

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				URBAN ROADWAY 0001 URBAN	BRIDGE 0008 S. N. 082-0385	BRIDGE 0008 S. N. 082-0386	BRIDGE 0008 S. N. 082-6003 & 082-0287
20200100	EARTH EXCAVATION	CU YD	10,397	10,397			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	2,729	2,729			
20400800	FURNISHED EXCAVATION	CU YD	1,706	1,706			
21000310	GRANULAR EMBANKMENT, SPECIAL	CU YD	975	975			
21301060	EXPLORATION TRENCH 60" DEPTH	FOOT	800	800			
* 25000210	SEEDING, CLASS 2A	ACRE	0.2	0.2			
* 25000305	SEEDING, CLASS 3A	ACRE	2.4	2.4			
* 25000314	SEEDING, CLASS 4B	ACRE	0.1	0.1			
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	243	243			
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	243	243			
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	243	243			
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	6	6			
* 25100115	MULCH, METHOD 2	ACRE	0.3	0.3			
* 25100630	EROSION CONTROL BLANKET	SQ YD	9560	9560			
* 25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	2340	2340			



REVISI 1-4-13

* SPECIALTY ITEM

Farnsworth
GROUP, INC.
2700 McGraw Drive
Bloomington, Illinois 61704
309-663-0435, 309-663-1571 fax

DESIGNED - JJO
DRAWN - JJO
CHECKED - PJM
DATE - 06/26/12

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P.
RTE.
788

SECTION
520-1-2B

COUNTY
ST. CLAIR
TOTAL SHEET NO.
94 3
CONTRACT NO. 76F69

ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY 0001 URBAN	BRIDGE 0008 S. N. 082-0385	BRIDGE 0008 S. N. 082-0386	BRIDGE 0008 S. N. 082-6003 & 082-0287
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	1200	1200			
28000305	TEMPORARY DITCH CHECKS	FOOT	144	144			
28000400	PERIMETER EROSION BARRIER	FOOT	230	230			
28000500	INLET AND PIPE PROTECTION	EACH	2	2			
28100707	STONE DUMPED RIPRAP, CLASS A4	SO YD	76	76			
28200200	FILTER FABRIC	SO YD	76	76			
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SO YD	328		328		
31001500	LIME	TON	304	304			
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	65	65			
50200100	STRUCTURE EXCAVATION	CU YD	414		205	209	
50300225	CONCRETE STRUCTURES	CU YD	131.2		64.8	66.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	605.8		299.9	305.9	
50300260	BRIDGE DECK GROOVING	SO YD	978		482	496	
50300300	PROTECTIVE COAT	SO YD	1426		706	720	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		0.5	0.5	



REVISION
1-4-13

Farnsworth
GROUP, INC.
2700 McGraw Drive
Bloomington, Illinois 61704
309/903-8435, 309/903-1571 fax

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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

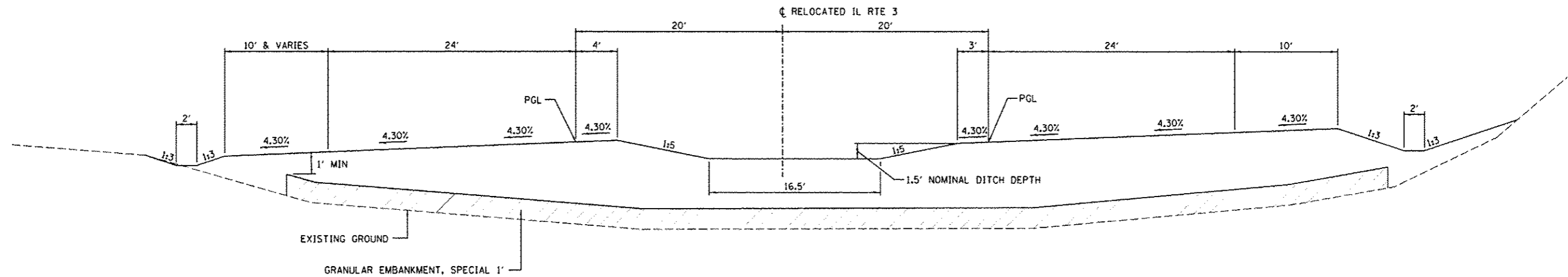
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 788 SECTION 520-1-2B COUNTY ST. CLAIR TOTAL SHEETS 94 SHEET NO. 4 CONTRACT NO. 76F69 ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN	ROADWAY	BRIDGE	BRIDGE	BRIDGE
				0001 URBAN	0001 URBAN	0008 S. N. 082-0385	0008 S. N. 082-0386	0008 S. N. 082-6003 & 082-0287
X0325833	WICK DRAINS	FOOT	23384	23384				
X2010507	CLEARING, SPECIAL	ACRE	4.1	4.1				
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	100	100				
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	334		165	169		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1				
X0327545	SOIL SAMPLE AND TESTING	EACH	10	10				
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	316	316				
66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1				
66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1				



