

INDEX OF SHEETS

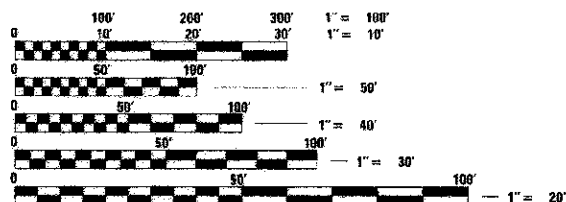
1. COVER SHEET
2. SUMMARY OF QUANTITIES, GENERAL NOTES, AND TYPICAL SECTIONS
3. PLAN AND PROFILE OF ROADWAY
4. GENERAL PLAN AND ELEVATION
5. SUPERSTRUCTURE DETAILS
6. 21" X 48" PPC DECK BEAM DETAILS
7. 21" X 48" PPC DECK BEAM DETAILS
8. STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
9. ABUTMENT AND WINGWALL CONCRETE REMOVAL AND CONCRETE REPAIR
10. ABUTMENT CONCRETE REPLACEMENT
11. WINGWALL CONCRETE REPLACEMENT
12. CROSS SECTIONS OF ROADWAY

HIGHWAY STANDARDS

- | | |
|-------------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 515001-03 | NAME PLATE FOR BRIDGES |
| 630001-10 | STEEL PLATE BEAM GUARDRAIL |
| 631032-07 | TRAFFIC BARRIER TERMINAL, TYPE 6A |
| 635006-03 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 701901-02 | TRAFFIC CONTROL DEVICES |
| B.L.R. 21-9 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |

DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)

ADT₂₀₁₂ : 550
 ADT₂₀₃₂ : 567
 DESIGN SPEED - 50 MPH



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 LOCATING INFORMATION FOR EXCAVATORS
 1-800-892-0123 Website: <http://www.illinois1call.com>

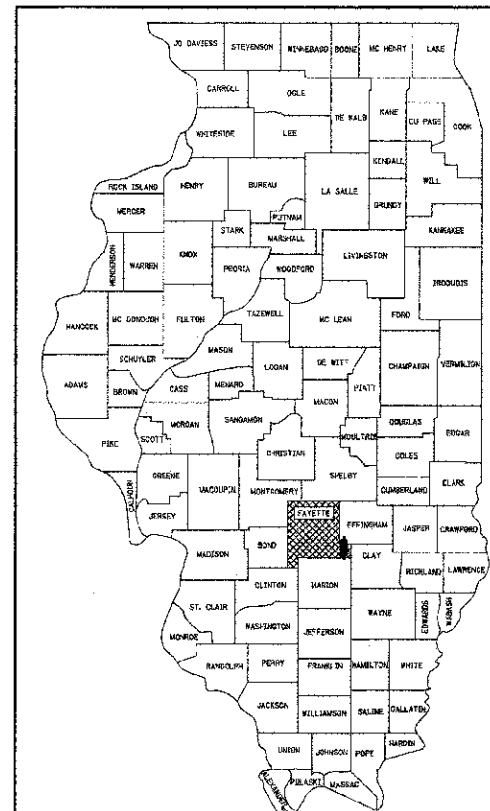


Gary L. Hahn 5-29-12
 GARY L. HAHN
 CENTRALIA, ILLINOIS
 ILLINOIS LICENSED PROFESSIONAL
 ENGINEER NO. 62-42606
 EXPIRES NOV. 30, 2013

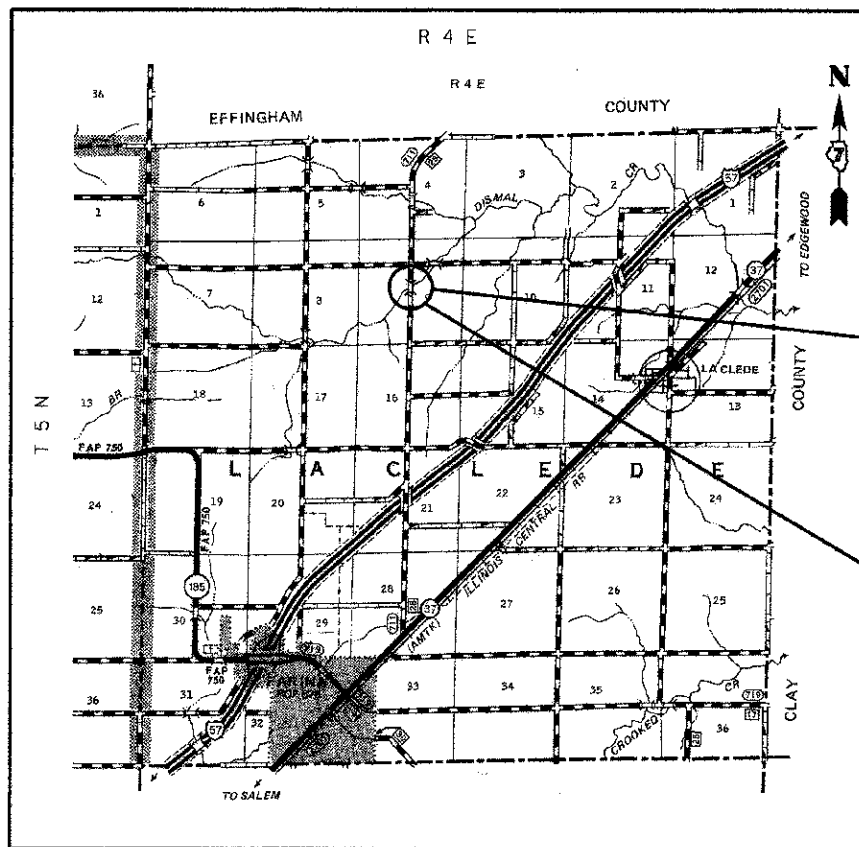
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

**PLANS FOR PROPOSED
 HIGHWAY BRIDGE PROGRAM**

**CH 28 (FAS 711)
 DISMAL CREEK
 SECTION 12-00124-00-BR
 PROJECT NO. BRS-0711(109)
 FAYETTE COUNTY
 JOB NO. C-97-122-12**



LOCATION OF SECTION INDICATED THUS: [Symbol]



SECTION BEGINS
 STA. 604+02.02

SECTION 12-00124-00-BR INCLUDES THE REMOVAL OF THE EXISTING T-BEAM AND SLAB SUPERSTRUCTURE, RECONSTRUCTION AND REPAIRS TO THE EXISTING ABUTMENTS AND WINGWALLS, AND REPLACEMENT WITH A PROPOSED PRECAST PRESTRESSED CONCRETE DECK BEAM SUPERSTRUCTURE FOR A BRIDGE CARRYING CH 28 (FAS 711) OVER DISMAL CREEK, 37'-3 3/4" BK. TO BK. ABUTMENTS X 28' WIDE, 30° AH. RT. SKEW. EXISTING STRUCTURE NO. 026-3001

SECTION ENDS
 STA. 604+73.98

LOCATION: NEAR THE SW CORNER OF THE NE 1/4, SECTION 9, T 5 N, R 4 E, 3rd P.M.
 NET LENGTH OF PROJECT: 71.96 FT = 0.014 MI

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED: 5-31, 2012
Michael A. ...
 FAYETTE COUNTY, COUNTY ENGINEER

PASSED: 6/5, 2012
Maurice ...
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

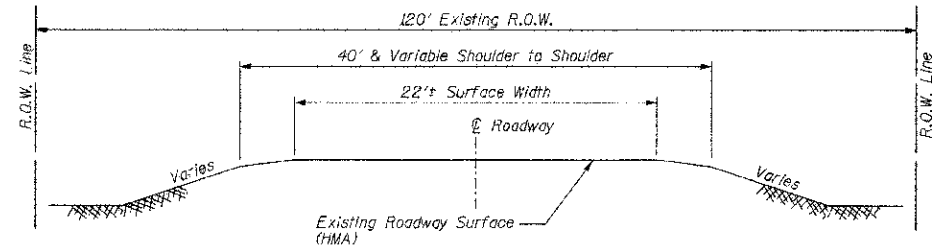
RELEASING FOR BID
 BASED ON LIMITED
 REVIEW: 6/5, 2012
Roger ...
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

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

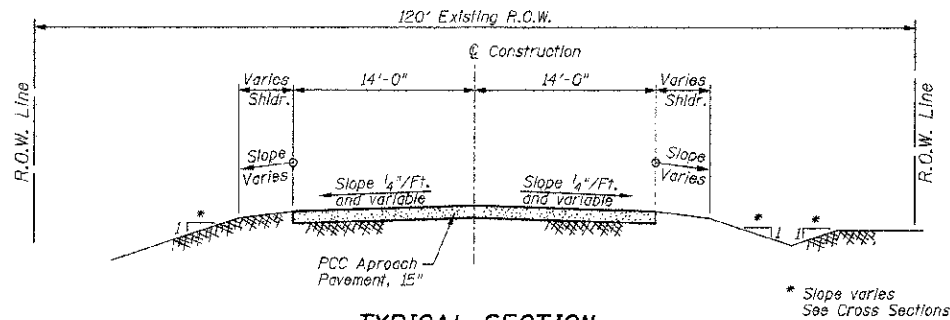
CONTRACT NO. 95691

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	1
CONTRACT NO. 95691				

SUMMARY OF QUANTITIES



**TYPICAL SECTION
EXISTING APPROACH ROADWAY**



**TYPICAL SECTION
PROPOSED APPROACH ROADWAY**

Sta. 604+02.02 to Sta. 604+19.34
Sta. 604+56.66 to Sta. 604+73.98

GENERAL NOTES

1. This section shall be constructed according to the plans, the Special Provisions, and the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012.
2. Roadway Centerline profiles refer to the finished surface.
3. Existing utilities shown are located from surface observations or information provided by the respective utilities and must be considered approximate. There may be others, the exact location of which are unknown and not shown. The Contractor will be responsible for notifying the respective utilities before work is begun. Field marking of underground utilities may be obtained by providing a minimum of 48 hours advance notice through the J.U.L.I.E. system by calling 1-800-892-0123, or by direct contact with non-members of J.U.L.I.E.
4. If Ash trees are removed on the Project, the Contractor shall become familiar with and comply with measures specified by the Illinois Department of Agriculture (IDOA) to prevent the spread of the Emerald Ash Borer. The IDOA information for Ash tree removal can be found on the IDOA website at www.agr.state.il.us/eab.
5. Factors used for quantity calculations are as follows:
Porous Granular Embankment 2.1 tons/cu. yd.
Stone Dumped Riprap 130 pounds/cu. ft.
6. Commitments: No tree removal shall be allowed or performed from April 1, 2012 through September 30, 2012.

UTILITIES

Telephone:
Frontier Communications
Mark Burnes
Phone: 217-854-2222

Electric:
Southwestern Electric CO-OP
Annette Brown
Phone: 618-664-1025 x5911

Location			
Code No.	Item	Unit	Quantity
20100500	TREE REMOVAL, ACRES	ACRE	0.9
20200100	EARTH EXCAVATION	CU YD	181
20300100	CHANNEL EXCAVATION	CU YD	5
20700110	POROUS GRANULAR EMBANKMENT	TON	500
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	303
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	108
44000100	PAVEMENT REMOVAL	SQ YD	86
42001300	PROTECTIVE COAT	SQ YD	108
44213200	SAW CUTS	FOOT	52
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50102400	CONCRETE REMOVAL	CU YD	8.6
50200100	STRUCTURE EXCAVATION	CU YD	240
50300225	CONCRETE STRUCTURES	CU YD	11.8
50300260	BRIDGE DECK GROOVING	SQ YD	107
50300300	PROTECTIVE COAT	SQ YD	115.5
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	1040
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	10,330
* 50901050	STEEL RAILING, TYPE SM	FOOT	75
51500100	NAME PLATES	EACH	1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	76
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	360
67100100	MOBILIZATION	L SUM	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1440
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.7
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	115.5
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	86.5

* Specialty Item

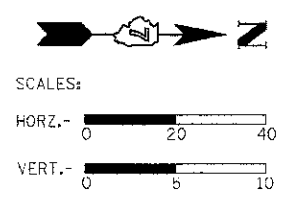
RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED	-	BLT	REVISED	-
DRAWN	-	JN	REVISED	-
CHECKED	-	GLH	REVISED	-
DATE	-	05/29/2012	REVISED	-

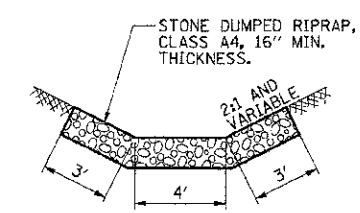
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES, GENERAL NOTES, AND TYPICAL SECTIONS
STRUCTURE NO. 026-3001**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	2
CONTRACT NO. 95691				
RAAT JOB NO. 51312 ILLINOIS FED. AID PROJECT				



EXISTING STRUCTURE: STRUCTURE NUMBER 026-3001. SINGLE SPAN BRIDGE WITH CONCRETE T-BEAM AND SLAB ON CLOSED CONCRETE ABUTMENTS AND WINGWALLS. 37'-3 3/4" L. X 27'-4" W.



