

**ITEM 302 - ASPHALT CONCRETE BASE, (449) AS PER PLAN**

**MIX DESIGN**

FOLLOW THE REQUIREMENTS OF 302.02 EXCEPT AS MODIFIED BELOW:

- ◇ USE A MAXIMUM F/A RATIO OF 1.4. IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
- ◇ THE TSR IS REQUIRED AND THE MINIMUM TSR IS 0.70 AS DETERMINED USING SUPPLEMENT 1051. ADD ANTISTRIP ADDITIVE AS SPECIFIED IN 440.06 IF REQUIRED BASED ON TSR AND ENSURE THE MINIMUM IS 0.80 AFTER ANTISTRIP.

**QUALITY CONTROL AND ACCEPTANCE**

FOLLOW THE REQUIREMENTS AS SPECIFIED IN 403 USING 446 ACCEPTANCE EXCEPT AS MODIFIED BELOW:  
 ◇ RUN MSG AND AIR VOIDS AND FOLLOW 403.06.G INSTEAD OF 403.06.F.

TABLE 403.06-1

MIX CHARACTERISTIC	OUT OF SPECIFICATION LIMITS [5]
ASPHALT BINDER CONTENT [1]	-0.5% TO 0.5%
1/2 INCH (12.5mm) SIEVE [1]	-7.0% TO 7.0%
NO.4 (4.75mm) SIEVE [1]	-6.0% TO 6.0%
NO.8 (2.36mm) SIEVE [1]	-5.0% TO 5.0%
NO. 200 (75µm) SIEVE [1]	-2.0% TO 2.0%
AIR VOIDS [2]	2.5% TO 5.5%
MSG [3]	-0.015 TO 0.015
F/A [4]	1.4 MAX
VMA	12.0 MIN

- [1] DEVIATION FROM THE JMF.
- [2] FOR DESIGN AIR VOIDS OF 4.0%. COMPACT USING A SIX-INCH MARSHALL HAMMER WITH 70 BLOWS ON BOTH SIDES PER 302.02.
- [3] DEVIATION FROM THE MTD.
- [4] IF THE F/A RATIO IS GREATER THAN 1.2, RECALCULATE THE F/A RATIO USING THE EFFECTIVE ASPHALT BINDER CONTENT.
- [5] DO NOT FOLLOW THE MINIMUM 7% RETAINED DURING PRODUCTION PER 403.06.F.5.

◇ REPLACE MSG COMPARISON IN TABLE 403.10-1 WITH 0.015.

◇ NOTIFY ERIC BIEHL - OMM 614-275-1380 AND JULIE MILLER - OCA 614-466-3165 ONE WEEK PRIOR TO PLANNED BEGINNING PRODUCTION AND PLACEMENT. YOU MAY EMAIL THEM AS WELL.

**FIELD OPERATIONS**

FOLLOW THE REQUIREMENTS OF 401 AND ANTI-SEGREGATION EQUIPMENT IS REQUIRED PER 401.03.C AND IS INCIDENTAL TO THE COST OF THIS ITEM.

USE ANTI-SEGREGATION EQUIPMENT FOR PAVING THE 302 BASE COURSE ON ALL LANES, EXPRESS LANES, COLLECTOR DISTRIBUTOR LANES, CONTINUOUS CENTER TURN LANES, ACCELERATION/DECELERATION LANES, AND RAMP LANES.



**DENSITY ACCEPTANCE**

FOLLOW THE REQUIREMENTS OF 446 ASPHALT CONCRETE CORE DENSITY ACCEPTANCE, INCLUDING JOINT CORES, EXCEPT AS MODIFIED BELOW:

- ◇ OBTAIN 6-INCH DIAMETER CORES ON EACH LIFT PLACED.
- ◇ OBTAIN JOINT CORES AT COLD LONGITUDINAL JOINTS SUCH THAT THE CORE'S CLOSEST EDGE IS 6 INCHES (152 MM) FROM THE EDGE OF THE MAT.
- ◇ PAY FACTORS FOR EACH LIFT OF 302 AS PER PLAN WILL BE AS SPECIFIED IN THE FOLLOWING TABLE.

MEAN OF LOT CORE DENSITY [1]	PAY FACTOR 302, AS PER PLAN
> 98.0%	[2]
> 97.0% TO 98.0%	[3]
92.0% TO 97.0%	1.00
91.0% TO 91.9%	0.90
90.0% TO 90.9%	0.80
89.0% TO 89.9%	0.70
<89.0%	[4]

- [1] MEAN OF CORES AS PERCENT OF AVERAGE MSG FOR THE PRODUCTION DAY.
- [2] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.
- [3] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.70.
- [4] THE DISTRICT WILL DETERMINE WHETHER THE MATERIAL MAY REMAIN IN PLACE. THE PAY FACTOR FOR MATERIAL ALLOWED TO REMAIN IN PLACE IS 0.50.

**APP FOR IDEAL-CT:**

IF MATERIAL IS REMOVED AND REPLACED THE CONTRACTOR WILL REMOVE AND REPLACE THIS COURSE AND ALL COURSES PAVED ON THIS COURSE.

FOLLOW ALL REQUIREMENTS OF THE SPECIFICATIONS WITH THE ADDITION OF THE FOLLOWING:

PERFORM THE IDEAL-CT FOR THE MIX DESIGN SUBMITTAL PER SUPPLEMENT 1033 ON THE JMF ASPHALT BINDER CONTENT DETERMINED FROM THE DESIGN AIR VOIDS AND ENSURE THE MINIMUM IN THE TABLE BELOW IS MET FOR THE MIX TYPE. THE IDEAL-CT ONLY NEEDS TO BE RAN FOR MIX DESIGN ACCEPTANCE.

PROVIDE RESULTS PER SUPPLEMENT 1033 WITH THE MIX DESIGN. SUPPLY SIX GYRATORY COMPACTED SPECIMENS TO THE HEIGHT MENTIONED IN SUPPLEMENT 1033 FOR THE MIX TYPE SPECIFIED. ALLOW MORE THAN TWO WEEKS FOR MIX DESIGN REVIEW AND PRELIMINARY APPROVAL DUE TO OMM VERIFYING THE MIX.

MIX CHARACTERISTIC	MINIMUM CT INDEX
ITEM 442 (SUPERPAVE) 9.5mm	80
ITEM 442 (SUPERPAVE) 12.5mm (SURFACE)	80
ITEM 442 (SUPERPAVE) 12.5mm (INTERMEDIATE)	70
ITEM 442 (SUPERPAVE) 19mm (INTERMEDIATE)	60
ITEM 441 (MARSHALL) TYPE 1 SURFACE MIXES	80
ITEM 441 (MARSHALL) TYPE 1 INTERMEDIATE MIXES	80
ITEM 441 (MARSHALL) TYPE 2 INTERMEDIATE MIXES	60
ITEM 302 (MARSHALL) MIXES	60

**ITEM 611 - CONDUIT BORED OR JACKED**

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN --6-- FEET TO THE EDGE OF PAVEMENT. PROVIDE A STEEL CASING PIPE CONFORMING TO 748.06 HAVING JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

**CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES**

WHERE 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 THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

**FARM DRAINS**

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 611, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

- 611 6" CONDUIT, TYPE B 100 FT.
- 611 6" CONDUIT, TYPE E 200 FT.
- 611 6" CONDUIT, TYPE F 200 FT.

**EXISTING SUBSURFACE DRAINAGE**

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE.

UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

- 601 TIED CONCRETE BLOCK MAT, TYPE 1 7 SQ. YD.
- 611 6" CONDUIT, TYPE F 100 FT.
- 611 PRECAST REINFORCED CONCRETE OUTLET 4 EACH

**ITEM SPECIAL-FILL AND PLUG EXISTING CONDUIT**

THIS ITEM CONSISTS OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 15 INCH DIAMETER CONDUIT AND FILLING THE AREA SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER. LOCATE THE BULKHEADS AT THE LIMITS OF THE AREA TO BE FILLED, AS INDICATED ON THE PLANS. THE BULKHEADS CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES. PUMP THE FILL MATERIAL INTO PLACE OR BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSSSECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH IS FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR IS THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE. IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED PER 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

**REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

**POST CONSTRUCTION STORM WATER TREATMENT**

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

**WATERWORK**

THIS WORK SHALL BE PROVIDE FOR REQUIRED ADJUSTMENTS AND RELOCATIONS OF WATERMAIN AND APPERTANCES AS DIRECTED BY THE ENGINEER. ALL WATERWORK SHALL MEET THE SPECIFICATIONS AND STANDARDS OF THE CITY OF MAUMEE. THE FOLLOWING ITEMS HAVE BEEN CARRIED FORWARD TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

- ITEM 611, MANHOLE ADJUSTED TO GRADE 1 EACH
- ITEM 638, VALVE BOX ADJUSTED TO GRADE 3 EACH
- ITEM 638, 6" GATE VALVE AND VALVE BOX 1 EACH
- ITEM 638, 6" FIRE HYDRANT 2 EACH
- ITEM 638, FIRE HYDRANT REMOVED 2 EACH
- ITEM 638, 12" WATERMAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS 100 FEET

**FUTURE IRRIGATION**

THIS WORK SHALL INCLUDE INSTALLING TWO-4 INCH PVC, 707.45 AND TWO-2 INCH PVC, 707.45, PIPING AT EACH OF THE APPROXIMATE LOCATIONS IN THE US20A INTERCHANGE LISTED BELOW AND SHOWN WITHIN THE PLANS. THE PVC PIPING WILL BE EMPTY, CAPPED AT EACH END, TO BE USED AS SLEEVES FOR INSTALLING FUTURE IRRIGATION LINES BY OTHERS. THE PVC PIPING SHALL BE DIRECT BURIED AND A MINIMUM OF 3 FEET OF COVER BELOW THE PROPOSED FINISHED GRADE AND EXTEND A MINIMUM 10 FEET BEYOND EDGE OF PAVEMENT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A WOOD STAKE OR PAVEMENT PAINT MARK INDICATING THE LOCATION OF THE BURIED PIPE.

- LOCATIONS: (INSTALL TWO 4" PVC AND TWO 2" PVC, 60 LF EACH AT EACH LOCATION BELOW)
- RAMP A1, STA. 24+50
- RAMP A2, STA. 2+50
- RAMP B1, STA. 34+50
- RAMP B2, STA. 13+00
- RAMP C1, STA. 62+00
- RAMP C2, STA. 11+50
- RAMP D1, STA. 94+00
- RAMP D2, STA. 1+50

- LOCATIONS: (INSTALL TWO 4" PVC AND TWO 2" PVC, 80 LF EACH AT EACH LOCATION BELOW)
- US 20A WB: STA. 650+00, 651+85, 657+60, 660+50
- US 20A EB: STA. 750+00, 751+70, 757+70, 759+30, 761+05

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 611, CONDUIT MISC., 4 INCH CONDUIT, TYPE E, 707.45, FEET, AND ITEM 611, CONDUIT MISC., 2 INCH CONDUIT, TYPE E, 707.45, FEET. THIS WORK SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS TO CONSTRUCTION COMPLETE THIS ITEM. THE FOLLOWING QUANTITIES HAS BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 611, CONDUIT MISC.: 4 INCH CONDUIT, TYPE E, 707.45 2400 LF
- ITEM 611, CONDUIT MISC.: 2 INCH CONDUIT, TYPE E, 707.45 2400 LF

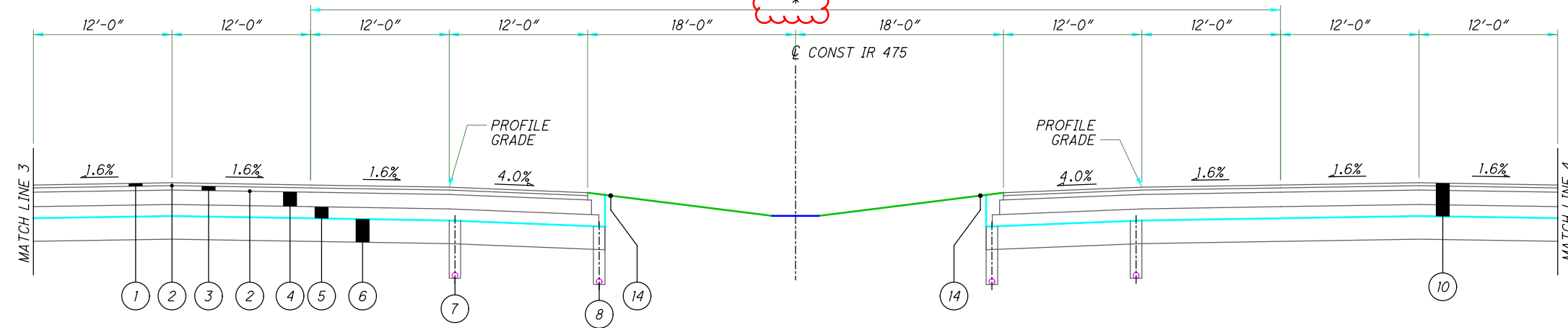
C:\Users\mlove\OneDrive - ARCADIS\ODOT\TOHODT10.FE01\Drawing\99731\Design\Roadway\Sheets\99731\GN003.dgn Sheet 5/4/2022 2:39:22 PM mlove



NORMAL SECTION

SOUTHBOUND  
SEE PART 1  
STA 61+50.00 TO STA 82+96.86  
STA 98+78.46 TO STA 126+43.92  
STA 146+18.58 TO STA 166+03.63

NORTHBOUND  
SEE PART 1  
STA 63+01.33 TO STA 79+51.87  
STA 113+62.49 TO STA 122+50.00  
STA 138+24.50 TO STA 141+99.62



SOUTHBOUND  
STA 11+25.00 TO STA 48+64.67  
STA 51+51.33 TO STA 65+60.56  
STA 102+05.61 TO STA 166+03.63  
STA 173+53.03 TO STA 223+25.00

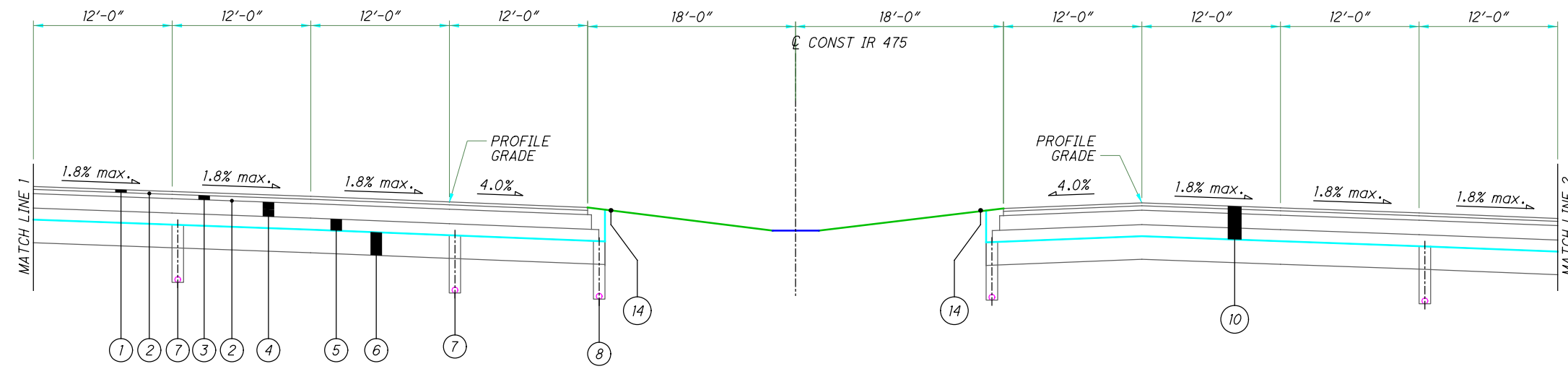
MONCLOVA RD APPROACH SLAB + BRIDGE LIMITS  
STA 48+64.67 TO STA 51+51.33  
OHIO TURNPIKE/MANLY RD/SWAN CREEK  
APPROACH SLAB + BRIDGE LIMITS  
STA 166+03.63 TO STA 173+53.03

\* STA 163+00 TO STA 177+00  
CEMENT STABILIZATION NOT REQ'D FOR  
INSIDE SHOULDER AND INSIDE PASSING LANES  
(PAV'D W = 48')

NORTHBOUND  
STA 11+25.00 TO STA 48+53.67  
STA 51+40.33 TO STA 65+60.56  
STA 102+05.61 TO STA 166+03.63  
STA 173+53.03 TO STA 213+75.00

MONCLOVA RD APPROACH SLAB + BRIDGE LIMITS  
STA 48+53.67 TO STA 51+40.33  
OHIO TURNPIKE/MANLY RD/SWAN CREEK  
APPROACH SLAB + BRIDGE LIMITS  
STA 166+03.63 TO STA 173+53.03

SUPERELEVATED SECTION



SOUTHBOUND  
STA 65+60.56 TO STA 102+05.61

NORTHBOUND  
STA 65+60.56 TO STA 102+05.61

PROPOSED LEGEND

- |  |   |
|--|---|
| ① ITEM 442 - 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447)      | ⑩ ITEM 202 - PAVEMENT REMOVED                       |
| ② ITEM 407 - NON-TRACKING TACK COAT  | ⑪ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE     |
| ③ ITEM 442 - 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446) | ⑫ ITEM 203 - 6" GRANULAR MATERIAL, TYPE B           |
| ④ ITEM 302 - 7 1/2" ASPHALT CONCRETE BASE, AS PER PLAN                       | ⑬ ITEM 203 - 18" GRANULAR MATERIAL, TYPE D          |
| ⑤ ITEM 304 - 6" AGGREGATE BASE   | ⑭ ITEM 617 - 3 3/4" COMPACTED AGGREGATE (2 FT WIDE) |
| ⑥ ITEM 206 - CEMENT STABILIZED SUBGRADE, 12" DEEP                            |   |
| ⑦ ITEM 605 - BASE PIPE UNDERDRAINS W GEOTEXTILE FABRIC                       |   |
| ⑧ ITEM 606 - SHALLOW PIPE UNDERDRAINS W GEOTEXTILE FABRIC                    |   |
| ⑨ ITEM 606 - GUARDRAIL TYPE MGS  |   |

I:\ProjectData\LUC-475-0.09\Design\Roadway\Sheets\95875\_C\Y002.dgn Sheet 1 5/5/2022 6:51:19 PM jbidinge

**ITEM SPECIAL - SETTLEMENT PLATFORMS**

DESCRIPTION: THIS ITEM CONSISTS OF FURNISHING, CONSTRUCTING, AND MAINTAINING SETTLEMENT PLATFORMS AND OBTAINING SETTLEMENT READINGS AS REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER. AT THE OPTION AND EXPENSE OF THE CONTRACTOR, ADDITIONAL SETTLEMENT PLATFORMS MAY BE INSTALLED AT LOCATIONS APPROVED BY THE ENGINEER. SETTLEMENT READINGS SHALL BE TAKEN WEEKLY DURING CONSTRUCTION AND DURING ANY SPECIFIED WAITING PERIOD. THE READINGS SHALL BE PLOTTED ON GRAPH PAPER PRESENTING DEFORMATION (ON THE NEGATIVE Y-AXIS) AND FILL HEIGHT (ON THE POSITIVE Y-AXIS) VERSUS TIME (ON THE X-AXIS). A COPY OF EACH CUMULATIVE PLOT SHALL BE SENT TO THE DISTRICT GEOTECHNICAL ENGINEER AND THE OFFICE OF GEOTECHNICAL ENGINEERING, ATTENTION: GEOTECHNICAL DESIGN COORDINATOR, AFTER EACH SETTLEMENT READING IS RECORDED.

THE DEPARTMENT WILL CONSIDER VIBRATING WIRE SETTLEMENT MONITORING PLATFORMS IN LIEU OF THE CONVENTIONAL SETTLEMENT PLATFORMS. THE CONTRACTOR SHOULD PROVIDE DETAILS OF THE PROPOSED VIBRATING WIRE SETTLEMENT PLATFORMS AS WELL AS DESIGN DRAWINGS OF THE PROPOSED PLATFORM AND CABLING LAYOUT TO THE ENGINEER AT LEAST 30 DAYS PRIOR TO CONSTRUCTION. THE DEPARTMENT WILL REQUIRE 10 WORKING DAYS FOR REVIEW AND APPROVAL. THE DESIGN DRAWINGS SHOULD ILLUSTRATE THE PROPOSED SETTLEMENT VIBRATING WIRE SETTLEMENT PLATFORM LOCATIONS WITH ALL EXISTING AND PROPOSED SITE FEATURES TO VERIFY THE PROPOSED CABLING WILL NOT CONFLICT WITH EXISTING FACILITIES, PROPOSED FACILITIES OR UTILITIES. NO ADDITIONAL PAYMENT WILL BE PROVIDED IF THE CONTRACTOR ELECTS TO UTILIZE VIBRATING WIRE SETTLEMENT PLATFORMS.

MATERIALS: SOUND LUMBER SUCH AS 3/4 INCH EXTERIOR GRADE PLYWOOD SHALL BE USED FOR THE BASE. THE PIPE SHALL BE 2 1/2" STANDARD BLACK PIPE WITH THREADED FITTINGS AS SHOWN ON THE PLANS. A STEEL PLATE 36"x36"x1/8" MAY BE SUBSTITUTED FOR THE LUMBER FOR THE PLATFORMS, AT CONTRACTOR'S OPTION.

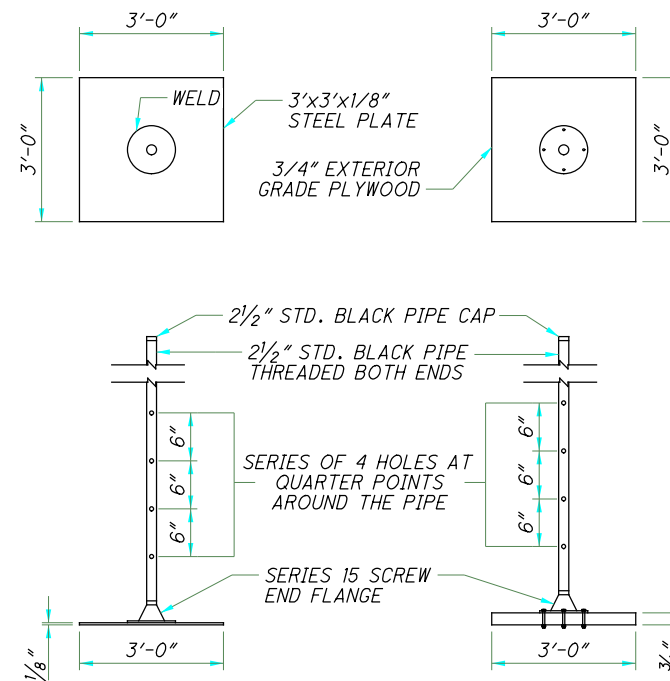
CONSTRUCTION REQUIREMENTS: THE 36"x36" PLATFORM SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS. THE PLATFORM SHALL BE SET ON A LEVEL SURFACE. THE PIPES SHALL BE FIRMLY SECURED TO THE PLATFORMS AND SHALL BE MAINTAINED IN PLUMB POSITION DURING THE PLACEMENT OF THE EMBANKMENT. PIPE SHALL BE MARKED AT INTERVALS BY THE CONTRACTOR TO FACILITATE MEASUREMENT OF THE DEPTH OF FILL. THE CONTRACTOR SHALL STOP WORK IN ANY LOCATION WHERE A SETTLEMENT PLATFORM HAS DISTURBED OR DAMAGED UNTIL THE NECESSARY CORRECTIONS OR REPLACEMENT HAS BEEN PERFORMED.

THE ESTIMATED SETTLEMENT IS 2.5". THE ESTIMATED SETTLEMENT PERIOD IS 90 CONSECUTIVE DAYS AFTER THE FINAL LIFT OF EMBANKMENT HAS BEEN PLACED.

PRIOR TO PAVING, THE TOP OF THE SETTLEMENT PLATFORM PIPE SHALL BE CUT OFF 2 FEET BELOW FINISHED SURFACE OF THE SUBGRADE OR TOPSOIL SURFACE, WHICHEVER IS APPLICABLE.

METHOD OF MEASUREMENT: THE NUMBER OF SETTLEMENT PLATFORMS TO BE PAID FOR WILL BE THE ACTUAL NUMBER OF SETTLEMENT PLATFORMS COMPLETED, MAINTAINED, AND ACCEPTED BY THE ENGINEER.

BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR "ITEM SPECIAL, SETTLEMENT PLATFORMS" WHICH IS COMPENSATED FOR CONSTRUCTION, MAINTAINING AND MONITORING THE SETTLEMENT PLATFORMS INCLUDING FURNISHING ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK. PAYMENT WILL NOT BE MADE FOR SETTLEMENT PLATFORMS WHICH BECOME USELESS BECAUSE OF DAMAGE INFLICTED BY THE CONTRACTOR'S OPERATIONS.



**NOTES:**

- SETTLEMENT PLATFORMS SHALL BE PLACED AT RAMP F  
 STA. 33+00.00, 19' OFFSET (LT)  
 STA. 40+00.00, 10' OFFSET (RT)  
 STA. 41+00.00, 10' OFFSET (RT)  
 STA. 48+00.00, 10' OFFSET (RT)

- I 475
- STA. 51+50, 119' OFFSET (LT)
- STA. 56+00, 105' OFFSET (LT)
- STA. 60+50, 95' OFFSET (LT)
- STA. 51+50, 137' OFFSET (RT)
- STA. 55+50, 114' OFFSET (RT)
- STA. 59+00, 103' OFFSET (RT)
- STA. 63+00, 104' OFFSET (RT)

- CONTRACTOR HAS OPTION OF USING EITHER STEEL OR PLYWOOD PLATFORM BASE.
- CONTRACTOR SHALL FURNISH MATERIALS AND LABOR TO EXTEND PIPE UP THROUGH ENTIRE FILL.
- SETTLEMENT PLATFORMS SHALL BE ANCHORED BY STAKES DRIVEN AT EACH CORNER TO PREVENT OVERTURNING.

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

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 619 OF THE 2019 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS EXCEPT AS MODIFIED BY THE FOLLOWING:

1. THE FIELD OFFICE SHALL BE ACCEPTED BY THE ENGINEER AND BE LOCATED IN THE AREA ALONG I-475 BETWEEN AIRPORT HWY AND US 24 AND WITHIN 2 MILE EAST OR WEST OF THIS I-475 SECTION. LOCATIONS OUTSIDE THE FOOTPRINT WILL NOT BE ACCEPTED UNLESS APPROVAL IS RECEIVED BY THE ENGINEER.

2. A CONFERENCE ROOM SHALL BE SUPPLIED WITH A MINIMUM OF 1000 SQUARE FEET OF FLOOR SPACE. THE ROOM SHALL BE SUPPLIED WITH CONFERENCE TABLES AND PADDED CHAIRS CAPABLE OF SEATING MINIMUM OF 30 ATTENDEES. THE ROOM SHALL INCLUDE A SEPARATE PHONE LINE WITH SPEAKERPHONE CAPABILITIES, DATA CONNECTION PORT AND TWO WALL MOUNTED 80" OR LARGER HD FLAT SCREEN TV'S. TWO 25' OR LONGER HDMI CABLES ARE TO BE INCLUDED WITH THE TV'S. A PROJECTOR AND SCREEN WOULD BE AN ACCEPTABLE ALTERNATIVE TO THE TWO TV'S.

3. THE SPACE SHALL BE CONTINUOUS AND WITHING THE SAME BUILDING. A MINIMUM OF TWO BATHROOMS SHALL BE DEDICATED FOR THE FIELD OFFICE. ONE MENS AND ONE WOMENS. NO PORTABLE FACILITIES WILL BE ACCEPTED. BATHROOM FACILITIES SHALL BE HANDICAP ACCESSIBLE. THE CONTRACTOR SHALL PROVIDE CLEANING SERVICES FOR THE FIELD OFFICE A MINIMUM OF 1 TIME/WEEK.

4. THE REQUIREMENT OF ONE SEPARATE ROOM SHALL BE INCREASED TO A MINIMUM OF SIX. SEPARATE ENCLOSED ROOMS OF 150 SQUARE FEET MINIMUM PER ROOM. EACH ROOM SHALL BE SUPPLIED WITH A MINIMUM OF TWO ELECTRICAL OUTLETS. IN ADDITION, 10 CUBICLES AND/OR OFFICES OF 100 SQUARE FEET MINIMUM PER OFFICE SHALL BE SUPPLIED WITH A MINIMUM OF ONE ELECTRICAL OUTLETS EACH.

5. THE ALL-WEATHER PARKING SPACES PROVIDED SHALL BE INCREASED TO 2 PARKING SPACES PER DESK SPACE AND INCLUDE SNOW REMOVAL. SNOW REMOVAL FOR THE ENTIRE PARKING AREA AND WALKS WILL BE COMPLETED NO LATER THAN 6:30 AM EACH DAY.

6. PROVIDE INTERNET CONNECTION CAPABLE OF 500 Mbps DOWNLOAD AND 30 Mbps UPLOAD.

7. SECURITY SHALL BE PROVIDED FOR THE FIELD OFFICE AND SURROUNDING FACILITIES BY ILLUMINATING ALL SIDES OF THE FIELD OFFICE AND PARKING AREA.

8. THE FIELD OFFICE REQUIREMENTS FOR MOISTURE AND DENSITY CONTROL OF MATERIALS SHALL BE SATISFIED, HOWEVER WITH THE FOLLOWING MODIFICATIONS: THE FACILITY SHALL BE CAPABLE OF STORING UP TO 2 NUCLEAR DENSITY GAUGES IN 2 SEPARATE BOXES. THE AREA TO BE DESIGNATED NUCLEAR GAUGE STORAGE MUST BE A MINIMUM OF 15' AWAY FROM ANY OFFICES OR OTHER CONTINUALLY OCCUPIED SPACES OF THE OFFICE. A CURE BOX SHALL BE PROVIDED CAPABLE OF HOLDING AT LEAST FIVE 3-GALLON SIZE BUCKETS OR EIGHTEEN 4X8 CONCRETE CYLINDERS.

NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR ADDITIONAL REQUIREMENTS STATED ABOVE. THE DEPARTMENT WILL MEASURE "FIELD OFFICE, TYPE C, A.P.P. BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED.

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL AND ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND CONCRETE PERMANENT BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE ALONG TAPERS AND TRANSITION AREAS AND ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE "CRIMPED." PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

- ITEM 614, BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL 2224 EACH
- ITEM 614, BARRIER REFLECTOR, TYPE 1, ONE-WAY 5850 EACH
- ITEM 614, OBJECT MARKER, ONE-WAY 3830 EACH
- ITEM 614, INCREASED BARRIER DELINEATION 25,685 FEET

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

**615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF 615, THE CONTRACTOR SHALL PROOF ROLL ALL AREAS OF PAVEMENT FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH 204.

**DUST CONTROL**

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

ITEM 616, WATER 50 M. GAL.

**ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN**

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.

RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.

THE SNOW-PLOWING SEASON SHALL RUN FROM NOVEMBER THROUGH MARCH.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE 42,000 SQUARE YARDS
- ITEM 407, TACK COAT 3,570 GAL
- ITEM 442, ASPHALT CONCRETE SURFACE COURSE 12.5MM, TYPE A (447) 1,750 CUBIC YARDS
- ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN 1,000 EACH

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

**UNSUITABLE SOILS AT LOCATIONS OF PAVEMENT FOR MAINTAINING TRAFFIC**

AT LOCATIONS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL UNDERCUT THE EXISTING SOIL, PERFORM CHEMICAL STABILIZATION OR REPLACE WITH GRANULAR MATERIAL AND PLACE SUITABLE THICKNESS OF AGGREGATE BASE AS DETERMINED BY THE ENGINEER PRIOR TO THE PLACEMENT OF PAVEMENT FOR MAINTAINING TRAFFIC.

