

COUNTY	ROUTE	SECTION	TOTAL SHEETS	SHEET NO.
ADAMS	FAS 591	07-00202-00-BR	18	1

INDEX OF SHEETS

SHEET NO.	SHEET
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2	TYPICAL CROSS SECTIONS
3	SUMMARY OF QUANTITIES
	TRAFFIC CONTROL PLAN
4	LEGEND & GENERAL NOTES
5	PLAN SHEETS
6-9	CROSS SECTIONS
10-18	BRIDGE DETAILS

BRIDGE STANDARDS

STANDARD	CR-TS1
STANDARD	CN
STANDARD	CX-1

HIGHWAY STANDARDS

STANDARD	280001-04
STANDARD	420001-07
STANDARD	630301-04
STANDARD	635006-02
STANDARD	701301-02
STANDARD	701901
STANDARD	BLR 21-7
STANDARD	BLR 26
STANDARD	BLR 27

FAS 591 (C.H. 5)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM

ADAMS COUNTY

SECTION 07-00202-00-BR

PROJECT NO. BRS-0591(105)

EXISTING STRUCTURE NO. 001-3015

PROPOSED STRUCTURE NO. 001-3337



PROPOSED IMPROVEMENT MARKED THUS —

THESE PLANS WERE PREPARED BY ME OR BY A FULL-TIME MEMBER OF MY STAFF WORKING UNDER MY PERSONAL SUPERVISION.

SUBMITTED BY Ronald A. Kluga DATE 6-8-08

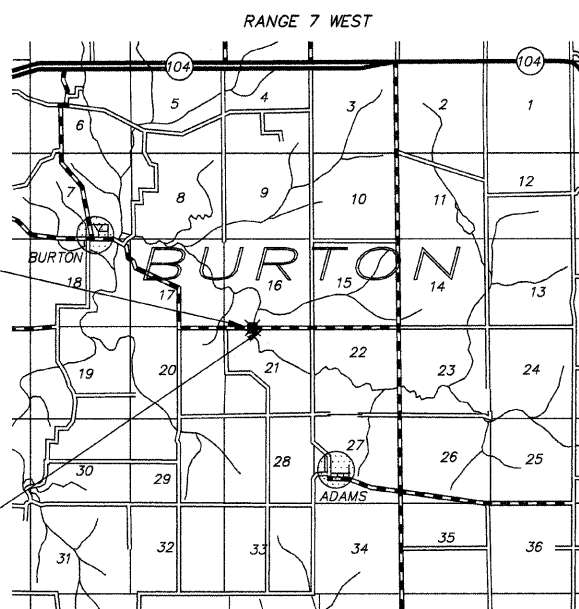
COUNTY ENGINEER
LICENSE NO. 062-032961
LIC. EXPIRES 11/30/2009

SECTION 07-00202-00-BR
BEGINS STATION 0+50

SECTION 07-00202-00-BR CONSISTS OF THE CONSTRUCTION OF A 121.50 FT. (BK. - BK. ABUT.) PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE AND WITH THE NECESSARY BRIDGE APPROACH ADJUSTMENTS.

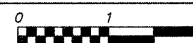
EXISTING STRUCTURE NO. 001-3015 IS A 24' X 50' PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE WITH CLOSED ABUTMENTS ON SPREAD FOOTINGS SET IN ROCK

SECTION 07-00202-00-BR
ENDS STATION 5+00



4TH PRINCIPAL MERIDIAN

LOCATION MAP

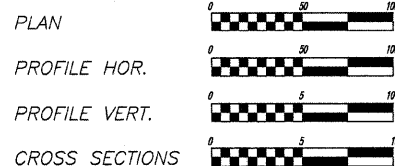


MAJOR COLLECTOR (RURAL) - CURRENT ADT 325
DESIGN SPEED 50 M.P.H.

NET LENGTH OF IMPROVEMENT = 450.00 FT. = 0.085 MILE
STRUCTURE LENGTH (BK-BK ABUT.) = 121.50 FT.

UTILITIES:

J.U.L.I.E.	1-800-892-0123
A.T.&T.	QUINCY, IL
ADAMS RURAL ELECTRICAL CO-OP	CAMP POINT, IL
McLEOD USA	FORSYTH, IL

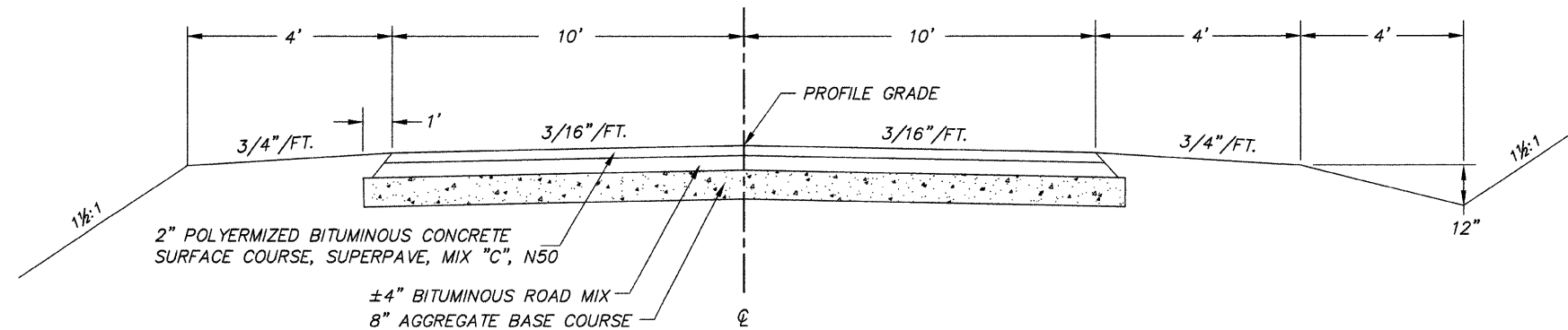


JOB NO. C-96-229-08
CONTRACT NO. 93471

APPROVED	<u>June 9</u>	2008
	<u>Ronald A. Kluga</u>	COUNTY ENGINEER
PASSED	<u>JUNE 17</u>	2008
	<u>W. R. Farley, P.E.</u>	DISTRICT ENGINEER OF CONSTRUCTION
PASSED	<u>JUNE 17</u>	2008
	<u>Tommy F. ...</u>	DISTRICT ENGINEER OF LOCAL ROADS AND STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	<u>JUNE 17</u>	2008
	<u>Roger R. Driskell, P.E.</u>	DEPUTY DIRECTOR OF HIGHWAYS REGION FOUR ENGINEER
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		

COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 581	07-00202-00-BR	2
TYPICAL CROSS SECTION & PAVEMENT DESIGN			
PROJECT NO. BRS-0591(105)			

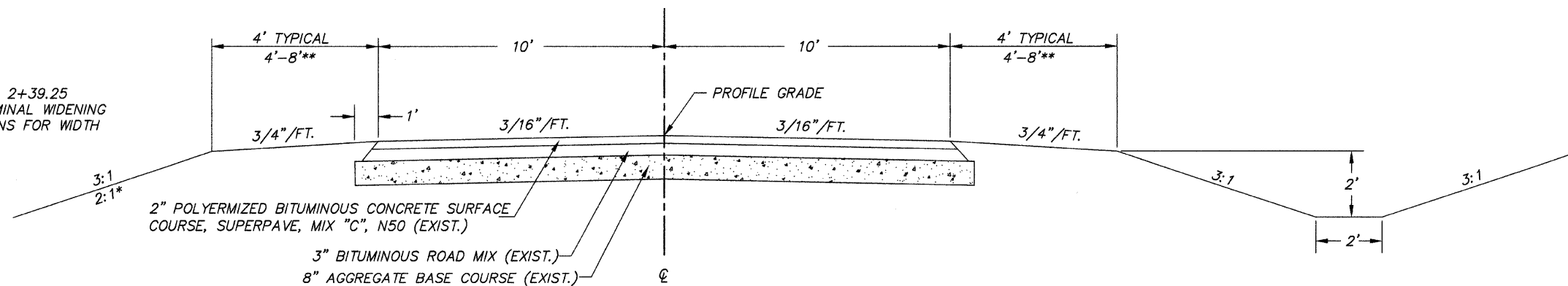
TYPICAL CROSS SECTIONS



EXISTING CROSS SECTION

BUILT AS: COUNTY BRIDGE FUND #129
SECTION 05-00192-00-RS

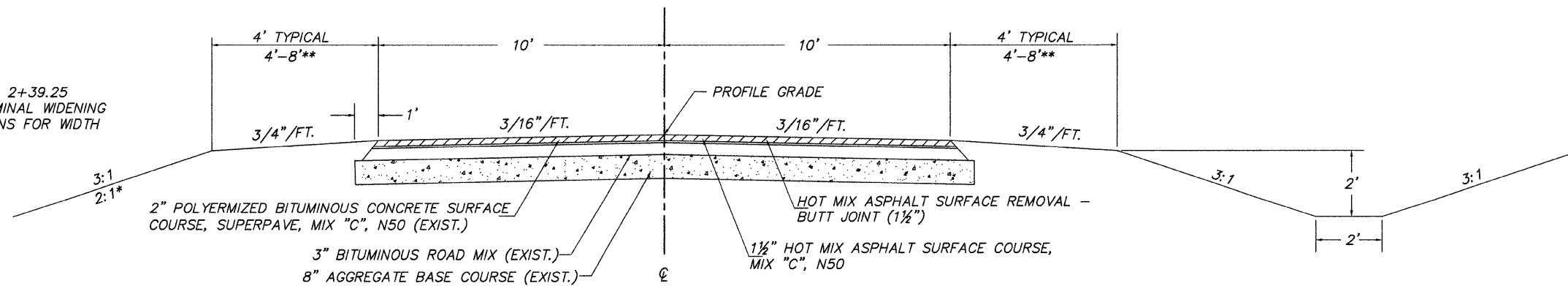
NOTE:
PAVEMENT MARKING SHALL BE DONE BY OTHERS.