SECTION A-A
TYPICAL SECTION THRU
RIPRAP-PROTECTED DITCH

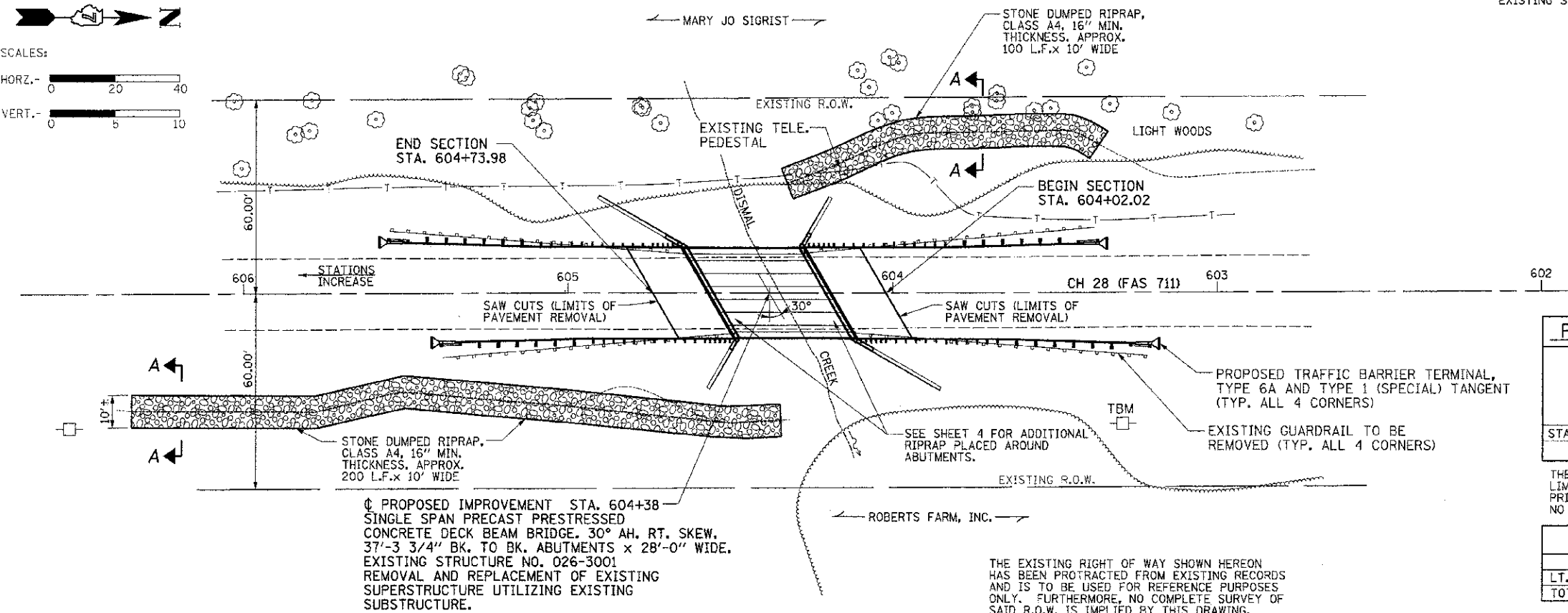
PAINT PAVEMENT MARKING - LINE 4"

LOCATION	4" SINGLE WHITE EDGE LINE	4" SKIPPED DASHED YELLOW CENTERLINE
	FOOT	FOOT
STA. 601+48 TO STA. 607+88	1280	160
TOTAL		1440

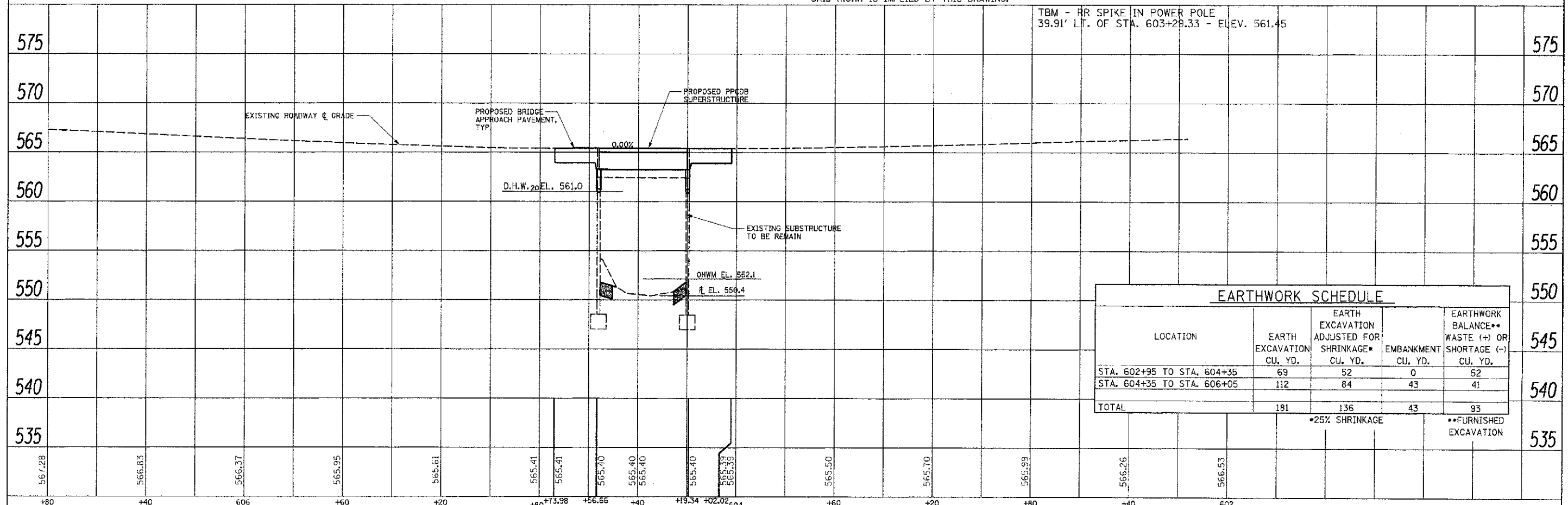
THE REMOVAL OF THE EXISTING PAVEMENT MARKINGS WITHIN THE LIMITS SHOWN ABOVE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PAINT PAVEMENT MARKING - LINE 4" AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

TREE REMOVAL, ACRES

LOCATION	ACRES
LT. & RT., STA. 603+10 TO STA. 606+30	0.9
TOTAL	0.9



THE EXISTING RIGHT OF WAY SHOWN HEREON HAS BEEN PROTRACTED FROM EXISTING RECORDS AND IS TO BE USED FOR REFERENCE PURPOSES ONLY. FURTHERMORE, NO COMPLETE SURVEY OF SAID R.O.W. IS IMPLIED BY THIS DRAWING.



EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 602+95 TO STA. 604+35	69	52	0	52
STA. 604+35 TO STA. 606+05	112	84	43	41
TOTAL	181	136	43	93

*25% SHRINKAGE **FURNISHED EXCAVATION

PLAN

DATE	
BY	
CHECKED	
DESIGNED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

PROFILE

DATE	
BY	
CHECKED	
DESIGNED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 144-000287

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 05/29/2012	REVISED -

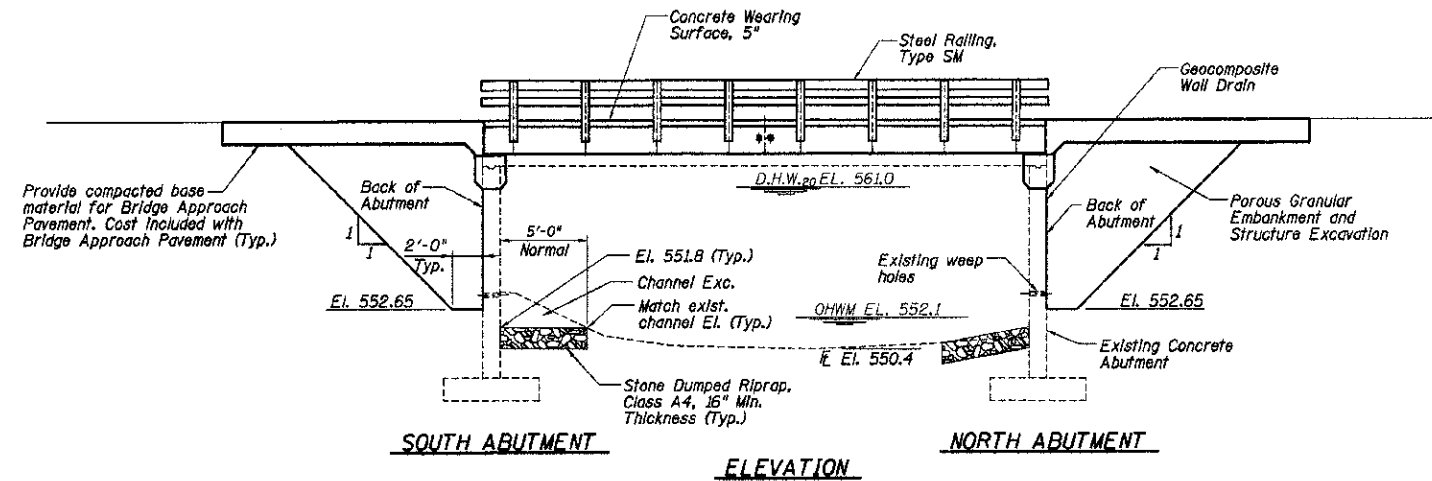
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF ROADWAY
STRUCTURE NO. 026-3001

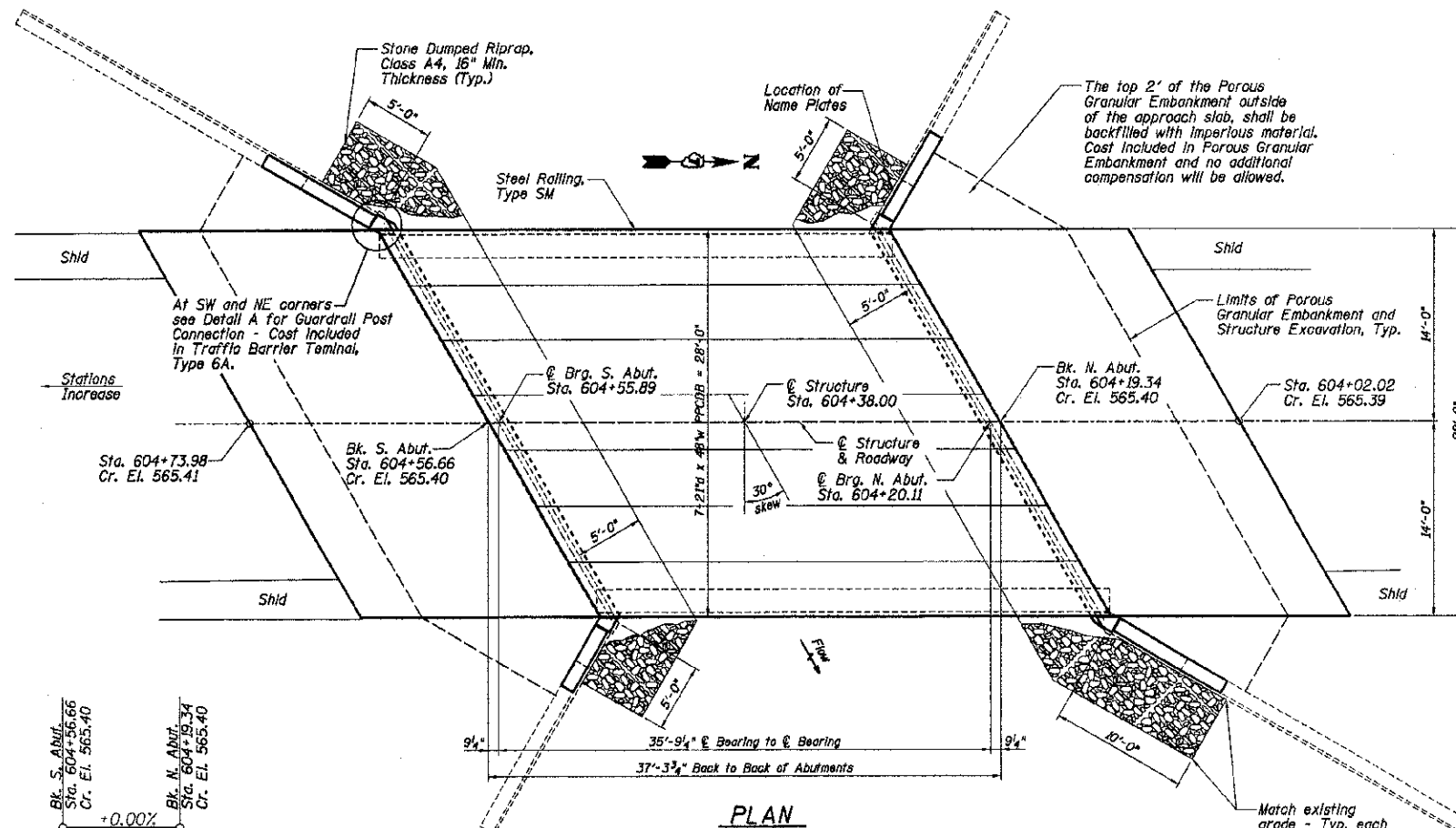
ROUTE: CH 28	SECTION: 12-00124-00-BR	COUNTY: FAYETTE	TOTAL SHEETS: 12	SHEET NO.: 3
CONTRACT NO. 95691			RAAT JOB NO. 51312 ILLINOIS FED. AID PROJECT	

