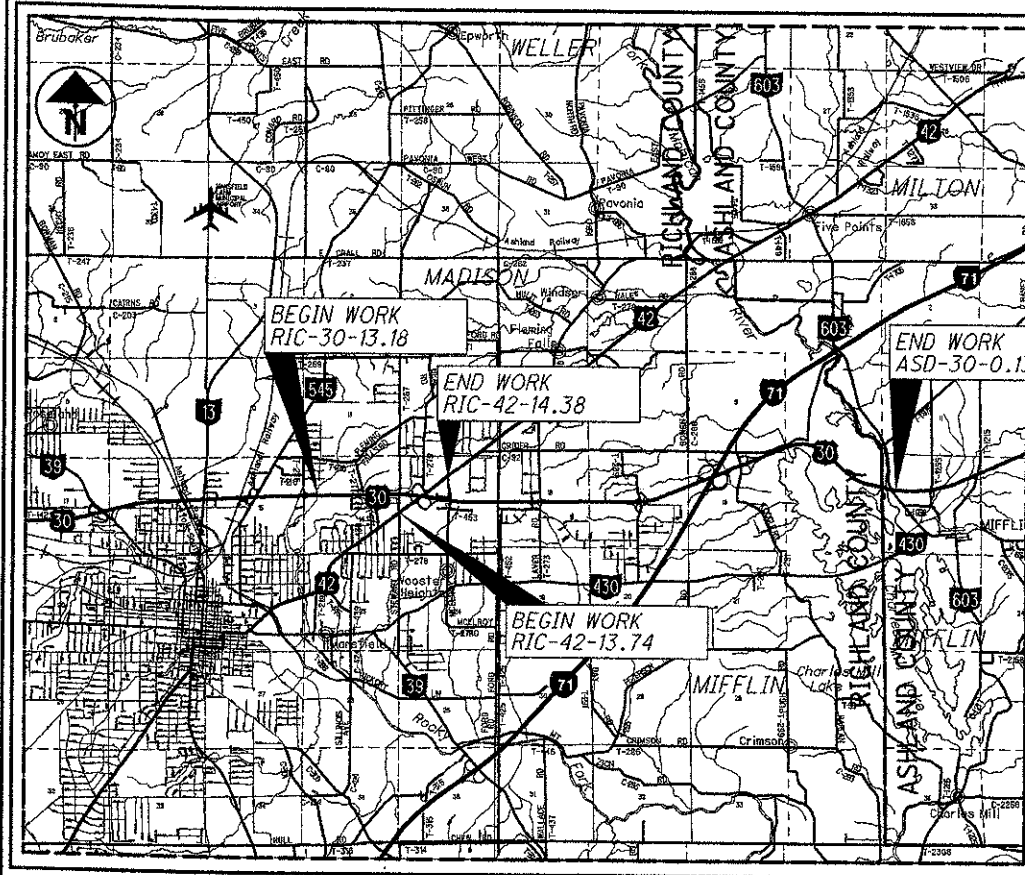


STATE OF OHIO,  
DEPARTMENT OF TRANSPORTATION  
**RIC / ASD-30-13.18 / 0.00**  
**RIC-42-13.74**  
**MADISON TOWNSHIP**  
**MIFFLIN TOWNSHIP**  
**RICHLAND COUNTY**  
**ASHLAND COUNTY**



PORTION TO BE IMPROVED -----  
INTERSTATE & DIVIDED HIGHWAY -----  
UNDIVIDED STATE & FEDERAL ROUTES -----  
OTHER ROADS -----

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**PROJECT DESCRIPTION**

RESURFACING, INCLUDING PAVEMENT PLANING, PAVEMENT REPAIRS, CONCRETE PAVEMENT REPLACEMENT AT REST AREA, GUARDRAIL REPAIR, TRAFFIC CONTROL ITEMS, AND STRUCTURE MAINTENANCE.

PROJECT EARTH DISTURBED AREA: N/A  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A

**LIMITED ACCESS**

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

**2010 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

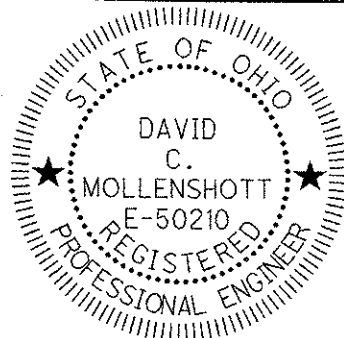
UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERRECTED.

APPROVED: John Hart, P.E.  
DATE: 7/12/10 DISTRICT DEPUTY DIRECTOR

APPROVED: \_\_\_\_\_  
DATE: \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

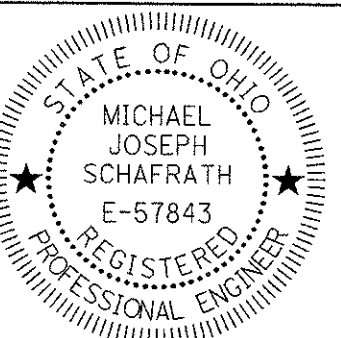
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WORKSTATION: KKnapp DATE: 7/12/2010

STRUCTURAL ENGINEERS SEAL:



SIGNED: David C. Mollenshott  
DATE: 7/12/10

ROADWAY ENGINEERS SEAL:



SIGNED: Michael J. Schafroth  
DATE: 7-12-10

**STANDARD CONSTRUCTION DRAWINGS**

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
BP-2.5	7/18/08	GR-4.2	1/19/07	MT-35.10	4/20/01	MT-98.28	7/17/09	TC-71.10	1/16/09	SS800	7/16/10
BP-3.1	10/19/07	GR-5.1	4/16/10	MT-95.30	7/17/09	MT-98.29	7/17/09	TC-72.20	10/16/09	SS832	5/5/09
BP-5.1	7/28/00	GR-6.1	4/16/10	MT-95.31	7/17/09	MT-99.20	1/16/09	TC-73.10	1/19/01	SS847	4/16/10
BP-9.1	4/15/05			MT-95.32	7/17/09	MT-101.60	4/17/09	TC-82.10	10/16/09	SS849	1/19/07
		RM-4.2	10/19/07	MT-95.40	7/17/09	MT-101.70	1/16/09			SS961	10/17/08
HW-2.2	7/30/07	RM-4.5	10/16/09	MT-95.50	4/17/09	MT-101.90	1/16/09				
		RM-4.6	4/16/10	MT-95.61	1/16/09	MT-105.10	1/16/09				
DM-1.1	4/21/06			MT-96.11	1/16/09						
DM-4.3	4/17/09	DS-1-92	7/18/03	MT-96.20	1/16/09	TC-41.20	1/19/01				
DM-4.4	4/17/09	EXJ-2-81	7/19/02	MT-96.26	1/16/09	TC-42.10	1/19/07				
		FB-1-82	5/10/82	MT-97.10	4/17/09	TC-42.20	7/16/04				
GR-1.1	7/16/04	GSD-1-96	7/19/02	MT-97.11	4/17/09	TC-52.10	1/19/07				
GR-2.1	1/16/04	PCB-91	7/19/02	MT-98.10	7/17/09	TC-52.20	1/19/07				
GR-3.1	10/16/09	RB-1-55	2/2/59	MT-98.11	7/17/09	TC-61.30	4/16/10				
GR-3.2	10/16/09	TST-1-99	4/18/08	MT-98.20	7/17/09	TC-65.10	1/21/05				
GR-3.6	10/16/09			MT-98.22	7/17/09	TC-65.11	1/21/05				

**SUPPLEMENTAL SPECIFICATIONS**

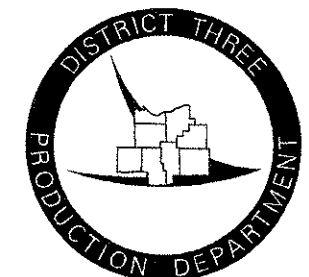
SS800	7/16/10
SS832	5/5/09
SS847	4/16/10
SS849	1/19/07
SS961	10/17/08

**SPECIAL PROVISIONS**

**UNDERGROUND UTILITIES**  
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
**BEFORE YOU DIG**

CALL  
**1-800-362-2764**  
(TOLL FREE)  
OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY  
OIL & GAS PRODUCERS PROTECTIVE  
SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:



FEDERAL PROJECT NO. STATE FUNDED  
CID NO. 79352  
CONSTRUCTION PROJECT NO.  
RAILROAD INVOLVEMENT NONE  
RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74  
1/116

**DESIGN DESIGNATION**

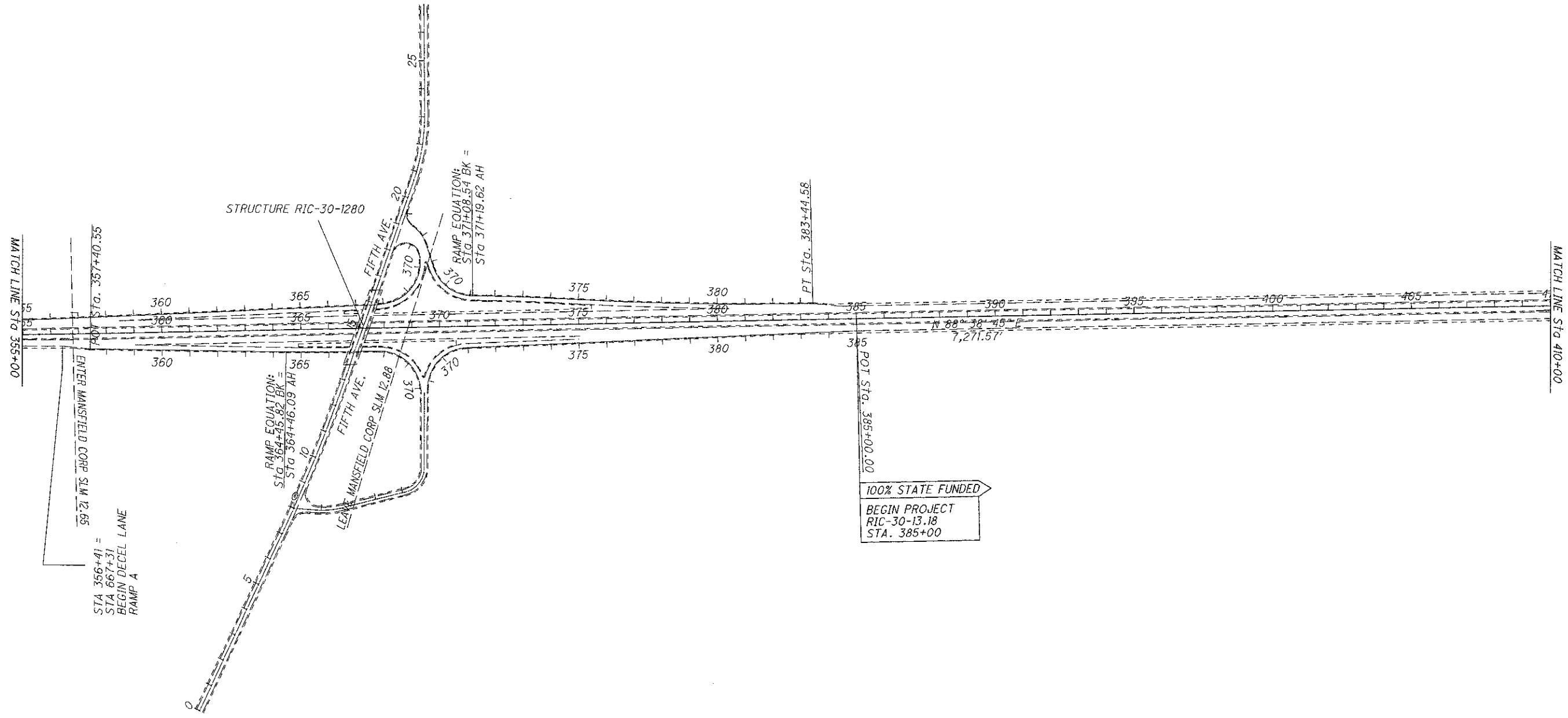
	RIC US30 WEST OF US42 BETWEEN 13.22 TO 13.77	RIC US30 EAST OF US42 BETWEEN 13.77 TO 14.96	RIC US30 EAST OF LAVER RD BETWEEN 14.96 TO 16.09	RIC US 30 WEST OF IR71 BETWEEN 16.09 TO 16.87	RIC US30 EAST OF IR71 BETWEEN 16.87 TO 17.20	RIC US30 EAST OF KOOGLE RD BETWEEN 17.20 TO 19.19	ASD US30 EAST OF RICHLAND CO. LINE BETWEEN 0.00 TO 0.13	RIC US42 SOUTH OF US30 BETWEEN 13.76 TO 14.37
CURRENT ADT (2011)	34060	22210	20970	19650	17540	17400	17400	19680
DESIGN YEAR ADT (2023)	39810	25310	24490	23500	20890	21500	21500	22210
DESIGN HOURLY VOLUME (2023)	3980	2530	2450	2350	2090	2150	2150	2220
DIRECTIONAL DISTRIBUTION	56%	60%	60%	60%	60%	55%	55%	55%
TRUCKS (24 HOUR B&C)	22%	32%	34%	35%	26%	26%	26%	3%
Td	13%	19%	20%	21%	16%	20%	20%	2%
DESIGN SPEED	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	35 MPH
LEGAL SPEED	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	60 MPH	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY & EXPRESSWAY	URBAN FREEWAY & EXPRESSWAY	URBAN FREEWAY & EXPRESSWAY	URBAN FREEWAY & EXPRESSWAY	URBAN FREEWAY & EXPRESSWAY	RURAL PRINCIPAL ARTERIAL	RURAL PRINCIPAL ARTERIAL	URBAN PRINCIPAL ARTERIAL
NHS PROJECT	YES (EXCEPT FOR RIC US42 SECTION)							

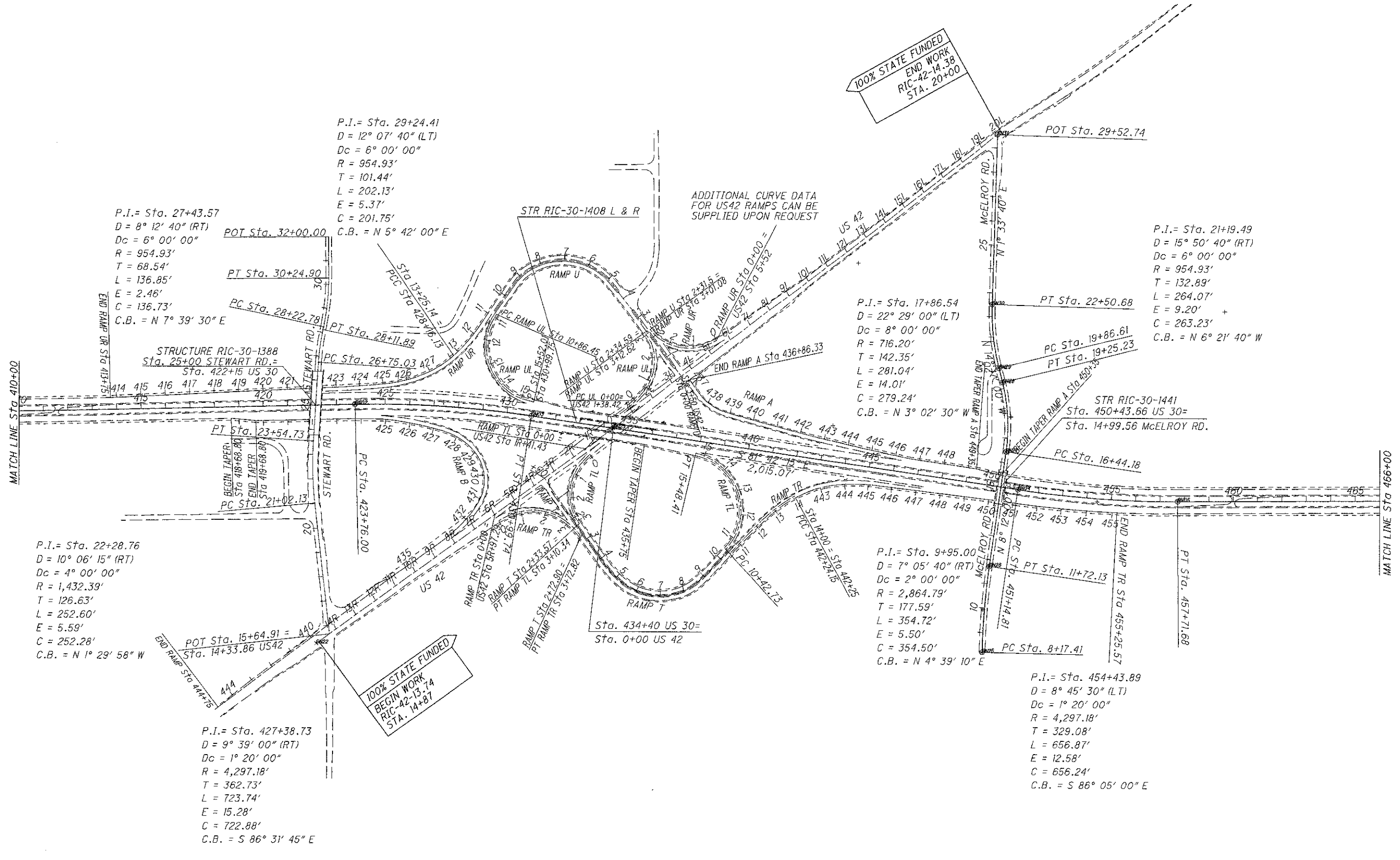
CALCULATED  
MJS  
CHECKED  
ADB

0 200 400  
HORIZONTAL  
SCALE IN FEET

**SCHEMATIC / DESIGN DESIGNATION**

**RIC / ASD -30-13.18 / 0.00  
RIC-42-13.74**





P.I. = Sta. 27+43.57  
 D = 8° 12' 40" (RT)  
 Dc = 6° 00' 00"  
 R = 954.93'  
 T = 68.54'  
 L = 136.85'  
 E = 2.46'  
 C = 136.73'  
 C.B. = N 7° 39' 30" E

POT Sta. 32+00.00  
 PT Sta. 30+24.90  
 PC Sta. 28+22.78

P.I. = Sta. 29+24.41  
 D = 12° 07' 40" (LT)  
 Dc = 6° 00' 00"  
 R = 954.93'  
 T = 101.44'  
 L = 202.13'  
 E = 5.37'  
 C = 201.75'  
 C.B. = N 5° 42' 00" E

P.I. = Sta. 22+28.76  
 D = 10° 06' 15" (RT)  
 Dc = 4° 00' 00"  
 R = 1,432.39'  
 T = 126.63'  
 L = 252.60'  
 E = 5.59'  
 C = 252.28'  
 C.B. = N 1° 29' 58" W

POT Sta. 15+64.91 = 440  
 Sta. 14+33.86 US 42

PC Sta. 423+76.00

P.I. = Sta. 427+38.73  
 D = 9° 39' 00" (RT)  
 Dc = 1° 20' 00"  
 R = 4,297.18'  
 T = 362.73'  
 L = 723.74'  
 E = 15.28'  
 C = 722.88'  
 C.B. = S 86° 31' 45" E

ADDITIONAL CURVE DATA FOR US42 RAMPS CAN BE SUPPLIED UPON REQUEST

P.I. = Sta. 17+86.54  
 D = 22° 29' 00" (LT)  
 Dc = 8° 00' 00"  
 R = 716.20'  
 T = 142.35'  
 L = 281.04'  
 E = 14.01'  
 C = 279.24'  
 C.B. = N 3° 02' 30" W

POT Sta. 22+50.68  
 PT Sta. 19+86.61  
 PC Sta. 19+25.23

P.I. = Sta. 9+95.00  
 D = 7° 05' 40" (RT)  
 Dc = 2° 00' 00"  
 R = 2,864.79'  
 T = 177.59'  
 L = 354.72'  
 E = 5.50'  
 C = 354.50'  
 C.B. = N 4° 39' 10" E

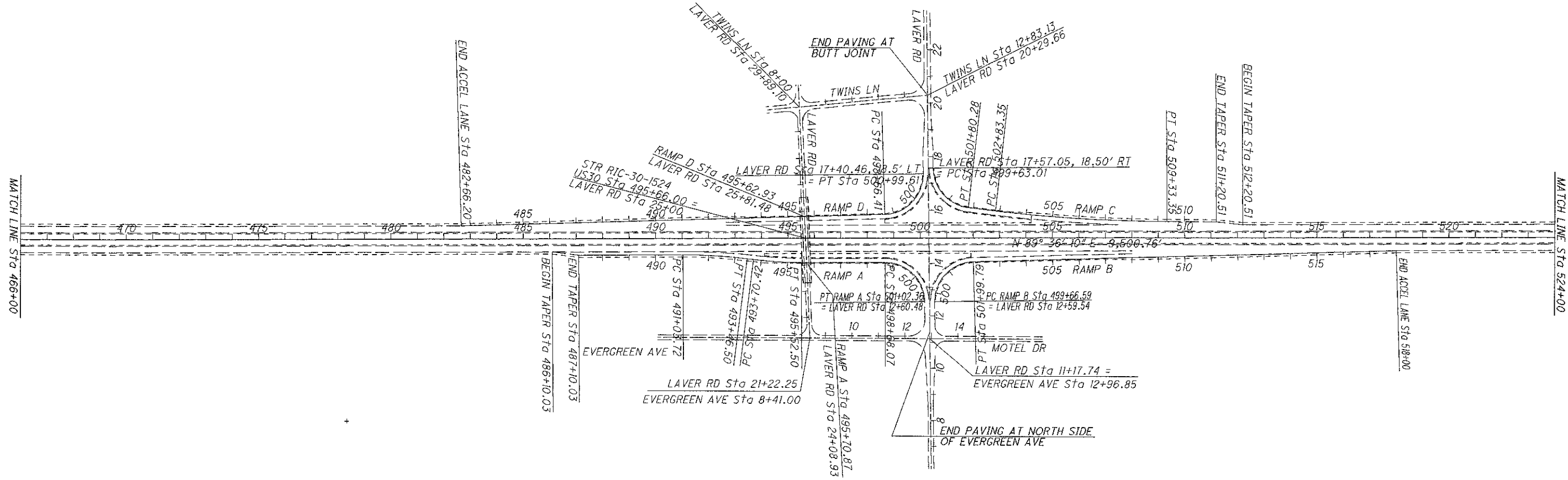
POT Sta. 11+72.13  
 PT Sta. 8+17.41  
 PC Sta. 8+17.41

P.I. = Sta. 21+19.49  
 D = 15° 50' 40" (RT)  
 Dc = 6° 00' 00"  
 R = 954.93'  
 T = 132.89'  
 L = 264.07'  
 E = 9.20' +  
 C = 263.23'  
 C.B. = N 6° 21' 40" W

POT Sta. 29+52.74  
 PT Sta. 22+50.68  
 PC Sta. 19+86.61

P.I. = Sta. 454+43.89  
 D = 8° 45' 30" (LT)  
 Dc = 1° 20' 00"  
 R = 4,297.18'  
 T = 329.08'  
 L = 656.87'  
 E = 12.58'  
 C = 656.24'  
 C.B. = S 86° 05' 00" E

POT Sta. 457+71.68  
 PT Sta. 455+25.57  
 PC Sta. 451+14.81

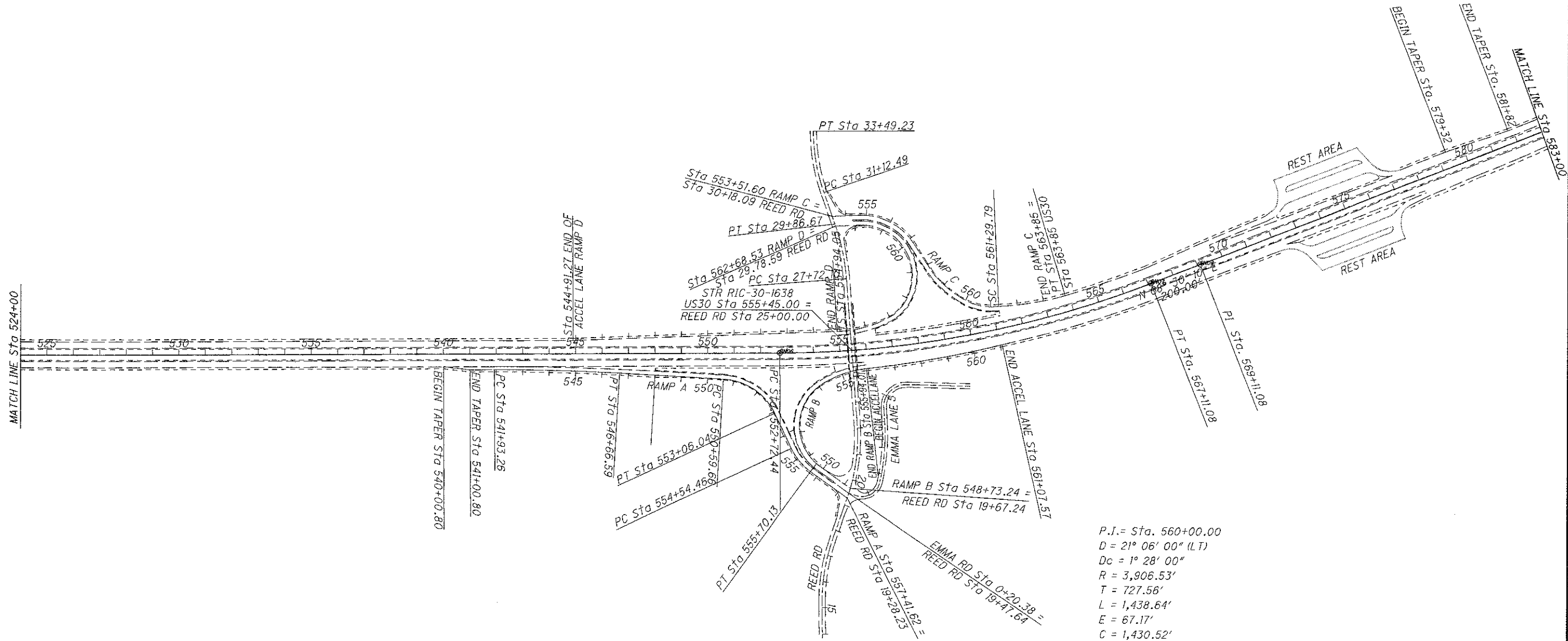


CALCULATED  
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 SCALE IN FEET

**SCHEMATIC / DESIGN DESIGNATION**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**



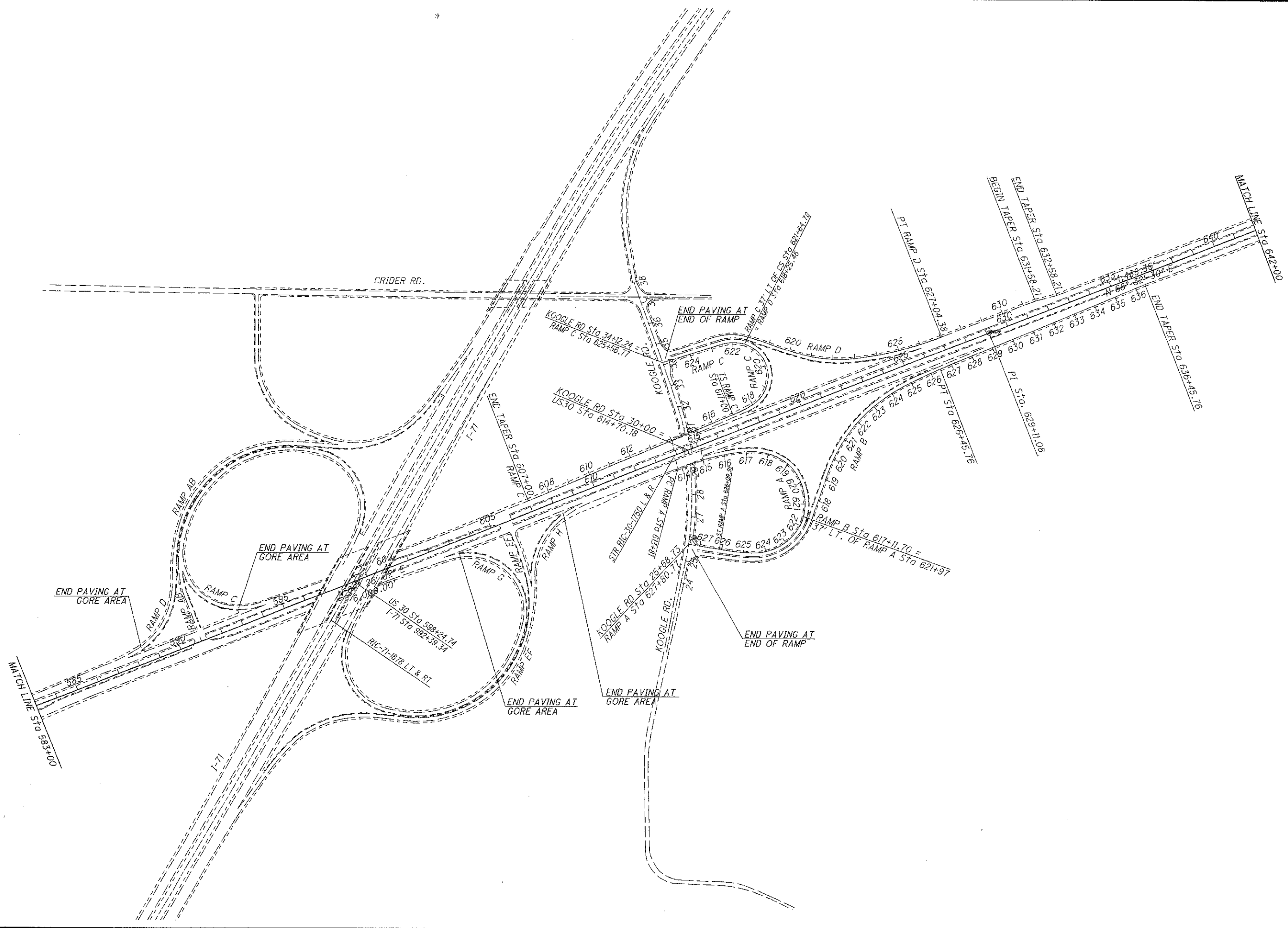
P.I. = Sta. 560+00.00  
 D = 21° 06' 00" (LT)  
 Dc = 1° 28' 00"  
 R = 3,906.53'  
 T = 727.56'  
 L = 1,438.64'  
 E = 67.17'  
 C = 1,430.52'  
 C.B. = N 79° 03' 10" E

CALCULATED  
 MJS  
 CHECKED  
 ADB

0 200 400  
 HORIZONTAL  
 SCALE IN FEET

**SCHEMATIC / DESIGN DESIGNATION**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**



CALCULATED  
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 CHECKED  
 ADB

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 HORIZONTAL  
 SCALE IN FEET

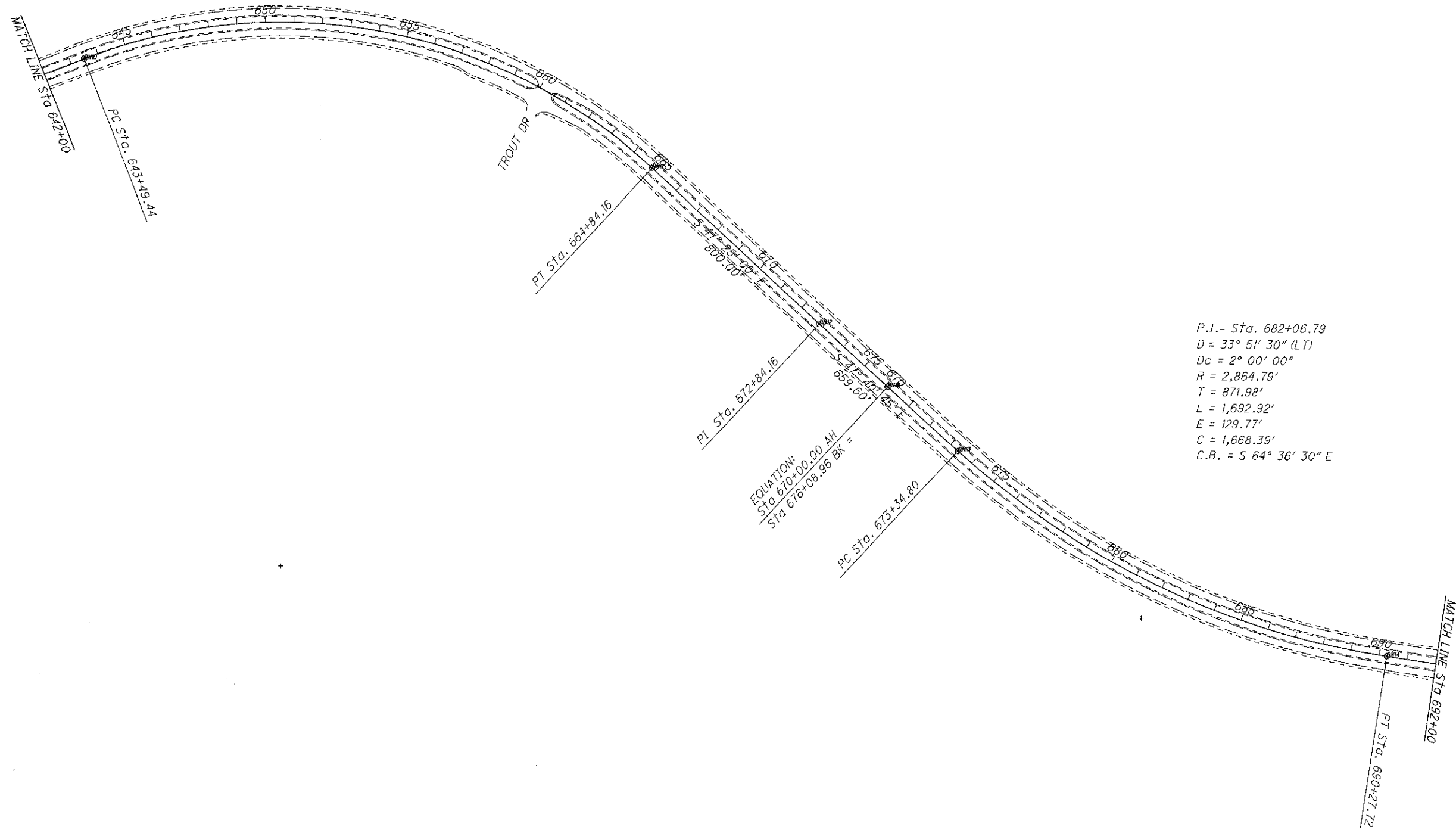
**SCHEMATIC / DESIGN DESIGNATION**

**RIC / ASD-30-13.18 / 0.00**  
**RIC-42-13.74**

P.I. = Sta. 655+43.82  
 D = 64° 02' 30" (RT)  
 Dc = 3° 00' 00"  
 R = 1,909.86'  
 T = 1,194.38'  
 L = 2,134.72'  
 E = 342.72'  
 C = 2,025.32'  
 C.B. = S 79° 26' 15" E

P.I. = Sta. 682+06.79  
 D = 33° 51' 30" (LT)  
 Dc = 2° 00' 00"  
 R = 2,864.79'  
 T = 871.98'  
 L = 1,692.92'  
 E = 129.77'  
 C = 1,668.39'  
 C.B. = S 64° 36' 30" E

EQUATION:  
 Sta 670+00.00 AN  
 Sta 676+08.96 BK =

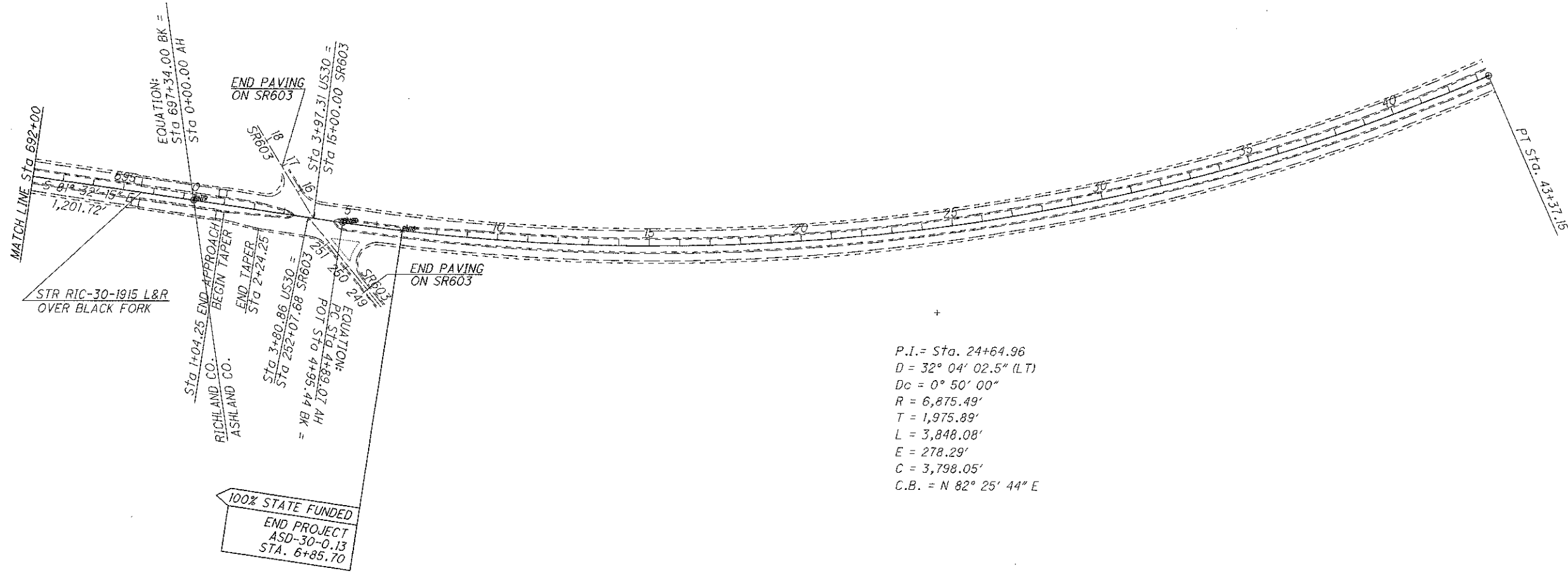


CALCULATED  
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 CHECKED  
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 SCALE IN FEET

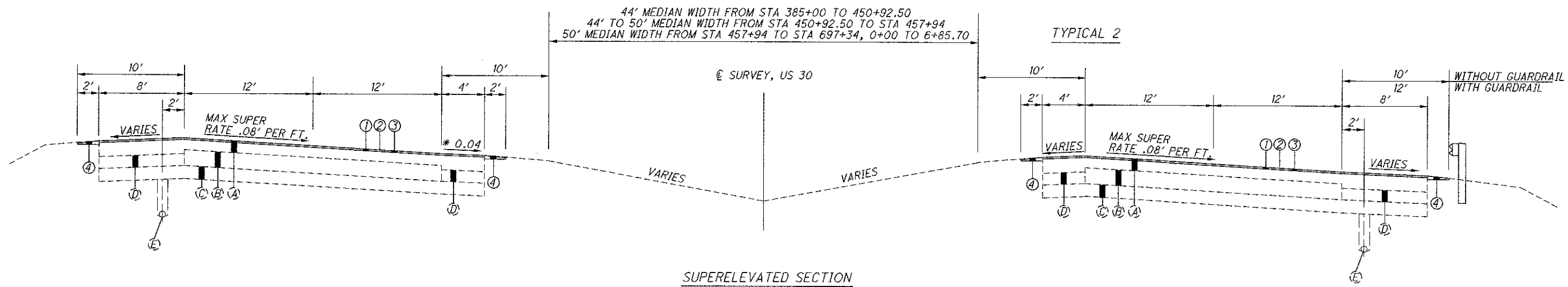
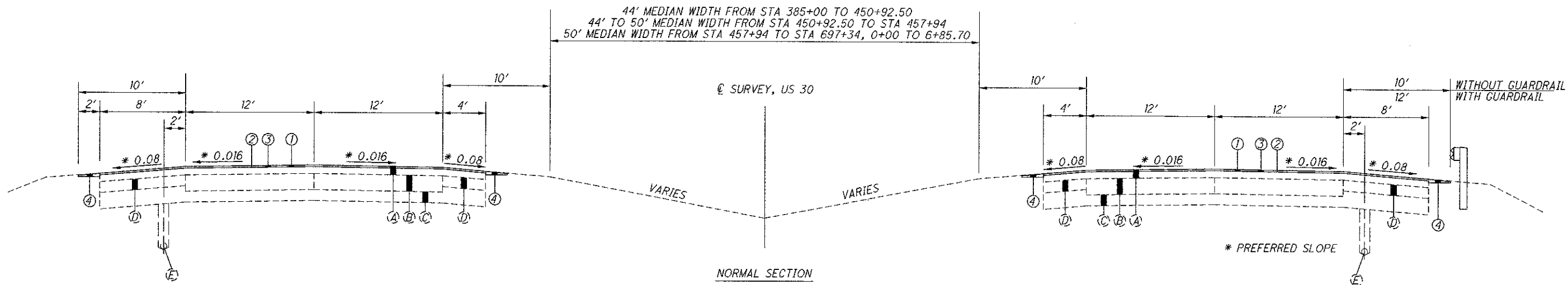
**SCHEMATIC / DESIGN DESIGNATION**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**



P.I. = Sta. 24+64.96  
 D = 32° 04' 02.5" (LT)  
 Dc = 0° 50' 00"  
 R = 6,875.49'  
 T = 1,975.89'  
 L = 3,848.08'  
 E = 278.29'  
 C = 3,798.05'  
 C.B. = N 82° 25' 44" E





**LEGEND - PROPOSED**

- ① 1.75" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 407 TACK COAT
- ③ 1.75" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ④ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

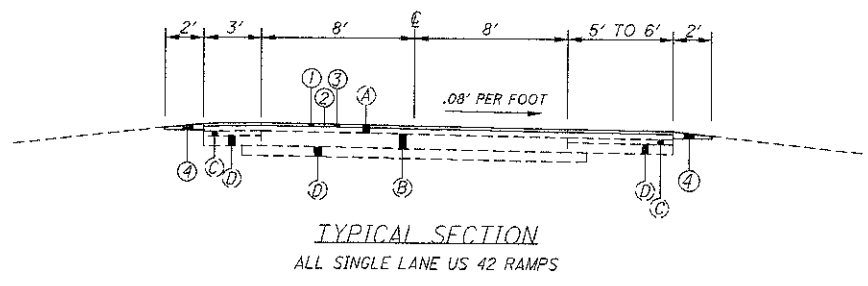
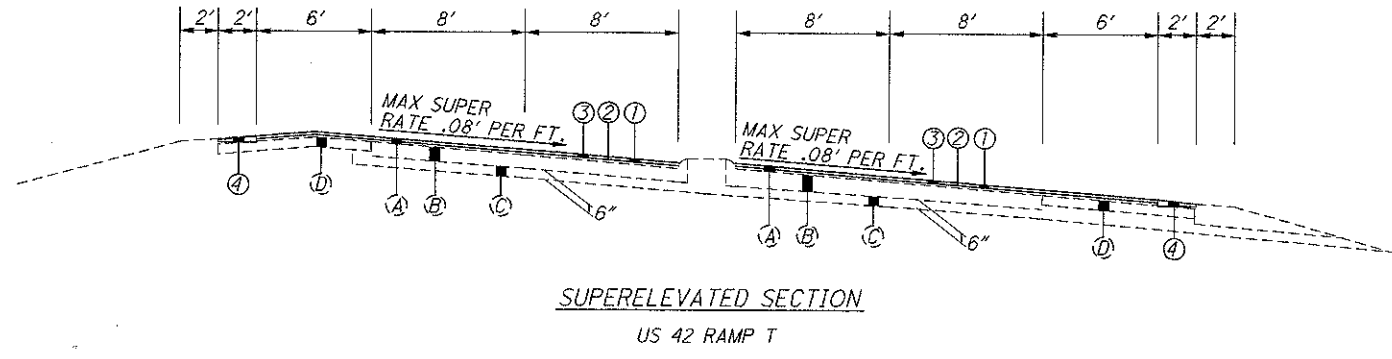
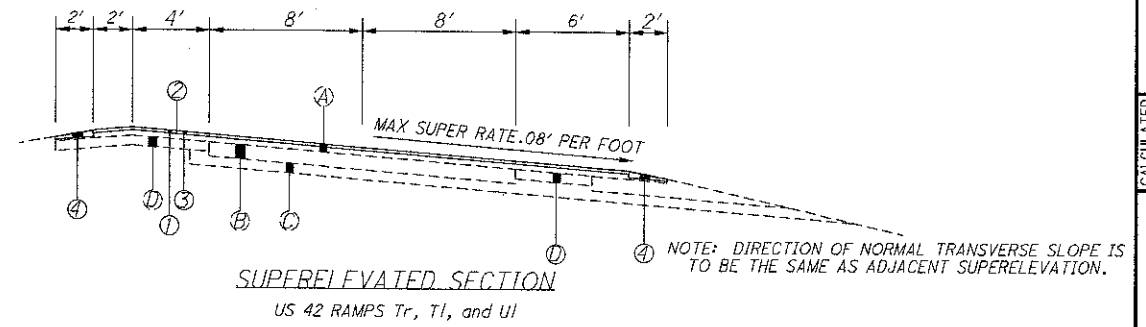
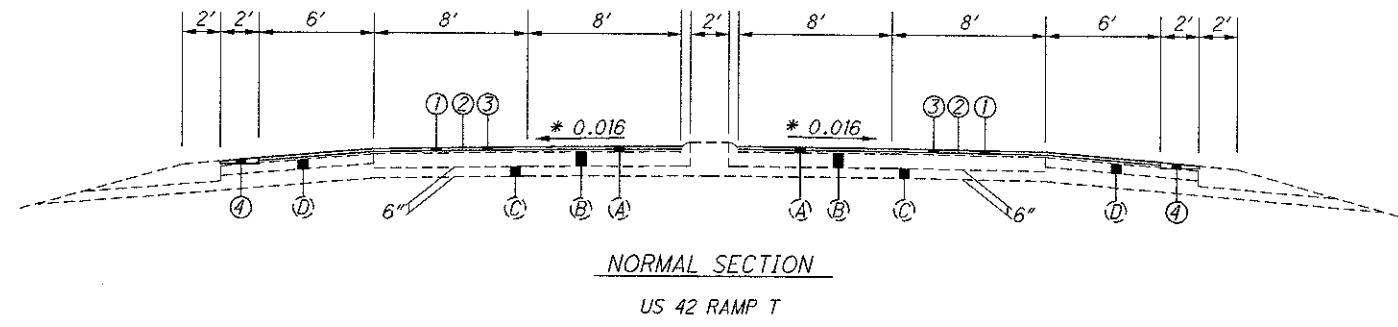
**LEGEND - EXISTING**

- Ⓐ EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- Ⓑ EXISTING 9" REINFORCED CONCRETE
- Ⓒ EXISTING VARIABLE DEPTH SUBBASE
- Ⓓ EXISTING VARIABLE DEPTH AGGREGATE BASE
- Ⓔ EXISTING UNDERDRAIN

NOTE:  
 SEE TYPICAL SECTION IN PAVING UNDER GUARDRAIL  
 IN THE GUARDRAIL GENERAL NOTES (SHEET XXX) FOR  
 TYPICAL SECTIONS WITH GUARDRAIL.

CALCULATED	KCK
CHECKED	MJS

DESIGN FILE: I:\projects\79352\roadway\sheets\79352GY001.dgn  
 WORKSTATION: Kknapp DATE: 7/12/2010 MODELNAME: Sheet



NOTE:  
 SEE TYPICAL SECTION IN PAVING UNDER GUARDRAIL  
 IN THE GUARDRAIL GENERAL NOTES (SHEET XXX) FOR  
 TYPICAL SECTIONS WITH GUARDRAILS.

- LEGEND - PROPOSED**
- ① 1.75" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
  - ② ITEM 407 TACK COAT
  - ③ 1.75" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
  - ④ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

- LEGEND - EXISTING**
- Ⓐ EXISTING ASPHALT CONCRETE VARIES,  
(SEE ASPHALT CONCRETE THICKNESS CHART ON THIS SHEET)
  - Ⓑ EXISTING 9" REINFORCED CONCRETE
  - Ⓒ EXISTING VARIABLE DEPTH SUBBASE
  - Ⓓ EXISTING 6" STABILIZED CRUSHED AGGREGATE
  - Ⓔ EXISTING BITUMINOUS AGGREGATE BASE

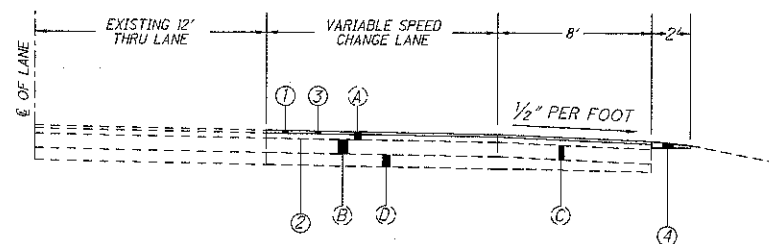
US42 RAMPS	
RAMP	EXISTING ASPHALT CONCRETE THICKNESS
T	5.25"
U (MID)	3.5"
UR	4.5"
UL	1.5"
A	UNKNOWN
B	UNKNOWN

CALCULATED  
 KCK  
 CHECKED  
 MJS

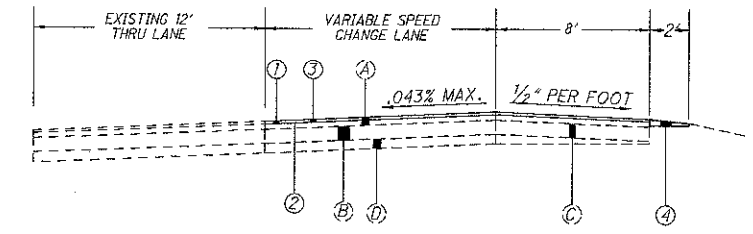
RAMP TYPICAL SECTIONS

RIC / ASD - 30-13.18 / 0.00  
 RIC - 30-13.74

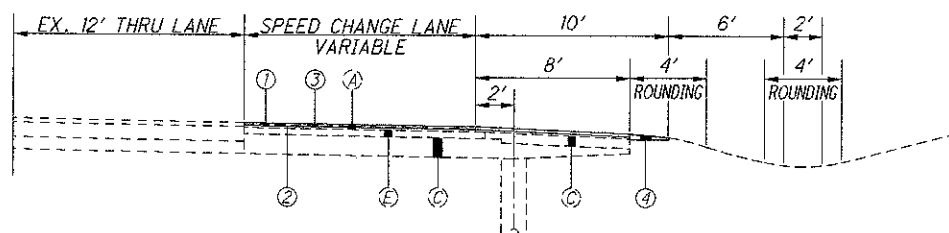
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 MODELNAME: Sheet  
 WORKSTATION: kknapp  
 DATE: 7/12/2010



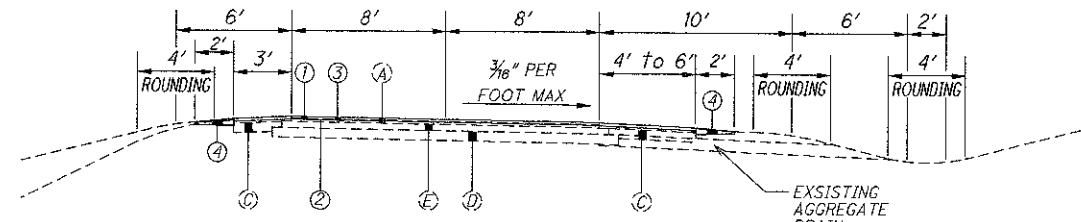
TYPICAL SECTION  
 SPEED CHANGE LANES (US42)  
 (ADJACENT TO US30)



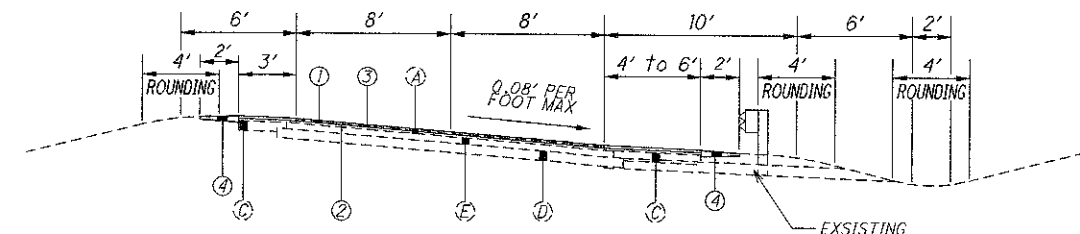
SUPERELEVATED SECTION  
 SPEED CHANGE LANES (US42)  
 (ADJACENT TO US30)



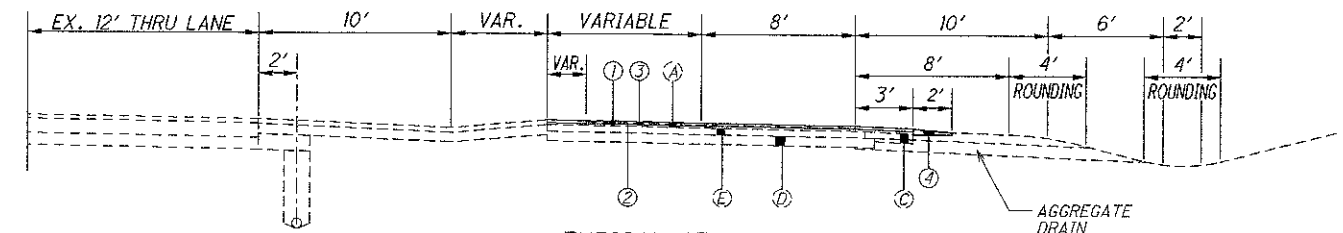
TYPICAL SECTION  
 LAVER ROAD SPEED CHANGE LANES  
 (ADJACENT TO US30)



TYPICAL SECTION  
 LAVER, REED, AND KOOGLE ROAD RAMP



SUPERELEVATED SECTION  
 LAVER, REED AND KOOGLE ROADS RAMP



TYPICAL SECTION  
 LAVER ROAD SPEED CHANGE LANES  
 (DETACHED FROM US30)

NOTE:  
 SEE TYPICAL SECTION IN PAVING UNDER GUARDRAIL  
 IN THE GUARDRAIL GENERAL NOTES (SHEET XXX) FOR  
 TYPICAL SECTIONS WITH GUARDRAIL.

LEGEND - PROPOSED

- ① 1.75" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 407 TACK COAT
- ③ 1.75" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
- ④ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

LEGEND - EXISTING

- Ⓐ EXISTING ASPHALT CONCRETE VARIES,  
 (SEE ASPHALT CONCRETE THICKNESS CHART ON THIS SHEET)
- Ⓑ EXISTING 9" REINFORCED CONCRETE
- Ⓒ EXISTING VARIABLE DEPTH SUBBASE
- Ⓓ EXISTING 6" STABILIZED CRUSHED AGGREGATE
- Ⓔ EXISTING BITUMINOUS AGGREGATE BASE

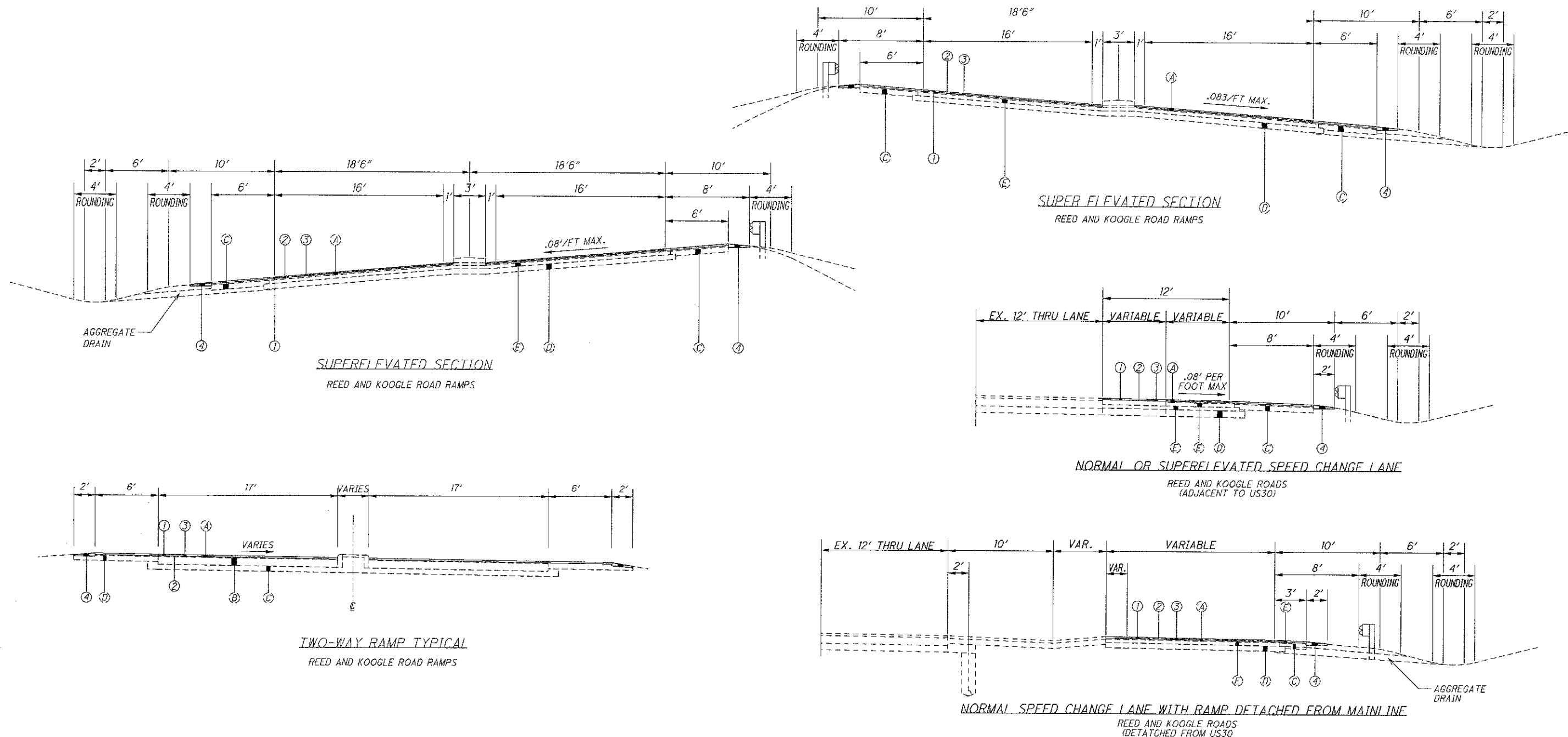
LAVER ROAD RAMP		REED ROAD RAMP	
RAMP	EXISTING ASPHALT CONCRETE THICKNESS	RAMP	EXISTING ASPHALT CONCRETE THICKNESS
A	3.5"	A	3.0"
B	5.5"	B	3.25"
C	3.5"	C	3.5"
D	3.5"	D	2.0"

CALCULATED  
 KCK  
 CHECKED  
 MJS

RAMP TYPICAL SECTIONS

RIC / ASD - 30-13.18 / 0.00  
 RIC - 30-13.74

DESIGN FILE: I:\projects\roadway\79352\roadway\79352\79352G\Y001.dgn  
 WORKSTATION:Kknopp DATE: 7/12/2010 MODELNAME: Sheet



NOTE:  
 SEE TYPICAL SECTION IN PAVING UNDER GUARDRAIL  
 IN THE GUARDRAIL GENERAL NOTES (SHEET XXX) FOR  
 TYPICAL SECTIONS WITH GUARDRAIL.

- LEGEND - PROPOSED**
- ① 1.75" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
  - ② ITEM 407 TACK COAT
  - ③ 1.75" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)
  - ④ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

- LEGEND - EXISTING**
- Ⓐ EXISTING ASPHALT CONCRETE VARIES,  
(SEE ASPHALT CONCRETE THICKNESS CHART ON THIS SHEET)
  - Ⓑ EXISTING 9" REINFORCED CONCRETE
  - Ⓒ EXISTING VARIABLE DEPTH SUBBASE
  - Ⓓ EXISTING 6" STABILIZED CRUSHED AGGREGATE
  - Ⓔ EXISTING BITUMINOUS AGGREGATE BASE

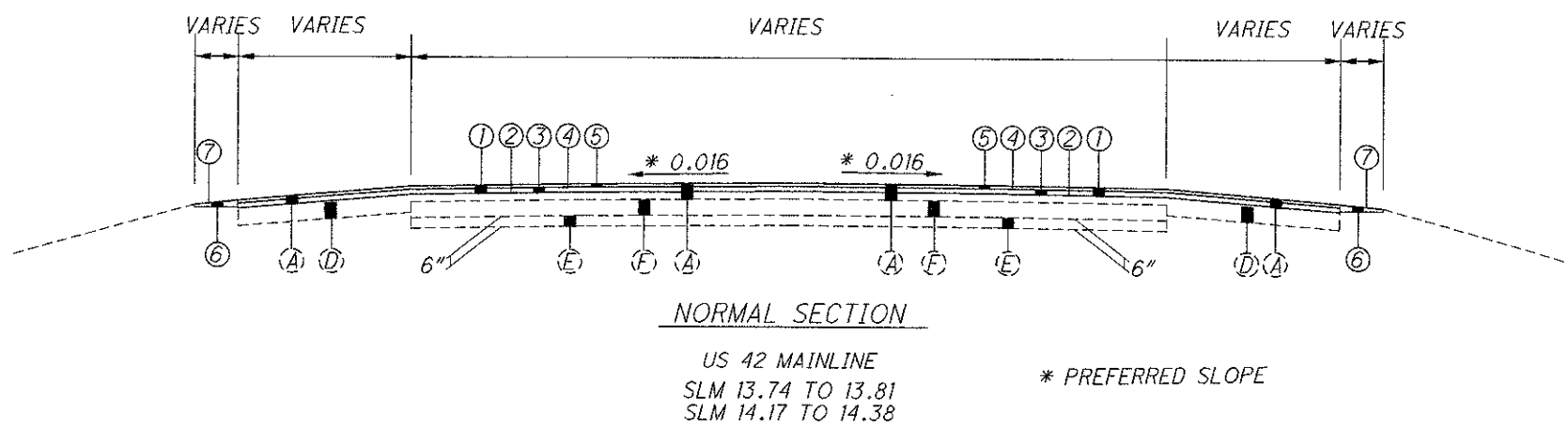
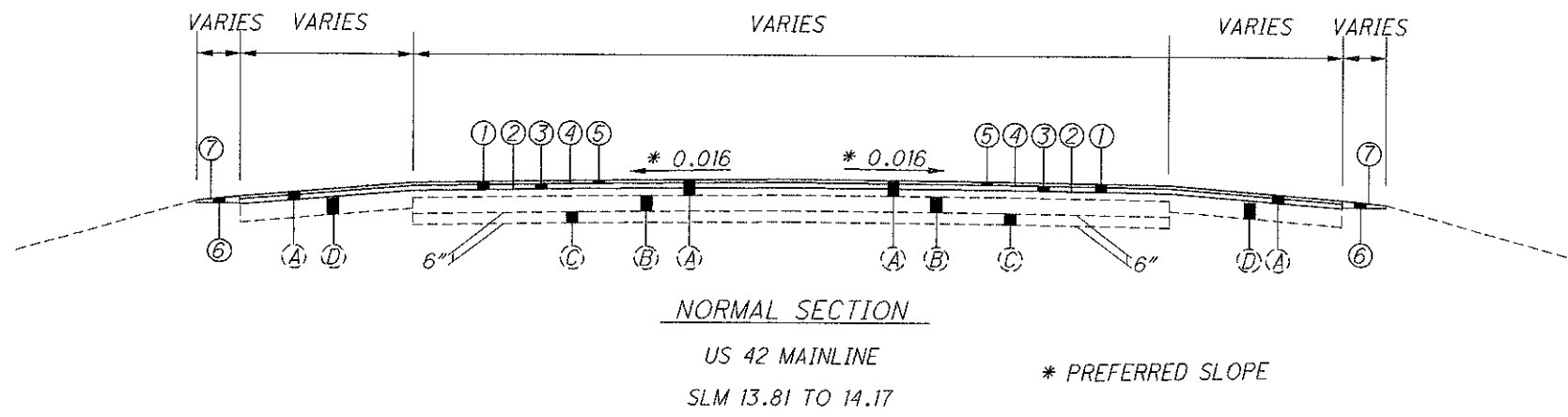
KOOGLE ROAD RAMPS	
RAMP	EXISTING ASPHALT CONCRETE THICKNESS
A	3.0"
B	2.0"
C	1.5"
D	2.25"

CALCULATED  
 KCK  
 CHECKED  
 MJS

RAMP TYPICAL SECTIONS

RIC / ASD-30-13.18 / 0.00  
 RIC-30-13.74

DESIGN FILE: i:\projects\roadway\sheets\79352GY001.dgn  
 WORKSTATION: mschafra DATE: 10/1/2010 MODELNAME: Sheet



**LEGEND - PROPOSED**

- ① 2.75" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 407 TACK COAT
- ③ 1.50" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN
- ④ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑤ 1.25" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN
- ⑥ ITEM 617 COMPACTED AGGREGATE, AS PER PLAN
- ⑦ ITEM 408 PRIME COAT

**LEGEND - EXISTING**

- Ⓐ EXISTING ASPHALT CONCRETE VARIES
- Ⓑ EXISTING 9" REINFORCED CONCRETE
- Ⓒ EXISTING VARIABLE DEPTH SUBBASE
- Ⓓ EXISTING BITUMINOUS AGGREGATE BASE
- Ⓔ EXISTING BRICK
- Ⓕ EXISTING PLAIN CONCRETE

CALCULATED	MJS
CHECKED	ADB

**TYPICAL SECTION US42**

**RIC / ASD-30-13.18 / 0.00**  
**RIC-30-13.74**

**GENERAL ITEMS**

**PROGRESSION OF WORK**

GUARDRAIL SHALL BE REMOVED PRIOR TO ANY EMBANKMENT WORK AT THE GUARDRAIL RUN. GUARDRAIL WORK SHALL BE DONE AFTER RESURFACING AND BERM WORK SO AS TO ESTABLISH PROPER GRADES FROM WHICH TO CONSTRUCT THE RAIL.

**ROUTINE MAINTENANCE**

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CABLE T.V.  
TIME WARNER  
1575 LEXINGTON AVE.  
MANSFIELD, OHIO 44901  
419-756-6091 EXT 5136

TELEPHONE  
VERIZON  
1534 SR511 SOUTH  
ASHLAND, OHIO 44805  
419-282-6551

TELEPHONE  
CENTURYLINK  
175 ASHLAND ROAD  
MANSFIELD, OHIO 44907  
419-755-7956

ODOT  
306 N. CLARK ST.  
ASHLAND, OHIO 44805  
419 281-0513

CITY OF MANSFIELD  
30 N. DIAMOND STREET  
MANSFIELD, OHIO 44902  
419 755-9702

WATER  
OHIO AMERICAN WATER  
5481 BUENOS AIRES BLVD.  
WESTERVILLE, OHIO 43081  
614-882-6586

WATER  
AQUA OHIO  
877-987-2782

GAS  
COLUMBIA GAS OF OHIO  
1120 W. 4TH ST  
MANSFIELD, OHIO 44906  
419-528-1137

GAS  
COLUMBIA GAS TRANSMISSION  
589 NORTH STATE ROAD  
MEDINA, OHIO 44256  
330-721-4163

ELECTRIC  
OHIO EDISON  
1717 ASHLAND ROAD  
MANSFIELD, OHIO 44905  
419-521-6233

ELECTRIC  
FIRELANDS ELECTRIC  
ONE ENERGY PLACE  
NEW LONDON, OHIO 44851  
419-929-1571

WATER  
MADISON WATER DISTRICT  
489 INDIANA AVE.  
MANSFIELD, OHIO 44905

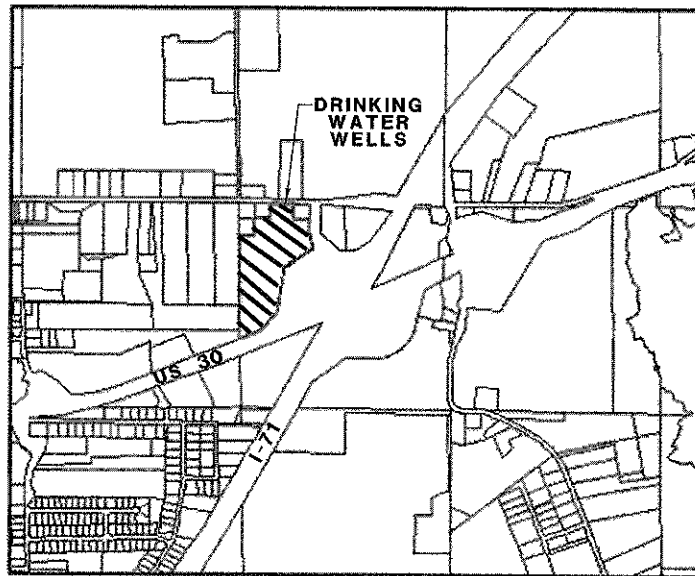
WASTE WATER  
RICHLAND COUNTY SANITARY ENGINEER  
50 PARK AVE. EAST  
MANSFIELD, OHIO 44902  
419-774-3548

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

**DRINKING WATER PROTECTION**

THIS PROJECT IS LOCATED IN OR NEAR THE SOURCE OF A PUBLIC DRINKING WATER SUPPLY. IN ORDER TO MINIMIZE THE POTENTIAL TO CONTAMINATE THIS WATER SUPPLY, PROJECT RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL NOT BE PERFORMED FROM STA. 555+00 TO STA. 590+00 ON US30. THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. ANY SUCH SPILL OR EVENTS SHALL BE REPORTED IMMEDIATELY TO LARRY MEEGAN OF MADISON TOWNSHIP WATER DISTRICT AT 419-886-4716. IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHOULD CONTACT A LOCAL HAZARDOUS MATERIAL RESPONSE TEAM FOR CLEAN UP OF THE SPILL.

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2692 CRIDER RD BOARD OF TRUSTEES OF



**DRAINAGE ITEMS**

**ITEM 604 - CASTINGS ADJUSTED TO GRADE**

THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT FRAMES.

**HEADWALL AND PIPE REMOVAL AND REPLACEMENT**

THERE IS AN EROSION PROBLEM IN THE MEDIAN ON US30 AT THE EAST END OF STRUCTURES RIC-30-1915 L&R. THE FULL HEIGHT HEADWALL AND CONNECTING 12" CONCRETE PIPE HAS SEPARATED FROM THE REMAINING 12" PIPE. THE CONTRACTOR IS REQUIRED TO REMOVE THE HEADWALL AND 6 FT OF CONNECTING 12" CONCRETE PIPE AND REPLACE WITH 6 FT OF 12" CONCRETE PIPE AND A NEW HALF HEIGHT HEADWALL. THE CONNECTION BETWEEN THE PIPES SHALL HAVE A MASONRY COLLAR. EMBANKMENT WILL BE NEEDED TO RE-ESTABLISH A SOLID FOUNDATION TO PLACE THE HEADWALL AND PIPE. ROCK CHANNEL PROTECTION WITH AGGREGATE FILTER WILL BE NEEDED AT THE OUTLET. ROCK CHANNEL PROTECTION SHALL BE A MINIMUM OF 4 FT WIDE AND 18" THICK. THE FOLLOWING QUANTITIES ARE TO BE USED FOR THIS WORK:

ITEM 202 HEADWALL REMOVED	1 EACH
ITEM 202 PIPE REMOVED, 24" AND UNDER	6 FT
ITEM 203 EMBANKMENT, AS PER PLAN	15 CU YD
ITEM 601 ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER	7 CU YD
ITEM 602 CONCRETE MASONRY	0.20 CU YD
ITEM 603 12" CONDUIT, TYPE C, 706.01 OR 706.02	6 FT

**ROADWAY ITEMS**

**ITEM 209 - LINEAR GRADING**

THE CONTRACTOR IS REQUIRED TO PERFORM LINEAR GRADING ON THE GRADED SHOULDER. IT IS ANTICIPATED THAT THERE ARE AREAS WHERE THE GRADED SHOULDER IS AT A HIGHER ELEVATION THAN THE ADJACENT PROPOSED PAVEMENT. A 10:1 SLOPE SHALL BE ESTABLISHED, OR AS DIRECTED BY THE ENGINEER, WHEN PERFORMING ITEM 209 LINEAR GRADING. THE INTENT IS TO PROVIDE AN UNOBSTRUCTED AND POSITIVE FLOW OF STORM WATER FROM THE PAVEMENT TO THE DITCH. THE LINEAR GRADING SHALL BE PERFORMED AFTER THE PAVEMENT PLANING HAS BEEN COMPLETED AND BEFORE THE SURFACE COURSE IS PLACED. ALL LABOR AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER MILE FOR ITEM 209 LINEAR GRADING.

**PAVEMENT ITEMS**

**ITEM 253. PAVEMENT REPAIR, MISC.: PARTIAL DEPTH**

THIS ITEM OF WORK SHALL BE PERFORMED AFTER THE ITEM 254 PAVEMENT PLANING. THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF THE EXISTING REMAINING ASPHALT CONCRETE ON TOP OF THE CONCRETE PAVEMENT, IN AREAS OF EXISTING ASPHALT CONCRETE PAVEMENT FAILURE. THIS PAY ITEM IS NOT TO BE USED WHERE ITEM 255 CONCRETE REPAIRS WILL BE DONE. THESE REPAIRS ARE ESTIMATED TO BE MOSTLY TRANSVERSE REPAIRS, NOT LONGITUDINAL REPAIRS.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. THE REPAIR AREAS SHALL BE SAW CUT AND EXCAVATED TO PROVIDE STRAIGHT AND VERTICAL SURFACES AROUND THE PERIMETER OF THE REPAIR AREA. PAVEMENT PLANING MAY BE USED AS AN ALTERNATIVE TO SAW CUTTING AND EXCAVATING. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE ADJACENT PAVEMENT. THE MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17.

THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PARTIAL DEPTH PAVEMENT REPAIRS 2 FEET WIDE.

REPLACEMENT MATERIAL SHALL BE ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN OR ITEM 448 TYPE 2 MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 448 TYPE 2 CAN BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 1.5" AND 5" WITH A MAXIMUM PAVEMENT LIFT OF 3". THE CONTRACTOR HAS THE OPTION OF USING EITHER ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN OR ITEM 448 TYPE 2 MATERIAL WHEN THE PAVEMENT REPAIR IS BETWEEN 3" AND 5" DEEP. ITEM 448 TYPE 2 MATERIAL SHALL BE PG64-22 FOR MEDIUM MIX DESIGN PAVEMENTS AND PG64-28 FOR HEAVY MIX DESIGN PAVEMENTS. ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE CLEANED AND COATED PER CMS 401.14, USING AN ASPHALT MATERIAL COMPLYING WITH 407.02. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PARTIAL DEPTH PAVEMENT REPAIR. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM 253 PAVEMENT REPAIR, MISC.: PARTIAL DEPTH.

**ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN**

**ITEM 302 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN**

ITEM 301 ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN SHALL BE USED FOR ASPHALT CONCRETE REPLACEMENT ABOVE RIGID REPAIRS (MAINLINE AND RAMPS), AND FOR PARTIAL DEPTH REPAIRS. ITEM 302 SHALL BE USED AT THE PAVEMENT REPLACEMENT SECTIONS AT THE BRIDGE APPROACHES.

ON THIS PROJECT ITEM 301 AND 302 COARSE AGGREGATE SHALL HAVE A TWO FACE CRUSH COUNT OF 75% PER ASTM D 5821. MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT WILL BE 30%. ENSURE THAT A MINIMUM OF 50% OF THE VIRGIN FINE AGGREGATE USED IN THE ITEM 301 AND 302 IS SAND MANUFACTURED FROM STONE OR AIR COOLED SLAG.

ITEM 301, ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN AND ITEM 302 ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH ITEM 301 AND 302 SHALL BE CLEANED AND COATED PER CMS 401.14, USING AN ASPHALT MATERIAL COMPLYING WITH 407.02. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

ALL OF THE ABOVE COSTS SHALL BE INCLUDED IN ITEM 301 ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN (CU YD) AND ITEM 302 ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN (CU YD).

GENERAL NOTES

RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74

**ITEM SPECIAL, BERM REPAIR, FLEXIBLE**

THIS ITEM OF WORK SHALL BE PERFORMED AFTER THE ITEM 254 PAVEMENT PLANING. THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF THE ASPHALT CONCRETE PAVED SHOULDERS, IN AREAS OF EXISTING ASPHALT CONCRETE PAVEMENT FAILURE. THESE REPAIRS ARE ESTIMATED TO BE MOSTLY LONGITUDINAL REPAIRS, NOT TRANSVERSE REPAIRS. SEE THE PAVEMENT REPAIR QUANTITY SHEET FOR LOCATIONS AND DEPTHS.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED. THE REPAIR AREAS SHALL BE SAW CUT AND EXCAVATED TO PROVIDE STRAIGHT AND VERTICAL SURFACES AROUND THE PERIMETER OF THE REPAIR AREA. PAVEMENT PLANING MAY BE USED AS AN ALTERNATIVE TO SAW CUTTING AND EXCAVATING. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE ADJACENT PAVEMENT. THE MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 105.16 AND 105.17.

THE CONTRACTOR SHALL BE CAPABLE OF PERFORMING PAVEMENT REPAIRS 2 FEET WIDE.

REPLACEMENT MATERIAL SHALL BE ITEM 301, AS PER PLAN OR ITEM 448 TYPE 2 MATERIAL AND SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT PAVEMENT SURFACE. ITEM 301 ASPHALT CONCRETE, PG64-22 SHALL BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 3" AND 12" WITH A MAXIMUM PAVEMENT LIFT OF 6". ITEM 448 TYPE 2 SHALL BE USED WHEN THE DEPTH OF THE REPAIR IS BETWEEN 0" AND 5" WITH A MAXIMUM PAVEMENT LIFT OF 3". THE CONTRACTOR HAS THE OPTION OF USING EITHER ITEM 301 OR ITEM 448 TYPE 2 MATERIAL WHEN THE PAVEMENT REPAIR IS BETWEEN 3" AND 5" DEEP. ITEM 448 TYPE 2 MATERIAL SHALL BE PG64-28 FOR HEAVY MIX DESIGN PAVEMENTS. ALL EXISTING PAVEMENT AREAS WHICH WILL BE IN CONTACT WITH THE PAVEMENT REPAIR SHALL BE CLEANED AND COATED PER CMS 401.14, USING AN ASPHALT MATERIAL COMPLYING WITH 407.02. ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. PAYMENT WILL BE MADE AT THE UNIT BID PRICE PER CUBIC YARD, (BY TICKET WEIGHT CONVERSION), OF ITEM SPECIAL BERM REPAIR, FLEXIBLE.

**ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (1.75')**

**ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (2.75')**

THE INTENT OF THE PLANING IS TO MILL THE DEPTH AS SHOWN IN THE PLANS AT THE CENTER OF PAVEMENT. THE PAVEMENT SLOPE SHALL BE 0.016 PREFERRED, AS PER THE TYPICAL SECTIONS (NORMAL SECTIONS).

SPECIAL ATTENTION SHALL BE GIVEN TO SUPER-ELEVATED CURVES. THE SUPER-ELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE INTO ALL CATCH BASINS AND INLETS.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANNED ROADWAY SURFACE MORE THAN FIVE (5) CALENDAR DAYS. THE 5 CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 5 DAYS THAT NORMAL TRAFFIC IS RUNNING OVER THE PLANNED SURFACE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07.

**ITEM 254 PATCHING PLANED SURFACE**

AN ESTIMATED QUANTITY OF ITEM 254, PATCHING PLANED SURFACE HAS BEEN SET UP TO BE USED AS DIRECTED BY THE ENGINEER AS DESCRIBED IN CMS 254.04. THE LIMIT OF THE PATCHING DEPTH IS 0 TO 2 IN.

**ITEM 407, TACK COAT**

**ITEM 407, TACK COAT FOR INTERMEDIATE COURSE**

AS PER 407.06 THE APPLICATION RATES SHALL BE 0.10 GAL. PER SQ. YD. PRIOR TO THE INTERMEDIATE COURSE AND SHALL BE 0.05 GAL PER SQ. YD. PRIOR TO THE SURFACE COURSE FOR ESTIMATING PURPOSES ONLY. THE RATE OF APPLICATION SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. A COMPLETE PAVEMENT SURFACE COVERAGE SHALL BE REQUIRED. AREAS OF TACK STRIPPED BY CONSTRUCTION EQUIPMENT OR TRAFFIC SHALL BE RE-COATED PRIOR TO PLACING ASPHALT CONCRETE. ALL COSTS AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER GALLON FOR ITEM 407, TACK COAT AND ITEM 407 TACK COAT FOR INTERMEDIATE COURSE.

**ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)**

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W-8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING INTERCHANGES, ETC.

**ITEM 442, ASPHALT CONCRETE SURFACE COURSE, 9.5 MM, TYPE A (446), AS PER PLAN**

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W-8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:  
MIX DESIGN: FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS. MINIMUM TOTAL PG BINDER CONTENT IS 6.0 PERCENT.  
USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 20 PERCENT.  
WHEN AN AGGREGATE SOURCE IS SPECIALLY DESIGNATED WITH AN SR ON THE AGGREGATE GRAVITY LIST DO NOT USE THE AGGREGATE EXCEPT AS ALLOWED FOR MEDIUM TRAFFIC IN THE GUIDELINES FOR MAINTAINING ADEQUATE PAVEMENT FRICTION IN SURFACE PAVEMENT.  
QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

**ITEM 442, ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448), AS PER PLAN**

THIS ITEM SHALL BE USED FOR CORRECTION OF CROWN, PROFILE AND ANY OTHER IRREGULARITIES.

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W-8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:  
MIX DESIGN: FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS. USE A PG 64-22 BINDER.  
MAXIMUM RECLAIMED ASPHALT CONCRETE PAVEMENT IS 30 PERCENT.  
DO NOT APPLY TABLE 442.02-1 EXCEPT SAND EQUIVALENT OF 45 APPLIES.  
APPLY 703.05 FOR COARSE AND FINE AGGREGATE EXCEPT GRADATION FOR FINE AGGREGATE DOES NOT APPLY.  
QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

**ITEM 617, COMPACTED AGGREGATE, AS PER PLAN**

THIS ITEM OF WORK SHALL CONFORM TO ITEM 617 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK WITH EXCEPTION OF 617.02 (MATERIALS).

THE MATERIAL ON THIS PROJECT SHALL BE ASPHALT CONCRETE GRINDINGS. THE GRINDINGS USED FOR THIS WORK ARE TO BE PLACED AND COMPACTED AS DESCRIBED IN 617.05 WITH SPECIAL CARE TO CREATE PROPER COMPACTION. 100% OF THIS MATERIAL SHALL PASS A 1.5 INCH SIEVE. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO MEET THE TYPICAL SECTIONS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR IS REQUIRED TO APPLY THE ITEM 408 PRIME COAT WITHIN 5 CALENDAR DAYS OF PLACING THE COMPACTED AGGREGATE, AS PER PLAN.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER CU. YD. OF ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

**PAVEMENT CORING INFORMATION**

BELOW IS PAVEMENT CORING INFORMATION TO HELP DETERMINE THE EXISTING PAVEMENT COMPOSITION.

ROUTE	COUNTY	SLM	LANE	ASPHALT (IN.)	CONCRETE (IN.)	DIRECTION
30	RIC	15.00	Inside	8.00	8.75	EB
30	RIC	15.00	Outside	7.25	8.75	EB
30	RIC	15.00	Outside Shoulder	10.00		EB
30	RIC	16.75	Inside	6.50	9.50	EB
30	RIC	16.75	Outside	7.50	8.50	EB
30	RIC	16.75	Outside Shoulder	10.00		EB
30	RIC	18.50	Inside	7.50	8.25	EB
30	RIC	18.50	Outside	7.00	8.25	EB
30	RIC	18.50	Outside Shoulder	12.50		EB
30	RIC	13.50	Outside Shoulder	12.50		WB
30	RIC	13.50	Inside Shoulder	12.50		WB
30	RIC	15.00	Inside	10.00	9.00	WB
30	RIC	15.00	Outside	9.00	9.00	WB
30	RIC	15.00	Outside Shoulder	12.50		WB
30	RIC	16.75	Inside	10.00	9.00	WB
30	RIC	16.75	Outside	9.00	9.00	WB
30	RIC	16.75	Inside Shoulder	8.00		WB
30	RIC	18.50	Inside	7.25	9.00	WB
30	RIC	18.50	Outside	6.50	8.75	WB
30	RIC	18.50	Outside Shoulder	8.00		WB

**ITEM 255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN**

ITEM 255 SHALL BE PERFORMED AFTER THE ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE.

IN ORDER TO COMPLY WITH REQUIREMENTS OF STANDARD DRAWING MT 101.90 FOR USING DRUMS, THE CONTRACTOR MAY BE REQUIRED TO REPLACE THE 9 INCH CONCRETE PAVEMENT WITH POSSIBLY MORE THAN 9 INCHES OF CONCRETE SO THE TOP OF THE CONCRETE REPAIR IS NOT MORE THAN 5 INCHES FROM THE PLANNED SURFACE BY THE END OF THE WORK SHIFT.

**TRAFFIC CONTROL**

**ITEM SPECIAL - AIR SPEED ZONE MARKING**

THIS ITEM IS TO MEET CMS 644. THE SPEED MEASUREMENT MARKINGS ARE TO BE WHITE AND 24 INCHES WIDE (MEASURED IN THE DIRECTION OF TRAVEL) AND FOUR (4) FEET IN LENGTH.

PLACE THE MARKINGS AT 0.25 MILE INTERVALS OVER A ONE (1) MILE LENGTH OF ROADWAY ENTIRELY ON THE PAVED SHOULDERS. THE ZONE IS TO START AT RIC-30-15.00 EB AND END AT RIC-30-16.00 EB. THE SECOND AIR SPEED ZONE MARKING IS TO START AT RIC-30-18.07 WB AND END AT RIC-30-19.07 WB.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A STATE OF OHIO REGISTERED SURVEYOR. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT 3 TRAFFIC ENGINEER AND ONE COPY FOR THE DISTRICT CONSTRUCTION ENGINEER.

MEASUREMENT AND PAYMENT: THE FIVE (5) MARKINGS PLACED ON EACH OF THE TWO SHOULDERS IN EACH 1 MILE OF ROADWAY PER EACH DIRECTION OF TRAVEL EQUAL ONE ZONE. ONE ZONE WILL BE MEASURED AS 1 EACH. PAYMENT FOR ALL MATERIALS, LABOR, EQUIPMENT AND SURVEYING FOR ACCEPTED WORK IS TO BE INCLUDED PER EACH IN ITEM SPECIAL, AIR SPEED ZONE MARKING.

DESIGN FILE: \\projects\79352\roadway\sheet\79352GN001.dgn  
WORKSTATION: mschfr  
MODEL NAME: Sheet  
DATE: 10/4/2010

GENERAL NOTES

RIC / ASD - 30-13.18 / 0.00  
RIC - 42-13.74

**BUTT JOINTS**

BUTT JOINTS SHALL NOT BE CUT AND LEFT OPEN TO TRAFFIC. THEY SHALL BE FILLED IN WITH A TEMPORARY ASPHALT CONCRETE WEDGE USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

CONSTRUCTION "BUMP" (W8-1-36) AND "ADVISORY SPEED" (W13-1-24) SIGNS SHALL BE ERECTED AND MAINTAINED DURING THE PERIOD THE BUTT JOINT IS LEFT OPEN. THESE SIGNS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM FOR ITEM 614 MAINTAINING TRAFFIC.

**ITEM 614. ASPHALT CONCRETE FOR MAINTAINING TRAFFIC**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO CONSTRUCT A TEMPORARY ASPHALT WEDGE FROM THE EXISTING PAVEMENT TO THE PLANED SURFACE AT THE END OF RAMPS, APPROACH SLABS, BRIDGE DECKS AND AT OTHER LOCATIONS THAT RESULT IN A DROP-OFF IN EXCESS OF 1.5 INCHES. THIS QUANTITY SHALL ALSO BE USED AT PLANED SURFACES WHERE A TEMPORARY ASPHALT WEDGE IS NEEDED AROUND CASTINGS. BEFORE RESURFACING OF THE PAVEMENT, THE TEMPORARY WEDGE SHALL BE REMOVED AND THE COST SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 100 CU YD

**ITEM 614. MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS)**

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS:

CHRISTMAS FOURTH OF JULY  
NEW YEARS LABOR DAY  
MEMORIAL DAY THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF THE TIME ALL LANES MUST  
WEEK BE OPEN TO TRAFFIC

SUNDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY  
MONDAY 12:00N FRIDAY THROUGH 6:00 AM TUESDAY  
TUESDAY 12:00N MONDAY THROUGH 6:00 AM WEDNESDAY  
WEDNESDAY 12:00N TUESDAY THROUGH 6:00 AM THURSDAY  
THURSDAY 12:00N WEDNESDAY THROUGH 6:00 AM MONDAY  
FRIDAY 12:00N THURSDAY THROUGH 6:00 AM MONDAY  
SATURDAY 12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

**ITEM 614. WORK ZONE MARKING SIGN**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, 614.04.

US 42 WORK ZONE MARKING SIGN: (W8-H13-36) NO EDGE LINE = 4 EACH  
US 30 WORK ZONE MARKING SIGN: (W8-H13-36) NO EDGE LINE = 31 EACH

**ITEM 614. MAINTAINING TRAFFIC**

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHEN THEY ARE NOT APPLICABLE, WITH THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL NOT HAVE A WORK ZONE SETUP LONGER THAN 3 MILES IN LENGTH.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE ODOTCD, AND SUCH FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

ALL MAINTENANCE OF TRAFFIC SIGNS ARE PAID UNDER ITEM 614 MAINTAINING TRAFFIC.

**ITEM 614. MAINTAINING TRAFFIC: GENERAL**

AS A MINIMUM, ONE 11' LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON US30. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, PLAN DETAILS, STANDARD DRAWINGS, AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED ON THIS PLAN.

THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY: THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL.

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PAVEMENT THROUGHOUT THE PROJECT UNDER ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC DURING THE PERIOD FROM THE START OF WORK TO THE COMPLETION OF ALL WORK.

**ESTIMATED QUANTITIES - MAINTENANCE OF TRAFFIC**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR MAINTENANCE OF TRAFFIC.

ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 50 CU YD

**WORK OPERATIONS**

IN ADDITION TO THE REQUIREMENTS OF SECTION 614 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAVEL WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. AMBER LIGHT SHALL BE VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF 0.25 MILE.

THE CONTRACTOR SHALL ARRANGE CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO THE CLOSED LANES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE CONTRACTOR IS PERMITTED TO WORK AT NIGHT. FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO INSURE THE ADEQUACY OF THE FLOODLIGHTING PLACEMENT PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY A MIN. OF 6 FT BEHIND GUARDRAIL OR 30 FT FROM THE NEAREST EDGE OF PAVEMENT WHEN VARIOUS OPERATIONS ARE SCHEDULED TO CONTINUE THE NEXT WORKDAY. ON WEEKENDS OR AT OTHER TIMES OF SUSPENSION OF WORK, THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE OF THE ROADWAY RIGHT-OF-WAY. THE LOCATION SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA.

**ALTERNATE METHODS**

IF THE CONTRACTOR SO ELECTS, THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PUT INTO EFFECT UNTIL THE APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE ENGINEER.

**MAINTENANCE OF TRAFFIC SCHEME**

THE CONTRACTOR SHALL SCHEDULE THEIR WORK AND METHODS IN ORDER TO MEET THE INTENT OF THE PLANS. THE PAVEMENT SURFACES TO BE USED BY THE TRAVELING PUBLIC SHALL BE ABLE TO DRAIN FREELY. ALL COSTS TO MAINTAIN THE ROADWAY AS PER THE CONSTRUCTION AND MATERIALS SPECIFICATIONS AND THE PLANS SHALL BE INCLUDED IN ITEM 614 LUMP SUM MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

**614 WORK ZONE INCREASED PENALTIES SIGN**

R11-H5a SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE SIGNS SHALL BE DUAL MOUNTED ON THE MAINLINE US30 AND PLACED PER STANDARD CONSTRUCTION DRAWING MT-95.50.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT BID PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614, WORK ZONE INCREASED PENALTIES SIGN 31 EACH

**ITEM 614. REPLACEMENT DRUM**

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

**ITEM 614. REPLACEMENT SIGN**

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED, BUT GOOD, CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 5 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.



**614 WORK ZONE SPEED LIMIT SIGN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT SIGNS (50 MPH) AND SUPPORTS (R2-1) WITHIN THE WORK LIMITS OF THIS PROJECT ON US30.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED LIMIT SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED LIMIT SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

SPEED REDUCTION SIGNS (W3-5) SHALL BE ERECTED IN ADVANCE OF THE SPEED REDUCTION AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-95.50. A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE, TYPICALLY AT THE POINT WHERE ROADWAY AND SHOULDER WIDTHS RETURN TO NORMAL. ON DIVIDED HIGHWAYS WHERE THE SPEED LIMIT VARIES BY VEHICLE TYPE, THE R2-1 (SPEED LIMIT) SIGN AND THE R2-H2a (TRUCK SPEED LIMIT) SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS. THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF CMS 730.19.

THE WORK ZONE SPEED LIMIT SIGNS SHALL BE DUAL MOUNTED ON THE MAINLINE, BE MOUNTED ON TWO (2) ITEM 630 GROUND MOUNTED SUPPORTS, NO. 3 POSTS, AND PLACED PER STANDARD CONSTRUCTION DRAWING MT-95.50.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT BID PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING OF THE SIGNS AND SUPPORTS. SPEED LIMIT SIGNING FOR THE POINT OF RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE PAID FOR AS WORK ZONE SPEED LIMIT SIGNS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

614	WORK ZONE SPEED LIMIT SIGN	65	EACH
614	SPEED ZONE AHEAD SYMBOL SIGN	8	EACH

**CONSTRUCTION EQUIPMENT MEDIAN CROSSING**

CONSTRUCTION EQUIPMENT SHALL CROSS THE MEDIAN ONLY AT THE EXISTING INTERSECTIONS AND U-TURN CROSSEOVERS AND AT OTHER ADDITIONAL LOCATIONS APPROVED BY THE ENGINEER. A MAXIMUM OF TWO (2) ADDITIONAL EQUIPMENT CROSSINGS MAY BE ALLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE, AT HIS EXPENSE, FOR THE RESTORATION OF THE ADDITIONAL EQUIPMENT CROSSINGS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING PRIOR TO HIS WORK OPERATIONS.

**ITEM 614. WORKSITE TRAFFIC SUPERVISOR**

SUBJECT TO APPROVAL OF THE ENGINEER, THE CONTRACTOR SHALL EMPLOY AND IDENTIFY (SOMEONE OTHER THAN THE SUPERINTENDENT) A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS) BEFORE STARTING WORK IN THE FIELD. THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1. AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA), PHONE NUMBER 1-800-272-8772, CERTIFIED TRAFFIC CONTROL SUPERVISOR (TCS).
2. NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528.
3. THE OHIO CONTRACTORS ASSOCIATION, TRAFFIC CONTROL SUPERVISOR (OCA/TCS) WORK ZONE CLASS, ONLY IF TAKEN AFTER MAY 5, 2004, PHONE NUMBER 1-614-599-7915.
4. OHIO LABORERS TRAINING, TRAFFIC CONTROL SUPERVISORS CLASS, PHONE NUMBER 1-740-599-7915.

A COPY OF EACH WTS'S CERTIFICATION AND 24-HOUR CONTACT INFORMATION SHALL BE PROVIDED TO THE ENGINEER AT THE PRECONSTRUCTION CONFERENCE. IF THE DESIGNATED WTS WILL NOT BE AVAILABLE FULL TIME (24/7) THE CONTRACTOR MAY DESIGNATE AN ALTERNATE WTS TO BE AVAILABLE WHEN THE PRIMARY IS OFF DUTY. EACH WTS SHALL HAVE A CURRENT WTS CERTIFICATION (WITH AN EXPIRATION DATE NO MORE THAN 5 YEARS FROM THE DATE OF ISSUE) FROM ANY OF THE APPROVED ORGANIZATIONS.

THE WTS POSITION HAS THE RESPONSIBILITY OF MONITORING TRAFFIC CONTROL DEFICIENCIES FOR THE ENTIRE WORK ZONE. THE DUTIES OF THE WTS ARE AS FOLLOWS:

1. BE AVAILABLE ON A 24-HOUR PER DAY BASIS, AND BE ABLE TO BE ON SITE FOR ALL EMERGENCY TRAFFIC CONTROL NEEDS WITHIN ONE HOUR OF NOTIFICATION BY POLICE OR PROJECT STAFF AND BE PREPARED TO EFFECT CORRECTIVE MEASURES IMMEDIATELY ON EXISTING WORK ZONE TRAFFIC CONTROL DEVICES.
2. ATTEND PRECONSTRUCTION MEETING AND ALL PROJECT MEETINGS WHERE TRAFFIC CONTROL MANAGEMENT IS DISCUSSED.
3. BE AVAILABLE FOR MEETINGS OR DISCUSSIONS WITH THE ENGINEER UPON REQUEST OR WITHIN 36 HOURS.
4. BE AWARE OF, AND COORDINATE IF NECESSARY, ALL TRAFFIC CONTROL OPERATIONS, INCLUDING THOSE OF SUBCONTRACTORS AND SUPPLIERS.
5. COORDINATE PROJECT ACTIVITIES WITH ALL LAW ENFORCEMENT OFFICERS (LEOS). A WTS SHALL ALSO BE THE MAIN CONTACT PERSON WITH THE LEO'S WHILE THEY ARE ON THE PROJECT.
6. COORDINATE MEETINGS WITH ODOT PERSONNEL, LEO'S AND OTHER APPLICABLE ENTITIES BEFORE EACH PLAN PHASE SWITCH TO DISCUSS WORK ZONE TRAFFIC CONTROL.
7. ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENTS FOR SIGNS, BARRICADES, TEMPORARY CONCRETE BARRIER, PAVEMENT MARKINGS, PORTABLE MESSAGE SIGNS, AND OTHER TRAFFIC CONTROL DEVICES ON A DAILY BASIS; AND FACILITATE ANY CORRECTIVE ACTION NECESSARY.
8. NOTIFY THE CONTRACTOR OF THE NEED FOR CLEANING AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES, INCLUDING THE COVERING AND REMOVAL OF INAPPLICABLE SIGNS.
9. INSPECT, EVALUATE, PROPOSE NECESSARY MODIFICATIONS TO, AND DOCUMENT THE EFFECTIVENESS OF, THE TRAFFIC CONTROL DEVICES AND/OR TRAFFIC OPERATIONS ON A DAILY BASIS (7 DAYS A WEEK). IN ADDITION, A WEEKLY NIGHT INSPECTION OF THE WORK ZONE SETUP FOR DAYTIME WORK OPERATIONS; AND ONE DAYTIME INSPECTION PER WEEK FOR NIGHTTIME PROJECTS. THIS SHALL INCLUDE (BUT NOT BE LIMITED TO) DOCUMENTATION ON THE FOLLOWING PROJECT EVENTS:
  - A. INITIAL TRAFFIC CONTROL SETUP (DAY AND NIGHT REVIEW).
  - B. DAILY TRAFFIC CONTROL SETUP AND REMOVAL.
  - C. WHEN CONSTRUCTION STAGING CAUSES A CHANGE IN THE TRAFFIC CONTROL SETUP.
  - D. CRASH OCCURRENCES WITHIN THE CONSTRUCTION AREA.
  - E. REMOVAL OF TRAFFIC CONTROL DEVICES AT THE END OF A PHASE OR PROJECT.
  - F. ALL OTHER EMERGENCY TRAFFIC CONTROL NEEDS.
10. COMPLETE THE DEPARTMENT APPROVED LONG TERM INSPECTION FORM (CA-D-8) AFTER EACH INSPECTION AS REQUIRED IN # 9 AND SUBMIT IT TO THE ENGINEER THE FOLLOWING WORK DAY. THESE REPORTS SHALL INCLUDE A CHECKLIST OF ALL TRAFFIC CONTROL MAINTENANCE ITEMS TO BE REVIEWED. A COPY OF THE FORM WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING. ANY DEFICIENCIES OBSERVED SHALL BE NOTED, ALONG WITH RECOMMENDED CORRECTIVE ACTIONS AND THE DATES BY WHICH SUCH CORRECTIONS WERE, OR WILL BE, COMPLETED. A COPY OF THIS DOCUMENT CAN BE FOUND IN THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION INSPECTION FORMS MANUAL DATED 10/15/06 OR CURRENT REVISION.
11. VERIFY THAT ALL FLAGGING OPERATIONS ARE BEING CONDUCTED PER THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

**ITEM 614. WORKSITE TRAFFIC SUPERVISOR (CONTINUED)**

12. HAVE COPIES OF THE ODOT TEMPORARY TRAFFIC CONTROL MANUAL AND APPLICABLE STANDARDS AND SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS AVAILABLE AT ALL TIMES ON THE PROJECT.

THE DEPARTMENT WILL NOT PAY THE UNIT PRICE BID FOR THE WTS FOR ANY DAY ON WHICH THE CONTRACTOR FAILS TO PERFORM THE DUTIES SET FORTH ABOVE. SHOULD THE CONTRACTOR'S FAILURE TO PERFORM ANY OF THE DUTIES DESCRIBED ABOVE RESULT IN A MAINTENANCE OF TRAFFIC SAFETY ISSUE, THE DEPARTMENT WILL DEDUCT THE PRORATED DAILY AMOUNT FOR ITEM 614 MAINTENANCE OF TRAFFIC FROM THE CONTRACTOR'S NEXT SCHEDULED ESTIMATE.

IF THREE OR MORE FAILURES TO PERFORM THE DUTIES SET FORTH ABOVE OCCUR, THE WTS SHALL BE IMMEDIATELY REMOVED FROM THE WORK IN ACCORDANCE WITH C&MS 108.05.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED FOR THE WORKSITE TRAFFIC SUPERVISOR:

ITEM 614	WORKSITE TRAFFIC SUPERVISOR	6	MONTHS
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**ITEM 614. LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS**

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS AS DIRECTED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION.

LAW ENFORCEMENT OFFICERS (LEO'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEO'S SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES AND PROVIDE 72 HOURS ADVANCE NOTICE AS REQUIRED BY THE HIGHWAY PATROL LISTED BELOW:

STATE HIGHWAY PATROL  
2255 SOUTH MAIN ST.  
MANSFIELD, OH 44907  
419 756-2222

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	120	HOURS
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THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

**ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN**

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, PORTABLE CHANGEABLE MESSAGE SIGNS, ON SITE, FOR THE DURATION OF THE PROJECT FOR US30. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN CLICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PCMS LOCATIONS SHALL BE LOCATED IN ADVANCE OF THE BEGINNING AND END OF THE PROJECT TO NOTIFY THE TRAVELLING PUBLIC OF CONSTRUCTION WORK BEING DONE. PCMS IS ALSO NEEDED ON US 30 IN ADVANCE OF THE FOLLOWING RAMP CLOSURES: RAMP A AT KOOGLE RD, RAMP TL AT US 42, RAMP UL AT US 42. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 6 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PREPROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE TO THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN  
15 SIGN-MONTH

**SEQUENCE OF CONSTRUCTION (US 30 MAINLINE PAVEMENT WORK)**

CONTRACTOR IS REQUIRED TO PERFORM THE FOLLOWING WORK WHILE THE LANE AND SHOULDER IS CLOSED OFF TO TRAFFIC:

1. MILL 1.75" OF THE ASPHALT CONCRETE FOR THE MAINLINE LANE AND SHOULDER.
2. PERFORM THE PARTIAL AND FULL DEPTH PAVEMENT REPAIRS ON MAINLINE LANE AND SHOULDER.
3. TACK COAT AND PLACE THE 1.75" SURFACE COURSE.

**SEQUENCE OF CONSTRUCTION (STRUCTURES RIC-30-1915L&R)**

THE CONTRACTOR SHALL CLOSE THE DRIVING LANE FIRST DURING CONSTRUCTION OF STRUCTURES RIC-30-1915 L&R.

**SEQUENCE OF CONSTRUCTION (US 30 RAMPS - PAVEMENT WORK)**

THE DEFINITION OF THE RAMP LIMITS ARE FROM THE INTERSECTION WITH THE SIDE ROAD AT THE SIDE ROAD'S EDGE LINE AND DOWN THE RAMP TO THE GORE AREA WHERE THE COMMON PAVEMENT BETWEEN THE RAMP AND THE MAINLINE BEGINS IN THE GRASSY AREA. THE SEQUENCE OF CONSTRUCTION FOLLOWS:

- PART WIDTH CONSTRUCTION PHASE:  
SETUP PART WIDTH CONSTRUCTION OF THE RAMP AND PERFORM THE FOLLOWING WORK:
1. MILL 1.75" OF THE ASPHALT CONCRETE FOR THE FULL WIDTH OF THE RAMP.
  2. PERFORM THE PARTIAL AND FULL DEPTH PAVEMENT REPAIRS IF APPLICABLE.
  3. TACK COAT AND PLACE THE 1.75" SURFACE COURSE.

- FULL WIDTH CONSTRUCTION PHASE WHEN LOOP RAMPS ARE CLOSED FOR THE BRIDGE CLOSURE:  
THIS WOULD APPLY FOR THE FOLLOWING RAMPS: US42 EB EXIT RAMP TL, US42 WB EXIT RAMP UL, KOOGLE RD EB EXIT RAMP A, KOOGLE RD WB ENTRANCE RAMP C:
1. MILL 1.75" OF THE ASPHALT CONCRETE FOR THE FULL WIDTH OF THE RAMP.
  2. PERFORM THE PARTIAL AND FULL DEPTH PAVEMENT REPAIRS IF APPLICABLE.
  3. TACK COAT AND PLACE THE 1.75" SURFACE COURSE.

- FULL WIDTH CONSTRUCTION PHASE WHEN RAMPS ARE CLOSED DUE TO GEOMETRICS OF RAMP TO MAINTAIN TRAFFIC:  
THIS WOULD APPLY FOR THE FOLLOWING RAMPS: REED RD RAMPS B & D:
1. MILL 1.75" OF THE ASPHALT CONCRETE FOR THE FULL WIDTH OF THE RAMP.
  2. PERFORM THE PARTIAL DEPTH PAVEMENT REPAIRS.
  3. TACK COAT AND PLACE THE 1.75" SURFACE COURSE.

**MAINTENANCE OF TRAFFIC DURING BRIDGE AND PAVEMENT WORK**

THE 21 DAY DETOURS SETUP IN THIS PLAN ARE TO BE USED WHEN THE DRIVING LANE OF US30 MAINLINE IS CLOSED FOR THE BRIDGE DECK OVERLAY WORK WHICH CAUSES THE ADJOINING RAMPS TO BE CLOSED. THE 21 DAY DETOURS ARE FOR RIC-30-1408 L&R AND RIC-30-1750 L&R. DURING EACH 21 DAY DETOUR, THE CONTRACTOR IS REQUIRED TO PERFORM ALL PAVEMENT WORK ON THE CLOSED RAMP. THIS WOULD APPLY FOR THE FOLLOWING RAMPS:

- RAMP C AT KOOGLE RD  
RAMP A AT KOOGLE RD  
RAMP TL AT US 42  
RAMP UL AT US 42 (RAMP UR WOULD STILL HAVE ACCESS TO BEAL AVE BUT RAMP UL WILL NOT WHEN RAMP UL IS CLOSED)

THE CONTRACTOR SHALL NOT CLOSE RAMP TL OF US 42 AT THE SAME TIME AS REED RD IS BEING PAVED OR REED RD HAS ANY BRIDGE WORK BEING DONE.

WHILE BRIDGE WORK IS BEING PERFORMED AND EITHER THE PASSING LANE OR DRIVING LANE IS CLOSED AT THE BRIDGE, THE CONTRACTOR CAN EXTEND THE WORK ZONE TO COMPLETE THE ADJACENT PAVEMENT WORK TO MINIMIZE THE INCONVENIENCE TO TRAFFIC.

**MAINTENANCE OF TRAFFIC FOR PAVEMENT REPLACEMENT AND STRUCTURE WORK AT STRUCTURE RIC-30-1408L&R**

MAINTENANCE OF TRAFFIC AT STRUCTURE RIC-30-1408 L&R SHALL FOLLOW STANDARD CONSTRUCTION DRAWING MT95.40 FOR CLOSING ONE LANE OF A DIVIDED HIGHWAY WITH PORTABLE CONCRETE BARRIER, EXCEPT DRUM TAPER WILL NEED TO BE ADJUSTED IN DRIVING LANE SO TRAFFIC CAN STILL EXIT US 30 ON RAMPS A & B. THE FOLLOWING QUANTITIES WILL BE CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

RIC-30-1408L&R:	
ITEM 614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1	1.19 MI
ITEM 614 WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	3200 FT
ITEM 614 BARRIER REFLECTOR, TYPE B	56 EACH
ITEM 614 OBJECT MARKER, ONE-WAY	56 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	4 EACH
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	1400 FT
ITEM 622 PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED	1200 FT

**MAINTENANCE OF TRAFFIC FOR STRUCTURE WORK AT STRUCTURE RIC-30-1750L&R**

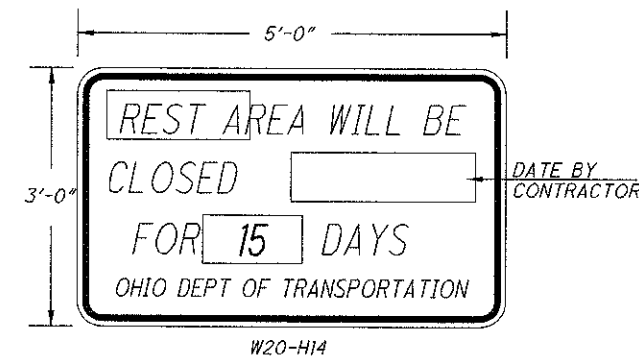
MAINTENANCE OF TRAFFIC AT STRUCTURE RIC-30-1750L&R SHALL FOLLOW STANDARD CONSTRUCTION DRAWING MT95.40 FOR CLOSING ONE LANE OF A DIVIDED HIGHWAY WITH PORTABLE CONCRETE BARRIER. THE FOLLOWING QUANTITIES WILL BE CARRIED TO THE GENERAL SUMMARY FOR THIS WORK:

RIC-30-1750L&R:	
ITEM 614 WORK ZONE EDGE LINE, CLASS I, 642 PAINT	0.30 MI
ITEM 614 WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1	0.91 MI
ITEM 614 WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	3200 FT
ITEM 614 BARRIER REFLECTOR, TYPE B	32 EACH
ITEM 614 OBJECT MARKER, ONE-WAY	28 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	4 EACH
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	1440 FT

**NOTICE OF CLOSURE SIGNS**

BOTH REST AREAS WILL BE CLOSED DURING THE CONCRETE PAVEMENT REPLACEMENT WORK IN THE TRUCK PARKING AREA.

THE BELOW SIGN SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED REST AREA CLOSURE, 500 FT IN ADVANCE OF THE REST AREA. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ONLY ONE REST AREA MAY BE CLOSED AT ANY ONE TIME. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE SIGNS INCLUDING SUPPORTS.



**REST AREA CLOSED SIGNING**

FOR SIGNING WHEN THE REST AREA WILL BE CLOSED, THE CONTRACTOR IS TO REFER TO STANDARD CONSTRUCTION DRAWING MT-98.29, EXIT RAMP CLOSURE. ALL SIGNING, BARRELS, BARRICADES, PORTABLE CONCRETE BARRIER (IF USED), AND WORK ZONE EDGE LINE SHALL BE INCLUDED WITH THE LUMP SUM UNIT BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

**ITEM 614, BARRIER REFLECTORS AND/OR OBJECT MARKERS**

BARRIER REFLECTORS AND/OR OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS, OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO CMS 626, EXCEPT THAT THE SPACING SHALL BE 50 FEET.

**ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN**

THIS ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLAN.

THE PAVEMENT SHALL REMAIN IN PLACE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID SQUARE YARD FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 614. WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ONE OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., 35 EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE SIX-BAY QUADGUARD CZ IS 20'-9". INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER: QSCZCVR-T4  
 DRAWING NAME: QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES  
 REVISION DATE: 5/13/99 REV. J  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-10  
 DRAWING NAME: QUADGUARD SYSTEM CONCRETE PAD, CZ, OG  
 REVISION DATE: 11/19/97 REV. D  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-16  
 DRAWING NAME: QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, OG  
 REVISION DATE: 7/30/99 REV. F  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 354051Z  
 DRAWING NAME: QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, OG, 24, 30, 36  
 REVISION DATE: 5/17/99  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35-40-18  
 DRAWING NAME: TRANSITION ASSEMBLY, 4 OFFSET, OG  
 REVISION DATE: 6/25/99 REV. F  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: 35400260  
 DRAWING NAME: QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY  
 REVISION DATE: 11/19/97 REV. C  
 ODOT APPROVAL DATE: 8/27/99

2. THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER: SS450  
 DRAWING NAME: CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS  
 REVISION DATE: 3/12/99 REV. 1  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS455  
 DRAWING NAME: TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS  
 REVISION DATE: 2/18/99  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS461  
 DRAWING NAME: TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS  
 REVISION DATE: 6/30/99 REV. 1  
 ODOT APPROVAL DATE: 8/27/99

DRAWING NUMBER: SS462  
 DRAWING NAME: TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS  
 REVISION DATE: 6/30/99  
 ODOT APPROVAL DATE: 8/27/99

3. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291)

THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT (24' LONG AND 35" WIDE). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING NUMBER: A040416  
 DRAWING NAME: UNIVERSAL TAU-II PARTS LIST  
 REVISION DATE: 4/22/04  
 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: A040420  
 DRAWING NAME: UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP  
 REVISION DATE: 4/28/04  
 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: A040105  
 DRAWING NAME: UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020)  
 REVISION DATE: 1/07/04  
 ODOT APPROVAL DATE: 10/16/04

DRAWING NUMBER: B040239  
 DRAWING NAME: APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT)  
 REVISION DATE: 4/21/04  
 ODOT APPROVAL DATE: 10/16/04

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THE U.S. 42 RAMP UL WILL BE DETOURED AS SHOWN. THE U.S. 42 RAMP WILL BE DETOURED FOR A MAXIMUM OF 21 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

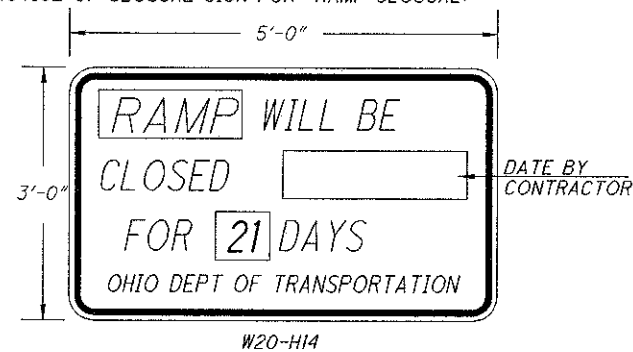
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF
- CITY OF MANSFIELD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

**NOTICE OF CLOSURE SIGNS**

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE U.S. 30 RAMP UL, SHOWN ON THE DETOUR MAP. THE SIGN SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

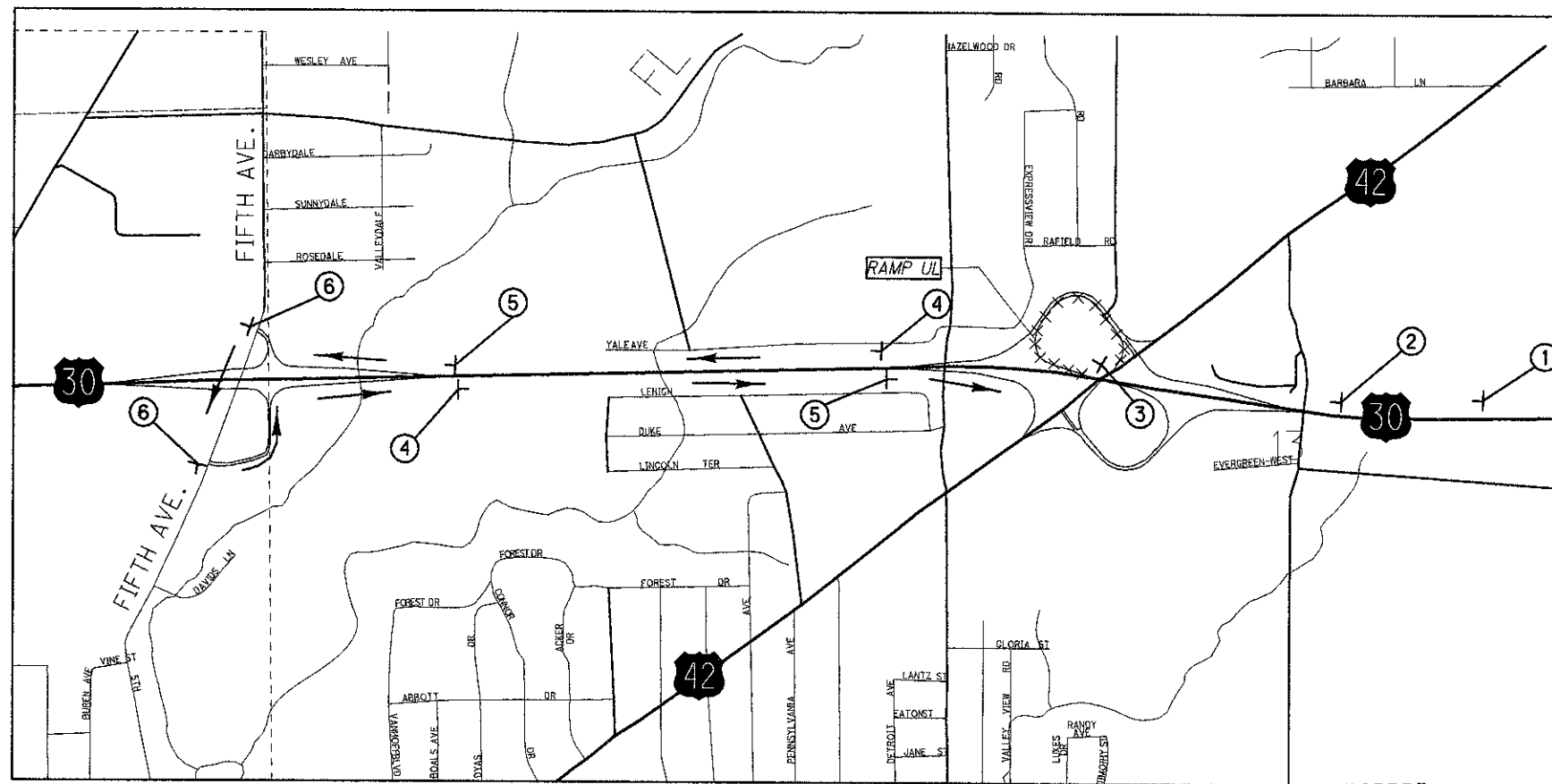
NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



**DETOUR SIGNING**

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):

ITEM 614, DETOUR SIGNING LUMP

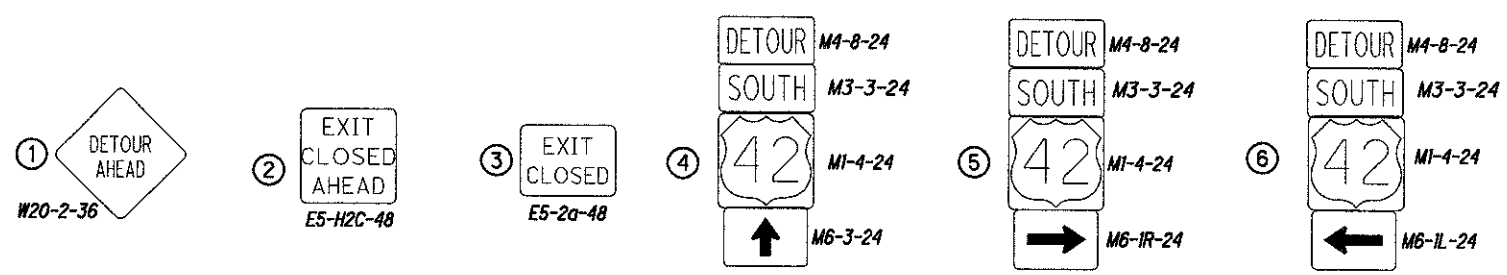


RAMP CLOSURE @ U.S. 30 RAMP UL ON-RAMP TO U.S. 42 SOUTHBOUND

**MAP LEGEND**

- XXXX - RAMP CLOSURE LOCATION
- ← - OFFICIAL SIGNED DETOUR

**SIGN LEGEND**



DESIGN FILE: I:\projects\79352\structures\RAMPDETOUR.dgn  
WORKSTATION:Kknapp DATE: 7/12/2010

**MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THE U.S. 42 RAMP TL WILL BE DETOURED AS SHOWN. THE U.S. 42 RAMP WILL BE DETOURED FOR A MAXIMUM OF 21 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE U.S. 42 RAMP TL AND RIC-30-1640 (REED ROAD) SHALL NOT BE UNDER CONSTRUCTION AT THE SAME TIME.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

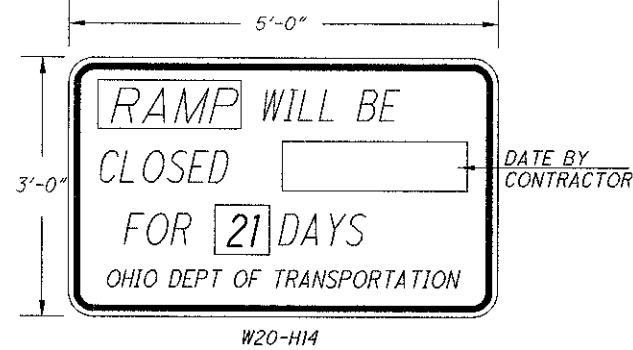
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

**NOTICE OF CLOSURE SIGNS**

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE U.S. 30 RAMP TL, SHOWN ON THE DETOUR MAP. THE SIGN SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



**DETOUR SIGNING**

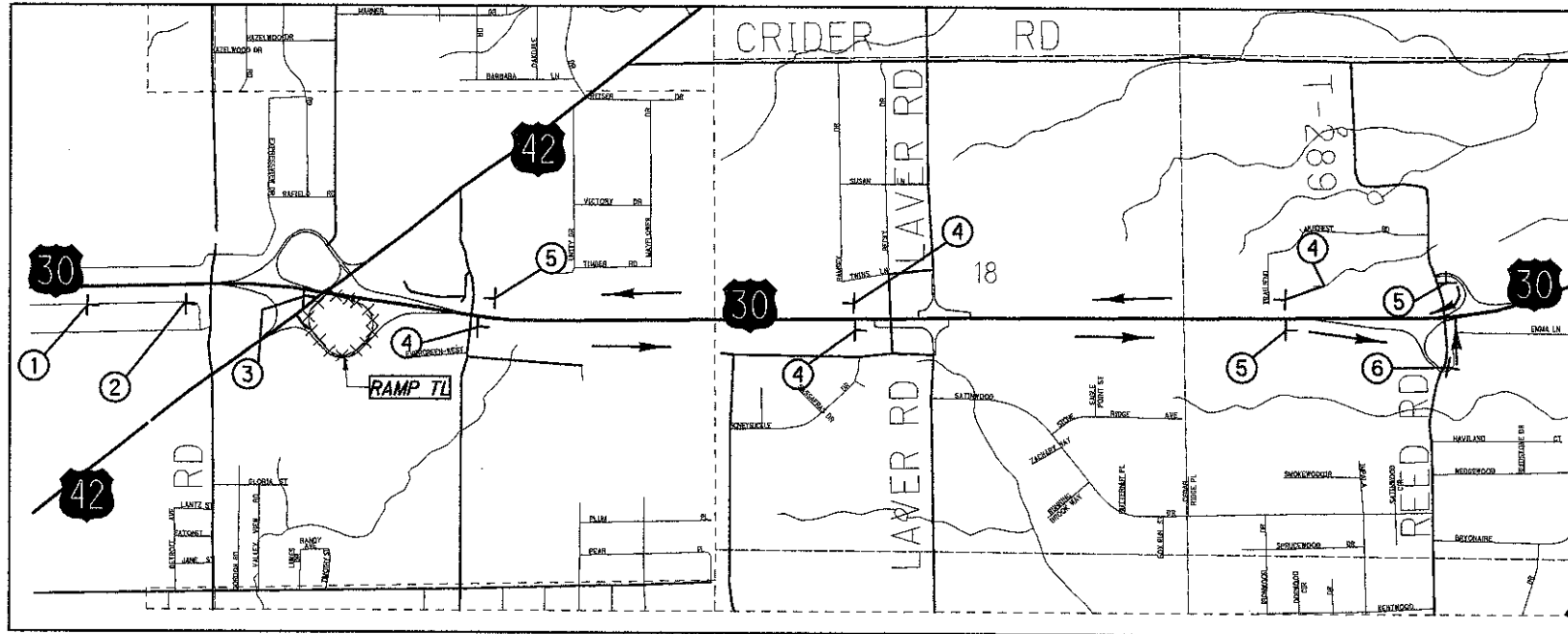
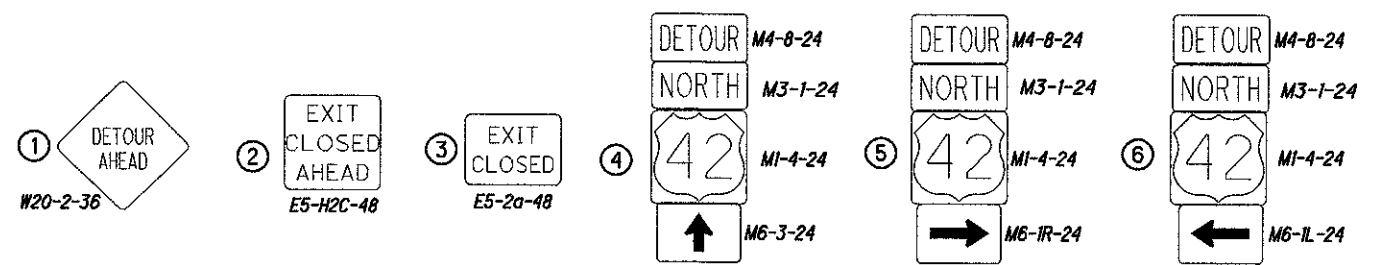
THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):

ITEM 614, DETOUR SIGNING LUMP

**MAP LEGEND**

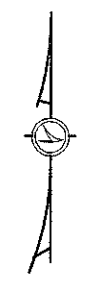
- XXXX - RAMP CLOSURE LOCATION
- ← - OFFICIAL SIGNED DETOUR

**SIGN LEGEND**



RAMP CLOSURE @ U.S. 30 RAMP TL ON-RAMP TO U.S. 42 NORTHBOUND

DESIGN FILE: I:\projects\79352\structures\RAMPDETOUR.dgn  
WORKSTATION: kknapp  
DATE: 7/12/2010



**MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THE REED ROAD RAMP B WILL BE DETOURED AS SHOWN DURING PAVEMENT OPERATIONS. THE REED ROAD RAMP WILL BE DETOURED FOR A MAXIMUM OF 2 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

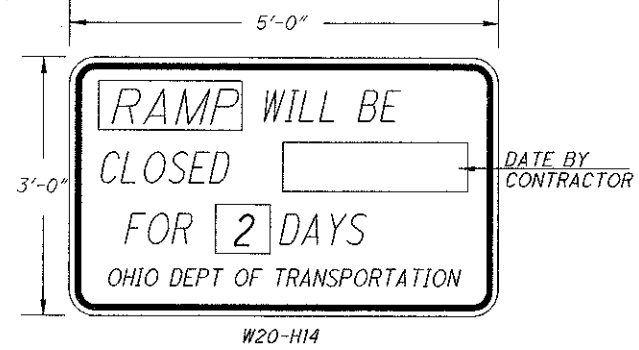
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF
- CITY OF MANSFIELD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

**NOTICE OF CLOSURE SIGNS**

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE REED ROAD RAMP B, SHOWN ON THE DETOUR MAP. THE SIGN SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



W20-H14

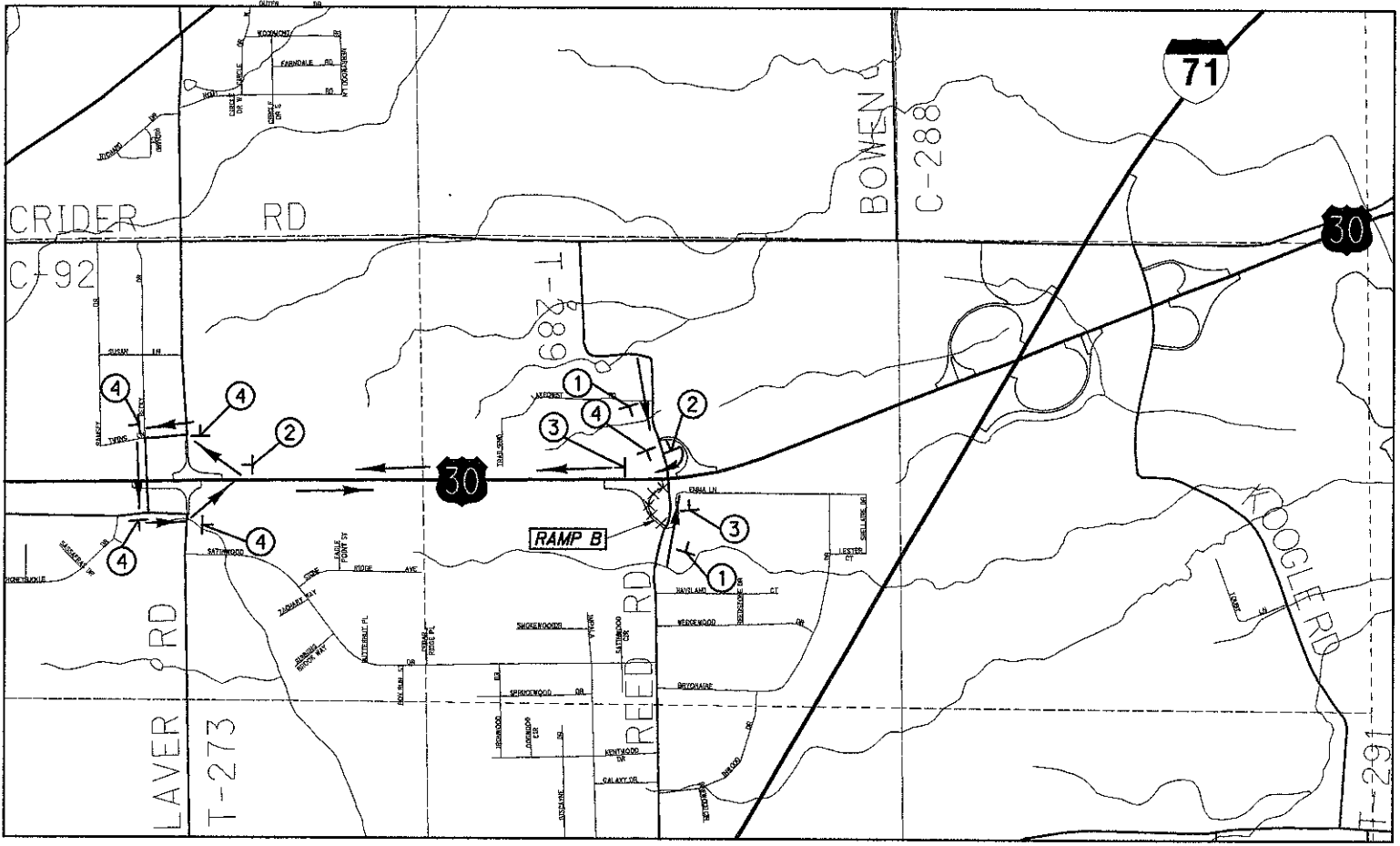
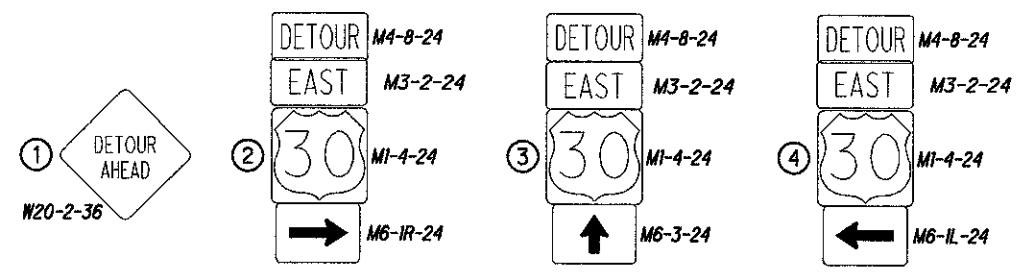
**DETOUR SIGNING**

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):  
ITEM 614, DETOUR SIGNING LUMP

**MAP LEGEND**

- XXXX - RAMP CLOSURE LOCATION
- ← - OFFICIAL SIGNED DETOUR

**SIGN LEGEND**



RAMP CLOSURE @ REED ROAD RAMP B  
ON-RAMP TO U.S. 30 EASTBOUND

### MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON THE REED ROAD RAMP D WILL BE DETOURED AS SHOWN DURING PAVEMENT OPERATIONS. THE REED ROAD RAMP WILL BE DETOURED FOR A MAXIMUM OF 2 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

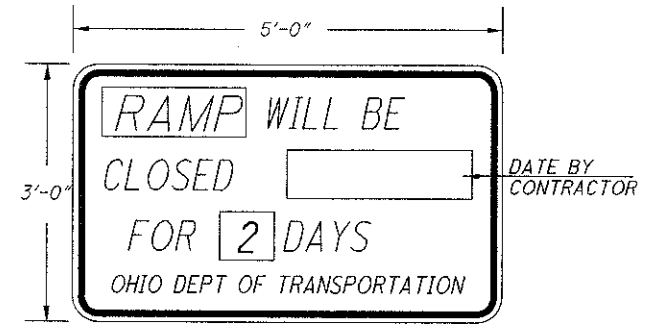
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF
- CITY OF MANSFIELD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

### NOTICE OF CLOSURE SIGNS

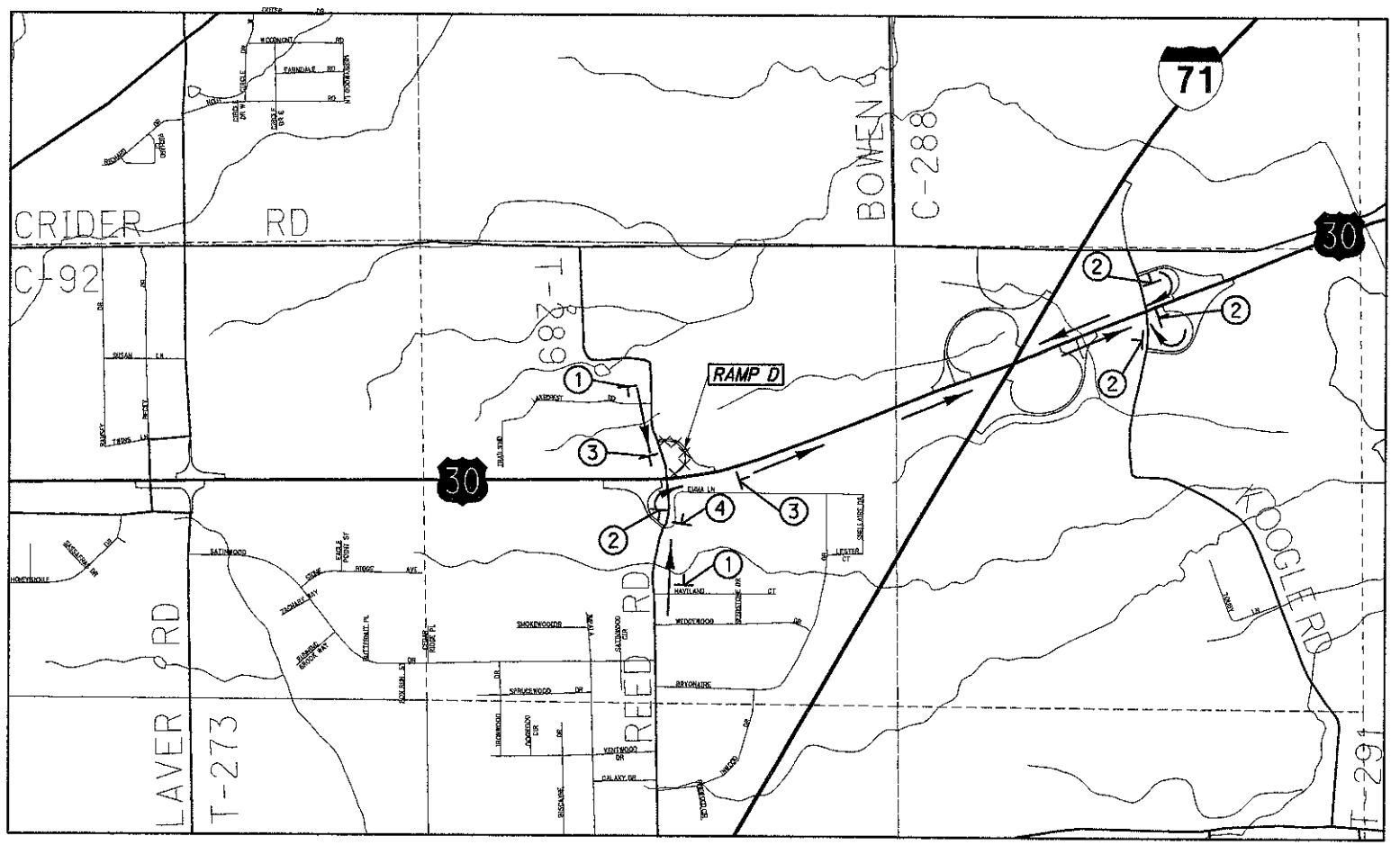
THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE REED ROAD RAMP D, SHOWN ON THE DETOUR MAP. THE SIGN SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



### DETOUR SIGNING

THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):  
ITEM 614, DETOUR SIGNING LUMP

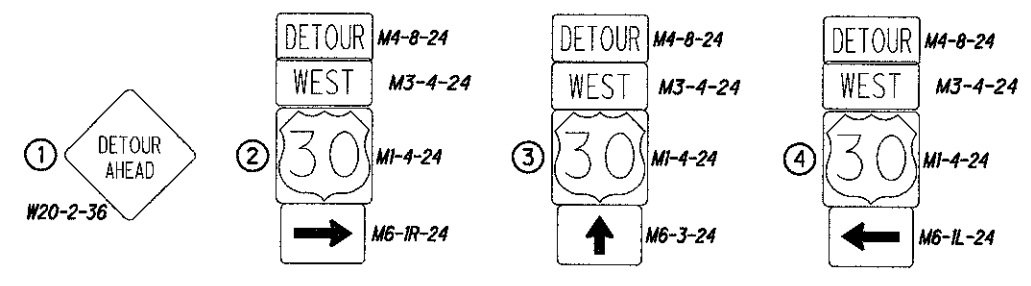


RAMP CLOSURE @ REED ROAD RAMP D  
ON-RAMP TO U.S. 30 WESTBOUND

### MAP LEGEND

- XXXX - RAMP CLOSURE LOCATION
- ➡ - OFFICIAL SIGNED DETOUR

### SIGN LEGEND



**MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON KOOGLE ROAD RAMP C, WILL BE DETOURED AS SHOWN. THE KOOGLE ROAD RAMP WILL BE DETOURED FOR A MAXIMUM OF 21 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

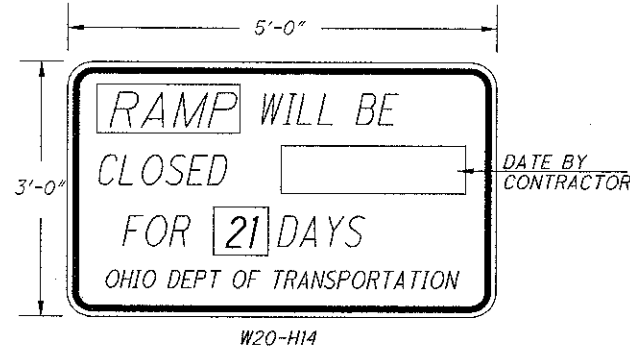
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

**NOTICE OF CLOSURE SIGNS**

THIS SIGN SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE KOOGLE ROAD RAMP, SHOWN ON THE DETOUR MAP. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



**DETOUR SIGNING**

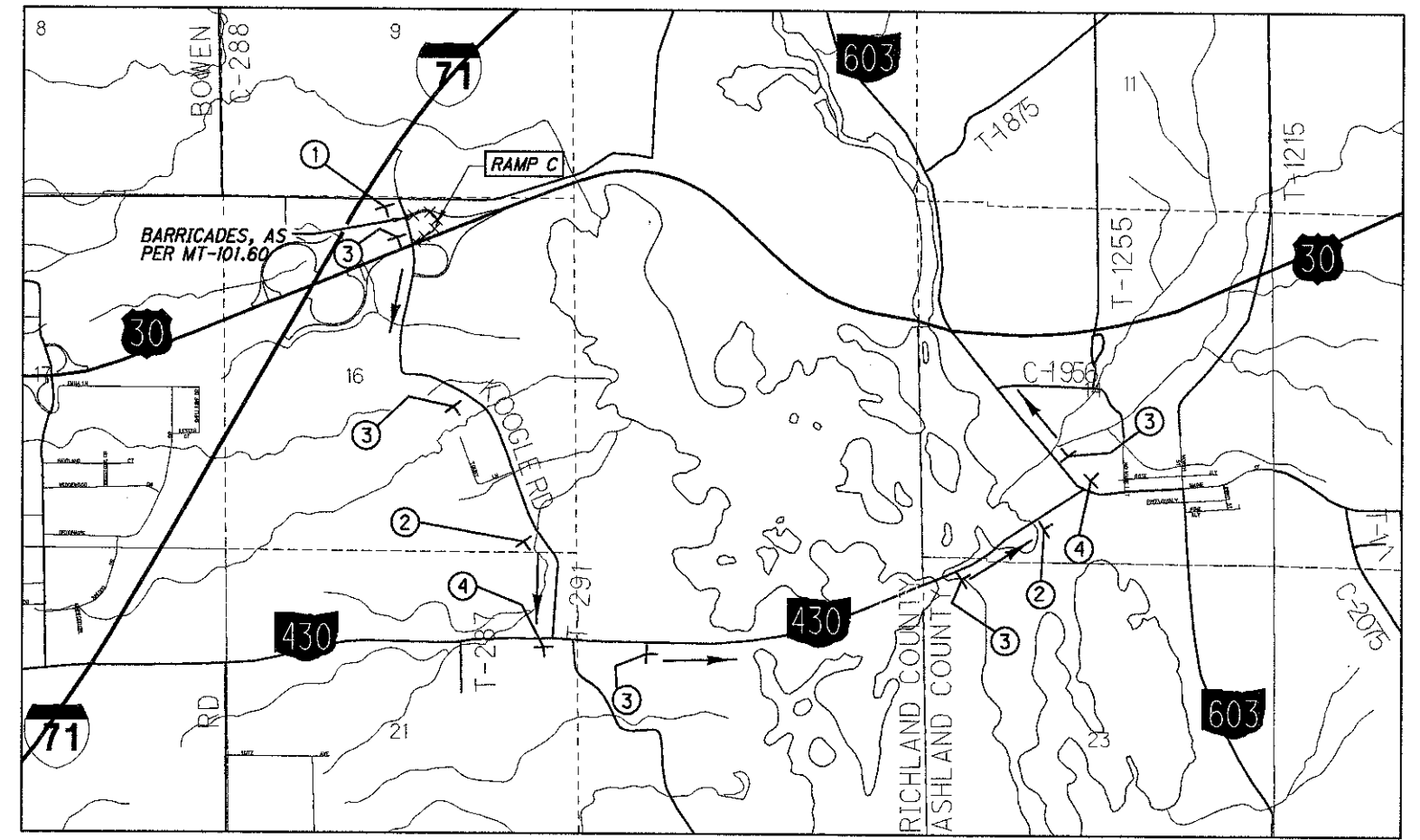
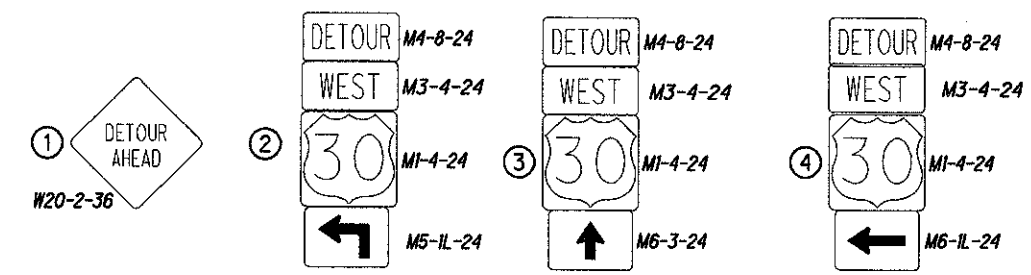
THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):

ITEM 614, DETOUR SIGNING                      LUMP

**MAP LEGEND**

- XXXX - RAMP CLOSURE LOCATION
- ➔ - OFFICIAL SIGNED DETOUR

**SIGN LEGEND**



RAMP CLOSURE @ KOOGLE ROAD RAMP C, ON-RAMP TO U.S. 30 WESTBOUND



CALCULATED	DCM	CHECKED	DJV
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**MAINTAINING TRAFFIC**

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT THROUGH TRAFFIC ON KOOGLE ROAD RAMP A, WILL BE DETOURED AS SHOWN. THE KOOGLE ROAD RAMP WILL BE DETOURED FOR A MAXIMUM OF 21 CONSECUTIVE CALENDAR DAYS. THE MAXIMUM NUMBER OF DAYS SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE MAXIMUM NUMBER OF DAYS THAT THE HIGHWAY REMAINS CLOSED TO TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. DETOUR SIGNING WILL BE INSTALLED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ALSO NOTIFY, IN WRITING, THE FOLLOWING AGENCIES AT LEAST 14 DAYS PRIOR TO THE TIME WHEN THE DETOUR WILL BE IMPLEMENTED:

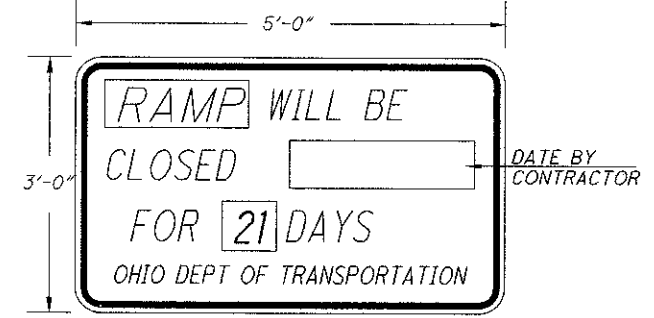
- TOWNSHIP TRUSTEES (TWP. ROADS ONLY)
- RICHLAND COUNTY ENGINEERS OFFICE
- LOCAL FIRE DEPARTMENT(S)
- LOCAL SCHOOL DISTRICT(S)
- COUNTY SHERIFF

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE GATES AND BARRICADES AT THE END OF THE WORK AREA AND THE ADVANCE WARNING SIGNS AS SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.60.

**NOTICE OF CLOSURE SIGNS**

THESE SIGNS SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE FOR THE KOOGLE ROAD RAMP, SHOWN ON THE DETOUR MAP. THE SIGN SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE LOCATED IN THE FIELD SO AS NOT TO INTERFERE WITH ANY PERMANENT SIGNS. ON THIS PROJECT THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING AND REMOVING THE SIGNS INCLUDING SUPPORTS.

