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CUY-90-16.28 (CCG3A)

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DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 2 TOTAL 2696

DRAINAGE (CONT.)

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - MISCELLANEOUS METAL 10,000 LB

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

TEMPORARY DRAINAGE ITEMS

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE GENERAL SUMMARY.

POST CONSTRUCTION STORM WATER TREATMENT

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

MANUFACTURED WATER QUALITY STRUCTURE

THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4.

EXTENDED DETENTION BASIN

THIS PLAN UTILIZES EXTENDED DETENTION BASIN(S) FOR FLOW RESTRICTION. DETENTION BASINS MAY BE USED AS SEDIMENT CONTROL DEVICES DURING CONSTRUCTION. FOLLOWING STABILIZATION OF THE TRIBUTARY AREA, FINAL GRADING OF THE DETENTION BASIN MUST MATCH THE PLANS. THE DETENTION BASIN OUTLET STRUCTURE FOR CONSTRUCTION SEDIMENT CONTROL MUST BE REMOVED AND THE OUTLET STRUCTURE MUST BE MADE TO MATCH THE DESIGN SHOWN IN THE PLANS.

6

SURFACE DRAINAGE CONTINGENCY

EVERY EFFORT HAS BEEN MADE TO PROVIDE FOR ADEQUATE CURB INLETS AND PIPE TO PROPERLY ACCOUNT FOR THE SURFACE DRAINAGE. IN THE EVENT THAT ISOLATED LOW AREAS DEVELOP DURING CONSTRUCTION OF THE PROJECT, THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER:

3

ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	**2,000 FT**
ITEM 611 - 15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	**200 FT**
ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN	**4 EACH**
ITEM 611 - CATCH BASIN, NO. 3A, AS PER PLAN	**4 EACH**
ITEM 611 - MANHOLE, NO. 3, AS PER PLAN	**4 EACH**

PAVEMENT

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1. CONSTRUCT LONGITUDINAL JOINTS PER CMS 401.08(D).

MEDIAN AND/OR CURBING ON APPROACH SLABS

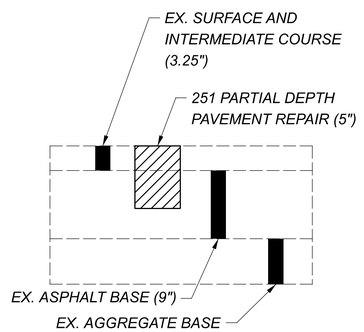
WITHIN THE LIMITS OF THE APPROACH SLAB, TRANSITION THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442)

THE PLANS CALL FOR RESURFACING THE I.R. 90 PAVEMENT BETWEEN THE INNERBELT BRIDGES AND THE ONTARIO STREET BRIDGES AND BETWEEN THE ONTARIO STREET BRIDGES AND THE EAST 9TH STREET BRIDGES. QUANTITIES HAVE BEEN PROVIDED IN THE PAVEMENT SUBSUMMARY FOR THIS WORK.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO REPAIR ANY PAVEMENT DEFICIENCIES IN THESE AREAS. SEE DETAIL BELOW FOR A TYPICAL PAVEMENT BUILDUP. THE QUANTITY IS BASED ON AN ASSUMED DEPTH OF FIVE (5) INCHES. FINAL DEPTH IS TO BE DETERMINED BY THE ENGINEER.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442) 180 CY



SEE FULL DETAIL ON SHEET 1432A

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B

THIS ITEM SHALL CONSIST OF REPLACING EXISTING PAVEMENT PER ITEM 255 AND THE NOTES BELOW AND DETAILS ON SHEET 1432A.

EXISTING CONCRETE PAVEMENT THICKNESS MAY VARY FROM THAT SHOWN ON THE TYPICAL SECTIONS BY PLUS TWO INCHES OR MINUS ONE INCH. NO ADJUSTMENT IN PAYMENT FOR THIS ITEM SHALL BE MADE PROVIDING THAT THE AVERAGE PAVEMENT THICKNESS IS WITHIN ONE INCH OF THE THICKNESS SHOWN ON THE TYPICAL SECTIONS. ADDITIONAL COMPENSATION SHALL BE MADE BY CHANGE ORDER FOR THE MATERIAL COST OF CONCRETE ONLY WHEN THE AVERAGE THICKNESS EXCEEDS THE ONE INCH MAXIMUM TOLERANCE ABOVE. THE VOLUME OF CONCRETE PAID FOR SHALL BE BASED UPON THE AMOUNT OF CONCRETE ADDITIONAL ABOVE THE ONE INCH TOLERANCE LIMIT.

THE CONTRACTOR SHALL SAW THROUGH THE REMAINING ASPHALT OVERLAY AFTER THE PAVEMENT PLANING OPERATION. THE CONTRACTOR SHALL REMOVE THE EXISTING OVERLAY AND RIGID PAVEMENT WITH CARE SO AS TO NOT DISTURB THE ADJACENT REMAINING CONCRETE PAVEMENT AND OVERLAY.

IF, AFTER REMOVAL OF THE RIGID PAVEMENT THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THE ENGINEER WILL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE. QUANTITIES OF ITEM 203 - EXCAVATION AND ITEM 304 - AGGREGATE BASE HAVE BEEN PROVIDED TO REPAIR SAID FAILED SUBBASE OR SUBGRADE AREAS.

PAVEMENT REPAIR LESS THAN OR EQUAL TO TEN (10) FEET IN LENGTH SHALL BE PAID FOR UNDER "FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN, A". PAVEMENT REPAIRS GREATER THAN TEN (10) FEET IN LENGTH SHALL BE PAID FOR UNDER "FULL DEPTH RIGID PAVEMENT REMOVAL AND REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B".

ITEM	UNIT	DESCRIPTION
255	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A
255	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B
255	FT	FULL DEPTH PAVEMENT SAWING
203	CY	EXCAVATION
304	CY	AGGREGATE BASE

7

FOR ESTIMATED QUANTITIES, SEE SHEET 87

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C

ALL REQUIREMENTS OF C&MS 255 SHALL APPLY EXCEPT THE DOWEL BARS, DEFORMED BARS, TIEBARS, AND JOINT SEALER SHALL BE INSTALLED PER THE DETAILS SHOWN ON CITY OF CLEVELAND SCD CONC 1.

10

IN ADDITION TO THE REQUIREMENTS ABOVE, APPLY THE OTHER REQUIREMENTS FOR ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A AND B.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN

THIS ITEM IS INTENDED FOR USE AS DIRECTED BY THE ENGINEER FOR PARTIAL DEPTH PAVEMENT REPAIRS TO CITY STREETS. QUANTITIES WERE DEVELOPED BASED ON AN ASSUMED DEPTH OF THREE (3) INCHES. FINAL DEPTH IS TO BE DETERMINED BY THE ENGINEER.

4

PAVEMENT REPAIRS SHALL BE COMPLETED USING THE FOLLOWING ITEMS:

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)

2

ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN
ITEM 451 - 12" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

ALL REQUIREMENTS OF C&MS 305, 451, AND 452 SHALL APPLY EXCEPT THE DOWEL BARS, DEFORMED BARS, AND TIEBARS SHALL BE INSTALLED PER THE DETAILS SHOWN ON CITY OF CLEVELAND SCD CONC 1.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL CONSIST OF A BLEND OF 60% MIN. AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22

PAVING BETWEEN THE MEDIAN BARRIERS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN FROM THE HIGH SIDE BARRIER TO LOW SIDE BARRIER.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M

THE COARSE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM 60% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE. AT LEAST 50% OF FINE VIRGIN AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO ACBFS OR TRAP ROCK FROM ONTARIO.

TABLE 442.02-2 APPLIES EXCEPT NO. 4 SIEVE REQUIREMENTS ARE 52 TO 60 TOTAL PERCENT PASSING. FOR THE NO. 4 SIEVE DO NOT EXCEED 63 IN PRODUCTION.

WHEN ACBFS IS USED FOR A FRACTION OF THE COARSE AGGREGATE, PROVIDE A TOTAL ASPHALT BINDER CONTENT GREATER THAN OR EQUAL TO 6.2 PERCENT. IF ACBFS MAKES UP 100% OF THE COARSE AGGREGATE, APPLY THE BINDER CONTENT REQUIREMENTS OF C&MS 442.

ITEM SPECIAL - PRESSURE RELIEF JOINT, TYPE B

THIS ITEM SHALL MEET ALL THE SPECIFICATIONS OF ITEM 451. SEE SCD AS-2-15 AND SCD BP-2.4 FOR DETAILS.

CITY STREET CONTINGENCY

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDE FOR USED AS DIRECTED BY THE ENGINEER FOR ANY UNANTICIPATED WORK ALONG CITY STREETS:

ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	**775 SY**
ITEM 608 - 6" CONCRETE WALK, AS PER PLAN	**4,500 SF**
ITEM 608 - CURB RAMP, AS PER PLAN	**475 SF**
ITEM 609 - CURB, TYPE 6	**750 FT**

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DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER JTH
REVIEWER KGJ 05/10/24
PROJECT ID 82382
SHEET 80 TOTAL 2696

APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION

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 EXCEPTION(S) INCLUDE:

20 WEEKEND CLOSURES ON I.R. 90

- EB AND WB SHALL NOT BE CLOSED AT THE SAME TIME EXCEPT FOR 4 WEEKENDS DURING PR. E. 22ND ST. BRIDGE STRUCTURAL STEEL ERECTION IN PHASE 2, 4 WEEKENDS DURING PR. BRIDGE 9 STRUCTURAL STEEL ERECTION IN PHASE 4, AND 4 WEEKENDS DURING PR. CARNEGIE AVE. BRIDGE STRUCTURAL STEEL ERECTION IN PHASE 7.

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 ALL AGENCIES LISTED IN THE "NOTIFICATION" NOTE 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 14 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 EXCEPTION(S) REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 01/22/2024 FOR PID 82382" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING 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.

ITEM 614, REPLACEMENT DRUM

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

PAYMENT FOR THE NEW DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING THE NECESSARY REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

RECOMMENDED LOCATIONS FOR PCMS DURING I.R. 90 EB & I.R. 90 WB FULL-WEEKEND CLOSURES ARE SHOWN ON THE I.R. 90 CLOSURE DETAIL SHEETS AND LISTED IN THE SEQUENCE OF CONSTRUCTION NOTES FOR EACH PHASE UNDER THE MAINTENANCE OF TRAFFIC HEADER.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

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

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

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

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

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

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

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 200 SNMT

(ASSUMING 32 PCMS SIGNS FOR 5 MONTHS AND ASSUMING 40 PCMS SIGNS FOR 1 MONTH)

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

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

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS.

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

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

ITEM 614 - WORK ZONE INCREASED PENALTIES SIGN 62 EACH

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

EXCAVATION FOR MAINTAINING TRAFFIC 9,710 CY.
EMBANKMENT FOR MAINTAINING TRAFFIC 9,710 CY.

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WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

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 2,285 MGAL

ITEM 616 - CALCIUM CHLORIDE 150 TON

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 18 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ADVANCE WORK ZONE INFORMATION

ADVANCE WORK ZONE INFORMATION SIGNS, AS USED IN THIS NOTE, ARE FIXED MESSAGE TYPES. THE SIGNS ARE TO BE LOCATED AT EXTREME DISTANCE FROM THE WORK AREA, AS SHOWN IN THE PLANS.

THE SIGNS SHALL BE BLACK ON ORANGE (INCLUDING A BLACK BORDER). THE LAYOUT SHALL BE IN CONFORMANCE WITH TEM CHAPTER 211.

WHEN REGULATORY INFORMATION IS PROVIDED, IT SHALL BE DISPLAYED SEPARATELY AS A STANDARD BLACK-ON-WHITE SIGN. MIXING OF BLACK-ON-WHITE REGULATORY INFORMATION ON A BLACK-ON-ORANGE INFORMATION SIGN IS PROHIBITED.

IF THE MOTORIST IS BEING DETOURED OR IF AN ALTERNATE ROUTE IS PROVIDED, THE ROUTE SHOULD BE SIGNED WITH ASSEMBLIES CONSISTING OF THE APPROPRIATE BLACK-ON-ORANGE DETOUR OR ALT MARKER WITH A STANDARD ROUTE MARKER AND ARROW PLATE. IF MORE TARGET VALUE IS DESIRED, THIS TRAIL BLAZER INFORMATION MAY BE SHOWN ON AN ORANGE PANEL (OMUTCD SECTION 2D.32).

ROUTE SIGN ASSEMBLIES SHALL BE SIZED ACCORDING TO THE TYPE OF ROAD ON WHICH THEY ARE LOCATED IN ACCORDANCE WITH THE OMUTCD.

SUPPORTS FOR SIGN INSTALLATIONS SHALL CONFORM TO ALL EXISTING STANDARDS FOR PERMANENT SIGNS. THESE SIGNS SHOULD NOT BE ATTACHED TO EXISTING SUPPORTS.

WHERE THE PLANS CALL FOR AN OVERLAY TO COVER A PORTION OF AN EXISTING SIGN, THE OVERLAY SHALL BE BLACK-ON-ORANGE. LETTER SIZES SHOULD BE THE SAME AS ON THE EXISTING SIGNS. WHEN LANE ARROWS ARE TO BE COVERED, A BLANK OVERLAY SHOULD BE PLACED OVER EACH OF THE AFFECTED ARROWS. WHEN A RAMP IS BEING CLOSED, RATHER THAN USING A BLANK OVERLAY TO COVER THE ENTIRE SIGN, THE LEGEND "EXIT CLOSED" (W20-H15) SHOULD BE USED ON A DIAGONAL OVERLAY (LOWER LEFT TO UPPER RIGHT) ON THE SIGN. THE SIZE OF LETTERING ON OVERLAYS AND THE SIZE OF THE OVERLAY ARE INDICATED IN THE PLANS. THE MINIMUM LETTER SIZE FOR THE DIAGONAL "EXIT CLOSED" (W20-H15) OVERLAY SHALL BE 12" C.

ALL ADVANCE WORK ZONE INFORMATION SIGN INSTALLATIONS LOCATED OUTSIDE OF THE PROJECT WORK LIMITS SHALL BE PAID FOR UNDER APPROPRIATE 630 ITEMS (SIGNS, SUPPORTS, CONCRETE, BREAKAWAY CONNECTION, OVERLAYS, REMOVALS, ETC.).

CONCRETE MEDIAN BARRIER REPLACEMENT

REMOVING, GRADING AND INSTALLING THE REPLACEMENT BARRIER IN A CONTINUOUS OPERATION SHALL BE LIMITED TO 500 LINEAR FEET AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE REMOVAL AND REPLACEMENT OF EXISTING MEDIAN BARRIER:

ITEM 202 - CONCRETE BARRIER REMOVED 1510 FT

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 500 FT

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D 1010 FT

PAYMENT FOR THE ABOVE ITEMS SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK. IN ADDITION, RESTORING THE MEDIAN AND SHOULDER BACK TO THE EXISTING CONDITION SHALL BE INCIDENTAL TO THE ITEMS 622 ABOVE.

ITEM 614, REPLACEMENT SIGN

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

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

AN ESTIMATED QUANTITY OF 26 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER GSH
REVIEWER DJJ 05/22/24
PROJECT ID 82382
SHEET 83 TOTAL 2696

CUY-90-16.28 (CCG3A)
MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 8:23:16 AM USER: Maia.Gallagher
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MAINTENANCE OF TRAFFIC GENERAL NOTES (CONTINUED)

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

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

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

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

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

- FOR LANE CLOSURES: DURING INITIAL 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:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER;
- OR
- THE ACTIVE WORK AREA LATERALLY CLOSE 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.

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

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 5000 HOUR

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 A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 614, MAINTAINING TRAFFIC, MISC.: PARTIAL TEMPORARY TRAFFIC SIGNAL

THE CONTRACTOR SHALL MODIFY THE EXISTING TRAFFIC SIGNALS AT THE INTERSECTIONS OF CARNEGIE AVENUE AND E. 14TH STREET AS DETAILED ON SHEET 293, CARNEGIE AVENUE AND E. 18TH STREET AS DETAILED ON SHEET 293, AND CARNEGIE AVENUE AND E. 21ST STREET AS DETAILED ON SHEET 345. THESE PARTIAL TEMPORARY TRAFFIC SIGNALS SHALL MAINTAIN THE CURRENT SIGNAL OPERATION UTILIZING THE EXISTING CONTROLLER CABINET, EXCEPT WHEN NOTED OTHERWISE IN THE TEMPORARY SIGNALS NOTES ON SHEET 345. NO CHANGES TO THE SIGNAL PHASING OR TIMINGS SHALL BE MADE WITHOUT THE APPROVAL OF THE PROJECT ENGINEER AND THE CITY OF CLEVELAND TRAFFIC ENGINEER.

ALL TEMPORARY SIGNAL POLE CALCULATIONS SHALL BE PERFORMED BY THE CONTRACTOR IN ORDER TO DETERMINE THE FINAL LOCATION, TYPE OF WOOD POLE TO BE USED, AND TO DETERMINE IF ADDITIONAL WOOD POLES AND SIGNAL SPANS ARE NECESSARY INSTEAD OF REUSING EXISTING SIGNAL SUPPORT POLES. THE NUMBER, LOCATION, VISIBILITY AND HEIGHT OF ALL TRAFFIC SIGNAL HEADS AND SIGNS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN CROSSINGS THROUGHOUT CONSTRUCTION WHERE SHOWN IN THE MAINTENANCE OF TRAFFIC PLANS INCLUDING ANY TEMPORARY POLES OR PEDESTRIAN SIGNAL HEADS WHERE NEEDED.

ALL LABOR AND MATERIALS FOR THE TEMPORARY MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND THE IMPLEMENTATION OF THE TEMPORARY SIGNAL PLAN AND NOTES, INCLUDING BUT NOT LIMITED TO THE TEMPORARY SUPPORT POLES, TEMPORARY VEHICULAR AND PEDESTRIAN SIGNAL HEADS, TEMPORARY WIRING, TEMPORARY MESSENGER WIRE, CABINET MODIFICATIONS, AND CONTROLLER PROGRAMMING ADJUSTMENTS, ETC. SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EACH ITEM 614, MAINTAINING TRAFFIC, MISC.: PARTIAL TEMPORARY TRAFFIC SIGNAL. A QUANTITY OF 3 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM OF WORK AT THE INTERSECTIONS NOTED ABOVE.

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ITEM SPECIAL - SURCHARGE FOR CLASS MS CONCRETE

AT VARIOUS LOCATIONS ALONG THE CORRIDOR AND TIMES DURING CONSTRUCTION CIRCUMSTANCES MAY REQUIRE THE USE OF CLASS MS CONCRETE. THE USE OF MS CONCRETE SHALL BE AT THE DISCRETION AND DIRECTION OF THE ENGINEER AND THE SPECIFICATIONS OUTLINED IN THESE NOTES. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL - SURCHARGE FOR CLASS MS CONCRETE 280 CY

RESURFACING OF WORK ZONES

THE CONTRACTOR SHALL RESURFACE THE ROADWAY PAVEMENT LISTED IN THE TABLE BELOW. THIS WORK SHALL OCCUR ONCE EACH LOCATION IS NO LONGER PART OF A WORK ZONE AND BEFORE FINAL PAVEMENT MARKINGS ARE PLACED ON THE ROADWAY. ADDITIONAL CONTINGENCY QUANTITIES FOR RESURFACING HAVE BEEN INCLUDED BELOW, TO BE USED AS DIRECTED BY THE ENGINEER. 10

SINGLE LANE CLOSURES SHALL BE IMPLEMENTED DURING OFF PEAK HOURS (SEE NOTE FOR DETAILS) AND HOLIDAY/SPECIAL EVENT RESTRICTIONS APPLY TO THE CLOSURES. ALL LANE CLOSURES SHOULD BE DONE IN ACCORDANCE WITH OHIO DEPARTMENT OF TRANSPORTATION STANDARDS AS DESCRIBED IN BOTH THE CMS AND STANDARD CONSTRUCTION DRAWINGS. AT THE END OF WORKDAY, TRAFFIC GRADE STEEL PLATES SHALL BE PLACED OVER ANY PORTION OF THE TRENCH NOT RESTORED BACK TO GRADE OR NOT RESTORED BACK TO A MANNER SUITABLE FOR TRAFFIC AND ALL LANES SHALL BE OPENED.

ROADWAY	ALIGNMENT	BEGIN STATION	END STATION	AREA (SF)	BUILD-UP	ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1 (SY) APP A	APP B	APP C
I.R. 77 NB	℄ EX. I.R. 77	55+30	73+65	92,630	ODOT	515	515	
I.R. 77 SB	℄ EX. I.R. 77	73+00	73+65	3,470	ODOT	19	19	
I.R. 90	℄ EX. I.R. 90	98+48	110+50	152,170	ODOT	845	845	
RAMP E-17	℄ EX. RAMP E-17	50+64	68+23	48,490	ODOT	269	269	
RAMP IJ3	℄ RAMP IJ3	91+41	101+89	27,350	ODOT	152	152	
CARNEGIE AVE.	℄ CONST. CARNEGIE AVE.	35+50	48+00	93,990	CITY			1043
CARNEGIE AVE.	℄ CONST. CARNEGIE AVE.	69+25	70+00	4,185	CITY			47
E. 14TH ST. NB	℄ E. 14TH ST.	15+33	18+27	6,930	CITY			77
E. 14TH ST. SB	℄ E. 14TH ST.	15+33	21+29	16,180	CITY			180
E. 14TH ST.	℄ EX. R/W E. 14TH ST.	16+92	18+35	8,575	CITY			95
E. 18TH ST.	℄ EX. R/W E. 18TH ST.	4+00	5+00	5,160	CITY			57
E. 19TH ST.	℄ EX. R/W E. 19TH ST.	3+87	4+95	4,620	CITY			51
E. 21ST ST.	℄ CONST. E. 21ST ST.	100+90	102+68	5,880	CITY			65
E. 22ND ST.	℄ CONST. E. 22ND ST.	22+25	29+47	49,390	CITY			548
E. 22ND ST.	℄ EX. R/W E. 22ND ST.	28+50	29+56	4,150	CITY			46
COMMUNITY COLLEGE AVE.	℄ COMMUNITY COLLEGE AVE.	60+39	62+09	10,710	CITY			119
CENTRAL AVE.	℄ EX. R/W CENTRAL AVE.	26+07	26+83	3,030	CITY			34
CEDAR AVE.	℄ EX. R/W CEDAR AVE.	23+98	27+50	14,050	CITY			156
CONTINGENCY RESURFACING	AS DIRECTED BY ENGINEER			180,000	ODOT	1,000	1,000	
				120,000	CITY			1,332
			TOTAL	504,110	ODOT	2,800	2,800	
				346,850	CITY			3,850

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ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

ASPHALT CONCRETE MAY BE REQUIRED AT RESURFACING OR PHASE LIMITS TO MAINTAIN TRAFFIC. THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO CONSTRUCT PAVEMENT WEDGES TO TRANSITION VARIABLE HEIGHT PAVEMENTS AT RESURFACING OR PHASE LIMITS TO MAINTAIN TRAFFIC:

ODOT MAINTAINED ROADWAYS
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 13 CY

CITY OF CLEVELAND MAINTAINED ROADWAYS
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 13 CY

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RESURFACING BUILD-UP - ODOT

ITEM 442 - 1-1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M
ITEM 407 - NON-TRACKING TACK COAT
ITEM 442 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)
ITEM 407 - NON-TRACKING TACK COAT
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442) (5")
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B

RESURFACING BUILD-UP - CITY

ITEM 441 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M
ITEM 407 - NON-TRACKING TACK COAT
ITEM 441 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
ITEM 407 - NON-TRACKING TACK COAT
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN (5")
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3")
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO RESURFACE AND REPAIR PAVEMENT THAT HAS BEEN USED FOR MAINTENANCE OF TRAFFIC:

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442)	300 CY
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN	400 CY
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3")	38,540 SY
ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	56,010 SY
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A	2,800 SY
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B	2,800 SY
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C	3,850 SY
ITEM 407 - NON-TRACKING TACK COAT	14,180 GAL
ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	1,340 CY
ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	1,870 CY
ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	2,330 CY
ITEM 442 - ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	2,720 CY

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER GSH
REVIEWER DJJ 05/22/24
PROJECT ID 82382
SHEET 87 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet 6 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 7:14:59 PM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382400-Engineering\MOT\Sheets\82382_MN0001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
427	470	471A	489A	1399										01/IMS /04	02/IMS /10	03/IMS /08							
																						ROADWAY	
LS														LS				201	11000	LS		CLEARING AND GRUBBING	
			133744											133744				202	23000	133744	SY	PAVEMENT REMOVED	
			101667											101667				202	30000	101667	SF	WALK REMOVED	
			509											509				202	30600	509	SY	CONCRETE MEDIAN REMOVED	
1510			4595											6105				202	30700	6105	FT	CONCRETE BARRIER REMOVED	
			714											714				202	30800	714	SY	TRAFFIC ISLAND REMOVED	
			23863											23863				202	32000	23863	FT	CURB REMOVED	
200	4	8	7268											4 7468	8			202	35100	4 7468	8 FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
			609											609				202	35200	609	FT	PIPE REMOVED, OVER 24" DIAMETER	
			6379											6379				202	38000	6379	FT	GUARDRAIL REMOVED	
			1											1				202	42000	1	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
			2											2				202	42010	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
			7											7				202	42040	7	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
			2											2				202	42050	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE B	
			6											6				202	47000	6	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
			1											1				202	47001	1	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	74
			2											2				202	47800	2	EACH	IMPACT ATTENUATOR REMOVED	
		8	16											8 16				202	58000	8 16	EACH	MANHOLE REMOVED	78
			63											63				202	58100	63	EACH	CATCH BASIN REMOVED	78
			21											21				202	58200	21	EACH	INLET REMOVED	78
			11											11				202	58400	11	EACH	INLET ABANDONED	78
			21											21				202	58500	21	EACH	CATCH BASIN ABANDONED	78
			9											9				202	58700	9	EACH	MANHOLE ABANDONED	78
			2317											2317				SPECIAL	202E70000	2317	FT	FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	78
			1186											1186				SPECIAL	202E70000	1186	FT	FILL AND PLUG EXISTING CONDUIT (15")	78
			510											510				SPECIAL	202E70000	510	FT	FILL AND PLUG EXISTING CONDUIT (18")	78
			51											51				SPECIAL	202E70000	51	FT	FILL AND PLUG EXISTING CONDUIT (21")	78
6			255											255				SPECIAL	202E70000	255	FT	FILL AND PLUG EXISTING CONDUIT (24")	78
			48											48				SPECIAL	202E70000	48	FT	FILL AND PLUG EXISTING CONDUIT (30")	78
			695											695				SPECIAL	202E70000	695	FT	FILL AND PLUG EXISTING CONDUIT (36")	78
			475											475				SPECIAL	202E70000	475	FT	FILL AND PLUG EXISTING CONDUIT (66")	78
			349											349				SPECIAL	202E70000	349	FT	FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	78
			10915											10915				202	75000	10915	FT	FENCE REMOVED	
1			13											13				202	75250	13	EACH	GATE REMOVED	
			2											2				202	98100	2	EACH	REMOVAL MISC.: BILLBOARD	74
1																							
			26											26				202	98100	26	EACH	REMOVAL MISC.: BOLLARD	74
10			2											2				202	98100	2	EACH	REMOVAL MISC.: CONCRETE STRUCTURES	74
			6											6				202	98100	6	EACH	REMOVAL MISC.: ELECTRIC VAULT	1779A
			1											1				202	98100	1	EACH	REMOVAL MISC.: PAY BOX	74
			1											1				202	98100	1	EACH	REMOVAL MISC.: UTILITY POLE	74
1000														1000				202	98200	1000	FT	REMOVAL MISC.: BURIED TRACK	74
			683											683				202	98200	683	FT	REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK	1779A
10			266											266				202	98200	266	FT	REMOVAL MISC.: DELINEATOR CURB	74
			264											264				202	98200	264	FT	REMOVAL MISC.: PORTABLE BARRIER	74
		345447												345447				203	10000	345447	CY	EXCAVATION	
	8	35973												8 35973				203	10001	8 35973	CY	EXCAVATION, AS PER PLAN	75
		85879												85879				203	20000	85879	CY	EMBANKMENT	
		27322												27322				203	20001	27322	CY	EMBANKMENT, AS PER PLAN	75
		99839												99839				203	98000	99839	CY	ROADWAY, MISC.: EPS GEOFOAM FILL	75
	110			84										194				203	98100	194	SY	ROADWAY, MISC.: REINFORCED TURF	75
	70757	4												4 70757				204	10000	4 70757	SY	SUBGRADE COMPACTION	74
3100		272												3372				204	13000	3372	CY	EXCAVATION OF SUBGRADE	
3100		272												3372				204	30010	3372	CY	GRANULAR MATERIAL, TYPE B	
	80													80				204	45000	80	HOUR	PROOF ROLLING	74
9300	556	4												4 9856				204	50000	4 9856	SY	GEOTEXTILE FABRIC	
	1855													1855				206	10500	1855	TON	CEMENT	
	75578													75578				206	11000	75578	SY	CURING COAT	
	75866													75866				206	15010	75866	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	74
														LS				206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	

GENERAL SUMMARY - 1

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 403 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-01 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:45 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
120	427	428	429	435	459	470	1806	1839						01/IMS /04	02/IMS /10	03/IMS /08							
																						ROADWAY (CONT.)	
				8772.2										8772.2				606	15050	8772.2	FT	GUARDRAIL, TYPE MGS	
				5										5				606	26050	5	EACH	ANCHOR ASSEMBLY, MGS TYPE B (MASH 2016)	76
				10										10				606	26150	10	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	76
				15										15				606	26550	15	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
				13										13				606	35002	13	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
				9										9				606	35102	9	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
				1										1				606	35103	1	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2, AS PER PLAN	76
				1										1				606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 69" WIDE)	76
				3										3				606	60022	3	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 90" WIDE)	76
				4477										4477				607	23000	4477	FT	FENCE, TYPE CLT	
				415										415				607	35000	415	FT	FENCE REMOVED AND REBUILT	
				2										2				607	61200	2	EACH	GATE, TYPE CLT	
	4500				4	82160		6097						4 92757				608	13001	4 92757	SF	6" CONCRETE WALK, AS PER PLAN	76
2994														2994				608	21200	2994	SF	TEMPORARY ASPHALT CONCRETE WALK	
	475					8627								9102				608	52001	9102	SF	CURB RAMP, AS PER PLAN	76
						935								935				608	52001	935	SF	CURB RAMP, AS PER PLAN 2	76
		500	4	1595										4 2095				622	10100	4 2095	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
				311										311				622	10120	311	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
				108										108				622	10121	108	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	76
			4	2752										4 2752				622	10140	4 2752	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
				31										31				622	10141	31	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN	39
		1010	4	1817										4 2827				622	10160	4 2827	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
				2										2				622	10200	2	EACH	BARRIER TRANSITION	
				1										1				622	24841	1	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	1434
				2										2				622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
				17										17				622	25006	17	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1	
			4	5										4 5				622	25008	4 5	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	
				1										1				622	25009	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN	1435
			4	34										4 34				622	25014	4 34	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	
				30										30				622	25050	30	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
				2										2				622	25051	2	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	1436
				1										1				622	25051	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN 2	76
		45												45				623	12010	6 45	EACH	PRIMARY PROJECT CONTROL MONUMENT, TYPE B	
		60												60				623	40900	6 60	EACH	MONUMENT, MISC.: CLEVELAND MONUMENT ASSEMBLY	76
			900000	6										6 900000				SPECIAL	690E98000	900000	EACH	PERMITS	77
			40											40				SPECIAL	690E98000	40	EACH	UTILITY TEST HOLE	77
						321								321				SPECIAL	690E98700	321	CY	LOW DENSITY CELLULAR CONCRETE FILL, CLASS II	76
																						EROSION CONTROL	
					14									14				601	21050	14	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
					234									234				601	21060	234	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
					642									642				601	32200	642	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
						4	4563							4 4563				601	32301	4 4563	CY	ROCK CHANNEL PROTECTION, TYPE D WITH FILTER, AS PER PLAN	1798
					104									104				601	37501	104	FT	PAVED GUTTER, TYPE 1-2, AS PER PLAN	1163
8		10												10				659	00100	10	EACH	SOIL ANALYSIS TEST	
							13216							13216				659	00300	13216	CY	TOPSOIL	
							2181							2181				659	00301	2181	CY	TOPSOIL, AS PER PLAN	1804
							37445							37445				659	00501	37445	SY	SEEDING AND MULCHING, CLASS 1, AS PER PLAN	1797
							62571							62571				659	00511	62571	SY	SEEDING AND MULCHING, CLASS 2, AS PER PLAN	1797
							38510							38510				659	00581	8 38510	SY	SEEDING AND MULCHING, CLASS 5B, AS PER PLAN	1797
		8 6926												8 6926				659	14000	8 6926	SY	REPAIR SEEDING AND MULCHING	
		6926												6926				659	15000	6926	SY	INTER-SEEDING	
		19.32												19.32				659	20000	19.32	TON	COMMERCIAL FERTILIZER	
		28.62												28.62				659	31000	28.62	ACRE	LIME	
		767												767				659	35000	767	MGAL	WATER	
		4 750	10											10 750				659	40000	10 750	MSF	MOWING	
					19901									19901				670	00500	19901	SY	SLOPE EROSION PROTECTION	
					1262									1262				670	00720	1262	SY	DITCH EROSION PROTECTION MAT, TYPE B	
														LS				832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	

GENERAL SUMMARY - 2

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 404 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-02 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:27:41 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOTDistrict12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER															PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
122	427	429	442	447	457	459									01/IMS /04	02/IMS /10	03/IMS /08							
																							EROSION CONTROL (CONT.)	
															LS				832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
															LS				832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
															2400000				832	30000	2400000	EACH	EROSION CONTROL	
						31									31				836	10000	31	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
																							ENVIRONMENTAL/REMEDIATION	
	4	755													755				SPECIAL	690E65000	755	TON	WORK INVOLVING NON-REGULATED MATERIALS	78
		7550													7550				SPECIAL	690E65016	7550	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	78
		105000													105000				SPECIAL	690E65022	105000	GAL	WORK INVOLVING NON-REGULATED WATER	78
		42000													42000				SPECIAL	690E65024	42000	GAL	WORK INVOLVING REGULATED WATER	78
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (CARNEGIE AVENUE, CUY-90-1692, SFN 1807897)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E. 22ND STREET, CUY-90-1676, SFN 1807838)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E5, CUY-90-1640, SFN 1807773)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E6, CUY-77-1593, SFN 1806939)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E7, CUY-77-1597L, SFN 1807919)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E8, CUY-90-1651L, SFN 1807900)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E9, CUY-90-1651R, SFN 1807803)	77
		LS													LS				SPECIAL	690E98400	LS		WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E10, CUY-E14TH-0002SN, SFN 1806912)	77
																							DRAINAGE	
			8.5												8.5				602	20000	8.5	CY	CONCRETE MASONRY	
					25609										25609				605	11110	25609	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	3700														3700				605	11111	3700	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	79
	5200														5200				605	12211	5200	FT	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	79
					2236										2236				605	13300	2236	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
4					40888										40888				605	14020	40888	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	400														400				611	01400	400	FT	6" CONDUIT, TYPE E	
					3620										3620				611	01500	3620	FT	6" CONDUIT, TYPE F	
3386	6														3386	6			611	04400	6 3386	FT	12" CONDUIT, TYPE B	
	2400	4		3431										4	5831				611	3 04401	5831	4 FT	3 12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
				240	4									4	240				611	3 04401	240	4 FT	3 12" CONDUIT, TYPE B, AS PER PLAN 2, 748.01	1163
			5												5				611	04600	5	FT	12" CONDUIT, TYPE C	
				184	4									4	184				611	3 04601	184	4 FT	3 12" CONDUIT, TYPE C, AS PER PLAN 2, 706.08 & 706.12	1163
6			46												46				611	04900	46	FT	12" CONDUIT, TYPE D	
130		6	2847											6	2977				611	05900	6 2977	FT	15" CONDUIT, TYPE B	
	1																							
			193												193				611	05900	193	FT	15" CONDUIT, TYPE B, 706.02, CLASS V	
1			774	6											774				611	05901	6 774	FT	15" CONDUIT, TYPE B, AS PER PLAN	1163
	200		1158	8										6	1358	8			611	3 05901	1358	8 FT	3 15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
			30												30				611	05901	30	FT	15" CONDUIT, TYPE B, AS PER PLAN 2, 748.01	1163
4		6	2509											6	2509				611	06100	6 2509	FT	15" CONDUIT, TYPE C	
			51												51				611	06101	4 51	FT	15" CONDUIT, TYPE C, AS PER PLAN	1163
			4	190	6									4	190	6			611	3 06101	190	6 FT	3 15" CONDUIT, TYPE C, AS PER PLAN 2, 706.08 & 706.12	1163
6			134												134				611	06700	134	FT	15" CONDUIT, TYPE F, 707.05 TYPE C, 707.21, OR 707.33	
54			742											6	796				611	07400	6 796	FT	18" CONDUIT, TYPE B	
			19												19				611	07400	19	FT	18" CONDUIT, TYPE B, 707.35	
8																								
				5											5				611	07401	5	FT	18" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
			228												228				611	07600	228	FT	18" CONDUIT, TYPE C	
			138												138				611	08200	138	FT	18" CONDUIT, TYPE F, 707.05 TYPE C, 707.21, OR 707.33	
6		6	479	5											484				611	08900	6 484	FT	21" CONDUIT, TYPE B	
54			466											6	520				611	10400	520	FT	24" CONDUIT, TYPE B	
	1																							
			225												225				611	10400	225	FT	24" CONDUIT, TYPE B, 706.02, CLASS V	
				5											5				611	3 10401	5	FT	3 24" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	1163
			257												257				611	10600	257	FT	24" CONDUIT, TYPE C	
			65												65				611	11900	65	FT	27" CONDUIT, TYPE B	
			147												147				611	13400	147	FT	30" CONDUIT, TYPE B	
			197												197				611	13600	197	FT	30" CONDUIT, TYPE C	
				626	2									2	626				611	3 25201	626	2 FT	3 66" CONDUIT, TYPE B, AS PER PLAN 2, 706.02 & 706.11	1163
			472												472				611	52902	472	FT	34" X 53" CONDUIT, TYPE B, 706.04	
2			90												90				611	96600	90	FT	CONDUIT, BORED OR JACKED, 15" TYPE B	78
				90											90				611	96600	90	FT	CONDUIT, BORED OR JACKED, 66" TYPE B 6	78

CUY-90-16.28 (CCG3A)
MODEL: Sheet-03 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:49 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GG001.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 405 TOTAL 2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
122	427	435	442	443	447	457	470	1399						01/IMS /04	02/IMS /10	03/IMS /08							
																						DRAINAGE (CONT.)	
					246									246				611	96600	246	FT	CONDUIT, BORED OR JACKED, 66" TYPE C (6)	78
			7											7				611	98150	7	EACH	CATCH BASIN, NO. 3	
					33									33				611	98151	33	EACH	CATCH BASIN, NO. 3, AS PER PLAN	1169
			10											10				611	98180	10	EACH	CATCH BASIN, NO. 3A	
	4				37									41				611	98181	41	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	1168
1			5											6				611	98370	6	EACH	CATCH BASIN, NO. 6	
			3											3				611	98371	3	EACH	CATCH BASIN, NO. 6, AS PER PLAN	1166
			2		1									3				611	98371	3	EACH	CATCH BASIN, NO. 6, AS PER PLAN 2	1163
			1											1				611	98371	1	EACH	CATCH BASIN, NO. 6, AS PER PLAN 3	1172
			8											8				611	98410	8	EACH	CATCH BASIN, NO. 8	
				2	1									3				611	98411	3	EACH	CATCH BASIN, NO. 8, AS PER PLAN 2	1163
				1										1				611	98450	1	EACH	CATCH BASIN, NO. 2-2A	
(6)					1								(6)	1				611	98451	1	EACH	CATCH BASIN, NO. 2-2A, AS PER PLAN 2	1163
13				7									6	20				611	98470 (6)	20	EACH	CATCH BASIN, NO. 2-2B	
	4			(6)	6									10				611	98471	10	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN	1171
				1	4									5				611	98471	5	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN 2	1163
				6										6				611	98504	6	EACH	CATCH BASIN, NO. 2-2C	
				2										2				611	98511	2	EACH	CATCH BASIN, NO. 2-3, AS PER PLAN 2	1163
					2									2				611	98630	2	EACH	CATCH BASIN ADJUSTED TO GRADE	
					1									1				611	98634	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
				8										8				611	99100	8	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B1	
				1										1				611	99104	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C	
				4										4				611	99110	4	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
				5										5				611	99111	5	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN	1173
				9										9				611	99114	9	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
				3										3				611	99115	3	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN	1164
				1										1				611	99115	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN 2	1163
15				22										37				611	99574	37	EACH	MANHOLE, NO. 3	
	4			(4)	27	(8)							(4)	31	(8)			611	99575 (4)	31	(8) EACH	MANHOLE, NO. 3, AS PER PLAN	1170
				5	5									10				611	99575	10	EACH	MANHOLE, NO. 3, AS PER PLAN 2	1163
				5										5				611	99575	5	EACH	MANHOLE, NO. 3, AS PER PLAN 3	1163
				1										1				611	99586	1	EACH	MANHOLE, NO. 3 WITH 108" BASE I.D. AND 12" WEIR	
(6)	(10)	29		3	16								(10)	48				611	99654 (10)	48	EACH	MANHOLE ADJUSTED TO GRADE	
									2					2				611	99655	2	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN, WATER MANHOLE	1384
				1	1	(2)							(2)	2				611	99660 (2)	2	EACH	MANHOLE RECONSTRUCTED TO GRADE	
					2									2				611	99661	2	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	1163
(6)				2	1									3				611	99661	3	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 2	1163
						7								7				611	99710	7	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	10000													10000				SPECIAL	611E99820	10000	LB	MISCELLANEOUS METAL	80
				3										3				611	99900	3	EACH	DRAINAGE STRUCTURE, MISC.: FLOW RESTRICTOR OUTLET	1161
488				501										989				839	29000	989	FT	TRENCH DRAIN, TYPE A WITH STANDARD GRATE	
				1										1				895	10040	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4	79
					459									459				899	10001	459	FT	CURED-IN-PLACE PIPE LINER, AS PER PLAN, NO. 6 EGG-SHAPED	1365
					656									656				899	10001	656	FT	CURED-IN-PLACE PIPE LINER, AS PER PLAN, NO. 7 EGG-SHAPED	1365
					413									413				899	10001	413	FT	CURED-IN-PLACE PIPE LINER, AS PER PLAN, NO. 10 EGG-SHAPED	1365
					270									270				899	10001	270	FT	CURED-IN-PLACE PIPE LINER, AS PER PLAN, NO. 11 EGG-SHAPED	1365
					595									595				899	10001	595	FT	CURED-IN-PLACE PIPE LINER, AS PER PLAN, NO. 12 EGG-SHAPED	1365
																						PAVEMENT	
	480													480				251	01030	480	CY	PARTIAL DEPTH PAVEMENT REPAIR (442)	80
	400													400				251	01031	400	CY	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN	80
							1000							1000				252	01500	1000	FT	FULL DEPTH PAVEMENT SAWING	
	64786													64786				254	01000	64786	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")	
	38540													38540				254	01000	38540	SY	PAVEMENT PLANING, ASPHALT CONCRETE (3")	
	56010						15080							71090				254	01000	71090	SY	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	
	2800													2800				255	11001	2800	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A	80
	2800													2800				255	11001	2800	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B	80
	3850													3850				255	11001	3850	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C	80
							54							54				301	56000	54	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	

