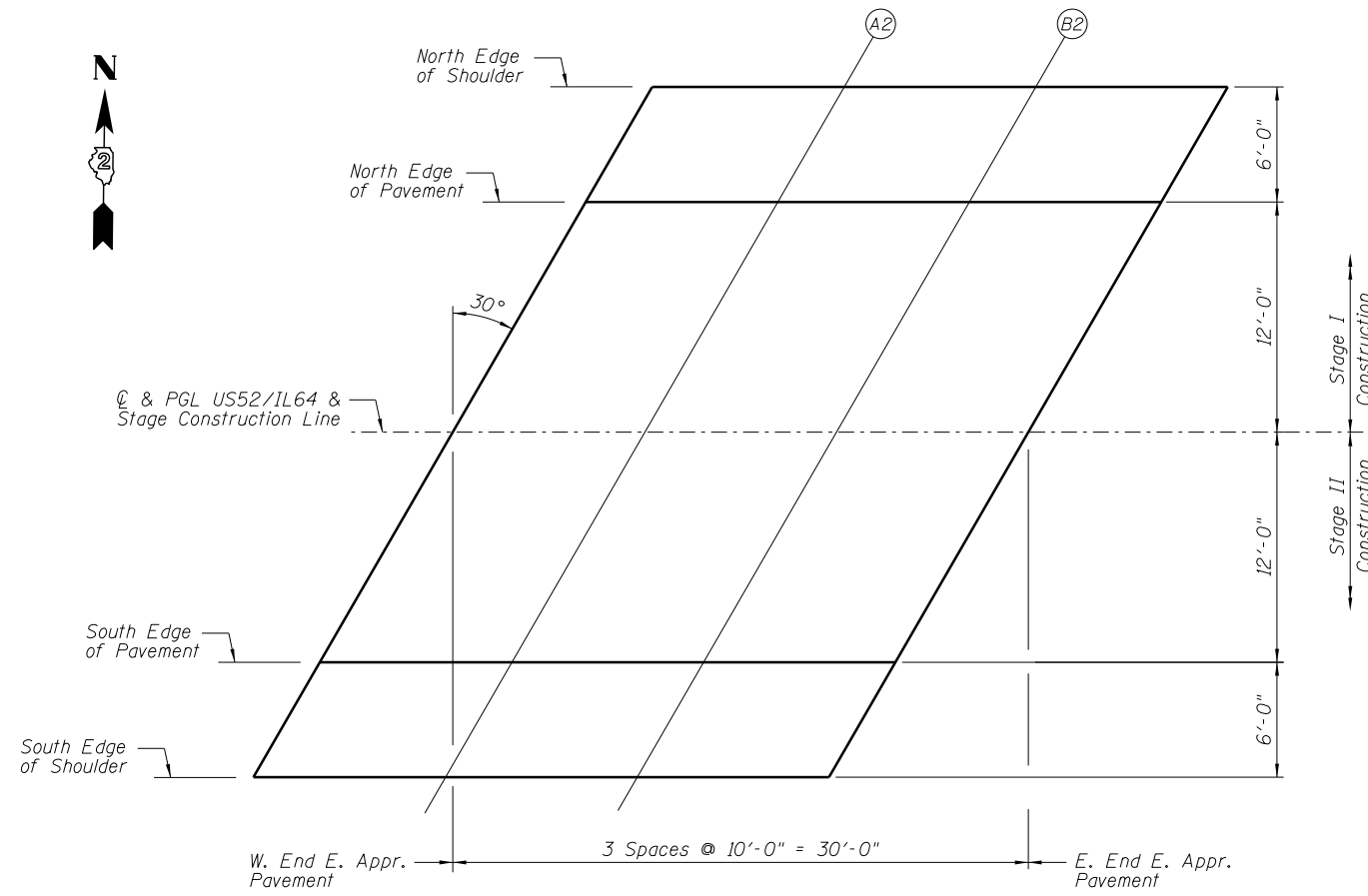
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PLOT DATE = 6/26/2013	CHECKED - LAS	REVISED -

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DEPARTMENT OF TRANSPORTATION**

**WEST APPROACH TOP OF SLAB ELEVATIONS
S.N. 008-0050**

SHEET NO. SB-8 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	71
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



PLAN FOR TOP OF SLAB ELEVATIONS

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	744+81.39	-18.00	772.05
A2	744+91.39	-18.00	772.11
B2	745+01.39	-18.00	772.16
E. End E. Appr. Pvmt.	745+11.39	-18.00	772.21

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	744+77.93	-12.00	772.16
A2	744+87.93	-12.00	772.21
B2	744+97.93	-12.00	772.27
E. End E. Appr. Pvmt.	745+07.93	-12.00	772.32

C & PGL US 52/IL 64 & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	744+71.00	0.00	772.31
A2	744+81.00	0.00	772.36
B2	744+91.00	0.00	772.42
E. End E. Appr. Pvmt.	745+01.00	0.00	772.47

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	744+64.07	12.00	772.09
A2	744+74.07	12.00	772.14
B2	744+84.07	12.00	772.19
E. End E. Appr. Pvmt.	744+94.07	12.00	772.25

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	744+60.61	18.00	771.94
A2	744+70.61	18.00	772.00
B2	744+80.61	18.00	772.05
E. End E. Appr. Pvmt.	744+90.61	18.00	772.10

FILE NAME = ...E4D83-SN0080050-0091-EAppr-TSE.dgn



USER NAME = SAW	DESIGNED - LAS	REVISED -
PLOT SCALE = 0:2.0000 't' / in.	CHECKED - JLA	REVISED -
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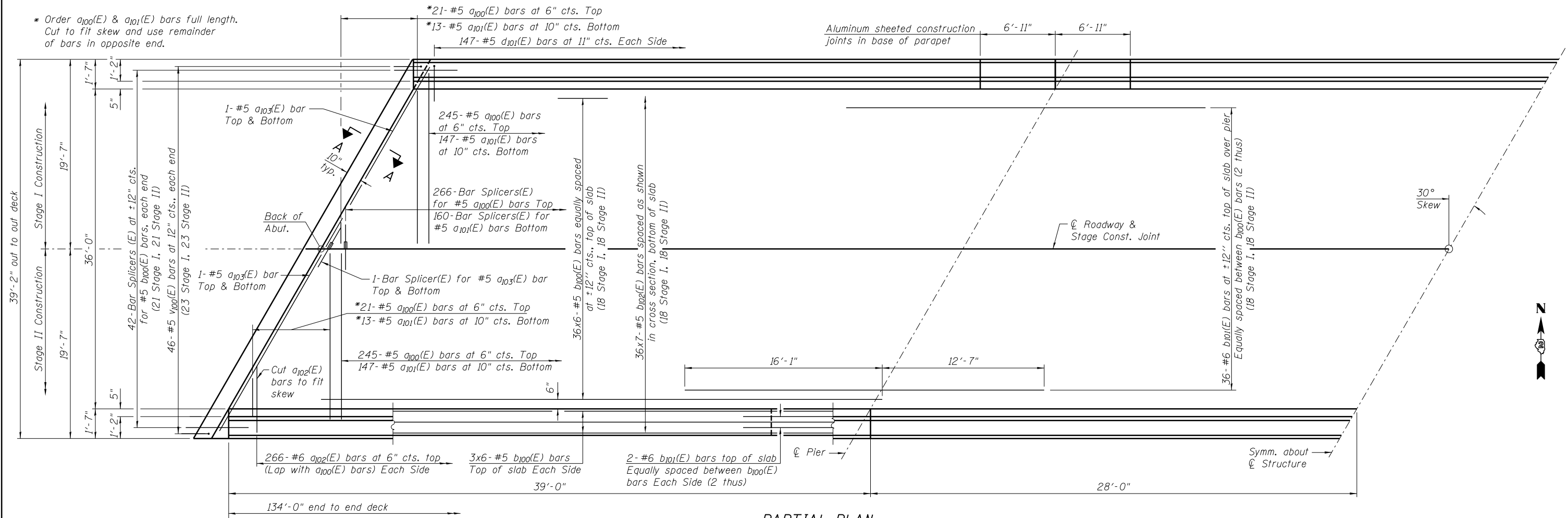
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EAST APPROACH TOP OF SLAB ELEVATIONS
S.N. 008-0050**

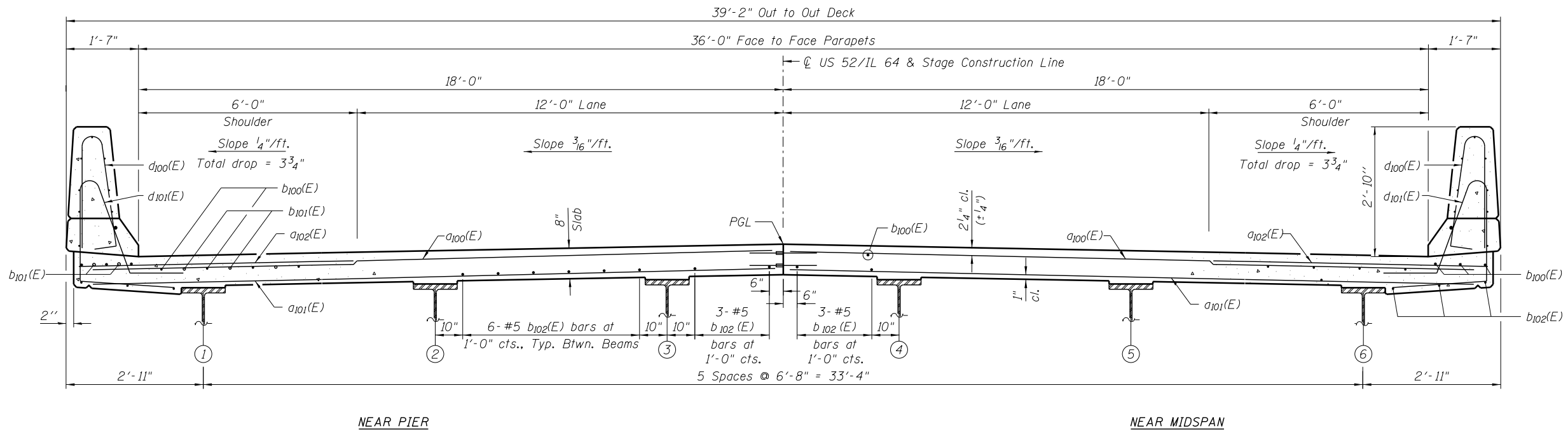
SHEET NO. SB-9 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	72
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

* Order $a_{100}(E)$ & $a_{101}(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



PARTIAL PLAN



CROSS SECTION
(Looking East)

NEAR PIER

NEAR MIDSPAN

Notes:
See Sheet SB-11 of SB-24 for superstructure details
and Bill of Material.
Bars indicated thus 36x6-#5 etc. indicates
36 lines of bars with 6 lengths per line.
See Sheet SB-11 of SB-24 for parapet reinforcement.
See Sheet SB-12 of SB-24 for Section A-A.

MIN. BAR LAP
#5 Bar = 3'-3"

FILE NAME = ...E4083-SN0080050-010-Superstructure.dgn



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Chicago, IL 60613

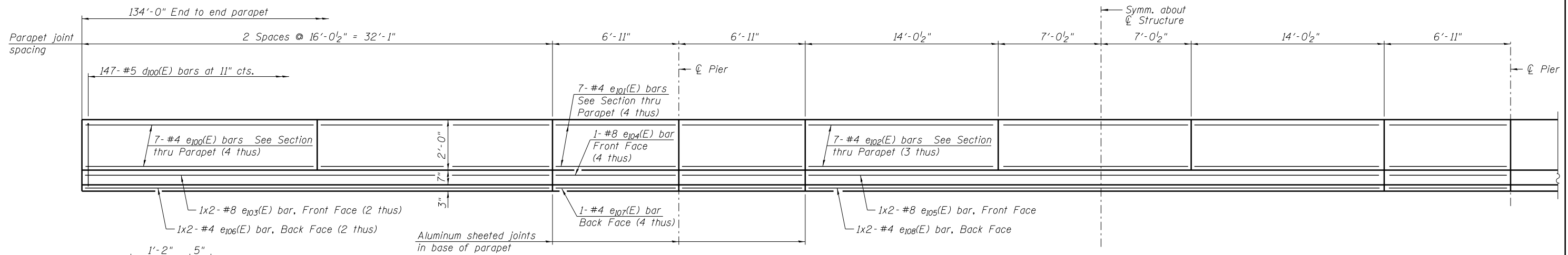
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PLOT DATE = 6/26/2013	CHECKED - LAS	REVISED -

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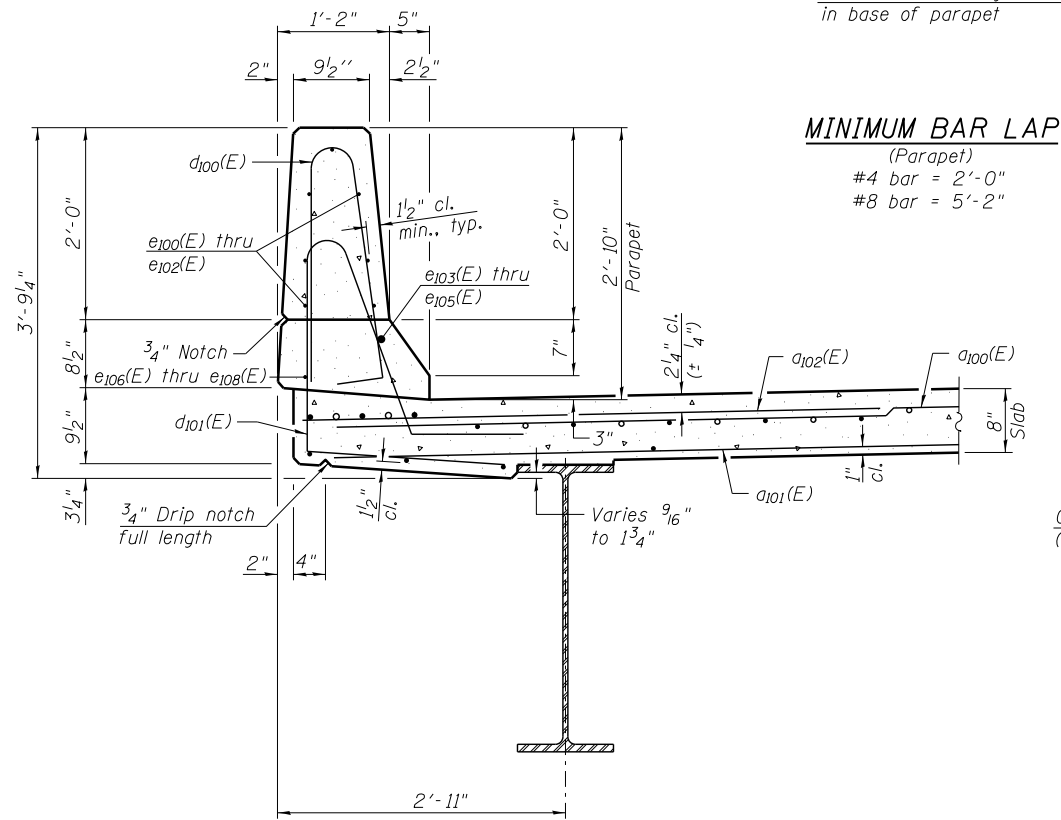
SUPERSTRUCTURE
S.N. 008-0050

SHEET NO. SB-10 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	73
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

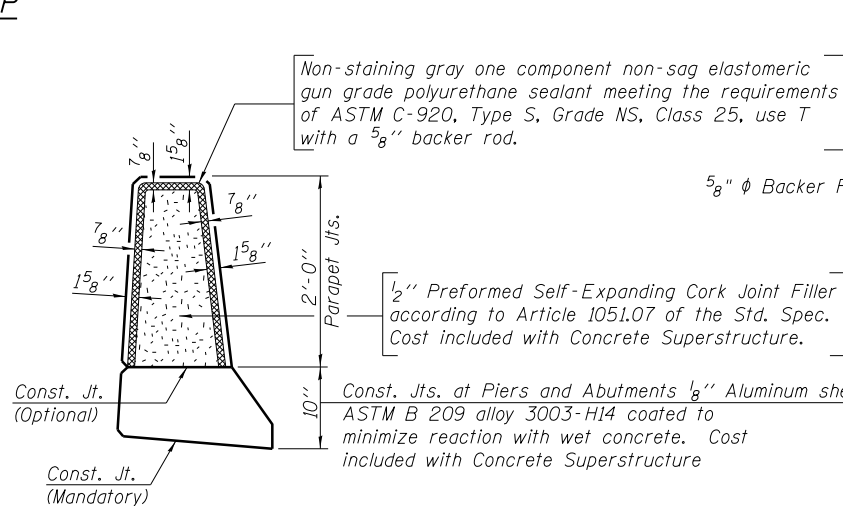


INSIDE ELEVATION OF PARAPET

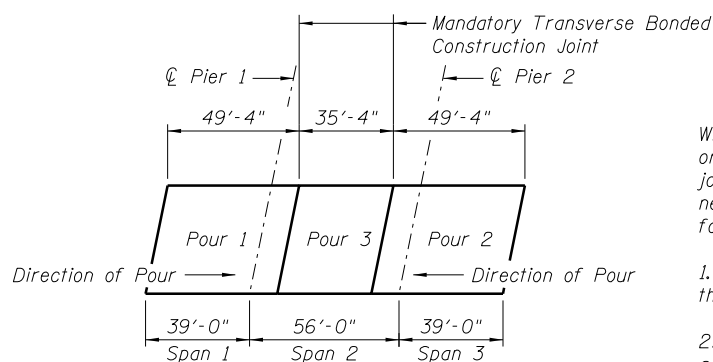


SECTION THRU PARAPET

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



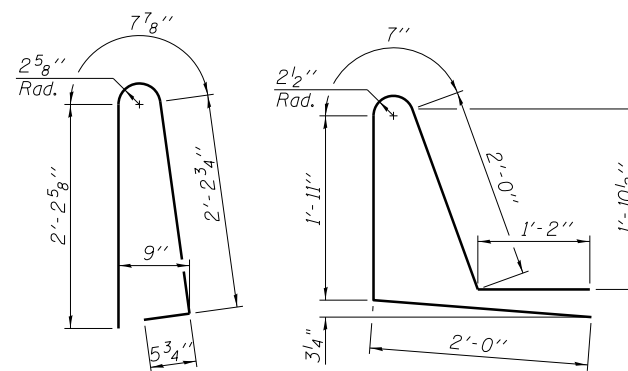
PARAPET JOINT DETAILS



DECK POURING SEQUENCE

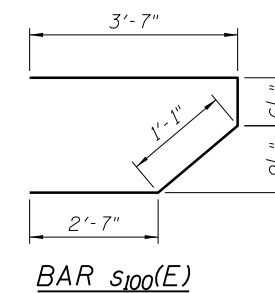
When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

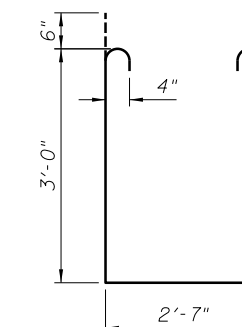


BAR d100(E)

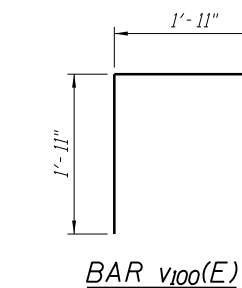
BAR d101(E)



BAR s100(E)



BAR s101(E)



BAR v100(E)

SUPERSTRUCTURE
BILL OF MATERIAL

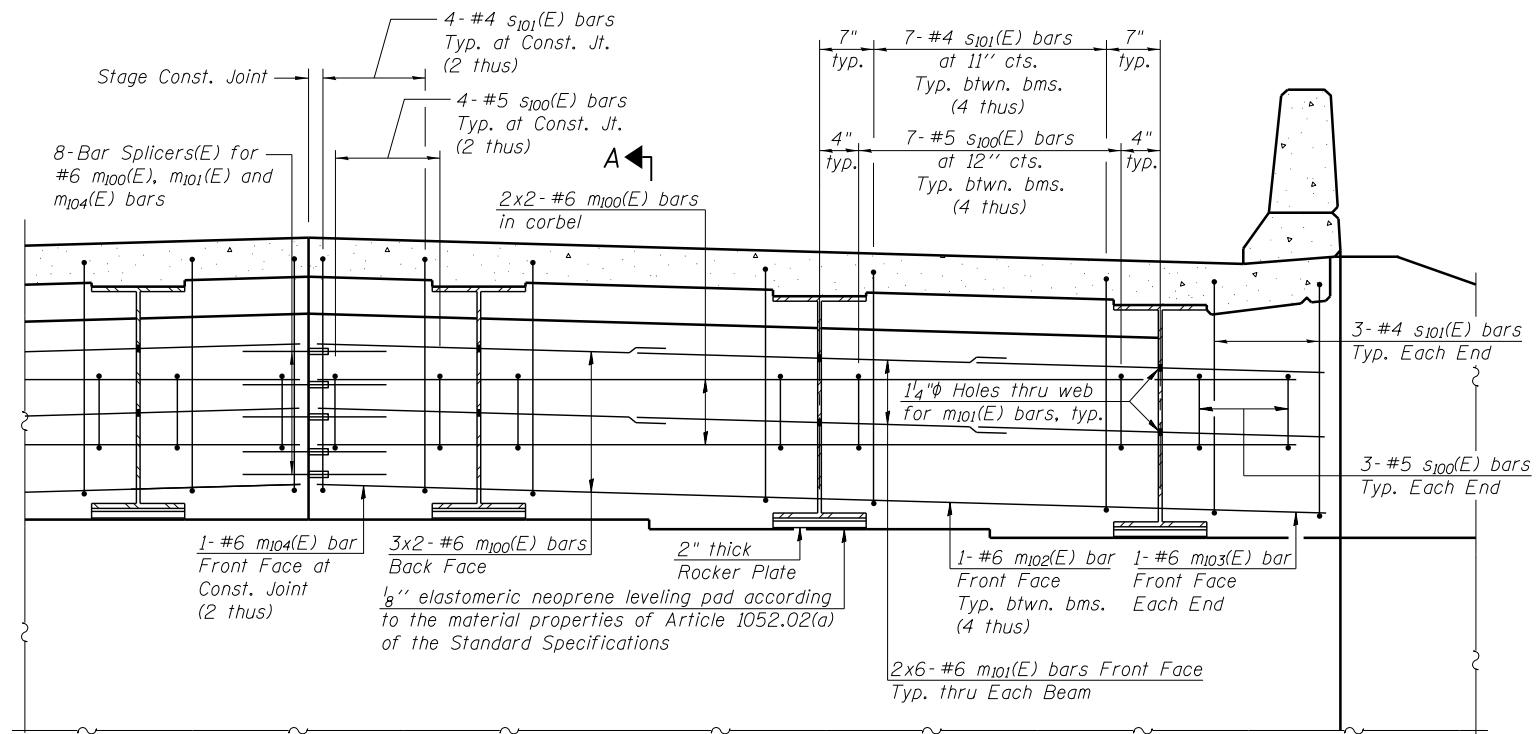
Bar	No.	Size	Length	Shape
a100(E)	532	#5	19'-1"	—
a101(E)	320	#5	18'-9"	—
a102(E)	532	#6	6'-6"	—
a103(E)	8	#5	22'-4"	—
b100(E)	252	#5	25'-0"	—
b101(E)	80	#6	28'-8"	—
b102(E)	252	#5	21'-11"	—
d100(E)	294	#5	5'-7"	⌋
d101(E)	294	#5	7'-8"	⌋
e100(E)	56	#4	15'-8"	—
e101(E)	56	#4	6'-7"	—
e102(E)	42	#4	13'-9"	—
e103(E)	8	#8	18'-6"	—
e104(E)	8	#8	6'-7"	—
e105(E)	4	#8	23'-8"	—
e106(E)	8	#4	16'-11"	—
e107(E)	8	#4	6'-7"	—
e108(E)	4	#4	22'-1"	—
m100(E)	20	#6	22'-4"	—
m101(E)	24	#6	10'-3"	—
m102(E)	8	#6	7'-5"	—
m103(E)	4	#6	3'-1"	—
m104(E)	4	#6	3'-6"	—
s100(E)	84	#5	7'-10"	⌋
s101(E)	84	#4	9'-7"	⌋
v100(E)	92	#5	3'-10"	⌋
Reinforcement Bars, Epoxy Coated		Pound		47,020
Concrete Superstructure		Cu. Yd.		194.7

Bars indicated thus: 1x2- #8 etc. indicates 1 line of bars with 2 lengths per line.

