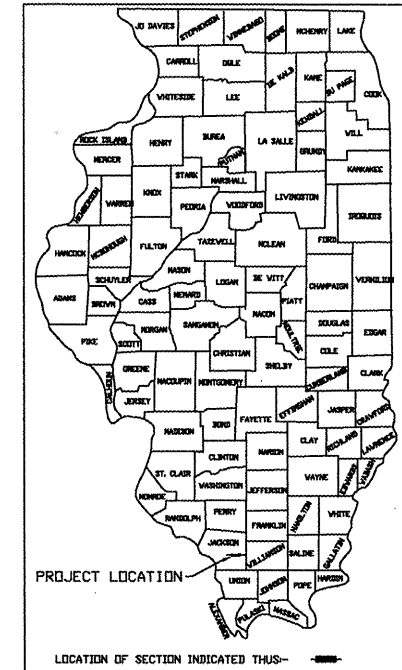


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID PROJECT
CITY OF CARBONDALE

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
	05-00118-00-RP	JACKSON	32	1
JOB NO. C-99-515-06		FED PROJ. HPP-0321(117)		
CITY OF CARBONDALE				

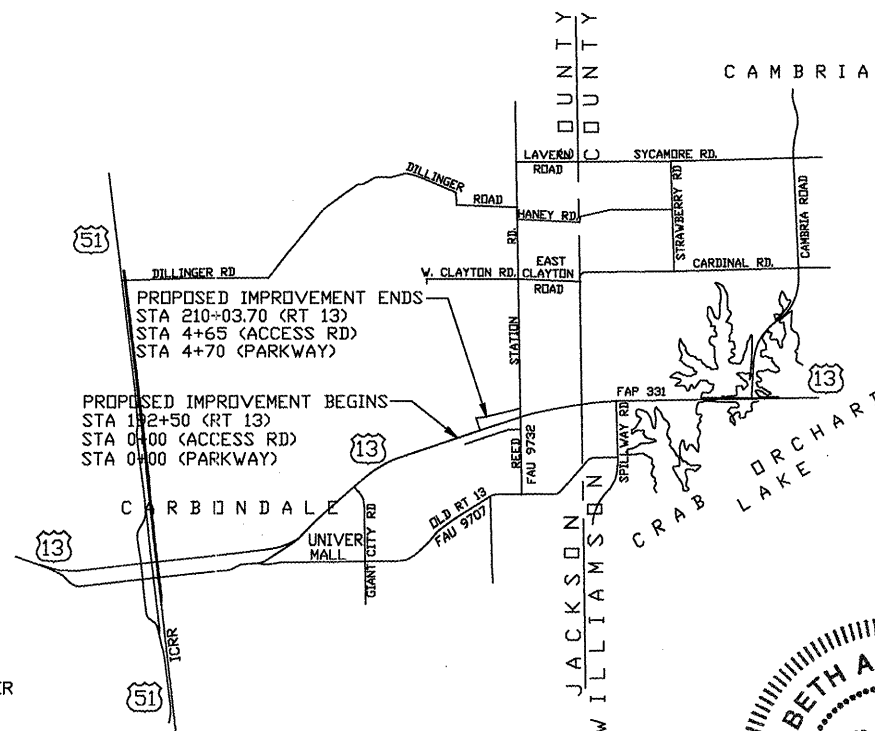
SECTION 05-00118-00-RP
JACKSON COUNTY
PROJECT NO. HPP-0321(117)
JOB NO. C-99-515-06 CONTRACT NO. 99405

REED STATION PARKWAY CONNECTOR
CIP NO. ST0305



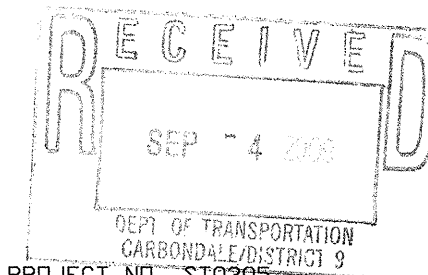
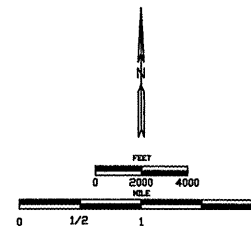
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET, INDEX OF SHEETS, HIGHWAY STANDARDS
2	SUMMARY OF QUANTITIES & TYPICAL SECTIONS
3	SCHEDULE OF MISCELLANEOUS QUANTITIES
4	SCHEDULE OF DRAINAGE STRUCTURES
5	MISCELLANEOUS DETAILS
6-7	INTERSECTION DETAILS
8-9	REMOVAL PLAN
10-14	PLAN AND PROFILES
15-17	PAVEMENT MARKING AND SIGNAGE PLAN
18-21	EROSION CONTROL PLAN
22-30	CROSS SECTIONS
31	CONCRETE COLLAR DETAIL
32	BOX CULVERT END SECTION DETAIL
<u>HIGHWAY STANDARDS</u>	
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
424001-05	CURB RAMPS FOR SIDEWALKS
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTION
602301-02	INLET - TYPE A
602401-02	MANHOLE TYPE A
602601-02	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-03	FRAME AND LIDS TYPE 1
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
701101-02	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701422-02	LANE CLOSURE, MULTILANE, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH TO 55 MPH
701426-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
780001-02	TYPICAL PAVEMENT MARKINGS
	CONCRETE COLLAR FOR PRECAST BOX CULVERTS
	DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION

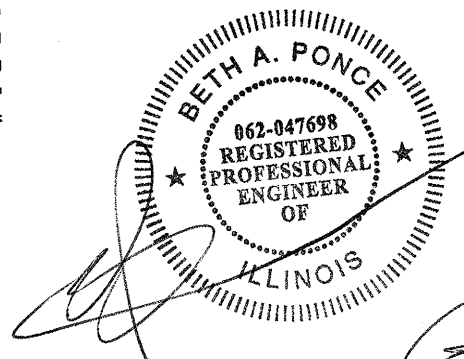


LOCATION MAP
SCALE: 1 IN. = 4,000 FT.

NET LENGTH OF IMPROVEMENT = 2,662 FT. = 0.504 MI.



CARBONDALE PROJECT NO. ST0305
HIGHWAY CLASSIFICATION - LOCAL ROAD
ADT = 5380
DESIGN SPEED 30 M. P. H
J. U. L. I. E. : 1-800-892-0123



Allen D. Hill 9/4/09
CITY MANAGER DATE

BETH A. PONCE, P.E.
REG. NO. 062-047698
DATE 04 SEP 09
EXPIRES 11-30-09
PUBLIC WORKS DIRECTOR DATE

PASSED October 26 2009
Richard W. Nelson
DISTRICT ENGINEER OF LOCAL ROADS & STREETS

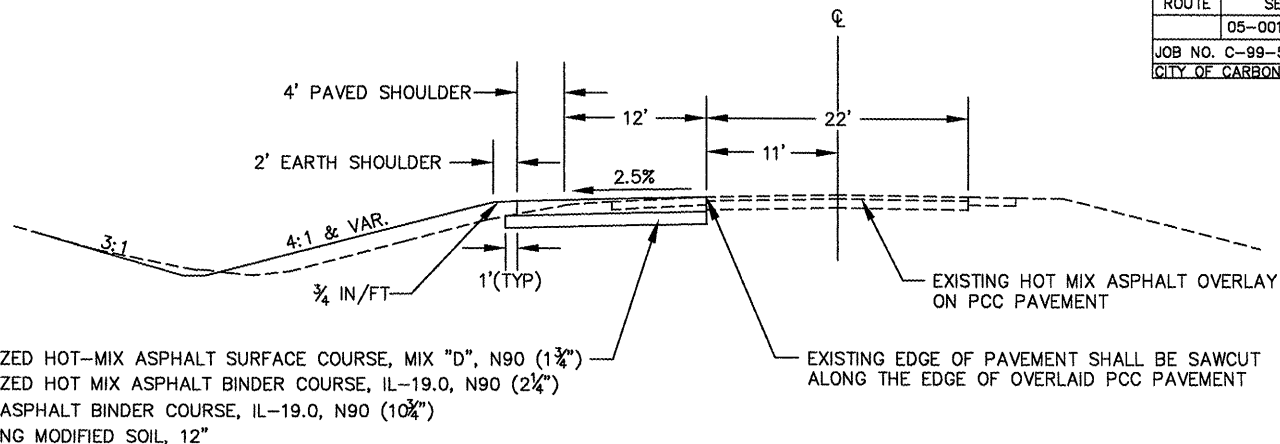
RELEASING FOR BID BASED ON LIMITED REVIEW October 26 2009
Mary C. James DLE
REGION FIVE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
CITY OF CARBONDALE, ILLINOIS
DEPT. OF PUBLIC WORKS
REED STATION PARKWAY CONNECTOR
CIP NO. ST0305
TITLE AND COVER SHEET

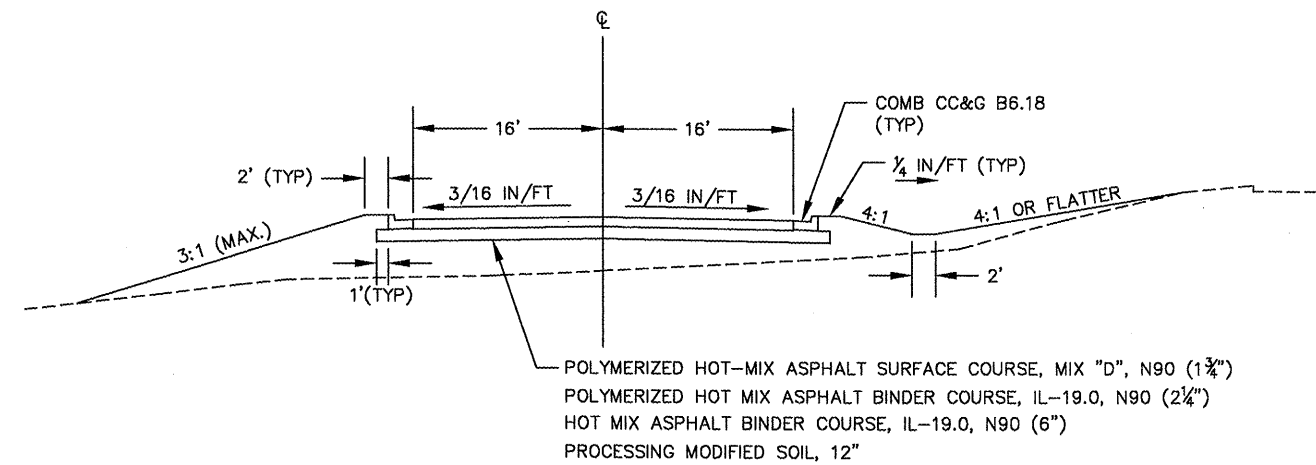
SUMMARY OF QUANTITIES

CODED PAY ITEM NUMBER	DESCRIPTION OF ITEM	QUANTITY	UNIT
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	31	UNIT
20100210	TREE REMOVAL (OVER 15 INCH DIAMETER)	86	UNIT
20100500	TREE REMOVAL, ACRES	0.56	ACRE
20200410	EARTH EXCAVATION (SPECIAL)	2,341	CU YD
20400100	BORROW EXCAVATION	16,608	CU YD
20800150	TRENCH BACKFILL	305	CU YD
25001000	SEEDING, CLASS 2 (SPECIAL)	3.7	ACRE
28000305	TEMPORARY DITCH CHECKS	158	FOOT
28000400	PERIMETER EROSION BARRIER	1,623	FOOT
28000500	INLET AND PIPE PROTECTION	3	EACH
28100807	STONE DUMPED RIPRAP, CLASS A4	507	TON
30200650	PROCESSING MODIFIED SOIL 12"	7,272	SQ YD
30201500	LIME	145	TON
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	3,140	TON
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	802	TON
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	625	TON
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	47	SQ YD
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	3,672	SQ FT
42400800	DETECTABLE WARNINGS	34	SQ FT
44000500	COMBINATION CURB & GUTTER REMOVAL	241	FOOT
44000600	SIDEWALK REMOVAL	257	SQ FT
54001001	BOX CULVERT END SECTION, CULVERT NO. 1	1	EACH
54001002	BOX CULVERT END SECTION, CULVERT NO. 2	1	EACH
54010403	PRECAST CONCRETE BOX CULVERT 4' X 3'	18	FOOT
54010503	PRECAST CONCRETE BOX CULVERT 5' X 3'	180	FOOT
542A0265	PIPE CULVERTS, CLASS A, TYPE 1 60"	156	FOOT
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	1	EACH
54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	1	EACH
54213705	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 60"	2	EACH
54247210	GRATING FOR CONCRETE FLARED END SECTION 60"	1	EACH
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	298	FOOT
550A0070	STORM SEWERS, CLASS A, TYPE 1, 15"	19	FOOT
550A0090	STORM SEWERS, CLASS A, TYPE 1, 18"	286	FOOT
550A0120	STORM SEWERS, CLASS A, TYPE 1, 24"	23	FOOT
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	36	FOOT
550A0750	STORM SEWERS, CLASS A, TYPE 3, 36"	124	FOOT
550B0030	STORM SEWERS, CLASS B, TYPE 1 8"	20	FOOT
55100900	STORM SEWER REMOVAL 18"	51	FOOT
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH
60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	1	EACH
60242900	INLETS, SPECIAL, TYPE 1	1	EACH
60243300	INLETS, SPECIAL, TYPE 3, 5'	1	EACH
60243500	INLETS, SPECIAL, TYPE 3, 6'	8	EACH
60262800	INLETS TO BE RECONSTRUCTED (SPECIAL)	1	EACH
60500060	REMOVING INLETS	1	EACH
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	842	FOOT
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	715	FOOT
60608600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06	137	FOOT
60610400	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24	106	FOOT
67100100	MOBILIZATION	1	L SUM
70101700	TRAFFIC CONTROL AND PROTECTION	1	L SUM
72000100	SIGN PANEL - TYPE 1	64	SQ FT
72000200	SIGN PANEL - TYPE 2	16	SQ FT
73000100	WOOD SIGN SUPPORT	159	FOOT
*78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	59	SQ FT
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	3,519	FOOT
*78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	182	FOOT
*78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	817	FOOT
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	514	FOOT
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	28	FOOT
*78200300	PRISMATIC CURB REFLECTOR	25	EACH
78300105	PAVEMENT MARKING REMOVAL	1,754	FOOT
Z0013798	CONSTRUCTION LAYOUT	1	L SUM
X0325702	NIGHTTIME WORK ZONE LIGHTING	1	L SUM

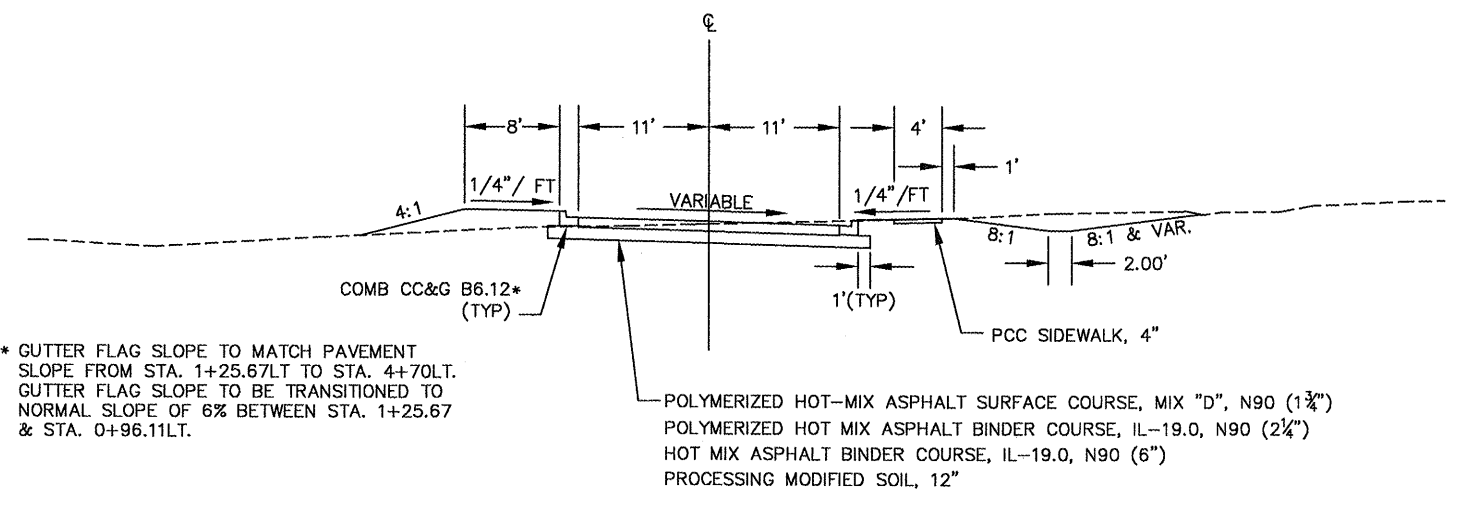
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00118-00-RP	JACKSON	32	2	
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



TYPICAL SECTION - WESTBOUND ILLINOIS ROUTE 13



TYPICAL SECTION - ACCESS ROAD
STA 1+10 TO STA 4+65



TYPICAL SECTION - REED STATION PARKWAY

* GUTTER FLAG SLOPE TO MATCH PAVEMENT SLOPE FROM STA. 1+25.67LT TO STA. 4+70LT. GUTTER FLAG SLOPE TO BE TRANSITIONED TO NORMAL SLOPE OF 6% BETWEEN STA. 1+25.67 & STA. 0+96.11LT.

PROJECT NAME: ST0305
PAPER/SPACE PLOT: N/A
PS VIEW: N/A
SNAPSHOT: PLOT ALL 0.2
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PLOT SCALE: 1:10
LINE TYPE SCALE: 10
DRAWN BY: RP

* SPECIALTY ITEMS

SCHEDULE OF QUANTITIES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	3
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				

SIDEWALK REMOVAL

BEGIN STATION	END STATION	SQ FT
REED STATION PARKWAY CONNECTOR		
3+65.82/30.09' RT	4+19.38/23.24' RT	208.5
4+56.36/19.17' RT	4+70.07/18.89' RT	48.8
GRAND TOTAL:		257.3

COMBINATION CURB & GUTTER REMOVAL

BEGIN STATION	END STATION	LN FT
REED STATION PARKWAY		
3+61.30/1.02' RT	4+70/11.87' LT	109.5
3+65.08/24.66' RT	4+70/11.89' RT	105.7
4+11.81/18.50' RT	4+21.74/25.23' RT	12.3
4+55.30/20.84' RT	4+64.51/12.54' RT	13.1
GRAND TOTAL:		240.6

REMOVING INLETS

STATION/OFFSET	EACH
REED STATION PARKWAY	
0+48.78/43.85 RT	1.0
GRAND TOTAL:	
	1.0

STORM SEWER REMOVAL 18"

BEGIN STATION	END STATION	LN FT
ACCESS ROAD		
0+93.8/41.7' RT	0+93.8/47.7' RT	6.0
SUB-TOTAL:		6.0
REED STATION PARKWAY		
0+25.40/44.1' RT	0+45.8/43.8' RT	20.5
0+51.7/43.9' RT	0+76.5/43.9 RT	24.5
SUB-TOTAL:		45.0
GRAND TOTAL:		51.0

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION/OFFSET	UNIT
ACCESS ROAD	
0+58.8/41.7' LT	12
SUB-TOTAL:	
	12
REED STATION PARKWAY	
3+47.3/24.6' LT	10
3+71.3/26.4' LT	9
SUB-TOTAL:	
	19
GRAND TOTAL:	
	31

TREE REMOVAL(OVER 15 UNITS DIAMETER)

STATION/OFFSET	UNIT
ACCESS ROAD	
0+47.5/55.9' LT	36
0+60.0/41.0' LT	16
0+61.7/40.3' LT	16
SUB-TOTAL:	
	68
REED STATION PARKWAY	
3+08.5/8.8' LT	18
SUB-TOTAL:	
	18
GRAND TOTAL	
	86

TREE REMOVAL, ACRES

BEGIN STATION	END STATION	ACRES
ACCESS ROAD		
1+16 RT-LT	4+46 RT	0.520
1+28 LT	2+27 LT	0.040
GRAND TOTAL:		0.560

PROCESSING MODIFIED SOIL, 12"

BEGIN STATION	END STATION	SQ YD
ROUTE 13		
192+50 LT	201+03.70 LT	4075
SUB-TOTAL:		4075
ACCESS ROAD		
1+10	4+65	1462
SUB-TOTAL:		1462
REED STATION PARKWAY		
0+16	4+70	1735
SUB-TOTAL:		1735
GRAND TOTAL:		7272

LIME

BEGIN STATION	END STATION	TON
ROUTE 13		
192+50 LT	201+03.70 LT	81
SUB-TOTAL:		81
ACCESS ROAD		
1+10	4+65	29
SUB-TOTAL:		29
REED STATION PARKWAY		
0+16	4+70	35
SUB-TOTAL:		35
GRAND TOTAL:		145

COMBINATION CONCRETE CURB & GUTTER

BEGIN STATION	END STATION	M-6.06 (FT)	B-6.12 (FT)	B-6.18 (FT)	M-6.24 (FT)
ROUTE 13					
203+57.03/19.00' LT	204+57.52/19.00' LT				105.74
203+56.69/22.97' LT	204+33.06/55.59' LT	93.25			
204+41.52/53.64' LT	204+59.02/22.32' LT	43.69			
TOTAL:		136.94			105.74

ACCESS ROAD

BEGIN STATION	END STATION	M-6.06 (FT)	B-6.12 (FT)	B-6.18 (FT)	M-6.24 (FT)
1+10/20.64' RT	3+63.69/55.14' RT			269.48	
4+02.50/79.87' RT	4+65/25.35' RT			89.88	
1+10/18.36' LT	4+65/17.50' LT			355.05	
TOTAL:				714.41	

REED STATION PARKWAY

BEGIN STATION	END STATION	M-6.06 (FT)	B-6.12 (FT)	B-6.18 (FT)	M-6.24 (FT)
0+55.14/26.32' RT	4+70/11.89' RT			414.66	
4+02.73/12.58' RT	4+21.74/25.23' RT			23.42	
4+55.30/20.84' RT	4+63.78/12.48' RT			12.37	
0+79.88/12.49' LT	4+70/11.87' LT			391.65	
TOTAL:				842.10	

POLYMERIZED HOT MIX-ASPHALT SURFACE COURSE, MIX "D", N90

BEGIN STATION	END STATION	TON
ROUTE 13		
192+50 LT	201+03.70 LT	358
SUB-TOTAL:		358

ACCESS ROAD

BEGIN STATION	END STATION	TON
1+10	4+65	125
SUB-TOTAL:		125

REED STATION PARKWAY

BEGIN STATION	END STATION	TON
0+16	4+70	142
SUB-TOTAL:		142
GRAND TOTAL:		625

POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90

BEGIN STATION	END STATION	TON
ROUTE 13		
192+50 LT	201+03.70 LT	460
SUB-TOTAL:		460

ACCESS ROAD

BEGIN STATION	END STATION	TON
1+10	4+65	160
SUB-TOTAL:		160

REED STATION PARKWAY

BEGIN STATION	END STATION	TON
0+16	4+70	182
SUB-TOTAL:		182
GRAND TOTAL:		802

DETECTABLE WARNINGS

BEGIN STATION	END STATION	SQ FT
ACCESS ROAD		
4+52 RT		8.0
SUB-TOTAL:		8.0
REED STATION PARKWAY		
0+33 RT		10.0
4+08 RT		8.0
4+62 RT		8.0
SUB-TOTAL:		26.0
GRAND TOTAL:		34.0

PCC SIDEWALK, 4"

BEGIN STATION	END STATION	SQ FT
ROUTE 13 (ISLAND AREA)		
203+57 LT	204+58 LT	1565.0
SUB-TOTAL:		1565.0
ACCESS ROAD		
4+42.16/31.49' RT	4+65/31.49' RT	112.0
SUB-TOTAL:		112.0
REED STATION PARKWAY		
0+32.52/43.17' RT	4+14.01/18.08' RT	1938.0
4+58.30/16.59' RT	4+69.94/16.17' RT	57.0
SUB-TOTAL:		1995.0
GRAND TOTAL:		3672.0