TBM - RR spike in power pole,
39.91' Lt. of Sta. 603+29.33 - Elev. 561.45

Existing Structure: Existing Structure Number 026-3001. Single span bridge with concrete T-beam and slab on closed concrete abutments and wingwalls. 37'-3 3/4" L. X 27'-4" W.



ELEVATION
SOUTH ABUTMENT NORTH ABUTMENT



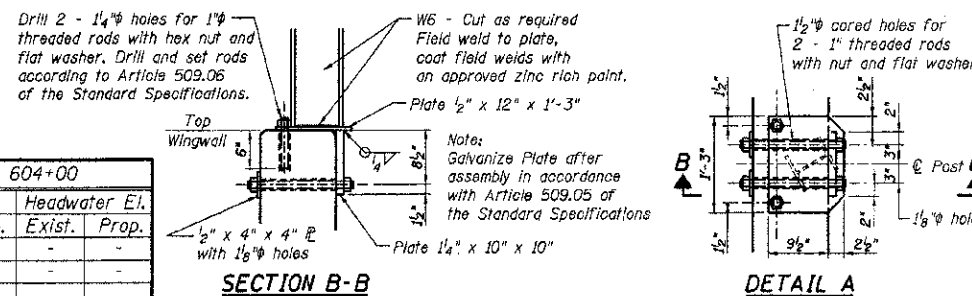
PLAN

**PROFILE GRADE
ACROSS STRUCTURE**
Along @ Roadway

WATERWAY DATA

Drainage Area = 7.19 Sq. Mi. Low Grade Elev. 465.39 @ Sta. 604+00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	20	1575	345	345	561.0	-	-	-
Base	100	2320	395	395	563.6	-	-	-
Max. Calc.								



**SECTION B-B
GUARDRAIL POST CONNECTION**

**STATION 604+38
BUILT 1939 BY
FAYETTE COUNTY
SEC. 16-B-M.F.T.**

EXISTING NAME PLATE
Existing Name Plate shall be cleaned and relocated below new Name Plate. Cost included with Name Plates.

**DISMAL CREEK
RE-BUILT 201 BY
FAYETTE COUNTY
SEC. 12-00124-00-BR
LOADING HS-20
STRUCTURE NO. 026-3001**

PROPOSED NAME PLATE
(See State Standard 515001 for details)

LOADING HS-20

50#/sq. Ft. included in dead load for future wearing surface.

DESIGN SPECIFICATIONS
2010 AASHTO LRFD
Bridge Design Specifications

**DESIGN STRESSES
EXISTING SUBSTRUCTURE**

$f'_c = 3,500$ psi
 $f_y = 40,000$ psi (reinforcement)

FIELD UNITS

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

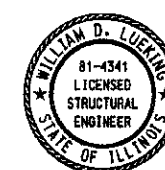
PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($1/2$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($1/2$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Soil Site Classification = D
 $S_{ci} = 0.24$ $S_{ps} = 0.54$

I certify that to the best of knowledge, information and belief, this bridge superstructure 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.



William D. Lueking
William D. Lueking
6-30-2012
Date of Signing
11-30-2012
Date of License Expiration

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	5
Porous Granular Embankment	Ton	500
Stone Dumped Riprap, Class A4	Ton	303
Removal of Existing Superstructures	Each	1
Concrete Removal	Cu Yd	8.6
Structure Excavation	Cu Yd	240
Concrete Structures	Cu Yd	11.8
Bridge Deck Grooving	Sq Yd	107
Protective Coat	Sq Yd	115.5
PPCDB (21" Depth)	Sq Ft	1040
Reinforcement Bars, Epoxy Coated	Pound	10,330
Steel Railing, Type SM	Foot	75
Name Plates	Each	1
Geocomposite Wall Drain	Sq Yd	76
Concrete Wearing Surface, 5"	Sq Yd	115.5
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq Ft	86.5

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Plans for the existing structure are available for review in the office of the Fayette County Highway Department.

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

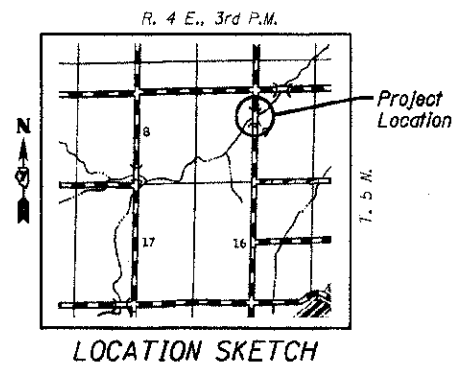
Do not scale these drawings.

The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, $1/8$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Prior to removing the superstructure, the approach pavement and backfill shall be removed at each abutment to the elevations shown to remove lateral load on the closed concrete backwall.

SEQUENCE OF CONSTRUCTION

- 1) Perform construction activities to remove backfill and lateral soil pressures on abutment backwall to Elevation 552.65 prior to removing superstructure.
- 2) Perform construction activity without adding additional lateral load to abutment backwall above Elevation 552.65.
- 3) Complete deck beam anchor bolt installation and grouting of shear key to provide lateral support for top of abutment backwall prior to placing PGE backfill behind abutment.
- 4) Structure Excavation and placement of PGE shall be done with balanced method of removal and placement of material. Work shall be done simultaneously at both abutments.



LOCATION SKETCH

RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 164-000287

DESIGNED - WDL
DRAWN - JN
CHECKED - WDL
DATE - 05/29/2012

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 026-3001**

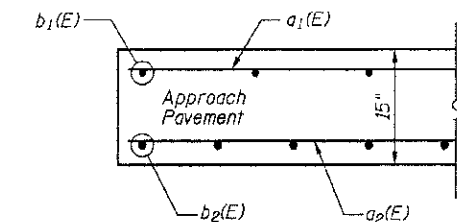
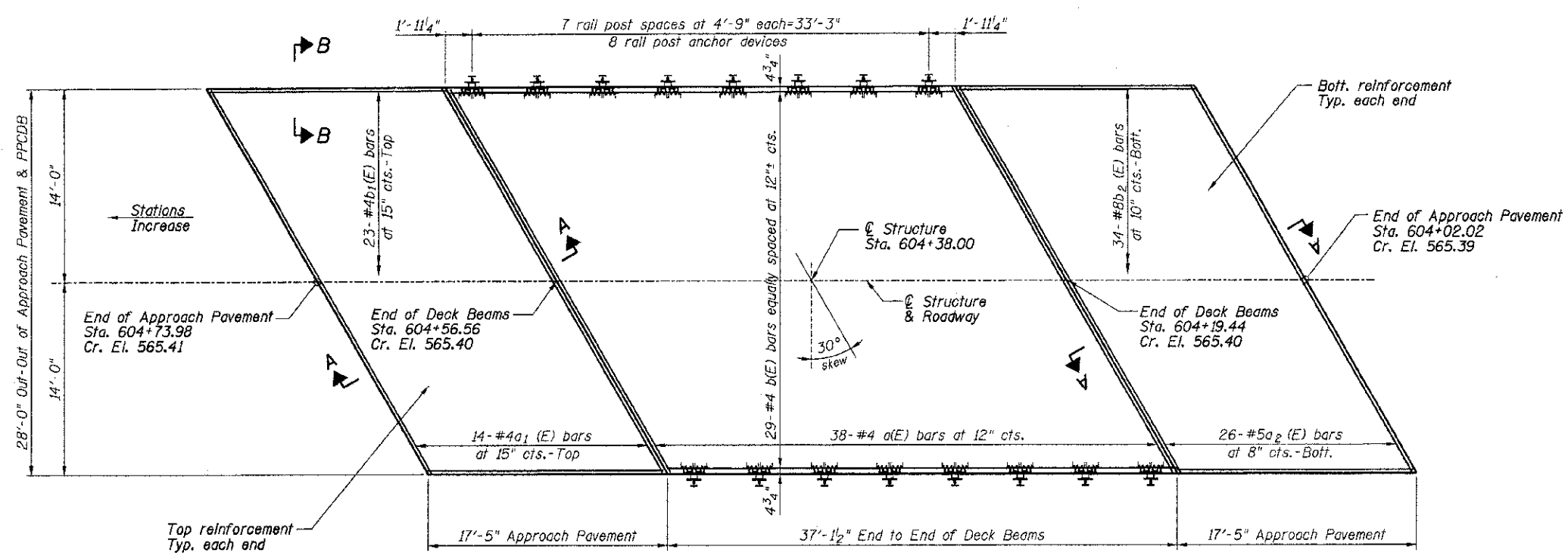
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	4
CONTRACT NO. 95691				
RAIL JOB NO. 61312 ILLINOIS FED. AID PROJECT				

SUPERSTRUCTURE

BILL OF MATERIAL

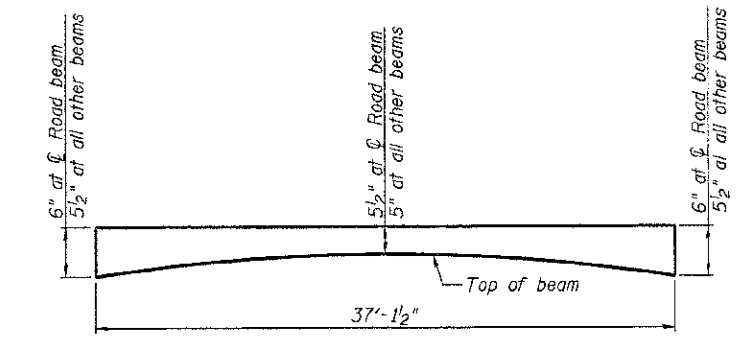
(CWS and Two Approach Pavements)

Bar	No.	Size	Length	Shape
a(E)	38	#4	33'-0"	
a1(E)	28	#4	32'-0"	
a2(E)	52	#5	32'-0"	
b(E)	29	#4	36'-10"	
b1(E)	46	#4	17'-1"	
b2(E)	68	#8	18'-11"	
Bridge Approach Pavement				Sq. Yd. 108
Concrete Wearing Surface, 5"				Sq. Yd. 115.5
Reinforcement Bars, Epoxy Coated				Pound 7840