FILE NAME = ...E4DB3-SN0080050-011-SupDet.dgn

USER NAME = SAW	DESIGNED - LAS	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - JLA	REVISED -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - LAS	REVISED -

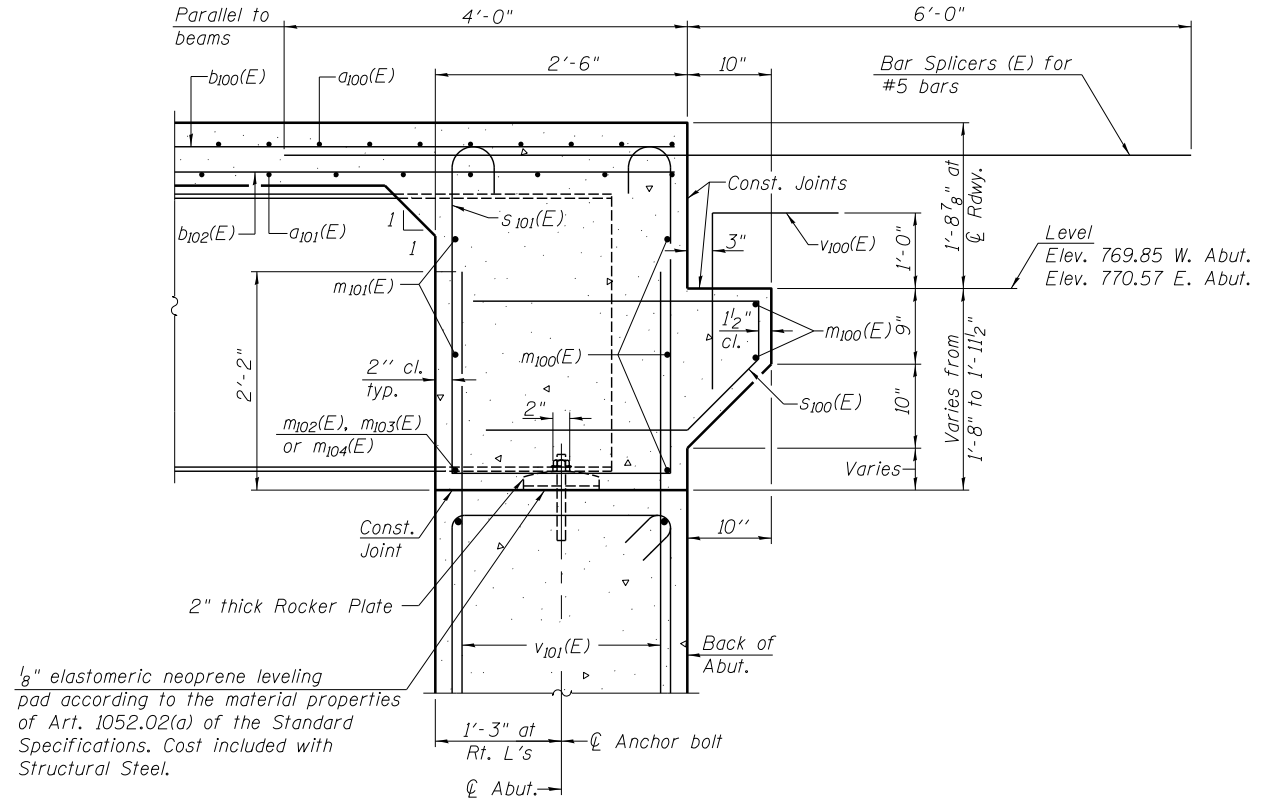
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	74
				CONTRACT NO. 64DB3
ILLINOIS FED. AID PROJECT				



DIAPHRAGM ELEVATION AT WEST ABUTMENT
(East Abutment Similar)

Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet SB-11 of SB-24.
 Concrete in diaphragm is included with Concrete Superstructure on sheet SB-11 of SB-24.
 For details of bars s100(E) & s101(E) see sheet SB-11 of SB-24.
 The s100(E) and s101(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"



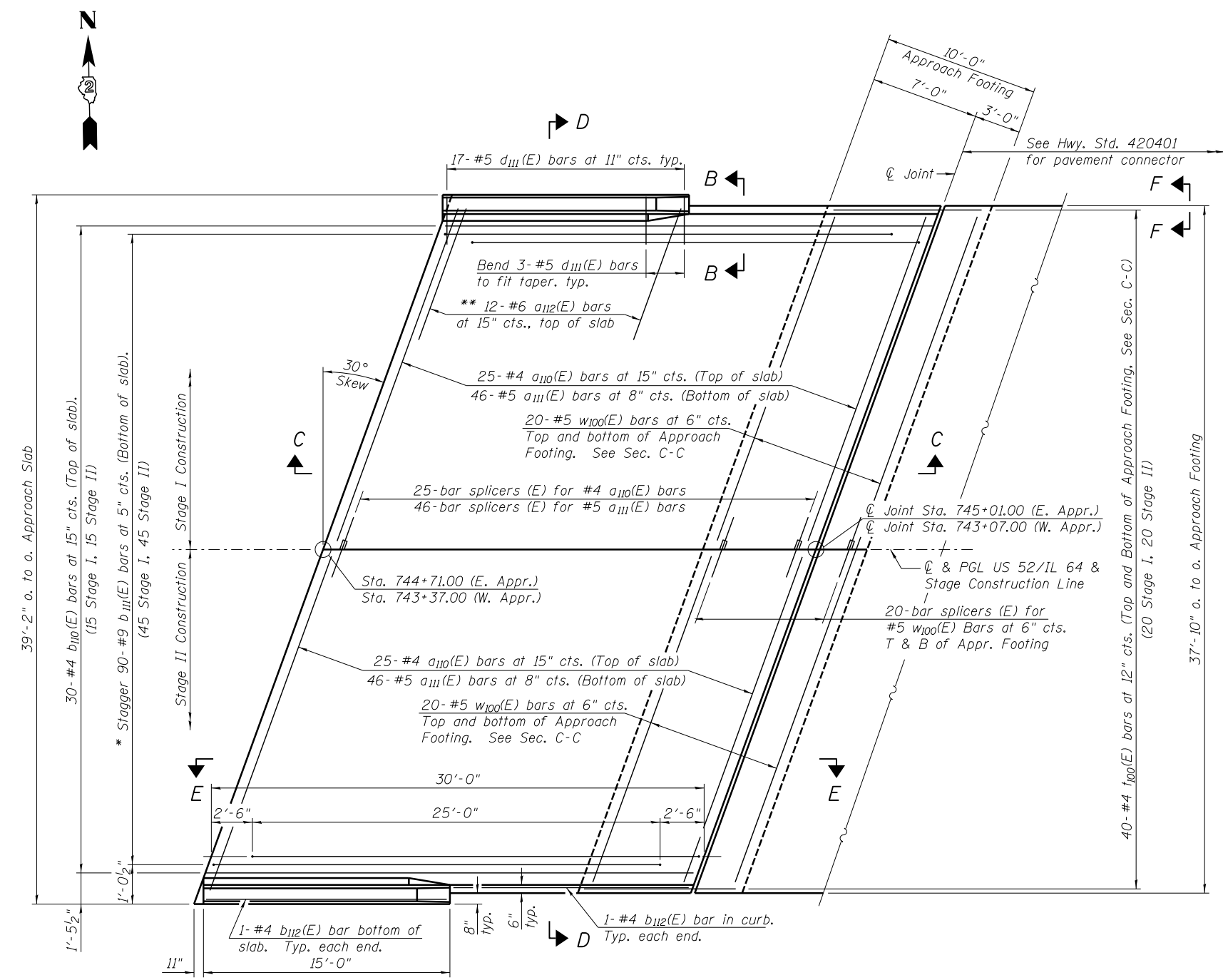
SECTION A-A
 Dimensions at right angles to abutment, except as shown.

FILE NAME = ...E4083-SN0080050-012-DiaphragmDetails.dgn

USER NAME = SAW	DESIGNED - LAS	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - JLA	REVISED -
PLOT DATE = 8/19/2013	DRAWN - SAW	REVISED -
	CHECKED - LAS	REVISED -

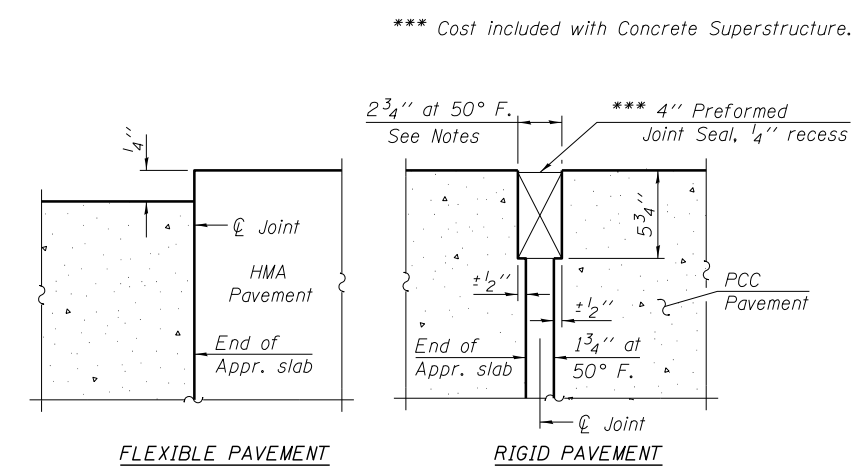
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	75
CONTRACT NO. 64D83				

Notes:
 See sheet SB-14 of SB-24 for Sections C-C & D-D and View E-E.
 $a_{110}(E)$ and $a_{111}(E)$ bar spacings measured along C.Rdwy.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1'2" for installation purposes.

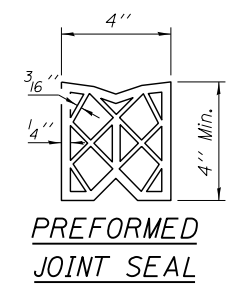


PLAN

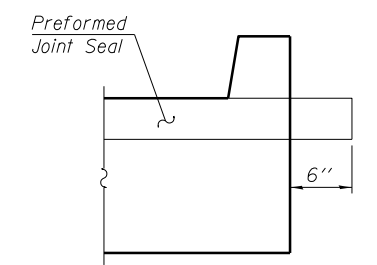
* Tilt #9 $b_{111}(E)$ bars as required to maintain clearance.
 ** Space between $a_{110}(E)$ bars, typ. each parapet.



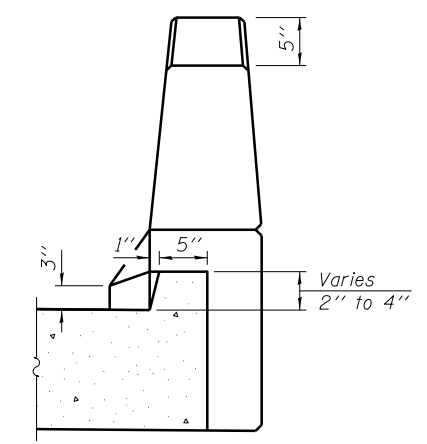
DETAIL A



PREFORMED JOINT SEAL



VIEW F-F



VIEW B-B

*** Cost included with Concrete Superstructure.

FILE NAME = ...E4083-SN0080050-013-Appr-Slab1.dgn

BA-L

12-12-12



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 Chicago, IL 60613

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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - LAS	REVISED -

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 DEPARTMENT OF TRANSPORTATION**

(Sheet 1 of 2)

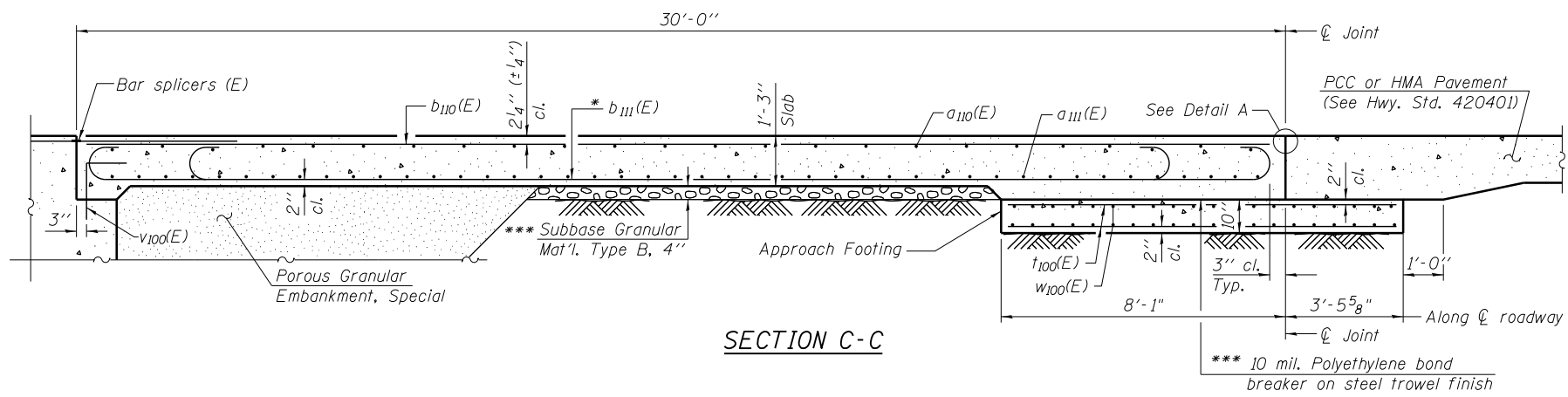
**BRIDGE APPROACH SLAB DETAILS 1
 S.N. 008-0050**

SHEET NO. SB-13 OF SB-24 SHEETS

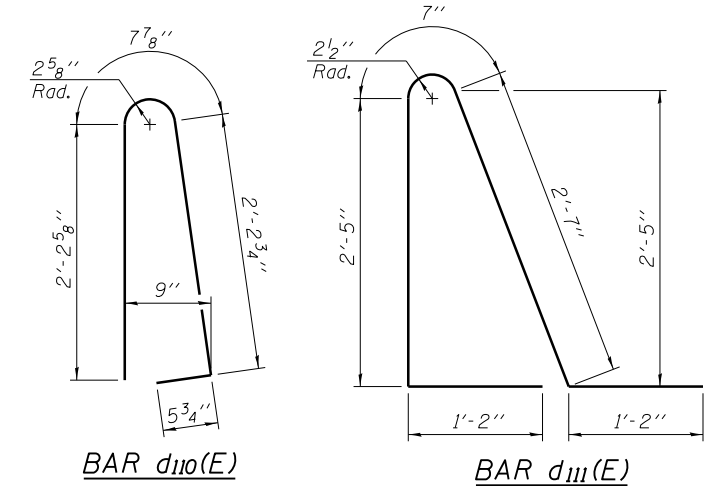
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	76
CONTRACT NO. 64D83				

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Notes:
 See sheet SB-13 of SB-24 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 $v_{100}(E)$ bar details, see sheet SB-11 of SB-24.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 For bar splicer details, see sheet SB-22 of SB-24.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment, Special and drainage treatment details, see sheet SB-2 of SB-24.
 For additional parapet details, see sheet SB-11 of SB-24.



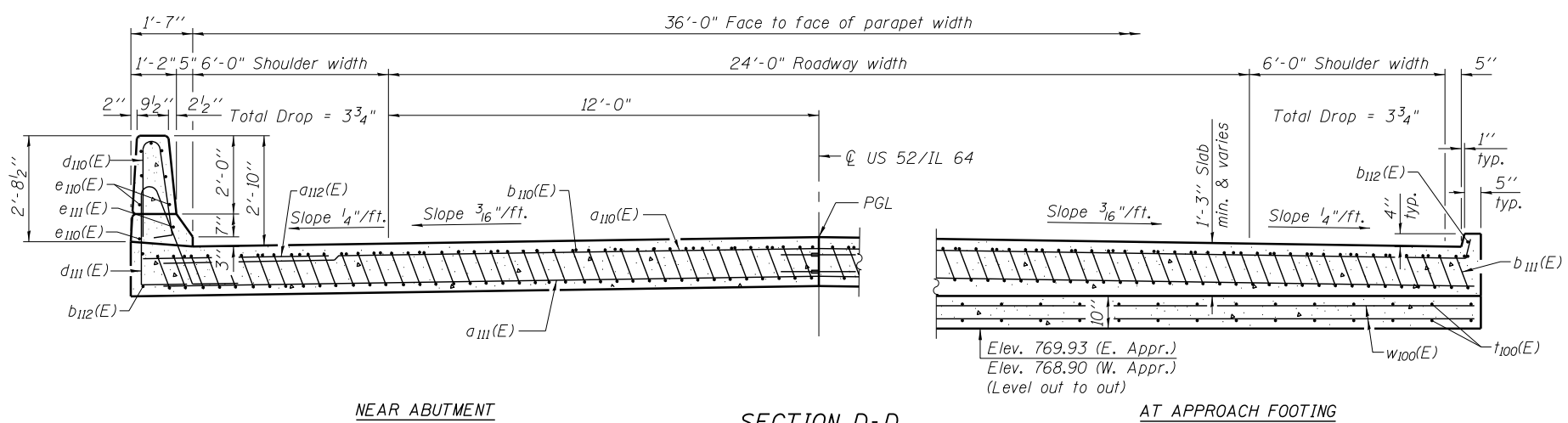
SECTION C-C



BAR $d_{110}(E)$

BAR $d_{111}(E)$

* Tilt #9 $b_{111}(E)$ bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

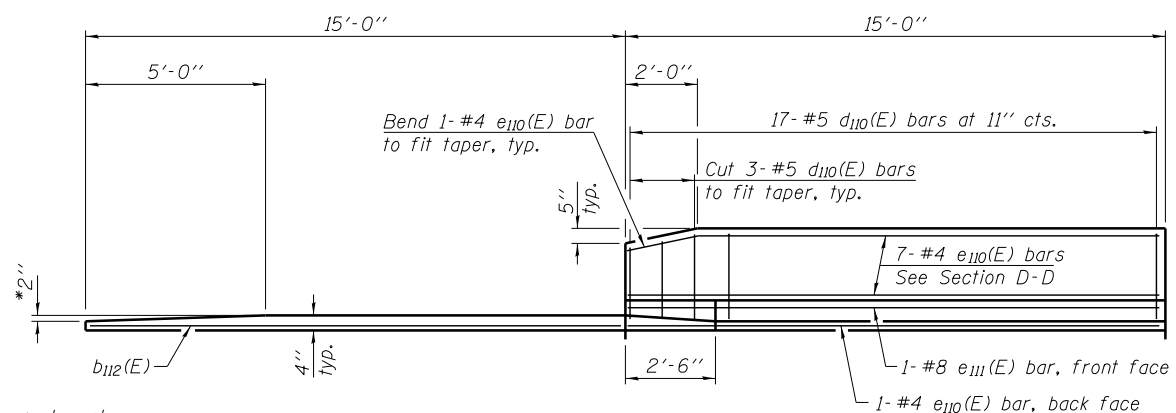


NEAR ABUTMENT

SECTION D-D

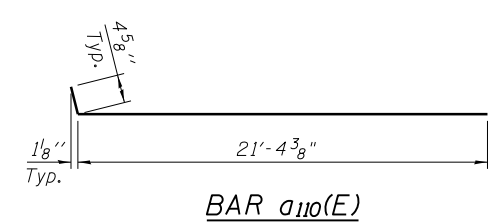
AT APPROACH FOOTING

(See Plan for dimensions not shown)

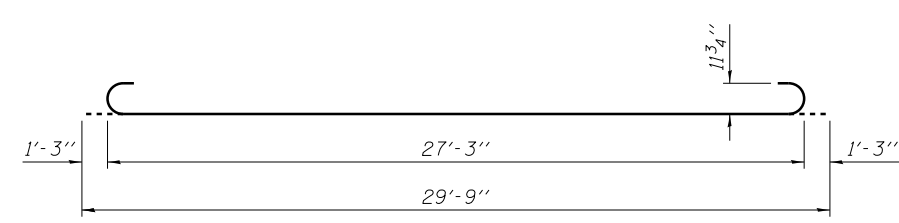


*Provide 2" taper at east approach slab only.

VIEW E-E



BAR $a_{110}(E)$



BAR $b_{111}(E)$

TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_{110}(E)$	100	#4	21'-9"	U
$a_{111}(E)$	184	#5	21'-7"	U
$a_{112}(E)$	48	#6	6'-6"	U
$b_{110}(E)$	60	#4	29'-8"	U
$b_{111}(E)$	180	#9	29'-9"	U
$b_{112}(E)$	8	#4	14'-8"	U
$d_{110}(E)$	68	#5	5'-7"	U
$d_{111}(E)$	68	#5	7'-11"	U
$e_{110}(E)$	32	#4	14'-8"	U
$e_{111}(E)$	4	#8	14'-8"	U
$t_{100}(E)$	160	#4	9'-8"	U
$w_{100}(E)$	160	#5	21'-6"	U
Concrete Superstructure			Cu. Yd.	122.2
Concrete Structures			Cu. Yd.	27.0
Reinforcement Bars, Epoxy Coated			Pound	31,600

(Sheet 2 of 2)

FILE NAME = ...E4083-SN0080050-014-Appr-S1sb2.dgn



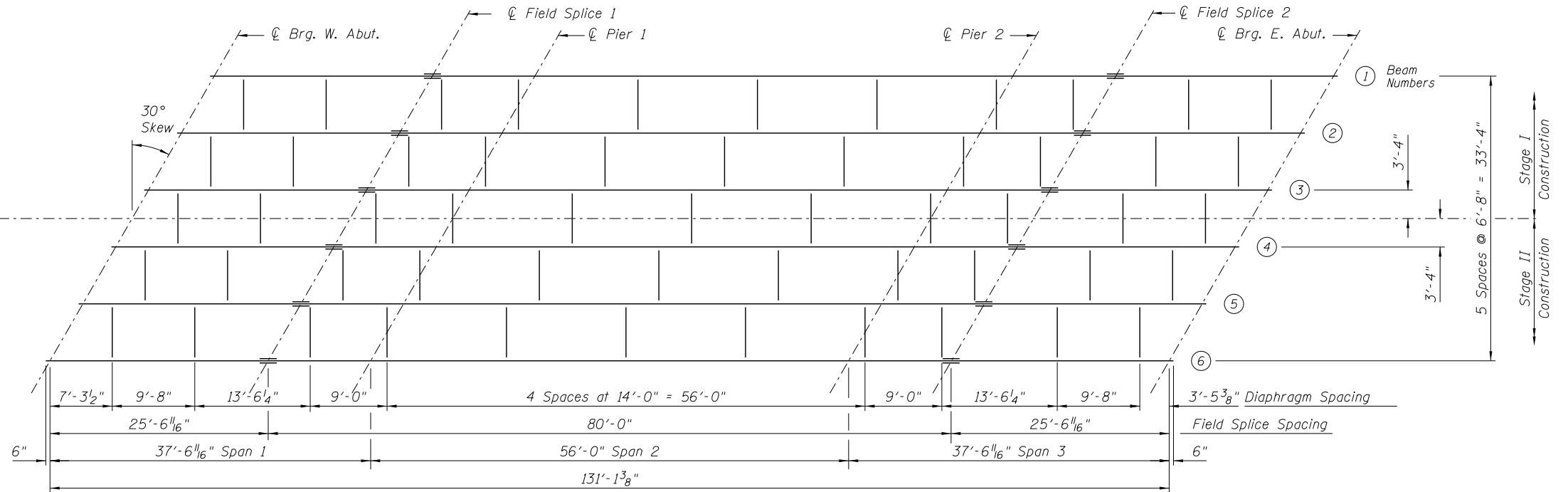
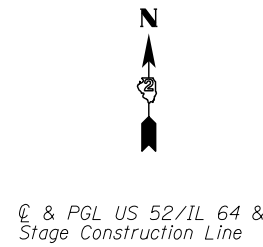
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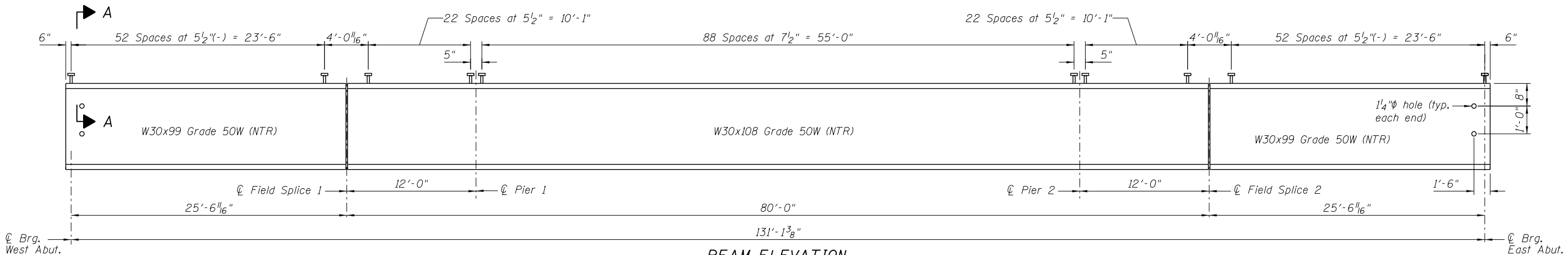
BRIDGE APPROACH SLAB DETAILS 2
 S.N. 008-0050

SHEET NO. SB-14 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	77
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

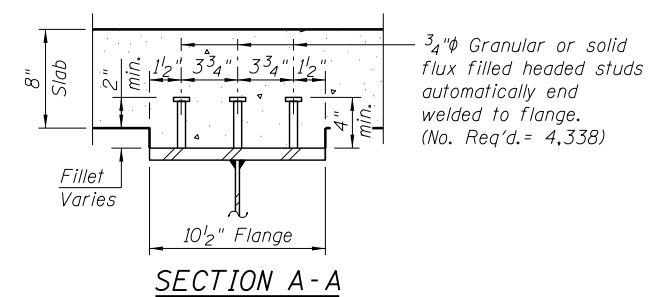


FRAMING PLAN



BEAM ELEVATION

Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



SECTION A-A

TOP OF BEAM ELEVATIONS
(For Fabrication Only)

Beam	℄ Brg. W Abut.	℄ Field Splice 1	℄ Pier 1	℄ Pier 2	℄ Field Splice 2	℄ Brg. E. Abut.
1	770.653	770.729	770.793	771.096	771.161	771.362
2	770.761	770.836	770.901	771.204	771.269	771.469
3	770.844	770.920	770.984	771.287	771.352	771.553
4	770.823	770.899	770.964	771.266	771.331	771.532
5	770.698	770.774	770.839	771.141	771.206	771.407
6	770.549	770.625	770.689	770.992	771.057	771.258

The elevation shown at the ℄ Field Splice 1 and ℄ Field Splice 2 is the Top of Beam Elevation for the W30x108.

Notes:
All dimensions are horizontal.
Work this sheet with Sheets SB-16 & SB-17 of SB-24.

Note:
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

FILE NAME = ...E4083-SN008050-015-FramingPlan.dgn



USER NAME = SAW	DESIGNED - JLA	REVISED -
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PLOT DATE = 8/19/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

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FRAMING PLAN
S.N. 008-0050

SHEET NO. SB-15 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	78
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier	0.5 Sp. 2
I_s	(in ⁴)	3990	4470
$I_c(n)$	(in ⁴)	12344	13404
$I_c(3n)$	(in ⁴)	9154	9875
$I_c(cr)$	(in ⁴)		6490
S_s	(in ³)	269	299
$S_c(n)$	(in ³)	426	466
$S_c(3n)$	(in ³)	385	420
$S_c(cr)$	(in ³)		355
DC1	(k/')	.829	.834
M _{DC1}	(k)	62.4	194.9
DC2	(k/')	.150	.150
M _{DC2}	(k)	11.4	35.0
DW	(k/')	.300	.300
M _{DW}	(k)	22.7	70.1
M _{½ + 1M}	(k)	367.9	371.5
M _u (Strength I)	(k)	770.1	1042.7
φ _r M _n	(k)	2241	--
f _s DC1	(ksi)	2.8	7.9
f _s DC2	(ksi)	0.4	1.2
f _s DW	(ksi)	0.7	2.4
f _s (½ + 1M)	(ksi)	10.4	11.2
f _s (Service II)	(ksi)	17.4	27.8
0.95R _n F _{yf}	(ksi)	47.5	47.5
f _s (Total)(Strength I)	(ksi)	--	36.9
φ _r F _n	(ksi)	--	44.5
V _r	(k)	14.0	22.8

INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier
R _{DC1}	(k)	10.4
R _{DC2}	(k)	1.9
R _{DW}	(k)	3.8
R _{½ + 1M}	(k)	59.3
R _{Total}	(k)	75.4

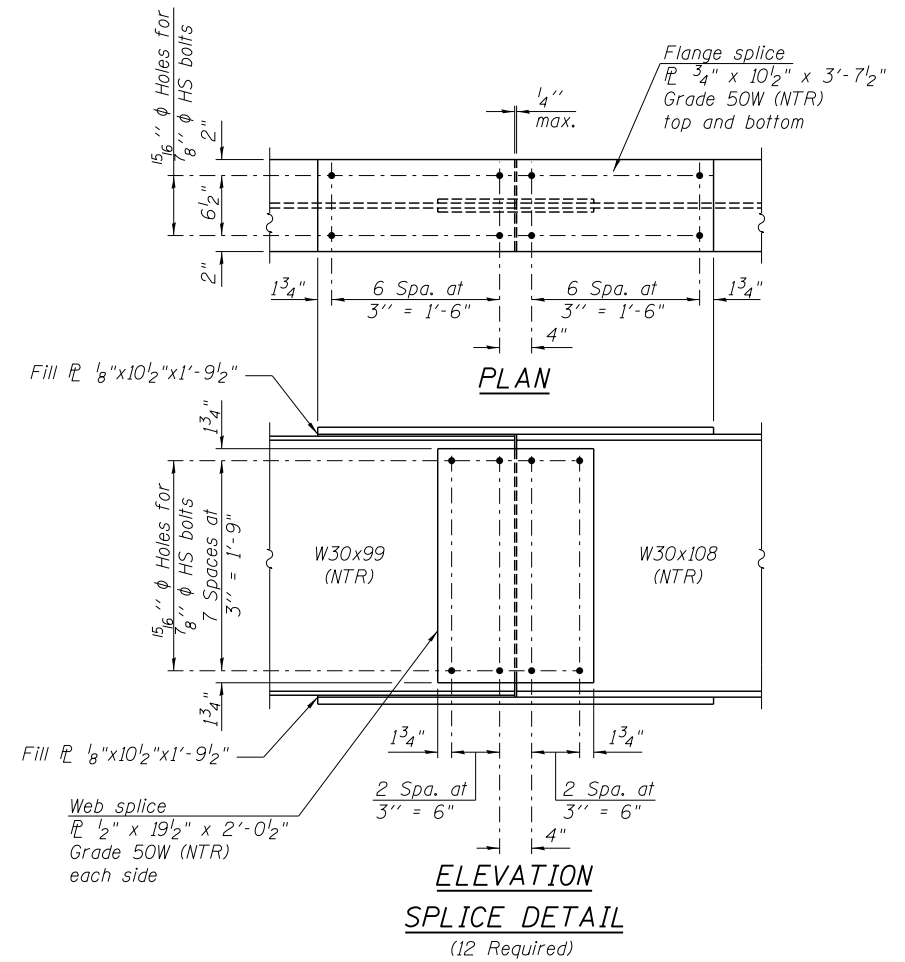
I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: 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) in uncracked sections due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).