THE FOLLOW QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

- ITEM 204 - GRANULAR MATERIAL, TYPE B 920 CY
- ITEM 204 - EXCAVATION OF SUBGRADE 920 CY
- ITEM 204 - GEOTEXTILE FABRIC 1,850 SY
- ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP 1,850 SY
- ITEM 304 - AGGREGATE BASE 310 CY

**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 ODOT INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE ODOT, 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 ODOT, 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 SET-UP 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).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
- AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
- AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

**ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONT)**

THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR

THE ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR

OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

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 LEOS 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. 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 THAT 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 3,000 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.

C:\Users\sgault\OneDrive - ARCADIS\Desk\top\LUC475\TOHOD\IO\PE01(2)\TOHOD\IO\PE01\Drawings\99731\Design\M01\Sheets\99731\_MNO03.dgn Sheet 5/5/2022 4:10:02 PM sgault

**DESIGNATED LOCAL DETOUR ROUTE**

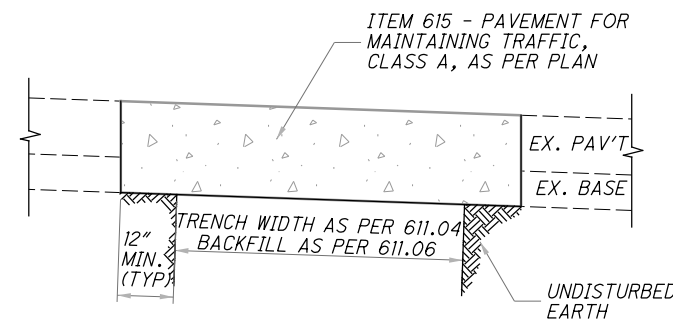
IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS US 20A TO BRIARFIELD BOULEVARD TO SALISBURY ROAD/DUSSEL DRIVE TO FORD STREET TO US 20A. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) PG 64-22	175 CU. YD.
ITEM 407, NON-TRACKING TACK COAT	502 GAL.
ITEM 642, CENTER LINE, TYPE 1	0.30 MILE
ITEM 642, EDGE LINE, 4", TYPE 1	0.30 MILE
ITEM 642, LANE LINE, 4", TYPE 1	0.30 MILE
ITEM 642, CHANNELIZING LINE, 8", TYPE 1	210 FOOT
ITEM 642, TRANSVERSE/DIAGONAL LINE, TYPE 1	600 FOOT
ITEM 642, STOP LINE, TYPE 1	22 FOOT

**CONDUIT CROSSINGS**

THE CONTRACTOR SHALL CONSTRUCT CONDUIT CROSSINGS OF EXISTING PAVEMENT DURING WEEKEND CLOSURES OR DURING SUBSEQUENT PHASES PER THE SEQUENCE OF TRAFFIC NOTES. AT THE CONCLUSION OF THE CONDUIT INSTALLATION, THE CONTRACTOR SHALL BACKFILL AND PLACE TEMPORARY PAVEMENT PER THE DETAIL BELOW OR PER THE TRENCH REPAIR DETAIL LOCATED IN THE PLANS.



PAVEMENT REPLACEMENT OVER TRENCH

THE FOLLOWING ESTIMATED QUANTITY OF 110 SQ. YD. HAS BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY. ALL TEMPORARY PAVEMENT UTILIZED FOR CONDUIT CROSSING SHALL BE INCLUDED IN THE LUMP SUM BID ITEM FOR MAINTAINING TRAFFIC.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE, LUCAS COUNTY OR THE CITY OF MAUMEE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY OR COUNTY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT)**

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 7 TO 9 AM AND 4 TO 6 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY CITY OF MAUMEE POLICE OR LUCAS COUNTY SHERIFF, HIRED BY THE CONTRACTOR:

1. BRIARFIELD BLVD/TECHNOLOGY DRIVE & US 20A

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

**BI-DIRECTIONAL TRAFFIC ON US 20A**

WHEN BI-DIRECTIONAL TRAFFIC ON US 20A IS IN EFFECT DURING PHASE 3 THE CONTRACTOR SHALL PLACE DELINEATORS EVERY 25 FEET ALONG THE CENTERLINE PAVEMENT MARKING. THE DELINEATOR SHALL BE FLEXIBLE POSTS WITH BASE THAT IS 48" IN HEIGHT. IT SHALL INCLUDE A MINIMUM OF TWO 3" REFLECTIVE BANDS FOR VISIBILITY. THE BASE SHALL BE ADHERED TO THE PAVEMENT AS TO NOT DAMAGE THE PAVEMENT SURFACE. PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 620, DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN.

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

ITEM 620, DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN 160 EACH

CALCULATED  
BRO  
CHECKED  
DRJ

MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

38  
855

C:\Users\sgault\OneDrive - ARCADIS\Desk\top\LUC475\TOD\TOD10.PE01(2)\TOD10.PE01\Drawings\99731\Design\M0T\_Sheets\99731\_MN004B.dgn Sheet 6 5/3/2022 9:47:15 AM sgault

C:\Users\sgault\OneDrive - ARCADIS\Desk\top\LUC475\TOD\TOD10.PE01(2)\TOD\TOD10.PE01\Drawings\99731\Design\MOT\Drawings\99731\MN006.dgn Sheet 5/5/2022 11:41:4 AM sgault

**WORK ZONE QUEUE DETECTION WARNING SYSTEM**

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 WILL BE ON I-475 NB, I-475 SB AND US-24 EB. THE APPROXIMATE LOCATION BY STATION OR DESCRIPTION ARE LISTED BELOW. THE SENSORS AND PCMS SHALL BE PLACED FOR PHASES 1 & 2.

I-475 NB	
1 MILE SOUTH OF CROSSOVER	PCMS & SENSOR
0.5 MILE SOUTH OF CROSSOVER	SENSOR
7+00	SENSOR
33+40	SENSOR
95+80	PCMS & SENSOR
122+20	SENSOR
148+60	SENSOR
175+00	SENSOR

I-475 SB	
1 MILE NORTH OF CROSSOVER	PCMS & SENSOR
0.5 MILE NORTH OF CROSSOVER	SENSOR
300+00	SENSOR
259+00	PCMS & SENSOR
232+60	SENSOR
179+80	SENSOR
127+00	SENSOR

US-24 EB	
700+20	PCMS & SENSOR
726+60	SENSOR
753+00	SENSOR

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:

- 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

**WORK ZONE QUEUE DETECTION WARNING SYSTEM (CONT.)**

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 I 432 SIGN MONTHS (ASSUMING 18 SENSORS FOR 24 MONTHS)

ITEM 896 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 120 SIGN MONTHS (ASSUMING 5 PCMS SIGNS FOR 24 MONTHS)

**APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S)**

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTIONS INCLUDE:

EXCEPTION 1: RAMP CLOSURE OF THE SYSTEM RAMP FROM US-24 WESTBOUND TO I-475 NORTHBOUND FOR THE DURATION OF PHASE 1.

EXCEPTION 2: RAMP CLOSURE OF THE SYSTEM RAMP FROM I-475 NORTHBOUND TO US-24 WESTBOUND FOR A DURATION NOT TO EXCEED 60 DAYS. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT SHOWN ON THE RAMP CLOSURE/DETOUR INFORMATION CHART ON SHEET 40 FOR EACH CALENDAR DAY THAT THE RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

EXCEPTION 3: RAMP CLOSURES OF THE SYSTEM RAMP FROM US-24 EASTBOUND TO I-475 SOUTHBOUND AND THE SYSTEM RAMP FROM US-24 WESTBOUND TO I-475 SOUTHBOUND FOR THE DURATION OF PHASE 2.

THE SYSTEM RAMPS LISTED ABOVE SHALL BE DETOURED AS LISTED IN THE RAMP CLOSURE/DETOUR INFORMATION CHART ON SHEET 40 .

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND [ INSERT APPLICABLE LOCAL AGENCY(IES) ] AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION(S) REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTIONS REFERENCED ABOVE. REFERENCE EXCEPTION REQUEST APPROVAL DATED 5/25/21 FOR PID 99731 AND PID 95875 IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

**APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) (CONT.)**

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY 1/11/22 BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

**RUMBLE STRIP REMOVAL BEFORE PAVING**

RUMBLE STRIPS WILL BE PLANED WITH ITEM 441 THE QUANTITIES FOR PLANING AND PAVING THE RUMBLE STRIPS ARE PROVIDED BELOW. QUANTITIES ARE BASED ON 2' WIDE MILL. QUANTITIES TO BE CARRIED TO THE GENERAL SUMMARY.

EXISTING LENGTH OF RUMBLE STRIP:  
LENGTH = 30000 FT

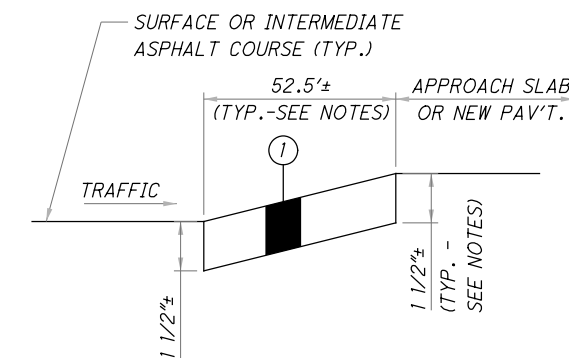
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2 ", AS PER PLAN  
6,667 SY

ITEM 407 - NON TRACKING TACK COAT, AS PER PLAN  
567 GAL

ITEM 441- ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22  
278 CY

**PAVEMENT WEDGING**

FOR PROTECTION OF APPROACH SLABS UNTIL SURFACE COURSE HAS BEEN PLACED OR TEMPORARY CONNECTIONS TO NEW CONSTRUCTION DURING MOT



① ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN

**WORK ZONE PAVING AT APPROACH SLABS AND PROPOSED PAVEMENT DETAILS (NOT TO SCALE)**

NOTES:  
THE CONTRACTOR SHALL PLACE A BUTT JOINT AS DETAILED BELOW AT EACH MAINLINE BRIDGE AND/OR PHASE JOINT LINE, FOR FURTHER INFORMATION SEE SCD-3.1.

PAVEMENT ELEVATION DIFFERENCE BETWEEN OLD AND NEW MAY VARY AT SOME LOCATIONS. THE CONTRACTOR SHALL FURNISH WEDGING AS NEEDED TO MEET THE REQUIRED GRADE.

THE CONTRACTOR SHALL COMPLETE THE ABOVE WORK, PRIOR TO OPENING THE AREA TO TRAFFIC. PRIOR TO PLACING THE SURFACE COURSE, REMOVE THE WEDGE DOWN TO THE SURFACE OF THE INTERMEDIATE COURSE. PLACE SURFACE COURSE AS PER THE PLANS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED AS SHOWN BELOW. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN  
8171 SY

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN  
282 CY

CALCULATED  
BRO  
CHECKED  
DRJ

**MAINTENANCE OF TRAFFIC GENERAL NOTES**

**LUC-475-01.85**

I:\ProjectData\LUC-475-0.09\Design\M0T\Sheets\95875\_M5001.dgn Sheet 5/6/2022 8:29:51AM dkaseml

REF NO.	SHEET NO.	STATION TO STATION		SIDE	614	614	614	614	614	614	614	614	614	614	614	614	614	615	622	622	622			
					WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	MAINTAINING TRAFFIC, MISC.:6"x8" SOLID WOOD POST, AS PER PLAN	MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	WORK ZONE LANE LINE, CLASS I, 4" (WHITE)	WORK ZONE CENTER LINE, CLASS I(WHITE)	WORK ZONE EDGE LINE, CLASS I, 6" (YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6"	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"(WHITE)	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT(YELLOW)	WORK ZONE DOTTED LINE, CLASS I(WHITE)	WORK ZONE DOTTED LINE, CLASS I	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE STOP LINE, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR	PORTABLE BARRIER, UNANCHORED
PID 99731 PHASE 1					EACH	EACH	SF	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT		
SN-101	70	10+01		RT		1	32																	
WCH-1	70	1+96.00	14+40.00	LT										782	782									
WCH-2	70	3+00.00	17+00.00	LT/RT										1348	1348									
WDW-1	70	5+08.00	9+13.00	RT												405		405						
WDW-2	70	1+95.00	14+40.00	LT												1245		1245						
WEW-1	70	14+40.00	16+40.00	LT					200	200														
WEW-2	70	14+40.00	17+00.00	LT					260	260														
WEW-3	70	3+00.00	5+08.00	RT					208	208														
WEW-4	70	9+13.00	17+00.00	RT					792	792														
WEW-5	70	9+13.00	11+25.00	RT					215	215														
WEY-1	70	5+33.00	17+00.00	LT								1167	1167											
WEY-2	70	3+00.00	17+00.00	LT/RT								1348	1348											
WIA-1	70	9+70.00		RT	1																			
WL-1	70	13+13.00	17+00.00	LT				387										387						
PB-1	70	5+08.00	14+45.00	RT/LT																	942			
PB-2	70	9+80.00	17+00.00	RT																	725			
PB-3	70	9+70.00	17+00.00	RT/LT																1	735			
PB-4	70	13+13.00	17+00.00	LT																				
TP-1	70	5+08.00	17+00.00	LT/RT															2957					
SN-102	71	20+01		RT		1	32																	
WCH-1	71	17+00.00	18+03.00	LT										103	103									
WEW-1	71	17+00.00	31+00.00	LT					1400	1400														
WEW-2	71	17+00.00	31+00.00	LT					1400	1400														
WEY-1	71	17+00.00	31+00.00	LT								1400	1400											
WEY-2	71	17+00.00	31+00.00	LT								1400	1400											
WL-1	71	17+00.00	31+00.00	LT				1400										1400						
WL-2	71	18+03.00	31+00.00	LT				1297										1297						
PB-1	71	17+00.00	31+00.00	LT	1														1400					
PB-2	71	17+00.00	31+00.00	LT																	1400			
PB-3	71	17+00.00	31+00.00	LT																	1400			
TP-1	71	17+00.00	31+00.00	LT															2929					
SN-103	72	34+79		RT		1	32																	
WDW-1	72	41+97.00	42+50.00	LT										53	53									
WEW-1	72	31+00.00	42+50.00	LT					1150	1150														
WEW-2	72	31+00.00	41+43.00	LT					1043	1043														
WEW-3	72	34+42.00	42+50.00	LT & RT					821	821														
WEY-1	72	31+00.00	42+50.00	LT								1150	1150											
WEY-2	72	31+00.00	42+50.00	LT								1150	1150											
WEY-3	72	32+14.00	40+32.00	LT & RT								832	832											
WIA-1	72	34+97.00		RT	1																			
WL-1	72	31+00.00	42+50.00	LT				1150										1150						
WL-2	72	31+00.00	42+50.00	LT				1150										1150						
PB-1	72	31+00.00	42+50.00	LT															1150					
PB-2	72	31+00.00	40+32.00	LT																				
PB-3	72	35+07.00	36+30.00	LT & RT																	1	140		
PB-4	72	34+97.00	42+50.00	LT & RT																		766		
TP-1	72	31+00.00	42+50.00	LT & RT															3259					
TP-2	72	34+88.00	38+27.00	RT										170	170							726		
WDW-1	73	45+43.00	50+13.00	LT												470		470						
WDW-2	73	42+50.00	48+50.00	LT												600		600						
WEW-1	73	42+50.00	45+43.00	LT																				
WEW-2	73	48+50.00	55+00.00	LT																				
WEW-3	73	50+13.00	55+00.00	LT																				
WEY-1	73	42+50.00	55+00.00	LT																				
WEY-2	73	42+50.00	55+00.00	LT																				
<b>TOTALS CARRIED TO SHEET</b>				<b>69</b>	<b>3</b>	<b>3</b>	<b>96</b>	<b>5384</b>		<b>9633</b>	<b>9633</b>	<b>10947</b>	<b>10947</b>	<b>2456</b>	<b>2456</b>	<b>2720</b>		<b>2720</b>	<b>5384</b>		<b>9871</b>	<b>2937</b>	<b>2</b>	<b>7040</b>

CALCULATED JRB  
 CHECKED XXX  
**MAINTENANCE OF TRAFFIC SUBSUMMARY - MAINLINE**  
**LUC-475-0.09**  
 58  
 855





I:\ProjectData\LUC-475-0.09\Design\M01\Sheets\95875\_M5003.dgn Sheet 5/6/2022 8:29:51 AM akasemi

REF NO.	SHEET NO.	STATION TO STATION		SIDE	614																				615		622		622	
					WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN	MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	WORK ZONE LANE LINE, CLASS I, 4" (WHITE)	WORK ZONE CENTER LINE, CLASS I (WHITE)	WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6"	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"(WHITE)	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT(YELLOW)	WORK ZONE DOTTED LINE, CLASS I (WHITE)	WORK ZONE DOTTED LINE, CLASS I	WORK ZONE DOTTED LINE, CLASS 1, 6", 807 PAINT	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE STOP LINE, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR	PORTABLE BARRIER, UNANCHORED						
PID 99731 PHASE 1 CONTINUED					EACH	EACH	SF	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	SY	FT	EACH	FT			
WEW-3	78	154+30.00	162+50.00	LT						820	820																			
WEY-1	78	137+50.00	162+50.00	LT								2500	2500																	
WEY-2	78	137+50.00	162+50.00	LT								2500	2500																	
WL-1	78	137+50.00	162+50.00	LT				2500													2500									
WL-2	78	137+50.00	162+50.00	LT				2500													2500									
TP-1	78	137+50.00	162+50.00	LT																			6025							
PB-1	78	137+50.00	162+50.00	LT																				2500						
PB-2	78	137+50.00	162+50.00	LT																						2500				
SN-104	79	183+96		RT		2	58																							
WEW-1	79	162+50.00	187+50.00	LT						2500	2500																			
WEW-2	79	162+50.00	178+03.00	LT						1553	1553																			
WEY-1	79	162+50.00	187+50.00	LT								2500	2500																	
WEY-2	79	162+50.00	187+50.00	LT								2500	2500																	
WL-1	79	162+50.00	187+50.00	LT				2500													2500									
WL-2	79	162+50.00	187+50.00	LT				2500													2500									
PB-1	79	162+50.00	187+50.00	LT																			2500							
PB-2	79	162+50.00	166+04.00	LT																						354				
TP-1	79	162+50.00	163+02.00	LT																			126							
TP-2	79	177+02.00	187+50.00	LT																			2579							
WEW-1	80	187+50.00	201+00.00	LT						1350	1350																			
WEW-2	80	196+48.00	201+00.00	LT						452	452																			
WEY-1	80	187+50.00	201+00.00	LT								1350	1350																	
WEY-2	80	187+50.00	201+00.00	LT								1350	1350																	
WL-1	80	187+50.00	201+00.00	LT				1350													1350									
WL-2	80	187+50.00	201+00.00	LT				1350													1350									
PB-1	80	187+50.00	201+00.00	LT																			1350							
PB-2	80	196+48.00	201+00.00	LT																						452				
TP-1	80	187+50.00	201+00.00	LT																			3308							
SN-105	81	205+50		LT		2	58																							
SN-106	81	219+78		RT		2	58																							
SN-107	81	225+17		LT		1	32																							
WDW-1	81	218+56.00	223+47.00	LT																	491		491							
WDW-2	81	221+26.00	226+00.00	LT																	474		474							
WEW-1	81	201+00.00	226+00.00	LT						2500	2500																			
WEW-2	81	201+00.00	226+00.00	LT/RT						2504	2504																			
WEW-3	81	223+47.00	226+00.00	LT						253	253																			
WEY-1	81	201+00.00	226+00.00	LT								2500	2500																	
WEY-2	81	201+00.00	226+00.00	LT								2500	2500																	
WL-1	81	201+00.00	226+00.00	LT				2500															2500							
WL-2	81	201+00.00	226+00.00	LT				2500															2500							
PB-1	81	201+00.00	226+00.00	LT																					2500					
PB-2	81	201+00.00	218+56.00	LT																							1756			
PB-3	81	224+67.00	226+00.00	LT																							133			
TP-1	81	201+00.00	226+00.00	LT & RT																			5878							
TP-2	81	225+53.00	226+00.00	RT																			31							
WDW-1	82	226+00.00	229+90.00	LT																	390		390							
WEW-1	82	226+00.00	238+60.00	LT						1275	1275																			
WEW-2	82	226+00.00	239+00.00	LT						1300	1300																			
WEW-3	82	229+90.00	235+88.00	LT						599	599																			
WEW-4	82	229+90.00	239+00.00	LT						910	910																			
WEW-5	82	226+00.00	230+82.00	RT						486	486																			
WEY-1	82	226+00.00	239+00.00	LT								1300	1300																	
WEY-2	82	226+00.00	239+00.00	LT								1300	1300																	
WEY-3	82	226+00.00	230+82.00	RT								486	486																	
WEY-4	82	235+88.00	238+60.00	LT								293	293																	
<b>TOTALS CARRIED TO SHEET</b>					<b>69</b>	<b>1</b>	<b>7</b>	<b>206</b>	<b>17700</b>			<b>16502</b>	<b>16502</b>	<b>21079</b>	<b>21079</b>						<b>1355</b>		<b>1355</b>	<b>17700</b>		<b>17947</b>	<b>8850</b>	<b>5195</b>		

CALCULATED  
 CHECKED  
 DEK  
**MAINTENANCE OF TRAFFIC SUBSUMMARY - MAINLINE**  
**LUC-475-0.09**  
 60  
 855

I:\ProjectData\LUC\95875\_LUC-475-0.09\Design\M01\Sheets\95875\_MS007.dgn Sheet 5/6/2022 8:29:52 AM dkasemi

REF NO.	SHEET NO.	STATION TO STATION	SIDE	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	622	622	622		
				WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN	MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	WORK ZONE LANE LINE, CLASS I, 4" (WHITE)	WORK ZONE CENTER LINE, CLASS I(WHITE)	WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6" 6"	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"(WHITE)	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT(YELLOW)	WORK ZONE DOTTED LINE, CLASS I(WHITE)	WORK ZONE DOTTED LINE, CLASS I	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE STOP LINE, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR	PORTABLE BARRIER, UNANCHORED
PID 99731 PHASE 2				EACH	EACH	SF	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
WCH-1	102	6+85	14+73	RT										788	788								
WCH-2	102	6+85	14+73	RT										416	416								
WDW-1	102	5+26	5+85	RT												158		158					
WEW-1	102	4+00	16+50	LT & RT						1261	1261												
WEW-2	102	4+00	14+73	RT						1063	1063												
WEW-3	102	14+73	16+50	RT						177	177												
WEY-1	102	4+00	16+50	LT & RT									1260	1260									
WEY-2	102	4+00	16+50	RT									1250	1250									
WL-1	102	4+00	16+50	LT & RT																	1260		
WL-2	102	4+00	16+50	RT																		1260	
TP-1	102	6+66	14+80	LT & RT																		1364	
PB-1	102	9+01	16+50	RT																		750	
PB-2	102	9+92	16+50	LT & RT																		660	
SN-114	103	25+50		LT		1	32																
WEW-1	103	16+50	29+00	RT						1250	1250												
WEW-2	103	16+50	29+00	RT						1250	1250												
WEW-3	103	25+65	29+00	LT						342	342												
WEY-1	103	16+50	29+00	RT									1250	1250									
WEY-2	103	16+50	29+00	RT									1250	1250									
WEY-3	103	26+52	29+00	LT									250	250									
WL-1	103	16+50	29+00	RT																		1250	
WL-2	103	16+50	29+00	RT																		1250	
PB-1	103	16+50	29+00	RT		1																1250	
PB-2	103	16+50	29+00	RT																		1250	
SN-115	104	39+56		LT		1	32																
WDW-1	104	40+23	41+50	LT																		132	
WEW-1	104	29+00	41+50	RT						1250	1250											132	
WEW-2	104	29+00	41+50	RT						1250	1250												
WEW-3	104	20+00	25+96	-						597	597												
WEW-4	104	29+00	40+23	LT						1184	1184												
WEW-5	104	26+43	41+50	RT						1505	1505												
WEY-1	104	29+00	41+50	RT									1250	1250									
WEY-2	104	29+00	41+50	RT									1250	1250									
WEY-3	104	20+00	24+65	RT									470	470									
WEY-4	104	29+00	41+50	LT									1317	1317									
WEY-5	104	26+43	41+50	RT									1530	1530									
WL-1	104	29+00	41+50	RT																		1250	
WL-2	104	29+00	41+50	RT																		1250	
PB-1	104	29+00	41+50	RT																		1250	
PB-2	104	29+00	41+50	RT																		1250	
TP-1	104	203+40	203+81	LT & RT																		40	
TP-2	104	200+00	203+40	LT & RT																		91	
TP-3	104	21+59	24+07	LT & RT																		545	
TP-4	104	20+00	21+59	LT & RT																		252	
SN-116	105	42+82		RT		1	32																
SN-117	105	47+25		RT		2	64																
SN-118	105	60+50		RT		2	64																
WCH-1	105	48+78	56+18	RT										741	741								
WCH-2	105	52+24	56+18	RT										394	394								
WDW-1	105	44+08	47+91	RT																		384	
WDW-2	105	56+18	59+50	RT																		332	
WEW-1	105	41+50	44+08	LT																		258	
WEW-2	105	47+91	62+50	LT																		1459	
WEW-3	105	41+50	62+50	RT																		2100	
WEW-4	105	41+50	47+91	LT																		647	
<b>TOTALS CARRIED TO SHEET</b>				<b>69</b>	<b>1</b>	<b>7</b>	<b>224</b>	<b>7510</b>		<b>15593</b>	<b>15593</b>	<b>11077</b>	<b>11077</b>	<b>2339</b>	<b>2339</b>	<b>1006</b>		<b>1006</b>	<b>7510</b>		<b>3112</b>	<b>3250</b>	<b>3160</b>

**MAINTENANCE OF TRAFFIC SUBSUMMARY - MAINLINE**

**LUC-475-0.09**

CALCULATED DEK CHECKED XXX

62B  
855

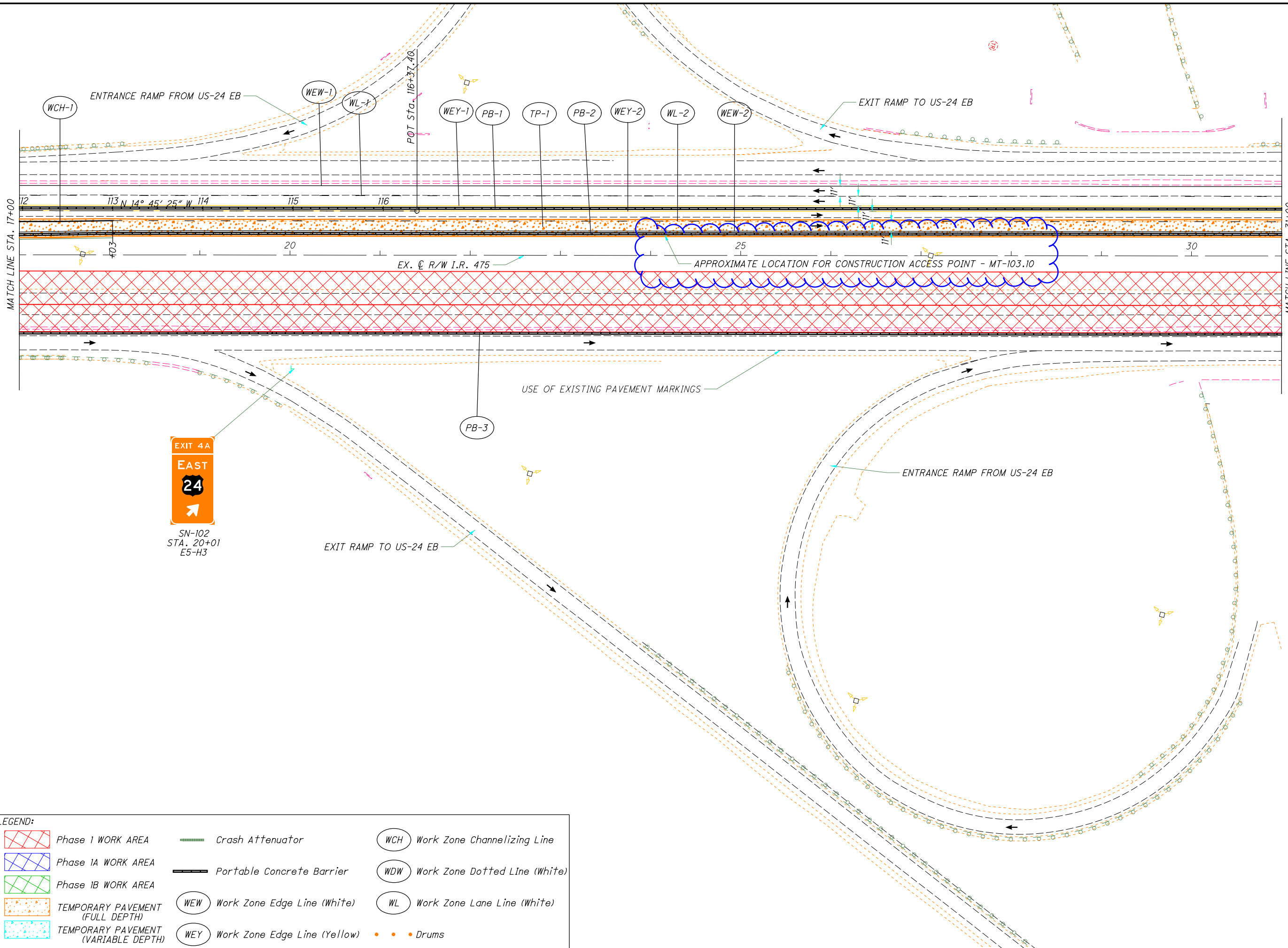


I:\ProjectData\LUC\95875\_LUC-475-0.09\_Design\M01\Sheets\95875\_M502.dgn Sheet 5/6/2022 8:35:12 AM dkaseml