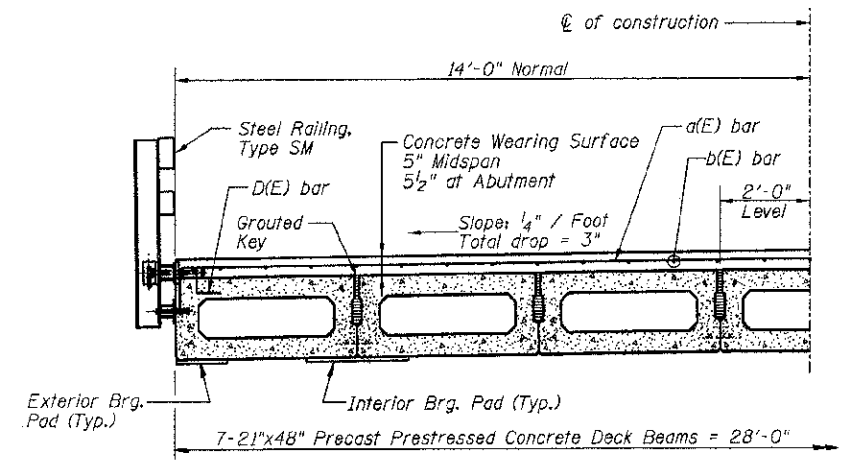


SECTION B-B

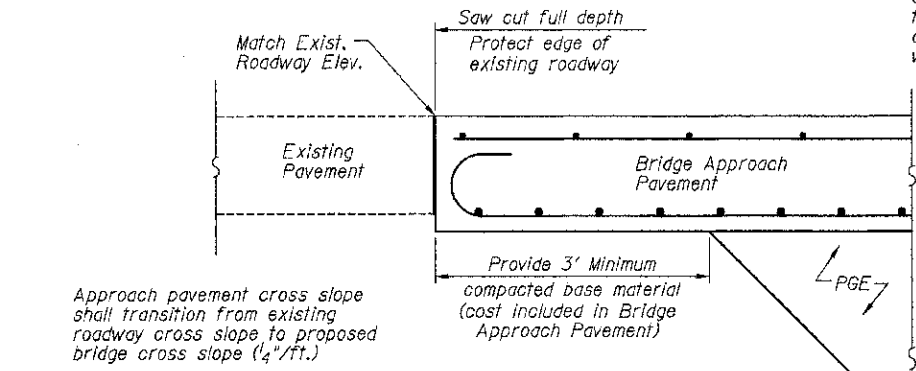
PLAN



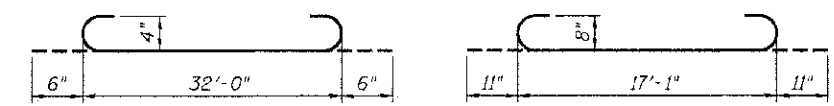
ANTICIPATED CONCRETE WEARING SURFACE PROFILE
(For information only)



HALF CROSS SECTION
See Sheet 8 for the details showing the mounting of posts and rails to the PPCDB.

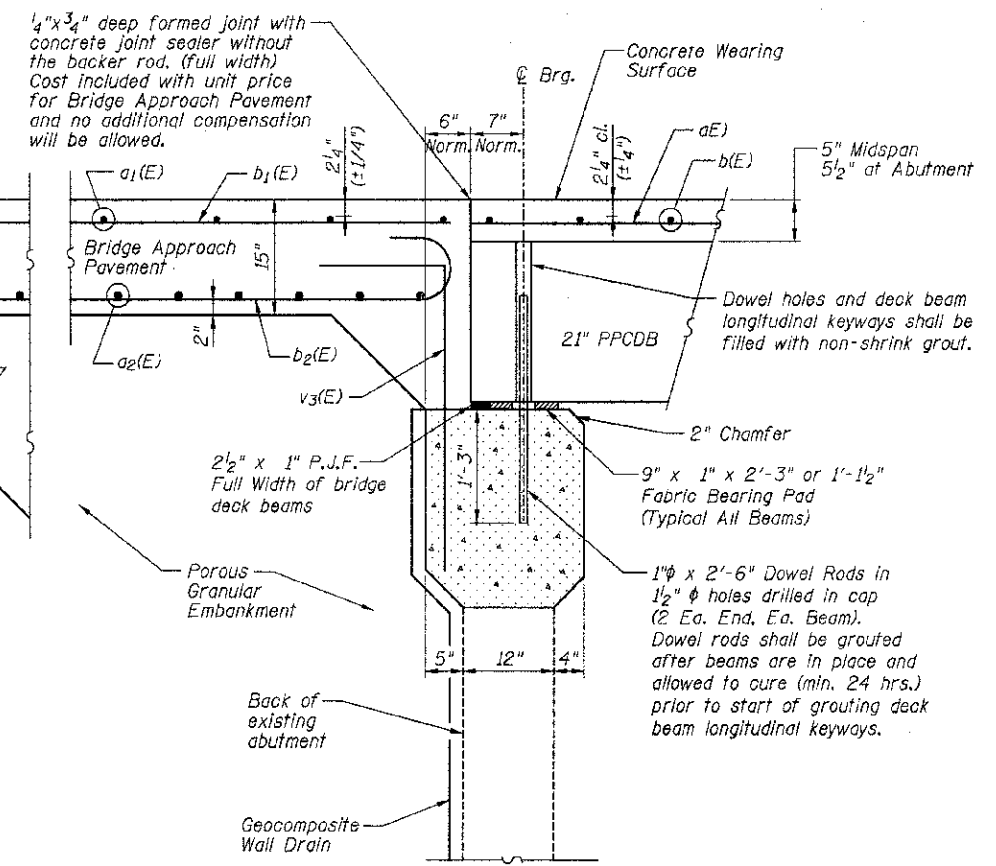


Approach pavement cross slope shall transition from existing roadway cross slope to proposed bridge cross slope (1/4"/ft.).

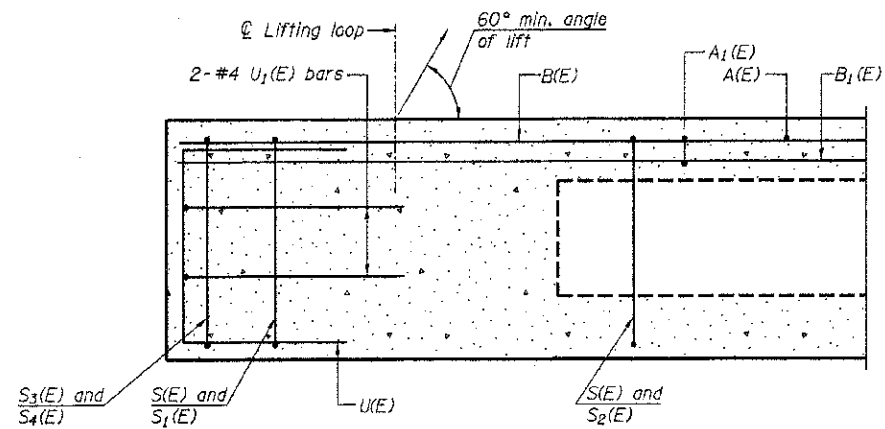


BAR a(E) **BAR b2(E)**

Notes:
See Sheets 6 & 7 for Superstructure Beam Details.
Concrete wearing surface shall be placed prior to construction of the Approach Pavements.
Spacing of a(E) bars shall be measured along the ϕ of structure.
See Sheet 7 for fabric bearing pad details.

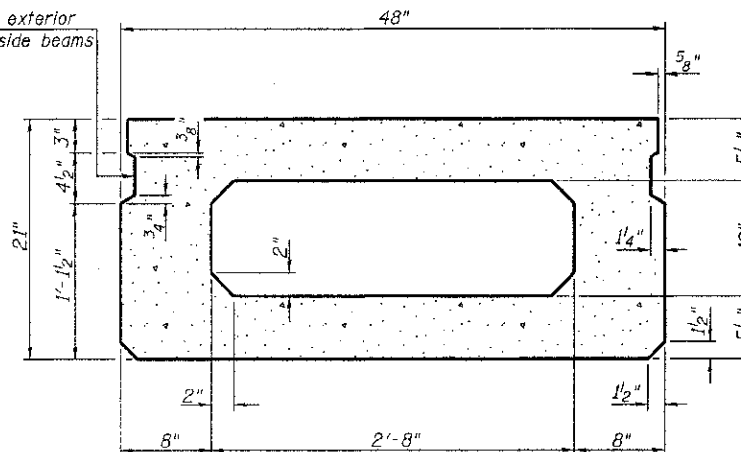


SECTION A-A
(Dimensions are at Rt. L's)

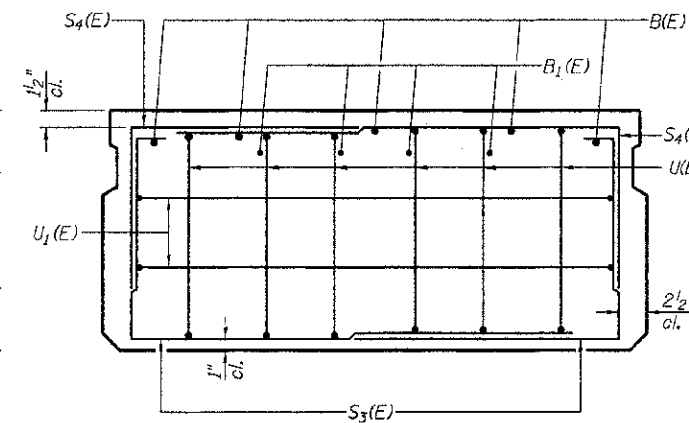


SECTION A-A

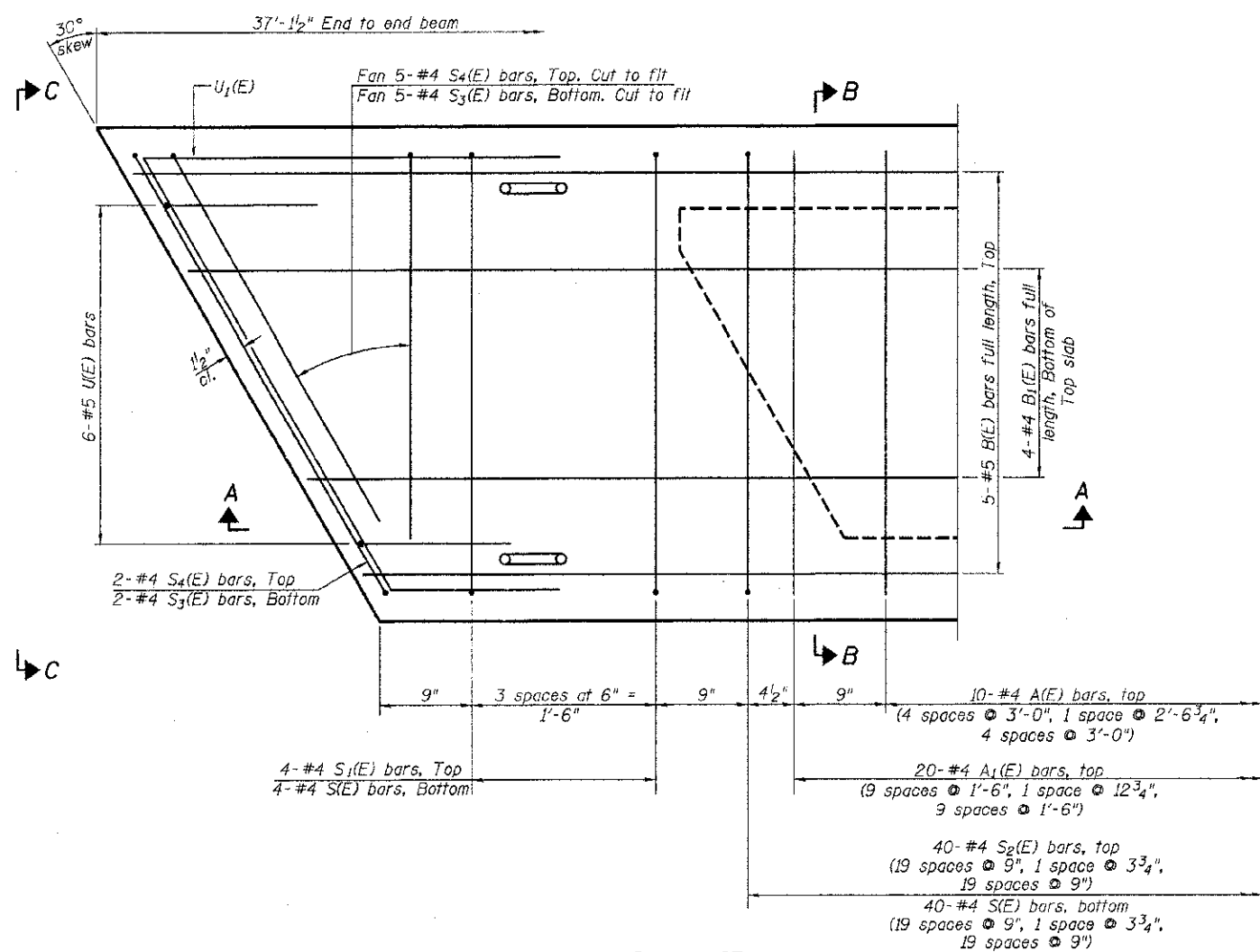
Omit key on exterior face of outside beams