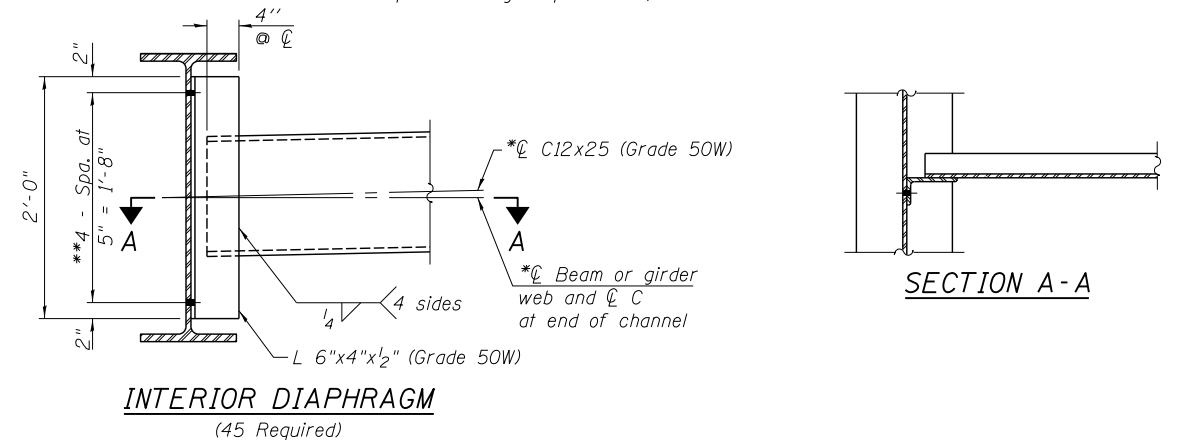
$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: 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.).
M_{DC2}: 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.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{½ + 1M}: Un-factored live load moment plus dynamic load allowance (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{½ + 1M}
φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.
f_s (½ + 1M): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{½ + 1M} / S_{c(n)} or M_{DW} / S_{c(cr)} as applicable.
f_s (Service II): Sum of stresses as computed below (ksi).
f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (½ + 1M)
0.95R_nF_{yf}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (½ + 1M)
φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
V_r: Maximum factored shear range in span computed according to Article 6.10.10.



Fasteners shall be ASTM A325 Type 3 bolts. Bolts 7/8\"/>

Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.



Note:
Two hardened washers required for each set of oversized holes.
*Alternate channels C12X30 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4\"/>

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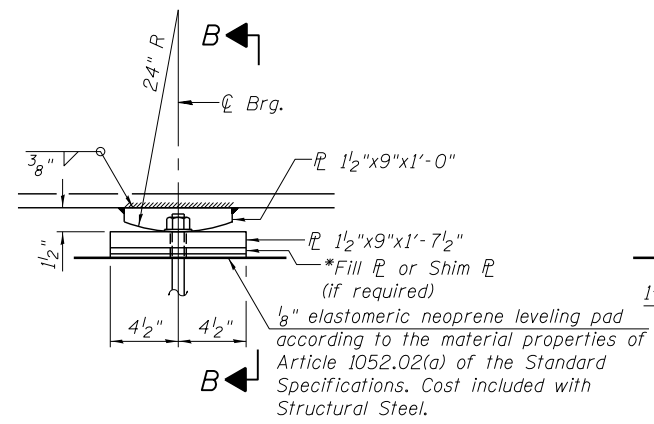
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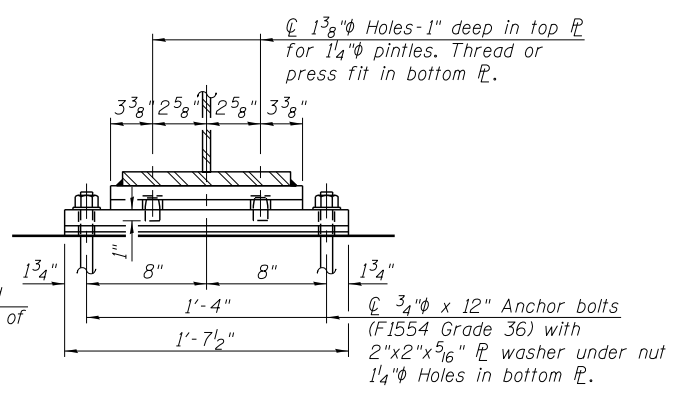
STRUCTURAL STEEL DETAILS
S.N. 008-0050

SHEET NO. SB-16 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	79
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

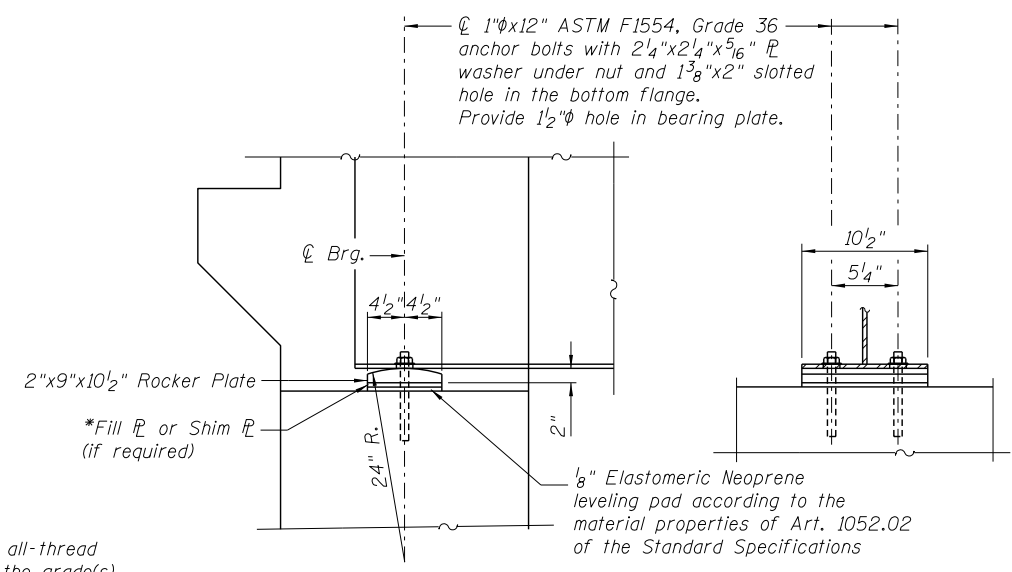


ELEVATION AT PIER

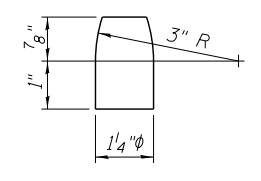


SECTION B-B

PIER BEARING DETAILS



ABUTMENT BEARING DETAILS



PINTLE

Notes:
 Anchor bolts shall be ASTM F1554, Grade 36 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 The structural steel plates and pintles shall conform to the requirements of AASHTO M 270 Grade 50W.

***FILL PLATE THICKNESS TABLE**

Location	Beam	Thickness
West Abutment	4	1/4"
East Abutment	4	1/4"
Pier 1	4	1/4"
Pier 2	4	1/4"

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 3/4"	Each	24
Anchor Bolts, 1"	Each	24

FILE NAME = ...E4DB3-SN0080050-017-BrgDetails.dgn

ZROKA engineering
 Zroka Engineering, P.C.
 4216 North Hermitage
 Chicago, IL 60613

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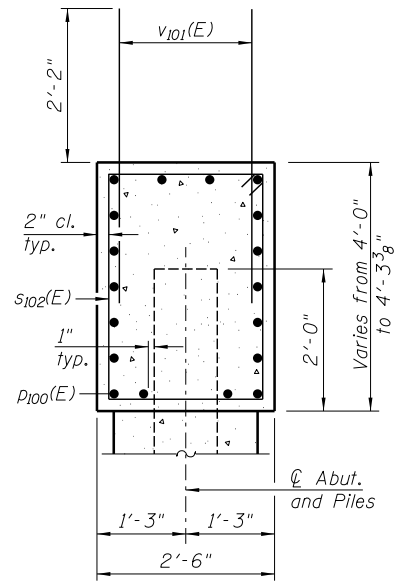
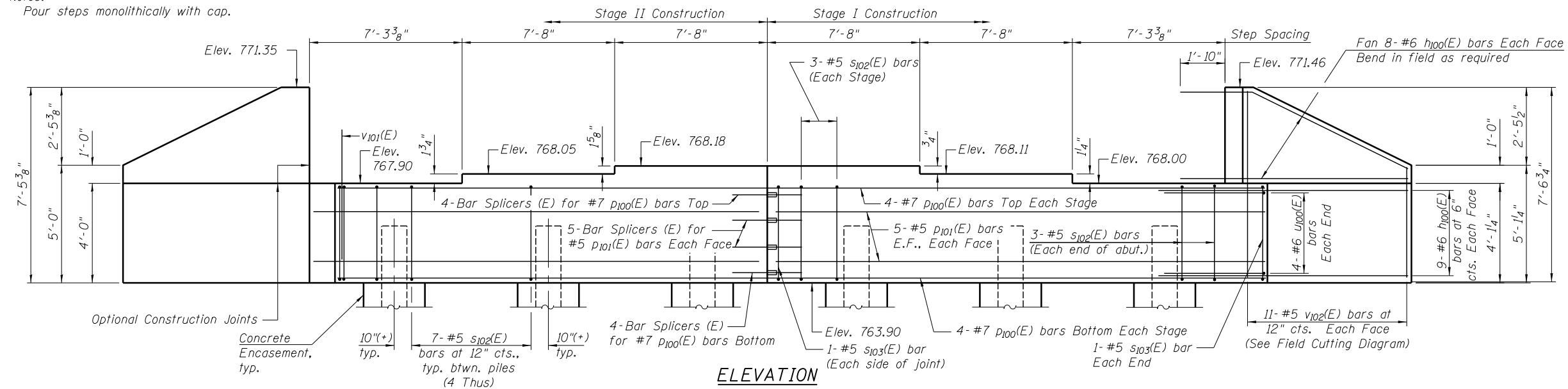
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 DEPARTMENT OF TRANSPORTATION**

**BEARING DETAILS
 S.N. 008-0050**

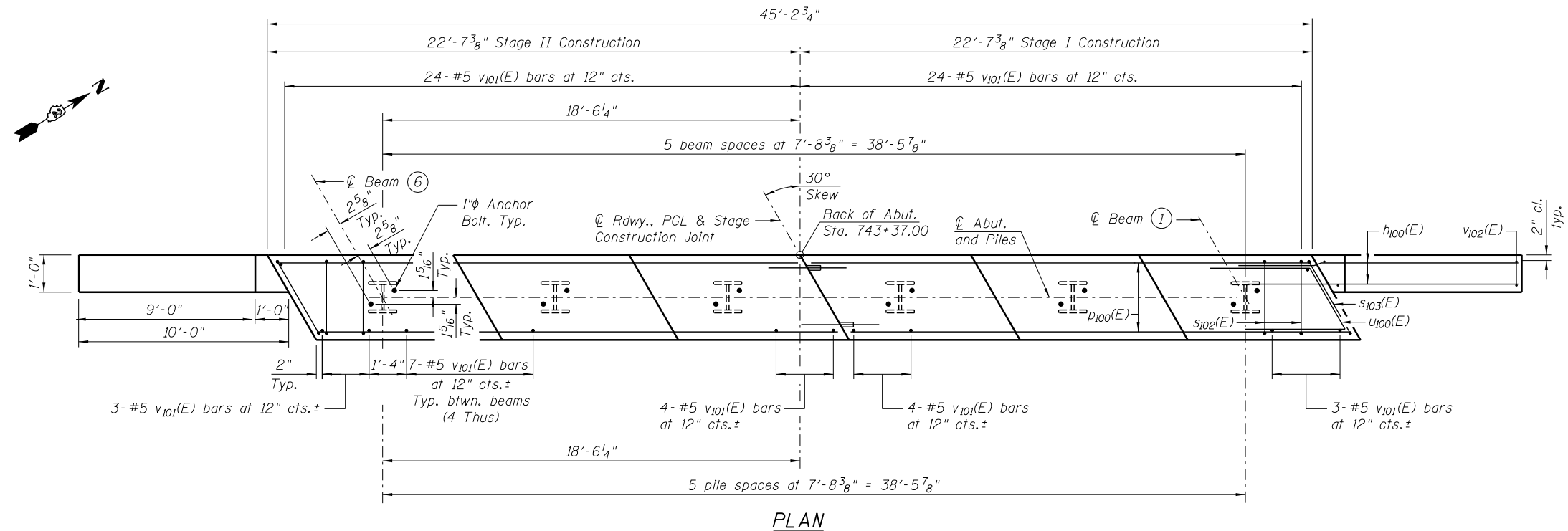
SHEET NO. SB-17 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	80
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

Notes:
Four steps monolithically with cap.



SEC. THRU ABUT.



PLAN

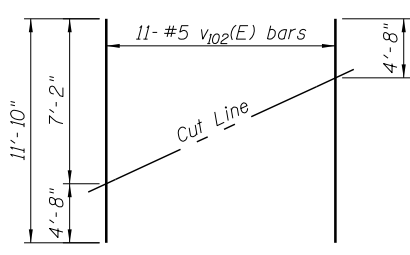
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	68	#6	12'-0"	—
p100(E)	16	#7	22'-3"	—
p101(E)	20	#5	22'-3"	—
s102(E)	40	#5	12'-7"	□
s103(E)	4	#5	13'-3"	□
u100(E)	8	#6	11'-3"	∕∕
v101(E)	90	#5	4'-4"	—
v102(E)	22	#5	11'-10"	—
Structure Excavation		Cu. Yd.	115	
Concrete Structures		Cu. Yd.	22.2	
Reinforcement Bars, Epoxy Coated		Pound	3,820	
Furnishing Steel Piles, HP10x42		Foot	195	
Test Pile Steel, HP10x42		Each	1	
Driving Piles		Foot	195	
Concrete Encasement		Cu. Yd.	2.0	
Pile Shoes		Each	6	

For details of Bar Splicers, see sheet SB-22 of SB-24.
For details of piles and Concrete Encasement, see sheet SB-23 of SB-24.
Space reinforcement in cap to miss anchor bolts.

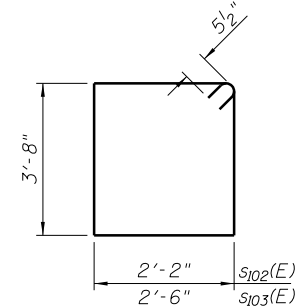
PILE DATA

Type: Steel HP10x42 with Pile Shoes
Nominal Required Bearing: 335k
Factored Resistance Available: 184k
Est. Length: 39.0'
No. Production Piles: 5
No. Test Piles: 1

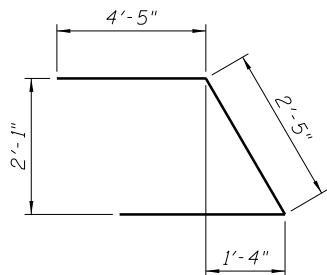


FIELD CUTTING DIAGRAM

Order v102(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s102(E) & s103(E)



BAR u100(E)

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Chicago, IL 60613

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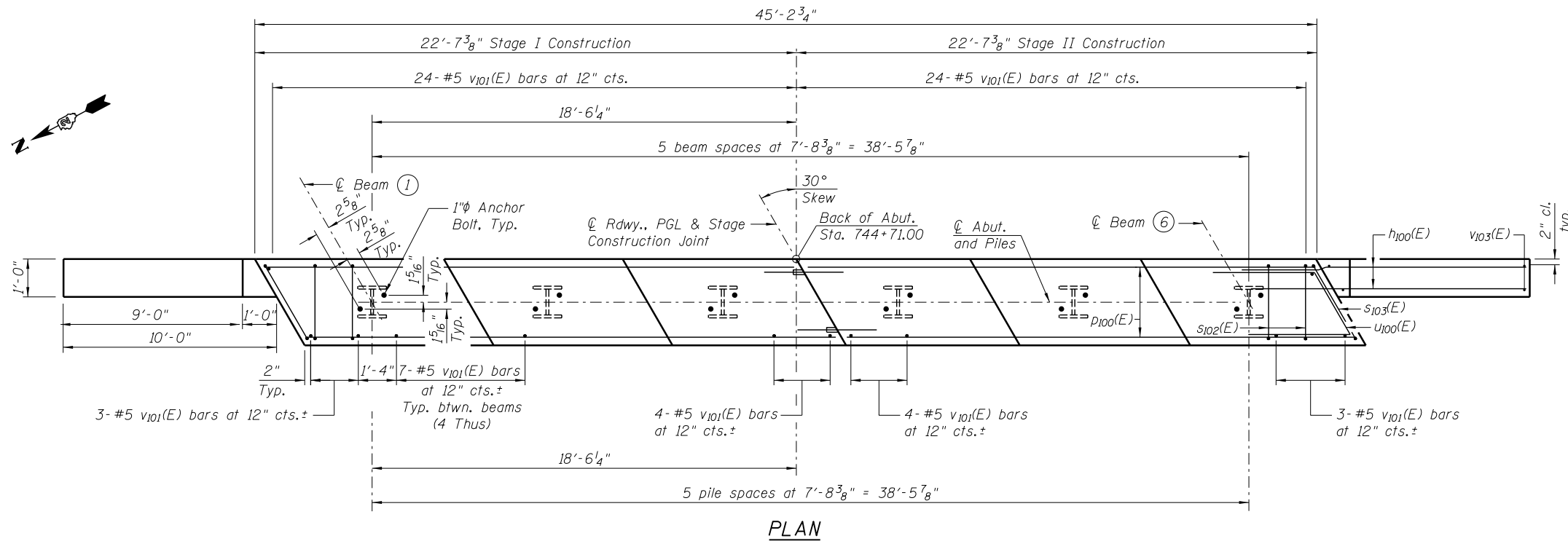
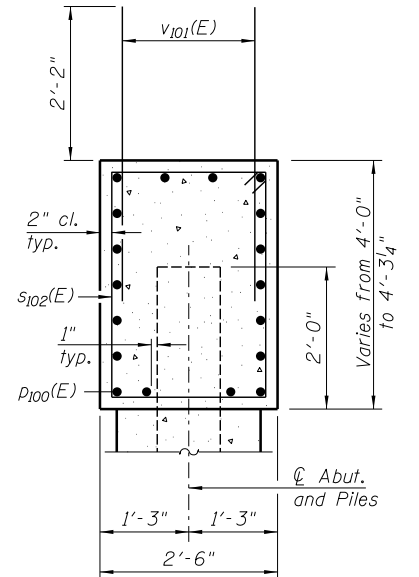
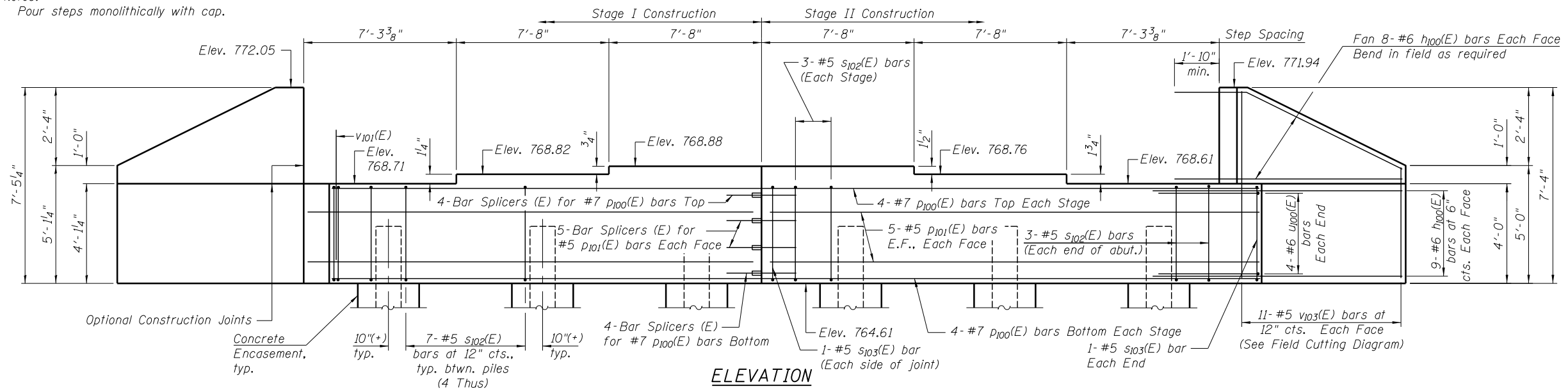
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WEST ABUTMENT
S.N. 008-0050

SHEET NO. SB-18 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	81
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

Notes:
Four steps monolithically with cap.



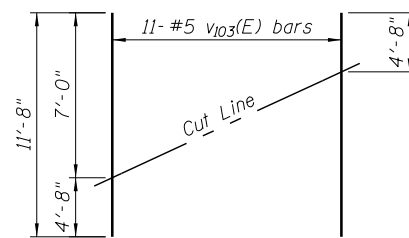
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁₀₀ (E)	68	#6	12'-0"	—
p ₁₀₀ (E)	16	#7	22'-3"	—
p ₁₀₁ (E)	20	#5	22'-3"	—
s ₁₀₂ (E)	40	#5	12'-7"	□
s ₁₀₃ (E)	4	#5	13'-3"	□
u ₁₀₀ (E)	8	#6	11'-3"	L/
v ₁₀₁ (E)	90	#5	4'-4"	—
v ₁₀₂ (E)	22	#5	11'-8"	—
Structure Excavation		Cu. Yd.	111	
Concrete Structures		Cu. Yd.	21.4	
Reinforcement Bars, Epoxy Coated		Pound	3,810	
Furnishing Steel Piles, HP10x42		Foot	200	
Test Pile Steel, HP10x42		Each	1	
Driving Piles		Foot	200	
Concrete Encasement		Cu. Yd.	2.0	
Pile Shoes		Each	6	

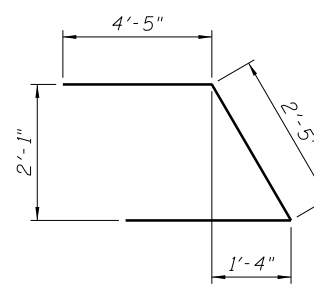
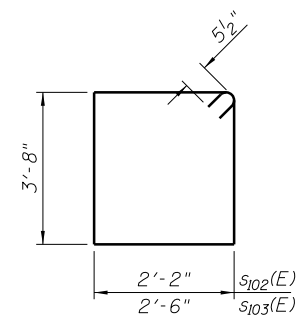
For details of Bar Splicers, see sheet SB-22 of SB-24.
For details of piles and Concrete Encasement, see sheet SB-23 of SB-24.
Space reinforcement in cap to miss anchor bolts.

PILE DATA

Type: Steel HP10x42 with Pile Shoes
Nominal Required Bearing: 335k
Factored Resistance Available: 184k
Est. Length: 40.0'
No. Production Piles: 5
No. Test Piles: 1



Order v₁₀₃(E) full length. Cut as shown and use remainder of bars in opposite face.