PROPOSED CROSS SECTION

STA. 0+50 TO STA. 2+00
STA. 4+00 TO STA. 5+00

*RT. STA. 1+50 TO 2+39.25
**VARIES FOR TERMINAL WIDENING
SEE CROSS SECTIONS FOR WIDTH



PROPOSED CROSS SECTION

STA. 2+00 TO STA. 2+20.04
STA. 3+79.96 TO STA. 4+00

*RT. STA. 1+50 TO 2+39.25
**VARIES FOR TERMINAL WIDENING
SEE CROSS SECTIONS FOR WIDTH

HOT MIX ASPHALT MIXTURE REQUIREMENTS

ITEM	AGG. COMPOSITION	ASPHALT GRADE	VOIDS
SURFACE, MIX "C", N50	IL 9.5 OR 12.5	PG 64-22	4.0%

NOTE: PLAN QUANTITY IS BASED ON 112#/S.Y. FOR 1" THICK

COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 591	07-00202-00-BR	3
SUMMARY OF QUANTITIES, TRAFFIC CONTROL PLAN			

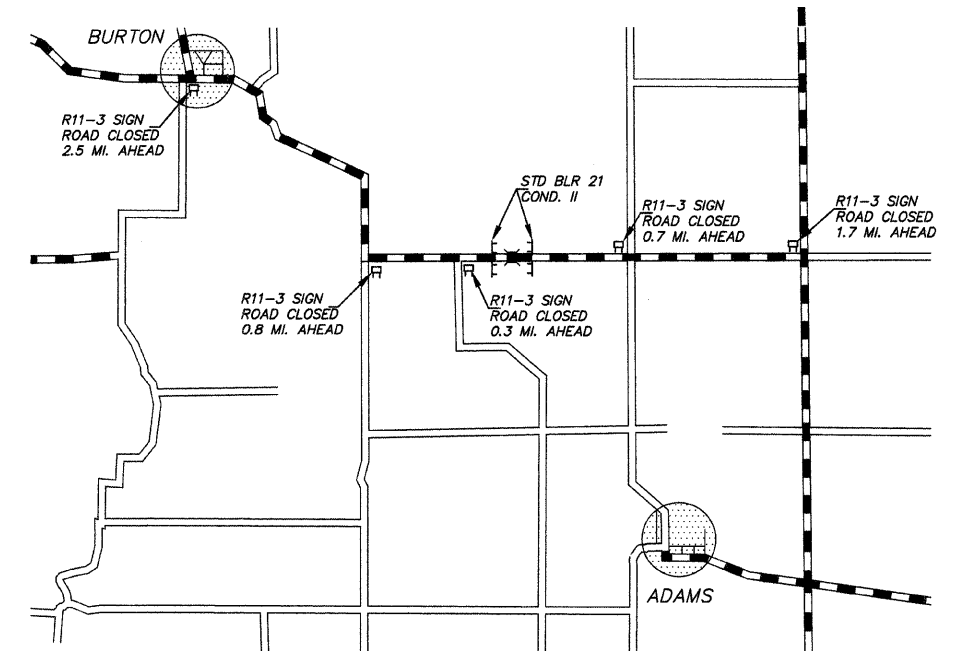
SUMMARY OF QUANTITIES

TOTAL QUANTITIES	UNIT	ITEM	CODE NO.	SPECIAL PROVISIONS
120	UNIT	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	20100110	
85	UNIT	TREE REMOVAL (OVER 15 UNITS DIAMETER)	20100210	
90	CU. YD.	EARTH EXCAVATION	20200100	
1,137	CU. YD.	CHANNEL EXCAVATION	20300100	*
0.9	ACRE	SEEDING, CLASS 2	25000200	
72	POUND	NITROGEN FERTILIZER NUTRIENT	25000400	*
288	POUND	PHOSPHORUS FERTILIZER NUTRIENT	25000500	*
144	POUND	POTASSIUM FERTILIZER NUTRIENT	25000600	*
1.8	TON	AGRICULTURAL GROUND LIMESTONE	25000700	
1.8	TON	MULCH, METHOD 2	25100120	*
1,236	TON	RIPRAP, SPECIAL	28101700	*
40	GALLON	BITUMINOUS MATERIALS (PRIME COAT)	40600100	*
92	SQ. YD.	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	40600982	*
73	TON	HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N50	40603310	*
97.8	SQ. YD.	BRIDGE APPROACH PAVEMENT (SPECIAL)	42001400	*
245	SQ. YD.	PAVEMENT REMOVAL	44000100	
1	EACH	REMOVAL OF EXISTING STRUCTURES	50100100	*
10.4	CU. YD.	ROCK EXCAVATION FOR STRUCTURES	50200400	
98.0	CU. YD.	CONCRETE STRUCTURES	50300225	
2.6	CU. YD.	CONCRETE ENCASEMENT	50300280	
3,353	SQ. FT.	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	50400405	*
13,470	POUND	REINFORCEMENT BARS	50800105	
2,500	POUND	REINFORCEMENT BARS, EPOXY COATED	50800205	
240	FOOT	STEEL RAILING, TYPE S-1	50900205	Δ
192	FOOT	FURNISHING STEEL PILES HP10X42	51201400	
192	FOOT	DRIVING PILES	51202305	
2	EACH	TEST PILE STEEL HP10X42	51203400	
10	EACH	PILE SHOES	51204650	
1	EACH	NAME PLATES	51500100	
373	SQ. YD.	WATERPROOFING MEMBRANE SYSTEM	58100200	
87.5	FOOT	STEEL PLATE BEAM GUARD RAIL, TYPE A	63000000	Δ
4	EACH	TRAFFIC BARRIER TERMINAL, TYPE 5A	63100075	Δ
4	EACH	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	63100167	Δ
1	L. SUM	MOBILIZATION	67100100	
1	L. SUM	TRAFFIC CONTROL AND PROTECTION	70101700	*
4	EACH	TERMINAL MARKER - DIRECT APPLIED	78201000	* Δ
1	EACH	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	X5020501	*
1	EACH	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	X5020502	*

CONSTRUCTION TYPE CODE: X080-2A

Δ SPECIALTY ITEMS

TRAFFIC CONTROL PLAN



GENERAL NOTES - TRAFFIC CONTROL

THE ENGINEER SHALL DETERMINE THE LOCATION OF ALL TYPE III BARRICADES, ADVANCE WARNING SIGNS AND INFORMATION SIGNS.

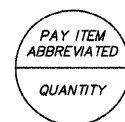
AN 18" X 18" ORANGE FLAG SHALL BE PLACED ABOVE ALL POST MOUNTED SIGNS.

LEGEND

COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 591	07-00202-00-BR	4
LEGEND & GENERAL NOTES			

SYMBOL-EXIST.	ABBREV. OR SYMBOL-PROP.	DESCRIPTION
	§	SECTION LINE
	PL LL	PROPERTY LINE AND/OR LOT LINE
		FENCED PROPERTY LINE
		FENCE LINE
		EXISTING RIGHT-OF-WAY LINE
		PROPOSED RIGHT-OF-WAY LINE
	TCE	TEMPORARY CONSTRUCTION EASEMENT
	CL	CENTERLINE
	BL	BASE OR SURVEY LINE
		LIMITS OF CONSTRUCTION
		POINT ON CL - TIE POINT
		DIRECTION OF FLOW
		SUMMIT
		SECTION OR QUARTER SECTION CORNER
		PROPERTY PIN
	■	RIGHT-OF-WAY MARKER
	G	GAS MAIN
	W	WATER MAIN
	T	TELEPHONE CABLE (BURIED)
	FOC	FIBER OPTIC CABLE (BURIED)
	DPR-PR	DRIVEWAY PAVEMENT REMOVAL OR PAVEMENT REMOVAL
		HOT-MIX ASPHALT SURFACE REMOVAL
	TP	TELEPHONE POLE
	PED	TELEPHONE PEDISTAL
	PP	POWER LINE POLE
	MB	MAILBOX
	LP	EXISTING LIGHT POLE
	FH	FIRE HYDRANT
	GV	GAS VALVE
	WV	WATER VALVE
	WM	WATER METER PIT
	PV	PAVE BOX
	MH	MANHOLE
	WV-A	WATER VALVE TO BE ADJUSTED
	WM-A	WATER METER PIT TO BE ADJUSTED
	PV-A	PAVE BOX TO BE ADJUSTED
	MH-A	MANHOLE TO BE ADJUSTED
	■	INLET, TYPE E
	■	INLET, TYPE DOUBLE E
		SMALL TREE OR BRUSH
		LARGE TREE (DIAMETER)
		LARGE TREE TO BE REMOVED (DIAMETER)
		TIMBER OR BRUSH LINE
	12"	SEWER (STORM OR SANITARY)-SIZE
		PIPE CULVERT
	4" TLF	ROOF DRAIN (SIZE, TYPE)
		CURB AND GUTTER
		LEVEE
		RAILROAD TRACKS
		GUARD RAIL
	N&BC	NAIL AND BOTTLE CAP
	FL	FLOW LINE
	BK. CB.	BACK OF CURB
	F-F CB.	FACE TO FACE CURB
	PE	PRIVATE ENTRANCE
	FE	FIELD ENTRANCE
	CE	COMMERCIAL ENTRANCE
	CSCP	CORRUGATED STEEL CULVERT PIPE
	RCCP	REINFORCED CONCRETE CULVERT PIPE
	PVC	POLYVINYL CHLORIDE
	CMP	CORRUGATED METAL PIPE

ABBREV.	PAY ITEM	UNIT
CR	COMBINATION CURB AND GUTTER REMOVAL	LIN. FT.
DPR	DRIVEWAY PAVEMENT REMOVAL	SQ. YD.
PR	PAVEMENT REMOVAL	SQ. YD.
HMSR	HOT-MIX ASPHALT SURFACE REMOVAL (DEPTH OR TYPE)	SQ. YD.
TB	TRENCH BACKFILL, SPECIAL	CU. YD.
ABA	AGGREGATE BASE COURSE, TYPE A (DEPTH)	TON
ASB	AGGREGATE SURFACE COURSE, TYPE B (DEPTH)	TON
DP	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT (DEPTH)	SQ. YD.
HMB	HOT-MIX ASPHALT BINDER COURSE (DEPTH)	TON
HMS	HOT-MIX ASPHALT SURFACE COURSE (MIX-DEPTH)	TON
HS	HOT-MIX ASPHALT SHOULDER (DEPTH)	SQ. YD.
HMBCW	HOT-MIX ASPHALT BASE COURSE WIDENING (DEPTH)	SQ. YD.
PC	PIPE CULVERTS (TYPE-SIZE)	LIN. FT.
PRCES	PRECAST REINFORCED CONCRETE END SECTION	EACH
PR&R	PAVEMENT REMOVAL AND PCC REPLACEMENT (TYPE-DEPTH)	SQ. YD.
SS	STORM SEWER (TYPE-SIZE)	LIN. FT.
B6.12	COMB. CONC. CURB AND GUTTER (TYPE)	LIN. FT.
PCC	PORTLAND CEMENT CONCRETE (DEPTH)	SQ. YD.
SW	PORTLAND CEMENT CONCRETE SIDEWALK (DEPTH)	SQ. FT.
SWR	SIDEWALK REMOVAL	SQ. FT.
CMP	CORR. METAL PIPE	LIN. FT.
CPR	CORR. METAL PIPE CULVERT REMOVAL	LIN. FT.
BJ	BUTT JOINT	SQ. YD.
CBC	CONCRETE BASE COURSE (DEPTH)	SQ. YD.
BMP	BITUMINOUS MATERIALS (PRIME COAT)	GAL.
SCA	SEAL COAT AGGREGATE	TON
BMS	BITUMINOUS MATERIALS (COVER AND SEAL COAT)	GAL.
TR	TEMPORARY RAMP	SQ. YD.
BAP	BRIDGE APPROACH PAVEMENT (DEPTH)	SQ. YD.



EXAMPLE:
 MEANS 81 CUBIC YARDS OF TRENCH BACKFILL AT THE INDICATED LOCATION

GENERAL NOTES

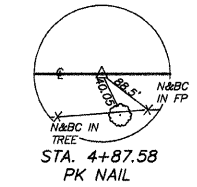
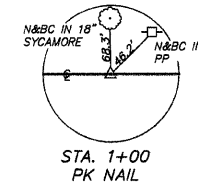
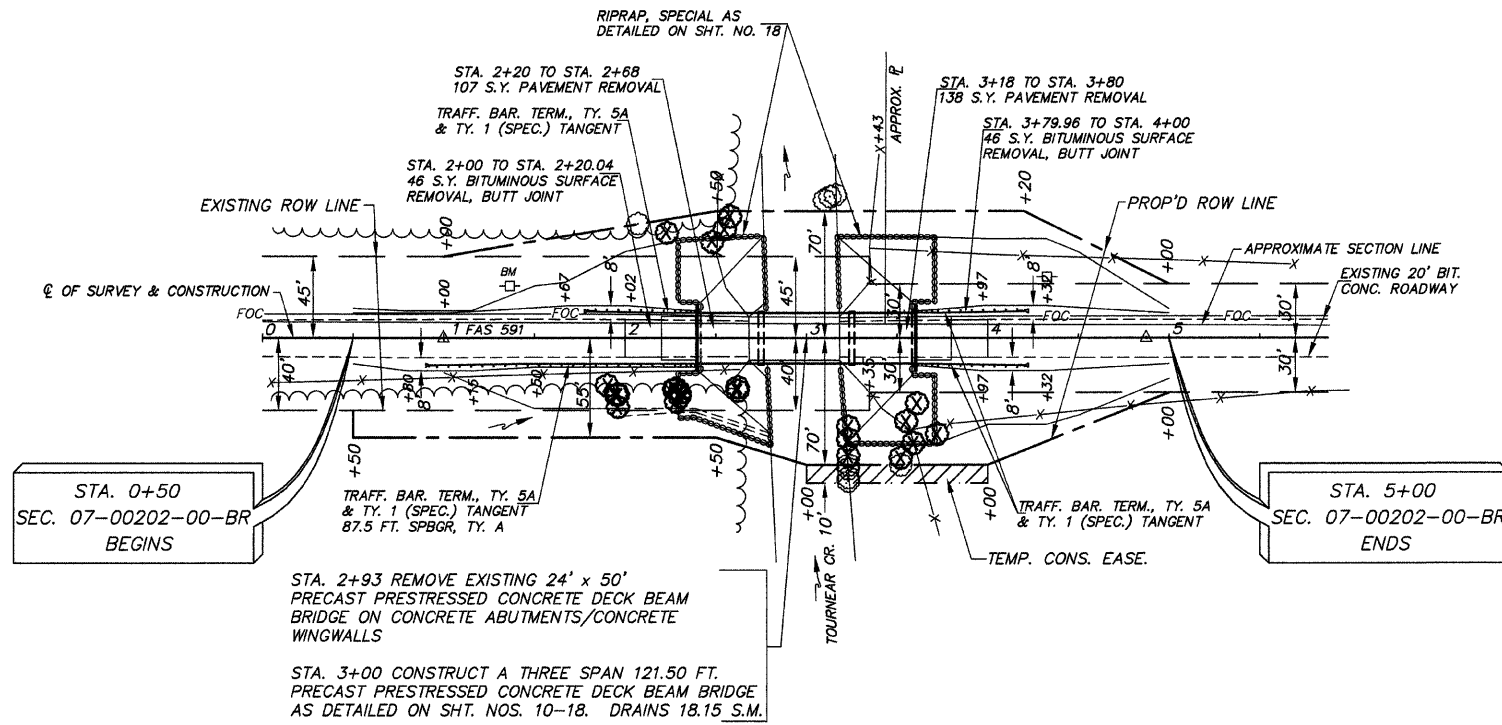
- WHERE SECTION OR SUB-SECTION STONES, USGS BENCH MARK MONUMENTS, AND U.S. ARMY CORPS OF ENGINEERS SURVEY MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH STONES AND MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS UNTIL AN OWNER OR AUTHORIZED SURVEYOR OR REPRESENTATIVE HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- ALL PRIVATELY OWNED UTILITIES, UNLESS OTHERWISE SPECIFIED, WILL BE MOVED BY THEIR RESPECTIVE OWNERS WHERE REQUIRED. ALL CITY OWNED UTILITY WORK WILL BE DONE BY THE CONTRACTOR FOR THIS PROJECT. THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES WITHIN THE LIMITS OF CONSTRUCTION:

ADAMS RURAL ELECTRICAL CO-OP
MCLEOD USA
A.T.&T.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND TO NOTIFY ALL UTILITY COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION. THIS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE THICKNESS OF HOT-MIX ASPHALT MIXTURE 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 WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.
- TEST SOIL FOR LIME AND TREAT ACCORDING TO TEST RECOMMENDATIONS FOR pH RANGE 6.0 TO 6.5. THIS TESTING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE PER TON FOR AGRICULTURAL GROUND LIMESTONE.
- FERTILIZER NUTRIENTS SHALL BE APPLIED ON SEEDING AREAS AS FOLLOWS:
CLASS I & II SEEDING:
USE 8-32-16 RATIO AT THE RATE OF 560 POUNDS PER ACRE, PROPORTIONED AT 80 POUNDS NITROGEN, 320 POUNDS PHOSPHORUS, 160 POUNDS POTASSIUM PER ACRE.
- APPLICATION RATES SHALL BE AS FOLLOWS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER:
PRIME: 0.10 GALLON PER SQUARE YARD ON PCC OR HOT-MIX ASPHALT.
0.25 GALLON PER SQUARE YARD ON AGGREGATE.
MULCH: 2 TON PER ACRE.
- PERMANENT PAVEMENT MARKING TO BE DONE BY THE ADAMS COUNTY HIGHWAY DEPARTMENT

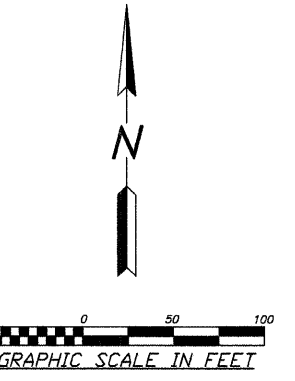
SECTION 16: T.2S.-R.7W. OF THE 4TH P.M.