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90

BEGIN STATION	END STATION	TON
ROUTE 13		
192+50 LT	201+03.70 LT	2228
SUB-TOTAL:		2228
ACCESS ROAD		
1+10	4+65	426
SUB-TOTAL:		426
REED STATION PARKWAY		
0+16	4+70	486
SUB-TOTAL:		486
GRAND TOTAL:		3140

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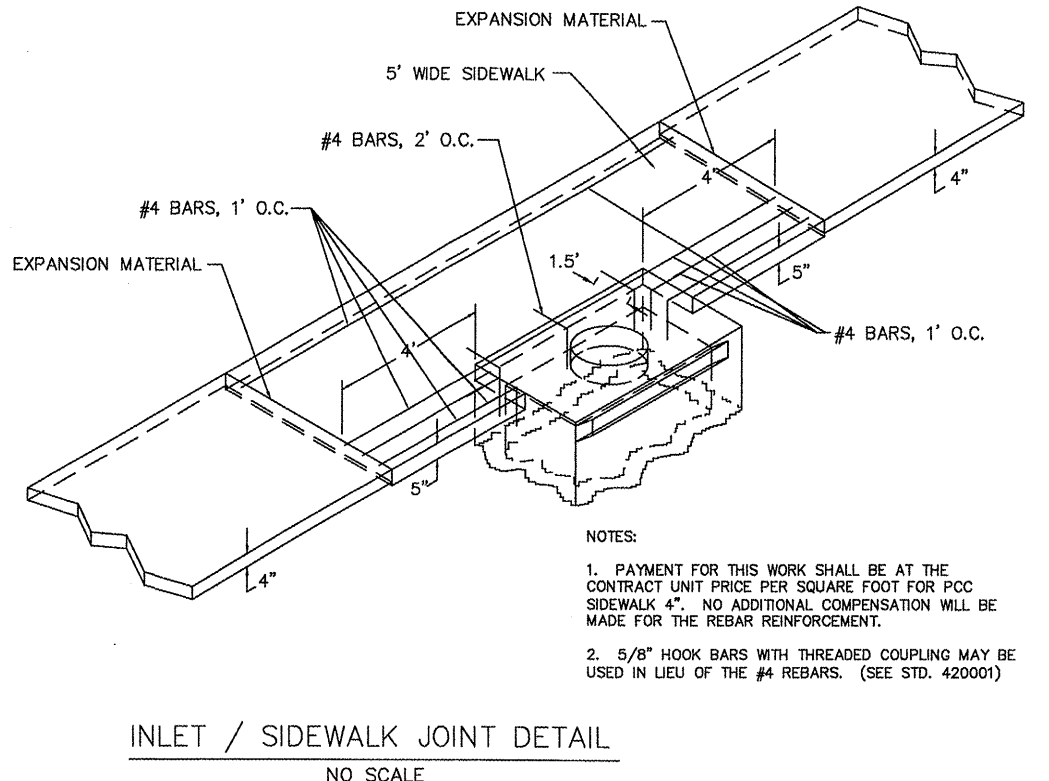
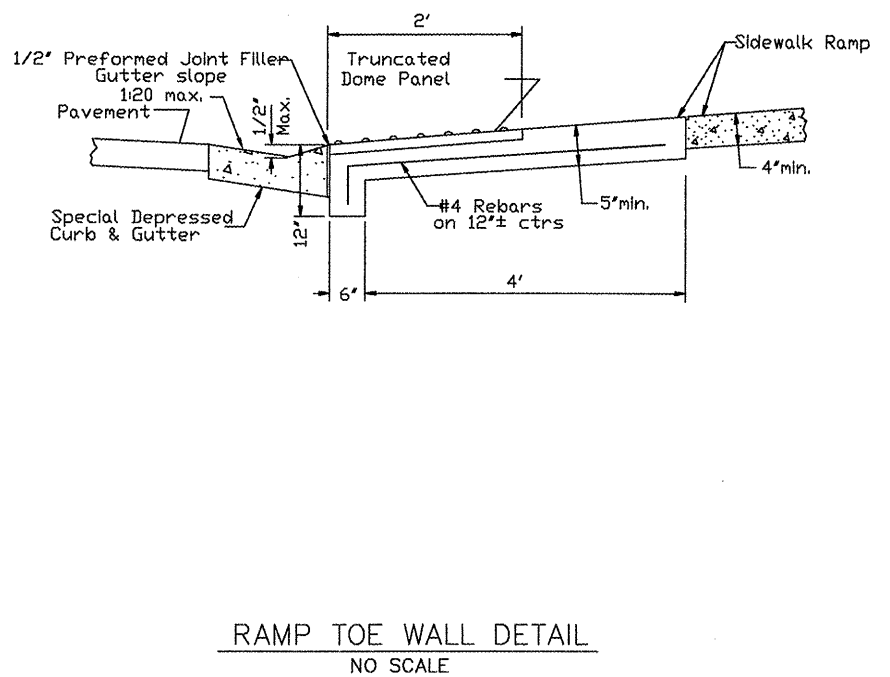
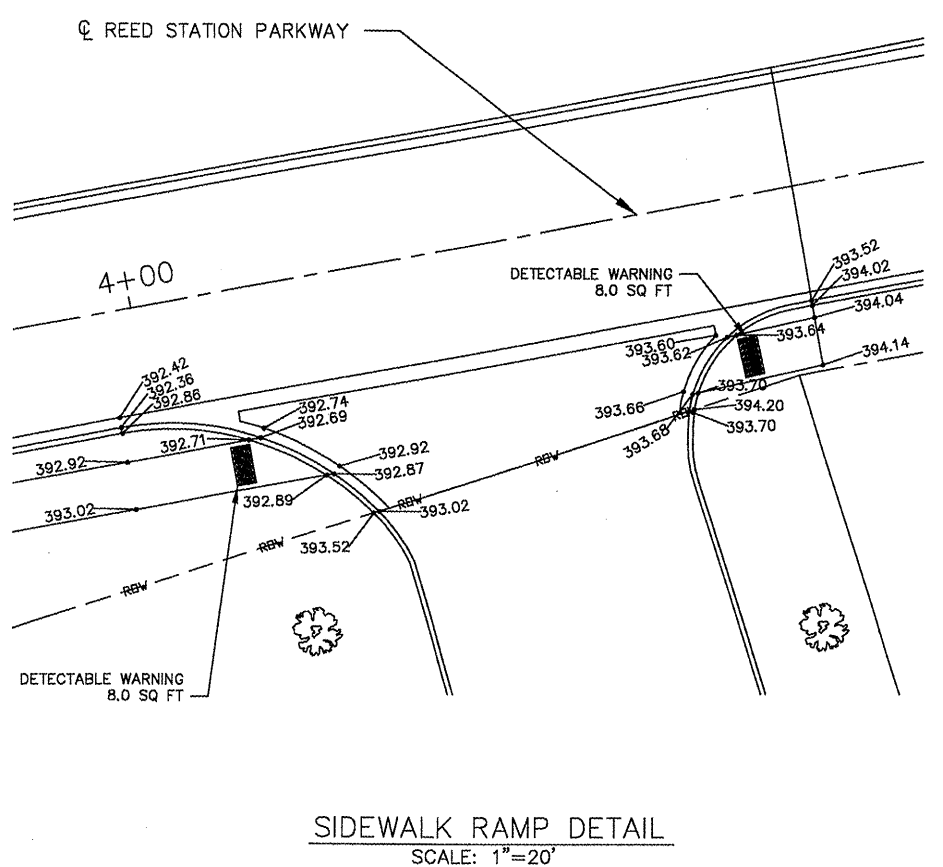
SCHEDULE OF DRAINAGE STRUCTURES AND
MISCELLANEOUS ITEMS

FROM STATION	TO STATION	INLETS SPL T1 (EACH)	INLETS TA T1F OL (EACH)	INLETS SPL T 3, 5' (EACH)	INLETS SPL T 3, 6' (EACH)	INLETS RECONST SPL (EACH)	MAN TA 4' DIA T1 F/CL (EACH)	MAN TA 5' DIA T1 F/CL (EACH)	STORM SEW CL B 1 8 (FOOT)	STORM SEW CL A 1 12 (FOOT)	STORM SEW CL A 2 12 (FOOT)	STORM SEW CL A 1 15 (FOOT)	STORM SEW CL A 1 18 (FOOT)	STORM SEW CL A 1 24 (FOOT)	STORM SEW CL A 3 36 (FOOT)	P CUL CL A 1 60 (FOOT)	PRC FLAR END SEC 18 (EACH)	PRC FLAR END SEC 36 (EACH)	PRC FLAR END SEC 60 (EACH)	GRATING C FL END S 60 (EACH)	BOX CUL END SEC C1 (EACH)	BOX CUL END SEC C2 (EACH)	PCBC 4X3 (FOOT)	PCBC 5X3 (FOOT)	REMOVING INLETS (EACH)	STORM SEWER REM 18 (FOOT)	TRENCH BACKFILL (CU YD)	STONE DUMP RIP CL A4 (TON)			
ILL. RTE. 13																															
201+75/LT	203+50/LT																												405		
201+89/73.1' LT	201+89/97.1' LT																				1		18								
203+48.7/89.2' LT	205+19.1/62' LT															156			2	1							70				
205+69.6/LT	206+02/LT																											50			
206+00/65' LT	206+70/95' LT												69				1														
ACCESS ROAD																															
0+79.05/4.86' LT	2+39.51/82.25' LT																					1		180							
0+93.76/41.7' RT	0+93.8/47.7' RT																									6					
1+26.2/30.27' RT							1																								
1+26.2/30.27' RT	1+34/48.5' RT												18																		
1+26.2/30.27' RT	1+38/48' RT								20																						
1+26.2/30.27' RT	2+25 RT													95													3				
2+25/17.58' LT						1																									
2+25/17.58' RT						1																									
2+25 LT	2+25 RT														36													13			
2+25/20.58' RT	2+25/27.3' RT									7																					
2+25/28' RT			1																												
2+25 RT	3+04 RT													74														54			
2+48/85' LT																													34		
3+04/17.58' RT						1																									
3+04 RT	0+48.78/43.85' RT(Parkway)													48																	
3+46/91' LT																													18		
3+46.2/47.1' RT	3+46.2/84.8' LT														124		1											85			
REED STATION PARKWAY																															
0+25.4/44.1' RT	0+45.8/43.8' RT																										20.5				
0+51.7/43.9' RT	0+76.5/43.9' RT																										24.5				
0+48.78/43.85' RT								1																	1						
0+43.24/31.62' LT				1																											
0+43.24 LT	0+75 RT									61																			14.5		
0+48.78/43.85' RT	0+75/43.87' RT													23																	
0+75/43.87' RT		1																													
0+75/21.08' RT					1																										
0+75/23.7' RT	0+75/42.4' RT												19																2.5		
0+75 RT	1+50 RT									70																			24		
1+50/12.19' RT					1																										
1+50 RT	2+20 RT									64																			18.5		
2+20/12.08' RT					1																										
2+20 RT	2+94 RT									68																			18		
2+94/12.08' RT					1																										
3+68/12.08' RT					1																										
3+68/15.08' RT	3+68.35/24.8' RT									10																			2.5		
3+68.35/25.88' RT						1																									
TOTALS:		1	1	1	8	1	1	1	20	298	36	19	286	23	124	156	1	1	2	1	1	1	18	180	1	51	305	507			

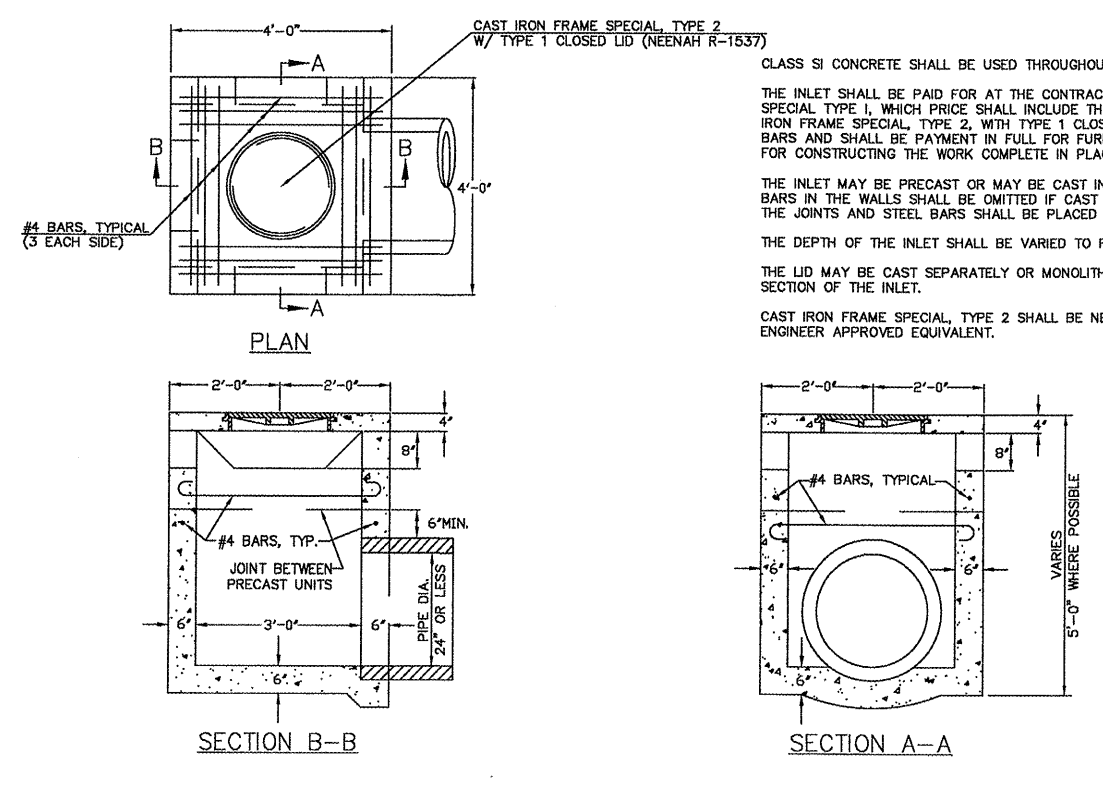
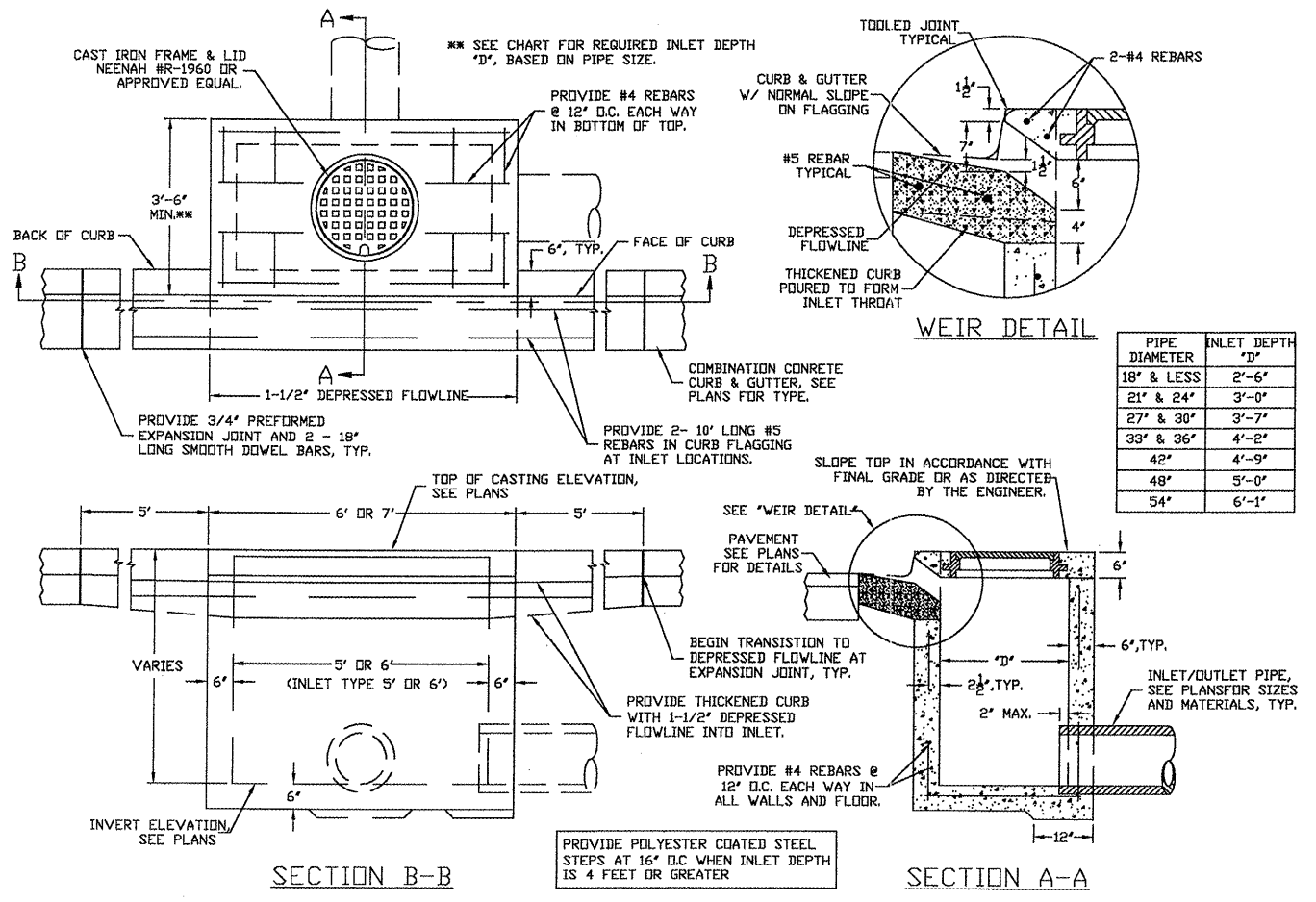
NOTE: OFFSETS TO INLETS SPECIAL TYPE 3 ARE MEASURED TO CENTER FRONT FACE OF INLET AND TO CENTER OF STRUCTURE FOR ALL OTHER INLET TYPES AND MANHOLES.

FILE: T:\ST0305\Drawings\DRAINAGE SCHEDULE.DWG
 DRAWN BY: RP
 DATE: 08/26/09
 PLOT VIEW: PLOT
 SNAPSHOT:
 PLOT MAGENTA 0.2 REST 0.05
 PROJ NAME: ST0305
 MODEL SPACE
 LINETYPE SCALE: 2

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00118-00-RP	JACKSON	32	5	
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



- NOTES:
- PAYMENT FOR THIS WORK SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PCC SIDEWALK 4". NO ADDITIONAL COMPENSATION WILL BE MADE FOR THE REBAR REINFORCEMENT.
 - 5/8" HOOK BARS WITH THREADED COUPLING MAY BE USED IN LIEU OF THE #4 REBARS. (SEE STD. 420001)



CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

THE INLET SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR INLETS SPECIAL TYPE 1, WHICH PRICE SHALL INCLUDE THE COST OF THE CAST IRON FRAME SPECIAL, TYPE 2, WITH TYPE 1 CLOSED LID AND REINFORCEMENT BARS AND SHALL BE PAID IN FULL FOR FURNISHING ALL MATERIALS AND FOR CONSTRUCTING THE WORK COMPLETE IN PLACE.

THE INLET MAY BE PRECAST OR MAY BE CAST IN PLACE. JOINTS AND STEEL BARS IN THE WALLS SHALL BE OMITTED IF CAST IN PLACE. IF PRECAST, THE JOINTS AND STEEL BARS SHALL BE PLACED AS SHOWN.

THE DEPTH OF THE INLET SHALL BE VARIED TO FIT FIELD CONDITIONS.

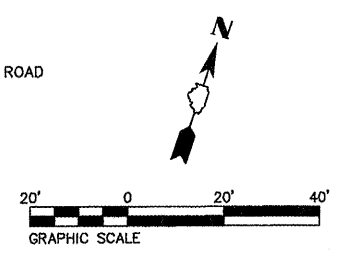
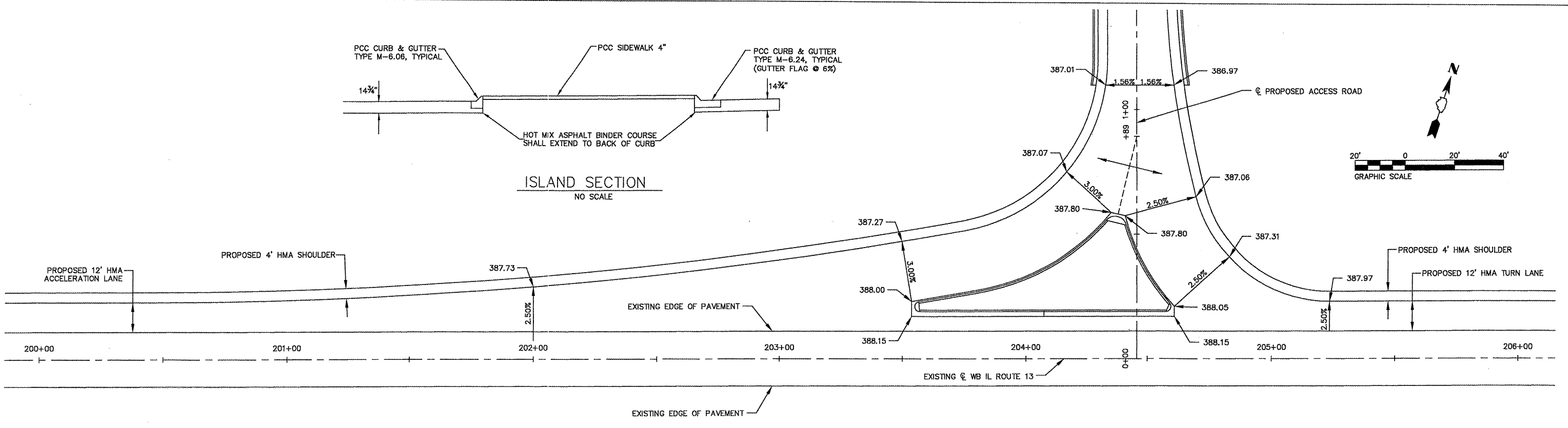
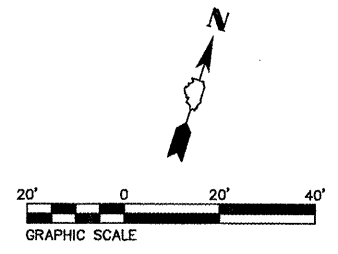
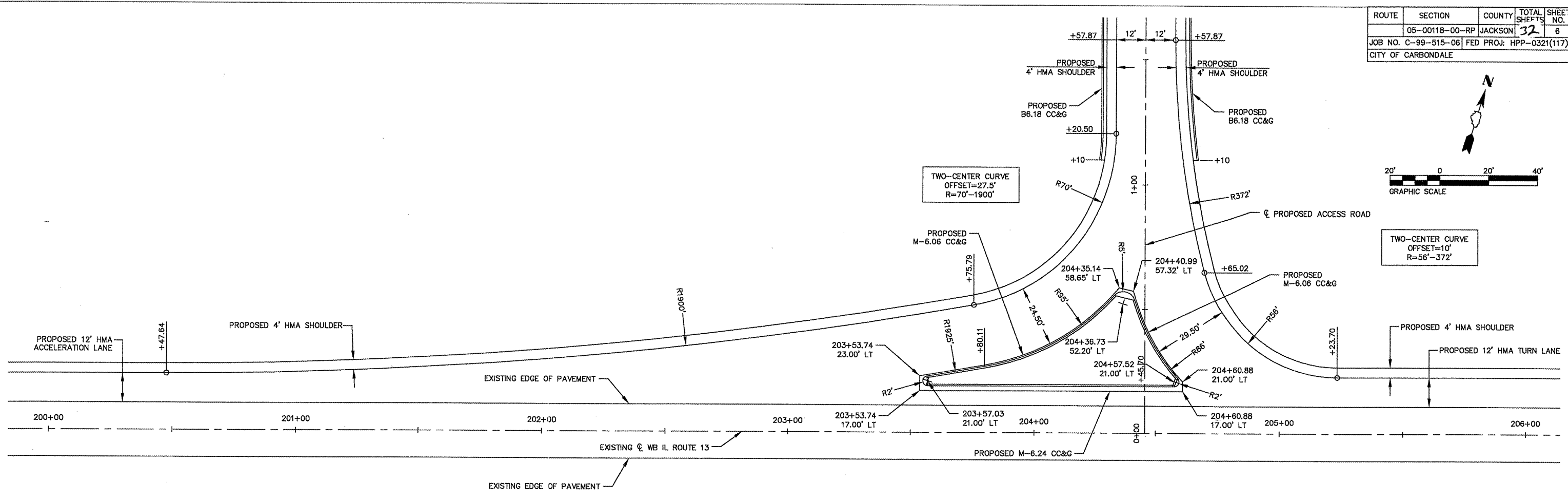
THE LID MAY BE CAST SEPARATELY OR MONOLITHICALLY WITH THE UPPER SECTION OF THE INLET.