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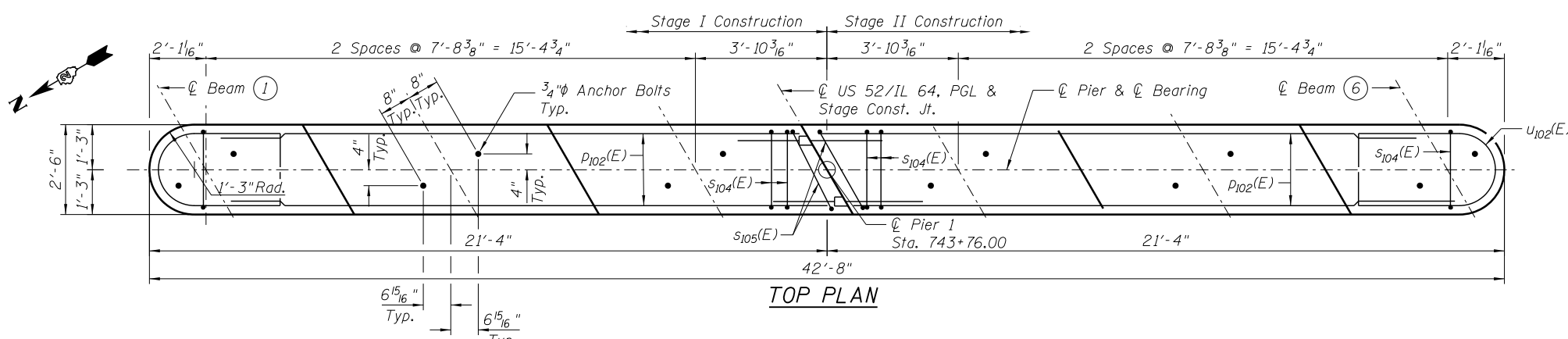
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DEPARTMENT OF TRANSPORTATION

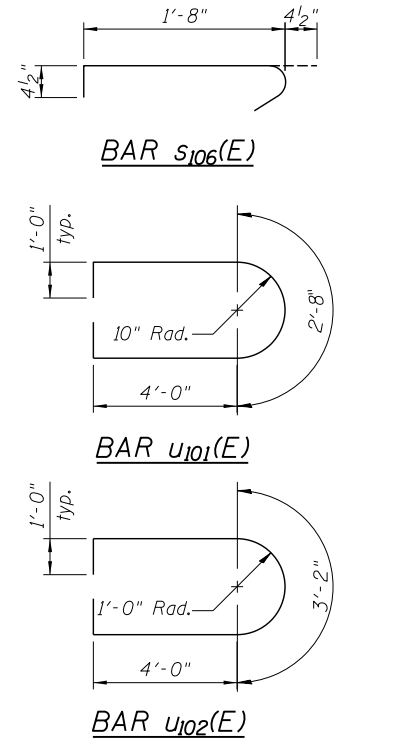
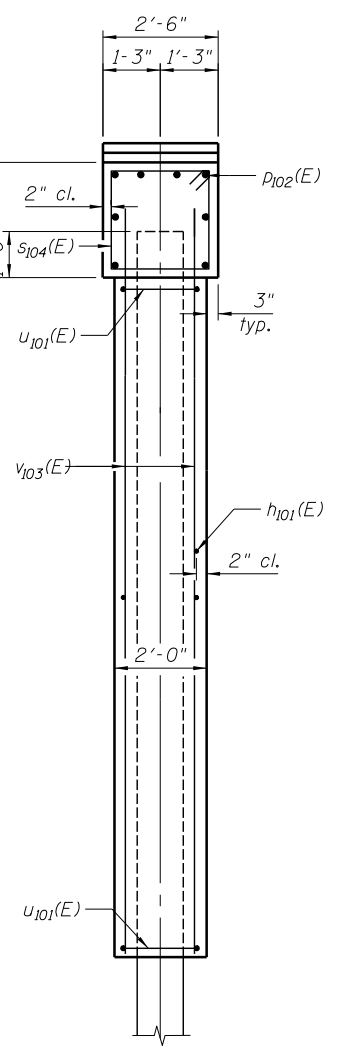
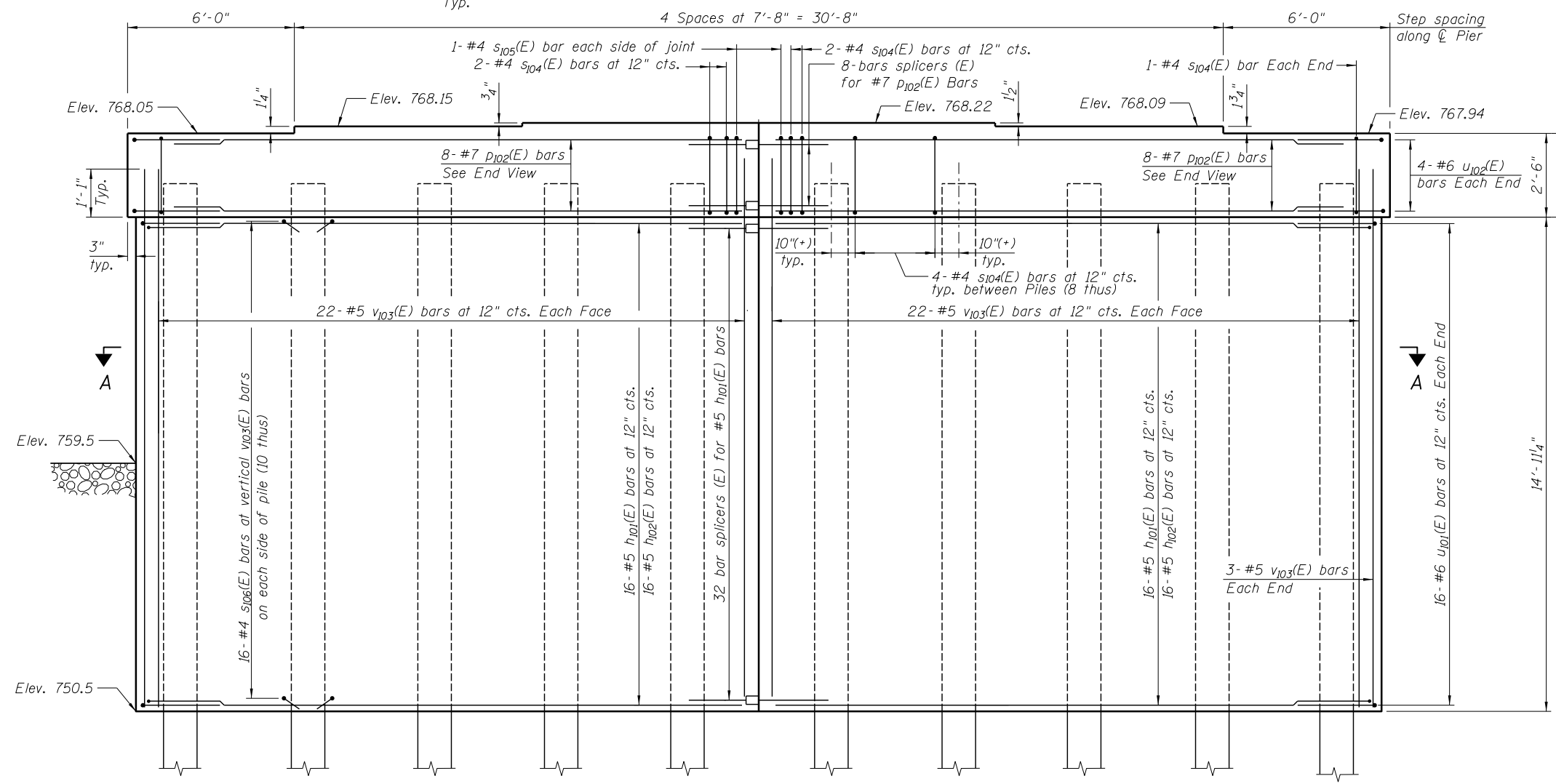
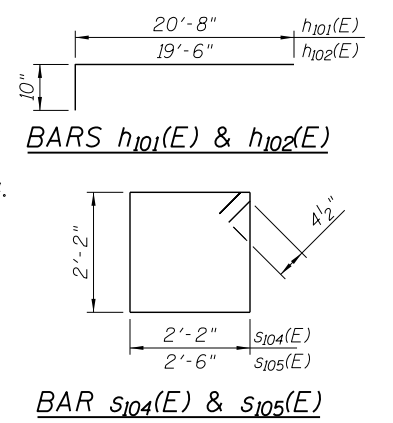
EAST ABUTMENT
S.N. 008-0050

SHEET NO. SB-19 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	82
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



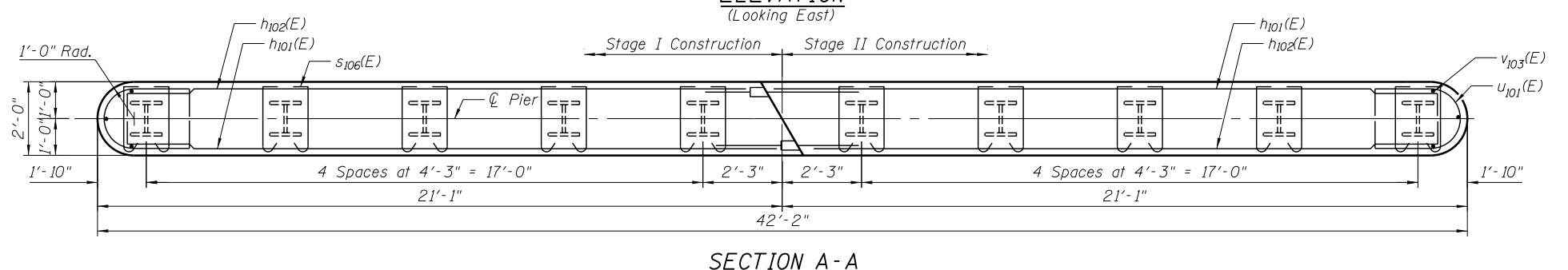
Notes:
 For Pile Details See Sheet SB-23 of SB-24.
 For Bar Splicer Details See Sheet SB-22 of SB-24.
 Cofferdam (Type 2) (Location 3) at Pier 1.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁₀₁ (E)	32	#5	21'-6"	┌
h ₁₀₂ (E)	32	#5	20'-4"	┌
p ₁₀₂ (E)	16	#7	18'-4"	—
s ₁₀₄ (E)	38	#4	9'-5"	□
s ₁₀₅ (E)	2	#4	10'-1"	□
s ₁₀₆ (E)	320	#4	2'-5"	┌
u ₁₀₁ (E)	32	#6	12'-8"	┌
u ₁₀₂ (E)	8	#6	13'-2"	┌
v ₁₀₃ (E)	94	#5	16'-0"	—
Cofferdam Excavation		Cu. Yd.	232	
Concrete Structures		Cu. Yd.	56.5	
Reinforcement Bars, Epoxy Coated		Pound	5,110	
Furnishing Steel		Foot	360	
Piles HP12x53		Foot	360	
Driving Piles		Foot	360	
Test Pile Steel		Each	1	
Piles HP12x53		Each	10	
Pile Shoes		Each	10	
Cofferdam (Type 2) (Location 3)		Each	1	

PILE DATA
 Type: HP12x53 with Pile Shoes
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 40'
 No. Production Piles: 9
 No. Test Piles: 1



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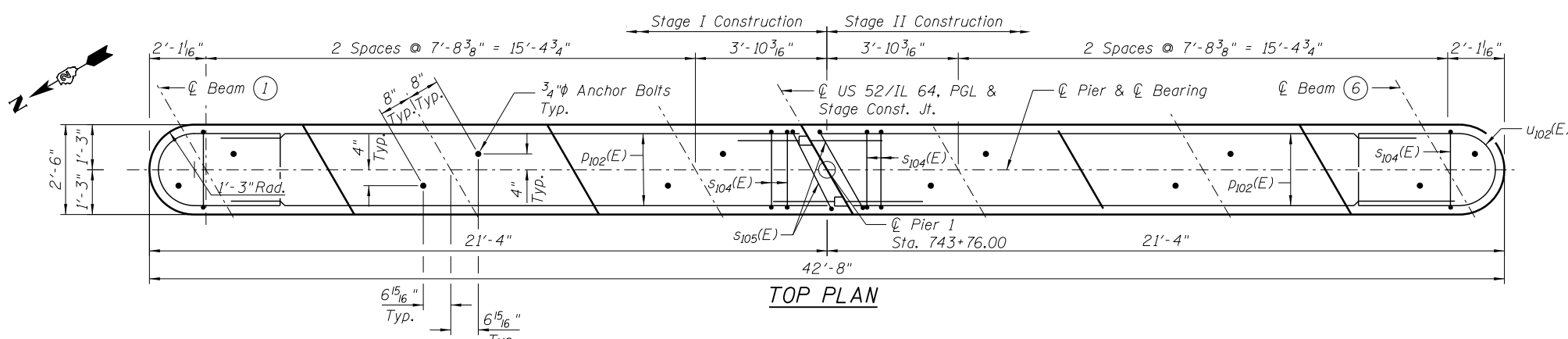


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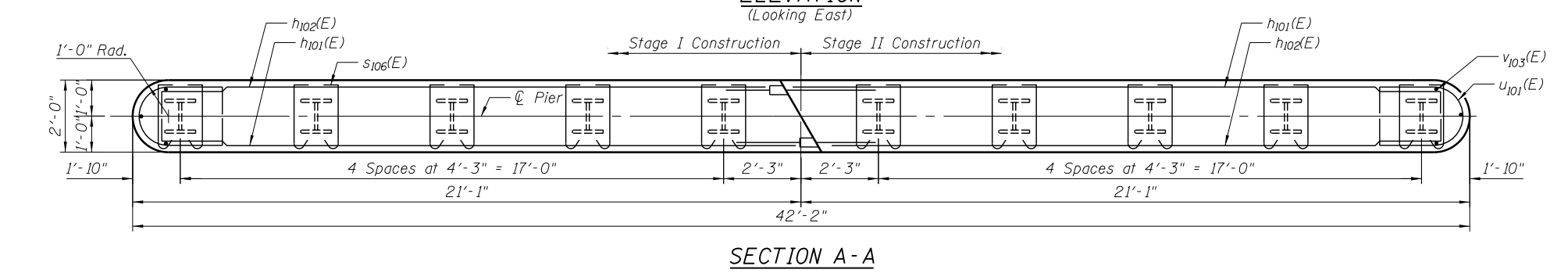
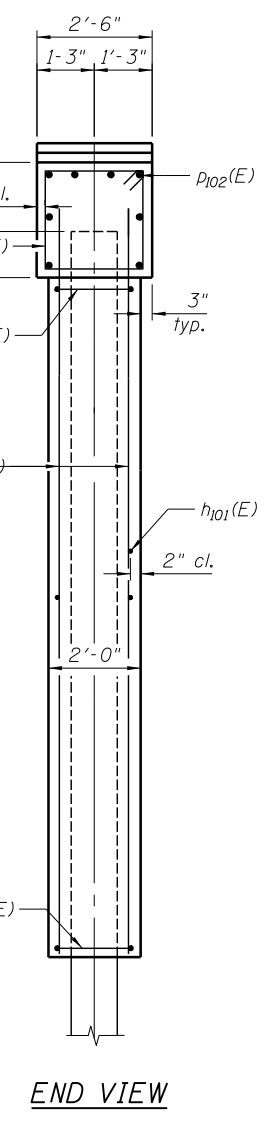
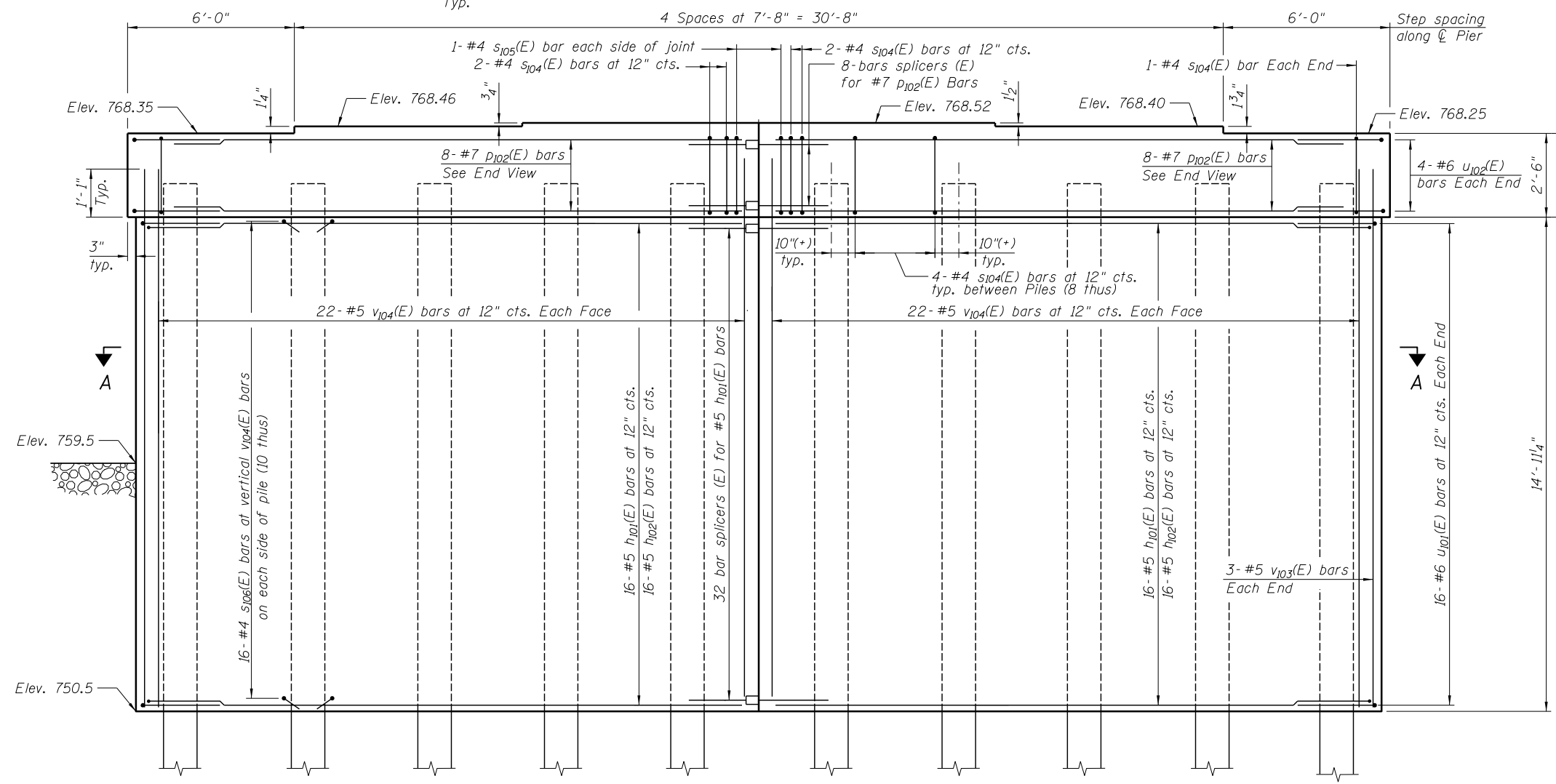
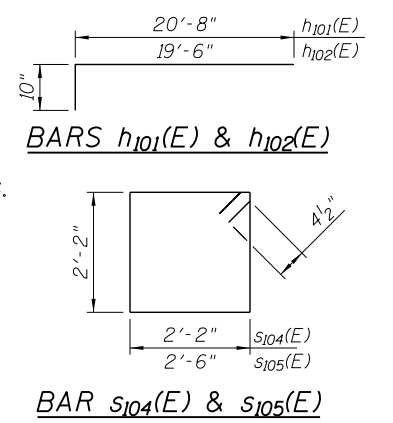
**STATE OF ILLINOIS
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**PIER 1
 S.N. 008-0050**
 SHEET NO. SB-20 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	83
				CONTRACT NO. 64D83
ILLINOIS FED. AID PROJECT				



Notes:
 For Pile Details See Sheet SB-23 of SB-24.
 For Bar Splicer Details See Sheet SB-22 of SB-24.
 Cofferdam (Type 2) (Location 4) at Pier 2.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁₀₁ (E)	32	#5	21'-6"	┌
h ₁₀₂ (E)	32	#5	20'-4"	┌
p ₁₀₂ (E)	16	#7	18'-4"	—
s ₁₀₄ (E)	38	#4	9'-5"	□
s ₁₀₅ (E)	2	#4	10'-1"	□
s ₁₀₆ (E)	320	#4	2'-5"	┌
u ₁₀₁ (E)	32	#6	12'-8"	┌
u ₁₀₂ (E)	8	#6	13'-2"	┌
v ₁₀₄ (E)	94	#5	16'-4"	—
Cofferdam Excavation		Cu. Yd.	232	
Concrete Structures		Cu. Yd.	57.4	
Reinforcement Bars, Epoxy Coated		Pound	5,140	
Furnishing Steel		Foot	360	
Piles HP12x53		Foot	360	
Driving Piles		Foot	360	
Test Pile Steel		Each	1	
Piles HP12x53		Each	10	
Pile Shoes		Each	10	
Cofferdam (Type 2) (Location 4)		Each	1	

PILE DATA
 Type: HP12x53 with Pile Shoes
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 40'
 No. Production Piles: 9
 No. Test Piles: 1

FILE NAME = ...64083-SN0080050-021-Pier-2.dgn



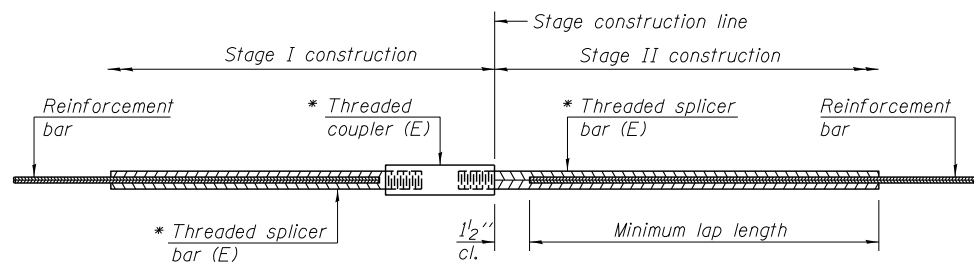
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	CHECKED - LAS	REVISED -

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 DEPARTMENT OF TRANSPORTATION**

**PIER 2
 S.N. 008-0050**

SHEET NO. SB-21 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	84
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

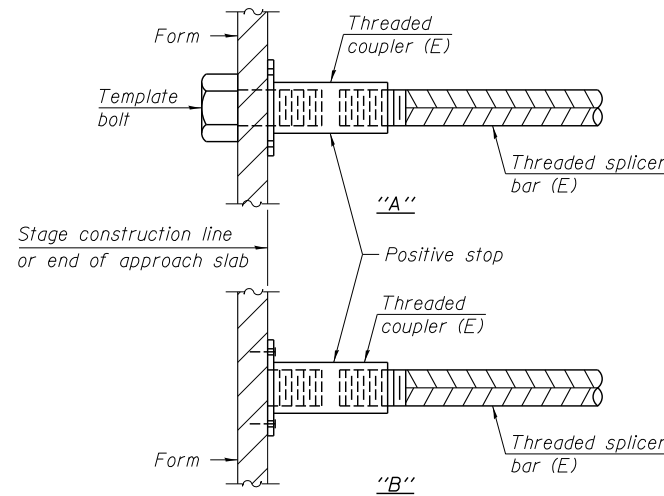
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

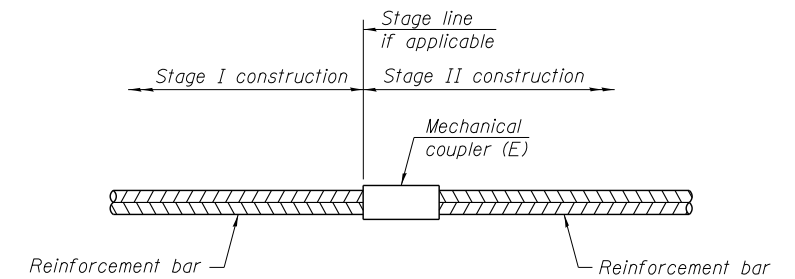
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	430	3
Abut. Diaphragm	#6	16	4
Approach	#4	50	4
Approach	#5	92	3
Approach Footing	#5	80	3
Abutment	#7	16	4
Abutment	#5	20	4
Pier	#7	16	4
Pier	#5	64	4



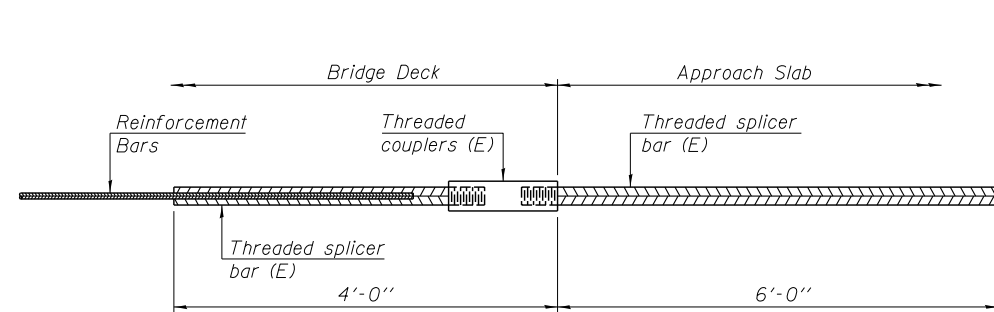
INSTALLATION AND SETTING METHODS

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



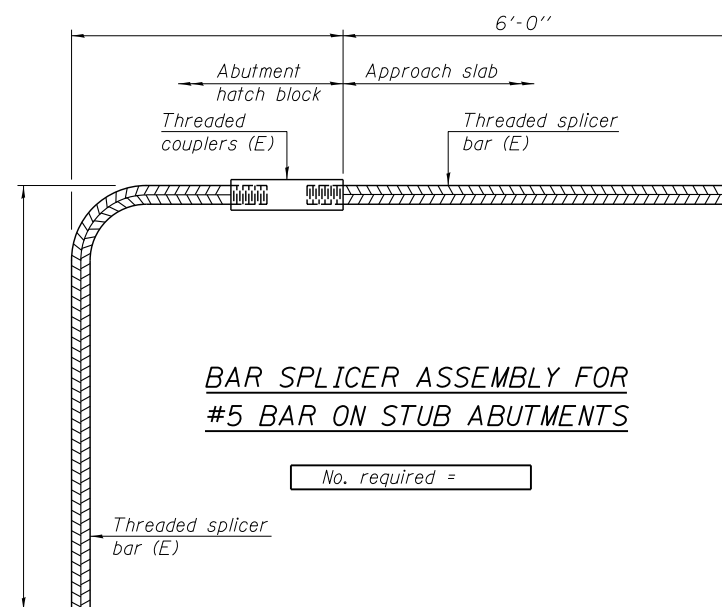
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 84



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE NAME = ...E4083-SN0080050-022-BarSplicers.dgn

BSD-1

1-27-12



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 Chicago, IL 60613

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	CHECKED - JLA	REVISED -

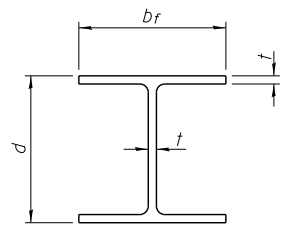
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 S.N. 008-0050

SHEET NO. SB-22 OF SB-24 SHEETS

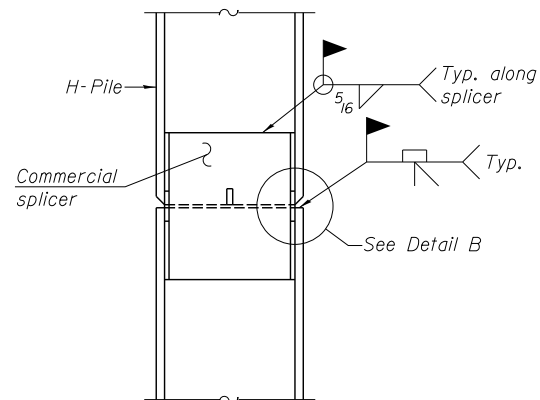
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	85
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

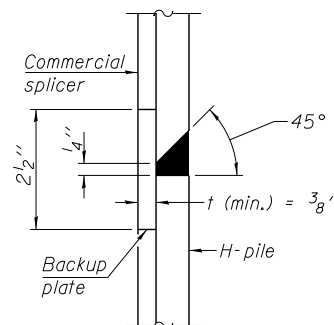


STEEL PILE TABLE

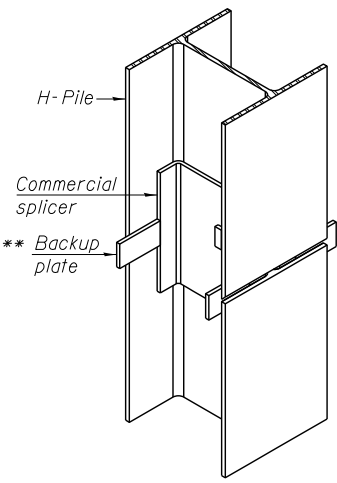
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