DARRELL VAHLE, JR.
PART OF THE W5/8; S½; SW¼

THOMAS H. ELLIOT, II & DIANN M. ELLIOT
PART OF THE E30A; SE¼; SW¼



COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 591	07-00202-00-BR	5



STA. 0+50
SEC. 07-00202-00-BR
BEGINS

STA. 5+00
SEC. 07-00202-00-BR
ENDS

STA. 2+93 REMOVE EXISTING 24' x 50' PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE ON CONCRETE ABUTMENTS/CONCRETE WINGWALLS

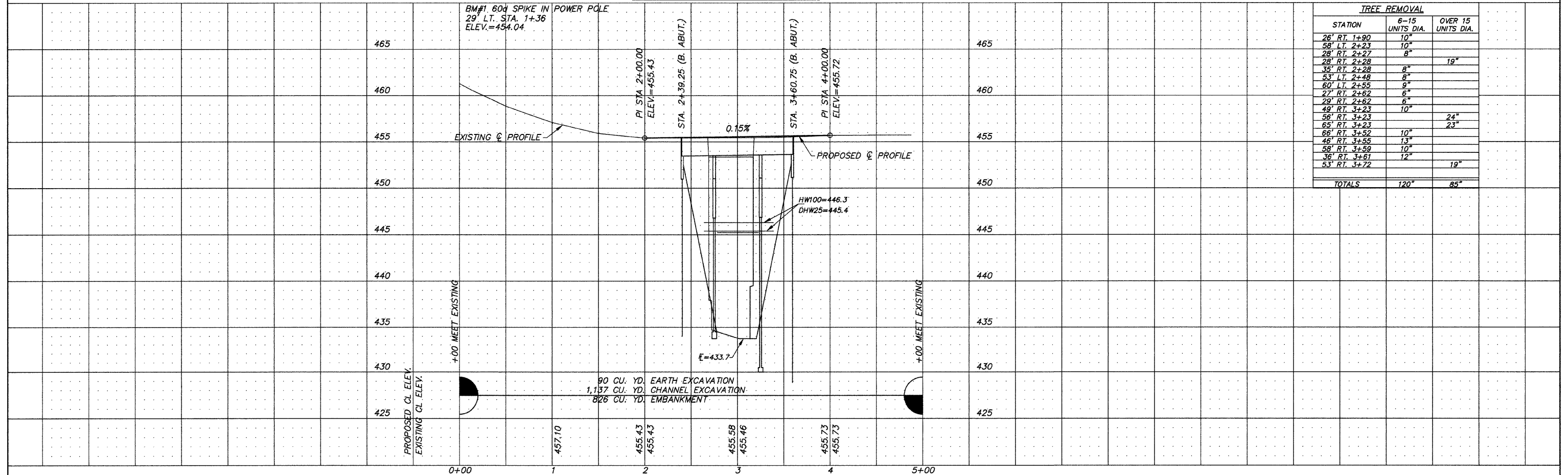
STA. 3+00 CONSTRUCT A THREE SPAN 121.50 FT. PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE AS DETAILED ON SHT. NOS. 10-18. DRAINS 18.15 S.M.

THOMAS H. ELLIOT, II & DIANN M. ELLIOT
PART OF THE N45A; NW¼

GUARD RAIL SCHEDULE

STA. - STA.	TRAF. BAR. TERM., TY. 5A	TRAF. BAR. TERM., TY. 1 (SPEC.) TANGENT	SPBGR. TYPE A
RT. 0+92 - 2+40	1	1	87.5
LT. 1+77.50 - 2+40	1	1	
RT. 3+60 - 4+22.50	1	1	
LT. 3+60 - 4+22.50	1	1	

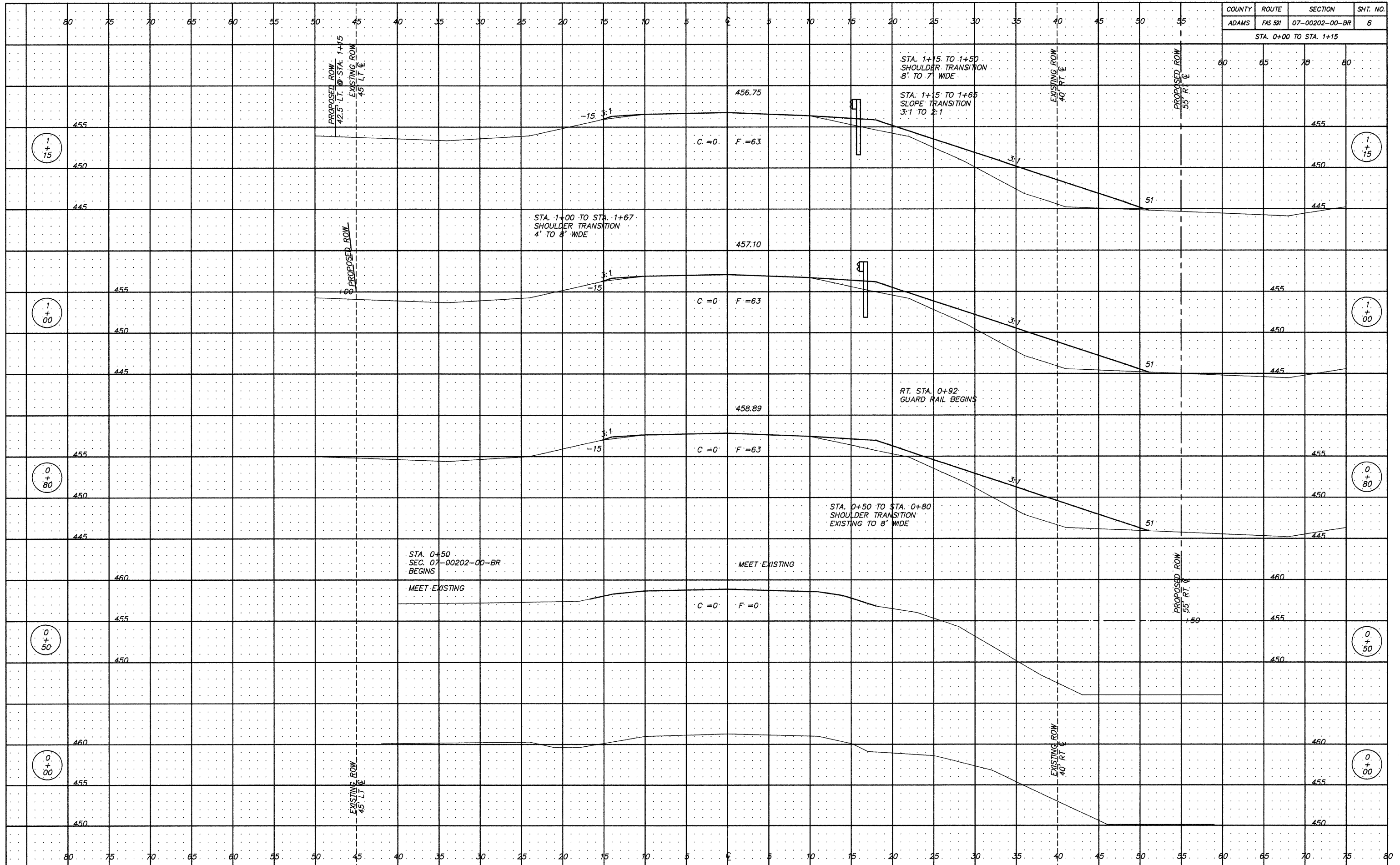
SECTION 21: T.2S.-R.7W. OF THE 4TH P.M.