GENERAL SUMMARY - 4

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 406 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-04 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:52 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
427	428	429	443	470	1399	1839								01/IMS /04	02/IMS /10	03/IMS /08							
																						PAVEMENT (CONT.)	
			4	20962	6									4 20962	6			302	56000	4 20962	6 CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
				24305										24305				304	20000	24305	CY	AGGREGATE BASE	
				36513										36513				305	13011	36513	SY	9" CONCRETE BASE, CLASS QC 1P, AS PER PLAN	80
14303				21895	6									36198	6			407	20000	36198	6 GAL	NON-TRACKING TACK COAT	
1340				1262										2602				441	50101	2602	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	80
1870				1773										3643				441	50300	3643	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
			4	12										4 12				441	4 70000	12	CY 4	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
				76										76				441	70201	76	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), AS PER PLAN, PG64-22	80
				40										40				441	70500	40	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
				55										55				441	70700	55	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
				7043										7043				442	00100	7043	CY	ANTI-SEGREGATION EQUIPMENT	
2330				3971										6301				442	10001	6301	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	80
2720				4756										7476				442	10100	7476	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
64														64				442	22101	64	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG70-22M	85
			4	715										4 715				451	16011	4 715	SY	12" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	80
					6	1015								6 1015				451	20000	6 1015	SY	REINFORCED CONCRETE PAVEMENT, MISC.: INTEGRALLY COLORED CONCRETE CROSSWALK	1825
				61.00										61.00				SPECIAL	451E31000	61.00	FT	PRESSURE RELIEF JOINT, TYPE B	80
				337										337				452	09010	337	SY	4" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
				1231										1231				452	12010	1231	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
			4	15565										4 15565				452	14010	4 15565	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
775														775				452	14011	775	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	80
				51										51				609	12000	51	FT	COMBINATION CURB AND GUTTER, TYPE 2	
			4	2172										4 2172				609	14000	4 2172	FT	CURB, TYPE 2-A	
				67										67				609	24000	67	FT	CURB, TYPE 4-A	
				1766										1766				609	24510	1766	FT	CURB, TYPE 4-C	
750			4	14577										4 15327				609	26000	4 15327	FT	CURB, TYPE 6	
				46										46				609	33200	46	FT	CURB, TYPE 10-B	
				366										366				609	72000	366	SY	CONCRETE MEDIAN	
8	1.28													1.28				618	40600	1.28	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	76
		280												280				SPECIAL	690E98700	280	CY	SURCHARGE FOR CLASS MS CONCRETE	87
																						WATER WORK	
				8 4220										8 4220				202	98200	4220	8 FT	REMOVAL MISC.: WATER MAIN REMOVED 24" AND UNDER	1376
				476										476				202	98200	476	FT	REMOVAL MISC.: WATER MAIN REMOVED OVER 24"	1376
			71											71				638	06713	71	FT	30" STEEL PIPE ENCASEMENT, OPEN CUT, AS PER PLAN	1163
				15										15				638	10701	15	EACH	FIRE HYDRANT REMOVED AND DISPOSED OF, AS PER PLAN	1376
				49										49				638	10801	49	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	1384
				1										1				638	11201	1	EACH	METER, SETTING, STOP AND CHAMBER, AS PER PLAN (CLEVELAND WATER)	1428
				8 951										8 951				SPECIAL	638E20172	951	8 FT	12" WATER MAIN DIP CLASS 52 BOLTLESS RESTRAINED JOINTS AND FITTINGS (CLEVELAND WATER)	1376
				670										670				SPECIAL	638E20174	670	FT	12" WATER MAIN DIP CLASS 52 PUSH ON JOINTS AND FITTINGS (CLEVELAND WATER)	1376
				289										289				SPECIAL	638E20292	289	FT	24" WATER MAIN DIP CLASS 52 BOLTLESS RESTRAINED JOINTS AND FITTINGS (CLEVELAND WATER)	1378
				252										252				SPECIAL	638E20294	252	FT	24" WATER MAIN DIP CLASS 52 PUSH ON JOINTS AND FITTINGS (CLEVELAND WATER)	1378
				291										291				SPECIAL	638E20336	291	FT	30" WATER MAIN DIP CLASS 52 BOLTLESS RESTRAINED JOINTS AND FITTINGS (CLEVELAND WATER)	1378
				1225										1225				SPECIAL	638E20338	1225	FT	30" WATER MAIN DIP CLASS 52 PUSH ON JOINTS AND FITTINGS (CLEVELAND WATER)	1378
				40										40				SPECIAL	638E20480	40	FT	48" STEEL PIPE ENCASEMENT, BORED OR JACKED (CLEVELAND WATER)	1385
				2										2				SPECIAL	638E20580	2	EACH	10" CUTTING IN SLEEVE (CLEVELAND WATER)	1383
				5										5				SPECIAL	638E20586	5	EACH	12" GATE VALVE WITH VALVE BOX (CLEVELAND WATER)	1381
				4										4				SPECIAL	638E20596	4	EACH	12" CUTTING IN SLEEVE (CLEVELAND WATER)	1383
				8 4										8 4				SPECIAL	638E20598	4	8 EACH	12" CUTTING IN SLEEVE, VALVE WITH VALVE BOX (CLEVELAND WATER)	1383
				3										3				SPECIAL	638E20746	3	EACH	2" AIR RELEASE VALVE WITH VALVE BOX (CLEVELAND WATER)	1383
				14										14				SPECIAL	638E20750	14	EACH	6" FIRE HYDRANT, COMPLETE (CLEVELAND WATER)	1383
				1										1				SPECIAL	638E20762	1	EACH	FIRE HYDRANT SERVICE LINE EXTENDED AND ADJUSTED TO GRADE (CLEVELAND WATER)	1419
				177										177				SPECIAL	638E20770	177	FT	1" COPPER WATER SERVICE LINE (CLEVELAND WATER)	1384
				587										587				SPECIAL	638E20794	587	FT	REMOVE WATER SERVICE CONNECTION (CLEVELAND WATER)	1376
				10										10				SPECIAL	638E20842	10	FT	EXTEND 1-1/2" COPPER WATER SERVICE CONNECTION (CLEVELAND WATER)	1418
				31										31				SPECIAL	638E20844	31	FT	INSTALL 1-1/2" COPPER WATER SERVICE CONNECTION (CLEVELAND WATER)	1384
				4										4				SPECIAL	638E20894	4	EACH	1" CORPORATION STOP (CLEVELAND WATER)	1384
				2										2				SPECIAL	638E20896	2	EACH	1-1/2" CORPORATION STOP (CLEVELAND WATER)	1384
				1										1				SPECIAL	638E21002	1	EACH	INSTALL 1" METER SETTING, COMPLETE (CLEVELAND WATER)	1384
				3										3				638	98000	3	EACH	WATER WORK, MISC.: 12" EXPANSION VALVE (BRIDGE)	1378

GENERAL SUMMARY - 5

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 407 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-05 PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 11:32:54 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
428	1399	1400	1688	1689										01/IMS /04	02/IMS /10	03/IMS /08							
																						WATER WORK (CONT.)	
	2													2				638	98000	2	EACH	WATER WORK, MISC.: 24" EXPANSION VALVE (BRIDGE)	1380
	3													3				638	98000	3	EACH	WATER WORK, MISC.: 24" VALVE ASSEMBLY COMPLETE (CLEVELAND WATER)	1381
	1													1				638	98000	1	EACH	WATER WORK, MISC.: 30" CUTTING IN SLEEVE (CLEVELAND WATER)	1380
2	2													2				638	98000	2	EACH	WATER WORK, MISC.: 30" VALVE ASSEMBLY COMPLETE (CLEVELAND WATER)	1381
	2													2				638	98000	2	EACH	WATER WORK, MISC.: 36" CUTTING IN SLEEVE (CLEVELAND WATER)	1380
300000														300000				638	98000	300000	EACH	WATER WORK, MISC.: CLEVELAND WATER DEPARTMENT CHARGES	1374
	3													3				638	98000	3	EACH	WATER WORK, MISC.: CONCRETE PIER	1426
	2													2				638	98000	2	EACH	WATER WORK, MISC.: SLEEVE FOR ABUTMENT WALL - 12" DIP LINE (CLEVELAND WATER)	1429
	2													2				638	98000	2	EACH	WATER WORK, MISC.: SLEEVE FOR ABUTMENT WALL - 24" STEEL LINE (CLEVELAND WATER)	1429
	2													2				638	98000	2	EACH	WATER WORK, MISC.: STEEL TO DIP TRANSITION (CLEVELAND WATER)	1429
		507												507				638	98600	507	FT	WATER WORK, MISC.: 12" INSULATION FOR BRIDGE (CLEVELAND WATER)	1381
		354												354				638	98600	354	FT	WATER WORK, MISC.: 24" INSULATION FOR BRIDGE (CLEVELAND WATER)	1381
		354												354				638	98600	354	FT	WATER WORK, MISC.: 24" POLYURETHANE COATED CEMENT LINED STEEL	1380
																						LIGHTING	
			2											2				202	75704	2	EACH	REMOVAL OF EXISTING CONTROL CENTER AND FOUNDATION	
			2											2				202	75800	2	EACH	DISCONNECT EXISTING CIRCUIT	
			12	154										166				625	00450	166	EACH	CONNECTION, FUSED PULL APART	
				77										77				625	00460	77	EACH	CONNECTION, UNFUSED PULL APART	
			15											15				625	00470	15	EACH	CONNECTION, UNFUSED BOLTED	
			123	84										207				625	00480	207	EACH	CONNECTION, UNFUSED PERMANENT	
			4											4				625	10494	4	EACH	LIGHT POLE, LOW MAST, ALM50	
			2											2				625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50	
			8	42										42				625	10500	42	EACH	LIGHT POLE, MISC.: 15' ROUND TAPERED FIBERGLASS STREETLIGHT	1686
				35										35				625	10500	35	EACH	LIGHT POLE, MISC.: 30' ROUND TAPERED FIBERGLASS STREETLIGHT	1686
				32										32				625	10614	32	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: BB80 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			2											2				625	13500	2	EACH	LIGHT TOWER, MISC.: BB100 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: BB110 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
		2	3											3				625	13500	3	EACH	LIGHT TOWER, MISC.: BBB80 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			8											8				625	13500	8	EACH	LIGHT TOWER, MISC.: BBB100 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
2			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: BBB120 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: BBBB60 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: BBBB90 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			2											2				625	13500	2	EACH	LIGHT TOWER, MISC.: BBBB100 MODIFIED FOR FAA TYPE L-810 OBSTRUCTION LIGHTING	1685
			1											1				625	13500	1	EACH	LIGHT TOWER, MISC.: TOWER LIGHTING RING WITH 4 LUMINAIRE MOUNTS	1685
				58										58				625	14000	58	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
			2											2				625	14200	2	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
			4											4				625	14307	4	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN	1685
			2											2				625	15000	2	EACH	LIGHT TOWER FOUNDATION, 36" X 15' DEEP	
			10											10				625	15100	10	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP	
			4											4				625	15200	4	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	
			1											1				625	15400	1	EACH	LIGHT TOWER FOUNDATION, 42" X 25' DEEP	
			1											1				625	15700	1	EACH	LIGHT TOWER FOUNDATION, MISC.: 42" X 20' DEEP	1685
			2											2				625	15700	2	EACH	LIGHT TOWER FOUNDATION, MISC.: 48" X 25' DEEP	1685
		4	41650	16375										58025				625	23200	58025	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
				49428	10									49428				625	23304	49428	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE	
				159										159				625	23308	159	FT	DISTRIBUTION CABLE, MISC.: NO. 4 / 0 AWG 2400 VOLT DISTRIBUTION CABLE	1686
			900											900				625	23400	900	FT	NO. 10 AWG POLE AND BRACKET CABLE	
				4950										4950				625	23410	4950	FT	NO. 12 AWG POLE AND BRACKET CABLE	
		4	13002											13002				625	24320	13002	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
				1846	10									1846				625	25012	1846	FT	CONDUIT, 3/4", 725.051	
			1304	1123										2427				625	25300	2427	FT	CONDUIT, 1-1/2", 725.04	
			116											116				625	25404	116	FT	CONDUIT, 2-1/2", 725.04	
				8541										8541				625	25408	8541	FT	CONDUIT, 2", 725.051	
			712											712				625	25504	712	FT	CONDUIT, 3", 725.051	
				43										43				625	25802	43	FT	CONDUIT, CONCRETE ENCASED, 2", 725.051	
				132										132				625	25803	132	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (2-2" CONDUIT, 725.051)	1686
				1974										1974				625	25803	1974	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (4-2" CONDUIT, 725.051)	1686
		4	7218											7218				625	25902	7218	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	

GENERAL SUMMARY - 6

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 408 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-06 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:56 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
1688	1689	1782												01/IMS /04	02/IMS /10	03/IMS /08							
																						LIGHTING (CONT.)	
	60	8												60	8			625	26253	60	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (CPP LED COBRA HEAD)	1686
64	2												2	64				625	26263	64	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN (480V)	1685
6														6				625	26273	6	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN (480V)	1685
23														23				625	27503	23	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (480V)	1685
1														1				625	27503	1	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (480V, CROSS FRAME MOUNTED)	1685
	17													17				625	27503	17	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (CPP LED WALLPACK)	1686
	51													51				625	27551	51	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (15' POLES)	1686
4	33													33				625	27551	33	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (30' POLES)	1686
20														20				625	27600	20	EACH	LUMINAIRE, MISC.: FAA TYPE L-810 OBSTRUCTION LIGHTING, LED (120V)	1685
5990	4760	10											10	10750				625	29000	10750	FT	TRENCH	
	8													8				625	29900	8	EACH	JUNCTION BOX	
4														4				625	29930	4	EACH	MEDIAN JUNCTION BOX	
26														26				625	30700	26	EACH	PULL BOX, 725.08, 18"	
8	4													12				625	30706	12	EACH	PULL BOX, 725.08, 24"	
4														4				625	30731	4	EACH	PULL BOX, 725.08, 48", TYPE 1, AS PER PLAN	1685
	10													10				625	31510	10	EACH	PULL BOX REMOVED	
17														17				625	31511	17	EACH	PULL BOX REMOVED, AS PER PLAN	1685
	13													13				625	31600	13	EACH	PULL BOX, MISC.: 6" X 6" PULL BOX	1687
	87													87				625	31600	87	EACH	PULL BOX, MISC.: 13" X 24" PULL BOX	1687
1														1				625	31600	1	EACH	PULL BOX, MISC.: 18" PULL BOX ADJUSTED TO GRADE	1685
46	110	8											8	156				625	32000	156	EACH	GROUND ROD	
6														6				625	33000	6	EACH	STRUCTURE GROUNDING SYSTEM	
2	3													5				625	34001	5	EACH	POWER SERVICE, AS PER PLAN	1684
2														2				625	34450	2	EACH	CONTROL CENTER CABINET, COMPLETE	
	1													1				625	34451	1	EACH	CONTROL CENTER CABINET, COMPLETE, AS PER PLAN	1687
5990	4760													10750				625	36010	10750	FT	UNDERGROUND WARNING/MARKING TAPE	
11	7													18				625	37101	18	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN	1684
LS														LS				SPECIAL	625E40000	LS		MAINTAIN EXISTING LIGHTING	1684
20														20				SPECIAL	625E40010	20	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	1684
21														21				625	75350	21	EACH	LIGHT TOWER REMOVED	
	96													96				625	75400	96	EACH	LIGHT POLE REMOVED	
	20													20				625	75500	20	EACH	LIGHT POLE FOUNDATION REMOVED	
	10													10				625	75506	10	EACH	LUMINAIRE REMOVED	
2														2				625	75510	2	EACH	POWER SERVICE REMOVED	
21														21				625	75540	21	EACH	LIGHT TOWER FOUNDATION REMOVED	
	10													10				625	75801	10	EACH	DISCONNECT CIRCUIT, AS PER PLAN	1687
1														1				625	98000	1	EACH	LIGHTING, MISC.: RELOCATE EX. CONTROL CENTER	1685
10	19												4	29				625	98000	29	EACH	LIGHTING, MISC.: TEST NEW CIRCUIT	1684
8	1503													1503				632	69300	1503	FT	POWER CABLE, 3 CONDUCTOR, NO. 4 AWG	
	45													45				632	89300	45	EACH	WOOD POLE (30' CLASS III)	
	5													5				632	89300	5	EACH	WOOD POLE (50' CLASS III)	
																						ELECTRICAL	
	9	60499											9	60499				625	23308	60499	FT	DISTRIBUTION CABLE, MISC.: 500KCMIL 15KV CU WITH CONCENTRIC NEUTRAL	1778
9		5311												5311				625	23308	5311	FT	DISTRIBUTION CABLE, MISC.: 556KCMIL 15KV SPACER CABLE WITH 0052 AWA MESSENGER	1778
		3630												3630				625	23308	3630	FT	DISTRIBUTION CABLE, MISC.: 750KCMIL 15KV CU WITH CONCENTRIC NEUTRAL	1778
		7030												7030				625	25721	7030	FT	CONDUIT, AS PER PLAN, 5", FRE	1777
		272												272				625	25803	272	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (2-5" CONDUIT, EB-20 PVC)	1777
9																							
		390												390				625	25803	390	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (3-5" CONDUIT, EB-20 PVC)	1777
		368												368				625	25803	368	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (5-5" CONDUIT, EB-20 PVC)	1777
		391												391				625	25803	391	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (7-5" CONDUIT, EB-20 PVC)	1777
9	9	1830												1830				625	25803	1830	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (9-5" CONDUIT, EB-20 PVC)	1777
		1150												1150				625	25803	1150	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (12-5" CONDUIT, EB-20 PVC)	1777
	9	8325											9	8325				625	25911	8325	FT	CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN	1787
		28												28				625	32001	28	EACH	GROUND ROD, AS PER PLAN	1779
		180												180				625	98000	180	EACH	LIGHTING, MISC.: 15KV IN-LINE SPLICE	1777
		12												12				625	98000	12	EACH	LIGHTING, MISC.: 24" SPACER CABLE TANGENT BRACKET	1779
		4												4				625	98000	4	EACH	LIGHTING, MISC.: JOINT-USE CONDUIT RISER	1779
		18												18				625	98000	18	EACH	LIGHTING, MISC.: JOINT-USE MESSENGER ASSEMBLY	1779

GENERAL SUMMARY - 7

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 409 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-07 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:58 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
125	429	1455	1485	1678	1782									01/IMS /04	02/IMS /10	03/IMS /08							
																						ELECTRICAL (CONT.)	
				9	37									9 37				625	98000	9 37	EACH	LIGHTING, MISC.: PRIMARY CONDUIT RISER	1779
					24									24				625	98000	24	EACH	LIGHTING, MISC.: SPACER CABLE DEADEND ASSEMBLY	1779
6					26									26				625	98000	26	EACH	LIGHTING, MISC.: SPACER CABLE TO SPACER CABLE DOUBLE DEADEND ASSEMBLY	1779
					2									2				632	89300	2	EACH	WOOD POLE (50' CLASS II)	
				6	15									6 15				632	89300	6 15	EACH	WOOD POLE (50' CLASS III)	
					6									6				632	89300	6	EACH	WOOD POLE (55' CLASS II)	
					1									1				632	89300	1	EACH	WOOD POLE (55' CLASS III)	
					2									2				632	89300	2	EACH	WOOD POLE (70' CLASS H3)	
					2									2				632	89300	2	EACH	WOOD POLE (80' CLASS H6)	
9				6	72	9								6 72	9			632	89401	6 72	9 EACH	DOWN GUY, AS PER PLAN	1779
	1													1				SPECIAL	690E98000	1	EACH	PRECAST ELECTRIC MANHOLE (6' X 8' X 7' HR)	1779A
					5									5				SPECIAL	690E98000	5	EACH	PRECAST ELECTRIC MANHOLE (8' X 12' X 10' HR)	1779A
					8									8				SPECIAL	690E98000	8	EACH	PRECAST ELECTRIC MANHOLE (8' X 12' X 12' HR)	1779A
																						TRAFFIC SURVEILLANCE	
				61										61				625	25408	61	FT	CONDUIT, 2", 725.051	
				8108										8108				625	25410	8108	FT	CONDUIT, 2", 725.052	
				32										32				625	25504	32	FT	CONDUIT, 3", 725.051	
				984										984				625	25908	984	FT	CONDUIT, JACKED OR DRILLED, 725.052, 2"	
				989										989				625	29000	989	FT	TRENCH	
				1										1				625	30700	1	EACH	PULL BOX, 725.08, 18"	
				3										3				625	32000	3	EACH	GROUND ROD	
				989										989				625	36010	989	FT	UNDERGROUND WARNING/MARKING TAPE	
				70										70				632	68300	70	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
				500										500				632	69300	500	FT	POWER CABLE, 3 CONDUCTOR, NO. 4 AWG	
				1										1				632	70001	1	EACH	POWER SERVICE, AS PER PLAN 3	1676
				2										2				633	67100	2	EACH	CABINET FOUNDATION	
				1										1				633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	1676
				8										8				809	00530	8	EACH	ITS JUNCTION BOX, 17x24x6 INCHES	
				9										9				809	02000	9	EACH	32" ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, TYPE 2	
				12128										12128				809	23100	12128	FT	MICRO-DUCT INNERDUCT, 14 / 10	
				1										1				809	60000	1	EACH	CCTV IP-CAMERA SYSTEM, PTZ	
				2										2				809	60070	2	EACH	CCTV IP-CAMERA SYSTEM, WRONG WAY DETECTION	
				1										1				809	61090	1	EACH	CCTV LOWERING UNIT	
				350										350				809	64550	350	FT	ETHERNET CABLE, OUTDOOR-RATED	
1				2										2				809	65000	2	EACH	ITS CABINET - GROUND MOUNTED	
				1										1				809	65990	1	EACH	ITS DEVICE, MISC.: REMOVAL OF EXISTING CCTV AND LOWERING UNIT	1676
				1										1				809	65990	1	EACH	ITS DEVICE, MISC.: REMOVAL OF EXISTING CCTV POLE	1676
				4										4				809	65990	4	EACH	ITS DEVICE, MISC.: REMOVAL OF EXISTING POLE-MOUNTED ITS CABINET	1676
				LS										LS				809	70000	LS		MAINTAINING ITS DURING CONSTRUCTION	
																						TRAFFIC SURVEILLANCE ALTERNATES	
				1										1			X	809	61040	1	EACH	CCTV POLE, 70' TALL, CONCRETE (ALTERNATE 1)	
				1										1			X	809	61040	1	EACH	CCTV POLE, 70' TALL, STEEL (ALTERNATE 2)	
																						TRAFFIC CONTROL	
		44												44				620	00500	44	EACH	DELINEATOR, POST GROUND MOUNTED	
		946												946				621	00100	946	EACH	RPM	
			32											32				625	32000	32	EACH	GROUND ROD	
		38												38				626	00102	38	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	
		166												166				626	00102	166	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	
		14												14				626	00110	14	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
		103												103				626	00110	103	EACH	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	
			2037.3											2037.3				630	02100	2037.3	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
			2479.6											2479.6				630	03100	2479.6	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			491.0											491.0				630	04101	491.0	FT	GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	1449
		8	350.4											8 350.4				630	06400	8 350.4	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	
			34.0											34.0				630	06500	34.0	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
			40.0											40.0				630	07000	40.0	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	
48.6			54.8											103.4				630	07500	103.4	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
			176.2											176.2				630	07600	176.2	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	

GENERAL SUMMARY - 8

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 410 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-08 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:00 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
120	125	1455	1468	1485	1493									01/IMS /04	02/IMS /10	03/IMS /08							
																						TRAFFIC CONTROL (CONT.)	
				1.0										1.0				630	08002	1.0	FT	ONE WAY SUPPORT, NO. 2 POST	
	12.5													12.5				630	08004	12.5	FT	ONE WAY SUPPORT, NO. 3 POST	
				36.1										36.1				630	08100	36.1	FT	ONE WAY SUPPORT, NO. 4 POST	
				148										148				630	08600	148	EACH	SIGN POST REFLECTOR	
			8	28										8 28				630	09000	8 28	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
			10	3										10 3				630	72340	10 3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	
				9										9				630	72410	9	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
				4										4				630	72420	4	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	
				1										1				630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	
				1										1				630	72550	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	
	26			61										87				630	75000	87	EACH	SIGN ATTACHMENT ASSEMBLY	
				2										2				630	79100	2	EACH	SIGN HANGER ASSEMBLY, MAST ARM	
				112										112				630	79500	112	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
8				18										18				630	79604	18	EACH	SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	
				1										1				630	79610	1	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
	146.0			4044.7										4190.7				630	80100	4190.7	SF	SIGN, FLAT SHEET	
				899.5										899.5				630	80200	899.5	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
	1026.0			7235.5										8261.5				630	80224	8261.5	SF	SIGN, OVERHEAD EXTRUSHEET	
	781.3													781.3				630	80300	781.3	SF	SIGN, TEMPORARY OVERLAY	
				6										6				630	80501	6	EACH	SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	1449
				5										5				630	84010	5	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	
	2		8	28										8 30				630	84500	8 30	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	
				27										27				630	84510	27	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
	1				229									230				630	84900	230	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
					5									5				630	85000	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
					2									2				630	85100	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					14									14				630	85400	14	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND DISPOSAL	
					198									198				630	86002	198	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					2									2				630	86010	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
	2				28									30				630	86102	30	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL	
					1									1				630	86270	1	EACH	REMOVAL OF GROUND MOUNTED PIPE SUPPORT AND STORAGE	
	5													5				630	87000	5	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE	
	5													5				630	87100	5	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION	
	20				69									89				630	87400	89	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
					248									248				630	87500	248	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
					1									1				630	87510	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND STORAGE	
					3									3				630	87520	3	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	
					18									18				630	89702	18	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
					1									1				630	89804	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-15.115	
	33													33				630	89894	33	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND DISPOSAL	
	4													4				630	89898	4	EACH	REMOVAL OF TEMPORARY OVERLAY SIGN AND STORAGE	
95970														95970				642	30000	95970	FT	REMOVAL OF PAVEMENT MARKING	
70														70				642	30020	70	EACH	REMOVAL OF PAVEMENT MARKING	
				1.33										1.33				644	00100	1.33	MILE	EDGE LINE, 4"	
1.96		7.62												9.58				644	00104	9.58	MILE	EDGE LINE, 6"	
0.46				2.04										2.50				644	00200	2.50	MILE	LANE LINE, 4"	
2.20		3.69												5.89				644	00204	5.89	MILE	LANE LINE, 6"	
0.04		0.17		1.56										1.77				644	00300	1.77	MILE	CENTER LINE	
517				5365										5882				644	00400	5882	FT	CHANNELIZING LINE, 8"	
1153		9020												10173				644	00404	10173	FT	CHANNELIZING LINE, 12"	
				1161										1161				644	00500	1161	FT	STOP LINE	
		53		3092	6									6 3145				644	00620	6 3145	FT	CROSSWALK LINE, 12"	
				1219										1219				644	00621	1219	FT	CROSSWALK LINE, 12", AS PER PLAN	1449
		2687		1466										4153				644	00700	4153	FT	TRANSVERSE/DIAGONAL LINE	
74		1026		473										1573				644	00720	1573	FT	CHEVRON MARKING	
				581										581				644	00900	581	SF	ISLAND MARKING	
6				2960										2960				644	01200	2960	FT	PARKING LOT STALL MARKING	
18		10		136										6 164				644	01300	6 164	EACH	LANE ARROW	
				2										2				644	01350	2	EACH	LANE REDUCTION ARROW	

GENERAL SUMMARY - 9

CUY-90-16.28 (CCG3A)

MODEL: Sheet-09 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:02 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\Roadway\Sheets\82382_GG001.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 411 TOTAL 2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
120	1455	1468	1642											01/IMS /04	02/IMS /10	03/IMS /08							
																						TRAFFIC CONTROL (CONT.)	
	11													11				644	01360	11	EACH	WRONG WAY ARROW	
		2												2				644	01370	2	EACH	TWO WAY LEFT TURN ARROW	
257		3053												3310				644	01500	3310	FT	DOTTED LINE, 4"	
2449	2420													4869				644	01510	4869	FT	DOTTED LINE, 6"	
		1448												1448				644	01514	1448	FT	DOTTED LINE, 8"	
	1365													1365				644	01520	1365	FT	DOTTED LINE, 12"	
		6												6				644	01630	6	EACH	BIKE LANE SYMBOL MARKING	
		4												4				644	19000	4	EACH	SHARED LANE MARKING	
		38												38				644	50300	38	FT	PAVEMENT MARKING, MISC.: BIKE LANE CROSSWALK	1449
		1034												1034				644	60000	1034	SF	GREEN COLORED PAVEMENT FOR BIKE LANES	
		0.14												0.14				646	10000	0.14	MILE	EDGE LINE, 4"	
	1.90													1.90				646	10010	1.90	MILE	EDGE LINE, 6"	
		0.42												0.42				646	10100	0.42	MILE	LANE LINE, 4"	
	1.48													1.48				646	10110	1.48	MILE	LANE LINE, 6"	
		0.35												0.35				646	10200	0.35	MILE	CENTER LINE	
		241												241				646	10300	241	FT	CHANNELIZING LINE, 8"	
	3018													3018				646	10310	3018	FT	CHANNELIZING LINE, 12"	
		33												33				646	10400	33	FT	STOP LINE	
	6	1312												6 1312				646	10510	6 1312	FT	CROSSWALK LINE, 12"	
	310	188												498				646	10600	498	FT	TRANSVERSE/DIAGONAL LINE	
	222													222				646	10620	222	FT	CHEVRON MARKING	
		5												5				646	20300	5	EACH	LANE ARROW	
	2687													2687				646	20504	2687	FT	DOTTED LINE, 6"	
		4												4				646	20600	4	EACH	BIKE LANE SYMBOL MARKING	
		2												2				646	20650	2	EACH	SHARED LANE MARKING	
		876												876				646	60100	876	SF	GREEN COLORED PAVEMENT FOR BIKE LANES	
																						TRAFFIC SIGNALS	
		4												4				625	00480	4	EACH	CONNECTION, UNFUSED PERMANENT	
		9 775												9 775				625	25408	9 775	FT	CONDUIT, 2", 725.051	
		448												448				625	25504	448	FT	CONDUIT, 3", 725.051	
		152												152				625	25604	152	FT	CONDUIT, 4", 725.051	
		9 4133												9 4133				625	25802	9 4133	FT	CONDUIT, CONCRETE ENCASED, 4", 725.051	
		675												675				625	25910	675	FT	CONDUIT CLEANED AND CABLES REMOVED	
		9 2856												9 2856				625	29000	9 2856	FT	TRENCH	
		439												439				625	29400	439	FT	TRENCH IN PAVED AREA	
		13												13				625	30510	13	EACH	PULL BOX, 725.06, SIZE 4	
		28												28				625	30530	28	EACH	PULL BOX, 725.06, SIZE 18	
		65												65				625	32000	65	EACH	GROUND ROD	
		9 3295												9 3295				625	36011	9 3295	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	1638
		58												58				630	79101	58	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	1638
		4												4				630	79500	4	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
		254.0												254.0				630	80100	254.0	SF	SIGN, FLAT SHEET	
		30												30				630	80511	30	EACH	SIGN, STREET NAME, AS PER PLAN	1638
		4												4				632	04000	4	EACH	VEHICULAR SIGNAL HEAD, MISC.: (LED), 3-SECTION, 8" LENS, 1-WAY, POLYCARBONATE, YELLOW (BICYCLE)	1640
		87												87				632	05006	87	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, YELLOW	
		12												12				632	05086	12	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, YELLOW	
		56												56				632	20731	56	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	1640
		62												62				632	20750	62	EACH	ACCESSIBLE PEDESTRIAN PUSHBUTTON	
		103												103				632	25000	103	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
		56												56				632	25010	56	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
		8775												8775				632	40300	8775	FT	SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG	
		8775												8775				632	40500	8775	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
		10250												10250				632	40700	10250	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
		30												30				632	64010	30	EACH	SIGNAL SUPPORT FOUNDATION	
		28												28				632	64020	28	EACH	PEDESTAL FOUNDATION	
		8												8				632	64950	8	EACH	TEST HOLE PERFORMED	
		9 600												9 600				632	68200	9 600	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
		450												450				632	69200	450	FT	POWER CABLE, 2 CONDUCTOR, NO. 4 AWG	

GENERAL SUMMARY - 10

CUY-90-16.28 (CCG3A)

MODEL: Sheet-10 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:05 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GG001.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 412 TOTAL 2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
429	1642	1806	1839											01/IMS /04	02/IMS /10	03/IMS /08							
																						TRAFFIC SIGNALS (CONT.)	
	7													7				632	70001	7	EACH	POWER SERVICE, AS PER PLAN 2	1639
	9													9				632	70200	9	EACH	CONDUIT RISER, 1" DIAMETER	
	10													10				632	72111	10	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4, AS PER PLAN	1640
	8													8				632	72131	8	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN	1640
	8													8				632	72141	8	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN	1640
	2													2				632	72151	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14, AS PER PLAN	1640
	2													2				632	86121	2	EACH	STRAIN POLE, TYPE TC-81.11, DESIGN 8, AS PER PLAN	1640
	14													14				632	89901	14	EACH	PEDESTAL, 8', TRANSFORMER BASE, AS PER PLAN	1640
	14													14				632	90010	14	EACH	PEDESTAL, MISC.: PEDESTAL 15', TRANSFORMER BASE	1640
	8													8				632	90101	8	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	1638
	7													7				633	65511	7	EACH	CABINET, TYPE TS-2, AS PER PLAN	1641
	7													7				633	67100	7	EACH	CABINET FOUNDATION	
	6													6				633	67200	6	EACH	CONTROLLER WORK PAD	
1	7													7				809	69123	7	EACH	ATC CONTROLLER, AS PER PLAN	1641
																						TRAFFIC SIGNALS ALTERNATES 1	
	7													7			X	633	45001	7	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN (GENERIC) (ALTERNATE 1)	1641
1	7													7			X	633	45001	7	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY, AS PER PLAN (ELTEC) (ALTERNATE 2)	1641
																						TRAFFIC SIGNALS ALTERNATES 2	
	20													20			X	809	69101	20	EACH	STOP LINE RADAR DETECTION, AS PER PLAN (GENERIC) (ALTERNATE 1)	1638
	20													20			X	809	69101	20	EACH	STOP LINE RADAR DETECTION, AS PER PLAN (ITERIS) (ALTERNATE 2)	1638
6																						**LANDSCAPING**	
			26											26				511	53010	26	CY	CLASS QC1 CONCRETE, MISC.: GATEWAY MONUMENT SIGN, FOUNDATION	1827
			52											52				511	71100	52	CY	CONCRETE, MISC.: CLASS QC SCC CONCRETE WITH QC/QA, GATEWAY MONUMENT SIGN, WALL	1827
			LS											LS				607	98200	LS		FENCE, MISC.: BRIDGE 13 SCREEN WALL PANELS	1832-1835
			LS											LS				607	98200	LS		FENCE, MISC.: GATEWAY MONUMENT SIGN SCREEN WALL PANELS	1832
		6	923											6 923				608	98000	6 923	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 1)	1825
			10437											10437				608	98000	10437	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 2)	1825
			1527											1527				608	98000	1527	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 3)	1825
			743											743				608	98000	743	SF	WALKWAY, MISC.: PAVERS OVER CONCRETE (BRICK 4)	1825
		243												243				661	00501	243	CY	MULCH, AS PER PLAN	1804
		48400												48400				661	31000	48400	GAL	LANDSCAPE WATERING	
		9												9				661	40100	9	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, AMERICAN SYCAMORE (POC)	
		5												5				661	40100	5	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, BUR OAK (QMA)	
		7												7				661	40100	7	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, CHINESE ELM (ULM)	
		15												15				661	40100	15	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, CHINKAPIN OAK (QMU)	
		11												11				661	40100	11	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, GREEN VASE ZELKOVA (ZSE)	
		18												18				661	40100	18	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, KENTUCKY COFFEETREE (GDI)	
		1												1				661	40100	1	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, LITTLELEAF LINDEN (TCO)	
		19												19				661	40100	19	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, OHIO BUCKEYE (AGL)	
		18												18				661	40100	18	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, SCARLET OAK (QCO)	
		12												12				661	40100	12	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, SOMERSET RED MAPLE (ARS)	
		10												10				661	40100	10	EACH	DECIDUOUS TREE, 2-1/2" CALIPER, THORNLESS HONEYLOCUST (GTR)	
		6												6				661	50160	6	EACH	EVERGREEN TREE, 8' HEIGHT, AMERICAN HOLLY (IOK)	
		26												26				661	50160	26	EACH	EVERGREEN TREE, 8' HEIGHT, AMERICAN HOLLY (IOP)	
		72												72				661	50160	72	EACH	EVERGREEN TREE, 8' HEIGHT, EASTERN REDCEDAR (JVI)	
		58												58				661	50160	58	EACH	EVERGREEN TREE, 8' HEIGHT, PITCH PINE (PRI)	
		53												53				661	99900	53	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, CRABAPPLE SP. (MAL)	1824
		128												128				661	99900	128	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, EASTERN REDBUD (CCN)	1824
		43												43				661	99900	43	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, FLOWERING DOGWOOD (CFL)	1824
		90												90				661	99900	90	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, GREEN HAWTHORN (CVI)	1824
		33												33				661	99900	33	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, IVORY SILK JAPANESE TREE LILAC (SRE)	1824
		36												36				661	99900	36	EACH	PLANTING, MISC.: FLOWERING TREE, 2-1/2" CALIPER, KWANZAN FLOWERING CHERRY (PSE)	1824
		88												88				661	99900	88	EACH	PLANTING, MISC.: FLOWERING TREE, 6-8' HEIGHT, AUTUMN BRILLIANCE SERVICEBERRY (ACA)	1824
		14												14				661	99900	14	EACH	PLANTING, MISC.: FLOWERING TREE, 6-8' HEIGHT, COMMON WITCH HAZEL (HVI)	1824
		196												196				661	99900	196	EACH	PLANTING, MISC.: SHRUB, 3 GALLON, SHORE JUNIPER (JCB)	1824
			9											9				SPECIAL	680E14550	9	EACH	TRASH RECEPTACLE	1826
			1											1				SPECIAL	680E43100	1	EACH	COMPLETE IRRIGATION SYSTEM	1836
2														2				SPECIAL	690E98000	2	EACH	BRICK 1 PAVER MOCK UP	1826

GENERAL SUMMARY - 11

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 413 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-11 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:07 PM USER: Joseph.Hogan
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SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
427	429	489A	1839											01/IMS /04	02/IMS /10	03/IMS /08							
																						LANDSCAPING (CONT.)	
	2													2				SPECIAL	690E98000	2	EACH	BRICK 2 PAVER MOCK UP	1826
	2													2				SPECIAL	690E98000	2	EACH	BRICK 3 PAVER MOCK UP	1826
6	2													2				SPECIAL	690E98000	2	EACH	BRICK 4 PAVER MOCK UP	1826
	1													1				SPECIAL	690E98000	1	EACH	BRIDGE 13 PLANTER MOCK UP	1831
	1													1				SPECIAL	690E98000	1	EACH	BRIDGE 13 SCREEN WALL MOCK UP	1833
6																							
	1													1				SPECIAL	690E98000	1	EACH	GATEWAY MONUMENT SIGN SCREEN WALL MOCK UP	1833
			21											21				SPECIAL	690E98000	21	EACH	GATEWAY SIGN ALUMINUM LETTERS	1827
	2													2				SPECIAL	690E98000	2	EACH	INTEGRALLY COLORED CONCRETE CROSSWALK MOCK UP	1825
			24											24				SPECIAL	690E98000	24	EACH	PARK BENCH	1826
			159											159				SPECIAL	690E98000	159	EACH	SCREEN WALL COVER PLATE	1826
			70											70				SPECIAL	690E98000	70	EACH	SKATE GUARD	1826
	9													9				SPECIAL	690E98000	9	EACH	TREE PROTECTION	1798
	320													320				SPECIAL	690E98100	320	FT	AIR KNIFE EXCAVATION	1798
6			1118											1118				SPECIAL	690E98100	1118	FT	METAL EDGING	1826
	LS													LS				SPECIAL	690E98400	LS		BRIDGE 13 ARCHITECTURAL CONCRETE MIX MOCK UP	1829
6	LS													LS				SPECIAL	690E98400	LS		CLEVELAND PLANTING	1804
	LS													LS				SPECIAL	690E98400	LS		GATEWAY MONUMENT SIGN ARCHITECTURAL CONCRETE MIX MOCK UP	1829
			LS											LS				SPECIAL	690E98400	LS		PLANTER WATERPROOFING SYSTEM	1830
			29											29				SPECIAL	690E98700	29	CY	PLANTING SOIL FOR BRIDGE 13 PARAPET PLANTERS	1799
			174											174				SPECIAL	690E98700	174	CY	PLANTING SOIL FOR BRIDGE 13 TREE PLANTERS	1799
																						RETAINING WALLS	
																						RETAINING WALL AC ESTIMATED QUANTITIES	1178
																						RETAINING WALL AD ESTIMATED QUANTITIES	1195
																						RETAINING WALL AE ESTIMATED QUANTITIES	1210
																						RETAINING WALL AF ESTIMATED QUANTITIES	1221
																						RETAINING WALL AG ESTIMATED QUANTITIES	1233
																						RETAINING WALL AH ESTIMATED QUANTITIES	1244
																						RETAINING WALL AI ESTIMATED QUANTITIES	1253
																						RETAINING WALL AJ ESTIMATED QUANTITIES	1265
																						RETAINING WALL N ESTIMATED QUANTITIES	1274
																						RETAINING WALL S ESTIMATED QUANTITIES	1286
																						RETAINING WALL T ESTIMATED QUANTITIES	1303
																						RETAINING WALL Y ESTIMATED QUANTITIES	1313
																						RETAINING WALL Z ESTIMATED QUANTITIES	1322
																						RAMP A3 BARRIER MOMENT SLAB ESTIMATED QUANTITIES	1335
																						MEDIAN BARRIER MOMENT SLAB ESTIMATED QUANTITIES	1342
																						RAMP A2 OVERHEAD SIGN TRUSS ESTIMATED QUANTITIES	1356
																						RAMP B6 OVERHEAD SIGN TRUSS ESTIMATED QUANTITIES	1362
		LS												LS				202	11000	LS		STRUCTURE REMOVED	
		LS												LS				202	11200	LS		PORTIONS OF STRUCTURE REMOVED	
																						BUILDING DEMOLITION	
		LS												LS				202	56000	LS		BUILDING DEMOLISHED (103-13-019 / 320-WL)	74
LS														LS				202	56001	LS		BUILDING DEMOLISHED, AS PER PLAN (103-26-003 / 303)	74
6																							
																						STRUCTURES	
			LS											LS				503	21300	LS		UNCLASSIFIED EXCAVATION	
																						STRUCTURE OVER 20 FOOT SPAN	
																						STRUCTURE CUY-77-1587 (SFN-1806910 | BRIDGE 9) ESTIMATED QUANTITIES	1884
																						STRUCTURE CUY-90-1653L (SFN-1807901 | BRIDGE 10) ESTIMATED QUANTITIES	2041
																						STRUCTURE CUY-90-1653R (SFN-1807804 | BRIDGE 11) ESTIMATED QUANTITIES	2090
																						STRUCTURE CUY-90-1652S (SFN-1807806 | BRIDGE 12) ESTIMATED QUANTITIES	2134
																						STRUCTURE CUY-90-1678 (SFN-1807839 | BRIDGE 13) ESTIMATED QUANTITIES	2188-2189
																						STRUCTURE CUY-90-1696 (SFN-1807898 | BRIDGE 14) ESTIMATED QUANTITIES	2291-2292
																						STRUCTURE CUY-90-1640 (SFN-1807773 | BRIDGE E5) ESTIMATED QUANTITIES	2371
																						STRUCTURE CUY-77-1593L (SFN-1806939 | BRIDGE E6) ESTIMATED QUANTITIES	2378
																						STRUCTURE CUY-E14th-0002SN (SFN-1806912 | BRIDGE E10) ESTIMATED QUANTITIES	2381
																						MAINTENANCE OF TRAFFIC	
5000														5000				614	11110	5000	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	87
10555														10555				614	11630	10555	FT	INCREASED BARRIER DELINEATION	85

GENERAL SUMMARY - 12

CUY-90-16.28 (CCG3A)

MODEL: Sheet-12 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:09 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GG001.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 414 TOTAL 2696

SHEET NUMBER														PARTICIPATION			ALT (X)	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
120	427	428	429	435										01/IMS /04	02/IMS /10	03/IMS /08							
																						MAINTENANCE OF TRAFFIC (CONT.)	
42													6 42					614	12380	6 42	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	84
				2										2				614	12381	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	76
														LS				614	12420	LS		DETOUR SIGNING	
	62													62				614	12484	62	EACH	WORK ZONE INCREASED PENALTIES SIGN	83
	26													26				614	12500	26	EACH	REPLACEMENT SIGN	83
		6												6				614	12756	6	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	85
		3895												3895				614	12801	3895	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	84
		26												26				614	13000	26	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	4	1256												1256				614	13310	1256	EACH	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	85
		1113												1113				614	13350	1113	EACH	OBJECT MARKER, ONE WAY	85
		42												42				614	13360	42	EACH	OBJECT MARKER, TWO WAY	85
		3												3				614	18000	3	EACH	MAINTAINING TRAFFIC, MISC.: PARTIAL TEMPORARY TRAFFIC SIGNAL	87
		1												1				614	18000	1	EACH	MAINTAINING TRAFFIC, MISC.: TEMPORARY TRAFFIC SIGNAL	85
		200												200				614	18601	200	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	83
1.04		0.50												1.54				614	20000	1.54	MILE	WORK ZONE LANE LINE, CLASS I, 4"	
8.75		2.50												11.25				614	20010	11.25	MILE	WORK ZONE LANE LINE, CLASS I, 6"	
2.32	6	0.50											6	2.82				614	21000	6 2.82	MILE	WORK ZONE CENTER LINE, CLASS I	
3.63		1.00												4.63				614	22000	4.63	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
18.26		4.50												22.76				614	22010	22.76	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
3024	6	650											6	3674				614	23000	6 3674	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"	
34686		8750												43436				614	23010	43436	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
14781	6	3650											6	18431				614	24000	6 18431	FT	WORK ZONE DOTTED LINE, CLASS I	
1048		150												1198				614	25000	1198	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	
718		175												893				614	26000	893	FT	WORK ZONE STOP LINE, CLASS I	
657		175												832				614	27010	832	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12"	
92		25												117				614	30000	117	EACH	WORK ZONE ARROW, CLASS I	
2	6	1											6	3				614	31000	6 3	EACH	WORK ZONE WORD ON PAVEMENT, 72", CLASS I	
4		1												5				614	98200	5	EACH	WORK ZONE PAVEMENT MARKING, MISC.: SHARED LANE MARKING	84
														LS				615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
30133														30133				615	20000	30133	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	84
		2285												2285				616	10000	2285	MGAL	WATER	
		150												150				616	20000	150	TON	CALCIUM CHLORIDE	
58608	6												6	58608				622	41011	6 58608	FT	PORTABLE BARRIER, 50", AS PER PLAN	84
3														3				622	41060	3	EACH	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	
				1150										1150				622	41101	1150	FT	PORTABLE BARRIER, UNANCHORED, AS PER PLAN	76
2054														2054				622	41111	2054	FT	PORTABLE BARRIER, ANCHORED, AS PER PLAN	84
				190										190				622	41111	190	FT	PORTABLE BARRIER, ANCHORED, AS PER PLAN 2	76
			64											64				829	00100	64	SNMT	WORK ZONE EGRESS WARNING SYSTEM	84
			648											648				896	00010	648	SNMT	PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I	
			216											216				896	00020	216	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN	
																						INCIDENTALS	
														LS				108	10000	LS		CPM PROGRESS SCHEDULE	
														21000				SPECIAL	111E10100	21000	EACH	DEPARTMENTS SHARE FACILITATED PARTNERING COSTS	PN 111
														LS				614	11000	LS		MAINTAINING TRAFFIC	81
		72												72				619	16021	72	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	80A
														LS				623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
														LS				624	10000	LS		MOBILIZATION	

