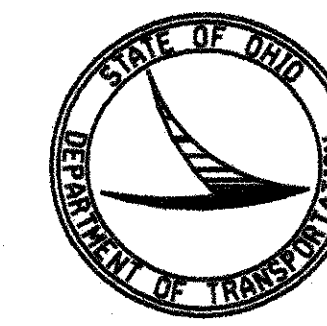


F/F 16



metric  
units

PROJECT DESCRIPTION

RECONSTRUCTION OF 0.77 KM OF BELLEFONTAINE STREET INCLUDING THE REPLACEMENT OF THE STRUCTURE OVER IR-75 IN ORDER TO PROVIDE 5.2 METERS OF CLEARANCE. WORK INCLUDES RAISING THE BELLEFONTAINE STREET PROFILE, ADDING TWO LANES AND ADJUSTING ALL INTERCHANGE RAMPS TO THE NEW BELLEFONTAINE STREET LINE AND GRADE.

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

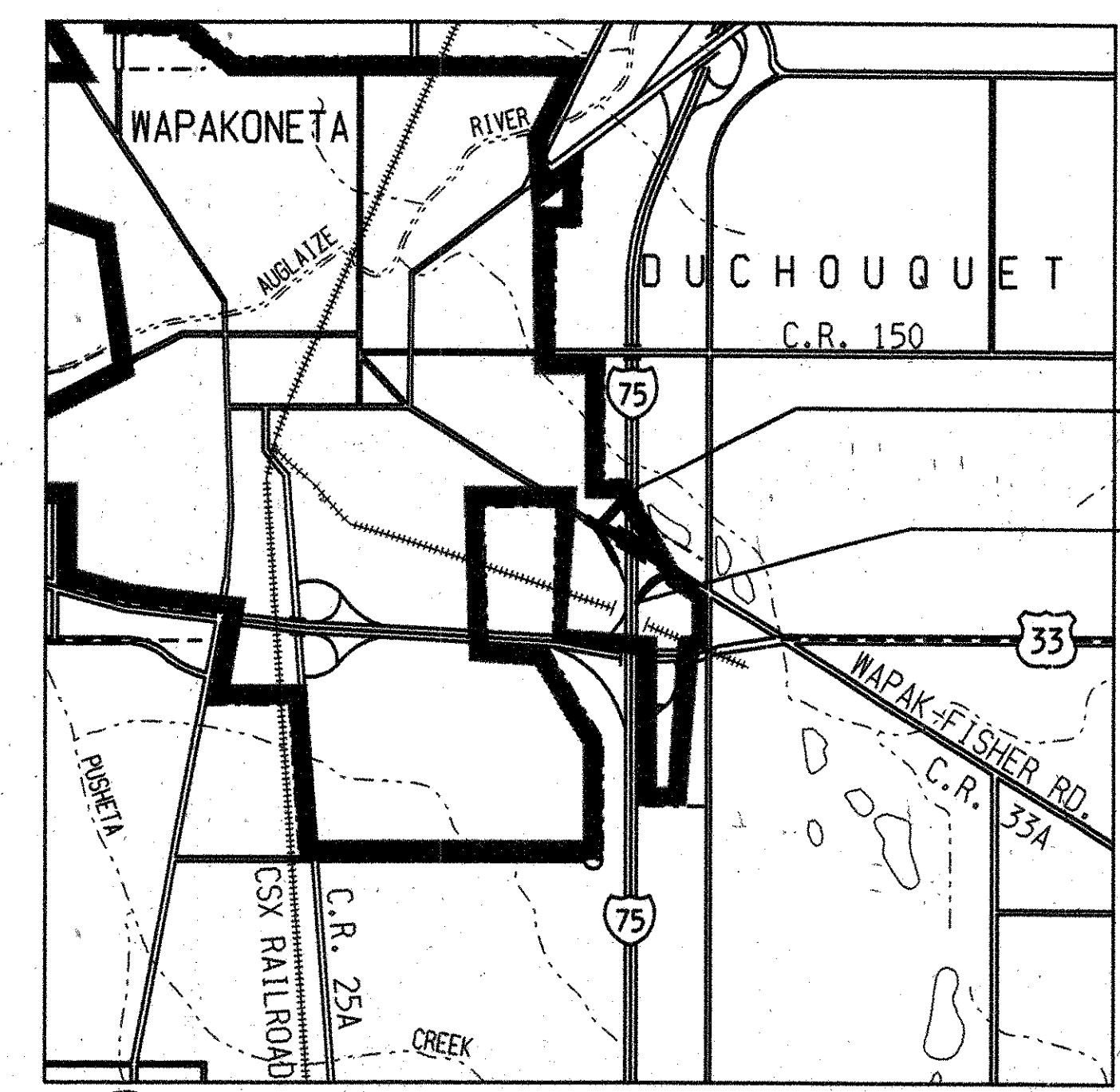
AUG-75-8.418(8.769)

JUL 07 1997

PART 1

CITY OF WAPAKONETA  
AUGLAIZE COUNTY

FOR PART 2 SEE AUG-BELLEFONTAINE ST.



LOCATION MAP

SCALE 1:50,000  
LATITUDE N40°33'41"  
LONGITUDE W84°10'12"

PORTION TO BE IMPROVED . . . . .  
STATE, FEDERAL AND INTERSTATE ROUTES . . . . .  
OTHER ROUTES . . . . .

DESIGN DESIGNATION

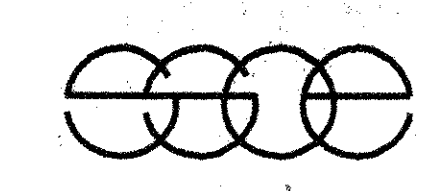
	I-75	BELLEFONTAINE ST. (CR-33A)
CURRENT ADT (1996)	= 23,500 VPD	= 8,500 VPD
DESIGN YEAR ADT (2016)	= 32,910 VPD	= 11,910 VPD
DESIGN HOURLY VOLUME (2016)	= 2304 VPH	= 1072 VPH
DIRECTIONAL DISTRIBUTION	= 59 %	= 58 %
TRUCKS (24 HOUR B & C)	= 17 %	= 03 %
DESIGN SPEED	= 110 KPH	= 80 KPH
LEGAL SPEED	= 65 MPH	= 25 MPH
FUNCTIONAL CLASSIFICATION	= URBAN INTERSTATE	= URBAN PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NO.
CURBED SHOULDER WIDTH	02/12/96	3

2 WORKING DAYS  
BEFORE YOU DIG  
CALL TOLL FREE 800-362-2764  
OHIO UTILITIES PROTECTION SERVICE

PLANS PREPARED BY:



SSOE, INC.  
ENGINEERS ARCHITECTS PLANNERS LAND SURVEYORS  
1001 MADISON AVENUE TOLEDO, OHIO 43624  
FAX: 419-255-6101 TEL: 419-255-3630

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1995 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.

WE HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE PLANS.

SUPPLEMENTAL SPECIFICATIONS

802	4/13/90
820	6/14/95
931	7/17/95
942	6/14/95
944	3/23/95

APPROVALS

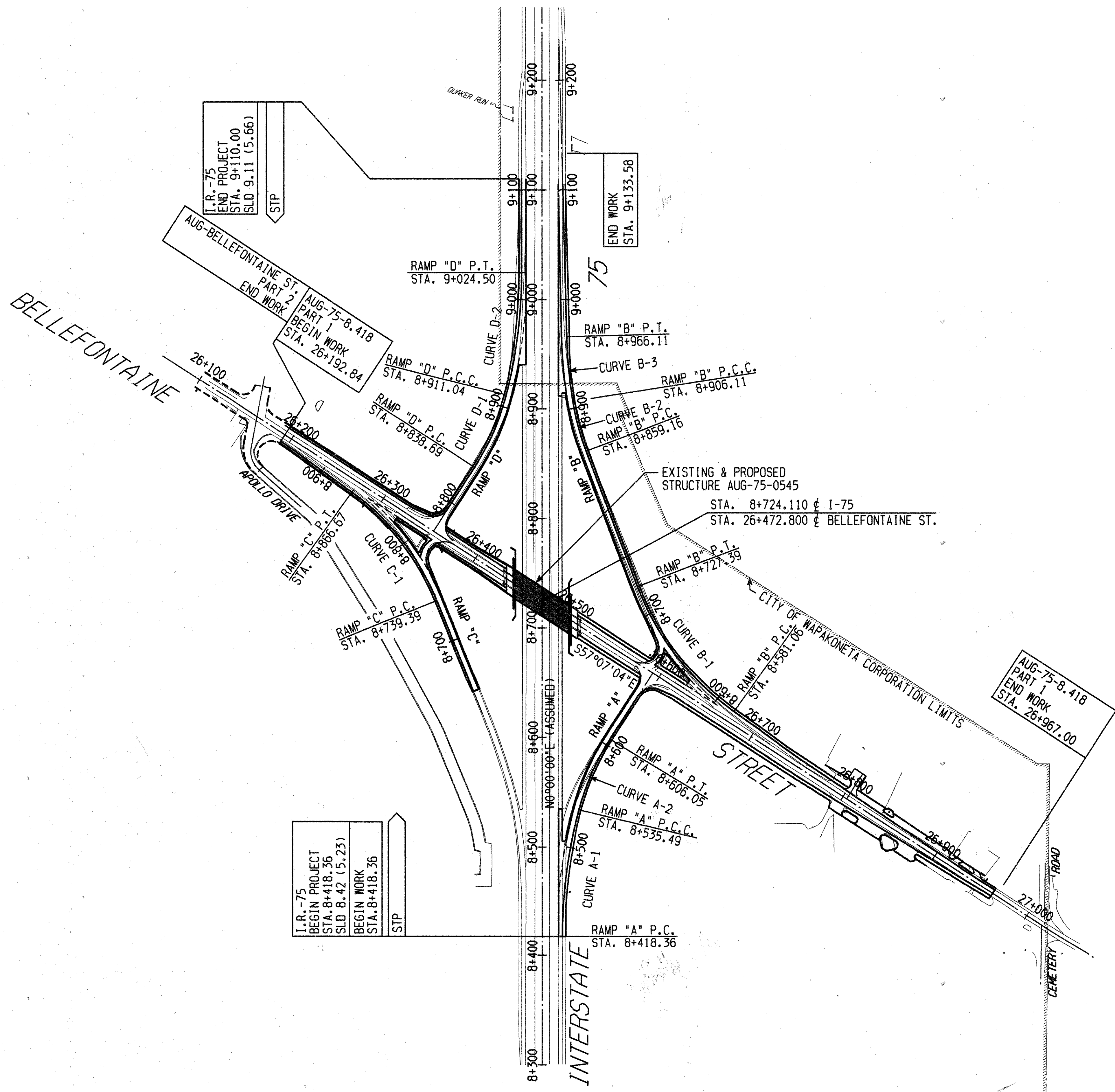
APPROVED *Jerard B. Eym*  
DATE 7/4/96 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED *Jim King*  
DATE 8/14/96 DIRECTOR, DEPARTMENT OF TRANSPORTATION

AUG-75-5.45 SHALL BE  
CONSIDERED TO BE AUG-75-8.418(8.769)

AUG-75-5.45





# CURVE DATA

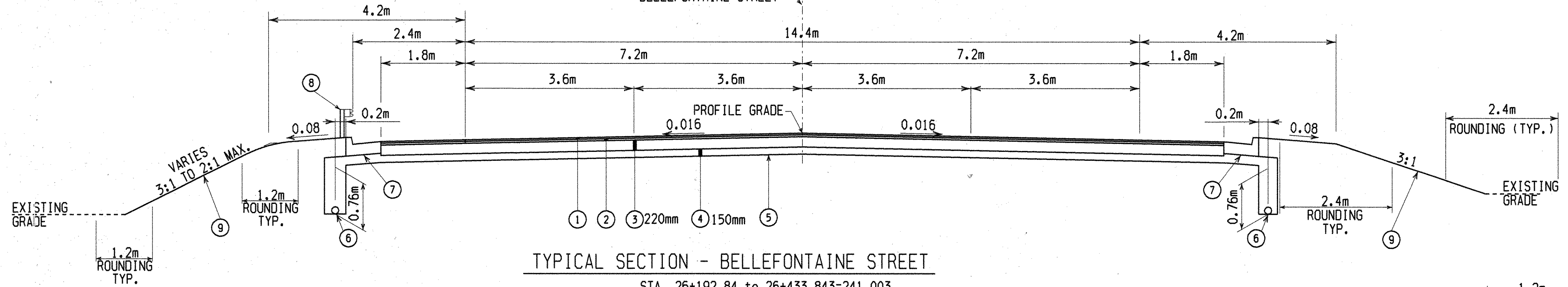
<p><b>CURVE A-1</b></p> <p>P.I. STA. 8+477.26</p> <p>R = 450.00m</p> <p>L = 117.13m</p> <p>T = 58.90m</p> <p><math>\Delta = 14^{\circ}54'48''</math></p> <p>E = 3.84m</p>	<p><b>CURVE A-2</b></p> <p>P.I. STA. 8+571.06</p> <p>R = 225.00m</p> <p>L = 70.56m</p> <p>T = 35.57m</p> <p><math>\Delta = 17^{\circ}58'08''</math></p> <p>E = 2.79m</p>
<p><b>CURVE B-1</b></p> <p>P.I. STA. 8+656.39</p> <p>R = 250.00m</p> <p>L = 146.33m</p> <p>T = 75.33m</p> <p><math>\Delta = 33^{\circ}32'07''</math></p> <p>E = 11.10m</p>	<p><b>CURVE B-2</b></p> <p>P.I. STA. 8+882.72</p> <p>R = 230.00m</p> <p>L = 46.94m</p> <p>T = 23.55m</p> <p><math>\Delta = 11^{\circ}41'40''</math></p> <p>E = 1.20m</p>
<p><b>CURVE B-3</b></p> <p>P.I. STA. 8+936.16</p> <p>R = 450.00m</p> <p>L = 60.00m</p> <p>T = 30.04m</p> <p><math>\Delta = 7^{\circ}38'22''</math></p> <p>E = 1.00m</p>	<p><b>CURVE C-1</b></p> <p>P.I. STA. 8+804.78</p> <p>R = 225.00m</p> <p>L = 127.28m</p> <p>T = 65.39m</p> <p><math>\Delta = 32^{\circ}24'40''</math></p> <p>E = 9.31m</p>
<p><b>CURVE D-1</b></p> <p>P.I. STA. = 8+875.15</p> <p>R = 225.00m</p> <p>L = 72.40m</p> <p>T = 36.51m</p> <p><math>\Delta = 18^{\circ}26'09''</math></p> <p>E = 2.94m</p>	<p><b>CURVE D-2</b></p> <p>P.I. STA. = 8+968.07</p> <p>R = 450.00m</p> <p>L = 113.46m</p> <p>T = 57.03m</p> <p><math>\Delta = 14^{\circ}26'47''</math></p> <p>E = 3.60m</p>



# TYPICAL SECTIONS

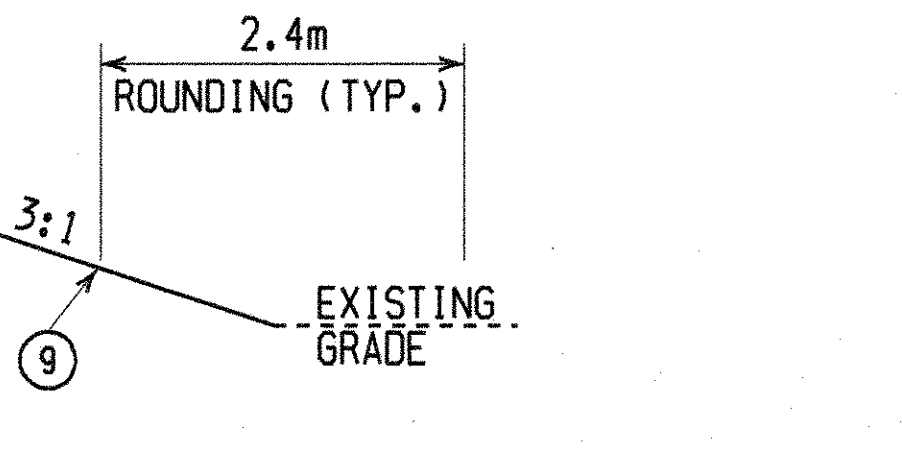
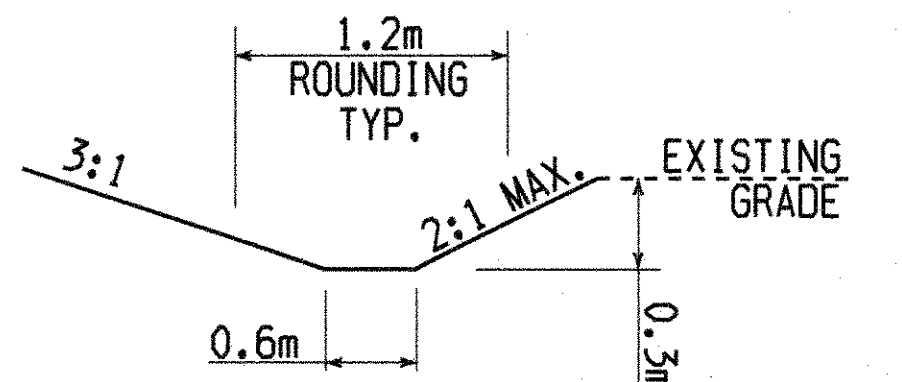
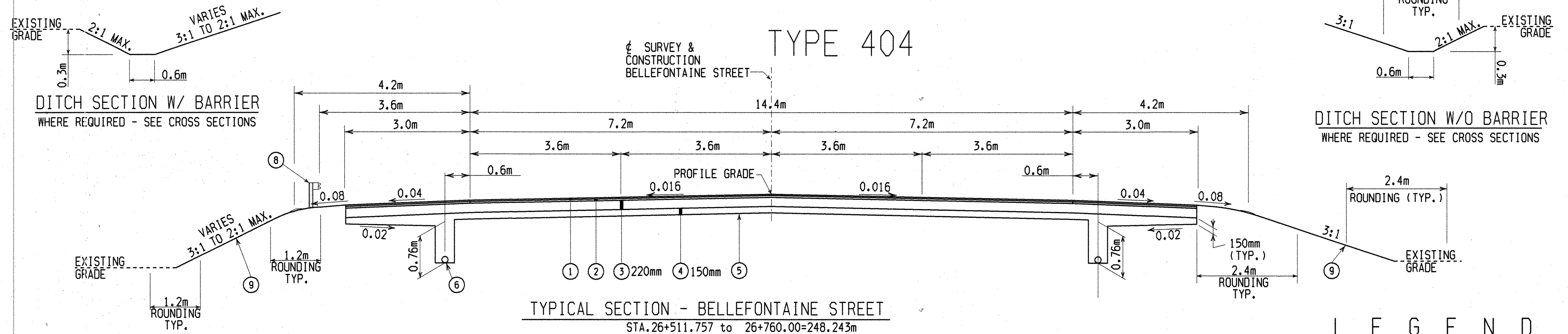
## TYPE 404

CL SURVEY &  
CONSTRUCTION  
BELLEFONTAINE STREET



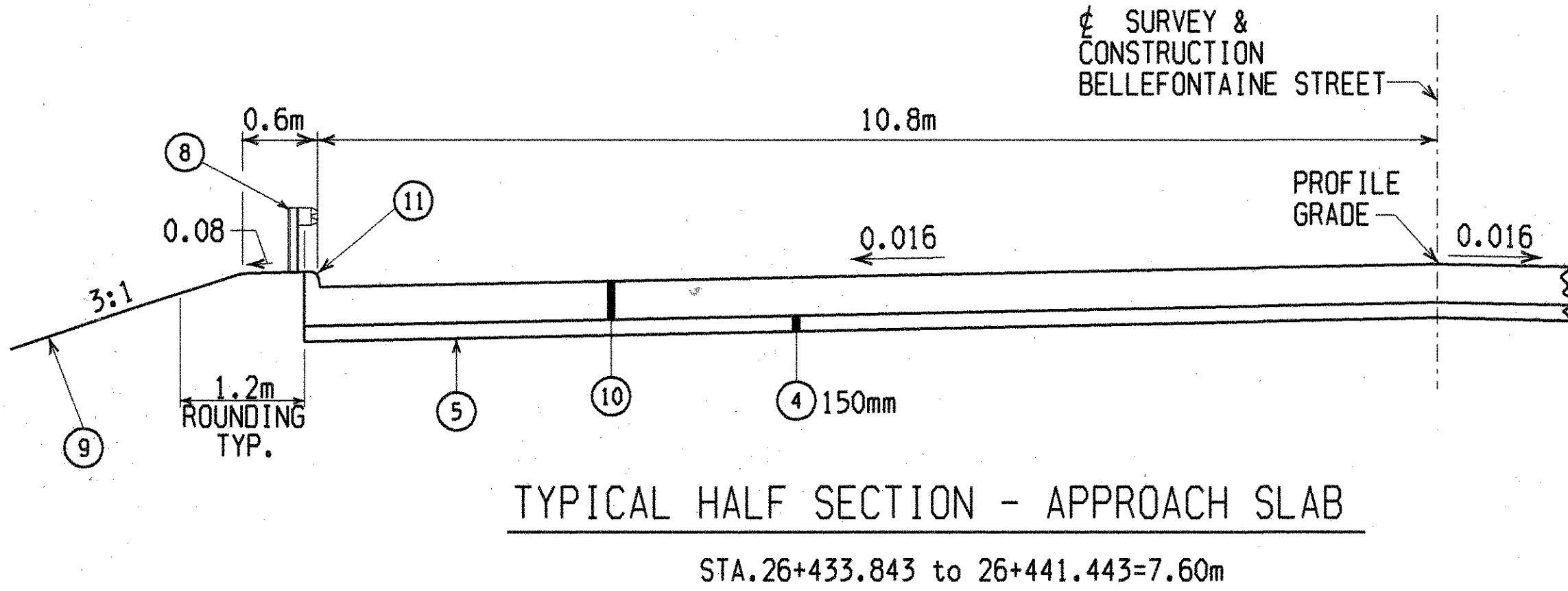
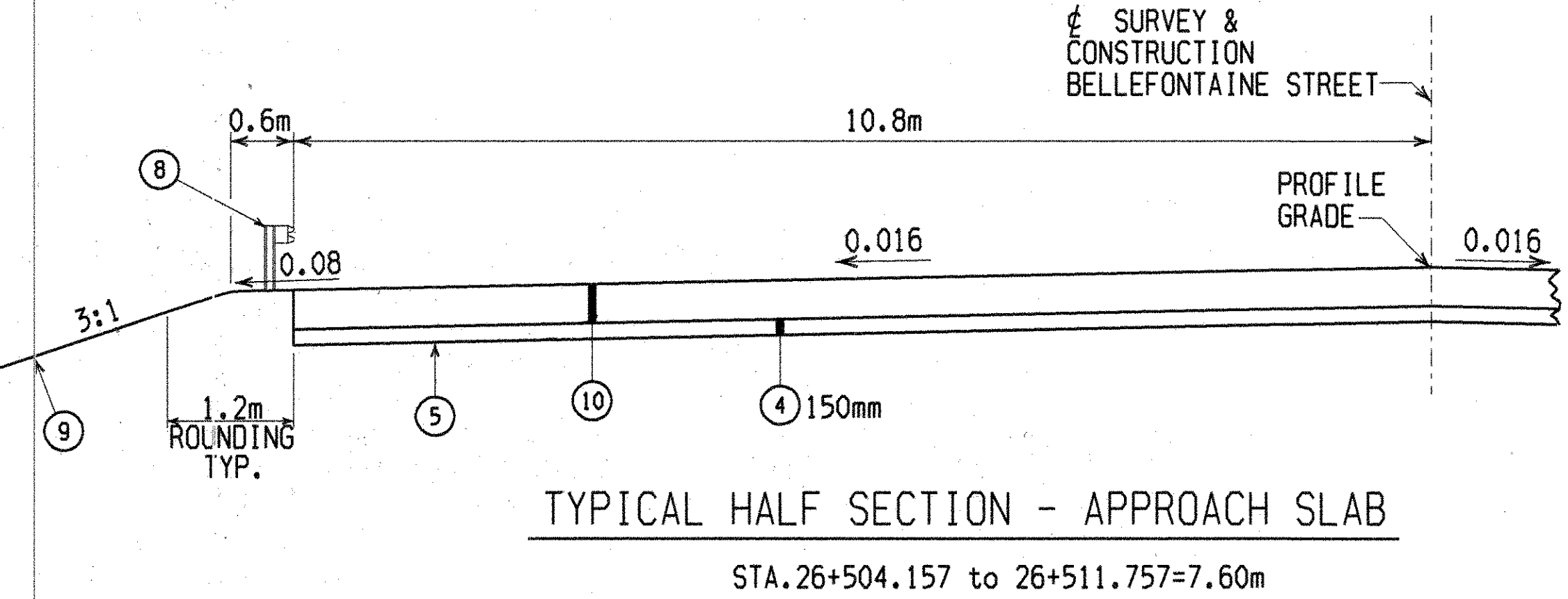
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CONSTRUCTION  
BELLEFONTAINE STREET

## TYPE 404



## LEGEND

- ① ITEM 404 32 mm ASPHALT CONCRETE, AC-20
- ② ITEM 402 45 mm ASPHALT CONCRETE, AC-20
- ③ ITEM 301 BITUMINOUS AGGREGATE BASE, AC-20, THICKNESS AS SHOWN
- ④ ITEM 304 AGGREGATE BASE, THICKNESS AS SHOWN
- ⑤ ITEM 203 SUBGRADE COMPACTION
- ⑥ ITEM 605 100mm SHALLOW PIPE UNDERDRAINS
- ⑦ ITEM 609 COMBINED CURB AND GUTTER, TYPE 2
- ⑧ ITEM 606 GUARD RAIL, TYPE 5
- ⑨ ITEM 659 SEEDING AND MULCHING
- ⑩ ITEM 611 APPROACH SLABS, T = 380mm
- ⑪ ITEM 609 CONCRETE CURB, TYPE 4-A
- ⑫ ITEM 451 230mm REINFORCED CONCRETE PAVEMENT

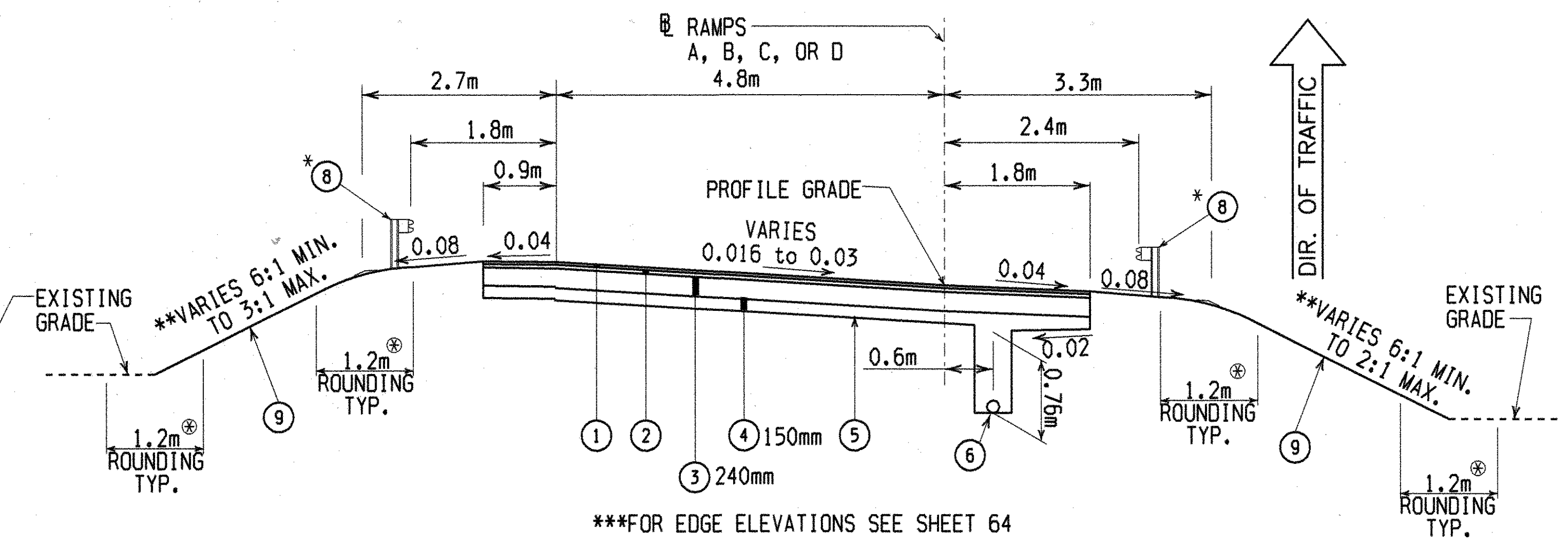


TYPICAL SECTIONS

AUG-75-5.45

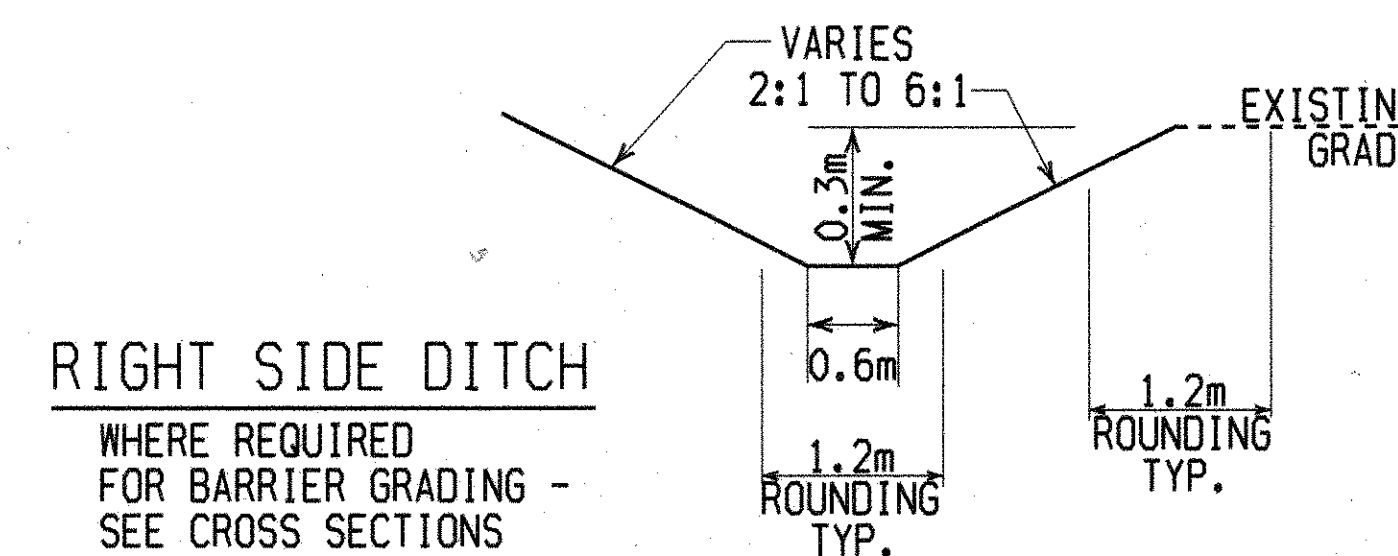
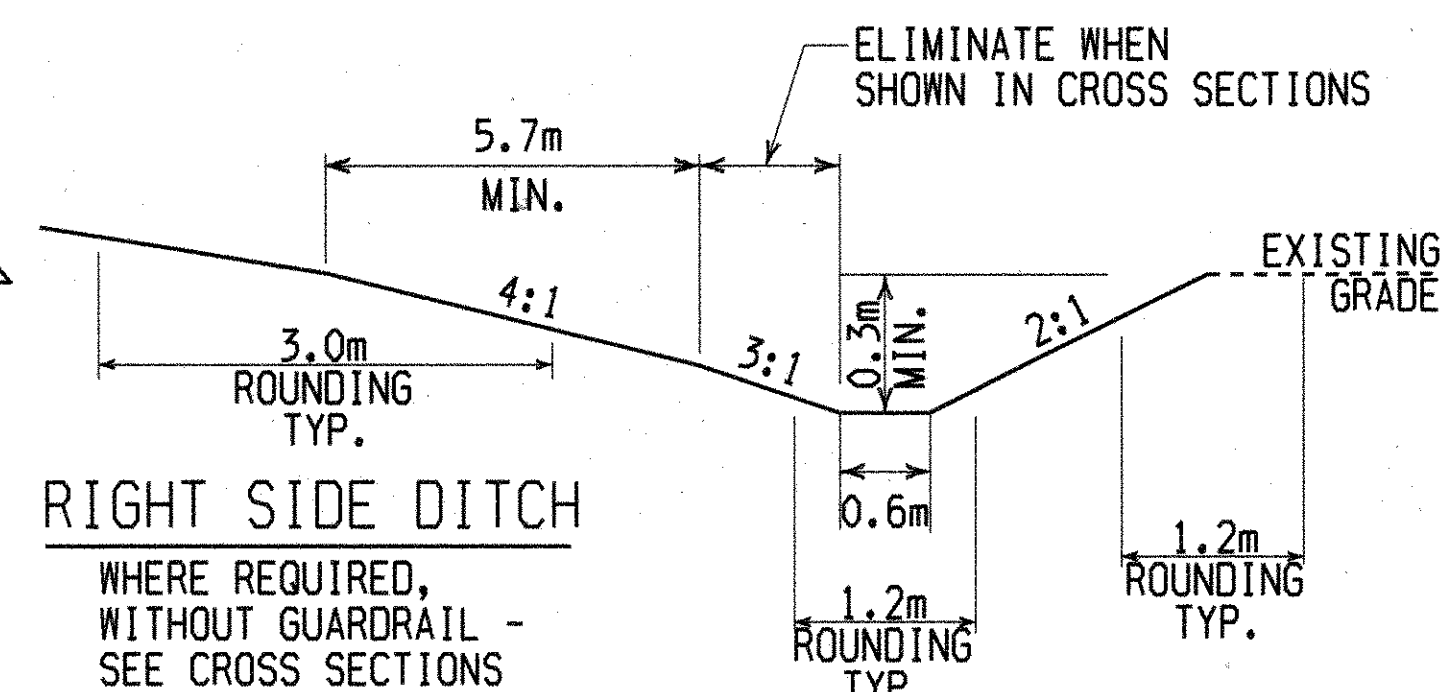


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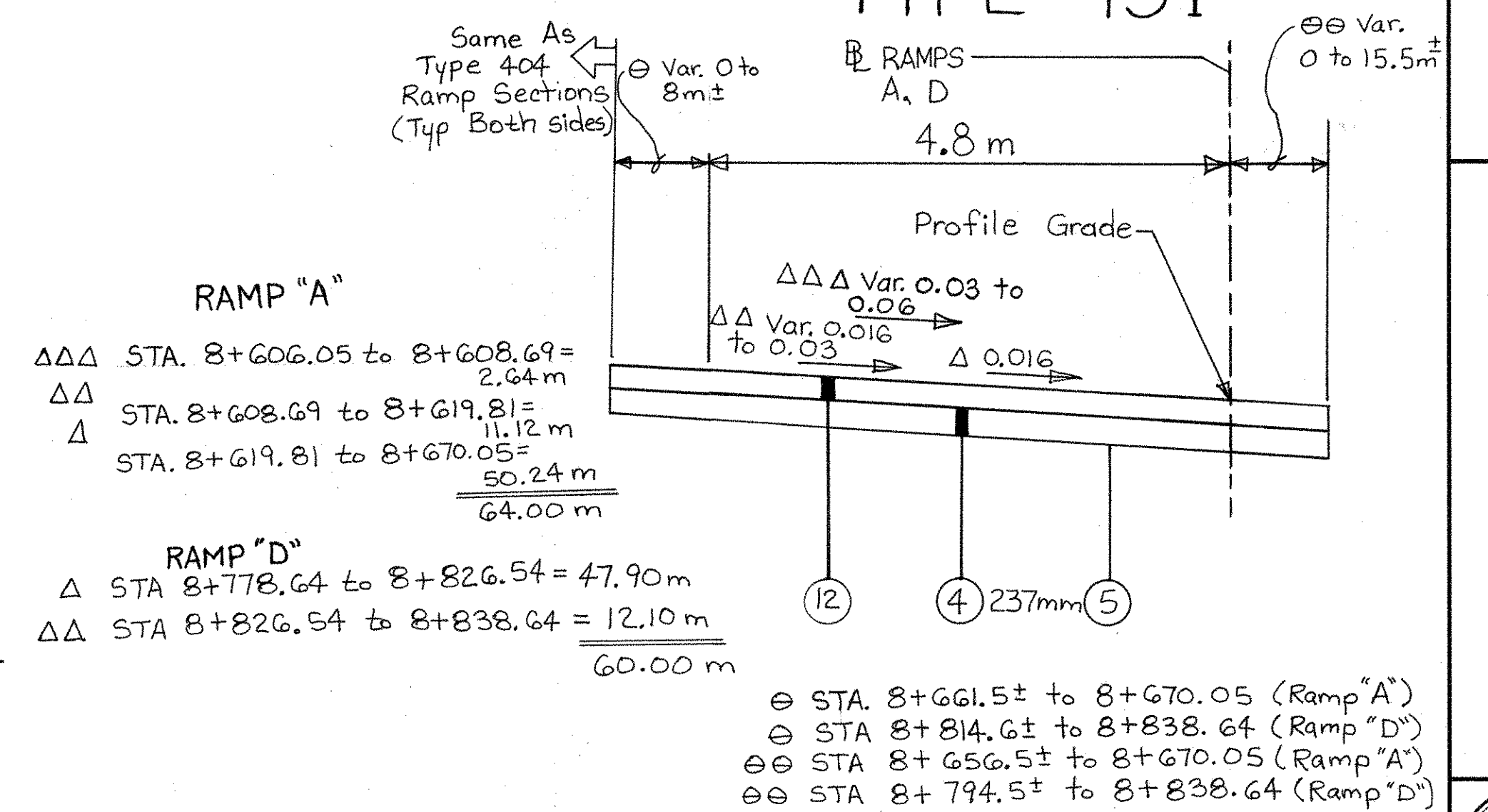
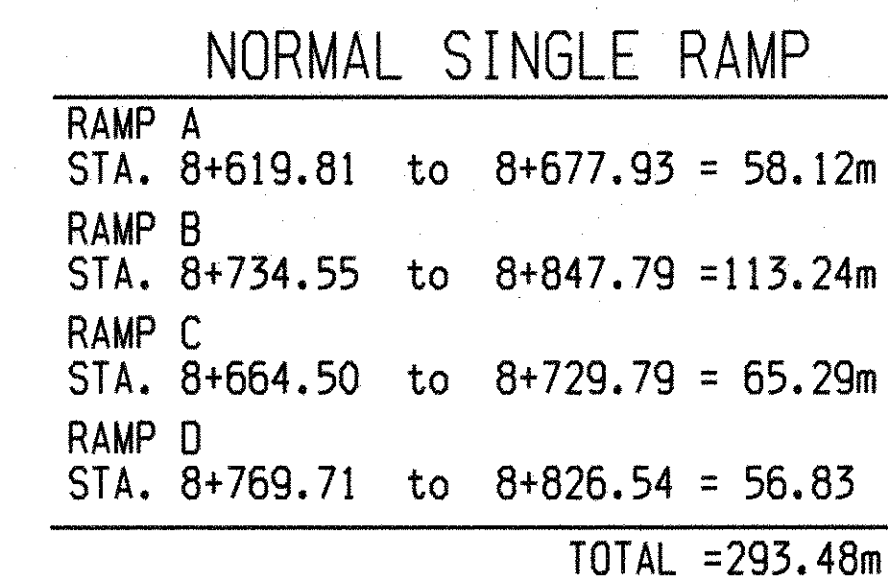


SUPERELEVATED RAMP

RAMP A		
STA. 8+608.69	to	8+619.81 =11.12m
RAMP B		
STA. 8+723.43	to	8+734.55 =11.12m
STA. 8+847.79	to	8+859.89 =12.10m
RAMP C		
STA. 8+729.79	to	8+743.25 =13.46m
RAMP D		
STA. 8+826.54	to	8+838.64 =12.10m
		<b>TOTAL =59.90m</b>

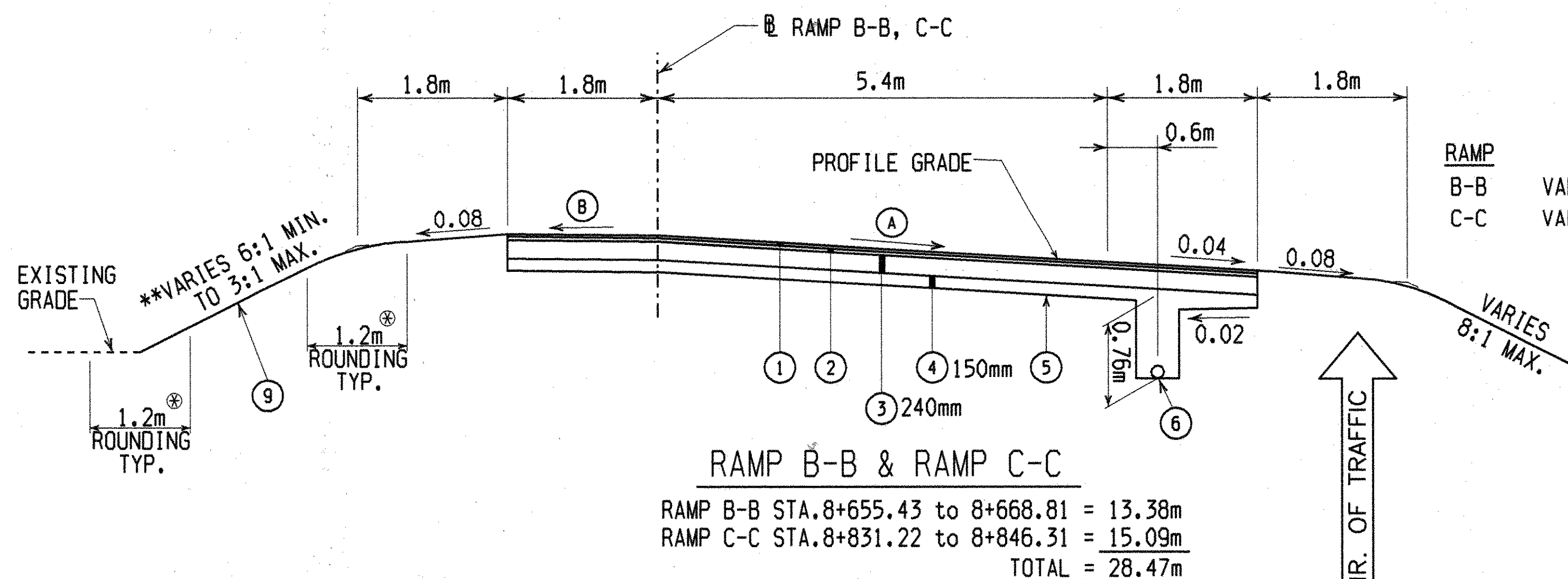
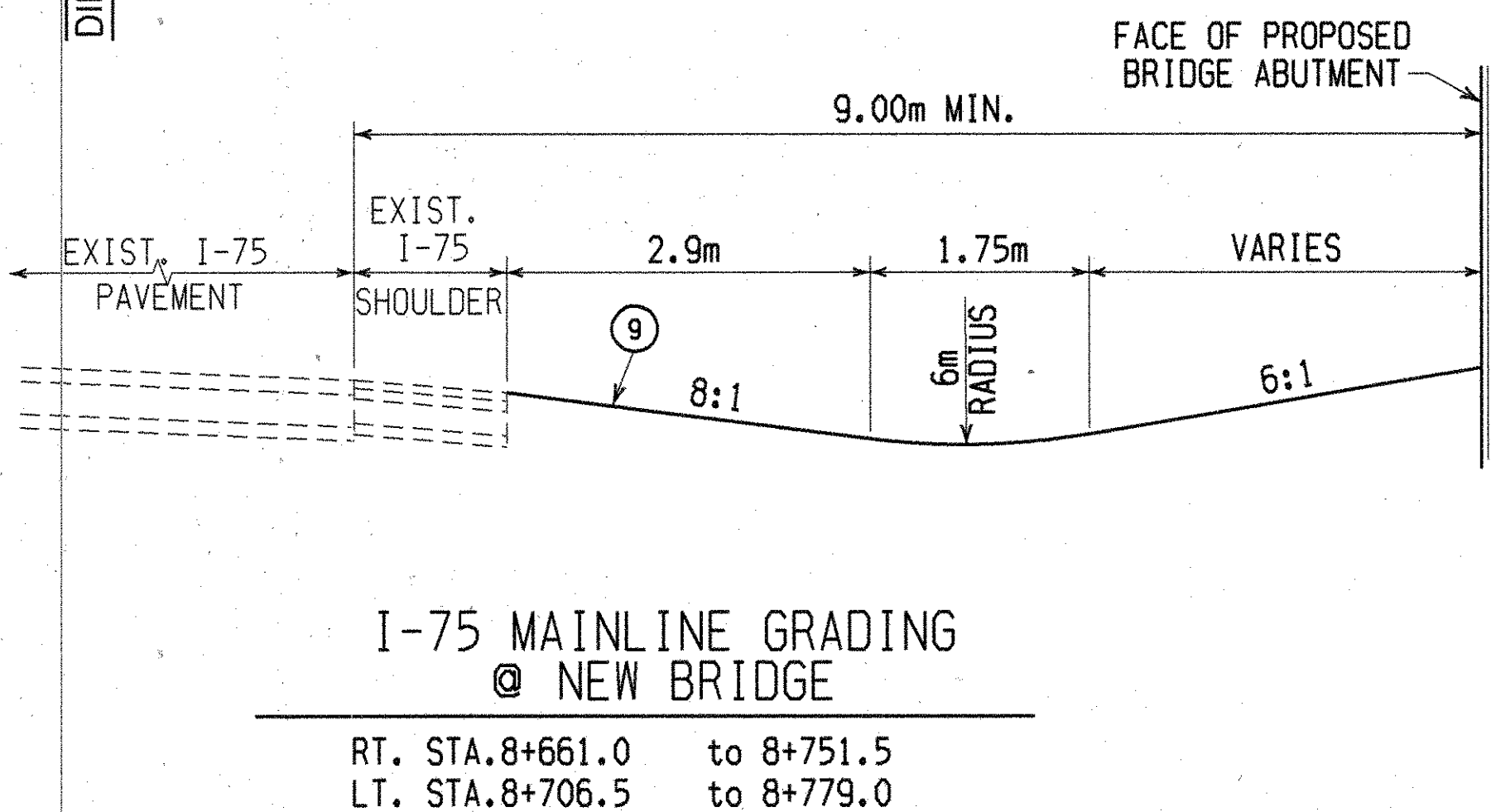
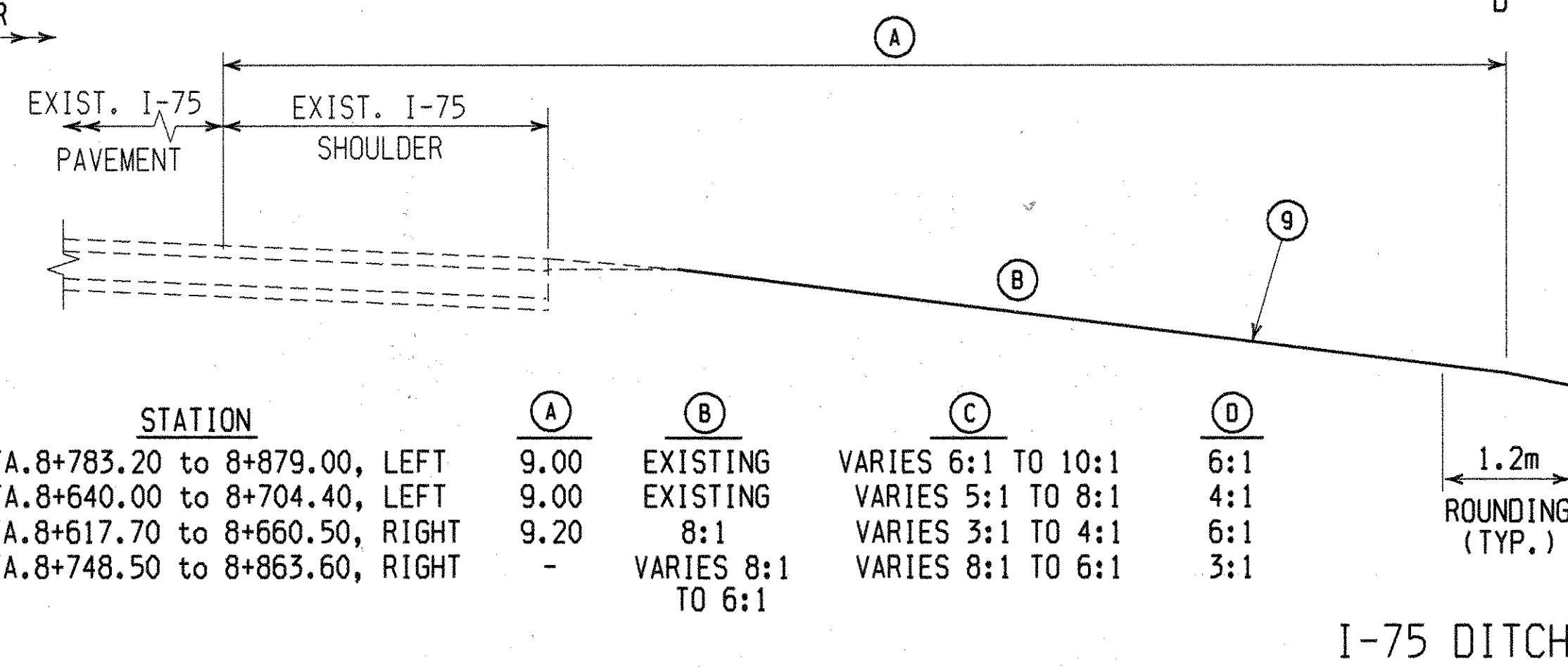
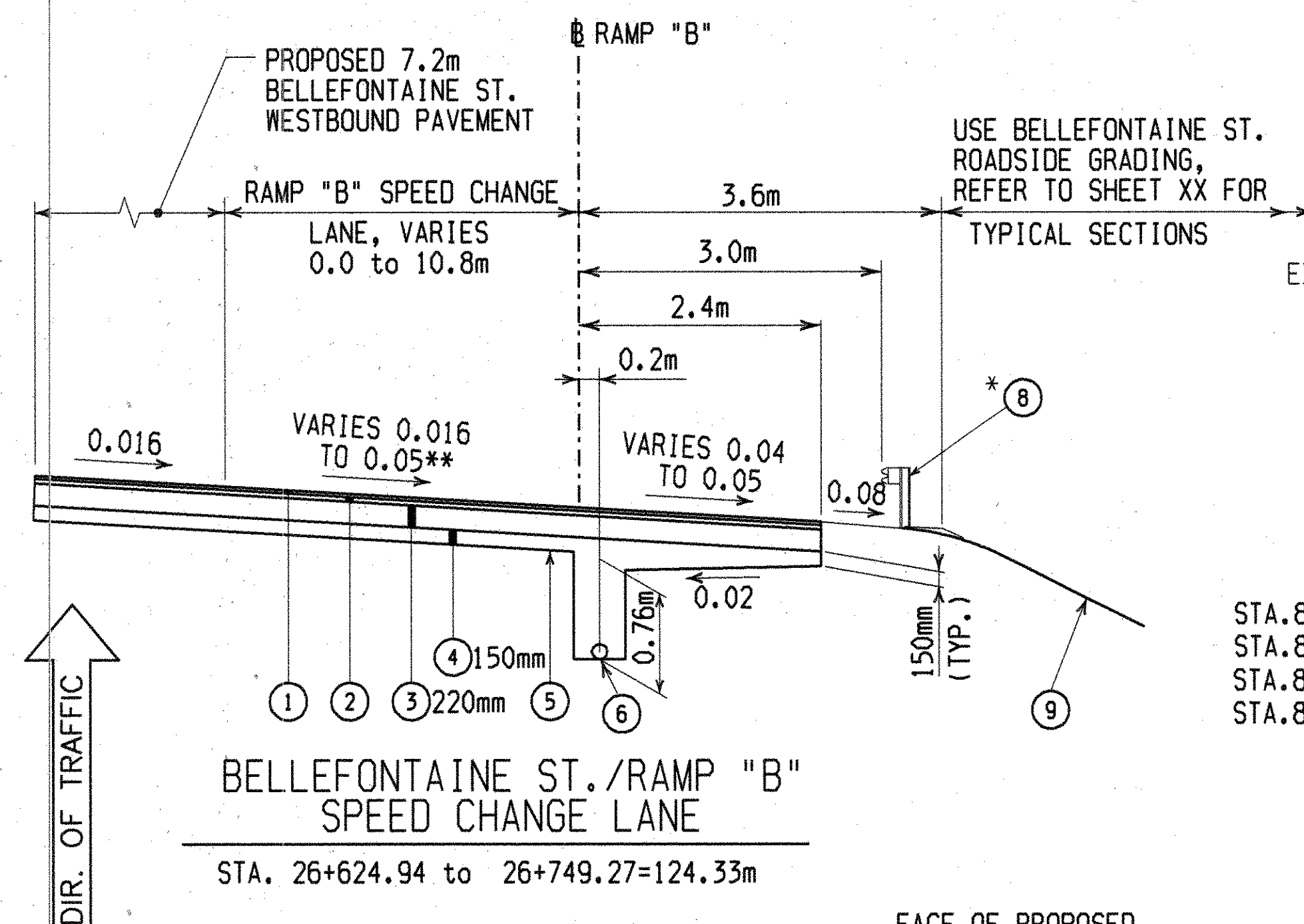
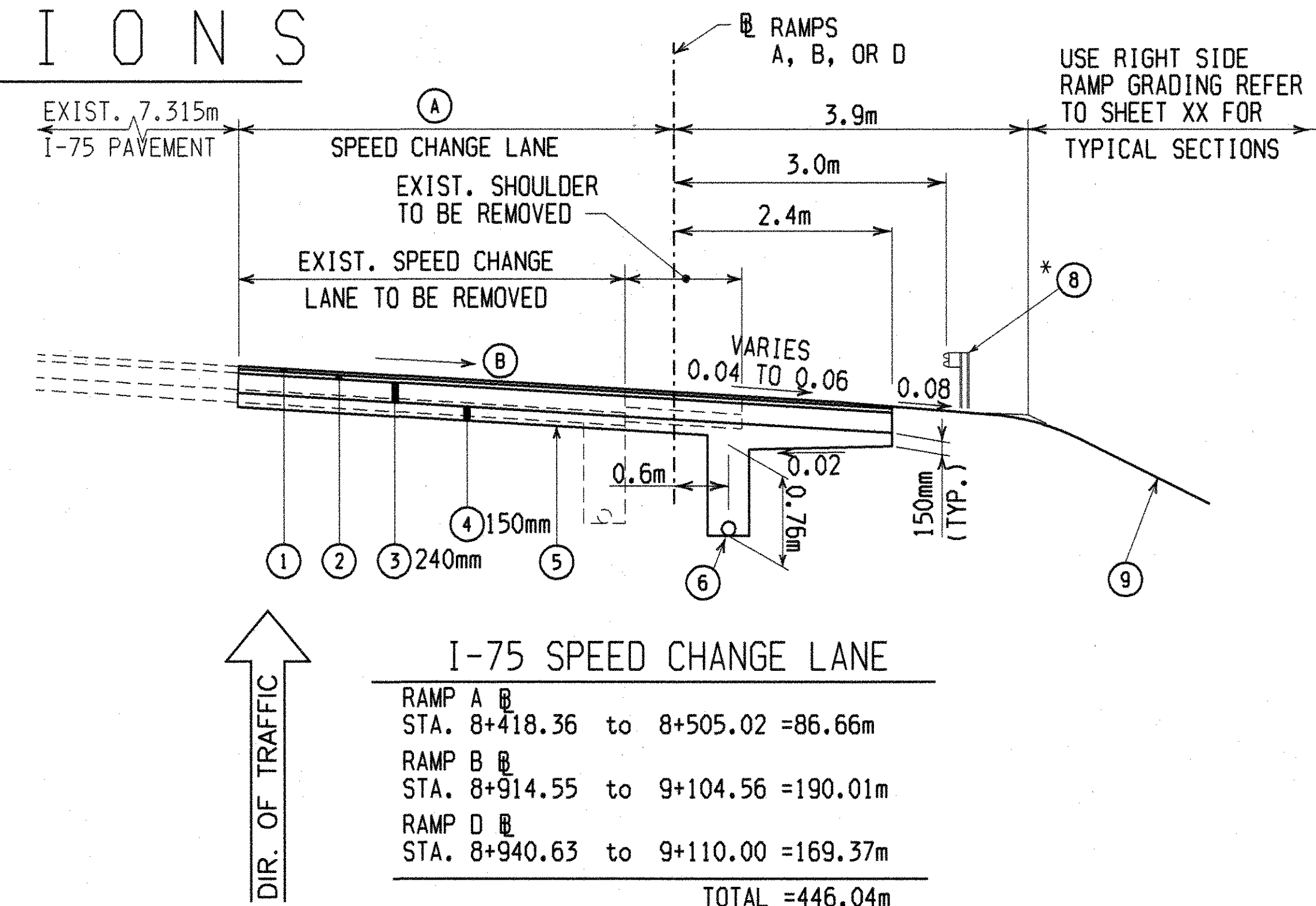
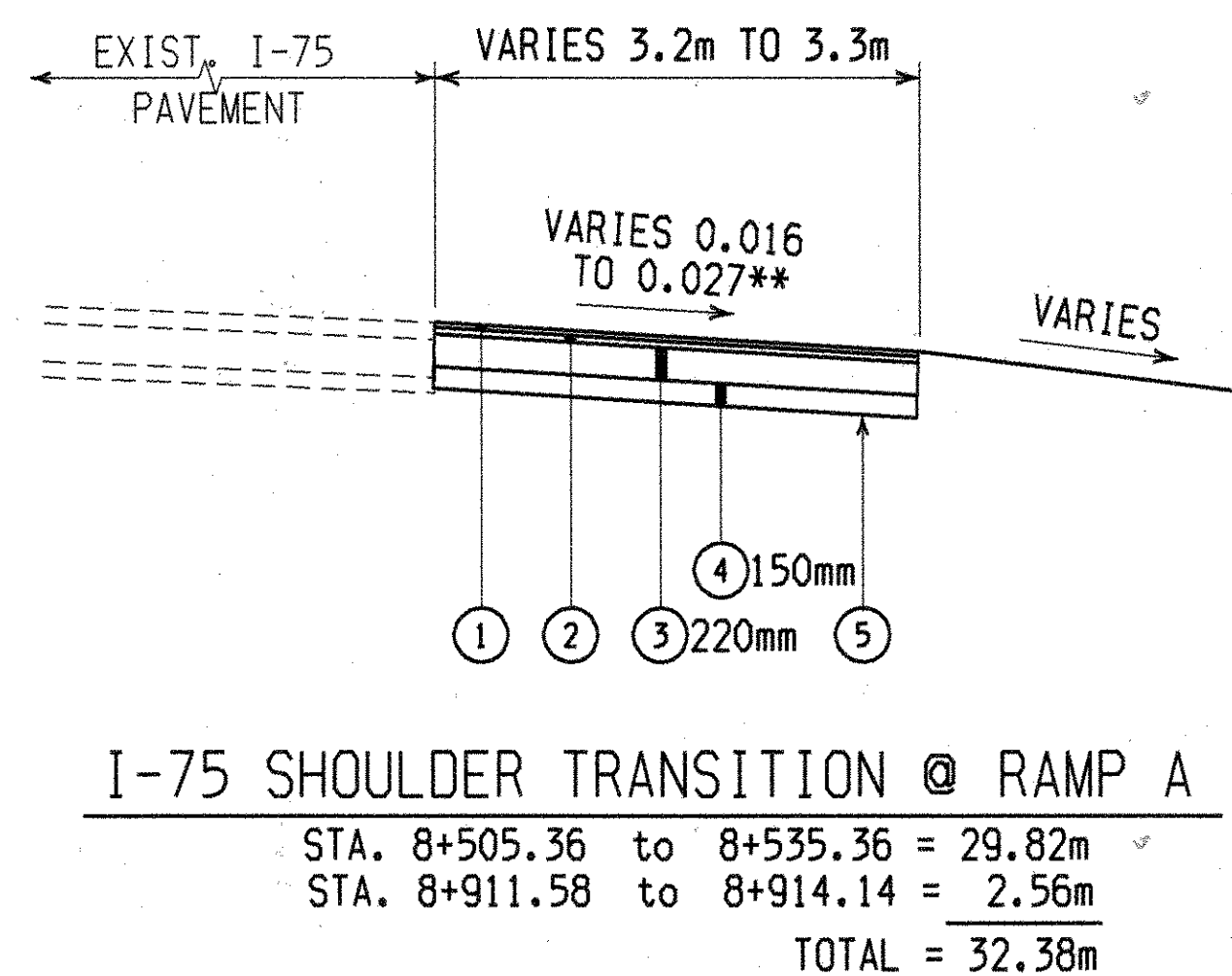
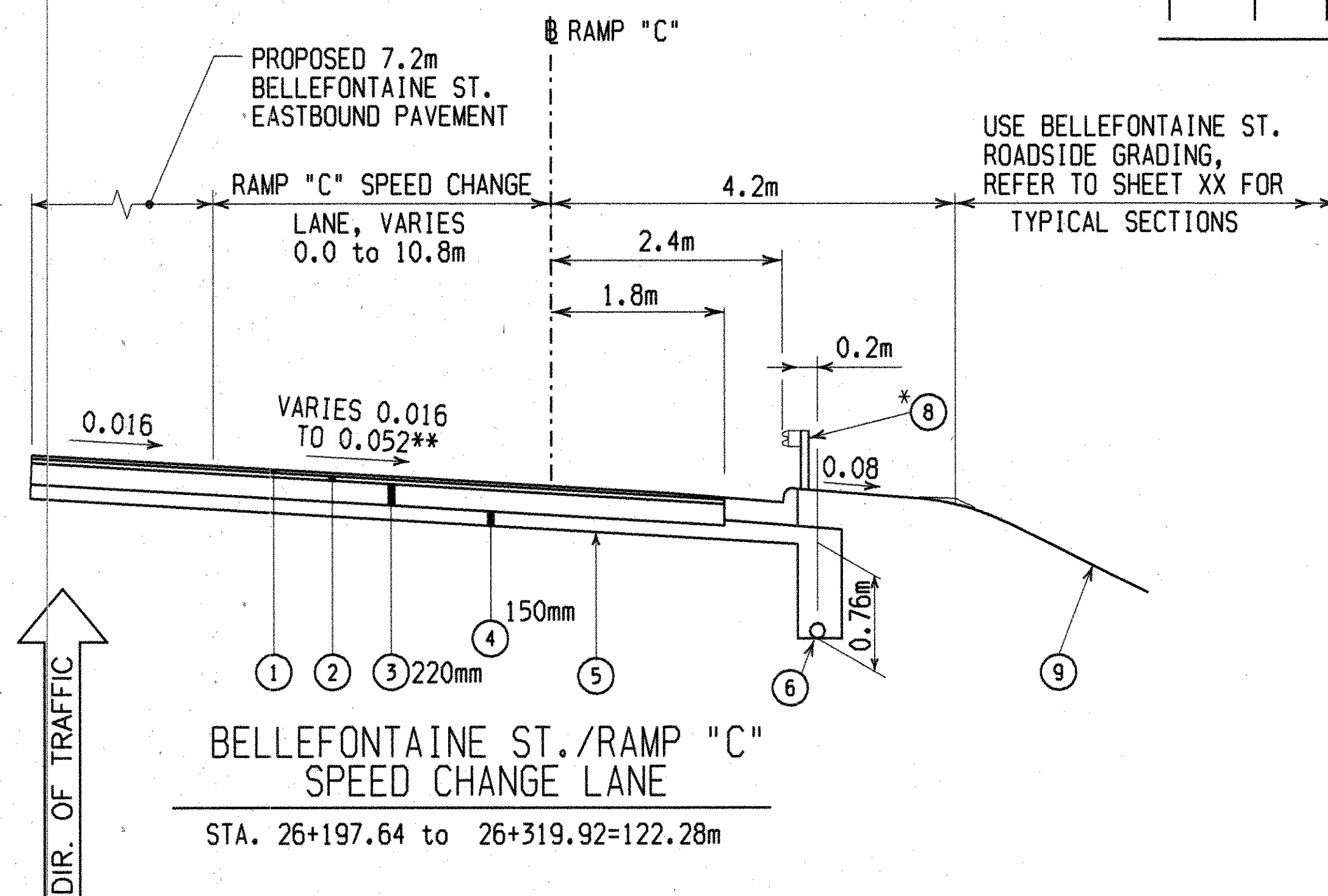


TYPE 451





# TYPICAL SECTIONS



RAMP	A	B
B-B	VARIES -0.007 TO 0.032	VARIES 0.038 TO 0.040
C-C	VARIES 0.01 TO 0.050	VARIES 0.020 TO 0.040

\* SEE PLANS FOR LOCATION OF GUARDRAIL.

\*\* SLOPES IN GORE AREAS OF SPEED CHANGE LANES VARY. REFER TO INTERSECTION DETAILS FOR GRADING IN THESE AREAS.

TYPICAL SECTIONS

AUG-75-5.45

5  
148







GENERAL NOTES

DUST CONTROL:

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616, WATER	190 CU METER
616, CALCIUM CHLORIDE	5 METRIC TONS

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207, TEMPORARY SEEDING AND MULCHING	10 460 SQ METER
207, FILTER FABRIC FENCE	70 METER
207, TEMPORARY DIKES	450 METER
601, ROCK CHANNEL PROTECTION, TYPE C (WITH FILTER)	14 CU METER
659, COMMERCIAL FERTILIZER	5100 KILOGRAM
659, REPAIR SEEDING AND MULCHING	2600 SQ METER
659, WATER	100 CU METER

ITEM 659, SEEDING AND MULCHING:

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINE COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

WATERING AND MOWING PERMANENT SEEDED AREAS:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS PER 659.09:

659, WATER, 510 CU METER.

CONDUIT END TREATMENTS:

IMMEDIATELY AFTER TREATMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE, HEADWALLS, CONCRETE RIPRAP, ROCK CHANNEL PROTECTION, SODDING, ETC.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITES:

WHERE THE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT:

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, CONTROLLED LOW STRENGTH MATERIAL, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 300mm.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90% OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF METERS (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

ITEM SPECIAL - MAILBOX SUPPORT:

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 100mm BY 100mm SQUARE, OR 115mmØ ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 60.3mm O.D. AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

SUPPORT HARDWARE SHALL ACCOMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY THE IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.12. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT, (SINGLE) (DOUBLE).

LIGHTING, SIGNS, AND SIGNALS:

FOR LIGHTING GENERAL NOTES, SEE SHEET 99 OF 148.  
FOR SIGNING GENERAL NOTES, SEE SHEET 73 OF 148.  
FOR SIGNALIZATION GENERAL NOTES, SEE SHEET 94 OF 148.

ITEM 625 CONDUIT DESCRIBED AS 75mm, 713.04 SHALL BE CONSIDERED TO BE 76mm, 713.04.  
ITEM 507 305mm CAST-IN-PLACE REINFORCED CONCRETE PILES SHALL BE CONSIDERED TO BE 300mm CAST-IN-PLACE REINFORCED CONCRETE PILES.  
ITEM 507 356mm CAST-IN-PLACE REINFORCED CONCRETE PILES SHALL BE CONSIDERED TO BE 350mm CAST-IN-PLACE REINFORCED CONCRETE PILES.

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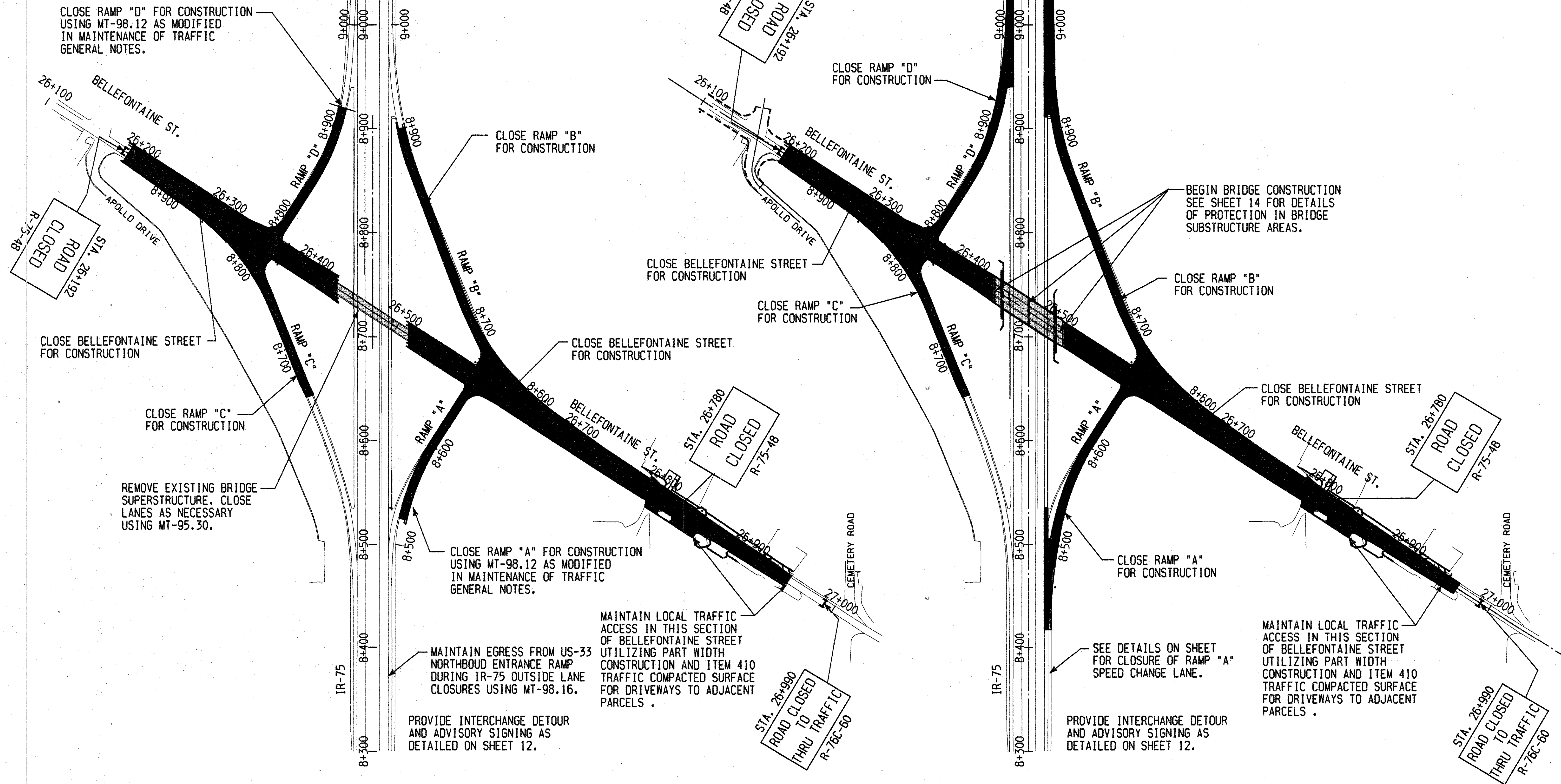
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### CONSTRUCTION PHASE 1A

BRIDGE SUPERSTRUCTURE REMOVAL  
BEGIN ROADWAY CONSTRUCTION

### CONSTRUCTION PHASE 1B

BRIDGE CONSTRUCTION  
COMPLETE ROADWAY CONSTRUCTION



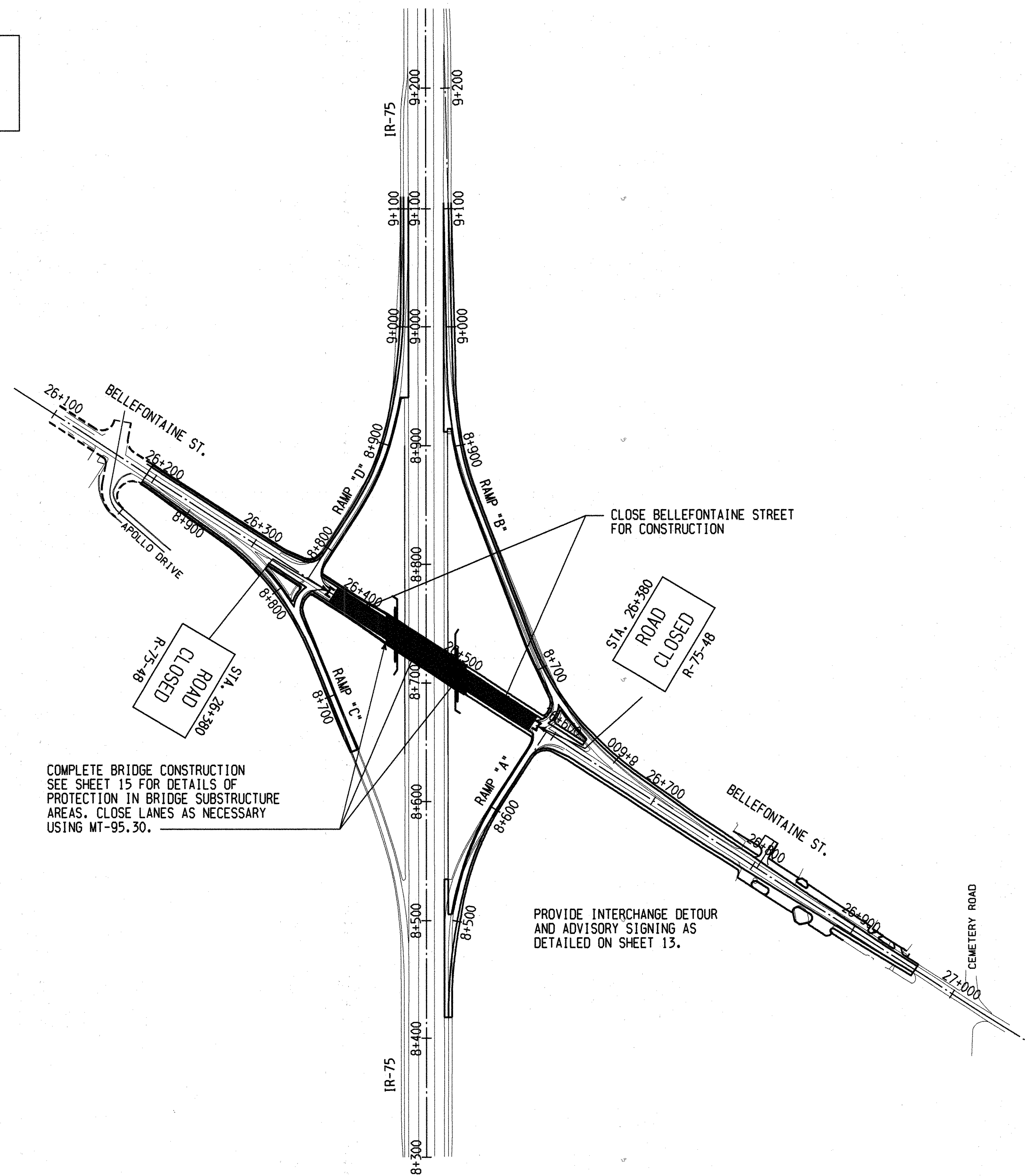
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MAINTENANCE OF TRAFFIC  
CONSTRUCTION SEQUENCE SCHEMATIC PHASE 1A AND 1B



COMPLETE BRIDGE CONSTRUCTION

COMPLETE BELLEFONTAINE STREET CONSTRUCTION





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ITEM 614. MAINTAINING TRAFFIC

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL WARNING AND INFORMING SIGNS AND OTHER TRAFFIC CONTROL DEVICES NECESSARY FOR MAINTAINING TRAFFIC. TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER. WHERE OPERATIONS ARE PERFORMED IN STAGES, THERE SHALL BE IN PLACE ONLY THOSE DEVICES THAT APPLY TO THE CONDITIONS PRESENT DURING THAT STAGE IN PROGRESS. ALL SIGNS WITH MESSAGES WHICH DO NOT APPLY DURING THE STAGE IN PROGRESS SHALL BE COVERED OR SET ASIDE FROM THE VIEW OF TRAFFIC. ALL SIGNS MUST BE CLEARLY LEGIBLE AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

LENGTH AND DURATION OF RAMP AND LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. RAMP AND LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD OR RAMP CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

WHENEVER WORK IS PERFORMED OVER AN ACTIVE TRAFFIC LANE (INCLUDING REMOVAL OF EXISTING BRIDGE DECK AND FORMING OF THE NEW DECK) WHICH MAY RESULT IN OBJECTS FALLING ON TRAFFIC BELOW, THE LANE SHALL BE CLOSED IN ACCORDANCE WITH THE DETAILS SHOWN ON THESE PLANS AND MT-95.30M. TRAFFIC SHALL BE MAINTAINED TO RAMPS OPEN TO TRAFFIC IN ACCORDANCE WITH THE DETAILS SHOWN ON MT-98.14M. THE U.S. 33 NORTH-BOUND ENTRANCE RAMP SHALL BE KEPT OPEN TO TRAFFIC IN ACCORDANCE WITH THE DETAILS SHOWN ON MT-98.16M. BECAUSE THIS SHOULD BE A SHORT TERM OPERATION, THERE WILL BE NO NEED TO MODIFY EXISTING STRIPING.

THE USE AND OPERATION OF FLASHING ARROW PANELS SHALL BE IN ACCORDANCE WITH TC-35.10M.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ADEQUATE DRAINAGE OF THE TRAVELLED ROADWAYS DURING ALL PHASES OF CONSTRUCTION BY USING DITCHES AND EXISTING, TEMPORARY AND PERMANENT DRAINAGE FACILITIES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER. WHERE OPERATIONS ARE PERFORMED IN STAGES, THERE SHALL BE IN PLACE ONLY THOSE DEVICES THAT APPLY DURING THE STAGE IN PROGRESS. ALL SIGNS WITH MESSAGES WHICH DO NOT APPLY DURING A CERTAIN PERIOD SHALL BE COVERES OR SET ASIDE, OUT OF VIEW OF TRAFFIC. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO MAINTAIN TRAFFIC IN ACCORDANCE WITH PRECEEDING REQUIREMENTS.

MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL NOTES

LANE CLOSURE AND TRAFFIC STOPPAGE FOR PLACEMENT AND REMOVAL OF BRIDGE BEAMS

PLACEMENT AND REMOVAL OF BEAMS FOR STR. NO. AUG-75-545 OVER IR-75 NORTHBOUND AND SOUTHBOUND LANES SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT COMPLETE TRAFFIC STOPPAGE ON ALL LANES OF ANY DIRECTIONAL ROADWAY IS NOT MORE THAN FIFTEEN (15) MINUTES IN DURATION. TRAFFIC STOPPAGE SHALL NOT BE ALLOWED TO TAKE PLACE IF OTHER LANE CLOSURES ARE PRESENT IN RELATION TO THIS PROJECT ON THE IR-75 MAINLINE. SUFFICIENT TIME ALLOWING THE TRAFFIC BACKUP TO CLEAR MUST BE GIVEN BETWEEN CLOSINGS. LANE CLOSURES AND TRAFFIC STOPPAGE FOR THIS PURPOSE WILL NOT BE PERMITTED BETWEEN THE HOURS 4:00 A.M. AND MIDNIGHT (12:00 A.M.) AND DURING ANY LEGALLY ESTABLISHED HOLIDAYS. ONE (1) LAW ENFORCEMENT OFFICER WITH PATROL CAR SHALL BE USED TO PACE MOTORIST TO A STOP. AFTER TRAFFIC HAS BEEN STOPPED A FLAGGER WILL REMAIN IN THE ROADWAY TO BLOCK TRAFFIC AND THE LAW ENFORCMENT OFFICER WITH PATROL CAR SHALL TRAVEL ALONG THE SHOULDER EVEN WITH THE BACKUP OF STOPPED VEHICLES. WHEN THE ENGINEER DEEMS APPROPRIATE, THE CONTRACTOR SHALL ERECT AND MAINTAIN "ROAD CONSTRUCTION AHEAD", "ROAD CLOSED AHEAD", "STOP AHEAD" SIGNS.

ROAD CLOSED SIGNS

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48"x30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWING MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC:

BELLEFONTAINE STREET EAST BOUND AT STATION 26+380  
BELLEFONTAINE STREET JUST EAST OF APOLLO DRIVE INTERSECTION STA. 26+912  
BELLEFONTAINE STREET WESTBOUND AT STATION 26+780  
BELLEFONTAINE STREET WESTBOUND AT STATION 26+580.

TRENCH FOR WIDENING PAVEMENT

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MAXIMUM OF 200 M.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 77 MM BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (8 M OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

HOLIDAYS & SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES ON I-75 SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	NEW YEARS
MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	THANKSGIVING

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

DAY OF THE WEEK	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

NO EXTENSION OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

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

ITEM SPECIAL-LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 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 WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- \* 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 (L.E.O.'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 MAKE ARRANGEMENTS FOR THESE SERVICES WITH: OHIO STATE HIGHWAY PATROL, 15472 WAPAK-FISHER ROAD, WAPAKONETA, OHIO 45895, (419)-738-8010.; CITY OF WAPAKONETA POLICE DEPARTMENT, 103 WILLIPIE STREET, WAPAKONETA, OHIO 45895,(419)-738-8802. 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 SPECIAL-LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL, LAW ENF. OFFICER WITH PATROL CAR 50 HOURS

THE HOURS PAID SHALL INCLUDE A 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, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

SUGGESTED CONSTRUCTION AND MAINTENANCE OF TRAFFIC SEQUENCE

IN ADDITION TO THE REQUIREMENTS OF ITEM 614, MAINTAINING TRAFFIC, OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS AND THE REQUIREMENTS FOR INSTALLATION AND OPERATION OF TRAFFIC CONTROL DEVICES NOTED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION, THE FOLLOWING SEQUENCE OF OPERATIONS SHALL BE FOLLOWED:

PHASE 1A (BRIDGE SUPERSTRUCTURE REMOVAL AND BEGIN ROADWAY CONSTRUCTION)

TRAFFIC SCHEME

1. CLOSE BELLEFONTAINE STREET EAST OF APOLLO DRIVE (STATION 26+192) AND EAST OF RAMPS "A" AND "B" (STATION 26+780).
2. MAINTAIN LOCAL ACCESS TO BELLEFONTAINE STREET BETWEEN CEMETERY ROAD AND STATION 26+780.
3. CLOSE RAMPS "A" AND "D" AT I-75 UTILIZING MT-98.12M WITH THE FOLLOWING MODIFICATIONS:
  - A. COMPLETELY CLOSE THE RAMP WITH BARRELS AND TEMPORARY EDGE LINE TO 10 METERS PAST THE GORE AREA.
  - B. DELETE "EXIT RAMP OPEN" (OC-45A-48) SIGN, EXIT SIGN AND SPEED PLACARD, (OW-96-48 AND OW-143-24).
  - C. SUBSTITUTE THE FOLLOWING SIGNS:

"EXIT RAMP CLOSED" (OC-46-48) FOR "EXIT RAMP OPEN AHEAD" AND SPEED PLACARD (OC-45-48 & OW-143-24).

"EXIT RAMP CLOSED AHEAD" (OC-46A-48) FOR "WORK IN EXIT LANE" (OW-156-48).

4. CLOSE RAMPS "B" AND "C".



MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL NOTES

SUGGESTED CONSTRUCTION AND MAINTENANCE OF TRAFFIC (cont'd)

PHASE 1A (BRIDGE SUPERSTRUCTURE REMOVAL AND BEGIN ROADWAY CONSTRUCTION)

TRAFFIC SCHEME (cont'd)

- 5. PROVIDE ADVISORY AND DETOUR SIGNING AS DETAILED ON SHEET 12.
- 6. CLOSE I-75 LANES AS NECESSARY USING MT-95.30M FOR BRIDGE DECK REMOVAL.

CONSTRUCTION SCHEME

- 1. BEGIN BRIDGE CONSTRUCTION BY REMOVING DECK AND BEAMS.
- 2. BEGIN ROADWAY CONSTRUCTION:  

BELLEFONTAINE STREET:  

STATION 26+192 TO BRIDGE  
STATION BRIDGE TO 26+950

RAMPS:  

RAMP A  
STATION 8+520 TO 8+678

RAMP B  
STATION 8+506 TO 8+900

RAMP C  
STATION 8+650 TO 8+941

RAMP D  
STATION 8+769 TO 8+920

PHASE 1B (ROADWAY CONSTRUCTION COMPLETION AND CONTINUED BRIDGE CONSTRUCTION)

TRAFFIC SCHEME

- 1. CONTINUE CLOSURE OF BELLEFONTAINE STREET AND ALL RAMPS.
- 2. CLOSE OUTSIDE LANES OF I-75 PER MT-95.40M AND DETAILS SHOWN ON SHEET 14.
- 3. CONTINUE ADVISORY AND DETOUR SIGNING AS DETAILED ON SHEET 12.

CONSTRUCTION SCHEME

- 1. CONTINUE BRIDGE CONSTRUCTION.
- 2. COMPLETE ROADWAY CONSTRUCTION:  

BELLEFONTAINE STREET:  

STATION 26+192 TO 26+380  
STATION 26+580 TO 26+950

RAMPS:  

RAMP A  
STATION 8+418 TO 8+678

RAMP B  
STATION 8+506 TO 9+105

RAMP C  
STATION 8+650 TO 8+941

RAMP D  
STATION 8+769 TO 9+110

PHASE 1A AND 1B DURATION

THE DURATION OF THE CLOSURE OF THE RAMPS AND BELLEFONTAINE STREET FOR CONSTRUCTION AS OUTLINED IN PHASES 1A AND 1B, SHALL BE SUCH THAT RAMPS "C" AND "D" TOGETHER WITH THE WESTERN END OF BELLEFONTAINE STREET IS NOT CLOSED FOR MORE THAN 45 CALENDAR DAYS TO PROVIDE ACCESS WESTBOUND TO THE CITY OF WAPAKONETA. LIKEWISE, RAMPS "A" AND "B" TOGETHER WITH THE EASTERN END OF BELLEFONTAINE STREET SHALL NOT BE CLOSED FOR MORE THAN 45 CALENDAR DAYS PROVIDING ACCESS TO CEMETERY ROAD AND POINTS EAST.

THE CONTRACTOR MAY CHOSE TO CLOSE AND CONSTRUCT ALL RAMPS SIMULTANEOUSLY. HOWEVER, IF THIS SIMULTANEOUS CLOSURE WOULD BE A DETRIMENT TO THE COMPLETION OF RAMPS "C" AND "D" AND THE WESTERN END OF BELLEFONTAINE STREET, THE CONTRACTOR MAY CONSTRUCT THE EASTERN AND WESTERN SIDES SEPERATELY IN ORDER TO MEET THE REQUIRED DEADLINES. IT IS THE INTENT OF THESE PLANS TO KEEP THE CLOSURE OF RAMPS "C" AND "D" TO A MINIMUM FOR ACCESS TO THE CITY OF WAPAKONETA.

THE RAMP AND STREET CLOSURES AS SET FORTH ABOVE IN PHASES 1A AND 1B SHALL NOT EXCEED 45 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 12. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

PHASE 2 (COMPLETE BRIDGE CONSTRUCTION)

TRAFFIC SCHEME

- 1. CLOSE BELLEFONTAINE STREET FROM EAST OF THE RAMP "C" AND "D" INTERSECTION (STATION 26+380), ACROSS THE BRIDGE TO WEST OF THE RAMP "A" AND "B" INTERSECTION (STATION 26+580)..
- 2. PROVIDE ADVISORY AND DETOUR SIGNING AS DETAILED ON SHEET 13.
- 3. CLOSE I-75 LANES AS NECESSARY USING MT-95.30M FOR BRIDGE DECK CONSTRUCTION. MAINTAIN TRAFFIC TO EXIT RAMPS "A" AND "D" USING MT-98.14M WHEN OUTSIDE I-75 LANES ARE CLOSED.

CONSTRUCTION SCHEME

- 1. COMPLETE BRIDGE CONSTRUCTION.
- 2. COMPLETE ROADWAY CONSTRUCTION:  

BELLEFONTAINE STREET:  

STATION 26+380 TO BRIDGE  
STATION BRIDGE TO 26+580

THE BRIDGE AND CONNECTING BELLEFONTAINE STREET SECTION CLOSURES AS SET FORTH ABOVE IN PHASES 1A, 1B AND 2 SHALL NOT EXCEED 180 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 13. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

ROAD CLOSURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND ROADWAY SERVICE MANAGER IN WRITING A MINIMUM OF FOURTEEN (14) CALENDAR DAYS IN ADVANCE OF THE BELLEFONTAINE STREET AND I-75 RAMP CLOSURES SO THAT THE PROPER LOCAL AUTHORITIES MAY BE NOTIFIED.

THE ENGINEER SHALL COORDINATE ALL CHANGES IN TRAFFIC PATTERNS AND SHALL NOTIFY ALL AFFECTED AGENCIES, INCLUDING THE FOLLOWING, AT LEAST SEVEN (7) DAYS PRIOR TO THE CHANGE .

CITY OF WAPAKONETA SERVICE - SAFETY DIRECTOR 738-6111  
CITY OF WAPAKONETA FIRE DEPARTMENT 738-2014  
CITY OF WAPAKONETA POLICE DEPARTMENT 738-8802  
CITY OF WAPAKONETA ENGINEERING DEPARTMENT 738-5596

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE FOLLOWING PROVISION IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE ODOT MAINTENACE OF TRAFFIC REVIEW TEAM.

REPAIR OR REPLACEMENT OF TRAFFIC CONTROL DEVICES

THE CONTRACTOR SHALL DESIGNATE A PERSON RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES AND TO INSURE THEIR PROPER FUNCTIONING AT ALL TIMES.

THIS PERSON SHALL BE AVAILABLE TO BEGIN REPAIRS OR REPLACEMENT OIF ANY DAMAGED OR DEFICIENT TRAFFIC CONTROL ITEMS WITHIN THIRTY (30) MINUTES OF NOTIFICATION OF SAID DAMAGE OR DEFICIENCY.

THE CONTRACTOR SHALL FURNISH THE PROJECT ENGINEER A TELEPHONE NUMBER WHERE ANY TRAFFIC DIFFICULTIES MAY BE REPORTED, ANY TIME THE DESIGNATED TRAFFIC CONTROL PERSON IS NOT ON THE PROJECT.