CAST IRON FRAME SPECIAL, TYPE 2 SHALL BE NEENAH #R-1537 OR AN ENGINEER APPROVED EQUIVALENT.

MISCELLANEOUS DETAILS

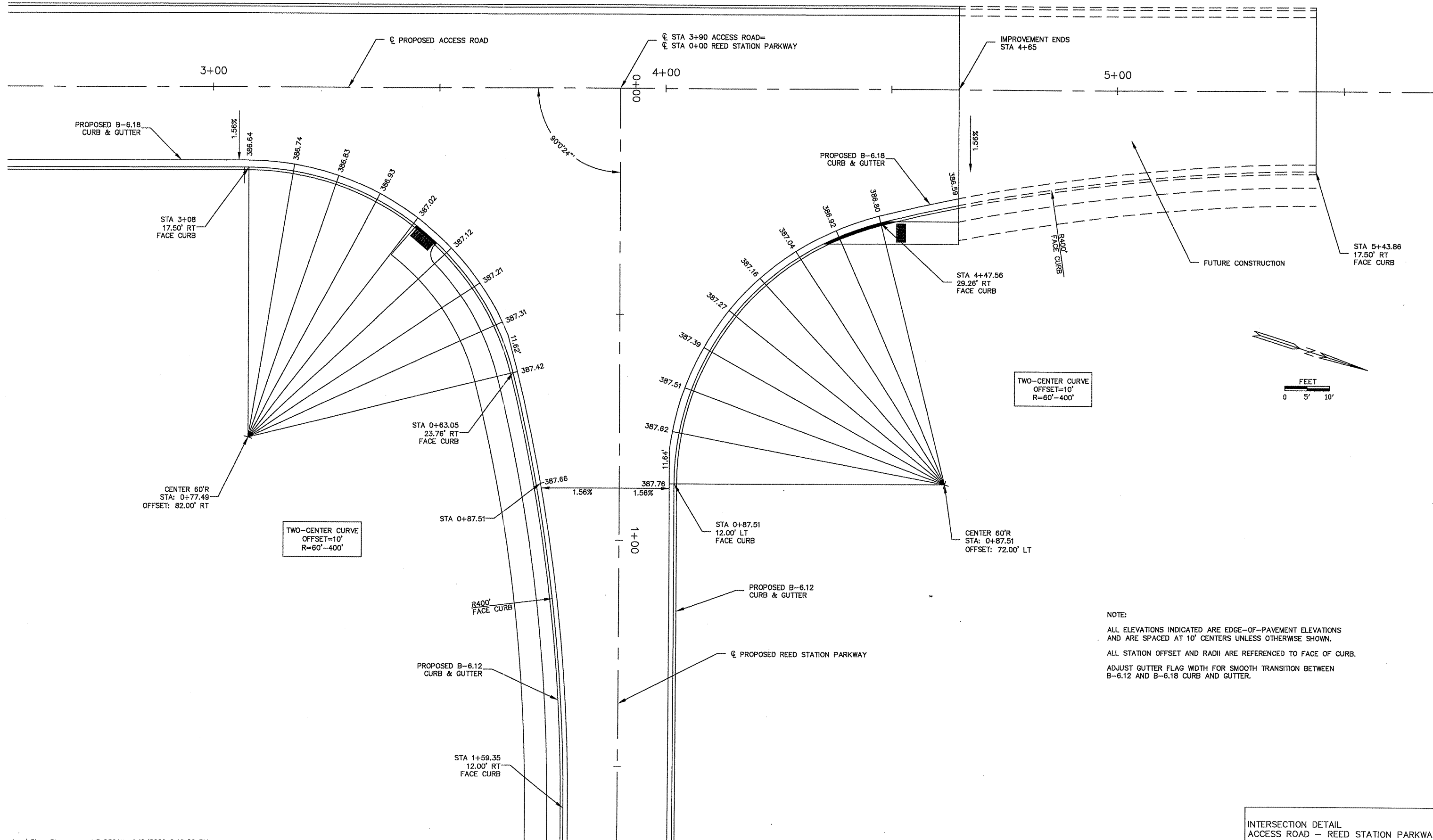
PROJ. NAME: ?
LAYER STATE: ?
CTB FILE: ?
PS PLOT TAB: ?
PLOT VIEW: ?
PLOT SCALE: ?
LINETYPE SCALE: ?
DRAWN BY: ?
DATE: ?

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	6
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



INTERSECTION DETAIL
ROUTE 13 - ACCESS ROAD

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	7
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



TWO-CENTER CURVE
OFFSET=10'
R=60'-400'

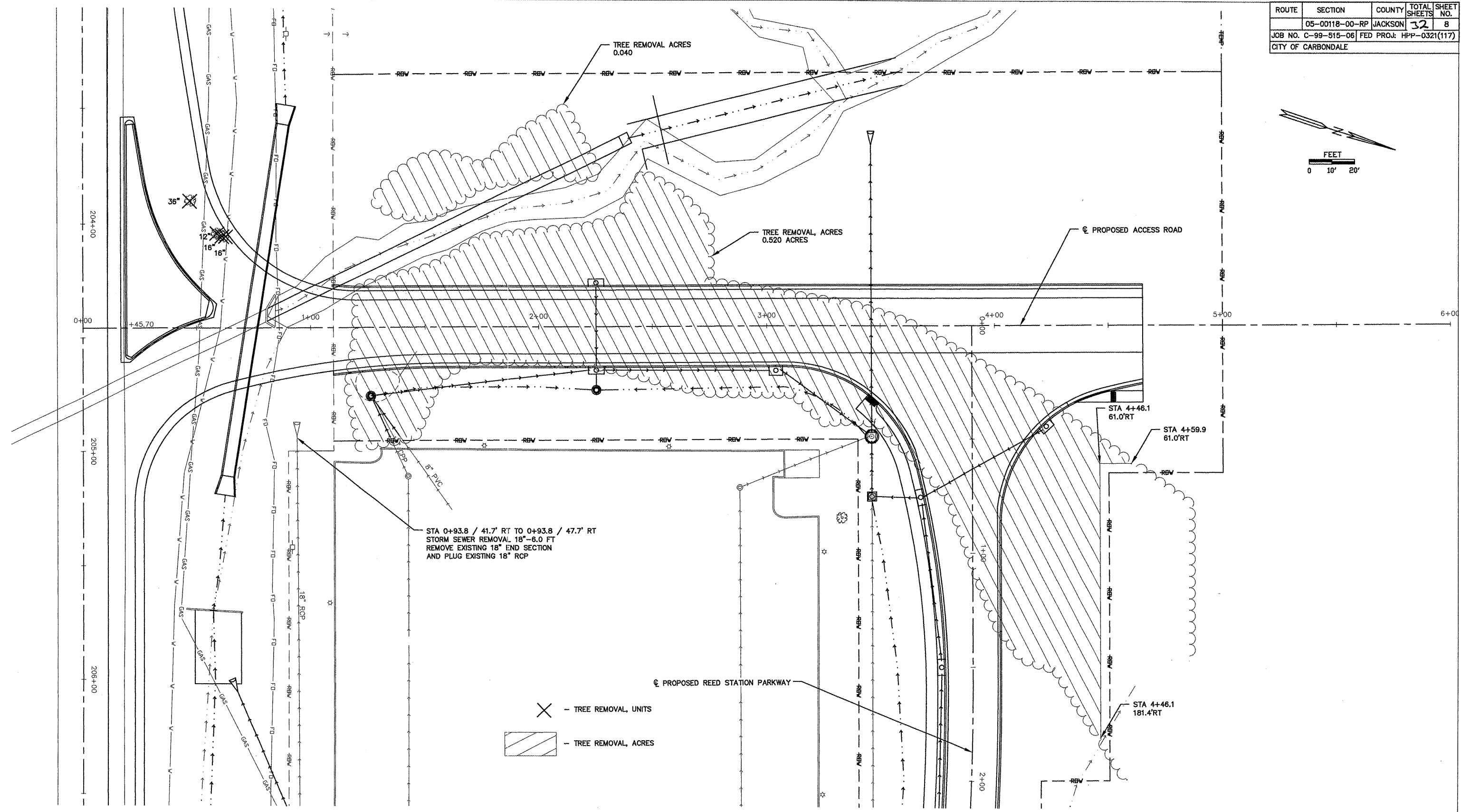
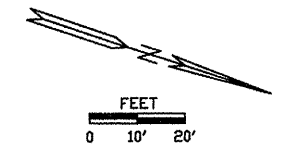
TWO-CENTER CURVE
OFFSET=10'
R=60'-400'

NOTE:
ALL ELEVATIONS INDICATED ARE EDGE-OF-PAVEMENT ELEVATIONS AND ARE SPACED AT 10' CENTERS UNLESS OTHERWISE SHOWN.
ALL STATION OFFSET AND RADII ARE REFERENCED TO FACE OF CURB.
ADJUST GUTTER FLAG WIDTH FOR SMOOTH TRANSITION BETWEEN B-6.12 AND B-6.18 CURB AND GUTTER.

INTERSECTION DETAIL
ACCESS ROAD - REED STATION PARKWAY

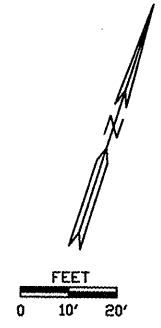
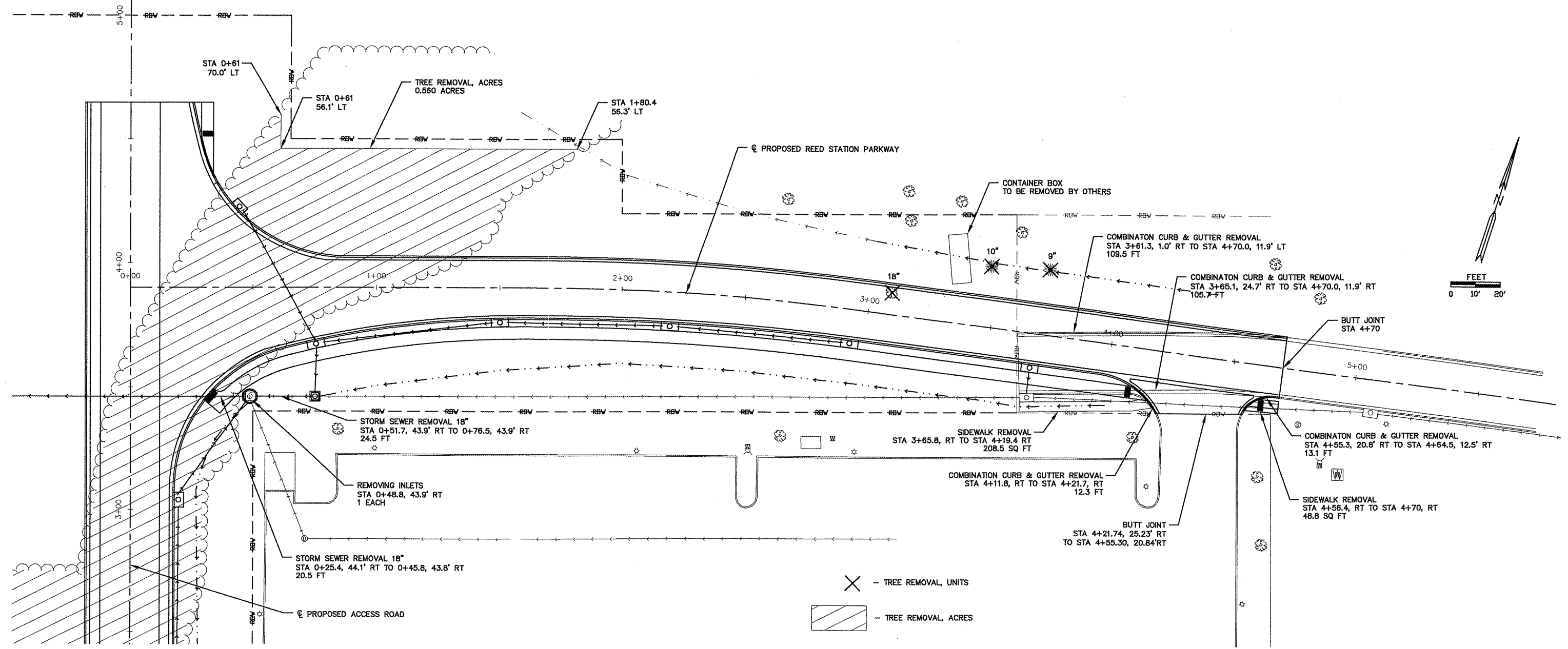
PROJ. NAME: ?	PS PLOT TAB: ?
LAYER STATE: ?	PLOT VIEW: ?
CTB FILE: ?	
PLOT SCALE: ?	LINE TYPE SCALE: ?
DRAWN BY: ?	DATE: ?

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	8
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				



REMOVAL PLAN
ACCESS ROAD

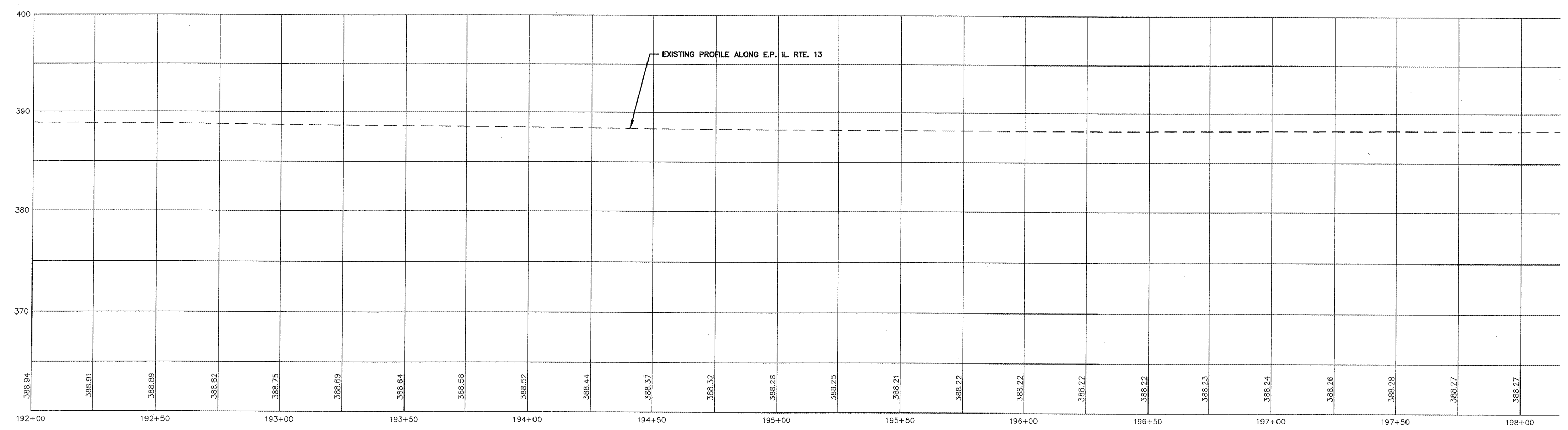
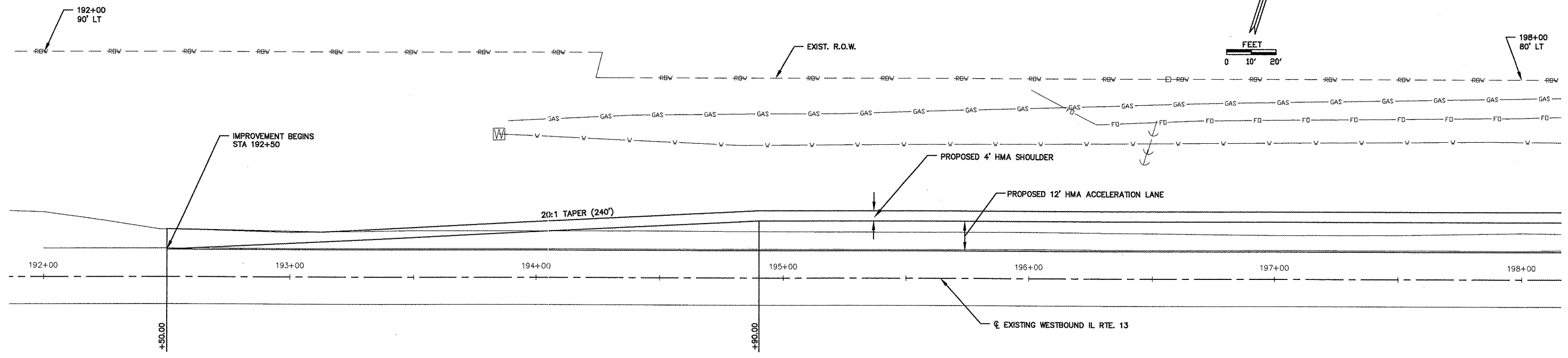
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	9
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



- ✕ - TREE REMOVAL, UNITS
- ▨ - TREE REMOVAL, ACRES

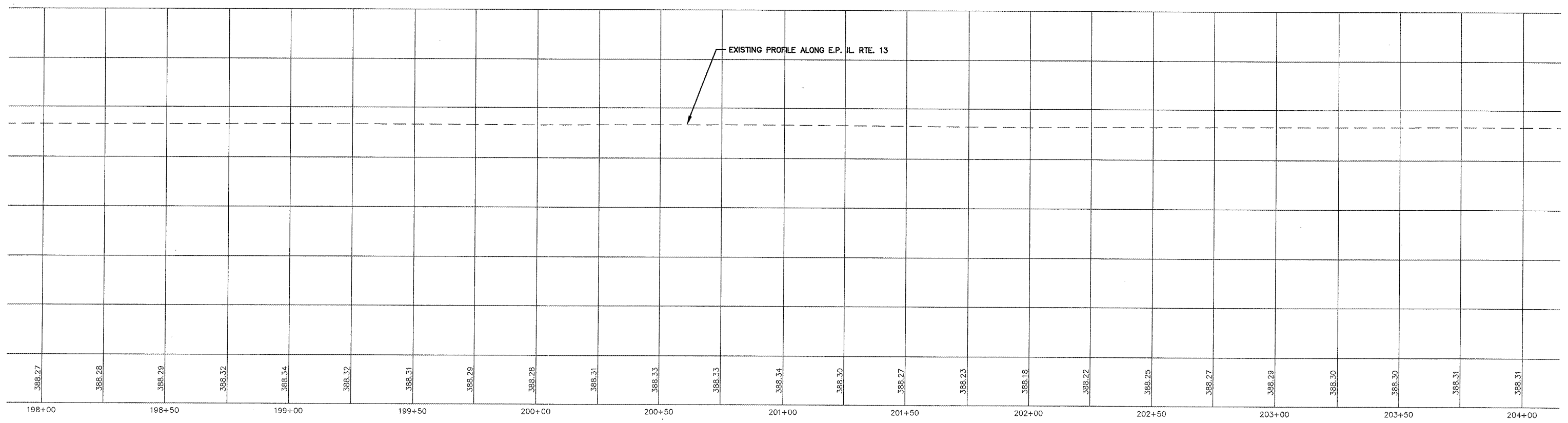
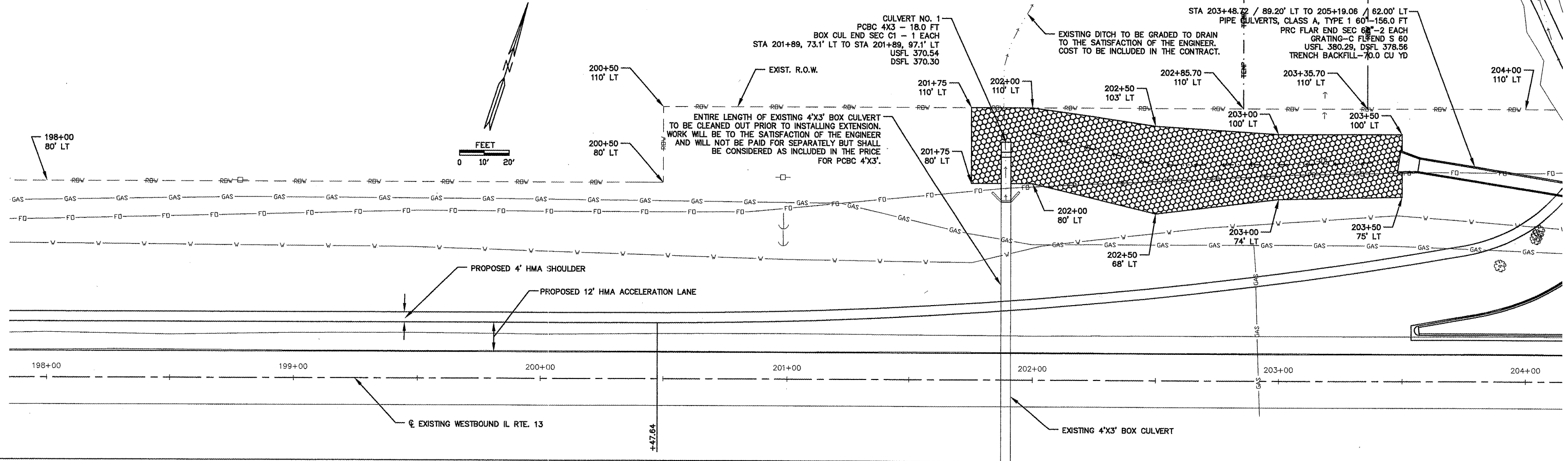
REMOVAL PLAN
 REED STATION PARKWAY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	10
JOB NO. C-99-515-06 FED PROJ: HPM-0321(117)				
CITY OF CARBONDALE				



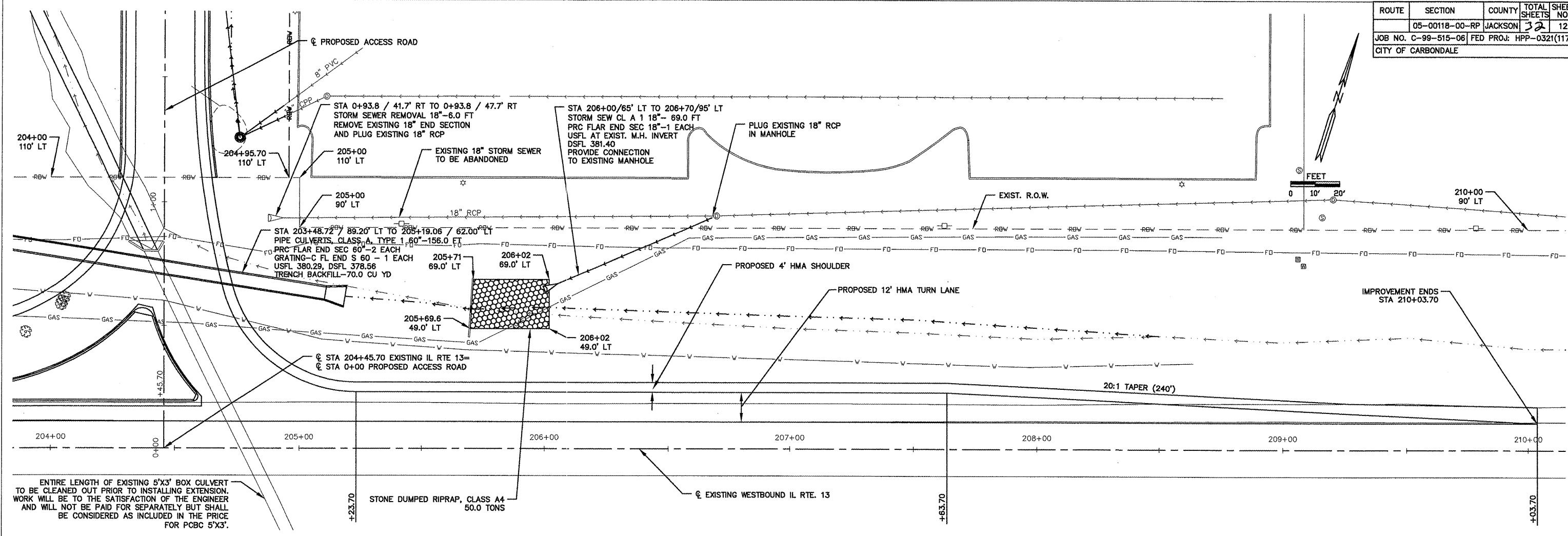
PLAN AND PROFILE
ROUTE 13
STA 192+00 TO STA 198+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	3	11
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				

