LIST OF ILLINOIS DOT HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-08	PAVEMENT JOINTS
420401-11	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-13	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
642001-02	SHOULDER RUMBLE STRIPS, 16 IN.
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-14	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

1. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
2. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
3. TRIM EDGES OF EXISTING HOT MIX ASPHALT SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE.
4. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
5. THE THICKNESS OF HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
6. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THIS SHEET OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
7. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON EXISTING PAVEMENT	0.05 LB/SQ FT
INTERMEDIATE LIFTS (FOG COAT)	0.025 LB/SQ FT
ON AGGREGATE SURFACE	0.25 LB/SQ FT
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
9. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
10. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
11. TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER EXCEPT AS DESCRIBED IN NOTE 12. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
12. ALL OBSTRUCTIONS WHICH ARE WITHIN 30' OF THE CENTERLINE OF THE ROADWAY AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED FROM STATION 612+32 TO 619+78. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.
13. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, AND ONE ADDITIONAL APPLICATION.
14. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
15. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
16. ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
17. AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
18. PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
19. IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16, THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECKS AND BRIDGE APPROACH PAVEMENTS IN THE MANOR SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.16 REGARDLESS IF TRACKED MOUNTED OR WHEELED.
20. RECLAIMED ASPHALT PAVEMENT (RAP) WILL NOT BE ALLOWED FOR USE AS AGGREGATE IN AGGREGATE SHOULDERS, TYPE B OR AGGREGATE SURFACE COURSE, TYPE B.
21. DECK SLAB REPAIR IS INCLUDED TO REPAIR THE EXISTING BRIDGE DECK FOR STAGE I TRAFFIC. THE QUANTITIES FOR PARTIAL DEPTH AND FULL DEPTH ARE ESTIMATED. THE ENGINEER WILL DETERMINE THE LOCATIONS AND THE ACTUAL QUANTITIES USED.

COMMITMENTS

1. IDOT WILL NOTIFY U.S.G.S. OF THE BEGINNING AND END OF BRIDGE CONSTRUCTION. U.S.G.S. WILL REMOVE ALL EXISTING GAGING INFRASTRUCTURE FROM THE US 45 BRIDGE AND WILL TEMPORARILY RELOCATE TO THE UPSTREAM BIKE PATH BRIDGE. U.S.G.S. WILL REINSTALL THE GAGING INFRASTRUCTURE ON THE NEW US 45 BRIDGE UPON COMPLETION OF THE BRIDGE CONSTRUCTION.
2. REFER TO COMMITMENT FILE FOR ANY COMMITMENTS AFTER NOVEMBER 1, 2015.
3. DUE TO THE PRESENCE OF THE INDIANA BAT, CLEARING OF TREES SHALL BE PROHIBITED FROM APRIL 1 THROUGH SEPTEMBER 30.
4. DUE TO THE PRESENCE OF ENDANGERED BATS, BRIDGE DEMOLITION MUST BEGIN PRIOR TO APRIL 1, 2016. ⚠

HMA MIXTURES REQUIREMENTS

LOCATION(S):	HMA SURFACING	LEVELING BINDER	BASE COURSE	HMA SHOULDERS
MIXTURE USE(S):	HMA SURFACE CSE, MIX C, N90	LEVELING BINDER (MM) N90	HMA BINDER CSE, N90	HMA BINDER CSE, N70
AC/PG GRADE:	PG64-22	PG64-22	PG64-22	PG64-22
RAP % (MAX.): *** DESIGN AIR VOIDS:	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS
MIXTURE COMPOSITION:	IL-9.5	IL-9.5	IL-19.0	IL-19.0
(GRADATION MIXTURE)				
FRICTION AGGREGATE:	C SURFACE	NONE	NONE	NONE

*** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED AS DETERMINED BY THE ENGINEER.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: ____________________
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: ____________________
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: ____________________
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: ____________________
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: ____________________
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: ____________________
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: ____________________
DISTRICT MATERIALS ENGINEER

⚠ REVISED 12-28-15

ESCA CONSULTANTS, INC.

USER NAME = jpo	DESIGNED - SKM	REVISED -
ESCA PROJECT NO. 1035.06	DRAWN - DWH	REVISED -
PLOT SCALE = 0.1667 '/ in.	CHECKED - ELH	REVISED -
PLOT DATE = 10/13/2015 7:47:53 AM	DATE - 10/15	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & STANDARDS

SCALE: NA | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

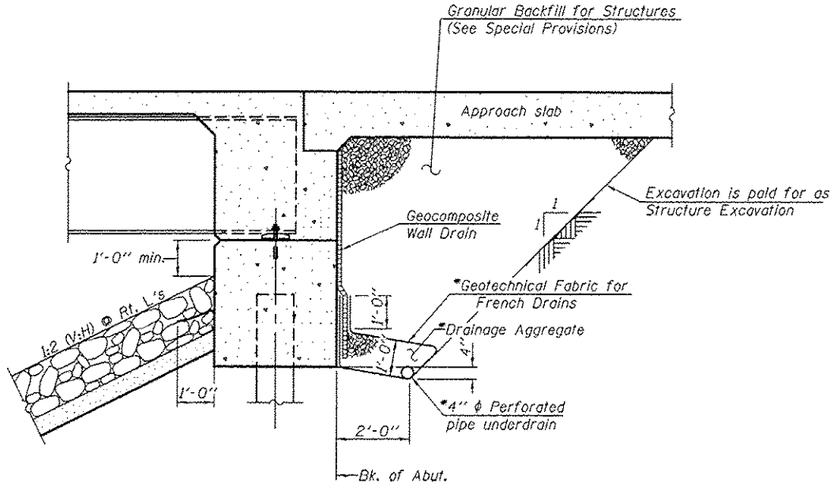
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
881	32B-1	SALINE	66	2
		CONTRACT NO. 78083		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: 80% FEDERAL 20% STATE ROADWAY 0004 ROADWAY	CONSTRUCTION CODE: 80% FEDERAL 20% STATE BRIDGE 0011 S. N. 083-0067
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	29	29	
50200100	STRUCTURE EXCAVATION	CU YD	254		254
50300100	FLOOR DRAINS	EACH	24		24
50300225	CONCRETE STRUCTURES	CU YD	126.8		126.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	353.3		353.3
50300260	BRIDGE DECK GROOVING	SQ YD	866		866
50300300	PROTECTIVE COAT	SQ YD	1120		1120
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	LSUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	3996		3996
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	100290		100290
50800515	BAR SPLICERS	EACH	902		902
51201710	FURNISHING STEEL PILES HP12X84	FOOT	498		498
51202100	FURNISHING STEEL PILES HP14X117	FOOT	402		402

