

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS
2505	94-P4008-01-BR	KANE	81 1

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

FAU 2505 (RANDALL ROAD)
SECTION 94-P4008-01-BR
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
PROJECT TE-00D1(659)
KANE COUNTY
C-91-130-05

FOR INDEX OF SHEETS, SEE SHEET NO. 2



MID-COUNTY TRAIL
DESIGN DESIGNATION: BIKE PATH
DESIGN SPEED: 20 MPH

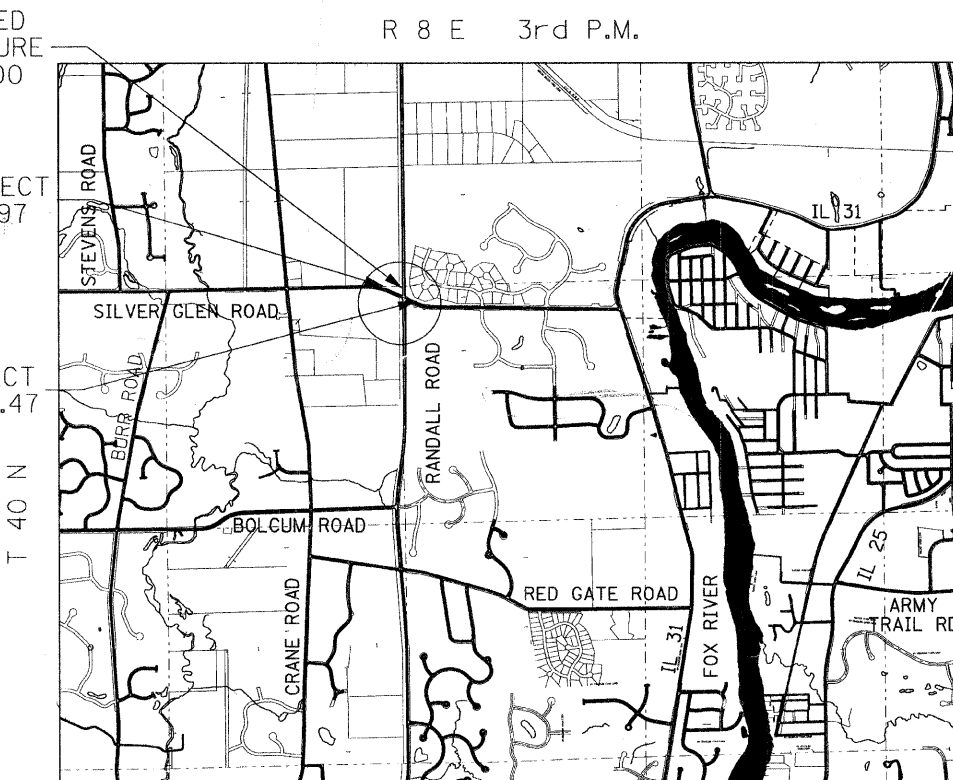
RANDALL ROAD
ADT: 35,000 (2004)
DESIGN DESIGNATION: PRINCIPAL ARTERIAL
DESIGN SPEED: 55 MPH
POSTED SPEED: 50 MPH

SILVER GLEN ROAD
ADT: 4,900 (2004)
DESIGN DESIGNATION: COLLECTOR
DESIGN SPEED: 50 MPH
POSTED SPEED: 45 MPH

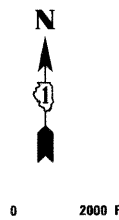
PROPOSED STRUCTURE
045-9000

BEGIN PROJECT
STA 10+02.97

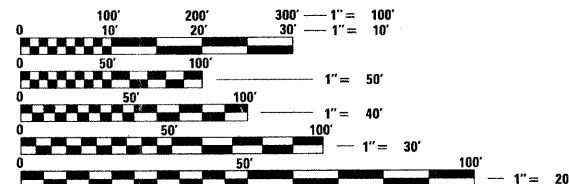
END PROJECT
STA 23+91.47



R 8 E 3rd P.M.



PROJECT AND GROSS LENGTH = 1,390 FT (0.26 MI)



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

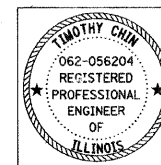
CONTRACT NO. 83984

FIELD ENGINEER, MARILIN SOLOMON (847) 705-4407

NOVEMBER 4 20 08
Andrew E. Underwager
ANDREW E. UNDERWAGER
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-006218
EXPIRATION DATE 11-30-20 09



NOVEMBER 4 20 08
Timothy Chin
TIMOTHY CHIN
ILLINOIS REG. PROFESSIONAL ENGINEER NO. 062-056204
EXPIRATION DATE 11-30-2009



RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED Nov 4 20 08
Carl Reed
KANE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

APPROVED Oct 30 20 08
Nancy A. Cox
ST. CHARLES PARK DISTRICT, PRESIDENT

APPROVED November 3 20 08
Christopher Holt
FOREST PRESERVE DISTRICT OF KANE COUNTY, PRESIDENT

PASSED November 12 20 08
Christopher Holt
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW November 13 20 08
Dennis M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GENERAL

1. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE APPLICABLE REQUIREMENT SET FORTH IN "THE CONSTRUCTION SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2007 THEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS, THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM MANUAL TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" IN EFFECT ON THE DATE OF INVITATION FOR BIDS, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2009 OR MOST CURRENT AT TIME OF LETTING, AND THE LATEST BDE SPECIAL PROVISIONS AS INCLUDED IN THE CONTRACT DOCUMENTS AND THE DETAILS AND STANDARDS CONTAINED IN THESE PLANS.
2. BEFORE STARTING ANY EXCAVATIONS, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
3. THE LOCATIONS OF THE EXISTING UTILITIES, AS SHOWN ON THE DRAWINGS, REPRESENT DATA RECEIVED FROM VARIOUS SOURCES. IT IS NOT GUARANTEED TO BE CORRECT OR ALL INCLUSIVE. THE CONTRACTOR SHALL CONDUCT HIS OWN INVESTIGATIONS INTO THE LOCATION, SIZE, DEPTH, AND NATURE OF ANY AND ALL EXISTING UTILITIES WHICH MAY INTERFERE WITH THE WORK UNDER THIS CONTRACT. ANY EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE SHALL BE FULLY PROTECTED BY THE CONTRACTOR AND ANY DAMAGE CAUSED BY THE CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO THE DEPARTMENT.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE KANE COUNTY DIVISION OF TRANSPORTATION.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON COUNTY OR PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE COUNTY OR PROPERTY OWNER.
6. BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED- ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.
7. ALL EXCAVATION AND EMBANKMENT LOCATIONS REQUIRING SODDING SHALL BE CONSTRUCTED TO 6 IN BELOW FINISHED GRADE LINE TO ALLOW TOPSOIL PLACEMENT.
8. PAVEMENT GRADES: THE GRADES SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED.
9. PROTECTION OF AND RESTORATION OF TRAFFIC SIGNS: PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS, THE CONTRACTOR WILL BE PROVIDED A SIGN LOG OF ALL EXISTING SIGNS WITHIN THE LIMITS OF THE CONSTRUCTION ZONE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE SIGN LOG THROUGHOUT THE DURATION OF THIS PROJECT. ALL EXISTING TRAFFIC SIGNS SHALL MAINTAIN, FURNISH, AND REPLACE AT HIS EXPENSE ANY TRAFFIC SIGN OR POST WHICH HAS BEEN DAMAGED OR LOST BY THE CONTRACTOR.
10. ALL EXISTING SIGNING SHALL BE MAINTAINED IN PLACE UNTIL NEW SIGNING IS ERECTED. REMOVAL OF EXISTING SIGNING SHALL NOT PROCEED UNTIL DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL COVER EXISTING SIGNING TO PREVENT CONFUSION AS DIRECTED BY THE ENGINEER. THE COST OF THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
11. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES. TEMPORARY DITCHES OR GUTTERS SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS. ALL DRAINAGE STRUCTURES SHALL BE CLEANED AS NECESSARY TO INSURE THAT THEY ARE FREE FROM ALL DIRT AND DEBRIS PRIOR TO THE FINAL INSPECTION OF THE PROJECT. THIS WORK WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
12. SAW CUTS SHALL BE CONSIDERED INCIDENTAL TO THE WORK FOR BITUMINOUS BIKE PATH REMOVAL AND PAVEMENT REMOVAL.
13. A NOMINAL QUANTITY OF 50 CY OF POROUS GRANULAR EMBANKMENT, SUBGRADE HAS BEEN PROVIDED FOR POTENTIAL LOCATIONS WHERE SOILS TEND TO BE UNSTABLE WHEN WET. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGE WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE STABILITY MANUAL, AND PROOF ROLLED USING A FULL LOAD SEMI). IF UNSTABLE AND/OR UNSUITABLE MATERIALS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
14. ANTICIPATED AREAS OF PGE PLACEMENT ARE SHOWN ON THE TYPICAL SECTIONS. THE THICKNESS OF PGE WILL VARY.
15. TACK COAT AND BITUMINOUS MATERIALS (PRIME COAT) SHALL BE INCIDENTAL TO THE COST OF HOT-MIX ASPHALT SURFACE COURSE. TACK COAT SHALL BE APPLIED AT A RATE OF 0.05 GAL/SY YD. BITUMINOUS MATERIALS (PRIME COAT) SHALL BE APPLIED AT A RATE OF 0.50 GAL/SY YD.
16. SURVEY LAYOUT: CONTRACTOR WILL PROVIDE SURVEY LAYOUT IN ACCORDANCE WITH CHECK SHEET #10, CONSTRUCTION LAYOUT STAKES, OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. IN ADDITION TO THE LAYOUT REQUIREMENTS TO BE PERFORMED BY THE CONTRACTOR AS PART OF CHECK SHEET #10, HIS RESPONSIBILITIES WILL INCLUDE HORIZONTAL AND VERTICAL LAYOUT OF ALL POINTS ASSOCIATED WITH THE ROADWAY AND BIKE PATH IMPROVEMENTS WHICH INCLUDES, BUT SHALL NOT LIMITED TO, EARTHWORK, SUBBASE, CURB AND GUTTERS, DRAINAGE STRUCTURES, PAVEMENTS SURFACES, AND SHALL ALSO INCLUDE ALL LAYOUT ASSOCIATED WITH THE SUBSTRUCTURE AND SUPERSTRUCTURE WORK, WHICH INCLUDES, BUT SHALL NOT LIMITED TO, PILING, WALLS, STRUCTURAL STEEL, FILLETS, DECKING AND RAILINGS. THIS WORK WILL NOT BE PAID SEPARATELY BUT IS CONSIDERED INCLUDED IN THE UNIT COST BID FOR CONSTRUCTION LAYOUT.

INDEX OF SHEETS

1. TITLE SHEET
2. GENERAL NOTES AND STATE STANDARDS
- 3-4. SUMMARY OF QUANTITIES*
- 5-7. TYPICAL SECTIONS
8. ALIGNMENT AND TIES
- 9-10. EXISTING CONDITIONS & REMOVAL PLAN
- 11-13. PROPOSED PLAN & PROFILE
14. RANDALL ROAD PLAN
15. DETOUR PLAN
- 16-17. SEDIMENT AND EROSION CONTROL PLAN
18. SEDIMENT AND EROSION CONTROL DETAILS
- 19-20. DRAINAGE AND UTILITIES
- 21-22. GRADING PLAN
23. TRAFFIC SIGNAL PLAN
24. CABLE DIAGRAM AND SCHEDULE OF QUANTITIES
- 25-66. STRUCTURE PLANS
- 67-76. DETAILS
- 77-81. CROSS SECTIONS

STATE STANDARDS

STANDARD NUMBER	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
424001-05	CURBS RAMP FOR SIDEWALKS
515001-03	NAME PLATES FOR BRIDGES
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTIONS
542311-01	GRATING FOR CONCRETE FLARED END SECTION
602001-01	CATCH BASIN, TYPE A
602301-02	INLET, TYPE A
602306-02	INLET, TYPE B
602601-02	FLAT SLAB TOP, PRECAST REINFORCED CONCRETE
604001-03	FRAMES AND LIDS, TYPE 1
604036-02	GRATE, TYPE B
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
630001-08	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 M (15') AWAY
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701011-02	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701606-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701701-06	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701801-04	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN MOUNTING DETAILS
780001-02	TYPICAL PAVEMENT MARKINGS
814001-02	HANDHOLES
873001-02	TRAFFIC SIGNAL GROUNDING AND BONDING
876001-01	PEDESTRIAN PUSH BUTTON POST
878001-07	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
DETAILS	
BD07	STORM SEWER CONNECTION TO EXISTING SEWER
BD34	DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER
BD51	BENCHING DETAIL FOR EMBANKMENT WIDENING
TC10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC22	TEMPORARY INFORMATION SIGNING
TS05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

PLOT DATE = 11/15/2008
 FILE NAME = H:\STC\ex-KD\st-1168648\kve Br-dgn\Design\08-1168648.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#

RHA&A

Robert H. Anderson & Associates, Inc.
Consulting Engineers

License No. 084-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
**GENERAL NOTES AND
 STATE STANDARDS**

SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY DLS
 DATE OCTOBER 31, 2008

SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	3
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SPECIAL PROVISIONS	SPECIALITY ITEMS	CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	CONST. TYPE CODE X971 -2A	CONST. TYPE CODE Y031-1F
		20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	58	58	
		20200100	EARTH EXCAVATION	CU YD	172	172	
		20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	442	442	
		20400800	FURNISHED EXCAVATION	CU YD	589	589	
		20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	50	50	
		20800150	TRENCH BACKFILL	CU YD	20	20	
		21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	3,919	3,919	
		21300010	EXPLORATION TRENCH, SPECIAL	FOOT	150	150	
		25000400	NITROGEN FERTILIZER NUTRIENT	POUND	48	48	
		25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	48	48	
		25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	48	48	
		25100630	EROSION CONTROL BLANKET	SQ YD	3,919	3,919	
		25200110	SODDING, SALT TOLERANT	SQ YD	3,919	3,919	
		25200200	SUPPLEMENTAL WATERING	UNIT	12	12	
		28000255	TEMPORARY EROSION CONTROL SEEDING	ACRE	0.80	0.80	
		28000500	INLET AND PIPE PROTECTION	EACH	8	8	
		28100105	STONE RIPRAP, CLASS A3	SQ YD	14	14	
		28200200	FILTER FABRIC	SQ YD	14	14	
		31101200	SUB-BASE GRANULAR MATERIAL, TYPE B, 4"	SQ YD	552	552	
		40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	61	61	
		42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	100	100	
		42400800	DETECTABLE WARNINGS	SQ FT	64	64	
		44000100	PAVEMENT REMOVAL	SQ YD	42	42	
		44000920	BITUMINOUS CONCRETE SHOULDER REMOVAL	SQ YD	222	222	
		44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	99	99	
		44003800	MEDIAN SURFACE REMOVAL	SQ FT	166	166	
		48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	266	266	
		50200100	STRUCTURE EXCAVATION	CU YD	590	590	
		50300225	CONCRETE STRUCTURES	CU YD	156	156	
		50300255	CONCRETE SUPERSTRUCTURE	CU YD	232	232	
		50300285	FORM LINER-TEXTURED SURFACE	SQ FT	2,177	2,177	
		50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	1	
		50500505	STUD SHEAR CONNECTORS	EACH	3,000	3,000	
		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	75,720	75,720	
	S	50901115	STEEL RAILING-(SPECIAL)	FOOT	1,493	1,493	
	S	50901735	BRIDGE FENCE RAILING (SIDEWALK)	FOOT	348	348	
		51200957	FURNISHING METAL SHELL PILES 12" x 0.250"	FOOT	2,070	2,070	
		51202305	DRIVING PILES	FOOT	2,070	2,070	
		51203200	TEST PILE METAL SHELLS	EACH	2	2	
		51204650	PILE SHOES	EACH	48	48	
		51500100	NAME PLATES	EACH	1	1	
		52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	6	6	
		52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	8	8	
		52100030	ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	2	2	
		52100520	ANCHOR BOLTS, 1"	EACH	30	30	
		52100530	ANCHOR BOLTS, 1 1/4"	EACH	12	12	
		52100540	ANCHOR BOLTS, 1 1/2"	EACH	4	4	
		54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1	
		54247100	GRATING FOR CONCRETE FLARED END SECTION 15"	EACH	1	1	
		550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	80	80	
		550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	FOOT	25	25	
		55100500	STORM SEWER REMOVAL 12"	FOOT	45	45	
		55100700	STORM SEWER REMOVAL 15"	FOOT	7	7	
		58700300	CONCRETE SEALER	SQ FT	737	737	
		60203905	CATCH BASINS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1	
		60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1	
		60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	2	2	
		60240301	INLETS, TYPE B, TYPE 8 GRATE	EACH	1	1	
		60300350	MANHOLE FRAMES TO BE ADJUSTED	EACH	1	1	
		60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	461	461	
		60609200	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.12	FOOT	104	104	
		60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	505	505	
	S	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	375	375	
	S	63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4	
		66600400	REMOVE AND RE-ERECT RIGHT-OF-WAY MARKERS	EACH	2	2	
		67100100	MOBILIZATION	L SUM	1	1	
		70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1	1	
		70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1	
		72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	19	19	
		72400600	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	EACH	1	1	
		72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	6	6	
	S	78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	203	203	
	S	78005140	EPOXY PAVEMENT MARKING - LINE 8"	FOOT	203	203	
	S	78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	435	435	
	S	78005180	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	65	65	
	S	78200450	MONODIRECTIONAL GUARD RAIL REFLECTORS	EACH	10	10	
	S	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
		78300100	PAVEMENT MARKING REMOVAL	SQ FT	1,052	1,052	
	S	81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	7	7	
	S	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	42	42	
	S	81400100	HANDHOLE	EACH	2	2	
	S	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	

PLOT DATE = 11/11/2008
 FILE NAME = H:\STCPC\rd\dat\1168648\ike B\rdgn\Qesign\Jgn\08.1168648\01.dgn
 PLOT SCALE = NONE
 REFERENCE = #REFS

RHA&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 SUMMARY OF QUANTITIES
 SHEET 1 OF 2

SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY DLS
 DATE OCTOBER 31, 2008

SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	4
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

SPECIAL PROVISIONS	SPECIALITY ITEMS	CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	CONST. TYPE CODE X971-2A	CONST. TYPE CODE Y031-1F
	S	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	235		235
	S	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	245		245
	S	87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1		1
	S	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4		4
	S	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		2
	S	88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1		1
	S	88800100	PEDESTRIAN PUSH-BUTTON	EACH	2		2
	S	89502200	MODIFY EXISTING CONTROLLER	EACH	1		1
	S	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1
	S	89502380	REMOVE EXISTING HANDHOLE	EACH	1		1
		Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
		Z0018800	DRAINAGE SYSTEM	L SUM	1	1	
	△	Z0076600	TRAINEES	HOUR	500	500	
		XX002012	RELOCATE SIGN, SPECIAL	EACH	1	1	
		XX003503	FLARED END SECTION REMOVAL	EACH	3	3	
		XX004056	MECHANICALLY STABILIZED EARTH RETAINING WALL	SQ FT	3,233	3,233	
		XX004801	BITUMINOUS BIKE PATH REMOVAL	SQ YD	594	594	
		XX005658	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH SPECIAL	SQ FT	2,093	2,093	
		XX007023	STAINING CONCRETE STRUCTURES	SQ YD	320	320	
		X0323017	TEMPORARY INFORMATIONAL SIGNS	EACH	4	4	
		X0323973	SEDIMENT CONTROL, SILT FENCE	FOOT	992	992	
		X0323974	SEDIMENT CONTROL, SILT FENCE MAINTENANCE	FOOT	992	992	
	S	X0325890	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1	1	
		X2800100	TEMPORARY DITCH CHECKS, ROLLED EXCELSIOR	EACH	11	11	

△ = Y080

PLOT DATE = 11/14/2008
 FILE NAME = H:\AS\CP\B\K\1168648\Bridg\Design\Qry\06.1168648\BU02.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF*

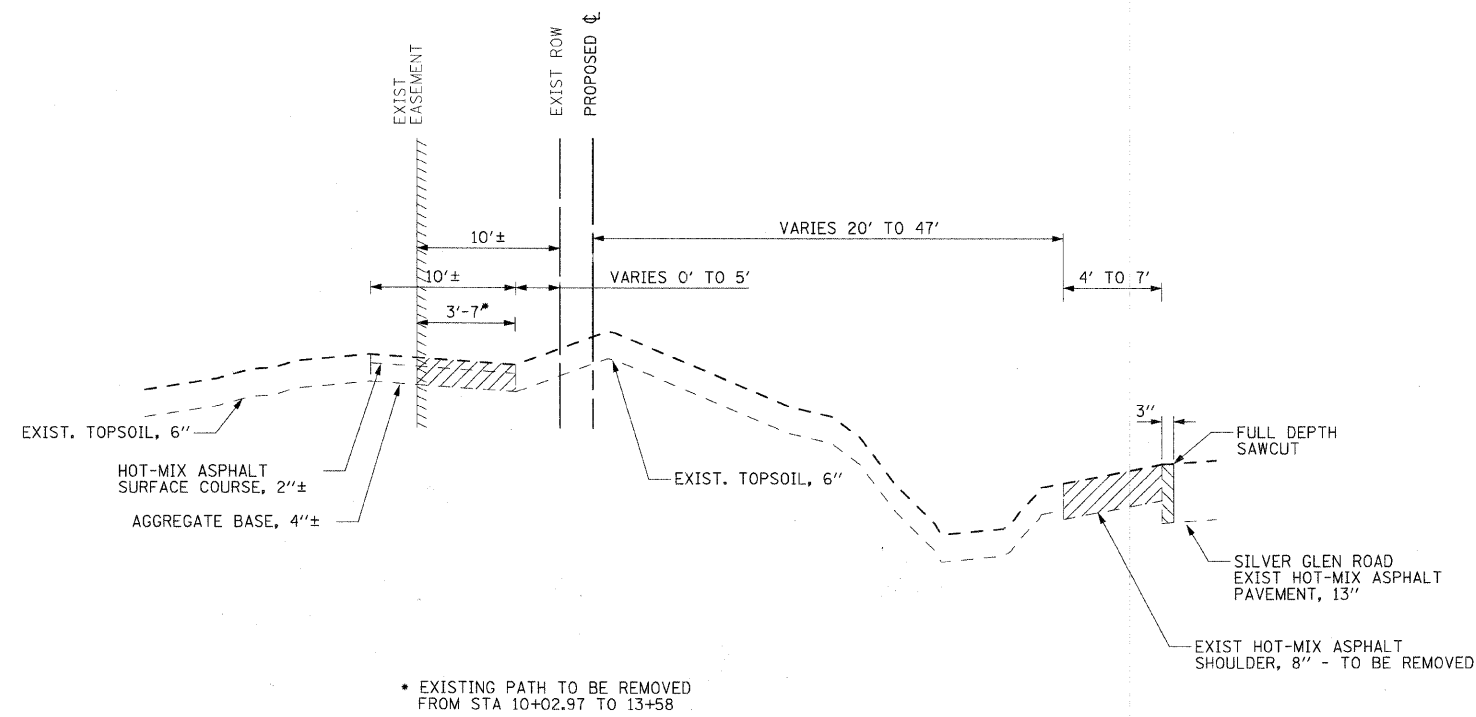


Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

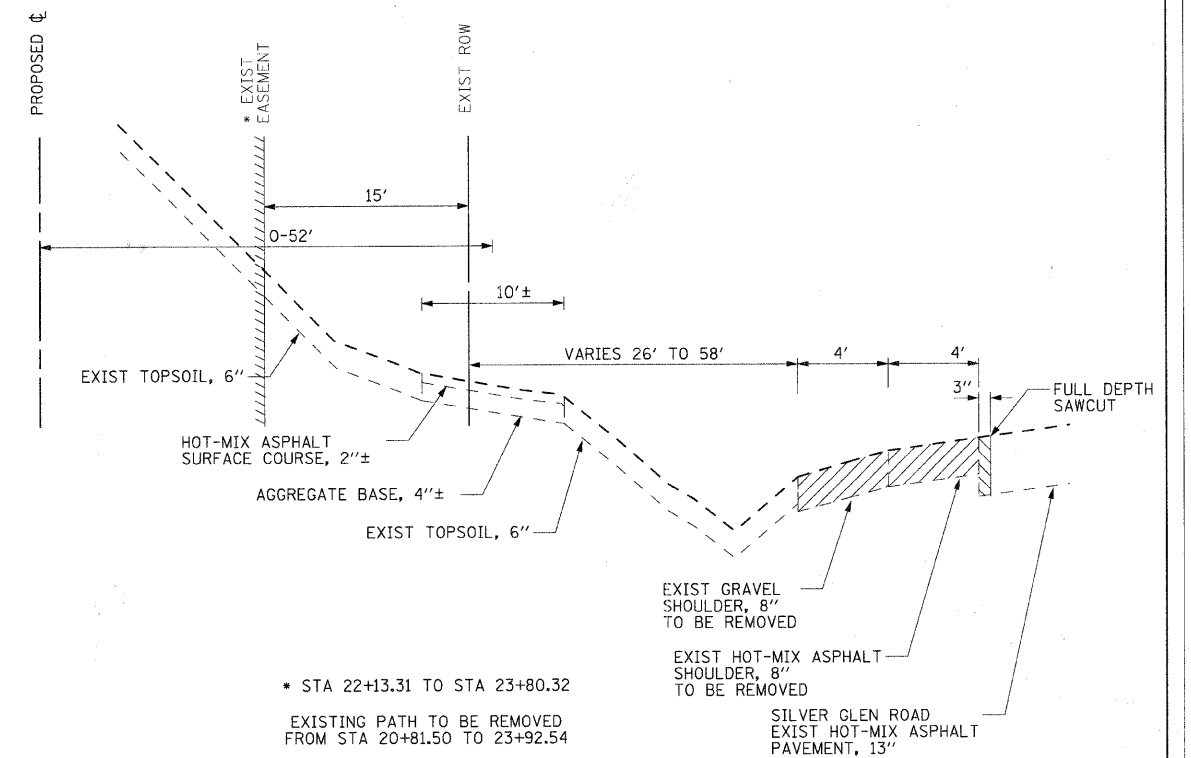
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-900
 SUMMARY OF QUANTITIES
 SHEET 2 OF 2
 SCALE: VERT. HORIZ. NONE
 DATE: OCTOBER 31, 2008
 DRAWN BY: TC
 CHECKED BY: DLS

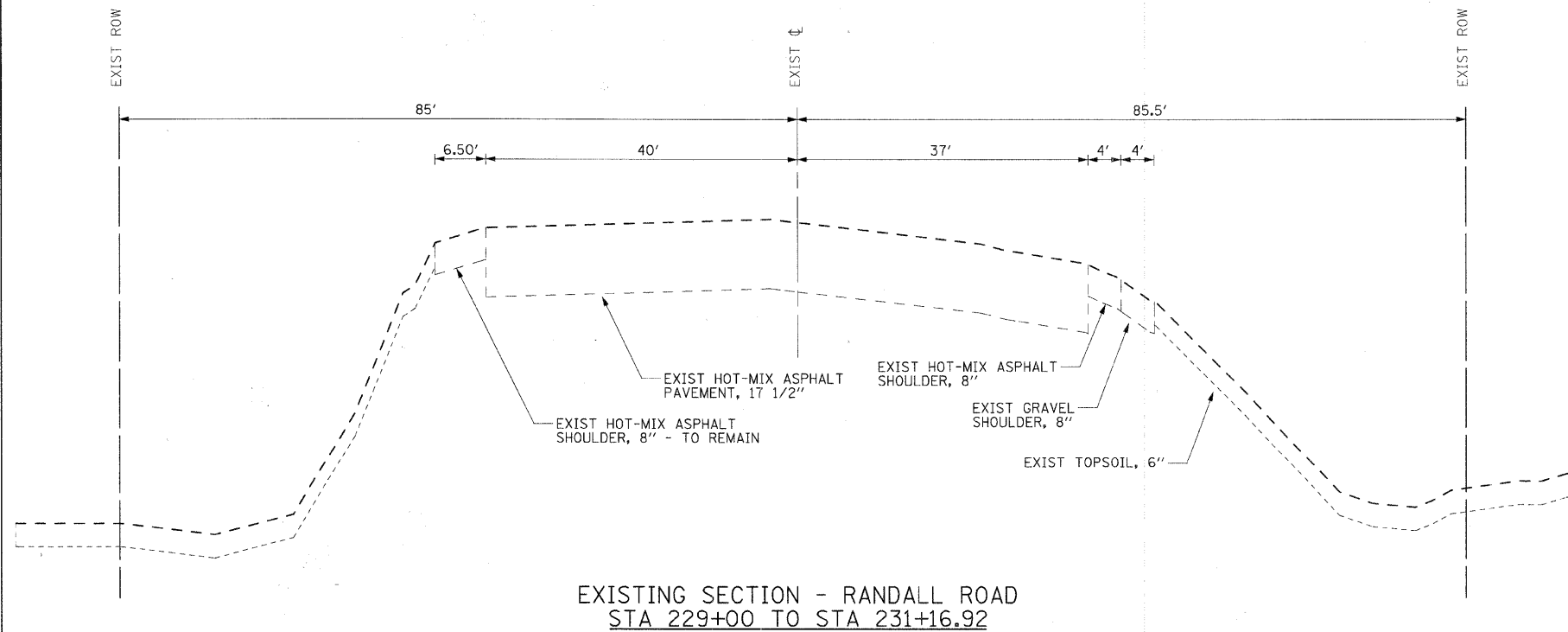
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



EXISTING SECTION - BIKE PATH
 STA 10+02.97 TO STA 13+58
 (EXISTING PATH WEST OF RANDALL RD)



EXISTING SECTION - BIKE PATH
 STA 20+81.50 TO STA 23+92.54
 (EXISTING PATH EAST OF RANDALL RD)



EXISTING SECTION - RANDALL ROAD
 STA 229+00 TO STA 231+16.92

PLOT DATE = 11/4/2008
 FILE NAME = H:\STC\Per\A\dat\1168648\Bike Bridge\Design\Drawn\08.116864TX01.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#



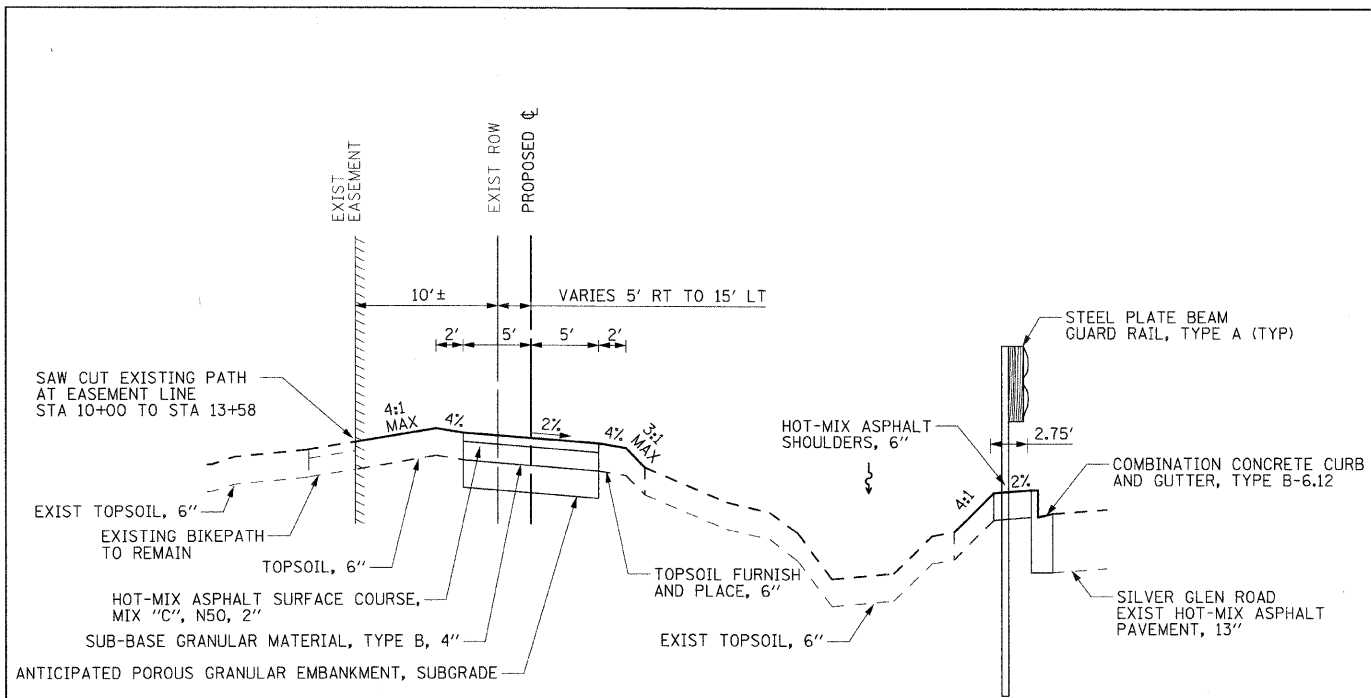
Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

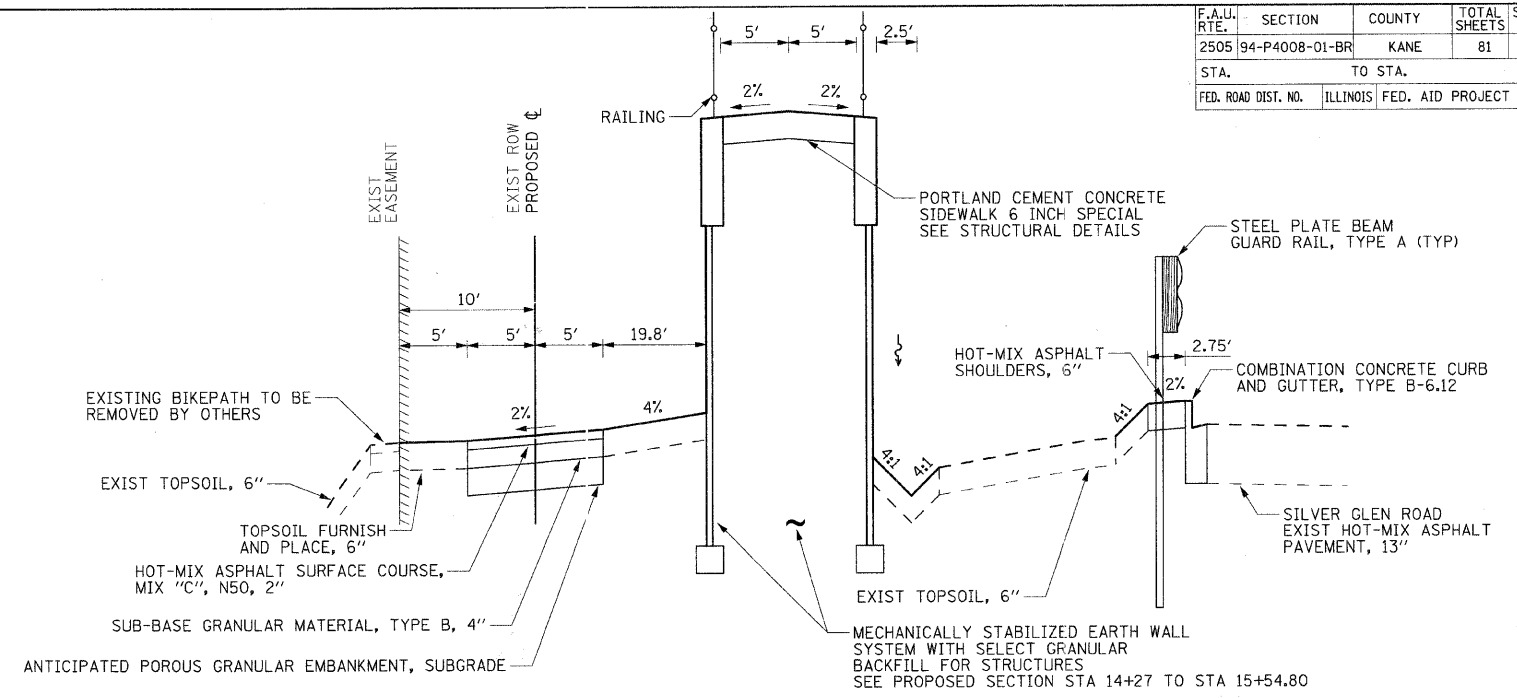
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 TYPICAL SECTIONS
 SHEET 1 OF 3

SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY SBP
 DATE: OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PROPOSED SECTION - BIKE PATH
STA 10+02.97 TO STA 12+00

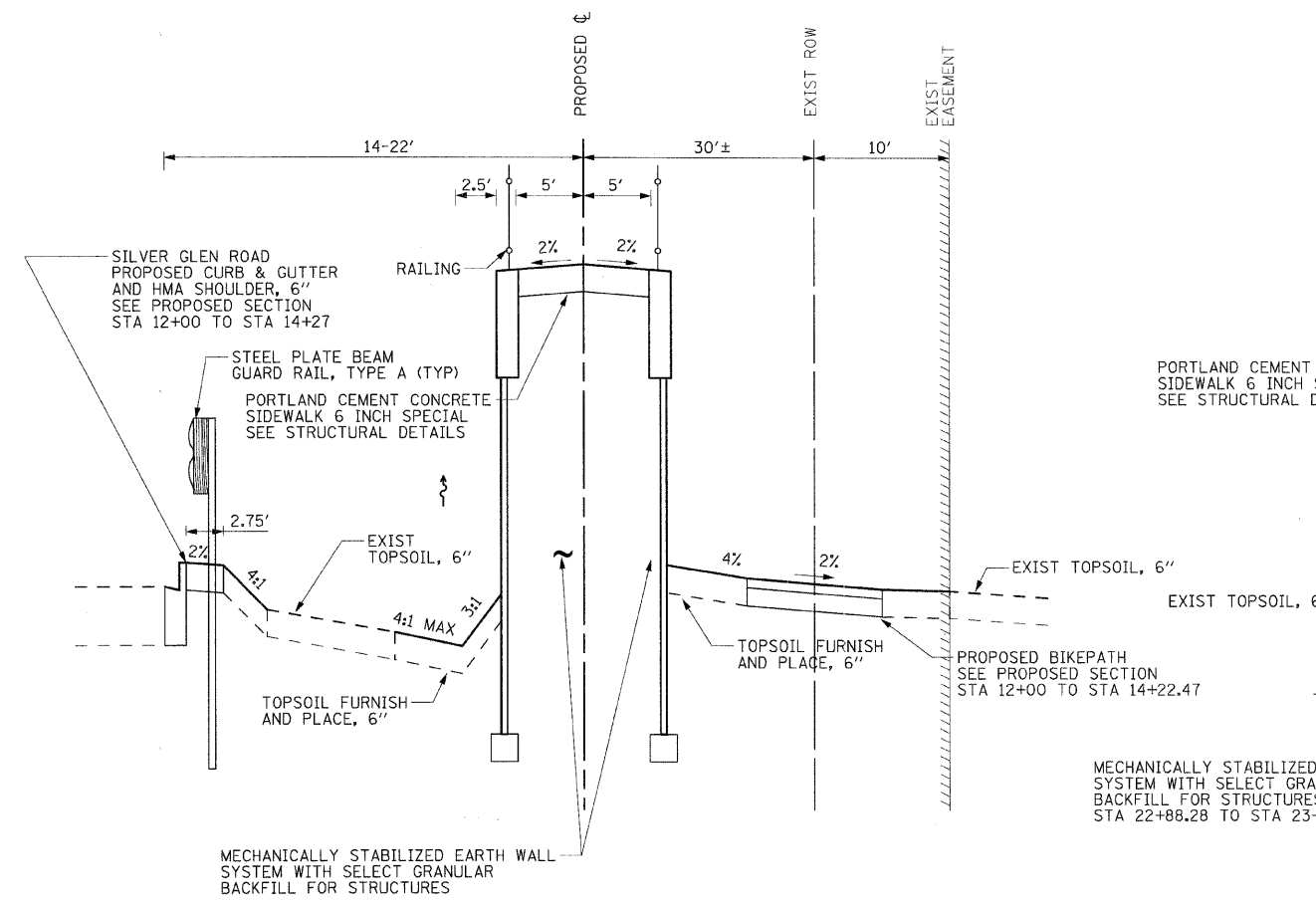


PROPOSED SECTION - BIKE PATH
STA 12+00 TO STA 14+27

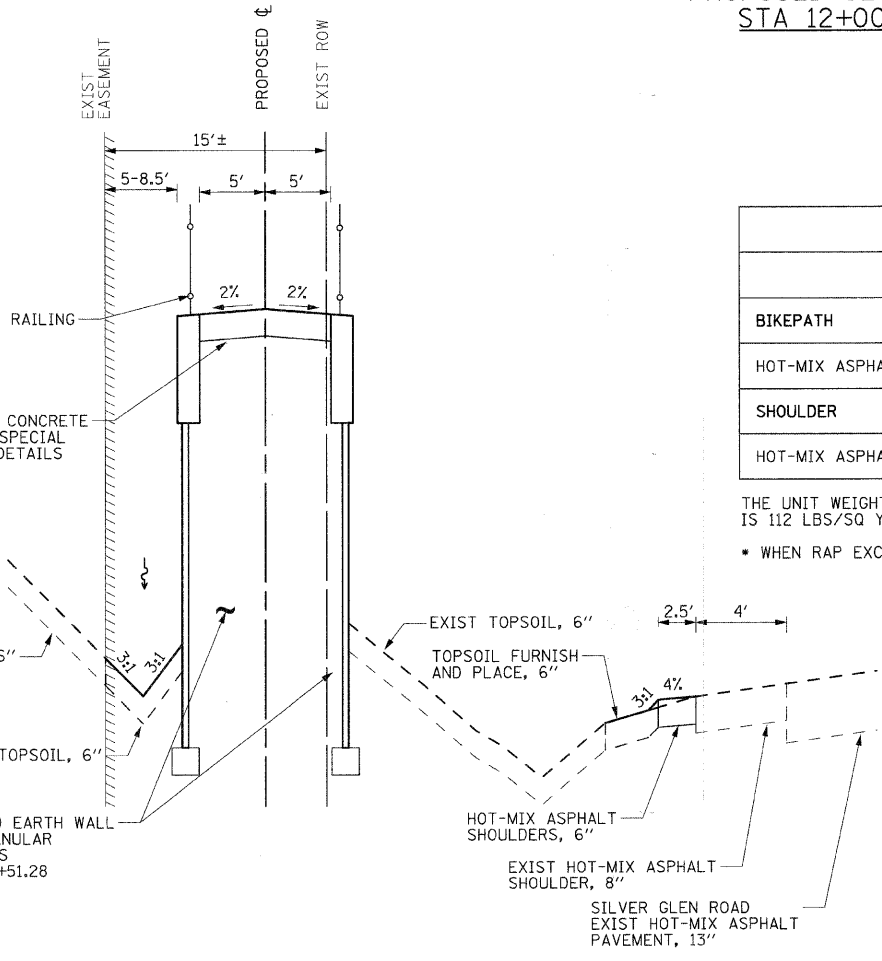
OMITTING ELEVATED PATH SECTIONS
STA 15+50.39 TO STA 22+92.70
SEE STRUCTURAL PLANS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	AC TYPE	AIR VOIDS
BIKEPATH		
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL 9.5 mm) 2"	PG 64-22	4% @ 50 GYR
SHOULDER		
HOT-MIX ASPHALT SHOULDER 6"	PG 64-22*	2% @ 30 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG-22.



PROPOSED SECTION - BIKE PATH
STA 14+27 TO STA 15+50.39



PROPOSED SECTION - BIKE PATH
STA 22+92.70 TO STA 23+91.47

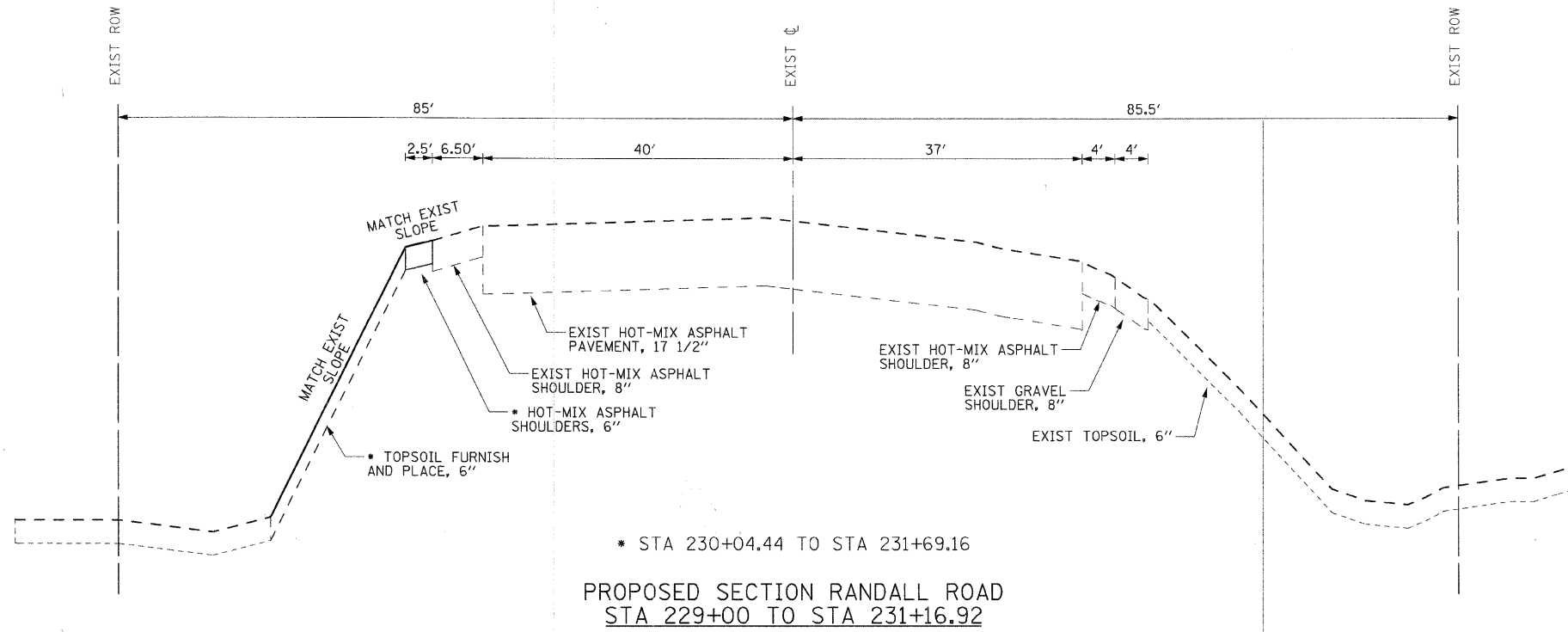
RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
TYPICAL SECTIONS
SHEET 2 OF 3
SCALE: VERT. NONE
HORIZ. NONE
DATE: OCTOBER 31, 2008
DRAWN BY: TC
CHECKED BY: SBP

PLOT DATE = 11/17/2008
 FILE NAME = H:\STC\p-r-k\d\stc\11688648\br-bridge\Design\Draw\01\168641X82.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLOT DATE = 11/4/2008
 FILE NAME = H:\STCP\K0\01\116864\Bike Bridge\Design\Draw\08.116864\X03.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

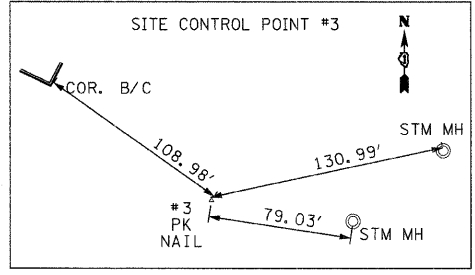
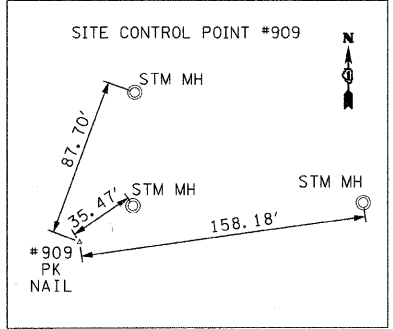
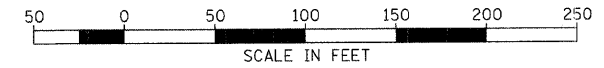
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 TYPICAL SECTIONS
 SHEET 3 OF 3

SCALE: VERT. NONE
 HORIZ. NONE
 DATE OCTOBER 31, 2008

DRAWN BY TC
 CHECKED BY SBP

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



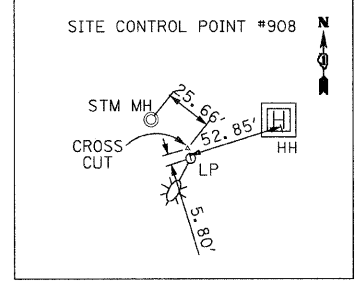
P.O.T. 227+00.00
N 1,932,080.4171
E 982,279.3447

P.O.T. 10+02.97
N 1,931,841.5009
E 981,819.8802

SITE CONTROL POINT #3
SET P.K. NAIL
N 1931779.007
E 982028.297
ELEV 811.17

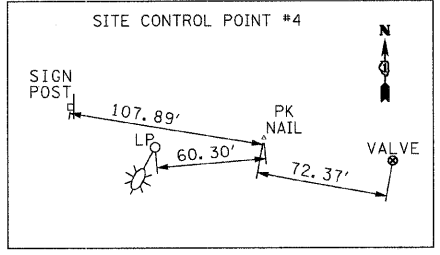
SITE CONTROL POINT #908
FOUND CUT CROSS
N 982245.040
E 1931628.946
ELEV 811.27

SITE CONTROL POINT #909
FOUND P.K. NAIL
N 981692.732
E 1931811.079
ELEV 806.17



EXIST. CURVE EXSILVER-1
PI STA. = 546+13.60
Δ = 16° 44' 27" (RT)
D = 4° 23' 54"
R = 1,302.70'
T = 191.68'
L = 380.63'
E = 14.03'
e = +/- 4.50%
P.C. STA. = 544+21.92
N=1,931,782.3148
E=981,749.8160
P.T. STA. = 548+02.55
N=1,931,655.7748
E=982,107.3587

EXIST. CURVE EXSILVER-2
PI STA. = 552+86.11
Δ = 10° 09' 00" (LT)
D = 4° 24' 00"
R = 1,302.20'
T = 115.64'
L = 230.68'
E = 5.12'
e = +/- 4.50%
P.C. STA. = 551+70.47
N=1,931,483.8404
E=982,432.6335
P.T. STA. = 554+01.15
N=1,931,394.6187
E=982,645.0376



SITE CONTROL POINT #4
SET P.K. NAIL
N 1931477.076
E 982588.510
ELEV 819.17

P.O.C. 23+84.00
N 1,931,474.8228
E 982,603.0378

P.O.C. 25+81.30
N=1,931,418.7082
E=982,791.9634

PROP. CURVE C-1
PI STA. = 10+57.54
Δ = 37° 59' 25" (RT)
D = 38° 11' 50"
R = 150.00'
T = 51.64'
L = 99.46'
E = 8.64'
P.C. STA. = 10+05.91
N=1,931,841.5760
E=981,822.8183
P.T. STA. = 11+05.37
N=1,931,807.3827
E=981,914.2824

PROP. CURVE C-2
PI STA. = 11+53.31
Δ = 35° 27' 04" (LT)
D = 38° 11' 50"
R = 150.00'
T = 47.94'
L = 92.81'
E = 7.48'
P.C. STA. = 11+05.37
N=1,931,807.3827
E=981,914.2824
P.T. STA. = 11+98.18
N=1,931,773.5109
E=981,999.1072

PROP. CURVE C-3
PI STA. = 12+23.65
Δ = 19° 16' 24" (RT)
D = 38° 11' 50"
R = 150.00'
T = 25.47'
L = 50.46'
E = 2.15'
P.C. STA. = 11+98.18
N=1,931,773.5109
E=981,999.1072
P.T. STA. = 12+48.64
N=1,931,761.6351
E=982,047.9029

PROP. CURVE C-4
PI STA. = 13+02.12
Δ = 4° 32' 41" (RT)
D = 4° 15' 02"
R = 1,347.96'
T = 53.49'
L = 106.92'
E = 1.06'
P.C. STA. = 12+48.64
N=1,931,761.6351
E=982,047.9029
P.T. STA. = 13+55.56
N=1,931,715.4698
E=982,144.3104

PROP. CURVE C-5
PI STA. = 13+96.72
Δ = 99° 05' 29" (RT)
D = 42° 24' 47"
R = 13.50'
T = 15.83'
L = 23.35'
E = 7.31'
P.C. STA. = 13+80.89
N=1,931,703.6320
E=982,166.7058
P.T. STA. = 14+04.24
N=1,931,683.5815
E=982,171.1856

PROP. CURVE C-6
PI STA. = 14+15.05
Δ = 77° 23' 03" (RT)
D = 42° 24' 47"
R = 13.50'
T = 10.81'
L = 18.23'
E = 3.80'
P.C. STA. = 14+04.24
N=1,931,683.5815
E=982,171.1856
P.T. STA. = 14+22.47
N=1,931,679.3963
E=982,154.8341

PROP. CURVE C-7
PI STA. = 16+44.35
Δ = 86° 11' 13" (RT)
D = 42° 24' 47"
R = 13.50'
T = 12.63'
L = 20.31'
E = 4.99'
P.C. STA. = 16+31.72
N=1,931,765.6242
E=981,964.1748
P.T. STA. = 16+52.03
N=1,931,782.6574
E=981,957.0946

PROP. CURVE C-8
PI STA. = 16+66.79
Δ = 95° 06' 35" (RT)
D = 42° 24' 47"
R = 13.50'
T = 14.76'
L = 22.41'
E = 6.50'
P.C. STA. = 16+52.03
N=1,931,782.6574
E=981,957.0946
P.T. STA. = 16+74.44
N=1,931,790.0962
E=981,975.5778

PROP. CURVE C-9
PI STA. = 19+06.44
Δ = 5° 06' 35" (LT)
D = 19° 05' 55"
R = 300.00'
T = 13.39'
L = 26.75'
E = 0.30'
P.C. STA. = 18+93.06
N=1,931,695.5225
E=982,172.6850
P.T. STA. = 19+19.81
N=1,931,685.0388
E=982,197.2907

PROP. CURVE C-10
PI STA. = 21+35.26
Δ = 30° 29' 29" (RT)
D = 33° 42' 12"
R = 170.00'
T = 46.33'
L = 90.47'
E = 6.20'
P.C. STA. = 20+88.93
N=1,931,625.7523
E=982,355.6718
P.T. STA. = 21+79.40
N=1,931,573.4941
E=982,428.2150

PROP. CURVE C-11
PI STA. = 22+40.73
Δ = 30° 29' 29" (LT)
D = 33° 42' 12"
R = 170.00'
T = 46.33'
L = 90.47'
E = 6.20'
P.C. STA. = 21+94.40
N=1,931,561.8346
E=982,437.6520
P.T. STA. = 22+84.87
N=1,931,509.5763
E=982,510.1953

PROP. CURVE C-12
PI STA. = 24+82.87
Δ = 9° 20' 57" (LT)
D = 4° 44' 19"
R = 1,209.15'
T = 98.87'
L = 197.30'
E = 4.04'
P.C. STA. = 23+84.00
N=1,931,474.8228
E=982,603.0378
P.T. STA. = 25+81.30
N=1,931,418.7082
E=982,791.9634

PROJECT CONTROL ORIGINATING FROM
NGS STATION DESIGNATION: IL KANE 8 40 8
PID: AJ3027
ILLINOIS STATE PLANE COORDINATE, EAST ZONE
ELEVATION REFERENCED TO NAVD 88
N - 1931692.596
E - 977177.197
ELEV - 765.583

REVISIONS	
NAME	DATE

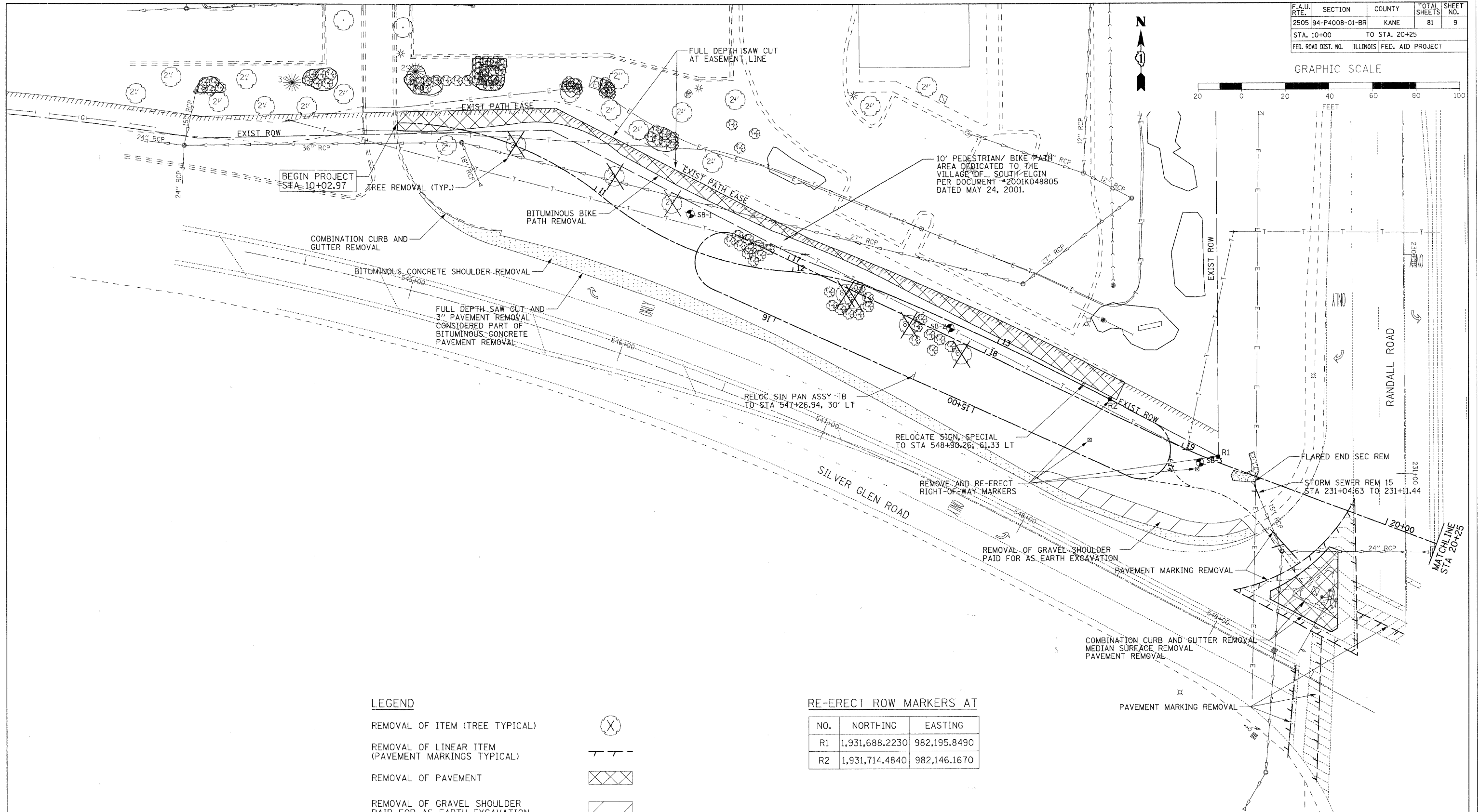
RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
ALIGNMENT AND TIES
SHEET 1 OF 1
VERT. SCALE: HORIZ. 1"=50'
DATE OCTOBER 31, 2008
DRAWN BY TC
CHECKED BY SBP

PLOT DATE = 11/4/2008
FILE NAME = H:\AS\CP\er\04\st\11886484\Bike Bridge\Design\Draw\11886484.dgn
PLOT SCALE = 1"=50'
REFERENCE = #REF#

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505 94-P4008-01-BR		KANE	81	9
STA. 10+00		TO STA. 20+25		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GRAPHIC SCALE



LEGEND

- REMOVAL OF ITEM (TREE TYPICAL)
- REMOVAL OF LINEAR ITEM (PAVEMENT MARKINGS TYPICAL)
- REMOVAL OF PAVEMENT
- REMOVAL OF GRAVEL SHOULDER PAID FOR AS EARTH EXCAVATION
- BITUMINOUS CONCRETE SHOULDER REMOVAL
- SOIL BORING LOCATION AND NAME

RE-ERECT ROW MARKERS AT

NO.	NORTHING	EASTING
R1	1,931,688.2230	982,195.8490
R2	1,931,714.4840	982,146.1670

PLOT DATE = 11/4/2008
 FILE NAME = H:\STCPer\Dist\116864Bike Br\dgs\Design\00_116864D01.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = REF*



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

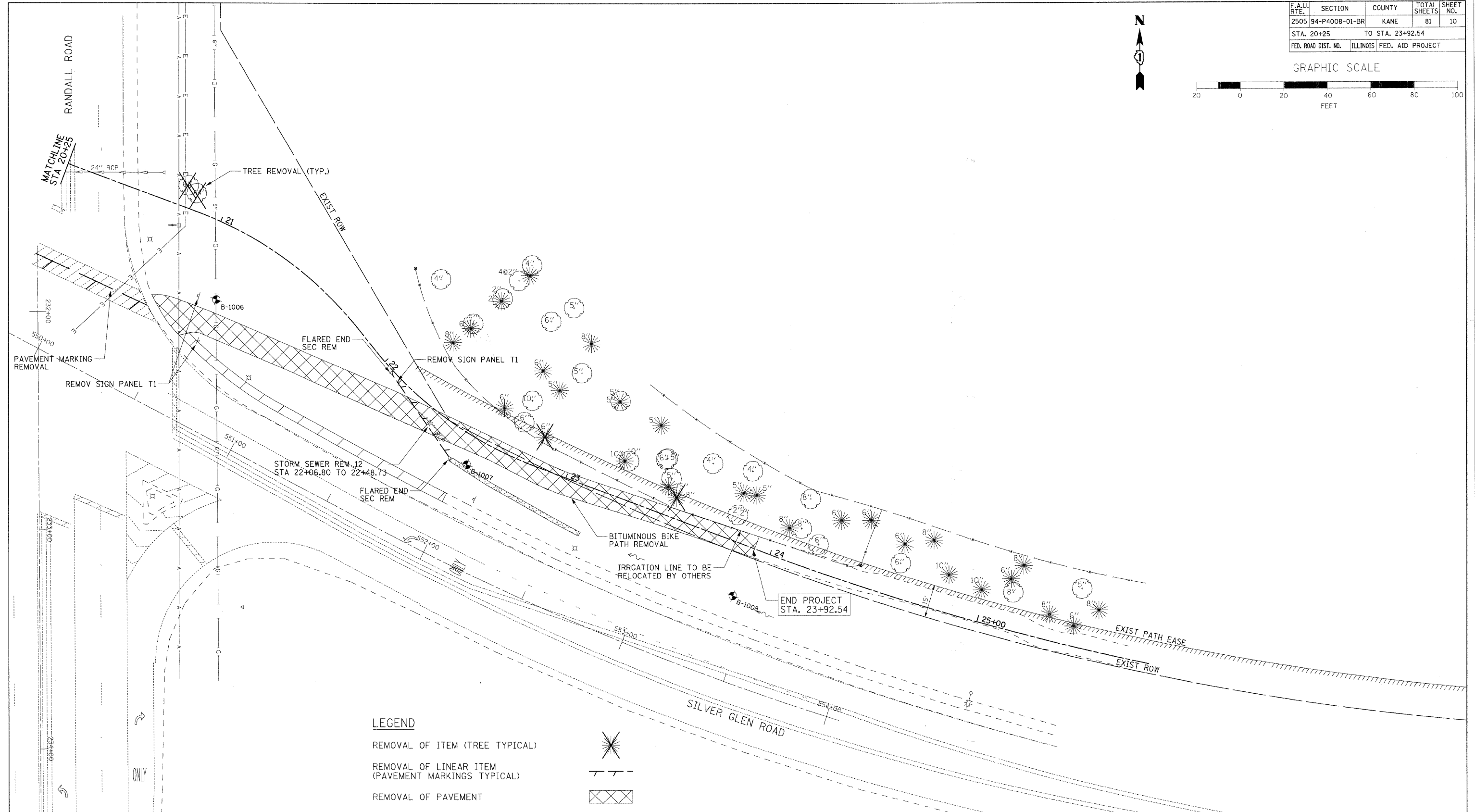
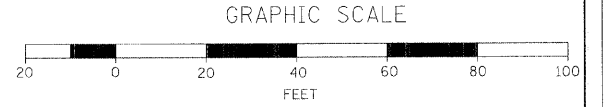
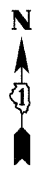
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 EXISTING CONDITIONS & REMOVAL PLAN
 SHEET 1 OF 2

VERT. SCALE: 1"=20'
 HORIZ. SCALE: 1"=20'
 DATE: OCTOBER 31, 2008

DRAWN BY TC
 CHECKED BY SBP

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	10
STA. 20+25		TO STA. 23+92.54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

REMOVAL OF ITEM (TREE TYPICAL)	
REMOVAL OF LINEAR ITEM (PAVEMENT MARKINGS TYPICAL)	
REMOVAL OF PAVEMENT	
REMOVAL OF GRAVEL SHOULDER PAID FOR AS EARTH EXCAVATION	
BITUMINOUS CONCRETE SHOULDER REMOVAL	
SOIL BORING LOCATION AND NAME	



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

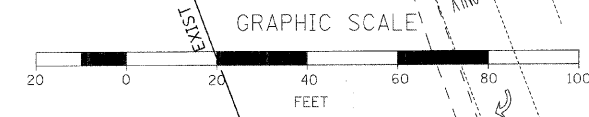
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 EXISTING CONDITIONS & REMOVAL PLAN
 SHEET 2 OF 2

SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE: OCTOBER 31, 2008

DRAWN BY TC
 CHECKED BY SBP

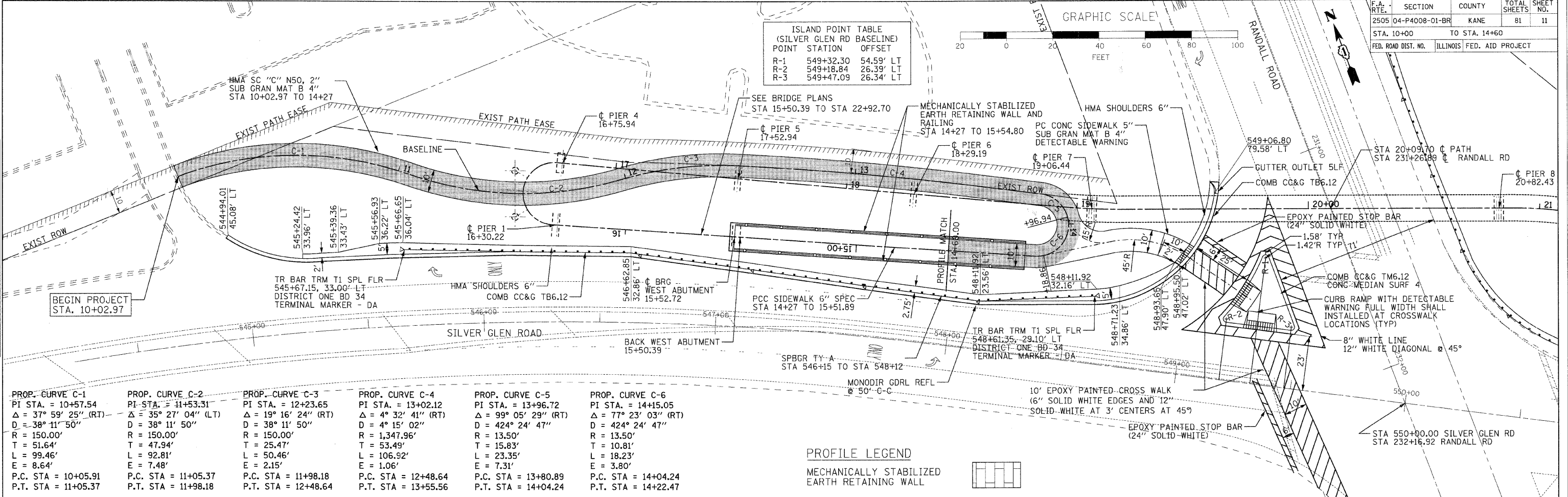
PLOT DATE = 11/14/2008
 FILE NAME = H:\STC\p\k\d\st\1168648\k\k\Brdge\Design\Draw\01.1168648.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF#