GENERAL SUMMARY - 13

CUY-90-16.28 (CCG3A)

MODEL: Sheet-13 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:33:12 PM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 415 TOTAL 2696

GENERAL NOTES SUBSUMMARY - 1

SHEET NO.	201	202	202	202	202	204	204	204	251	251	254	254	254	255	255	255	407	441	441	442	442	442	452	605	605	608	608	609	611	611	611	611	611	611	611	614	614	614	614
	CLEARING AND GRUBBING	4 CONCRETE BARRIER REMOVED	PIPE REMOVED, 24" DIAMETER AND UNDER	BUILDING DEMOLISHED, AS PER PLAN (103-26-003 / 303)	REMOVAL MISC.: BURIED TRACK	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE B	GEOTEXTILE FABRIC	PARTIAL DEPTH PAVEMENT REPAIR (442)	PARTIAL DEPTH PAVEMENT REPAIR (442), AS PER PLAN	PAVEMENT PLANING, ASPHALT CONCRETE (1.5")	PAVEMENT PLANING, ASPHALT CONCRETE (3")	PAVEMENT PLANING, ASPHALT CONCRETE (3.25")	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN A	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN B	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, TYPE 1, CLASS QC1, AS PER PLAN C	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG70-22M	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	6" DEEP PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC, AS PER PLAN	6" CONCRETE WALK, AS PER PLAN	CURB RAMP, AS PER PLAN	CURB, TYPE 6	4 6" CONDUIT, TYPE E	3 12" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	15" CONDUIT, TYPE B, AS PER PLAN 2, 706.08 & 706.12	CATCH BASIN, NO. 3A, AS PER PLAN	CATCH BASIN, NO. 2-2B, AS PER PLAN	MANHOLE, NO. 3, AS PER PLAN	SPECIAL - MISCELLANEOUS METAL	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	INCREASED BARRIER DELINEATION	WORK ZONE INCREASED PENALTIES SIGN	REPLACEMENT SIGN
	LS	FT	FT	LS	FT	CY	CY	SY	CY	CY	SY	SY	SY	SY	SY	SY	GAL	CY	CY	CY	CY	CY	SY	FT	FT	SF	SF	FT	FT	FT	FT	EACH	EACH	EACH	LB	HOUR	FT	EACH	EACH
73	LS																																						
74				LS	1000																																		
76						3100	3100	9300																																
77																																							
78																																							
79			200																					3700	5200				400	400									
80									180														775			4500	475	750		2000	200	4	4	4	10000				
83		1510									63255																										62	26
84											1531						123					64														10555			
85																																							
87									300	400		38540	56010	2800	2800	3850	14180	1340	1870	2330	2720															5000			
1371																																							
1779A																																							
1798																																							
1804																																							
1825																																							
1826																																							
1829																																							
1831																																							
1833																																							
TOTALS CARRIED TO GENERAL SUMMARY	LS	1510	200	LS	1000	3100	3100	9300	480	400	64786	38540	56010	2800	2800	3850	14303	1340	1870	2330	2720	64	775	3700	5200	4500	475	750	400	2400	200	4	4	4	10000	5000	10555	62	26

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 427 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-01 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:33:10 AM USER: Joseph.Hogan
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SHEET NO.	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	614	616	616	618	619	622	622	623	623	638	659	659	659	659	659	659	659
	WORK ZONE CROSSOVER LIGHTING SYSTEM	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (9)	BARRIER REFLECTOR, TYPE 1 (ONE WAY)	OBJECT MARKER, ONE WAY	OBJECT MARKER, TWO WAY	MAINTAINING TRAFFIC, MISC.: PARTIAL TEMPORARY TRAFFIC SIGNAL	MAINTAINING TRAFFIC, MISC.: TEMPORARY TRAFFIC SIGNAL	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	WORK ZONE LANE LINE, CLASS I, 4"	WORK ZONE LANE LINE, CLASS I, 6"	WORK ZONE CENTER LINE, CLASS I	WORK ZONE EDGE LINE, CLASS I, 4"	WORK ZONE EDGE LINE, CLASS I, 6"	WORK ZONE CHANNELIZING LINE, CLASS I, 8"	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	WORK ZONE DOTTED LINE, CLASS I	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I	WORK ZONE STOP LINE, CLASS I	WORK ZONE CROSSWALK LINE, CLASS I, 12"	WORK ZONE ARROW, CLASS I	WORK ZONE WORD ON PAVEMENT, 72", CLASS I	WORK ZONE PAVEMENT MARKING, MISC.: SHARED LANE MARKING	WATER	CALCIUM CHLORIDE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	FIELD OFFICE, TYPE C, AS PER PLAN	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	PRIMARY PROJECT CONTROL MONUMENT, TYPE B	MONUMENT, MISC.: CLEVELAND MONUMENT ASSEMBLY	WATER WORK, MISC.: CLEVELAND WATER DEPARTMENT CHARGES	SOIL ANALYSIS TEST (8)	REPAIR SEEDING AND MULCHING	INTER-SEEDING	COMMERCIAL FERTILIZER	LIME	WATER	MOWING
	EACH	EACH	CY	EACH	EACH	EACH	EACH	EACH	SNMT	MILE	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	MGAL	TON	MILE	MNTH	FT	FT	EACH	EACH	EACH	EACH	SY	SY	TON	ACRE	MGAL	MSF
73																																						
74																												45										
76																								0.23					60									
77																																						
78																																						
79																																						
80																											72											
83									200														2285	150			500	1010										
84		3895																																				
85	6			1256	1113	42		1		0.50	2.50	0.50	1.00	4.50	650	8750	3650	150	175	175	25	1	1			1.05												
87			26				3																															
1371																														300000							
1779A																																					10	
1798																															10	6926	6926	19.32	28.62	767	750	
1804																																						
1825																																						
1826																																						
1829																																						
1831																																						
1833																																						
TOTALS CARRIED TO GENERAL SUMMARY	6	3895	26	1256	1113	42	3	1	200	0.50	2.50	0.50	1.00	4.50	650	8750	3650	150	175	175	25	1	1	2285	150	1.28	72	500	1010	45	60	300000	10	6926	6926	19.32	28.62	767	750 (10)

GENERAL NOTES SUBSUMMARY - 2

CUY-90-16.28 (CCG3A)

MODEL: Sheet-11 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:33:12 AM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 428 TOTAL 2696

SHEET NO.	690 SPECIAL - WORK INVOLVING NON-REGULATED MATERIALS TON	690 SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOIL TON	690 SPECIAL - WORK INVOLVING NON-REGULATED WATER GAL	690 SPECIAL - WORK INVOLVING REGULATED WATER GAL	690 SPECIAL - BRICK 1 PAVER MOCK UP EACH	690 SPECIAL - BRICK 2 PAVER MOCK UP EACH	690 SPECIAL - BRICK 3 PAVER MOCK UP EACH	690 SPECIAL - BRICK 4 PAVER MOCK UP EACH	690 SPECIAL - BRIDGE 13 PLANTER MOCK UP EACH	690 SPECIAL - BRIDGE 13 SCREEN WALL MOCK UP EACH	690 SPECIAL - GATEWAY MONUMENT SIGN SCREEN WALL MOCK UP EACH	690 SPECIAL - INTEGRALLY COLORED CONCRETE CROSSWALK MOCK UP EACH	690 SPECIAL - PERMITS EACH	690 SPECIAL - PRECAST ELECTRIC MANHOLE (6' X 8' X 7' HR) EACH	690 SPECIAL - TREE PROTECTION EACH	690 SPECIAL - UTILITY TEST HOLE EACH	690 SPECIAL - AIR KNIFE EXCAVATION FT	690 SPECIAL - BRIDGE 13 ARCHITECTURAL CONCRETE MIX MOCK UP LS	690 SPECIAL - CLEVELAND PLANTING LS	690 SPECIAL - GATEWAY MONUMENT SIGN ARCHITECTURAL CONCRETE MIX MOCK UP LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (CARNEGIE AVENUE, CUY-90-1692, SFN 1807897) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E. 22ND STREET, CUY-90-1676, SFN 1807838) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E5, CUY-90-1640, SFN 1807773) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E6, CUY-77-1593, SFN 1806939) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E7, CUY-77-159TL, SFN 1807919) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E8, CUY-90-1651L, SFN 1807900) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E9, CUY-90-1651R, SFN 1807803) LS	690 SPECIAL - WORK INVOLVING ASBESTOS CONTAINING MATERIALS (E10, CUY-E14TH-0002SN, SFN 1806912) LS	690 SPECIAL - SURCHARGE FOR CLASS MS CONCRETE CY	829 WORK ZONE EGRESS WARNING SYSTEM SNMT	896 PORTABLE NON-INTRUSIVE TRAFFIC SENSOR, CLASS I SNMT	896 PORTABLE CHANGEABLE MESSAGE SIGN SNMT
73																																
74																																
76																																
77													900000			40				LS	LS	LS	LS	LS	LS	LS	LS					
78	755	7550	105000	42000																												
79																																
80																																
83																																
84																														64		
85																															648	216
87																													280			
1371																																
1779A														1																		
1798															9		320															
1804																			LS													
1825												2																				
1826					2	2	2	2										LS		LS												
1829																																
1831									1																							
1833										1	1																					
TOTALS CARRIED TO GENERAL SUMMARY	755	7550	105000	42000	2	2	2	2	1	1	1	2	900000	1	9	40	320	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	280	64	648	216

GENERAL NOTES SUBSUMMARY - 3

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 429 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-21 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:33:12 AM USER: Joseph.Hogan
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REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	606 GUARDRAIL, TYPE MGS	606 ANCHOR ASSEMBLY, MGS TYPE B (MASH 2016)	606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	606 ANCHOR ASSEMBLY, MGS TYPE T	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2, AS PER PLAN	606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 69" WIDE)	606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 90" WIDE)	607 FENCE, TYPE CLT	607 FENCE REMOVED AND REBUILT	607 GATE, TYPE CLT	611 8 MANHOLE ADJUSTED TO GRADE	614 WORK ZONE IMPACT ATTENUATOR, 24' WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D	622 BARRIER TRANSITION	622 CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	622 CONCRETE BARRIER END SECTION, TYPE D	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN	622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN 2	622 PORTABLE BARRIER, UNANCHORED, AS PER PLAN	622 PORTABLE BARRIER, ANCHORED, AS PER PLAN 2	REF. ONLY GAS VALVE BOX ADJUSTED TO GRADE (BY OTHERS)	REF. ONLY MANHOLE ADJUSTED TO GRADE (BY OTHERS)	6
					SF	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	
		EX. RAMP E-17																																						
GR-32	624	62+57.30	63+98.59	LT		112.5	1		1																															
		CARNEGIE AVE.																																						
U-15	628	49+45.22		LT																																		1		
U-16	628	49+74.26		LT																																	1			
U-17	628	49+76.79		LT																																		1		
U-18	628	50+07.09		LT														1																						
U-19		NOT USED																																						
U-20	630	53+06.56		LT																																	1			
U-21	630	53+19.50		LT														1																						
U-22	630	53+22.42		LT																																	1			
U-23	630	53+58.01		RT																																		1		
U-24	630	53+64.81		LT																																		1		
U-25		NOT USED																																						
U-26	630	53+74.25		LT																																	1			
U-27	630	54+58.03		RT														1																						
U-28	630	54+62.18		RT														1																						
U-29	630	55+61.98		LT																																		1		
U-30	630	55+83.92		RT																																		1		
U-31		NOT USED																																						
U-32	632	57+41.90		RT																																		1		
U-33	632	57+43.09		LT																																		1		
U-34	632	57+63.10		LT																																		1		
U-35	632	58+74.87		LT																																		1		
U-36		NOT USED																																						
U-37	634	65+07.45		RT																																		1		
U-38	634	65+30.80		LT																																		1		
U-39	634	65+66.53		RT																																	1			
U-40		NOT USED																																						
U-41	636	66+81.28		LT																																		1		
U-42	636	68+28.56		RT																																		1		
U-43	636	68+30.13		LT																																		1		
U-44	636	68+71.71		RT														1																						
		MIDTOWN CONNECTOR																																						
U-45		NOT USED																																						
U-46	640	505+49.80		RT																																	1			
U-47	640	506+04.19		RT														1																						
U-48	640	507+59.23		LT																																	1			
U-49	640	508+85.56		RT																																		1		
U-50	640	508+95.86		LT																																	1			
U-51	640	509+74.15		RT																																	1			
U-52	642	510+02.80		RT																																	1			
U-53	642	510+15.95		RT																																	1			
U-54	642	510+90.52		RT																																	1			
		CEDAR AVE.																																						
U-55	644	400+62.23		RT																																		1		
U-56	644	400+89.21		RT																																		1		
U-57	644	402+29.80		RT														10 6																				1			
TOTALS CARRIED TO SHEET 435						112.5	1	-	1	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	18		

ROADWAY SUBSUMMARY - 3

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 432 | TOTAL 2696

CUY-90-16.28 (CCG3A)

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| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 606 GUARDRAIL, TYPE MGS | 606 ANCHOR ASSEMBLY, MGS TYPE B (MASH 2016) | 606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) | 606 ANCHOR ASSEMBLY, MGS TYPE T | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2, AS PER PLAN | 606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 69" WIDE) | 606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 90" WIDE) | 607 FENCE, TYPE CLT | 607 FENCE REMOVED AND REBUILT | 607 GATE, TYPE CLT | 611 MANHOLE ADJUSTED TO GRADE | 614 WORK ZONE IMPACT ATTENUATOR, 24' WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D | 622 BARRIER TRANSITION | 622 CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN | 622 CONCRETE BARRIER END SECTION, TYPE D | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1 | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1 | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN 2 | 622 PORTABLE BARRIER, UNANCHORED, AS PER PLAN | 622 PORTABLE BARRIER, ANCHORED, AS PER PLAN 2 | REF. ONLY GAS VALVE BOX ADJUSTED TO GRADE (BY OTHERS) | REF. ONLY MANHOLE ADJUSTED TO GRADE (BY OTHERS) | 6 | | |
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| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 606 GUARDRAIL, TYPE MGS | 606 ANCHOR ASSEMBLY, MGS TYPE B (MASH 2016) | 606 ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016) | 606 ANCHOR ASSEMBLY, MGS TYPE T | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2 | 606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2, AS PER PLAN | 606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 69" WIDE) | 606 IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL) (MASH 2016) (50 MPH, 90" WIDE) | 607 FENCE, TYPE CLT | 607 FENCE REMOVED AND REBUILT | 607 GATE, TYPE CLT | 611 MANHOLE ADJUSTED TO GRADE | 614 WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL), AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B1 | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN | 622 CONCRETE BARRIER, SINGLE SLOPE, TYPE D | 622 BARRIER TRANSITION | 622 CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN | 622 CONCRETE BARRIER END SECTION, TYPE D | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1 | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C1 | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN | 622 CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D, AS PER PLAN 2 | 622 PORTABLE BARRIER, UNANCHORED, AS PER PLAN | 622 PORTABLE BARRIER, ANCHORED, AS PER PLAN 2 | REF. ONLY GAS VALVE BOX ADJUSTED TO GRADE (BY OTHERS) | REF. ONLY MANHOLE ADJUSTED TO GRADE (BY OTHERS) | 6 | | | |
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REMOVALS SUBSUMMARY - 1

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		I.R. 90																																																
PR-1	680	60+65.01	64+84.06	LT	25256			2806																																										
PR-2	680	60+88.03	64+85.46	LT	28679			3187																																										
R-1	680	63+39.19	64+92.12	RT												153																																	
R-2	680	64+03.45	64+86.95	LT												84																																	
RC-1	680	64+76.03	64+90.71	LT									15																																				
RC-2	680	64+76.32	64+92.00	RT									16																																				
		RAMP A3																																															
PR-3	680	578+57.69	581+86.23	LT	12700			1411																																									
		I.R. 90																																															
PR-4	681	65+82.27	66+36.81	RT	2182			242																																									
PR-5	681	66+81.03	70+83.72	LT	20817			2313																																									
R-3	681	68+08.96	70+66.98	RT												258																																	
PR-6	681	68+09.16	70+66.90	RT	24013			2668																																									
R-4	681	68+72.07	70+79.28	LT												207																																	
RC-3	681	68+72.18	68+92.18	LT									20																																				
		RAMP A2																																															
R-5	681	420+94.47	421+87.53	RT												93																																	
R-6	681	423+44.21	425+11.04	RT												167																																	
R-7	681	424+65.86	428+07.53	RT												302																																	
		EX. RAMP A3																																															
R-8	681	200+57.15	203+89.55	RT												332																																	
PR-7	681	200+93.01	205+51.42	RT	15657			1740																																									
R-9	681	201+88.16	205+70.08	LT												382																																	
RC-4	681	203+71.50	203+89.55	RT									18																																				
		I.R. 90																																															
PR-8	682	70+00.00	70+75.09	RT	3272			364																																									
R-10	682	73+95.57	76+88.23	RT							293																																					
R-11	682	73+95.70	84+38.26	CL							1043																																					
R-12	682	74+12.69	76+42.27	LT			LS																																									
RC-5	682	74+13.00	74+31.32	RT									18																																				
R-13	682	74+13.16	77+97.58	RT												384																																	
R-14	682	74+19.25	80+81.54	RT																																												739										
PR-9	682	74+21.44	98+47.75	CL	316145			35127																																									
WR-1	682	74+78.81	77+33.38	RT	1206				134																																								
		E. 14TH ST. NB																																															
PR-10	682	53+05.44	57+45.67	RT/LT	25883			2876																																									
WR-2	682	53+44.97	57+45.48	RT	8525				8525																																								
R-15	682	55+80.04	57+45.17	RT		LS																																										
R-16	682	55+80.04	57+45.17	RT																																											205										
		E. 14TH ST. SB																																															
PR-11	682	32+71.86	37+25.52	CL/LT	17375			1931																																									
R-17	682	205+67.86	205+86.87	CL/LT												51																																	
R-18	682	205+76.13	206+75.67	RT/LT												75																																	
		I.R. 90																																															
R-19	683	75+80.47	76+70.22	LT																																											227										
TOTALS CARRIED TO SHEET 489A						LS	LS	54665	8659	-	1336	-	87	-	-	2488	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1171	-	-	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

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pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\RoadwaySheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 472 TOTAL 2696

REMOVALS SUBSUMMARY - 2

| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 202 STRUCTURE REMOVED | 202 PORTIONS OF STRUCTURE REMOVED | 202 PAVEMENT REMOVED | 202 WALK REMOVED | 202 CONCRETE MEDIAN REMOVED | 202 CONCRETE BARRIER REMOVED | 202 TRAFFIC ISLAND REMOVED | 202 CURB REMOVED | 202 PIPE REMOVED, 24" DIAMETER AND UNDER | 202 PIPE REMOVED, OVER 24" DIAMETER | 202 GUARDRAIL REMOVED | 202 ANCHOR ASSEMBLY REMOVED, TYPE A | 202 ANCHOR ASSEMBLY REMOVED, TYPE E | 202 ANCHOR ASSEMBLY REMOVED, TYPE T | 202 ANCHOR ASSEMBLY REMOVED, TYPE B | 202 BRIDGE TERMINAL ASSEMBLY REMOVED | 202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN | 202 IMPACT ATTENUATOR REMOVED | 202 BUILDING DEMOLISHED (103-13-019 / 320-WL) | 202 MANHOLE REMOVED | 202 CATCH BASIN REMOVED | 202 INLET REMOVED | 202 INLET ABANDONED | 202 CATCH BASIN ABANDONED | 202 MANHOLE ABANDONED | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER) | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6 | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR) | 202 FENCE REMOVED | 202 GATE REMOVED 1 | 202 REMOVAL MISC.: BILLBOARD | 202 REMOVAL MISC.: BOLLARD | 202 REMOVAL MISC.: CONCRETE STRUCTURES | 202 REMOVAL MISC.: ELECTRIC VAULT 10 | 202 REMOVAL MISC.: PAY BOX | 202 REMOVAL MISC.: UTILITY POLE | 202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10 | 202 REMOVAL MISC.: DELINEATOR CURB | 202 REMOVAL MISC.: PORTABLE BARRIER |
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REMOVALS SUBSUMMARY - 3

| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 202 STRUCTURE REMOVED | 202 PORTIONS OF STRUCTURE REMOVED | 202 PAVEMENT REMOVED | 202 WALK REMOVED | 202 CONCRETE MEDIAN REMOVED | 202 CONCRETE BARRIER REMOVED | 202 TRAFFIC ISLAND REMOVED | 202 CURB REMOVED | 202 PIPE REMOVED, 24" DIAMETER AND UNDER | 202 PIPE REMOVED, OVER 24" DIAMETER | 202 GUARDRAIL REMOVED | 202 ANCHOR ASSEMBLY REMOVED, TYPE A | 202 ANCHOR ASSEMBLY REMOVED, TYPE E | 202 ANCHOR ASSEMBLY REMOVED, TYPE T | 202 ANCHOR ASSEMBLY REMOVED, TYPE B | 202 BRIDGE TERMINAL ASSEMBLY REMOVED | 202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN | 202 IMPACT ATTENUATOR REMOVED | 202 BUILDING DEMOLISHED (103-13-019 / 320-WL) | 202 MANHOLE REMOVED | 202 CATCH BASIN REMOVED | 202 INLET REMOVED | 202 INLET ABANDONED | 202 CATCH BASIN ABANDONED | 202 MANHOLE ABANDONED | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER) | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6 | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR) | 202 FENCE REMOVED | 202 GATE REMOVED 1 | 202 REMOVAL MISC.: BILLBOARD | 202 REMOVAL MISC.: BOLLARD | 202 REMOVAL MISC.: CONCRETE STRUCTURES | 202 REMOVAL MISC.: ELECTRIC VAULT 10 | 202 REMOVAL MISC.: PAY BOX | 202 REMOVAL MISC.: UTILITY POLE | 202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10 | 202 REMOVAL MISC.: DELINEATOR CURB | 202 REMOVAL MISC.: PORTABLE BARRIER |
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REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		RAMP IJ3																																															
PR-25	692	91+52.52	95+07.87	CL	11517			1280																																									
		EX. RAMP E-17																																															
R-63	692	53+59.63	54+62.78	RT												65																																	
		RAMP IH4																																															
PR-26	693	13+94.92	14+90.99	CL	3264			363																																									
RC-18	693	14+14.70	14+84.82	LT									72																																				
R-64	693	14+16.56	14+82.32	LT												68																																	
		RAMP IH5																																															
R-65	693	1078+57.45	1080+10.11	LT												160																																	
		RAMP H5																																															
R-66	693	977+48.20	981+25.87	RT																																													
RC-19	693	978+10.65	980+74.29	RT									291																																				
PR-27	693	978+10.65	980+74.29	RT	7717			857																																									
		RAMP H6																																															
RC-20	693	1178+63.69	1179+04.48	RT									169																																				
RC-21	693	1179+33.65	1180+06.53	RT									143																																				
		RAMP H5																																															
PR-28	694	983+02.44	987+06.26	RT	11617			1291																																									
RC-22	694	983+10.24	987+06.26	LT/RT									403																																				
		RAMP H6																																															
RC-23	694	1182+58.96	1187+01.56	RT									403																																				
PR-29	694	1182+58.96	1187+01.56	RT	9521			1058																																									
PR-30	694	1182+65.44	1183+19.52	RT	626					70																																						
RC-24	694	1182+65.44	1186+88.04	RT									403																																				
RC-25	694	1182+68.01	1186+43.20	RT/LT									407																																				
PR-31	694	1182+73.40	1185+25.09	CL/LT	6885			765																																									
RC-26	694	1182+74.47	1185+25.35	LT									261																																				
RC-27	694	1182+82.50	1185+25.35	LT									259																																				
PR-32	694	1184+45.30	1185+25.28	LT	252					28																																						
		INTERIM E. 14TH ST. SB																																															
RC-28	694	200+54.55	204+66.61	RT									423																																				
PR-33	694	200+56.02	204+66.65	CL	10395			1155																																									
RC-29	694	201+78.20	204+80.35	CL/LT									308																																				
		E. 14TH ST. SB																																															
R-67	694	31+34.50	31+64.71	RT												23			1																														
		E. 22ND ST.																																															
RC-30	694	29+46.50	30+21.05	LT/RT									154																																				
		RAMP H5																																															
RC-31	695	987+00.61	988+94.16	RT/LT									219																																				
PR-34	695	987+00.61	988+94.16	RT/LT	7168			796																																									
RC-32	695	987+06.26	988+71.43	RT/LT									188																																				
R-68	695	987+84.56	987+87.09	RT								16																																				
R-69	695	988+12.41	988+14.63	RT								16																																				
TOTALS CARRIED TO SHEET 489A						-	-	7565	-	98	32	-	4103	-	-	316	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	395	-	-	-	-	-	-	-	-	-

REMOVALS SUBSUMMARY - 4

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 475 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-04 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:24:54 PM USER: Joseph.Hogan
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REMOVALS SUBSUMMARY - 5

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		RAMP H6																																															
RC-33	695	1186+88.04	1187+57.20	RT/LT									70																																				
PR-35	695	1186+88.04	1187+57.20	RT/CL	1031			115																																									
RC-34	695	1187+01.56	1187+18.18	RT									16																																				
PR-36	695	1187+15.23	1188+20.54	LT	3232			359																																									
RC-35	695	1187+15.59	1188+05.14	LT									126																																				
RC-36	695	1187+23.81	1188+20.54	LT									140																																				
		INTERIM E. 14TH ST. NB																																														
PR-37	695	305+34.97	305+86.50	RT/LT	1207			134																																									
		E. 14TH ST. NB																																														
R-70	695	52+30.95	52+35.52	RT							12																																						
RC-37	695	52+65.72	52+82.86	RT/LT									28																																				
R-71	695	52+67.14	52+77.14	RT/LT							18																																						
R-72	695	52+77.74	52+77.74	LT																	1																												
		INTERIM E. 14TH ST. SB																																														
R-73	695	204+65.42	205+61.99	RT/LT												98																																
RC-38	695	204+66.61	205+61.21	RT/LT									95																																				
PR-38	695	204+66.65	205+61.21	CL/LT	2010			223																																									
RC-39	695	204+80.35	205+53.24	LT									71																																				
RC-40	695	205+22.92	205+68.25	RT									66																																				
		E. 14TH ST. SB																																														
R-74	695	32+32.15	32+66.88	RT/LT												30					1																												
		COMMUNITY COLLEGE AVE.																																														
PR-39	695	52+81.79	55+09.35	RT/CL	5715			635																																									
		EX. COMMUNITY COLLEGE AVE.																																														
RC-41	695	52+81.79	55+09.37	RT									229																																				
RC-42	695	53+00.25	55+09.34	RT/LT									213																																				
		RAMP H6																																														
PR-40	696	1187+18.18	1188+81.05	CL	3333			370																																									
RC-43	696	1187+18.18	1192+58.53	RT									576																																				
RC-44	696	1187+57.20	1188+47.75	LT									130																																				
RC-45	696	1188+05.14	1188+52.71	LT									90																																				
PR-41	696	1188+05.14	1192+66.82	LT/CL	16935			1882																																									
RC-46	696	1188+20.54	1192+27.41	LT									434																																				
PR-42	696	1188+47.75	1188+82.61	LT	277					31																																						
RC-47	696	1188+63.04	1192+27.41	LT									421																																				
RC-48	696	1188+96.77	1189+60.09	RT									73																																				
PR-43	696	1188+96.77	1190+07.34	RT	1677			186																																									
RC-49	696	1189+48.54	1189+86.11	RT									102																																				
R-75	696	1189+52.04	1190+08.01	RT																																												
RC-50	696	1189+90.22	1190+07.40	RT									39																																				
PR-44	696	1190+30.04	1190+72.63	RT	626			70																																									
RC-51	696	1190+30.04	1190+30.26	RT									34																																				
RC-52	696	1190+43.60	1190+72.63	RT									48																																				
WR-5	696	1190+55.58	1192+58.53	RT	2171				2171																																								
TOTALS CARRIED TO SHEET 489A						-	-	3974	2171	31	30	-	3001	-	-	128	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-05 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:24:56 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\RoadwaySheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 476 TOTAL 2696

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		EX. COMMUNITY COLLEGE AVE.																																														
WR-6	696	55+09.33	57+82.69	LT	2286				2286																																							
RC-53	696	55+09.34	57+82.63	LT									347																																			
PR-45	696	55+09.34	59+65.59	CL/LT	15126			1681																																								
PR-46	696	57+29.16	58+35.94	LT	3461			385																																								
PR-47	696	57+55.05	58+03.22	LT	714							714																																			
RC-54	696	58+07.35	59+63.47	LT									303																																			
R-76	696	58+09.73	58+10.88	LT/RT																																								2				
WR-7	696	58+19.10	59+63.47	LT	1894				1894																																							
PR-48	696	58+26.95	59+26.12	CL/LT	693					77																																						
		RAMP A2																																														
PR-49	697	424+88.65	428+78.64	LT	14630			1626																																								
		RAMP A3																																														
RC-55	697	589+06.97	589+69.87	LT									59																																			
		CARNEGIE AVE.																																														
PR-50	697	37+26.23	38+32.61	RT	966			107																																							
RC-56	697	37+26.23	38+32.61	RT									105																																			
WR-8	697	37+26.23	38+33.98	RT	1404				1404																																							
		RAMP A3																																														
R-77	698	589+75.27	590+86.82	RT/LT												89	1																															
		CARNEGIE AVE.																																														
PR-51	698	38+31.48	42+21.99	RT	2908			323																																							
WR-9	698	38+32.61	38+53.80	RT	212				212																																							
WR-10	698	38+34.25	38+49.46	LT	93				93																																							
WR-11	698	38+56.85	38+68.26	LT	90				90																																							
RC-57	698	39+25.86	39+53.17	LT									39																																			
WR-12	698	39+25.86	39+53.36	LT	307				307																																							
RC-58	698	41+01.39	41+39.41	LT									54																																			
WR-13	698	41+01.39	41+39.41	LT	333				333																																							
WR-14	698	41+92.24	42+01.04	LT	72				72																																							
RC-59	698	41+92.24	42+15.34	LT									41																																			
WR-15	698	42+02.34	42+15.54	LT	72				72																																							
		E. 14TH ST. NB																																														
PR-52	698	56+95.62	60+62.09	CL	12226			1358																																								
RC-60	698	56+95.67	60+50.56	LT									360																																			
RC-61	698	58+13.56	60+63.96	RT									659																																			
WR-16	698	58+13.56	60+63.96	RT	3282				3282																																							
PR-53	698	58+81.75	60+51.90	LT	822					91																																					
		E. 14TH ST. SB																																														
RC-62	698	36+73.22	38+79.72	LT									211																																			
PR-54	698	36+73.22	40+48.07	LT	15032			1670																																							
RC-63	698	36+75.19	40+31.37	LT/RT									357																																			
RC-64	698	38+98.37	40+49.66	LT									168																																			
		E. 18TH ST.																																														
RC-65	698	20+79.10	24+82.55	RT									457																																			
WR-17	698	20+79.10	24+82.55	RT	3175				3175																																							
TOTALS CARRIED TO SHEET 489A						-	-	7150	13220	168	-	714	3160	-	-	89	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-

REMOVALS SUBSUMMARY - 6

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 477 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-06 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:24:58 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GS901.dgn

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		E. 18TH ST. (CONT.)																																																
R-78	698	20+81.39	22+86.59	RT																																						368									
R-79	698	21+20.09	21+91.84	RT																																								8								
PR-55	698	21+79.52	24+64.22	LT/RT	10033			1115																																											
R-80	698	22+93.69	23+62.11	RT																																								8								
R-81	698	23+53.15	24+82.27	RT																																							289								
		CENTRAL AVE. CONNECTOR																																																	
PR-56	698	600+33.98	601+64.61	CL	5127			570																																											
		EX. CENTRAL AVE.																																																
R-82	699	14+80.49	16+92.07	RT																																							212								
PR-57	699	14+80.49	17+84.15	CL	11986			1332																																										
RC-66	699	15+15.01	15+21.90	LT									25																																					
PR-58	699	15+15.01	15+43.51	LT	333			37																																										
WR-18	699	15+29.49	16+85.99	RT	1612				1612																																										
RC-67	699	15+30.07	16+85.63	RT									156																																					
RC-68	699	15+30.93	15+43.51	LT									31																																					
PR-59	699	15+43.22	15+70.44	LT	263			30																																										
RC-69	699	15+43.51	16+91.03	LT									148																																					
R-83	699	15+48.87	15+69.41	LT																																								1								
WR-19	699	15+68.78	17+03.95	LT	1453				1453																																										
R-84	699	15+69.41	16+91.45	LT																																							139								
PR-60	699	16+85.63	17+33.19	RT	472			53																																										
R-85	699	16+92.07	17+06.88	RT																																								1								
R-86	699	17+06.88	17+27.16	RT																																							21								
RC-70	699	17+33.16	17+47.70	RT									15																																					
WR-20	699	17+33.19	17+47.97	RT	142				142																																									
R-87	699	17+53.18	17+54.81	LT/RT																																								1								
R-88	699	17+54.81	17+58.91	RT																																								39								
R-89	699	17+65.53	17+91.41	LT																																								26								
		EX. E. 19TH ST.																																																
R-90	699	2+02.32	3+57.65	RT																																								174								
PR-61	699	2+15.32	4+04.00	CL	6753			751																																										
PR-62	699	2+22.97	3+49.01	RT	2684			299																																										
RC-71	699	2+22.97	3+58.65	RT									163																																					
RC-72	699	2+27.93	3+87.00	LT									170																																					
RC-73	699	2+33.82	3+55.64	RT									122																																					
PR-63	699	2+57.30	2+81.57	LT	262			30																																										
R-91	699	2+57.89	2+80.17	LT																																								1								
R-92	699	2+80.17	3+05.51	LT																																								75								
WR-21	699	2+98.62	3+33.53	LT	337				337																																										
RC-74	699	3+17.66	3+34.59	LT									69																																					
PR-64	699	3+18.83	3+36.63	LT	511			57																																										
PR-65	699	3+26.19	3+60.42	LT	382			43																																										
WR-22	699	3+40.03	3+58.65	RT	223				223																																										
RC-75	699	3+53.87	3+61.00	LT									23																																					
WR-23	699	3+54.44	3+87.00	LT	322				322																																										
PR-66	699	3+55.64	3+84.90	RT	318			36																																										
WR-24	699	3+81.63	4+04.00	RT	281				281																																										
TOTALS CARRIED TO SHEET 489A						-	-	4353	4370	-	-	-	922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1343	4	-	16	-	-	-	-	-	-	-

REMOVALS SUBSUMMARY - 7

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 478 TOTAL 2696

MODEL: Sheet-07 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:01 PM USER: Joseph.Hogan
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REMOVALS SUBSUMMARY - 8

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		EX. E. 19TH ST. (CONT.)																																															
RC-76	699	3+84.90	4+04.00	RT									20																																				
		I.R. 90 EB																																															
R-93	700	192+85.46	194+92.34	LT																																													
RC-77	700	192+87.10	195+54.61	LT									478																																				
R-94	700	194+54.38	195+41.76	RT							91																																						
R-95	700	194+91.64	196+69.09	LT																																													
R-96	700	195+42.17	195+96.85	RT/LT																1		1																												
R-97	700	196+80.20	198+05.81	LT																																													
RC-78	700	197+14.54	198+07.12	LT									98																																				
		RAMP A2																																															
PR-67	700	435+09.58	437+48.34	CL	20282			2254																																									
PR-68	700	437+24.33	439+05.69	CL	10077			1120																																									
PR-69	700	439+42.76	440+80.38	CL	14021			1558																																									
RC-79	700	440+27.70	440+47.41	LT									31																																				
		EX. E. 21ST ST.																																														
PR-70	700	2+79.91	6+06.50	CL	12914			1435																																									
R-98	700	2+87.93	4+96.04	LT																																													264
RC-80	700	4+46.13	6+06.58	RT									177																																				
RC-81	700	4+96.04	6+06.50	LT/RT									112																																				
		RAMP A1																																															
R-99	701	310+64.93	311+13.99	LT																																													
PR-71	701	310+75.00	311+84.40	CL	4145			461																																									
R-100	701	310+90.30	311+75.66	RT																																													
PR-72	701	310+91.42	311+82.32	RT	8747			972																																									
		RAMP A3																																															
RC-82	701	310+85.75	311+98.59	RT									129																																				
		CARNEGIE AVE.																																														
RC-83	701	47+97.58	48+91.44	RT									91																																				
RC-84	701	48+00.00	49+73.83	LT									214																																				
PR-73	701	48+00.00	51+29.67	CL	29468			3274																																									
WR-25	701	48+84.82	49+25.22	RT	248													248																														
WR-26	701	49+86.27	51+15.55	RT	898													898																														
RC-85	701	50+04.72	51+15.63	RT									119																																				
RC-86	701	50+13.53	51+39.17	LT									165																																				
WR-27	701	50+13.89	50+66.21	LT	696													696																														
PR-74	701	50+58.25	51+01.66	LT	307			34																																									
RC-87	701	50+58.36	50+66.21	LT									21																																				
RC-88	701	50+72.00	51+01.88	LT									34																																				
WR-28	701	50+81.35	51+40.22	LT	346													346																														
RC-89	701	50+85.18	51+27.75	RT									94																																				
WR-29	701	50+85.23	51+27.73	RT	306													306																													10			
R-101A	701	50+96.32		RT																																											1			
																																														10			
R-101B	701	50+96.32	53+65.17	RT																																												271		
PR-75	701	310+60.53	311+12.37	LT	336			37																																									
WR-30	702	51+26.62	53+00.64	RT	2188													2188																														
RC-90	702	51+27.75	53+01.36	RT									483																																				
TOTALS CARRIED TO SHEET 489A						-	-	11145	4682	-	91	-	2266	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1134	-	-	-	-	1	-	-	271	-	264

CUY-90-16.28 (CCG3A)

MODEL: Sheet-08 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:03 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 479 TOTAL 2696

REMOVALS SUBSUMMARY - 9

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		CARNEGIE AVE. (CONT.)																																																
PR-76	702	51+29.46	56+31.35	CL	31539			3504																																											
RC-91	702	51+39.00	53+30.91	LT									231																																						
WR-31	702	51+39.15	53+30.91	LT	1838				1838																																										
R-101	702	51+79.80	52+23.44	RT																																							2								
RC-92	702	53+51.69	56+31.35	RT									509																																						
WR-32	702	53+55.72	55+51.67	RT	4037				4037																																										
RC-93	702	53+67.42	56+31.35	LT									304																																					10		
R-102A	702	53+67.93		RT																																												1		
PR-77	702	53+68.60	56+26.83	RT	14847			1650																																										
WR-33	702	53+68.68	56+31.35	LT	1667				1667																																										
R-102B	702	54+59.15	56+68.94	RT																																													10		
R-102	702	54+62.57	56+28.59	RT																																												209		
PR-78	702	55+46.58	55+79.39	RT	479			53																																				143	1							
WR-34	702	55+76.50	56+31.35	RT	756				756																																										
		EX. CEDAR AVE. CONNECTOR																																																
PR-79	702	1+22.45	3+11.02	CL	4402			489																																											
RC-94	702	1+32.69	3+13.41	RT									193																																						
WR-35	702	1+32.84	2+04.60	RT	390				390																																										
PR-80	702	1+40.00	2+77.56	RT	6085			676																																										
WR-36	702	2+43.73	3+12.59	RT	788				788																																										
R-103	702	2+49.26	2+84.22	RT																																												46						
PR-81	702	3+62.31	4+86.99	CL	2664			296																																										
		E. 22ND ST.																																																
PR-82	702	35+34.43	37+27.01	CL	11940			1327																																										
WR-37	702	35+37.84	36+40.69	RT	1768				1768																																										
WR-38	702	35+99.83	37+18.83	LT	582				582																																										
R-104	702	36+18.65	36+64.43	RT																																												36	1					
PR-83	702	36+34.88	36+62.98	RT	274			30																																										
		CARNEGIE AVE.																																															
WR-39	703	56+31.35	57+45.05	LT	691				691																																										
RC-95	703	56+31.35	58+80.97	RT									250																																						
WR-40	703	56+31.35	58+80.97	RT	3160				3160																																										
RC-96	703	56+31.35	59+69.04	LT									337																																						
PR-84	703	56+31.35	59+69.16	CL/LT	16336			1815																																										
R-105A	703	56+63.96		RT																																													10		
PR-85	703	57+41.76	57+68.10	LT	307			34																																										1		
WR-41	703	57+63.87	57+96.84	LT	410				410																																										
PR-86	703	57+96.84	58+14.94	LT	239			27																																										
WR-42	703	58+14.49	59+34.92	LT	1679				1679																																										
R-105	703	58+57.46	58+65.67	LT/RT							8																																								
PR-87	703	59+30.79	59+58.45	LT	389			43																																										
WR-43	703	59+58.44	59+82.99	LT	315				315																																										
R-106	703	59+80.19	59+81.59	LT							1																																								
WR-44	703	60+74.37	61+30.53	RT	363				363																																										
R-97	703	60+85.46	61+30.90	RT									45																																						
PR-88	703	60+85.46	61+31.42	RT/CL	811			90																																										
PR-89	704	61+27.42	63+28.32	RT	6874			764																																										
TOTALS CARRIED TO SHEET 489A						-	-	10798	18444	-	9	-	1869	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225	2	2	-	-	2	-	-	209	-	-

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pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\RoadwaySheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 480 TOTAL 2696

REMOVALS SUBSUMMARY - 10

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		CARNEGIE AVE. (CONT.)																																															
WR-45	704	61+30.53	63+69.97	RT	1306				1306																																									
RC-98	704	61+30.81	63+69.84	RT									240																																					
PR-90	704	61+31.33	66+31.48	CL	27754			3084																																										
RC-99	704	61+57.15	66+31.49	LT									475																																					
WR-46	704	61+57.17	66+31.49	LT	2409				2409																																									
R-107	704	61+68.49	61+73.71	LT							5																																						
R-108	704	61+73.45	66+28.86	LT																																					456									
R-109	704	62+30.26	64+17.59	RT																																					190									
WR-47	704	64+05.90	64+40.75	RT	194				194																																									
R-111A	704	64+33.73		RT																																														
R-110A	704	64+35.58	66+38.62	RT																																													
PR-91	704	64+37.12	64+64.41	RT	349			39																																									
RC-100	704	64+49.87	66+31.49	RT									182																																					
WR-48	704	64+61.14	65+37.50	RT	1073				1073																																									
WR-49	704	65+33.84	66+31.47	RT	1441				1441																																									
		MIDTOWN CONNECTOR																																															
R-110	704	511+02.85	511+56.02	LT																																					38									
PR-92	704	511+65.56	513+96.82	LT	15567			1730																																									
R-342	704	511+85.79	512+18.11	LT																																													
R-111	704	511+86.97	512+88.04	LT																																					81									
R-112	704	512+22.13	513+69.59	RT/LT																																					179	1								
PR-93	704	512+23.58	512+75.82	RT	1890			210																																									
R-343	704	512+36.12	512+43.07	LT																																													
R-113	704	512+72.84	512+88.45	LT/RT																																					68									
PR-94	704	512+73.61	513+96.14	CL	7411			823																																									
		CARNEGIE AVE.																																															
WR-50	705	66+31.49	66+48.08	RT	216				216																																									
WR-51	705	66+31.49	66+71.63	LT	228				228																																									
RC-101	705	66+31.49	68+24.53	RT									216																																					
RC-102	705	66+31.49	69+25.00	LT									294																																					
PR-95	705	66+31.49	69+25.00	CL	17279			1920																																									
R-114A	705	66+40.73		RT																																														
PR-96	705	66+43.31	66+71.96	RT	377			42																																									
PR-97	705	66+67.76	67+01.03	LT	413			46																																									
WR-52	705	66+68.28	66+88.95	RT	261				261																																									
PR-98	705	66+71.59	68+17.88	LT	1404			156																																									
PR-99	705	66+85.49	67+10.96	RT	390			43																																									
WR-53	705	66+96.84	68+18.08	LT	1660				1660																																									
WR-54	705	67+07.41	68+24.52	RT	1891				1891																																									
PR-100	705	68+13.68	68+44.82	LT	339			38																																									
WR-55	705	68+36.31	69+25.00	LT	1202				1202																																									
RC-103	705	68+52.69	69+25.00	RT									95																																					
WR-56	705	68+52.70	68+88.89	RT	285				285																																									
PR-101	705	68+77.88	69+23.76	RT	749			83																																									
WR-57	705	69+13.84	69+25.00	RT	63				63																																									
		EX. CEDAR AVE																																															
R-114	706	10+28.85	12+21.29	RT/LT																																					213									
TOTALS CARRIED TO SHEET 489A						-	-	8214	12229	-	5	-	1502	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1225	1	-	-	2	2	-	-	203	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-10 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:01:36 AM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 481 TOTAL 2696

| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 202 STRUCTURE REMOVED | 202 PORTIONS OF STRUCTURE REMOVED | 202 PAVEMENT REMOVED | 202 WALK REMOVED | 202 CONCRETE MEDIAN REMOVED | 202 CONCRETE BARRIER REMOVED | 202 TRAFFIC ISLAND REMOVED | 202 CURB REMOVED | 202 PIPE REMOVED, 24" DIAMETER AND UNDER | 202 PIPE REMOVED, OVER 24" DIAMETER | 202 GUARDRAIL REMOVED | 202 ANCHOR ASSEMBLY REMOVED, TYPE A | 202 ANCHOR ASSEMBLY REMOVED, TYPE E | 202 ANCHOR ASSEMBLY REMOVED, TYPE T | 202 ANCHOR ASSEMBLY REMOVED, TYPE B | 202 BRIDGE TERMINAL ASSEMBLY REMOVED | 202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN | 202 IMPACT ATTENUATOR REMOVED | 202 BUILDING DEMOLISHED (103-13-019 / 320-WL) | 202 MANHOLE REMOVED | 202 CATCH BASIN REMOVED | 202 INLET REMOVED | 202 INLET ABANDONED | 202 CATCH BASIN ABANDONED | 202 MANHOLE ABANDONED | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER) | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6 | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR) | 202 FENCE REMOVED | 202 GATE REMOVED 1 | 202 REMOVAL MISC.: BILLBOARD | 202 REMOVAL MISC.: BOLLARD | 202 REMOVAL MISC.: CONCRETE STRUCTURES | 202 REMOVAL MISC.: ELECTRIC VAULT 10 | 202 REMOVAL MISC.: PAY BOX | 202 REMOVAL MISC.: UTILITY POLE | 202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10 | 202 REMOVAL MISC.: DELINEATOR CURB | 202 REMOVAL MISC.: PORTABLE BARRIER |
|---|---|---

