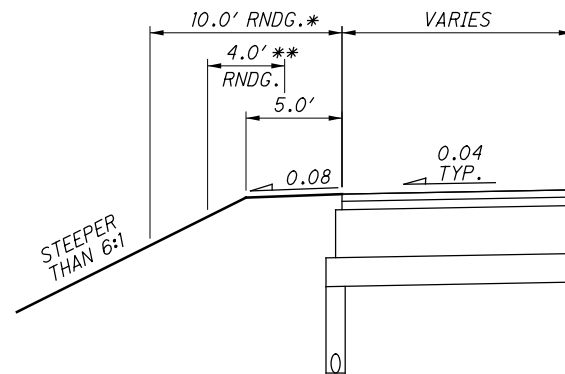
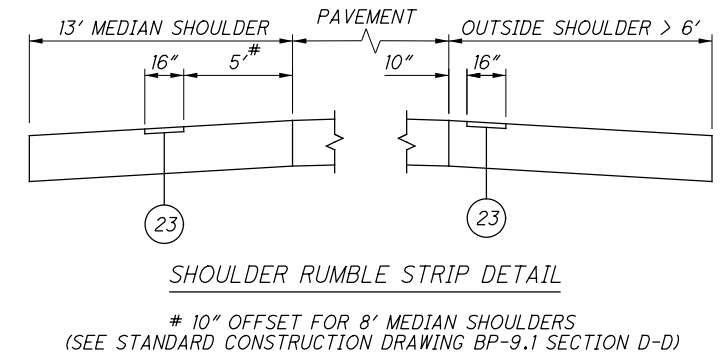
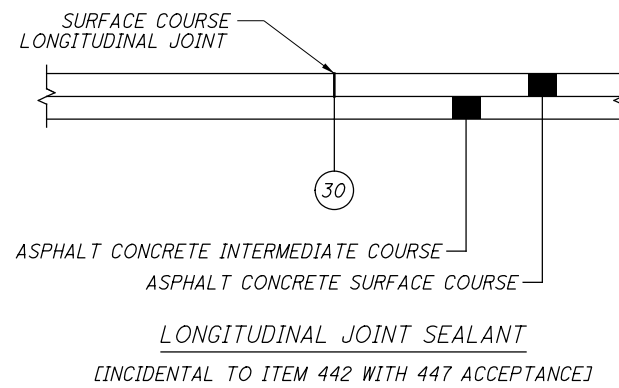
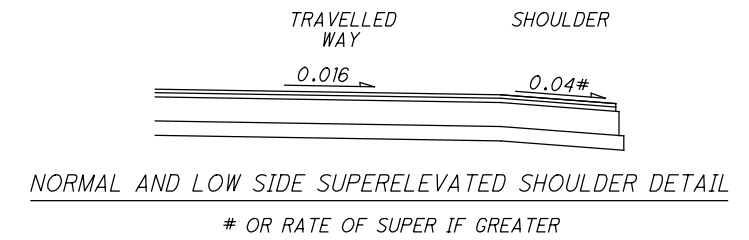
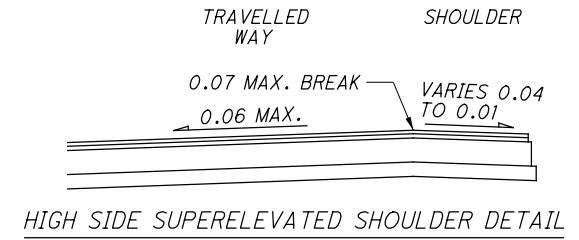
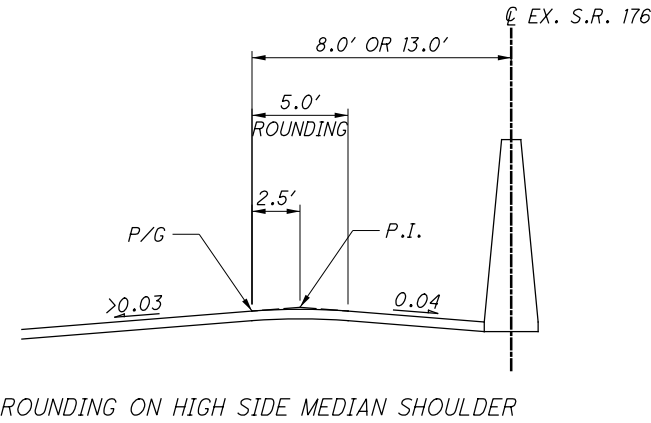


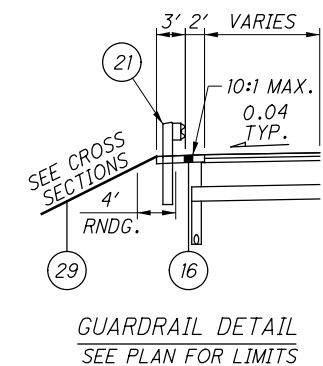
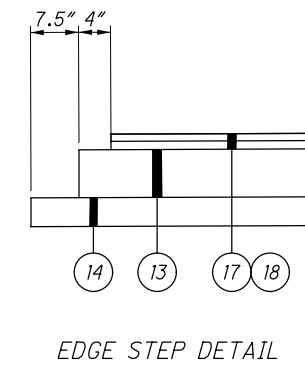
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PROPOSED LEGEND

- 1 ITEM 202 - PAVEMENT REMOVED
- 2 ITEM 202 - CURB REMOVED
- 3 NOT USED
- 4 ITEM 202 - CONCRETE BARRIER REMOVED
- 4A ITEM 202 - TRAFFIC ISLAND REMOVED
- 4B ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN
- 5 ITEM 204 - EMBANKMENT
- 6 ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING
- 7 ITEM 204 - EXCAVATION OF SUBGRADE
- 8 ITEM 204 - GRANULAR MATERIAL, TYPE C (703.16)
- 9 ITEM 204 - GEOGRID (PLACED AT BOTTOM OF UNDERCUT)
- 10 ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (T = 3 1/4")
- 11 ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448) (T = VARIABLE; 1.75" MIN. TO 5" MAX.) [2 LIFTS WHEN T > 3"]
- 12 ITEM 252 - FULL DEPTH PAVEMENT SAWING
- 13 ITEM 302 - ASPHALT CONCRETE BASE, PG64-22 (T = 7 1/2") (SEE NOTE 4)
- 14 ITEM 304 - AGGREGATE BASE (T = 6")
- 14A ITEM 304 - AGGREGATE BASE (T = 4")
- 15 ITEM 407 - NON-TRACKING TACK COAT
- 15A ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN (T = 4")
- 16 ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN (T = 3")
- 17 ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) (T = 1 3/4")
- 18 ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN, PG 76-22M (T = 1 1/2")
- 19 ITEM 452 - 12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC IP
- 20 ITEM 605 - 6" UNDERDRAINS WITH GEOTEXTILE FABRIC (FOR DEPTH AND TYPE, SEE SUBGRADE STABILIZATION DETAILS ON SHEETS 23 AND 24)
- 20A ITEM 605 - 6" ROCK CUT UNDERDRAINS
- 21 ITEM 606 - GUARDRAIL, TYPE MGS
- 22 ITEM 609 - CURB, TYPE 4-C
- 22A ITEM 452 - 4" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC IP
- 23 ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)
- 24 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B
- 25 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 (SEE NOTE 3)
- 26 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C
- 26A ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN
- 27 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 (SEE NOTE 3)
- 28 ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D
- 28A ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
- 28B ITEM 622 - PORTABLE BARRIER, 32", AS PER PLAN
- 29 ITEM 659 - SEEDING AND MULCHING, CLASS 2
- 30 ITEM 875 - LONGITUDINAL JOINT ADHESIVE [INCIDENTAL TO ITEM 442 WITH 447 ACCEPTANCE]
- L LONGITUDINAL JOINT PER SCD BP-2.1



- * WHEN BARRIER IS NOT INSTALLED AND THE FORESLOPE IS STEEPER THAN 6:1.
- ** WHEN BARRIER IS INSTALLED AND THE FORESLOPE IS STEEPER THAN 6:1.



NOTES:

1. FOR EXISTING LEGEND, SEE SHEET 6
2. FOR SUBGRADE STABILIZATION DETAILS, SEE SHEET 23 AND 24
3. CONCRETE BARRIER SHALL INCLUDE TWO 4" SCHEDULE 40 MULTICELL CONDUITS FOR ITS AND ONE 4" CONDUIT FOR LIGHTING (SEE LIGHTING PLANS FOR LIMITS). FOR PLACEMENT DETAILS AND ADDITIONAL REQUIREMENTS, SEE THE LIGHTING AND ITS SCDs. COST FOR CONDUIT AND NYLON PULL ROPE SHALL BE INCIDENTAL TO THE COST OF THE APPLICABLE 622 PAY ITEM.
4. ITEM 302 MAY BE PLACED IN TWO LIFTS IF THE REQUIREMENTS OF C&MS 302.04 ARE MET. AN ADDITIONAL APPLICATION OF ITEM 407, NON-TRACKING TACK COAT SHALL BE REQUIRED. REVISED EDGE COURSE DESIGN SHALL BE APPROVED BY THE ENGINEER.

GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

CITY OF CLEVELAND
DIVISION OF WATER
ATTN.: FRED ROBERTS
1201 LAKESIDE AVENUE
CLEVELAND, OH 44114
OFFICE: 216-664-2444 EXT. 5590
FRED.ROBERTS@CLEVELANDWATER.COM

CITY OF CLEVELAND
DIVISION OF WATER POLLUTION CONTROL
ATTN.: ELIE RAMY
12302 KIRBY ROAD
CLEVELAND, OH 44108
OFFICE: 216-664-2756
ERAMY@CLEVELANDWPC.COM

FIRST ENERGY CORP
ATTN.: JOHN ZASSICK
6896 MILLER ROAD
BRECKSVILLE, OH 44141
OFFICE: 440-546-8706
JMZASSICK@FIRSTENERGYCORP.COM

COLUMBIA GAS OF OHIO
ATTN.: DAN SUREN
7080 FRY ROAD
MIDDLEBURG HEIGHTS, OHIO 44130
OFFICE: 440-891-2428
DSUREN@NISOURCE.COM

NORTHEAST OHIO REGIONAL SEWER DISTRICT
ATTN.: MARY MACIEJOWSKI
3900 EUCLID AVENUE
CLEVELAND, OH 44115-2506
OFFICE: 216-881-6600 EXT. 6466
MACIEJOWSKIM@NEORS.DORG

DOMINION ENERGY OHIO
ATTN.: KEVIN BIRT
320 SPRINGSIDE DR., SUITE 320
AKRON, OH 44333
OFFICE: 330-664-2409
KEVIN.J.BIRT@DOMINIONENERGY.COM
RELOCATION@DOMINIONENERGY.COM

VERIZON
ATTN.: JEFF KADUSKY
1150 WEST 3RD STREET
CLEVELAND, OH 44256
OFFICE: 330-253-8267
THOMAS.KADUSKY@VERIZON.COM

BP OIL
ATTN.: KEITH BOYLE
30 SOUTH WACKER DRIVE, SUITE 900
CHICAGO, IL 60606
OFFICE: 312-809-4708
KEITH.BOYLE@BP.COM

AT&T
ATTN.: JAMES JANIS
13630 LORAIN AVE.
CLEVELAND, OH 44111
OFFICE: 216-476-6142
PJ8191@ATT.COM

BUCKEYE PIPELINE
ATTN.: DAVID JONES
9999 HAMILTON BOULEVARD
BREINIGSVILLE, PA 18031
OFFICE: 610-904-4409
DAJONES@BUCKEYE.COM

CHARTER COMMUNICATIONS
ATTN.: GARY NAUMANN
8179 DOW CIRCLE
STRONGSVILLE, OH 44136
OFFICE: 216-575-8016 EXT. 5033
GARY.NAUMANN@CHARTER.COM

COX COMMUNICATIONS
ATTN.: CRAIG SMITH
12221 PLAZA DRIVE
PARMA, OH 44130
OFFICE: 216-535-3356
CRAIG.SMITH@COX.COM

CITY OF CLEVELAND
TRAFFIC ENGINEERING
ATTN.: ANDREW CROSS
601 LAKESIDE AVENUE
ROOM 25
CLEVELAND, OH 44114
OFFICE: 216-664-3197
ACROSS@CITY.CLEVELAND.OH.US

CITY OF PARMA
TRAFFIC DIVISION
ATTN.: JIM MIHELICH
6611 RIDGE ROAD
PARMA, OH 44129
OFFICE: 440-885-8111
JMIHELICH@CITYOFPARMA-OH.GOV
TRAFFICDIVISION@CITYOFPARMA-OH.GOV

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

PAVING PROJECT PID 106394 WITHIN PROJECT LIMITS

THE PAVING PROJECT (PID 106394) WILL BE PERFORMED BEFORE AND WITHIN THE PROJECT LIMITS OF CUY-176-10.13 (PID 101941). THE CONTRACTOR IS EXPECTED TO ENCOUNTER WORK THAT WAS COMPLETED DURING THIS PROJECT. THIS MAY RESULT IN THE REMOVAL OF EXTRA OR VARYING MATERIAL (APPROXIMATE 1.5"± ASPHALT OVERLAY) TO COMPLETE CUY-176-10.13 (PID 101941) AS DETAILED IN THESE PLANS. REFER TO EXISTING TYPICAL SECTIONS FOR APPROXIMATE LIMITS OF OVERLAY. COST FOR REMOVAL OF THE ADDITIONAL MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE APPLICABLE PAVEMENT REMOVED ITEM.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 3 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: STATIC
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (CORS2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99992804
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS) A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRUCT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 204 - PROOF ROLLING

PROOF ROLLING HAS BEEN CALCULATED AS PART OF THE PROJECT OFFICE CALCULATIONS AND CARRIED TO THE GENERAL SUMMARY.