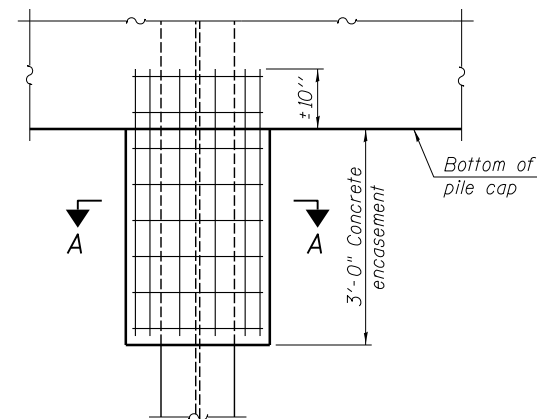


DETAIL "B"



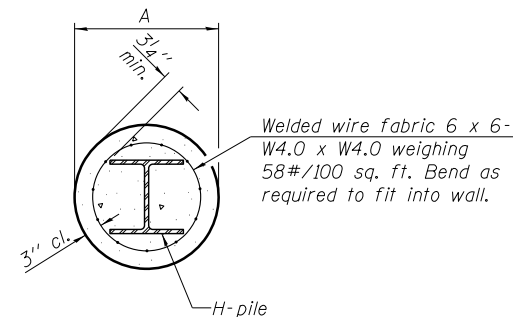
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



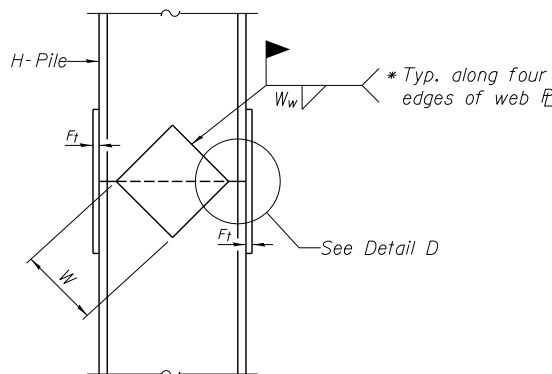
ELEVATION

PILE ENCASEMENT

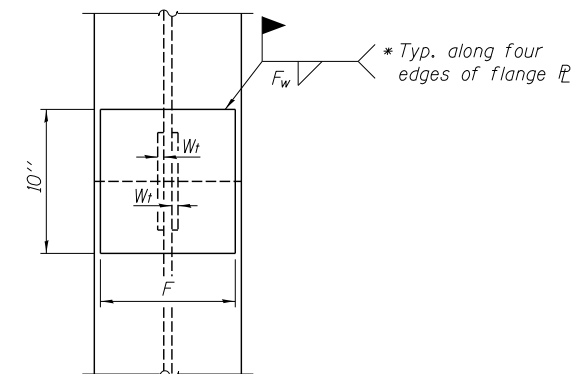


SECTION A-A

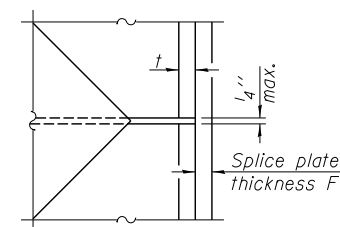
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



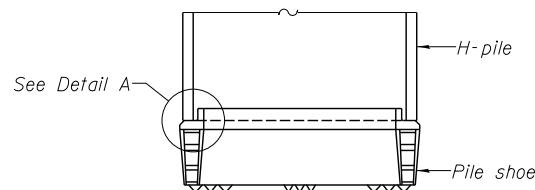
END VIEW



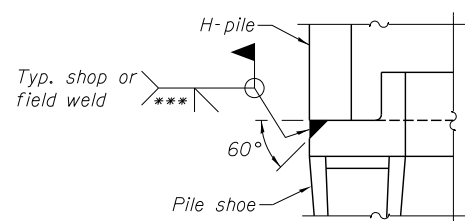
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	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"

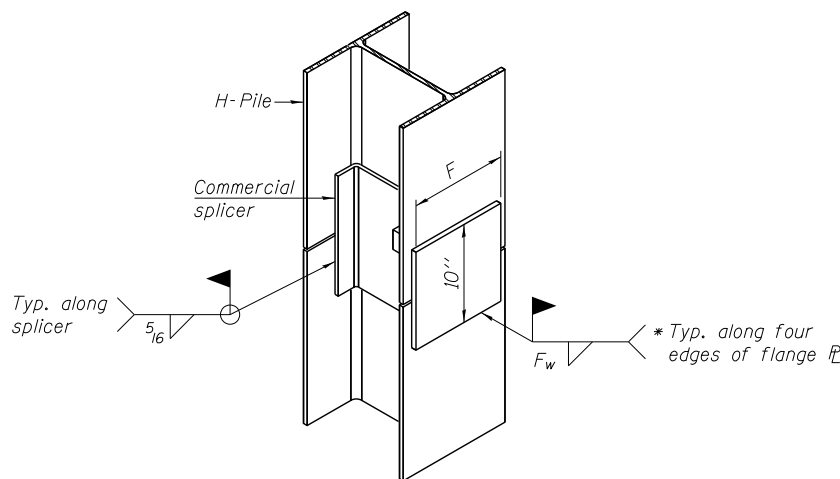


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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.).

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

FILE NAME = ...E40B3-SN008050-023-HPP11es.dgn

F-HP 1-27-12



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISIONS -
PLOT SCALE = 0:2.0000 't' / in.	CHECKED - DAZ	REVISIONS -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISIONS -
	CHECKED - JLA	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
S.N. 008-0050

SHEET NO. SB-23 OF SB-24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	86
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

SOIL BORING B-1a

SOIL BORING B-2a

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG B-1a
 WEI Job No.: 703-01-01
 Client: **Zroka Engineering, P.C.**
 Project: **US 52/IL 64 Bridge over Carroll Creek**
 Location: **Carroll County, IL**

Datum: NGVD
 Elevation: 763.20 ft
 North: ft
 East: ft
 Station: 744+71
 Offset: 40 RT

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG B-2a
 WEI Job No.: 703-01-01
 Client: **Zroka Engineering, P.C.**
 Project: **US 52/IL 64 Bridge over Carroll Creek**
 Location: **Carroll County, IL**

Datum: NGVD
 Elevation: 764.00 ft
 North: ft
 East: ft
 Station: 743+71
 Offset: 44 LT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
761.2	Medium stiff, brown SILTY CLAY LOAM	1	P	1	0.50	15		736.2	Medium dense, tan, medium to coarse SAND with LIMESTONE fragments	11	P	11	7 5 12	NP	
758.7	Medium stiff, brown LOAM	2	P	2	0.50	21		733.7	Very dense, tan SANDSTONE on well-cemented SAND	12	P	12	27 8 5	NP	
756.2	Loose, gray, dirty SAND and GRAVEL	5	P	3	NP			731.2	Very dense, tan WEATHERED LIMESTONE --WEATHERED BEDROCK--	13	P	13	27 100/5	NP	
753.7	Loose, gray, dirty SAND	4	P	4	NP			728.7	Boring terminated at 36.50 ft	14	P	14	100/5	NP	
751.2	Dense, gray, dirty SAND and GRAVEL	10	P	5	NP					15	P	15	100/5	NP	
741.2	Medium dense, tan, medium SAND	15	P	6	NP					20	P	20	9 9 15	NP	
		20	P	7	NP					25	P	25	8 8 13	NP	
		25	P	8	NP						P		5 8 6	NP	
			P	9	NP						P		9 10 8	NP	
			P	10	NP						P			NP	

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
762.5	Medium stiff, brown LOAM	1	P	1	0.50	13		735.0	Very stiff, reddish brown CLAY LOAM with LIMESTONE fragments and well-cemented sand	10	P	10	6 9 9	NP	
757.5	Medium stiff to stiff, brown SILTY LOAM	2	P	2	1.80	27		732.5	Dense, tan, well-cemented SAND with CLAY LOAM on top	11	P	11	6 5 10	2.90 B	36
755.0	Soft, gray SANDY LOAM	3	P	3	0.50	43		730.0	Very dense, tan WEATHERED LIMESTONE --WEATHERED BEDROCK-- --AUGER REFUSAL AT 37 FEET--	12	P	12	3 9 34	1.20 P	55
750.0	Loose, gray SAND and GRAVEL	5	P	4	NP			727.0	Yellow-buff, dense & oxidized on fracture faces DOLOSTONE --RUN #1 (37.0 to 42.0 feet)-- --RECOVERY =100%-- --RQD =37%-- --CORE TIME =1.8 min./foot-- --Qu =620.0 tsf--	13	P	13	100/5		
747.5	Medium dense, gray, medium to coarse SAND	10	P	5	NP			722.0	Yellow-buff, dense & oxidized on fracture faces, laminated DOLOSTONE --RUN #1 (42.0 to 46.0 feet)-- --RECOVERY =100%-- --RQD =13%-- --CORE TIME =2.2 min./foot-- --Qu =465.0 tsf--	14	P	14			
		15	P	6	NP					15	P	15			
		20	P	7	NP						P		8 10 12	NP	
		25	P	8	NP						P		8 8 12	NP	
			P	9	NP						P		8 10 12	NP	
			P	10	NP						P			NP	

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-17-2007	Complete Drilling	10-17-2007
Drilling Contractor	IDOT	Drill Rig	
Driller	W. Garza	Checked by	
Drilling Method	Wang rendering of IDOT Boring Log	While Drilling	10.00 ft
		At Completion of Drilling	WASHED
		Time After Drilling	NA
		Depth to Water	NA

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	11-07-2007	Complete Drilling	11-07-2007
Drilling Contractor	IDOT	Drill Rig	
Driller	W. Garza	Checked by	
Drilling Method	Wang rendering of IDOT Boring Log	While Drilling	12.00 ft
		At Completion of Drilling	WASHED
		Time After Drilling	NA
		Depth to Water	NA

FILE NAME = ...E4DB3-SN0080050-024-Bor-Eng-ops1.dgn



USER NAME = SAW	DESIGNED - LAS	REVISED -
PLOT SCALE = 0:2.0000 't' / in.	CHECKED - JLA	REVISED -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - LAS	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS
 S.N. 008-0050

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-6	CARROLL	150	87
CONTRACT NO. 64DB3				

SHEET NO. SB-24 OF SB-24 SHEETS

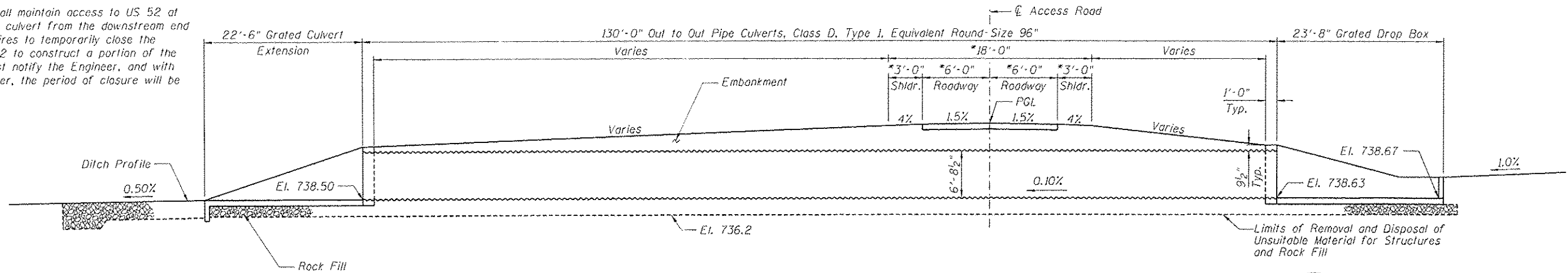
ILLINOIS FED. AID PROJECT

Bench Mark: Disk in handrail at Sta. 673+78.70, 19.74' LT, Elev. 751.66

Existing Structure: S.N. 008-1022 was built in approximately 1926. The structure is a 7'x4' single barrel concrete culvert 37' long. It is located approximately 192' west of the proposed culvert.

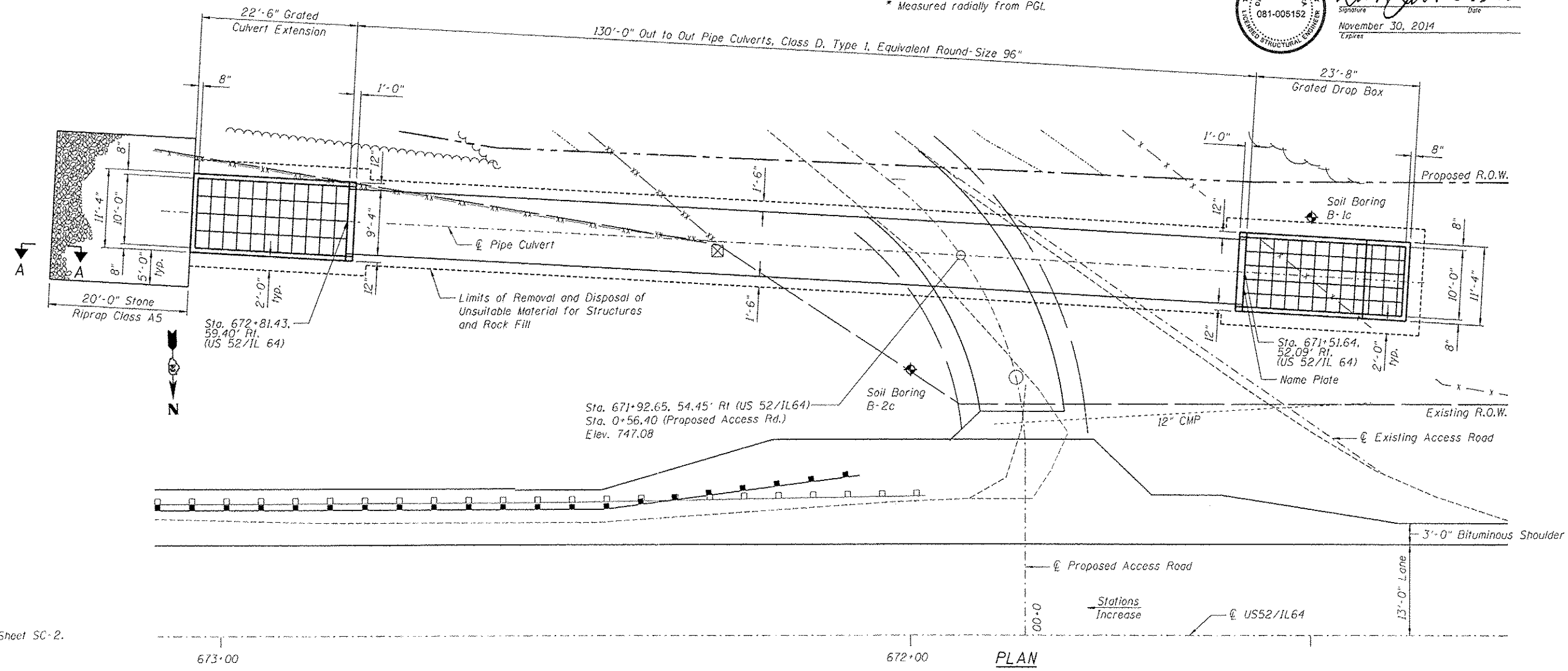
Staging: The Contractor shall maintain access to US 52 at all times and construct the culvert from the downstream end up. If the Contractor requires to temporarily close the entrance's access to US 52 to construct a portion of the culvert, the Contractor must notify the Engineer, and with the approval of the Engineer, the period of closure will be limited to 4 hours.

No Salvage.



ELEVATION
* Measured radially from PGL

STATE OF ILLINOIS
DEBORAH A. STOK
081-005152
Professional Engineer
Signature: *Deborah A. Stok* 6-27-13
Date: November 30, 2014
Expires



PLAN

For Section A-A, see Sheet SC-2.

ZROKA Engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME : SAW	DESIGNED - JLA	REVISED -
FLDT SCALE : 0:2=0000 1" = 100'	CHECKED - DAZ	REVISED -
FLDT DATE : 6/27/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

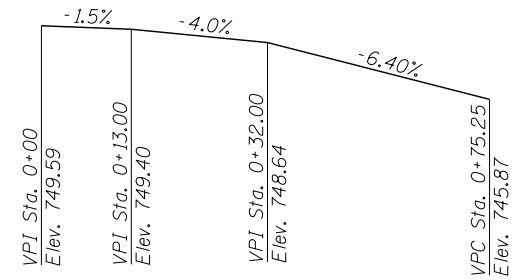
GENERAL PLAN & ELEVATION
S.N. 008-1106

SHEET NO. SC-1 OF SC-7 SHEETS

F.A.P. RTE. 17	SECTION 148R-210	COUNTY CARROLL	TOTAL SHEETS 150	SHEET NO. 88
CONTRACT NO. 64D83			ILLINOIS FED. AID PROJECT	

INDEX OF SHEETS

- SC-1. General Plan & Elevation
- SC-2. General Data
- SC-3. Grated Drop Box
- SC-4. Grated Drop Box Details
- SC-5. Grated Culvert Extension
- SC-6. Grated Culvert Extension Details
- SC-7. Boring Logs



PROFILE GRADE
(along \mathcal{C} Access Road)

HORIZONTAL CURVE DATA

Prop. Curve 1
 PI Sta. = 0+49.80
 $\Delta = 52^\circ 02' 02''$ (LT)
 $D = 114^\circ 35' 30''$
 $R = 50'$
 $T = 24.41'$
 $L = 45.41'$
 $E = 5.64'$
 S.E. Run = None
 P.C. Sta. = 0+25.39
 P.T. Sta. = 0+70.80

GENERAL NOTES

1. The limits and quantities of Removal and Replacement of Unsuitable Material for Structures shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
2. The Rock Fill placed under the cast-in place extension and drop box shall be capped with 6 inch of CA-7. This 6 inch cap will be measured and paid for as Rock Fill.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	185
Rock Fill	Ton	142
Stone Riprap, Class A5	Sq. Yd.	48
Filter Fabric	Sq. Yd.	48
Name Plates	Each	1
Concrete Structures	Cu. Yd.	30.4
Reinforcement Bars	Pound	6,020
Traversable Pipe Grate	Foot	422.5
Pipe Culverts, Class D, Type I Equivalent Round-Size 96"	Foot	130

STATION 672+16.53
 BUILT 20__ BY
 STATE OF ILLINOIS
 F.A. RT. 17 SEC. (4BR-2)D
 LOADING HL-93
 STRUCTURE NO. 008-1106

NAME PLATE
See Std. 515001

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications
w/2010 Interims

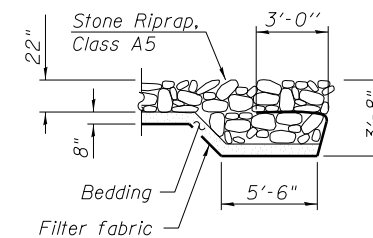
DESIGN STRESSES

CAST-IN-PLACE

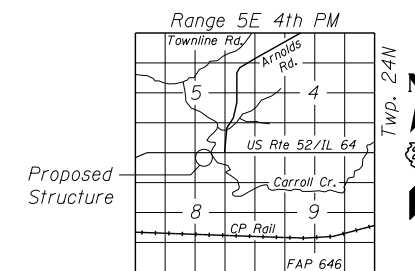
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration @ 1.0 sec (SD1) = 5.5g
 Design Spectral Acceleration @ 0.2 sec (SDS) = 9.0g
 Soil Site Class = C



SECTION A-A



LOCATION SKETCH

FILE NAME = ...E4DB3-SN0081106-002-GenData.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

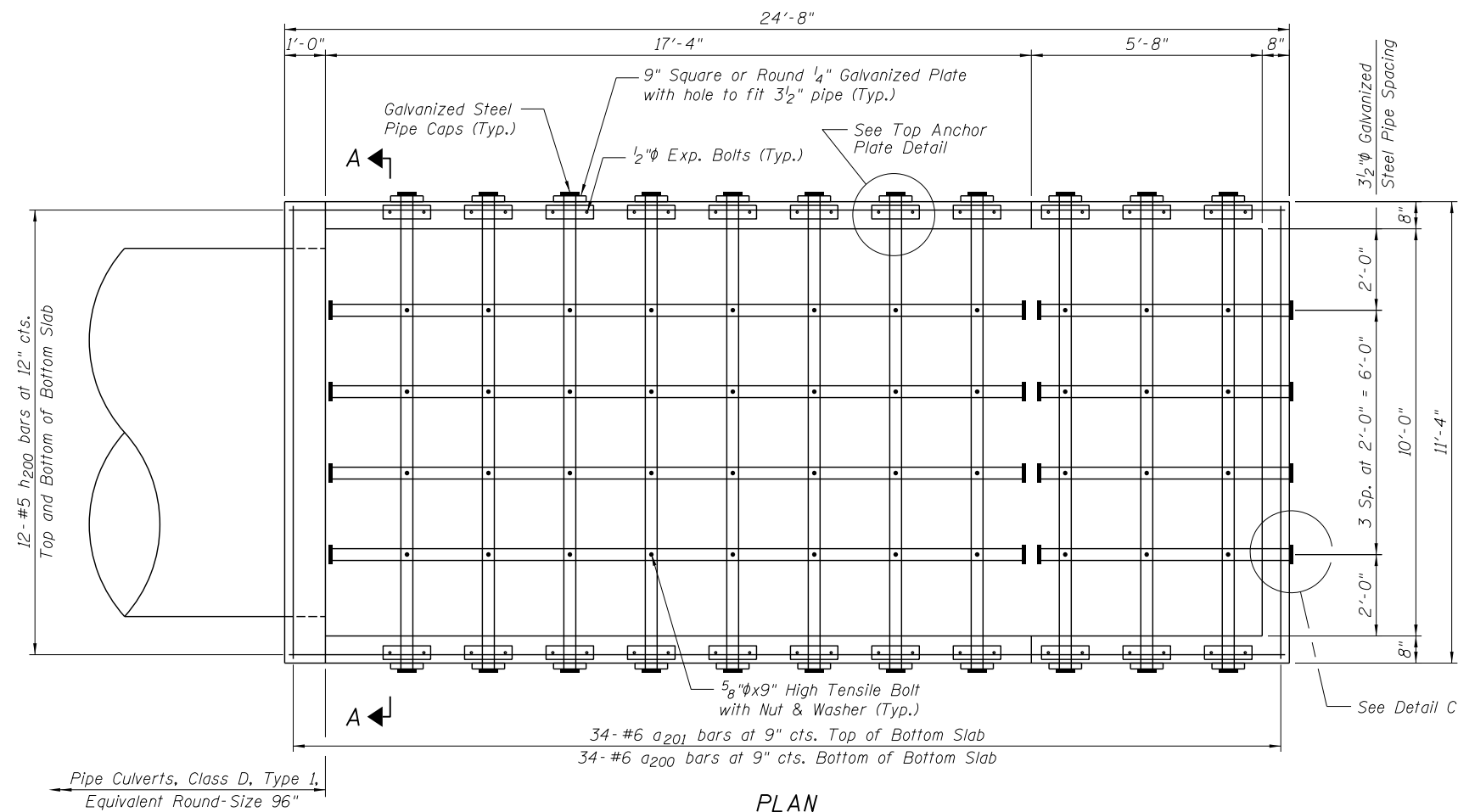
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	CHECKED - DAZ	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	DRAWN - SAW	REVISED -
PLOT DATE = 6/26/2013	CHECKED - JLA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

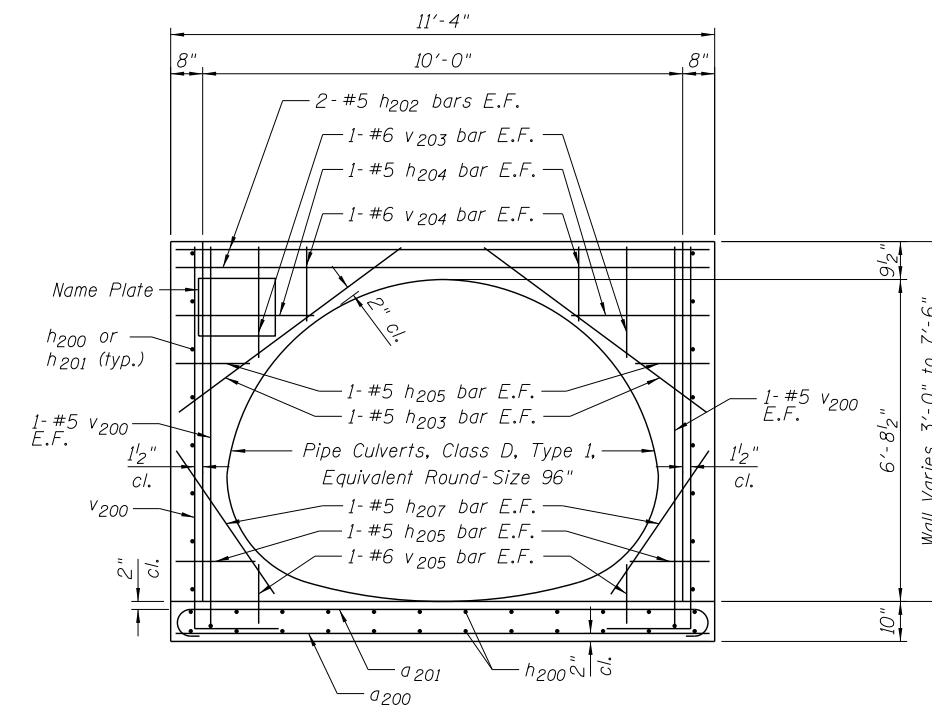
**GENERAL DATA
S.N. 008-1106**

SHEET NO. SC-2 OF SC-7 SHEETS

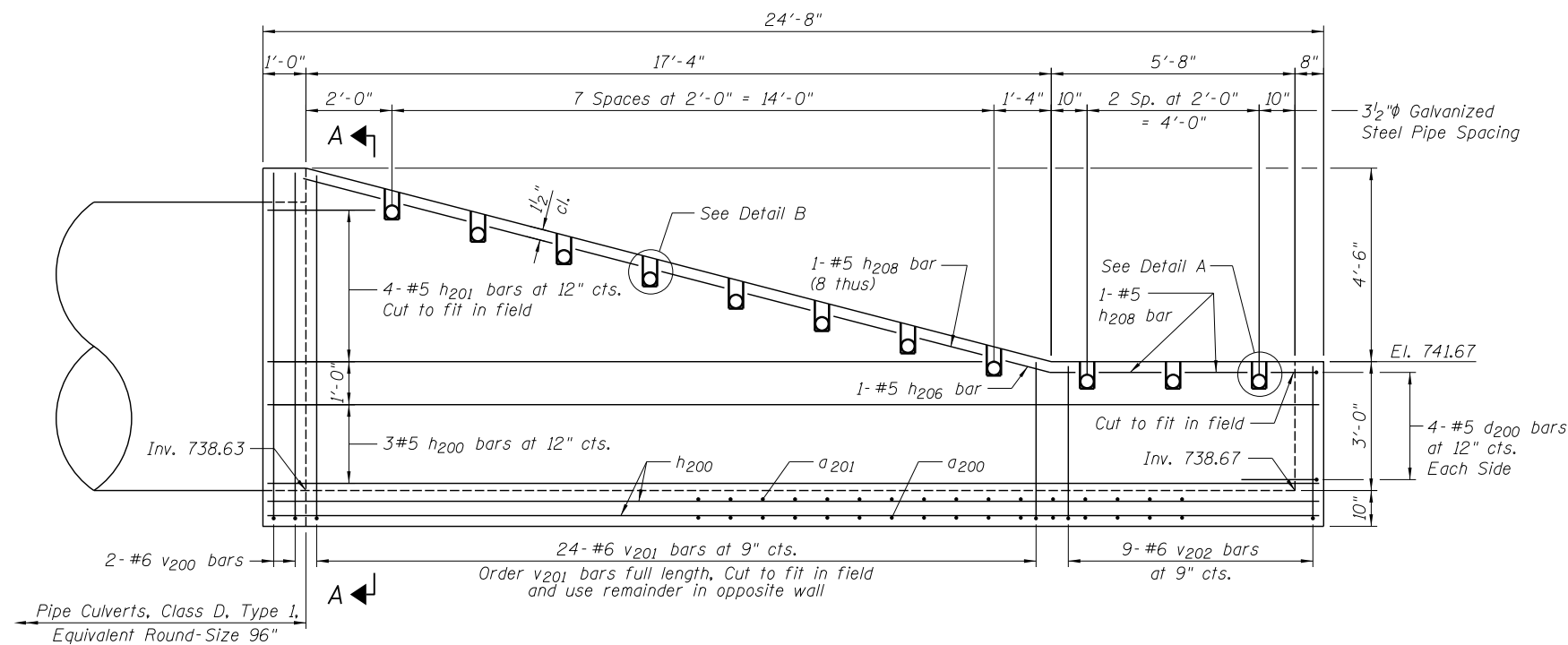
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	(4BR-2)D	CARROLL	150	89
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



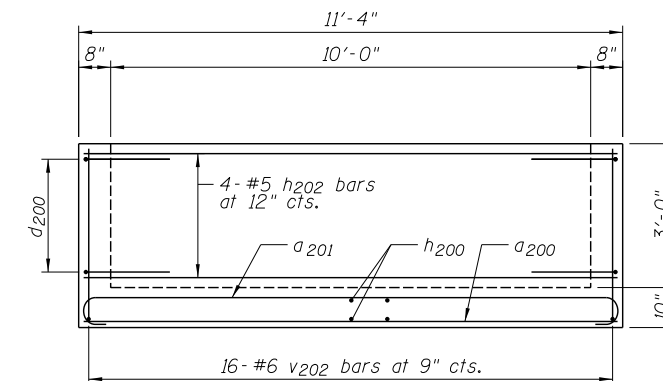
PLAN



SECTION A-A



ELEVATION



END VIEW

Note:
See Sheet SC-4 for details
and bar bends.