REMOVALS SUBSUMMARY - 12

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		MIDTOWN CONNECTOR (CONT)																																																
WR-68	707	504+90.06	508+17.07	RT	3528				3528																																										
R-129	707	505+37.60	508+17.07	LT																																						273	1								
PR-112	707	505+38.54	508+17.07	LT	20149			2239																																										
PR-113	707	506+83.33	507+18.88	LT	551			61																																										
RC-114	707	506+83.70	506+92.38	LT									17																																					
R-130	707	507+02.18	507+02.18	LT																																												1				
RC-115	707	507+11.33	507+18.96	LT									18																																					
WR-69	707	507+11.45	508+17.00	LT	1161				1161																																										
R-131	707	507+25.77		LT																					LS																									
R-132	708	508+17.07	511+02.85	LT																																							97	1								
R-133	708	511+05.76	511+86.97	RT/LT																																							106									
PR-114	708	511+47.48	512+37.24	RT	335			37																																										
R-134	708	511+72.04	512+22.13	LT/RT																																							82									
PR-115	708	511+97.28	512+21.72	RT	2765			307																																										
		CEDAR AVE.																																																
R-135	708	400+22.30	402+25.81	RT/LT																																							208									
		EX. CEDAR AVE																																																
WR-70	708	17+90.00	19+55.12	LT	1840				1840																																										
PR-116	708	17+90.00	19+90.48	LT	18567			2063																																										
RC-116	708	17+90.00	22+90.00	LT									500																																					
PR-117	708	17+90.00	22+90.00	CL	20015			2224																																										
RC-117	708	17+90.00	22+90.00	RT									500																																					
WR-71	708	17+90.00	22+90.00	RT	5355				5355																																										
PR-118	708	19+46.54	19+86.26	LT	520			58																																										
WR-72	708	19+75.83	22+90.00	LT	2967				2967																																										
		CEDAR AVE.																																																
R-136	709	40+25.05	402+59.05	LT																																												1				
PR-119	709	402+25.81	402+64.45	LT	221			25																																										
R-137	709	402+25.81	402+65.46	LT																																											40				
WR-73	709	402+25.81	403+34.00	LT	1190				1190																																										
RC-118	709	402+25.81	403+34.00	LT									108																																					
PR-120	709	402+25.81	403+34.00	CL	4347			483																																										
RC-119	709	402+25.81	403+34.00	RT									108																																					
WR-74	709	402+25.81	403+34.00	RT	1082				1082																																										
		RAMP B6A																																																
RC-120	710	1806+17.11	1806+76.54	LT									195																																					
		EX. CENTRAL AVE.																																															
WR-75	710	23+99.45	24+56.17	RT	1266				1266																																										
PR-121	710	24+57.75	24+57.75	CL	6328			703																																										
		E. 22ND ST.																																															
RC-121	710	22+88.00	29+78.17	LT									200																																					
WR-76	710	28+88.00	29+76.92	LT	842				842																																										
PR-122	710	28+88.00	31+37.08	LT/CL	16373			1819																																										
PR-123	710	29+46.50	30+22.58	CL	164					18																																									
RC-122	710	29+46.50	30+22.65	CL									159																																					
TOTALS CARRIED TO SHEET 489A						-	-	10019	19231	18	-	-	1805	-	-	-	-	-	-	-	-	-	-	LS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	806	2	-	-	-	-	1	1	-	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-12 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:13 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 483 TOTAL 2696

REMOVALS SUBSUMMARY - 13

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	6 FT	FT	FT	FT	FT	FT	FT	1 EACH	EACH	EACH	EACH	10 EACH	EACH	EACH	10 FT	FT	FT
		E. 22ND ST. (CONT.)																																																	
WR-77	710	29+46.50	30+49.43	RT	1816				1816																																										
RC-123	710	29+46.50	30+50.45	RT									169																																					
RC-124	710	30+69.76	31+32.73	LT									100																																					
WR-78	710	30+80.78	31+40.90	RT	1227				1227																																									
RC-125	710	30+81.40	31+40.01	RT									130																																					
R-138	710	30+88.68	31+40.96	RT																																														
R-139	710	30+88.68	31+40.96	RT							116																																							
PR-124	710	31+07.31	31+36.90	LT	177					20																																								
WR-79	710	31+32.72	31+32.72	LT	707				707																																									
R-140A	710	31+36.51		RT																																															
		I.R. 90 EB																																																
R-140	1093	176+34.83	177+64.86	LT										131												1																								
R-141	1093	177+62.58	177+64.86	LT										6												1																								
		I.R. 90 WB																																																
R-142	1093	181+38.95	181+57.60	RT/LT										45												1																								
		I.R. 90 EB																																																
R-143	1094	181+86.47	182+10.71	LT																								1			36																		
R-144	1094	182+10.71	182+50.41	LT																								1			43																		
R-145	1094	182+47.80	182+50.41	RT/LT																								1				219																	
R-146	1094	182+50.41	183+63.59	LT																									1		111																	
R-147	1094	183+63.59	184+30.83	LT/RT										119													1																						
R-148	1094	184+30.83	185+32.86	RT										100													1																						
		I.R. 90 WB																																															
R-149	1094	181+20.05	182+81.82	LT																									1																			
R-150	1094	182+03.79	182+81.82	LT																									1			78															
R-151	1094	182+81.82	182+83.01	LT/RT																													58														
R-152	1094	184+91.54	185+29.54	LT/RT										66													1																						
		RAMP A2																																																
R-153	1094	418+29.87	420+72.62	RT																										1	228																		
		RAMP A3																																															
R-154	1094	581+25.63	581+77.78	LT										58												1																								
R-155	1094	582+78.90	582+82.76	LT										47												1																								
R-156	1094	585+34.70	588+30.96	LT/RT																										1																		
		RAMP B6																																															
R-157	1094	1602+24.76	1602+47.19	RT																									1		23																		
R-158	1094	1602+47.19	1603+27.81	RT																								1			89																		
		RAMP A3																																															
R-159	1095	587+75.49	588+30.96	RT										62												1																								
R-160	1095	587+77.46	588+10.00	RT										51													1																						
R-161	1095	588+10.00	588+30.96	RT										53													1																						
		E. 14TH ST. NB																																															
R-162	1095	54+67.16	57+79.44	LT											148															1																		
R-163	1095	57+58.70	58+18.66	RT																								1			59																		
R-164	1095	58+18.66	58+40.79	RT																											18																		
R-165	1095	58+18.66	58+58.51	RT																								1			73																		
TOTALS CARRIED TO SHEET 489A						-	-	-	3750	20	116	-	399	738	148	-	-	-	-	-	-	-	-	-	-	6	5	6	4	3	680	297	58	-	194	-	-	475	-	116	-	-	-	-	1	-	-	-	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-13 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:15 PM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 484 TOTAL 2696

REMOVALS SUBSUMMARY - 14

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		E. 14TH ST. NB (CONT.)																																															
R-166	1095	58+18.66	60+48.84	RT																											221																		
		I.R. 90 EB																																																
R-167	1096	193+28.80	195+11.49	RT/LT										185												1																								
		I.R. 90 WB																																																
R-168	1096	193+48.81	193+71.05	RT/LT										34																																				
R-169	1096	193+69.58	193+76.63	RT/LT										20												1																								
R-170	1096	193+73.71	193+96.35	RT										34																																				
R-171	1096	193+93.27	194+14.80	RT										32																																				
R-172	1096	194+01.70	194+21.58	LT										25												1																								
R-173	1096	194+14.59	194+35.74	RT/LT										32																																				
R-174	1096	194+20.01	194+39.24	RT										28																																				
R-175	1096	194+27.88	194+53.37	LT										38												1																								
R-176	1096	194+45.87	194+69.72	RT										36																																				
		RAMP A2																																																
R-177	1096	432+85.45	433+06.41	LT										36																																				
R-178	1096	433+04.32	433+23.03	RT/LT										34																																				
R-179	1096	433+31.95	433+52.00	RT/LT										35																																				
R-180	1096	433+41.06	433+61.57	RT										35																																				
R-181	1096	433+43.32	433+63.38	LT										34																																				
R-182	1096	433+50.61	433+70.88	RT										35																																				
R-183	1096	433+73.56	433+93.22	RT/LT										34																																				
R-184	1096	433+75.57	433+95.40	RT										34																																				
R-185	1096	433+98.07	434+17.41	RT/LT										33																																				
R-186	1096	434+18.43	434+30.98	RT										14												1																								
R-187	1096	434+43.73	434+58.81	RT										18												1																								
R-188	1096	434+58.81	434+76.89	RT										19												1																								
R-189	1096	434+58.81	434+99.59	RT/LT										104													1																								
		RAMP B6																																																
R-190	1096	1616+82.54	1616+88.00	RT/LT																												1				51														
		RAMP B6A																																																
R-191	1096	1800+07.38	1802+89.52	RT										268												1																								
R-192	1096	1802+89.52	1803+85.86	RT																										1		90																
		I.R. 90 EB																																																
R-193	1097	195+11.49	196+19.00	LT										109												1																								
R-194	1097	198+57.78	199+04.60	RT										118												1																								
R-195	1097	198+98.70	199+04.60	LT/RT										24																																				
R-196	1097	199+04.60	200+90.77	RT/LT										190													1																								
		RAMP B6																																																
R-197	1097	1617+74.71	1618+00.83	RT										34																		1																		
		RAMP B6A																																																
R-198	1097	1803+89.26	1804+13.16	RT																										1		38																
		E. 22ND ST.																																															
R-199	1097	31+06.00	32+89.55	RT										183													1																								
TOTALS CARRIED TO SHEET 489A						-	-	-	-	-	-	-	-	1855	-	-	-	-	-	-	-	-	-	-	3	10	-	-	3	1	349	-	-	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-14 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:17 PM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 485 TOTAL 2696

REMOVALS SUBSUMMARY - 15

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		INTERIM I.R. 90 WB																																																	
R-200	1098	4001+59.50	4003+96.68	RT										244											1																											
R-201	1098	4003+93.03	4003+96.68	LT/RT										29												1																									
R-202	1098	4003+96.68	4004+06.31	RT										38													1																								
R-203	1098	4003+96.68	4006+46.78	RT										252											1																									
R-204	1098	4004+06.31	4004+54.60	RT										87												1																									
		MIDTOWN CONNECTOR																																																
R-205	1098	502+96.61	503+53.08	LT										60												1																									
R-206	1098	502+96.61 8	505+50.91	LT/RT										274											1																									
R-207	1098	503+53.08	503+81.09	LT										43												1																									
R-207A	1098	505+50.91	506+00.00	RT										49											1																									
8																																																	
		E. 22ND ST.																																																
R-208	1098	34+86.34	35+47.11	LT/RT										79												1																									
R-209	1098	35+47.11	36+29.47	RT											82										1																									
R-210	1098	35+47.11	36+54.60	RT										109												1																									
		I.R. 90 EB																																															
R-211	1099	205+47.50	206+08.28	LT										61													1																									
R-212	1099	206+08.28	206+27.85	LT										27											1																									
R-213	1099	206+23.01	206+27.85	RT/LT										46												1																									
R-214	1099	206+27.85	206+36.88	LT										11														1																							
R-215	1099	206+27.85	208+29.62	LT/RT										208														1																							
R-216	1099	208+29.62	208+49.66	RT										22												1																									
		INTERIM I.R. 90 WB																																																
R-217	1099	4005+52.19	4005+53.61	RT										22																																					
R-218	1099	4005+53.61	4006+46.78	RT										100														1																							
R-219	1099	4006+46.78	4006+52.10	RT										88												1																									
R-220	1099	4006+46.78	4009+39.56	RT/LT											293										1																									
R-221	1099	4009+04.97	4009+05.13	RT										26																																					
R-222	1099	4009+04.97	4009+39.56	RT/LT										47														1																							
R-223	1099	4009+19.52	4009+39.56	LT										31														1																							
R-224	1099	4009+39.56	4010+25.16	LT/RT										129												1																									
R-225	1099	4009+39.56	4012+74.76	LT																					1											6	334													
		CARNEGIE AVE.																																																
R-226	1099	57+90.05	58+06.76	RT										17											1																									
R-227	1099	58+00.51	58+00.61	RT										28																																					
R-228	1099	58+06.76	58+09.42	RT										9												1																									
R-229	1099	58+06.76	58+52.71	RT/LT										64												1																									
R-230	1099	60+99.55	61+62.68	RT										66																																					
R-231	1099	61+62.68	64+43.91	RT										281											1																									
R-232	1099	61+78.55	61+80.20	RT/LT										60																																					
R-233	1099	62+04.91	62+05.76	RT										27																																					
R-234	1099	62+09.36	62+11.29	RT/LT										67																																					
R-235	1099	62+22.24	62+22.98	RT										28																																					
R-236	1099	62+46.81	62+47.78	RT/LT										66																																					
R-237	1099	62+48.65	62+48.76	RT										27																																					
R-238	1099	62+74.14	62+74.76	RT										28																																					
														8											8												6													
		TOTALS CARRIED TO SHEET 489A				-	-	-	-	-	-	-	-	2850	375	-	-	-	-	-	-	-	-	-	10	12	7	-	-	-	-	-	-	-	-	334	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

MODEL: Sheet-15 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:25:20 PM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 486 TOTAL 2696

REMOVALS SUBSUMMARY - 16

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LS	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		INTERIM I.R. 90 WB																																														
R-239	1100	4012+19.78	4012+74.76	RT/LT										113																																		
R-240	1100	4012+74.76	4012+76.27	LT																						1				29																	
R-241	1100	4012+74.76	4015+45.19	LT																					1											270										
R-242	1100	4015+45.19	4015+46.57	LT										18																																		
R-243	1100	4015+45.19	4017+26.74	LT											86																						91										
		CARNEGIE AVE.																																													
R-244	1101	37+61.12	37+61.15	RT										4												1																					
R-245	1102	40+87.87	40+93.55	RT										16												1																					
R-246	1102	41+78.27	41+86.46	LT/RT																						1				38																
		E. 18TH ST.																																													
R-247	1102	23+70.99	23+84.75	RT										13																																	
R-248	1102	23+71.09	23+84.75	RT										16																																	
R-249	1102	23+84.75	23+93.59	RT/LT										15																																	
		CENTRAL AVE. CONNECTOR																																													
R-250	1102	601+52.81	601+54.71	RT																										35																
R-251	1102	601+57.93	601+59.64	RT										9												1																					
R-252	1102	601+85.44	601+85.82	RT																										37																
R-253	1102	601+94.65	601+95.62	RT										34																																	
R-254	1102	602+43.68	602+59.65	RT/LT										34																																	
		RAMP A1																																													
R-255	1104	310+66.67	310+99.37	RT										56													1																				
R-256	1104	310+99.37	311+49.19	RT										68													1																				
R-257	1104	311+49.19	312+15.14	RT																							1			69																
		CARNEGIE AVE.																																													
R-258	1104	50+07.91	50+26.69	RT																							1			15																
R-259	1104	50+09.89	50+26.69	LT/RT																						1				30																
R-260	1104	50+26.69	50+88.46	RT																							1			58																
R-261	1104	52+84.88	52+91.44	LT/RT																							1			29																
R-262	1104	52+84.88	52+95.32	LT																							1			29																
R-263	1104	52+84.88	53+01.33	LT/RT																							1			47																
R-264	1105	54+47.90	54+49.10	RT/LT										64																																	
R-265	1105	56+03.31	56+03.49	RT										7													1																				
		RAMP A2																																														
R-266	1106	417+18.25	418+29.87	LT/RT																							1				211																
		RAMP IB5																																													
R-267	1106	1714+32.94	1714+46.14	LT/RT										33													1																				
		RAMP IJ3																																														
R-268	1106	103+02.61	103+10.42	RT/LT																								1		52																
R-269	1106	103+10.42	104+12.98	LT/RT																									1		121														
R-270	1107	104+12.98	104+26.12	RT																									1		18														
R-271	1107	104+26.12	104+51.62	RT																										1	28														
R-272	1107	104+51.62	106+02.94	RT/LT																									1		203														
		RAMP H5																																													
R-273	1108	987+21.06	987+31.27	RT																										60																
R-274	1108	987+21.06	987+97.52	RT/LT																									1		72														
R-275	1108	987+97.52	988+53.32	LT																								1			74														
TOTALS CARRIED TO SHEET 489A						-	-	-	-	-	-	-	-	500	86	-	-	-	-	-	-	-	-	-	2	15	2	1	4	1	528	653	74	-	-	-	361	-	-	-	-	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

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pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Roadway\Sheets\82382_GS901.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 487 TOTAL 2696

REMOVALS SUBSUMMARY - 17

| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 202 STRUCTURE REMOVED | 202 PORTIONS OF STRUCTURE REMOVED | 202 PAVEMENT REMOVED | 202 WALK REMOVED | 202 CONCRETE MEDIAN REMOVED | 202 CONCRETE BARRIER REMOVED | 202 TRAFFIC ISLAND REMOVED | 202 CURB REMOVED | 202 PIPE REMOVED, 24" DIAMETER AND UNDER | 202 PIPE REMOVED, OVER 24" DIAMETER | 202 GUARDRAIL REMOVED | 202 ANCHOR ASSEMBLY REMOVED, TYPE A | 202 ANCHOR ASSEMBLY REMOVED, TYPE E | 202 ANCHOR ASSEMBLY REMOVED, TYPE T | 202 ANCHOR ASSEMBLY REMOVED, TYPE B | 202 BRIDGE TERMINAL ASSEMBLY REMOVED | 202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN | 202 IMPACT ATTENUATOR REMOVED | 202 BUILDING DEMOLISHED (103-13-019 / 320-WL) | 202 MANHOLE REMOVED | 202 CATCH BASIN REMOVED | 202 INLET REMOVED | 202 INLET ABANDONED | 202 CATCH BASIN ABANDONED | 202 MANHOLE ABANDONED | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER) | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6 | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR) | 202 FENCE REMOVED | 202 GATE REMOVED 1 | 202 REMOVAL MISC.: BILLBOARD | 202 REMOVAL MISC.: BOLLARD | 202 REMOVAL MISC.: CONCRETE STRUCTURES | 202 REMOVAL MISC.: ELECTRIC VAULT 10 | 202 REMOVAL MISC.: PAY BOX | 202 REMOVAL MISC.: UTILITY POLE | 202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10 | 202 REMOVAL MISC.: DELINEATOR CURB | 202 REMOVAL MISC.: PORTABLE BARRIER |
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REMOVALS SUBSUMMARY - 18

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	AREA	202 STRUCTURE REMOVED	202 PORTIONS OF STRUCTURE REMOVED	202 PAVEMENT REMOVED	202 WALK REMOVED	202 CONCRETE MEDIAN REMOVED	202 CONCRETE BARRIER REMOVED	202 TRAFFIC ISLAND REMOVED	202 CURB REMOVED	202 PIPE REMOVED, 24" DIAMETER AND UNDER	202 PIPE REMOVED, OVER 24" DIAMETER	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, TYPE E	202 ANCHOR ASSEMBLY REMOVED, TYPE T	202 ANCHOR ASSEMBLY REMOVED, TYPE B	202 BRIDGE TERMINAL ASSEMBLY REMOVED	202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN	202 IMPACT ATTENUATOR REMOVED	202 BUILDING DEMOLISHED (103-13-019 / 320-WL)	202 MANHOLE REMOVED	202 CATCH BASIN REMOVED	202 INLET REMOVED	202 INLET ABANDONED	202 CATCH BASIN ABANDONED	202 MANHOLE ABANDONED	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER)	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") 6	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66")	202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR)	202 FENCE REMOVED	202 GATE REMOVED 1	202 REMOVAL MISC.: BILLBOARD	202 REMOVAL MISC.: BOLLARD	202 REMOVAL MISC.: CONCRETE STRUCTURES	202 REMOVAL MISC.: ELECTRIC VAULT 10	202 REMOVAL MISC.: PAY BOX	202 REMOVAL MISC.: UTILITY POLE	202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK 10	202 REMOVAL MISC.: DELINEATOR CURB	202 REMOVAL MISC.: PORTABLE BARRIER
					SF	LS	LS	SY	SF	SY	FT	SY	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT
		RAMP IH5 (CONT.)																																															
R-311	1114	1082+24.83	1083+59.04	LT																									1			145																	
R-312	1114	1083+42.74	1083+59.04	RT/LT																									1		98																	
R-313	1114	1083+59.04	1084+01.55	LT/RT																								1		64																	
R-314	1114	1084+01.55	1084+78.18	RT																							1		69																	
		INTERIM E. 14TH ST. SB																																														
R-315	1114	200+81.33	200+94.81	RT/LT										60													1																				
R-316	1114	200+94.81	201+06.22	LT										8																																
R-317	1114	200+94.81	201+82.22	LT/RT										86													1																				
		CARNEGIE AVE.																																														
R-318	1116	62+72.58	62+73.55	RT/LT										66																																
R-319	1116	63+15.40	63+15.83	RT										28																																
R-320	1116	63+25.24	63+26.39	RT/LT										65																																
R-321	1116	63+37.78	63+38.67	RT										29																																
R-322	1116	63+42.18		RT																						1																				
R-323	1116	63+46.42	63+47.50	RT/LT										44												1																				
R-324	1116	63+59.40	63+60.38	RT										27																																
R-325	1116	63+62.69	63+64.10	RT/LT										66																																
R-326	1116	63+88.16	63+89.07	RT/LT										65																																
R-327	1116	63+94.49	63+95.33	RT										26																																
R-328	1116	64+22.95	64+23.37	RT/LT										65																																
R-329	1116	64+67.36	65+11.87	LT/RT																												51														
R-330	1116	64+82.20	64+82.62	LT/RT																										64														
R-331	1116	65+19.49	65+20.25	LT/RT																										67														
R-332	1116	65+25.99	65+33.10	RT/LT																						1				45														
R-333	1116	65+28.19	65+47.60	RT																						1				22														
R-334	1116	65+71.81	65+72.07	RT/LT																										65														
R-335	1117	66+55.23		RT																						1																		
R-336	1117	66+62.07		LT																						1																		
		MIDTOWN CONNECTOR																																													
R-337	1118	507+80.69	508+21.05	LT/RT																						1				42														
R-338	1119	508+20.98	508+21.05	RT																						1				16														
R-339	1119	510+51.28	510+53.41	RT																								1		21														
R-340	1119	510+51.28	510+55.55	RT										19												1																		
R-341	1119	510+98.64	511+07.89	RT										20												1																		
TOTALS CARRIED TO SHEET 489A						-	-	-	-	-	-	-	-	674	-	-	-	-	-	-	-	-	-	-	-	10	2	1	2	2	475	98	196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CUY-90-16.28 (CCG3A)

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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

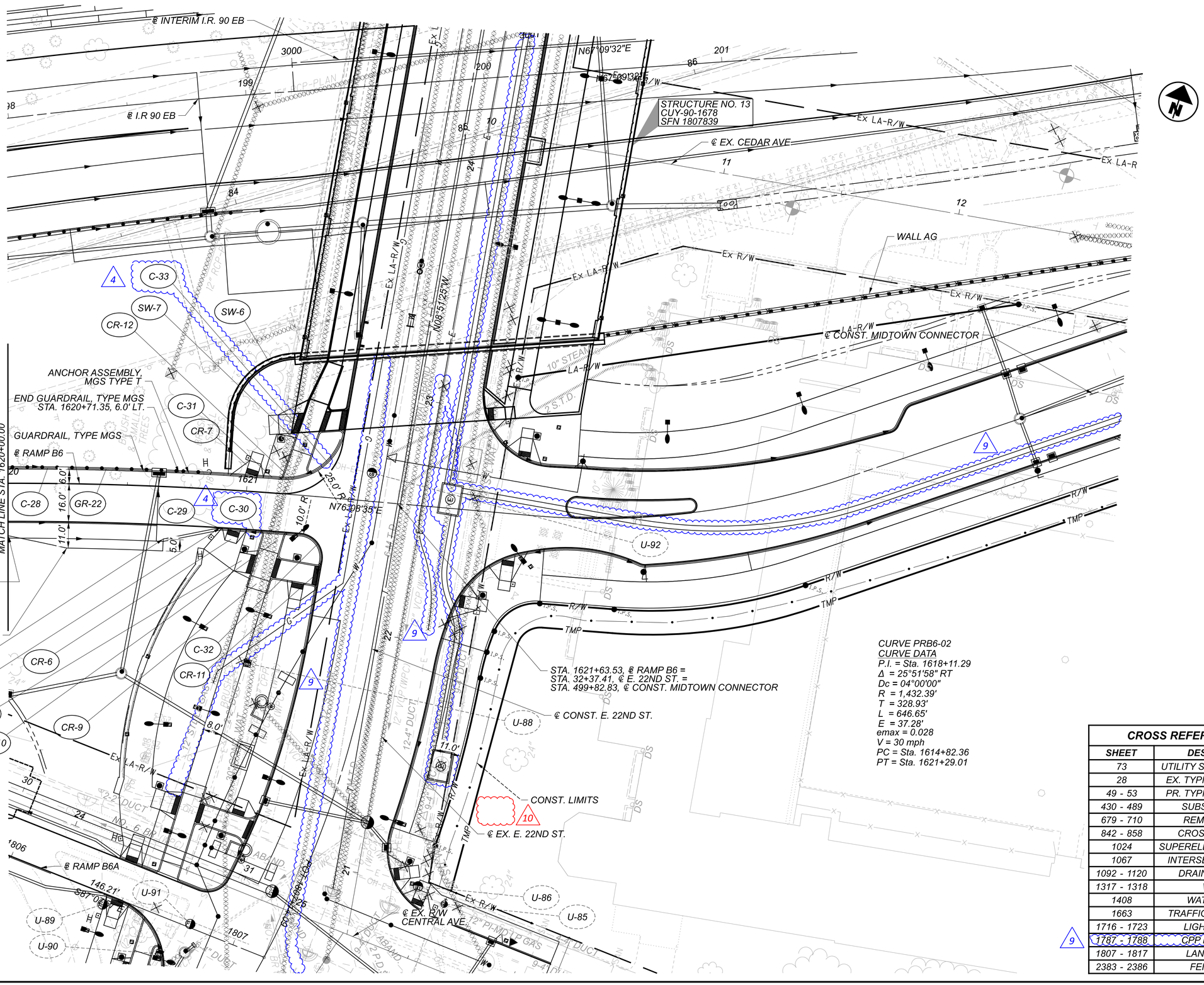
REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 489 TOTAL 2696

REMOVALS SUBSUMMARY - 19

| REF NO. | SHEET NO. | STATION FROM | STATION TO | SIDE | AREA | 202 STRUCTURE REMOVED | 202 PORTIONS OF STRUCTURE REMOVED | 202 PAVEMENT REMOVED | 202 WALK REMOVED | 202 CONCRETE MEDIAN REMOVED | 202 CONCRETE BARRIER REMOVED | 202 TRAFFIC ISLAND REMOVED | 202 CURB REMOVED | 202 PIPE REMOVED, 24" DIAMETER AND UNDER | 202 PIPE REMOVED, OVER 24" DIAMETER | 202 GUARDRAIL REMOVED | 202 ANCHOR ASSEMBLY REMOVED, TYPE A | 202 ANCHOR ASSEMBLY REMOVED, TYPE E | 202 ANCHOR ASSEMBLY REMOVED, TYPE T | 202 ANCHOR ASSEMBLY REMOVED, TYPE B | 202 BRIDGE TERMINAL ASSEMBLY REMOVED | 202 BRIDGE TERMINAL ASSEMBLY REMOVED, AS PER PLAN | 202 IMPACT ATTENUATOR REMOVED | 202 BUILDING DEMOLISHED (103-13-019 / 320-WL) | 202 MANHOLE REMOVED | 202 CATCH BASIN REMOVED | 202 INLET REMOVED | 202 INLET ABANDONED | 202 CATCH BASIN ABANDONED | 202 MANHOLE ABANDONED | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (12" AND UNDER) | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (15") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (18") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (21") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (24") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (30") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (36") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (66") | 202 SPECIAL - FILL AND PLUG EXISTING CONDUIT (NO. 8 BR) | 202 FENCE REMOVED | 202 GATE REMOVED | 202 REMOVAL MISC.: BILLBOARD | 202 REMOVAL MISC.: BOLLARD | 202 REMOVAL MISC.: CONCRETE STRUCTURES | 202 REMOVAL MISC.: ELECTRIC VAULT (10) | 202 REMOVAL MISC.: PAY BOX | 202 REMOVAL MISC.: UTILITY POLE | 202 REMOVAL MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK (10) | 202 REMOVAL MISC.: DELINEATOR CURB | 202 REMOVAL MISC.: PORTABLE BARRIER |
|---|---|---



CROSS REFERENCES	
SHEET	**DESCRIPTION**
73	UTILITY SYMBOL LEGEND
28	EX. TYPICAL SECTIONS
49 - 53	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
842 - 858	CROSS SECTIONS
1024	SUPERELEVATION TABLES
1067	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1317 - 1318	WALL Z
1408	WATER WORK
1663	TRAFFIC SIGNAL PLAN
1716 - 1723	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN - RAMP B6
STA. 1620+00.00 TO END

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 588 TOTAL 2696

MODEL: 82382_GP4606 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 9:32:50 PM USER: Victor.Nash
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CROSS REFERENCES

SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
28	EX. TYPICAL SECTIONS
53	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
860 - 863	CROSS SECTIONS
1025	SUPERELEVATION TABLES
1068 & 1072	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1408	WATER WORK
1716 - 1723	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

PLAN RAMP B6A
STA. 1806+00.00 TO END

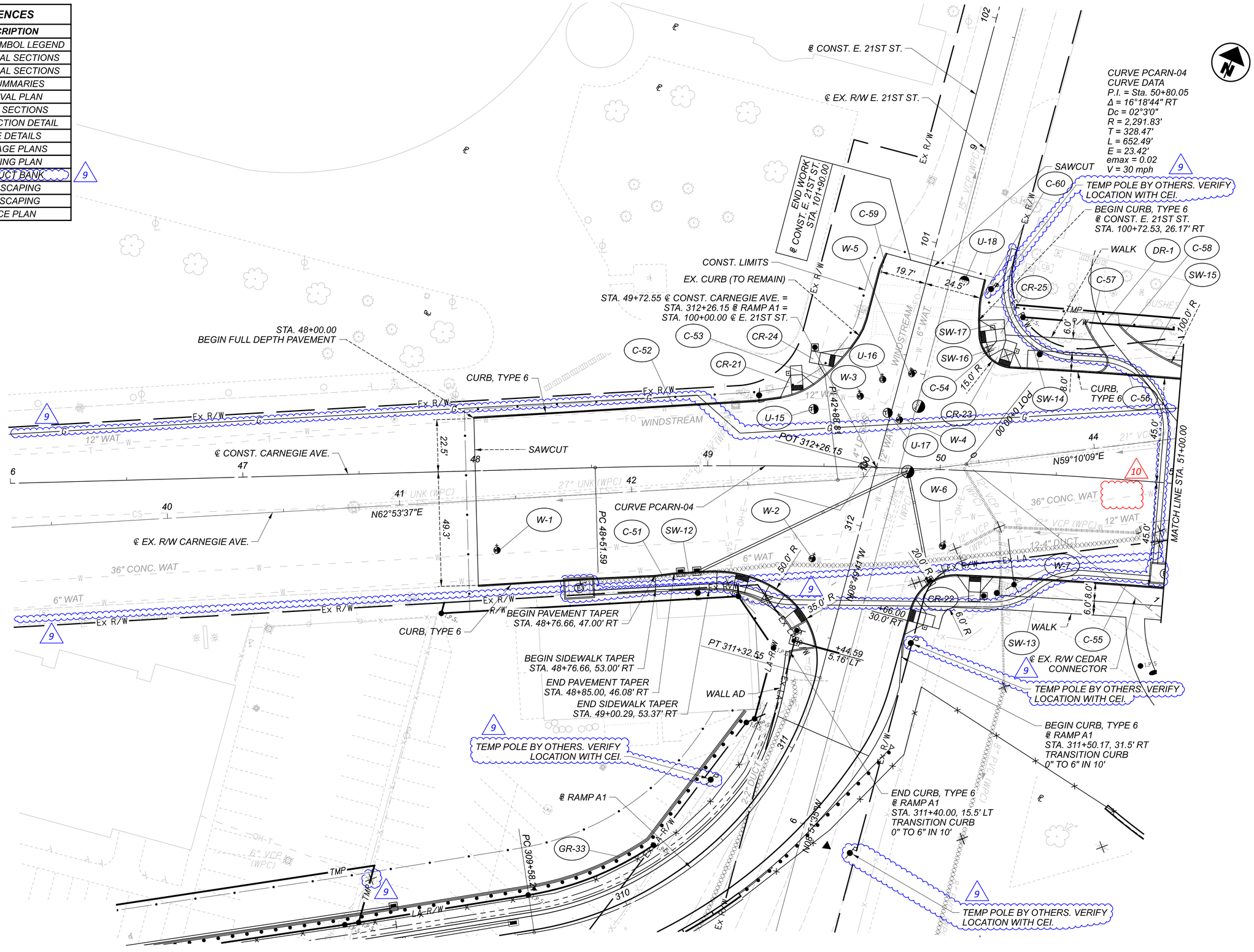
CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 592 TOTAL 2696

MODEL: 82382_GP4702 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 11:48:39 AM USER: Joseph.Hogan
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CROSS REFERENCES	
SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
24	EX. TYPICAL SECTIONS
60 - 61	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
932 - 946	CROSS SECTIONS
1063	INTERSECTION DETAIL
1073	DRIVE DETAILS
1092 - 1120	DRAINAGE PLANS
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - CARNEGIE AVE. BEGIN TO STA. 51+00.00

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	KJM
REVIEWER	KGJ 05/22/24
PROJECT ID	82382
SHEET	628
TOTAL	2696

CUY-90-16.28 (CCG3A)

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CROSS REFERENCES	
SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
24	EX. TYPICAL SECTIONS
60 - 61	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
932 - 946	CROSS SECTIONS
1062	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1409	WATER WORK
1651	TRAFFIC SIGNAL PLAN
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

CURVE PCARN-04
CURVE DATA
P.I. = Sta. 51+80.05
Δ = 16°18'44" RT
Dc = 02°30'00"
R = 2,291.83'
T = 328.47'
L = 652.49'
E = 23.42'
emax = 0.020
V = 30 mph

STA. 37+41.90 ℄ CONST. E. 22ND ST. =
STA. 53+31.81 ℄ CONST. CARNEGIE AVE.

℄ EX. R/W E. 22ND ST.
POT 29+00.00
END WORK ℄ EX. R/W E. 22ND ST. STA. 28+80.00
CONST. LIMITS
SAWCUT
12.0'
18.5'
21.0'
8.0'
END SIDEWALK TAPER STA. 52+64.05, 51.0' LT.
BEGIN SIDEWALK TAPER STA. 52+39.77, 53.0' LT.
WALK
GAS LINE (BY OTHERS)
BEGIN PAVEMENT TAPER STA. 53+97.47, 36.52' LT.
END PAVEMENT TAPER STA. 55+04.08, 34.0' LT.
CONST. LIMITS
WALK
℄ CURVE PCARN-04
℄ CONST. CARNEGIE AVE.
℄ EX. R/W CARNEGIE AVE.
PI 27+72.55
POT 37+41.90
END BUS PAD STA. 52+36.97 OFF. 33.00' RT.
MATCH LINE STA. 51+00.00
MATCH LINE STA. 56+00.00
N08°51'29"W
N80°56'16"E
BEGIN BUS PAD STA. 51+14.56 OFF. 33.00' RT.
12' X 120' CONCRETE BUS PAD
S75°33'06"E
WALK
STA. 53+42.42, ℄ CONST. CARNEGIE AVE. =
STA. 27+60.60, ℄ EX. R/W E. 22ND ST.
WALL AF
BRIDGE 13 WINGWALL
℄ EX. R/W CEDAR AVE. CONNECTION
℄ CONST. E. 22ND ST.
STRUCTURE NO 13
CUY-90-1678
SFN 1807839
℄ INTERIM I.R. 90 WP
℄ I.R. 90 WB
BRIDGE 13 WINGWALL

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - CARNEGIE AVE. STA. 51+00.00 TO STA. 56+00.00

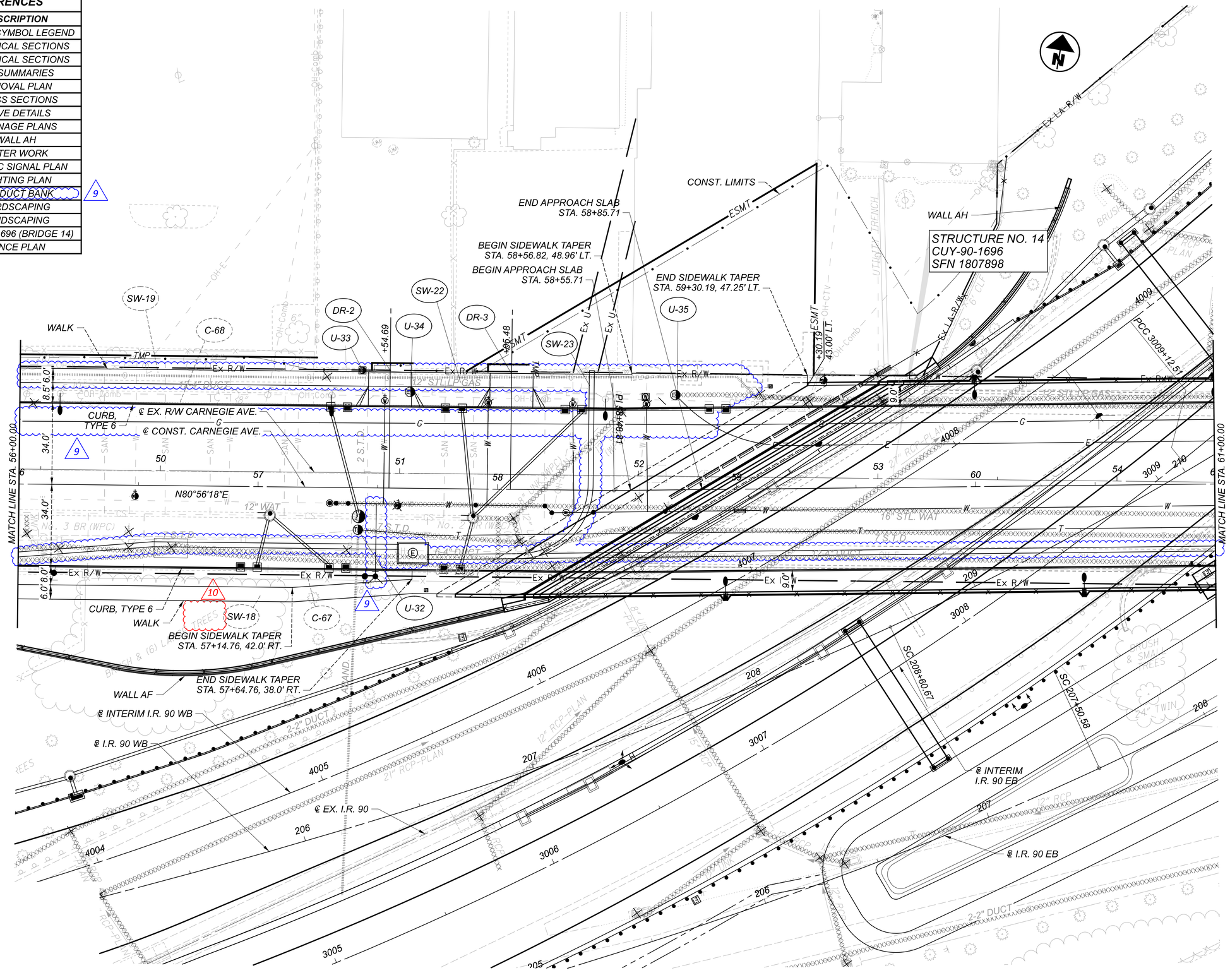
CUY-90-16.28 (CCG3A)

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DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	KJM
REVIEWER	KGJ 05/22/24
PROJECT ID	82382
SHEET	630
TOTAL	2696

CROSS REFERENCES	
SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
24	EX. TYPICAL SECTIONS
60 - 61	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
932 - 946	CROSS SECTIONS
1074 - 1075	DRIVE DETAILS
1092 - 1120	DRAINAGE PLANS
1241	WALL AH
1411 - 1413	WATER WORK
1655	TRAFFIC SIGNAL PLAN
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2281 - 2282	CUY-90-1696 (BRIDGE 14)
2383 - 2386	FENCE PLAN

9



PLAN - CARNEGIE AVE.
STA. 56+00.00 TO STA. 61+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 632 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP7103 PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 6:34:59 PM USER: Victor.Nash
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CROSS REFERENCES	
SHEET	**DESCRIPTION**
73	UTILITY SYMBOL LEGEND
24	EX. TYPICAL SECTIONS
60 - 61	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
932 - 946	CROSS SECTIONS
1059	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1250	WALL AI
1411 - 1413	WATER WORK
1659	TRAFFIC SIGNAL PLAN
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2281 - 2282	CUY-90-1696 (BRIDGE 14)
2383 - 2386	FENCE PLAN

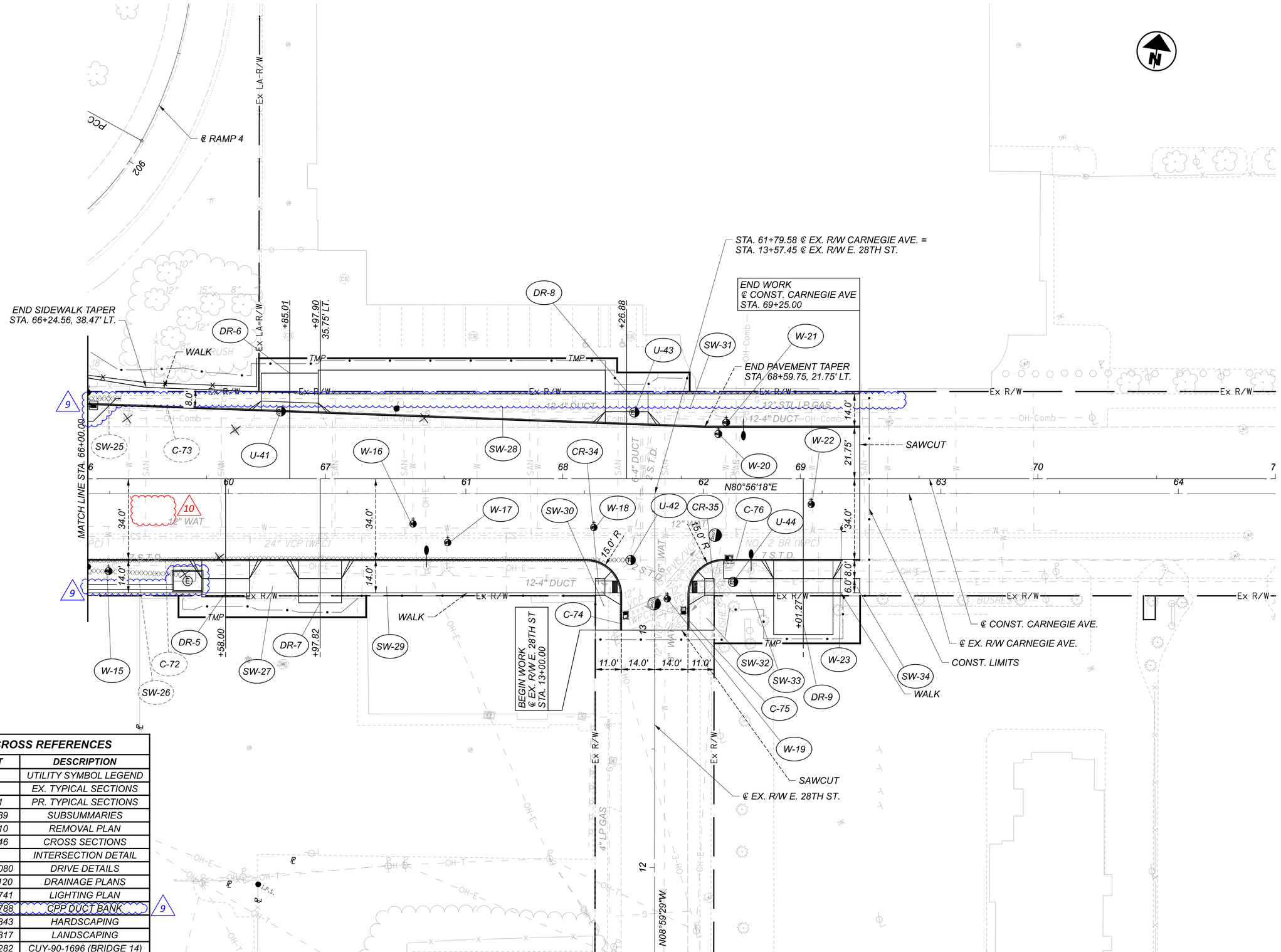
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - CARNEGIE AVE.
STA. 61+00.00 TO STA. 66+00.00

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP7104 PAPERSIZE: 34x22 (in) DATE: 11/6/2025 TIME: 7:08:18 PM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER: KJM
REVIEWER: KGJ 05/22/24
PROJECT ID: 82382
SHEET: 634 TOTAL: 2696



CROSS REFERENCES	
SHEET	**DESCRIPTION**
73	UTILITY SYMBOL LEGEND
24	EX. TYPICAL SECTIONS
60 - 61	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
932 - 946	CROSS SECTIONS
1069	INTERSECTION DETAIL
1076 - 1080	DRIVE DETAILS
1092 - 1120	DRAINAGE PLANS
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK (9)
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2281 - 2282	CUY-90-1696 (BRIDGE 14)
2383 - 2386	FENCE PLAN

PLAN - CARNEGIE AVE. STA. 66+00.00 TO END

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 636 TOTAL 2696

MODEL: 82382_GP7105 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:01:45 PM USER: Victor.Nash
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CROSS REFERENCES	
SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
63	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
947 - 960	CROSS SECTIONS
1067	INTERSECTION DETAIL
1082 & 1081	DRIVE DETAILS
1092 - 1120	DRAINAGE PLANS
1229 - 1230	WALL AG
1414 - 1416	WATER WORK
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

PLAN - MIDTOWN CONNECTOR BEGIN TO STA. 505+00.00

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 638 TOTAL 2696

MODEL: 82382_GP7901[Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 9:45:47 PM USER: Victor.Nash
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CROSS REFERENCES	
SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
63	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
947 - 960	CROSS SECTIONS
1059 & 1064	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1414 - 1416	WATER WORK
1659	TRAFFIC SIGNAL PLAN
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - MIDTOWN CONNECTOR STA. 510+00.00 TO END

STRUCTURE NO. 14
CUY-90-1696
SFN 1807898

MATCH LINE STA. 510+00.00

END PAVEMENT TAPER
STA. 510+06.30, 15.0' LT

END PAVEMENT TAPER
STA. 510+30.00, 15.0' RT

STA. 511+29.95 ℄ CONST. MIDTOWN CONNECTOR
STA. 400+00.00 ℄ CONST. CEDAR AVE

STA. 514+45.17 ℄ CONST. MIDTOWN CONNECTOR
STA. 65+04.00 ℄ CONST. CARNEGIE AVE.