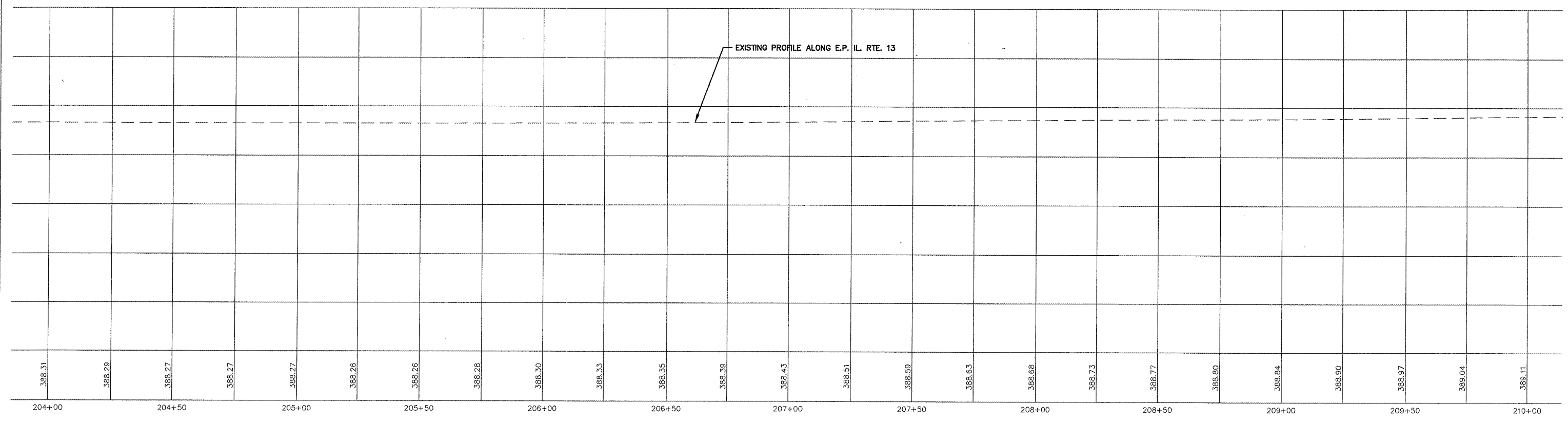


PLAN AND PROFILE
ROUTE 13
STA 198+00 TO STA 204+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00118-00-RP	JACKSON	32	12	
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				

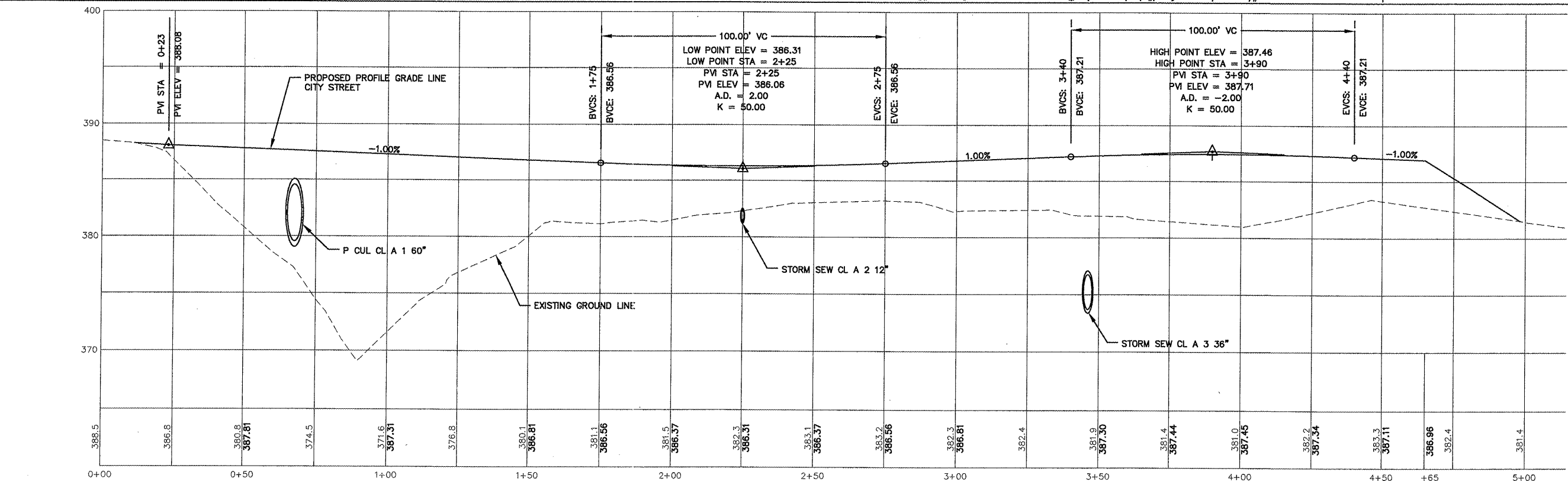
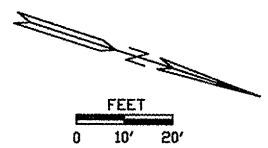
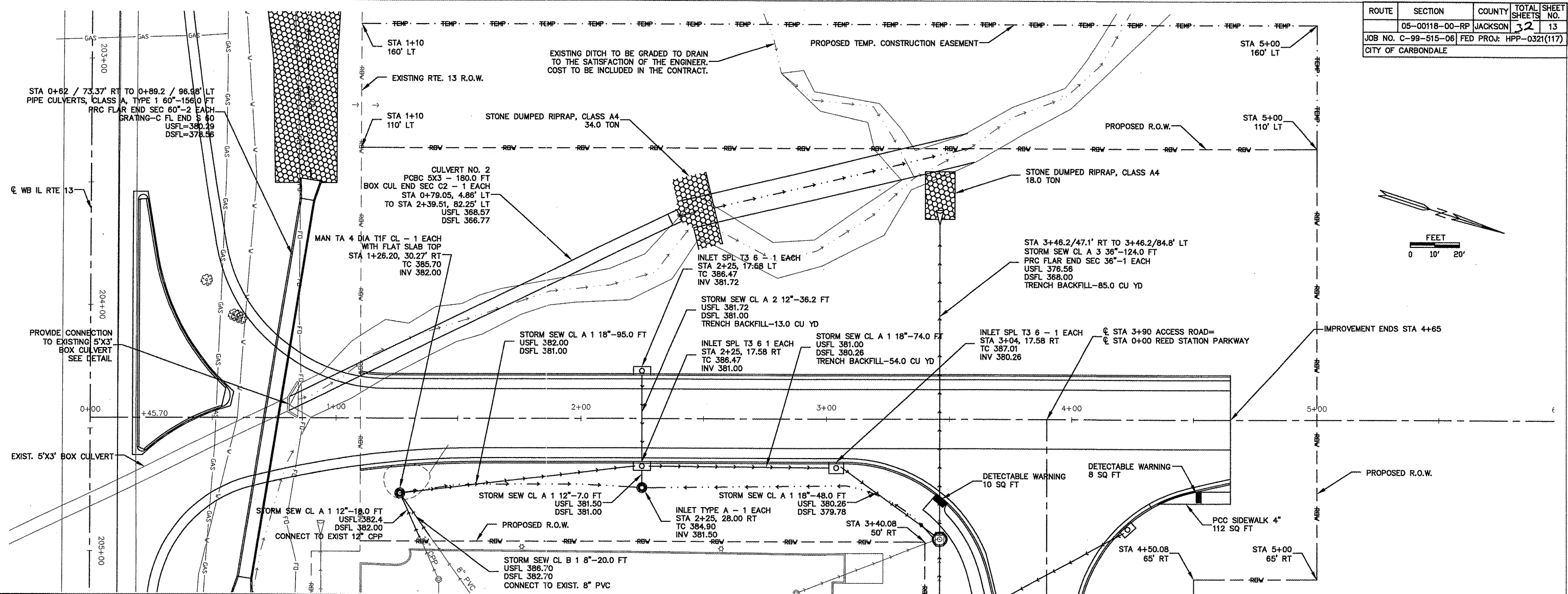


ENTIRE LENGTH OF EXISTING 5'X3' BOX CULVERT TO BE CLEANED OUT PRIOR TO INSTALLING EXTENSION. WORK WILL BE TO THE SATISFACTION OF THE ENGINEER AND WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE PRICE FOR PCBC 5'X3'.



PLAN AND PROFILE
ROUTE 13
STA 204+00 TO STA 210+00

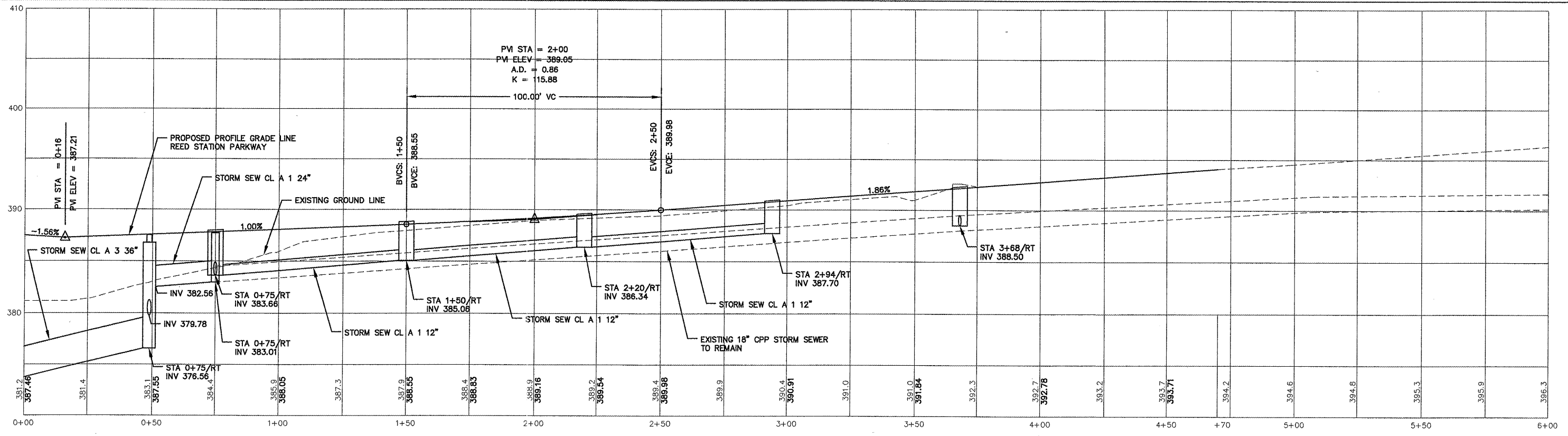
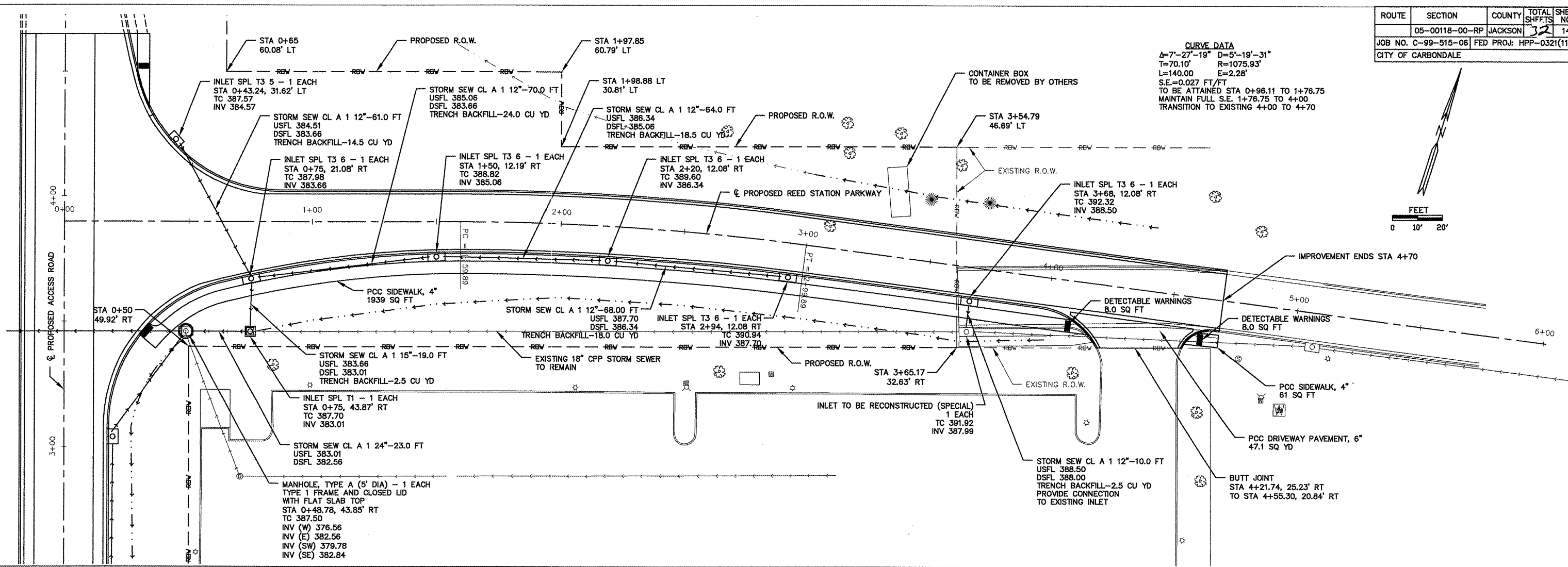
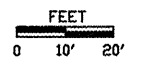
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	13
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



PLAN AND PROFILE
ACCESS ROAD
STA 0+00 TO STA 5+00

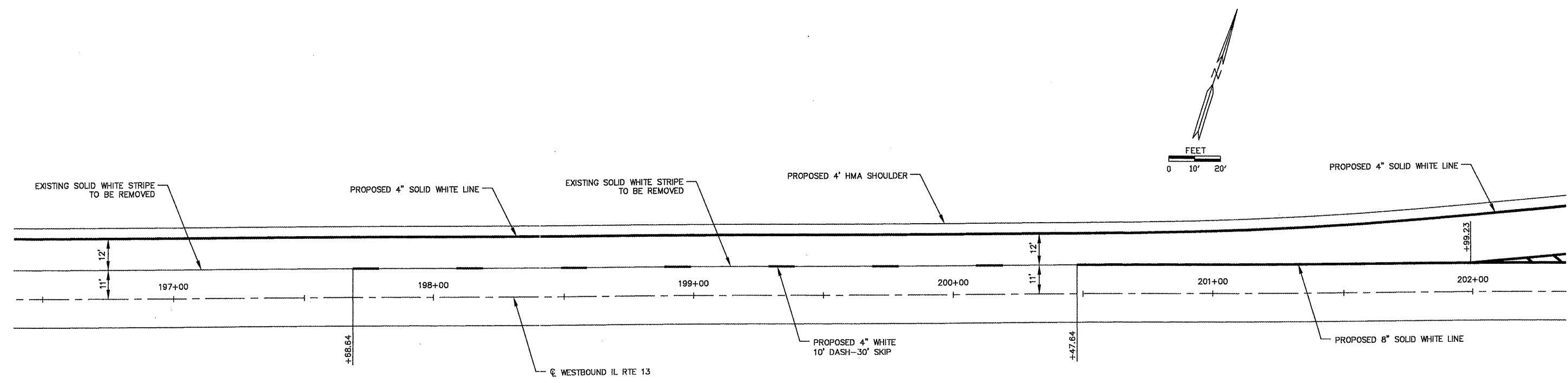
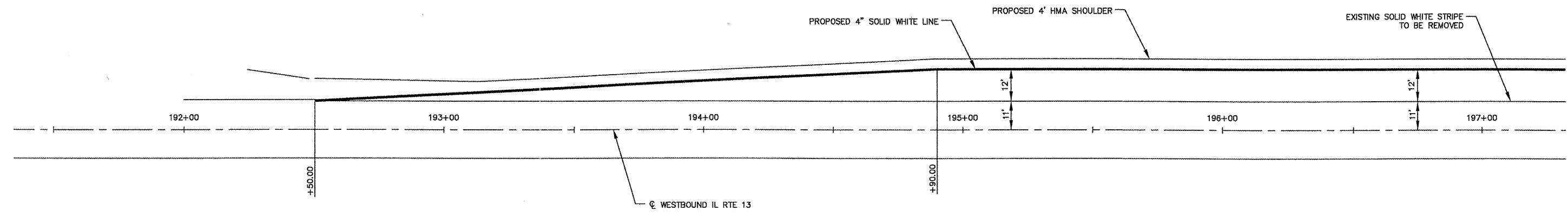
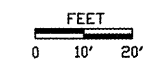
ROUTE	SECTION	COUNTY	TOTAL SHEET NO.
05-00118-00-RP	JACKSON	32	14
JOB NO. C-99-515-06			FED PROJ: HPP-0321(117)
CITY OF CARBONDALE			

CURVE DATA
 $\Delta = 7^{\circ}27'19''$ $D = 5^{\circ}19'31''$
 $T = 70.10'$ $R = 1075.93'$
 $L = 140.00'$ $E = 2.28'$
 $S.E. = 0.027$ FT/FT
 TO BE ATTAINED STA 0+96.11 TO 1+76.75
 MAINTAIN FULL S.E. 1+76.75 TO 4+00
 TRANSITION TO EXISTING 4+00 TO 4+70



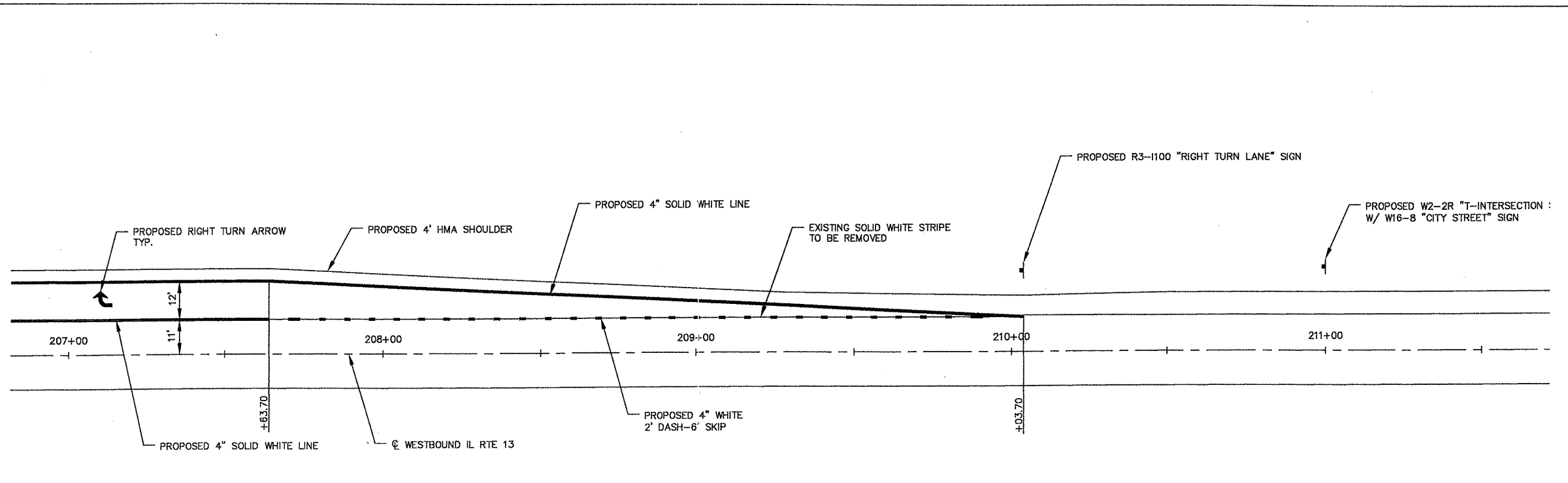
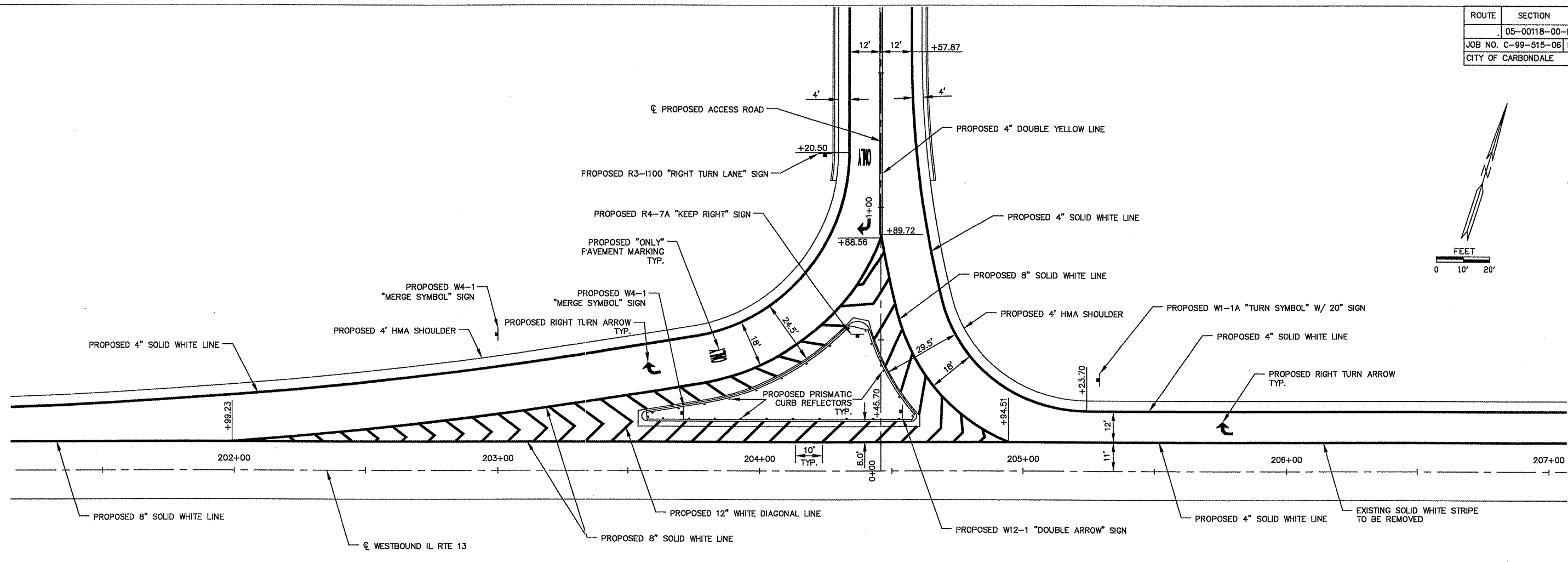
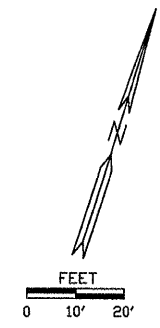
PLAN AND PROFILE
 REED STATION PARKWAY
 STA 0+00 TO STA 6+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	15
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				