SECTION B-B
(Showing dimensions)

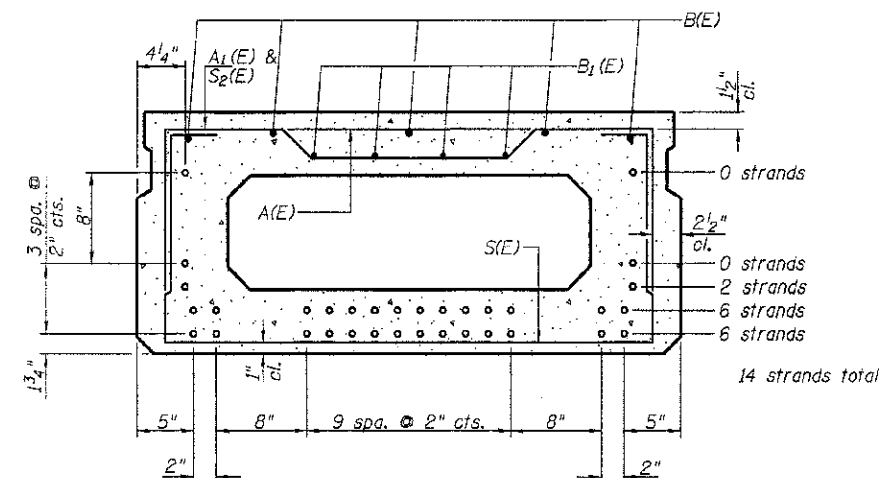


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block cuts for the transverse ties.



SECTION B-B

(Showing reinforcement and permissible strand locations)

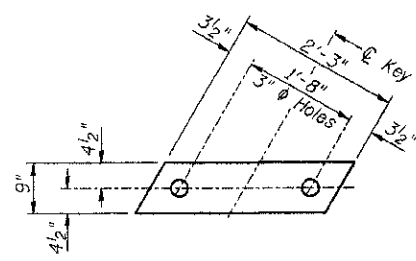
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

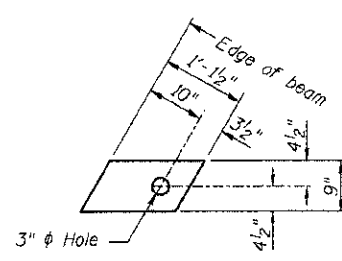
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	10	#4	3'-7"	—
A1(E)	20	#4	3'-10"	—
B(E)	5	#5	36'-9"	—
B1(E)	4	#4	36'-9"	—
D(E)	32	#4	2'-9"	⌊
S(E)	48	#4	7'-5"	⌊
S1(E)	8	#4	5'-11"	⌊
S2(E)	40	#4	6'-2"	⌊
S3(E)	14	#4	4'-9"	⌊
S4(E)	14	#4	4'-0"	⌊
U(E)	12	#5	4'-0"	⌊
U1(E)	4	#4	4'-0"	⌊

Note: See Sheet 7 for additional details and Bill of Material.



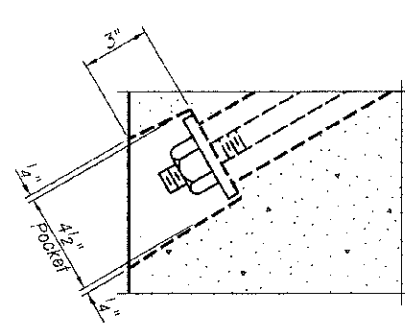
FABRIC BEARING PAD
(Interior)



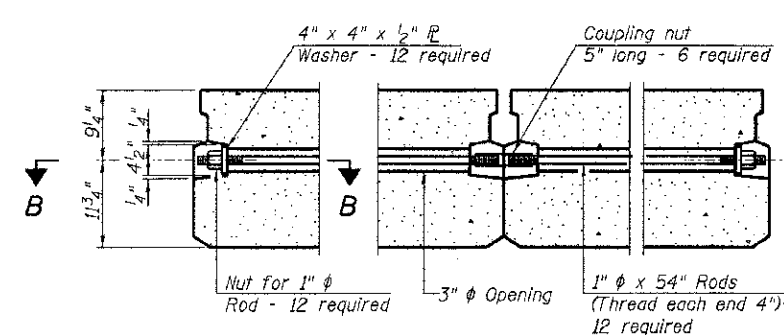
FABRIC BEARING PAD
(Exterior)

FIXED

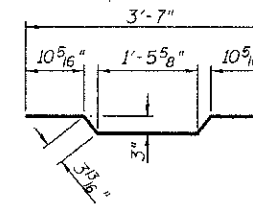
Notes: All bearing pads shall be 1" thick.



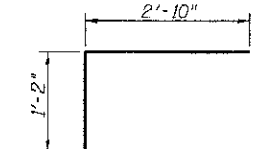
SECTION B-B



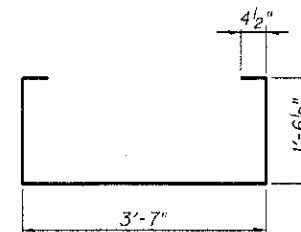
TYPICAL TRANSVERSE TIE ASSEMBLY



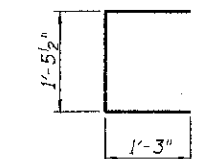
BAR A1(E)



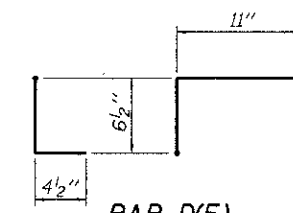
BAR S4(E)



BAR S(E)

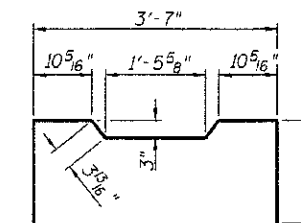


BAR U(E)

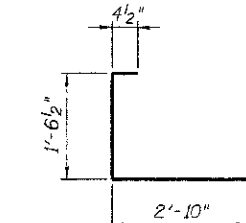


BAR D(E)

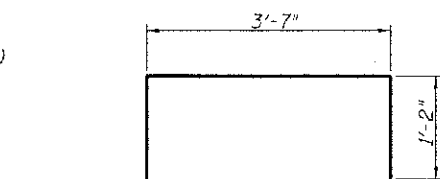
Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam. See Sheet 8 for rail post spacing.



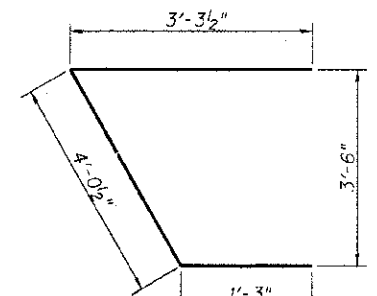
BAR S2(E)



BAR S3(E)



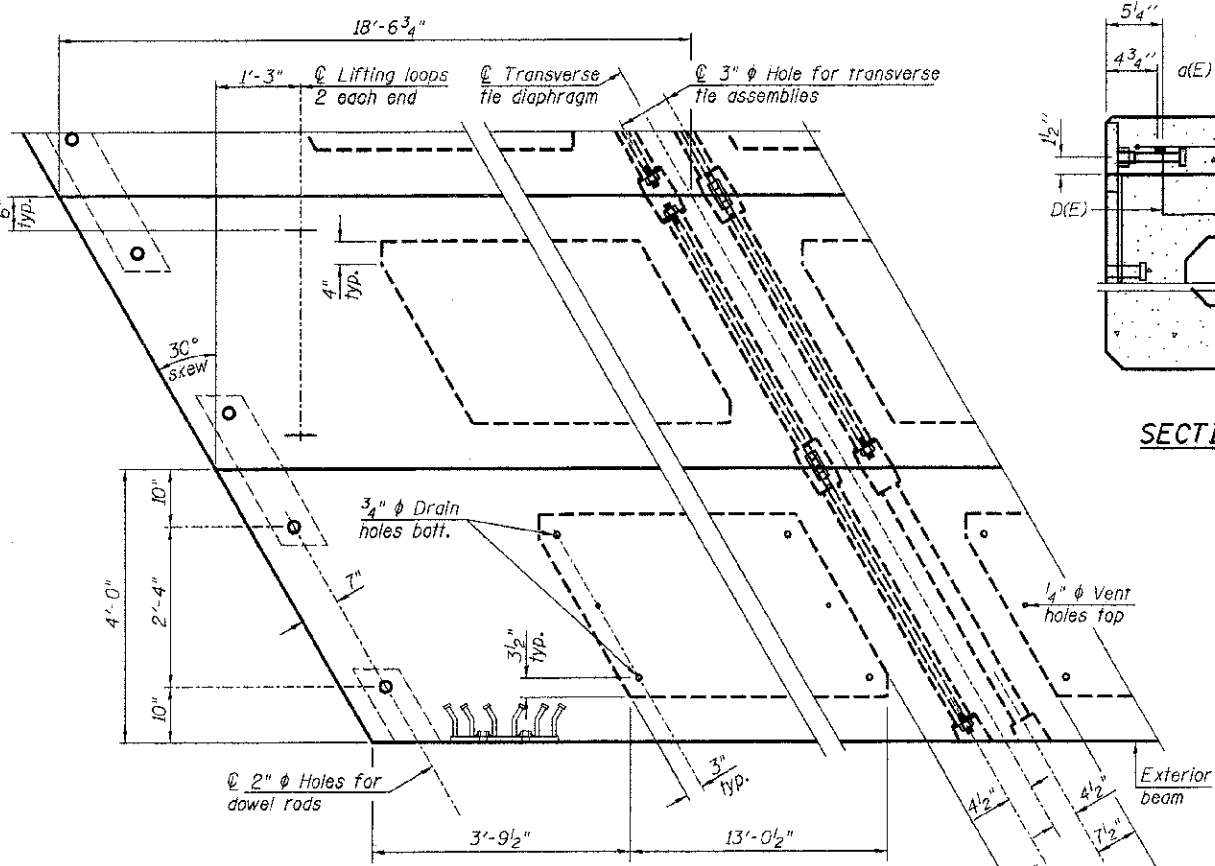
BAR S1(E)



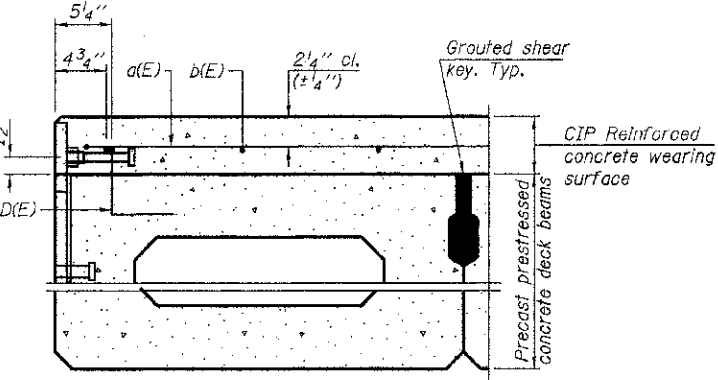
BAR U1(E)

BILL OF MATERIAL

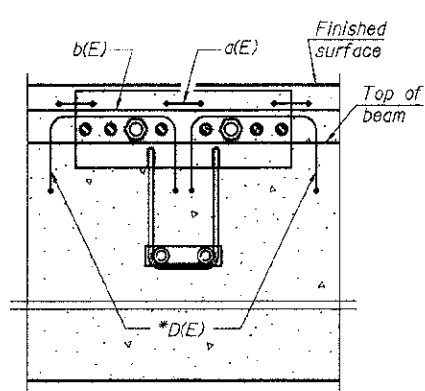
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	1040
---	---------	------