NOTICE OF CLOSURE SIGN FOR RAMP CLOSURE:



W20-H14

**DETOUR SIGNING**

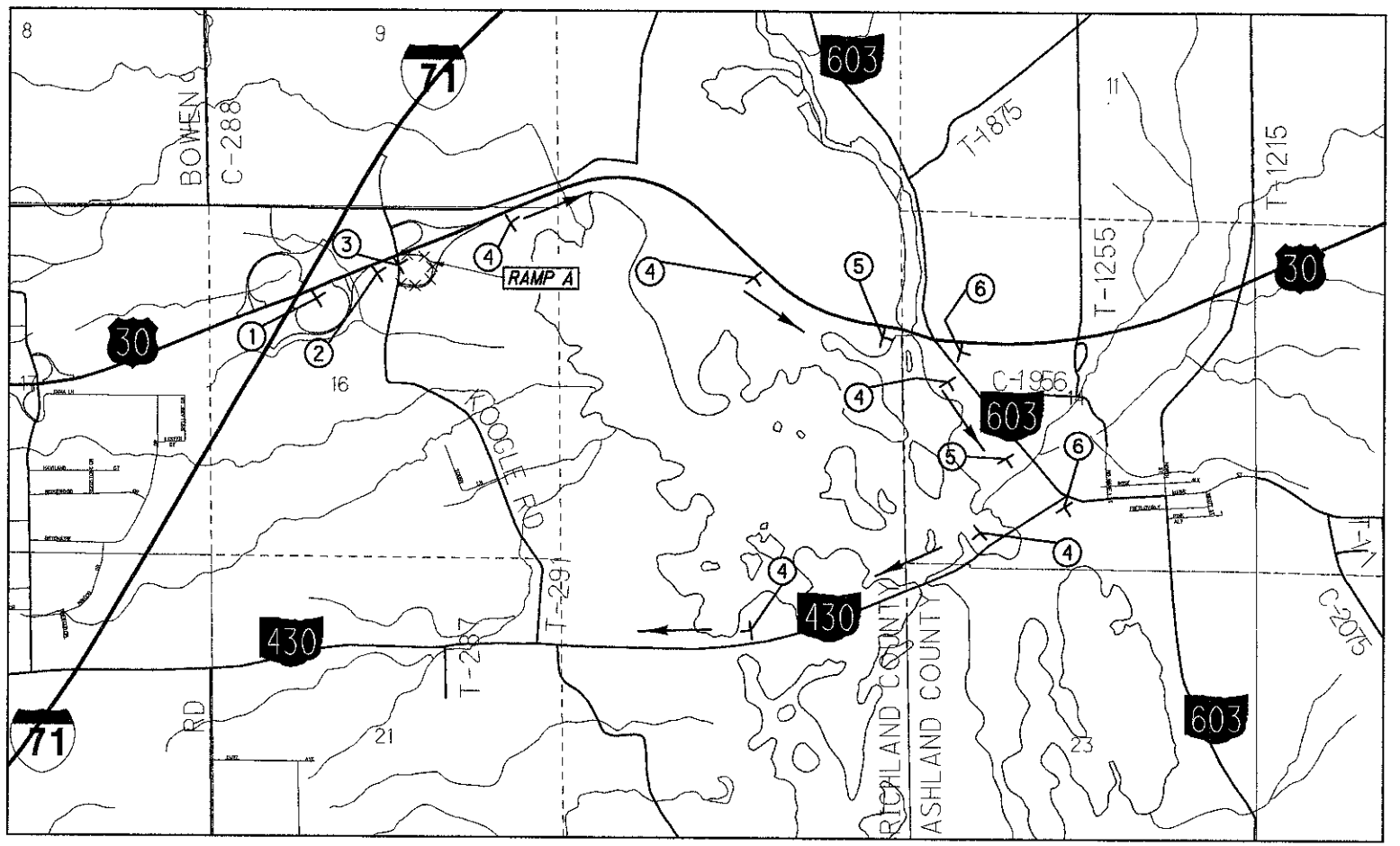
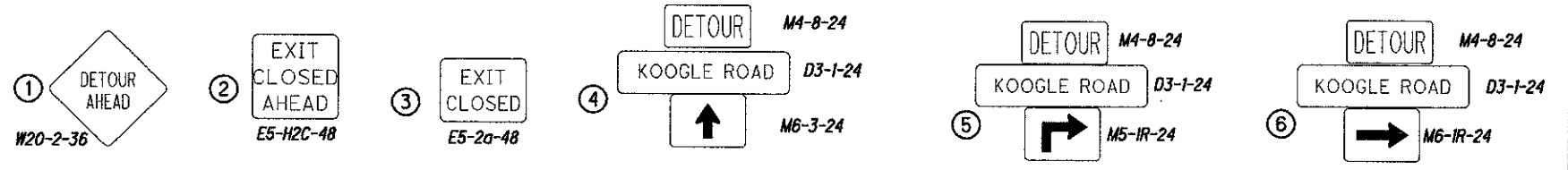
THE FOLLOWING QUANTITY IS INCLUDED FOR THE CONTRACTOR TO PROVIDE THE DETOUR SIGNING AS SHOWN AS PER 614.06 (B):

ITEM 614, DETOUR SIGNING	LUMP
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**MAP LEGEND**

- XXXX - RAMP CLOSURE LOCATION
- ← - OFFICIAL SIGNED DETOUR

**SIGN LEGEND**

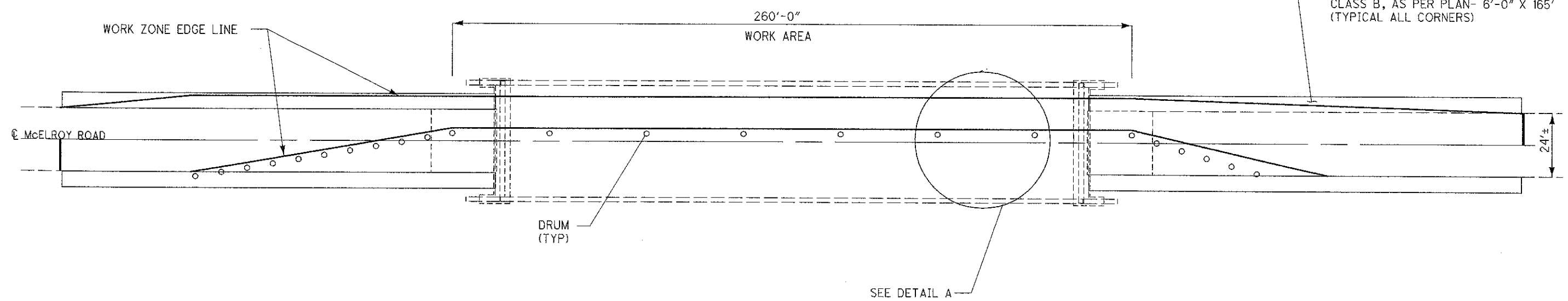


RAMP CLOSURE @ U.S. 30 RAMP A ON-RAMP TO KOOGLE ROAD

**MAINTENANCE OF TRAFFIC NOTES**

RIC/ ASD-30-13.18 / 0.00  
RIC-42-13.74

DESIGN FILE: i:\projects\79352\structures\RAMPDETOUR.dgn  
WORKSTATION:Knopp DATE: 7/12/2010



PHASE A SHOWN  
PHASE B SIMILAR

### SIGNAL TIMING

A TWO PHASE CONTROLLER WITH CABINET CAPABLE OF BEING SET WITH THE FOLLOWING SPLITS SHALL BE FURNISHED

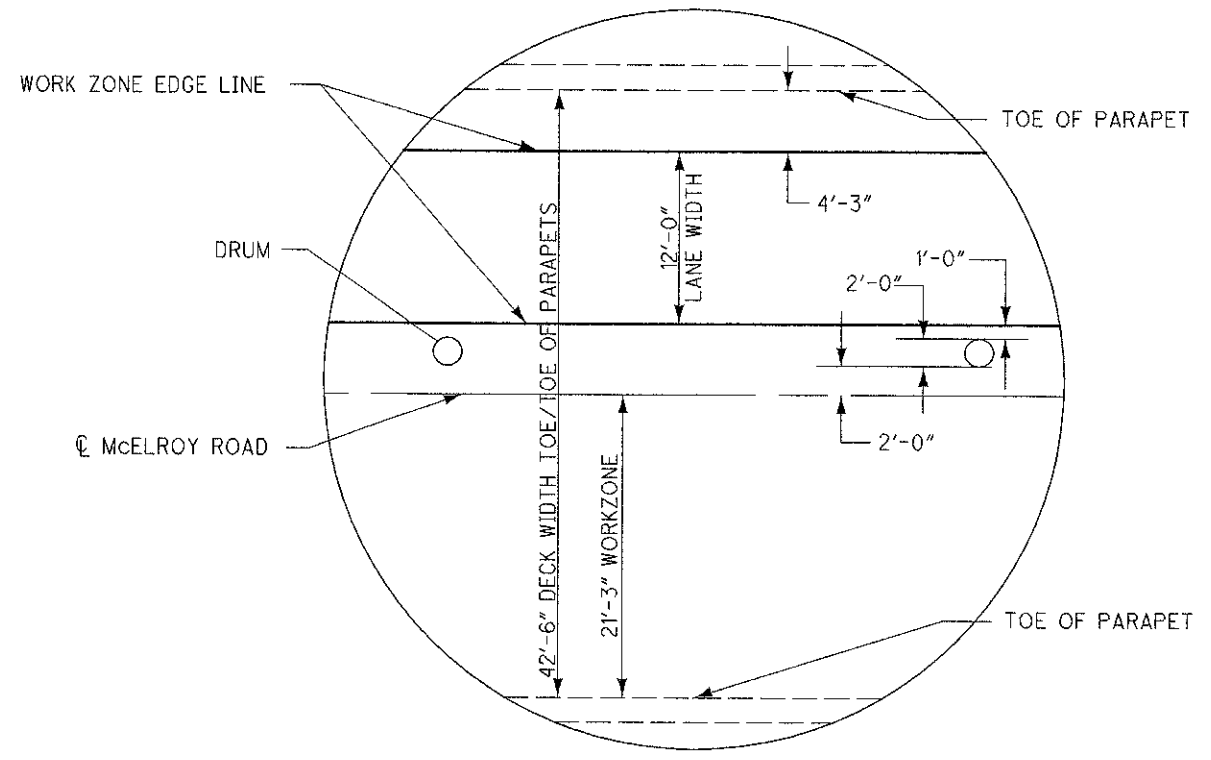
CYCLE LENGTH: 80 SECONDS

	GREEN	AMBER	RED
PHASE A	20	5	15
PHASE B	20	5	15

THE ABOVE TIMING MAYBE CHANGED WITH THE APPROVAL OF THE ENGINEER

ITEM	QUANTITY	UNIT	DESCRIPTION
614	12	EACH	BARRIER REFLECTOR, TYPE A2
614	12	EACH	BARRIER REFLECTOR, TYPE B2
614	.06	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	.38	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
614	24	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	440	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN

ALL QUANTITIES CARRIED TO GENERAL SUMMARY SHEET



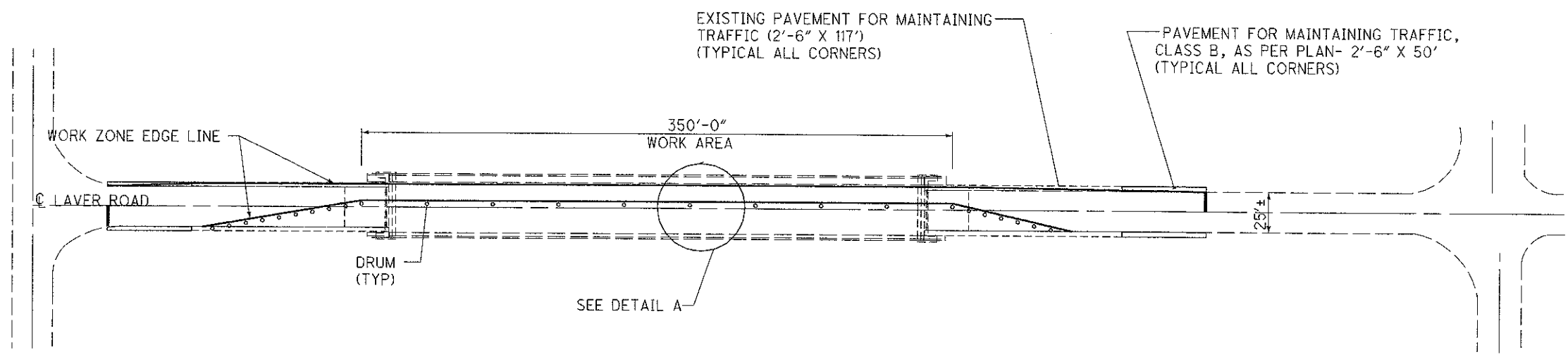
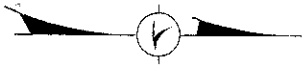
DETAIL A

NOTES:

- 1) THE EXISTING BRIDGE RAILING IS NOT SHOWN IN THE PLAN VIEW.
- 2) FOR ADDITIONAL DETAILS, SEE SCDS MT-96.11, MT-96.20, MT-96.26 AND ALSO SUPPLEMENTAL SPECIFICATIONS 961.
- 3) PLACE STEEL PLATES OVER BACKWALL AND APPROACH SLAB REPAIR AREAS PRIOR TO CONCRETE CURING

DESIGN FILE: I:\projects\79352\structures\MOT.dgn  
 WORKSTATION: Kknopp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY: ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION  
 DATE: 6/10  
 RDN: RDN  
 STRUCTURE FILE NUMBER: 7001479  
 DESIGNED: DCM  
 CHECKED: DJV  
 DRAWN: DCM  
 REVISED:  
 MAINTENANCE OF TRAFFIC PLAN  
 RIC-30-1441  
 UNDER McELROY ROAD  
 RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74  
 25  
 116



PHASE A SHOWN  
PHASE B SIMILAR

### SIGNAL TIMING

A TWO PHASE CONTROLLER WITH CABINET CAPABLE OF BEING SET WITH THE FOLLOWING SPLITS SHALL BE FURNISHED

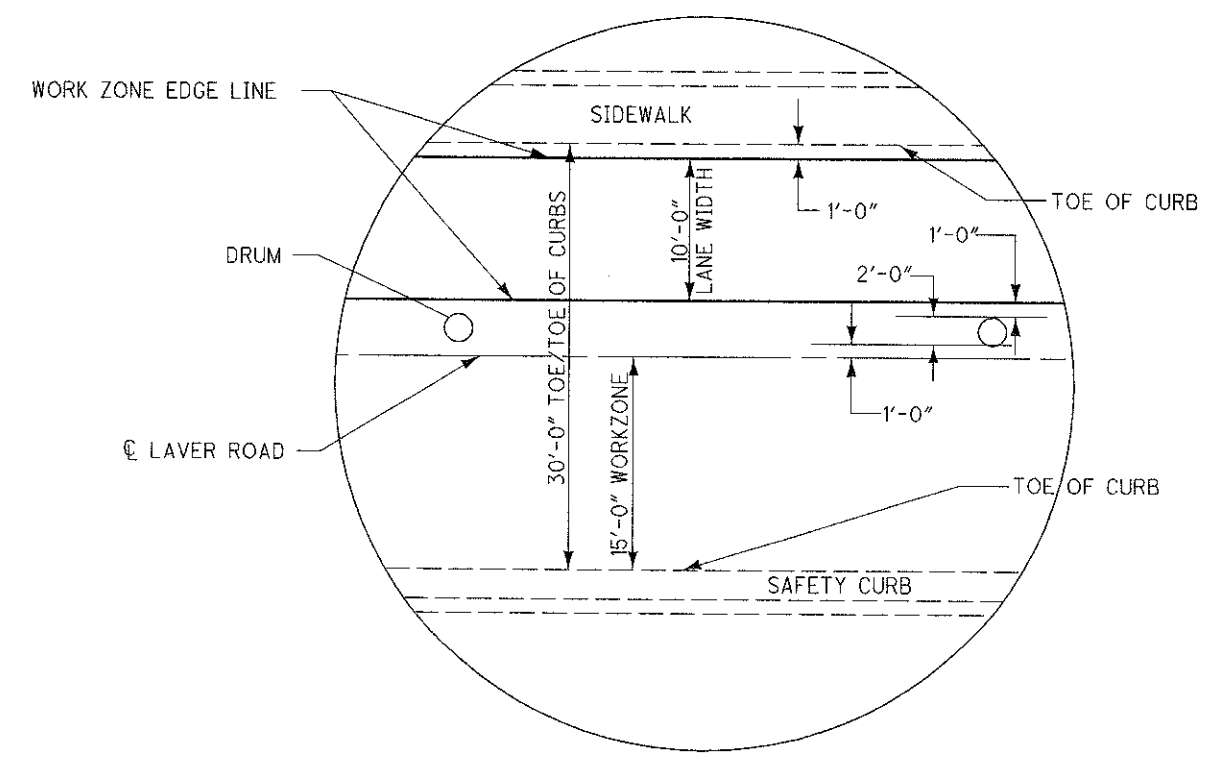
CYCLE LENGTH: 70 SECONDS

	GREEN	AMBER	RED
PHASE A	15	5	15
PHASE B	15	5	15

THE ABOVE TIMING MAYBE CHANGED WITH THE APPROVAL OF THE ENGINEER

ITEM	QUANTITY	UNIT	DESCRIPTION
614	12	EACH	BARRIER REFLECTOR, TYPE A2
614	16	EACH	BARRIER REFLECTOR, TYPE B2
614	.06	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	.44	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
614	24	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	56	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN

ALL QUANTITIES CARRIED TO GENERAL SUMMARY SHEET



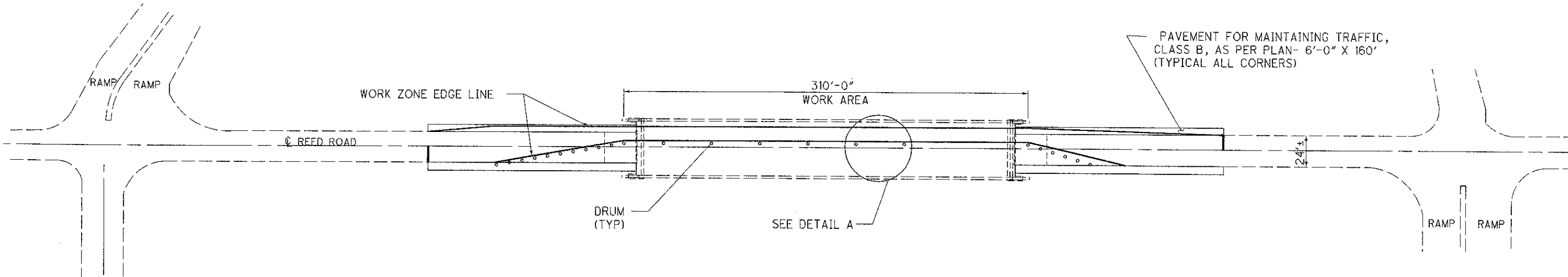
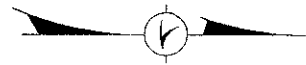
DETAIL A

NOTES:

- 1) THE EXISTING BRIDGE RAILING IS NOT SHOWN IN THE PLAN VIEW.
- 2) FOR ADDITIONAL DETAILS, SEE SCDS MT-96.11, MT-96.20, MT-96.26 AND ALSO SUPPLEMENTAL SPECIFICATIONS 961.
- 3) PLACE STEEL PLATES OVER BACKWALL AND APPROACH SLAB REPAIR AREAS PRIOR TO CONCRETE CURING

DESIGN FILE: I:\projects\79352\structures\MOT.dgn  
 WORKSTATION: Knopp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY <b>ODOT DISTRICT THREE</b> OFFICE OF PRODUCTION	DATE 6/10	REVIEWED RDN	STRUCTURE FILE NUMBER 7001495	DRAWN DCM	REVISIONS	DESIGNED DCM	CHECKED DJV
<b>MAINTENANCE OF TRAFFIC PLAN</b> <b>RIC-30-1527</b> <b>UNDER LAVER ROAD</b>							
<b>RIC / ASD-30-13.18 / 0.00</b> <b>RIC-42-13.74</b>							
26 116							



PHASE A SHOWN  
PHASE B SIMILAR

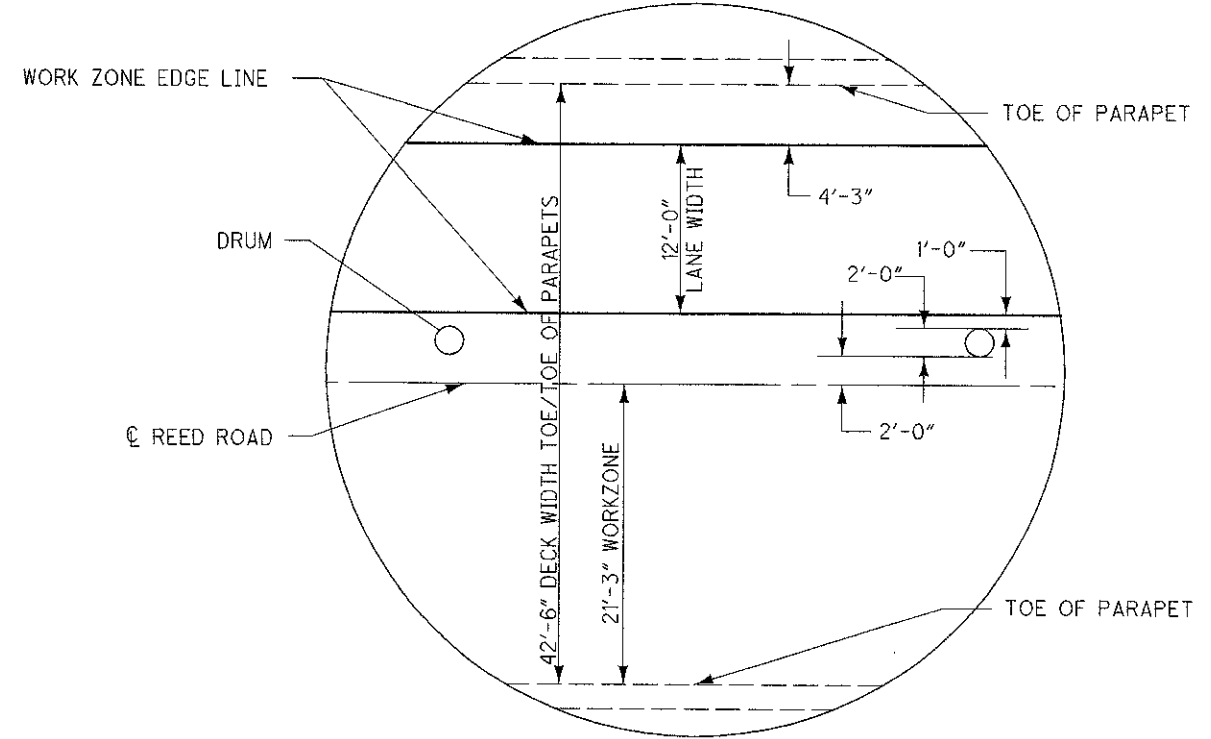
**SIGNAL TIMING**

A TWO PHASE CONTROLLER WITH CABINET CAPABLE OF BEING SET WITH THE FOLLOWING SPLITS SHALL BE FURNISHED

CYCLE LENGTH: 70 SECONDS

	GREEN	AMBER	RED
PHASE A	15	5	15
PHASE B	15	5	15

THE ABOVE TIMING MAYBE CHANGED WITH THE APPROVAL OF THE ENGINEER



DETAIL A

NOTES:

- 1) THE EXISTING BRIDGE RAILING IS NOT SHOWN IN THE PLAN VIEW.
- 2) FOR ADDITIONAL DETAILS, SEE SCDS MT-96.11, MT-96.20, MT-96.26 AND ALSO SUPPLEMENTAL SPECIFICATIONS 961.
- 3) PLACE STEEL PLATES OVER BACKWALL AND APPROACH SLAB REPAIR AREAS PRIOR TO CONCRETE CURING

ITEM	QUANTITY	UNIT	DESCRIPTION
614	12	EACH	BARRIER REFLECTOR, TYPE A2
614	16	EACH	BARRIER REFLECTOR, TYPE B2
614	.06	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I
614	.42	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I
614	24	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I
615	LUMP		ROADS FOR MAINTAINING TRAFFIC
615	428	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN

ALL QUANTITIES CARRIED TO GENERAL SUMMARY SHEET

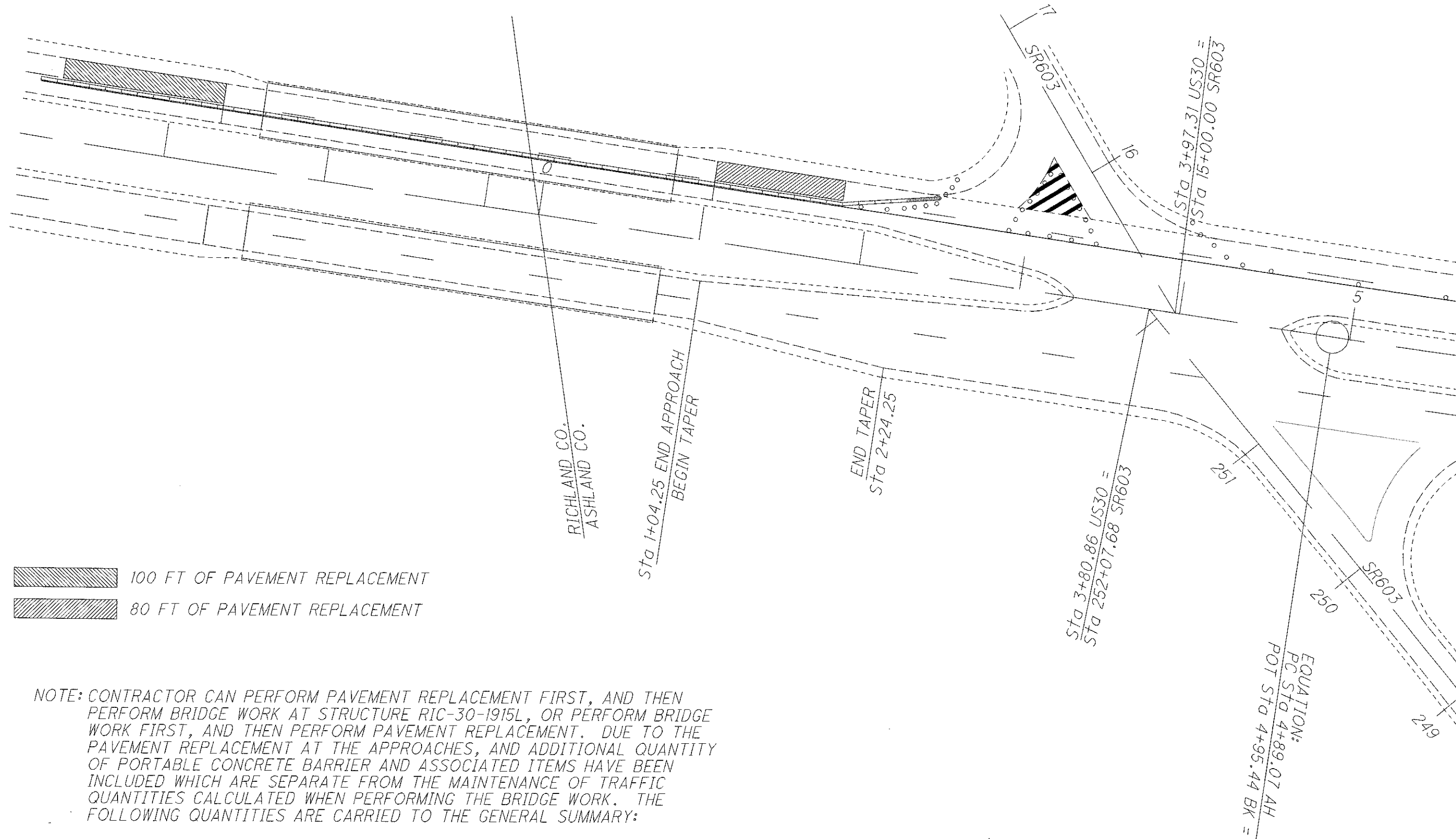
DESIGN FILE: I:\projects\79352\structures\MOT.dgn  
WORKSTATION:KKnapp DATE: 7/12/2010  
MODELNAME: Design

DESIGN AGENCY: ODOT DISTRICT THREE OFFICE OF PRODUCTION  
DATE: 6/10  
REVIEWED: RDN STRUCTURE FILE NUMBER: 700157  
DRAWN: DCM  
DESIGNED: DCM  
CHECKED: DJV

MAINTENANCE OF TRAFFIC PLAN  
RIC-30-1640  
UNDER REED ROAD

RIC/ ASD-30-13.18/ 0.00  
RIC-42-13.74

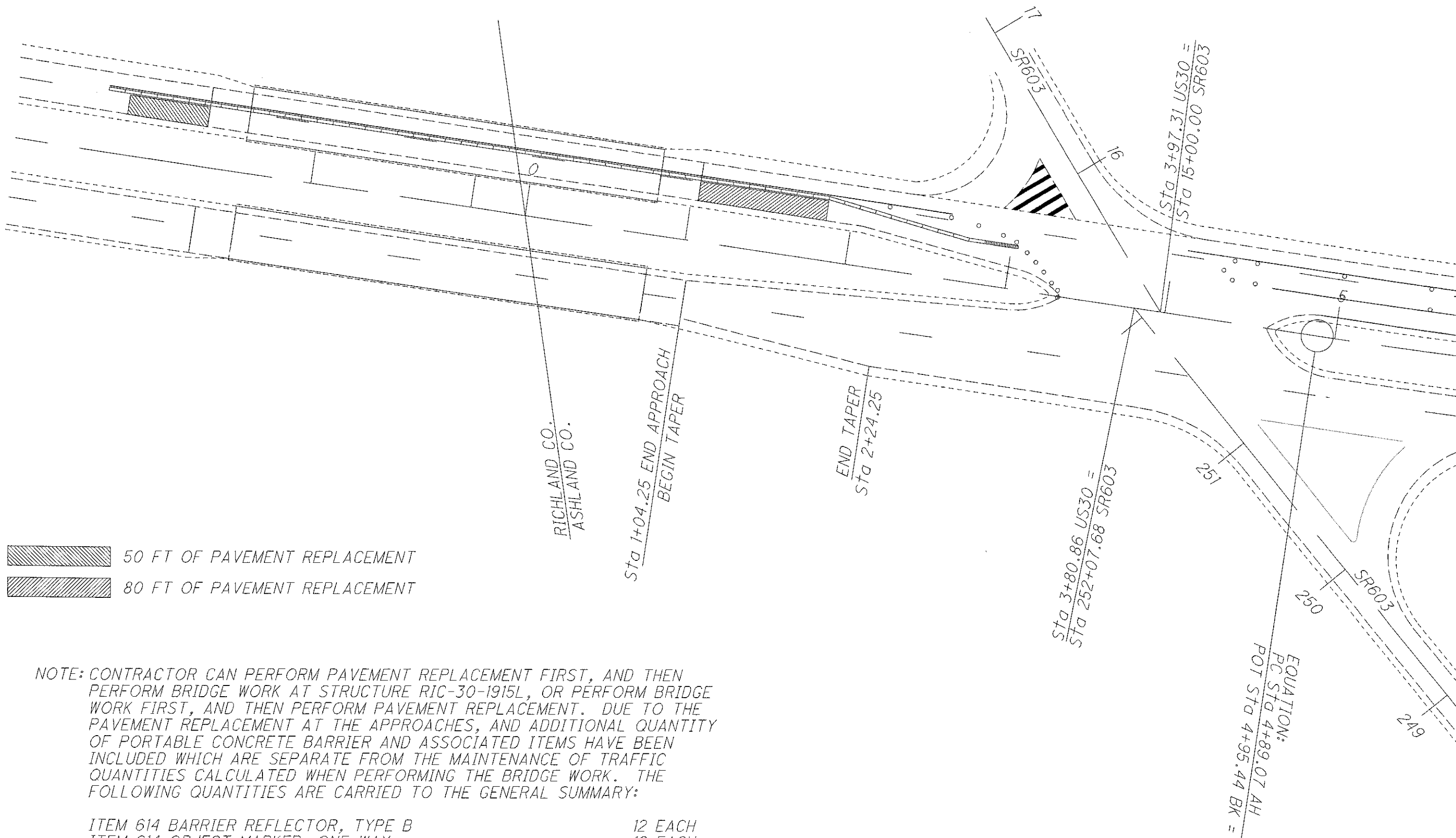
27  
116



- 100 FT OF PAVEMENT REPLACEMENT
- 80 FT OF PAVEMENT REPLACEMENT

NOTE: CONTRACTOR CAN PERFORM PAVEMENT REPLACEMENT FIRST, AND THEN PERFORM BRIDGE WORK AT STRUCTURE RIC-30-1915L, OR PERFORM BRIDGE WORK FIRST, AND THEN PERFORM PAVEMENT REPLACEMENT. DUE TO THE PAVEMENT REPLACEMENT AT THE APPROACHES, AND ADDITIONAL QUANTITY OF PORTABLE CONCRETE BARRIER AND ASSOCIATED ITEMS HAVE BEEN INCLUDED WHICH ARE SEPARATE FROM THE MAINTENANCE OF TRAFFIC QUANTITIES CALCULATED WHEN PERFORMING THE BRIDGE WORK. THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

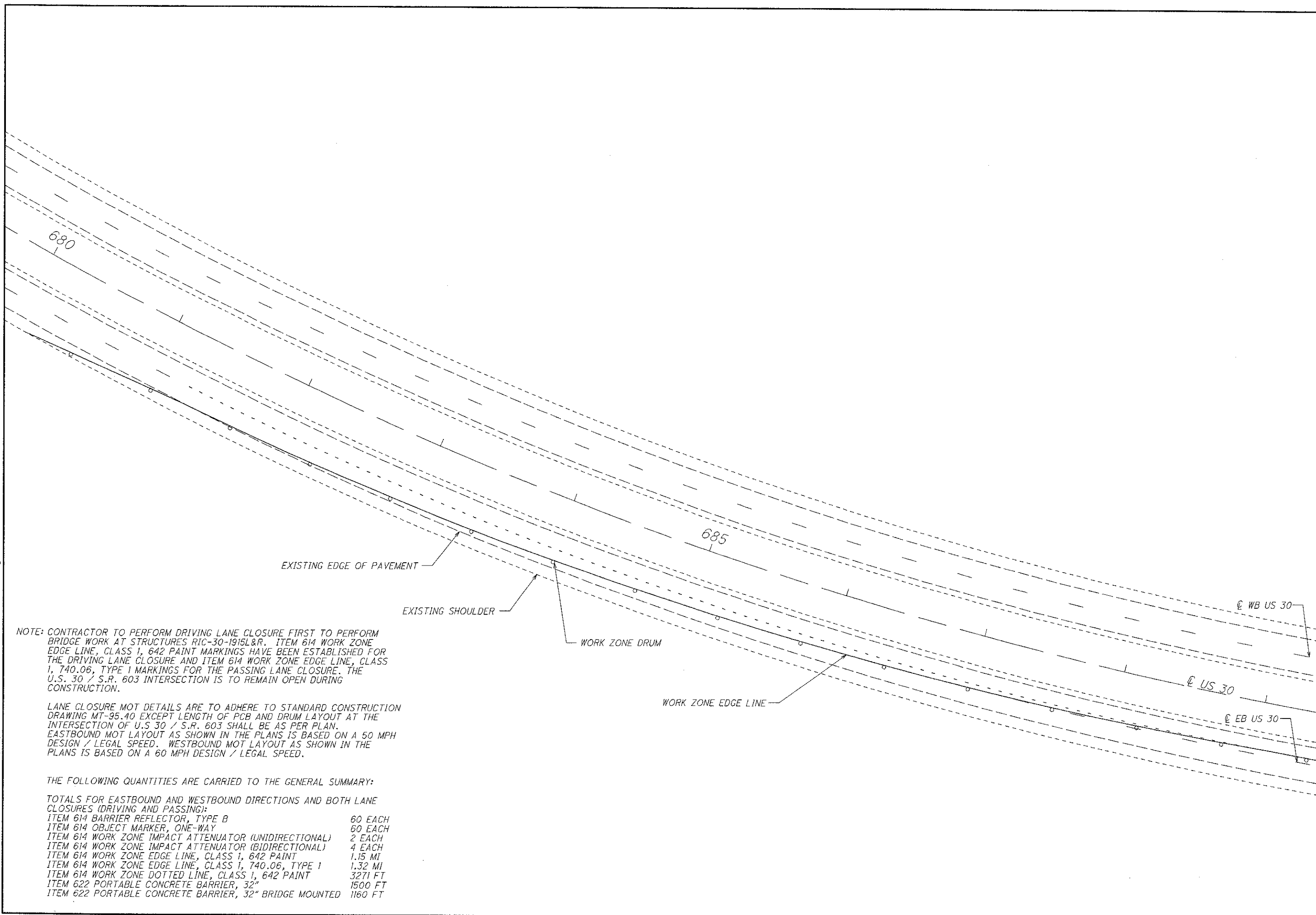
ITEM 614 BARRIER REFLECTOR, TYPE B	12 EACH
ITEM 614 OBJECT MARKER, ONE-WAY	12 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	1 EACH
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	230 FT
ITEM 622 PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED	310 FT



NOTE: CONTRACTOR CAN PERFORM PAVEMENT REPLACEMENT FIRST, AND THEN PERFORM BRIDGE WORK AT STRUCTURE RIC-30-1915L, OR PERFORM BRIDGE WORK FIRST, AND THEN PERFORM PAVEMENT REPLACEMENT. DUE TO THE PAVEMENT REPLACEMENT AT THE APPROACHES, AND ADDITIONAL QUANTITY OF PORTABLE CONCRETE BARRIER AND ASSOCIATED ITEMS HAVE BEEN INCLUDED WHICH ARE SEPARATE FROM THE MAINTENANCE OF TRAFFIC QUANTITIES CALCULATED WHEN PERFORMING THE BRIDGE WORK. THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

ITEM 614 BARRIER REFLECTOR, TYPE B	12 EACH
ITEM 614 OBJECT MARKER, ONE-WAY	12 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	1 EACH
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	240 FT
ITEM 622 PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED	310 FT

DESIGN FILE: I:\projects\79352\structures\RIC1915 MOT.dgn  
 WORKSTATION:chehning  
 MODELNAME: Design  
 DATE: 7/12/2010



NOTE: CONTRACTOR TO PERFORM DRIVING LANE CLOSURE FIRST TO PERFORM BRIDGE WORK AT STRUCTURES RIC-30-1915L&R. ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT MARKINGS HAVE BEEN ESTABLISHED FOR THE DRIVING LANE CLOSURE AND ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1 MARKINGS FOR THE PASSING LANE CLOSURE. THE U.S. 30 / S.R. 603 INTERSECTION IS TO REMAIN OPEN DURING CONSTRUCTION.

LANE CLOSURE MOT DETAILS ARE TO ADHERE TO STANDARD CONSTRUCTION DRAWING MT-95.40 EXCEPT LENGTH OF PCB AND DRUM LAYOUT AT THE INTERSECTION OF U.S 30 / S.R. 603 SHALL BE AS PER PLAN. EASTBOUND MOT LAYOUT AS SHOWN IN THE PLANS IS BASED ON A 50 MPH DESIGN / LEGAL SPEED. WESTBOUND MOT LAYOUT AS SHOWN IN THE PLANS IS BASED ON A 60 MPH DESIGN / LEGAL SPEED.

THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

TOTALS FOR EASTBOUND AND WESTBOUND DIRECTIONS AND BOTH LANE CLOSURES (DRIVING AND PASSING):	
ITEM 614 BARRIER REFLECTOR, TYPE B	60 EACH
ITEM 614 OBJECT MARKER, ONE-WAY	60 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)	2 EACH
ITEM 614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	4 EACH
ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT	1.15 MI
ITEM 614 WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1	1.32 MI
ITEM 614 WORK ZONE DOTTED LINE, CLASS 1, 642 PAINT	3271 FT
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	1500 FT
ITEM 622 PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED	1160 FT

CALCULATED

A/C/H

CHECKED

M/J/S

RIC / ASD -30-13.18 / 0.00

RIC -42-13.74

30  
116

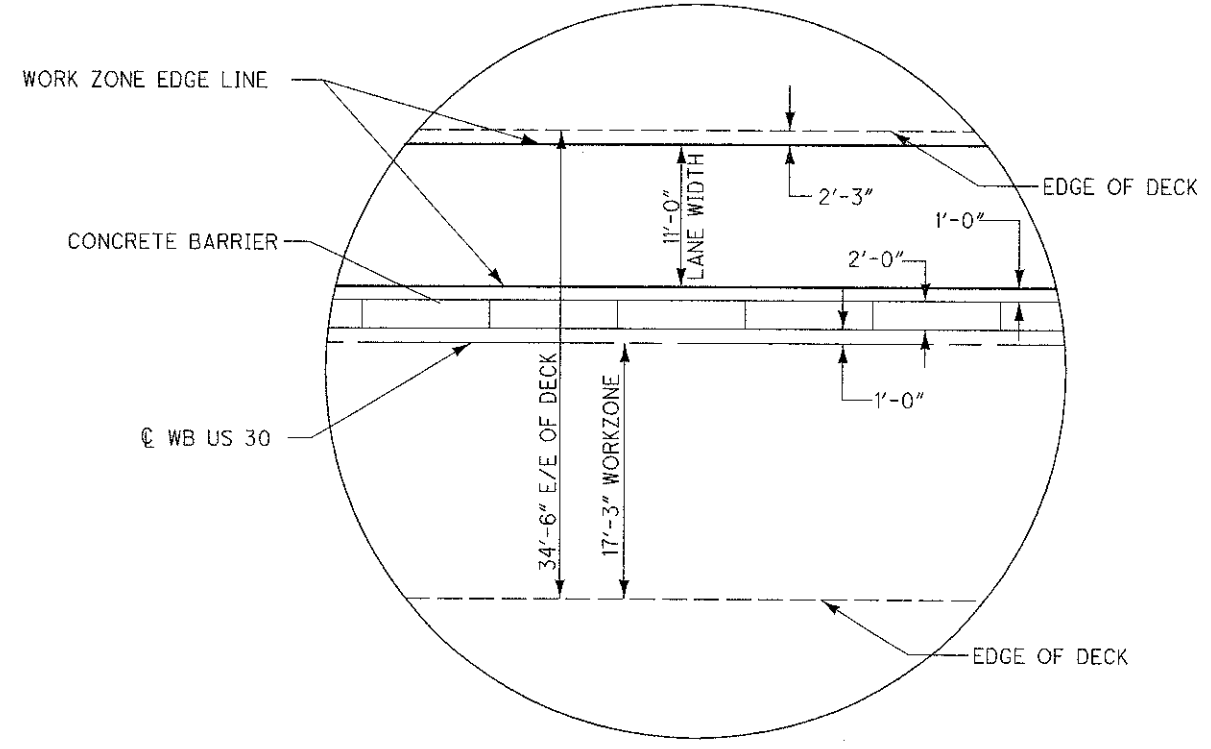
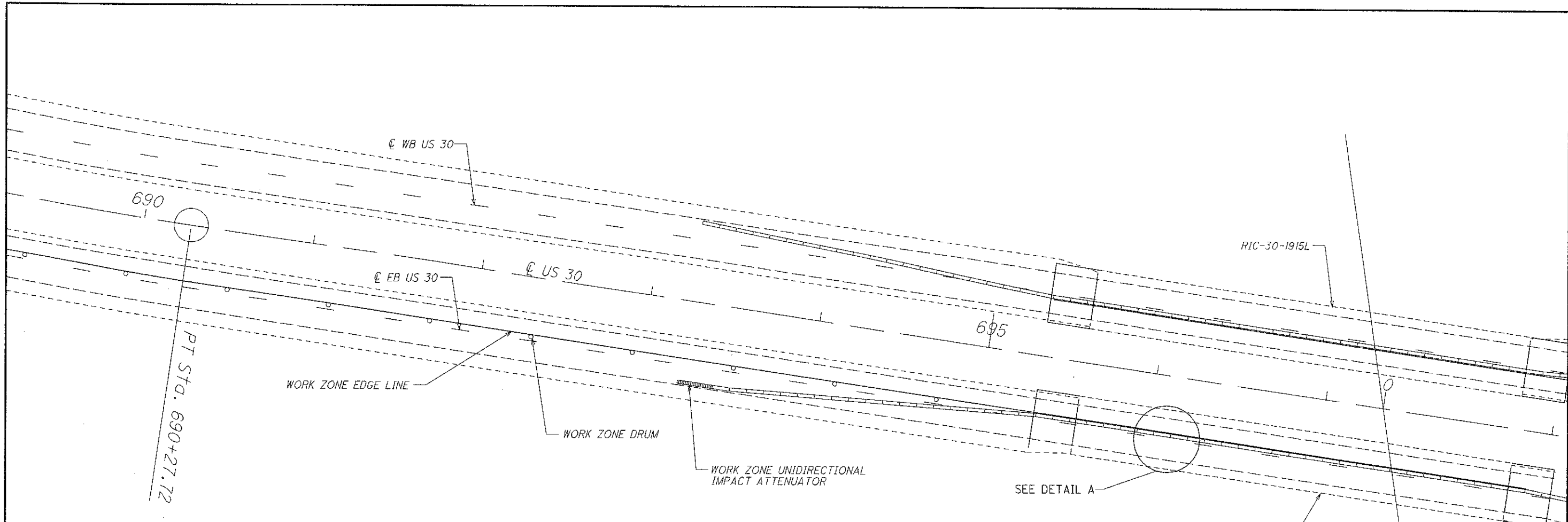
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LANE CLOSURE AT STRUCTURES RIC-30-1915

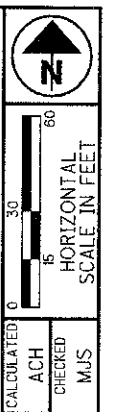
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1" = 30'

HORIZONTAL SCALE IN FEET



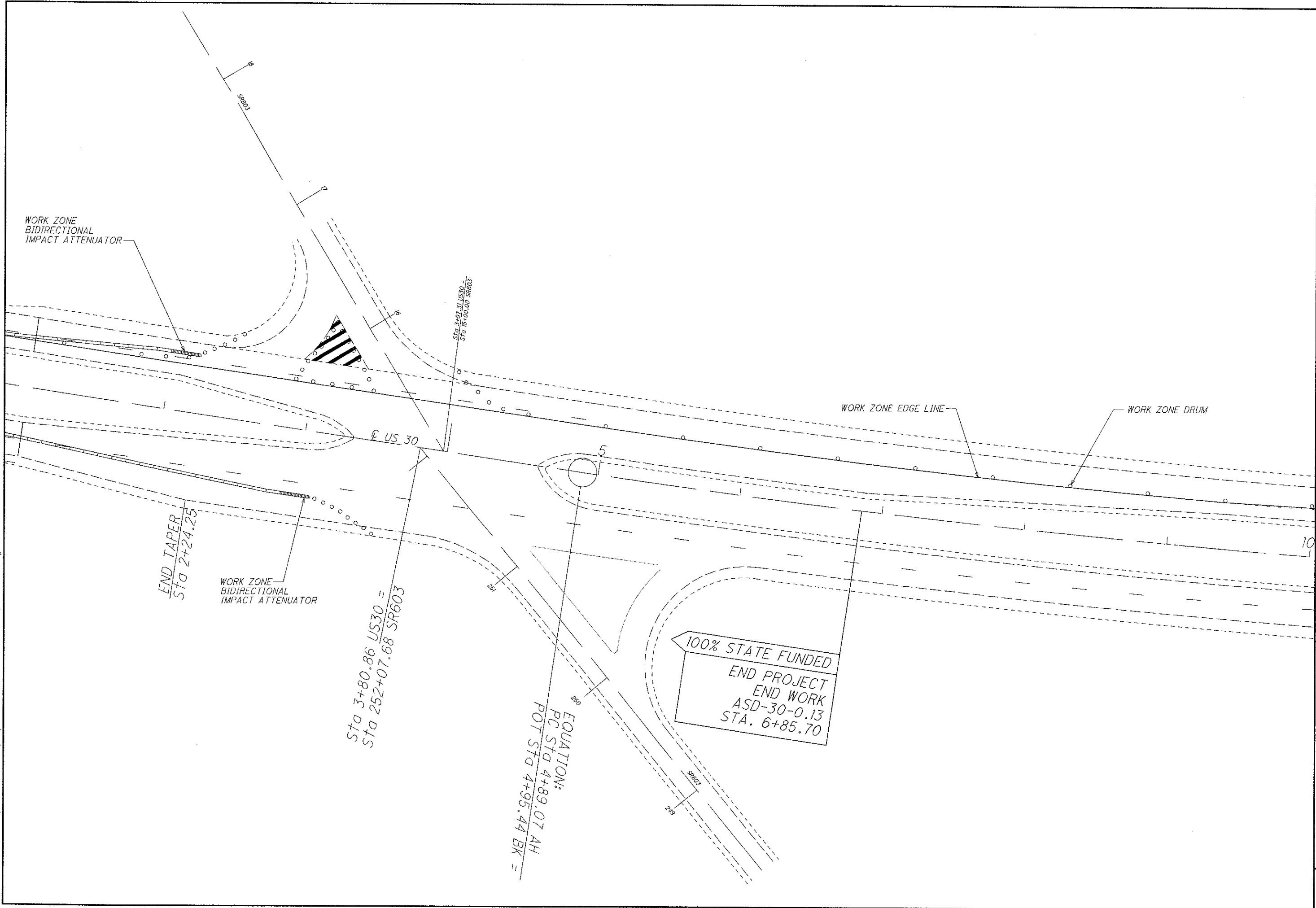
DETAIL A  
(TYP FOR EB & WB)



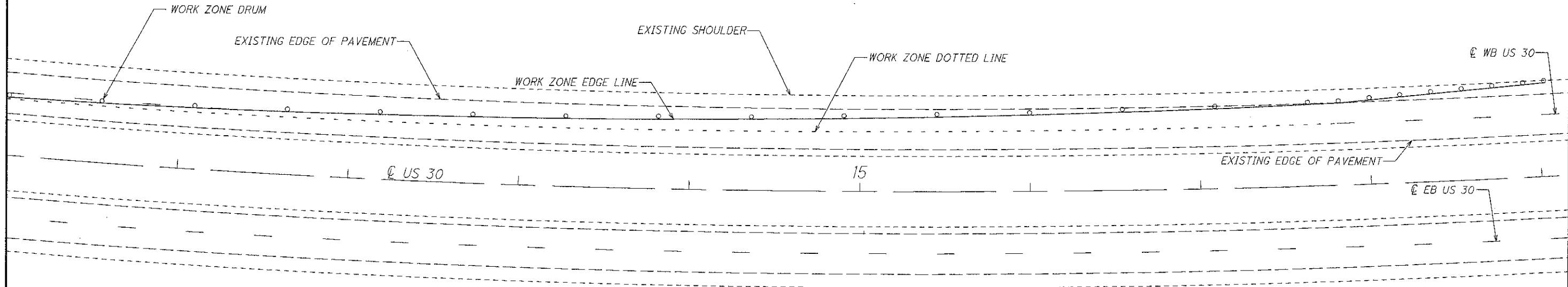
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**MAINTENANCE OF TRAFFIC FOR DRIVING**  
**LANE CLOSURE AT STRUCTURES RIC-30-1915**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74





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DATE: 7/12/2010  
MODELNAME: Design

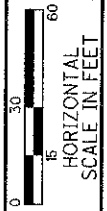


33  
116

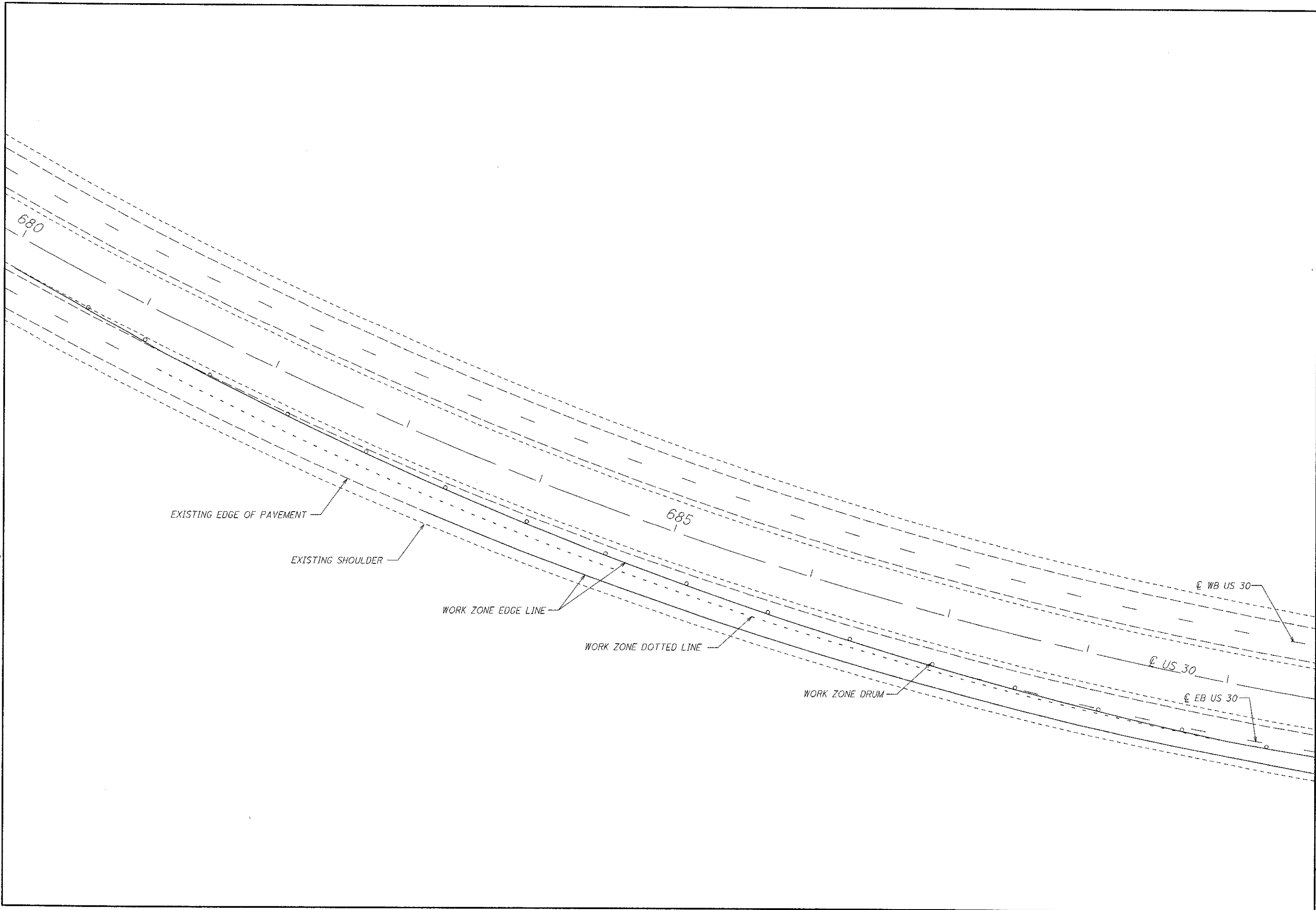
RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74

MAINTENANCE OF TRAFFIC FOR DRIVING  
LANE CLOSURE AT STRUCTURES RIC-30-1915

CALCULATED  
A CH  
CHECKED  
MJS



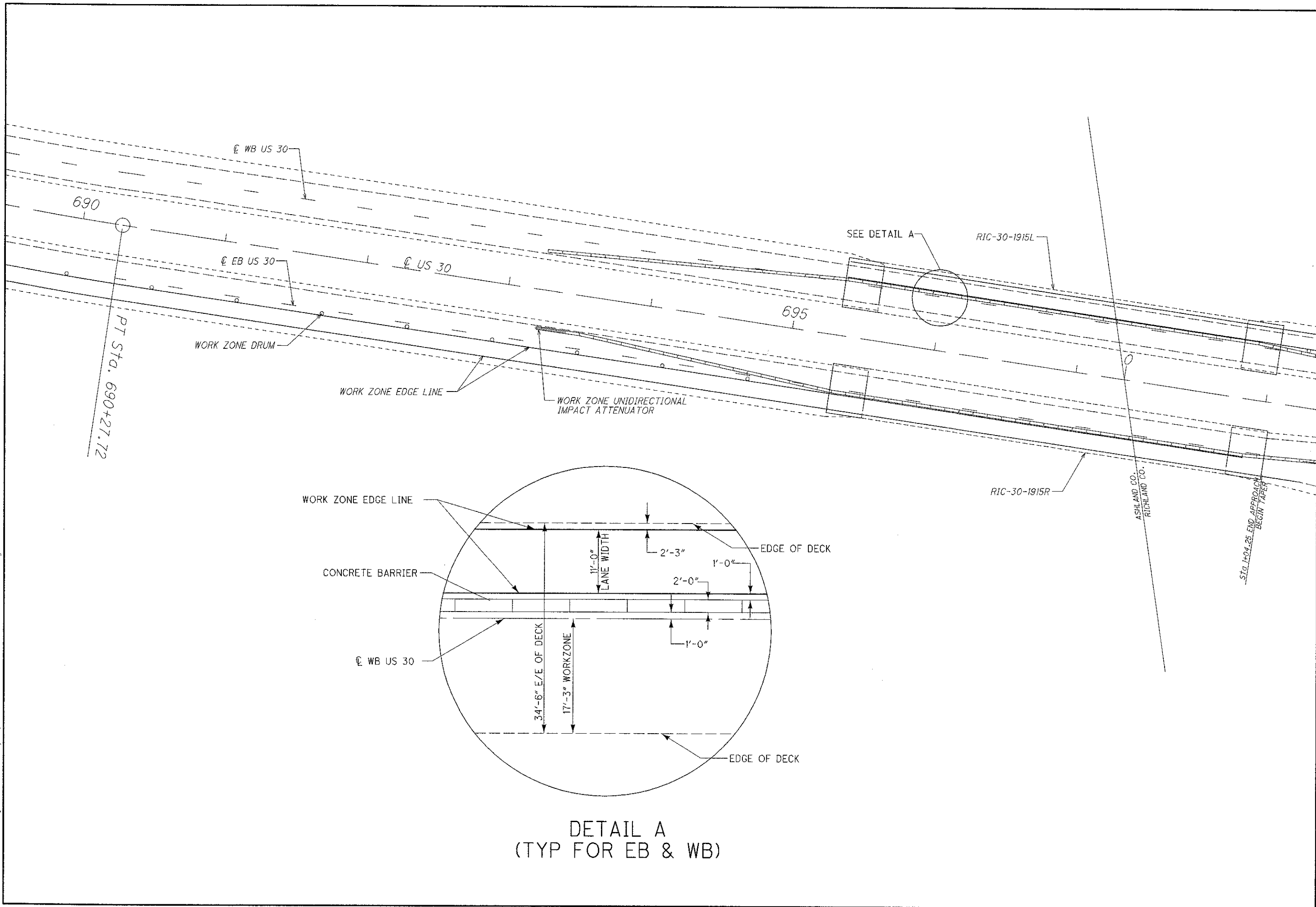
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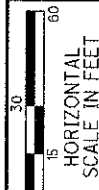
CALCULATED ACH  
CHECKED MJ/S

**RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74**

**MAINTENANCE OF TRAFFIC FOR PASSING  
LANE CLOSURE AT STRUCTURES RIC-30-1915**



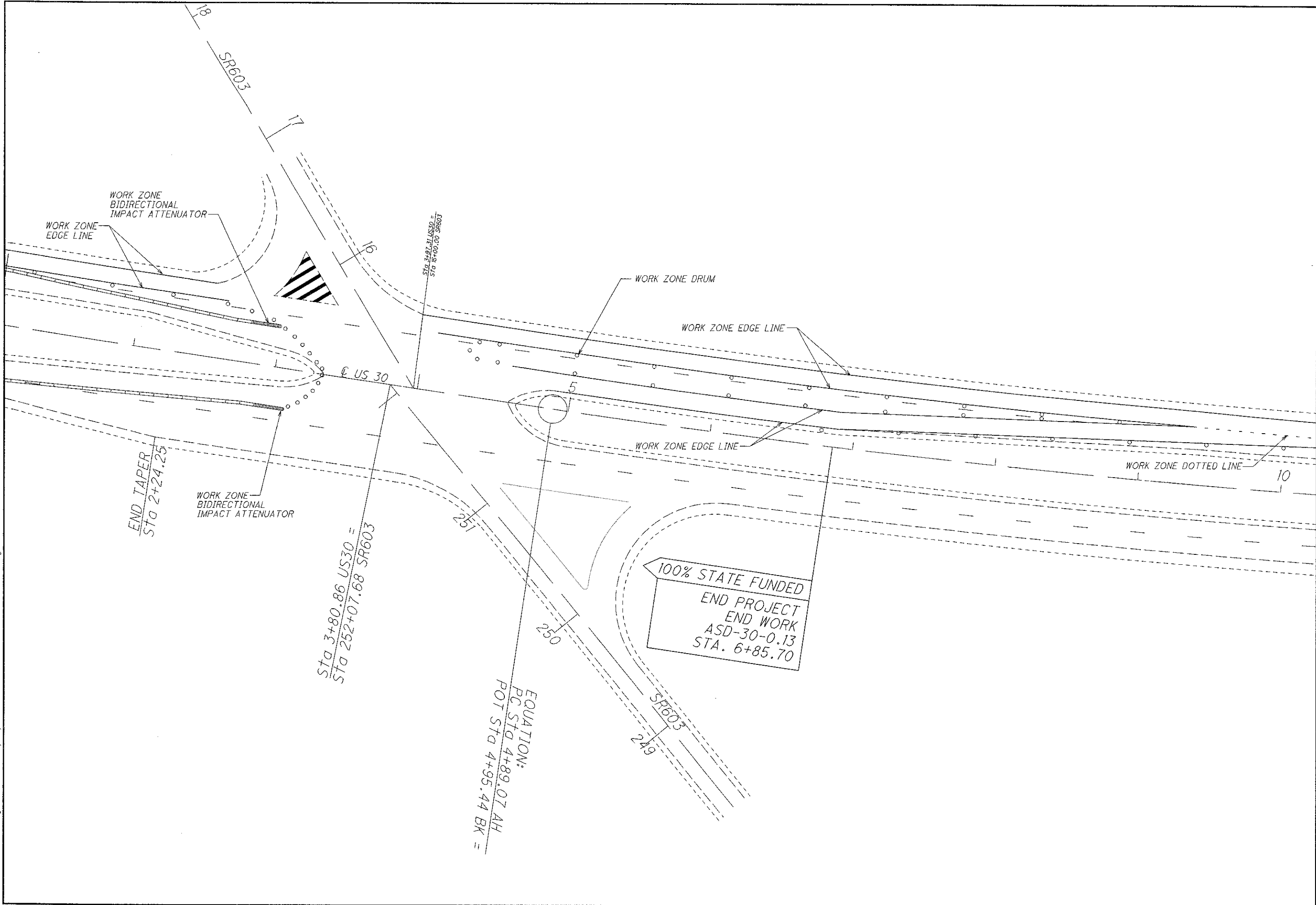
DETAIL A  
(TYP FOR EB & WB)



CALCULATED ACH  
 CHECKED MUS

**MAINTENANCE OF TRAFFIC FOR PASSING  
 LANE CLOSURE AT STRUCTURES RIC-30-1915**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**



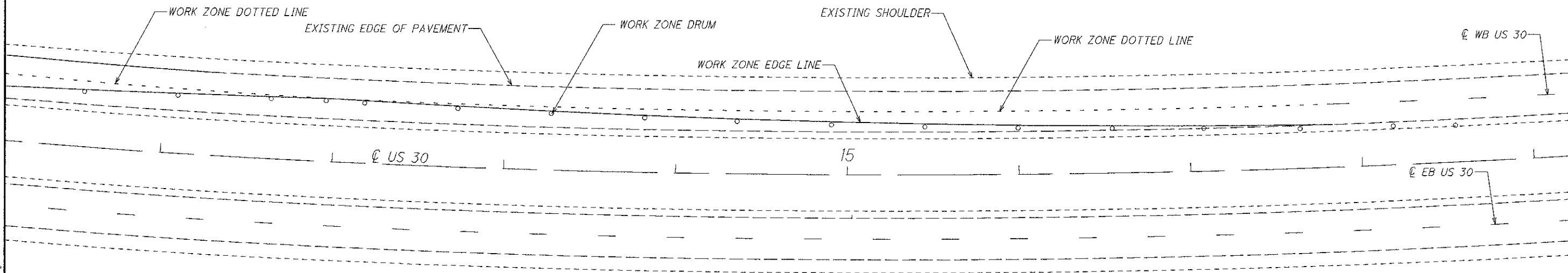
CALCULATED  
 ACH  
 CHECKED  
 MJS

0 30 60  
 HORIZONTAL  
 SCALE IN FEET

**MAINTENANCE OF TRAFFIC FOR PASSING  
 LANE CLOSURE AT STRUCTURES RIC-30-1915**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**

DESIGN FILE: I:\projects\79352\structures\RIC1915 MOT.dgn  
WORKSTATION: cheining DATE: 7/12/2010 MODELNAME: Design



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41	42	43	44	45	46	47	49	50	55	56	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REF. SHEET
<b>ROADWAY ITEMS</b>																
1,093							1,932	1,877			202	23000	4,902	SQ YD	PAVEMENT REMOVED	
							799	864			202	32000	1,663	FT	CURB REMOVED	
									1,587.50	975	202	38000	2,562.50	FT	GUARDRAIL REMOVED	
									5,812.50	12,887.50	202	38200	18,700.00	FT	GUARDRAIL REMOVED FOR REUSE	
									3	1	202	42000	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
									2	1	202	42010	3	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
									7	10	202	42040	17	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
									7	6	202	42620	13	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E-98	
									5	9	202	42806	14	EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE T	
										8	202	47000	8	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
									11	5	202	47200	16	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE	
182							322	312			203	10000	816	CU YD	EXCAVATION	
									28	121	203	20001	149	CU YD	EMBANKMENT, AS PER PLAN	51
1,093									112.72	207.71	204	10000	1,093	SQ YD	SUBGRADE COMPACTION	
											209	60201	320.43	STA	LINEAR GRADING, AS PER PLAN	53
	29.06	1.19									209	60500	30.25	MILE	LINEAR GRADING	
									1,337.50	872.50	606	13000	2,210.00	FT	GUARDRAIL, TYPE 5	
									75	125.0	606	13050	200	FT	GUARDRAIL, TYPE 5A	
									4,831.25	10,250.00	606	16500	15,081.25	FT	GUARDRAIL REBUILT, TYPE 5	
									862.50	2,637.50	606	16501	3,500.00	FT	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN	51
									93.75		606	16700	93.75	FT	GUARDRAIL REBUILT, TYPE 5A	
										1	606	22000	1	EACH	ANCHOR ASSEMBLY, TYPE B-98	
									5	1	606	22010	6	EACH	ANCHOR ASSEMBLY, TYPE E-98	
									6	10	606	26500	16	EACH	ANCHOR ASSEMBLY, TYPE T	
									6	9	606	27900	15	EACH	ANCHOR ASSEMBLY REBUILT, TYPE T	
									7	6	606	28050	13	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E-98	
										8	606	32160	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE TST	
									1		606	35000	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
									7	4	606	35010	11	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1	
									4	1	606	35110	5	EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 2	
									2		606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 35MPH DESIGN SPEED, 36" WIDTH	
									2		606	60600	2	EACH	QUADGARD WHEEL DEFLECTOR ASSEMBLY	
									2		606	61000	2	EACH	IMPACT ATTENUATOR, MISC.: REMOVAL OF IMPACT ATTENUATOR	52
									50	362.5	606	98000	412.50	FT	GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING GUARDRAIL, TYPE 5	51
										11	606	98100	11	EACH	GUARDRAIL, MISC.: GUARDRAIL RAIL ELEMENT	51
							839	849			609	14000	1,688	FT	CURB, TYPE 2-A	
									14		622	10160	14	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
									1		622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D	
									1		622	25050	1	EACH	CONCRETE BARRIER, END ANCHOR, REINFORCED, TYPE D	
<b>PAVEMENT ITEMS</b>																
				144	15	99					253	90000	258	CU YD	PAVEMENT REPAIR, MISC.: PARTIAL DEPTH	13
	344,593						1,932	1,877			254	01000	344,593	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (1.75")	
		25,737									254	01000	3,809	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (2.25")	
											254	01000	25,737	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (2.75")	
				779							254	01000	779	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (5.75")	
			604			24					254	01000	628	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (7.25")	
1,093											254	01000	1,093	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE (8.00")	
	3,448	257									254	01600	3,705	SQ YD	PATCHING PLANED SURFACE	
			1,383			24					255	10151	1,407	SQ YD	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN	14
			4,293			84					255	20000	4,377	FT	FULL DEPTH PAVEMENT SAWING	
			246			5					301	46001	251	CU YD	ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN	13
425											302	46001	425	CU YD	ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN	13

GENERAL SUMMARY

RIC/ASD-30-13.18/0.00  
RIC-42-13.74

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SHEET NUMBER															ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REF. SHEET		
13	41	42	43	44	47	48	49	50	55	56	69	70	71	72							75	
PAVEMENT ITEMS - CONT'D																						
	182						322	312								304	20000	816	CU YD	AGGREGATE BASE		
	109	34,459	2,574													407	10000	37,142	GALLON	TACK COAT		
				138	2											407	13900	140	GALLON	TACK COAT, 702.13		
	55		1,288													407	14000	1,343	GALLON	TACK COAT FOR INTERMEDIATE COURSE		
		13,632	1,296													408	10000	14,928	GALLON	PRIME COAT		
			893													442	00201	893	CU YD	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN	14	
	45	16,754														442	10000	16,799	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)		
	45															442	20200	45	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)		
			1,071													442	20201	1,071	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A, (448), AS PER PLAN	14	
									348	641						448	46061	989	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN	53	
							1,932	1,877								452	13000	3,809	SQ YD	9" NON-REINFORCED CONCRETE PAVEMENT		
		1,657	159													617	10101	1,816	CU YD	COMPACTED AGGREGATE, AS PER PLAN	14	
		34,078	3,243													617	20000	37,321	SQ YD	SHOULDER PREPARATION		
		127,842														618	40100	127,842	FT	RUMBLE STRIPS, (ASPHALT CONCRETE)		
						1,797										SPECIAL	69060000	1,797	CU YD	BERM REPAIR, FLEXIBLE	14	
DRAINAGE																						
1																202	20010	1	EACH	HEADWALL REMOVED		
6																202	35100	6	FT	PIPE REMOVED, 24" AND UNDER		
15																203	20001	15	CU YD	EMBANKMENT, AS PER PLAN	51	
7																601	32210	7	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER		
0.20																602	20000	0.20	CU YD	CONCRETE MASONRY		
6																603	04600	6	FT	12" CONDUIT, TYPE C		
		1	1				1	1								604	09000	4	EACH	CATCH BASIN ADJUSTED TO GRADE		
			1													604	34500	1	EACH	MANHOLE ADJUSTED TO GRADE		
TRAFFIC CONTROL																						
																1,397	621	00100	1,397	EACH	RPM	
																1,465	621	54000	1,465	EACH	RAISED PAVEMENT MARKER REMOVED	
									193	260						626	00100	453	EACH	BARRIER REFLECTOR		
											9	5				632	26501	14	EACH	DETECTOR LOOP, AS PER PLAN	68	
											2					632	27009	2	EACH	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	68	
											6	5				632	27201	11	EACH	LOOP DETECTOR TIE IN, AS PER PLAN	68	
											265					632	65300	265	FT	LOOP DETECTOR LEAD-IN CABLE, 2 CONDUCTOR, NO. 14 AWG		
											120					632	90500	120	FT	SIGNALIZATION, MISC.: REMOVE AND REINSTALL LASHING RODS		
													31.61	0.78		644	00100	32.39	MILE	EDGE LINE		
													13.32			644	00200	13.32	MILE	LANE LINE		
													0.12	0.89		644	00300	1.01	MILE	CENTER LINE		
													10,773	5,912		644	00400	16,685	FT	CHANNELIZING LINE		
													372	220		644	00500	592	FT	STOP LINE		
													3,533	2,173		644	00700	5,706	FT	TRANSVERSE/DIAGONAL LINE		
													1,640			644	01200	1,640	FT	PARKING LOT STALL MARKING		
													16	25		644	01300	41	EACH	LANE ARROW		
													4			644	01600	4	EACH	HANDICAP SYMBOL MARKING		
													70			644	20800	70	FT	YIELD LINE		
													2			SPECIAL	64440000	2	EACH	AIR SPEED ZONE MARKING	14	
													0.56			646	10000	0.56	MILE	EDGE LINE		
													0.30			646	10100	0.30	MILE	LANE LINE		
													200			646	10300	200	FT	CHANNELIZING LINE		
													1,270			646	20200	1,270	FT	PARKING LOT STALL MARKING		

GENERAL SUMMARY

RIC/ASD-30-13.18/0.00

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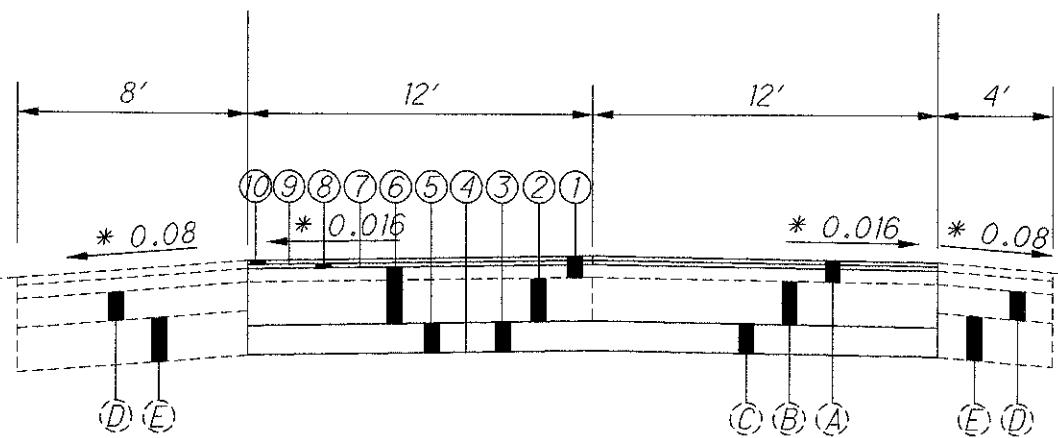
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15	16	17	19-24	25	26	27	28	29	30	71	72							
																STRUCTURES		
																	RIC-30-1388 (SFN 7001320)	76
																	RIC-30-1408L (SFN 7001355)	76
																	RIC-30-1408R (SFN 7001444)	77
																	RIC-30-1441 (SFN 7001479)	78
																	RIC-30-1527 (SFN 7001495)	78
																	RIC-30-1640 (SFN 7001517)	79
																	RIC-30-1750L (SFN 7001568)	80
																	RIC-30-1750R (SFN 7001592)	80
																	RIC-30-1915L (SFN 7001657)	81
																	RIC-30-1915R (SFN 7001681)	82
																MAINTENANCE OF TRAFFIC		
	120											614	11110	120	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
	6											614	11500	6	MONTH	WORKSITE TRAFFIC SUPERVISOR		
		8							2			614	12336	10	EACH	WORK ZONE IMPACT ATTENUATOR (UNIDIRECTIONAL)		
							1	1	4			614	12338	6	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)		
			LUMP									614	12420	LUMP		DETOUR SIGNING		
35												614	12460	35	EACH	WORK ZONE MARKING SIGN		
	65											614	12470	65	EACH	WORK ZONE SPEED LIMIT SIGN		
31												614	12484	31	EACH	WORK ZONE INCREASED PENALTIES SIGN		
	8											614	12410	8	EACH	SPEED ZONE AHEAD SYMBOL SIGN		
5												614	12500	5	EACH	REPLACEMENT SIGN		
20												614	12600	20	EACH	REPLACEMENT DRUM		
150												614	13000	150	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC		
				12	12	12						614	13202	36	EACH	BARRIER REFLECTOR, TYPE A2		
		88					12	12	60			614	13300	172	EACH	BARRIER REFLECTOR, TYPE B		
				12	16	16						614	13302	44	EACH	BARRIER REFLECTOR, TYPE B2		
		84					12	12	60			614	13350	168	EACH	OBJECT MARKER, ONE WAY		
												614	18601	15	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN		17
										13.32		614	20100	13.32	MILE	WORK ZONE LANE LINE, CLASS I, 642 PAINT		
										13.32		614	20550	13.32	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT		
										0.12	0.89	614	21100	1.01	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT		
				0.06	0.06	0.06						614	21200	0.18	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE 1		
										0.12	0.89	614	21550	1.01	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT		
	0.30									1.15	31.61	614	22100	33.06	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT		
	2.10			0.38	0.44	0.42				1.32		614	22200	4.66	MILE	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1		
										31.61		614	22350	31.61	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT		
										10,773	5,912	614	23200	16,685	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT		
										10,773	5,912	614	23680	16,685	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT		
	6,400									3,271		614	24200	9,671	FT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT		
										3,533	2,173	614	25210	5,706	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS II, 642 PAINT		
										3,533	2,173	614	25620	5,706	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS III, 642 PAINT		
										236		614	26200	236	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT		
				24	24	24						614	26400	72	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE 1		
										236		614	26610	236	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT		
				LUMP	LUMP	LUMP						615	10000	LUMP		ROADS FOR MAINTAINING TRAFFIC		
				440	56	428						615	25001	924	SQ YD	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN		17
	2,840						230	240	1,500			622	40020	4,810	FT	PORTABLE CONCRETE BARRIER, 32"		
	1,200						310	310	1,160			622	40040	2,980	FT	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED		
												614	11000	LUMP		MAINTAINING TRAFFIC		
												619	16010	6	MONTH	FIELD OFFICE, TYPE B		
												624	10000	LUMP		MOBILIZATION		

GENERAL SUMMARY

RIC/ASD-30-13.18/0.00

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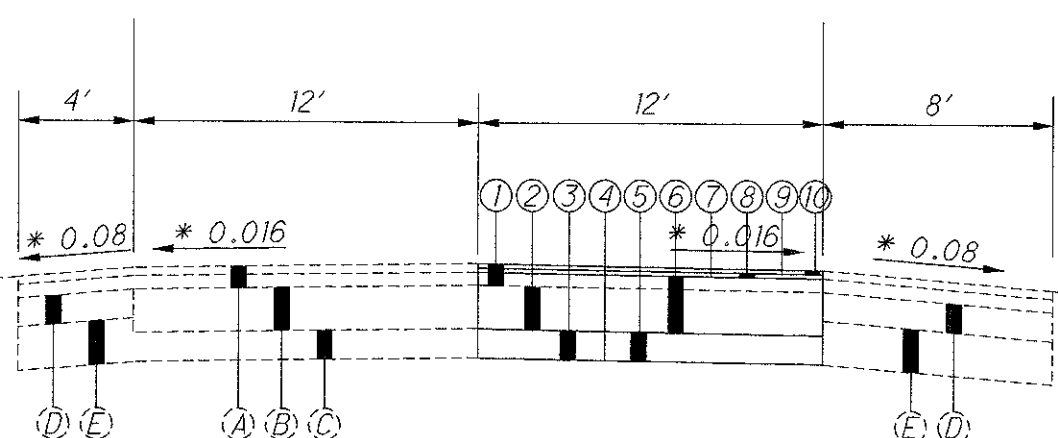
☒ SURVEY, US 30



**PAVEMENT REPLACEMENT SECTION**  
 REPLACE PAVEMENT IN DRIVING LANE AND PASSING LANE AT STRUCTURE RIC-30-1408L, 120FT ON EAST END OF STRUCTURE, JUST BEYOND APPROACH SLAB.  
 REPLACE PAVEMENT IN DRIVING LANE ONLY AT STRUCTURE RIC-30-1408L, 110FT ON WEST END OF STRUCTURE, JUST BEYOND APPROACH SLAB.

VARIES

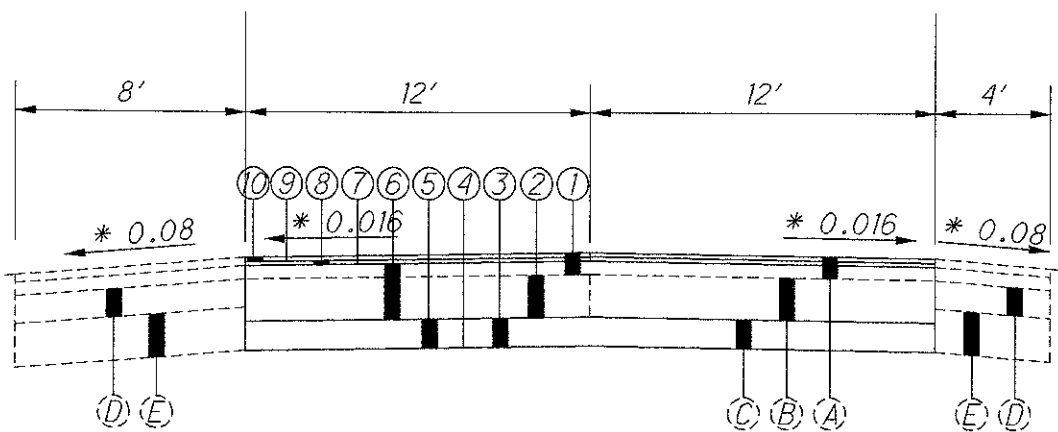
VARIES



**PAVEMENT REPLACEMENT SECTION**  
 REPLACE PAVEMENT IN DRIVING LANE ONLY AT STRUCTURE RIC-30-1408R, 80FT ON EACH END OF STRUCTURE, JUST BEYOND APPROACH SLAB.

\* PREFERRED SLOPE

☒ SURVEY, US 30



**PAVEMENT REPLACEMENT SECTION**  
 REPLACE PAVEMENT IN DRIVING LANE AND PASSING LANE AT STRUCTURE RIC-30-1915L, 80FT ON EAST END OF STRUCTURE, JUST BEYOND APPROACH SLAB.  
 REPLACE PAVEMENT IN DRIVING LANE AND PASSING LANE AT STRUCTURE RIC-30-1915L, 100FT ON WEST END OF STRUCTURE (DRIVING LANE) AND 50FT ON WEST END OF STRUCTURE (PASSING LANE), JUST BEYOND APPROACH SLAB.