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	04-P4008-01-BR	KANE	81	11
STA. 10+00		TO STA. 14+60		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



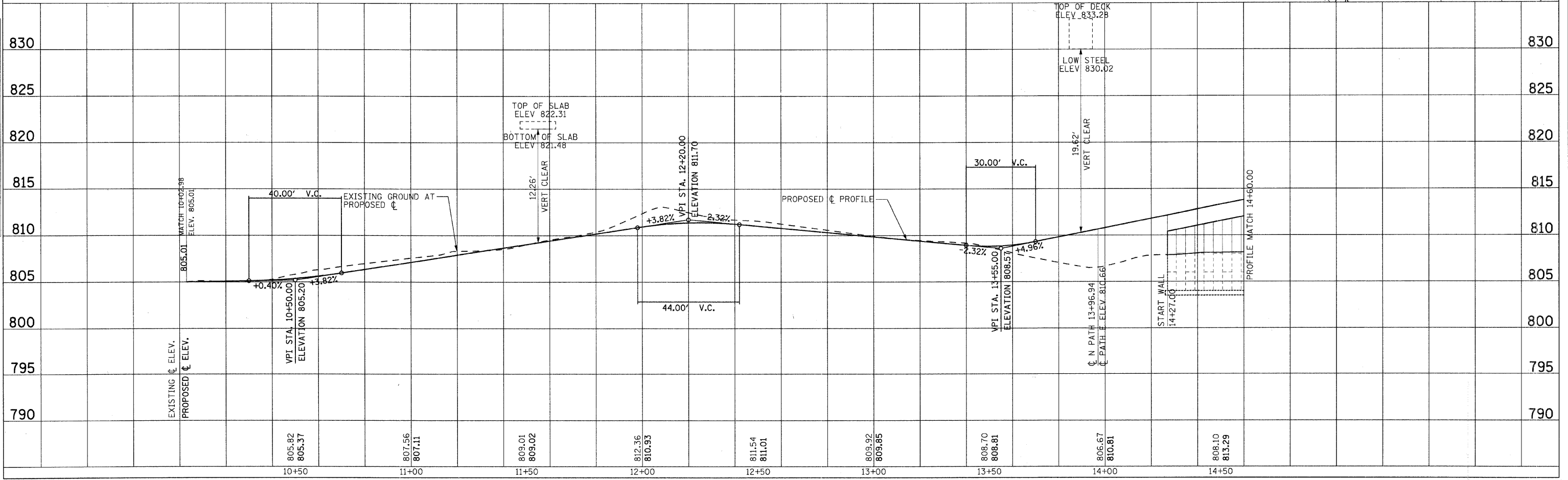
ISLAND POINT TABLE
(SILVER GLEN RD BASELINE)

POINT	STATION	OFFSET
R-1	549+32.30	54.59' LT
R-2	549+18.84	26.39' LT
R-3	549+47.09	26.34' LT



PROP. CURVE C-1	PROP. CURVE C-2	PROP. CURVE C-3	PROP. CURVE C-4	PROP. CURVE C-5	PROP. CURVE C-6
PI STA. = 10+57.54	PI STA. = 11+53.31	PI STA. = 12+23.65	PI STA. = 13+02.12	PI STA. = 13+96.72	PI STA. = 14+15.05
$\Delta = 37^\circ 59' 25''$ (RT)	$\Delta = 35^\circ 27' 04''$ (LT)	$\Delta = 19^\circ 16' 24''$ (RT)	$\Delta = 4^\circ 32' 41''$ (RT)	$\Delta = 99^\circ 05' 29''$ (RT)	$\Delta = 77^\circ 23' 03''$ (RT)
D = 38' 11" 50"	D = 38' 11" 50"	D = 38' 11" 50"	D = 4' 15" 02"	D = 424' 24" 47"	D = 424' 24" 47"
R = 150.00'	R = 150.00'	R = 150.00'	R = 1,347.96'	R = 13.50'	R = 13.50'
T = 51.64'	T = 47.94'	T = 25.47'	T = 53.49'	T = 15.83'	T = 10.81'
L = 99.46'	L = 92.81'	L = 50.46'	L = 106.92'	L = 23.35'	L = 18.23'
E = 8.64'	E = 7.48'	E = 2.15'	E = 1.06'	E = 7.31'	E = 3.80'
P.C. STA = 10+05.91	P.C. STA = 11+05.37	P.C. STA = 11+98.18	P.C. STA = 12+48.64	P.C. STA = 13+80.89	P.C. STA = 14+04.24
P.T. STA = 11+05.37	P.T. STA = 11+98.18	P.T. STA = 12+48.64	P.T. STA = 13+55.56	P.T. STA = 14+04.24	P.T. STA = 14+22.47

PROFILE LEGEND
 MECHANICALLY STABILIZED EARTH RETAINING WALL

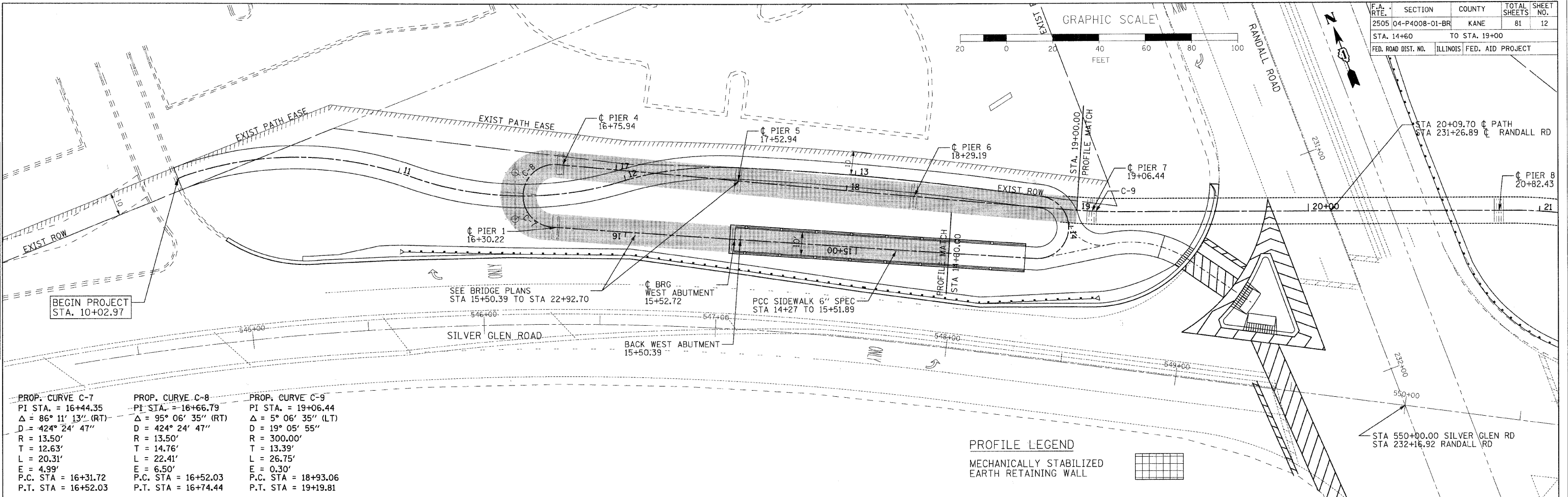
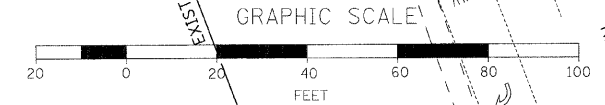


DATE: 11/4/2008
 FILE NAME: H:\STC\Per\H01\1168648\Bike Br\ds\Design\Ugn\02_1168648\pp1.dwg
 PLOT SCALE: 1"=20'
 USER NAME: USER

PLAN: SURVEYED, ALIGNED, CHECKED, PAVED, FILE NAME, NO., DATE

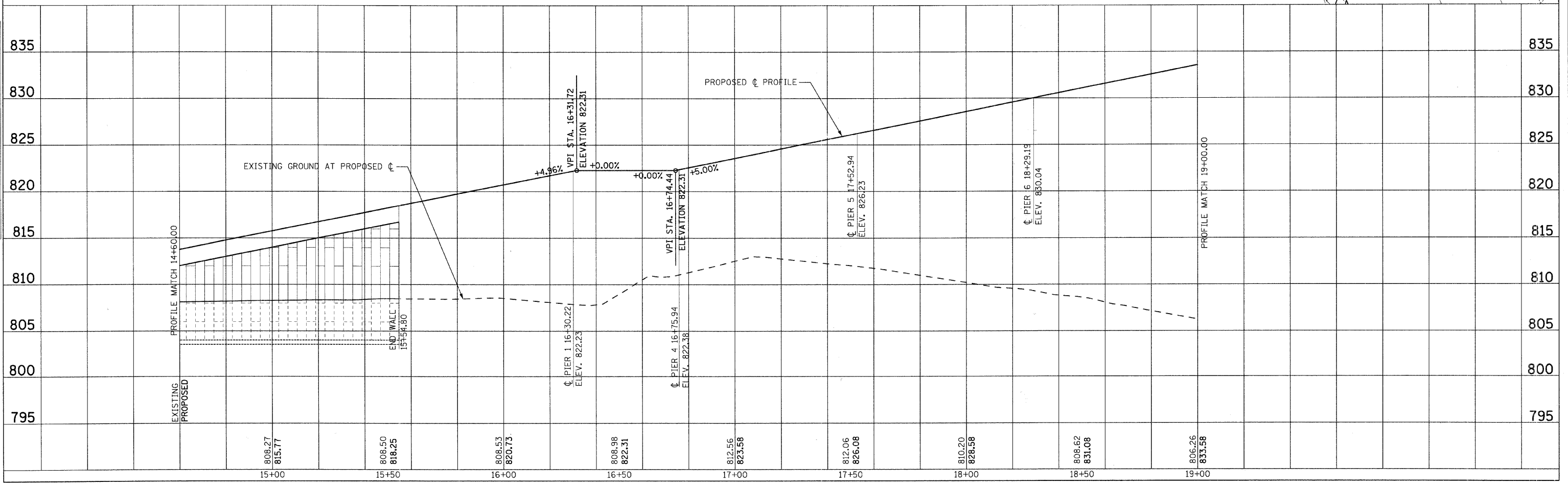
PROFILE: SURVEYED, GRADES CHECKED, ROAD NOTED, PROFILE NOTATIONS CHKO, NO., DATE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	04-P4008-01-BR	KANE	81	12
STA. 14+60		TO STA. 19+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



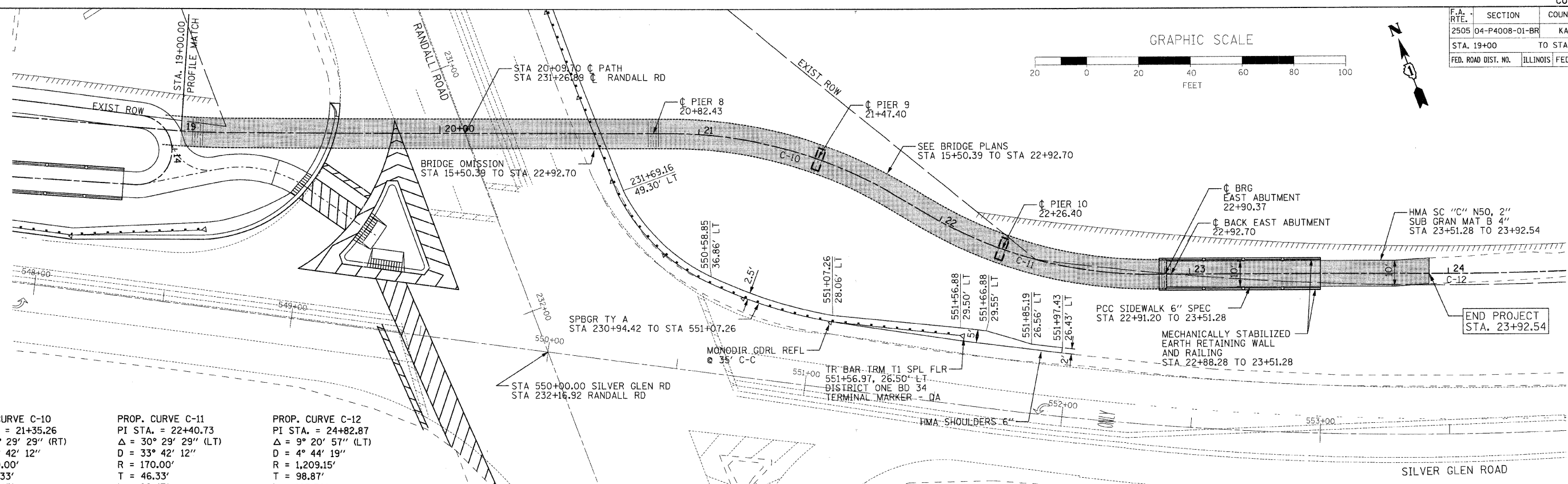
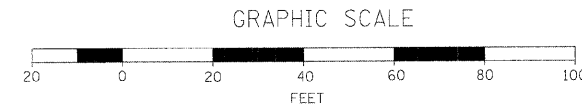
PROP. CURVE C-7 PI STA. = 16+44.35 Δ = 86° 11' 13" (RT) D = 424° 24' 47" R = 13.50' T = 12.63' L = 20.31' E = 4.99' P.C. STA = 16+31.72 P.T. STA = 16+52.03	PROP. CURVE C-8 PI STA. = 16+66.79 Δ = 95° 06' 35" (RT) D = 424° 24' 47" R = 13.50' T = 14.76' L = 22.41' E = 6.50' P.C. STA = 16+52.03 P.T. STA = 16+74.44	PROP. CURVE C-9 PI STA. = 19+06.44 Δ = 5° 06' 35" (LT) D = 19° 05' 55" R = 300.00' T = 13.39' L = 26.75' E = 0.30' P.C. STA = 18+93.06 P.T. STA = 19+19.81
---	---	--

PROFILE LEGEND
MECHANICALLY STABILIZED EARTH RETAINING WALL

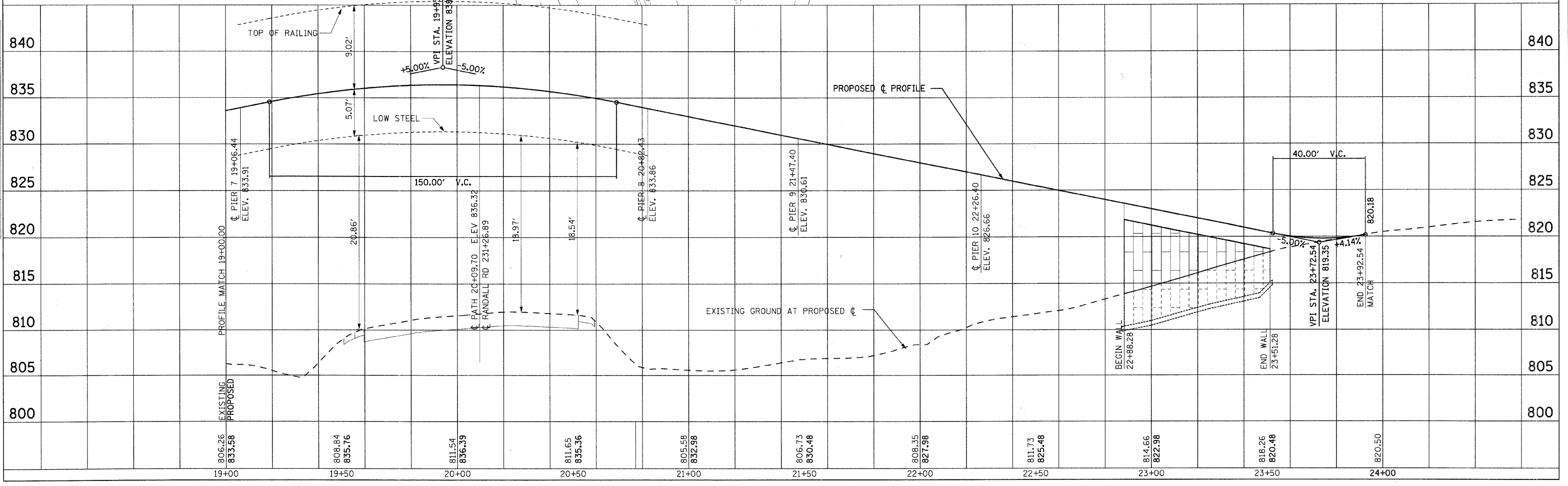
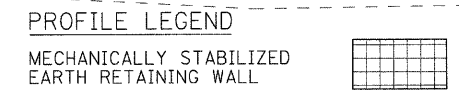


SURVEYED BY: [] DATE: []
 PLAN NO. []
 CHECKED BY: []
 DATE: []
 FILE NAME: H:\STC\p-hd\st1160648\k Bridge Design\Drawn\04-1160648\p2.dwg
 PLOT SCALE: 1"=20'
 USER NAME: _JSEB_

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	04-P4008-01-BR	KANE	81	13
STA. 19+00		TO STA. 23+92.54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



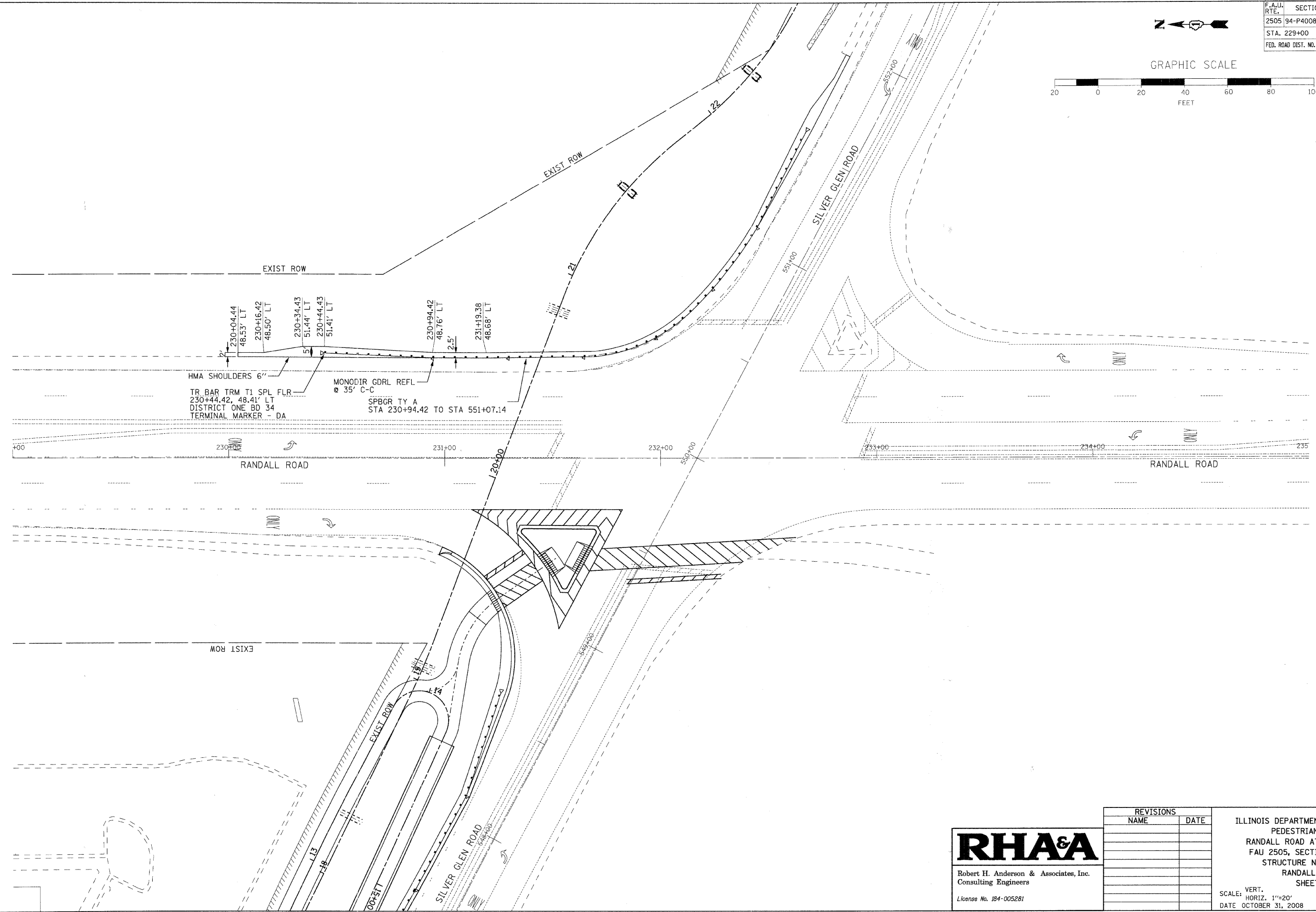
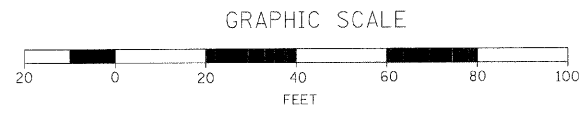
- PROP. CURVE C-10**
 PI STA. = 21+35.26
 $\Delta = 30^\circ 29' 29''$ (RT)
 $D = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 46.33'$
 $L = 90.47'$
 $E = 6.20'$
 P.C. STA = 20+88.93
 P.T. STA = 21+79.40
- PROP. CURVE C-11**
 PI STA. = 22+40.73
 $\Delta = 30^\circ 29' 29''$ (LT)
 $D = 33^\circ 42' 12''$
 $R = 170.00'$
 $T = 46.33'$
 $L = 90.47'$
 $E = 6.20'$
 P.C. STA = 21+94.40
 P.T. STA = 22+84.87
- PROP. CURVE C-12**
 PI STA. = 24+82.87
 $\Delta = 9^\circ 20' 57''$ (LT)
 $D = 4^\circ 44' 19''$
 $R = 1,209.15'$
 $T = 98.87'$
 $L = 197.30'$
 $E = 4.04'$
 P.C. STA = 23+84.00
 P.T. STA = 25+81.30



DATE	BY	DATE	BY
11/4/2008	USER		
SURVEYED: _____ ALIGNED: _____ CHECKED: _____ DATE: _____ DRAWN: _____ DATE: _____ CHECKED: _____ DATE: _____			
PLAN: _____ NO.: _____ DATE: _____			
PROFILE: _____ NO.: _____ DATE: _____			

PLOT DATE = 11/4/2008
 FILE NAME = H:\STC\p\rd\116848\k\Brdge\Design\Ugn\06_116848\ep3.dwg
 PLOT SCALE = 1"=20'
 USER NAME = _USER_

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	14
STA. 229+00		TO STA. 235+00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



230+04.44
48.53' LT
 230+16.42
48.50' LT
 230+34.43
51.44' LT
 230+44.43
51.41' LT
 230+94.42
48.76' LT
 231+19.38
48.68' LT

HMA SHOULDERS 6"
 TR BAR TRM T1 SPL FLR
 230+44.42, 48.41' LT
 DISTRICT ONE BD 34
 TERMINAL MARKER - DA

MONODIR GDRL REFL
 @ 35' C-C
 SPBGR TY A
 STA 230+94.42 TO STA 551+07.14

PLOT DATE = 11/14/2008
 FILE NAME = H:\STC\p\h\0\1168648\k\k\ Bridge Design\Drawn\08_1168648.rwd.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF#

RHAA

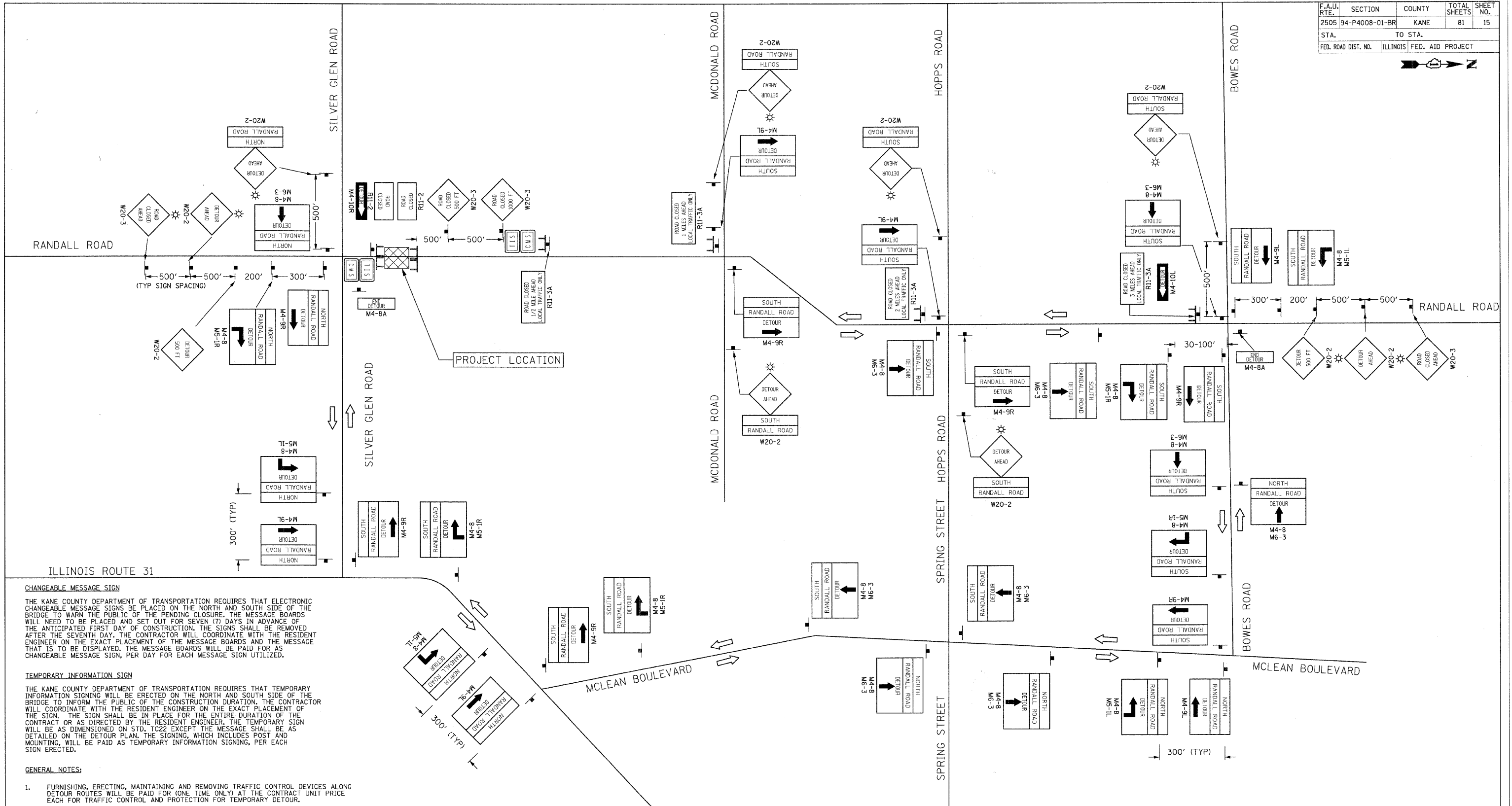
Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 RANDALL ROAD PLAN
 SHEET 1 OF 1

SCALE: VERT. DRAWN BY TC
 HORIZ. 1"=20' CHECKED BY SBP
 DATE OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



CHANGEABLE MESSAGE SIGN

THE KANE COUNTY DEPARTMENT OF TRANSPORTATION REQUIRES THAT ELECTRONIC CHANGEABLE MESSAGE SIGNS BE PLACED ON THE NORTH AND SOUTH SIDE OF THE BRIDGE TO WARN THE PUBLIC OF THE PENDING CLOSURE. THE MESSAGE BOARDS WILL NEED TO BE PLACED AND SET OUT FOR SEVEN (7) DAYS IN ADVANCE OF THE ANTICIPATED FIRST DAY OF CONSTRUCTION. THE SIGNS SHALL BE REMOVED AFTER THE SEVENTH DAY. THE CONTRACTOR WILL COORDINATE WITH THE RESIDENT ENGINEER ON THE EXACT PLACEMENT OF THE MESSAGE BOARDS AND THE MESSAGE THAT IS TO BE DISPLAYED. THE MESSAGE BOARDS WILL BE PAID FOR AS CHANGEABLE MESSAGE SIGN, PER DAY FOR EACH MESSAGE SIGN UTILIZED.

TEMPORARY INFORMATION SIGN

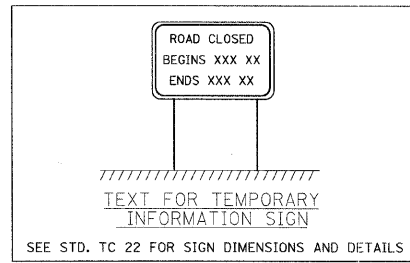
THE KANE COUNTY DEPARTMENT OF TRANSPORTATION REQUIRES THAT TEMPORARY INFORMATION SIGNING WILL BE ERRECTED ON THE NORTH AND SOUTH SIDE OF THE BRIDGE TO INFORM THE PUBLIC OF THE CONSTRUCTION DURATION. THE CONTRACTOR WILL COORDINATE WITH THE RESIDENT ENGINEER ON THE EXACT PLACEMENT OF THE SIGN. THE SIGN SHALL BE IN PLACE FOR THE ENTIRE DURATION OF THE CONTRACT OR AS DIRECTED BY THE RESIDENT ENGINEER. THE TEMPORARY SIGN WILL BE AS DIMENSIONED ON STD. TC22 EXCEPT THE MESSAGE SHALL BE AS DETAILED ON THE DETOUR PLAN. THE SIGNING, WHICH INCLUDES POST AND MOUNTING, WILL BE PAID AS TEMPORARY INFORMATION SIGNING, PER EACH SIGN ERRECTED.

GENERAL NOTES:

- FURNISHING, ERRECTING, MAINTAINING AND REMOVING TRAFFIC CONTROL DEVICES ALONG DETOUR ROUTES WILL BE PAID FOR (ONE TIME ONLY) AT THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.

LEGEND

- TIS TEMPORARY INFORMATION SIGN
- CMS CHANGEABLE MESSAGE SIGN
- ↔ DETOUR ROUTE
- ⊥ TYPE III BARRICADE WITH TYPE A FLASHER
- * TYPE A FLASHER



PLOT DATE = 11/14/2008
 FILE NAME = H:\STCPE\K01\stc1169648\k01169648\DETOUR2.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#

RHA&A

Robert H. Anderson & Associates, Inc.
 Consulting Engineers

License No. 184-005281

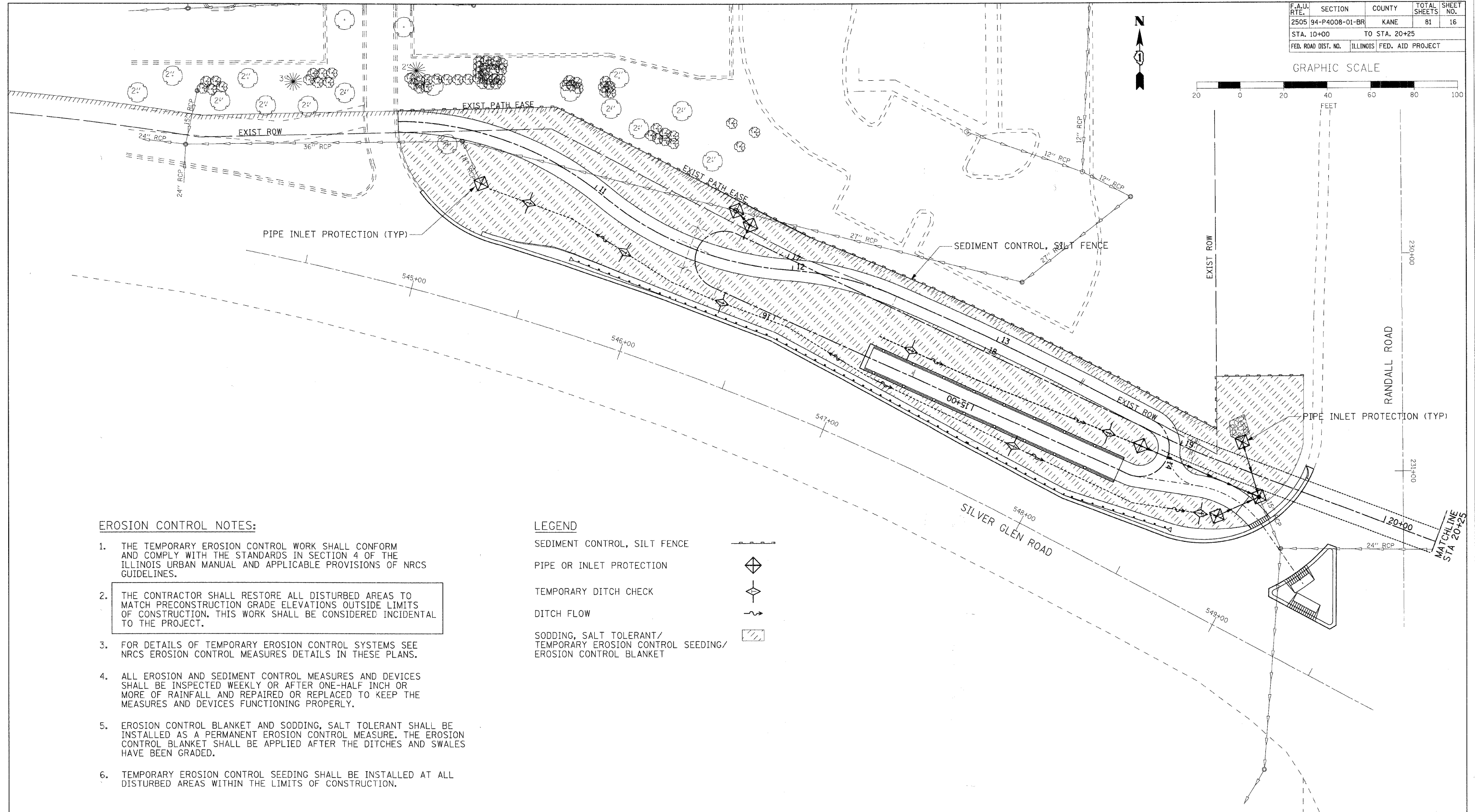
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 DETOUR PLAN
 SHEET 1 OF 1

SCALE: VERT. HORIZ. NONE
 DATE: OCTOBER 31, 2008
 DRAWN BY: TC
 CHECKED BY: SBP

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	16
STA. 10+00		TO STA. 20+25		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GRAPHIC SCALE



EROSION CONTROL NOTES:

1. THE TEMPORARY EROSION CONTROL WORK SHALL CONFORM AND COMPLY WITH THE STANDARDS IN SECTION 4 OF THE ILLINOIS URBAN MANUAL AND APPLICABLE PROVISIONS OF NRCS GUIDELINES.
2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO MATCH PRECONSTRUCTION GRADE ELEVATIONS OUTSIDE LIMITS OF CONSTRUCTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. FOR DETAILS OF TEMPORARY EROSION CONTROL SYSTEMS SEE NRCS EROSION CONTROL MEASURES DETAILS IN THESE PLANS.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSPECTED WEEKLY OR AFTER ONE-HALF INCH OR MORE OF RAINFALL AND REPAIRED OR REPLACED TO KEEP THE MEASURES AND DEVICES FUNCTIONING PROPERLY.
5. EROSION CONTROL BLANKET AND SODDING, SALT TOLERANT SHALL BE INSTALLED AS A PERMANENT EROSION CONTROL MEASURE. THE EROSION CONTROL BLANKET SHALL BE APPLIED AFTER THE DITCHES AND SWALES HAVE BEEN GRADED.
6. TEMPORARY EROSION CONTROL SEEDING SHALL BE INSTALLED AT ALL DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION.

LEGEND

- SEDIMENT CONTROL, SILT FENCE
- PIPE OR INLET PROTECTION
- TEMPORARY DITCH CHECK
- DITCH FLOW
- SODDING, SALT TOLERANT/
TEMPORARY EROSION CONTROL SEEDING/
EROSION CONTROL BLANKET

PLOT DATE = 11/4/2008
 FILE NAME = H:\S1\CP\Per\K0\dat\1168648\k0_1168648\ER01.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF



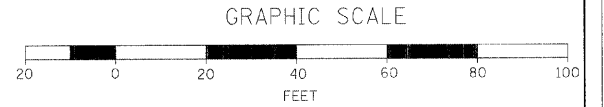
Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

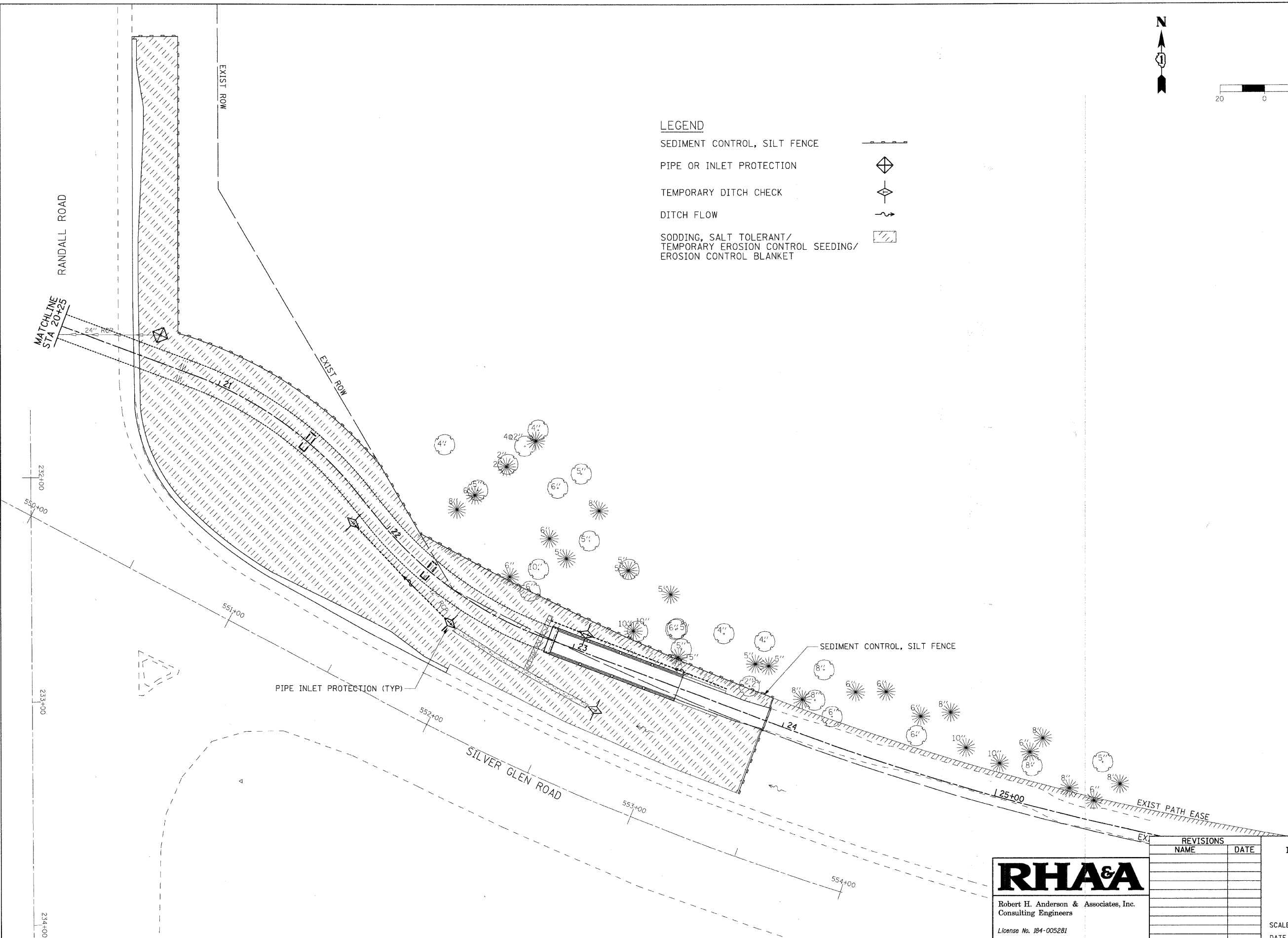
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 SEDIMENT AND EROSION CONTROL
 SHEET 1 OF 2

SCALE: VERT. DRAWN BY TC
 HORIZ. 1"=20' CHECKED BY SBP
 DATE OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	17
STA. 20+25		TO STA. 23+92.54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- LEGEND**
- SEDIMENT CONTROL, SILT FENCE
 - PIPE OR INLET PROTECTION
 - TEMPORARY DITCH CHECK
 - DITCH FLOW
 - SODDING, SALT TOLERANT/
TEMPORARY EROSION CONTROL SEEDING/
EROSION CONTROL BLANKET



PLOT DATE = 11/14/2008
 FILE NAME = H:\STC\p-k\dwt\116864B\kce Bridge\Design\Drawings\116864FERR02.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF#

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

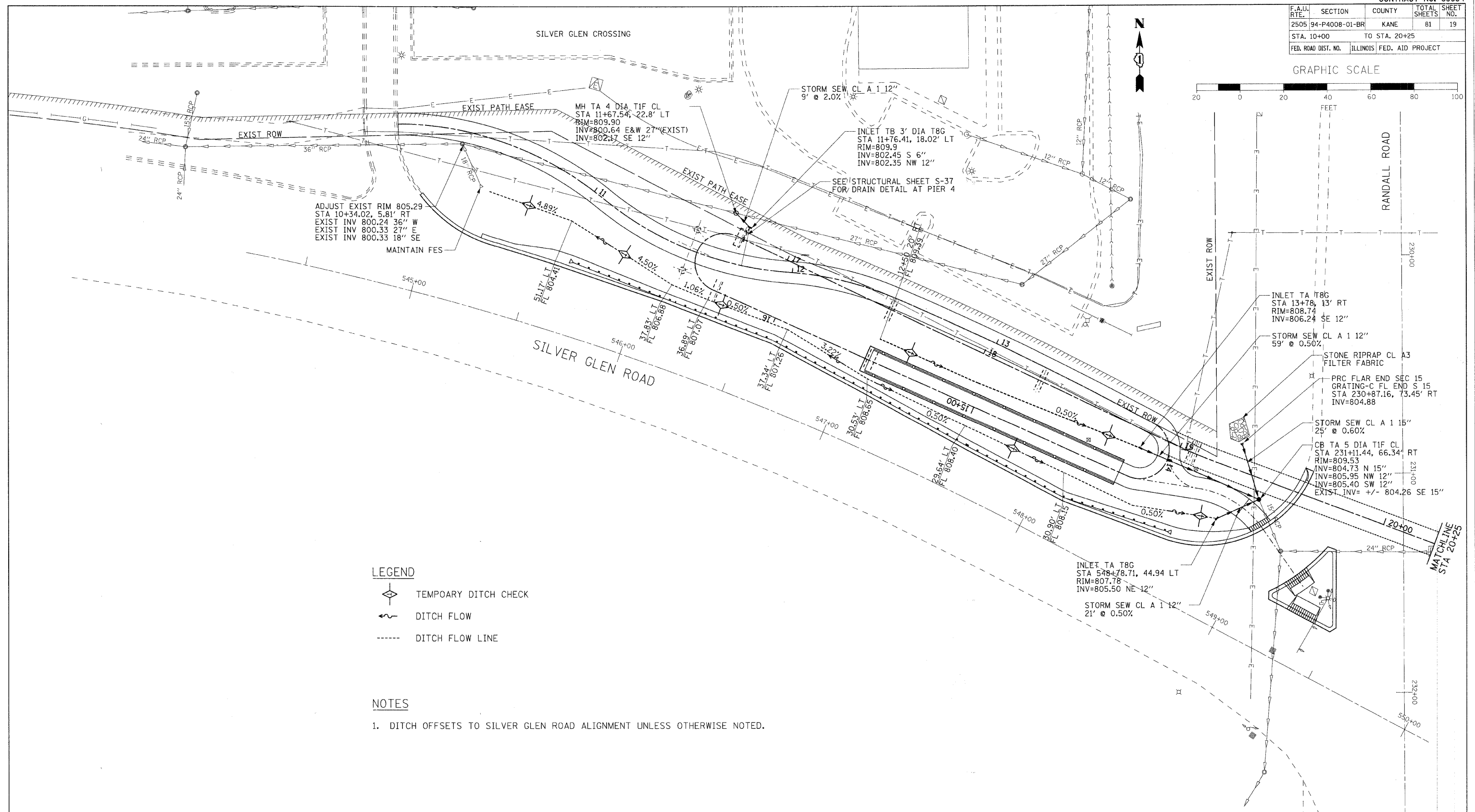
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 SEDIMENT AND EROSION CONTROL
 SHEET 2 OF 2

SCALE: VERT. DRAWN BY TC
 HORIZ. 1"=20' CHECKED BY SBP
 DATE OCTOBER 31, 2008

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505 94-P4008-01-BR	KANE	81	19
STA. 10+00 TO STA. 20+25			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

GRAPHIC SCALE



PLOT DATE = 11/4/2008
FILE NAME = H:\STC\Projects\116864\Bike Bridges\Design\Drawings\116864-DR101.dgn
PLOT SCALE = 1"=20'
REFERENCE = #REF#

RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

REVISIONS	
NAME	DATE

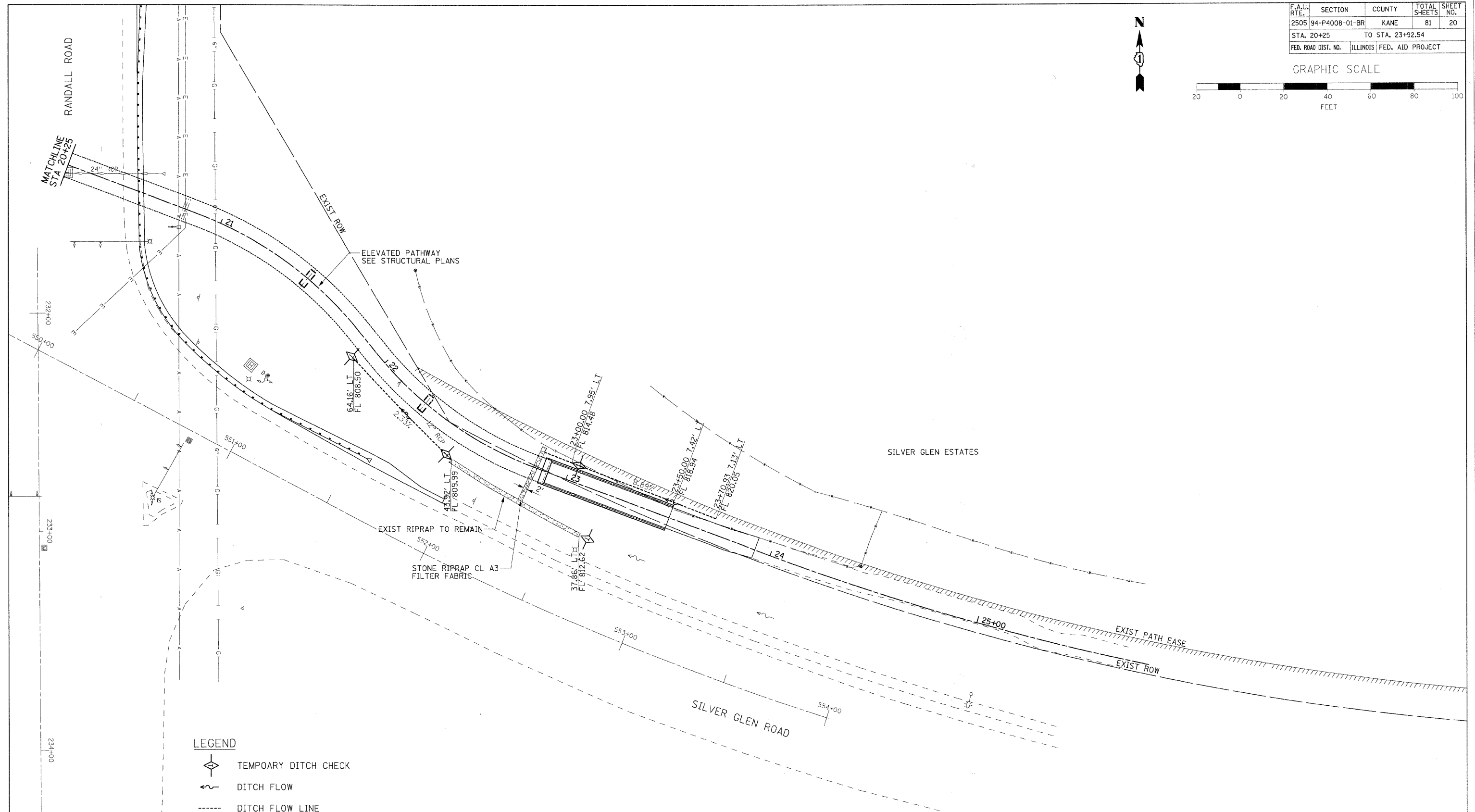
ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
DRAINAGE AND UTILITIES
SHEET 1 OF 2

VERT. SCALE: 1"=20'
HORIZ. SCALE: 1"=20'
DATE: OCTOBER 31, 2008

DRAWN BY: TC
CHECKED BY: SBP

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	20
STA. 20+25		TO STA. 23+92.54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GRAPHIC SCALE



NOTES

1. DITCH OFFSETS TO SILVER GLEN ROAD ALIGNMENT UNLESS OTHERWISE NOTED.

REVISIONS	
NAME	DATE

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

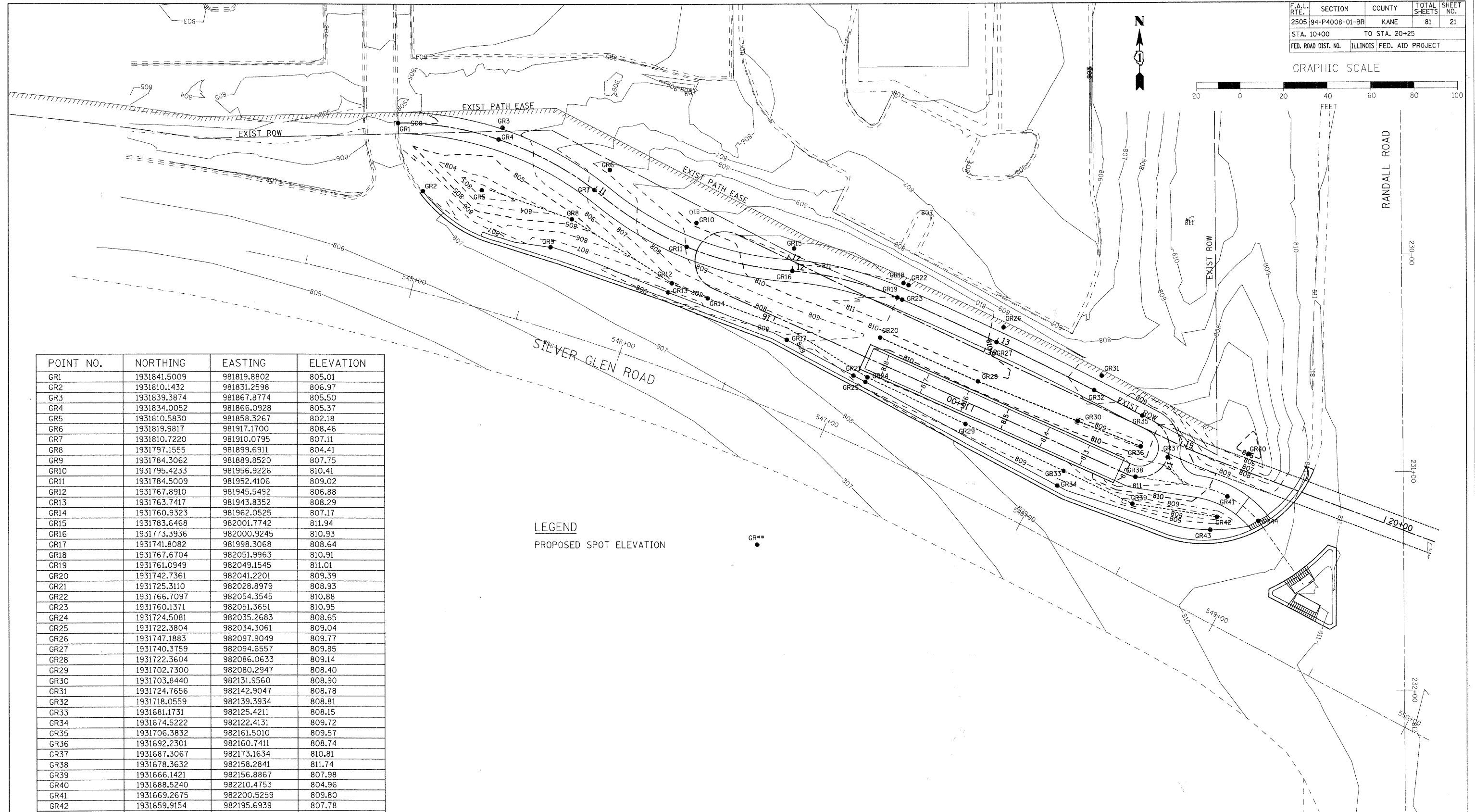
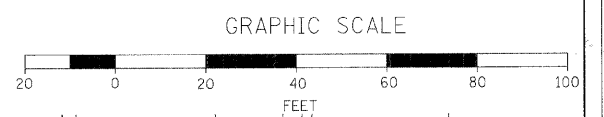
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 DRAINAGE AND UTILITIES
 SHEET 2 OF 2

SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE OCTOBER 31, 2008

DRAWN BY TC
 CHECKED BY SBP

PLOT DATE = 11/4/2008
 FILE NAME = H:\STCF\k-k\dwt\116864\B\k B\edge\Design\08_116864\DR02.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF#

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	21
STA. 10+00		TO STA. 20+25		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



POINT NO.	NORTHING	EASTING	ELEVATION
GR1	1931841.5009	981819.8802	805.01
GR2	1931810.1432	981831.2598	806.97
GR3	1931839.3874	981867.8774	805.50
GR4	1931834.0052	981866.0928	805.37
GR5	1931810.5830	981858.3267	802.18
GR6	1931819.9817	981917.1700	808.46
GR7	1931810.7220	981910.0795	807.11
GR8	1931797.1555	981899.6911	804.41
GR9	1931784.3062	981889.8520	807.75
GR10	1931795.4233	981956.9226	810.41
GR11	1931784.5009	981952.4106	809.02
GR12	1931767.8910	981945.5492	806.88
GR13	1931763.7417	981943.8352	808.29
GR14	1931760.9323	981962.0525	807.17
GR15	1931783.6468	982001.7742	811.94
GR16	1931773.3936	982000.9245	810.93
GR17	1931741.8082	981998.3068	808.64
GR18	1931767.6704	982051.9963	810.91
GR19	1931761.0949	982049.1545	811.01
GR20	1931742.7361	982041.2201	809.39
GR21	1931725.3110	982028.8979	808.93
GR22	1931766.7097	982054.3545	810.88
GR23	1931760.1371	982051.3651	810.95
GR24	1931724.5081	982035.2683	808.65
GR25	1931722.3804	982034.3061	809.04
GR26	1931747.1883	982097.9049	809.77
GR27	1931740.3759	982094.6557	809.85
GR28	1931722.3604	982086.0633	809.14
GR29	1931702.7300	982080.2947	808.40
GR30	1931703.8440	982131.9560	808.90
GR31	1931724.7656	982142.9047	808.78
GR32	1931718.0559	982139.3934	808.81
GR33	1931681.1731	982125.4211	808.15
GR34	1931674.5222	982122.4131	809.72
GR35	1931706.3832	982161.5010	809.57
GR36	1931692.2301	982160.7411	808.74
GR37	1931687.3067	982173.1634	810.81
GR38	1931678.3632	982158.2841	811.74
GR39	1931666.1421	982156.8867	807.98
GR40	1931688.5240	982210.4753	804.96
GR41	1931669.2675	982200.5259	809.80
GR42	1931659.9154	982195.6939	807.78
GR43	1931653.9682	982192.6211	809.50
GR44	1931658.0549	982214.7640	809.22

LEGEND
PROPOSED SPOT ELEVATION

GR**

PLOT DATE = 11/4/2008
FILE NAME = H:\STC\FE-K01\1168646\Brdge\Design\Draw\08.1168646\GR1.dgn
PLOT SCALE = 1"=20'
REFERENCE = #REF#

RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

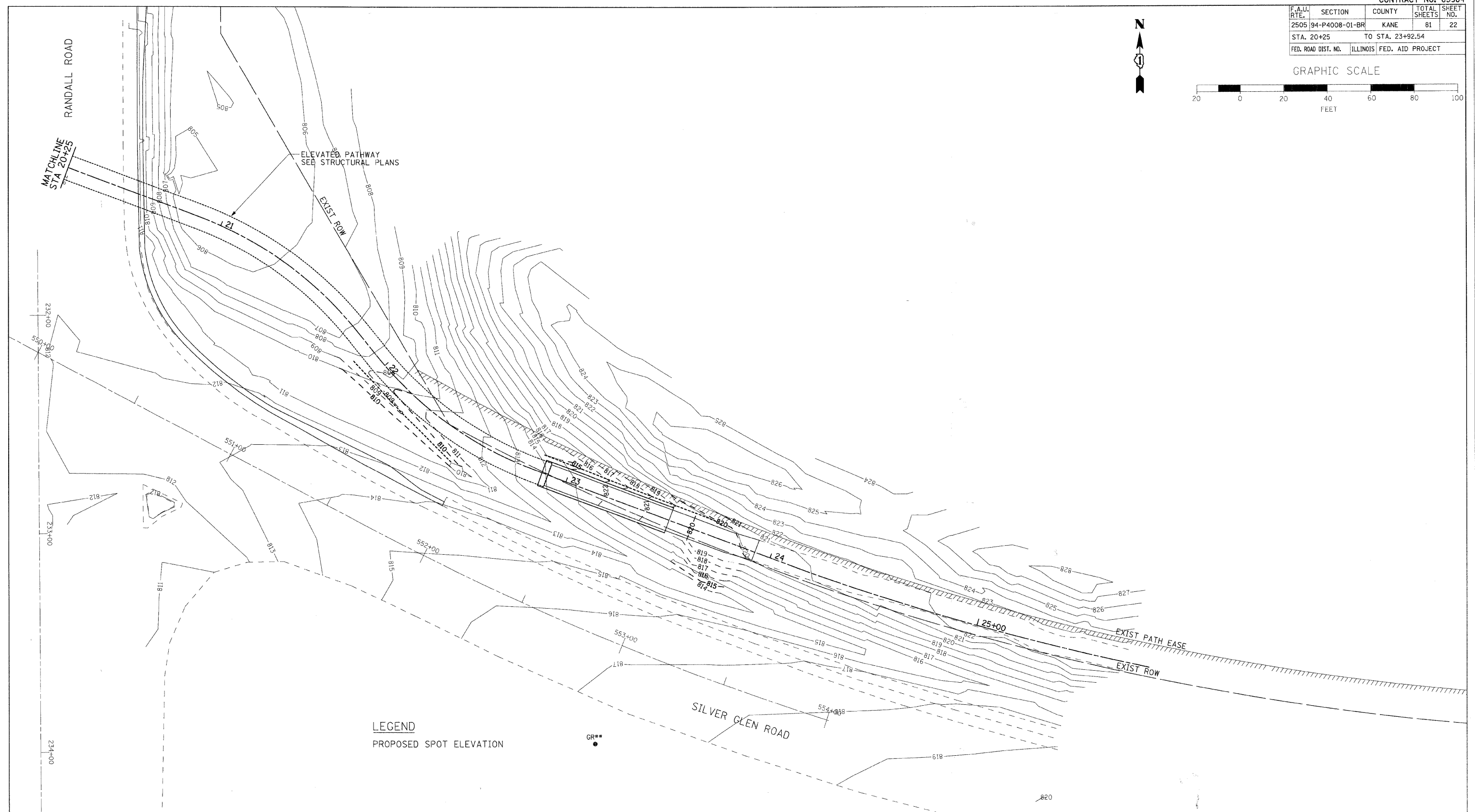
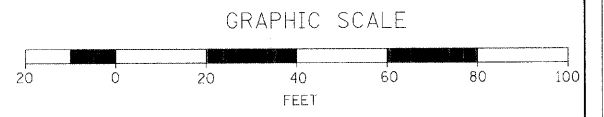
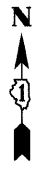
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
GRADING PLAN
SHEET 1 OF 2

SCALE: VERT. 1"=20'
HORIZ. 1"=20'
DATE OCTOBER 31, 2008

DRAWN BY TC
CHECKED BY SBP

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	22
STA. 20+25		TO STA. 23+92.54		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND
 PROPOSED SPOT ELEVATION

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 GRADING PLAN
 SHEET 2 OF 2
 VERT. SCALE: 1"=20'
 HORIZ. SCALE: 1"=20'
 DATE: OCTOBER 31, 2008
 DRAWN BY: TC
 CHECKED BY: SBP

PLOT DATE = 11/4/2008
 FILE NAME = H:\STC\p\ad\at\1168648\ike_Bridge\Design\Draw\8.1168648R02.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	23
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GRAPHIC SCALE



REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, 1 EACH

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

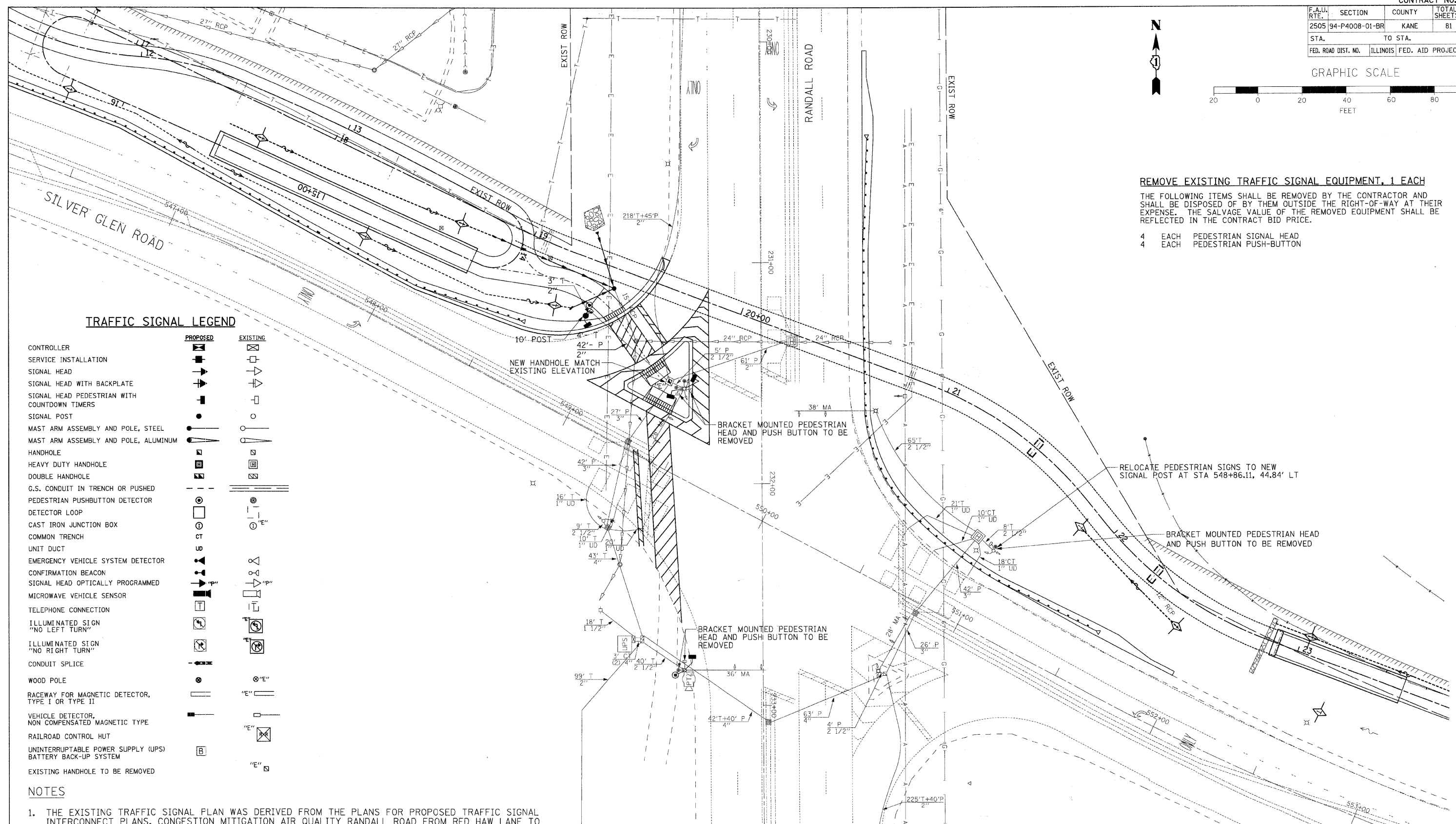
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH-BUTTON

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMERS	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL HUT	[Symbol]	[Symbol]
UNINTERRUPTABLE POWER SUPPLY (UPS) BATTERY BACK-UP SYSTEM	[Symbol]	[Symbol]
EXISTING HANDHOLE TO BE REMOVED	[Symbol]	[Symbol]

NOTES

1. THE EXISTING TRAFFIC SIGNAL PLAN WAS DERIVED FROM THE PLANS FOR PROPOSED TRAFFIC SIGNAL INTERCONNECT PLANS, CONGESTION MITIGATION AIR QUALITY RANDALL ROAD FROM RED HAW LANE TO SILVER GLEN ROAD AND IL RT 72 TO BINNIE ROAD, JUNE 13, 2008, AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY THAT THE PLANS MATCH EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES PRIOR TO CONSTRUCTION.
2. ALL COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL BE 16" X 18".