ITEM 619 - FIELD OFFICE, TYPE C, AS PER PLAN

A TYPE C FIELD OFFICE IS REQUIRED FOR THIS PROJECT. THE FOLLOWING REVISIONS TO EQUIPMENT SUPPLIED WITH THE TYPE C FIELD OFFICE, AS SPECIFIED IN TABLE 619.02-1, FIELD OFFICE, SHALL APPLY:

THE BROAD BAND INTERNET CONNECTION MUST MEET A MINIMUM DOWNLOAD SPEED OF 10MB PER SECOND AND A MINIMUM UPLOAD SPEED OF 5MB PER SECOND.

CONTRACTOR SHALL FURNISH AND SET UP A WI-FI ROUTER MEETING THE REQUIREMENTS OF IEEE 802.11ac FOR THE EXCLUSIVE USE OF THE DEPARTMENT.

ALL OTHER FIELD OFFICE ITEMS SUPPLIED SHALL MEET THE REQUIREMENTS OF A TYPE C FIELD OFFICE.

619, FIELD OFFICE, TYPE C, AS PER PLAN 22 MNTH

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT, SPECIFICALLY PID 108480, THE CUY-480/STATE ROAD AUXILIARY LANE PROJECT. NO WAIVER OF ANY PROVISIONS OF 105.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

ROADWAY

ITEM 202 - PAVEMENT REMOVED, AS PER PLAN

REMOVAL OF EXISTING PRESSURE RELIEF JOINTS, AS IDENTIFIED IN THE PLANS, SHALL BE CONSIDERED INCIDENTAL TO THE PAVEMENT REMOVAL. BACKFILLING OF THE RESULTANT CAVITY SHALL MEET THE REQUIREMENTS OF C&MS 204, GRANULAR MATERIAL, TYPE B (703.16). LOCATIONS THAT REQUIRE SUBGRADE TREATMENT, AS DETAILED ON SHEETS 23 - 24, SHALL STILL RECEIVE THE PRESCRIBED SUBGRADE TREATMENT FOLLOWING REMOVAL OF THE EXISTING PRESSURE RELIEF JOINTS. ADDITIONAL COSTS FOR THE PRESSURE RELIEF JOINT REMOVAL AND BACKFILL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF PAVEMENT REMOVAL. ALL OTHER REQUIREMENTS OF C&MS 202 SHALL STILL APPLY.

ITEM 202 - CONCRETE BARRIER REMOVED, AS PER PLAN (1)

PAYMENT SHALL INCLUDE THE COST TO REMOVE EXISTING RACEWAYS (ITS AND LIGHTING) AS DETAILED IN THE PLANS. ALL OTHER REQUIREMENTS OF C&MS 202 SHALL BE MET.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS THAT MEET MASH REQUIREMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

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

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN.

ITEM 209, RESHAPING UNDER GUARDRAIL, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS, AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

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

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

- METHOD A:
1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

- METHOD B:
1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1(448), UNDER GUARDRAIL, AS PER PLAN.

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN

THIS ITEM SHALL BE PLACED BETWEEN RAMP OBE-JN AND I.R. 480 PAVEMENT FROM APPROXIMATELY STA. 100+56 TO THE CSX RAILROAD BRIDGE.

ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AGGREGATE OR OLD ASPHALT CONCRETE, PLACEMENT OF AGGREGATE, COMPACTION AND APPLYING HERBICIDE AS SPECIFIED IN THE "PAVING UNDER GUARDRAIL" NOTE.

ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 411 - STABILIZED CRUSHED AGGREGATE, AS PER PLAN.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL), AS PER PLAN

ITEM 622 - PORTABLE BARRIER, UNANCHORED, AS PER PLAN
ITEM 622 - PORTABLE BARRIER, "Y" CONNECTOR, AS PER PLAN

THESE ITEMS SHALL REMAIN IN PLACE AT THE END OF THE PROJECT AND BECOME THE PROPERTY OF THE DEPARTMENT. ALL OTHER REQUIREMENTS OF C&MS 622 SHALL STILL BE MET.

A+B BIDDING WITH MULTIPLE SECTIONS CONTRACT TABLE

THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE EACH SEGMENT AS LISTED IN THE PROPOSAL.

CONTRACT SEGMENT - LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	INCENTIVE/DISINCENTIVE \$ PER DAY	MAXIMUM INCENTIVE \$
SEGMENT 1 COMPLETE CLOSURE OF RAMP OBW-JN FROM STA 34+60 TO 53+40 DURING PH 1/1A	7	14	\$12,000	\$84,000
SEGMENT 2 COMPLETE CLOSURE OF RAMP JN-OBW FROM STA 43+87 TO 63+50 DURING PH 3A	7	14	\$12,000	\$84,000

CALCULATED
SMS
CHECKED
MAW

GENERAL NOTES

CUY-176-10.13

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363

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ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

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

> DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

> FOR LANE CLOSURES: DURING INITIAL SETUP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

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

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEO'S HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 600 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

WORK ZONE QUEUE DETECTION WARNING SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE QUEUE DETECTION WARNING SYSTEM (WZQDWS) AS PER SUPPLEMENTAL SPECIFICATION 896.

THE PROBABLE INITIAL LOCATIONS OF THE WZQDWS DEVICES ARE SHOWN ON SHEETS 64 TO 65 OF THE PLAN. IT IS EXPECTED THAT THESE LOCATIONS WILL VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

THE FOLLOWING TRAFFIC SENSOR THRESHOLDS AND PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES SHALL BE USED:

FOR IR-480 EASTBOUND:
GREATER THAN OR EQUAL TO 50 MPH:
USE FOUR CORNER FLASHING CAUTION MODE
BETWEEN 50 MPH AND 25 MPH:
"TRAFFIC AHEAD XX MPH" / "SLOW DOWN"
BELOW OR EQUAL TO 25 MPH:
"TRAFFIC AHEAD XX MPH" / "PREPARE TO STOP"

FOR ALL OTHERS:
GREATER THAN OR EQUAL TO 50 MPH:
USE FOUR CORNER FLASHING CAUTION MODE
BETWEEN 50 MPH AND 25 MPH:
"T-480 W TRAFFIC XX MPH" / "SLOW DOWN"
BELOW OR EQUAL TO 25 MPH:
"T-480 W TRAFFIC XX MPH" / "PREPARE TO STOP"

FOUR CORNER FLASHING CAUTION MODE SHALL CONSIST OF THE USE OF ONE ASTERISK IN EACH CORNER OF THE PCMS DISPLAY (4 TOTAL ASTERISKS).

XX SHALL BE ROUNDED UP TO THE NEAREST MULTIPLE OF 5 MPH MINUS 1. OCCUPANCY MAY BE DIRECTED TO BE USED BASED ON CERTAIN TRAFFIC CONDITIONS AND SCENARIOS. ODOT WILL DIRECT THE CONTRACTOR OF THE THRESHOLDS TO BE USED FOR THOSE AREAS WHERE OCCUPANCY IS DIRECTED TO BE USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 896, PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS II 225 SIGN MONTH

(ASSUMING 15 SENSORS FOR 15 MONTHS)

ITEM 896, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 90 SIGN MONTH

(ASSUMING 6 PCMS SIGNS FOR 15 MONTHS)

WORK ZONE EGRESS WARNING SYSTEM

THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN AN APPROVED WORK ZONE EGRESS WARNING SYSTEM (WZEWS) AS PER SUPPLEMENTAL SPECIFICATION 829.

THE LOCATIONS OF THE WZEWS DEVICES ARE EXPECTED TO VARY BASED ON PLANNED OR UNPLANNED PHASE AND TRAFFIC PATTERN CHANGES. PLACEMENT, OPERATION, AND MAINTENANCE AND ALL ACTIVATION OF THE DEVICES BY THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER.

WZEWS SHALL BE USED IN ACCORDANCE WITH MT-103.10. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 829, WORK ZONE EGRESS WARNING SYSTEM 60 SIGN MONTH

(ASSUMING 4 WORK ZONE EGRESS WARNING SYSTEM(S) FOR 15 MONTHS.)

WORK ZONE MARKINGS

THE FOLLOWING PAVEMENT MARKING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE PURPOSE OF INSTALLING PAVEMENT MARKINGS ON THE COMPLETED INTERMEDIATE COURSE PAVEMENT AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT 1.45 MILE

ITEM 614, WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT 10.45 MILE

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT 8597 FT

ITEM 614, WORK ZONE DOTTED LINE, CLASS I, 642 PAINT 5431 FT

THE FOLLOWING PAVEMENT MARKING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER FOR THE PURPOSE OF INSTALLING CLASS III PAVEMENT MARKINGS ON THE COMPLETED SURFACE COURSE PAVEMENT AND HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT 1.45 MILE