⊛ SPECIALTY ITEM

⚠1 REVISED 12-28-15



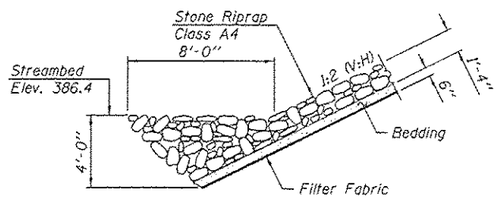
SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

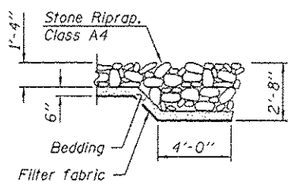
Note:

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

Granular backfill behind the abutments shall be compacted according to Article 205.06 of the Standard Specifications.



SECTION A-A



SECTION B-B

STATION 615+74.33
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 881 - SEC. 32B-1
LOADING HL-93
STRUCTURE NO. 083-0067

NAME PLATE

See Std. 515001

DESIGN SCOUR ELEVATION TABLE

	N. Abut.	Pier 1	Pier 2	S. Abut.
Q100	390.33	382.00	382.00	390.13
Q500	390.33	382.00	382.00	390.13

WATERWAY INFORMATION

Drainage Area = 152 mi.² — Existing & proposed Low Grade Elev. 395.08 @ Sta. 637+00

Flood	Freq. Yr.		Q (C.F.S.) Exist.	Q (C.F.S.) Prop.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	SN 083-0011	3,850	3,880	1,495	1,785					
		SN 083-0067	2,090	2,060	843	843	392.2	0.2	0.2	392.4	392.4
		Total	5,940		2,338	2,628					
Design	50	SN 083-0011	5,840	5,860	1,703.0	2,026.0					
		SN 083-0067	2,300	2,280	843.0	843.0	393.2	0.3	0.3	393.5	393.5
		Total	8,140		2,546.0	2,869.0					
Base	100	SN 083-0011	6,260	6,670	1,766.0	2,099.0					
		SN 083-0067	2,800	2,390	843.0	843.0	393.5	0.4	0.4	393.9	393.9
		Total	9,060		2,609.0	2,942.0					
Overtopping	500	SN 083-0011	8,360	8,530	1,793.0	2,161.0					
		SN 083-0067	2,940	2,770	843.0	843.0	394.2	0.6	0.6	394.8	394.8
		Total	11,300		2,636.0	3,004.0					

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 200,360 Lbs. (M270 Grade 50)

Calculated weight of Structural Steel = 19,040 Lbs. (M270 Grade 36)

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

Reinforcement bars designated (E) shall be epoxy coated.

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{4}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.

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

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Slipforming of the parapet is not allowed.

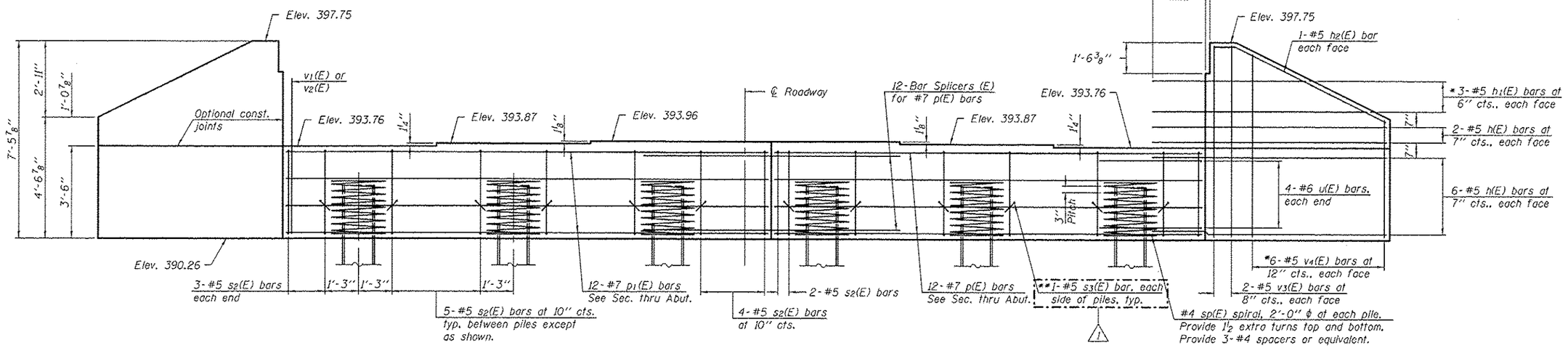
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		691	691
Filter Fabric	Sq. Yd.		691	691
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		254	254
Floor Drains	Each	24		24
Concrete Structures	Cu. Yd.		126.8	126.8 /1
Concrete Superstructure	Cu. Yd.	353.3		353.3
Bridge Deck Grooving	Sq. Yd.	866		866
Protective Coat	Sq. Yd.	1,120		1,120
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,996		3,996
Reinforcement Bars, Epoxy Coated	Pound	86,600	13,690	100,290 /1
Bar Splicers	Each	736	166	902
Furnishing Steel Piles HP12x84	Foot		498	498
Furnishing Steel Piles HP14x117	Foot		402	402
Driving Piles	Foot		900	900
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		48	48
Geocomposite Wall Drain	Sq. Yd.		62	62
Granular Backfill for Structures	Cu. Yd.		120	120
Temporary Sheet Piling	Sq. Ft.		250	250
Pipe Underdrains for Structures 4"	Foot		140	140
Setting Piles in Rock	Each		12	12
Temporary Soil Retention System	Sq. Ft.		80	80