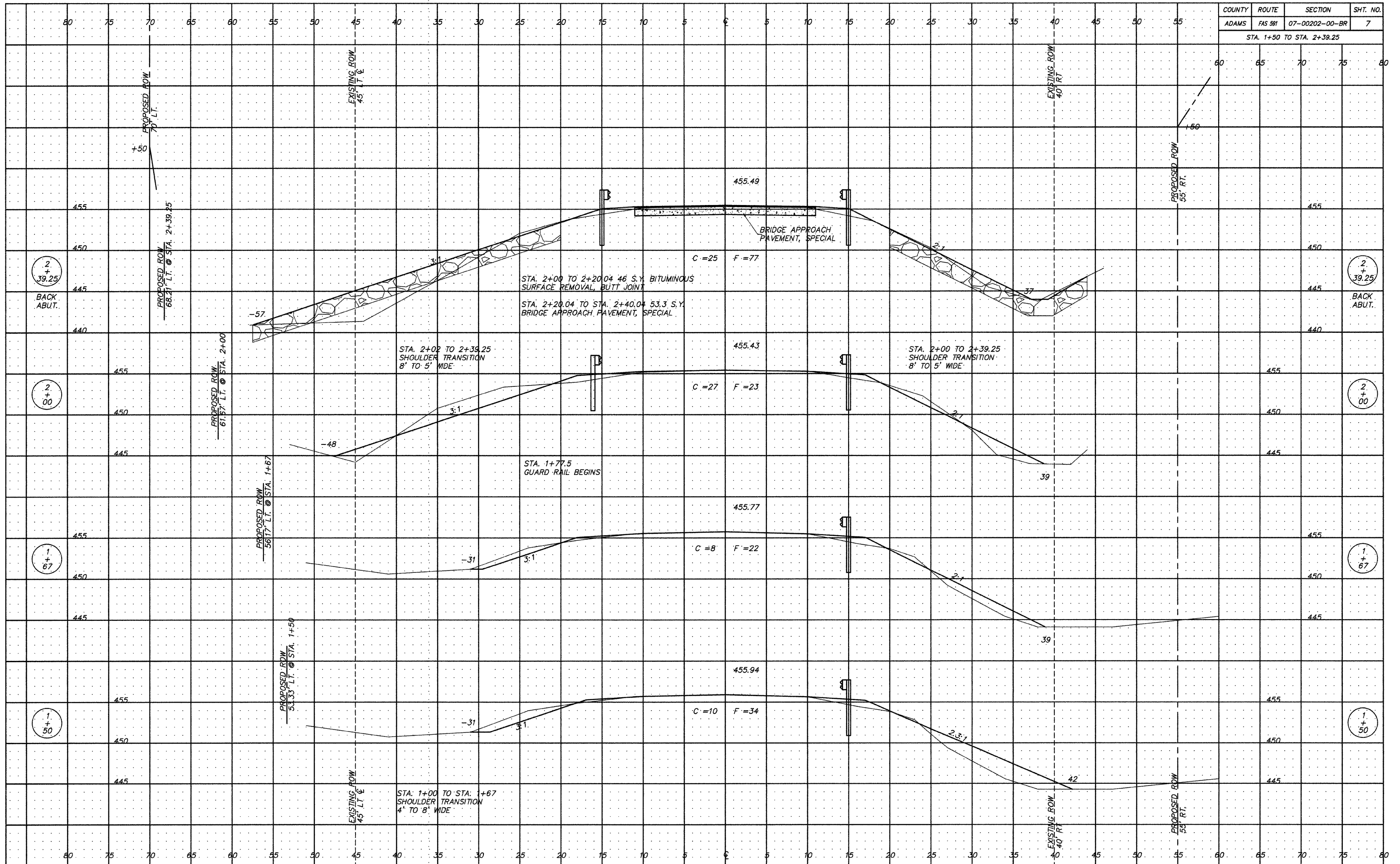
TREE REMOVAL

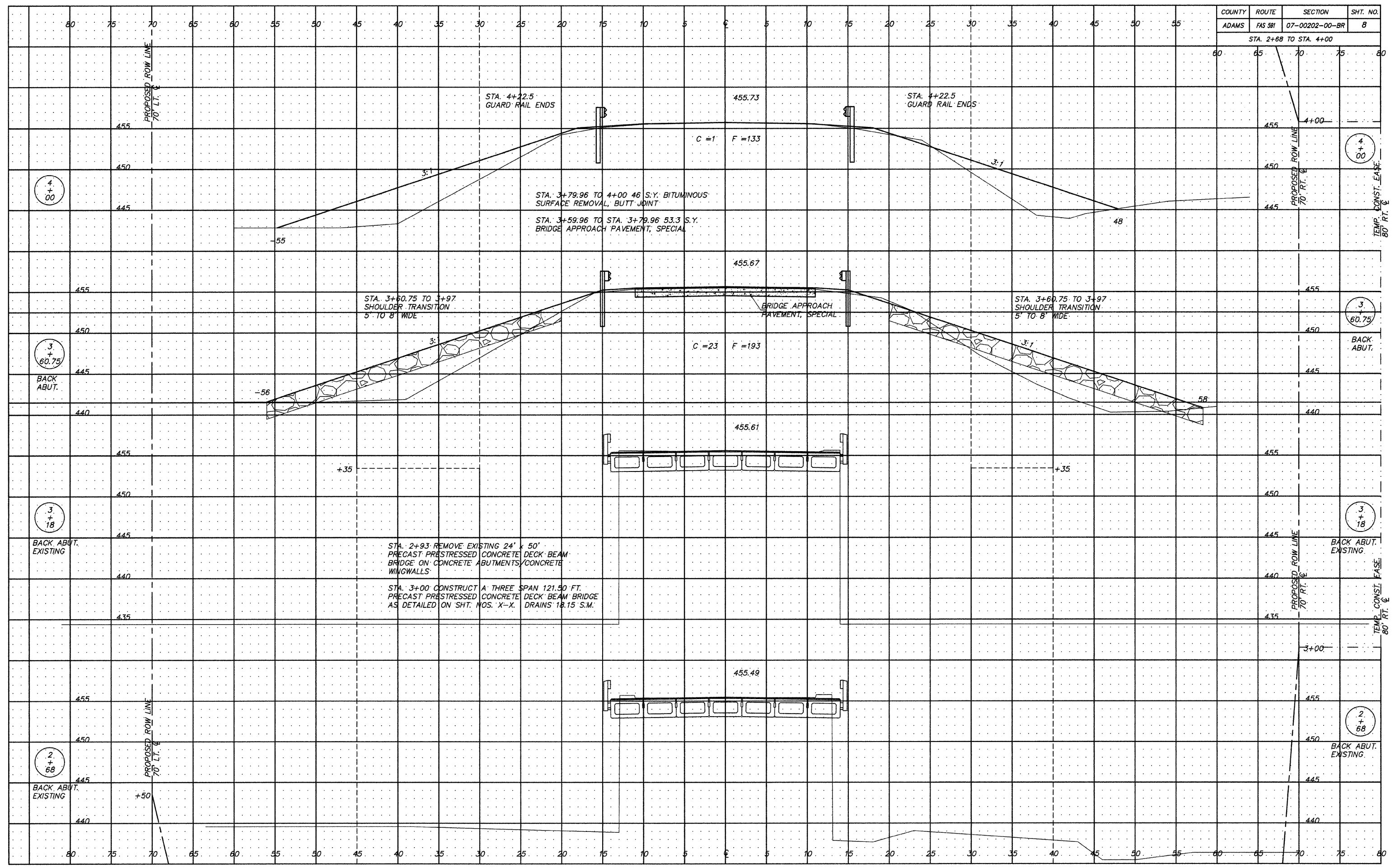
STATION	6-15 UNITS DIA.	OVER 15 UNITS DIA.
26' RT. 1+90	10"	
58' LT. 2+23	10"	
28' RT. 2+27	8"	
28' RT. 2+28	8"	19"
35' RT. 2+28	8"	
53' LT. 2+48	8"	
60' LT. 2+55	9"	
27' RT. 2+62	6"	
29' RT. 2+62	6"	
49' RT. 3+23	10"	
56' RT. 3+23		24"
65' RT. 3+23		23"
66' RT. 3+52	10"	
46' RT. 3+55	13"	
58' RT. 3+59	10"	
36' RT. 3+61	12"	
53' RT. 3+72		19"
TOTALS	120"	85"

90 CU. YD. EARTH EXCAVATION
1,137 CU. YD. CHANNEL EXCAVATION
826 CU. YD. EMBANKMENT



COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 581	07-00202-00-BR	7
STA. 1+50 TO STA. 2+39.25			





COUNTY	ROUTE	SECTION	SHT. NO.
ADAMS	FAS 591	07-00202-00-BR	8

STA. 2+68 TO STA. 4+00

4+00

3+60.75

3+18

2+68

BACK ABUT. EXISTING

BACK ABUT. EXISTING

BACK ABUT.

4+00

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

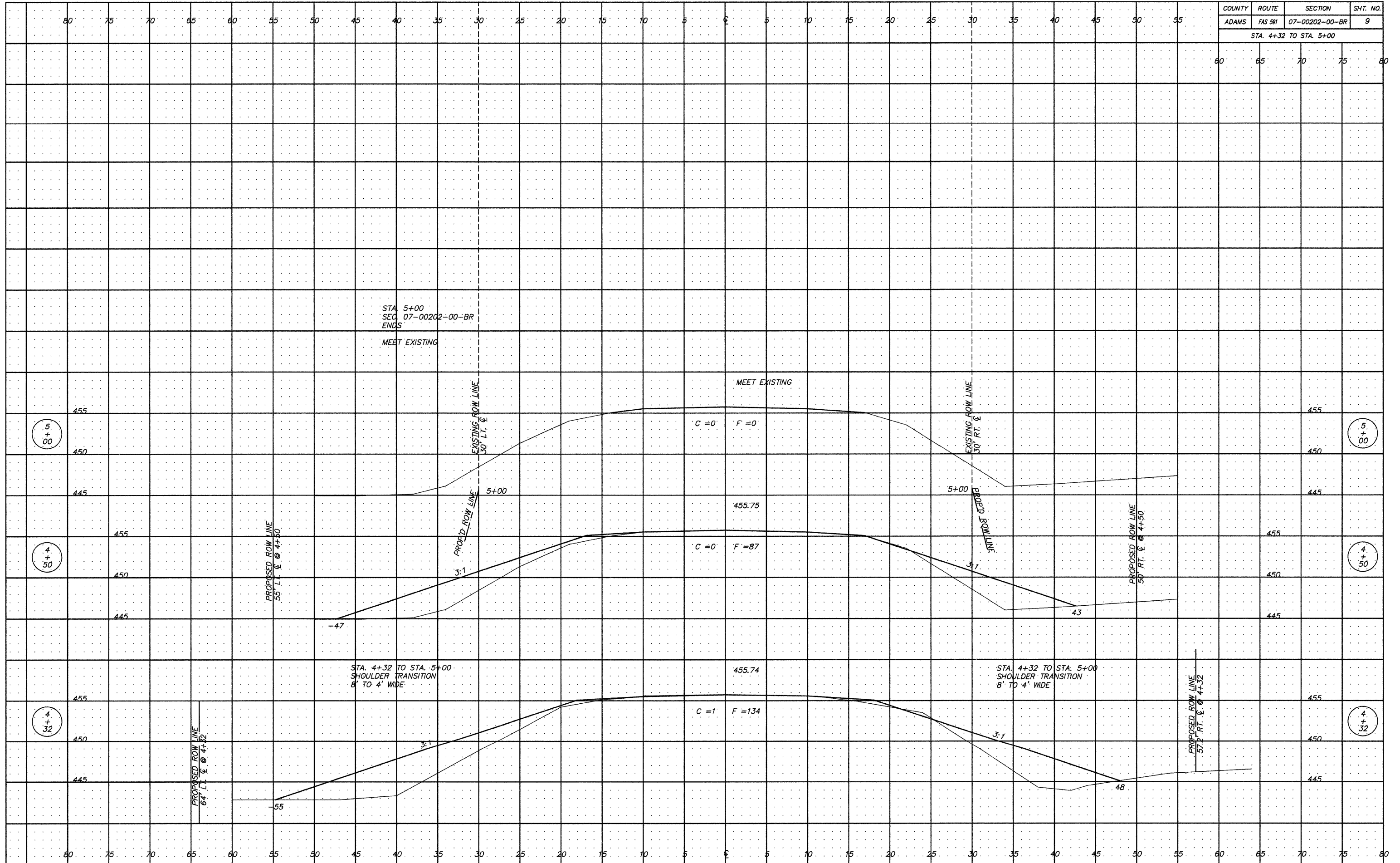
TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

TEMP. CONST. EASE
80 FT. &

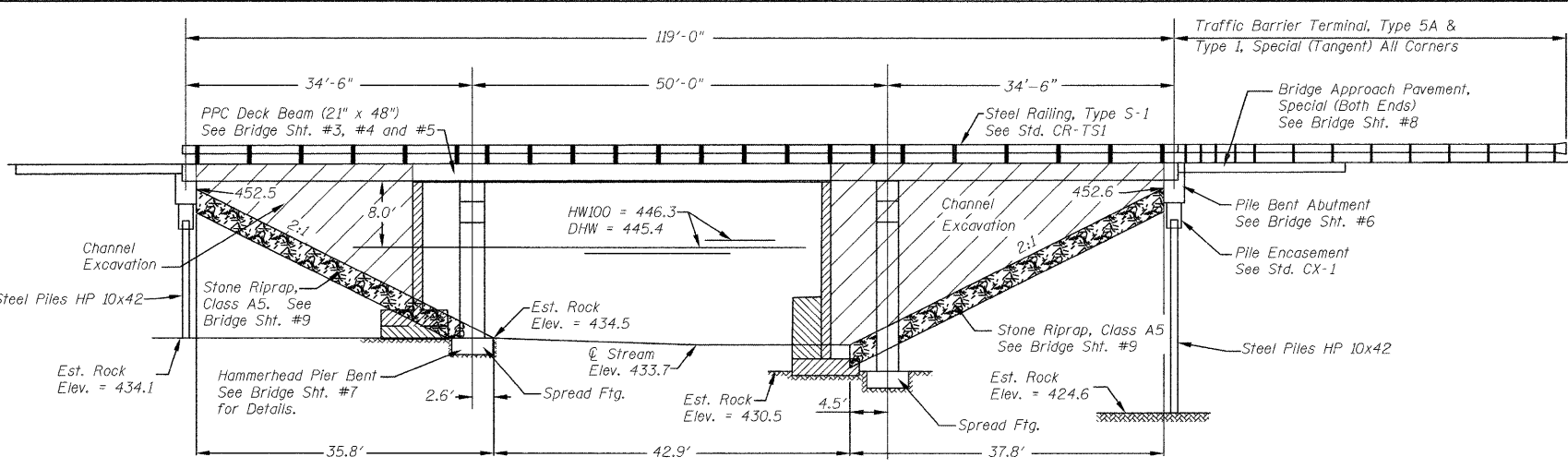


BM #1 - 60d Spike in Power Pole
29' Lt. Sta. 11+36
Elev. 454.04

Existing Structure - 001-3015 - 24' X 50' Precast
Prestressed Conc. Deck Bridge
on Closed Abutments on Spread
Footings Set in Rock.

Salvage - All Salvagable Materials To Become
The Property of the Contractor

Estimated Materials - 1200 S.F. PPCDB 21"/Curb
210 C.Y. Concrete
11650 LB. Rebar
96 FT. Metal Plate Bridge Rail