ITEM 614, WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT 10.45 MILE

ITEM 614, WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT 8597 FT

CALCULATED
BNC
CHECKED
JMS

MAINTENANCE OF TRAFFIC GENERAL NOTES

CUY-176-10.13

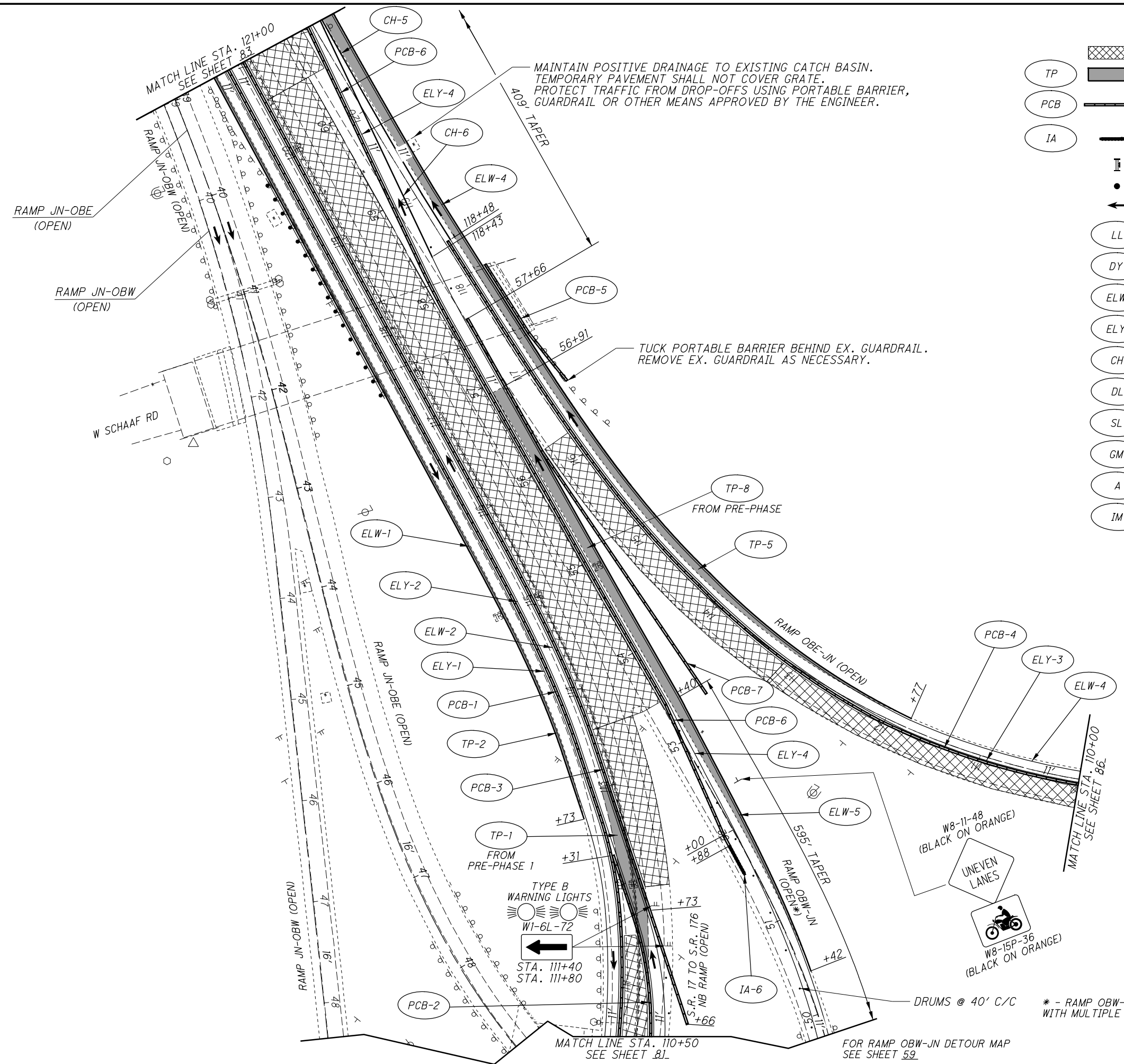
SHEET NO.	REF. NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614	615	622	622	622	614	614	614	614
					WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE GORE MARKING, CLASS II	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE ISLAND MARKING, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, 4" CONNECTOR	BARRIER REFLECTOR, TYPE I, ONE WAY	WORK ZONE RAISED PAVEMENT MARKER	OBJECT MARKER, ONE WAY	WORK ZONE CROSSTAKE LIGHTING SYSTEM
			FROM	TO	EACH	EACH	MILE	MILE	FT	FT	MILE	FT	FT	EACH	SF	SY	FT	FT	EACH	EACH	EACH	EACH	EACH
S.R. 176																							
77,-79	ELW-1	PRE-1	104+40	120+70					0.31														
77,-79	ELY-1	PRE-1	104+40	120+70					0.31												20		
77,-79	ELW-2	PRE-1	104+40	117+10					0.24														
77,-79	ELY-2	PRE-1	104+40	117+10					0.24												16		
77,-79	TP-1	PRE-1	110+96	113+02	1											266							
77,-79	PCB-1	PRE-1	110+96	113+02													206			31		10	
77,-79	TP-4	PRE-1	134+00	137+00												581							
79	LIGHTING	PRE-1	134+00	142+00																		1	
77,-79	PCB-2	PRE-1	132+47	137+30														483		64		21	
RAMP OBW-JN																							
78	TP-8	PRE-1	50+42	56+91												604							
PRE-PHASE 1 SUBTOTAL					1			1.10								1451		689		95	36	31	1
S.R. 176																							
80,85	ELW-2	1	93+70	151+60					1.10													72	
80,85	ELY-2	1	93+70	151+60					1.10													72	
80,83	ELW-1	1	95+25	122+65					0.52														
80,85	ELY-1	1	95+25	145+80					0.96													63	
80,85	IA-1, PCB-2	1	98+78	112+31	1												1353			84		28	
80,82	PCB-1	1	99+00	111+50													1250			78		26	
82,85	PCB-1	1	111+50	137+30														2580		316		105	
82,83	CH-6	1	118+43	121+83						340													
82,85	PCB-3	1	110+66	148+00														3734				76	
82,83	TP-2	1	112+73	122+65																			
83,85	CH-1	1	127+48	130+18						270												14	
83,85	CH-1	1	130+18	148+80						1862												93	
80	CH-2, GM-1	1	122+65	127+48						483				80								12	
83	CH-3	1	122+65	127+48						483												12	
83,85	CH-4	1	127+48	130+18						270												2	
83,85	CH-4	1	130+18	148+80						3724												93	
83,85	ELW-3	1	127+48	130+18					0.05														
83,85	ELW-3	1	130+18	138+65					0.16													42	
83,-84	TP-3	1	127+70	135+15														185				16	
81-82	DL-1	1	138+65	145+80							715												
82,83	ELY-4	1	118+43	129+47					0.21														
83,84	ELY-4	1	129+47	141+70					0.23													61	
84,85	ELY-4	1	141+70	148+00					0.12														
82,83	CH-6	1	118+48	121+83						335												8	
SUBTOTAL (CARRIED TO SHEET 35)					1			4.45	7767	715				80		535	6337	2580		478	544	251	

SHEET NO.	REF. NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614	615	622	622	622	614	614	614	614
					WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT	WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	WORK ZONE GORE MARKING, CLASS II	WORK ZONE ARROW, CLASS I, 642 PAINT	WORK ZONE ISLAND MARKING, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	PORTABLE BARRIER, UNANCHORED	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, 4" CONNECTOR	BARRIER REFLECTOR, TYPE 1, ONE WAY	WORK ZONE RAISED PAVEMENT MARKER	OBJECT MARKER, ONE WAY	WORK ZONE CROSSOVER LIGHTING SYSTEM
			FROM	TO	EACH	EACH	MILE	MILE	FT	FT	MILE	FT	FT	EACH	SF	SY	FT	FT	EACH	EACH	EACH	EACH	EACH
RAMP GE-1																							
109	PCB-7	3	50+45	54+00													355			24		8	
RAMP GE-2																							
108	ELW-8	3	30+26	33+29				0.06															
108	ELY-5	3	30+32	33+29				0.06													4		
RAMP JN-OBW																							
104-105	CH-2, ELY-3, ELW-5	3	38+00	40+41				0.09	241												36		
105	ELW-5	3	40+41	44+12				0.07															
104	PCB-5, IA-2	3	39+64	43+87	1												423		1	28		9	
104	PCB-9	3	39+64	44+30													466			31		10	
104	ELW-9	3	44+12	45+30				0.02															
104	ELY-9	3	40+41	45+30				0.09															
BROOKPARK ROAD																							
102	ELW-1	3	101+16	103+13				0.04															
102	DY-1, LL-1, CH-8	3	102+30	102+77			0.01		47		0.01												
102	SL-1, DL-1	3	102+77	103+64 (S.R. 176)						226		33											
102	ELW-2, DL-5	3	104+07	105+37				0.02		130													
SUBTOTAL (THIS SHEET)					1		0.01	0.45	288	356	0.01	33					1244		1	83	40	27	
SUBTOTAL (CARRIED FROM SHEET 40)					2			6.98	4238	3624		11			7		5025	2649		646	523	215	
PHASE 3 SUBTOTAL					3		0.01	7.43	4526	3980	0.01	44			7		6269	2649	1	729	563	242	

SHEET NO.	REF. NO.	PHASE	LOCATION		614	614	614	614	614	614	614	614	614	614	614	615	622	622	622	614	614	614	614
			FROM	TO	EACH	EACH	MILE	MILE	FT	FT	MILE	FT	FT	EACH	SF	SY	FT	FT	EACH	EACH	EACH	EACH	EACH
S.R. 176																							
123	ELY-1	4A	93+70	117+69				0.45														30	
123	ELW-1	4A	93+70	113+44			0.37																
123	CH-1	4A	113+44	117+69				425														11	
123	CH-2	4A	113+58	117+69				411														10	
123-124	CH-3	4A	114+70	124+35				965														24	
123-124	LL-1, ELY-1	4A	117+69	121+50		0.07	0.07															3	
123-124	CH-6	4A	117+77	124+35				658														16	
123	PCB-1, IA-1	4A	120+14	136+99	1												1685			104		35	
124-125	CH-4, ELY-1	4A	121+50	139+88			0.35	1838														184	
124-125	ELW-2	4A	122+35	139+88			0.33															88	
124-125	CH-5	4A	124+35	139+88				1553														78	
PHASE 4A SUBTOTAL					1		0.07	1.57	5850								1685			104	444	35	
PRE-PHASE 1 SUBTOTAL (CARRIED FROM SHEET 33)					1			1.10								1451		689		95	36	31	1
PHASE 1 SUBTOTAL (CARRIED FROM SHEET 35)					6		4.16	12.70	22997	1993			80			5413	23429	2580		1530	1905	602	
PHASE 1A SUBTOTAL (CARRIED FROM SHEET 36)					1		0.19	1.37	3529								1754			118	290	39	
PHASE 2 SUBTOTAL (CARRIED FROM SHEET 39)					4		2.30	10.09	7153	1780		60		2	14	109	17167	4505	2	1616	802	540	
PHASE 3 SUBTOTAL (CARRIED FROM SHEET 41)					3		0.01	7.43	4526	3980	0.01	44			7		6269	2649	1	729	563	242	
PHASE 3A SUBTOTAL (CARRIED FROM SHEET 42)					1			1.40	2195								868			58	55	19	
PHASE 4 SUBTOTAL (CARRIED FROM SHEET 43)					2		0.76	2.11	3496	860				789			4170	92		273	238	91	
PHASE 4A SUBTOTAL (THIS SHEET)					1		0.07	1.57	5850								1685			104	444	35	
TOTAL CARRIED TO GENERAL SUMMARY					19		7.49	37.77	49746	8613	0.01	104	869	2	21	6973	55342	10515	3	4523	4333	1599	1

MAINTENANCE OF TRAFFIC SUBSUMMARY

CALCULATED
 BNC
 CHECKED
 JMS

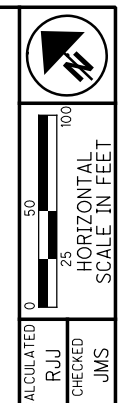


MAINTAIN POSITIVE DRAINAGE TO EXISTING CATCH BASIN. TEMPORARY PAVEMENT SHALL NOT COVER GRATE. PROTECT TRAFFIC FROM DROP-OFFS USING PORTABLE BARRIER, GUARDRAIL OR OTHER MEANS APPROVED BY THE ENGINEER.

TUCK PORTABLE BARRIER BEHIND EX. GUARDRAIL. REMOVE EX. GUARDRAIL AS NECESSARY.

MOT LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PORTABLE BARRIER
- IMPACT ATTENUATOR
- TYPE III BARRICADE
- DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE LANE LINE, 6"
- WORK ZONE CENTER LINE
- WORK ZONE EDGE LINE (WHITE), 6"
- WORK ZONE EDGE LINE (YELLOW), 6"
- WORK ZONE CHANNELIZING LINE, 12"
- WORK ZONE DOTTED LINE, 6"
- WORK ZONE STOP LINE
- WORK ZONE GORE MARKING
- WORK ZONE ARROW
- WORK ZONE ISLAND MARKING (YELLOW)



CALCULATED RJJ
CHECKED JMS

**MAINTENANCE OF TRAFFIC
PHASE 1**

CUY-176-10.13

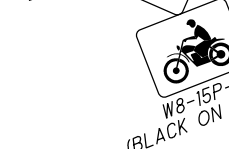
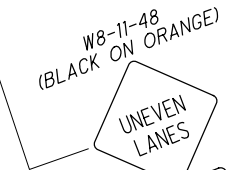
82
363



TYPE B WARNING LIGHTS
W1-6L-72



S.R. 17 TO S.R. 176 NB RAMP (OPEN)



W8-15P-36 (BLACK ON ORANGE)

DRUMS @ 40' C/C

* - RAMP OBW-JN OPEN, EXCEPT CLOSED PER A+B BIDDING WITH MULTIPLE SECTIONS CONTRACT TABLE TO BUILD RAMP.