$DATES $TIMES

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED	DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 083 - 0067	F.A.P. RTE. 881 / SECTION 32B-1 / COUNTY SALINE / TOTAL SHEETS 66 / SHEET NO. 25
CHECKED - IRENE PANTOJA	PASSED	REVISED /1 12/17/2015 J.M.O.		SHEET NO. 2 OF 26 SHEETS	CONTRACT NO. 78083
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED - J.M.O. / I.P. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES				

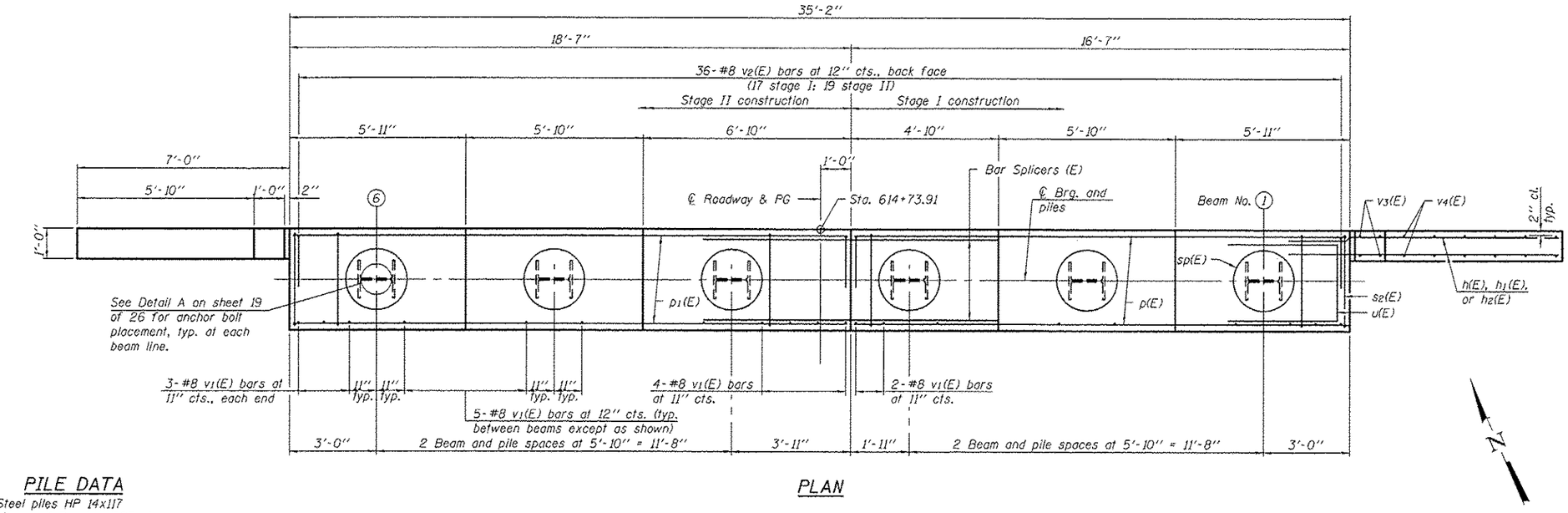
Notes:
Pour steps monolithically with cap.
See sheet 19 of 26 for additional abutment details and Bill of Material.
For bar splicer details, see sheet 24 of 26.
For details of piles, see sheet 23 of 26.



ELEVATION

* See field cutting diagram on sheet 19 of 26.

** Hook s3(E) bar around p(E) or p1(E) and s2(E) bars. Clear cover for the s3(E) bar will be 1 3/8".



PLAN

PILE DATA

Type: Steel piles HP 14x117
Nominal Required Bearing: 929 kips
Factored Resistance Available: 511 kips
Est. Length: 29'
No. Production Piles: 6
No. Test Piles: None

$DATES STIMES

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED	Jayne F. Schlitt ENGINEER OF BRIDGE DESIGN	DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH ABUTMENT STRUCTURE NO. 083 - 0067	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - IRENE PANTOJA / N.R.B.						881	32B-1	SALINE	66	40
DRAWN - MICHAEL B. MOSSMAN	PASSED	M Carl Trapp ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED 12/17/2015 J.M.O.		SHEET NO. 17 OF 26 SHEETS			CONTRACT NO. 78083		
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.			REVISED					ILLINOIS FED. AID PROJECT		