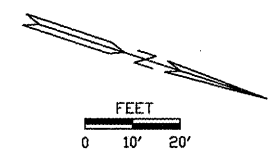
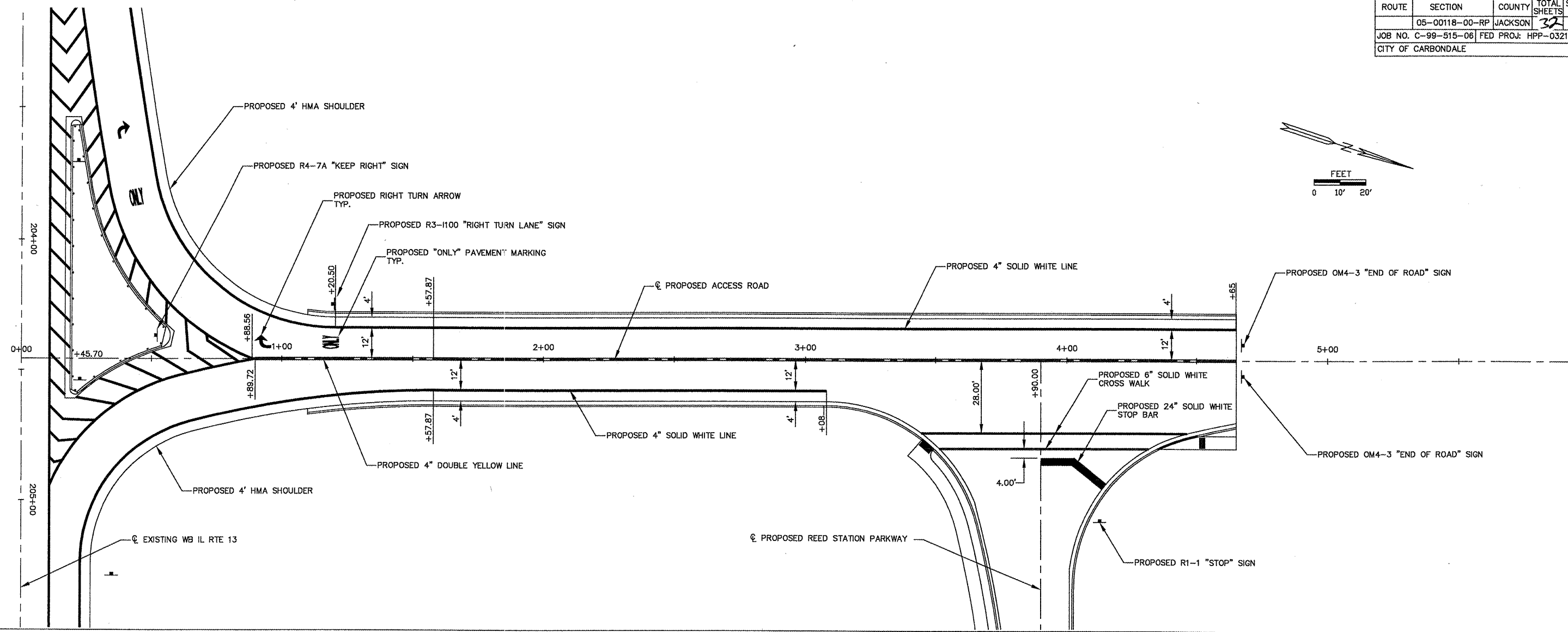


PAVEMENT MARKING & SIGNAGE PLAN
 ROUTE 13
 STA 192+00 TO STA 202+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	16
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



PAVEMENT MARKING & SIGNAGE PLAN
ROUTE 13
STA 202+00 TO STA 211+00



SIGN SCHEDULE		SIGN TYPE										
PROPOSED LOCATION (STATION - OFFSET)	DESCRIPTION	R1-1	R1-2	R2-1	R2-2	R3-1	R3-2	R4-1	R4-2	R5-1	R5-2	
WB IL RTE 13												
203+00, 52.0' LT	R1-1, 30"x200"											
203+71, 22.1' LT	R3-1100, 24"x24"											
204+54, 22.8' LT	R4-7A, 24"x30"											
205+28.7, 35.1' LT	TURN SYMBOL W/ 20' SIGN											
210+03.7, 23.6' LT	W/ INTERSECTION SYMBOL SIGN											
211+00, 26.5' LT	W/ ACCESS ROAD SIGN											
0+52.2, 9.0' LT	MERGE SYMBOL SIGN											
1+20, 21.1' LT	TURN ARROW SIGN											
4+12.8, 62.0' RT	END OF ROAD SIGN											
4+67, 6' LT	OM4-3, 12"x18"											
4+67, 6' RT	OM4-3, 12"x18"											
TOTALS		1	2	1	1	1	2	1	2	63.7	16.0	159.0

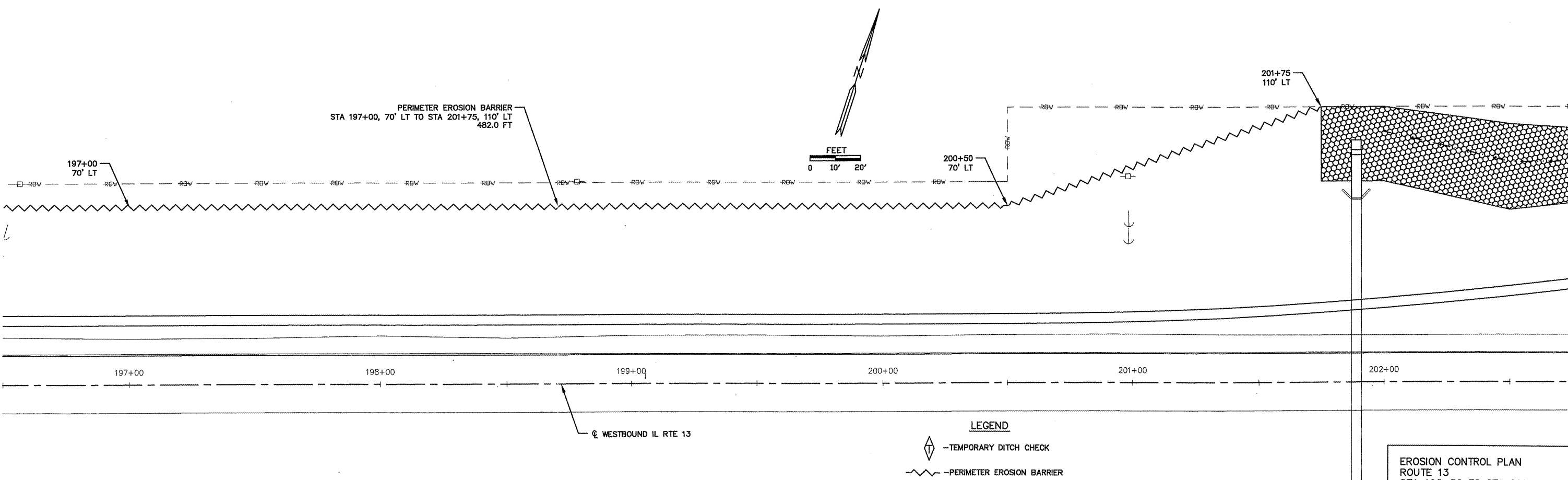
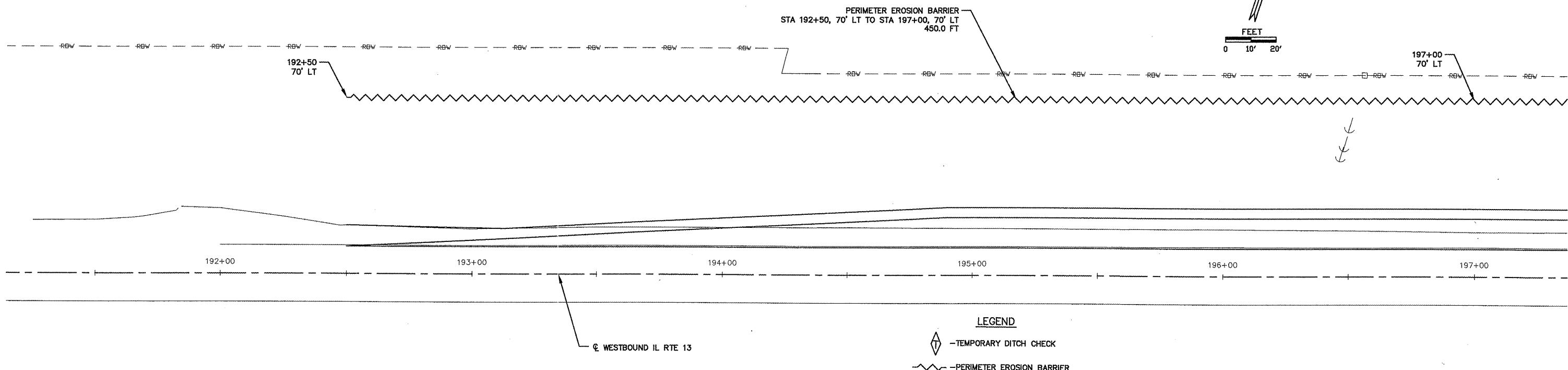
NOTE: REMOVAL OF EXISTING SIGNS AND POSTS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

PAVEMENT MARKING SCHEDULE

BEGIN STATION	END STATION	SR	FT	FT	FT	FT	FT	FT	FT	FT	EACH	FT
WESTBOUND IL RTE 13												
LT 192+50	LT 210+03.70											1754
LT 192+50	LT 1+20.50									1226		
LT 197+68.64	LT 200+47.64										70	
LT 200+47.64	LT 204+94.51											447
LT 201+99.23	CL 0+89.72											272
LT 201+99.23	LT 204+94.51											514
LT 203+57.4	LT 204+57.9											25
LT 203+59.6			8.8									
LT 203+84.0			11.8									
CL 0+89.72												
RT 1+57.87	LT 204+94.51											98
LT 204+94.51	LT 205+23.70									168		
LT 204+94.51	LT 207+63.70									269		
LT 205+23.7	LT 210+03.70									480		
LT 205+78			8.8									
LT 207+12			8.8									
LT 207+63.70	LT 210+03.70									60		
ACCESS ROAD												
CL 0+89.72	CL 4+65									751		
LT 0+94			8.8									
LT 1+19			11.8									
LT 1+20.50	LT 4+65											345
RT 1+57.87	RT 3+08											150
RT 3+44.5	RT 4+46.4											182
RT 3+90	RT 4+24											28
TOTALS		58.8	751	2638	70	60	182	817	514	28	25	1754

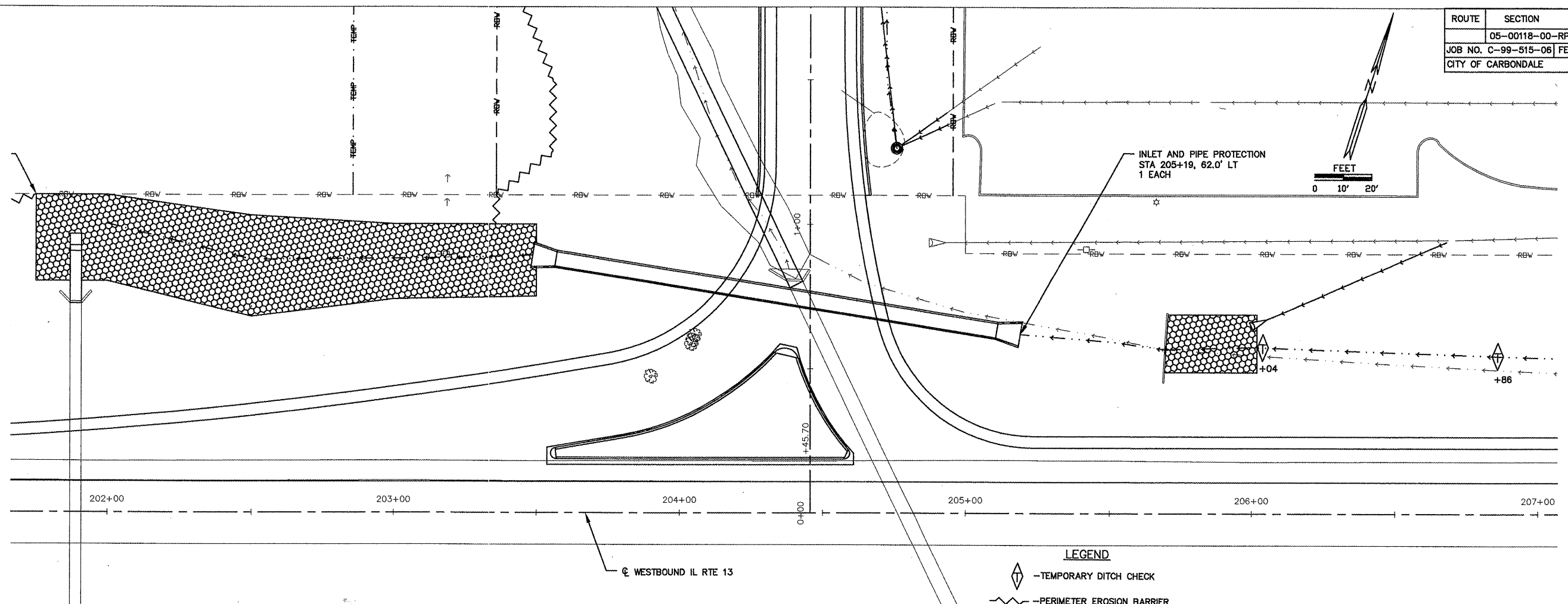
PAVEMENT MARKING & SIGNAGE PLAN
ACCESS ROAD
PAVEMENT MARKING AND SIGN SCHEDULE

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	18
JOB NO. C-99-515-08 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				

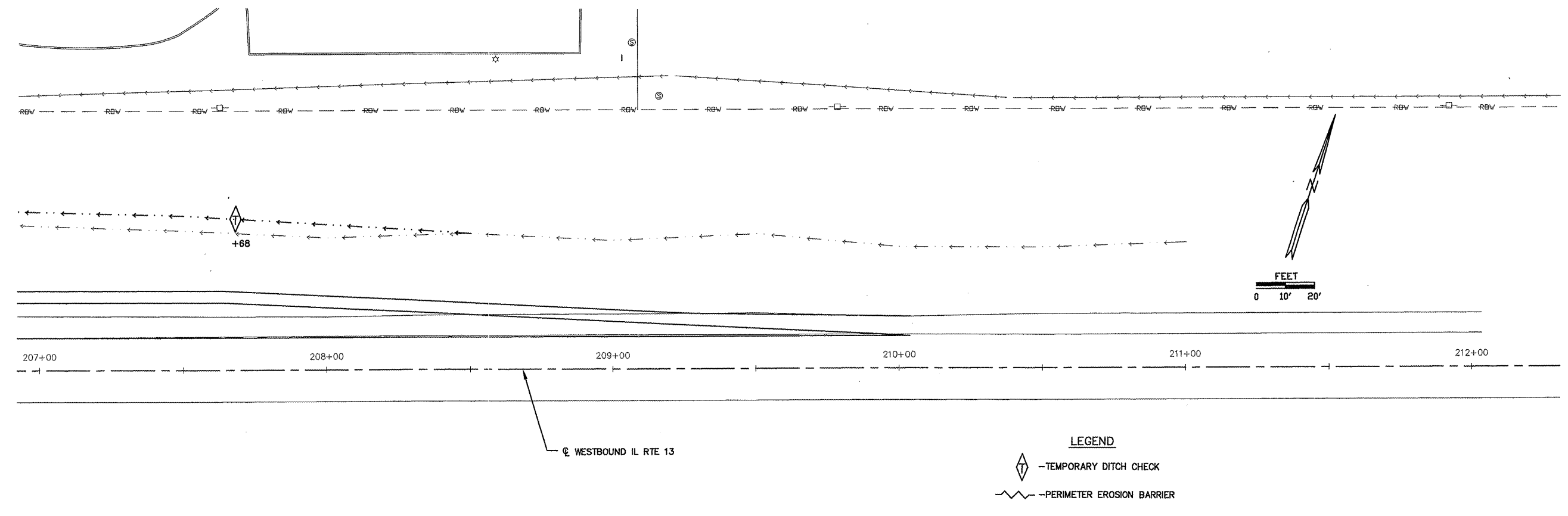


EROSION CONTROL PLAN
ROUTE 13
STA 192+50 TO STA 202+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00118-00-RP	JACKSON	32	19	
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



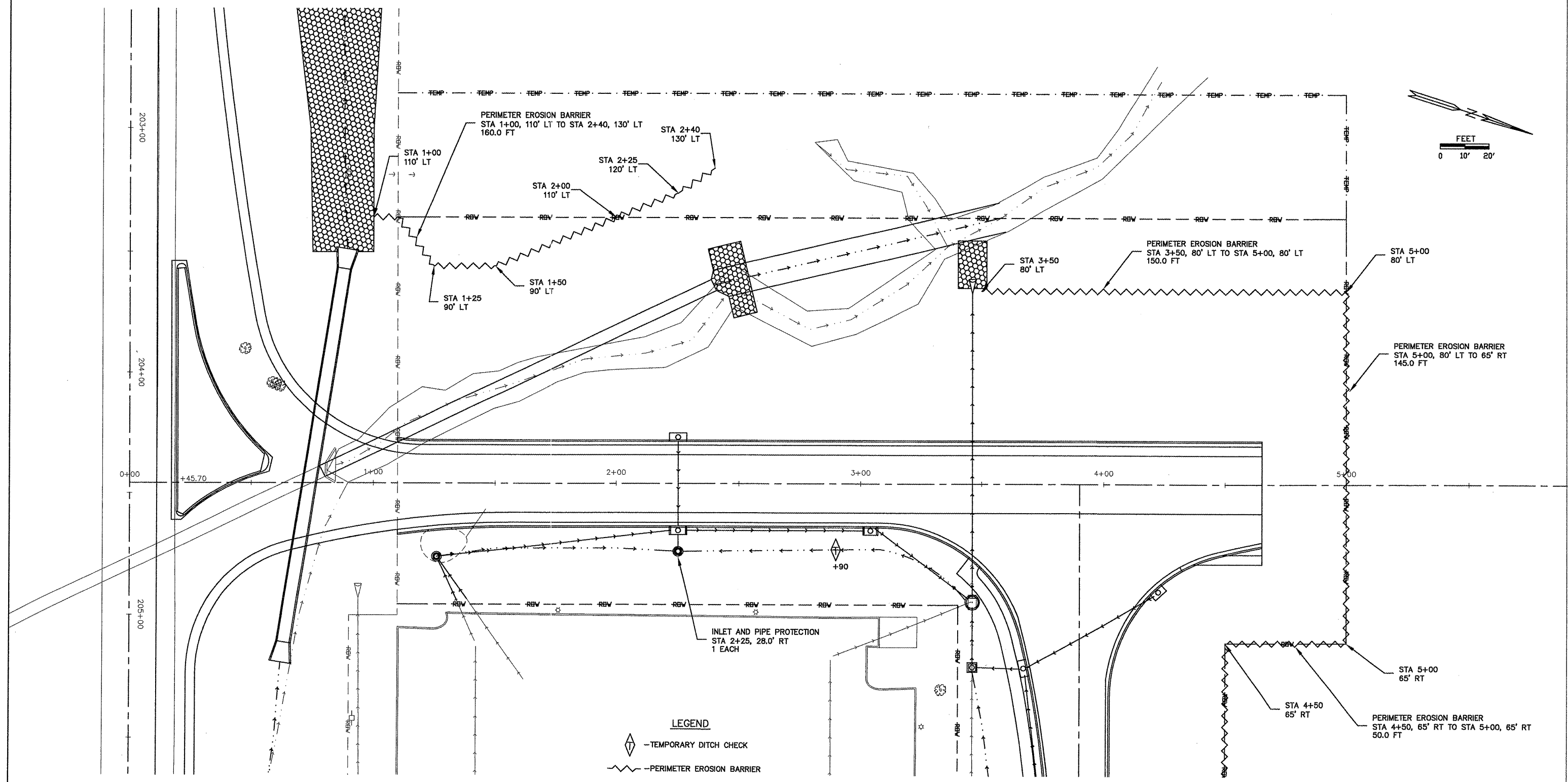
LEGEND
 -TEMPORARY DITCH CHECK
 -PERIMETER EROSION BARRIER



LEGEND
 -TEMPORARY DITCH CHECK
 -PERIMETER EROSION BARRIER

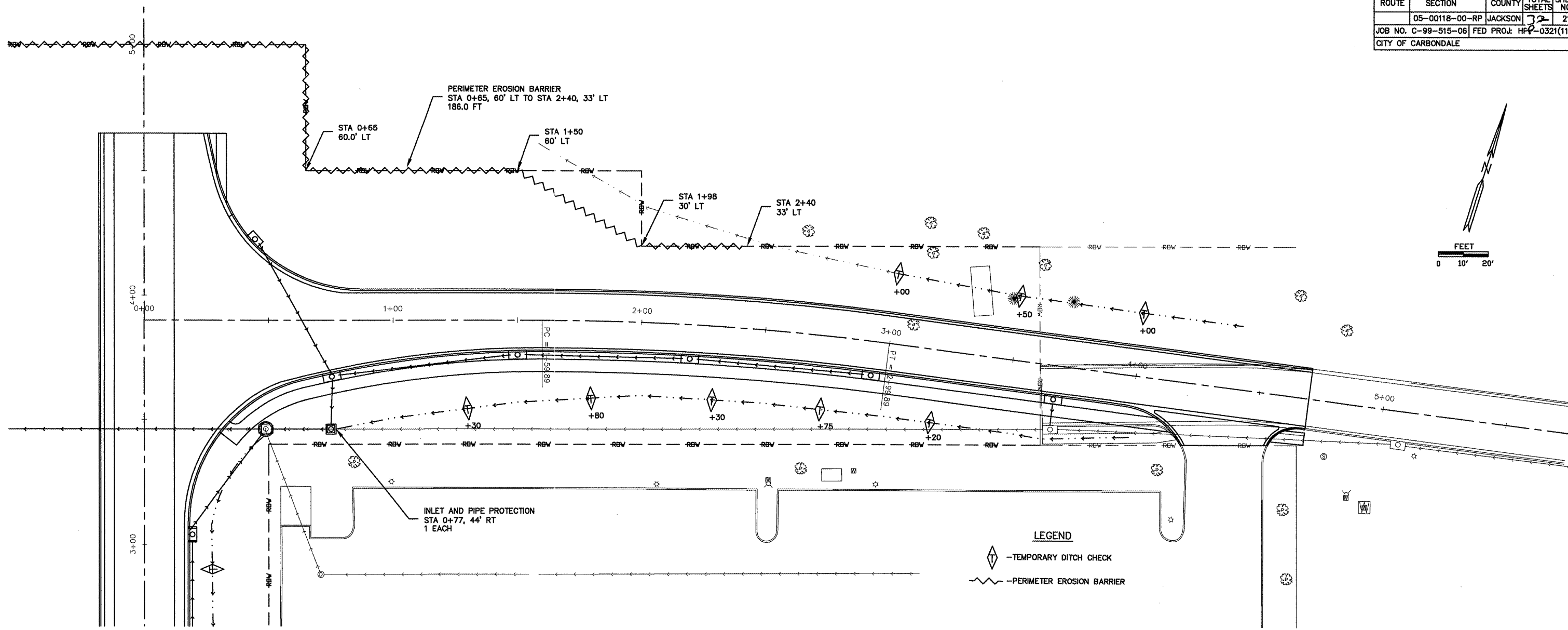
EROSION CONTROL PLAN
 ROUTE 13
 STA 202+00 TO STA 210+03.70

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	20
JOB NO. C-99-515-06 FED PROJ. HPP-0321(117)				
CITY OF CARBONDALE				



EROSION CONTROL PLAN
ACCESS ROAD
STA 0+00 TO STA 4+65

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	21
JOB NO. C-99-515-06		FED PROJ: HFP-0321(117)		
CITY OF CARBONDALE				



