STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DIVISION OF HIGHWAYS** 

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PROPOSED HIGHWAY PLANS

IDOT / IDNR STATEWIDE STEPHEN FORBES STATE PARK ROADWAY IMPROVEMENTS MARION COUNTY

C-30-005-08



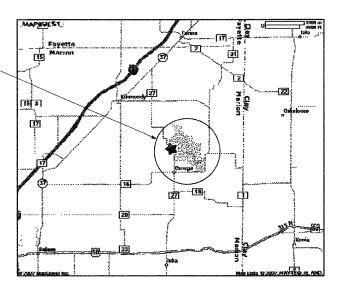
PROPOSED IMPROVEMENT VARIOUS LOCATIONS

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT ENGINEER PROJECT MANAGER

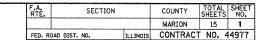
CONTRACT NO. 44977

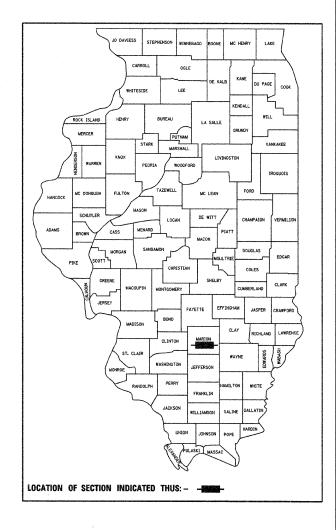


GROSS LENGTH OF PROJECT = 481.15 FT. = 0.09 MILES









STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

UBMITTED March 3, 20 08

Eric E Harrel

DEPUTY DIRECTOR OF HIGHWAYS,

March 2), 20 08

Eric E Harrel

John ENGINEER OF DESIGN AND ENVIRONMENT

Wash 2) 20 08

Christia M. Reed (Q)
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

B NO. 250-061-E VASCONCELLES ENGINEERING CORP, DESIGN FIRM REGISTRATION OF THE PROPERTY OF THE

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#### SFTY-2A 100% STATE

	SUMMARY	OF QUANTITIES		
	CODE #	PAY ITEM	UNITS	TOTAL
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	39
		EARTH EXCAVATION	CU YD	180
		FURNISHED EXCAVATION	CU YD	221
		SEEDING, CLASS 2	ACRE	0.3
		NITROGEN FERTILIZER NUTRIENT	POUND	27
		PHOSPHORUS FERTILIZER NUTRIENT	POUND	27
		POTASSIUM FERTILIZER NUTRIENT	POUND	27
		AGRICULTURAL GROUND LIMESTONE	TON	0.6
		TEMPORARY DITCH CHECKS	EACH	7
	35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	1710
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	641
	40600300	AGGREGATE (PRIME COAT)	TON	5
	40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	154
	44000169	HOT-MIX ASPHALT SURFACE REMOVAL, 5"	SQ YD	1638
	44002220	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 5"	SQ YD	31
	44212899	PAVEMENT PATCHING (FULL DEPTH)	SQ YD	31
	50200100	STRUCTURE EXCAVATION	CU YD	24
×	50700105	TREATED TIMBER	F.B.M.	22433
	50700305	HARDWARE	POUND	1595
	51201400	FURNISHING STEEL PILES HP 10X42	FOOT	48
	51202305	DRIVING PILES	FOOT	48
	60100060	CONCRETE HEADWALLS FOR PIPE UNDERDRAINS	EACH	1
	60107600	PIPE UNDERDRAINS 4"	FOOT	850
	6330(100	REMOVE AND RE-ERECT OF EXISTING STEELPLATE BEAM GUARD RAIL, SINGLE RAIL	FOOT	233
	67100100	MOBILIZATION	L SUM	1
	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	11
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	11
	X0325940	BRIDGE DECK REMOVAL	EACH	11
		BRIDGE RAIL	FOOT	474
		SILICONE JOINT SEALER	FOOT	52
		ACCESS LADDER	EACH	1
		CONCRETE LANDING SLAB	SQ FT	25
	X0325943	RUNNER REMOVAL	SQ FT	723
	44000300	CURB REMOVAL	FOOT	241
	50104000	BRIDGE RAIL REMOVAL	FOOT	241
	X0325944	DECK PLANK REMOVAL	SQ FT	504
	X0325945	BACKWALL AND WINGWALL REMOVAL	SQ FT	196
	X0325946	CLEANING DECK	SQ FT	1297
			<del> </del>	
			<b></b>	<u> </u>
			<b></b>	

\* SPECIALTY ITEMS

### LIST OF STANDARDS

280001-04

601001-02

601101

701501-04 701901

B.L.R. 21-7

## MIXES AND APPLICATION RATE TABLES

PRIME APPLIC	ATION RATES
BIT	AGGREGATE
MATLS	PRIME
PR CT	COAT
0.375 GAL/	5.0 LB/
SQ YD	SQ YD

## INDEX OF SHEETS

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	INDEX OF SHEETS, LIST OF STANDARDS, GENERAL NOTES, AND SUMMARY OF QUANTITIES
3	TYPICAL SECTIONS AND OVERALL LAYOUT
4	SCHEDULE OF QUANTITIES
5	PLAN/PROFILE SHEET
6-7	CROSS SECTIONS
8	DETAILS AND EROSOIN CONTROL PLAN
9	GENERAL PLAN AND ELEVATION, THUNDER BRIDGE
10	SUPERSTRUCTURE DETAILS, THUNDER BRIDGE
11	SUBSTRUCTURE DETAILS, THUNDER BRIDGE
12	GENERAL PLAN AND ELEVATION, SPILLWAY BRIDGE
13	SUPERSTRUCTURE DETAILS, SPILLWAY BRIDGE
14	GENERAL PLAN AND ELEVATION, BIOSTATION BRIDGE
15	SUPERSTRUCTURE DETAILS, BIOSTATION BRIDGE