PLOT DATE = 11/4/2008
 FILE NAME = H:\AS\CP\p4008-01-BR\Design\Drawings\11606451081.dgn
 PLOT SCALE = 1"=20'
 REFERENCE = #REF#

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 TRAFFIC SIGNAL PLAN
 SHEET 1 OF 1

VERT. SCALE: 1"=20'
 HORIZ. SCALE: 1"=20'
 DATE: OCTOBER 31, 2008

DRAWN BY: TC
 CHECKED BY: SBP

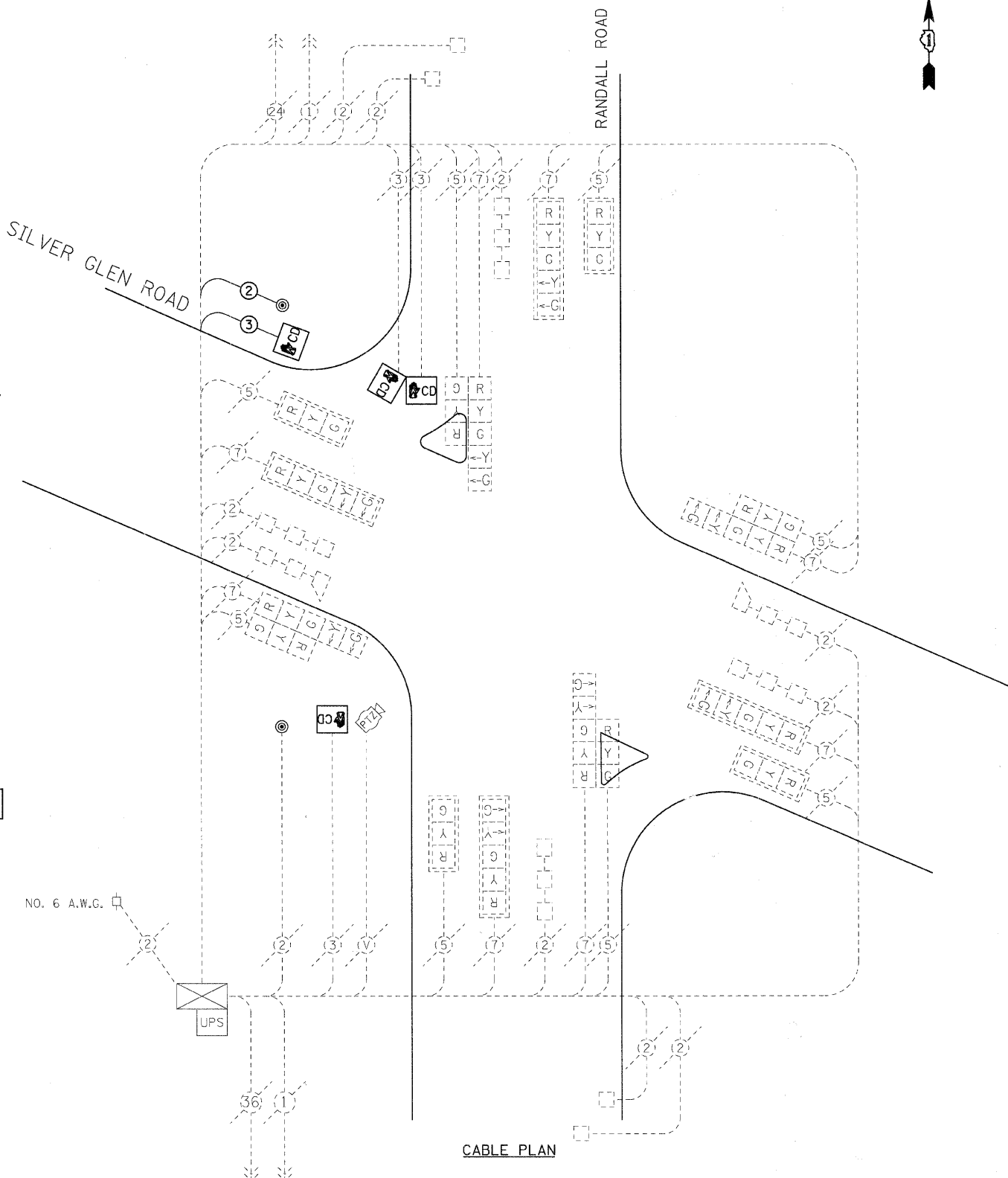
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	24
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

EXISTING TRAFFIC SIGNALS LEGEND (SHEET DETAILS)

- EXISTING CABLE NUMBER
* = CABLE NUMBER
- GROUND CABLE IN CONDUIT
NO. 6 SOLID COPPER (GREEN)
- FIBER OPTIC CABLE IN CONDUIT
NO. 62.5/125 2-MM12F SM12F
- FIBER OPTIC CABLE IN CONDUIT
NO. 62.5/125 2-MM12F SM42F
- LEFT TURN YELLOW
- LEFT TURN GREEN
- SIGNAL SECTION 8"
- SIGNAL SECTION 12"
- WALK/DON'T WALK SECTION
- TRAFFIC SIGNAL BACKPLATE
- DOME CAMERA (PAN/TILT/ZOOM)
- UNINTERRUPTIBLE POWER SUPPLY
- VENDOR SPECIFIC CABLE

CABLE PLAN LEGEND

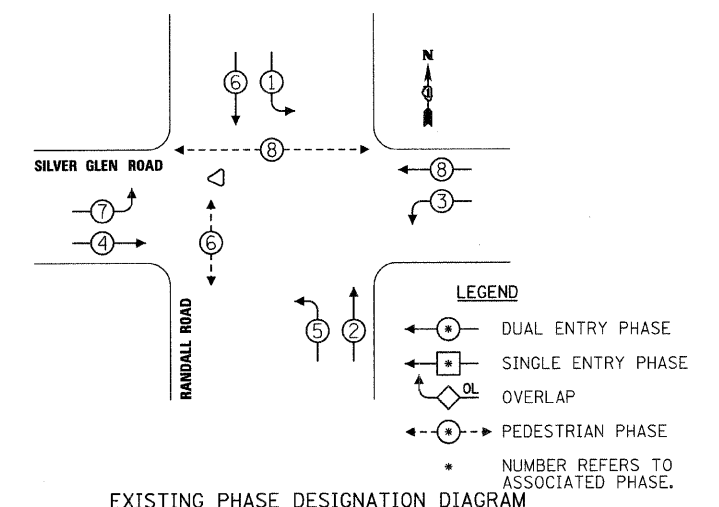
- CONTROLLER CABINET
- SERVICE INSTALLATION
- TELEPHONE SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- EMERGENCY VEHICLE PRIORITY LIGHT DETECTOR
- EVPS CONFIRMATION BEACON
- DENOTES NUMBER OF CONDUCTORS.
ALL CABLE NO. 14 EXCEPT AS INDICATED.
ALL LOOP CABLE TO BE SHIELDED.
- FIBER OPTIC CABLE / TRACER CABLE
(SEE INTERCONNECT PLAN)
- LEAD-IN CABLE, 1 PAIR
- GROUND CABLE IN CONDUIT
NO. 6 SOLID COPPER (GREEN)
- SIGNAL FACE WITH BACKPLATE
- SIGNAL FACE WITHOUT BACKPLATE
- PEDESTRIAN SIGNAL HEAD
- PEDESTRIAN PUSH BUTTON
- UNINTERRUPTIBLE POWER SUPPLY (UPS),
BATTERY BACK-UP SYSTEM
- GROUND ROD
C: CONTROLLER
H: HANDHOLE
P: SIGNAL POST OR MAST ARM POLE
S: ELECTRIC SERVICE INSTALLATION



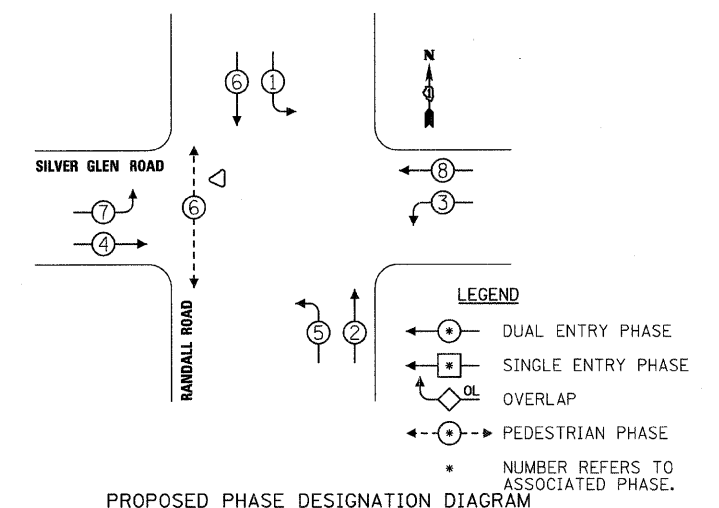
CABLE PLAN

SCHEDULE OF QUANTITIES

DESCRIPTION	UNITS	QUANTITY
RELOCATE SIGN PANEL - TYPE 1	SQ FT	6
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	3
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	46
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	235
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	245
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	8
REMOVE EXISTING HANDHOLE	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1



EXISTING PHASE DESIGNATION DIAGRAM



PROPOSED PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	16	17	0.50		136.0
(YELLOW)	16	25	0.25		100.0
(GREEN)	16	15	0.25		60.0
ARROW	16	12	0.10		19.20
PED. SIGNAL	4	25	1.00		100.0
CONTROLLER	1	100	1.00		100.0
VIDEO SYSTEM	1	150	1.00		150.0
TOTAL =					665.20

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
		FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA WILL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION WILL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. IB4-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
CABLE DIAGRAM AND SCHEDULE OF QUANTITIES
SHEET 1 OF 1

SCALE: VERT. NONE
HORIZ. NONE
DATE: OCTOBER 31, 2008

DRAWN BY: TC
CHECKED BY: SBP

PLOT DATE = 11/14/2008
 FILE NAME = H:\STC\p\cable\116864\Bike Bridge\Design\08_116864\CABLE01.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#

Benchmark: Top of nut on fire hydrant located at the northwest corner of the intersection of Randall Road and Silver Glen Road. Elev. 809.17

Existing Structure: None

Salvage: None

CURVE DATA (along \hat{C} Path)

	CURVE 7 (C-7)	CURVE 8 (C-8)	CURVE 9 (C-9)	CURVE 10 (C-10)	CURVE 11 (C-11)
Δ	86°11'13" (RT)	95°06'35" (RT)	5°06'35" (RT)	30°29'29" (RT)	30°29'29" (LT)
D	424'24'47"	424'24'47"	19'05'54"	33'42'12"	33'42'12"
T	12.63'	14.76'	13.39'	46.33'	46.33'
L	20.31'	22.41'	26.75'	90.47'	90.47'
R	13.50'	13.50'	300.00'	170.00'	170.00'
E	4.99'	6.50'	0.30'	6.20'	6.20'
Sta. PI	16+44.35	16+66.79	19+06.45	21+35.26	22+40.73
Sta. PC	16+31.72	16+52.03	18+93.06	20+88.93	21+94.40
Sta. PT	16+52.03	16+74.44	19+19.82	21+79.40	22+84.87

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAU 2505	94-P4008-01-BR	KANE	81	25

SHEET NO. S-1
S-42 SHEETS

Contract #83984

DESIGN SPECIFICATIONS

2002 AASHTO with Interim Specifications
1997 AASHTO Guide Specifications for the Design of Pedestrian Bridges
2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges

LOADING H5 & PEDESTRIAN

85 psf Pedestrian Loading
MSE wall shall be designed for a min. surcharge of 85 psf and an equivalent fluid pressure of 50 psf.

DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

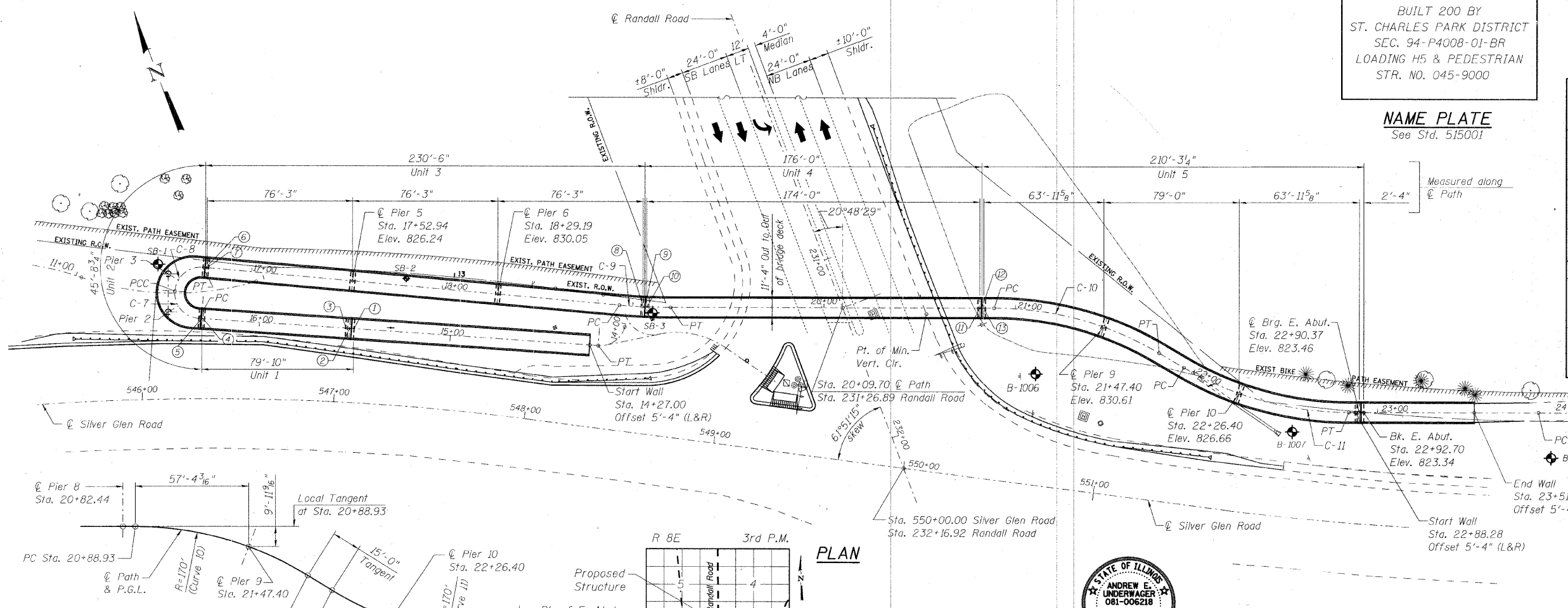
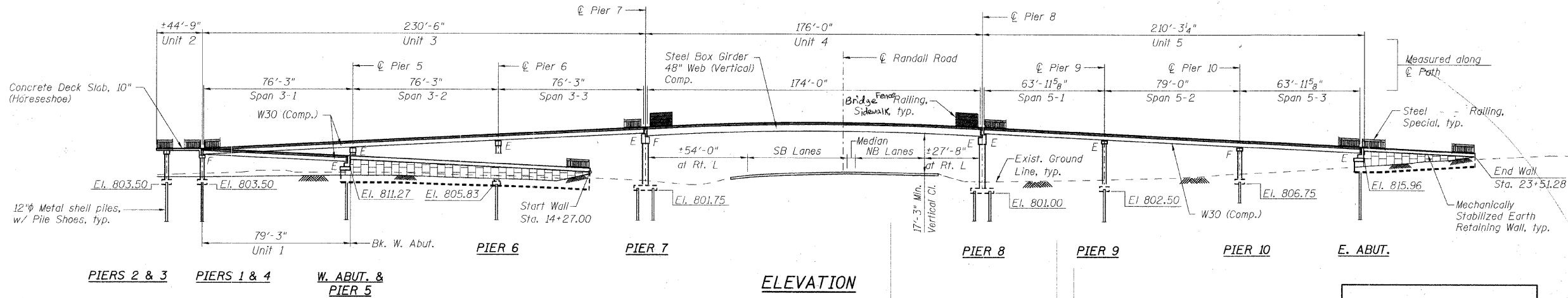
DATA POINTS

1 Bk. W. Abut. Sta. 15+50.39 Elev. 818.26	7 \hat{C} E. Brg. Pier 4 Sta. 16+76.69 Elev. 822.42
2 \hat{C} Brg. W. Abut. Sta. 15+52.72 Elev. 818.38	8 \hat{C} W. Brg. Pier 7 Sta. 19+05.44 Elev. 833.86
3 End Wall Sta. 15+54.80 Offset 5'-4" (L&R)	9 \hat{C} Pier 7 Sta. 19+06.44 Elev. 833.91
4 \hat{C} E. Brg. Pier 1 Sta. 16+29.47 Elev. 822.18	10 \hat{C} E. Brg. Pier 7 Sta. 19+07.44 Elev. 833.96
5 \hat{C} Pier 1 Sta. 16+30.22 Elev. 822.22	11 \hat{C} W. Brg. Pier 8 Sta. 20+81.44 Elev. 833.91
6 \hat{C} Pier 4 Sta. 16+75.94 Elev. 822.39	12 \hat{C} Pier 8 Sta. 20+82.44 Elev. 833.86
	13 \hat{C} E. Brg. Pier 8 Sta. 20+83.44 Elev. 833.81

NAME PLATE

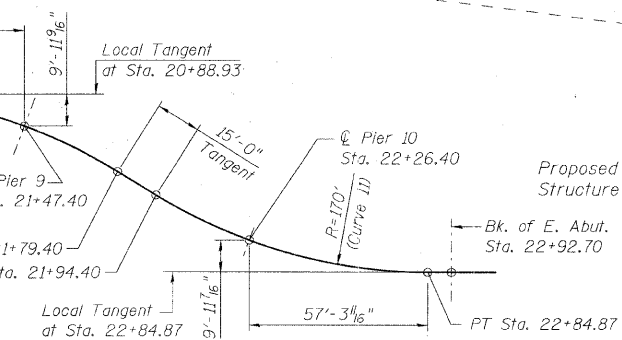
See Std. 515001

BUILT 200 BY
ST. CHARLES PARK DISTRICT
SEC. 94-P4008-01-BR
LOADING H5 & PEDESTRIAN
STR. NO. 045-9000

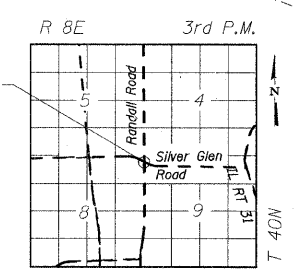


DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

OFFSET SKETCH UNIT 5



LOCATION SKETCH



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



Signature: *Andrew E. Underwager*
Date: **NOVEMBER 4, 2008**
License Expires: **NOVEMBER 30, 2010**

RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

GENERAL PLAN & ELEVATION

PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts 7/8-in. ϕ , holes 15/16-in. ϕ , unless otherwise noted.
- Calculated weight of Structural Steel:
Grade 50W = 297,382 lbs.
Grade 36 = 2,200 lbs.
- All structural steel shall be AASHTO M 270 Grade 50W except expansion joints which shall be AASHTO M 270 Grade 36.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the abutments, piers and M.S.E. walls.
- The interior of the box girder (Unit 4) shall receive one coat of Inorganic Zinc Rich Primer. See Special Provisions.
- Structural steel shall only be painted for a distance of 7.5 ft. each way from the deck joints. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- All exposed structural steel of the bearings shall be cleaned and shop painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

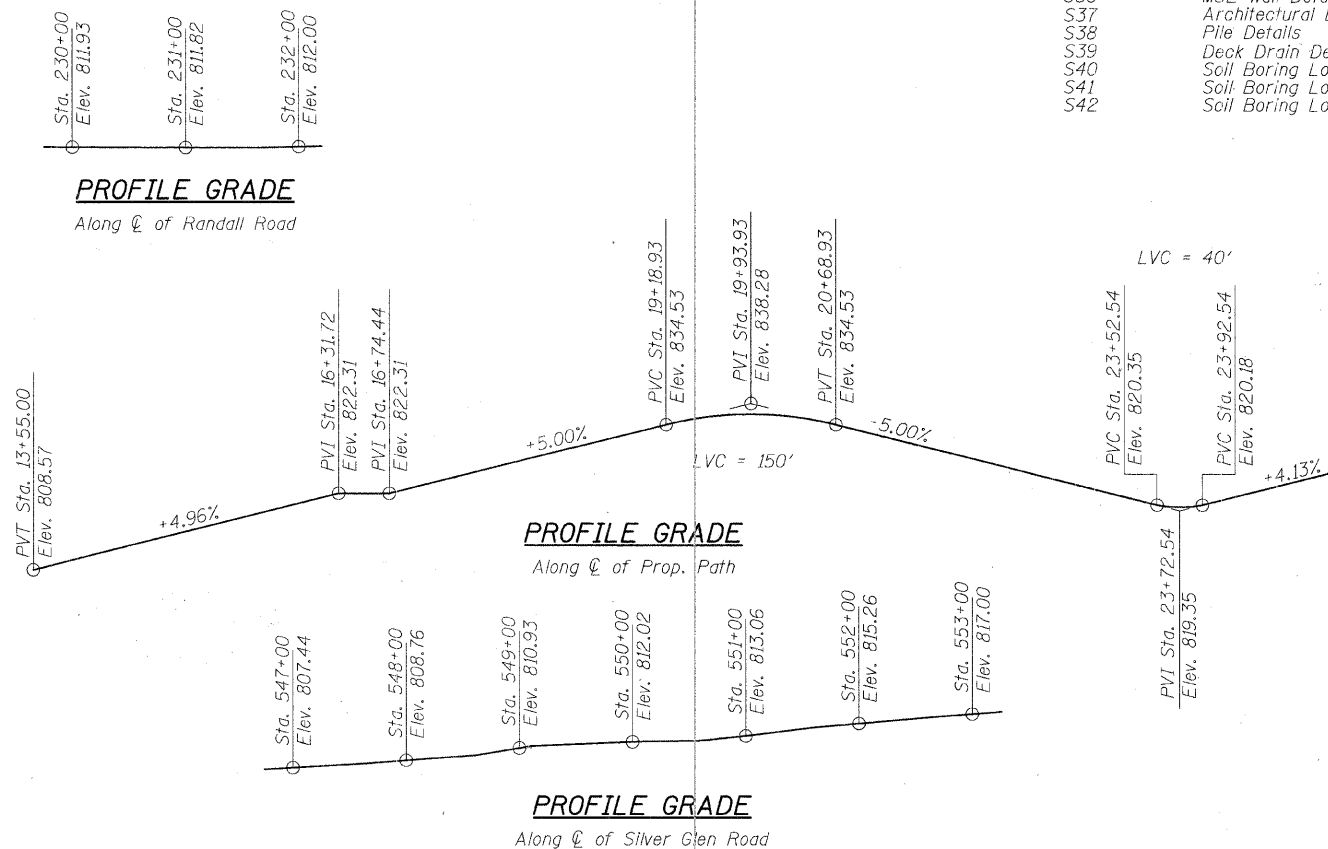
INDEX OF SHEETS

BRIDGE SHEET NO.	TITLE
S1	General Plan & Elevation
S2	Bridge Data
S3	Substructure Layout I
S4	Substructure Layout II
S5	Top of Slab Elevations
S6	Top of Slab Elevations Units 1 and 3
S7	Top of Slab Elevations Unit 4
S8	Top of Slab Elevations Unit 5
S9	Deck Plan and Cross Section Units 1 and 3
S10	Deck Plan and Details Unit 2
S11	Deck Beams and Details Unit 2
S12	Deck Plan and Cross Section Unit 4
S13	Deck Plan and Cross Section Unit 5
S14	Deck Details
S15	Bridge Railing Plan
S16	Bridge Railing Details I
S17	Bridge Railing Details II
S18	Structural Steel Unit 1
S19	Structural Steel Unit 3
S20	Structural Steel Details Unit 3
S21	Structural Steel Unit 4
S22	Structural Steel Details Unit 4
S23	Structural Steel Unit 5
S24	Structural Steel Details Unit 5
S25	Bearing Details I
S26	Bearing Details II
S27	West Abutment Plan and Details
S28	Piers 1 & 4
S29	Piers 2 & 3
S30	Piers 5 & 6
S31	Piers 7 & 8
S32	Piers 9 & 10
S33	East Abutment Plan and Details
S34	West MSE Wall Plan and Elevation
S35	East MSE Wall Plan and Elevation
S36	MSE Wall Details
S37	Architectural Details
S38	Pile Details
S39	Deck Drain Details
S40	Soil Boring Logs I
S41	Soil Boring Logs III
S42	Soil Boring Logs III

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd	---	590	590
Concrete Structures	Cu Yd	---	156	156
Concrete Superstructure	Cu Yd	231.8	---	231.8
Form Linear Textured Surface	Sq Ft	---	2,177	2,177
Furnishing and Erecting Structural Steel	L. Sum	1	---	1
Stud Shear Connectors	Each	3,000	---	3,000
Reinforcement Bars, Epoxy Coated	Pound	43,990	31,730	75,720
* Steel Railing (Special)	Fcot	1,493	---	1,493
Bridge Fence Railing (Sidewalk)	Fcot	348	---	348
Furnishing Metal Shell Piles 12" x 0.250"	Fcot	---	2,070	2,070
Driving Piles	Each	---	2,070	2,070
Test Pile Metal Shells	Each	---	2	2
Pile Shoes	Each	---	48	48
Name Plates	Each	1	---	1
Elastomeric Bearing Assembly, Type I	Each	6	---	6
Elastomeric Bearing Assembly, Type II	Each	8	---	8
Elastomeric Bearing Assembly, Type III	Each	2	---	2
Anchor Bolts, 1"	Each	30	---	30
Anchor Bolts, 1 1/4"	Each	12	---	12
Anchor Bolts, 1 1/2"	Each	4	---	4
Concrete Sealer	Sq Ft	---	737	737
* Mechanically Stabilized Earth Retaining Wall	Sq Ft	---	3,233	3,233
* Portland Cement Concrete Sidewalk 6 Inch Special	Sq Ft	---	2,093	2,093
* Staining Concrete Structures	Sq Yd	---	320	320
* Drainage System	Each	1	---	1

* Denotes Special Provision is Required



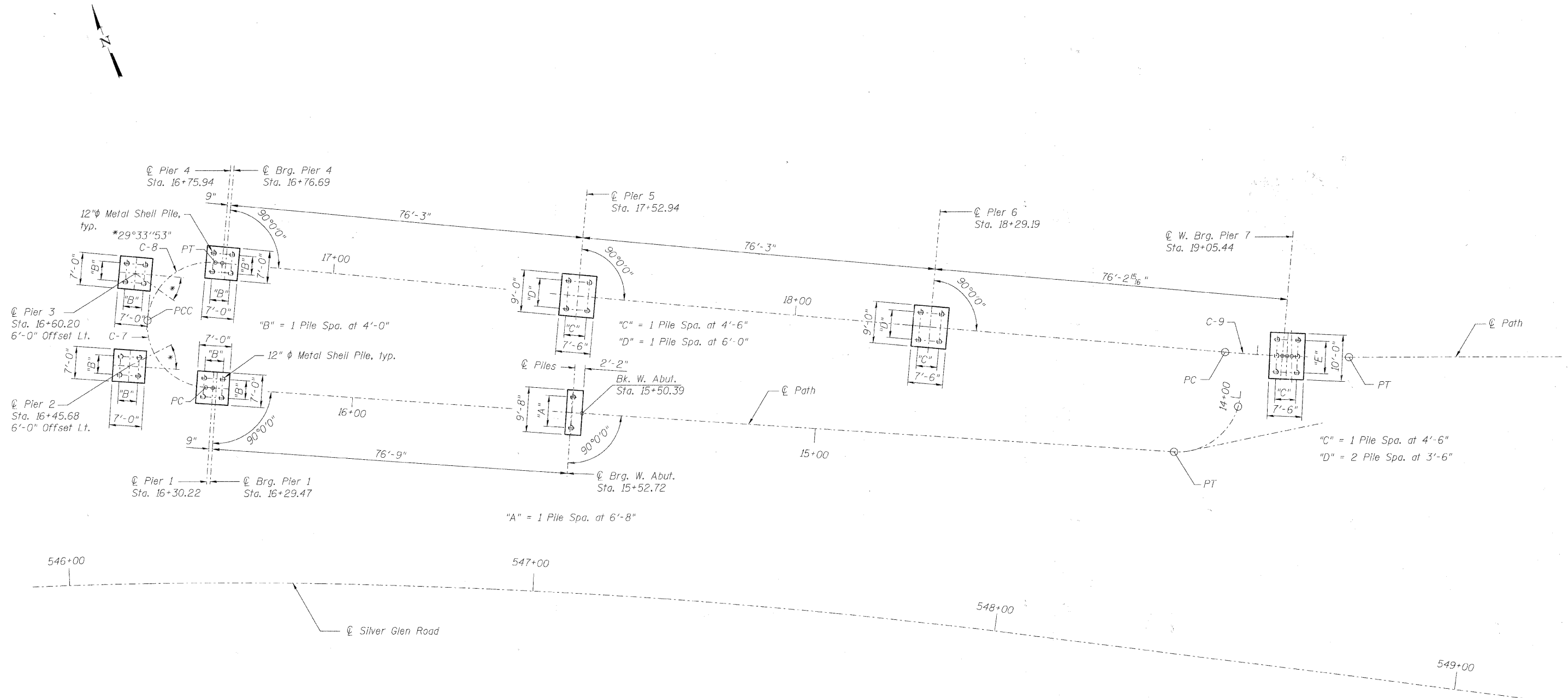
DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

BRIDGE DATA
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAU 2505	94-P4008-01-BR	KANE	81	27	S-42 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #83984



WEST PLAN

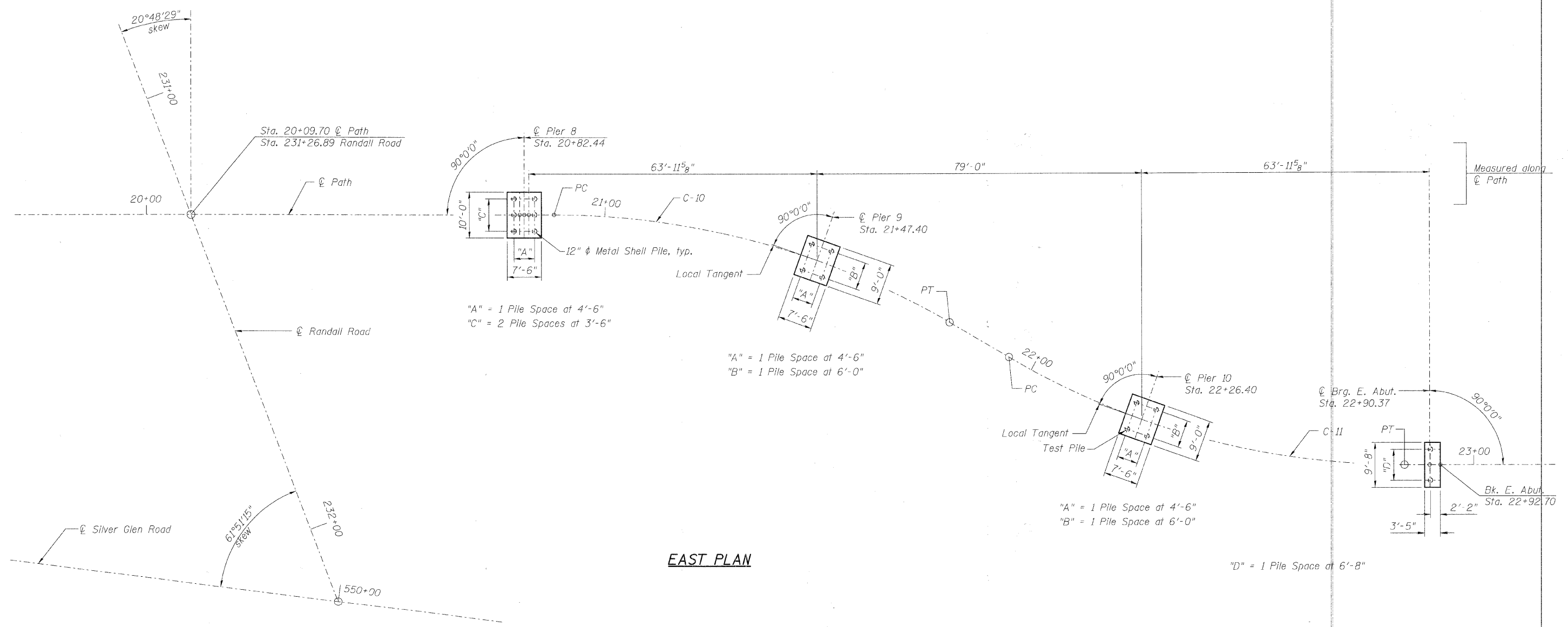
DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

SUBSTRUCTURE LAYOUT I
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-ER
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-4 S-42 SHEETS
FAU 2505	94-P4008-01-BR	KANE	81	28	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #83984



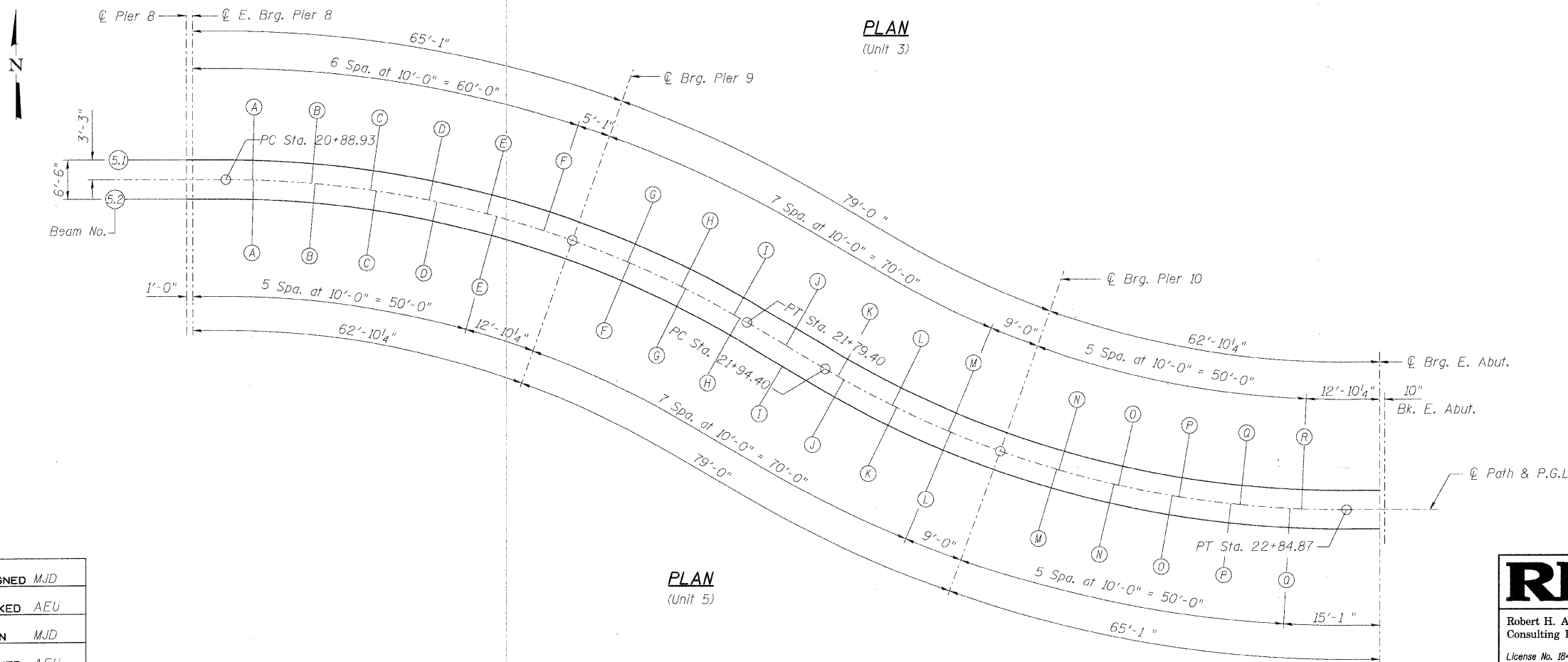
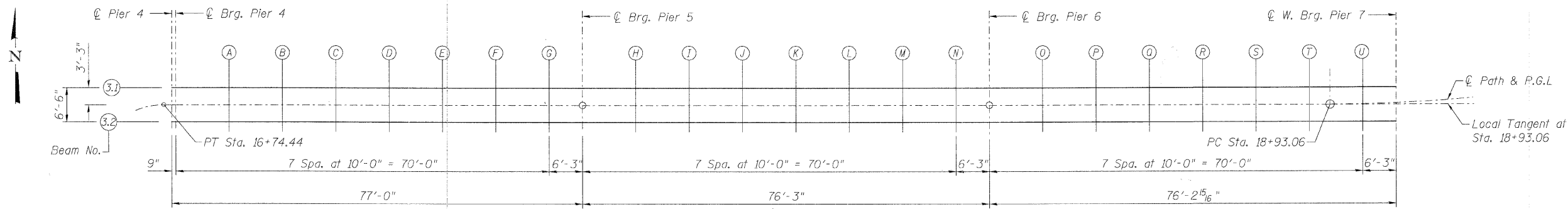
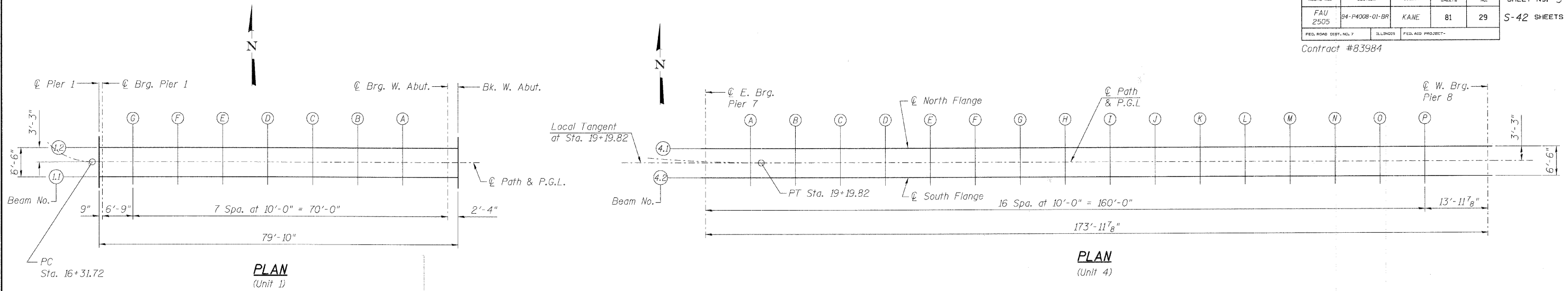
DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

SUBSTRUCTURE LAYOUT II
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-5 S-42 SHEETS
FAU 2505	94-P4008-01-BR	KANE	81	29	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #83984

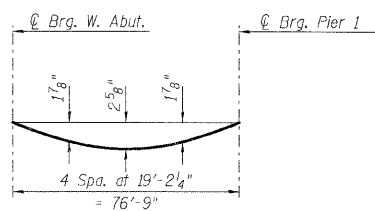


DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

TOP OF SLAB ELEVATIONS
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

Contract #83984

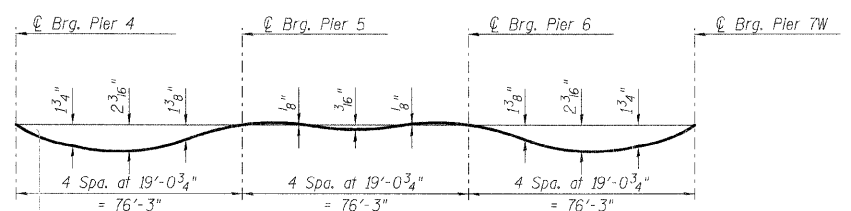


DEAD LOAD DEFLECTION DIAGRAM - UNIT 1

(Includes weight of concrete only.)

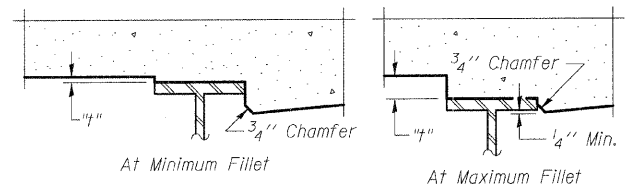
Note:

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



DEAD LOAD DEFLECTION DIAGRAM - UNIT 3

(Includes weight of concrete only.)



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

BEAM 1				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 1				
BK. OF W. ABUT.	15+50.39	-3.25	818.19	818.19
CL. BRG. W. ABUT.	15+52.72	-3.25	818.31	818.31
A	15+62.72	-3.25	818.81	818.90
B	15+72.72	-3.25	819.37	819.53
C	15+82.72	-3.25	819.80	820.00
D	15+92.72	-3.25	820.29	820.51
E	16+02.72	-3.25	820.79	820.98
F	16+12.72	-3.25	821.29	821.43
G	16+22.72	-3.25	821.78	821.85
CL. E. BRG. PIER 1	16+29.47	-3.25	822.12	822.12
CL. PIER 1	16+30.22	-3.25	822.15	822.15
UNIT 3				
CL PIER 4	16+75.94	-3.25	822.32	822.32
CL BRG. PIER 4	16+76.69	-3.25	822.35	822.35
A	16+86.69	-3.25	822.85	822.94
B	16+96.69	-3.25	823.35	823.51
C	17+06.69	-3.25	823.85	824.04
D	17+16.69	-3.25	824.35	824.53
E	17+26.69	-3.25	824.85	825.01
F	17+36.69	-3.25	825.35	825.45
G	17+46.69	-3.25	825.85	825.88
CL BRG. PIER 5	17+52.94	-3.25	826.17	826.17
H	17+62.94	-3.25	826.67	826.66
I	17+72.94	-3.25	827.17	827.16
J	17+82.94	-3.25	827.67	827.67
K	17+92.94	-3.25	828.17	828.18
L	18+02.94	-3.25	828.67	828.68
M	18+12.94	-3.25	829.17	829.16
N	18+22.94	-3.25	829.67	829.66
CL BRG. PIER 6	18+29.19	-3.25	829.98	829.98
O	18+39.19	-3.25	830.48	830.53
P	18+49.19	-3.25	830.98	831.08
Q	18+59.19	-3.25	831.48	831.64
R	18+69.19	-3.25	831.98	832.16
S	18+79.19	-3.25	832.48	832.65
T	18+89.19	-3.25	832.98	833.11
U	18+99.25	-3.19	833.48	833.54
CL W. BRG. PIER 7	19+05.56	-2.99	833.80	833.80

CL PATH & PGL				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 1				
BK. OF W. ABUT.	15+50.39	0.00	818.26	818.26
CL. BRG. W. ABUT.	15+52.72	0.00	818.38	818.38
A	15+62.72	0.00	818.87	818.96
B	15+72.72	0.00	819.37	819.53
C	15+82.72	0.00	819.86	820.07
D	15+92.72	0.00	820.36	820.58
E	16+02.72	0.00	820.86	821.05
F	16+12.72	0.00	821.35	821.49
G	16+22.72	0.00	821.85	821.92
CL. E. BRG. PIER 1	16+29.47	0.00	822.18	822.18
CL. PIER 1	16+30.22	0.00	822.22	822.22
UNIT 3				
CL PIER 4	16+75.94	0.00	822.39	822.39
CL E. BRG. PIER 4	16+76.69	0.00	822.42	822.42
A	16+86.69	0.00	822.92	823.01
B	16+96.69	0.00	823.42	823.58
C	17+06.69	0.00	823.92	824.10
D	17+16.69	0.00	824.42	824.60
E	17+26.69	0.00	824.92	825.07
F	17+36.69	0.00	825.42	825.52
G	17+46.69	0.00	825.92	825.95
CL BRG. PIER 5	17+52.94	0.00	826.24	826.24
H	17+62.94	0.00	826.74	826.72
I	17+72.94	0.00	827.24	827.23
J	17+82.94	0.00	827.74	827.74
K	17+92.94	0.00	828.24	828.25
L	18+02.94	0.00	828.74	828.75
M	18+12.94	0.00	829.24	829.23
N	18+22.94	0.00	829.74	829.73
CL BRG. PIER 6	18+29.19	0.00	830.05	830.05
O	18+39.19	0.00	830.55	830.59
P	18+49.19	0.00	831.05	831.15
Q	18+59.19	0.00	831.55	831.71
R	18+69.19	0.00	832.05	832.23
S	18+79.19	0.00	832.55	832.72
T	18+89.19	0.00	833.05	833.18
U	18+99.19	0.00	833.55	833.61
CL W. BRG. PIER 7	19+05.44	0.00	833.86	833.86

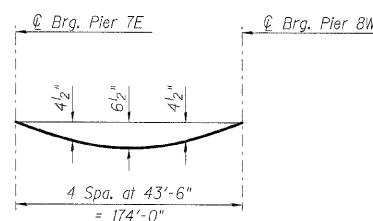
BEAM 2				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 1				
BK. OF W. ABUT.	15+50.39	3.25	818.19	818.19
CL. BRG. W. ABUT.	15+52.72	3.25	818.31	818.31
A	15+62.72	3.25	818.81	818.90
B	15+72.72	3.25	819.30	819.46
C	15+82.72	3.25	819.80	820.00
D	15+92.72	3.25	820.29	820.51
E	16+02.72	3.25	820.79	820.98
F	16+12.72	3.25	821.29	821.43
G	16+22.72	3.25	821.78	821.85
CL. E. BRG. PIER 1	16+29.47	3.25	822.12	822.12
CL. PIER 1	16+30.22	3.25	822.15	822.15
UNIT 3				
CL PIER 4	16+75.94	3.25	822.32	822.32
CL E. BRG. PIER 4	16+76.69	3.25	822.35	822.35
A	16+86.98	3.25	822.87	822.96
B	16+96.98	3.25	823.37	823.52
C	17+06.98	3.25	823.87	824.05
D	17+16.98	3.25	824.37	824.55
E	17+26.98	3.25	824.87	825.02
F	17+36.98	3.25	825.37	825.47
G	17+46.98	3.25	825.87	825.90
CL BRG. PIER 5	17+52.94	3.25	826.17	826.17
H	17+63.23	3.25	826.68	826.67
I	17+73.23	3.25	827.18	827.17
J	17+83.23	3.25	827.68	827.69
K	17+93.23	3.25	828.18	828.20
L	18+03.23	3.25	828.68	828.69
M	18+13.23	3.25	829.18	829.18
N	18+23.23	3.25	829.68	829.68
CL BRG. PIER 6	18+29.19	3.25	829.98	829.98
O	18+39.48	3.25	830.49	830.54
P	18+49.48	3.25	830.99	831.09
Q	18+59.48	3.25	831.49	831.66
R	18+69.48	3.25	831.99	832.17
S	18+79.48	3.25	832.49	832.67
T	18+89.48	3.25	832.99	833.12
U	18+99.12	3.31	833.48	833.54
CL W. BRG. PIER 7	19+05.29	3.50	833.78	833.78

DESIGNED MJD
CHECKED AEU
DRAWN MJD
CHECKED AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

**TOP OF SLAB ELEVATIONS
UNITS 1 AND 3**
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984

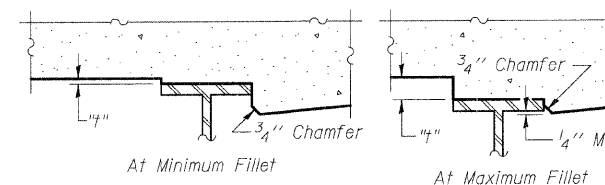


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

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



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BOX GIRDER NORTH FLANGE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 4				
CL E. BRG. PIER 7	19+07.31	-2.99	833.89	833.89
A	19+17.42	-3.24	834.39	834.49
B	19+27.44	-3.25	834.86	835.06
C	19+37.44	-3.25	835.27	835.55
D	19+47.44	-3.25	835.62	835.97
E	19+57.44	-3.25	835.89	836.32
F	19+67.44	-3.25	836.10	836.58
G	19+77.44	-3.25	836.25	836.76
H	19+87.44	-3.25	836.32	836.86
I	19+97.44	-3.25	836.33	836.87
J	20+07.44	-3.25	836.28	836.80
K	20+17.44	-3.25	836.15	836.65
L	20+27.44	-3.25	835.96	836.41
M	20+37.44	-3.25	835.71	836.09
N	20+47.44	-3.25	835.38	835.70
O	20+57.44	-3.25	834.99	835.22
P	20+67.44	-3.25	834.54	834.67
CL W. BRG. PIER 8	20+81.44	-3.25	833.84	833.84

CL PATH & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 4				
CL E. BRG. PIER 7	19+07.44	0.00	833.96	833.96
A	19+17.44	0.00	834.46	834.56
B	19+27.44	0.00	834.93	835.12
C	19+37.44	0.00	835.34	835.62
D	19+47.44	0.00	835.68	836.04
E	19+57.44	0.00	835.96	836.39
F	19+67.44	0.00	836.17	836.65
G	19+77.44	0.00	836.31	836.83
H	19+87.44	0.00	836.39	836.92
I	19+97.44	0.00	836.40	836.94
J	20+07.44	0.00	836.34	836.87
K	20+17.44	0.00	836.22	836.71
L	20+27.44	0.00	836.03	836.48
M	20+37.44	0.00	835.77	836.16
N	20+47.44	0.00	835.45	835.77
O	20+57.44	0.00	835.06	835.29
P	20+67.44	0.00	834.60	834.74
CL W. BRG. PIER 8	20+81.44	0.00	833.90	833.90

BOX GIRDER SOUTH FLANGE

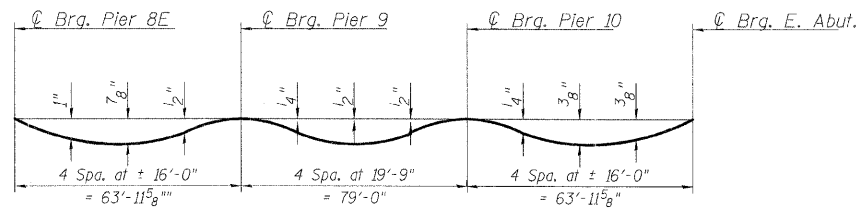
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
UNIT 4				
CL E. BRG. PIER 7	19+07.58	3.50	833.89	833.89
A	19+17.47	3.26	834.39	834.49
B	19+27.44	3.25	834.86	835.06
C	19+37.44	3.25	835.27	835.55
D	19+47.44	3.25	835.62	835.97
E	19+57.44	3.25	835.89	836.32
F	19+67.44	3.25	836.10	836.58
G	19+77.44	3.25	836.25	836.76
H	19+87.44	3.25	836.32	836.86
I	19+97.44	3.25	836.33	836.87
J	20+07.44	3.25	836.28	836.80
K	20+17.44	3.25	836.15	836.65
L	20+27.44	3.25	835.96	836.41
M	20+37.44	3.25	835.71	836.09
N	20+47.44	3.25	835.38	835.70
O	20+57.44	3.25	834.99	835.22
P	20+67.44	3.25	834.54	834.67
CL W. BRG. PIER 8	20+81.44	3.25	833.84	833.84

DESIGNED MJD
CHECKED AEU
DRAWN MJD
CHECKED AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

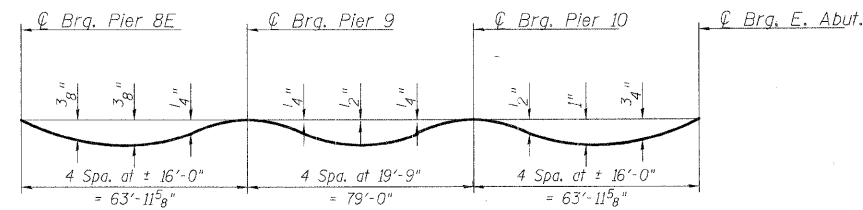
**TOP OF SLAB ELEVATIONS
UNIT 4**
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984



DEAD LOAD DEFLECTION DIAGRAM BEAM 5.1

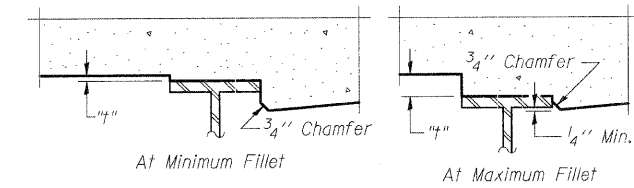
(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM BEAM 5.2

(Includes weight of concrete only.)

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



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 5.1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL PIER 8	20+82.44	-3.25	833.79	833.79
CL E. BRG. PIER 8	20+83.44	-3.25	833.74	833.74
A	20+93.32	-3.25	833.24	833.29
B	21+03.14	-3.25	832.75	832.82
C	21+12.95	-3.25	832.26	832.34
D	21+22.77	-3.25	831.77	831.83
E	21+32.59	-3.25	831.28	831.31
F	21+42.40	-3.25	830.79	830.80
CL PIER 9	21+47.40	-3.25	830.54	830.54
G	21+57.22	-3.25	830.05	830.05
H	21+67.03	-3.25	829.56	829.58
I	21+76.85	-3.25	829.07	829.10
J	21+86.68	-3.25	828.58	828.61
K	21+96.50	-3.25	828.07	828.11
L	22+07.03	-3.25	827.56	827.59
M	22+17.23	-3.25	827.05	827.06
CL PIER 10	22+26.40	-3.25	826.59	826.59
N	22+36.60	-3.25	826.08	826.09
O	22+46.80	-3.25	825.57	825.59
P	22+57.00	-3.25	825.06	825.09
Q	22+67.20	-3.25	824.55	824.58
R	22+77.40	-3.25	824.04	824.06
CL BRG. E. ABUT.	22+90.37	-3.25	823.39	823.39
BK. OF E. ABUT.	22+92.70	-3.25	823.27	823.27

CL PATH & PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL PIER 8	20+82.44	0.00	833.85	833.85
CL E. BRG. PIER 8	20+83.44	0.00	833.80	833.80
A	20+93.44	0.00	833.30	833.34
B	21+03.44	0.00	832.80	832.86
C	21+13.44	0.00	832.30	832.36
D	21+23.44	0.00	831.80	831.85
E	21+33.44	0.00	831.30	831.33
CL PIER 9	21+47.40	0.00	830.61	830.61
F	21+57.40	0.00	830.11	830.11
G	21+67.40	0.00	829.61	829.63
H	21+77.40	0.00	829.11	829.14
I	21+87.40	0.00	828.61	828.65
J	21+97.40	0.00	828.11	828.14
K	22+07.40	0.00	827.61	827.63
L	22+17.40	0.00	827.11	827.11
CL PIER 10	22+26.40	0.00	826.66	826.66
M	22+36.40	0.00	826.16	826.17
N	22+46.40	0.00	825.66	825.69
O	22+56.40	0.00	825.16	825.20
P	22+66.40	0.00	824.66	824.71
Q	22+76.40	0.00	824.16	824.20
CL BRG. E. ABUT.	22+90.37	0.00	823.46	823.46
BK. OF E. ABUT.	22+92.70	0.00	823.34	823.34

BEAM 5.2

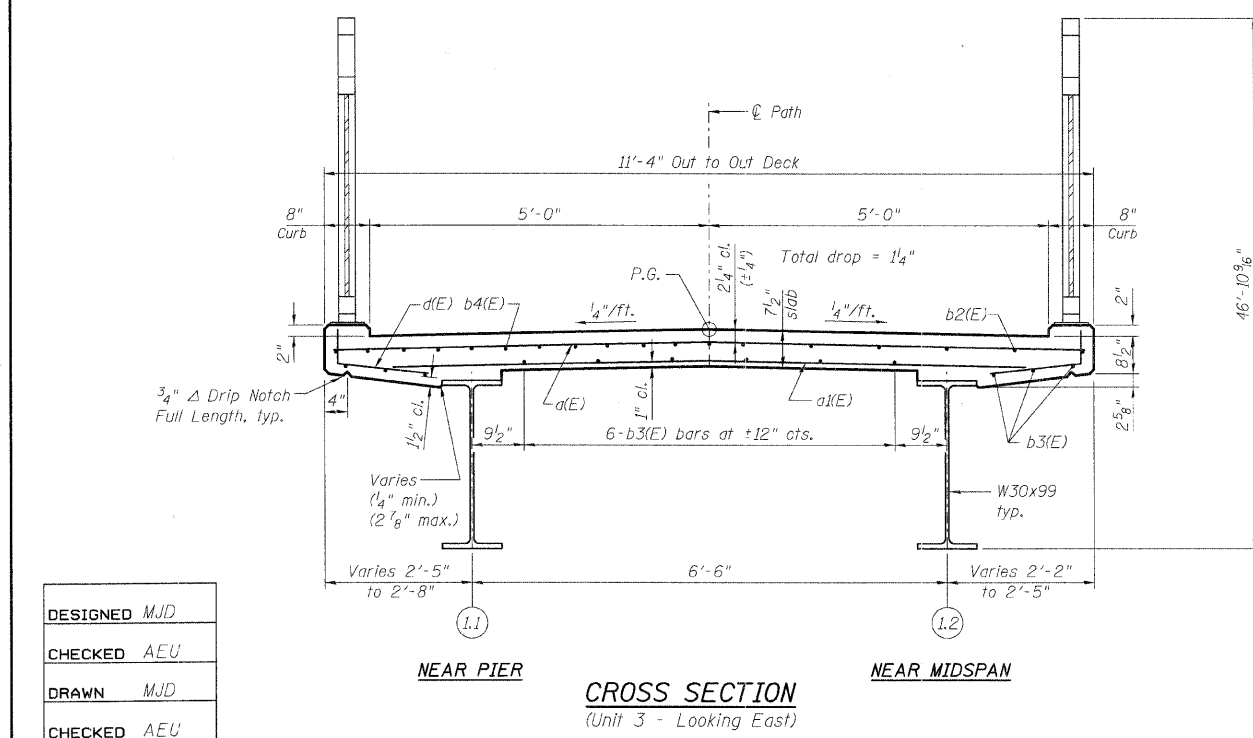
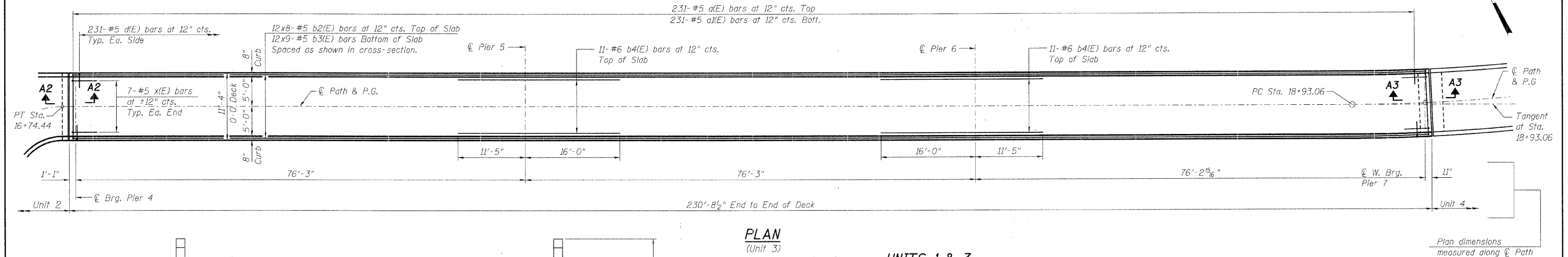
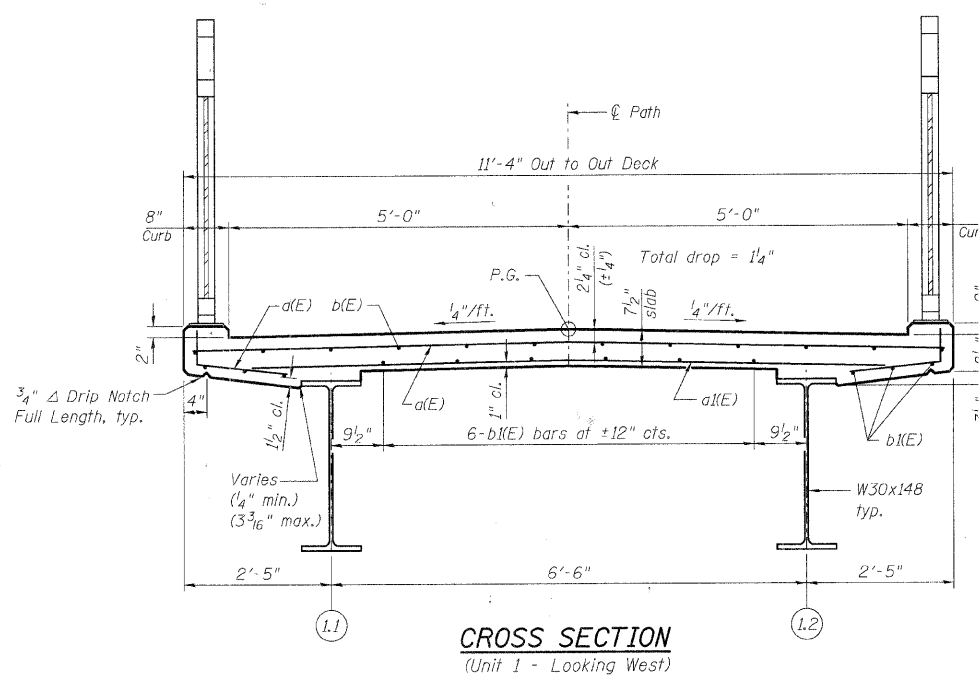
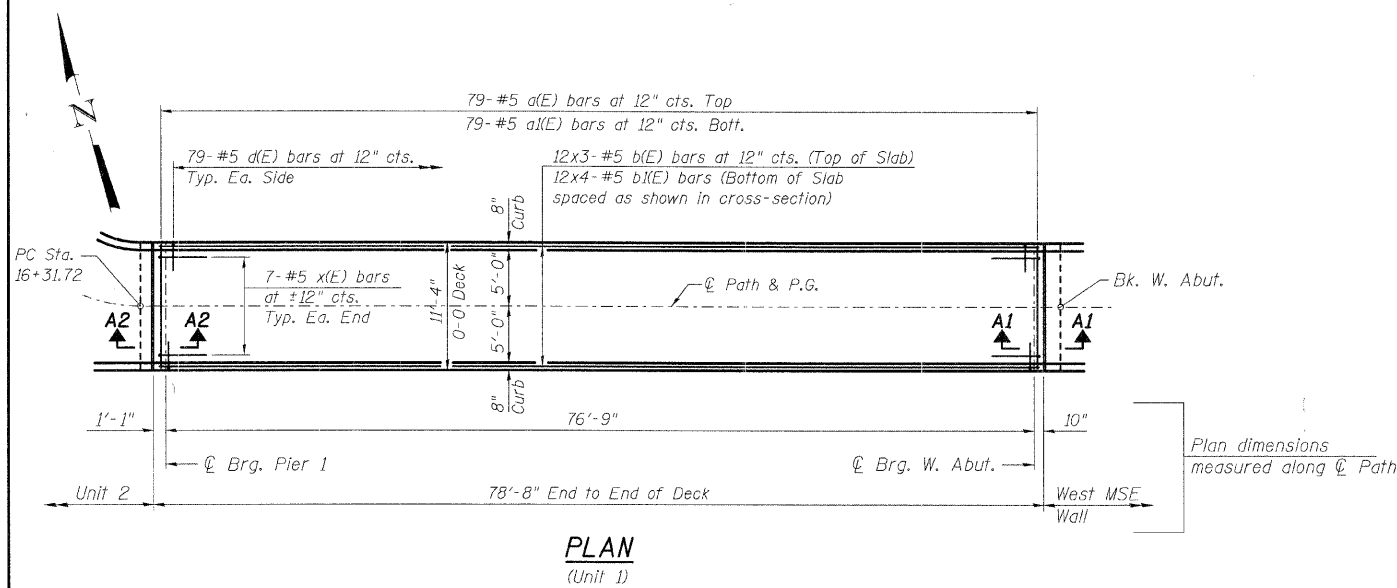
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL PIER 8	20+82.44	3.25	833.79	833.79
CL E. BRG. PIER 8	20+83.44	3.25	833.74	833.74
A	20+93.53	3.25	833.23	833.25
B	21+03.73	3.25	832.72	832.75
C	21+13.93	3.25	832.21	832.25
D	21+24.13	3.25	831.70	831.73
E	21+34.33	3.25	831.19	831.21
CL PIER 9	21+47.40	3.25	830.54	830.54
F	21+57.60	3.25	830.03	830.04
G	21+67.80	3.25	829.52	829.54
H	21+78.00	3.25	829.01	829.04
I	21+88.05	3.25	828.51	828.54
J	21+97.98	3.25	828.01	828.03
K	22+07.80	3.25	827.52	827.53
L	22+17.61	3.25	827.03	827.04
CL PIER 10	22+26.40	3.25	826.59	826.59
M	22+36.22	3.25	826.10	826.12
N	22+46.03	3.25	825.61	825.66
O	22+55.85	3.25	825.12	825.18
P	22+65.67	3.25	824.63	824.71
Q	22+75.49	3.25	824.13	824.19
CL BRG. E. ABUT.	22+90.37	3.25	823.39	823.39
BK. OF E. ABUT.	22+92.70	3.25	823.27	823.27

DESIGNED MJD
CHECKED AEU
DRAWN MJD
CHECKED AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

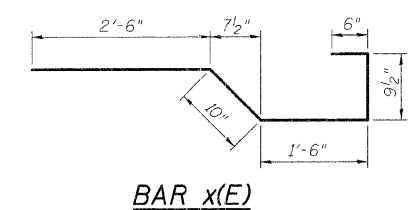
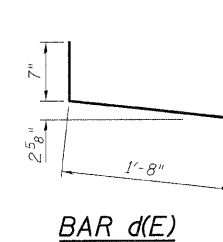
**TOP OF SLAB ELEVATIONS
UNIT 5**
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984



**UNITS 1 & 3
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	330	#5	11'-0"	—
a(E)	310	#5	10'-4"	—
a2(E)	12	#5	6'-3"	—
b(E)	36	#5	27'-6"	—
b1(E)	48	#5	21'-2"	—
b2(E)	96	#5	30'-9"	—
b3(E)	108	#5	27'-7"	—
b4(E)	22	#6	27'-5"	—
d(E)	620	#5	2'-3"	┌
x(E)	28	#5	6'-1 1/2"	┌
Concrete Superstructure		Cu. Yd.	94.5	
Reinforcement Bars, Epoxy Coated		Pound	18,130	



NOTES:

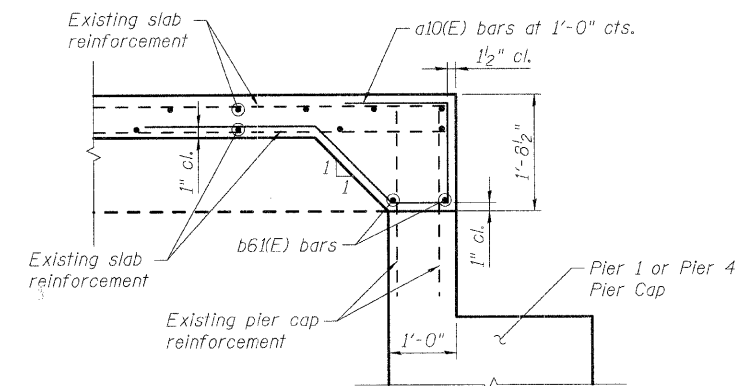
For section A1-A1, A2-A2, and A3-A3 see Sheet S-14. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line. See Sheet S-14 for additional reinforcement details.