Notes:
Pour steps monolithically with cap.
See sheet 19 of 26 for additional abutment details and Bill of Material.
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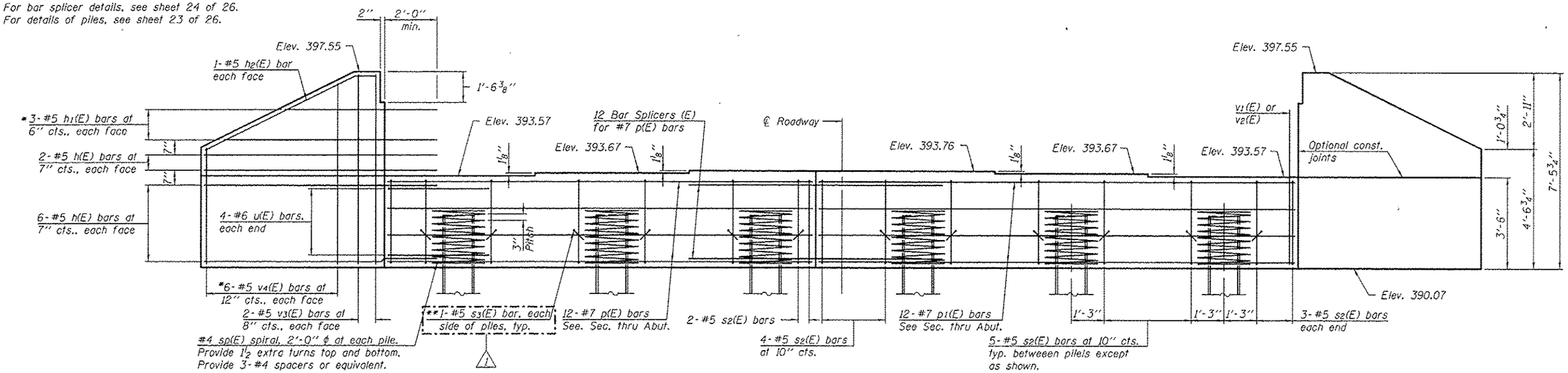
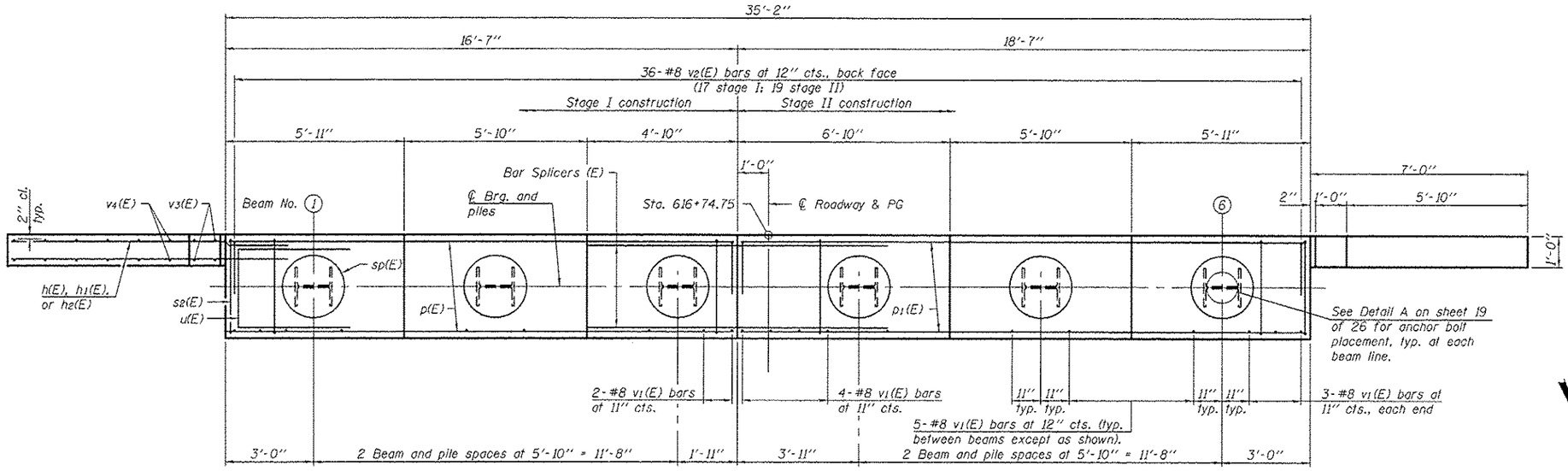


ELEVATION

* See field cutting diagram on sheet 19 of 26.

1 ** Hook s3(E) bar around p(E) or p1(E) and s2(E) bars. Clear cover for the s3(E) bar will be 1 3/8".



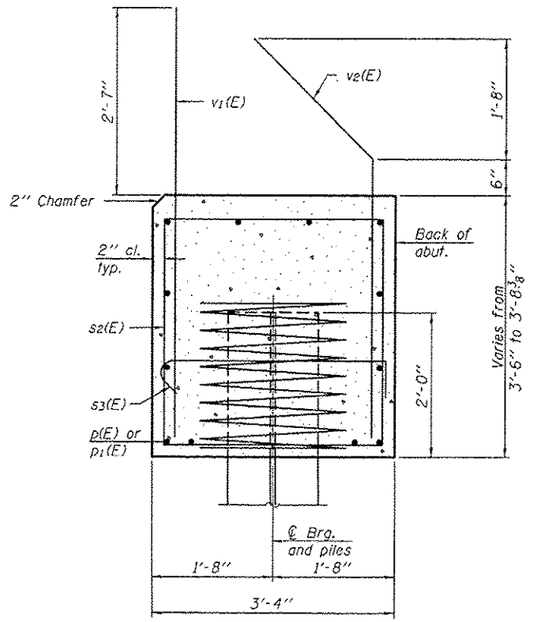
PLAN

PILE DATA

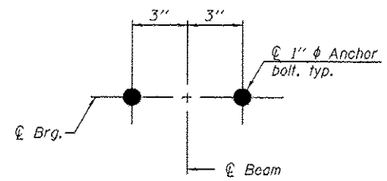
Type: Steel piles HP 14x117
Nominal Required Bearing: 929 kips
Factored Resistance Available: 511 kips
Est. Length: 38'
No. Production Piles: 6
No. Test Piles: None

STIMES
$DATES

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED	Joyce F. Aldridge ENGINEER OF BRIDGE DESIGN	DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOUTH ABUTMENT STRUCTURE NO. 083 - 0067	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - IRENE PANTOJA / N.R.B.	PASSED	M. Carl Riggs ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED 1 12/17/2015 J.M.O.		SHEET NO. 18 OF 26 SHEETS	881	328-1	SALINE	66	41
DRAWN - MICHAEL B. MOSSMAN			REVISED					CONTRACT NO. 78083		
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.								ILLINOIS FED. AID PROJECT		