REF NO.	SHEET NO.	STATION TO STATION	SHEET	614	614	614	614	614	614	614	614	614	614	614	614	614	614	615	622	622	622				
				WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	MAINTAINING TRAFFIC, MISC.:6"x8" SOLID WOOD POST, AS PER PLAN	MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	WORK ZONE LANE LINE, CLASS I, 4"	WORK ZONE CENTER LINE, CLASS I	WORK ZONE EDGE LINE, CLASS I, 6" (WHITE)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(WHITE)	WORK ZONE EDGE LINE, CLASS I, 6"(YELLOW)	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT(YELLOW)	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	WORK ZONE DOTTED LINE, CLASS I(WHITE)	WORK ZONE DOTTED LINE, CLASS I(YELLOW)	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT(WHITE)	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	WORK ZONE STOP LINE, CLASS I	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	PORTABLE BARRIER, 50", AS PER PLAN	PORTABLE BARRIER, "Y" CONNECTOR	PORTABLE BARRIER, UNANCHORED		
				EACH	EACH	SF	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	SY	FT	EACH	FT				
		SUBTOTALS CARRIED FROM SHEET	58	3	3	96	5384			9633	9633	10947	10947	2456	2456	2720		2720	5384		9871	2937	2	7040	
		SUBTOTALS CARRIED FROM SHEET	59	1			15001			19017	19017	16500	16500						15001		23548	9500		9238	
		SUBTOTALS CARRIED FROM SHEET	60	1	7	206	17700			16502	16502	21079	21079			1355		1355	17700		17947	8850		5195	
		SUBTOTALS CARRIED FROM SHEET	61	2			8680	5000		22447	22447	18692	18692	1865	1865	1543		1543	8680		180	5000		7096	
		SUBTOTALS CARRIED FROM SHEET	62	3	8	238				7275	7275	4389	4389	750	750	420		420			4818	2052		4390	
		SUBTOTALS CARRIED FROM SHEET	62A		1	32				6634	6634	9014	9014	498	498	353		353			1878				
		SUBTOTALS CARRIED FROM SHEET	62B	1	7	224	7510			15593	15593	11077	11077	2339	2339	1006		1006	7510		3112	3250		3160	
		SUBTOTALS CARRIED FROM SHEET	62C	2	4	96	21700			15585	15585	22033	22033						21700			8750		8897	
		SUBTOTALS CARRIED FROM SHEET	62D		1	32	13776			16362	16362	13987	13987	1046	1046	2004		2004	13776		1964	8750		5619	
		SUBTOTALS CARRIED FROM SHEET	62E		2	64	11721			18584	18584	21212	21212	6291	6291	2823		2823	11721		2171	6462	1	4078	
		SUBTOTALS CARRIED FROM SHEET	62F	1	13	325				11703	11703	8086	8086	1368	1368	1513	379	1134	1		8245			55	
		SUBTOTALS CARRIED FROM SHEET	63	2	7	154				10566	10566	8108	8108	3796	3796	2396		2396			3024		1	4020	
		SUBTOTALS CARRIED FROM SHEET	64	6						11537	11537	9011	9011	1518	1518	2695		2695			4735		1	15277	
		SUBTOTALS CARRIED FROM SHEET	65	1						15124	15124	11324	11324	2670	2670	4120		4120			2542		1	9583	
		SUBTOTALS CARRIED FROM SHEET	66	2	7	146				7868	7868	3605	3605	4686	4686	3184		3184			2550		3	6367	
		SUBTOTALS CARRIED FROM SHEET	67	7				2450		8506	3949	3378	3378	445	350	420		420			1503		1	6320	
		SUBTOTALS CARRIED FROM SHEET	68	1			830	2950		4701				25		500	65							675	
		LINEAR TOTALS	FT				102302	10400		217637	208379	192442	192442	29753	29633	27052	444	26173	101473			55551			
		LINEAR TOTALS	MI				19.375	1.970		41.219	39.466	36.447	36.447	5.635	5.612	5.123	0.084	4.957	19.218			10.521			
<b>TOTALS CARRIED TO SHEET 208 / 208A</b>				33	60	1613	19.38	1.97		41.219	39.466	36.447	36.447	29753	29633	27496		26173	19.218		80	88088	55551	10	97010

CALCULATED DEK CHECKED XXX  
**MAINTENANCE OF TRAFFIC SUBSUMMARY - MAINLINE**  
**LUC-475-0.09**  
 69  
 855

I:\ProjectData\LUC\95875\LUC-475-0.09\Design\M01\Sheets\95875\_MP002.dgn Sheet 5/6/2022 8:23:43 AM dkosemi



**LEGEND:**

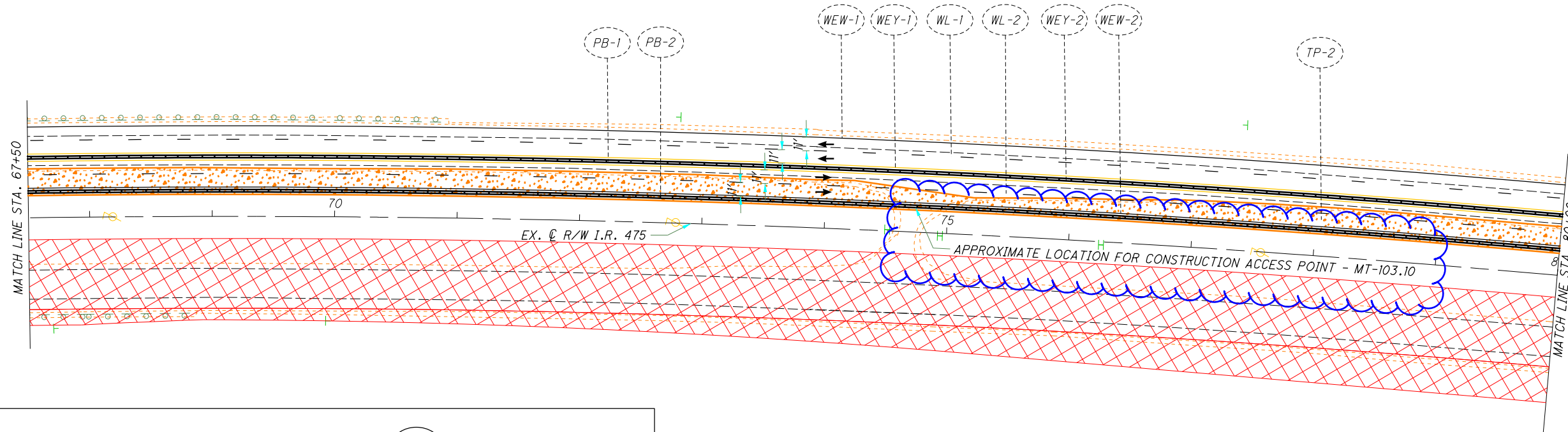
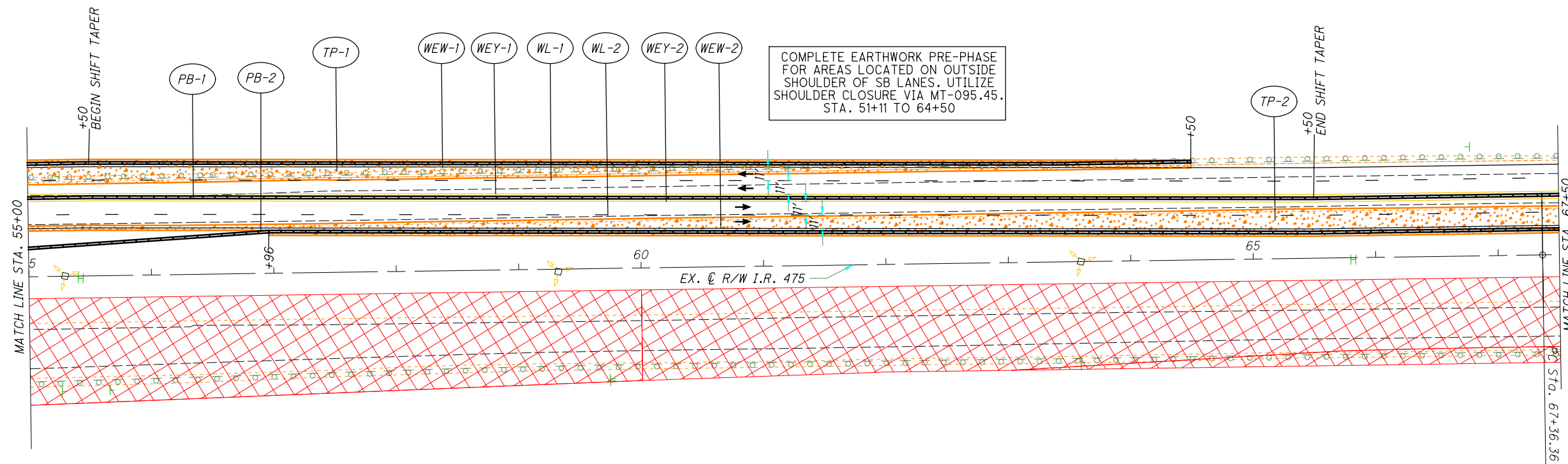
Phase 1 WORK AREA	Crash Attenuator	Work Zone Channelizing Line
Phase 1A WORK AREA	Portable Concrete Barrier	Work Zone Dotted Line (White)
Phase 1B WORK AREA	Work Zone Edge Line (White)	Work Zone Lane Line (White)
TEMPORARY PAVEMENT (FULL DEPTH)	Work Zone Edge Line (Yellow)	Drums
TEMPORARY PAVEMENT (VARIABLE DEPTH)		

CALCULATED  
MK  
CHECKED  
DEK

0 50 100  
HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 1 - STA. 17+50 TO STA. 30+91.88**

I:\ProjectData\LUC\95875\LUC-475-0-09\Design\M0T\Sheets\95875\_MP005.dgn Sheet 5/6/2022 8:23:47 AM dkosemi

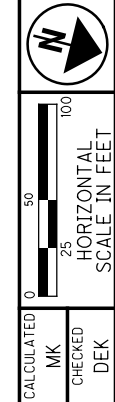


COMPLETE EARTHWORK PRE-PHASE FOR AREAS LOCATED ON OUTSIDE SHOULDER OF SB LANES. UTILIZE SHOULDER CLOSURE VIA MT-095.45. STA. 51+11 TO 64+50

APPROXIMATE LOCATION FOR CONSTRUCTION ACCESS POINT - MT-103.10

**LEGEND:**

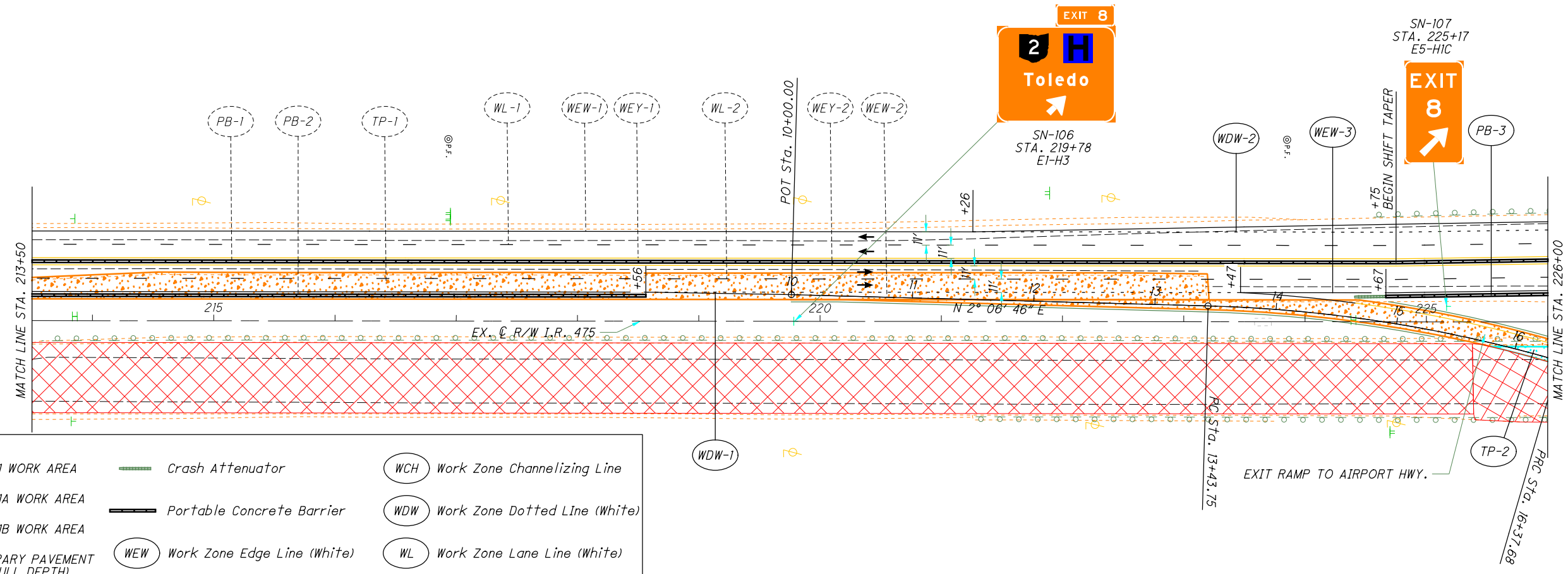
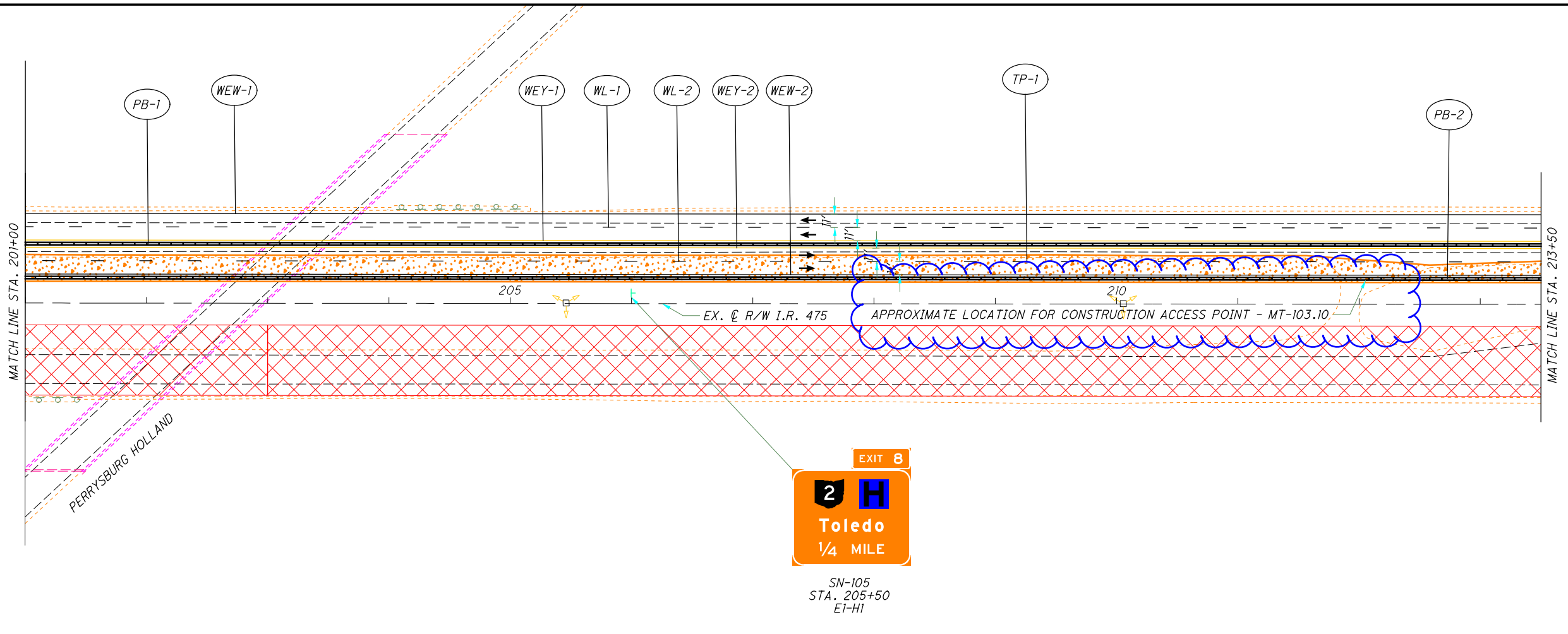
	Phase 1 WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase 1A WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase 1B WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				



**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 1 - STA. 55+00 TO STA. 80+00**

**LUC-475-0.09**  
 74  
 855

I:\ProjectData\LUC-475-0.09\Design\MOT\Sheets\95875\_MP012.dgn Sheet 5/6/2022 8:23:57 AM ckaseml



**LEGEND:**

	Phase 1 WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase 1A WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase 1B WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				

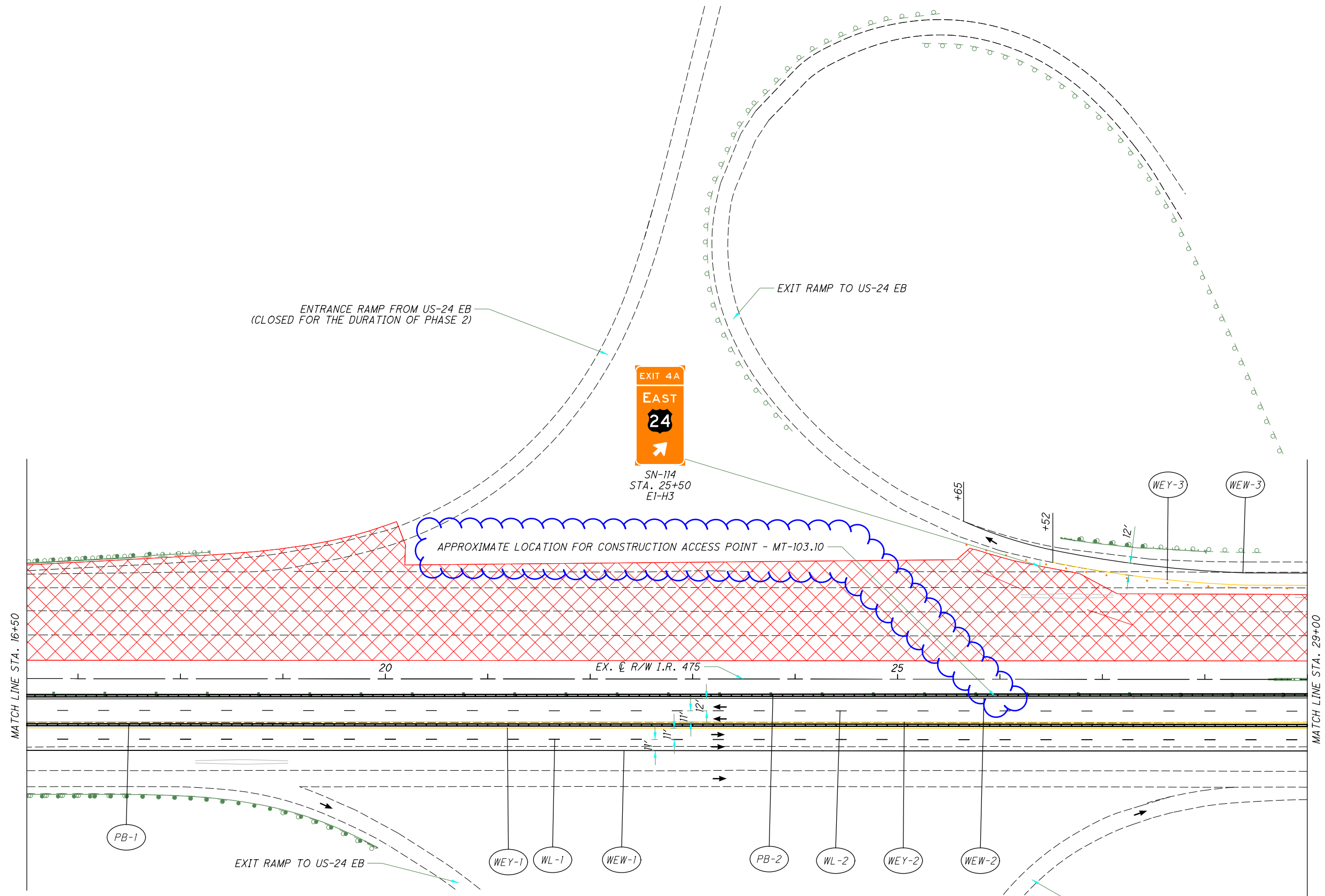


**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 1 - STA. 201+00 TO STA. 226+00**

**LUC-475-0.09**



I:\ProjectData\LUC-475-0.09\Design\MOT\Sheets\95875\_MP034.dgn Sheet 5/6/2022 8:24:00 AM dkosemi



**LEGEND:**

	Phase 1 WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase 1A WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase 1B WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				

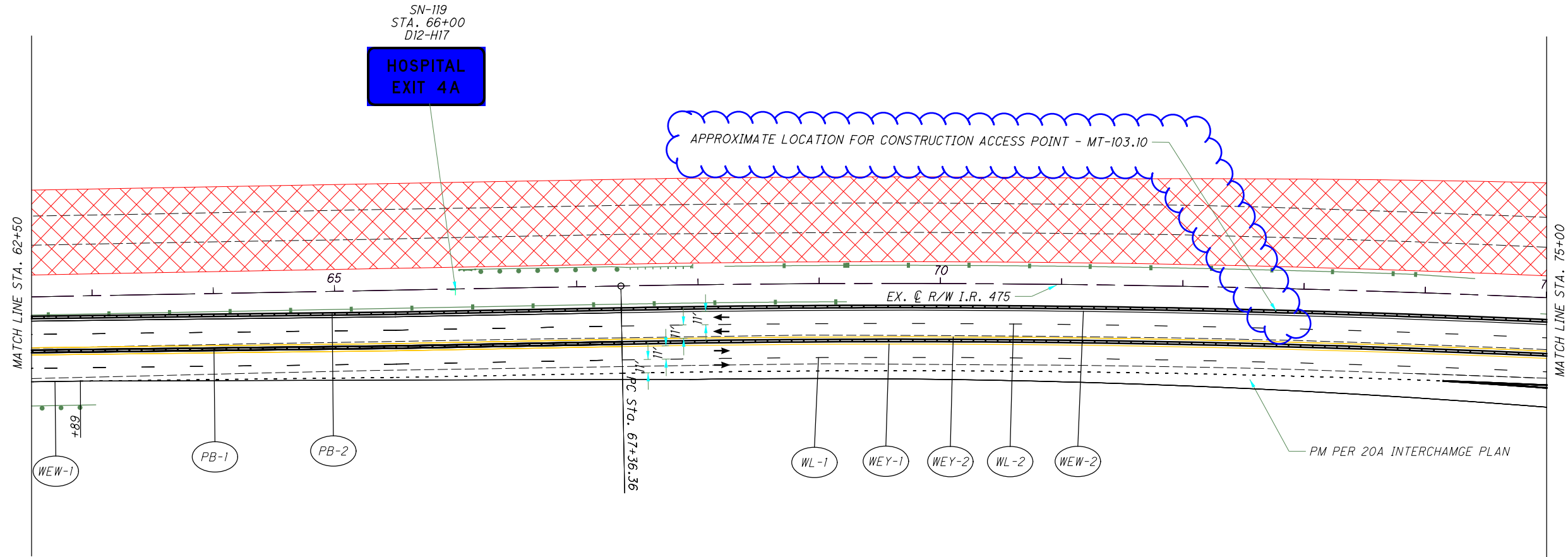
CALCULATED  
MK  
CHECKED  
DEK

0 50 100  
HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - MAINLINE  
PHASE 2 - STA. 16+50 TO STA. 29+00**

**LUC-475-0.09**

I:\ProjectData\LUC\95875\LUC-475-0.09\Design\M01\Sheets\95875\_MP037.dgn Sheet 5/6/2022 8:24:03 AM dkaseml



**LEGEND:**

	Phase 1 WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase 1A WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase 1B WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				

CALCULATED  
MK  
CHECKED  
DEK

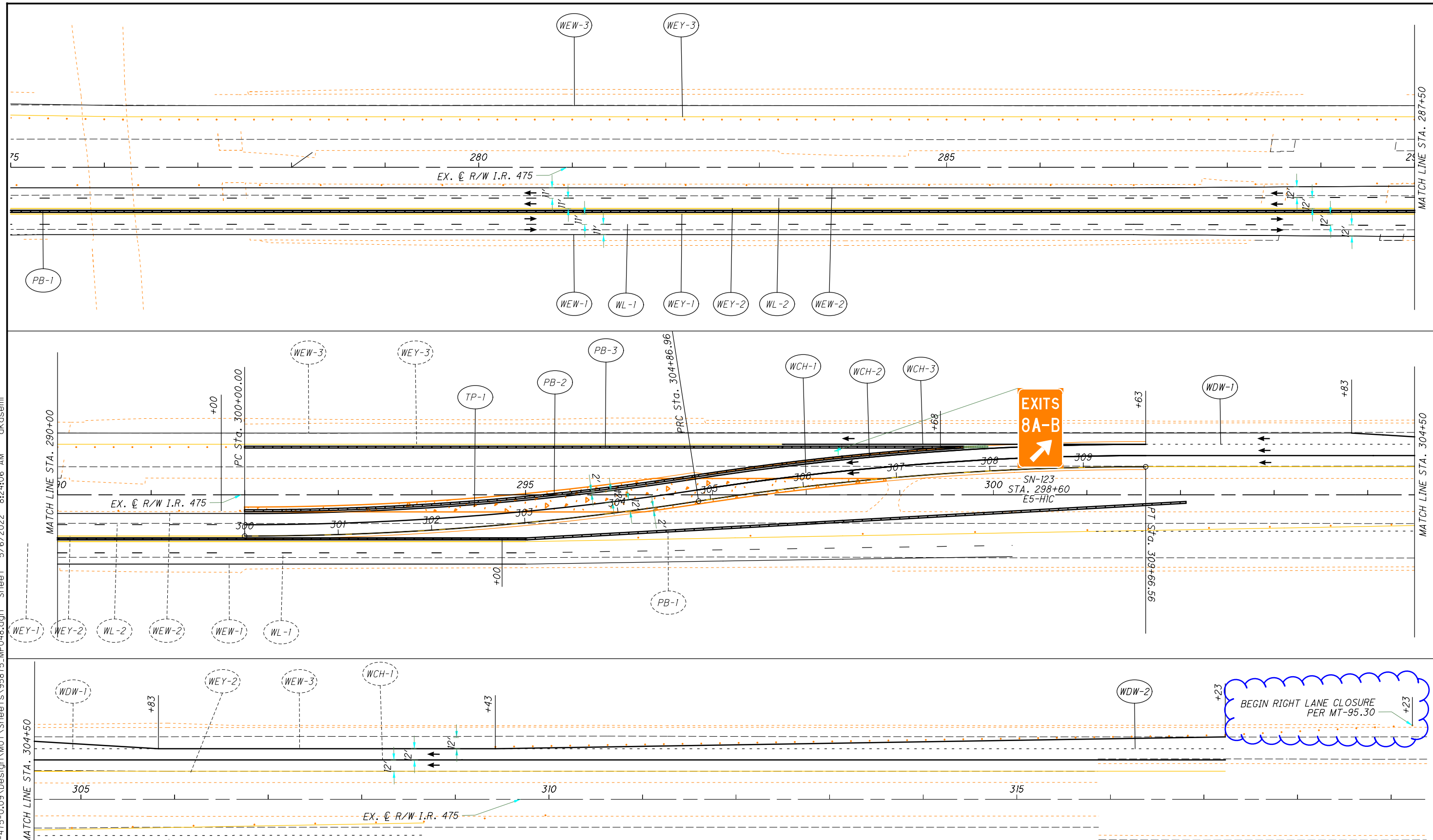
0 50 100  
HORIZONTAL SCALE IN FEET

**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 2 - STA. 62+50 TO STA. 75+00**

**LUC-475-0.09**

106  
855

I:\ProjectData\LUC-475-0.09\Design\M01\Sheets\95875.MP048.dgn Sheet 5/6/2022 8:24:06 AM dkosemi



CALCULATED	MK	CHECKED	DEK
------------	----	---------	-----

**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 2 - STA. 275+00 TO STA. 319+25**

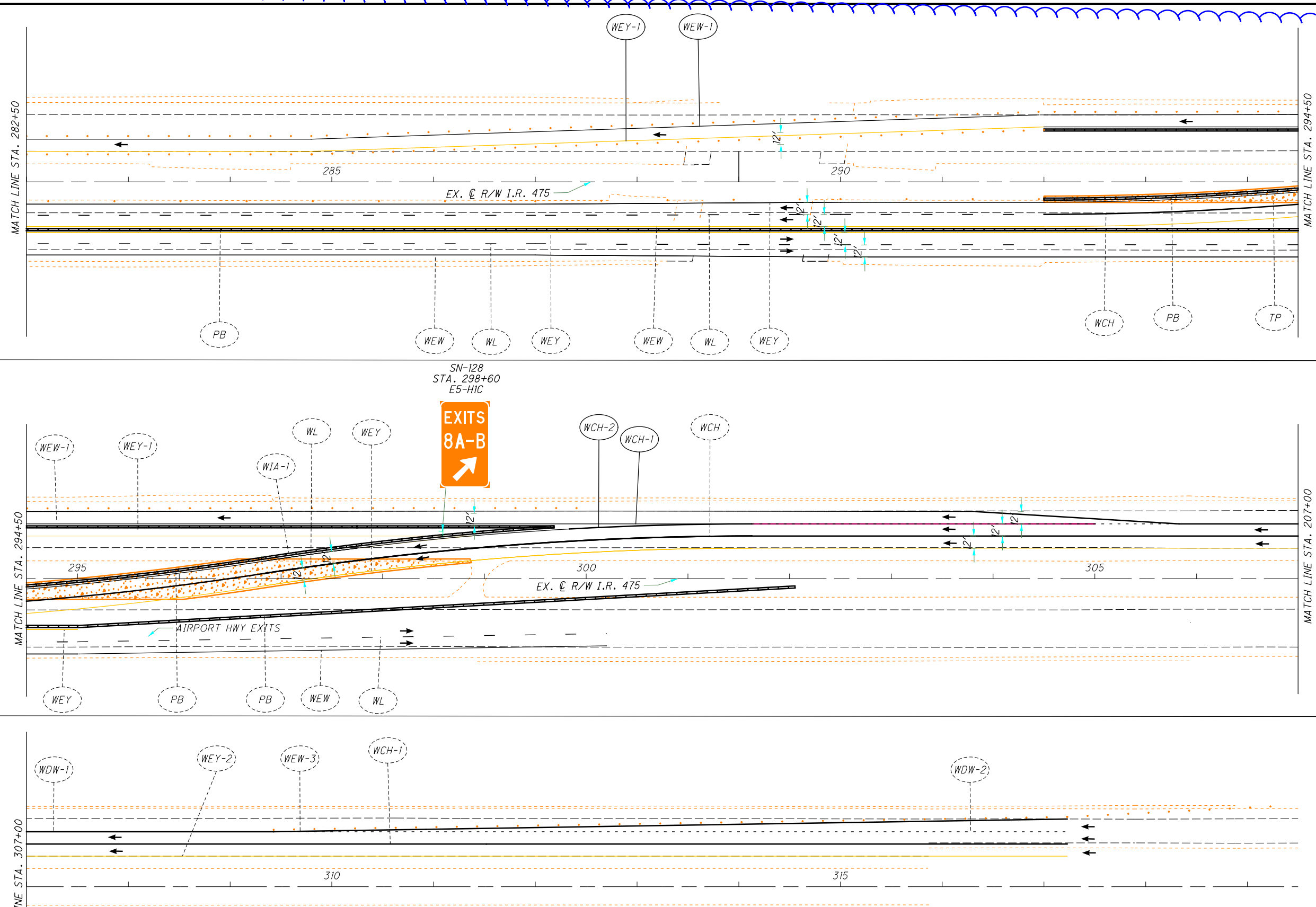
**LUC-475-0.09**

117  
855

**LEGEND:**

	Phase I WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase IA WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase IB WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				

I:\P\o\ec\DATA\LUC-475-0.09\Design\MOT\Sheets\95875\_MP061.dgn Sheet 5/6/2022 8:48:18 AM akasemi