EROSION CONTROL SCHEDULES

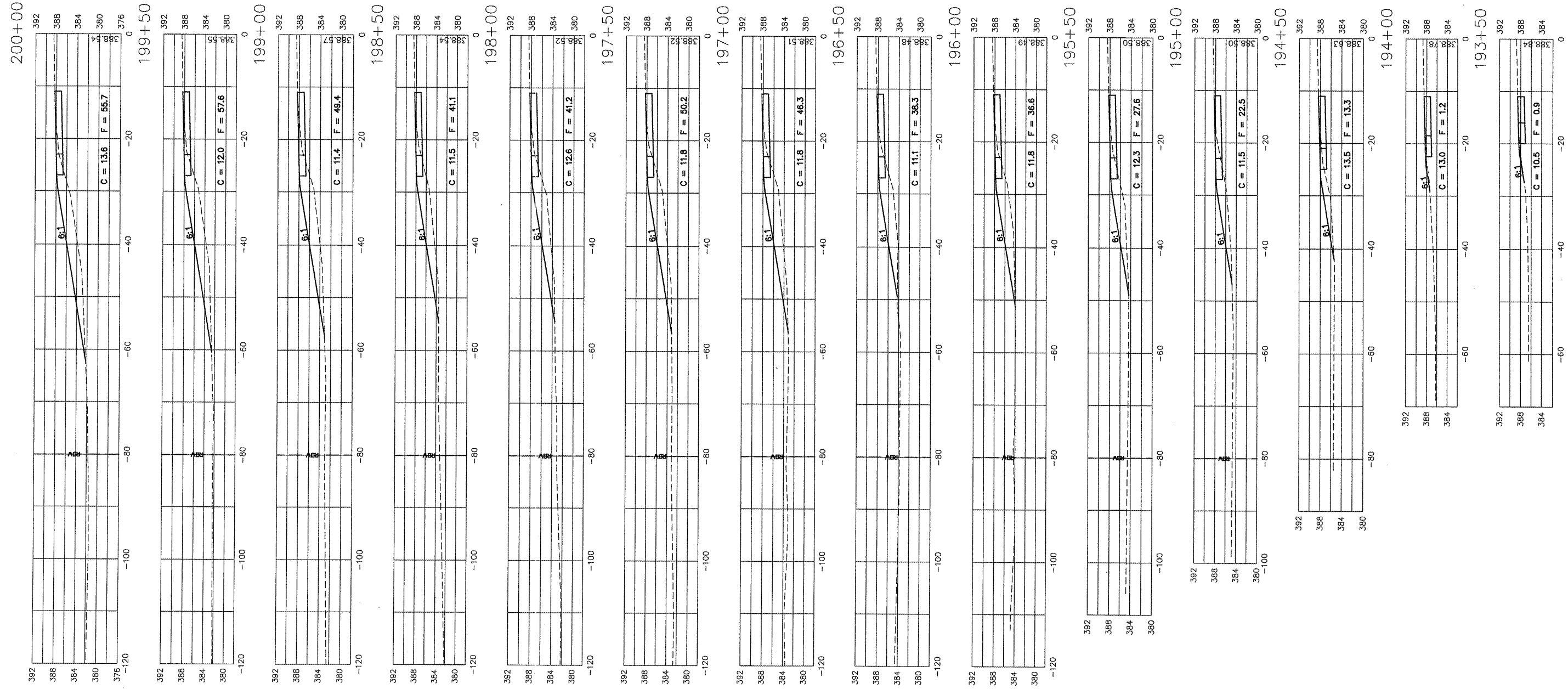
PERIMETER EROSION BARRIER	
STATION TO STATION	LENGTH
ROUTE 13	
206+04 LT TO 201+75 LT	932.0
ACCESS ROAD	
1+00 LT TO 2+40 LT	180.0
3+50 LT TO 5+00 LT	150.0
5+00 LT TO 5+00 RT	145.0
4+50 RT TO 5+00 RT	50.0
REED STATION PARKWAY	
0+65 LT TO 2+40 LT	186.0
TOTAL	1,623.0'

TEMPORARY DITCH CHECKS	
STATION	FOOT
ROUTE 13	
206+04 LT	12.0
206+86 LT	12.0
207+68 LT	12.0
ACCESS ROAD	
2+90 RT	12.0
REED STATION PARKWAY	
1+30 RT	18.0
1+80 RT	18.0
2+30 RT	18.0
2+75 RT	18.0
3+20 RT	18.0
3+00 LT	10.0
3+50 LT	10.0
4+00 LT	10.0
TOTAL	158.0

INLET AND PIPE PROTECTION	
STATION	EACH
ROUTE 13	
205+19	1
ACCESS ROAD	
2+25 RT	1
REED STATION PARKWAY	
0+77 RT	1
TOTAL	3

EROSION CONTROL PLAN
REED STATION PARKWAY
STA 0+00 TO STA 4+70

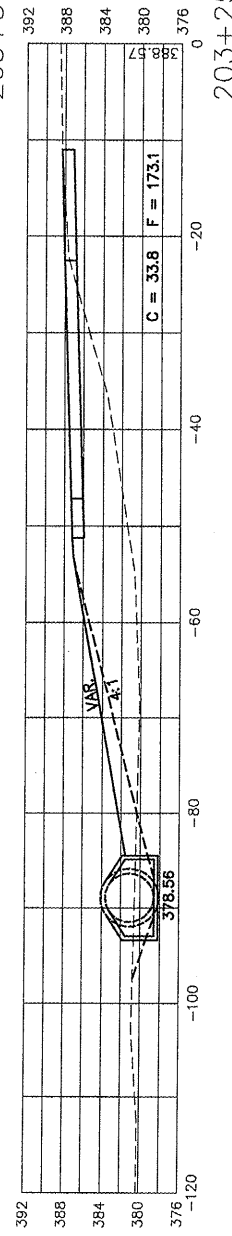
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	22
JOB NO. C-99-515-06		FED. PROJ.: HPP-0321(117)		
CITY OF CARBONDALE				



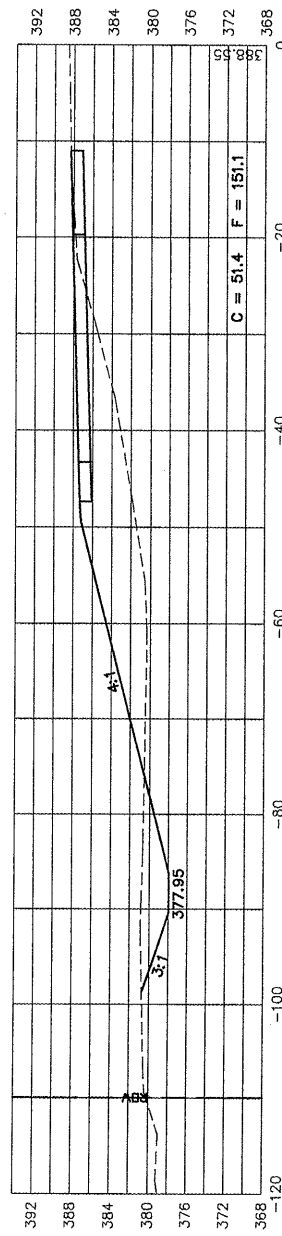
CROSS SECTIONS
ROUTE 13
STA 193+50 TO STA 200+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00118-00-RP	JACKSON	JACKSON	32	23
JOB NO. C-99-515-06 FED. PROJ. HPP-0321(117)				
CITY OF CARBONDALE				

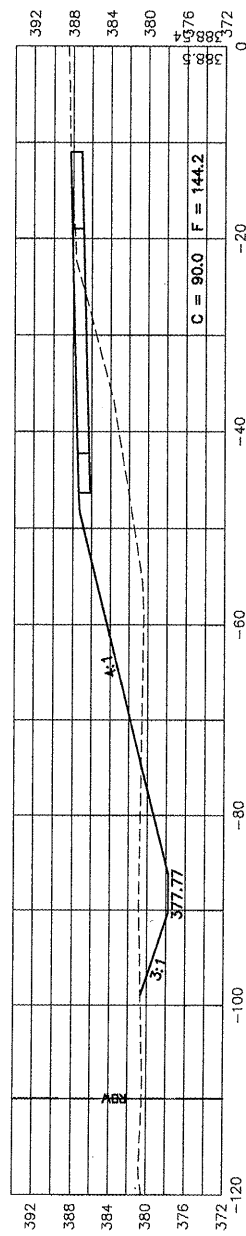
203+50



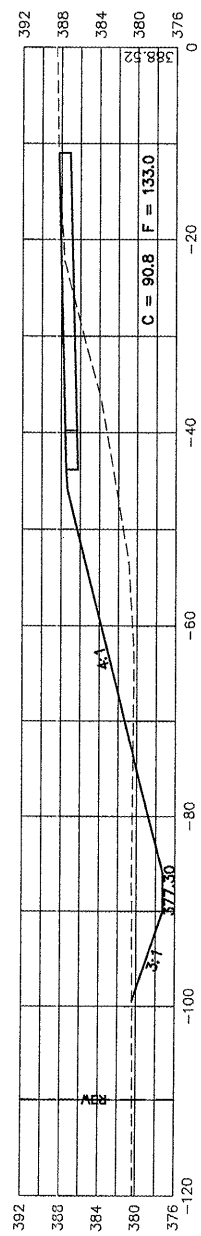
203+25



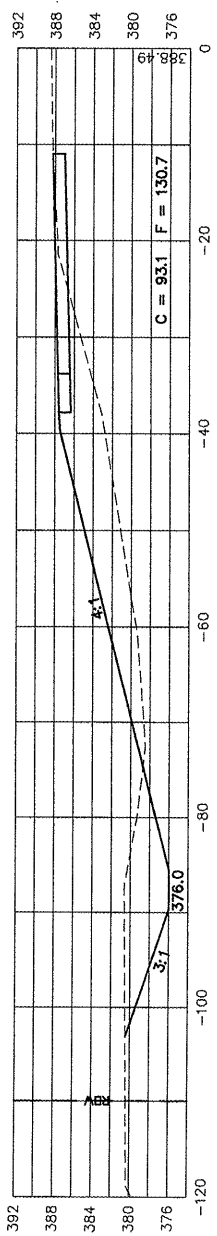
203+18



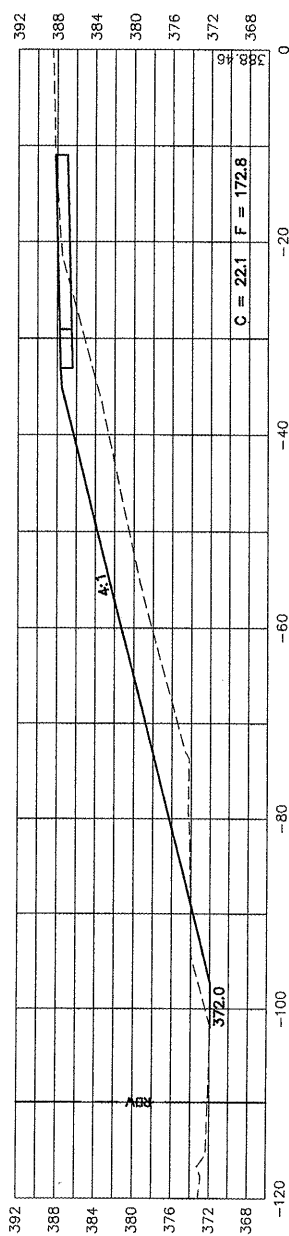
203+00



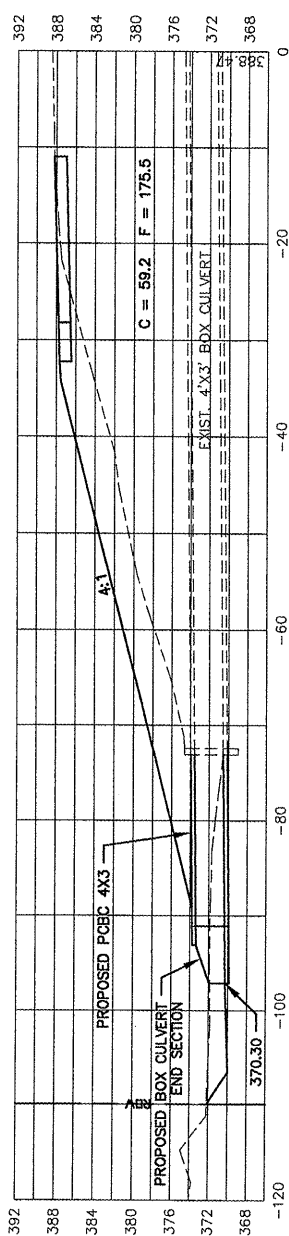
202+50



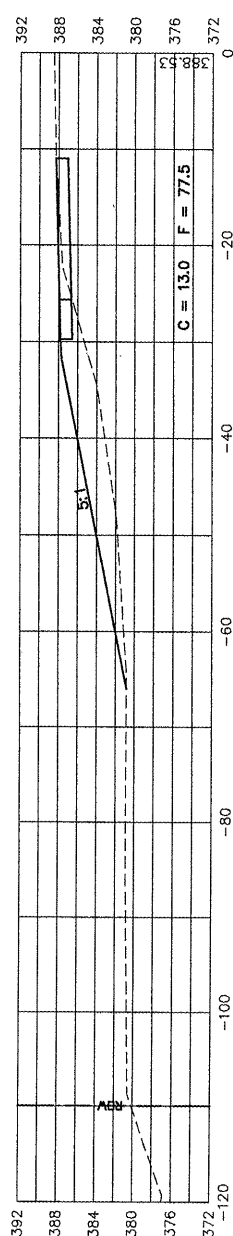
202+00



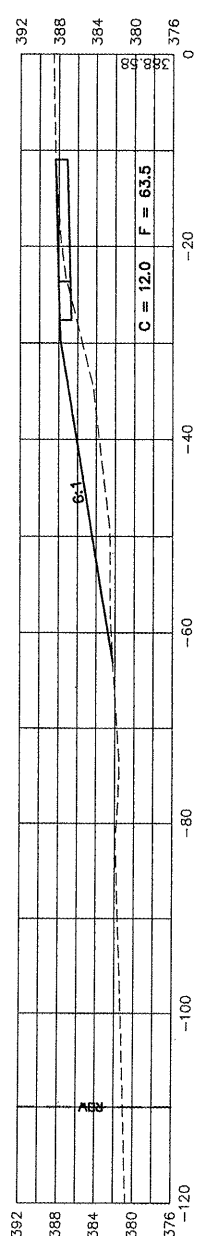
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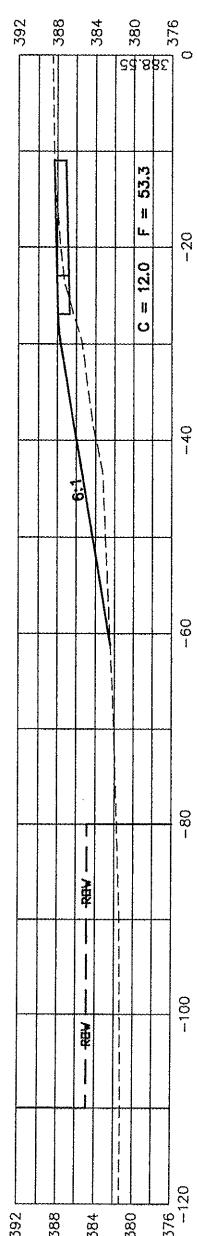
201+50



201+00



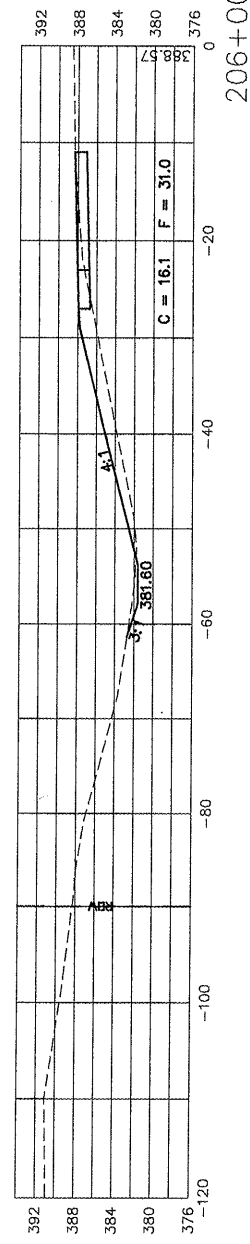
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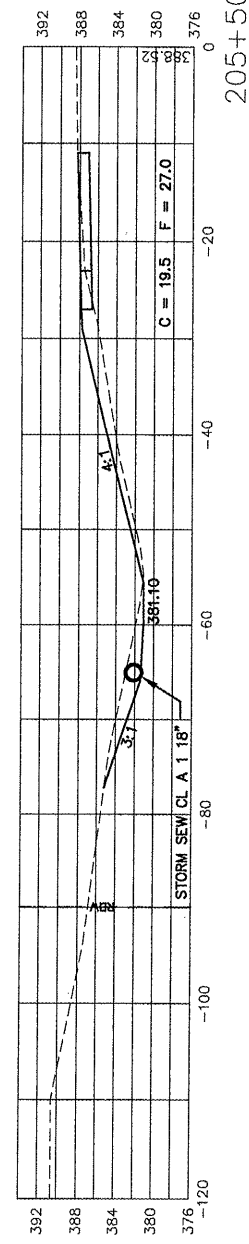
CROSS SECTIONS
ROUTE 13
STA 200+50 TO STA 203+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	24
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				

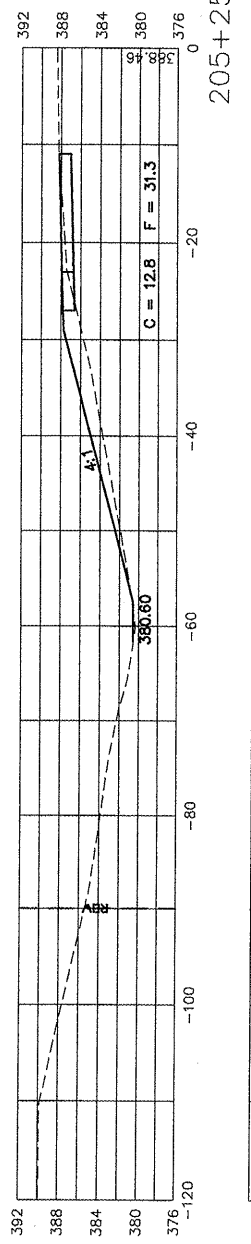
206+50



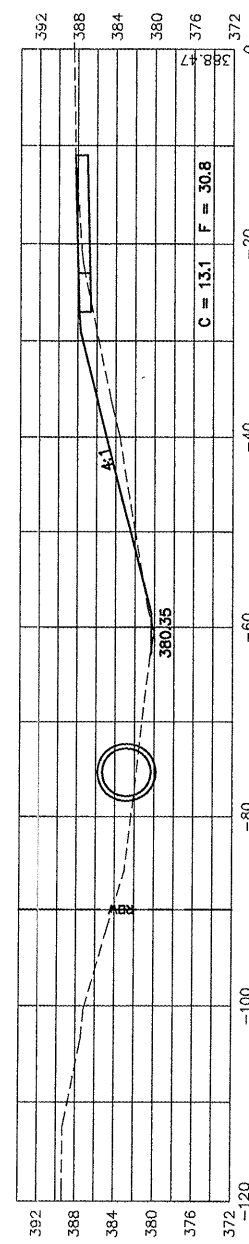
206+00



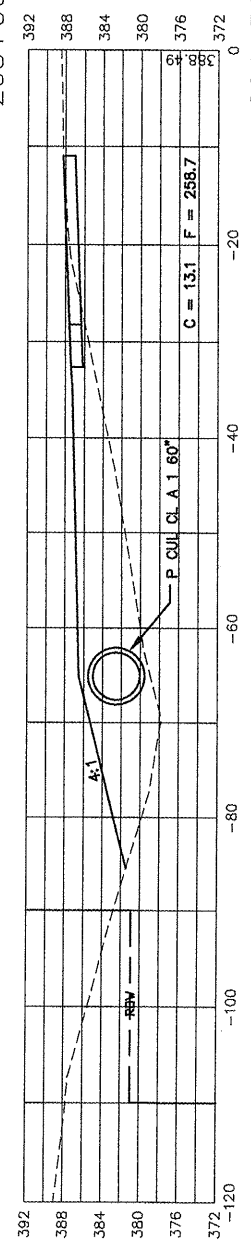
205+50



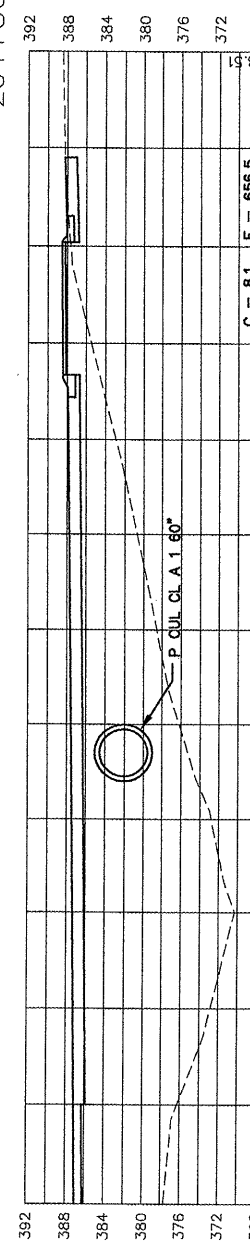
205+25



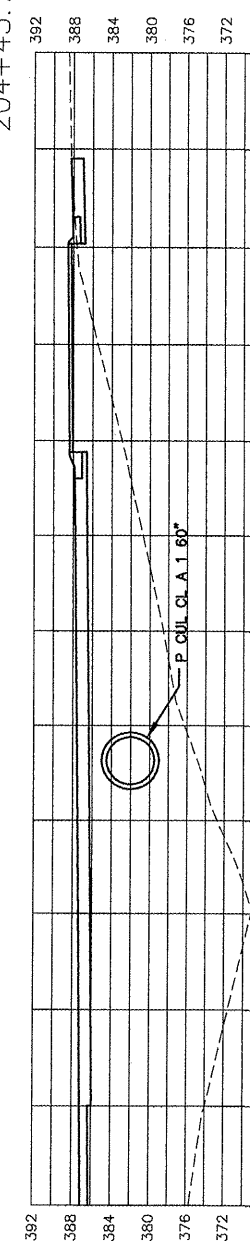
205+00



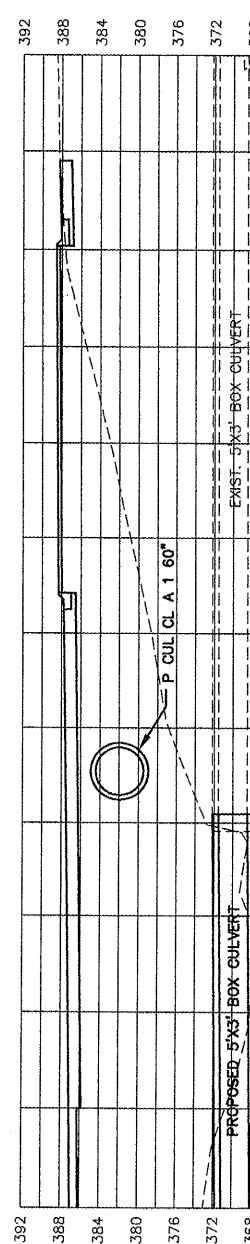
204+50



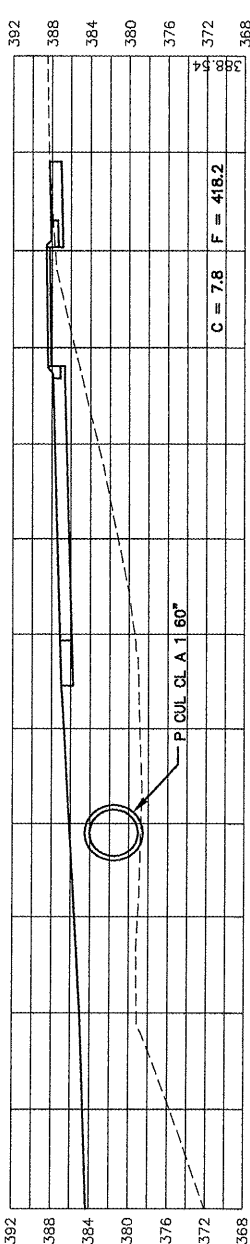
204+45.70



204+40.20



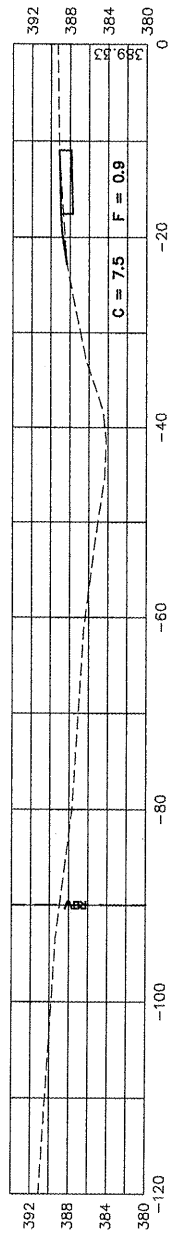
204+00



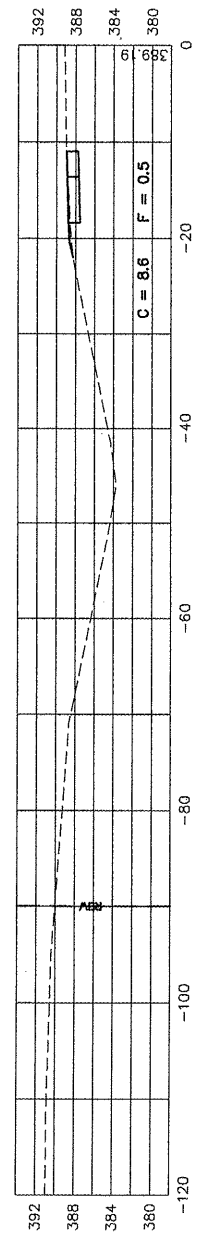
CROSS SECTIONS
ROUTE 13
STA 204+00 TO STA 206+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	25
JOB NO. C-99-515-06 FED PROJ: HP-0321(117)				
CITY OF CARBONDALE				