SECTION THRU ABUTMENT



DETAIL A

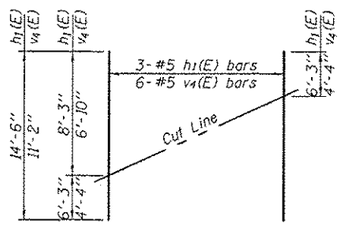
NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#5	8'-10"	
h1(E)	6	#5	14'-6"	
h2(E)	4	#5	7'-1"	
p(E)	12	#7	16'-3"	
p1(E)	12	#7	18'-3"	
s2(E)	32	#5	13'-3"	
s3(E)	12	#5	4'-1"	⚠1
sp(E)	6	#4	2'-0"	
u(E)	8	#6	10'-6"	
v1(E)	32	#8	5'-11"	
v2(E)	36	#8	6'-2"	
v3(E)	8	#5	7'-1"	
v4(E)	12	#5	11'-2"	
Structure Excavation		Cu. Yd.	43.7	
Concrete Structures		Cu. Yd.	18.9	
Reinforcement Bars, Epoxy Coated		Pound	3,460	⚠1
Furnishing Steel Piles, HP 14x117		Foot	174	
Driving Piles		Foot	174	

SOUTH ABUTMENT BILL OF MATERIAL

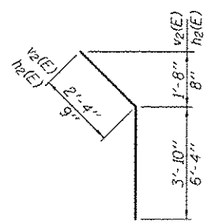
Bar	No.	Size	Length	Shape
h(E)	32	#5	8'-10"	
h1(E)	6	#5	14'-6"	
h2(E)	4	#5	7'-1"	
p(E)	12	#7	16'-3"	
p1(E)	12	#7	18'-3"	
s2(E)	32	#5	13'-3"	
s3(E)	12	#5	4'-1"	⚠1
sp(E)	6	#4	2'-0"	
u(E)	8	#6	10'-6"	
v1(E)	32	#8	5'-11"	
v2(E)	36	#8	6'-2"	
v3(E)	8	#5	7'-1"	
v4(E)	12	#5	11'-2"	
Structure Excavation		Cu. Yd.	43.7	
Concrete Structures		Cu. Yd.	18.9	
Reinforcement Bars, Epoxy Coated		Pound	3,460	⚠1
Furnishing Steel Piles, HP 14x117		Foot	228	
Driving Piles		Foot	228	
			0	

For details of piles see sheet 23 of 26.

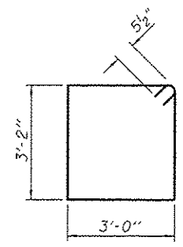


FIELD CUTTING DIAGRAM

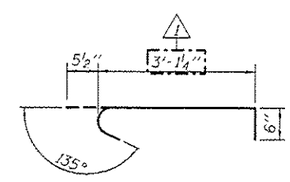
Order $h_1(E)$ and $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



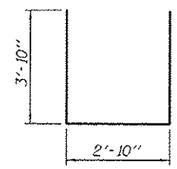
BAR $v_2(E)$ & $h_2(E)$



BAR $s_2(E)$



BAR $s_3(E)$

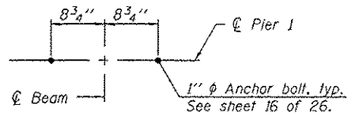


BAR u(E)

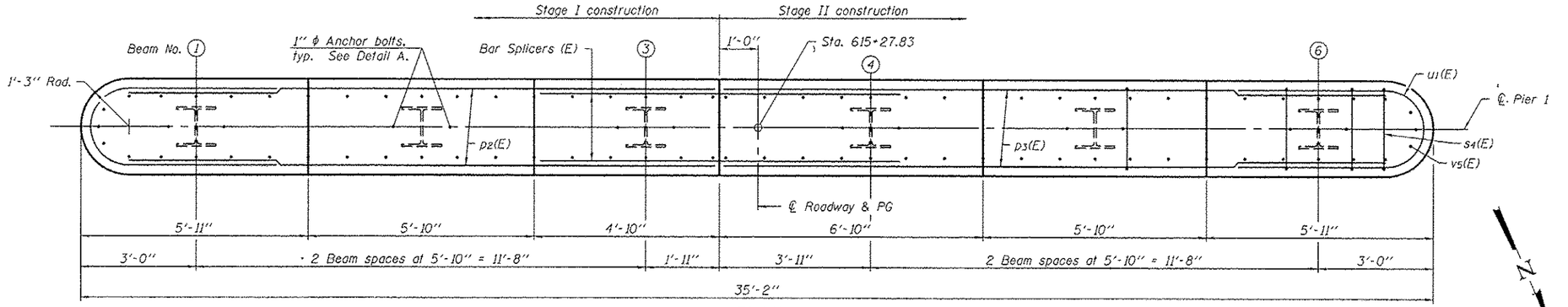
S:\DATES STIMES

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED	DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENTS STRUCTURE NO. 083 - 0067	F.A.P. RTE. 881 | SECTION 32B-1 | COUNTY SALINE | TOTAL SHEETS 66 | SHEET NO. 42
CHECKED - IRENE PANTOJA / N.R.B.	PASSED	REVISED ⚠1 12/17/2015 J.M.O.		SHEET NO. 19 OF 26 SHEETS	CONTRACT NO. 78083
DRAWN - MICHAEL B. MOSSMAN	ENGINEER OF BRIDGE DESIGN	REVISED			ILLINOIS FED. AID PROJECT
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.	ACTING ENGINEER OF BRIDGES AND STRUCTURES				

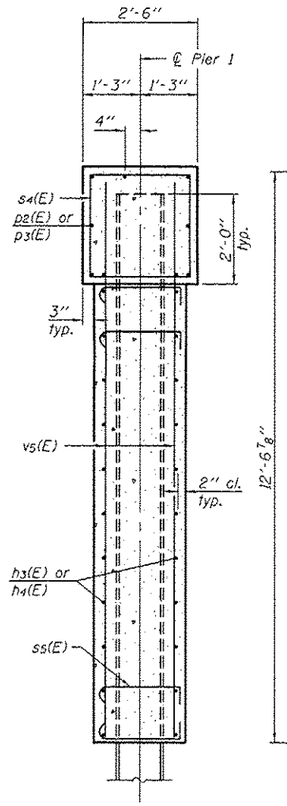
Notes:
Pour steps monolithically with cap.
See sheet 22 of 26 for additional pier details and Bill of Material.
Space reinforcement in cap to miss anchor bolts.
For details of piles, see sheet 23 of 26.
For bar splicer details, see sheet 24 of 26.