VARIES

**PAVEMENT REPLACEMENT CALCULATIONS**

**RIC-30-1408L:**  
 120FT X 24FT / 9 = 320 SQ YD  
 110FT X 12FT / 9 = 147 SQ YD  
 467 SQ YD

**RIC-30-1408R:**  
 160FT X 12FT / 9 = 213 SQ YD  
 213 SQ YD

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE (8.00") = 680 SQ YD  
 ITEM 202 PAVEMENT REMOVED = 680 SQ YD  
 ITEM 203 EXCAVATION = 680 SQ YD X 6" / 36 = 113 CU YD  
 ITEM 204 SUBGRADE COMPACTION = 680 SQ YD  
 ITEM 304 AGGREGATE BASE = 680 SQ YD X 6" / 36 = 113 CU YD  
 ITEM 302 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN = 680 SQ YD X 14" / 36 = 264 CU YD  
 ITEM 407 TACK COAT = 680 SQ YD X 0.10 GAL / SQ YD = 68 GAL  
 ITEM 442 ASPHALT CONCRETE INTERM COURSE, 19MM, TYPE A (448) = 680 SQ YD X 1.5" / 36 = 28 CU YD  
 ITEM 407 TACK COAT FOR INTERMEDIATE COURSE = 680 SQ YD X 0.05 GAL / SQ YD = 34 GAL  
 ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) = 680 SQ YD X 1.5" / 36 = 28 CU YD

**RIC-30-1915L:**  
 80FT X 24FT / 9 = 213 SQ YD  
 100FT X 12FT / 9 = 133 SQ YD  
 50FT X 12FT / 9 = 67 SQ YD  
 413 SQ YD

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE (8.00") = 413 SQ YD  
 ITEM 202 PAVEMENT REMOVED = 413 SQ YD  
 ITEM 203 EXCAVATION = 413 SQ YD X 6" / 36 = 69 CU YD  
 ITEM 204 SUBGRADE COMPACTION = 413 SQ YD  
 ITEM 304 AGGREGATE BASE = 413 SQ YD X 6" / 36 = 69 CU YD  
 ITEM 302 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN = 413 SQ YD X 14" / 36 = 161 CU YD  
 ITEM 407 TACK COAT = 413 SQ YD X 0.10 GAL / SQ YD = 41 GAL  
 ITEM 442 ASPHALT CONCRETE INTERM COURSE, 19MM, TYPE A (448) = 413 SQ YD X 1.5" / 36 = 17 CU YD  
 ITEM 407 TACK COAT FOR INTERMEDIATE COURSE = 413 SQ YD X 0.05 GAL / SQ YD = 21 GAL  
 ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) = 413 SQ YD X 1.5" / 36 = 17 CU YD

**LEGEND - PROPOSED**

- ① 8.00" ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ② ITEM 202 PAVEMENT REMOVED
- ③ 6.00" ITEM 203 EXCAVATION
- ④ ITEM 204 SUBGRADE COMPACTION
- ⑤ 6.00" ITEM 304 AGGREGATE BASE
- ⑥ 14.00" ITEM 302 ASPHALT CONCRETE BASE, PG 64-22, AS PER PLAN
- ⑦ ITEM 407 TACK COAT
- ⑧ 1.50" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
- ⑨ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑩ 1.50" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)

**LEGEND - EXISTING**

- Ⓐ EXISTING ASPHALT CONCRETE VARIES, SEE PAVEMENT CORING INFORMATION
- Ⓑ EXISTING 9" REINFORCED CONCRETE
- Ⓒ EXISTING 6" SUBBASE
- Ⓓ EXISTING VARIABLE AGGREGATE BASE
- Ⓔ EXISTING VARIABLE SUBBASE

DESIGN FILE: I:\projects\79352\roadway\sheet\793520002.dgn  
 WORKSTATION: Kknapp  
 MODELNAME: Sheet  
 DATE: 7/12/2010

CALCULATED  
 MJS  
 CHECKED  
 ADB

PAVEMENT REPLACEMENT AT STRUCTURES

RIC / ASD-30-13.18 / 0.00  
 RIC-30-13.74

COUNTY	ROUTE	LOG POINT TO LOG POINT		LENGTH		WIDTH FEET AVG.	PAVEMENT AREA SQ YD	254		407	442		604	618	AGGREGATE SHOULDER PROPOSED WIDTH		AGGREGATE SHOULDER AREA	209	408	617	617	CALC BY MJS CHKD BY ADB						
				PAVEMENT PLANING, ASPHALT CONCRETE (1.75')	PATCHING PLANED SURFACE			TACK COAT @ 0.10 GAL/SY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	CATCH BASIN ADJUSTED TO GRADE	RUMBLE STRIPS, (ASPHALT CONCRETE)	LINEAR GRADING	PRIME COAT @ 0.40 GAL/SY	COMPACTED AGGREGATE, AS PER PLAN	SHOULDER PREPARATION													
																SQ.YD	SQ.YD	GALLON	INCH	CU.YD.	EACH		FT	SQ YD	MILE	GALLON	CU YD	SQ.YD
RIC	30	385+00.00	676+08.96	5.51	29109	72.0	232,872	232,872	2,329	23,287	1.75	11,320			116436			2.0	2.0	25,875	22.05	10,350	1,258	25,874				
RIC	30	670+00.00	697+34.00	0.52	2734	72.0	21,872	21,872	219	2,187	1.75	1,063			10936			2.0	2.0	2,430	2.07	972	118	2,430				
ASD	30	0+00.00	4+95.44	0.09	495	72.0	3,960	3,960	40	396	1.75	193			1980			2.0	2.0	440	0.38	176	22	440				
ASD	30	4+89.07	6+85.70	0.04	197	72.0	1,576	1,576	16	158	1.75	77			788			2.0	2.0	175	0.15	70	8	176				
RIC	30	BRIDGE DEDUCT RIC-30-1408 L		-294.42		72.0	-2,355	-2,355	-24	-236	1.75	-114			-588.84			2.0	2.0	-131	-0.11	-52	-6	-131				
RIC	30	BRIDGE DEDUCT RIC-30-1408 R		-294.42		72.0	-2,355	-2,355	-24	-236	1.75	-114			-588.84			2.0	2.0	-131	-0.11	-52	-6	-131				
RIC	30	BRIDGE DEDUCT RIC-30-1750 L		-140		72.0	-1,120	-1,120	-11	-112	1.75	-54			-280			2.0	2.0	-62	-0.05	-25	-3	-62				
RIC	30	BRIDGE DEDUCT RIC-30-1750 R		-140		72.0	-1,120	-1,120	-11	-112	1.75	-54			-280			2.0	2.0	-62	-0.05	-25	-3	-62				
RIC	30	BRIDGE DEDUCT RIC-30-1915 L		-140		72.0	-1,120	-1,120	-11	-112	1.75	-54			-280			2.0	2.0	-62	-0.05	-25	-3	-62				
RIC	30	BRIDGE DEDUCT RIC-30-1915 R		-140		72.0	-1,120	-1,120	-11	-112	1.75	-54			-280			2.0	2.0	-62	-0.05	-25	-3	-62				
RIC	30	US42 RAMPS					20,342	20,342	203	2,034	1.75	989						2.0	2.0	2,600	2.22	1,040	126	2,600				
		ACCEL/DECEL LANES					7,704	7,704	77	770	1.75	375																
RIC	30	LAVER RD RAMPS					6,167	6,167	62	617	1.75	300						2.0	2.0	827	0.70	331	40	827				
		ACCEL/DECEL LANES					10,083	10,083	101	1,008	1.75	490																
RIC	30	REED RD RAMPS					7,762	7,762	78	776	1.75	377						2.0	2.0	1,125	0.96	450	55	1,125				
		ACCEL/DECEL LANES					6,827	6,827	68	683	1.75	332																
RIC	30	REST AREA ACCEL /DECEL LANES					6,278	6,278	63	628	1.75	305																
RIC	30	IR 71 ACCEL/DECEL LANES / MEDIAN EXTRA AREA					4596	4,596	46	460	1.75	223																
RIC	30	KOOGLER RD RAMPS					11744	11,744	117	1,174	1.75	571						2.0	2.0	1,092	0.93	437	53	1,092				
		ACCEL/DECEL LANES					5715	5,715	57	572	1.75	278																
RIC	30	TROUT DR INTERSECTION / DECEL LANES / MEDIAN					1354	1,354	14	135	1.75	66																
RIC	30	SR603 INTERSECTIONS AND MEDIAN					3157	3,157	32	316	1.75	153																
RIC	30	EXTRA AREA FOR U-TURN MEDIANS					640	640	6	64	1.75	31						2.0	2.0	24	0.02	10	1	24				
RIC		STEWART RD OVERHEAD BRIDGE APPROACHES					267	267	3	27	1.75	13																
RIC		McELROY RD OVERHEAD BRIDGE APPROACHES					267	267	3	27	1.75	13																
RIC		LAVER RD OVERHEAD BRIDGE APPROACHES					333	333	3	33	1.75	16																
RIC		REED RD OVERHEAD BRIDGE APPROACHES					267	267	3	27	1.75	13																
<b>TOTALS</b>				<b>6.16</b>	<b>32535</b>		<b>344,593</b>	<b>3,448</b>	<b>34,459</b>		<b>16,754</b>	<b>1</b>	<b>127,842</b>					<b>29.06</b>	<b>13,632</b>	<b>1,657</b>	<b>34,078</b>							

PAVEMENT & SHOULDER DATA

RIC/ASD-30-13.18/0.00  
RIC-42-13.74

COUNTY	ROUTE	LOG POINT TO LOG POINT		SIDE OF ROAD FOR MEASUREMENT WIDTH	LENGTH		WIDTH FEET AVG.	PAVEMENT AREA SQ YD	254		407	442		442	407	604	604	AGGREGATE SHOULDER PROPOSED WIDTH	AGGREGATE SHOULDER AREA	209	408	617		617													
					MILE	FEET			PAVEMENT PLANING, ASPHALT CONCRETE (2.75")	PATCHING PLANED SURFACE	TACK COAT @ 0.10 GAL/SY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448), AS PER PLAN (VARIABLE THICKNESS)		TACK COAT FOR INTERM COURSE @ 0.05 GAL/SY	CATCH BASIN ADJUSTED TO GRADE	MANHOLE ADJUSTED TO GRADE	LINEAR GRADING			PRIME COAT @ 0.40 GAL/SY	COMPACTED AGGREGATE, AS PER PLAN	SHOULDER PREPARATION															
												SQ.YD	SQ.YD										GALLON	INCH	CU.YD.	INCH	CU.YD.	GALLON	EACH	EACH	FT	FT	SQ YD	MILE	GALLON	CU YD	SQ.YD
												1.75 INCHES AVG. THICKNESS																									
RIC	42	14+87 R	14+09 R	BOTH SIDES	0.01	78	66.0	572	572	6	57	1.50	24	1.25	20	29			2.0	2.0	35	0.03	14	2	35												
RIC	42	14+09 R	8+66 R	BOTH SIDES	0.10	543	93.5	5,641	5,641	56	564	1.50	235	1.25	196	282			6.0	6.0	724	0.21	290	35	724												
RIC	42	8+66 R	6+24 R	BOTH SIDES	0.05	242	95.0	2,554	2,554	26	255	1.50	106	1.25	89	128			6.0	6.0	323	0.09	129	16	323												
RIC	42	6+24 R	4+32 R	BOTH SIDES	0.04	192	73.0	1,557	1,557	16	156	1.50	65	1.25	54	78			6.0		128	0.04	51	6	128												
RIC	42	4+32 R	3+35 R	R	0.02	97	27.0	291	291	3	29	1.50	12	1.25	10	15					0	0.00	0	0	0												
RIC	42	4+32 R	2+77 R	L	(0.03)	(155)	46.5	801	801	8	80	1.50	33	1.25	28	40			6.0		103	0.03	41	5	103												
RIC	42	3+35 R	0+69 R	R	0.05	266	48.5	1,433	1,433	14	143	1.50	60	1.25	50	72				6.0	177	0.05	71	9	177												
RIC	42	2+77 R	2+10 R	L	(0.01)	(67)	45.0	335	335	3	34	1.50	14	1.25	12	17			6.0		45	0.01	18	2	45												
RIC	42	2+10 R	0+69 L	L	(0.03)	(141)	47.5	744	744	7	74	1.50	31	1.25	26	37			6.0		94	0.03	38	5	94												
RIC	42	0+69 R	0+00 R	R	0.01	69	45.5	349	349	3	35	1.50	15	1.25	12	17				6.0	46	0.01	18	2	46												
RIC	42	0+00 L	1+51 L	R	0.03	151	47.0	789	789	8	79	1.50	33	1.25	27	39				6.0	101	0.03	40	5	101												
RIC	42	0+69 L	1+51 L	L	(0.02)	(82)	29.0	264	264	3	26	1.50	11	1.25	9	13					0	0.00	0	0	0												
RIC	42	1+51 L	2+61 L	BOTH SIDES	0.02	110	73.5	898	898	9	90	1.50	37	1.25	31	45				6.0	73	0.02	29	4	73												
RIC	42	2+61 L	3+31 L	L	(0.01)	(70)	29.0	226	226	2	23	1.50	9	1.25	8	11					0	0.00	0	0	0												
RIC	42	3+31 L	4+48 L	L	(0.02)	(117)	54.0	702	702	7	70	1.50	29	1.25	24	35			6.0		78	0.02	31	4	78												
RIC	42	2+61 L	3+96 L	R	0.03	135	33.0	495	495	5	50	1.50	21	1.25	17	25				6.0	90	0.03	36	4	90												
RIC	42	3+96 L	4+48 L	R	0.01	52	27.0	156	156	2	16	1.50	7	1.25	5	8				6.0	35	0.01	14	2	35												
RIC	42	4+48 L	8+70 L	BOTH SIDES	0.08	422	55.5	2,602	2,602	26	260	1.50	108	1.25	90	130			6.0	6.0	563	0.16	225	27	563												
RIC	42	8+70 L	20+00 L	BOTH SIDES	0.21	1130	36.0	4,520	4,520	45	452	1.50	188	1.25	157	226			2.5	2.5	628	0.43	251	31	628												
RIC	42	MCELROY RD INTERSECTION							298	298	3	30	1.50	12	1.25	10	15																				
RIC	42	STEWART RD INTERSECTION							510	510	5	51	1.50	21	1.25	18	26																				
TOTALS					0.66	3487			25737	257	2574		1071		893	1288	1	1				1.19	1296	159	3243												

CALC BY: MJS  
 CHKD BY: ADB  
 PAVEMENT & SHOULDER DATA  
 RIC/ASD-30-13.18/0.00  
 RIC-42-13.74  
 43  
 116



MAINLINE PARTIAL DEPTH PAVEMENT REPAIRS

STATION		DIRECTION	LANE	WIDTH	LENGTH	INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	NUMBER OF REPAIRS	253
BEGIN	END								PAVEMENT REPAIR, MISC.: PARTIAL DEPTH
				FT	FT	SQ YD		EA	CU YD*
6+57	0+00	WB	DRIVING	6	12	8.00	TRANS	1	1.61
6+57	0+00	WB	PASSING	6	12	8.00	TRANS	4	6.44
6+57	0+00	WB	LEFT TURN LANE	6	12	8.00	TRANS	2	3.22
697+34	684+14	WB	DRIVING	6	12	8.00	TRANS	2	3.22
697+34	684+14	WB	PASSING	6	12	8.00	TRANS	2	3.22
697+34	684+14	WB	DRIVING	3	12	4.00	TRANS	1	0.81
684+14	670+94	WB	DRIVING	3	12	4.00	TRANS	1	0.81
684+14	670+94	WB	DRIVING	6	12	8.00	TRANS	3	4.83
684+14	670+94	WB	PASSING	3	12	4.00	TRANS	1	0.81
644+54	631+34	WB	DRIVING	3	12	4.00	TRANS	2	1.61
644+54	631+34	WB	PASSING	6	12	8.00	TRANS	2	3.22
644+54	631+34	WB	PASSING	3	12	4.00	TRANS	1	0.81
631+34	618+14	WB	DRIVING	3	12	4.00	TRANS	2	1.61
631+34	618+14	WB	PASSING	3	12	4.00	TRANS	2	1.61
618+14	604+94	WB	DRIVING	3	12	4.00	TRANS	1	0.81
618+14	604+94	WB	PASSING	3	12	4.00	TRANS	1	0.81
618+14	604+94	WB	DRIVING	6	12	8.00	TRANS	2	3.22
618+14	604+94	WB	PASSING	6	12	8.00	TRANS	1	1.61
591+74	578+54	WB	PASSING	3	12	4.00	TRANS	1	0.81
565+34	552+14	WB	DRIVING	3	12	4.00	TRANS	1	0.81
565+34	552+14	WB	DRIVING	6	12	8.00	TRANS	1	1.61
552+14	538+94	WB	DRIVING	6	12	8.00	TRANS	1	1.61
525+74	512+54	WB	DRIVING	3	12	4.00	TRANS	1	0.81
525+74	512+54	WB	PASSING	3	12	4.00	TRANS	1	0.81
499+34	486+14	WB	DRIVING	3	12	4.00	TRANS	2	1.61
499+34	486+14	WB	PASSING	3	12	4.00	TRANS	1	0.81
486+14	472+94	WB	PASSING	3	12	4.00	TRANS	2	1.61
472+94	459+74	WB	PASSING	3	12	4.00	TRANS	1	0.81
459+74	446+54	WB	DRIVING	3	12	4.00	TRANS	2	1.61
459+74	446+54	WB	PASSING	3	12	4.00	TRANS	4	3.22
446+54	433+34	WB	PASSING	3	12	4.00	TRANS	3	2.42
433+34	420+14	WB	PASSING	3	12	4.00	TRANS	2	1.61
433+34	420+14	WB	DRIVING	3	12	4.00	TRANS	1	0.81
420+14	406+94	WB	DRIVING	3	12	4.00	TRANS	3	2.42
420+14	406+94	WB	PASSING	3	12	4.00	TRANS	2	1.61
406+94	393+74	WB	PASSING	3	12	4.00	TRANS	4	3.22
406+94	393+74	WB	DRIVING	3	12	4.00	TRANS	4	3.22
393+74	380+54	WB	DRIVING	3	12	4.00	TRANS	1	0.81
393+74	380+54	WB	PASSING	3	12	4.00	TRANS	2	1.61
SUBTOTALS THIS COLUMN								71	74.11

\*Values are calculated using an asphalt depth of 7.25 inches.  
Note: The quantities on this sheet are for informational purposes only.

STATION		DIRECTION	LANE	WIDTH	LENGTH	INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	NUMBER OF REPAIRS	253
BEGIN	END								PAVEMENT REPAIR, MISC.: PARTIAL DEPTH
				FT	FT	SQ YD		EA	CU YD**
393+74	406+94	EB	DRIVING	3	12	4.00	TRANS	2	1.28
393+74	406+94	EB	PASSING	3	12	4.00	TRANS	2	1.28
406+94	420+14	EB	DRIVING	3	12	4.00	TRANS	2	1.28
406+94	420+14	EB	PASSING	3	12	4.00	TRANS	2	1.28
406+94	420+14	EB	DRIVING	6	12	8.00	TRANS	2	2.56
406+94	420+14	EB	PASSING	6	12	8.00	TRANS	2	2.56
420+14	433+34	EB	DRIVING	3	12	4.00	TRANS	1	0.64
420+14	433+34	EB	PASSING	3	12	4.00	TRANS	1	0.64
420+14	433+34	EB	PASSING	6	12	8.00	TRANS	1	1.28
433+34	446+54	EB	DRIVING	3	12	4.00	TRANS	2	1.28
446+54	459+74	EB	PASSING	3	12	4.00	TRANS	4	2.56
446+54	459+74	EB	DRIVING	3	12	4.00	TRANS	2	1.28
446+54	459+74	EB	DRIVING	6	12	8.00	TRANS	1	1.28
459+74	472+94	EB	DRIVING	3	12	4.00	TRANS	4	2.56
459+74	472+94	EB	PASSING	3	12	4.00	TRANS	3	1.92
472+94	486+14	EB	DRIVING	3	12	4.00	TRANS	5	3.19
472+94	486+14	EB	PASSING	3	12	4.00	TRANS	3	1.92
486+14	499+34	EB	DRIVING	3	12	4.00	TRANS	2	1.28
486+14	499+34	EB	PASSING	3	12	4.00	TRANS	5	3.19
499+34	512+54	EB	DRIVING	3	12	4.00	TRANS	1	0.64
499+34	512+54	EB	DRIVING	6	12	8.00	TRANS	2	2.56
499+34	512+54	EB	PASSING	6	12	8.00	TRANS	2	2.56
512+54	525+74	EB	DRIVING	3	12	4.00	TRANS	3	1.92
512+54	525+74	EB	PASSING	3	12	4.00	TRANS	1	0.64
512+54	525+74	EB	PASSING	6	12	8.00	TRANS	1	1.28
525+74	538+94	EB	DRIVING	3	12	4.00	TRANS	6	3.83
525+74	538+94	EB	PASSING	3	12	4.00	TRANS	2	1.28
538+94	552+14	EB	DRIVING	3	12	4.00	TRANS	6	3.83
538+94	552+14	EB	PASSING	3	12	4.00	TRANS	2	1.28
552+14	565+34	EB	DRIVING	3	12	4.00	TRANS	3	1.92
565+34	578+54	EB	DRIVING	3	12	4.00	TRANS	7	4.47
565+34	578+54	EB	PASSING	3	12	4.00	TRANS	4	2.56
578+54	591+74	EB	DRIVING	3	12	4.00	TRANS	4	2.56
578+54	591+74	EB	PASSING	3	12	4.00	TRANS	2	1.28
578+54	591+74	EB	71 SB DECEL	3	12	4.00	TRANS	2	1.28
591+74	604+94	EB	DRIVING	3	12	4.00	TRANS	2	1.28
591+74	604+94	EB	PASSING	3	12	4.00	TRANS	2	1.28
SUBTOTALS THIS COLUMN								98	69.64
TOTALS THIS PAGE								169	144

\*\*Values are calculated using an asphalt depth of 5.75 inches.

CALC BY: KCK  
CHKD BY: MUS

PAVEMENT REPAIR QUANTITIES

RIC/ASD-30-13.18/0.00  
RIC-42-13.74



**RAMP FULL DEPTH PAVEMENT REPAIRS**

ROAD	RAMP	WIDTH		INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	NUMBER OF REPAIRS	254	255	255	301	407	
		FT	FT				SQ YD	EA	SQ YD	SQ YD	FT	CU YD*
		PAVEMENT PLANING, ASPHALT CONCRETE, 7.25"	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN	FULL DEPTH PAVEMENT SAWING			ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN	TACK COAT, 702.13				
KOOGLE ROAD	A DECEL	6	12	8.00	TRANSVERSE	1	8.00	8.00	30.00	1.61	0.80	
KOOGLE ROAD	A DECEL	8	12	10.67	TRANSVERSE	1	10.67	10.67	32.00	2.15	1.07	
KOOGLE ROAD	B ACCEL	6	8	5.33	TRANSVERSE	1	5.33	5.33	22.00	1.07	0.53	
<b>TOTALS</b>						<b>3</b>	<b>24</b>	<b>24</b>	<b>84</b>	<b>5</b>	<b>2</b>	

\*Values are calculated using an asphalt depth of 7.25 inches  
 Note: The quantities on this sheet are for informational purposes only.

**RAMP PARTIAL DEPTH PAVEMENT REPAIRS**

ROAD	RAMP	WIDTH		INDIVIDUAL REPAIR AREA	TYPE OF REPAIR	NUMBER OF REPAIRS	253	
		FT	FT				SQ YD	EA
		PAVEMENT REPAIR, MISC.: PARTIAL DEPTH						
KOOGLE ROAD	A DECEL	3	12	4.00	TRANSVERSE	1	0.81	
KOOGLE ROAD	A DECEL	3	16	5.33	TRANSVERSE	2	2.15	
KOOGLE ROAD	A	256	6	170.67	LONGITUDINAL	1	5.93	
KOOGLE ROAD	D	3	16	5.33	TRANSVERSE	2	0.22	
KOOGLE ROAD	B	5	16	8.89	TRANSVERSE	2	0.25	
KOOGLE ROAD	B	3	16	5.33	TRANSVERSE	1	0.07	
KOOGLE ROAD	B	53	7	41.22	LONGITUDINAL	1	0.57	
KOOGLE ROAD	B ACCEL	267	3	89.00	LONGITUDINAL	1	17.92	
KOOGLE ROAD	B ACCEL	3	12	4.00	TRANSVERSE	1	0.81	
KOOGLE ROAD	B ACCEL	6	8	5.33	TRANSVERSE	1	1.08	
REED ROAD	C	455	10	505.56	LONGITUDINAL	1	24.58	
REED ROAD	D	169	11	206.56	LONGITUDINAL	1	2.87	
REED ROAD	A	280	9	280.00	LONGITUDINAL	1	9.72	
REED ROAD	B	271	10	301.11	LONGITUDINAL	1	12.55	
LAVAR ROAD	A	3	16	5.33	TRANSVERSE	1	0.26	
SR42	A DECEL	3	12	4.00	TRANSVERSE	5	3.19	
SR42	U (MIDDLE)	3	12	4.00	TRANSVERSE	1	0.19	
SR42	UR	3	12	4.00	TRANSVERSE	1	0.31	
SR42	UR ACCEL	3	16	5.33	TRANSVERSE	1	0.85	
SR42	B DECEL	3	12	4.00	TRANSVERSE	2	1.61	
SR42	TR	3	16	5.33	TRANSVERSE	5	2.59	
SR42	TL	3	16	5.33	TRANSVERSE	14	7.26	
SR42	TL	6	16	10.67	TRANSVERSE	3	3.11	
<b>TOTALS</b>						<b>50</b>	<b>99</b>	

\*\*Values are calculated using various asphalt depths

CALC BY: KCK  
 CHKD BY: MJS

**PAVEMENT REPAIR QUANTITIES**

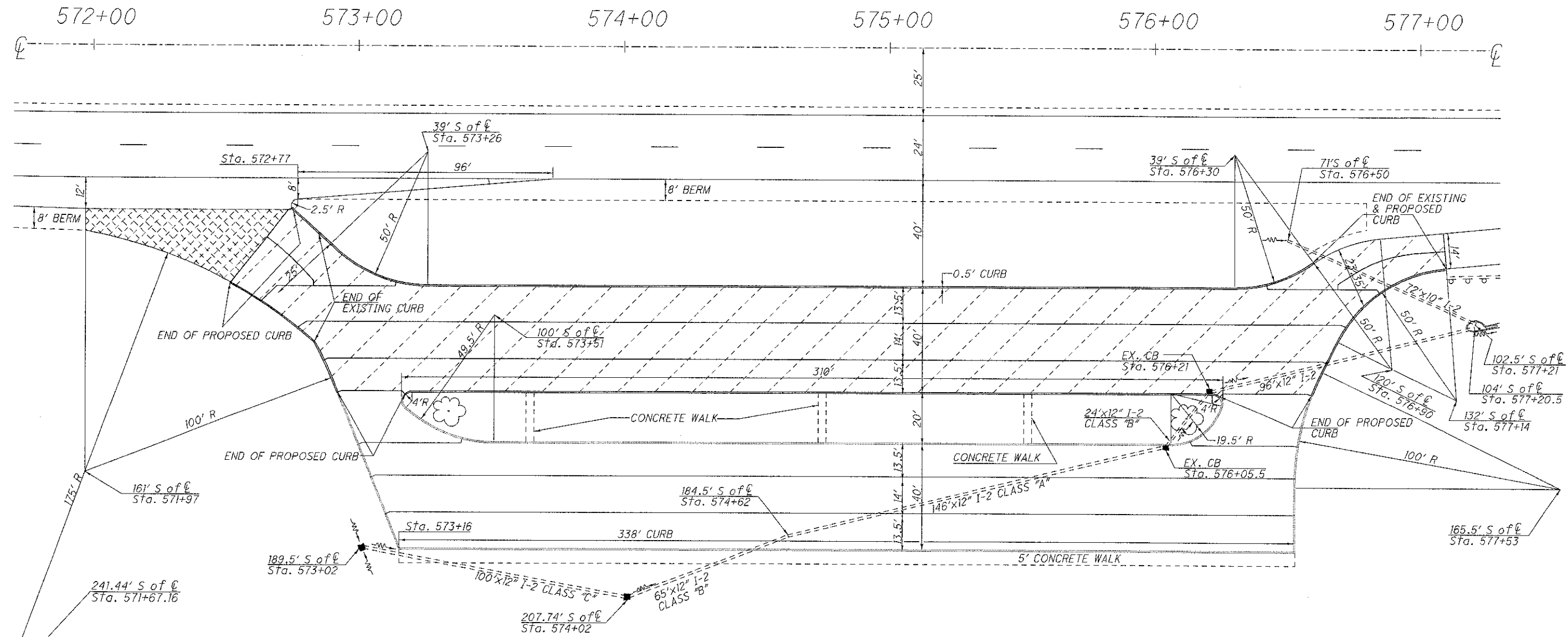
RIC/ASD-30-13.18/0.00  
 RIC-42-13.74



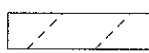




**REST AREA EASTBOUND  
 PAVEMENT & CURB REPLACEMENT  
 IN TRUCK PARKING AREA**

RIC/ ASD-30-13.18/ 0.00  
 RIC-42-13.74



ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT
202	PAVEMENT REMOVED	1932	SQ YD
202	CURB REMOVED	799	FT.
203	EXCAVATION (6")	322	CU YD
254	PAVEMENT PLANING, ASPHALT CONCRETE (2.25")	1932	SQ YD
304	AGGREGATE BASE (6")	322	CU YD
452	9" NON-REINFORCED CONCRETE PAVEMENT	1932	SQ YD
604	CATCH BASIN ADJUSTED TO GRADE	1	EACH
609	CURB, TYPE 2-A	839	FT

**LEGEND**  
 ITEM 202 PAVEMENT REMOVED  
 ITEM 609 CURB, TYPE 2-A  
 SEE PAVEMENT REPAIR SHEETS FOR QUANTITIES

**NOTE:** EXISTING CATCH BASINS TO REMAIN IN PLACE. WHEN CONTRACTOR PLANES AND PAVES CAR PARKING AREA, THE CONTRACTOR SHALL TRANSITION THE PAVING TO MEET THE PROPOSED CONCRETE PAVEMENT. THE EXISTING CONCRETE PAVEMENT TO BE REMOVED IS 9" REINFORCED CONCRETE.

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY.



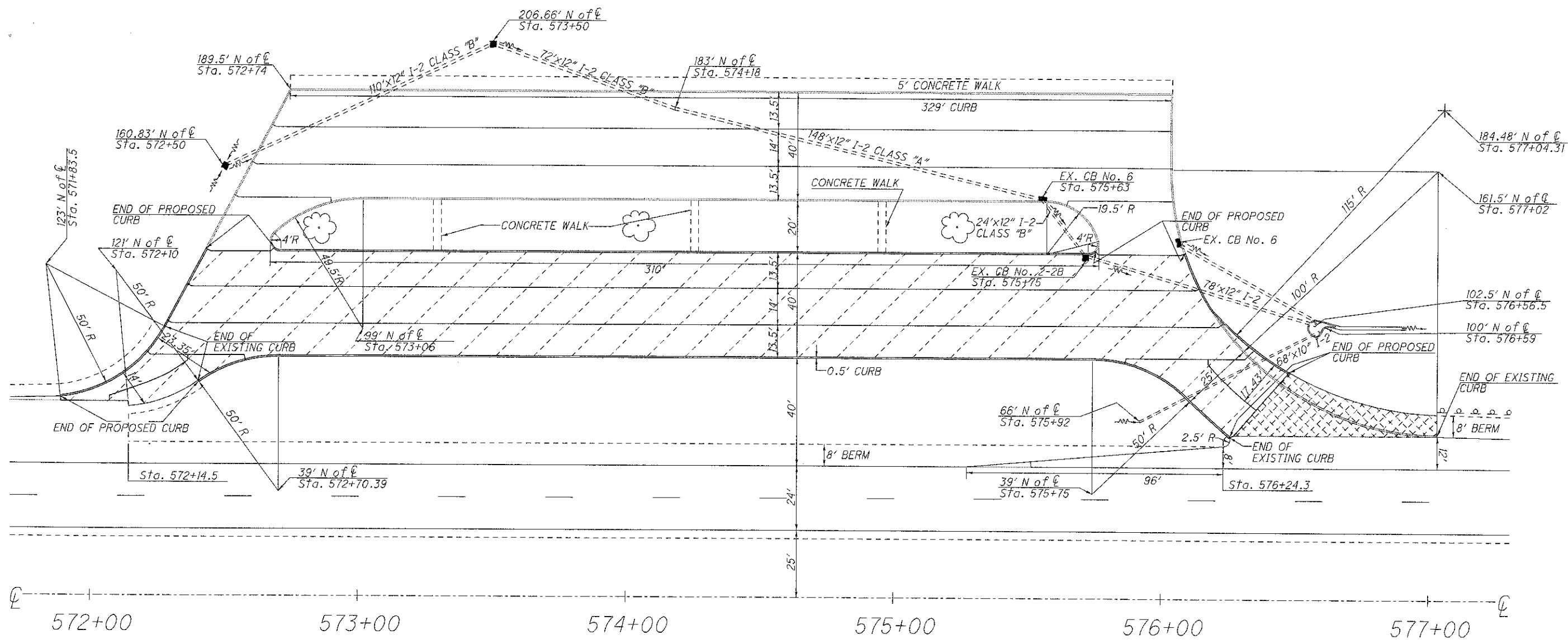
0 20 40  
HORIZONTAL SCALE IN FEET

CALCULATED  
AMH  
CHECKED  
MJS

**REST AREA WESTBOUND PAVEMENT & CURB REPLACEMENT IN TRUCK PARKING AREA**

**RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74**

50  
116



ITEM NUMBER	DESCRIPTION	QUANTITY	UNIT
202	PAVEMENT REMOVED	1877	SQ YD
202	CURB REMOVED	864	FT
203	EXCAVATION (6")	312	CU YD
254	PAVEMENT PLANING, ASPHALT CONCRETE (2.25")	1877	SQ YD
304	AGGREGATE BASE (6")	312	CU YD
452	9" NON-REINFORCED CONCRETE PAVEMENT	1877	SQ YD
604	CATCH BASIN ADJUSTED TO GRADE	1	EACH
609	CURB, TYPE 2-A	849	FT

**LEGEND**

ITEM 202 PAVEMENT REMOVED

ITEM 609 CURB, TYPE 2-A

SEE PAVEMENT REPAIR SHEETS FOR QUANTITIES

**NOTE:** EXISTING CATCH BASINS TO REMAIN IN PLACE. WHEN CONTRACTOR PLANES AND PAVES CAR PARKING AREA, THE CONTRACTOR SHALL TRANSITION THE PAVING TO MEET THE PROPOSED CONCRETE PAVEMENT. THE EXISTING CONCRETE PAVEMENT TO BE REMOVED IS 9" REINFORCED CONCRETE.

ALL QUANTITIES CARRIED TO THE GENERAL SUMMARY.

DESIGN FILE: i:\projects\79352\roadway\sheet\79352CA001.dgn  
WORKSTATION: Kknapp  
DATE: 7/12/2010  
MODELNAME: Design

**ITEM 202 - ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E-98**

**ITEM 202 - ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE T**

THIS ITEM CONSISTS OF REMOVING AN EXISTING ANCHOR ASSEMBLY, AND SALVAGING FOR REUSE AT A LOCATION SHOWN ON THE PLANS. THE RESULTING HOLES SHALL BE BACKFILLED WITH GRANULAR MATERIAL AND COMPACTED. ELEMENTS THAT ARE NOT SALVAGEABLE SHALL BE DISPOSED OF PER 202.02.

**ITEM 202 - ANCHOR ASSEMBLY REMOVED, TYPE A**

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING TYPE A, ANCHOR ASSEMBLY INCLUDING ALL POSTS, HARDWARE, RAIL ELEMENTS, AND CONCRETE ANCHORS. ALL ITEMS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

THE EXISTING CONCRETE ANCHOR AND CONCRETE AT POSTS SHALL BE REMOVED ENTIRELY. ALL HOLES REMAINING AFTER REMOVAL SHALL BE FILLED WITH GRANULAR MATERIAL OR EXCESS MATERIAL RESULTING FROM GUARDRAIL CONSTRUCTION. ALL FILL MATERIAL SHALL BE THOROUGHLY COMPACTED AND LEVELED, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE

FOR ITEM 202, ANCHOR ASSEMBLY REMOVED, TYPE A.

**ITEM 203 - EMBANKMENT, AS PER PLAN**

AT SPECIFIED LOCATIONS AND LOCATIONS DIRECTED BY THE ENGINEER, EMBANKMENT SHALL BE PLACED TO PROVIDE A SUITABLE AREA TO CONSTRUCT GUARDRAIL AND TO PROVIDE STRUCTURAL INTEGRITY OF THE ROADWAY SHOULDER.

EMBANKMENT MATERIAL SHALL BE LIMITED TO CMS ITEM 304 LIMESTONE.

AREAS WHERE EMBANKMENT MATERIAL IS TO BE PLACED SHALL BE SCALPED. THE REQUIREMENTS FOR BENCHING SHALL BE WAIVED. THE DEPTH OF LAYERS IN WHICH THE EMBANKMENT IS PLACED SHALL BE LIMITED TO EIGHT (8) INCHES IN THICKNESS. THE METHOD OF COMPACTION AND EQUIPMENT USED SHALL BE SUFFICIENT TO COMPACT 95% OF STANDARD PROCTOR TO THE SATISFACTION OF THE ENGINEER.

THE METHOD OF MEASUREMENT FOR EMBANKMENT MATERIAL SHALL BE BY THE NUMBER OF CUBIC YARDS CONVERTED BY TICKET WEIGHT IN THE CARRIER AT THE WORK SITE, IN LIEU OF THE REQUIREMENTS OF 203.09. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL INCLUDE ALL WORK DESCRIBED ABOVE.

**ITEM 606 - GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING GUARDRAIL, TYPE 5**

WHERE DESIGNATED ON THE PLAN, THE EXISTING GUARDRAIL, TYPE 5 SHALL BE RAISED OR LOWERED ON THE EXISTING WOOD POSTS AS PER STANDARD DRAWING GR-2.1 SO AS TO OBTAIN THE STANDARD 27.75 IN. HEIGHT. THE RAIL SHALL BE REATTACHED TO THE POSTS USING NEW POST BOLTS. FOR RAIL THAT REQUIRES BEING LOWERED THE POSTS SHALL BE CUT OR TRIMMED AND THE TOPS SHALL BE TREATED.

THE RAIL SHALL BE DISMANTLED ONLY TO THE EXTENT NECESSARY TO FIELD BORE NEW BOLT HOLES IN THE WOOD POSTS, AND TO RECONNECT THE RAIL AND BLOCK TO EXISTING POSTS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR ITEM 606, GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING GUARDRAIL, TYPE 5, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 606 - GUARDRAIL, MISC.: GUARDRAIL RAIL ELEMENT**

THIS ITEM SHALL BE USED IN CONJUNCTION WITH ITEMS 606 - GUARDRAIL, MISC.: ADJUST HEIGHT, EXISTING TYPE 5 GUARDRAIL, AND ITEM 606 - GUARDRAIL REBUILT, TYPE 5, AND AS DIRECTED BY THE ENGINEER. IT SHALL CONSIST OF REPLACING EXISTING GUARDRAIL RAIL ELEMENTS DEEMED BY THE ENGINEER TO BE INSUFFICIENT. THE RAIL ELEMENTS SHALL BE OF THE SAME TYPE, AND SIZE OF THE EXISTING GUARDRAIL RUN. THEY SHALL BE PLACED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-1.1.

**SUGGESTED SEQUENCE OF GUARDRAIL WORK**

1. GUARDRAIL WORK IS TO BEGIN AFTER THE LINEAR GRADING IS COMPLETED AND THE 6" MATERIAL IS PLACED.
2. REMOVE THE GUARDRAIL.
3. PERFORM THE EMBANKMENT, AS PER PLAN.
4. REBUILD/CONSTRUCT THE GUARDRAIL RUN.
5. INSTALL BARRIER REFLECTORS.

**CONNECTING GUARDRAIL TO EXISTING RAIL**

IN LOCATIONS WHERE TYPE 5 GUARDRAIL, TERMINAL ASSEMBLIES, ETC. ARE TO BE CONNECTED TO EXISTING RAIL SOME MODIFICATIONS MAY BE REQUIRED, INCLUDING EXTRA POSTS, DRILLING HOLES AND POSSIBLY PARTIAL SECTIONS OF ADDITIONAL RAIL ELEMENTS. THE COST OF THIS ADDITIONAL WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR TYPE 5 GUARDRAIL. IF ADDITIONAL PORTIONS OF RAIL ELEMENT ARE USED THE LINEAL MEASUREMENT OF THIS ADDITIONAL PORTION SHALL BE ADDED FOR PAYMENT.

**CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL**

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN ON STANDARD CONSTRUCTION DRAWING GR-1.1. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

**ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330.545.4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6" (11.43 m), INCLUSIVE OF THREE 12'-6" (3.81 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS444 SS444M	SRT-350 (12.5, 8 Post) Slotted Rail Terminal Post Layout and Erection Details	7/12/99 Rev. 1 7/12/99	08/27/99
SS425M	Slotted Rail Terminal SRT-350 Post Layout and Erection Details (12.5, 9 Post)	6/21/97 Rev. 1	03/6/98

- 2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224 (TELEPHONE: 330.346.0721).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6" (11.43 m), INCLUSIVE OF THREE 12'-6" (3.81 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
FLT-M	Flared Energy Absorbing Terminal (FLEAT-350) Assembly	04/16/98	07/31/98

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES (100mm) ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27¾ INCHES (706mm) FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES (100mm) ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36 IN. WIDE x 12 IN. HIGH (915 mm W x 305 mm H) FOR THE SRT-350 AND 14 IN. WIDE x 20 IN. HIGH (350 mm W x 500 mm H) FOR THE FLEAT-350.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE ST., GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50 FEET (15.24 m), INCLUSIVE OF TWO 25 FOOT (7.62 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION AND SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET-2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET-2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO 44224 (TELEPHONE: 330-346-0721)

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0" (15.24 m), INCLUSIVE OF FOUR 12'-6" (3.81m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" x 18" (450mm x 450mm).

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E-98. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES (100mm) ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27¾ INCHES (706mm) FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES (100mm) ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**GUARDRAIL REBUILT, TYPE 5, AS PER PLAN**

THE POSTS SHALL BE 9 FEET LONG.

**LOCATIONS OF GUARDRAIL**

THE GUARDRAIL PROTECTION PROVIDED IN THIS PLAN SHALL BE LOCATED IN THE FIELD TO ASSURE THAT THE INSTALLATION WILL AFFORD THE MAXIMUM PROTECTION FOR TRAFFIC. THIS LOCATION SHALL BE POSITIONED AS FAR AS POSSIBLE FROM THE EDGE OF PAVEMENT WHILE MAINTAINING PROPER GRADE IN FRONT OF GUARDRAIL AS PER STANDARD DRAWINGS AND PLAN DETAILS.

**ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E-98**

THIS ITEM SHALL CONSIST OF REUSING SALVAGED ELEMENTS FROM AN EXISTING ANCHOR ASSEMBLY, AND CONSTRUCTING A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY AT A LOCATION SHOWN IN THE PLANS.

THE ANCHOR ASSEMBLY SHALL BE RECONSTRUCTED AS PER THE FOLLOWING GUARDRAIL END TERMINALS:

1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE ST., GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50 FEET (15.24 m), INCLUSIVE OF TWO 25 FOOT (7.62 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	SRT-350 (12.5, 8 Post) Slotted Rail Terminal Post Layout and Erection Details	6/20/97	3/6/98
SS142	Slotted Rail Terminal SRT-350 Post Layout and Erection Details (12.5, 9 Post)	4/12/00	7/31/00
SS141	ET-2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET-2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO 44224 (TELEPHONE: 330-346-0721)

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0" (15.24 m), INCLUSIVE OF FOUR 12'-6" (3.81m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	FOUNDATION TUBES SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" x 18" (450mm X 450mm).

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E-98. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES (100mm) ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27 1/4 INCHES (706mm) FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES (100mm) ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY REBUILT, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)]**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE FOLLOWING IMPACT ATTENUATORS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT WWW.DOT.STATE.OH.US/DRRC/ UNDER ROADSIDE SAFETY DEVICES FOR APPROVED IMPACT ATTENUATORS WITH THE FOLLOWING RESTRICTIONS: IMPACT ATTENUATOR SHALL BE DESIGNED FOR TL-2, 35MPH, 36" WIDTH, MAXIMUM LENGTH OF 21 FT.

1. A QUADGUARD IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., 35 EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750) AND DISTRIBUTED BY BALDWIN AND SOURS, INC. (614-851-8800). INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
QG2TSCVR-U	QUADGUARD SYSTEM WITH TENSION STRUT BACKUP	3/19/09 Rev. C	3/6/98
QG2CBCVR-U	QUADGUARD SYSTEM WITH CONCRETE BACKUP	4/21/09 Rev. B	3/6/98
QF2TSCVR-U	QUADGUARD SYSTEM W/ 69" & 90" TENSION STRUT BACKUPS	4/22/09 Rev. C	3/6/98
QF2CBCVR-U	QUADGUARD SYSTEM W/ 69" & 90" CONCRETE BACKUPS	4/15/09 Rev. C	3/6/98
35-40-20	DEFLECTOR ASSEMBLY, CONCRETE BACKUP RETROFIT, QG	11/14/97 Rev. C	7/31/98
3540031	QUADGUARD SYSTEM BACKUP ASSEMBLY, TS, QG	3/19/99 Rev. F	8/27/99
35-40-08	QUADGUARD SYSTEM CONCRETE BACKUP, QG ON GRADE & ON EXISTING CONCRETE STRUCTURE	10/14/97 Rev. H 10/14/97 Rev. H	8/27/99
35-40-21	TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM	11/6/97 Rev. F 7/14/97 Rev. F	8/27/99
35-40-22	TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM	7/15/97 Rev. C 7/11/97 Rev. C	8/27/99
35-40-15	QUADGUARD SYSTEM END SHOE ASSSEMBLY, QG	9/11/98 Rev. I	8/27/99
3540211	QG TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM-WIDE	8/29/97 Rev. D 8/29/97 Rev. D	8/27/99
3540221	QG TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM-WIDE	8/29/97 Rev. D 8/29/97 Rev. D	8/27/99
3540150	QUADGUARD TRANSITION TO VERTICAL CONCRETE BARRIER	9/96	8/27/99
3540042-0000	NOSE ASSEMBLY NARROW	3/19/09 Rev. B	10/16/09
3540043-0000	NOSE ASSEMBLY WIDE	4/6/09	10/16/09

2. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR DISTRIBUTED BY ROAD SYSTEMS, INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515 TELEPHONE: (330) 799-9291. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SYSTEM CAPACITY	UNIVERSAL TAU-II CRASH CUSHION SYSTEM CONFIGURATION CHART	10/6/04 V5	10/16/04
A040416	UNIVERSAL TAU-II PARTS LIST	4/22/04	10/16/04
A040420	UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP - PCC PAD	4/28/04	10/16/04
A040105	UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A040420)	1/07/04	10/16/04
A040108	UNIVERSAL TAU-II FOUNDATION, WIDE FLANGE BACKSTOP	1/07/04	10/16/04
A040113	FOUNDATION SPECIFICATIONS (REFERENCED ON A040420 AND A040108)	1/09/04 Rev. A	10/16/04
B010537	COMPACT BACKSTOP, TAU-II	3/25/02	10/16/04
B040219	FLUSH MOUNT BACKSTOP ASSEMBLY	4/19/04	10/16/04
B040239	APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL SYSTEM, 60 & 70 MPH, UP TO 36" WIDE HAZARD WIDTH, CONNECTED TO SCD RM-4.6)	4/21/04	10/16/04
B033004	WIDE TAU-II 60 MPH, 60" BACKSTOP (TYPICAL FOR 60 MPH COMBINATION SYSTEM)	12/21/03	10/16/04
B033101	WIDE TAU-II 70 MPH, 66" BACKSTOP (TYPICAL FOR 70 MPH COMBINATION SYSTEM)	2/13/04	10/16/04
B033009	WIDE TAU-II 60 MPH, 90" BACKSTOP (TYPICAL FOR 60 MPH FLARED SYSTEM)	11/26/03	10/16/04
B033105	WIDE TAU-II 70 MPH, 90" BACKSTOP (TYPICAL FOR 70 MPH FLARED SYSTEM)	2/17/04	10/16/04
30THOFCY	ASSEMBLY DRAWING FOR 30" WIDE, 70 MPH PARALLEL UNIT	9/15/05	10/16/06

3. THE TRINITY INDUSTRIES, INC. TRINITY ATTENUATING CRASH CUSHION DISTRIBUTED BY TRINITY INDUSTRIES, INC 1170 N. STATE ST., GIRARD, OHIO 44420, TELEPHONE: (800) 321-2755. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DRAWING DATE
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION, AND SECTIONS	11/02/99
SS456	TRACC TRANSITION TO VERTICAL CONCRETE WALL PLAN, ELEVATION AND SECTIONS	9/07/00
SS497	WIDETRACC - DOUBLE FLARE WING EXTENSIONS	11/22/02
SS699	WIDETRACC & TRACC ASSEMBLED MODULAR BASE UNIT	4/02/03
SS1000	CRASH CUSHION ATTENUATING TERMINAL PLAN, ELEVATION, AND SECTION ASSEMBLED UNIT, BASE AND RIP PLATE SCHEMATIC	3/30/05
SS1001	CRASH CUSHION ATTENUATING TERMINAL ASSEMBLED BASE UNIT	4/22/05
SS1002	CRASH CUSHION ATTENUATING TERMINAL PLAN, ELEVATIONS, & SECTIONS SHOP ASSEMBLY DETAILS (2 SHEETS)	5/11/05
SS1003	CRASH CUSHION ATTENUATING TERMINAL PLAN, ELEVATIONS AND SECTIONS UNIDIRECTIONAL, DIRECT ATTACHMENT (2 SHEETS)	4/25/05
SS1004	SHORTRACC CRASH CUSHION ATTENUATING TERMINAL ASSEMBLED BASE UNIT	5/16/05
SS1005	SHORTRACC CRASH CUSHION ATTENUATING TERMINAL SHOP ASSEMBLY DETAILS (2 SHEETS)	5/24/05
SS1006	SHORTRACC CRASH CUSHION ATTENUATING TERMINAL UNIDIRECTIONAL, DIRECT ATTACHMENT	5/24/05
SS1007	FASTRACC CRASH CUSHION ATTENUATING TERMINAL ASSEMBLED BASE UNIT	6/08/05
SS1008	FASTRACC CRASH CUSHION ATTENUATING TERMINAL SHOP ASSEMBLY DETAILS (2 SHEETS)	6/09/05
SS1009	FASTRACC CRASH CUSHION ATTENUATING TERMINAL UNIDIRECTIONAL, DIRECT ATTACHMENT	6/10/05
SS1010	TRACC CRASH CUSHION ATTENUATING TERMINAL 22' CONCRETE FOUNDATION PLAN	4/04/05
SS1013	SHORTRACC CRASH CUSHION ATTENUATING TERMINAL 15' CONCRETE FOUNDATION PLAN	4/04/05

SS1018 58" WIDETRACC DOUBLE FLARE PLAN, 8/08/05 ELEVATION, & SECTIONS SHOP ASSEMBLY DETAILS (3 SHEETS)

SS1019 58" WIDETRACC DOUBLE FLARE PLAN, 8/12/05 ELEVATION, & SECTIONS UNIDIRECTIONAL, DIRECT ATTACHMENT

4. THE SCI PRODUCTS, INC. SMART CUSHION IMPACT ATTENUATOR DISTRIBUTED BY SCI PRODUCTS, INC. 2500 PRODUCTION DRIVE ST. CHARLES, IL 60174-9081 INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DRAWING DATE
SCI-70GM	TL2 - 35" WIDE BY 13.5' LONG TEST LEVEL 2 UNIT	1/14/05
SCI-100GM	TL3 - 38" WIDE BY 21.5' LONG TEST LEVEL 3 UNIT	1/14/05
TL2 FOUNDATION	TL2 FOUNDATION	1/14/05
TL3 FOUNDATION	TL3 FOUNDATION	1/14/05
TRANSITION	24" CONCRETE BLOCK TRANSITION	1/14/05
TRANSITION	WIDE HAZARD TRANSITION FROM 41" TO 133"	1/14/05

WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (SPEED (IN MPH), HAZARD WIDTH (IN INCHES)), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY

**PAVING UNDER GUARDRAIL**

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22, AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING EXISTING MATERIAL TO THE DEPTH AND WIDTH AS PER THE LIMITS SHOWN ON THE DETAIL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17. BACKFILL AREAS GRADED IN EXCESS OF THE DEPTH SHOWN ON THE DETAIL WITH ITEM 617 COMPACTED AGGREGATE AT NO EXPENSE TO THE DEPARTMENT.

COMPACT THE SUBGRADE USING EITHER HAND OR MECHANICAL METHODS IN ORDER TO PROVIDE A FIRM SUBBASE TO THE SATISFACTION OF THE ENGINEER. THE INTENT OF THE FIRM SUBBASE IS TO BE COMPACTED SUCH THAT IT WILL BE SUITABLE FOR THE PLACEMENT AND COMPACTION OF THE ASPHALT MATERIAL.

THE REMOVED MATERIAL SHALL BE REPLACED WITH ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22, AS PER PLAN.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

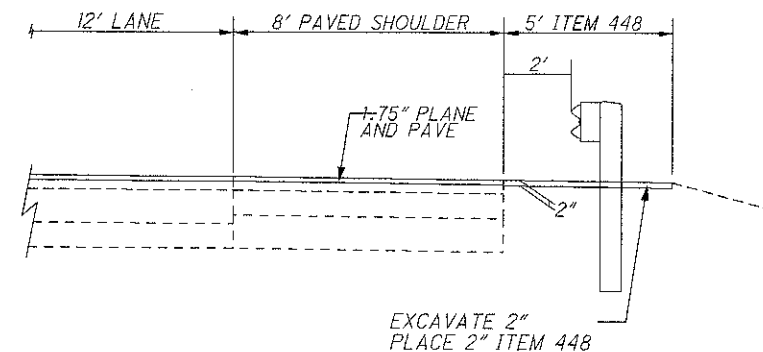
PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

- METHOD A (GUARDRAIL ALREADY IN PLACE):
1. PERFORM THE LINEAR GRADING, AS PER PLAN.
  2. PLACE AND COMPACT ITEM 448.
  3. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.
- METHOD B:
1. REMOVE THE GUARDRAIL.
  2. PERFORM THE LINEAR GRADING, AS PER PLAN.
  3. PLACE ITEM 448.
  4. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED).
  5. CONSTRUCT THE GUARDRAIL POSTS AND RAIL.
  6. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN WATER AWAY FROM THE POSTS.

FOR GUARDRAIL THAT IS NOT ORIGINALLY INTENDED TO BE REPLACED OR RECONSTRUCTED AND IS TO REMAIN, THE CONTRACTOR MAY USE METHOD B IN ORDER TO COMPLETE THE INTENT OF THE WORK. PROVIDE NEW HARDWARE AND REPLACE BLOCKOUTS AS NEEDED. THE COST TO REMOVE AND RE-ERECT THE GUARDRAIL WILL BE CONSIDERED INCIDENTAL IN THE COST OF ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG 64-22, AS PER PLAN.

PAVING UNDER GUARDRAIL MAINLINE US 30 OUTSIDE TYPICAL SECTION

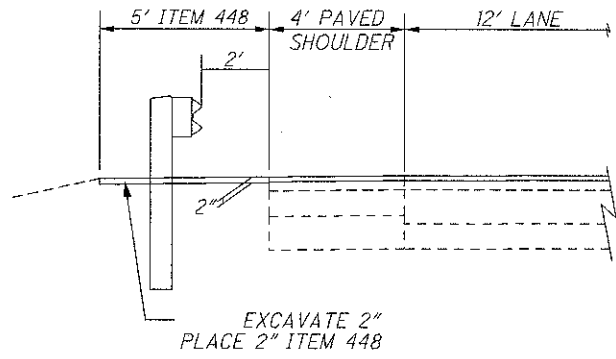


DESIGN FILE: I:\projects\79352\roadway\sheet\79352GR\_GN.dgn  
 WORKSTATION:KKnapp DATE: 7/12/2010 MODELNAME: Sheet

CALCULATED: MJS  
 CHECKED: ADB  
**GUARDRAIL NOTES**  
 RIC / ASD -30-13.18 / 0.00  
 RIC -42-13.74  
 53  
 116

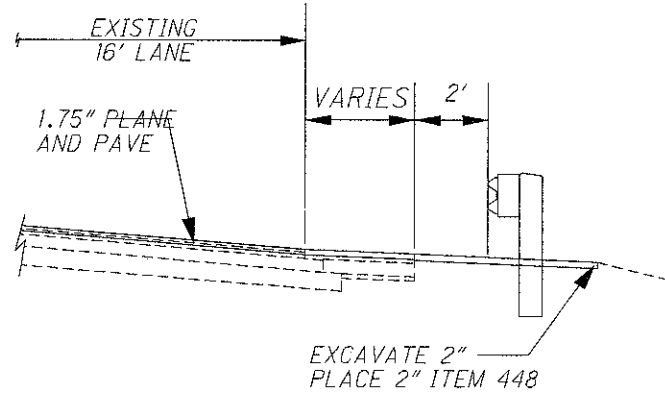
**PAVING UNDER GUARDRAIL (CONTINUED)**

PAVING UNDER GUARDRAIL  
MAINLINE US 30 INSIDE  
TYPICAL SECTION



NOTE: AT GUARDRAIL RUNS THAT ARE PROTECTING PIERS IN THE MEDIAN OF US30, THE CONTRACTOR SHALL PAVE UNDER GUARDRAIL AT 5 FT WIDE.

PAVING UNDER GAURDRAIL  
US42, LAVER RD, REED RD, KOOGLE RD.  
TYPICAL SECTION



DESIGN FILE: I:\projects\roadway\sheet\79352\79352GR\_ON.dgn  
WORKSTATION:mschdfr DATE: 7/12/2010 MODELNAME: Sheet

CALCULATED  
MJS  
CHECKED  
ADB

**GUARDRAIL NOTES**

**RIC / ASD-30-13.18 / 0.00**  
**RIC-42-13.74**

54  
116

SHEET NUMBER	BALLOON	GUARDRAIL QUANTITIES																													CALC BY						
		ITEM																													MJS						
		202	202	202	202	202	202	202	202	202	203	209	448	606	606	606	606	606	606	606	606	606	606	606	606	606	606	606	606	622	622	622	626	CHKD BY			
GUARDRAIL REMOVED	GUARDRAIL REMOVED FOR REUSE	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE T	ANCHOR ASSEMBLY REMOVED, TYPE E	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE T	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E-98	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE	EMBANKMENT, AS PER PLAN	LINEAR GRADING, AS PER PLAN	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64-22, AS PER PLAN	GUARDRAIL, TYPE 5	GUARDRAIL REBUILT, TYPE 5	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN	GUARDRAIL, TYPE 5A	GUARDRAIL REBUILT, TYPE 5A	ANCHOR ASSEMBLY, TYPE E-98	ANCHOR ASSEMBLY REBUILT, TYPE E-98	ANCHOR ASSEMBLY, TYPE T	ANCHOR ASSEMBLY REBUILT, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 2	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL)	QUADGUARDRAIL WHEEL DEFLECTOR ASSEMBLY	IMPACT ATTENUATOR, MISC.: REMOVAL OF IMPACT ATTENUATOR	GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING GUARDRAIL, TYPE 5	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER, END ANCHOR, REINFORCED, TYPE D	BARRIER REFLECTOR	ADB						
57	1	512.5			1	1			5.75	17.75	512.5					1		1																			
	2								3.88	11.96																											
58	1								1.19	3.67																									5		
	2								2.05	6.33																									6		
	3	300							4.32	13.32	300																								10		
	4								2.07	6.37																									3		
	5								1.25	3.86																									4		
	6		437.5						4.88	15.05												1													9		
	7		87.5						1.38	4.24												1													5		
	8		87.5						0.88	2.70												1		1											4		
	9		506.25			1			5.69	17.55												1		1											10		
	10	62.5	487.5	1	1				5.50	16.98						1		1				1													7		
	11	25	437.5	1					4.38	13.50						1																			6		
	12								1.13	3.47																									2		
	13	25	75	1					2.00	6.17						1																			3		
59	1		375				1		3	3.69	11.38											1													6		
	2		106.25						1	1	1.38	4.24										1													3		
	3		218.75						1	2.50	7.72																									4	
	4																																				
	5																																				
60	1		568.75						1	1	5.50	16.98																								7	
	2										2.13	6.56																								3	
	3										2.13	6.56																								3	
	4										1.00	3.09																								3	
	5										1.25	3.86																								3	
	6										1.25	3.86																								3	
61	1	425			1						4.79	14.77			375				50																	6	
	2		468.75							1	5.31	16.40				425																					7
	3										2.13	6.56																									3
	4									1	1.00	3.09																									3
	5		125						1	1	1.88	5.79				125																		50			3
	6		87.5						1		1.50	4.63				62.5				25																3	
62	1		187.5								28	2.50	7.72																								4
	2		100									1.63	5.02																								3
	3											1.00	3.09																								3
	4											1.13	3.47																								3
	5		50									1.63	5.02																								3
	6											1.63	5.02																								3
	7		537.5									6.00	18.52																								9
	8		325									3.75	11.57																								5
	9	143.75			1	1						2.13	6.56				150																				4
	10	93.75	306.25		1							4.63	14.27																								6
	11		237.5		1							3.00	9.26																								4
TOTAL		1587.50	5812.50	3	7	2	5	7	11	28	112.72	348	1337.50	4831.25	862.50	75	93.75	5	7	6	6	1	7	4	2	2	2	50	14	1	1		193				

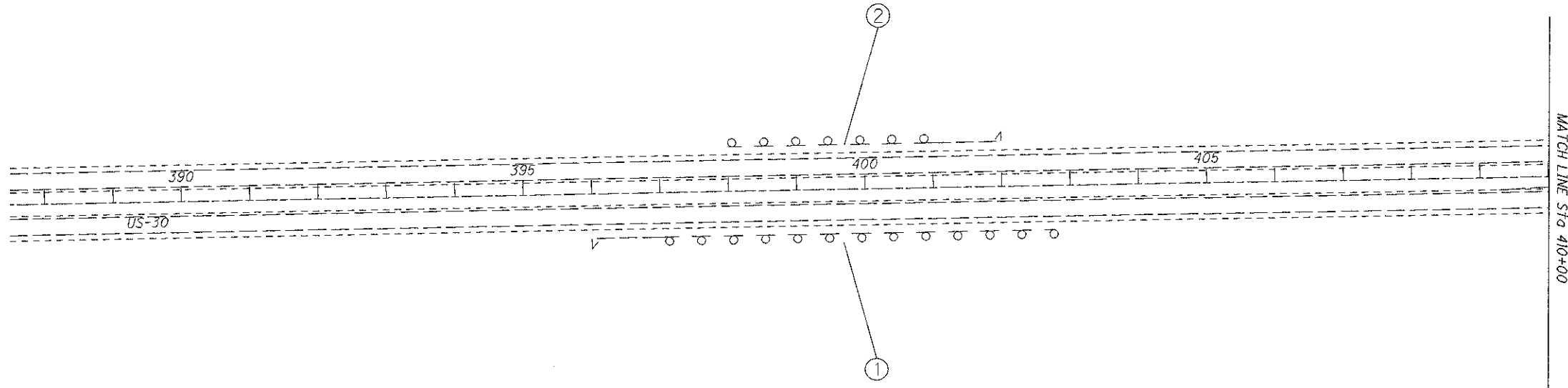
**GUARDRAIL SUB-SUMMARY**  
 RIC/ASD-30-13.18/0.00  
 RIC-42-13.74  
 55  
 116



SHEET NUMBER	BALLOON	GUARDRAIL QUANTITIES																									CALC BY MJS	
		ITEM																										CHKD BY ADB
		202	202	202	202	202	202	202	202	202	203	209	448	606	606	606	606	606	606	606	606	606	606	606	606	626		
GUARDRAIL REMOVED FT	GUARDRAIL REMOVED FOR REUSE FT	ANCHOR ASSEMBLY REMOVED, TYPE A EACH	ANCHOR ASSEMBLY REMOVED, TYPE T EACH	ANCHOR ASSEMBLY REMOVED, TYPE E EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE T EACH	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E-98 EACH	BRIDGE TERMINAL ASSEMBLY REMOVED EACH	BRIDGE TERMINAL ASSEMBLY REMOVED FOR REUSE EACH	EMBANKMENT, AS PER PLAN CY	LINEAR GRADING, AS PER PLAN STA	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, UNDER GUARDRAIL, PG64- 22, AS PER PLAN CY	GUARDRAIL, TYPE 5 FT	GUARDRAIL, MISC.: GUARDRAIL RAIL ELEMENT EACH	GUARDRAIL REBUILT, TYPE 5 FT	GUARDRAIL REBUILT, TYPE 5, AS PER PLAN FT	GUARDRAIL, TYPE 5A FT	ANCHOR ASSEMBLY, TYPE B-98 EACH	ANCHOR ASSEMBLY, TYPE E-98 EACH	ANCHOR ASSEMBLY REBUILT, TYPE E-98 EACH	ANCHOR ASSEMBLY, TYPE T EACH	ANCHOR ASSEMBLY REBUILT, TYPE T EACH	BRIDGE TERMINAL ASSEMBLY, TYPE TST EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 1 EACH	BRIDGE TERMINAL ASSEMBLY REBUILT, TYPE 2 EACH	GUARDRAIL MISC.: ADJUST HEIGHT, EXISTING GUARDRAIL, TYPE 5 FT	BARRIER REFLECTOR EACH		
63	1										6.75	20.83														8		
	2	687.5			1			1		17	7.50	23.15	687.5							1	1					9		
	3		87.5		1						1.50	4.63			87.5						1					3		
	4	25									2.00	6.17					25									3		
	5	25									2.00	6.17					25									3		
	6										6.38	19.68															7	
	7										8.50	26.23															9	
	8										7.25	22.38															10	
	9										13.25	40.90															15	
	10	25	212.5								2.88	8.87			212.5		25										4	
64	1		68.75								1.38	4.25			68.75									1		5		
	2		75								1.25	3.86			75					1				1				
	3		512.5				1				5.38	16.59			512.5						1				1		7	
	4		68.75								1.38	4.25			68.75							1			1	1	4	
	5		750								8.00	24.69			750									1			12	
	6		375								4.13	12.73			375							1					6	
	7		625								6.83	21.08			625							1					8	
	8		512.5				1		1		5.75	17.75			512.5						1		1				7	
	9		375						1		4.38	13.50			375						1		1				6	
	10		400						1		4.13	12.73			400							1					6	
	11	25									1.63	5.02					25						1				3	
	12	25	1100				1				12.88	39.74			1100		25			1							13	
	13										3.63	11.19														362.5	6	
	14		137.5						1		2.00	6.17			137.5								1				3	
	15		187.5						1	1	2.50	7.72			187.5						1		1				4	
65	1		1287.5			1				4	13.50	41.67			1287.5							1					15	
	2		1425					1	1		14.88	45.91								1		1				16		
	3		350			1					3.63	11.19			350						1					5		
	4		1700			1					17.63	54.40			1700						1					19		
	5		200			1					3.88	11.96			200						1					5		
66	1		1212.5								12.63	38.97				1212.5										14		
	2		962.5			1					9.75	30.09			962.5						1					11		
67	1											0.00												1				
	2											0.00												1				
	3	18.75				1					0.38	1.16	30								1					1		
	4	31.25									1.75	5.40	31.25														3	
	5	18.75				1					0.38	1.16	30								1					1		
	6	31.25									1.75	5.40	31.25														3	
	7	31.25	131.25			1					1.75	5.40	31.25		131.25						1						3	
	8	31.25	131.25	1							2.63	8.10	31.25	1	131.25			1									3	
QUANTITY AS DIRECTED BY THE ENGINEER											100																	
TOTAL	975.00	12887.50	1	10	1	9	6	8	5	121	207.71	641	872.50	11	10250	2637.50	125	1	1	6	10	9	8	4	1	362.5	260	

**GUARDRAIL SUB-SUMMARY**

**RIC/ASD-30-13.18/0.00  
RIC-42-13.74**



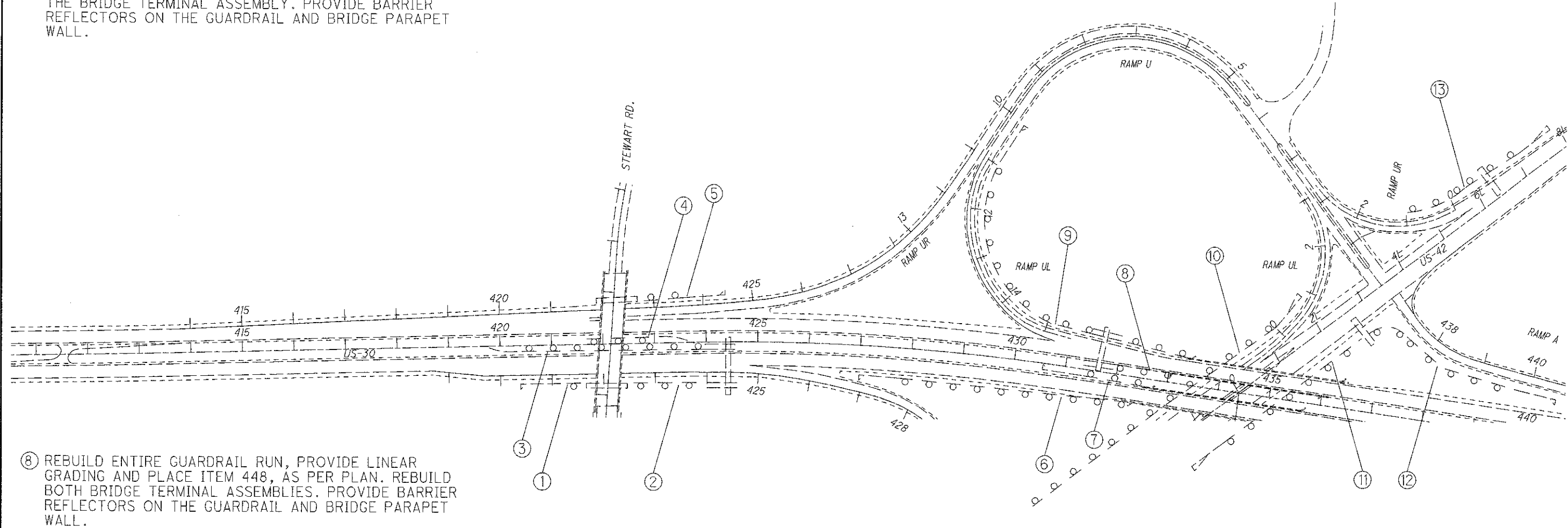
		626			
BALLOON		BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	7				
2	5				

- ① REMOVE ENTIRE GUARDRAIL RUN AND EXISTING TYPE T AND TYPE E ANCHOR ASSEMBLIES. PROVIDE LINEAR GRADING AND PLACE ITEM 448 ASPHALT CONCRETE, AS PER PLAN. REPLACE OLD GUARDRAIL AND ANCHOR ASSEMBLIES WITH NEW GUARDRAIL, TYPE 5 AND NEW TYPE T AND TYPE E-98 ANCHOR ASSEMBLIES RESPECTIVELY. PROVIDE BARRIER REFLECTORS.
- ② PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.

- ① PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ② PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ③ REMOVE GUARDRAIL RUN (NOT THE TWO SIDED). PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE NEW GUARDRAIL, TYPE 5. PROVIDE BARRIER REFLECTORS ON GUARDRAIL, CONCRETE BARRIER.
- ④ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑤ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑥ REBUILD ENTIRE GUARDRAIL RUN USING 9 FT POSTS, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD THE BRIDGE TERMINAL ASSEMBLY. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.
- ⑦ REBUILD ENTIRE GUARDRAIL RUN, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD THE BRIDGE TERMINAL ASSEMBLY. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.

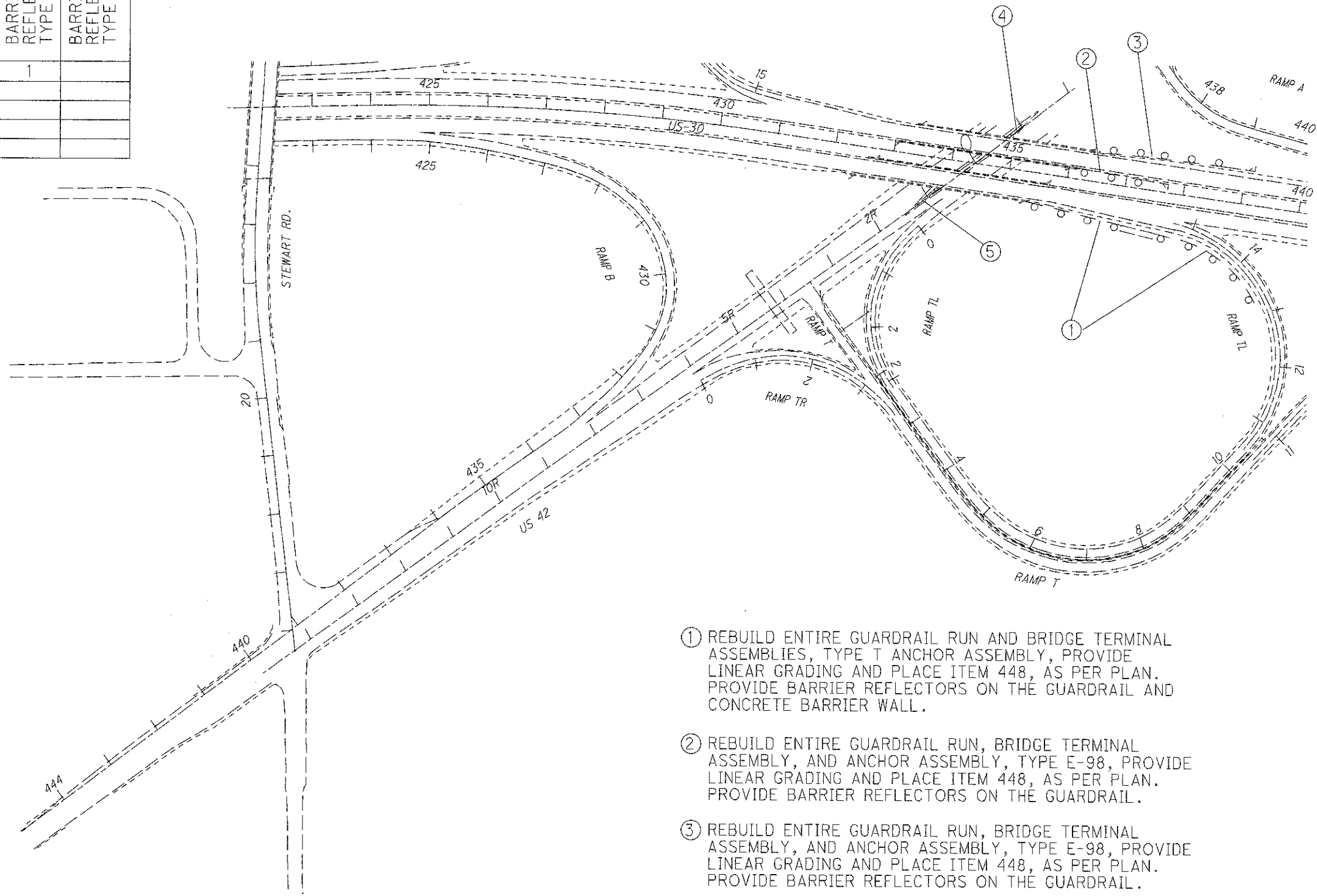
- ⑩ REMOVE TYPE A ANCHOR ASSEMBLY AND 5 PANELS OF GUARDRAIL AND THEN PLACE TYPE E-98 AT THIS POINT. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD 39 PANELS OF GUARDRAIL, REMOVE AND REPLACE TYPE T. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL. PROVIDE MINIMUM 5.5 FT CLEARANCE FROM FACE OF RAIL TO FACE OF BRIDGE PIER.
- ⑪ REMOVE TYPE A ANCHOR ASSEMBLY AND 2 PANELS AND PLACE TYPE E-98 ANCHOR ASSEMBLY AT THIS POINT. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD GUARDRAIL UP TO WHERE THE RADIUS STARTS. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL. PROVIDE MINIMUM 5.5 FT CLEARANCE FROM FACE OF RAIL TO FACE OF BRIDGE PIER.
- ⑫ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS FROM RADIUS TO TYPE E-98 ANCHOR ASSEMBLY.
- ⑬ REMOVE TYPE A ANCHOR ASSEMBLY AND 2 PANELS AND PLACE TYPE E-98 ANCHOR ASSEMBLY AT THIS POINT. REBUILD 6 PANELS OF GUARDRAIL FROM THIS POINT. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	3		2	
2	4		2	
3	8		2	
4	3			
5	3		1	
6	6		3	
7	2		3	
8	1		3	
9	7		3	
10	7			
11	6			
12	2			
13	3			

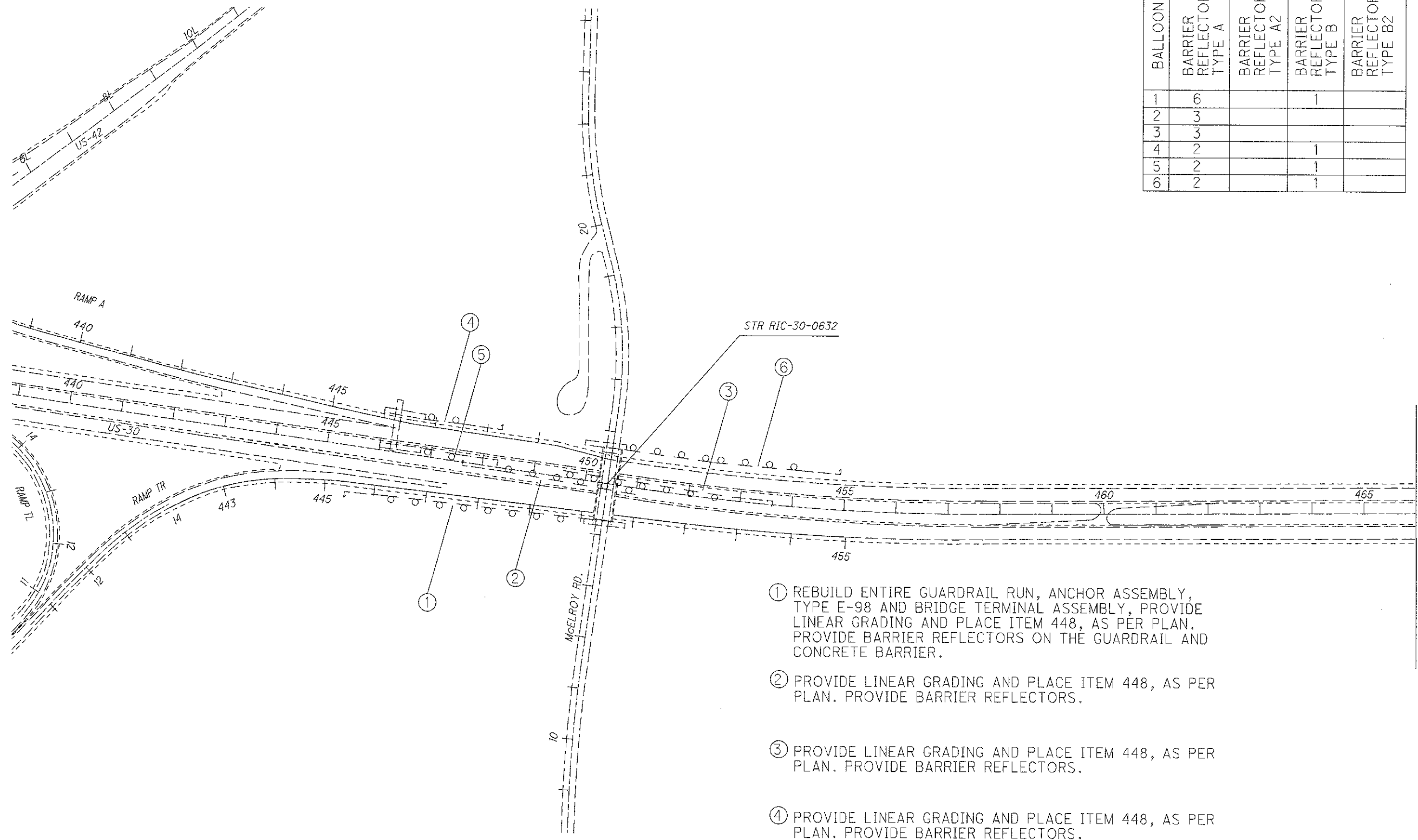


- ⑧ REBUILD ENTIRE GUARDRAIL RUN, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD BOTH BRIDGE TERMINAL ASSEMBLIES. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.
- ⑨ REBUILD ENTIRE GUARDRAIL RUN, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. REBUILD BOTH BRIDGE TERMINAL ASSEMBLIES. REMOVE AND REPLACE TYPE T. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	5		1	
2	3			
3	4			



- ① REBUILD ENTIRE GUARDRAIL RUN AND BRIDGE TERMINAL ASSEMBLIES, TYPE T ANCHOR ASSEMBLY, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND CONCRETE BARRIER WALL.
- ② REBUILD ENTIRE GUARDRAIL RUN, BRIDGE TERMINAL ASSEMBLY, AND ANCHOR ASSEMBLY, TYPE E-98, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ③ REBUILD ENTIRE GUARDRAIL RUN, BRIDGE TERMINAL ASSEMBLY, AND ANCHOR ASSEMBLY, TYPE E-98, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ④ REMOVE IMPACT ATTENUATOR AND REPLACE WITH IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) AND QUADGUARD WHEEL DEFLECTOR ASSEMBLY, IF A QUADGUARDRAIL IMPACT ATTENUATOR IS USED.
- ⑤ REMOVE IMPACT ATTENUATOR AND REPLACE WITH IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) AND QUADGUARD WHEEL DEFLECTOR ASSEMBLY, IF A QUADGUARDRAIL IMPACT ATTENUATOR IS USED.