⚠ REVISÉD 1-4-13



RELOCATED IL RTE 3 - TYPICAL SECTION

STA 622+06.09 TO STA 624+56.72
(EXCEPT FOR STRUCTURES 082-0385 & 082-0386)

NOTE:
PROFILE GRADE FOR CLEARING & GRADING SURFACE IS SET AT THE
FINISHED PAVEMENT PROFILE GRADE LINE.

▲ REVISED SHEET 1-4-13

Farnsworth
GROUP, INC.
2705 McCreary Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

DESIGNED - JJQ
DRAWN - JJQ
CHECKED - PJM
DATE 12/28/12

REVISIONS
REVISOR
DATE

DESIGNED - JJQ
DRAWN - JJQ
CHECKED - PJM
DATE 12/28/12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A.P. RTE. 78B	SECTION 520-1-2B	COUNTY ST. CLAIR	TOTAL SHEET SHEETS NO. 94 8
CONTRACT NO. 76F69			ILLINOIS FED. AID PROJECT

EARTHWORK						
LOCATION	EARTH EXCAVATION	TOTAL EXCAVATION ADJUSTED FOR 2% SHRINKAGE	EMBANKMENT	NON-SPECIAL WASTE TO BE REMOVED	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	BALANCE WASTE (+) BORROW (-)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STA 622+06.09 - STA 629+71.95	10,397	7,798	6,459	316	2,729	-1,706

* EMBANKMENT VOLUME ADJUSTED BY GRANULAR EMBANKMENT, SPECIAL. UNADJUSTED = 7,434 CU YD

NOTE: BORROW = FURNISHED EXCAVATION

LIME	
STATION TO STATION	TON
622+06.09 TO 623+00	187
623+50 TO 624+56.72	117
TOTAL	304

NON-SPECIAL WASTE DISPOSAL	
STATION TO STATION	CU YD
623+50, LT TO 625+70, LT	316
TOTAL	316

RELOCATED IL RTE 3 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL			
STATION TO STATION	DEPTH	LENGTH	VOLUME
	FOOT	FOOT	CU YARD
624+50 TO 627+50	5	300	1137
627+50 TO 630+50	7	300	1592
TOTAL			2729

EROSION CONTROL BLANKET	
STATION TO STATION	SO YD
622+06, LT & RT - 628+50, LT	9,060
SEEDING, CLASS 4B AREA	500
TOTAL	9,560

INLET AND PIPE PROTECTION	
STATION	EACH
624+30, RT	1
625+09, LT	1
TOTAL	2

END SECTIONS 15"	
STATION	EACH
625+38, LT	2
TOTAL	2

PIPE UNDERDRAINS 6"	
STATION	FOOT
622+42.81, RT	14
622+63.12, LT	14
622+78.38, RT	14
622+93.66, LT	14
623+56.33, RT	14
623+71.73, LT	14
623+71.73, RT	14
624+07.77, LT	14
TOTAL	112

HEAVY DUTY EROSION CONTROL BLANKET	
STATION TO STATION	SO YD
628+50, LT & RT - 631+55, LT & RT	2,340
TOTAL	2,340

STONE DUMPED RIPRAP, CLASS A4 / FILTER FABRIC	
STATION	SO YD
624+75, RT	76
TOTAL	76

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	
STATION	EACH
624+75, RT	2
TOTAL	2