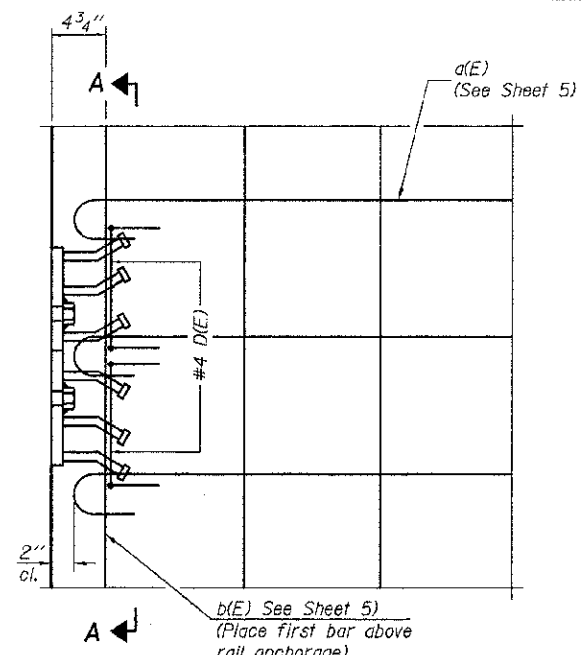
PLAN VIEW



SECTION THRU FASCIA BEAM

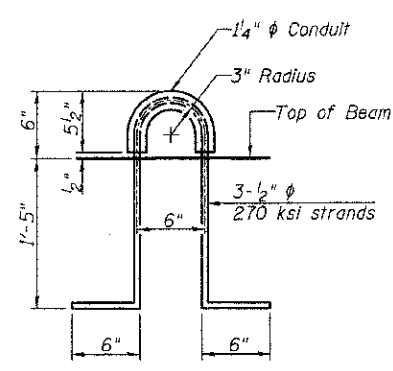


SECTION A-A



PLAN

Notes:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



LIFTING LOOP DETAIL

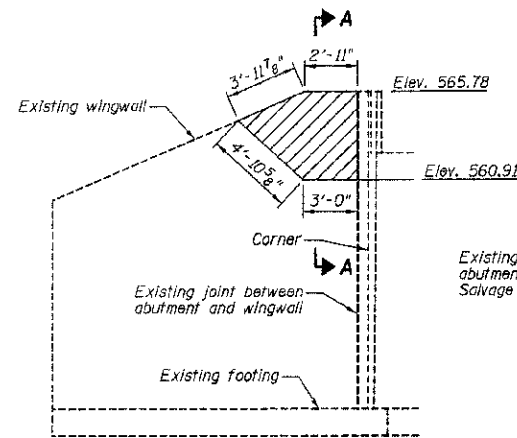
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

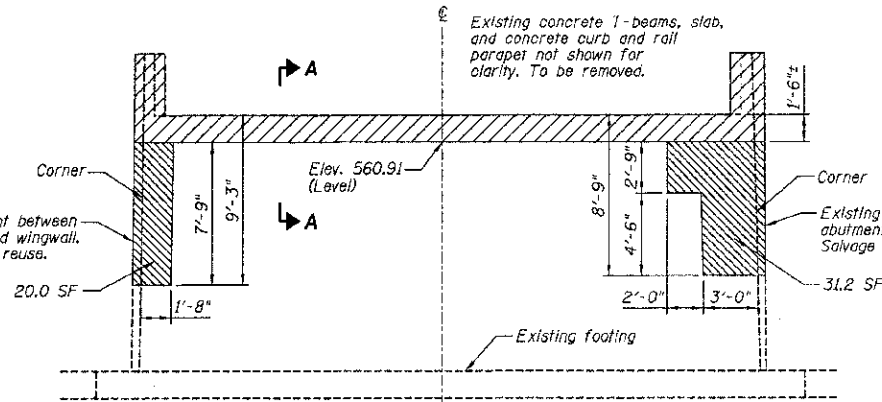
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" phi rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60.
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" phi lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

DESIGNED - WDL	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 05/29/2012	REVISED -

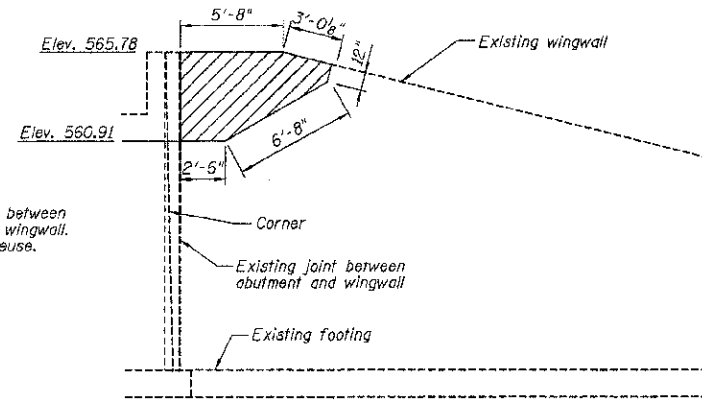
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	7
CONTRACT NO. 95691				
RAAI JOB NO. 51312 ILLINOIS FED. AID PROJECT				



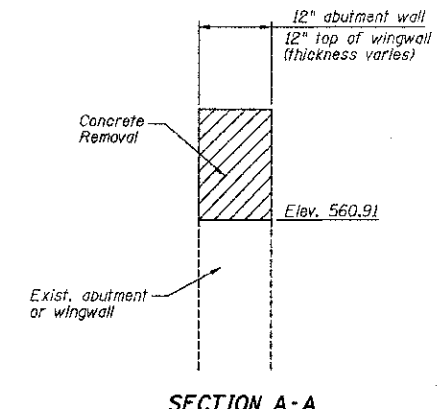
**CONCRETE REMOVAL
ELEVATION - NORTHWEST WINGWALL**



**CONCRETE REMOVAL AND CONCRETE REPAIR
ELEVATION - NORTH ABUTMENT
(Looking at front face)**



**CONCRETE REMOVAL
ELEVATION - NORTHEAST WINGWALL**

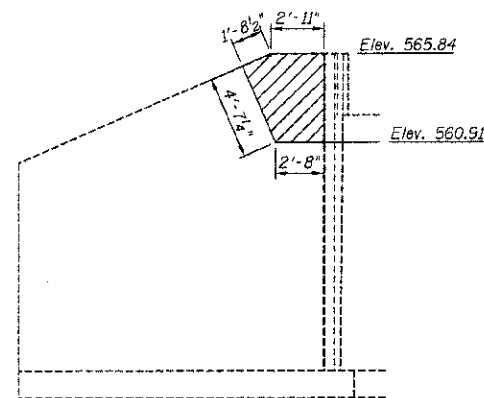


SECTION A-A

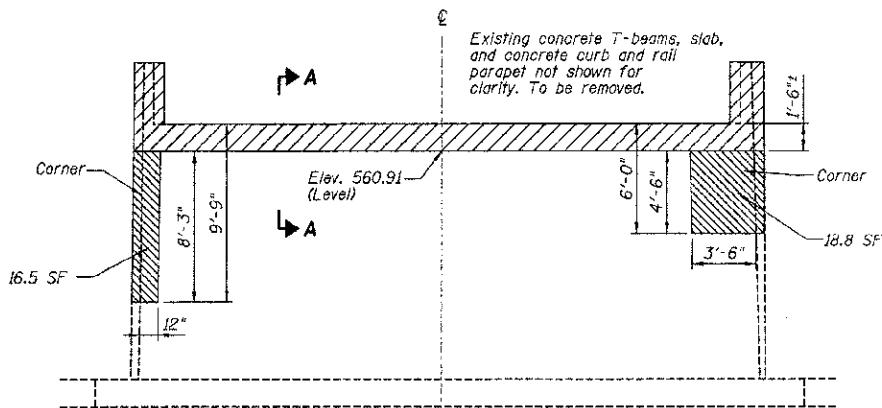
LEGEND
 Concrete removal.
 Structural Repair of Concrete (depth $\leq 5''$)

NOTES

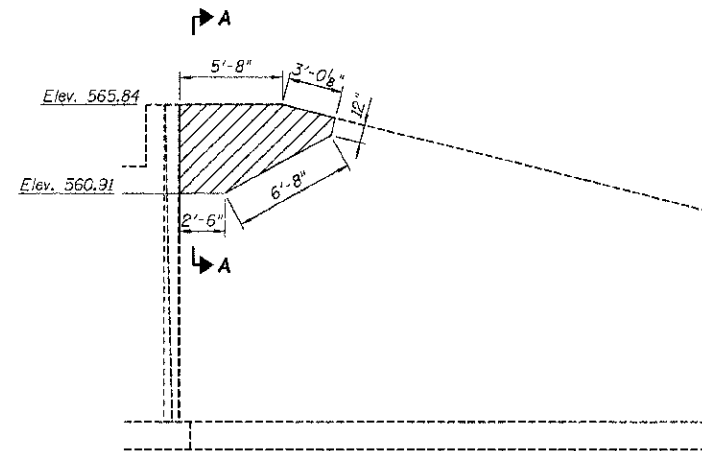
- Remove backfill as required for all concrete removal.
- During concrete removal, salvage all reinforcement (minimum 2'-0" from removal line) for re-use into new wall and cap.
- At structural repair areas, salvage all reinforcement for re-use.
- See Sheet 10 for new cap construction on top of back wall.
- See Sheet 11 for concrete and reinforcement for wingwall placement.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.



**CONCRETE REMOVAL
ELEVATION - SOUTHEAST WINGWALL**



**CONCRETE REMOVAL AND CONCRETE REPAIR
ELEVATION - SOUTH ABUTMENT
(Looking at front face)**



**CONCRETE REMOVAL
ELEVATION - SOUTHWEST WINGWALL**

**BILL OF MATERIAL
TWO ABUTMENTS
(INCLUDING WINGWALLS)**

Item	Unit	Quantity
Concrete Removal	Cu Yd	8.6
Structural Repair of Concrete (Depth Equal to or less Than 5 Inches)	Sq Ft	86.5

RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS & LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
 ILLINOIS DESIGN FIRM LICENSE NO. 164-000287

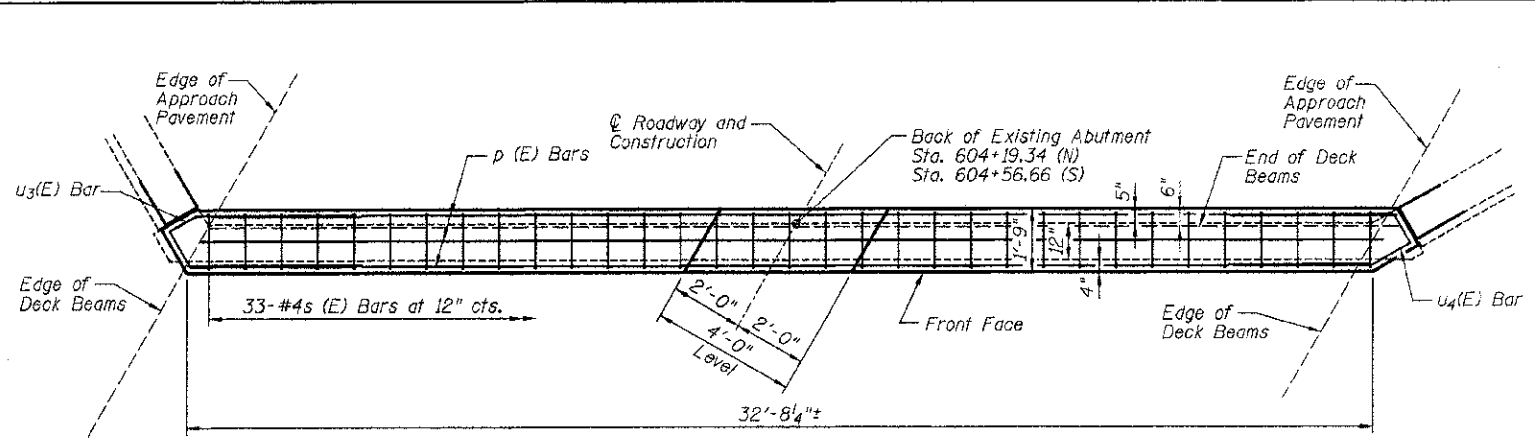
DESIGNED - WDL
 DRAWN - JN
 CHECKED - WDL
 DATE - 05/29/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