CALCULATED MK CHECKED DEK

0 50 100  
HORIZONTAL SCALE IN FEET

N

**MAINTENANCE OF TRAFFIC - MAINLINE**  
**PHASE 2A - STA. 282+00 TO STA. 319+50**

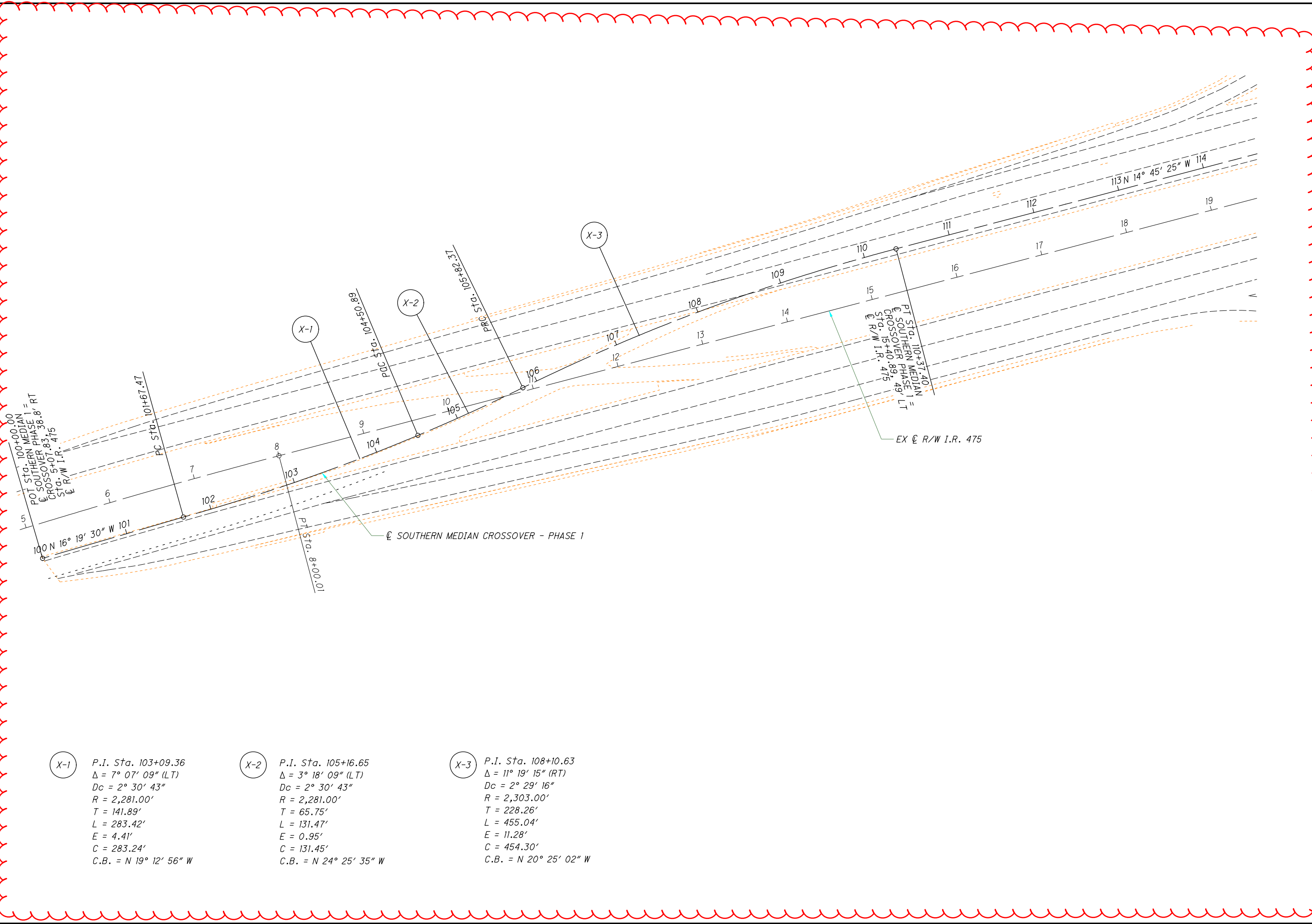
**LUC-475-0.09**

130  
855

**LEGEND:**

	Phase 1 WORK AREA		Crash Attenuator		Work Zone Channelizing Line
	Phase 1A WORK AREA		Portable Concrete Barrier		Work Zone Dotted Line (White)
	Phase 1B WORK AREA		Work Zone Edge Line (White)		Work Zone Lane Line (White)
	TEMPORARY PAVEMENT (FULL DEPTH)		Work Zone Edge Line (Yellow)		Drums
	TEMPORARY PAVEMENT (VARIABLE DEPTH)				

I:\Project\DATA\LUC-475-0.09\Design\M0T\Sheets\95875\_MM00.dgn Sheet 5/6/2022 8:25:03 AM dkaseml



X-1 P.I. Sta. 103+09.36  
 $\Delta = 7^\circ 07' 09''$  (LT)  
 $Dc = 2^\circ 30' 43''$   
 $R = 2,281.00'$   
 $T = 141.89'$   
 $L = 283.42'$   
 $E = 4.41'$   
 $C = 283.24'$   
 $C.B. = N 19^\circ 12' 56'' W$

X-2 P.I. Sta. 105+16.65  
 $\Delta = 3^\circ 18' 09''$  (LT)  
 $Dc = 2^\circ 30' 43''$   
 $R = 2,281.00'$   
 $T = 65.75'$   
 $L = 131.47'$   
 $E = 0.95'$   
 $C = 131.45'$   
 $C.B. = N 24^\circ 25' 35'' W$

X-3 P.I. Sta. 108+10.63  
 $\Delta = 11^\circ 19' 15''$  (RT)  
 $Dc = 2^\circ 29' 16''$   
 $R = 2,303.00'$   
 $T = 228.26'$   
 $L = 455.04'$   
 $E = 11.28'$   
 $C = 454.30'$   
 $C.B. = N 20^\circ 25' 02'' W$

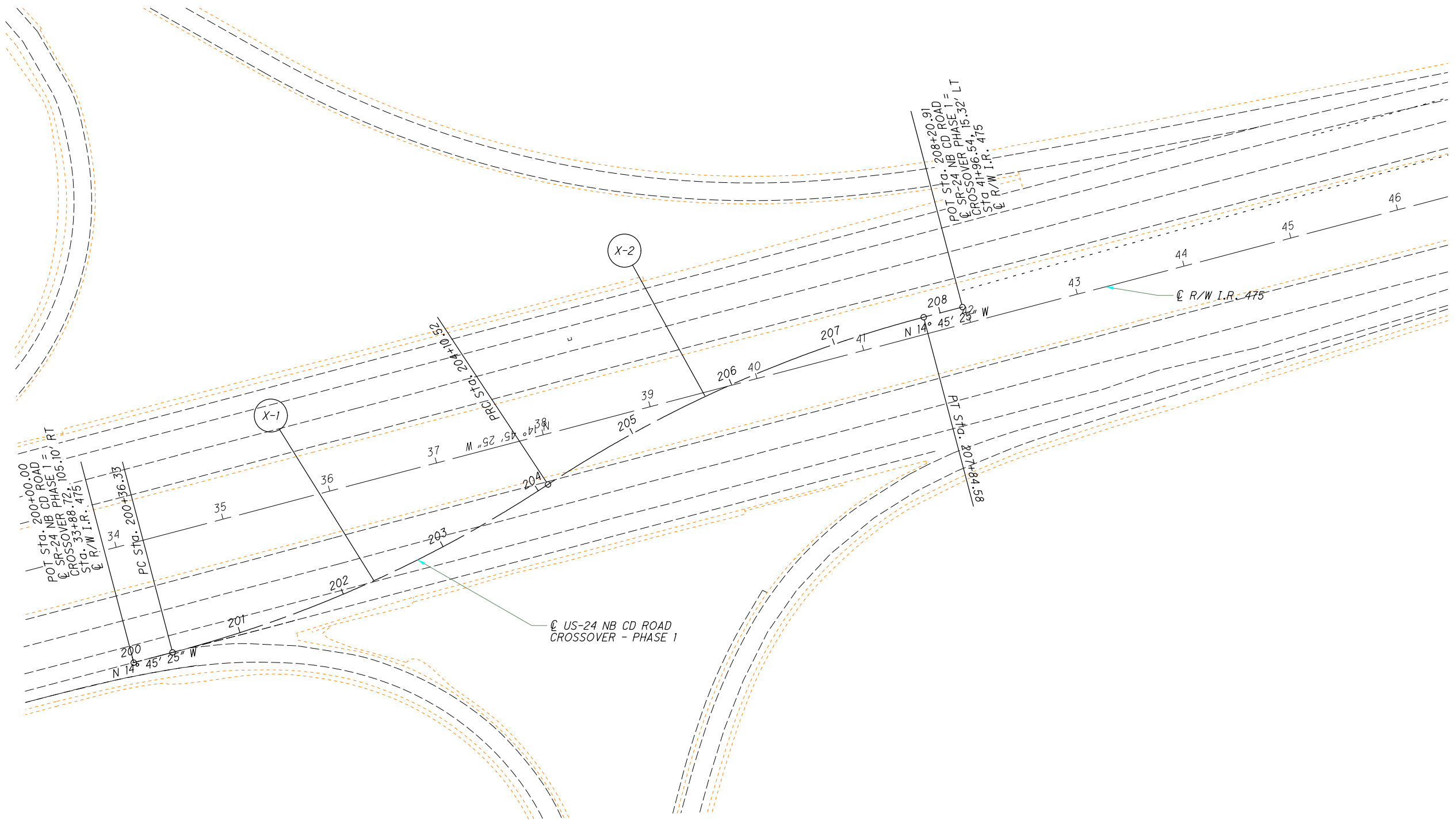
CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1**  
**SOUTHERN MEDIAN CROSSOVER**

**LUC-475-0.09**

I:\ProjectData\LUC-475-0.09\Design\M01\Sheets\95875\_MM002.dgn Sheet 5/6/2022 8:25:06 AM akasemi



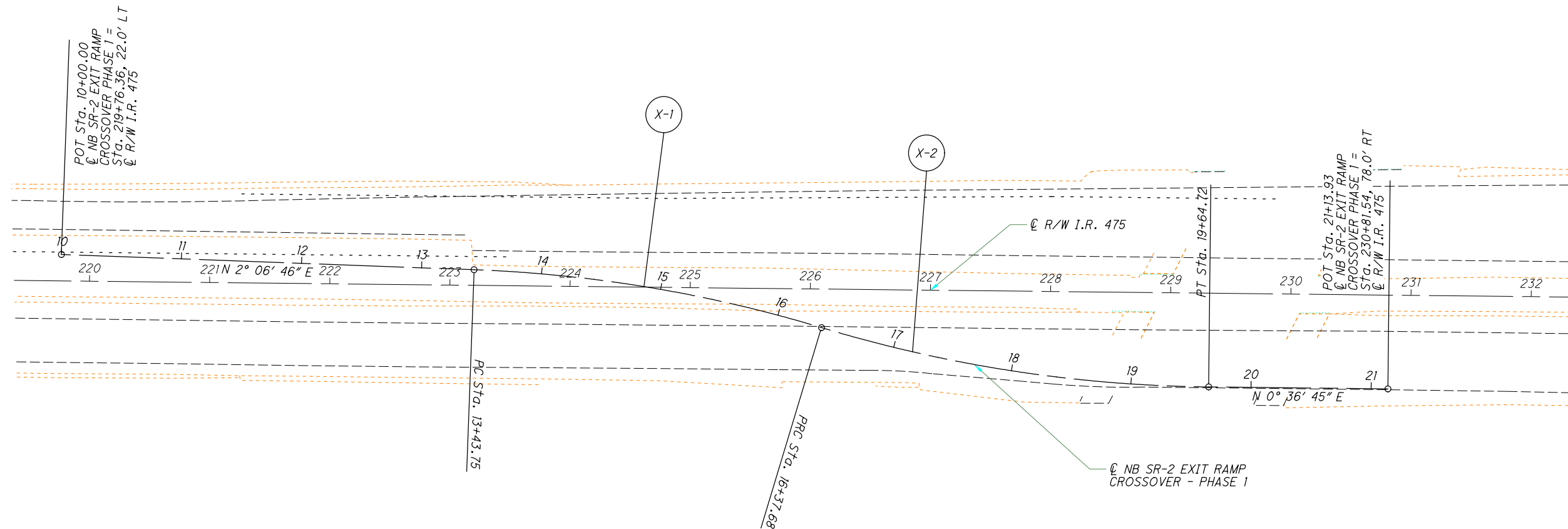
X-1  
 P.I. Sta. 202+25.10  
 $\Delta = 18^\circ 42' 30''$  (LT)  
 $Dc = 4^\circ 59' 59''$   
 $R = 1,146.00'$   
 $T = 188.78'$   
 $L = 374.20'$   
 $E = 15.44'$   
 $C = 372.54'$   
 $C.B. = N 24^\circ 06' 40'' W$

X-2  
 P.I. Sta. 205+99.19  
 $\Delta = 18^\circ 30' 01''$  (RT)  
 $Dc = 4^\circ 56' 45''$   
 $R = 1,158.47'$   
 $T = 188.67'$   
 $L = 374.06'$   
 $E = 15.26'$   
 $C = 372.43'$   
 $C.B. = N 24^\circ 00' 25'' W$

CALCULATED  
 JLE  
 CHECKED  
 DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1**  
**BNSR-24 NB CD ROAD CROSSOVER**

I:\ProjectData\LUC-475-0-09\Design\M0T\Sheets\95875\_MM003.dgn Sheet 5/6/2022 8:25:08 AM dkasemi



X-1  
 P.I. Sta. 14+91.53  
 $\Delta = 14^\circ 41' 43''$  (RT)  
 $Dc = 4^\circ 59' 59''$   
 $R = 1,146.00'$   
 $T = 147.77'$   
 $L = 293.93'$   
 $E = 9.49'$   
 $C = 293.12'$   
 C.B. = N  $9^\circ 27' 37''$  E

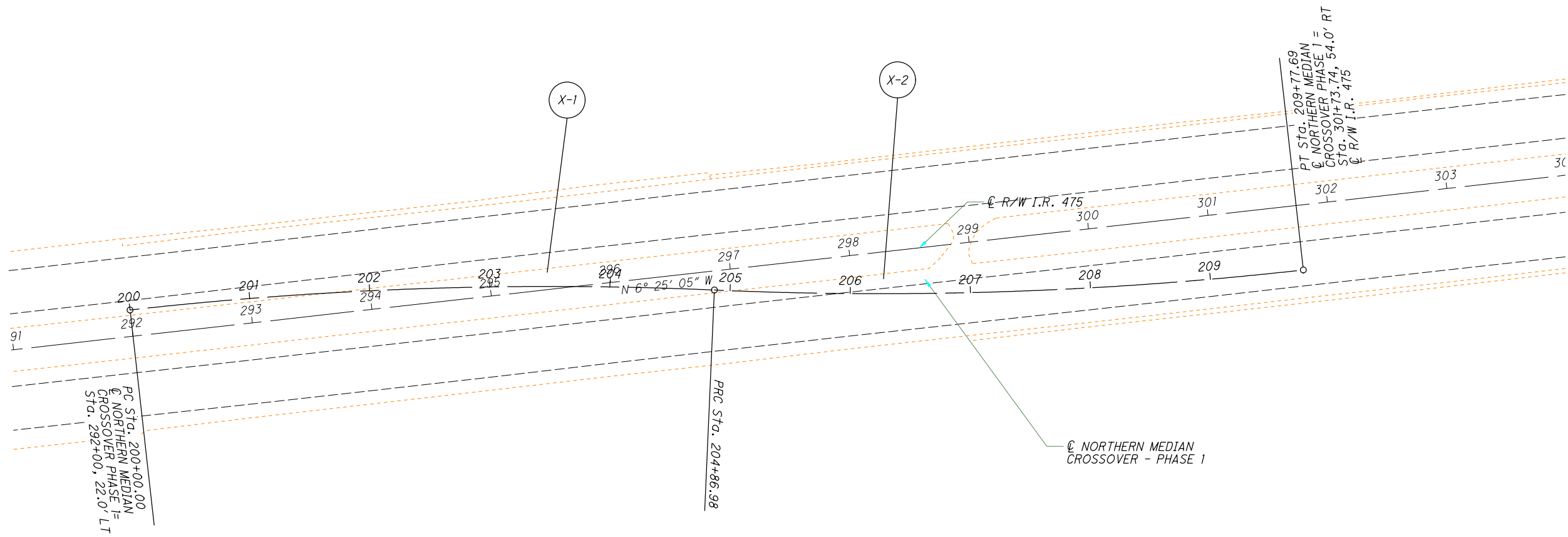
X-2  
 P.I. Sta. 18+02.30  
 $\Delta = 16^\circ 11' 44''$  (LT)  
 $Dc = 4^\circ 57' 08''$   
 $R = 1,157.00'$   
 $T = 164.62'$   
 $L = 327.04'$   
 $E = 11.65'$   
 $C = 325.95'$   
 C.B. = N  $8^\circ 42' 37''$  E

CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1**  
**NB SR-2 EXIT RAMP CROSSOVER**

I:\ProjectData\LUC-475-0-09\Design\M0T\Sheets\95875\_MM004.dgn Sheet 5/6/2022 8:25:11 AM dkaseml



X-1  
 P.I. Sta. 202+43.98  
 $\Delta = 8^\circ 55' 33''$  (RT)  
 $Dc = 1^\circ 49' 58''$   
 $R = 3,126.00'$   
 $T = 243.98'$   
 $L = 486.98'$   
 $E = 9.51'$   
 $C = 486.48'$   
 C.B. = N  $1^\circ 57' 19''$  W

X-2  
 P.I. Sta. 207+32.83  
 $\Delta = 8^\circ 55' 33''$  (LT)  
 $Dc = 1^\circ 49' 08''$   
 $R = 3,150.00'$   
 $T = 245.86'$   
 $L = 490.72'$   
 $E = 9.58'$   
 $C = 490.22'$   
 C.B. = N  $1^\circ 57' 19''$  W



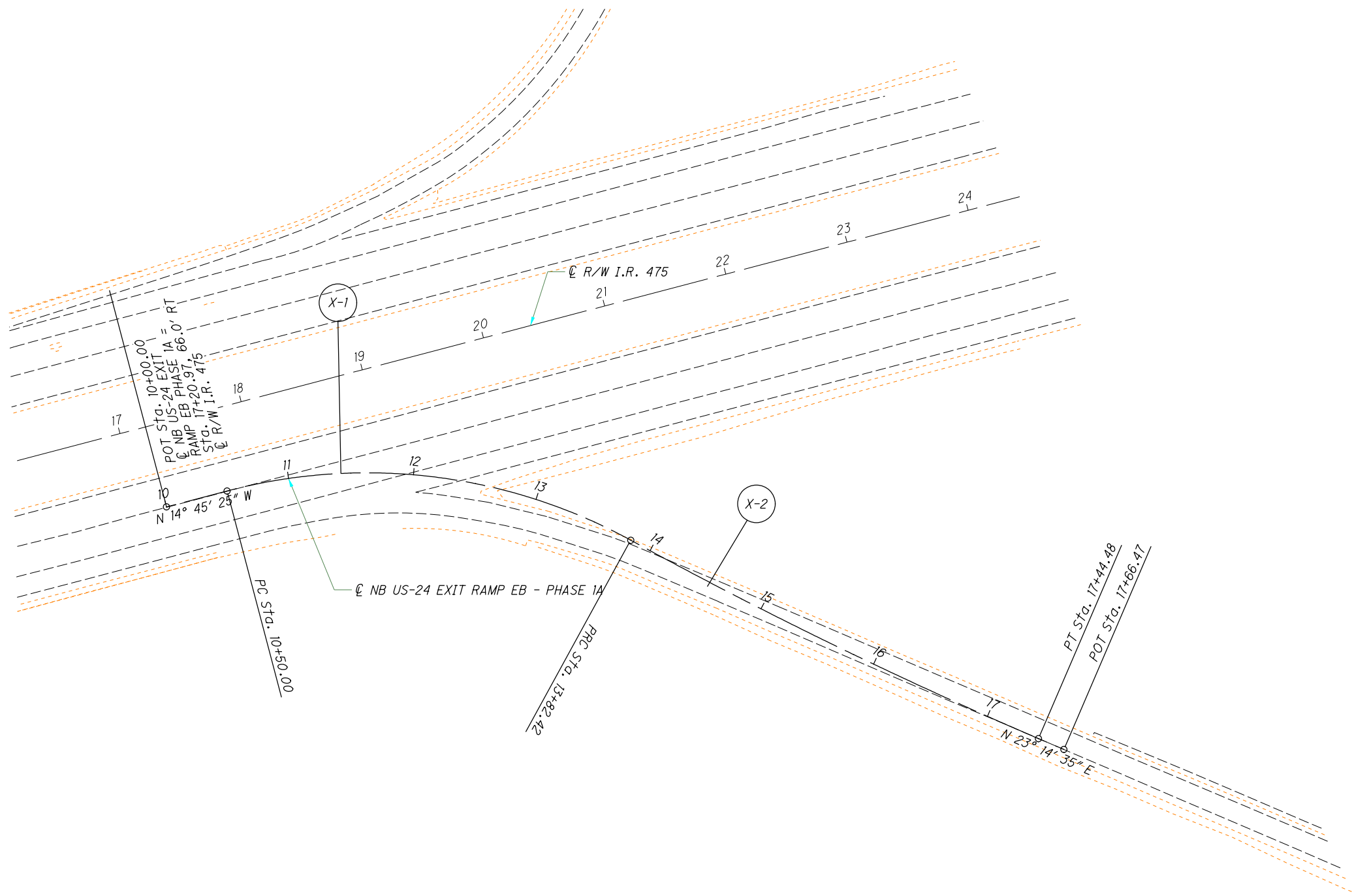
CALCULATED	JLE
CHECKED	DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1**  
**NORTHERN MEDIAN CROSSOVER**

**LUC-475-0.09**



I:\ProjectData\LUC-475-0.09\Design\M0T\Sheets\95875\_MM005.dgn Sheet 5/6/2022 8:25:13 AM dkaseml

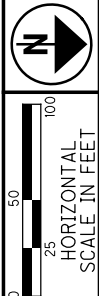


X-1  
 P.I. Sta. 12+24.65  
 $\Delta = 43^\circ 25' 50''$  (RT)  
 $Dc = 13^\circ 03' 54''$   
 $R = 438.54'$   
 $T = 174.65'$   
 $L = 332.42'$   
 $E = 33.50'$   
 $C = 324.51'$   
 C.B. = N  $6^\circ 57' 30''$  E

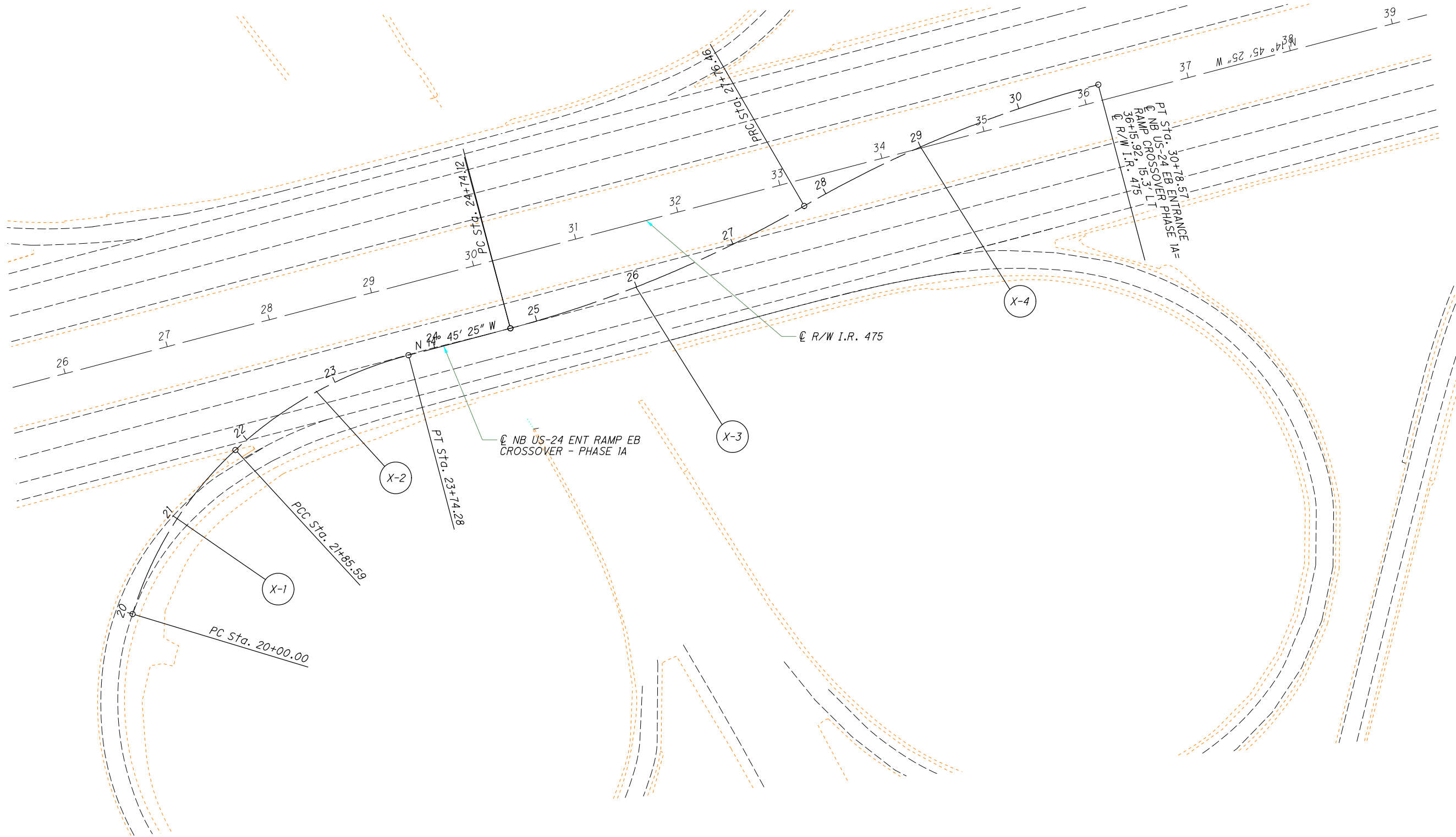
X-2  
 P.I. Sta. 15+63.58  
 $\Delta = 5^\circ 25' 50''$  (LT)  
 $Dc = 1^\circ 30' 00''$   
 $R = 3,820.00'$   
 $T = 181.17'$   
 $L = 362.07'$   
 $E = 4.29'$   
 $C = 361.93'$   
 C.B. = N  $25^\circ 57' 30''$  E

CALCULATED  
 JLE  
 CHECKED  
 DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1A**  
**NB US-24 EB EXIT RAMP**



I:\ProjectData\LUC-475-0-09\Design\M0T\Sheets\95875\_MM006.dgn Sheet 5/6/2022 8:25:16 AM dkaseml



X-2  
 P.I. Sta. 22+81.85  
 $\Delta = 27^\circ 54' 49''$  (RT)  
 $Dc = 14^\circ 47' 35''$   
 $R = 387.32'$   
 $T = 96.26'$   
 $L = 188.70'$   
 $E = 11.78'$   
 $C = 186.84'$   
 C.B. = N 28° 41' 20" W

X-3  
 P.I. Sta. 26+26.17  
 $\Delta = 15^\circ 06' 56''$  (LT)  
 $Dc = 4^\circ 59' 58''$   
 $R = 1,146.02'$   
 $T = 152.05'$   
 $L = 302.34'$   
 $E = 10.04'$   
 $C = 301.46'$   
 C.B. = N 22° 36' 33" W

X-4  
 P.I. Sta. 29+28.40  
 $\Delta = 15^\circ 06' 18''$  (RT)  
 $Dc = 4^\circ 59' 59''$   
 $R = 1,145.99'$   
 $T = 151.94'$   
 $L = 302.12'$   
 $E = 10.03'$   
 $C = 301.24'$   
 C.B. = N 22° 24' 37" W

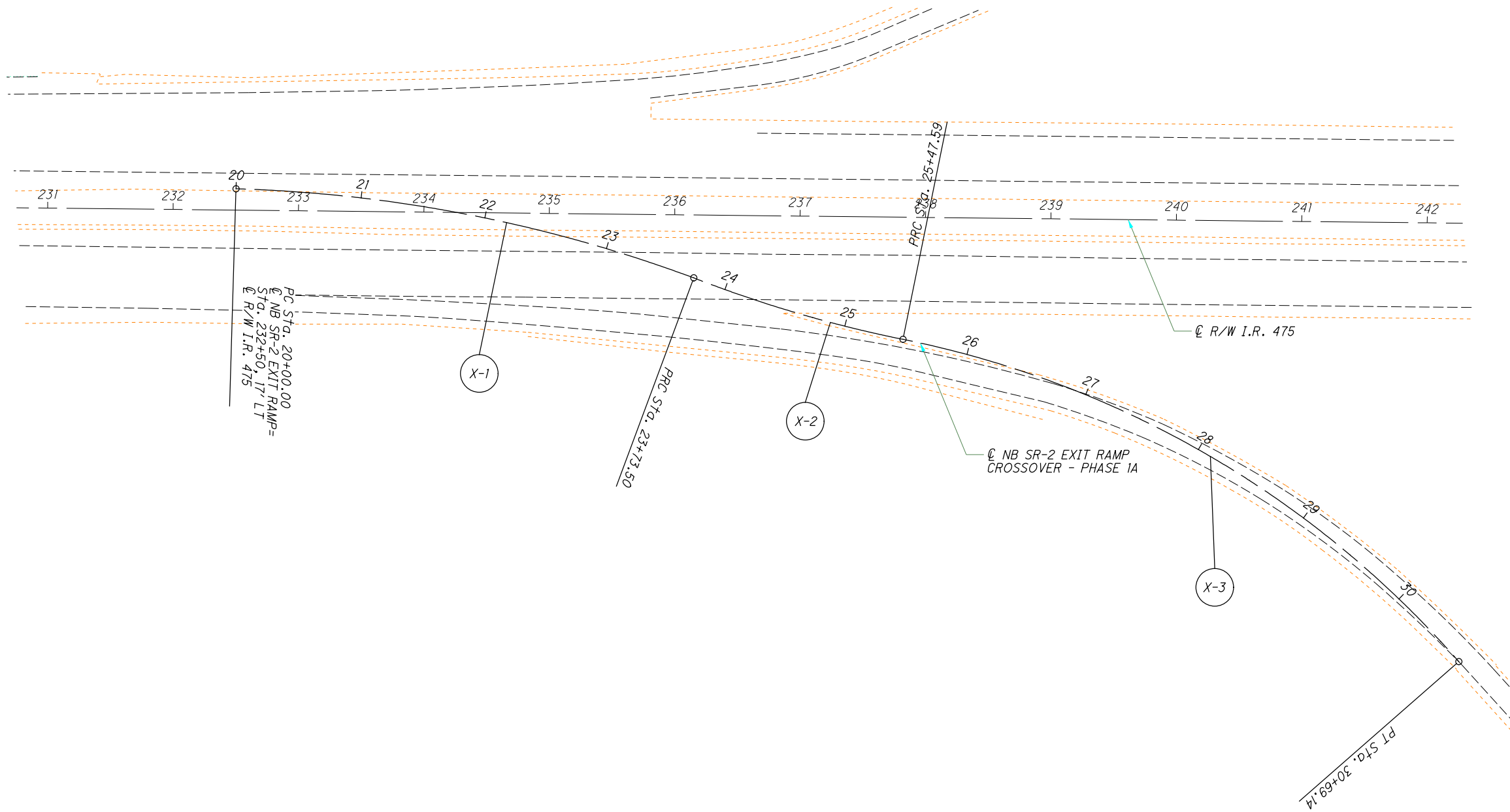


CALCULATED	JLE
CHECKED	DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1A**  
**NB US-24 EB ENTRANCE RAMP**

**LUC-475-0.09**

I:\ProjectData\LUC-475-0.09\Design\M0T\Sheets\95875\_MM007.dgn Sheet 5/6/2022 8:25:18 AM dkaseml



**X-1**  
 P.I. Sta. 21+88.42  
 $\Delta = 18^\circ 40' 24''$  (RT)  
 $D_c = 4^\circ 59' 59''$   
 $R = 1,146.00'$   
 $T = 188.42'$   
 $L = 373.50'$   
 $E = 15.39'$   
 $C = 371.84'$   
 C.B. = N  $11^\circ 01' 04''$  E

**X-2**  
 P.I. Sta. 24+60.76  
 $\Delta = 9^\circ 46' 44''$  (LT)  
 $D_c = 5^\circ 37' 01''$   
 $R = 1,020.05'$   
 $T = 87.26'$   
 $L = 174.10'$   
 $E = 3.73'$   
 $C = 173.89'$   
 C.B. = N  $16^\circ 23' 00''$  E

**X-3**  
 P.I. Sta. 28+18.04  
 $\Delta = 37^\circ 24' 36''$  (RT)  
 $D_c = 7^\circ 10' 23''$   
 $R = 798.78'$   
 $T = 270.45'$   
 $L = 521.54'$   
 $E = 44.54'$   
 $C = 512.33'$   
 C.B. = N  $30^\circ 06' 41''$  E

CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

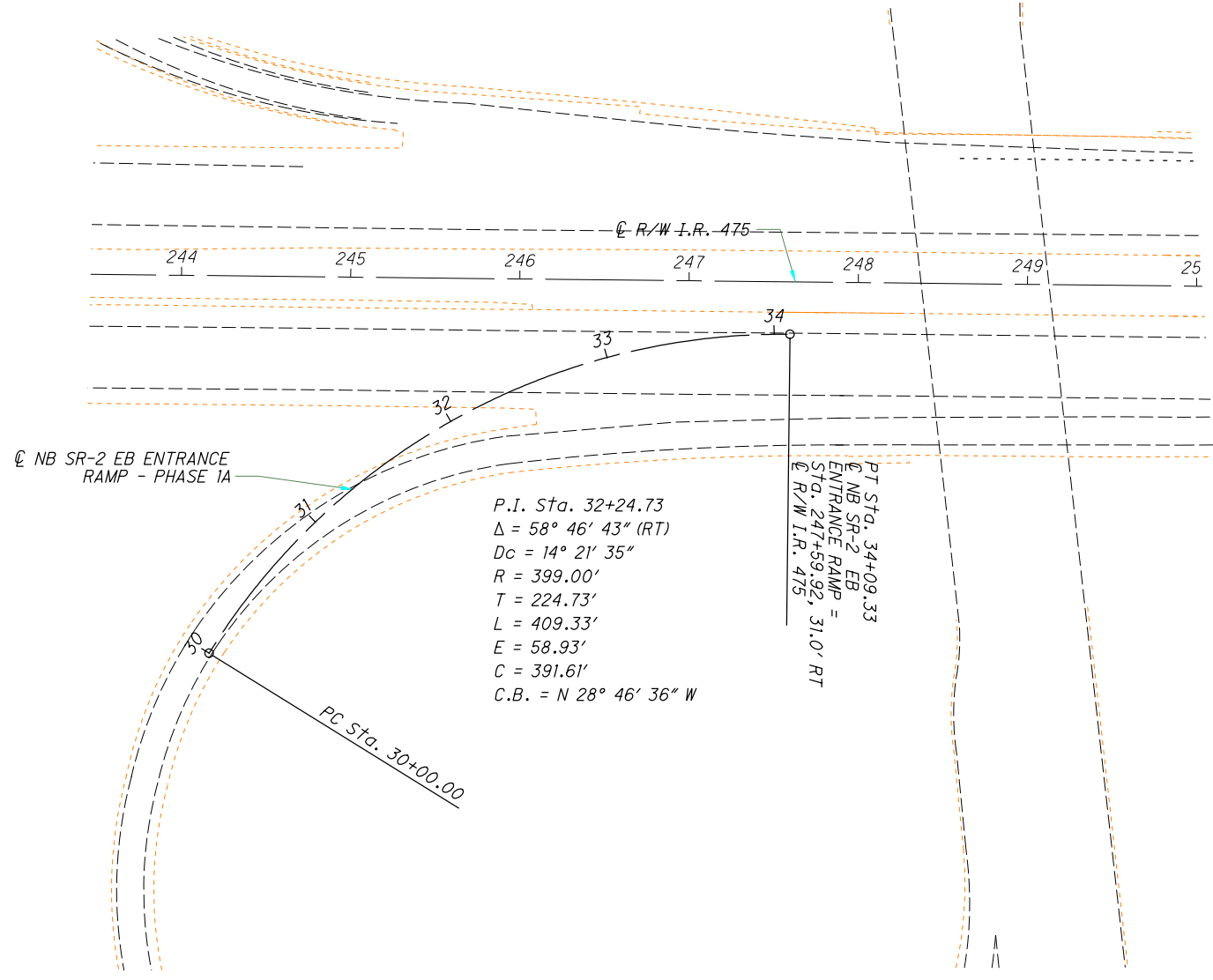
N

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1A**  
**NB SR-2 EXIT RAMP**

**LUC-475-0.09**

160  
 855

I:\Project+Data\LUC\95875\LUC-475-0-09\Design\M0T\Sheets\95875\_MM008.dgn Sheet 5/6/2022 8:25:21 AM dkaseml

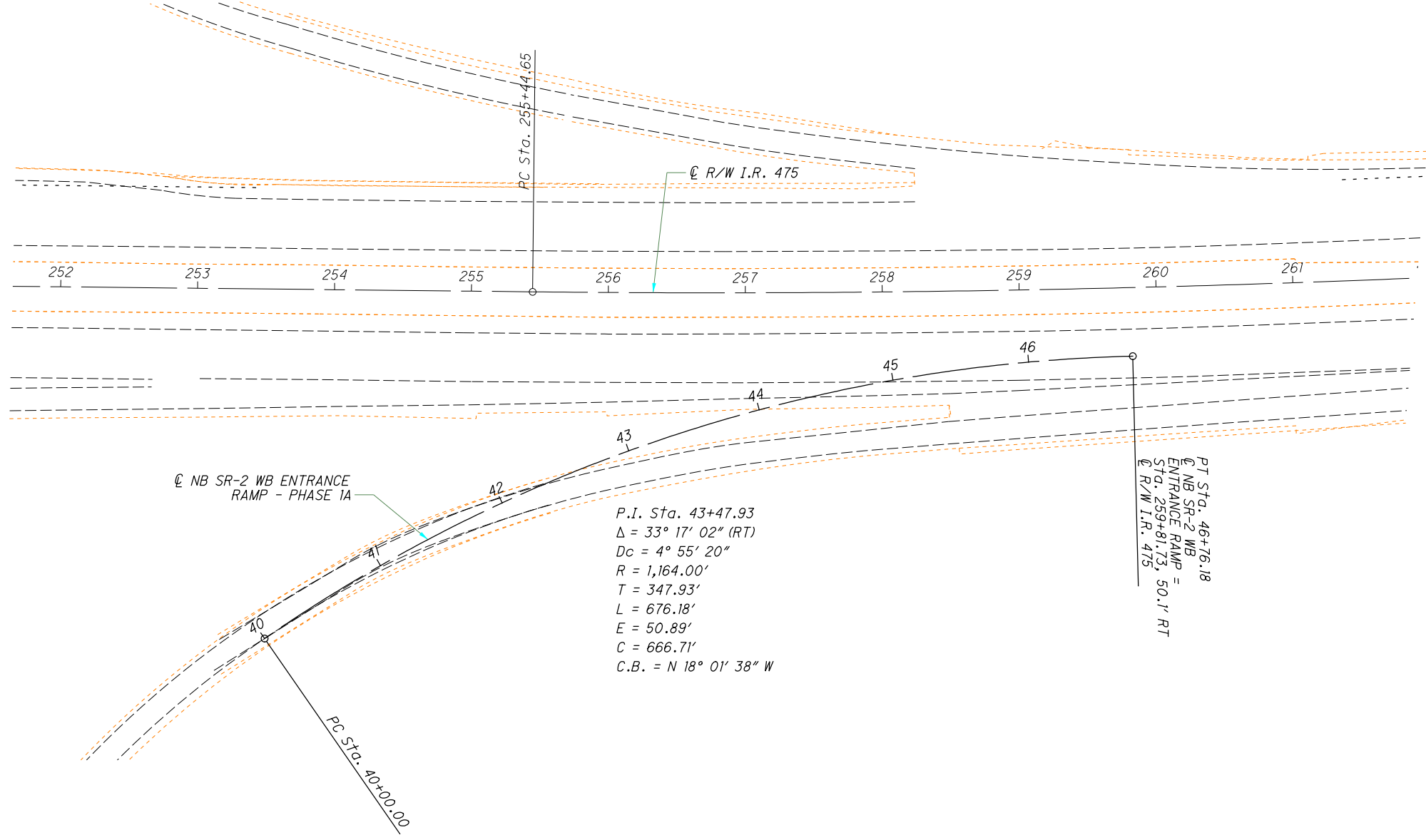


CALCULATED	
JLE	DEK
CHECKED	
DEK	

0 50 100  
HORIZONTAL SCALE IN FEET

N

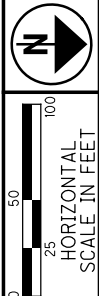
**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1A**  
**NB SR-2 EB ENTRANCE RAMP**



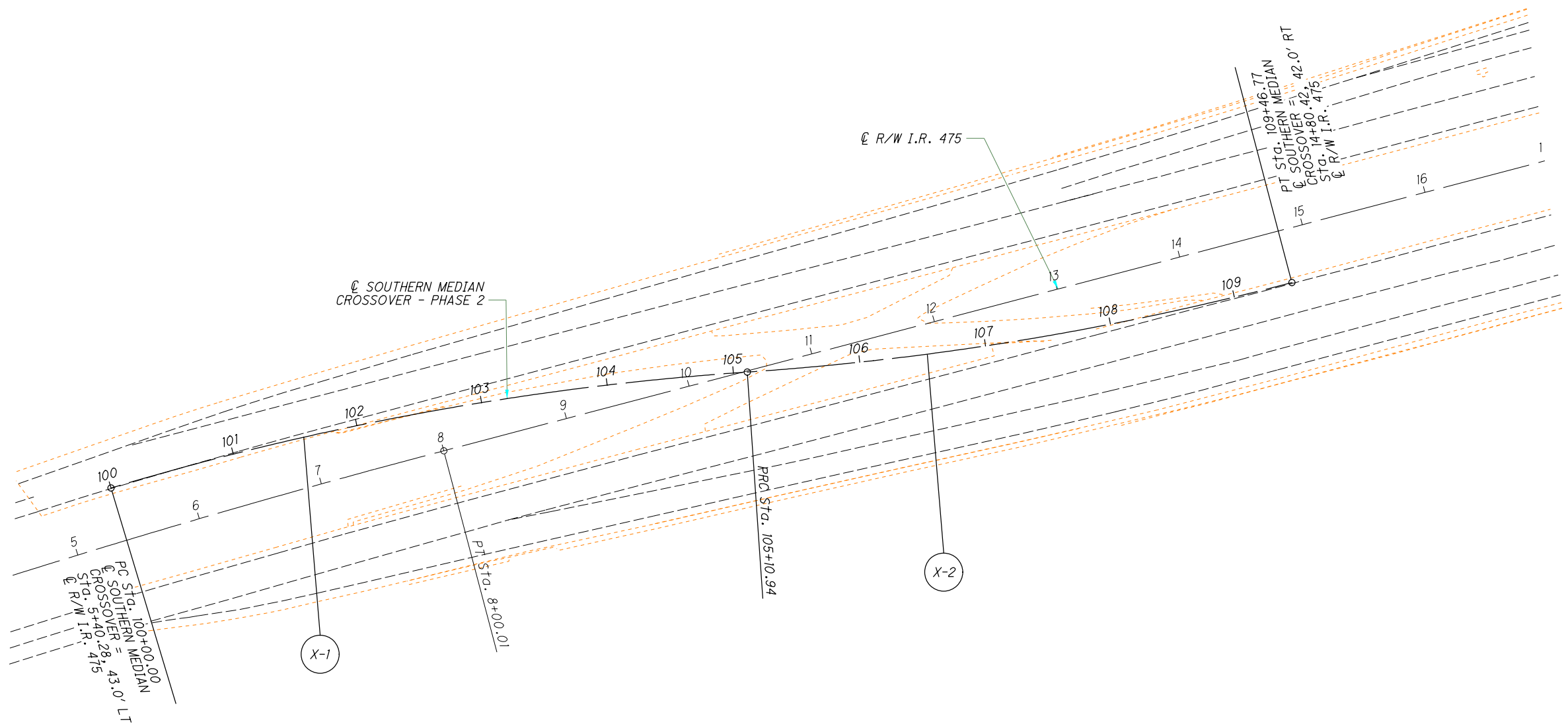
CALCULATED  
JLE  
CHECKED  
DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 1A**  
**NB SR-2 WB ENTRANCE RAMP**

**LUC-475-0.09**



I:\Project+Data\LUC\95875\LUC-475-0.09\Design\M0T\Sheets\95875\_MM010.dgn Sheet 5/6/2022 8:25:27 AM dkaseml



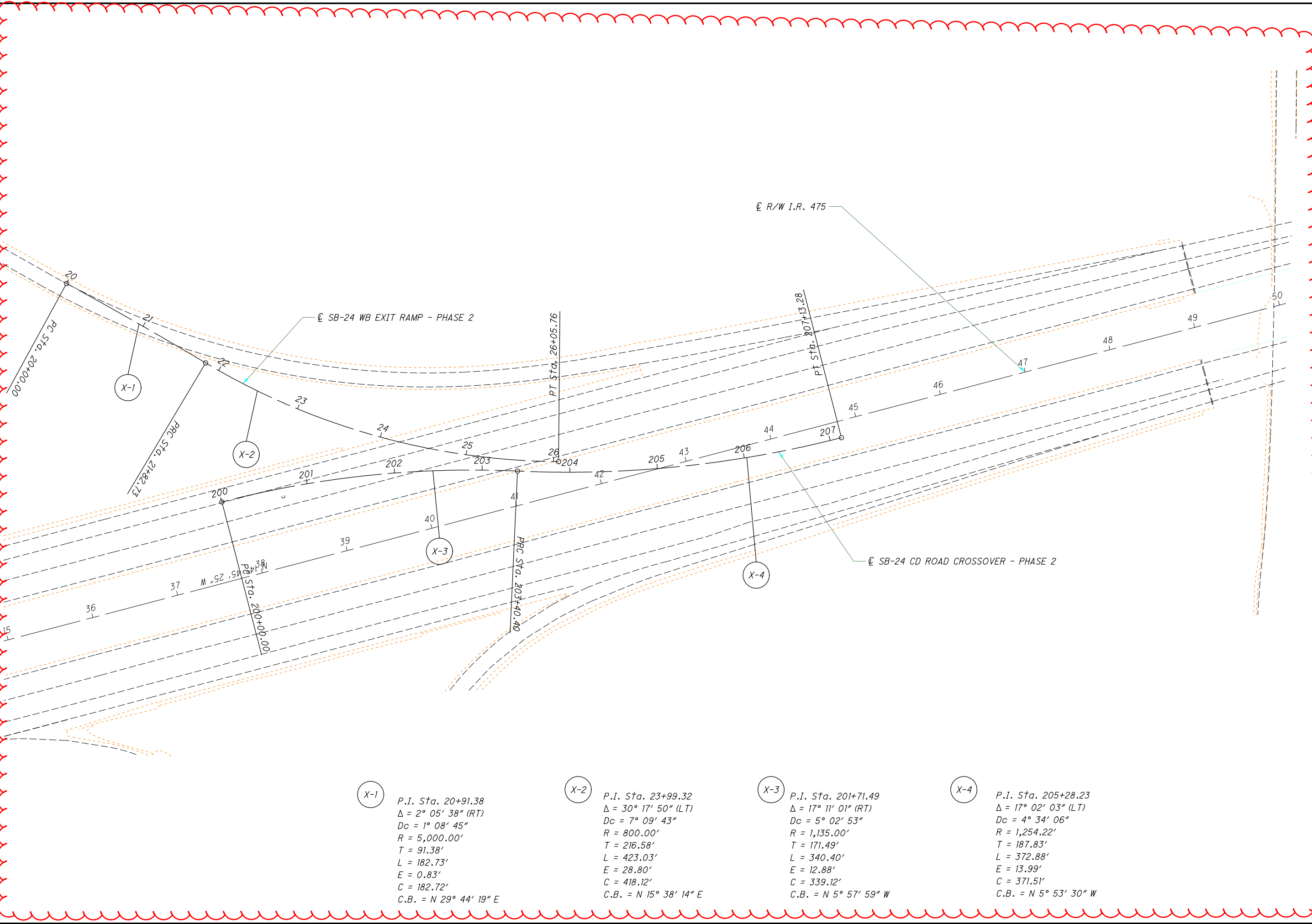
X-1  
 P.I. Sta. 102+56.54  
 $\Delta = 12^\circ 50' 03''$  (RT)  
 $Dc = 2^\circ 30' 43''$   
 $R = 2,281.00'$   
 $T = 256.54'$   
 $L = 510.94'$   
 $E = 14.38'$   
 $C = 509.87'$   
 C.B. = N  $10^\circ 19' 52''$  W

X-2  
 P.I. Sta. 107+29.51  
 $\Delta = 10^\circ 50' 35''$  (LT)  
 $Dc = 2^\circ 29' 16''$   
 $R = 2,303.00'$   
 $T = 218.57'$   
 $L = 435.83'$   
 $E = 10.35'$   
 $C = 435.18'$   
 C.B. = N  $9^\circ 20' 08''$  W

CALCULATED  
 JLE  
 CHECKED  
 DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2**  
**SOUTHERN MEDIAN CROSSOVER**

I:\ProjectData\LUC\95875\LUC-475-0.09\Design\MOT\Sheets\95875\_MM01.dgn Sheet 5/6/2022 8:25:29 AM dkasemi



X-1  
 P.I. Sta. 20+91.38  
 $\Delta = 2^\circ 05' 38''$  (RT)  
 $Dc = 1^\circ 08' 45''$   
 $R = 5,000.00'$   
 $T = 91.38'$   
 $L = 182.73'$   
 $E = 0.83'$   
 $C = 182.72'$   
 C.B. = N 29° 44' 19" E

X-2  
 P.I. Sta. 23+99.32  
 $\Delta = 30^\circ 17' 50''$  (LT)  
 $Dc = 7^\circ 09' 43''$   
 $R = 800.00'$   
 $T = 216.58'$   
 $L = 423.03'$   
 $E = 28.80'$   
 $C = 418.12'$   
 C.B. = N 15° 38' 14" E

X-3  
 P.I. Sta. 201+71.49  
 $\Delta = 17^\circ 11' 01''$  (RT)  
 $Dc = 5^\circ 02' 53''$   
 $R = 1,135.00'$   
 $T = 171.49'$   
 $L = 340.40'$   
 $E = 12.88'$   
 $C = 339.12'$   
 C.B. = N 5° 57' 59" W

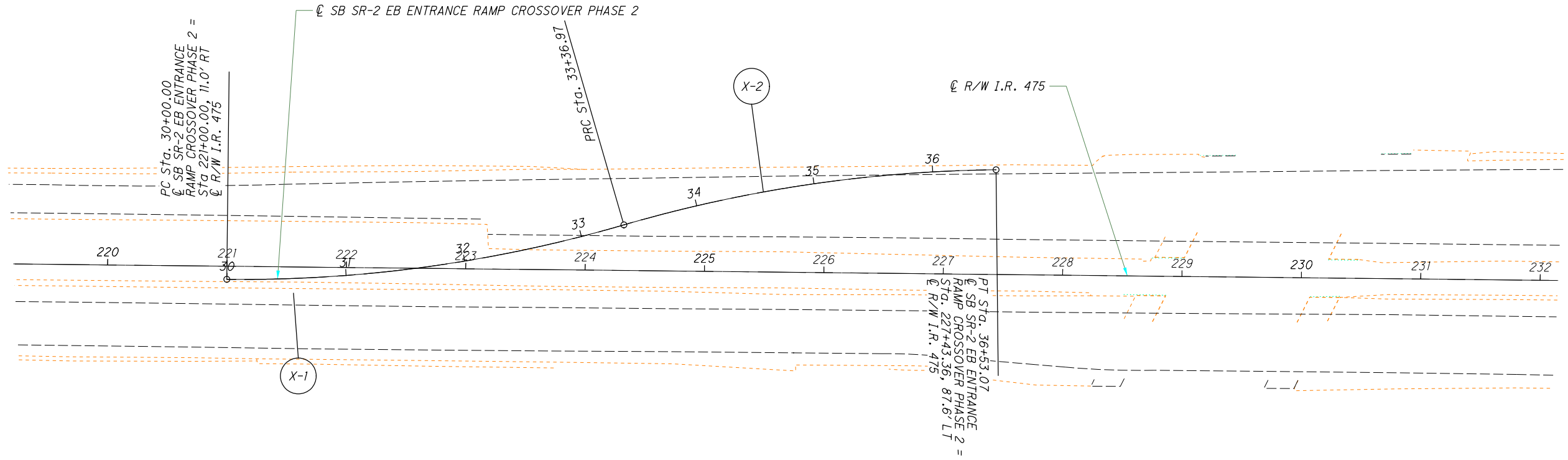
X-4  
 P.I. Sta. 205+28.23  
 $\Delta = 17^\circ 02' 03''$  (LT)  
 $Dc = 4^\circ 34' 06''$   
 $R = 1,254.22'$   
 $T = 187.83'$   
 $L = 372.88'$   
 $E = 13.99'$   
 $C = 371.51'$   
 C.B. = N 5° 53' 30" W

CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2**  
**SR-24 SB CD ROAD CROSSOVER/WB EXIT RAMP**

I:\ProjectData\LUC-475-0-09\Design\MOT\Sheets\95875\_MM02.dgn Sheet 5/6/2022 8:25:32 AM dkasehl



X-1  
 P.I. Sta. 31+69.71  
 $\Delta = 16^\circ 50' 50''$  (LT)  
 $D_c = 4^\circ 59' 59''$   
 $R = 1,146.00'$   
 $T = 169.71'$   
 $L = 336.97'$   
 $E = 12.50'$   
 $C = 335.76'$   
 $C.B. = N 7^\circ 48' 40'' W$

X-2  
 P.I. Sta. 34+96.01  
 $\Delta = 15^\circ 39' 14''$  (RT)  
 $D_c = 4^\circ 57' 08''$   
 $R = 1,157.00'$   
 $T = 159.04'$   
 $L = 316.10'$   
 $E = 10.88'$   
 $C = 315.12'$   
 $C.B. = N 8^\circ 24' 28'' W$

CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

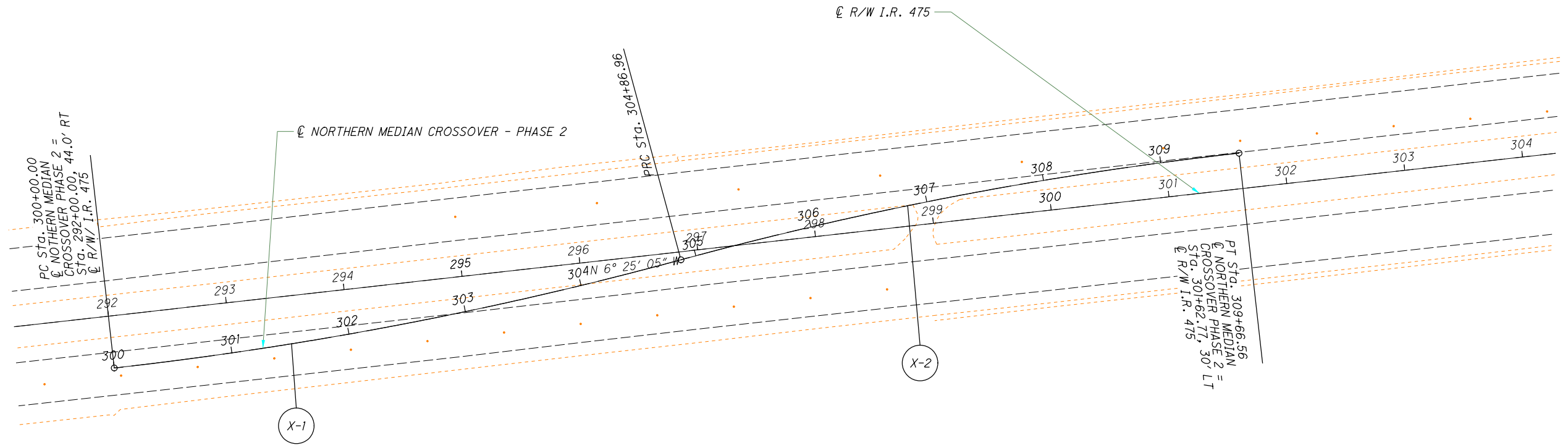
N

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2**  
**SB SR-2 EB ENTRANCE RAMP CROSSOVER**

**LUC-475-0.09**

165  
 855





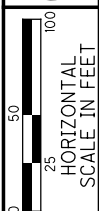
(X-1) P.I. Sta. 302+43.96  
 $\Delta = 8^\circ 47' 25''$  (LT)  
 $Dc = 1^\circ 48' 19''$   
 $R = 3,174.00'$   
 $T = 243.96'$   
 $L = 486.96'$   
 $E = 9.36'$   
 $C = 486.48'$   
 $C.B. = N 10^\circ 48' 48'' W$

(X-2) P.I. Sta. 307+27.23  
 $\Delta = 8^\circ 47' 25''$  (RT)  
 $Dc = 1^\circ 49' 58''$   
 $R = 3,126.00'$   
 $T = 240.27'$   
 $L = 479.60'$   
 $E = 9.22'$   
 $C = 479.13'$   
 $C.B. = N 10^\circ 48' 48'' W$

CALCULATED  
 JLE  
 CHECKED  
 DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2**  
**NORTHERN MEDIAN CROSSOVER**

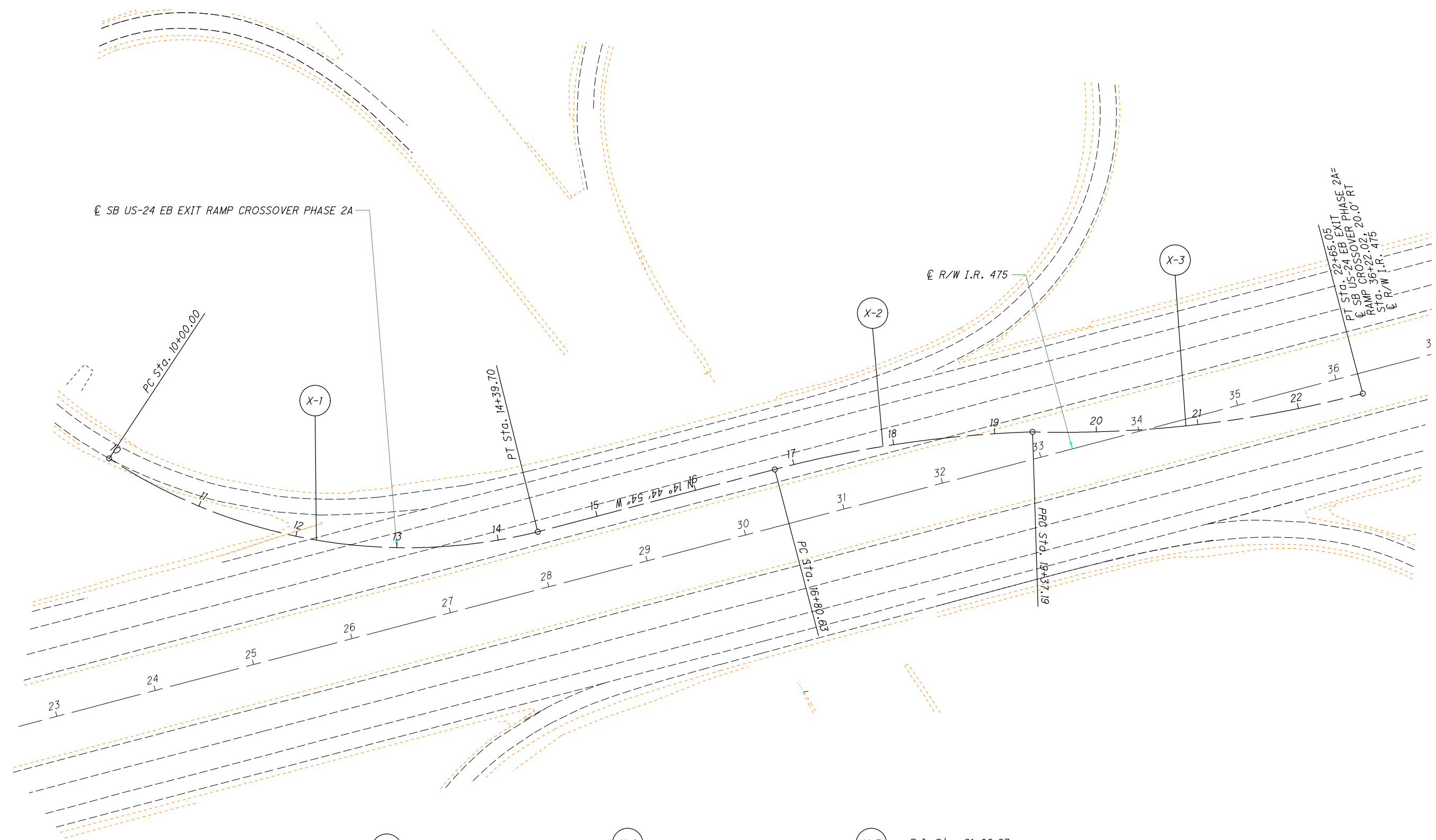
I:\ProjectData\LUC-475-0.09\Design\MOT\Sheets\95875\_MM04.dgn Sheet 5/6/2022 8:25:36 AM dkasehl



CALCULATED  
JLE  
CHECKED  
DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2A**  
**SB US-24 EB EXIT RAMP CROSSOVER**

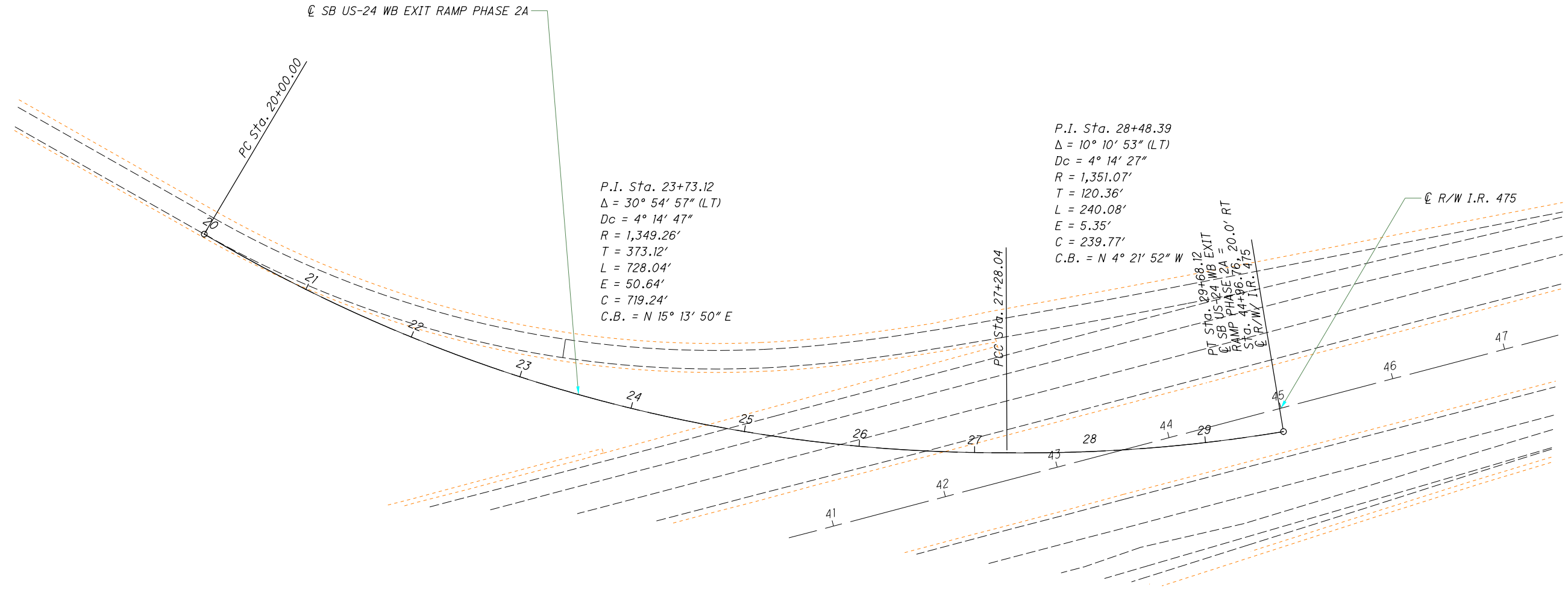
**LUC-475-0.09**  
167  
855



X-1  
 P.I. Sta. 12+33.26  
 $\Delta = 47^\circ 18' 44''$  (LT)  
 $Dc = 10^\circ 45' 36''$   
 $R = 532.48'$   
 $T = 233.26'$   
 $L = 439.70'$   
 $E = 48.85'$   
 $C = 427.31'$   
 C.B. =  $N 9^\circ 43' 08'' E$