RELOCATED IL RTE 3 GRANULAR EMBANKMENT, SPECIAL				
STATION	WIDTH	DEPTH	LENGTH	VOLUME
	FOOT	FOOT	FOOT	CU YARD
622+06.09	0	1		
622+43.26	175	1	37.17	120.5
622+50.00	185	1	6.74	44.9
623+00.00	130	1	50.00	291.7
623+06.00	0	1	6.00	14.4
623+48.00	0	1	42.00	0
623+50.00	100	1	2.00	3.7
624+00.00	179	1	50.00	258.3
624+07.32	156	1	7.32	45.4
624+50.00	75	1	42.68	182.6
624+56.72	0	1	6.72	9.3
TOTAL				975

TEMPORARY DITCH CHECKS	
STATION	FOOT
622+35, RT	18
622+88, CL	18
623+40, LT	18
624+00, CL	18
627+50, LT	18
629+50, LT	18
631+15, LT	18
632+50, LT	18
TOTAL	144

AGGREGATE FOR TEMPORARY ACCESS	
STATION	TON
624+75, RT	22.5
625+38, LT	42.5
TOTAL	65

CONCRETE HEADWALLS FOR PIPE DRAINS	
STATION	EACH
622+42.81, RT	1
622+63.12, LT	1
622+78.38, RT	1
622+79.51, 62.27' RT	1
622+93.66, LT	1
623+03.08, 62.17' LT	1
623+45.56, 62.22' RT	1
623+56.33, RT	1
623+71.73, LT	1
623+71.73, RT	1
623+73.37, 62.12' LT	1
624+07.77, LT	1
TOTAL	12

SAND DRAINAGE BLANKET	
STATION TO STATION	CU YD
622+42.81, RT - 623+19.00, LT	800
623+29.50, RT - 624+07.77, LT	700
TOTAL	1,500

PIPE CULVERTS, CLASS A, TYPE 1 30"	
STATION	FOOT
624+75, RT	82
TOTAL	82

PERIMETER EROSION BARRIER	
STATION TO STATION	FOOT
622+06, LT & RT	230
TOTAL	230

PIPE CULVERTS, CLASS D, TYPE 1 15" (TEMPORARY)	
STATION	FOOT
625+38, LT	40
TOTAL	40

WICK DRAINS	
STATION TO STATION	FOOT
622+42.81, RT - 623+19.00, LT	13,024
623+29.50, RT - 624+07.77, LT	10,360
TOTAL	23,384

SEEDING TABLE								
LOCATION	SEEDING CLASS 2A	SEEDING CLASS 3A	SEEDING CLASS 4B	MULCH METHOD 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	TEMPORARY EROSION CONTROL SEEDING
	ACRE	ACRE	ACRE	ACRE	LB	LB	LB	LB
IL RTE 3								
STA 621+85 TO STA 628+50, LT/RT		1.7			153	153	153	510
STA 628+50 TO STA 632+80, LT		0.7			63	63	63	210
STA 622+43 TO STA 624+08, LT/RT					18	18	18	60
STA 632+10 TO STA 632+80, LT			0.1	0.1	9	9	9	30
STA 622+43 TO STA 624+08, LT/RT	0.2			0.2				360
TOTAL	0.2*	2.4*	0.1*	0.3*	243	243	243	1200*

* QUANTITY ROUNDED UP

FURNISHING AND ERECTION RIGHT OF WAY MARKERS		
STATION	OFFSET	EACH
621+79.53	177.61' RT	1
623+20.06	125.00' LT	1
623+40.51	86.32' RT	1
624+33.76	90.57' RT	1
625+01.43	95.56' RT	1
625+78.92	117.14' RT	1
625+86.22	124.85' RT	1
TOTAL		7

SOIL SAMPLING AND TESTING	
STATION	EACH
623+00, LT	1
624+00, LT	1
625+00, LT	1
626+00, LT	1
627+00, LT	1
628+00, LT	1
629+00, LT	1
630+00, LT	1
631+00, LT	1
632+00, LT	1
TOTAL	10

REVISOR SHEET 1-4-13

Farnsworth GROUP, INC. 2700 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 Fax	DESIGNED - JJO DRAWN - JJO CHECKED - PJM DATE - 12/28/12	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES	F.A.P. RTE. 788 SECTION 520-1-2B COUNTY ST. CLAIR TOTAL SHEET NO. 94 SHEETS NO. 9 CONTRACT NO. 76F69 ILLINOIS FED. AID PROJECT
	SCALE: SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	

Benchmarks: MRC Horizontal/Vertical Control Monument No. 8 (Elevation 401.95) Aluminum disc set in the South end of a headwall to a box culvert under Illinois Route 3; 0.7 miles South of Canal Street, 0.1 miles South of Industrial Ave. and North of railroad track.