ELEVATION
Shown Along ϕ Roadway

COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	10
PROJECT NO. BRS-059(105)			
BRIDGE GENERAL PLAN & ELEVATION			

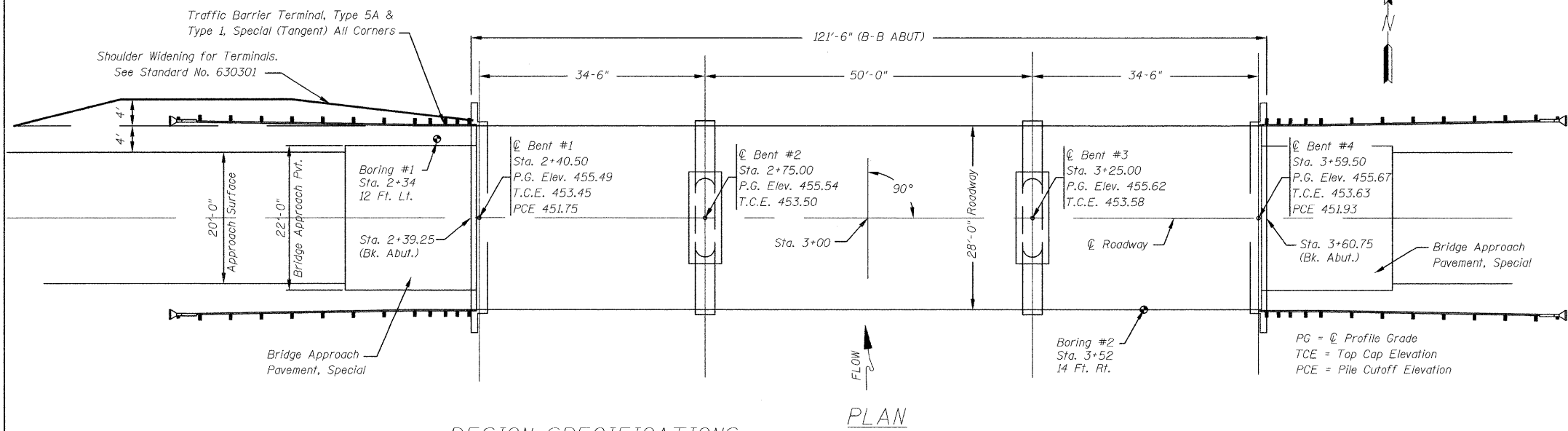
GENERAL NOTES

- See Bridge Sheet #9 for boring logs.
- All grout on this project shall be non-shrink.
- Waterproofing Membrane System will be required on this project.
- 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.
- Stone Riprap shall be placed to the dimensions shown over a Geotechnical Fabric in accordance with the riprap placement detail and the applicable Special Provisions.
- Reinforcement Bars shall conform to the requirements of ASTM A706, Grade 60, See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Pier	Abut	
Channel Excavation	Cu.Yd.	----	----	1,137	1,137
Riprap, Special	Ton	----	----	1,236	1,236
HMA Surface Course, Mix "C", N50	Ton	56.1	----	----	56
Bridge Approach Pavement (Special)	Sq. Yd.	97.8	----	----	97.8
Removal Of Existing Structures	Each	----	----	----	1
Rock Excavation For Structures	Cu. Yd.	----	10.4	----	10.4
Concrete Structures	Cu.Yd.	----	79.2	18.8	98.0
Concrete Encasement	Cu.Yd.	----	----	2.6	2.6
P. P. Concrete Deck Beams (21" Depth)	Sq.Ft.	3,353	----	----	3,353
Reinforcement Bars	Pound	----	11,250	2,220	13,470
Reinforcement Bars, Epoxy Coated	Pound	----	2,500	----	2,500
Steel Railing, Type S1	Foot	240	----	----	240
Furnishing Steel Piles HP10X42	Foot	----	----	192	192
Driving Piles	Foot	----	----	192	192
Test Pile Steel HP10X42	Each	----	----	2	2
Pile Shoes	Each	----	----	10	10
Name Plates	Each	----	----	1	1
Waterproofing Membrane System	Sq. Yd.	373	----	----	373
Underwater Structure Excavation Protection - Location 1 (Bent #2)	Each	----	1	----	1
Underwater Structure Excavation Protection - Location 2 (Bent #3)	Each	----	1	----	1

* See Special Provisions



PLAN

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications - 4th ed. with 2008 Interims

This Design Complies With all Requirements Of The Current AASHTO Guide Specifications For Seismic Design Of Highway Bridges.

SEISMIC DATA

Seismic Performance Zone (SP2) = 1
Bedrock Acceleration Coefficient (A) = 0.044
Site Coefficient (S) = 1.0

LOADING HL-93

Allow 50#/sq. ft. for Future Wearing Surface

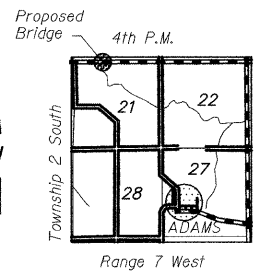
DESIGN STRESSES

(PRESTRESS UNITS) (FIELD UNITS)
f'ci = 5.0 ksi f'c = 3.5 ksi
f'c = 6.0 ksi fy = 60 ksi
fy = 60 ksi

PILE DATA (2-ABUTS.)

Pile Type and Size: HP 10x42 with Pile Shoes
Nominal Required Bearing: 335 Kips
Factored Resistance Available: Refusal (168 kips)
Estimated Length: 19 ft (Bent #1) 29 ft (Bent #4)
Number of Production Piles: 4 (Bent #1) 4 (Bent #4)
Number of Test Piles: 1 (Bent #1) 1 (Bent #4)

The Steel H-piles shall be according to AASHTO M270 Grade 50.



LOCATION SKETCH

TOURNEAR CREEK
BUILT 20__ BY
ADAMS COUNTY
SECTION 07-00202-00-BR
PROJECT BRS-059(105)
STATION 3+00
STR. NO. 001-3337 LOADING HL-93

LETTERING FOR NAME PLATE

Locate Name Plate at Southeast Corner of Bridge (See Std. CN)

WATERWAY INFORMATION

Drainage Area = 18.15 Sq. Mi.		Low Grade Elevation = 455.43		At Station 2+00					
Flood	Freq. Yr.	Q CFS	Opening Sq. Ft.		Natural H.W.E.	Head-Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	25	3,477	489	750	445.40	0.01		445.41	
Base	100	4,693	532	827	446.30	0.03		446.33	
Overtopping									
Max. Calc.	500	6,136							

REVISIONS	
NAME	DATE

BRIDGE GENERAL PLAN & ELEVATION

FAS 591 OVER
TOURNEAR CREEK
SEC 07-00202-00-BR
ADAMS COUNTY
STA 3+00
STRUCTURE NUMBER 001-3337

SCALE: VERT. N/A
HORIZ. N/A
DATE: APR 2008

DRAWN BY JLS
CHECKED BY CSB

I Certify That to the Best of my Knowledge, Information and Belief, the Revised Standard Detail Sheets and/or Special Component Sheets Included with the Standard Bridge Detail Sheets are Structurally Adequate for the Design Loading Shown on the Plans and Comply with the Requirements of the Current AASHTO Standard Specifications for Highway Bridges. Bridge Sheets 1 through 9.

Charles S. Bach, Jr.

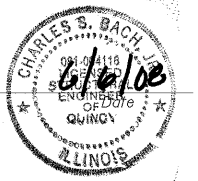
Charles S. Bach, Jr.
Licensed Structural Engineer
State of Illinois No. 81-004116
expires 11/30/2008



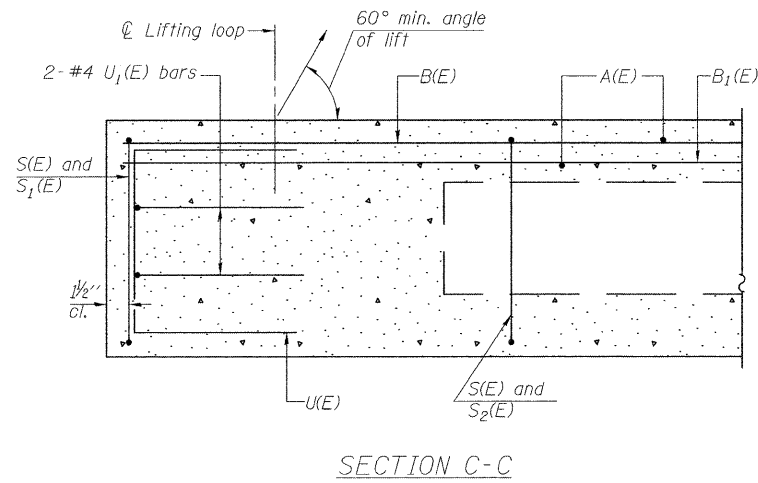
I Certify That to the Best of my Knowledge, Information and Belief, the Bridge Plans and, if Included, Revised or Special Non-Standard Detail Sheets Incorporated with the Standard Plans are Structurally Adequate for the Seismic Design Loadings Shown on the Plans and Specified by the Current AASHTO Standard Specifications for Highway Bridges. Bridge Sheets 1 through 9.

Charles S. Bach, Jr.

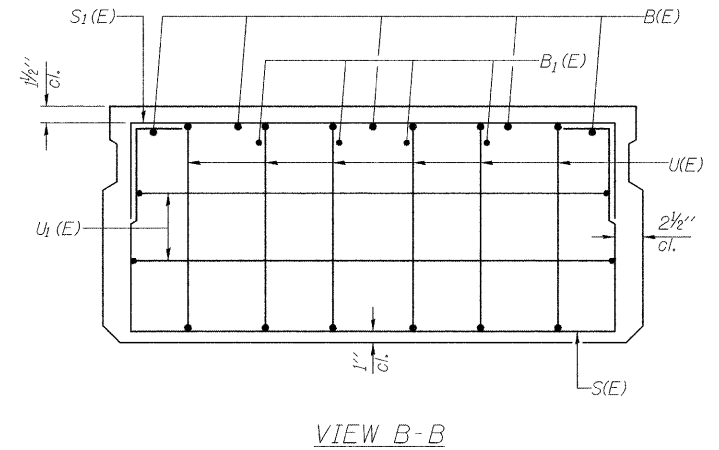
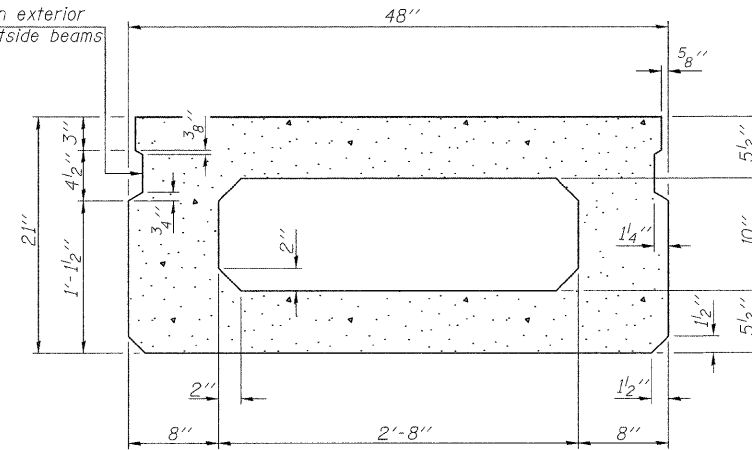
Charles S. Bach, Jr.
Licensed Structural Engineer
State of Illinois No. 81-004116
expires 11/30/2008



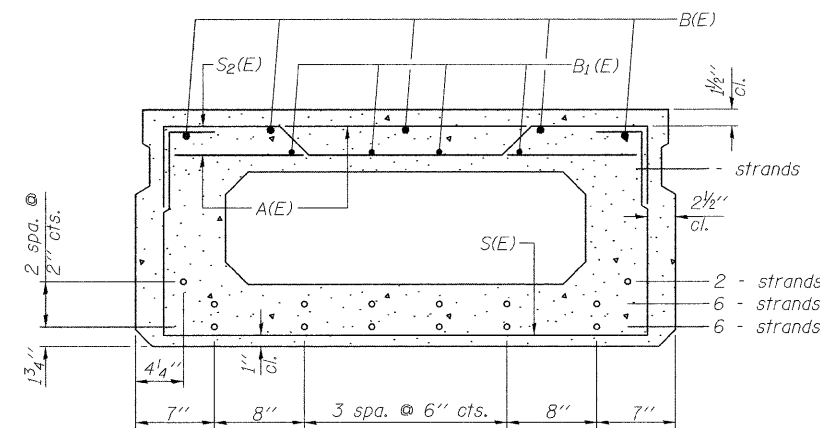
COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	12
PROJECT NO. BRS-059(105)			
21x48 PPC DECK BEAM - 35ft SPAN			



Omit key on exterior face of outside beams



SECTION A-A
(Showing dimensions)

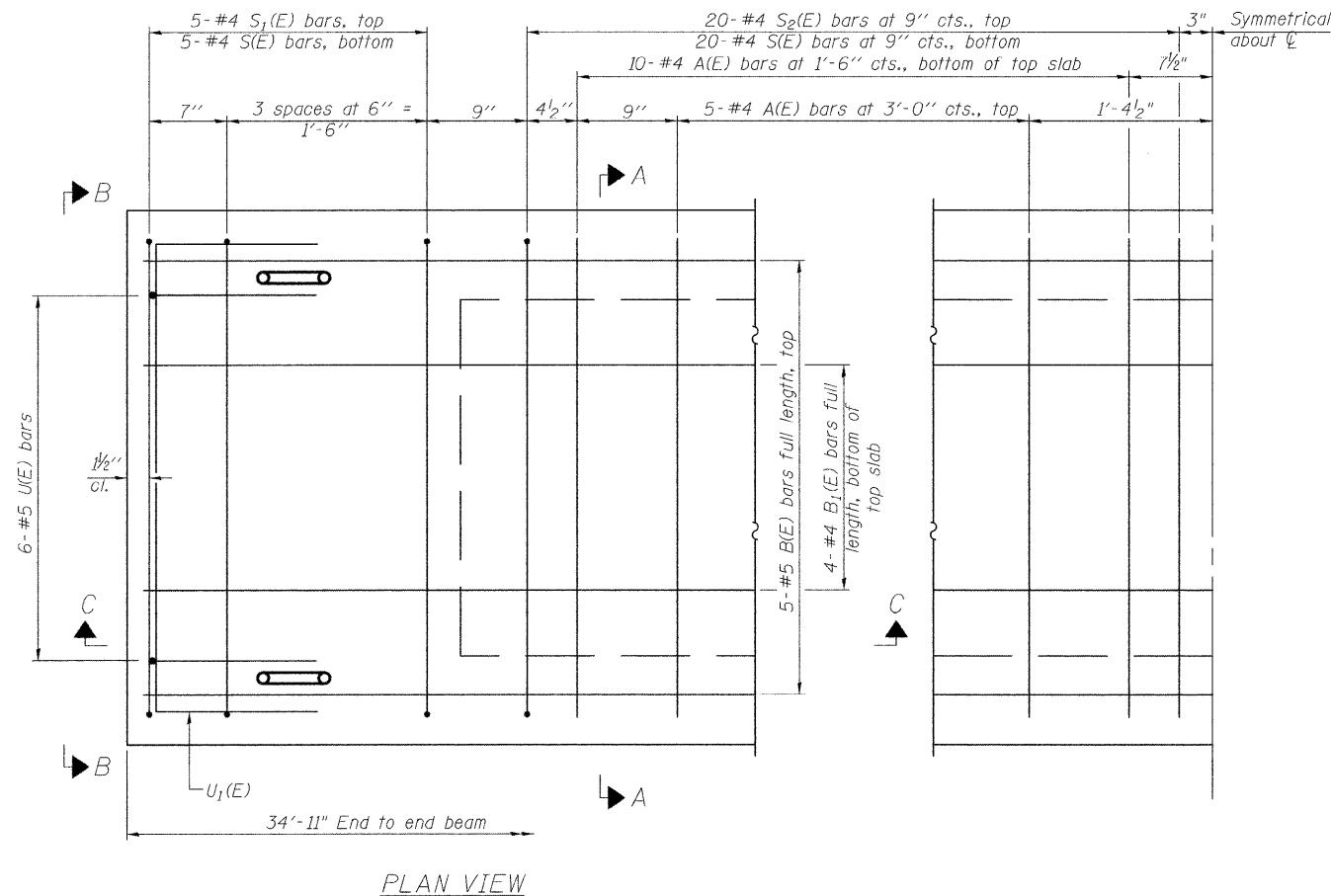


SECTION A-A
(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	30	#4	3'-7"	—
B(E)	5	#5	34'-6"	—
B1(E)	4	#4	34'-6"	—
S(E)	50	#4	7'-5"	□
S1(E)	10	#4	6'-7"	□
S2(E)	40	#4	6'-10"	□
U(E)	12	#5	4'-0"	□
U1(E)	4	#4	6'-0"	□

Note: See Bridge Sheet 5 of 9 for additional details and Bill of Material.