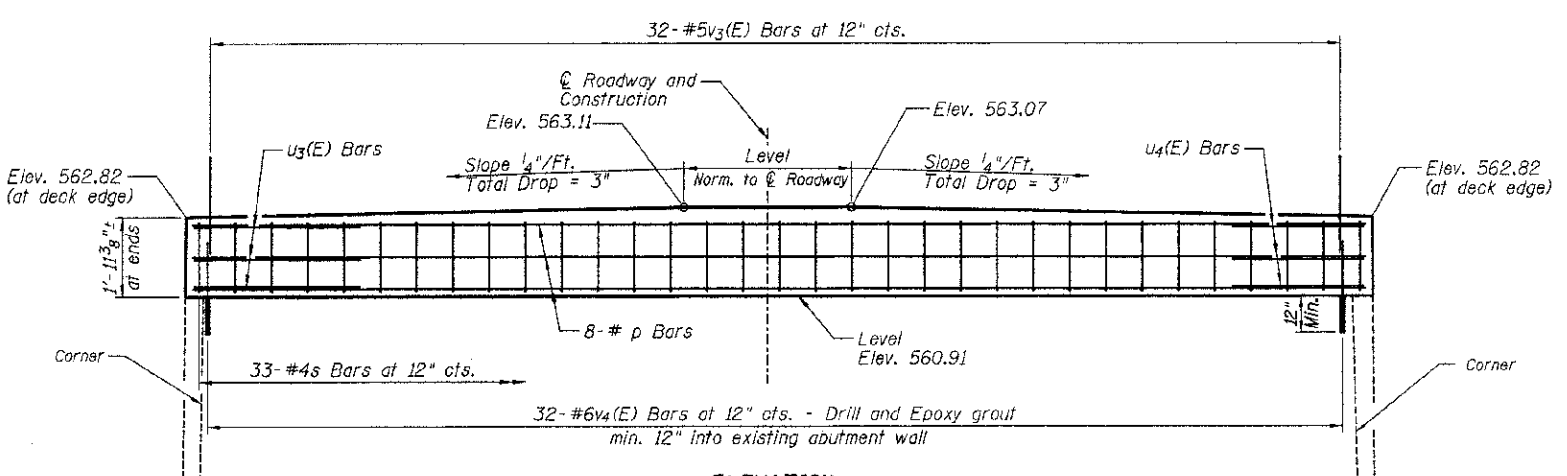
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT AND WINGWALL CONCRETE REMOVAL AND CONCRETE REPAIR
STRUCTURE NO. 026-3001**

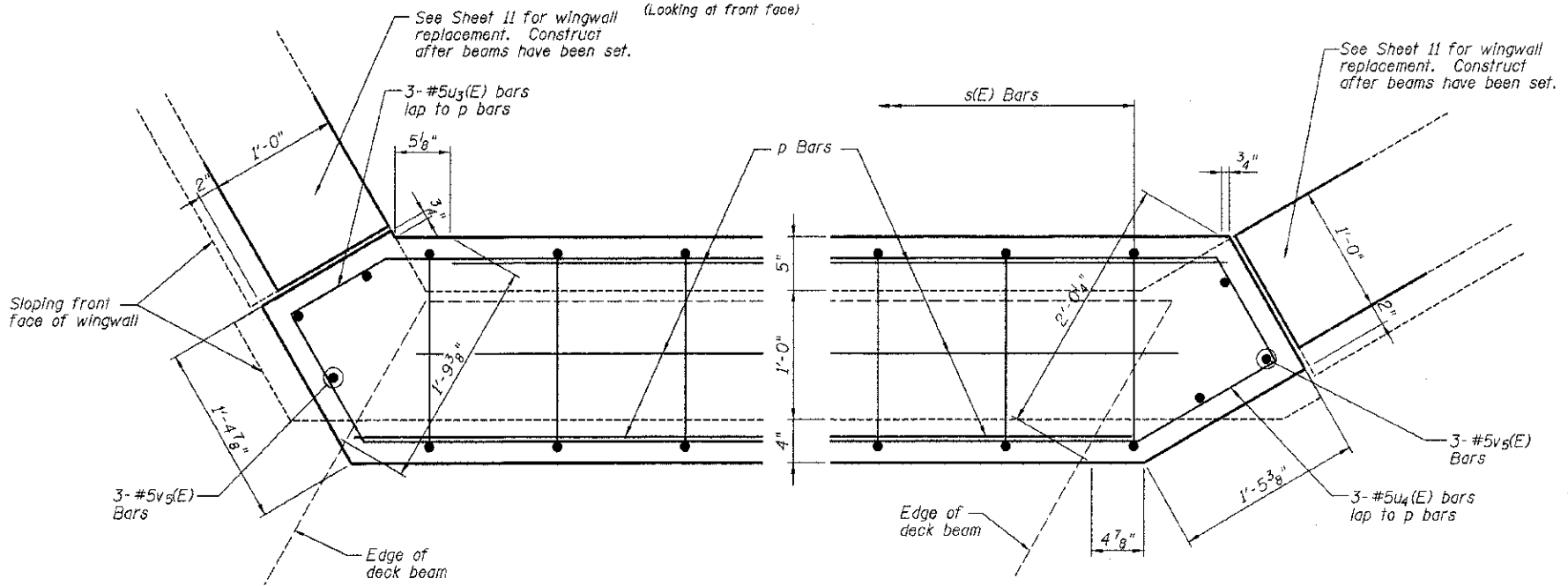
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	9
RAAI JOB NO. 51312			ILLINOIS FED. AID PROJECT	



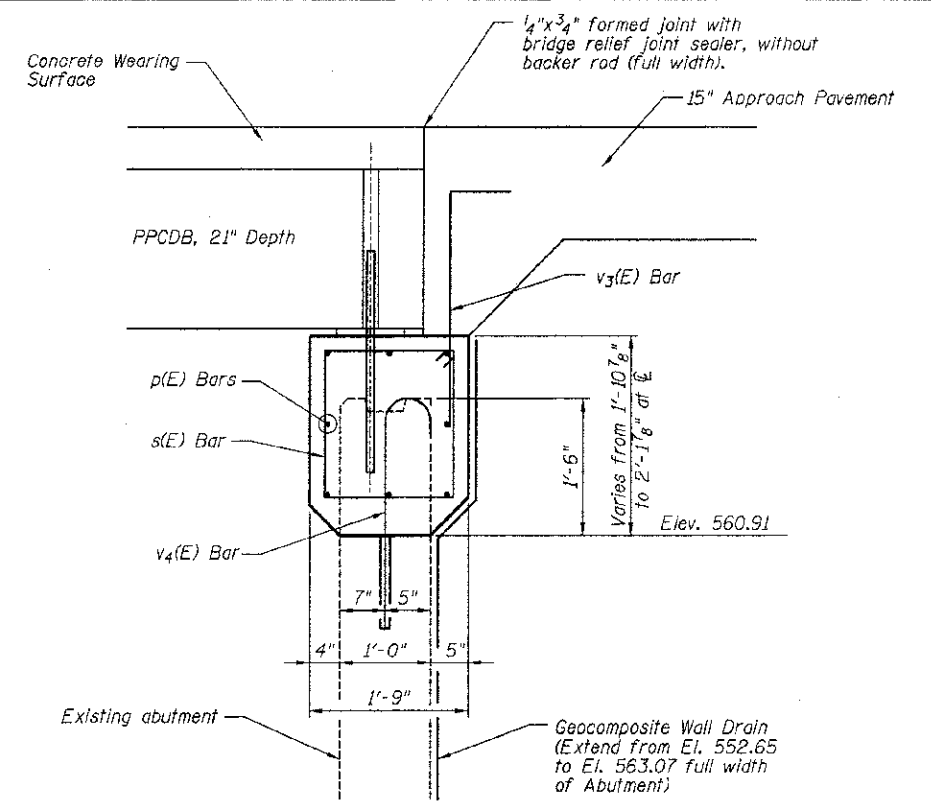
PLAN



ELEVATION
(Looking at front face)



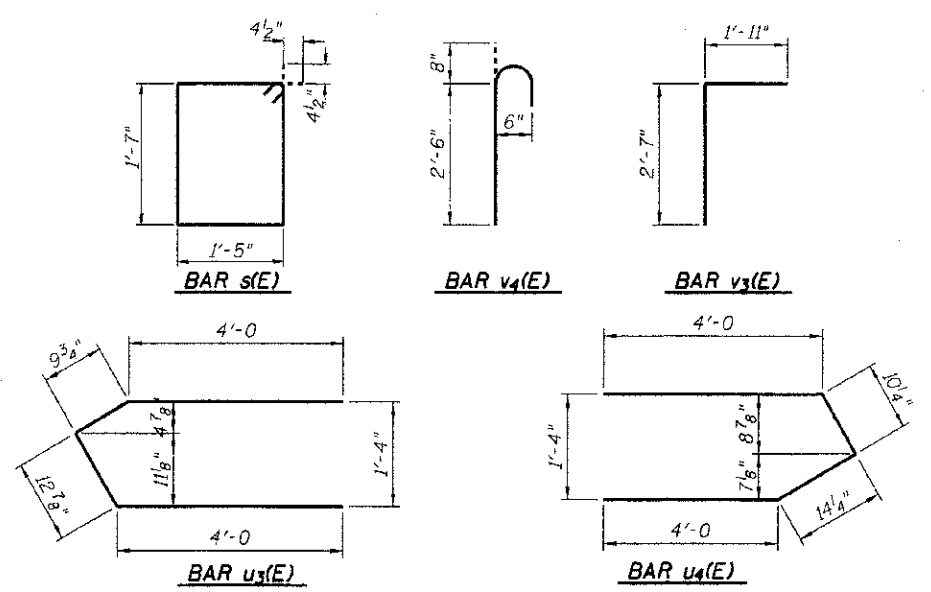
CORNER PLAN DETAILS



SECTION THRU ABUTMENT CAP

NOTES

- See Sheet 11 for Bill of Material
- All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.
- Reinforcement bars shall conform to ASTM A 706 (LL Modified), Grade 60.
- All clearances between rebar and form surface shall be 2", unless otherwise noted.
- Space reinforcement in cap to miss PPCDB dowel rods.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost Included with Concrete Removal.



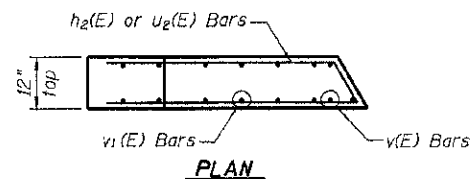
RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - WDL	REVISED -
DRAWN - JN	REVISED -
CHECKED - WDL	REVISED -
DATE - 05/29/2012	REVISED -

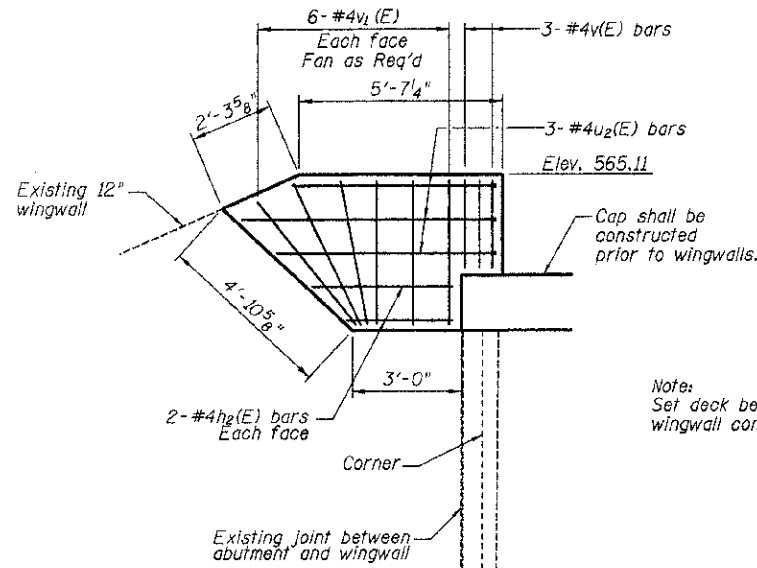
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT CONCRETE REPLACEMENT
STRUCTURE NO. 026-3001

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	10
RAAI JOB NO. 51312			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 95691	