Existing Structure: None.

Traffic Barrier Terminal or Concrete Barrier Wall, typ. (See Plan View for types & locations)

Temporary Geotextile Retaining Wall

CURVE DATA

(Relocated IL. Rte. 3)
 $\Delta = 39^{\circ}34'55''$ (L.T.)
 $D = 2^{\circ}45'00''$
 $R = 2,083.48'$
 $T = 749.73'$
 $L = 1,439.34'$
 $E = 130.79'$
 $e = 4.32'$
 $T.R. = 36'$
 $S.E. RUN = 102'$
 $P.C. STA. = 613+00.92$
 $P.T. STA. = 627+40.27$
 $P.I. STA. = 620+50.65$

CURVE DATA

(Ramp 1)
 $\Delta = 13^{\circ}00'25''$ (RT)
 $D = 3^{\circ}30'00''$
 $R = 1637.02'$
 $T = 186.61'$
 $L = 371.62'$
 $E = 10.60'$
 $P.C. STA. = 4+91.06$
 $P.T. STA. = 8+62.68$
 $P.I. STA. = 6+77.67$
 $S.E. = 0.044''$
 $S.E. ATTAINED = STA. 3+91 TO STA. 5+41$
 $S.E. REMOVAL = STA. 8+08 TO STA. 9+73$

CURVE DATA

(Ramp 2)
 $\Delta = 16^{\circ}49'30''$ (LT)
 $D = 4^{\circ}00'00''$
 $R = 1,432.39'$
 $T = 211.84'$
 $L = 420.63'$
 $E = 15.58'$
 $P.C. STA. = 33+33.86$
 $P.T. STA. = 37+54.49$
 $P.I. STA. = 35+45.70$
 $S.E. = 0.048''$
 $S.E. ATTAINED = STA. 32+12 TO STA. 33+84$
 $S.E. REMOVAL = STA. 36+96 TO STA. 38+71$

LOADING HL-93

Future Wearing Surface is not permitted due to geometric and crash testing requirements of the TL-6 barrier

DESIGN STRESSES

FIELD UNITS:
 $f'_c = 3,500$ psi (Cast-in-Place)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural Steel - M270 Grade 50W)

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 5th Edition, with 2010 Interims

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.347g
 Design Spectral Acceleration at 0.2 sec. (SD5) = 0.766g
 Soil Site Class = E

INDEX OF SHEETS

SHEET NO.	TITLE
A1	GENERAL PLAN AND ELEVATION
A2-A3	GENERAL DATA
A4	TOP OF SLAB ELEVATION LOCATIONS
A5-A6	TOP OF SLAB ELEVATIONS
A7-A8	TOP OF APPROACH SLAB ELEVATIONS
A9-A10	SUPERSTRUCTURE DECK
A11	SUPERSTRUCTURE CROSS SECTIONS
A12-A15	RAIL DETAILS
A16-A19	DIAPHRAGM DETAILS
A20-A23	BRIDGE APPROACH SLAB DETAILS
A24-A26	STRUCTURAL STEEL
A27	FIXED BEARING DETAILS
A28-A31	ABUTMENTS, SOUTHBOUND
A32-A35	ABUTMENTS, NORTHBOUND
A36	TEMPORARY GEOTEXTILE RETAINING WALLS
A37	METAL SHELL PILE DETAILS
A38	BAR SPLICER ASSEMBLY AND MECHANICAL
A39-A48	SPLICER DETAILS
	SOIL BORING LOGS

NOTE:

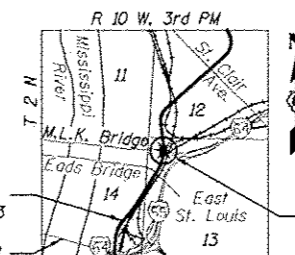
*South Temporary Geotextile Retaining Wall to remain within the current Right-of-Way Line. North Temporary Geotextile Retaining Wall to allow Missouri Avenue to remain open during construction.