QUANTITIES

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616, WATER 190 CUBIC METERS.  
616, CALCIUM CHLORIDE 5 METRIC TONS

ITEM SPECIAL, 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 THE APPROVAL OF THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER SQUARE FOOT FOR ITEM SPECIAL, 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 20 SQUARE METERS HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM SPECIAL, 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 SPECIAL, REPLACEMENT DRUM, AND SHALL INCLUDED 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 50 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

MAINTENANCE OF TRAFFIC SUBSUMMARY				
SHEET NUMBER AND/OR STANDARD DRAWING	LOCATION OR SHEET NUMBER	614		622
		BARRIER REFLECTOR, TYPE B	TEMPORARY WHITE EDGE LINE, CLASS 1, TYPE C, 740.05	PORTABLE CONCRETE BARRIER, 32"
		EACH	METER	METER
PHASE 1				
MT-98.16M MT-95.40M	14	192	2099	1395
PHASE 2				
	ITEMS REMAIN IN PLACE FROM PHASE 1			

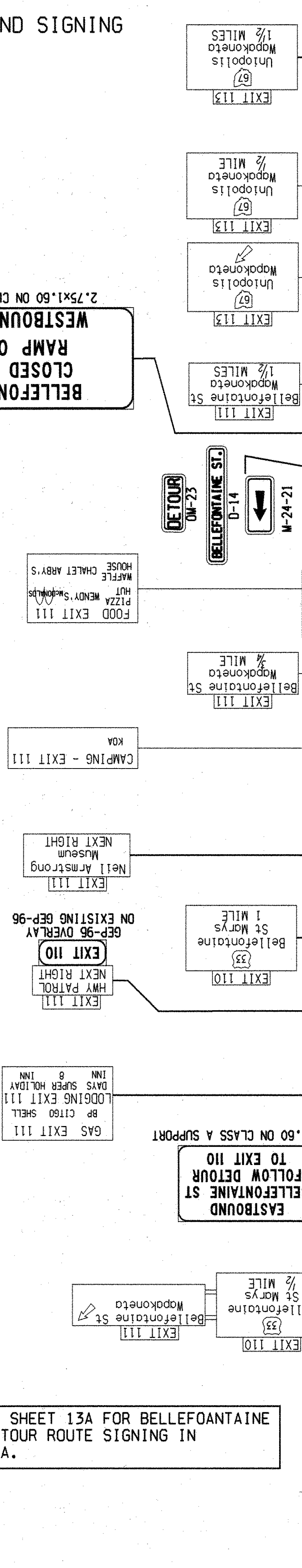


EXIT III BELLEFONTAINE ST CLOSED  
FOLLOW U.S. 33 NORTH  
TO S.R. 67 NORTH  
4.65x1.25 ON CLASS A SUPPORTS



SOUTHBOUND SIGNING

BELLEVILLE ST  
CLOSED AT I 75  
RAMP OPEN TO  
WESTBOUND TRAFFIC  
2.75x1.60 ON CLASS A SUPPORTS



MAINTENANCE OF TRAFFIC  
ADVISORY SIGNING  
CONSTRUCTION PHASE 2  
(BRIDGE ONLY CLOSED)

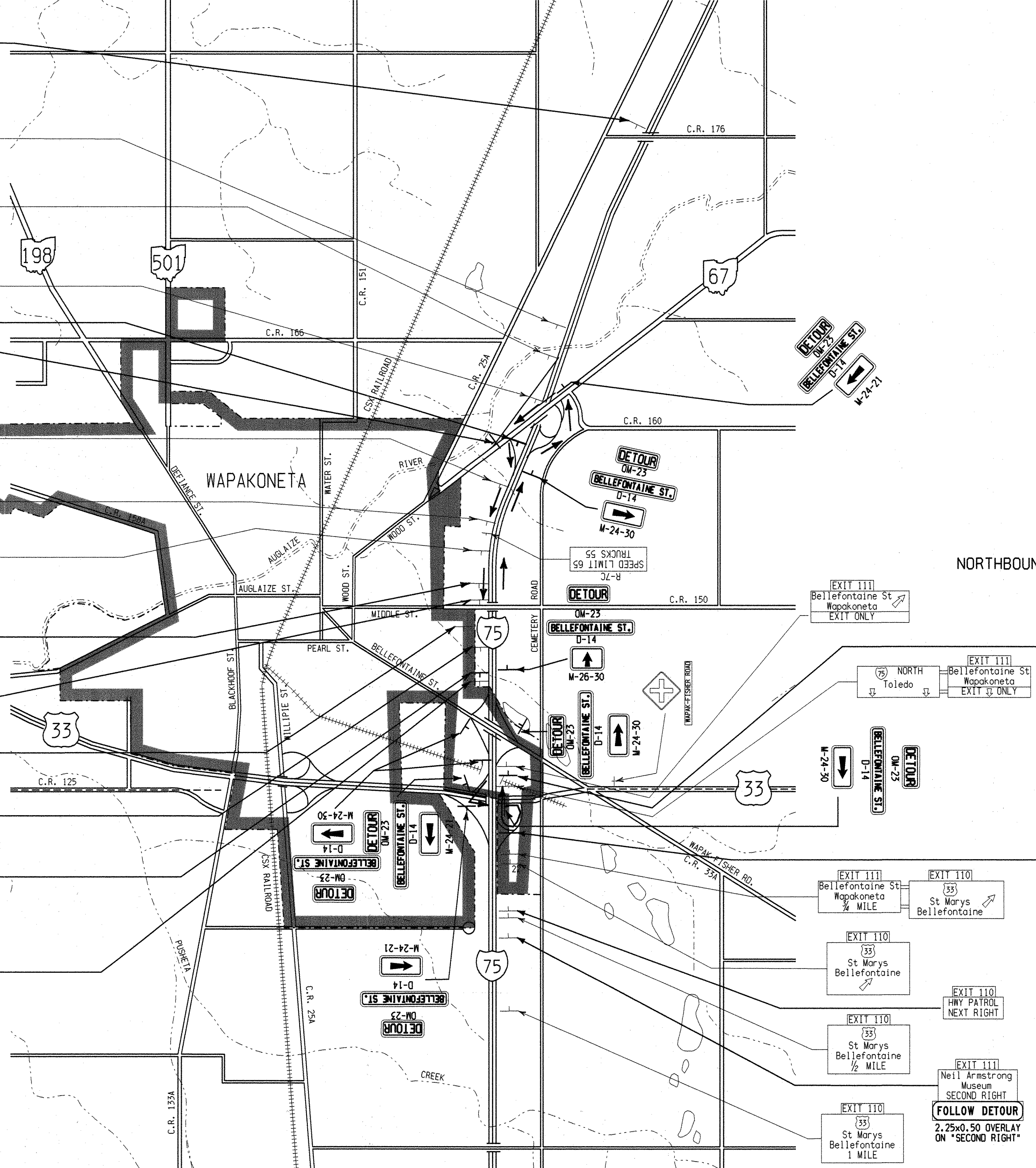
NOTE:  
THE CONTRACTOR SHALL ERECT, MAINTAIN  
AND REMOVE THE DETOUR AND ADVISORY  
SIGNING FOR THIS PHASE. PAYMENT FOR  
ALL MATERIAL, LABOR AND EQUIPMENT  
TO PERFORM THIS WORK SHALL BE INCLUDED  
IN THE LUMP SUM BID FOR ITEM 614  
MAINTAINING TRAFFIC.

- ADVISORY SIGNING GENERAL NOTES:
- 1) ALL ADVISORY SIGNING SHOWN ON THIS  
DETAIL TO BE BLACK LEGEND ON RSO  
SHEETING IN ACCORDANCE WITH 630.04.
  - 2) LEGEND HEIGHT TO BE 270 mm ON I-75  
OVERHEAD MAINLINE SIGNS, 200 mm ON  
I-75 MAINLINE GROUND MOUNTED SIGNS  
AND 150 mm ELSEWHERE.
  - 3) ALL DETOUR AND ADVISORY SIGNING  
SHALL BE SUPPORTED AND LOCATED  
USING MT-105.10M.

NORTHBOUND SIGNING

WESTBOUND  
BELLEVILLE ST  
FOLLOW DETOUR  
TO EXIT 113  
2.50x1.60 ON CLASS A SUPPORTS

BELLEVILLE ST  
CLOSED AT I 75  
RAMP OPEN TO  
EASTBOUND TRAFFIC  
2.75x1.60 ON CLASS A SUPPORTS





ADVISORY SIGNING GENERAL NOTES:

- 1) ALL ADVISORY SIGNING SHOWN ON THIS  
DETAIL TO BE BLACK LEGEND ON RSO  
SHEETING IN ACCORDANCE WITH 630.04.
- 2) LEGEND HEIGHT TO BE 270 mm ON I-75  
OVERHEAD MAINLINE SIGNS, 200 mm ON  
I-75 MAINLINE GROUND MOUNTED SIGNS  
AND 150 mm ELSEWHERE.
- 3) ALL DETOUR AND ADVISORY SIGNING  
SHALL BE SUPPORTED AND LOCATED  
USING MT-105.10M.

ADVISORY SIGNING GENERAL NOTES:  
1) ALL ADVISORY SIGNING SHOWN ON THIS  
DETAIL TO BE BLACK LEGEND ON RSO  
SHEETING IN ACCORDANCE WITH 630.04.

2) LEGEND HEIGHT TO BE 270 mm ON I-75  
OVERHEAD MAINLINE SIGNS, 200 mm ON  
I-75 MAINLINE GROUND MOUNTED SIGNS  
AND 150 mm ELSEWHERE.

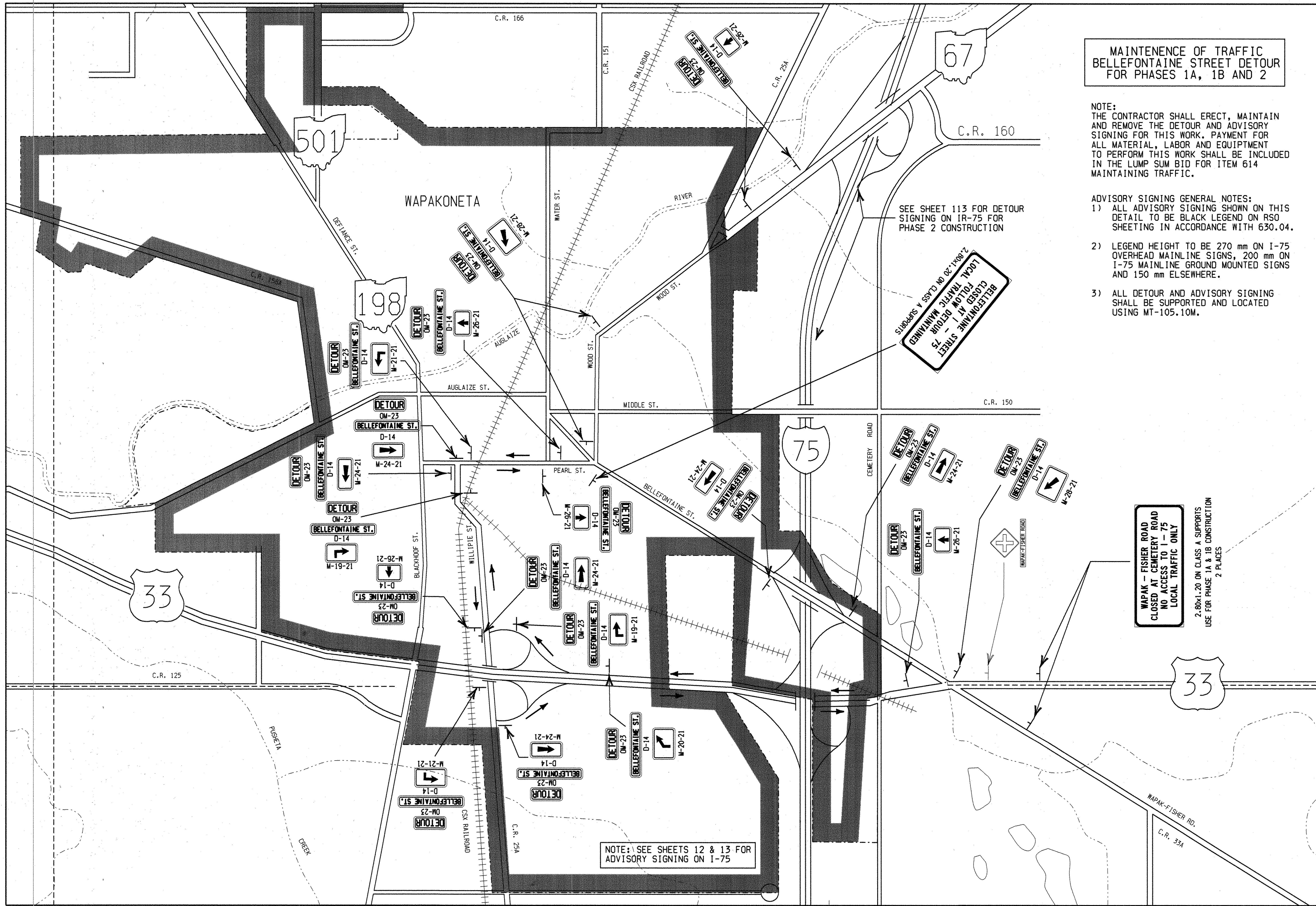
3) ALL DETOUR AND ADVISORY SIGNING SHALL BE SUPPORTED AND LOCATED USING MT-105.10M.

SEE SHEET 113 FOR DETOUR  
— SIGNING ON IR-75 FOR  
PHASE 2 CONSTRUCTION

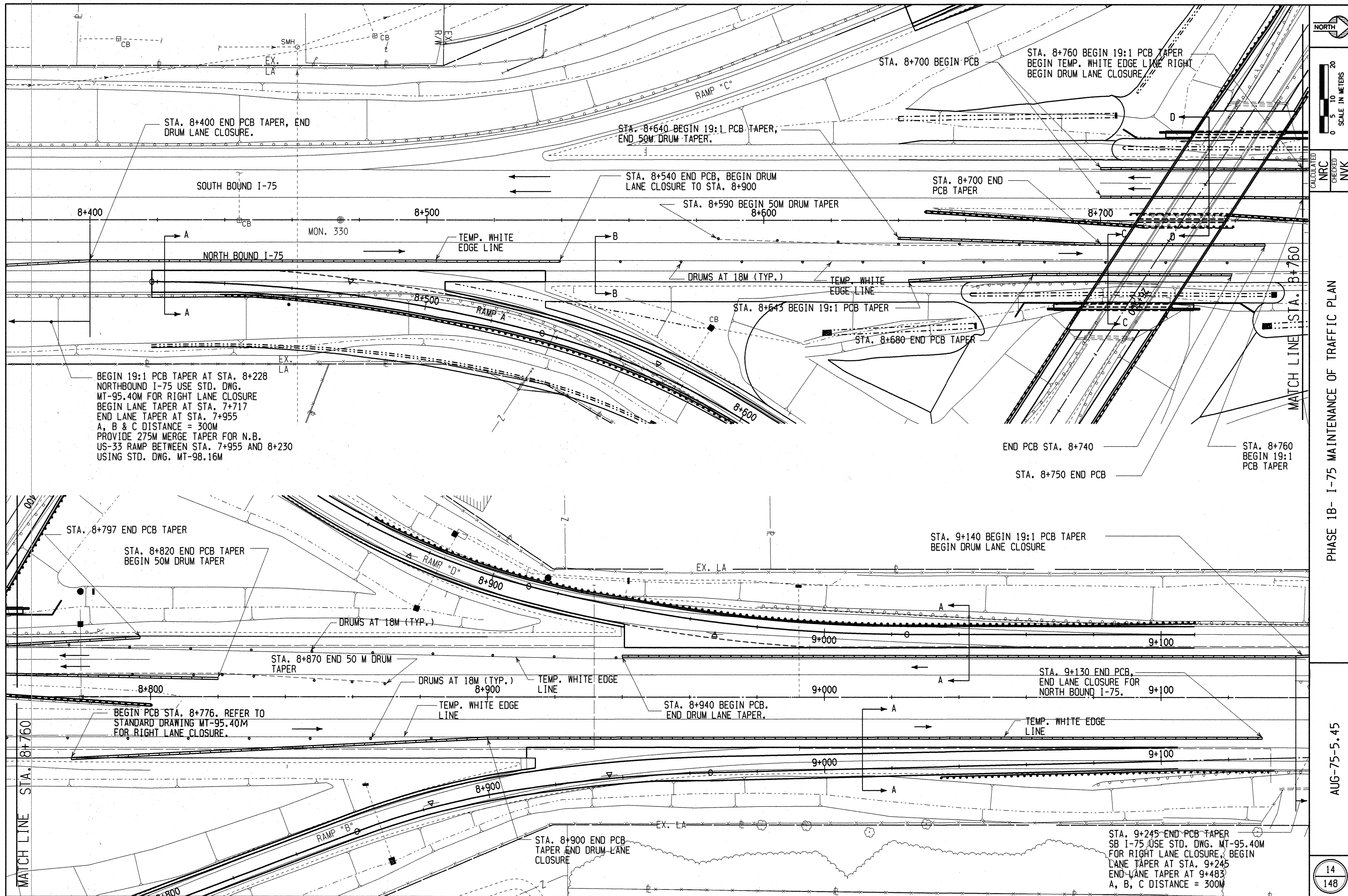
WAPAK - FISHER ROAD  
CLOSED AT CEMETERY ROAD  
NO ACCESS TO I - 75  
LOCAL TRAFFIC ONLY

2.80x1.20 ON CLASS A SUPPORTS  
USE FOR PHASE 1A & 1B CONSTRUCTION  
2 PLACES

NOTE: SEE SHEETS 12 & 13 FOR  
ADVISORY SIGNING ON I-75











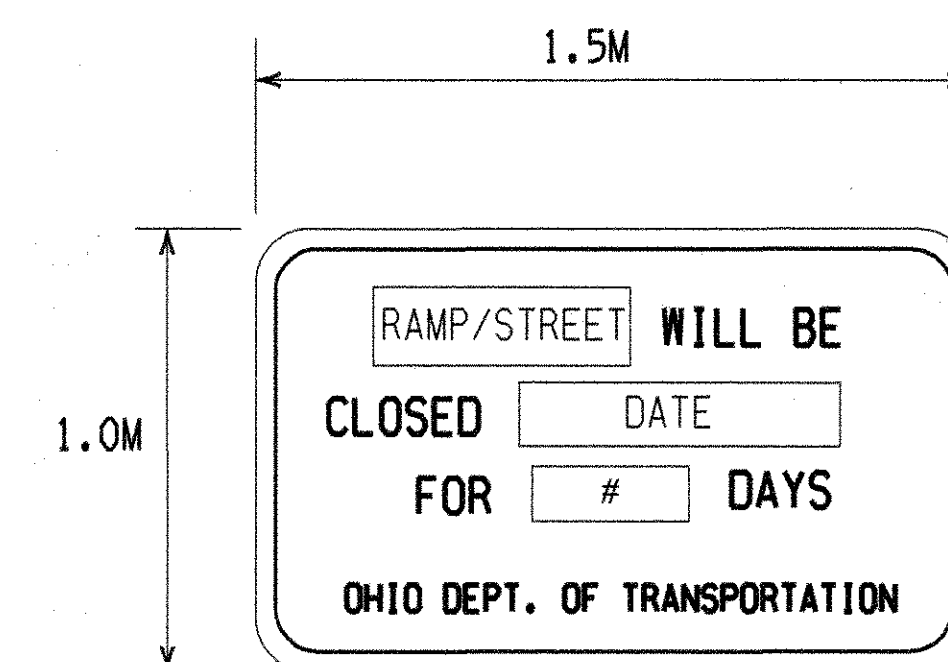


SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D



NOTICE OF CLOSURE  
SIGN DETAIL



PAVEMENT SUBSUMMARY

LOCATION		ITEM AREA WIDTHS			ITEM AREA LENGTH	AREA	203		451	301		304				202	611	402	404	
		PVMT.	PAVED BERM				SUBGRADE COMPACTION	REINFORCED CONCRETE PAVEMENT	BIT. AGGR. BASE	BIT. AGGR. BASE	AGGREGATE BASE				PAVEMENT REMOVED	APPROACH SLAB	ASPHALT	CONCRETE		
											150mm	150mm	150mm	237mm						
											(AREA x .15m) +2(0.10)	(AREA x .15m) +0.10m	(AREA x .15m) +0.13m	(AREA x .237m)						
①	②		③	(AREA)	(AREA + AREA UNDER CURB AND GUTTER)	(AREA)	(AREA) x .220mm	(AREA) x .240mm	(AREA x .15m) +2(0.10)	(AREA x .15m) +0.10m	(AREA x .15m) +0.13m	(AREA x .237m)		AREA x 380mm	(AREA)	(AREA)				
WEST BELLEFONTAINE		METER					SQ METER	SQ METER	CU. M.	CU. M.				SQ METER	CU. M.	CU. M.				
26+192.84	26+433.84	14.4	3.6		241	4338	4510.8		896.9*				747.9*			183.5*	130.5*			
26+192.84	26+343.8	CAD MEASURED AREA												1061.6						
RAMP C																				
8+819.98	8+941.76	5.4(AVG)	1.8		121.78	876.82	876.82		192.9				147.4			39.4	28.1			
8+780.89	8+819.98	4.8	2.7		39.1	293.1	293.1			70.3		47.9				13.2	9.4			
8+758.6	8+780.89	4.8	1.8		22.3	147.1	147.1			35.3		24.3				6.6	4.7			
8+736.10	8+758.60	4.8	3.2(AVG)		22.5	178.9	178.9			42.9		29.1				8.0	5.7			
8+664.50	8+736.10	4.8	2.7		71.6	537.0	537.0			128.9		87.7				24.2	17.2			
8+650	8+664.50	4.9(AVG)	2.4		14.5	105.8	105.8			25.4		15.9				4.8	3.4			
8+650.00	8+754.85	CAD MEASURED AREA												1187.4						
RAMP D																				
8+941.04	9+110.00	7.9(AVG)	2.4		169.0	1740.7	1740.7			417.8		278.0				78.3	55.7			
8+926.04	8+941.04	4.8	3.0(AVG)		15.0	117.0	117.0			28.1		19.0				5.3	3.7			
8+838.64	8+926.04	4.8	2.7		87.4	655.5	655.5			157.3		107.1				29.5	21.0			
8+794.12	8+838.64	4.8	2.7		44.5	333.9	333.9	269.6		15.3		54.5				15.0	10.7			
8+776.91	8+794.12	CAD MEASURED AREA				261.0*	261.0*	74.4		44.3*			44.0*	63.9		11.7*	8.4*			
8+802.42	8+941.04	CAD MEASURED AREA												17.6						
RAMP A															1003.1					
8+505.36	8+535.18	3.3			29.8	98.4	98.4			23.6		17.7				4.4	3.2			
8+418.36	8+435.86	3.6(AVG)	2.8(AVG)		17.5	110.7	110.7			26.6		18.4				5.0	3.5			
8+435.86	8+453.67	4.3(AVG)	2.4		17.8	118.9	118.9			28.5		19.6				5.4	3.8			
8+453.67	8+505.02	8.3(AVG)	2.4		51.4	549.4	549.4			131.9		87.6				24.7	17.6			
8+505.02	8+520.02	4.8	3.0(AVG)		15.0	117.0	117.0			28.1		19.0				5.3	3.7			
8+520.02	8+653.52	4.8	2.7		133.5	1001.2	1001.2	228		185.6		163.5				45.0	32.0			
8+653.52	8+670.33	CAD MEASURED AREA				279.8	279.8	169		26.5			46.9	54.1		12.6	9.0			
8+505.36	8+607.44	CAD MEASURED AREA												40.1						
RAMP B															537.0					
8+505.98	8+520.98	.4(AVG)	3.0		15.0	51.0	51.0			11.2		9.2				2.3	1.6			
8+520.98	8+629.83	5.8(AVG)	2.4		108.85	892.6	892.6			196.4		144.8				40.2	28.6			
8+629.83	8+644.83	4.8	3.0(AVG)		15.0	117.0	117.0			28.1		19.0				5.3	3.7			
8+644.83	8+666.36	4.8	2.7		21.5	161.5	161.5			38.8		26.4				7.2	5.2			
8+666.36	8+688.43	4.8	1.8		22.1	145.7	145.7			35.0		24.1				6.6	4.7			
8+688.43	8+710.93	4.8	3.2(AVG)		22.5	178.9	178.9			42.9		29.1				8.0	5.7			
8+710.93	8+914.55	4.8	2.7		203.6	1527.2	1527.2			366.5		249.4				68.7	48.9			
8+911.96	8+914.55	3.2			2.6	8.31	8.31			2.0		1.25				.4	.3			
8+914.55	8+951.11	10.0(AVG)	1.8		36.6	431.4	431.4			103.5		68.4				19.4	13.8			
8+951.11	8+966.11	7.8(AVG)	2.1(AVG)		15.0	149.2	149.2			35.8		23.9				6.7	4.8			
8+966.11	9+104.56	5.8(AVG)	2.4		138.4	1131.1	1131.1			271.5		183.5				50.9	36.2			
8+680	8+914.55	CAD MEASURED AREA													1235.0					
APPROACH SLABS																				
WEST						166.4	166.4					25.0				63.2				
EAST						164.2	164.2					24.6				62.4				
EAST BELLEFONTAINE																				
26+511.22	26+760.00	14.4	6.0		248.8	4574.6	4574.6*		1006.4*			679.2				146.4*	205.9*			
26+760.00	26+911.17	11.2(AVG)	3.0		151.2	2154.2	2154.2		473.9			374.5				96.9	68.9			
26+911.17	26+932.80	7.6(AVG)	4.8		21.6	269.3	269.3		59.2			47.8				12.1	8.6			
26+932.80	26+962.80	6.9(AVG)	4.8		30.0	351.0	351.0		77.2			62.8				15.8	11.2			
26+275	26+932.80	CAD MEASURED AREA													1853.9					
I-75																				
8+418.36	8+535.18	CAD MEASURED AREA													867.2					
8+914.17	9+104.6	CAD MEASURED AREA													752.6					
8+940.63	9+110.00	CAD MEASURED AREA													806.8					
TOTALS						24333	19996	4511	741	2707	2549	1214	1768	986	176	9905	126	1009	819	

CALCULATED  
NRC  
CHECKED  
MJS

PAVEMENT QUANTITIES

AUG-75-5.45



## EARTHWORK AND SEEDING

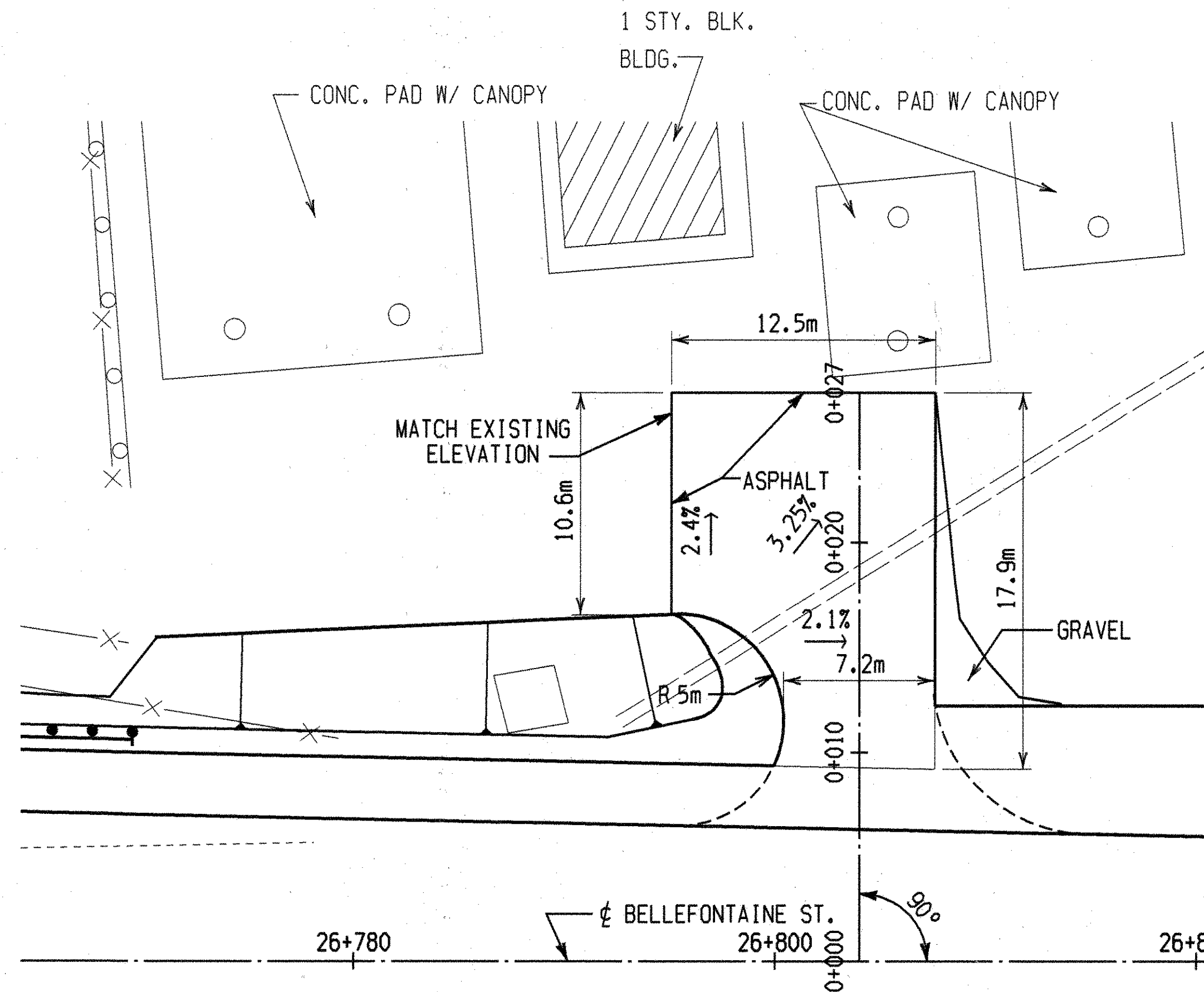
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Quantities By: NVK Date: 12-07-95  
Checked By: MJS Date: 12-11-95

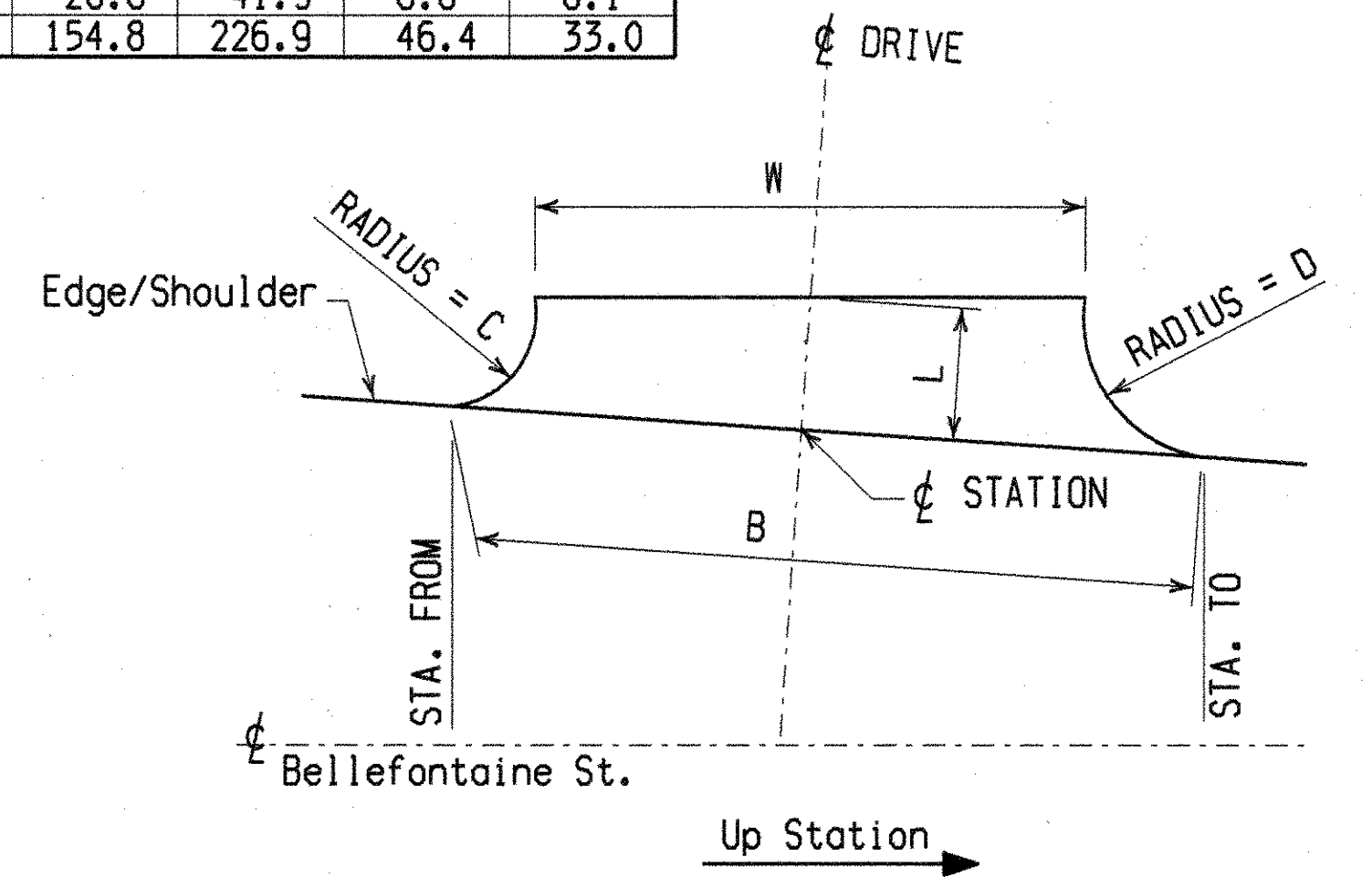
## DRIVE APPROACH PAVEMENT

SHEET NO.	REFERENCE NO.	STATION		SIDE	ANGLE - $\phi$	LENGTH - L	WIDTH - W	WIDTH - B	RADIUS - C	RADIUS - D	AREA - A	203	304	301	402	404
												SUBGRADE COMPACTION A	150mm AGGREGATE BASE A x 0.15	220mm BITUMINOUS AGGREGATE BASE A x 0.22	45mm ASPHALT CONCRETE A x 0.045	32mm ASPHALT CONCRETE A x 0.032
		FROM	TO or $\pm$									DIMENSIONS (METERS)				
		Bellefontaine St.														
	A-1	26+791.54	26+810.14	Rt.	-	9.1	14.0	18.6	10.0	3.0	87.1	87.1	13.1	19.2	3.9	2.8
	A-2	26+806.47	26+839.16	Lt.	-	3.4	31.0	31.6	-	1.5	103.3	103.3	15.5	22.7	4.6	3.3
	A-3	26+820.00	26+852.57	Rt.	-	6.8	27.6	32.6	3.0	4.0	182.0	182.0	27.3	40.0	8.2	5.8
	A-4	26+846.93	26+911.17	Lt.	-	3.8	63.6	64.2	1.5	-	242.3	242.3	36.3	53.3	10.9	7.8
	A-5	26+862.44	26+886.44	Rt.	-	8.5	17.2	23.8	4.0	2.0	164.4	164.4	24.7	36.2	7.4	5.3
	A-6	-	26+917.67	Lt.	45°	5.4	4.8	4.8	3.0	1.0	29.2	29.2	4.4	6.4	1.3	0.9
	A-7	-	26+942.72	Lt.	135°	5.3	5.2	5.2	1.0	3.0	32.5	32.5	4.9	7.2	1.5	1.0
	A-8		26+804.00	Lt.	90°	17.9	12.5	7.2	5.0	-	190.4	190.4	28.6	41.9	8.6	6.1
TOTALS												1031.2	154.8	226.9	46.4	33.0

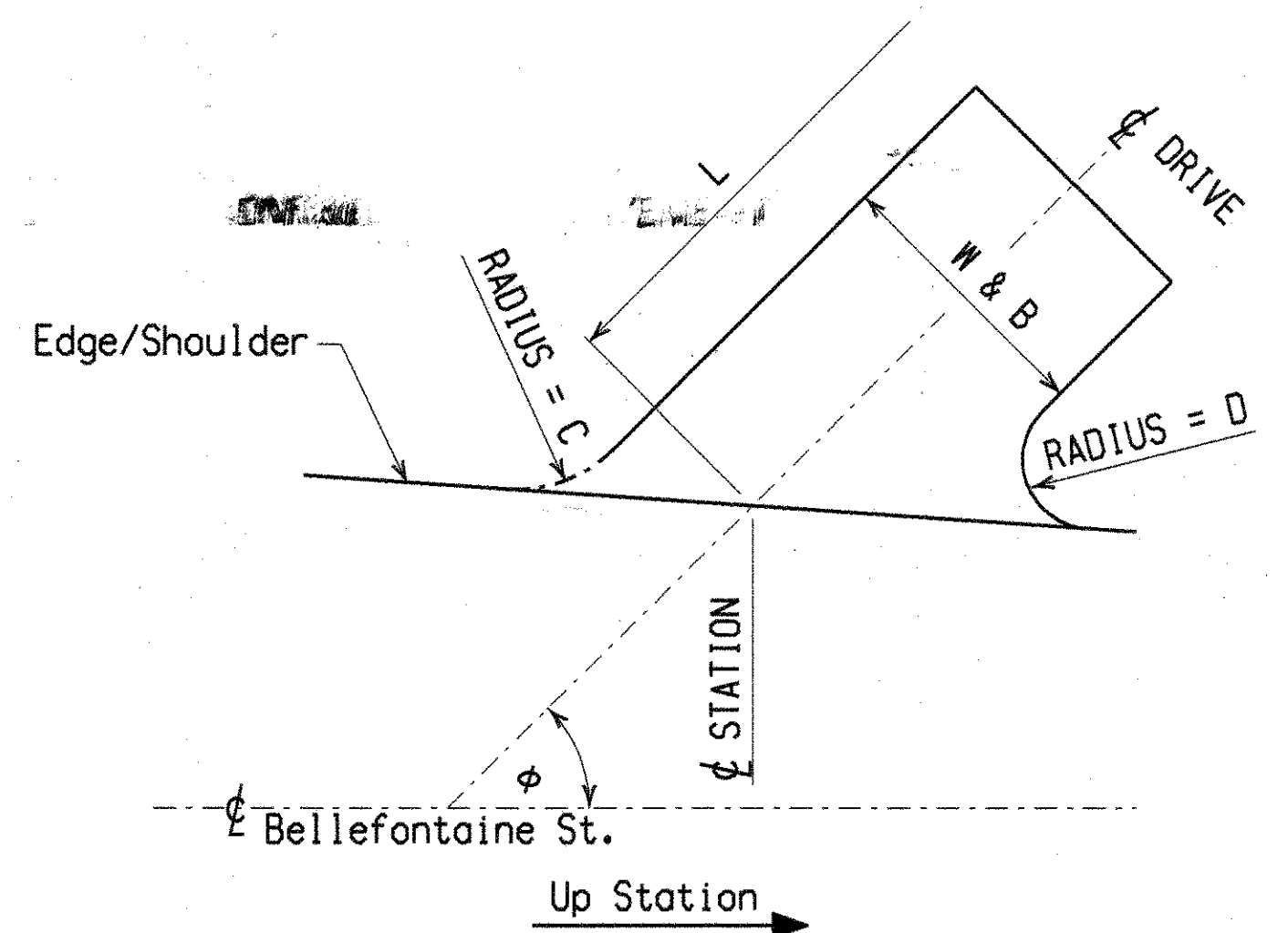
Quantities By: DEW Date: 10-11-95  
Checked By: NVK Date: 10-16-95



DRIVE DETAIL  
Applies To Drive Approach A-8.



DRIVE DETAIL  
Applies To Drive Approaches A-1 Thru A-5.



DRIVE DETAIL  
Applies To Drive Approaches A-6 & A-7.



GENERAL SUMMARY

CARRIED FROM SHEET																								QUANTITY			UNIT	DESCRIPTION		
6 - 11	17	18	21	23	24	25	26	33	34	35	36	37	38	48	49	50	51	52	53	54	55	70	71	72	148	ITEM			ITEM EXT.	TOTAL
ROADWAY																														
LUMP	9905																									201	11001	LUMP		CLEARING AND GRUBBING, AS PER PLAN
																										202	23000	9905	SQ METER	PAVEMENT REMOVED
					27																					202	30700	27	METER	CONCRETE BARRIER REMOVED
					5	70					18	73		43	8						21	32	58	24		202	34900	352	METER	PIPE REMOVED
				100	252	170	14	117	125		77						124	86	118	120						202	38000	1303	METER	GUARDRAIL REMOVED
																										202	38800	6	EACH	GUARD POST REMOVED
																										202	58100	12	EACH	CATCH BASIN REMOVED
						2						1	1		2	2				1						202	75000	667	METER	FENCE REMOVED
		9486																								203	12000	9486	CU METER	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
		49 548																								203	20000	49 548	CU METER	EMBANKMENT
26	24 507	1031																								203	45000	26	HOOR	PROOF ROLLING
					96.08	45.72	245.67	13.58	109.66	123.20		160.02	79.84				156.21	92.98	136.89	201	40.30					203	50000	25 538	SQ METER	SUBGRADE COMPACTION
																										606	13000	1501.15	METER	GUARDRAIL, TYPE 5
																										606	15500	114.30	METER	GUARDRAIL, BARRIER DESIGN, TYPE 5
																										606	25001	2	EACH	ANCHOR ASSEMBLY, TYPE A, AS PER PLAN
							1					1	1						1		2					606	26100	6	EACH	ANCHOR ASSEMBLY, TYPE E
					2				1	1		1	1				2		2							606	26500	9	EACH	ANCHOR ASSEMBLY, TYPE T
																	2									606	35000	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
																	2	2								607	15000	633	METER	FENCE, TYPE 47
																										607	40500	2	EACH	GATE, TYPE 47
																				1						SPECIAL	69050100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE
EROSION CONTROL																														
10 460																										207	10000	10 460	SQ METER	TEMPORARY SEEDING AND MULCHING
70																										207	30000	163	METER	FILTER FABRIC FENCE (SEE PROPOSAL NOTE)
																										207	50000	725	CU METER	TEMPORARY BENCHES, DAMS, AND SEDIMENT BASINS
14										.45		.45	.60													601	32200	22	CU METER	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
																										601	34200	175	CU METER	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER
																										659	10000	52 309	SQ METER	SEEDING AND MULCHING
2600																										659	14000	2600	SQ METER	REPAIR SEEDING AND MULCHING
5100																										659	20000	5100	KILOGRAM	COMMERCIAL FERTILIZER
610																										659	35000	610	CU METER	WATER
13 100																										659	40000	13 100	SQ METER	MOWING
																										667	10000	1865	SQ METER	SEEDING AND JUTE MATTING
PAVEMENT																														
																										301	10002	5483	CU METER	BITUMINOUS AGGREGATE BASE, AC-20
																										304	20000	4299	CU METER	AGGREGATE BASE (SEE PROPOSAL NOTE)
																										402	20000	1009	CU METER	ASPHALT CONCRETE, AC-20
																										402	20010	46	CU METER	ASPHALT CONCRETE, AC-20 (DRIVEWAYS)
																										404	20000	819	CU METER	ASPHALT CONCRETE, AC-20
																										404	25000	33	CU METER	ASPHALT CONCRETE, AC-20 (DRIVEWAYS)
																										451	14000	741	SQ METER	230mm REINFORCED CONCRETE PAVEMENT
													18		114	192	145									609	12000	469	METER	COMBINATION CURB AND GUTTER, TYPE 2
																	15									609	24000	15	METER	CURB, TYPE 4-A
																					73	39				609	26000	112	METER	CURB, TYPE 6
																										611	25000	126	SQ METER	REINFORCED CONCRETE APPROACH SLAB (T=380mm)
MAINTENANCE OF TRAFFIC																														
50																										614	11100	50	HOOR	LAW ENFORCEMENT OFFICER WITH PATROL CAR
20																										SPECIAL	61412500	20	SQ METER	REPLACEMENT SIGN
50																										SPECIAL	61412600	50	EACH	REPLACEMENT DRUM
192																										614	13300	192	EACH	BARRIER REFLECTOR, TYPE B
2.10																										614	22300	2.10	KILOMETER	TEMPORARY EDGE LINE, CLASS I, 740.05, TYPE C
380																										616	10000	380	CU METER	WATER
10																										616	20000	10	METRIC TON	CALCIUM CHLORIDE
1395																										622	40020	1395	METER	PORTABLE CONCRETE BARRIER, 813mm

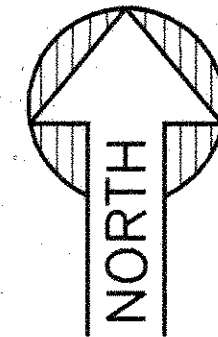


CALCULATED	CHECKED
NVK	MJS

3	AUG-75-5.45	GENERAL SUMMARY
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\* Longitude and Latitude Are To Approximate Center of Project.



CALCULATED <b>DEW</b> CHECKED <b>MJS</b>		
	HORIZONTAL SCALE IN METERS	NORTH

# STORM WATER POLLUTION PREVENTION PLAN

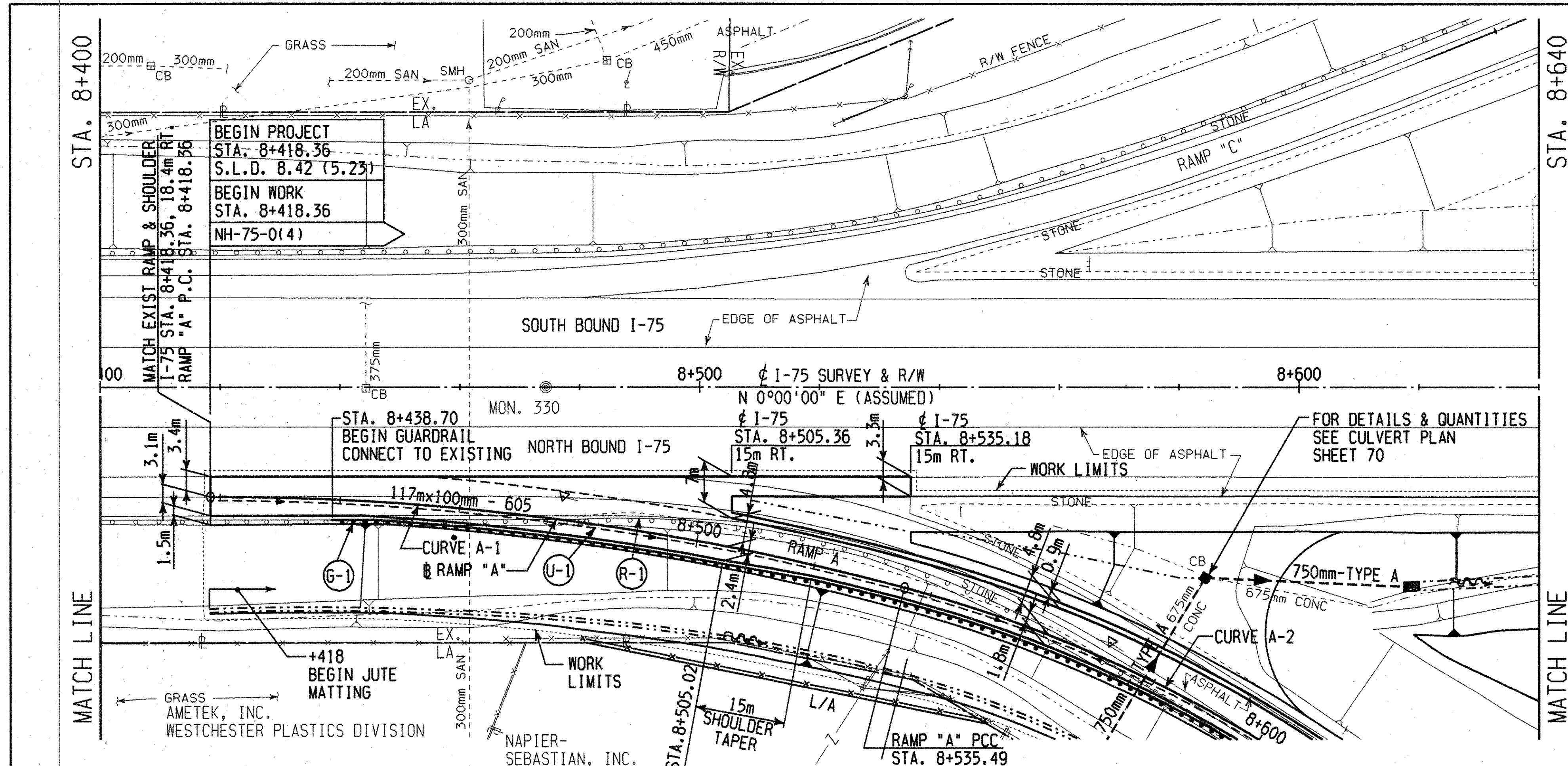
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- → Proposed Flowline

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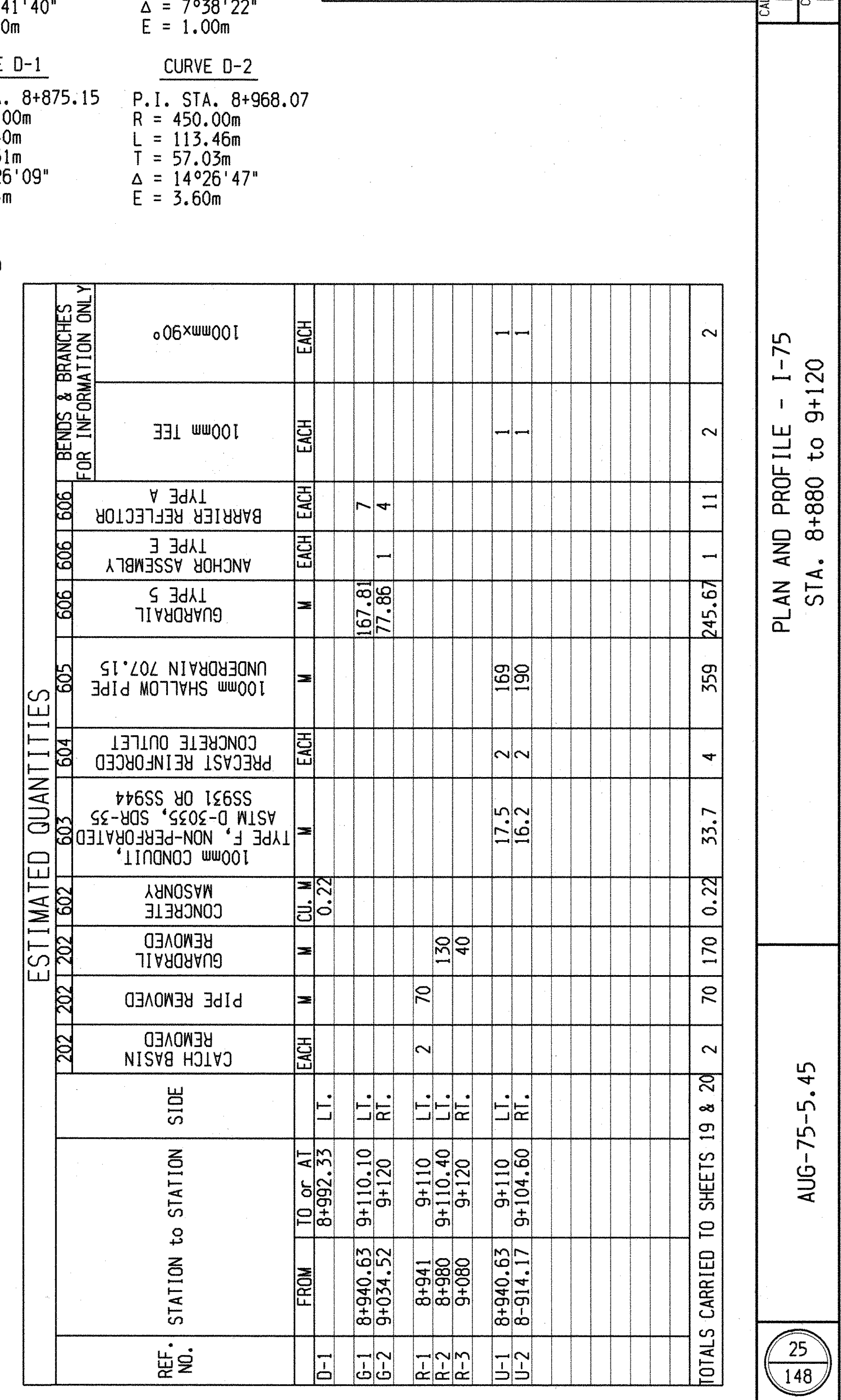
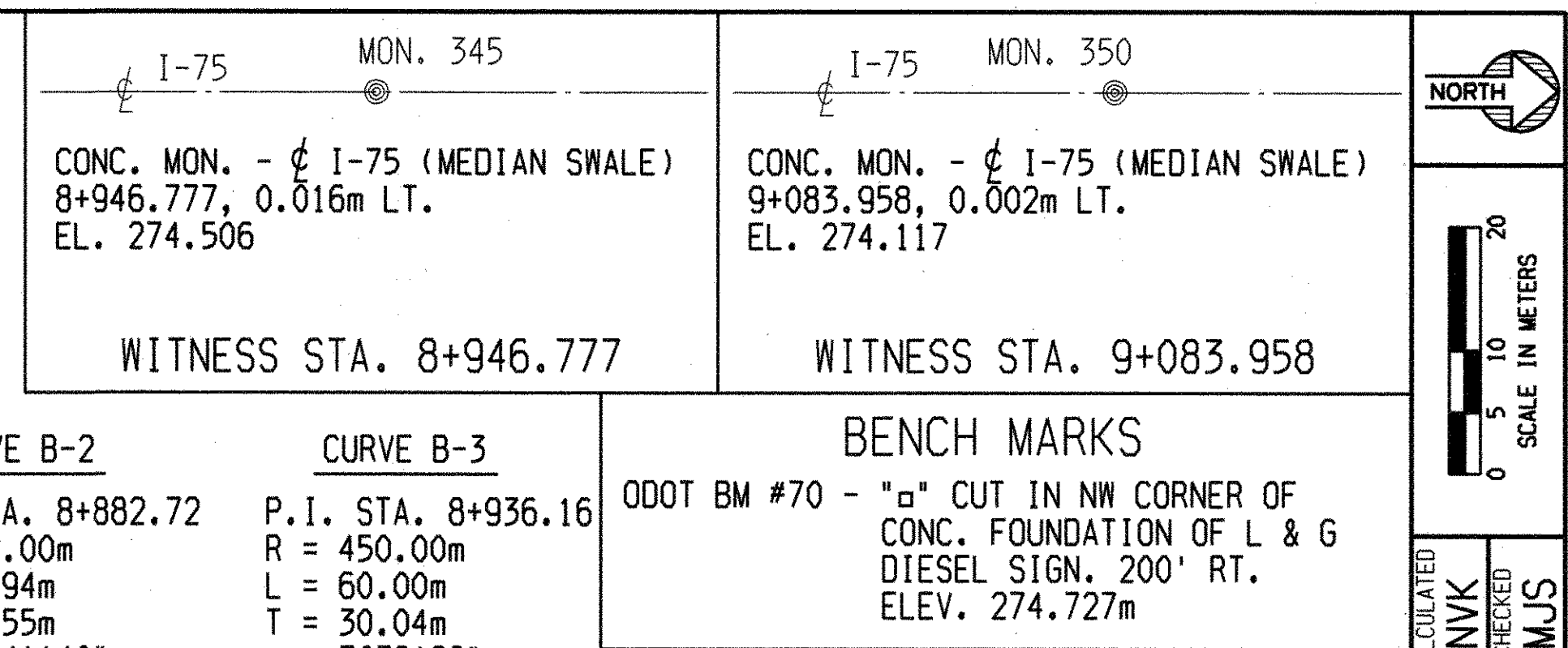












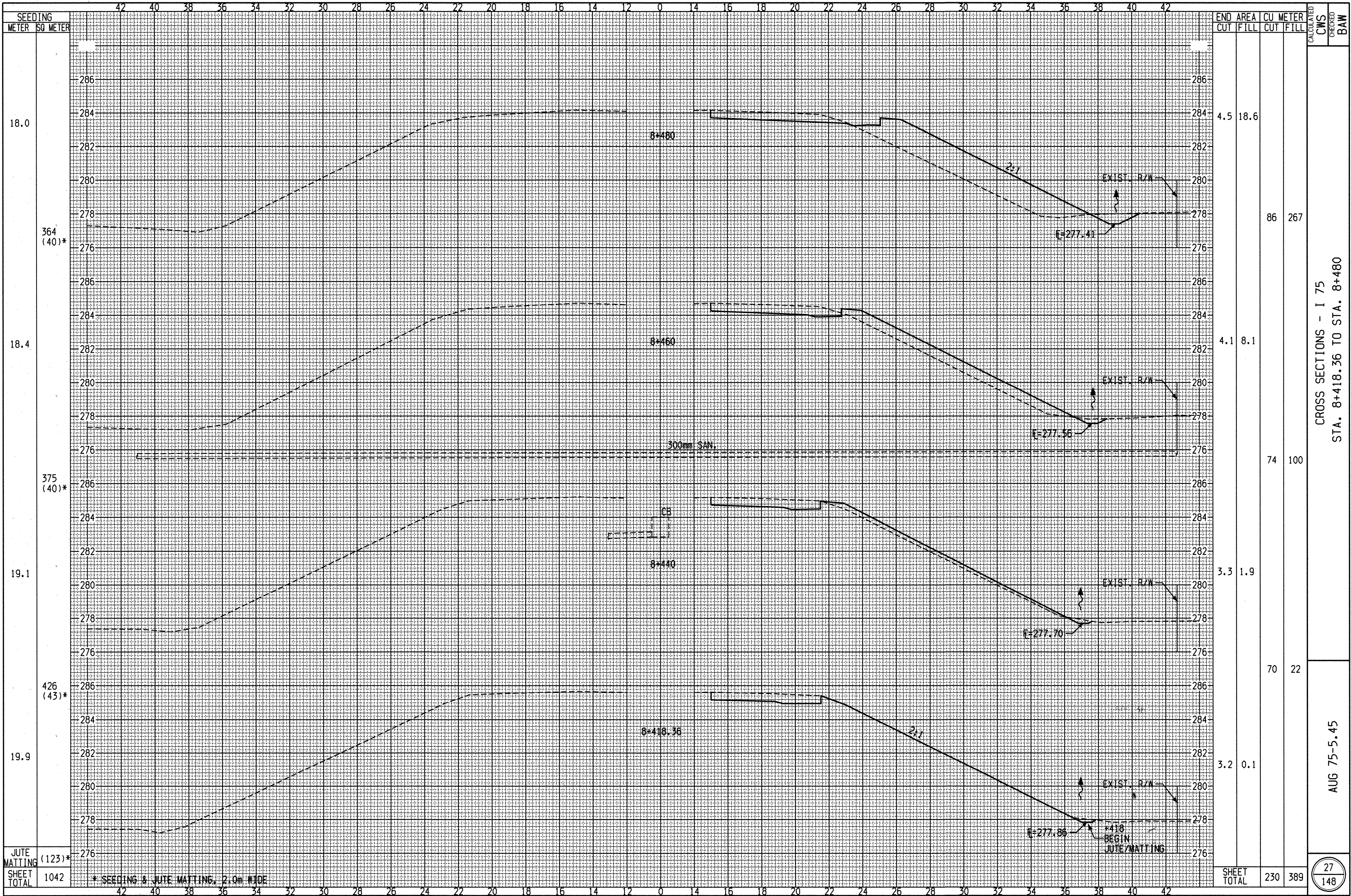






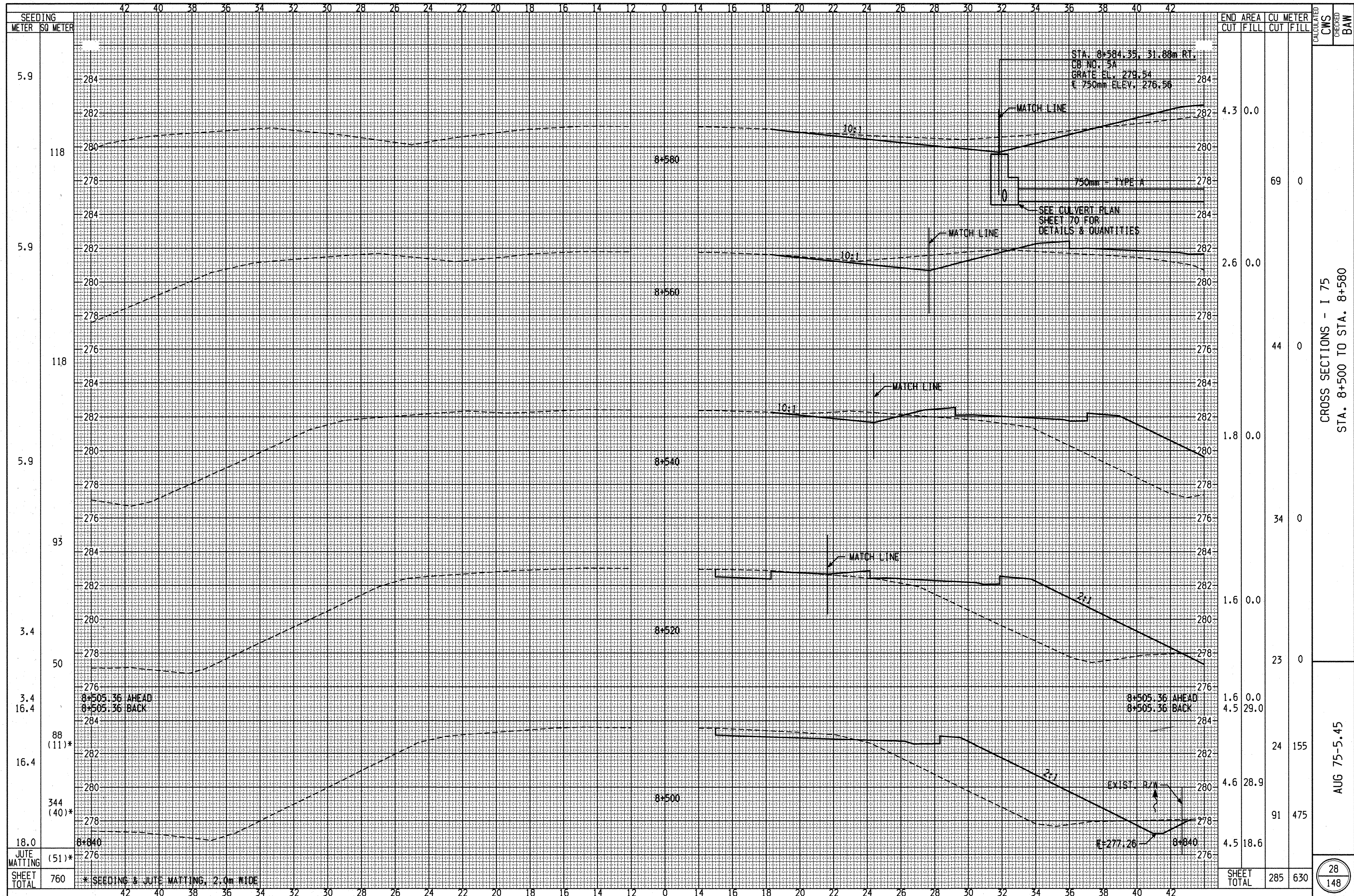
FINAL SURVEY	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED TEMPLATE	BY
	AREAS CHECKED	

ORIGINAL SURV	S.S.O.	DATE
NOTE BOOK NO.	C. ST	12-93
	C. ST	11-95
	C. ST	11-95
	C. ST	11-95





ORIGINAL SURV	BY	DATE
NOTE BOOK NO.	S. S. O. F	12-93
	C. STEIN	11-95
	C. STEIN	11-95
	C. STEIN	11-95
	C. STEIN	11-95

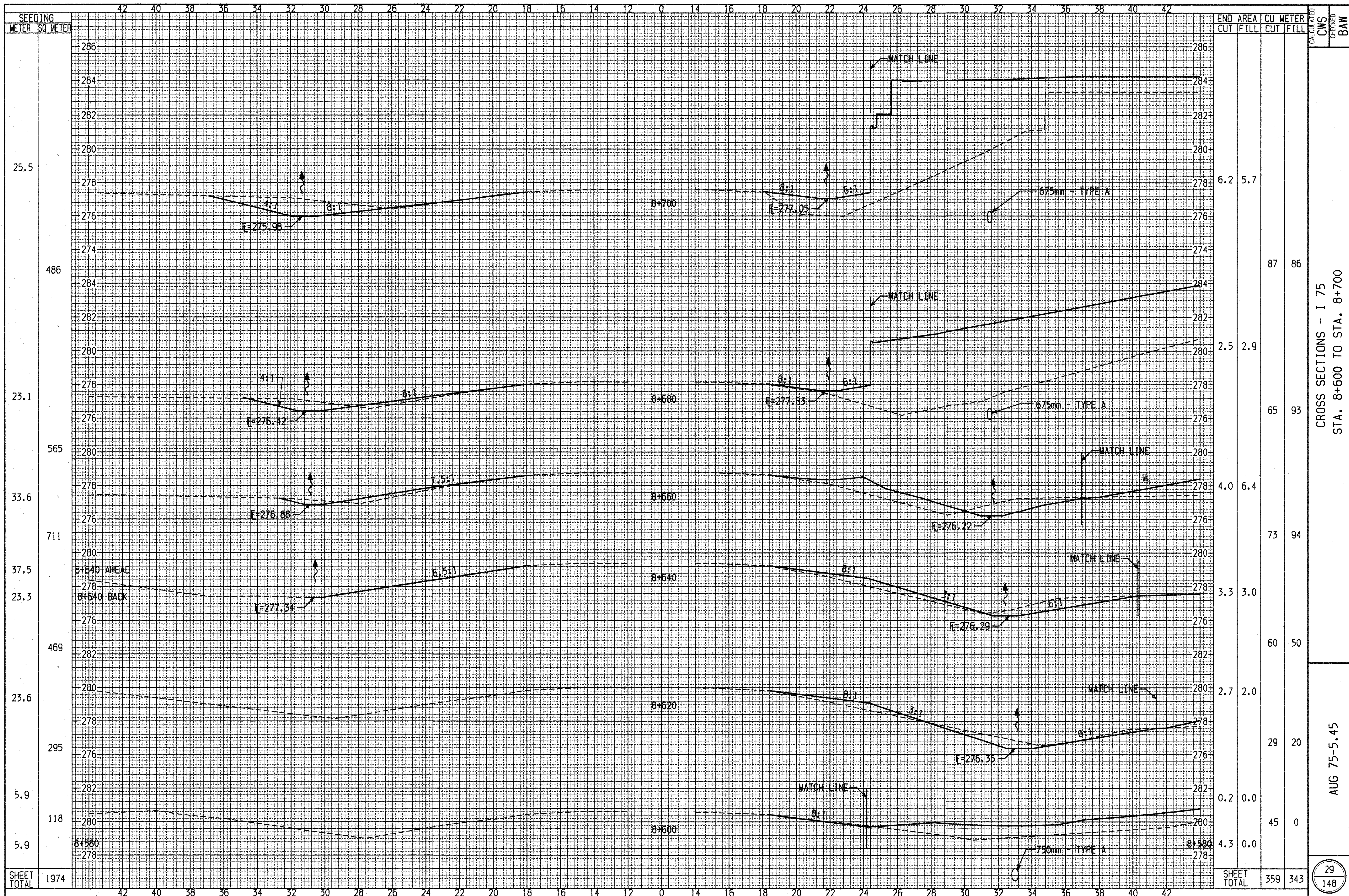




ORIGINAL SURV	BY	DATE
	S. S. O. F	12-93
	C. STEIN	11-95
	C. STEIN	11-95
	C. STEIN	11-95

NOTE BOOK NO.

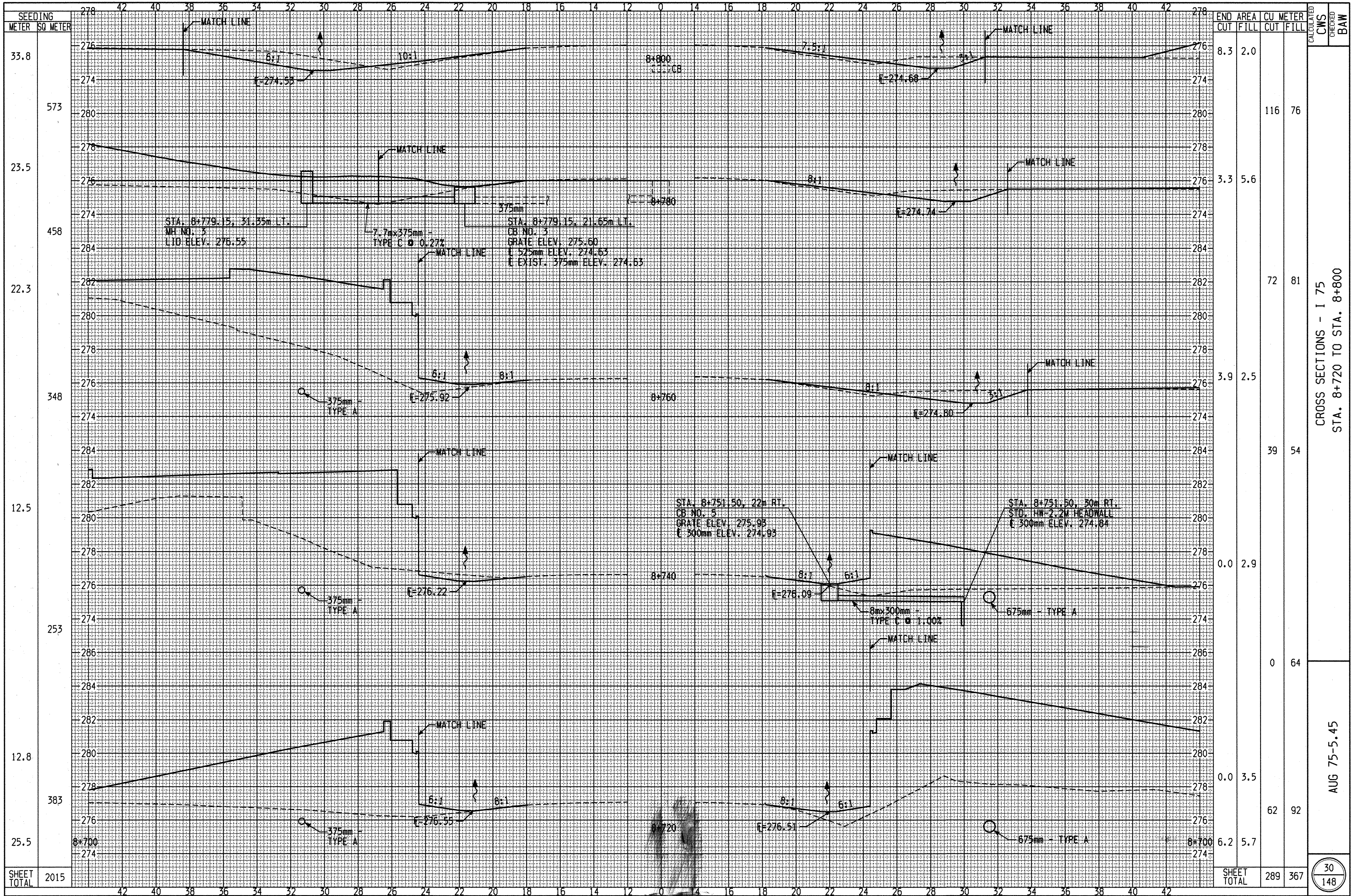
SURVEYED  
PLOTTED  
TEMPLATE  
AREAS  
AREAS CHECKED





FINAL SURVEY	SURVEYED PLOTTED	DATE
NOTE BOOK NO.	TEMPERATURE	BY
	AREAS CHECKED	

ORIGINAL SURV	SURVEYED PLOTTED	DATE
NOTE BOOK NO.	TEMPERATURE	BY
	AREAS CHECKED	



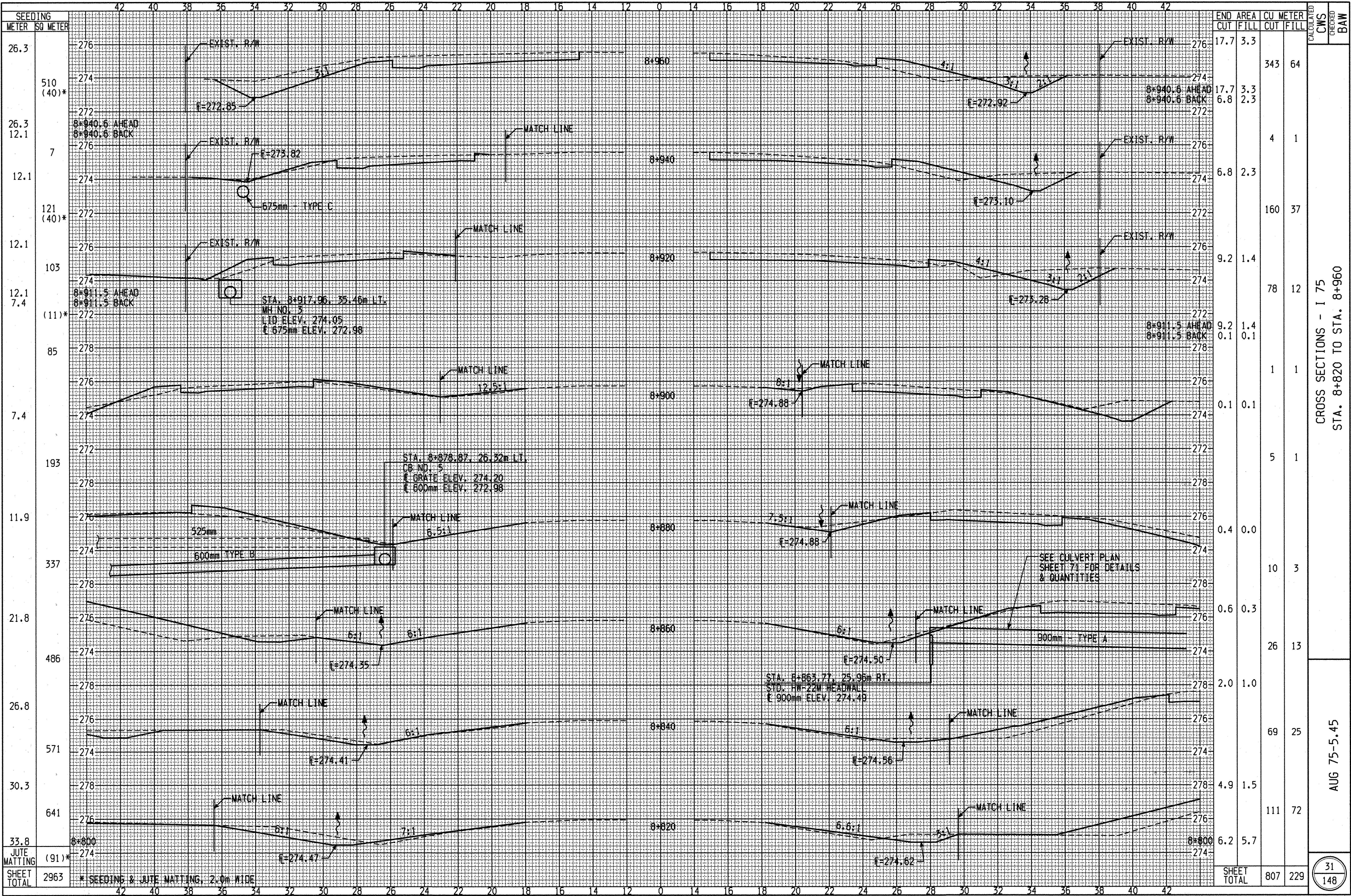
CROSS SECTIONS - I 75  
STA. 8+720 TO STA. 8+800

AUG 75-5.45



DATE	
BY	
SURVEYED	
PLOTTED	
TEMPERATURE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK NO.	

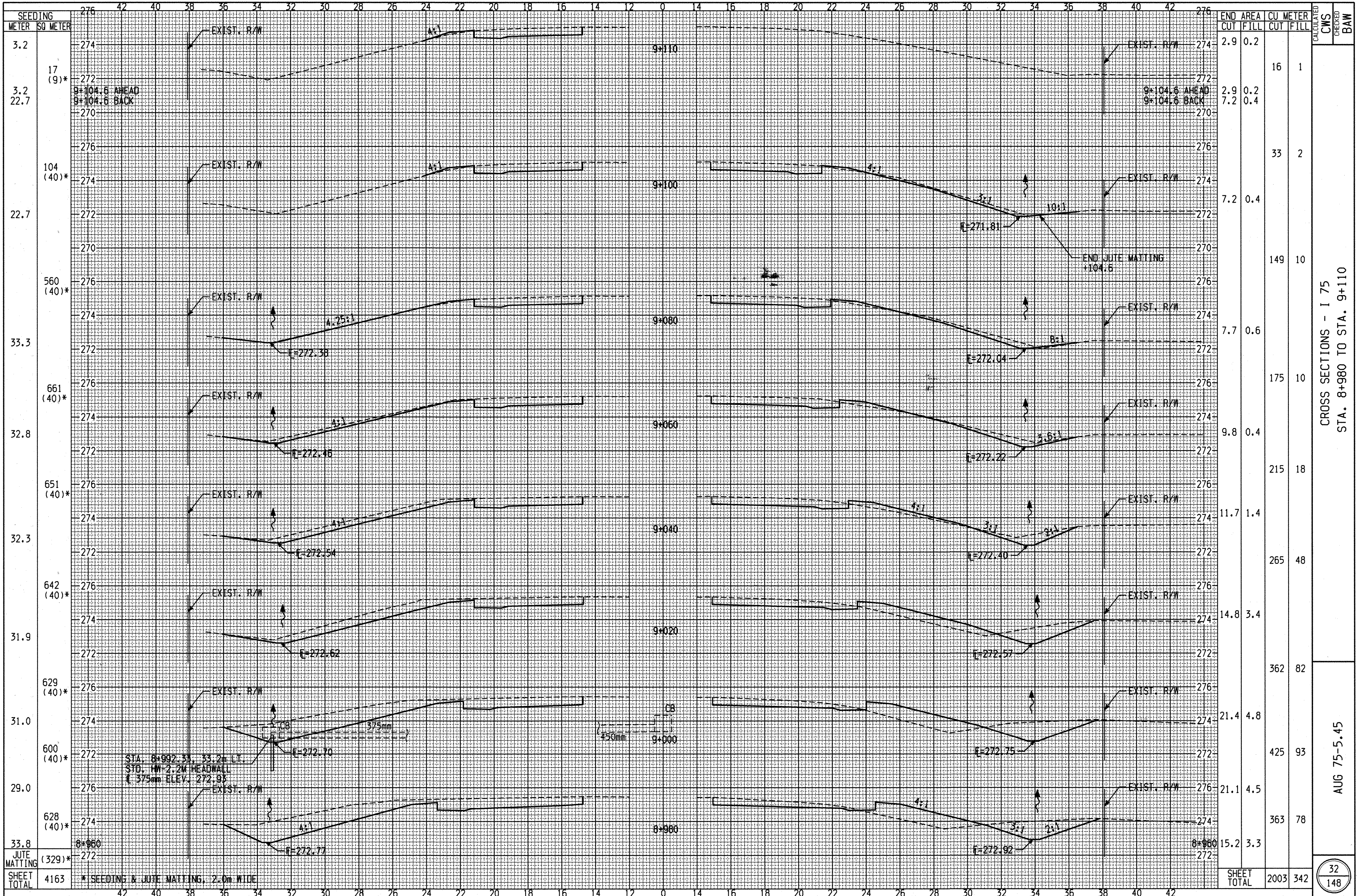
DATE	
BY	
S.S.O.E.	
C. SIF	
C. STEIN	
ORIGINAL SURV	
NOTE BOOK NO.	



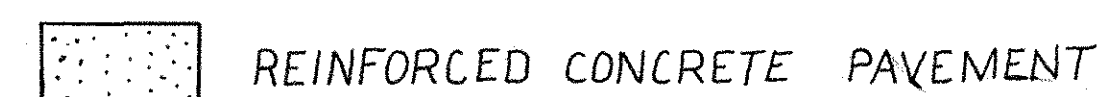
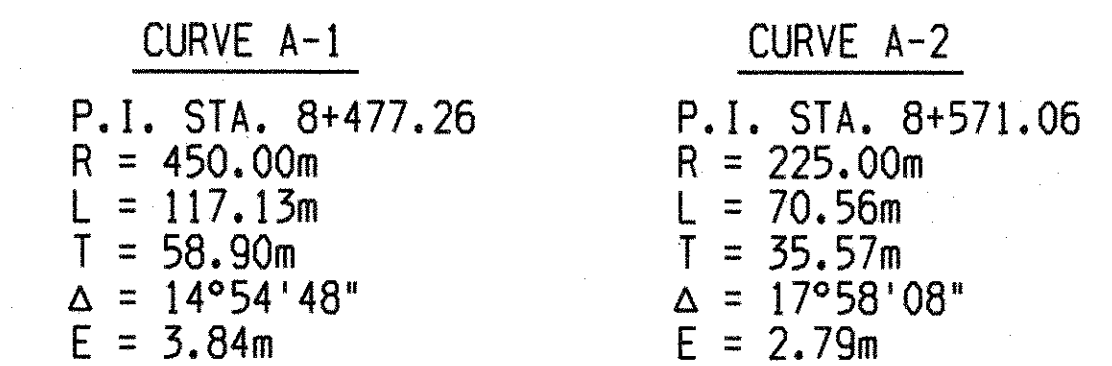


DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLE	
AREAS	
CHECKED	
FINAL	
SURVEY	
NOTE	
BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLE	
AREAS	
CHECKED	
ORIGINAL	
SURVEY	
NOTE	
BOOK	
NO.	

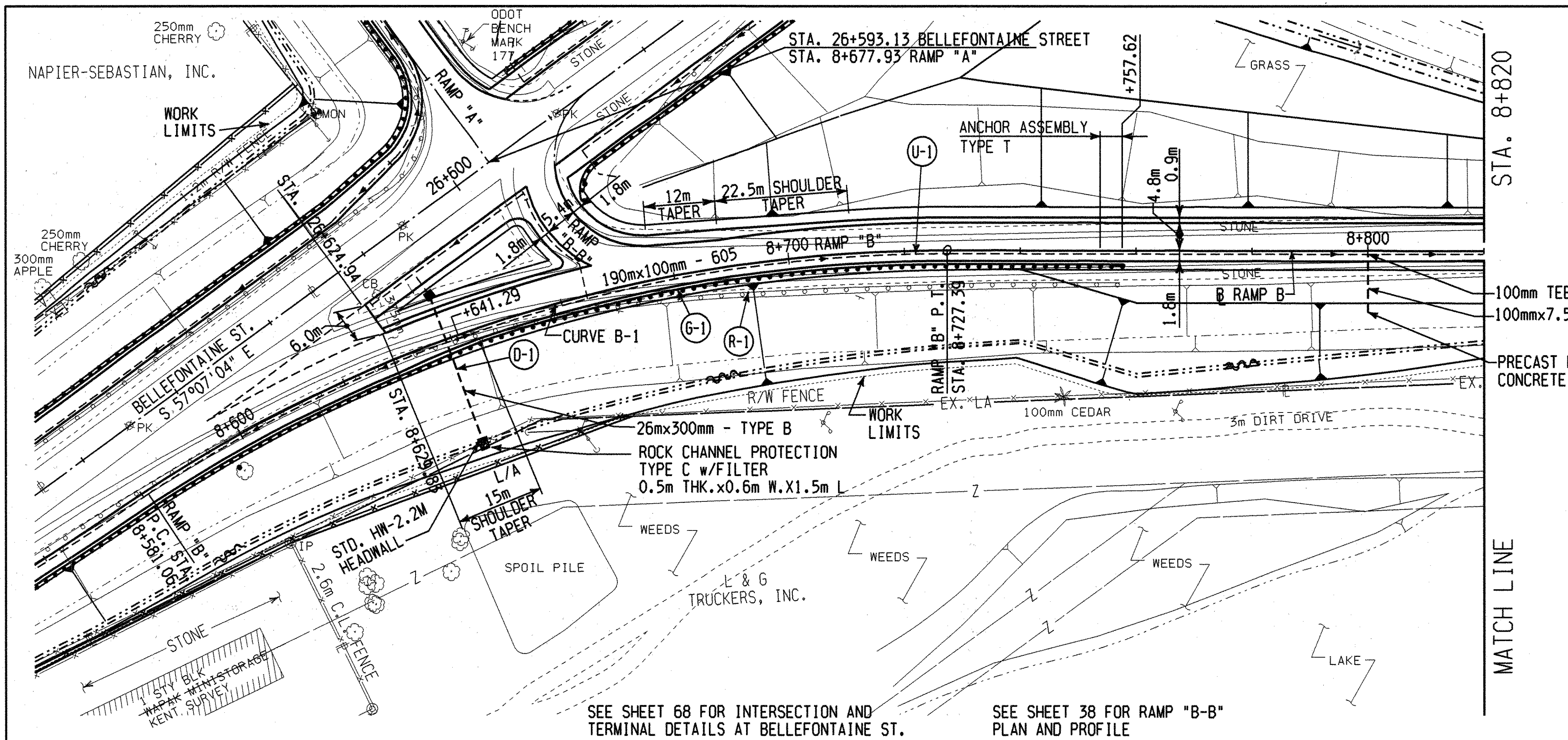




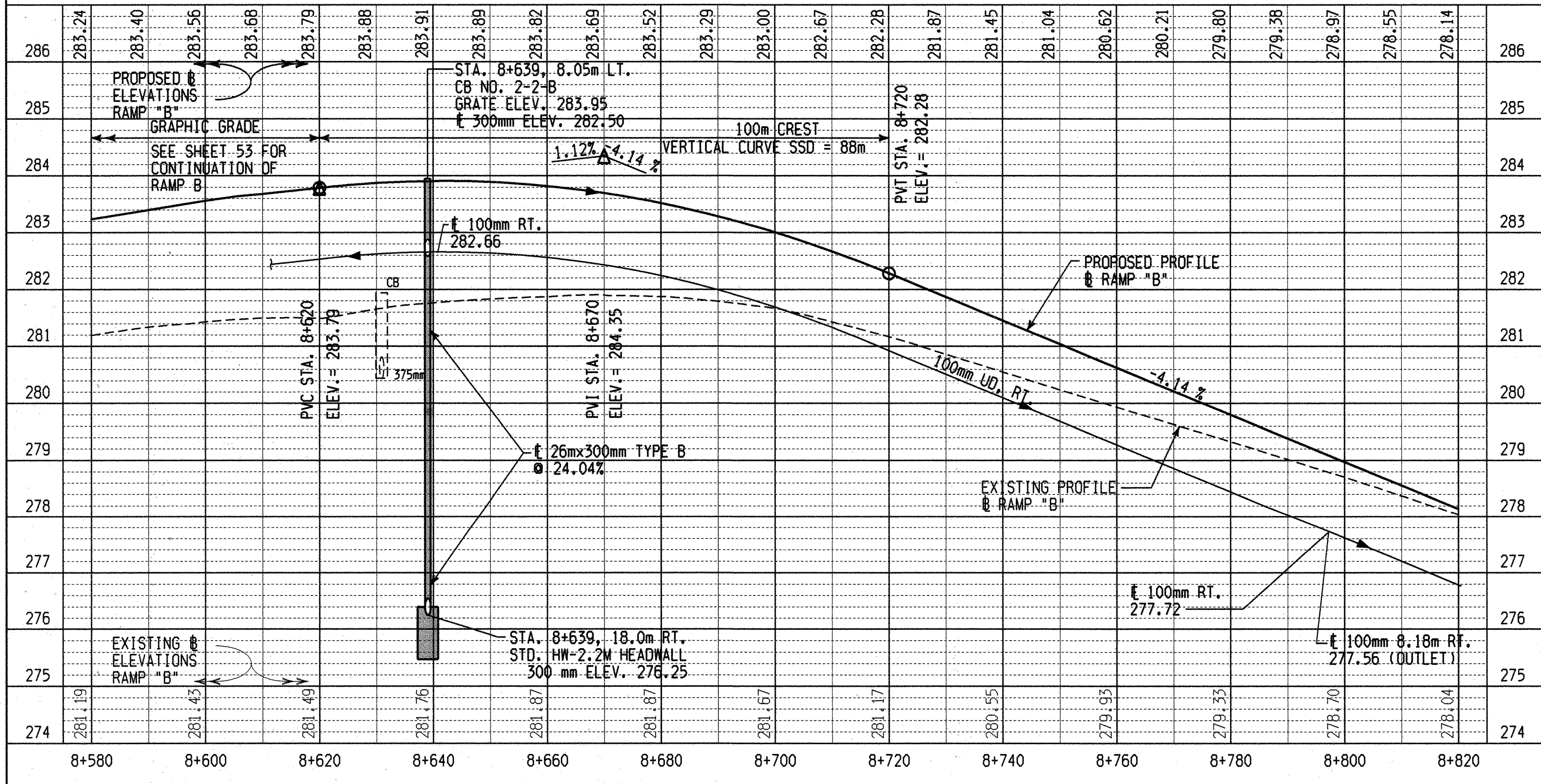


<div><div>33</div><div>148</div></div>	<div>AUG-75-5.45</div>	<div>PLAN AND PROFILE - RAMP "A"</div> <div>STA. 8+460 to 8+677.93</div>	<div><div>CALCULATED</div><div>NVK</div><div>CHECKED</div><div>MJS</div></div>	<div><div><div><div></div><div></div><div></div><div></div><div></div></div><div>051020</div><div>SCALE IN METERS</div></div><div><div>NORTH</div><div></div></div></div>
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REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES												BENDS & BRANCHES FOR INFORMATION ONLY	
			FROM	TO OR AT	QU.	CU.	CU.	CU.	CU.	CU.	CU.	CU.	CU.	CU.	QU.	QU.
D-1	8+629.83	RT.	8+639	8+757.62	1.8RT.											
G-1	8+629.83	RT.	8+757.62	8+757.62												
R-1	8+629.83	RT.	8+757	8+757												
U-1	8+629.83	RT.	8+820	8+820												
TOTALS CARRIED TO SHEETS 19 & 20			125	125	0.45	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1	1



PLAN AND PROFILE - RAMP "B"  
STA. 8+580 to 8+820

AUG-75-5.45

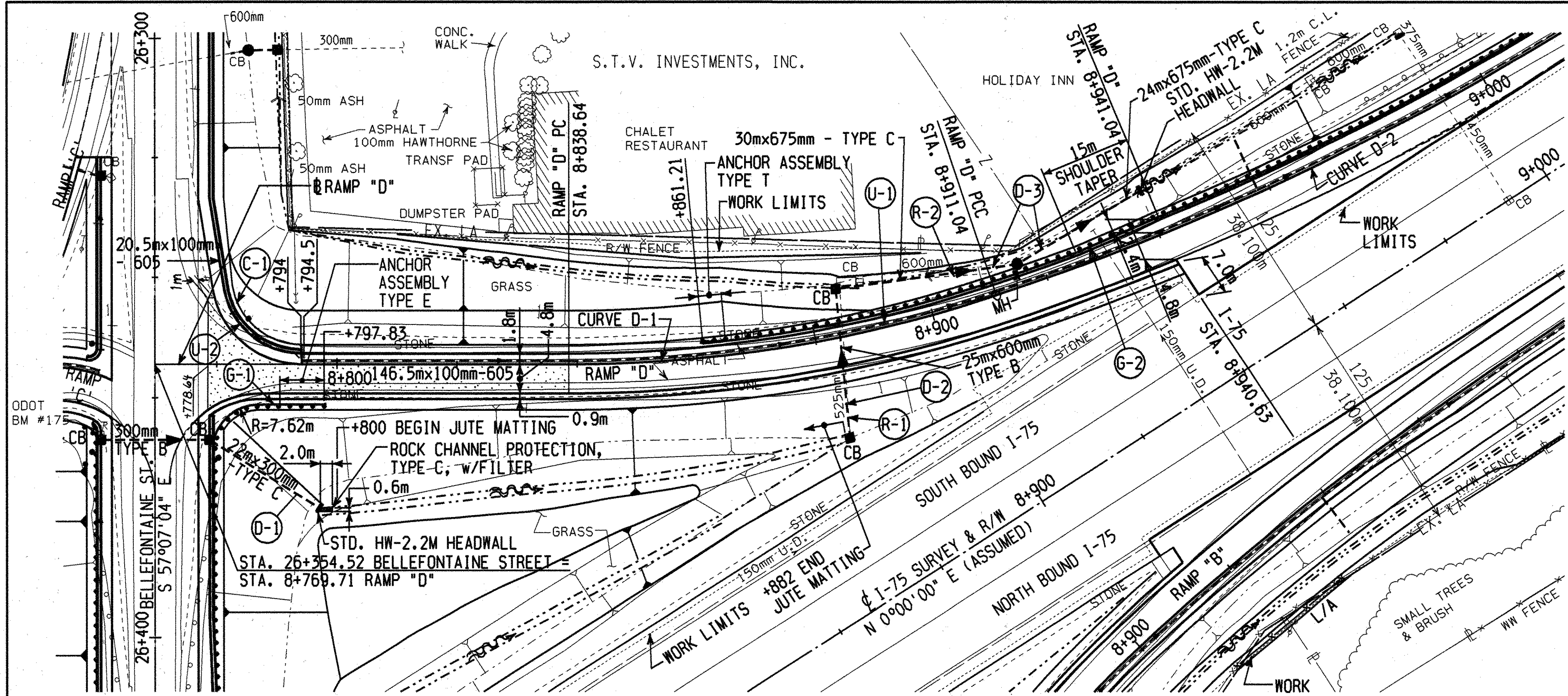












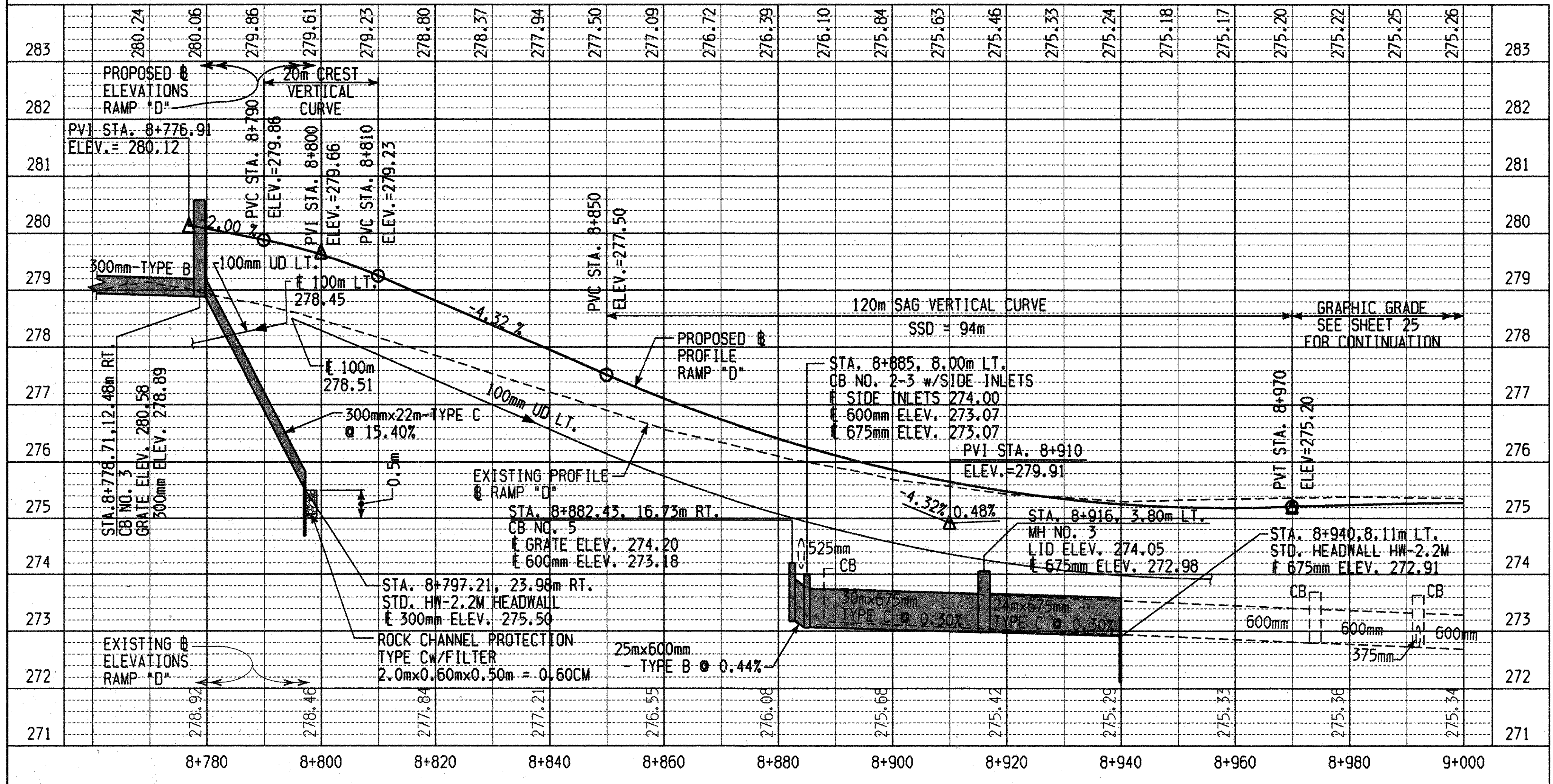
**BENCH MARKS**  
ODOT BM #70 - "□" - NW COR. CONC. FOUNDATION, L & G DIESEL SIGN  
8+911.048, 61.023m RT.  
EL. 274.727  
ODOT BM #175 - "□" SE COR. CONC. FOUNDATION POWER POLE  
8+773.640, 94.237m LT.  
EL. 279.534

**CURVE D-1**  
P.I. STA. = 8+875.15  
R = 225.00m  
L = 72.40m  
T = 36.51m  
Δ = 18°26'09"  
E = 2.94m  
**CURVE D-2**  
P.I. STA. = 8+968.07  
R = 450.00m  
L = 113.46m  
T = 57.03m  
Δ = 14°26'47"  
E = 3.60m

REINFORCED CONCRETE PAVEMENT

SEE SHEET 69 FOR INTERSECTION DETAILS AT BELLEFONTAINE ST.