DESIGNED MJD
CHECKED AEU
DRAWN MJD
CHECKED AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

**DECK PLAN & CROSS SECTION
UNITS 1 AND 3**
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

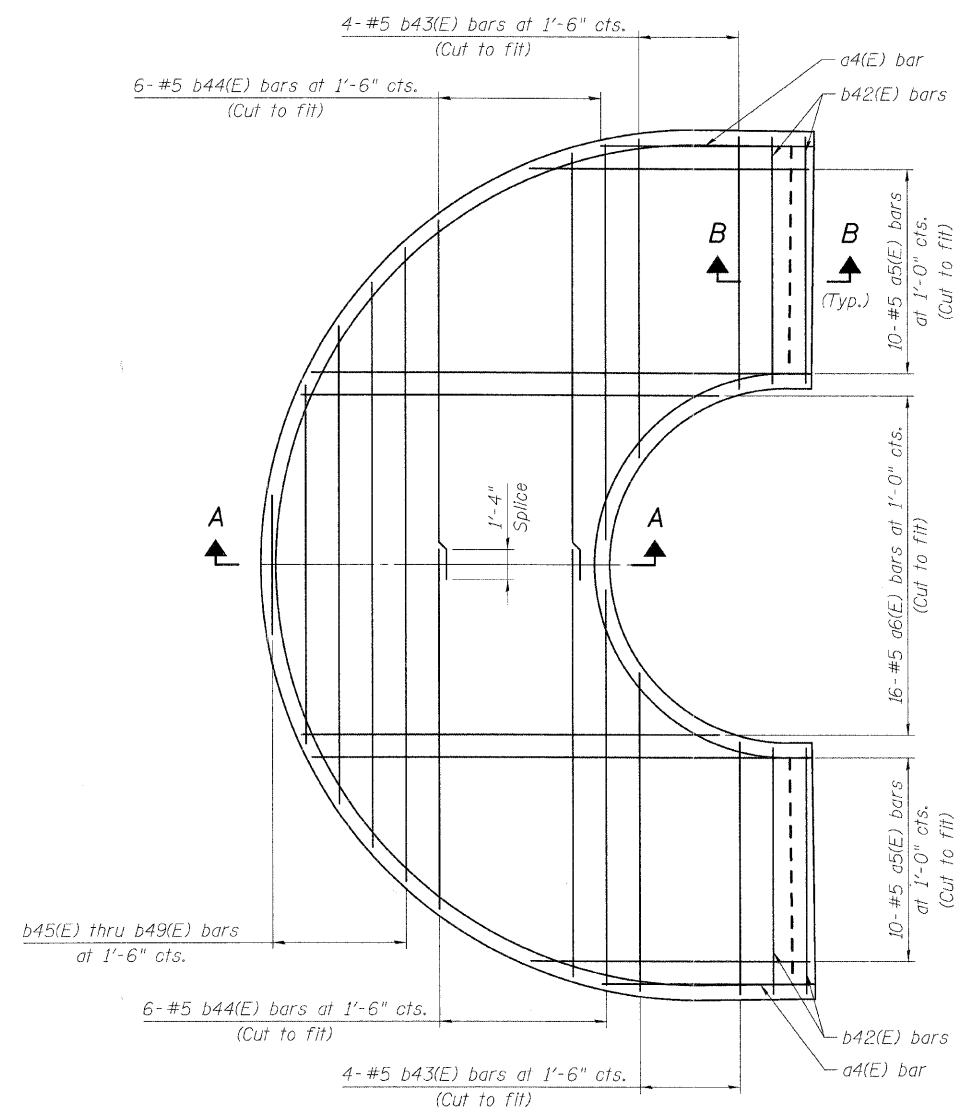
Contract #83984



SECTION B-B
UNIT 2 SLAB DETAIL AT
PIER 1 & 4 PIER CAP

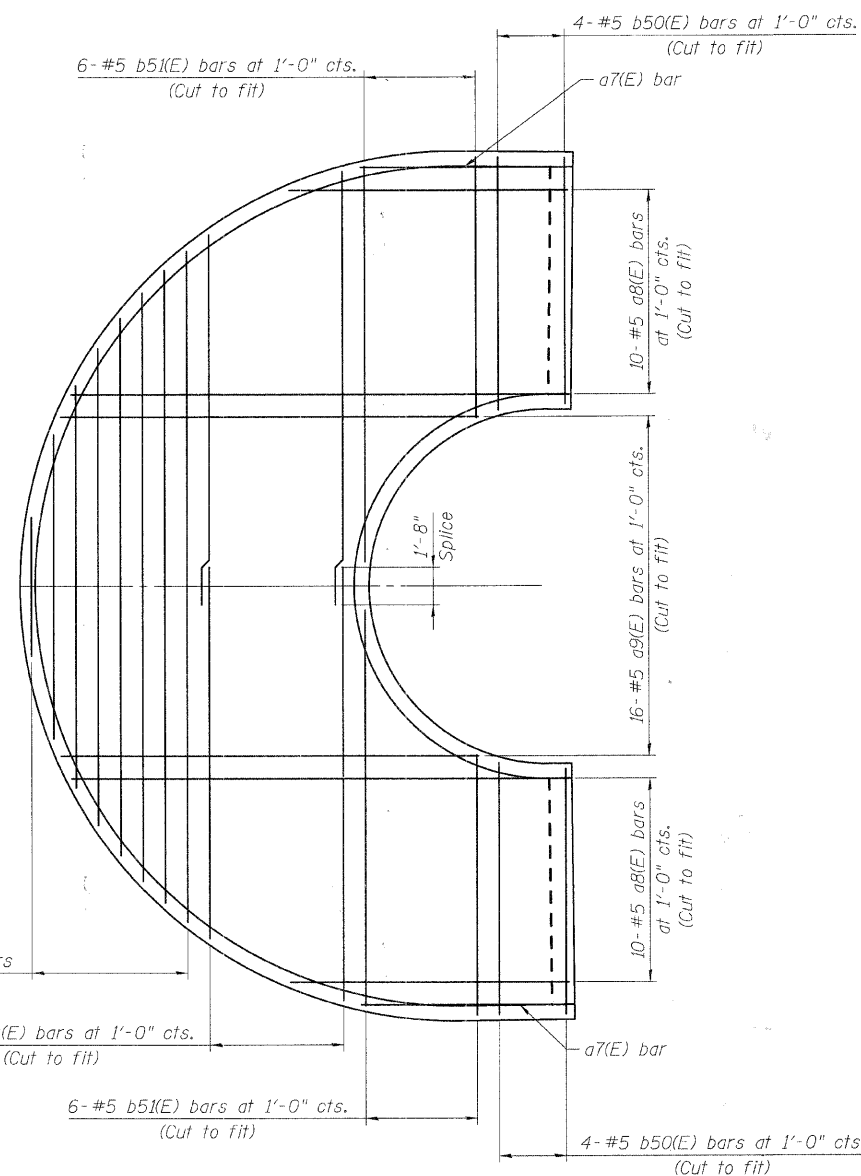
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a4(E)	2	#5	9'-2"	—
a5(E)	10	#5	37'-8"	—
a6(E)	8	#5	33'-5"	—
a7(E)	2	#5	9'-2"	—
a8(E)	10	#5	37'-8"	—
a9(E)	8	#5	33'-5"	—
a10(E)	22	#5	7'-10"	⌋
b42(E)	4	#5	10'-10"	—
b43(E)	4	#5	25'-2"	—
b44(E)	6	#5	35'-6"	—
b45(E)	1	#5	6'-2"	—
b46(E)	1	#5	15'-10"	—
b47(E)	1	#5	21'-1"	—
b48(E)	1	#5	25'-0"	—
b49(E)	1	#5	28'-0"	—
b50(E)	8	#5	11'-2"	—
b51(E)	6	#5	29'-0"	—
b52(E)	7	#5	36'-3"	—
b53(E)	1	#5	6'-2"	—
b54(E)	1	#5	13'-6"	—
b55(E)	1	#5	17'-9"	—
b56(E)	1	#5	21'-1"	—
b57(E)	1	#5	23'-9"	—
b58(E)	1	#5	26'-0"	—
b59(E)	1	#5	28'-0"	—
b60(E)	1	#5	29'-8"	—
b61(E)	4	#5	11'-0"	—
Concrete Superstructure			Cu. Yd.	2,800
Reinforcement Bars (Epoxy Coated)			Pound	16

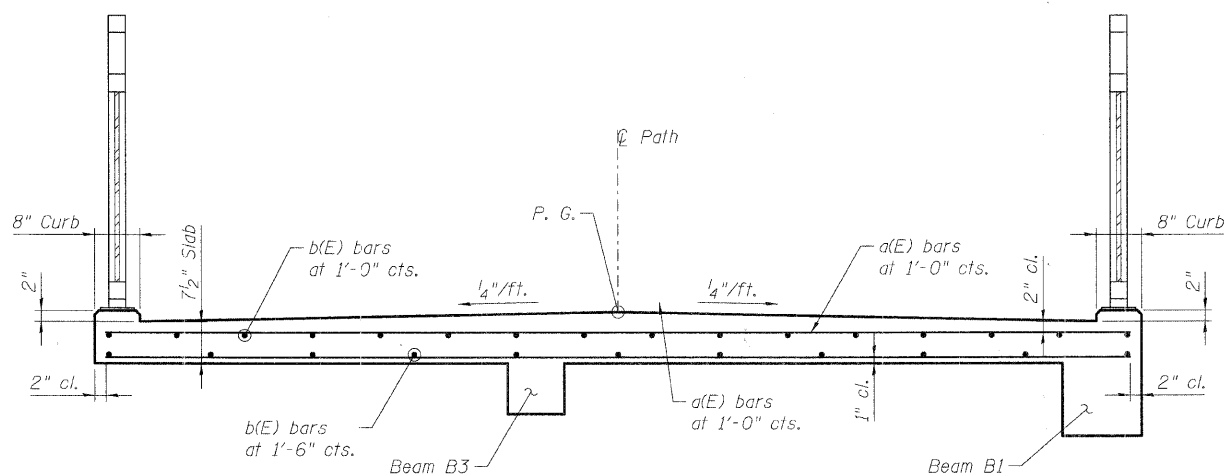


PLAN
BOTTOM OF SLAB REINFORCEMENT

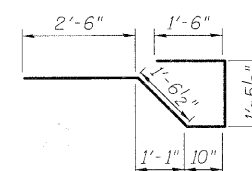
Note: Outline of supporting concrete beams not shown for clarity.



PLAN
TOP OF SLAB REINFORCEMENT



CROSS SECTION A-A
UNIT 2 SLAB



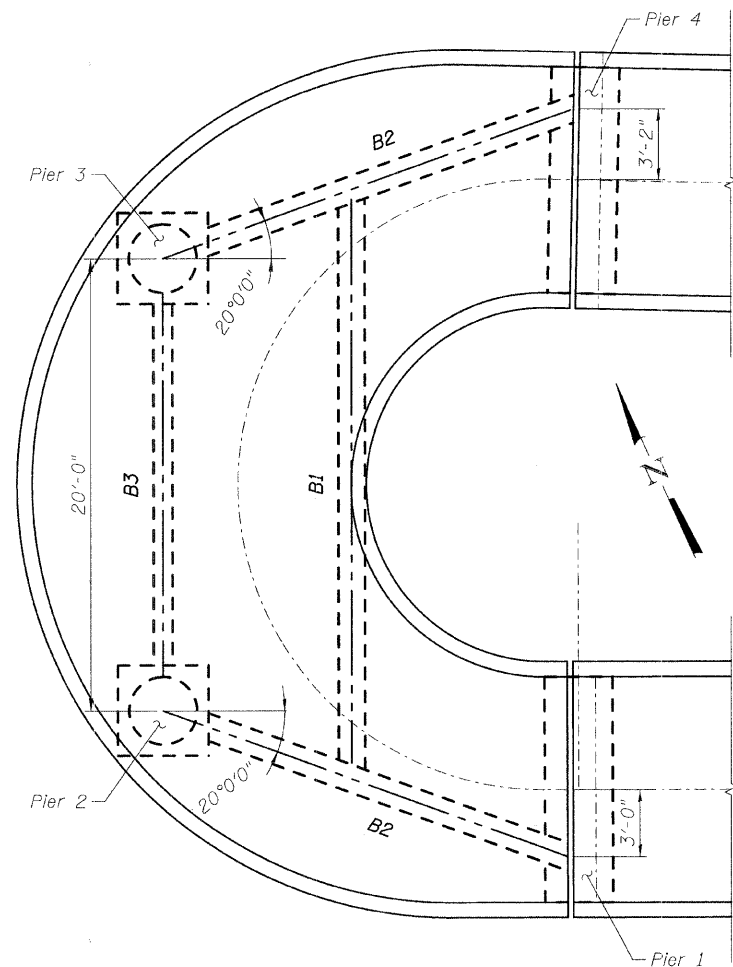
BAR a10(E)

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

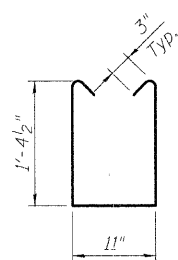
RH&A

Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

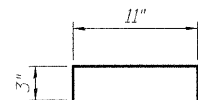
DECK PLAN & DETAILS
UNIT 2
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



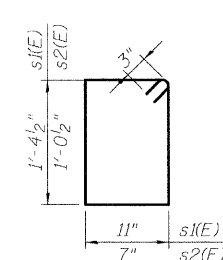
PLAN
CONCRETE BEAM FRAMING



BAR s1(E)



BAR s2(E)

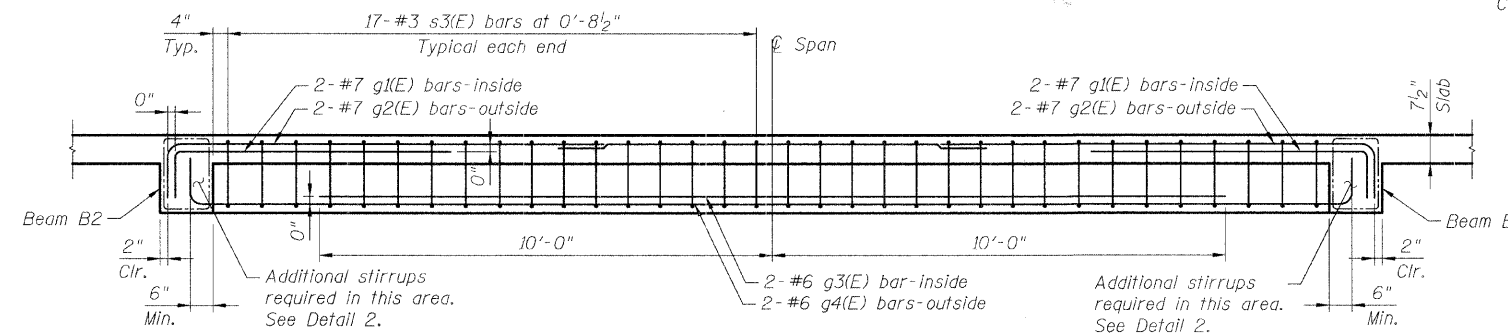


BARS s3(E) & s4(E)

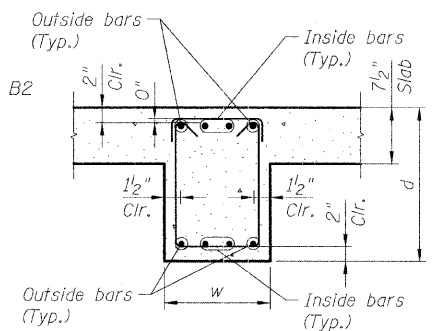
A & B DIMENSIONS

Bar	A	B
g1(E)	5'-3"	1'-2"
g2(E)	9'-7"	1'-2"
g5(E)	6'-4"	1'-2"
g6(E)	9'-10"	1'-2"
g7(E)	6'-0"	1'-0"
g10(E)	5'-0"	1'-0"
g11(E)	8'-0"	1'-0"

BARS g1(E), g2(E),
g5(E), g6(E), g7(E),
g10(E) & g11(E)



ELEVATION
BEAM B1



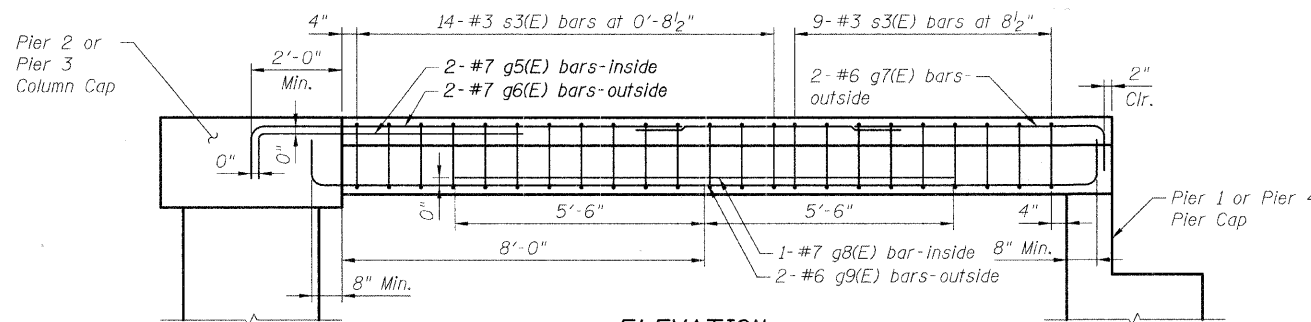
DETAIL 1

BEAM DIMENSIONS

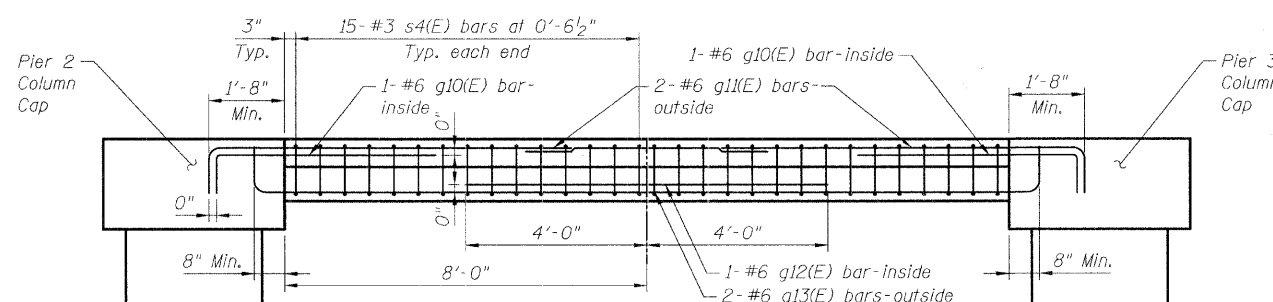
Beam	w (in.)	d (in.)
B1	14	20 1/2
B2	14	20 1/2
B3	10	16 1/2

BILL OF MATERIAL

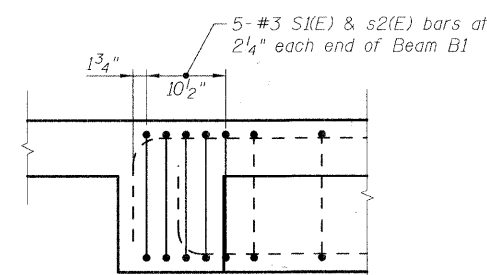
Bar	No.	Size	Length	Shape
g1(E)	4	#7	6'-5"	┌───┐
g2(E)	4	#7	10'-9"	┌───┐
g3(E)	2	#6	20'-0"	┌───┐
g4(E)	2	#6	28'-2"	┌───┐
g5(E)	4	#7	7'-6"	┌───┐
g6(E)	4	#7	11'-0"	┌───┐
g7(E)	4	#6	7'-0"	┌───┐
g8(E)	2	#7	11'-0"	┌───┐
g9(E)	4	#6	19'-6"	┌───┐
g10(E)	2	#6	6'-0"	┌───┐
g11(E)	4	#6	9'-0"	┌───┐
g12(E)	1	#6	8'-0"	┌───┐
g13(E)	2	#6	19'-4"	┌───┐
s1(E)	10	#3	4'-2"	┌───┐
s2(E)	10	#3	1'-5"	┌───┐
s3(E)	80	#3	5'-1"	┌───┐
s4(E)	30	#3	3'-9"	┌───┐
Concrete Superstructure			Cu. Yd.	5
Reinforcement Bars Epoxy Coated			Pound	1000



ELEVATION
BEAM B2



ELEVATION
BEAM B3



DETAIL 2
ADDITIONAL TIES AT
BEAM B1 ENDS

A & B DIMENSIONS

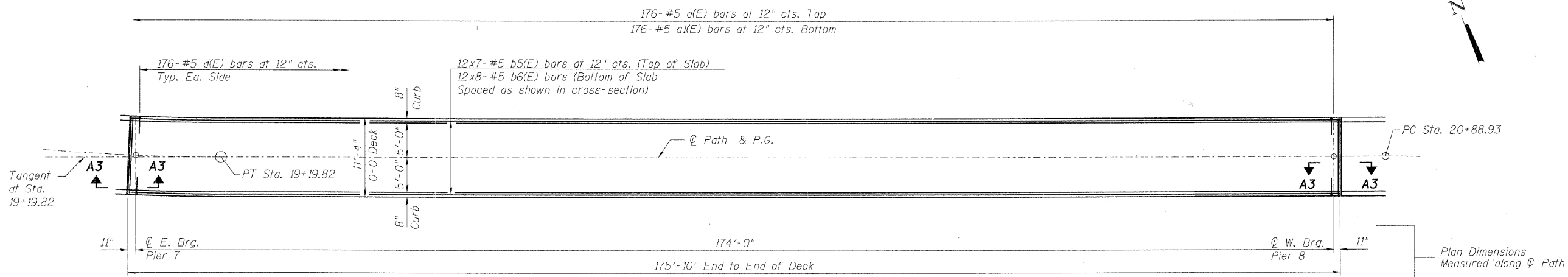
Bar	A	B
g4(E)	26'-2"	1'-0"
g9(E)	17'-6"	1'-0"
g13(E)	17'-4"	1'-0"

BARS g4(E),
g9(E) & g13(E)

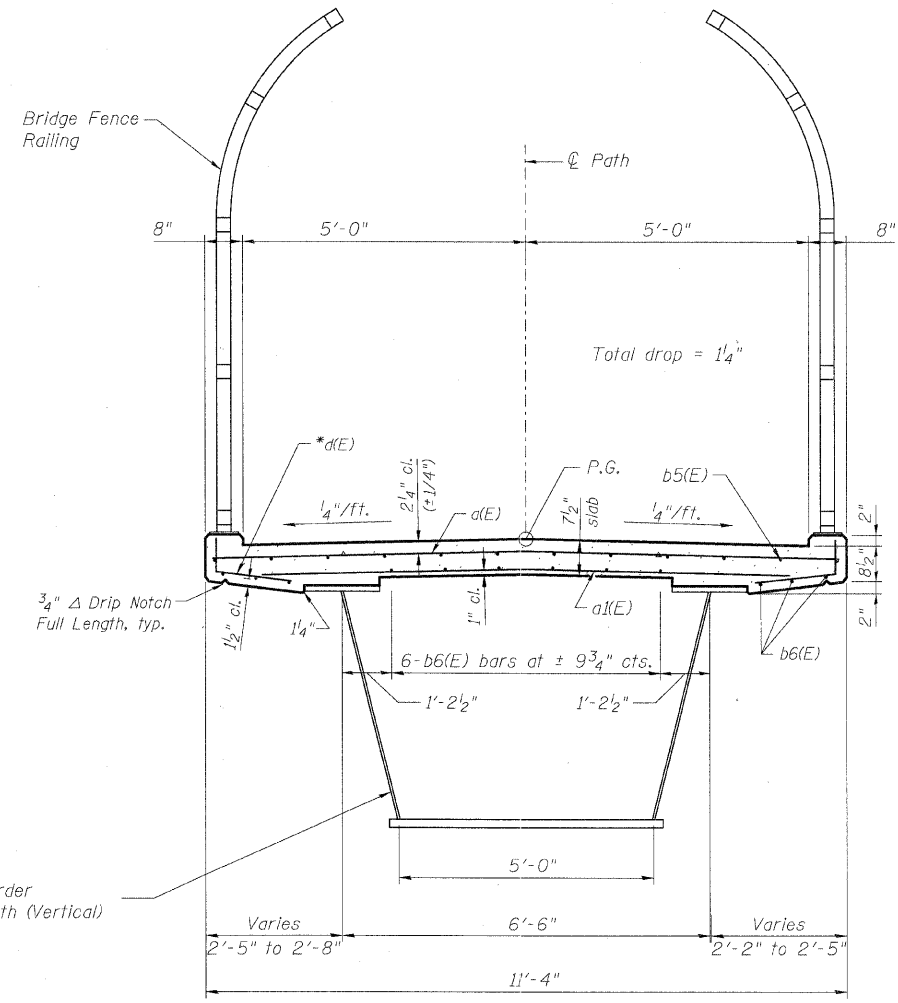
DESIGNED MJD
CHECKED AEU
DRAWN MJD
CHECKED AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

DECK BEAMS & DETAILS
UNIT 2
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



PLAN
(Unit 4)

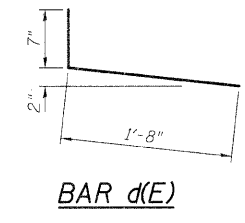


CROSS SECTION
(Unit 4 - Looking East)
* Cut to fit in field

UNIT 4
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	176	#5	11'-0"	—
a(E)	176	#5	10'-4"	—
b5(E)	84	#5	27'-0"	—
b6(E)	96	#5	23'-11"	—
d(E)	352	#5	2'-5"	┘
Concrete Superstructure			Cu. Yd.	52.8
Reinforcement Bars, Epoxy Coated			Pound	9560

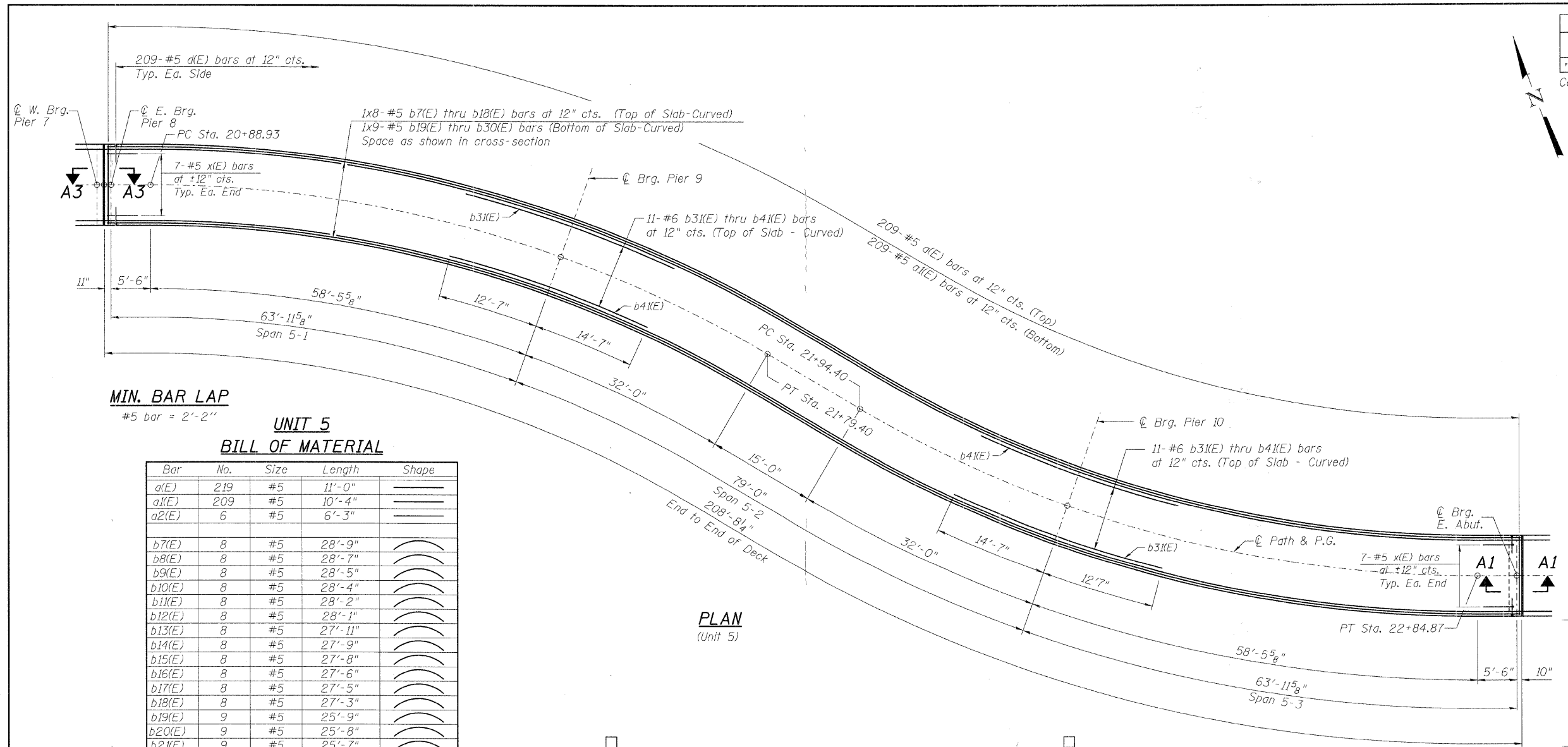
NOTES:
For section A3-A3 see Sheet S-14.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHAA
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

DECK PLAN & CROSS SECTION
UNIT 4
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



CURVED BAR DIMENSIONS

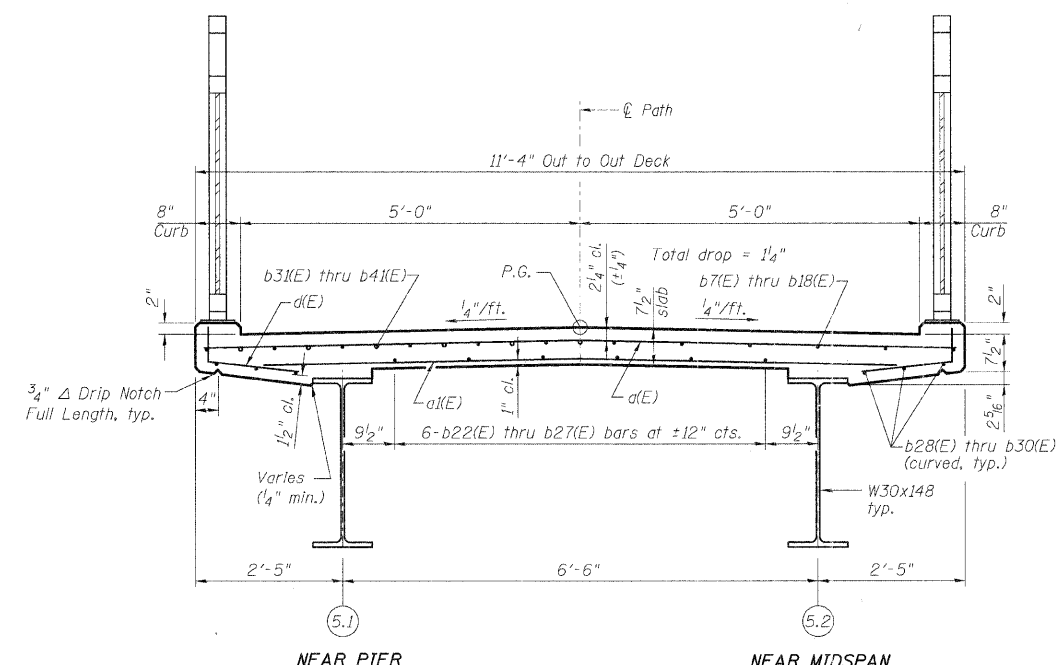
Bar	R (ft)	L (ft)
b7(E)	175.5	28'-9"
b8(E)	174.5	28'-7"
b9(E)	173.5	28'-5"
b10(E)	172.5	28'-4"
b11(E)	171.5	28'-2"
b12(E)	170.5	28'-1"
b13(E)	169.5	27'-11"
b14(E)	168.5	27'-9"
b15(E)	167.5	27'-8"
b16(E)	166.5	27'-6"
b17(E)	165.5	27'-5"
b18(E)	164.5	27'-3"
b19(E)	175.5	25'-9"
b20(E)	174.75	25'-8"
b21(E)	174.0	25'-7"
b22(E)	172.5	25'-5"
b23(E)	171.5	25'-4"
b24(E)	170.5	25'-2"
b25(E)	169.5	25'-1"
b26(E)	168.5	24'-11"
b27(E)	167.5	24'-10"
b28(E)	166.0	24'-8"
b29(E)	165.25	24'-7"
b30(E)	164.5	24'-6"
b31(E)	175.0	27'-2"
b32(E)	174.0	27'-2"
b33(E)	173.0	27'-2"
b34(E)	172.0	27'-2"
b35(E)	171.0	27'-2"
b36(E)	170.0	27'-2"
b37(E)	169.0	27'-2"
b38(E)	168.0	27'-2"
b39(E)	167.0	27'-2"
b40(E)	166.0	27'-2"
b41(E)	165.0	27'-2"

MIN. BAR LAP
#5 bar = 2'-2"

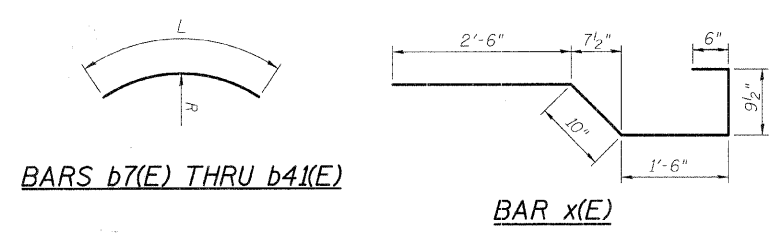
**UNIT 5
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	219	#5	11'-0"	—
a1(E)	209	#5	10'-4"	—
a2(E)	6	#5	6'-3"	—
b7(E)	8	#5	28'-9"	⤿
b8(E)	8	#5	28'-7"	⤿
b9(E)	8	#5	28'-5"	⤿
b10(E)	8	#5	28'-4"	⤿
b11(E)	8	#5	28'-2"	⤿
b12(E)	8	#5	28'-1"	⤿
b13(E)	8	#5	27'-11"	⤿
b14(E)	8	#5	27'-9"	⤿
b15(E)	8	#5	27'-8"	⤿
b16(E)	8	#5	27'-6"	⤿
b17(E)	8	#5	27'-5"	⤿
b18(E)	8	#5	27'-3"	⤿
b19(E)	9	#5	25'-9"	⤿
b20(E)	9	#5	25'-8"	⤿
b21(E)	9	#5	25'-7"	⤿
b22(E)	9	#5	25'-5"	⤿
b23(E)	9	#5	25'-4"	⤿
b24(E)	9	#5	25'-2"	⤿
b25(E)	9	#5	25'-1"	⤿
b26(E)	9	#5	24'-11"	⤿
b27(E)	9	#5	24'-10"	⤿
b28(E)	9	#5	24'-8"	⤿
b29(E)	9	#5	24'-7"	⤿
b30(E)	9	#5	24'-6"	⤿
b31(E)	2	#6	27'-2"	⤿
b32(E)	2	#6	27'-2"	⤿
b33(E)	2	#6	27'-2"	⤿
b34(E)	2	#6	27'-2"	⤿
b35(E)	2	#6	27'-2"	⤿
b36(E)	2	#6	27'-2"	⤿
b37(E)	2	#6	27'-2"	⤿
b38(E)	2	#6	27'-2"	⤿
b39(E)	2	#6	27'-2"	⤿
b40(E)	2	#6	27'-2"	⤿
b41(E)	2	#6	27'-2"	⤿
d(E)	418	#5	2'-5"	—
x(E)	14	#5	6'-1 1/2"	—

PLAN
(Unit 5)



CROSS SECTION
(Unit 5 - Looking East)



NOTES:
For section A1-A1 and A3-A3 see Sheet S-14.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

DESIGNED MJD	Concrete Superstructure	Cu. Yd.	63.5
CHECKED AEU	Reinforcement Bars, Epoxy Coated	Pound	12,480
DRAWN MJD			
CHECKED AEU			

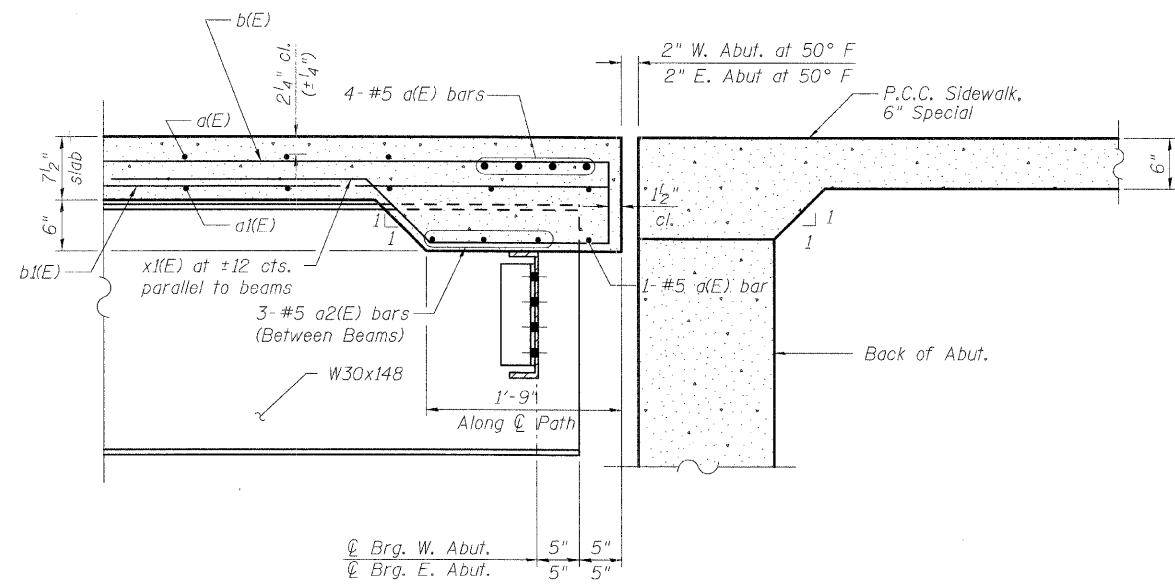
RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

**DECK PLAN & CROSS SECTION
UNIT 5**
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

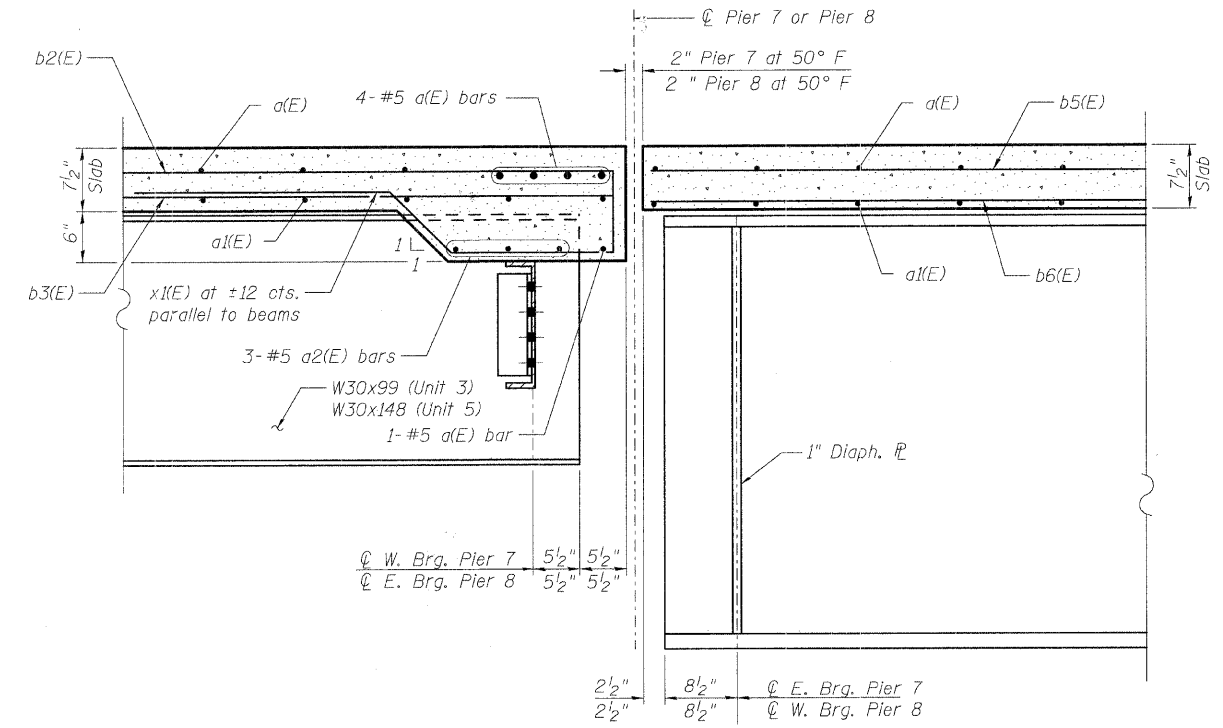
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2505	94-P4008-01-BR	KANE	81	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #83984

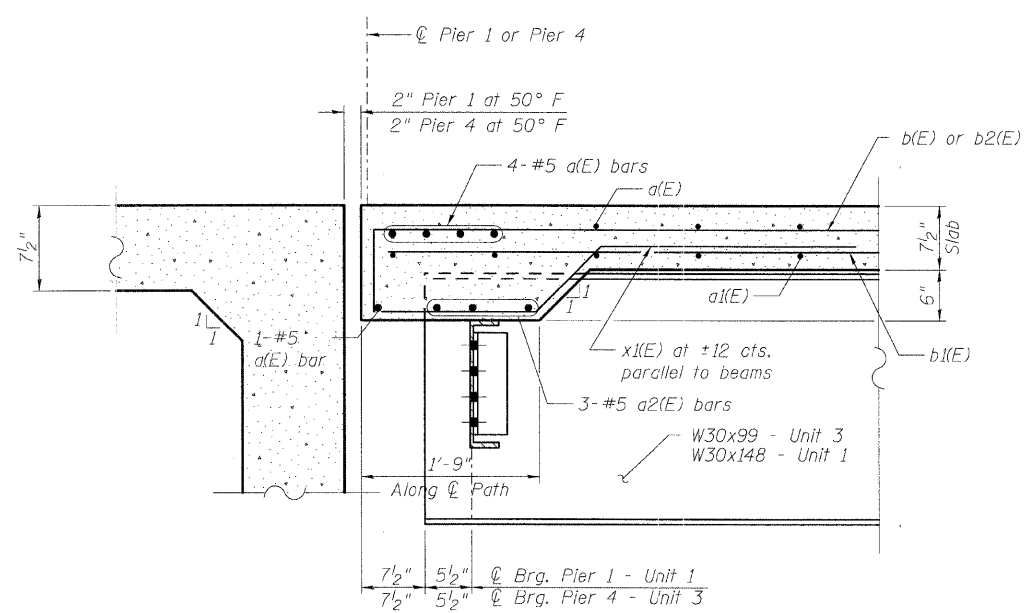
SHEET NO. S-14
S-42 SHEETS



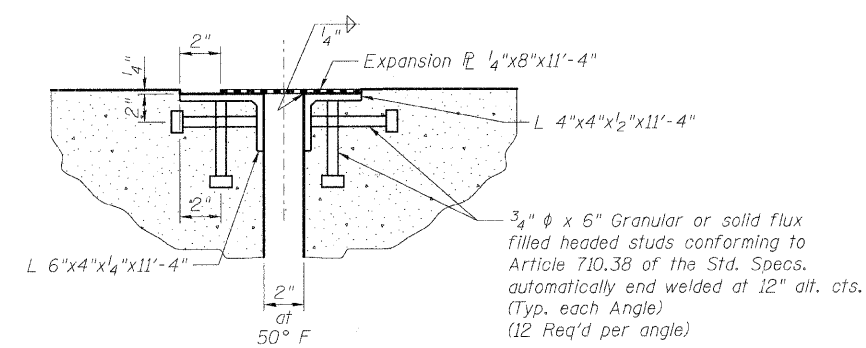
SECTION A1-A1
(At Abutments)



SECTION A3-A3
(Pier 7 & Pier 8)



SECTION A2-A2
(Pier 1 & Pier 4)



JOINT DETAIL

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

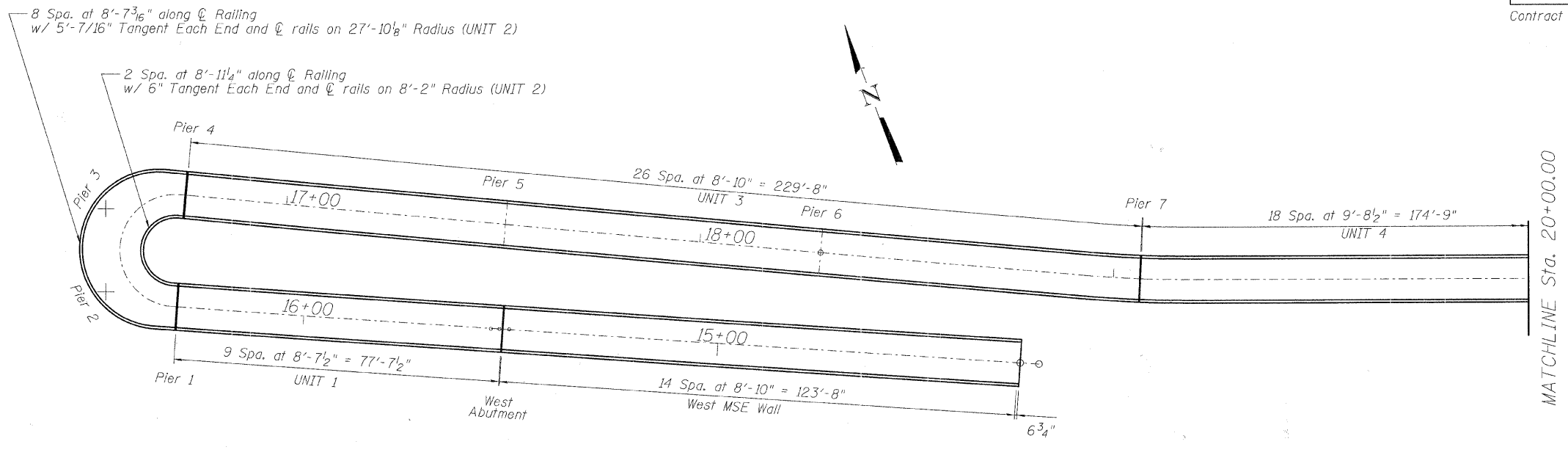
NOTES:
Work this sheet with sheets S-9 through S-13

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

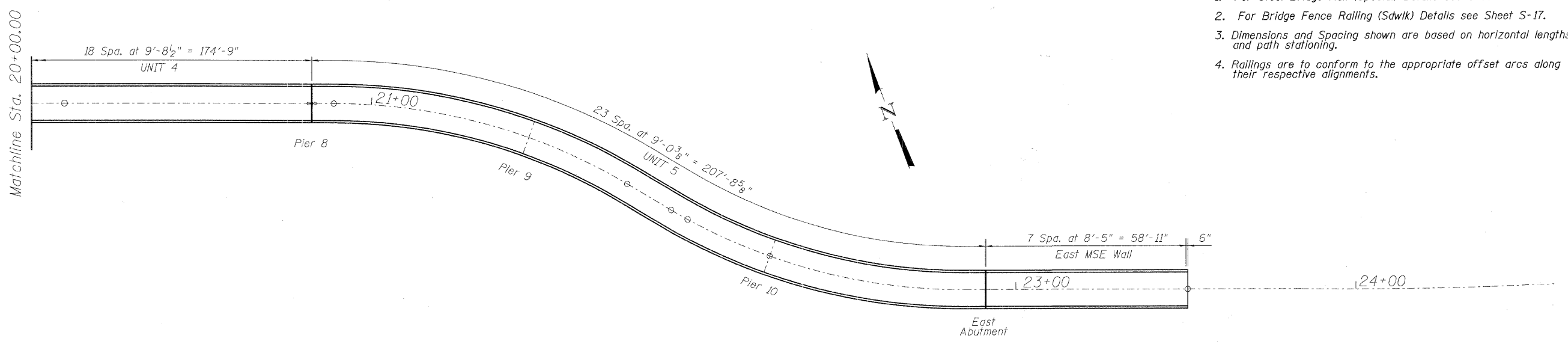
DECK DETAILS
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-15 S-42 SHEETS
FAU 2505	94-P4008-01-BR	KANE	81	39	
FED. ROAD DIST. NO. 7	ELLIMORE	FED. AID PROJECT			

Contract #83984



PLAN



PLAN

NOTES:

1. For Steel Bridge Rail (Special) Details see Sheet S-16.
2. For Bridge Fence Railing (Sdwik) Details see Sheet S-17.
3. Dimensions and Spacing shown are based on horizontal lengths and path stationing.
4. Railings are to conform to the appropriate offset arcs along their respective alignments.

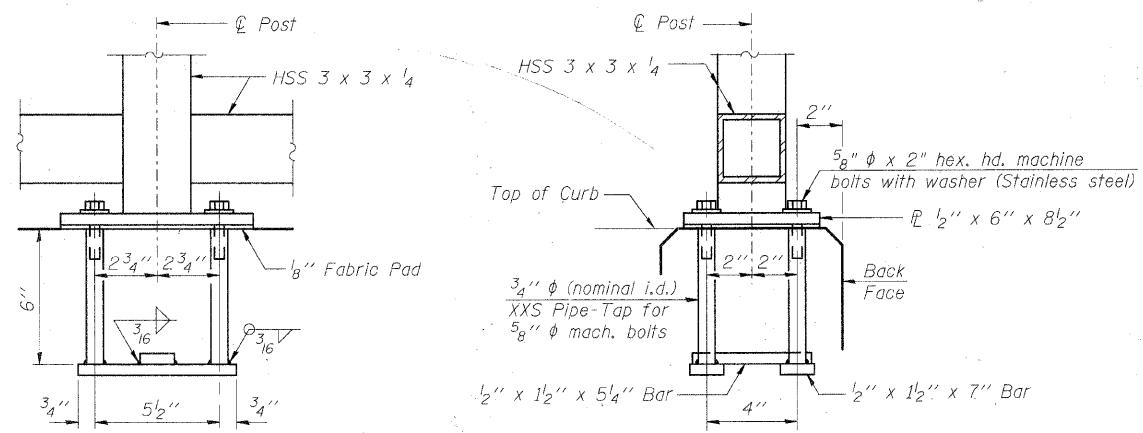
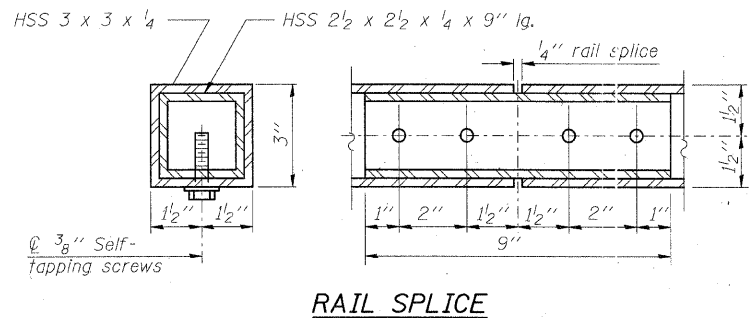
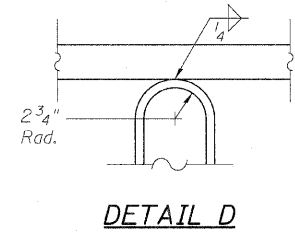
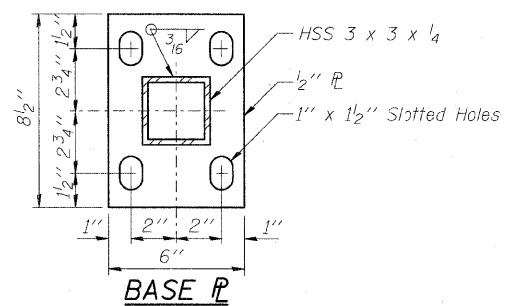
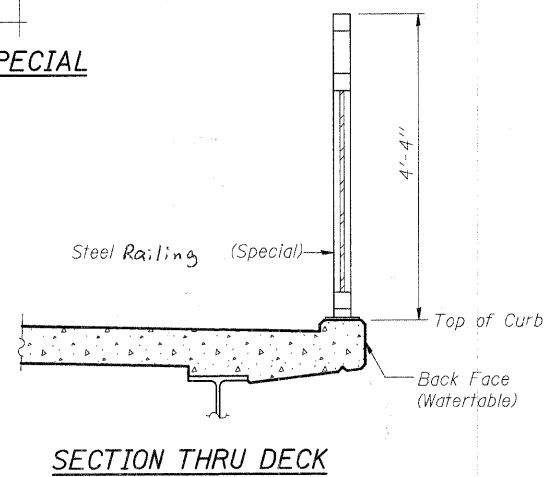
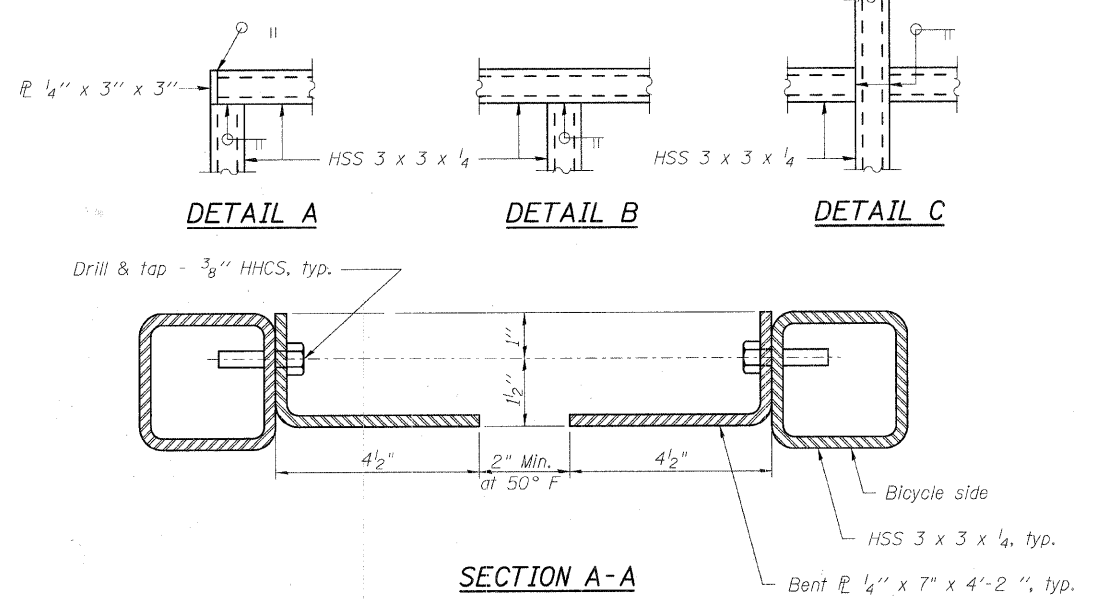
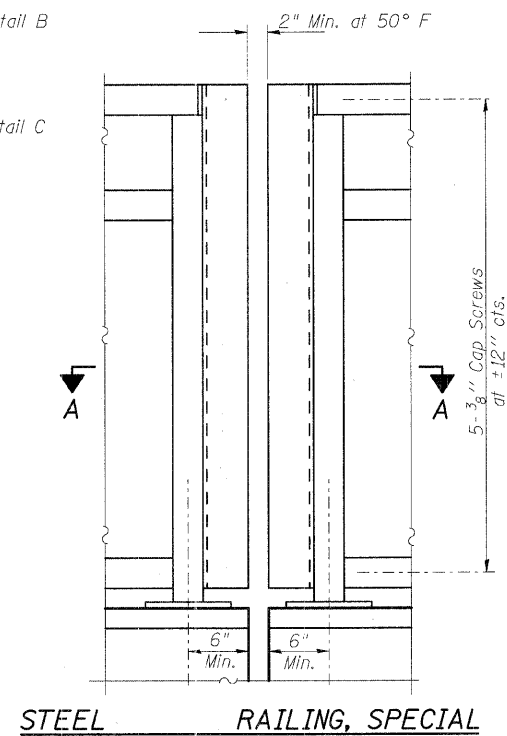
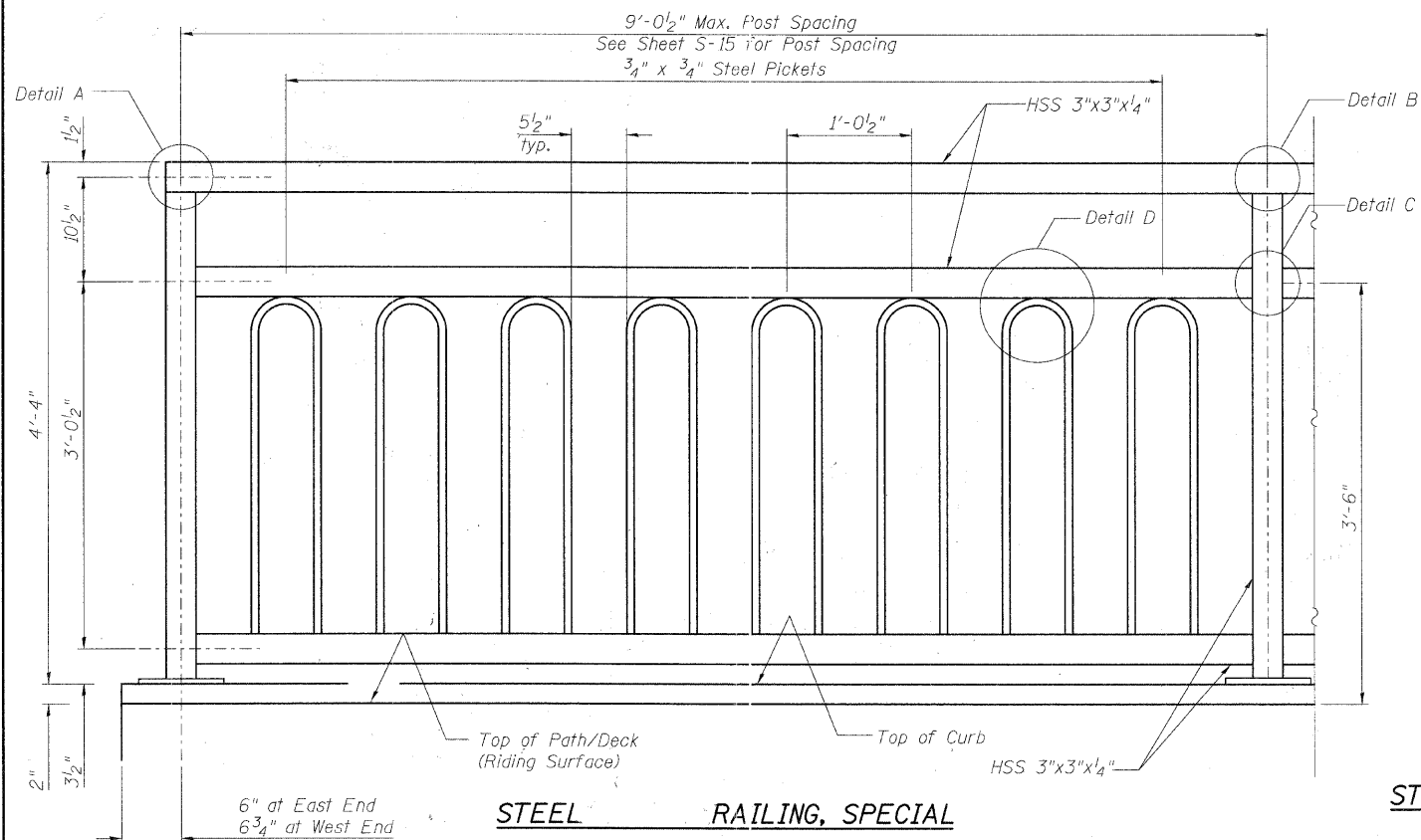
DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 194-005281

BRIDGE RAILING PLAN
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-16 S-42 SHEETS
FAU 2505	94-P4008-01-BR	KANE	81	40	
PRO. FORM C851, NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #83984



NOTES:
Space reinforcement to miss anchor rods.
All post, railing, splices, anchor devices, and bent plates shall be painted using one coat of zinc rich primer and two coats of black acrylic enamel paint.
The exact color shall be submitted to the Engineer for approval prior to painting any railing elements.

BILL OF MATERIAL

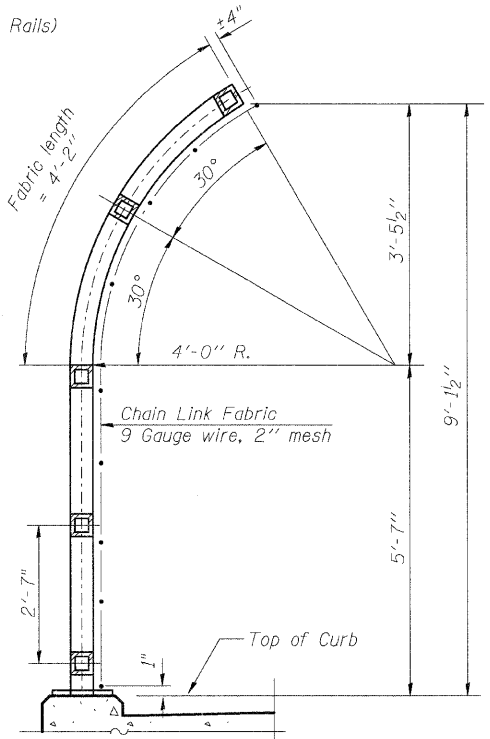
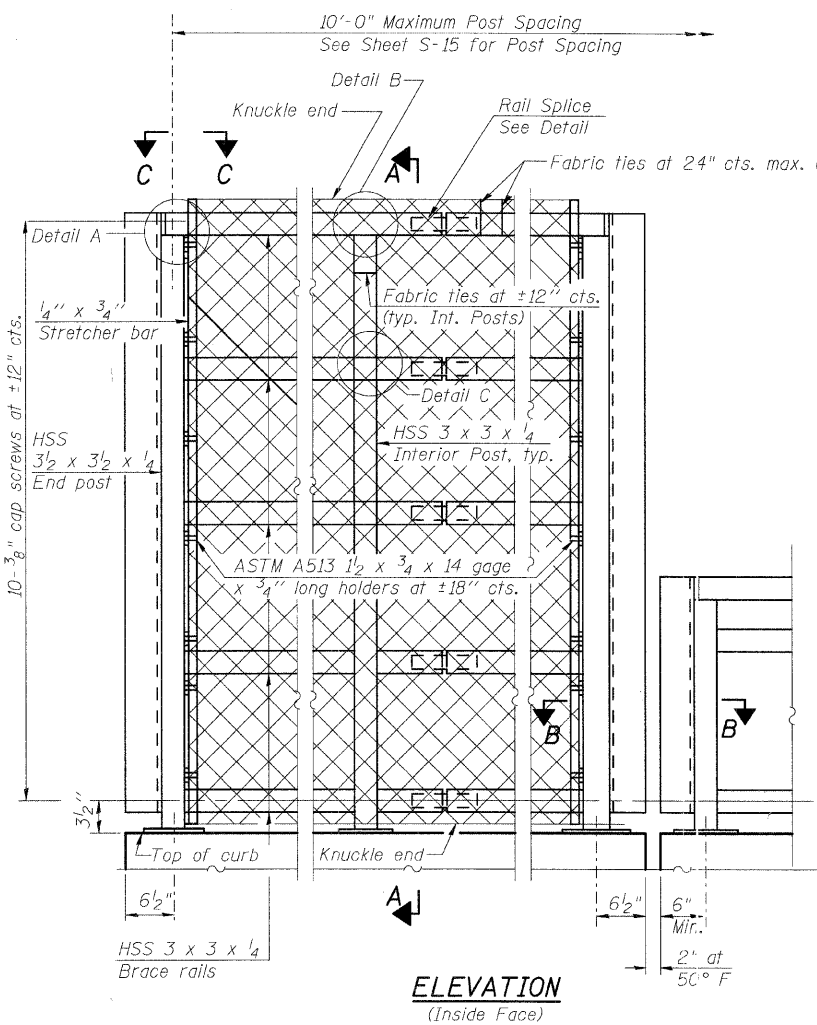
Item	Unit	Quantity
Steel RAILING (Special)	Foot	1,493

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

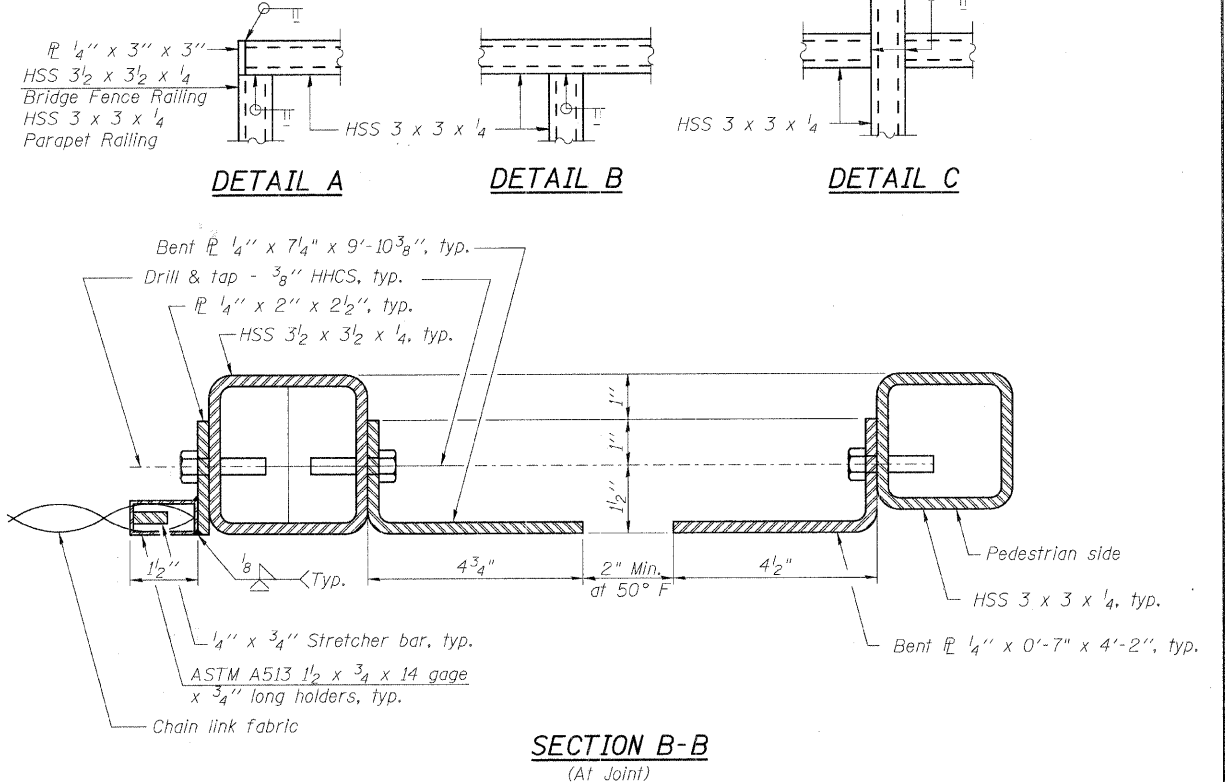
ANCHOR BOLT DETAILS
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

RH&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 1B4-005281

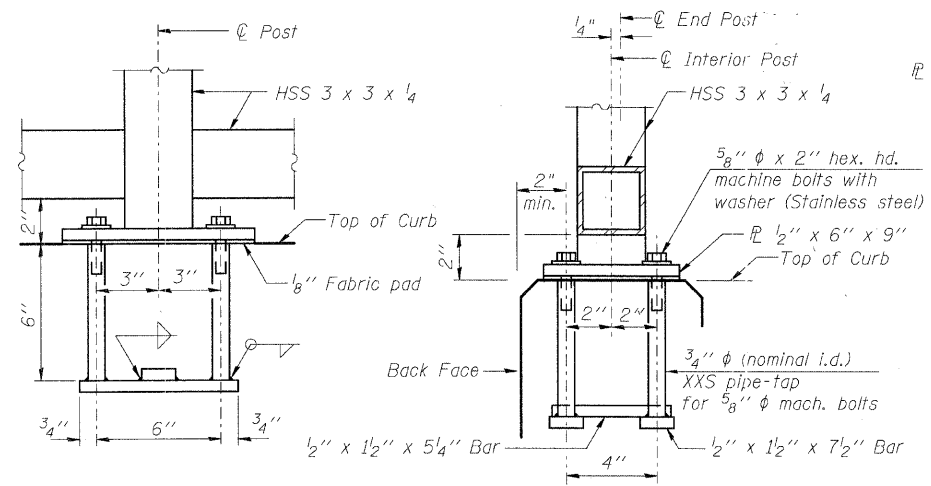
BRIDGE RAILING DETAILS I
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



SECTION A-A

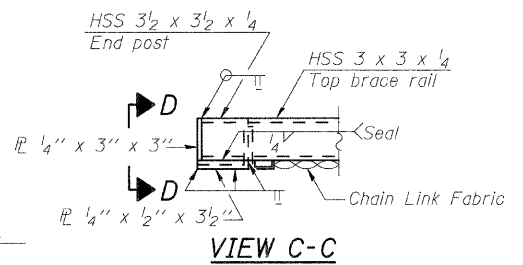


SECTION B-B (At Joint)

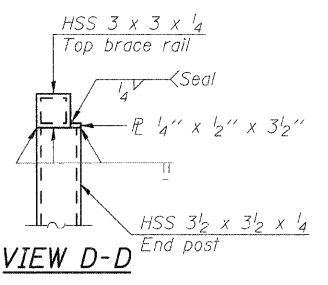


ANCHOR BOLT DETAILS

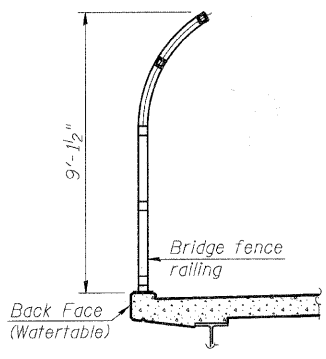
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" diameter anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



VIEW C-C



VIEW D-D

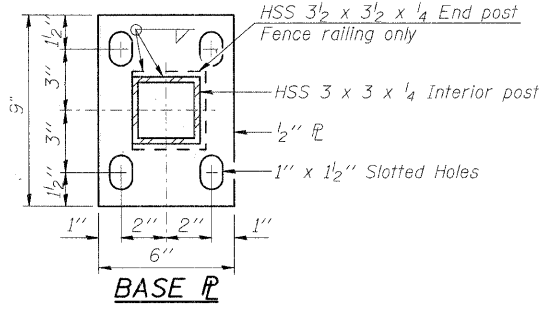


SECTION THRU DECK

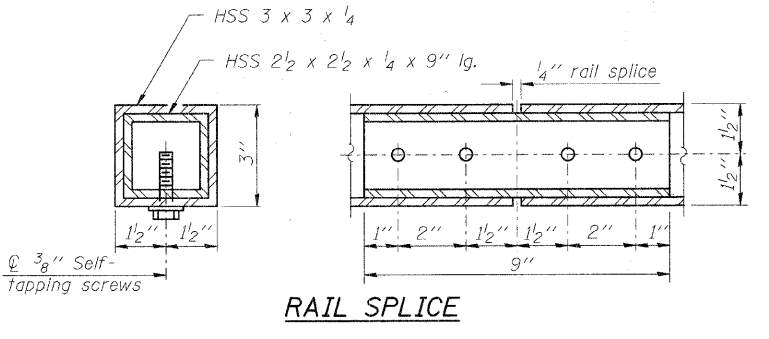
NOTES:
All post, railing, splices, anchor devices, and bent plates shall be painted using one coat of zinc rich primer and two coats of black acrylic enamel paint. The exact color shall be submitted to the Engineer for approval prior to painting any railing elements.