FOR RAMP OBW-JN DETOUR MAP SEE SHEET 59

Robert.J.gmk
 6/23/2020 4:08:40 PM
 Sheet
 GG001.dgn
 01941
 Roadway
 Sheets
 176-10.13
 Design
 176-10.13
 900-CAD
 GIS
 10941
 CUY-176-10.13
 425-CUY-176-10.13
 Documents
 60527425-CUY-176-10.13
 900-CAD
 GIS
 10941
 CUY-176-10.13
 AECOM-NA-AWSI.aecomonline.local
 local
 AECOM-NA-DS01_NA

OFFICE CALCS	20 - 22	25 - 31	44	136	137	138	139	140	143	144	145	147	148	149	322	326	327	330	344	355	360	362	01/NHS/PV	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.		
PAVEMENT (CONT.)																															
9909		1405										267												11581	407	20000	11581	GAL	NON-TRACKING TACK COAT		
								159																159	411	10001	159	CY	STABILIZED CRUSHED AGGREGATE, AS PER PLAN	20	
								447																447	441	50701	447	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN	20	
4421																								4421	442	10100	4421	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)		
3717		1100										63												4880	442	10301	4880	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG 76-22M	21	
												104												104	442	20200	104	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)		
571																								571	452	09010	571	SY	4" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC IP		
560																								560	452	15010	560	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC IP		
174																								174	609	14000	174	FT	CURB, TYPE 2-A		
898																								898	609	24510	898	FT	CURB, TYPE 4-C		
185																								185	609	26000	185	FT	CURB, TYPE 6		
2.31		1.76																						4.07	618	40600	4.07	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		
LIGHTING																															
																								7	7	625	00450	7	EACH	CONNECTION, FUSED PULL APART	
																								7	7	625	00460	7	EACH	CONNECTION, UNFUSED PULL APART	
																								2	2	625	00480	2	EACH	CONNECTION, UNFUSED PERMANENT	
																								28	28	625	10620	28	EACH	LIGHT POLE ANCHOR BOLTS, MISC.: MEDIAN MOUNTED LIGHT POLE	361
																								7	7	625	14306	7	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP	
																								1652	1652	625	22910	1652	FT	NO. 2/0 AWG 2400 VOLT DISTRIBUTION CABLE	
																								1118	1118	625	23308	1118	FT	DISTRIBUTION CABLE, MISC.: NO. 4/0 AWG 2400 VOLT DISTRIBUTION CABLE	
																								7	7	625	32000	7	EACH	GROUND ROD	
																								7	7	625	35011	7	EACH	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	361
																								LS	LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	361
																								7	7	625	75500	7	EACH	LIGHT POLE FOUNDATION REMOVED	
																								1	1	625	75800	1	EACH	DISCONNECT CIRCUIT	
TRAFFIC SURVEILLANCE																															
																									700	625	25752	700	FT	CONDUIT, 4", MULTICELL, 725.20, EPC-80, FOR TRAFFIC SURVEILLANCE	22
																									350	625	29010	350	FT	TRENCH, 30" DEEP	
																									14	625	29931	14	EACH	MEDIAN JUNCTION BOX, AS PER PLAN	22
																									6	625	30710	6	EACH	PULL BOX, 725.08, 32"	
																									6	625	31510	6	EACH	PULL BOX REMOVED	
TRAFFIC CONTROL																															
																									400	614	11631	400	FT	INCREASED BARRIER DELINEATION, AS PER PLAN	330
																									413	621	00100	413	EACH	RPM	
																									295	621	00300	295	EACH	RPM REFLECTOR	
																									587	621	54000	587	EACH	RAISED PAVEMENT MARKER REMOVED	
																									3	625	32000	3	EACH	GROUND ROD	
																									144	626	00102	144	EACH	BARRIER REFLECTOR, TYPE 1, BI-DIRECTIONAL	
																									3	626	00112	3	EACH	BARRIER REFLECTOR, TYPE 3, ONE WAY	
																									195	626	00112	195	EACH	BARRIER REFLECTOR, TYPE 3, BI-DIRECTIONAL	
																									326.6	630	03100	326.6	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
																									35.2	630	06500	35.2	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
																									41.9	630	07600	41.9	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
																									32.0	630	08004	32.0	FT	ONE WAY SUPPORT, NO. 3 POST	
																									127.7	630	08300	127.7	FT	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, TYPE L BEAM	
																									39	630	08600	39	EACH	SIGN POST REFLECTOR	
																									4	630	09000	4	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
																									1	630	20800	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 8	
																									1	630	45500	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 8	
																									1	630	55000	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TC-7.65	
																									1	630	79101	1	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	329
																									18	630	79600	18	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 1	
																									399.0	630	80100	399.0	SF	SIGN, FLAT SHEET	
																									13.4	630	80101	13.4	SF	SIGN, FLAT SHEET, AS PER PLAN	328
																									48.0	630	80200	48.0	SF	SIGN, GROUND MOUNTED EXTRUSHEET	

CALCULATED
 MJT
 CHECKED
 NSP
GENERAL SUMMARY
CUY-176-10.13
 133
 363

SHEET NO.	REFERENCE NO.	STATION		SIDE	LENGTH	622	622	622	622	622	622	622	622	622	622	622	622	622	622	622	622	614	626		
		CONCRETE BARRIER, SINGLE SLOPE, TYPE B	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN			CONCRETE BARRIER, SINGLE SLOPE, TYPE BI	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE CI	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER END SECTION, TYPE D	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN (I)	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B, AS PER PLAN	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE BI	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE CI	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR, AS PER PLAN	WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL), AS PER PLAN	BARRIER REFLECTOR, TYPE I, BI-DIRECTIONAL		
		FROM	TO		FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
		SR 176																							
151 - 152	CB1	100+19.26	103+40.00	℄	320.74						290.74												7.00		
152 - 153	CB2	103+60.00	109+90.30	℄	630.30						600.30												14.00		
153 - 155	CB3	110+10.30	115+94.40	℄	584.10						569.10												13.00		
155	CB4	115+94.40	117+61.50	℄	167.10			152.10									1						3.00		
155	CB4A	118+25.75	119+40.00	℄	114.25			84.25									2						2.00		
155 - 156	CB5	119+60.00	124+35.00	℄	475.00			445.00									2						7.00		
156 - 158	CB6	125+25.00	130+95.61	℄	570.61			540.61									2						7.00		
158	CB6A	131+15.61	132+46.95	℄	131.34			116.34									1						3.00		
158	CB7	132+46.95	137+30.00	℄	483.05					468.05										1			6.00		
		RAMP OBE-JN																							
186	CB9	106+37.09	106+52.46	RT	15.37																		2.00		
186	CB8	106+80.65	106+95.78	LT	15.13																		2.00		
		RAMP JN-OBE																							
	CB10	NOT	USED																						
221 - 223	CB11	59+66.00	70+90.00	RT	1130.00																1130.00	1	1	24.00	
	CB12	NOT	USED																						
222	CB13	64+90.00	67+15.00	RT	225.00						196.00	1											5.00		
222 - 223	CB14	67+15.00	73+35.00	RT	620.00				590.00									2					13.00		
223	CB15	71+12.30	71+89.44	RT	77.14			47.14										2					2.00		
223 & 224	CB16	72+09.44	73+94.44	RT	185.00			155.00										2					3.00		
224	CB17	74+14.44	74+95.77	RT	81.33			51.33										2					2.00		
224	CB18	75+15.77	75+92.70	RT	76.93			46.93										2					2.00		
224	CB19	76+12.70	76+69.44	RT	56.74			26.74										2					2.00		
224	CB20	76+89.44	77+59.44	RT	70.00	40.00										2							2.00		
224	CB21	77+79.44	78+49.44	RT	70.00	40.00										2							2.00		
225	CB22	78+69.44	79+39.44	RT	70.00	40.00										2							2.00		
225	CB23	79+59.44	80+39.44	RT	80.00	50.00										2							2.00		
225 & 249	CB24	80+59.44	87+38.60	RT	679.16	649.16										2							8.00		
249	CB25	87+58.60	87+73.60	RT	15.00											1							2.00		
249 & 250	CB26	87+73.60	89+57.62	RT	184.02		154.02																3.00		
		RAMP GE-2																							
258	CB28	32+00.00	32+90.00	LT	90.00																90.00	1	2.00		
		RAMP JN-OBW																							
279	CB27	40+80.20	41+28.20	LT	48.00						20.00	2											2.00		
QUANTITY REMOVED FOR BARRIER INLETS										-80.00															
QUANTITY REMOVED FOR LIGHTING SUPPORTS																									
SUBTOTAL						819.16	154.02	1282.30	327.14	510.00	1928.19	216.00	3	2	11	2	8	10	2	6	1	1220.00	1	2	144.00
TOTALS CARRIED TO GENERAL SUMMARY						819	154	1282	327	510	1928	216	3	2	11	2	8	10	2	6	1	1220	1	2	144

CONCRETE BARRIER SUBSUMMARY

SHEET NO.	REFERENCE NO.	STATION		SIDE	LENGTH	MATERIALS												
		FROM	TO			209 RESHAPING UNDER GUARDRAIL, AS PER PLAN STA	411 STABILIZED CRUSHED AGGREGATE, AS PER PLAN CY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448), (UNDER GUARDRAIL), AS PER PLAN CY	606 GUARDRAIL, TYPE MGS FT	606 GUARDRAIL, TYPE MGS HALF POST SPACING FT	606 GUARDRAIL, BARRIER DESIGN, TYPE MGS FT	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH) EACH	606 ANCHOR ASSEMBLY, MGS TYPE T EACH	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 EACH	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 EACH	606 IMPACT ATTENUATOR, TYPE 1 (UNIDIRECTIONAL) EACH	626 BARRIER REFLECTOR, TYPE 3, ONE WAY EACH	626 BARRIER REFLECTOR, TYPE 3, BI-DIRECTIONAL EACH
SR 176																		
150	GR27	92+67.35	94+12.23	LT	144.88	1.4		6.71	137.5				1		1			4
150	GR28	92+74.14	94+29.77	RT	155.63	1.6		7.21	75.0				1		1			3
151 & 152	GR1	99+71.49	103+95.28	LT	423.79	4.2		19.62	362.5				1		1			9
152 & 153	GR2	103+13.55	109+76.01	RT	662.46	6.6		30.67	662.5				1		1			15
154	GR3	110+48.82	111+77.08	LT	128.26	1.3		5.94	62.5				1	1				3
155 & 156	GR4	117+35.61	121+79.58	LT	443.97	4.4		20.55	400.0				1				1	5
156 & 157	GR5	120+84.97	129+09.73	RT	824.76	8.2		38.18	762.5				1	1				9
156, 157, 278 & 279	GR6	129+25.82	41+25.20 JN-OBW	LT/RT	1050.00	10.5		48.61	950.0	37.5			1	1				13
158	GR6A	132+29.24	134+02.50	RT	173.26	1.7		8.02	112.5				1	1			3	
RAMP OBE-JN																		
183 & 184	GR7	92+73.03	95+48.26	RT	275.23	2.8		12.74	212.5				1	1				4
184 & 185	GR8	98+97.60	103+07.00	LT	409.40	4.1	52.11 (CADD)	11.62 (CADD)			412.5							12
185 & 186	GR9	103+07.00	107+21.78	LT	414.78	4.1		19.20	412.5									6
185 & 186	GR10	103+07.00	106+83.10	LT	376.10	3.8	106.91 (CADD)	3.80 (CADD)	350.0						1			8
186	GR11	104+99.71	106+39.61	RT	139.90	1.4		6.48	62.5				1		1			3
188	GR12	115+23.53	117+24.41	RT	200.88	2.0		9.30	137.5				1	1				4
RAMP JN-OBE																		
218 & 219	GR13	46+88.97	48+71.78	LT	182.81	1.8		8.46	100.0				1		1			3
218 & 219	GR14	47+25.98	49+13.24	RT	187.26	1.9		8.67	112.5				1		1			4
220	GR16	56+00.42	57+49.59	RT	149.17	1.5		6.91	137.5				1		1			4
220 - 222	GR15	56+43.61	64+74.45	LT	830.84	8.3		38.46	793.87						1	1		17
221 & 222	GR17	62+74.46	64+92.50	RT	218.04	2.2		10.09	137.5				1		1			4
223	GR18	69+36.10	72+87.70	LT	351.60	3.5			337.5						1		1	8
RAMP OBW-JN																		
262 & 263	GR19	35+87.05	43+42.50	LT	755.45	7.6		34.97	725.0						1			16
263 & 264	GR20	42+42.87	45+04.50	RT	261.63	2.6		12.11	187.5				1		1			5
264 & 265	GR22	48+63.10	49+93.72	LT	130.62	1.3		6.05	112.5						1		1	4
264 & 265	GR21	48+96.10	49+97.74	RT	101.64	1.0		4.71	75.0						1		1	3
RAMP JN-OBW																		
278 & 279	GR23	38+46.45	40+79.91	LT	233.46	2.3		10.81	212.5						1			4
279	GR25	41+20.92	42+55.44	LT	134.52	1.3		6.23	125.0						1		1	3
	GR24	NOT USED																
280 - 282	GR26	48+81.26	59+86.55	RT	1105.29	11.1		51.17	1037.5				1	1				22
SUBTOTAL						105	159.02	447.29	8793.87	37.5	412.5	14	15	11	8	1	3	195
TOTALS CARRIED TO GENERAL SUMMARY						105	159	447	8794	37.5	412.5	14	15	11	8	1	3	195