FILE NAME = ...E4083-S008106-003-Dr-opBox.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
PLOT SCALE = 4:0.0000 '1' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRADED DROP BOX
S.N. 008-1106

SHEET NO. SC-3 OF SC-7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	90
CONTRACT NO. 64D83				

ILLINOIS FED. AID PROJECT

GENERAL NOTES

This work shall be done according to the applicable portions of 503, 508, and 542 of the Standard Specifications.

Contractor shall field verify galvanized pipe length.

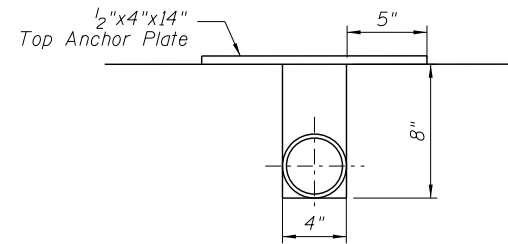
Class "SI" Concrete shall be used.

Steel pipes shall conform to A.S.T.M. A-53 (Type E or S) Grade B, Schedule 80, and shall be galvanized conforming to A.S.T.M. A-120.

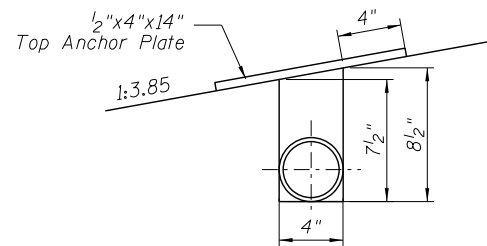
Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

Bolts, nuts, and washers shall be in accordance with Article 1006.08 of the Standard Specifications and shall be galvanized.

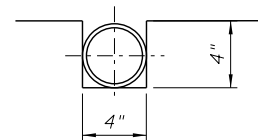
Exposed edges shall have a $\frac{3}{4}$ " chamfer.



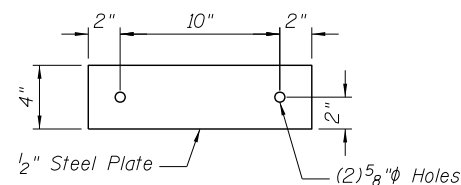
DETAIL A



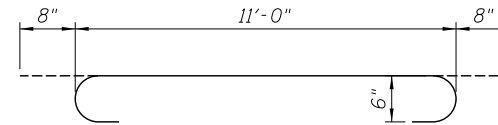
DETAIL B



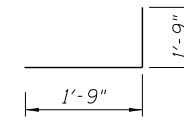
DETAIL C



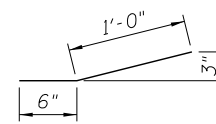
TOP ANCHOR PLATE



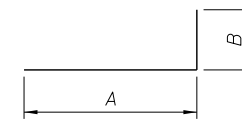
BAR a201



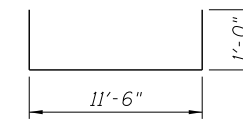
BAR d200



BAR h206



BARS v200 and v202



BAR v201

BAR BEND TABLE

Bar	A	B
v200	8'-0"	1'-0"
v202	3'-6"	1'-0"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200	34	#6	11'-0"	—
a201	34	#6	12'-4"	⊔
d200	8	#5	3'-6"	⊔
h200	30	#5	24'-4"	—
h201	8	#5	15'-6"	—
h202	8	#5	11'-0"	—
h203	4	#5	5'-8"	—
h204	4	#5	2'-9"	—
h205	8	#5	1'-6"	—
h206	2	#5	1'-6"	—
h207	4	#5	3'-3"	—
h208	20	#5	1'-4"	—
v200	8	#6	9'-0"	⊔
v201	24	#6	13'-6"	⊔
v202	34	#6	4'-6"	⊔
v203	4	#6	2'-2"	—
v204	4	#6	1'-6"	—
v205	4	#6	1'-1"	—
Item		Unit	Quantity	
Concrete Structures		Cu. Yd.	16.3	
Reinforcement Bars		Pound	3,150	
Traversable Pipe Grate		Foot	227	

BILL OF MATERIAL

(For Information Only)

3/2" Galvanized Steel Pipe	11@12'	132
	4@6.5'	26
	4@17'	69
Galvanized Steel Pipe Caps	Each	38
9" Square or 1/4" Galvanized Steel Plate	Each	22
1/2"x4"x14" Galvanized Steel Plate	Each	22
5/8"x9" Galvanized Steel Bolts	Each	44
1/2"φ Galvanized Exp. Bolts	Each	44

FILE NAME = ...E4DB3-SN008106-004-DrpBoxDetails.dgn



Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW
PLOT SCALE = 0:2.0000 '1' / in.
PLOT DATE = 6/26/2013

DESIGNED - JLA
CHECKED - DAZ
DRAWN - SAW
CHECKED - JLA

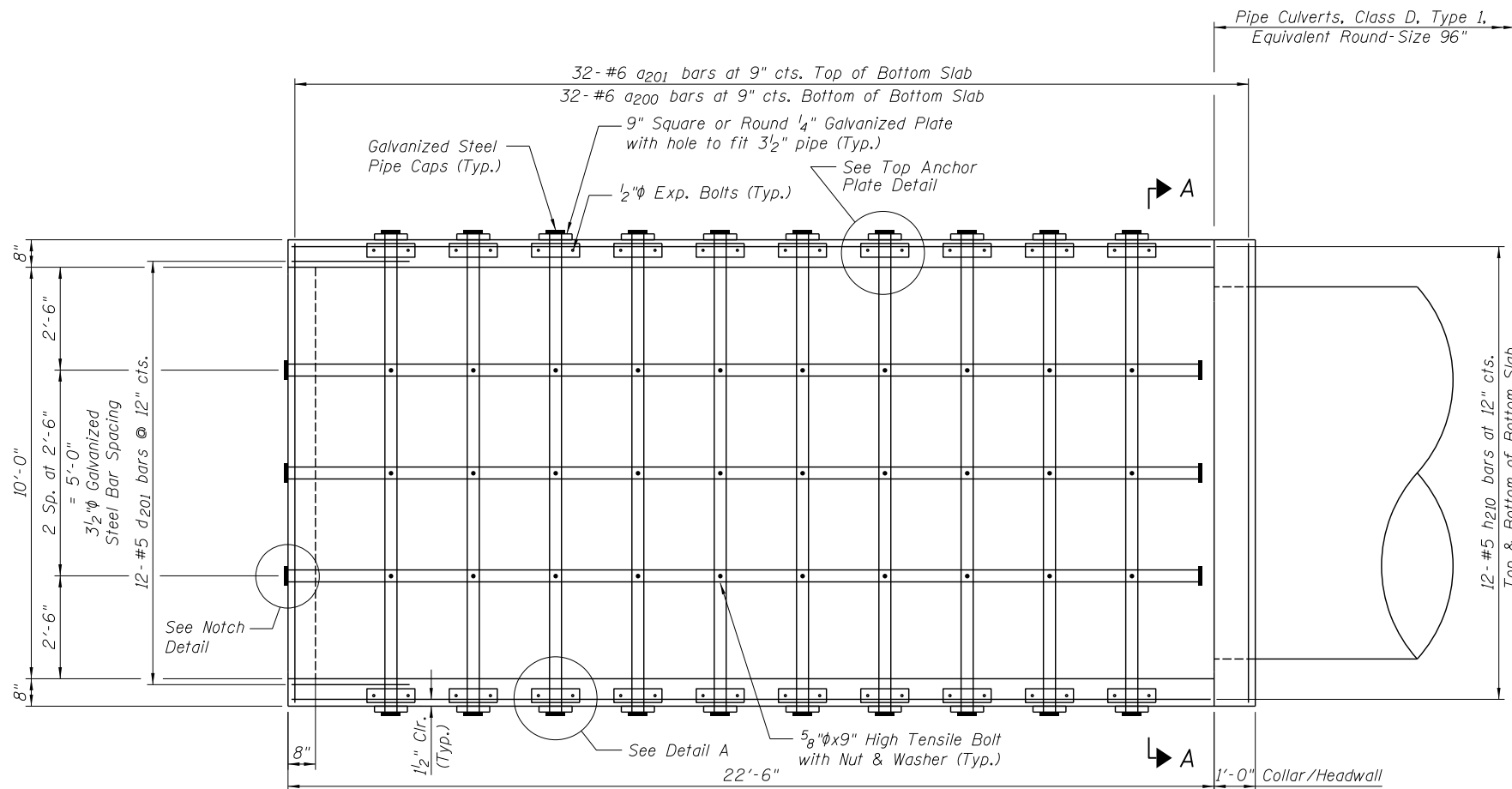
REVISED -
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

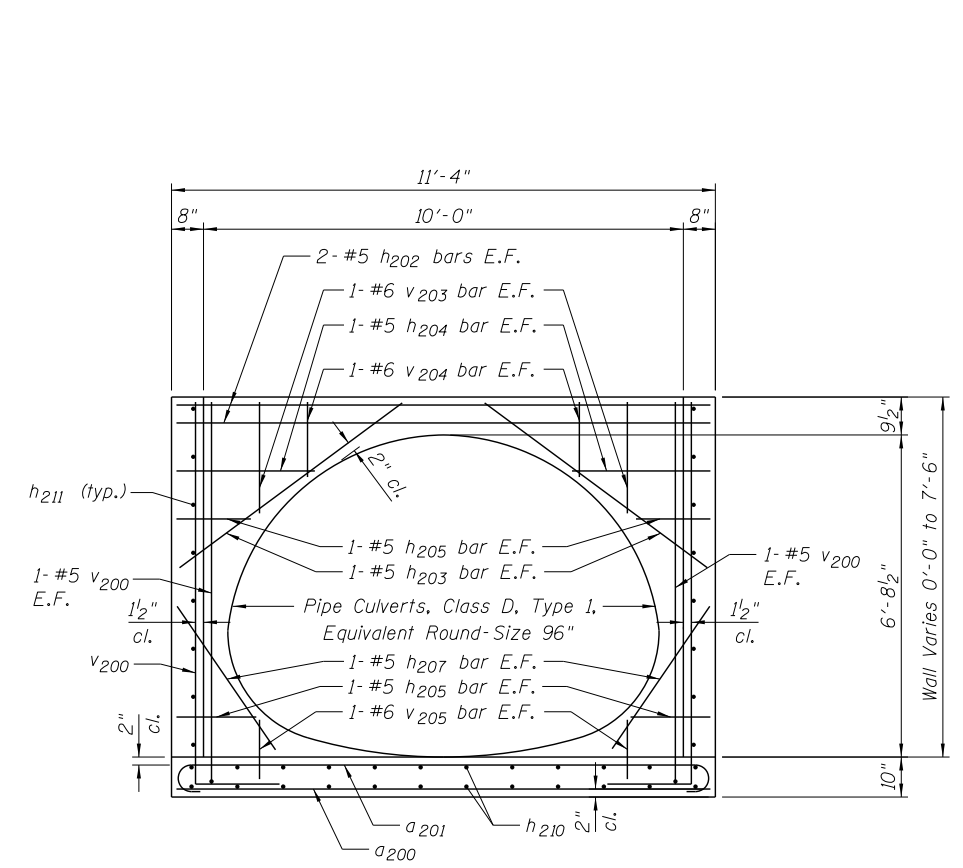
GRATED DROP BOX DETAILS
S.N. 008-1106

SHEET NO. SC-4 OF SC-7 SHEETS

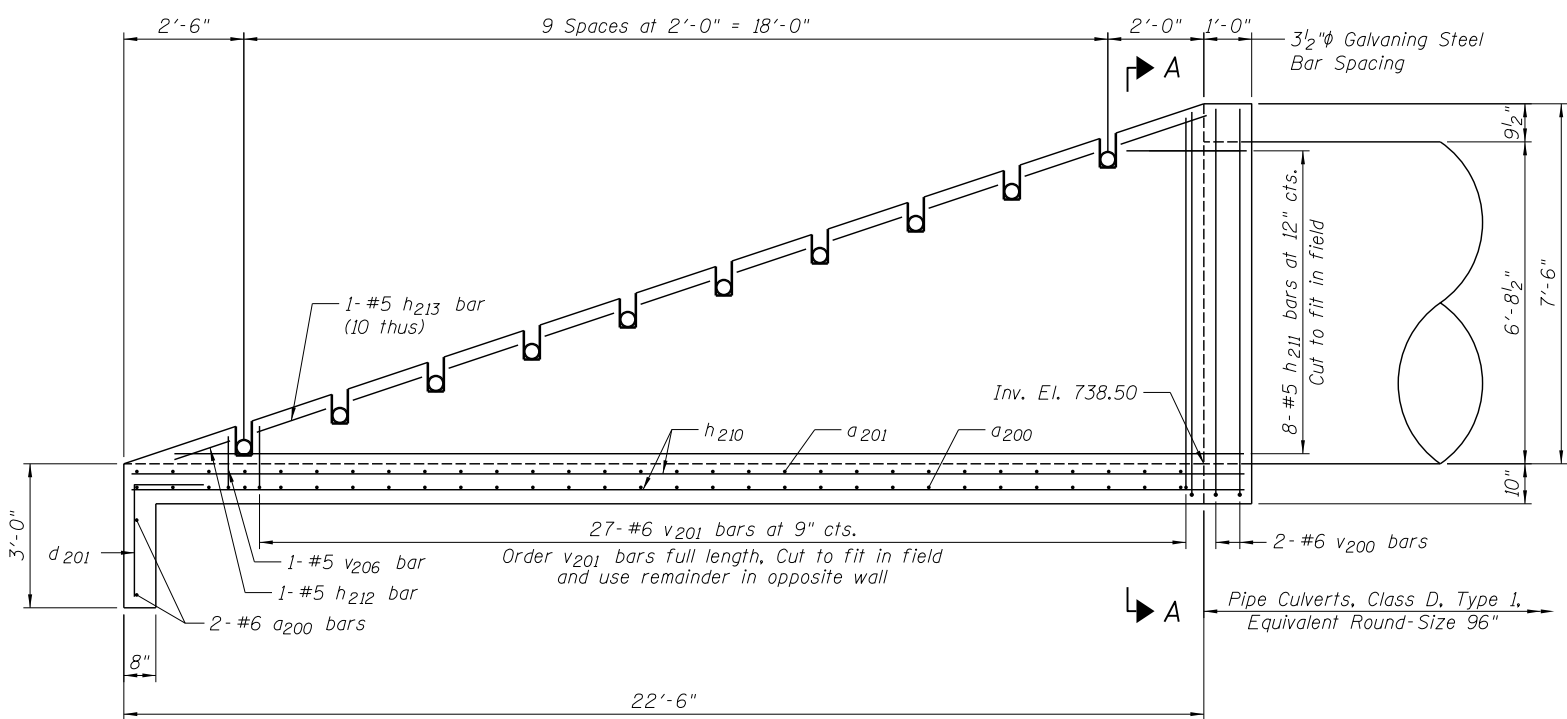
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	91
				CONTRACT NO. 64DB3
ILLINOIS FED. AID PROJECT				



PLAN



SECTION A-A



ELEVATION

Note:
See Sheet SC-6 for details
and bar bends.

FILE NAME = ...E4083-SN008106-005-GratedExtension.dgn



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4216 North Hermitage
Chicago, IL 60613

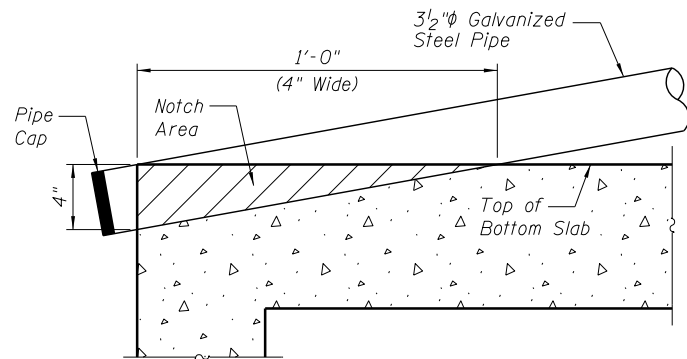
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	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

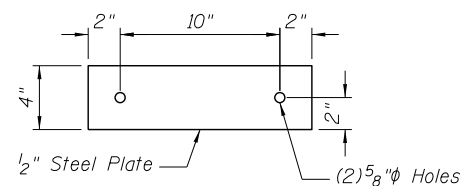
GRADED CULVERT EXTENSION
S.N. 008-1106

SHEET NO. SC-5 OF SC-7 SHEETS

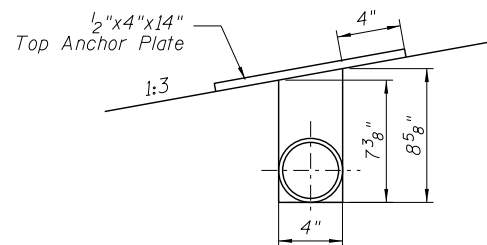
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	92
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				



NOTCH DETAIL



TOP ANCHOR PLATE



DETAIL A

GENERAL NOTES

This work shall be done according to the applicable portions of 503, 508, and 542 of the Standard Specifications.

Contractor shall field verify galvanized pipe length.

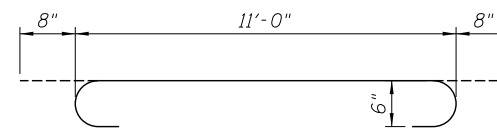
Class "SI" Concrete shall be used.

Steel pipes shall conform to A.S.T.M. A-53 (Type E or S) Grade B, Schedule 80, and shall be galvanized conforming to A.S.T.M. A-120.

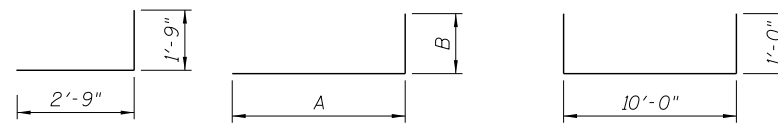
Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

Bolts, nuts, and washers shall be in accordance with Article 1006.08 of the Standard Specifications and shall be galvanized.

Exposed edges shall have a 3/4 inch chamfer.



BAR a201



BAR d201

BARS v200 and v206

BAR v207

BAR BEND TABLE

Bar	A	B
v200	8'-0"	1'-0"
v206	1'-6"	1'-0"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200	34	#6	11'-0"	—
a201	32	#6	12'-4"	⌋
d201	12	#5	4'-6"	⌋
h202	4	#5	11'-0"	—
h203	4	#5	5'-8"	—
h204	4	#5	2'-9"	—
h205	8	#5	1'-6"	—
h207	4	#5	3'-3"	—
h210	24	#5	23'-2"	—
h211	16	#5	21'-8"	—
h212	2	#5	2'-0"	—
h213	20	#5	1'-4"	—
v200	8	#6	9'-0"	⌋
v203	4	#6	2'-2"	—
v204	4	#6	1'-6"	—
v205	4	#6	1'-1"	—
v206	2	#6	2'-6"	⌋
v207	27	#6	12'-0"	⌋
Item		Unit	Quantity	
Concrete Structures		Cu. Yd.	14.1	
Reinforcement Bars		Pound	2,870	
Traversable Pipe Grate		Foot	195.5	

BILL OF MATERIAL

(For Information Only)

3 1/2" Galvanized Steel Pipe	3 @ 23.5'	70.5
	10 @ 12.5'	125
Galvanized Steel Pipe Caps	Each	26
9" Square or 1/4" Galvanized Steel Plate	Each	20
1/2"x4"x14" Galvanized Steel Plate	Each	20
5/8"x9" Galvanized Steel Bolts	Each	30
1/2" Galvanized Exp. Bolts	Each	40

FILE NAME = ...E4D83-SN008106-006-GratedExtensionDetails.dgn



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4216 North Hermitage
Chicago, IL 60613

USER NAME = SAW	DESIGNED - JLA	REVISED -
	CHECKED - DAZ	REVISED -
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PLOT DATE = 6/26/2013	CHECKED - JLA	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GRATED CULVERT EXTENSION DETAILS
S.N. 008-1106**

SHEET NO. SC-6 OF SC-7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	93
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

SOIL BORING B-1c (Page 1 of 2)

SOIL BORING B-1c (Page 2 of 2)

SOIL BORING B-2c



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 2

Date 5/3/11

ROUTE FAP 17 DESCRIPTION P92-008-08 South side access road, proposed culvert along IL 64 LOGGED BY W. Garza

SECTION 4 BR-5 LOCATION Salem Twp. - 8 NW, SEC., TWP. 24N, RNG. 5E
COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOISTURE	Surface Water Elev.	DEPTH	BULGE	UCS	MOISTURE
Station	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
BORING NO. B-1c					Groundwater Elev.:				
Station 671+42					First Encounter 733.2 ft				
Offset 60.00ft RI CL					Upon Completion 710.2 ft				
Ground Surface Elev. 745.20 ft					After Hrs. ft				
STIFF brown SILTY CLAY LOAM			1.5 P	26.0	STIFF gray TILL (continued)	724.20	5.9 B	1.9	13.0
STIFF dark brown SILTY CLAY LOAM	743.20	4			MEDIUM gray TILL		4		
	741.70	4	1.0 P	32.0		721.70	4.7 B	0.6	13.0
SOFT brown LOAM		3			5/5/11 SOFT light gray SILT		3		
	739.20	3	0.4 B	25.0		719.20	3.4 P	0.3	21.0
SOFT gray SANDY LOAM		1			VERY STIFF gray CLAY LOAM		2		
	736.20	2	0.3 P	28.0		716.70	3.5 B	2.1	23.0
MEDIUM tan moist weathered LIMESTONE rock fragments		11			VERY STIFF gray CLAY LOAM		3		
	734.20	9				714.20	3.5 B	2.9	26.0
LOOSE gray dirty SAND		1			STIFF gray SILTY CLAY		2		
	731.70	3				711.70	4.5 B	1.2	25.0
MEDIUM gray dirty SAND		5			STIFF gray SILTY CLAY		3		
	728.70	6				709.20	3.6 B	1.8	25.0
MEDIUM gray SANDY LOAM TILL		3			SOFT gray SILTY LOAM		2		
	726.70	3	0.7 B	12.0		706.70	3.5 P	0.4	25.0
STIFF gray TILL		4			STIFF gray SILTY LOAM		3		

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



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 2 of 2

Date 5/3/11

ROUTE FAP 17 DESCRIPTION P92-008-08 South side access road, proposed culvert along IL 64 LOGGED BY W. Garza

SECTION 4 BR-5 LOCATION Salem Twp. - 8 NW, SEC., TWP. 24N, RNG. 5E
COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOISTURE	Surface Water Elev.	DEPTH	BULGE	UCS	MOISTURE
Station	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
BORING NO. B-1c					Groundwater Elev.:				
Station 671+42					First Encounter 733.2 ft				
Offset 60.00ft RI CL					Upon Completion 710.2 ft				
Ground Surface Elev. 745.20 ft					After Hrs. ft				
STIFF gray SILTY LOAM (continued)		4				704.20	7	1.0	20.0
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)



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Page 1 of 1

Date 5/5/11

ROUTE FAP 17 DESCRIPTION P92-008-08 South side access road, proposed culvert along IL 64 LOGGED BY W. Garza