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing (Sidewalk)	Foot	348



BASE PLATE



RAIL SPLICE

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

BRIDGE RAILING DETAILS II
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984

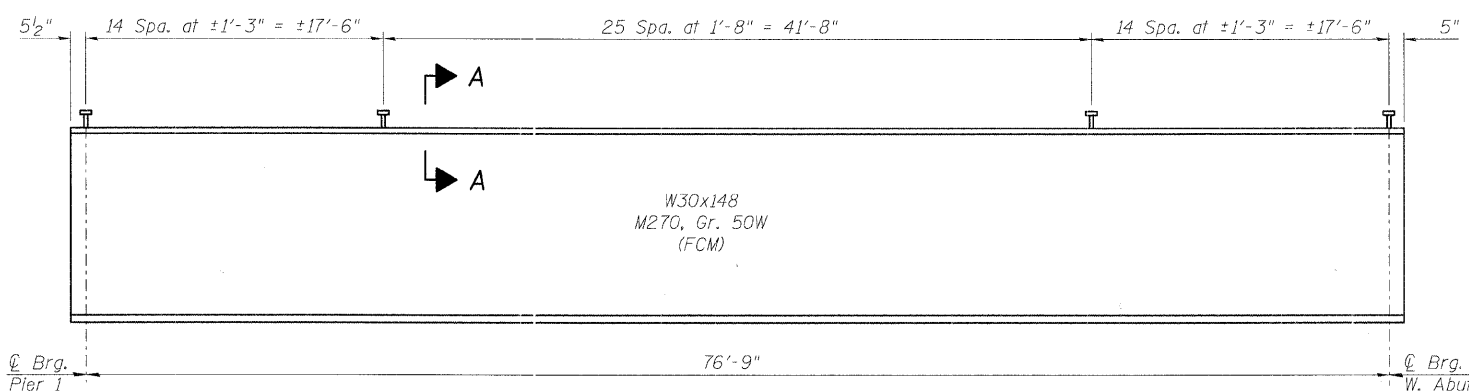
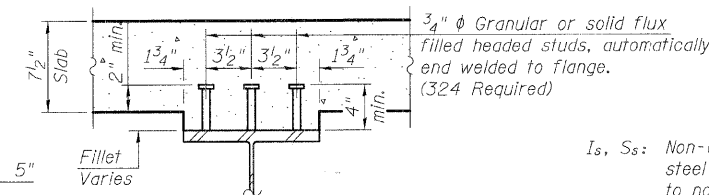
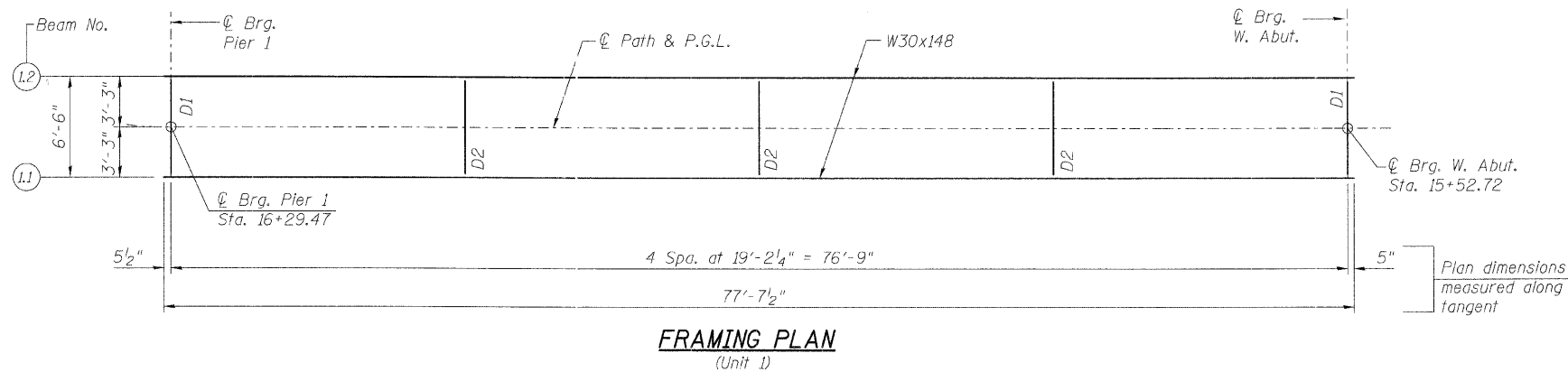
	W. Abut.	Pier 1
R _Q (k)	3.3	3.3
R _L (k)	16.3	16.3
Imp. (k)	---	---
R _{Total} (k)	49.3	49.3

Beam	Q Brg. W. Abut.	Q Brg. Pier 1
1.1	817.63	821.44
1.2	817.63	821.44

	0.5 Span
I _s	(in ⁴) 6,680
I _c (n)	(in ⁴) 15,924
I _c (3n)	(in ⁴) 11,574
S _s	(in ³) 436
S _c (n)	(in ³) 609
S _c (3n)	(in ³) 548
Z	(in ³) ---
Q	(k/ft) 0.771
M _Q	(k) 568
s _Q	(k/ft) 0.07
M _{sQ}	(k) 52
M _L	(k) 313
M _{Imp}	(k) ---
⁵ / ₃ [M _L + M _{Imp}]	(k) 522
M _o	(k) 1,485
M _u	(k) 2,880
f _s Q non-comp	(ksi) 15.63
f _s Q (comp)	(ksi) 1.14
f _s ⁵ / ₃ [M _L + M _{Imp}]	(ksi) 10.29
f _s (Overload)	(ksi) 27.06
f _s (Total)	(ksi) ---
VR	(k) 16.3

* Compact section

- I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) 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 and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas (in³).
- Q: Un-factored non-composite dead load (kips/ft.).
- M_Q: Un-factored moment due to non-composite dead load (kip-ft.).
- s_Q: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- M_{sQ}: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_L: Un-factored live load moment (kip-ft.).
- M_{Imp}: Un-factored moment due to impact (kip-ft.).
- M_o: Factored design moment (kip-ft.).
- M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
- VR: Maximum L + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

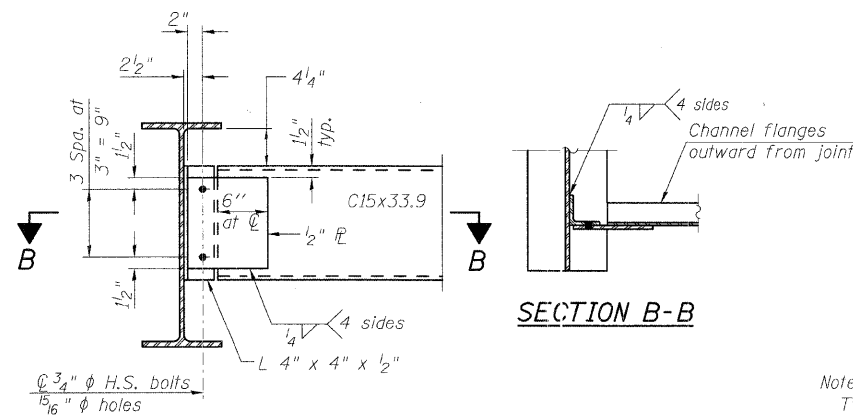


BEAM ELEVATION

"FCM" Indicates Fracture Critical Member

NOTES:

All Structural Steel shall be AASHTO M270 Grade 50W.



DIAPHRAGM D1

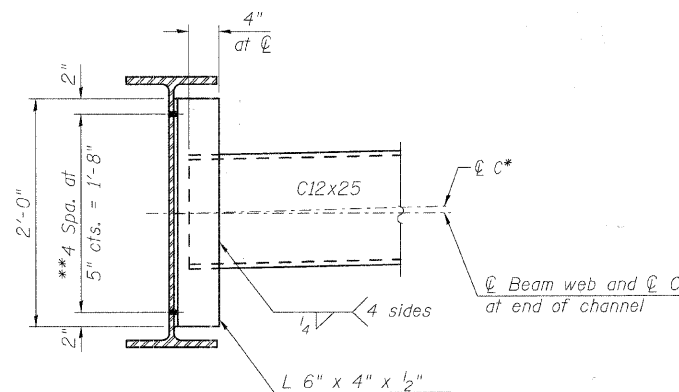
(2 Required)

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

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

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

- * Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
- ** 3/4" φ HS bolts, 1 5/16" φ holes



DIAPHRAGM D2

(3 Required)

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	324



Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

STRUCTURAL STEEL UNIT 1

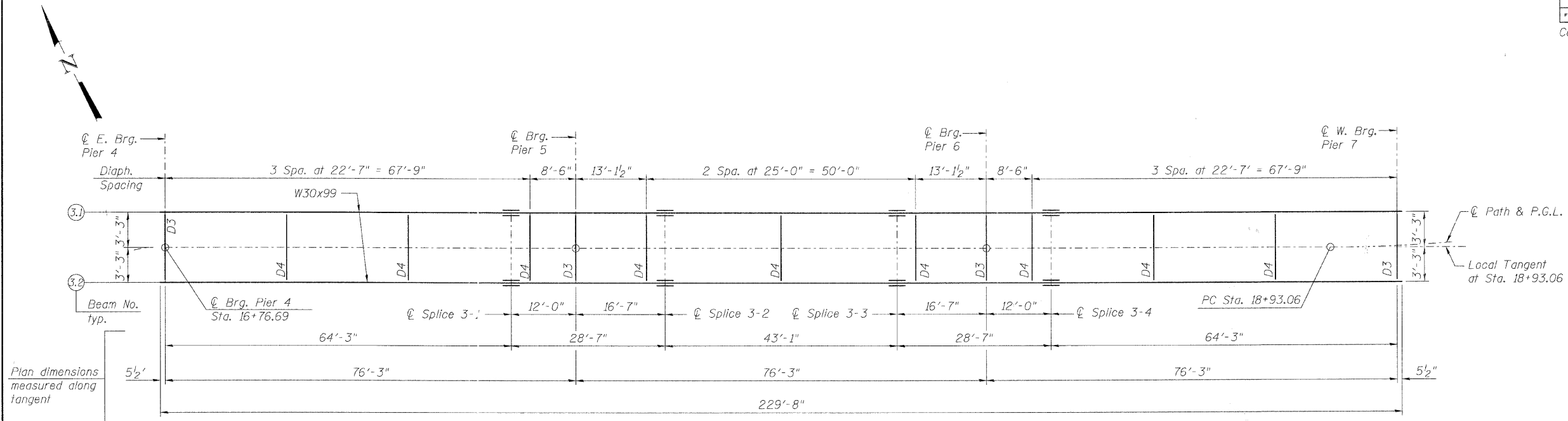
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000

DATE: OCTOBER 31, 2008

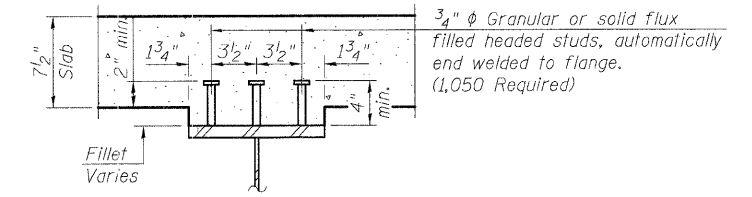
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2505	94-P4008-01-BR	KANE	81	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. S-19
S-42 SHEETS

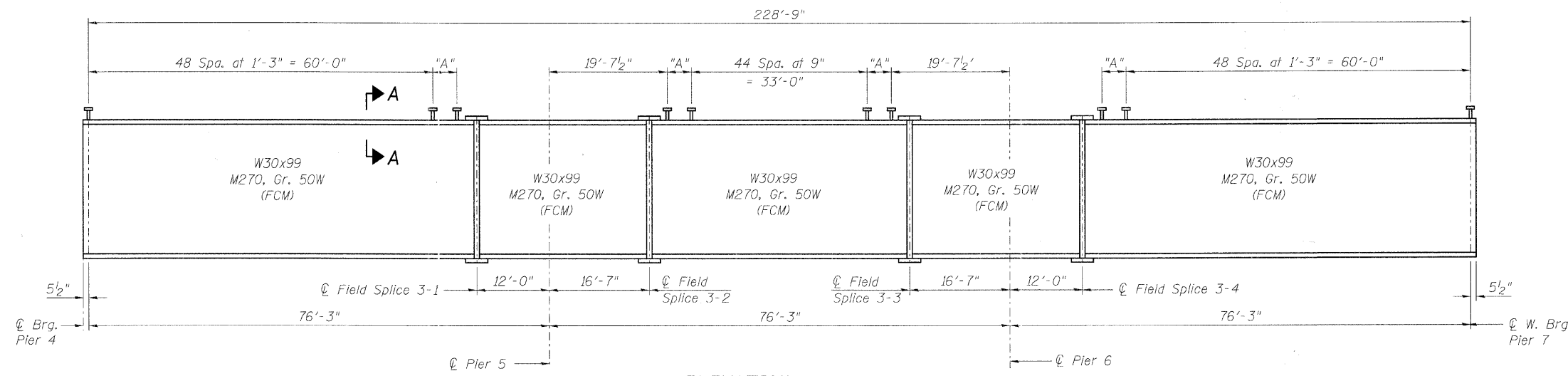
Contract #83984



FRAMING PLAN
(Unit 3)



SECTION A-A



ELEVATION

"FCM" Indicates Fracture Critical Member
Note: "A" denotes 8 spaces at 3"

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	1,050

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU



Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

STRUCTURAL STEEL
UNIT 3
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Contract #83984

	0.4 Sp. 1 or 0.6 Sp. 3	0.5 Span 2	Pier 5 or Pier 6
I_s	3990	3990	3990
$I_c(n)$	10908	10908	---
$I_c(3n)$	8042	8042	---
S_s	269	269	269
$S_c(n)$	402	402	---
$S_c(3n)$	363	363	---
Z	---	---	---
ρ	0.717	0.717	0.787
$M \rho$	333	104	452
$s \rho$	0.07	0.07	---
$M_s \rho$	35	16	---
$M \ell$	259	204	214
M_{imp}	---	---	---
$\rho_3 [M \ell + M_{imp}]$	432	340	357
M_a	1040	598	1052
M_u	1888	2033	---
$f_s \rho$ non-comp	14.88	4.65	18.60
$f_s \rho$ (comp)	1.15	0.53	1.55
$f_s \rho_3 [M \ell + M_{imp}]$	12.92	10.17	15.97
f_s (Overload)	28.95	15.35	36.12
f_s (Total)	---	---	46.93
VR	16.3	14.3	---

* Compact section

	℄ Brg. Pier 4	Pier 5	Pier 6	℄ W. Brg. Pier 7
$R \rho$	24.7	65.9	65.9	24.7
$R \ell$	15.2	37.0	37.0	15.2
Imp.	---	---	---	---
R_{Total}	39.9	102.9	102.9	39.9

Beam	℄ Brg. Pier 4	℄ Field Splice 3-1	℄ Brg. Pier 5	℄ Field Splice 3-2	℄ Field Splice 3-3	℄ Brg. Pier 6	℄ Field Splice 3-3	℄ W. Brg. Pier 7
3.1	821.679	824.839	825.439	826.268	828.423	829.252	833.132	833.128
3.2	821.679	824.839	825.439	826.268	828.423	829.252	833.132	833.184

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

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

$I_c(3n), S_c(3n)$: 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 and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z : Plastic Section Modulus of the steel section in non-composite areas (in.³).

ρ : Un-factored non-composite dead load (kips/ft.).

$M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).

$s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M \ell$: Un-factored live load moment (kip-ft.).

M_{imp} : Un-factored moment due to impact (kip-ft.).

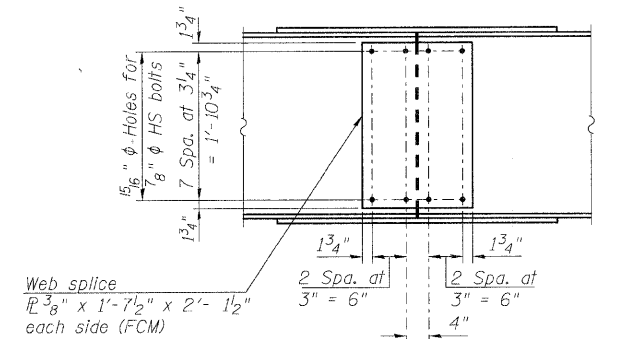
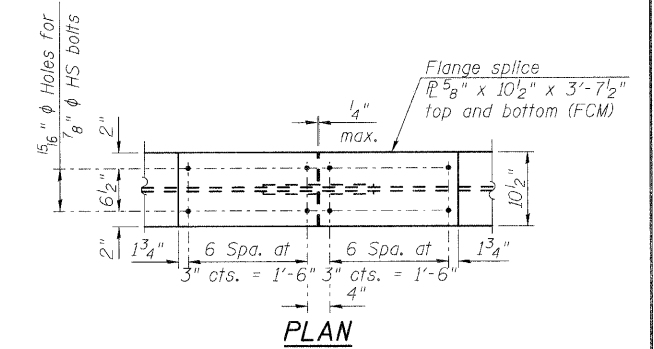
M_a : Factored design moment (kip-ft.).
 $1.3 [M \rho + M_s \rho + \frac{5}{8} (M \ell + M_{imp})]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

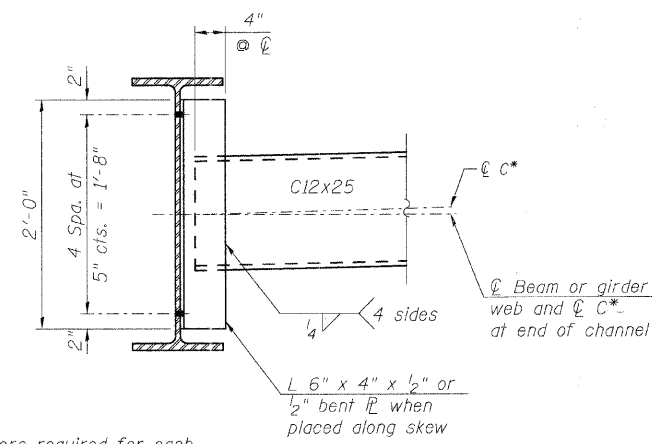
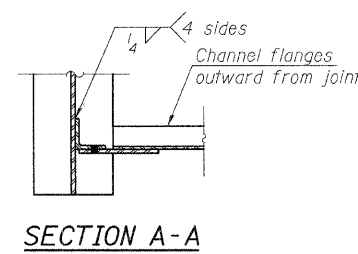
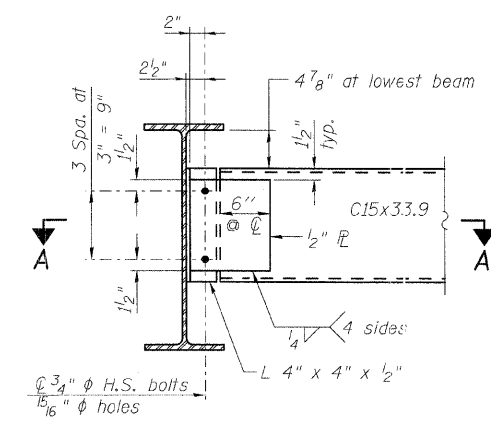
f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M \rho + M_s \rho + \frac{5}{8} (M \ell + M_{imp})$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M \rho + M_s \rho + \frac{5}{8} (M \ell + M_{imp})]$

VR: Maximum ℓ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



FIELD SPLICE DETAIL



DIAPHRAGM D3
(4 Required)

DIAPHRAGM D4
(9 Required)

NOTES:
 1. All Structural Steel shall be AASHTO M270 Grade 50W.
 2. Beam elevations are measured along the web centerline.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

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

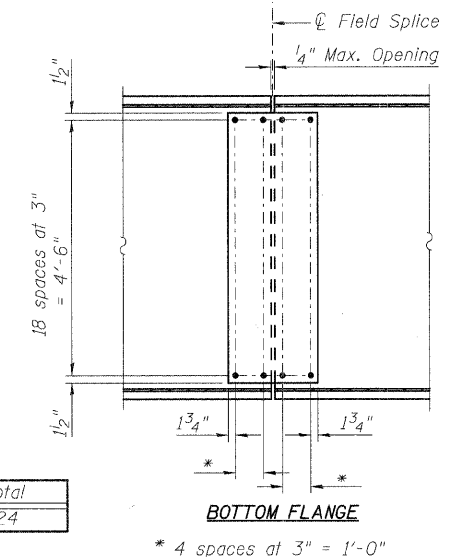
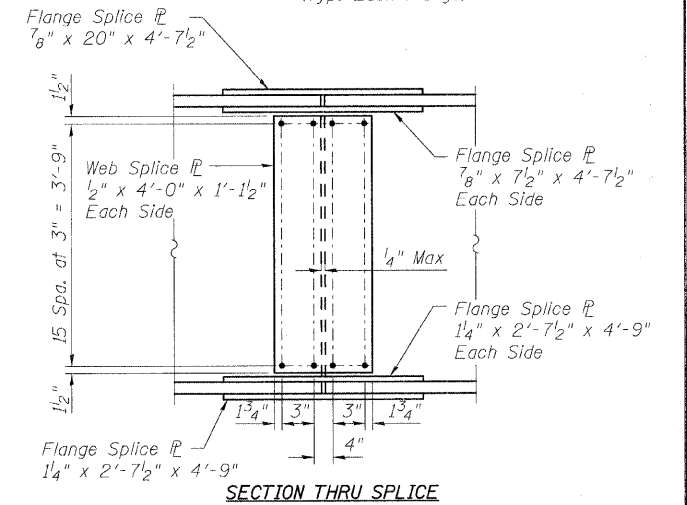
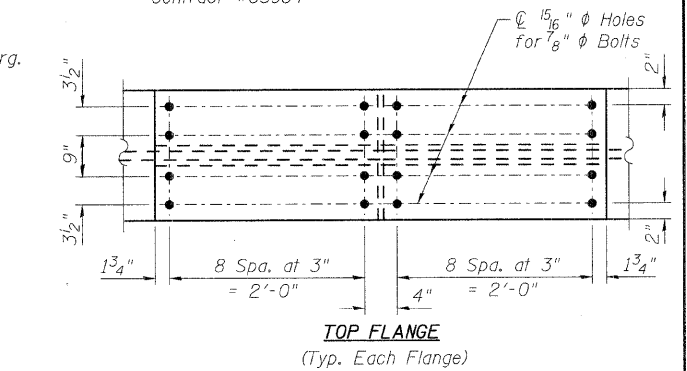
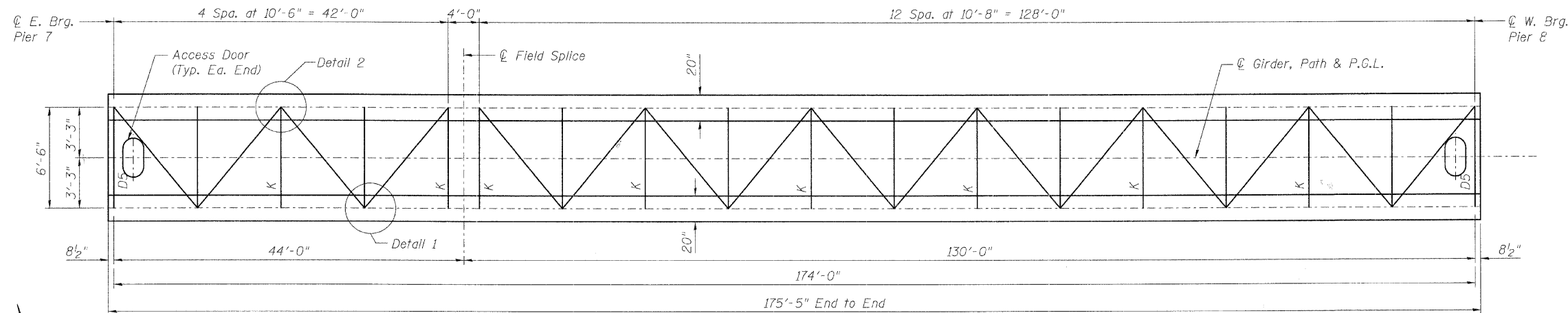
Note:
Two hardened washers required for each set of oversized holes.

* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
 ** $\frac{3}{4}$ " ϕ HS bolts, $\frac{5}{16}$ " ϕ holes

RHA&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

STRUCTURAL STEEL DETAILS
UNIT 3
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

Contract #83984



BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	624

NOTES:

All steel shall be AASHTO M 270 Grade 50W.
All splice plates shall meet the requirements for Fracture Critical Members (FCM).

FIELD SPLICE DETAIL

STRUCTURAL STEEL UNIT 4

PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000

DATE: OCTOBER 31, 2008

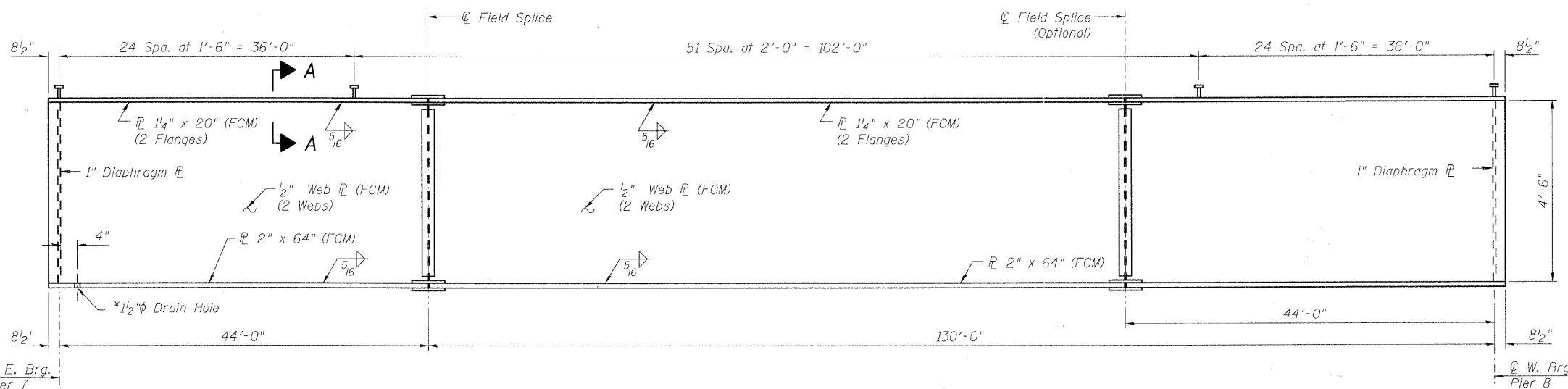


Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

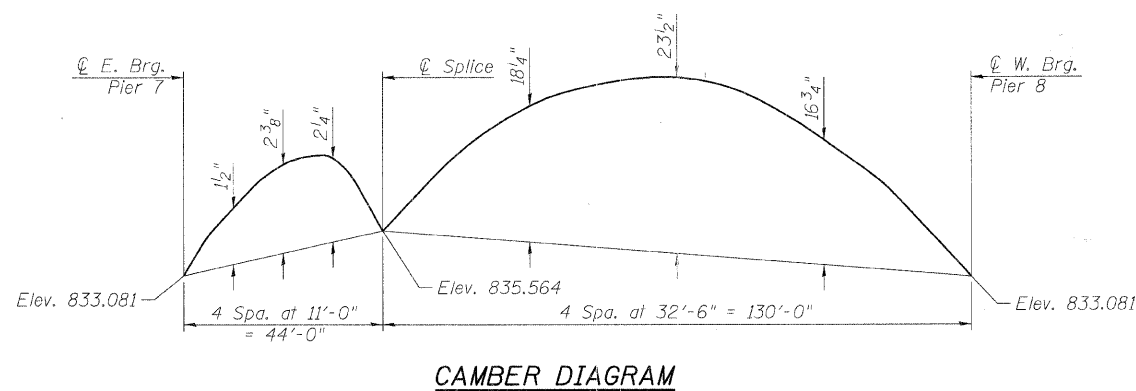
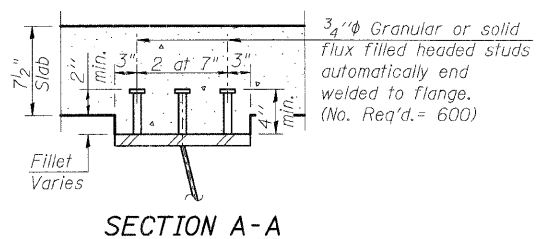
BOX GIRDER PLAN
(Unit 4)

BOX GIRDER ELEVATION

"FCM" Indicates Fracture Critical Membrane



Mastic* shall be applied to the bottom flange between the drain holes and the plate diaphragm and placed such that water cannot run past the drain holes and pond-up against the plate diaphragms. Slope to drain. #10 galvanized 1/4" x 1/4" steel wire mesh shall be attached to the inside of the bottom flange plate with a suitable sealant to be approved by the Engineer. Cost included with the pay item "FURNISHING AND ERECTING STRUCTURAL STEEL".



DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

I_s	(in ⁴)	0.5 Span
$I_c(n)$	(in ⁴)	131,014
$I_c(3n)$	(in ⁴)	267,371
S_s	(in ³)	6,705
$S_c(n)$	(in ³)	8,015
$S_c(3n)$	(in ³)	7,437
Z	(in ³)	- - -
ϕ	(k/')	2.09
$M\phi$	(k-ft.)	7,910
$s\phi$	(k/')	0.15
$M_s\phi$	(k)	568
$M\phi$	(k)	3217
M_{Imp}	(k)	- - -
$S_3 [M\phi + M_{Imp}]$	(k)	5362
M_a	(k)	17,992
M_u	(k)	20,176
$f_s \phi$ non-comp	(ksi)	14.16
$f_s \phi$ (comp)	(ksi)	0.92
$f_s S_3 [M\phi + M_{Imp}]$	(ksi)	8.03
f_s (Overload)	(ksi)	23.11
f_s (Total)	(ksi)	- - -
VR	(k)	74.0

$R\phi$	(k)	E. Brg. Pier 7 or W. Brg. Pier 8
$R\phi$	(k)	197
$R\phi$	(k)	74
$Imp.$	(k)	0
R_{Total}	(k)	271

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) 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 and Overload) 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 and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in³).

ϕ : Un-factored non-composite dead load (kips/ft.).

$M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M\phi$: Un-factored live load moment (kip-ft.).

M_{Imp} : Un-factored moment due to impact (kip-ft.).

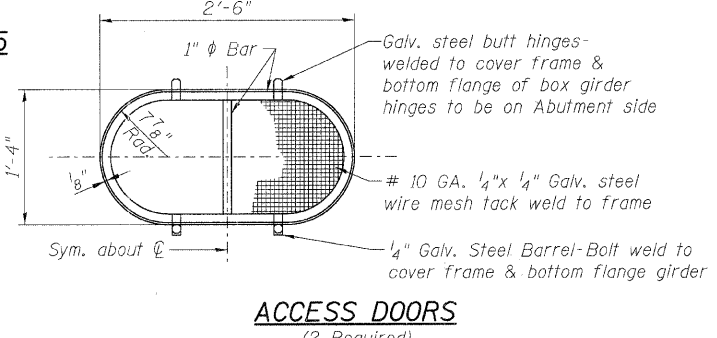
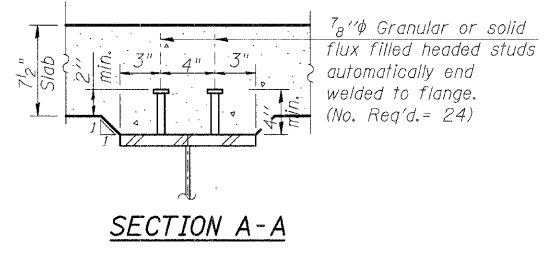
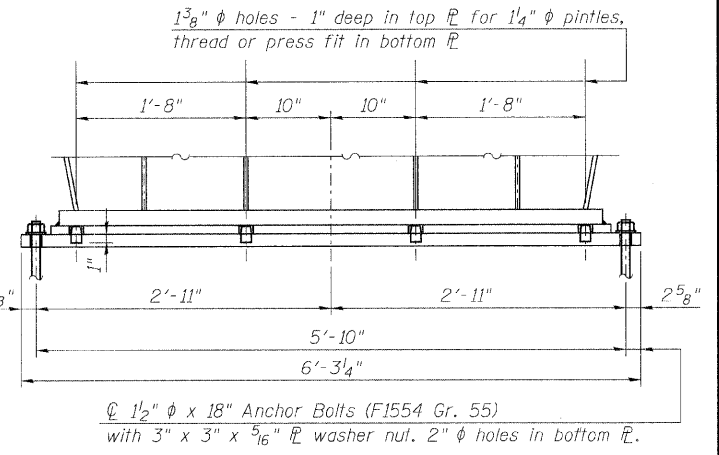
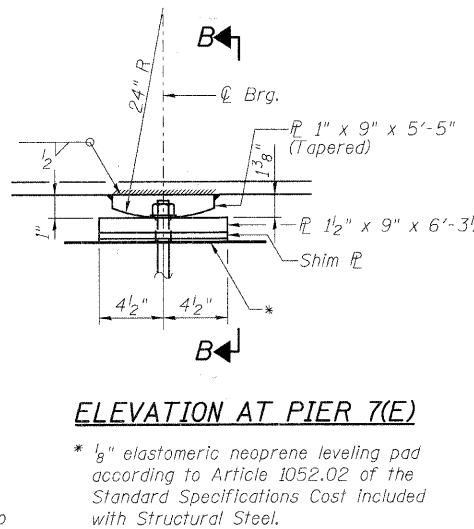
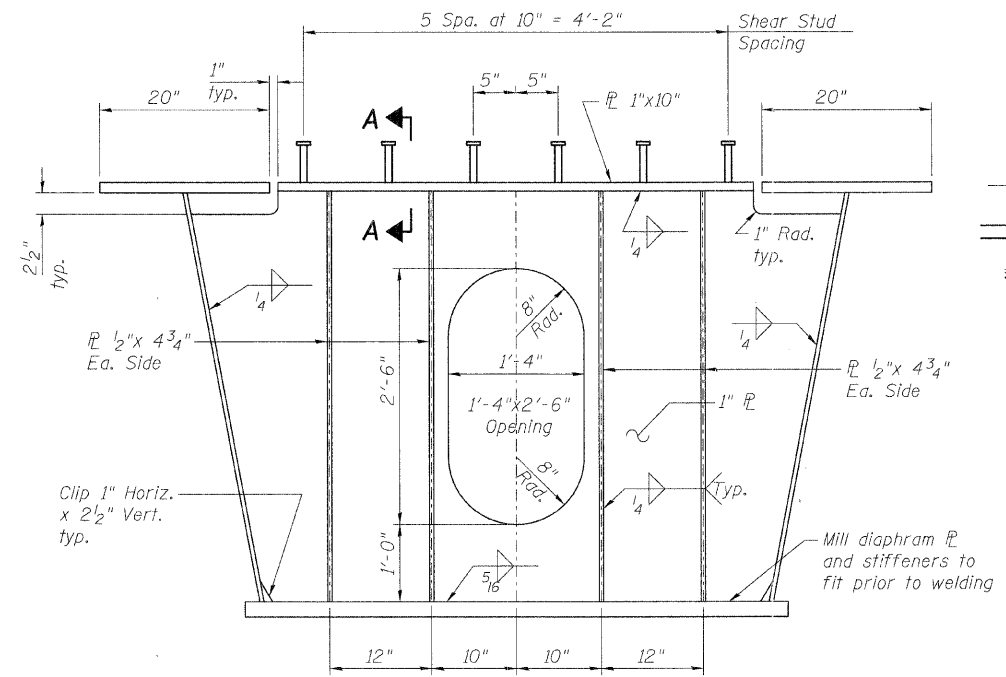
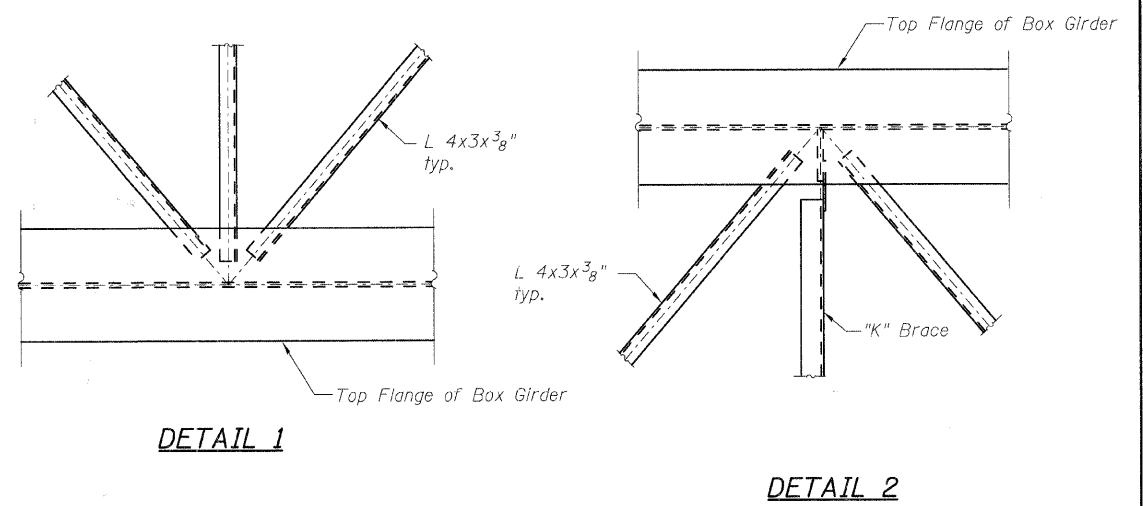
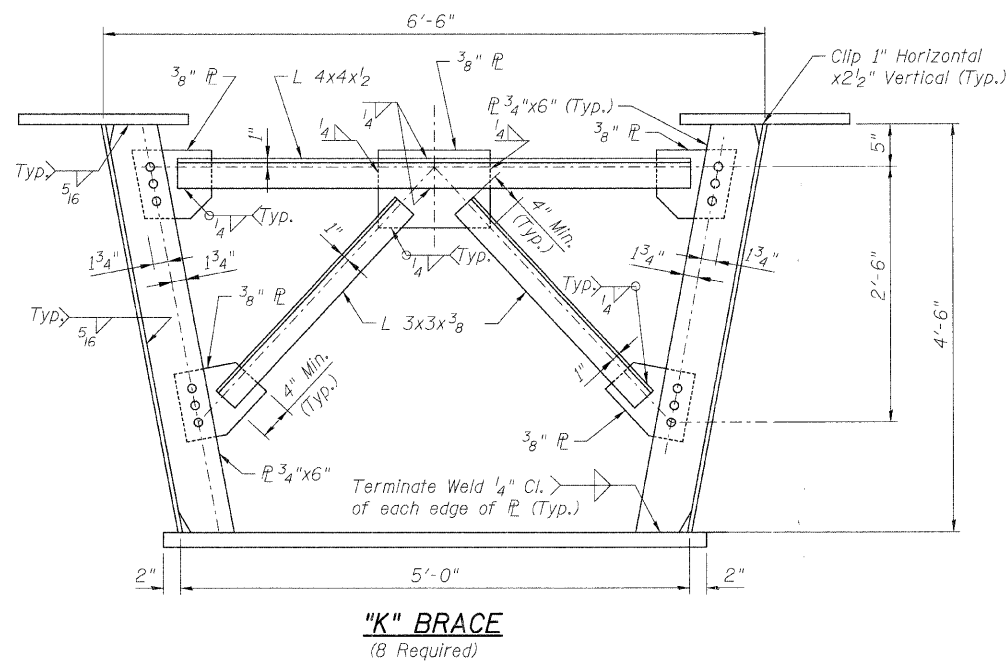
M_a : Factored design moment (kip-ft.).

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

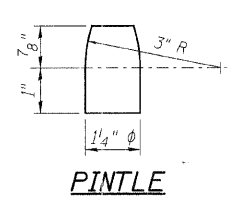
f_s (Overload): Sum of stresses as computed from the moments below (ksi).

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).

VR : Maximum ϕ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).



FIXED BEARING
(1 Required)



NOTES

All structural steel shall be M 270 Grade 50W.

See Sheet S-25 for Elastomeric Bearing Assembly details at Pier 8(W).

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A

Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

STRUCTURAL STEEL DETAILS
UNIT 4
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

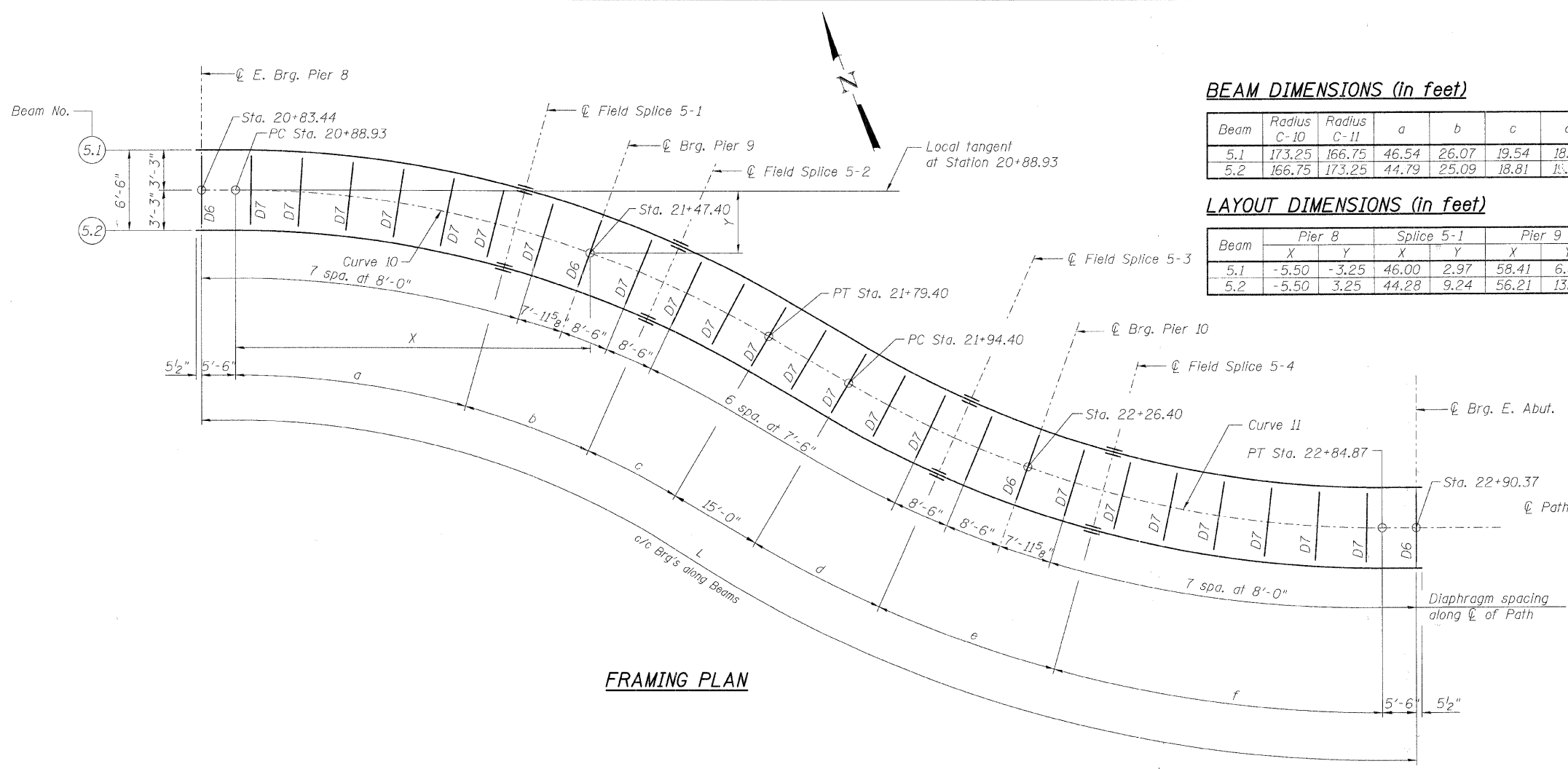
For Locations in box Girder Bottom Flange, See Sheet S-21.
Cost of Access door shall be included in the Cost of "FURNISHING AND ERECTING STRUCTURAL STEEL".

BEAM DIMENSIONS (in feet)

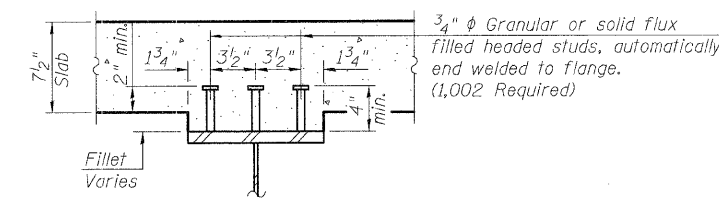
Beam	Radius C-10	Radius C-11	a	b	c	d	e	f	g	h	i	j	L
5.1	173.25	166.75	46.54	26.07	19.54	18.81	25.09	44.88	13.01	13.06	12.57	12.52	206.93
5.2	166.75	173.25	44.79	25.09	18.81	15.54	26.07	46.63	12.52	12.57	13.06	13.01	206.93

LAYOUT DIMENSIONS (in feet)

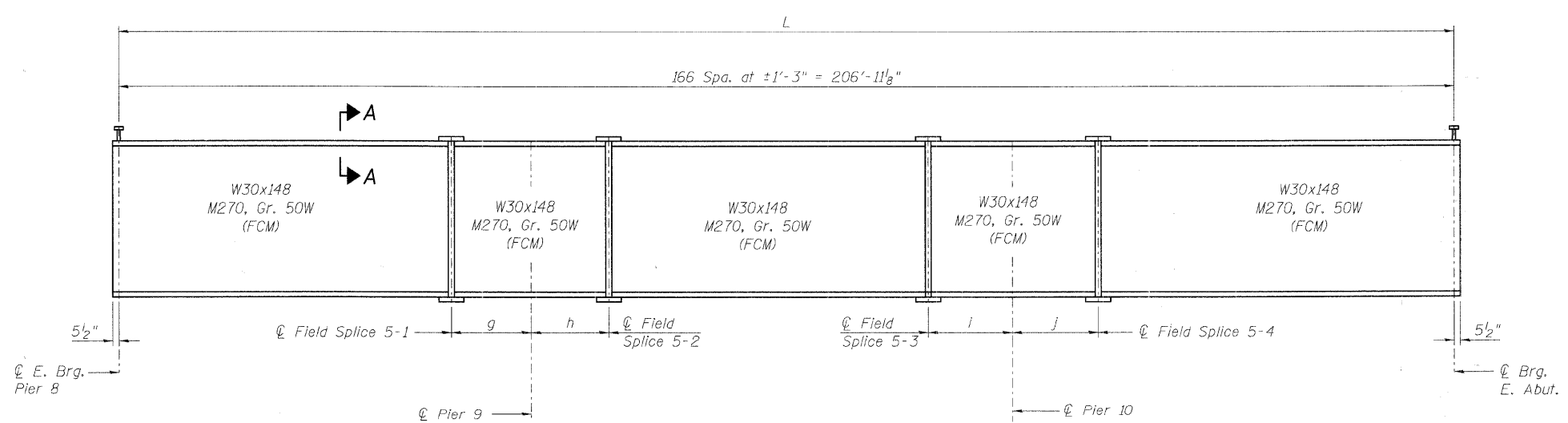
Beam	Pier 8		Splice 5-1		Pier 9		Splice 5-2		Splice 5-3		Pier 10		Splice 5-4		East Abutment	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
5.1	-5.50	-3.25	46.00	2.97	58.41	6.89	70.54	11.76	117.55	37.01	129.23	41.62	141.17	45.40	190.94	51.38
5.2	-5.50	3.25	44.28	9.24	56.21	13.01	67.89	17.70	114.91	42.87	127.04	47.74	139.44	51.66	190.94	57.88



FRAMING PLAN



SECTION A-A



TYPICAL ELEVATION

"FCM" Indicates Fracture Critical Member.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	1,002

NOTES:

All Structural Steel shall be AASHTO M 270 Grade 50W.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHAA
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

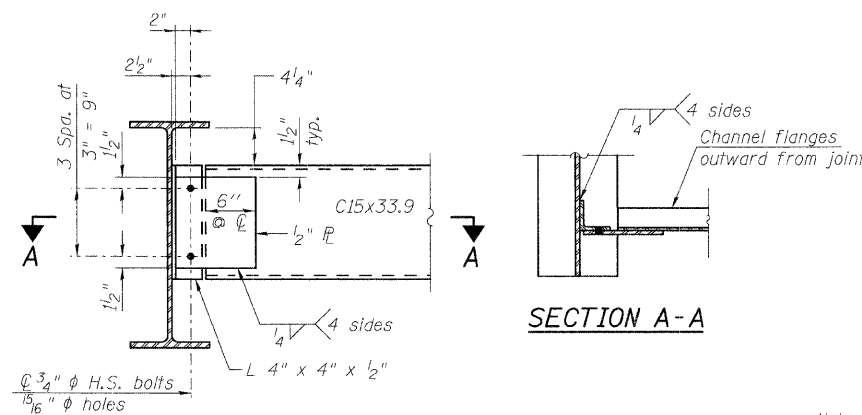
STRUCTURAL STEEL UNIT 5
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

Contract #83984

BEAM MOMENT TABLE											
	0.4 Sp. 1		Pier 9		0.5 Sp. 2		Pier 10		0.6 Sp. 3		
	Bm. 5.1	Bm. 5.2	Bm. 5.1	Bm. 5.2	Bm. 5.1	Bm. 5.2	Bm. 5.1	Bm. 5.2	Bm. 5.1	Bm. 5.2	
I_s	(in ⁴)	6680	6680	6680	6680	6680	6680	6680	6680	6680	
$I_c(n)$	(in ⁴)	15924	8419	15924	8419	15924	8419	15924	8419	15924	
$I_c(3n)$	(in ⁴)	11574	8419	11574	8419	11574	8419	11574	8419	11574	
S_e	(in ³)	436	436	436	436	436	436	436	436	436	
$S_c(n)$	(in ³)	609	633	609	633	609	633	609	633	609	
$S_c(3n)$	(in ³)	548	633	548	633	548	633	548	633	548	
S_t	(in ³)	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	
Q	(k/')	0.771	0.771	0.771	0.771	0.771	0.771	0.771	0.771	0.771	
M_D	(k)	315	113	485	348	200	174	363	470	107	321
s_D	(k/')	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	
M_{sD}	(k)	26	13	42	33	18	17	34	41	13	26
M_L	(k)	228	126	256	252	202	188	260	248	127	227
M_{imp}	(k)	---	---	---	---	---	---	---	---	---	
$^{3/3}[M_L + M_{imp}]$	(k)	380	210	427	420	337	313	433	413	212	378
M_o	(k)	937	437	1240	1041	722	655	1079	1201	432	943
M_{bt}	(k)	1.8	0.56	2.29	1.58	0.00	0.00	1.44	1.93	1.76	3.35
$f_s D$ (non-comp)	(ksi)	8.67	3.1	13.36	9.57	5.50	4.79	9.99	12.94	2.95	8.83
$f_s D$ (comp)	(ksi)	0.58	0.28	0.80	0.62	0.40	0.36	0.64	0.78	0.28	0.58
$f_s^{3/3}[M_L + M_{imp}]$	(ksi)	7.56	4.1	8.18	7.96	6.62	6.17	8.22	7.93	4.12	7.53
f_x	(ksi)	1.00	0.31	1.27	0.87	0.00	0.00	0.79	1.07	0.00	0.00
f_s (Overload)	(ksi)	16.81	7.48	22.34	18.15	12.52	11.32	18.85	21.65	7.35	16.94
f_s (Total)	(ksi)	21.85	9.72	29.04	23.60	16.28	14.72	24.51	28.15	9.56	22.02
f_{or} (Overload)	(ksi)	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
VR	(k)	18.5	10.5	36.7	32.5	21.62	23.6	33.4	36.6	22.3	23.8
f_{or}	(ksi)	49.6	49.9	50.0	50.0	50.0	50.0	50.0	50.0	49.7	49.3

BEAM REACTION TABLE					
	Pier 8(E)	Pier 9	Pier 10	E. Abut.	
R_D	(k)	13.8	69.8	63.1	27.7
R_L	(k)	8.8	40.5	33.2	18.1
Imp.	(k)	---	---	---	---
R_{Total}	(k)	22.6	110.3	96.3	45.8

TOP OF BEAM ELEVATIONS (For Fabrication Only) - UNIT 5								
Beam	Q. E. Brg. Pier 8	Q. Field Splice 5-1	Q. Brg. Pier 9	Q. Field Splice 5-2	Q. Field Splice 5-3	Q. Brg. Pier 10	Q. Field Splice 5-4	Q. Brg. E. Abut.
5.1	833.06	830.40	829.76	829.12	826.45	825.81	825.17	822.71
5.2	833.06	830.40	829.76	829.12	826.45	825.81	825.17	822.71



DIAPHRAGM D6
(4 Required)

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

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.4 and in.3).

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

$I_c(3n), S_c(3n)$: 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 and Overload) due to long-term composite (superimposed) dead loads (in.4 and in.3).

S_t : Section modulus of one flange plate for lateral flange bending (in.3).

Q : Un-factored non-composite dead load (kips/ft.).

M_D : Un-factored moment due to non-composite dead load (kip-ft.).

s_D : Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sD} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_{imp} : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).

$1.3 [M_D + M_{sD} + \frac{5}{3} (M_L + M_{imp})]$

M_{bt} : Factored lateral bending moment for flange plate (kip-ft.).

f_x : Factored calculated normal stress at the edge of flange due to lateral bending (ksi).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_D + M_{sD} + \frac{5}{3} (M_L + M_{imp})$

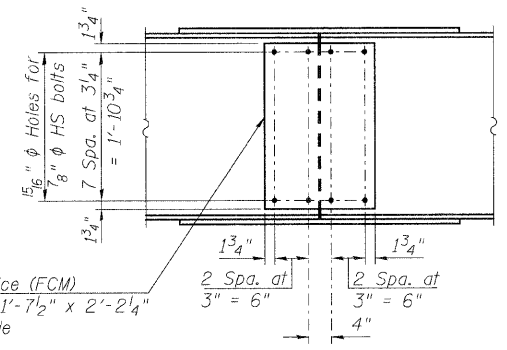
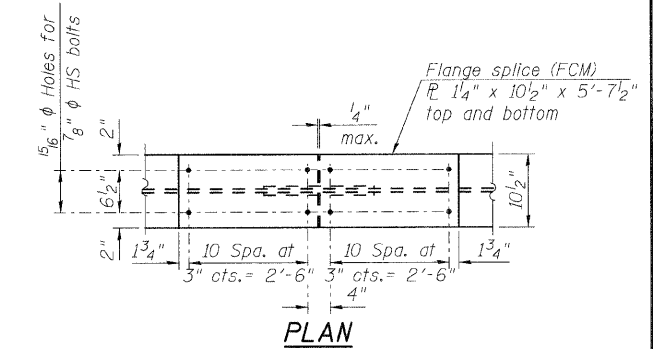
f_s (Total): Sum of stresses as computed from the moments below (ksi).
 $1.3 [M_D + M_{sD} + \frac{5}{3} (M_L + M_{imp})]$

f_{or} (Overload): Critical average flange stress at overload computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges Section 9.5 (ksi).

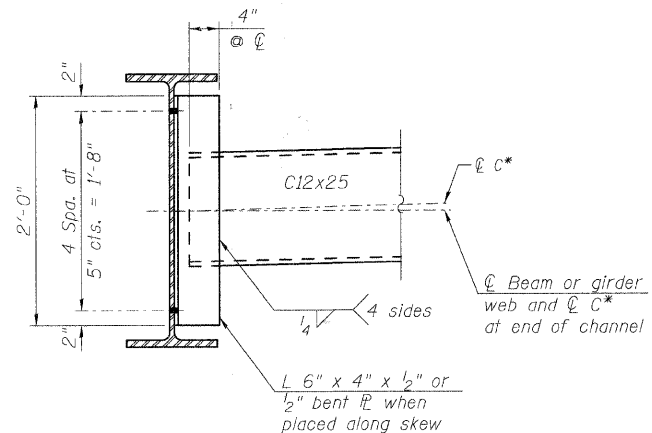
f_{or} : Critical average flange stress (smaller of f_{or1} or f_{or2} for partially braced flanges and f_y for continuously braced flanges) computed according to the 2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (Sections 5.2, 5.3 and 5.4) (ksi).

VR: Maximum t + impact horizontal shear range within span for stud shear connector design (kips).

Note:
 M_L and R_L include the effects of centrifugal force and superelevation.



ELEVATION
FIELD SPLICE DETAIL



DIAPHRAGM D7
(23 Required)

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

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

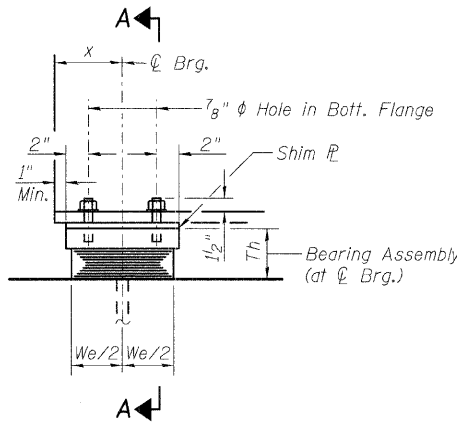
** 3/4 inch diameter high strength bolts, 1 1/2 inch diameter holes

NOTES:

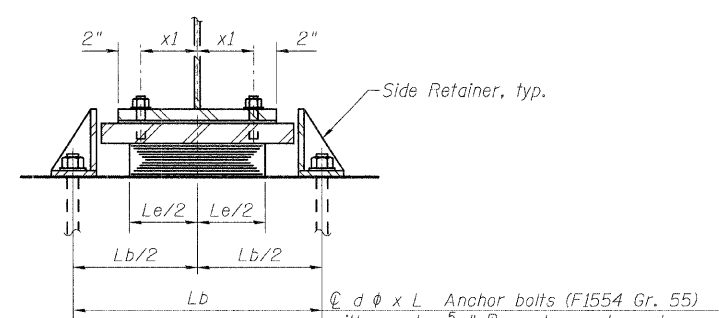
- All Structural Steel shall be AASHTO M 270 Grade 50W.
- Beam elevations are measured along the web centerline.

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

STRUCTURAL STEEL DETAILS
UNIT 5
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



ELEVATION AT PIER 5, PIER 9 & E. ABUT.

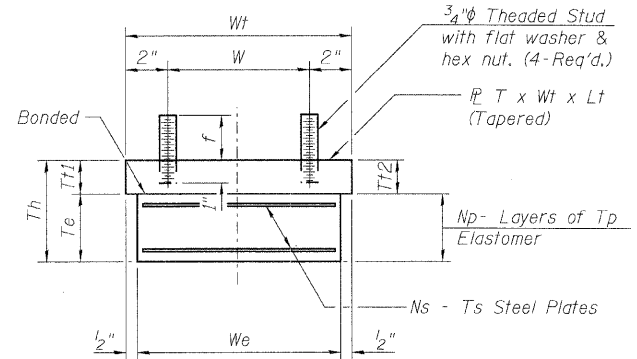


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

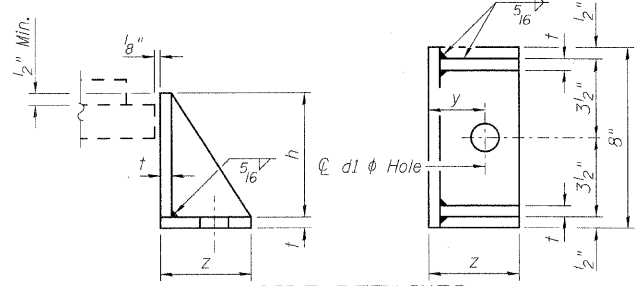
Notes for Type I & II Elastomeric Expansion Bearings:

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50W.
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to the other plates or shims and placed as shown on bearing details.
 All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).
 H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.
 Anchor bolts shall be ASTM F1554 all-thread or an Engineer-approved alternate material of the grade(s) and diameter(s) specified. The corresponding specific grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I or II.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



BEARING ASSEMBLY

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



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Elastomeric Bearing Assembly Type II	Each	8
Anchor Bolts 1" φ	Each	12
Anchor Bolts 1 1/4" φ	Each	12
Anchor Bolts 1 1/2" φ	Each	4

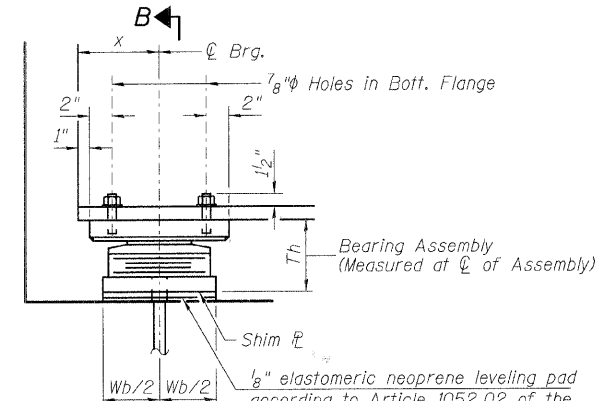
ELASTOMERIC EXPANSION BEARING ASSEMBLIES TYPE I & TYPE II

TABLE OF DIMENSIONS
(All dimensions are in inches unless otherwise noted)

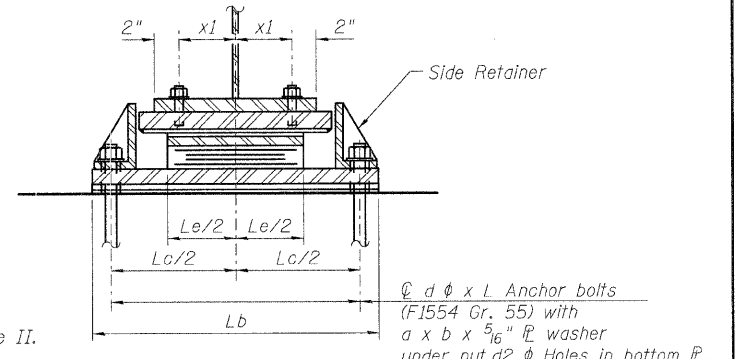
Location	Type	No.	We	Le	Tp	Np	Ts	Ns	Te	Wt	W	Lt	T at C	T11	T12	Th	f
W. Abut.	II	2	7	12	3/8	3	3/32	2	2 3/16	8	4	14	1 3/4	1 1/2	2	5	2 1/4
Pier 5	I	2	10	14	7/16	5	1/8	4	2 11/16	11	7	16	2 1/8	1 7/8	2 3/8	4 13/16	2 1/2
Pier 6	II	2	10	14	7/16	5	1/8	4	3 9/16	11	7	16	2 1/8	1 7/8	2 3/8	7	2 1/4
Pier 8W	II	2	12	18	9/16	4	3/16	3	3 11/16	13 1/4	9 1/4	25 3/4	2 9/16	2 1/4	2 7/8	7 9/16	2 3/4
Pier 8E	II	2	6	10	5/16	6	14 ga.	5	3 1/8	8	4	12	1 5/8	1 1/2	1 3/4	5 13/16	2 3/4
Pier 9	I	2	11	16	1/2	4	1/8	3	2 3/8	12	8	18	2 1/4	2	2 1/2	4 5/8	3
E. Abut.	I	2	6	10	5/16	6	14 ga.	5	2 1/4	7	3	12	1 5/8	1 1/2	1 3/4	3 7/8	3

Location	a	b	d	L	x	x1	t	y	z	d1	h	A	Tb	Wb	Lb	Lc	d2
W. Abut.	2 1/4	2 1/4	1	12	5	3 1/4	1/2	2 1/8	4	1 1/4	4	1	1	8	22 1/4	18 1/2	1 1/2
Pier 5	2 3/4	2 3/4	1 1/4	15	---	3 1/4	1/2	2 3/8	4 3/4	1 1/2	5 1/16	---	---	---	21	---	---
Pier 6	2 3/4	2 3/4	1 1/4	15	---	3 1/4	1/2	2 3/8	4 3/4	1 1/2	5 15/16	1 1/2	1 1/4	11	25 3/4	21	1 3/4
Pier 8W	3	3	1 1/2	18	8 1/2	3 1/4	5/8	2 3/4	5 1/2	1 3/4	6 5/16	1 1/2	1 1/4	13	31 1/4	25 3/4	2
Pier 8E	2 1/4	2 1/4	1	12	5	3 1/4	1/2	2 1/8	4	1 1/4	4 13/16	1	1	7	20 1/4	16 1/2	1 1/2
Pier 9	2 3/4	2 3/4	1 1/4	15	---	3 1/4	1/2	2 3/8	4 3/4	1 1/2	4 3/4	---	---	---	23	---	---
E. Abut.	2 1/4	2 1/4	1	12	4 1/2	3 1/4	1/2	2 1/8	4	1 1/4	4	---	---	---	16 1/2	---	---

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

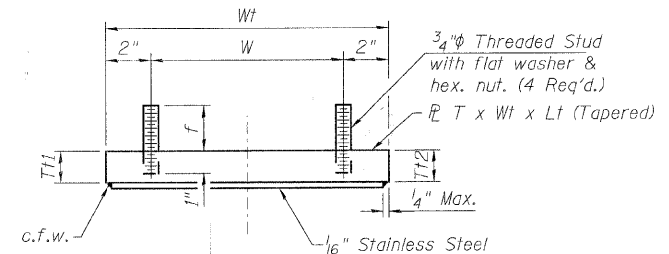


ELEVATION AT W. ABUT., PIER 6 & PIERS 8E & 8W

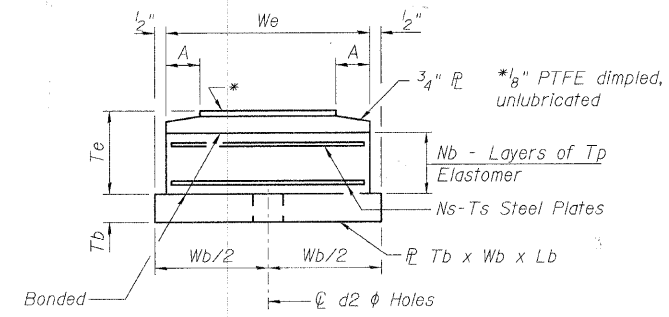


SECTION B-B

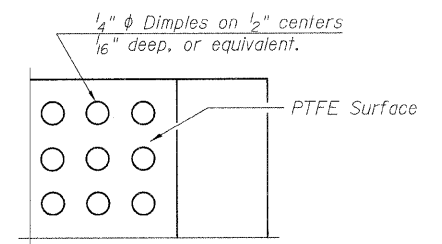
TYPE II ELASTOMERIC EXP. BRG.