CALCULATED
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GUARDRAIL SUBSUMMARY

CUY - 176 - 10.13

PLAN SHEET NO.	REFERENCE NO.	STATION		SIDE	601	605	605	605	605	605	611	611	FOR INFORMATION ONLY				
		TIED CONCRETE BLOCK MAT, TYPE 1	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET	90-DEGREE BEND	45-DEGREE BEND	6"X6" TEE	6"X6" CROSS	6"X6" WYE		
		FROM	TO		SY	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	
155-156,278	U49	119+55.20	121+85.00	SR-176 LT.			937						2		2		
156-278	U50	121+85.00	125+10.00	SR-176 LT.		650									2		
157	U51	125+15.00	130+45.00	SR-176 LT.		1060									2		
157	U52	125+15.00	130+45.00	SR-176 RT.		530									1		
180	U53	76+50.00	78+78.00	OBE-JN LT.				228			41		1		1		
180	U54	76+50.00	78+78.00	OBE-JN RT.				228					1				
180-181	U55	78+83.00	81+04.21	OBE-JN LT.			213				10			1			
180-181	U56	78+83.00	81+04.21	OBE-JN RT.			203				25			1			
181	U57	81+06.00	84+60.00	OBE-JN RT.	2				357		111	1			1		
181	U58	81+06.00	84+60.00	OBE-JN LT.					357				1				
182	U59	84+60.00	88+65.00	OBE-JN RT.		405											
182	U60	84+60.00	88+65.00	OBE-JN LT.		405											
182-183	U60A	88+65.00	90+46.00	OBE-JN LT.						183				1			
182-183	U61	88+65.00	93+98.93	OBE-JN RT.						503	43			1			
183-184	U62	90+46.20	96+15.52	OBE-JN LT.						571	10			1			
184-185	U63	96+93.00	101+60.00	OBE-JN LT.		461											
184	U63A	96+25.00	96+93.00	OBE-JN LT.						68							
185	U64	101+60.00	102+35.00	OBE-JN LT.						148			1		1		
185	U65	100+59.26	101+60.00	OBE-JN LT.		100											
183-184,185	U66	96+93.00	101+60.00	LT./RT.		470											
184	U66A	93+71.68	96+93.00	LT./RT.						322							
185	U67	101+60.00	102+35.00	OBE-JN RT.						76	50				1		
185-186	U68	102+40.00	107+80.00	OBE-JN LT.						544			1				
185-186,186	U69	102+40.00	104+63.00	OBE-JN LT.						223					1		
185-186	U70	102+40.00	107+49.00	OBE-JN RT.						508	50			1	1		
186	U71	104+64.00	107+58.00	OBE-JN CL.						304			1		1		
186-187	U72	107+67.00	113+22	OBE-JN CL.						555			1				
186-187	U72A	108+07.00	113+22.00	OBE-JN LT.						536	20		1	1			
186-187	U73	107+67.00	113+22.00	OBE-JN RT.						547	43			2	1		
155-187,188	U74	113+22.00	115+86.00	LT./RT.						273							
155-187,188	U75	113+22.00	115+86.00	OBE-JN RT.						525							
155-188	U76	115+86.00	116+76.15	OBE-JN LT.						92					1		
155-188	U77	115+86.00	119+43.00	OBE-JN RT.						713					2		
155-188	U78	116+75.76	119+43.00	OBE-JN LT.						268	49		1	1			
155-156	U79	119+54.00	125+09.32	OBE-JN LT.		557									1		
155-156	U80	119+54.00	125+09.32	OBE-JN RT.		1110									2		
157	U81	125+13.00	130+44.00	OBE-JN RT.	2	1062					153	1			2		
218-278,279	U82	40+40.00	43+86.00	JN-OBE CL.					347						1		
278-279	U83	40+40.00	43+86.00	JN-OBE LT.					349						1		
218-219,279	U84	43+87.00	48+94.00	LT./RT.			521						1				
220	U85	56+60.00	58+50.00	JN-OBE LT.			368										
220	U86	56+16.00	58+50.00	LT./RT.			239										
221-258	U87	58+50.00	61+24.77	LT./RT.					544				1		1		
221-258	U88	58+50.00	60+41.78	LT./RT.						196					1		
221-258	U89	33+26.37	30+32.28	GE-2 LT.						353			1	1	1		
221-258	U90	30+30.00	33+28.49	LT./RT.						321				2	1		
221-222,223	U91	61+30.00	69+75.00	LT./RT.			843				10						
SUBTOTAL (CARRIED TO SHEET 142)					4	6810	3324	456	2824	6959	704	2					

CALCULATED MJT CHECKED NSP	UNDERDRAIN SUBSUMMARY	CUY-176-10.13
142 363		

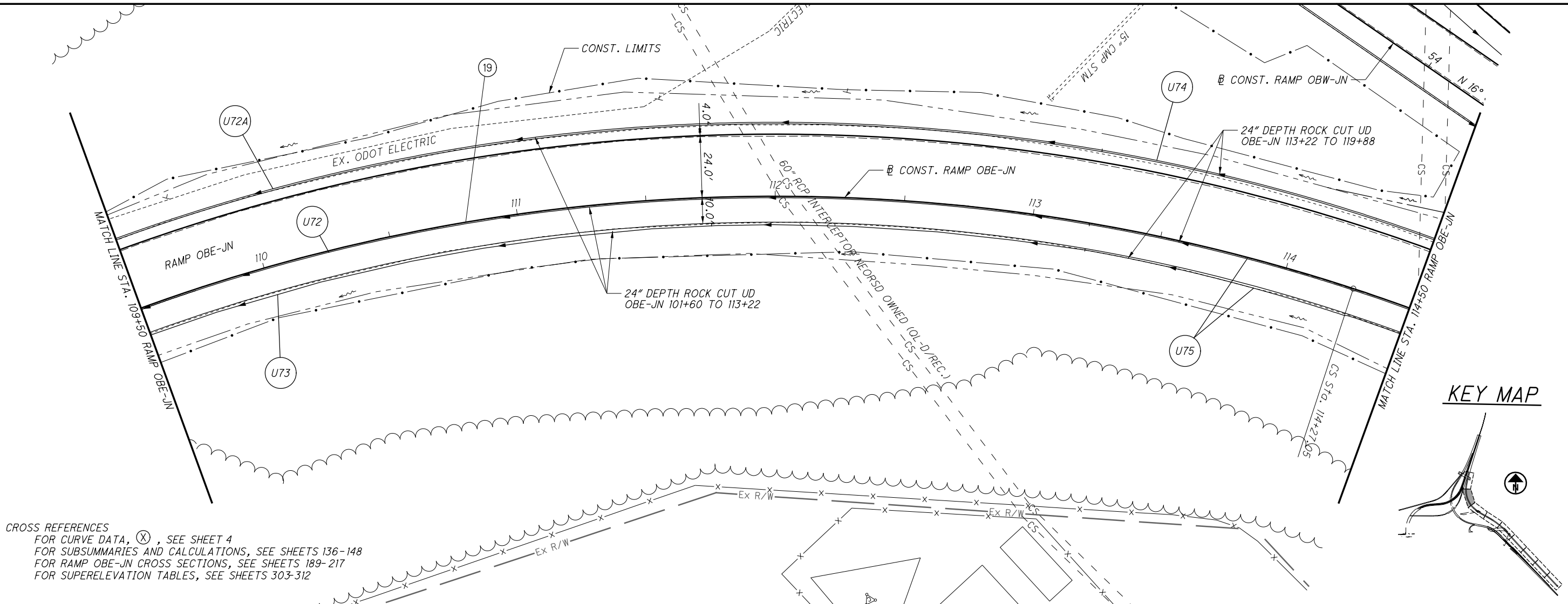
PLAN SHEET NO.	REFERENCE NO.	STATION		SIDE	601	605	605	605	605	605	611	611	FOR INFORMATION ONLY				
		TIED CONCRETE BLOCK MAT, TYPE 1	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6" ROCK CUT UNDERDRAINS WITH GEOTEXTILE FABRIC	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	PRECAST REINFORCED CONCRETE OUTLET	90-DEGREE BEND	45-DEGREE BEND	6"X6" TEE	6"X6" CROSS	6"X6" WYE		
		FROM	TO		SY	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	
221-222,223	U92	61+30.00	70+10.93	JN-OBE RT.			879										
221-222,223	U93	61+30.00	69+00.00	LT./RT.			750				10		1				
223	U94	69+80.00	70+23.00	JN-OBE LT.			31				10						
223	U95	69+04.00	70+11.00	JN-OBE RT.			95				10						
223	U96	70+23.00	70+94.00	JN-OBE LT.			69				10						
	U97	70+11.00	70+89.00	JN-OBE RT.			79										
223	U98	70+11.00	71+00.00	JN-OBE RT.			79				10						
223	U99	70+11.00	70+11.00	JN-OBE RT.							19						
278	U100	121+85.00	125+09.90	OBE-JN RT.		325									1		
	U101	NOT USED															
224-223	U102	71+00.00	75+54.00	JN-OBE LT.						445	10		2				
223	U103	71+00.97	71+88.00	JN-OBE RT.						74	10						
221-223,224	U104	71+00.97	75+54.00	JN-OBE RT.						440	10		2				
223-224	U105	72+00.00	73+93.00	JN-OBE RT.						184	10						
224	U106	74+04.00	74+95.00	JN-OBE RT.						81	10						
224	U107	75+05.77	75+54.00	JN-OBE RT.						38	10						
224	U108	75+54.00	76+03.00	JN-OBE RT.					38		10						
264-265,224	U109	75+54.00	76+03.00	JN-OBE LT.					40		10						
264-265,224	U110	75+54.00	76+03.00	JN-OBE RT.					49		13				1		
262-263,224	U111	50+25.00	51+14.60	LT./RT.						91			2		1		
262-263,224	U112	50+25.00	51+14.60	LT./RT.						180	43		1			2	
224-225	U113	74+81.28	82+00.00	LT./RT.						719							
224-225	U114	74+81.28	82+00.00	JN-OBE RT.							1440						
224	U115	76+03.00	76+49.00	JN-OBE RT.					47								
224	U116	76+03.00	76+69.00	JN-OBE RT.					55		10						
224-225	U117	76+03.00	82+00.00	JN-OBE LT.					598		10						
224	U118	76+79.00	77+59.00	JN-OBE RT.					70		10						
224	U119	77+69.00	78+49.00	JN-OBE RT.					70		10						
225	U120	78+59.00	79+39.00	JN-OBE RT.					69		10						
225	U121	79+49.00	80+39.00	JN-OBE RT.					80		10						
225	U122	80+49.00	82+00.00	JN-OBE RT.					141		10						
225-249	U123	82+00.00	87+33.00	JN-OBE RT.							1599	25	1		2		
225-249	U124	82+00.00	87+49.00	JN-OBE RT.					1082		10	1			1		
249-250	U125	287+60.00	292+31.00	EB-OL LT.					474				2		1		
249-250	U126	287+35.00	292+31.00	LT./RT.						992	35					2	
250	U127	292+31.00	293+24.00	LT./RT.						186							
250	U128	292+31.00	293+24.00	LT./RT.					93								
SUBTOTAL (THIS SHEET)						325	1982		2906	6469	345						
SUBTOTAL (CARRIED FROM SHEET 141)					6	2936	17721		3016	1830	627	3					
SUBTOTAL (CARRIED FROM SHEET 142)					4	6810	3324	456	2824	6959	704	2					
TOTALS CARRIED TO GENERAL SUMMARY					10	10071	23027	456	8746	15258	1676	5					