SEE SHEET 67 FOR MAINLINE/ RAMP "D" TERMINAL DETAILS

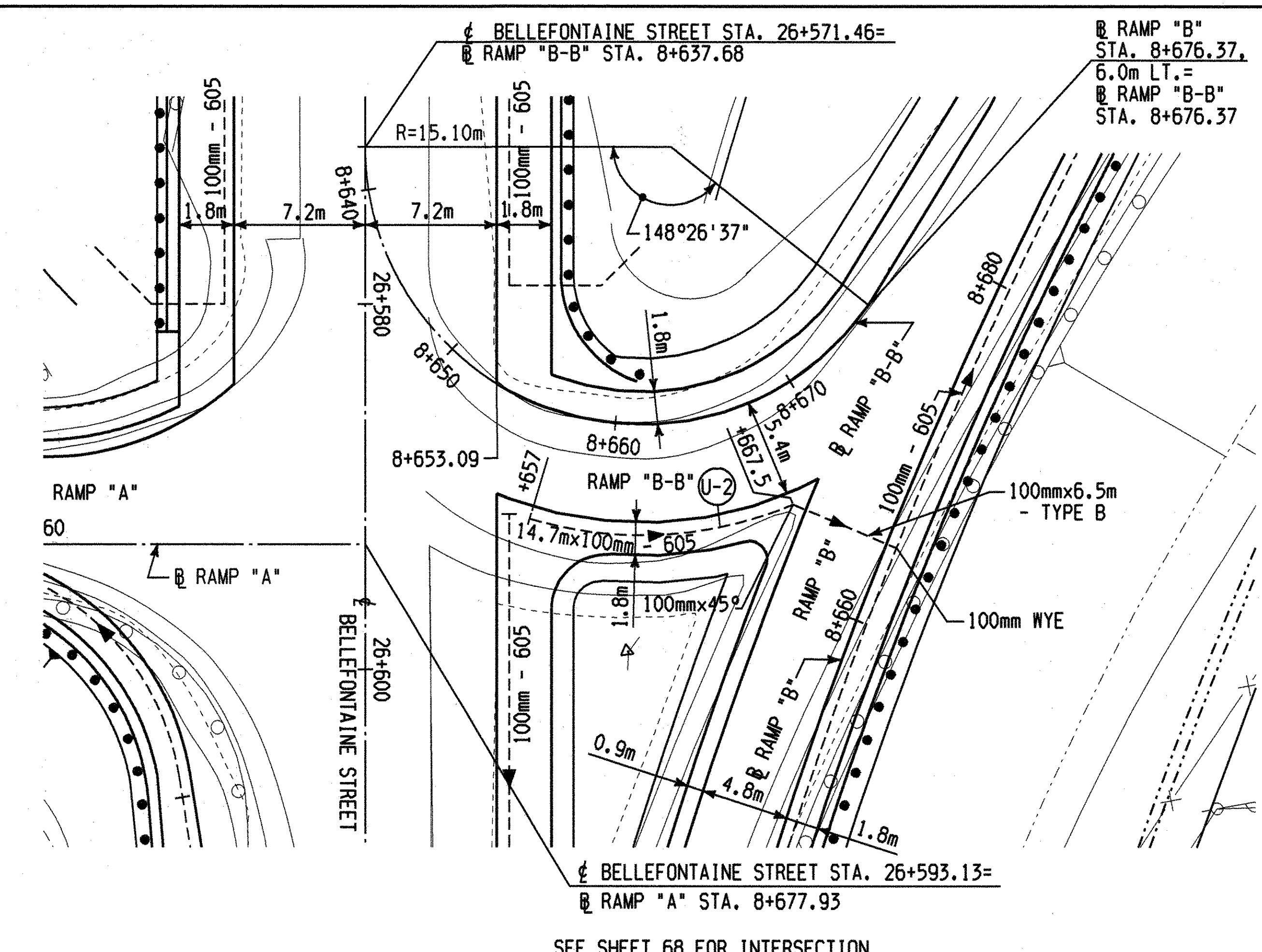
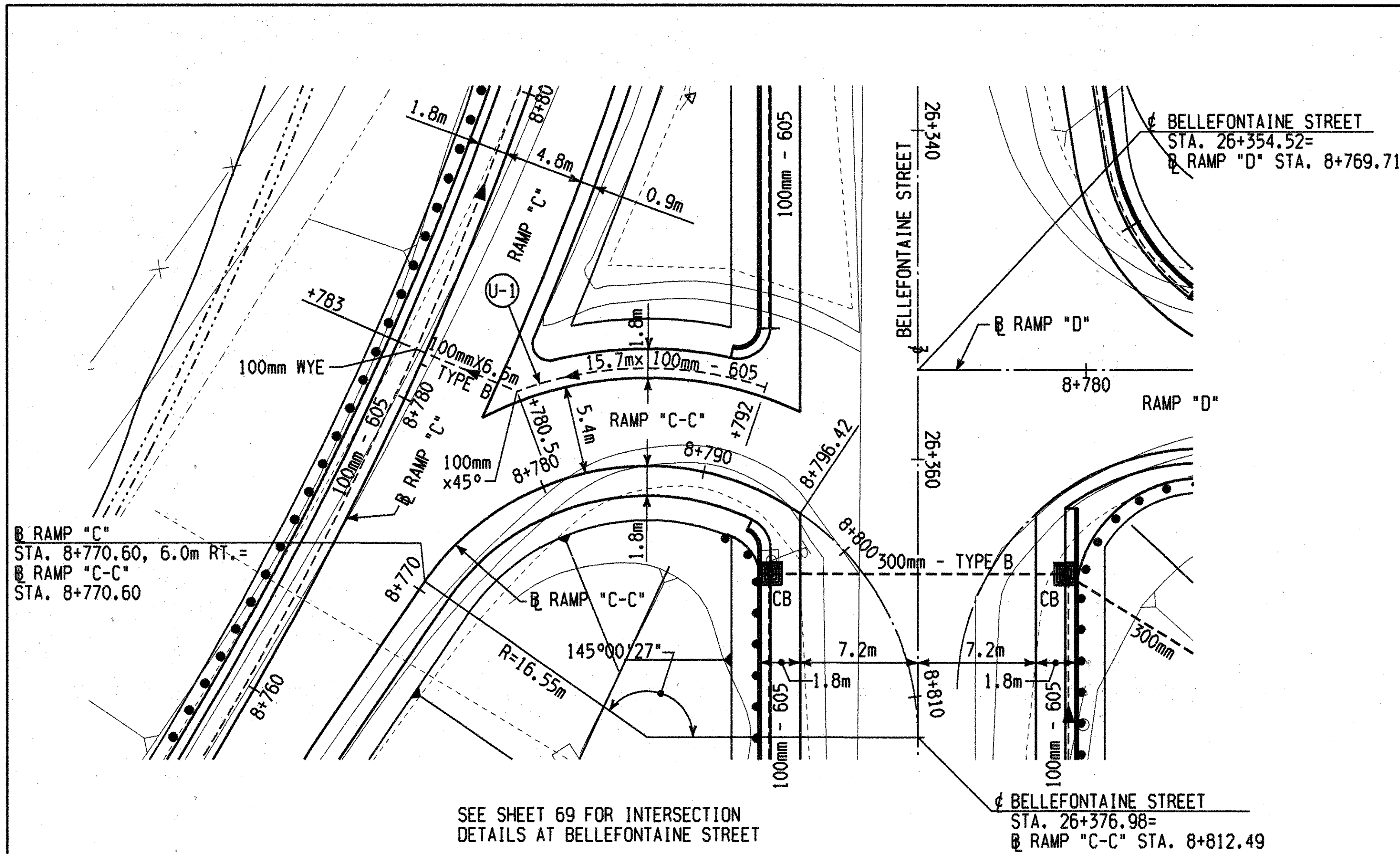


ESTIMATED QUANTITIES											
REF. NO.	STATION TO STATION	SIDE	FROM	TO or AT	UNIT	QUANTITY	UNIT	QUANTITY	UNIT	QUANTITY	UNIT
C-1	8+779.31	RT.	8+779.31	8+794.12	LT.	1	1	1	1	1	1
D-1	8+778.71	RT.	8+778.71	8+797.21	RT.	1	1	1	1	1	1
D-2	8+882.43	LT.	8+882.43	8+885	LT.	1	1	1	1	1	1
D-3	8+885	LT.	8+885	8+900	LT.	1	1	1	1	1	1
G-1	8+787	RT.	8+787	8+797.83	RT.	1	1	1	1	1	1
G-2	8+861.20	LT.	8+861.20	8+941.04	LT.	1	1	1	1	1	1
R-1	8+882	LT.	8+882	8+885	LT.	1	1	1	1	1	1
R-2	8+885	LT.	8+885	8+941	LT.	1	1	1	1	1	1
U-1	8+794.5	LT.	8+794.5	8+941.04	LT.	1	1	1	1	1	1
U-2	8+781.31	LT.	8+781.31	8+794	LT.	1	1	1	1	1	1
TOTALS CARRIED TO SHEETS 19 & 20						1	1	1	1	1	1

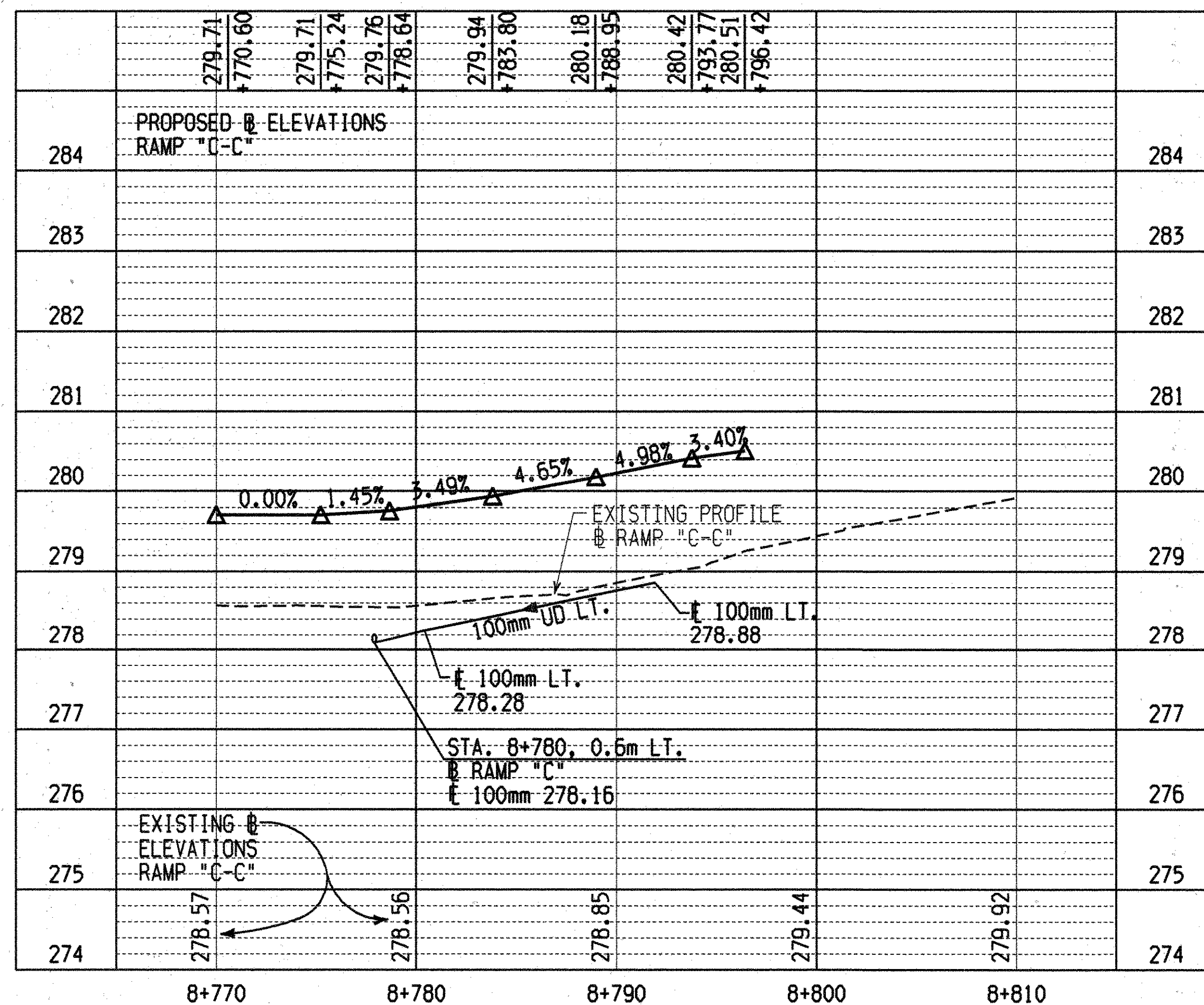
PLAN AND PROFILE - RAMP "D"  
STA. 8+769.71 to 9+000

AUG-75-5.45

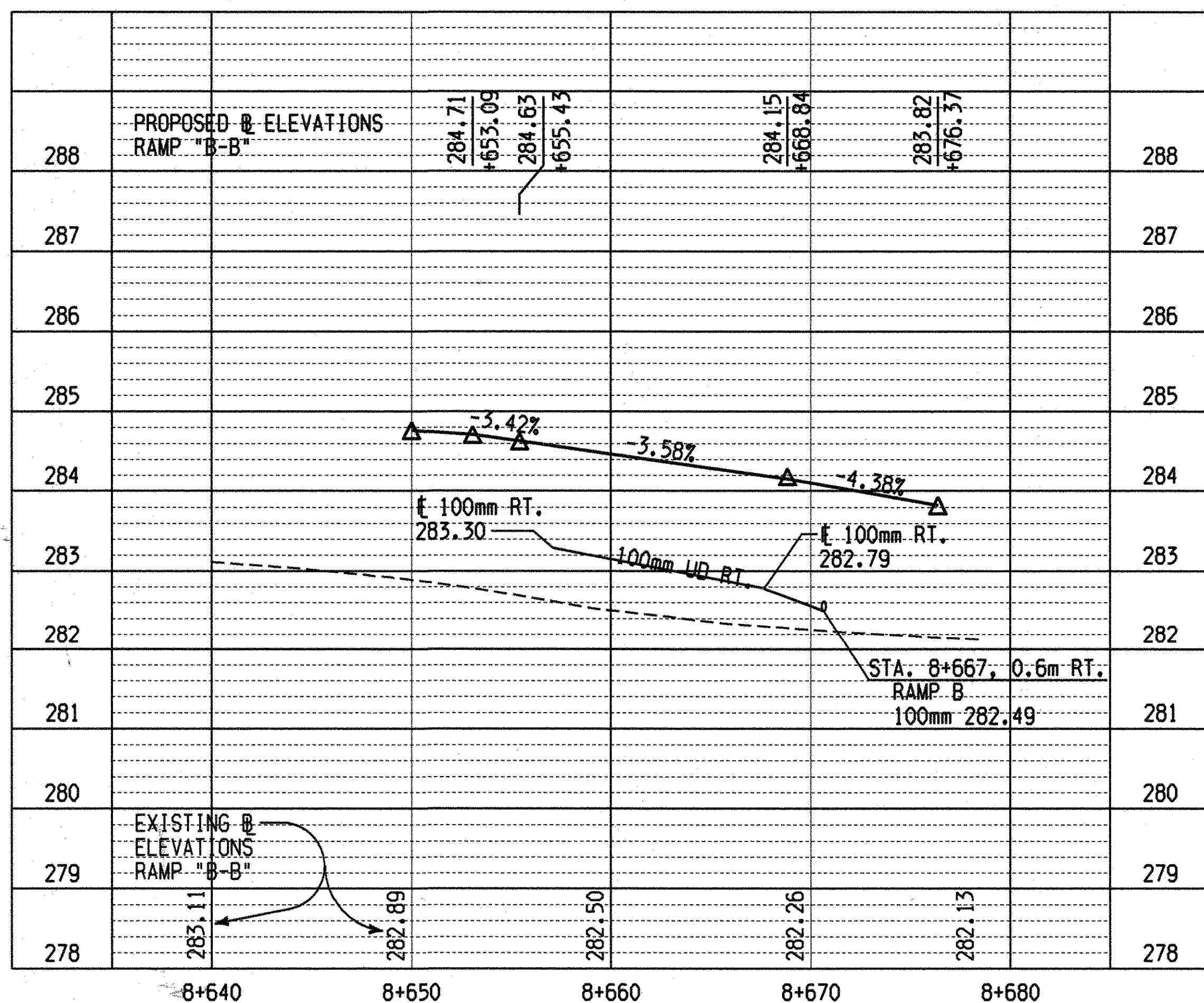




RAMP "C-C"



RAMP "B-B"

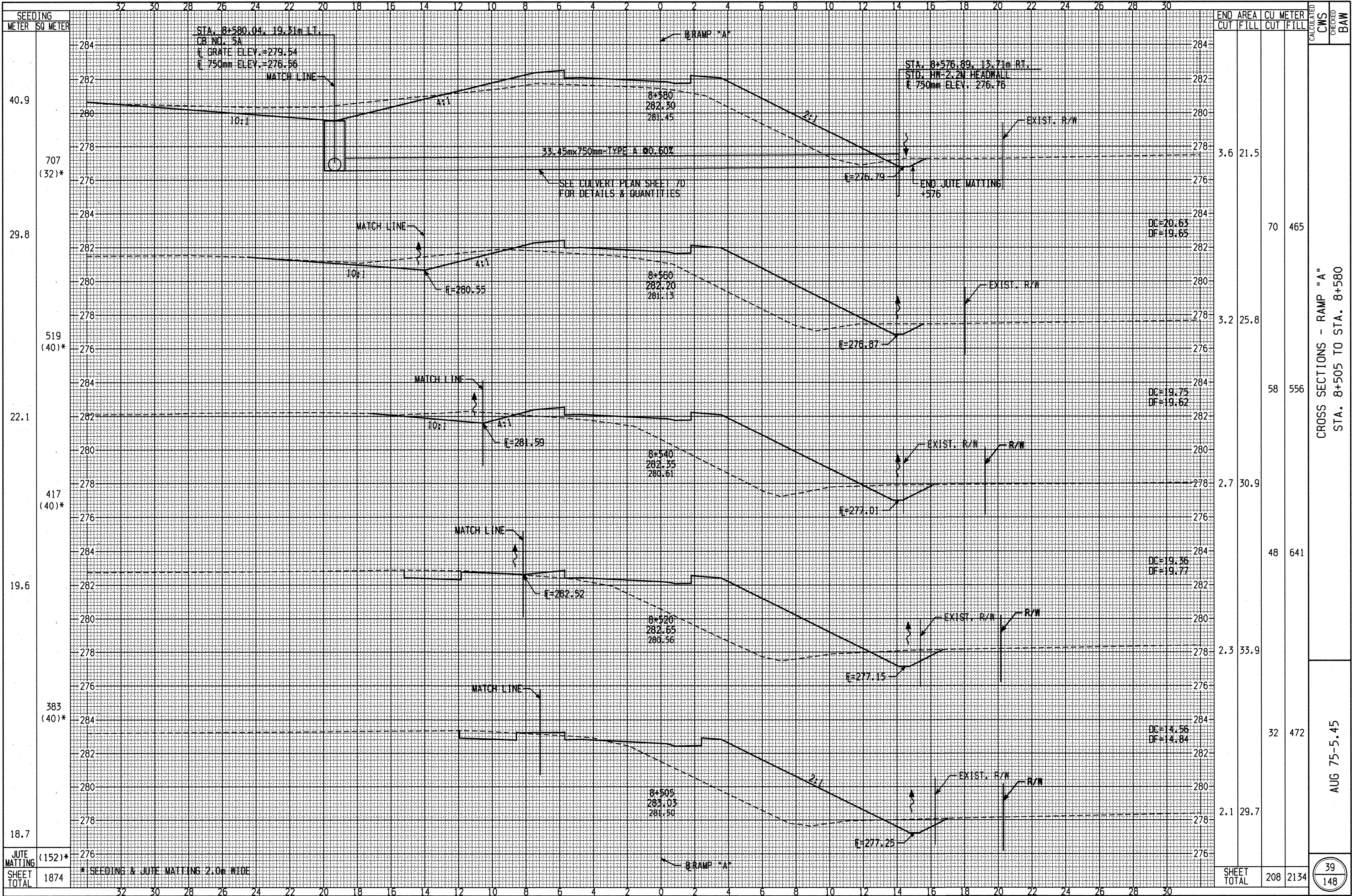


REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES			
			FROM	TO or AT	LT.	RT.
U-1	8+778	8+792	1	1	1	1
U-2	8+657	8+670.5	1	1	1	1
TOTALS CARRIED TO SHEETS 19-20			2	2	2	2



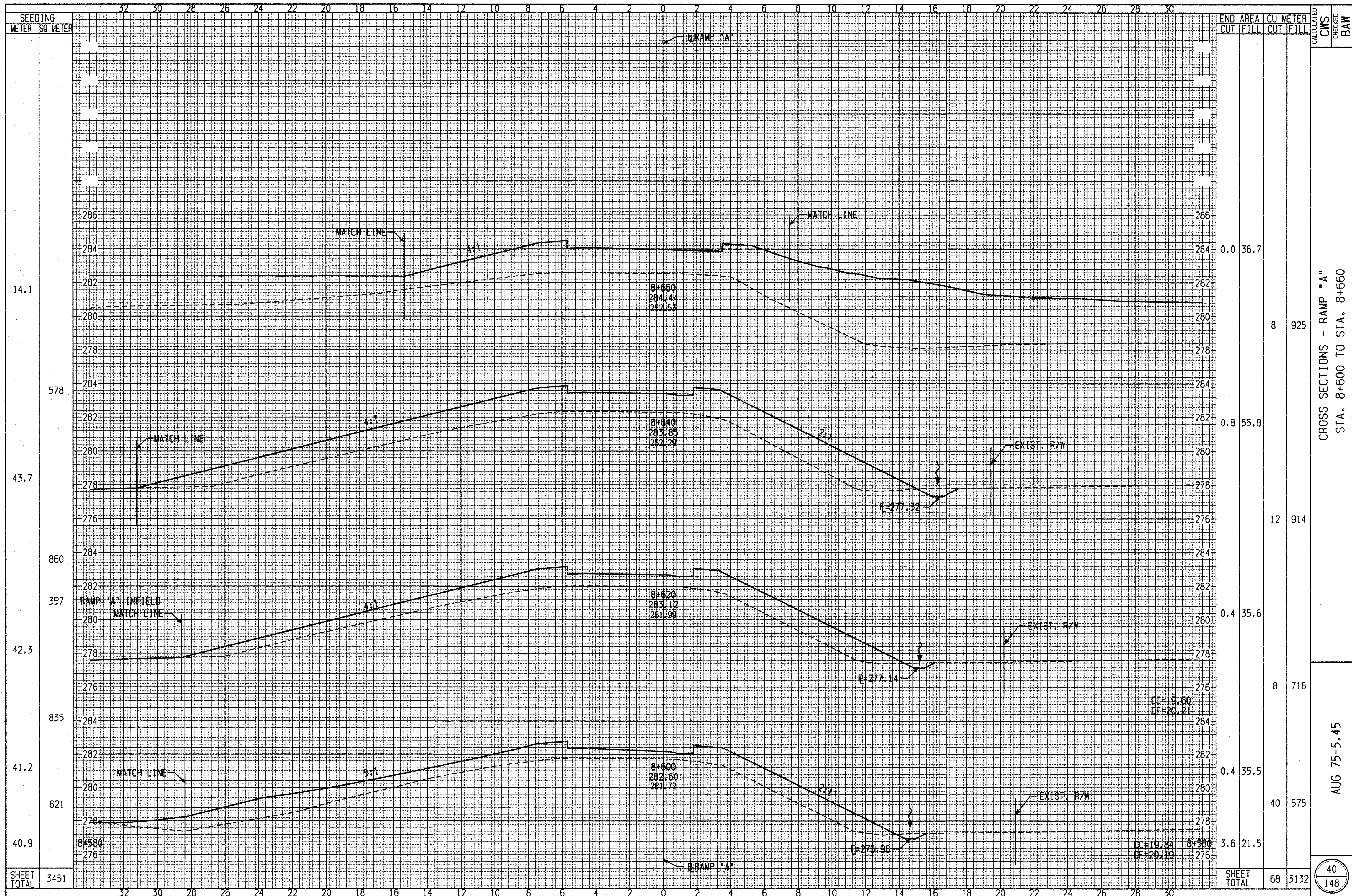
DATE	
BY	
SURVEYED	
PLOTTED	
TEMP. AREAS	
FINAL	
NOTE	
NO.	

DATE	
BY	
S.S.O.E.	
C. STEIN	
C. STEIN	
C. STEIN	
ORIGINAL	
NOTE	
NO.	





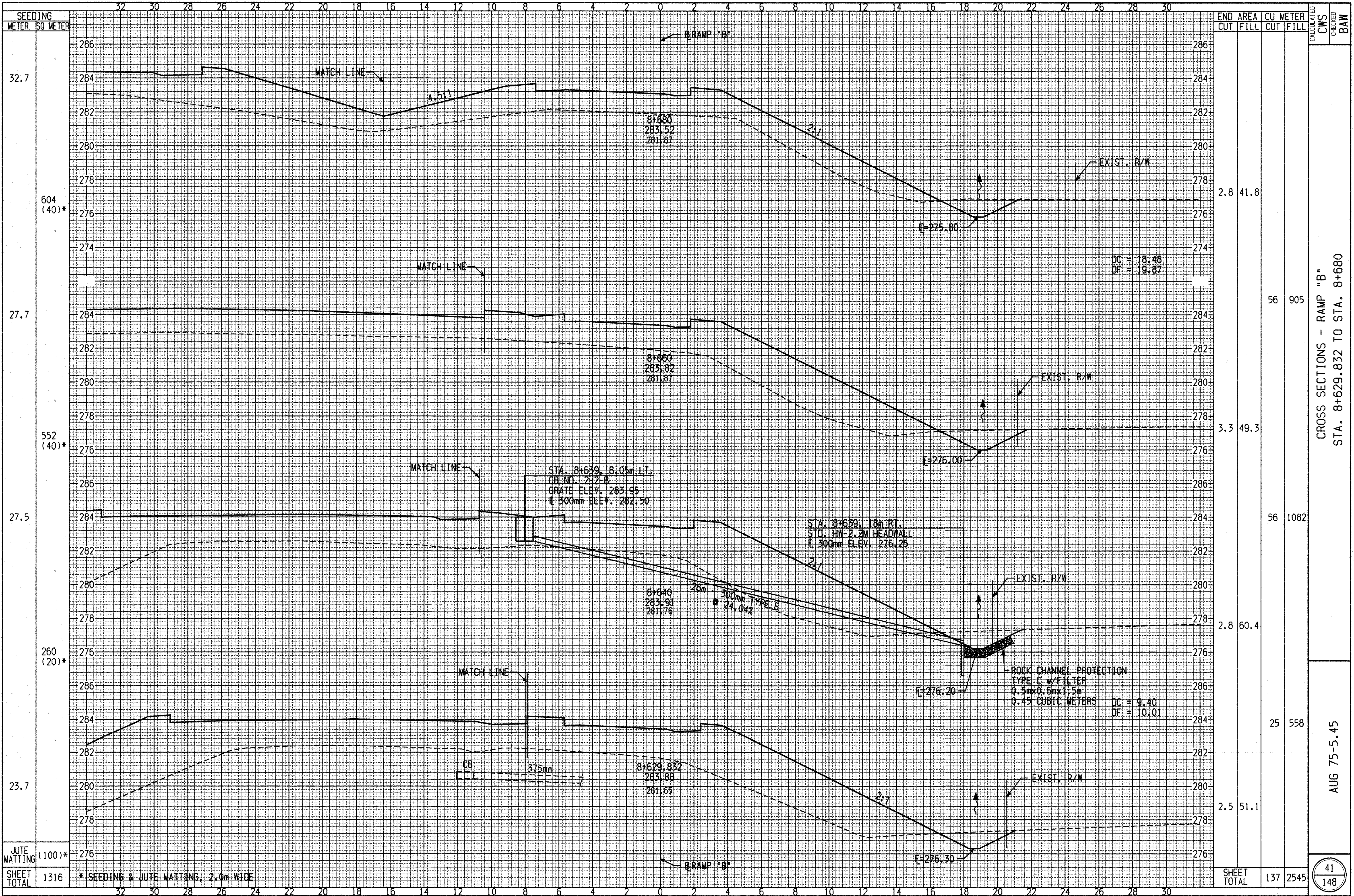
ORIGINAL SURV.	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED	S. S. O'F.	12-93
	TEMPLATE	C. STEIN	11-95
	AREAS	C. STEIN	11-95
	AREAS CHECKED	C. STEIN	11-95





FINAL SURVEY	SURVEYED	DATE
NO.	PLOTTED	BY
	TEMPLATE	
	AREAS	
	CHECKED	

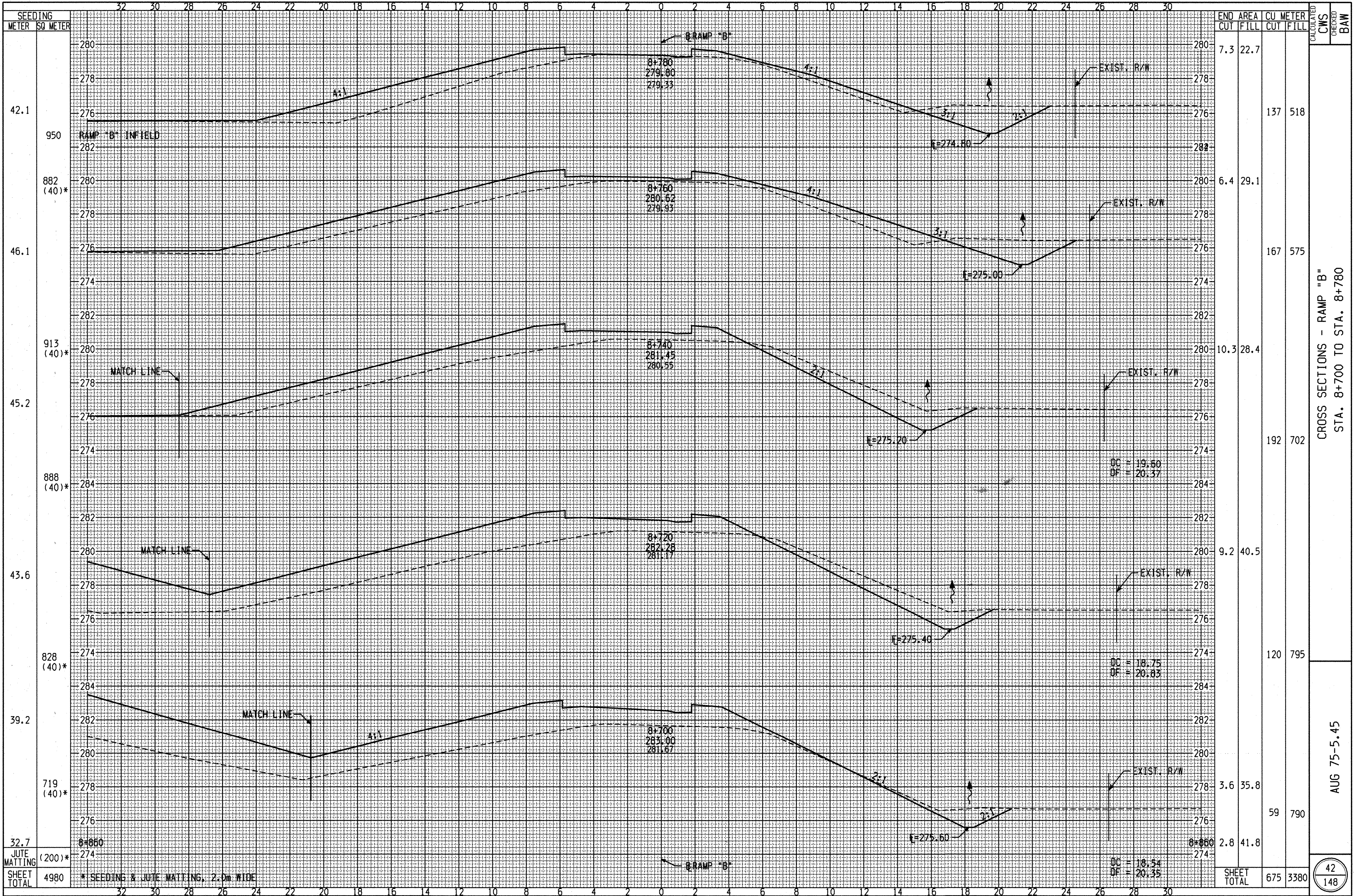
ORIGINAL SURVEY	SURVEYED	DATE
NO.	PLOTTED	BY
	TEMPLATE	
	AREAS	
	CHECKED	





FINAL SURVEY	BY	DATE
NOTE BOOK NO.	SURVEYED PLOTTE	AREAS CHECKED
	AREAS	

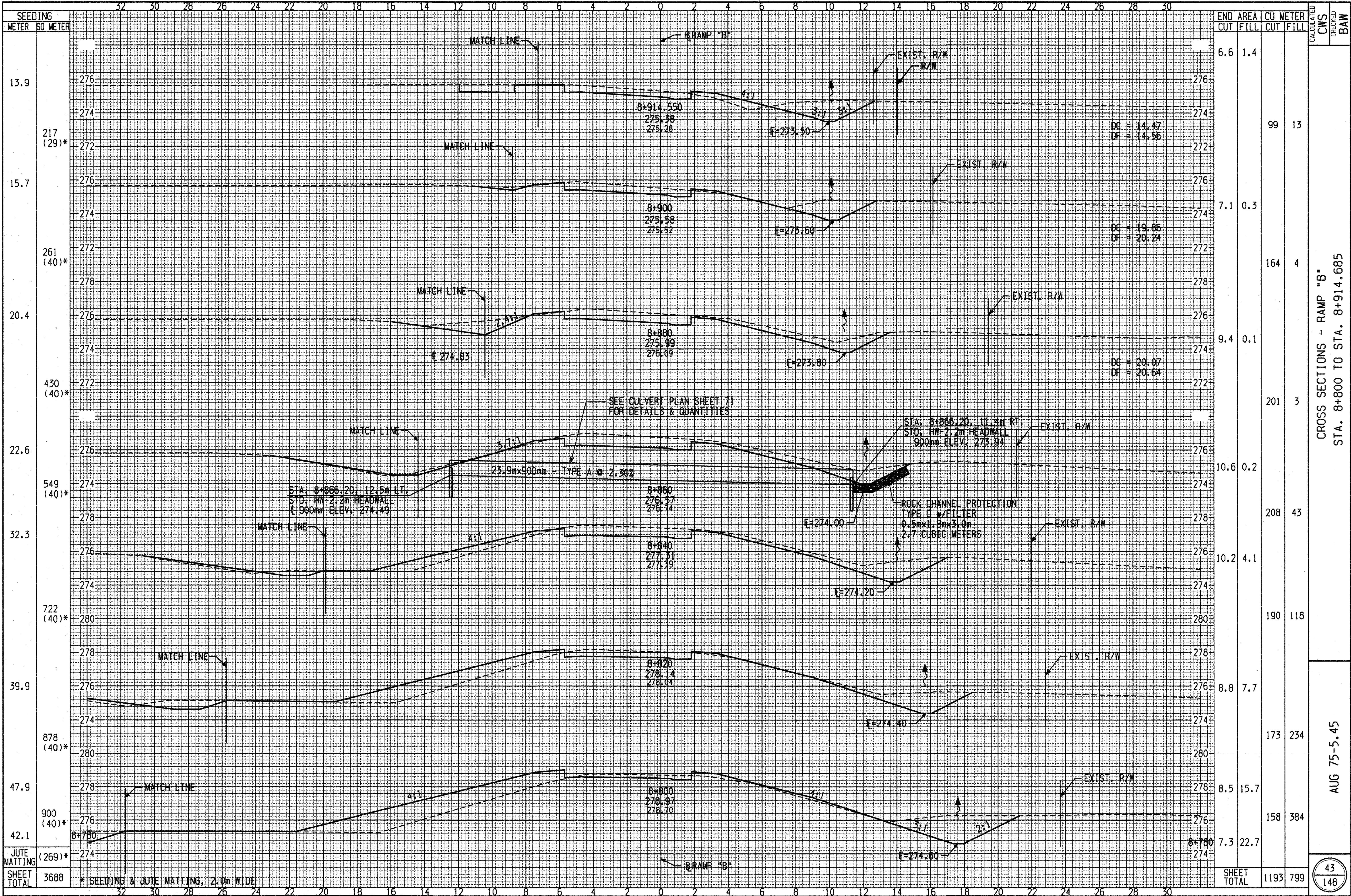
ORIGINAL SURV	BY	DATE
NOTE BOOK NO.	S.S.O.F.	12-95
	C. SITE	11-95
	C. SITE	11-95
	C. SITE	11-95





FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NOTE BOOK NO.	

ORIGINAL SURVEY	DATE
S.S.O.F.	12-93
C. STEIN	11-95
C. STEIN	11-95
C. STEIN	11-95
AREAS CHECKED	
NOTE BOOK NO.	



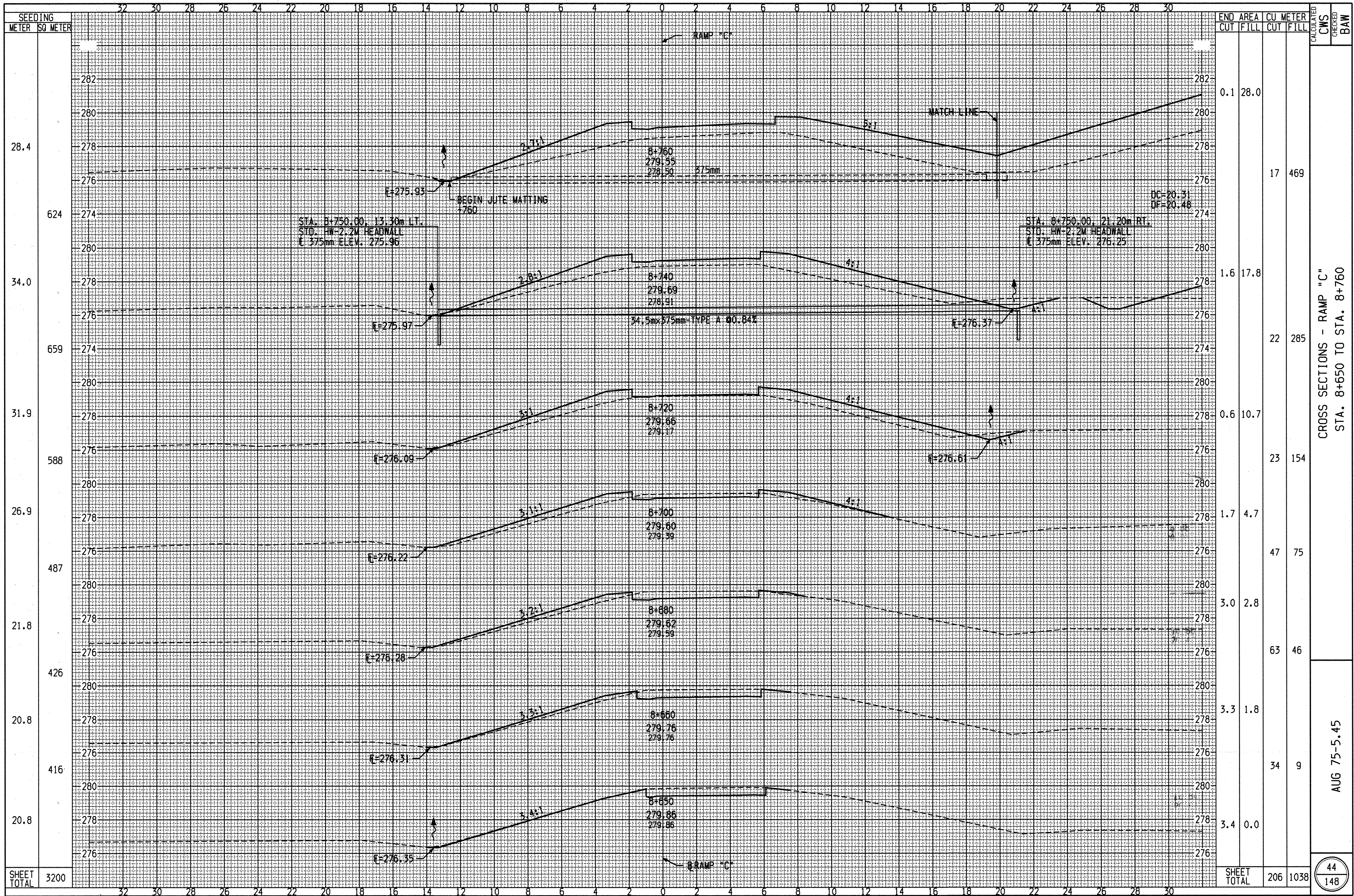
CROSS SECTIONS - RAMP "B"  
STA. 8+800 TO STA. 8+914.685

AUG 75-5.45



FINAL SURVEY	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE
NOTE BOOK NO.			

ORIGINAL SURV	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE
NOTE BOOK NO.		S.S.O.F C. STEIN C. STEIN	12-95 11-95 11-95

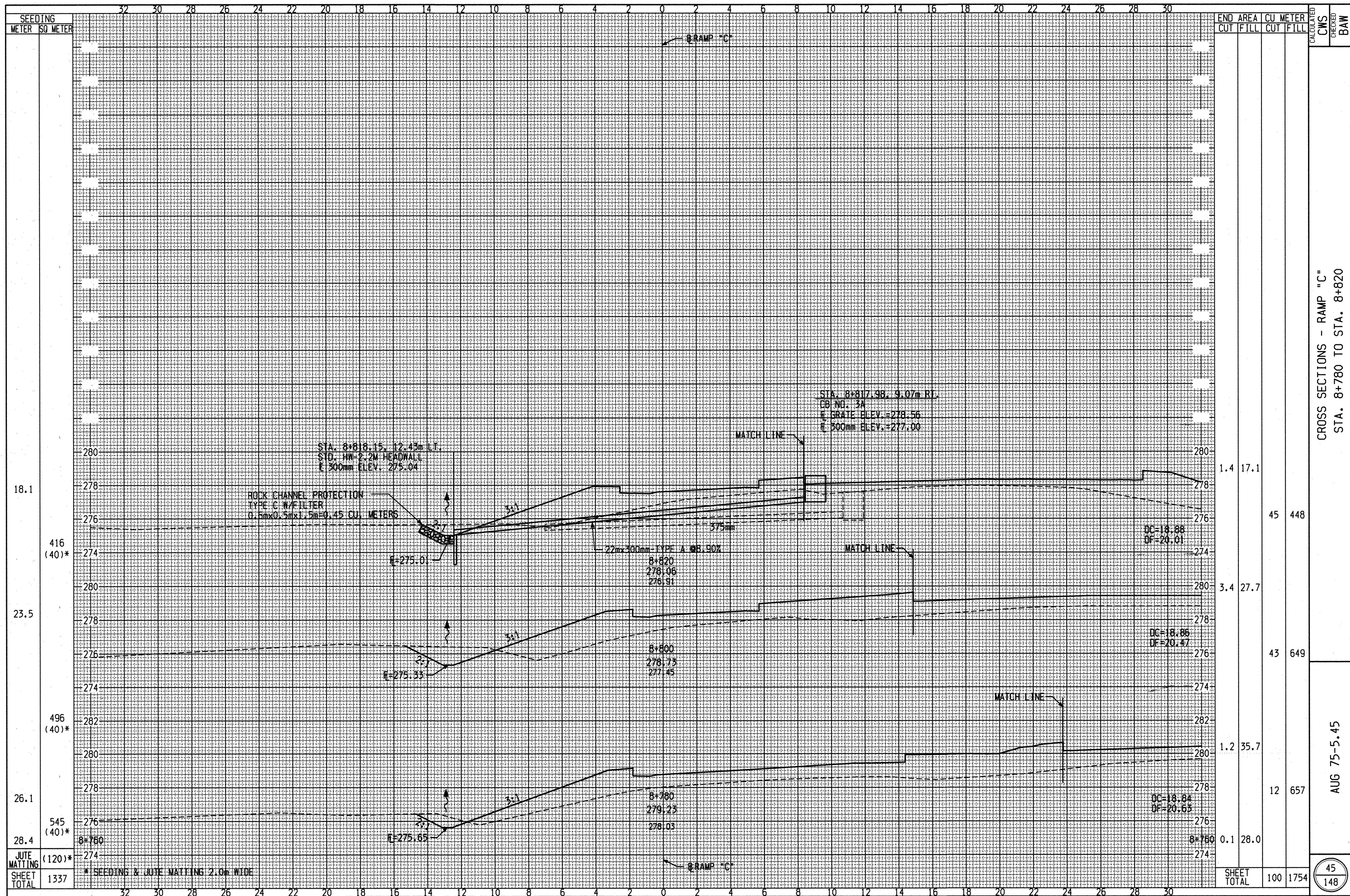


CROSS SECTIONS - RAMP "C"  
STA. 8+650 TO STA. 8+760

AUG 75-5.45



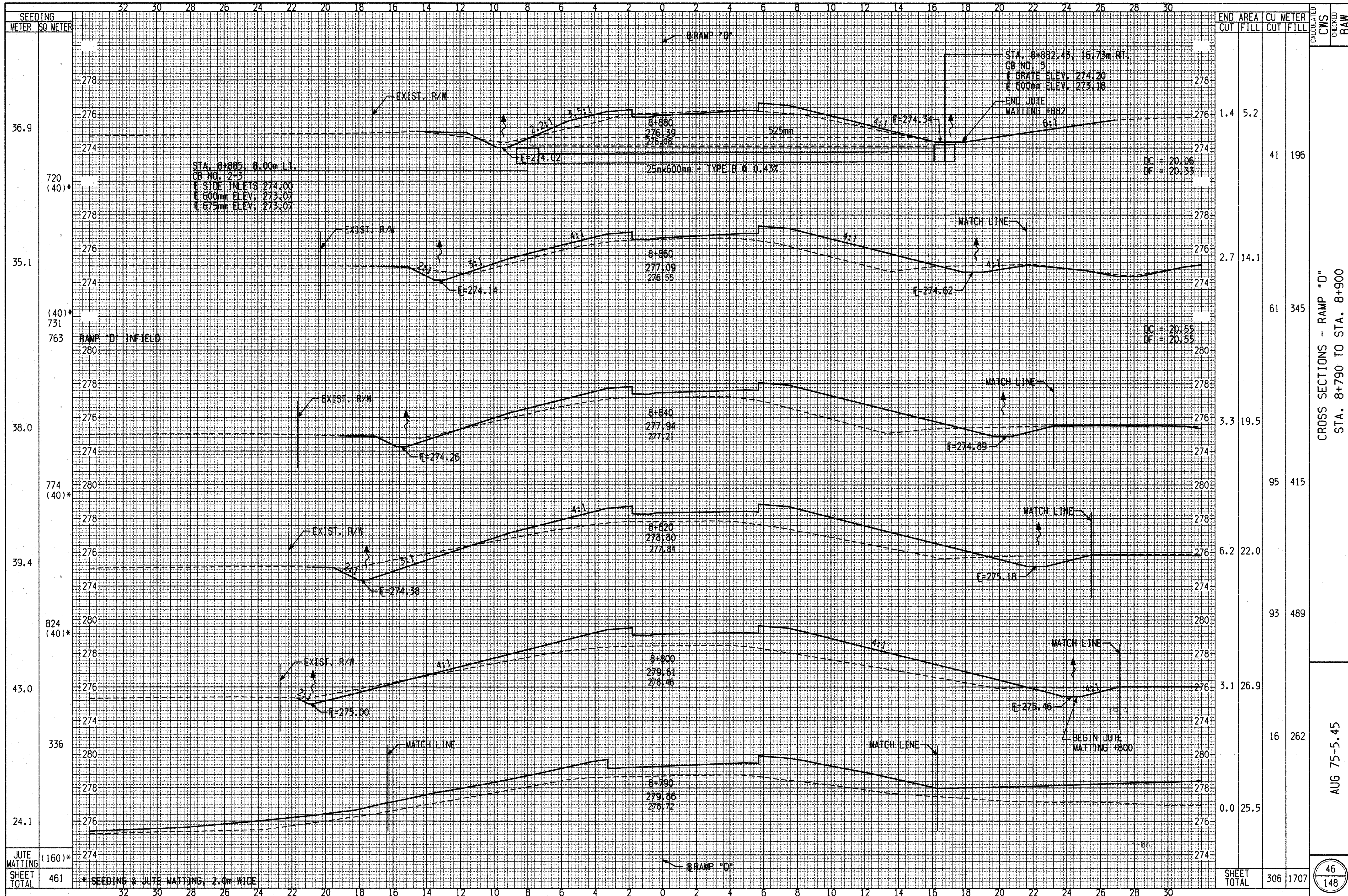
ORIGINAL SURV	BY	DATE
	S.S.O.F	12-93
	C. STEIN	11-95
	C. STEIN	11-95
	C. STEIN	11-95





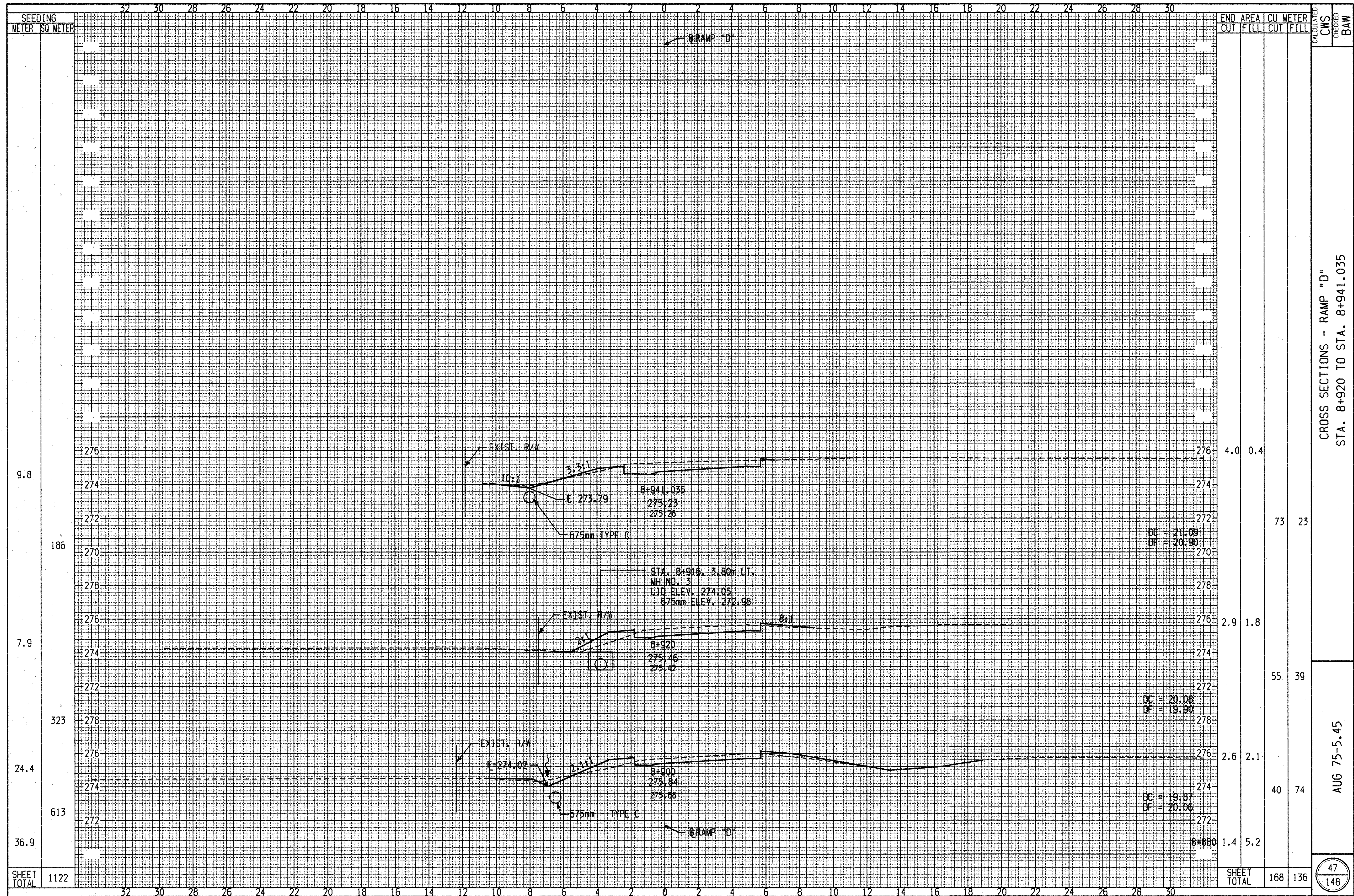
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK NO.	

DATE	
BY	
S.O.F	
C. STEIN	
C. STEIN	
C. STEIN	
ORIGINAL SURV	
NOTE BOOK NO.	
AREAS CHECKED	

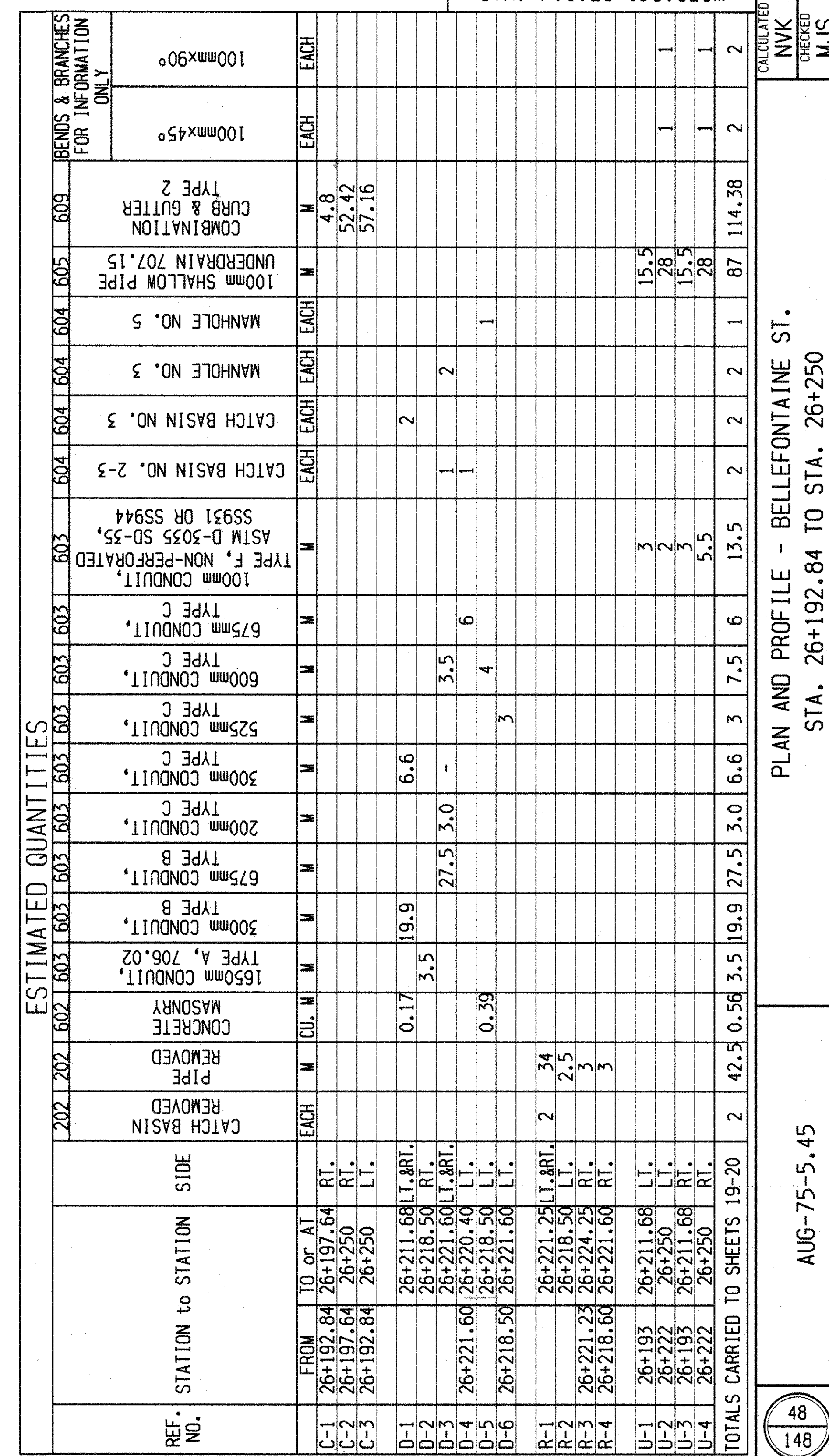
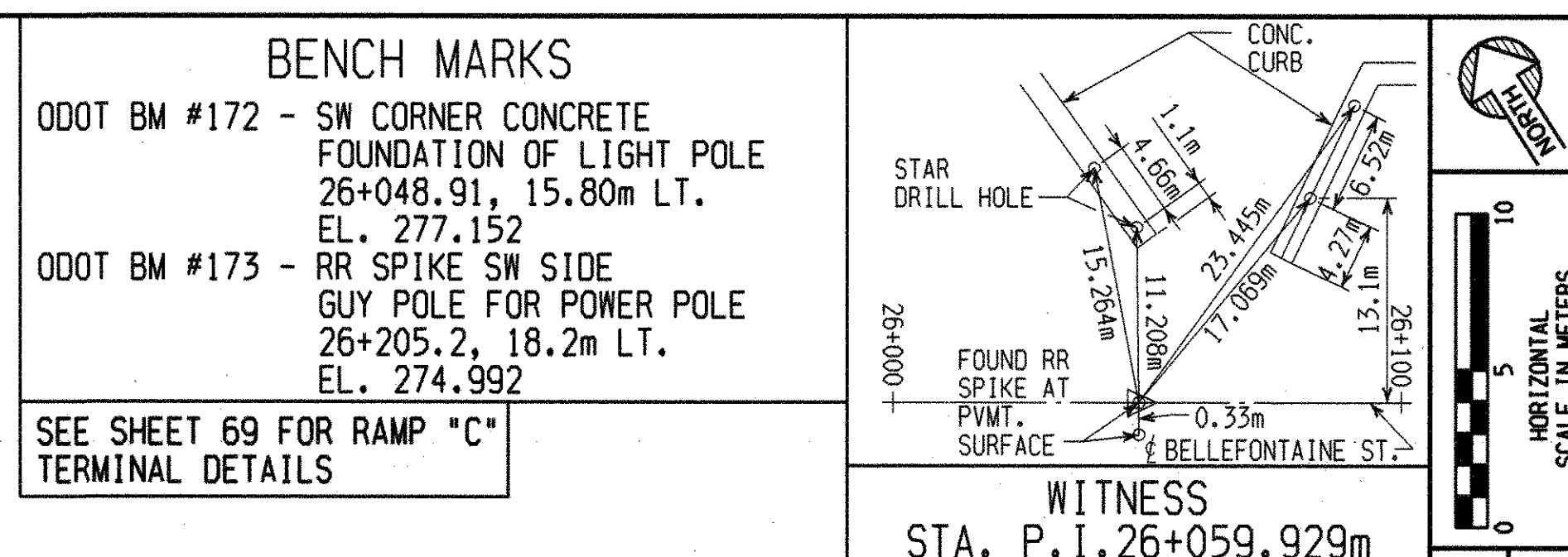




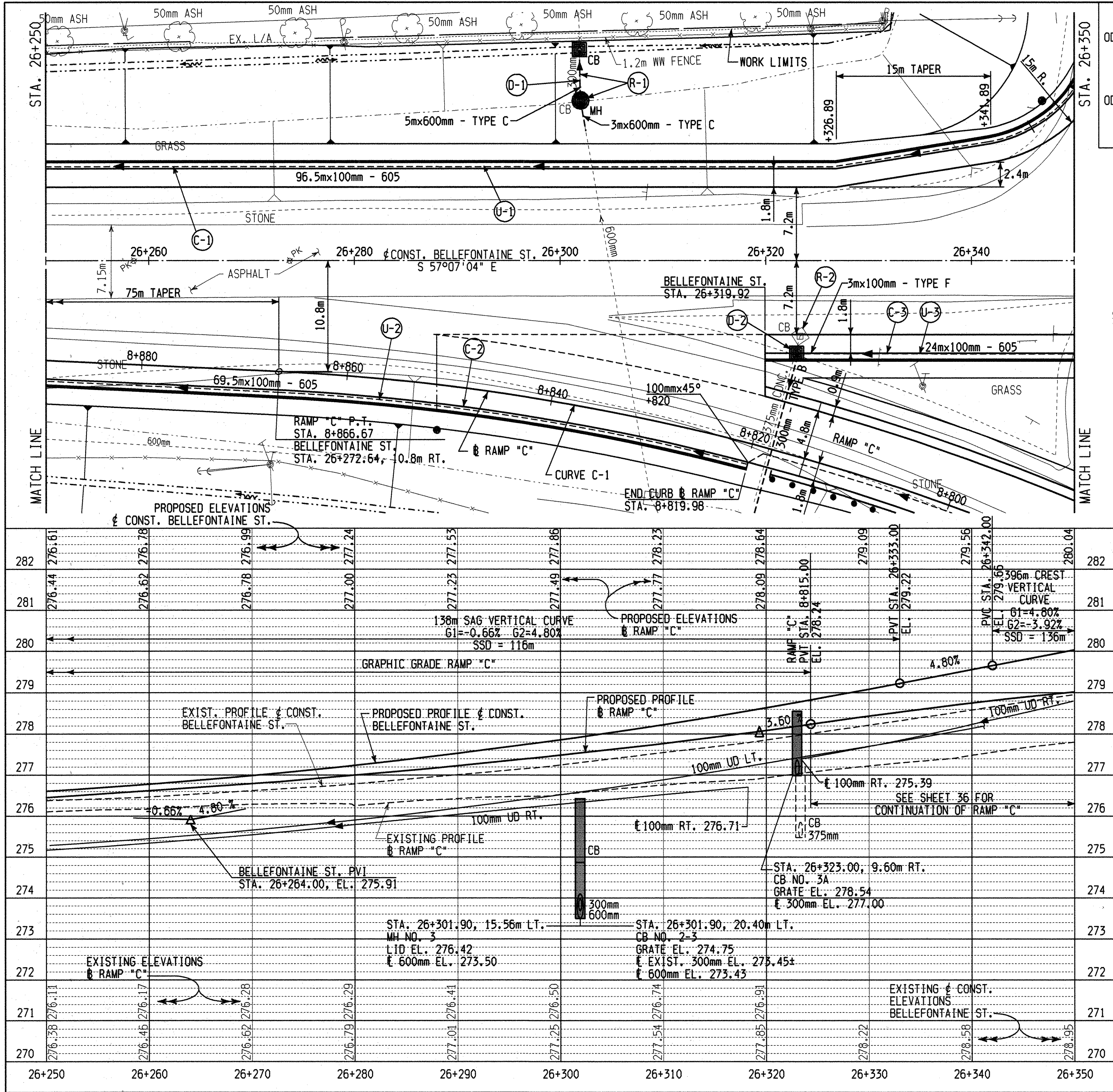
ORIGINAL SURV	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED	S. S. O. F.	12-93
	TEMPLATE AREAS	C. STEIN	11-95
		C. STEIN	11-95
	AREAS CHECKED	C. STEIN	11-95











**BENCH MARKS**

ODOT BM #173 - RR SPIKE SW SIDE OF GUY  
POLE FOR POWER POLE  
26+205.20, 18.2m LT.  
EL. 274.992

ODOT BM #175 - "□" - SE COR. CONC. FOUNDATION  
OF POWER POLE  
26+366.77, 9.57m RT.  
EL. 279.534

WITNESS STA. 26+373.797

CONC. MON.  
10.083m  
PK  
5.511m  
26+200  
Bellefontaine St.  
FND. PK AT  
PAVEMENT SURFACE  
P.O.T. 26+273.797

**CURVE C-1**  
P.I. STA. 8+804.78  
R = 225.00m  
L = 127.28m  
T = 65.39m  
Δ = 32°24'40"  
E = 9.31m

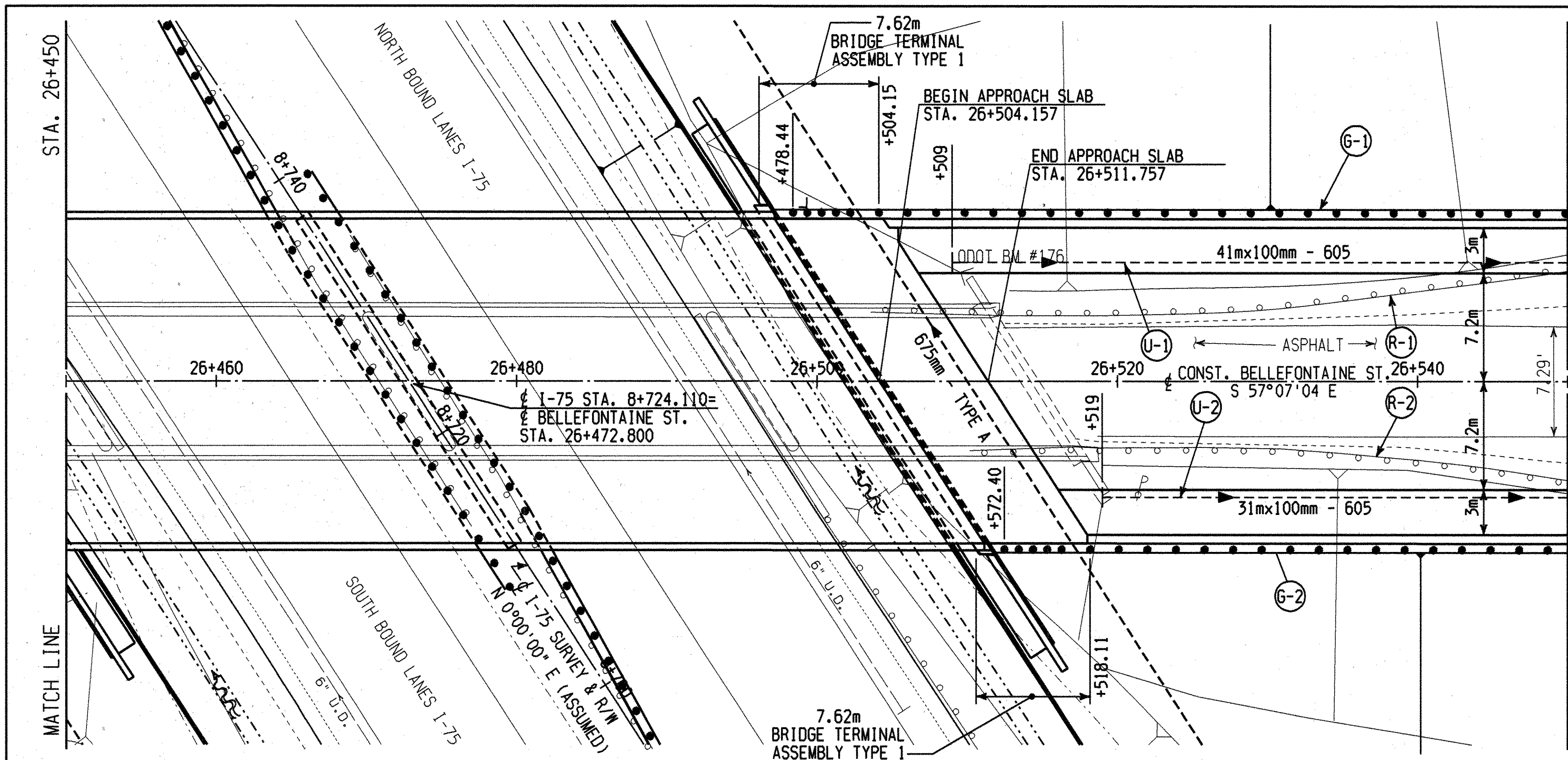
SEE SHEET 69 FOR INTERSECTION AND  
TERMINAL DETAILS AT BELLEFONTAINE ST.

REF. NO.	STATION TO STATION	SIDE	ESTIMATED QUANTITIES											
			FROM	TO or AT	LT.	RT.	RT.	RT.	LT.	RT.	LT.	RT.	LT.	RT.
C-1	26+250	LT.	26+250	26+341.89										
C-2	26+250	RT.	26+250	26+318.23										
C-3	26+250	RT.	26+250	26+350										
D-1	26+301.90	LT.	26+301.90	26+323.00										
D-2	26+301.90	RT.	26+301.90	26+323.00										
R-1	26+301.90	LT.	26+301.90	26+323.00										
R-2	26+301.90	RT.	26+301.90	26+323.00										
U-1	26+250	LT.	26+250	26+345.80										
U-2	26+250	RT.	26+250	26+318.23										
U-3	26+250	RT.	26+250	26+350										
TOTALS CARRIED TO SHEETS 19-20			2	8	3	1	1	1	1	1	1	1	1	1









**BENCH MARKS**

ODOT BM #176 - "X" NE COR. CONC. WINGWALL OF BRIDGE, BELLEFONTAINE ST. OVER I-75  
26+510.31, 6.99m LT.  
EL. 283.505

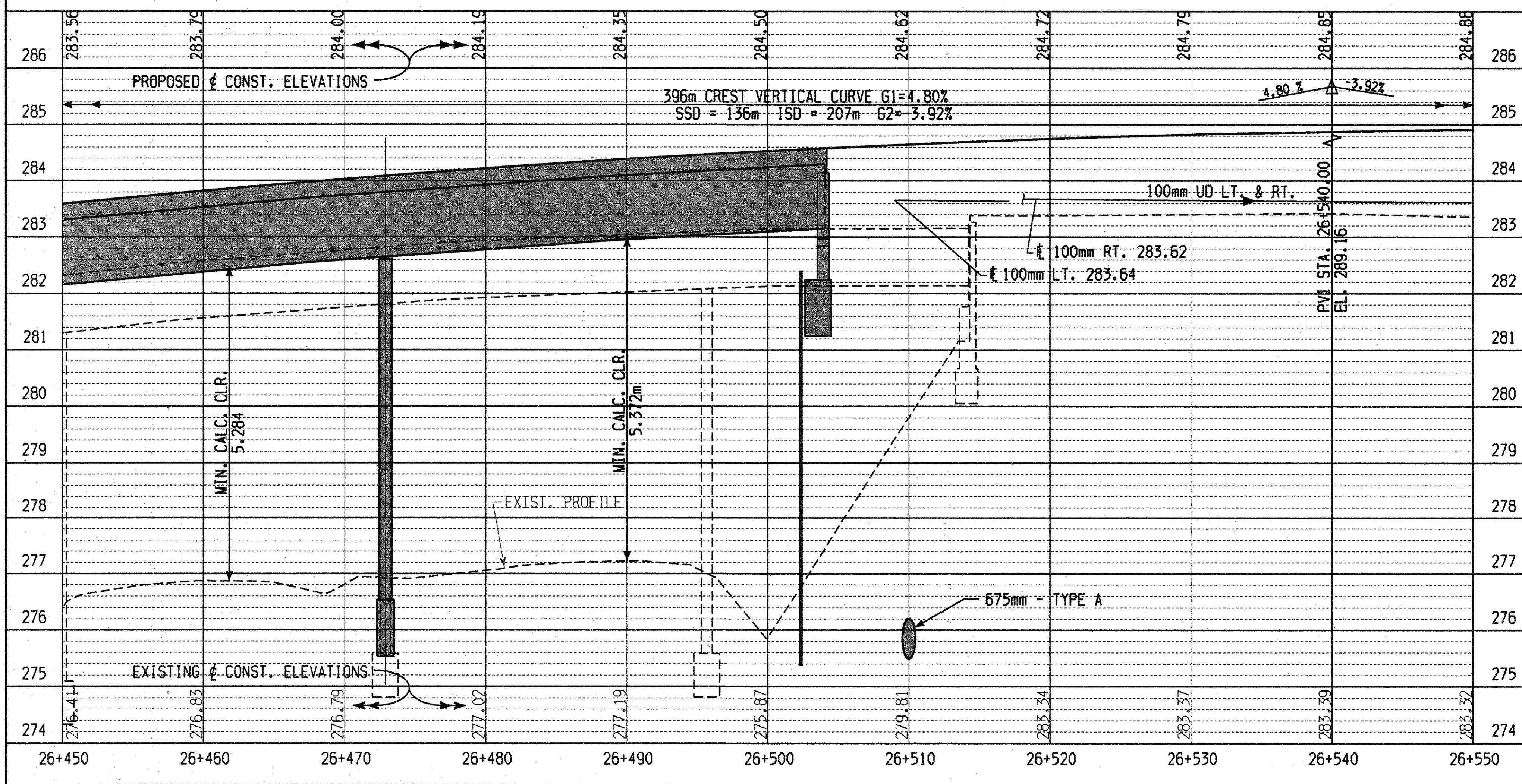
FOUND DRILL HOLE IN CONC. WALK OF NORTH PARAPET TYP. OF 3  
FOUND SMALL STAR DRILL HOLE

8+800  
9.5m  
11.3m  
25.5m  
5.346m  
14.612m  
0.37m  
+8+700  
26+500

P.O.T 8+724.110m  $\phi$  I-75 =  
P.O.T. 26+472.800m  $\phi$  BELLEFONTAINE ST.