## GENERAL NOTES

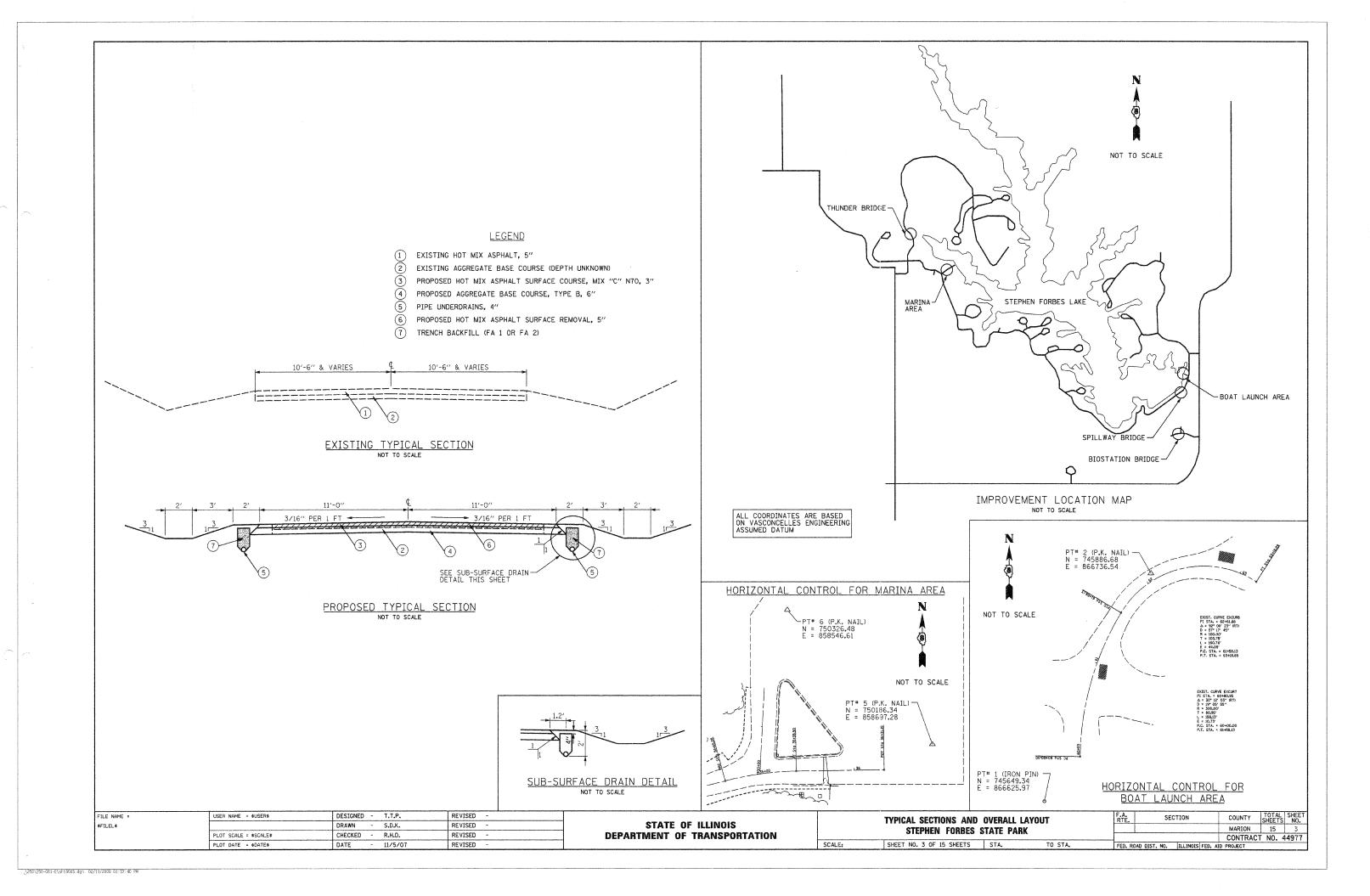
- ALL ELEVATIONS ARE REFERENCED TO ELEVATIONS ESTABLISHED BY VASCONCELLES ENGINEERING CORP.
- 2) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED. THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. IF THE ENGINEER DECIDES TO HAVE THE CONTRACTOR RESET THE MONUMENT, THIS WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
- THE CONTRACTOR SHALL CONTACT J.U.L.I.E. PRIOR TO ANY EXCAVATION TO HAVE ALL PUBLIC AND PRIVATE UTILITIES LOCATED.
- 4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY
  PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE
  107.26 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS
  (800) 892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
  SEE SPECIAL PROVISIONS FOR STATUS OF UTILITIES, WITH UTILITY COMPANIES
  LISTED.
- 5) ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS INCLUDED IN THE PLANS.
- 6) ALL DETAILS IN THE PLANS SHALL GOVERN CONSTRUCTION OF THIS PROJECT, AND IN CASE OF CONFLICT WITH ANY STANDARD DRAWINGS INCLUDED, THE SAID DETAILS SHALL TAKE PRECEDENCE AND GOVERN.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, LIST OF STANDARDS, GENERAL NOTES, &
SUMMARY OF QUANTITIES
STEPHEN FORBES STATE PARK
SCALE: SHEET NO. 2 OF 15 SHEETS STA. TO STA.

CONCELLES ENGINEERING CORP. DESIGN FIRM REGISTR

\256\250-061-E\sh:0002.dor. C2/11/2008.01: 44:26.PM



TREE REMOVAL					
LOCATION	OFFSET	OVER 15			
		UNIT			
32+54.14	28.42 RT	19			
33+48.38	27.53 RT	20			
TOTAL =		39			

EARTH EXCAVATION				
	VOLUME			
LOCATION (STATION TO STATION)	(CU. YD.)			
MARINIA ROAD 30+25 TO 35+85	180			
TOTAL =	180			

EROSION CONTROL	
LOCATION	TEMP DITCH CHECKS
	(EACH)
MARINA ROAD	
32+25 RIGHT AND LEFT	2
33+75 RIGHT AND LEFT	2
34+70 RIGHT AND LEFT	2
35+75 RIGHT	11
TOTAL =	7

SEEDING SCHEDULE						
LOCATION (STATION TO STATION)	SEEDING CL 2	NITROGEN FERT NUTR	PHOSPHORUS FERT NUTR	POTASSIUM FERT NUTR	AGR GROUND LIMESTONE	
	(ACRE)	(LBS.)	(LBS.)	(LBS.)	(TON)	
MARINA ROAD & THUNDER BRIDGE	0.3	27	27	27	0.6	
TOTAL =	0.3	27	27	27	0.6	

ROAD REHABILITATION SCHEDULE							
LOCATION	AGG BASE CSE B6	BIT MATLS PR CT	AGG PR CT	HMA SC "C" N70	HMA SURF REM 5"	HMA RM OV PATCH 5"	FULL DEPTH PVT PATCHING
	(SQ YD)	(GALLONS)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)
MARINA ROAD							
30+45.00 TO 35+75.00	1350	506	4	115	1303		
100+11.24 TO 100+89.97	268	101	0.7	23	243		
PARK ROAD							
60+85.00 TO 61+00.00						13	13
62+75.00 TO 62+90.00						18	18
THUNDER BRIDGE			0.45	_	46		
9+80 TO 10+00	46	17	0.15	8	46		
11+16.50 TO 11+36.50	46	17	0.15	8	46		
TOTAL =	1710	641	5	154	1638	31	31

STRUCTURE EXCATATION						
STRUCTURE NO.	FROM STATION	TO STATION	CU YD			
061-9920 (THUNDER BRIDGE)	9+80	10+00	12			
061-9920 (THUNDER BRIDGE)	11+16.50	11+36.50	12			
TOTAL =			24			