END SHARED USE PATH
STA. 513+61.17, 39.0' LT

EX. BUILDING TO BE REMOVED
(BY OTHERS)

℄ CONST. MIDTOWN CONNECTOR

CURVE PCEDA-03

CURB, TYPE 6

TEMP POLE BY OTHERS. VERIFY LOCATION WITH CEI.

TEMP POLE BY OTHERS. VERIFY LOCATION WITH CEI.

TEMP POLE BY OTHERS. VERIFY LOCATION WITH CEI.

CONST. LIMITS

WALK

CURB, TYPE 6

CURVE PJJC-01

℄ CONST. CEDAR AVE.

℄ EX. R/W CEDAR AVE.

℄ CONST. CARNEGIE AVE.

℄ EX. R/W CARNEGIE AVE.

WALL AI

POT 514+45.17

PT 513+33.36

POT 400+00.00

PC 400+12.25

PT 401+71.81

N09°03'42"W

CURVE PCEDA-03	
CURVE DATA	
P.I. = Sta.	511+89.61
Δ	= 90°00'15" LT
Dc	= 22°45'00"
R	= 251.85'
T	= 251.87'
L	= 395.62'
E	= 104.33'
PC	= 509+37.74
PT	= 513+33.37

CURVE PJJC-01	
CURVE DATA	
P.I. = Sta.	400+96.67
Δ	= 46°16'18" LT
Dc	= 29°00'00"
R	= 197.57'
T	= 84.42'
L	= 159.56'
E	= 17.28'
PC	= 400+12.25
PT	= 401+71.81

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 642 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP7903 PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 9:49:01PM USER: Victor.Nash
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CURVE PE22-01
CURVE DATA
P.I. = Sta. 30+87.75
Δ = 23°42'46" LT
Dc = 13°00'00"
R = 440.74'
T = 92.53'
L = 182.41'
E = 9.61'
PC = Sta. 29+95.22
PT = Sta. 31+77.62

RESUME WORK
℄ CONST. E. 22ND ST.
STA. 28+88.00

END PAVEMENT TAPER
STA. 29+78.25, 30.0' LT
BEGIN PAVEMENT TAPER
STA. 29+38.66, 36.0' LT

STA. 28+88.00
BEGIN FULL DEPTH REPLACEMENT
SAWCUT

℄ CONST. E. 22ND ST.

℄ EX. R/W E. 22ND ST.

BEGIN PAVEMENT TAPER
STA. 29+48.88, 36.0' RT

END PAVEMENT TAPER
STA. 29+65.26, 29.0' RT

STA. 30+38.02 ℄ CONST. E. 22ND ST. =
STA. 1807+14.09 ℄ RAMP B6A

CURB, TYPE 6

WALK

CURVE PE22-01
STA. 30+59.97 ℄ CONST. E. 22ND ST. =
STA. 24+95.87 ℄ EX. R/W CENTRAL AVE.

STA. 20+73.81 ℄ EX. R/W E. 22ND ST. =
STA. 25+20.99 ℄ EX. R/W CENTRAL AVE.

BEGIN BUS PAD
STA. 25+56.50
OFF. 10.50' RT.

END BUS PAD
STA. 26+06.50
OFF. 10.50' RT.

SAWCUT

℄ EX. R/W CENTRAL AVE.

BEGIN BUS PAD
STA. 30+65.00
OFF. 15.89' LT.

12' x 120'
CONCRETE BUS
PAD

END BUS PAD
STA. 31+85.00
OFF. 15.00' LT.

CONST. LIMITS
9.5' X 50.0'
CONCRETE
BUS PAD

℄ EX. R/W E. 22ND ST.
CONST. LIMITS

STA. 20+73.81 ℄ EX. R/W E. 22ND ST. =
STA. 25+22.63 ℄ EX. R/W CENTRAL AVE.

END WORK
℄ EX. R/W CENTRAL AVE
STA. 26+06.50

MATCHLINE STA. 32+00.00

CROSS REFERENCES

SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
26	EX. TYPICAL SECTIONS
71 - 72	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
1006 - 1012	CROSS SECTIONS
1068 & 1072	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1408	WATER WORK
1663	TRAFFIC SIGNAL PLAN
1724 - 1741	LIGHTING PLAN
1840 - 1843	HARDSCAPING
1787 - 1788	CPP DUCT BANK
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN - E. 22ND ST.
BEGIN TO STA. 32+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

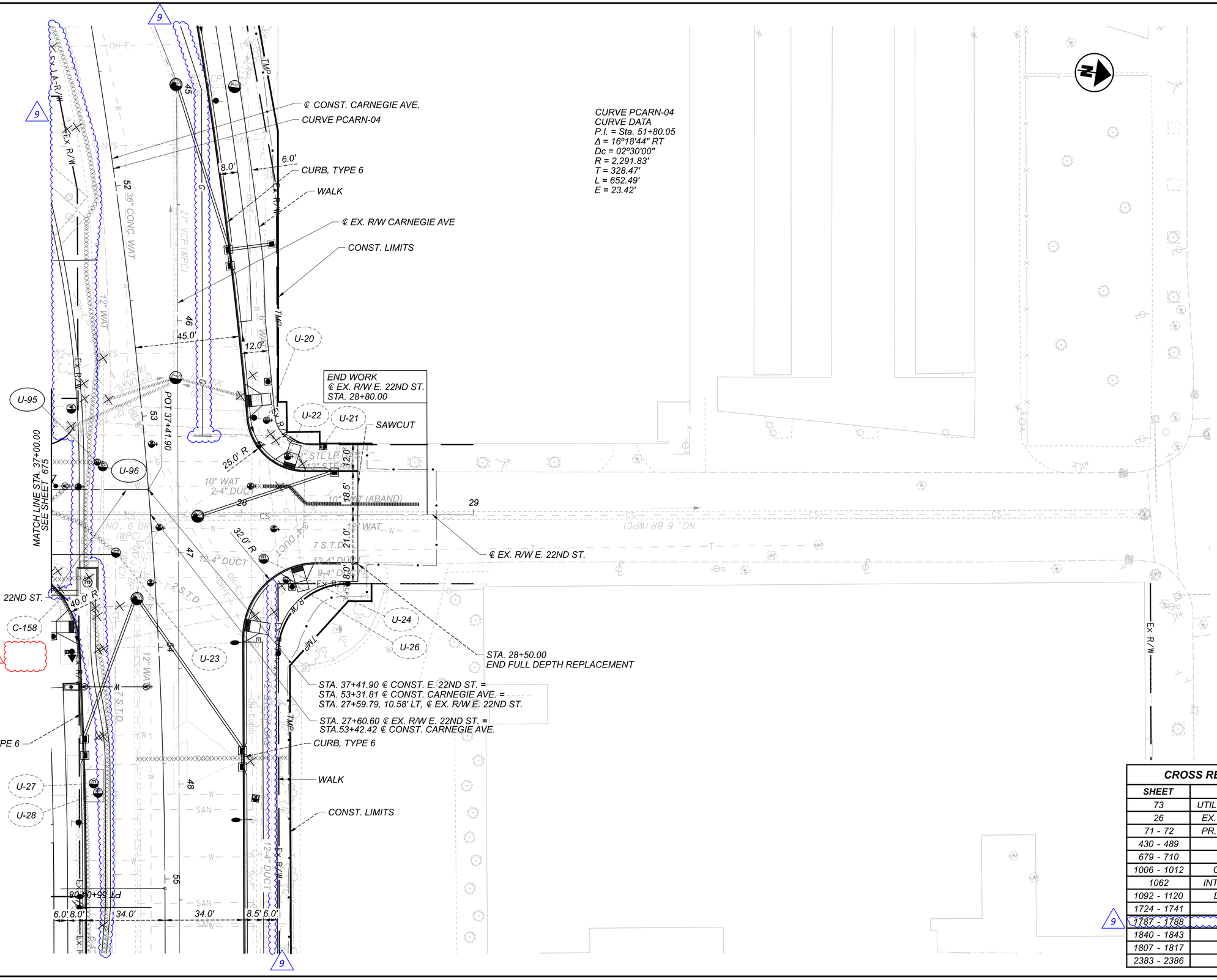
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 673 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP740I PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:00:43 PM USER: Victor.Nash
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CROSS REFERENCES

SHEET	DESCRIPTION
73	UTILITY SYMBOL LEGEND
26	EX. TYPICAL SECTIONS
71 - 72	PR. TYPICAL SECTIONS
430 - 489	SUBSUMMARIES
679 - 710	REMOVAL PLAN
1006 - 1012	CROSS SECTIONS
1062	INTERSECTION DETAIL
1092 - 1120	DRAINAGE PLANS
1724 - 1741	LIGHTING PLAN
1787 - 1788	CPP DUCT BANK
1840 - 1843	HARDSCAPING
1807 - 1817	LANDSCAPING
2383 - 2386	FENCE PLAN

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - E. 22ND ST. STA. 37+00.00 TO END

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 677 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP7403 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 9:56:35 PM USER: Victor.Nash
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= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

℄ E. 21ST ST.

℄ EX. R/W CEDAR CONNECTOR

℄ EX. R/W CARNEGIE AVE.

℄ CONST. CARNEGIE AVE.

CONST. LIMIT

℄ RAMP A1

CONFLICT WITH ELEC.

BUILDING TO REMAIN

REMOVE

TRBO

MATCHLINE SEE SHEET 700

MATCHLINE SEE SHEET 702

HORIZONTAL SCALE IN FEET
0 10 20 40

REMOVAL PLAN
CARNEGIE AVE. / E. 21ST ST / CEDAR AVE.

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP9III PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 3:39:21 PM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 701 TOTAL 2696

= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

CONST. LIMIT

℄ EX. R/W E. 22ND ST.

℄ CONST. E. 22ND ST.

℄ CONST. CARNEGIE AVE.

℄ EX. R/W CARNEGIE AVE.

WR-31 PR-76 RC-91 WR-33 RC-93

REMOVE

TRBO

EX. BILLBOARD (TO BE REMOVED)

R-101 RC-90 WR-30 R-101B WR-38

RC-92 WR-32 R-102B R-102A R-104

PR-79 WR-35 WR-36 PR-82 RC-94

PR-80 R-103 PR-83 WR-37 PR-81

WR-34 R-102 PR-78 R-29 PR-77 PR-9

FOR I.R. 90 REMOVAL DETAILS SEE SHEET 685

℄ INTERIM I.R. 90 WB

℄ I.R. 90 WB

BRUSH & SMALL TREES

MATCHLINE SEE SHEET 701

MATCHLINE SEE SHEET 703

MATCHLINE SEE SHEET 706

HORIZONTAL SCALE IN FEET
0 10 20 40

REMOVAL PLAN
CARNEGIE AVE. / E. 22ND ST / CEDAR AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 702 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP9I2 PAPERSIZE: 34x22 (In.) DATE: 11/7/2025 TIME: 5:23 AM USER: Joseph.Hogan
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= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

FOR I.R. 90 REMOVAL DETAILS SEE SHEET 686

CONST. LIMIT

℄ INTERIM I.R. 90 WB

℄ CONST. CARNEGIE AVE.

℄ I.R. 90 WB

℄ INTERIM I.R. 90 EB

℄ I.R. 90 EB

WR-39 RC-96 PR-85 WR-41 WR-42 PR-86 PR-84 PR-87 WR-43 R-106 R-36 RC-7

WR-40 R-105A R-102B RC-95 R-105 R-29 R-31 R-30 R-33 PR-9 WR-44 R-37 RC-97 PR-88

TRBO REMOVE BRUSH BRUSH & (6) LARGE TREES BRUSH & SMALL TREES 24" TWIN

ESMT Ex U Ex R/W Ex LA-R/W UTILITY TRENCH 6" CLF

OH-E OH-Comb OH-CTV SAN W (WPC) (WPL)

MATCHLINE SEE SHEET 702

MATCHLINE SEE SHEET 704

MATCHLINE SEE SHEET 707

HORIZONTAL SCALE IN FEET
0 10 20 40

REMOVAL PLAN
CARNEGIE AVE. / I.R. 90

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP9I6 PAPERSIZE: 34x22 (in) DATE: 11/7/2025 TIME: 1:57:12 AM USER: Joseph.Hogan
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 703 TOTAL 2696

= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

HORIZONTAL SCALE IN FEET
0 10 20 40

REMOVAL PLAN
CARNEGIE AVE. / MIDTOWN CONNECTOR

PR-9
℄ INTERIM I.R. 90 WB
℄ I.R. 90 EB
℄ INTERIM I.R.90 EB
℄ I.R. 90 WB
℄ CONST. CARNEGIE AVE.
CONST. LIMIT
℄ EX. RAMP 4
TRBO REMOVE
BRUSH
R-107
PR-90
RC-99
R-108
WR-46
TRBO
Ex R/W
OH-Comb
OH-E
OH-T
SAN
MATCHLINE SEE SHEET 703
MATCHLINE SEE SHEET 705
MATCHLINE SEE SHEET 708
24" LINK (WPC)
24" VCP (WPC)
R-37
WR-45
RC-98
REMOVE
PR-9
RC-6
R-32
PR-92
PR-89
R-109
Ex LA
Ex U
WR-47
R-111A
PR-91
WR-48
WR-49
R-110A
RC-100
CONFLICT WITH TELECOM
℄ EX. R/W CARNEGIE AVE.
℄ MIDTOWN COONNECTOR
R/W
TMP
PR-94
PR-93
R-113
R-112
R-111
R-110
R-343
R-342
1. REMOVE VAULT 5' DEEP (6' X 4' PRECAST) REMOVE REINFORCED CONCRETE PAD (27' X 8' X 4')

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 704 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP9I7 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 4:33:08 PM USER: Victor.Nash
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= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

MATCHLINE SEE SHEET 704

MATCHLINE SEE SHEET 709

REMOVE

℄ CONST. CARNEGIE AVE.

℄ EX. R/W CARNEGIE AVE.

℄ EX. R/W E. 28TH ST.

CONST. LIMITS

Ex LA-R/W

Ex R/W

OH-Comb

OH-E

OH-T

SAN

W

TMP

BRUSH

BUSHES

WR-50 WR-51 WR-52 WR-53 WR-54 WR-55 WR-56 WR-57

PR-95 PR-96 PR-97 PR-98 PR-99 PR-100 PR-101

RC-101 RC-102 RC-103

R-110A R-114A

60 61 62 63 64 67 68 69 70 71

10 12 13

HORIZONTAL SCALE IN FEET

0 10 20 40

REMOVAL PLAN
CARNEGIE AVE / E 28TH ST

CUY-90-16.28 (CCG3A)

MODEL: 82382_GP9I20 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 4:44:22 PM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 705 TOTAL 2696

MATCHLINE SEE SHEET 706

WR-79 RC-124 R-26 TBRO Ex LA-R/W Ex LA-R/W

TBRO R-140A R-138 R-139 10 PR-124 RC-125 REMOVE REMOVE SURVEILLANCE CAMERA SYSTEM TRBO TRBO WR-78 Ex R/W

1806 1807 PR-121 RC-120 WR-75 CONST. LIMIT

PR-122 WR-77 ℄ EX. R/W CENTRAL AVE. Ex R/W

RC-123 ℄ EX. R/W E. 22ND ST.

WR-76 RC-122 PR-123 RC-30 DO NOT DISTURB PLANTER RC-121

℄ CONST. E. 22ND ST.

= PAVEMENT REMOVED

= WALK REMOVED

= DRIVE REMOVED

XXXX = UTILITY REMOVED

TRBO = TO BE REMOVED BY OTHERS

HORIZONTAL SCALE IN FEET
0 10 20 40

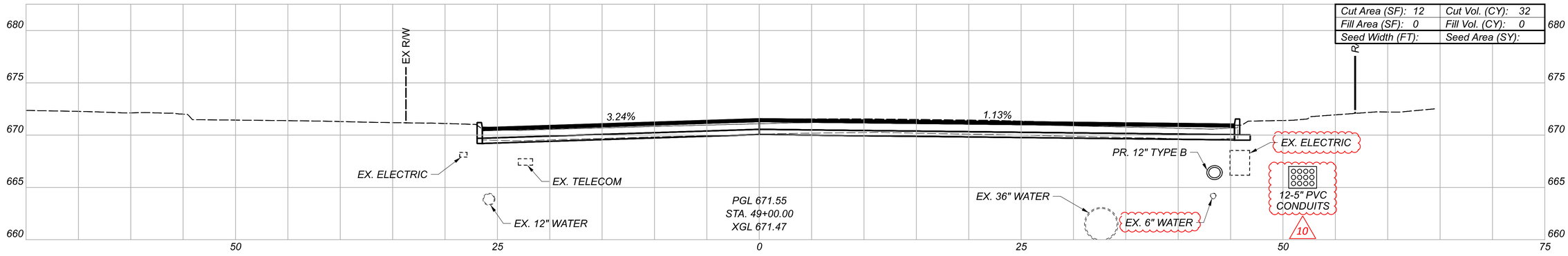
REMOVAL PLAN
E. 22ND ST / CENTRAL AVE.

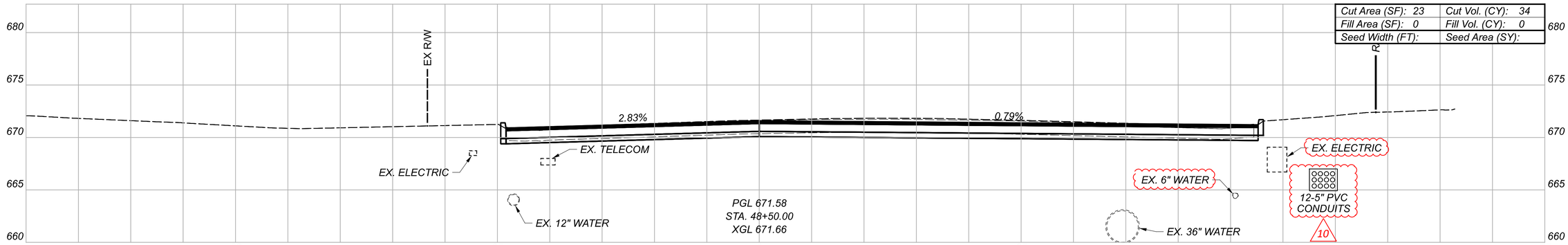
CUY-90-16.28 (CCG3A)

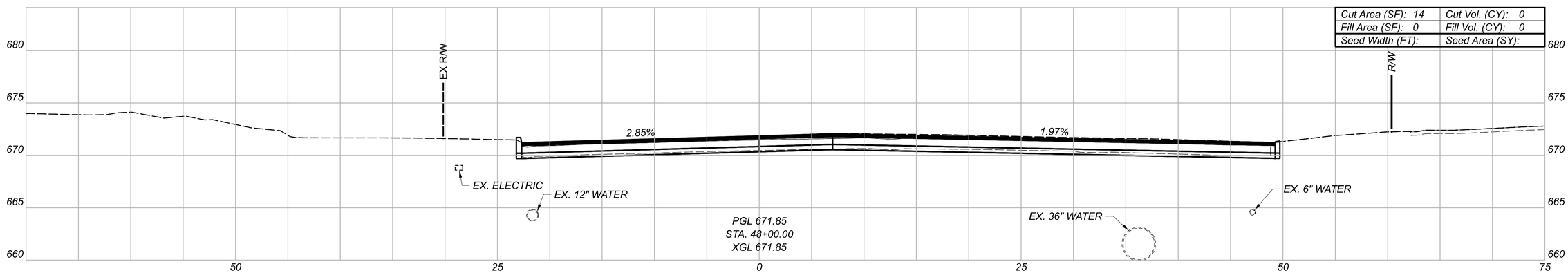
MODEL: 82382_GP9I4 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 5:10:29 PM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 710 TOTAL 2696







CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE_-_48+00.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 11/6/2025 TIME: 10:25:39 AM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL

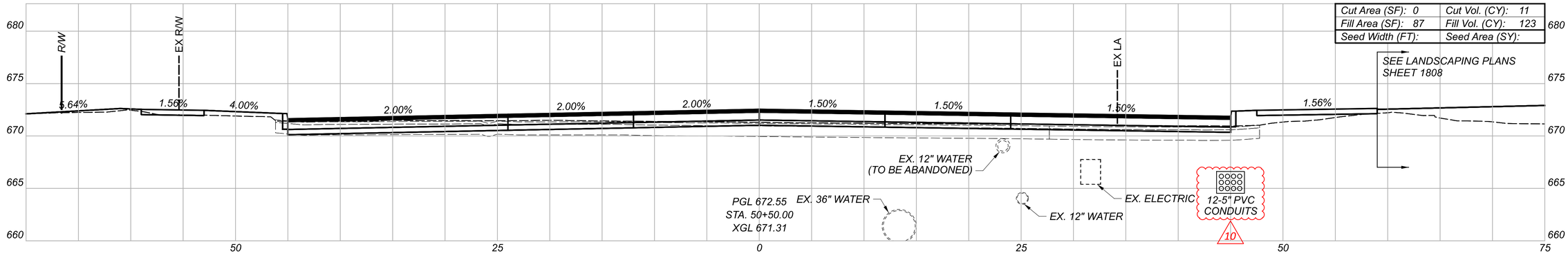
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

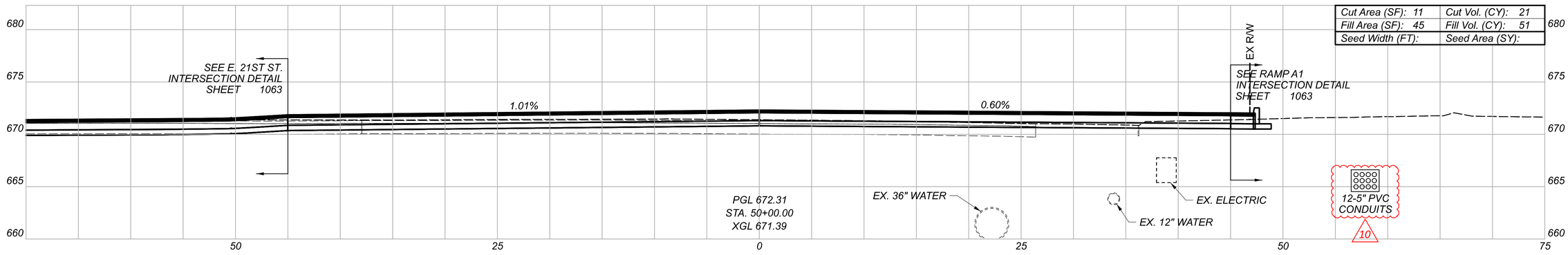
PROJECT ID
82382

Sheet Totals		
Seeding	Cut	Fill
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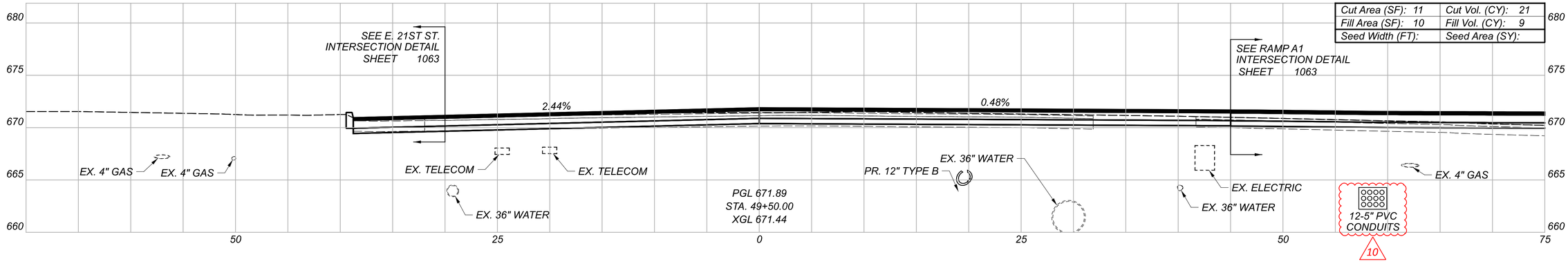
SHEET 932 TOTAL 2696



Cut Area (SF): 0	Cut Vol. (CY): 11
Fill Area (SF): 87	Fill Vol. (CY): 123
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 11	Cut Vol. (CY): 21
Fill Area (SF): 45	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 11	Cut Vol. (CY): 21
Fill Area (SF): 10	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	53	183

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

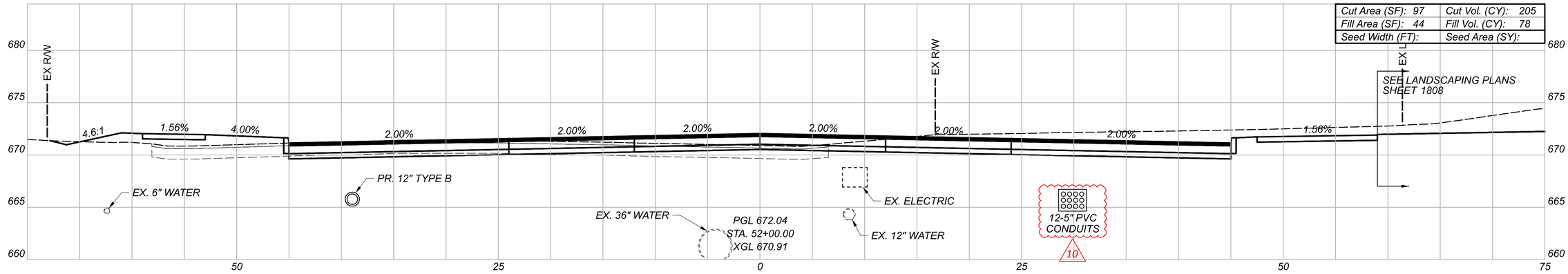
PROJECT ID
82382

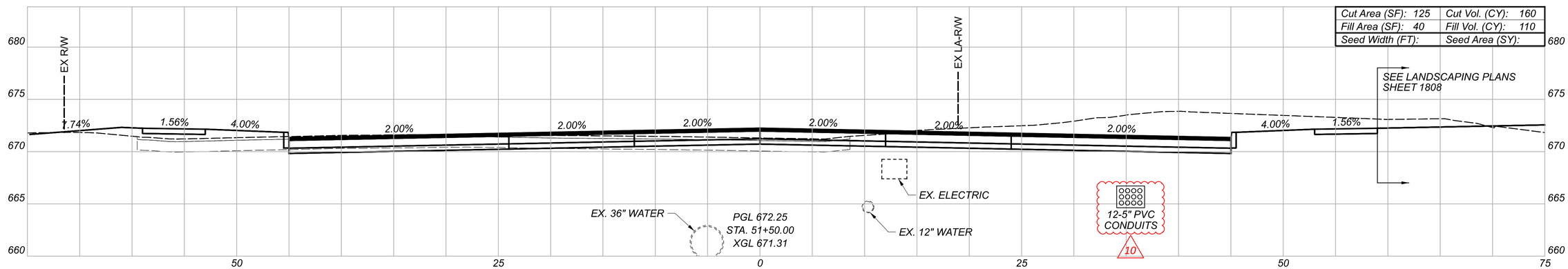
SHEET 933 | TOTAL 2696

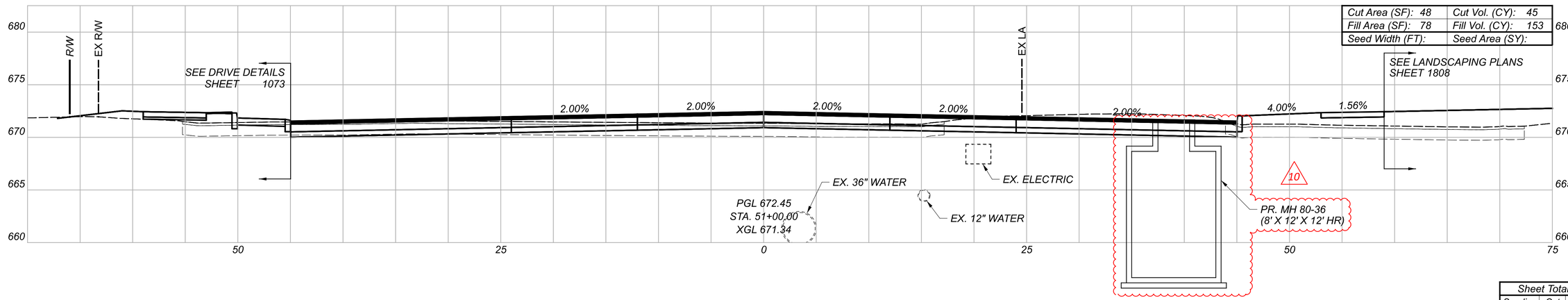
CUY-90-16.28 (CCG3A)

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pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\0007\01_Structure\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn

CROSS SECTIONS
CARNEGIE AVE.







Sheet Totals		
Seeding	Cut	Fill
0	410	341

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

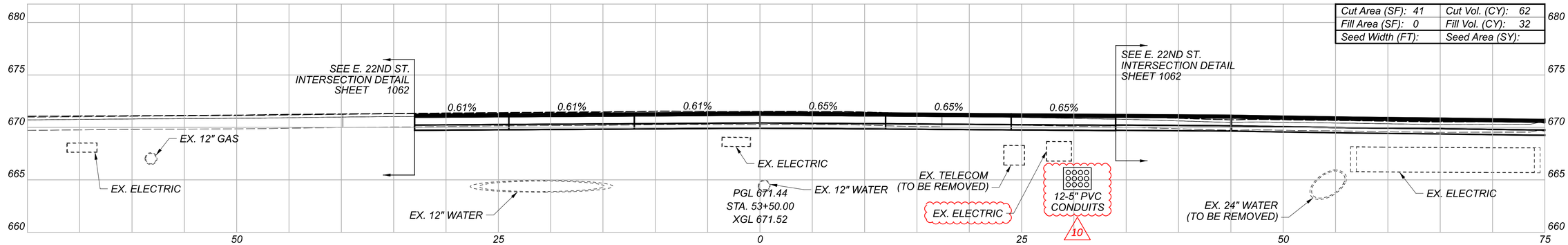
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

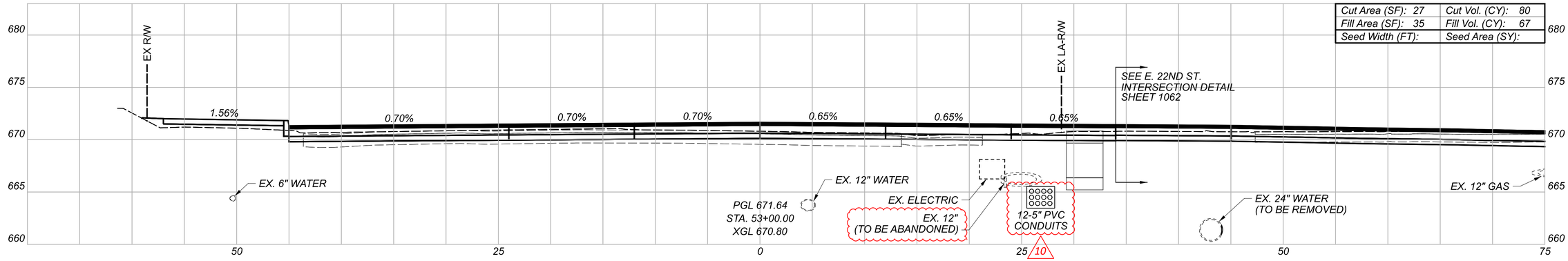
SHEET 934 TOTAL 2696

CUY-90-16.28 (CCG3A)

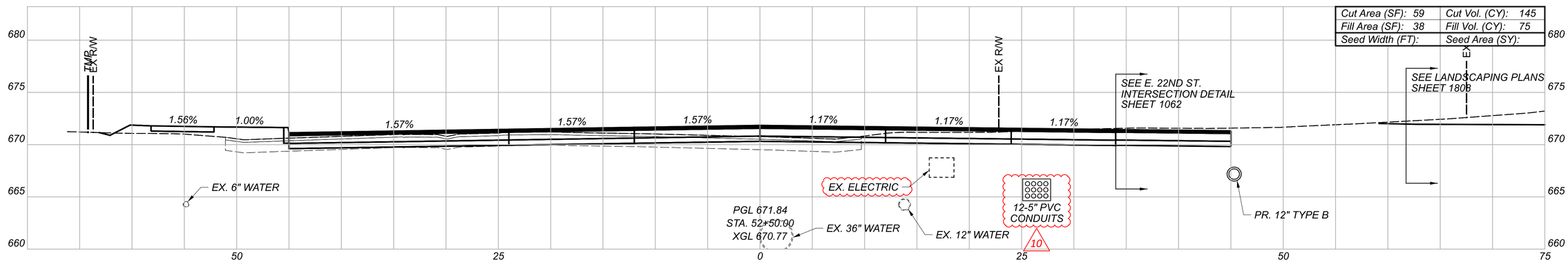
MODEL: CL_CARNEGIE AVE. - 5i+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:40:33 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland.OH\OI_Projects\ODOT\District2\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn



Cut Area (SF): 41	Cut Vol. (CY): 62
Fill Area (SF): 0	Fill Vol. (CY): 32
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 27	Cut Vol. (CY): 80
Fill Area (SF): 35	Fill Vol. (CY): 67
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 59	Cut Vol. (CY): 145
Fill Area (SF): 38	Fill Vol. (CY): 75
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	287	174

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

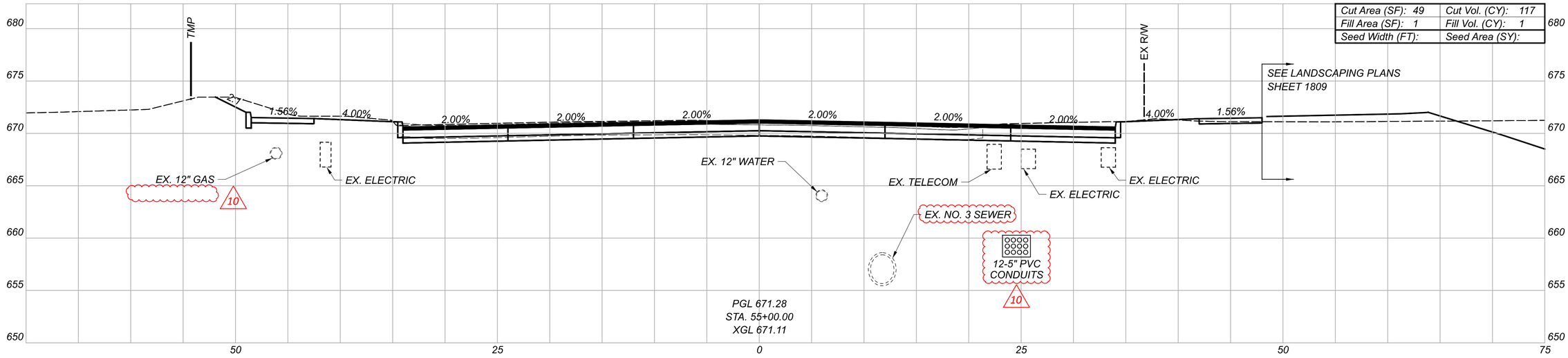
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

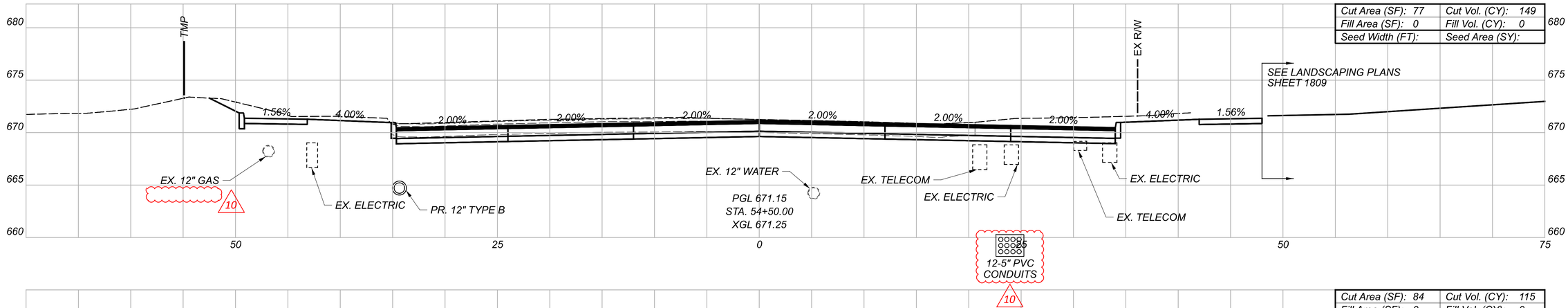
SHEET 935 TOTAL 2696

CUY-90-16.28 (CCG3A)

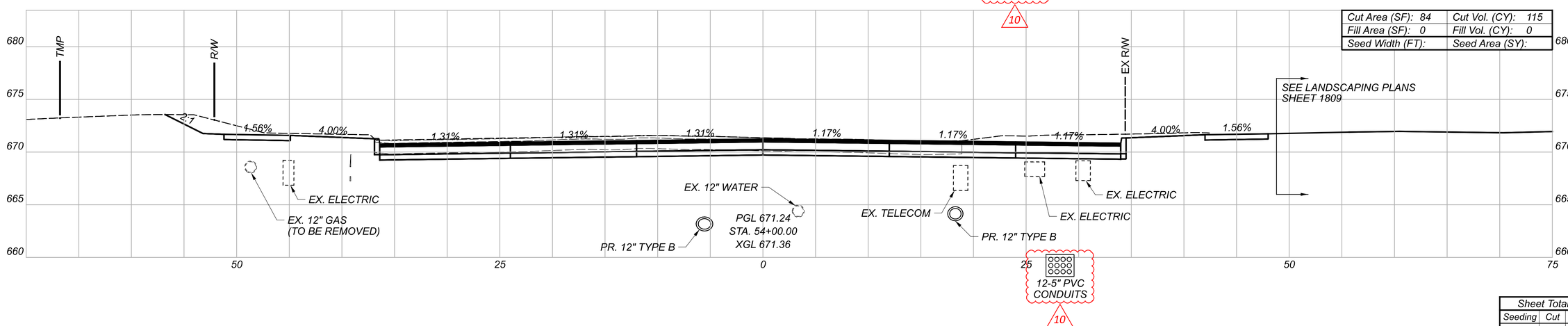
MODEL: CL CARNEGIE AVE. - 52+50.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:59:54 AM USER: Victor.Nash
pw:\\mb-us-pw.bentley.commb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District2\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn



Cut Area (SF): 49	Cut Vol. (CY): 117
Fill Area (SF): 1	Fill Vol. (CY): 1
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 77	Cut Vol. (CY): 149
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 84	Cut Vol. (CY): 115
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	381	1

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

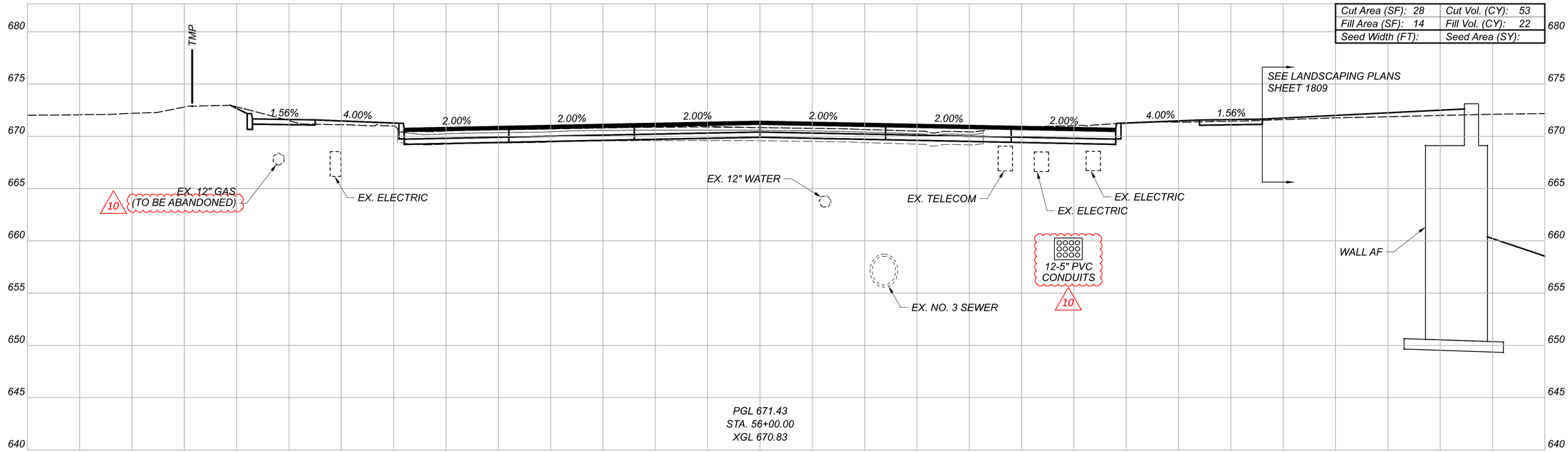
REVIEWER
KGJ 05/22/24

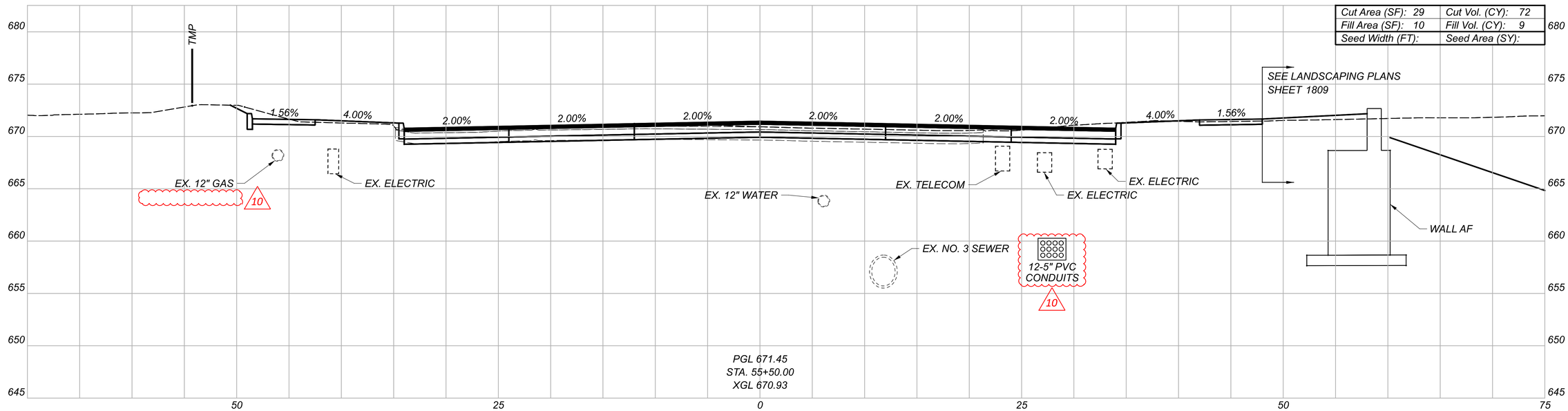
PROJECT ID
82382

SHEET 936 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: CL CARNEGIE AVE. - 54+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:41:13 AM USER: Victor Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\000T\District2\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn





CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE. - 55+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:19:13 AM USER: Victor.Nash
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Sheet Totals		
Seeding	Cut	Fill
0	125	31

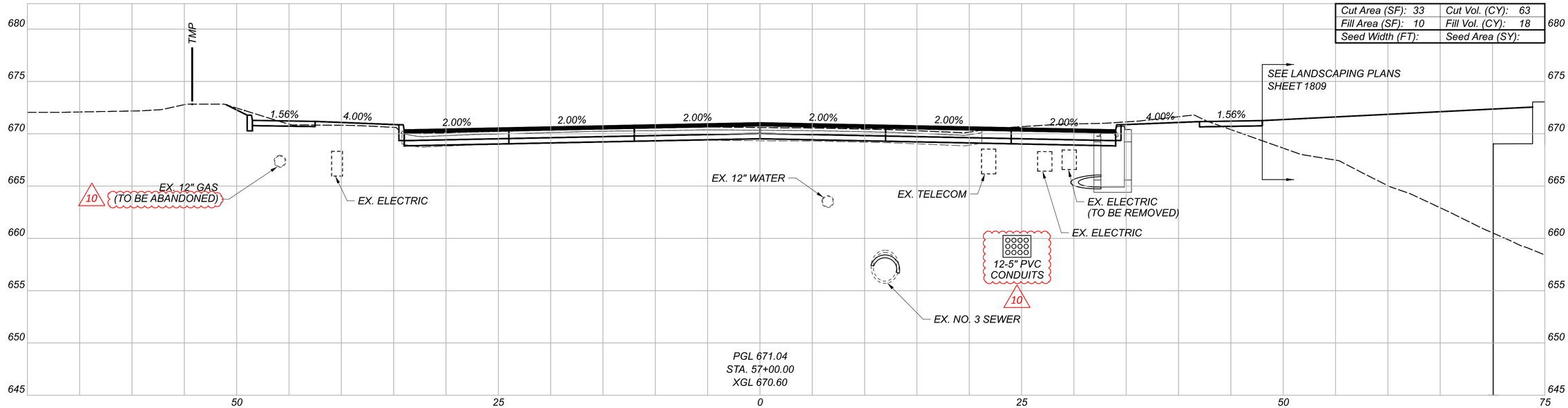
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

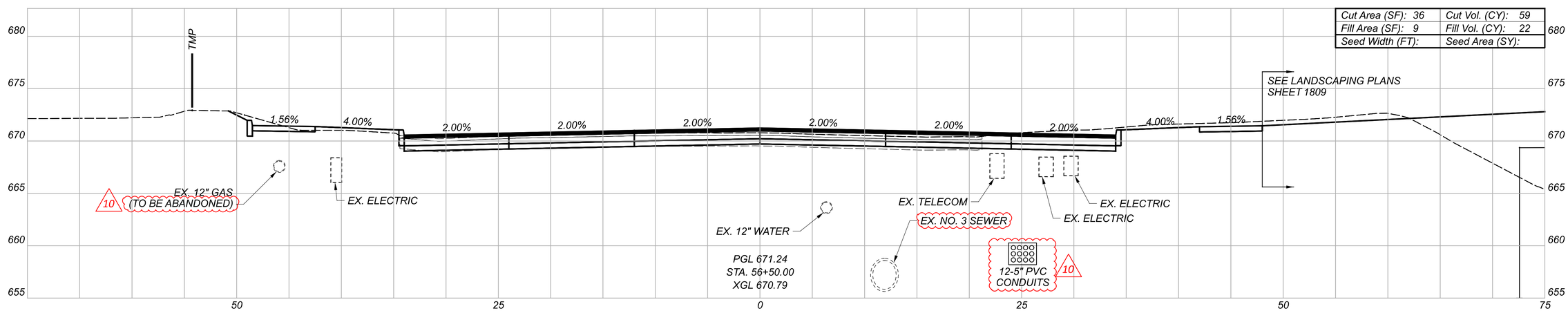
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 937 TOTAL 2696



Cut Area (SF): 33	Cut Vol. (CY): 63
Fill Area (SF): 10	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 36	Cut Vol. (CY): 59
Fill Area (SF): 9	Fill Vol. (CY): 22
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE. - 56+50.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 11:30:10 AM USER: Victor.Nash
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DESIGN AGENCY
Michael Baker INTERNATIONAL

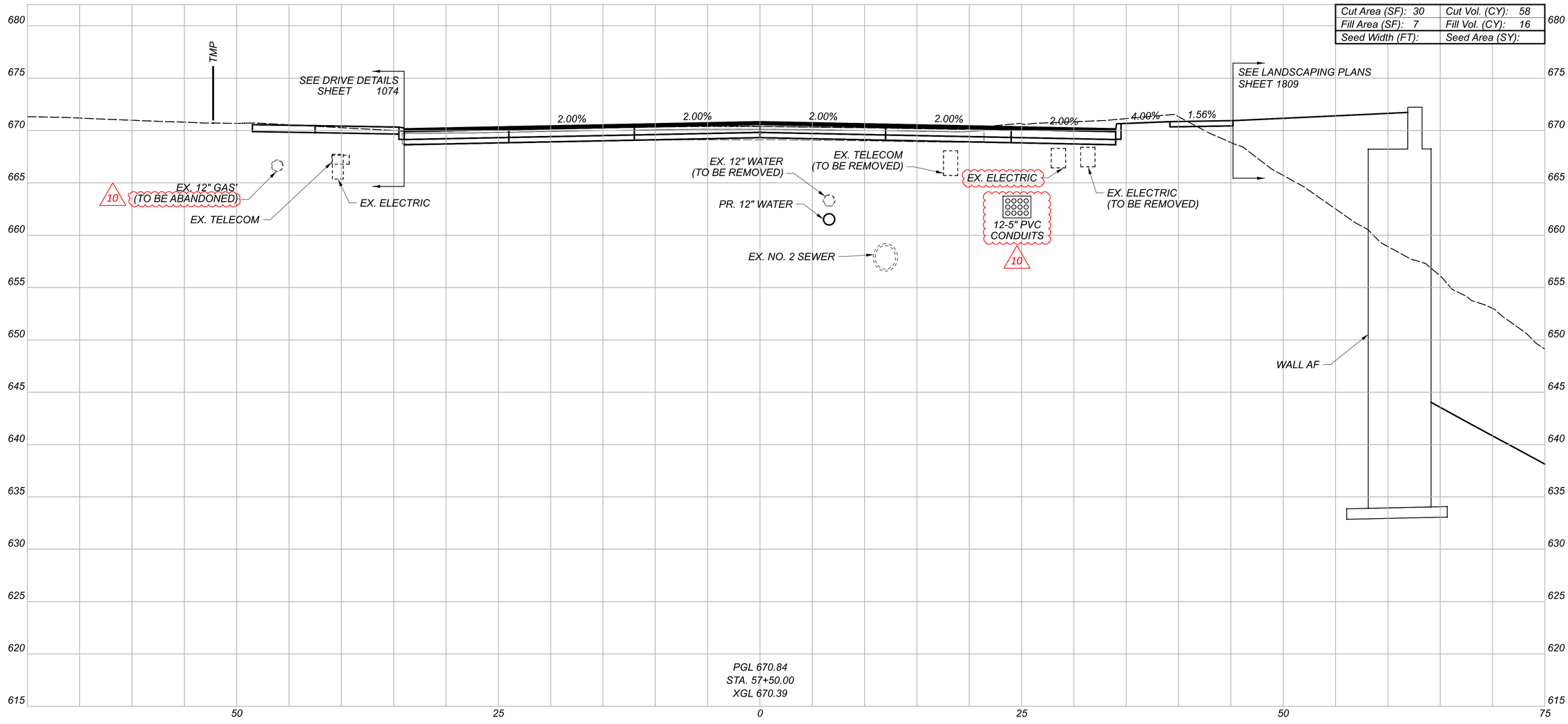
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

Sheet Totals		
Seeding	Cut	Fill
0	122	40

SHEET	TOTAL
938	2696



Cut Area (SF): 30	Cut Vol. (CY): 58
Fill Area (SF): 7	Fill Vol. (CY): 16
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	58	16

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 939 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE._ 57+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:36:36 AM USER: Victor.Nash
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Cut Area (SF): 15	Cut Vol. (CY): 42
Fill Area (SF): 7	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):

TMP

SEE DRIVE DETAILS SHEET 1075

EX. TELECOM

10 EX. 12" GAS (TO BE ABANDONED)

EX. ELECTRIC

2.00% 2.00% 2.00% 2.00% 4.72%

PR. 12" TYPE B

EX. 12" WATER (TO BE REMOVED)

PR. 12" WATER

EX. TELECOM (TO BE REMOVED)

EX. ELECTRIC

EX. NO. 2 SEWER (TO BE REMOVED)

12-5" PVC CONDUITS

10

EX. ELECTRIC (TO BE REMOVED)

WALL AF

EX. ELECTRIC (TO BE REMOVED)

SEE I.R. 90 WB CROSS SECTIONS

4.88%

PR. 15" TYPE B

PGL 670.64
STA. 58+00.00
XGL 670.11

680 675 670 665 660 655 650 645 640 635 630 625 620 615

50 25 0 25 50 75

Sheet Totals		
Seeding	Cut	Fill
0	42	13

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

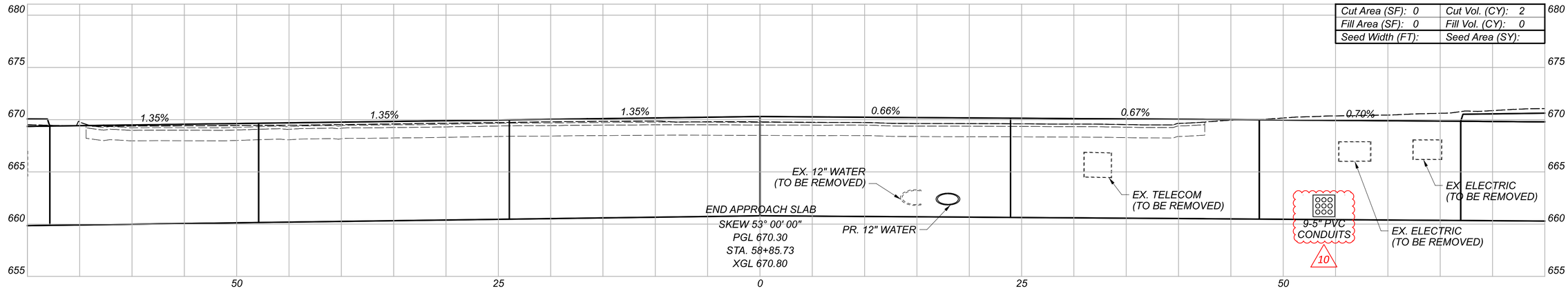
REVIEWER KGJ 05/22/24

PROJECT ID 82382

SHEET 940 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: CL CARNEGIE AVE. - 58+00.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 11/6/2025 TIME: 11:43:20 AM USER: Victor.Nash
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CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE._-_58+55.74 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:50:09 AM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District2\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn

Sheet Totals		
Seeding	Cut	Fill
0	20	7

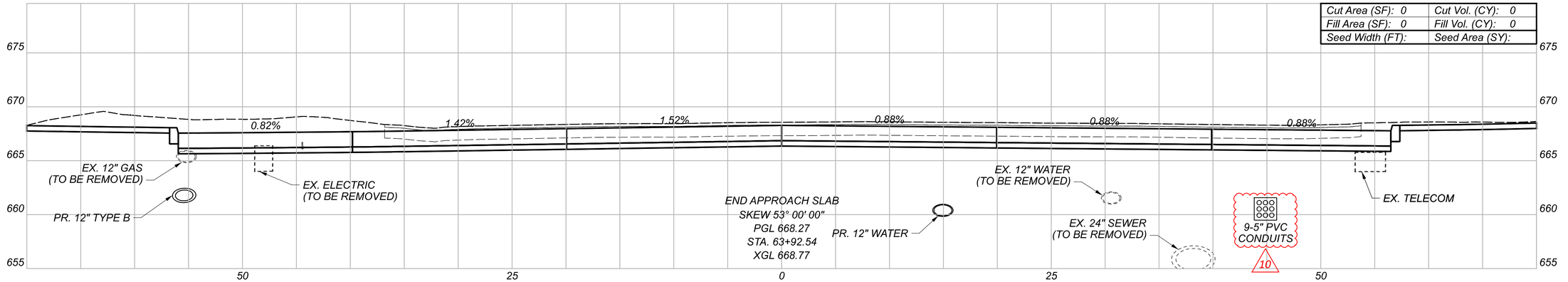
DESIGN AGENCY
Michael Baker INTERNATIONAL

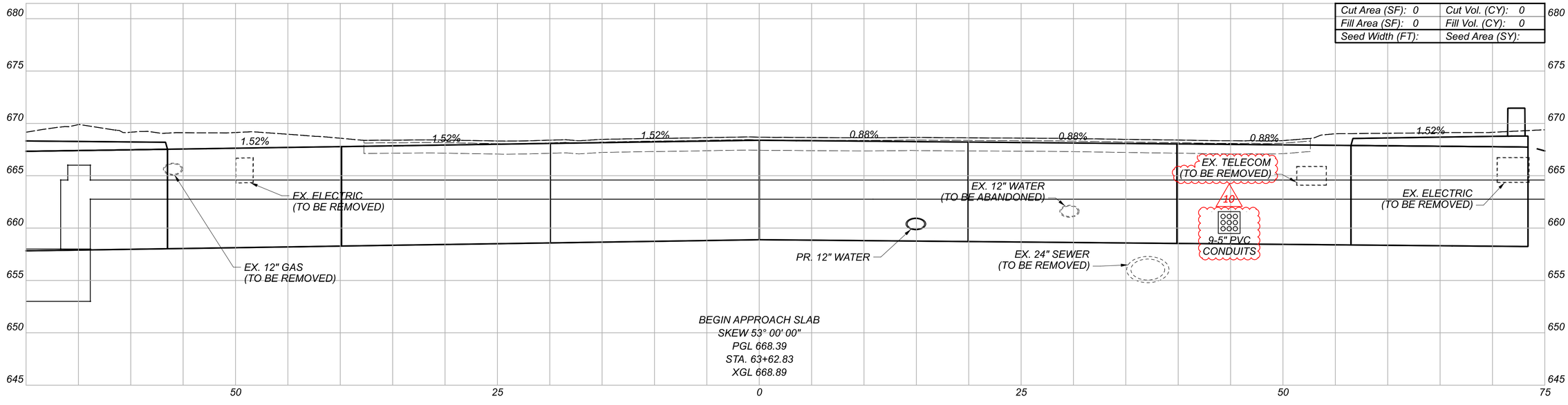
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 941 TOTAL 2696





CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL CARNEGIE AVE. - 63+62.83-[Sheet] PAPERSIZE: 34x22 (in) DATE: 11/6/2025 TIME: 11:59:04 AM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH_OL_Projects\ODOT\District 12\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

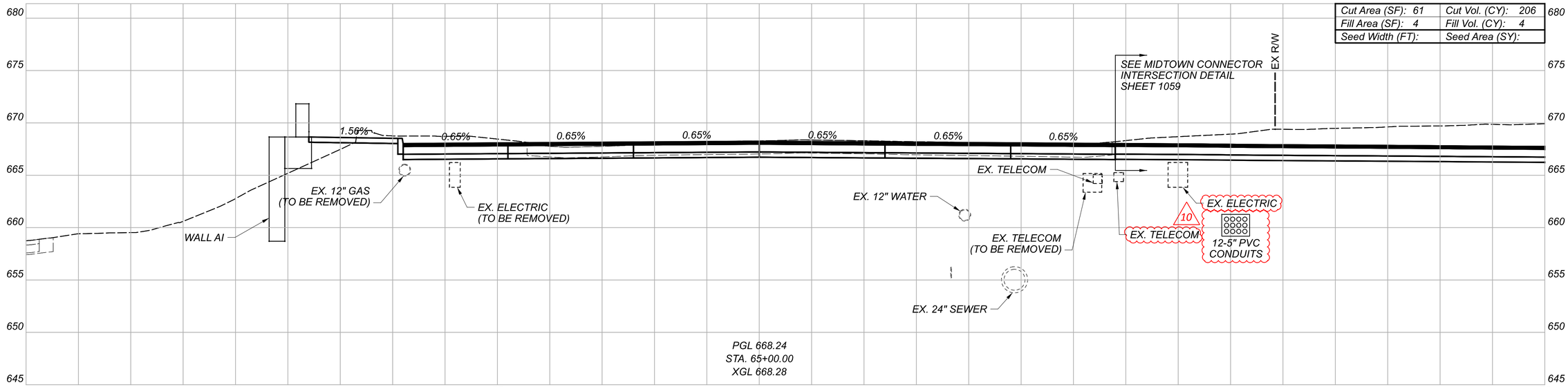
REVIEWER
KGJ 05/22/24

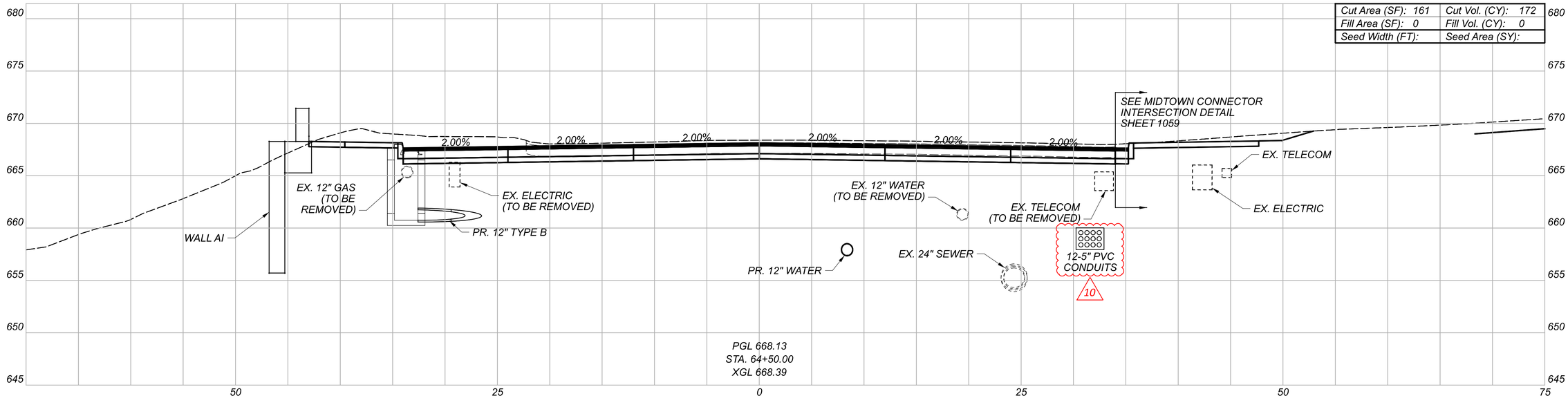
PROJECT ID
82382

SHEET 942 TOTAL 2696

Sheet Totals

Seeding	Cut	Fill
0	0	0





CROSS SECTIONS
CARNEGIE AVE.

CUY-90-16.28 (CCG3A)

MODEL: CL_CARNEGIE AVE._-_64+50.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 12/6/2025 TIME: 12:05:41 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH_OL_Projects\ODOT\District 12\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn

Sheet Totals		
Seeding	Cut	Fill
0	378	4

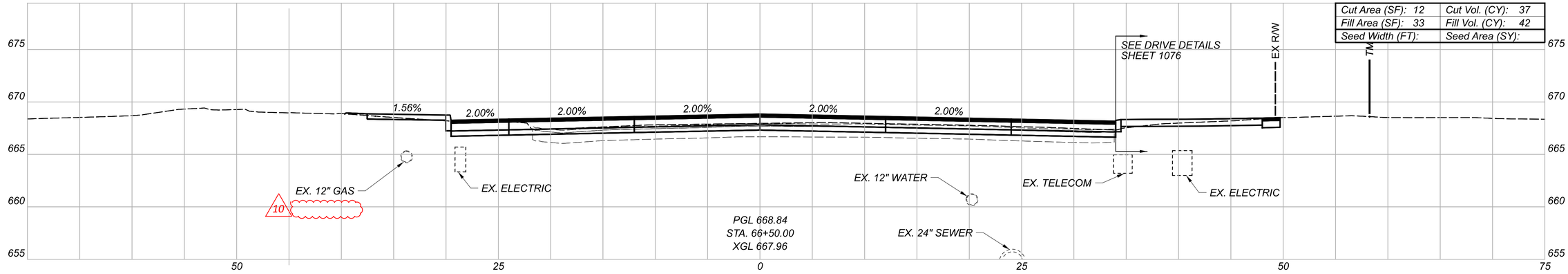
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

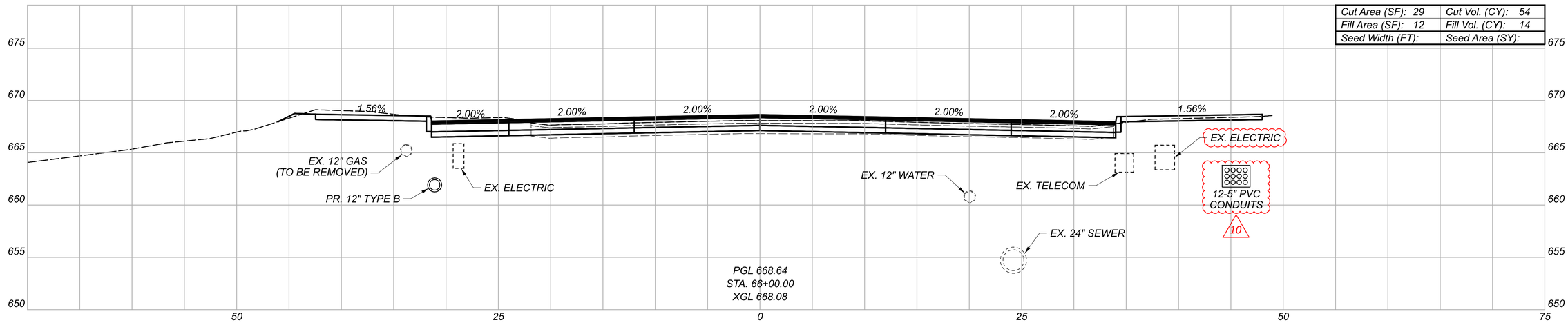
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

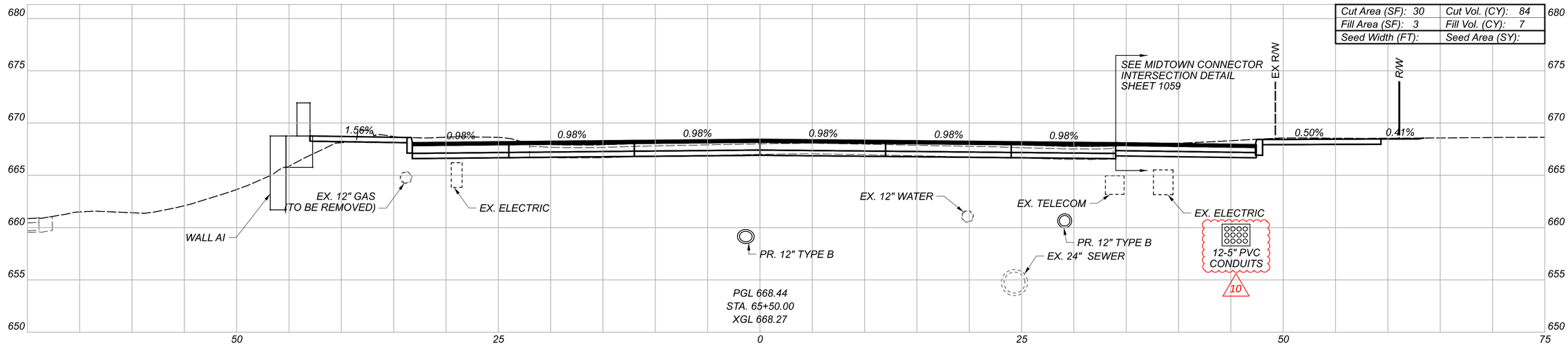
SHEET 943
TOTAL 2696



Cut Area (SF): 12	Cut Vol. (CY): 37
Fill Area (SF): 33	Fill Vol. (CY): 42
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 29	Cut Vol. (CY): 54
Fill Area (SF): 12	Fill Vol. (CY): 14
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 30	Cut Vol. (CY): 84
Fill Area (SF): 3	Fill Vol. (CY): 7
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS
CARNEGIE AVE.

Sheet Totals		
Seeding	Cut	Fill
0	175	63

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

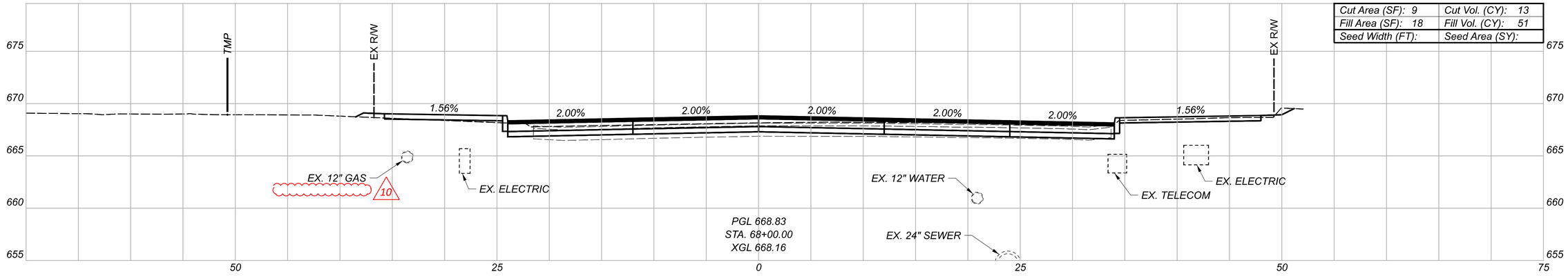
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

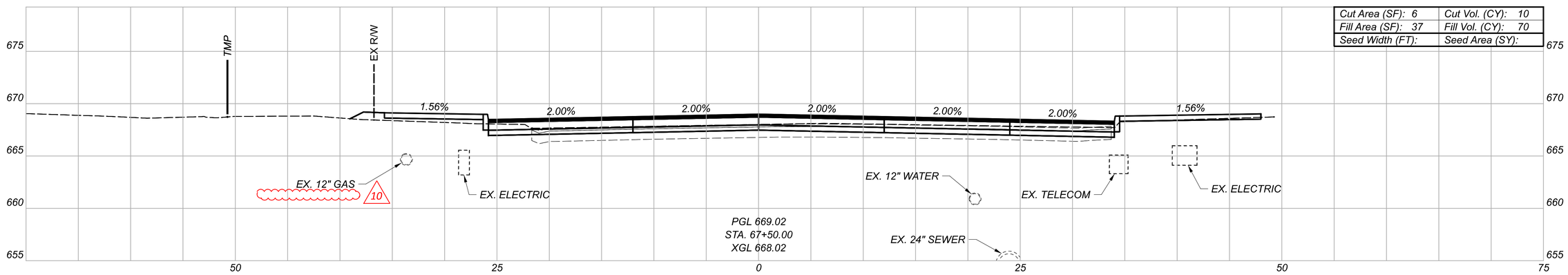
SHEET 944 TOTAL 2696

CUY-90-16.28 (CCG3A)

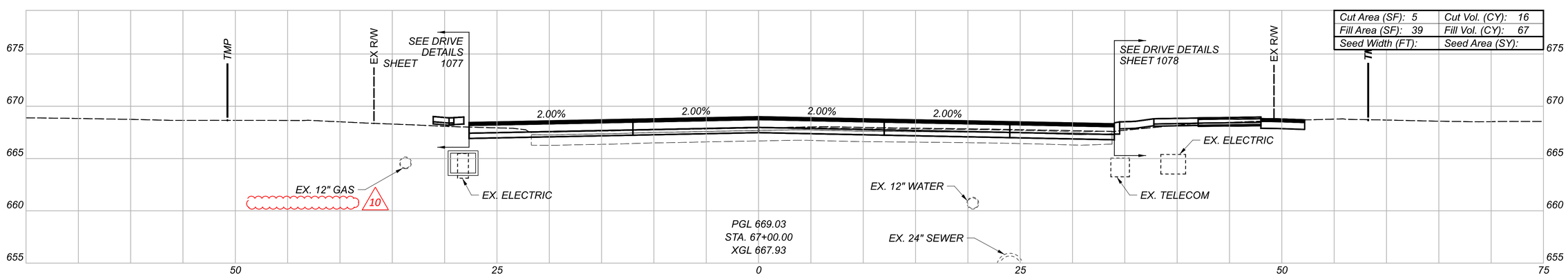
MODEL: CL_CARNEGIE AVE. - 65+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 12:45:58 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH_OL_Projects\ODOT\District 12\82382\400-Engineering\Roadway\Sheets\82382_XS7100.dgn



Cut Area (SF): 9	Cut Vol. (CY): 13
Fill Area (SF): 18	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 6	Cut Vol. (CY): 10
Fill Area (SF): 37	Fill Vol. (CY): 70
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 5	Cut Vol. (CY): 16
Fill Area (SF): 39	Fill Vol. (CY): 67
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	39	188

CROSS SECTIONS
CARNEGIE AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

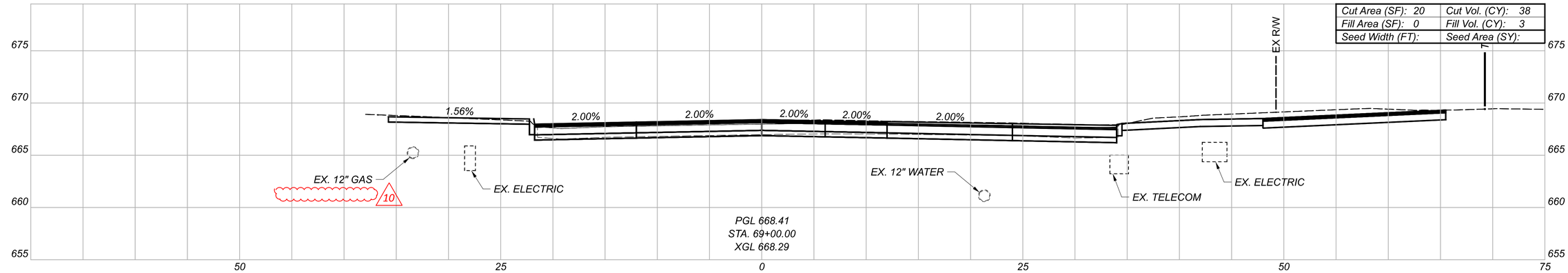
SHEET 945 TOTAL 2696

CUY-90-16.28 (CCG3A)

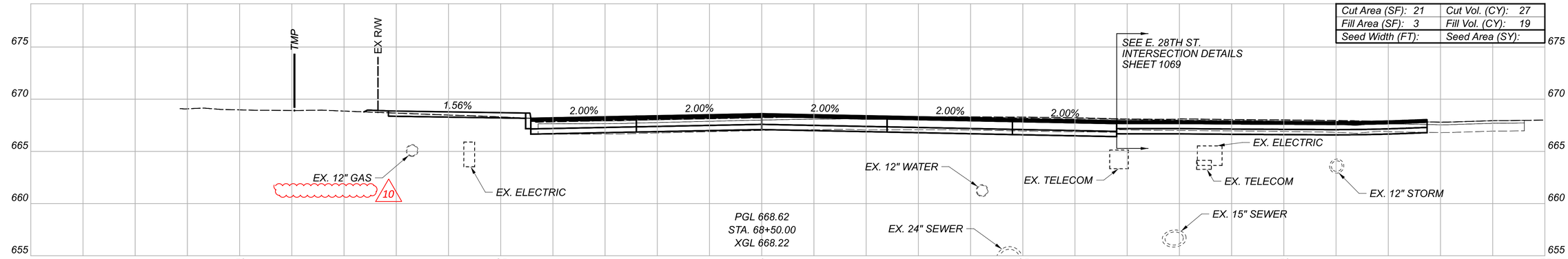
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CROSS SECTIONS
CARNEGIE AVE.

Cut Area (SF): 20	Cut Vol. (CY): 38
Fill Area (SF): 0	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 21	Cut Vol. (CY): 27
Fill Area (SF): 3	Fill Vol. (CY): 19
Seed Width (FT):	Seed Area (SY):



Sheet Totals			Grand Totals Carried to Subsummary		
Seeding	Cut	Fill	Seeding	Cut	Fill
0	65	22	0	2221	1083

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

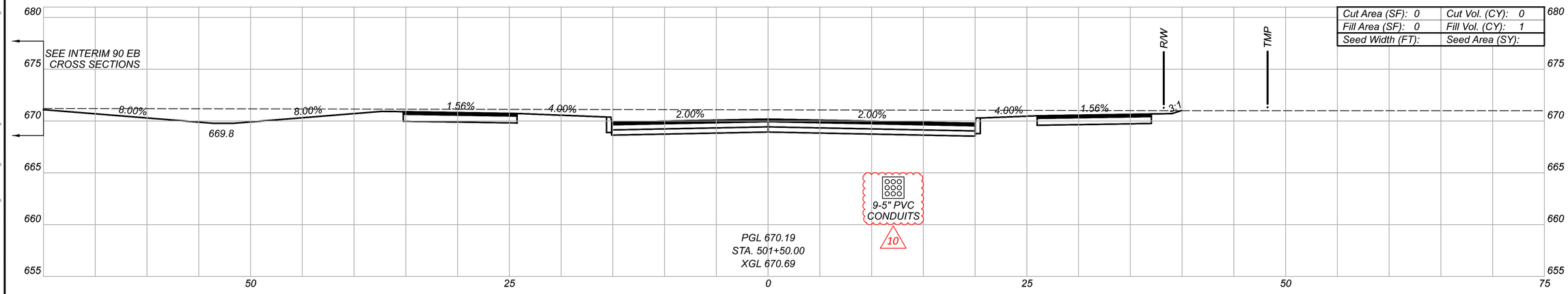
SHEET 946 TOTAL 2696

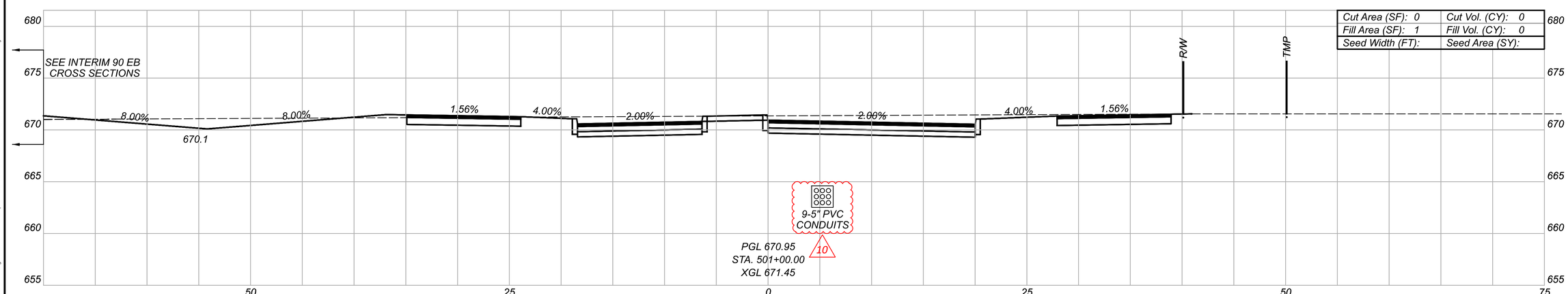
CUY-90-16.28 (CCG3A)

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CUY-90-16.28 (CCG3A)





CROSS SECTIONS
MIDTOWN CONNECTOR

Sheet Totals		
Seeding	Cut	Fill
0	0	1

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

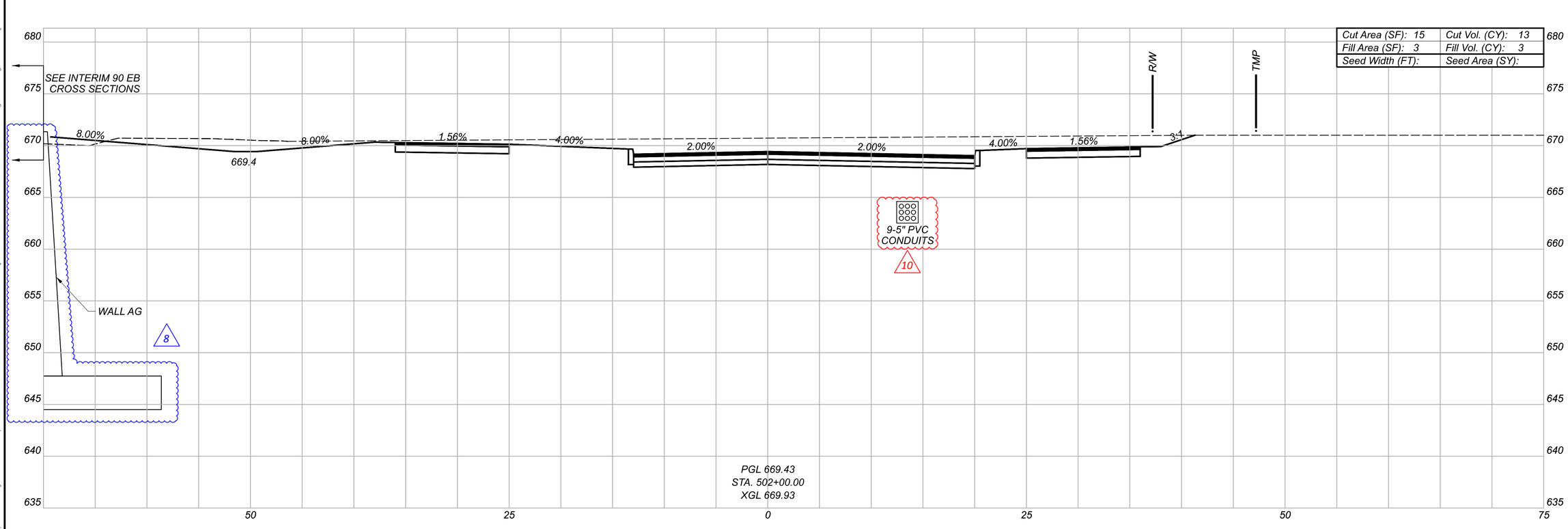
PROJECT ID
82382

SHEET 947 TOTAL 2696

MODEL: CLP_Midtown Connector - 502+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 02:06 PM USER: Julie.Ross
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CUY-90-16.28 (CCG3A)

CROSS SECTIONS
MIDTOWN CONNECTOR



Sheet Totals		
Seeding	Cut	Fill
0	13	3

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

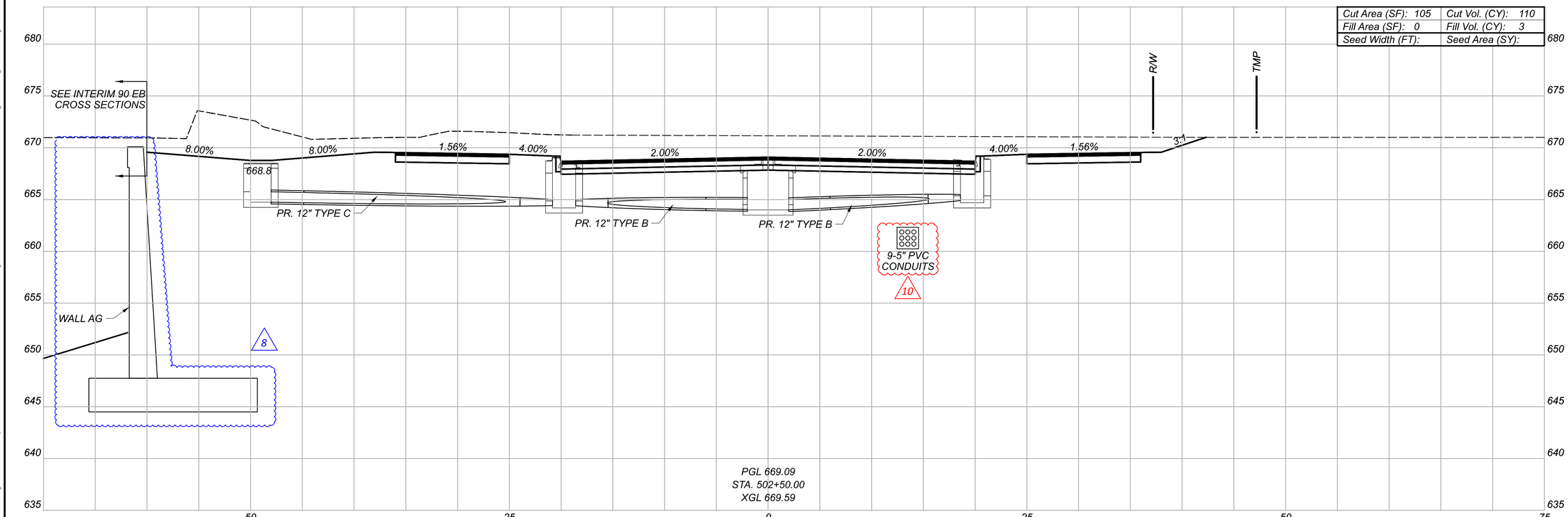
PROJECT ID
82382

SHEET 948 TOTAL 2696

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CUY-90-16.28 (CCG3A)

Cut Area (SF): 105	Cut Vol. (CY): 110
Fill Area (SF): 0	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS
MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

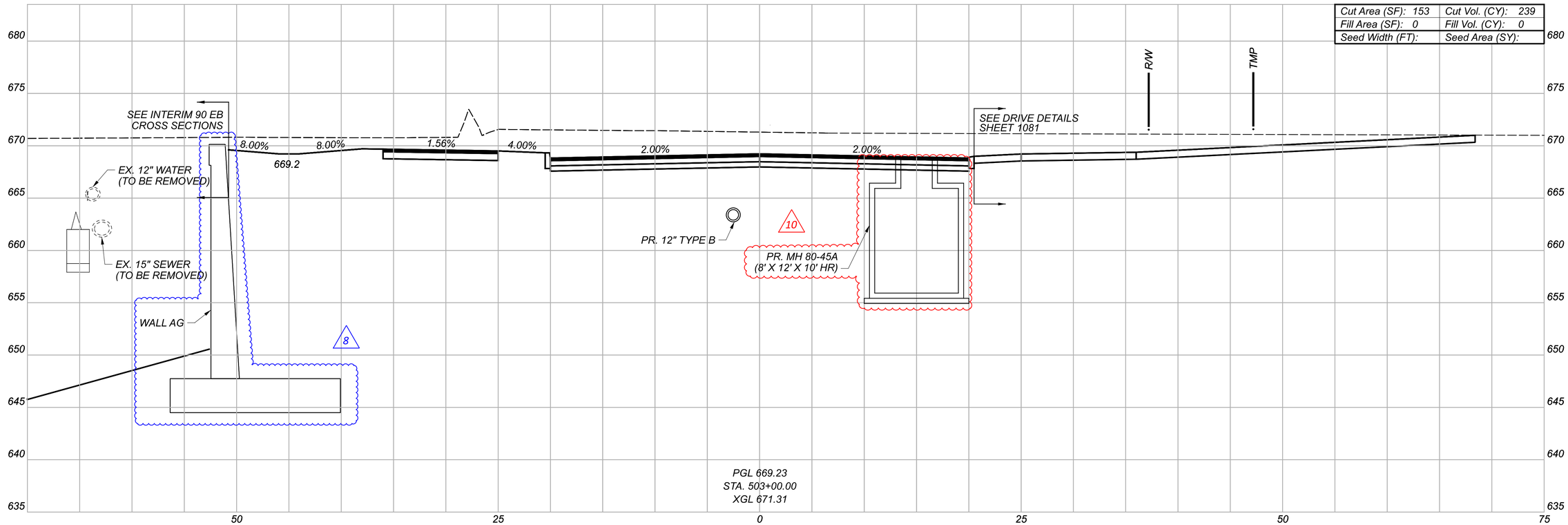
Sheet Totals		
Seeding	Cut	Fill
0	110	3

SHEET 949 TOTAL 2696

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CUY-90-16.28 (CCG3A)