WITNESS STA. 26+472.800

CALCULATED  
NJK  
CHECKED  
MJS



ESTIMATED QUANTITIES									
REF. NO.	STATION to STATION		SIDE	GUARDRAIL REMOVED	100mm SHALLOW PIPE UNDERDRAIN 707.15	GUARDRAIL, TYPE 5	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BARRIER REFLECTOR TYPE A	
				M	M	M	EACH	EACH	
G-1	26+496.53	26+550	LT.			53.47	1	3	
G-2	26+510.49	26+550	RT.			39.51	1	2	
R-1	26+504	26+550	LT.	46					
R-2	26+510	26+550	RT.	40					
U-1	26+509	26+550	LT.		41				
U-2	26+519	26+550	RT.		31				
TOTALS CARRIED TO SHEETS 19 & 20				86	72	92.98	2	5	

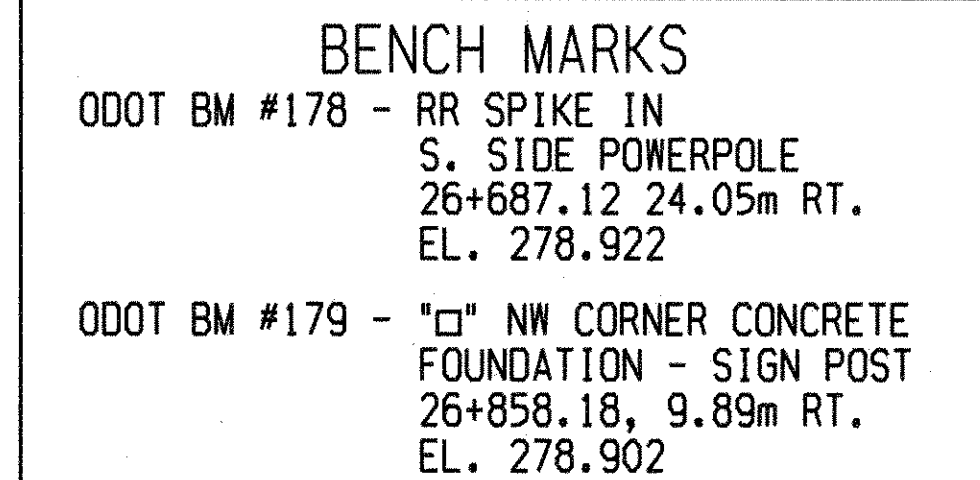












REF. NO.		STATION TO STATION	SIDE	PIPE REMOVED	202	603	604	604	604	604	604	605	606	606	609	802	SPECIAL	BENDS & BRANCHES FOR INFORMATION ONLY
		FROM	TO or AT			100mm CONDUIT, TYPE F, NON-PERFORATED SS931 OR SS944	PRECAST REINFORCED CONCRETE OUTLET	MANHOLE RECONNECTED TO GRADE (ELECTRICAL)	MANHOLE ADJUSTED TO GRADE (SANITARY)	MANHOLE ADJUSTED TO GRADE (LIFT STA.)	100mm SHALLOW PIPE UNDERDRAIN 707.15	GUARDRAIL TYPE 5	ANCHOR ASSEMBLY TYPE E	CONCRETE CURB, TYPE 6	BARRIER REFLECTOR TYPE A	MAILBOX SUPPORT	100mm TEE	
C-1		26+837	26+848	L.T.										26.64		EACH	EACH	
C-2		26+807	26+823	R.T.										37.09				
C-3		26+849	26+850	R.T.										9.34				
G-1		26+750	26+769.50	L.T.											2			
G-2		26+750	26+786.04	R.T.											2			
R-1			26+774.6	L.T.			1											
R-2			26+788.5	L.T.					1									
R-3			26+791.3	L.T.					1							1		
R-4			26+792.5	R.T.														
R-5		26+792	26+811.5	R.T.	20.5													
U-1		26+750	26+850	L.T.		6	1				100							1
U-2		26+750	26+850	R.T.		6	1				100							1
TOTALS CARRIED TO SHEETS 19-20				20.5		12	2	1	1	1	1	200	40.30	2	73.07	4	1	2

AUG-75-5.45

PLAN AND PROFILE - BELLEFONTAINE ST.  
STA. 26+750 TO STA. 26+850



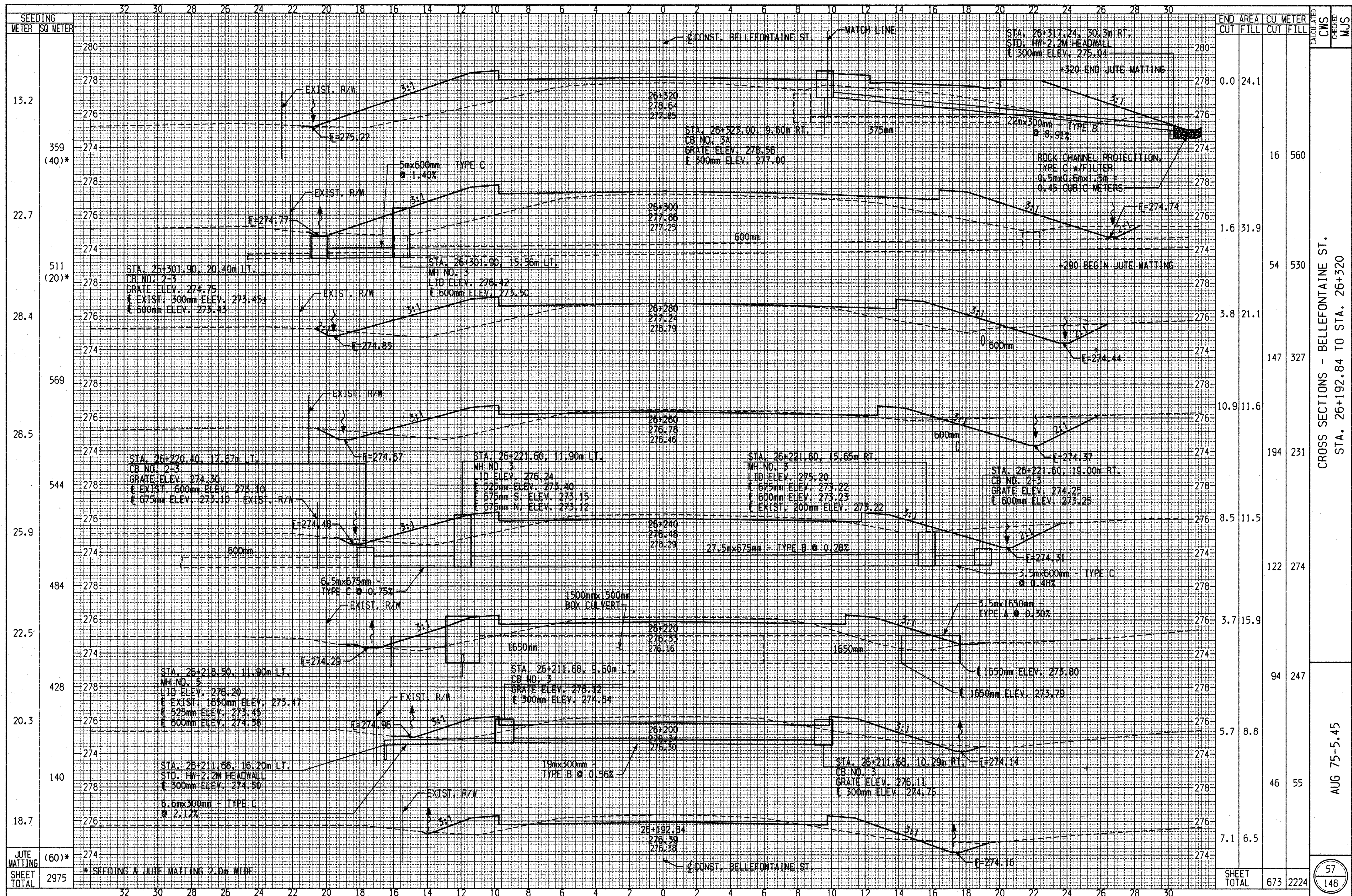








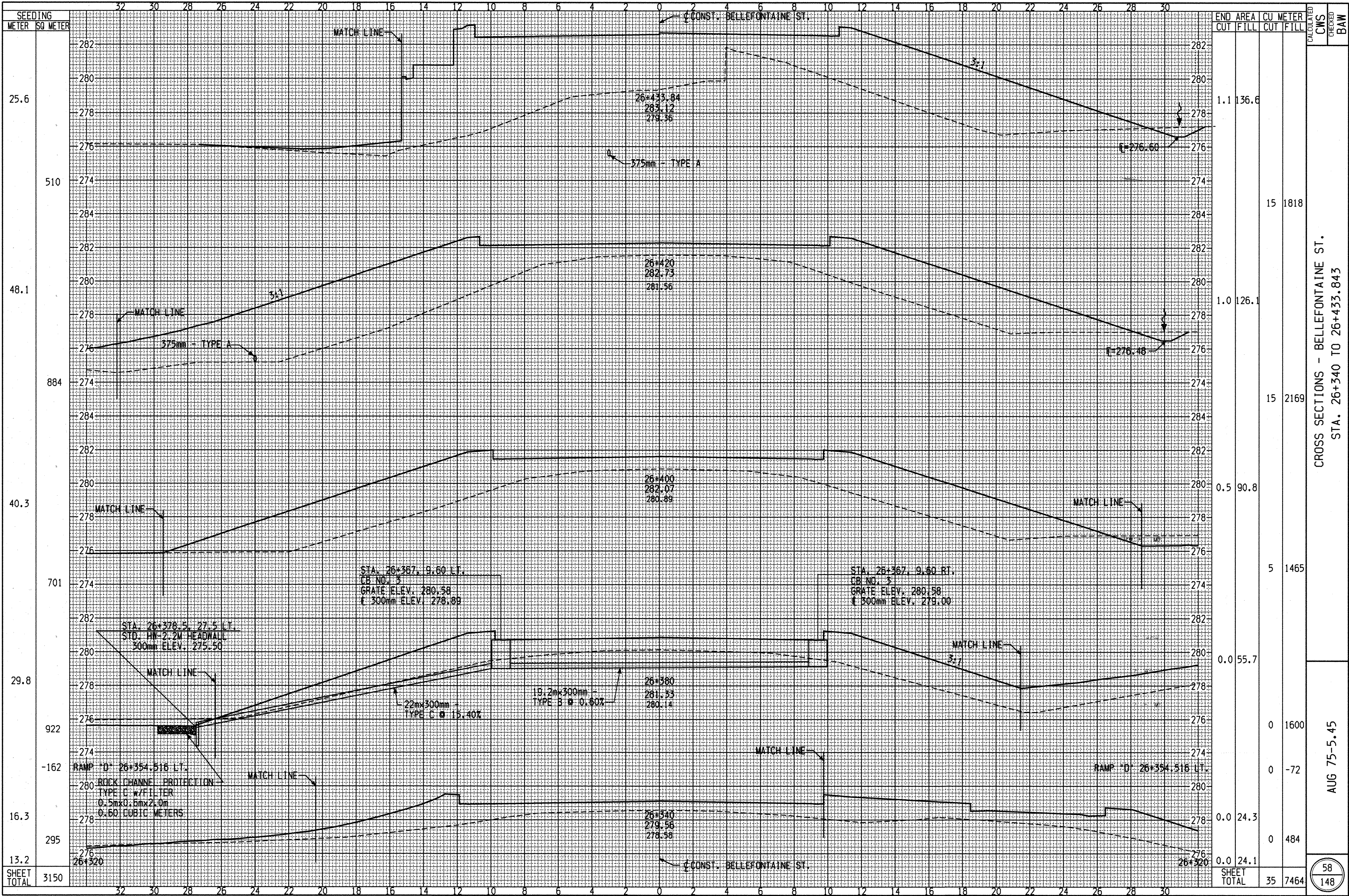
ORIGINAL SURV	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED	S. S. O. F.	12-93
	TEMPLATE	C. STEIN	11-95
	AREAS	C. STEIN	11-95
	AREAS CHECKED	C. STEIN	11-95





DATE	
BY	
FINAL SURVEY PLOTTE	
NOTE BOOK NO.	
AREAS CHECKED	

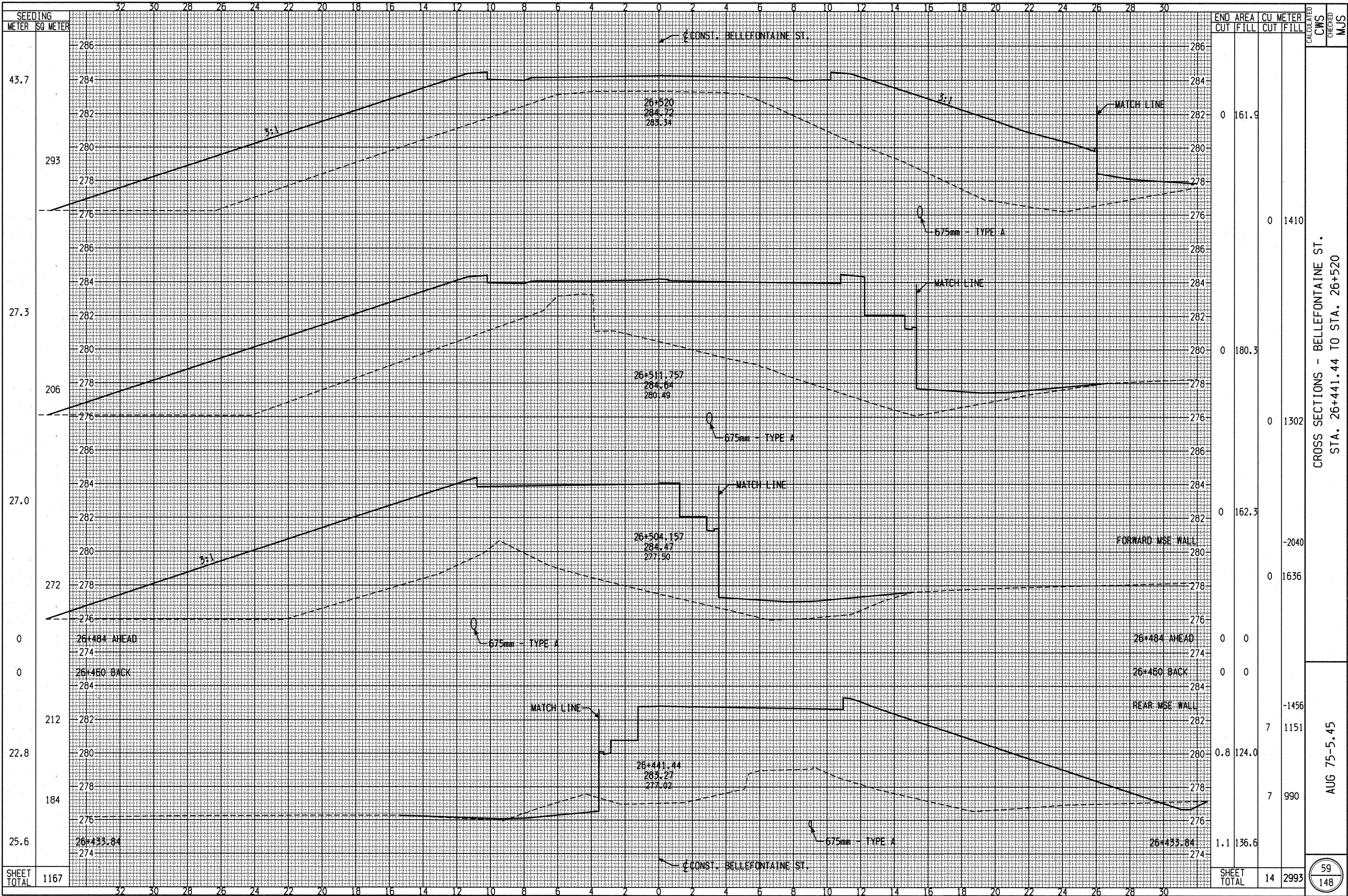
DATE	
BY	
ORIGINAL SURVEY PLOTTE	
NOTE BOOK NO.	
AREAS CHECKED	





FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTE		
	TEMPLATE		
	AREAS CHECKED		

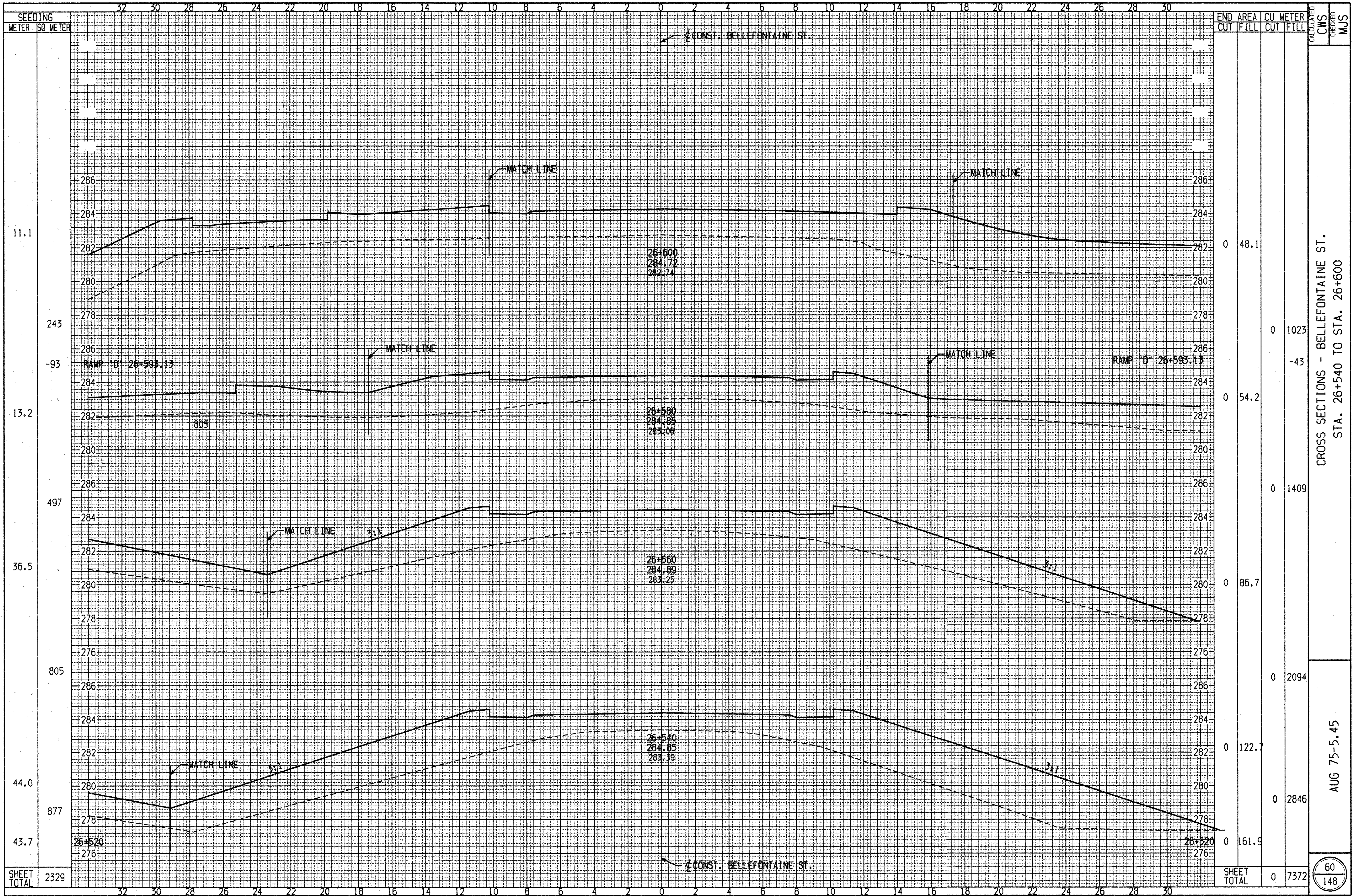
ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTE	S.S.O.E.	12-95
	TEMPLATE	C. ST.	11-95
	AREAS CHECKED	C. STEIN	11-95





FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	

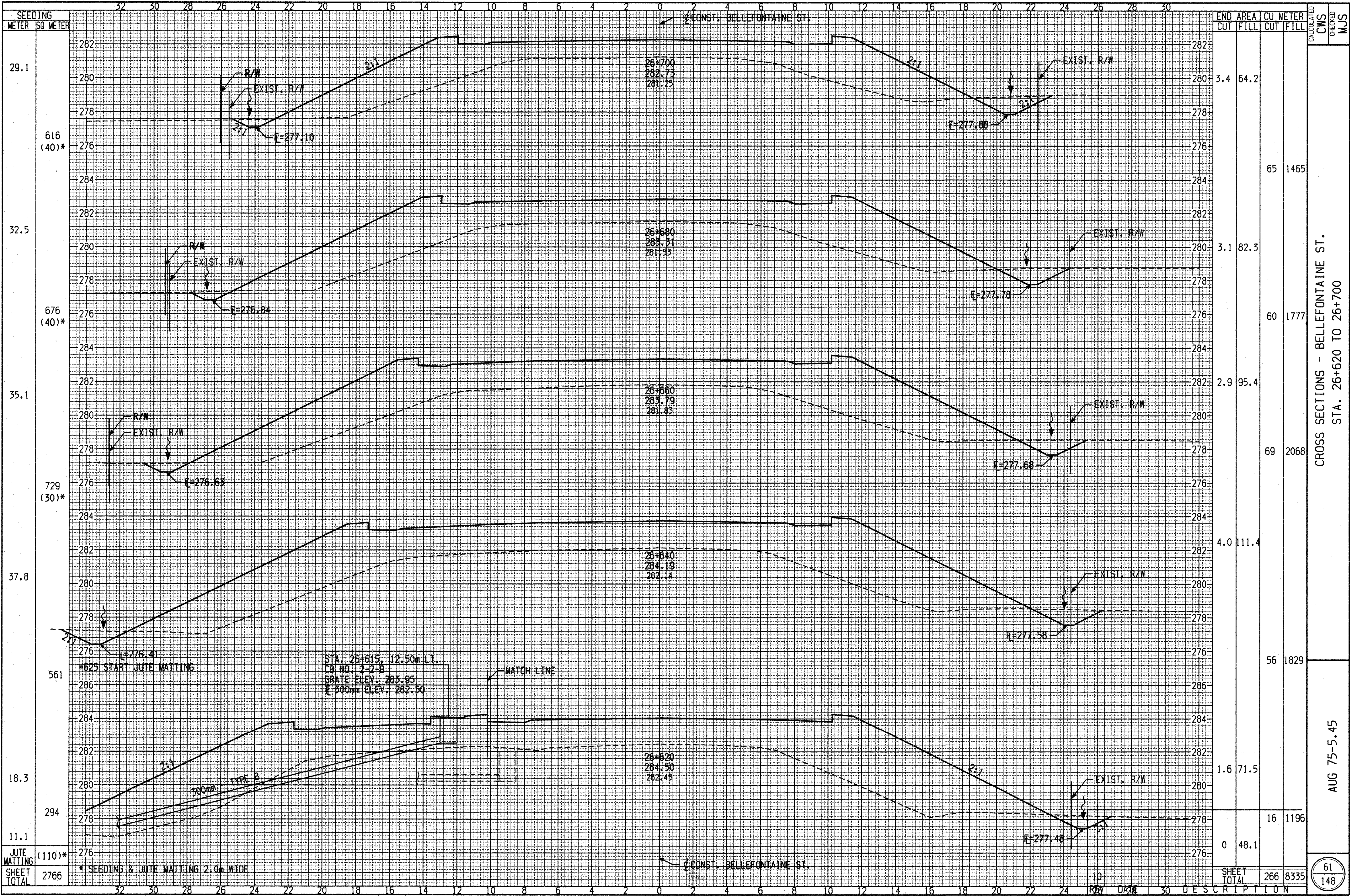
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
	CHECKED	





DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL	
SURVEY	
NOTE BOOK	
NO.	

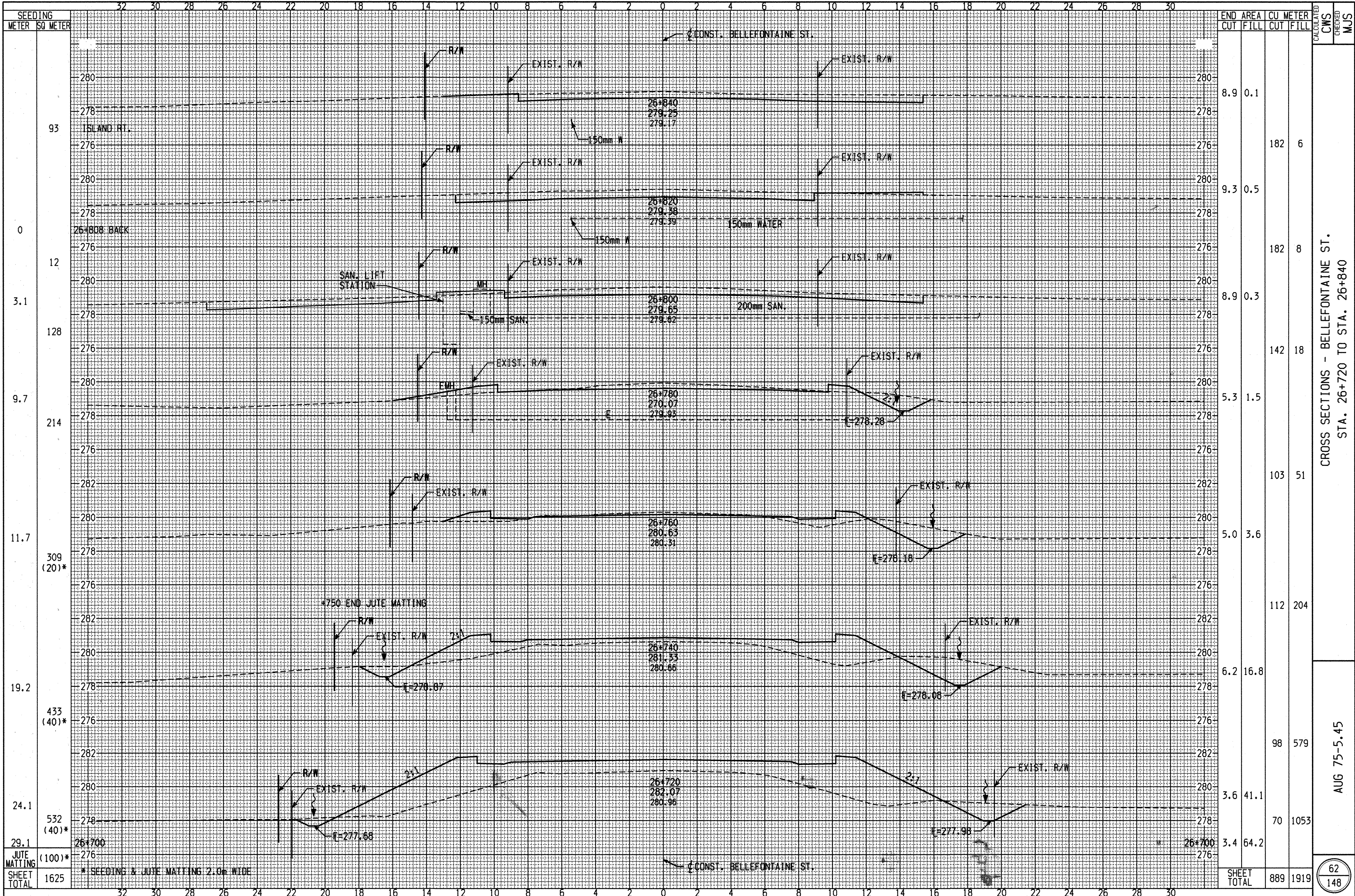
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL	
SURVEY	
NOTE BOOK	
NO.	





DATE	BY	SURVEYED	PLOTTED	TEMPERATURE	AREAS CHECKED
		FINAL	NO.		

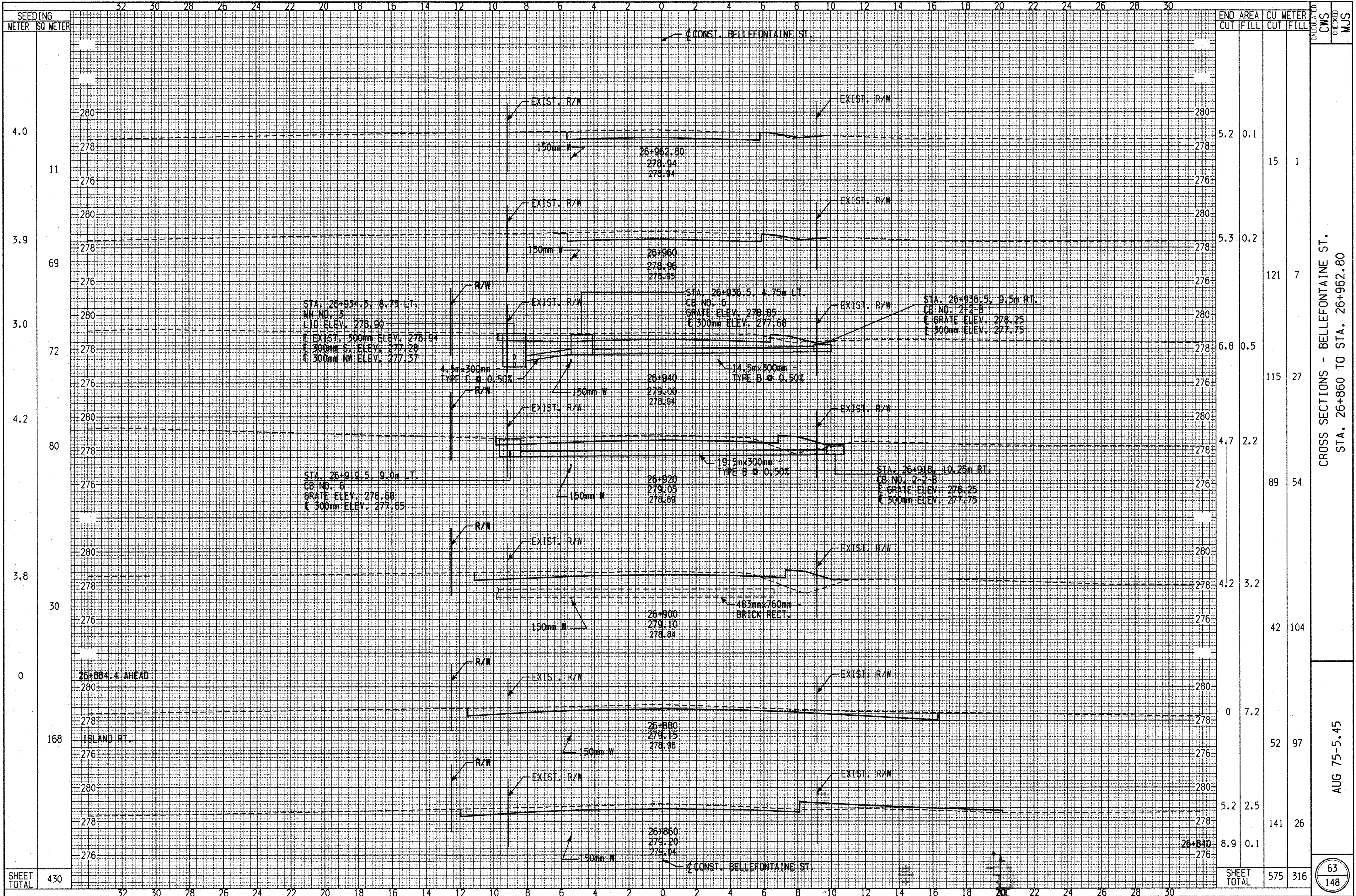
DATE	BY	SURVEYED	PLOTTED	TEMPERATURE	AREAS CHECKED
		ORIGINAL	NO.		





DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK NO.	

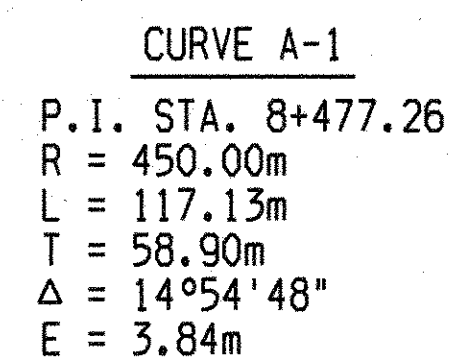
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURV	
NOTE BOOK NO.	







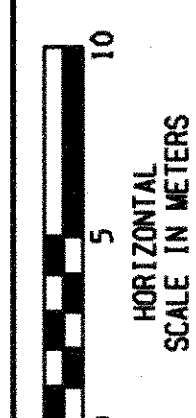








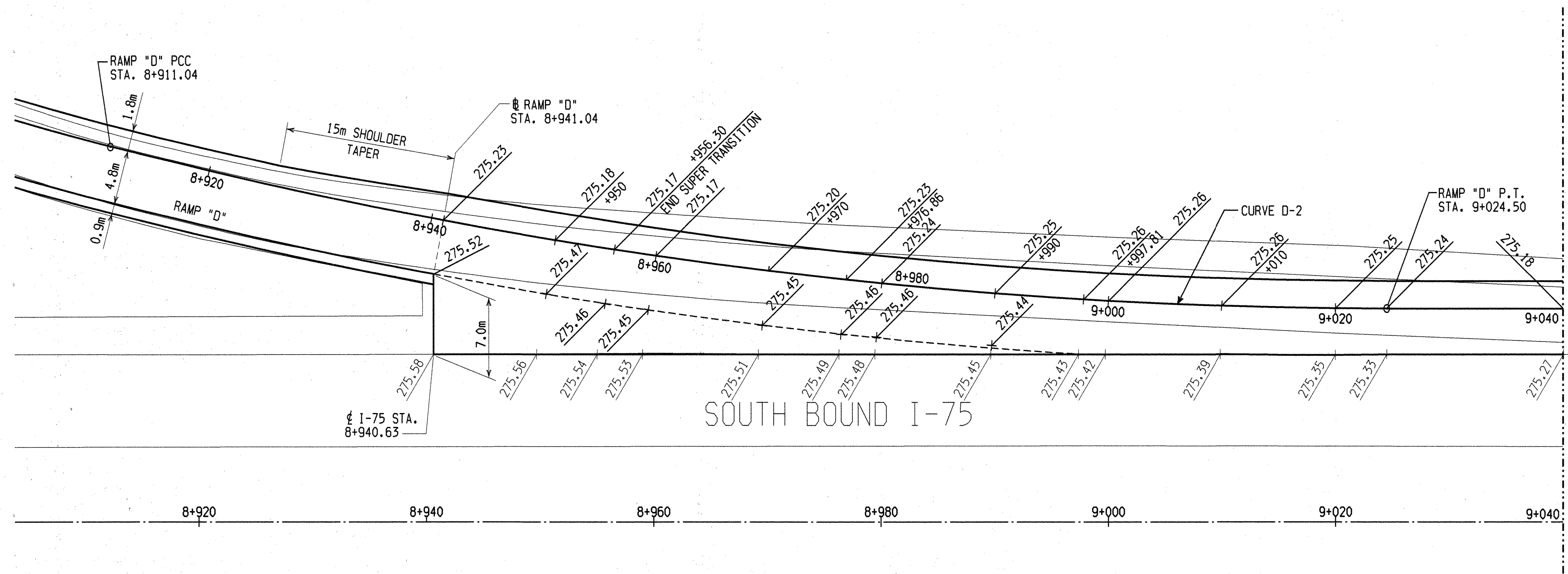




CALCULATED  
CWS  
CHECKED  
NWK

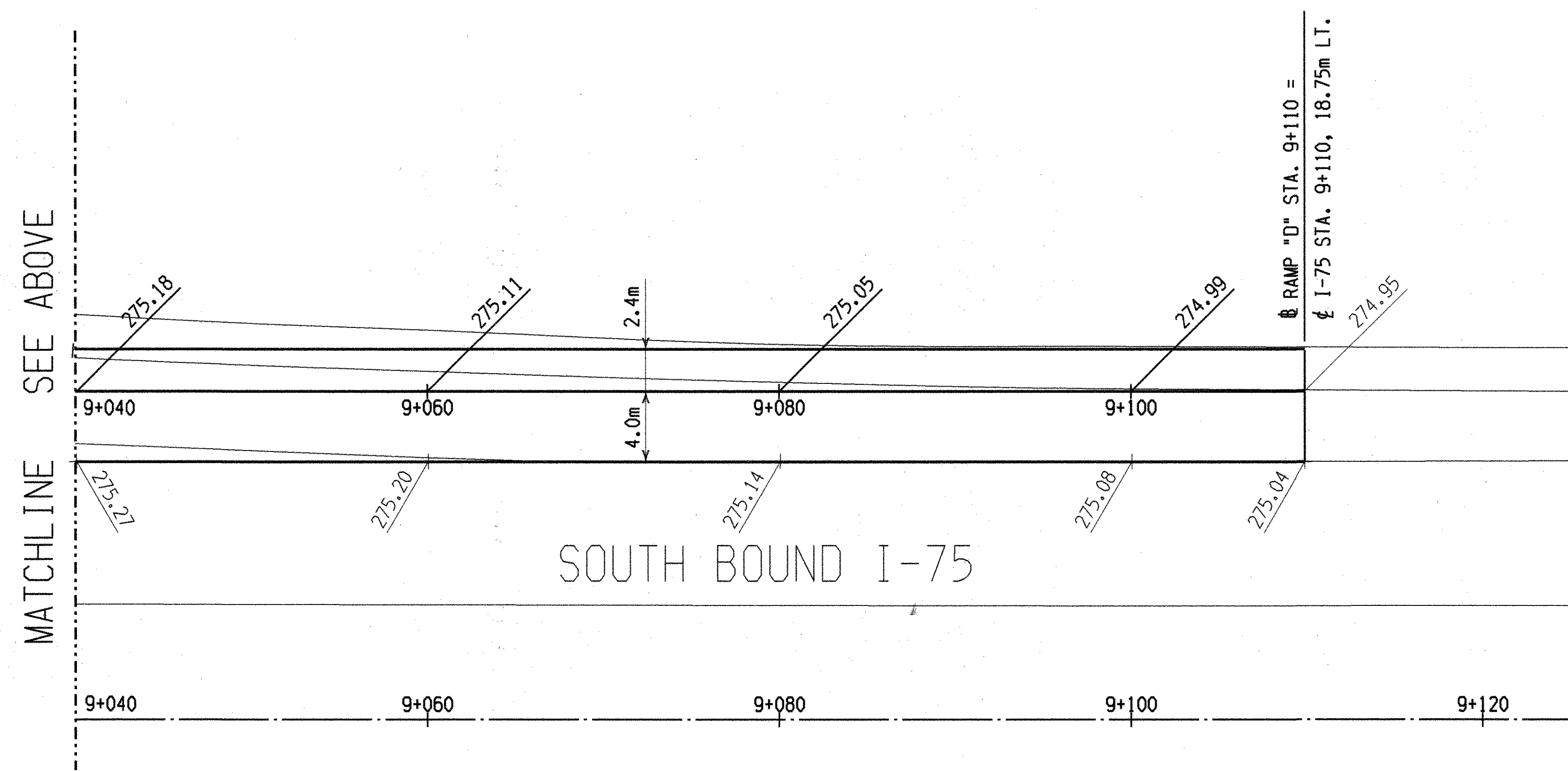
INTERSECTION DETAIL  
RAMP "D" & I-75

AUG-75-5.45



MATCHLINE SEE BELOW

CURVE D-2  
P.I. STA. 8+968.07  
R = 450.00m  
L = 113.46m  
T = 57.03m  
 $\Delta = 14^\circ 26' 47''$   
E = 3.60m



MATCHLINE SEE ABOVE







[illegible]

HORIZONTAL  
SCALE IN METERS

CALCULATED	CHECKED
CWS	NIVK

INTERSECTION DETAIL  
RAMPS C/D & BELLEFONTAINE ST.

AUG-75-5.45

69  
148















SIGNING GENERAL NOTES

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS:

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958, AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THIS PLAN SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731, AND 733.

UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING ALL UNDERGROUND UTILITIES LOCATED PRIOR TO COMMENCING WORK ON ANY SIGN INSTALLATION. FINAL PLACEMENT OF ALL SIGN INSTALLATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT ENGINEER.

631 - SIGN WIRED, AS PER PLAN

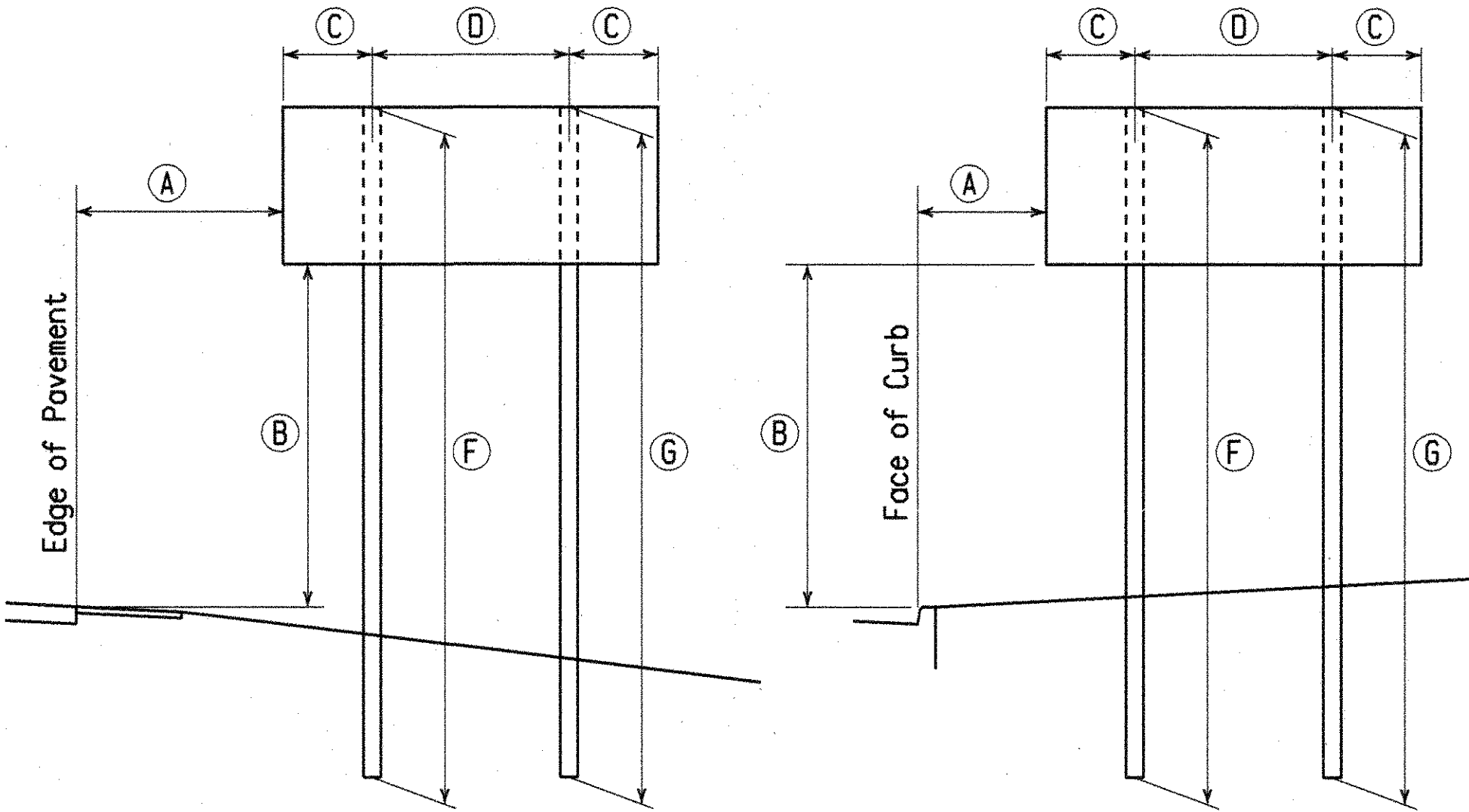
IN ADDITION TO THE REQUIREMENTS OF 631 AND 631.07, THE WIRING OF SIGNS SHALL INCLUDE THE FOLLOWING REQUIREMENTS OR FEATURES:

THE FIELD DRILLING OF HOLES AND ATTACHMENT OF NIPPLES, COUPLINGS, J-HOOKS AND OTHER NECESSARY HARDWARE UPON THE EXISTING SUPPORT BETWEEN THE DISCONNECT AND THE SIGNS REQUIRED FOR THE PROPER WIRING OF SIGNS. LOCATION AND SIZE OF HOLES AND APPURTANANCES SHALL BE IN ACCORDANCE WITH TC-15.115M FOR WIRING OF SIGNS IN ACCORDANCE WITH TC-31.21M.

631 - SWITCH ENCLOSURE MOUNTING BRACKET ASSEMBLY, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 631 AND 631.09, THE SWITCH ENCLOSURE MOUNTING BRACKET ASSEMBLY SHALL INCLUDE THE FOLLOWING REQUIREMENTS OR FEATURES:

THE FILED DRILLING AND CUTTING OF HOLES AND THE ATTACHMENT OF THE NECESSARY COUPLINGS, NIPPLES, ASSEMBLIES AND OTHER HARDWARE IN ORDER TO SUPPLY THE REQUIRED HANDHOLE AND CABLE ENTRANCES ON THE EXISTING SUPPORT. THE LOCATION, TYPE AND SIZE OF THE HOLES SHALL BE IN ACCORDANCE WITH TC-22.10M.



GROUND MOUNTED SIGNS SUPPORT  
AND SIGN SPACING LEGEND



TRAFFIC CONTROL GENERAL SUMMARY				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
620	10300	4	EACH	DELINEATOR, TYPE C, POST MOUNTED
620	15300	63	EACH	DELINEATOR, TYPE D, POST MOUNTED
621	00100	9	EACH	RAISED PAVEMENT MARKER, 1-WAY, YELLOW
621	00100	24	EACH	RAISED PAVEMENT MARKER, 1-WAY, WHITE
642	00102	1.38	KILOMETER	EDGE LINE, TYPE 2
642	00202	0.97	KILOMETER	LANE LINE, TYPE 2
642	00302	0.82	KILOMETER	CENTER LINE, TYPE 2
642	00402	14	METER	CHANNELIZING LINE, TYPE 2
642	00502	14.4	METER	STOP LINE, TYPE 2
642	00702	37	METER	TRANSVERSE LINE, TYPE 2
644	00100	2.33	KILOMETER	EDGE LINE
644	00200	0.23	KILOMETER	LANE LINE
644	00400	407	METER	CHANNELIZING LINE
644	00500	29	METER	STOP LINE
644	00700	150	METER	TRANSVERSE LINE

DELINEATOR SUB-SUMMARY						
LOCATION	SIDE	STATION		6 2 0		SPACING
				DELINEATOR POST MOUNTED		
		FROM	TO OR AT	TYPE C WHITE EACH	TYPE D YELLOW EACH	
RAMP A	LT.	8+505	8+668		7	27.2
RAMP B	LT.	8+631.5	8+668		3	18.2
RAMP B	LT.	8+676.4	8+914		10	26.4
RAMP B	RT.	8+760	9+104		14	26.5
RAMP B-B	LT.	8+641.5	8+676.4		3	17.5
RAMP B-B	RT.	8+655.4	8+668.8	2		17
RAMP C	RT.	8+540	8+770.6		10	25.6
RAMP C	LT.	8+781	8+820.1		3	19.6
RAMP C-C	RT.	8+770.6	8+796.4		2	25.8
RAMP C-C	LT.	8+778.6	8+793.8	2		19
RAMP D	RT.	8+794	8+941		7	24.5
RAMP D	LT.	8+781	8+860		4	26.3
TOTALS TO TRAFFIC CONTROL GENERAL SUMMARY				4	63	

PAVEMENT MARKING SUB-SUMMARY																							
SHEET NUMBER	ROUTE, RAMP, OR ROAD	SIDE	STATION		6 2 1			6 4 2								6 4 4							
					RAISED PAVEMENT MARKER, 1-WAY YELLOW	RAISED PAVEMENT MARKER, 1-WAY WHITE	SPACING	EDGE LINE		LANE LINE	CENTER LINE		CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE	EDGE LINE		LANE LINE	CENTER LINE		CHANNELIZING LINE	STOP LINE	TRANSVERSE LINE
			FROM	TO OR AT				WHITE	YELLOW		SINGLE BROKEN	DOUBLE SOLID				WHITE	YELLOW		SINGLE BROKEN	DOUBLE SOLID			
80	RAMP A	LT.	8+457	8+505		9	6																
80	RAMP A	LT.	8+517	8+529	2		12																
81	RAMP B	LT.	8+882	8+894	5		12																
81	RAMP B	LT.	8+906	9+002		5	12																
81	RAMP D	LT.	8+941	8+995		10	6																
81	RAMP D	LT.	8+917	8+929	2		12																
80	I-75		8+505	8+535				0.03															
81	I-75		8+914	9+002				0.088															
82&83	BELLEFONTAINE		26+193	26+356.8				0.195		0.216	0.241	14	7.2	37									
83	BELLEFONTAINE		26+363	26+584				0.451		0.416	0.208		7.2										
83&84	BELLEFONTAINE		26+593	26+962.8				0.613		0.334	0.370												
80&83	RAMP A		8+418	8+668												0.256	0.163	0.04			94	16	43
81,83&84	RAMP B		8+506	9+104												0.598	0.274	0.072			151		28
83	RAMP B-B		8+653.09	8+676.37												0.017	0.035						
82&83	RAMP C		8+650	8+941.75												0.292	0.160				60		26
83	RAMP C-C		8+770.60	8+796.42												0.019	0.026						
81&83	RAMP D		8+781	9+110												0.331	0.160	0.118			102	13	53
SUB-TOTALS								1.377		0.966	0.819	14	14.4	37		1.513	0.818	0.230			407	29	150
TOTALS TO TRAFFIC CONTROL GENERAL SUMMARY								1.38		0.97	0.82	14	14.4	37		1.51	0.82	0.23			407	29	150

QUANTITIES CALCULATED BY: NRC DATE 9-12-95  
QUANTITIES CHECKED BY: BAW DATE 10-18-95



S I G N I N G      G E N E R A L      S U M M A R Y

CARRIED FROM SHEET					ITEM	ITEM EXT.	Q U A N T I T Y				UNIT	D E S C R I P T I O N
76	77	78	79							TOTAL		
8					625	32000				8	Each	Ground Rod
17.5					630	00000				17.5	Cu. M.	Concrete for Anchor Base Foundation
	3.02	1.82	1.20		630	00100				6.04	Cu. M.	Concrete for Embedded Foundation
		7.6	8.1		630	02100				15.7	Meter	Ground Mounted Support, No. 2 Post
	12.5	34.8	26.6		630	03100				73.9	Meter	Ground Mounted Support, No. 3 Post
	19.7	10.2	24.5		630	04100				54.4	Meter	Ground Mounted Support, No. 4 Post
	22.1		22.1		630	06500				44.2	Meter	Ground Mounted Support, W150 x 13.5 Beam
	14.4	13.1			630	07000				27.5	Meter	Ground Mounted Support, W200 x 26.6 Beam
	4.5	4.5			630	08004				9.0	Meter	One Way Support, No. 3 Post
					630	08100					Meter	One Way Support, No. 4 Post
	4	2	2		630	09000				8	Each	Breakaway Beam Connection
1					630	20300				1	Each	Overhead Sign Support, Type TC-12.30, Design 3
1					630	20400				1	Each	Overhead Sign Support, Type TC-12.30, Design 4
4					630	20600				4	Each	Overhead Sign Support, Type TC-12.30, Design 6
1					630	21200				1	Each	Overhead Sign Support, Type TC-12.30, Design 12
11					630	75000				11	Each	Sign Attachment Assembly
5					630	75106				5	Each	Luminaire Support Assembly, Type TC-31.21
2.9			7.3		630	80100				10.2	Sq. M.	Sign, Flat Sheet
	24.7	18.1	6.6		630	80102				49.4	Sq. M.	Sign, Flat Sheet, Type G
27.4					630	80204				27.4	Sq. M.	Sign, Extrusheet, Type G
		1	3		630	84900				4	Each	Removal of Ground Mounted Sign and Disposal
	10	12	9		630	85100				31	Each	Removal of Ground Mounted Sign and Reerection
			2		630	85400				2	Each	Removal of Ground Mounted Major Sign and Disposal
	4	1			630	85600				5	Each	Removal of Ground Mounted Major Sign and Reerection
	9	15	6		630	86002				30	Each	Removal of Ground Mounted Post Support and Disposal
	9	2	14		630	86204				25	Each	Removal of Ground Mounted Beam Support and Storage
6					630	87100				6	Each	Removal of Overhead Mounted Sign and Reerection
1					630	88100				1	Each	Removal of Overhead Sign Support and Storage, Type TC-12.30
8					631	84000				8	Each	Sign Service
7					631	84300				7	Each	Sign Wired
2					631	84301				2	Each	Sign wired, as per plan

CARRIED FROM SHEET					ITEM	ITEM EXT.	Q U A N T I T Y				UNIT	D E S C R I P T I O N
76	77	78	79							TOTAL		
8					631	85100				8	Each	Disconnect Switch with Enclosure, Type X
1					631	85501				1	Each	Switch Enclosure Mounting Bracket Assembly, As Per Plan
4					631	87010				4	Each	Ballast, Type CMRI-100-240, Integral
3					631	87102				3	Each	Ballast, Type CMRI-100-480, Integral
3					631	87202				3	Each	Ballast, Type CMRI-175-480, Integral
2					631	87206				2	Each	Ballast, Type CMRI-175-240, Integral
2					631	87302				2	Each	Ballast, Type CMRI-250-480, Integral
7					631	89100				7	Each	Mercury Vapor Luminaire, Type TC-31.21 with 100-Watt Lamp
5					631	89200				5	Each	Mercury Vapor Luminaire, Type TC-31.21 with 175-Watt Lamp
2					631	89300				2	Each	Mercury Vapor Luminaire, Type TC-31.21 with 250-Watt Lamp

QUANTITIES BY: LWB    DATE: 10-5-95  
CHECKED BY:    BAW    DATE: 10-18-95



OVERHEAD SIGN SUB-SUMMARY

Reference Number	Sheet Number	Route, Ramp, or Road	Station	Side	Sign Size		Concrete for Anchor Base Foundations	Overhead Sign Support Type TC-12.30, Design 3	Overhead Sign Support Type TC-12.30, Design 4	Overhead Sign Support Type TC-12.30, Design 6	Overhead Sign Support Type TC-12.30, Design 12		S I G N S								Sign Attachment Assembly	Sign Service	Signs Wired	Sign Wired As Per Plan	Disconnect Switch with Enclosure Type X	Switch Enclosure Mounting Bracket Asm., As Per, Plan	Ballast, Type CMRI, 100-240 Integral	Ballast, Type CMRI, 175-240 Integral	Ballast, Type CMRI-100-480, Integral	Ballast, Type CMRI-175-480, Integral	Ballast, Type CMRI-250-480, Integral	Mercury Vapor Luminaire Type TC-31.21 with 100-Watt Lamp	Mercury Vapor Luminaire Type TC-31.21 with 175-Watt Lamp	Mercury Vapor Luminaire Type TC-31.21 with 250-Watt Lamp		Ground Rod	625																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					Actual	Effective							Sign, Flat Sheet	Sign, Extrusheet, Type G	Luminaire Support Assembly Type TC-31.21	Removal of Overhead Mounted Sign and Reerection	Removal of Overhead Mounted Sign and Storage	Removal of Overhead Sign Support and Storage Type TC-12.30		Sign Attachment Assembly																		Sign Service	Signs Wired	Sign Wired As Per Plan	Disconnect Switch with Enclosure Type X	Switch Enclosure Mounting Bracket Asm., As Per, Plan	Ballast, Type CMRI, 100-240 Integral	Ballast, Type CMRI, 175-240 Integral	Ballast, Type CMRI-100-480, Integral	Ballast, Type CMRI-175-480, Integral	Ballast, Type CMRI-250-480, Integral	Mercury Vapor Luminaire Type TC-31.21 with 100-Watt Lamp	Mercury Vapor Luminaire Type TC-31.21 with 175-Watt Lamp	Mercury Vapor Luminaire Type TC-31.21 with 250-Watt Lamp		Ground Rod	625																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;">77</div> <div style="text-align: center;">148</div> </div>	AUG-75-5.45	GROUND - MOUNTED SIGN SUB-SUMMARY	CALCULATED
			BAW
			CHECKED
			LWB

UTM607511048733.DGN	RF=	RF=	RF=
PCE-P-1D05S9PCE-MPC.PRC\110403.S9.PRE	RF=	RF=	RF=
PEN TABLE=11-0403V01730\RL.VPM.TBL	RF=	RF=	RF=
NO TEXT?	RF=	RF=	RF=
PLOTTED DATE: 04/24/87 07:30.34	RF=	RF=	RF=
HAND TEXT*	RF=	RF=	RF=

UTM687511048733.DGN	RF=	RF=	RF=
PCE-P-1DPS05PCEWPC.PRC\11048733.PRF	RF=	RF=	RF=
PEN TABLE=11048733.UTM687511048733.DGN	RF=	RF=	RF=
PLOTTED DATE= 04/24/98 07:30.34	RF=	RF=	RF=
END TEXT*	RF=	RF=	RF=



GROUND - MOUNTED SIGN SUB-SUMMARY

\* Behind Face of Guardrail ° Unless Otherwise Shown

Reference Number	Sheet Number	Route, Ramp, or Road	Station	Side	Code	Size	Area	Dimensions in Meters (See Sheet No. 73 for Legend Detail)				Removal of Ground Mounted Sign and Disposal	Removal of Ground Mounted Sign and Reerection	Removal of Ground Mounted Post Support and Disposal	Removal of Ground Mounted Beam Support and Storage	Removal of Ground Mounted Major Sign and Re-Erection	Concrete For Embedded Foundations	6 3 0						Ground Mounted Supports, Beam Type, in Meters (See Sheet No. 73 for Legend Detail)						One Way Supports, No. 3 Post	Breakaway Beam Connection	S I G N S				
																		Ground Mounted Supports, Post Type, in Meters (See Sheet No. 73 for Legend Detail)			Ground Mounted Supports, Post Type, in Meters (See Sheet No. 73 for Legend Detail)															
																		No. 2		No. 3		No. 4										W150 x 13.5		W200 x 26.6		
						mm°	Sq. M.	A	B	C	D	Each	Each	Each	Each	Each	Cu. M.	F	G	F	G	F	G	F	G	F	G			Mtr.	Each	Sq. M.	Sq. M.	Sq. M.		
	88	Ramp B	8+655	Lt.	R-2-60	1500x1500	1.0						1	2																						
	88		8+660	Lt.	R-2-60	1500x1500	1.0	3.6	1.8	0.4	0.8									4.6	4.8															
	88		8+669	Rt.	R-43L-36	900x300	0.3						1	1																						
					R-43L-36	900x300	0.3	*1.2	1.8	0.5	-							3.8	-																	
	88		8+711	Rt.	R-15A	900x900	0.8						1	1																						
					R-15A	900x900	0.8	*1.2	1.8	0.5	-									4.1	-															
	88	Ramp C	8+757	Lt.	R-15-A	900x900	0.8						1	1																						
					R-15-A	900x900	0.8	*1.2	1.8	0.5										4.5																
	88		8+782	Lt.	R-43L-36	900x300	0.3						1	1																						
					R-43L-36	900x300	0.3	*1.2	1.8	0.5								3.8																		
	88		8+789	Rt.	R-2-60	1500x1500	1.0	3.9	1.8	0.4	0.8									4.4	4.6															
	88		8+795	Rt.	R-2-60	1500x1500	1.0						1	2																						
	88	Ramp D	8+832	Rt.	R-41A-36	900x600	0.5						1	1																						
					R-41A-36	900x600	0.5	3.0	1.8	0.5										3.9																
	88		8+834	Lt.	D-1	4877x1219	5.9								2	1																				
					N-58B	4877x607	3.0																													
					R-41A-36	900x600	0.5																													
11					D-1	4877x1219	5.9	*1.2	1.5	1.1	2.7						1.82								6.2	6.9			2							
					N-58B	4877x607	3.0																													
					R-41A-36	900x600	0.5																													
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					R-41B-36	900x900	0.8	*1.2	1.8	0.5																										
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GROUND - MOUNTED SIGN SUB-SUMMARY

AUG-75-5.45



GROUND - MOUNTED SIGN SUB-SUMMARY

\* Behind Face of Guardrail ° Unless Otherwise Shown

Reference Number	Sheet Number	Route, Ramp, or Road	Station	Side	Code	Size	Area	Dimensions in Meters (See Sheet No. 73 for Legend Detail)				Removal of Ground Mounted Sign and Disposal	Removal of Ground Mounted Sign and Reerection	Removal of Ground Mounted Post Support and Disposal	Removal of Ground Mounted Beam Support and Storage	Removal of Ground Mounted Major Sign and Disposal	Concrete For Embedded Foundations	6 3 0								Ground Mounted Supports, Beam Type, in Meters (See Sheet No. 73 for Legend Detail)				One Way Supports, No. 4 Post	Breakaway Beam Connection	S I G N S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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GROUND - MOUNTED SIGN SUB-SUMMARY

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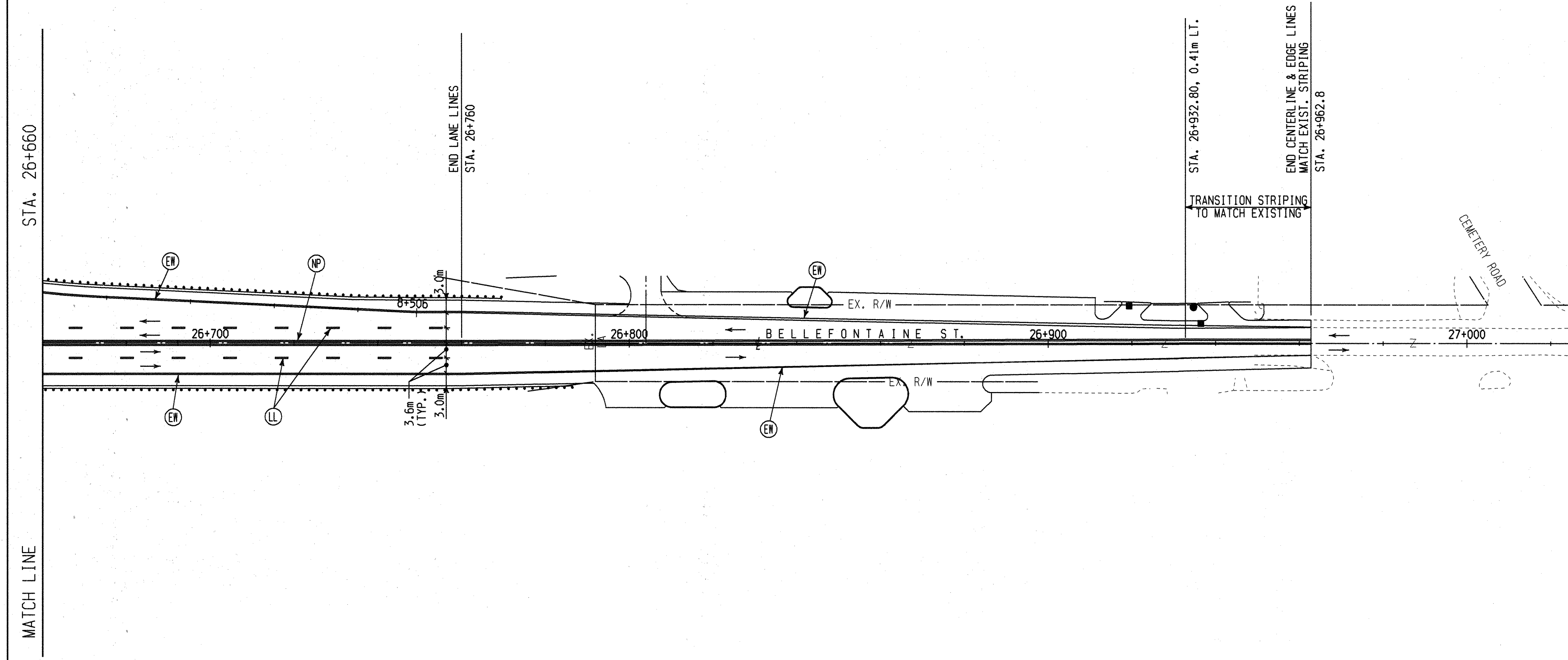








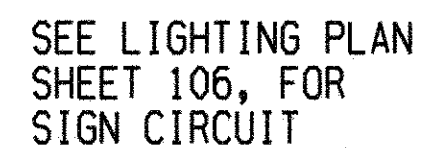




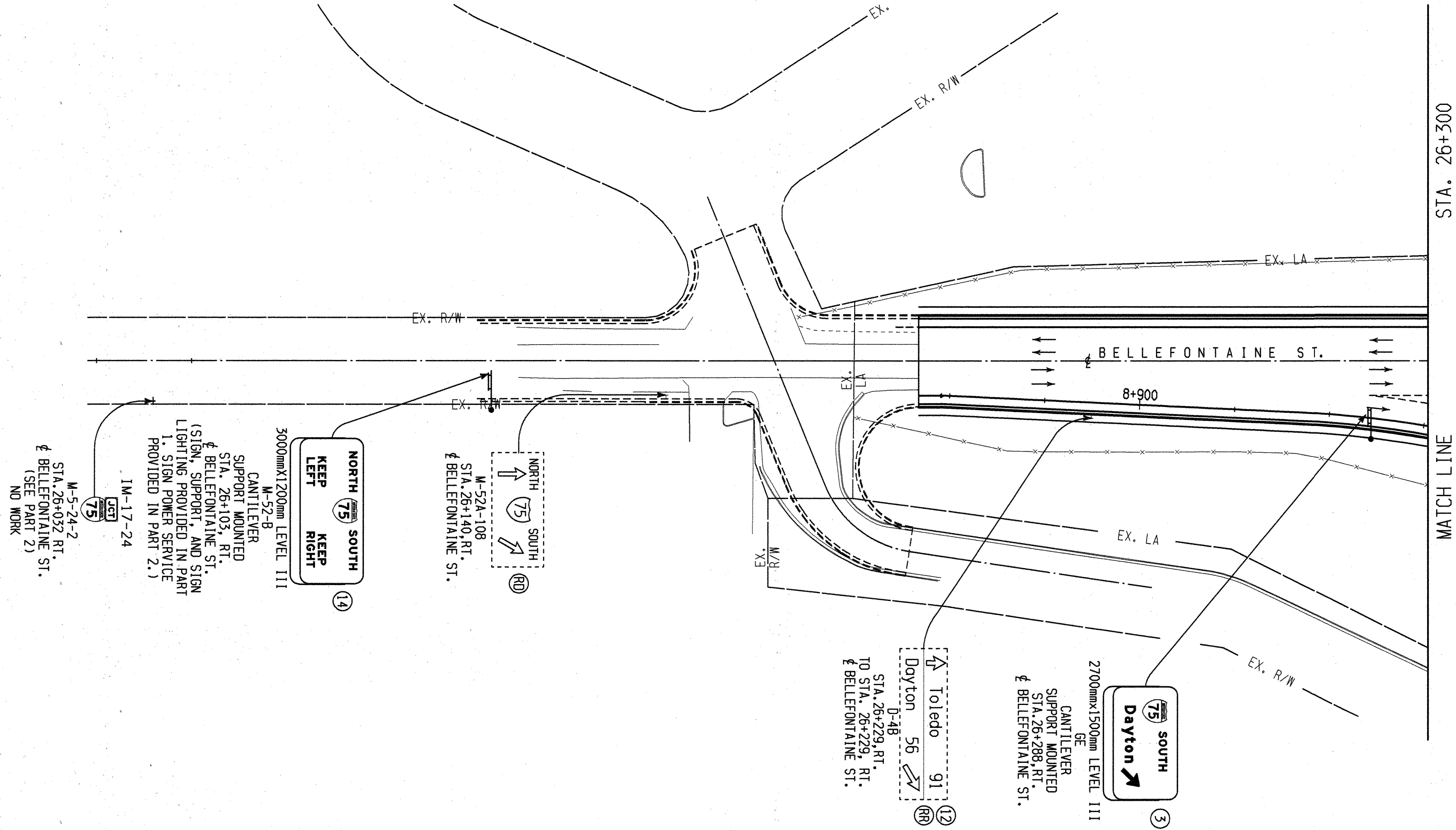




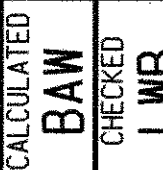
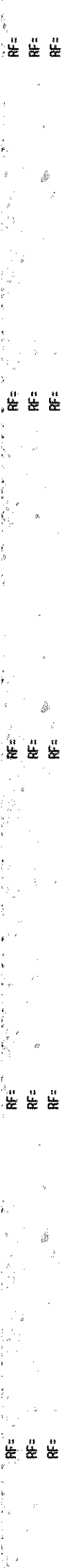








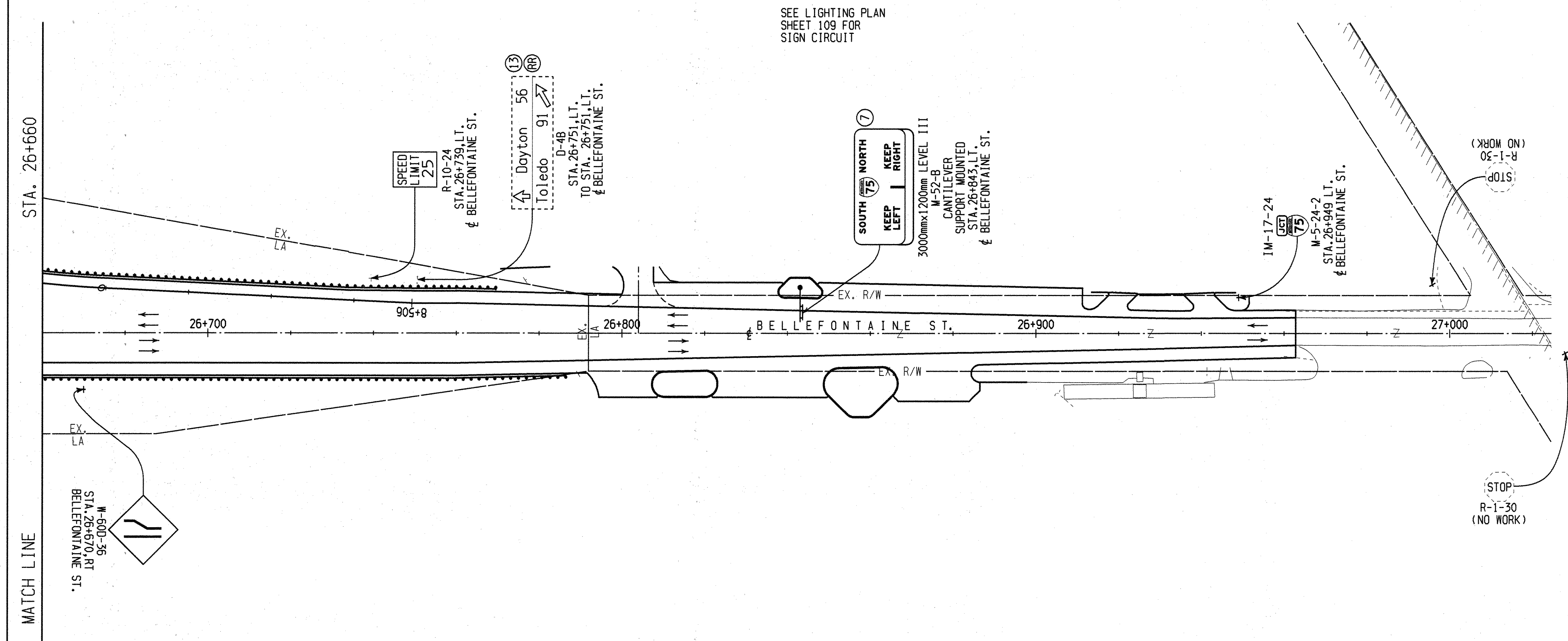


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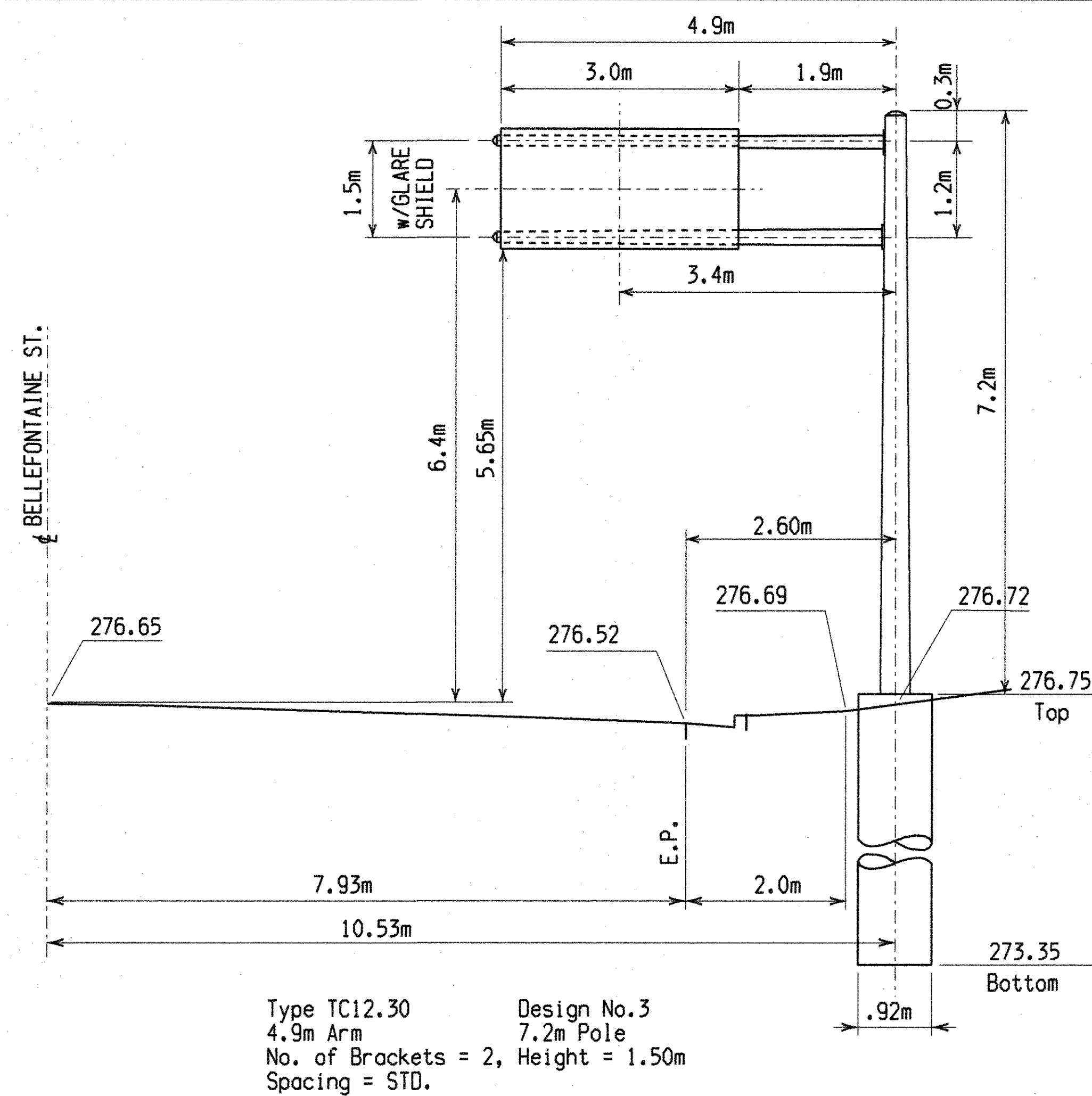
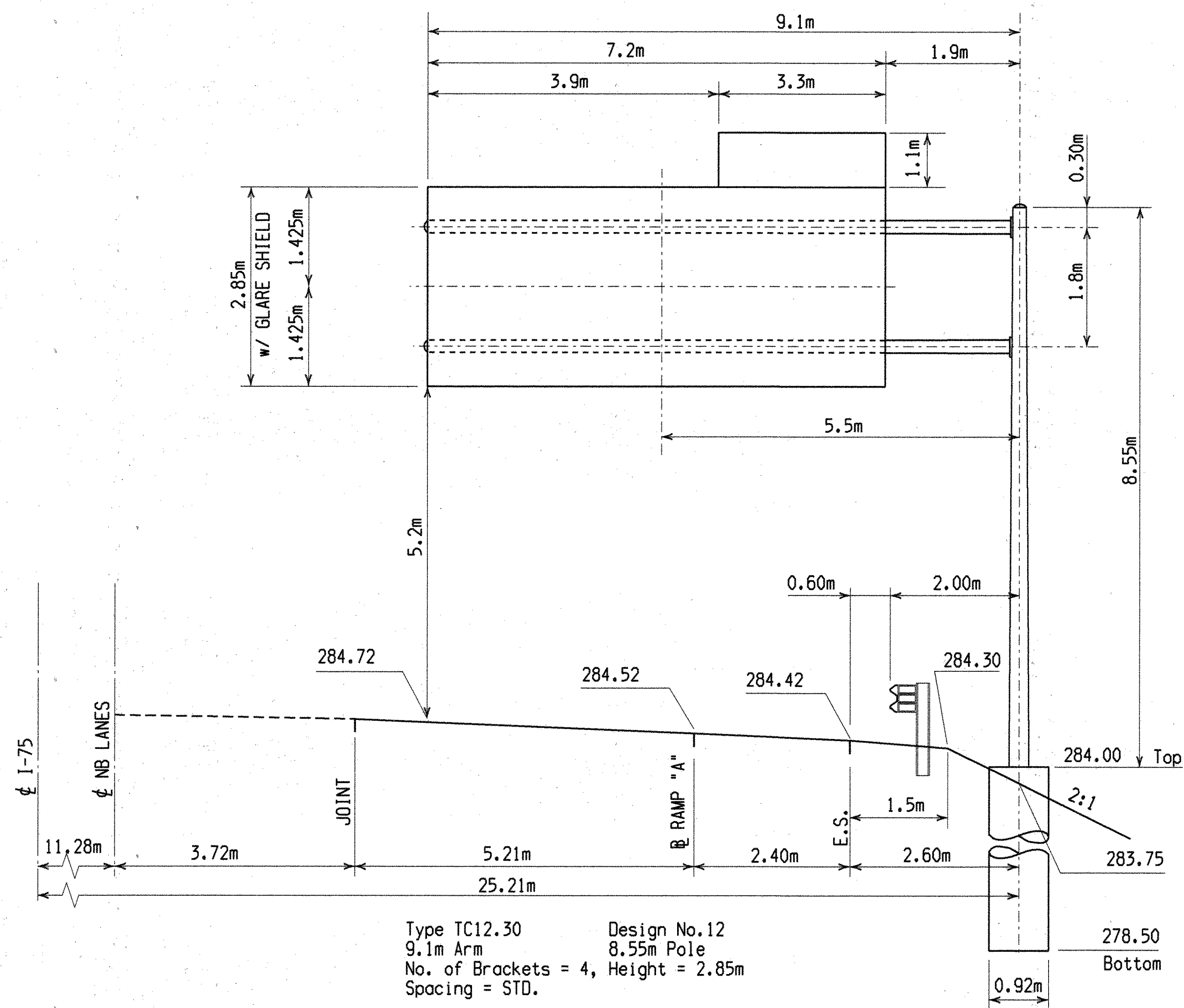
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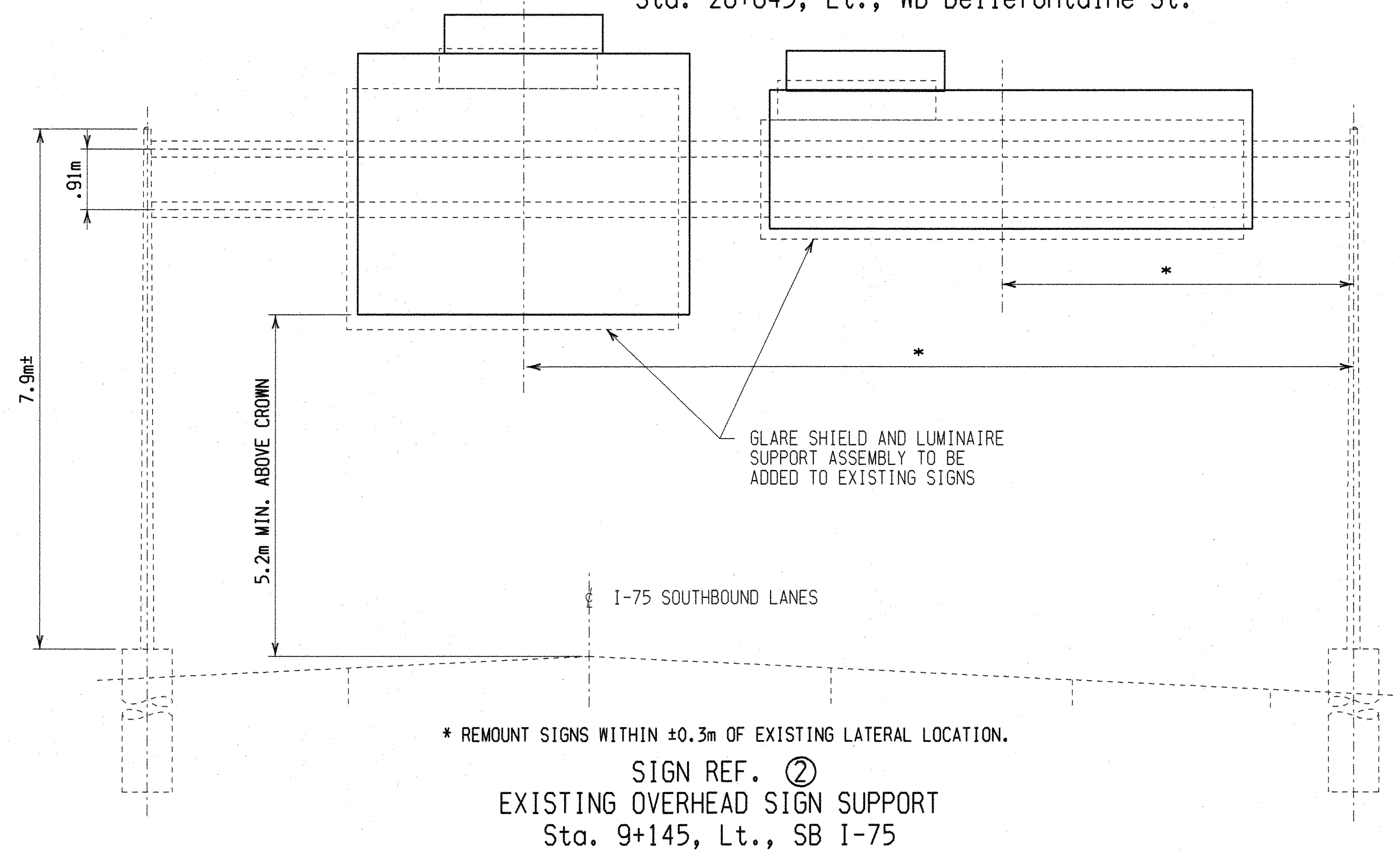
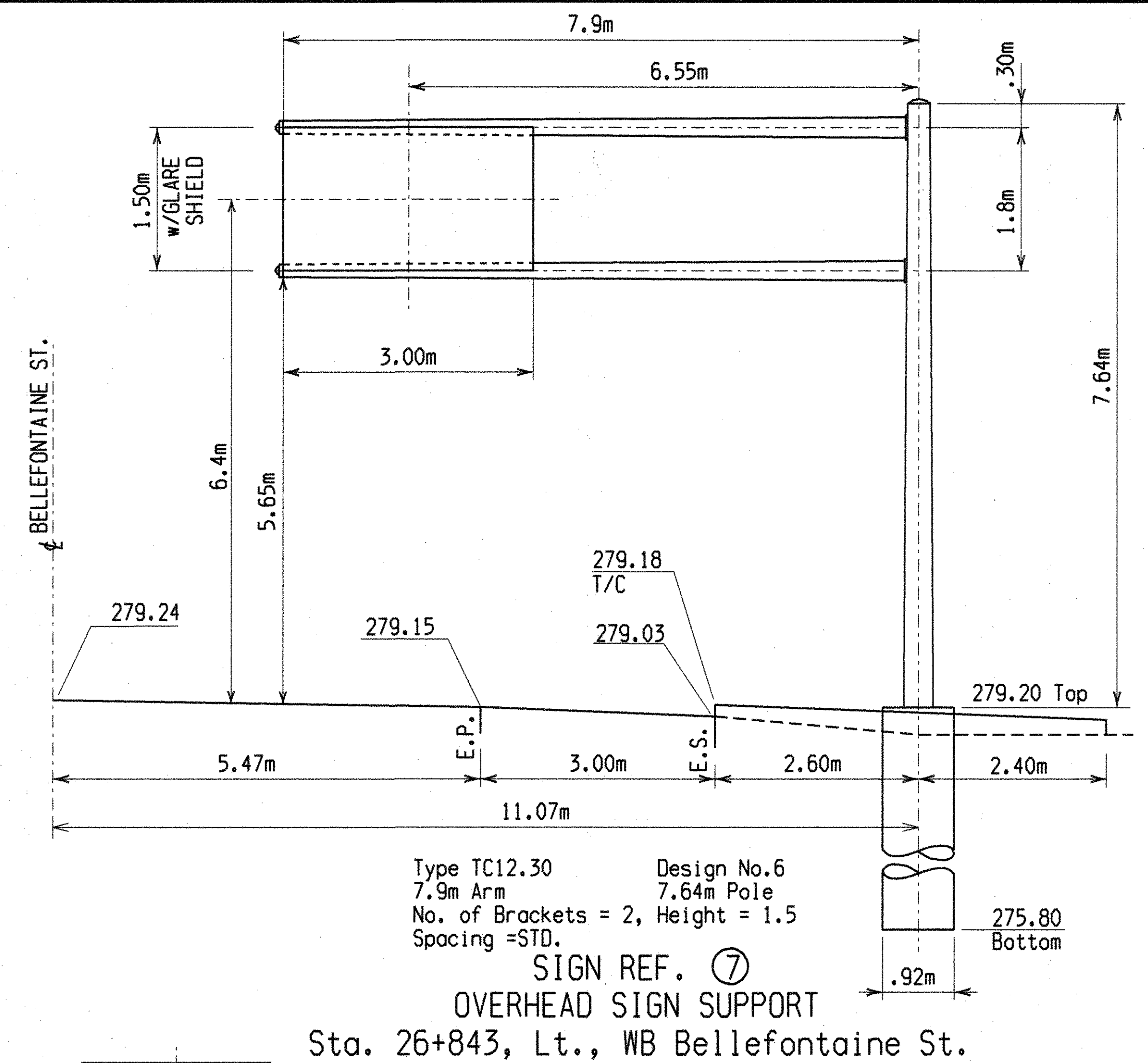
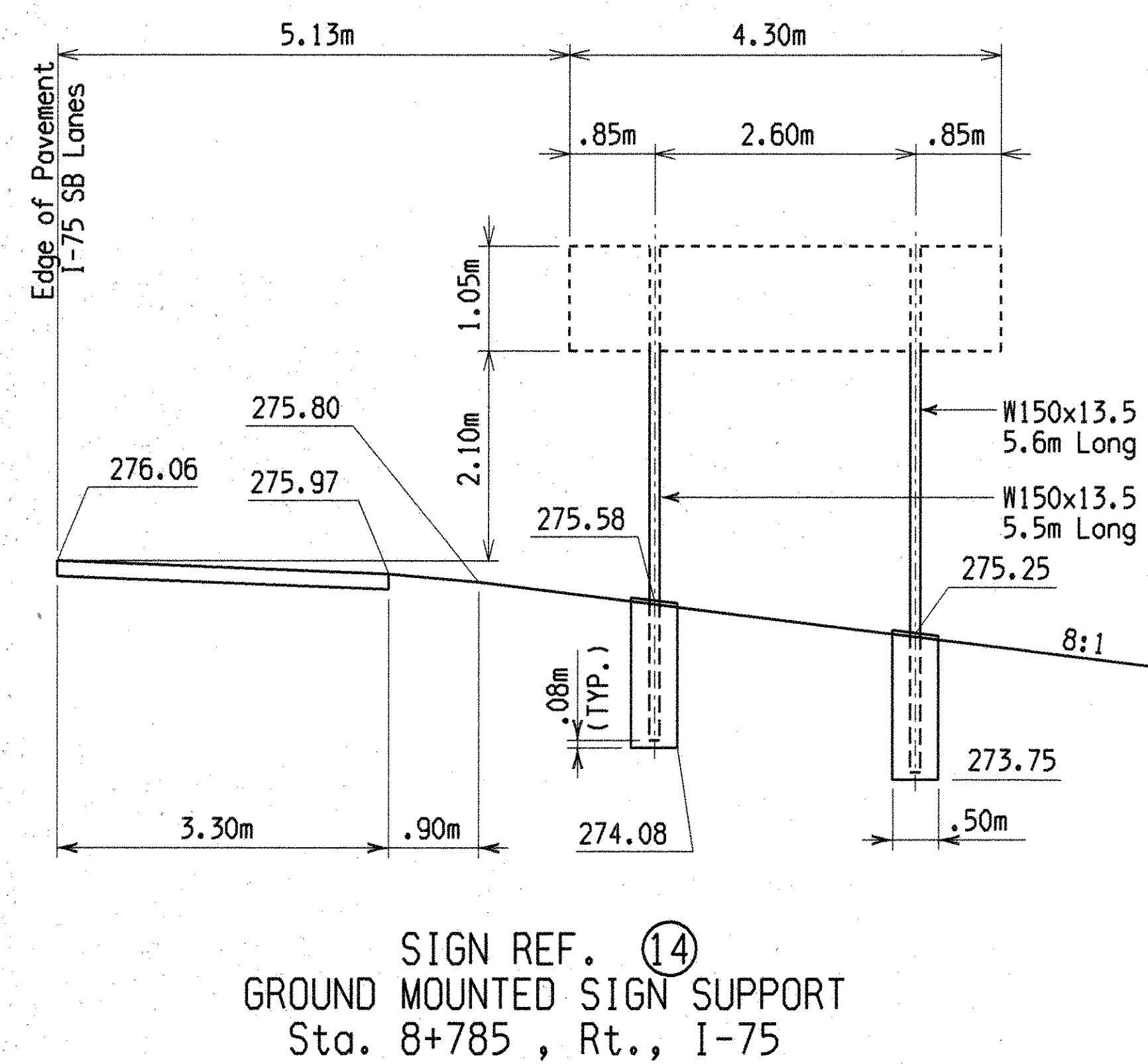
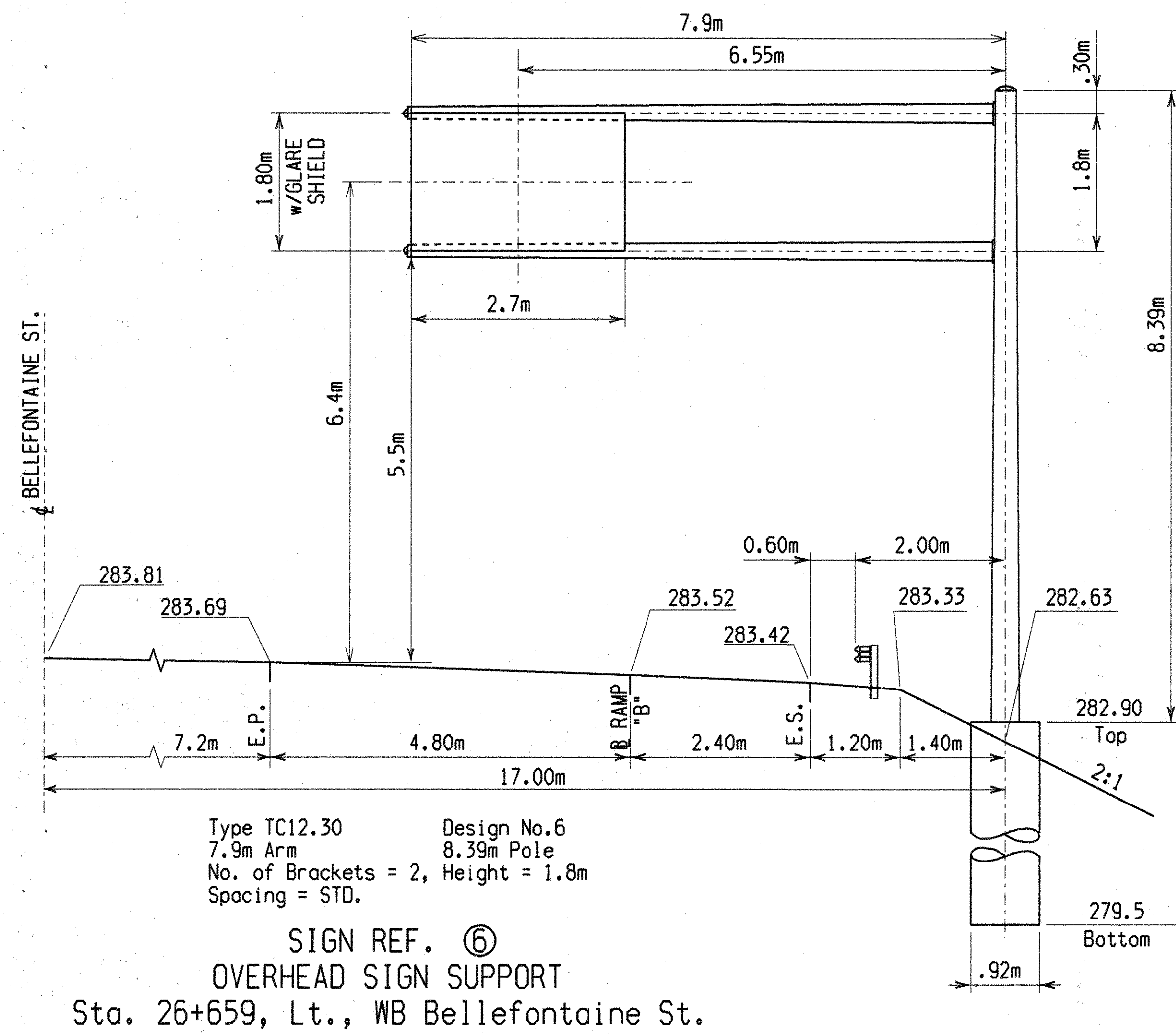