SECTION 4 BR-5 LOCATION Salem Twp. - 8 NW, SEC., TWP. 24N, RNG. 5E
COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOISTURE	Surface Water Elev.	DEPTH	BULGE	UCS	MOISTURE
Station	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
BORING NO. B-2c					Groundwater Elev.:				
Station 672+00					First Encounter 735.7 ft				
Offset 38.00ft RI CL					Upon Completion 732.7 ft				
Ground Surface Elev. 742.70 ft					After Hrs. ft				
MEDIUM brown SILTY CLAY LOAM			0.9 P	28.0	VERY STIFF gray SANDY LOAM TILL (continued)	721.70	7.8 B	2.1	13.0
MEDIUM brown SILTY CLAY LOAM	740.70	1			MEDIUM gray LOAM TILL		2		
	739.20	3	0.8 B	24.0		719.20	3.7 B	0.8	13.0
MEDIUM brown SANDY LOAM		1			MEDIUM gray SILTY CLAY with SAND lens		0		
	736.20	2	0.5 P	25.0		716.20	3	0.8 B	23.0
MEDIUM dark gray dirty SANDY GRAVEL		4			VERY LOOSE gray fine SAND		0		
	734.20	6				713.70	0		
MEDIUM gray SANDY GRAVEL		2			VERY STIFF gray CLAY LOAM with SILT lens		0		
	731.70	4				711.70	2.4 B	2.1	25.0
MEDIUM gray clean medium coarse SAND		5			MEDIUM gray CLAY LOAM		1		
	729.20	4				709.20	2.3 B	0.7	26.0
MEDIUM gray dirty SAND		5			VERY SOFT gray SILTY LOAM		0		
	726.20	6				706.70	2.5 B	0.2	27.0
STIFF gray SANDY LOAM TILL		1			End of Boring				
	724.20	3	1.1 B	13.0					

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)

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Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

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PLOT DATE = 6/26/2013	DRAWN - SAW	REVISED -
	CHECKED - JLA	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
S.N. 008-1106

SHEET NO. SC-7 OF SC-7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-5	CARROLL	150	94
CONTRACT NO. 64DB3				
ILLINOIS FED. AID PROJECT				

008-0029

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**
 F.A. 17
 SECTION 4BR-2
 PROJECT BR-F-17(63)
 CARROLL COUNTY

C-92-052-82

INDEX OF SHEETS

1. COVER SHEET
- INDEX OF SHEETS
- STANDARDS
2. GENERAL NOTES
- TYPICAL SECTIONS
3. SUMMARY OF QUANTITIES
- SCHEDULE OF QUANTITIES
4. PLAN AND PROFILE
5. ROADWAY DETAILS
- 6-8. CROSS SECTIONS
9. STAGE CONSTRUCTION DETAILS
10. SPECIAL DETAIL FOR TRAFFIC CONTROL
- BRIDGE DECK CONSTRUCTION
- 11-18. BRIDGE PLANS

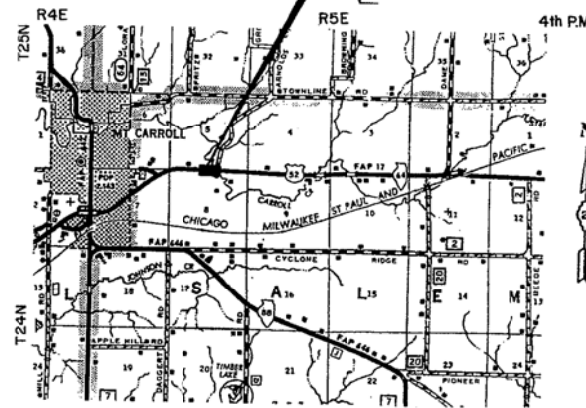
LIST OF STANDARDS

No.	Standard
1686-4	Symbols and Abbreviations
1744-4	Standard Design for Right Of Way Markers
2113-2	Name Plate for Bridges
2135	Permanent Survey Markers
2228-4	Metal End Sections for Pipe Culverts
2298-5	Typical Application of Traffic Control Devices
2299-9	Design of Traffic Control Devices
2300-2	Flagman Traffic Control Sign
2301-4	Typical Application of Traffic Control Devices, Two Lane, Two Way Traffic, Rural Day or Night Traffic
2302-4	Typical Application of Traffic Control Devices, Two Lane, Two Way Traffic, Rural Day or Night Traffic
2303-5	Typical Application of Traffic Control Devices, Two Lane, Two Way Traffic, Rural Day Operations Only
2305-4	Typical Application of Traffic Control Devices, Rural, Moving Operation, Day
2306-5	Typical Application of Traffic Control Devices, Rural, Moving Operation, Day
2307-5	Typical Application of Traffic Control Devices, Short Time Operation, Day or Night
2309-5	Typical Application of Traffic Control Devices, Two-Lane, Two-Way, Rural, Bridge, Day or Night
2323-5	Pavement Joints
2324-5	Bridge Approach Shoulder Pavement
2336-3	Traffic Barrier Terminal, Type 1 and 1A
2341-1	Traffic Barrier Terminal, Type 6
2360-2	Bridge Approach Pavement
2383-1	Temporary Concrete Barrier
2385-1	Traffic Barrier Terminal, Type 11
2381	Temporary Erosion Control Systems

DESIGN DESIGNATION

3300(82) MAJOR I.53 (BIT.-20)

SALEM TOWNSHIP
 "CALL J.U.L.I.E.
 BEFORE YOU DIG"
 800-892-0123



LAYOUT SCALE
 1 INCH = 1 MILE

NET LENGTH OF PROJECT = 953.56 Ft. = 0.1806 MILES

PROJECT STRUCTURE
 STA. 101+23.00 TO STA. 110+76.56
 SECTION 4BR-2 INCLUDES A THREE
 SPAN PRECAST PRESTRESSED CONCRETE DECK
 BEAM STRUCTURE (CARRYING U.S. ROUTE 52
 AND ILLINOIS ROUTE 64 OVER CARROLL CREEK)
 ON STEEL H-PIERS WITH CONCRETE ENCASUREMENT
 AND PILE BENT ABUTMENTS, SPANS AT 23'-0" / 27'-0" / 44'-0" AND 45'-0" / 44'-0"
 OLD STRUCTURE NUMBER 008-0003

BY	SECTION	COUNTY	TOWNSHIP	RANGE
EA 17	4BR-2	CARROLL	B	1

P-92-029-80



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED: May 7, 1982

EXAMINED: May 27, 1982

PASSED: May 27, 1982

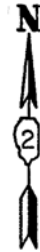
APPROVED: May 27, 1982



COUNTY CARROLL SECTION 4BR-2 F. A. ROUTE 17

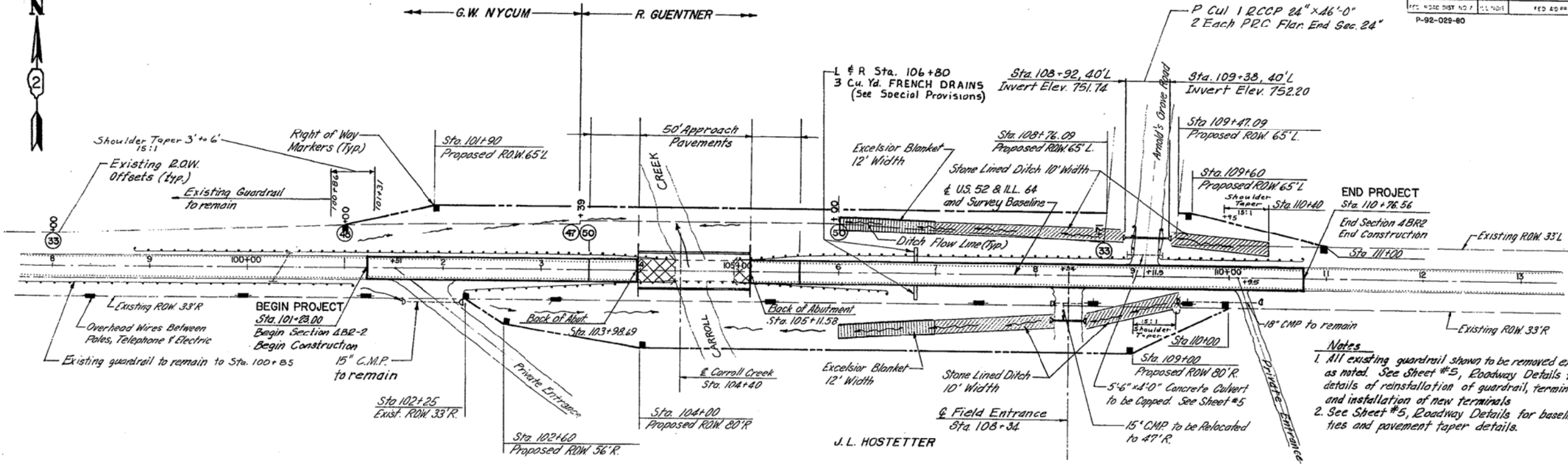
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PLOT SCALE = 40.0000' / in.	DRAWN - LCR	CHECKED - DAZ	REVISED -				CONTRACT NO. 64083				
PLOT DATE = 6/27/2013	DATE - 06-28-13	REVISED -	SCALE:				SHEET OF	SHEETS TO STA.	TO STA.	ILLINOIS FED. AID PROJECT	

S.G.S. DATUM
th GA 1929



BENCHMARK
CHISELED ON NW WINGWALL
STA. 104+35.4 EL. 747.08

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	4BR-2	CARROLL	18	4
STA. 101+88 TO STA 110+76.56				
REC. 422 DIST. 107 1/2' S.L. 1/2" = 1' FED. AID PROJ. REC. P-92-029-80				



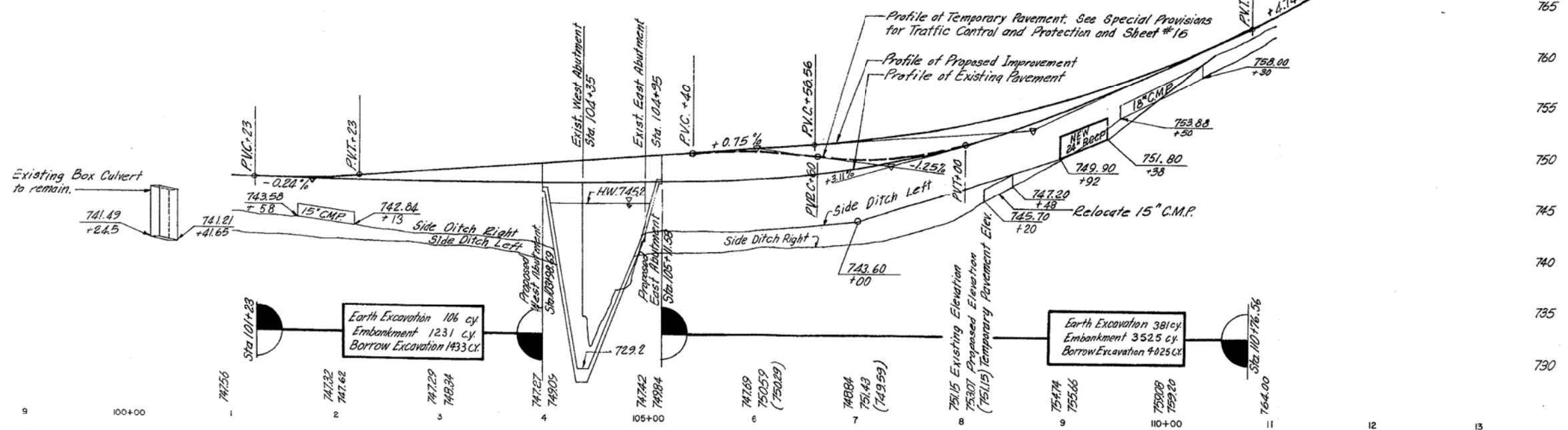
- Notes**
- All existing guardrail shown to be removed except as noted. See Sheet #5, Roadway Details for details of reinstallation of guardrail, terminals and installation of new terminals.
 - See Sheet #5, Roadway Details for baseline ties and pavement taper details.

Curve #1
PVI = Sta. 101+73
Elev. = 747.39
V.C. = 100'
E = 0.124'

Temporary Curve #3
PVI = Sta. 106+00
Elev. = 750.59
V.C. = 120'
E = 0.30'

Temporary Curve #4
PVI = Sta. 107+30
Elev. = 748.97
V.C. = 140'
E = 0.76'

Curve #2
PVI = Sta. 108+66.56
Elev. = 752.59
V.C. = 420'
E = 2.096'



Earth Excavation 106 cy
Embankment 1231 cy
Borrow Excavation 1433 cy

Earth Excavation 381 cy
Embankment 3525 cy
Borrow Excavation 4025 cy

FILE NAME = ... \0264083-SHT-Ex-Bridge.dgn

USER NAME = SAW
PLOT SCALE = 40.0000' / in.
PLOT DATE = 6/27/2013

DESIGNED - RAC
DRAWN - LCR
CHECKED - DAZ
DATE - 06-28-13

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ZROKA
engineering
Zroka Engineering, P.C.
4216 North Hermitage
Chicago, IL 60613

EXISTING BRIDGE PLANS - 1933
FOR INFORMATION ONLY

SCALE: SHEET OF SHEETS STA. TO STA.

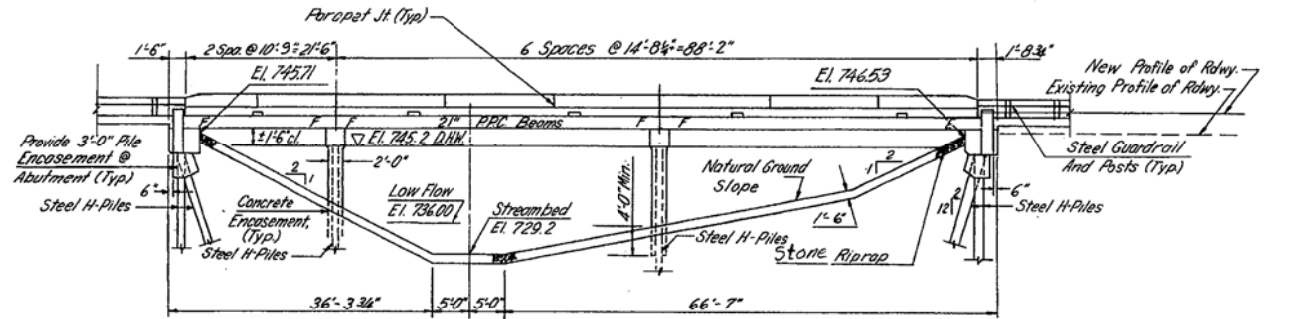
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17	4BR-5 & 4BR-6	CARROLL	150	96
CONTRACT NO. 64D83				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

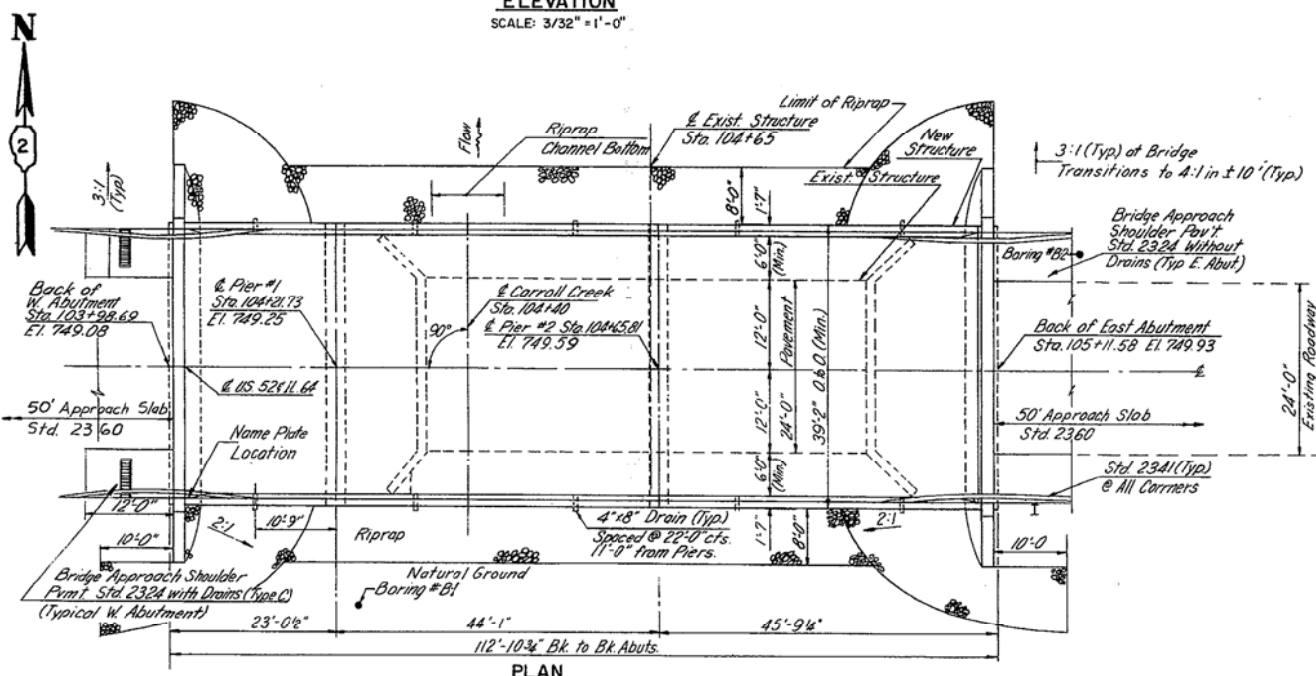
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 27	4BR-2	CARROLL	18	11
F.A. 17				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Benchmark: Chiseled \square on NW wingwall Sta. 104+35.4 El. 747.08

Existing Structure: S.M. 008-0003 built as S.B.I. Route 27 Section 4B in 1929 @ Sta. 104+65.60 R.C.D.G. Bridge, back to back of abutments 63'-0", out to out width of Structure 24'-3". Existing Structure to be removed to Elevations 2'-0" below proposed ground Elevations. Where potential conflict exists, existing structure and piles shall be exposed and removed as necessary to drive new piles.



ELEVATION
SCALE: 3/32" = 1'-0"



PLAN
SCALE: 3/32" = 1'-0"

WATERWAY INFORMATION
Drainage Area 42 Sq. Mi. Low Grade Elev 747.32 @ Sta 101+18.90

Flood Yr.	Freq.	Q	CF.S.	Exist. Prop.	Opening Sq.Ft.	Not. H.W.E.	Head. FF. Exist.	Headwater El. Prop.
Design	50	4780	405	733	745.2	2.4	0.46	747.6
Base	100	5465	405	786	745.6	2.06	0.58	747.86
Overfoping								
Max. Calc.	500	7045	405	900	746.5		0.87	747.37

DESIGNED	R.A.R.
CHECKED	G.S.P.
DRAWN	P.V.
CHECKED	R.A.R. G.S.P.

GRADE PROFILE
F.A. 17 (S.B.I. 27)
(AT & ROADWAY)

STATION 104+4000
REBUILT 1982 BY
STATE OF ILLINOIS
F.A. RT. 17 SEC. 4BR-2
F.A. PROJ. BR-F-17(63)
LOADING HS20
STR. NO.

NAME PLATE
(SEE STANDARD 2113)

LOCATE NAMEPLATE ON SOUTHWEST CORNER OF BRIDGE STRUCTURE, SEE PLANS
* Str. No. to be supplied by Dist.

DESIGN SPECIFICATIONS

A.A.S.H.T.O. 1977 Standard Specifications for Highway Bridges and 1978, 1979, 1980, and 1981 Interims
Standard Specifications for Road and Bridge Construction, State of Illinois (Adopted Oct. 1, 1979)

DESIGN CRITERIA

Loading HS 20-44
Allow 254/sq. ft. Future Wearing Surface

DESIGN STRESS

Prestressed Deck Beams
Concrete
f'c = 5,000 psi
f'ci = 4,000 psi
Steel Tendons
f's = 270,000 psi
fsl = 189,000 psi
Intermediate Reinforcement
fy = 60,000 psi
Concrete, Cast in Place
f'c = 3,500 psi
fy = 60,000 psi unless otherwise noted.

GENERAL NOTES

See Proposal for Boring Data

Reinforcement bars shall conform to the requirements of ASTM A-31 or A-53. Grade 60 unless otherwise noted.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The top surface of the beams shall be finished in accordance with Article 505.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.

A Calcium Nitrite Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.

Expansion guards which are not cast in the precast unit shall be fabricated and erected in accordance with Article 503.07(c) of the Standard Specifications and are included in quantity of structural steel.

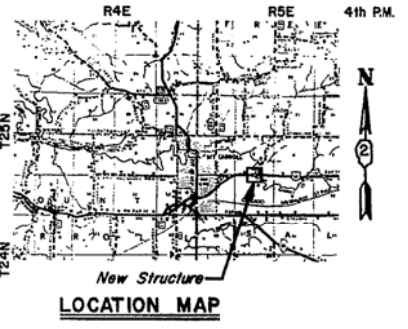
All structural steel shall be shop painted with two coats of basic lead silico chromate paint.

Existing east abutment shall be removed to 2'-0" below finished rip rap grade.

Protective coat shall not be applied to surfaces to which waterproofing Membrane System is to be applied. Protective coat shall be applied to the top and inside surfaces of all concrete parapets.

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Structure Excavation	Cu. Yd.		133	133
Bituminous Concrete Surface Course, Class I (Mixture D)	Ton	67		67
Removal of Existing Structures	Lump Sum			1
Class X Concrete	Cu. Yd.	24.9	154.6	179.5
Precast Prestressed Concrete Deck Beams (21 Inch Depth)	Sq. Ft.	4270.5		4270.5
Reinforcement Bars	Pound	1750	11760	13510
Reinforcement Bars (Epoxy Coated)	Pound		1980	1980
Steel Piles, HP12 X 53	Lin. Ft.		1124	1124
Temporary Sheet Piling	Sq. Ft.		1872	1872
Name Plates	Each			1
Stone Rip Rap	Sq. Yd.		691	691
Temporary Bridge Rail	Lin. Ft.			173
Portland Cement Mortar Pairing Course	Lin. Ft.	1392		1392
Waterproofing Membrane System	Sq. Yd.	442.7		442.7
Preformed Joint Seal (4")	Lin. Ft.	41		41
Structural Steel	Pound		2470	2470
Protective Coat	Sq. Yd.		93.6	93.6



GENERAL PLAN AND ELEVATION
F.A. 17 (S.B.I. ROUTE 27) SEC. 4BR-2
CARROLL COUNTY
STA. 104+40

SCALE: AS NOTED
DATE: 4/30/82

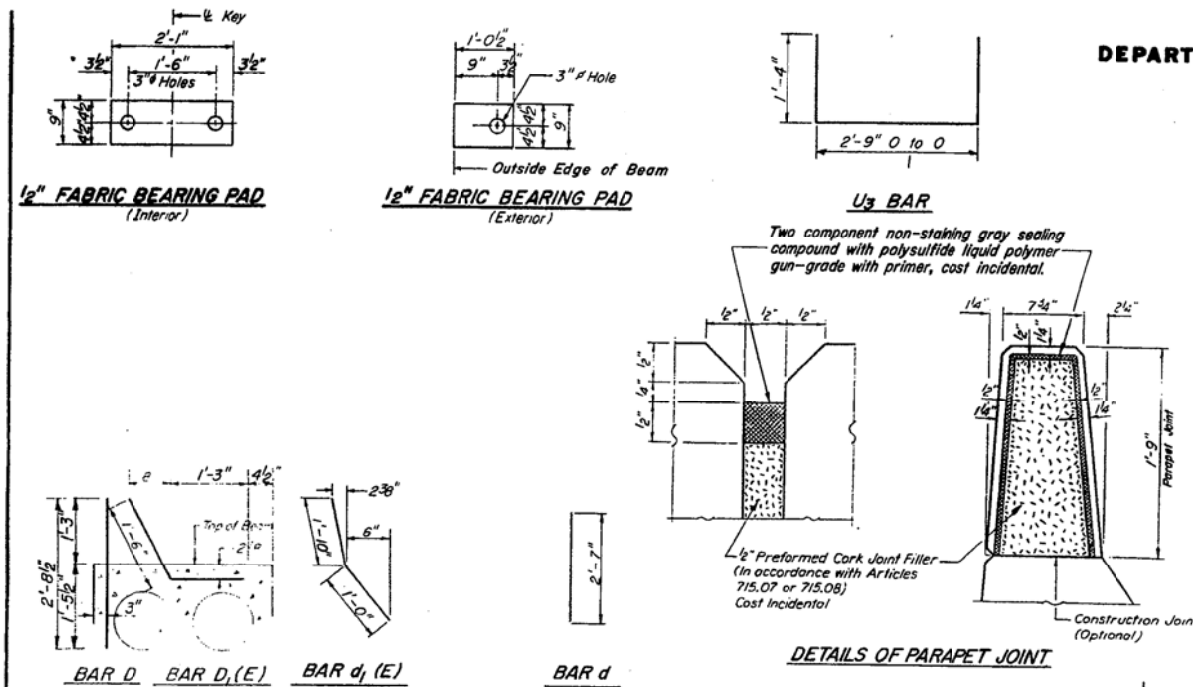
SCHUMACHER AND SYOBODA, INC.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

REVISIONS

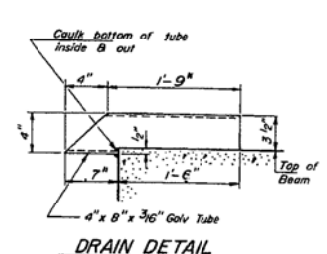
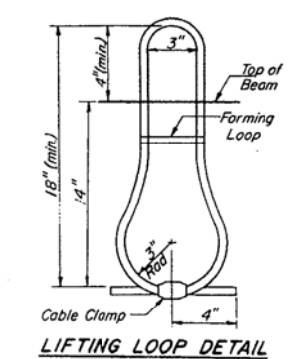
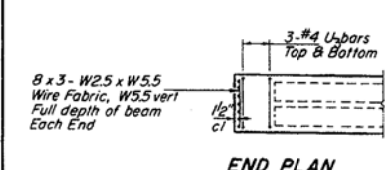
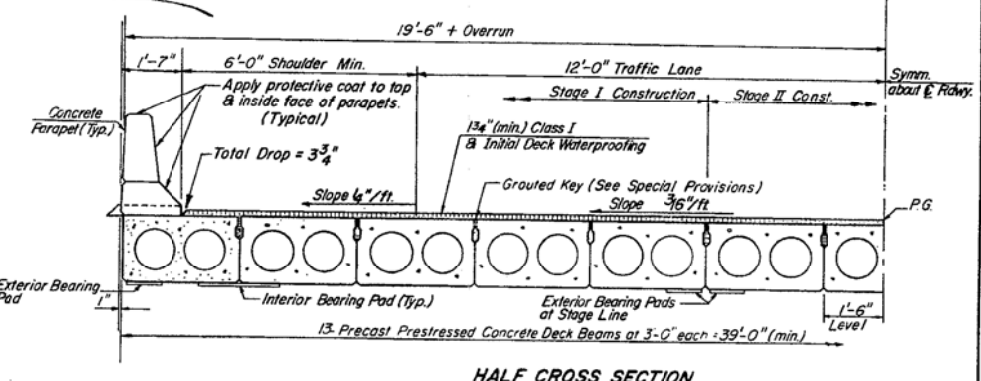
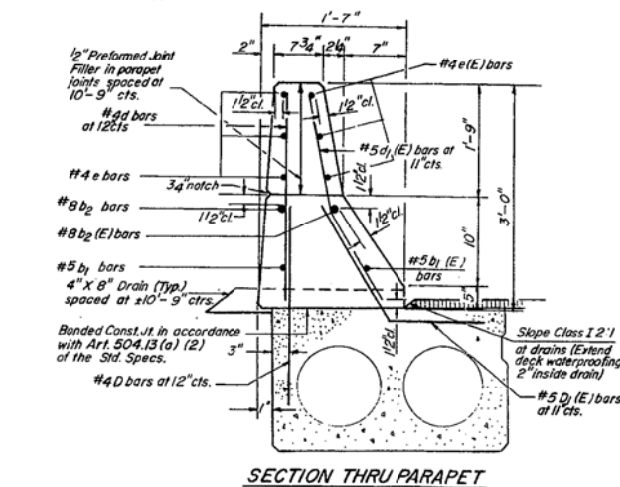
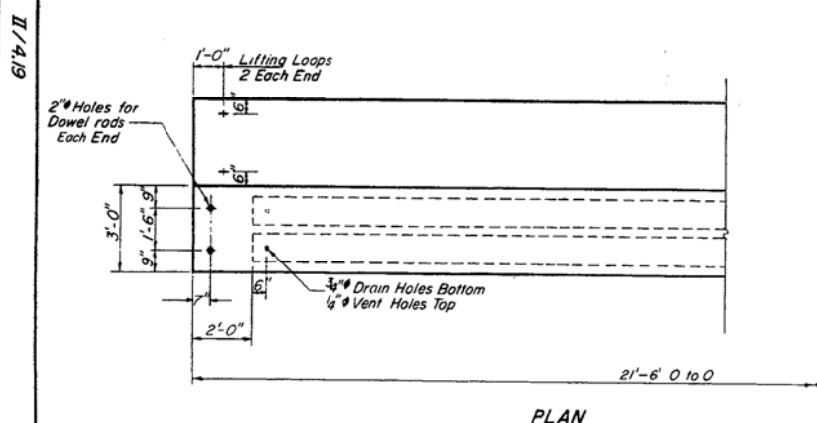
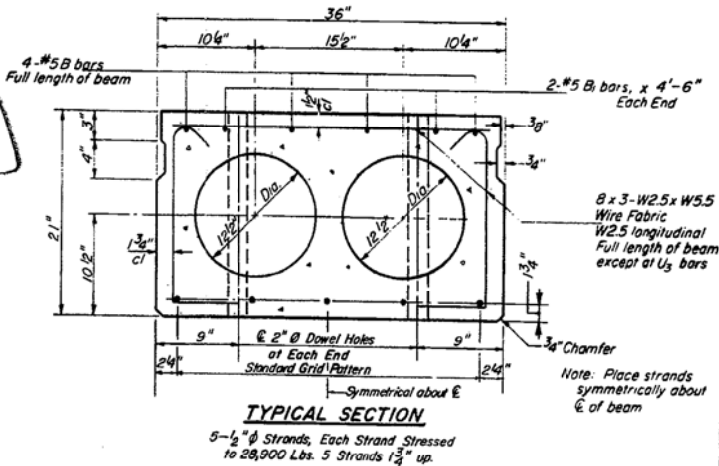
DATE	DESCRIPTION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
17	4BR-2	CARROLL	18	13
SHEET NO. 3 SHEETS 6				



Deck now has PC cone overlay



DESIGNED	R.A.R.
CHECKED	G.S.P.
DRAWN	J.A.W.
CHECKED	R.A.R. G.S.P.