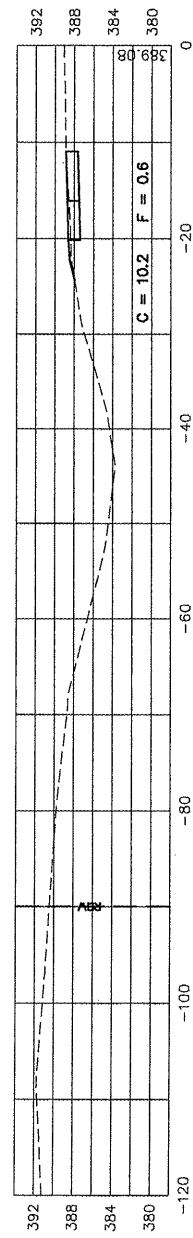
210+00



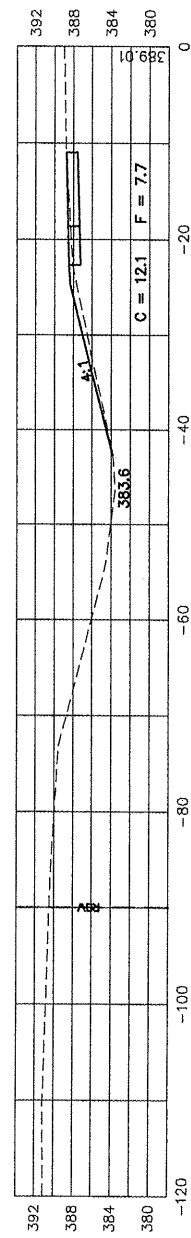
209+50



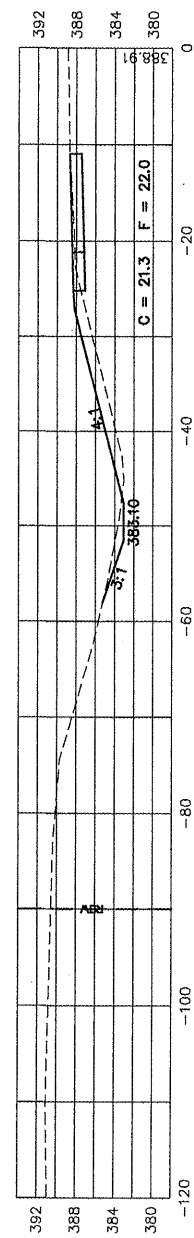
209+00



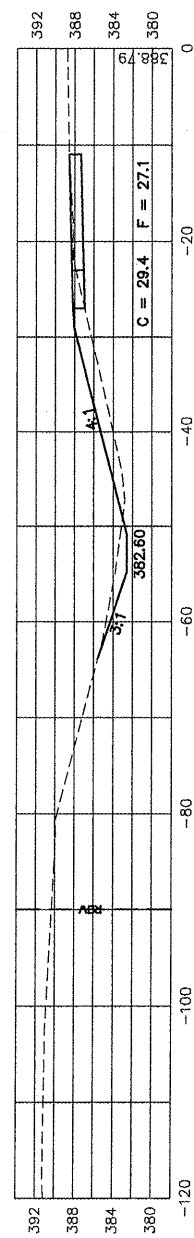
208+50



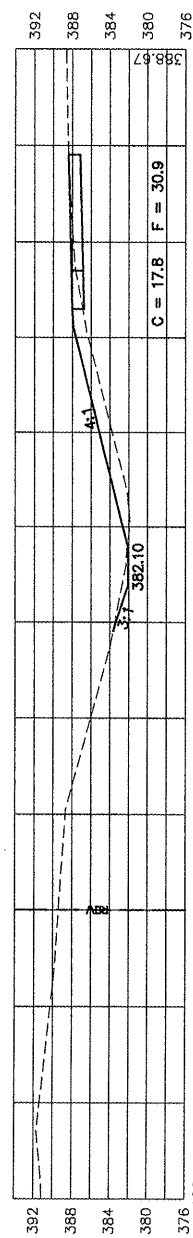
208+00



207+50

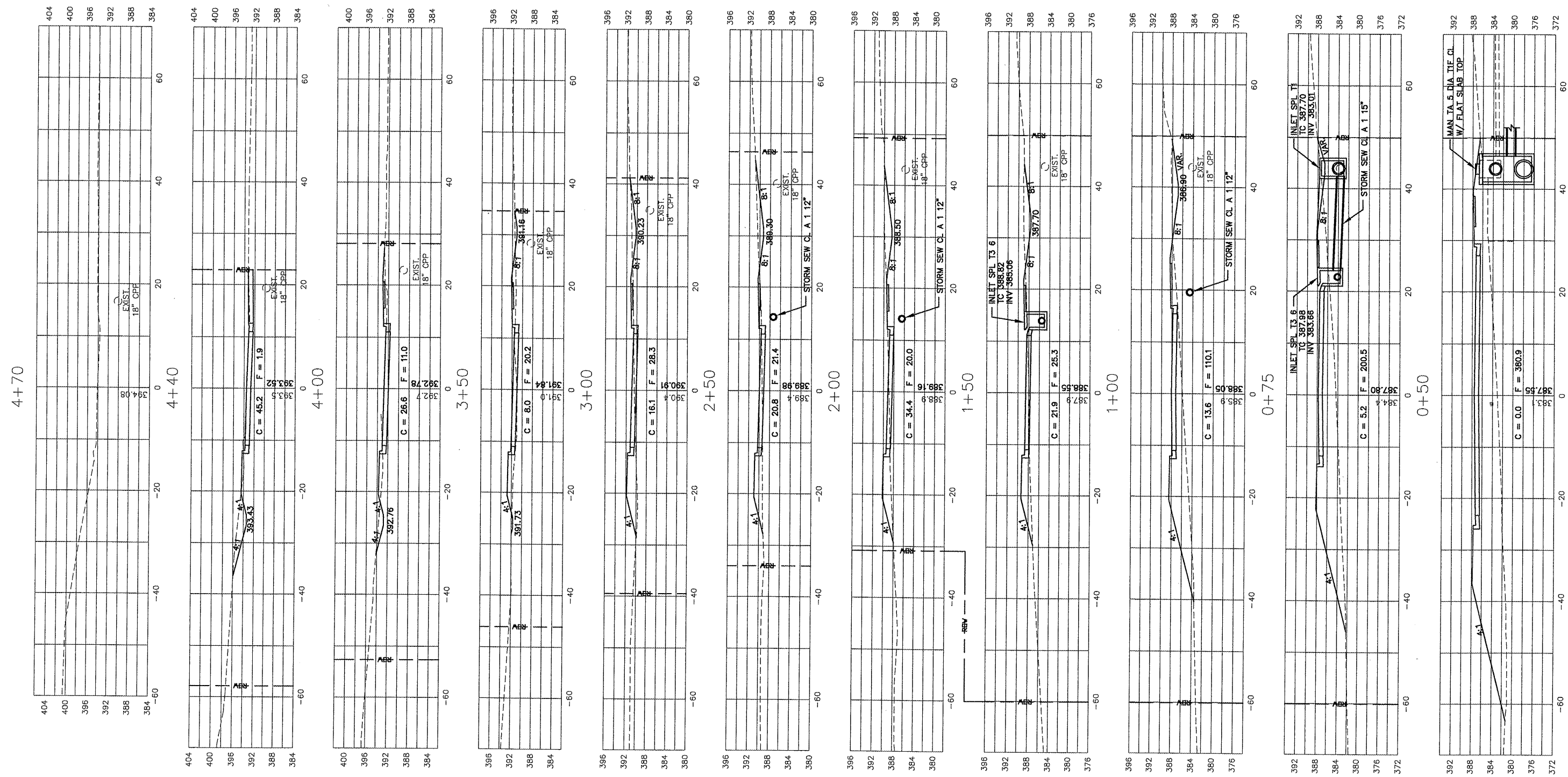


207+00



CROSS SECTIONS
ROUTE 13
STA 207+00 TO STA 210+00

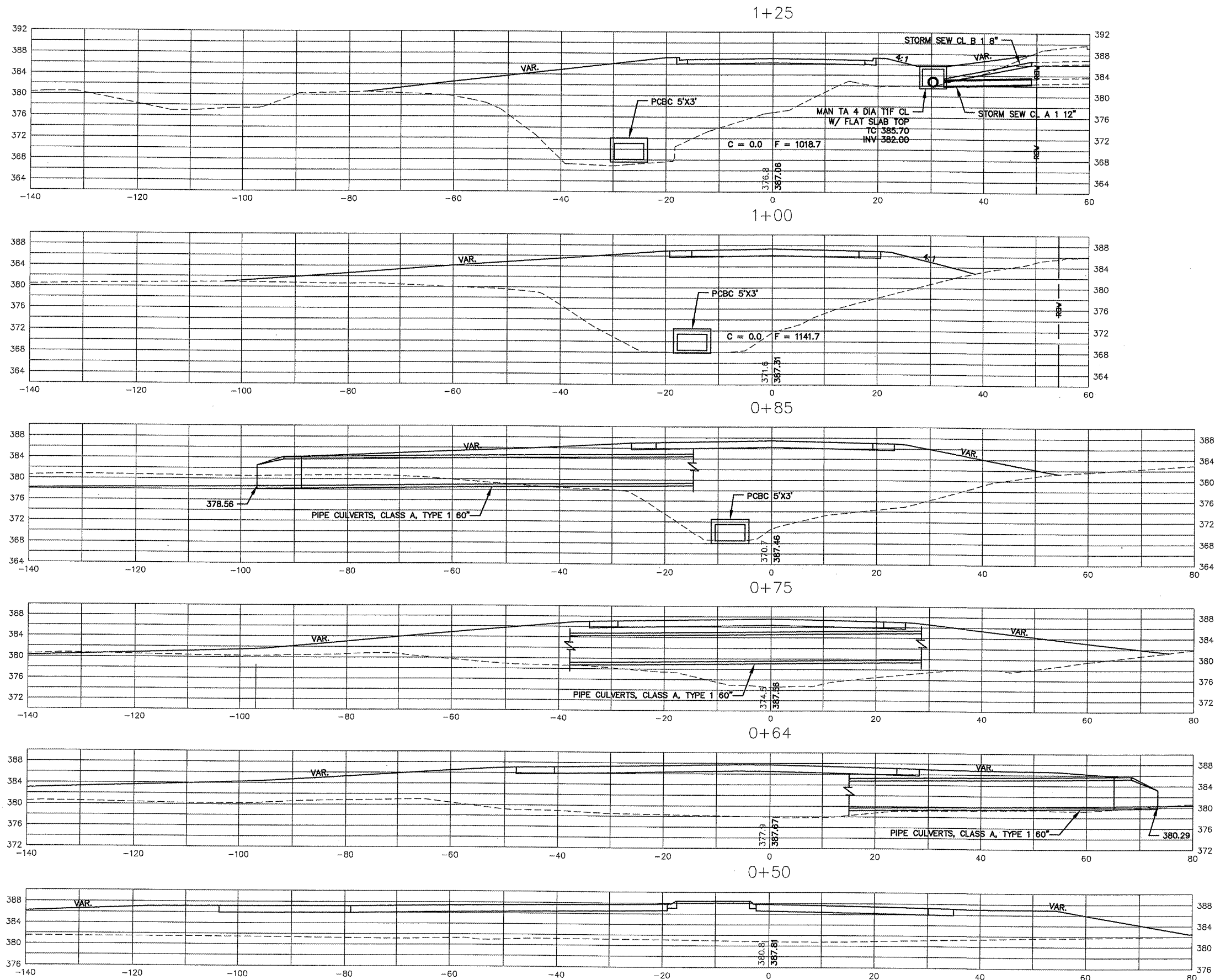
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05-00118-00-RP	JACKSON	JACKSON	72	26
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



CROSS SECTIONS
 REED STATION PARKWAY
 STA 0+00 TO STA 4+70

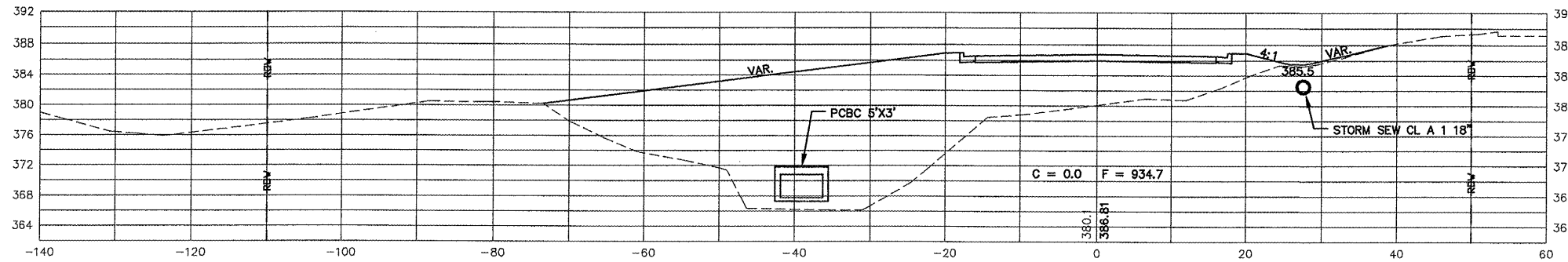
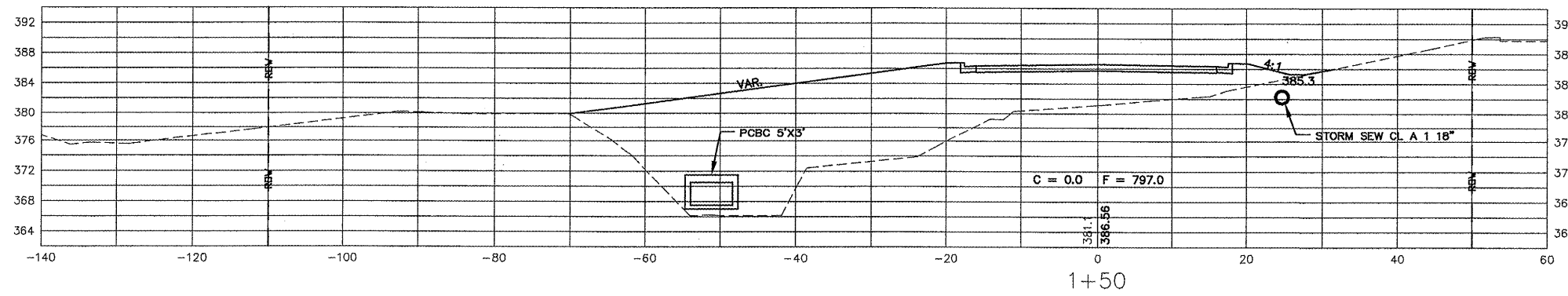
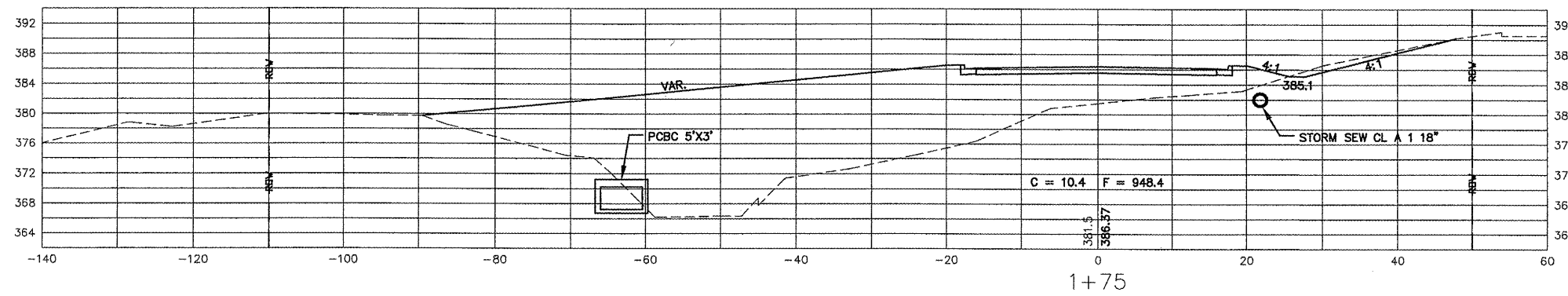
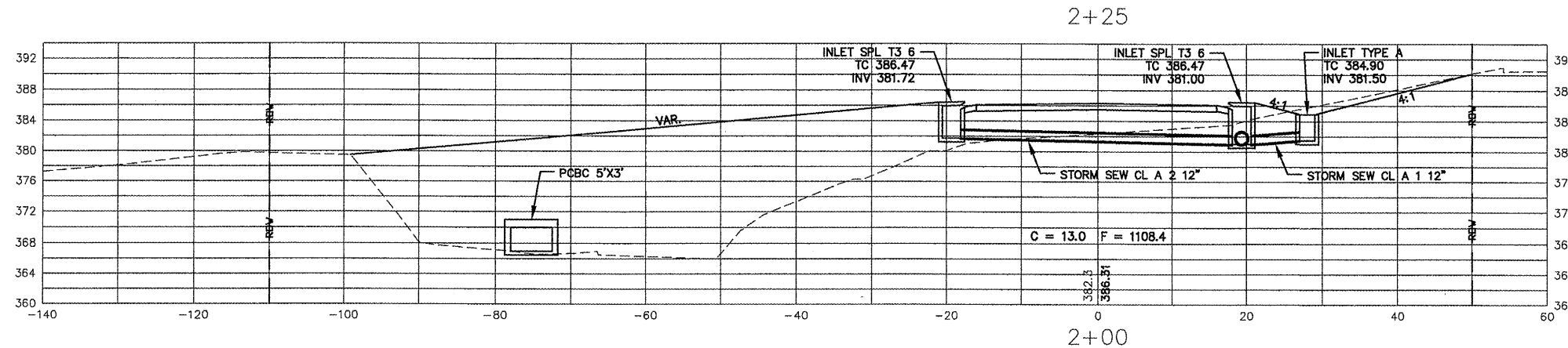
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ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	27	27
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				



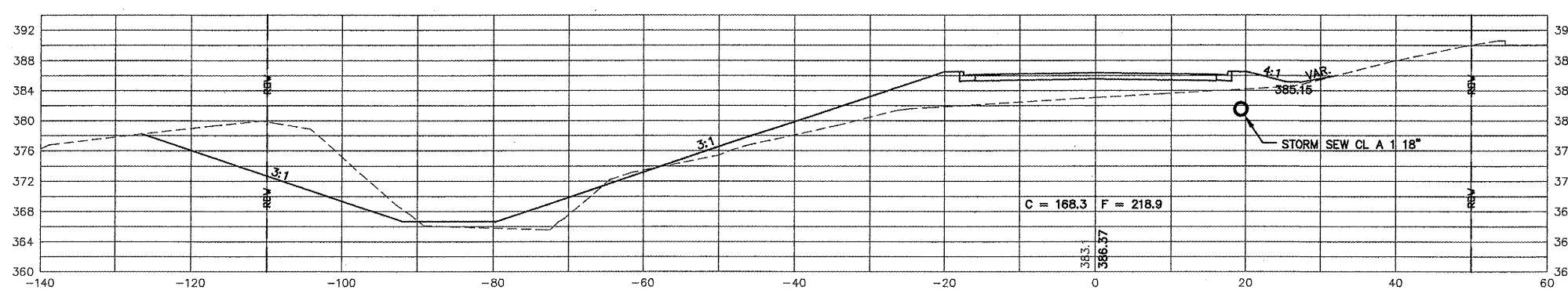
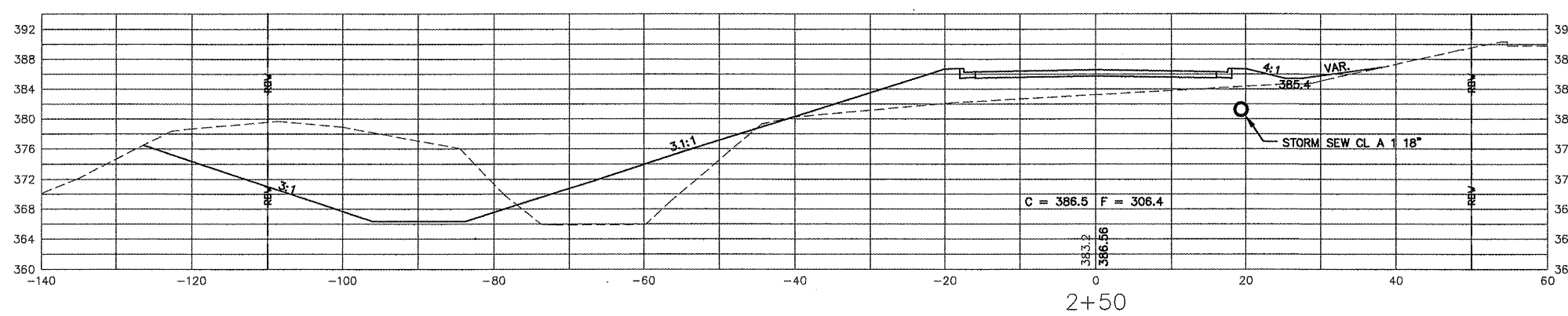
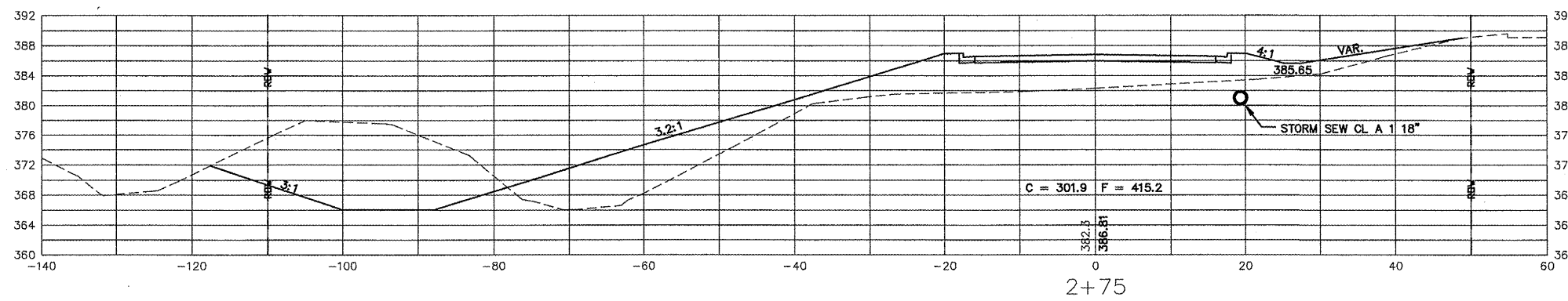
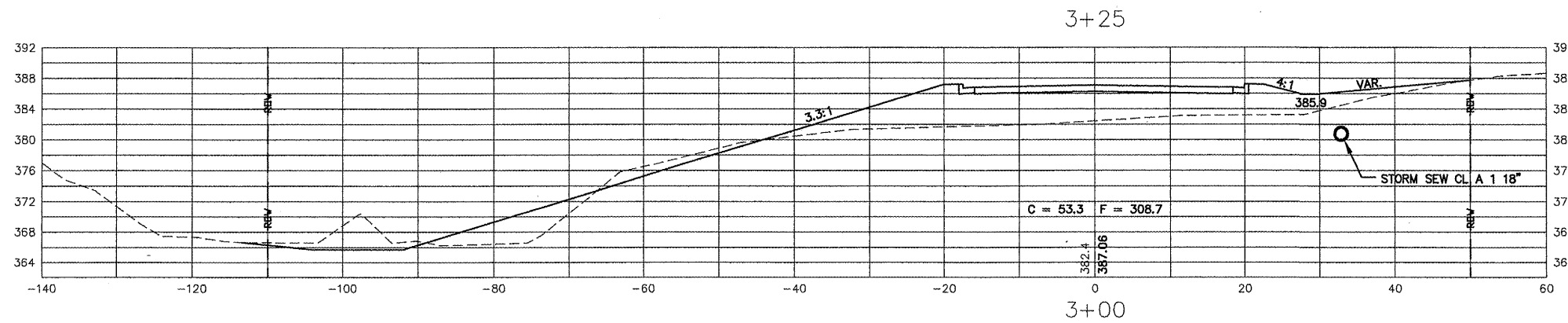
CROSS SECTIONS
ACCESS ROAD
STA 0+50 TO STA 1+25