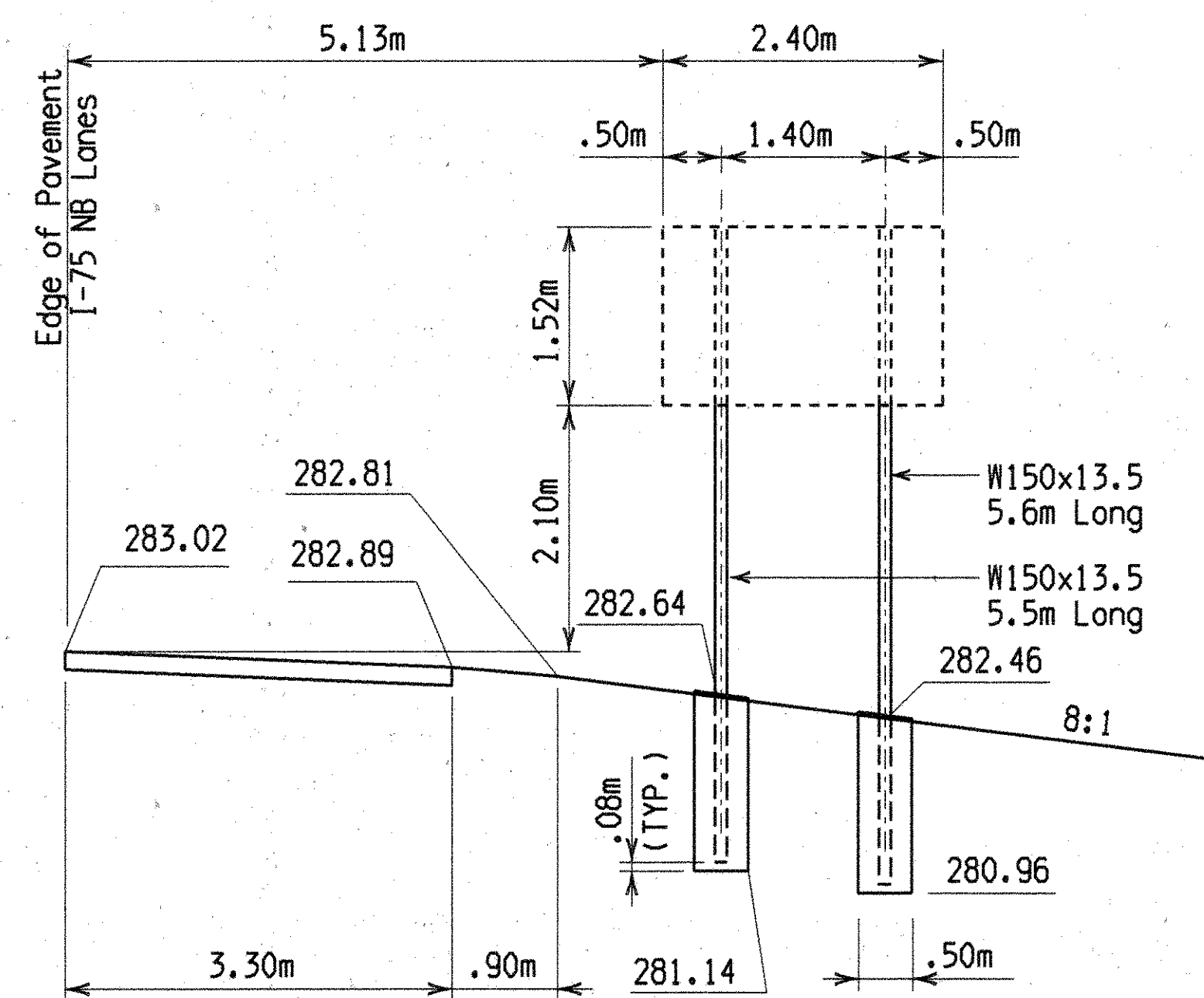




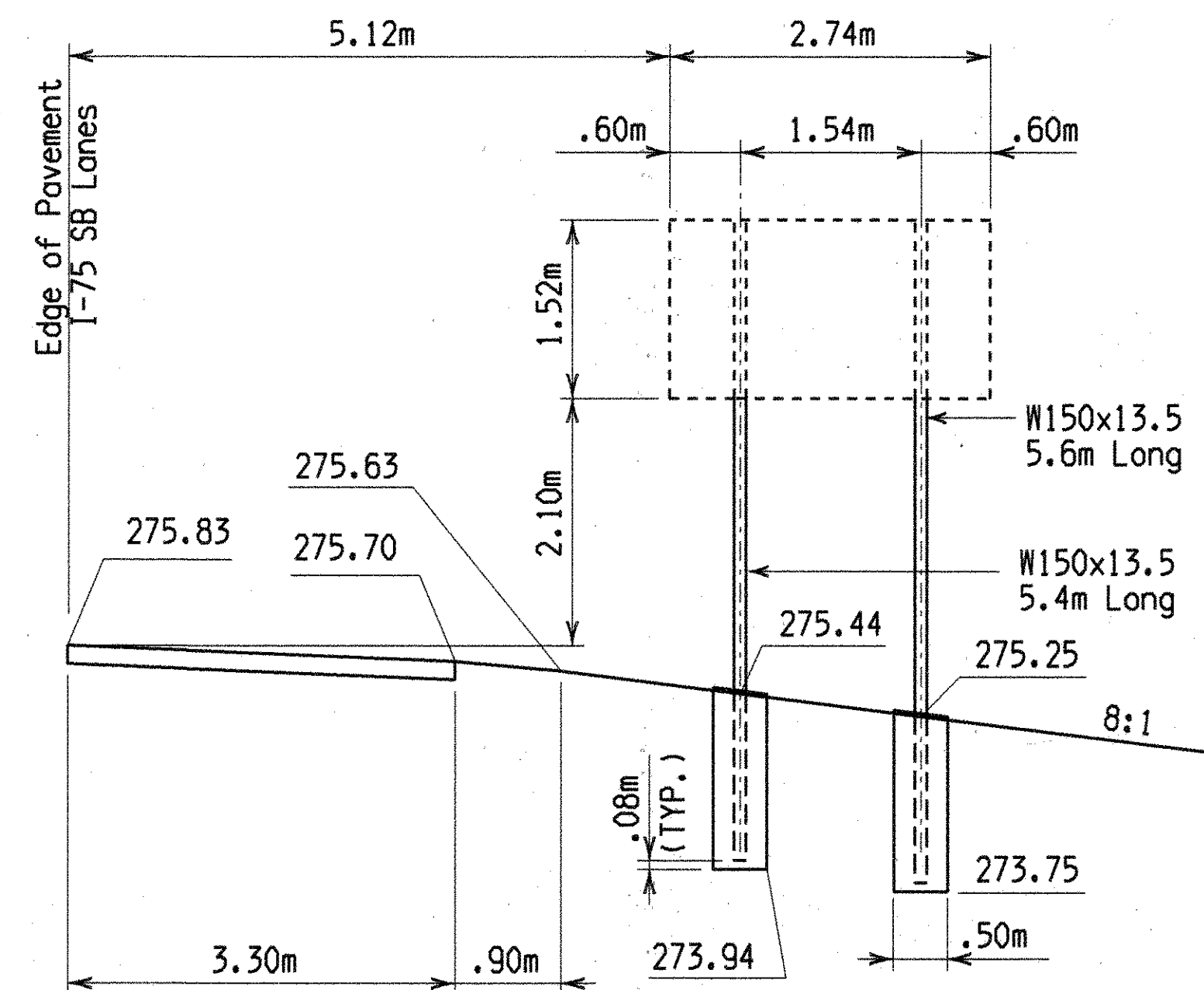




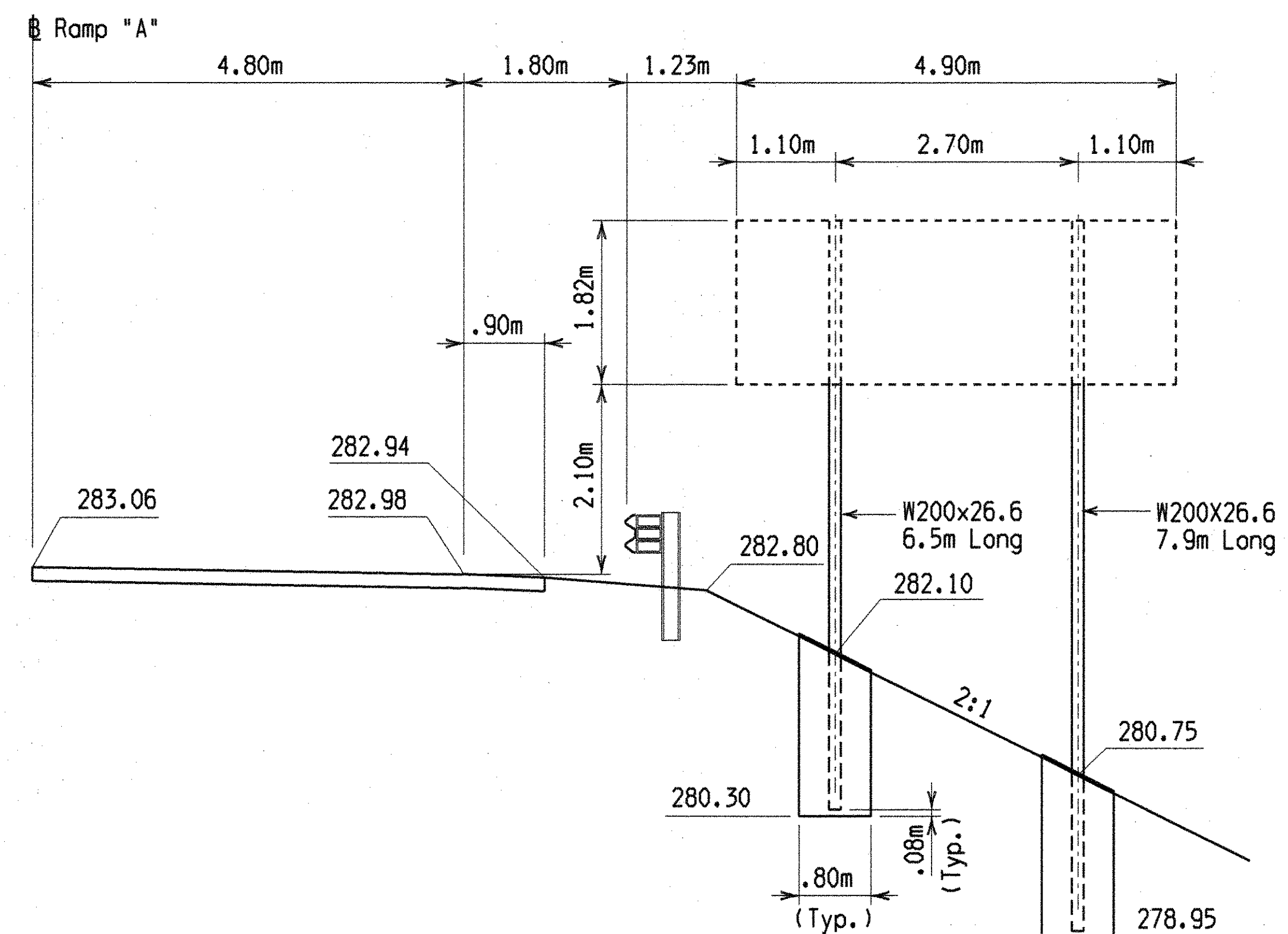




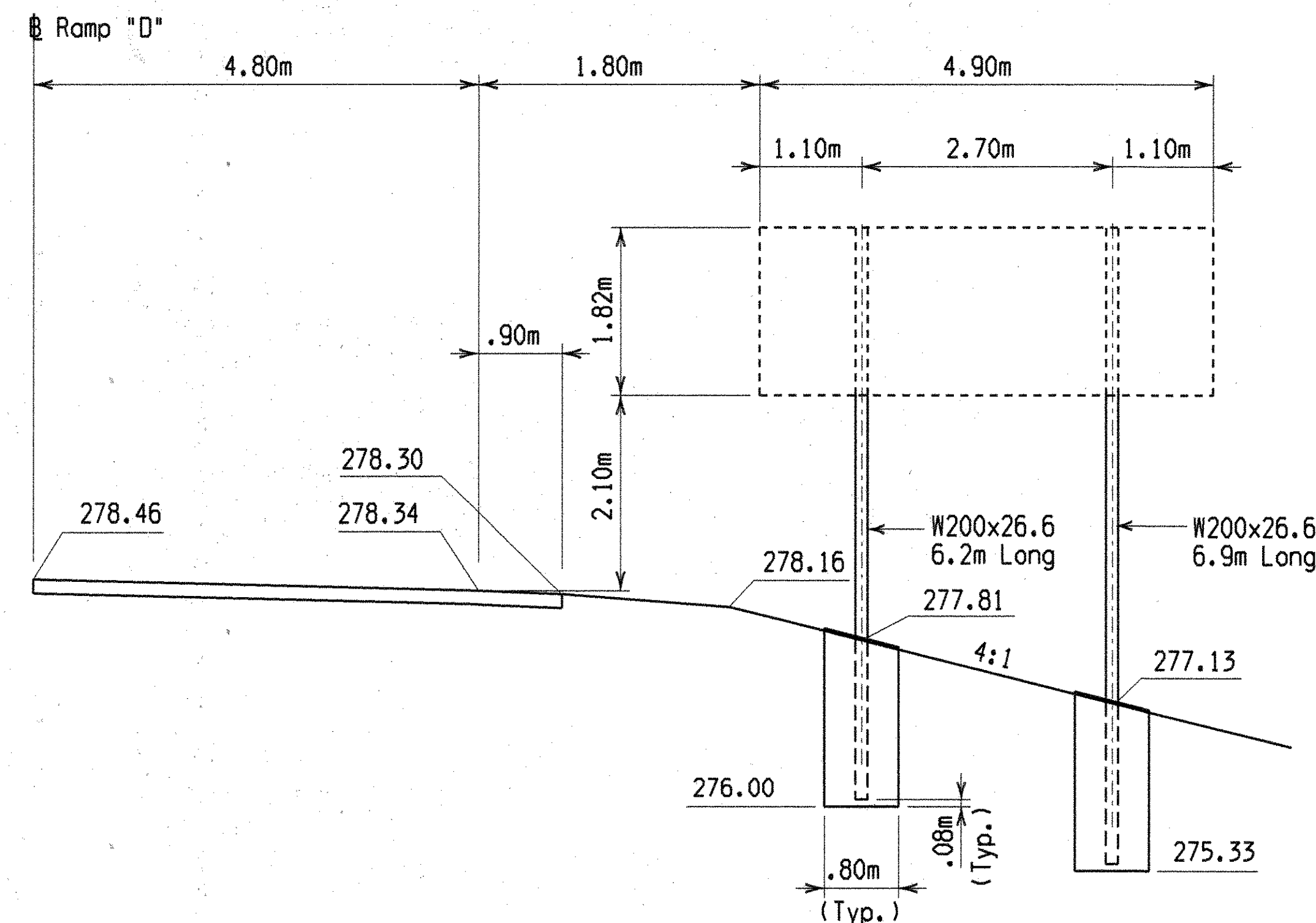
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GROUND MOUNTED SIGN SUPPORT  
Sta. 8+518 , Rt., I-75



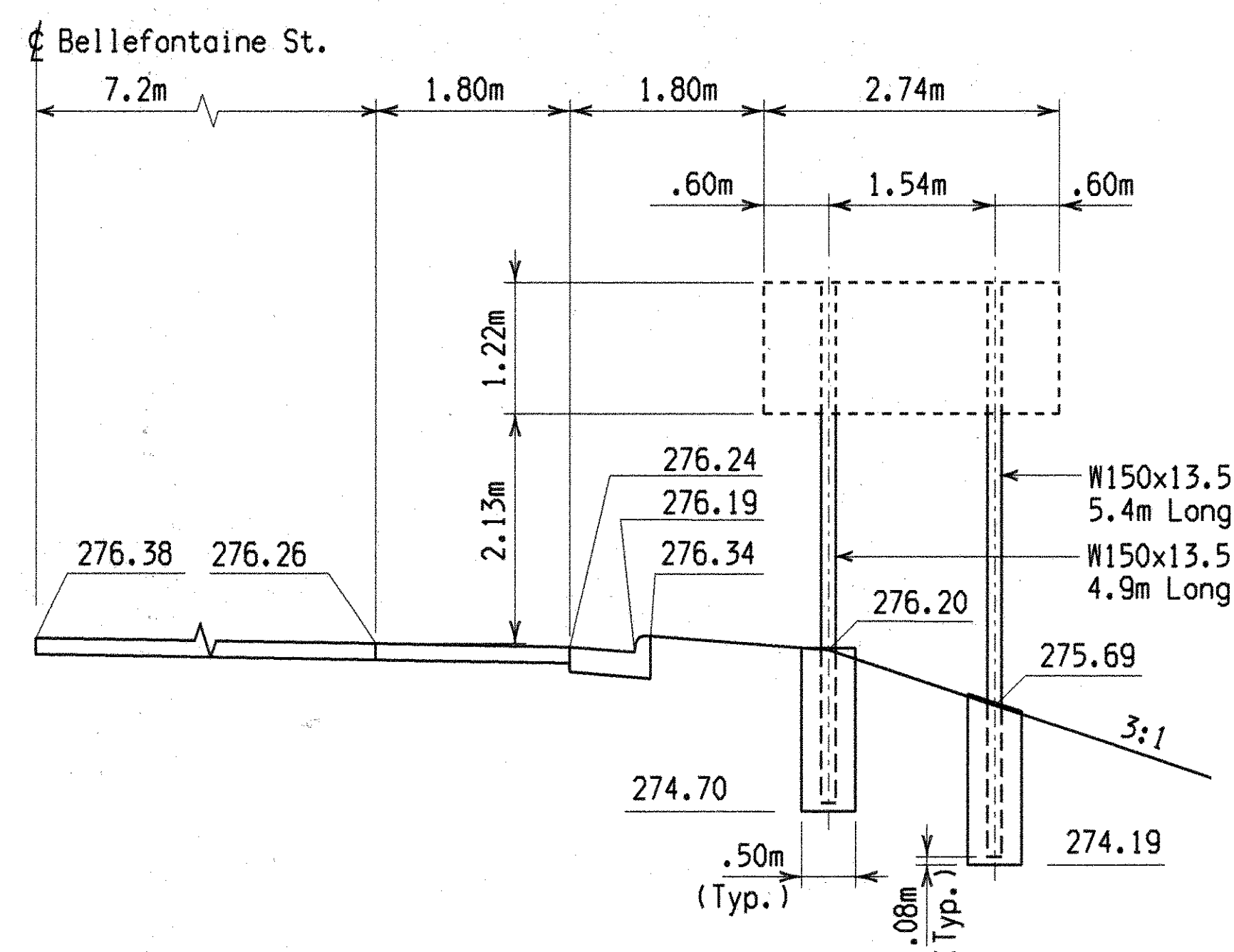
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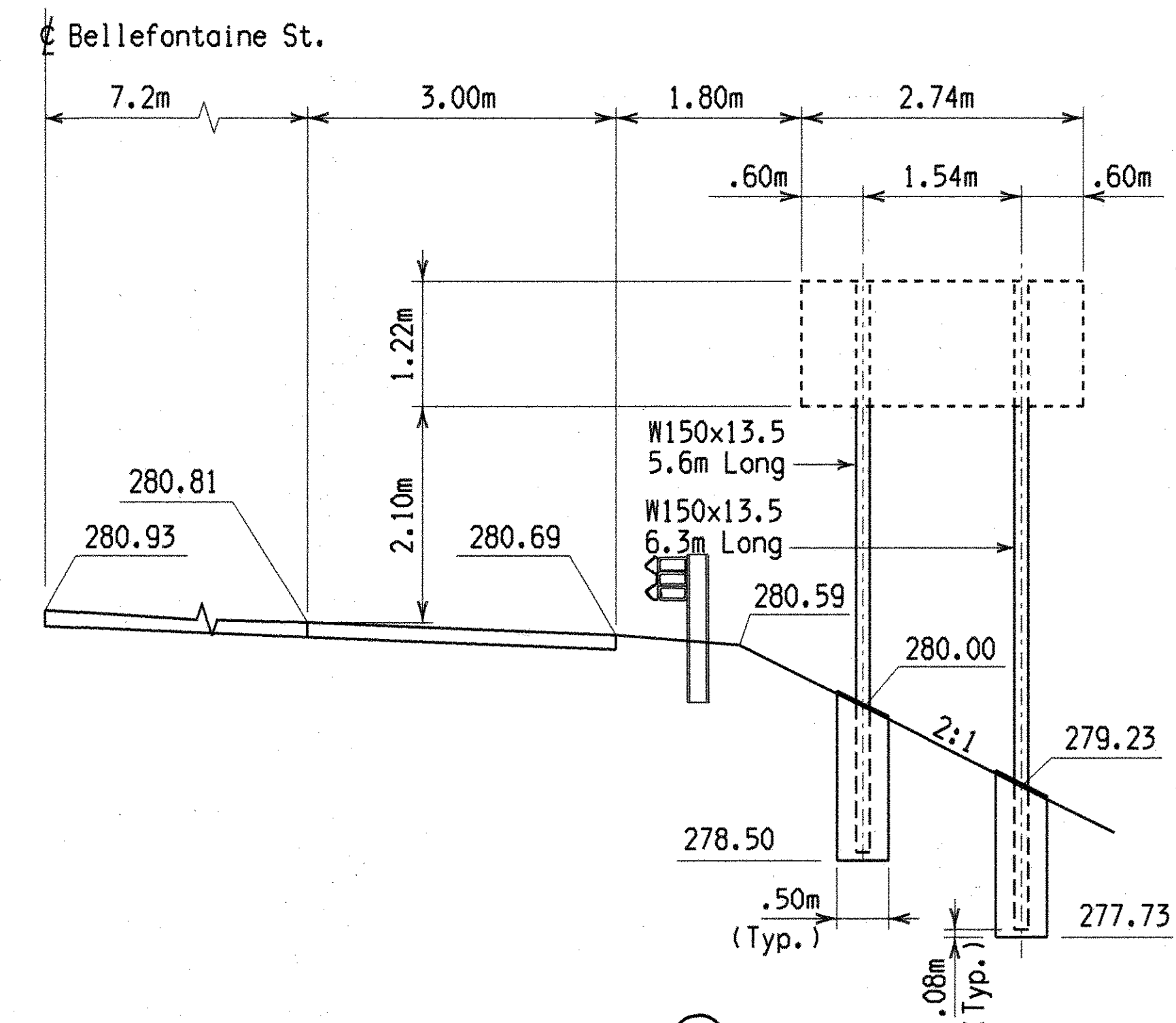
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GROUND MOUNTED SIGN SUPPORT  
Sta. 8+610, Rt. Ramp "A"



SIGN REF. ⑪  
GROUND MOUNTED SIGN SUPPORT  
Sta. 8+834, Lt. Ramp "D"



SIGN REF. ⑫  
GROUND MOUNTED SIGN SUPPORT  
Sta. 26+229, Rt. Bellefontaine St.



SIGN REF. ⑬  
GROUND MOUNTED SIGN SUPPORT  
Sta. 26+751, Lt. Bellefontaine St.



# SIGNALIZATION GENERAL NOTES

## GENERAL - SCOPE OF WORK

IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR WILL FURNISH AND INSTALL CONDUIT, CONTROLLERS, TRAFFIC POLES AND SPAN WIRE, TRAFFIC SIGNAL HEADS, CABLE AND WIRING, FOUNDATIONS, POWER SOURCES, PULL BOXES, GROUND RODS AND ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION IN PLACE, COMPLETED AND ACCEPTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

## GENERAL - OUPS

THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITIES PROTECTION SERVICE (TOLL FREE CALL 800-362-2764) AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF EACH AND EVERY GROUNDBREAKING FOR CONSTRUCTION ITEMS SHOWN IN THIS PLAN.

## TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958 AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731 & 733.

## 632 - VEHICULAR TRAFFIC SIGNAL HEAD, 3 SECTION, 305 MILLIMETER LENS, 1-WAY, AS PER PLAN

THIS ITEM SHALL CONFORM TO ITEM 632 EXCEPT THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SEPARATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.

## 632 - STRAIN POLE FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR STRAIN POLE FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION SHALL BE IN ACCORDANCE WITH TC-21.20 PROVIDED THE EXISTING SLOPE IS LESS THAN 6:1.

AT LOCATIONS WHERE THE EXISTING SLOPE IS 6:1 OR GREATER, THE BURIED DEPTH OF FOUNDATION, AS SHOWN IN STANDARD DRAWING TC-21.20, SHALL APPLY TO THE LOW SIDE OF THE SLOPE. THE TOP OF THE FOUNDATION SHALL BE SET 50 MILLIMETERS ABOVE THE EXISTING SURFACE ON THE HIGH SIDE OF THE SLOPE. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENTS SHALL BE ADDED TO THE FORMED TOP. PAYMENT FOR ADDITIONAL CONCRETE SHALL BE AT THE CONTRACT UNIT PRICE BID FOR ITEM 632 CONCRETE FOR ANCHOR BASE FOUNDATIONS.

## 632 - LOOP DETECTOR UNITS, BY TYPE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 632 AND 732.07 OR 732.08, LOOP DETECTOR UNITS SHALL HAVE THE FOLLOWING REQUIREMENTS OR FEATURES:

THE OUTPUT DEVICE SHALL BE A RELAY, AND ALL CONTACTS SHALL BE INCLUDED IN THE WIRING HARNESS.

THE UNIT SHALL BE SELF TUNING.

THE UNIT'S ELECTRICAL CONNECTION PLUGS OR WIRING HARNESS SHALL ALLOW READY REPLACEMENT WITH A SINGLE CHANNEL AMPLIFIER AS DESCRIBED IN THE FINAL PARAGRAPH OF 732.07.

ALL UNITS PROVIDED SHALL BE DELAY AND EXTENSION TYPE, WHETHER OR NOT THEY ARE TO BE UTILIZED AS SUCH.

## 633 - CONTROLLER, ACTUATED, 4 PHASE, SOLID STATE DIGITAL, MICROPROCESSOR WITH INTERNAL TIME BASE COORDINATION, AS PER PLAN

THE OVERLAP PROGRAMMING SHALL BE BY USE OF AN INTERCHANGEABLE PLUG-IN PRINTED CIRCUIT BOARD ASSEMBLY AS DESCRIBED IN PART 14 OF TS-1-1983. IN ADDITION TO NEMA REQUIREMENTS, THE CONFLICT MONITOR SHALL HAVE EXTENDED MONITORING IN ACCORDANCE WITH 733.04 PART 3B. THE MONITOR SHALL ALSO HAVE THE CAPABILITY OF MONITORING EACH LOAD SWITCH SEPARATELY, AS SHOWN IN THE LOAD SWITCH HOOK-UP DIAGRAM. IN ADDITION TO THE REQUIREMENTS OF 733.04, THE CABINET SHALL BE WIRED SO THAT CONTROLLER PIN CONNECTIONS ASSOCIATED WITH A GIVEN PHASE NUMBER SHALL MATCH THE PHASE NUMBER ASSIGNED TO THE SPECIFIED TRAFFIC MOVEMENT AS SHOWN ON THE PLANS. THE CONTROLLER CABINET SHALL BE KEYED TO THE STATE MASTER. THE CONTROLLER CABINET SIZE SHALL COMPLY TO THE REQUIREMENTS OF NEMA TS-1 SECTION 14. PRINTED CIRCUIT BOARD TYPE BACK PANELS OF THE CONTROLLER CABINET WILL NOT BE ACCEPTABLE. SOLDERED CONNECTIONS WILL BE PERMITTED FOR WIRING ON THE BACK SIDE OF THE BACK PANEL. ALL CONTROLLER MEMORIES SHALL BE NON-VOLATILE AND SHALL NOT REQUIRE BATTERIES OR OTHER SOURCES OF ENERGY TO RETAIN DATA WHILE POWER IS REMOVED FROM THE CONTROLLER. THE DESIGN OF THE MONITOR SHALL USE MICROPROCESSOR ARCHITECTURE AND LIQUID CRYSTAL DISPLAYS. THE MONITOR SHALL INDICATE THE EXACT LOAD SWITCH CHANNEL IN WHICH THE FAILURE OCCURRED. THE CONFLICT MONITOR SHALL HAVE AN EVENT LOGGING MEMORY. A MINIMUM OF NINE (9) EVENTS SHALL BE LOGGED. EXAMPLES OF EVENTS INCLUDE: POWER OUTAGES, CONFLICTS, CONTROLLER VOLTAGE MONITOR, ETC. EVENTS SHALL BE DISPLAYED ON THE CONFLICT MONITOR'S LIQUID CRYSTAL DISPLAY WHEN INTERROGATED. PAYMENT FOR ITEM 633 CONTROLLER, ACTUATED, 4 PHASE, SOLID STATE DIGITAL, MICROPROCESSOR WITH INTERNAL TIME BASE COORDINATION, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH, COMPLETE AND IN PLACE, INCLUDING ALL CONNECTIONS, TESTED AND ACCEPTED.

ALTHOUGH NOT SPECIFICALLY USED ON THIS SYSTEM INSTALLATION, THE CONTROLLER SHOULD BE PROVIDED WITH TIME BASED COORDINATION CAPABILITY.

## LEGEND - SIGNAL PLANS

- - STRAIN POLE
- - SIGNAL HEAD
- - SPAN WIRE
- ▣ - PULL BOX
- - CONDUIT
- ☐ - CONTROLLER

## SIGNAL CONSTRUCTION PERSONNEL REQUIREMENTS

THE CONTRACTOR SHALL ASSIGN A SUPERVISOR FOR THIS PROJECT. THE SUPERVISOR SHALL BE A FULL TIME EMPLOYEE OF THE CONTRACTOR. THE CONTRACTOR SHALL NOT CHANGE A SUPERVISOR ASSIGNED TO A PROJECT WITHOUT PRIOR WRITTEN NOTICE.

ALL CONTROLLER WORK AS DEFINED BELOW IN ITEMS 1 THRU 4 SHALL BE PERFORMED BY AN IMSA LEVEL TWO CERTIFIED TECHNICIAN.

1. BACK PANEL WIRING TERMINATIONS
2. PROGRAMMING
3. TURN ON
4. TROUBLESHOOTING

THE CONTRACTOR SHALL ALSO HAVE A FOREMAN ASSIGNED TO EACH CREW PERFORMING WORK FOR THIS PROJECT. A FOREMAN SHALL BE PRESENT AT ALL TIMES WHEN WORK IS PERFORMED BY THE CREW. EACH FOREMAN SHALL BE AN IMSA LEVEL ONE CERTIFIED TECHNICIAN. PRIOR VERBAL NOTICE SHALL BE PROVIDED TO THE ENGINEER BY THE CONTRACTOR IN ORDER TO REPLACE A CREW FOREMAN.

IN ADDITION, CRAFTS PEOPLE PERFORMING WORK AS DEFINED BELOW IN ITEMS 1 THRU 7 SHALL BE PERFORMED BY AN IMSA LEVEL ONE CERTIFIED TECHNICIAN.

1. CABLE SPLICES
2. SIGNAL HEAD INSTALLATION
3. CABLE AND WIRE INSTALLATION
4. POWER SERVICE INSTALLATION
5. GROUND ROD TESTING
6. CABLE INSULATION TESTING
7. FIELD WIRING TERMINATIONS

THE CONTRACTOR SHALL PRESENT TO THE ENGINEER, PRIOR TO THE COMMENCEMENT OF WORK, THE IMSA LEVEL ONE AND TWO CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT.

## ACCEPTANCE OF TRAFFIC SIGNAL

ALL SIGNALS TO BE OWNED OR MAINTAINED BY THE STATE SHALL BE INSPECTED BY THE ENGINEER OF TRAFFIC. THE SIGNAL SHALL BE INSPECTED JUST PRIOR TO THE TEN DAY PERFORMANCE TEST SPECIFIED IN CMS 632.27(6). ALL OTHER CONSTRUCTION PAY ITEMS SHALL BE COMPLETED INCLUDING THE ELECTRICAL TESTS SPECIFIED IN 632.27(1)-(4) AND FUNCTIONAL TEST SPECIFIED IN 632.27(5). ITEMS IDENTIFIED DURING THE INSPECTION AS DEFICIENT SHALL BE CORRECTED AND THE SIGNAL REINSPECTED PRIOR TO INITIATION OF THE TEN DAY BURN TEST.

AT THE INSPECTION, ALL DEFICIENCIES SHALL BE AVAILABLE TO ANYONE UPON REQUEST. THE OFFICE OF TRAFFIC ENGINEERING SHALL PREPARE THE FORMAL REPORT. INITIATION OF THE TEN DAY PERFORMANCE TEST SHALL NOT PROCEED UNTIL ALL DEFICIENCIES OF AN OPERATIONALLY CRITICAL NATURE ARE CORRECTED. UPON SUCCESSFUL COMPLETION OF THE BURN TEST AS DETERMINED BY THE DISTRICT ROADWAY SERVICE MANAGER, THE CONSTRUCTION FIELD ENGINEER SHALL NOTIFY THE MAINTAINING AGENCY OR DEPARTMENT IN WRITING THAT IS NOW RESPONSIBLE FOR MAINTENANCE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DEFECTS IN WORKMANSHIP AND MATERIALS BEYOND NORMAL MAINTENANCE UNTIL THE PROJECT IS ACCEPTED.

THE DISTRICT ROADWAY SERVICE MANAGER SHALL ASSUME RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF A CONTRACT -INSTALLED TRAFFIC SIGNAL UPON WRITTEN NOTIFICATION OF TRANSFER OR MAINTENANCE RESPONSIBILITIES BY THE DISTRICT CONSTRUCTION ENGINEER.

## UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULLBOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 6 METERS. AN ESTIMATED QUANTITY OF "24 METERS OF ITEM 603, 100mm CONDUIT TYPE E" IS INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY FOR THIS PURPOSE.

## POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM THE CITY OF WAPAKONETA ELECTRICAL DEPARTMENT AT THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

## POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL CONFORM TO 632.23 WITH THE FOLLOWING EXCEPTIONS OR ADDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FINAL ARRANGEMENTS AND PROVIDING POWER THROUGH THE CITY OF WAPAKONETA ELECTRICAL DEPARTMENT. SERVICE SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS.

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SIGNALIZATION GENERAL NOTES

AUG-75-5.45



SIGNALIZATION - QUANTITIES & SUB-SUMMARY

LOCATION			625							632										633																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			GROUND ROD	PULL BOX CONCRETE		CONDUIT			TRENCH				VEHICULAR SIGNAL HEAD, 305 mm LENS, 1-WAY, AS PER PLAN			LOOP DETECTOR UNIT, AS PER PLAN	LOOP DETECTOR UNIT, DELAY TYPE, AS PER PLAN	LOOP DETECTOR P.W.T. CUTTING	CONCRETE FOR ANCHOR BASE FOUNDATIONS	STRAIN POLE TYPE TC-81.10			CABLE SUPPLY ASSEMBLY	MESSENGER WIRE, 7 STRAND, 9mm DIA, W/ACCESSORIES	SIGNAL CABLE NO. 14 AWG		LOOP DETECTOR WIRE, TYPE E	LOOP DETECTOR LEAD-IN CABLE	POWER CABLE, NO. 6 AWG, 2-CONDUCTOR	POWER SERVICE, AS PER PLAN	COVERING VEHICULAR SIGNAL HEAD	POWER CABLE, NO. 6 AWG, 3-CONDUCTOR	CONTROLLER, ACTUATED, 4-PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN WITH INTERNAL TIME BASE COORDINATION		CONCRETE FOR CABINET FOUNDATION	CONTROLLER WORK PAD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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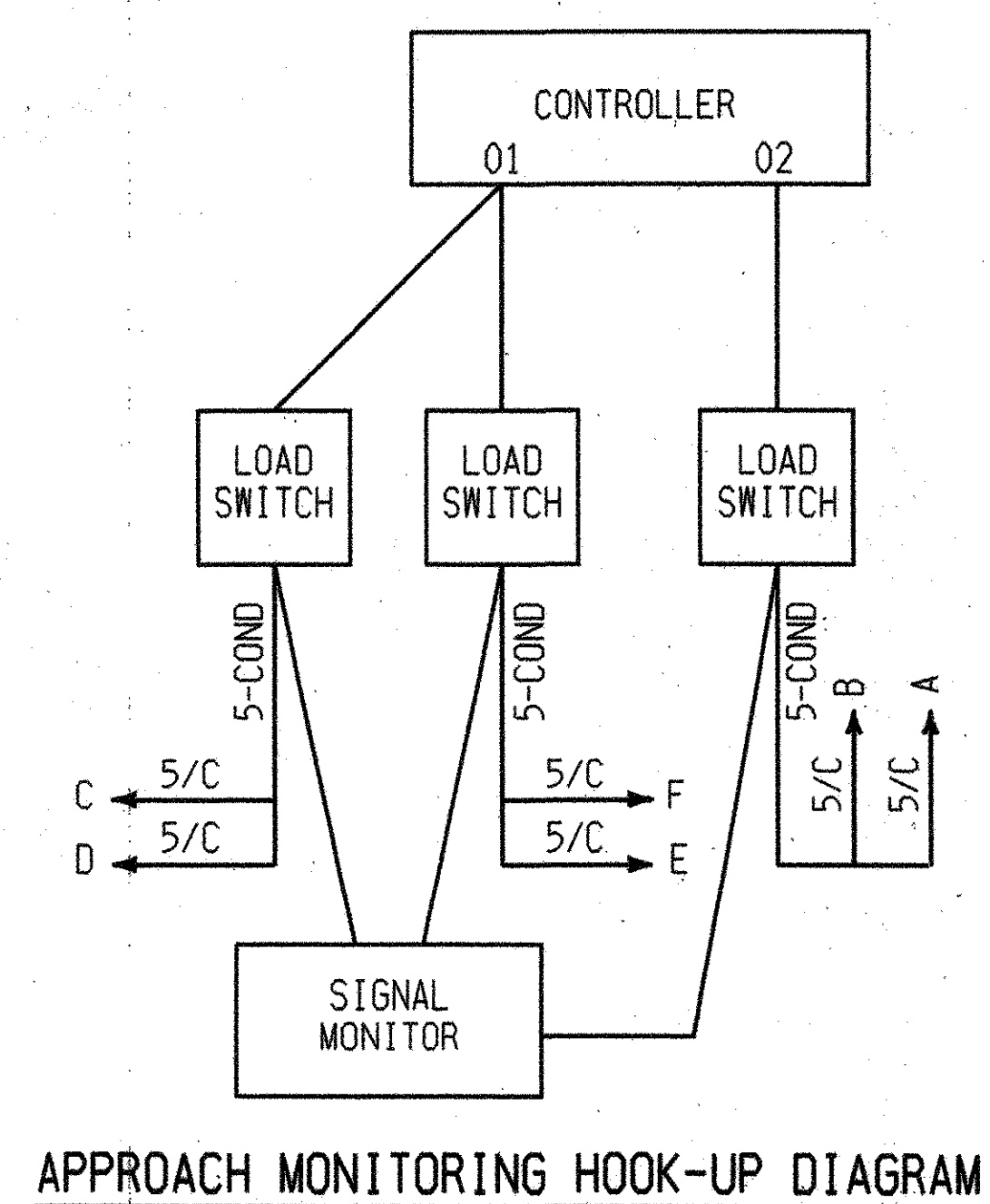
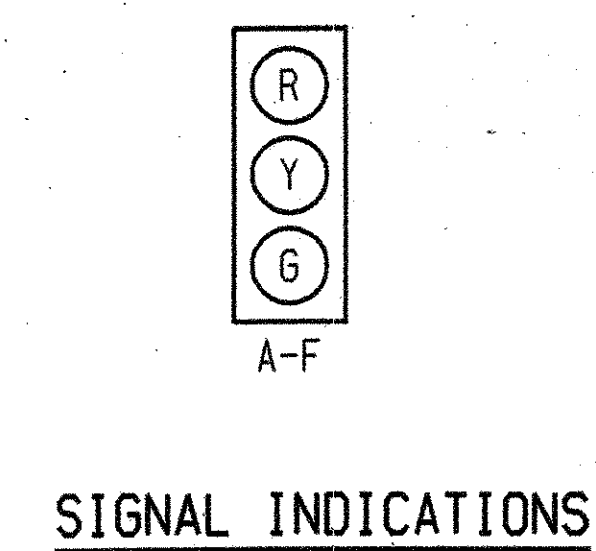
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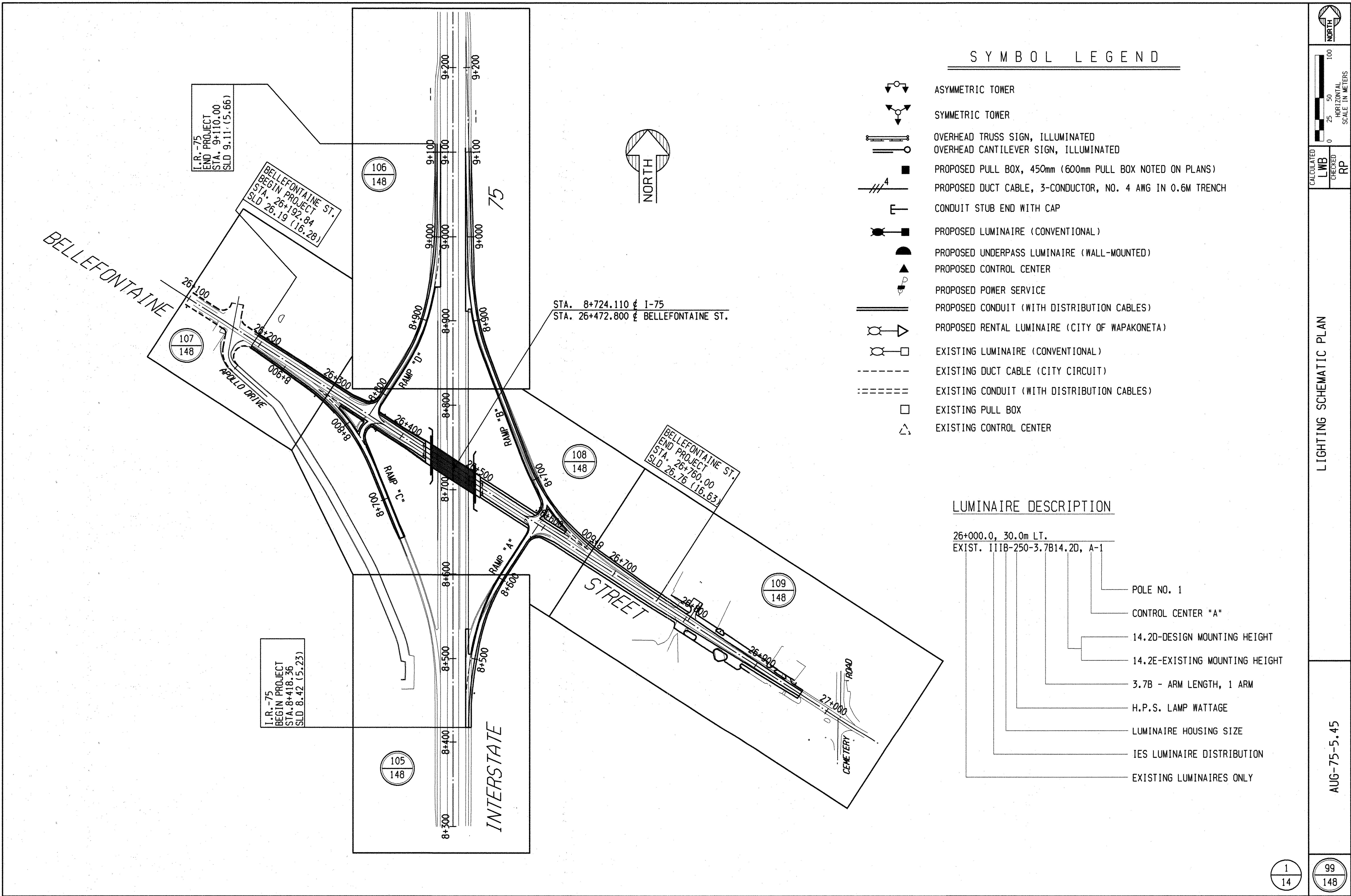














L I G H T I N G   G E N E R A L   N O T E S

ITEM 625 - POWER SERVICE

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

WAPAKONETA POWER & LIGHT COMPANY  
102 PERRY ST.  
WAPAKONETA, OHIO 45895  
MR. LEWIS KNOCH  
1-419-738-7713

POWER SERVICE EQUIPMENT SHALL BE INSTALLED AS SPECIFIED IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND AS DETAILED IN THESE PLANS. ENCLOSURE TYPES SHALL BE AS PER STANDARD CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL PAY ANY UTILITY COMPANY FEES ASSOCIATED WITH THE INSTALLATION AND REARRANGEMENT OF POWER COMPANY EQUIPMENT NEEDED TO ESTABLISH A 480 OR 240 VOLT ELECTRICAL SERVICE.

THE MAINTAINING AGENCIES FOR EXISTING POWER SERVICE ACCOUNTS SHALL REMAIN AS FOLLOWS:

POWER SERVICE "A" - CITY OF WAPAKONETA

THE MAINTAINING AGENCIES FOR NEW POWER SERVICE ACCOUNTS ESTABLISHED BY THIS PROJECT ARE AS FOLLOWS:

POWER SERVICE "B" - STATE OF OHIO  
POWER SERVICE "C" - CITY OF WAPAKONETA

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY. THE CONTRACTOR SHALL PAY ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. AFTER ACCEPTANCE OF THE LIGHTING WORK, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCIES NOTED IN THE PLANS. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

ITEM 625 - 713.11 LUMINAIRES

STYLE B LUMINAIRES SHALL HAVE SINGLE RATED INTEGRAL BALLASTS FOR THE VOLTAGE AND WATTAGE SPECIFIED FOR USE WITH HIGH PRESSURE SODIUM LAMPS AND SHALL BE GENERAL ELECTRIC M-250R2, COOPER QVF, AMERICAN ELECTRIC 125/126, OR EQUAL APPROVED BY THE ENGINEER. STYLE B LUMINAIRES MAY BE USED WITH LAMPS NOT EXCEEDING 55,000 LUMENS.

ITEM 625.07 - 713.13 UNDERPASS LUMINAIRES

UNDERPASS LUMINAIRES SHALL BE HOLOPHANE "WALLPACK II", COOPER, OR GENERAL ELECTRIC "WALLLIGHTER" UNDERPASS UNIT OR EQUAL APPROVED BY THE ENGINEER, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10-AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR 480 VOLTS, 70 WATTS.

713.14 LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYLVANIA "LUMALUX", OR EQUAL APPROVED BY THE ENGINEER.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 6 METERS. A QUANTITY OF 144 METERS OF ITEM 603, 100mm CONDUIT, TYPE E, HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

PADLOCKS AND KEYS

PADLOCKS FURNISHED FOR EACH TOWER AND CONTROL CENTER ENCLOSURE SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA, WILSON-BOHANNAN 660A, OR EQUAL AND SHALL BE KEYED IN ACCORDANCE WITH SPECIFICATION 631.08, PARAGRAPH 3. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO AND CONSULTING ENGINEER MAKE NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS. REFER TO THE RIGHT OF WAY PLANS FOR ALL OTHER UTILITIES IN THE VICINITY OF THIS PROJECT.

ALL UNDERGROUND UTILITIES, WATER, SEWER, TELEPHONE, GAS, ETC. NEAR PROPOSED LIGHT POLES, PULL BOXES, ETC. SHALL BE STAKED BY THAT UTILITY COMPANY BEFORE CONSTRUCTION BEGINS.

THE CONTRACTOR IS REFERRED TO SHEET NO. 6 FOR UTILITY OWNERSHIP ON THIS PROJECT.

625.12 - TRENCH

TRENCHING SHALL MEET SECTION 625.12 REQUIREMENTS WITH THE ADDITION OF PLASTIC MARKER TAPE IN THE TOP SECTION OF THE BACKFILL. THE TAPE SHALL BE ACID AND ALKALI-RESISTANT POLYETHYLENE FILM, 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCHES. TAPE SHALL HAVE A MINIMUM STRENGTH OF 1750 PSI LENGTHWISE AND 1500 PSI CROSSWISE. THE TAPE SHALL BE MANUFACTURED WITH INTEGRAL WIRES, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN THE TAPE IS BURIED UP TO 3 FEET DEEP. THE TAPE SHALL BE OF A TYPE SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED. THE TAPE SHALL BEAR THE CONTINUOUS PRINTED INSCRIPTION "ELECTRIC".

ELECTRIC SERVICE FOR ILLUMINATED SIGNS

THE PAY ITEMS IN THE LIGHTING GENERAL SUMMARY INCLUDE THE PULL BOX OR JUNCTION BOX ADJACENT TO EACH LIGHTED SIGN AND THE ELECTRIC SERVICE CONNECTIONS LEADING INTO THE BOX, INCLUDING SPLICES OR CONNECTOR KITS IN THE PULL BOX OR JUNCTION BOX. QUANTITIES FOR ELECTRIC SERVICE FROM THE CONNECTION IN THE PULL BOX OR JUNCTION BOX TO THE SIGN ARE INCLUDED IN THE TRAFFIC CONTROL GENERAL SUMMARY.

HIGH VOLTAGE TEST

THE LUMP SUM PRICE BID FOR A HIGH VOLTAGE DIRECT CURRENT TEST, AS DESCRIBED IN ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SECTION 625.22, SHALL INCLUDE PAYMENT FOR THE TEST WHICH SHALL BE PERFORMED ON ALL DISTRIBUTION CABLE AND DUCT CABLE SYSTEMS TO BE INSTALLED ON THIS PROJECT. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUIDERAIL, FENCE, DELINEATOR POSTS, SIGN SUPPORTS, ETC., IN THE IMMEDIATE VICINITY OF THE LOCATION OF THE CABLE RUN BEING TESTED, HAS BEEN COMPLETED.

LIGHT TOWER LUMINAIRE MOUNTING ARRANGEMENT

LUMINAIRE MOUNTING ARMS FOR TOWER LIGHTING UNITS SHALL BE INSTALLED BY THE POLE MANUFACTURER SO THAT THE REQUIRED NUMBER OF LUMINAIRES CAN BE INSTALLED ON THE LUMINAIRE MOUNTING RING IN A SYMMETRICAL ARRANGEMENT. WHEN ONLY TWO ARMS ARE REQUIRED THEY SHALL BE POSITIONED SO THAT THE ARMS ARE PARALLEL TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED.

UNLESS OTHERWISE SPECIFIED IN THE PLANS, ALL LUMINAIRES WITH ASYMMETRIC DISTRIBUTIONS SHALL BE INSTALLED SO THE "ARROW" OR "STREET SIDE" DESIGNATION ON THE OPTICAL ASSEMBLY IS POSITIONED PERPENDICULAR TO THE CENTERLINE OR BASELINE OF THE PAVEMENT FROM WHICH THE TOWER IS STATIONED. ANY OPTICAL ROTATION CALLED FOR WILL BE EXPRESSED AS A CLOCKWISE (CW) OR COUNTER-CLOCKWISE (CCW) ANGULAR MEASUREMENT FROM THE NORMAL "ARROW" ORIENTATION.

LIGHT TOWER HANDHOLE LOCATION

FOR LIGHT TOWERS WITH MAINTENANCE PLATFORMS, THE POLE HANDHOLE SHALL BE LOCATED ON THE DOWN SLOPE OR OPEN SIDE OF THE PLATFORM. FOR LIGHT TOWERS WITHOUT MAINTENANCE PLATFORMS, THE POLE HANDHOLE SHALL BE LOCATED ON THE SIDE OPPOSITE TRAFFIC FLOW ON THE ROADWAY FROM WHICH THE TOWER IS STATIONED.

ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR AN UNDERPASS LIGHTING SYSTEM ON BRIDGE NO. AUG-75-0545 OVER I-75. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOXES, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE, READY FOR USE, THE SERVICE AS DETAILED ON SHEETS 110 AND 111. THE LUMP SUM PRICE BID FOR "ITEM 625 - SERVICE TO UNDERPASS LIGHTING, AS PER PLAN" SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE FURNISHED AND CONSIDERED PAID FOR AS PART OF THE ITEM.



LIGHTING GENERAL SUMMARY

SHEET LEGEND = PLAN SHEET NO./SUB-SUMMARY										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	LINE NO.
						100	102	103	104						
						144				603	00400	144	METER	100 MM CONDUIT, TYPE E	1
									16	625	00500	16	EACH	CONNECTOR KIT, TYPE II	2
							12	30	21	625	01500	63	EACH	CABLE SPLICING KIT	3
									6	625	06400	6	EACH	LIGHT POLE, DESIGN AT4.6B12.7	4
							8			625	13200	8	EACH	LIGHT TOWER, BBBB30.5	5
								3		625	13440	3	EACH	LIGHT TOWER, BBBBBBBB30.5	6
							1			625	13450	1	EACH	LIGHT TOWER, BBBBBBBB33.5	7
									6	625	14100	6	EACH	LIGHT TOWER, BBBBBBBB33.5	8
							8	3		625	15200	11	EACH	LIGHT TOWER FOUNDATION, 610 MM X 2.4 M DEEP	9
							1			625	15300	1	EACH	LIGHT TOWER FOUNDATION, 914 MM X 7.6 M DEEP	10
							126	663	2391	625	23200	3180	METER	LIGHT TOWER FOUNDATION, 914 MM X 9.1 M DEEP	11
								228		625	23300	228	METER	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	12
									240	625	23400	240	METER	NO. 2 AWG 5000 VOLT DISTRIBUTION CABLE	13
							1444	507		625	24320	1951	METER	NO. 10 AWG POLE AND BRACKET CABLE	14
								157		625	24330	157	METER	38 MM DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	15
								750		625	25300	750	METER	38 MM DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	16
								98		625	25500	98	METER	CONDUIT, 38 MM, 713.04	17
										625	25900	145	METER	CONDUIT, 76 MM, 713.04	18
							36	109		625	26250	6	EACH	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, SIZE: 75 MM	19
									6	625	26260	32	EACH	LUMINAIRE, CONVENTIONAL, STYLE B, TYPE III, 250 WATT HIGH	20
							32			625	26260	32	EACH	PRESSURE SODIUM, 713.11, 240 VOLT, AS PER PLAN (SEE SHEET 100)	21
										625	26260	32	EACH	LUMINAIRE, HIGH MAST, ASYMMETRIC, TYPE III, 400 WATT HIGH	22
							8	24		625	26260	32	EACH	PRESSURE SODIUM, 713.21, 480 VOLT, AS PER PLAN (SEE SHEET 100)	23
										625	26260	32	EACH	LUMINAIRE, HIGH MAST, SYMMETRIC, TYPE V, 400 WATT HIGH	24
								8		625	27500	8	EACH	PRESSURE SODIUM, 713.21, 480 VOLT, AS PER PLAN (SEE SHEET 100)	25
										625	27500	8	EACH	LUMINAIRE, UNDERPASS, 70 WATT HIGH PRESSURE SODIUM, 713.13, 480 VOLT, AS PER PLAN	26
							1436	774	749	625	29002	2959	METER		27
							4	8	9	625	30700	21	EACH	TRENCH, 0.6 M DEEP	28
								3		625	30706	3	EACH	PULL BOX, 713.08, 450 MM	29
							27	9	6	625	32000	42	EACH	PULL BOX, 713.08, 600 MM	30
								1		625	33000	1	EACH	GROUND ROD	31
									1	625	34000	2	EACH	STRUCTURE GROUNDING SYSTEM	32
								1	1	625	37101	1	EACH	POWER SERVICE	33
								1		625	38000	1	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN (SEE SHEET 100)	34
										625	38000	1	LUMP	HIGH VOLTAGE TEST	35
															36
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CALCULATED  
LWB  
CHECKED  
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LIGHTING GENERAL SUMMARY

AUG-75-5.45



L I G H T I N G      P L A N      S U B - S U M M A R Y

LINE NUMBER	REFERENCE NO.	STATION TO STATION OR AT		SIDE	6 2 5																											
					LIGHT TOWER, 888830.5	LIGHT TOWER, 8888888833.5							LUMINAIRE, HIGH MAST, ASYMMETRIC TYPE III, 400 WATT HPS, 713.21, 480V.	LUMINAIRE, HIGH MAST, SYMMETRIC TYPE V, 400 WATT HPS, 713.21, 480V.			GROUND ROD	LIGHT TOWER FOUNDATION, 914mm x 6.1m DEEP	LIGHT TOWER FOUNDATION, 914mm x 7.6m DEEP	LIGHT TOWER FOUNDATION, 914mm x 9.1m DEEP			PULL BOX, CONCRETE, 713.08, 450mm	TRENCH 0.6m DEEP	CONDUIT, 75mm, 713.04	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, SIZE: 75mm	NO.4 AWG. 5000V. DISTRIBUTION CABLE	38mm DUCT-CABLE WITH 3 NO.4 AWG, 5000V. CABLES		CABLE SPLICING KIT		
					EACH	EACH							EACH	EACH			EACH	EACH	EACH	EACH			EACH	METER	METER	METER	METER	METER	METER		EACH	
		FROM	TO OR AT																													
		SHEET NO. 105																														
1	D-1		8+376	LT	1								4					3		1												
2		8+376	8+590	LT																			217						220			
3	PB D-3		8+590	LT																		1								3		
4		8+590	8+590	L/R																			10			21	72					
5	D-2		8+590	LT		1							8			3			1													
6		8+590	8+600	LT																			10						13			
7	B-1		8+295	RT	1								4			3		1														
8		8+295	8+462	RT																			170						173			
9	PB B-5		8+462	RT																		1								3		
10		8+462	8+469	RT																			10						13			
11	B-2		8+469	RT	1								4			3		1														
12		8+469	8+600	RT																			134						137			
		TOTALS-SHEET 105			3	1							12	8		12		3	1			2	551		21	72	556		6			
		SHEET NO. 106																														
13		8+820	8+873	LT																			56						59			
14	PB D-6		8+873	RT																		1								3		
15		8+873	8+873	R/L																			15		15	54						
16	D-4		8+873	LT	1								4			3		1														
17		8+873	9+047	LT																			180						183			
18	D-5		9+047	LT	1								4			3		1														
19		9+047	9+142	LT																			98						101			
20	PB D-7		9+142	LT																		1								3		
21		9+142	9+316	LT																			177						180			
22	D-6		9+316	LT	1								4			3		1														
23		8+820	8+948	RT																			131						134			
24	B-5		8+948	RT	1								4			3		1														
25		8+948	9+170	RT																			228						231			
26	B-6		9+170	RT	1								4			3		1														
		TOTALS-SHEET 106			5								20			15		5				2	885		15	54	888		6			

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LIGHTING PLAN SUB-SUMMARY

AUG-75-5.45



## LIGHTING PLAN SUB-SUMMARY

AUG-75-5.45



L I G H T I N G   P L A N   S U B - S U M M A R Y

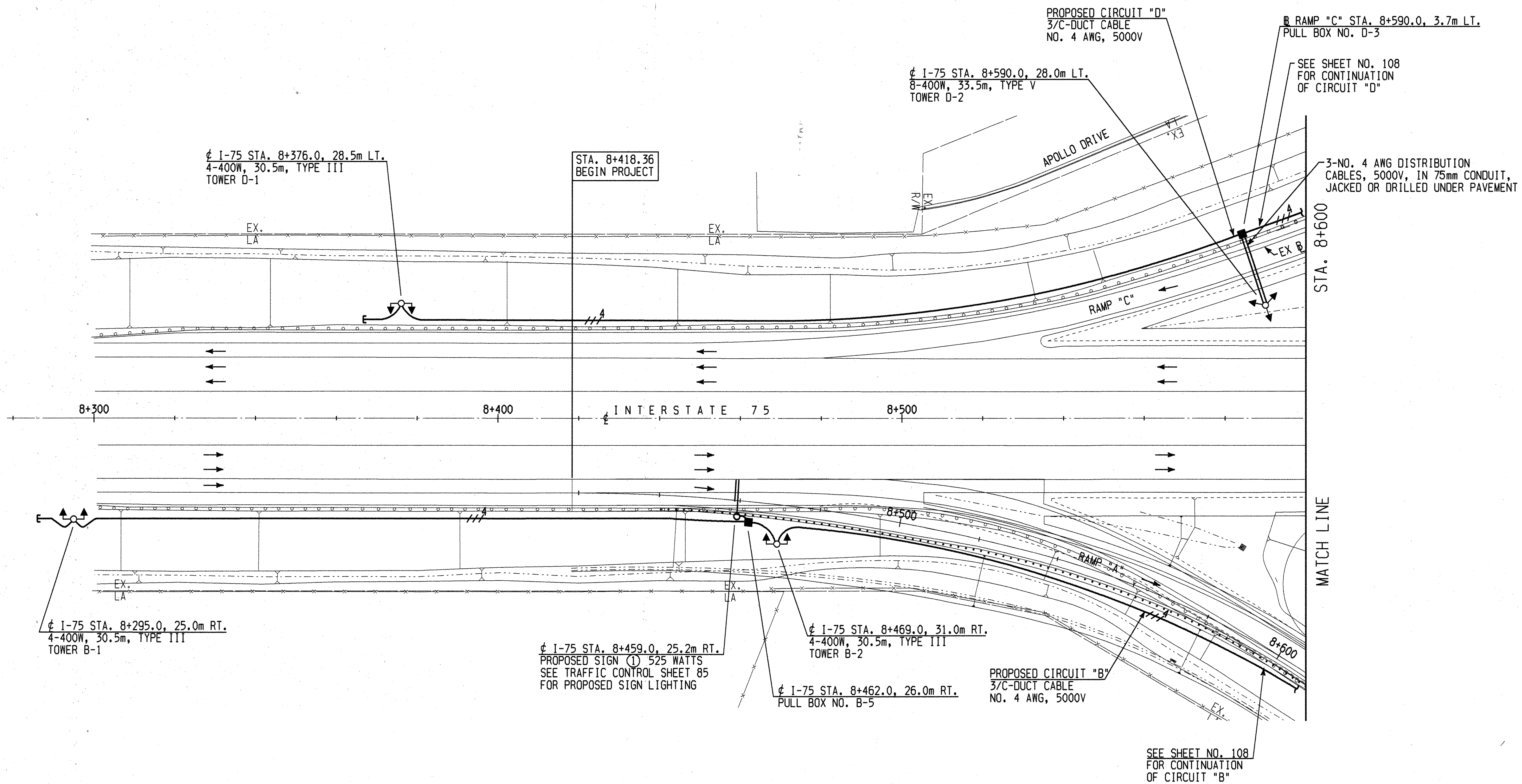
LINE NUMBER	REFERENCE NO.	STATION TO STATION OR AT		SIDE	6 2 5																										
					LIGHT POLE DESIGN AT 4.6B12.7, 713.01	LUMINAIRE, STYLE 'B' TYPE III, 250 WATT HPS, 713.11, 240V.	GROUND ROD				LIGHT POLE FOUNDATION 610mm x 2.4m DEEP	PULL BOX, CONCRETE, 713.08, 450mm	TRENCH, 0.6m DEEP	POWER SERVICE	CONDUIT, 38mm, 713.04	NO.10 AWG. POLE AND BRACKET CABLE	NO.4 AWG. 5000V. DISTRIBUTION CABLE	CONNECTOR KIT, TYPE II	CABLE SPLICING KIT												
					EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
		FROM	TO OR AT																												
		SHEET NO. 108																													
		26+300	26+307																												
1	A-15		26+307	RT	1	1		1				1						7			7				21				2		
2		26+307	8+773	R/L														58			58				183						
3	PB CA-2		8+773	LT											1																
4		8+773	26+374	L/R														30			30				99						
5	PB CA-3		26+374	RT											1																3
		26+656	26+660	LT														4			4				21						
6	PB C-3		26+656	LT											1																3
7		26+638	26+656	LT														18			18				63						
8	C-4		26+638	LT	1	1		1				1												40					2		
9		8+672	26+638	RT														53			53				168						
10	PB C-4		8+672	RT											1																
11		8+672	26+579	L/R														25			25				84						
12	PB C-5		26+579	LT											1																3
		TOTALS-SHEET 108			2	2		2				2			5			195			195			80		639			4		9
		SHEET NO. 107																													
13		26+135.4	26+270	LT														135			135				414				2		
14	A-16		26+270	LT	1	1		1				1												40					2		
15		26+192.8	26+291	RT														99			99				306				2		
16	PB CA-1		26+291	RT											1																3
17		26+291	26+300	RT														9			9				36						
		TOTALS-SHEET 107			1	1		1				1			1			243			243			40		756			6		3
		SHEET NO. 109																													
18	C-2		26+665	RT	1	1		1				1												40					2		
19		26+665	26+747	RT														82			82				255						
20	C-1		26+747	RT	1	1		1				1												40					2		
21		26+747	26+770	RT														23			23				78						
22	PB C-1		26+770	RT											1																3
23		26+660	26+715	LT														55			55				174						
24	C-3		26+715	LT	1	1		1				1												40					2		
25		26+715	26+770	LT														55			55				174						
26	PB C-2		26+770	LT											1																3
27		26+770	26+840	LT														70			70				219						
28	PB C-6		26+840	LT											1																3
29		26+770	26+770	L/R														24			24				81						
30	CC-C		26+770	RT														2		1	3				15						
		TOTALS-SHEET 109			3	3		3				3			3			311		1	312			120		996			6		9
		TOTAL SHEET NO.			6	6		6				6			9			749		1	750			240		2391			16		21

CALCULATED  
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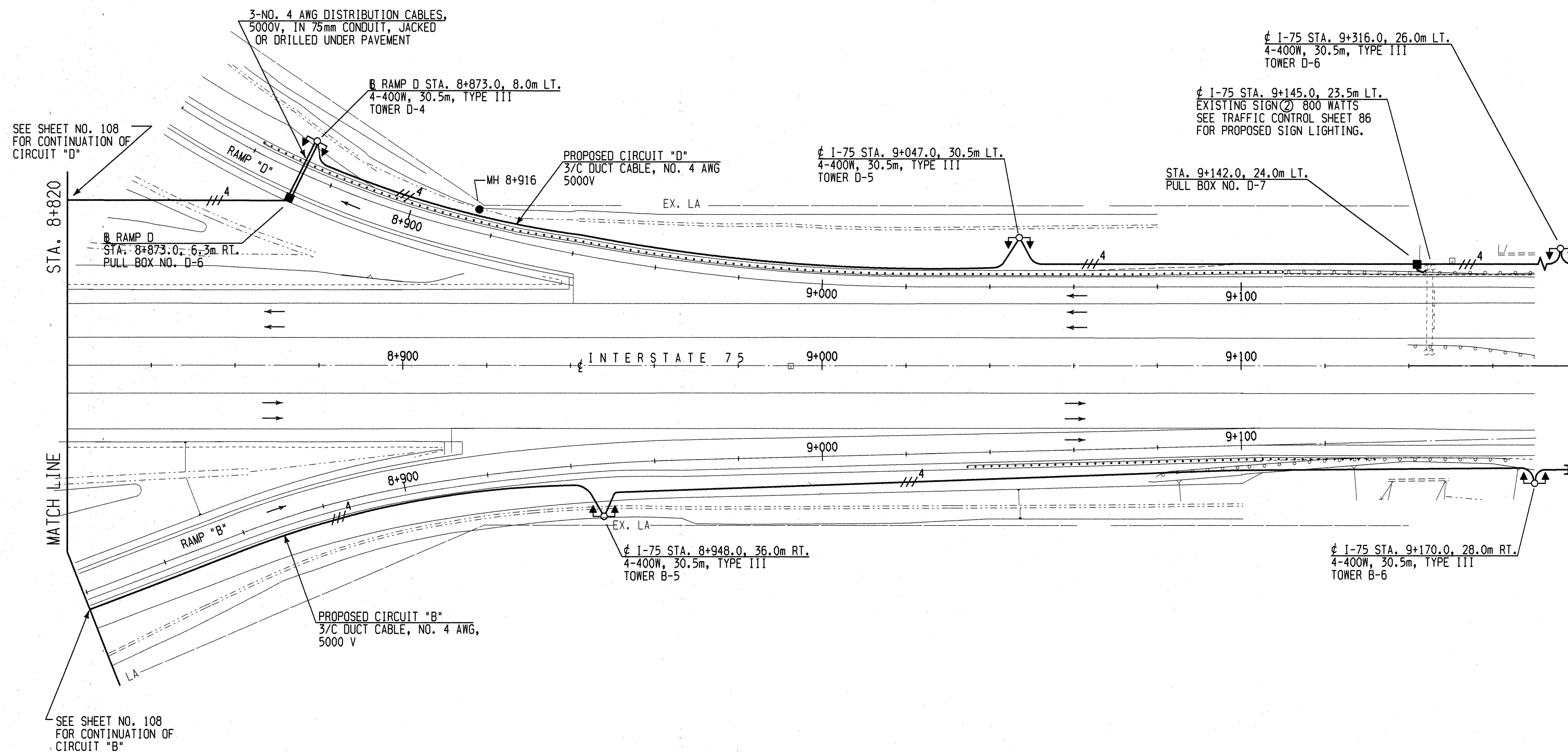
LIGHTING PLAN SUB-SUMMARY

AUG-75-5.45





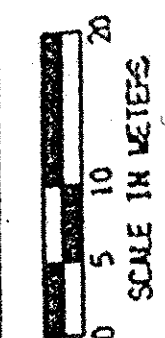












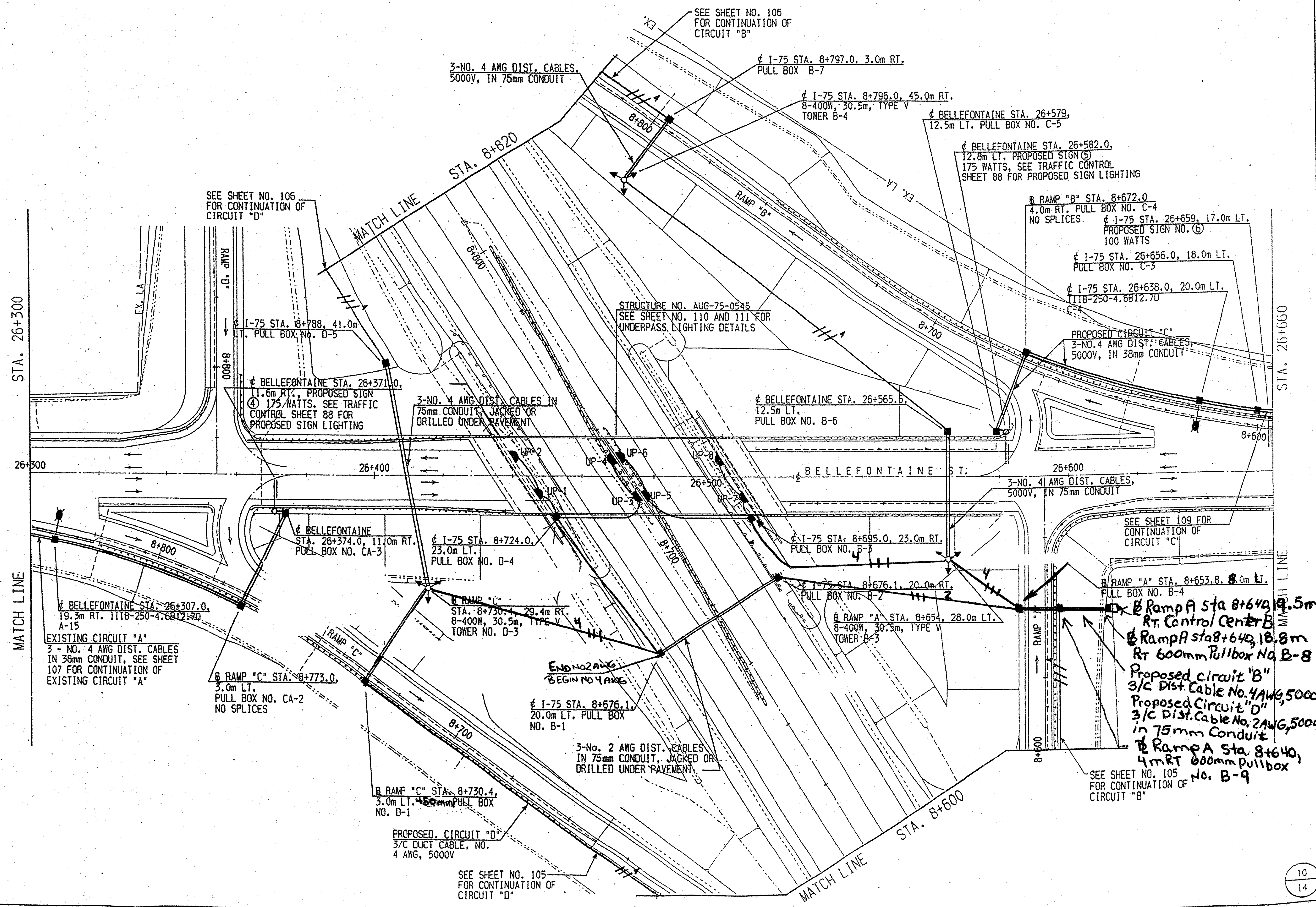
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BELLEFONTAINE ST. STA. 26+300 TO STA. 26+660

AUG-75-5.45

10  
14

108  
148



SEE SHEET NO. 106  
FOR CONTINUATION OF  
CIRCUIT "B"

SEE SHEET NO. 106  
FOR CONTINUATION OF  
CIRCUIT "D"

SEE SHEET 109 FOR  
CONTINUATION OF  
CIRCUIT "C"

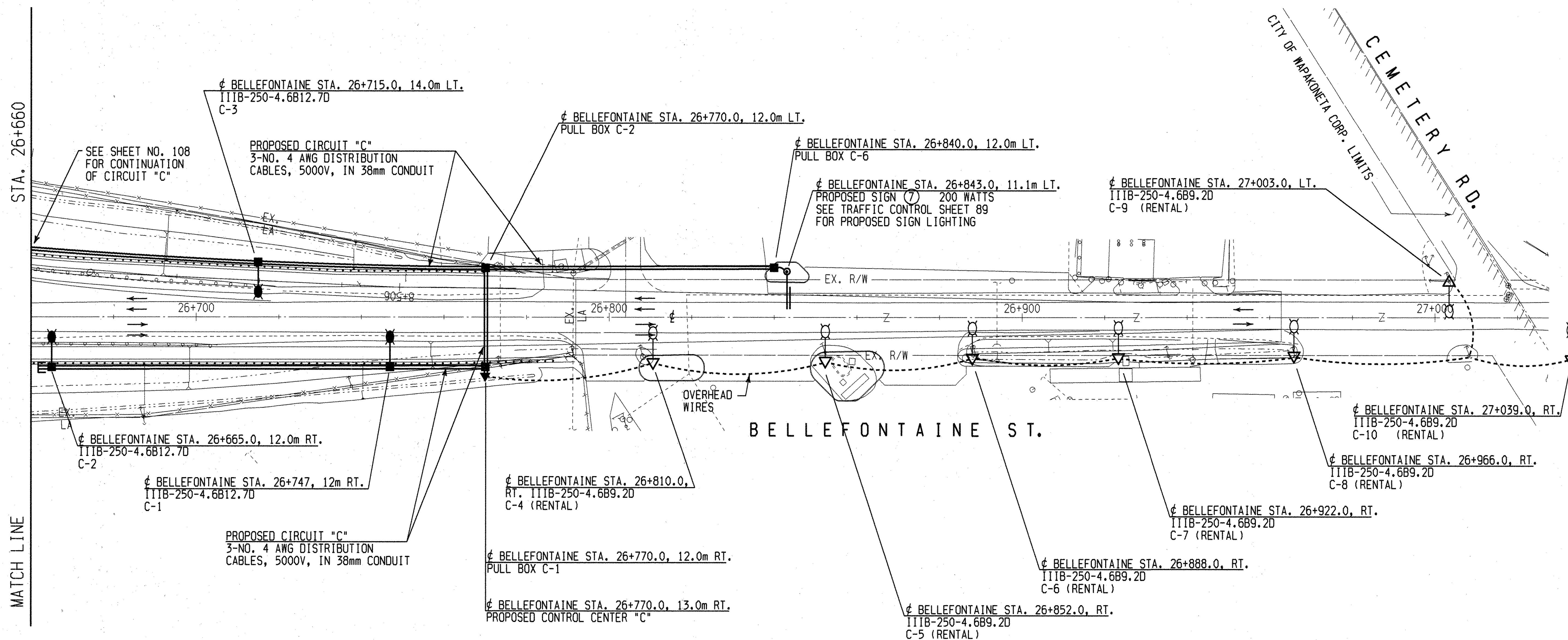
SEE SHEET NO. 105  
FOR CONTINUATION OF  
CIRCUIT "B"

SEE SHEET NO. 105  
FOR CONTINUATION OF  
CIRCUIT "D"

**Handwritten notes:**  
Ramp A sta 8+649.5m  
Rt. Control Center B  
Ramp A sta 8+649.18.8m  
Rt 600mm Pullbox No. B-8  
Proposed circuit "B"  
3/c Dist. Cable No. 4 AWG, 5000V;  
Proposed Circuit "D"  
3/c Dist. Cable No. 2 AWG, 5000V;  
in 75mm Conduit  
Ramp A Sta 8+640,  
4m RT 600mm Pullbox  
No. B-9

**Handwritten note:**  
END NO 2 AWG  
BEGIN NO 4 AWG

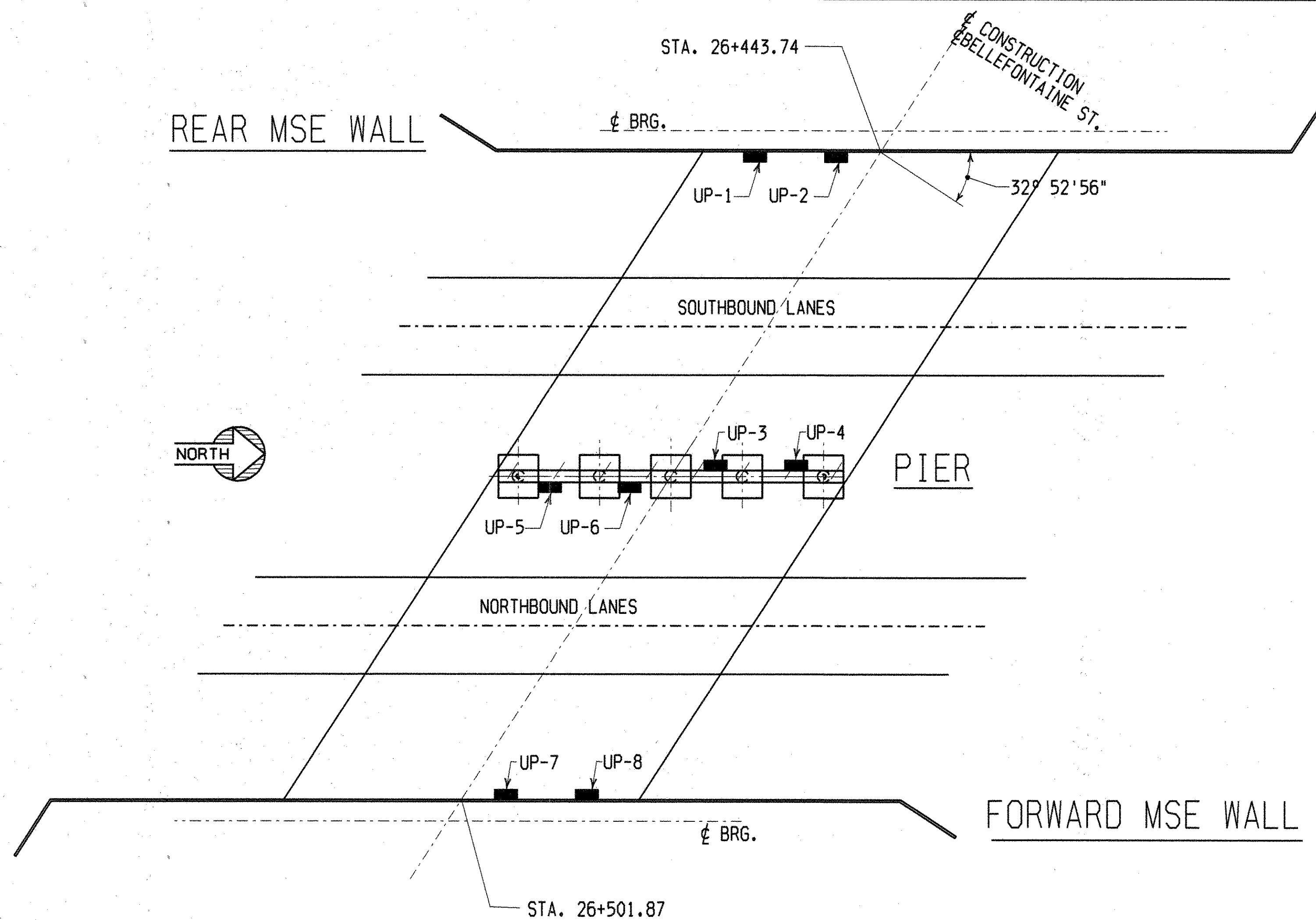




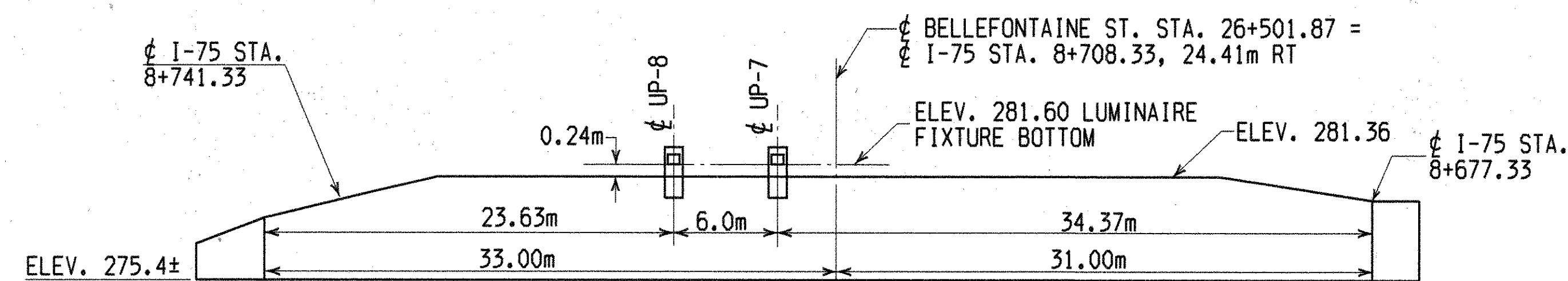
NOTE: RENTAL LUMINAIRES C-4 THROUGH C-10 SHOULD BE 250 WATT, TYPE III, MEDIUM SEMI-CUTOFF, MOUNTED ON EXISTING OR RELOCATED POWER POLES AT A HEIGHT OF 9.2m, WITH AN OVERHANG OF 0-1m BEYOND THE EDGE OF PAVEMENT, ERECTED AND MAINTAINED BY THE CITY OF WAPAKONETA



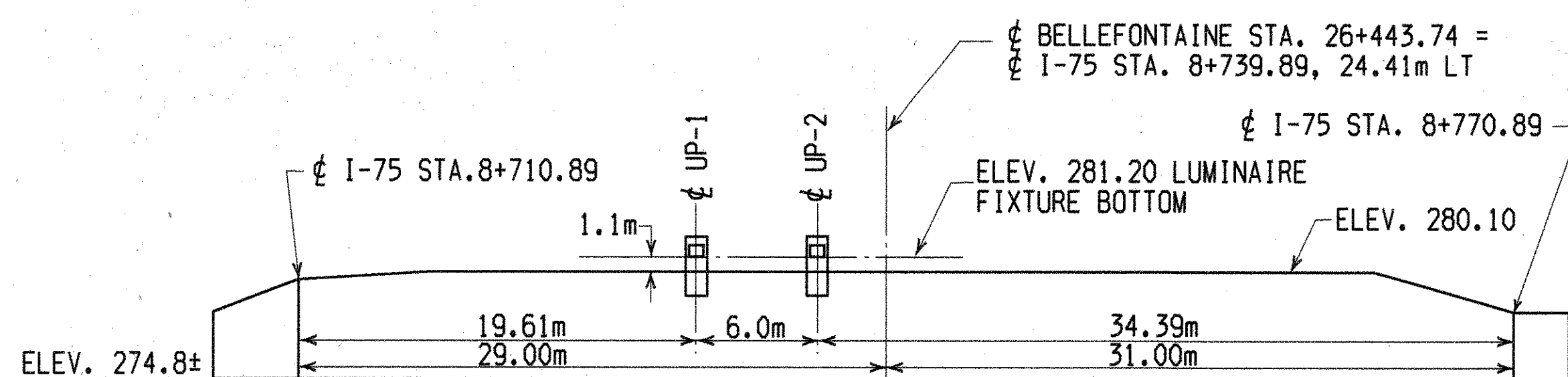
REAR MSE WALL



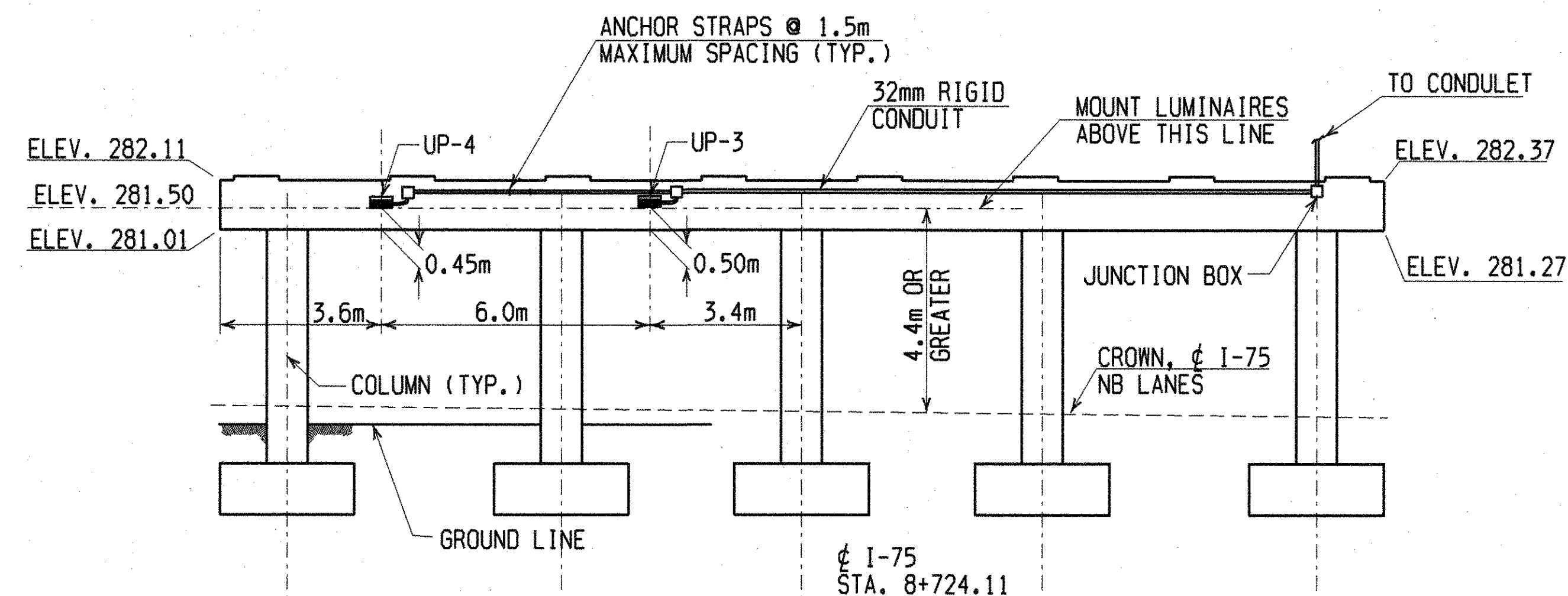
FORWARD MSE WALL



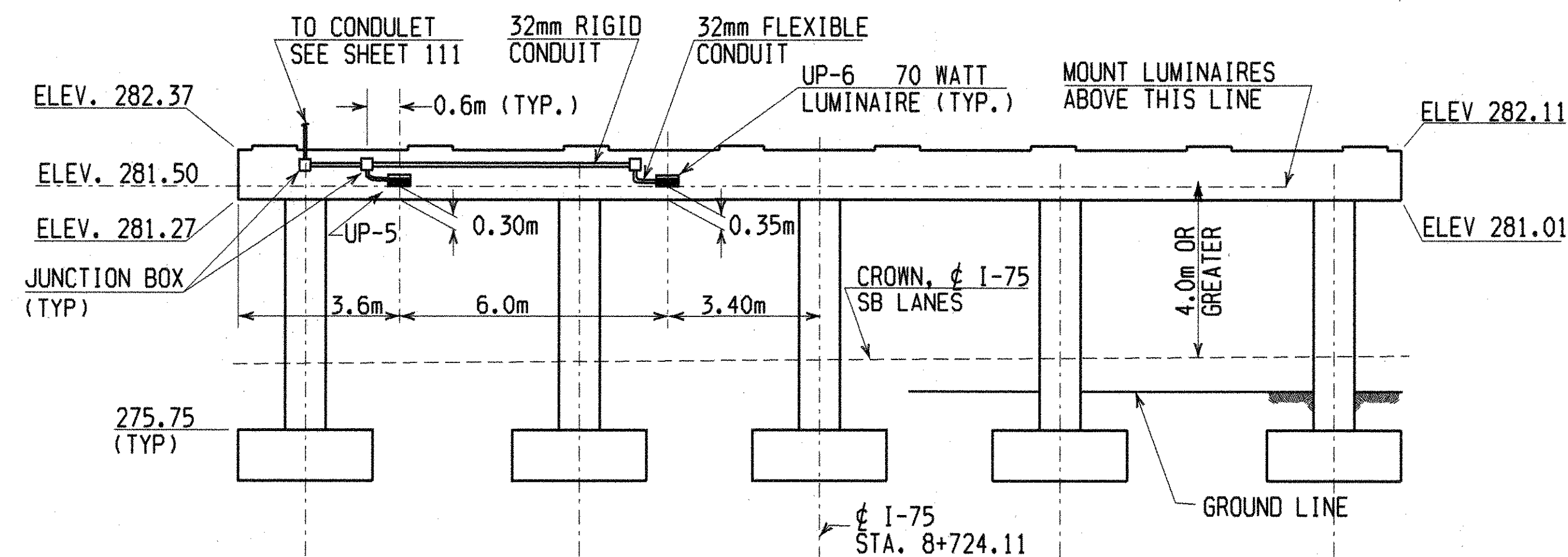
FORWARD MSE WALL ELEVATION, LOOKING EAST



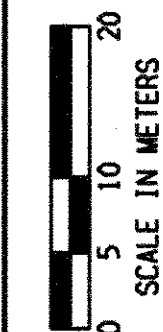
REAR MSE WALL ELEVATION, LOOKING WEST



PIER ELEVATION, LOOKING EAST



PIER ELEVATION, LOOKING WEST

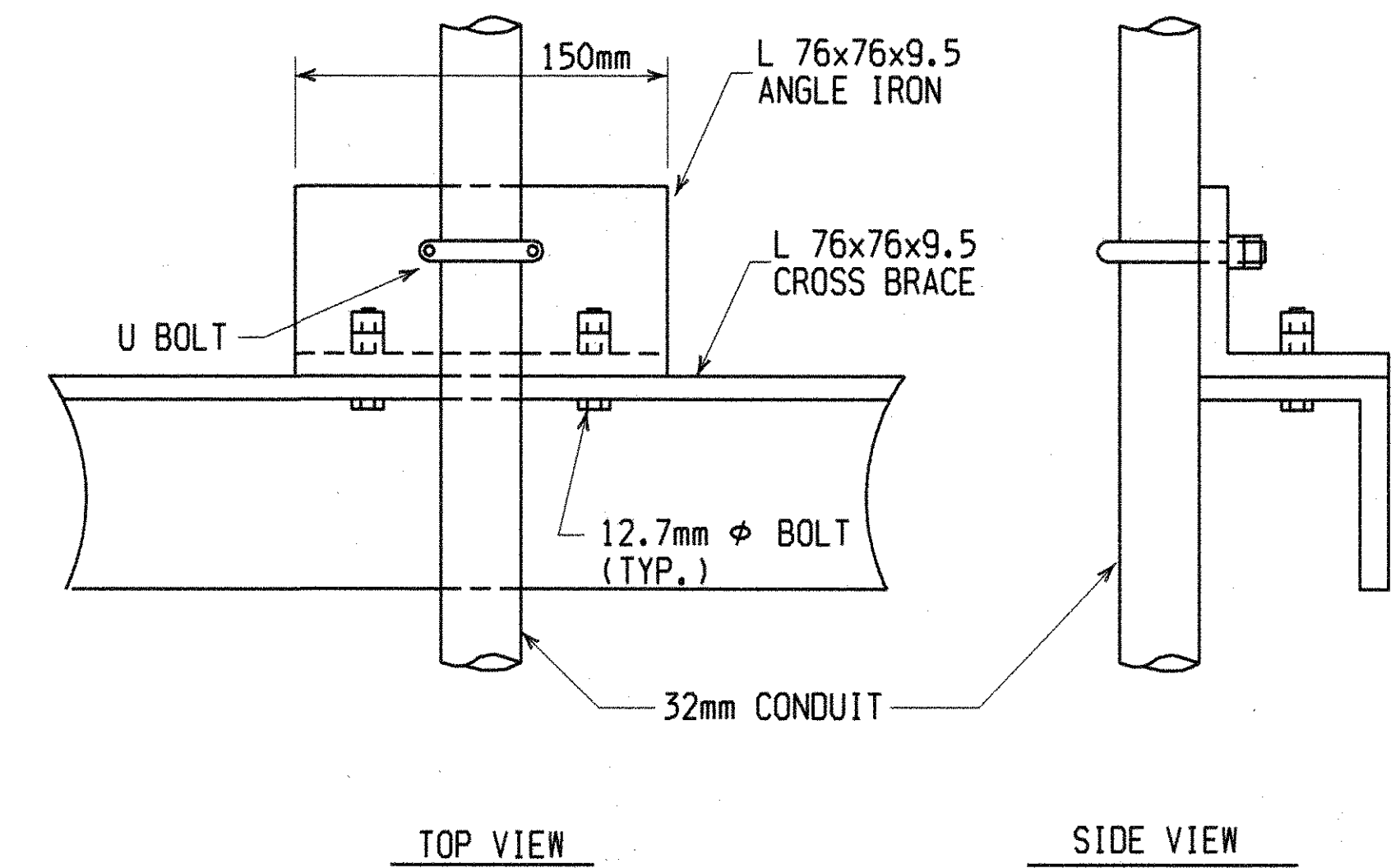
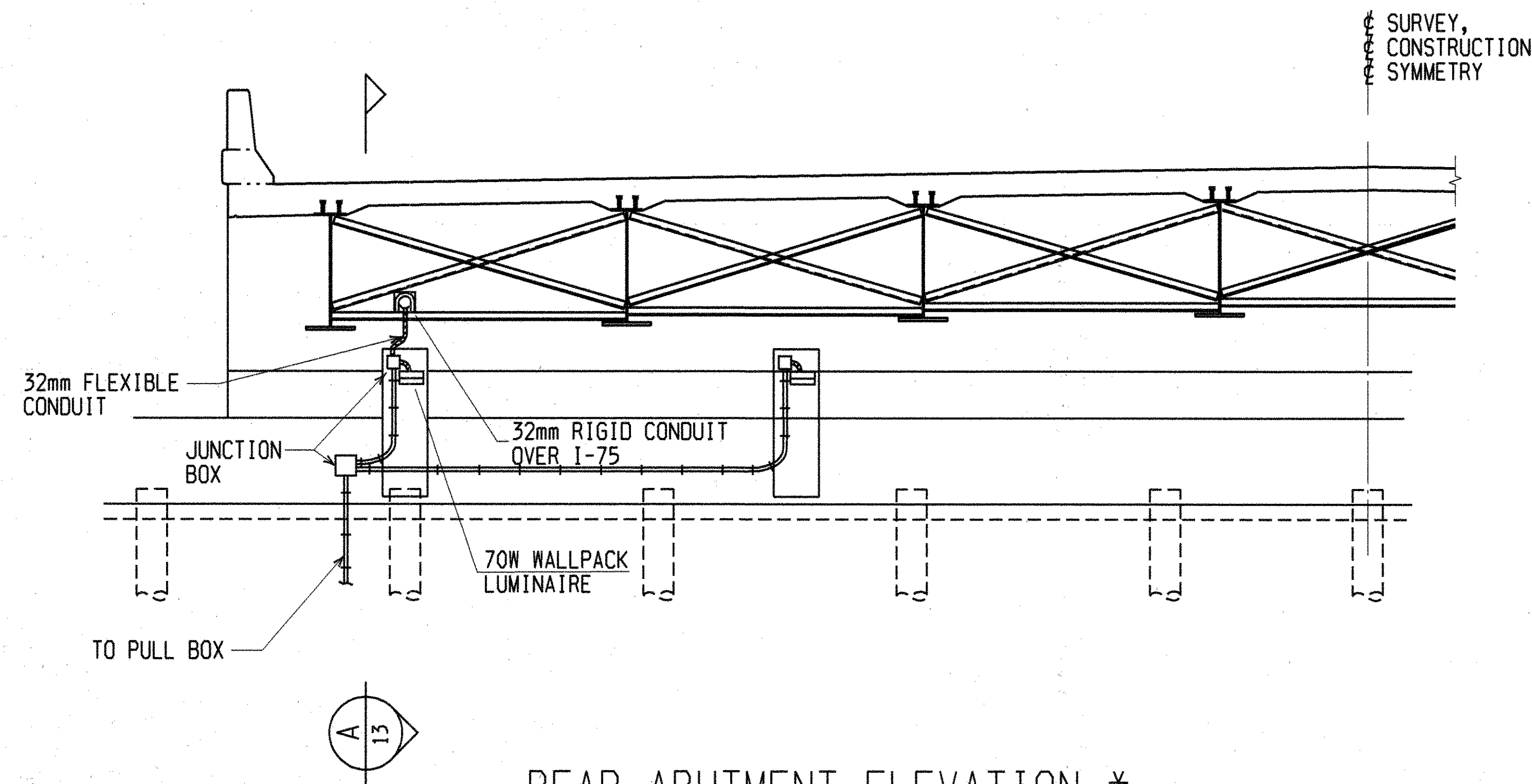


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UNDERPASS LIGHTING DETAILS

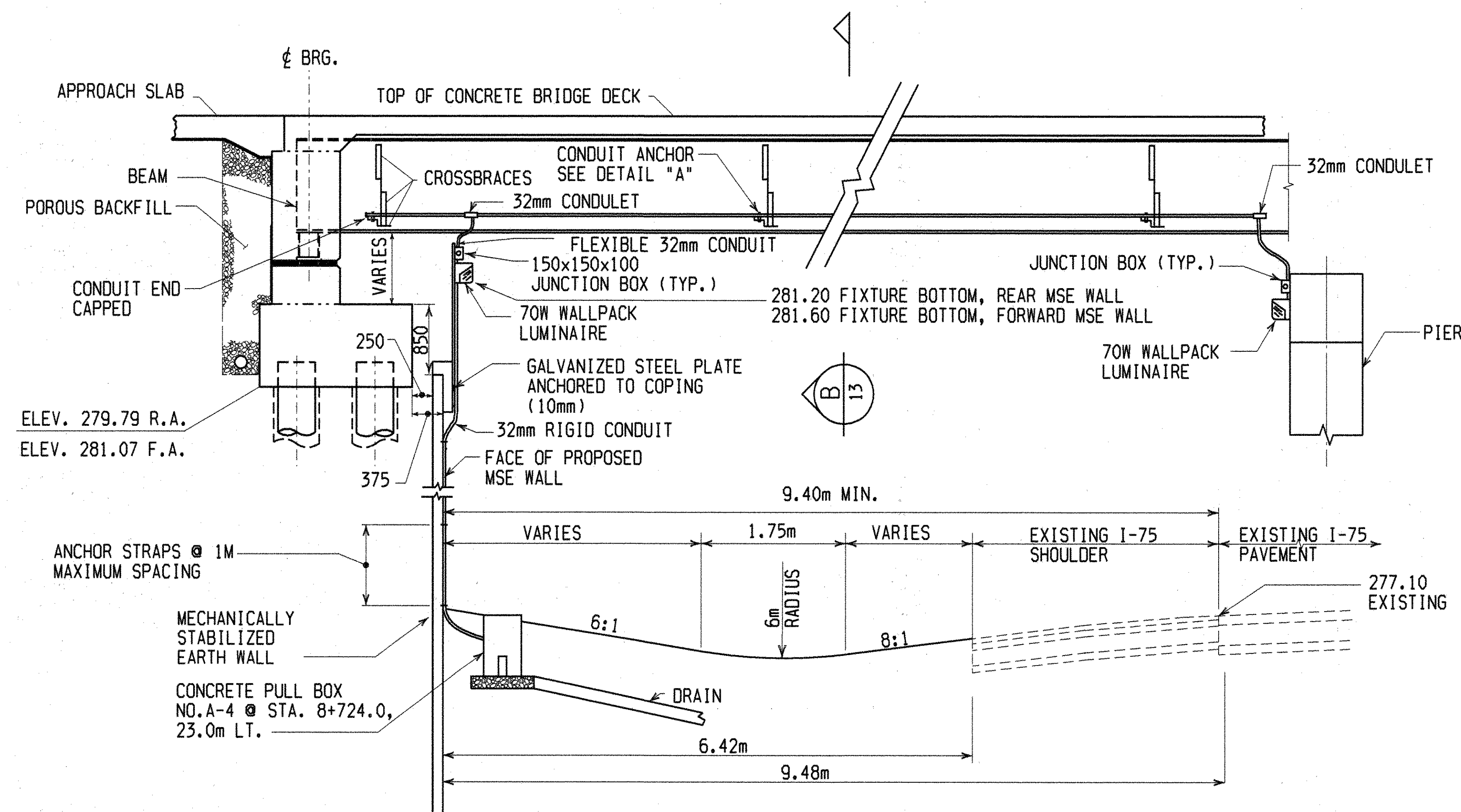
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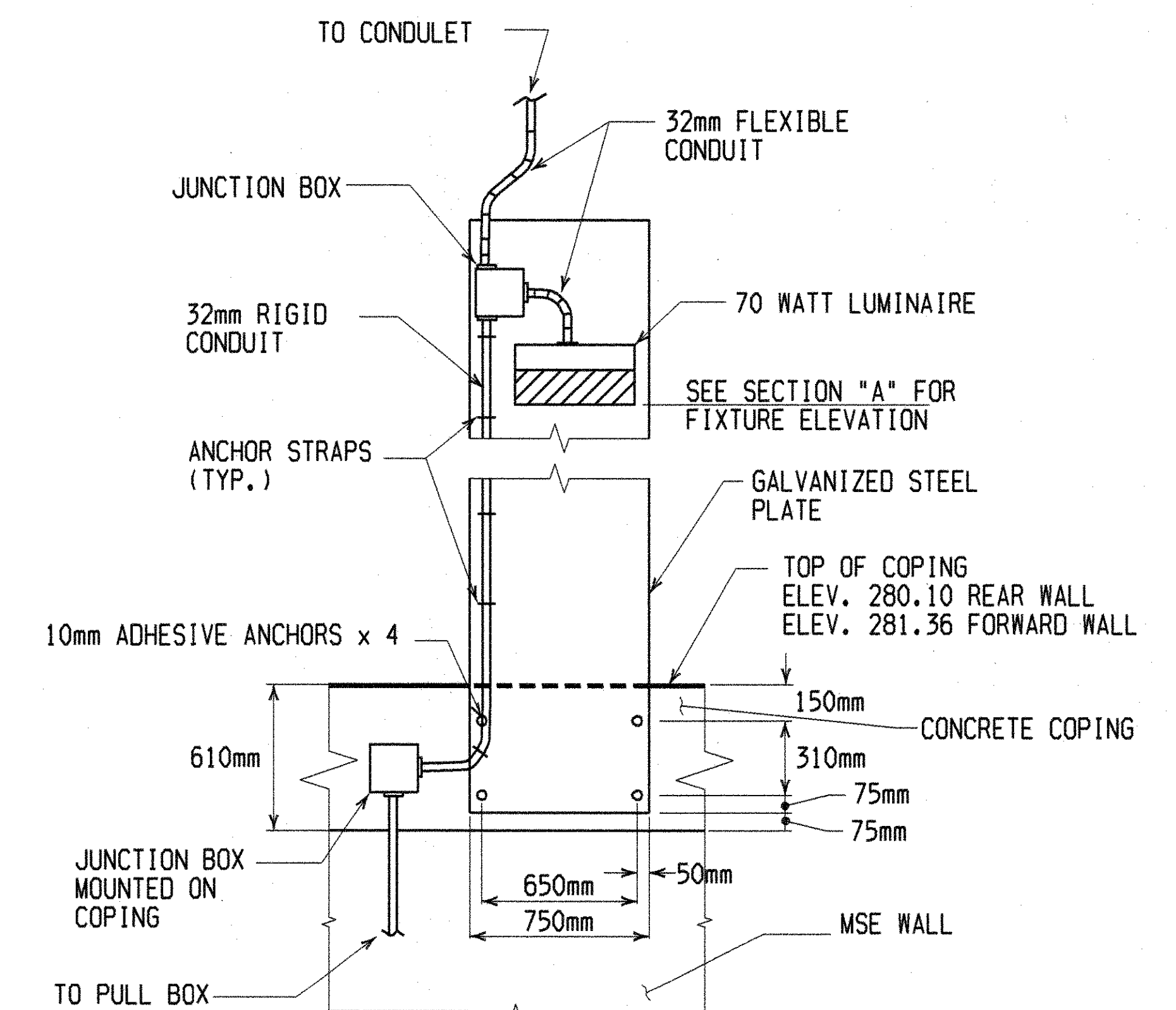
DETAIL "A" CONDUIT ANCHOR

SCALE: =NONE



SECTION A 13

SCALE: =NONE



SECTION B 13

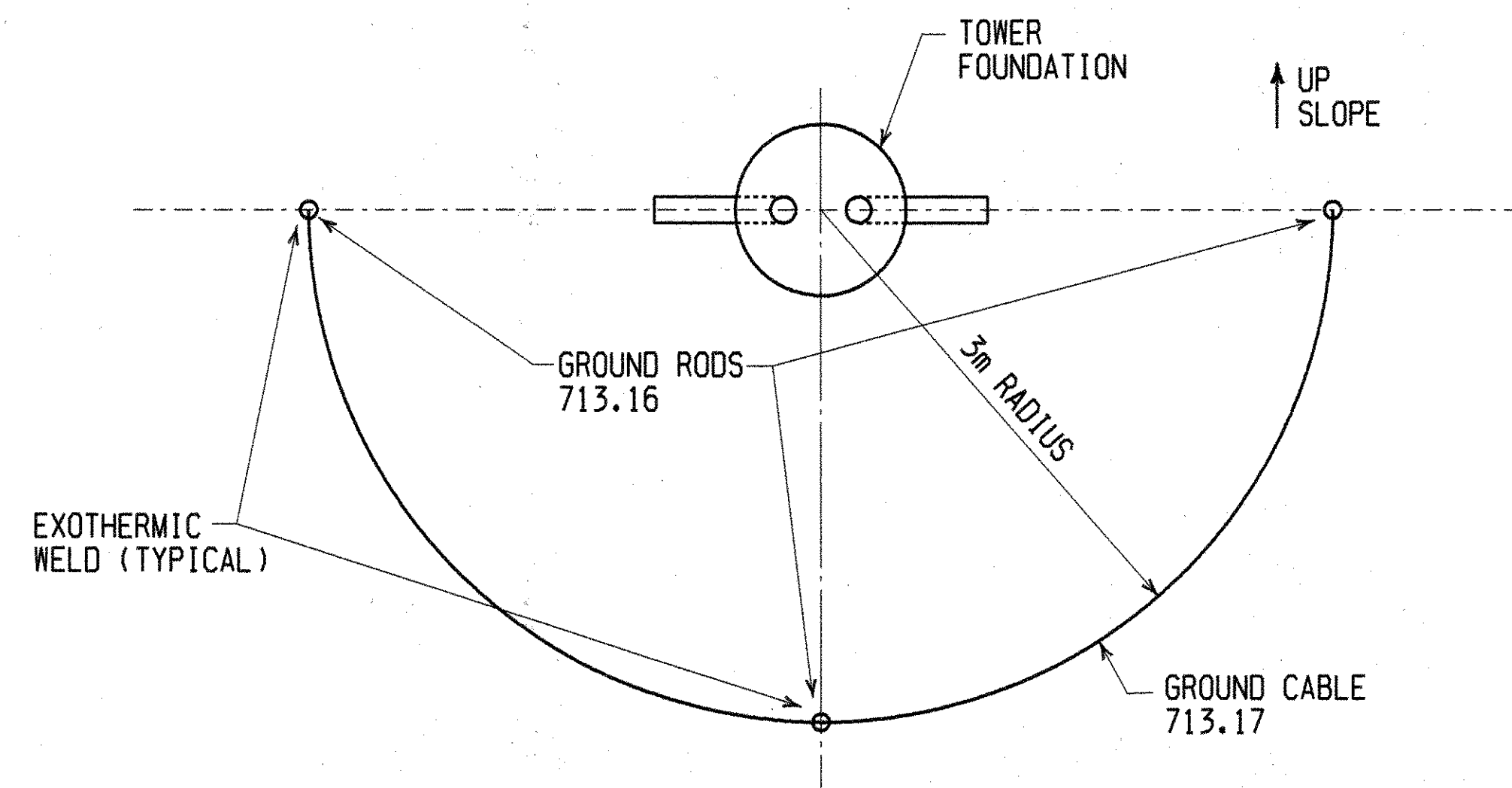
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\* DETAILS FOR REAR ABUTMENT SHOWN. CONSTRUCTION OF UNDERPASS LIGHTING FOR FORWARD ABUTMENT AND OPPOSITE SIDE OF PIER SHALL BE PERFORMED SIMILARLY.