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 outs for the transverse ties.

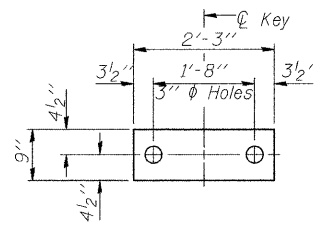
REVISIONS	
NAME	DATE

21x48 PPC DECK BEAM - 35ft SPAN

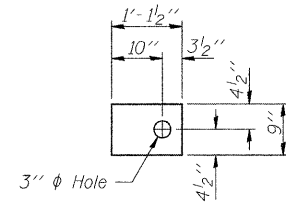
FAS 591 OVER
TOURNEAR CREEK
SEC 07-00202-00-BR
ADAMS COUNTY
STA 3+00
STRUCTURE NUMBER 001-3337
SCALE: VERT. N/A
 HORIZ. N/A
DATE: APR 2008
DRAWN BY JLS
CHECKED BY CSB

PSBA Project No: R-08-011

COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	14
PROJECT NO. BRS-059K105			
21" x 48" PPC DECK BEAM DETAILS			

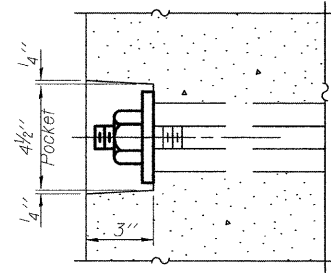


FABRIC BEARING PAD (Interior)

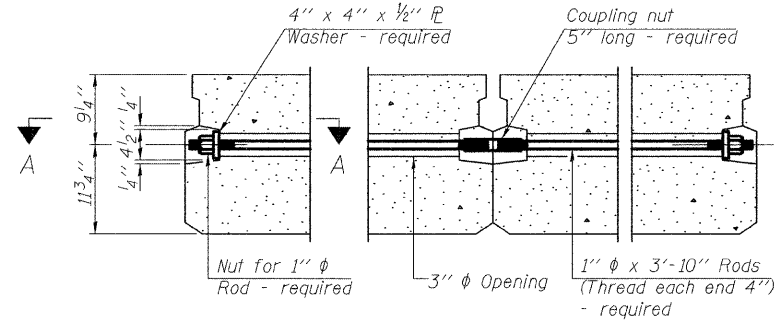


FABRIC BEARING PAD (Exterior)

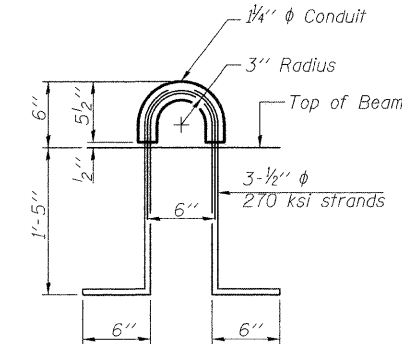
FIXED
Note: Omit holes when using expansion bearings.



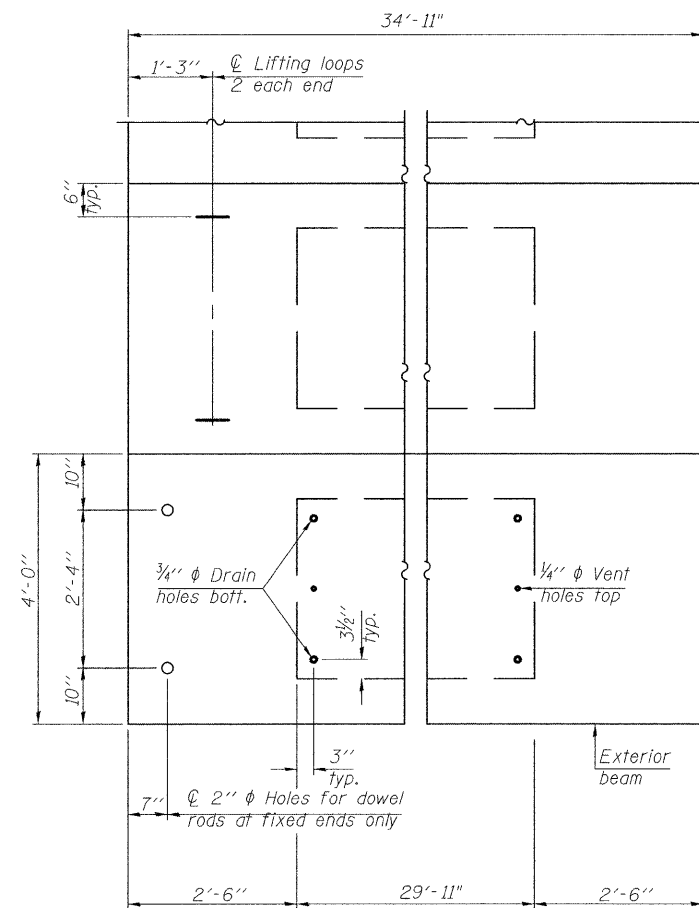
SECTION A-A



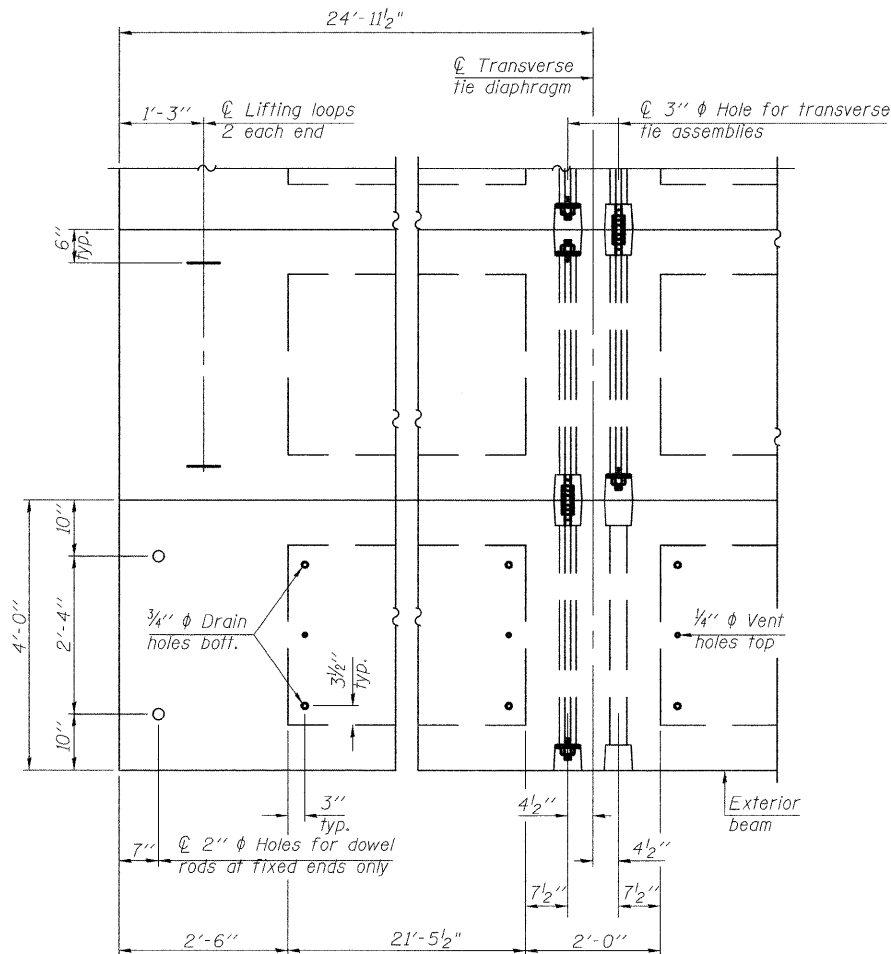
TYPICAL TRANSVERSE TIE ASSEMBLY



LIFTING LOOP DETAIL

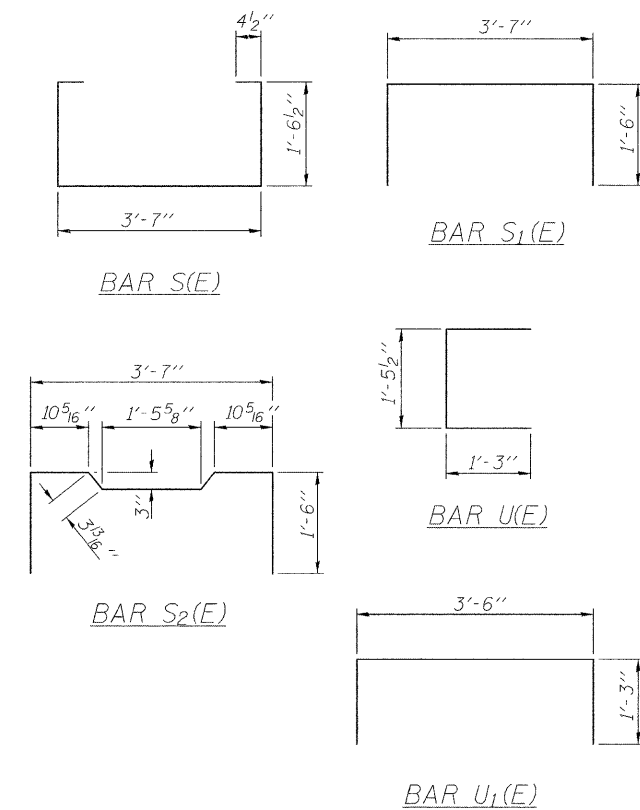


PLAN VIEW - 35 FOOT BEAM SPAN



PLAN VIEW - 50 FOOT BEAM SPAN

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" 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. (See Special Provisions)
- 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.
- The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.
- Rail post anchor devices (specified elsewhere) shall be cast in exterior face of outside beams.