CALCULATED
MJT
CHECKED
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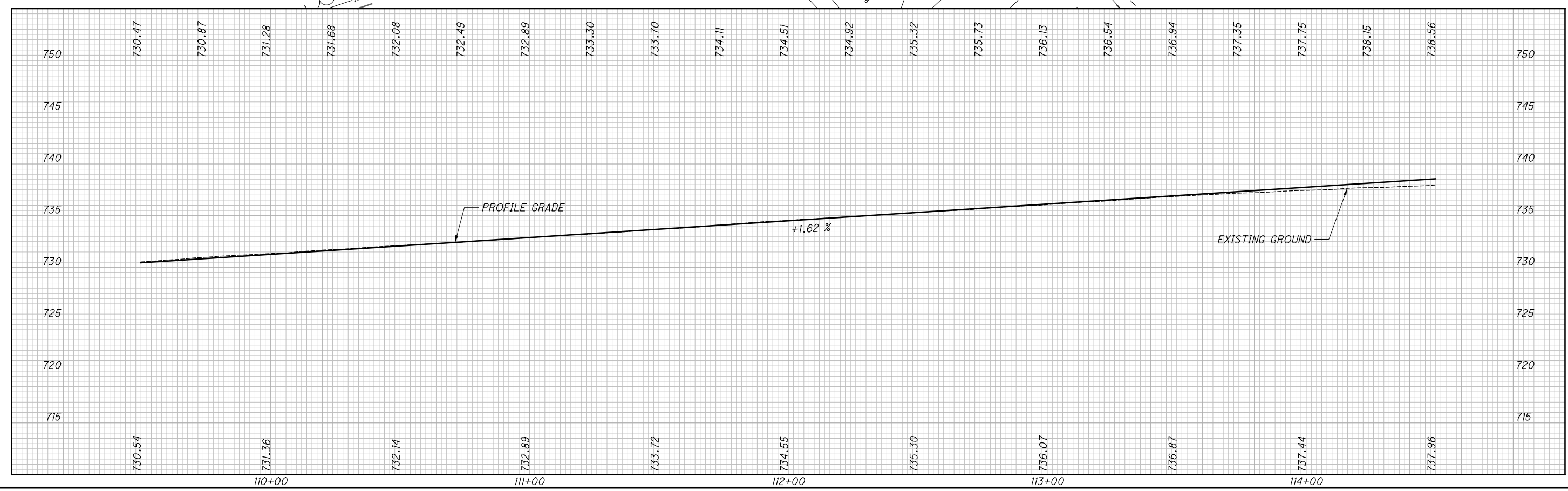
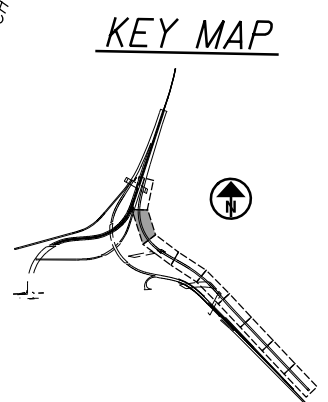
UNDERDRAIN SUBSUMMARY

CUY-176-10.13

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CROSS REFERENCES
 FOR CURVE DATA, (X), SEE SHEET 4
 FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 136-148
 FOR RAMP OBE-JN CROSS SECTIONS, SEE SHEETS 189-217
 FOR SUPERELEVATION TABLES, SEE SHEETS 303-312



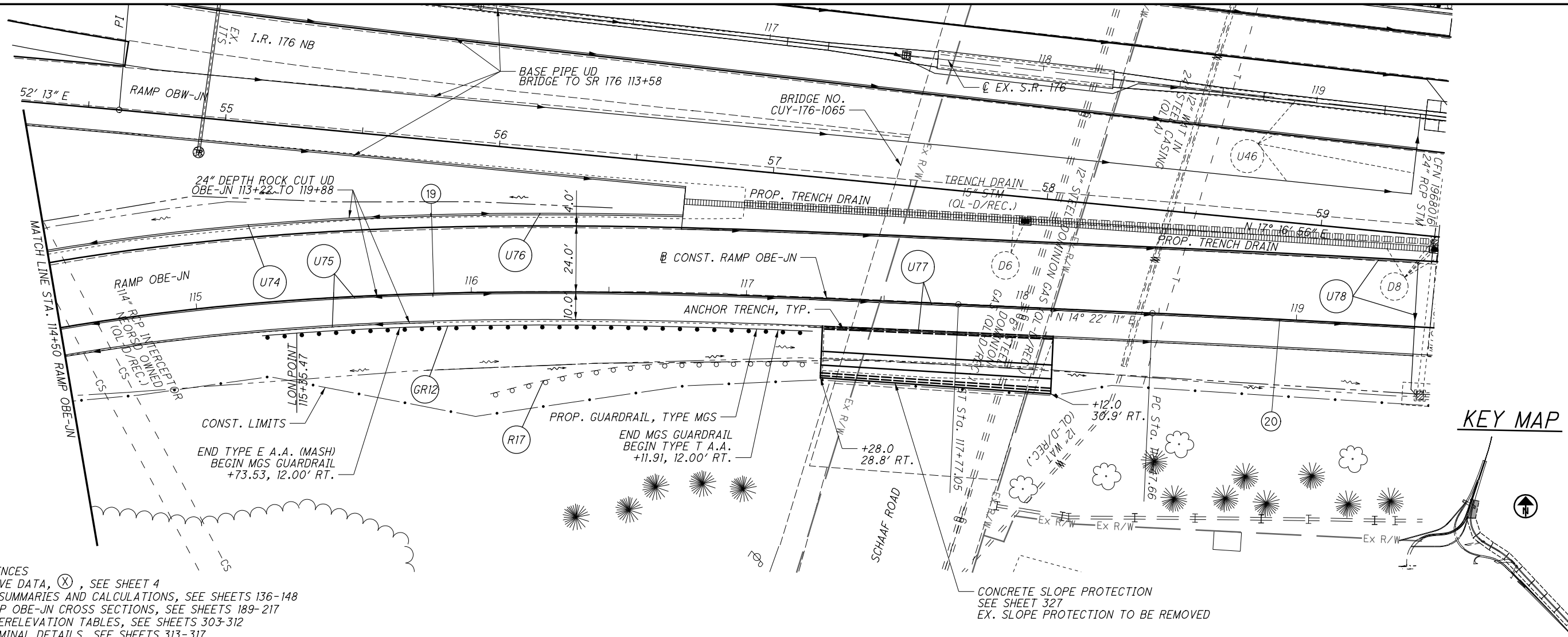
CALCULATED
AMP
CHECKED
MAW

HORIZONTAL
SCALE IN FEET

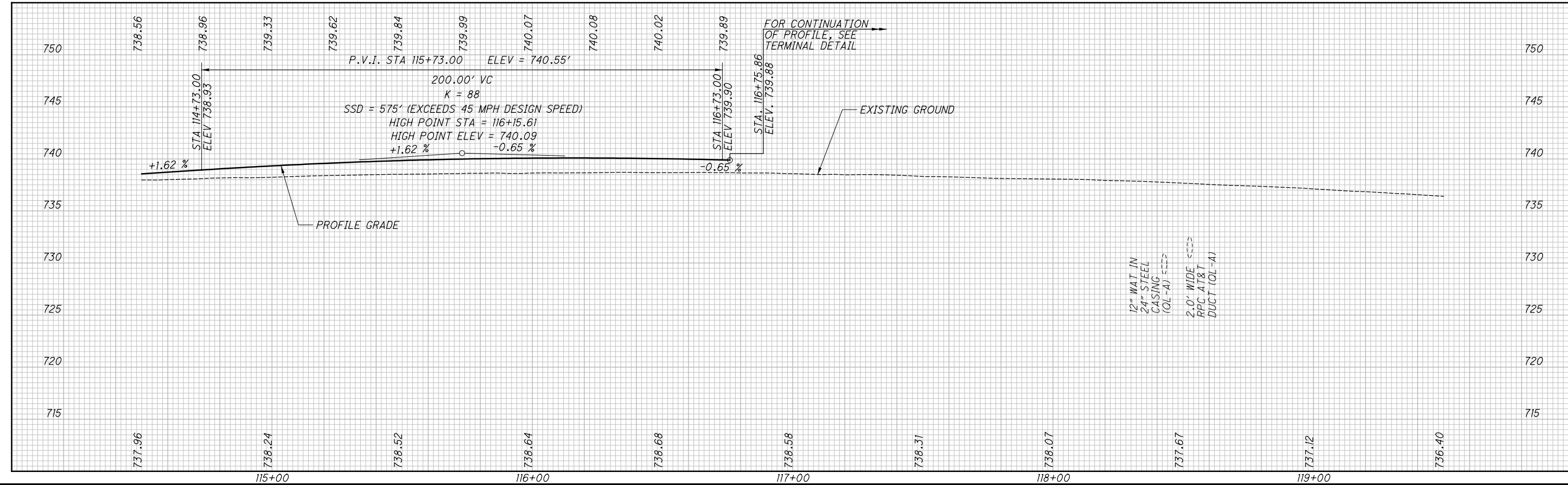
PLAN AND PROFILE - RAMP OBE-JN
 STA. 109+50 TO STA. 114+50

187
363

pw:\AECOM-NA-AWS\ecomonline\local\AECOM_DS01_NA\Documents\60527425-CUY-176-10.13\900-CAD_GIS\01941_CUY-176-10.13\Design\Roadway\Sheets\01941_GPO18.dgn Design 6/26/2020 9:37:47 AM Robert.jank



CROSS REFERENCES
 FOR CURVE DATA, (X), SEE SHEET 4
 FOR SUBSUMMARIES AND CALCULATIONS, SEE SHEETS 136-148
 FOR RAMP OBE-JN CROSS SECTIONS, SEE SHEETS 189-217
 FOR SUPERELEVATION TABLES, SEE SHEETS 303-312
 FOR TERMINAL DETAILS, SEE SHEETS 313-317



0 20 40
HORIZONTAL SCALE IN FEET

CALCULATED

AMP

CHECKED

MAW

PLAN AND PROFILE - RAMP OBE-JN

STA. 114+50 TO STA. 119+50

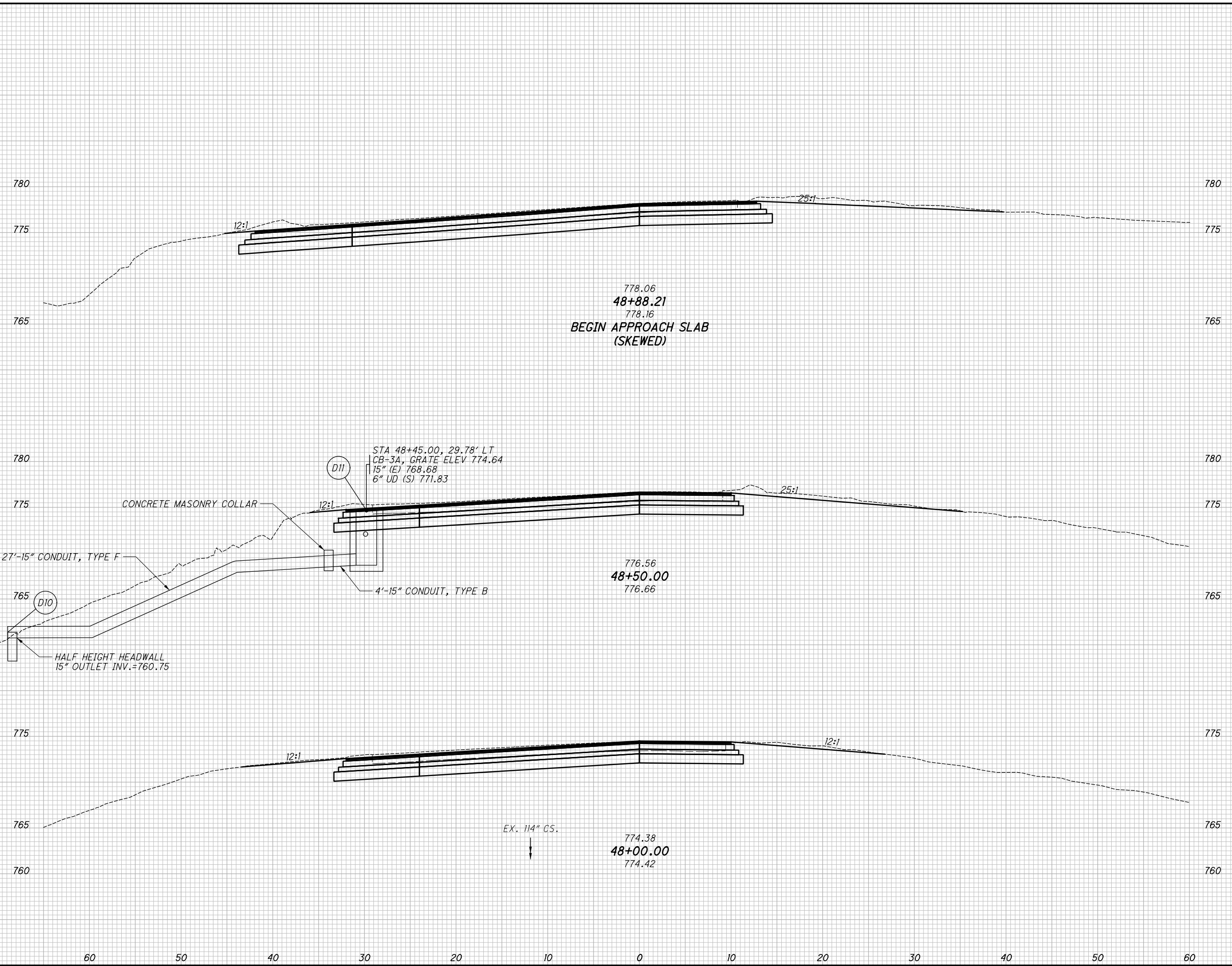
CUY-176-10.13

188

363

p:\AECOM-NA-AWS\ecomonline\local\AECOM_DS01_NA\Documents\60527425-CUY-176-10.13\900-CAD_GIS\01941_CUY-176-10.13\Design\Roadway\Sheets\01941_XS005.dgn Sheet 6/22/2020 12:00:08 PM