[illegible]

CONTROL CENTER	1-Ø SERVICE VOLTAGE	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING AMPERES	CIRCUIT NUMBER	CIRCUIT LOAD AMPERES	CIRCUIT FUSE SIZE AMPERES	MAINTAINING AGENCY
A	240V 3-WIRE, 1-Ø GROUNDED NEUTRAL	6.3	EXISTING #4	60	A	26	40	CITY OF WAPAKONETA
B	480V 3-WIRE, 1-Ø GROUNDED NEUTRAL	36.6	#2	60	D	38.7	50	STATE OF OHIO
					B	37.5	50	
C	240V 3-WIRE, 1-Ø GROUNDED NEUTRAL	2.1	#4	60	C	8.4	15	CITY OF WAPAKONETA



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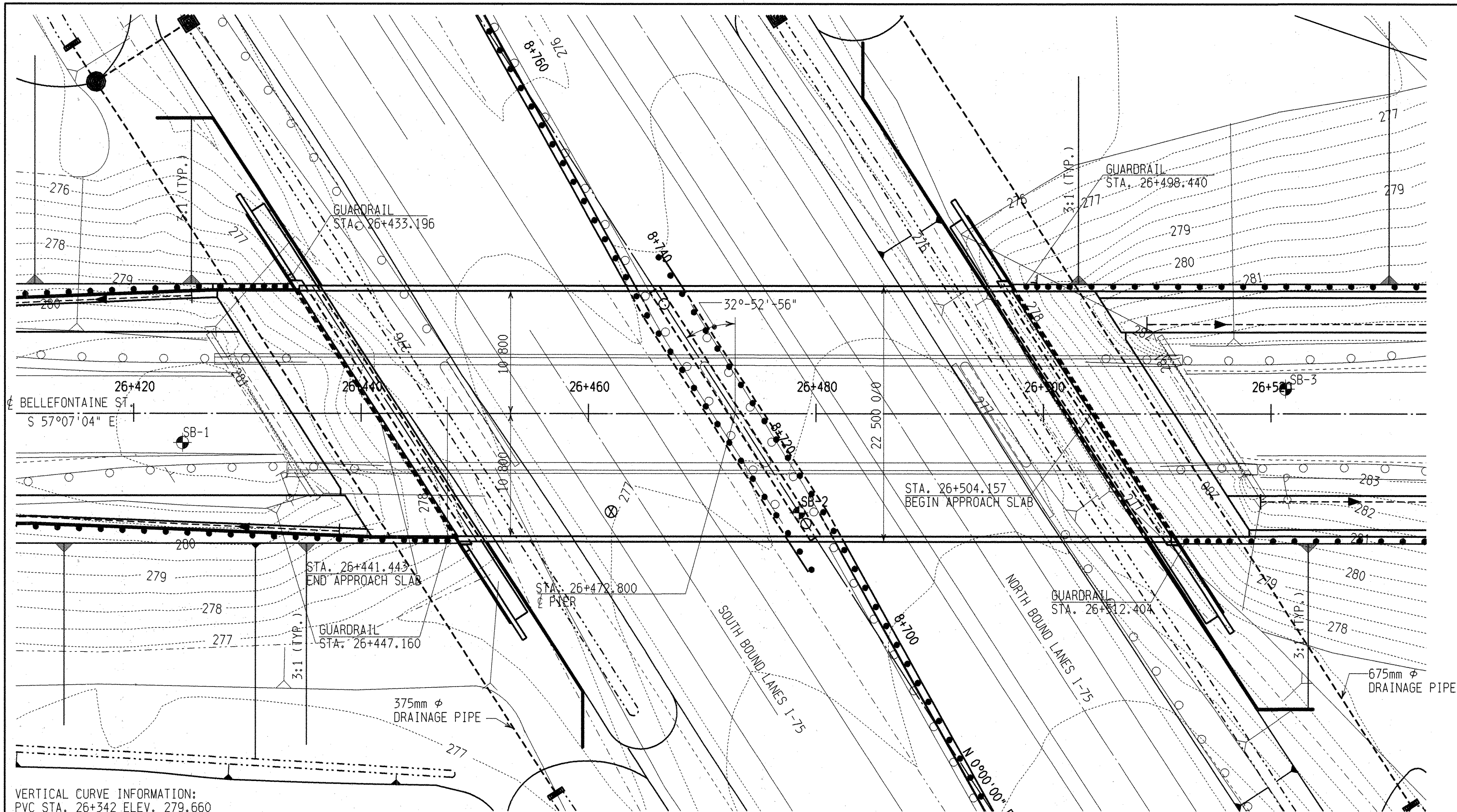
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PRF-P: 19YERSVPRF\PC\PRF\11848.D5, PRF
RF=P: 00001VA0575\000THMFI, PMT(FMT)
RF=
PEN TABLE=1: \CADD\PL07738\TBL\PRF, TBL
RF=
PLOTTED DATE: 06/26/96 08:41:55
RF=
SEND TO: *NO TEXT1*
NO TEXT2*
NO TEXT1*

```

THE TWO GROUND CABLES ENTERING THE TOWER SHALL BE CONNECTED TO SEPARATE POINTS ON THE PERIMETER OF THE TOWER SHAFT AND THESE CONNECTIONS SHALL BE 180 DEGREES APART.

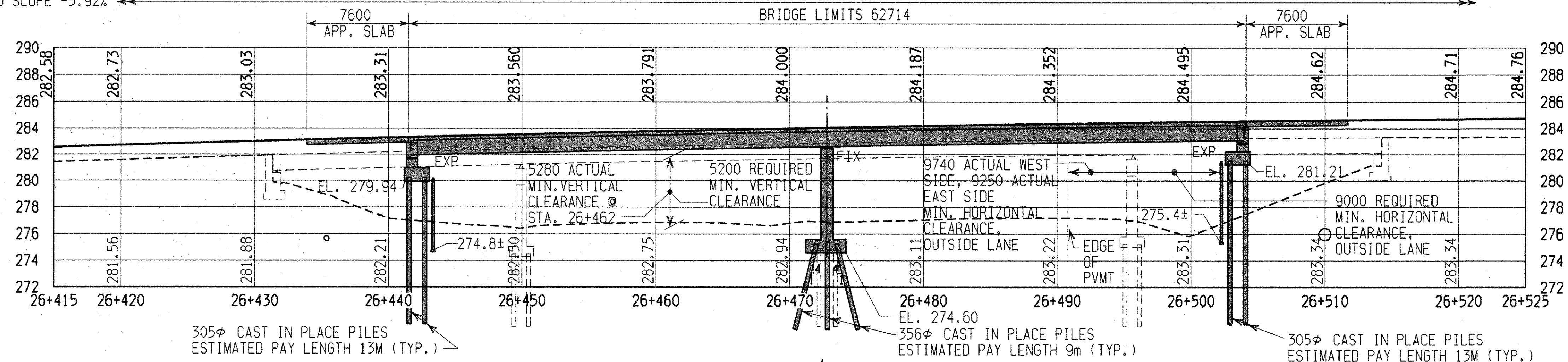
THE ELECTRICAL CIRCUIT GROUND CONNECTOR MAY BE JUMPERED TO ONE OF THESE TWO POINTS.



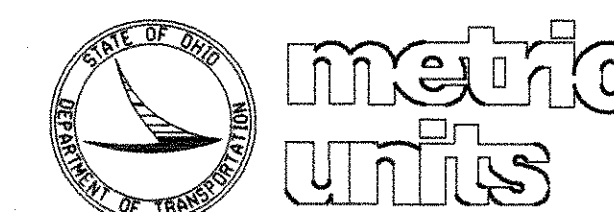


VERTICAL CURVE INFORMATION:  
PVC STA. 26+342 ELEV. 279.660  
PVT STA. 26+738 ELEV. 281.402  
PVI STA. 26+540 ELEV. 289.164  
BEGIN SLOPE 4.8%  
END SLOPE -3.92%

PLAN  
VERTICAL CURVE (L=396M, SSD=136M)  
BRIDGE LIMITS 62714



PROFILE ALONG  $\phi$  CONSTRUCTION



EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT FOR STATIONS AND ELEVATIONS WHICH ARE IN METERS.

- $\odot$  INDICATE SOIL BORING LOCATIONS
- $\otimes$  LOCATION OF MINIMUM VERTICAL CLEARANCE

#### BENCH MARKS

ODOT B.M. #175-EL. 279.534 "□" SE CORNER, CONC. BASE  $\phi$  1-75 94.2M LT. STA 8+773.6M

EL. 283.505 "□" NE WINGWALL BRIDGE BELLEFONTAINE ST. OVER I-75, 35.29M RT., STA. 8+709.61

#### TRAFFIC DATA

CURRENT ADT (1996): 8500 vpd  
CURRENT ADTT (1996): 255 tpd  
DESIGN ADT (2016): 11910 vpd  
DESIGN ADTT (2016): 358 vpd

#### EXISTING STRUCTURE DATA

STRUCTURE FILE NO:  
TYPE: CONTINUOUS STEEL BEAMS WITH REINF. CONCRETE DECK & SUBSTRUCTURE

WEARING SURFACE: MONOLITHIC CONCRETE  
SPAN: 60 FT, 75 FT, 75 FT, 60 FT, C/C BRGS.  
ROADWAY: 28' f/f TO 2'-0" SAFETY CURBS  
APPROACH SLAB: AS-1-54 (20' LONG)  
SKEW: R.F. 32°-52'-56"

#### PROPOSED STRUCTURE

TYPE: A572 PAINTED CONTINUOUS PLATE GIRDERS W/COMPOSITE REINF. CONC. SUPERSTRUCTURE ON CAP & COL. PIER & SEMI-INTEGRAL ABUT.  
SPANS: 31 000, 31 000 C/C BRGS  
ROADWAY: 21 600 TOE TO TOE OF BARRIER  
LOADING: MS18 CASE(II) & ALT. MILITARY LOADING

APPROACH SLAB: AS-1-81M (7600 LONG)  
ALIGNMENT: TANGENT SKEW: R.F. 32°-52'-56"  
CROWN: 0.016  
WEARING SURFACE: MONOLITHIC CONCRETE  
LATITUDE: 40°-33'-41"N  
LONGITUDE: 84°-10'-12"W







DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials, 1992, including the 1993, 1994 and 1995 Interim Specifications and the ODOT Bridge Design Manual.

REFERENCE shall be made to Standard Drawing(s):  
AS-1-81M revised 10-25-94  
BR-1M revised 12-15-94

and to Supplemental Specifications:  
944 Dated 12-07-95  
910 Dated 07-17-95

DESIGN LOADING: MS18, Case (II) and the Alternate Military Loading.

DESIGN DATA:

Concrete Class S - compressive strength 31.0 MPa (superstructure)

Concrete Class C - compressive strength 27.5 MPa (substructure)

Reinforcing Steel - ASTM A615M, A616M, or A617M  
Grade 400 minimum yield strength 400 MPa.  
Spiral reinforcement may be plain bars, ASTM A82M or A615M.

Structural Steel  
ASTM A572M - yield strength 350 MPa

DECK PROTECTION METHOD:

Epoxy coated reinforcing steel.  
65mm concrete cover.  
Sealing of concrete surfaces

MONOLITHIC WEARING SURFACE is assumed, for design purposes, to be 25 mm thick.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed upon receiving permission from the Engineer. (Structural steel shall be carefully dismantled and stored along the right-of-way for disposal by the State's forces). The concrete pile cap of the central pier shall be removed in its entirety. Care shall be taken not to damage existing piles.

ITEM 503 UNCLASSIFIED EXCAVATION, AS PER PLAN: Unclassified excavation shall be in accordance with 503 except that the backfill material behind the abutments shall be 203 granular material placed in lifts not to exceed a thickness of 150mm.

PILE DRIVING CONSTRAINTS: Prior to driving abutment piles, the Mechanically Stabilized Earth Walls and the bridge approach embankment behind the abutments shall be constructed up to the level of the subgrade elevation for a minimal distance of 60 meters behind each abutment. Pile sleeves shall also be in place, see special provisions for more information. The installation of abutment piles shall not begin until after the above required embankment has been constructed.

PILE DESIGN LOADS (SAFE BEARING CAPACITY): The design load for the abutment piles is 300 KN per pile and the design load for the pier piles is 570 KN per pile.

ITEM 507, 356mm CAST IN PLACE REINFORCED CONCRETE PILES, AS PER PLAN  
PILE HAMMER: The pile hammer used to install the 356mm CIP piles shall have a State's Energy Rating of not less than 25000 Joules. This requirement does not relieve the Contractor from 108.05 which states that the Contractor is to provide sufficient equipment for prosecuting the required work. Refer to "ODOT's Manual of Procedures for Structures" to obtain the State's Energy Rating.

STRUCTURE GENERAL NOTES

PILE WALL THICKNESS: The responsibility of choosing and providing a satisfactory pile wall thickness for this project shall be borne by the contractor except that the pile wall thickness shall not be less than 5.5mm. If a pile wall thickness greater than 5.5mm is necessary to resist the pile installation driving stress, the contractor shall make this determination and shall furnish a pile with an acceptable wall thickness. If monotube piles are used, the minimum wall thickness shall be 4.5mm.

ITEM 511 CLASS C CONCRETE ABUTMENT, INCLUDING FOOTING AS PER PLAN: Install a 900mm wide strip, 2.5mm thick, general purpose, heavy duty neoprene sheet with nylon fabric reinforcement at locations shown in the plans. Secure the 900mm wide neoprene sheeting to the concrete with 32 x 3mm (length x shank diameter) galvanized buttonhead spikes through a 25mm outside diameter, 3mm galvanized washer. Maximum fastener spacing is 225mm. Other similar galvanized devices which will not damage either the neoprene or the concrete may be used subject to the approval of the Engineer.

Center the neoprene strips on all joints. For horizontal joints, secure the horizontal neoprene strip by using a single line of fasteners, starting at 150mm ± from the top of the neoprene strip. For the vertical joints, secure the vertical neoprene strip by using a single vertical line of fasteners, starting at 150mm ± from the vertical edge of the neoprene strip nearest to the centerline of the roadway. For vertical joints, install 2 additional fasteners at 150mm center to center across the top of the neoprene strip on the side of the vertical joint as the single vertical row of fasteners, is located.

The vertical neoprene strips should completely overlap the horizontal strips. Laps in the length of the horizontal strips due to material manufacturing shall be at least 300mm in length, if not vulcanized or adhesive bonded, or 1500mm in length if the lap is vulcanized or adhesive bonded. No laps are acceptable in vertically installed neoprene strips.

The neoprene sheeting shall be 2.5mm thick general purpose, heavy duty neoprene sheet with nylon fabric reinforcement. The sheeting shall be "Fairprene Number NN-0003", by E.I. DuPont De Nemours and Company Inc., "Wingprene" by the Goodyear Tire and Rubber Company, or an approved alternate. The neoprene sheeting shall conform to the following:

Description of Test	ASTM Method	Requirement
Thickness, mm	D 751	2.5 ± .25
Breaking strength, grab WXF, N, minimum	D 751	3130 x 3130
Adhesive 25mm strip, 50mm minimum, N minimum	D 751	27
Burst strength (mullen) MPa, Minimum	D 751	9.65
Heat aging 70 hours T 100° C, 180 bend without Cracking	D 2136	No Cracking of Coating
Low temperature brittleness 1 hour at -40° C, bend around 6mm mandrel	D 2136	No Cracking of Coating

Payment for labor, materials and installation of these items shall be included in the Item 511 Class C Concrete Abutment, As Per Plan.

ITEM 518, 150mm PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN: Corrugated pipe used in abutment drainage shall be 150mm diameter, plastic corrugated as per Supplemental Specification 944, AASHTO M294, Type SP.

ITEM 518, 150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN: Corrugated pipe used in abutment drainage shall be 150mm diameter, plastic corrugated as per Supplemental Specification 944, AASHTO M294, Type S This item shall include all elbows, tees and end caps required to complete the abutment drainage system.

CONCRETE PARAPETS: As soon as a concrete saw can be operated without damaging the freshly placed concrete, 25mm deep control joints shall be sawed into the perimeter of the concrete parapet. The saw cut shall be made in the complete circumference of the parapet, starting and ending at the elevation of the concrete deck. The sawcuts shall be placed at a minimum of 2000mm and a maximum of 3000mm centers. The use of an edge guide, fence, or jig is required to insure that the cut joint is straight, and true and aligned on all faces of the parapet. The joint width shall be the width of the saw blade, a nominal width of 6mm. The perimeter of the deflection control joint shall be sealed to a minimum depth of 25mm with a caulking material conforming to Federal Specification, TT-S-00227E to a minimum depth of 25mm.

PILE SLEEVES: Sleeves shall be used to fill a void in the selected granular embankment so that the proposed piles can be installed after the wall construction is completed. The sleeves shall be made of a material that does not promote corrosion within the select granular embankment and the sleeve material shall be satisfactory to the wall company. Consider using segments of plastic pipe strong enough to maintain the required void. A bentonite slurry shall be placed in the void located between the pile and the sleeve. The slurry shall consist of the following materials with volume ratios of one part cement, one part bentonite, and ten parts water. The cost of the above described work shall be considered incidental to Item Special Mechanically Stabilized Earth Walls.

BEARING RETAINERS: Anchor bolts shall be either cast in place by use of template or field drilled and grouted after erection of the structural steel girders. Care shall be taken to assure that anchor bolts do not interfere with the reinforcing steel. The retainer shall be positioned and tightened before the concrete is poured for concrete encasement. A block of polystyrene filler material, sized as shown in the plans, shall be installed over the top of the retainer assembly during the concrete placement. The steel retainer assembly and square plate washers shall be the same grade of steel as the main structural members. Anchor bolts and members shall be ASTM A325M. Steel retainer assemblies shall have the same protective coating as the main structural steel. Anchor bolts, nuts, and square plate washers shall be galvanized as per 711.02. Payment for materials, labor, fabrication, protective coating, galvanizing, and installation of the retainer assemblies shall be included with item 516, elastomeric bearing for payment.

DESIGN AGENCY	DATE	REVIEWED	DRAWN	NRC	DESIGNED	NGH	CHECKED	BAW	AUGLAIZE COUNTY STA 26+441.443 STA 26+504.157	STRUCTURE GENERAL NOTES BRIDGE NO. AUG 75-08724 OVER 1-75	AUG-75-5.45	3 / 30	114 148
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GENERAL SUMMARY

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FORWARD ABUTMENT	PIER	SUPER-STRUCTURE	GENERAL
202	11002	LUMP	LUMP	STRUCTURE REMOVED, OVER 6 METER SPAN					LUMP
503	21101	253	CU METER	UNCLASSIFIED EXCAVATION, AS PER PLAN	47	46	160		
505	11100	LUMP	LUMP	PILE DRIVING EQUIPMENT MOBILIZATION					LUMP
507	22200	910	METER	300mm CAST-IN-PLACE REINFORCED CONCRETE PILES	455	455			
507	41100	215	METER	350mm CAST-IN-PLACE REINFORCED CONCRETE PILES			215		
509	15830	76196	KILOGRAM	EPOXY COATED REINFORCING STEEL, GRADE 400	6394	6355	8524	54923	
511	31508	456	CU METER	CLASS S CONCRETE, SUPERSTRUCTURE				456	
511	41500	47	CU METER	CLASS C CONCRETE, PIER ABOVE FOOTINGS			47		
511	43501	205	CU METER	CLASS C CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN	103	102			
511	46500	56	CU METER	CLASS C CONCRETE, FOOTING			56		
SPECIAL 51267500	503	SQ METER	SEALING OF CONCRETE SURFACES *				143	360	
SPECIAL 51267502	355	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY) *	180	175				
513	20000	3392	EACH	WELDED STUD SHEAR CONNECTOR				3392	
513	12400	185859	KILOGRAM	STRUCTURAL STEEL, A572-50, AISC CATEGORY III				185859	
514	00610	185859	KILOGRAM	FIELD PAINTING NEW STEEL, SYSTEM IZEU *				185859	
516	13900	1	SQ METER	5/ mm PREFORMED EXPANSION JOINT FILLER	0.5	0.5			
516	44000	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND 200x200x25 LOAD PLATE, (NEOPRENE 180x180x25) *	2	2			
516	44100	16	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND 450x300x40 LOAD PLATE, (NEOPRENE 400x250x60) *	8	8			
516	44100	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND 740x500x60 LOAD PLATE, (NEOPRENE 500x475x60)			8		
518	21200	156	CU METER	POROUS BACKFILL WITH FILTER FABRIC	79	77			
518	40001	93	METER	150mm PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN	47	46			
518	40011	12	METER	150mm NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	6	6			
DESIGN 1 (REINFORCED EARTH COMPANY)									
203	20000	734	CU METER	EMBANKMENT					
203	35000	4393	CU METER	SELECT GRANULAR EMBANKMENT					
503	21100	1631	CU METER	UNCLASSIFIED EXCAVATION					