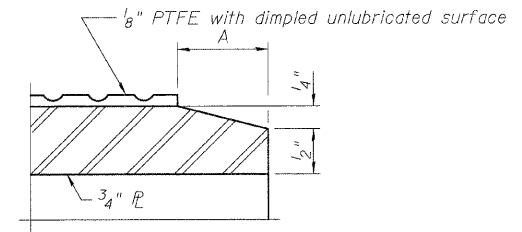
TOP BEARING ASSEMBLY



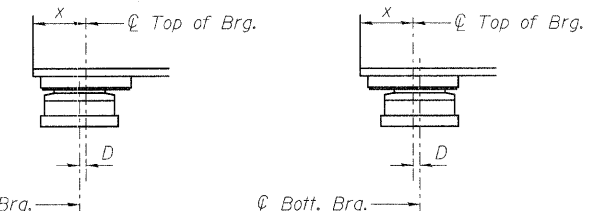
BOTTOM BEARING ASSEMBLY



PLAN-PTFE SURFACE



SECTION THRU PTFE



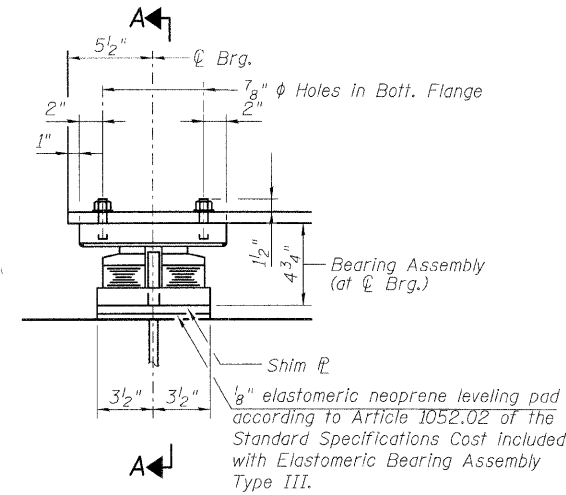
BELOW 50°F. (Move bott. brg. away from fixed brg.)
 ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

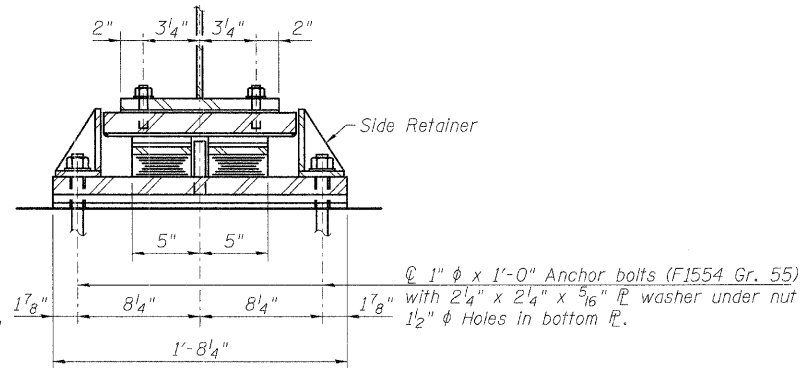
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

RHA&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

BEARING DETAILS I
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

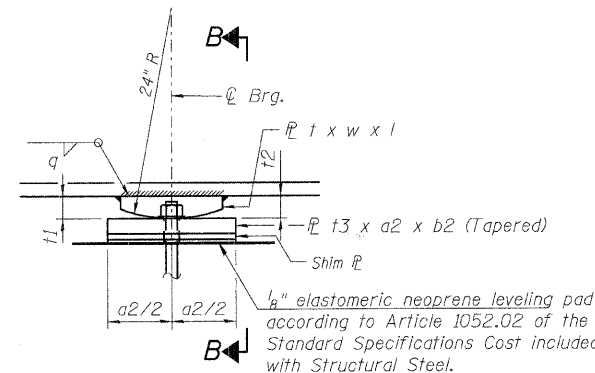


ELEVATION AT PIER 7W

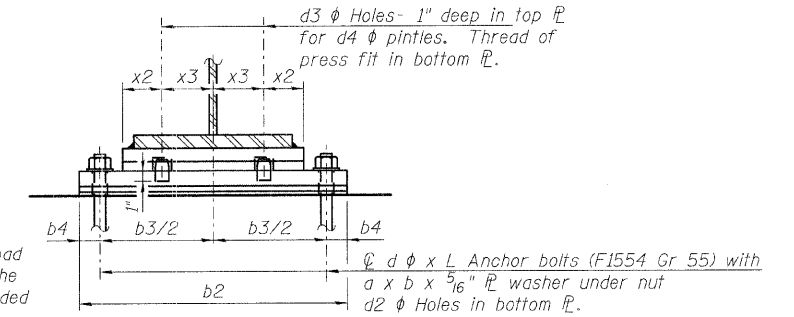


SECTION A-A

TYPE III ELASTOMERIC EXP. BRG.

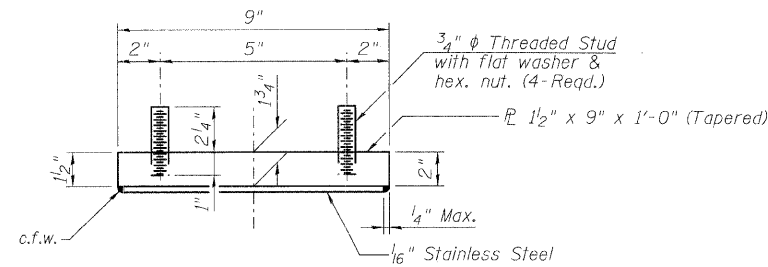


ELEVATION AT PIER 1, PIER 4
& PIER 10

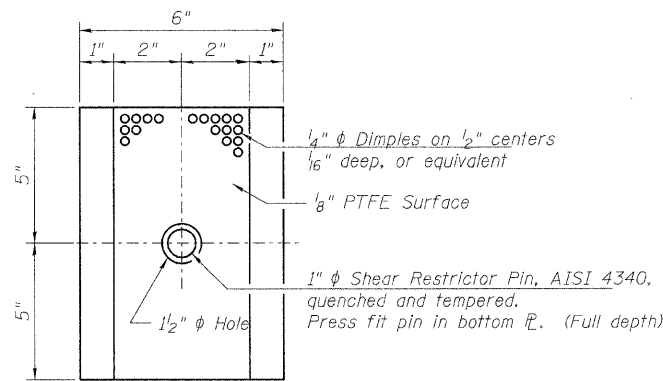


SECTION B-B

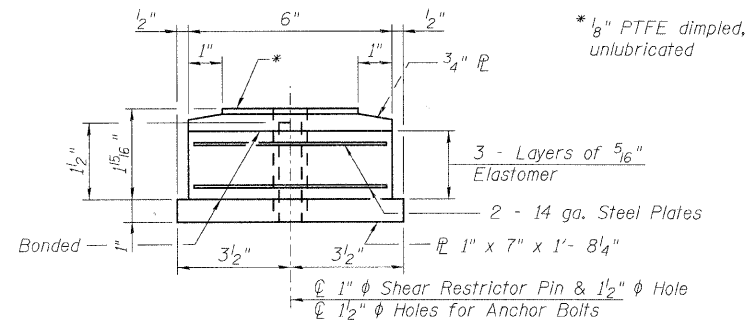
FIXED BEARING



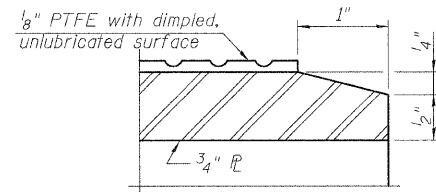
TOP BEARING ASSEMBLY



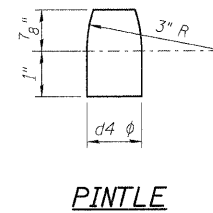
PLAN-PTFE ELASTOMERIC BRG.



BOTTOM BEARING ASSEMBLY



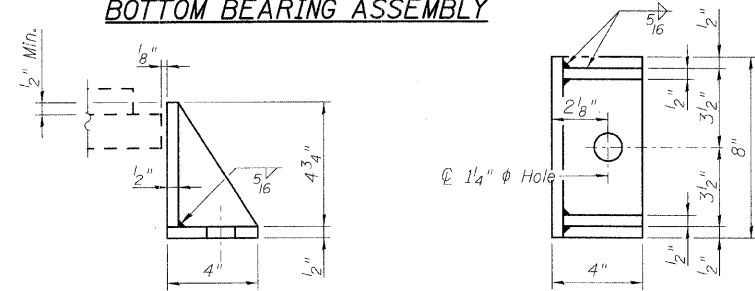
SECTION THRU PTFE



PINTLE

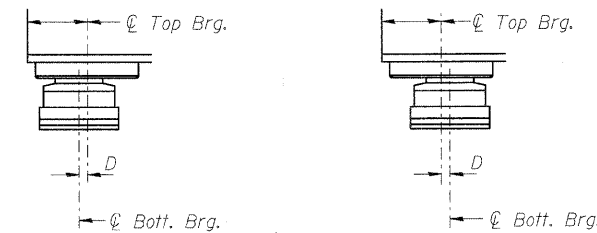
NOTES:

- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50W.
- The 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.
- All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M232 as applicable.
- H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Anchor bolts for Type III bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.
- The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
- Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.
D=9" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	2
Anchor Bolts 1" φ	Each	*18

* Includes quantity for Pier 7(E).
See Sheet S-22 for Pier 7(E) bearing details.

FIXED BEARINGS

TABLE OF DIMENSIONS

(All dimensions are in inches unless otherwise noted)

Location	No.	w	l	t1	t2	t	a2	b2	t3	b3	b4	d	L	a	b	d2	d3	d4	x2	x3	q
Pier 1	2	9	11 1/2	1	1 1/2	1 1/4	9	18 1/2	1	15	1 3/4	1	12	2 1/4	2 1/4	1 1/2	1 3/8	1 1/4	3	2 3/4	5/16
Pier 4	2	9	11 1/2	1	1 1/2	1 1/4	9	18 1/2	1	15	1 3/4	1	12	2 1/4	2 1/4	1 1/2	1 3/8	1 1/4	3	2 3/4	5/16
Pier 10	2	9	11 1/2	1 3/8	1 3/4	1 1/2	9	18 1/2	1 5/8	15	1 3/4	1	12	2 1/4	2 1/4	1 1/2	1 3/8	1 1/4	3	2 3/4	7/16

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU



Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

BEARING DETAILS II

PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000

DATE: OCTOBER 31, 2008

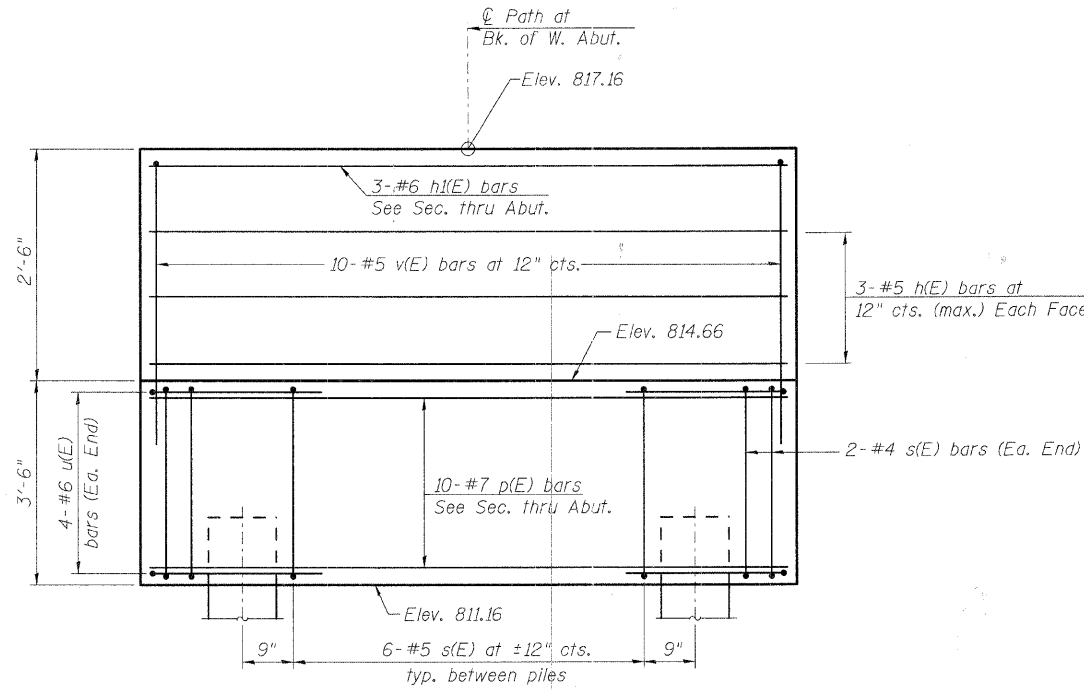
Contract #83984

PILE DATA

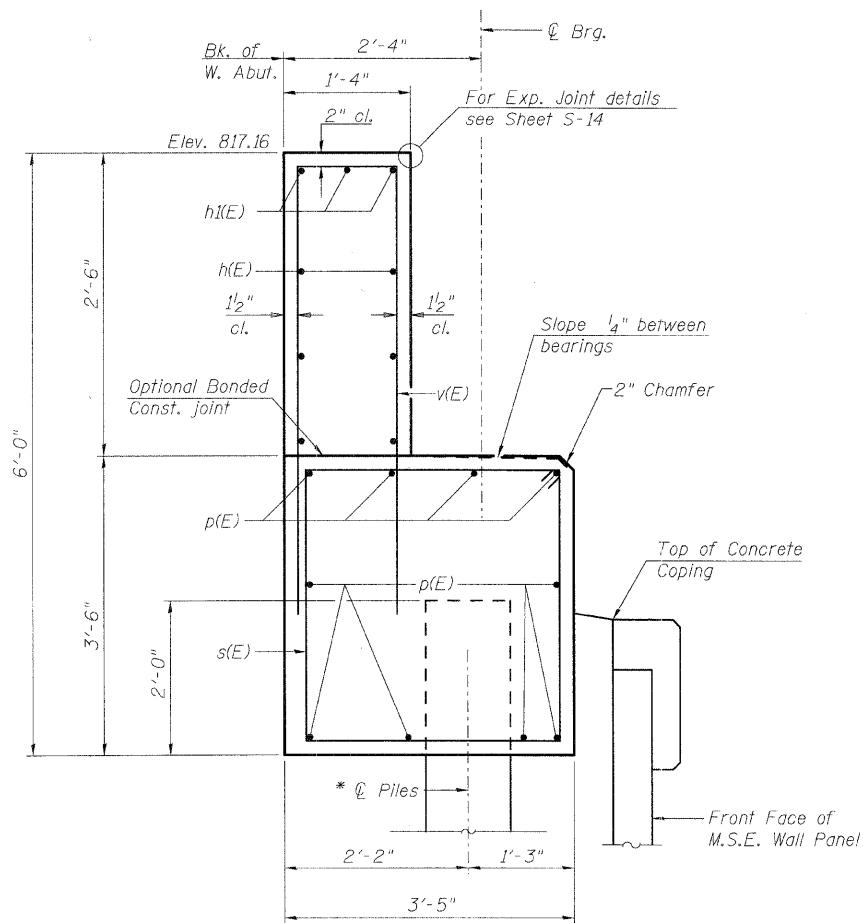
Type & Size: Metal Shell-12 in. dia. x 0.250 in. walls w/ metal shoes
 Nominal Required Bearing: 330 Kips
 Allowable Resistance Available: 110 Kips
 Est. Length: 45 ft.
 No. Production Piles: 2
 No. Test Piles: 0

**WEST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	6	#5	9'-5"	—
h(E)	3	#6	9'-5"	—
p(E)	10	#7	9'-5"	—
s(E)	10	#5	13'-3"	□
u(E)	8	#6	7'-5"	J
v(E)	10	#5	10'-1"	U
Concrete Structures		Cu. Yd.	5.5	
Reinforced Bars, Epoxy Coated		Pound	630	
Driving Piles		Foot	90	
Furnishing Metal Shell Piles 12"x0.250"		Foot	90	
Pile Shoes		Each	2	
Concrete Sealer		Sq. Ft.	77	

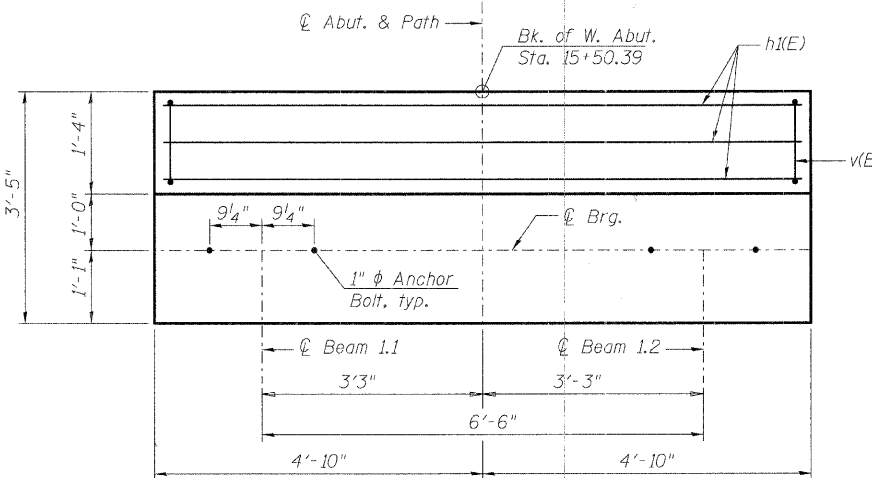


ELEVATION

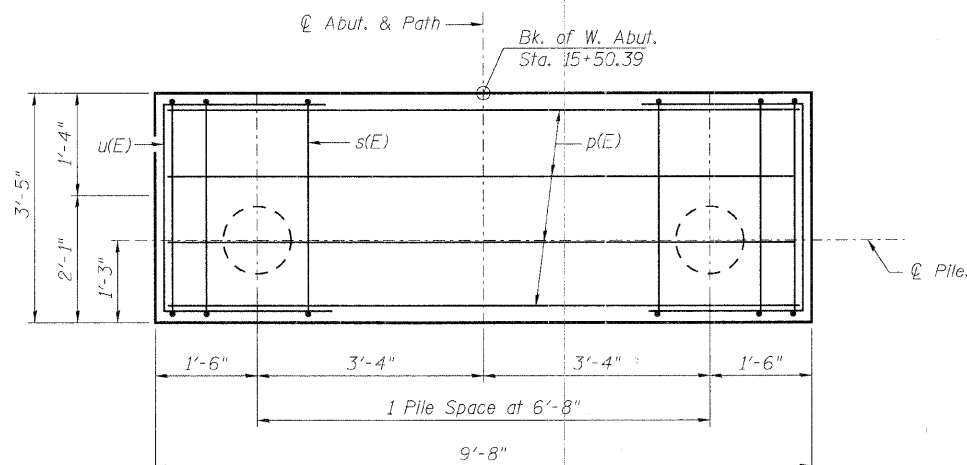


SEC. THRU ABUT.

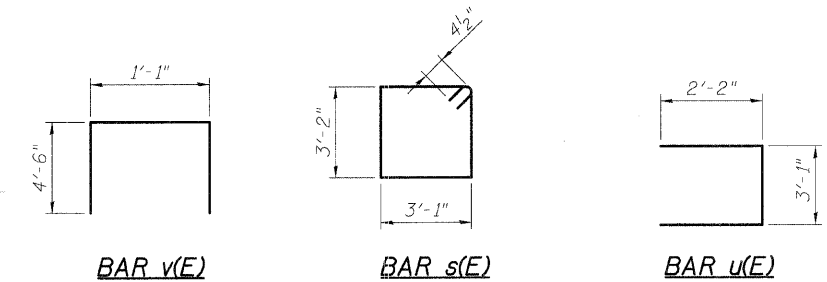
* Piles shall be driven prior to placement of the reinforced select fill and coated with coal tar epoxy from the bottom of the select fill to 1" above the base of the abutment. The cost of the coal tar epoxy coating shall be included with the cost of "Furnishing Metal Shell Piles 12"x 0.250".



TOP VIEW



PLAN - PILE CAP



NOTES:

- The M.S.E. wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 0.34 kips/ft. of abutment.
- Space reinforcement in cap to miss anchor bolts.
- See sheet S-36 for M.S.E. Wall Details.
- The metal shell piles shall be according to ASTM A 252 Grade 3.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

**WEST ABUTMENT
PLAN AND DETAILS**
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

PILE DATA

Type & Size: Metal Shell - 12 in. dia. x 0.250 in. walls w/ pile shoes
 Nominal Required Bearing: 330 kips
 Allowable Resistance Available: 110 kips
 Est. Length: 45 ft.
 No. Production Piles: 8
 No. Test Piles: 0

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. S-28
FAU 2505	94-P4008-01-BR	KANE	81	52	S-42 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

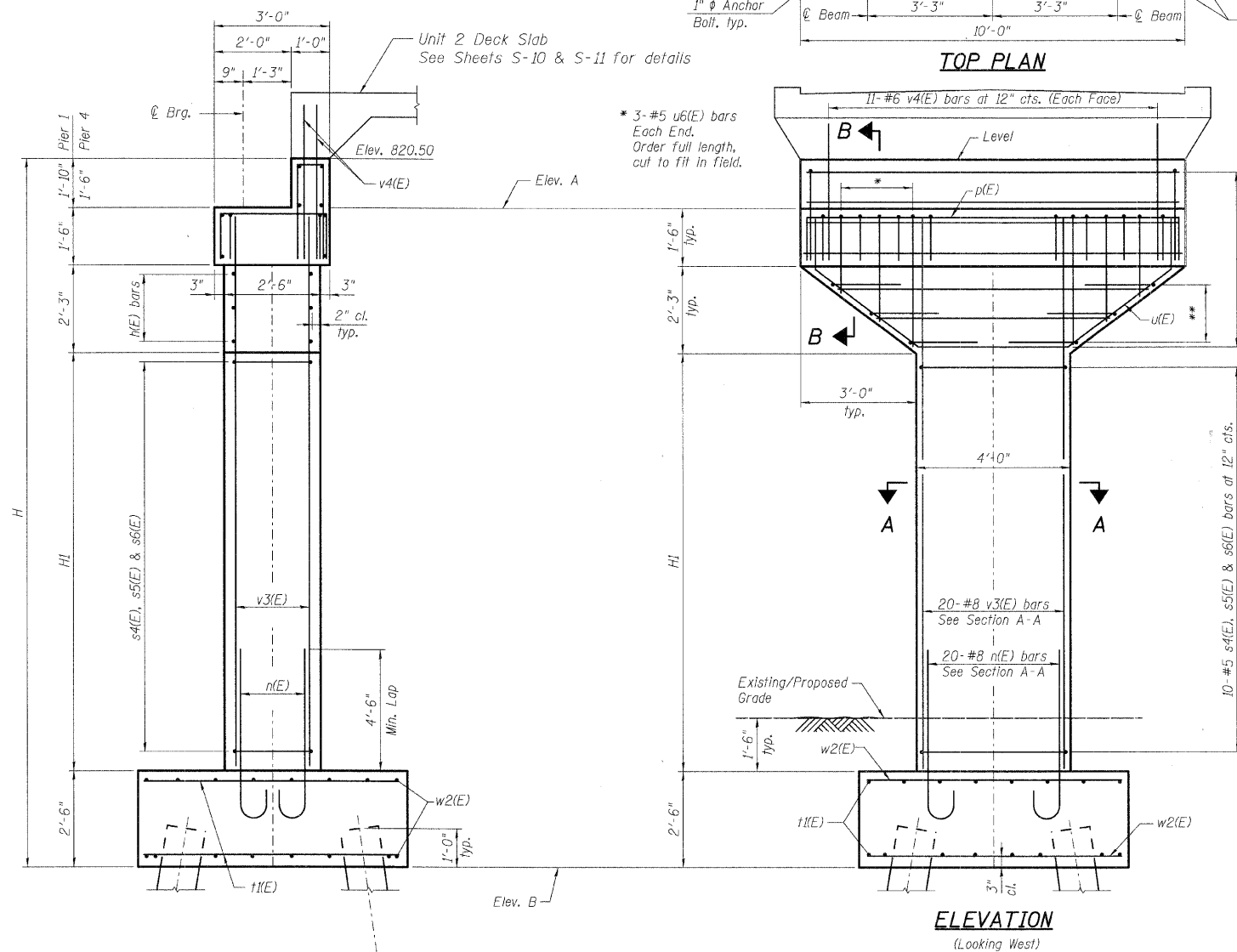
Contract #83984

BILL OF MATERIAL
(Piers 1 & 4)

Bar	No.	Size	Length	Shape
h(E)	28	#5	9'-8"	—
n(E)	40	#8	7'-5"	—
p(E)	8	#7	12'-0"	—
s4(E)	20	#5	11'-11"	□
s5(E)	20	#5	10'-5"	□
s6(E)	20	#5	7'-1"	□
t(E)	32	#8	6'-8"	—
u(E)	8	#7	12'-10"	—
u3(E)	12	#5	5'-4"	□
u4(E)	28	#5	5'-0"	□
u5(E)	28	#5	6'-0"	□
u6(E)	12	#5	6'-8"	□
v3(E)	40	#8	12'-5"	—
v4(E)	44	#6	4'-6"	—
w2(E)	32	#8	6'-8"	—
Structure Excavation			Cu. Yd.	35.9
Concrete Structures			Cu. Yd.	23.3
Reinforcement Bars, Epoxy Coated			Pound	5,320
Furnishing Metal Shell Piles 12" dia. x 0.250 in.			Foot	360
Driving Piles			Foot	360
Pile Shoes			Each	8
Form Liner Textured Surface			Sq. Ft.	337
Staining Concrete Structures			Sq. Yd.	37
Concrete Sealer			Sq. Ft.	93

NOTES:

Space reinforcement in cap to miss anchor bolts.
 See Sheet S-37 for Architectural Details.



SECTION A-A

SECTION B-B

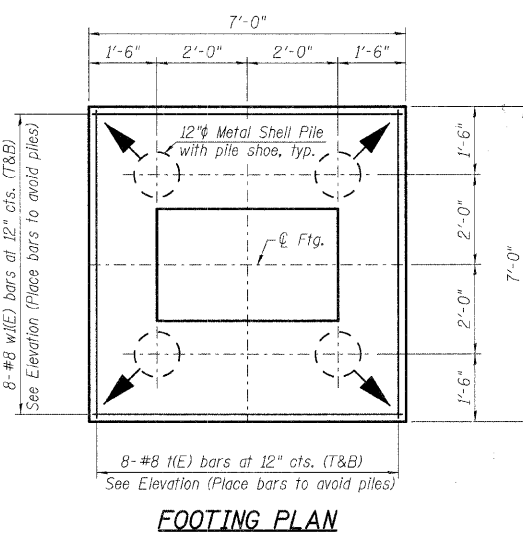
ELEVATION
(Looking West)

END VIEW

PIER TABLE

PIER NO.	STA. A	STA. B	ELEV. A	ELEV. B	H (FT)	HI (FT)
1	16+29.47	16+30.22	818.69	803.50	17.00	8.94
4	16+76.69	16+75.94	819.00	803.50	17.00	9.25

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU



FOOTING PLAN

BAR u(E)

BAR n(E)

BAR p(E)

BARS s4(E), s5(E) & s6(E)

BARS u3(E), u4(E), u5(E) & u6(E)

BARS t(E)

BARS v3(E), v4(E)

BARS w2(E)

BARS h(E)

BARS m(E)

BARS o(E)

BARS q(E)

BARS r(E)

A & B DIMENSIONS

Bar	"A"	"B"
u3(E)	2'-0"	1'-8"
u4(E)	2'-8"	1'-2"
u5(E)	8"	2'-8"
u6(E)	2'-0"	2'-4"

A & B DIMENSIONS

Bar	"A"	"B"
s4(E)	3'-6"	2'-0"
s5(E)	3'-6"	1'-3"
s6(E)	1'-1"	2'-0"

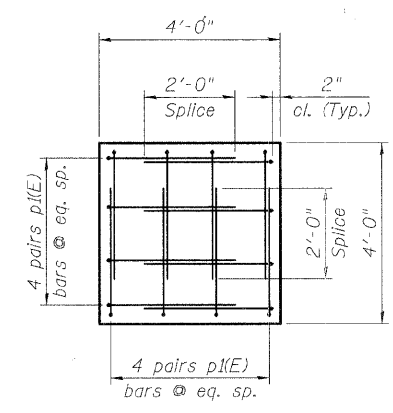
RHA&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

PIERS 1 AND 4
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

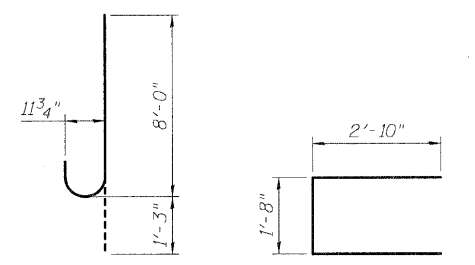
Contract #83984

PILE DATA

Type & Size: Metal Shell - 12 in. dia. x 0.250 in. walls w/ metal shoes
 Nominal Required Bearing: 330 kips
 Allowable Resistance Available: 110 kips
 Est. Length: 45 ft.
 No. Production Piles: 8
 No. Test Piles: 0



SECTION B-B



BAR n1(E)

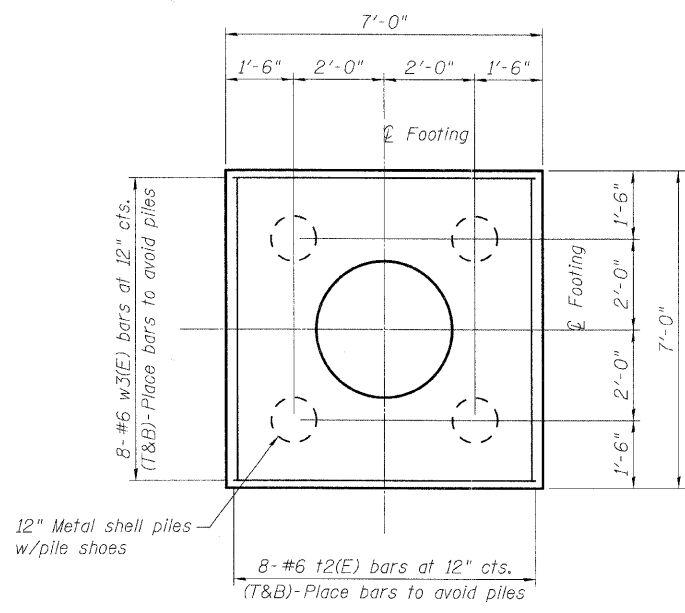
BAR p1(E)

BILL OF MATERIAL

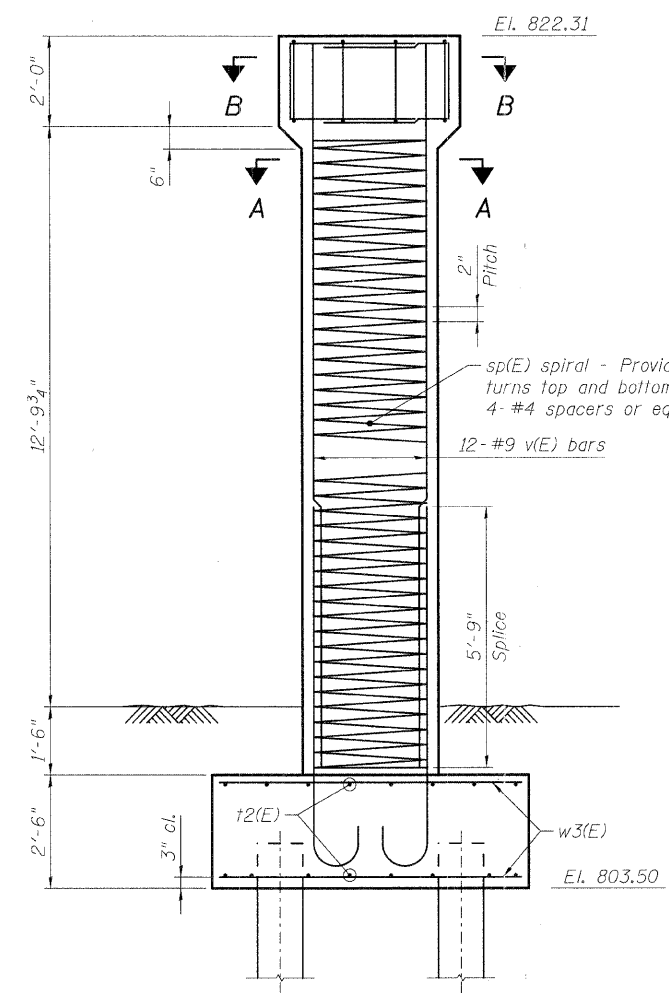
PIERS 2 & 3

Bar	No.	Size	Length	Shape
n1(E)	24	#9	9'-3"	U
p1(E)	32	#6	7'-4"	□
sp(E)	2	#4	14'-0"	~
t2(E)	32	#6	6'-8"	—
v5(E)	24	#9	16'-0"	—
w3(E)	32	#6	6'-8"	—
Structure Excavation		Cu. Yd.	36	
Concrete Structures		Cu. Yd.	20	
Reinforcement Bars, Epoxy Coated		Pound	4,000	
Furnishing Metal Shell Piles 12" dia. x 0.250 in.		Foot	360	
Driving Piles		Foot	360	
Pile Shoes		Each	8	
Formliner Textured Surface		Sq. Ft.	310	
Staining Concrete Structures		Sq. Yd.	35	

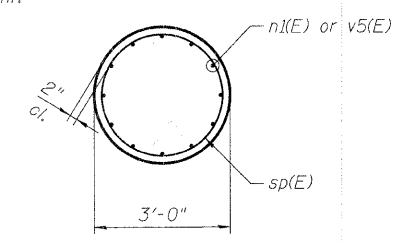
** Length is height of spiral



FOOTING PLAN



ELEVATION PIERS 2 & 3



SECTION A-A

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 194-005281

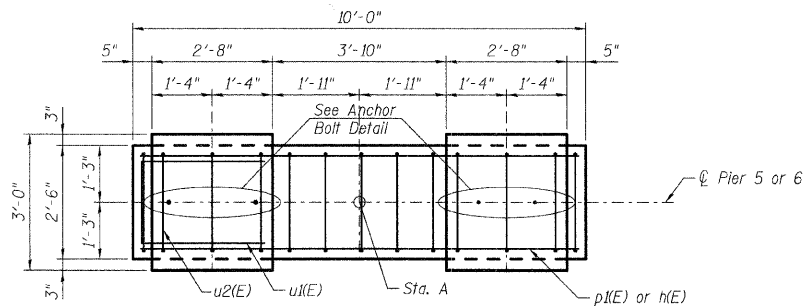
PIERS 2 AND 3
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

PILE DATA

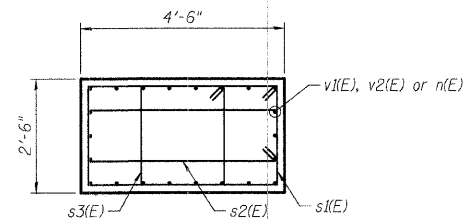
Type & Size: Metal Shell - 12 in. dia. x 0.250 in. walls w/ metal shoes
 Nominal Required Bearing: 330 kips
 Allowable Resistance Available: 110 kips
 Est. Length: 45 ft.
 No. Production Piles: 8
 No. Test Piles: 0

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.	SHEET NO. S-30
FAU 2505	94-P4008-01-BR	KANE	81	54	S-42 SHEETS
FED. ROAD DIST. NO. 7		BILLINGS	FED. AID PROJECT		

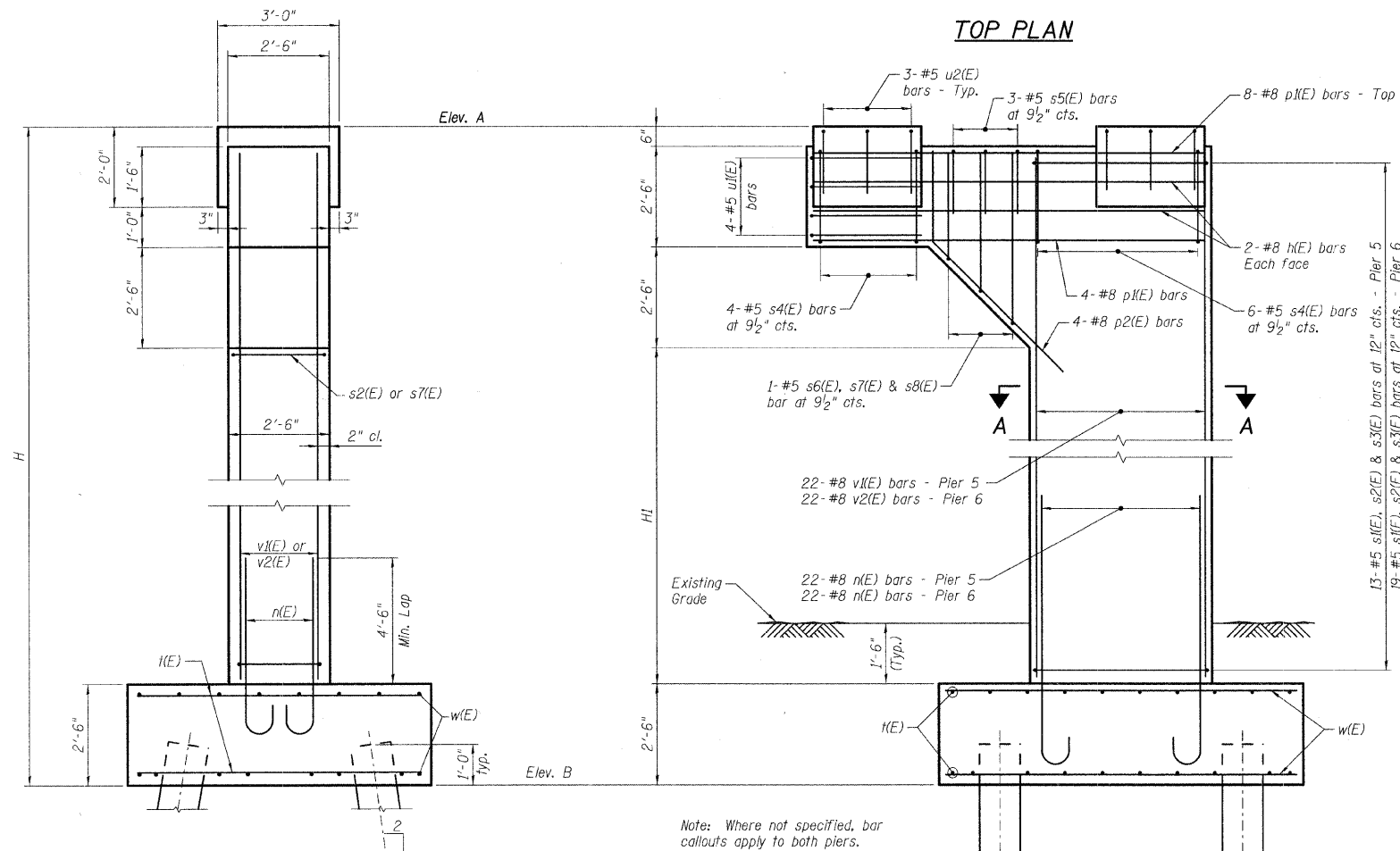
Contract #83984



TOP PLAN



SECTION A-A



ELEVATION
(Looking East)

A & B DIMENSIONS

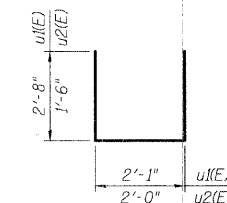
Bar	A	B
s1(E)	4'-2"	2'-2"
s2(E)	4'-2"	1'-1 1/2"
s3(E)	2'-2"	1'-10"
s4(E)	2'-1"	2'-1"

BARS s1(E), s2(E), s3(E) & s4(E)

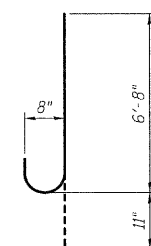
A & B DIMENSIONS

Bar	A	B
s5(E)	2'-1"	1'-6"
s6(E)	2'-1"	2'-7"
s7(E)	2'-1"	3'-5"
s8(E)	2'-1"	4'-2"

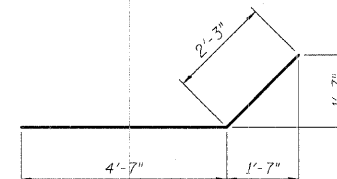
BARS s5(E), s6(E), s7(E) & s8(E)



BARS u1(E) & u2(E)



BAR n(E)



BAR p2(E)

BILL OF MATERIAL

PIERS 5 & 6

Bar	No.	Size	Length	Shape
n(E)	8	#8	9'-8"	—
n(E)	44	#8	7'-7"	⌋
p1(E)	24	#8	9'-8"	—
p2(E)	8	#8	6'-10"	—
s1(E)	32	#5	13'-7"	⏏
s2(E)	32	#5	11'-6"	⏏
s3(E)	32	#5	8'-11"	⏏
s4(E)	20	#5	9'-3"	⏏
s5(E)	6	#5	5'-1"	⏏
s6(E)	2	#5	7'-3"	⏏
s7(E)	2	#5	8'-11"	⏏
s8(E)	2	#5	10'-5"	⏏
t(E)	40	#8	7'-2"	—
u1(E)	8	#5	7'-5"	⏏
u2(E)	12	#5	5'-0"	⏏
v1(E)	22	#8	11'-9"	—
v2(E)	22	#8	17'-6"	—
w(E)	40	#8	8'-8"	—
Structure Excavation			Cu. Yd.	45
Concrete Structures			Cu. Yd.	27
Reinforcement Bars, Epoxy Coated			Pound	5,450
Furnishing Metal Shell Piles 12" dia. x 0.250 in.			Foot	360
Driving Piles			Foot	360
Pile Shoes			Each	8
Formliner Textured Surface			Sq. Ft.	410
Staining Concrete Structures			Sq. Yd.	46

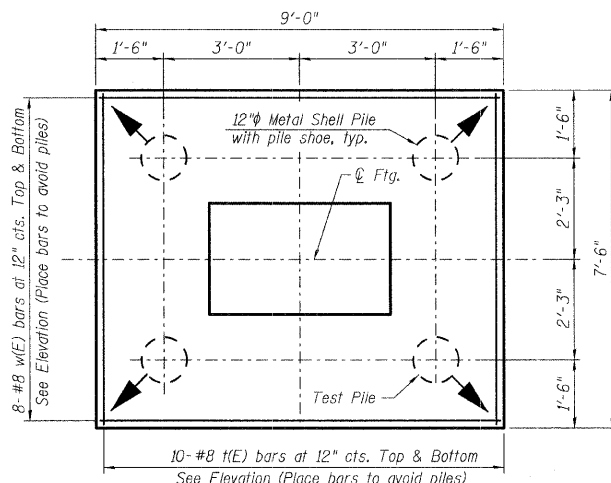
NOTES:

Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with Pier.
 See Sheet S-37 for Architectural Details.

END VIEW

PIER TABLE

Pier No.	Station A	Elev. A	Elev. B	H (Ft.)	HI (Ft.)
5	17+52.94	822.57	808.00	14.57	6.57
6	18+29.19	826.18	805.83	20.35	12.35



FOOTING PLAN

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

PIERS 5 AND 6

PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000

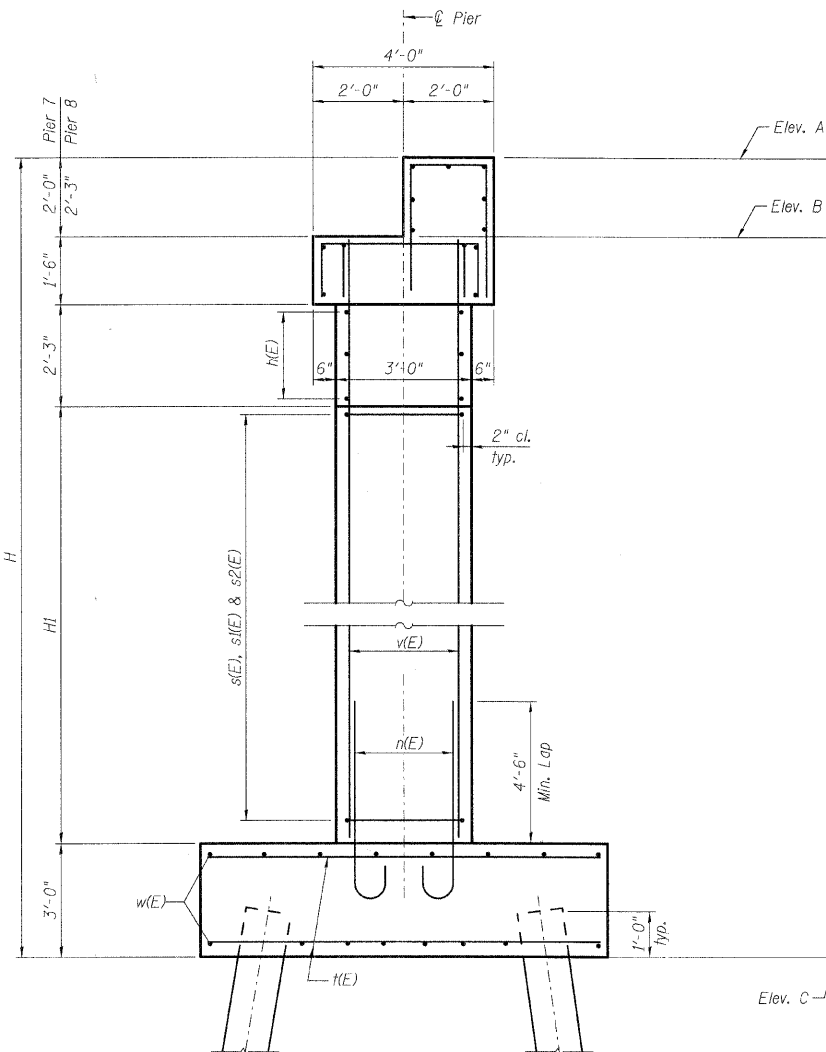
DATE: OCTOBER 31, 2008

PILE DATA

Type & Size: Metal Shell 12 in. dia. x 0.250 in. walls w/ pile shoes
 Nominal Required Bearing: 330 kips
 Allowable Resistance Available: 110 kips
 Est. Length: 45 ft.
 No. Production Piles: 11
 No. Test Piles: 1 (Pier 7)

Indicates direction of 12V:2H Pile Batter

*See Sheet S-22 for Anchor Bolt details for Pier 7E



END VIEW

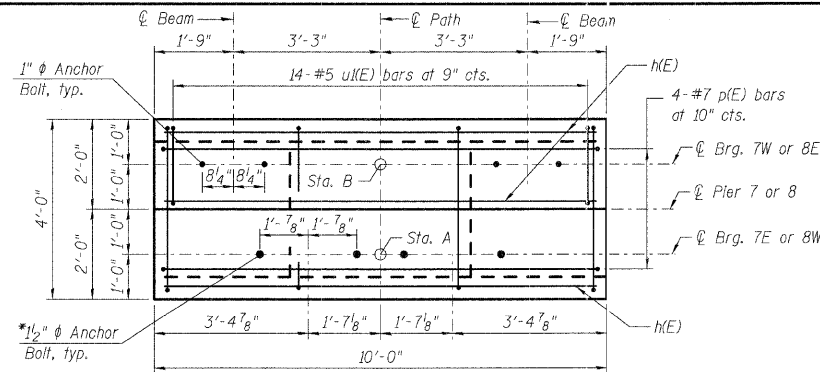
PIER TABLE

PIER NO.	STA. A	STA. B	ELEV. A	ELEV. B	ELEV. C	H (FT)	HI (FT)
7	19+07.44	19+05.44	830.23	828.18	801.75	28.48	19.68
8	20+81.44	20+83.44	830.01	827.72	801.00	29.01	19.97

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

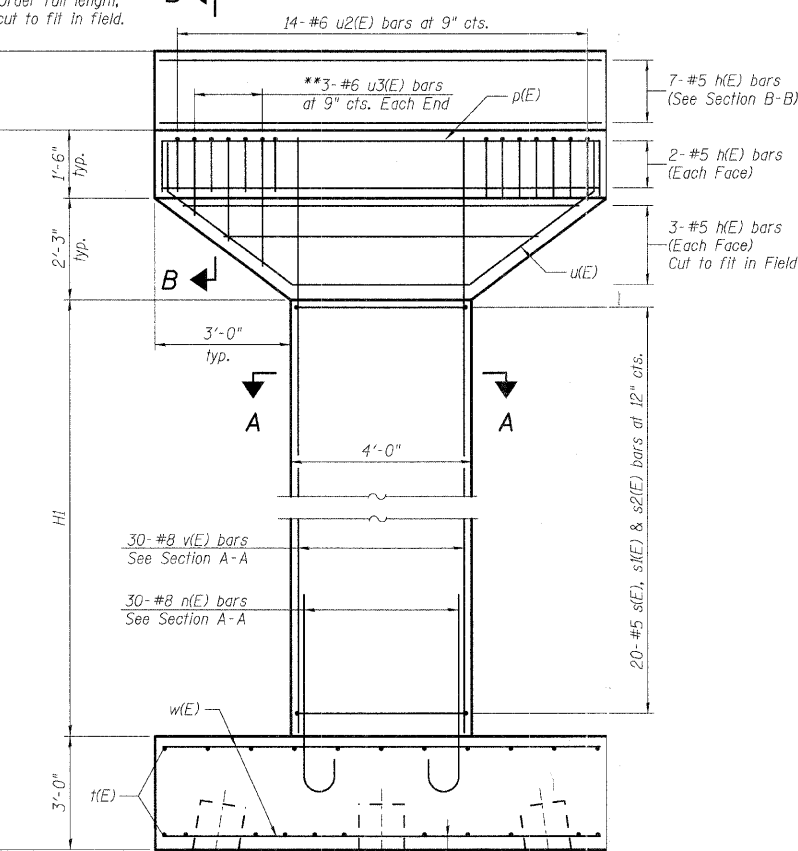
NOTES:

Space reinforcement in cap to miss anchor bolts.
 See Sheet S-37 for Architectural Details.

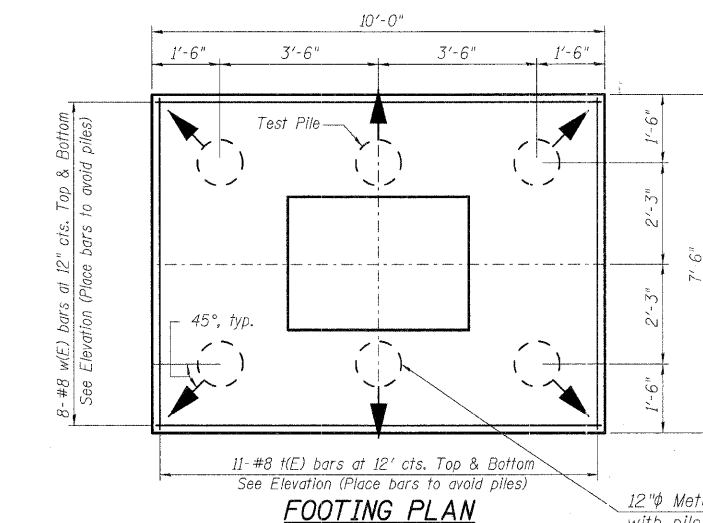


TOP PLAN

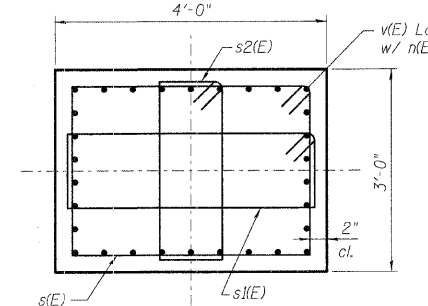
**Order full length, cut to fit in field.



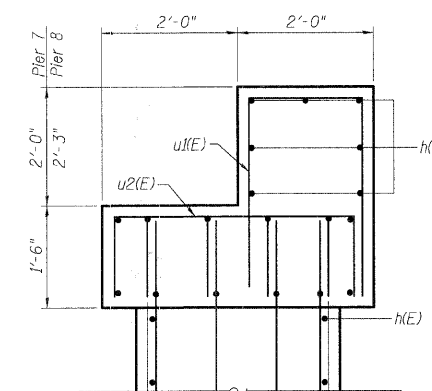
ELEVATION



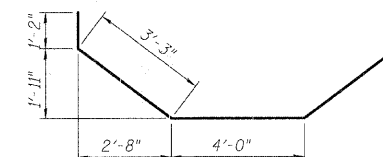
FOOTING PLAN



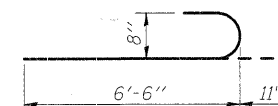
SECTION A-A



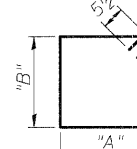
SECTION B-B



BAR u(E)



BAR n(E)



BAR p(E)

BARS s(E), s1(E) & s2(E)

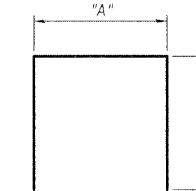
A & B DIMENSIONS

Bar	"A"	"B"
s(E)	3'-6"	2'-6"
s1(E)	3'-6"	1'-3"
s2(E)	1'-1"	2'-6"

BARS u1(E), u2(E) & u3(E)

A & B DIMENSIONS

Bar	"A"	"B"
u1(E)	1'-6"	3'-2"
u2(E)	3'-6"	1'-2"
u3(E)	3'-6"	3'-4"



PIERS 7 AND 8

PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-31
FAU 2505	94-P4008-01-BR	KANE	81	55	S-42 SHEETS
FED. ROAD DIST. NO. 7	SUB. INCHES	FED. AID PROJECT-			

Contract #83984

BILL OF MATERIAL

(Piers 7 & 8)

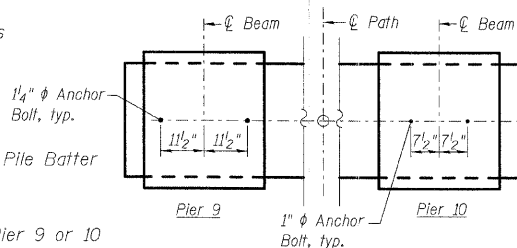
Bar	No.	Size	Length	Shape
h(E)	34	#5	9'-6"	—
n(E)	60	#8	7'-5"	—
p(E)	8	#7	11'-10"	—
s(E)	40	#5	12'-11"	□
s1(E)	40	#5	10'-5"	□
s2(E)	40	#5	8'-1"	□
t(E)	44	#8	7'-2"	—
u(E)	8	#7	12'-10"	—
u1(E)	28	#5	7'-10"	□
u2(E)	28	#6	5'-10"	□
u3(E)	12	#6	10'-2"	□
v(E)	60	#8	23'-4"	—
w(E)	32	#8	9'-8"	—
Structure Excavation		Cu. Yd.	54	
Concrete Structures		Cu. Yd.	45.5	
Reinforcement Bars, Epoxy Coated		Pound	9,300	
Furnishing Metal Shell Piles 12" dia. x 0.250 in.		Foot	495	
Driving Piles		Foot	495	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	12	
Form Liner Textured Surface		Sq. Ft.	668	
Staining Concrete Structures		Sq. Yd.	74	
Concrete Sealer		Sq. Ft.	123	

Contract #83984

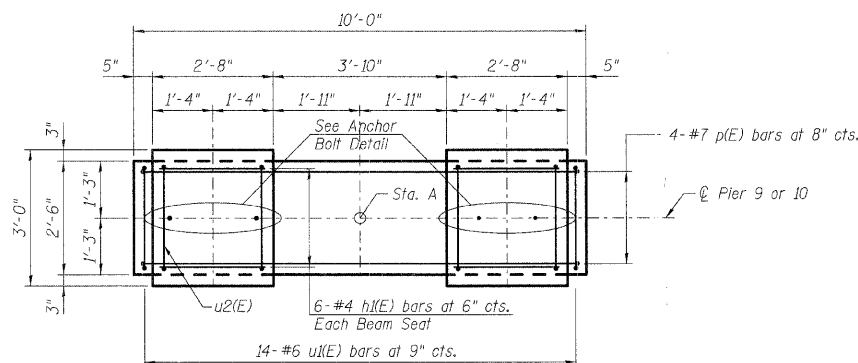
PILE DATA

Type & Size: Metal Shell - 12 in. dia. x 0.250 in. walls w/ pile shoes
 Nominal Required Bearing: 330 kips
 Allowable Resistance Available: 110 kips
 Est. Length: 45 ft.
 No. Production Piles: 7
 No. Test Piles: 1 (Pier 10)

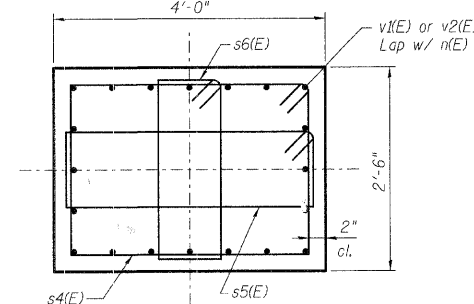
Indicates direction of 12V:2H Pile Batter



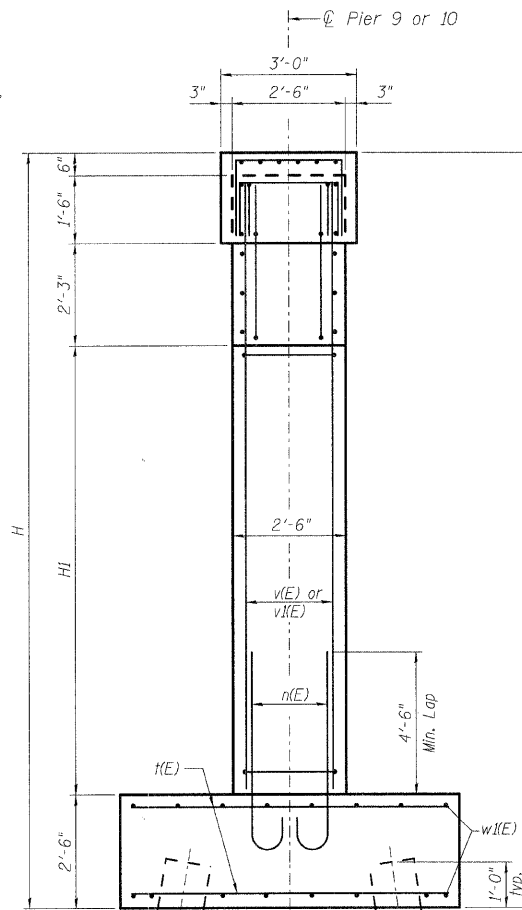
ANCHOR BOLT DETAIL



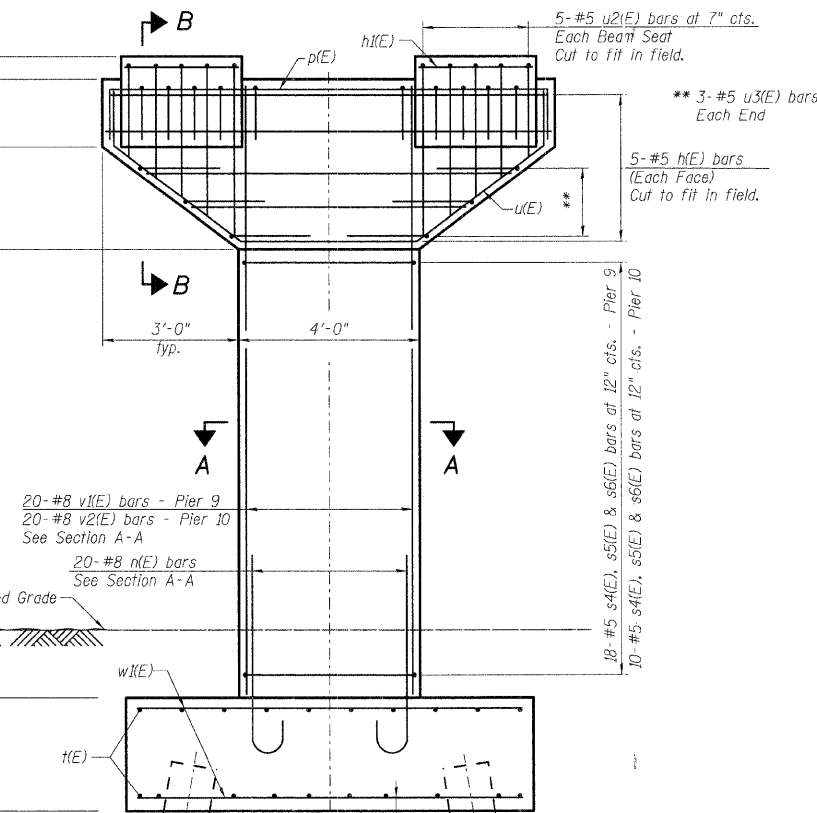
TOP PLAN



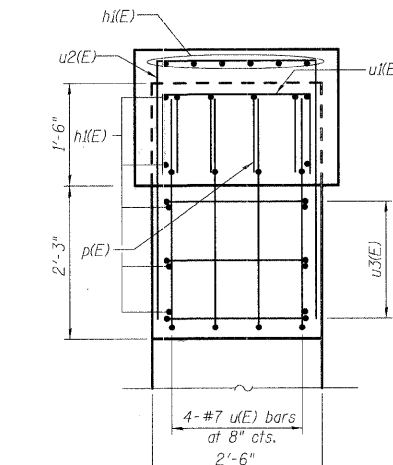
SECTION A-A



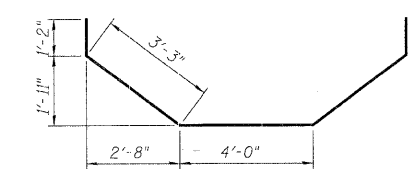
Elev. A



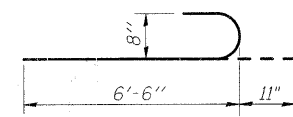
ELEVATION
(Looking East)



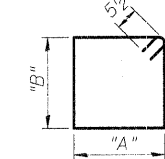
SECTION B-B



BAR u(E)



BAR n(E)



BARS s4(E), s5(E) & s6(E)

BAR p(E)

A & B DIMENSIONS

Bar	"A"	"B"
u1(E)	2'-0"	1'-2"
u2(E)	2'-0"	3'-10"
u3(E)	2'-0"	1'-8"

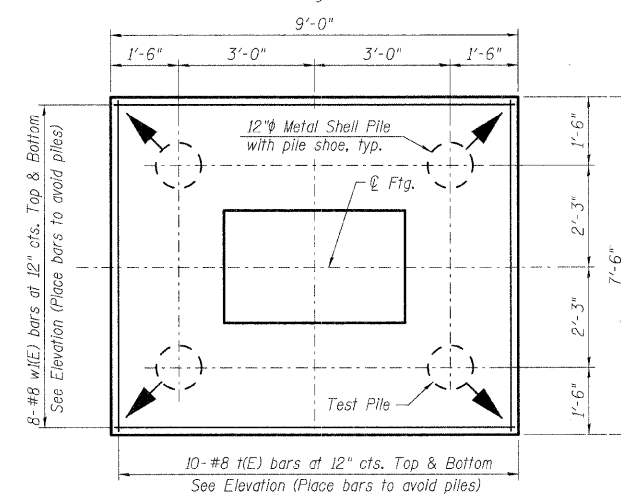
BARS u1(E), u2(E) & u3(E)

END VIEW

PIER TABLE

PIER NO.	STATION A	ELEV. A	ELEV. B	H (FT)	H1 (FT)
9	21+47.40	826.82	802.50	24.32	17.57
10	22+26.40	822.98	806.75	16.23	9.48

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU



FOOTING PLAN

A & B DIMENSIONS

Bar	"A"	"B"
s4(E)	3'-6"	2'-0"
s5(E)	3'-6"	1'-3"
s6(E)	1'-1"	2'-0"

BILL OF MATERIAL
(Piers 9 & 10)

Bar	No.	Size	Length	Shape
h(E)	20	#5	9'-6"	—
h1(E)	24	#4	2'-5"	—
n(E)	40	#8	7'-5"	—
p(E)	8	#7	11'-10"	—
s4(E)	28	#5	11'-11"	□
s5(E)	28	#5	10'-5"	□
s6(E)	28	#5	7'-1"	□
t(E)	40	#8	7'-2"	—
u(E)	8	#7	12'-10"	—
u1(E)	28	#6	4'-4"	□
u2(E)	20	#5	9'-8"	□
u3(E)	12	#5	5'-4"	□
v1(E)	20	#8	21'-0"	—
v2(E)	20	#8	12'-10"	—
w(E)	32	#8	8'-8"	—
Structure Excavation			Cu. Yd.	45
Concrete Structures			Cu. Yd.	29.2
Reinforcement Bars, Epoxy Coated			Pound	6,060
Furnishing Metal Shell Piles 12" dia. x 0.250 in.			Foot	315
Driving Piles			Foot	315
Test Pile Metal Shells			Each	1
Pile Shoes			Each	8
Form Liner Textured Surface			Sq. Ft.	452
Staining Concrete Structures			Sq. Yd.	50

NOTES:

Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with Pier.
 See Sheet S-37 for Architectural Details.