X-2  
 P.I. Sta. 18+09.46  
 $\Delta = 12^\circ 57' 05''$  (RT)  
 $Dc = 5^\circ 02' 53''$   
 $R = 1,135.02'$   
 $T = 128.83'$   
 $L = 256.56'$   
 $E = 7.29'$   
 $C = 256.02'$   
 C.B. =  $N 8^\circ 16' 52'' W$

X-3  
 P.I. Sta. 21+02.23  
 $\Delta = 16^\circ 14' 10''$  (LT)  
 $Dc = 4^\circ 57' 08''$   
 $R = 1,157.00'$   
 $T = 165.04'$   
 $L = 327.86'$   
 $E = 11.71'$   
 $C = 326.76'$   
 C.B. =  $N 6^\circ 38' 20'' W$



CALCULATED  
 JLE  
 CHECKED  
 DEK

0 50 100  
 HORIZONTAL  
 SCALE IN FEET

N

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2A**  
**SB US-24 WB EXIT RAMP**

I:\ProjectData\LUC-475-0.09\Design\M0T\Sheets\95875\_MM016.dgn Sheet 5/6/2022 8:25:41 AM dkaseml

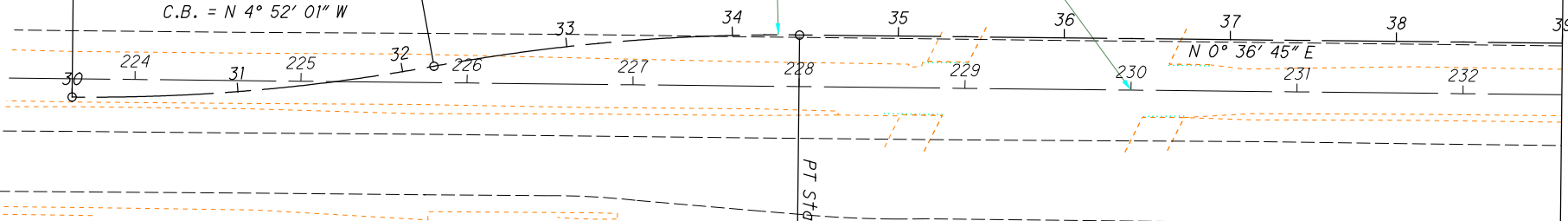
PC Sta. 30+00.00  
SB SR-2 EB ENTRANCE  
RAMP PHASE 2A =  
STA: 223+62.18, 11.0' RT  
R/W I.R. 475

P.I. Sta. 31+09.94  
 $\Delta = 10^\circ 57' 33''$  (LT)  
 $D_c = 4^\circ 59' 59''$   
 $R = 1,146.00'$   
 $T = 109.94'$   
 $L = 219.20'$   
 $E = 5.26'$   
 $C = 218.87'$   
C.B. = N 4° 52' 01" W

PRC Sta. 32+19.20

SB SR-2 EB ENTRANCE  
RAMP PHASE 2A

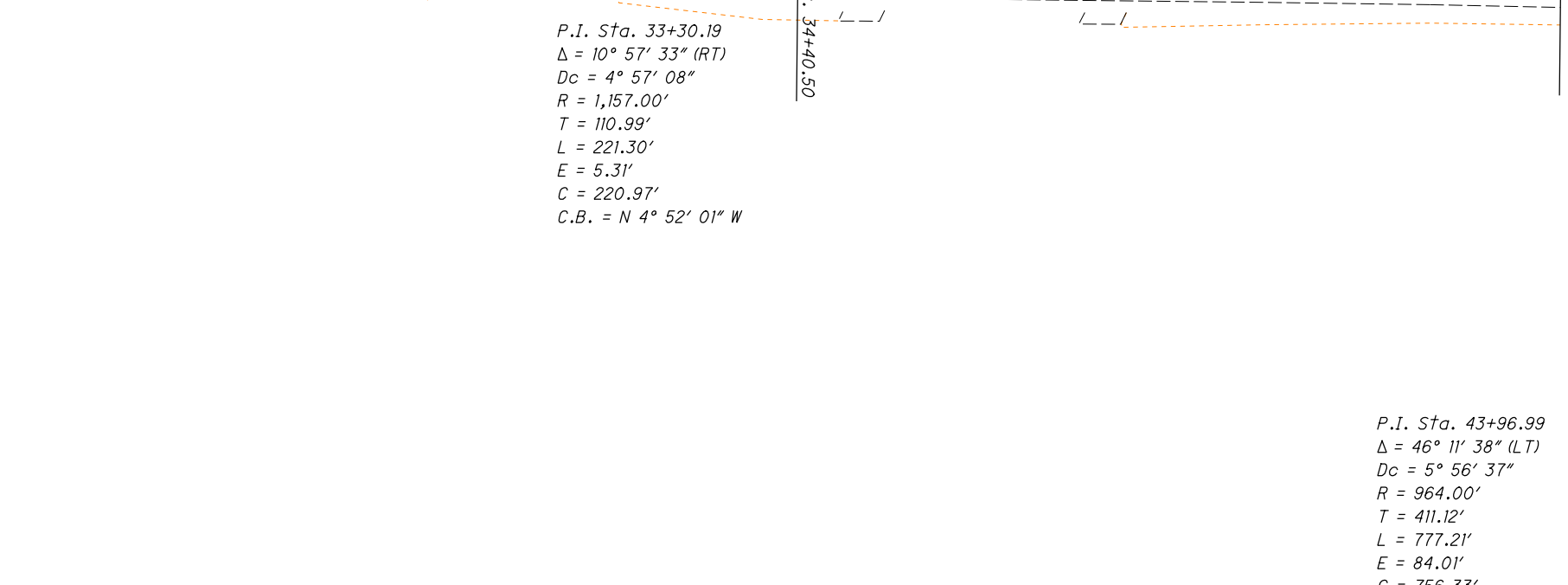
R/W I.R. 475



MATCH LINE STA 39+00.00  
SEE BELOW

P.I. Sta. 33+30.19  
 $\Delta = 10^\circ 57' 33''$  (RT)  
 $D_c = 4^\circ 57' 08''$   
 $R = 1,157.00'$   
 $T = 110.99'$   
 $L = 221.30'$   
 $E = 5.31'$   
 $C = 220.97'$   
C.B. = N 4° 52' 01" W

PT Sta. 34+40.50



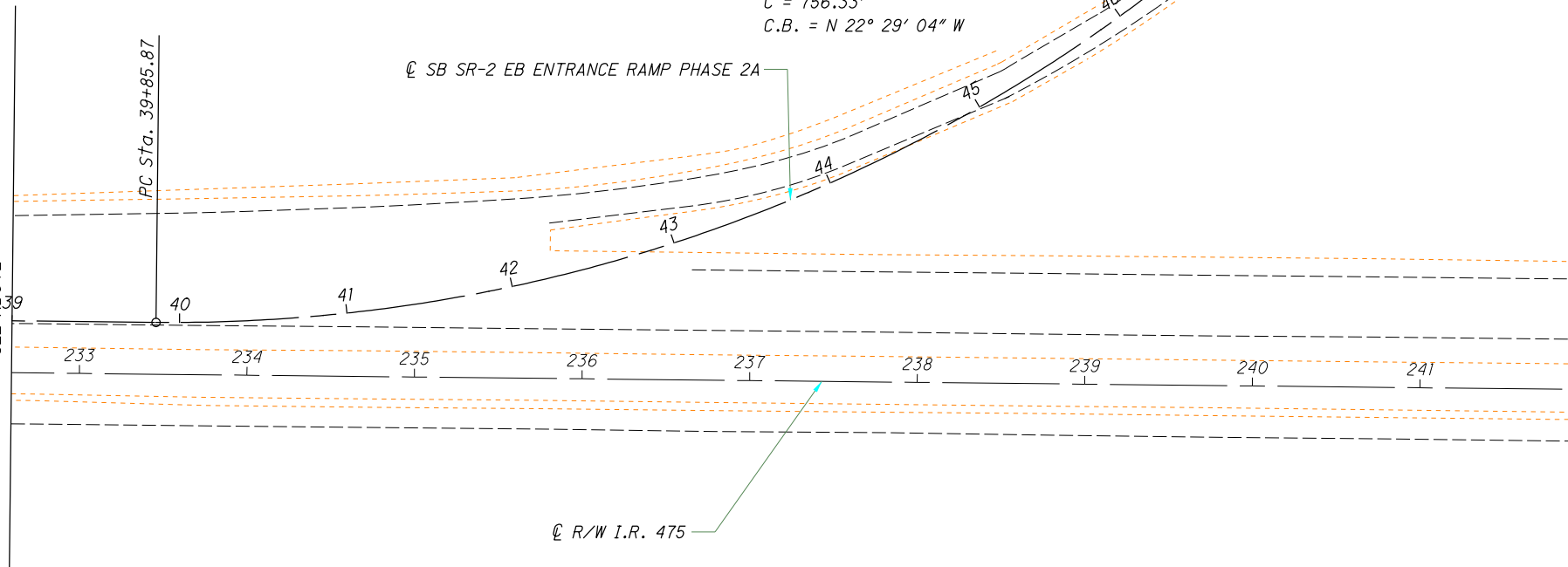
P.I. Sta. 43+96.99  
 $\Delta = 46^\circ 11' 38''$  (LT)  
 $D_c = 5^\circ 56' 37''$   
 $R = 964.00'$   
 $T = 411.12'$   
 $L = 777.21'$   
 $E = 84.01'$   
 $C = 756.33'$   
C.B. = N 22° 29' 04" W

PT Sta. 47+63.08

SB SR-2 EB ENTRANCE RAMP PHASE 2A

R/W I.R. 475

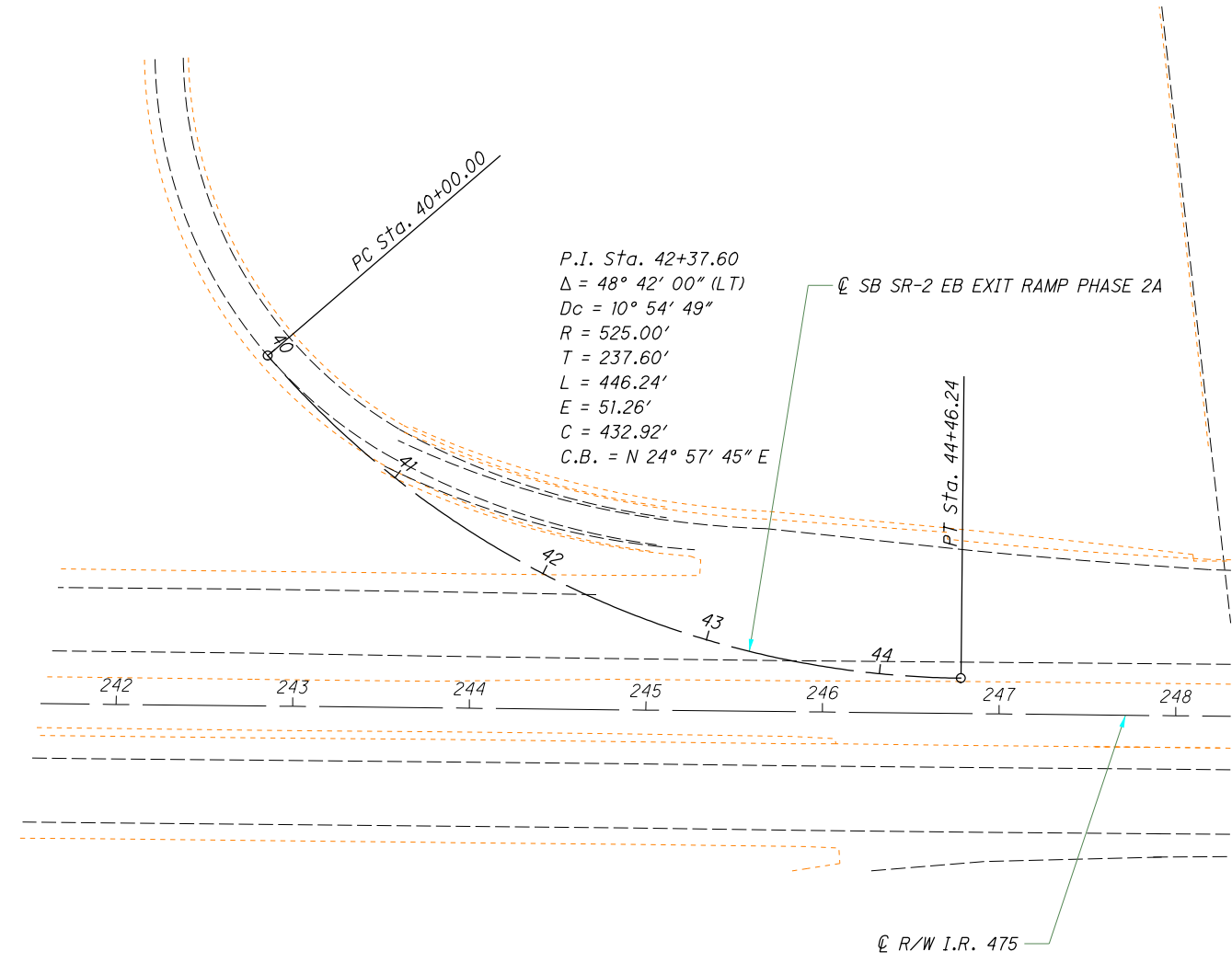
MATCH LINE STA 39+00.00  
SEE ABOVE



CALCULATED JLE CHECKED DEK  
0 50 100  
25  
HORIZONTAL SCALE IN FEET

RAMP SHIFTING CROSSOVER DETAILS-PHASE 2A  
SB US-24 WB EXIT RAMP

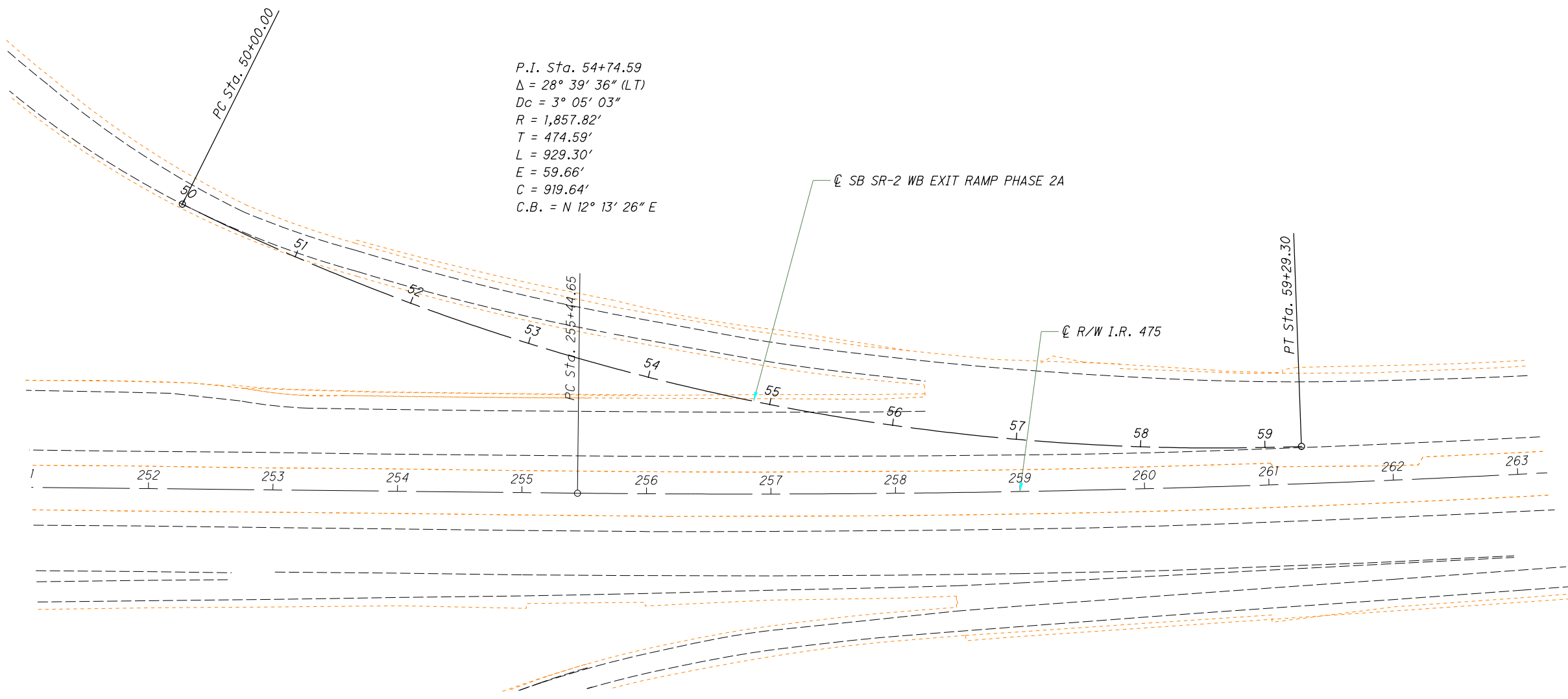
I:\Project+Data\LUC-95875\LUC-475-0.09\Design\M0T\Sheets\95875\_MM017.dgn Sheet 5/6/2022 8:25:43 AM dkaseml



CALCULATED	JLE	CHECKED	DEK
N 0 50 100 HORIZONTAL SCALE IN FEET			

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2A**  
**SB SR-2 EB EXIT RAMP**

I:\Project+Data\LUC\95875\LUC-475-0.09\Design\M0T\Sheets\95875\_MM018.dgn Sheet 5/6/2022 8:25:45 AM dkaseml



CALCULATED
JLE
CHECKED
DEK

**RAMP SHIFTING CROSSOVER DETAILS-PHASE 2A**  
**SB SR-2 WB EXIT RAMP**

**LUC-475-0.09**

171  
855











I:\ProjectData\LUC-475-0.09\Design\Roadway\Sheets\95875\_G0005.dgn Sheet 5/6/2022 10:29:24 AM jbidnge

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						33	36	37	39	69	03/IMS/PV	04/IMS/BR						
										60	60		614	18000	60	EACH	MAINTAINING TRAFFIC, MISC.:6"X8" SOLID WOOD POST, AS PER PLAN	41
										1,613	1,613		614	18010	1,613	SF	MAINTAINING TRAFFIC, MISC.:SIGN (FLAT SHEET)	41
							250			250	250		614	18601	250	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	39
						0.02				19.38	19.4		614	20000	19.4	MILE	WORK ZONE LANE LINE, CLASS I, 4"	
						4.1				19.22	23.32		614	20056	23.32	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
						0.1				1.97	2.07		614	21000	2.07	MILE	WORK ZONE CENTER LINE, CLASS I	
						0.2				0.2	0.2		614	22000	0.2	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
										77.67	77.67		614	22010	77.67	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
						1.6				75.92	77.52		614	22056	77.52	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
						50				29,753	29,803		614	23010	29,803	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
						2,600				29,633	32,233		614	23110	32,233	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
										27,496	27,496		614	24000	27,496	FT	WORK ZONE DOTTED LINE, CLASS I	
						1,285				26,173	27,458		614	24102	27,458	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
						50				80	130		614	26000	130	FT	WORK ZONE STOP LINE, CLASS I	
						150					150		614	27010	150	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12"	
						500					500		614	28000	500	FT	WORK ZONE GORE MARKING, CLASS II	
						LS				LS	LS		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
										88,088	88,088		615	20001	88,088	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	38
										55,551	55,551		622	41011	55,551	FT	PORTABLE BARRIER, 50", AS PER PLAN	35
										10	10		622	41050	10	EACH	PORTABLE BARRIER, "Y" CONNECTOR	
										97,010	97,010		622	41100	97,010	FT	PORTABLE BARRIER, UNANCHORED	
								360			360		808	18700	360	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
									432		432		896	00010	432	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	
									120		120		896	00021	120	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	39
						LS				LS	LS		614	11000	LS		INCIDENTALS MAINTAINING TRAFFIC	
										30	30		619	16021	30	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	32
										LS	LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	LS		624	10000	LS		MOBILIZATION	

O:\Projects\Ann Arbor\NER\2914\200-12914-1400\CAD\96482.LUC-475-0.93\Design\Drainage\Sheets\96482\_DS001.dgn Sheet 5/5/2022 9:18:31 AM

SHEET NO.	REF NO.	STATION TO STATION		SIDE							
					202	202	611	611	611	611	
					PIPE REMOVED, OVER 24"	CATCH BASIN REMOVED	12" CONDUIT, TYPE C	42" CONDUIT, TYPE C	CATCH BASIN, NO. 2-2B	MANHOLE, NO. 3, WITH 72" BASE I.D.	
					FT	EACH	FT	FT	EACH	EACH	
328	R-1	19+98.00	TO	21+37.16	RT	145					
328	D-4	19+98.00	TO	20+14.13	RT			17		1	
328	D-5	20+14.13	TO	21+25.00	RT			116		1	
328	D-6	21+25.00	TO	21+36.16	RT			15		1	
328	D-7	21+28.00	TO	21+36.16	RT		1	9	1	1	
TOTALS CARRIED TO GENERAL SUMMARY						145	1	9	148	1	4

<b>DRAINAGE SUBSUMMARY</b>	<b>LUC-475-0.09</b>
CALCULATED AMD CHECKED DTC	217 855

I:\ProjectData\LUC-475-0.09\Design\Traffic\Sheets\95875\_TSO01.dgn Sheet 5/6/2022 9:08:45 AM jbidinge

REF NO.	SHEET NO.	STATION TO STATION			807	807	807	807	807	807	642	850	850	850	850	850	850	620	620	620	620	620	620	620	621	621	621	621	621	642
					WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	CHEVRON MARKING, TYPE 1, WHITE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	DELINEATOR, POST GROUND MOUNTED, WHITE, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 80FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 80FT SPACING	RPM, WHITE (ONE-WAY)	RPM, WHITE/RED	RPM, YELLOW/RED	RAISED PAVEMENT MARKER REMOVED	LANE REDUCTION ARROW, TYPE 1		
NORTHBOUND					MILE	MILE	MILE	FT	FT	FT	MILE	FT	FT	MILE	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
EW-201	546	4+59.00	TO	19+84.00	0.29						0.29																			
DW-201	546	5+00.00	TO	8+42.00					340.5			340.5																		
LL-202A	546-566	5+02.00	TO	268+25.00		4.78					4.78													220				187		
LL-202B	547	48+99.00	TO	50+97.00		0.04							0.04																	
LL-202C	552	166+06.00	TO	173+56.00		0.14							0.14																	
LL-202D	554-555	228+43.00	TO	230+13.00		0.03							0.03																	
CH-200	546	8+42.00	TO	14+72.00			631					631													17			15		
CH-201	546	8+42.00	TO	14+72.00			632					632													16			14		
CV-200	546	9+10.00	TO	14+20.00					283																					
LL-203A	546-556	12+64.00	TO	268+25.00		4.63					4.63													213				181		
LL-203B	547	48+99.00	TO	50+97.00		0.04							0.04																	
LL-203C	552	166+06.00	TO	173+56.00		0.14							0.14																	
LL-203D	554-555	228+49.00	TO	230+19.00		0.03							0.03																	
EY-201A	546-556	5+00.00	TO	268+25.00		4.78					4.78																			
EY-201B	547	48+99.00	TO	50+97.00		0.04							0.04																	
EY-201C	552	166+06.00	TO	173+56.00		0.14							0.14																	
EY-201D	554-555	228+55.00	TO	230+25.00		0.03							0.03																	
EY-202	546-547	14+72.00	TO	45+31.00		0.58					0.58															38		32		
EW-202	546-547	16+07.00		45+31.00	0.55						0.55																			
DW-203	546	17+16.00	TO	19+07.00					191			191																		
CH-204	546	19+07.00	TO	19+73.00			65					65														3		3		
CH-205	546	19+07.00	TO	19+73.00			69					69														2		2		
CV-201	546	19+20.00	TO	19+69.00					60																					
EY-204	546	19+73.00	TO	19+91.00		0.004					0.004																			
EW-204	546	19+73.00	TO	27+36.00	0.14						0.14																			
EY-207	546	27+19.00	TO	27+36.00		0.003					0.003																			
EW-208	547	27+24.00	TO	35+65.00	0.16						0.16																			
CH-210	546	27+36.00	TO	28+00.00					66																					
CH-211	546	27+36.00	TO	27+99.00					64																					
DW-205	547	27+99.00	TO	34+26.00					627			627																		
CH-214	547	34+26.00	TO	35+42.00			116					116																		
CH-215	547	34+26.00	TO	35+42.00			119					119																		
CV-203	547	34+47.00	TO	35+19.00					65																					
EY-209	547	35+42.00	TO	35+73.00		0.01					0.01																			
EW-210	547	35+42.00	TO	42+16.00	0.13						0.13																			
CH-216	547	42+16.00	TO	45+82.00			366					366																		
CH-217	547	42+16.00	TO	45+82.00			366					366														10		9		
CH-220A	547-548	45+30.00	TO	59+01.00			1171					1171														34		29		
CH-220B	547	48+99.00	TO	50+97.00			199																							
CH-221A	547-548	45+31.00	TO	59+01.00			1171					1171																		
CH-221B	547	48+99.00	TO	50+97.00			199																							
DW-208A	547-548	45+82.00	TO	56+51.00					871			871																		
DW-208B	547	48+99.00	TO	50+97.00					199																					
EW-213	549-550	79+52.00	TO	113+70.00	0.65						0.65																			
EW-215	550-552	117+91.00	TO	156+56.00	0.73						0.73																			
EW-217A	552-555	165+00.00	TO	237+79.00	1.24						1.24																			
EW-217B	552	166+06.00	TO	173+56.00	0.14								0.14																	
EW-217C	554-555	229+42.00	TO	230+02.00	0.03								0.03																	
DW-209A	554-555	226+93.00	TO	234+02.00					708			708																		
DW-209B	554-555	228+37.00	TO	230+07.00					170																					
CH-226	555	234+02.00	TO	236+81.00			279					279															8	7		
CH-227	555	234+02.00	TO	236+81.00			280					280															7	6		
CV-204	555	234+58.00	TO	236+50.00					94																					
<b>TOTALS CARRIED TO SHEET 3 OF 3</b>					4.07	5.59	9.83	5663			3107	632	18.68	2738	5266	0.81	369	398							433	92	53	495		

I:\ProjectData\LUC-475-0.09\Design\Traffic\Sheets\95875\_TS002.dgn Sheet 5/6/2022 9:08:16 AM jdinge

REF NO.	SHEET NO.	STATION TO STATION			807	807	807	807	807	807	642	850	850	850	850	850	850	620	620	620	620	620	620	620	621	621	621	621	642	
					WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	CHEVRON MARKING, TYPE 1, WHITE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	DELINEATOR, POST GROUND MOUNTED, WHITE, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 80FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 80FT SPACING	RPM, WHITE (ONE-WAY)	RPM, WHITE/RED	RPM, YELLOW/RED	RAISED PAVEMENT MARKER REMOVED	LANE REDUCTION ARROW, TYPE 1		
NORTHBOUND					MILE	MILE	MILE	FT	FT	FT	FT	FT	MILE	FT	FT	MILE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
EY-211	555	236+81.00	TO	237+82.00		0.02							0.02																	
EW-220	555	236+81.00	TO	246+06.00	0.18								0.18																	
EY-213	555	245+23.00	TO	246+06.00		0.016							0.016														1	1		
EW-222	555-556	245+30.00	TO	258+21.00	0.246								0.246																	
CH-231	555	246+06.00	TO	252+90.00				684						684																
CH-230	555	246+06.00	TO	252+90.00				634						634																
DW-211	555-556	252+90.00	TO	262+91.00						1004			1004																	
EY-215	556	257+22.00	TO	258+22.00		0.02							0.02													1		1		
EW-224	556	257+24.00	TO	268+29.00	0.22								0.22																	
CH-232	556	258+21.00	TO	265+35.00				718						718																
CH-233	556	258+22.00	TO	265+35.00				717						717												10		9		
DW-215	556	265+35.00	TO	268+25.00						292				292																
SOUTHBOUND																														
LL-200A	546-556	4+59.00	TO	268+25.00				4.78					4.78														220		187	
LL-200B	547	49+11.00	TO	51+12.00				0.038						0.038																
LL-200C	552	166+08.00	TO	173+56.00				0.14						0.14																
LL-200D	554-555	228+96.00	TO	230+66.00				0.032						0.032																
EY-200A	546-556	4+59.00	TO	268+25.00		4.78							4.78																	
EY-200B	547	49+11.00	TO	51+12.00		0.038								0.038																
EY-200C	552	166+08.00	TO	173+56.00		0.14								0.14																
EY-200D	554-555	228+84.00	TO	230+54.00		0.032								0.032																
DW-200	546	4+59.00	TO	11+54.00						696			696																	
EW-200	546	4+59.00	TO	20+13.00	0.30								0.30																	
CHY-200	546-547	11+25.00	TO	42+50.00						2123				2123																
CH-202	546	11+54.00	TO	16+40.00				487						487																
CH-203	546	11+54.00	TO	16+50.00				497						497																
EW-203	546-547	16+40.00	TO	45+10.00	0.54								0.54																	
EY-203	546-547	16+50.00	TO	45+10.00	0.54								0.54																	
DW-202	546	16+50.00	TO	19+19.00						269			269																	
CH-206	546	19+19.00	TO	19+91.00						73			73																	
CH-207	546	19+19.00	TO	19+92.00						74			74																	
EW-205	546	19+91.00	TO	25+90.00	0.11								0.11																	
EY-205	546	19+92.00	TO	20+19.00		0.005							0.005																	
CH-208	546	25+74.00	TO	27+27.00				162						162																
EW-206	546-547	25+80.00	TO	32+91.00	0.14								0.14																	
CH-209	546	25+90.00	TO	27+32.00				142						142																
CV-202	546	26+24.00	TO	27+00.00						73																				
DW-204	546-547	27+32.00	TO	32+02.00						470			470																	
DW-207A	547	34+10.00	TO	52+95.00						1684			1684																	
DW-207B	547	49+11.00	TO	51+12.00						201																				
CH-212	547	32+02.00	TO	32+78.00				77					77																	
CH-213	547	32+02.00	TO	32+78.00				76					76																	
EY-208	547	32+78.00	TO	33+00.00		0.004							0.004																	
EW-209	547	32+78.00	TO	42+77.00	0.19								0.19																	
EW-211	547	40+01.00	TO	42+77.00	0.05								0.05																	
EW-212A	547-548	40+06.00	TO	61+50.00	0.37								0.37																	
EW-212B	547	49+11.00	TO	51+12.00	0.038									0.038																
LL-201A	547-556	53+00.00	TO	268+25.00				3.70					3.70														179		152	
LL-201B	552	166+08.00	TO	173+56.00				0.14					0.14																	
LL-201C	554-555	228+90.00	TO	230+60.00				0.032					0.032																	
<b>TOTALS CARRIED TO SHEET 3 OF 3</b>					2.93	5.06	8.87	4194	2123	4763	73	16.22	4562	6317	0.64	201											399	37	37	405

I:\ProjectData\LUC\475-0.09\Design\Traffic\Sheets\95875\_TSO03.dgn Sheet 5/6/2022 9:08:17 AM jbidige