PD-3-S 6-15-80

BILL OF MATERIAL

Bar	No	Size	Length	Shape
b ₁	2	#5	21'-3"	---
b ₁ (E)	2	#5	21'-3"	---
b ₂	2	#8	21'-3"	---
b ₂ (E)	2	#8	21'-3"	---
d	44	#4	2'-7"	---
d ₁ (E)	52	#5	2'-10"	---
e	12	#4	10'-6"	---
e(E)	12	#4	10'-6"	---
Precast Prestressed Concrete Deck Beams	Sq. Ft.		838.5	
Class X Concrete	Cu. Yd.		4.9	
Reinforcement Bars	Lb		320	
Reinforcement Bars (epoxy coated)	Lb		400	

NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 1/2" inch diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs. Burn off after deck beam erection.

Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Inserts for temporary bridge rail shall be cast in deck beams at locations indicated on the staging plans, and detailed on the Temporary Bridge Rail Sheet No. 8 of 8.

Keyway surfaces shall be cleaned to remove form, oil and other bond-breaking materials prior to beam shipment.

Cleaning shall be done by sand blasting the keyway areas from the top of the beams to the bottom edge of the key.

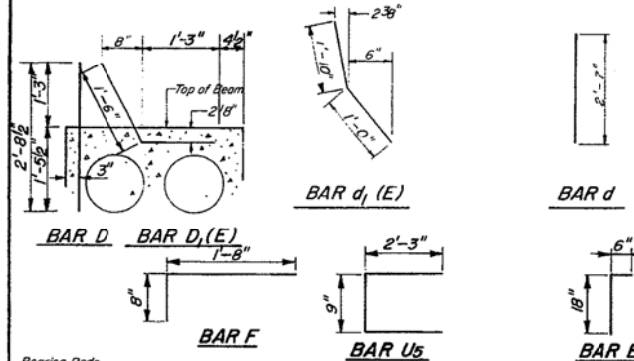
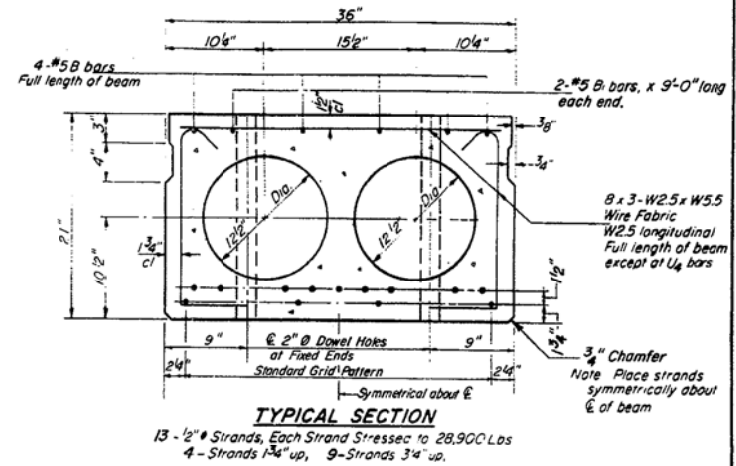
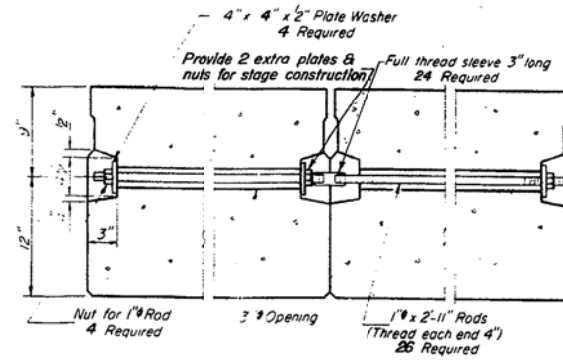
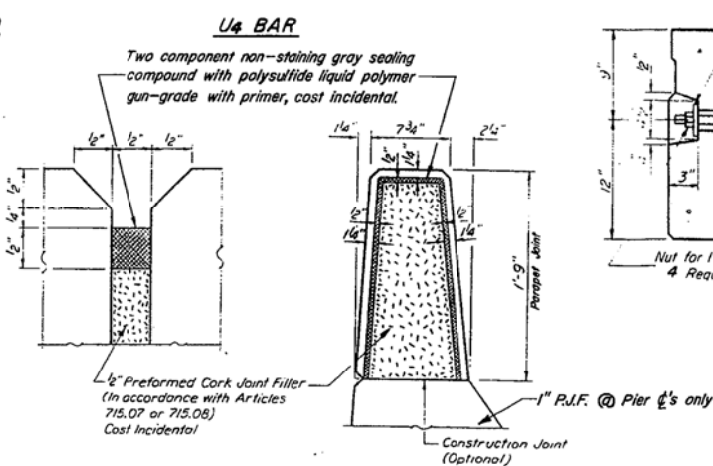
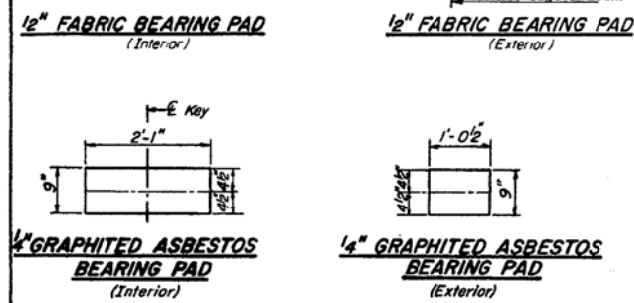
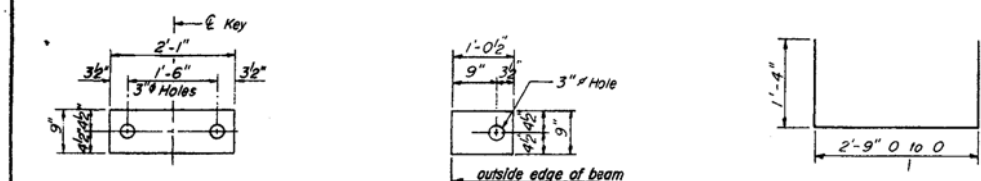
SUPERSTRUCTURE
SPAN I
F.A.17 (S.B.I. ROUTE 27) SEC.4BR-2
CARROLL COUNTY
STA.104+40

SCALE: AS NOTED
DATE: 4/30/82

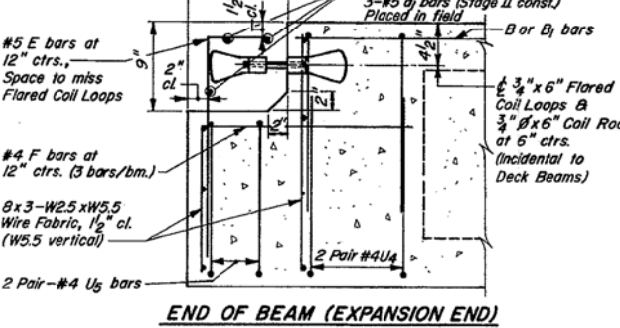
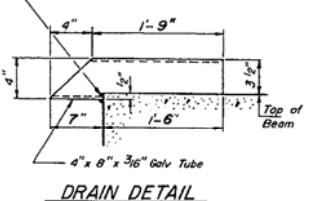
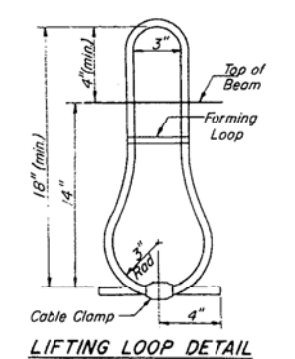
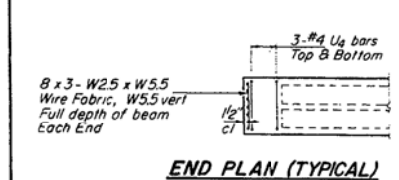
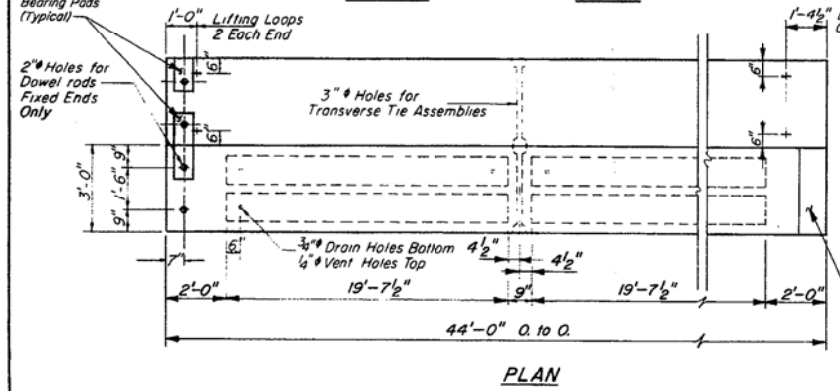
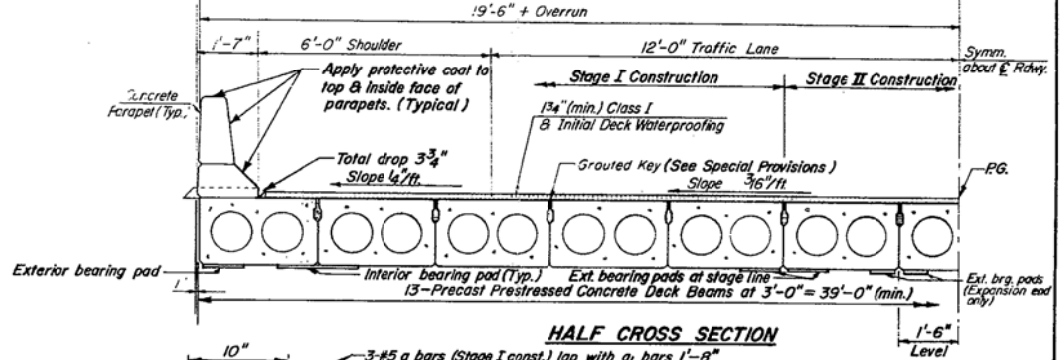
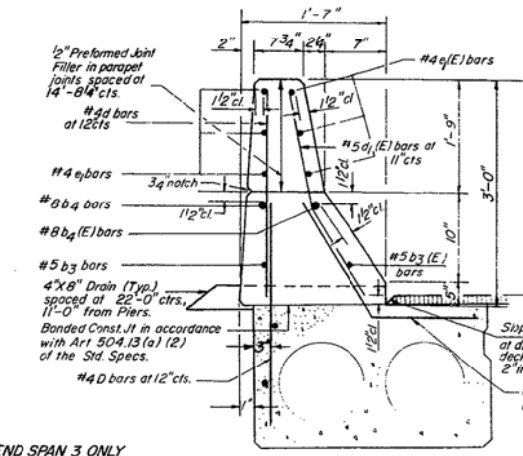
SCHUMACHER AND SVOBODA, INC.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	REV.	BY	TOTAL SHEETS	SHEET NO.
11-27	17	4BR-2	18	14
SHEETS 8				



DETAILS OF PARAPET JOINT



NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops be 5/8" diameter, 6x25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 33,000 lbs. Burn off after deck beam erection. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Packets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to AASHTO M-31 or M-53, Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Inserts for temporary bridge rail shall be cast in deck at locations indicated on the staging plans, and detailed on the Temporary Bridge Rail Sheet No. 8 of B. Keyway surfaces shall be cleaned to remove form oil and other bond breaking materials prior to beam shipment. Cleaning shall be done by sand blasting the keyway areas from the top of the beams to the bottom edge of the key.

SPANS 2 & 3

BILL OF MATERIAL

Bar	No	Size	Length	Shape
b3	4	#5	43'-9"	
b3 (E)	4	#5	43'-9"	
b4	4	#8	43'-9"	
b4 (E)	4	#8	43'-9"	
d	180	#4	2'-7"	
d1 (E)	196	#5	2'-10"	
a1	36	#4	14'-5"	
a1 (E)	36	#4	14'-5"	
a	3	#5	16'-0"	
a1	3	#5	23'-9"	
Precast Prestressed Concrete Deck Beams	Sq. Ft.		3432	
Class X Concrete	Cu. Yd.		20.0	
Reinforcement Bars	Lb.		1430	
Reinforcement Bars (epoxy coated)	Lb.		1580	

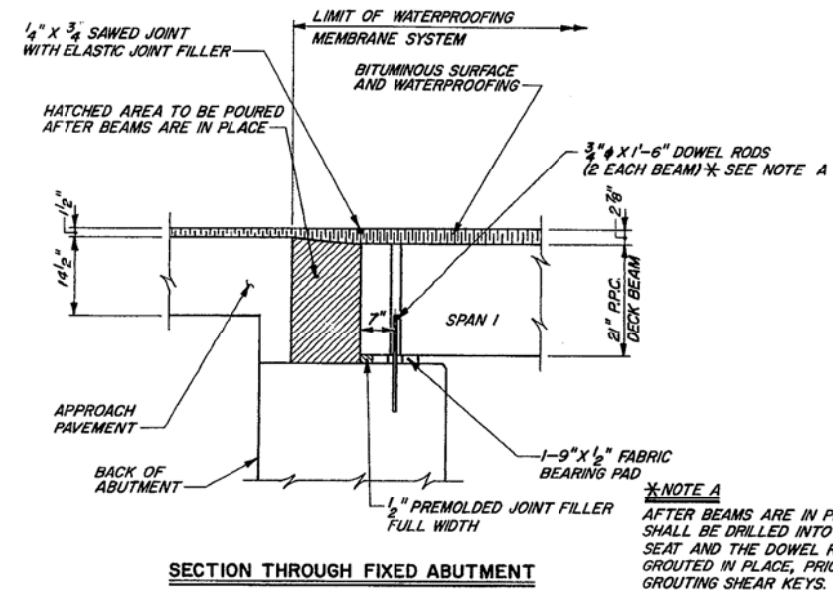
SUPERSTRUCTURE
SPANS 2 & 3
F.A.17 (S.B.I. ROUTE 27) SEC. 4BR-2
CARROLL COUNTY
STA. 104+40
SCALE: AS NOTED
DATE: 4/30/02
SCHUMACHER AND SVOBODA, INC.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

DESIGNED	R.A.R.
CHECKED	G.S.P.
DRAWN	J.A.W.
CHECKED	R.A.R. G.S.P.

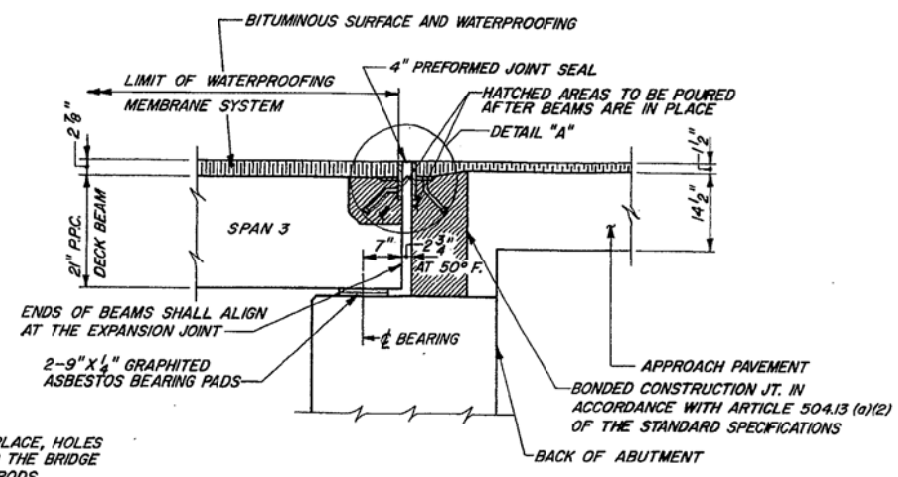
PD-3-S 6-15-80

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

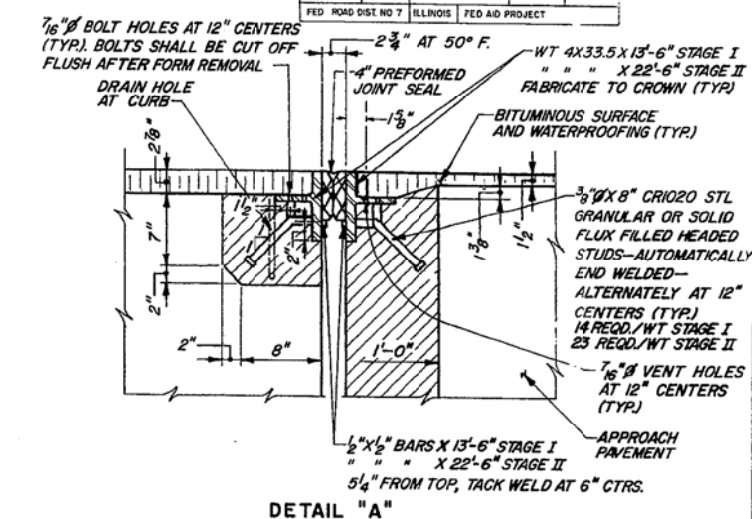
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
S.B.I. 27	4BR-2	CARROLL	18	15	SHEETS 8
F.A. 17					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



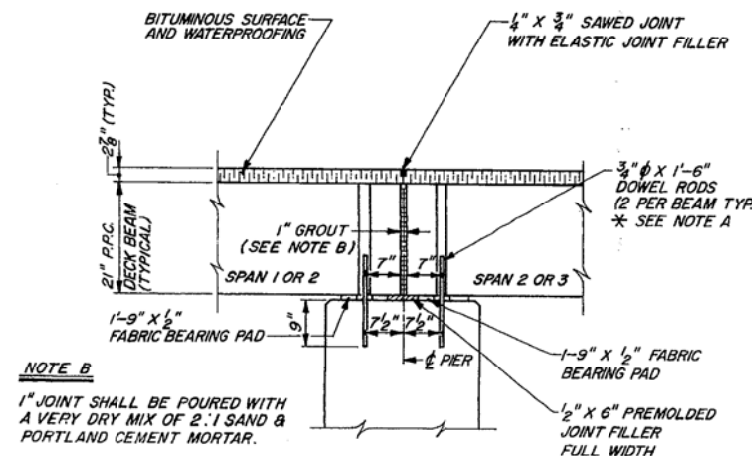
SECTION THROUGH FIXED ABUTMENT



SECTION THROUGH EXPANSION ABUTMENT

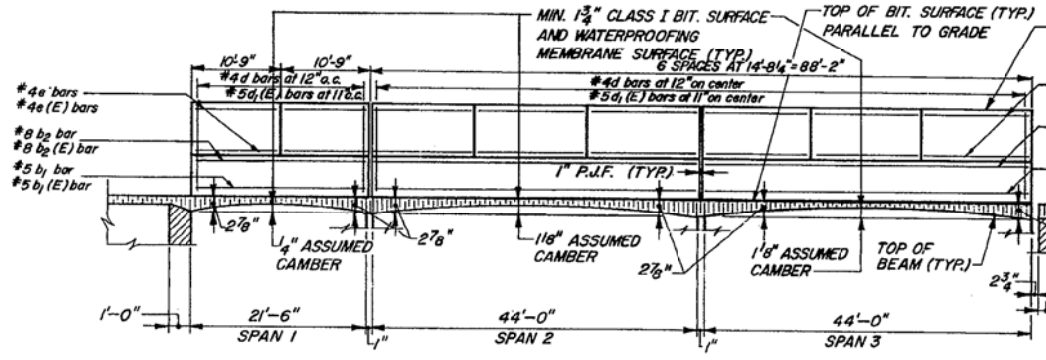


DETAIL "A"



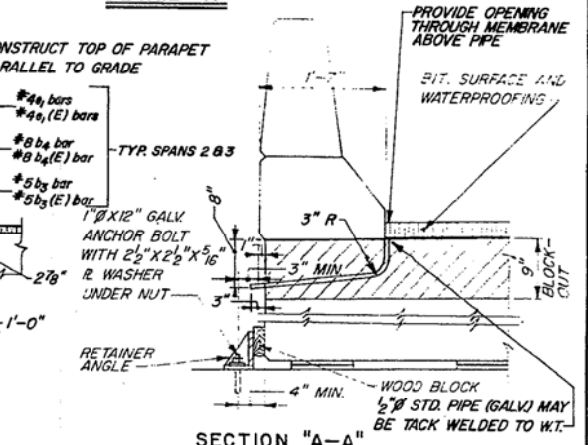
SECTION THROUGH PIERS I AND 2

NOTE B
1" JOINT SHALL BE POURED WITH A VERY DRY MIX OF 2:1 SAND & PORTLAND CEMENT MORTAR.

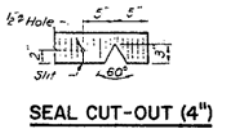


BITUMINOUS SURFACE PROFILE & PARAPET JOINT & REBAR DETAILS

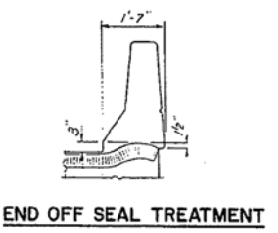
NOTE: USE 2 7/8" BITUMINOUS SURFACE AND WATERPROOFING AT ABUTMENTS AND PIERS TO MEET DESIGNED PROFILE. ALL REBAR QUANTITIES AND LENGTHS ARE DETAILED ON SHEETS 3 & 4.



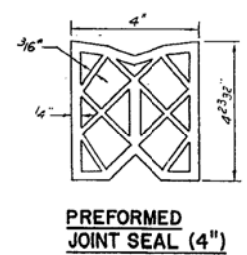
SECTION "A-A"



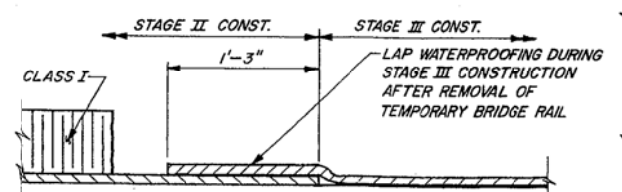
SEAL CUT-OUT (4")



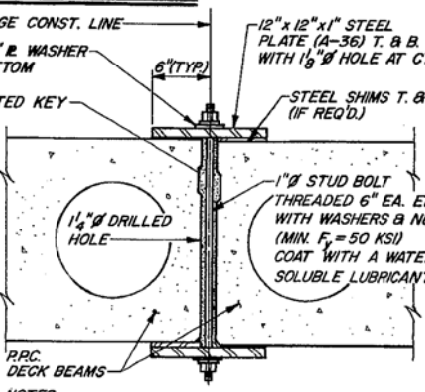
END OFF SEAL TREATMENT



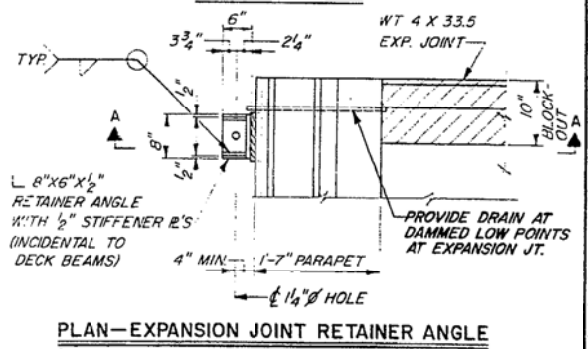
PREFORMED JOINT SEAL (4")



WATERPROOFING TREATMENT (LOOKING WEST)



SHEAR KEY CLAMP ASSEMBLY DETAIL



PLAN-EXPANSION JOINT RETAINER ANGLE

DESIGNED R.A.R.
CHECKED G.S.P.
DRAWN J.A.W.
CHECKED R.A.R.

REVISIONS	
DATE	DESCRIPTION

SUPERSTRUCTURE DETAILS
F.A. 17 (S.B.I. ROUTE 27) SEC. 4BR-2
CARROLL COUNTY
STA. 104+40
SCALE: NONE
SCHIMMACHER AND SUTTORF, INC.