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	22	28
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



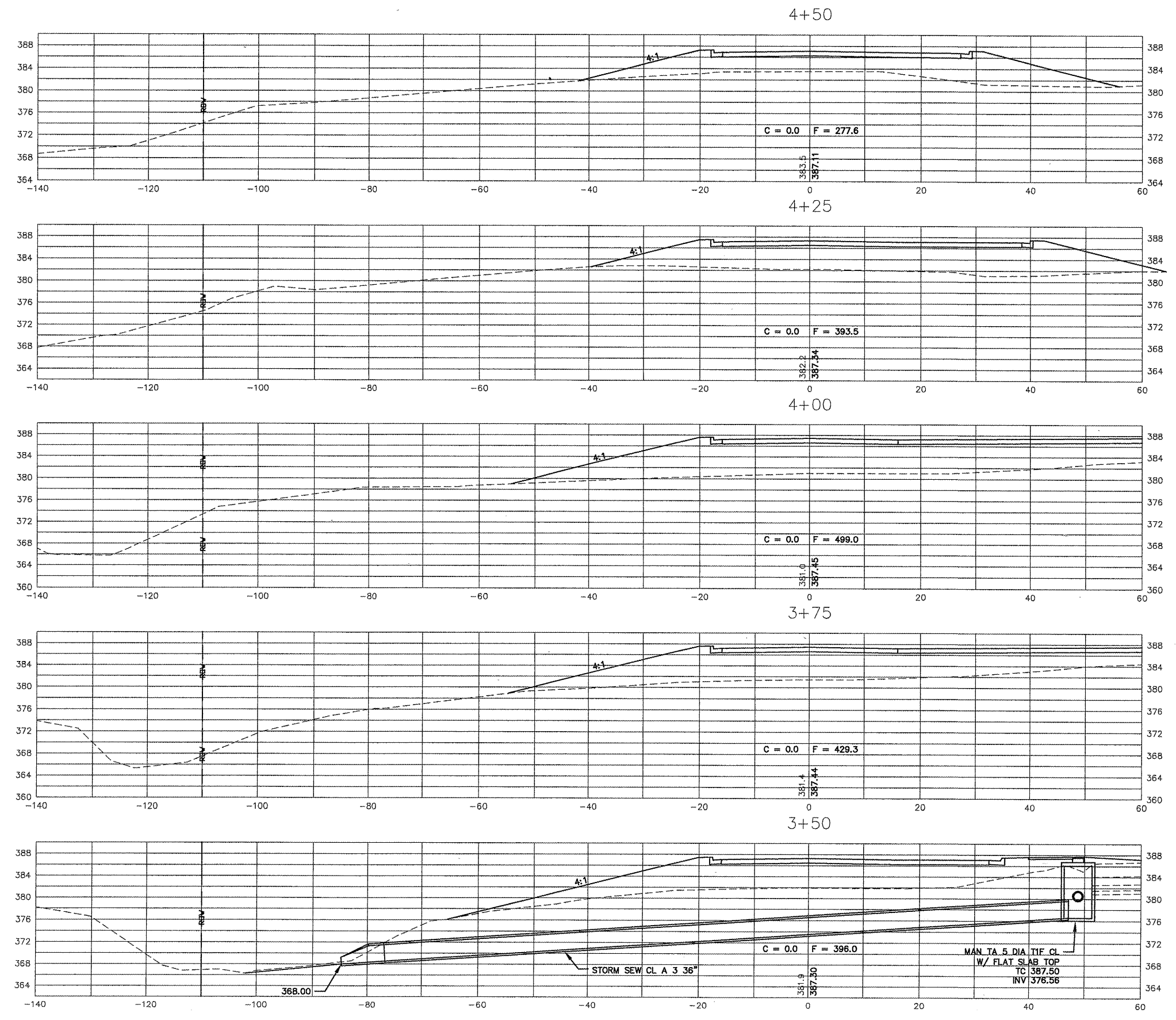
CROSS SECTIONS
ACCESS ROAD
STA 1+50 TO STA 2+25

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	29
JOB NO. C-99-515-06		FED PROJ: HPP-0321(117)		
CITY OF CARBONDALE				



CROSS SECTIONS
ACCESS ROAD
STA 2+50 TO STA 3+25

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00118-00-RP	JACKSON	32	30
JOB NO. C-99-515-06 FED PROJ: HPP-0321(117)				
CITY OF CARBONDALE				



CROSS SECTIONS
ACCESS ROAD
STA 3+50 TO STA 4+50

CONCRETE COLLAR FOR PRECAST BOX CULVERTS

Sheet 31
Contract 99905

**TABULATION OF CLASS SI CONCRETE (EST) * *
FOR 1 COLLAR**

SPAN X RISE	LARGEST GAP AWAY FROM BUTTED CORNER *																								
	0"	6"	12"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"	90"	96"	102"	108"	114"	120"	126"	132"	138"	144"
	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS	CU YDS
2' X 2'	0.26	0.35	0.44	0.54	0.63	0.72	0.82																		
3' X 2'	0.30	0.41	0.52	0.63	0.74	0.85	0.96	1.07	1.18																
3' X 3'	0.34	0.46	0.59	0.71	0.84	0.97	1.09	1.22	1.34																
4' X 2'	0.36	0.50	0.64	0.78	0.92	1.07	1.21	1.35	1.49	1.63	1.78														
4' X 3'	0.39	0.55	0.71	0.87	1.03	1.19	1.35	1.51	1.67	1.82	1.98														
4' X 4'	0.43	0.61	0.78	0.96	1.13	1.31	1.49	1.66	1.84	2.01	2.19														
5' X 2'	0.41	0.59	0.77	0.95	1.12	1.30	1.48	1.66	1.83	2.01	2.19	2.37	2.54												
5' X 3'	0.45	0.65	0.84	1.04	1.23	1.43	1.63	1.82	2.02	2.21	2.41	2.61	2.80												
5' X 4'	0.49	0.70	0.92	1.13	1.35	1.56	1.77	1.99	2.20	2.42	2.63	2.85	3.06												
5' X 5'	0.52	0.76	0.99	1.22	1.46	1.69	1.92	2.16	2.39	2.62	2.85	3.09	3.32												
6' X 2'	0.47	0.69	0.90	1.12	1.34	1.55	1.77	1.99	2.20	2.42	2.64	2.85	3.07	3.29	3.50										
6' X 3'	0.51	0.74	0.98	1.22	1.45	1.69	1.93	2.16	2.40	2.64	2.87	3.11	3.35	3.58	3.82										
6' X 4'	0.54	0.80	1.06	1.31	1.57	1.83	2.08	2.34	2.60	2.85	3.11	3.37	3.62	3.88	4.14										
6' X 5'	0.58	0.86	1.13	1.41	1.69	1.97	2.24	2.52	2.80	3.07	3.35	3.63	3.90	4.18	4.46										
6' X 6'	0.62	0.92	1.21	1.51	1.81	2.10	2.40	2.70	2.99	3.29	3.59	3.88	4.18	4.48	4.77										
7' X 4'	0.60	0.90	1.21	1.51	1.81	2.11	2.42	2.72	3.02	3.32	3.63	3.93	4.23	4.53	4.84	5.14	5.44								
7' X 5'	0.64	0.96	1.29	1.61	1.93	2.26	2.58	2.91	3.23	3.55	3.88	4.20	4.53	4.85	5.17	5.50	5.82								
7' X 6'	0.67	1.02	1.37	1.71	2.06	2.40	2.75	3.09	3.44	3.79	4.13	4.48	4.82	5.17	5.51	5.86	6.21								
7' X 7'	0.71	1.08	1.45	1.81	2.18	2.55	2.92	3.28	3.65	4.02	4.38	4.75	5.12	5.49	5.85	6.22	6.59								
8' X 4'	0.64	0.97	1.30	1.62	1.95	2.27	2.60	2.92	3.25	3.57	3.90	4.23	4.55	4.88	5.20	5.53	5.85	6.18	6.51						
8' X 5'	0.68	1.03	1.38	1.72	2.07	2.42	2.76	3.11	3.46	3.81	4.15	4.50	4.85	5.19	5.54	5.89	6.24	6.58	6.93						
8' X 6'	0.72	1.09	1.46	1.82	2.19	2.56	2.93	3.30	3.67	4.04	4.41	4.78	5.14	5.51	5.88	6.25	6.62	6.99	7.36						
8' X 7'	0.76	1.15	1.54	1.93	2.32	2.71	3.10	3.49	3.88	4.27	4.66	5.05	5.44	5.83	6.22	6.61	7.00	7.39	7.78						
8' X 8'	0.79	1.20	1.62	2.03	2.44	2.85	3.26	3.68	4.09	4.50	4.91	5.32	5.74	6.15	6.56	6.97	7.38	7.80	8.21						
9' X 5'	0.74	1.14	1.54	1.94	2.34	2.74	3.14	3.54	3.94	4.33	4.73	5.13	5.53	5.93	6.33	6.73	7.13	7.53	7.93	8.33	8.73				
9' X 6'	0.77	1.20	1.62	2.04	2.47	2.89	3.31	3.73	4.16	4.58	5.00	5.43	5.85	6.27	6.69	7.12	7.54	7.96	8.39	8.81	9.23				
9' X 7'	0.81	1.26	1.70	2.15	2.60	3.04	3.49	3.93	4.38	4.83	5.27	5.72	6.16	6.61	7.06	7.50	7.95	8.39	8.84	9.29	9.73				
9' X 8'	0.85	1.32	1.79	2.26	2.73	3.19	3.66	4.13	4.60	5.07	5.54	6.01	6.48	6.95	7.42	7.89	8.35	8.82	9.29	9.76	10.23				
9' X 9'	0.89	1.38	1.87	2.36	2.85	3.35	3.84	4.33	4.82	5.32	5.81	6.30	6.79	7.29	7.78	8.27	8.76	9.25	9.75	10.24	10.73				
10' X 5'	0.79	1.25	1.71	2.16	2.62	3.07	3.53	3.98	4.44	4.90	5.35	5.81	6.26	6.72	7.17	7.63	8.09	8.54	9.00	9.45	9.91	10.37	10.82		
10' X 6'	0.83	1.31	1.79	2.27	2.75	3.23	3.71	4.19	4.67	5.16	5.64	6.12	6.60	7.08	7.56	8.04	8.52	9.00	9.48	9.96	10.44	10.92	11.40		
10' X 7'	0.87	1.37	1.88	2.38	2.89	3.39	3.90	4.40	4.91	5.41	5.92	6.42	6.93	7.44	7.94	8.45	8.95	9.46	9.96	10.47	10.97	11.48	11.98		
10' X 8'	0.91	1.44	1.97	2.49	3.02	3.55	4.08	4.61	5.14	5.67	6.20	6.73	7.26	7.79	8.32	8.85	9.38	9.91	10.44	10.97	11.50	12.03	12.56		
10' X 9'	0.94	1.50	2.05	2.61	3.16	3.72	4.27	4.82	5.38	5.93	6.49	7.04	7.60	8.15	8.71	9.26	9.81	10.37	10.92	11.48	12.03	12.59	13.14		
10' X 10'	0.98	1.56	2.14	2.72	3.30	3.88	4.45	5.03	5.61	6.19	6.77	7.35	7.93	8.51	9.09	9.67	10.25	10.83	11.41	11.98	12.56	13.14	13.72		
11' X 4'	0.81	1.30	1.79	2.28	2.77	3.26	3.75	4.24	4.73	5.22	5.71	6.19	6.68	7.17	7.66	8.15	8.64	9.13	9.62	10.11	10.60	11.09	11.58	12.07	12.55
11' X 6'	0.89	1.43	1.97	2.51	3.05	3.60	4.14	4.68	5.22	5.76	6.30	6.85	7.39	7.93	8.47	9.01	9.55	10.10	10.64	11.18	11.72	12.26	12.80	13.35	13.89
11' X 8'	0.96	1.56	2.15	2.74	3.34	3.93	4.53	5.12	5.72	6.31	6.90	7.50	8.09	8.69	9.28	9.87	10.47	11.06	11.66	12.25	12.84	13.44	14.03	14.63	15.22
11' X 10'	1.04	1.68	2.33	2.98	3.62	4.27	4.92	5.56	6.21	6.86	7.50	8.15	8.80	9.44	10.09	10.74	11.38	12.03	12.67	13.32	13.97	14.61	15.26	15.91	16.55
11' X 11'	1.07	1.75	2.42	3.09	3.76	4.44	5.11	5.78	6.46	7.13	7.80	8.47	9.15	9.82	10.49	11.17	11.84	12.51	13.18	13.86	14.53	15.20	15.88	16.55	17.22
12' X 4'	0.87	1.42	1.97	2.52	3.07	3.63	4.18	4.73	5.28	5.83	6.38	6.93	7.48	8.03	8.58	9.13	9.69	10.24	10.79	11.34	11.89	12.44	12.99	13.54	14.09
12' X 6'	0.94	1.55	2.16	2.76	3.37	3.98	4.58	5.19	5.80	6.40	7.01	7.62	8.22	8.83	9.44	10.04	10.65	11.25	11.86	12.47	13.07	13.68	14.29	14.89	15.50
12' X 8'	1.02	1.68	2.34	3.00	3.67	4.33	4.99	5.65	6.31	6.98	7.64	8.30	8.96	9.63	10.29	10.95	11.61	12.27	12.94	13.60	14.26	14.92	15.58	16.25	16.91
12' X 10'	1.09	1.81	2.53	3.25	3.96	4.68	5.40	6.12	6.83	7.55	8.27	8.99	9.70	10.42	11.14	11.86	12.57	13.29	14.01	14.73	15.44	16.16	16.88	17.60	18.31
12' X 12'	1.17	1.94	2.71	3.49	4.26	5.03	5.81	6.58	7.35	8.13	8.90	9.67	10.44	11.22	11.99	12.76	13.54	14.31	15.08	15.86	16.63	17.40	18.18	18.95	19.72

* * FOR INFORMATION ONLY

REMOVE PORTION OF EXIST. HEADWALL DOWN TO BOTTOM OF PROP. HOT-MIX ASPHALT BASE COURSE WIDENING.

EXISTING BOX CULVERT

PROPOSED BOX CULVERT

5"

6"

8"

SEE STATION CROSS SECTION FOR SLOPE OF CULVERT.

SIDE VIEW

LARGEST GAP DIAGONALLY OPPOSITE BUTTED CORNER

1/2" Ø X 18" EXPANSION BOLTS AT 18" CTRS (TYP) ALL FOUR SIDES

EXISTING BOX CULVERT

PROPOSED BOX CULVERT

12"

6"

12"

TOP VIEW

2-#5 S BARS (TYP)

SECTION B-B

6"

SPAN

RISE

6"

6"

SECTION A-A

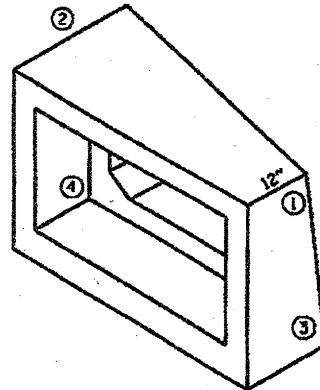
NOTES:

ANCHOR BOLTS, MEETING THE REQUIREMENTS OF ARTICLE 1006.09 OF THE STANDARD SPECIFICATIONS, SHALL EXTEND A MINIMUM OF 9 INCHES INTO THE NEW CONCRETE. EXPANSION SHIELDS SHALL PROVIDE A MINIMUM CERTIFIED PROOF LOAD OF 4080 POUNDS.

THE CONCRETE COLLAR SHALL NOT BE PAID FOR SEPARATELY WHEN CONSTRUCTED IN CONJUNCTION WITH PRECAST BOX CULVERTS, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRECAST CONCRETE BOX CULVERTS. THIS PRICE SHALL ALSO INCLUDE THE REINFORCEMENT BARS, EXPANSION BOLTS AND THE REMOVAL OF SUCH PORTIONS OF THE EXISTING HEADWALLS AS MAY BE REQUIRED. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

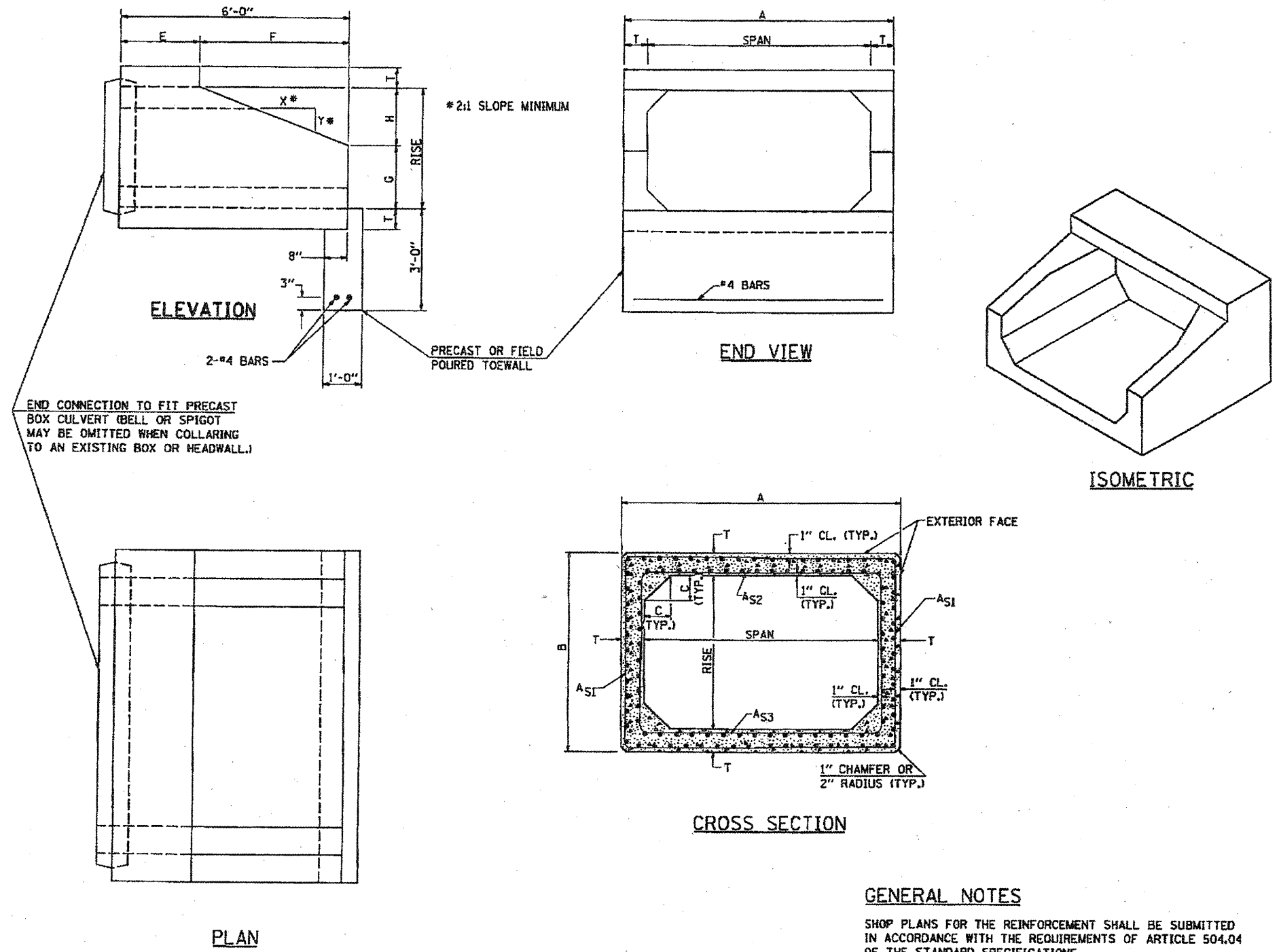
REVISIONS
DRAWN 9-12-88
REVISED 8-16-94
REVISED 01-11-07
REVISED 3-27-08

STD. 9-78



ISOMETRIC VIEW

DETAIL OF PRECAST CONCRETE BOX CULVERT END SECTION



END CONNECTION TO FIT PRECAST BOX CULVERT (BELL OR SPIGOT MAY BE OMITTED WHEN COLLARING TO AN EXISTING BOX OR HEADWALL.)

**** NOTE:**
THE DIMENSIONS INDICATED ARE FOR END SECTIONS THAT ARE TO BE USED WITH PRECAST BOX CULVERT SECTIONS DESIGNED FOR 2' OR MORE OF FILL. THE DIMENSIONS MUST BE MODIFIED FOR THE END SECTION TO BE COMPATIBLE WITH PRECAST CULVERT SECTIONS DESIGNED FOR LESS THAN 2' OF FILL.

GENERAL NOTES
SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 504.04 OF THE STANDARD SPECIFICATIONS.
MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI AFTER 28 DAYS.
THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 1055.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
THE TERMS AS1, AS2, & AS3 DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN AASHTO M259. REINFORCEMENT SHALL BE WELDED WIRE FABRIC CONFORMING TO AASHTO M55-81.

DIMENSIONS **

SPAN X RISE	T (INCHES)	A (FT.-IN.)	B (FT.-IN.)	C (INCHES)	E (FT.-IN.)	F (FT.-IN.)	G (FT.-IN.)	H (FT.-IN.)	SLOPE (X:Y)
2' X 2'	4	2-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 2'	4	3-8	2-8	4	3-0	3-0	1-0	1-0	3:1
3' X 3'	4	3-8	3-8	4	2-0	4-0	1-8	1-4	3:1
4' X 2'	5	4-10	2-10	5	3-0	3-0	1-0	1-0	3:1
4' X 3'	5	4-10	3-10	5	2-0	4-0	1-8	1-4	3:1
4' X 4'	5	4-10	4-10	5	2-0	4-0	2-0	2-0	2:1
5' X 2'	6	6-0	3-0	6	3-0	3-0	1-0	1-0	3:1
5' X 3'	6	6-0	4-0	6	2-0	4-0	1-8	1-4	3:1
5' X 4'	6	6-0	5-0	6	2-0	4-0	2-0	2-0	2:1
5' X 5'	6	6-0	6-0	6					
6' X 2'	7	7-2	3-2	7	3-0	3-0	1-0	1-0	3:1
6' X 3'	7	7-2	4-2	7	2-0	4-0	1-8	1-4	3:1
6' X 4'	7	7-2	5-2	7	2-0	4-0	2-0	2-0	2:1
6' X 5'	7	7-2	6-2	7	2-0	4-0	3-0	2-0	2:1
6' X 6'	7	7-2	7-2	7	2-0	4-0	4-0	2-0	2:1
7' X 4'	8	8-4	5-4	8	2-0	4-0	2-0	2-0	2:1
7' X 5'	8	8-4	6-4	8					
7' X 6'	8	8-4	7-4	8					
7' X 7'	8	8-4	8-4	8					
8' X 4'	8	9-4	5-4	8	2-0	4-0	2-0	2-0	2:1
8' X 5'	8	9-4	6-4	8					
8' X 6'	8	9-4	7-4	8					
8' X 7'	8	9-4	8-4	8					
8' X 8'	8	9-4	9-4	8					
9' X 5'	9	10-6	6-6	9					
9' X 6'	9	10-6	7-6	9					
9' X 7'	9	10-6	8-6	9					
9' X 8'	9	10-6	9-6	9					
9' X 9'	9	10-6	10-6	9					
10' X 5'	10	11-8	6-8	10					
10' X 6'	10	11-8	7-8	10					
10' X 7'	10	11-8	8-8	10					
10' X 8'	10	11-8	9-8	10					
10' X 9'	10	11-8	10-8	10					
10' X 10'	10	11-8	11-8	10					
11' X 4'	11	12-10	5-10	11					
11' X 6'	11	12-10	7-10	11					
11' X 8'	11	12-10	9-10	11					
11' X 10'	11	12-10	11-10	11					
11' X 11'	11	12-10	12-10	11					
12' X 4'	12	14-0	6-0	12					
12' X 6'	12	14-0	8-0	12					
12' X 8'	12	14-0	10-0	12					
12' X 10'	12	14-0	12-0	12					
12' X 12'	12	14-0	14-0	12					

REVISIONS

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