REF NO.	SHEET NO.	STATION TO STATION				807	807	807	807	807	807	642	850	850	850	850	850	620	620	620	620	620	620	621	621	621	621	621	642
						WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", WHITE	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12", YELLOW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	CHEVRON MARKING, TYPE 1, WHITE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	DELINEATOR, POST GROUND MOUNTED, WHITE, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 200FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 100FT SPACING	DELINEATOR, POST GROUND MOUNTED, WHITE, 80FT SPACING	DELINEATOR, POST GROUND MOUNTED, YELLOW, 80FT SPACING	RPM, WHITE (ONE-WAY)	RPM, WHITE/RED	RPM, YELLOW/RED	RAISED PAVEMENT MARKER REMOVED	LANE REDUCTION ARROW, TYPE 1
SOUTHBOUND					807	807	807	807	807	807	642	850	850	850	850	850	620	620	620	620	620	620	621	621	621	621	621	642	
					MI	MI	MI	FT	FT	FT	FT	MI	FT	FT	MI	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
CH-219	547	42+77.00	TO	44+94.00				218																					
CH-218	547	42+77.00	TO	44+94.00				217																					
LRA-200	547	43+50.00																										1	
DW-207A	547	44+96.00	TO	50+18.00						324																			
DW-207B	547	49+11.00	TO	51+12.00						201																			
CH-222A	547-555	45+10.00	TO	59+36.00				1225																					
CH-222B	547	49+11.00	TO	51+12.00				201																					
CH-223A	547-555	45+10.00	TO	59+36.00				1225																					
CH-223B	547	49+11.00	TO	51+12.00				201																					
LRA-201	547	46+65.00																										1	
LRA-202	547	49+80.00																										1	
LRA-203	547	52+95.00																										1	
EW-214	549	82+95.00	TO	98+78.00	0.30							0.30																	
EW-216	550-551	126+44.00	TO	146+20.00	0.37							0.37																	
EW-218A	552-555	166+00.00	TO	236+98.00	1.17							1.17																	
EW-218B	552	166+08.00	TO	173+56.00	0.14																								
EW-218C	554-555	229+12.00	TO	230+84.00	0.03																								
DW-208	554	218+99.00	TO	228+59.00						960																			
CH-224A	554-555	228+59.00	TO	235+71.00				542																					
CH-224B	554-555	229+02.00	TO	230+72.00				170																					
CH-225A	554-555	228+59.00	TO	237+63.00				732																					
CH-225B	554-555	229+05.00	TO	230+76.00				172																					
EY-210	555	235+71.00	TO	237+02.00		0.03						0.03																	
EW-219	555	237+63.00	TO	245+30.00	0.15							0.15																	
EY-212	555	244+57.00	TO	245+30.00		0.014						0.014																	
EW-221	555-556	244+61.00	TO	258+24.00	0.26							0.26																	
CH-228	555	245+30.00	TO	248+09.00				279																					
CH-229	555	245+30.00	TO	248+09.00				280																					
CV-205	555	245+60.00	TO	247+52.00							91																		
DW-210	555	248+09.00	TO	253+20.00						511																			
EY-214	556	256+63.00	TO	258+24.00		0.03						0.03																	
EW-223	556	256+65.00	TO	268+25.00	0.22							0.22																	
CH-234	556	258+24.00	TO	261+03.00				277																					
CH-235	556	258+24.00	TO	261+03.00				278																					
CV-206	556	258+53.00	TO	260+47.00							100																		
DW-212	556	261+03.00	TO	266+43.00						537																			
<b>RAMP F</b>																													
EY-206	557	26+43.00	TO	42+18.00		0.30						0.30																	
EW-207A	557	26+43.00	TO	70+05.00	0.65							0.65																	
EW-207B	547	48+99.00	TO	50+97.00	0.04										0.04														
<b>TOTALS THIS SHEET</b>					3.33	0.37	0.00	6017	0	2533	191	3.49	2332	5273	0.21	201	744	20	5	2	2	7	7	0	89	23	96	4	
<b>TOTALS SHEET 1 OF 3</b>					4.07	5.59	9.83	5663		3107	632	18.68	2738	5266	0.81	369	398							433	92	53	495		
<b>TOTALS SHEET 2 OF 3</b>					2.93	5.06	8.87	4194	2123	4763	73	16.22	4562	6317	0.64	201								399	37	37	405		
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>					21.36		18.70	17997		10403	896	38.39	9633	16856	1.66	771	1142	20	5	2	2	7	7		1163		996	4	

I:\Project+Data\LUC-475-0.09\Design\Roadway\Sheets\95875\_0003.dgn Sheet 5/5/2022 1:49:01PM jbidinge

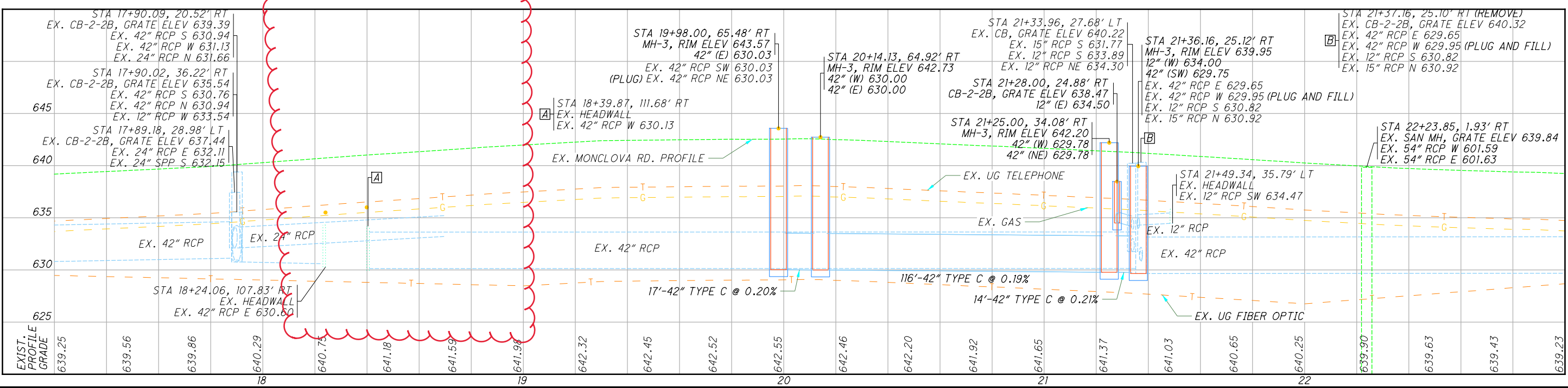
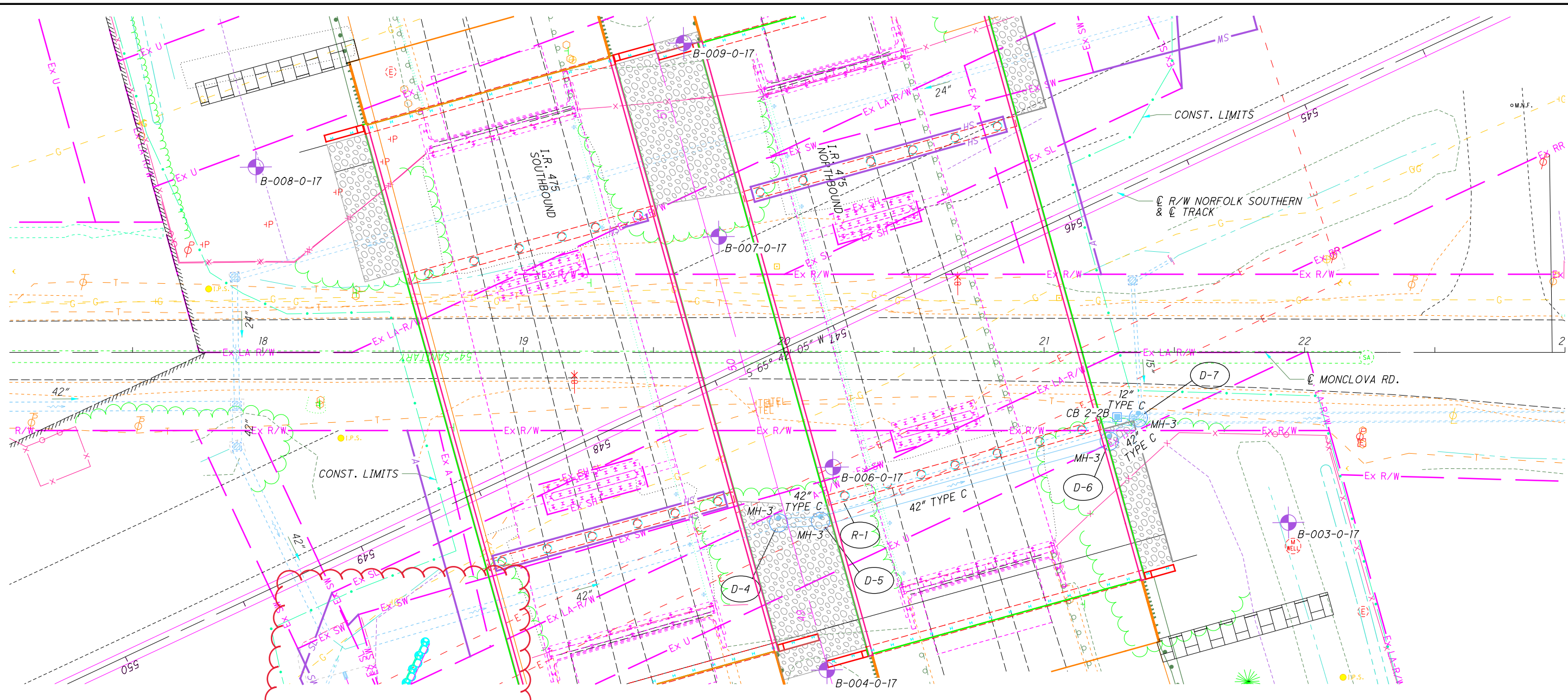
STATION RANGE		SIDE	DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202	204	206	206	254	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304	407	442	442	206	617	209				
							PAVEMENT REMOVED	PROOF ROLLING	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	CEMENT	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"		AGGREGATE BASE	NON-TRACKING TACK COAT	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	CURING COAT	COMPACTED AGGREGATE	LINEAR GRADING				
SOUTHBOUND QUANTITIES			FT	FT	FT	SY	SY	HOUR	SY	TON	SY		CY	GAL	CY	CY	SY	CY	MILE				
5+00.00	TO 11+25.00	SB	625.00	24.00	14.00	2639					2639			449	165	110		29	0.24				
11+25.00	16+40.22	SB	515.22	36.00	12.00	2748	1603	1.37	2834	71.10		576	467	467	172	114	2834	24	0.20				
16+40.22	45+09.52	SB	2869.30	36.00	26.00	19766	13390	9.88	20245	511.45		4139	3344	3360	1235	824	20245	66	0.54				
45+09.52	48+64.67	SB	355.15	36.00	35.00	2802	1855	1.40	2861	72.49		586	473	476	175	117	2861	8	0.07				
51+51.33	59+35.56	SB	784.23	36.00	23.50	5185	3442	2.59	5315	134.15		1086	878	881	324	216	5315	18	0.15				
59+35.56	61+49.92	SB	214.36	36.00	12.00	1143	666	0.57	1179	29.58		240	194	194	71	48	1179	5	0.04				
61+49.92	65+60.56	SB	410.64	36.00	12.00	2190	1278	1.10	2259	56.67		459	372	372	137	91	2259	10	0.08				
65+60.56	82+96.86	SB	1736.30	36.00	12.00	9260	5402	4.63	9550	239.61		1942	1574	1574	579	386	9550	40	0.33				
82+96.86	98+78.46	SB	1581.60	36.00	21.00	10017	6502	5.01	10280	259.18		2098	1697	1703	626	417	10280	37	0.30				
98+78.46	126+43.92	SB	2765.36	36.00	12.00	14749	8603	7.37	15209	381.62		3093	2506	2507	922	615	15209	64	0.52				
126+43.92	146+18.58	SB	1974.66	36.00	21.00	12506	8118	6.25	12835	323.60		2620	2119	2126	782	521	12835	46	0.37				
146+18.58	166+03.63	SB	1985.05	36.00	12.00	10587	6176	5.29	10918	273.94		2220	1799	1800	662	441	10918	46	0.38				
173+53.03	173+73.00	SB	19.97	36.00	26.00	138	133	0.07	141	3.56		29	23	23	9	6	141	1	0.01				
173+73.00	177+09.74	SB	336.74	36.00	24.00	2245	2180	1.12	2301	58.09		470	380	382	140	94	2301	16	0.13				
177+09.74	218+99.00	SB	4189.26	36.00	22.00	26997	17729	13.50	27696	698.56		5655	4572	4590	1687	1125	27696	194	1.59				
218+99.00	223+25.00	SB	426.00	36.00	12.00	2272	1799	1.14	2343	58.79		476	386	386	142	95	2343	20	0.16				
223+25.00	228+69.00	SB	544.00	36.00	12.00	1136	1692	0.57	1227	29.39	1136	241	199	193	71	47	1227	25	0.21				
230+39.68	231+33.00	SB	93.32	32.00	12.00	456					456			78	29	19		2	0.02				
231+33.00	235+71.18	SB	438.18	36.00	12.00	1168	1168	0.58	1242	30.23	1168	247	202	397	146	97	1242	10	0.08				
235+71.18	245+29.73	SB	958.55	36.00	22.00	3621	3621	1.81	3781	93.70	2556	761	620	1050	386	257	3781	44	0.36				
245+29.73	248+06.58	SB	276.85	36.00	12.00	738	738	0.37	784	19.10	738	156	128	251	92	62	784	6	0.05				
248+06.58	249+83.69	SB	177.11	36.00	12.00	472	472	0.24	502	12.22	472	100	82	161	59	39	502	4	0.03				
249+83.69	252+20.00	SB	236.31	48.00	20.00	1155	1155	0.58	1194	29.89	630	242	197	303	112	74	1194	5	0.04				
252+20.00	253+20.00	SB	100.00	42.00	21.00	433	433	0.22	450	11.20	267	91	74	119	44	29	450	2	0.02				
253+20.00	258+24.25	SB	504.25	36.00	22.00	1905	1905	0.95	1989	49.29	1347	401	326	553	203	136	1989	23	0.19				
258+24.25	260+92.50	SB	268.25	36.00	12.00	715	715	0.36	760	18.50	715	151	124	243	89	60	760	6	0.05				
260+92.50	262+76.80	SB	184.30	36.00	12.00	491	491	0.25	522	12.70	491	104	85	167	61	41	522	4	0.03				
262+76.80	265+42.72	SB	265.92	48.00	20.00	1300	1300	0.65	1344	33.64	70	273	221	233	86	57	1344	6	0.05				
265+42.72	266+42.72	SB	100.00	42.00	21.00	433	433	0.22	450	11.20	267	91	74	119	44	29	450	2	0.02				
266+42.72	268+25.00	SB	182.28	36.00	22.00	689	689	0.34	719	17.83	486	145	118	200	73	49	719	4	0.03				
11+25.00	16+40.22	LANE H-G	515.22	16.00	19.90	2055	2055	1.03	2141	53.18		432	351	349	128	86	2141	12	0.10				
16+40.22	18+82.00	LANE H-G	241.78	16.00	19.00	940	1021	0.47	981	24.33		198	161	160	59	39	981	6	0.05				
18+82.00	24+09.44	LANE H-G	527.44	16.00	12.60	1676	1676	0.84	1764	43.37		353	289	285	105	70	1764	12	0.10				
24+09.44	25+90.36	LANE H-G	180.92	14.00	17.70	637	637	0.32	667	16.49		134	109	108	40	27	667	4	0.03				
25+90.36	27+26.47	LANE H-G	136.11	12.00	6.60	281	281	0.14	304	7.28		60	49	48	18	12	304	3	0.03				
27+26.47	29+07.85	LANE H-G	181.38	12.00	6.60	375	375	0.19	405	9.70		79	66	64	23	16	405	4	0.03				
29+07.85	30+54.32	LANE H-G	146.47	24.00	14.60	628	628	0.31	653	16.25		132	107	107	39	26	653	3	0.03				
30+54.32	31+51.14	LANE H-G	96.82	16.00	6.60	243	243	0.12	259	6.29		51	42	41	15	10	259	2	0.02				
31+51.14	32+78.46	LANE H-G	127.32	14.00	6.60	291	291	0.15	313	7.54		62	51	50	18	12	313	3	0.02				
32+78.46	42+76.65	LANE H-G	998.19	16.00	12.60	3172	3172	1.59	3338	82.08		668	546	539	198	132	3338	23	0.19				
42+76.65	45+09.52	LANE H-G	232.87	16.00	6.60	585	585	0.29	624	15.13		124	102	99	37	24	624	5	0.04				
45+09.52	48+64.67	LANE H-G	355.15	16.00	0.00	631	631	0.32	691	16.34		134	111	107	39	26	691	8	0.07				
51+51.33	59+35.56	LANE H-G	784.23	16.00	8.00	2091	2091	1.05	2222	54.11		441	362	356	131	87	2222	18	0.15				
59+35.56	61+49.92	LANE H-G	214.36	14.00	9.00	548	548	0.27	584	14.17		116	95	93	34	23	584	5	0.04				
SOUTHBOUND TOTALS CARRIED TO NEXT SHEET							107922	75.51	155873	3907.56	13438	31673	25675	27764	10207	6805	155873	879	7.19				



I:\ProjectData\LUC\95875\_LUC-475-0.09\Design\Roadway\Sheets\95875\_G004.dgn Sheet 5/5/2022 6:58:02 PM jbidinge

STATION RANGE			SIDE	DISTANCE (D)	AVERAGE WIDTH (PAVEMENT) (W)	AVERAGE WIDTH (SHOULDER) (W)	CADD GENERATED AREA	202	204	206	206	254	ITEM CODE DOES NOT EXIST IN ITEM MASTER	304	407	442	442	206	617	209									
								PAVEMENT REMOVED	PROOF ROLLING	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	CEMENT	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"		AGGREGATE BASE	NON-TRACKING TACK COAT	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	CURING COAT	COMPACTED AGGREGATE	LINEAR GRADING									
SOUTHBOUND QUANTITIES CONTINUED																													
FT	FT	FT	SY	SY	HOUR	SY	TON	SY	CY	GAL	CY	CY	SY	CY	MILE														
17+80.32	TO	18+08.00	US-24 RAMP H	27.68	16.00	8.40	75	75	0.04	80	1.94		16	13	13	5	3	80	1	0.01									
18+08.00		19+16.18	US-24 RAMP H	108.18	16.00	15.45	378	378	0.19	396	9.78		80	65	64	24	16	396	3	0.02									
0+00.00		1+80.32	US-24 RAMP D	180.32	15.00	8.00	461	461	0.23	491	11.92		97	80	78	29	19	491	4	0.03									
1+80.32		3+15.66	US-24 RAMP D	135.34	18.50	20.50	586	586	0.29	609	15.17		123	100	100	37	24	609	3	0.03									
3+15.66		3+32.00	US-24 RAMP D	16.34	17.12	9.00	47	47	0.02	50	1.23		10	8	8	3	2	50	0	0.00									
13+20.00		13+42.00	US-24 RAMP C	22.00	15.85	10.00	63	63	0.03	67	1.64		13	11	11	4	3	67	1	0.00									
13+42.00		14+67.95	US-24 RAMP C	125.95	14.93	17.50	454	454	0.23	475	11.74		95	78	77	28	19	475	3	0.02									
14+67.95		15+63.60	US-24 RAMP C	95.65	13.50	8.00	228	228	0.11	244	5.91		48	40	39	14	10	244	2	0.02									
40+00.00		42+27.27	US-24 RAMP G	227.27	16.00	9.00	631	631	0.32	669	16.34		133	109	107	39	26	669	5	0.04									
42+27.27		42+76.65	US-24 RAMP G	49.38	16.00	10.00	143	143	0.07	151	3.69		30	25	24	9	6	151	1	0.01									
42+76.65		44+43.93	US-24 RAMP G	167.28	16.00	16.00	595	595	0.30	623	15.39		125	102	101	37	25	623	4	0.03									
44+43.93		48+64.67	US-24 RAMP G	420.74	8.00	8.00	748	748	0.37	818	19.35		159	132	127	47	31	818	10	0.08									
13+50.00		14+80.96	SR-2 RAMP B	130.96	16.00	11.00	393	393	0.20	415	10.17		83	68	67	25	16	415	3	0.02									
14+80.96		19+17.93	SR-2 RAMP B	436.97	16.00	24.50	1966	1966	0.98	2039	50.88		413	335	334	123	82	2039	10	0.08									
19+17.93		19+66.51	SR-2 RAMP B	48.58	16.00	20.00	194					194.00			33	12	8		1	0.01									
21+38.63		23+83.68	SR-2 RAMP B	245.05	16.00	13.50	803	803	0.40	844	20.78		169	138	137	50	33	844	6	0.05									
23+83.68		31+51.68	SR-2 RAMP B	768.00	8.00	9.00	1451	1451	0.73	1579	37.54		308	255	247	91	60	1579	18	0.15									
0+00.00		1+74.69	SR-2 RAMP C	174.69	14.00	8.00	427	427	0.21	456	11.05		90	74	73	27	18	456	4	0.03									
1+74.69		4+53.11	SR-2 RAMP C	278.42	16.00	19.40	1095	1095	0.55	1142	28.34		230	187	186	68	46	1142	6	0.05									
4+53.11		5+25.00	SR-2 RAMP C	71.89	16.00	11.00	216	216	0.11	228	5.58		45	37	37	13	9	228	2	0.01									
0+00.00		1+72.84	SR-2 RAMP A	172.84	14.00	8.00	422	422	0.21	451	10.93		89	73	72	26	18	451	4	0.03									
1+72.84		4+49.12	SR-2 RAMP A	276.28	16.00	19.50	1090	1090	0.54	1136	28.20		229	186	185	68	45	1136	6	0.05									
4+49.12		6+10.00	SR-2 RAMP A	160.88	16.00	11.00	483	483	0.24	509	12.49		102	83	82	30	20	509	4	0.03									
<b>DEDUCTIONS</b>																													
163+00.00		166+03.63	NB/SB	303.63	24.00	24.00	1619			1721	41.90							1721											
173+53.03		177+00.00	NB/SB	346.97	24.00	24.00	1851			1966	47.88							1966											
<b>SOUTHBOUND TOTALS THIS SHEET</b>								12755	6.38	9784	240.28	194	2689	2200	2202	809	540	9784	100	0.82									
<b>SOUTHBOUND TOTALS CARRIED FROM PREVIOUS SHEET</b>								107922	75.51	55873	3907.56	13438	31673	25675	27764	10207	6805	55873	879	7.19									
<b>SOUTHBOUND TOTALS</b>								120677	81.89	165658	4147.83	13632	34361	27876	29966	11017	7345	165658	980	8.01									
<b>NORTHBOUND TOTALS</b>								126976	84.43	75845	4469.15	25850	35482	28871	33216	12169	8113	75845	901	7.35									
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>								247653	167	341503	8517	39483	69843	56747	63182	23187	15458	341503	1881	16									

CALCULATED  
ALF  
CHECKED  
XXX



CALCULATED JPH  
 CHECKED DTC

**PLAN AND PROFILE**  
**MONCLOVA ROAD**

**LUC-475-0.09**

328  
 855

O:\Projects\Ann Arbor\NER\2914\200-2914-1400\CAD\96482\_LUC-475-0.93\Design\Structures\WALL\_001\Sheets\96482\_GN001.dgn Sheet 5/5/2022 2:09:58 PM travis.rhoades

**ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES, W24X94**

THIS WORK CONSISTS OF FURNISHING AND PLACING STEEL SOLDIER PILES INTO DRILLED HOLES. FURNISH SOLDIER PILES CONSISTING OF STRUCTURAL STEEL MEMBERS THAT MEET THE PLAN REQUIREMENTS AND CONFORM TO ASTM A572, GRADE 50 AND CMS 711.01. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES; WITH PANEL SEATS BEING THE EXCEPTION.

MEASUREMENT FOR PAYMENT WILL BE LIMITED TO THE DISTANCE BETWEEN THE TOP OF WALL ELEVATION AND THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL PAY FOR SOLDIER PILES AT THE CONTRACT UNIT PRICE PER FOOT OF ITEM 507 - STEEL PILES, MISC.: SOLDIER PILES, W24X94.

**ITEM 511 - CLASS QC1 CONCRETE, FOOTING, AS PER PLAN**

FOLLOW ALL REQUIREMENTS OF CMS 511, EXCEPT THAT IT IS PERMITTED TO LOAD THE CONCRETE PAD ONE DAY AFTER PLACEMENT.

**ITEM 524 - DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN**

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND PLUG PILE WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH STRUCTURAL STEEL MEMBERS INSTEAD OF REIN-FORCING STEEL CAGES. THE PLUG PILES ARE UN-REINFORCED. FURNISH AND INSTALL DRILLED SHAFTS IN ACCORDANCE WITH CMS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

EXCAVATE THE HOLE FOR THE DRILLED SHAFTS WITHIN 3 INCHES OF THE PLAN LOCATION IN THE HORIZONTAL PLANE.

PLACE THE STEEL MEMBER VERTICALLY WITHIN THE HOLE SO IT IS NOT INCLINED MORE THAN 1" BETWEEN THE TOP AND BOTTOM. CENTER THE STEEL MEMBER WITHIN THE HOLE. PLACE THE STEEL MEMBER SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF CONSTRUCTION. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE STEEL MEMBER SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.

USE CLASS QC5 CONCRETE ACCORDING TO CMS 511. PLACE CONCRETE TO THE TOP OF SHAFT ELEVATION NOTED ON THE PLANS. THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDED THE DEPTH OF WATER IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. POURING CONCRETE ALONG THE WEB OF THE STRUCTURAL STEEL MEMBER IS ACCEPTABLE.

ONCE A CONCRETE SHAFT POUR HAS BEGUN, IT SHALL CONTINUE UNTIL COMPLETED.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE STRUCTURAL STEEL MEMBER IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES.

**SEQUENCE OF INSTALLATION**

THE INSTALLATION SEQUENCE SHALL BE SUCH THAT NO DRILLED SHAFT IS INSTALLED ADJACENT TO EITHER AN OPEN DRILLED SHAFT EXCAVATION OR A DRILLED SHAFT IN WHICH THE CONCRETE HAS LESS THAN A 48 HOUR CURE. INSTALLING THE SHAFTS IN AN ALTERNATING SEQUENCE OR ANY OTHER SEQUENCE THAT MEETS THIS CRITERIA IS PERMISSIBLE.

**PROTECTION OF UNATTENDED OPEN SHAFTS**

CARE SHALL BE EXERCISED AS TO COVER UNATTENDED OPEN SHAFTS. TEMPORARY COVERS SHALL BE OF ADEQUATE STRENGTH TO PREVENT A PERSON OR ANIMAL FROM FALLING IN. NO DRILLED SHAFT EXCAVATION SHALL BE LEFT UN-POURED OVERNIGHT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS USED TO CONSTRUCT THE DRILLED SHAFTS. ANY TEMPORARY GRADING, AGGREGATE, DRAINAGE, SHEETING, ETC. NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS.

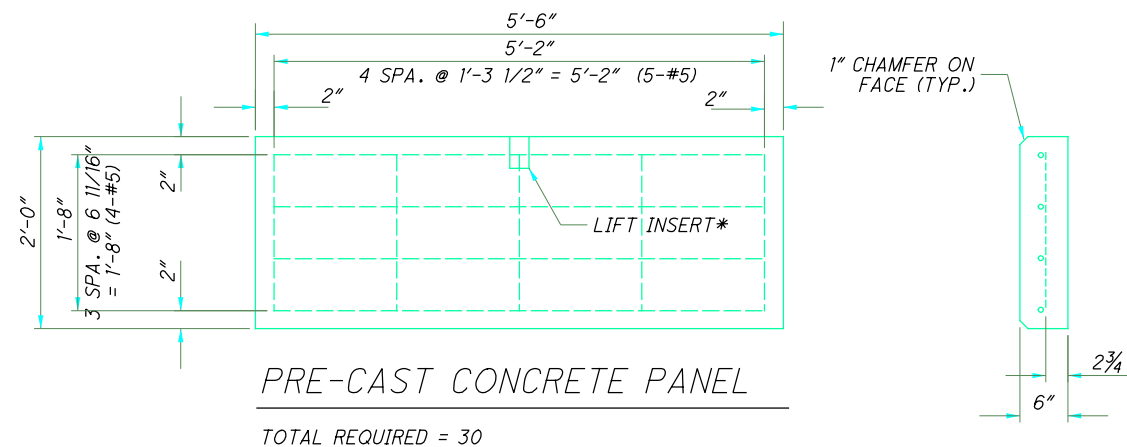
PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND INSTALLING THE STEEL MEMBER. PAYMENT FOR SOIL OVERBURDEN DRILLING, WHICH IS EXISTING GROUND LEVEL TO THE TOP OF THE SHAFT, SHALL BE INCLUSIVE OF ITEM 524 DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, WILL BE MEASURED ALONG THE AXIS OF THE DRILLED SHAFT FROM THE TOP OF THE SHAFT TO THE BOTTOM OF SHAFT.

**ITEM 530 - SPECIAL - RETAINING WALL, PRECAST CONCRETE PANEL (2'-0" x 5'-6")**

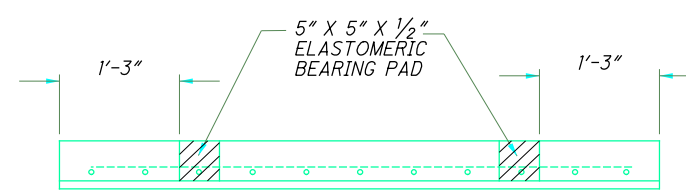
THIS WORK CONSISTS OF FURNISHING AND PLACING PRECAST REINFORCED CONCRETE PANELS BETWEEN THE SOLDIER PILES TO FUNCTION AS LAGGING FOR THE RETAINING WALL. PROVIDE PRECAST CONCRETE LAGGING FROM A PRECAST CONCRETE MANUFACTURER CERTIFIED UNDER SUPPLEMENT 1073. PROVIDE CONCRETE WITH A 28-DAY DESIGN STRENGTH OF AT LEAST 4000 PSI ACCORDING TO CMS 499. PROVIDE EPOXY COATED REINFORCING STEEL ACCORDING TO CMS 709.00. IN LIEU OF EPOXY COATING, A CORROSION INHIBITING CONCRETE ADMIXTURE MAY BE USED AT THE SPECIFIED DOSAGE RATE. A QUALIFIED PRODUCT LIST OF CORROSION INHIBITING ADMIXTURES IS ON FILE AT THE LABORATORY. MANUFACTURERS SHOULD RECOGNIZE THAT THE CORROSION INHIBITOR MAY AFFECT THE STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, ETC. OF THEIR CONCRETE MIXES. THE MANUFACTURER'S CHOICE TO USE ONE OF THESE CORROSION INHIBITORS DOES NOT ALLEVIATE MEETING ALL DESIGN REQUIREMENTS. DO NOT ALLOW THE DIMENSIONS OF THE REINFORCING STEEL TO VARY BY MORE THAN 1/4 INCH. PERMANENTLY MARK EACH PANEL TO INDICATE THE FACE TO BE PLACED AGAINST THE SOIL. PLACE THE PANEL BETWEEN THE FLANGES OF THE SOLDIER PILES AND BEARING AGAINST THE FLANGES ON THE EXPOSED SIDE OF THE WALL.

THE DEPARTMENT WILL PAY FOR PRECAST CONCRETE PANELS AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 530 - SPECIAL - RETAINING WALL, PRECAST CONCRETE PANEL (2'-0" x 5'-6").