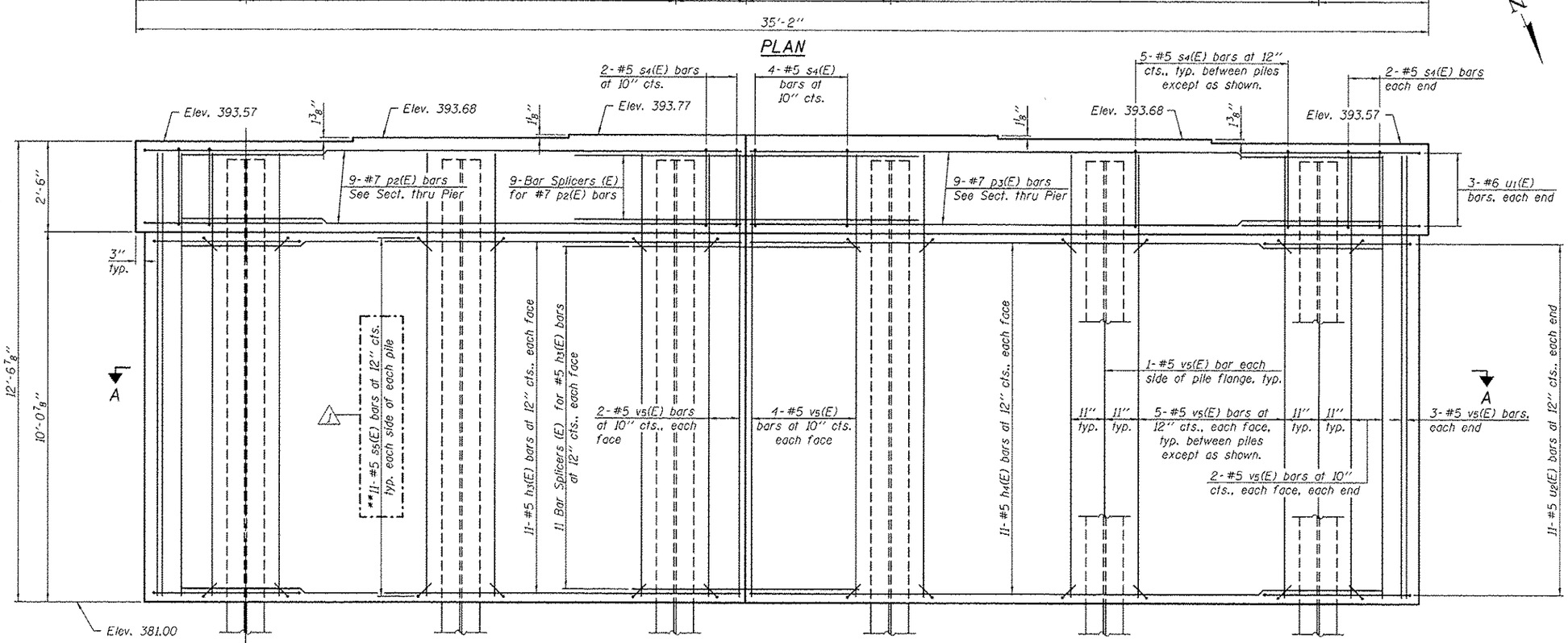
DETAIL A



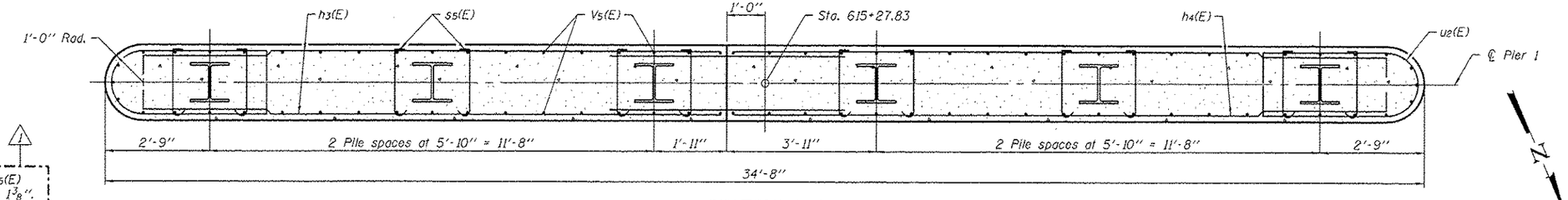
PLAN



SECTION THRU PIER



ELEVATION



SECTION A-A

* For Rock Socket Detail and Pile Data, see sheet 22 of 26.

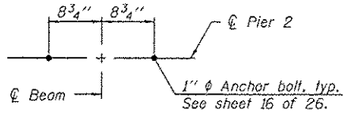
** Hook s5(E) bar around h3(E) or h4(E) and v5(E) bars. Clear cover for the s5(E) bar will be 1⅜".