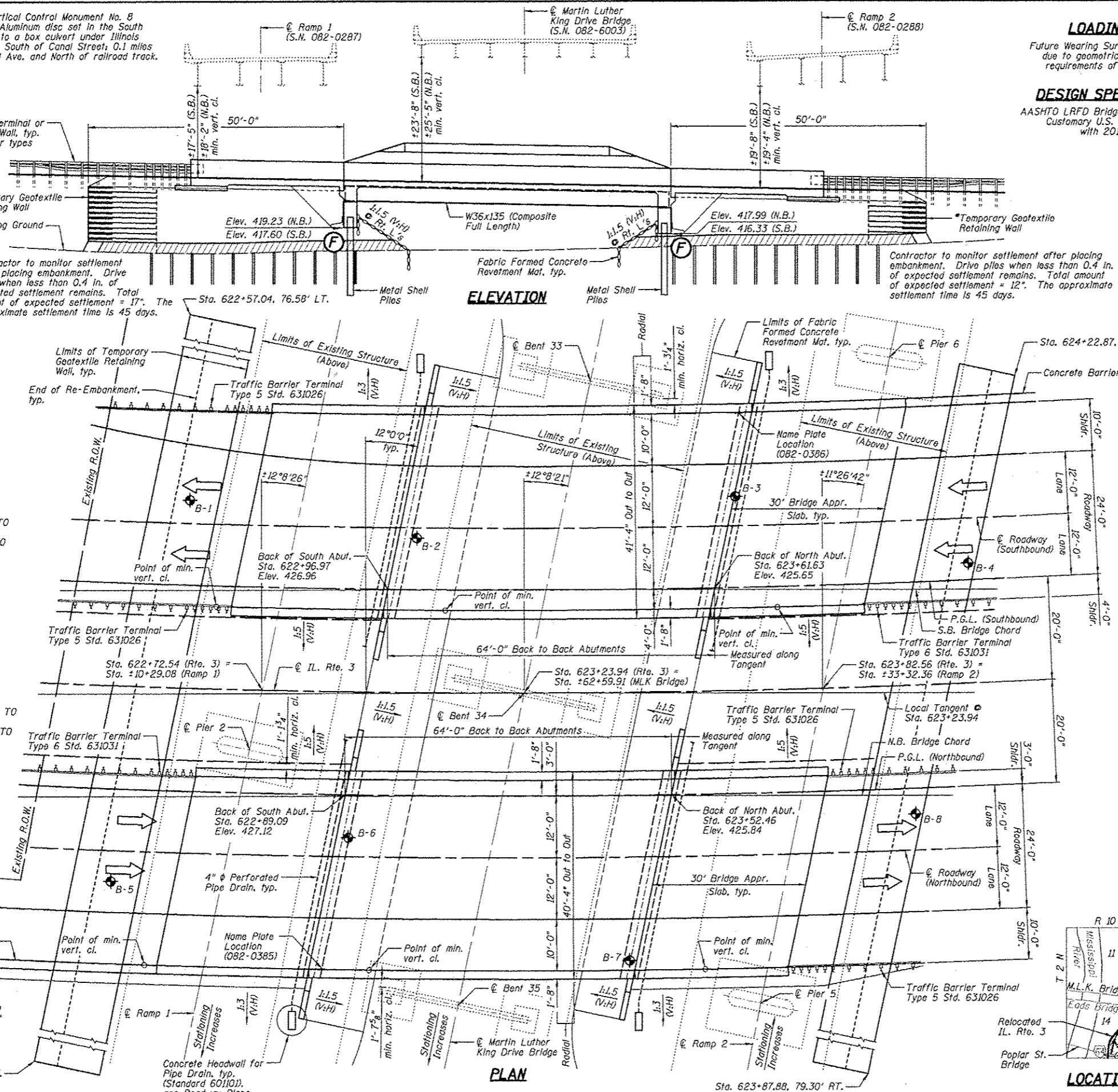
Joseph M. Lowrance
 Date 06-27-12
 JOSEPH M. LOWRANCE
 ILLINOIS STRUCTURAL ENGINEER
 NO. 081-006446
 Exp. Date 11/30/12