TREATED TIM	HARDWARE			
STRUCTURE NO.	QUANTITY (F.B.M.)	STRUCTUF	RE NO.	QUANTITY (POUND)
061-9920 (THUNDER BRIDGE)	17595	061-9920 (THUNDER BRIDGE)		1292
061-9201 (BIO-STATION) 4838		061-9201 (BIO-STAT	FION)	303
TOTAL =	22433	TOTAL =		1595

FURNISHING STEEL PILES HP 10×42							
STRUCTURE NO.	TRUCTURE NO. STATION FT		QUANTITY (FOOT)				
061-9920 (THUNDER BRIDGE)	10+00	RT	12				
061-9920 (THUNDER BRIDGE)	10+00	LT	12				
061-9920 (THUNDER BRIDGE)	11+16.50	RT	12				
061-9920 (THUNDER BRIDGE)	11+16.50	LT	12				
TOTAL =	48						

DRIVING PILES							
STRUCTURE NO.	TRUCTURE NO. STATION FT L		QUANTITY (FOOT)				
061-9920 (THUNDER BRIDGE)	10+00	RT	12				
061-9920 (THUNDER BRIDGE)	10+00	LT	12				
061-9920 (THUNDER BRIDGE)	11+16.50	RT	12				
061-9920 (THUNDER BRIDGE)	11+16.50	LT	12				
TOTAL =			48				

DRAINAGE SCHEDULE			
LOCATION	PIPE UNDERDRAINS 4"	CONC HDWL FOR P DRAIN	
	(FOOT)	(EACH)	
MARINA ROAD 30+45 TO 34+66 LEFT 30+45 TO 34+58 RIGHT 34+58 34+66 LEFT	421 413 16	1	
TOTAL =	850	1	

REM. & REIN. O	F EXISTING P	LATE BEAM	RAIL
STRUCTURE NO.	STA. TO STA.	LT OR RT	QUANTITY (FOOT)
061-9920	10+00-11+16.5	RT	116.5
(THUNDER BRIDGE)	10+00-11+16.5	LT	116.5
TOTAL =		L	233

MOBILIZATION		
LOCATION	QUANTITY (LSUM)	
ENTIRE PROJECT	1 LSUM	
TOTAL =	1 LSUM	

TRAFFIC CONTROL			
LOCATION	TRAF CONT-PROT BLR 21 (LSUM)	TRAF CONT&PROT 701501 (LSUM)	
ENTIRE PROJECT	1 LSUM	1 LSUM	
TOTAL =	1 LSUM	1 LSUM	

REMOVAL OF EXISTING	BRIDGE DECK
STRUCTURE NO.	QUANTITY (L SUM)
061-9920 (THUNDER BRIDGE)	1
TOTAL =	1

	BRIDGE RAIL		
STRUCTURE NO.	STA. TO STA.	LT OR RT	QUANTITY (FOOT)
061-9920	10+00-11+16.5	RT	116.5
(THUNDER BRIDGE)	10+00-11+16.5	LT	116.5
061-9201 (BIOSTATION BRIDGE)	80+00-81+20.5	RT	120.5
	80+00-81+20.5	LT	120,5
TOTAL =			474

ALUMINUM LADDER			
STRUCTURE NO.	STATION	FT LT/RT	QUANTITY (EACH)
061-9900 (SPILLWAY BRIDGE)	50+00	LT	1
TOTAL =			1

CONCRETE LANDING SLAB				
STRUCTURE NO.	STATION	FT LT/RT	QUANTITY (SQ FT)	
061-9900 (SPILLWAY BRIDGE)	50+00	LT	25	
TOTAL =			25	

REMOVAL OF EXISTING	RUNNERS
STRUCTURE NO.	QUANTITY (FOOT)
061-9201 (BIOSTATION BRIDGE)	723
TOTAL =	723
REMOVAL OF EXISTING D	ECK PLANKS
STRUCTURE NO.	QUANTITY (SQ. FT.)
061-9201 (BIOSTATION BRIDGE)	504

TOTAL =

STRUCTURE NO.	QUANTITY (FOOT)
061-9201 (BIOSTATION BRIDGE)	241
TOTAL =	241

REMOVAL OF EXISTING	BRIDGE RAI
STRUCTURE NO.	QUANTITY (FOOT)
061-9201 (BIOSTATION BRIDGE)	241
TOTAL =	241

REMOVAL OF EXISTING BACKWALLS AND WINGWALLS				
STRUCTURE NO.	STATION	FT LT/RT	QUANTITY (FOOT)	
061-9920 (THUNDER BRIDGE)	10+00	RT	49	
061-9920 (THUNDER BRIDGE)	10+00	LT	49	
061-9920 (THUNDER BRIDGE)	11+16.50	RT	49	
061-9920 (THUNDER BRIDGE)	11+16.50	LT	49	
TOTAL =			196	

504

SILICONE JOINT SEALER				
STRUCTURE NO.	STATION	FT LT/RT	QUANTITY (FOOT)	
061-9900 (SPILLWAY BRIDGE)	50+00	13' LT & RT	26	
061-9900 (SPILWAY BRIDGE)	50+73.26	13' LT & RT	26	
TOTAL =			52	