$DATE$ $TIME$

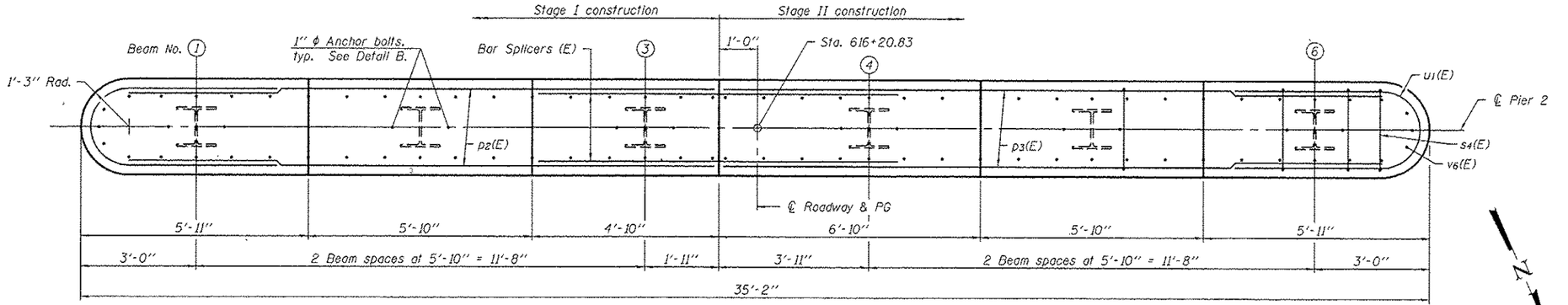
DESIGNED - JOSHUA M. QDORIZZI	EXAMINED	DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - IRENE PANTOJA / N.R.B.			
DRAWN - MICHAEL B. MOSSMAN	PASSED	REVISED 1 12/17/2015 J.M.O.	PIER 1 STRUCTURE NO. 083 - 0067
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.	ENGINEER OF BRIDGE DESIGN ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED	SHEET NO. 20 OF 26 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
881	32B-1	SALINE	66	43
		CONTRACT NO. 78083		
		ILLINOIS FED. AID PROJECT		

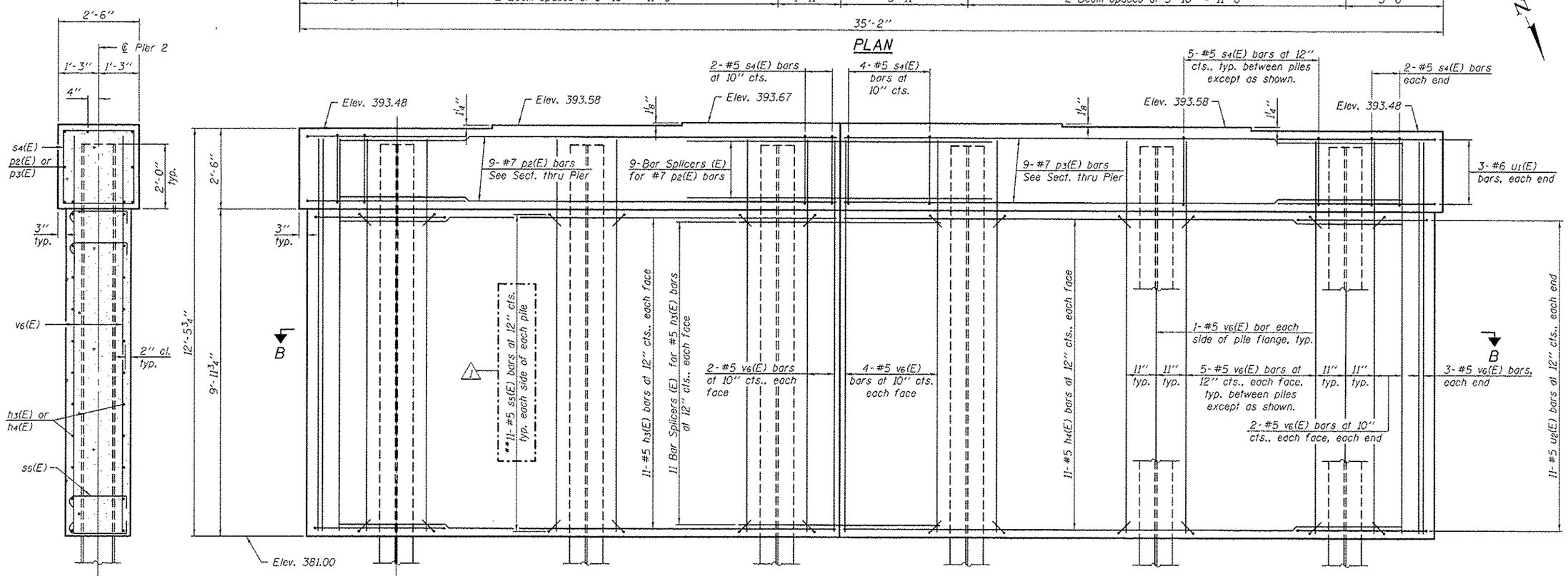
Notes:
Pour steps monolithically with cap.
See sheet 22 of 26 for additional pier details and Bill of Material.
Space reinforcement in cap to miss anchor bolts.
For details of piles, see sheet 23 of 26.
For bar splicer details, see sheet 24 of 26.