SPECIAL 51267502	806	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY)*						
SPECIAL 61013500	746	SQ METER	REINFORCED EARTH WALL (SEE SPECIAL PROVISIONS)						
DESIGN 2 (VSL CORPORATION)									
203	20000	734	CU METER	EMBANKMENT					
203	35000	4393	CU METER	SELECT GRANULAR EMBANKMENT					
503	21100	1631	CU METER	UNCLASSIFIED EXCAVATION					
SPECIAL 51267502	806	SQ METER	SEALING OF CONCRETE SURFACES (EPOXY)*						
SPECIAL 61013500	746	SQ METER	REINFORCED EARTH WALL (SEE SPECIAL PROVISIONS)						

\* SEE PROPOSAL NOTE

CALCULATED BY: BAW DATE: 10-20-95 CHECKED BY: MJS DATE: 10-24-95

DESIGN AGENCY  
ENGINEERS ARCHITECTS  
1001 MADISON AVENUE  
TOLEDO, OHIO 43624  
TEL: 419-255-2830  
FAX: 419-255-6101

DATE  
REVIEWED  
DRAWN  
DESIGNED  
AUGLAIZE COUNTY  
STA. 26+441.443  
STA. 26+504.157

GENERAL SUMMARY  
BRIDGE NO. AUG-75-08724  
OVER 1-75

AUG-75-5.45

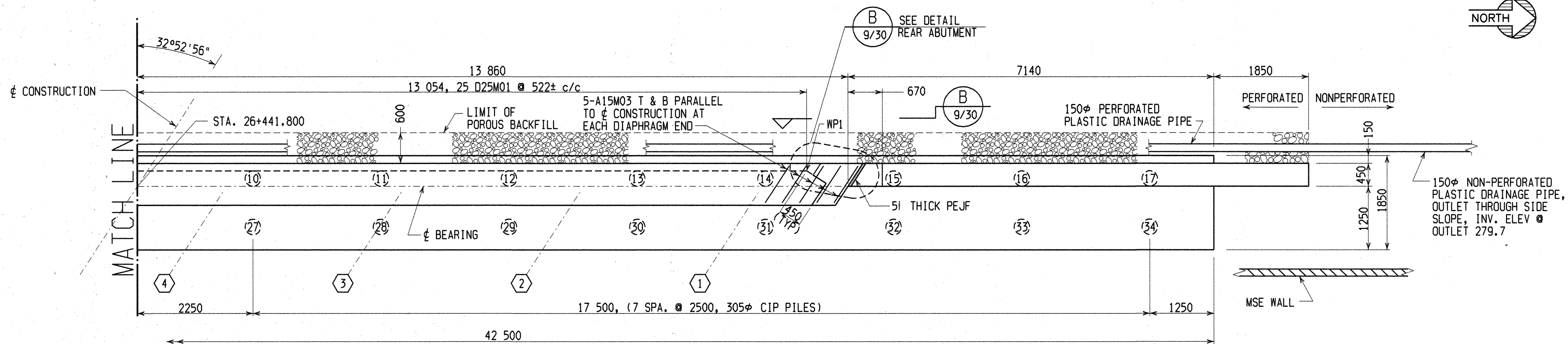
4 / 30

115  
148



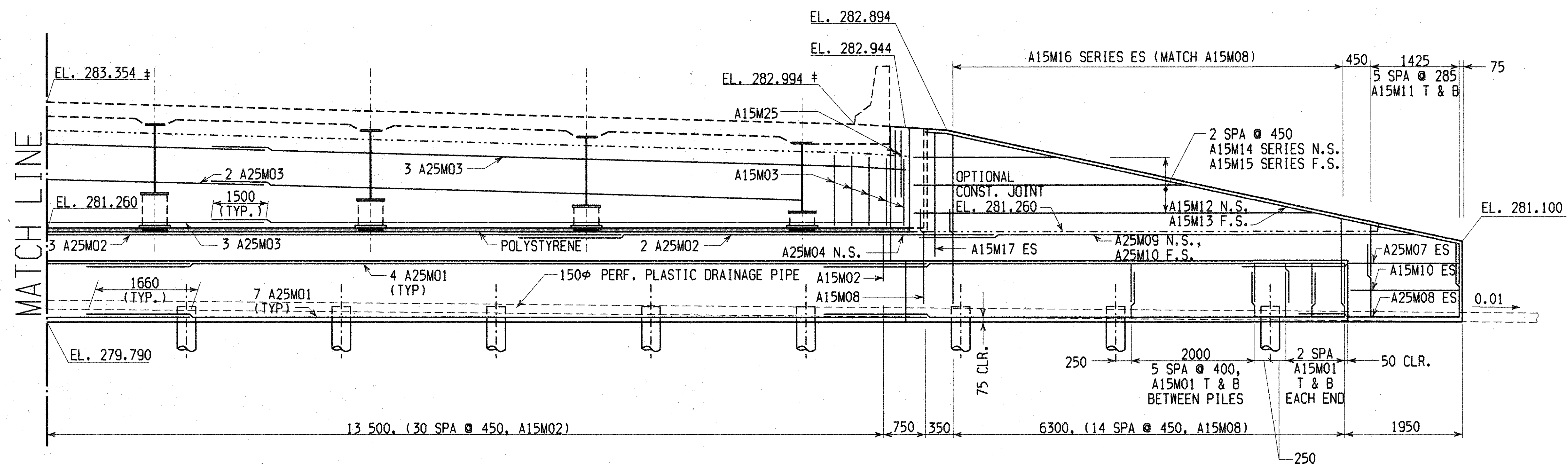






### REAR ABUTMENT PLAN (NORTH HALF)

WP1 : STA. 26+434.461, 10.8 M, RT  
WP2 : STA. 26+448.425, 10.8 M, LT



### REAR ABUTMENT ELEVATION (NORTH HALF)

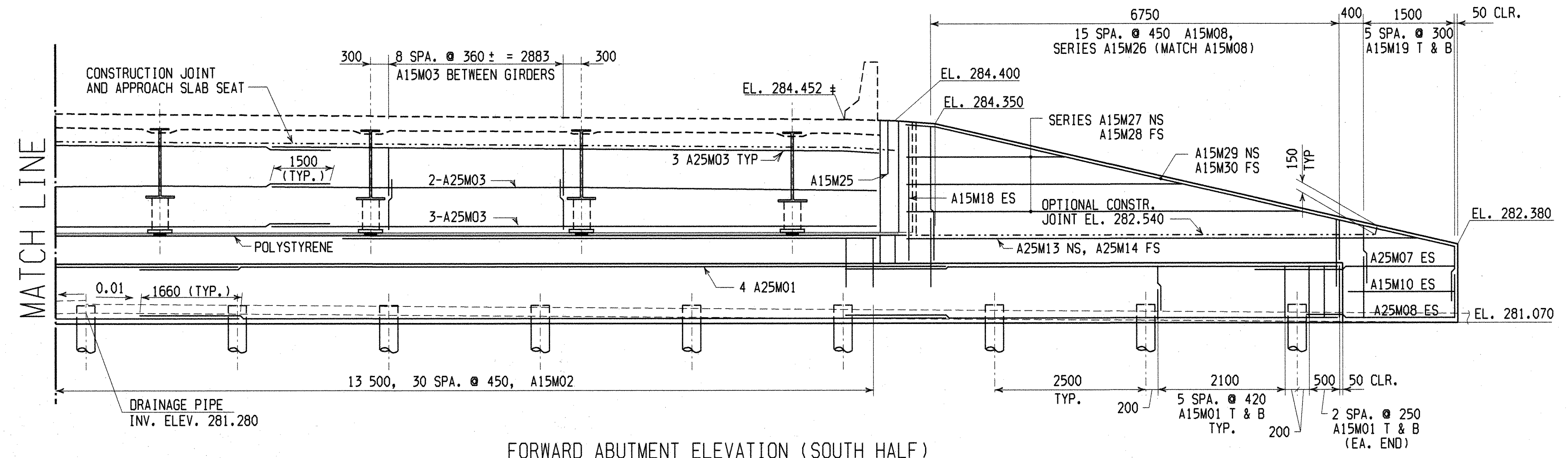
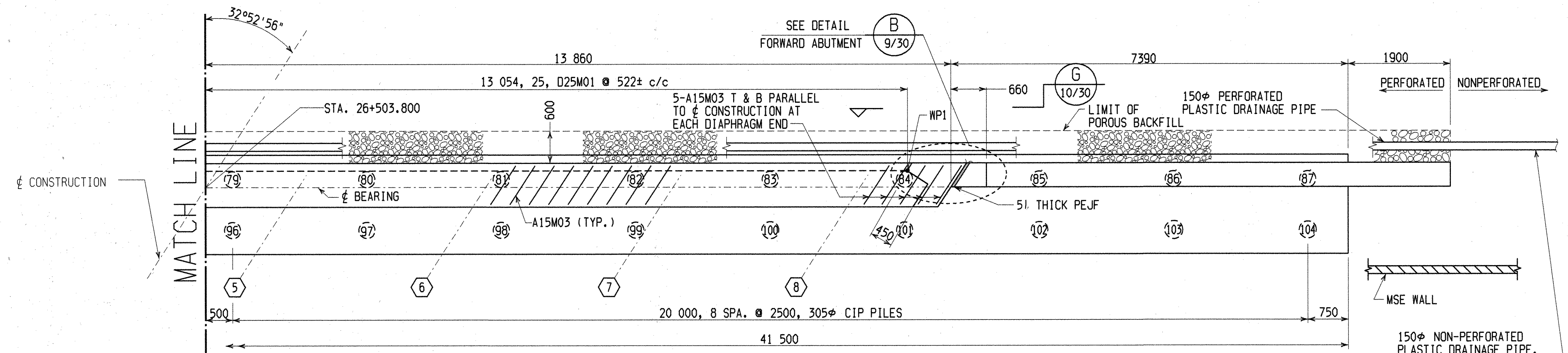
± ELEVATION SHOWN AT  $\phi$  BEARING

DESIGN AGENCY	DATE	REVIEWED	DRAWN	CHECKED	DESIGNED	AUGLAIZE COUNTY	REAR ABUTMENT PLAN & ELEVATION (NORTH HALF)	AUG-75-5.45	6 / 30
ENGINEERS ARCHITECTS SURVEYORS 1001 MADISON AVENUE TOLEDO, OHIO 43624 TEL: 419-255-3650 FAX: 419-255-6101	STRUCTURE FILE NUMBER	BAW	BAW	BAW	BAW	STA 26+441.443 STA 26+504.157	BRIDGE NO. AUG 75-08724 OVER I-75		117 148

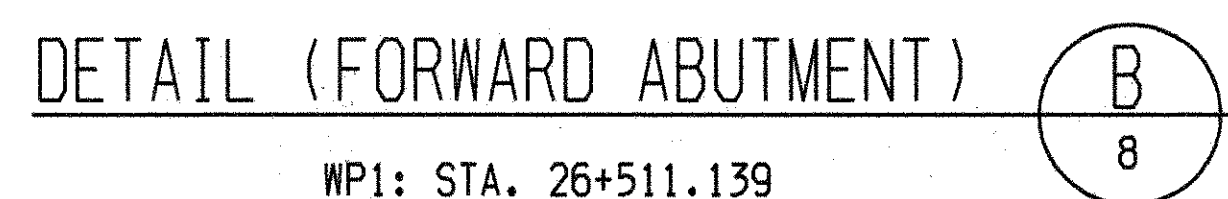
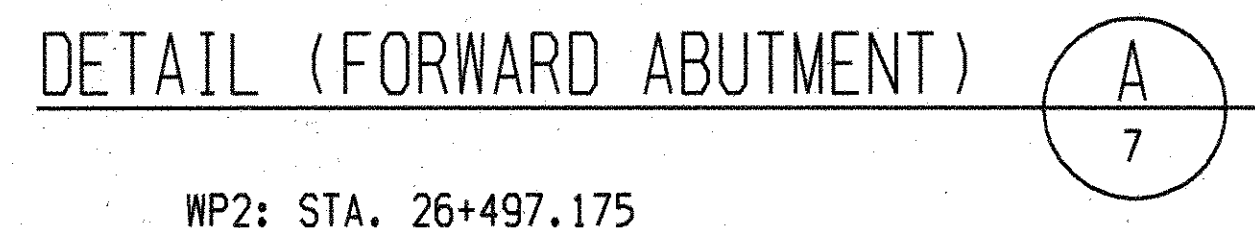
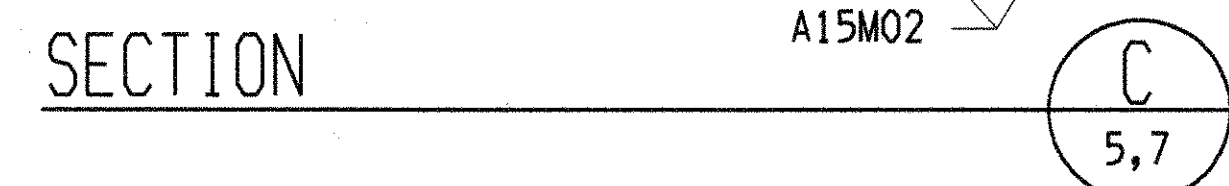
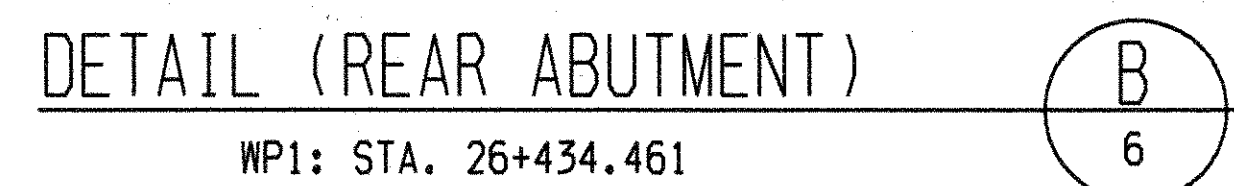
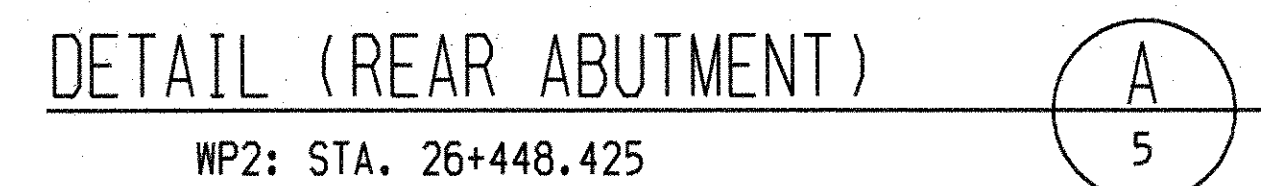













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CHECKED		STRUCTURE FILE NUMBER																			
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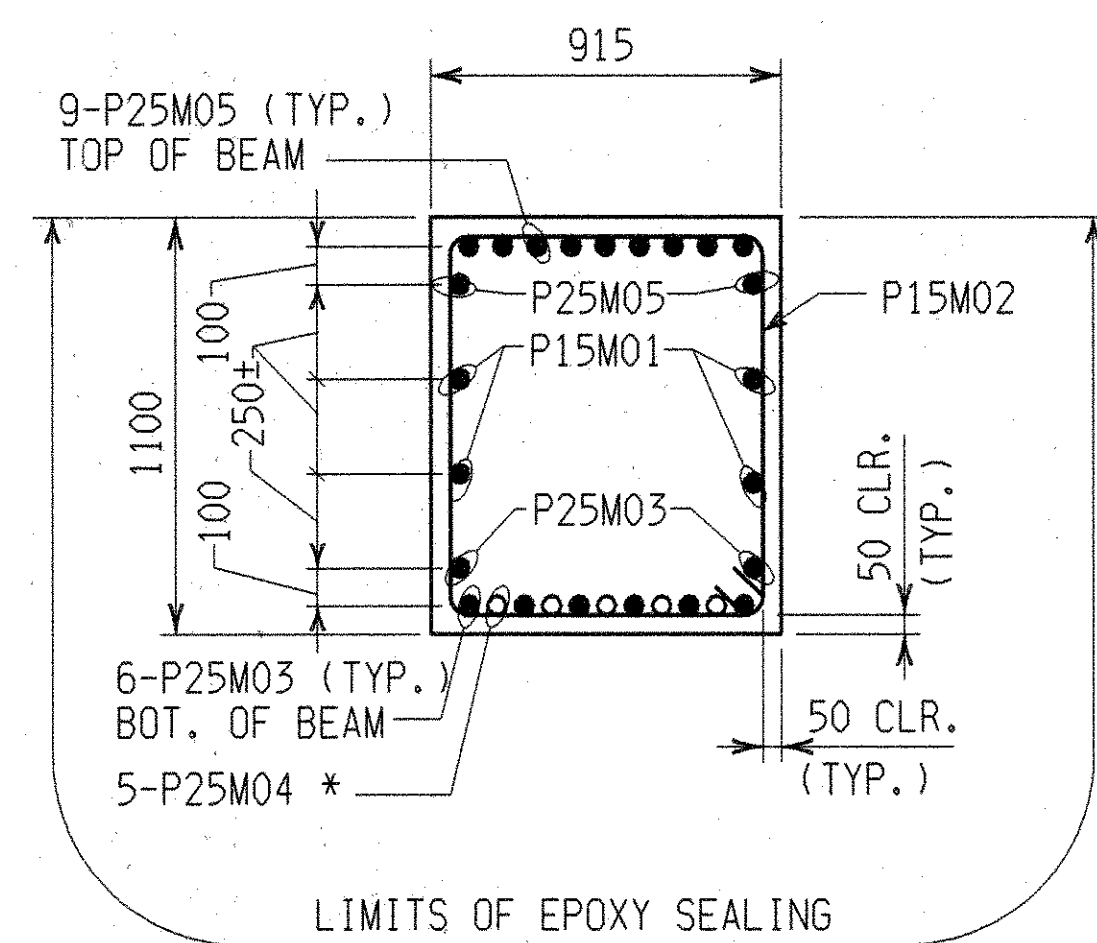
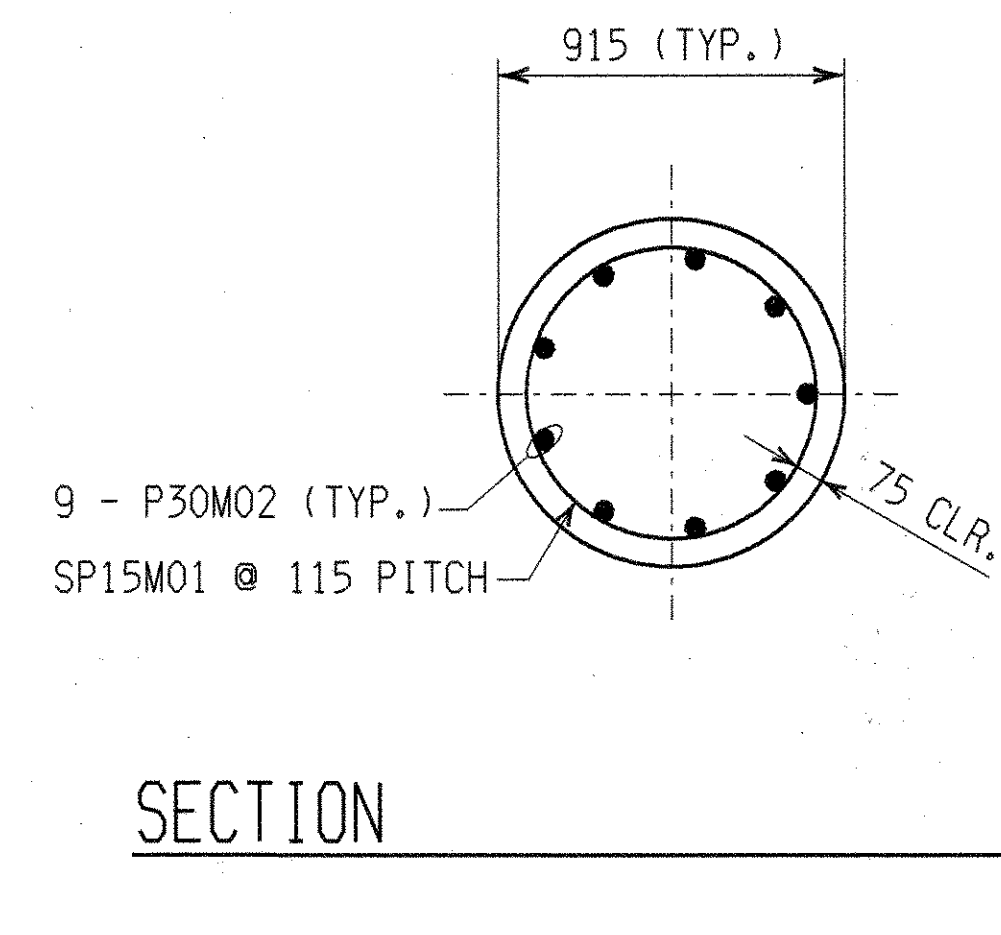
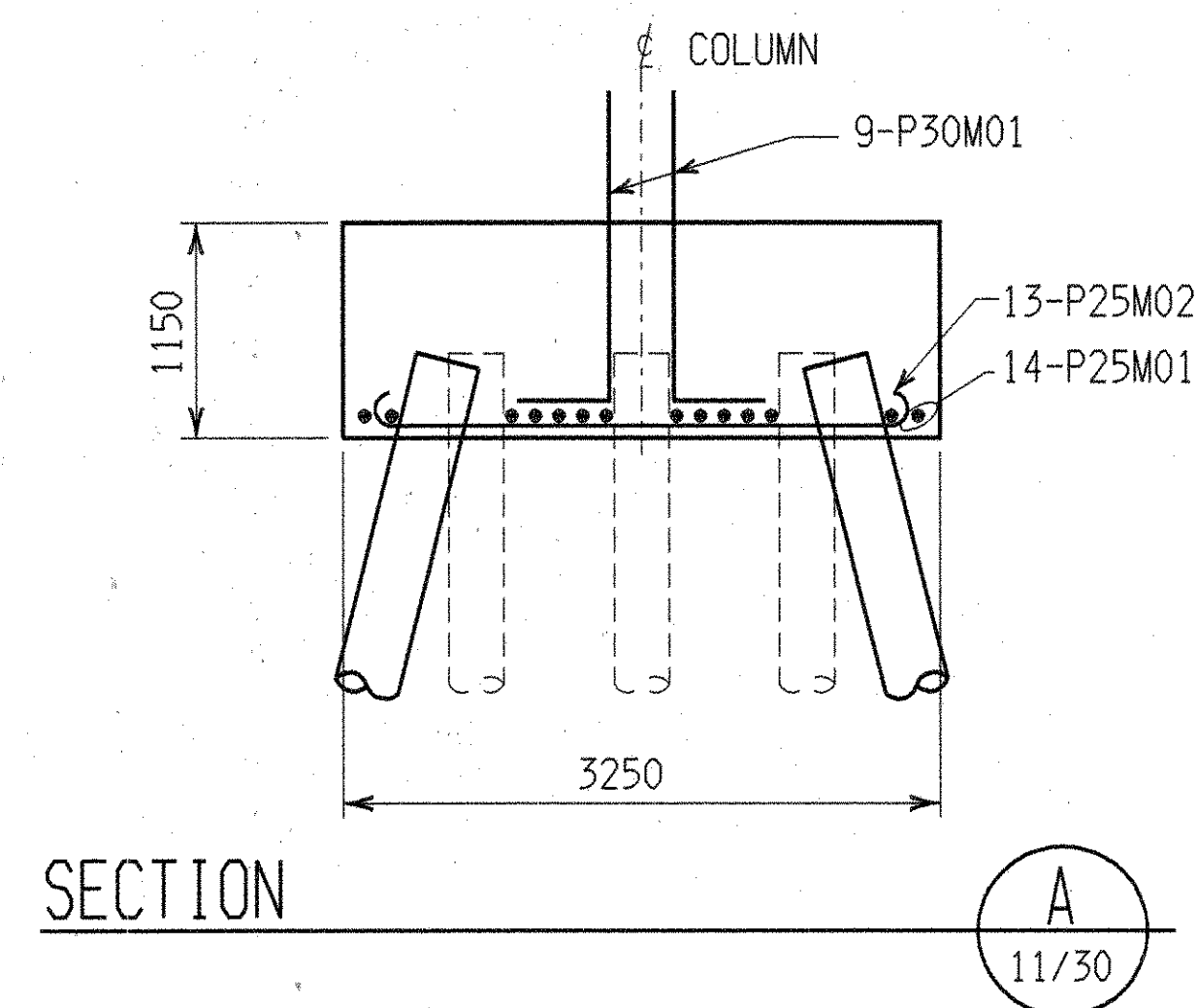




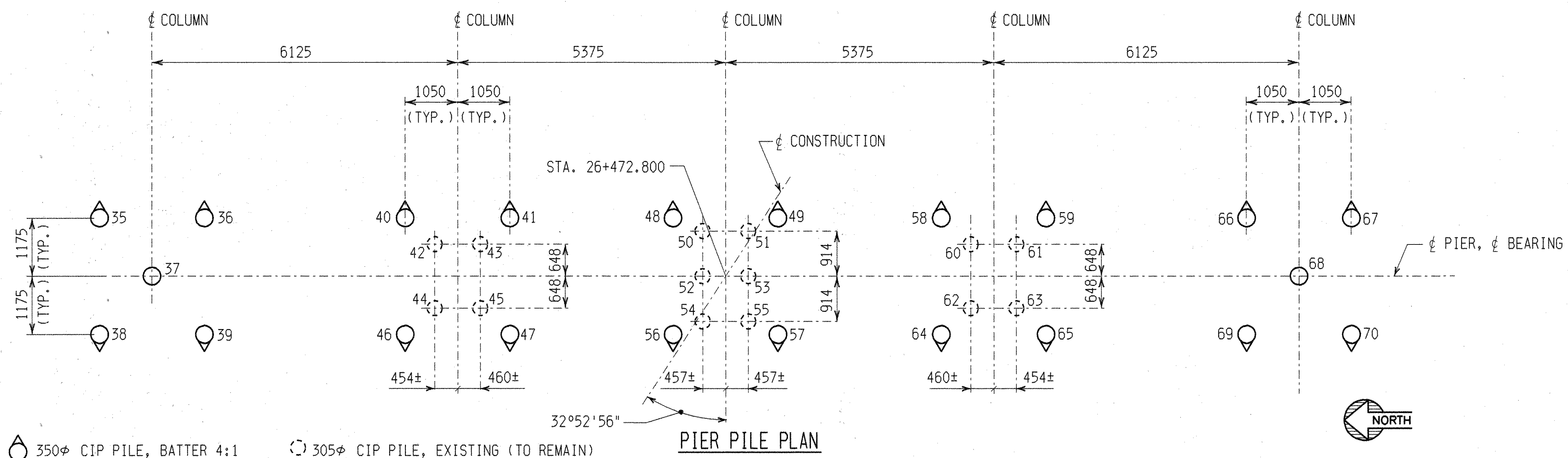
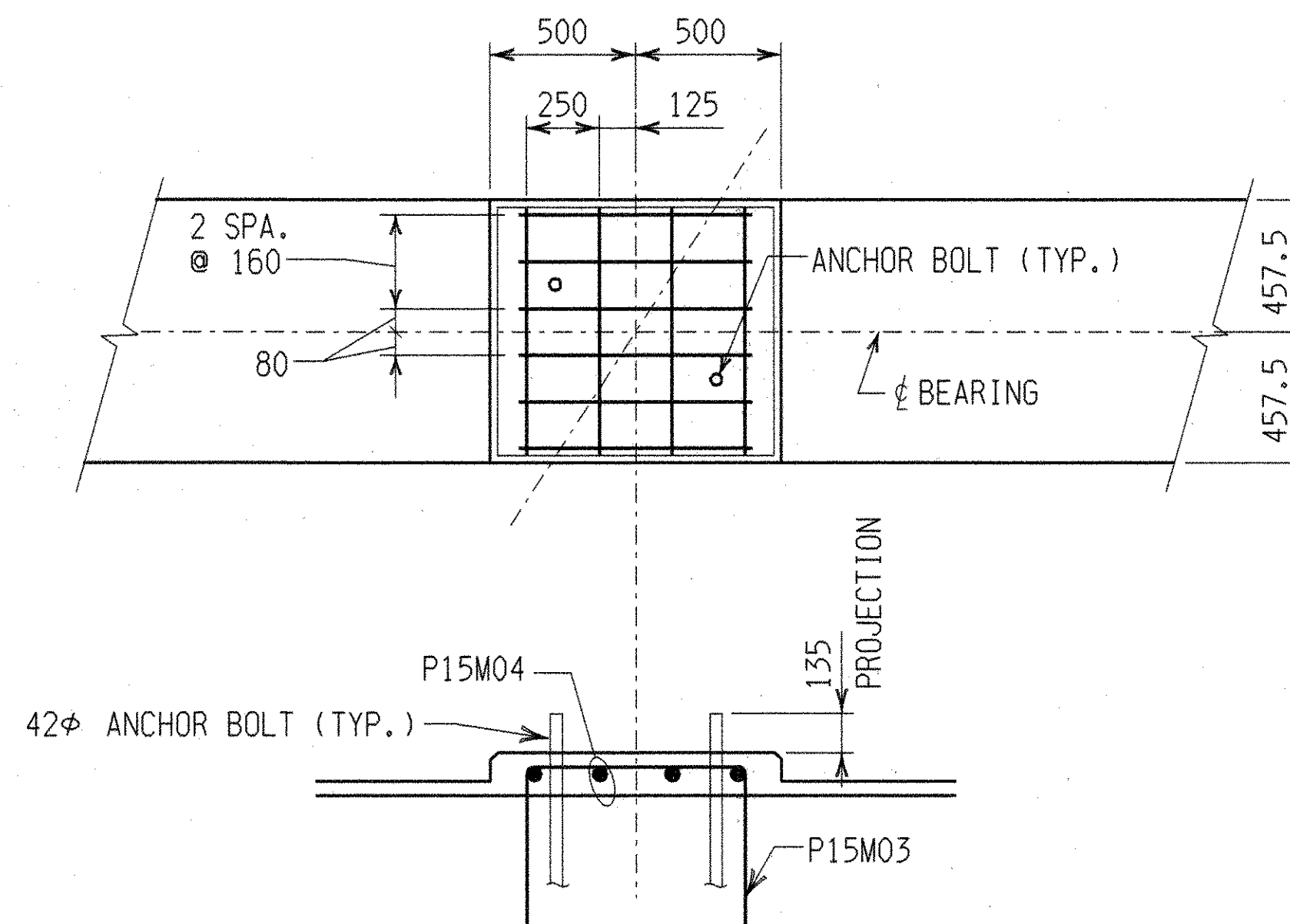








\* CENTERED @ FIRST INTERIOR SPAN OF PIER.

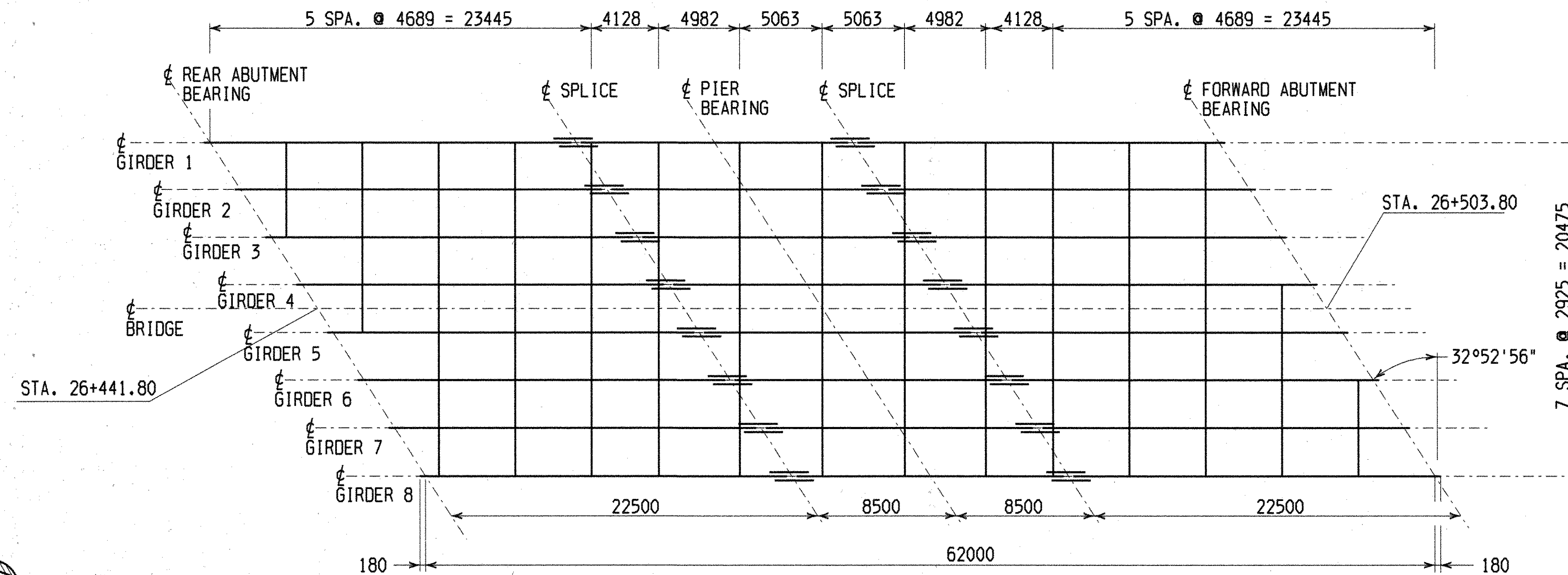


350 $\phi$  CIP PILE, BATTER 4:1

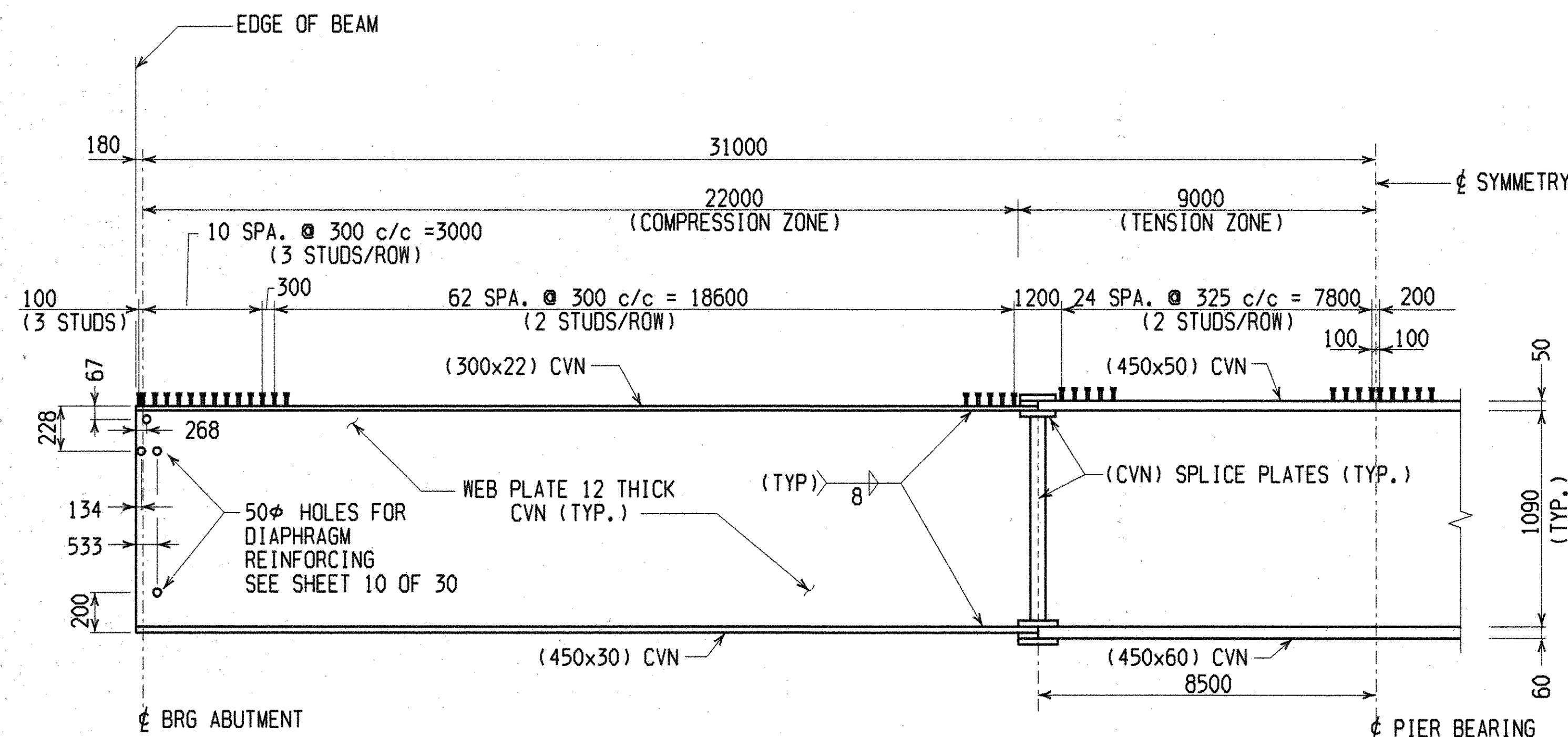
( ) 305φ CIP PILE, EXISTING (TO REMAIN)

○ 350φ CIP PILE

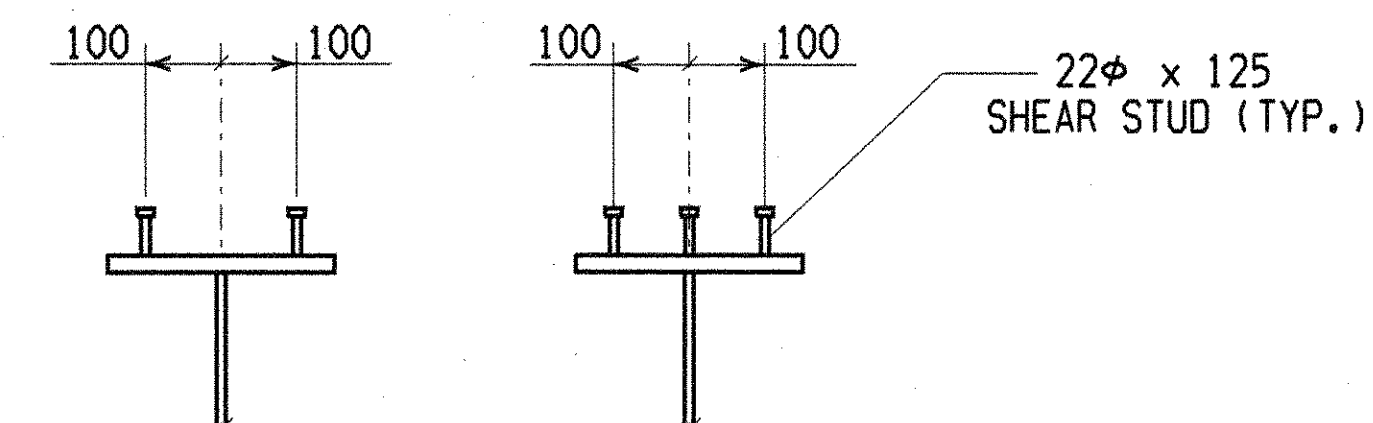




FRAMING PLAN



BEAM ELEVATION  
TOTAL NO. OF STUDS = 424/BEAM



TYPICAL SECTIONS WITH STUDS

NOTES:

1. ALL DIMENSIONS AND THICKNESSES ARE IN MILLIMETERS.
2. ALL NEW STRUCTURAL STEEL SHALL BE ASTM A572M, YIELD STRENGTH OF 350 MPa.
3. WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA STRINGER DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
4. ALL STRUCTURAL STEEL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
5. DIMENSIONS OF THE FLANGE PLATES ARE SHOWN IN PARENTHESES AS (WIDTH X THICKNESS).
6. FOR SPLICE DETAILS, AND ADDITIONAL STEEL FRAMING DETAILS SEE SHEET 14/30.
7. FOR LAYOUT DIAGRAM, SCREED ELEVATIONS AND DEFLECTIONS SEE SHEET 15/30.

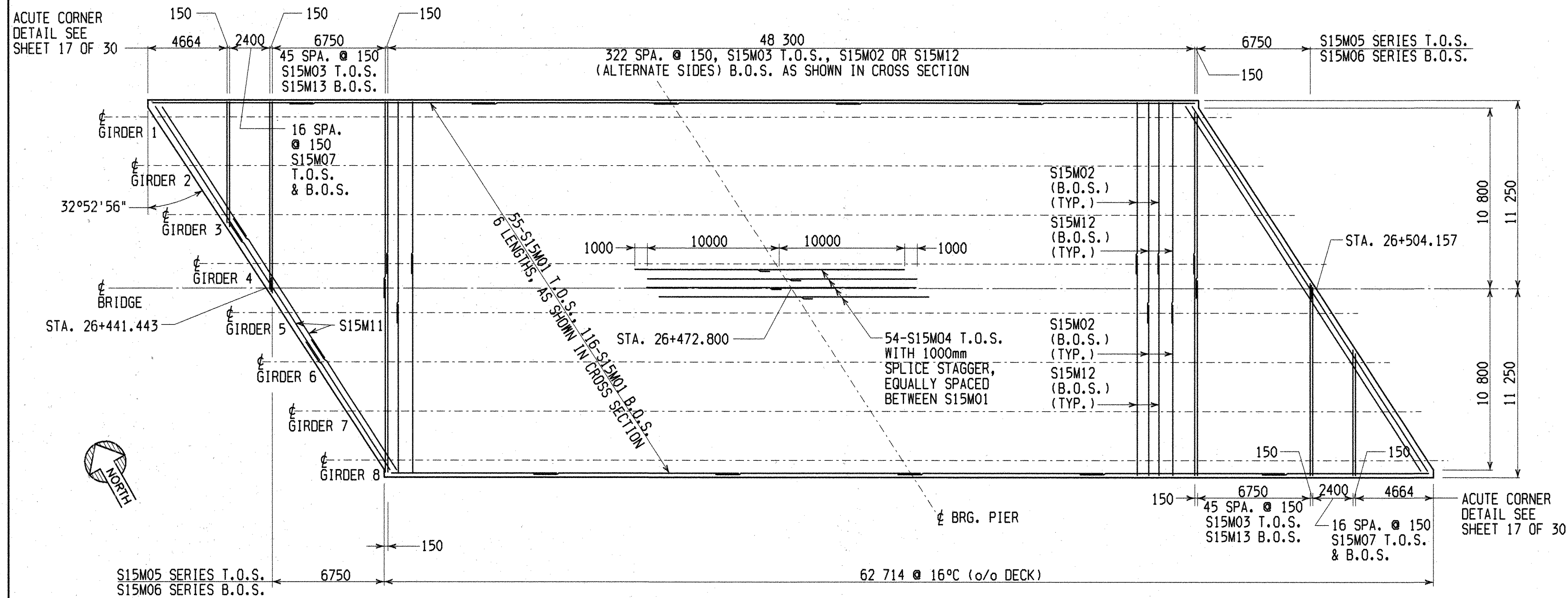




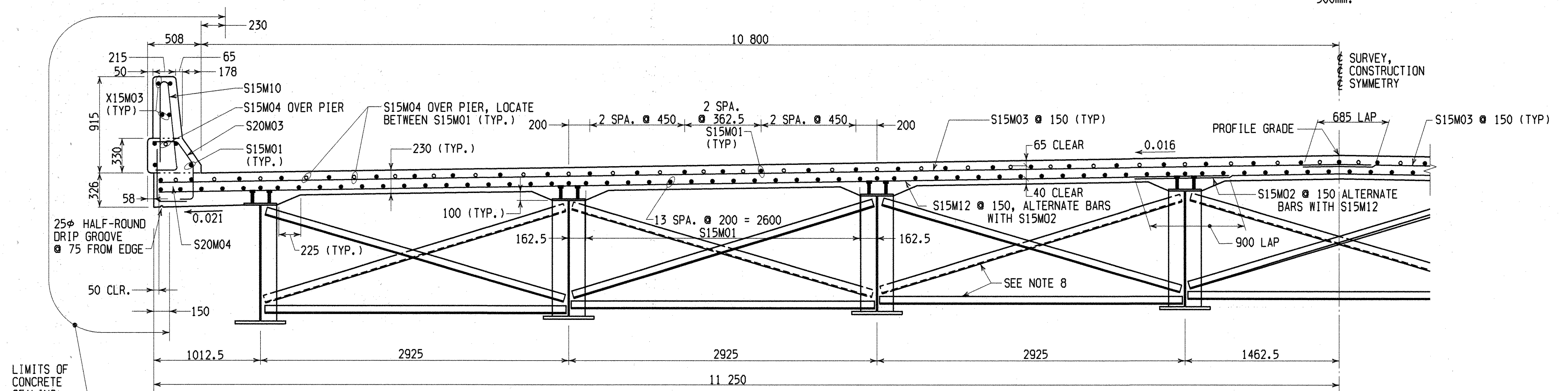


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SLAB PLAN



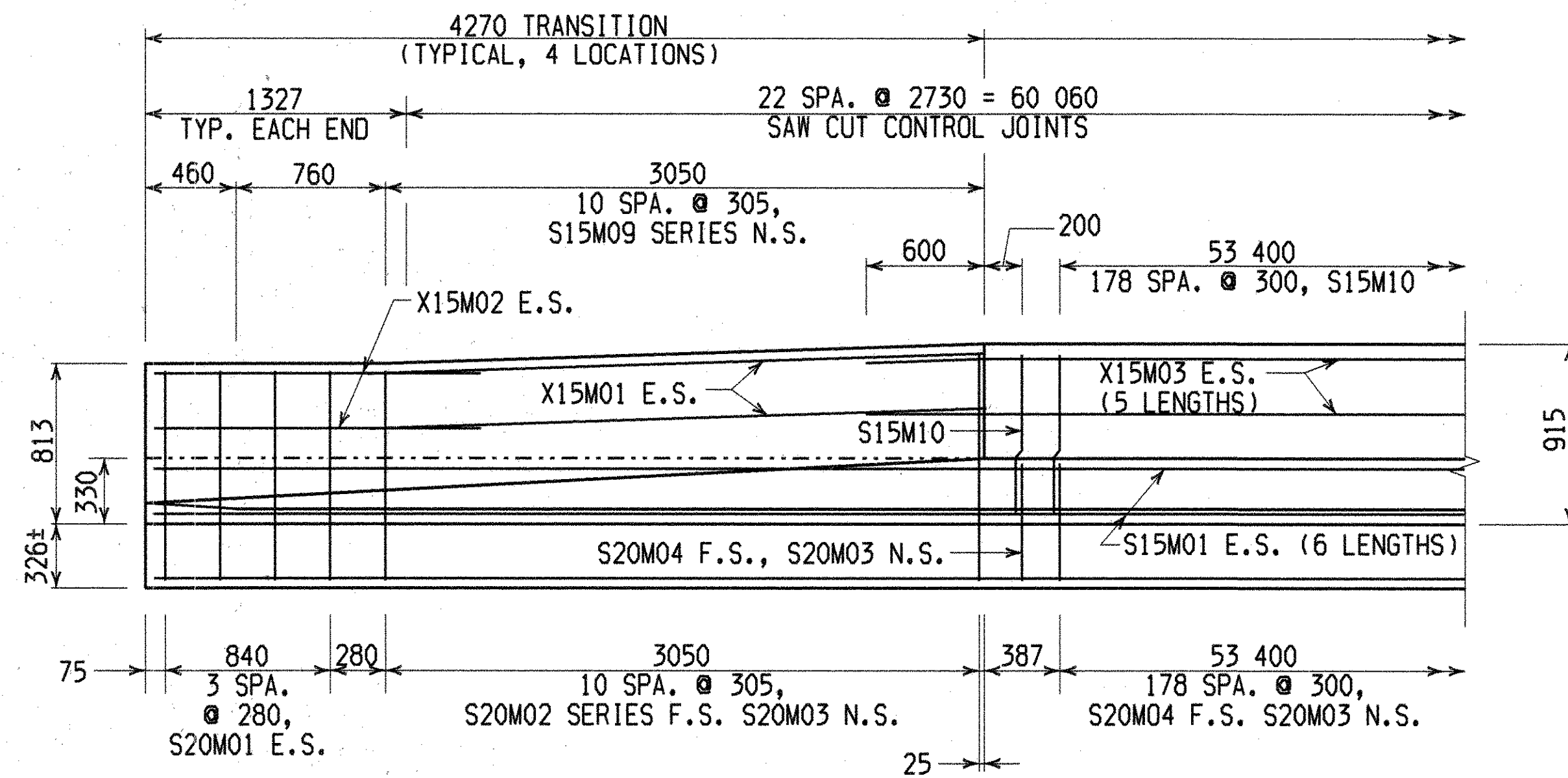
TRANSVERSE HALF SLAB SECTION

NOTES:

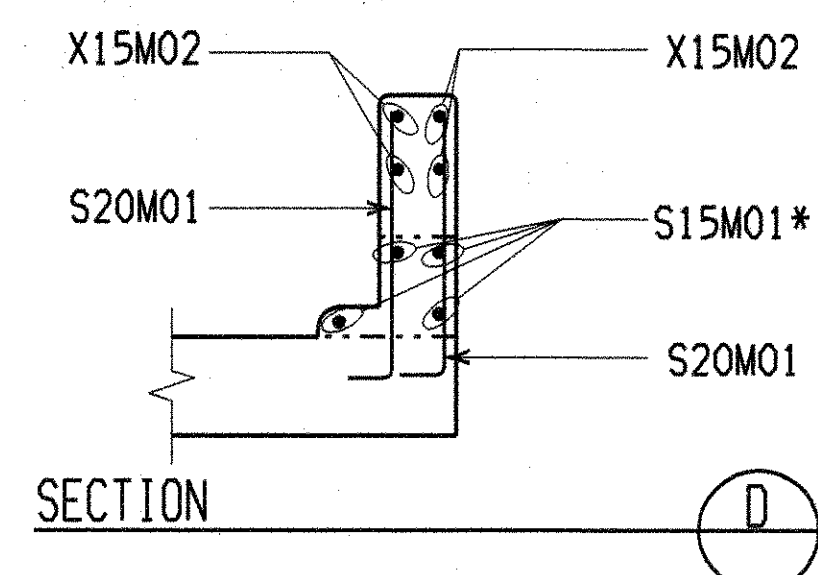
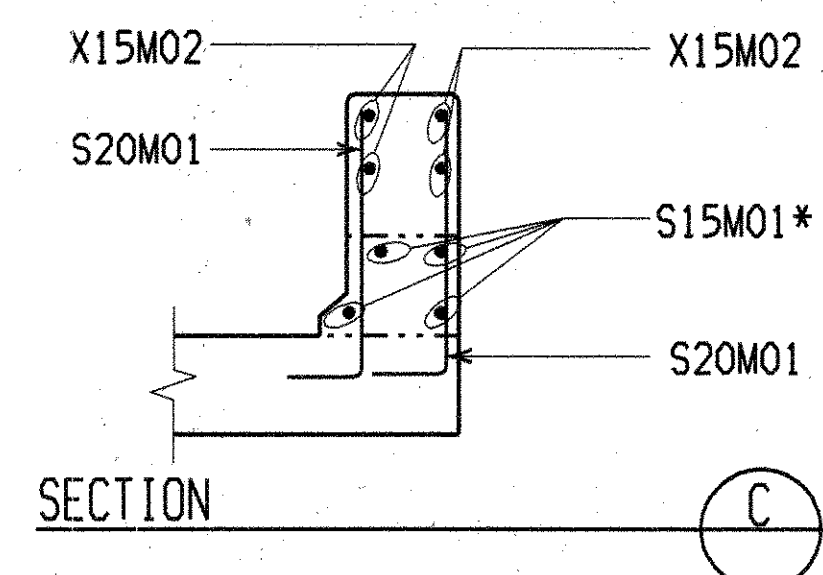
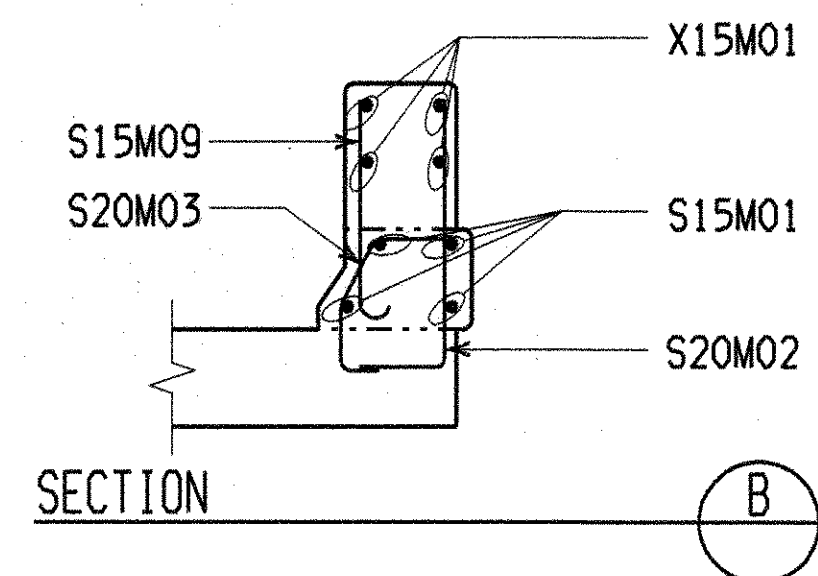
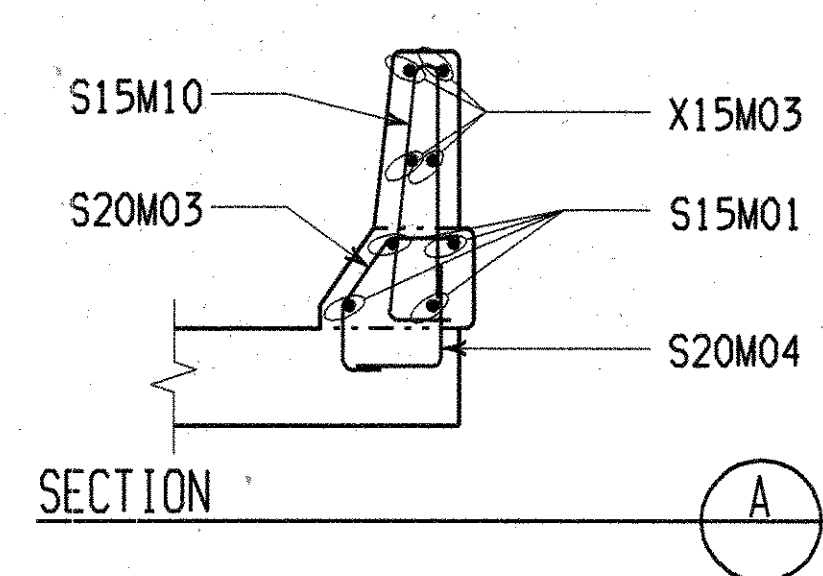
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED
2. A HAUNCH WIDTH OF 225mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150mm AND 300mm
3. ALL REINFORCING SHALL BE EPOXY COATED.
4. T.O.S. DENOTES TOP OF SLAB  
B.O.S. DENOTES BOTTOM OF SLAB
5. TYPICAL MINIMUM BAR LAPS FOR 15M SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:  

TOP TRANSVERSE	685mm
BOTTOM TRANSVERSE	900mm
LONGITUDINAL	525mm
6. FOR ACUTE CORNER AND PARAPET DETAILS, SEE SHEET 17 OF 30.
7. FOR LOCATION OF S15M11 SEE ABUTMENT DETAILS SECTION D, SHEET 10 OF 30.
8. FOR FRAMING PLAN AND FRAMING DETAILS SEE SHEETS 13 AND 14 OF 30.
9. DECK SLAB DEPTH: THE DISTANCE SHOWN FROM THE TOP OR THE DECK SLAB TO THE BOTTOM OF THE TOP FLANGE IS THE THEORETICAL DESIGN DIMENSION INCLUDING THE DESIGN HAUNCH THICKNESS OF 100mm. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON THIS DIMENSION, MINUS THE DESIGN HAUNCH THICKNESS, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 511.18.
10. A HAUNCH WIDTH OF 225mm SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 150 AND 300mm.

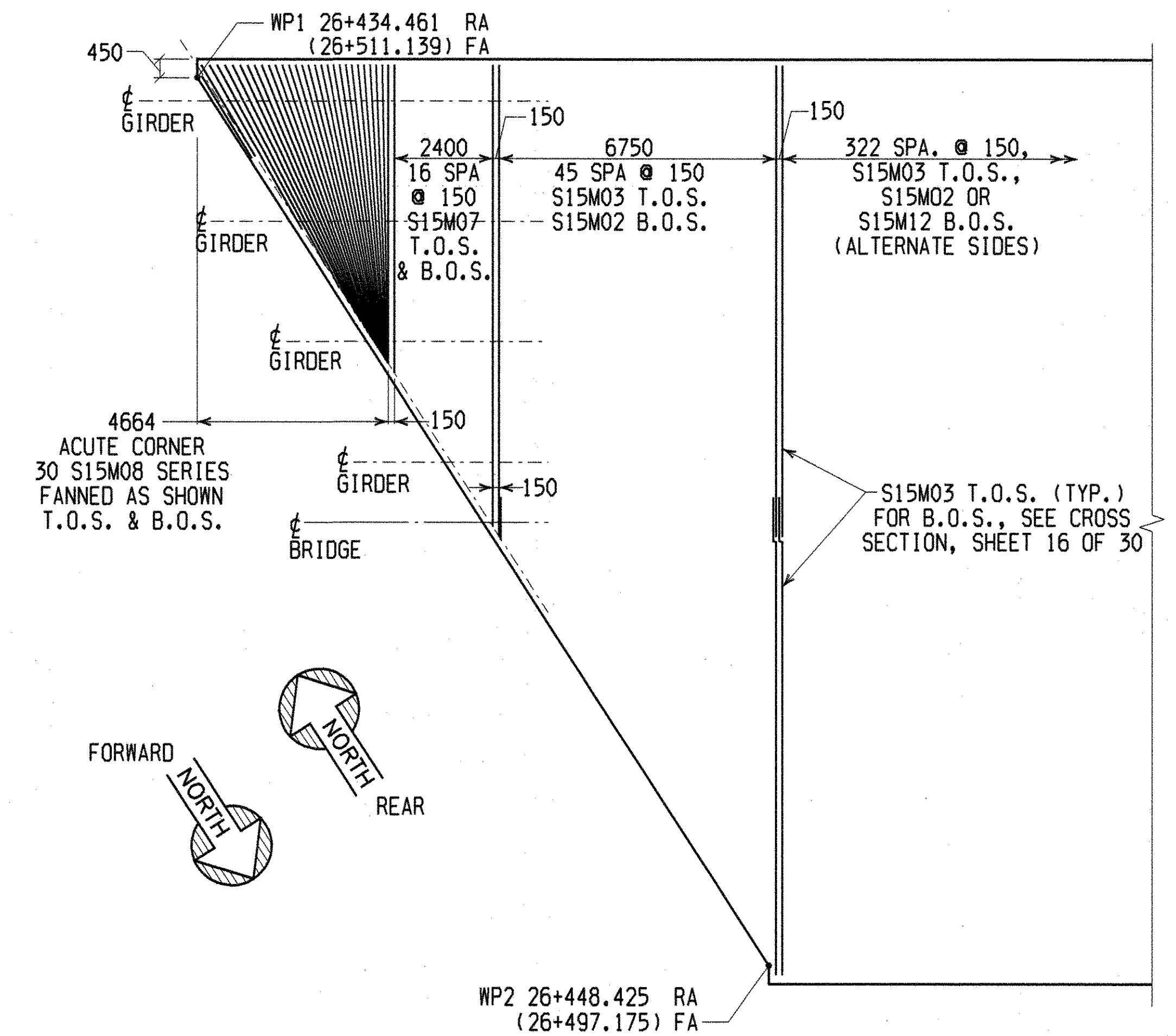




**PARTIAL PARAPET ELEVATION**  
GUARDRAIL ATTACHMENT NOT SHOWN FOR CLARITY  
SEE GENERAL NOTES FOR PARAPET SAW CUT  
PROCEDURES



\* NOTE: FIELD BEND BARS WHERE NECESSARY.



**ACUTE & OBTUSE CORNER DETAILS**



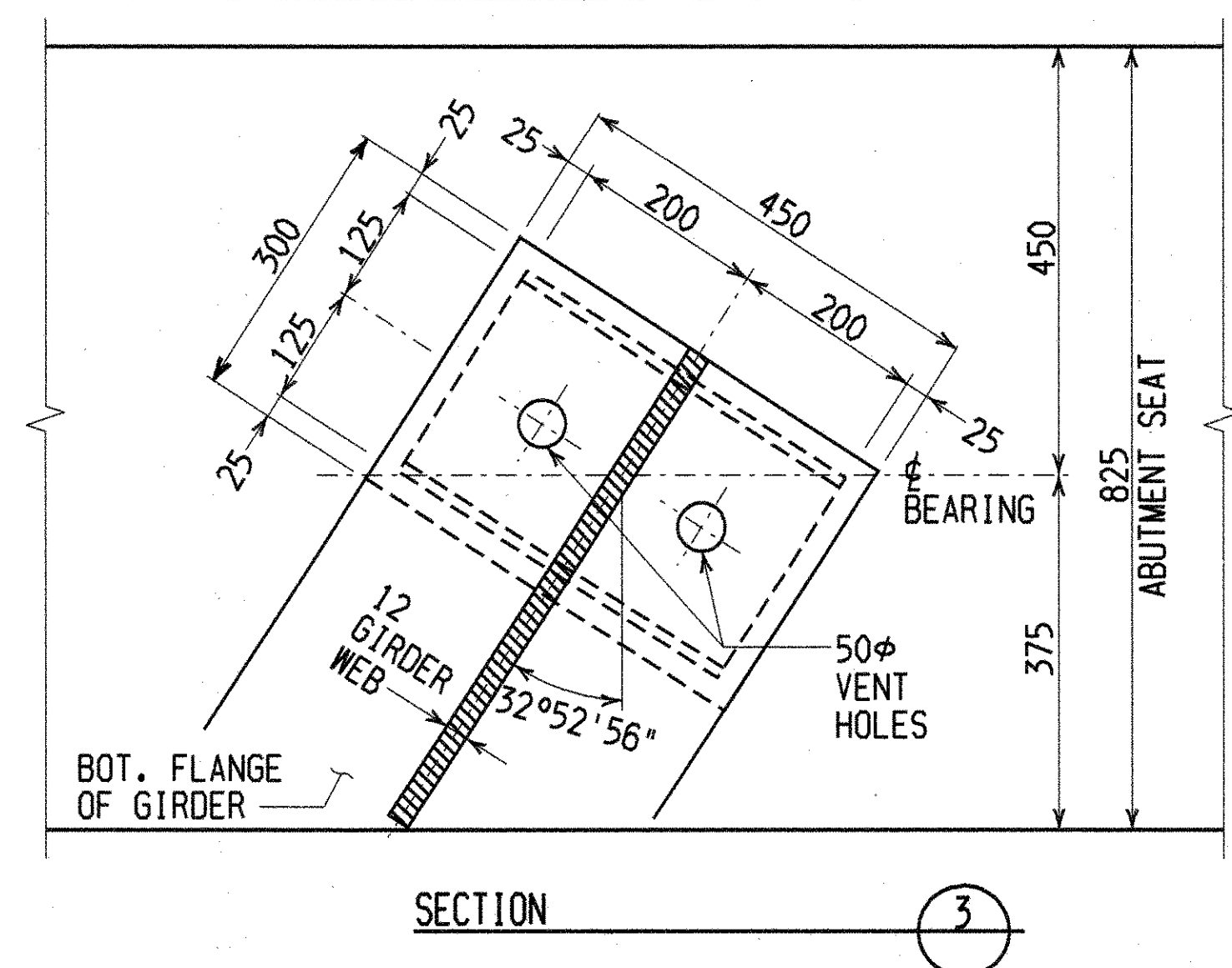
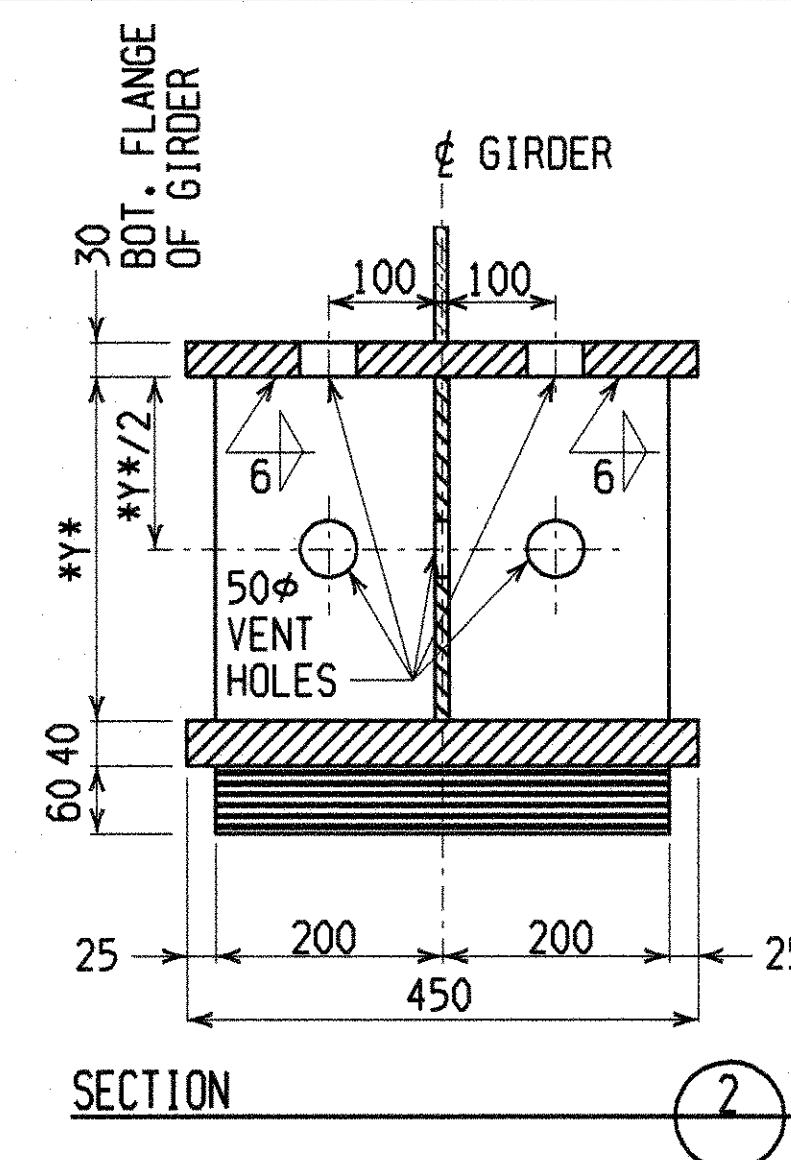
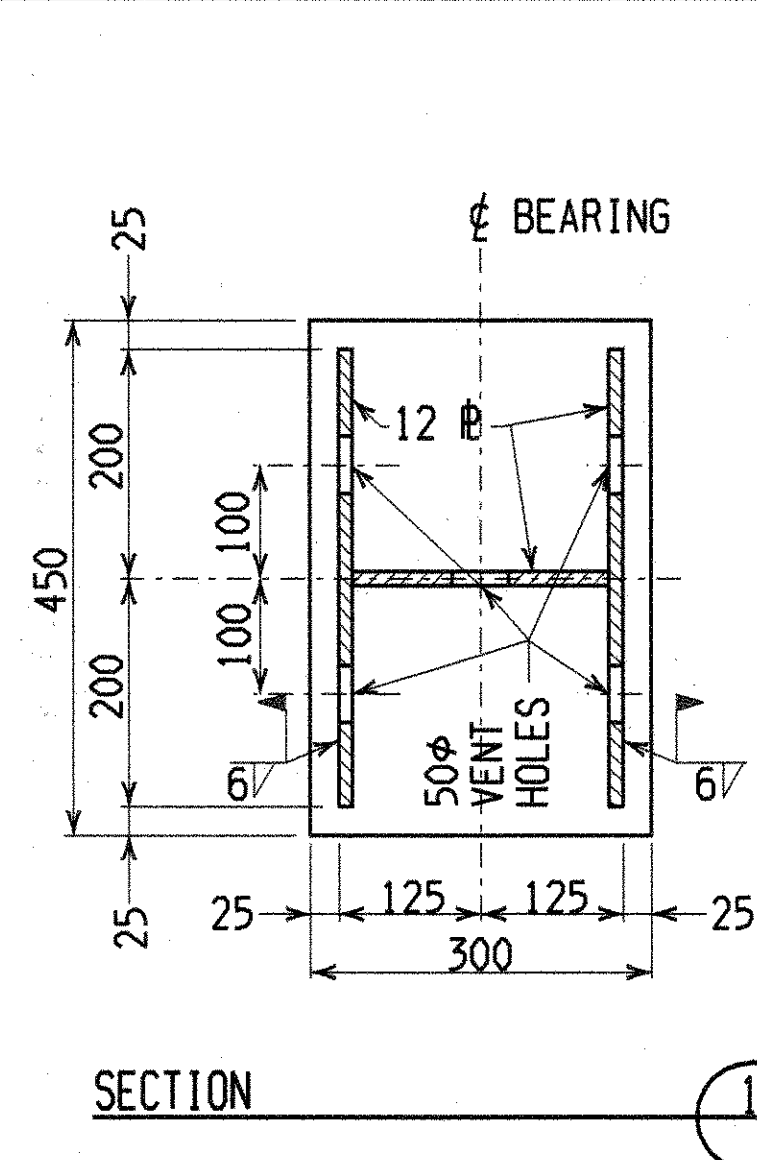
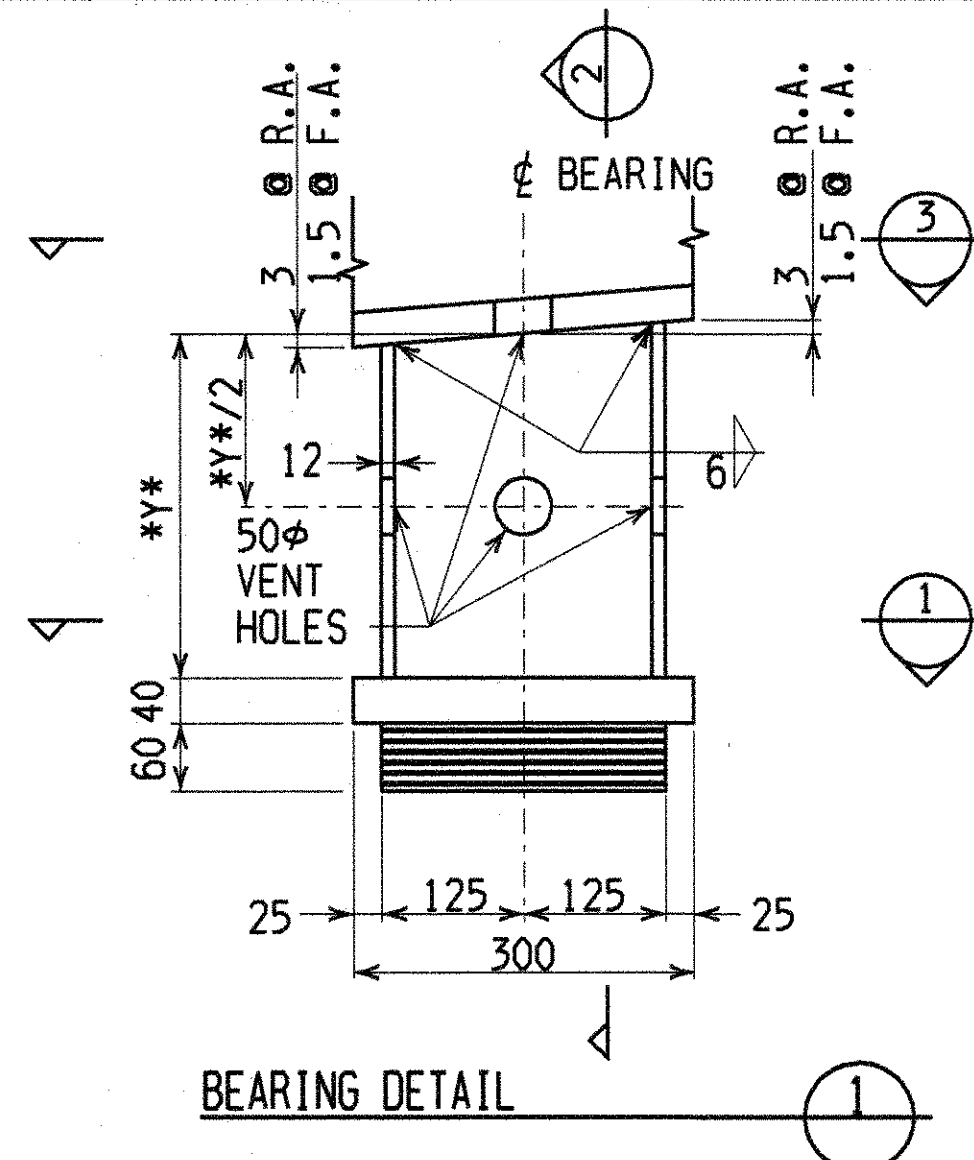
GIRDER #	REAR ABUTMENT *Y*	FORWARD ABUTMENT *Y*
1	203	203
2	301	276
3	399	348
4	496	419
5	545	443
6	547	418
7	547	393
8	547	367

ABUTMENT BEARINGS  
400x250x60 LAMINATED  
ELASTOMERIC BEARING  
50 DUROMETER

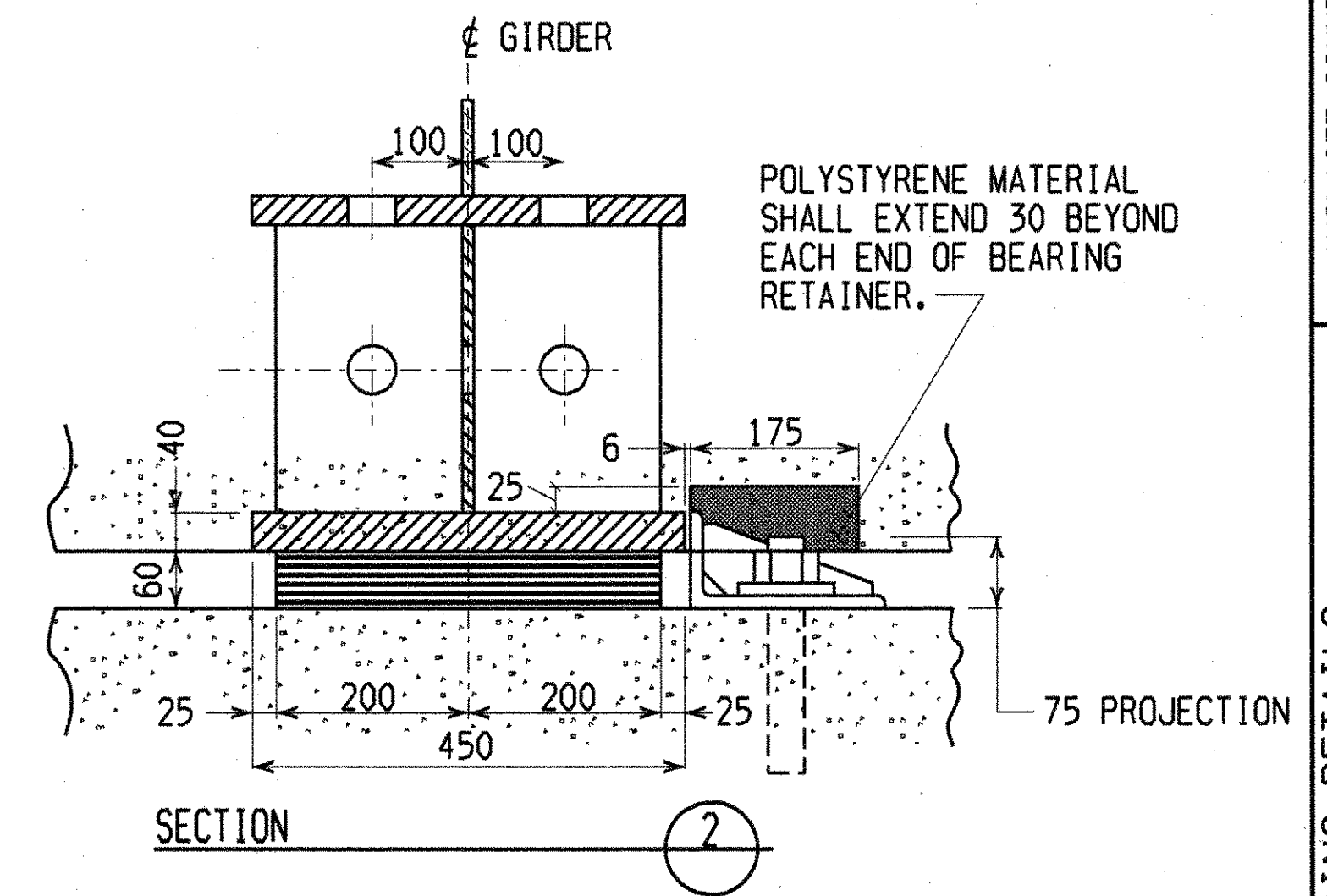
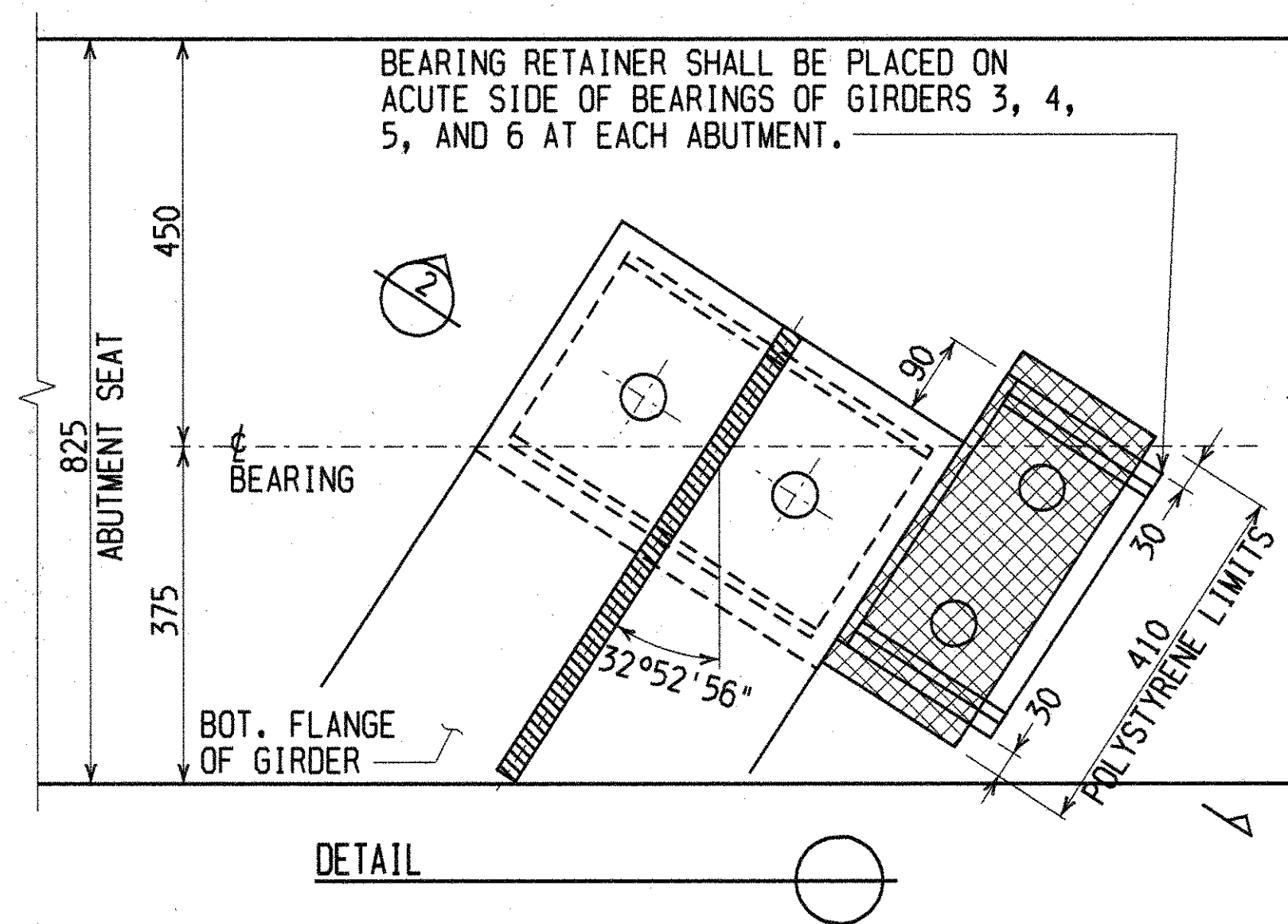
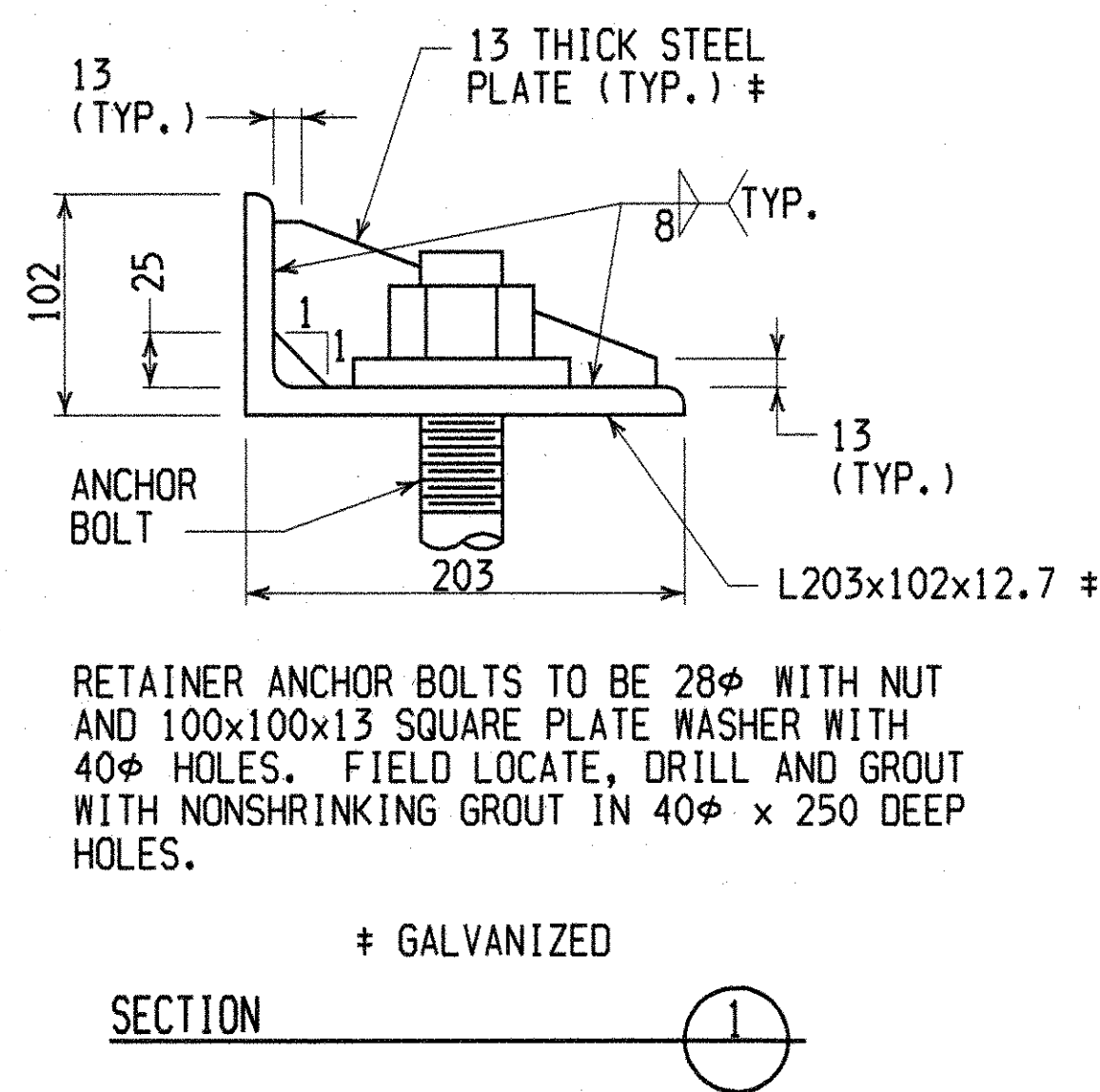
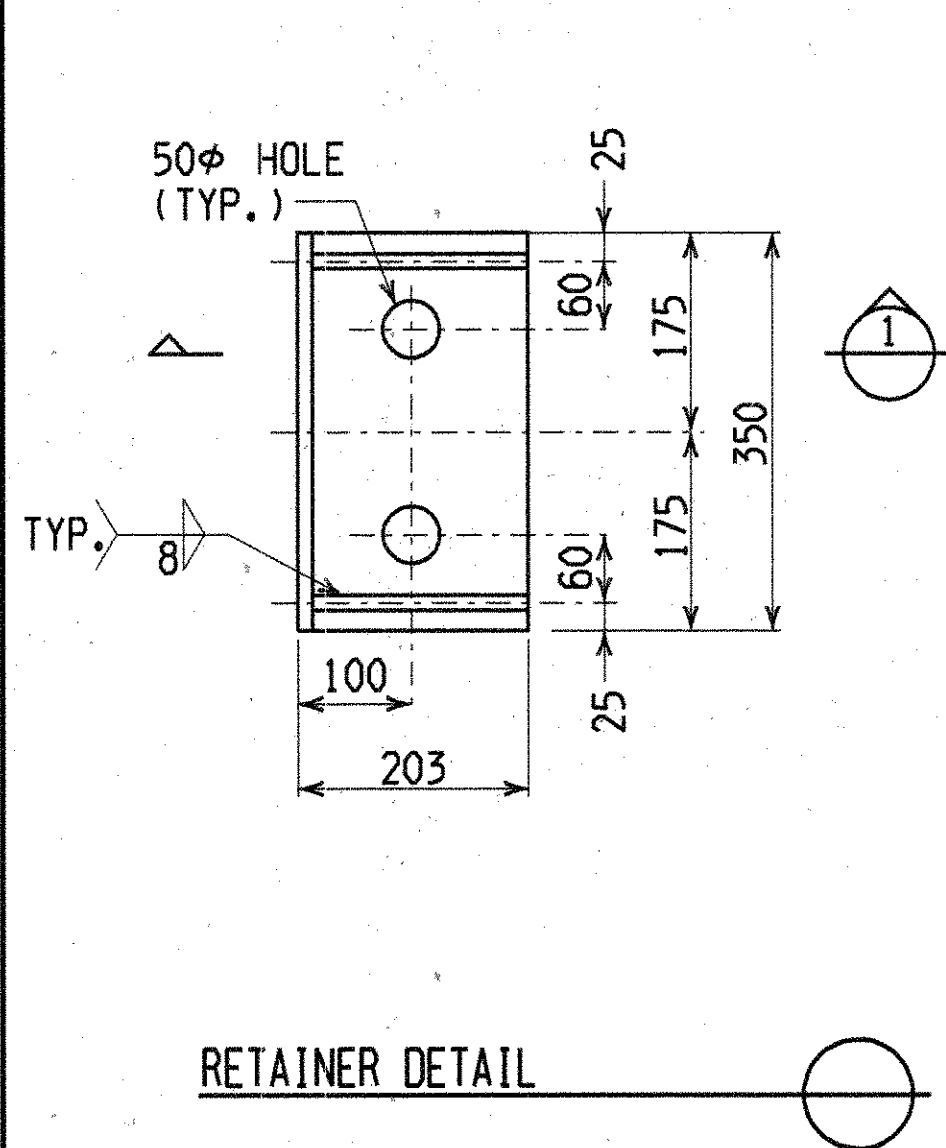
5 INTERNAL LAMS @ 7.57  
2 EXTERNAL LAMS @ 5.41  
6 STEEL LAMS @ 1.89

#### ABUTMENT BEARING DESIGN DATA (PER PAD)

DL = 443.7 kN  
LL w/out IMPACT = 211.7 kN  
TOTAL LOAD = 655.4 kN



### ABUTMENT BEARING DETAILS



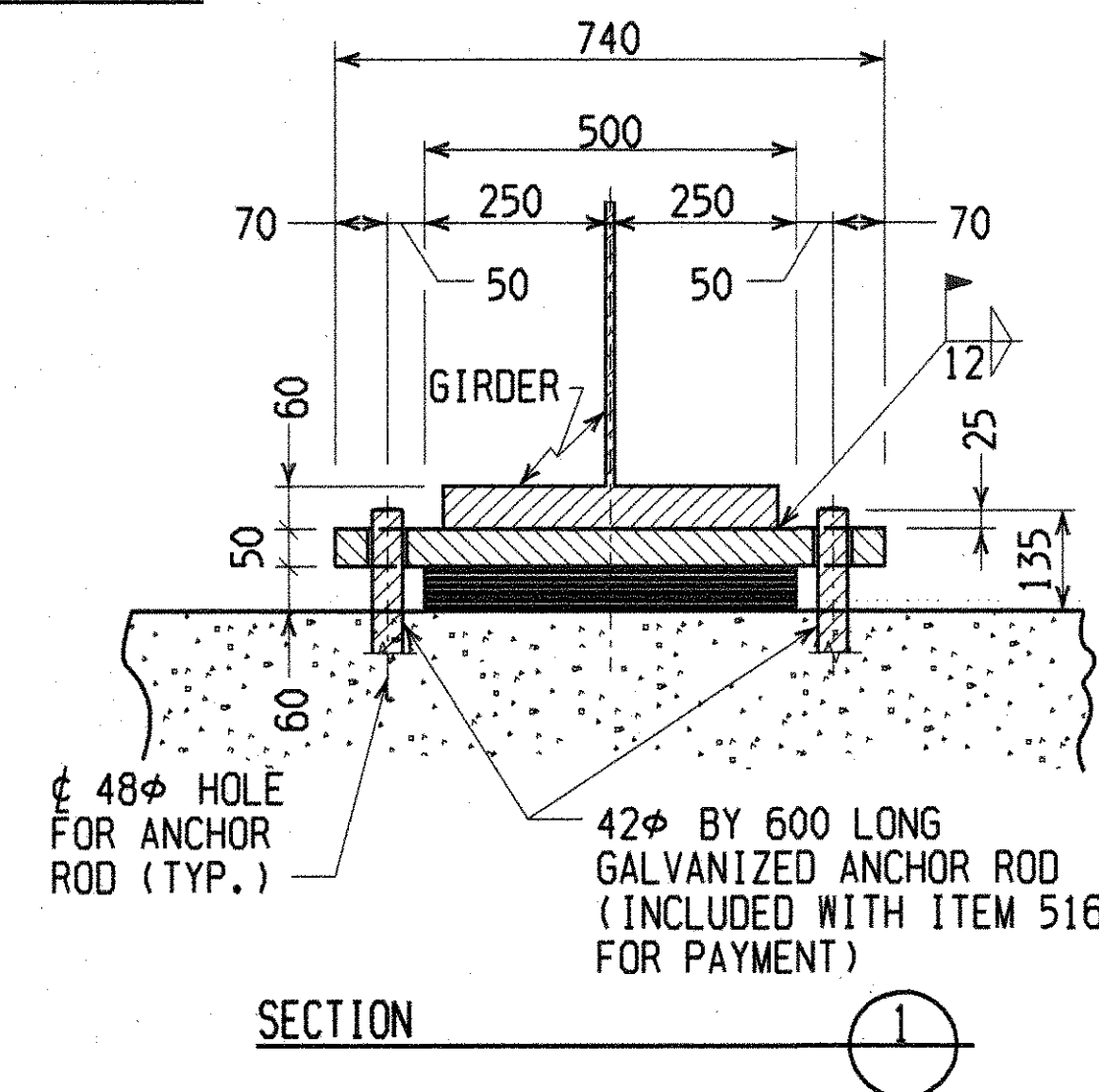
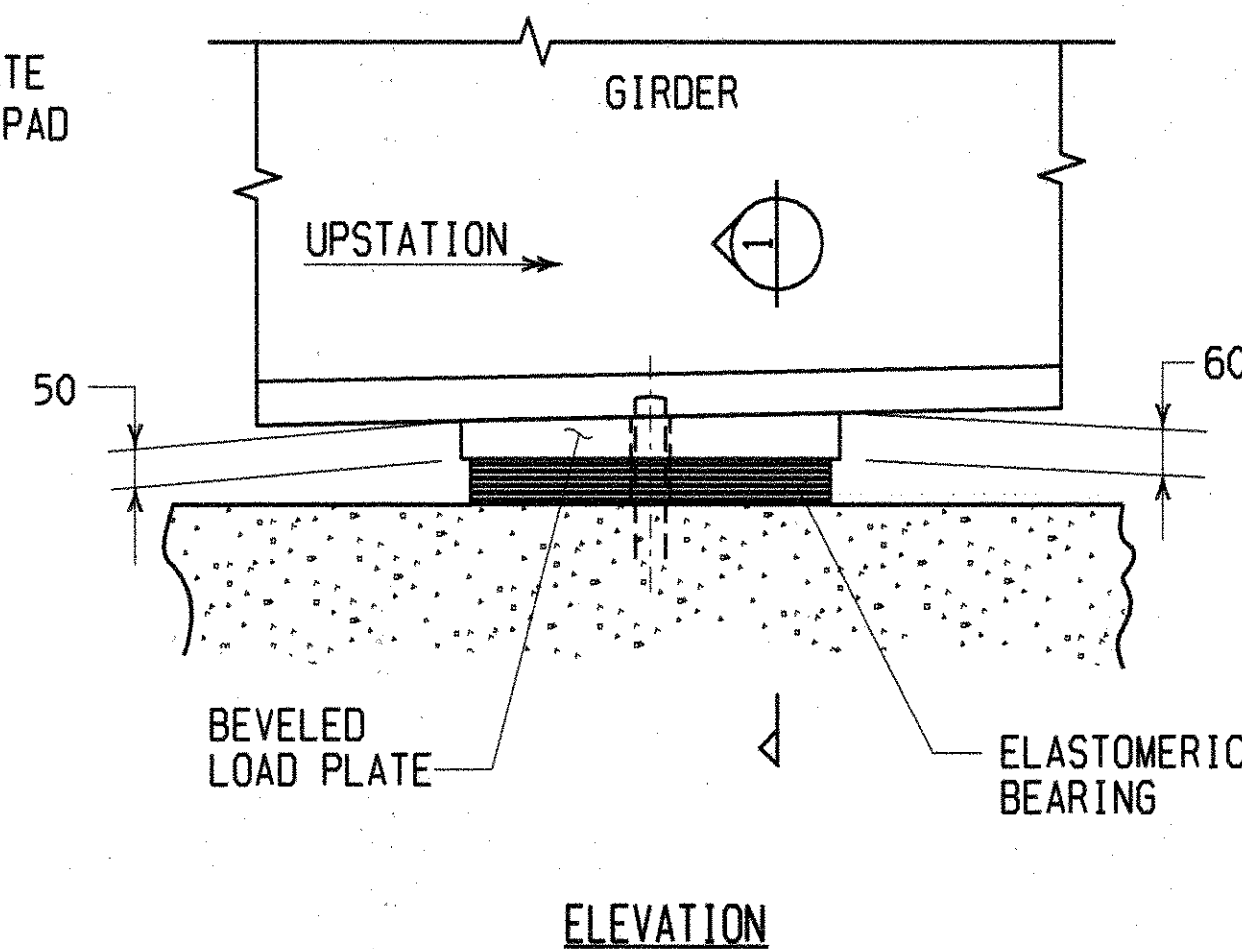
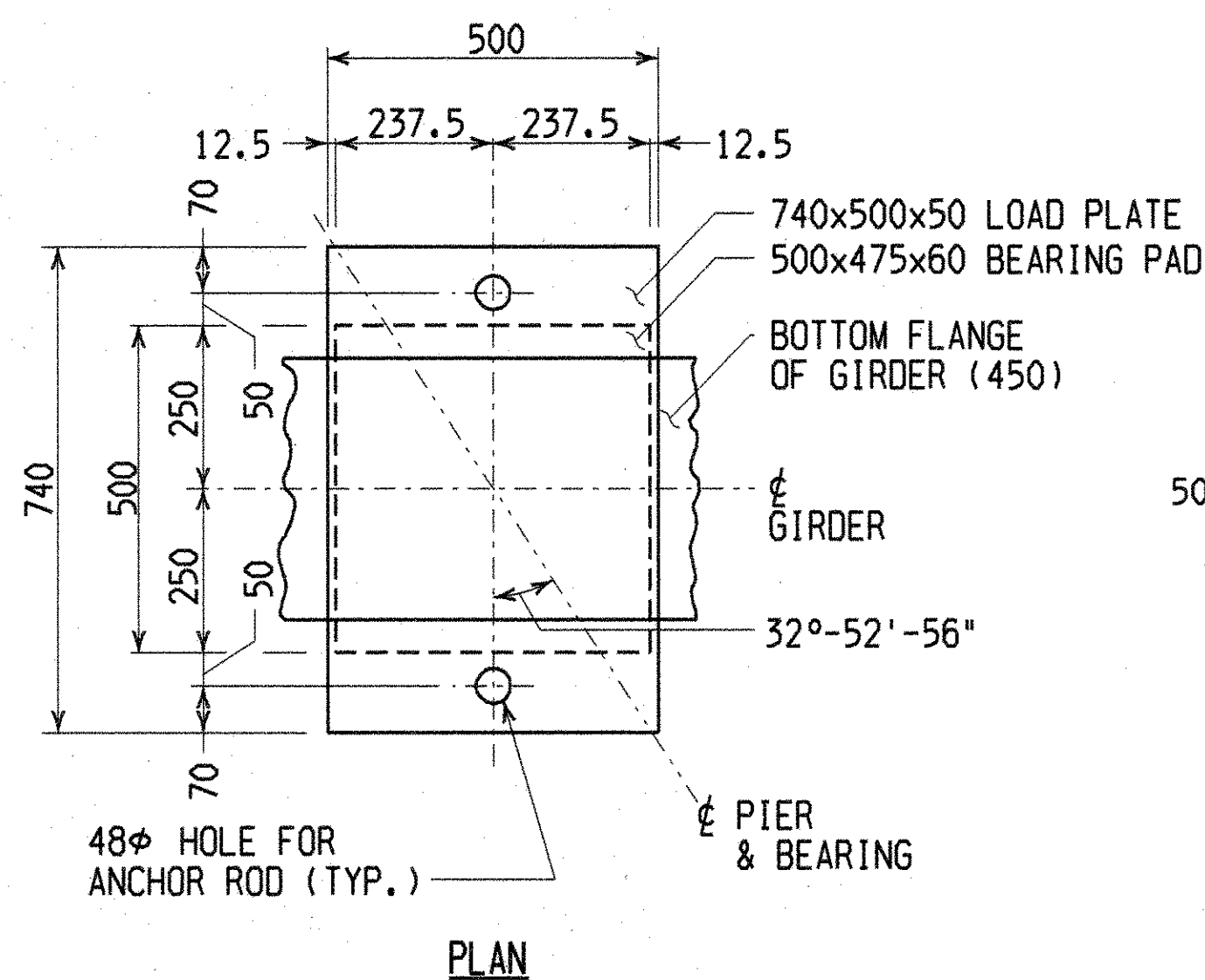
### BEARING RETAINER DETAILS

PIER BEARINGS  
500x475x60 LAMINATED  
ELASTOMERIC BEARING  
50 DUROMETER

5 INTERNAL LAMS @ 7.57  
2 EXTERNAL LAMS @ 5.41  
6 STEEL LAMS @ 1.89

#### PIER BEARING DESIGN DATA (PER PAD)

DL = 1357.5 kN  
LL w/out IMPACT = 366.4 kN  
TOTAL LOAD = 1723.9 kN



#### NOTES:

1. WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 150° C AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
2. ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND ARTICLES 18.2.5 THROUGH 18.2.8 OF SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION OF THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECT TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.
3. DRILLED HOLES SHALL BE INCLUDED WITH ITEM 513 FOR PAYMENT.
4. SEE STRUCTURE GENERAL NOTES FOR MORE INFORMATION REGARDING INSTALLATION, MATERIALS, AND PAYMENT OF BEARING RETAINERS.

### PIER BEARING DETAILS



REAR ABUTMENT								
MARK	NO.	LENGTH (mm)	TYPE	A	B	C	D	MASS (KG)
A15M01	204	3175	1	1750	750			1017
A15M02	62	2350	1	725	850			229
A15M03	146	2900	1	860	1060			665
A15M04	1	4125	S					29
SERIES OF 3 TO 7975 @ 1925								
A15M05	1	4350	S					30
SERIES OF 3 TO 8200 @ 1925								
A15M06	1	9665	4	9350	315	75		15
A15M07	1	9890	4	9350	540	110		16
A15M08	34	2220	2	1150	350	800		119
A15M09	2	985	3	700	325			97
SERIES OF 17 TO 2665 @ 105 TO 2380 @ 105								
A15M10	4	1800	S					12
A15M11	24	2570	1	350	1150			97
A15M12	1	8900	4	8450	510	110		14
A15M13	1	8765	4	8450	315	70		14
A15M14	1	2250	S					21
SERIES OF 3 TO 6450 @ 2100								
A15M15	1	2025	S					20
SERIES OF 3 TO 6225 @ 2100								
A15M16	2	885	3	600	325			75
SERIES OF 15 TO 2285 @ 100 TO 2000 @ 100								
A15M17	2	2375	3	2050	375			8
A15M18	2	2750	3	2410	375			9
A15M25	4	2520	1	880	860			16
A25M01	44	11850	S					2047
A25M02	7	11200	S					308
A25M03	24	10200	S					961
A25M04	2	9875	S					78
A25M05	1	9075	S					36
A25M06	1	8850	S					35
A25M07	4	3400	S					14
A25M08	4	2500	S					10
A25M09	1	8150	S					32
A25M10	1	7925	S					32
D25M01	50	1725	5	880	430			338
TOTAL								6394

CALCULATED BY NGH 06/09/95  
CHECKED BY JPE 06/22/95

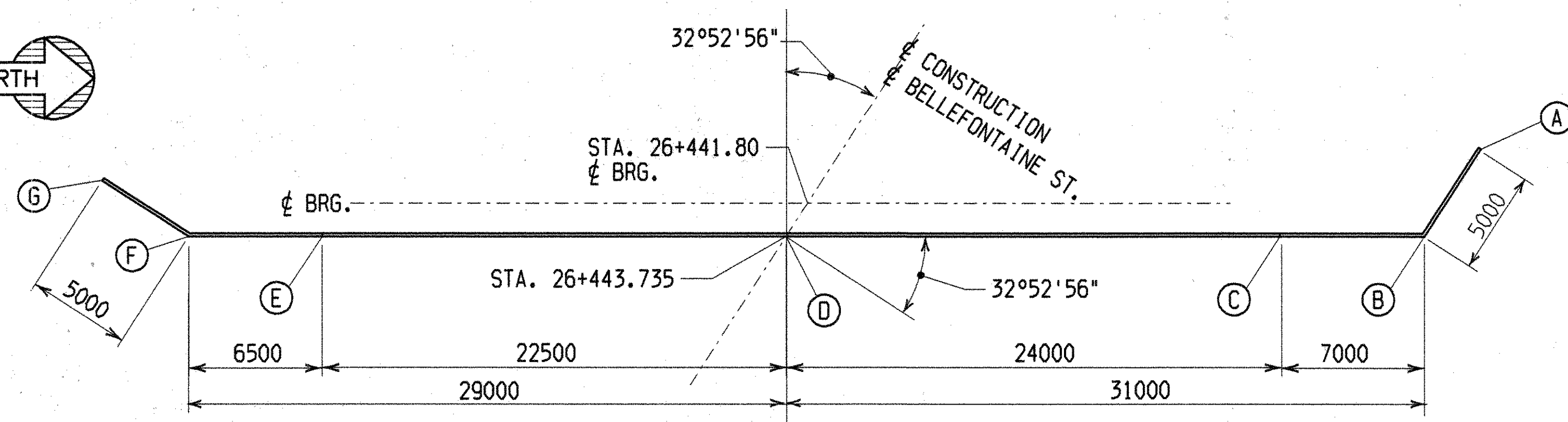
ALL REINFORCING STEEL SHALL BE EPOXY COATED

FORWARD ABUTMENT								
MARK	NO.	LENGTH (mm)	TYPE	A	B	C	D	MASS (KG)
A15M01	204	3175	1	1750	750			1017
A15M02	62	2350	1	725	850			229
A15M03	146	2900	1	860	1060			665
A15M08	34	2220	2	1150	350	800		119
A15M10	4	1800	S					12
A15M17	2	2375	3	2050	375			8
A15M18	2	2750	3	2410	375			9
A15M19	24	2610	1	350	1170			98
A15M20	2	995 TO 2360	3	710 TO 2075	325			74
SERIES OF 14 @ 105								
A15M21	1	1725 TO 5565	S					18
SERIES OF 3 @ 1920								
A15M22	1	1950 TO 5790	S					19
SERIES OF 3 @ 1920								
A15M23	1	8320	4	8005	315	75		13
A15M24	1	8550	4	8005	545	130		14
A15M25	4	2520	1	880	860			16
A15M26	2	965 TO 2490	3	675 TO 2205	325			89
SERIES OF 16 @ 102								
A15M27	1	2520 TO 6460	S					22
SERIES OF 3 @ 1970								
A15M28	1	2300 TO 6240	S					21
SERIES OF 3 @ 1970								
A15M29	1	9295	4	8795	500	112		15
A15M30	1	9070	4	8795	275	61		15
A25M01	44	11850	S					2047
A25M02	7	11200	S					308
A25M03	24	10200	S					961
A25M04	2	9875	S					78
A25M07	4	3400	S					14
A25M08	4	2500	S					10
A25M11	1	7475	S					30
A25M12	1	7100	S					31
A25M13	1	8425	S					33
A25M14	1	8200	S					32
D25M01	50	1725	5	880	430			338
TOTAL								6355

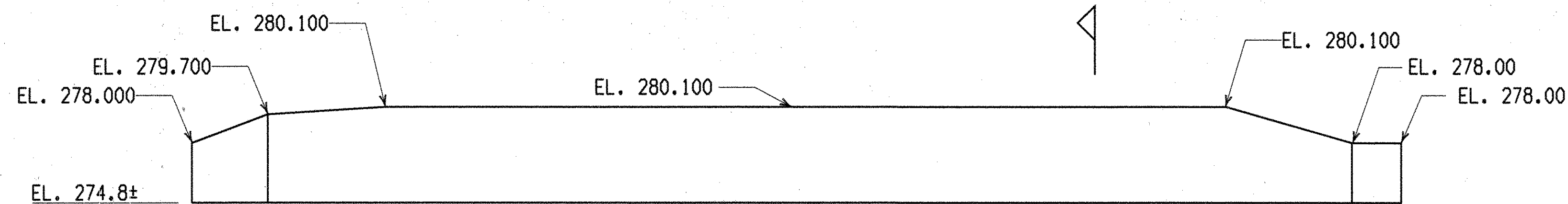
CALCULATED BY JPE 8/30/95  
CHECKED BY BAW 11/06/95

PIER								
MARK	NO.	LENGTH (mm)	TYPE	A	B	C	D	MASS (KG)
P15M01	12	9050	S					171
P15M02	96	3950	9	815	1000			595
P15M03	48	1620	1	900	400			122
P15M04	32	800	S					40
SP15M01		27530	SP	115				941
P25M01	68	3660	10	2900				978
P25M02	67	3910	10	3150				1028
P25M03	24	9400	S					885
P25M04	11	5125	S					221
P25M05	22	11500	3	11000	560			993
P25M06	11	7100	S					307
P30M01	45	2660	3	2250	500			658
P30M02	45	6410	3	6000	500			1585

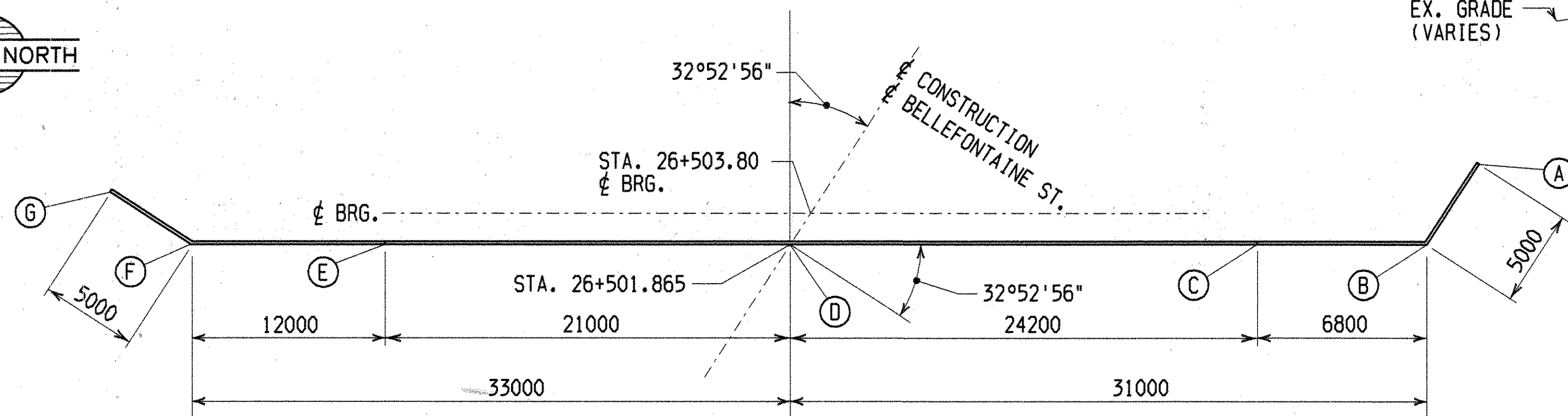




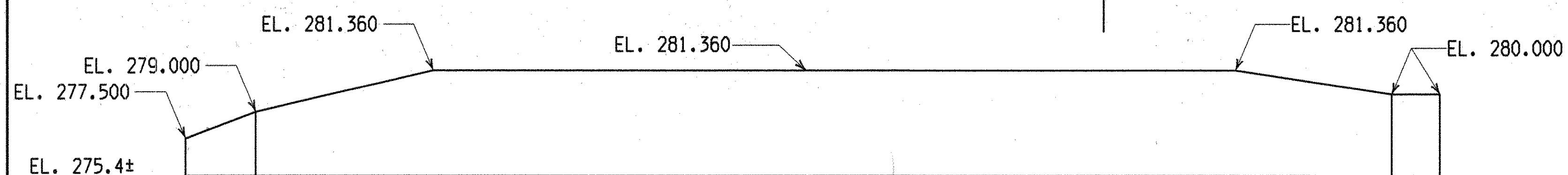
REAR MSE WALL PLAN



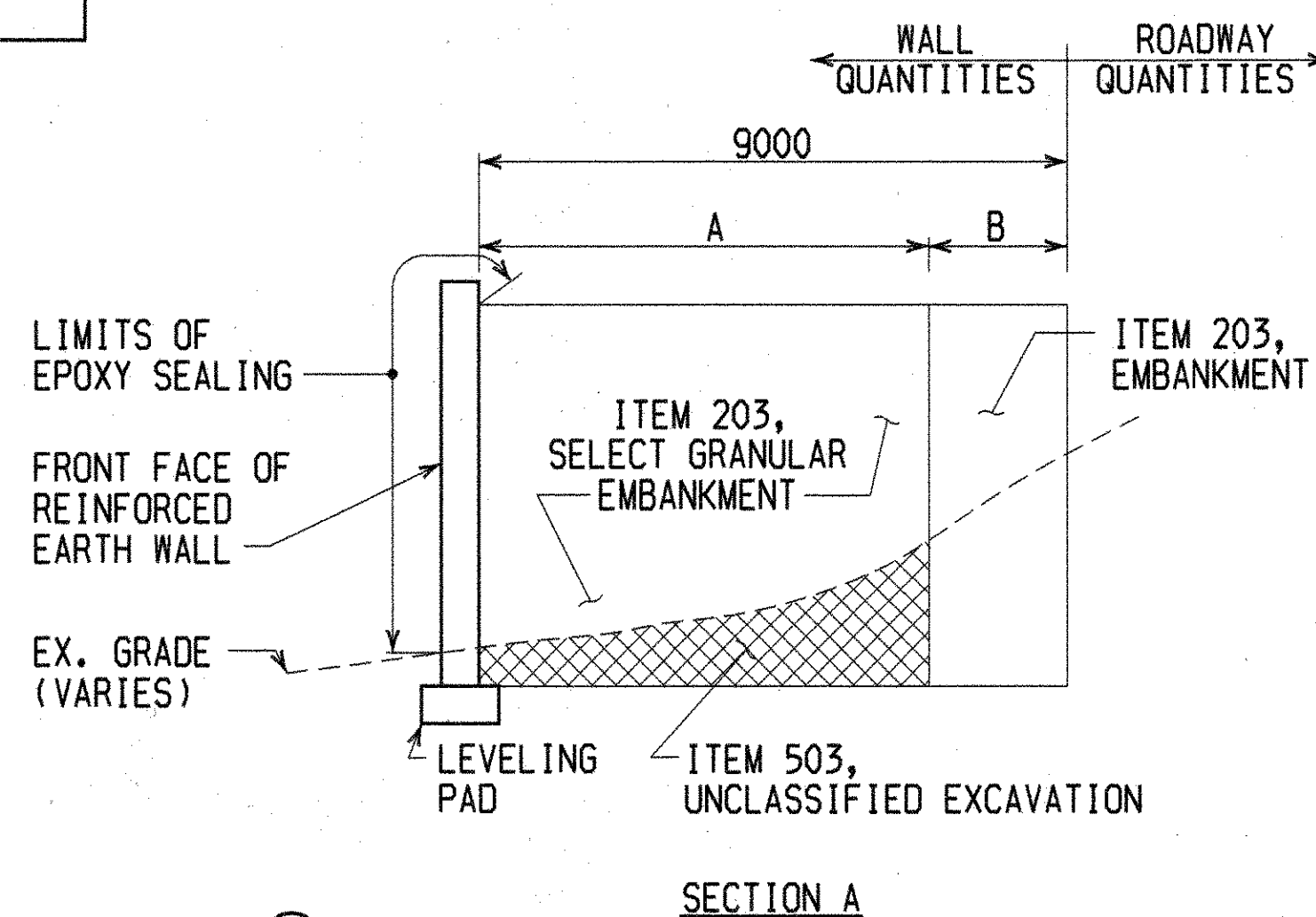
REAR MSE WALL ELEVATION



FORWARD MSE WALL PLAN



FORWARD MSE WALL ELEVATION



### REAR ABUTMENT WALL

POINT	STATION	OFFSET $\phi$ BELLEFONTAINE	BOTTOM WALL ELEVATION	TOP WALL ELEVATION
A	26+421.905	26033mm LT.	274.800	278.00
B	26+426.905	26033mm LT.	274.800	278.00
C	26+430.705	20155mm LT.	274.800	280.10
D	26+443.735	$\phi$	274.800	280.10
E	26+455.951	18895mm RT.	274.800	280.10
F	26+459.480	24354mm RT.	274.800	279.70
G	26+459.480	29354mm RT.	274.800	278.00

### FORWARD ABUTMENT WALL

POINT	STATION	OFFSET $\phi$ BELLEFONTAINE	BOTTOM WALL ELEVATION	TOP WALL ELEVATION
A	26+523.695	26033mm RT.	275.400	280.00
B	26+518.695	26033mm RT.	275.400	280.00
C	26+515.004	20323mm RT.	275.400	281.36
D	26+501.865	$\phi$	275.400	281.36
E	26+490.464	17636mm LT.	275.400	281.36
F	26+483.949	27713mm LT.	275.400	279.00
G	26+483.949	32713mm LT.	275.400	277.50

### ESTIMATED QUANTITIES

\* (DESIGN 1 REINFORCED EARTH COMPANY)

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
203	20000	734	CU METER	EMBANKMENT
203	35000	4393	CU METER	SELECT GRANULAR EMBANKMENT
503	21100	1631	CU METER	UNCLASSIFIED EXCAVATION
SPECIAL	51267502	806	SQ METER	SEALING OF CONCRETE SURFACES, (EPOXY)
** SPECIAL	61013500	746	SQ METER	REINFORCED EARTH WALL

### ESTIMATED QUANTITIES

\* (DESIGN 2 VSL CORPORATION)

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
203	20000	734	CU METER	EMBANKMENT
203	35000	4393	CU METER	SELECT GRANULAR EMBANKMENT
503	21100	1631	CU METER	UNCLASSIFIED EXCAVATION
SPECIAL	51267502	806	SQ METER	SEALING OF CONCRETE SURFACES, (EPOXY)
** SPECIAL	61013500	746	SQ METER	REINFORCED EARTH WALL

### NOTES

1. THE MAXIMUM BEARING PRESSURE FOR THE DESIGN OF THE MSE WALLS SHOULD NOT EXCEED 500 kPa.
2. THE REINFORCED EARTH WALLS ARE DESIGNATED AS CRITICAL STRUTURAL ELEMENTS AND SHOULD BE DESIGNED FOR A 100 YEAR DESIGN LIFE.
3. FOR ADDITIONAL INFORMATION, SEE PROPRIETARY DETAIL SHEETS.
4. \* SEE SPECIAL PROVISIONS FOR PROPRIETARY WALLS.
5. \*\* LEVELING PAD, COPING, AND REINFORCING STEEL FOR COPING TO BE INCLUDED WITH PAYMENT FOR ITEM SPECIAL, REINFORCED EARTH WALLS.





8614 WESTWOOD CENTER DRIVE, SUITE 1100, VIENNA, VIRGINIA 22182 (703) 821-1175

GENERAL NOTES

DESIGN CRITERIA

- DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE REINFORCED EARTH VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO THE CONTRACTING AGENCY'S TECHNICAL SPECIFICATIONS FOR REINFORCED EARTH WALLS.
- SOILS CHARACTERISTICS ASSUMED FOR DESIGN:  
#57 WASHED CRUSHED STONE BACKFILL  
 $\phi = 34$  degrees,  $c = 0$  M.P.a.,  $\gamma = 1922$  Kg/M<sup>3</sup>  
RANDOM BACKFILL  
 $\phi = 30$  degrees,  $c = 0$  M.P.a.,  $\gamma = 1922$  Kg/M<sup>3</sup>  
FOUNDATION MATERIAL  
 $\phi = 30$  degrees,  $c = 0$  M.P.a.
- THE MAXIMUM APPLIED BEARING PRESSURE AT THE FOUNDATION LEVEL IS AS SHOWN ON THE WALL ELEVATIONS FOR EACH DESIGN CASE. IT IS THE RESPONSIBILITY OF THE OWNER TO DETERMINE THAT THIS APPLIED BEARING PRESSURE IS ALLOWABLE FOR THAT LOCATION.
- ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED EARTH VOLUME, AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.
- REINFORCING STRIPS FOR REINFORCED EARTH WALLS SHALL BE 50mm WIDE AND 4mm THICK, AND SHALL CONFORM TO THE PHYSICAL AND MECHANICAL PROPERTIES OF ASTM A-572 GRADE 450 MPa. GALVANIZATION SHALL BE APPLIED IN ACCORDANCE WITH ASTM A-123.

WALL CONSTRUCTION

- STATIONS SHOWN ARE ALONG CENTERLINE OF ROADWAY.
- REINFORCED EARTH WALLS IN CURVES WILL FORM A SERIES OF SHORT CHORDS OF 1.50m EACH TO MATCH DESIRED WALL ALIGNMENT.
- FOR LOCATION AND ALIGNMENT OF REINFORCED EARTH WALLS. SEE CONTRACT DRAWINGS.
- IF MANHOLES AND DROP INLETS ARE PRESENT, THEY SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS.

WALL CONSTRUCTION (CONT.)

- IF PILES ARE LOCATED WITHIN THE REINFORCED EARTH VOLUME, THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE REINFORCED EARTH WALL UNLESS A METHOD TO PROTECT THE STRUCTURE, WHICH IS ACCEPTABLE TO THE ENGINEER AND THE REINFORCED EARTH COMPANY, AND IS PROPOSED AND APPROVED IN WRITING.
- BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR REINFORCED EARTH WALLS TO A LEVEL OF 50mm ( $\pm$ ) ABOVE THE TIE STRIPS EMBEDDED IN THE PANELS. INSTALLATION OF REINFORCING STRIPS SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL HAS REACHED THE REQUIRED LEVEL.