APPROVED
 For Structural Adequacy Only

Carl Ruppel
 Engineer of Bridges & Structures



LOCATION SKETCH



ELEVATION

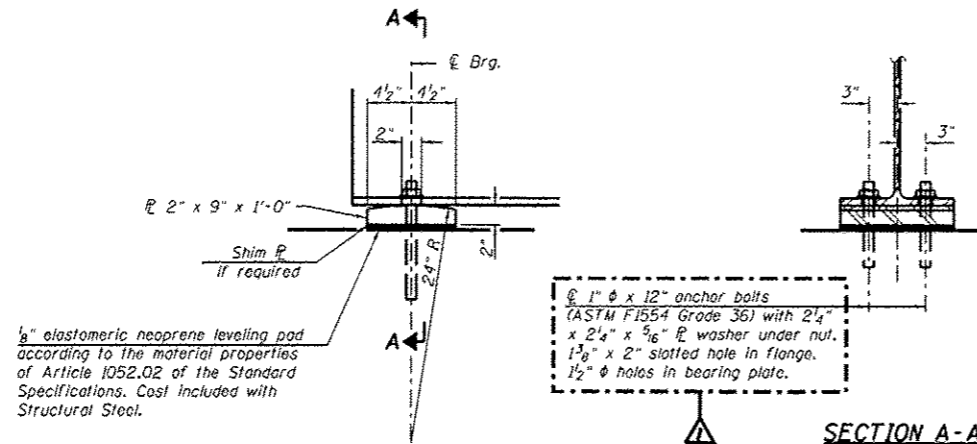
PLAN

Farnsworth GROUP, INC.
 2708 Madison Drive
 Bloomington, Illinois 61704
 309-663-8433, 309-665-1871 fax

DESIGNED - TCR/JCZ	REVISION 1-4-13
CHECKED - JML	REVISION
DRAWN - DJM/JWK	REVISION
CHECKED - MSW	REVISION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

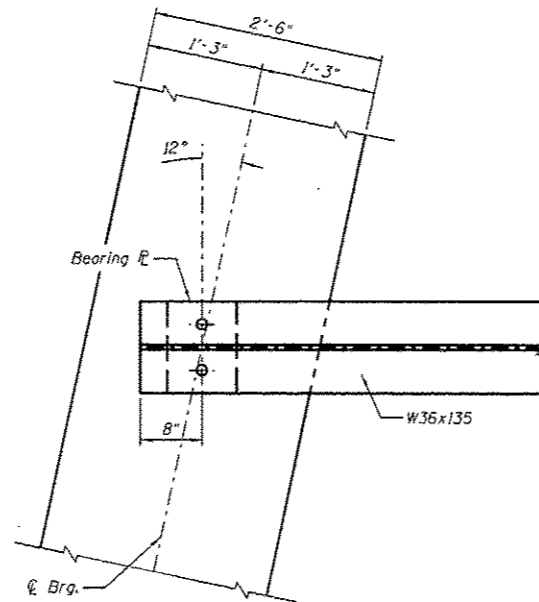
F.A.P. RTE. 788	SECTION 520-1-2B	COUNTY ST. CLAIR	TOTAL SHEETS 94	SHEET NO. 32
SHEET NO. A1 OF 48 SHEETS			CONTRACT NO. 76F69	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENTS

FIXED BEARING

- (At South Abutment, Southbound - 7 Required)
- (At North Abutment, Southbound - 7 Required)
- (At South Abutment, Northbound - 7 Required)
- (At North Abutment, Northbound - 7 Required)



BEARING PLAN AT ABUTMENTS

Notes:
 The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	56

NOTES:

- 1.) The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
- 2.) Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

REVISION 1-4-13

Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309-553-8433, 309-553-1374 fax	DESIGNED - TCR/JCZ	REVISED - DJM 12/21/12	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIXED BEARING DETAILS STRUCTURE NO. 082-0385 NB & 082-0386 SB		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - JML	REVISED		788	520-1-2B	ST. CLAIR	94	58		
	DRAWN - DJM/JWK	REVISED		CONTRACT NO. 76F69						
	DATE - 06/26/12	CHECKED - MSW		REVISED	SHEET NO. A27 OF 48 SHEETS					
						ILLINOIS FED. AID PROJECT				