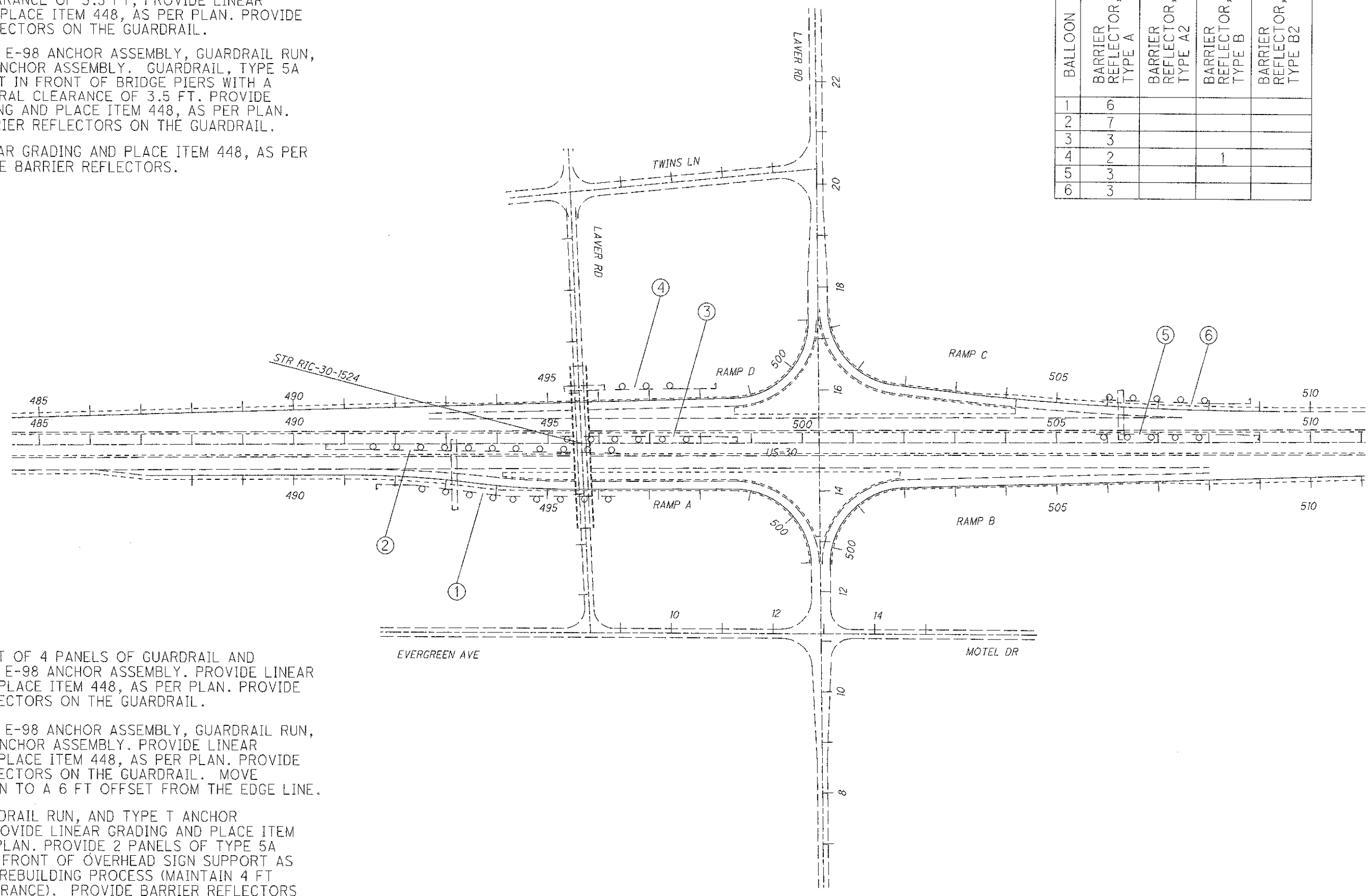
- ① REBUILD ENTIRE GUARDRAIL RUN, ANCHOR ASSEMBLY, TYPE E-98 AND BRIDGE TERMINAL ASSEMBLY, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND CONCRETE BARRIER.
- ② PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ③ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ④ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑤ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	6		1	
2	3			
3	3			
4	2		1	
5	2		1	
6	2		1	

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 WORKSTATION: KKnapp DATE: 7/12/2010 MODELNAME: Sheet

- ① REPLACE ENTIRE GUARDRAIL RUN, REMOVE AND REPLACE NEW TYPE T ANCHOR ASSEMBLY. PROVIDE TYPE 5A GUARDRAIL IN FRONT OF BRIDGE PIERS WITH A MINIMUM LATERAL CLEARANCE OF 3.5 FT, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ② REBUILD TYPE E-98 ANCHOR ASSEMBLY, GUARDRAIL RUN, AND TYPE T ANCHOR ASSEMBLY. GUARDRAIL, TYPE 5A NEEDS REBUILT IN FRONT OF BRIDGE PIERS WITH A MINIMUM LATERAL CLEARANCE OF 3.5 FT. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ③ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.



- ④ ADJUST HEIGHT OF 4 PANELS OF GUARDRAIL AND REBUILD TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑤ REBUILD TYPE E-98 ANCHOR ASSEMBLY, GUARDRAIL RUN, AND TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL. MOVE GUARDRAIL RUN TO A 6 FT OFFSET FROM THE EDGE LINE.
- ⑥ REBUILD GUARDRAIL RUN, AND TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE 2 PANELS OF TYPE 5A GUARDRAIL IN FRONT OF OVERHEAD SIGN SUPPORT AS PART OF THE REBUILDING PROCESS (MAINTAIN 4 FT LATERAL CLEARANCE). PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	6			
2	7			
3	3			
4	2		1	
5	3			
6	3			

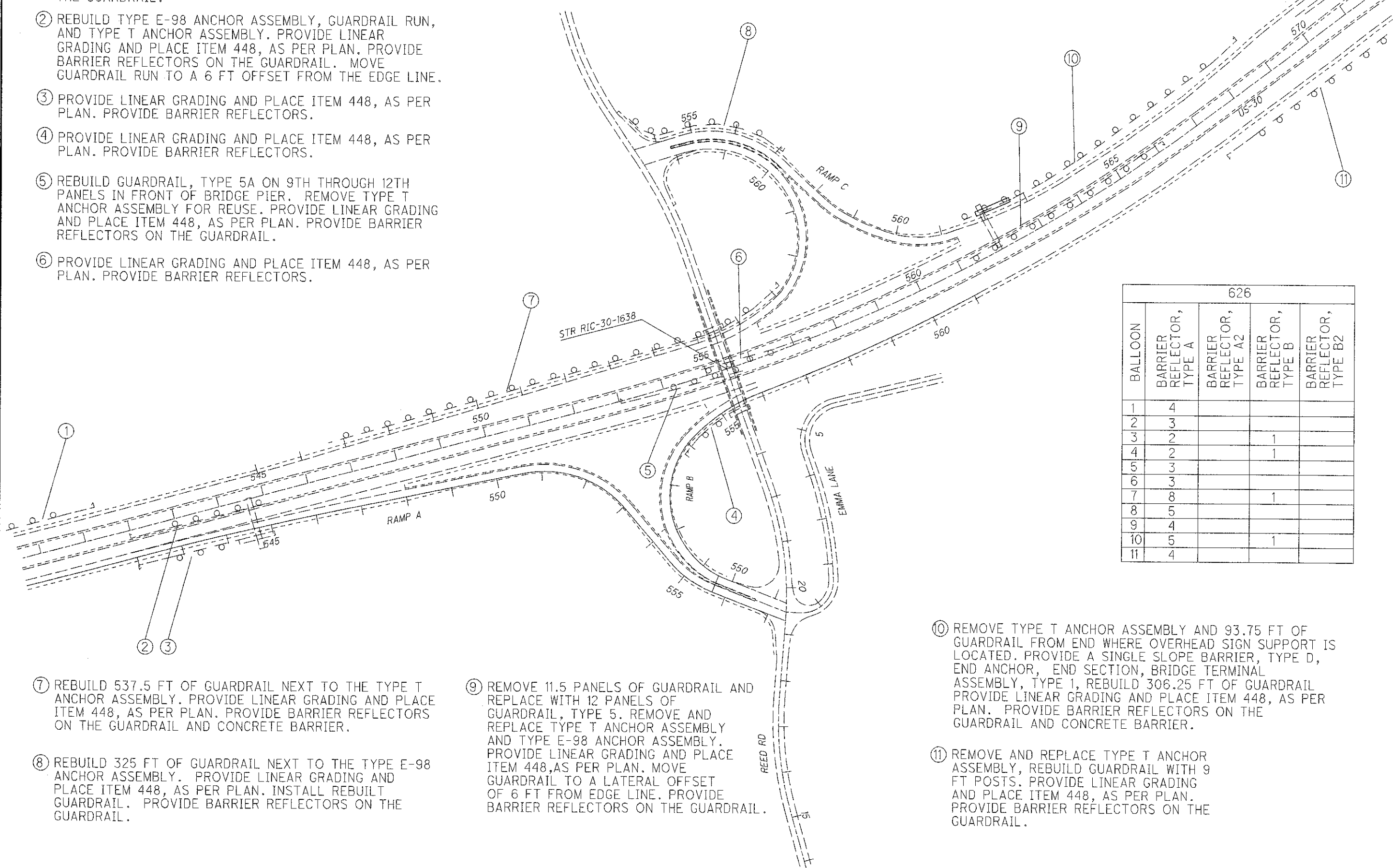
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0 100 200 400  
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**GUARDRAIL AT LAVER RD. INTERSECTION**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**

- ① REBUILD GUARDRAIL WITH 9 FT POSTS, REBUILD TYPE T ANCHOR ASSEMBLY, PLACE EMBANKMENT WITHIN REBUILT SECTION. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ② REBUILD TYPE E-98 ANCHOR ASSEMBLY, GUARDRAIL RUN, AND TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL. MOVE GUARDRAIL RUN TO A 6 FT OFFSET FROM THE EDGE LINE.
- ③ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ④ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑤ REBUILD GUARDRAIL, TYPE 5A ON 9TH THROUGH 12TH PANELS IN FRONT OF BRIDGE PIER. REMOVE TYPE T ANCHOR ASSEMBLY FOR REUSE. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑥ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.



626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	4			
2	3			
3	2		1	
4	2		1	
5	3			
6	3			
7	8		1	
8	5			
9	4			
10	5		1	
11	4			

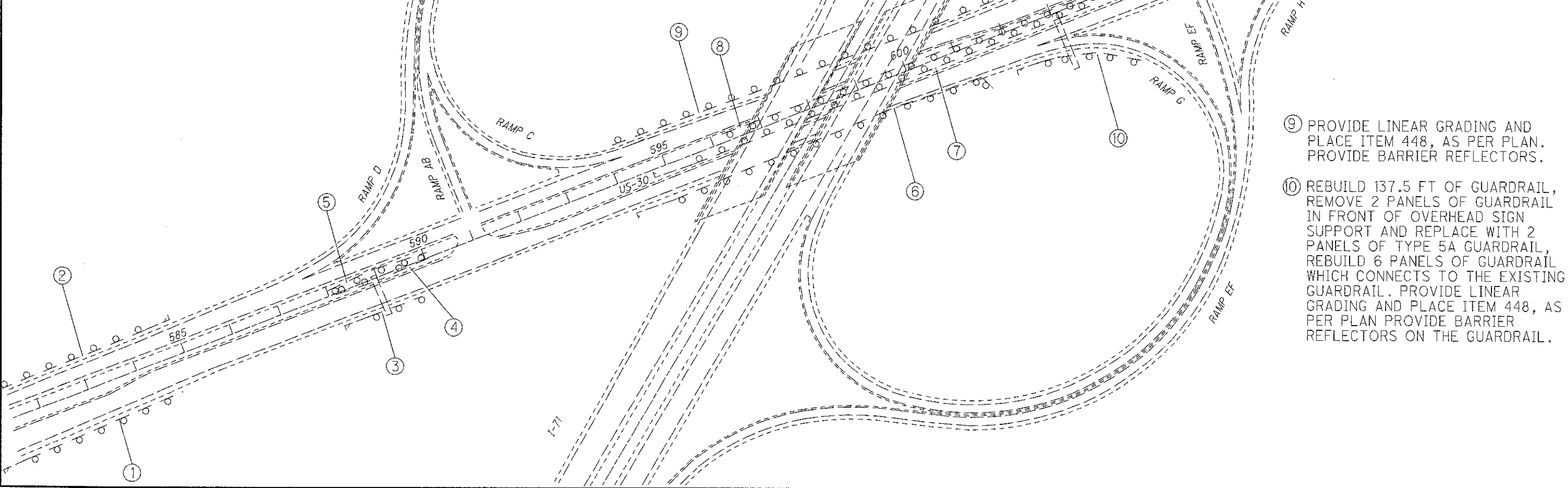
- ⑦ REBUILD 537.5 FT OF GUARDRAIL NEXT TO THE TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND CONCRETE BARRIER.
- ⑧ REBUILD 325 FT OF GUARDRAIL NEXT TO THE TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. INSTALL REBUILT GUARDRAIL. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

- ⑨ REMOVE 11.5 PANELS OF GUARDRAIL AND REPLACE WITH 12 PANELS OF GUARDRAIL, TYPE 5. REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY AND TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. MOVE GUARDRAIL TO A LATERAL OFFSET OF 6 FT FROM EDGE LINE. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

- ⑩ REMOVE TYPE T ANCHOR ASSEMBLY AND 93.75 FT OF GUARDRAIL FROM END WHERE OVERHEAD SIGN SUPPORT IS LOCATED. PROVIDE A SINGLE SLOPE BARRIER, TYPE D, END ANCHOR, END SECTION, BRIDGE TERMINAL ASSEMBLY, TYPE 1, REBUILD 306.25 FT OF GUARDRAIL PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND CONCRETE BARRIER.
- ⑪ REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REBUILD GUARDRAIL WITH 9 FT POSTS. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

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 WORKSTATION:Kknapp DATE: 7/12/2010 MODELNAME: Sheet

- ① PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ② REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REMOVE AND REPLACE GUARDRAIL, REBUILD TYPE E-98 ANCHOR ASSEMBLY AND ADD EMBANKMENT AT TYPE E-98. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ③ REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REBUILD GUARDRAIL. REMOVE REMAINING ANCHOR ASSEMBLY, PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ④ REMOVE 2 PANELS OF GUARDRAIL IN FRONT OF OVERHEAD SIGN SUPPORT AND REPLACE WITH 2 PANELS OF TYPE 5A GUARDRAIL AND RESHAPE. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑤ REMOVE 2 PANELS OF GUARDRAIL IN FRONT OF OVERHEAD SIGN SUPPORT AND REPLACE WITH 2 PANELS OF TYPE 5A GUARDRAIL AND RESHAPE. REMOVE GUARDRAIL AND ANCHOR ASSEMBLY(IES), PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑥ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑦ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑧ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.



626			
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B
1	8		
2	9		
3	3		
4	3		
5	3		
6	7		
7	9		
8	8	2	
9	15		
10	4		

- ⑨ PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS.
- ⑩ REBUILD 137.5 FT OF GUARDRAIL, REMOVE 2 PANELS OF GUARDRAIL IN FRONT OF OVERHEAD SIGN SUPPORT AND REPLACE WITH 2 PANELS OF TYPE 5A GUARDRAIL, REBUILD 6 PANELS OF GUARDRAIL WHICH CONNECTS TO THE EXISTING GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

CALCULATED

MJS

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0

200

400

HORIZONTAL SCALE IN FEET

GUARDRAIL AT IR-71 INTERSECTION (WEST)

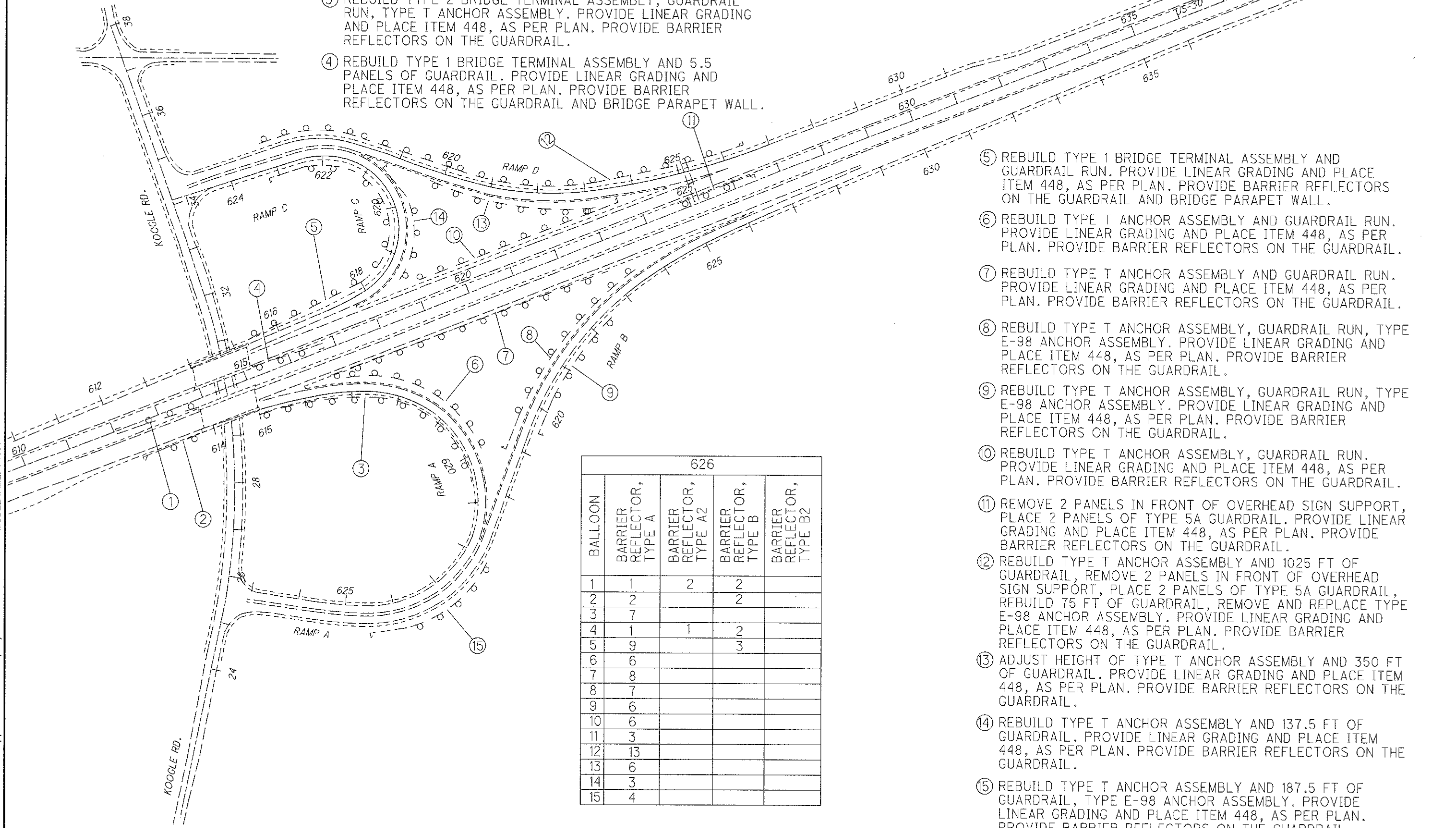
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 RIC-42-13.74

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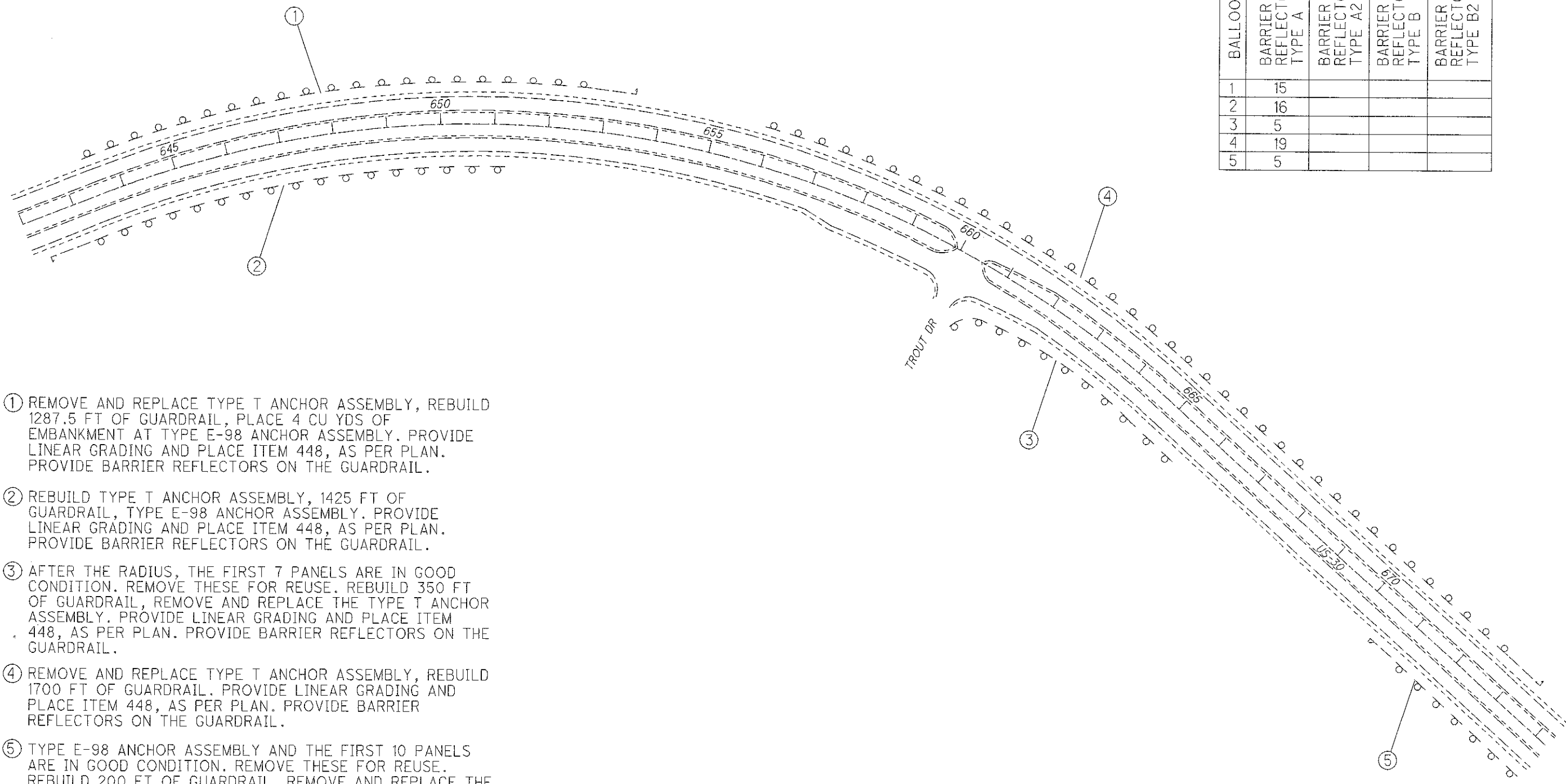


- ① REBUILD TYPE 1 BRIDGE TERMINAL ASSEMBLY AND 5.5 PANELS OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.
- ② REBUILD TYPE 1 BRIDGE TERMINAL ASSEMBLY, 6 PANELS OF GUARDRAIL, TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.
- ③ REBUILD TYPE 2 BRIDGE TERMINAL ASSEMBLY, GUARDRAIL RUN, TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ④ REBUILD TYPE 1 BRIDGE TERMINAL ASSEMBLY AND 5.5 PANELS OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.



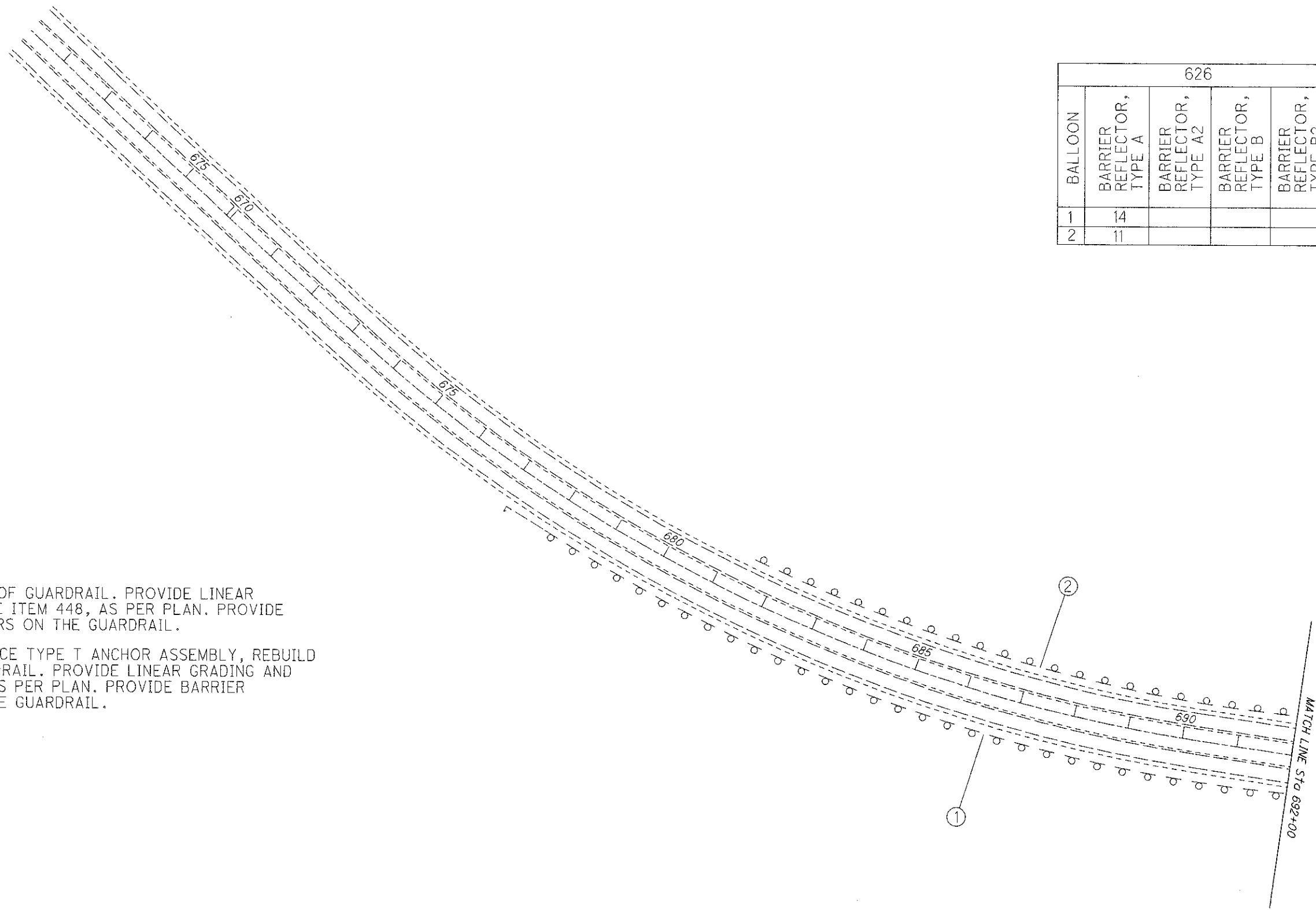
- ⑤ REBUILD TYPE 1 BRIDGE TERMINAL ASSEMBLY AND GUARDRAIL RUN. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL AND BRIDGE PARAPET WALL.
- ⑥ REBUILD TYPE T ANCHOR ASSEMBLY AND GUARDRAIL RUN. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑦ REBUILD TYPE T ANCHOR ASSEMBLY AND GUARDRAIL RUN. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑧ REBUILD TYPE T ANCHOR ASSEMBLY, GUARDRAIL RUN, TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑨ REBUILD TYPE T ANCHOR ASSEMBLY, GUARDRAIL RUN, TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑩ REBUILD TYPE T ANCHOR ASSEMBLY, GUARDRAIL RUN. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑪ REMOVE 2 PANELS IN FRONT OF OVERHEAD SIGN SUPPORT, PLACE 2 PANELS OF TYPE 5A GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑫ REBUILD TYPE T ANCHOR ASSEMBLY AND 1025 FT OF GUARDRAIL, REMOVE 2 PANELS IN FRONT OF OVERHEAD SIGN SUPPORT, PLACE 2 PANELS OF TYPE 5A GUARDRAIL, REBUILD 75 FT OF GUARDRAIL, REMOVE AND REPLACE TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑬ ADJUST HEIGHT OF TYPE T ANCHOR ASSEMBLY AND 350 FT OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑭ REBUILD TYPE T ANCHOR ASSEMBLY AND 137.5 FT OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑮ REBUILD TYPE T ANCHOR ASSEMBLY AND 187.5 FT OF GUARDRAIL, TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	1	2	2	
2	2		2	
3	7			
4	1	1	2	
5	9		3	
6	6			
7	8			
8	7			
9	6			
10	6			
11	3			
12	13			
13	6			
14	3			
15	4			



626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	15			
2	16			
3	5			
4	10			
5	5			

- ① REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REBUILD 1287.5 FT OF GUARDRAIL, PLACE 4 CU YDS OF EMBANKMENT AT TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ② REBUILD TYPE T ANCHOR ASSEMBLY, 1425 FT OF GUARDRAIL, TYPE E-98 ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ③ AFTER THE RADIUS, THE FIRST 7 PANELS ARE IN GOOD CONDITION. REMOVE THESE FOR REUSE. REBUILD 350 FT OF GUARDRAIL, REMOVE AND REPLACE THE TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ④ REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REBUILD 1700 FT OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑤ TYPE E-98 ANCHOR ASSEMBLY AND THE FIRST 10 PANELS ARE IN GOOD CONDITION. REMOVE THESE FOR REUSE. REBUILD 200 FT OF GUARDRAIL, REMOVE AND REPLACE THE TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.



- ① REBUILD 1212.5 FT OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ② REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY, REBUILD 962.5 FT OF GUARDRAIL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

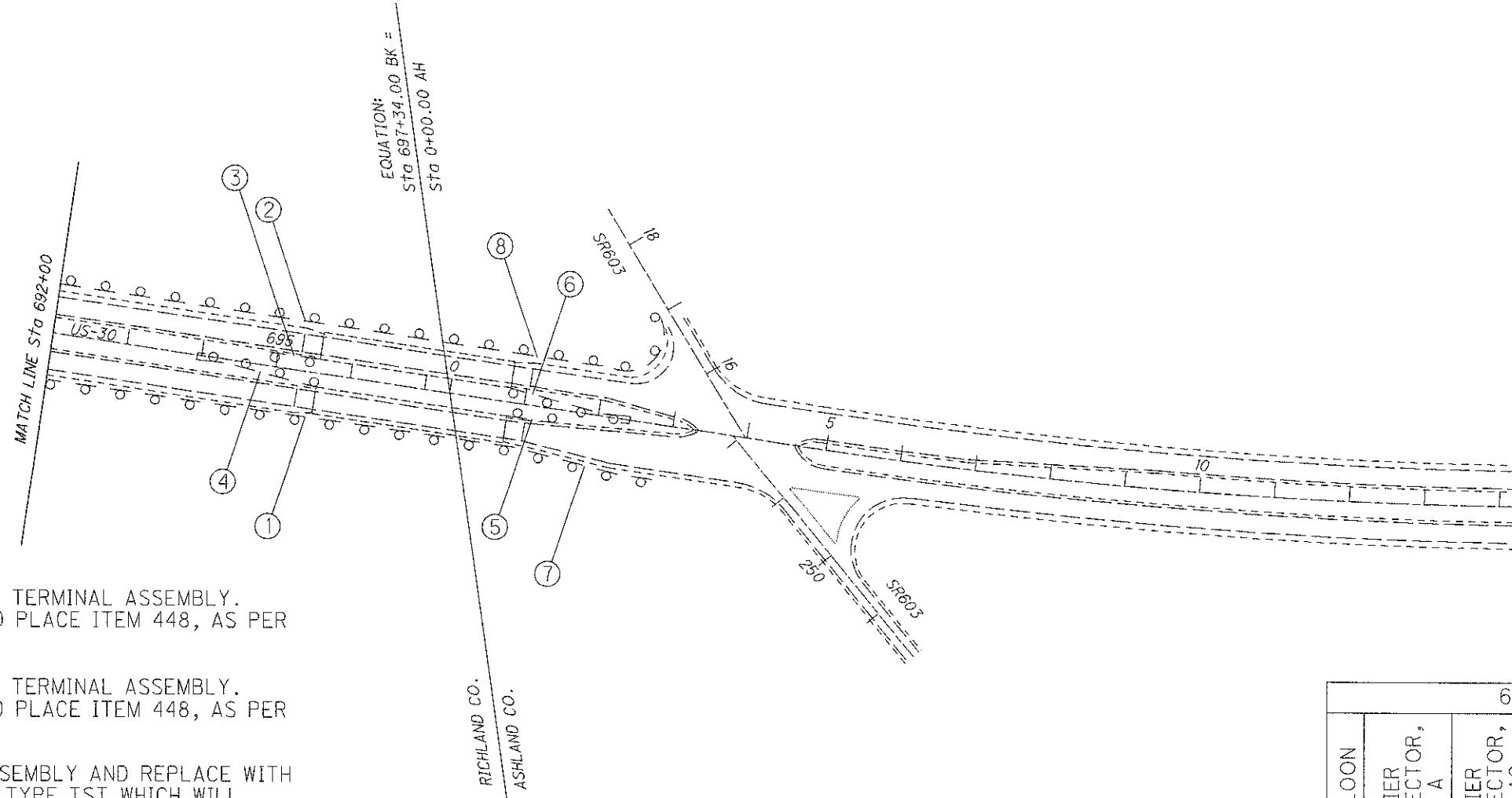
BALLOON		626		
	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1	14			
2	11			

CALCULATED  
 MJS  
 CHECKED  
 ADB

0 100 200 400  
 HORIZONTAL SCALE IN FEET

**GUARDRAIL ATTACHED TO STR RIC-30-19.15**

**RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74**



- ① REMOVE AND REPLACE BRIDGE TERMINAL ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN.
- ② REMOVE AND REPLACE BRIDGE TERMINAL ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN.
- ③ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST WHICH WILL REQUIRE NEW GUARDIAL, AND A TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ④ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST WHICH WILL REQUIRE NEW GUARDIAL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑤ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST WHICH WILL REQUIRE NEW GUARDIAL, AND A TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑥ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST WHICH WILL REQUIRE NEW GUARDIAL. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

- ⑦ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST. REBUILD GUARDRAIL RUN, REMOVE AND REPLACE TYPE T ANCHOR ASSEMBLY. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.
- ⑧ REMOVE BRIDGE TERMINAL ASSEMBLY AND REPLACE WITH BRIDGE TERMINAL ASSEMBLY, TYPE TST. REBUILD GUARDRAIL RUN UP TO THE RADIUS, REPLACE ONE RUSTY RAIL IN THE REBUILT SECTION, 4 PANELS ON THE RADIUS ARE IN GOOD CONDITION. REMOVE THESE FOR REUSE, REMOVE TYPE A ANCHOR ASSEMBLY AND REPLACE WITH A TYPE B-98. PROVIDE LINEAR GRADING AND PLACE ITEM 448, AS PER PLAN. PROVIDE BARRIER REFLECTORS ON THE GUARDRAIL.

626				
BALLOON	BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE A2	BARRIER REFLECTOR, TYPE B	BARRIER REFLECTOR, TYPE B2
1				
2				
3	1			
4	2	1		
5	1			
6	2	1		
7	3			
8	3			

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WORKSTATION:Knapp  
DATE: 7/12/2010  
MODELNAME: Design

**ITEM 632. DETECTOR LOOP, AS PER PLAN**

DETECTOR LOOP REPLACEMENT IS DETAILED ON THE LOOP DETECTOR REPLACEMENT PLAN SHEETS FOR McELROY RD/US42 AND STEWART RD/US42 INTERSECTIONS. THE LOOPS SPECIFIED SHALL BE REPLACED DUE TO THE NEED TO UPGRADE THE LOOPS TO THE REVISED STANDARD CONSTRUCTION DRAWING. IT IS IMPERATIVE THAT REPLACEMENT OF LOOP DETECTORS BE INSTALLED AND FULLY FUNCTIONAL IN THE SHORTEST POSSIBLE TIME. IF THE LOOP IS DAMAGED DUE TO PAVEMENT PLANING OR PAVEMENT REPAIR PROCEDURES, THE CONTRACTOR SHALL HAVE REPLACEMENT LOOP DETECTORS INSTALLED AND FULLY FUNCTIONAL WITHIN 7 CALENDAR DAYS OF DESTRUCTION OF THE ORIGINAL LOOP.

THE CONTRACTOR SHALL NOTIFY MATT BLANKENSHIP, DISTRICT 3 ROADWAY SERVICES MANAGER, (PHONE 419-207-7045) 5 WORKING DAYS IN ADVANCE OF ANY PLANING OPERATIONS OR PAVEMENT REPAIR WORK THAT WILL DAMAGE DETECTOR LOOP INSTALLATIONS. THIS NOTIFICATION IS NEEDED FOR DISTRICT 3 TO SCHEDULE TEMPORARY SIGNAL TIMING MODIFICATIONS FOR THE TIME PERIOD WHEN THE DETECTOR LOOPS ARE OUT OF OPERATION. THE CONTRACTOR SHALL THEN RENOTIFY MR. BLANKENSHIP WITHIN 2 WORKING DAYS AFTER THE DAMAGED DETECTOR LOOPS ARE REPLACED SO THAT HE CAN RESCHEDULE DISTRICT CREWS TO RESTORE SIGNAL TIMINGS TO THE ORIGINAL SETTINGS.

FAILURE TO COMPLY WITH THE ABOVE STATED REQUIREMENTS WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES ACCORDING TO SECTION 108.07 OF THE CMS FOR EACH CALENDAR DAY BEYOND THE SPECIFIED LIMIT.

THE NEW LOOP DETECTORS SHALL BE PLACED AFTER THE PLANING AND PAVEMENT REPAIR OPERATIONS ARE COMPLETED WITHIN THE LOOP DETECTOR AREAS. THE LOOP DETECTORS SHALL NOT BE CUT INTO THE SURFACE COURSE.

THE LOOP DETECTOR WIRE SHALL BE REPLACED TO THE PULL BOX OR POLE, WHICHEVER IS APPLICABLE, UNDER ITEM 632 AND TC-82.10.

THIS WORK SHALL INCLUDE THE Poured EPOXY INSULATED SPLICE(S) REQUIRED TO CONNECT THE LOOP DETECTOR WIRE TO EXISTING LEAD-IN CABLE AT THE PULL BOX OR POLE. THE SPLICES SHALL BE IN ACCORDANCE WITH SECTION 725.15 OF THE CMS. PAYMENT SHALL BE MADE PER EACH LOOP DETECTOR CONNECTED TO THE LEAD-IN CABLE.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF ITEM 632 DETECTOR LOOP, AS PER PLAN.

**ITEM 632. LOOP DETECTOR TIE-IN, AS PER PLAN**

THIS WORK SHALL CONSIST OF CONNECTING EXISTING LOOP DETECTOR WIRE OR LEAD-IN CABLE TO NEW LOOP DETECTOR LEAD-IN CABLE WHETHER THAT CABLE IS UNDERGROUND OR AERIAL. INCLUDED IN THIS ITEM IS THE CONNECTOR KIT OR CABLE SPLICE KIT (CONFORMING TO 725.15) THAT MUST BE USED IN MAKING THESE CONNECTIONS.

THIS ITEM IS ONLY NEEDED WHEN A TIE-IN SITUATION EXISTS WHERE AN EXISTING CABLE IS SPLICED TO A NEW CABLE. WHEN ALL NEW LEAD-IN WIRE IS SPECIFIED IN THE PLAN, THIS ITEM OF WORK IS NOT REQUIRED.

PAYMENT FOR THIS ITEM WILL INCLUDE ALL NECESSARY LABOR, MISCELLANEOUS HARDWARE, AND EQUIPMENT REQUIRED TO PROVIDE FOR THE LOOP DETECTOR TIE-IN AND OPERATION. BASIS OF PAYMENT WILL BE AT CONTRACT BID PRICE PER EACH.

**ITEM 632. LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF CMS 632, 732.07, PART A, NEMA TS-1, AND 732.08, LOOP DETECTOR UNITS SHALL HAVE THE FOLLOWING REQUIREMENTS OR FEATURES:

- 1) THE OUTPUT DEVICE SHALL BE AN ELECTROMECHANICAL RELAY AND ALL CONTACTS SHALL BE INCLUDED IN THE WIRING HARNESS.
- 2) THE UNIT SHALL BE SELF TUNING.
- 3) THE UNIT'S ELECTRICAL CONNECTION PLUGS OR WIRING HARNESS SHALL ALLOW READY REPLACEMENT WITH SINGLE CHANNEL AMPLIFIERS AS DESCRIBED IN CMS 732.07.

IN ADDITION TO THE REQUIREMENTS LISTED ABOVE, THE DETECTOR UNIT SHALL BE A SINGLE CHANNEL UNIT AND HAVE EASILY ADJUSTABLE TIMERS INCORPORATED IN THE UNIT THAT ARE CAPABLE OF BOTH EXTEND CALL AND DELAY CALL OUTPUTS. THESE ADJUSTMENTS SHALL BE SEPARATE AND CONTROLLABLE BY CALIBRATED SWITCHES OR KNOBS ON THE OUTSIDE OF THE DETECTOR UNIT. THE EXTEND CALL TIMER SHALL BE CAPABLE OF HOLDING THE CALL OF A VEHICLE FOR A PERIOD OF TIME BEGINNING AT THE INSTANT THE VEHICLE LEAVES THE DETECTION AREA. THE DELAY CALL TIMER SHALL BE SUCH THAT IT DOES NOT ISSUE AN OUTPUT UNTIL THE DETECTION ZONE HAS BEEN OCCUPIED FOR A PERIOD OF TIME THAT HAS BEEN SET ON THE ADJUSTABLE TIMER. WHEN TIMES ARE SET ON BOTH THE DELAY AND EXTEND TIMERS, THE UNIT SHALL BE DESIGNED TO INHIBIT THE EXTEND FUNCTION UNTIL THE DELAY TIME HAS BEEN MET. WHEN THE LOOP BECOMES UNOCCUPIED, THE DELAY OUTPUT IS REMOVED. WHEN THE VEHICLE GAP EXCEEDS THE EXTEND TIME, THE ENTIRE DELAY-EXTEND OPERATION BECOMES EFFECTIVELY RESET FOR THE NEXT CYCLE - DELAY TO TIME OUT, ETC.

PAYMENT FOR ITEM 632 - LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER EACH AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS.

**ITEM 632. SIGNALIZATION, MISC.: REMOVE AND REINSTALL LASHING RODS**

THIS WORK WILL REQUIRE THE CONTRACTOR TO CAREFULLY REMOVE THE LASHING RODS ACROSS AN EXISTING SIGNAL SPAN SO THAT CABLE(S) CAN BE INSTALLED. AS THE CABLE(S) IS INSTALLED IT SHALL BE CAREFULLY LASHED WITH OTHER EXISTING CABLES UTILIZING THE REMOVED LASHING RODS.

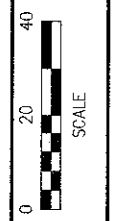
PAYMENT FOR THIS ITEM OF WORK WILL BE IN FEET OF LASHING ROD REMOVED AND REINSTALLED AND WILL INCLUDE ALL LABOR AND EQUIPMENT, INCLUDING TRAFFIC CONTROL, TO PERFORM THE WORK DESCRIBED ABOVE.

CALCULATED  
MJS  
CHECKED  
ADB

LOOP DETECTOR NOTES

RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74

68  
116

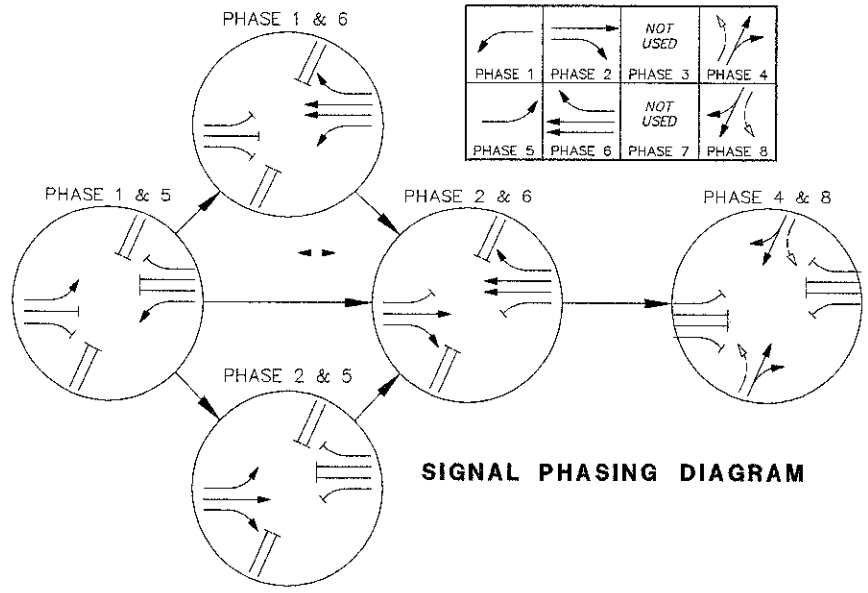
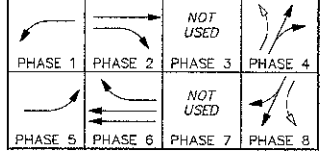


CALCULATED  
RJR 6/10  
CHECKED

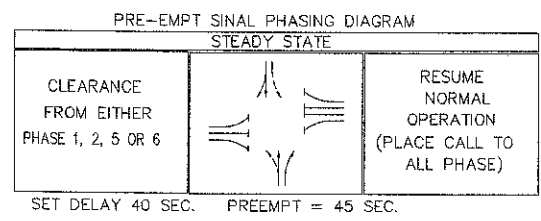
**LOOP DETECTOR REPLACEMENT PLAN  
US 42 & STEWART ROAD**

**RIC / ASD-30-13.18 / 0.00  
RIC-42-13.74**

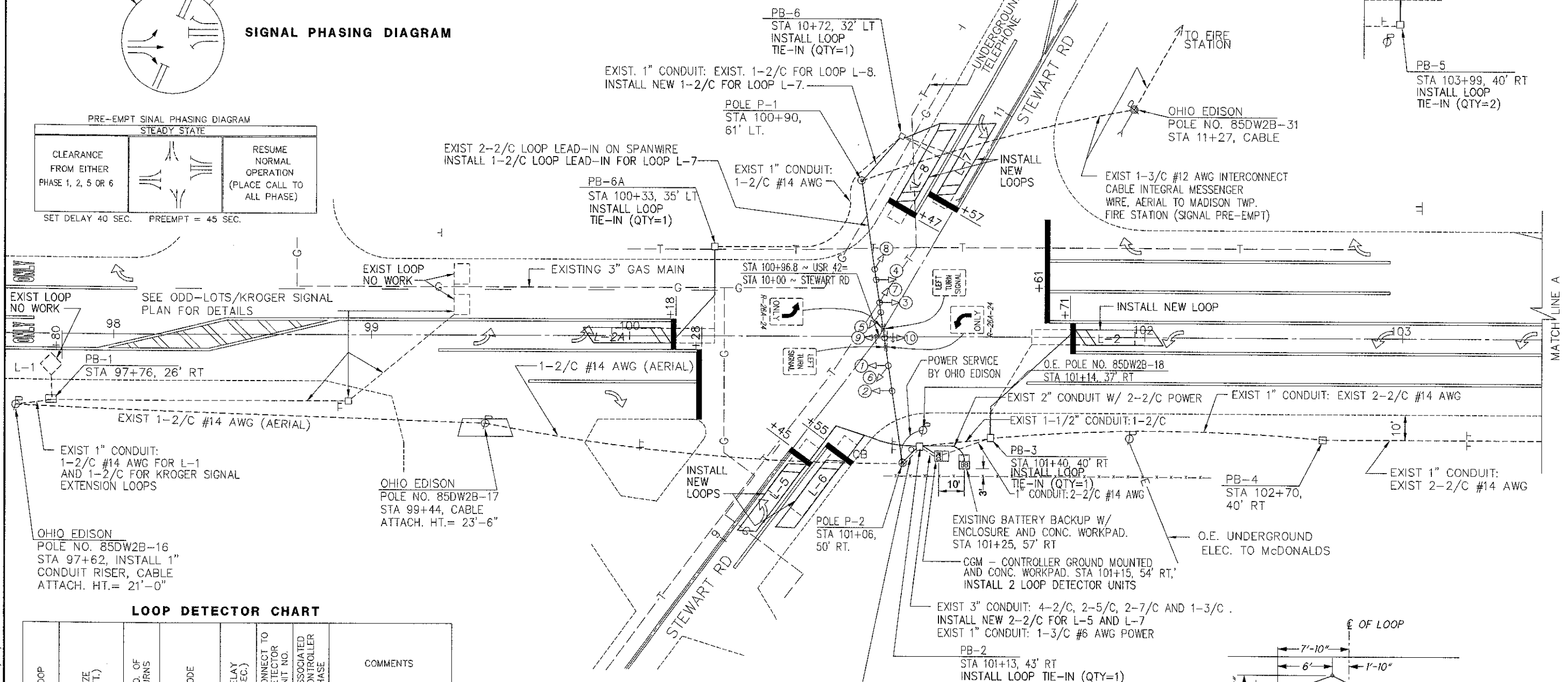
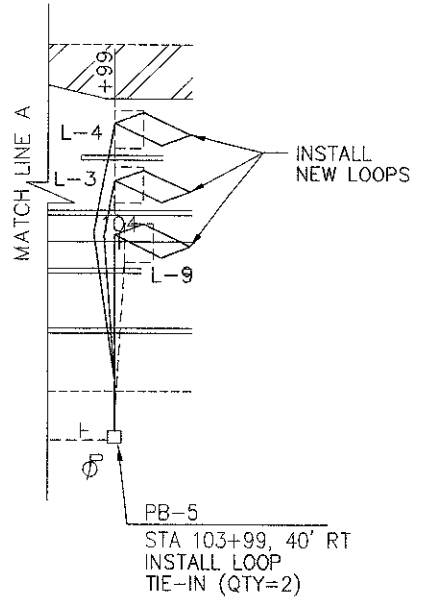
**PHASING IDENTIFICATION**



**SIGNAL PHASING DIAGRAM**

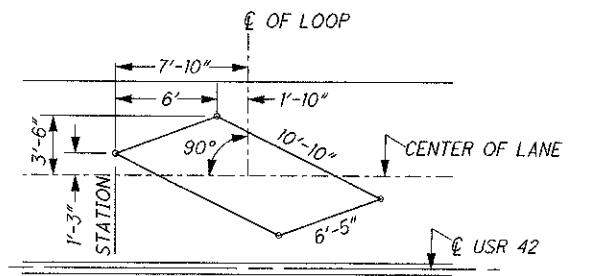
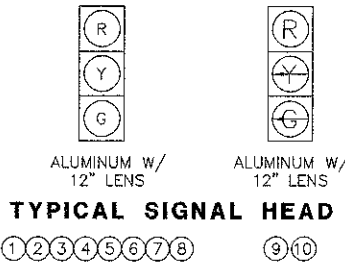


ITEM	UNIT	DESCRIPTION	QTY.
632	EACH	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	2
632	EACH	LOOP DETECTOR TIE-IN, AS PER PLAN	6
632	FT	LOOP DETECTOR LEAD-IN CABLE, 2/C, NO. 14 AWG	265
632	EACH	DETECTOR LOOP, AS PER PLAN	9
632	FT	SIGNALIZATION, MISC.: REMOVE AND REINSTALL LASHING RODS	120



**LOOP DETECTOR CHART**

LOOP	SIZE (FT.)	NO. OF TURNS	MODE	DELAY (SEC.)	CONNECT TO DETECTOR UNIT NO.	ASSOCIATED CONTROLLER PHASE	COMMENTS
L-1	5 X 5	3	PULSE	0	1	2	EXISTING LOOP - NO WORK
L-2	6 X 30	3+3	PRESENCE	2 *	2	1	NEW POWERHEAD LOOP
L-2A	6 X 30	3+3	PRESENCE	2 *	3	5	NEW POWERHEAD LOOP
L-3	6.4 X 10.8	4	PULSE	0	4	6	NEW ADD LOOP
L-4	6.4 X 10.8	4	PULSE	0	4	6	NEW ADD LOOP
L-5	6 X 20	3+3	PRESENCE	10 *	8 (NEW)	4	NEW POWERHEAD LOOP
L-6	6 X 20	3+3	PRESENCE	10 *	5	4	NEW POWERHEAD LOOP
L-7	6 X 20	3+3	PRESENCE	10 *	9 (NEW)	8	NEW POWERHEAD LOOP
L-8	6 X 20	3+3	PRESENCE	10 *	6	8	NEW POWERHEAD LOOP
L-9	6.4 X 10.8	4	PULSE	2 *	7	1	NEW ADD LOOP



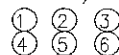
**ANGULAR DESIGN DETECTION (ADD) LOOP DETAIL**

DESIGN FILE: I:\projects\roadway\sheet\79352\TMO02.dgn  
WORKSTATION: Kknapp DATE: 7/12/2010

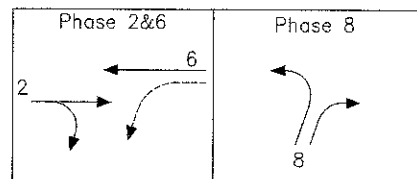
\* NOTE: DELAY INHIBITED DURING ASSOCIATED PHASE GREEN INTERVAL



**SIGNAL INDICATIONS**  
ALL 12" ALUMINUM W/ TUNNEL VISORS



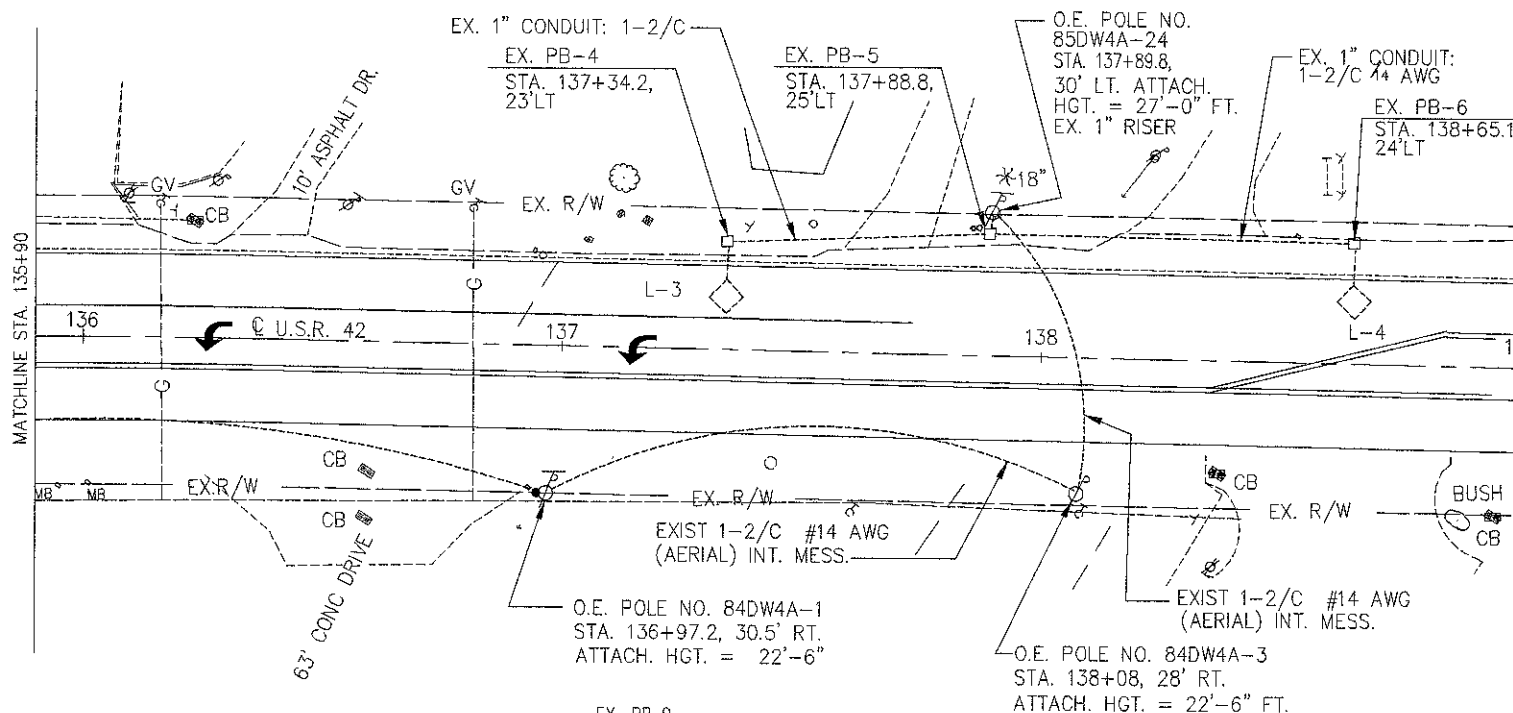
**PHASING DIAGRAM**



NOTE: PHASES 1, 3, 4, 5 AND 7 NOT USED.

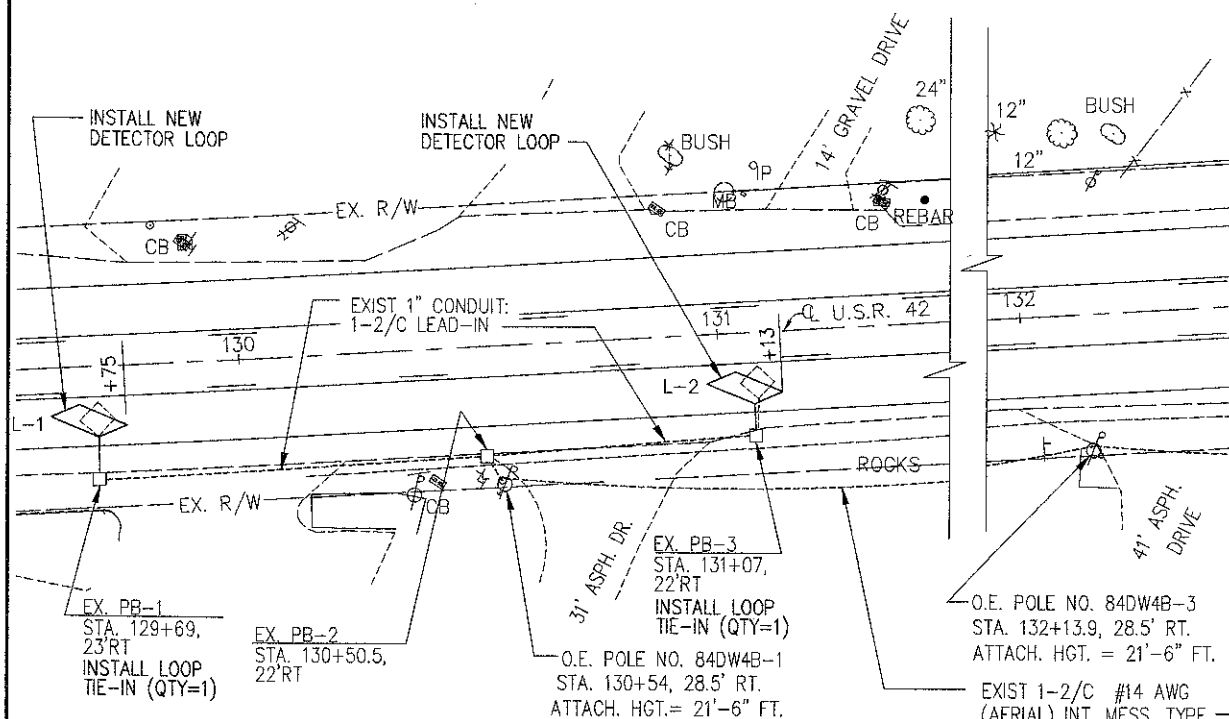
**ESTIMATED QUANTITIES**

ITEM	UNIT	DESCRIPTION	QTY.
632	EACH	LOOP DETECTOR TIE-IN, AS PER PLAN	5
632	EACH	DETECTOR LOOP, AS PER PLAN	5



**LOOP DETECTOR REPLACEMENT PLAN  
US 42 & MCELROY RD**

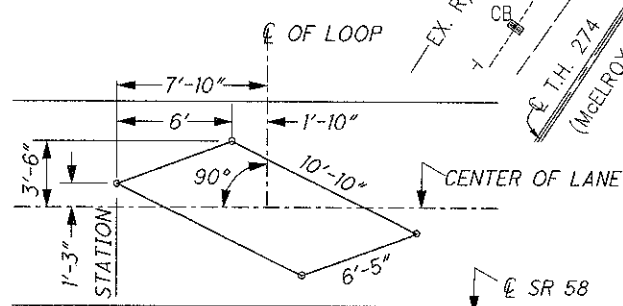
**RIC/ ASD-30-13.18/ 0.00  
RIC-42-13.74**



**LOOP DETECTOR CHART**

LOOP	SIZE (FT.)	NO. OF TURNS	MODE	DELAY (SEC.)	CONNECT TO DETECTOR UNIT NO.	ASSOCIATED CONTROLLER PHASE	COMMENTS
L-1	6.4 X 10.8	4	PULSE		1	2	NEW ADD LOOP
L-2	6.4 X 10.8	4	PULSE		1	2	NEW ADD LOOP
L-3	5' X 5'	3	PULSE		2	6	EXIST LOOP NO WORK
L-4	5' X 5'	3	PULSE		2	6	EXIST LOOP NO WORK
L-5	6 X 25	3+3	PRESENCE	2 *	3	4	NEW POWERHEAD LOOP
L-6	6 X 35	3+3	PRESENCE	10 *	4	4	NEW POWERHEAD LOOP
L-7	6 X 30	3+3	PRESENCE		5	6	NEW QUADRUPOLE LOOP

\* DELAY INHIBIT DURING ASSOCIATED GREEN.



**ANGULAR DESIGN DETECTION (ADD) LOOP DETAIL**

DATE	REVISIONS	DATE INSTALLED
11-2-01	PLAN REDRAWN PER UPGRADE PROJ 43-01	3-4-02
6-9-10	PLAN REDRAWN PER LOOP UPGRADES PROJ ?	?

**FLASHER OPERATION**

YELLOW TO U.S.R. 42  
RED TO MCELROY ROAD  
SIGNAL NO. RIC-42-14.40  
INSTALLATION DATE 8-28-73  
FILE NO. 2590  
OSIS NO. 573

OHIO DEPARTMENT OF TRANSPORTATION  
ELECTRICAL INSTALLATION LOCATED AT  
**US 42 & MCELROY RD**  
DISTRICT 3 COUNTY RICHLAND

DRAWN RJR 6/10  
REVIEWED

70  
116

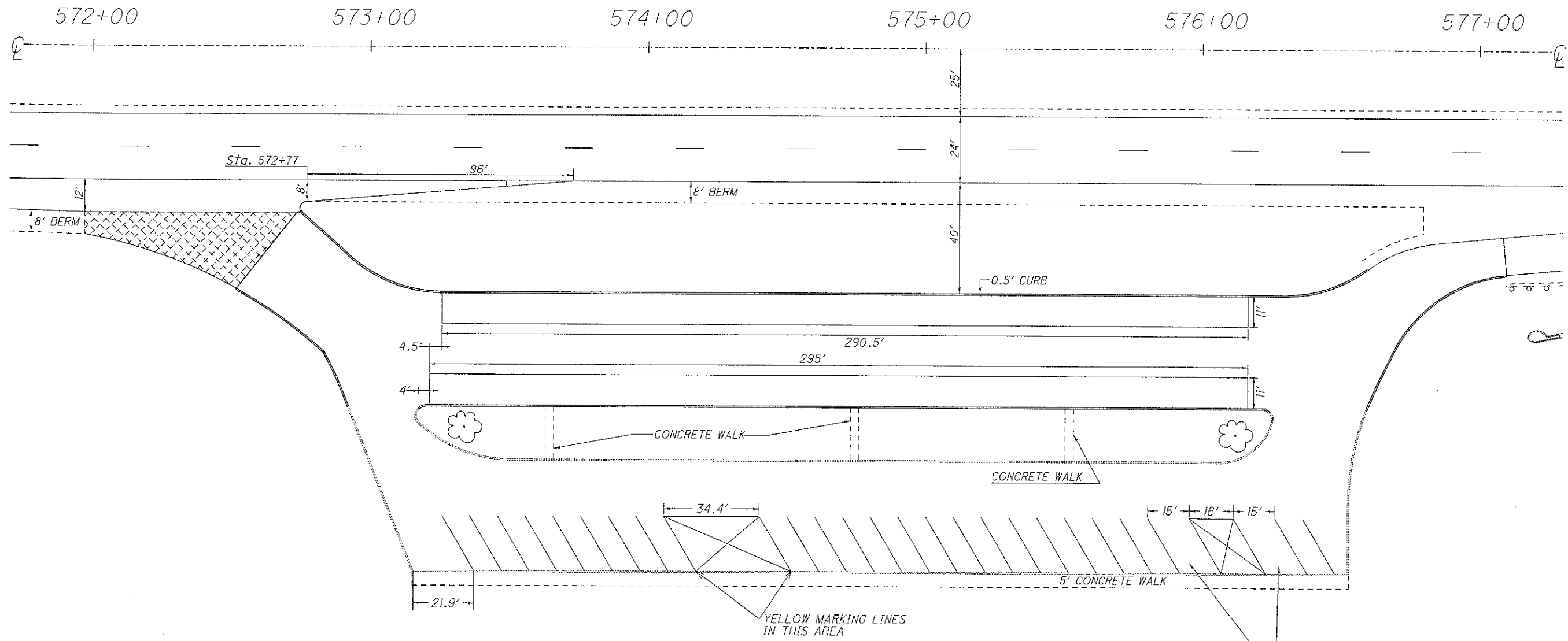
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WORKSTATION: KKnapp DATE: 7/12/2010



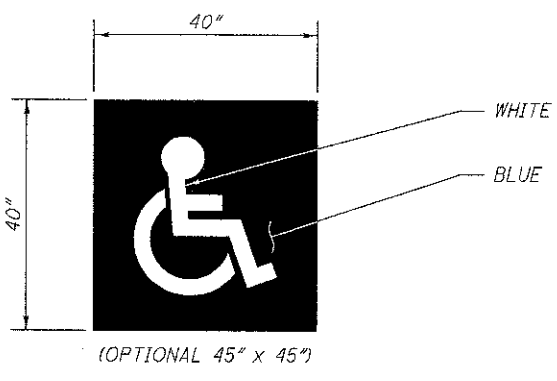




DESIGN FILE: I:\projects\roadway\sheets\79352TD001.dgn  
 WORKSTATION:KKnapp  
 DATE: 7/12/2010  
 MODELNAME: Design



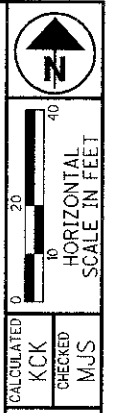
HANDICAP PARKING STALLS  
 BLUE BACKGROUND WITH  
 STANDARD WHITE HANDICAP  
 MARKINGS



NOTE: WHEELCHAIR SYMBOL AS SHOWN ABOVE SHALL BE MARKED IN ALL DISABILITY PARKING STALLS.

ITEM	DESCRIPTION	QUANTITY	UNIT
644	PARKING LOT STALL MARKING (YELLOW)	161	FT
644	PARKING LOT STALL MARKING (WHITE)	671	FT
644	HANDICAP SYMBOL MARKING	2	EA
646	PARKING LOT STALL MARKING (WHITE)	630	FT

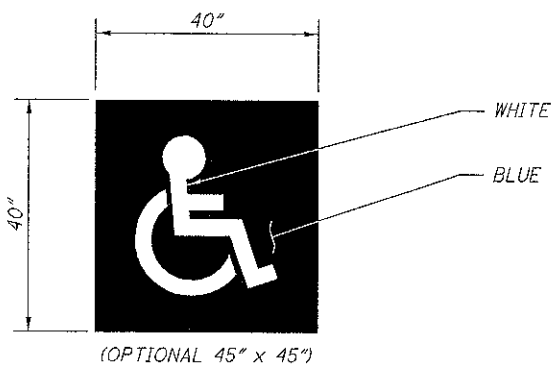
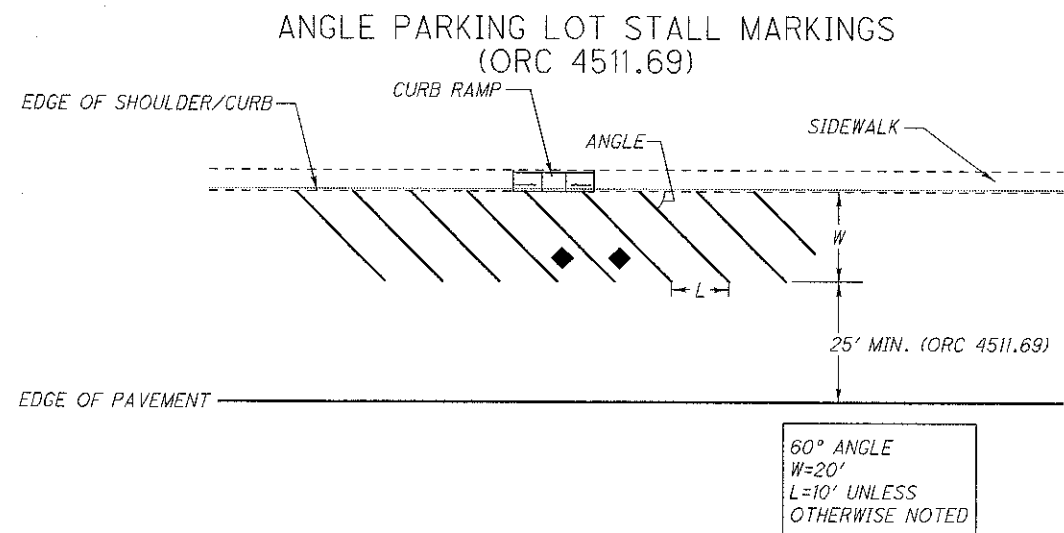
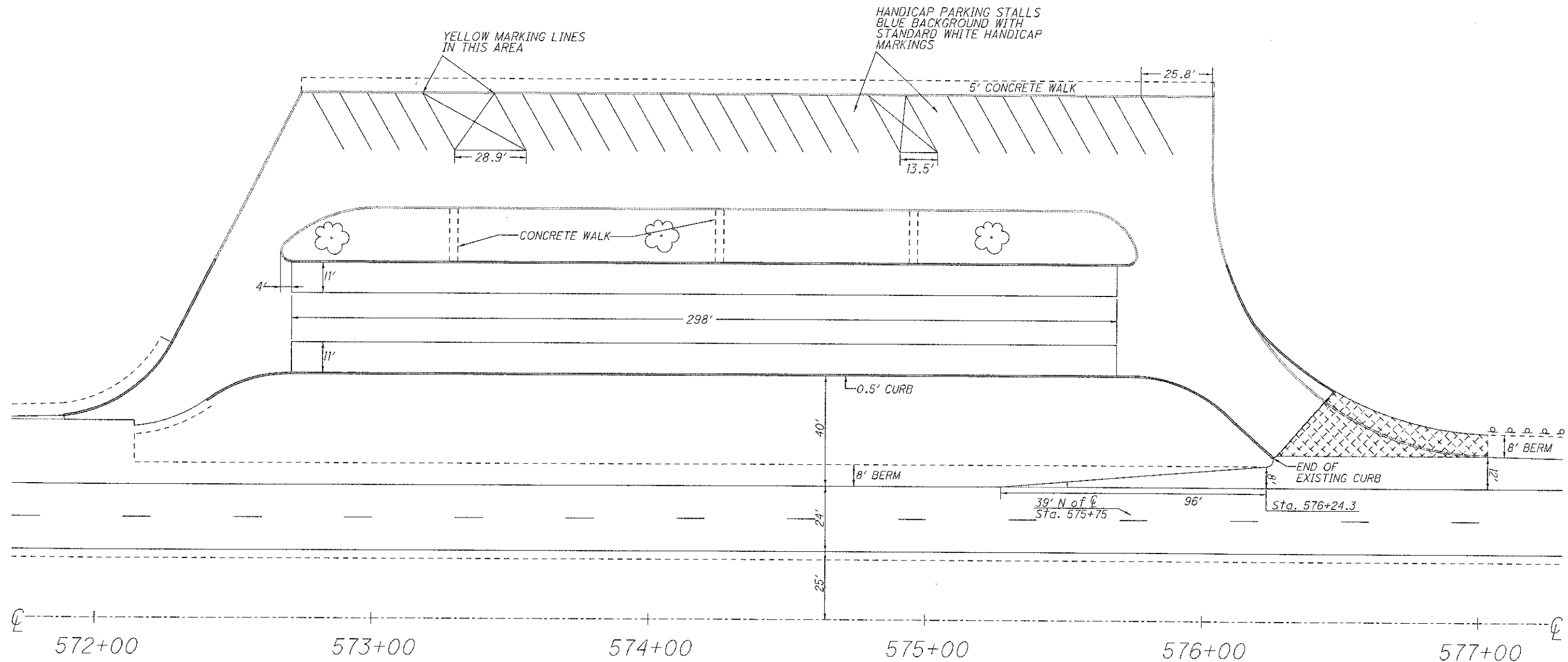
QUANTITIES CARRIED TO PAVEMENT MARKING SUB-SUMMARY



REST AREA EASTBOUND  
 PAVEMENT MARKINGS IN TRUCK  
 AND CAR PARKING AREAS

RIC/ ASD-30-13.18 / 0.00  
 RIC-42-13.74

DESIGN FILE: i:\projects\79352\roadway\sheets\79352TD001.dgn  
 WORKSTATION: Knapp DATE: 7/12/2010 MODELNAME: Design



ITEM	DESCRIPTION	QUANTITY	UNIT
644	PARKING LOT STALL MARKING (YELLOW)	142	FT
644	PARKING LOT STALL MARKING (WHITE)	666	FT
644	HANDICAP SYMBOL MARKING	2	EA
646	PARKING LOT STALL MARKING (WHITE)	640	FT

QUANTITIES CARRIED TO PAVEMENT MARKING SUB-SUMMARY

NOTE: WHEELCHAIR SYMBOL AS SHOWN ABOVE SHALL BE MARKED IN ALL DISABILITY PARKING STALLS.