SEEDING	END	
	WIDTH	SO. YDS.
	30	
	125	
	29	
	158	
	28	
	164	
447		



END AREA	VOLUME	
	CUT	FILL
157	0	
193	0	
116	0	
217	0	
118	0	
227	0	
637	0	

CROSS SECTIONS RAMP JN-OBE
STA. 48+00.00 TO STA. 48+88.21
 CALCULATED JEM
 CHECKED MAW
CUY-176-10.13
 229
 363

SEEDING	END SO.	
	WIDTH	YDS.
	178	0
	122	56
	24	24

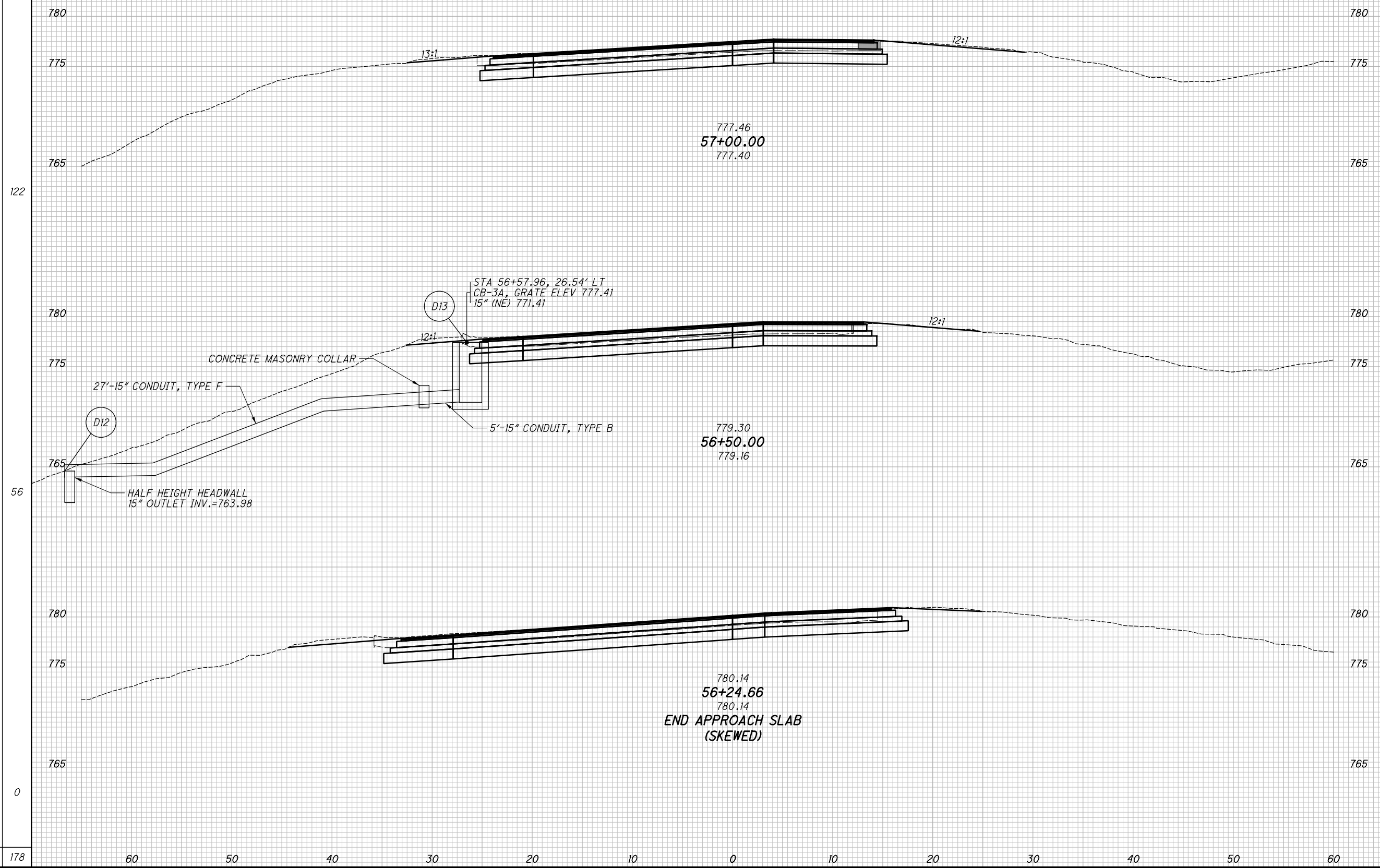
TEMPORARY PAVEMENT

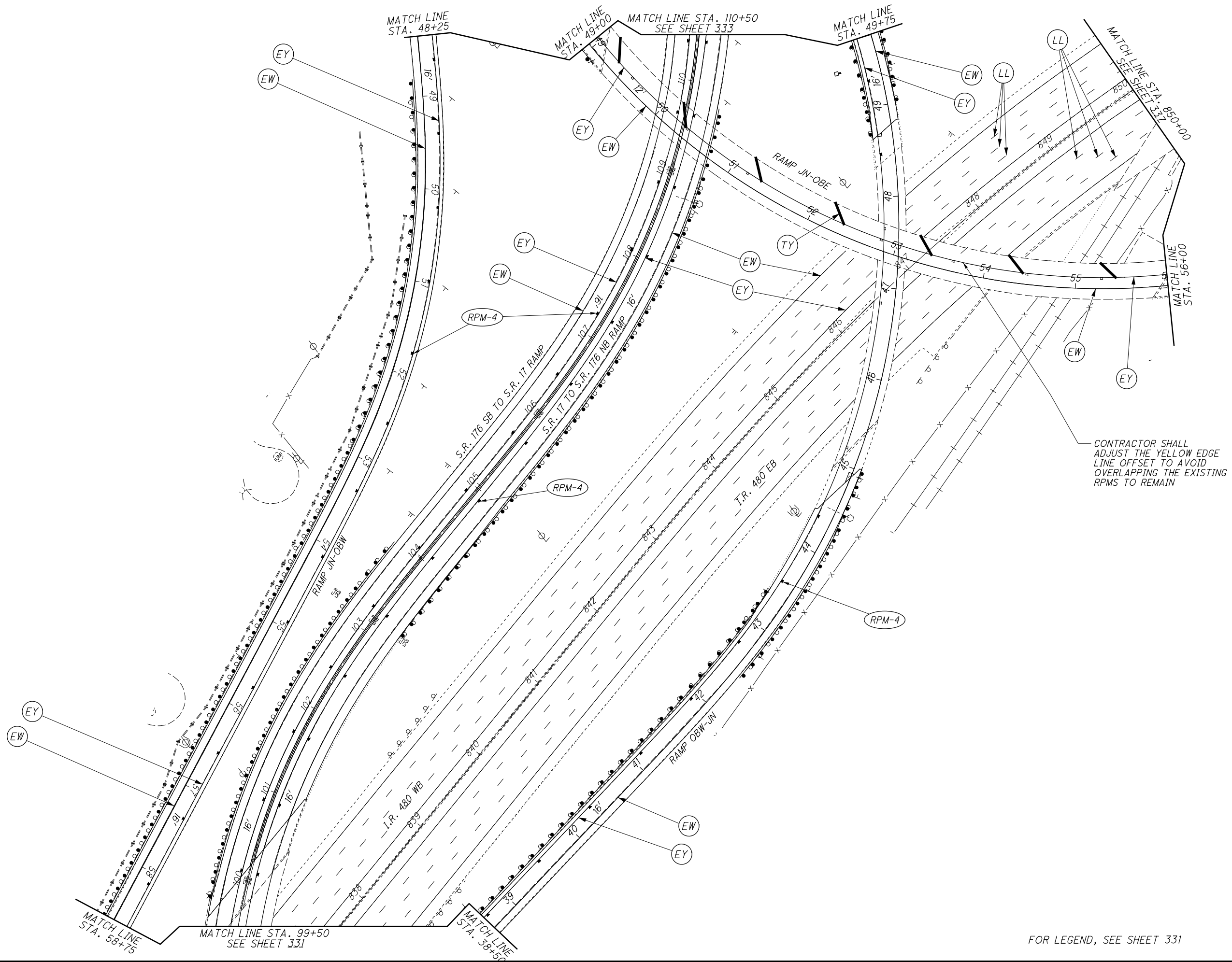
END AREA	VOLUME	CALCULATED	CHECKED		
				CUT	FILL
114	0				
116	0				
129	0				
158	0				
	342	0	0		

CROSS SECTIONS RAMP JN-OBE
STA. 56+24.66 TO STA. 57+00.00

CUY-176-10.13

230
363





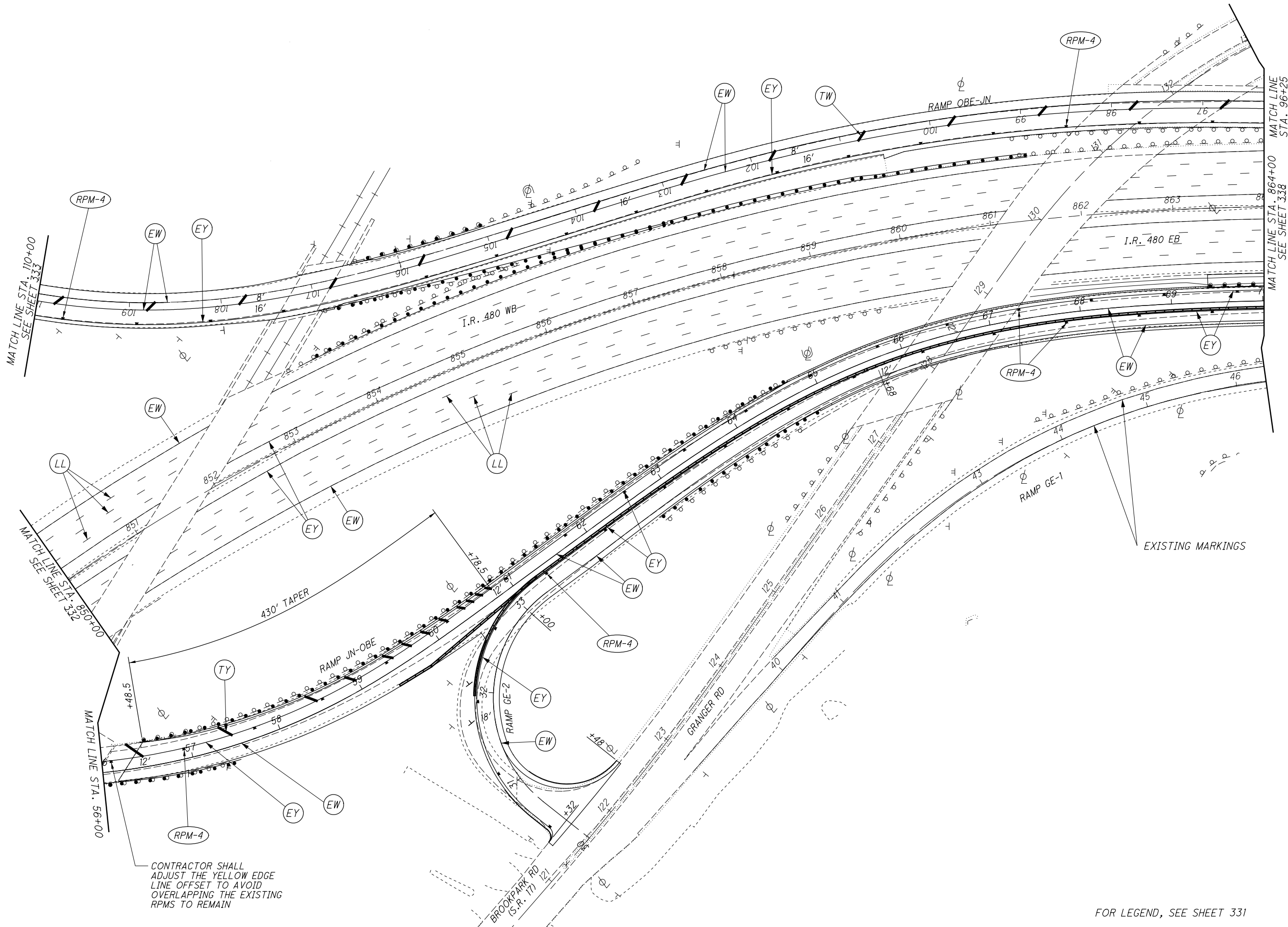
CONTRACTOR SHALL ADJUST THE YELLOW EDGE LINE OFFSET TO AVOID OVERLAPPING THE EXISTING RPMs TO REMAIN