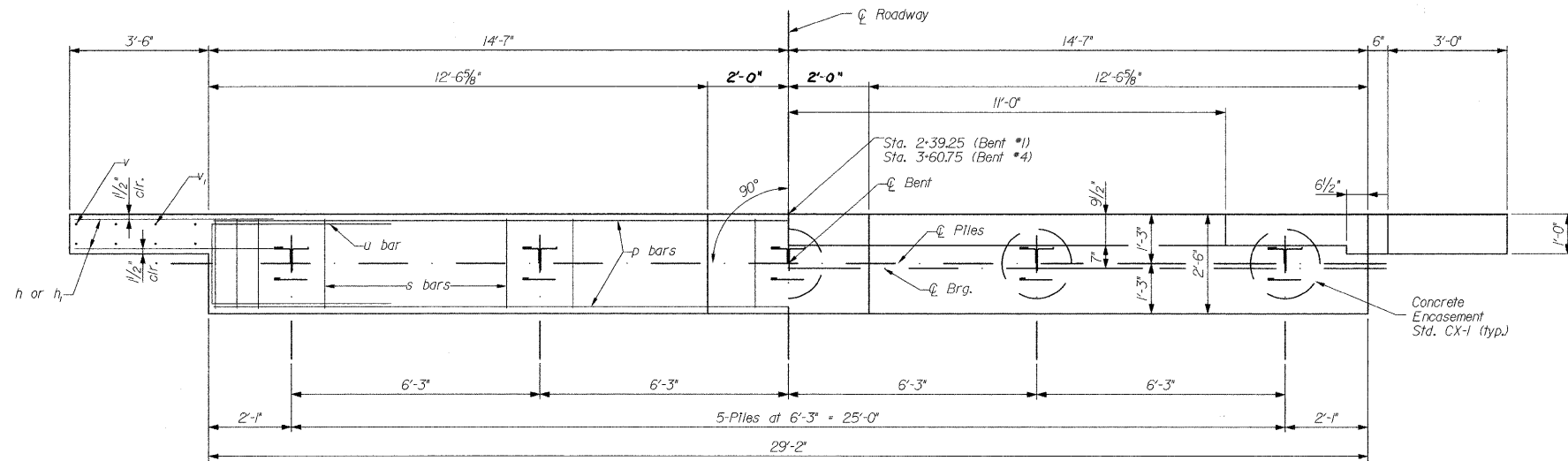
BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	3353
---	---------	------

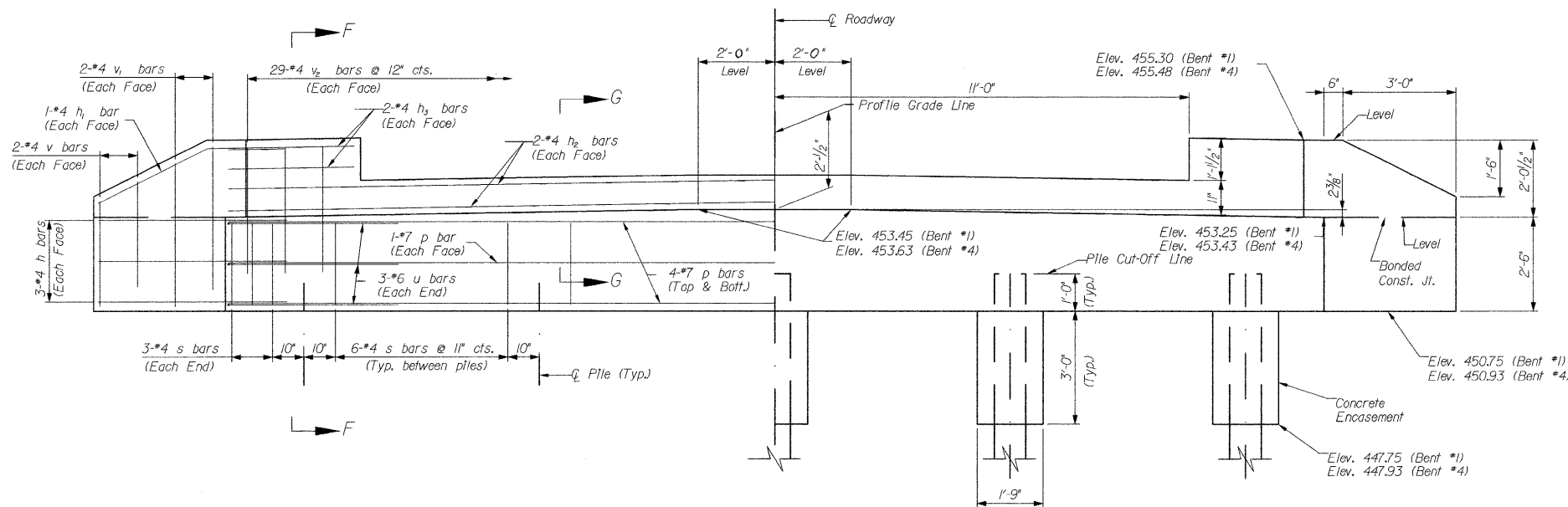
REVISIONS	
NAME	DATE

21" x 48" PPC DECK BEAM DETAILS
 FAS 591 OVER
 TOURNEAR CREEK
 SEC 07-00202-00-BR
 ADAMS COUNTY
 STA 3+00
 STRUCTURE NUMBER 001-3337
 SCALE: VERT. N/A
 HORIZ. N/A
 DATE: APR 2008
 DRAWN BY JLS
 CHECKED BY CSB

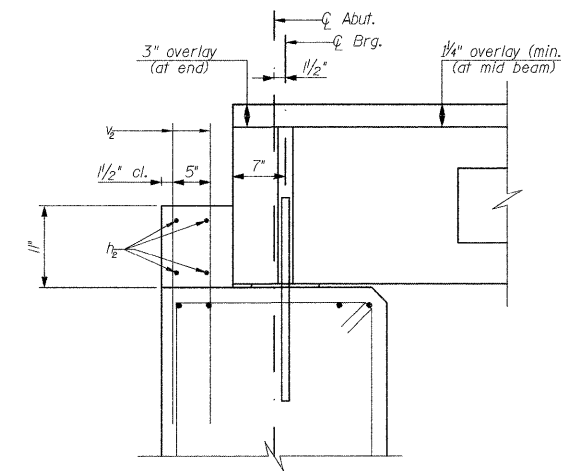
COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	15
PROJECT NO. BRS-059(K105)			
ABUTMENT DETAILS - BENTS #1 & #4			



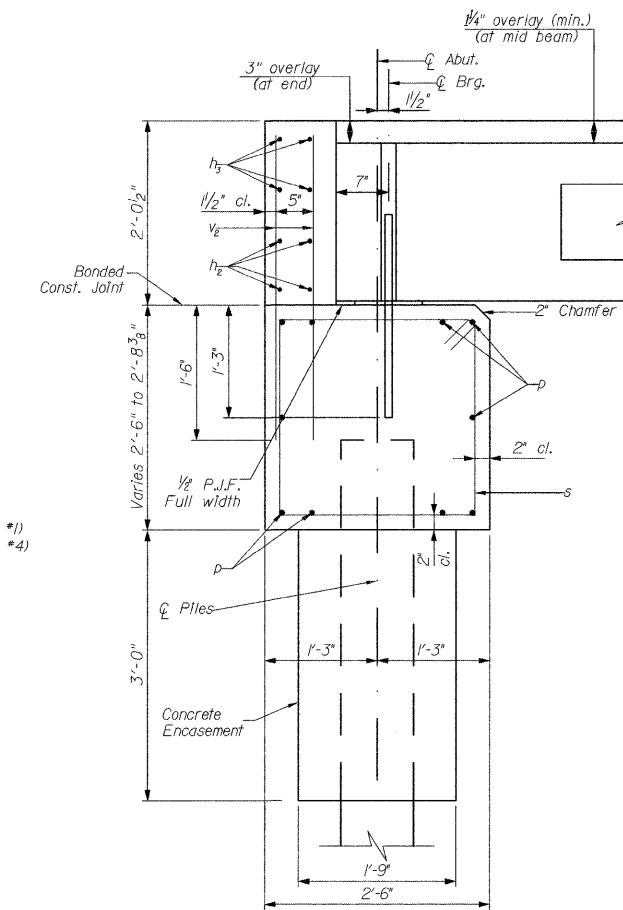
ABUTMENT PLAN
Symmetrical About Centerline



ABUTMENT ELEVATION
Symmetrical About Centerline
Elevations at ϕ Bent



SECTION G-G
(at Right Angles - At Approach Pavement)



SECTION F-F
(at Right Angles)

BILL OF MATERIAL BENT #1

Bar	No.	Size	Length	Shape
h	12	#4	5'-0"	
h ₁	4	#4	5'-3"	
h ₂	4	#4	28'-10"	
h ₃	8	#4	3'-4"	
p	10	#7	24'-9"	
s	30	#4	9'-5"	
u	6	#6	11'-1"	
v	8	#4	2'-9"	
v ₁	8	#4	3'-9"	
v ₂	58	#4	3'-4"	
Concrete Structures		Cu. Yd.	9.4	
Concrete Encasement		Cu. Yd.	1.3	
Reinforcement Bars		Pound	1110	
Furnishing Steel Piles HPI0x42		Foot	76	
Driving Piles		Foot	76	
Test Pile HPI0x42		Each	1	
Pile Shoes		Each	5	

BILL OF MATERIAL BENT #4

Bar	No.	Size	Length	Shape
h	12	#4	5'-0"	
h ₁	4	#4	5'-3"	
h ₂	4	#4	28'-10"	
h ₃	8	#4	3'-4"	
p	10	#7	24'-9"	
s	30	#4	9'-5"	
u	6	#6	11'-1"	
v	8	#4	2'-9"	
v ₁	8	#4	3'-9"	
v ₂	58	#4	3'-4"	
Concrete Structures		Cu. Yd.	9.4	
Concrete Encasement		Cu. Yd.	1.3	
Reinforcement Bars		Pound	1110	
Furnishing Steel Piles HPI0x42		Foot	116	
Driving Piles		Foot	116	
Test Pile HPI0x42		Each	1	
Pile Shoes		Each	5	

NOTES

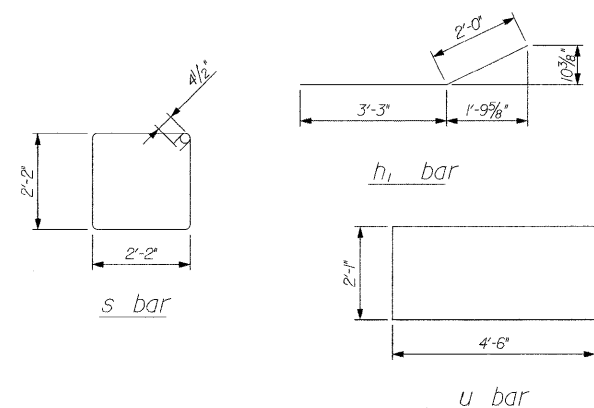
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to the requirements of ASTM A706.
- Space reinforcement in cap to miss anchor bolts.

DESIGN STRESSES

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

PILE DATA

	Bent #1	Bent #4
Pile Type and Size:	HP 10x42 with pile shoes	HP 10x42 with pile shoes
Nominal Required Bearing:	335 klps	335 klps
Factored Resistance Available:	Refusal (168 klps)	Refusal (168 klps)
Estimated Pile Length:	19 Ft./Pile	29 Ft./Pile
Number of Production Piles:	4	4
Number of Test Piles:	1	1