REST AREA WESTBOUND  
 PAVEMENT MARKINGS IN TRUCK  
 AND CAR PARKING AREAS

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

74  
 116



RIC-30-1388 SFN 7001320

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	98200	86	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND	83
512	10100	896	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	10300	1209	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
516	31000	86	FT	JOINT SEALER	
519	11101	75	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	87

RIC-30-1408L SFN 7001355

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	3.9	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	98100	3	EACH	REMOVAL MISC.: ROCKER BEARING	84
202	98200	90	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND	83
202	98200	90	FT	REMOVAL MISC.: STEEL RETAINER	83
511	34450	3.2	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	1.7	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	1011	SQ YD	BRIDGE DECK GROOVING	84
512	10100	1050	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
516	14600	90	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: REPAIR	86
516	31000	159	FT	JOINT SEALER	
516	45305	7	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	87
516	46200	3	EACH	BEARING DEVICE, ROCKER	
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	86
519	11100	36	SQ FT	PATCHING CONCRETE STRUCTURE	
601	28000	40	CU YD	DUMPED ROCK FILL, TYPE D	
847	10201	1011	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	33	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30200	1	CU YD	FULL DEPTH REPAIR	
847	30401	1011	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	81	SQ YD	HAND CHIPPING	

DESIGN FILE: I:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION:Kknapp DATE: 7/12/2010

DESIGN AGENCY: ODOT DISTRICT THREE OFFICE OF PRODUCTION  
 DATE: 6/10  
 REVIEWED: RDN  
 DRAWN: DCM  
 DESIGNED: DCM  
 CHECKED: DJV  
**STRUCTURE SUMMARY**  
 RIC / ASD -30-13.18 / 0.00  
 RIC -42-13.74  
 76  
 116

RIC-30-1408R SFN 7001444

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	4.2	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	98100	4	EACH	REMOVAL MISC.: ROCKER BEARING	84
202	98200	90	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND	83
202	98200	45	FT	REMOVAL MISC.: STEEL RETAINER	83
511	34450	3.2	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	2.0	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	1011	SQ YD	BRIDGE DECK GROOVING	84
512	10100	1070	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
516	14600	45	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: REPAIR	86
516	31000	159	FT	JOINT SEALER	
516	45305	6	EACH	REFURBISH BEARING DEVICE, AS PER PLAN	87
516	46200	4	EACH	BEARING DEVICE, ROCKER	
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	86
519	11100	67	SQ FT	PATCHING CONCRETE STRUCTURE	
601	28000	30	CU YD	DUMPED ROCK FILL, TYPE D	
847	10201	1011	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	28	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30200	1	CU YD	FULL DEPTH REPAIR	
847	30401	1011	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	81	SQ YD	HAND CHIPPING	

DESIGN FILE: i:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION: Kknapp DATE: 7/12/2010

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE 6/10  
 REVISION RDN  
 DRAWN DCM  
 DESIGNED DCM  
 CHECKED DJV

**STRUCTURE SUMMARY**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

RIC-30-1441    SFN 7001479

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	3.1	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	98200	85	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND	83
511	34450	2.3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	1.6	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
512	10100	847	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	10300	1056	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
516	31000	133	FT	JOINT SEALER	
519	11101	138	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	87
SPECIAL	51910000	2	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	87

RIC-30-1527    SFN 7001495

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	.9	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	98200	60	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND	83
511	45701	.9	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
512	10100	914	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	10300	1334	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
512	10601	21	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN	84
516	31000	60	FT	JOINT SEALER	
519	11101	7	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	87
SPECIAL	51910000	2	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	87

DESIGN FILE: I:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION:Knapp    DATE: 7/12/2010

**STRUCTURE SUMMARY**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

DESIGN AGENCY: ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE: 6/10

REVIEWED: RDN

DRAWN: DCM

DESIGNED: DCM

CHECKED: DJV

78  
116

RIC-30-1640 SFN 7001517

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	3.5	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
511	34450	2.4	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	1.7	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
512	10100	992	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	10300	1353	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
513	95020	LUMP		STRUCTURAL STEEL, MISC.: REWELDING EXISTING CROSS FRAME MEMBERS	84
514	20001	62	SQ FT	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)	85
516	31000	133	FT	JOINT SEALER	
519	11101	21	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN	87
SPECIAL	51910000	1	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE	87
849	10500	LUMP		SURFACE PREPARATION	
849	10600	3	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING	

DESIGN FILE: I:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION:Kknapp DATE:7/12/2010



RIC-30-1750L SFN 7001568

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	8.6	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
511	34450	4.2	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	5.6	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	861	SQ YD	BRIDGE DECK GROOVING	84
512	10100	548	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
516	31000	203	FT	JOINT SEALER	
518	12901	14	EACH	SCUPPER, LENGTHENING, AS PER PLAN	87
519	11100	7	SQ FT	PATCHING CONCRETE STRUCTURE	
847	10201	861	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	33	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30200	1	CU YD	FULL DEPTH REPAIR	
847	30401	861	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	69	SQ YD	HAND CHIPPING	

RIC-30-1750R SFN 7001592

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	4.7	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
511	34450	3.8	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	577	SQ YD	BRIDGE DECK GROOVING	84
512	10100	536	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
516	31000	191	FT	JOINT SEALER	
518	12901	14	EACH	SCUPPER, LENGTHENING, AS PER PLAN	87
519	11100	45	SQ FT	PATCHING CONCRETE STRUCTURE	
847	10201	577	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	19	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30401	577	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	46	SQ YD	HAND CHIPPING	

DESIGN FILE: I:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION:KKnapp DATE: 7/12/2010

STRUCTURE SUMMARY

RIC / ASD - 30-13.18 / 0.00  
 RIC - 42-13.74

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

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 RDN 6/10

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RIC-30-1915L SFN 7001657

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	10.3	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	11301	56.4	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (DECK EDGE)	84
202	38500	523	FT	BRIDGE RAILING REMOVED	
202	98100	10	EACH	REMOVAL MISC.: ROCKER BEARINGS	84
202	98200	69	FT	REMOVAL MISC.: ELASTOMERIC COMPRESSION SEAL	84
509	10000	10337	POUND	EPOXY COATED REINFORCING STEEL	
511	34401	62.2	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (REPAIR OR RECONSTRUCTION)	84
511	34450	5.1	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	5.2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	974	SQ YD	BRIDGE DECK GROOVING	84
513	21501	1738	POUND	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN	86
513	95020	LUMP		STRUCTURAL STEEL, MISC.: WELDING CRACKED EXPANSION ANGLE	86
514	00051	1127	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN	86
514	00057	1127	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN	86
514	00061	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN	86
514	00067	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	86
514	00504	4	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
516	10901	69	FT	ELASTOMERIC COMPRESSION SEAL, AS PER PLAN	86
516	31000	69	FT	JOINT SEALER	
516	46200	10	EACH	BEARING DEVICE, ROCKER	
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	86
517	70001	521.34	FT	RAILING (TWIN STEEL TUBE), AS PER PLAN	87
SPECIAL	51822300	628	FT	STEEL DRIP STRIP	87
847	10201	974	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	32	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30401	974	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	78	SQ YD	HAND CHIPPING	

DESIGN FILE: I:\projects\79352\structures\STRSUM.dgn  
 WORKSTATION:KKnapp DATE: 7/12/2010

DESIGN AGENCY  
 DISTRICT THREE  
 OFFICE OF PRODUCTION

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**STRUCTURE SUMMARY**

RIC / ASD-30-13.18 / 0.00  
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ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION	REFERENCE SHEET
202	11301	5.8	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	84
202	11301	56.4	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (DECK EDGE)	84
202	38500	523	FT	BRIDGE RAILING REMOVED	
202	98000	LUMP		REMOVAL MISC.: PORTION OF EXPANSION JOINT	
202	98100	10	EACH	REMOVAL MISC.: ROCKER BEARINGS	84
202	98200	69	FT	REMOVAL MISC.: ELASTOMERIC COMPRESSION SEAL	84
509	10000	10337	POUND	EPOXY COATED REINFORCING STEEL	
511	34401	62.2	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (REPAIR OR RECONSTRUCTION)	84
511	34450	3.4	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR	84
511	45701	2.4	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)	84
SPECIAL	51160000	974	SQ YD	BRIDGE DECK GROOVING	84
512	10601	20	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN	84
513	21501	1738	POUND	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN	86
513	95020	LUMP		STRUCTURAL STEEL, MISC.: WELDING CRACKED EXPANSION ANGLE	86
514	00051	1127	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN	86
514	00057	1127	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN	86
514	00061	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN	86
514	00067	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN	86
514	00504	4	MAN HOUR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
516	10901	69	FT	ELASTOMERIC COMPRESSION SEAL, AS PER PLAN	86
516	14600	6	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: PARTIAL STEEL JOINT REPAIR	86
516	31000	69	FT	JOINT SEALER	
516	46200	10	EACH	BEARING DEVICE, ROCKER	
516	47001	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	86
517	70001	521.34	FT	RAILING (TWIN STEEL TUBE), AS PER PLAN	87
SPECIAL	51822300	628	FT	STEEL DRIP STRIP	87
847	10201	974	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)	87
847	20201	32	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	87
847	30000	LUMP		TEST SLAB	
847	30401	974	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)	87
847	50000	78	SQ YD	HAND CHIPPING	

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**STRUCTURE SUMMARY**

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**REFERENCES SHALL BE MADE TO STANDARD BRIDGE DRAWINGS:**

EXJ-2-81	DATED	7/19/02
GSD-1-96	DATED	7/19/02
RB-1-55	DATED	2/2/59
TST-1-99	DATED	4-18-08
DS-1-92	DATED	7-18-03
PCB-91	DATED	7-19-02

**REFERENCES SHALL BE MADE TO SUPPLEMENTAL SPECIFICATIONS:**

847	DATED	4/16/10
849	DATED	1/19/07
961	DATED	10/17/08

**DESIGN SPECIFICATIONS:**

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, INCLUDING THE 2003, 2004, 2005 AND 2006 SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

**EXISTING STRUCTURE VERIFICATION:**

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE BID EXAMINATION OF THE EXISTING STRUCTURES. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING PLANS:**

THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OH.

STRUCTURE #	PLAN NAME	DATE
RIC-30-1388	RIC-30-(5.78)(6.32)	1971
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1408L&R	RIC-30-5.79 & ASD-30-0.00	1958
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1441	RIC-30-(5.78)(6.32)	1971
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1527	RIC-30-15.24	1977
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1640	RIC-30-16.37	1977
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1750L&R	RIC-30-9.28 & ASD-30-0.00	1966
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1915L	RIC-30-9.28 & ASD-30-0.00	1966
	RIC-30-12.37, ASD-30-0.00	1985
RIC-30-1915R	RIC-30-5.79 & ASD-30-0.00	1958
	RIC-30-12.37, ASD-30-0.00	1985

**DESIGN DATA:**

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI  
 CONCRETE CLASS S - COMPRESSIVE STRENGTH 4,500 PSI  
 REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI  
 STRUCTURAL STEEL - ASTM A709 GRADE 50W OR GRADE 50 - YIELD STRENGTH 50,000 PSI  
 A709 GRADE 36 - YIELD STRENGTH 36,000 PSI

**DECK PROTECTION METHOD:**

SUPERPLASTICIZED DENSE CONCRETE OVERLAY  
 SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN

**PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:**

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE BUTT JOINT TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH PAVEMENT TO THE BRIDGE DECK THE CONTRACTOR'S ATTENTION IS CALLED TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

**CUT LINE CONSTRUCTION JOINT PREPARATION:**

SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL IN PLACE. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

**ITEM 202 - REMOVAL MISC.: STEEL RETAINER:**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING STEEL RETAINER ON THE BACKWALL SIDE OF THE EXPANSION JOINTS AT LOCATIONS SHOWN IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - REMOVAL MISC.: ELASTOMERIC JOINT GLAND:**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ELASTOMERIC JOINT GLAND.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DESIGN FILE: I:\projects\79352\structures\STRNOTES.dgn  
 WORKSTATION: kknapp  
 MODELNAME: Design  
 DATE: 7/12/2010

**STRUCTURE NOTES**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

DESIGN AGENCY  
 DISTRICT THREE  
 OFFICE OF PRODUCTION

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WORKSTATION: dmollens  
DATE: 9/27/2010  
MODELNAME: Design

**ITEM 202 - REMOVAL MISC.: ELASTOMERIC COMPRESSION SEAL:**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ELASTOMERIC COMPRESSION SEAL GLAND.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - REMOVAL MISC.: ROCKER BEARING**

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY MATERIALS AND LABOR TO REMOVE THE EXISTING ROCKER BEARING AT THE LOCATIONS INDICATED IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER EACH FOR ITEM 202 - REMOVAL MISC.: ROCKER BEARING WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:**

THIS ITEM SHALL BE USED AT LOCATIONS IN THE PLAN.

THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED.

THE EXISTING REINFORCING STEEL SHALL BE PRESERVED AS INDICATED IN THE PLANS. EXISTING CONCRETE SHALL BE REMOVED IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS NO HEAVIER THAN THE 90 POUND CLASS.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (DECK EDGE):**

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECK EDGES.

THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED.

THE EXISTING REINFORCING STEEL SHALL BE PRESERVED AS INDICATED IN THE PLANS. EXISTING CONCRETE SHALL BE REMOVED IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS NO HEAVIER THAN THE 90 POUND CLASS.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

THE CONTRACTOR MAY REMOVE CONCRETE BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STEEL BEAMS BRIDGE MEMBERS, THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER BRIDGE MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STEEL MEMBERS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 202 - REMOVAL MISC.: PORTION OF EXPANSION JOINT:**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING VERTICAL 6" LEG OF THE L8X6X1/2 ANGLE OF THE EXPANSION JOINT RETAINER. THE HORIZONTAL 8" LEG OF THE ANGLE HAS BEEN PREVIOUSLY REMOVED. THE REMOVAL SHALL ALSO INCLUDE THE REMOVAL OF THE EXISTING ATTACHED WAFFLE PLATES AND RETAINING BAR.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE ITEM, WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 511 - CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR):**

**ITEM 511 - CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR:**

**ITEM 511 - CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (REPAIR OR RECONSTRUCTION):**

THESE ITEMS SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THE COARSE AGGREGATE SHALL BE LIMESTONE.

TYPE A WATERPROOFING IS INCIDENTAL.

ALL EXISTING SURFACES TO WHICH THE CONCRETE IS TO BOND SHALL BE CLEANED BY ABRASIVE BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LAITANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER CUBIC YARD FOR EACH OF THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM SPECIAL - BRIDGE DECK GROOVING:**

THE BRIDGE DECK GROOVING SHALL MEET CMS 511.20.

THE BRIDGE DECK GROOVING SHALL BE DONE PRIOR TO OPENING TO TRAFFIC.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 512 - CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN:**

THIS ITEM SHALL BE USED AT THE LOCATION INDICATED IN THE PLAN.

THE COST OF THE CAULKING TO SEAL AROUND THE BOLSTER IS INCLUDED IN THIS ITEM.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 513 - STRUCTURAL STEEL MISC.: REWELDING EXISTING CROSS FRAME MEMBERS:**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING BROKEN WELDS AND REWELD THE CROSS FRAME ANGLES AS DETAILED IN THE PLAN ON STRUCTURE RIC-30-1640.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

STRUCTURE NOTES

RIC / ASD - 30-13.18 / 0.00  
RIC - 42-13.74

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**ITEM 514 - FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT):**

**1.0 DESCRIPTION**

THIS ITEM CONSISTS OF CLEANING AND FIELD PAINTING STRUCTURAL STEEL PREVIOUSLY COATED WITH A NEWER EXISTING OZEU PAINT SYSTEM. THIS WORK CONSIST OF PERFORMING SURFACE PREPARATION AND APPLYING A THREE-COAT PAINT SYSTEM TO THE PREPARED STEEL AND FEATHERED REMOVAL AREAS OF EXISTING OZEU PAINT SYSTEMS.

**2.0 GENERAL**

C&MS 514.05 THROUGH 514.10 AND 514.13.D APPLY UNLESS MODIFIED BY THESE NOTES.

**3.0 WASHING EXISTING OZEU PAINTED SURFACES**

CLEAN SURFACES TO BE COATED WITH LOW PRESSURE WATER CLEANING TO REMOVE ALL DIRT, DEBRIS, ANIMAL EXCREMENT, SALT CONTAMINANTS AND OTHER ACCUMULATED FOREIGN MATERIAL IN ACCORDANCE WITH SSPC-SP12 (LP WC), LOW PRESSURE WATER CLEANING. THE PRESSURE WASHER SHALL BE CAPABLE OF ACHIEVING AT LEAST 2000 POUNDS PER SQUARE INCH AT THE NOZZLE. WHEN USING THE POWER WASHING EQUIPMENT, THE NOZZLE SHALL BE MAINTAINED NO MORE THAN 10 INCHES FROM THE SURFACE. SUPPLY AND USE POTABLE WATER. PROVIDE TO THE ENGINEER A LETTER OF WRITTEN ACCEPTANCE FOR ANY BIODEGRADABLE DETERGENTS OR CLEANERS USED IN CONJUNCTION WITH THIS METHOD.

COLLECT AND CONTAIN WATER AND DEBRIS REMOVED DURING WASHING OPERATIONS ABOVE WATER FEATURES IN CONFORMANCE WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS. CREATE SETTLEMENT COLLECTION BASINS AND STRAIN ALL WASH WATER ABOVE LAND FEATURES AS NECESSARY TO PRODUCE VISIBLY CLEAR WATER AND COMPLY WITH C&MS 514.08 AND C&MS 514.13.D FOR ANY DEBRIS.

**4.0 SURFACE PREPARATION**

AFTER THE PRESSURE WASHED SURFACE HAS DRIED, REMOVE EXISTING PAINT COATING TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER ACCORDING TO: SSPC-SP 10, AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES SHOWN IN SSPC-VIS 1. THE ENGINEER WILL USE THE SSPC-VIS 1 TO DETERMINE THE ACCEPTANCE OF THE SURFACE PREPARATION. FEATHER THE EXISTING PAINT TO EXPOSE A MINIMUM OF 1/2 INCH OF EACH COAT. CONTAIN AND DISPOSE OF WASTE GENERATED BY THE CLEANING ACCORDING TO C&MS 514.13.D.

ROUND ALL EXPOSED CORNERS OF MAIN MATERIAL TO BE PAINTED AS NECESSARY TO ACHIEVE A 1/16 INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A 45 DEGREE ANGLE.

**5.0 FIELD PAINTING**

APPLY THE PRIME, INTERMEDIATE AND FINISH COATS OF THE THREE-COAT PAINT SYSTEM SPECIFIED IN C&MS 708.02, ACCORDING TO C&MS 514.15, 514.16, 514.17, 514.19 AND 514.20 TO CONTRACT LIMITS OR AS DIRECTED BY THE ENGINEER. TINT THE FINISH COAT TO MATCH THE EXISTING BLUE COLOR MEETING FEDERAL COLOR FS-595A-15450 AND TO THE ENGINEERS SATISFACTION. THE ENGINEER WILL DETERMINE THE PRIME AND INTERMEDIATE COAT THICKNESS USING A TYPE 2 MAGNETIC GAGE AT SPOT LOCATIONS. THE PRIME, INTERMEDIATE AND FINISH COAT OF PAINT SHALL MEET THE MINIMUM DRY FILM THICKNESS REQUIREMENTS OF C&MS 514.20. APPLY PAINT AS FOLLOWS:

A. APPLY THE PRIME COAT ONLY TO THE PREPARED SURFACE OF THE BARE STEEL AND THE EXISTING PRIME COAT EXPOSED BY FEATHERING. DO NOT APPLY THE PRIME COAT TO THE ADJACENT INTERMEDIATE COAT.

B. APPLY CAULK AFTER PRIMING

C. APPLY THE INTERMEDIATE COAT TO THE NEW PRIME COAT AND TO THE EXISTING INTERMEDIATE COATS THAT ARE EXPOSED BY FEATHERING.

D. APPLY THE FINISH COAT TO THE NEW INTERMEDIATE COAT AND TO THE EXISTING FINISH COATS THAT ARE EXPOSED BY FEATHERING.

AT THE PERIMETER OF THE REPAIR AREA, APPLY THE PRIME, INTERMEDIATE AND FINISH COATS WITH A BRUSH. IN LIEU OF BRUSHING THE CONTRACTOR MAY DOUBLE MASK AREAS NOT TO BE COATED AND SPRAY TO FEATHERED REMOVAL LINES.

BLEND REPAIR AREAS WITH THE ADJACENT COATING TO PROVIDE A FINISHED SURFACE IN THE PATCHED AREAS THAT IS SMOOTH AND HAS AN EVEN PROFILE WITH THE ADJACENT SURFACE.

**6.0 MEASUREMENT**

THE DEPARTMENT WILL MEASURE FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT) BY THE NUMBER OF SQUARE FEET OF STRUCTURAL STEEL PAINTED.

THE DEPARTMENT WILL DETERMINE THE SURFACE AREA BY TAKING EXACT FIELD MEASUREMENTS OF ALL PAINTED SURFACES AND CALCULATIONS.

**7.0 BASIS OF PAYMENT**

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS:  
THE DEPARTMENT MAY CONSIDER PAINT AS ELIGIBLE FOR PAYMENT FOR MATERIAL ON-HAND AS SPECIFIED IN 109.10, HOWEVER, ONLY PAINT THAT THE CONTRACTOR CAN PROVE TO THE ENGINEER WILL BE USED DURING THE CONSTRUCTION SEASON IS ELIGIBLE FOR PAYMENT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER CALCULATIONS INDICATING THE TOTAL SQUARE FEET OF STEEL TO BE PAINTED DURING THE CONSTRUCTION SEASON. THE CONTRACTOR SHALL ALSO PROVIDE CALCULATIONS SHOWING THE TOTAL NUMBER OF GALLONS REQUIRED.

IF THE CONTRACTOR CAUSES DAMAGE OR INJURY TO PUBLIC OR PRIVATE PROPERTY, THE DEPARTMENT WILL NOT PAY FOR RESTORING THE PROPERTY TO ITS ORIGINAL CONDITION.

THE DEPARTMENT WILL NOT PAY FOR REPAIRING ADJACENT COATINGS DAMAGED DURING THE WASHING, POWER TOOL CLEANING OR BLAST CLEANING OPERATION.

THE DEPARTMENT WILL NOT PAY FOR REMOVING AND REPLACING AN AREA OF COATING BECAUSE A SPOT OR MAXIMUM AVERAGE THICKNESS EXCEEDS THE MAXIMUM SPOT THICKNESS.

THE DEPARTMENT WILL NOT PAY FOR ADDITIONAL TESTING REQUIRED BY ANY HAULER, TREATMENT FACILITY, DISPOSAL FACILITY OR LANDFILL.

THE DEPARTMENT WILL NOT PAY FOR ACCESSING, INSPECTING, AND REPAIRING AREAS THAT ARE NOT FOUND TO BE IN CONFORMANCE WITH THE SPECIFICATIONS AND PERTINENT CONTRACT DOCUMENTS.

ALL OTHER REQUIREMENTS OF THIS FIELD PAINTING SPECIFICATION ARE CONSIDERED INCIDENTAL TO THE WORK.

ITEM	UNIT	DESCRIPTION
514	SQUARE FEET	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN (THREE COAT)

DESIGN FILE: I:\projects\79352\structures\STRNOTES.dgn  
 WORKSTATION:Kknapp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY DISTRICT THREE OFFICE OF PRODUCTION	DATE 6/10	REVIEWED RDN STRUCTURE FILE NUMBER	DRAWN DCM REVISION	DESIGNED DCM CHECKED DUJ	<b>STRUCTURE NOTES</b>	RIC / ASD-30-13.18 / 0.00 RIC-42-13.74	85 116
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DESIGN FILE: I:\projects\79352\structures\STRNOTES.dgn  
WORKSTATION: dmollens  
DATE: 9/27/2010  
MODELNAME: Design

**ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN:**

ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PRE-QUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.04 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.04 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE STRUCTURAL, WELDING AND METALS SECTION OF THE OFFICE OF MATERIAL MANAGEMENT FOR RECORD PURPOSES. THE 1/2" GUSSET PLATES ARE INCLUDED IN THIS ITEM.

COST TO REMOVE EXISTING CROSS FRAME MEMBERS INCLUDING GUSSET PLATES AND ALL NECESSARY GRINDING SHALL BE INCLUDED IN THIS ITEM.

THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: 4 X 4 X 3/8 ANGLE, 3 X 3 X 5/16 ANGLE.

**ITEM 513 - STRUCTURAL STEEL, MISC.: WELDING CRACKED EXPANSION ANGLE:**

THIS ITEM SHALL INCLUDE THE WELDING OF CRACKS IN THE RETAINER ANGLES OF THE EXPANSION JOINT AS DETAILED AND LOCATED IN THE PLANS. THE ENDS OF THE CRACKS SHALL BE DRILLED TO PREVENT EXPANSION OF THE CRACKING PRIOR TO THE WELDING. THE WELDS SHALL BE GROUND FLUSH.

ALL DRILLING, WELDING, GRINDING, LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 513 - STRUCTURAL STEEL, MISC.: WELDING CRACKED EXPANSION ANGLE.

**PAINTING OF 513 STEEL:**

NEW STEEL SHALL BE SHOP PRIMED, WHICH SHALL BE INCLUDED IN THE COST OF ITEM 514. THE NEW STEEL SHALL ALSO BE PREPARED AND PAINTED IN THE FIELD AS IF IT WERE EXISTING STEEL. QUANTITIES AND PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE SQUARE FOOT UNIT PRICE BID FOR THE APPROPRIATE 514 ITEMS.

**ITEM 514 SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN:**

**ITEM 514 FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN:**

**ITEM 514 FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN:**

**ITEM 514 FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN:**

THIS ITEM SHALL INCLUDE PREPARING AND PAINTING THE FIRST 10' OF W36X170 BEAM ENDS AT THE ABUMENTS, THE NEW END CROSS FRAMES AND ALL NEW ROCKER BEARINGS.

THE COLOR OF THE FINISH COAT SHALL BE A BLUE-GREEN COLOR MEETING FEDERAL STANDARD NUMBER 14241.

THE COST OF THIS WORK SHALL BE INCLUDED WITH ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN: ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN: ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN: AND ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN.

**ITEM 516 - ELASTOMERIC COMPRESSION SEAL, AS PER PLAN:**

COMPRESSION SEAL: FURNISH MATERIAL CONFORMING TO 705.11. THE SEAL CONFIGURATION SHOULD BE SIMILAR TO THE DETAILS SHOWN HEREIN. ACCEPTED MANUFACTURES ARE: D.S.BROWN (MODEL CV3000), WATSON-BOWMAN-ACME (MODEL WJ300) OR AN APPROVED EQUIVALENT. INSTALL THE SEAL ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE.

JOINTS IN COMPRESSION SEALS: FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

**ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER MISC.: PARTIAL STEEL JOINT REPAIR:**

THIS ITEM SHALL BE USED AT THE LOCATION INDICATED IN THE PLAN. THIS ITEM SHALL BE USED TO INSTALL A NEW L8X6X1/2 ANGLE AS PER DETAILS IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR EACH OF THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER MISC.: REPAIR:**

THIS ITEM SHALL BE USED AT LOCATIONS INDICATED IN THE PLAN.

THIS ITEM SHALL BE USED TO INSTALL A NEW 1 1/4" X 1 1/2" STEEL BAR AS PER DETAILS IN THE PLAN.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER FOOT FOR EACH OF THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:**

THIS WORK CONSISTS OF RAISING OR REPOSITIONING EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

THE JACKING OPERATION SHALL BE DONE PRIOR TO THE OVERLAY BEING PLACED.

SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH CMS 501.05.

IF, DURING THE JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT A METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR THE DISTANCE OF THE SEPARATION IN ACCORDANCE WITH CMS 512.07. THE DEPARTMENT WILL NOT PAY FOR THE COST OF THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS. THE BRIDGE BEARINGS SHALL BE FULLY SEATED AT ALL CONTACT AREAS. IF FULL SEATING IS NOT ATTAINED, SUBMIT A REPAIR PLAN TO THE ENGINEER. THE DEPARTMENT WILL NOT PAY FOR THE REPAIR COSTS TO ENSURE FULL SEATING ON BEARINGS.

THE DEPARTMENT WILL MEASURE THIS WORK ON A LUMP SUM BASIS.

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516, JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

DESIGN AGENCY DISTRICT THREE OFFICE OF PRODUCTION	DATE 6/10	REVISION RDN STRUCTURE FILE NUMBER	DRAWN DCM REVISED DCM	DESIGNED DCM CHECKED DUJ
<b>STRUCTURE NOTES</b>				
<b>RIC / ASD-30-13.18 / 0.00 RIC-42-13.74</b>				
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**ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN:**

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO PROPERLY ALIGN THE BRIDGE BEARING AS WELL AS ITS CLEANING AND PAINTING. INCLUDED SHALL BE THE DISASSEMBLY OF THE BEARING, HAND TOOL CLEANING (GRINDING IF NECESSARY), PAINTING ACCORDING TO ITEM 514, REPLACEMENT OF ANY DAMAGED SHEET LEAD WITH PREFORMED BEARING PAD (711.21), INSTALLATION OF ANY NECESSARY STEEL SHIMS OF THE SAME SIZE AS THE BEARING TO PROVIDE A SNUG FIT, REALIGNMENT OF THE UPPER BEARING PLATE BY REMOVING EXISTING WELDS AND REWELDING SO THAT THE BEARING IS VERTICALLY ALIGNED AT 60° F (15° C), LUBRICATING SLIDING SURFACES, REASSEMBLY OF THE BEARING, AND RESETTING OF THE BEARING. ASSURE THE BEARING IS SHIMMED ADEQUATELY AND THAT NO BEAMS AND/ OR BEARING DEVICES ARE "FLOATING". AT NO ADDITIONAL COST TO THE STATE, THE CONTRACTOR MAY INSTALL A NEW BEARING OF THE SAME TYPE AS THE EXISTING IN PLACE OF REFURBISHING THE BEARING. ALL WORK SHALL BE TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OF THE ABOVE LABOR AND MATERIALS WILL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 516-REFURBISH-BEARING DEVICE, AS PER PLAN

**ITEM SPECIAL - STEEL DRIP STRIP:**

SEE STANDARD DRAWING DS-1-92 FOR DETAILS AND NOTES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 517 - RAILING (TWIN STEEL TUBE), AS PER PLAN:**

THIS ITEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWING TST-1-99 WITH THE EXCEPTION OF THE W6X25 POSTS SHALL BE 4'-2" AS DETAILED IN THE PLANS.

**ITEM 518 - SCUPPER LENGTHENING, AS PER PLAN:**

THIS ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLAN AND AS PER DETAILS ON SHEET 111 TO REMOVE 10" OF EXISTING SCUPPER PIPE AND REPLACE IT WITH 2'-2" OF NEW PIPE. THE SCUPPER EXTENSION SHALL BE PAINTED WITH A PRIMER PAINT AND TOP COATED WITH A URETHANE PAINT TO MATCH THE COLOR OF THE EXISTING STEEL.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID EACH FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN:**

THIS ITEM SHALL BE USED AT THE LOCATIONS INDICATED IN THE PLAN TO PATCH VARIOUS PIER COLUMNS.

ALL NEEDED EXCAVATION IS INCLUDED IN THIS ITEM.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID SQUARE FOOT FOR THE ABOVE WHICH WILL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, EXCAVATION AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE:**

SEE PROPOSAL NOTE 511 "PATCHING CONCRETE BRIDGE DECK OVERLAYS WITH MICRO-SILICA MODIFIED CONCRETE" FOR DETAILS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR THE ABOVE ITEM WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 847 - EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS):**

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING OVERLAY AS PER DETAILS IN THE PLANS.

THE THICKNESS OF THE EXISTING CONCRETE OVERLAY TO BE REMOVED SHALL BE AS SPECIFIED IN THE PLANS.

THIS ITEM SHALL ALSO BE USED TO REMOVE THE ADDITIONAL CONCRETE THICKNESS AS PER DETAILS IN THE PLANS.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR THE ABOVE ITEMS WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

**ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK):**

**ITEM 847 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN:**

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION 847 "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING SCARIFICATION AND CHIPPING" WITH THE FOLLOWING REVISIONS:

THE THICKNESS OF THE EXISTING CONCRETE OVERLAY REMOVED AND PROPOSED OVERLAY SHALL BE AS SPECIFIED IN THE PLANS.

ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED BY ASTM C-127.

NON PERFORM THE TEXTURED GROOVING AS SPECIFIED IN 847.22.

DESIGN FILE: I:\projects\79352\structures\STRNOTES.dgn  
WORKSTATION:Kknopp  
MODELNAME: Design  
DATE: 7/12/2010

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DISTRICT THREE  
OFFICE OF PRODUCTION

DATE  
6/10  
REVIEWED  
RDN  
STRUCTURE FILE NUMBER

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DCM  
REVISOR  
DESIGNED  
DCM  
CHECKED  
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**STRUCTURE NOTES**

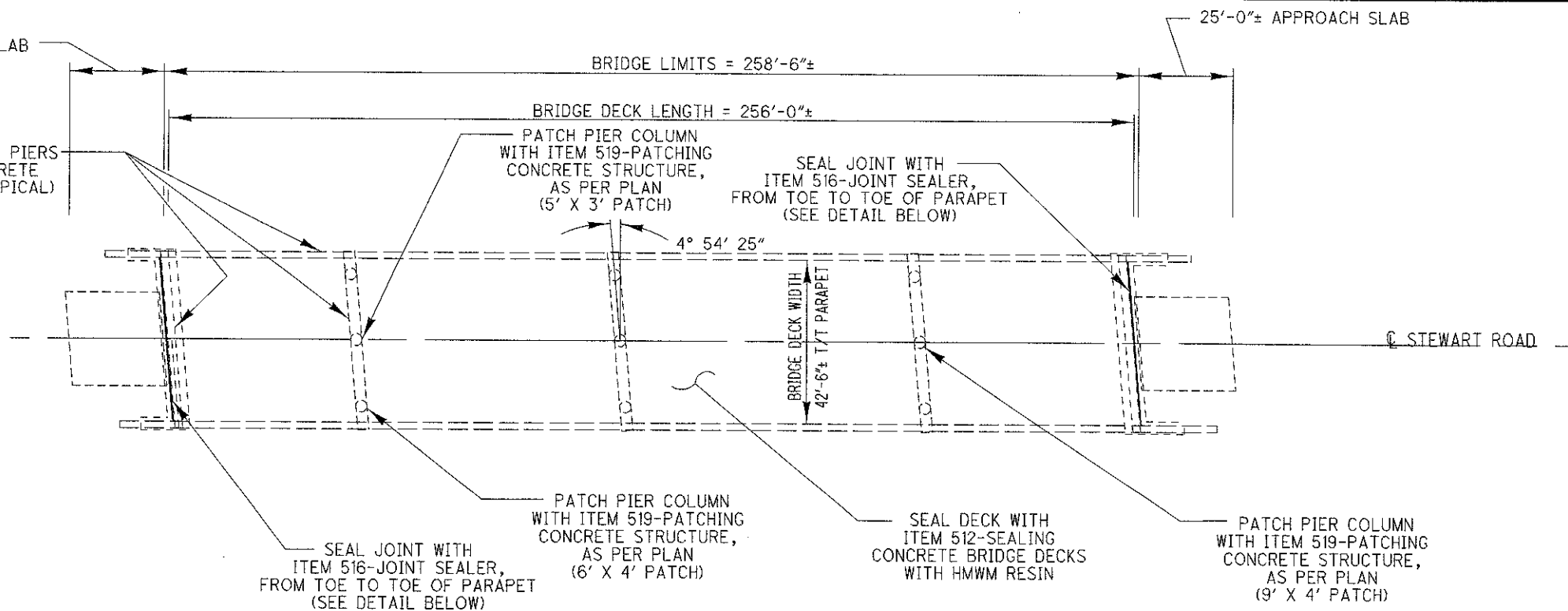
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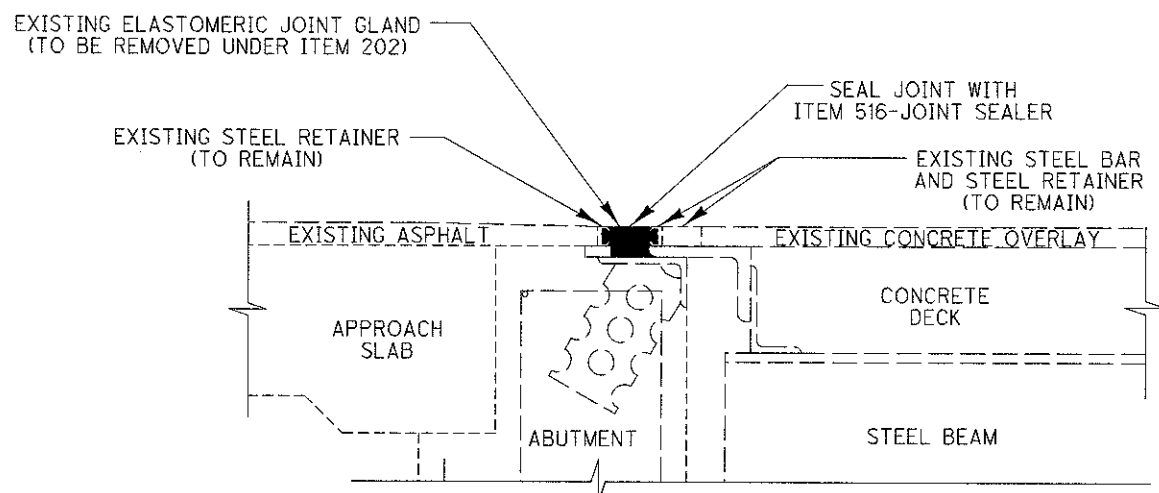


STRUCTURE FILE NO.	BRIDGE NO.	LOCATION	BRIDGE TYPE	SKEW	BRIDGE LIMITS	DECK WIDTH	PROPOSED WORK
7001320	RIC-30-1388	UNDER STEWART ROAD	4-SPAN STEEL BEAM	4° 54' 25" RF	258'-6"±	42'-6"± T/T PARAPETS	DECK, PARAPETS & SUBSTRUCTURE SEALING, PIER PATCHING AND JOINT SEALING
7001355	RIC-30-1408L	OVER U.S. 42	4-SPAN STEEL BEAM	45° 45' LF	294'-5"±	31'-4"± T/T PARAPETS	OVERLAY, PARAPETS & PIER SEALING, PIER & DECK EDGE PATCHING. ABUTMENT, BACKWALL & APPROACH SLAB REPAIR, EXPANSION JOINT REPAIR AND DUMPED ROCK FILL
7001444	RIC-30-1408R	OVER U.S. 42	4-SPAN STEEL BEAM	45° 45' LF	294'-5"±	31'-4"± T/T PARAPETS	OVERLAY, PARAPETS & PIER SEALING, PIER & DECK EDGE PATCHING. ABUTMENT, BACKWALL & APPROACH SLAB REPAIR, EXPANSION JOINT REPAIR AND DUMPED ROCK FILL
7001479	RIC-30-1441	UNDER McELROY ROAD	4-SPAN STEEL BEAM	0°	226'-0"±	42'-6"± T/T PARAPETS	DECK & PIER PATCHING, BACKWALL & APPROACH SLAB REPAIR AND DECK, PARAPET & SUBSTRUCTURE SEALING
7001495	RIC-30-1527	UNDER LAVER ROAD	4-SPAN STEEL BEAM	0°	319'-6"±	30'-0"± T/T CURB	PIER CAP REPAIR, DECK & PIER PATCHING, BACKWALL REPAIR AND DECK, SIDEWALK, PARAPET & SUBSTRUCTURE SEALING
7001517	RIC-30-1640	UNDER REED ROAD	4-SPAN STEEL BEAM	0°	289'-6"±	42'-6"± T/T PARAPETS	DECK & PIER PATCHING, BACKWALL & APPROACH SLAB REPAIR AND DECK, PARAPET & SUBSTRUCTURE SEALING AND COLLISION DAMAGE REPAIR
7001568	RIC-30-1750L	OVER KOOGLE ROAD	3-SPAN STEEL BEAM	12° 47' LF	142'-1"±	VARIES FROM 54'± TO 57'-1" T/T PARAPETS	OVERLAY, PARAPETS & PIER SEALING, DECK EDGE PATCHING. ABUTMENT, BACKWALL & APPROACH SLAB REPAIR, SCUPPER LENGTHENING
7001592	RIC-30-1750R	OVER KOOGLE ROAD	3-SPAN STEEL BEAM	12° 47' LF	142'-1"±	VARIES FROM 50'± TO 56'-5" T/T PARAPETS	PARTIAL OVERLAY, PARAPETS & PIER SEALING, DECK EDGE PATCHING. BACKWALL & APPROACH SLAB REPAIR, SCUPPER LENGTHENING
7001657	RIC-30-1915L	OVER BLACK FORK	4-SPAN STEEL BEAM	0°	256'-6"±	34'-"± F/F GUARDRAIL	DECK EDGE, OVERLAY, COMPRESSION JOINT REPAIR, PARTIAL PAINTING, END CROSSFRAMES, ABUTMENT, BACKWALL & APPROACH SLAB REPAIR, BEARING REPLACEMENT AND JOINT SEALING
7001681	RIC-30-1915R	OVER BLACK FORK	4-SPAN STEEL BEAM	0°	256'-6"±	34'-"± F/F GUARDRAIL	DECK EDGE, OVERLAY, COMPRESSION JOINT REPAIR, PARTIAL PAINTING, END CROSSFRAMES, BACKWALL & APPROACH SLAB REPAIR, BEARING REPLACEMENT AND JOINT SEALING

SEAL PARAPETS, ABUTMENTS AND PIERS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (TYPICAL) SEE SHEET 2/2 FOR DETAILS



PLAN VIEW



JOINT SEALING DETAIL

ITEM	QUANTITY	UNIT	DESCRIPTION
202	86	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND
512	896	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1209	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	86	FT	JOINT SEALER
519	75	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.

NOTES:

1. SEAL DECK WITH ITEM 512.
2. PATCH 3 PIER COLUMNS WITH ITEM 519.
3. SEAL PIER COLUMNS, PARAPETS AND ABUTMENTS WITH ITEM 512 AFTER ALL PATCHING IS COMPLETE. SEE SHEET 2/2 FOR DETAILS.
4. REMOVE EXISTING ELASTOMERIC JOINT GLANDS AND SEAL JOINTS WITH ITEM 516.

DESIGN FILE: I:\projects\79352\structures\RIC301388.dgn  
 WORKSTATION:KKnapp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
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 RDN  
 STRUCTURE FILE NUMBER  
 7001320

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PLAN VIEW  
 RIC-30-1388 UNDER STEWART ROAD

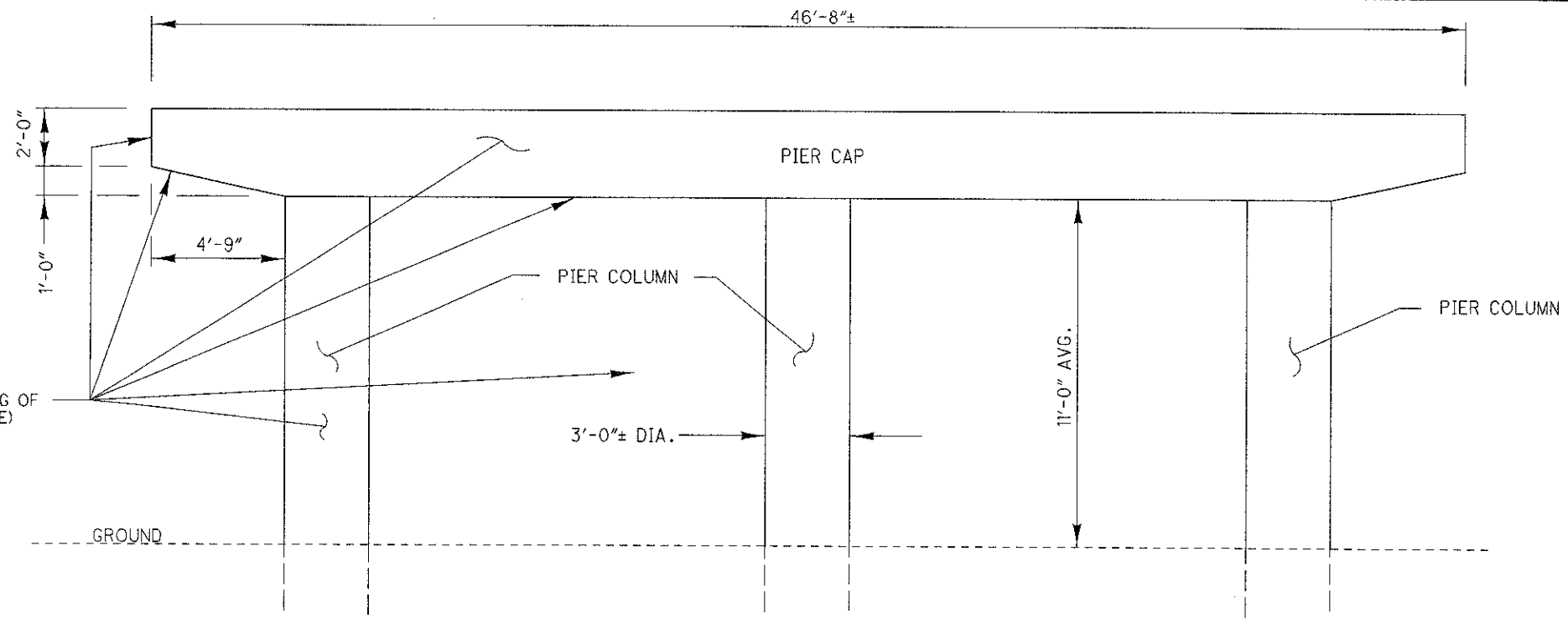
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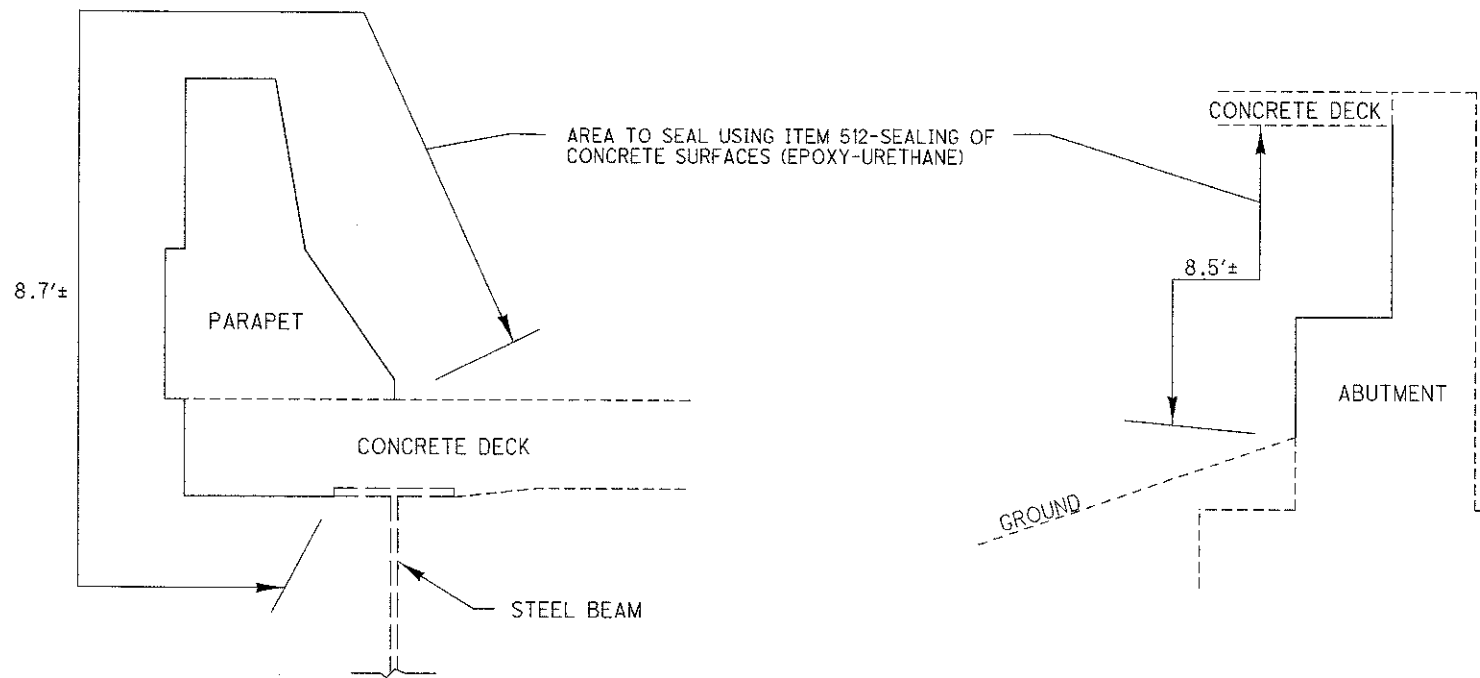
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MODELNAME: Design



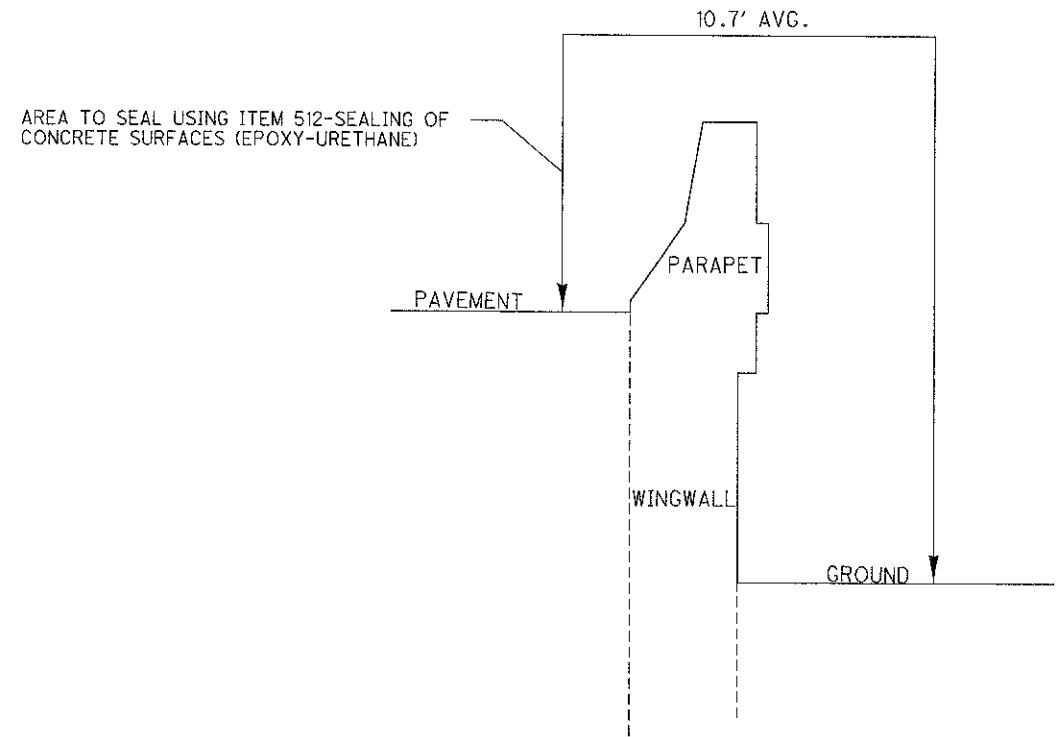
PIER SEALING ELEVATION VIEW

PIER WIDTH = 3'-0"



PARAPET SEALING DETAIL

(PARAPET SEALING LENGTH ON DECK = 255'-5"±)



WINGWALL SEALING DETAIL

(WINGWALL SEALING LENGTH =  
 2 @ 14'-9"±, 1 @ 17'-3"± AND 1 @ 18'-6"±)

ITEM	QUANTITY	UNIT	DESCRIPTION
512	896	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO SHEET 1/2

NOTES:

- 1) SEAL ALL EXPOSED AREAS OF WINGWALLS, ABUTMENTS AND PARAPETS WITH ITEM 512, AFTER ALL PATCHING IS DONE.
- 2) SEAL PIER WITH ITEM 512 AS DETAILED ABOVE.

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10

REVIEWED  
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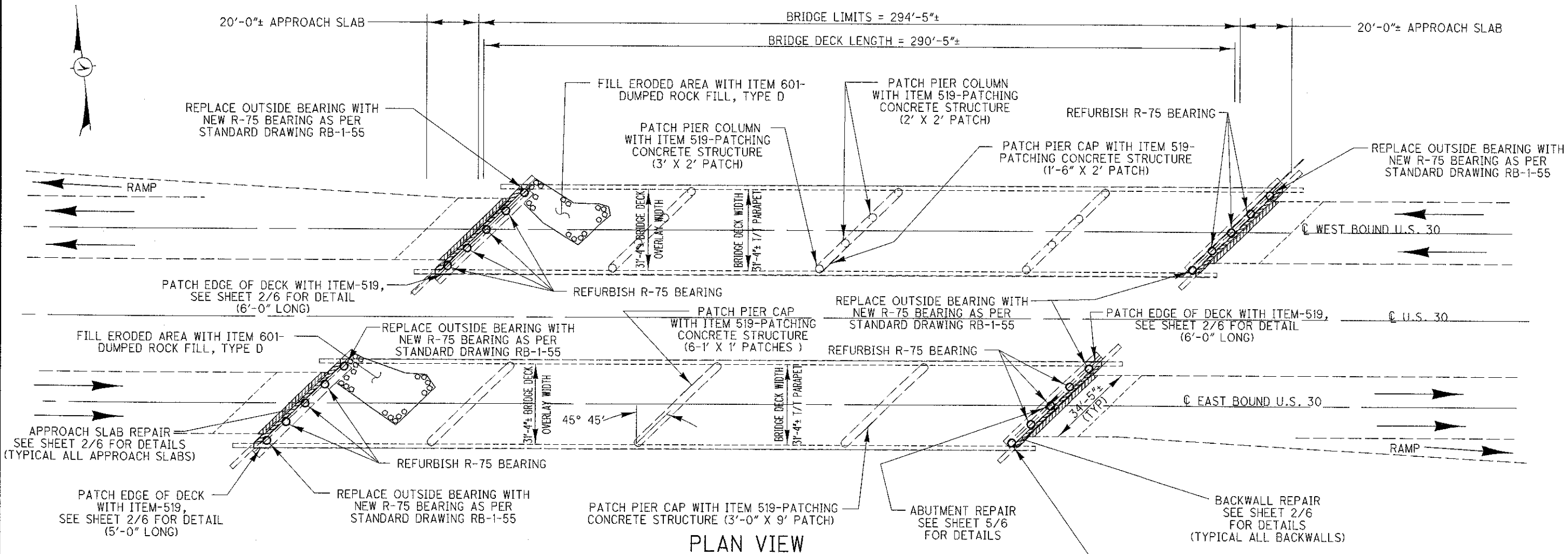
SEALING DETAILS  
 RIC-30-1388 UNDER STEWART ROAD

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 RIC-42-13.74

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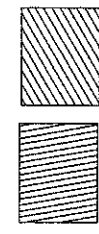
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 MODELNAME: Design



PLAN VIEW

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1408L	RIC-30-1408R		
202	3.9	4.2	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	3	4	EACH	REMOVAL MISC.: ROCKER BEARING
202	90	90	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND
202	90	45	FT	REMOVAL MISC.: STEEL RETAINER
511	3.2	3.2	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	1.7	2.0	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
SPECIAL	1011	1011	SQ YD	BRIDGE DECK GROOVING
512	1050	1070	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	159	159	FT	JOINT SEALER
516	90	45	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: REPAIR
516	7	6	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
516	3	4	EACH	BEARING DEVICE, ROCKER
516	LUMP	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
519	36	67	SQ FT	PATCHING CONCRETE STRUCTURE
601	40	30	CU YD	DUMPED ROCK FILL, TYPE D
847	1011	1011	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)
847	33	28	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
847	LUMP	LUMP		TEST SLAB
847	1	1	CU YD	FULL DEPTH REPAIR
847	1011	1011	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)
847	81	81	SQ YD	HAND CHIPPING

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.



NOTES:

- 1) SEE SHEET 3/6 FOR EXPANSION JOINT REPAIR DETAILS.
- 2) SEE SHEET 2/6 FOR DECK EDGE PATCHING, SEE ABOVE FOR PIER PATCHING.
- 3) SEE SHEET 2/6 FOR BACKWALL AND APPROACH SLAB REPAIR DETAILS.
- 4) SEE SHEET 4/6 FOR SEALING DETAILS.
- 5) SEE SHEET 5/6 FOR ABUTMENT BEAM SEAT REPAIR.
- 6) SEE SHEET 6/6 FOR OVERLAY DETAILS.

DESIGN AGENCY  
**DISTRICT THREE**  
 OFFICE OF PRODUCTION

DATE  
 6/10

REVIEWED  
 RDN  
 STRUCTURE FILE NUMBER  
 7001355 & 7001444

DRAWN  
 DCM  
 REVISIONS

DESIGNED  
 DCM  
 CHECKED  
 D.V.

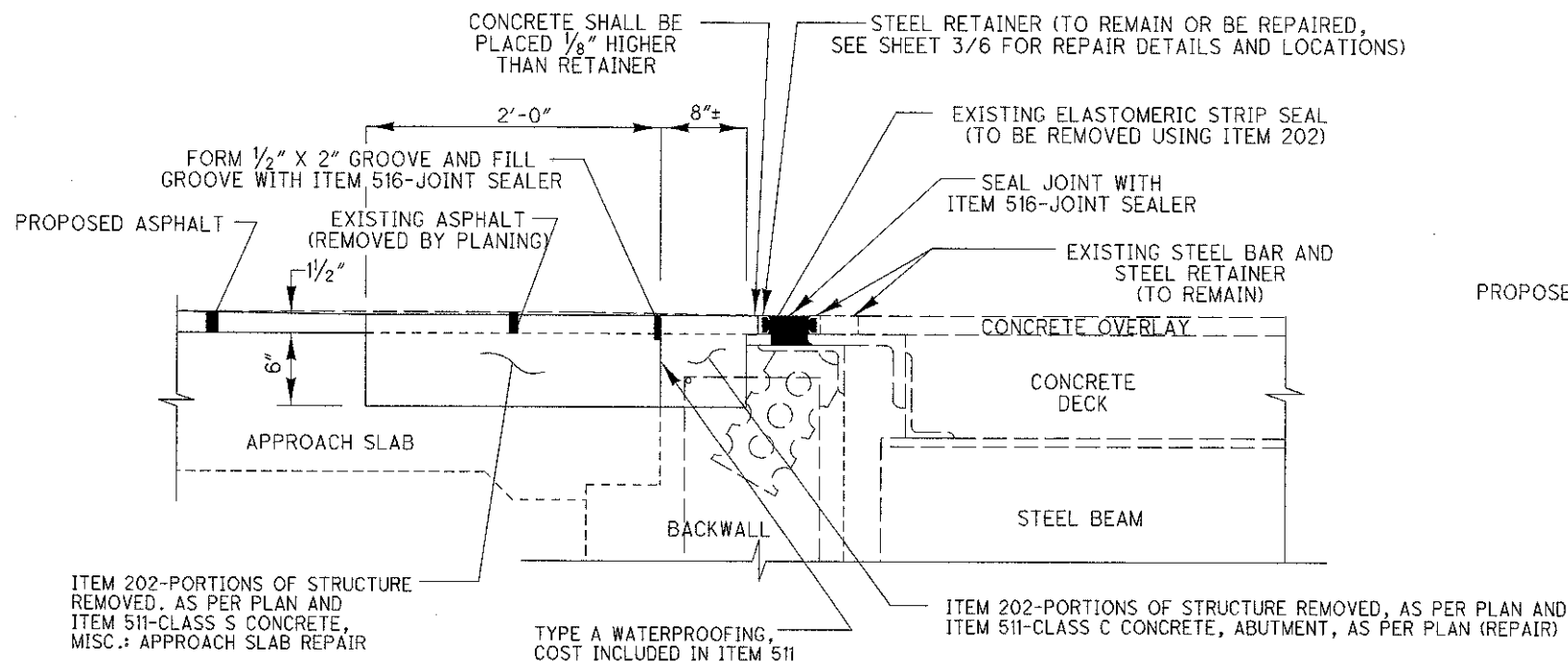
**PLAN VIEW**  
**RIC-30-1408L&R OVER U.S. 42**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

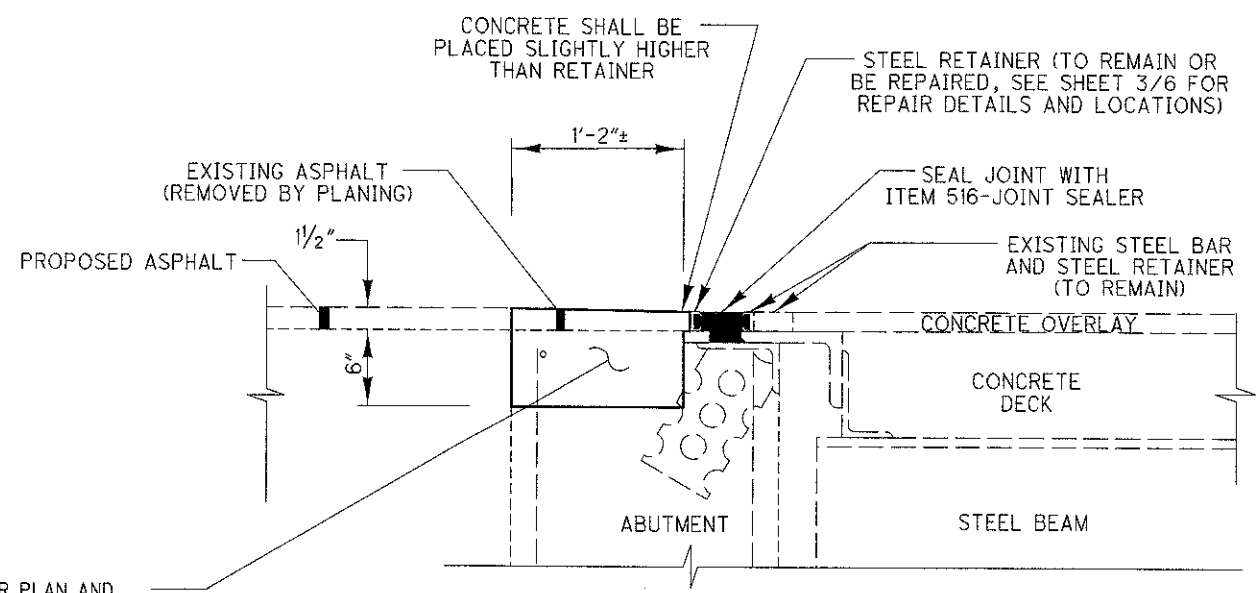
1 / 6

91  
 116

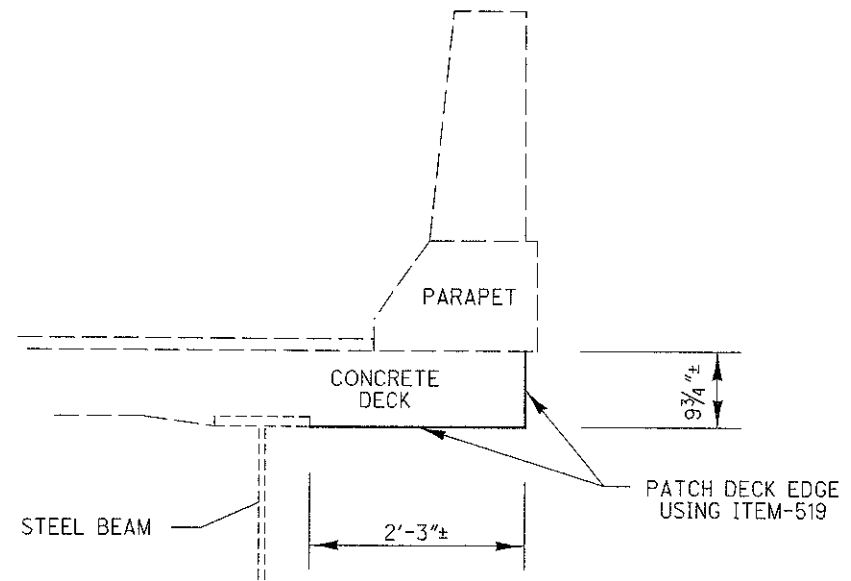
DESIGN FILE: i:\projects\79352\structures\RIC301408.dgn  
 WORKSTATION: KKnapp DATE: 7/12/2010 MODELNAME: Design



**ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB**  
 (BACKWALL REPAIR LENGTH = 34'-6"±)  
 (APPROACH SLAB REPAIR LENGTH = 34'-6"±)  
 (2-JOINT SEALING = 34'-6"±)



**ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL BEYOND APPROACH SLAB**  
 (BACKWALL REPAIR LENGTH = 10'-6"± TOTAL/ABUTMENT)  
 (1-JOINT SEALING = 10'-6"± TOTAL/ABUTMENT)



**TYPICAL EDGE OF DECK PATCHING**  
 (1-LOCATION LEFT STRUCTURE, 2-LOCATIONS RIGHT STRUCTURE)  
 SEE SHEET 1/6 FOR LOCATIONS AND LENGTHS)

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1408L	RIC-30-1408R		
202	3.9	3.9	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	90	90	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND
511	1.7	1.7	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
511	3.2	3.2	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
516	159	159	FT	JOINT SEALER
519	19	34	SQ FT	PATCHING CONCRETE STRUCTURE

ALL QUANTITIES CARRIED TO SHEET 1/6.

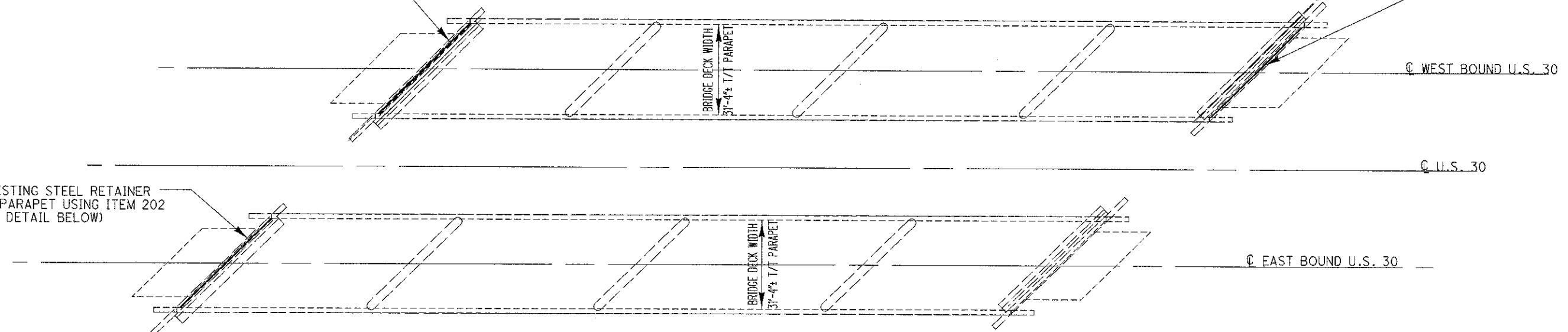
NOTES:  
 1. SEE SHEET 1/6 FOR PIER PATCHING SIZES AND LOCATIONS

DESIGN AGENCY: ODOT DISTRICT THREE OFFICE OF PRODUCTION  
 DATE: 6/10  
 REVISED: RDN  
 STRUCTURE FILE NUMBER: 7001355 & 7001444  
 DRAWN: DCM  
 CHECKED: DJV  
 APPROACH SLAB AND BACKWALL REPAIR DETAILS  
 RIC-30-1408L&R OVER U.S. 42  
 RIC/ASD-30-13.18/0.00  
 RIC-42-13.74  
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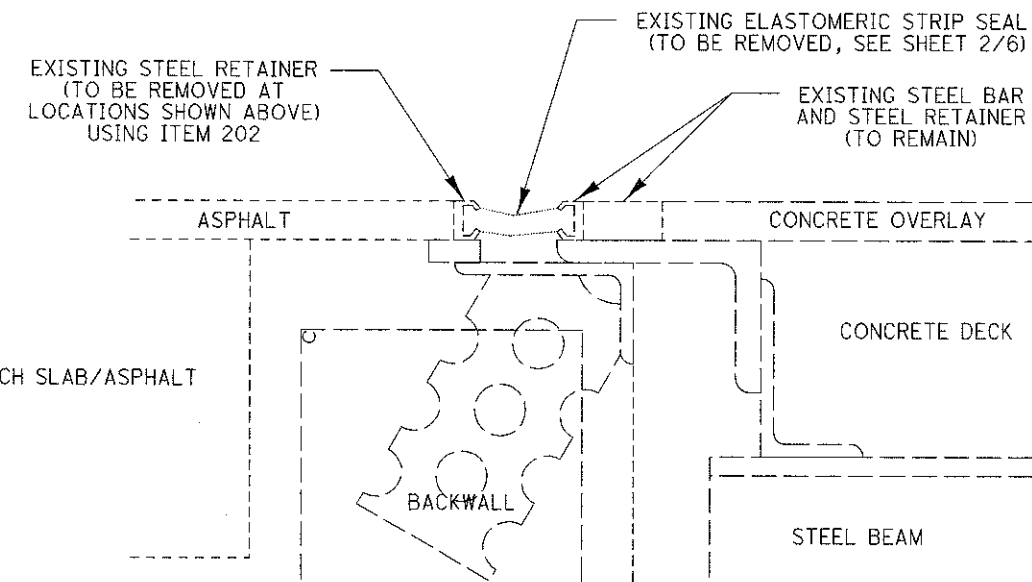


REMOVE EXISTING STEEL RETAINER  
TOE/TOE OF PARAPET USING ITEM 202  
(SEE DETAIL BELOW)

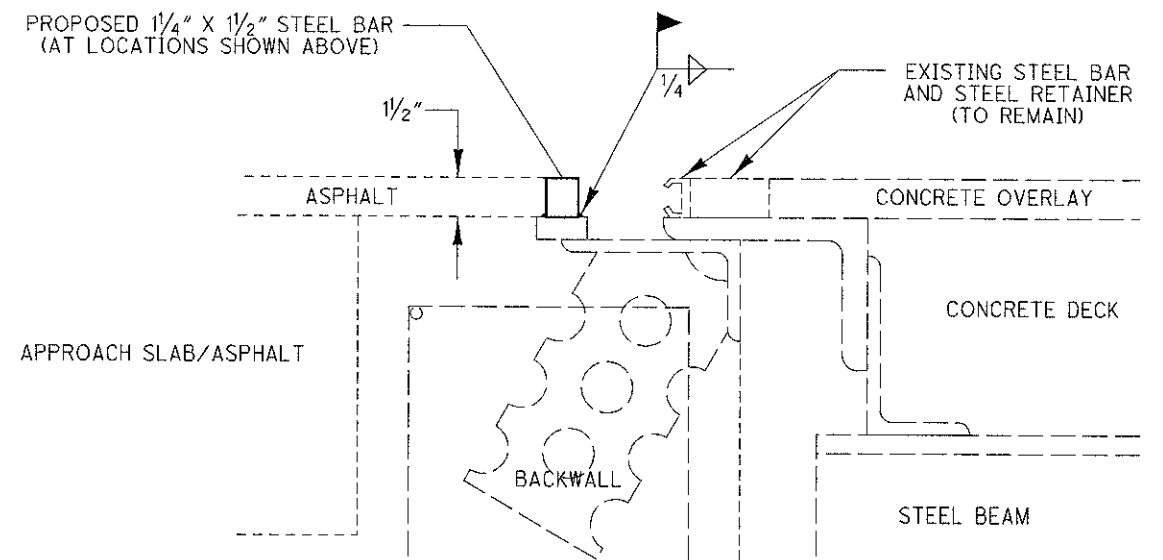
REMOVE EXISTING STEEL RETAINER  
TOE/TOE OF PARAPET USING ITEM 202  
(SEE DETAIL BELOW)



PLAN VIEW



EXISTING TYPICAL SECTION THROUGH REPAIR



PROPOSED TYPICAL SECTION THROUGH REPAIR

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1408L	RIC-30-1408R		
202	90	45	FT	REMOVAL MISC.: STEEL RETAINER
516	90	45	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: REPAIR

ALL QUANTITIES CARRIED TO SHEET 1/6.

DESIGN FILE: I:\projects\79352\structures\RIC301408.dgn  
 WORKSTATION: KKnapp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY: ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE: 6/10  
 REVIEWED: RDN  
 STRUCTURE FILE NUMBER: 7001355 & 7001444

DRAWN: DCM  
 CHECKED: DJV

DESIGNED: DCM

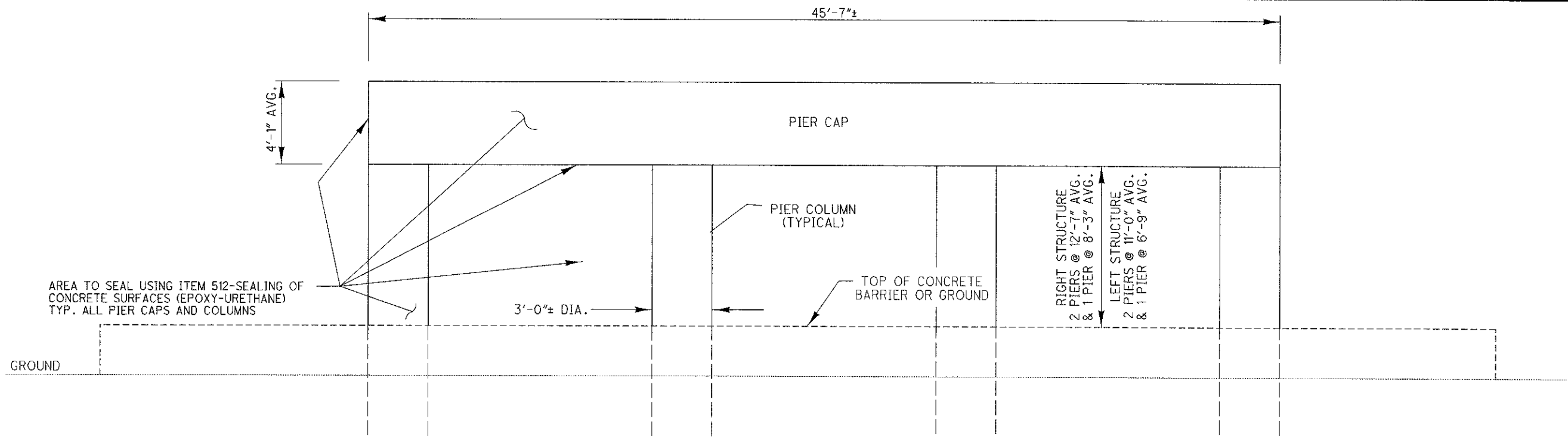
**EXPANSION JOINT REPAIR DETAIL**  
**RIC-30-1408L & R OVER U.S. 42**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

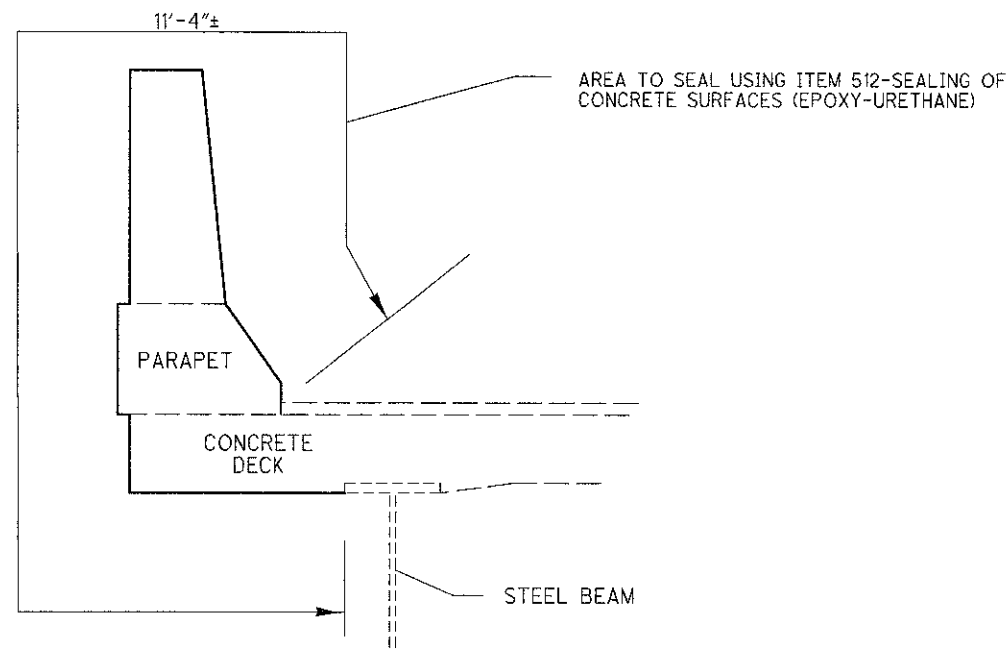
3 / 6

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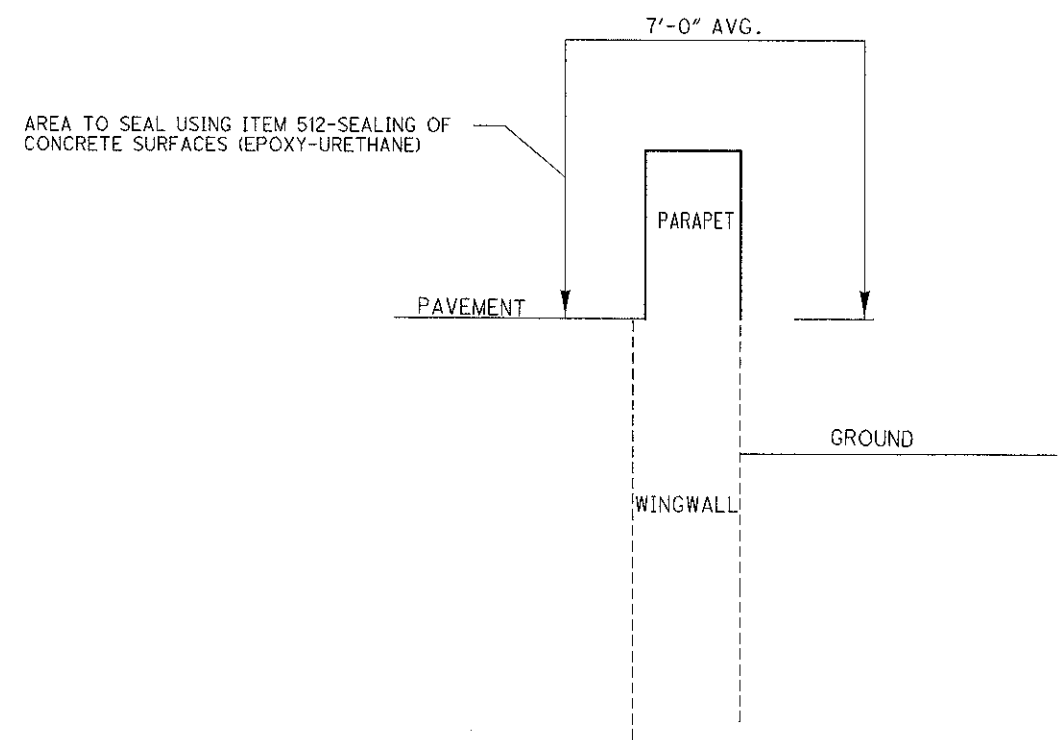
DESIGN FILE: I:\projects\79352\structures\RIC301408.dgn  
 WORKSTATION: KKnapp DATE: 7/12/2010 MODELNAME: Design



PIER SEALING ELEVATION VIEW  
 PIER WIDTH = 3'-0"



PARAPET SEALING DETAIL  
 (PARAPET SEALING LENGTH ON DECK = 294'-0"±)



PARAPET SEALING OFF BRIDGE DETAIL  
 (PARAPET SEALING LENGTH = 8'-0"±)

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1408L	RIC-30-1408R		
512	1050	1070	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO SHEET 1/6.