DETAIL B

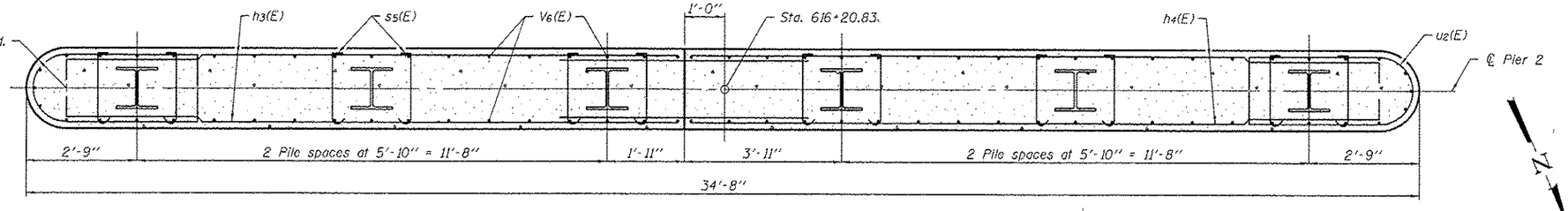


PLAN



SECTION THRU PIER

ELEVATION



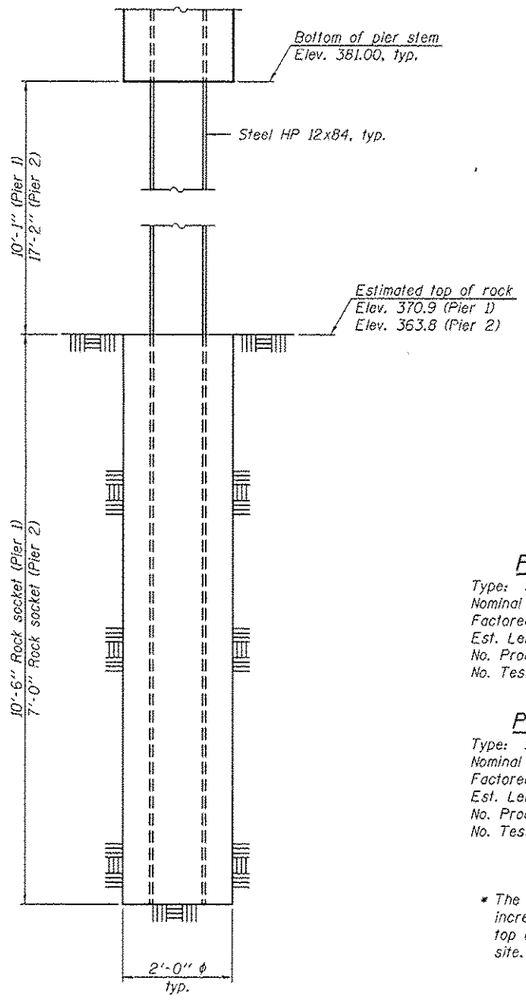
SECTION B-B

* For Rock Socket Detail and Pile Data, see sheet 22 of 26.

1/ ** Hook s5(E) bar around h3(E) or h4(E) and v6(E) bars. Clear cover for the s5(E) bar will be 1⅜".

SDATES STIMES

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED		DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 2 STRUCTURE NO. 083 - 0067	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - IRENE PANTOJA / N.R.B.	PASSED	ENGINEER OF BRIDGE DESIGN	REVISED 1/ 12/17/2015 J.M.O.		SHEET NO. 21 OF 26 SHEETS	881	32B-1	SALINE	66	44
DRAWN - MICHAEL B. MOSSMAN		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					CONTRACT NO. 78083		
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.								ILLINOIS FED. AID PROJECT		



ROCK SOCKET DETAIL

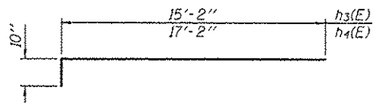
PIER 1 PILE DATA

Type: Steel piles HP 12x84
Nominal Required Bearing: Set in rock
Factored Resistance Available: 365 kips
Est. Length: *43'
No. Production Piles: 6
No. Test Piles: None

PIER 2 PILE DATA

Type: Steel piles HP 12x84
Nominal Required Bearing: Set in rock
Factored Resistance Available: 365 kips
Est. Length: *40'
No. Production Piles: 6
No. Test Piles: None

* The estimated pile length has been increased to account for the variable top of rock elevation throughout the site.



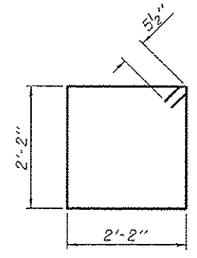
BARS h3(E) & h4(E)

PIER 1 BILL OF MATERIAL

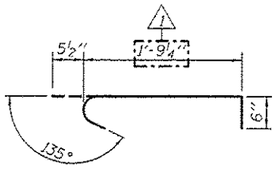
Bar	No.	Size	Length	Shape
h3(E)	22	#5	16'-0"	
h4(E)	22	#5	18'-0"	
p2(E)	9	#7	15'-2"	
p3(E)	9	#7	17'-2"	
s4(E)	30	#5	9'-7"	
s5(E)	132	#5	2'-9"	
u1(E)	6	#6	10'-11"	
u2(E)	22	#5	10'-10"	
v5(E)	78	#5	12'-2"	
Structure Excavation		Cu. Yd.	51.0	
Concrete Structures		Cu. Yd.	34.1	
Reinforcement Bars, Epoxy Coated		Pound	3,390	
Furnishing Steel Piles, HP 12x84		Foot	258	
Setting Piles in Rock		Each	6	

PIER 2 BILL OF MATERIAL

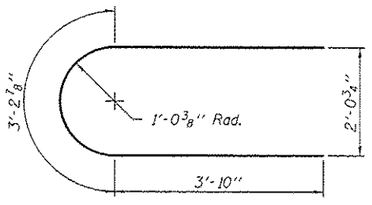
Bar	No.	Size	Length	Shape
h3(E)	22	#5	16'-0"	
h4(E)	22	#5	18'-0"	
p2(E)	9	#7	15'-2"	
p3(E)	9	#7	17'-2"	
s4(E)	30	#5	9'-7"	
s5(E)	132	#5	2'-9"	
u1(E)	6	#6	10'-11"	
u2(E)	22	#5	10'-10"	
v6(E)	78	#5	12'-1"	
Structure Excavation		Cu. Yd.	51.0	
Concrete Structures		Cu. Yd.	33.9	
Reinforcement Bars, Epoxy Coated		Pound	3,380	
Furnishing Steel Piles, HP 12x84		Foot	240	
Setting Piles in Rock		Each	6	



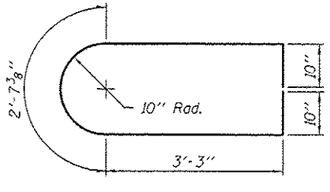
BAR s4(E)



BAR s5(E)



BAR u1(E)



BAR u2(E)

$DATE$ $TIME$

DESIGNED - JOSHUA M. ODORIZZI	EXAMINED		DATE - DECEMBER 7, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER DETAILS STRUCTURE NO. 083 - 0067	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - IRENE PANTOJA / N.R.B.	PASSED	ENGINEER OF BRIDGE DESIGN	REVISED 12/17/2015 J.M.O.		SHEET NO. 22 OF 26 SHEETS	881	32B-1	SALINE	66	45
DRAWN - MICHAEL B. MOSSMAN		ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED					CONTRACT NO. 78083		
CHECKED - J.M.O. / I.P. / N.R.B. / G.R.A.						ILLINOIS	FED. AID PROJECT			