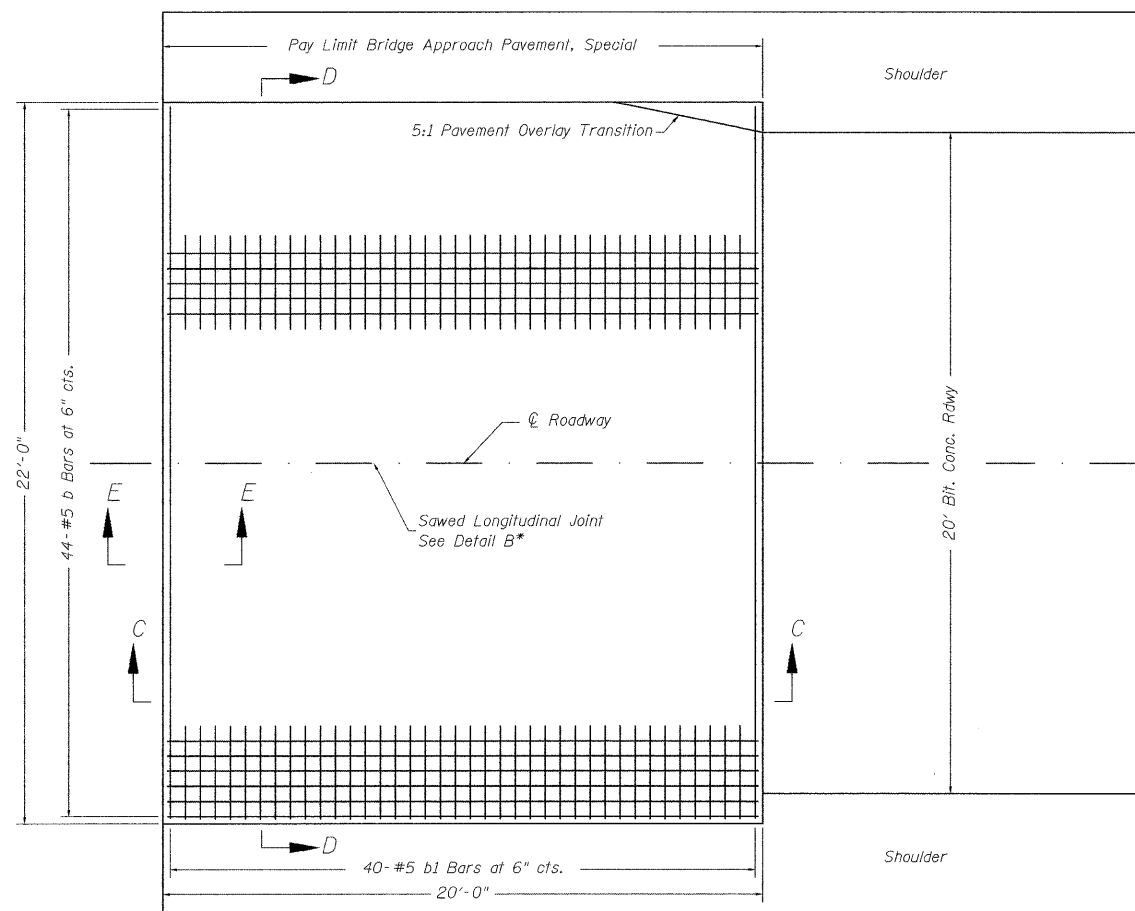


REVISIONS	
NAME	DATE

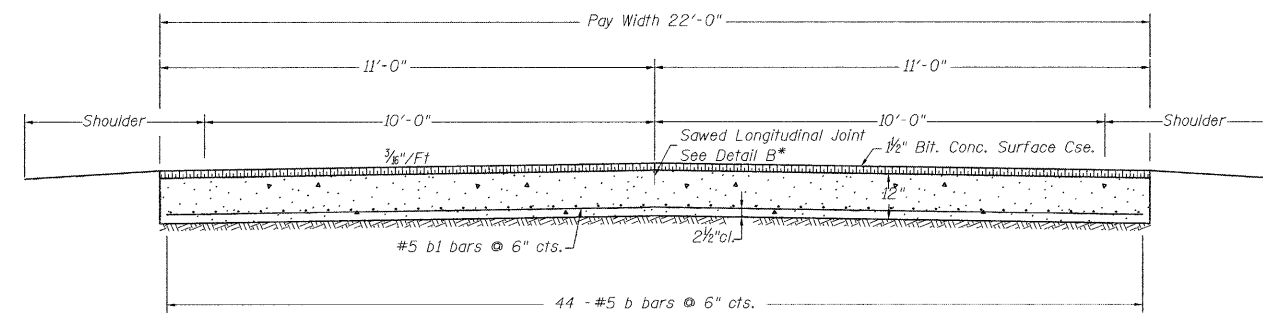
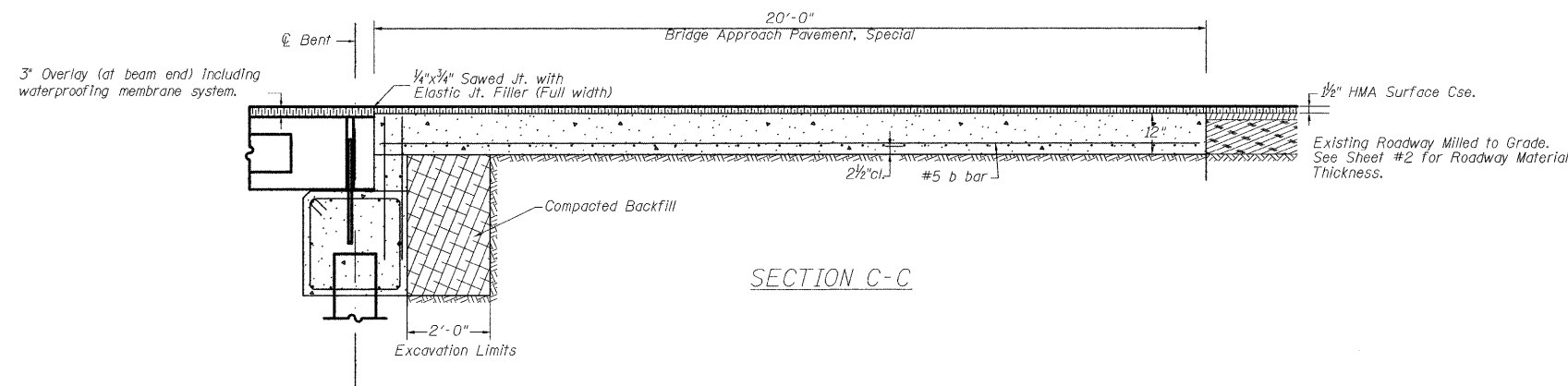
ABUTMENT DETAILS - BENTS #1 & #4

FAS 591 OVER
TOURNEAR CREEK
SEC 07-00202-00-BR
ADAMS COUNTY
STA 3+00
STRUCTURE NUMBER 001-3337
SCALE: VERT. N/A
HORIZ. N/A
DATE: APR 2008
DRAWN BY JLS
CHECKED BY CSB

COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	17
PROJECT NO. BR5-059(K105)			
BRIDGE APPR. PAVEMENT, SPECIAL			



PLAN



SECTION D-D

BILL OF MATERIAL FOR ONE APPROACH

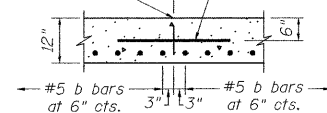
Bar	No.	Size	Length	Shape
b	44	#5	19'-8"	—
b1	40	#5	21'-8"	—
b2	9	#6	2'-6"	—
Reinforcement Bars			1,850 Lbs.	*
Class SI Concrete			16.3 Cu. Yd.	*
Bridge Approach Pavement, Special			48.9 Sq. Yd.	

* The Cost of Reinforcement Bars and Class SI Concrete is included in the Unit Price Bid for Bridge Approach Pavement, Special. Quantity is Not Included in Reinforcement Bars or Concrete Structures.

DESIGN STRESSES

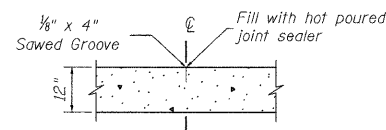
f'c = 3,500 psi
fy = 60,000 psi

Longitudinal Construction Joint in accordance with details shown on Standard 420001

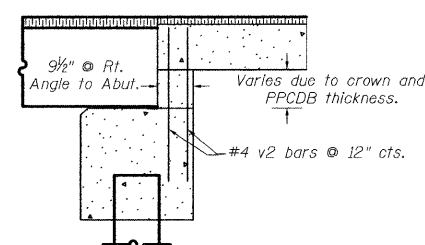


CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of placement by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



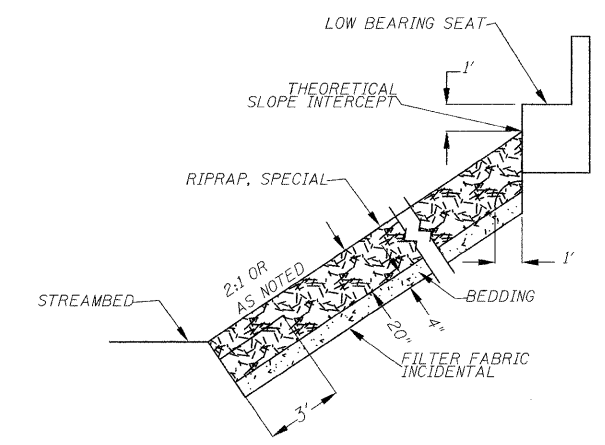
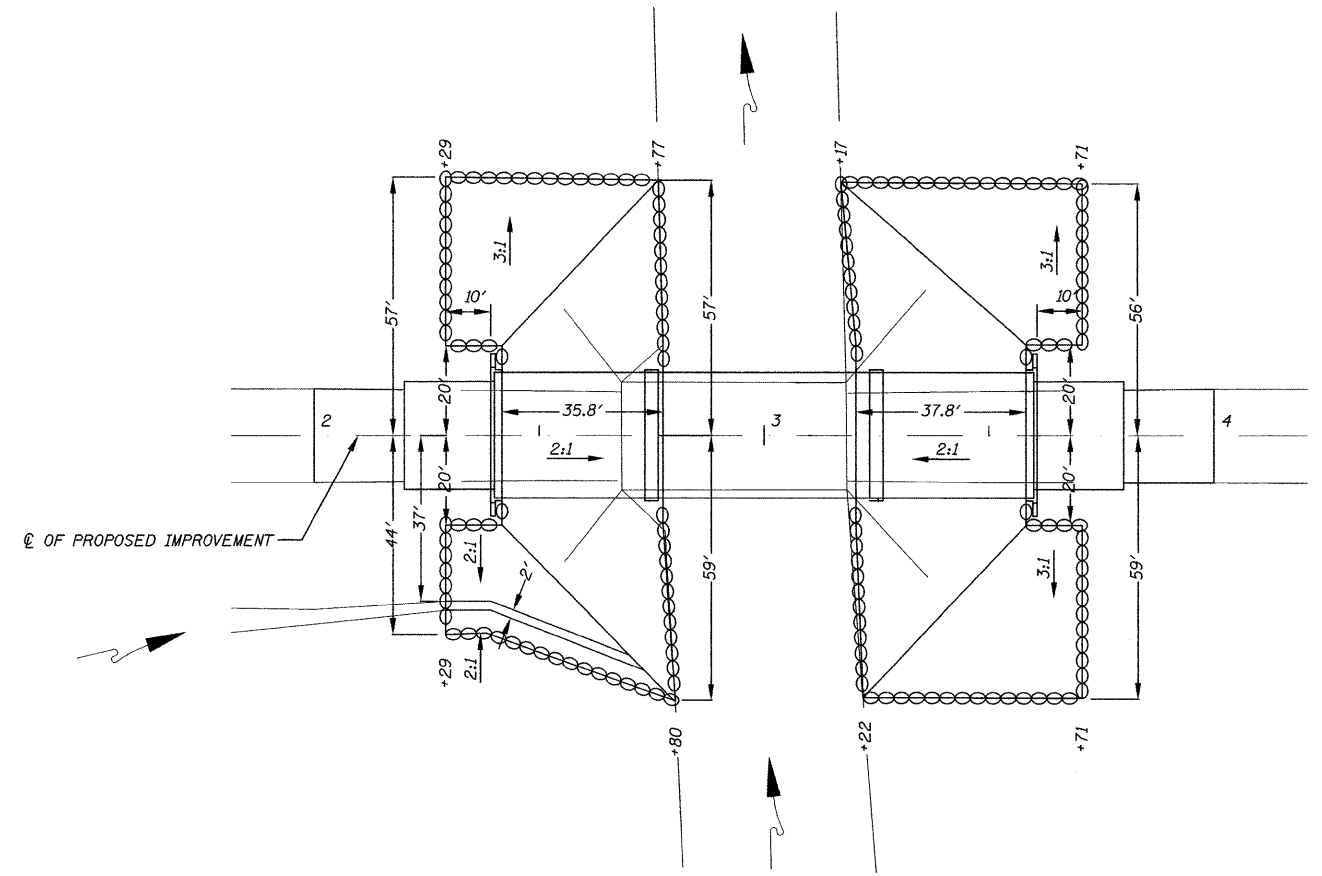
DETAIL B*



SECTION E-E
(PILE BENT ABUTMENT CAP)

REVISIONS		BRIDGE APPR. PAVEMENT, SPECIAL
NAME	DATE	
		FAS 591 OVER TOURNEAR CREEK SEC 07-00202-00-BR ADAMS COUNTY STA 3+00 STRUCTURE NUMBER 001-3337 SCALE: VERT. N/A HORIZ. N/A DATE: APR 2008 DRAWN BY JLS CHECKED BY CSB

COUNTY	ROUTE	SECTION	SHEET
ADAMS	FAS 591	07-00202-00-BR	18
PROJECT NO. BRS-059K105			
RIPRAP PLAN & BORING LOGS			



RIPRAP PLACEMENT DETAIL

Boring No. 1				Sample							
Station 2+34		12 Ft. Lt. *		Depth	Op. t.s.f.	Dry Density P.C.F.	Number	Type	Blows/Ft.	Qu. T.S.F.	Water Content
Ground Elev.	455.1	0									
Fill: Yellow Brown Silty Sandy Clay (CL)											
	450.1	5					1	SS	3		19.4
Fill: Yellow Brown Silty Sandy Clay w/Occasional Gravel Layers (CL)											
Gravelly, Stiff (CL)		10					2	SS	12		9.8
Stiff (CL)		15		1.25	106.4		3	SS	7	1.36	19.1
More Gravel Below 17.5 Ft.											
	436.1										
Gray to Yellow Brown Weathered Limestone w/Clay Seams, Hard	434.1	20					4	SS	69		15.1
Rig Refusal @ 21 Ft. End Boring @ 21 Ft.											
		25									
		30									
		35									

Boring No. 2				Sample							
Station 3+52		14 Ft. Rt. *		Depth	Op. t.s.f.	Dry Density P.C.F.	Number	Type	Blows/Ft.	Qu. T.S.F.	Water Content
Ground Elev.	455.6	0									
Fill: Yellow Brown Silty Sandy Clay (CL)											
Trace of Gravel, Medium (CL)		5		1.50	104.7		1	SS	3	0.79	22.2
	448.1										
Fill: Gray Clayey Sand and Clayey Silt w/Gravel (SC-SM)											
Medium Dense (SC-SM)		10					2	SS	14		16.0
	440.6										
Gray Silty Fine Sand, Medium Dense (SM)		15					3	SS	10		12.3
	435.6										
Light Gray Mottled Yellow Brown Clayey Silty w/Sand Seams, Medium (ML)		20		0.50	105.6		4	SS	5	0.82	21.9
	430.6										
Gray Mottled Tan Sand & Gravel, Medium Dense (SP-GP)		25					5	SS	23		13.9
	425.6										
Yellow Brown Weathered Limestone	424.6	30					6	SS	59		18.3
Rig Refusal @ 31 Ft. End Boring @ 31 Ft.											
		35									

SUMMARY OF QUANTITIES

PAY ITEM	BENT #1	BENT #4	TOTAL
RIPRAP, SPECIAL	585 TON	651 TON	1,236 TON
FILTER FABRIC	601 S.Y.	669 S.Y.	1,270 S.Y.

* INCIDENTAL TO UNIT PRICE BID FOR RIPRAP, SPECIAL

GENERAL NOTES:

1. LAYOUT OF THE SLOPE PROTECTION SYSTEM MAY BE VARIED TO SUIT GROUND CONDITIONS IN THE FIELD AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE

RIPRAP PLAN & BORING LOGS

FAS 591 OVER
TOURNEAR CREEK
SEC 07-00202-00-BR
ADAMS COUNTY
STA 3+00

STRUCTURE NUMBER 001-3337
SCALE: VERT. N/A
HORIZ. N/A
DATE: APR 2008
DRAWN BY JLS
CHECKED BY CSB

PSBA Project No.: R-08-011