- COMPACTION AND OPERATION EQUIPMENT SHALL BE KEPT A MINIMUM DISTANCE OF 910mm FROM THE BACK FACE OF THE REINFORCED EARTH PANELS. COMPACTION WITHIN 910mm OF THE REINFORCED EARTH PANELS SHALL BE ACHIEVED WITH AT LEAST THREE (3) PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, ROLLER OR VIBRATORY SYSTEM.
- IF STRUCTURES IN EXCESS OF 6m IN HEIGHT OCCUR, THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS A HEIGHT OF 6m. FINISHED GRADE BACKFILL SHALL BE COMPACTED TO 95% OF ASTM D-698, METHODS 'C' OR 'D', UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY GUIDERAIL POSTS BEHIND THE REINFORCED EARTH PANELS. PRIOR TO PLACEMENT OF THE TOP LAYER OF REINFORCING STRIPS, INDIVIDUAL STRIPS MAY BE SKEWED TO AVOID THE POST LOCATIONS IF AUTHORIZED BY THE REINFORCED EARTH COMPANY. ANY DAMAGE DONE TO THE REINFORCING STRIPS DUE TO THE INSTALLATION OF THE GUIDERAIL SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUIDERAIL POSTS WHICH ARE WITHIN THE REINFORCED EARTH VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF REINFORCING STRIPS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE REINFORCED EARTH COMPANY TO DETERMINE WHAT COURSE OF ACTION SHOULD BE TAKEN.
- ALL DETAILING AND CHECKING OF REINFORCING STEEL FOR ANY C.I.P. CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- TOP PANELS BENEATH CAST-IN-PLACE COPING SHALL HAVE 10M DOWELS PROTRUDING FROM THEIR TOP EDGE.
- FOR OTHER INFORMATION PERTAINING TO WALL CONSTRUCTION PLEASE REFER TO THE REINFORCED EARTH CONSTRUCTION MANUAL.

MATERIALS NOTES

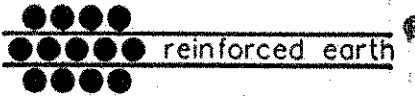
- NOMINAL STRIP LENGTHS  
THE REINFORCING STRIP LENGTHS SHOWN ON THE PLANS, MEASURED FROM BACK FACE OF PANEL, ARE THE NOMINAL LENGTHS REQUIRED BY CALCULATION. THE ACTUAL FABRICATED STRIP LENGTHS ARE OFTEN LONGER (UP TO 150mm) DUE TO MANUFACTURING TOLERANCES. THE REQUIRED HORIZONTAL LIMIT OF GRANULAR BACKFILL IS EQUAL TO THE NOMINAL STRIP LENGTH. ADDITIONAL GRANULAR BACKFILL BEYOND THE NOMINAL STRIP LENGTH IS NOT REQUIRED BY CALCULATION.
- SELECT BACKFILL QUANTITY  
THE SELECT BACKFILL QUANTITY INDICATED BY THE REINFORCED EARTH COMPANY IS CALCULATED BY MULTIPLYING THE NOMINAL STRIP LENGTHS SHOWN ON THE PLANS (PLUS 0 m.) BY THEIR TRIBUTARY WALL SURFACE AREA AND CONVERTING THE RESULT TO A NEATLINE CUBIC METER QUANTITY. THIS INFORMATION IS FURNISHED FOR THE CONTRACTOR'S INFORMATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL QUANTITIES REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR MUST CALCULATE HIS OWN EXCAVATION AND BACKFILL QUANTITIES BASED UPON THE SPECIFIC CONDITIONS OF THE PROJECT.
- PANEL FINISH  
THE PRECAST PANELS FOR THIS PROJECT SHALL HAVE A PLAIN SURFACE FINISH UNLESS OTHERWISE SPECIFIED.
- NOTE TO CONTRACTORS  
ONLY THE FOLLOWING MATERIALS ARE SUPPLIED BY THE REINFORCED EARTH COMPANY:
  - PRECAST CONCRETE FACING PANELS
  - REINFORCING STRIPS
  - BOLT SETS (FOR ATTACHING PANELS TO THE REINFORCING STRIPS)
  - BEARING BLOCKS
  - RUBBER SHIMS
  - FILTER CLOTH AND ADHESIVE (FOR PANEL JOINTS ONLY)ANY OTHER MATERIALS CALLED FOR IN THE CONTRACT PLANS OR SPECIFICATIONS ARE TO BE SUPPLIED BY THE CONTRACTOR. ANY JOINT MATERIALS SHOWN AT THE INTERFACE OF PRECAST PANELS AND CAST-IN-PLACE CONCRETE STRUCTURES ARE TO BE SUPPLIED BY THE ERECTION CONTRACTOR. ALL SANDBLASTING, PAINTING, SEALERS OR OTHER SPECIAL APPLIED COATINGS ARE ALSO SUPPLIED/INSTALLED BY THE CONTRACTOR IN THE FIELD FOLLOWING PANEL ERECTION.

NOTE:

REINFORCED EARTH INTERNAL DESIGN IS IN STRICT ACCORD WITH ODOT PROJECT SPECIAL PROVISIONS. REINFORCED EARTH DESIGN IS COVERED BY ARCHITECTS AND ENGINEER'S ERRORS AND OMISSIONS INSURANCE POLICY NO. 563-2383 BY LEXINGTON INSURANCE COMPANY, WILMINGTON, DELAWARE.

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

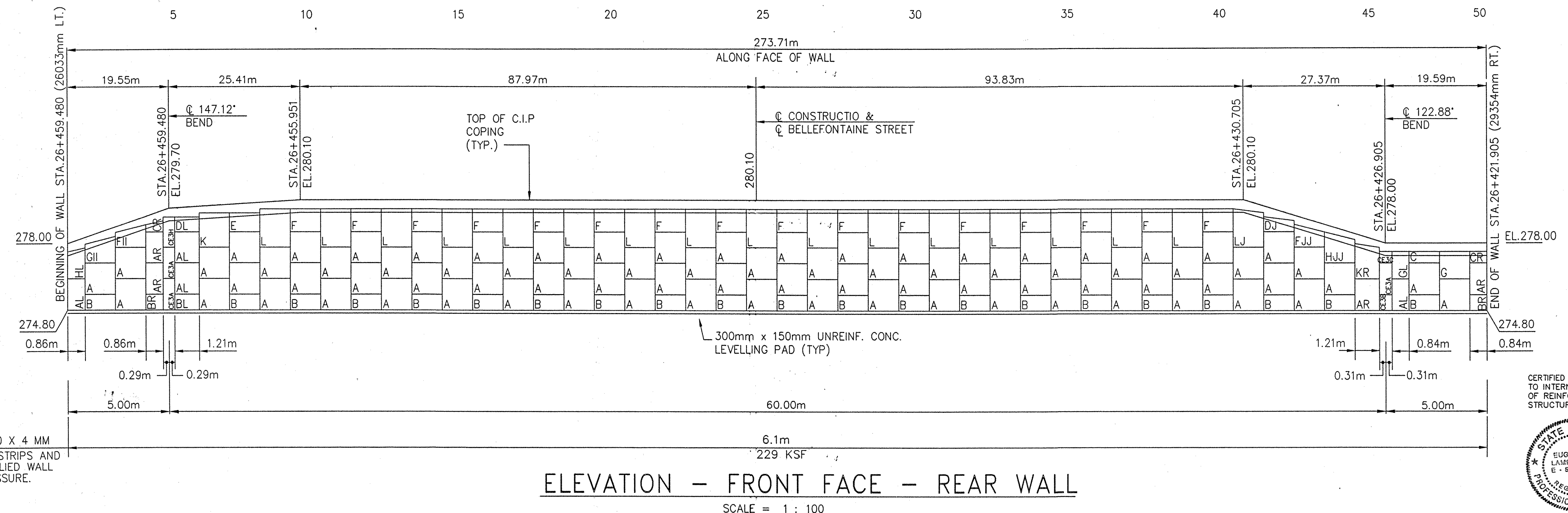
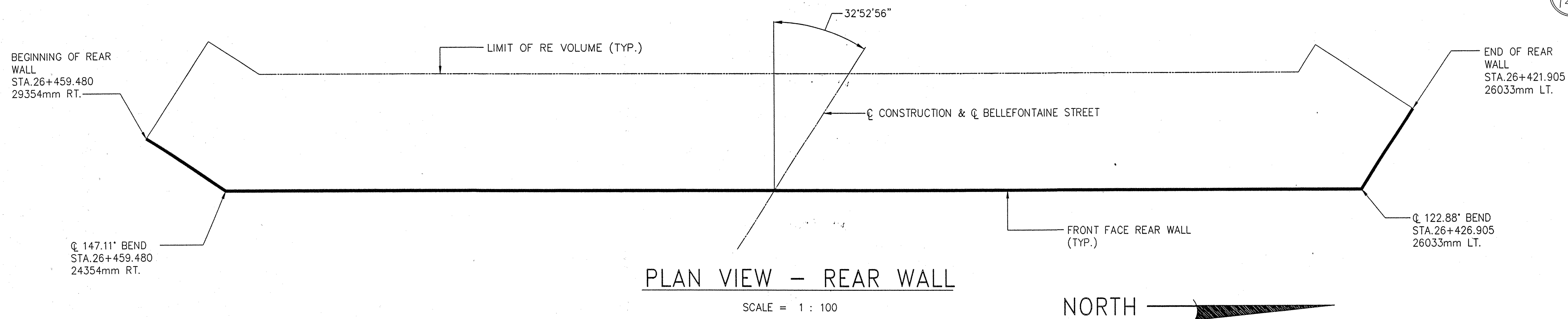


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			PROJECT ENGR: <i>KJ</i>				LOCATION	AUGLAIZE COUNTY	CONTRACT NO. RE5967
			CHECKED BY: <i>KJ</i>				OWNER	OHIO DEPT. OF TRANS.	DRAWING NO. 1
			ENG. MANAGER	1	4/22/96	Revised Per Comments	DRAWING COVERS	GENERAL NOTES	SCALE AS SHOWN

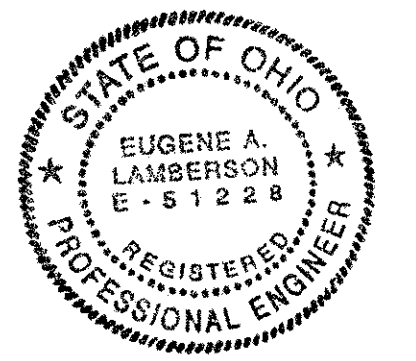








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TO INTERNAL STABILITY  
OF REINFORCED EARTH  
STRUCTURES ONLY.



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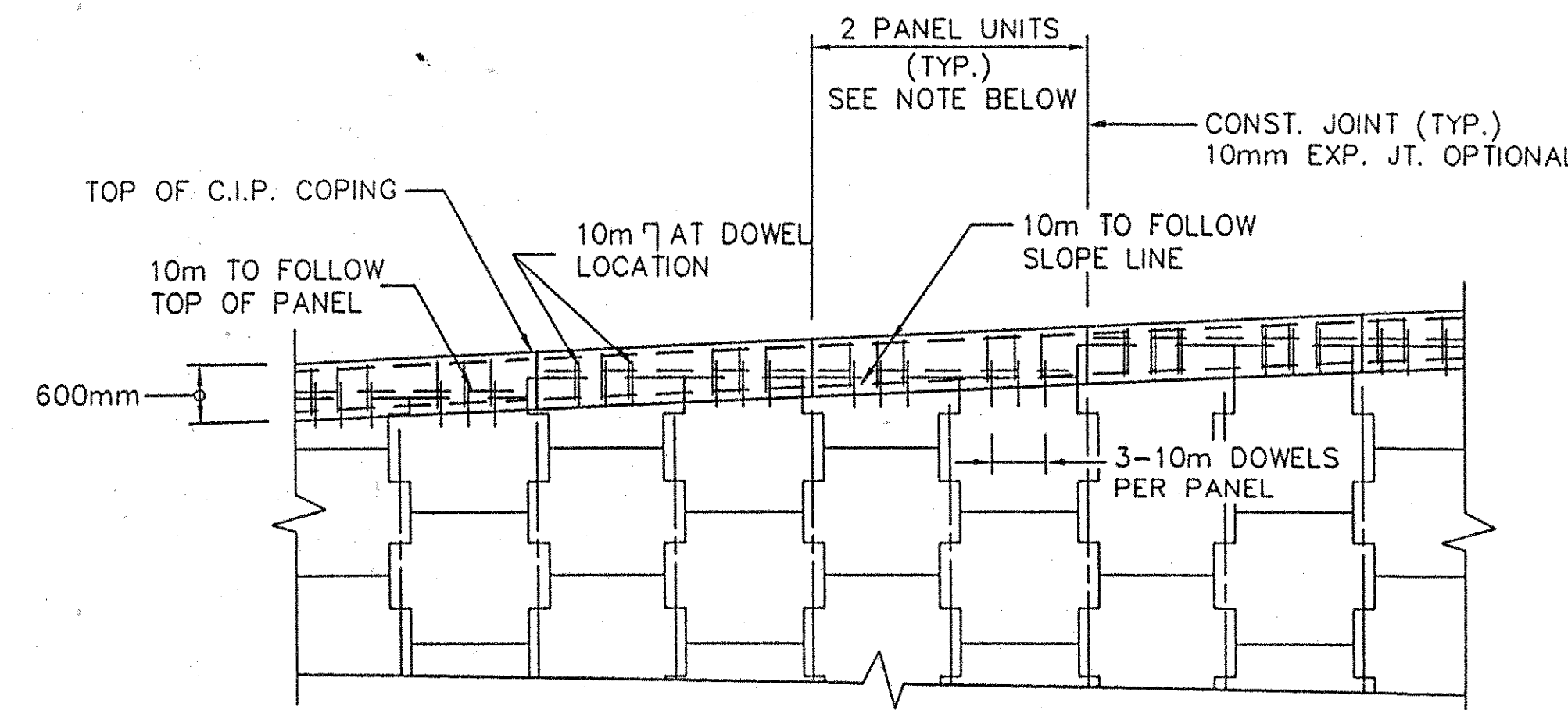
**The Reinforced Earth Company**  
8614 Westwood Center Drive  
Suite 1100  
Vienna, Virginia 22182  
(703) 821-1175  
FAX--(703) 821-1815

"REINFORCED EARTH" is the registered trademark of The Reinforced Earth Company.

DESIGNED BY:	ECT		
PROJECT ENGR:	KT		
CHECKED BY:	KT		
ENG. MANAGER	1	4/22/96	Revised Per Comments
	REV.	DATE	DESCRIPTION

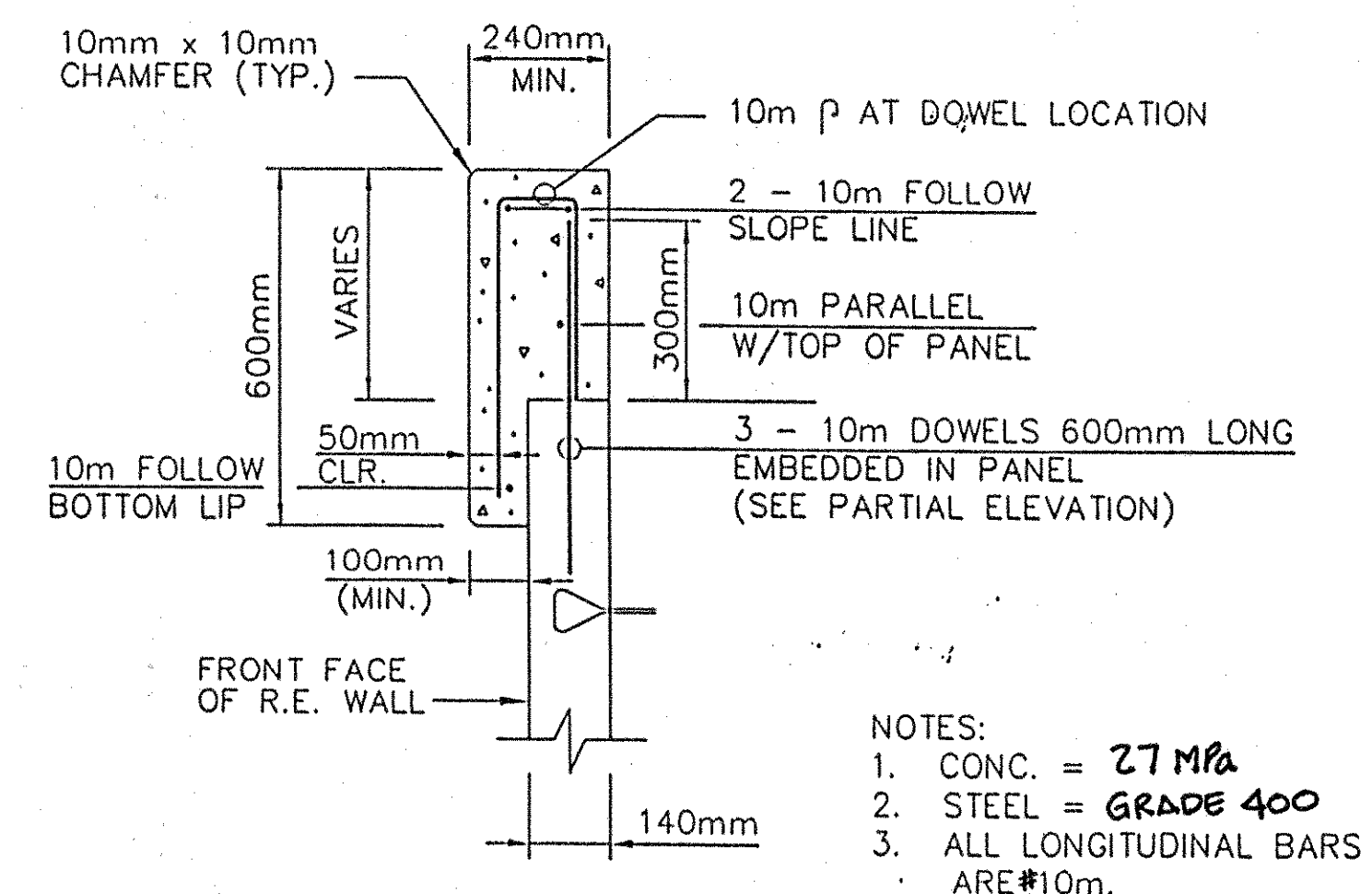
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LOCATION	AUGLAIZE COUNTY	CONTRACT NO.	RE5967
OWNER	OHIO DEPT. OF TRANS.	DRAWING NO.	3
DRAWING COVERS	REAR WALL ELEVATION	SCALE	AS SHOWN



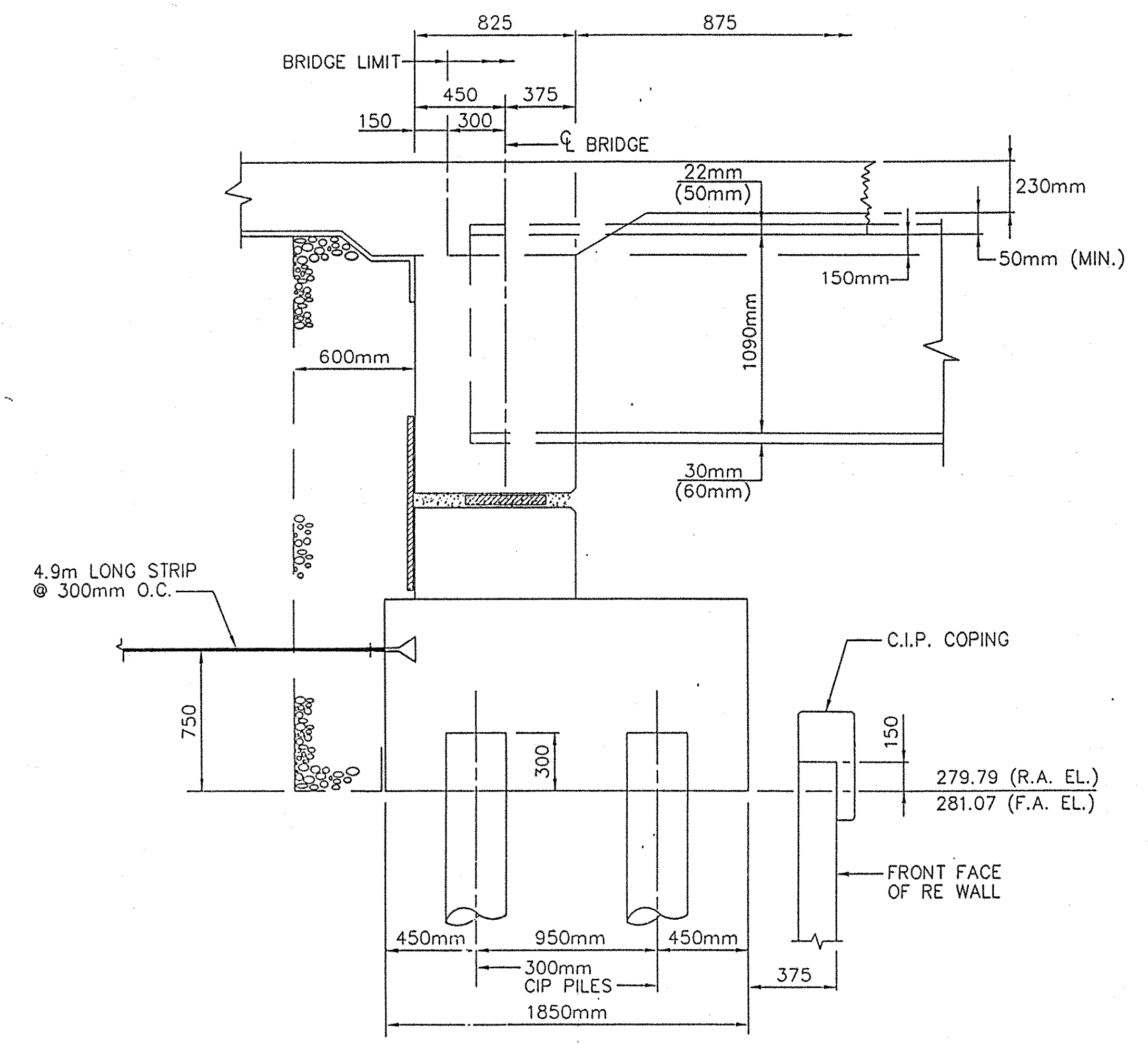


NOTE:  
JOINTS IN COPING SHALL BE AT 2 PANEL INTERVALS AND COINCIDE APPROXIMATELY WITH PANEL JOINTS. REINFORCING STEEL SHALL BE STOPPED 50mm SHORT OF EITHER SIDE OF THE CONSTRUCTION AND EXPANSION JOINTS.

C.I.P. COPING (3 DOWELS)  
PARTIAL ELEVATION



C.I.P. CONC. COPING DETAIL

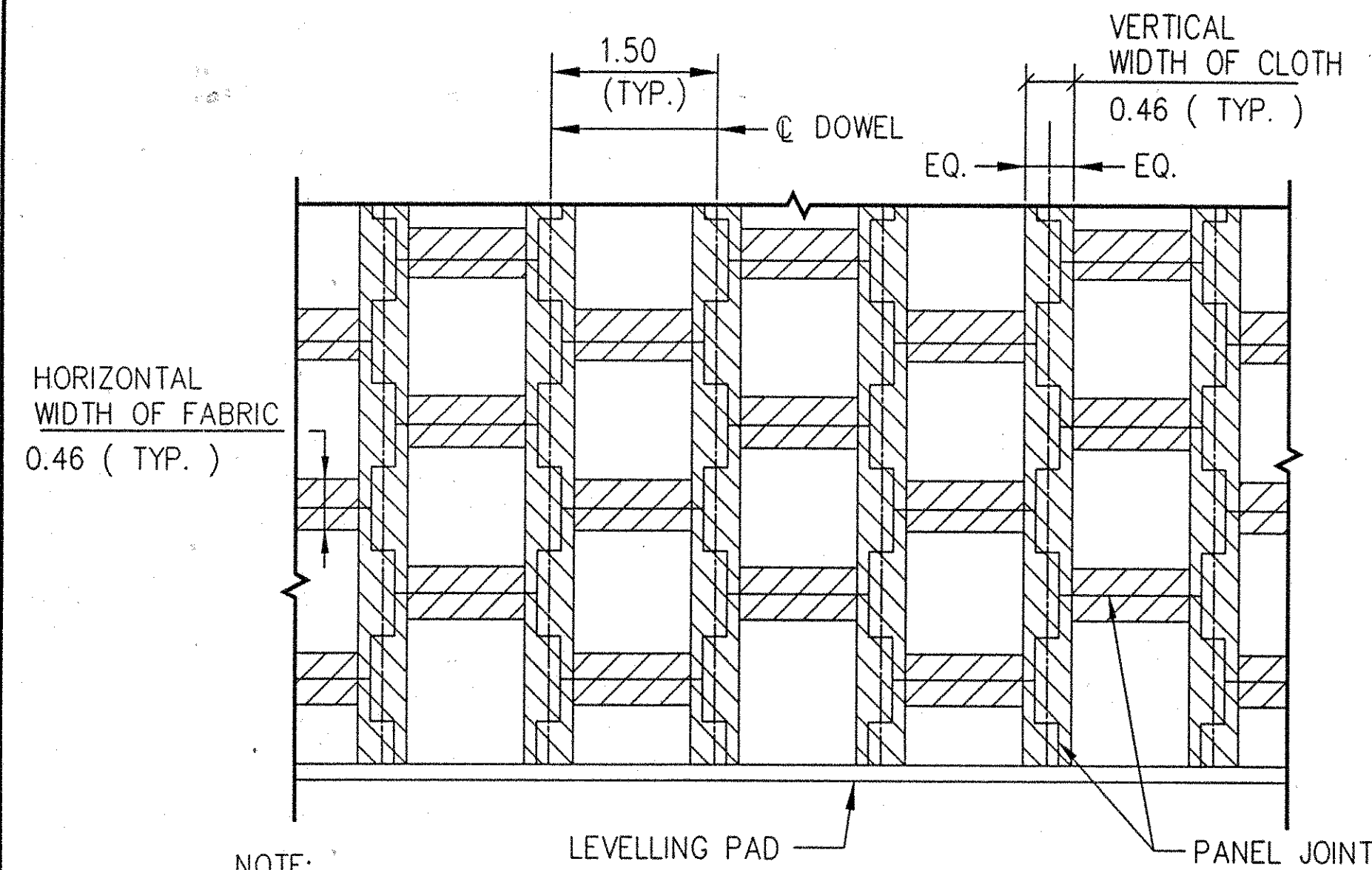


SECTION THRU ABUTMENT



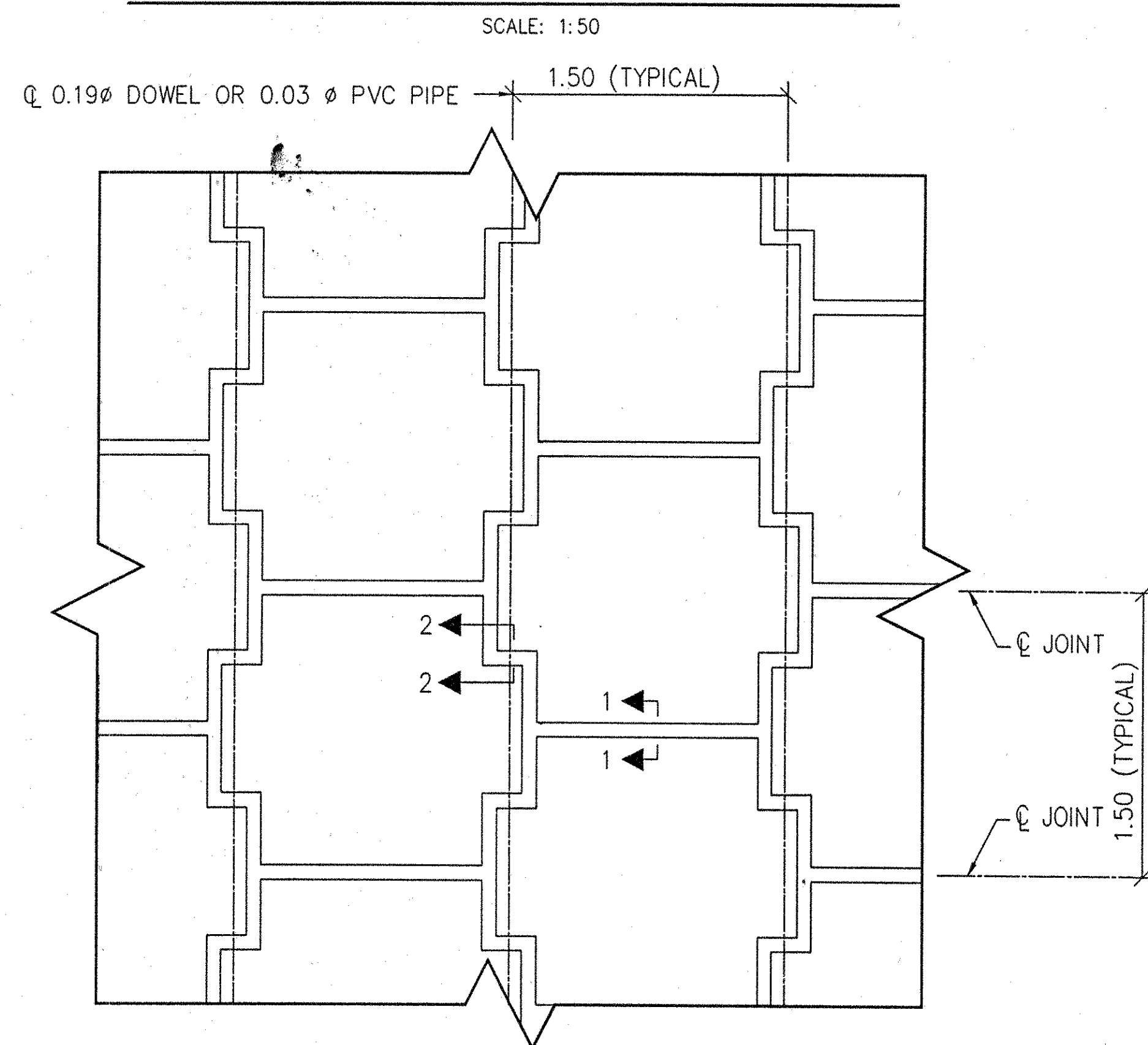
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					PROJECT ENGR: <div>KT</div>				LOCATION	AUGLAIZE COUNTY	CONTRACT NO. RE5967
					CHECKED BY: <div>KT</div>				OWNER	OHIO DEPT. OF TRANS.	DRAWING NO. 4
					ENG. MANAGER	1	4/22/96	Revised Per Comments	DRAWING COVERS	WALL DETAILS	SCALE AS SHOWN
								REV.	DATE	DESCRIPTION	



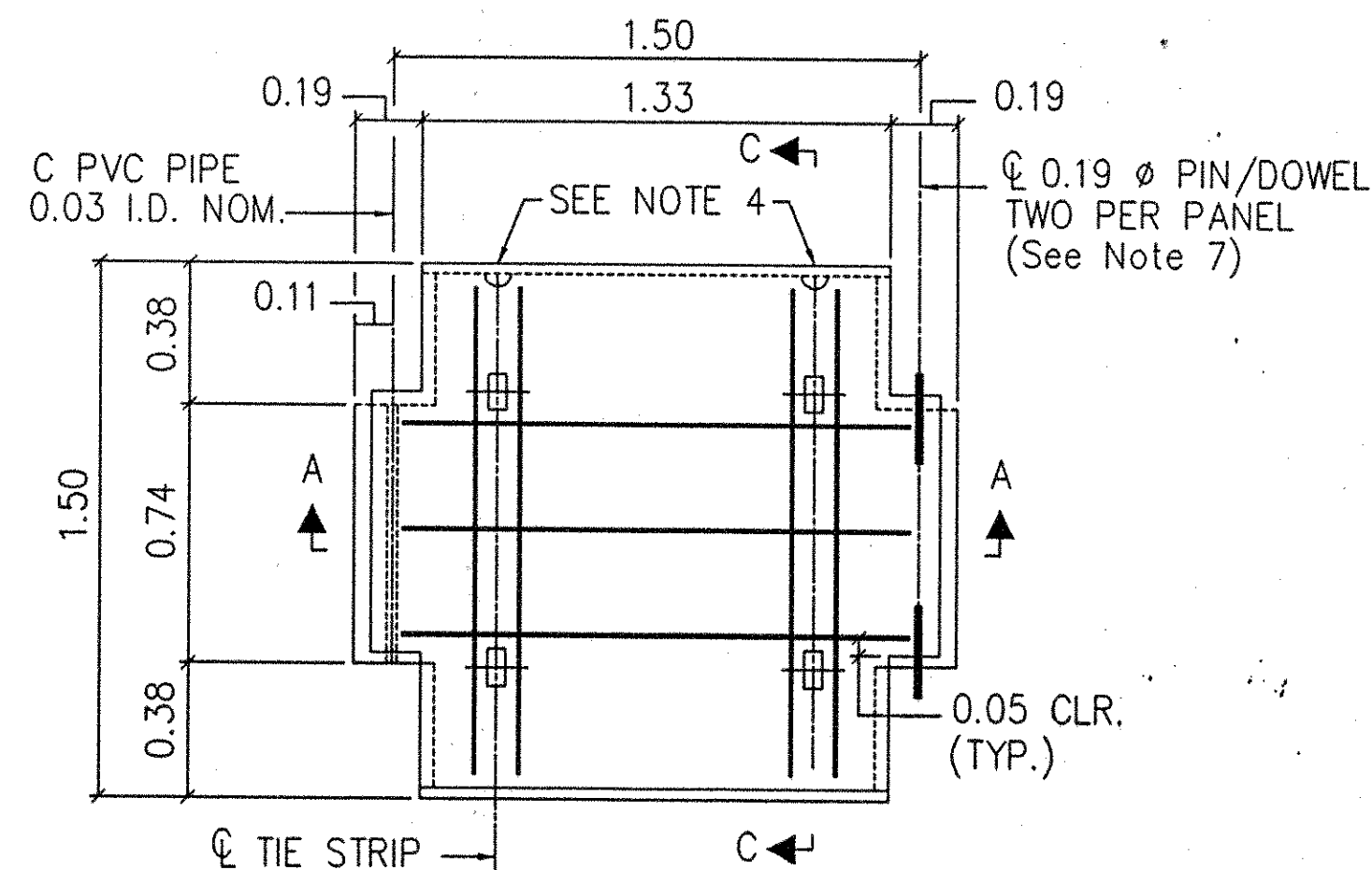


NOTE:  
COVER ALL JOINTS BETWEEN PANELS ON BACK SIDE OF WALL WITH FILTER FABRIC. APPLY ADHESIVE COATING ON PANELS ONLY. DO NOT APPLY ADHESIVE WITHIN 2" OF THE JOINT

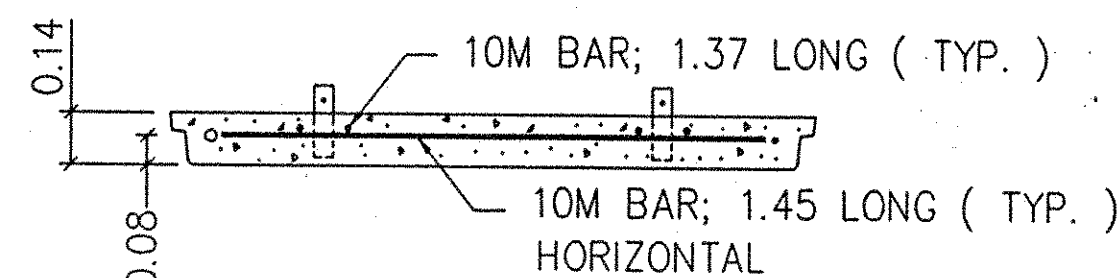
**FILTER CLOTH DETAIL**  
**PARTIAL ELEVATION - BACK FACE**



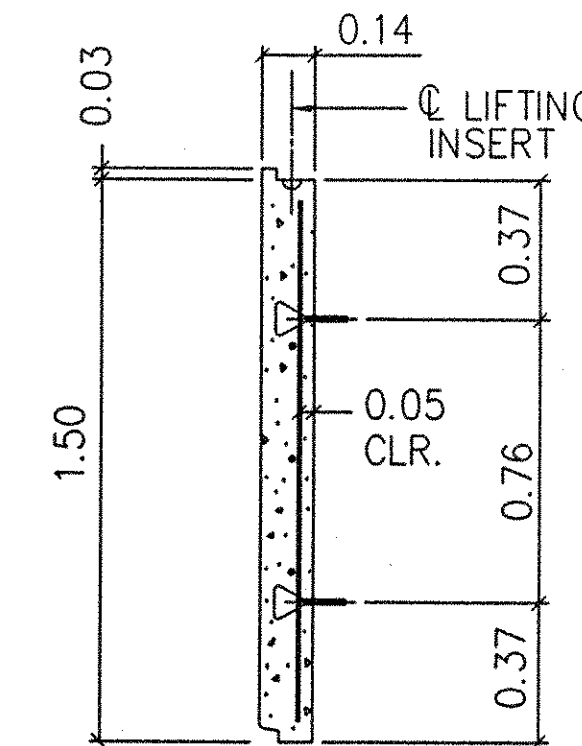
**TYPICAL PANEL LAYOUT**  
**PARTIAL ELEVATION - FRONT FACE**



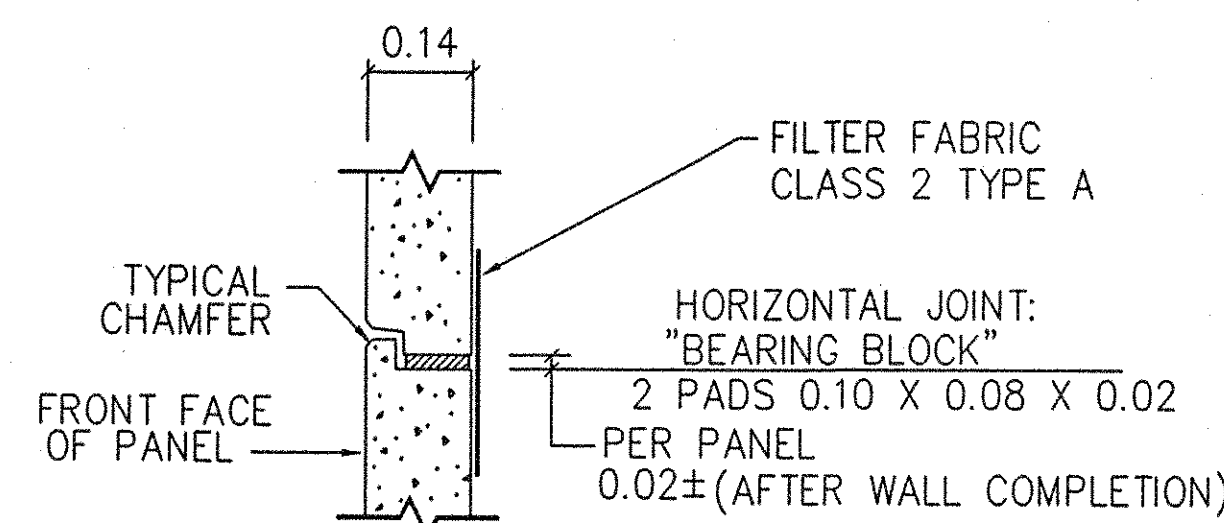
**PANEL TYPE "A"**  
**WITH R4 REINFORCEMENT**  
**FRONT VIEW**



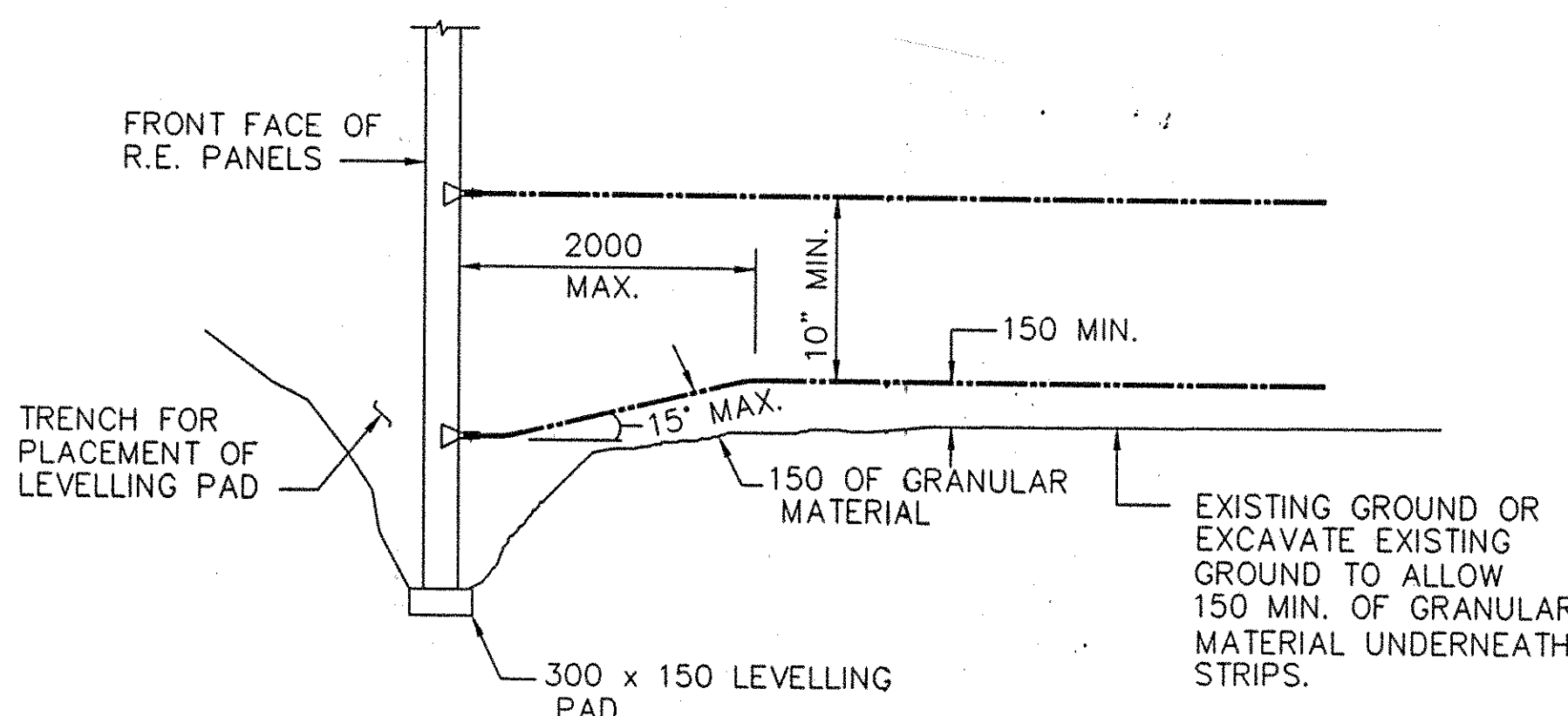
**SECTION A-A**



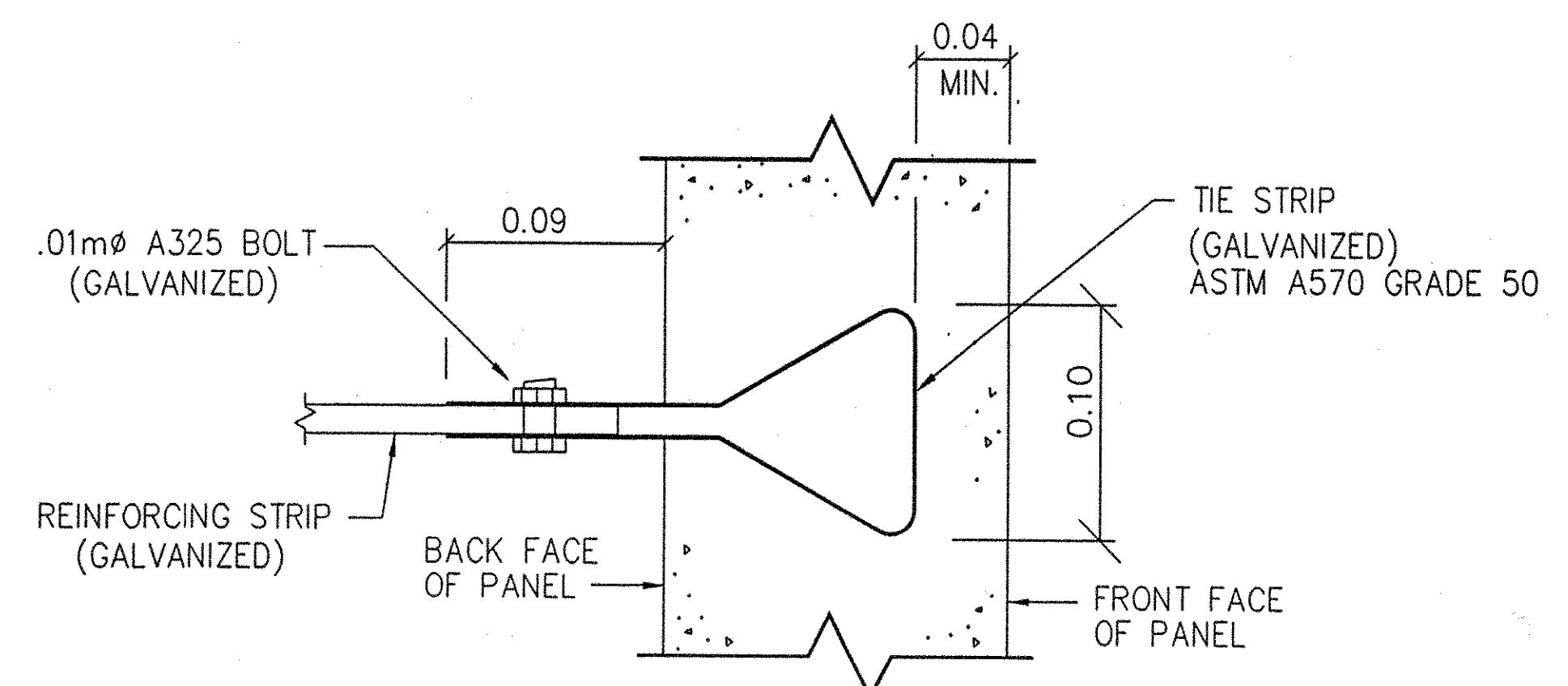
**SECTION C-C**



**SECTION 1-1**



**TRENCH DETAIL**



**CONNECTION DETAIL**

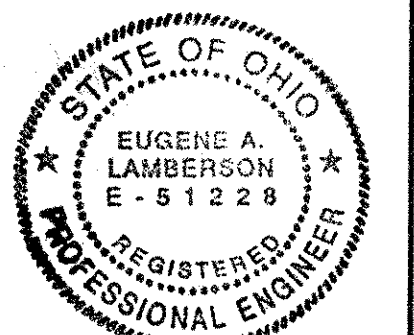
PANEL THICKNESS	REINFORCEMENT DESIGNATION	PANEL REINFORCEMENT	MAXIMUM ALLOWABLE HORIZONTAL STRESS AT FACING ( KPa )
0.14	R4	4-10M VERTICAL 3-15M HORIZONTAL	52.67

**NOTES:**

1. REINFORCING STEEL TO BE ASTM-A615 GRADE 60.
2. 10mm X 10mm CHAMFER SHALL BE PROVIDED ON ALL EXPOSED EDGES ( FRONT FACE ONLY ).
3. ALL PANEL TYPES AND OTHER RELATED ELEMENTS WILL BE DETAILED ON SHOP DRAWINGS.
4. ALL PANELS SHALL HAVE TWO LIFTING INSERTS OF ONE TON CAPACITY EACH.
5. PANEL DESIGN THICKNESS IS .14m THICKNESS OF CONCRETE MUST INCREASE TO ACCOMMODATE ANY ARCHITECTURAL SURFACE FINISH THAT MAY BE SPECIFIED.
6. ACTUAL PANEL REINFORCEMENT FOR ALL PANEL TYPES ON THIS PROJECT IS DESIGNATED ABOVE. R4 ILLUSTRATED FOR INFORMATION ONLY.
7. EACH 0.02 Ø DOWELL SHALL HAVE A MIN. LENGTH OF 0.25. DOWELS MAY BE GALVANIZED STEEL OR PVC ROD. A SINGLE FULL LENGTH DOWEL MAY BE USED AT THE DISCRETION OR THE MANUFACTURER.

NOTE: ALL DIMENSIONS ARE IN METERS.

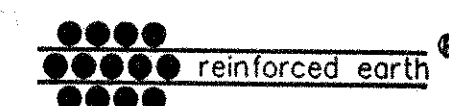
CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.



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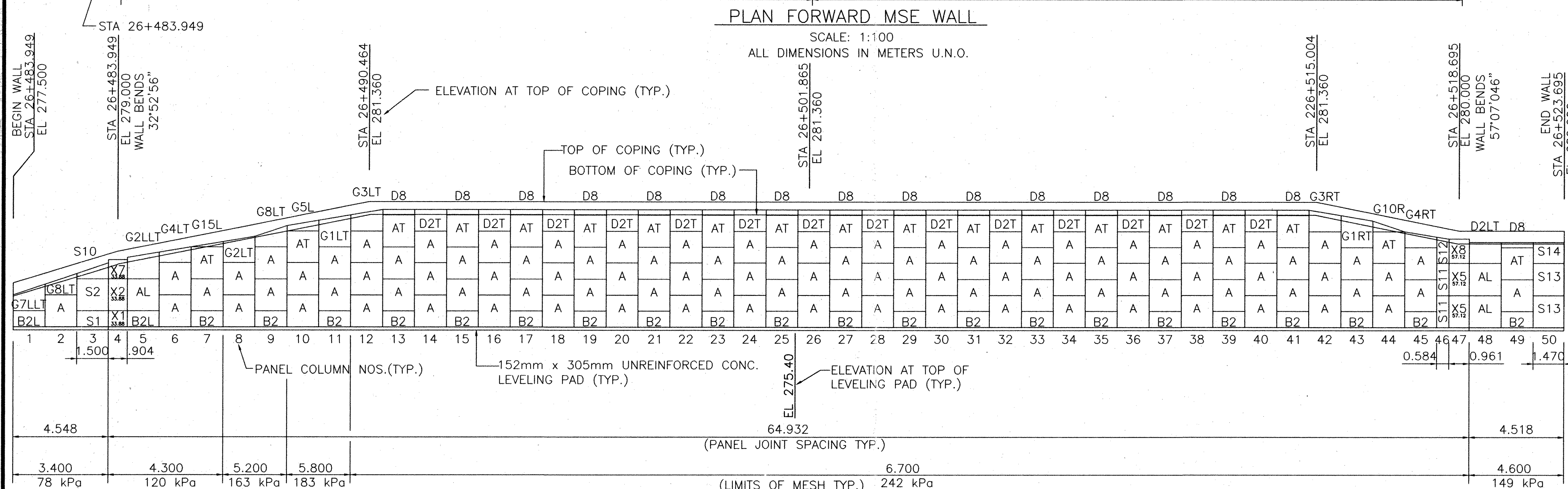
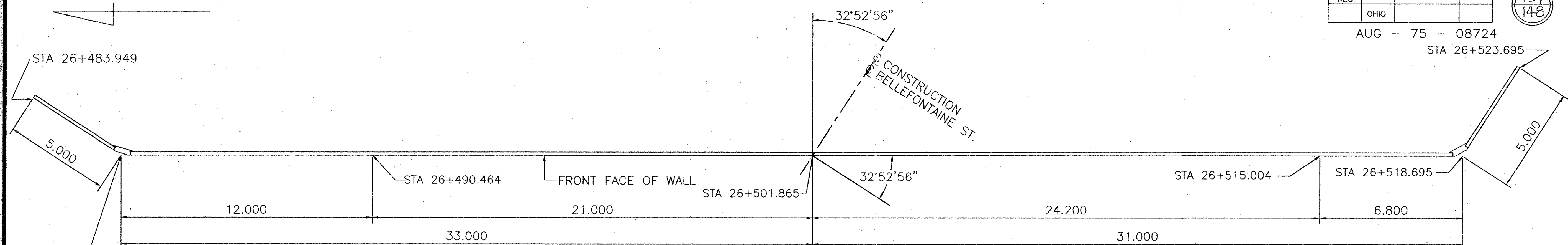
DESIGNED BY:	SEH		
PROJECT ENGR:	KJ		
CHECKED BY:	KJ		
ENG. MANAGER			
REV.	1	4/22/96	Revised Per Comments
DATE			
DESCRIPTION			

PROJECT NAME	IR-75 UNDER BELLEFONTAINE STREET PROJECT DESIGNATION; AUG-75-08724	DATE	11-17-95
LOCATION	AUGLAIZE COUNTY	CONTRACT NO.	RE5967
OWNER	OHIO DEPT. OF TRANS.	DRAWING NO.	5
DRAWING COVERS	STANDARD PANEL DETAILS	SCALE	AS SHOWN



F.H.W.A. REG.	STATE	PROJECT	
	OHIO		

13  
148



U.S. PATENT NUMBER 4,725,170

DESIGN OF ALL WALLS IS BASED ON THE ASSUMPTION THAT ALL MATERIALS, INCLUDING THE RETAINED EARTH BACKFILL AND METHODS OF CONSTRUCTION CONFORM TO THE SPECIFICATIONS FOR RETAINED EARTH WALLS.

THESE DRAWINGS ARE CERTIFIED WITH RESPECT TO  
INTERNAL STABILITY OF RETAINED EARTH STRUCTURES ONLY.

FABRICATOR:									
REV. No.	DATE	DESCRIPTION						MAD BY	
REVISION      SCHEDULE									
ODOT PROJECT No.									
BRIDGE No. AUG-75-08724									
					CONSULT. ENGR:				
					CONTRACTOR:				
					DRAWN BY	DATE	MATERIAL		
					CHK'D	DATE	DRAWING No.		
					TRACED	DATE	OF		
DATE	ISSUED FOR	PRINTS	SEPIAS	APP'D	DATE				

RETAINED EARTH  
FWD. WALL - PLAN & ELEVATION

REAR AND FWD. MSE WALLS  
BRIDGE NO. AUG-75-08724 OVER I-75  
AUGLAIZE COUNTY, OH

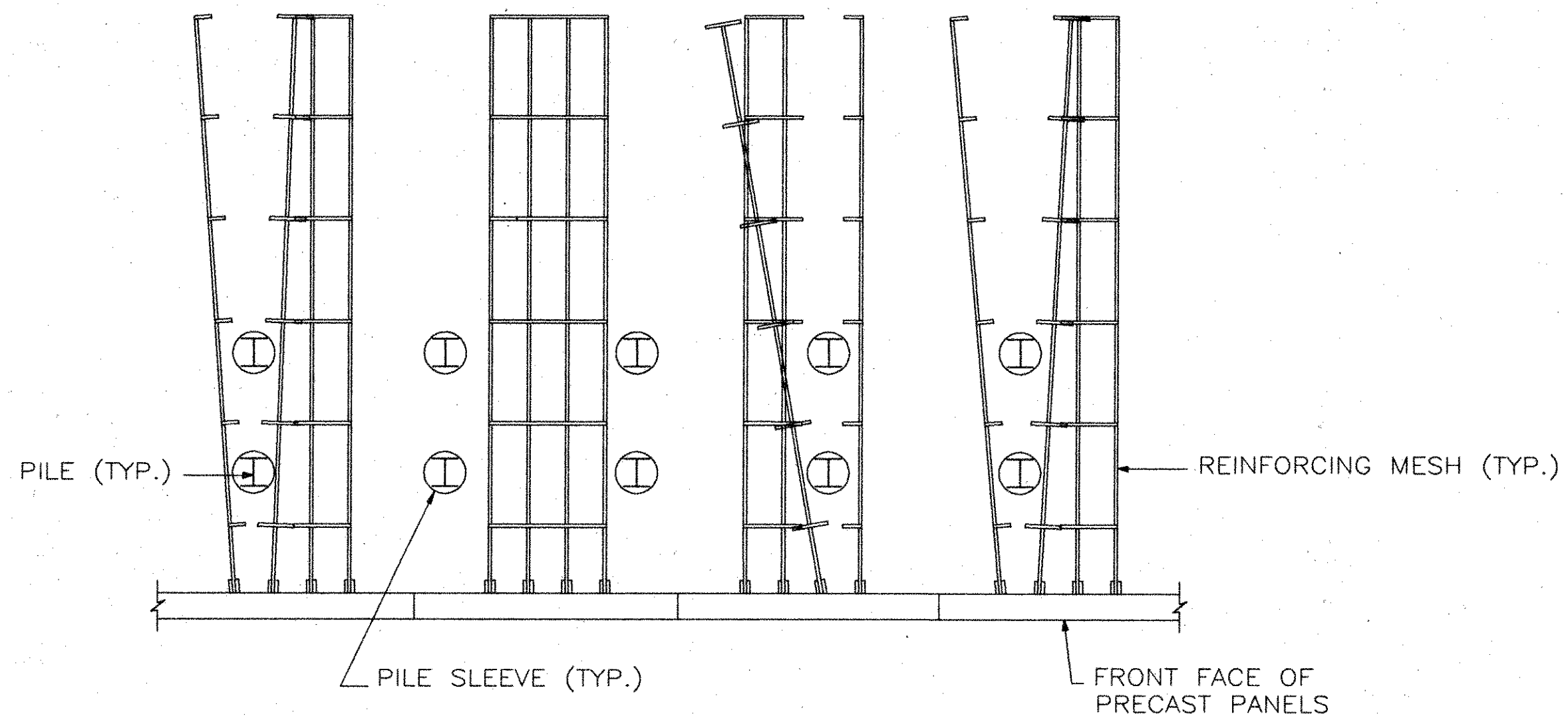
JOB NO: OH-1505

SHEET: 26 / 30  
1 of 5



18

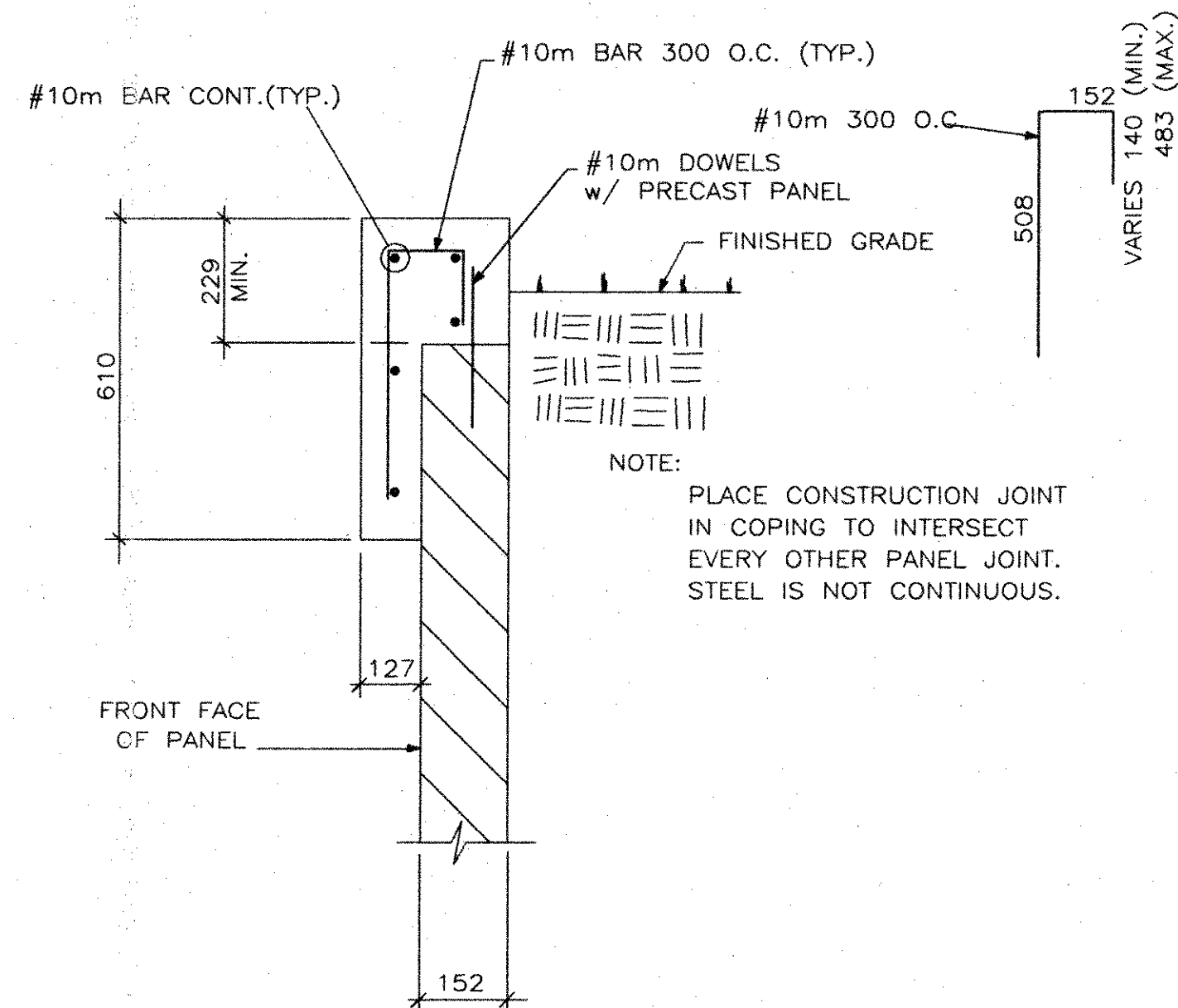




NOTE: PREMANUFACTURED SINGLE WIRE MESH (GALV.)  
SEE WALL ELEVATION FOR INDIVIDUAL LENGTHS AND WIRE SIZES.  
ROTATE MESH AT CLEVIS TO AVOID PILE OBSTRUCTION.  
MESH SHALL NOT BE FIELD CUT.

### AVOID OBSTACLE DETAIL

N.T.S.



CONCRETE:  $F_c = 27.5 \text{ MPa}$   
STEEL:  $F_y = 400 \text{ MPa}$

### C.I.P. COPING DETAIL

N.T.S.

F.H.W.A. REG.	STATE	PROJECT
	OHIO	

AUG - 75 - 08724

139  
148

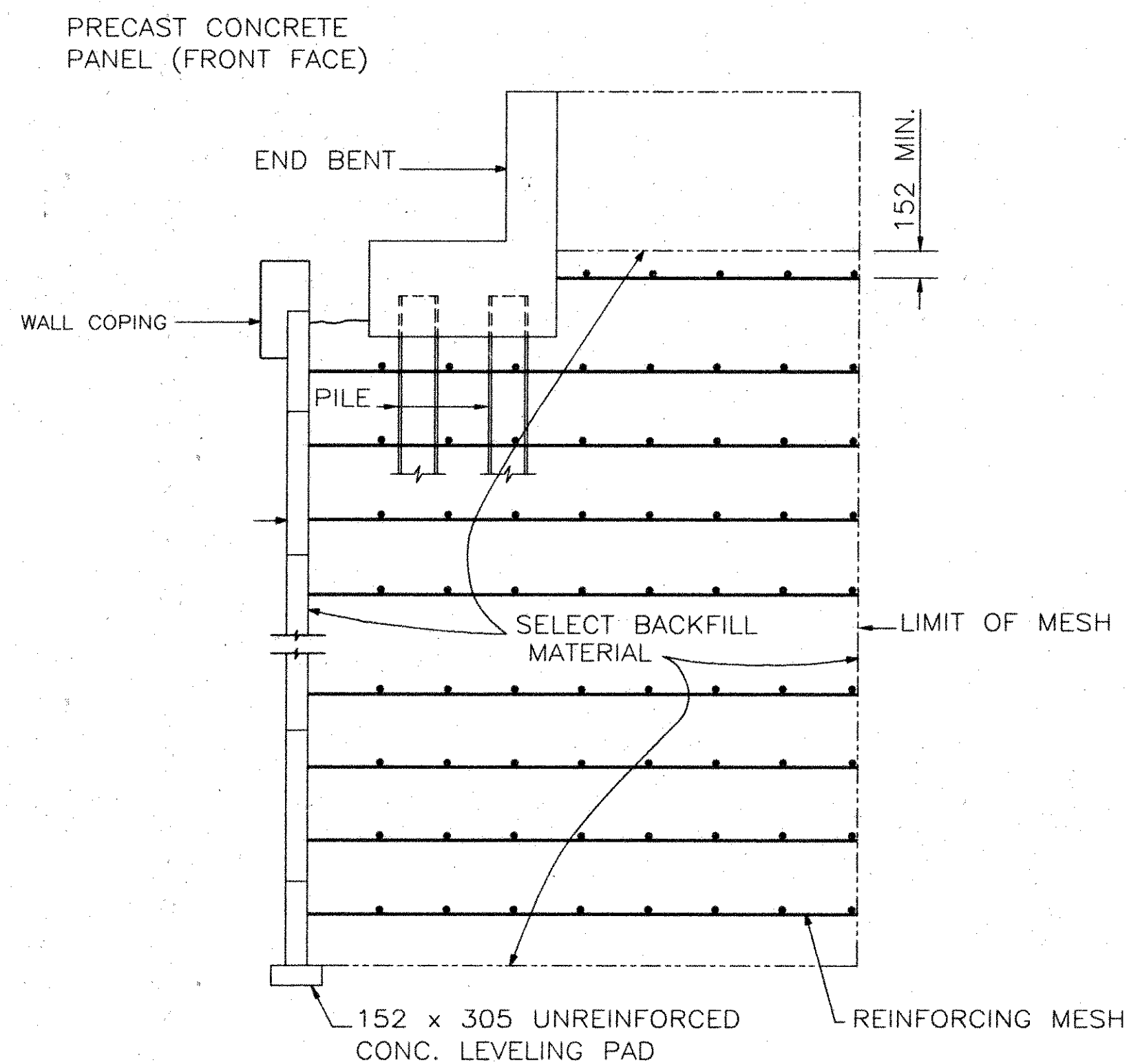
DES	DRN	CHK	NO.	DATE	REVISION	BY
8/30/95	8/30/95	10-13-95				
JN	JHJ	JN				

VSL

8006 HAUTE COURT  
SPRINGFIELD, VA 22150  
Phone: 703/451-4300  
Fax: 703/451-0862

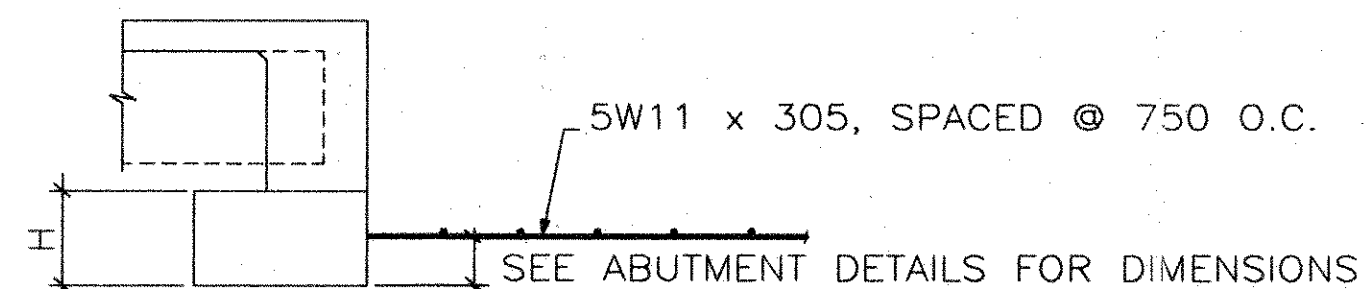
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### TYPICAL SECTION THRU ABUTMENT WALL

N.T.S.



ABUTMENT	MESH LENGTH
FORWARD	6.1m
REAR	6.1m

### ABUTMENT MESH

NOT TO SCALE

U.S. PATENT NUMBER 4,725,170

DESIGN OF ALL WALLS IS BASED ON THE ASSUMPTION THAT ALL MATERIALS, INCLUDING THE RETAINED EARTH BACKFILL AND METHODS OF CONSTRUCTION CONFORM TO THE SPECIFICATIONS FOR RETAINED EARTH WALLS.

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ALL DIM. IN MILLIMETERS U.N.O.

FABRICATOR:			
REV. No.	DATE	DESCRIPTION	MADE BY
REVISION SCHEDULE			
ODOT PROJECT No.			
BRIDGE No. AUG-75-08724			
		CONSULT. ENGR:	
		CONTRACTOR:	
DRAWN BY	DATE	MATERIAL	
CHK'D	DATE	DRAWING No.	
TRACED	DATE	OF	
DATE	ISSUED FOR	PRINTS	SEPIAS
APP'D	DATE		

### RETAINED EARTH TYPICAL DETAILS

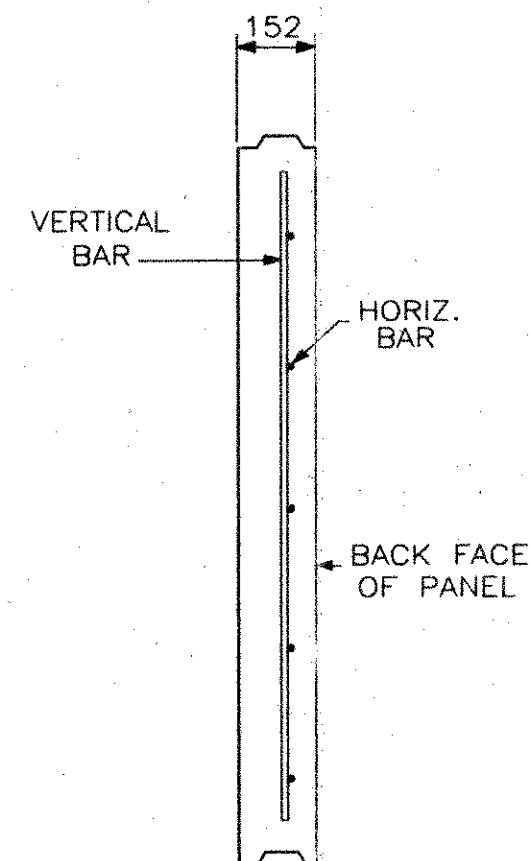
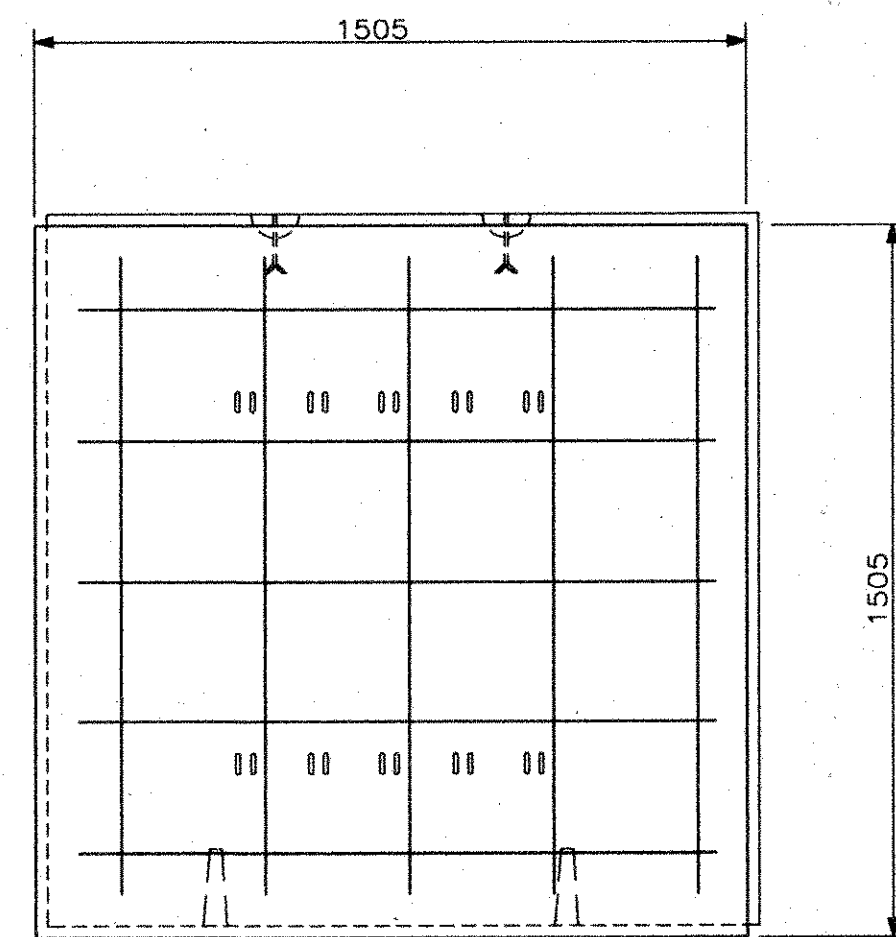
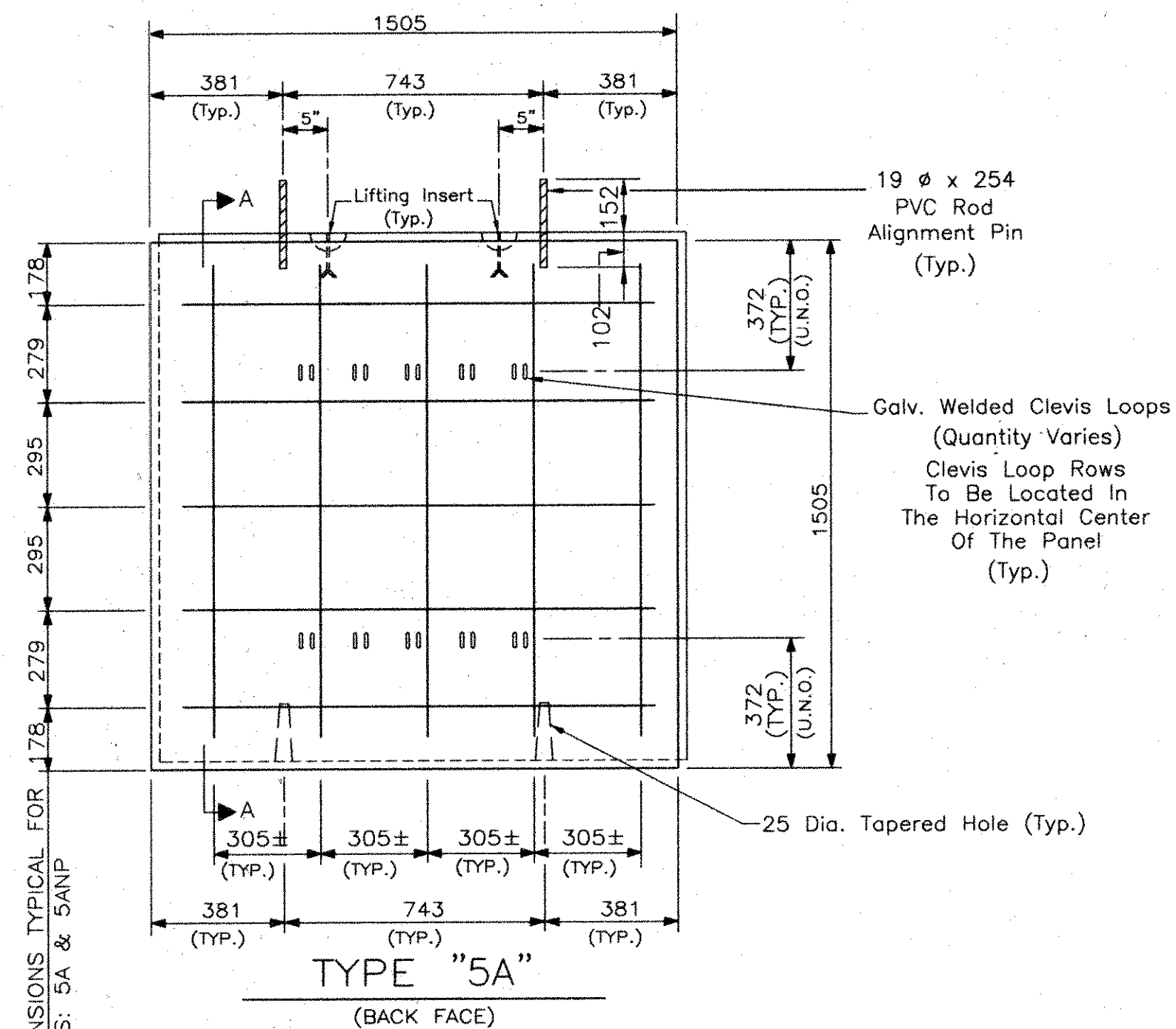
REAR AND FWD. MSE WALLS  
BRIDGE NO. AUG-75-08724 OVER U-75  
AUGLAIZE COUNTY, OH

JOB NO: OH-1505

28 / 30

SHEET: 3 OF 5





TYPES: A,B2,D4T,C2T,D2T,DT

NOTE: A,B2,D4T,C2T,D2T & DT PANELS HAVE 2-305mm GALV.ALIGNMENT PINS.  
ANP PANELS HAVE NO ALIGNMENT PINS.

F.H.W.A. REG.	STATE	PROJECT
OHIO		

AUG - 75 - 08724

140  
148

DES	DRN	CHK	DATE	REVISION	BY
9/19/95	9/19/95	10-13-95			
JN	JHU	JN			

Washington, DC office: 8006 HAUTE COURT  
SPRINGFIELD, VA 22150  
Atlanta, GA / Dallas, TX / Miami, FL / Philadelphia, PA  
Raleigh, NC / San Jose, CA / Washington, DC

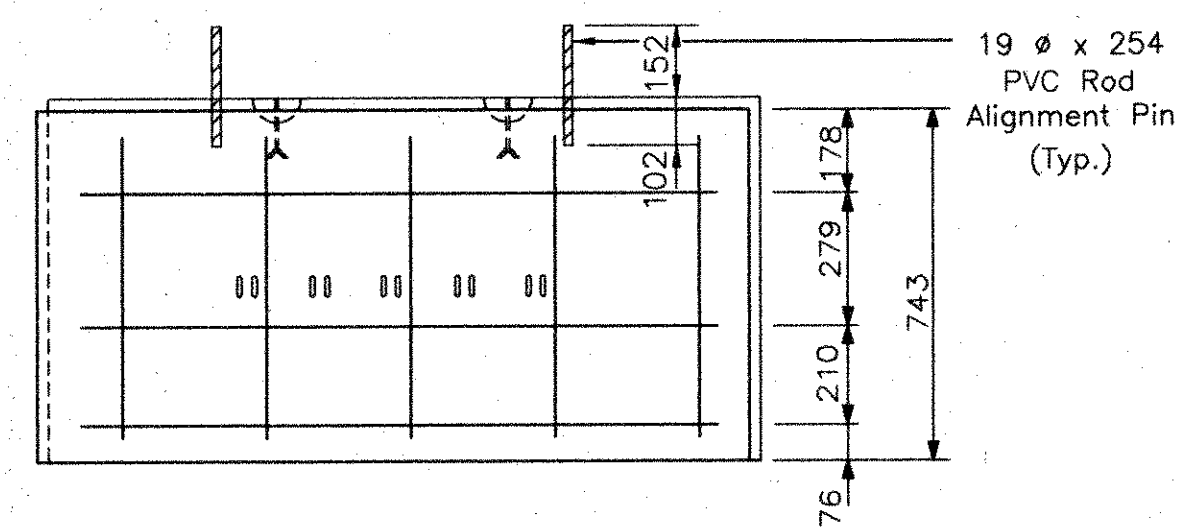
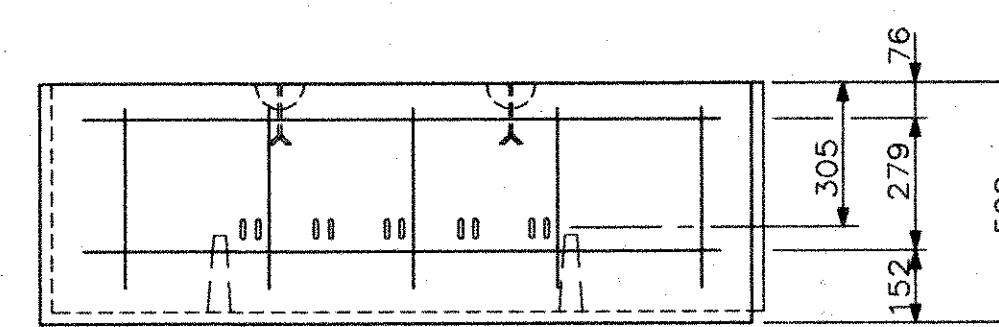
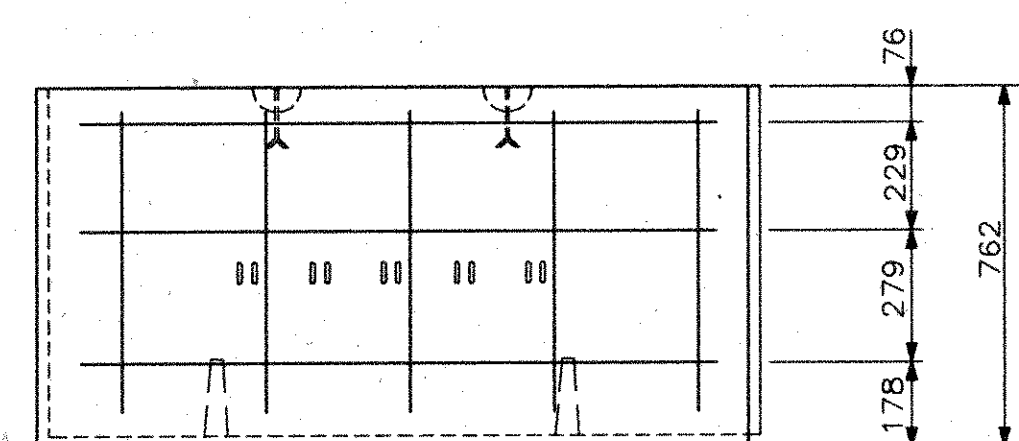
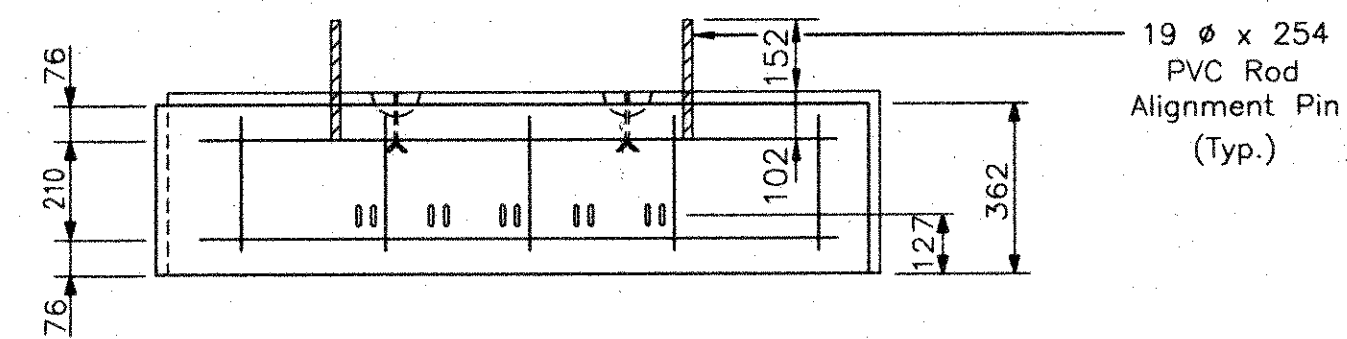
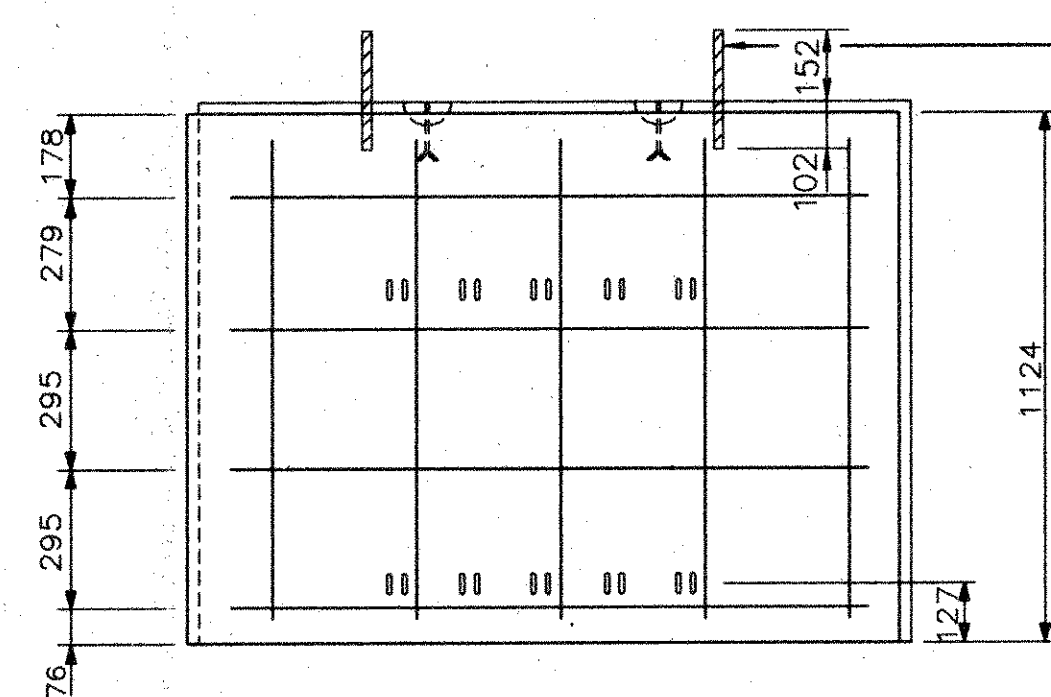
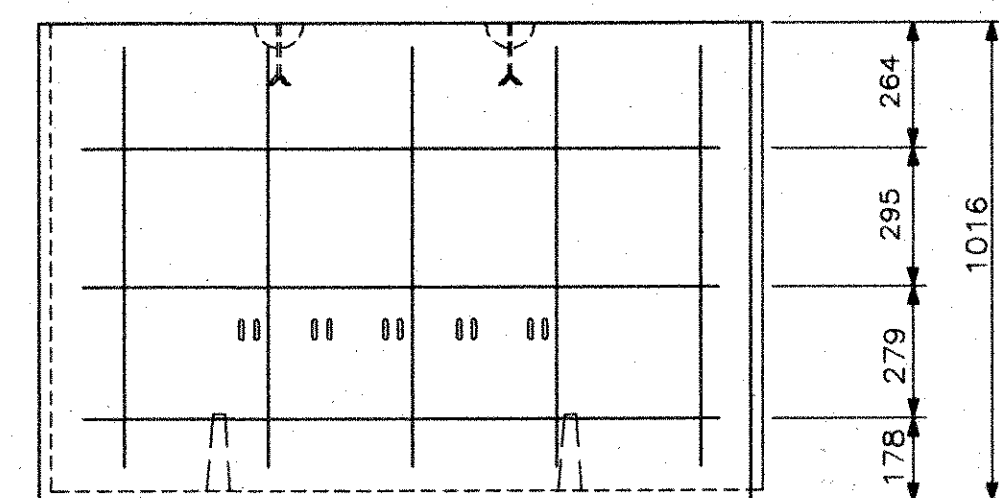
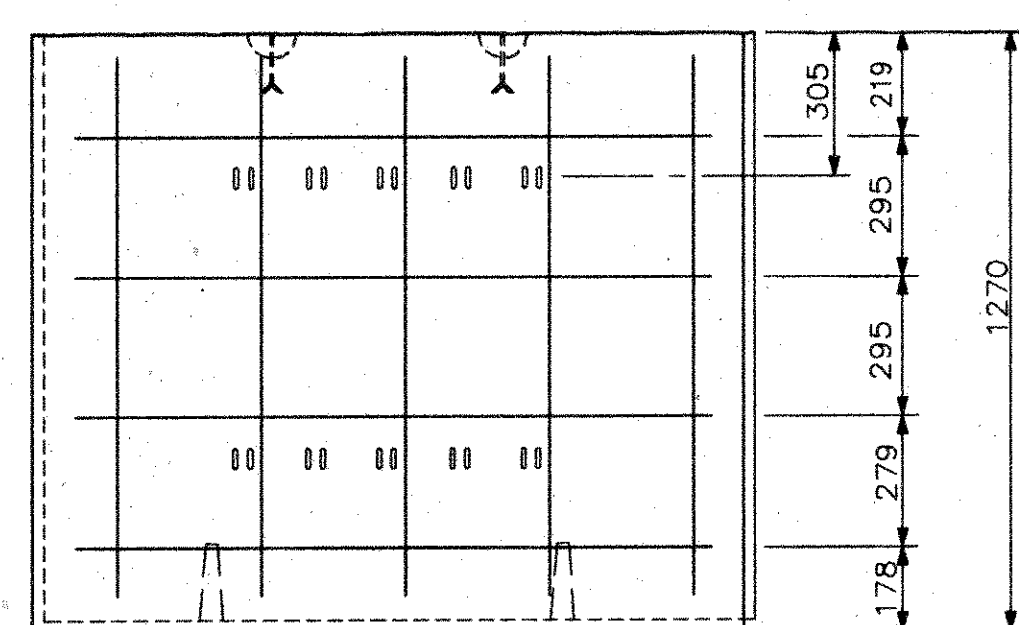
Phone: 703/451-4300  
Fax: 703/451-0862

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RETAINED EARTH  
PANEL REINFORCEMENT DETAILS

REAR AND FWD. MSE WALLS  
BRIDGE NO. AUG-75-08724 OVER U-75  
AUGLAIZE COUNTY, OH

JOB NO: OH-1505  
29 / 30  
SHEET: 4 OF 5



ALL DIM. IN MILLIMETERS U.N.O.

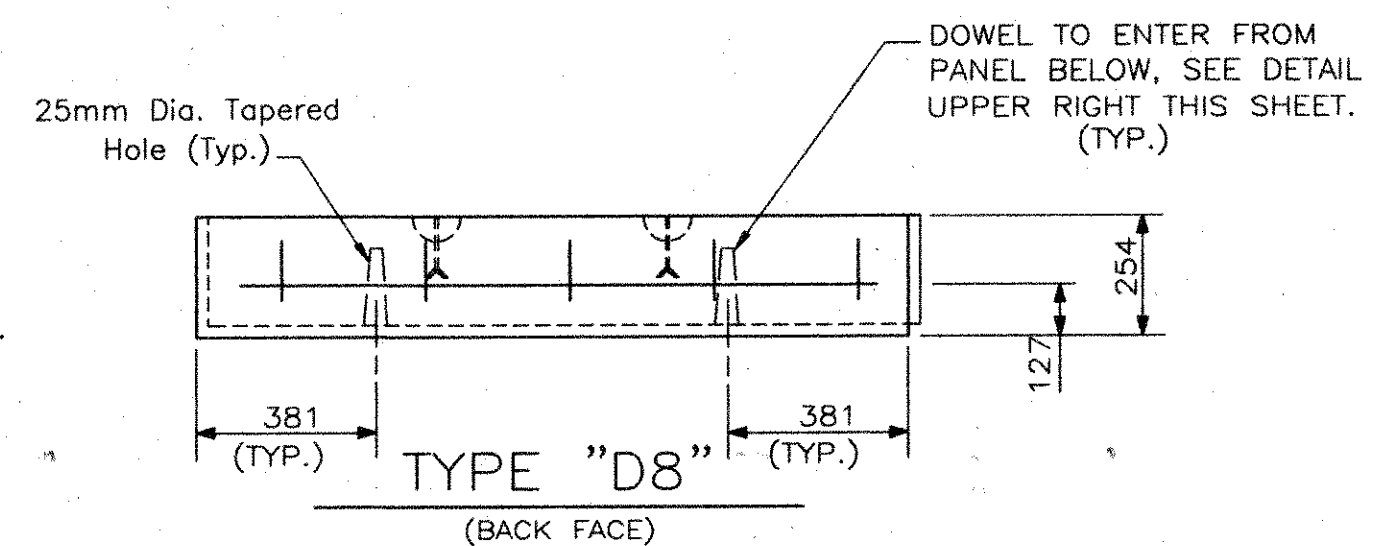
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REVISION SCHEDULE			
ODOT PROJECT No.			
BRIDGE No. AUG-75-08727			
CONSULT. ENGR:	CONTRACTOR:	DRAWN BY	DATE
CHK'D	DATE	DATE	MATERIAL
TRACED	DATE	DATE	DRAWING No.
DATE	ISSUED FOR	PRINTS	SEPIAS
APP'D	DATE	DATE	OF

U.S. PATENT NUMBER 4,725,170

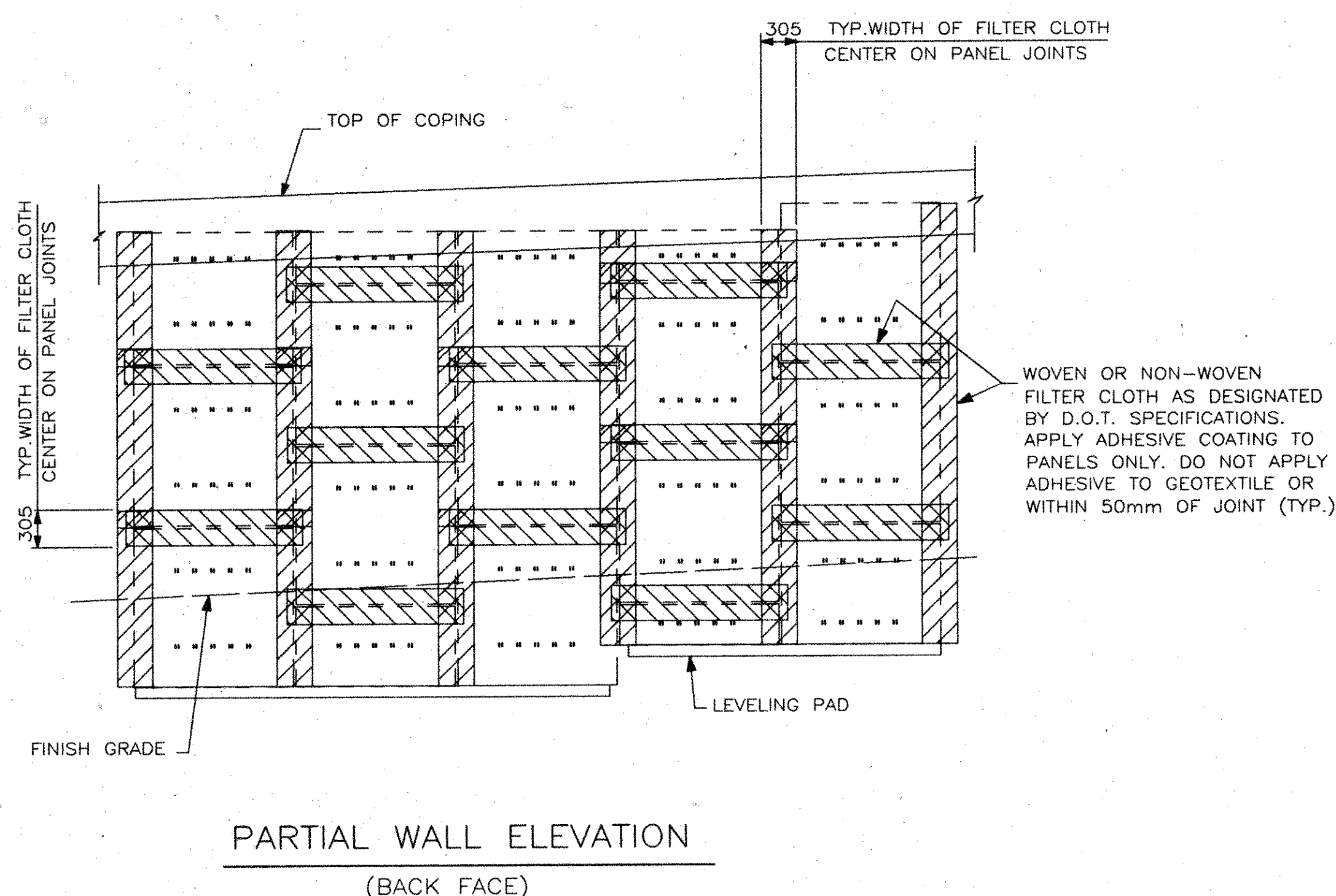
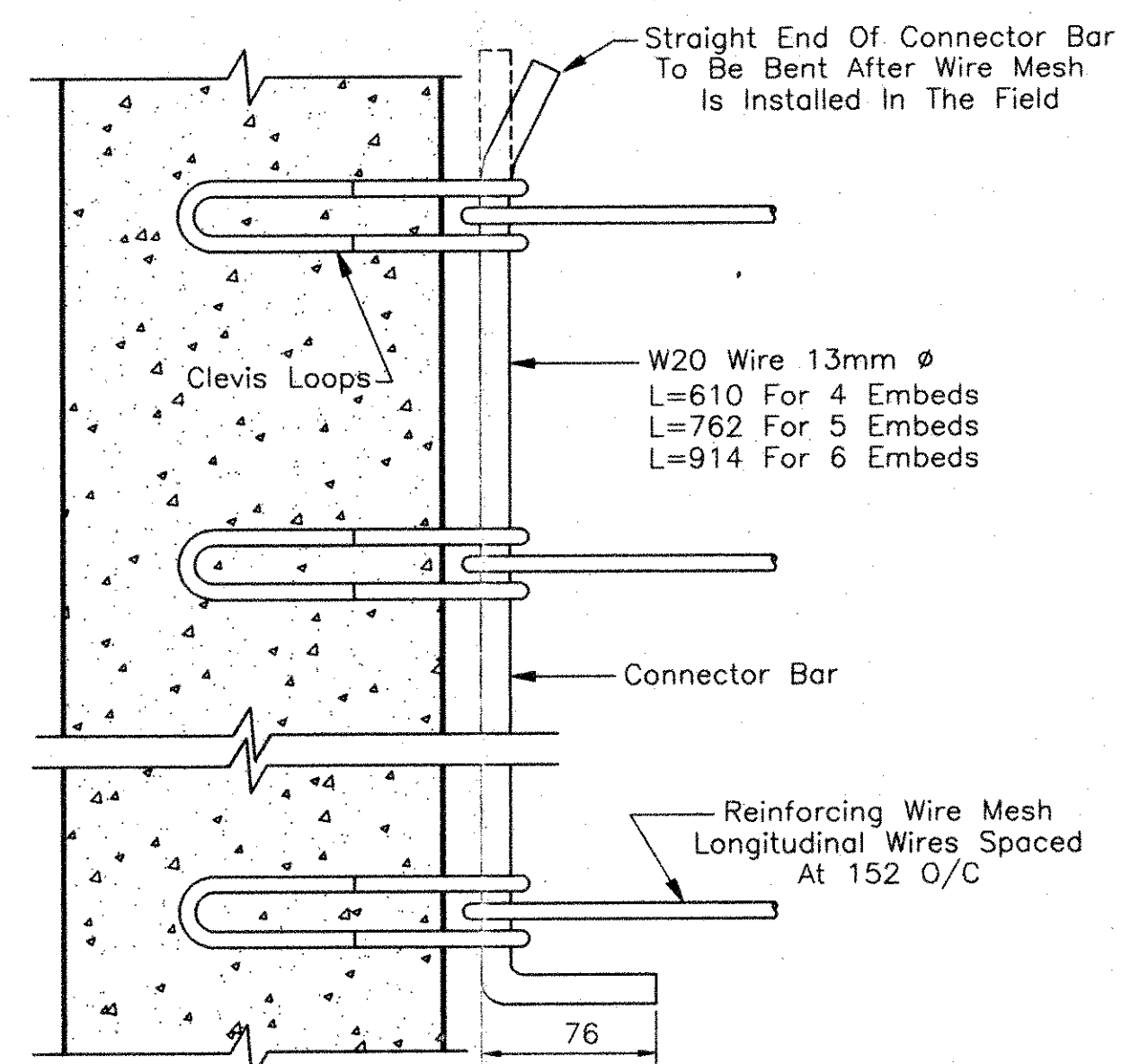
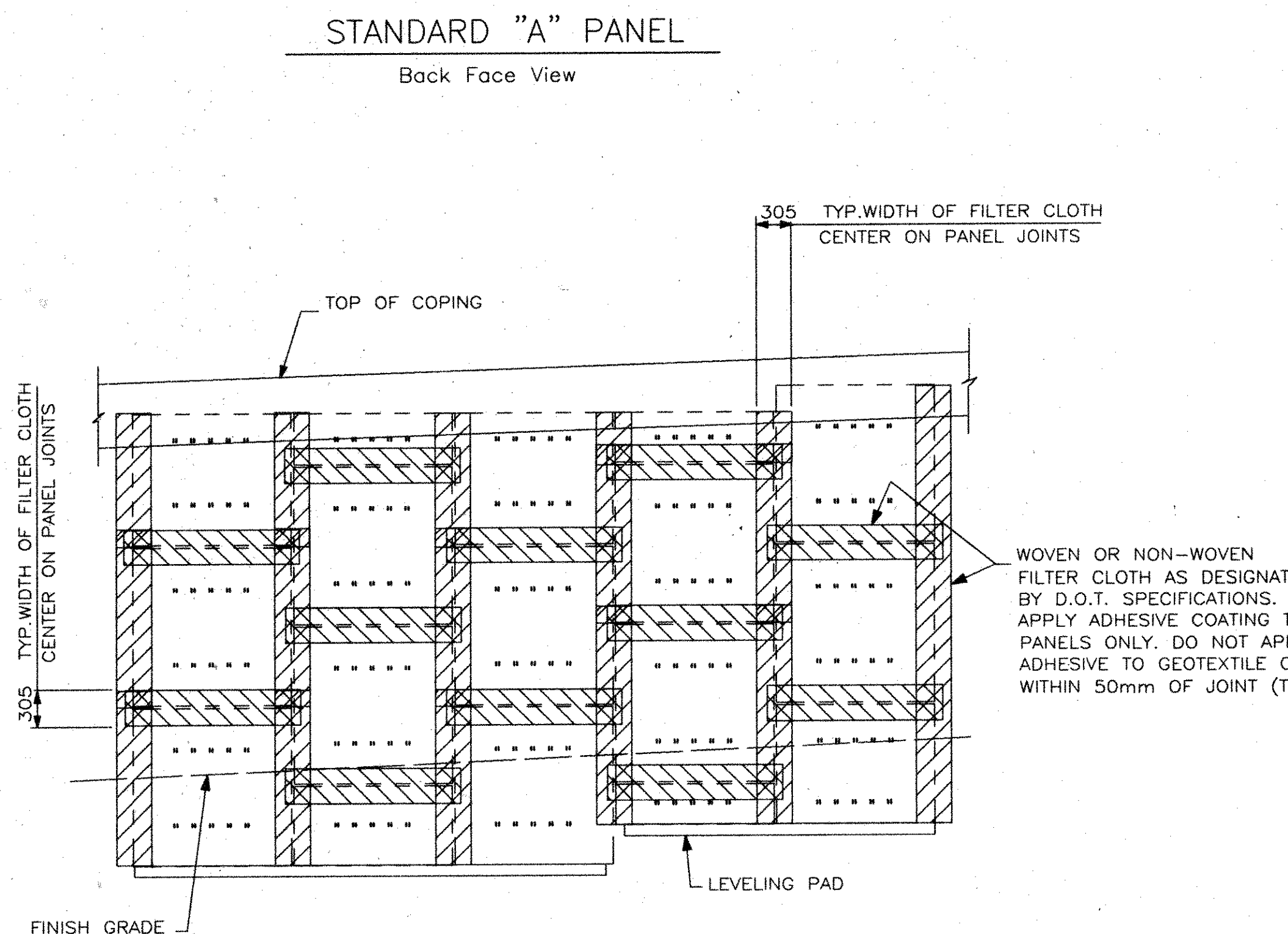
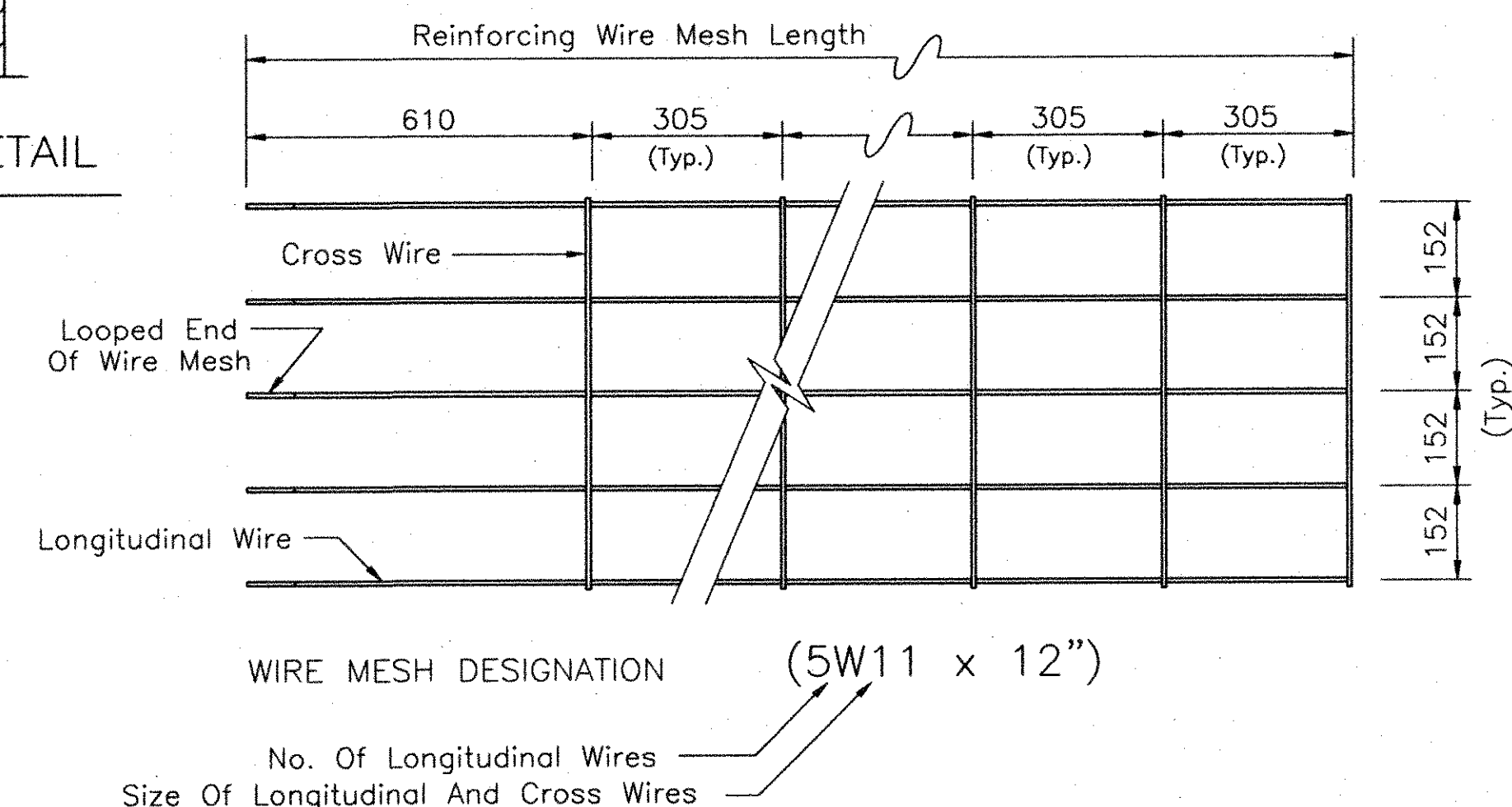
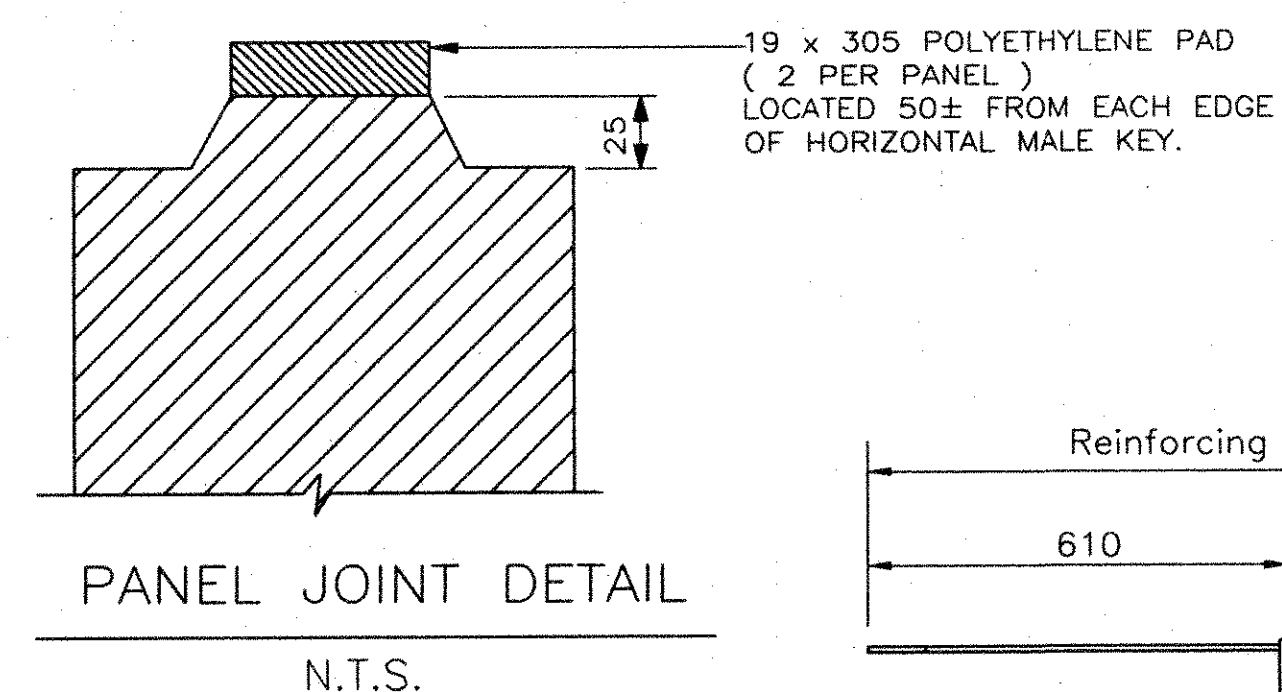
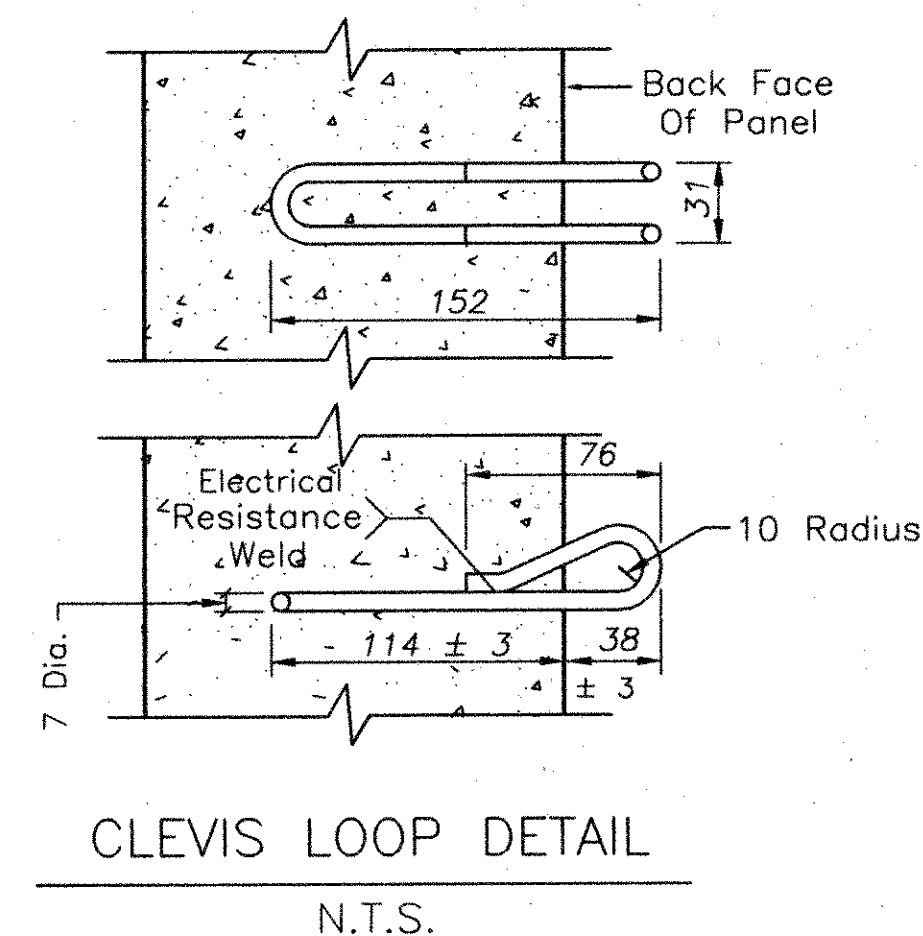
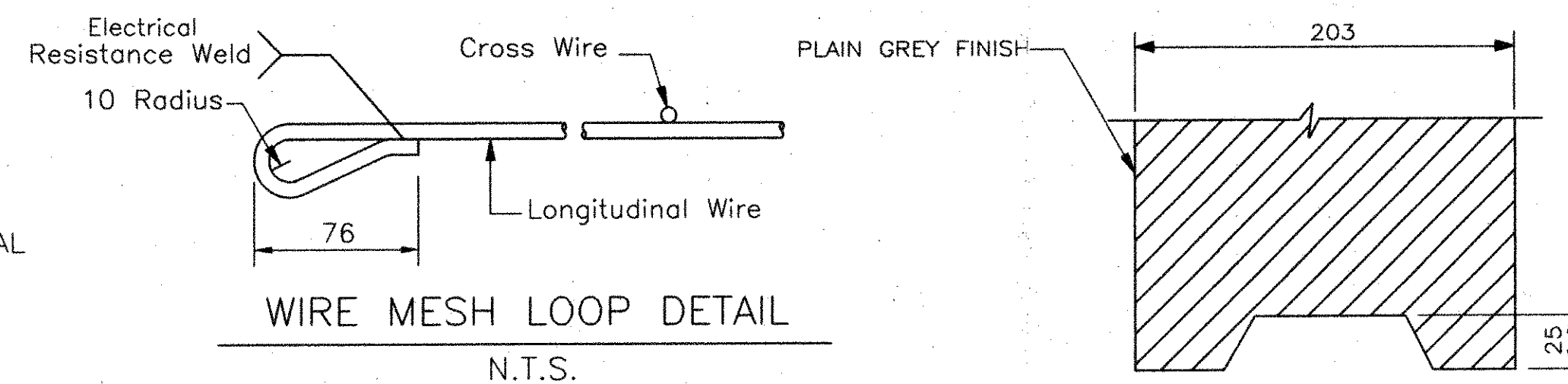
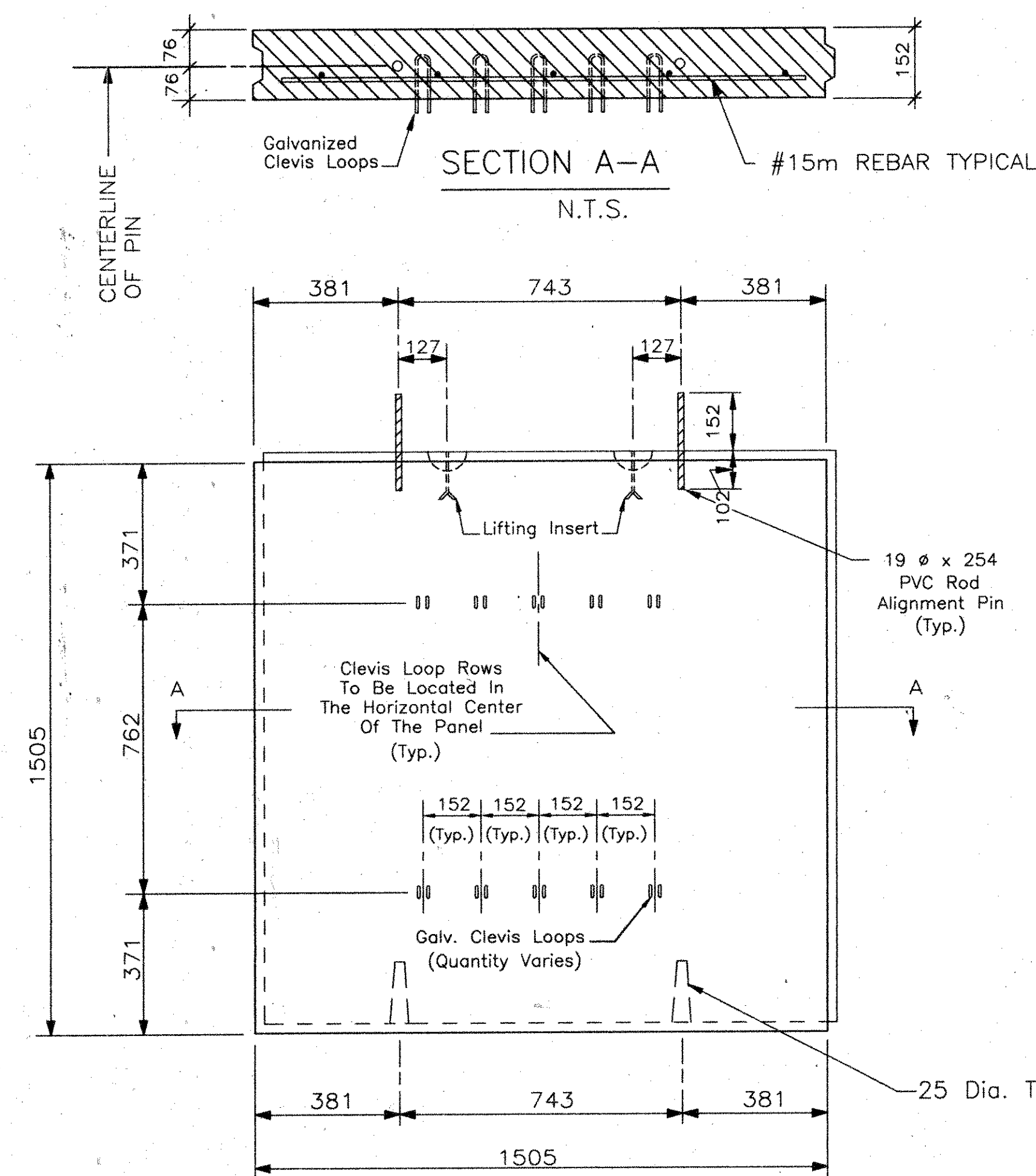
DESIGN OF ALL WALLS IS BASED ON THE ASSUMPTION THAT ALL MATERIALS, INCLUDING THE RETAINED EARTH BACKFILL AND METHODS OF CONSTRUCTION CONFORM TO THE SPECIFICATIONS FOR RETAINED EARTH WALLS.

THESE DRAWINGS ARE CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF RETAINED EARTH STRUCTURES ONLY.

- NOTES:
- ALL REINFORCING STEEL TO BE #15m BARS.
  - REINFORCING STEEL:  $F_y = 400 \text{ MPa}$
  - DIMENSIONS SHOWN ARE TO THE FRONT FACE UNLESS NOTED OTHERWISE.
  - HORIZONTAL BARS TO HAVE 50mm(MIN.), 65mm(MAX.) CLEAR TO THE BACK FACE.
  - VERTICAL BARS TO HAVE 65mm(MIN.), 80mm(MAX.) CLEAR TO THE BACK FACE.
  - ALL BARS TO HAVE 50mm MIN. CLEAR TO SIDES.







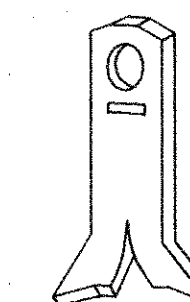
U.S. PATENT NUMBER 4,725,170

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F.H.W.A. REG.	STATE	PROJECT	
	OHIO		

AUG - 75 - 08724

[illegible]

**VSL**

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<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> REAR AND FWD. MSE WALLS  BRIDGE NO. AUG-75-08724 OVER U-75  AUGLAIZE COUNTY, OH </div> <div style="margin: 0 10px;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> STANDARD DETAILS </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> RETAINED EARTH </div> </div> </div>	JOB NO: OH-1505
	<div style="display: flex; justify-content: space-between;"> <span>30 / 30</span> <span>SHEET: 5 OF 5</span> </div>