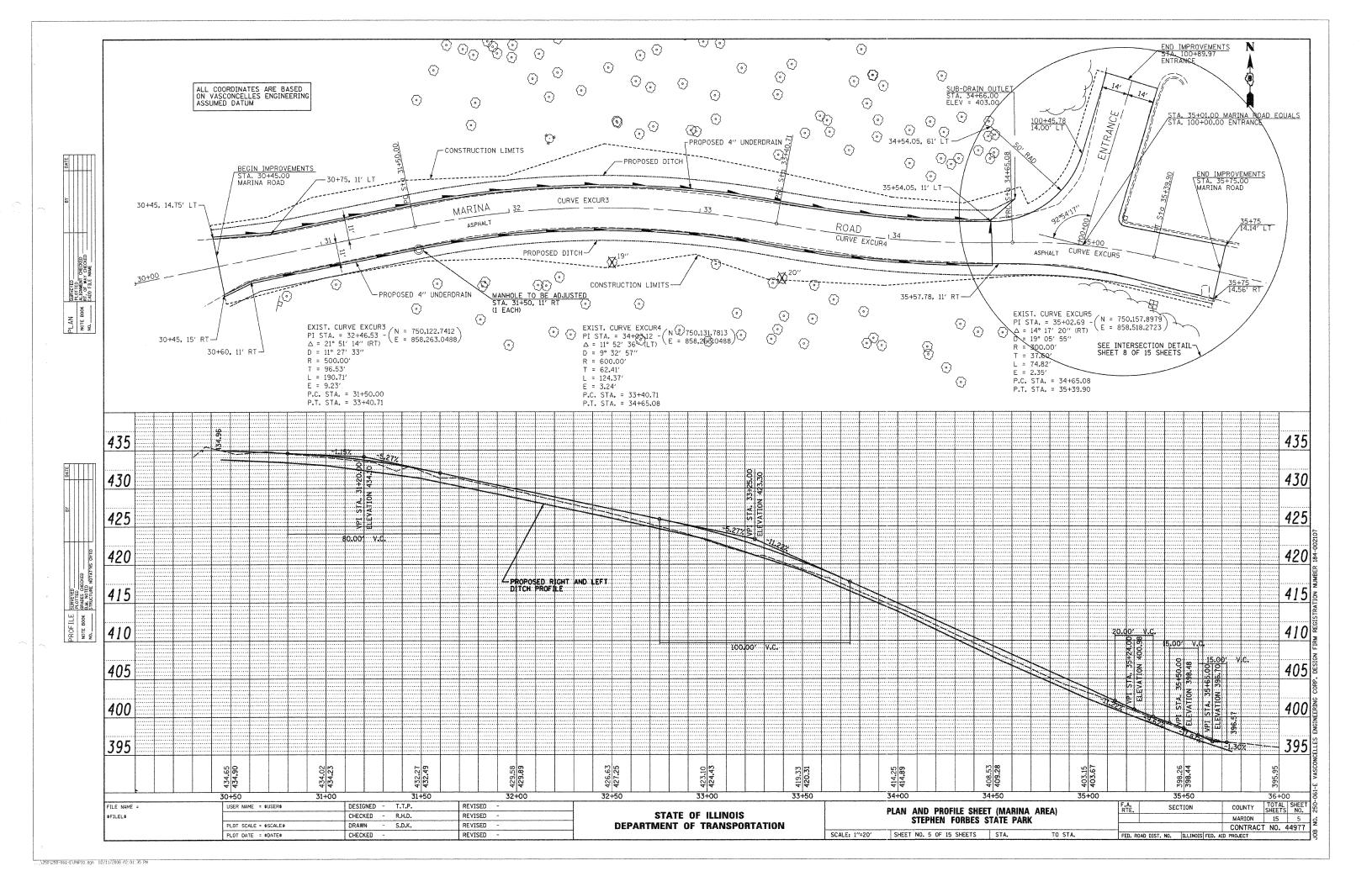
	CLEANING DEC	K	18
TITY (TC	STRUCTURE NO.	QUANTITY (SQ. FT.)	0.00
5	061-9201 (BIOSTATION BRIDGE)	1297	1
5	TOTAL =	1297	
`			- 19

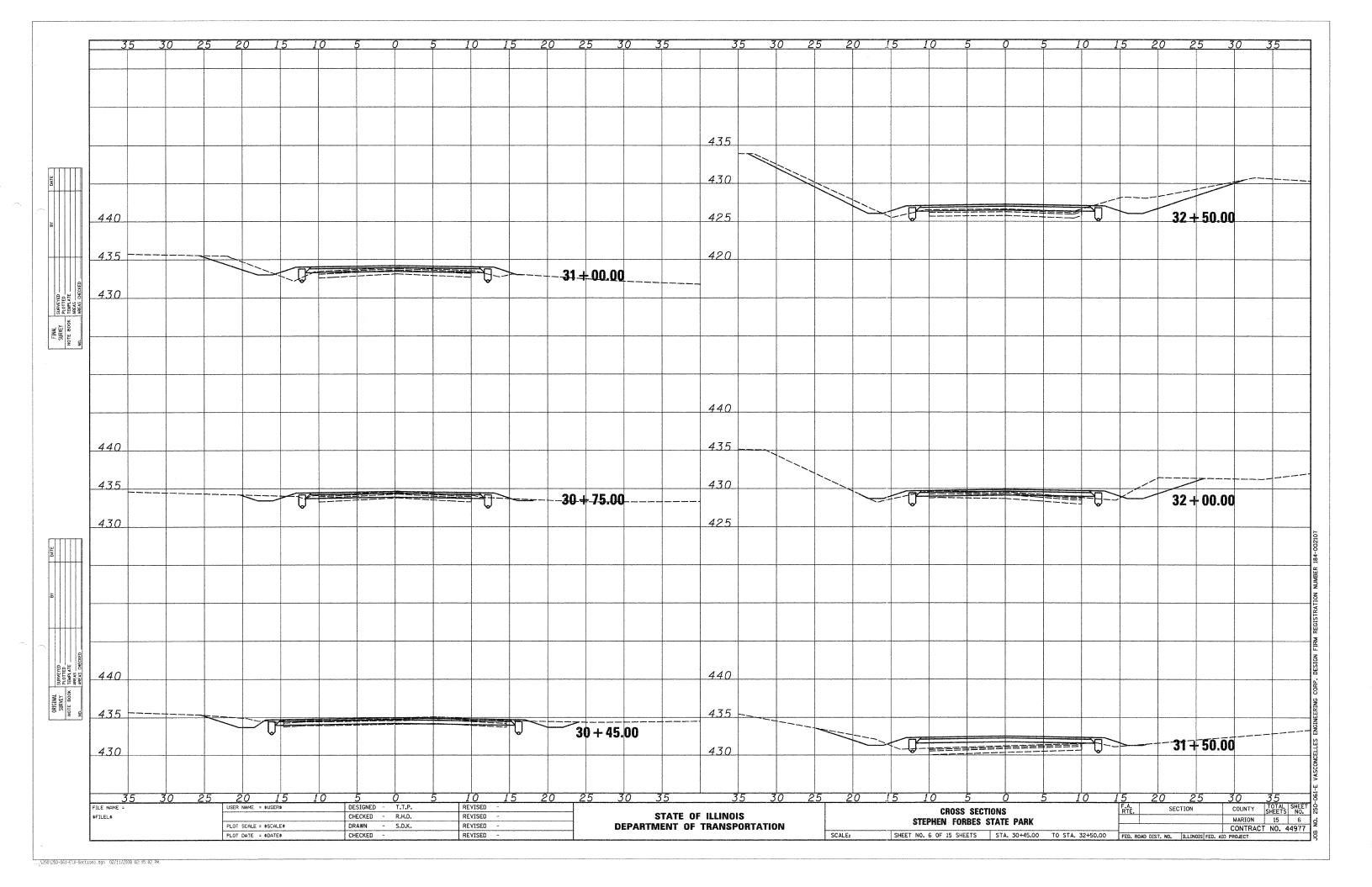
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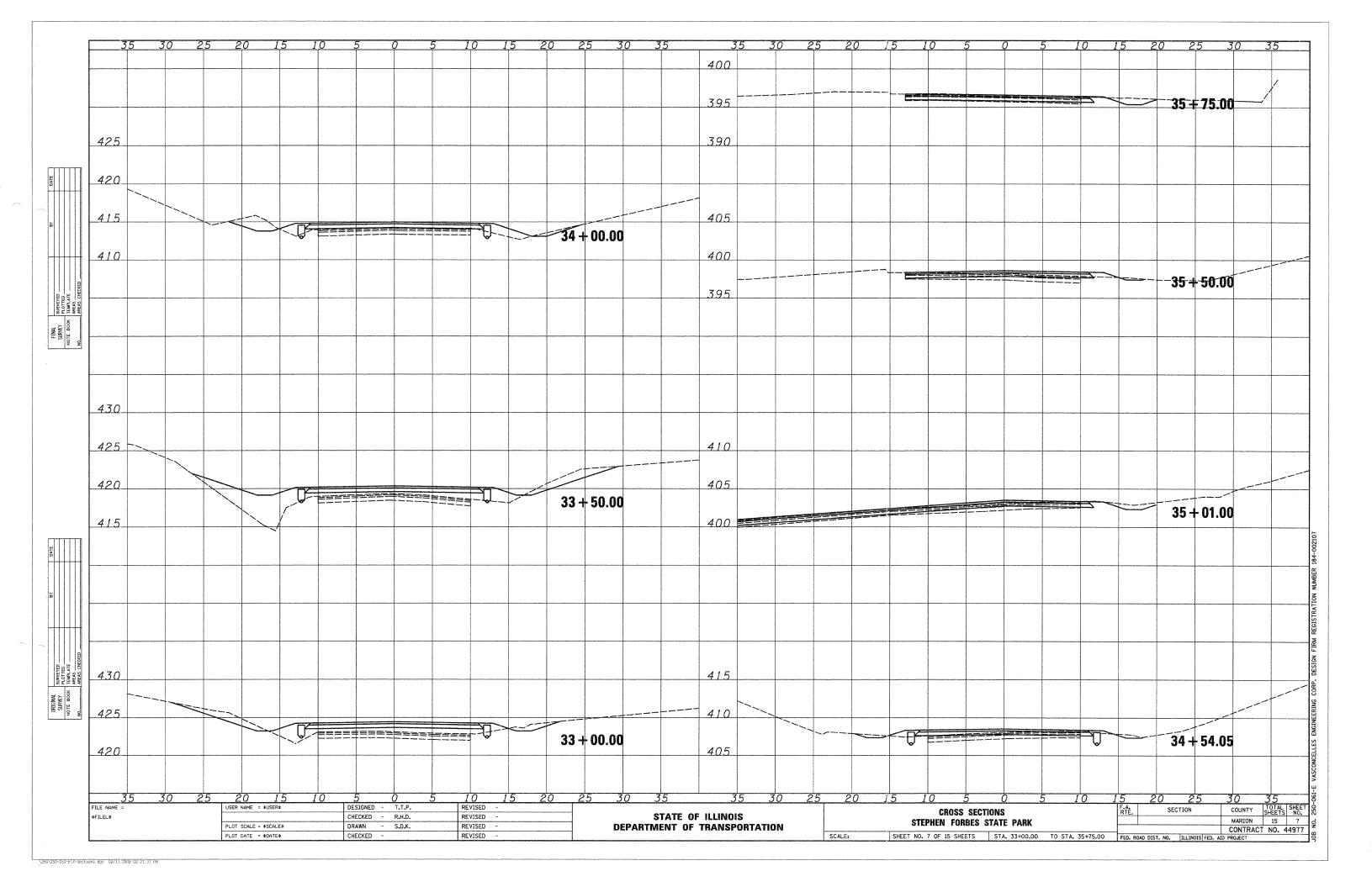
REVISED -USER NAME = \$USER\$ DESIGNED - T.T.P. DRAWN - S.D.K.
CHECKED - R.H.D. REVISED -PLOT SCALE = \$SCALE\$
PLOT DATE = \$DATE\$ REVISED -DATE - 11/5/07 REVISED -