Cut Area (SF): 153	Cut Vol. (CY): 239
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS
MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM

REVIEWER KGJ 05/22/24

PROJECT ID 82382

Sheet Totals		
Seeding	Cut	Fill
0	239	0

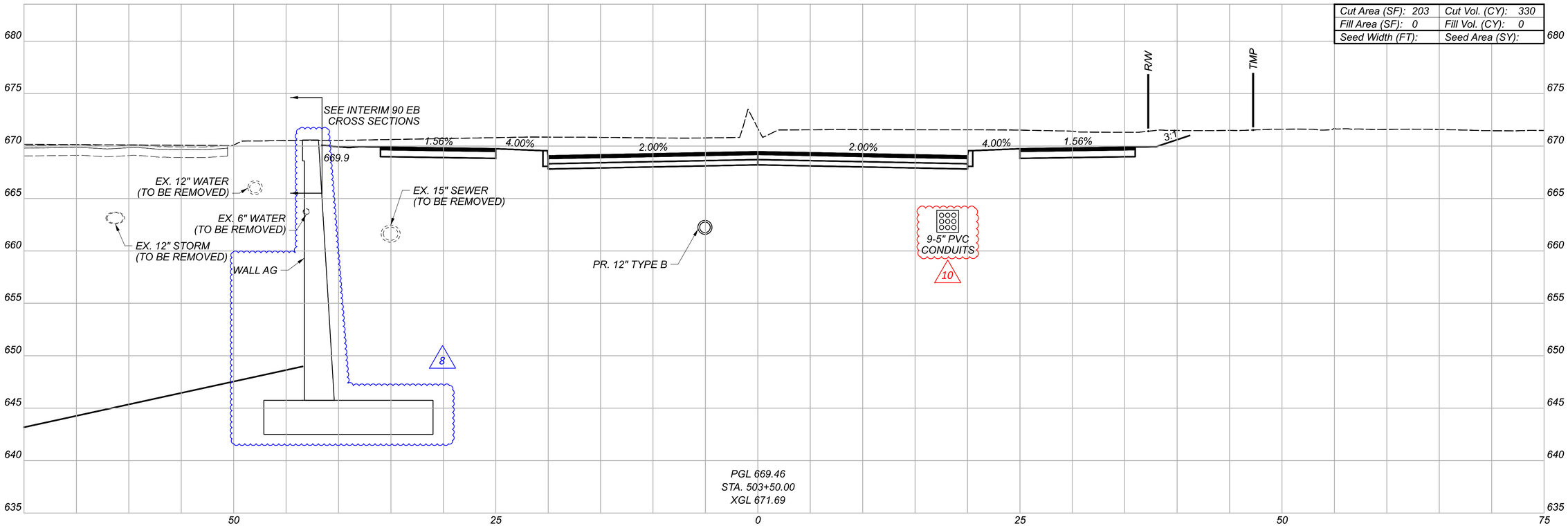
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CUY-90-16.28 (CCG3A)

CROSS SECTIONS
MIDTOWN CONNECTOR

Cut Area (SF): 203	Cut Vol. (CY): 330
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Sheet Totals		
Seeding	Cut	Fill
0	330	0

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

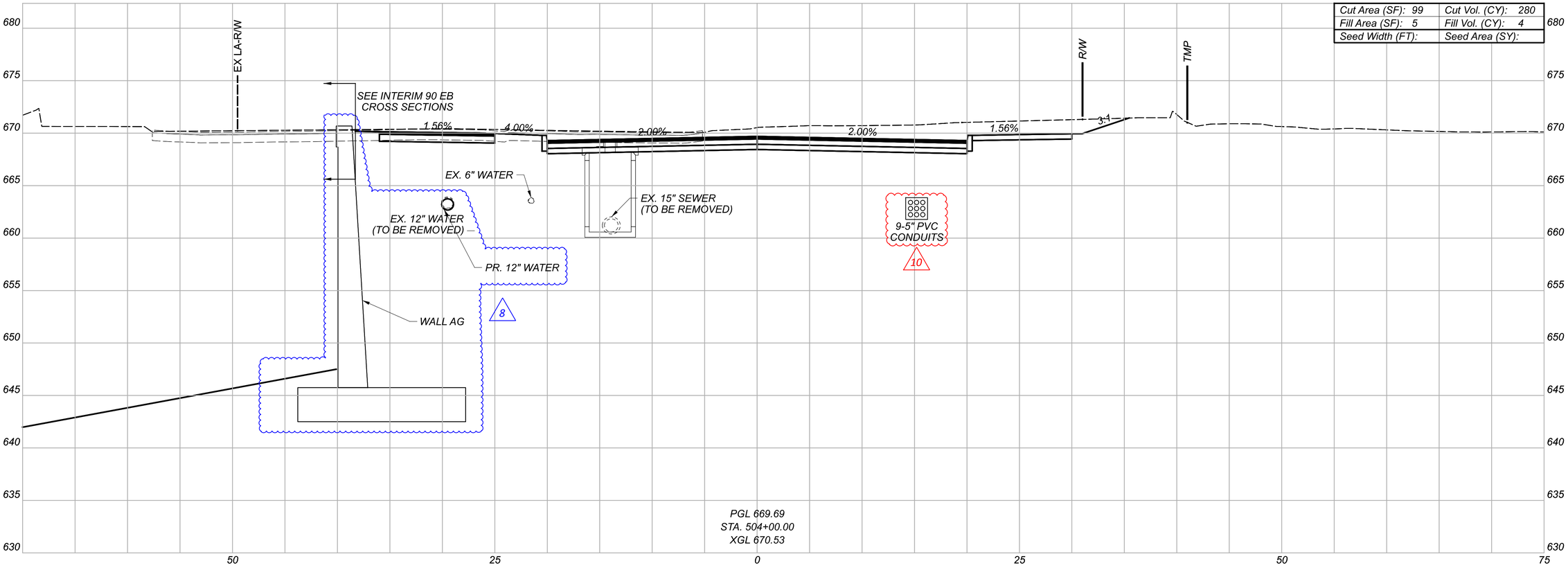
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 951 TOTAL 2696

MODEL: CLP_Midtown Connector - 504+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/6/2025 TIME: 11:30:44 PM USER: Julie.Ross
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CUY-90-16.28 (CCG3A)



CROSS SECTIONS
MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 952 TOTAL 2696

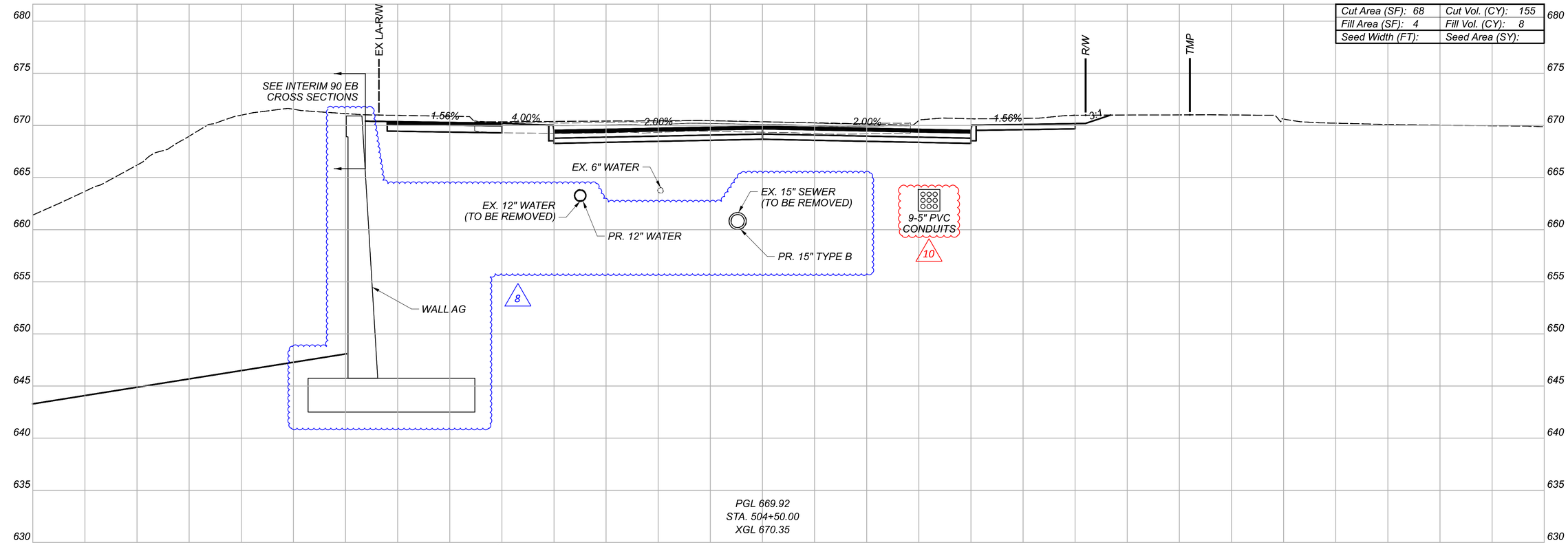
Sheet Totals		
Seeding	Cut	Fill
0	280	4

MODEL: CLP_Midtown Connector - 504+50.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:32:42 PM USER: Julie.Ross
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CUY-90-16.28 (CCG3A)

CROSS SECTIONS
MIDTOWN CONNECTOR

Cut Area (SF): 68	Cut Vol. (CY): 155
Fill Area (SF): 4	Fill Vol. (CY): 8
Seed Width (FT):	Seed Area (SY):



DESIGN AGENCY
Michael Baker INTERNATIONAL

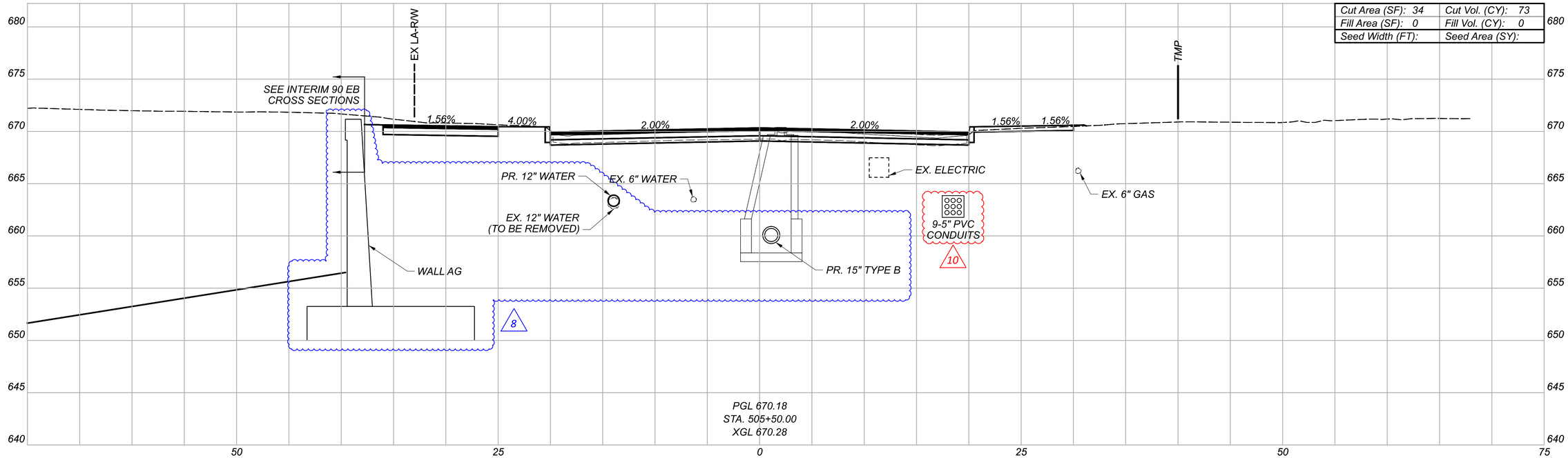
DESIGNER
KJM

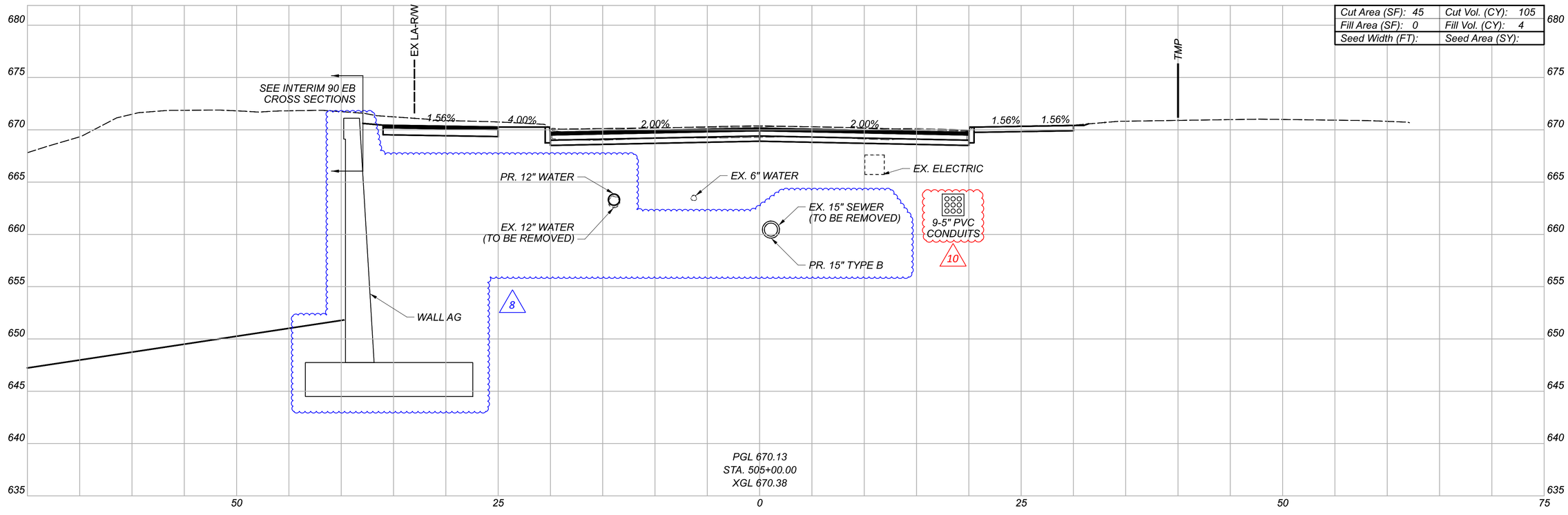
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

Sheet Totals		
Seeding	Cut	Fill
0	155	8

SHEET 953 TOTAL 2696





CROSS SECTIONS
MIDTOWN CONNECTOR

CUY-90-16.28 (CCG3A)

MODEL: CLP_Midtown Connector - 505+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:35:26 PM USER: Julie.Ross
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Sheet Totals		
Seeding	Cut	Fill
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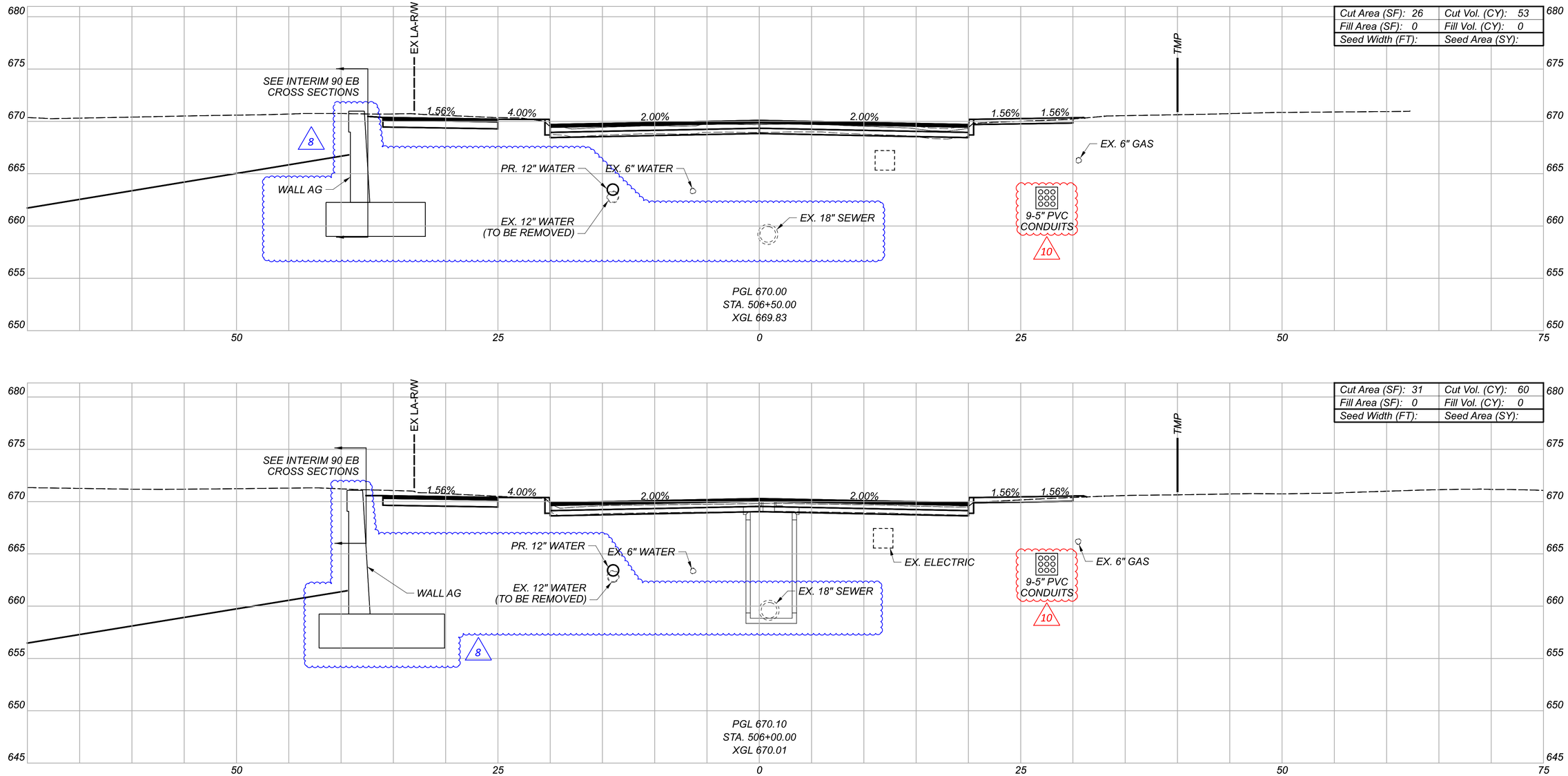
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 954 TOTAL 2696



CUY-90-16.28 (CCG3A)

MODEL: CLP_Midtown Connector - 506+00.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 11:36:52 PM USER: Julie.Ross
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CROSS SECTIONS
MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

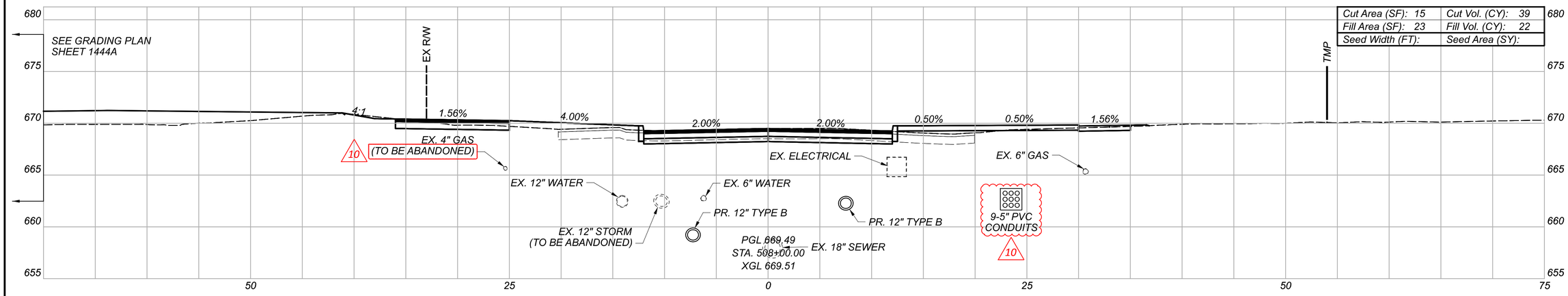
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

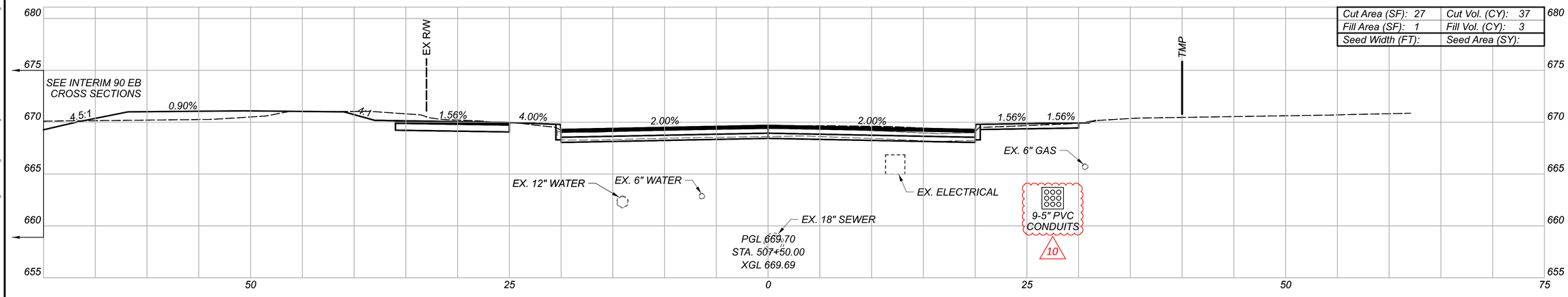
PROJECT ID
82382

Sheet Totals		
Seeding	Cut	Fill
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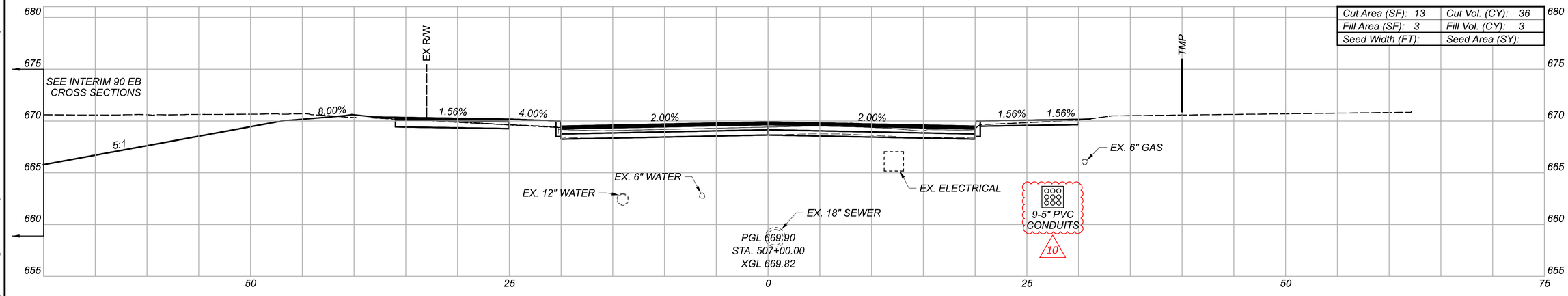
SHEET 955 TOTAL 2696



Cut Area (SF): 15	Cut Vol. (CY): 39
Fill Area (SF): 23	Fill Vol. (CY): 22
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 27	Cut Vol. (CY): 37
Fill Area (SF): 1	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 13	Cut Vol. (CY): 36
Fill Area (SF): 3	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS
MIDTOWN CONNECTOR

CUY-90-16.28 (CCG3A)

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DESIGN AGENCY
Michael Baker INTERNATIONAL

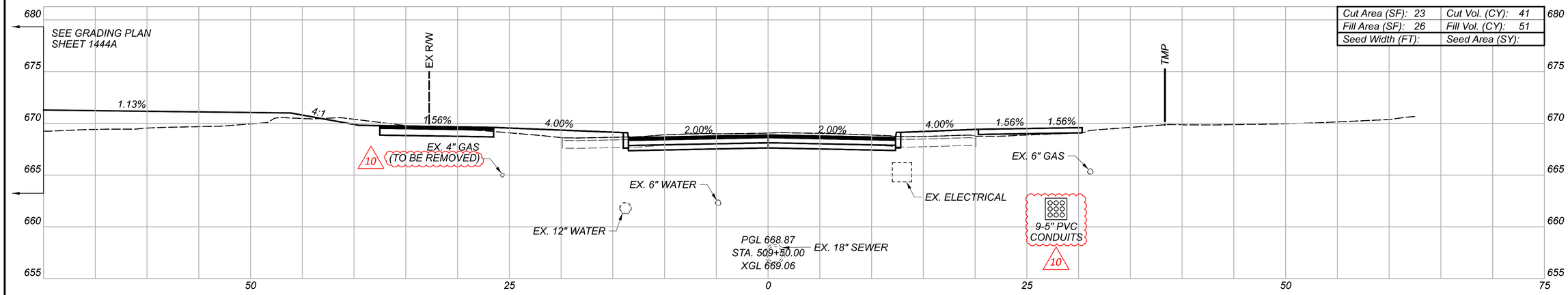
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

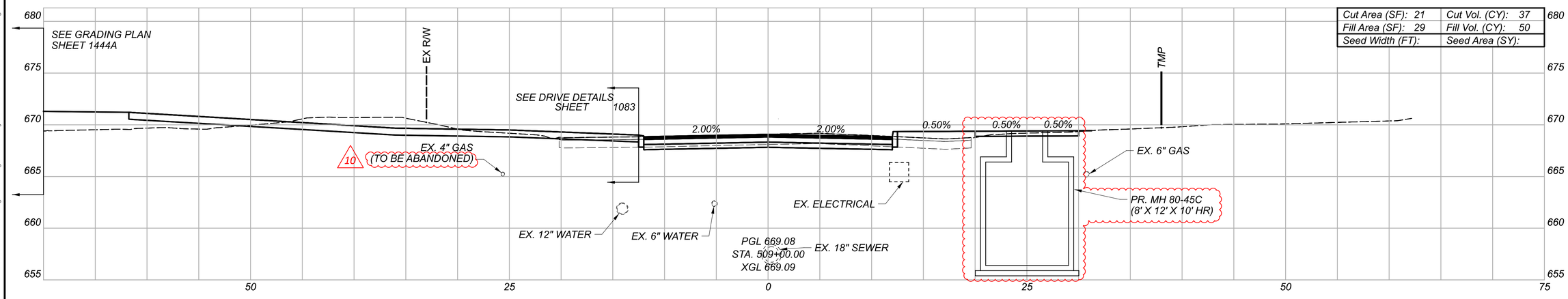
PROJECT ID
82382

SHEET 956 TOTAL 2696

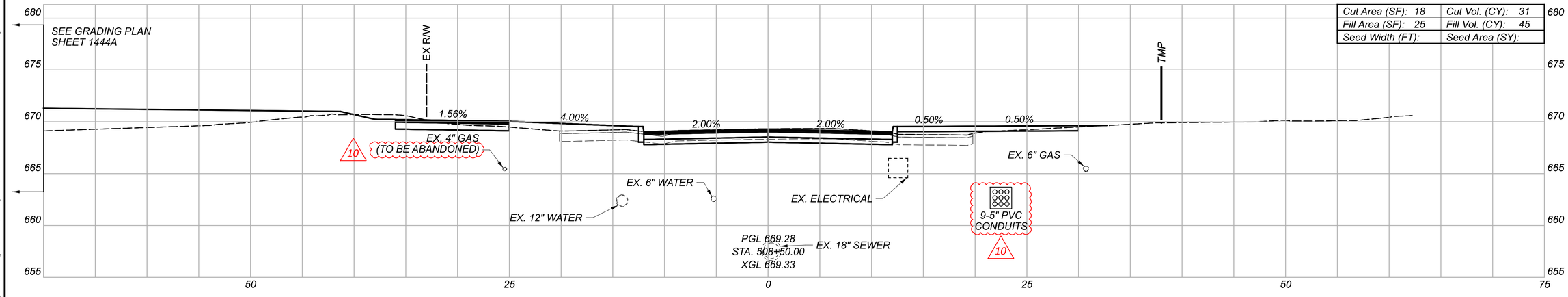
Sheet Totals		
Seeding	Cut	Fill
0	112	28



Cut Area (SF): 23	Cut Vol. (CY): 41
Fill Area (SF): 26	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 21	Cut Vol. (CY): 37
Fill Area (SF): 29	Fill Vol. (CY): 50
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 18	Cut Vol. (CY): 31
Fill Area (SF): 25	Fill Vol. (CY): 45
Seed Width (FT):	Seed Area (SY):

CUY-90-16.28 (CCG3A)

CROSS SECTIONS
MIDTOWN CONNECTOR

Sheet Totals		
Seeding	Cut	Fill
0	199	146

DESIGN AGENCY
Michael Baker INTERNATIONAL

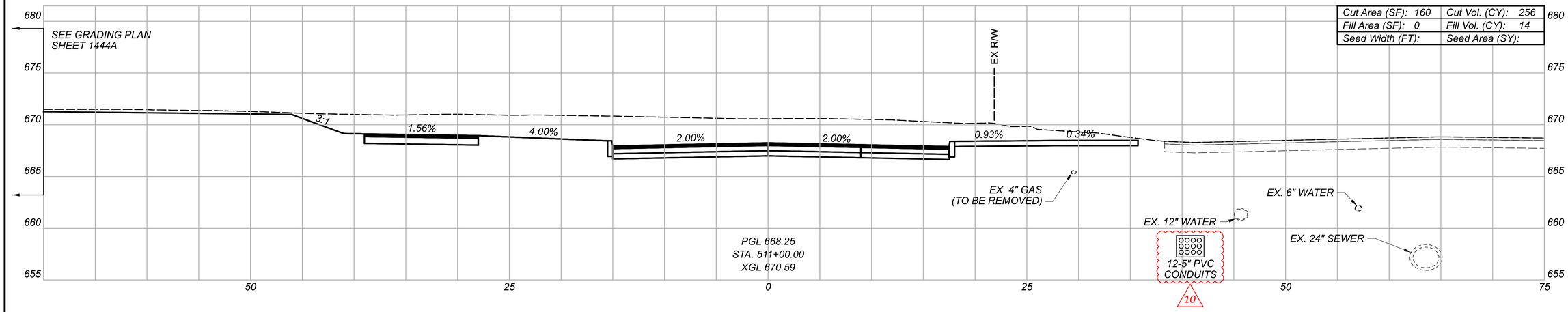
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

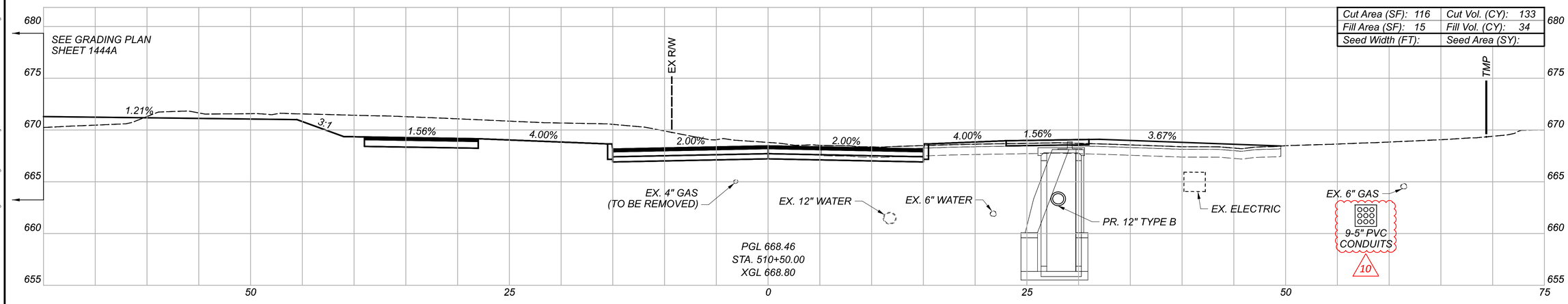
PROJECT ID
82382

SHEET 957 | TOTAL 2696

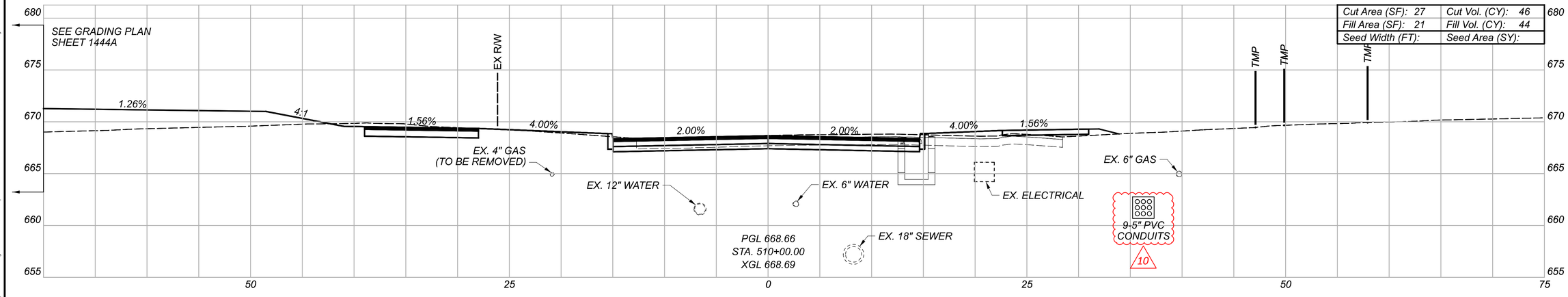
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Cut Area (SF): 160	Cut Vol. (CY): 256
Fill Area (SF): 0	Fill Vol. (CY): 14
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 116	Cut Vol. (CY): 133
Fill Area (SF): 15	Fill Vol. (CY): 34
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 27	Cut Vol. (CY): 46
Fill Area (SF): 21	Fill Vol. (CY): 44
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
0	435	92

CUY-90-16.28 (CCG3A)

CROSS SECTIONS
MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

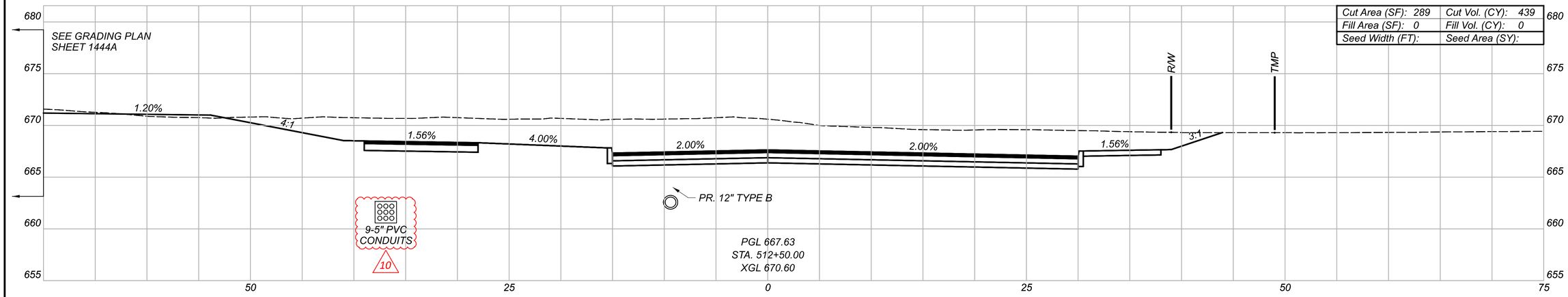
DESIGNER KJM

REVIEWER KGJ 05/22/24

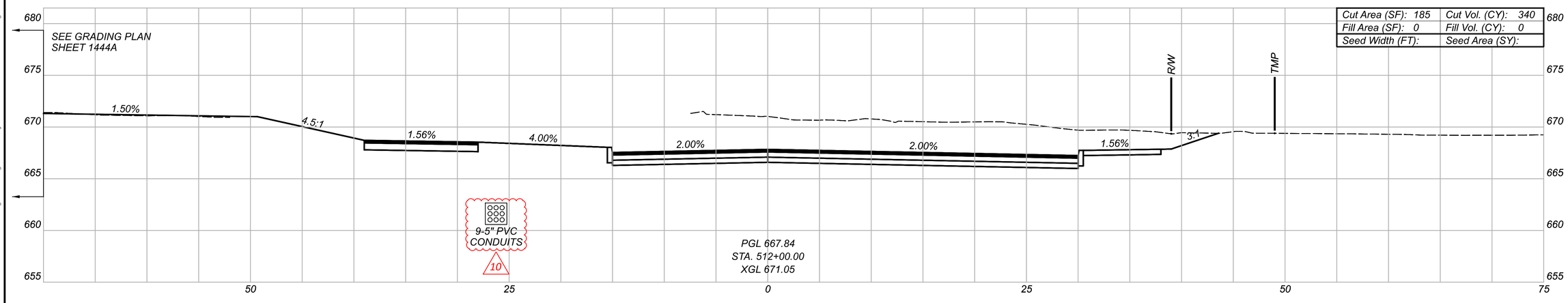
PROJECT ID 82382

SHEET 958 TOTAL 2696

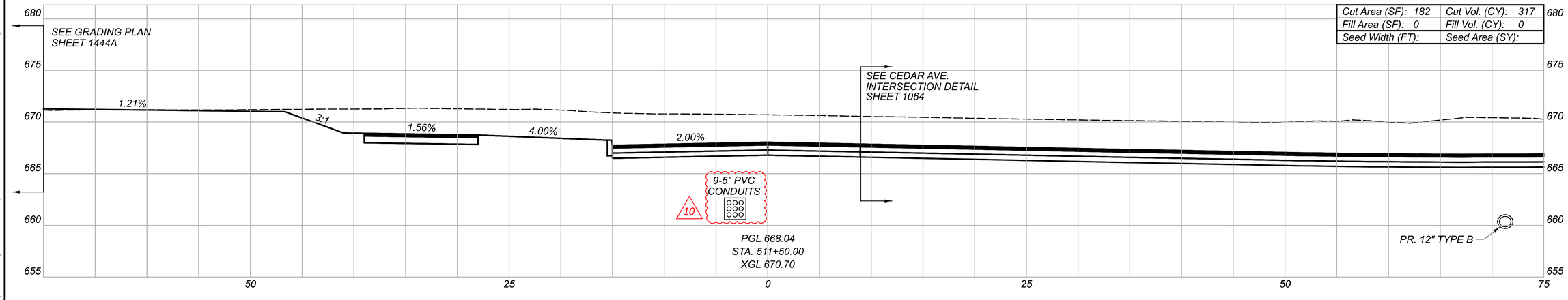
MODEL: CLP_Midtown Connector - 510+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:45:14 PM USER: Julie.Ross
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District2\82382\400-Engineering\Roadway\Sheets\82382_XS7900.dgn



Cut Area (SF): 289	Cut Vol. (CY): 439
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 185	Cut Vol. (CY): 340
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 182	Cut Vol. (CY): 317
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS
MIDTOWN CONNECTOR

Sheet Totals		
Seeding	Cut	Fill
0	1096	0

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

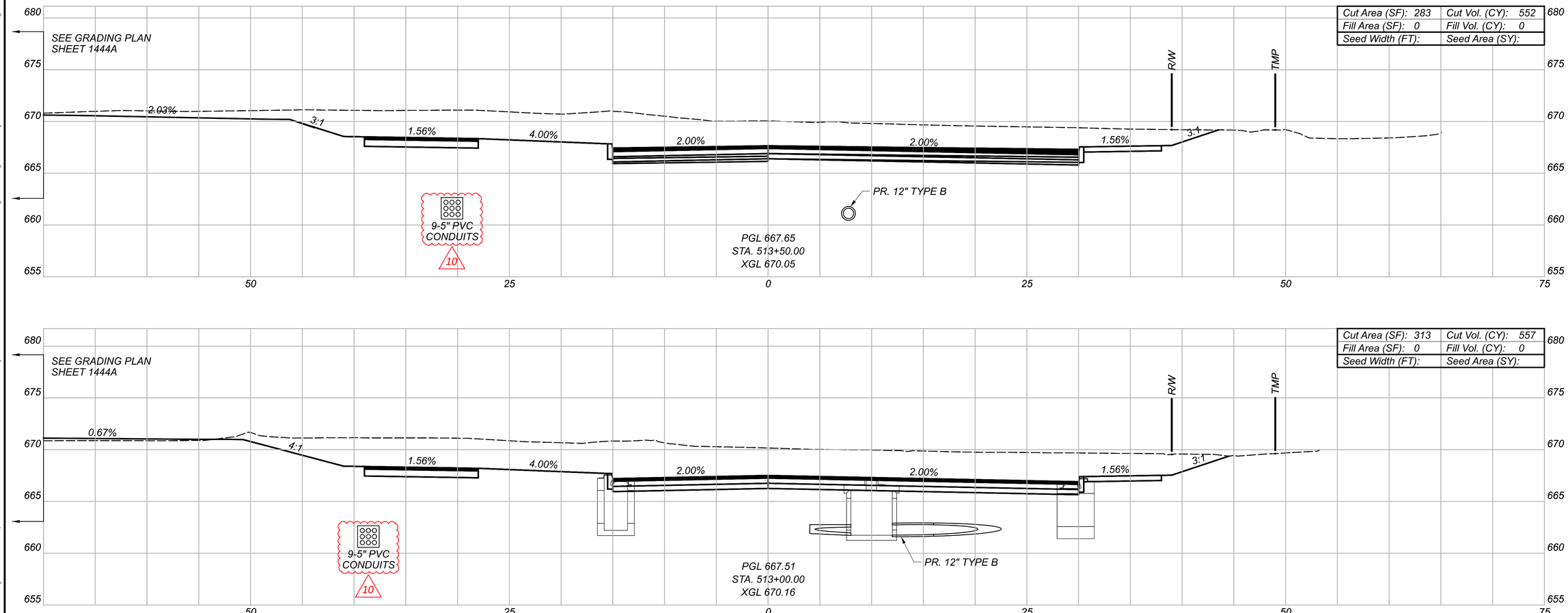
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 959 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: CLP_Midtown Connector - 5li+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:52:26 PM USER: Julie.Ross
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CROSS SECTIONS
MIDTOWN CONNECTOR

CUY-90-16.28 (CCG3A)

MODEL: CLP_Midtown Connector - 513+00.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 11:54:26 PM USER: Julie.Ross
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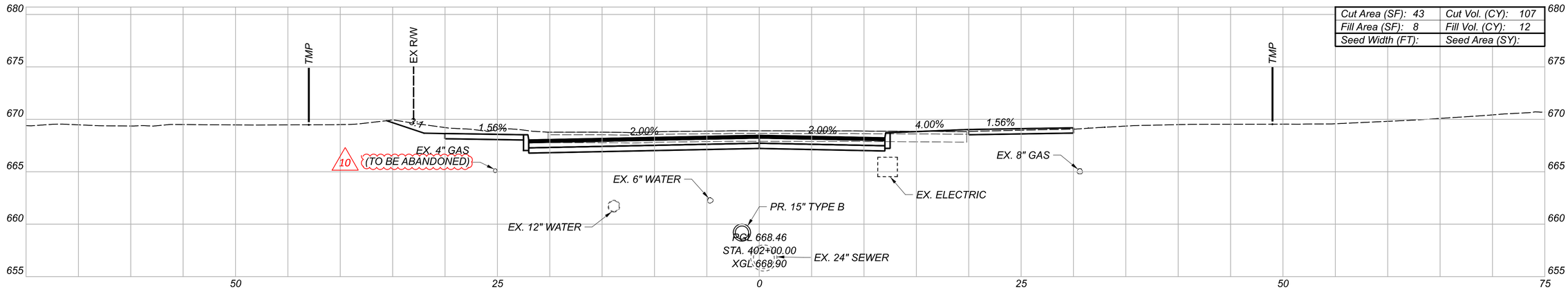
DESIGN AGENCY
Michael Baker INTERNATIONAL

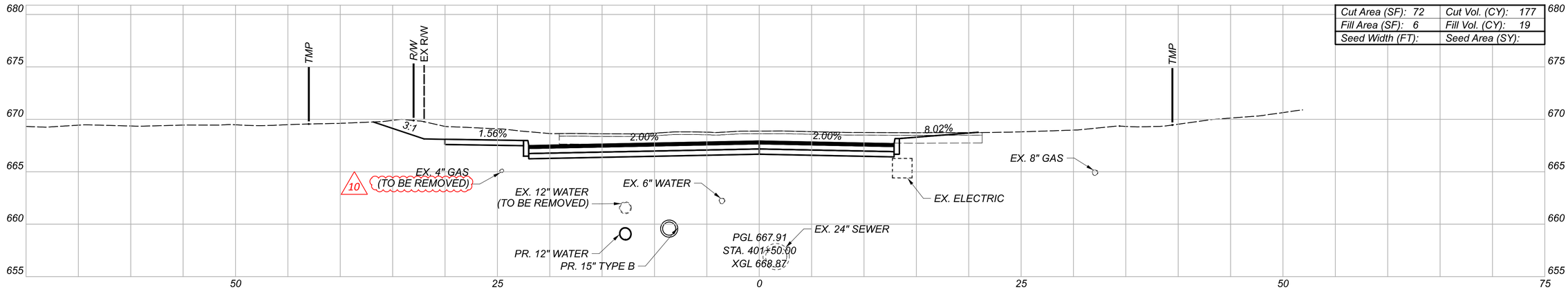
DESIGNER
KJM

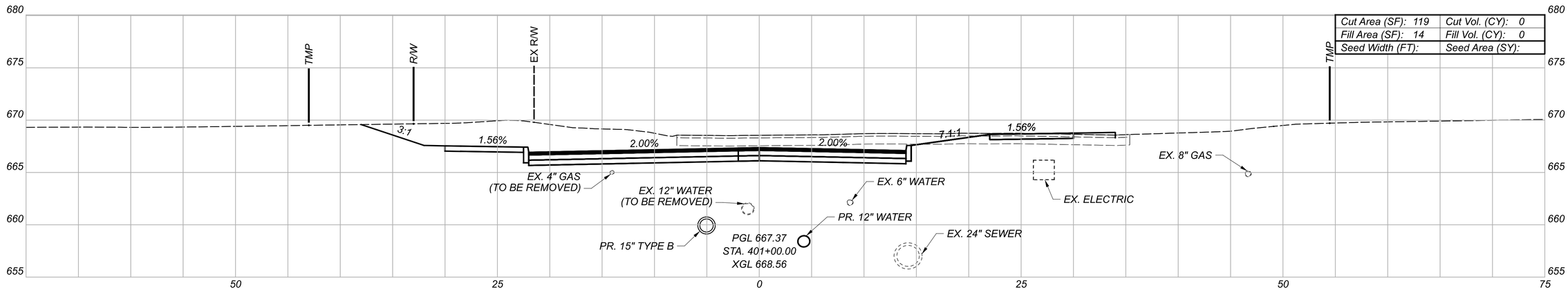
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 960 TOTAL 2696







CROSS SECTIONS
CEDAR AVE.