PIERS 9 AND 10

PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000



Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

DATE: OCTOBER 31, 2008

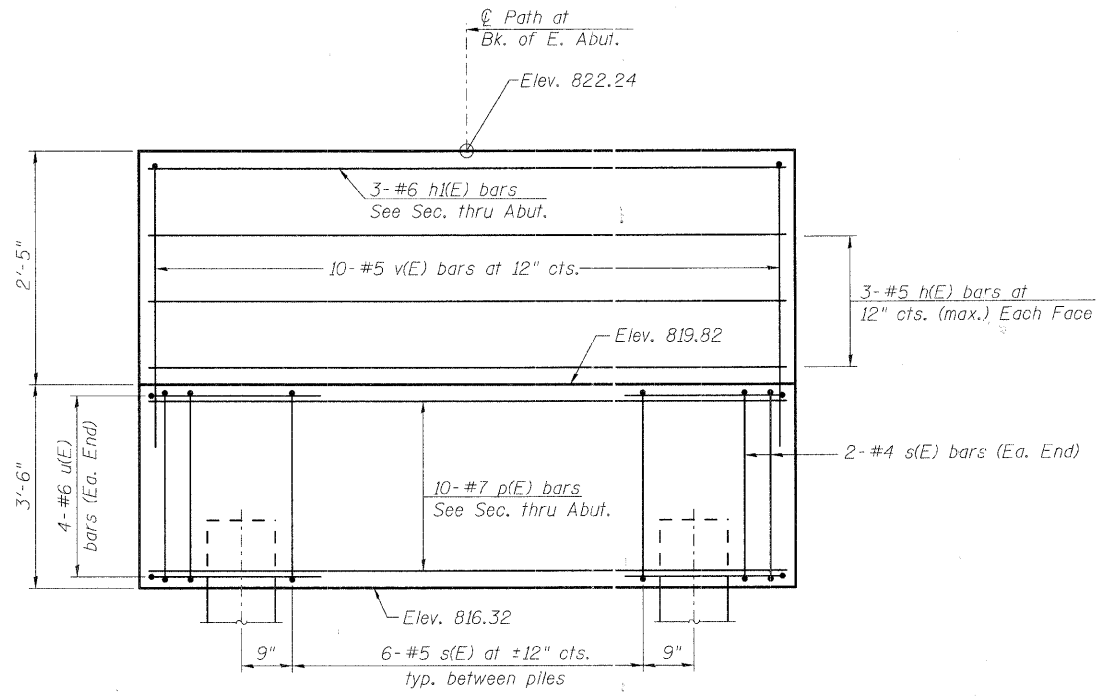
Contract #83984

PILE DATA

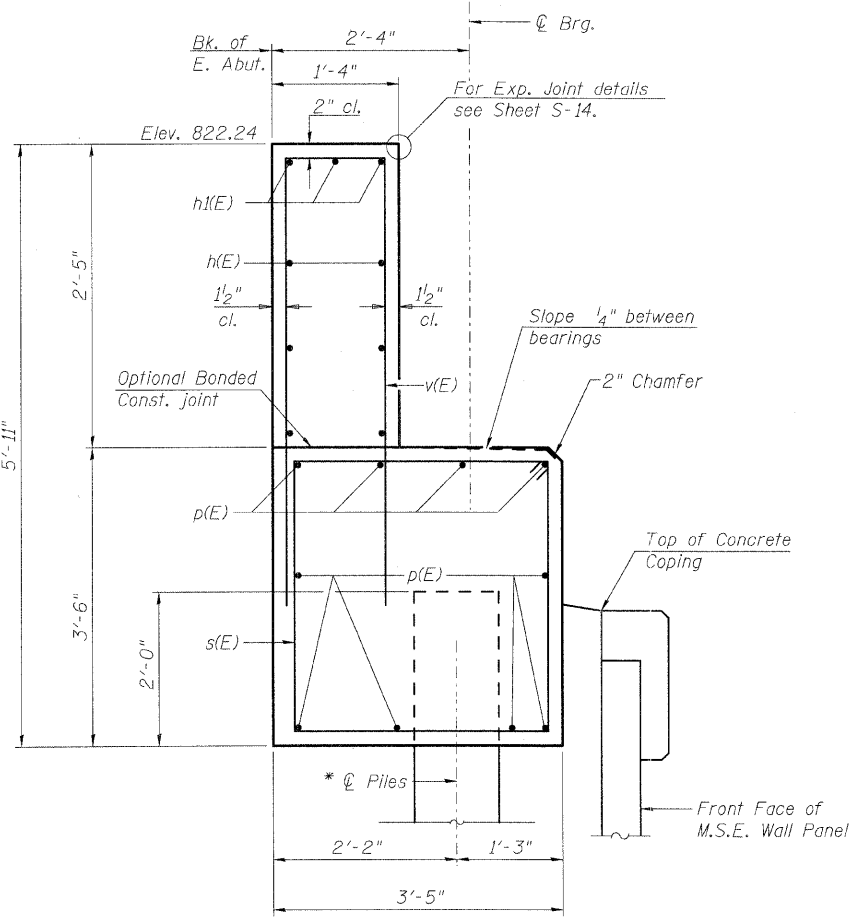
Type & Size: Metal Shell - 12 in. dia. x 0.250 in. walls w/ metal shoes
 Nominal Required Bearing: 330 Kips
 Allowable Resistance Available: 110 Kips
 Est. Length: 45 ft.
 No. Production Piles: 2
 No. Test Piles: 0

**EAST ABUTMENT
BILL OF MATERIAL**

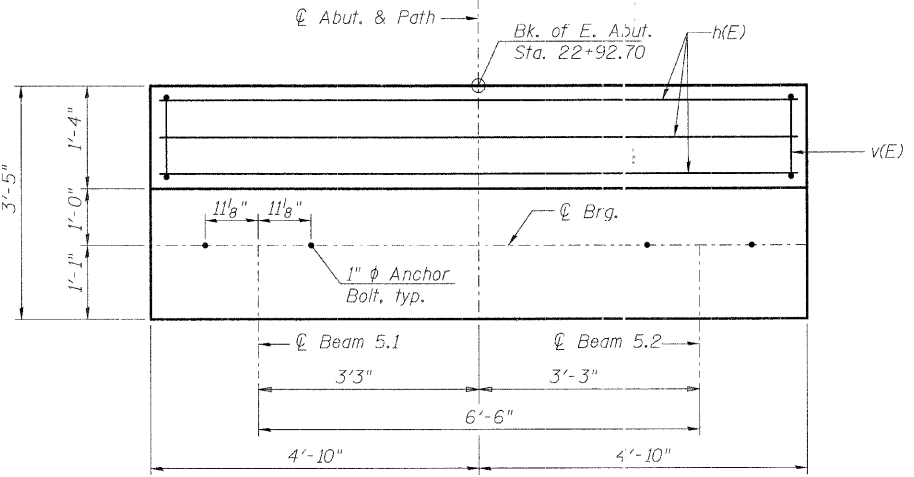
Bar	No.	Size	Length	Shape
h(E)	6	#5	9'-5"	—
h(E)	3	#6	9'-5"	—
p(E)	10	#7	9'-5"	—
s(E)	10	#5	13'-3"	□
u(E)	8	#6	7'-5"	⌋
v(E)	10	#5	10'-1"	⌋
Concrete Structures		Cu. Yd.	5.5	
Reinforced Bars, Epoxy Coated		Pound	630	
Driving Piles		Foot	90	
Furnishing Metal Shell Piles 12"x0.250"		Foot	90	
Pile Shoes		Each	2	
Concrete Sealer		Sq. Ft.	77	



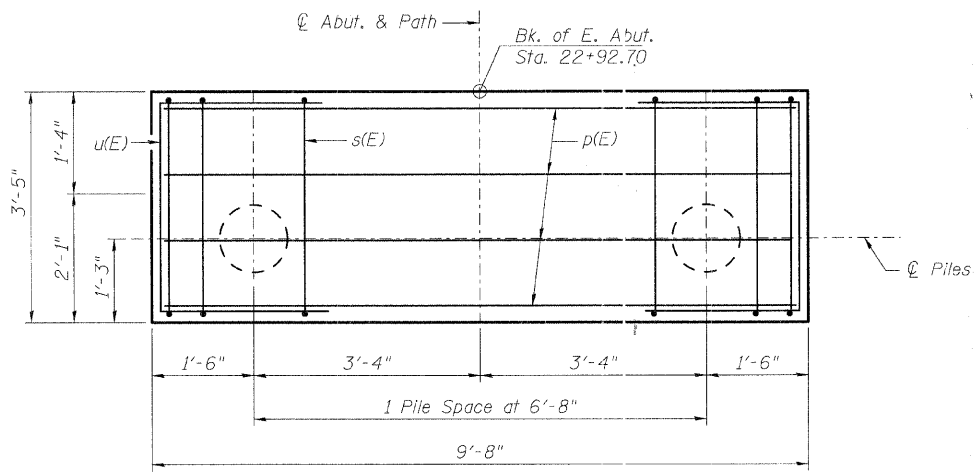
ELEVATION



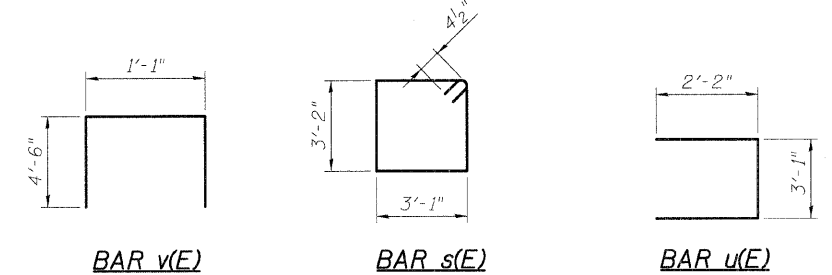
SEC. THRU ABUT.



TOP VIEW



PLAN - PILE CAP



NOTES:

- The M.S.E. wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 0.34 kips/ft. of abutment.
- Space reinforcement in cap to miss anchor bolts.
- See sheet S-36 for M.S.E. Wall Details.
- The metal shell piles shall be according to ASTM A 252 Grade 3.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

* Piles shall be driven prior to placement of the reinforced select fill and coated with coal tar epoxy from the bottom of the select fill to 1" above the base of the abutment. The cost of the coal tar epoxy coating shall be included with the cost of "Furnishing Metal Shell Piles 12"x 0.250".

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

**EAST ABUTMENT
PLAN AND DETAILS**
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

Benchmark: Top of nut on fire hydrant located at the northwest corner of the intersection of Randall Road and Silver Glen Road. (Elev. 809.17)

Existing Structure: None

Salvage: None

DESIGN SPECIFICATIONS
2002 AASHTO with Interim Specifications

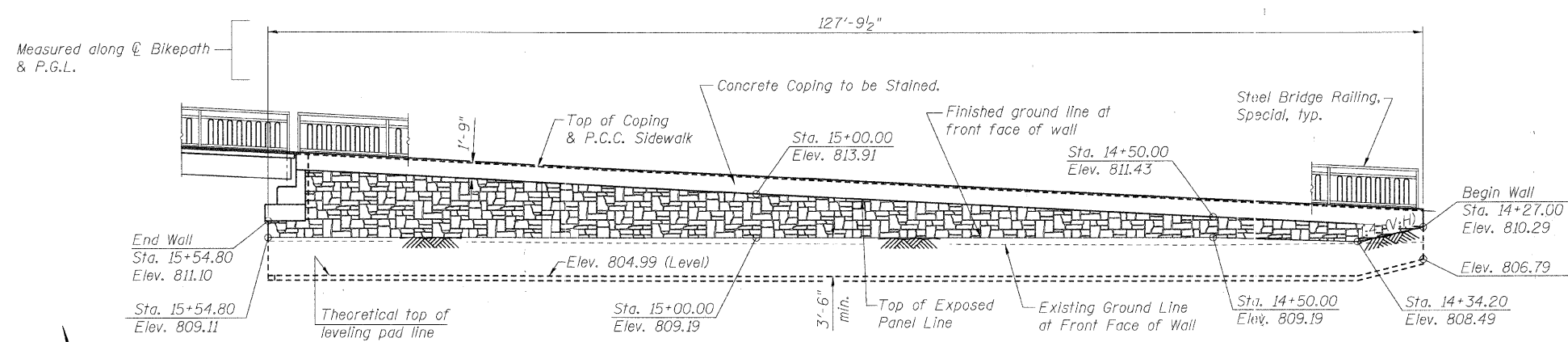
LOADING H5 & PEDESTRIAN
85 psf Pedestrian Loading
MSE wall shall be designed for a min. surcharge of 85 psf and an equivalent fluid pressure of 50 psf.

DESIGN STRESSES
FIELD UNITS

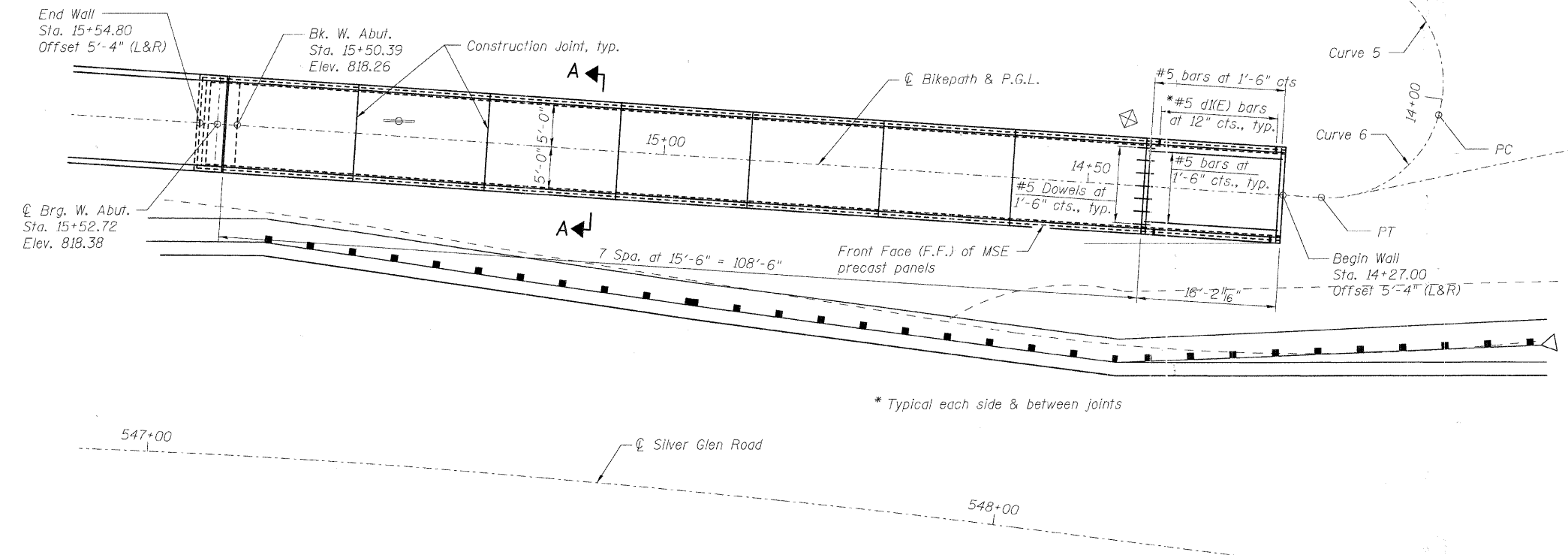
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST UNITS

$f'_c = 4,500$ psi (Precast Panels)

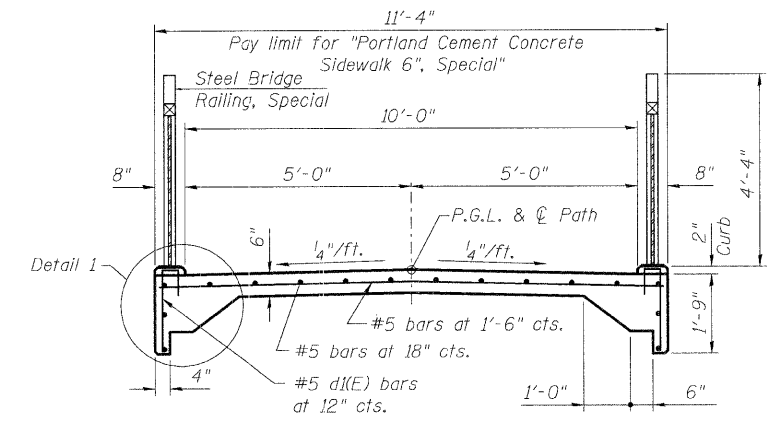


SOUTHWEST MSE WALL ELEVATION
(Northwest Wall Similar)
(Looking at Front Face of Wall)



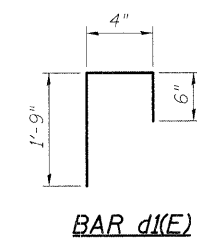
WEST MSE WALL PLAN

Note:
Wall offsets are measured from \odot bikepath to front face of precast panels.



SECTION A-A

(Portland Cement Concrete Sidewalk 6 inch, Special)
Cost of Reinforcement Bars, Epoxy Coated is included in the pay item "Portland Cement Concrete Sidewalk 6", Special".



BAR d(E)

BILL OF MATERIAL

Item	Unit	Total
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	2,207
Structure Excavation	Cu. Yd.	232
Concrete Sealer	Sq. Ft.	191
Portland Cement Concrete Sidewalk 6", Special	Sq. Ft.	1,414
Staining Concrete Structures	Sq. Yd.	53

NOTES:

- All elevations shown are along PGL.
- The Contractor will be responsible to design and construct MSE walls according to IDOT Guide Bridge Special Provision "Mechanically Stabilized Earth Retaining Walls".
- See sheet S-37 for Architectural Details.
- See Sheet S-36 for Detail 1.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

WEST MSE WALL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

Benchmark: Top of nut on fire hydrant located at the northwest corner of the intersection of Randall Road and Silver Glen Road. (Elev. 809.17)

Existing Structure: None

Salvage: None

DESIGN SPECIFICATIONS

2002 AASHTO with Interim Specifications

LOADING H5 & PEDESTRIAN

85 psf Pedestrian Loading
MSE wall shall be designed for a min. surcharge of 85 psf and an equivalent fluid pressure of 50 psf.

DESIGN STRESSES

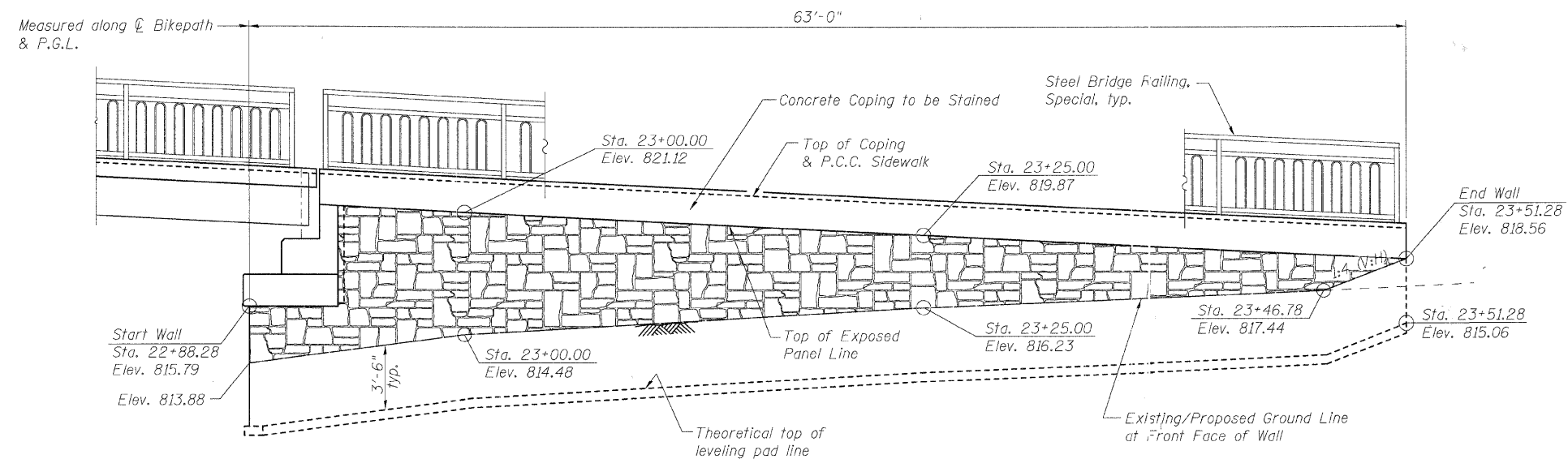
FIELD UNITS

$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi}$ (reinforcement)

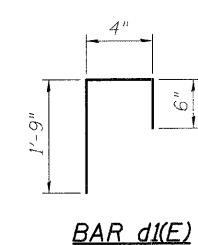
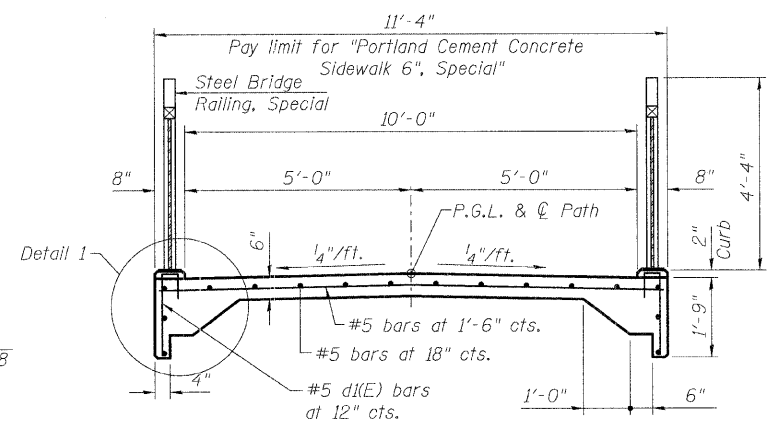
PRECAST UNITS

$f'_c = 4,500 \text{ psi}$ (Precast Panels)

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. S-35
FAU 2505	94-P4008-01-BR	KANE	81	59	S-42 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #83984		



SOUTHEAST MSE WALL ELEVATION
(Northeast Wall Similar)

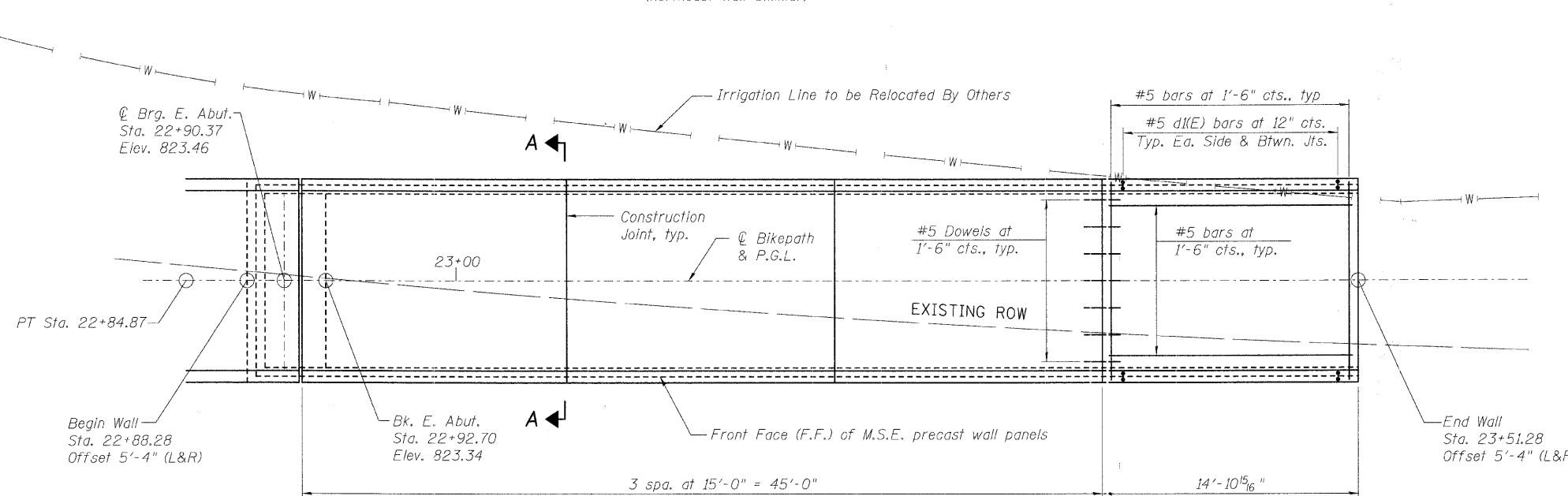


BILL OF MATERIAL

Item	Unit	Total
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	1,026
Structure Excavation	Cu. Yd.	142
Concrete Sealer	Sq. Ft.	176
Portland Cement Concrete Sidewalk 6", Special	Sq. Ft.	679
Staining Concrete Structures	Sq. Yd.	25

NOTES:

- All elevations shown are along PGL.
- The Contractor will be responsible to design and construct MSE walls according to IDOT Guide Bridge Special Provision "Mechanically Stabilized Earth Retaining Walls".
- See Sheet S-37 for Architectural Details.
- See Sheet S-36 for Detail 1.



EAST MSE WALL PLAN

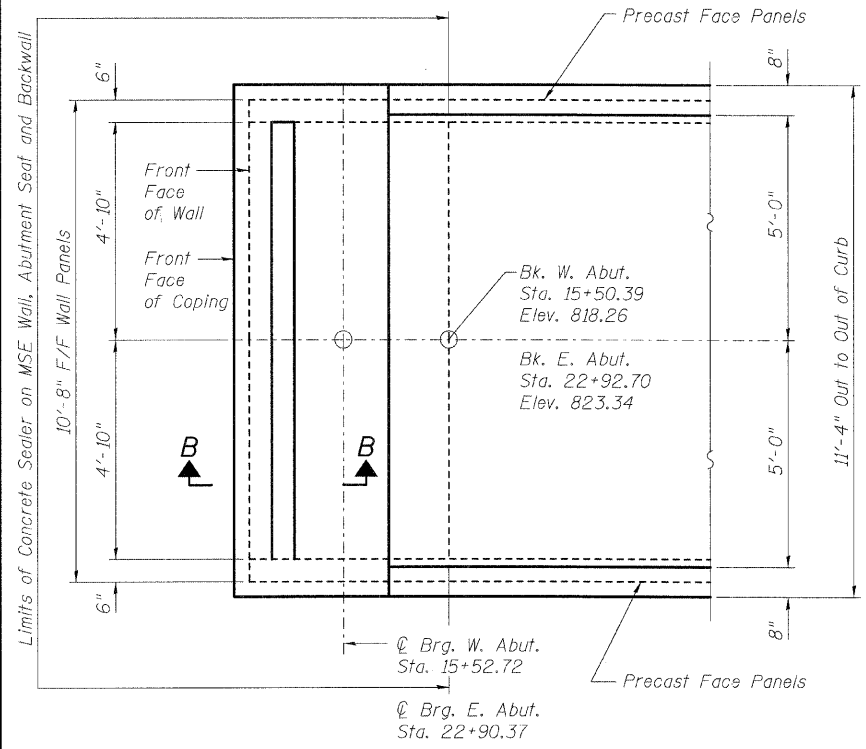
Note:
Wall offsets are measured from \varnothing bikepath to front face of precast panels.
See Sheet S-1 for boring locations.

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A

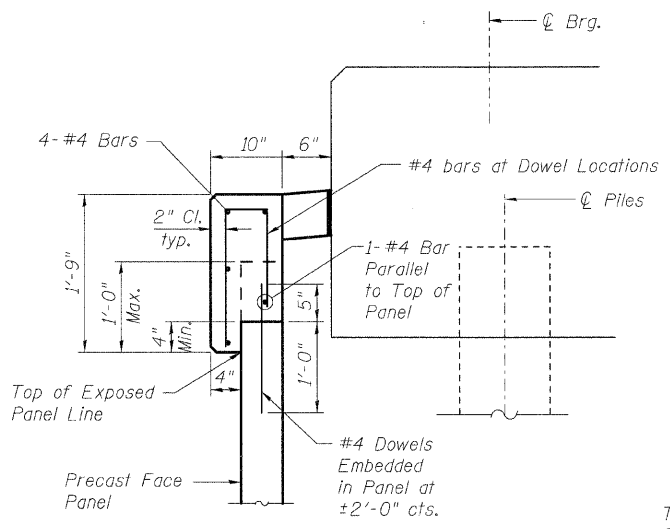
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

EAST MSE WALL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008



PLAN AT ABUTMENTS

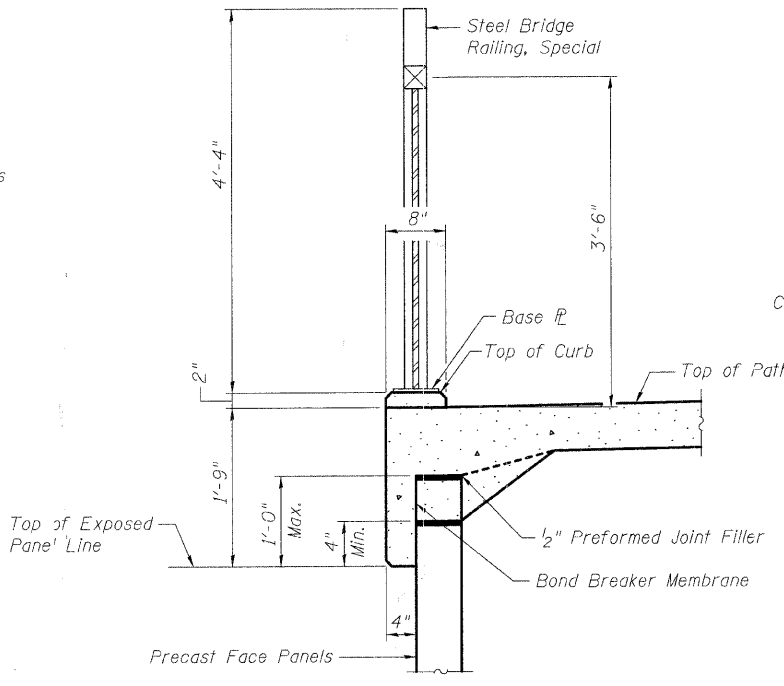
*See Section Through Abutments, This Sheet



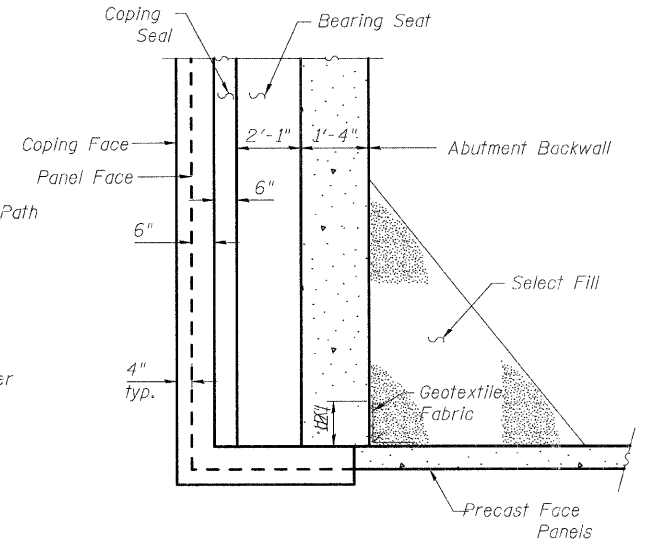
**SECTION B-B
CAST IN PLACE COPING DETAIL**

All reinforcement shall be epoxy coated

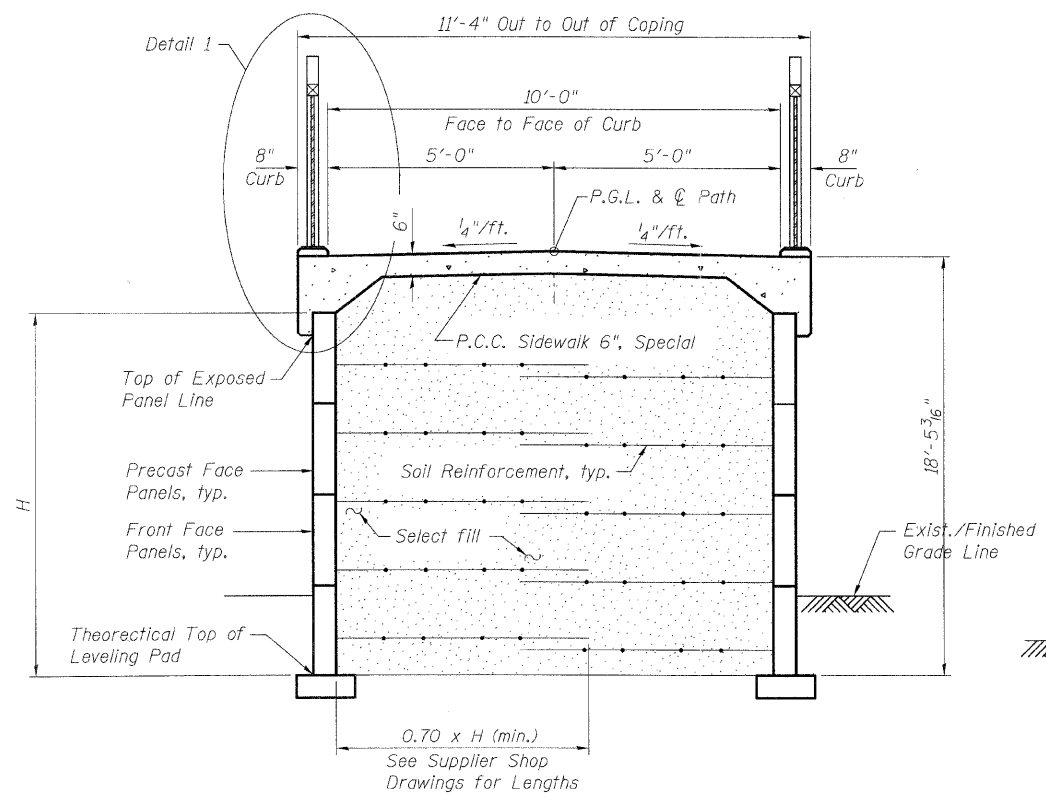
Note: Cost of Coping, including epoxy coated reinforcement bars, PJF and bond breaker is included in the pay item "Mechanically Stabilized Earth retaining Wall".



DETAIL 1

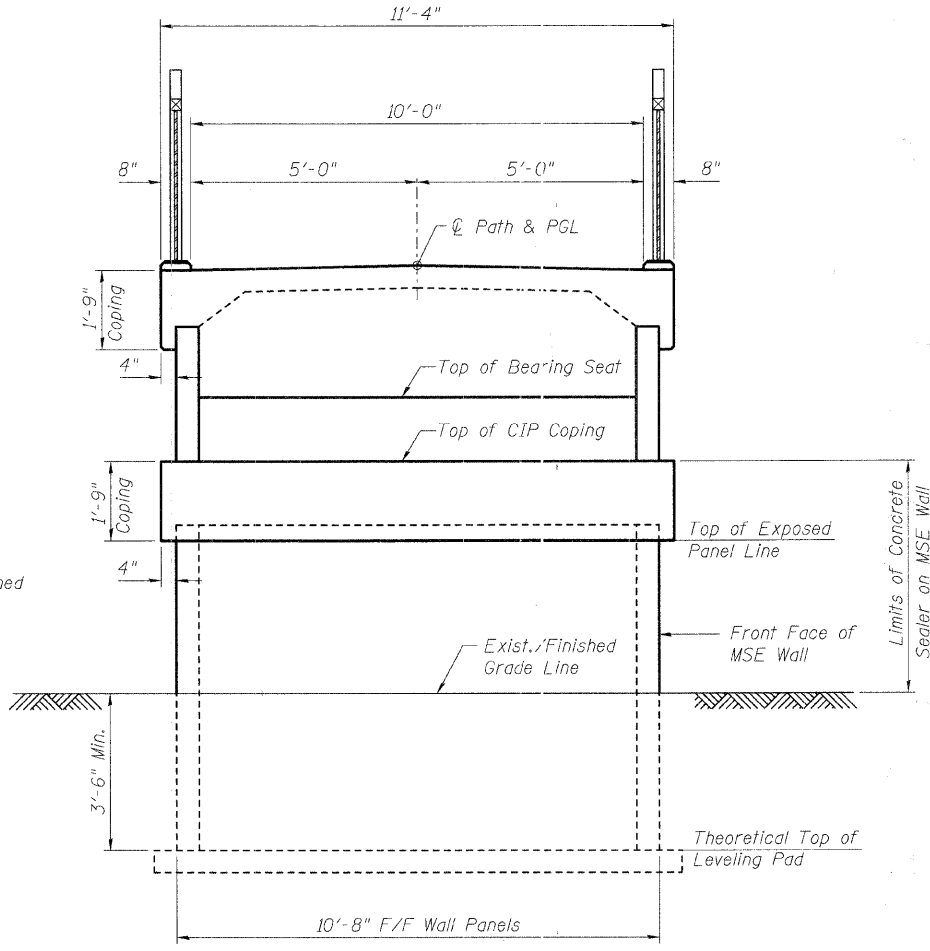


SECTION A-A



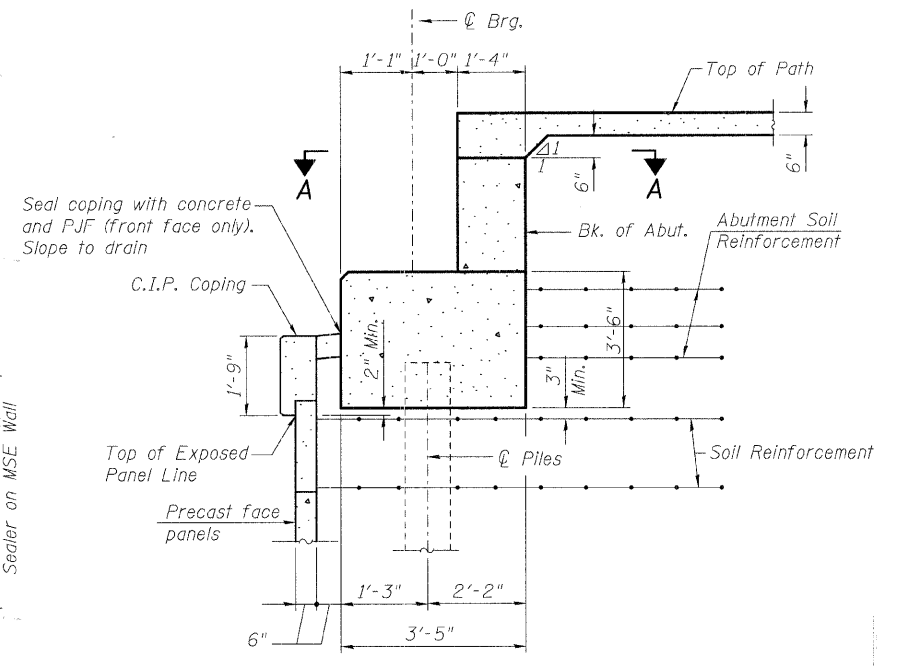
SECTION THROUGH MSE WALL

Note: Wall Supplier and Contractor must space soil reinforcement to miss piles.



ABUTMENT ELEVATION

Showing MSE Wall Details



SECTION THROUGH ABUTMENTS

See CIP Coping Detail, This Sheet

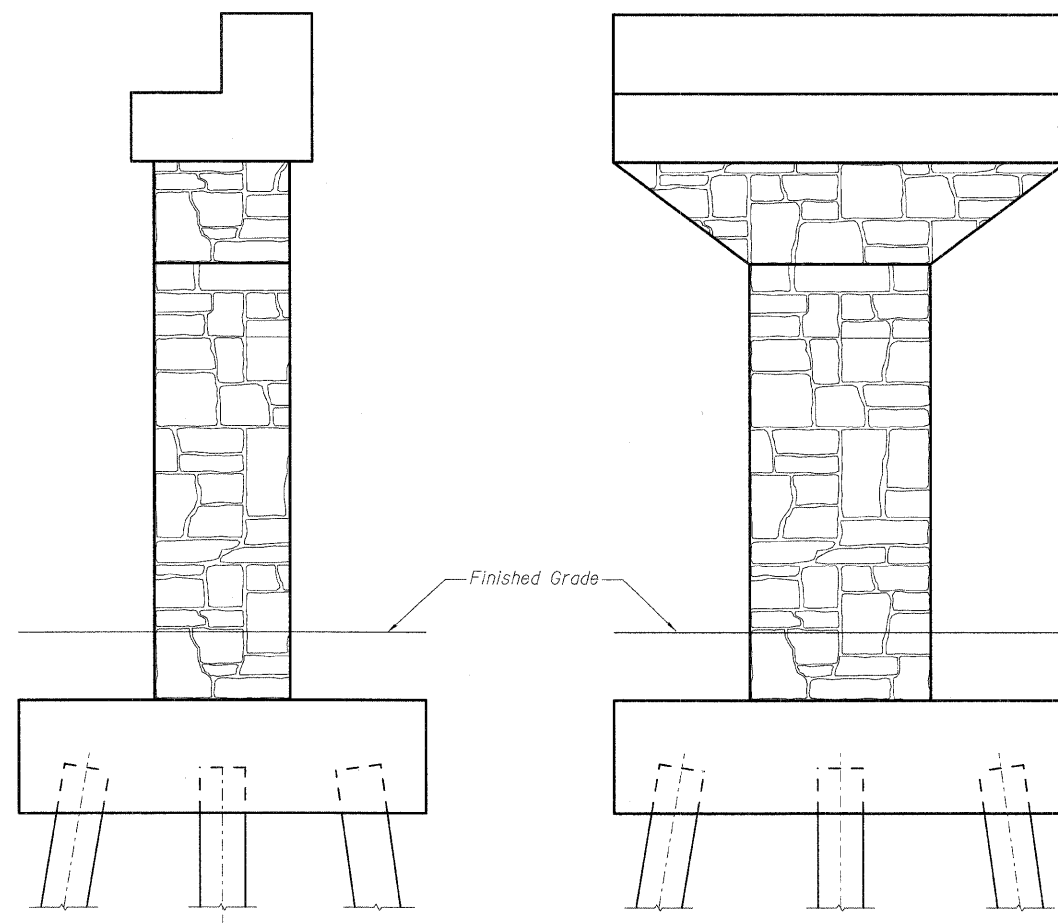
DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

MSE WALL DETAILS
PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000
DATE: OCTOBER 31, 2008

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-37 S-42 SHEETS
FAU 2505	94-P4008-01-BR	KANE	81	61	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

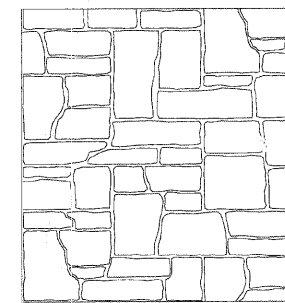
Contract #83984



END VIEW

ELEVATION

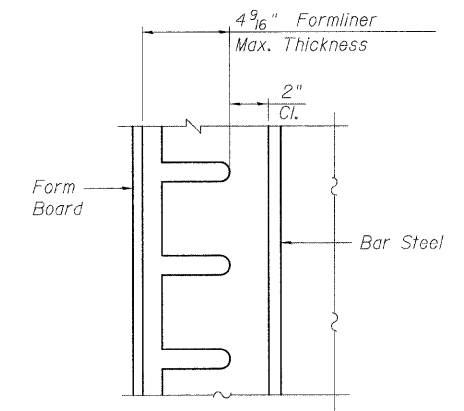
TYPICAL PIER



RUSTIC ASHLAR

(Custom Rock International - Rustic Ashlar #1103)

- Maximum Relief = 1 1/4"
- Average Relief = 1"
- Linear Thickness = 2 3/8"
- Stone Size = 8" TO 25"



SECTION THRU FORMLINER

FORMLINER DETAIL

NOTES:

Architectural concrete surface treatment as shown is applicable to exterior surfaces of cast-in-place concrete for Piers and MSE walls respectively.

The clear concrete cover shown to the bars nearest to the concrete surface shall be maintained.

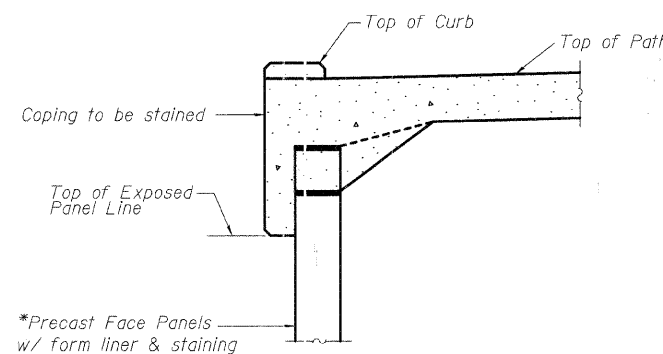
Form liner surface treatment shall be the Rustic Ashlar Pattern #1103 manufactured by Custom Rock International or approved equal.

Form liner surface treatment shall be paid for in square feet as "Form Liner Textured Surface".

The color for Staining Concrete Structures is Base Color 33446 (Medium Tan) from the Federal Color Standard 595B. The owner reserves the right to select other form liner and stain colors. The Contractor shall submit test samples of form liner and stain colors for acceptance to the Owner before ordering any materials. Provide a concrete test panel 4'x4' with the form liner and stained selected by the Owner for final selection of form liner and stain colors.

See special provision for Form Liner Textured Surface.

See special provision for Staining Concrete Structures.



PARTIAL SECTION THRU MSE WALL

*Paid for by pay item Mechanically Stabilized Earth Retaining Wall

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RH&A

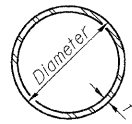
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

ARCHITECTURAL DETAILS

PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000

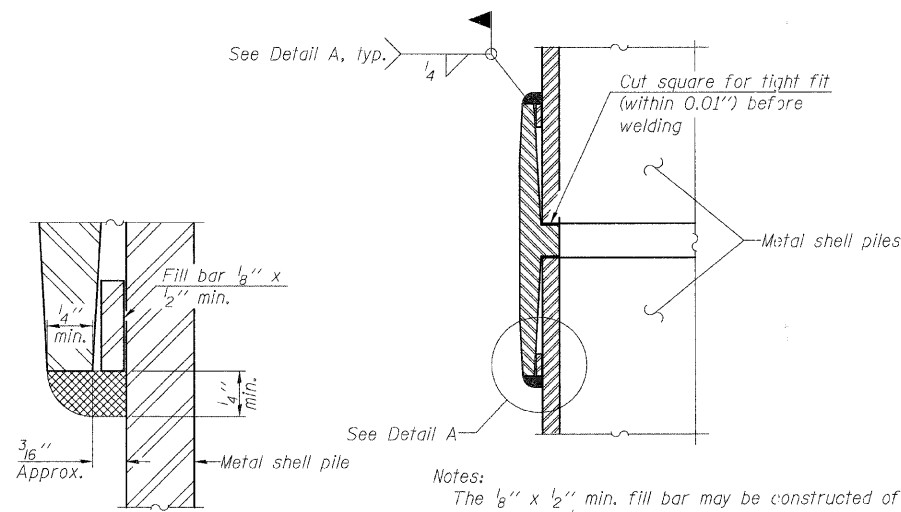
DATE: OCTOBER 31, 2008

Contract #83984



METAL SHELL PILE TABLE

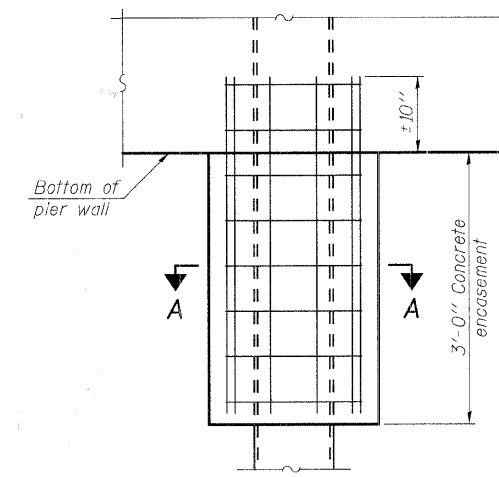
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



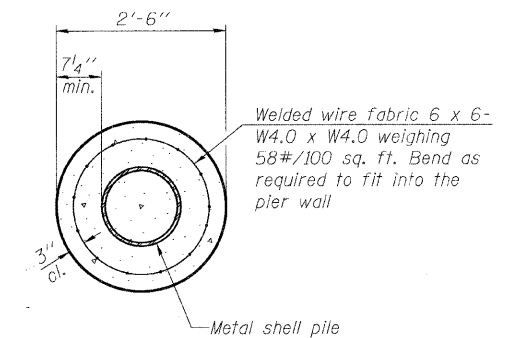
DETAIL A

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

WELDED COMMERCIAL SPLICE



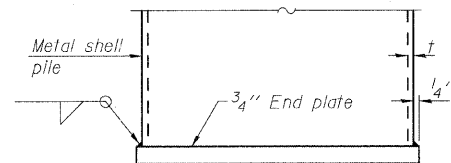
ELEVATION



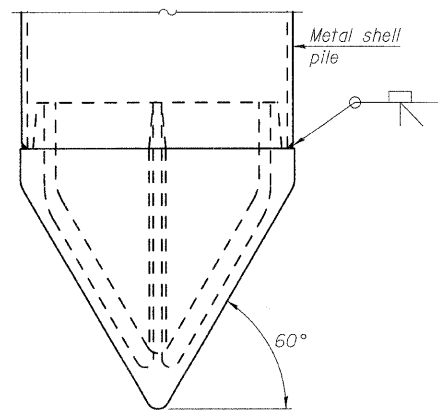
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



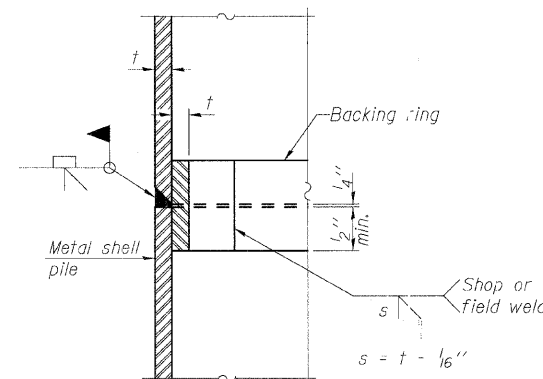
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

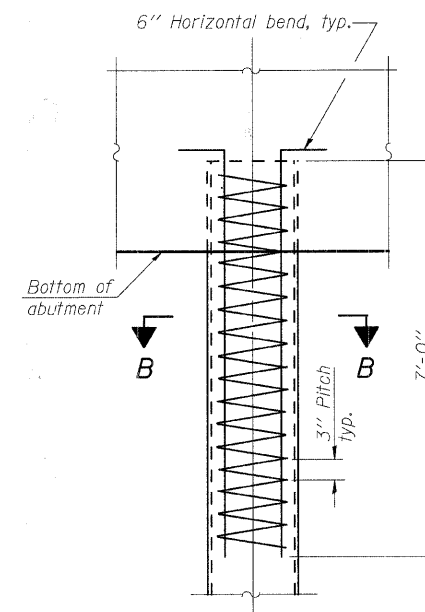
(See Note A)

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

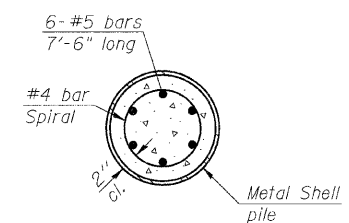


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

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

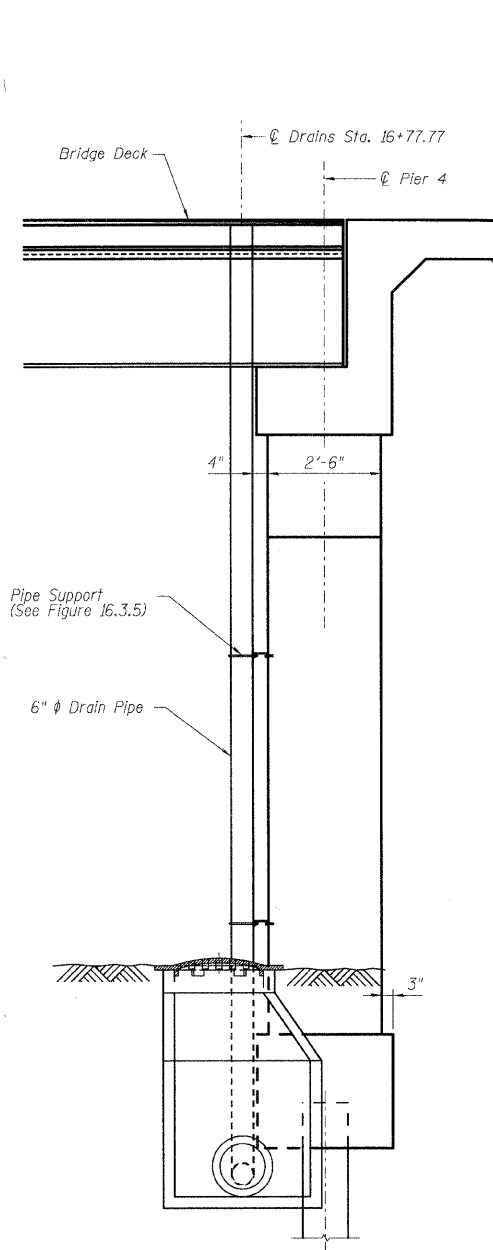
RHA&A

Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

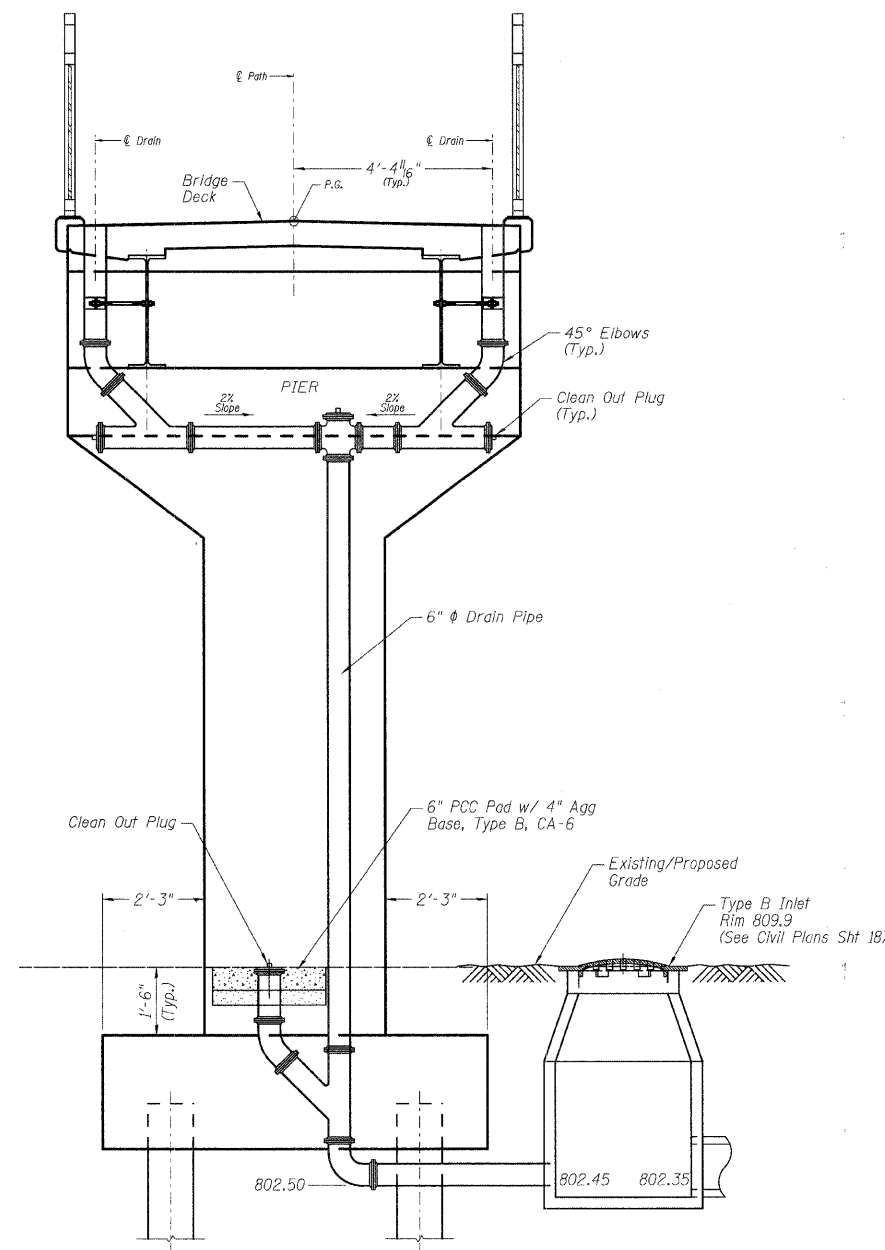
PILE DETAILS

PEDESTRIAN BRIDGE OVER RANDALL ROAD
AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
KANE COUNTY
STRUCTURE NO. 045-9000

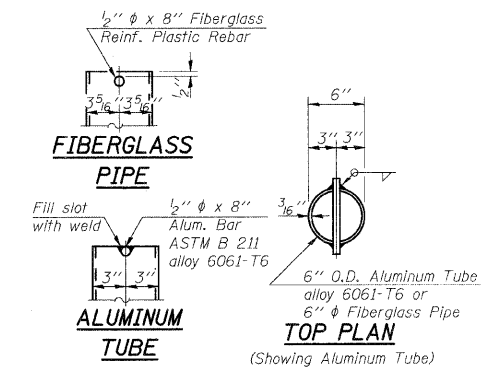
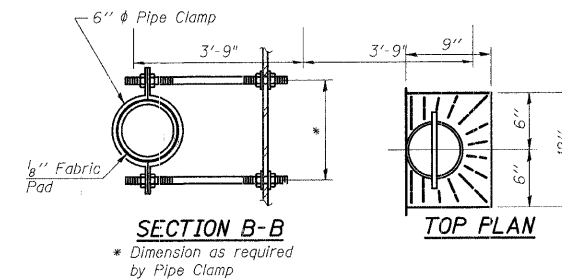
DATE: OCTOBER 31, 2008



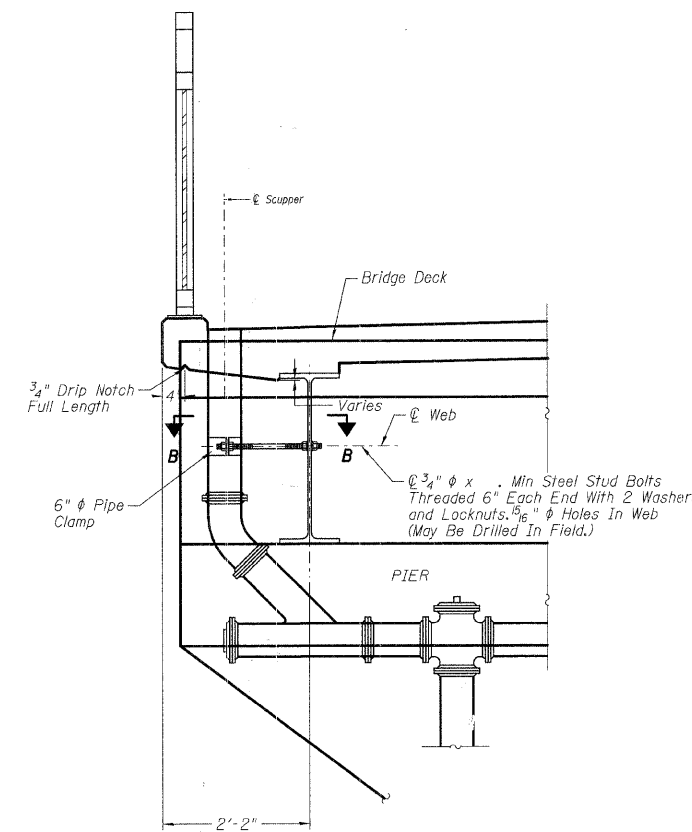
END VIEW PIER 4
(Looking South)



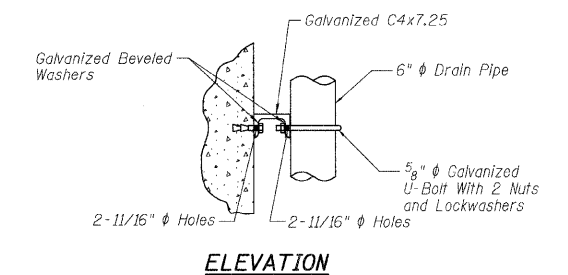
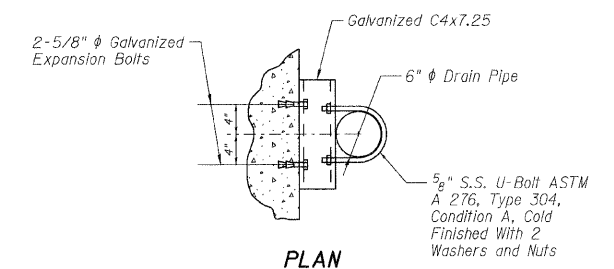
ELEVATION PIER 4
(Looking Upstation - looking west)



Notes:
 The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



SECTION THRU PARAPET



DRAIN PIPE SUPPORT DETAILS

Figure 16.3.5

BILL OF MATERIAL

Item	Quantity	Unit
Bridge Drainage System	1	Ea

DESIGNED	MJD
CHECKED	AEU
DRAWN	MJD
CHECKED	AEU

RHA&A

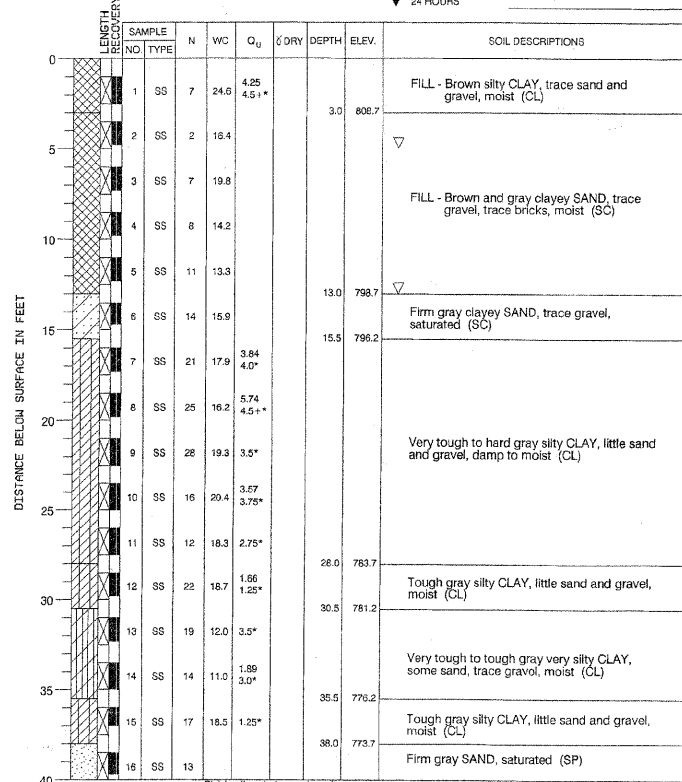
Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

DECK DRAIN DETAILS

PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000

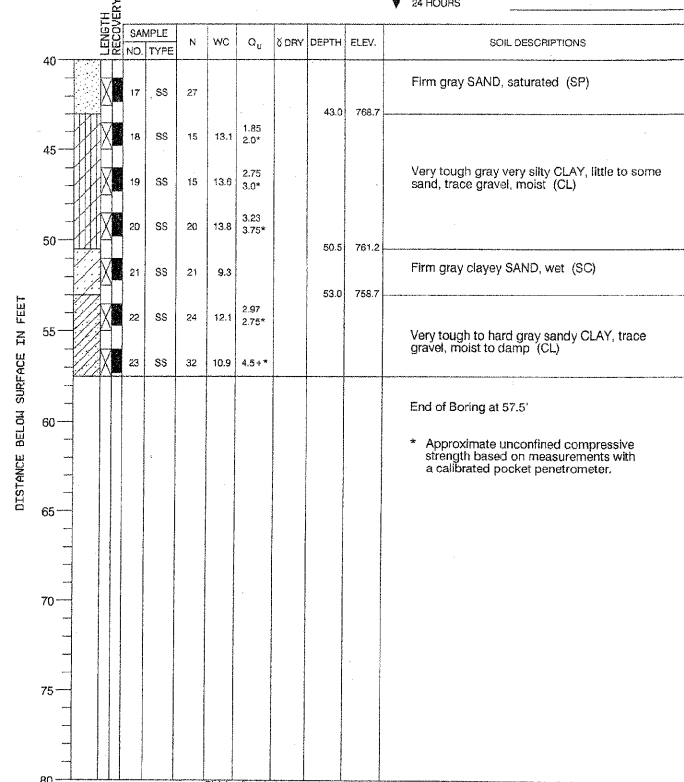
DATE: OCTOBER 31, 2008

PROJECT **Bike Path Bridge, Randall Road, St. Charles, Illinois**
 CLIENT **R. H. Anderson and Associates, 220 W. River Dr., St. Charles, Illinois**
 BORING **1007** DATE STARTED **8-18-98** DATE COMPLETED **8-18-98** JOB **L-45,563**
 ELEVATIONS WATER TABLE
 GROUND SURFACE **811.7** WHILE DRILLING **13.0'**
 END OF BORING **754.2** AT END OF BORING **5.0'**
 24 HOURS



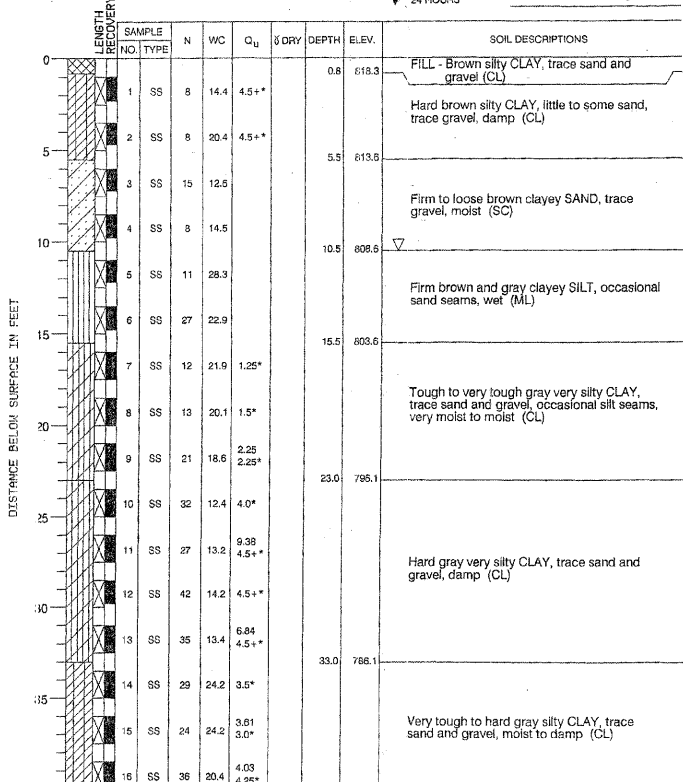
DRILL RIG NO. **53** Page 1 of 2

PROJECT **Bike Path Bridge, Randall Road, St. Charles, Illinois**
 CLIENT **R. H. Anderson and Associates, 220 W. River Dr., St. Charles, Illinois**
 BORING **1007** DATE STARTED **8-18-98** DATE COMPLETED **8-18-98** JOB **L-45,563**
 ELEVATIONS WATER TABLE
 GROUND SURFACE **811.7** WHILE DRILLING **13.0'**
 END OF BORING **754.2** AT END OF BORING **5.0'**
 24 HOURS