FOR LEGEND, SEE SHEET 331

CALCULATED 0
 CX 25
 CHECKED TKI 100
 HORIZONTAL SCALE IN FEET

PAVEMENT MARKING PLAN
STA. 99+50 TO STA. 110+50

CUY-176-10.13



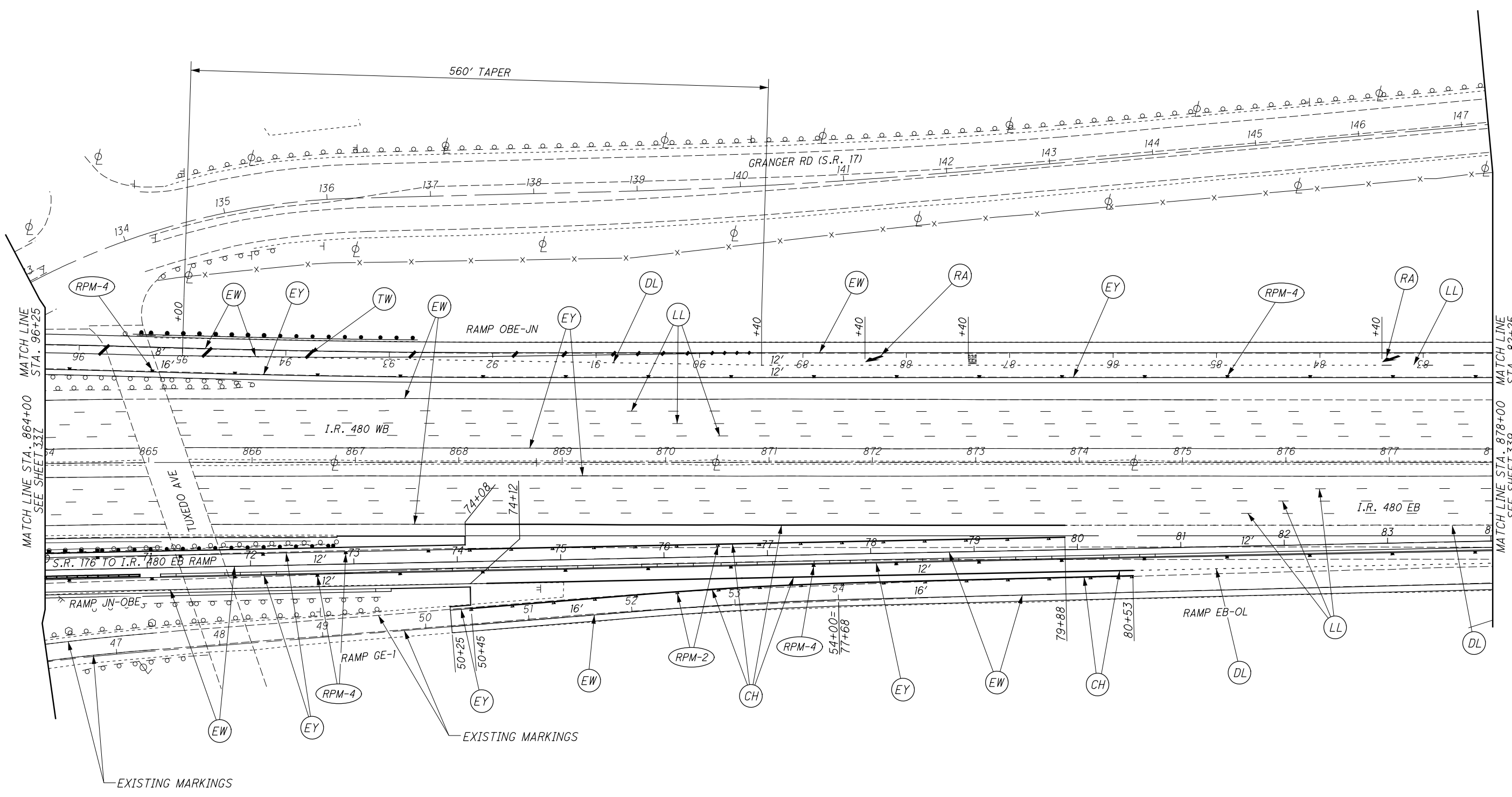
CALCULATED
CX
CHECKED
TKI

0 50 100
25
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKING PLAN
STA. 850+00 TO STA. 864+00 (I.R. 480)

CUY-176-10.13

FOR LEGEND, SEE SHEET 331



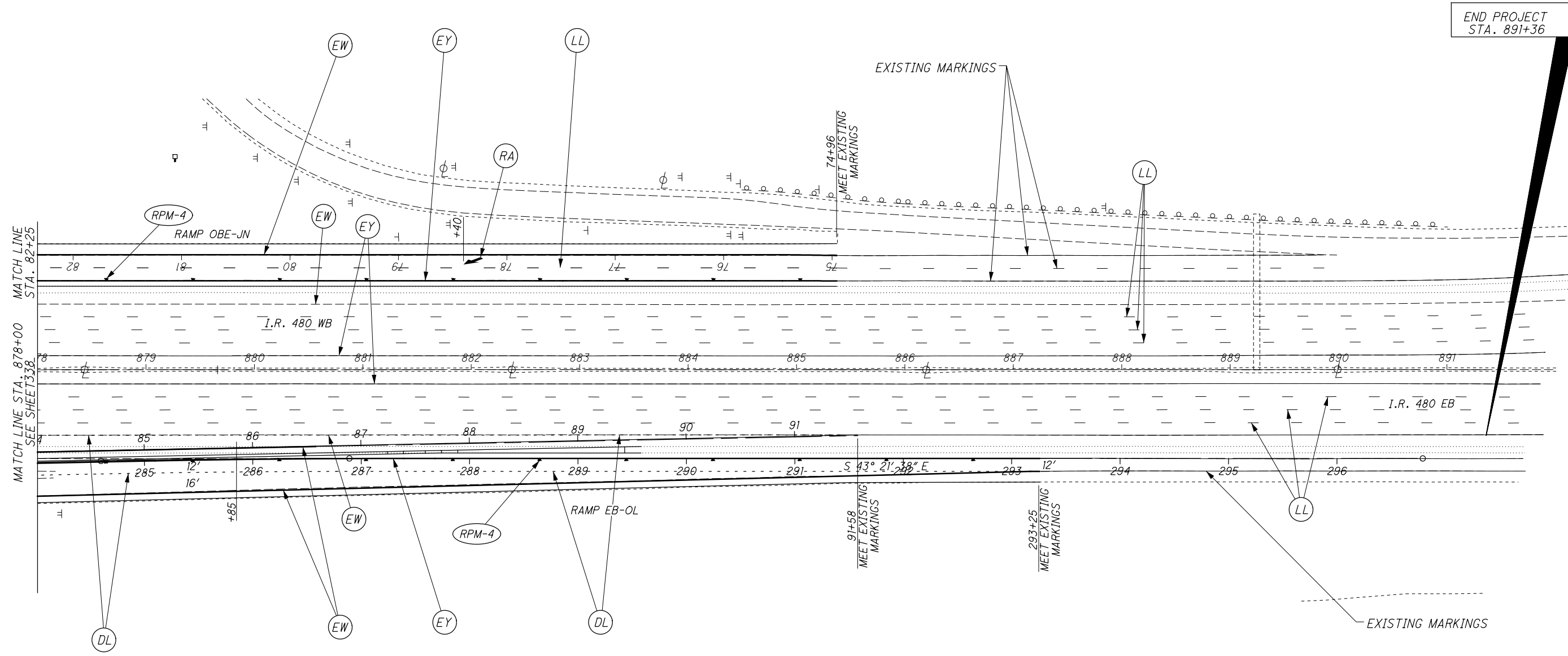
CALCULATED
CX
CHECKED
TKI

0 50 100
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKING PLAN
STA. 864+00 TO STA. 878+00 (I.R. 480)

CUY-176-10.13

FOR LEGEND, SEE SHEET 331



END PROJECT
STA. 891+36

MATCH LINE STA. 878+00
SEE SHEET 338

MATCH LINE
STA. 82+25

CALCULATED	CX
CHECKED	TKI

0 50 100
HORIZONTAL
SCALE IN FEET

PAVEMENT MARKING PLAN
STA. 878+00 TO STA. 891+36 (I.R. 480)

CUY-176-10.13

339
363

FOR LEGEND, SEE SHEET 331

SHEET NO.	REFERENCE NO.	STATION		SIDE	646																					
					RPM	RPM REFLECTOR	RAISED PAVEMENT MARKER REMOVED	EDGE LINE, 6"	LANE LINE, 6"	LANE LINE, 6", AS PER PLAN	CHANNELIZING LINE, 12"	STOP LINE	CROSSWALK LINE	TRANSVERSE/DIAGONAL LINE	CHEVRON MARKING	ISLAND MARKING	LANE ARROW	WRONG WAY ARROW	LANE REDUCTION ARROW	WORD ON PAVEMENT, 96" "MERGE"	DOTTED LINE, 6" YELLOW 2' LINE 6' GAP	DOTTED LINE, 6" 3' LINE 9' GAP	DOTTED LINE, 12" 3' LINE 9' GAP	REMOVAL OF PAVEMENT MARKING	REMOVAL OF PAVEMENT MARKING	
		FROM	TO		EACH	EACH	EACH	MILE	MILE	MILE	FT	FT	FT	FT	FT	SF	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	FT	
		RAMP JN-OBE																								
339	EW	84+00	91+58	BL				0.14																		
339	DL	84+00	91+58	LT																		758				
		RAMP EB-OL																								
339	RPM4	284+00	293+25	LT	11		11																			
339	EY	284+00	293+25	BL				0.18																		
339	EW	284+00	293+25	RT				0.18																		
339	DL	284+00	293+25	RT																		925				
		IR 480																								
332	EY	845+71	891+36	CL				0.86																		
337	EY	851+50	891+25	CL				0.75																		
332	EW	845+71	891+36	LT				0.86																		
337	EW	851+50	891+25	RT				0.75																		
332	LL	842+71	904+39 (X3)	LT		154			3.50																	
332	LL	848+50	894+25 (X3)	RT		114			2.60																	
TOTALS THIS SHEET					11	269	11	3.73	6.10	0.00	0	0	0	0	0	0	0	0	0	0	0	1683	0	0	0	0
TOTALS FROM SHEET		340			90	18	99	2.59	0.00	0.00	157	67	313	0	0	162	6	2	0	0	97	0	0	6	729	
TOTALS FROM SHEET		341			109	8	149	2.19	0.12	0.00	2356	0	0	554	0	0	0	0	0	0	0	0	0	0	0	
TOTALS FROM SHEET		342			117	0	177	2.60	0.25	0.92	3643	0	0	161	308	0	0	0	0	0	0	564	1265	0	0	
TOTALS FROM SHEET		343			86	0	151	2.57	0.16	0.00	2441	0	0	179	0	0	0	0	3	1	0	1919	0	0	0	
TOTALS CARRIED TO GENERAL SUMMARY					413	295	587	13.68	6.63	0.92	8597	67	313	894	308	162	6	2	3	1	97	4166	1265	6	729	