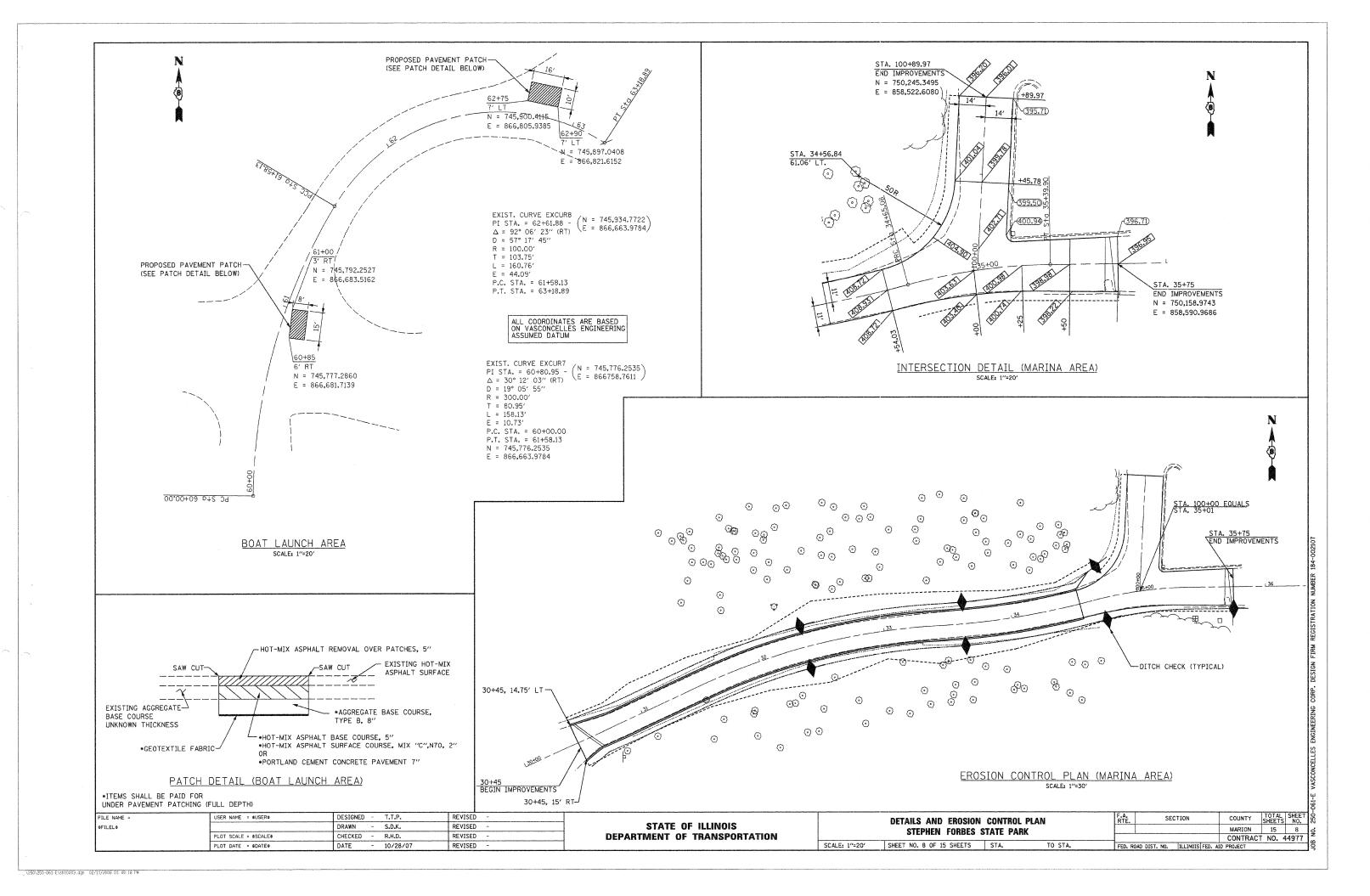
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES STEPHEN FORBES STATE PARK SHEET NO. 4 OF 15 SHEETS STA. TO STA. SCALE:







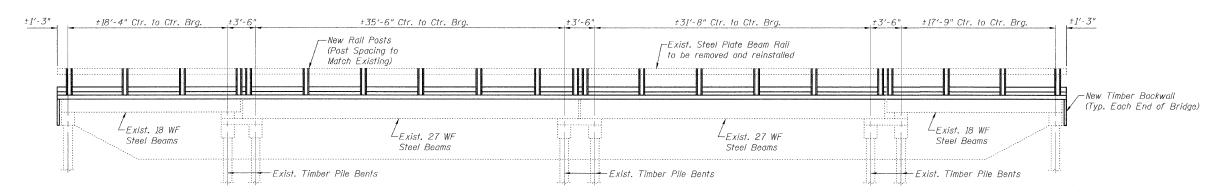


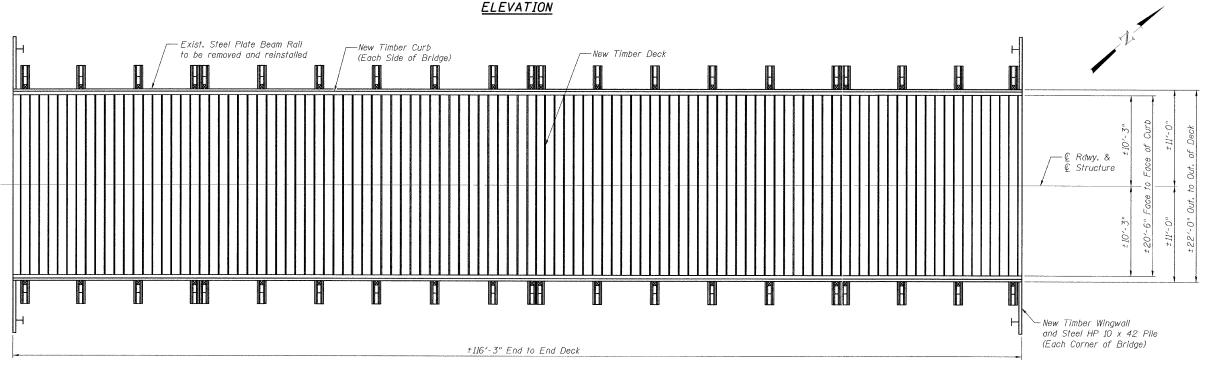
Existing Structure: Four span bridge with steel stringers, timber deck, steel plate beam bridge rail, and timber curbs.

Proposed Improvement: Replace timber curb, timber deck planks, and guardrail.

CONTRACT NO. 44977 COUNTY TOTAL SHEE SHEETS NO. SECTION MARION 15 9 TO STA. STA FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

OF 3 SHEETS





#### PLAN

#### GENERAL NOTES

All construction shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted January 1, 2007.

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

All timber shall be treated in accordance with Section 1007.12 of the Standard Specifications.

The Contractor shall predrill holes where required for driving nails. The cost of predrilling holes will be included with "Hardware".

All hardware shall be hot dip galvanized according to AASHTO M232, Class C.

#### **STRESSES**

Fb = 725 psi (Red Oak No. 2, 2" to 4" thick, 5" and wider)



Date Signed: 2/11/2008 Expiration Date: 11/30/2008

#### TOTAL BILL OF MATERIAL

TOTAL DILL OF MATTERIAL		
ITEM	UNIT	TOTAL
Remove and Re-Erect Steel Plate Beam Guardrail, Single Rail	Foot	233
Removal of Existing Bridge Deck	Each	1
Removal of Existing Backwalls and Wingwalls	Sq. Ft.	196
Treated Timber	F.B.M.	17595
Bridge Rail	Foot	233
* Hardware	Pound	1292
Furnishing Steel Piles, HP 10x42	Foot	48
Driving Piles	Foot	48

\* Includes bolts attaching curb to deck and rail posts, bolts attaching deck to steel beams, and fasteners connecting backwalls and wingwalls to new and existing piling.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Ralph E anderson ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN & ELEVATION THUNDER BRIDGE STEPHEN FORBES STATE PARK MARION COUNTY STRUCTURE NO. 061-9920

DESIGNED F.L.L. F.L.L. CHECKED M.A.H.

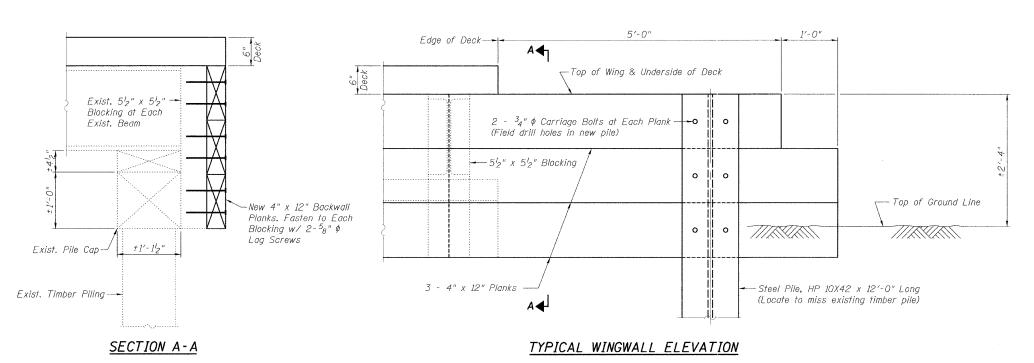
COUNTY TOTAL SHEE NO. MARION STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT SHEET NO. 2 OF 3 SHEETS Exist, Steel Rail to be Removed and Reinstalled ±20'-6" Face to Face Curb New Bridge Rail-(See Detail A) -6" x 1'-0" Decking w/ 12" Space Between Each Plank See Detail B - Exist. WF Steel Beam (Typ.) ±1'-0" ±1'-0" 5 Spaces at ±4'-0" = 20'-0" ±22'-0" CROSS SECTION THRU BRIDGE <sup>3</sup>₄" ¢ Bolt (Countersunk) with flat washer Exist. Steel Rail to beon top, lock washer and nut on bottom Removed and Reinstalled -6" x 8" Post \* (Each Plank, Each Beam). Field drill holes 1- <sup>5</sup><sub>8</sub>" ¢ Carriage — Bolt each Post∗ (Typ.) in top flange. (Cost of bolts and field drilling New Timber Deckexisting steel beams included in hardware). 1-5<sub>8</sub>" ♦ Carriage -Bolt each Post\* 2-2" x 6" Braces 8" x 6" Curb (Cont.) -(Typ. Ea. Post)\* 2-5<sub>8</sub>" ∮ Carriage Bolts each 4'-0" Block -1- <sup>5</sup>8" Ø Carriage 2-5<sub>8</sub>" ¢ Carriage Bolt each Block\* Bolts each Post SUPERSTRUCTURE BILL OF MATERIAL -4" x 6" x 16" Exist. WF Steel 4" x 8" x 4'-0" Blocks with-Blocking \* φ 2'-6" Scupper Openings Beam (Typ.) reated Timber F.B.M. 16795 Bridge Rail Foot 233
Hardware Remove and Re-Erect Steel Plate Beam Guardrail, Single Rail Foot 233 DETAIL B 6" x 1'-0" Decking -2-<sup>5</sup>8" ♦ Carriage Note: The cost of the rail post, braces, blocking, Bolts each Block\* and bridge rail hardware included with "Bridge 1'-9" Exist. WF Steel --Beam (Typ.) SUPERSTRUCTURE DETAILS DESIGNED F.L.L. \* Included in the cost of "Bridge Rail". THUNDER BRIDGE CHECKED M.A.H. STEPHEN FORBES STATE PARK DETAIL A F.L.L. MARION COUNTY DRAWN