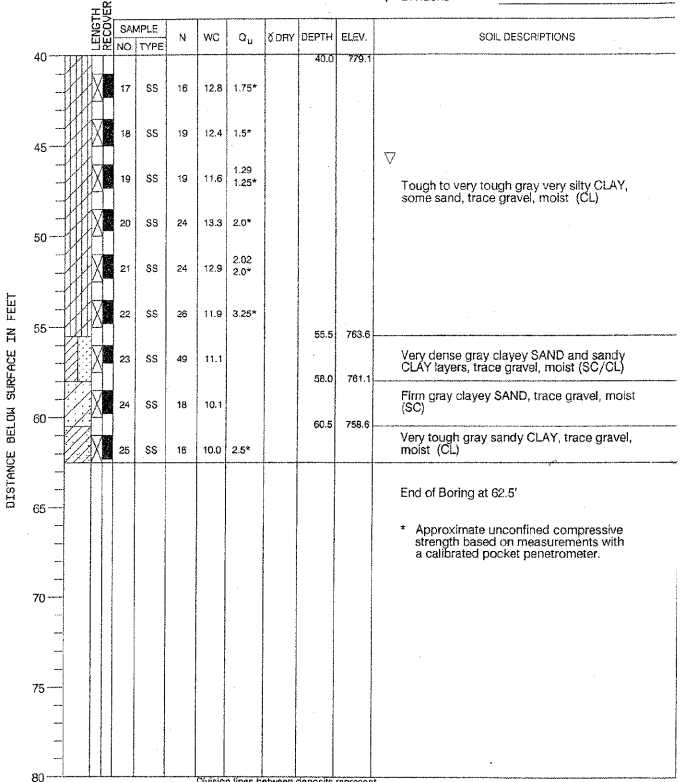
DRILL RIG NO. **53** Page 2 of 2

PROJECT **Bike Path Bridge, Randall Road, St. Charles, Illinois**
 CLIENT **R. H. Anderson and Associates, 220 W. River Dr., St. Charles, Illinois**
 BORING **1008** DATE STARTED **8-14-98** DATE COMPLETED **8-14-98** JOB **L-45,563**
 ELEVATIONS WATER TABLE
 GROUND SURFACE **819.1** WHILE DRILLING **10.5'**
 END OF BORING **756.6** AT END OF BORING **46.0'**
 24 HOURS



DRILL RIG NO. **54** Page 1 of 2

PROJECT **Bike Path Bridge, Randall Road, St. Charles, Illinois**
 CLIENT **R. H. Anderson and Associates, 220 W. River Dr., St. Charles, Illinois**
 BORING **1008** DATE STARTED **8-14-98** DATE COMPLETED **8-14-98** JOB **L-45,563**
 ELEVATIONS WATER TABLE
 GROUND SURFACE **819.1** WHILE DRILLING **10.5'**
 END OF BORING **756.6** AT END OF BORING **46.0'**
 24 HOURS



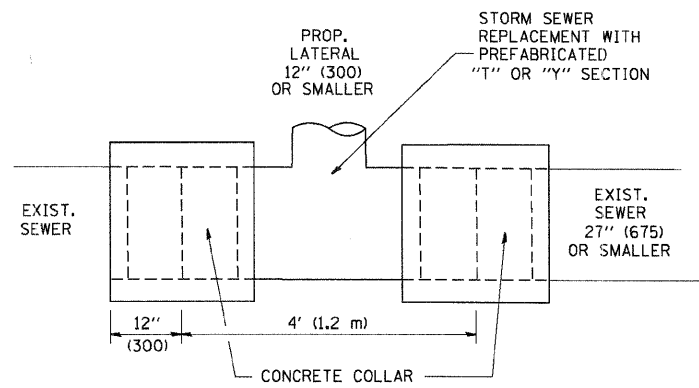
DRILL RIG NO. **54** Page 2 of 2

DESIGNED **MJD**
 CHECKED **AEU**
 DRAWN **MJD**
 CHECKED **AEU**

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

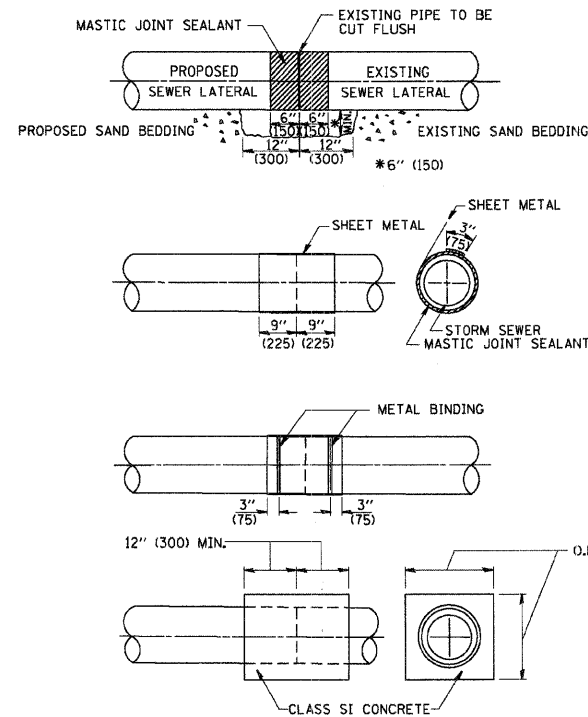
SOIL BORING LOGS III
 PEDESTRIAN BRIDGE OVER RANDALL ROAD
 AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 KANE COUNTY
 STRUCTURE NO. 045-9000
 DATE: OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	67
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

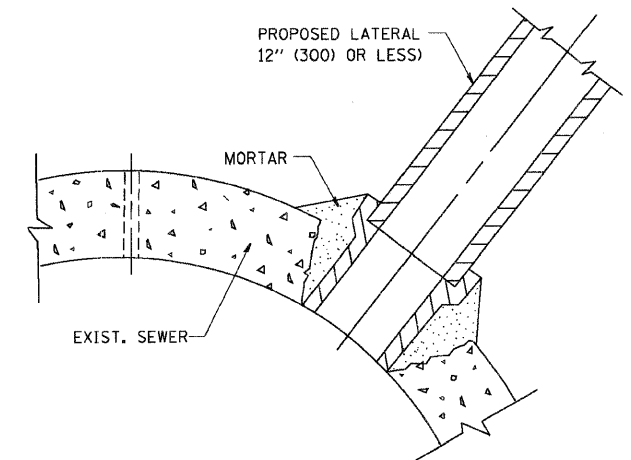


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
- WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	07/25/90
M. DE YONG	02/05/92
M. DE YONG	05/08/92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	06/12/96

ILLINOIS DEPARTMENT OF TRANSPORTATION

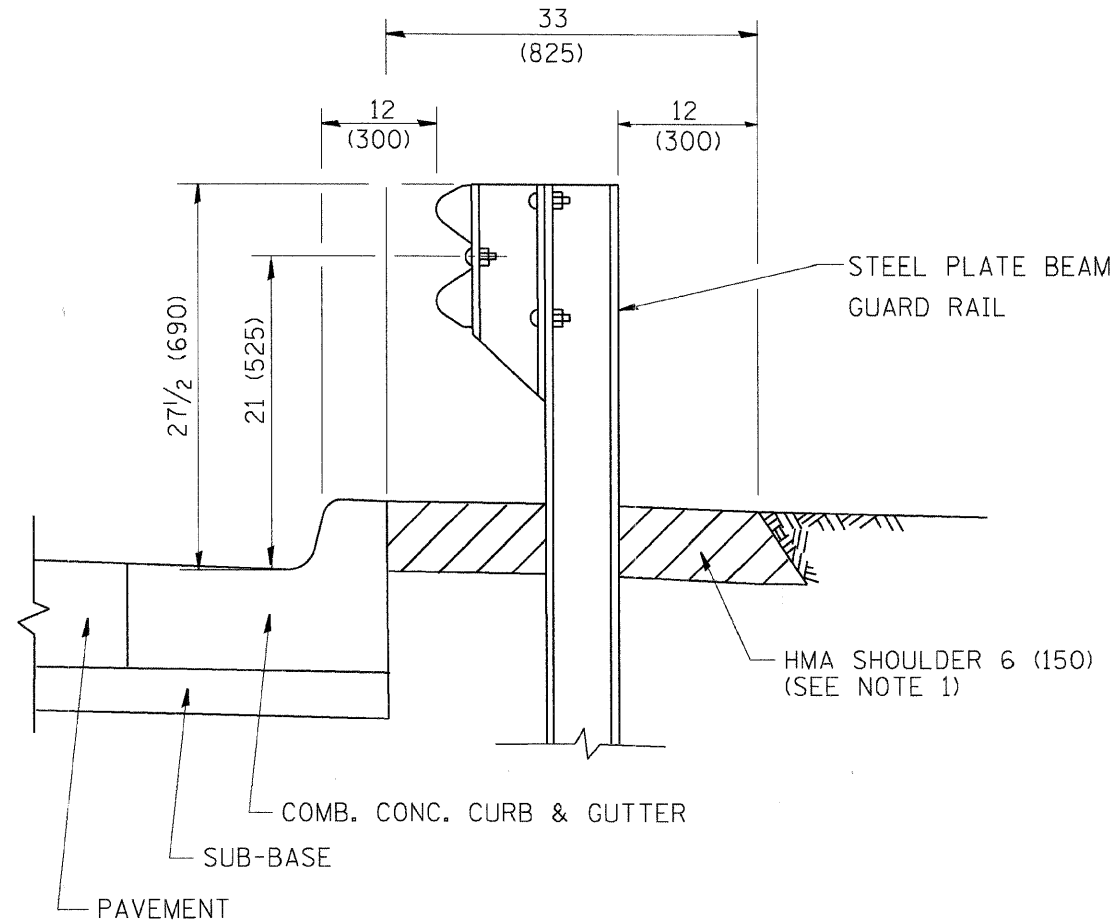
DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

PLOT DATE = 06/27/96
 FILE NAME = H:\ASSETS\940801\940801.dgn
 PLOT SCALE = 1/8" = 1'-0"
 PLOT SIZE = 11.0" x 17.0"

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	68
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

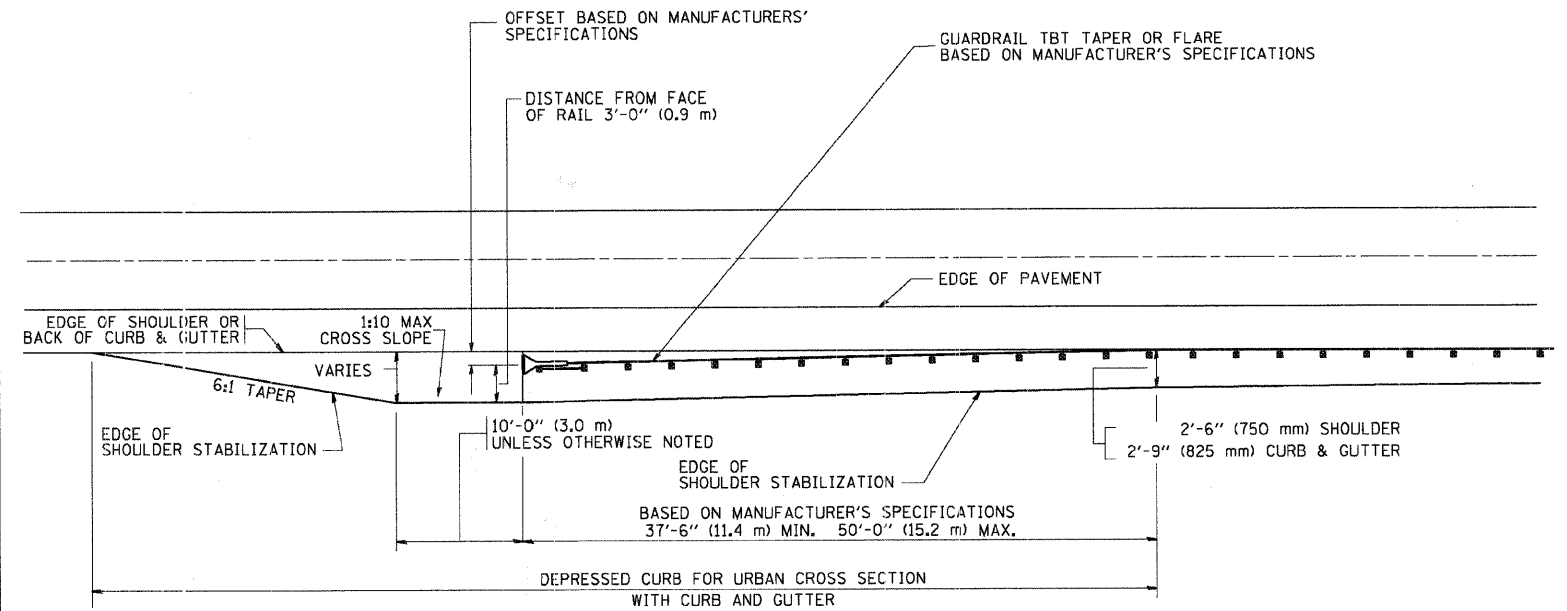


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

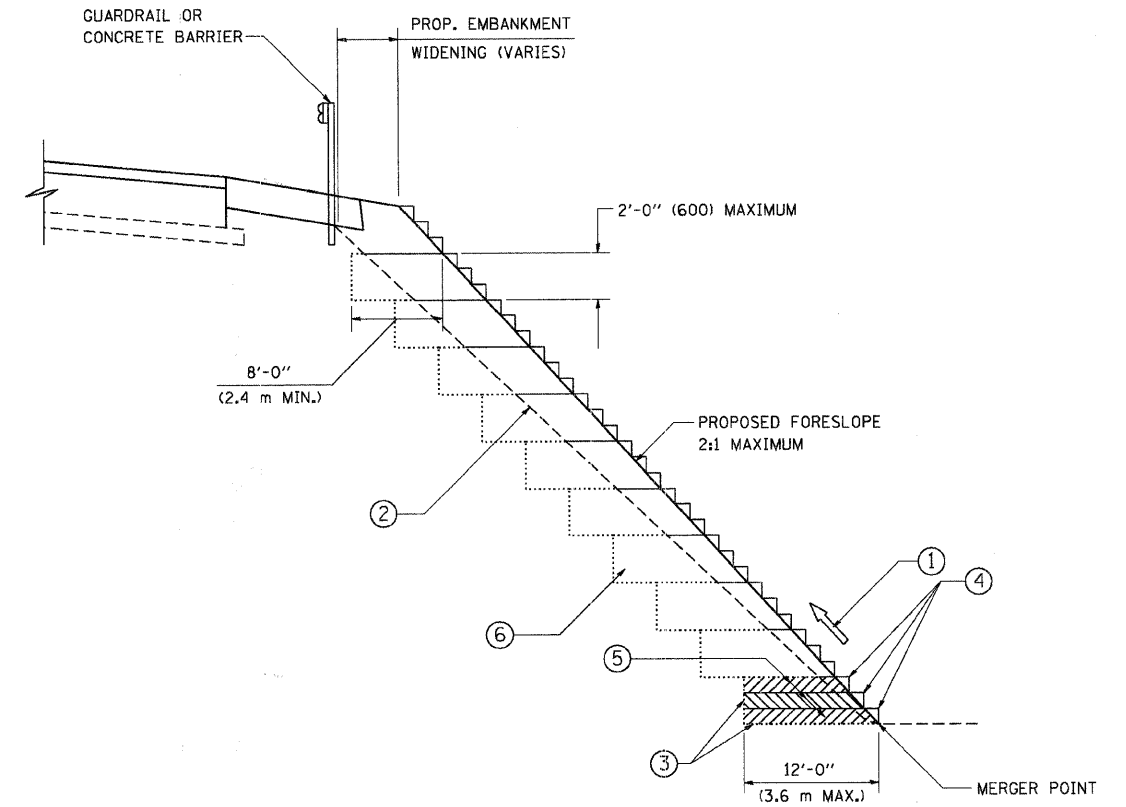
TBT = TRAFFIC BARRIER TERMINAL
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/99
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.

VERT. NONE
 SCALE: HORIZ.
 DRAWN BY Jls
 CHECKED BY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	69
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
	06/16/04

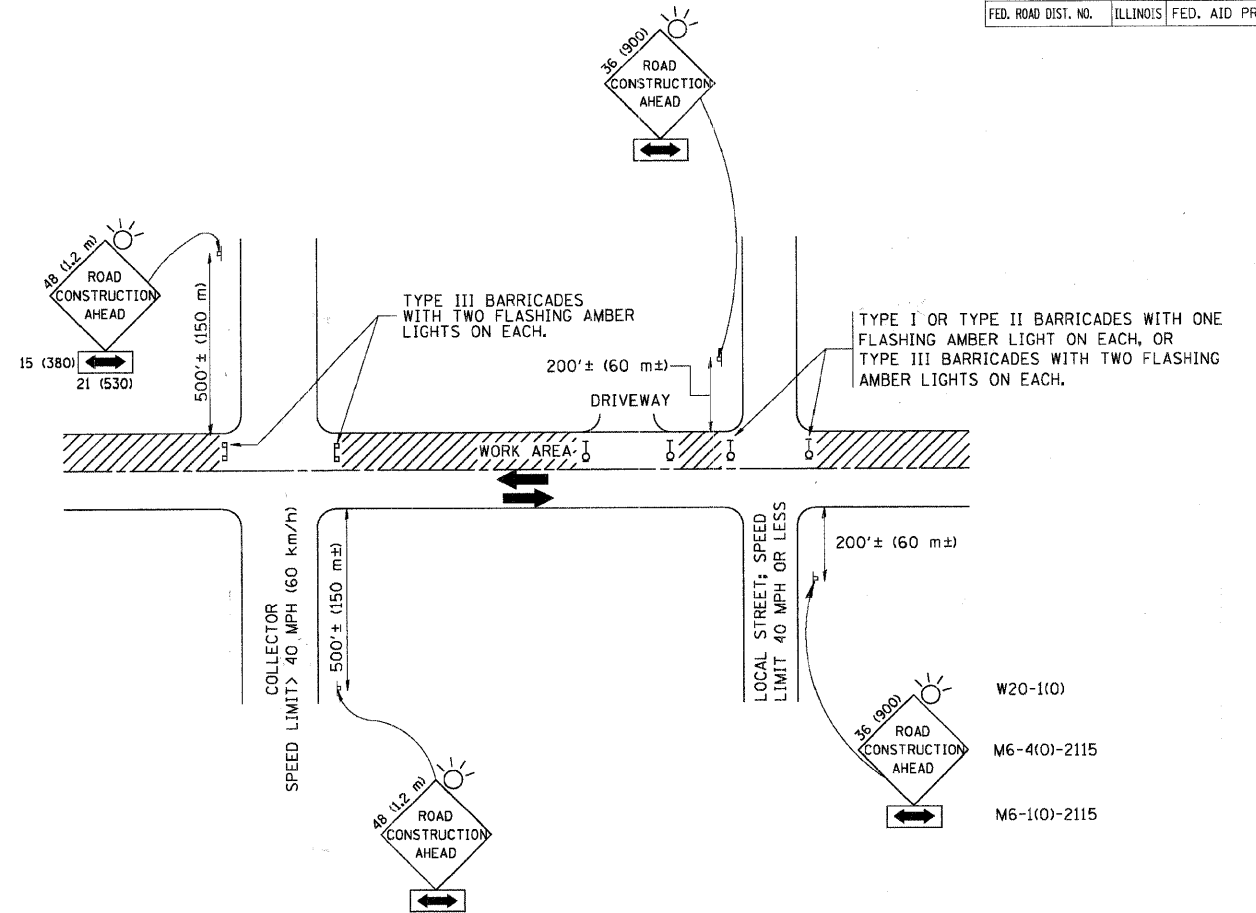
ILLINOIS DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT
WIDENING

SCALE: VERT. NONE
HORIZ.

DRAWN BY: CADD
CHECKED BY: S.E.B.
BD-51

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	70
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAYS:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

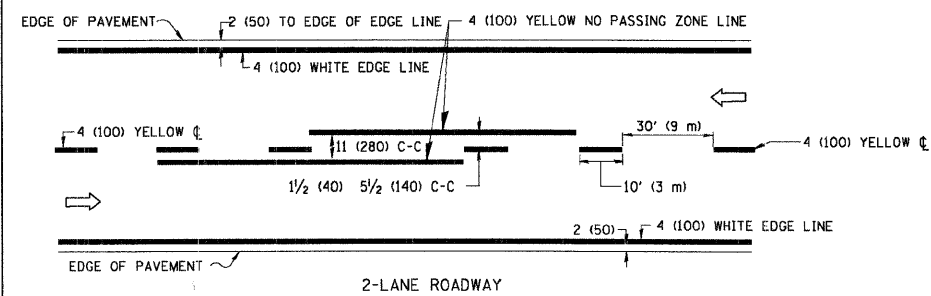
SCALE: NONE

DRAWN BY

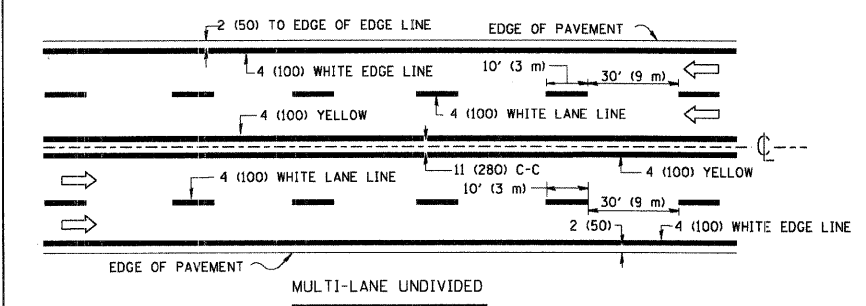
CHECKED BY

TC-10

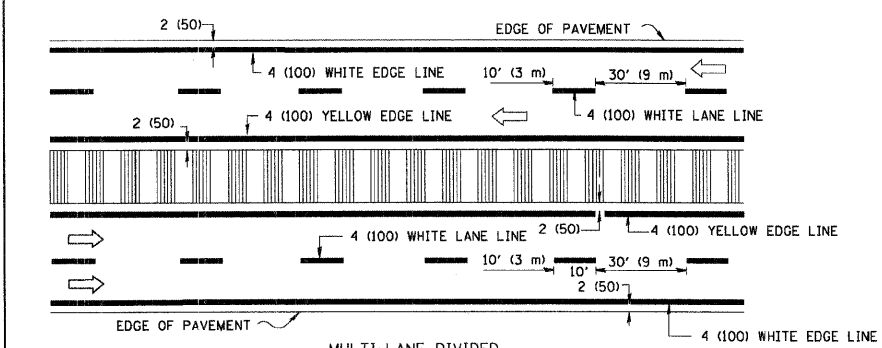
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	71
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



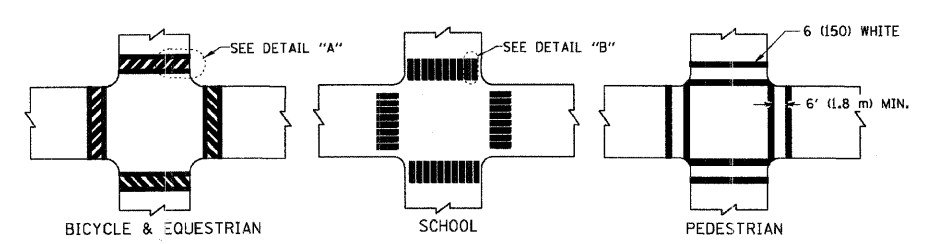
MULTI-LANE UNDIVIDED



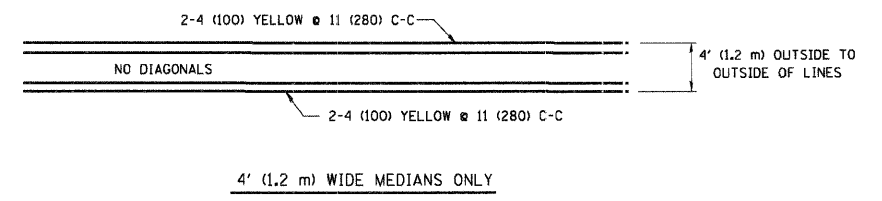
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

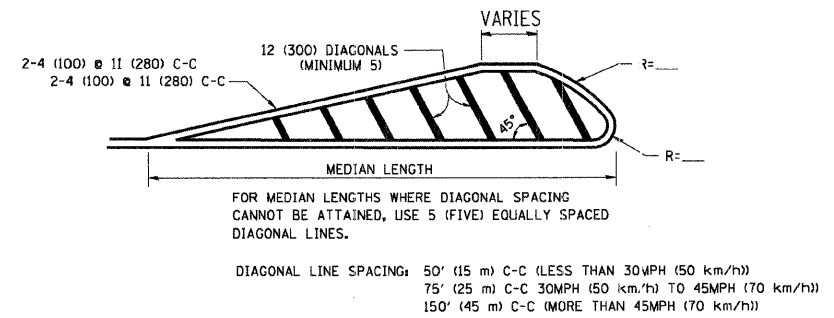
TYPICAL LANE AND EDGE LINE MARKING



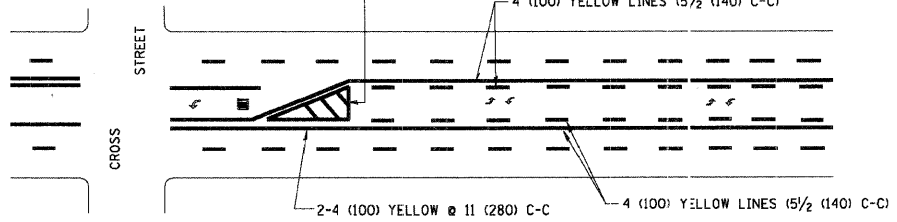
TYPICAL CROSSWALK MARKING



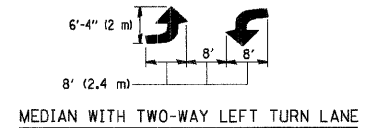
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

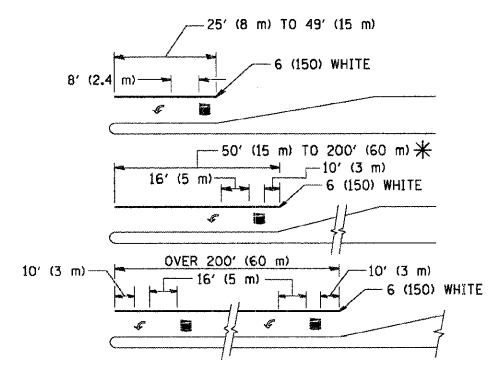


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



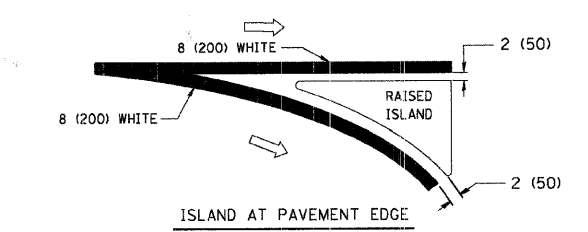
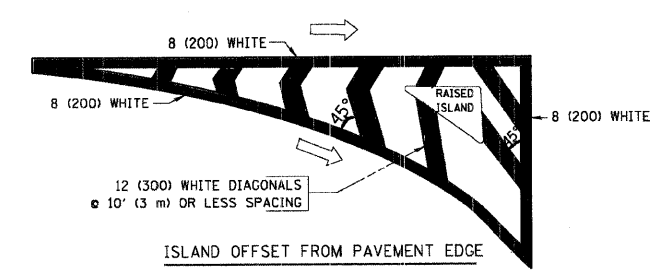
MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 & 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 & 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
CROSSWALK LINES (PEDESTRIAN)	2 & 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 & 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS: 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "RR"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

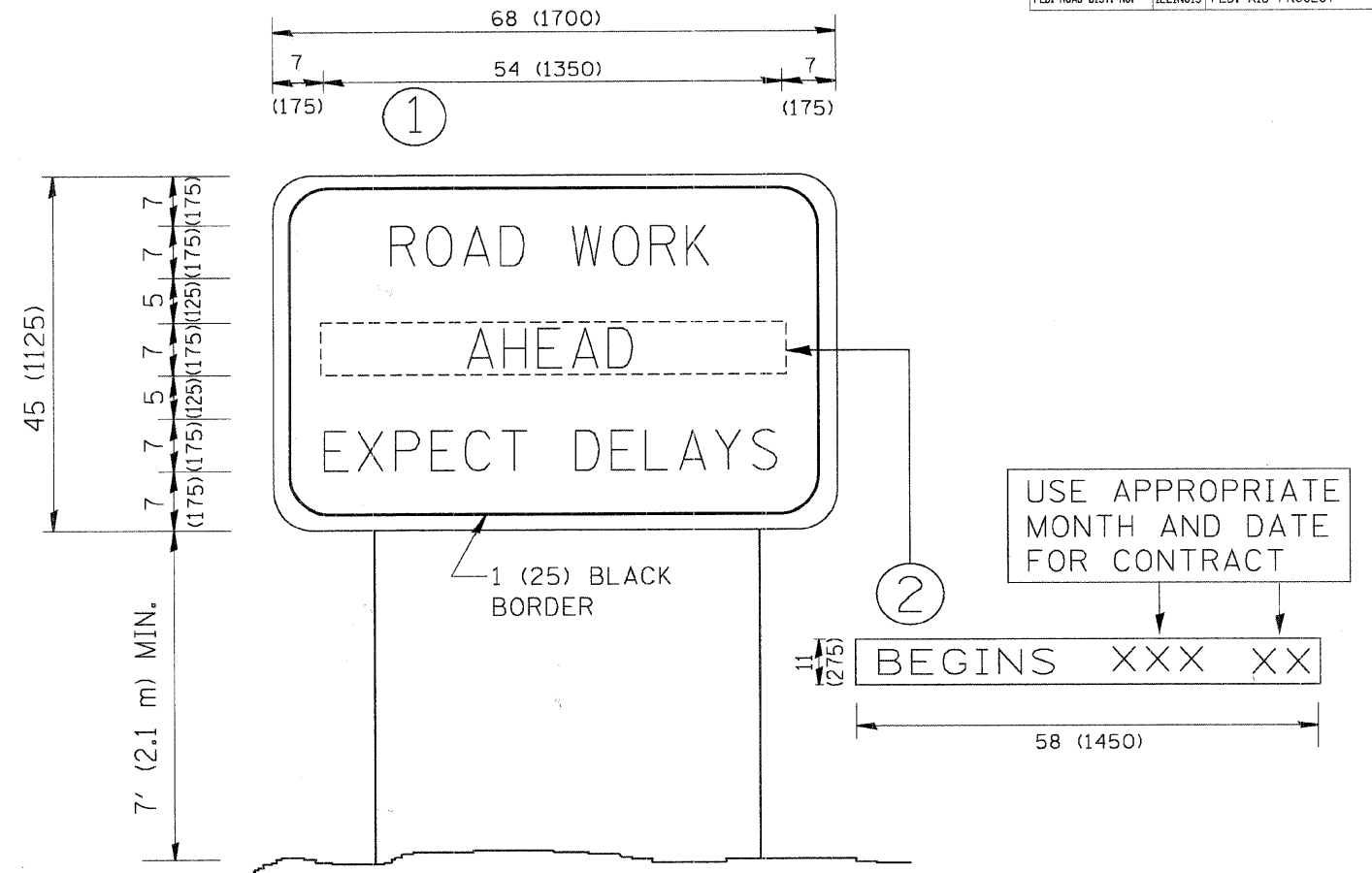
REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD
CHECKED BY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	72
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

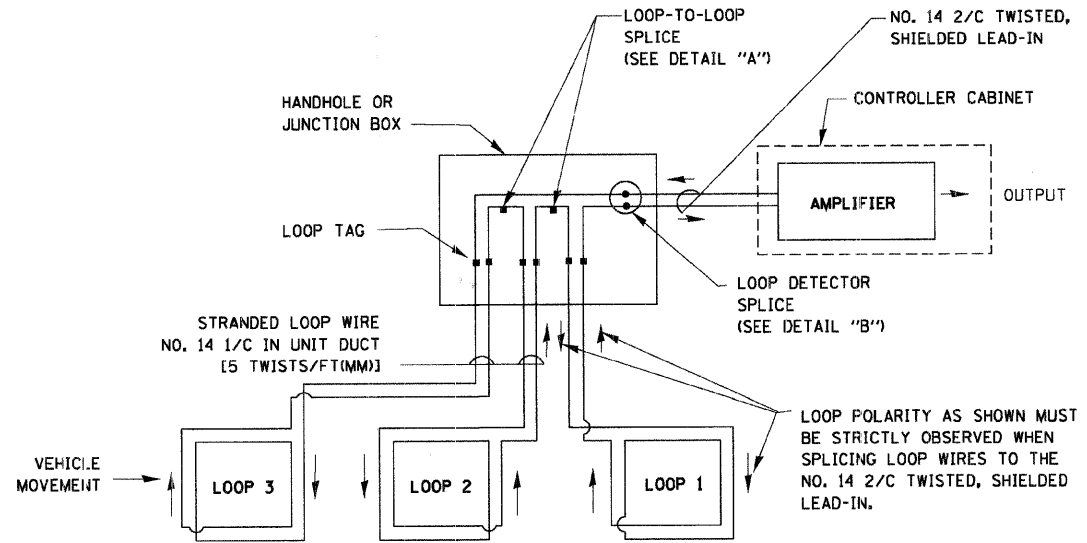
DRAWN BY DESIGN
CHECKED BY

TC22

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	73
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LOOP DETECTOR NOTES

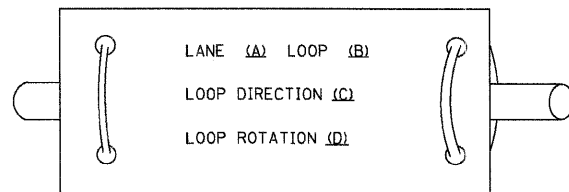
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



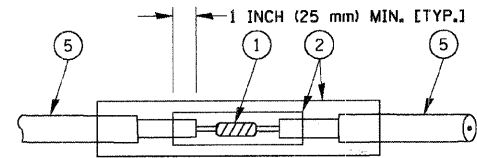
DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

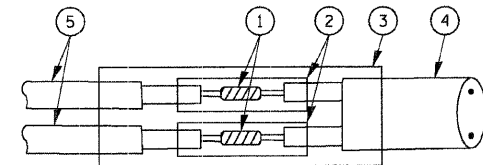
LOOP LEAD-IN CABLE TAG



- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

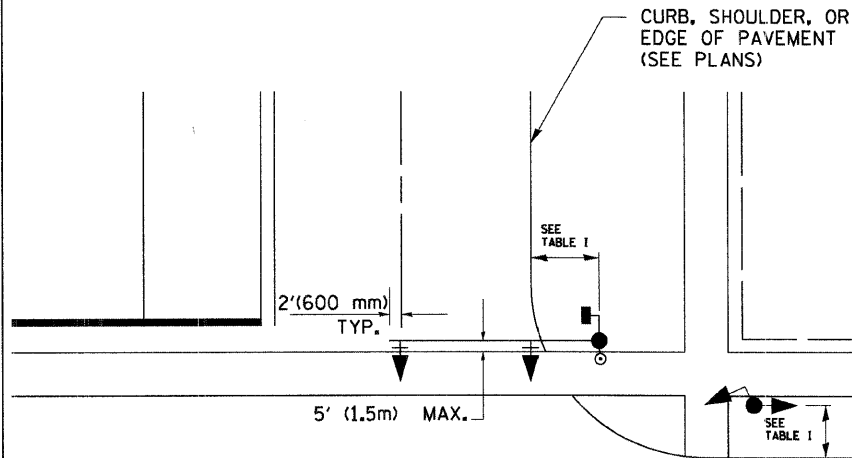
SCALE: NONE

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

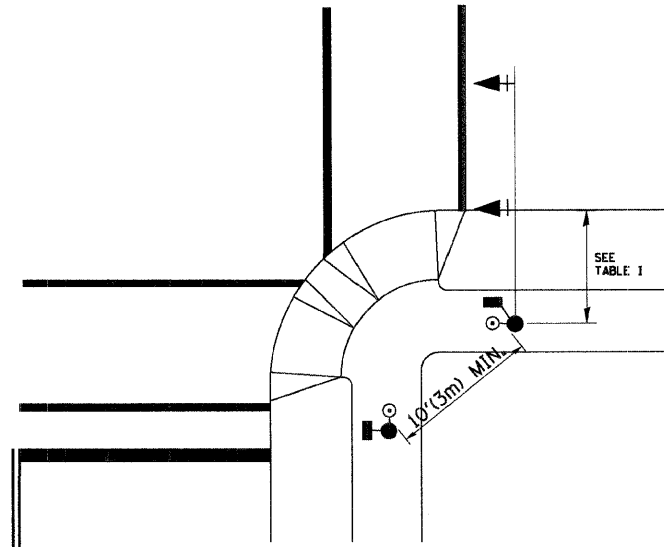
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	74
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

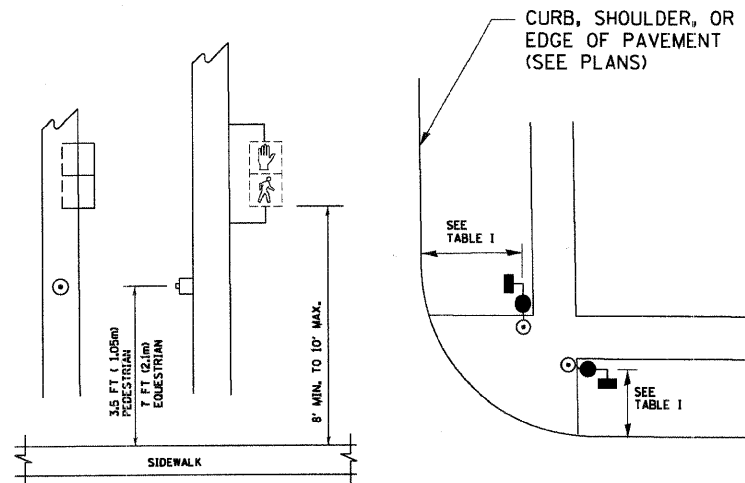


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM EACH OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

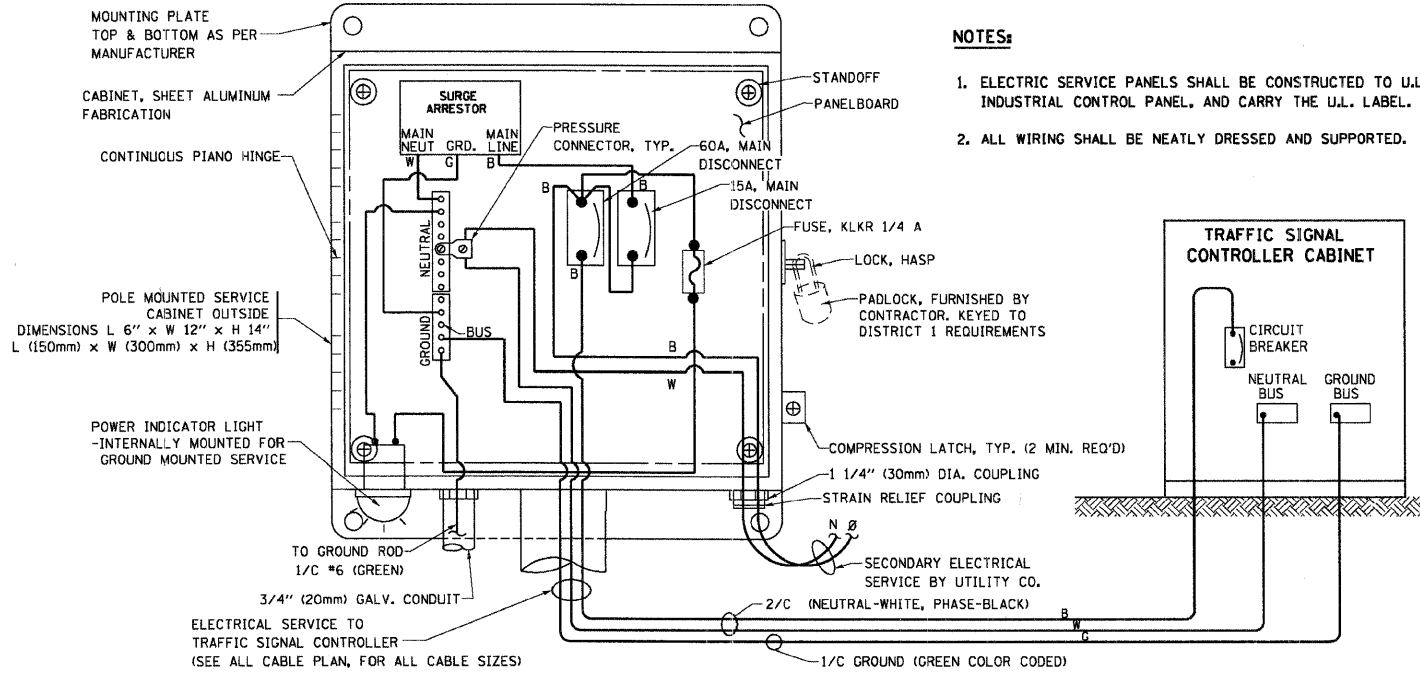
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

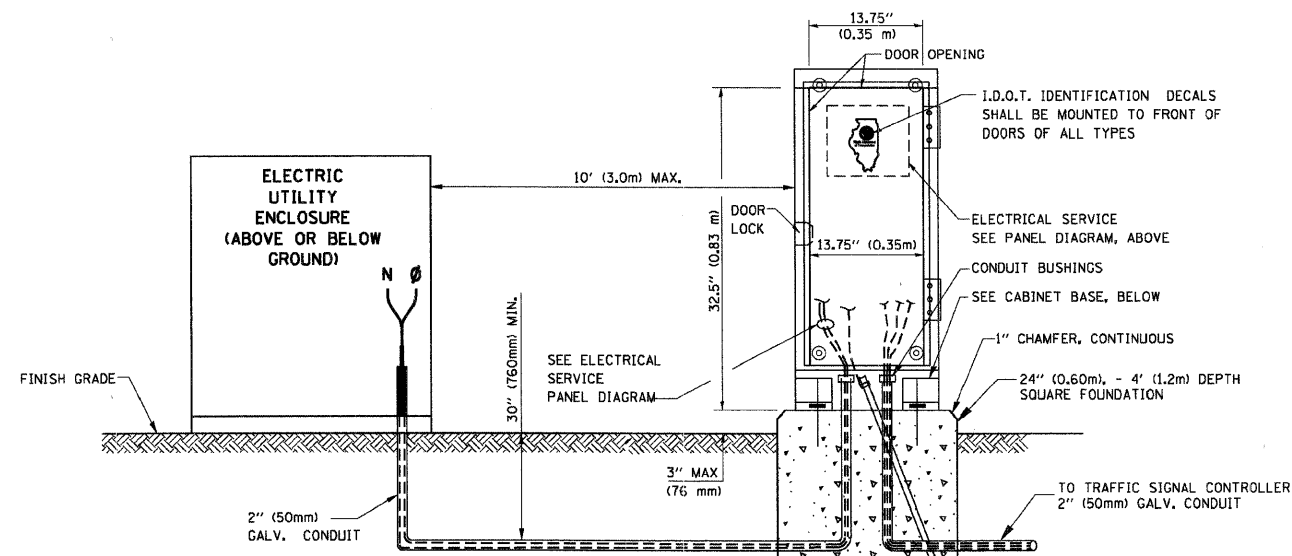
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 2 OF 4

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	75
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

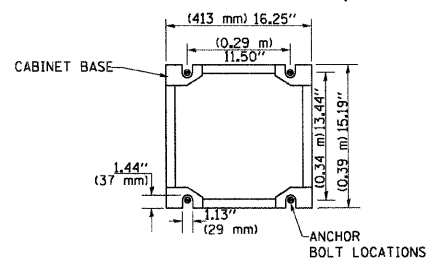


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

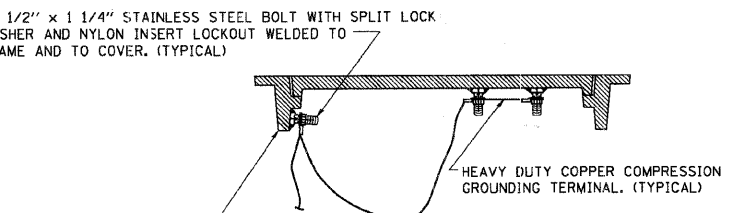
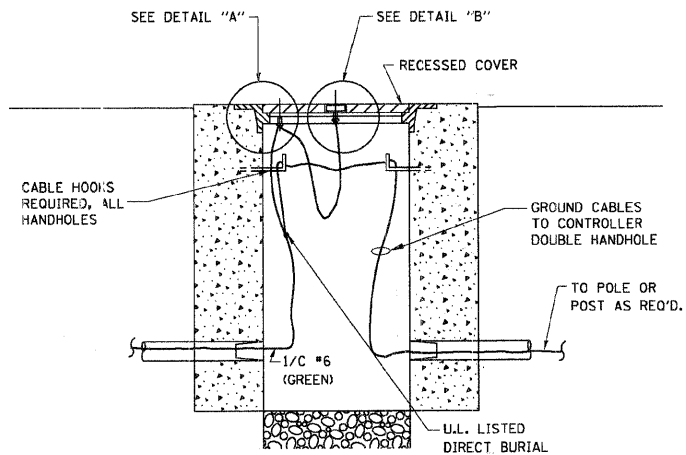
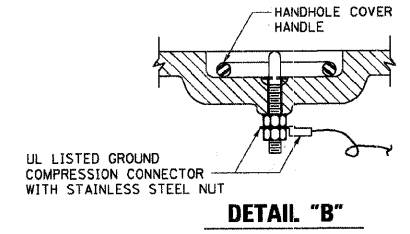
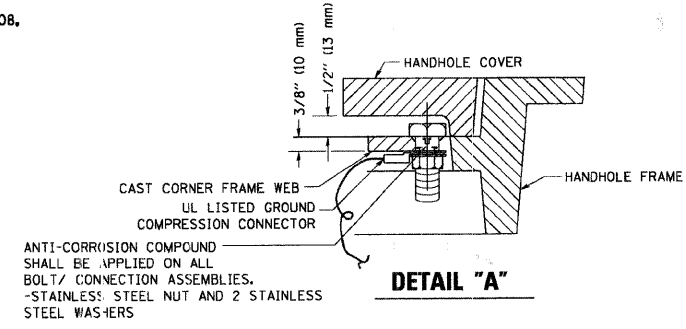
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)



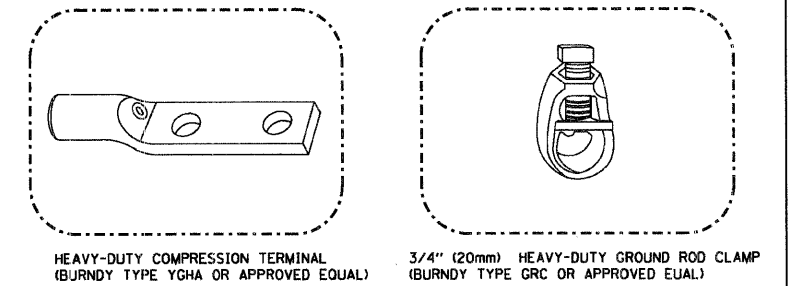
SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)



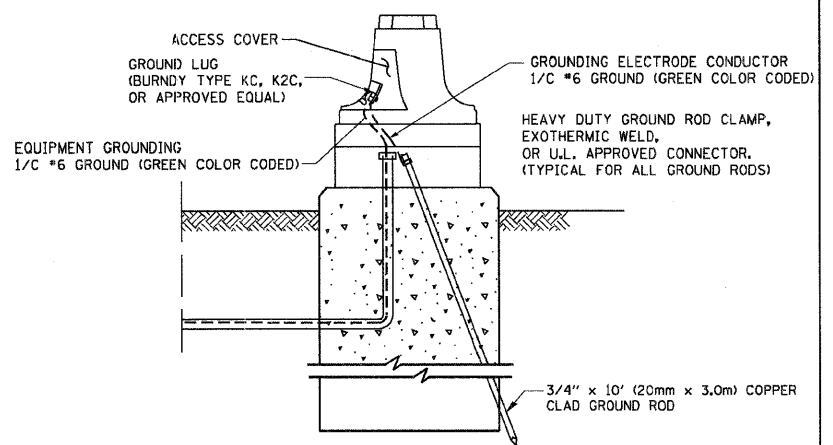
CABINET - BASE BOLT PATTERN
(NOT TO SCALE)



- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



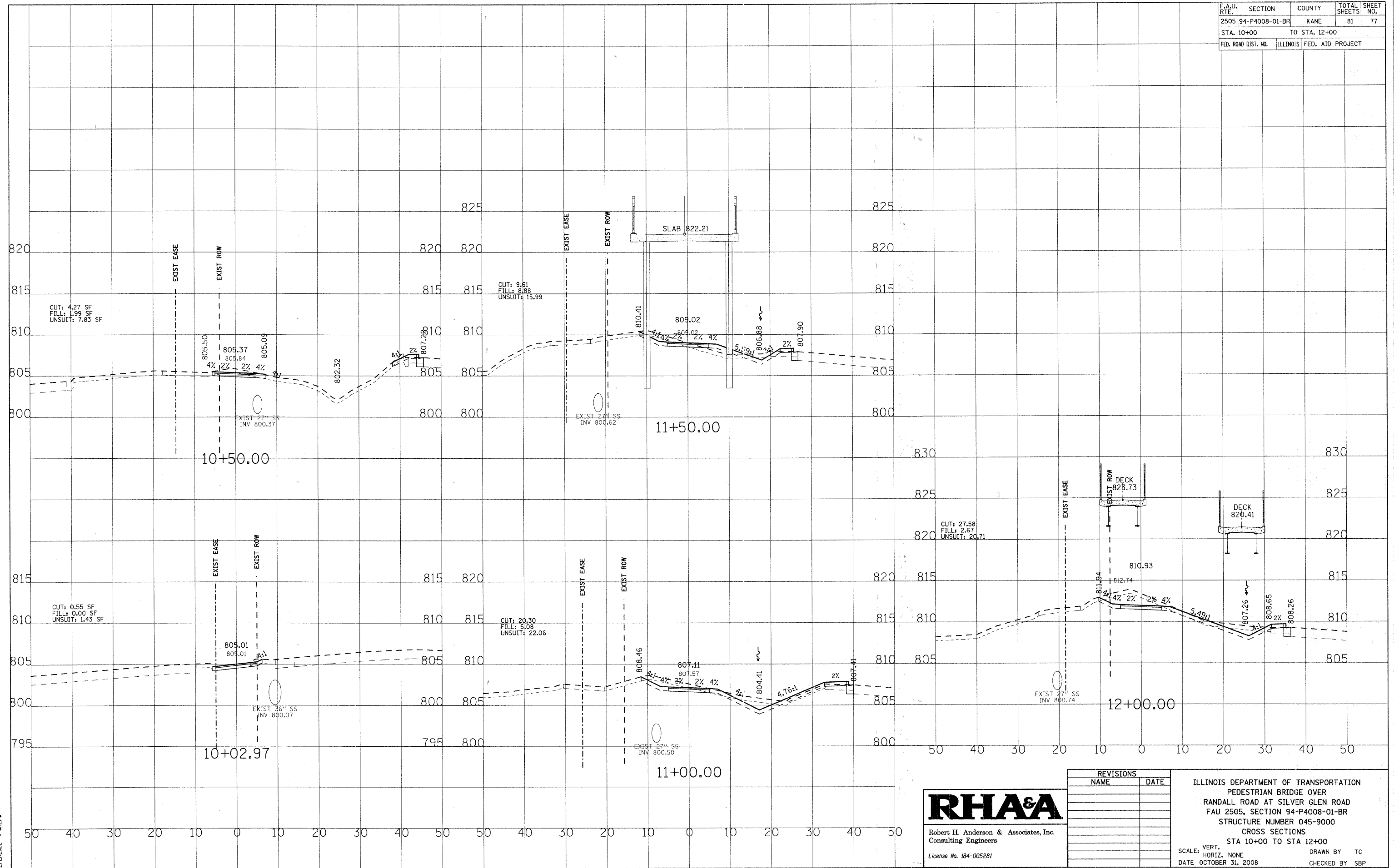
REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4
TS05

PLOT DATE: 11/16/2005
 FILE NAME: HASCTC...
 PLOT SCALE: NONE
 REFERENCE: *REF*

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	77
STA. 10+00		TO STA. 12+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PLOT DATE: 11/14/2008
 FILE NAME: H:\STC\Per\Roads\116864\Bike Bridge\Design\Drawn\80_116864\X281.dgn
 PLOT SCALE: NONE
 REFERENCE: #REF#

REVISIONS	
NAME	DATE

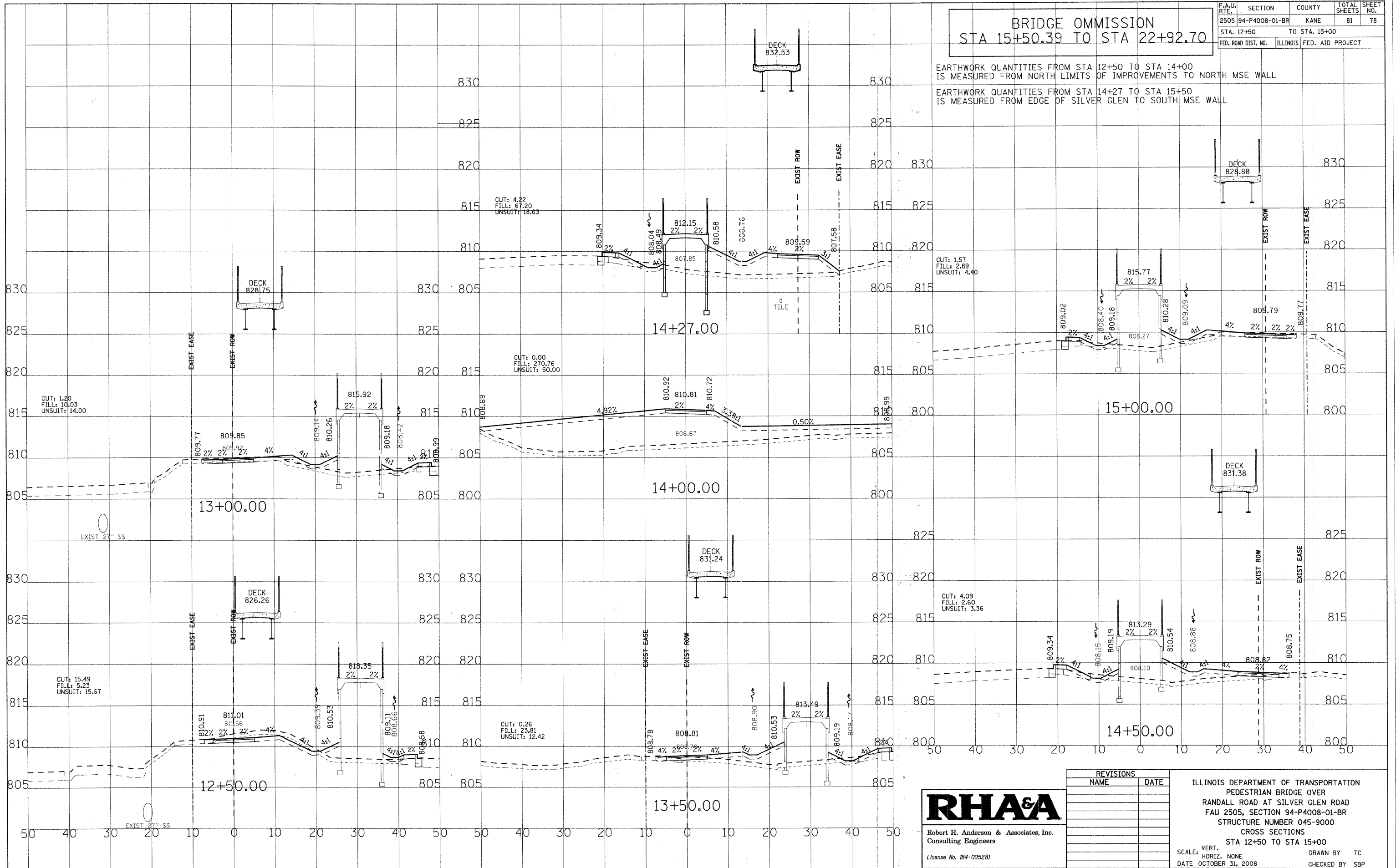
RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 CROSS SECTIONS
 STA 10+00 TO STA 12+00
 SCALE: VERT. _____
 HORIZ. NONE
 DATE OCTOBER 31, 2008
 DRAWN BY TC
 CHECKED BY SBP

F.A.U. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505 94-P4008-01-BR	KANE	81	78
STA. 12+50 TO STA. 15+00		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

BRIDGE OMISSION
STA 15+50.39 TO STA 22+92.70

EARTHWORK QUANTITIES FROM STA 12+50 TO STA 14-00 IS MEASURED FROM NORTH LIMITS OF IMPROVEMENTS TO NORTH MSE WALL
EARTHWORK QUANTITIES FROM STA 14+27 TO STA 15+50 IS MEASURED FROM EDGE OF SILVER GLEN TO SOUTH MSE WALL



PLT DATE = 11/11/2008
PLT SCALE = NONE
REFERENCE = REF*

RHA&A
Robert H. Anderson & Associates, Inc.
Consulting Engineers
License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PEDESTRIAN BRIDGE OVER
RANDALL ROAD AT SILVER GLEN ROAD
FAU 2505, SECTION 94-P4008-01-BR
STRUCTURE NUMBER 045-9000
CROSS SECTIONS
STA 12+50 TO STA 15+00
SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY SBP
DATE OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	79
STA. 15+50		TO STA. 23+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

BRIDGE OMISSION
STA 15+50.39 TO STA 22+92.70

EARTHWORK QUANTITIES FROM STA 12+50 TO STA 14+00 IS MEASURED FROM NORTH LIMITS OF IMPROVEMENTS TO NORTH MSE WALL

EARTHWORK QUANTITIES FROM STA 14+27 TO STA 15+50 IS MEASURED FROM EDGE OF SILVER GLEN TO SOUTH MSE WALL



PLOT DATE = 11/17/2008
 PLOT SCALE = NONE
 REFERENCE = *REF*

RHA&A

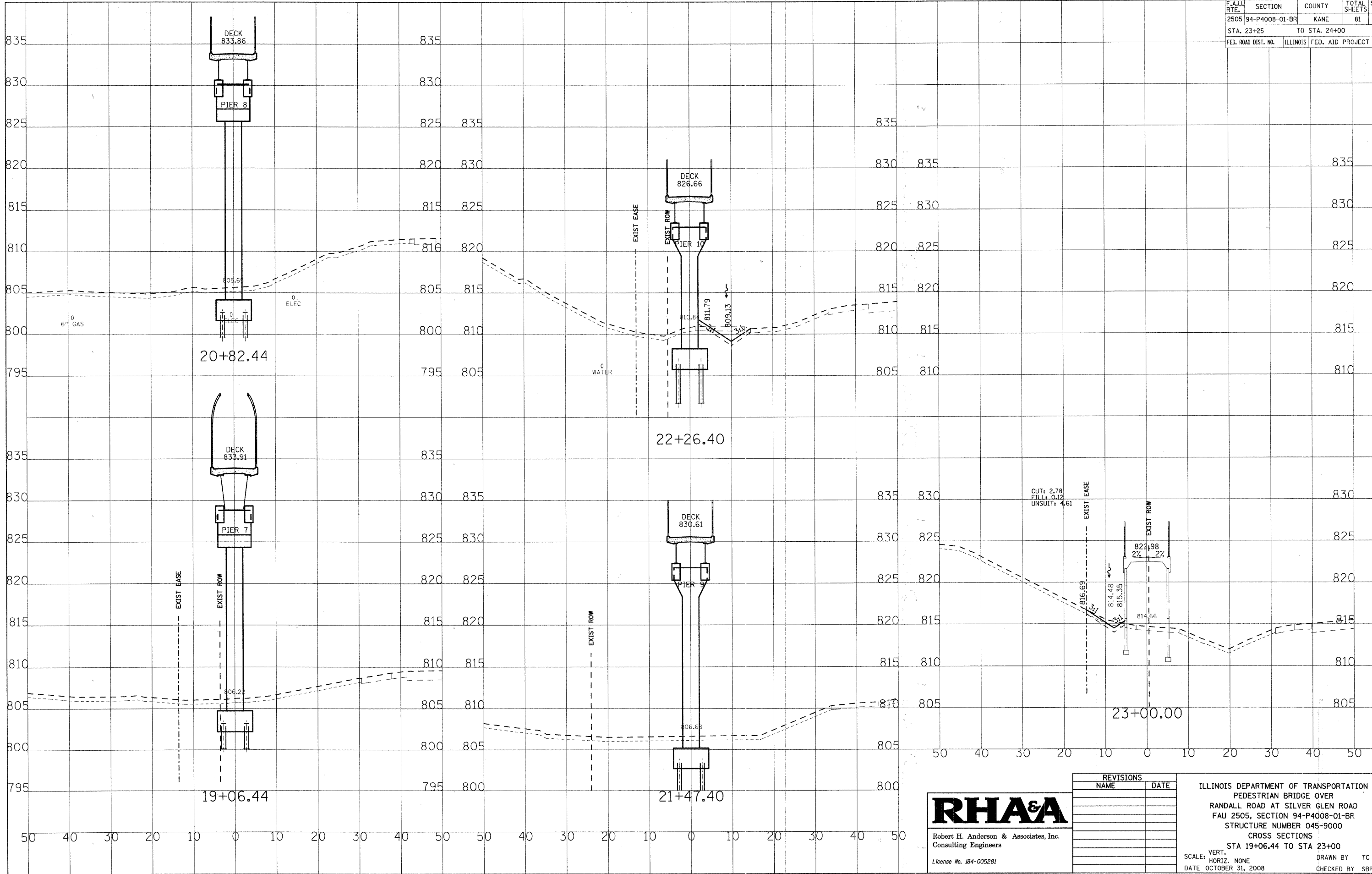
Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 CROSS SECTIONS
 STA 15+50 TO STA 18+29.19

SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY SBP
 DATE OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	80
STA. 23+25		TO STA. 24+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLOT DATE = 11/1/2008
 PLOT SCALE = NONE
 REFERENCE = NREF



Robert H. Anderson & Associates, Inc.
Consulting Engineers

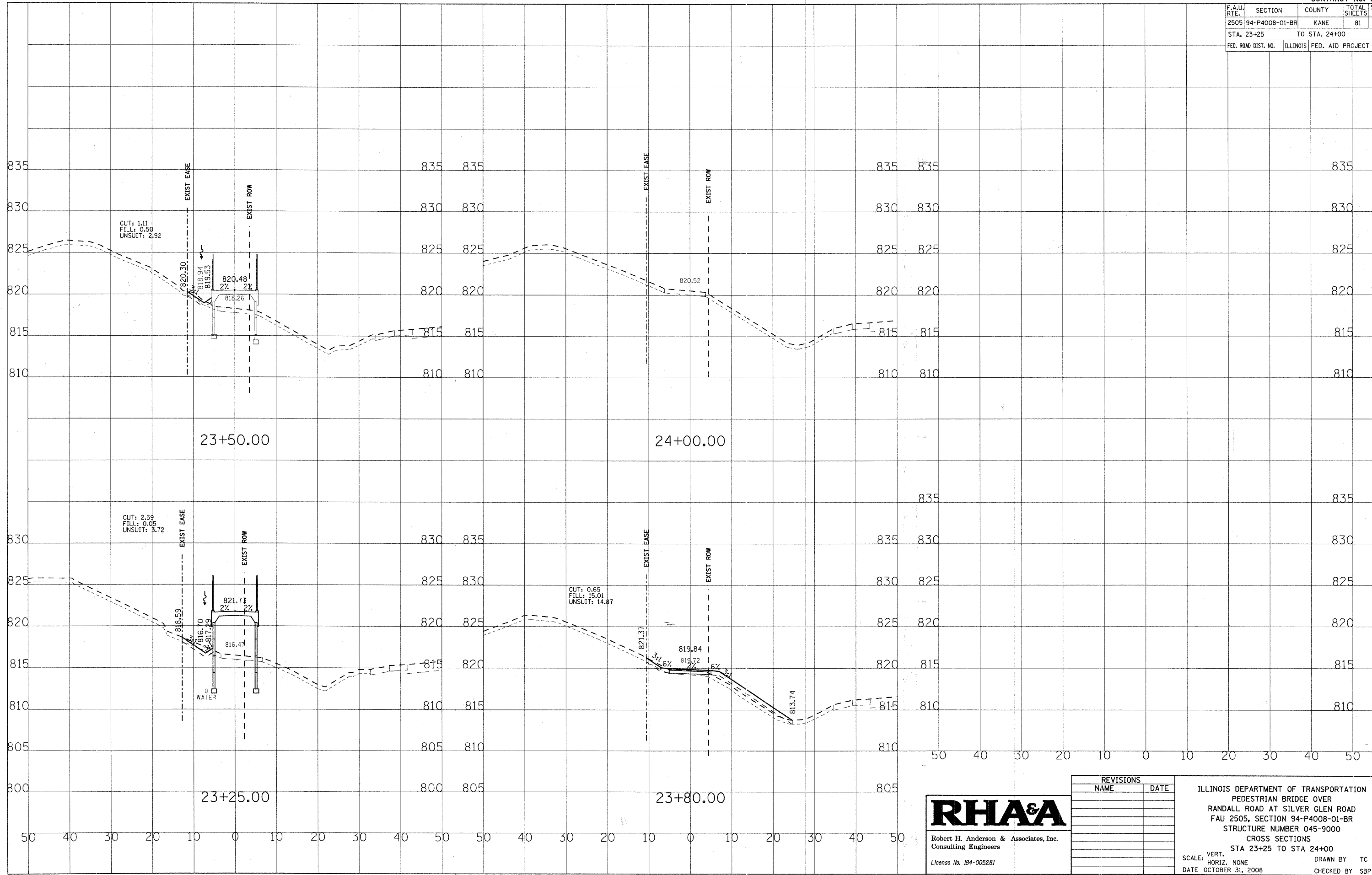
License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 CROSS SECTIONS
 STA 19+06.44 TO STA 23+00

SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY SBP
 DATE OCTOBER 31, 2008

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2505	94-P4008-01-BR	KANE	81	81
STA. 23+25		TO STA. 24+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLOT DATE = 11/4/2008
 FILE NAME = H:\ST\CP\K\045\116864\B\k\B\B\Design\00_116864\396.dgn
 PLOT SCALE = NONE
 REFERENCE = #REF#

RH&A
 Robert H. Anderson & Associates, Inc.
 Consulting Engineers
 License No. 184-005281

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PEDESTRIAN BRIDGE OVER
 RANDALL ROAD AT SILVER GLEN ROAD
 FAU 2505, SECTION 94-P4008-01-BR
 STRUCTURE NUMBER 045-9000
 CROSS SECTIONS
 STA 23+25 TO STA 24+00
 SCALE: VERT. DRAWN BY TC
 HORIZ. NONE CHECKED BY SBP
 DATE OCTOBER 31, 2008