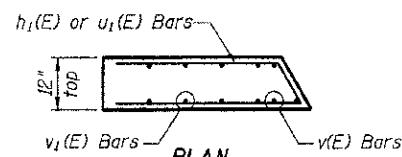


PLAN

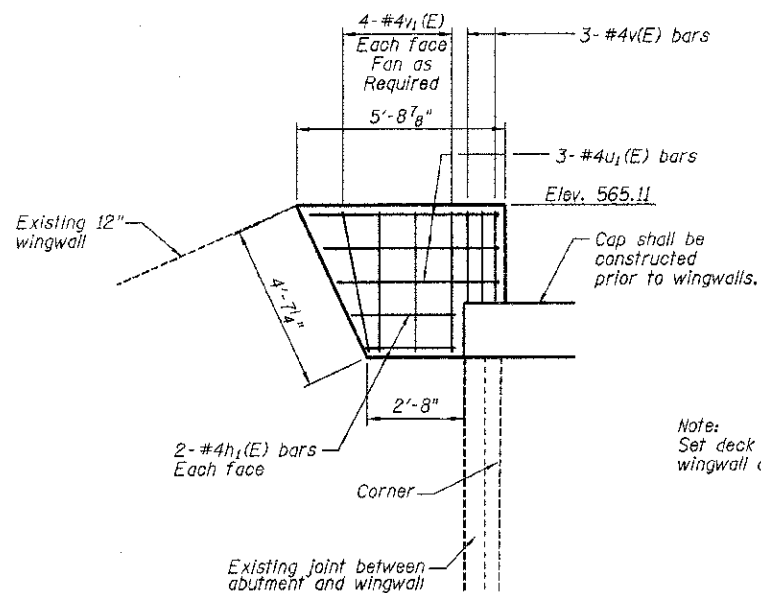


ELEVATION

NORTHWEST WINGWALL

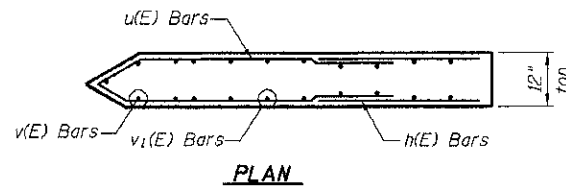


PLAN

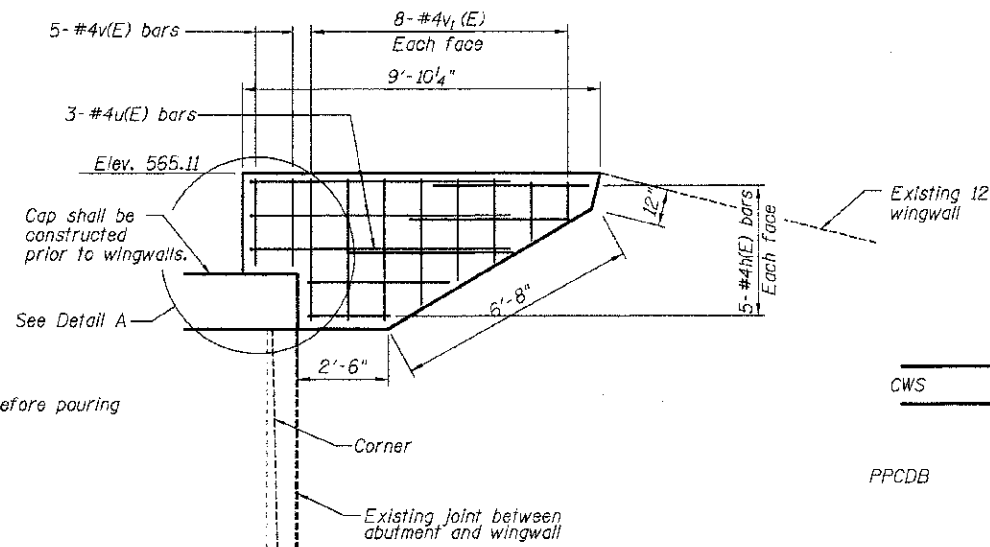


ELEVATION

SOUTHEAST WINGWALL

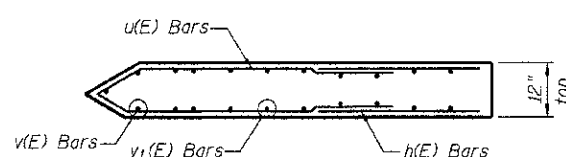


PLAN

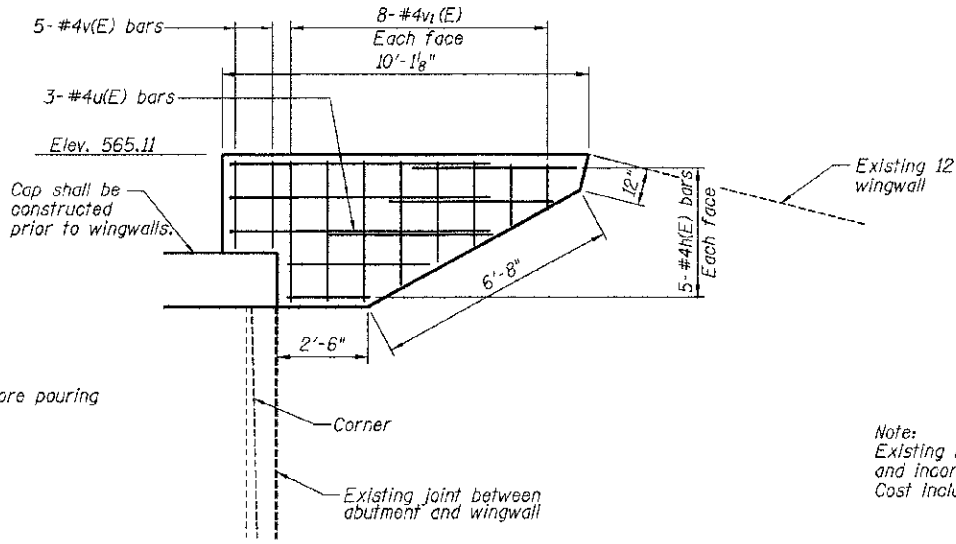


ELEVATION

NORTHEAST WINGWALL

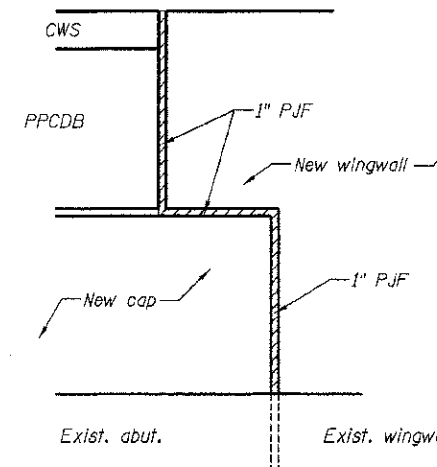


PLAN

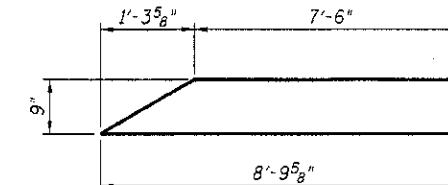


ELEVATION

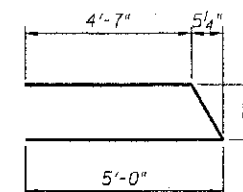
SOUTHWEST WINGWALL



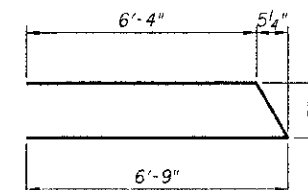
DETAIL A
(Typ. each corner)



BAR U1(E)



BAR U2(E)



BAR U3(E)

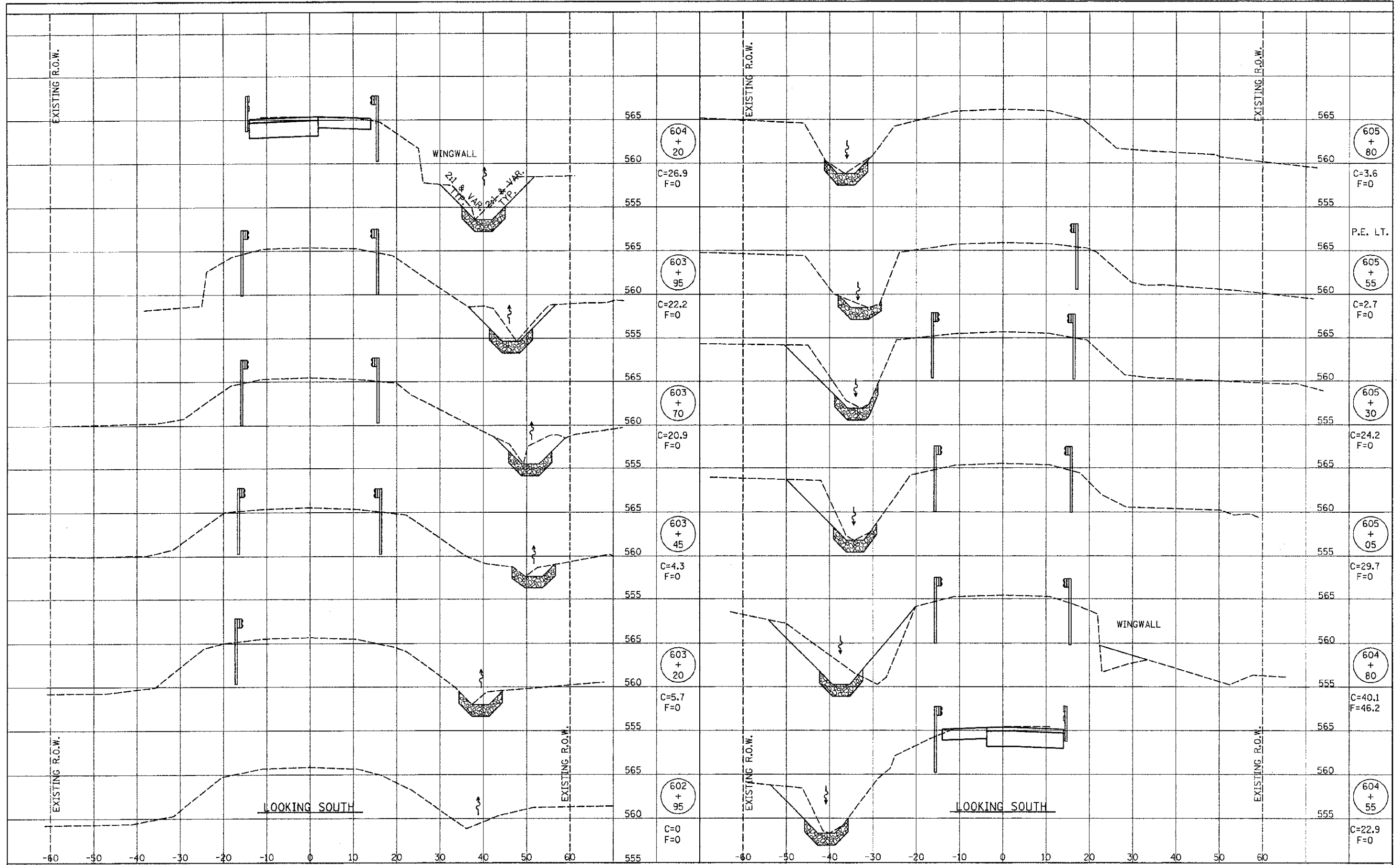
BILL OF MATERIAL
TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h	20	#4	4'-6"	TOP
h1	4	#4	2'-10"	TOP
h2	4	#4	4'-0"	TOP
p	16	#7	33'-0"	FIELD
s	66	#4	6'-9"	FIELD
u	6	#4	17'-10"	TOP
u1	3	#4	10'-5"	TOP
u2	3	#4	13'-11"	TOP
u3	6	#5	9'-11"	TOP
u4	6	#5	10'-1"	TOP
v	16	#4	1'-11"	FIELD
v1	52	#4	4'-0"	FIELD
v3	64	#5	4'-6"	FIELD
v4	64	#6	3'-2"	FIELD
v5	12	#5	1'-9"	FIELD
Concrete Structures			Cu. Yd.	11.8
Reinforcement Bars			Pound	2490

Note:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	



RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS

DESIGNED -	BLT	REVISED -	
DRAWN -	JN	REVISED -	
CHECKED -	GLH	REVISED -	
DATE -	05/29/2012	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY
STRUCTURE NO. 026-3001

STA. 602+95 TO STA. 605+80

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 28	12-00124-00-BR	FAYETTE	12	12
CONTRACT NO. 95691			ILLINOIS FED. AID PROJECT	