- NOTES:  
 1) SEAL PARAPETS WITH ITEM 512

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10

REVIEWED  
 RDN

STRUCTURE FILE NUMBER  
 7001355 & 7001444

BROWN  
 DCM

REVISOR  
 REVISED

DESIGNED  
 DCM

CHECKED  
 DUJ

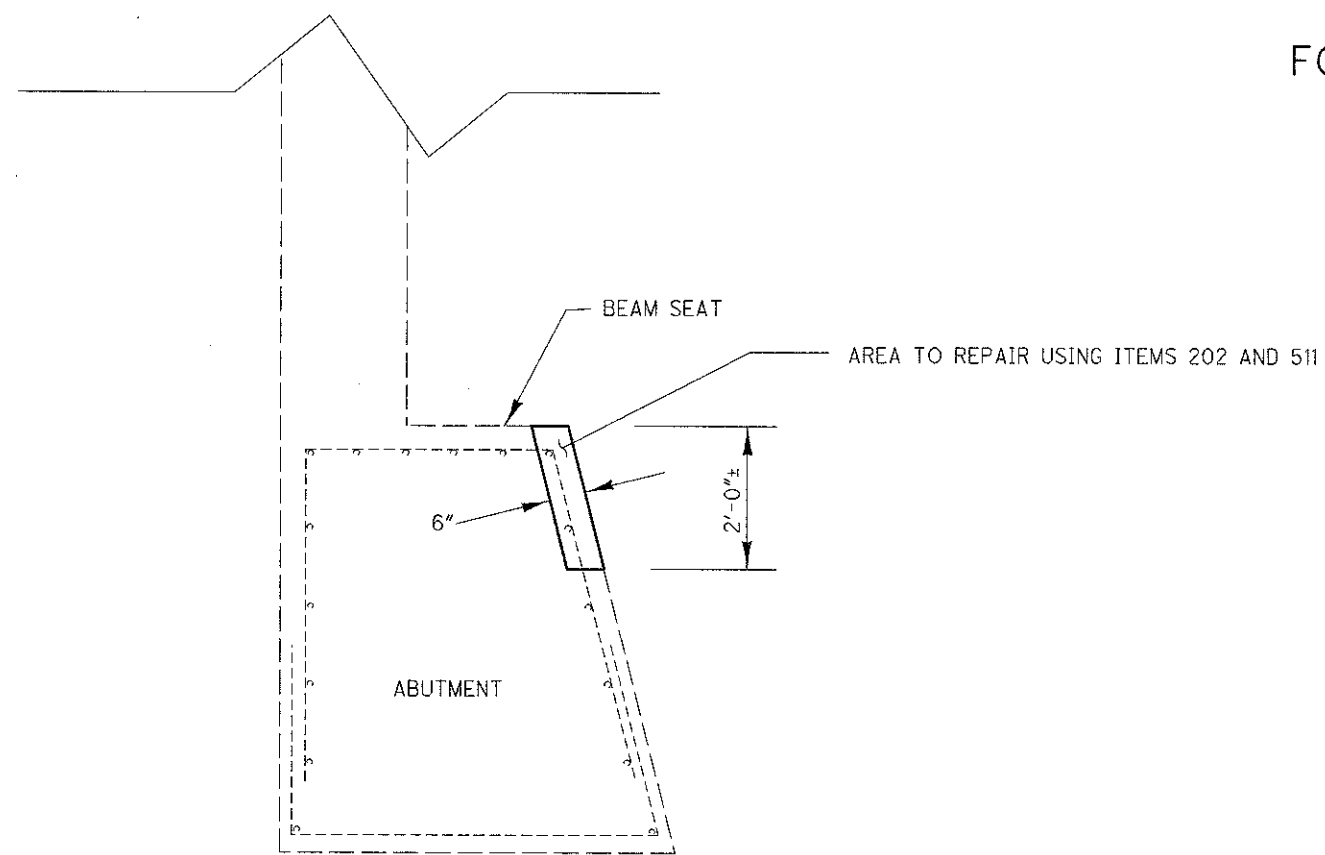
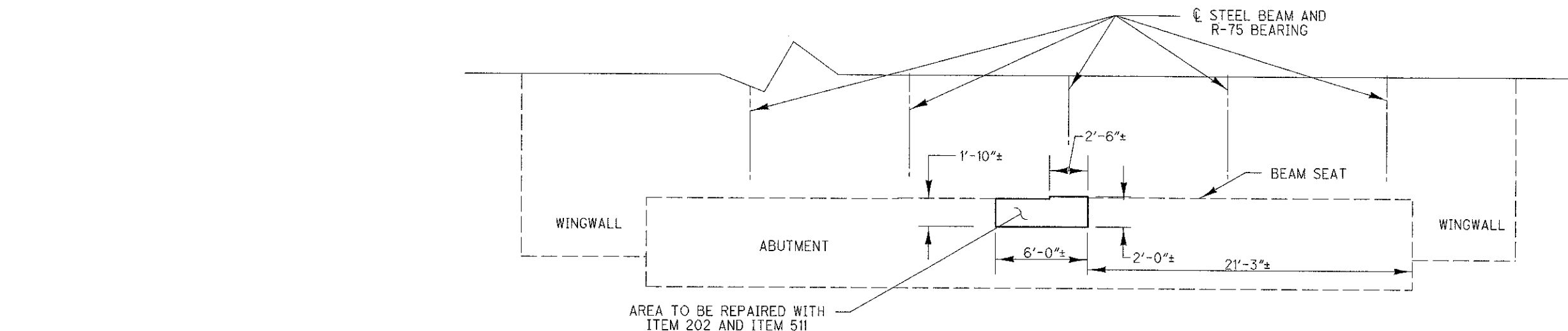
SEALING DETAILS  
 RIC-30-1408L & R OVER U.S. 42

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

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 116

DESIGN FILE: I:\projects\79352\structures\RIC301408.dgn  
 WORKSTATION: KKnapp DATE: 7/12/2010 MODELNAME: Design



ITEM	QUANTITY	UNIT	DESCRIPTION
	RIC-30-1408R		
202	.3	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	.3	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)

NOTES:  
 1) ROCKER BEARING AND STEEL BEAM NOT SHOWN.  
 2) PRESERVE ALL EXISTING REINFORCING STEEL.

ALL QUANTITIES CARRIED TO SHEET 1/6.

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE 6/10  
 REVIEWED RON  
 STRUCTURE FILE NUMBER 7001444

DRAWN DCM  
 CHECKED DJV  
 DESIGNED DCM  
 REVISED DJV

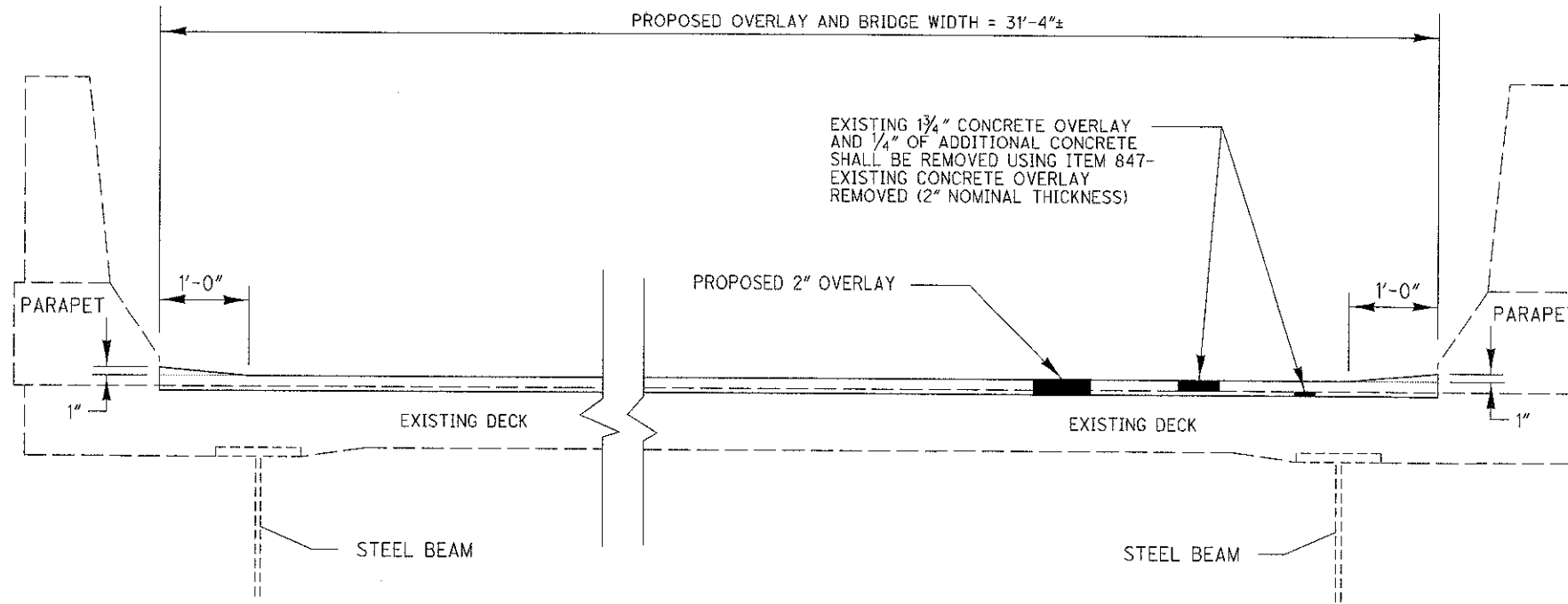
BEAM SEAT REPAIR DETAILS  
 RIC-30-1408R OVER U.S. 42

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

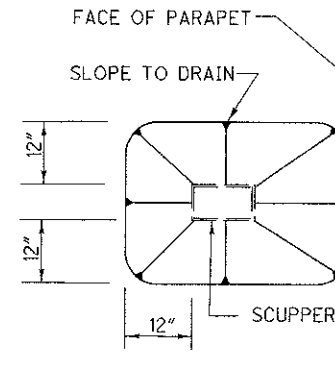
5 / 6

95  
 116

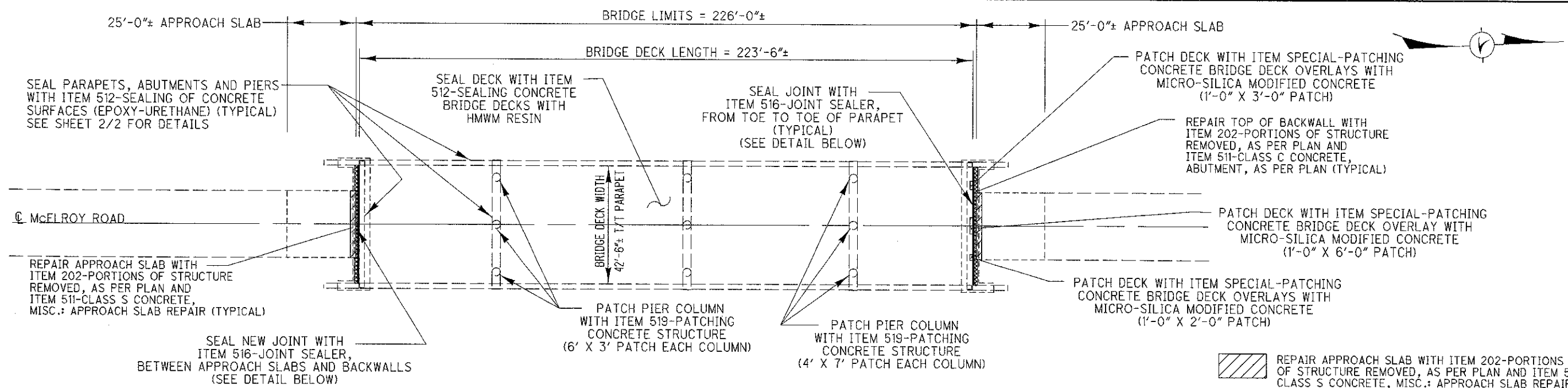




OVERLAY DETAIL



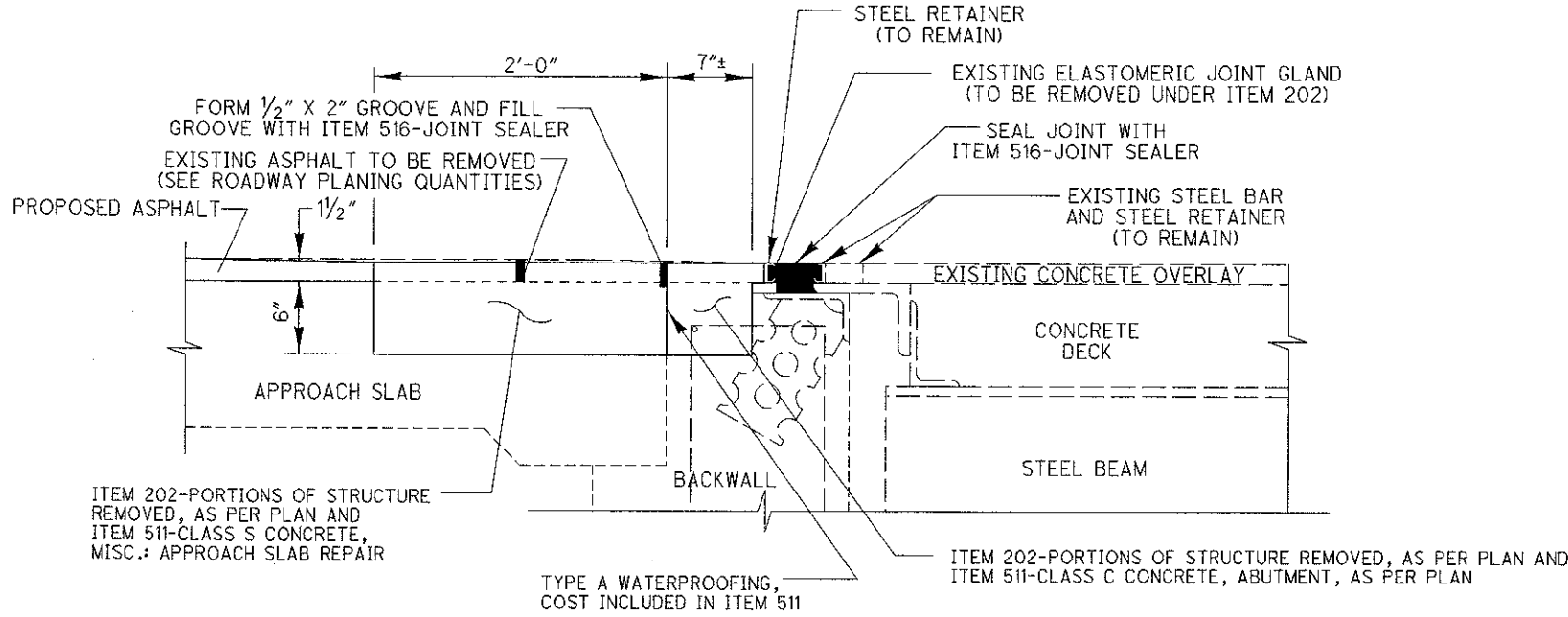
PLAN VIEW AT SCUPPER



PLAN VIEW

REPAIR APPROACH SLAB WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR

REPAIR TOP OF BACKWALL WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS C CONCRETE, ABUTMENT, AS PER PLAN

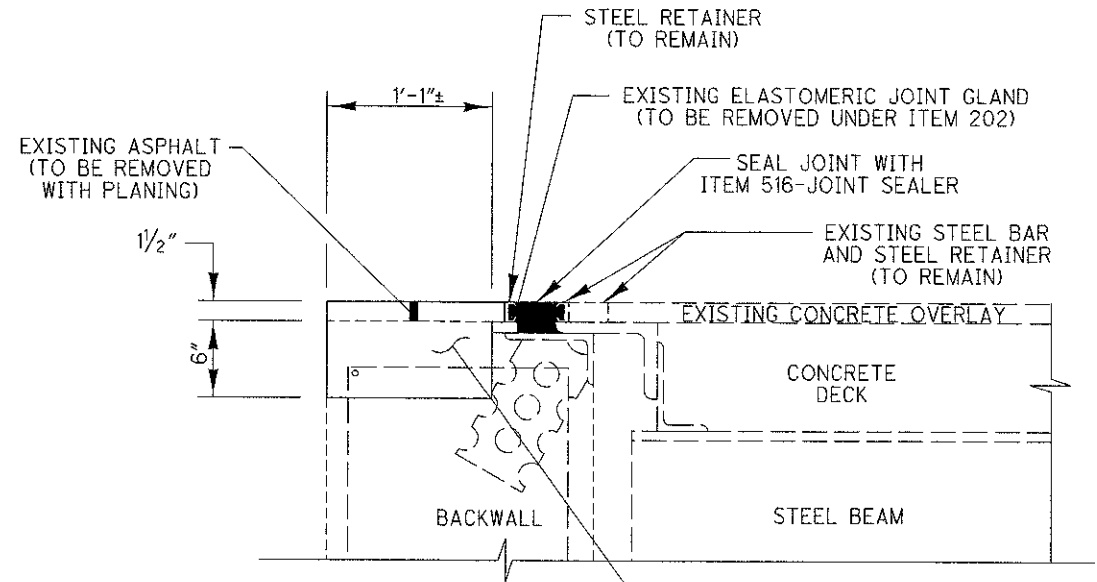


ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB

(BACKWALL REPAIR LENGTH = 24'-0"±)  
(APPROACH SLAB REPAIR LENGTH = 24'-0"±)  
(2-JOINT SEALING = 24'-0"±)

ITEM	QUANTITY	UNIT	DESCRIPTION
202	85	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND
202	3.1	CU YD	PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	1.6	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN
511	2.3	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
512	847	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1056	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
516	133	FT	JOINT SEALER
519	138	SO FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN
SPECIAL	2	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.



ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL BEYOND APPROACH SLAB

(BACKWALL REPAIR LENGTH = 18'-6"±)  
(1-JOINT SEALING = 18'-6"±)

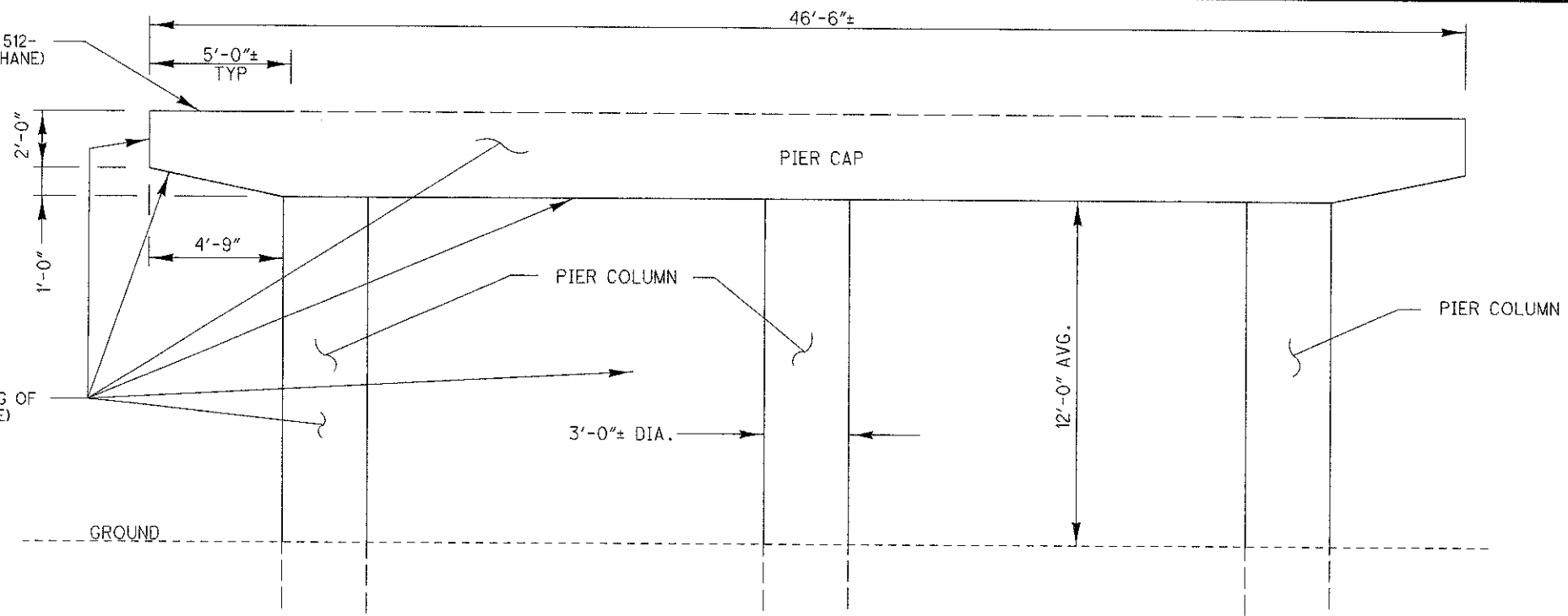
NOTES:

1. PATCH DECK WITH ITEM SPECIAL.
2. SEAL DECK WITH ITEM 512 AFTER DECK PATCHING IS COMPLETE.
3. PATCH 6 PIER COLUMNS WITH ITEM 519.
4. SEAL PIER COLUMNS, PARAPETS AND ABUTMENTS WITH ITEM 512 AFTER ALL PATCHING IS COMPLETE. SEE SHEET 2/2 FOR DETAILS.
5. REPAIR BACKWALLS AND APPROACH SLABS WITH ITEMS 202 AND 511.
6. REMOVE ELASTOMERIC JOINT GLANDS AND SEAL JOINTS WITH ITEM 516.

DESIGN FILE: I:\projects\79352\structures\RIC301441.dgn  
WORKSTATION:Kknapp  
MODELNAME: Design  
DATE: 7/12/2010

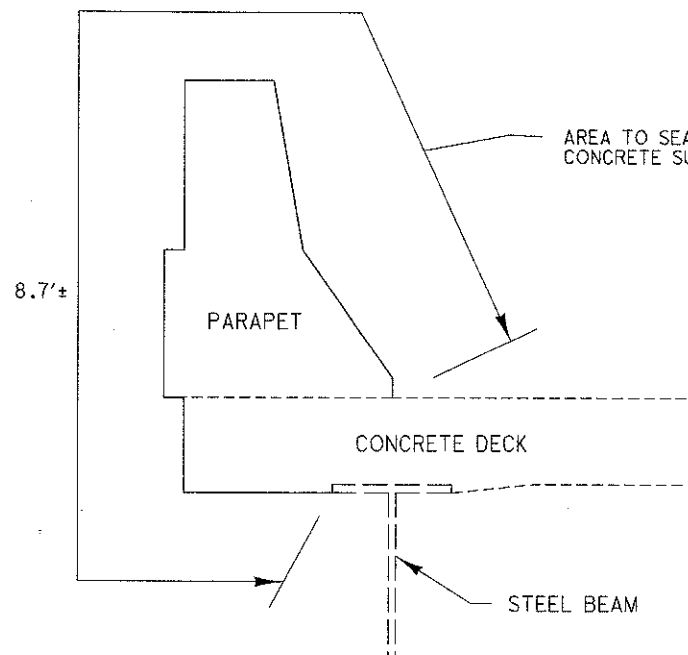
SEAL END 5' OF TOP OF PIER CAP USING ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) TYP. ALL PIER CAPS.

AREA TO SEAL USING ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) TYP. ALL PIER CAPS AND COLUMNS



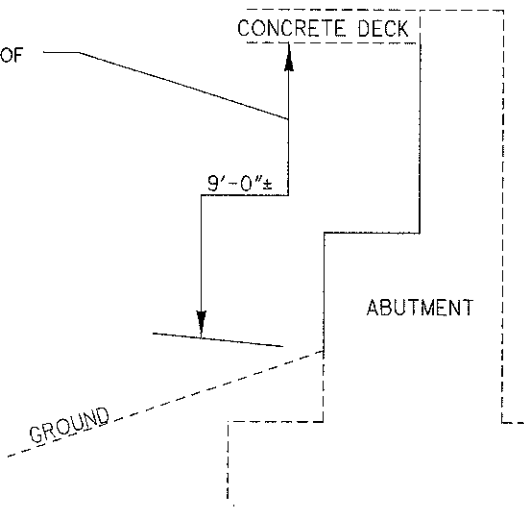
PIER SEALING ELEVATION VIEW

PIER WIDTH = 3'-0"



PARAPET SEALING DETAIL

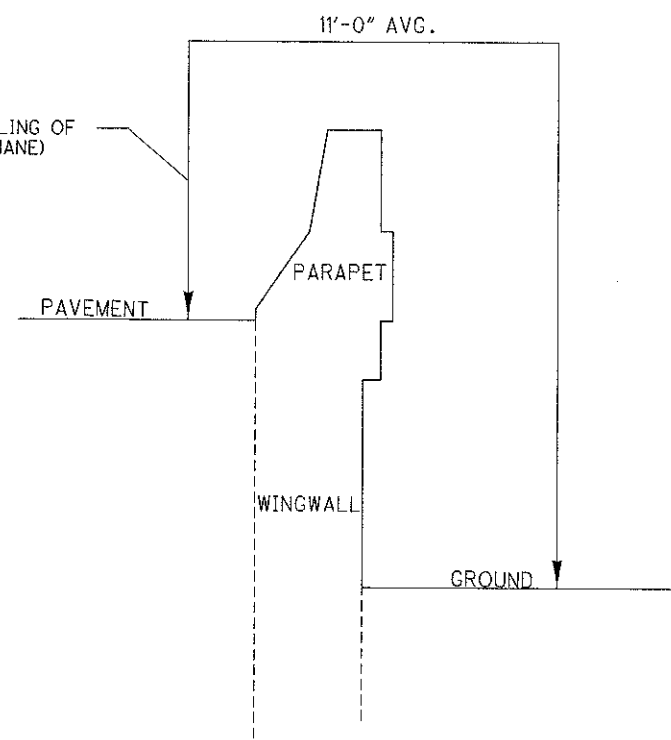
(PARAPET SEALING LENGTH ON DECK = 222'-11"±)



ABUTMENT SEALING DETAIL

(ABUTMENT SEALING LENGTH = 45'-6"±)

AREA TO SEAL USING ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)



WINGWALL SEALING DETAIL

(WINGWALL SEALING LENGTH = 13'-11"±)

ITEM	QUANTITY	UNIT	DESCRIPTION
512	847	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO SHEET 1/2

NOTES:

- 1) BEARINGS NOT SHOWN.
- 2) SEAL ALL EXPOSED AREAS OF WINGWALLS, ABUTMENTS AND PARAPETS WITH ITEM 512
- 3) SEAL PIERS AS DETAILED ABOVE.

DESIGN FILE: I:\projects\79352\structures\RIC301441.dgn  
 WORKSTATION: KKnopp  
 MODELNAME: Design  
 DATE: 7/12/2010

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10  
 REVIEWED  
 RDN  
 STRUCTURE FILE NUMBER  
 7001479  
 DRAWN  
 DCM  
 REVISED  
 DESIGNED  
 DCM  
 CHECKED  
 DJV

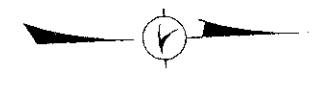
SEALING DETAILS  
 RIC-30-1441 UNDER MCELROY ROAD

RIC/ ASD-30-13.18 / 0.00  
 RIC-42-13.74

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 116

25'-0"± APPROACH SLAB BRIDGE LIMITS = 319'-6"± BRIDGE DECK LENGTH = 316'-5"± 25'-0"± APPROACH SLAB



SEAL APPROACH PARAPETS, WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (TYPICAL) SEE SHEET 3/3 FOR DETAILS

SEAL APPROACH CURBS AND SIDEWALKS WITH ITEM 512-SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN SEE SHEET 3/3 FOR DETAILS

REPAIR TOP OF BACKWALL WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS C CONCRETE, ABUTMENT, AS PER PLAN (TYPICAL) (SEE DETAIL BELOW)

SEAL PARAPETS, ABUTMENTS AND PIERS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (TYPICAL) SEE SHEET 3/3 FOR DETAILS

SEAL DECK, CURBS AND SIDEWALKS WITH ITEM 512-SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN SEE SHEET 3/3 FOR DETAILS

REPAIR END OF PIER CAP SEE SHEET 2/3 FOR DETAILS

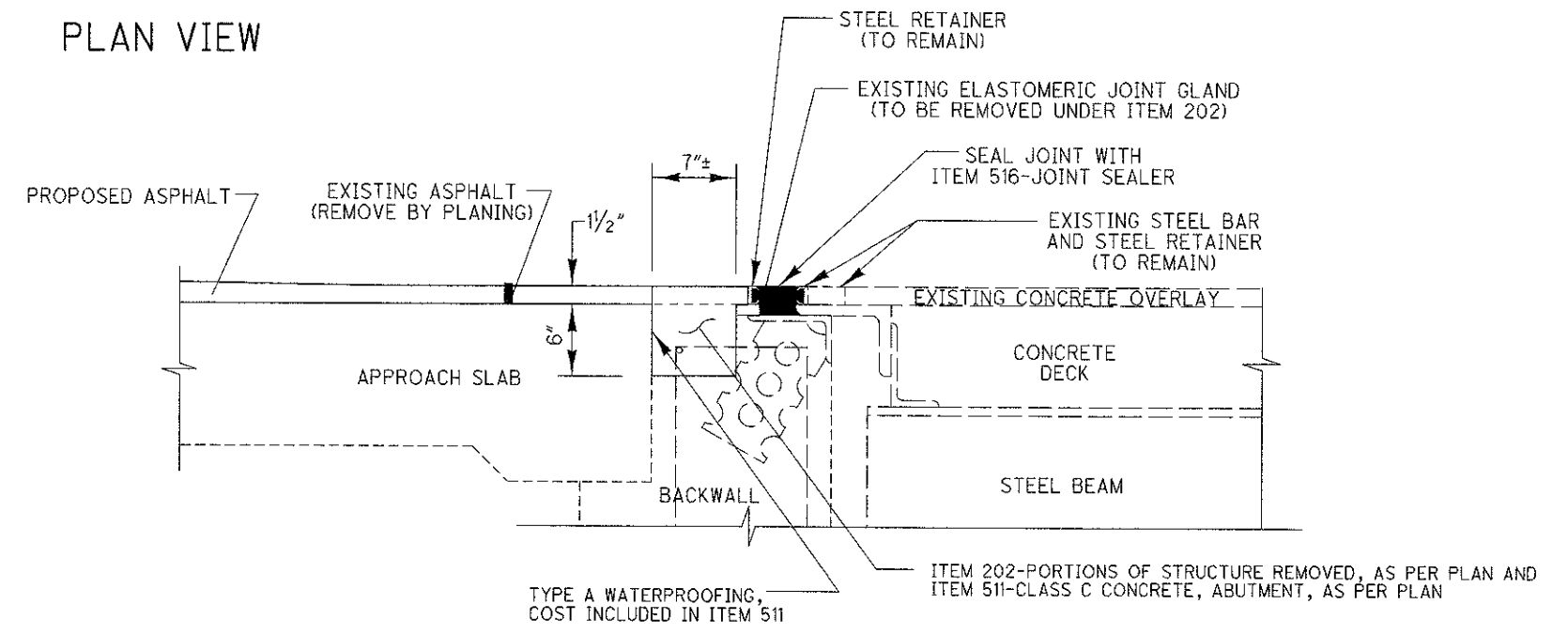
PATCH PIER COLUMN WITH ITEM 519-PATCHING CONCRETE STRUCTURE, AS PER PLAN (2 PATCHES 1'-6" X 2'-0" AND 2'-0" X 2'-0")

PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE (1'-0" X 6'-0" PATCH)

SEAL JOINT WITH ITEM 516-JOINT SEALER, FROM TOE TO TOE OF CURB (TYPICAL) (SEE DETAIL BELOW)

PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE (1'-0" X 3'-0" PATCH)

PLAN VIEW



ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL

(BACKWALL REPAIR AND JOINT SEALING LENGTH = 30'-0"±)

NOTES:

1. REPAIR PIER CAP, SEE SHEET 2/3 FOR DETAILS.
2. PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE.
3. SEAL DECK, CURBS AND SIDEWALKS WITH ITEM 512-SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AFTER DECK IS PATCHED. SEE SHEET 3/3 FOR DETAILS.
4. SEAL PIER COLUMNS, PARAPETS AND ABUTMENTS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) AFTER PIER CAP CRACKS HAVE BEEN EPOXY INJECTED. SEE SHEET 3/3 FOR DETAILS.
5. REPAIR BACKWALLS WITH ITEMS 202 AND 511.
6. SEAL JOINTS WITH ITEM 516.

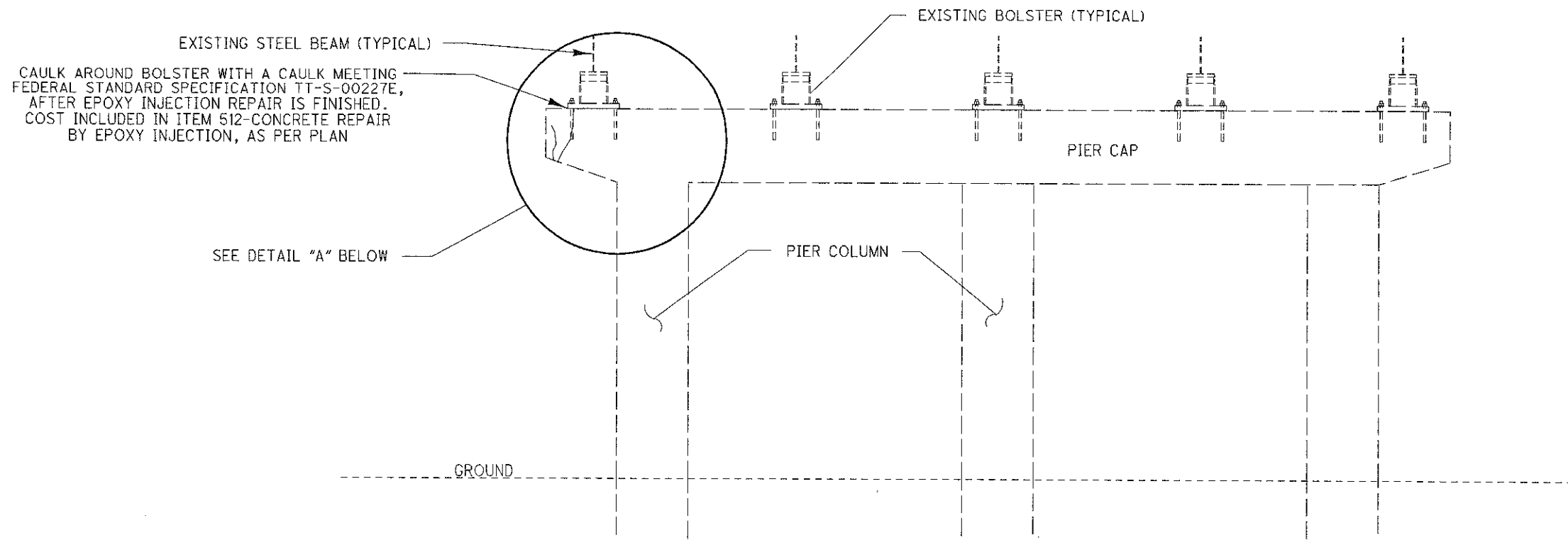
ITEM	QUANTITY	UNIT	DESCRIPTION
202	60	FT	REMOVAL MISC.: ELASTOMERIC JOINT GLAND
202	.9	CU YD	PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	.9	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN
512	914	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1334	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
512	21	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN
516	60	FT	JOINT SEALER
519	7	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN
SPECIAL	2	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.

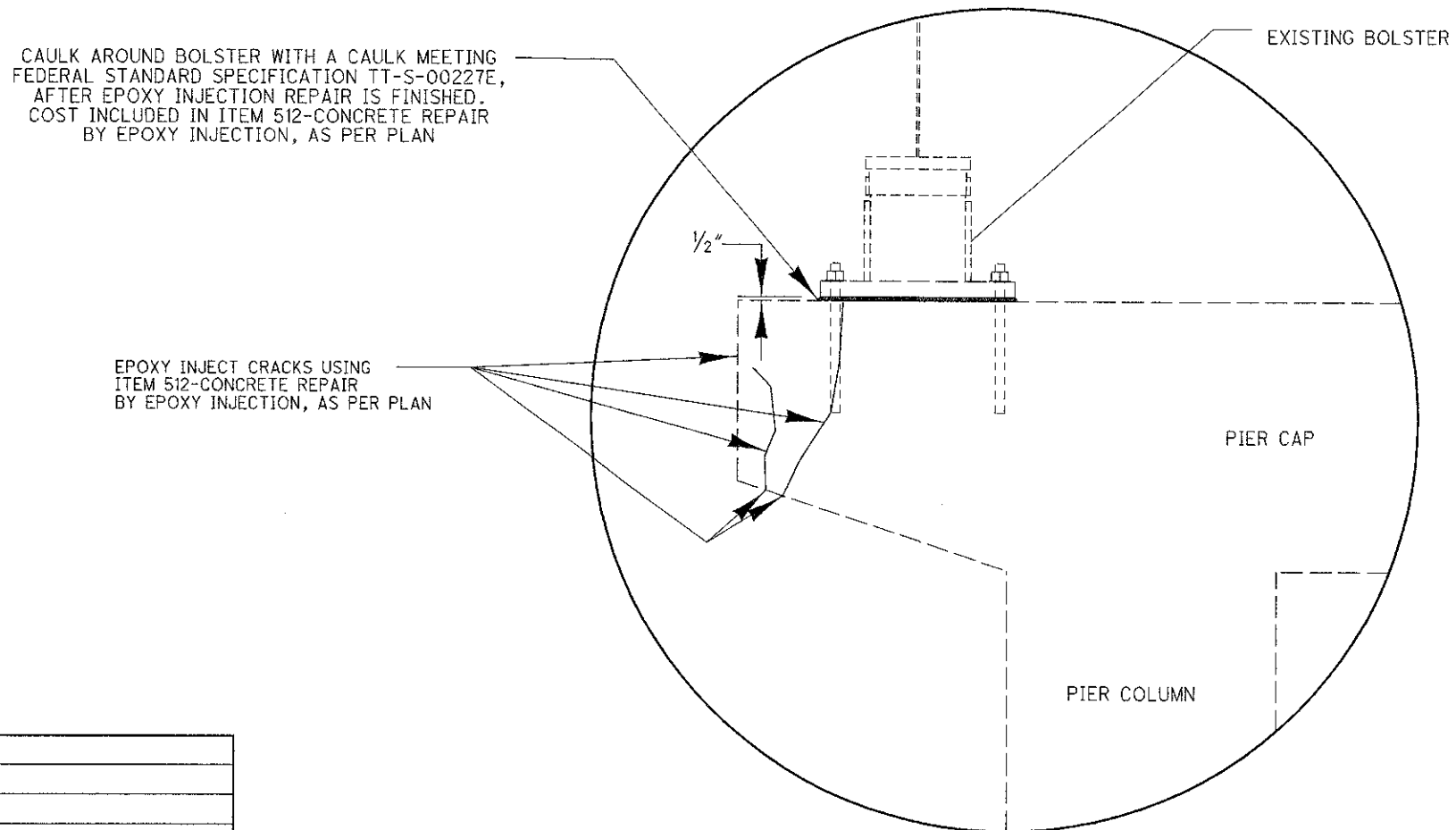
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 WORKSTATION: KKnopp  
 DATE: 7/12/2010  
 MODELNAME: Design

DESIGN AGENCY: ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION  
 DATE: 6/7/10  
 REVIEWED: RDN  
 STRUCTURE FILE NUMBER: 7001495  
 DRAWN: DCM  
 REVISION:  
 DESIGNED: DCM  
 CHECKED: DJV  
 PLAN VIEW  
 PLAN VIEW UNDER LAVER ROAD  
 RIC-30-1527  
 RIC / ASD 30-13.18 / 0.00  
 RIC-42-13.74  
 1 / 3  
 99  
 116

DESIGN FILE: I:\projects\79352\structures\RIC301527.dgn  
 WORKSTATION: Knapp  
 MODELNAME: Design  
 DATE: 7/12/2010



PIER 2 ELEVATION VIEW  
 PIER WIDTH = 3'-0"

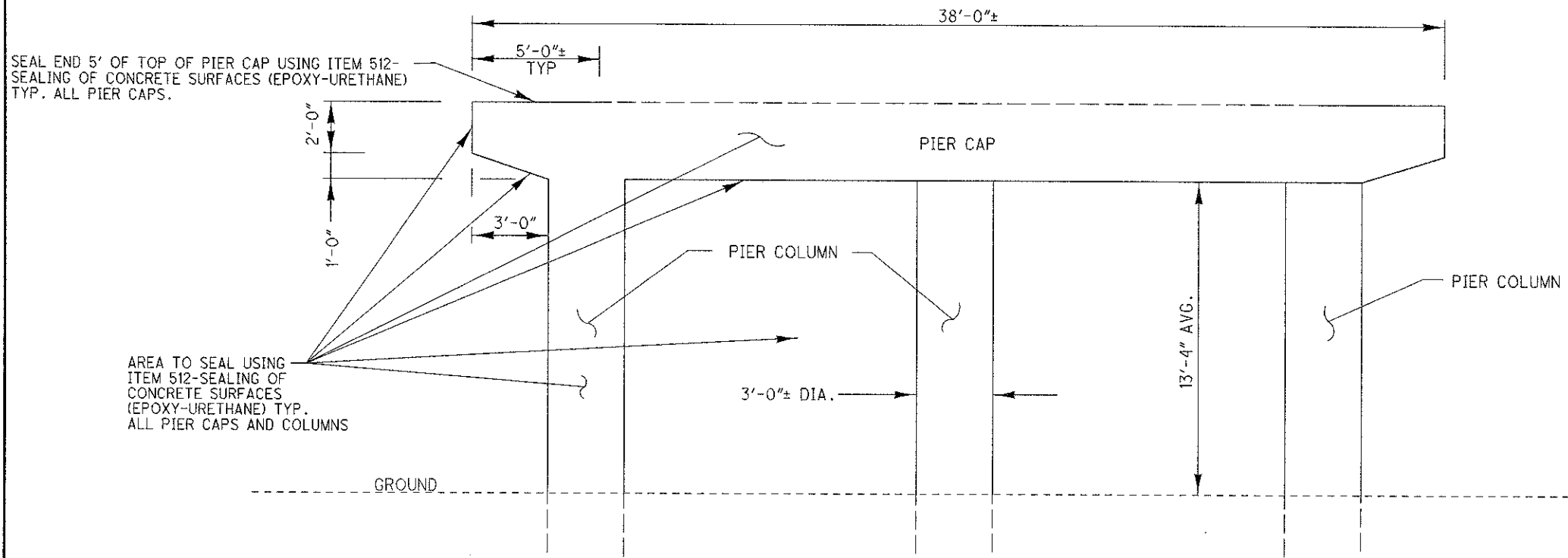


DETAIL "A"

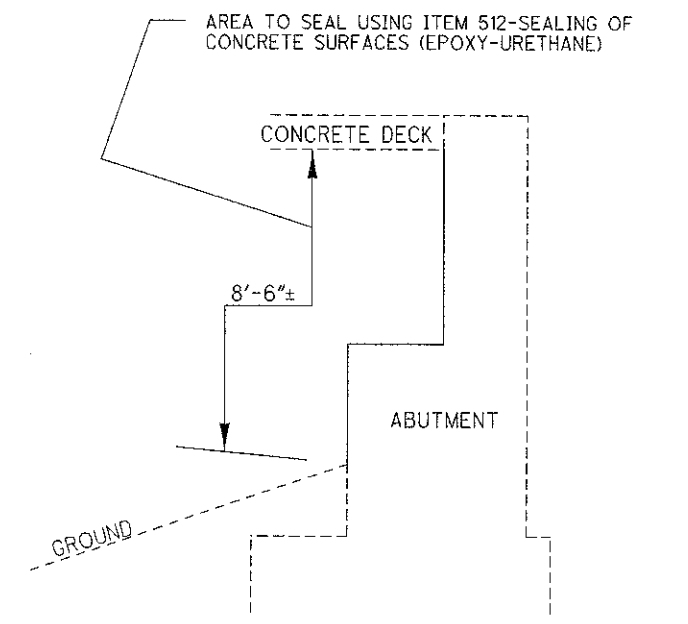
ITEM	QUANTITY	UNIT	DESCRIPTION
512	21	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN

ALL QUANTITIES CARRIED TO SHEET 1/3.

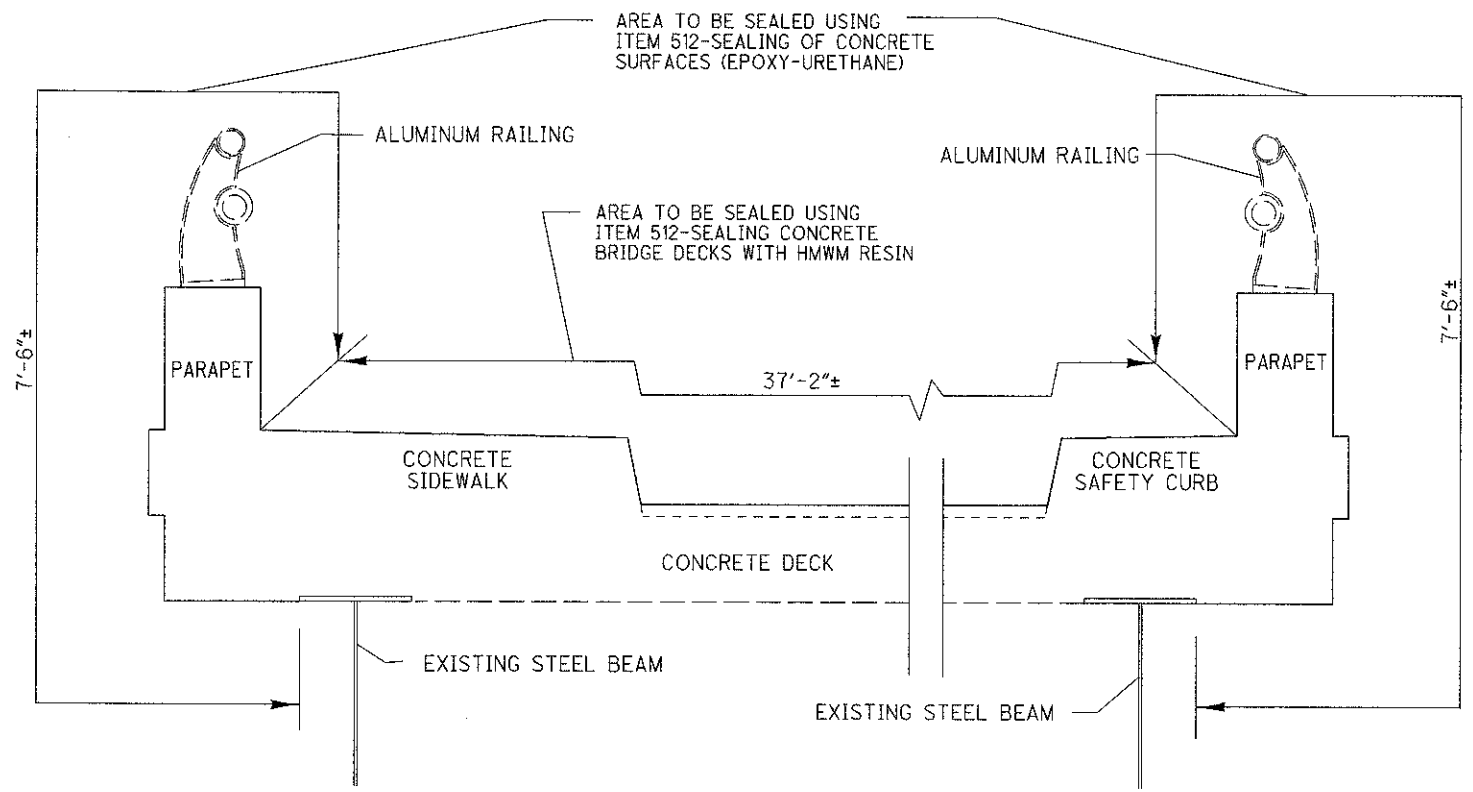
DESIGN AGENCY ODOT DISTRICT THREE OFFICE OF PRODUCTION	
DATE 6/10	REVIEWED RON
STRUCTURE FILE NUMBER 7001495	REVISOR
DESIGNED DCM	DRAWN DCM
CHECKED DUJ	REVISED
PIER CAP REPAIR ON PIER #2 RIC-30-1527 UNDER LAVER ROAD	
RIC / ASD-30-13.18 / 0.00 RIC-42-13.74	
2 / 3	
100 116	



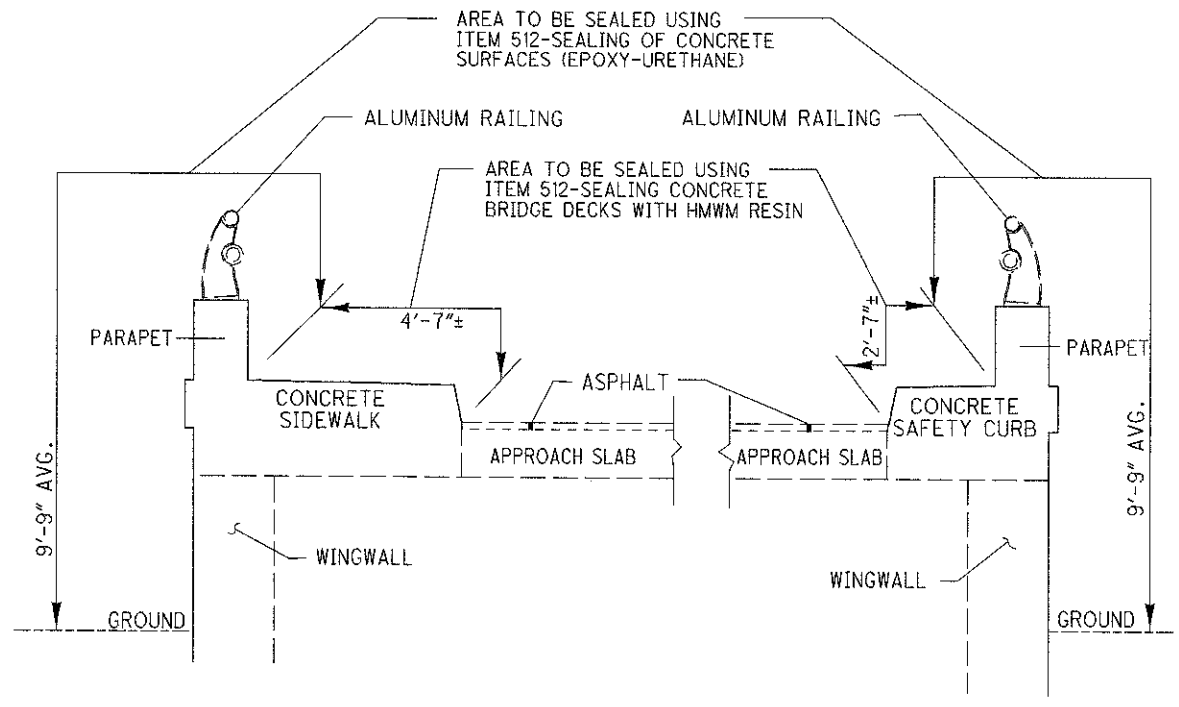
PIER SEALING ELEVATION VIEW  
PIER WIDTH = 3'-0"



ABUTMENT SEALING DETAIL  
(ABUTMENT SEALING LENGTH = 37'-6"±)



DECK SECTION TYPICAL SEALING VIEW  
SEALING LENGTH = 316'-5"



TYPICAL WINGWALL SEALING OFF DECK  
SEALING LENGTH = 16'-7" REAR ABUTMENT  
SEALING LENGTH = 17'-7" FORWARD ABUTMENT

ITEM	QUANTITY	UNIT	DESCRIPTION
512	914	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1334	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN

- NOTES:
- 1) SEAL ALL EXPOSED AREAS OF WINGWALLS, ABUTMENTS AND PARAPETS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
  - 2) SEAL DECK, CURBS AND SIDEWALKS WITH ITEM 512- SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN.
  - 3) PROTECT ALUMINUM RAILING FROM SEALING MATERIAL.

ALL QUANTITIES CARRIED TO SHEET 1/3.

DESIGN FILE: I:\projects\79352\structures\RIC301527.dgn  
 WORKSTATION: Kknapp DATE: 7/12/2010  
 MODELNAME: Design

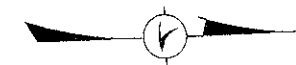
DESIGN AGENCY: ODOT DISTRICT THREE OFFICE OF PRODUCTION  
 DATE: 6/10  
 REVIEWED: RDN  
 STRUCTURE FILE NUMBER: 7001495  
 DESIGNER: DCM  
 CHECKED: DUJ  
 SEALING DETAILS UNDER LAYER ROAD  
 RIC-30-1527  
 RIC/ ASD-30-13.18/ 0.00  
 RIC-42-13.74  
 3 / 3  
 101  
 116

25'-0"± APPROACH SLAB

BRIDGE LIMITS = 289'-6"±

25'-0"± APPROACH SLAB

BRIDGE DECK LENGTH = 286'-5"±



PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE (1'-0" X 3'-0" PATCH)

PATCH PIER COLUMN WITH ITEM 519-PATCHING CONCRETE STRUCTURE, AS PER PLAN (3' X 7' PATCH)

SEAL DECK WITH ITEM 512-SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN

REPAIR TOP OF BACKWALL WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS C CONCRETE, ABUTMENT, AS PER PLAN (TYPICAL) (SEE DETAIL BELOW)



REED ROAD

BRIDGE DECK WIDTH  
42'-6"± 1/4" PARAPET

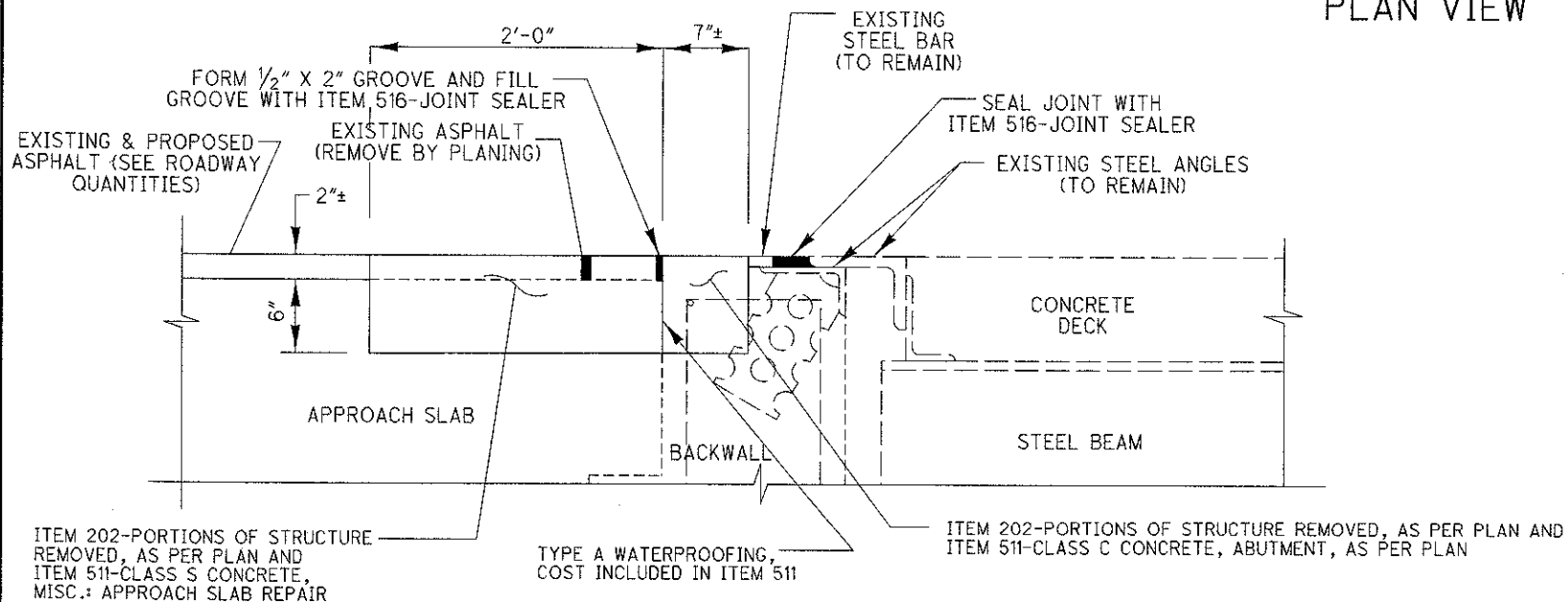
REPAIR APPROACH SLAB WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR (TYPICAL)

SEAL PARAPETS, ABUTMENTS AND PIERS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (TYPICAL) SEE SHEET 2/4 FOR DETAILS

PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE (1'-0" X 5'-0" PATCH)

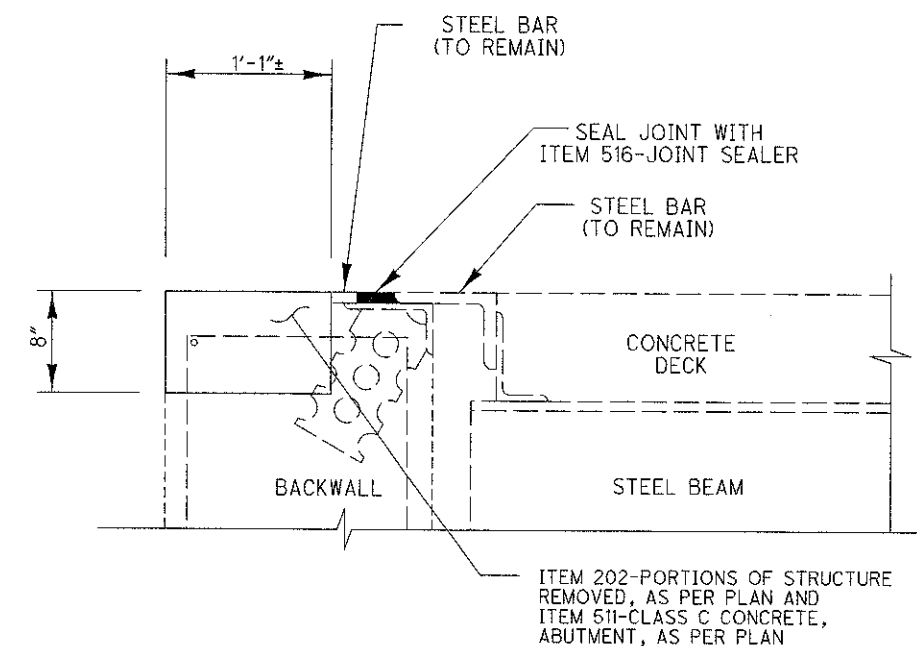
 REPAIR APPROACH SLAB WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR  
 REPAIR TOP OF BACKWALL WITH ITEM 202-PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS C CONCRETE, ABUTMENT, AS PER PLAN

PLAN VIEW



ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB

(BACKWALL REPAIR LENGTH = 24'-0"±)  
(APPROACH SLAB REPAIR LENGTH = 24'-0"±)  
(2-JOINT SEALING @ 24'-0"± EACH)



ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL BEYOND APPROACH SLAB

(BACKWALL REPAIR LENGTH = 18'-6"± TOTAL/ABUTMENT)  
(1-JOINT SEALING = 18'-6"± TOTAL/ABUTMENT)

ITEM	QUANTITY	UNIT	DESCRIPTION
202	3.5	CU YD	PORCTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	1.7	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN
511	2.4	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
512	992	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
512	1353	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN
513	LUMP		STRUCTURAL STEEL, MISC.: REWELDING EXISTING CROSS FRAME MEMBERS
514	62	SQ FT	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN
516	133	FT	JOINT SEALER
519	21	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN
SPECIAL	1	SQ YD	PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE
849	LUMP		SURFACE PREPARATION
849	3	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING

NOTES:

1. PATCH DECK WITH ITEM 519-PATCHING CONCRETE BRIDGE DECK OVERLAY WITH MICRO-SILICA MODIFIED CONCRETE.
2. SEAL DECK, CURBS AND SIDEWALKS WITH ITEM 512-SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN, AFTER DECK IS PATCHED.
3. SEAL PIER COLUMNS, PARAPETS AND ABUTMENTS WITH ITEM 512-SEALING OF CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 2/4 FOR DETAILS.
4. REPAIR BACKWALLS WITH ITEMS 202 AND 511.
5. SEAL JOINTS WITH ITEM 516.
6. REPAIR COLLISION DAMAGE, SEE SHEET 3/4 AND 4/4 FOR DETAILS.

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.

DESIGN FILE: I:\projects\structures\RIC301640.dgn  
WORKSTATION: kknapp  
DATE: 7/12/2010  
MODELNAME: Design

DESIGN AGENCY  
ODOT DISTRICT THREE  
OFFICE OF PRODUCTION

DATE  
6/10  
REVIEWED  
RDN  
STRUCTURE FILE NUMBER  
7001517

DRAWN  
DCM  
CHECKED  
D.VJ

PLAN VIEW  
RIC-30-1640 UNDER REED ROAD

RIC/ASD-30-13.18/0.00  
RIC-42-13.74

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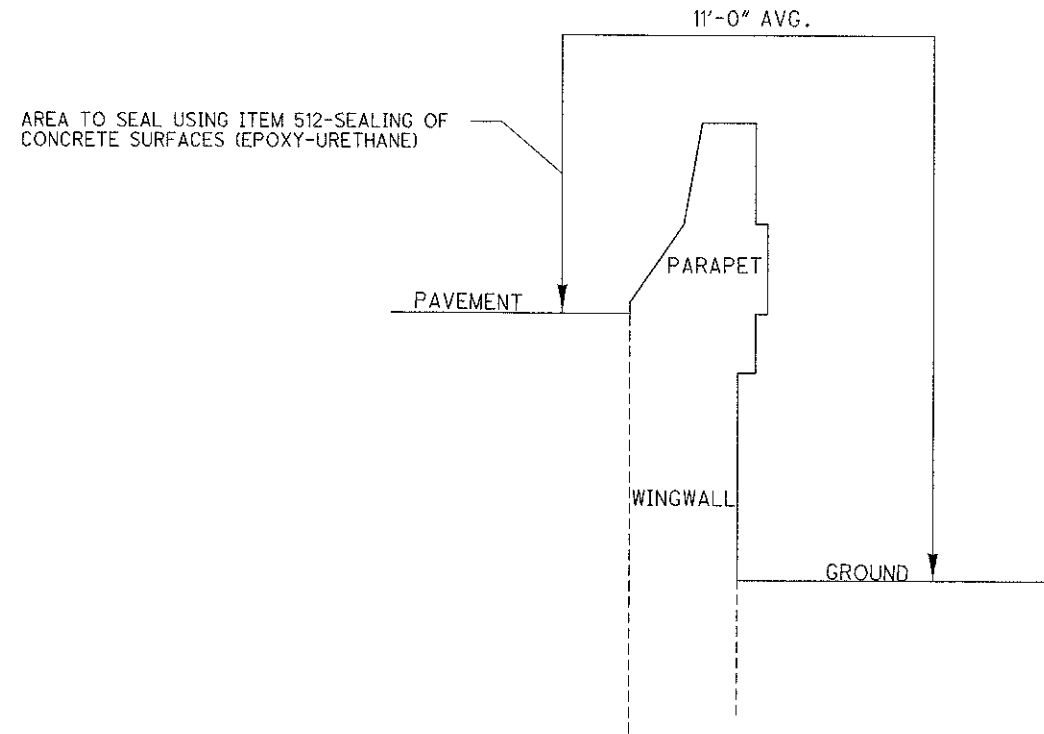
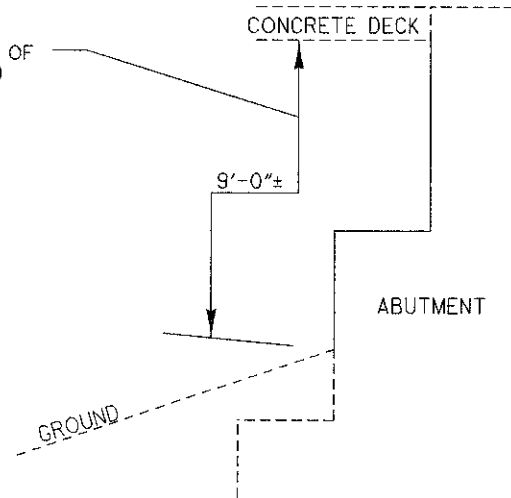
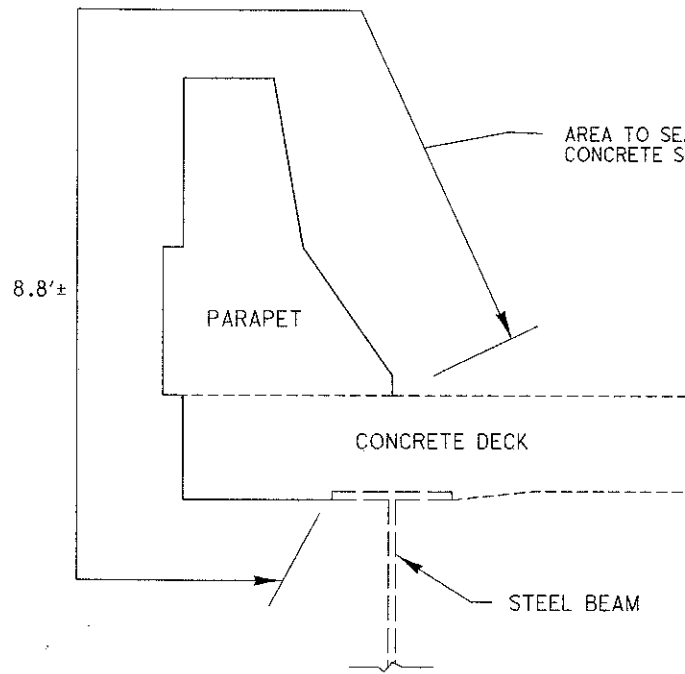
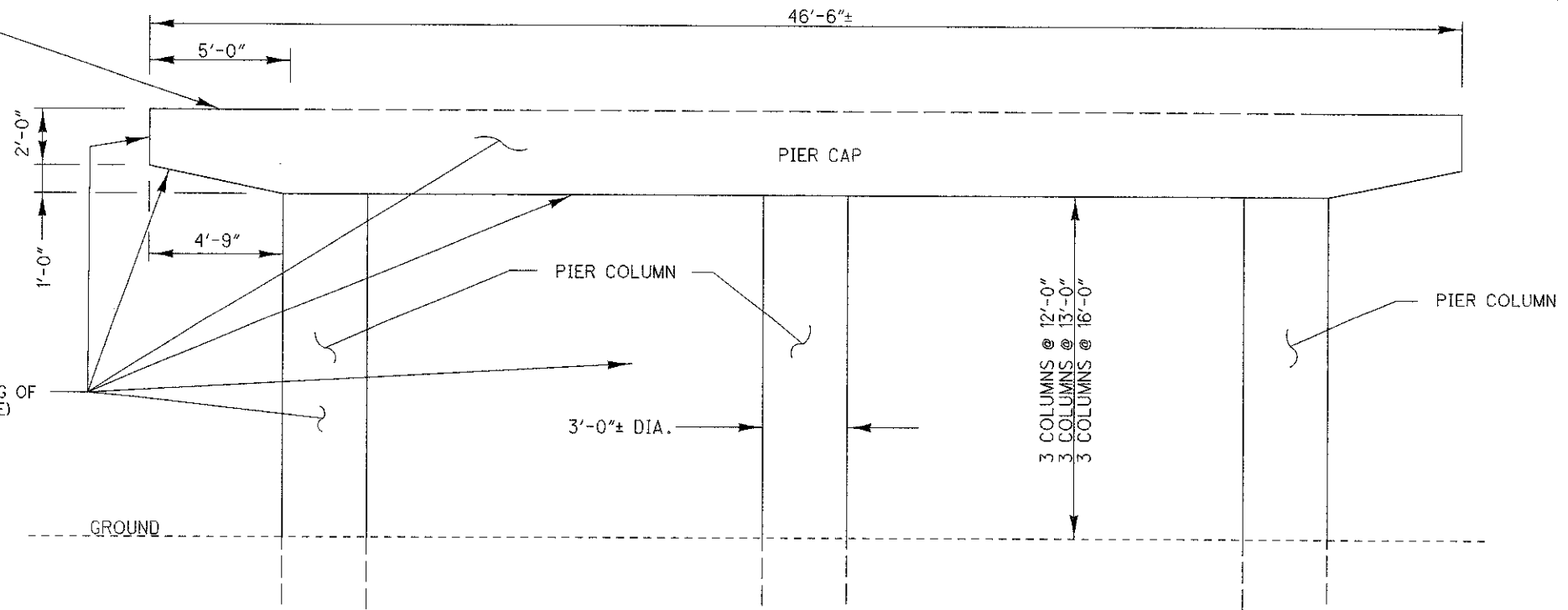
102  
116

DESIGN FILE: I:\projects\79352\structures\RIC301640.dgn  
 WORKSTATION:Kknapp DATE: 7/12/2010

MODELNAME: Design

SEAL END 5' OF TOP OF PIER CAP USING ITEM 512-  
 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)  
 TYP. ALL PIER CAPS.

AREA TO SEAL USING ITEM 512-SEALING OF  
 CONCRETE SURFACES (EPOXY-URETHANE)  
 TYP. ALL PIER CAPS AND COLUMNS



ITEM	QUANTITY	UNIT	DESCRIPTION
512	992	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

NOTES:

1) SEAL ALL EXPOSED AREAS OF WINGWALLS, ABUTMENTS AND PARAPETS WITH ITEM 512

ALL QUANTITIES CARRIED TO SHEET 1/4.

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10  
 REVISION  
 RDN  
 STRUCTURE FILE NUMBER  
 7001517

DESIGNED  
 DCM  
 CHECKED  
 DJV

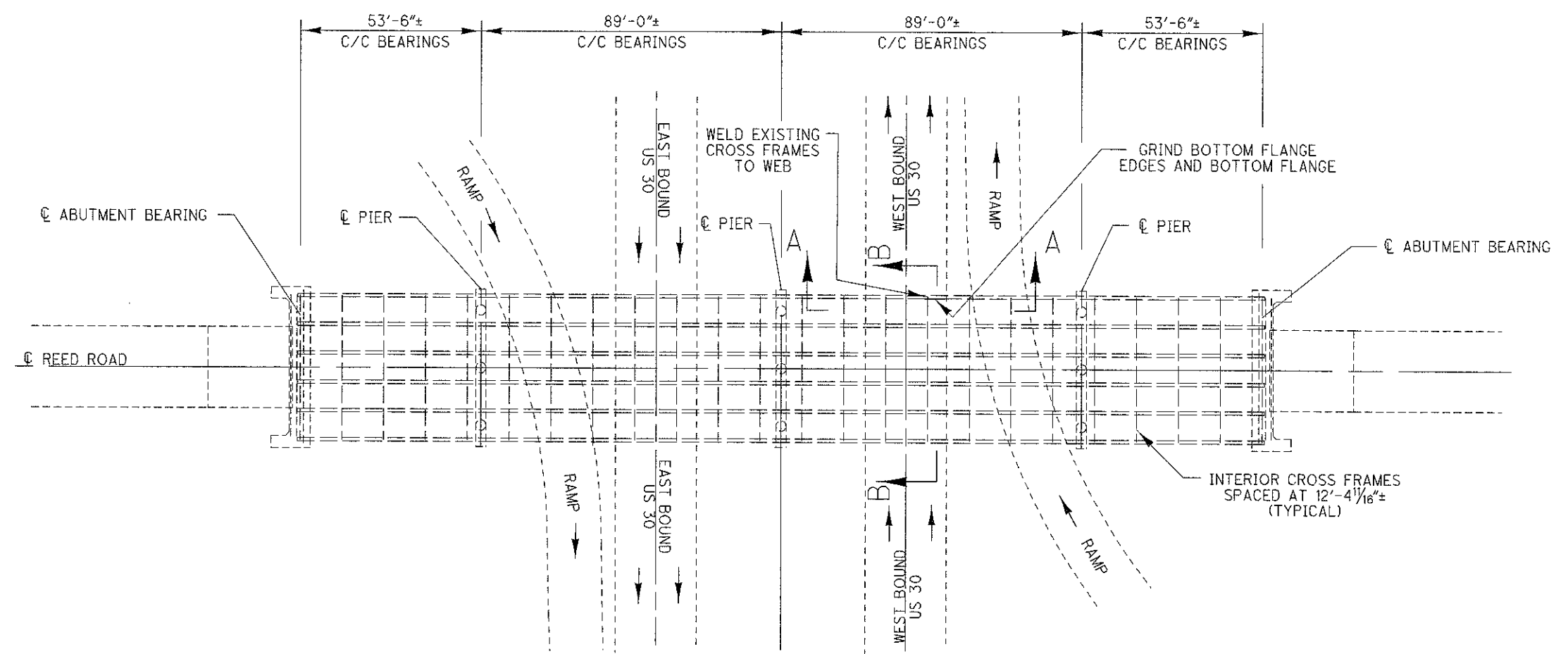
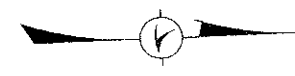
SEALING DETAILS  
 RIC-30-1640 UNDER REED ROAD

RIC/ ASD-30-13.18 / 0.00  
 RIC-42-13.74

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PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
513	LUMP		STRUCTURAL STEEL, MISC.: REWELDING EXISTING CROSS FRAME MEMBERS
514	62	SQ FT	FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN
849	LUMP		SURFACE PREPARATION
849	3	HOUR	REPAIRING DAMAGED MEMBERS BY GRINDING

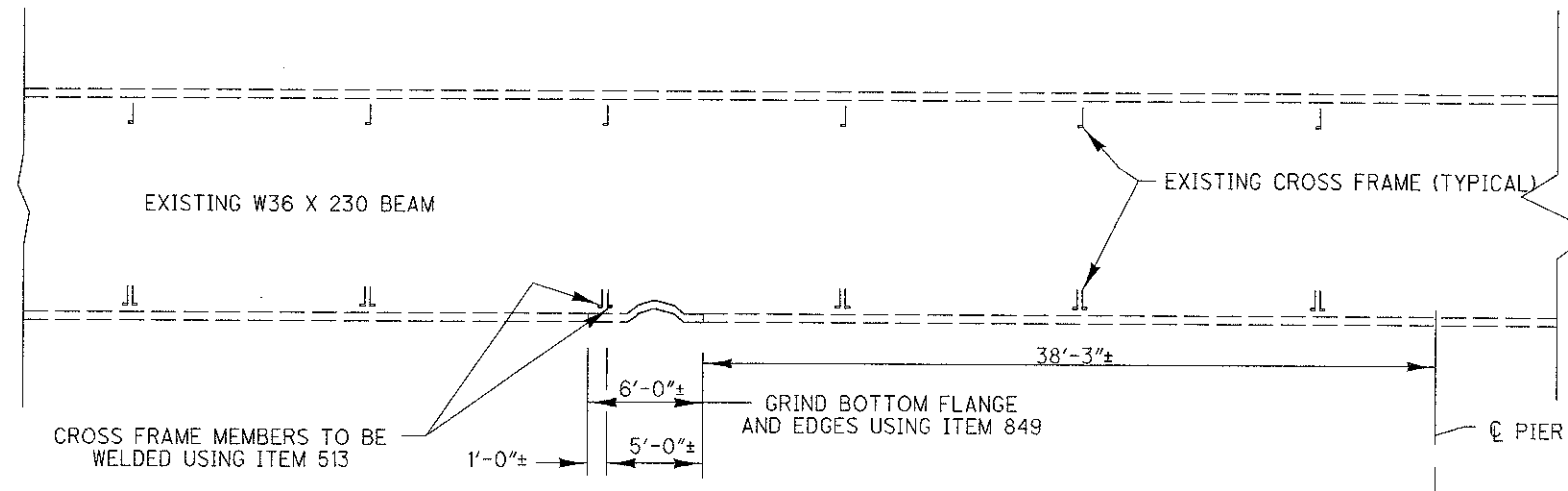
ALL QUANTITIES CARRIED TO SHEET 1/4.

NOTES:

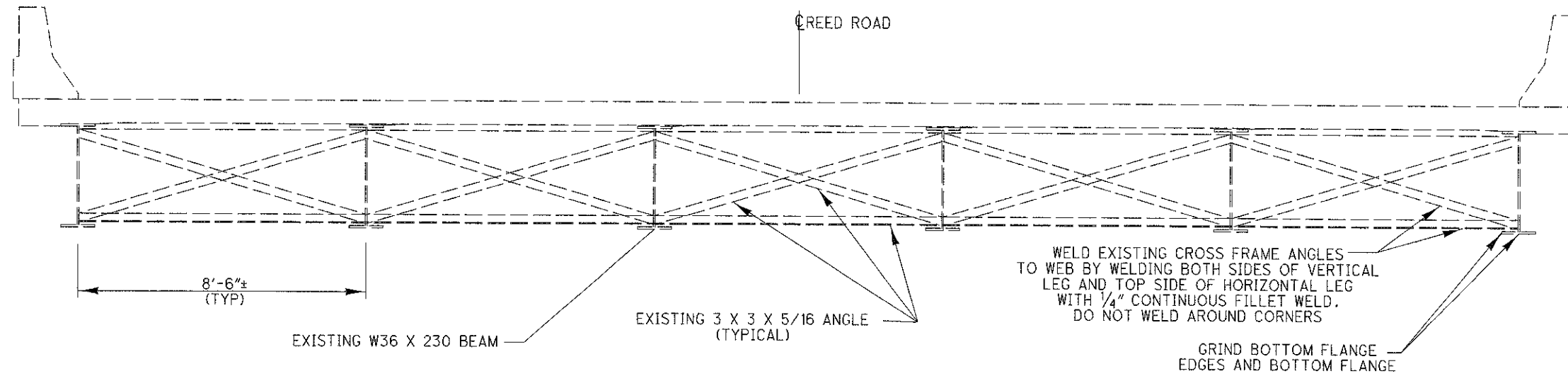
- SEE SHEET 4/4 FOR SECTIONS A-A AND B-B.
- GRIND BOTTOM FLANGE AND BOTTOM FLANGE EDGES USING ITEM 849-REPAIRING DAMAGED MEMBERS BY GRINDING.
- PERFORM SURFACE PREPARATION AS PER ITEM 849-SURFACE PREPARATION.
- GRIND OFF EXISTING WELDS AND REWELD TWO CROSS FRAME MEMBERS AT LOCATIONS SHOWN BY USING ITEM 513-STRUCTURAL STEEL, MISC.: REWELDING EXISTING CROSS FRAME MEMBERS.
- PAINT AREAS THAT ARE DAMAGED BY THE GRINDING AND WELDING USING ITEM 514-FIELD PAINTING OF DAMAGED STRUCTURAL STEEL, AS PER PLAN.