CHECKED M.A.H.

STRUCTURE NO. 061-9920

 		U	M I K	4C I	NO.	44	911
F.A.P. RTE.	SECTION		COUN.	ΓΥ	SHEE	AL TS	SHEE NO.
			MARI	0N	15	5	11
STA.		TO	STA.				
FED. ROA	ND DIST. NO.	ILLINOIS	FED.	AID	PROJE	ECT	

SHEET NO. 3 OF 3 SHEETS



## SUBSTRUCTURE BILL OF MATERIAL

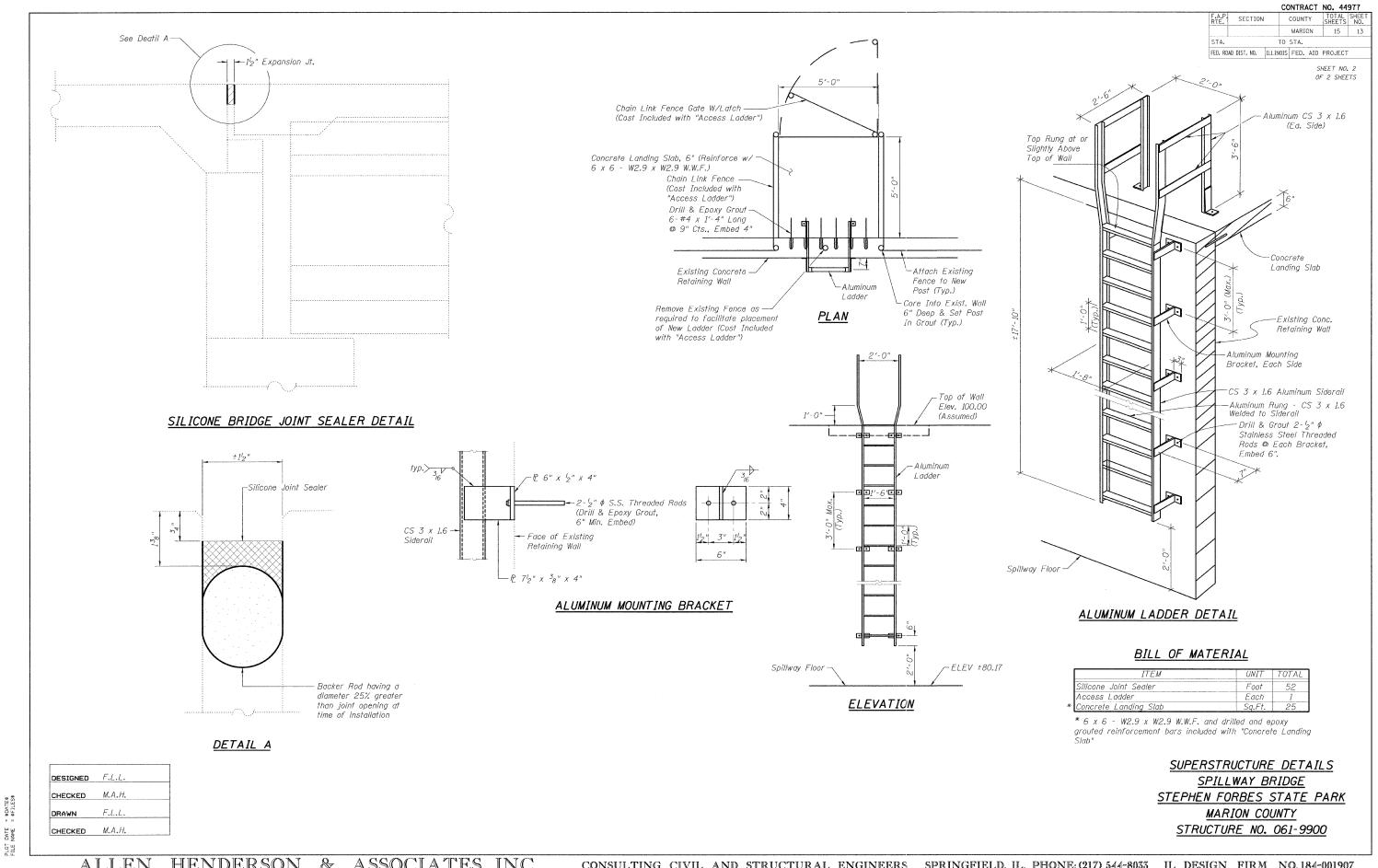
ITEM	UNIT	TOTAL	
Treated Timber	F.B.M.	800	
Hardware	Pound	80	
Furnishing Steel Piles, HP 10x42	Foot	48	
Driving Piles	Foot	48	
Removal of Existing Backwalls and Wingwalls	Sq. Ft.	196	

Note: Steel H-Piles shall be in accordance with AASHTO M270 Grade 50.

> SUBSTRUCTURE DETAILS THUNDER BRIDGE STEPHEN FORBES STATE PARK MARION COUNTY STRUCTURE NO. 061-9920

DESIGNED	F.L.L.
CHECKED	M.A.H.
DRAWN	F.L.L.
CHECKED	M.A.H.