PRE-CAST CONCRETE PANEL

TOTAL REQUIRED = 30



ELASTOMERIC BEARING PAD TYPICAL DETAIL.\*\*

- NOTES:**
- \* PRECAST PANEL MANUFACTURER TO DESIGN LIFT INSERT. MANUFACTURER TO DETERMINE NUMBER OF INSERTS FOR EACH PANEL.
  - \*\* PRICE OF ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE UNIT PRICE OF THE PRECAST CONCRETE PANELS.

	DESIGN AGENCY <b>TETRA TECH</b> 480 EASTMAN AVENUE, SUITE 1001 TOLEDO, OH 43604	DATE 05/05/22	REVIEWED DTC	FILE NUMBER N/A
DRAWN TLR	CHECKED AEN	TLR	REVISION N/A	
<b>DRILLED SHAFT WALL GENERAL NOTES AND DETAILS</b> RETAINING WALL 001 I-475 OVER MONCLOVA ROAD AND NSRR				
LUC-475-0.09 PID No. 99731				
1 / 4 				

REF. NO	CENTERLINE I-475 STA.	CENTERLINE I-475 OFFSET		TOP OF STEEL KING PILE OR TOP OF LAGGING ELEV.	TOP OF CONCRETE FOOTING / BOTTOM OF LAGGING ELEV.	TOP OF DRILLED SHAFT OR TOP OF PLUG PILE / BOTTOM OF CONCRETE FOOTING	BOTTOM OF DRILLED SHAFT ELEV.	BOTTOM OF PLUG PILE ELEV.	507	524	530
		FT	SIDE						FT	FT	FT
1	49+29.11	146.23	LT	647.00	636.83	636.33	580.00		67.00	56.33	
2	49+26.36	147.44	LT	647.00	636.83	636.33		610.00		26.33	5
3	49+24.73	149.96	LT	647.00	636.83	636.33	580.00		67.00	56.33	
4	49+21.99	151.17	LT	647.00	636.83	636.33		610.00		26.33	5
5	49+20.36	153.69	LT	647.00	636.83	636.33	580.00		67.00	56.33	
6	49+17.61	154.91	LT	647.00	636.83	636.33		610.00		26.33	5
7	49+15.98	157.42	LT	647.00	636.83	636.33	580.00		67.00	56.33	
8	49+13.24	158.64	LT	647.00	636.83	636.33		610.00		26.33	5
9	49+11.61	161.16	LT	647.00	636.83	636.33	580.00		67.00	56.33	
10	49+08.86	162.37	LT	647.00	636.83	636.33		610.00		26.33	5
11	49+07.23	164.89	LT	647.00	636.83	636.33	580.00		67.00	56.33	
12	49+04.49	166.10	LT	647.00	636.83	636.33		610.00		26.33	5
13	49+02.86	168.62	LT	647.00	636.83	636.33	580.00		67.00	56.33	
TOTAL CARRIED TO THE GENERAL SUMMARY									469.00	553.00	30

**ESTIMATED QUANTITIES**

**ITEM 511 - CLASS QCI CONCRETE, FOOTING, AS PER PLAN**

34.5 FT X 3.83 FT X 0.5 FT / 27 = 2.45 CY

A TOTAL OF 3 CY TO BE CARRIED TO THE GENERAL SUMMARY

**ITEM 518 - POROUS BACKFILL WITH GEOTEXTILE FABRIC**

34.5 FT X 2.5 FT 9.0 FT / 27 = 28.75 CY

A TOTAL OF 29 CY TO BE CARRIED TO THE GENERAL SUMMARY

**ITEM 518 - 6" PERFORATED CORRUGATED PLASTIC PIPE**

34.5 FT

A TOTAL OF 35 FT TO BE CARRIED TO THE GENERAL SUMMARY

**ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE**

2.5 FT + 11.8 FT + 16.7 FT = 31.0 FT

A TOTAL OF 31 FT TO BE CARRIED TO THE GENERAL SUMMARY

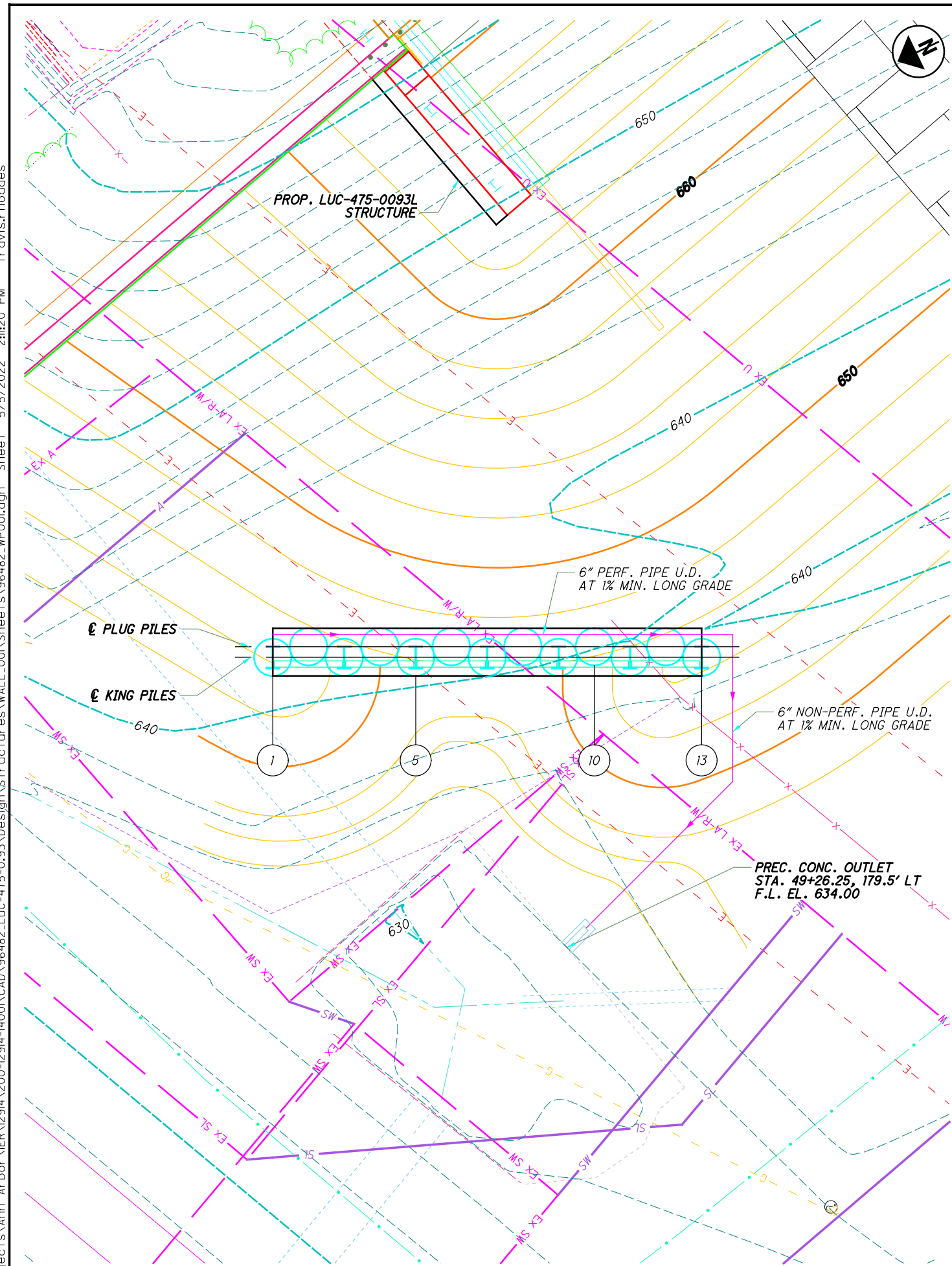
**ITEM 611 - PRECAST REINFORCED CONCRETE OUTLET**

1 EACH

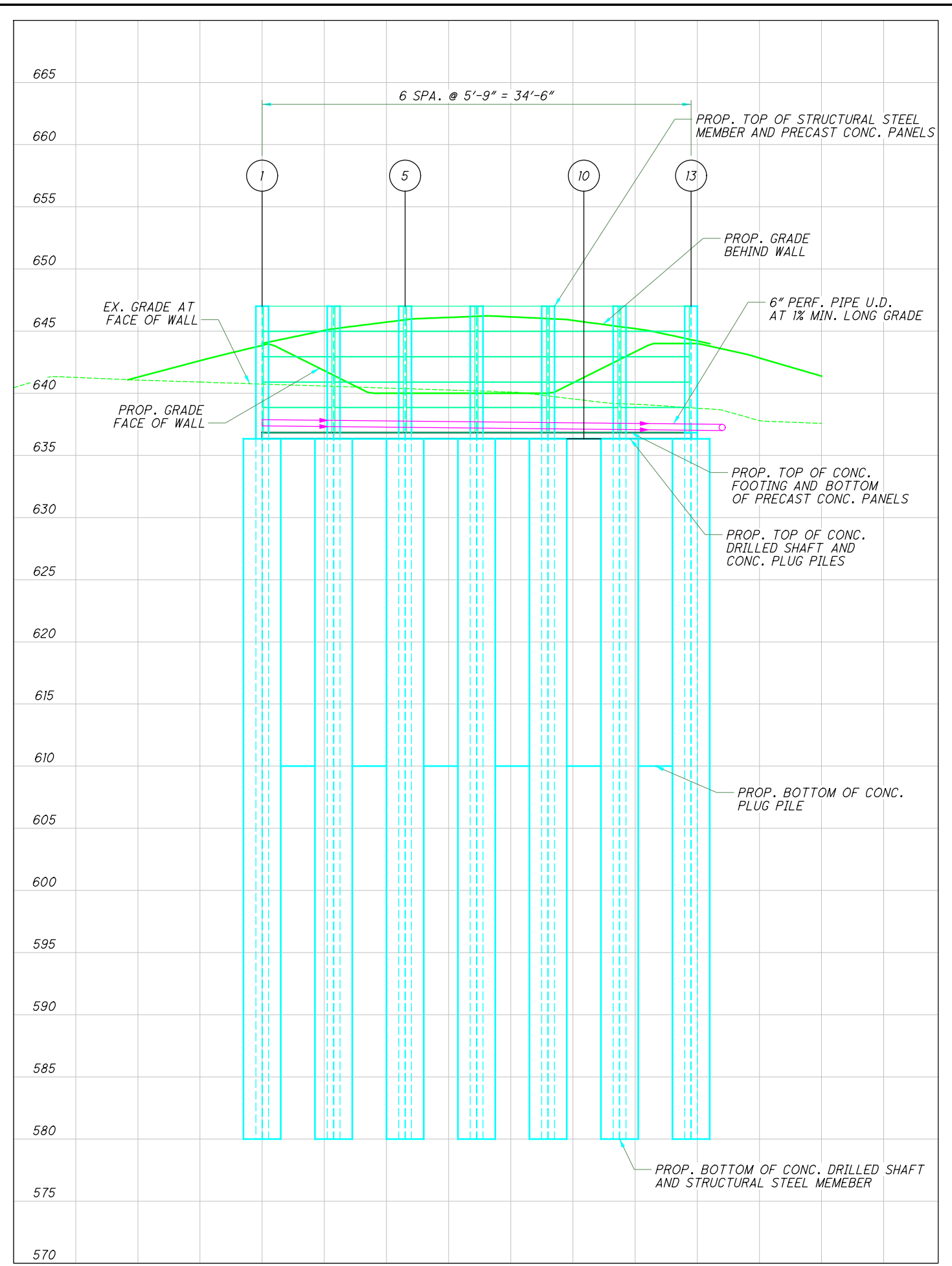
A TOTAL OF 1 EACH TO BE CARRIED TO THE GENERAL SUMMARY



O:\Projects\Ann Arbor\NER\2914\200-12914-1400\CAD\96482\_LUC-475-0.93\Design\Structures\WALL\_001\Sheets\96482\_WP001.dgn Sheet 5/5/2022 2:11:20 PM Travis.Rhoades



PLAN



PROFILE

DESIGN AGENCY: **TETRA TECH**  
 480 N. WASHINGTON AVENUE, SUITE 800  
 TOLEDO, OH 43604

DESIGNED: TLR  
 CHECKED: AEN

DRAWN: TLR  
 REVISED: N/A

REVIEWED: DTC  
 DATE: 05/05/22  
 STRUCTURE FILE NUMBER: N/A

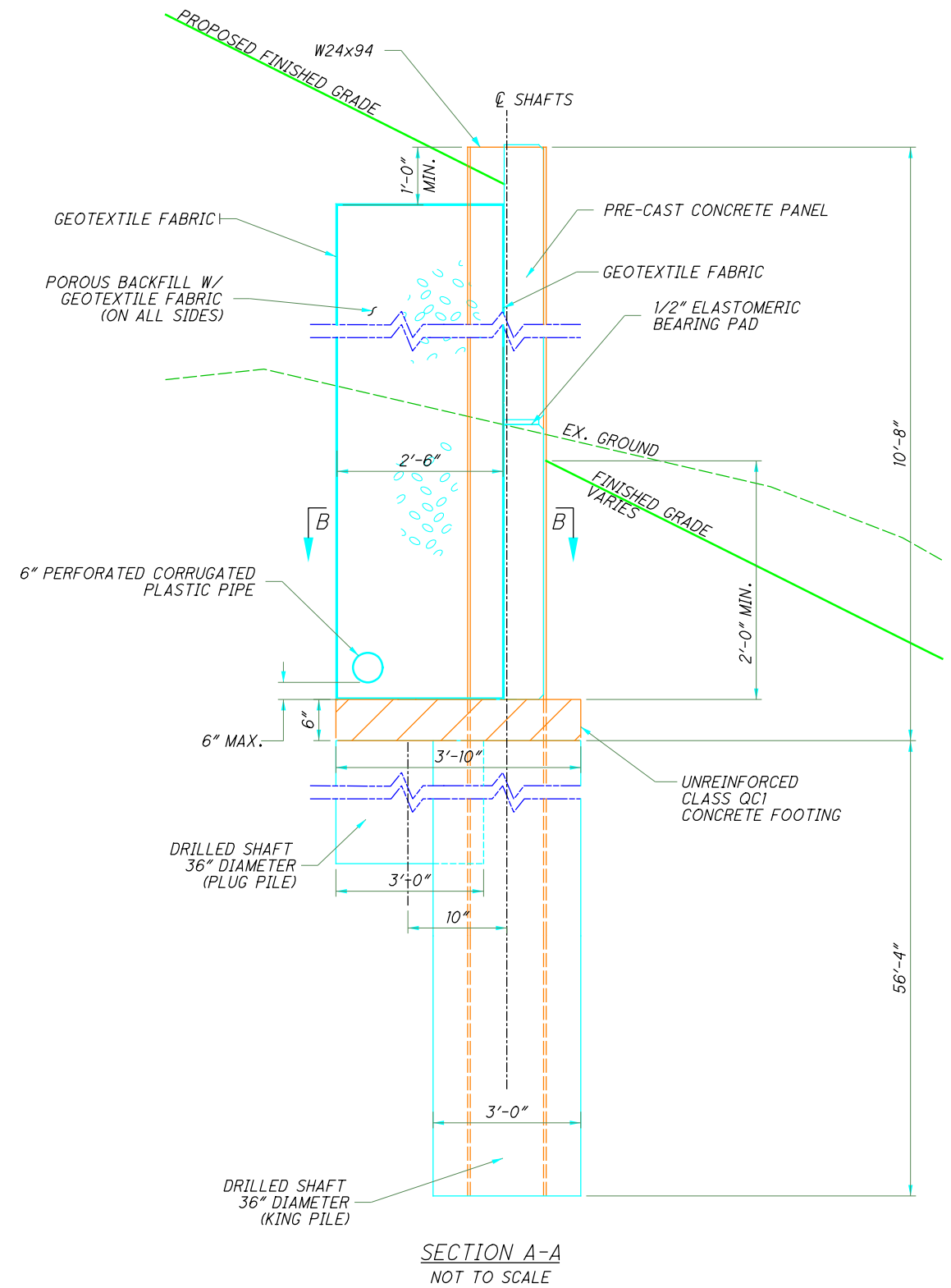
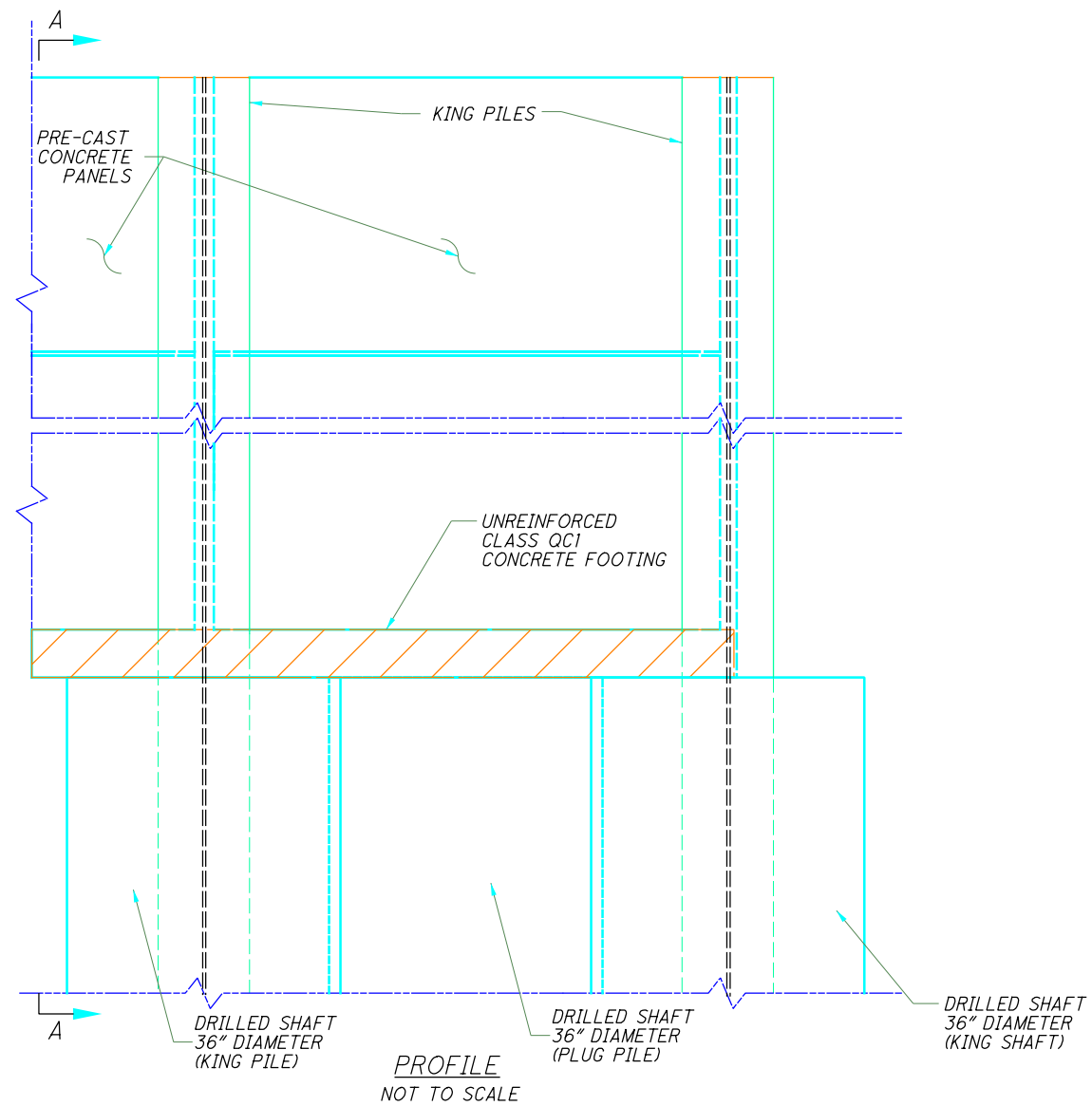
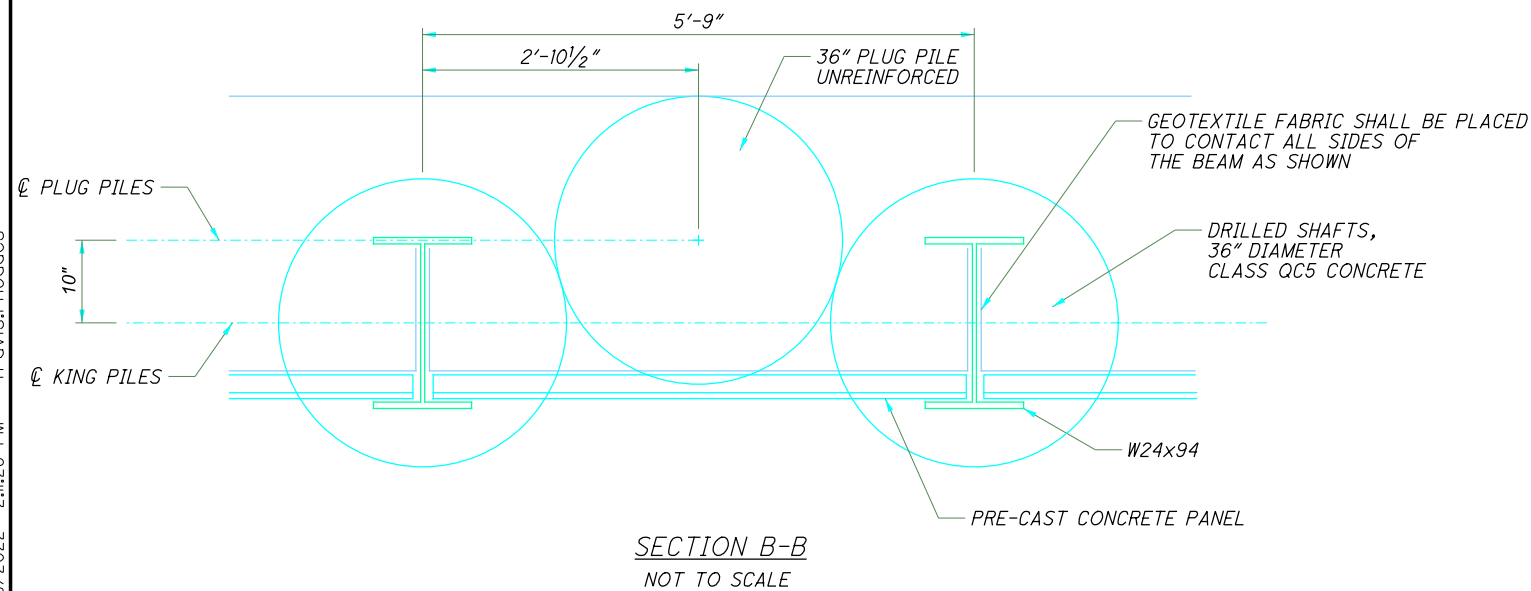
**DRILLED SHAFT WALL PLAN AND ELEVATION**  
 RETAINING WALL 001  
 I-475 OVER MONCLOVA ROAD AND NSRR

**LUC-475-0.09**  
 PID No. 99731

3 / 4

677C  
 855

O:\Projects\Ann Arbor\NER\2914\200-12914-1400\CAD\96482\LUC-475-0.93\Design\Structures\WALL\_001\Sheets\96482\_WD001.dgn Sheet 5/5/2022 2:11:28 PM Travis.Rhodes



	DESIGN AGENCY	TETRA TECH
	440 MADISON AVENUE, SUITE 800 TOLEDO, OH 43604	
DESIGNED	DATE	05/05/22
CHECKED	DTC	05/05/22
DRAWN	REVIEWED	STRUCTURE FILE NUMBER
TLR	TLR	N/A
REVIS	REVISED	
AEN		
<b>DRILLED SHAFT WALL DETAILS</b> RETAINING WALL 001 I-475 OVER MONCLOVA ROAD AND NSRR		
LUC-475-0.09	PID No. 99731	
4 / 4		

O:\Projects\Ann Arbor\NER\2914\200-12914-1400\CAD-96482-LUC-475-0.93\Design\Structures\LUC475\_0093L\_Sheets\475\_0093L\_0001.dgn Sheet 5/5/2022 15:46 PM Dave.Chanville

**ESTIMATED QUANTITIES (04/IMS/BR)**

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11003	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/29
202	22900	266	SY	APPROACH SLAB REMOVED				266	
202	23500	266	SY	WEARING COURSE REMOVED				266	
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING					
503	21300	LS	LS	UNCLASSIFIED EXCAVATION					
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00200	3315	FT	STEEL PILES HP12X53, FURNISHED	3315				
507	00250	3145	FT	STEEL PILES HP12X53, DRIVEN	3145				
507	93300	34	EACH	STEEL POINTS OR SHOES	34				
509	10000	112791	LB	EPOXY COATED REINFORCING STEEL	20796	57402	34593		
509	30020	7239	FT	NO. 4 GFRP DEFORMED BARS			7239		
509	40000	174284	LB	REINFORCING STEEL, MISC.: LOW CARBON CHROMIUM ALLOY REINFORCING STEEL (ASTM A1035 CS GRADE 100)			174284		2/29
511	33418	245	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			245		
511	34446	716	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			716		
511	34450	71	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			71		
511	41012	203	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		203			
511	43512	206	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	206				
512	10050	1903	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	224	557	1122		
515	14110	24	EACH	STRAIGHT STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 2, TYPE WF60-49 (L=60'-7")			24		
515	15110	12	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF60-49 (L=113'-6")			12		
515	20000	55	EACH	INTERMEDIATE DIAPHRAGMS			55		
516	13200	170	SF	1/2" PREFORMED EXPANSION JOINT FILLER	170				
516	13600	170	SF	1" PREFORMED EXPANSION JOINT FILLER	170				
516	13900	104	SF	2" PREFORMED EXPANSION JOINT FILLER	104				
516	14014	236	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	236				
516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (2.111" X 14" X 11" WITH 1 1/2" X 15" X 12" LOAD PLATE)	24				
516	44301	48	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (4.323" X 24" X 13" WITH 1 1/2" X 40" X 14" LOAD PLATE)		48			
518	21200	199	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	199				
518	40000	263	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	263				
518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	24				
524	95434	12	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK WITH QC/QA		12			
524	95443	828	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN		828			2/29
526	25010	542	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				542	
526	90010	195	FT	TYPE A INSTALLATION				195	
601	20000	1725	SY	CRUSHED AGGREGATE SLOPE PROTECTION				1725	
601	21060	86	SY	TIED CONCRETE BLOCK MAT, TYPE 2				86	
894	10000	2	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST		2			

DESIGN AGENCY  
**TETRA TECH**  
 480 N. MASON AVENUE, SUITE 800  
 TOLEDO, OH 43604

DESIGNED  
 A J F

CHECKED  
 T L R

DRAWN  
 T S R

REVISOR  
 REVISOR

REVIEWED  
 D T C

DATE  
 1/13/2022

STRUCTURE FILE NUMBER  
 4607082

**BRIDGE ESTIMATED QUANTITIES**  
 LUC-475-0093L  
 I-475 OVER MONCLOVA ROAD AND NSRR

**LUC-475-0.09**  
 PID No. 99731

3 / 29

680

855





I:\Project+Data\LUC\102909\_LUC\_24\_12\_86\Design\Roadway\Sheets\102909\_GS003.dgn Sheet 5/5/2022 2:02:14 PM tmaos

S.L.M	SIDE	621		SPACING	621		644		644	644	644	644	644		807		807		807		807		807		850		850		850		850	
		RPM TWO-WAY WHITE / RED	RPM TWO-WAY YELLOW / RED				RAISED PAVEMENT MARKER REMOVED	STOP LINE							TRANSVERSE/DIAGONAL LINE	LANE ARROW ( LEFT THRU )	LANE ARROW ( RIGHT )	WRONG WAY ARROW	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, EDGE LINE, 6" (YELLOW)	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, CHANNELIZING LINE, 12" (WHITE)	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING, DOTTED LINE, 6"	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)					
		EACH	EACH		EACH		FT	FT	EACH	EACH	EACH				MI	MI	MI	FT	FT		MI	FT	FT	MI								
11.53	TO	12.25	EB	48	80'	48									0.72	0.72	0.72							2.16								
12.25	TO	12.63	EB	26	80'	26									0.38	0.38	0.38							1.14	930							
AT RAMP C			EB	25	40'	25																			986							
11.53	TO	12.50	WB	65	80'	65									0.97	0.97	0.97							2.91								
12.50	TO	12.63	WB	18	80'	18									0.13	0.13	0.26							0.52								
AT RAMP D			WB	17	40'	17				113																671						
STR. LUC-24-1263			WB	3	80'	3									0.04	0.04	0.04	219	222						222	219	0.12					
12.63	TO	12.80	WB	23	80'	23									0.17	0.17	0.34		48					0.68	48							
12.80	TO	12.91	WB	8	80'	8									0.11	0.11	0.11							0.33								
12.91	TO	13.32	WB	28	80'	28									0.41	0.41	0.41							1.23	726							
13.32	TO	14.13	WB	54	80'	54									0.81	0.81	0.81		1566					2.43	1566							
14.13	TO	14.42	WB	20	80'	20									0.29	0.29	0.29		79					0.87	79							
14.42	TO	14.98	WB	37	80'	37									0.56	0.56	0.56		818					1.68	818							
STR. LUC-24-1263			EB	6	80'	6									0.04	0.04	0.08	219								219	0.16					
12.63	TO	12.91	EB	19	80'	19									0.28	0.28	0.28							0.84								
12.91	TO	13.32	EB	28	80'	28									0.41	0.41	0.41							1.23								
13.32	TO	14.13	EB	54	80'	54									0.81	0.81	0.81							2.43								
14.13	TO	14.42	EB	20	80'	20									0.29	0.29	0.29		241					0.87	241							
14.42	TO	14.98	EB	37	80'	37									0.56	0.56	0.56		1017					1.68	1017							
FALLEN TIMBERS - RAMP A			WB	49	40'	59									0.15	0.15		1972						0.30		1972						
FALLEN TIMBERS - RAMP B			WB	32	40'	42									0.16	0.16		1276	55					0.32	55	1276						
FALLEN TIMBERS - RAMP D			EB	34	40'	51		36	105	2	4	2			0.26	0.26		1342						0.52		1342						
FALLEN TIMBERS - RAMP E			EB	18	40'	32		54	92			1			0.21	0.22	0.02	711						0.45		711						
FALLEN TIMBERS - RAMP C			EB	23	40'	37									0.21	0.21		926						0.42		926						
IR-475 - RAMP L			WB	25	40'	26									0.01	0.01		1012						0.02		1012						
IR-475 - RAMP H			WB	7	40'	21									0.22	0.22	0.01	270						0.45		270						
STR. LUC-24-1442			WB	1	40'	1									0.07	0.07	0.14		346							346			0.28			
IR-475 - RAMP G			WB	3	40'	17									0.24	0.20	0.05	134						0.49		134						
IR-475 - RAMP K			WB	15	40'	15												592	530							530	592					
IR-475 - RAMP M			EB		80'	17									0.25	0.25	0.05		458					0.55		458						
IR-475 - RAMP I			EB		80'	12									0.20	0.18	0.05							0.43								
STR. LUC-24-1442			EB	10	80'	10									0.07	0.07	0.14		345							345			0.28			
IR-475 - RAMP F			EB		80'	14									0.23	0.21	0.02							0.46								
IR-475 - RAMP J			EB	31	40'/80'	53									0.33	0.33		1259						0.66		1259						
<b>SUBTOTALS</b>				784	158	942		90.00	739	2	4	3			9.59	9.52	7.80	11589	7381					26.07	7381	11589	0.84					
<b>CARRIED TO GEN SUMMARY</b>				942		942		90	739	6	3				19.11		7.80	11589	7381					26.07	7381	11589	0.84					

**PAVEMENT MARKING SUBSUMMARY**

**LUC-24-11.54**

CALCULATED  
TLM  
CHECKED  
XXX