DESIGN FILE: I:\projects\79352\structures\RIC301640.dgn  
 WORKSTATION:Kknapp DATE: 7/12/2010 MODELNAME: Design

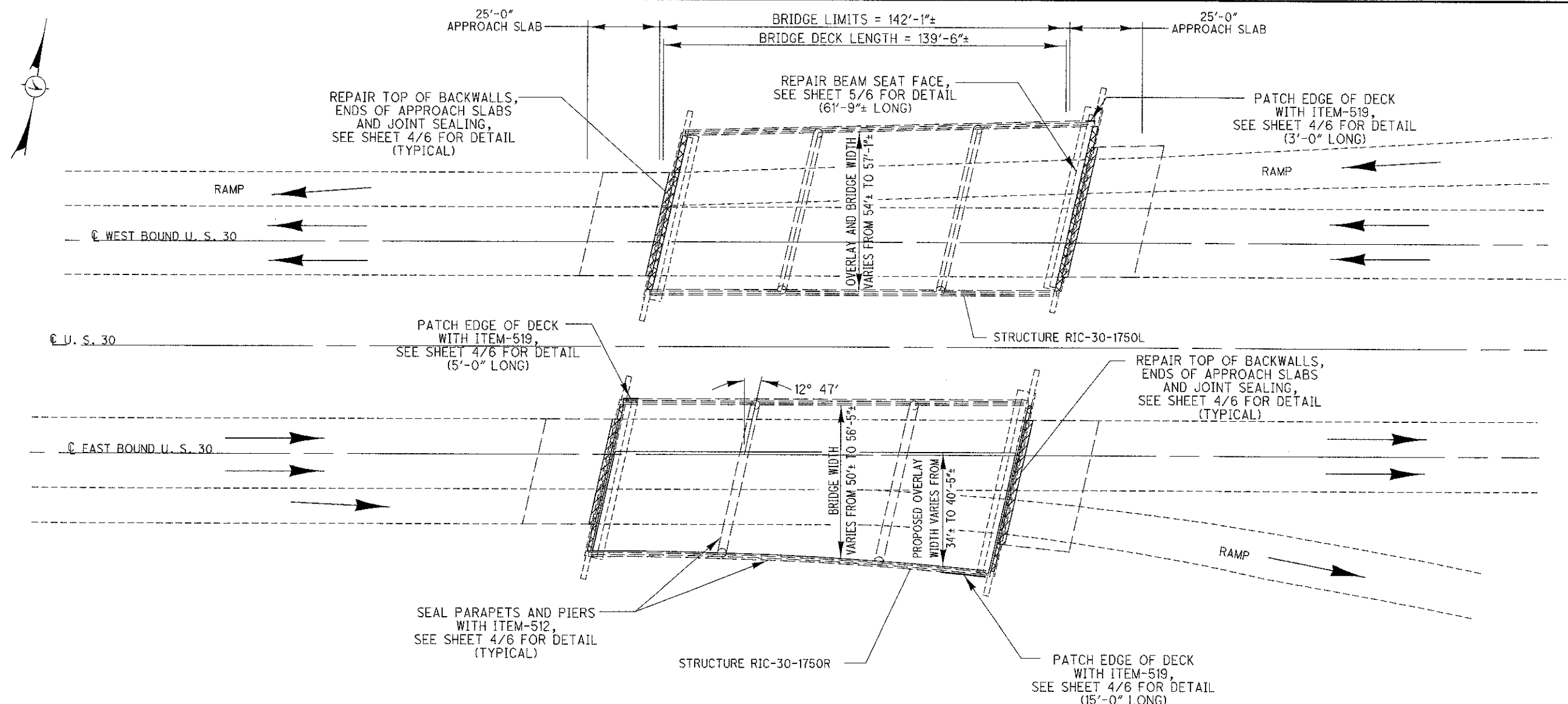
DESIGN AGENCY <b>ODOT DISTRICT THREE</b> OFFICE OF PRODUCTION	DATE 6/10	REVIEWED RDN	STRUCTURE FILE NUMBER 7001517	<b>COLLISION REPAIR DETAILS</b> <b>RIC-30-1640 UNDER REED ROAD</b>	<b>RIC / ASD-30-13.18 / 0.00</b> <b>RIC-42-13.74</b>
DRAWN DCM	DESIGNED DCM	CHECKED DUJ	REVISED	3 / 4	104 116



SECTION A-A



SECTION B-B



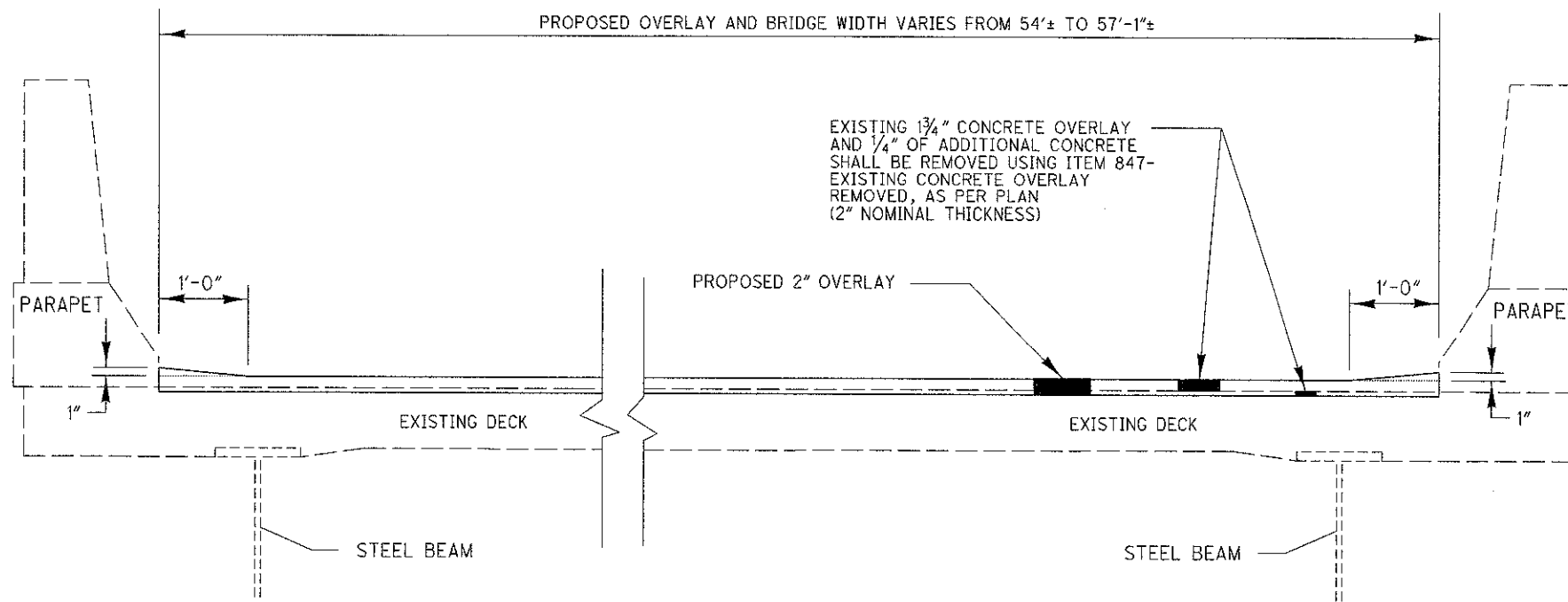
ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1750L	RIC-30-1750R		
202	8.6	4.7	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	4.2	3.8	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	5.6	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
SPECIAL	861	577	SQ YD	BRIDGE DECK GROOVING
512	548	536	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
516	203	191	FT	JOINT SEALER
518	14	14	EACH	SCUPPER LENGTHENING, AS PER PLAN
519	7	45	SQ FT	PATCHING CONCRETE STRUCTURE
847	861	577	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)
847	33	19	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN
847	LUMP	LUMP		TEST SLAB
847	1		CU YD	FULL DEPTH REPAIR
847	861	577	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)
847	69	46	SQ YD	HAND CHIPPING

- NOTES:
- 1) SEE SHEET 6/6 FOR SCUPPER REPAIR DETAILS.
  - 2) SEE SHEET 4/6 FOR DECK EDGE PATCHING.
  - 3) SEE SHEET 4/6 FOR BACKWALL AND APPROACH SLAB REPAIR DETAILS.
  - 4) SEE SHEET 3/6 FOR SEALING DETAILS.
  - 5) SEE SHEET 5/6 FOR ABUTMENT BEAM SEAT REPAIR.
  - 6) OVERLAY LEFT STRUCTURE FULL WIDTH, OVERLAY RIGHT STRUCTURE PARTIAL WIDTH, SEE SHEET 2/6 FOR OVERLAY DETAILS.

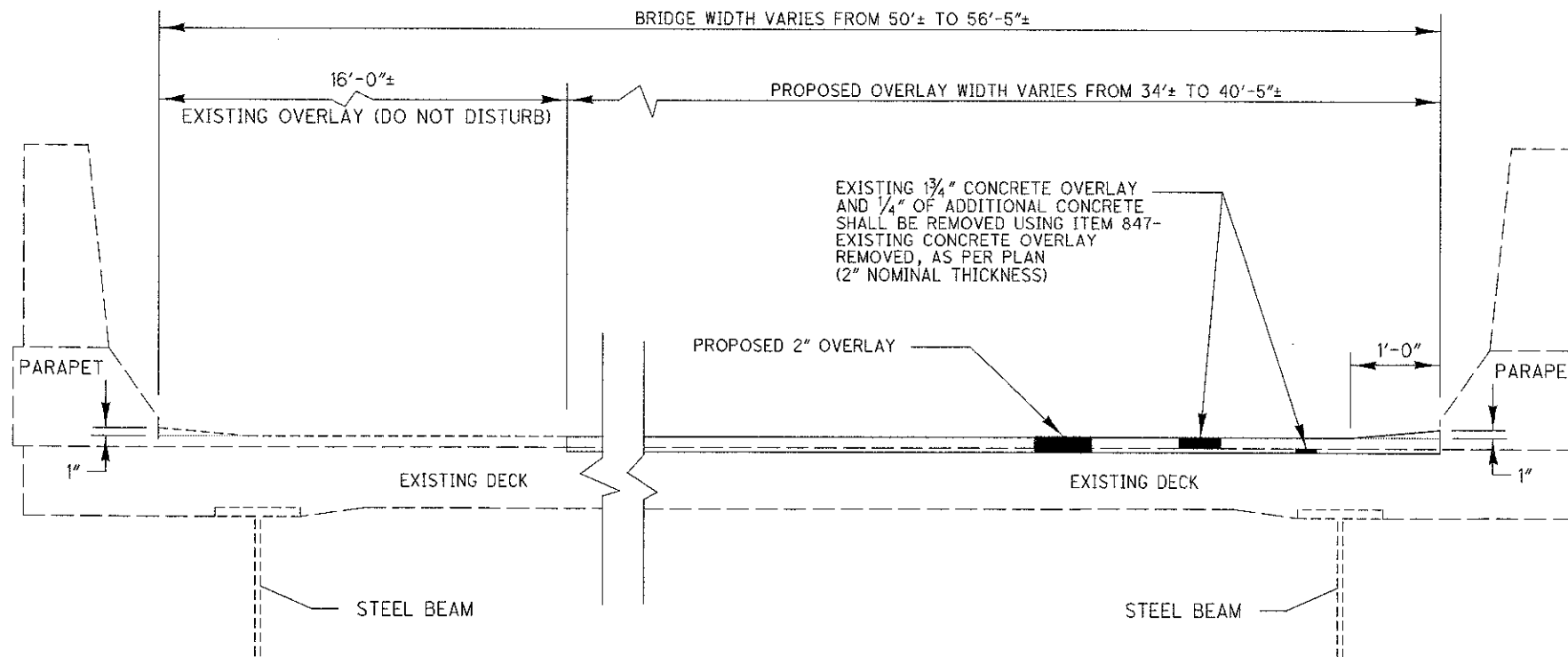
ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.

DESIGN FILE: I:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION: KKnapp  
 MODELNAME: Design  
 DATE: 7/12/2010

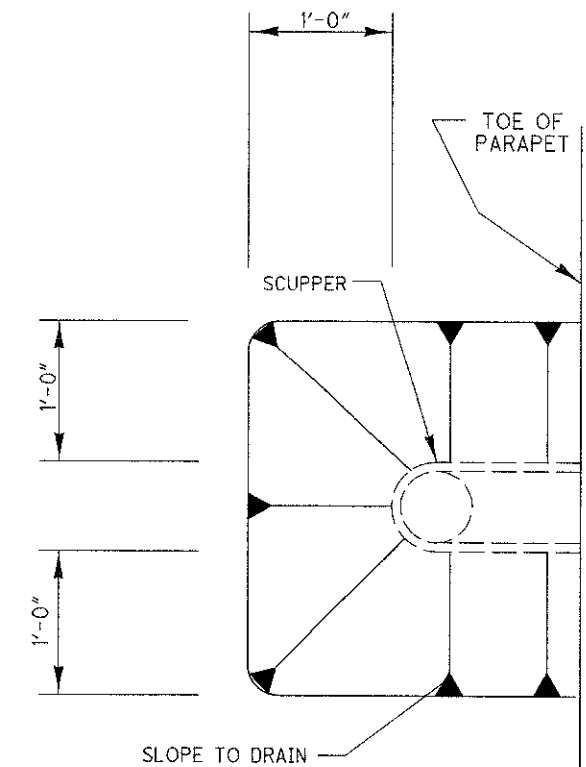
DESIGN FILE: I:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION:KKnapp  
 MODELNAME: Design  
 DATE: 7/12/2010



OVERLAY DETAIL RIC-30-1750L

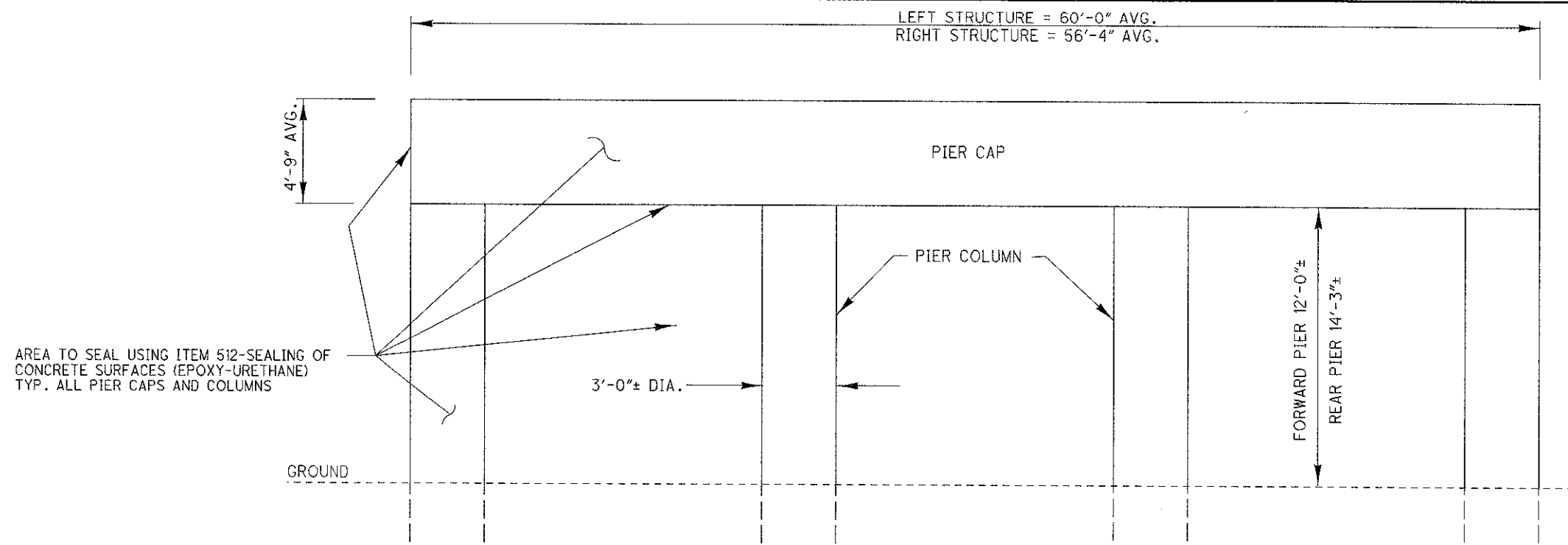


OVERLAY DETAIL RIC-30-1750R

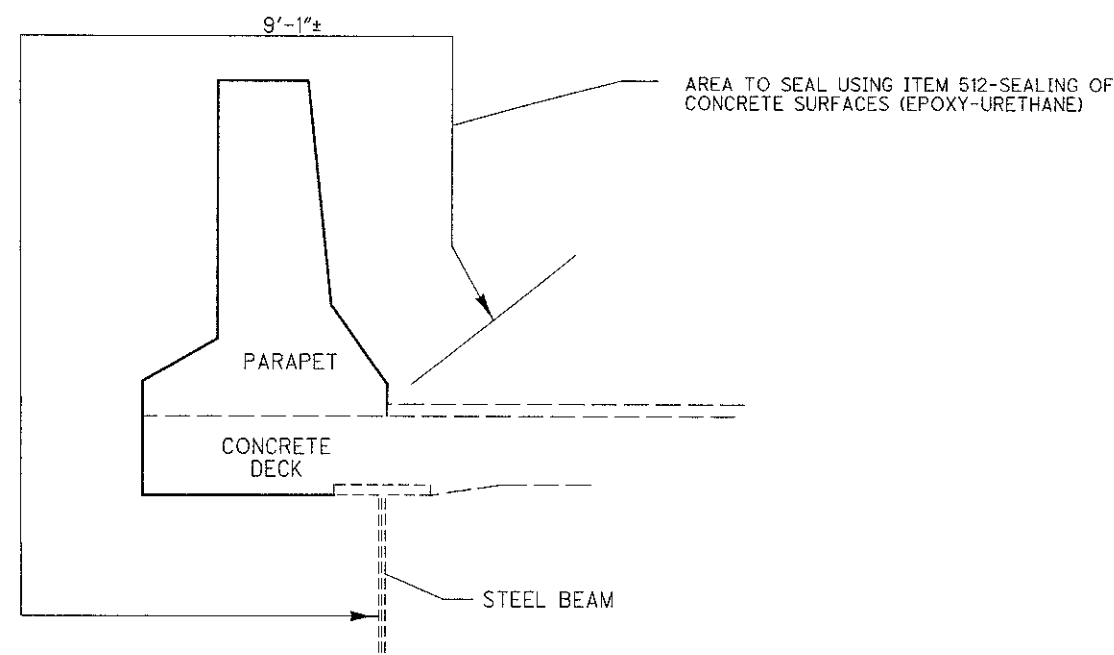


PLAN AT SCUPPER

DESIGN FILE: I:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION: kknapp  
 MODELNAME: Design  
 DATE: 7/12/2010



PIER SEALING ELEVATION VIEW  
 PIER WIDTH = 3'-0"



PARAPET SEALING DETAIL

(PARAPET SEALING LENGTH = LEFT STRUCTURE = 139'-1"±)  
 (PARAPET SEALING LENGTH = RIGHT STRUCTURE = 138'-2"±)

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1750L	RIC-30-1750R		
512	548	536	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

ALL QUANTITIES CARRIED TO SHEET 1/6.

NOTES:  
 1) SEAL PARAPETS WITH ITEM 512

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

REVIEWED  
 RDN  
 DATE  
 6/10

STRUCTURE FILE NUMBER  
 7001568 & 7001592

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 DCM  
 REVISYED

DESIGNED  
 DCM  
 CHECKED  
 DJV

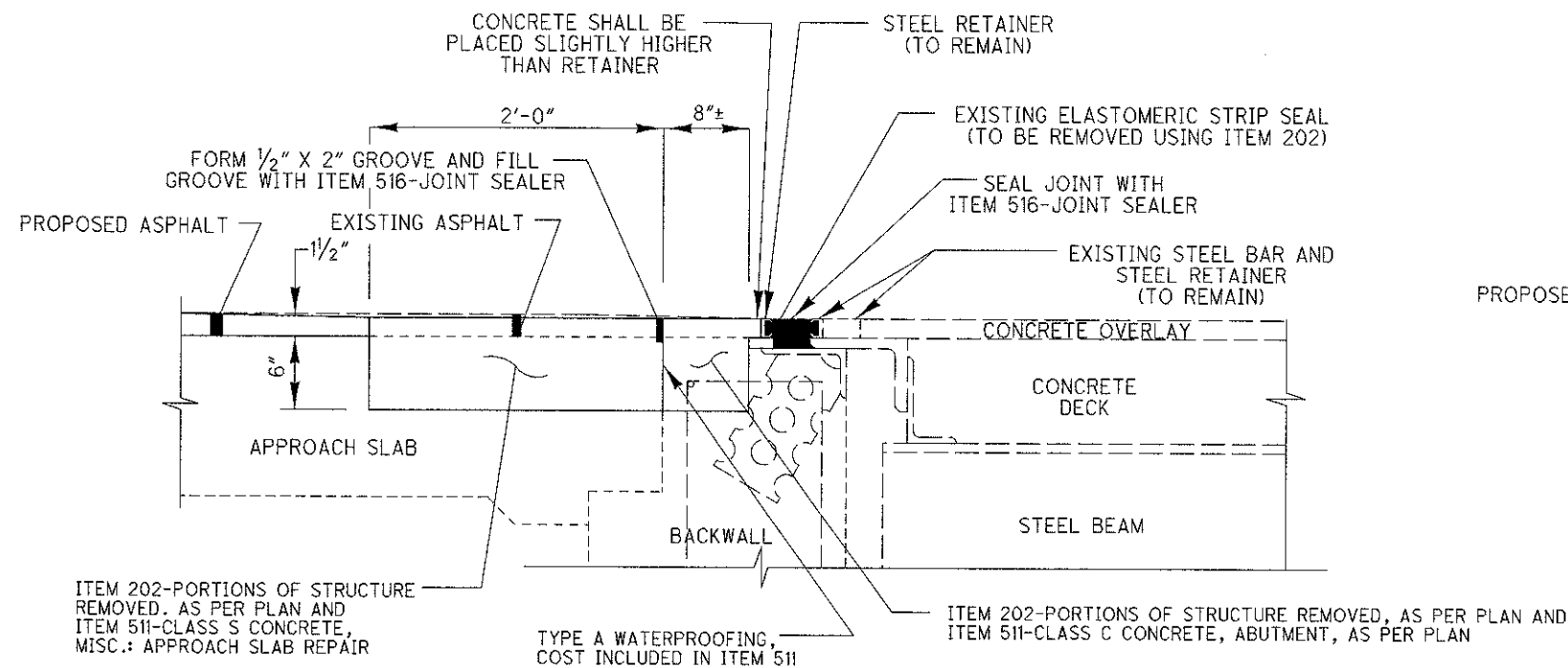
SEALING DETAILS  
 RIC-30-1750L&R OVER KOOGLE ROAD

RIC/ ASD-30-13.18 / 0.00  
 RIC-42-13.74

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DESIGN FILE: i:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION: KKnapp DATE: 7/12/2010 MODELNAME: Design



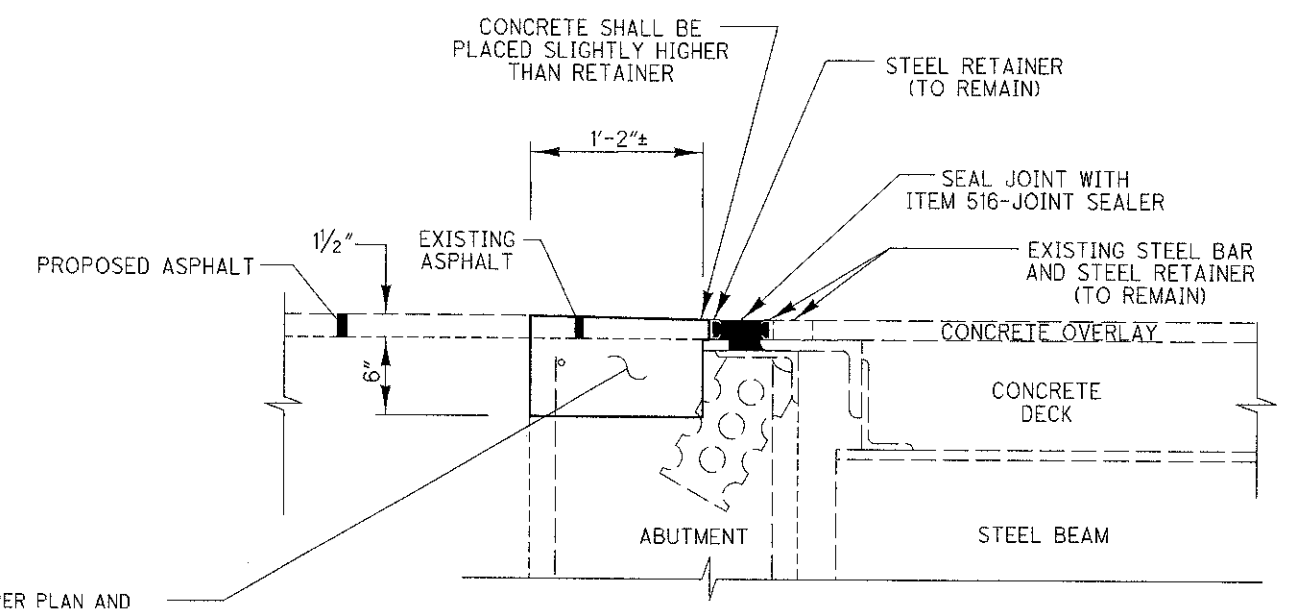
ITEM 202-PORIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR

TYPE A WATERPROOFING, COST INCLUDED IN ITEM 511

ITEM 202-PORIONS OF STRUCTURE REMOVED, AS PER PLAN AND ITEM 511-CLASS C CONCRETE, ABUTMENT, AS PER PLAN

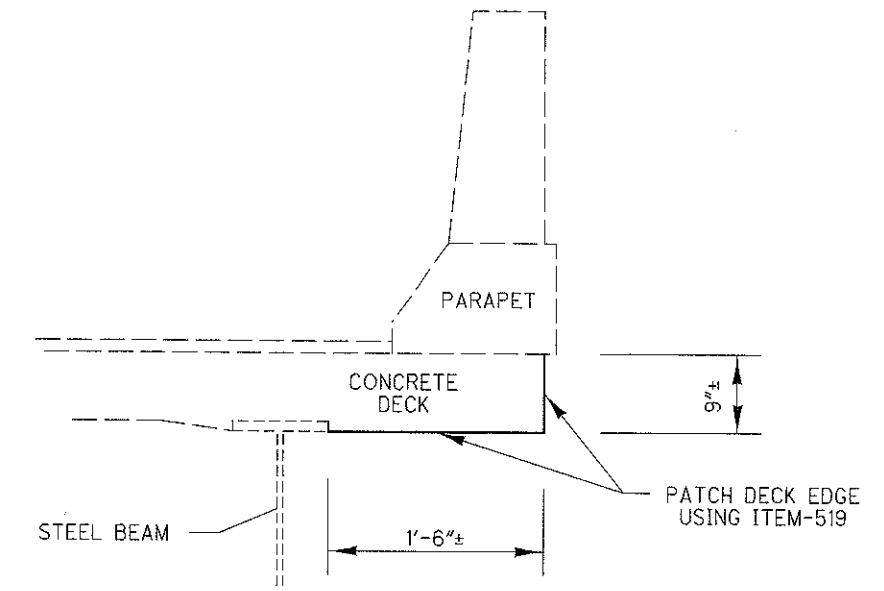
### ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB

- (BACKWALL REPAIR, APPROACH SLAB AND 2-JOINT SEALING LENGTH = 36'-11"± REAR RIGHT STRUCTURE)
- (BACKWALL REPAIR, APPROACH SLAB AND 2-JOINT SEALING LENGTH = 43'-10"± FORWARD RIGHT STRUCTURE)
- (BACKWALL REPAIR, APPROACH SLAB AND 2-JOINT SEALING LENGTH = 42'-9"± REAR LEFT STRUCTURE)
- (BACKWALL REPAIR, APPROACH SLAB AND 2-JOINT SEALING LENGTH = 46'-6"± FORWARD LEFT STRUCTURE)



### ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL BEYOND APPROACH SLAB

- (BACKWALL REPAIR AND 1-JOINT SEALING LENGTH = 14'-4"± TOTAL/ABUTMENT RIGHT STRUCTURE)
- (BACKWALL REPAIR AND 1-JOINT SEALING LENGTH = 12'-3"± TOTAL/ABUTMENT LEFT STRUCTURE)



### TYPICAL EDGE OF DECK PATCHING

(3- LOCATIONS, SEE SHEET 1/6 FOR LOCATIONS AND LENGTHS)

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1750L	RIC-30-1750R		
202	5	4.7	CU YD	PORIONS OF STRUCTURE REMOVED, AS PER PLAN
511	4.2	3.8	CU YD	CLASS S CONCRETE, MISC.: APPROACH SLAB REPAIR
511	2	2	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN
512	203	191	FT	JOINT SEALER
519	7	45	SQ FT	PATCHING CONCRETE STRUCTURE

ALL QUANTITIES CARRIED TO SHEET 1/6.

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10

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 RDN  
 STRUCTURE FILE NUMBER  
 7001566 & 7001592

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 DCM  
 CHECKED  
 DJV

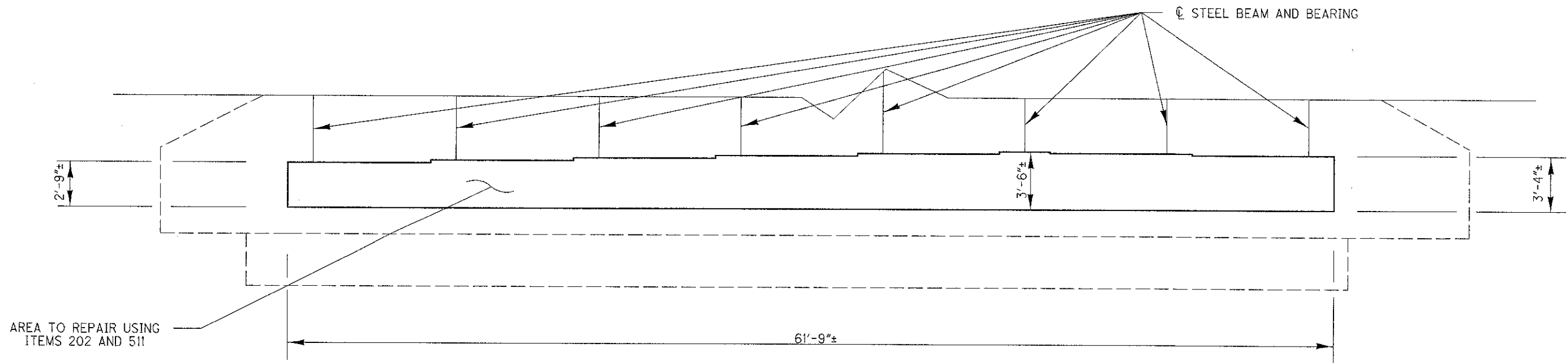
REPAIR DETAILS  
 RIC-30-1750L&R OVER KOOGLE ROAD

RIC/ASD-30-13-18/0.00  
 RIC-42-13.74

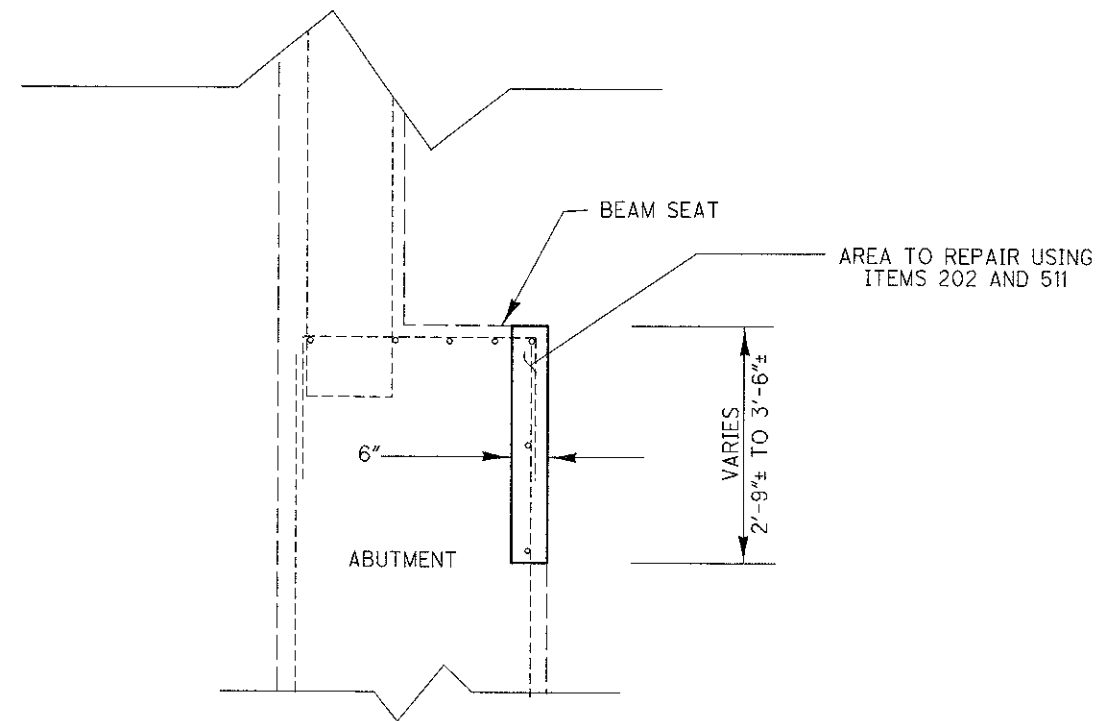
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DESIGN FILE: I:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION:Kknapp DATE: 7/12/2010 MODELNAME: Design



FORWARD ABUTMENT ELEVATION VIEW  
(LEFT STRUCTURE)



SECTION VIEW THROUGH REPAIR

ITEM	QUANTITY	UNIT	DESCRIPTION
	RIC-30-1750L		
202	3.6	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
511	3.6	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)

ALL QUANTITIES CARRIED TO SHEET 1/6.

NOTES:

1) BEARING AND STEEL BEAM NOT SHOWN

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10  
 REVIEWED  
 RON  
 STRUCTURE FILE NUMBER  
 7001568

DRAWN  
 DCM  
 REVISION  
 DUV

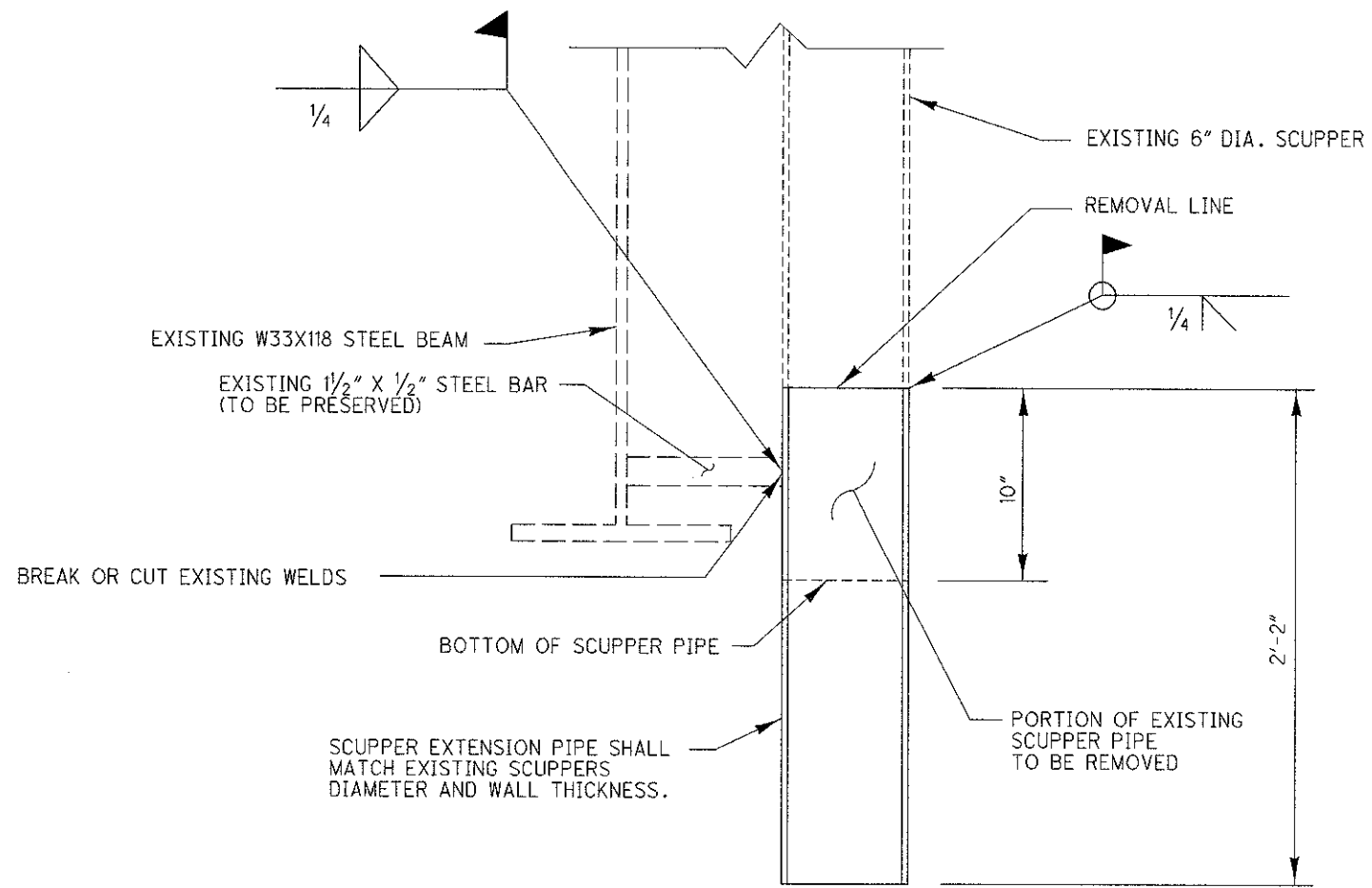
BEAM SEAT REPAIR DETAILS  
 RIC-30-1750L OVER KOOGLE ROAD

RIC/ASD-30-13.18/0.00  
 RIC-42-13.74

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DESIGN FILE: I:\projects\79352\structures\RIC301750.dgn  
 WORKSTATION:KKnapp  
 DATE: 7/12/2010  
 MODELNAME: Design



SCUPPER LENGTHENING

ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1750L	RIC-30-1750R		
518	14	14	EACH	SCUPPER LENGTHENING, AS PER PLAN

ALL QUANTITIES CARRIED TO SHEET 1/6.

DESIGN AGENCY  
 ODOT DISTRICT THREE  
 OFFICE OF PRODUCTION

DATE  
 6/10

REVIEWED  
 RDN

STRUCTURE FILE NUMBER  
 7001568 & 7001592

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DESIGNED  
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 DJV

SCUPPER REPAIR DETAILS  
 RIC-30-1750 L&R OVER KOOGLE ROAD

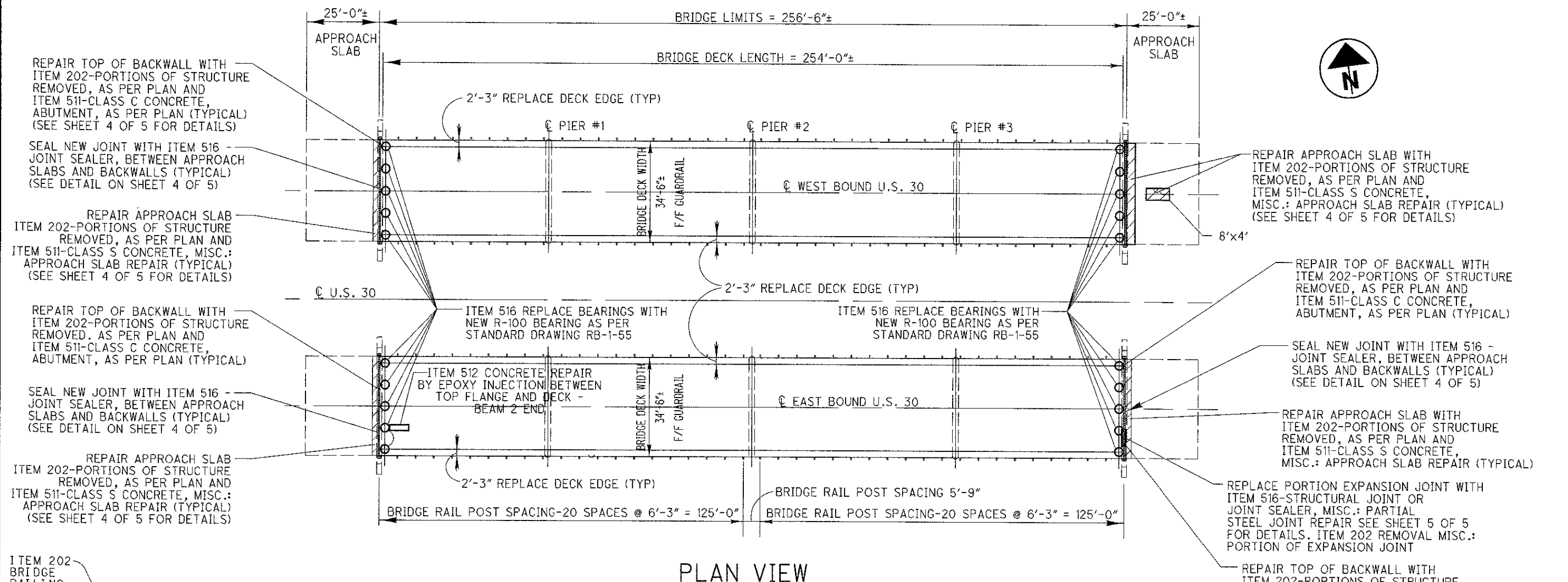
RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

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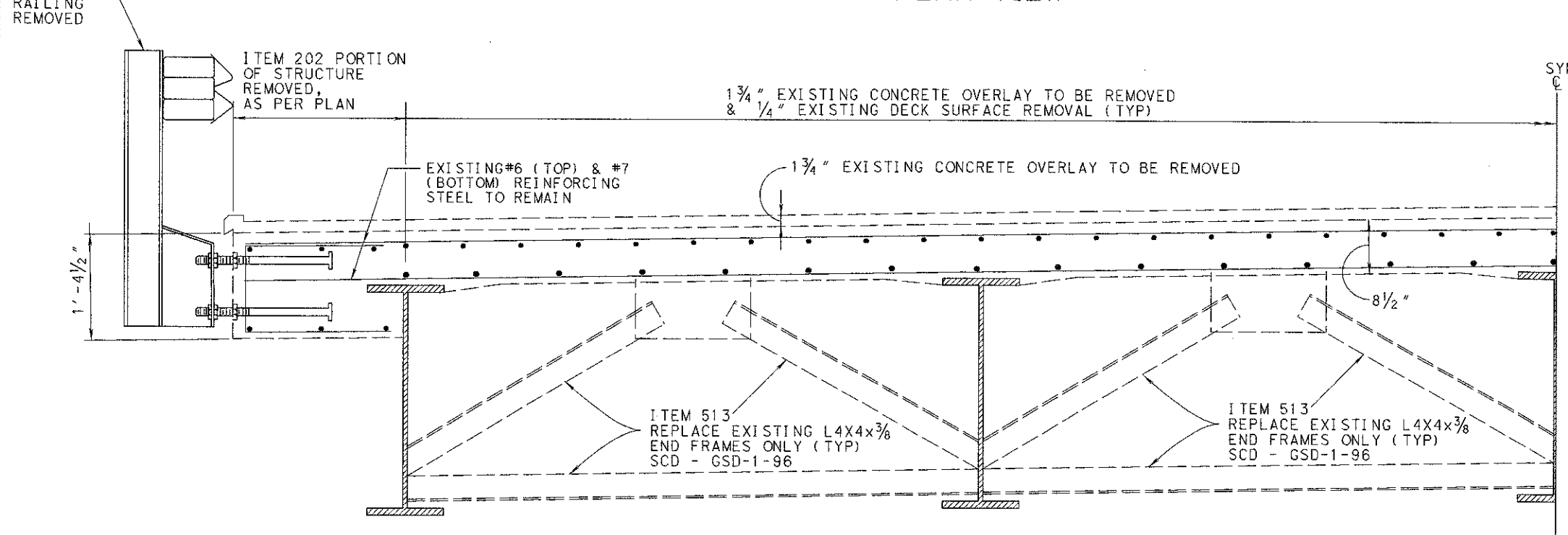
111  
 116



DESIGN FILE: I:\projects\79352\structures\RIC301915.dgn  
 WORKSTATION: Knapp DATE: 7/12/2010  
 MODELNAME: Design



PLAN VIEW



EXISTING BRIDGE CROSS SECTION

EXISTING STRUCTURE	
TYPE:	CONTINUOUS STEEL BEAM W/ REINFORCED CONCRETE DECK AND SUBSTRUCTURES
SPANS:	56'; 70'; 70'; 56' C/C BEARINGS
ROADWAY WIDTH:	34'-6" F/F GUARDRAIL
SKIEW:	NO SKIEW
APPROACH SLABS:	25'-0"± LONG
ALIGNMENT:	TANGENT
DATE BUILT:	1957 (REHAB 1985)
WEARING SURFACE:	1-3/4" SUPERPLASTICIZED DENSE CONCRETE OVERLAY
SUPERELEVATION:	NONE
STRUCTURAL FILE NO'S: 7001657(L) & 7001681(R)	
PROPOSED STRUCTURE	
WEARING SURFACE:	2" SUPERPLASTICIZED DENSE CONCRETE OVERLAY

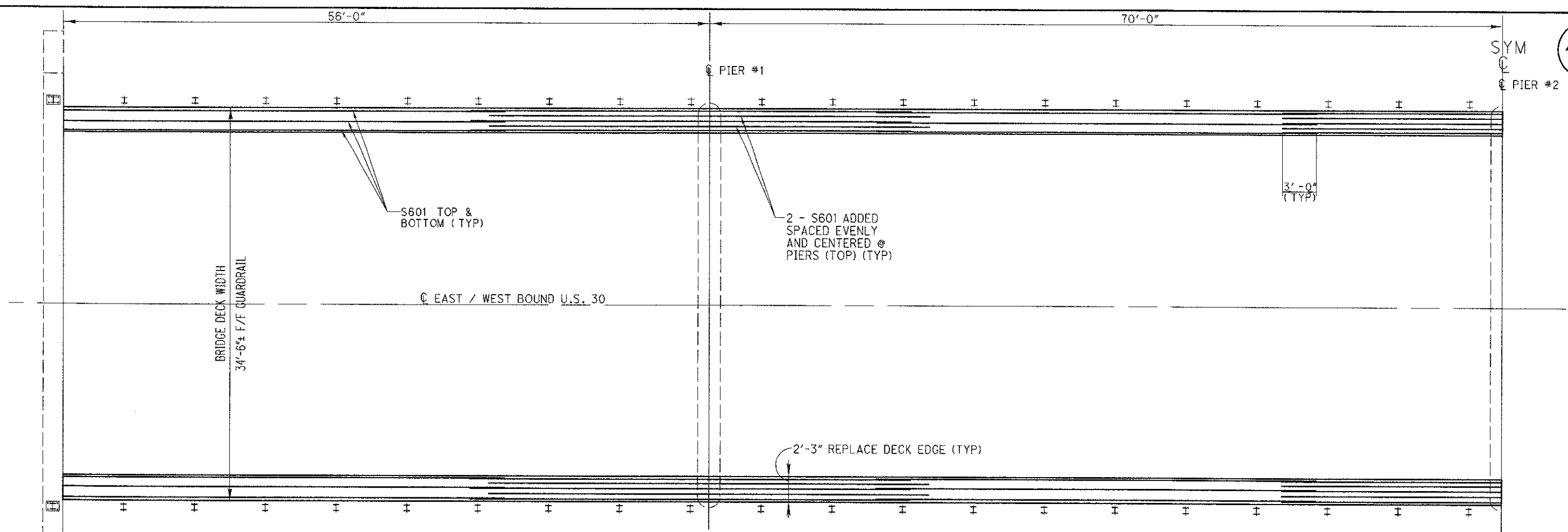


DESIGN AGENCY: DISTRICT THREE OFFICE OF PRODUCTION  
 REVIEWED: DATE: 7/8/2010  
 RDN: STRUCTURE FILE NUMBER: 7001657(L) & 7001681(R)  
 DRAWN: ACH  
 DESIGNED: ACH  
 CHECKED: DJV  
**PLAN VIEW - BRIDGE SECTION**  
**RIC-30-1915L&R OVER BLACK FORK**  
 RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74  
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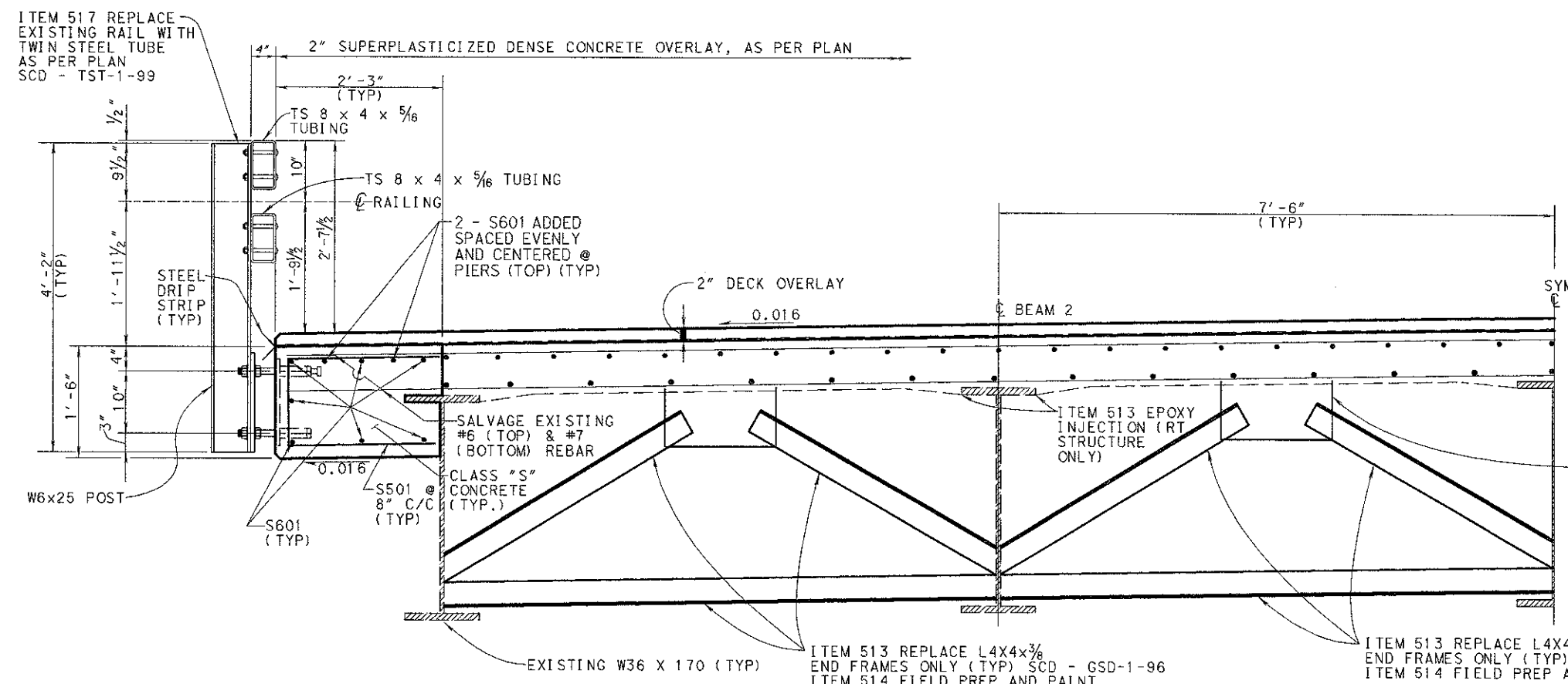
ITEM	QUANTITY		UNIT	DESCRIPTION
	RIC-30-1915L	RIC-30-1915R		
202	10.3	5.8	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
202	56.4	56.4	CU YD	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN (DECK EDGE)
202	523	523	FT	BRIDGE RAILING REMOVED
202	-	LUMP		REMOVAL MISC.: PORTION OF EXPANSION JOINT
202	10	10	EACH	REMOVAL MISC.: ROCKER BEARINGS
202	69	69	FT	REMOVAL MISC.: ELASTOMERIC COMPRESSION SEAL
509	10337	10337	POUND	EPOXY COATED REINFORCING STEEL
511	62.2	62.2	CU YD	CLASS S CONCRETE, SUPERSTRUCTURE, AS PER PLAN (REPAIR OR RECONSTRUCTION)
511	5.1	3.4	CU YD	CLASS S CONCRETE MISC.: APPROACH SLAB REPAIR
511	5.2	2.4	CU YD	CLASS C CONCRETE, ABUTMENT, AS PER PLAN (REPAIR)
SPECIAL	974	974	SQ YD	BRIDGE DECK GROOVING
512	-	20	FT	CONCRETE REPAIR BY EPOXY INJECTION, AS PER PLAN
513	1738	1738	POUND	REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN
513	LUMP	LUMP		STRUCTURAL STEEL, MISC.: WELDING CRACKED EXPANSION ANGLE
514	1127	1127	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN
514	1127	1127	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN
514	1127	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN
514	1127	1127	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN
514	4	4	MAN HOUR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL
516	69	69	FT	ELASTOMERIC COMPRESSION SEAL, AS PER PLAN
516	-	6	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: PARTIAL STEEL JOINT REPAIR
516	69	69	FT	JOINT SEALER
516	10	10	EACH	BEARING DEVICE, ROCKER
516	LUMP	LUMP		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
517	521.34	521.34	FT	RAILING (TWIN STEEL TUBE), AS PER PLAN
SPECIAL	628	628	FT	STEEL DRIP STRIP
847	974	974	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY, AS PER PLAN (2" THICK)
847	32	32	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), AS PER PLAN
847	LUMP	LUMP		TEST SLAB
847	974	974	SQ YD	EXISTING CONCRETE OVERLAY REMOVED, AS PER PLAN (2" NOMINAL THICKNESS)
847	78	78	SQ YD	HAND CHIPPING

ALL QUANTITIES CARRIED TO STRUCTURE SUMMARY SHEET.

DESIGN FILE: I:\projects\79352\structures\RIC301915.dgn  
 WORKSTATION:KKnapp  
 MODELNAME: Design  
 DATE: 7/12/2010

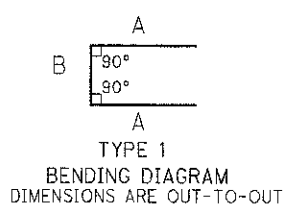


PROPOSED BRIDGE PLAN VIEW



PROPOSED BRIDGE CROSS SECTION

EPOXY REINFORCING STEEL LIST							
MARK	NO.	LENGTH	TYPE	A	B	WEIGHT (LBS)	
S501	764	4'-11"	1	2'-0"	1'-2"	3921	
S601	110	38'-10"	STR.			6416	
LEFT STRUCTURE						TOTAL WEIGHT	10337
S501	764	4'-11"	1	2'-0"	1'-2"	3921	
S601	110	38'-10"	STR.			6416	
RIGHT STRUCTURE						TOTAL WEIGHT	10337

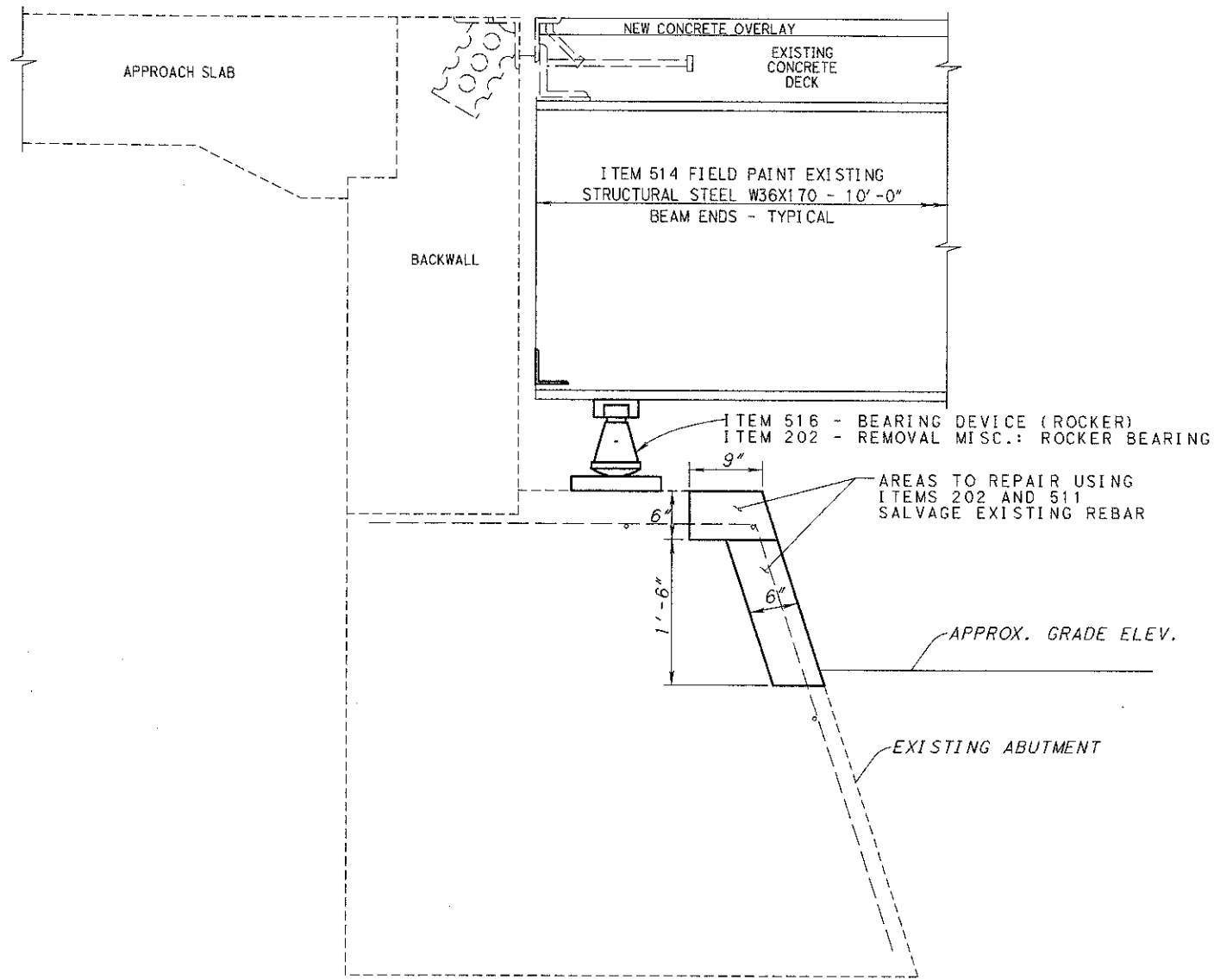


ITEM 513 REPLACEMENT OF DETERIORATED END CROSSFRAMES, AS PER PLAN - 1/2" GUSSET PLATES HAVE BEEN INCLUDED IN ITEM 513 AND ITEM 514 FIELD PREP AND PAINT. (TYP)

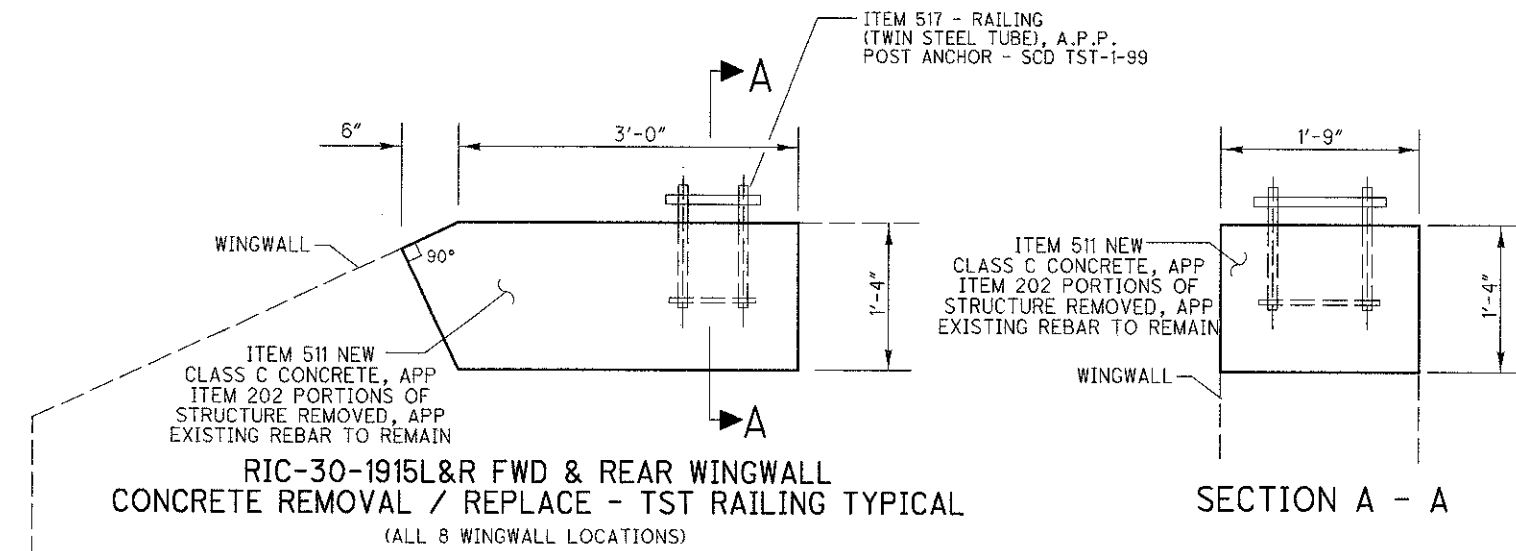


DESIGN AGENCY  
 DISTRICT THREE  
 OFFICE OF PRODUCTION  
 DATE  
 7/8/2010  
 STRUCTURE FILE NUMBER  
 7001657(L) & 700168(R)  
 DRAWN  
 ACH  
 REVISIONS  
 CHECKED  
 D.J.V.  
 BRIDGE DETAILS  
 RIC-30-1915L&R OVER BLACK FORK  
 RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74  
 3 / 5  
 114  
 116

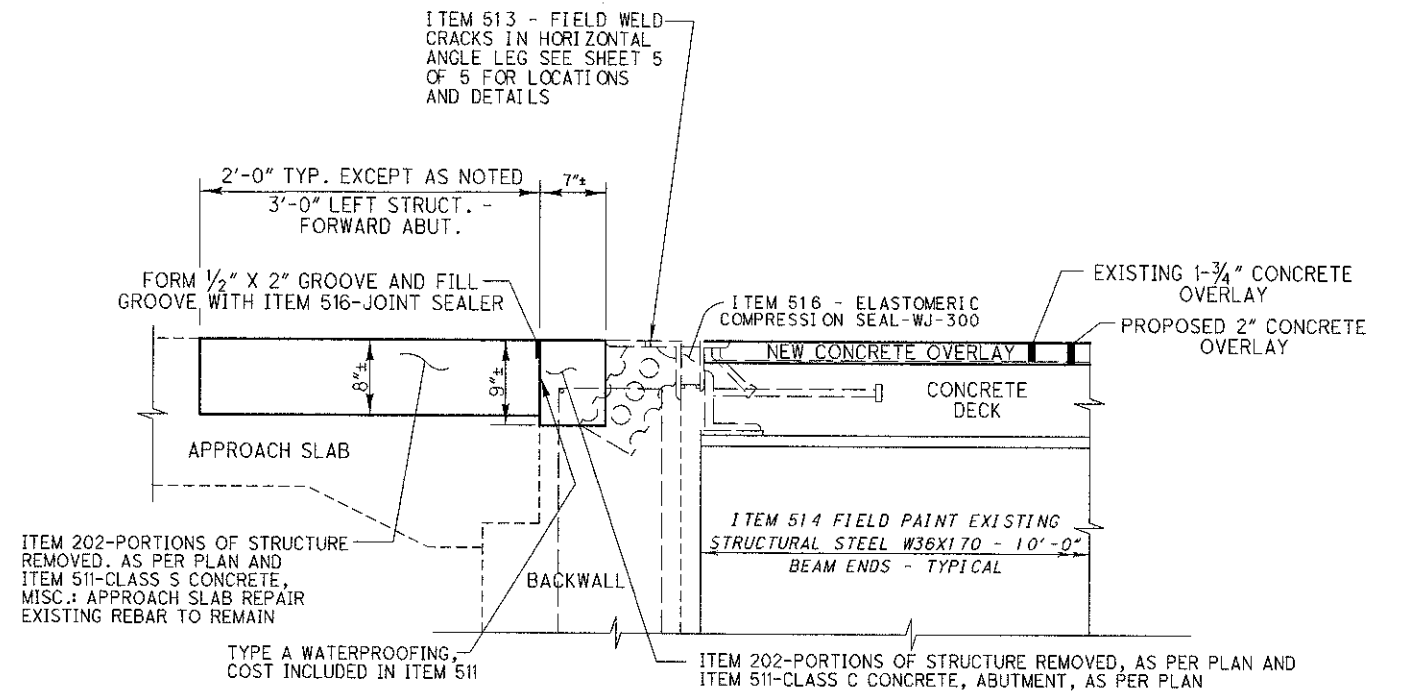
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 WORKSTATION: Knapp DATE: 7/12/2010  
 MODELNAME: Design



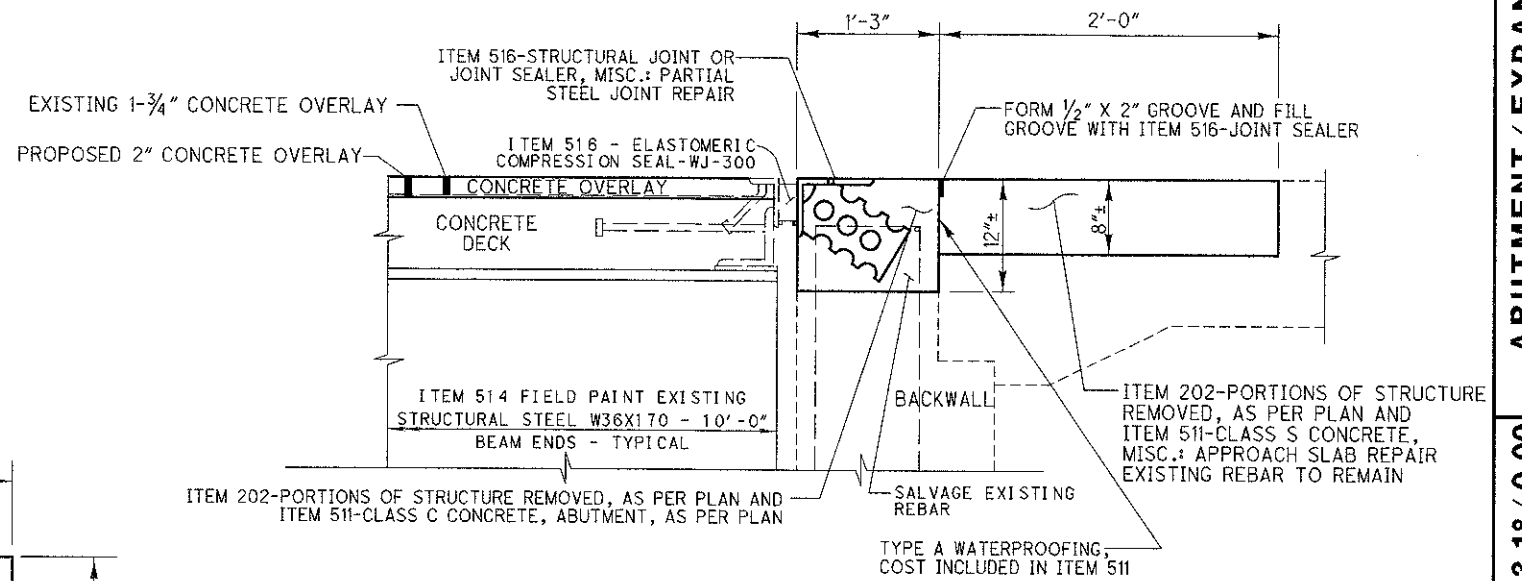
**RIC-30-1915L FWD & REAR ABUTMENT REPAIRS**  
 (ABUTMENT REPAIR LENGTH = 34'-6"±)



**RIC-30-1915L&R FWD & REAR WINGWALL CONCRETE REMOVAL / REPLACE - TST RAILING TYPICAL**  
 (ALL 8 WINGWALL LOCATIONS)



**ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB**  
 (BACKWALL REPAIR LENGTH = 34'-6"± TYP EXCEPT RIC-30-1915R FWD - 28'-6")  
 (APPROACH SLAB REPAIR LENGTH = 34'-6"±)



**RIC-30-1915R FORWARD ABUTMENT/BACKWALL REPAIR AND JOINT SEALING DETAIL AT APPROACH SLAB**  
 (BACKWALL REPAIR LENGTH = 6'-0"± SEE SHEET 1 OF 5 FOR LOCATION)  
 (APPROACH SLAB REPAIR LENGTH = 34'-6"±)

DESIGN AGENCY  
**DISTRICT THREE**  
 OFFICE OF PRODUCTION

REVIEWED DATE  
 RDN 7/8/2010  
 STRUCTURE FILE NUMBER  
 7001657(L) & 700168(R)

DRAWN BY  
 ACH  
 REVISION  
 CHECKED BY  
 DJV

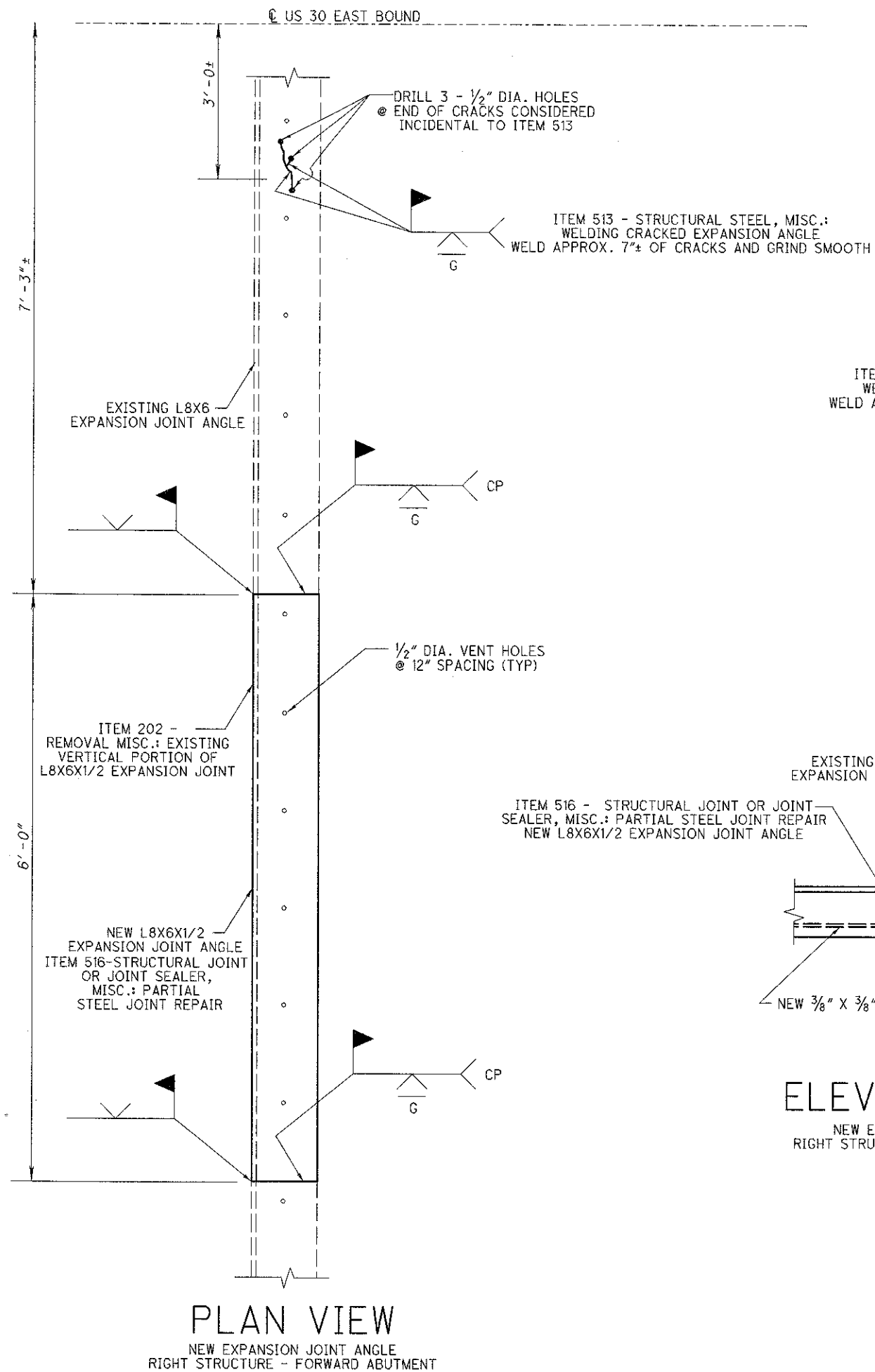
**ABUTMENT / EXPANSION JOINTS**  
**RIC-30-1915L&R OVER BLACK FORK**

RIC / ASD-30-13.18 / 0.00  
 RIC-42-13.74

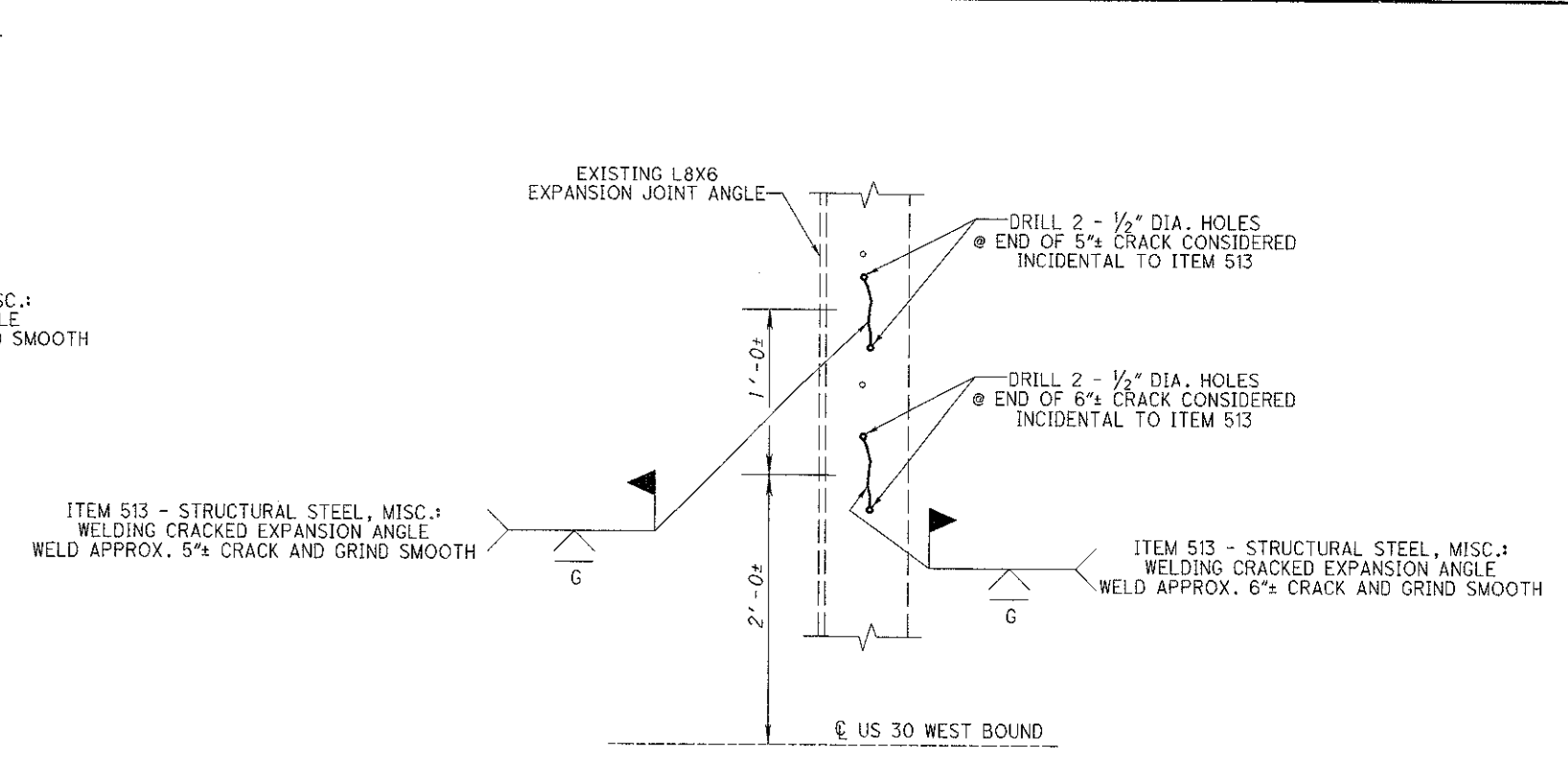
4 / 5

115  
 116

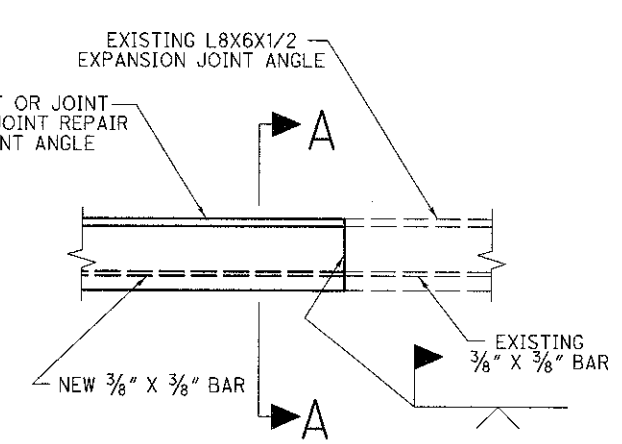
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 WORKSTATION: Kknapp DATE: 7/12/2010  
 MODELNAME: Design



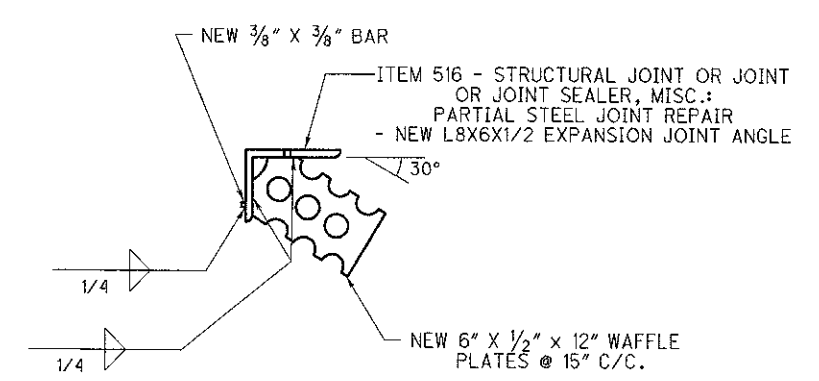
**PLAN VIEW**  
 NEW EXPANSION JOINT ANGLE  
 RIGHT STRUCTURE - FORWARD ABUTMENT



**PLAN VIEW**  
 EXISTING EXPANSION JOINT ANGLE  
 LEFT STRUCTURE - FORWARD ABUTMENT



**ELEVATION VIEW**  
 NEW EXPANSION JOINT ANGLE  
 RIGHT STRUCTURE - FORWARD ABUTMENT



**SECTION A - A**

NOTE:  
 ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: PARTIAL STEEL JOINT REPAIR  
 NEW L8X6X1/2 EXPANSION JOINT ANGLE  
 WILL INCLUDE THE NEW 3/8" X 3/8" BAR AND  
 NEW 6 X 1/2" X 12" WAFFLE PLATES AND BE  
 CONSIDERED INCIDENTAL TO THE EXPANSION JOINT ITEM 516

DESIGN AGENCY <b>DISTRICT THREE</b>	
DATE 7/8/2010	REVIEWED RON
STRUCTURE FILE NUMBER 70016571L & 70016581R	REVISOR DUJ
DESIGNED ADH	CHECKED DUJ
<b>EXPANSION JOINT WELDING DETAILS</b>	
<b>RIC-30-1915L&amp;R OVER BLACK FORK</b>	
<b>RIC / ASD-30-13.18 / 0.00</b>	<b>RIC-42-13.74</b>
5	5
116	116