COUNTY TOTAL SHEE SHEETS NO. MARION Existing Structure: Single Span P.P.C. I-Beam Bridge with a R.C. Deck and Steel Plate and Beam Guardrail TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT Proposed Improvement: Repair existing expansion joints and add aluminum access ladder. SHEET NO. 1 OF 2 SHEETS ±73'-3" End to End Bridge Deck  $_{1}^{l_{2}"}$  Expansion Jt. 1½" Expansion Jt. GENERAL NOTES All construction shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted ±69'-0" January 1, 2007. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work. **ELEVATION** ±74'-3" Bk. to Bk. Abutments Approach Slab ------(Typ.) r-⊈ Bridge and Dam Replace  $I_2''$  - Expansion Jt. Replace 1½' TOTAL BILL OF MATERIAL Expansion Jt. UNIT TOTAL Foot ilicone Joint Sealer Each Sa Et Access Ladder oncrete Landing Slat 6" Concrete <u>PLAN</u> Landing Slab GENERAL PLAN & ELEVATION New Access Ladder-APPROVED FOR STRUCTURAL ADEQUACY ONLY (See Sheet 2 of 2) DESIGNED F.L.L. SPILLWAY BRIDGE STEPHEN FORBES STATE PARK CHECKED M.A.H. Raplu & Audersee Engineer of Bridges and Structures F.L.L. MARION COUNTY DRAWN Date Signed: 2/11/2008 STRUCTURE NO. 061-9900 CHECKED M.A.H. Expiration Date: 11/30/2008 ALLEN HENDERSON & ASSOCIATES, INC.



Existing Structure: Three span bridge with steel stringers, timber deck, timber running boards, and timber guardrail. Proposed Improvement: Clean timber deck, remove and replace timber running boards, timber curb, timber guardrail, and damaged deck planks. ±122'-11" Bk. to Bk. Abutments ±120'-6" Out. to Out. Bridge Deck New Rail and Posts 4" x 12" x 14"-0" Deck Planks (Replace as required) -New 2" x 12" Running Boards (Post Spacing to Match Existing) New 4" x 12" x 18'-0" Deck Planks at Rail Posts —Existing 3" Cap Plank Exist, 18WF 50 -Exist. 18WF 50 -Exist. 24WF 76 ELEVATION -New 2" x 12" Running Boards Rdwy. & ∤ © Structure € Rdwy. at € Structure Sta. 9+05.54 € Pier 1 -€ Pier 2 -±32'-8" € Abut. Brg. - € Pier ±55'-1" ±32'-8" @ Pier - @ Abut. Brg. ±122'-11" Bk. to Bk. Abutments Bk. E. Abut.-Bk. W. Abut.

#### GENERAL NOTES

All construction shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted January 1, 2007.

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

All timber shall be treated in accordance with Section 1007.12 of the Standard Specifications.

The Contractor shall predrill holes where required for driving nails. The cost of predrilling holes will be included with "Hardware".

All hardware shall be hot dip galvanized according to AASHTO M232, Class C.

#### PLAN

#### **STRESSES**

Fb = 1050 psi (Red Oak No. 2, 2" to 4" thick, 5" and wider)

### TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal Of Existing Runners	Sq. Ft.	723
Removal Of Existing Curbs	Foot	241
Removal Of Existing Bridge Rail	Foot	241
Removal Of Existing Deck Planks	Sq. Ft.	504
Cleaning Deck	Sq. Ft.	1297
Treated Timber	F.B.M.	4838
Bridge Rail	Foot	241
Hardware	Pound	303

- \* Includes deck planks at rail posts and estimated 10% of remaining deck planks. \*\* Includes attachment of curb to deck and rail posts.
- deck to exist, cap plank, and runners to deck planks.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES

Ralph & anderson

CONTRACT NO. 44977

SHEET NO. 1

OF 2 SHEETS

COUNTY

MARION

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SECTION

STA.

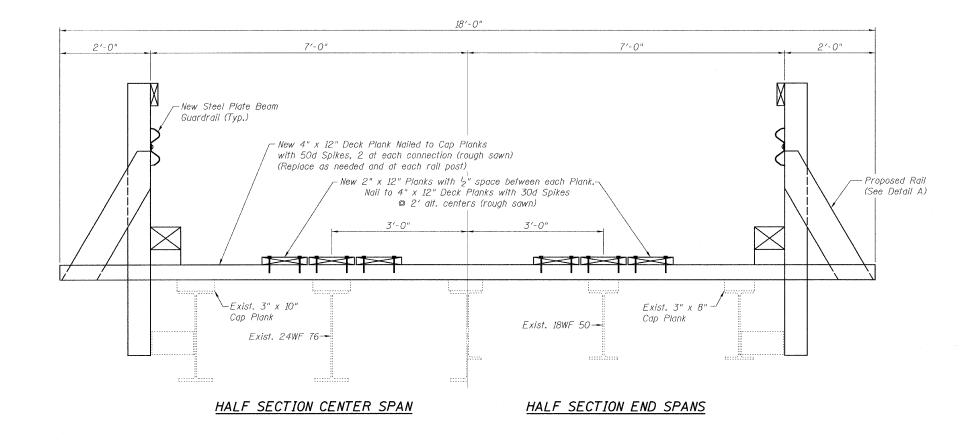
GENERAL PLAN & ELEVATION BIOSTATION BRIDGE STEPHEN FORBES STATE PARK MARION COUNTY STRUCTURE NO. 061-9201

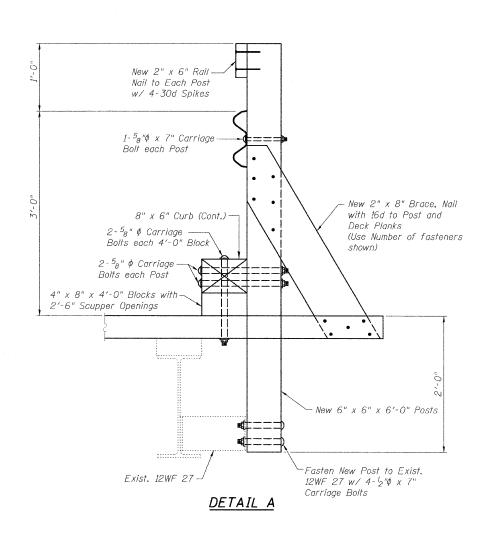
DESIGNED F.L.L. CHECKED M.A.H. F.L.L. CHECKED M.A.H.

ALLEN HENDERSON & ASSOCIATES, INC.

CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033 IL DESIGN FIRM NO. 184-001907

> SHEET NO. 2 OF 2 SHEETS





Note: Cost of 2 x 8 brace, new post, steel plate beam section, 2 x 6 top rail, and bridge rail hardware included with "Bridge Rail".

SUPERSTRUCTURE DETAILS
BIOSTATION BRIDGE
STEPHEN FORBES STATE PARK
MARION COUNTY
STRUCTURE NO. 061-9201

DESIGNED F.L.L.

CHECKED M.A.H.

DRAWN F.L.L.

CHECKED M.A.H.

PLOT DATE FILE NAME