CUY-90-16.28 (CCG3A)

MODEL: CLP_Cedar - 401+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:15:23 AM USER: Julie.Ross
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DESIGN AGENCY
Michael Baker INTERNATIONAL

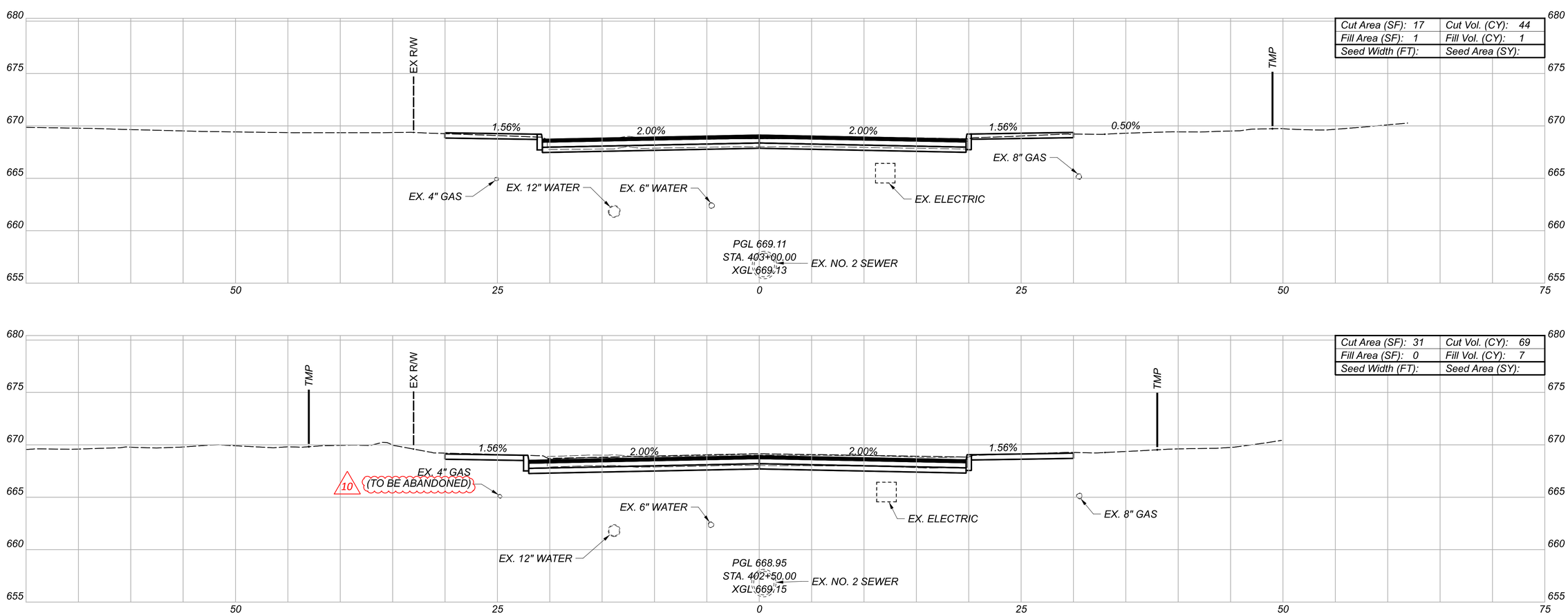
DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

Sheet Totals		
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SHEET 961 TOTAL 2696



CROSS SECTIONS CEDAR AVE.

CUY-90-16.28 (CCG3A)

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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

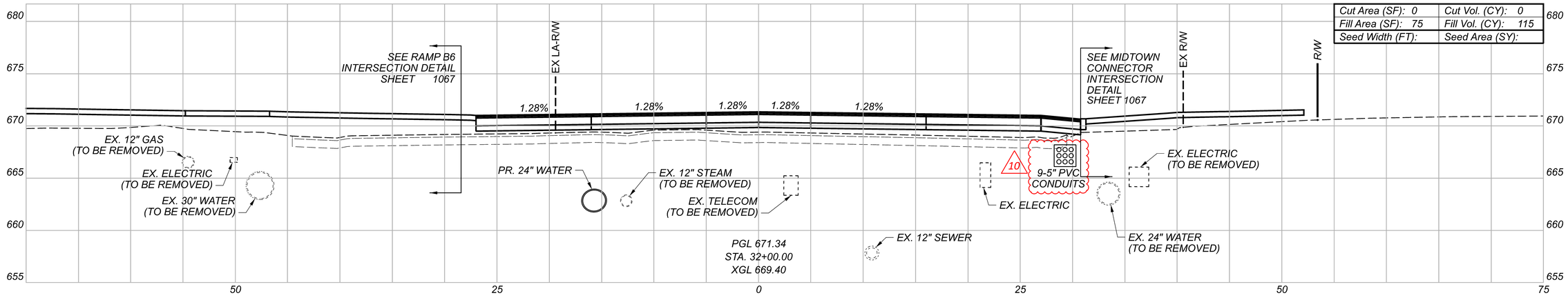
PROJECT ID
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SHEET 962 TOTAL 2696

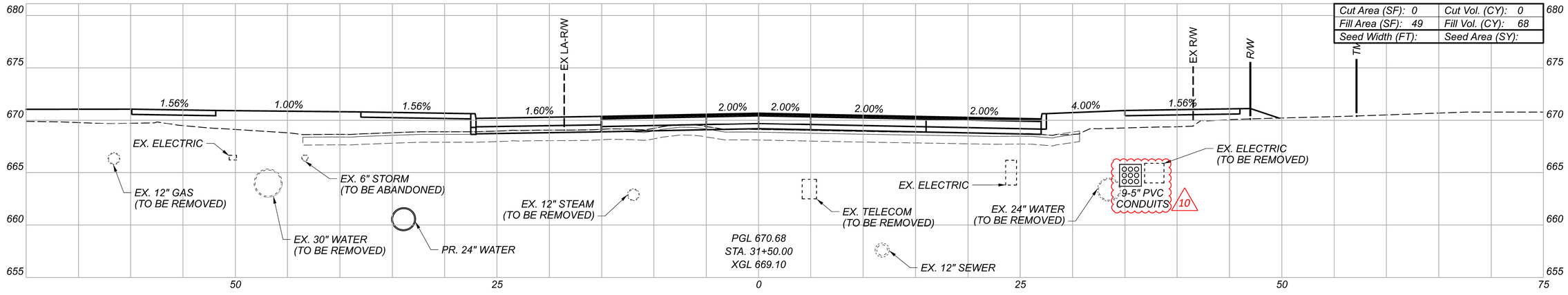
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CUY-90-16.28 (CCG3A)

CROSS SECTIONS
E. 22ND ST.



Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 75	Fill Vol. (CY): 115
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 49	Fill Vol. (CY): 68
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

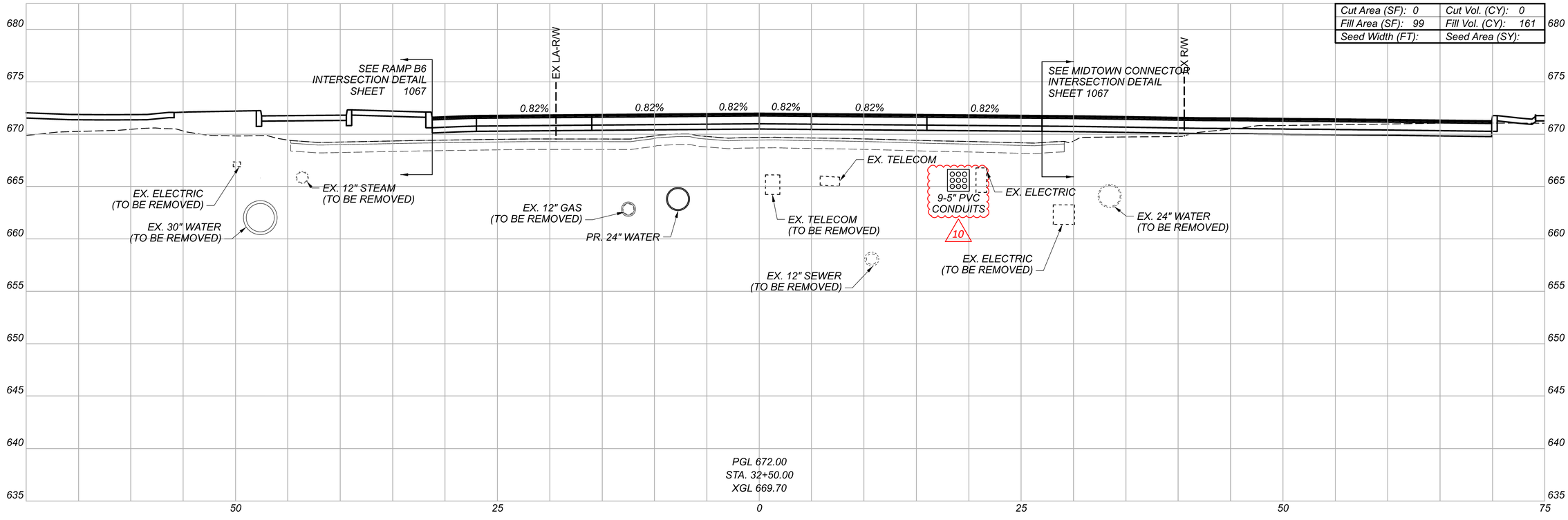
SHEET 1008 | TOTAL 2696

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CUY-90-16.28 (CCG3A)

CROSS SECTIONS
E. 22ND ST.

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 99	Fill Vol. (CY): 161
Seed Width (FT):	Seed Area (SY):



Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

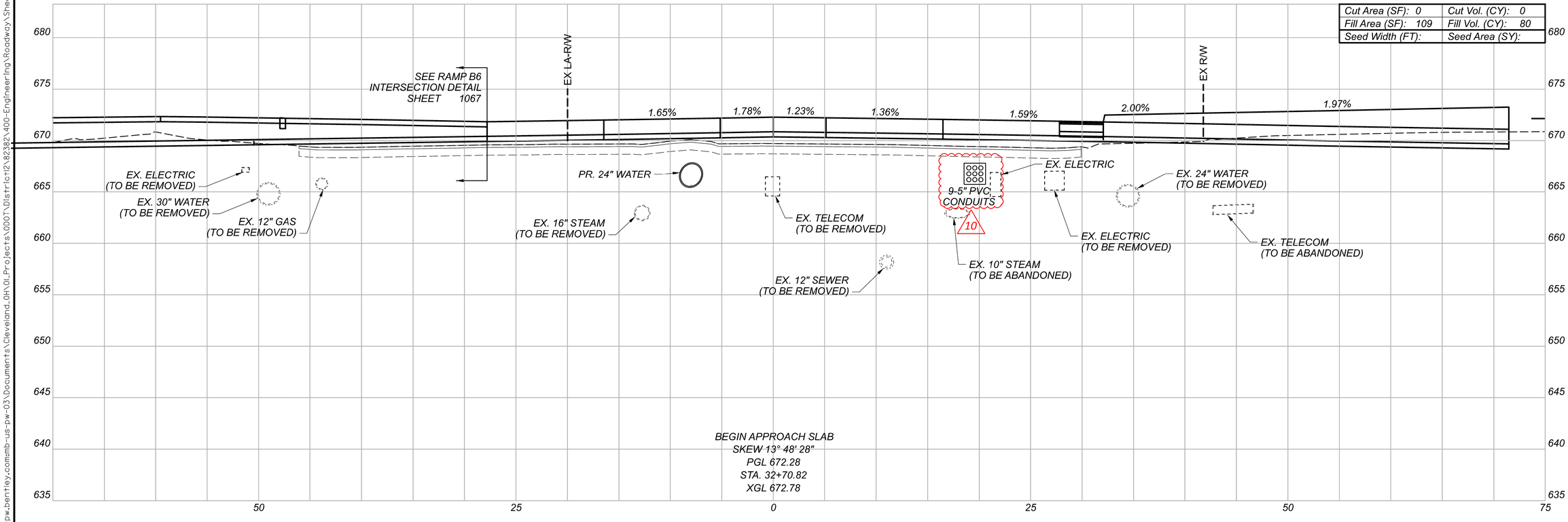
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 1009 TOTAL 2696

CROSS SECTIONS
E. 22ND ST.

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 109	Fill Vol. (CY): 80
Seed Width (FT):	Seed Area (SY):



Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

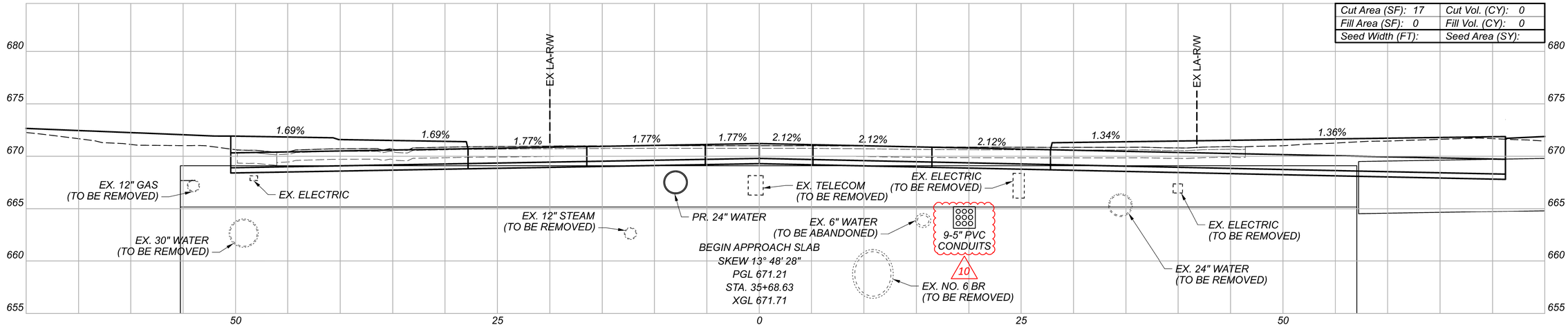
REVIEWER
KGJ 05/22/24

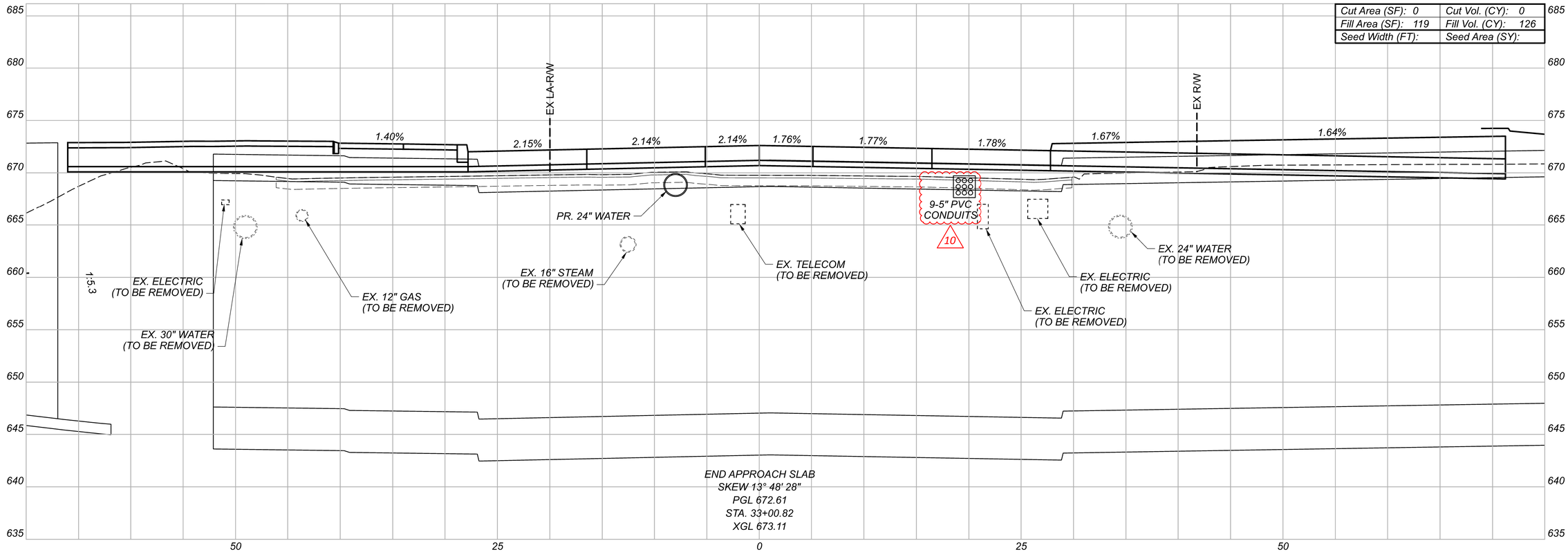
PROJECT ID
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SHEET 1010 TOTAL 2696

CUY-90-16.28 (CCG3A)

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CROSS SECTIONS
E. 22ND ST.

CUY-90-16.28 (CCG3A)

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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
KGJ 05/22/24

PROJECT ID
82382

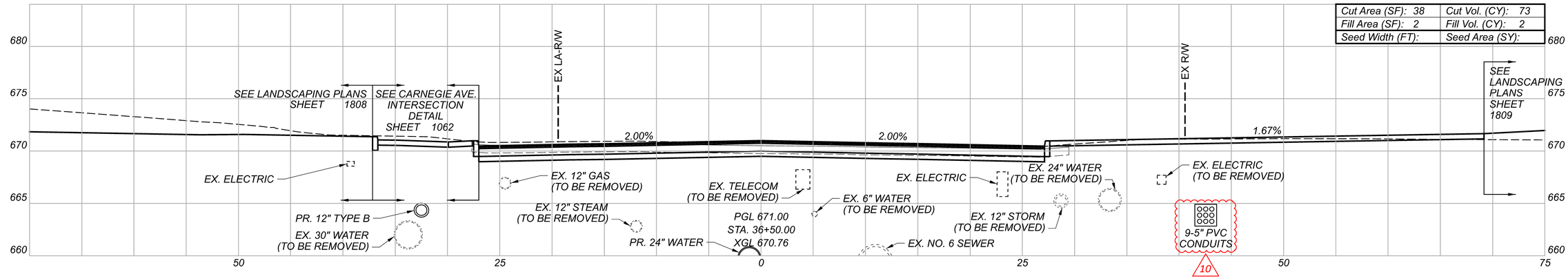
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Seeding	Cut	Fill
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SHEET 1011 TOTAL 2696

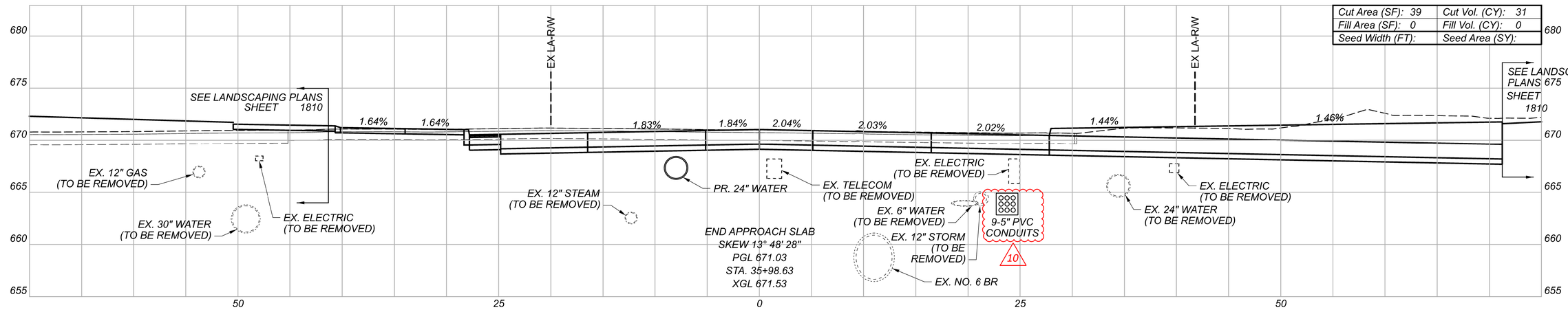
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CROSS SECTIONS
E. 22ND ST.

Cut Area (SF): 38	Cut Vol. (CY): 73
Fill Area (SF): 2	Fill Vol. (CY): 2
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 39	Cut Vol. (CY): 31
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Sheet Totals			Grand Totals Carried to Subsummary		
Seeding	Cut	Fill	Seeding	Cut	Fill
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

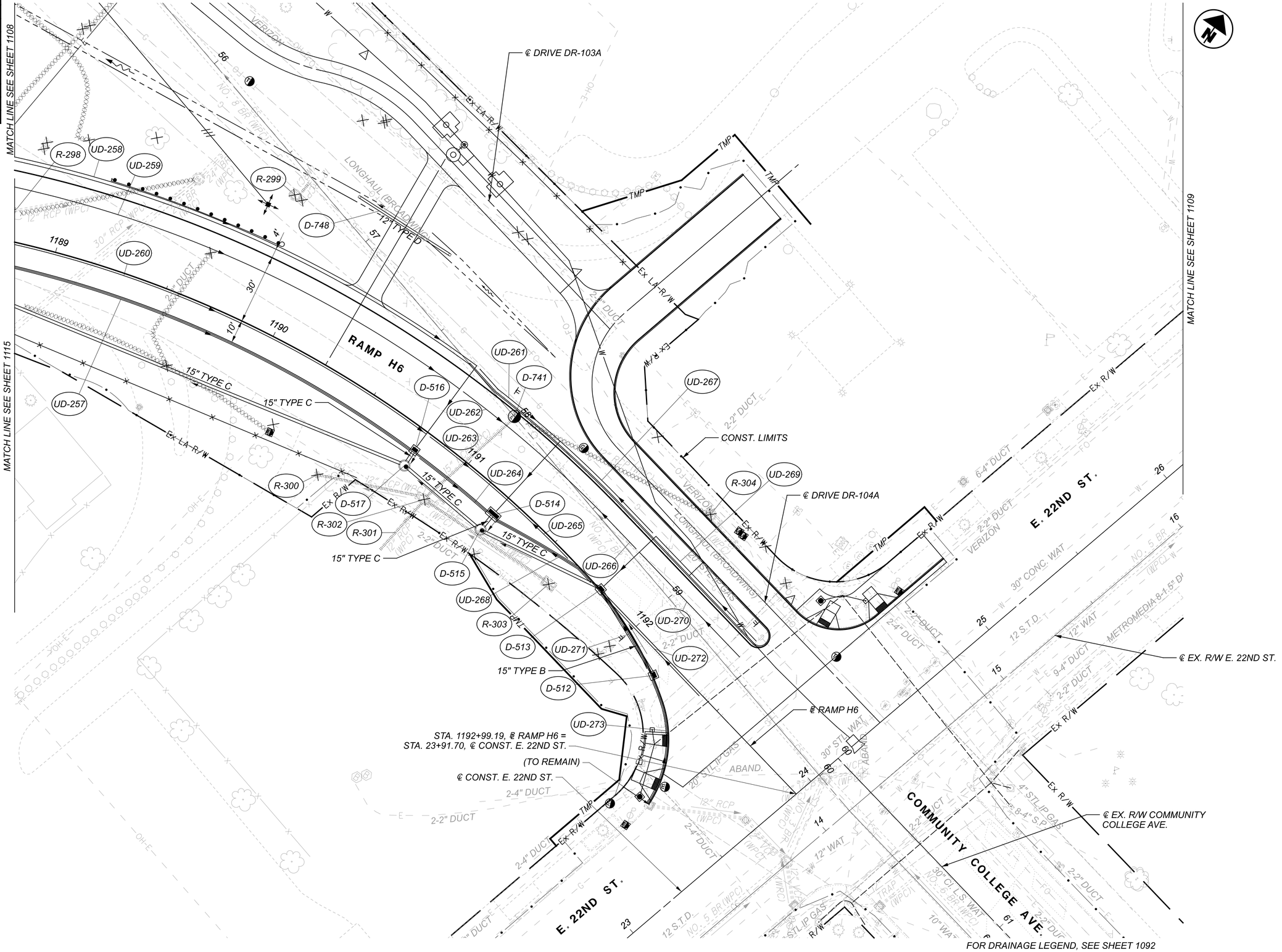
REVIEWER
KGJ 05/22/24

PROJECT ID
82382

SHEET 1012 TOTAL 2696

CROSS REFERENCES	
STRUCTURE	SHEET
D-512	1139
D-513	1139
D-514	1139
D-515	1139
D-516	1139
D-517	1139
D-748	1084
D-741	1139

10



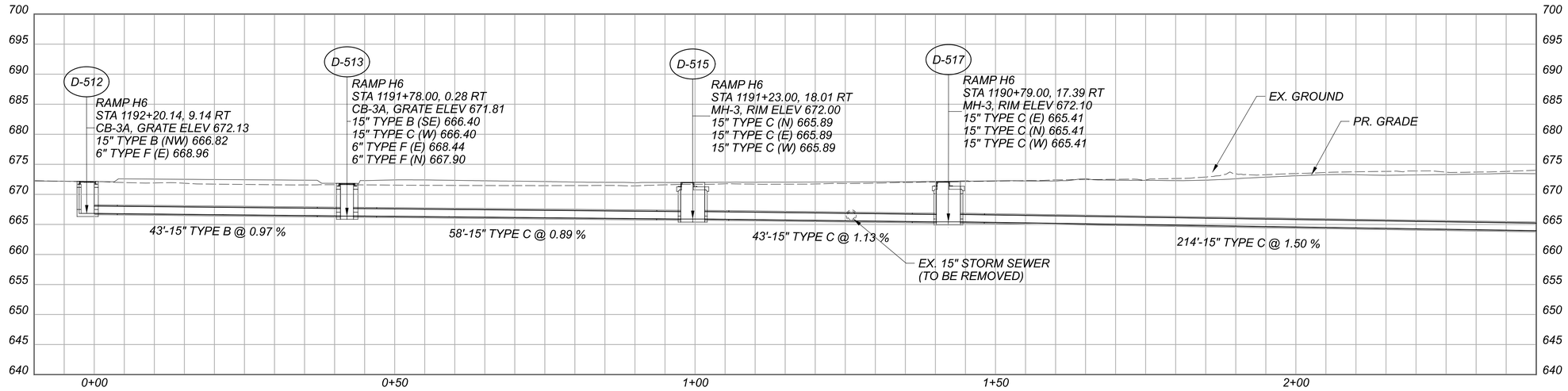
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DRAINAGE PLAN
SHEET 18 OF 28

CUY-90-16.28 (CCG3A)

MODEL: Drainage Plans I - Drainage Plans 18 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 4:42:58 PM USER: Mala.Gallagher
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DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	BJT
REVIEWER	KGJ 05/22/24
PROJECT ID	82382
SHEET	1110
TOTAL	2696



CROSS REFERENCES

STRUCTURE	SHEET
D-512	1110
D-513	1110
D-514	1110
D-515	1110
D-516	1110
D-517	1110
D-518	1115
D-741	1110

10

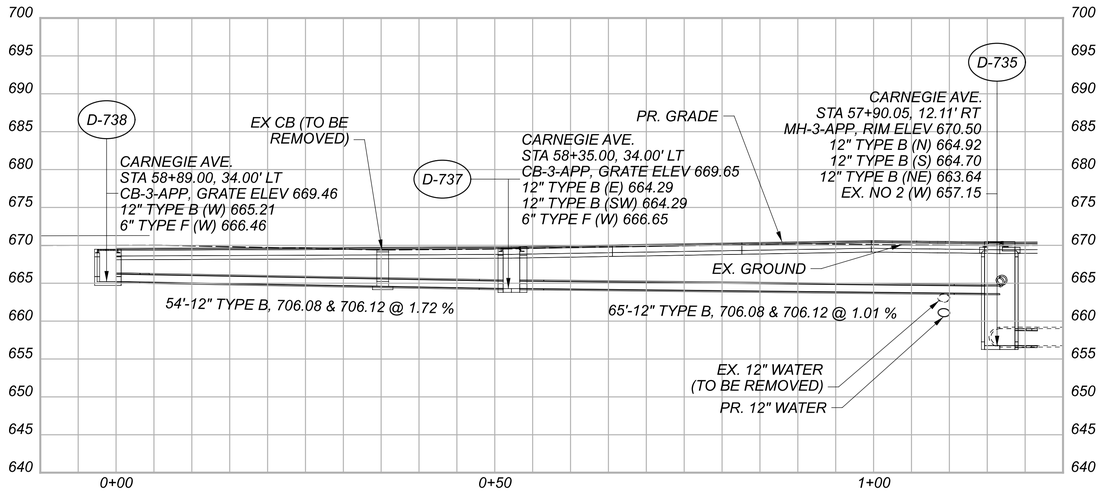
STORM SEWER PROFILES
RAMP H6

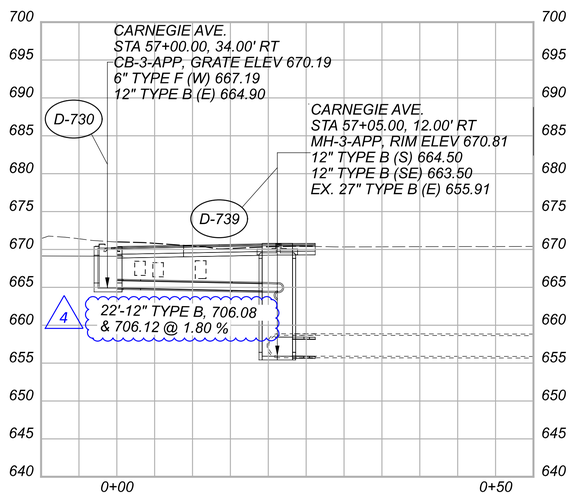
DESIGN AGENCY
Michael Baker INTERNATIONAL

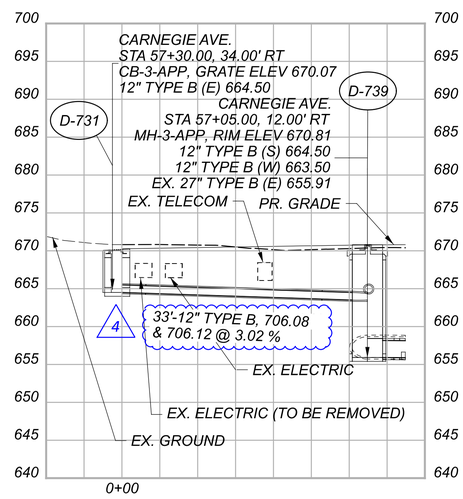
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REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 1139 TOTAL 2696

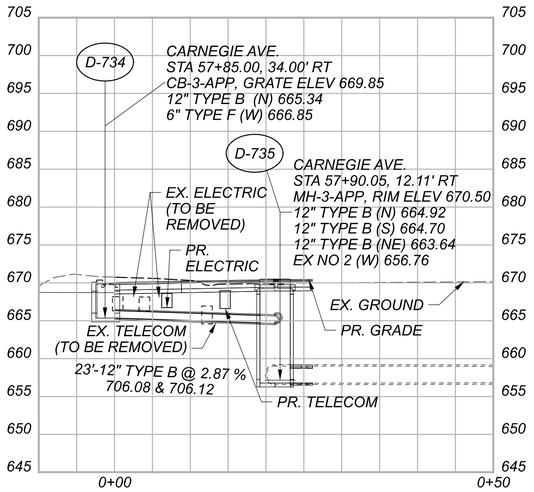
CUY-90-16.28 (CCG3A)

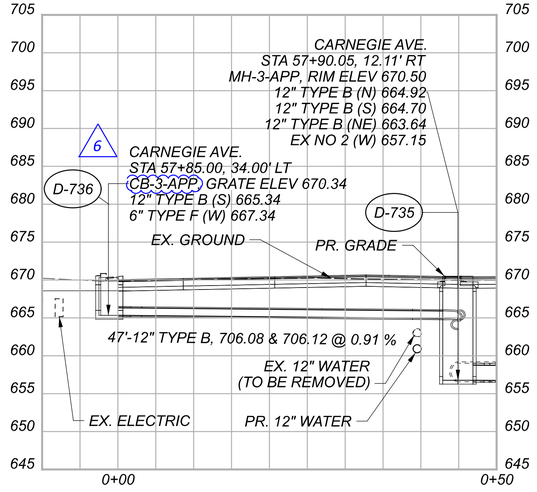
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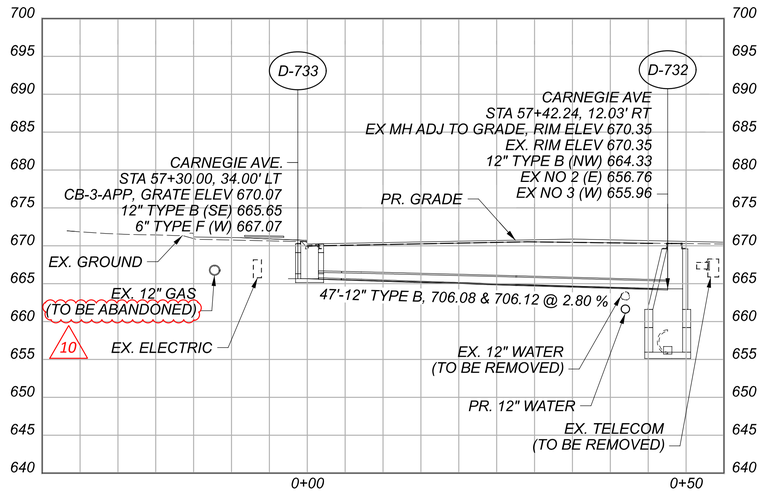












STORM SEWER PROFILES
CARNEGIE AVE

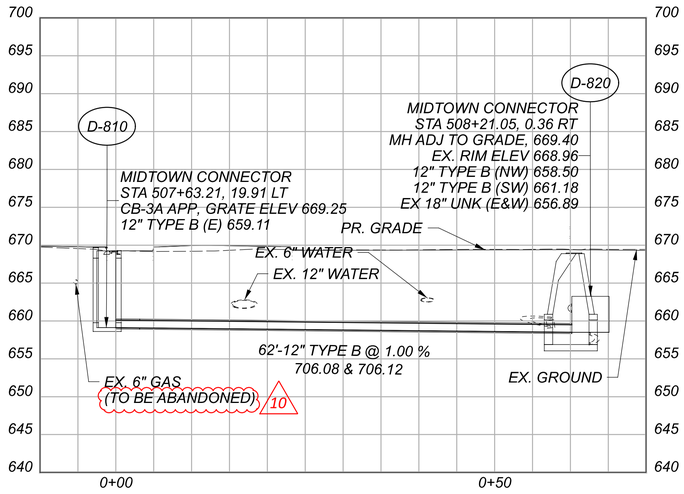
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STRUCTURE	SHEET
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D-731	1098
D-733	1099
D-734	1099
D-736	1099
D-737	1099
D-738	1099

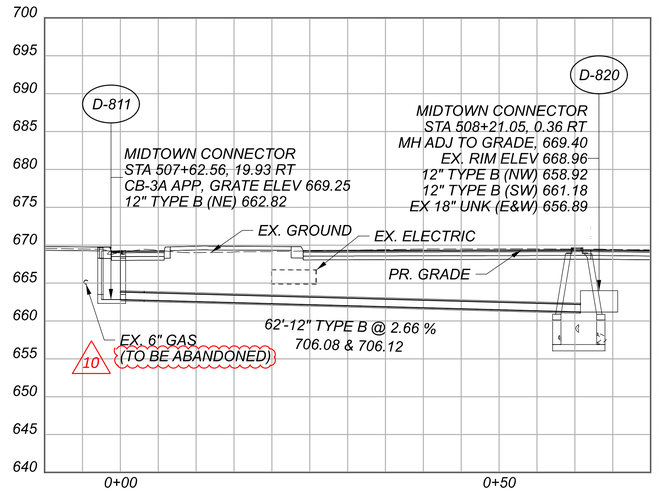
DESIGN AGENCY
Michael Baker INTERNATIONAL

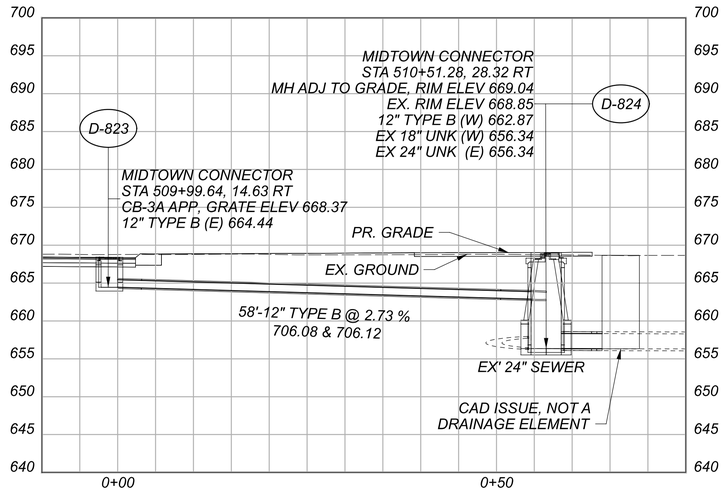
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REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 1145 TOTAL 2696

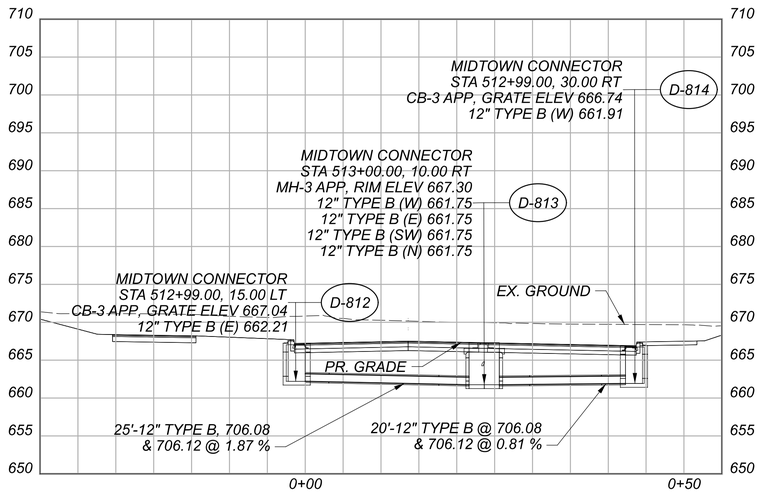
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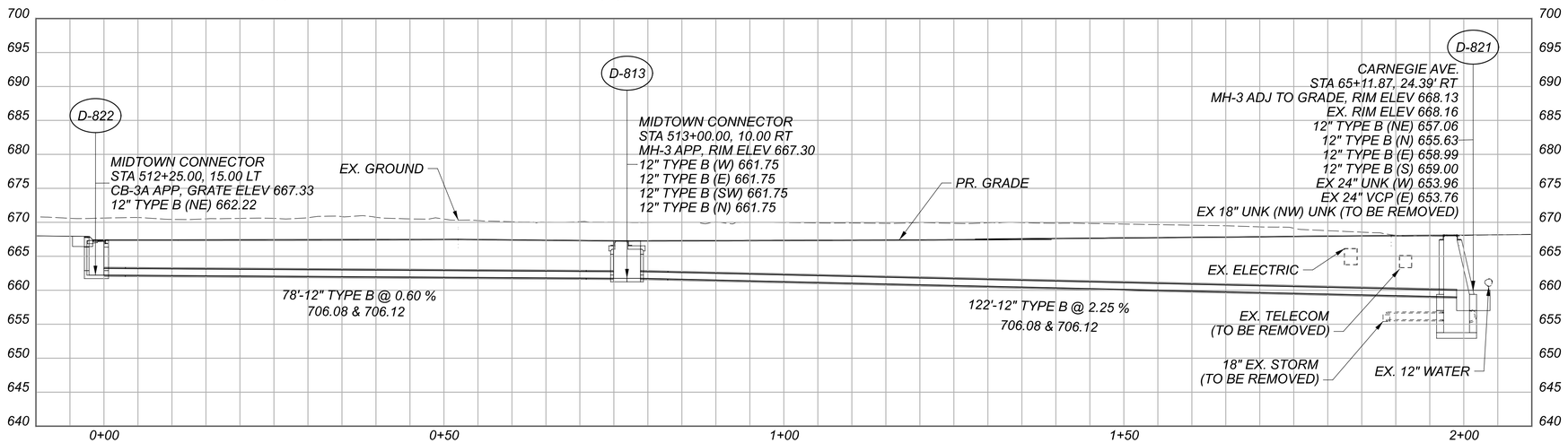
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CROSS REFERENCES	
STRUCTURE	SHEET
D-810	1118
D-811	1118
D-812	1116
D-813	1116
D-814	1116
D-822	1116
D-823	1119

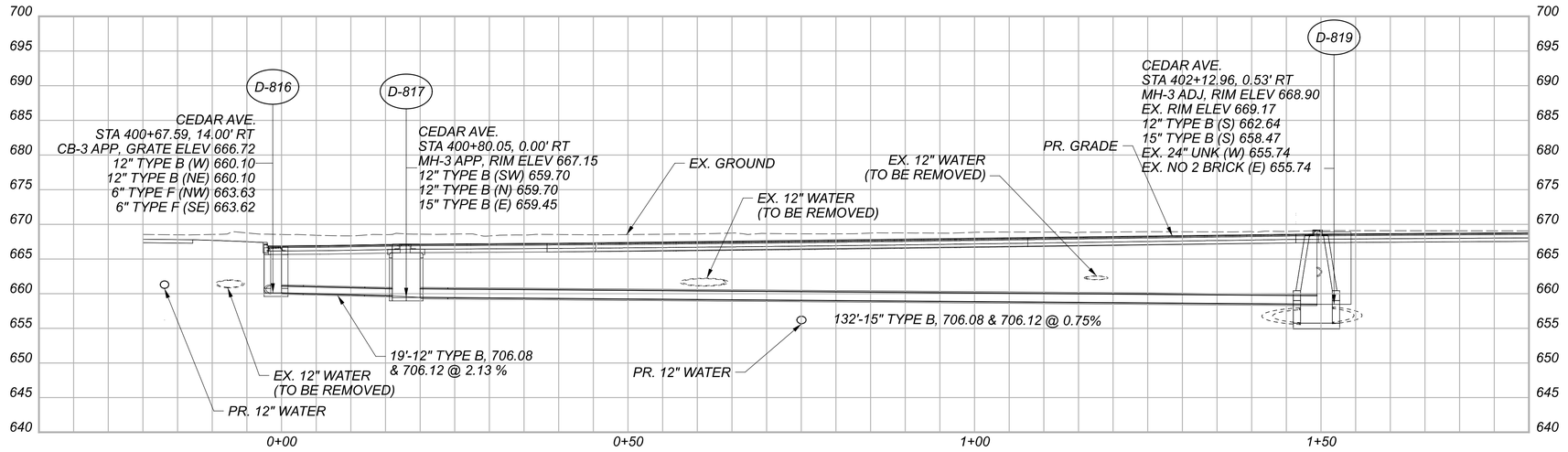
STORM SEWER PROFILES
MIDTOWN CONNECTOR

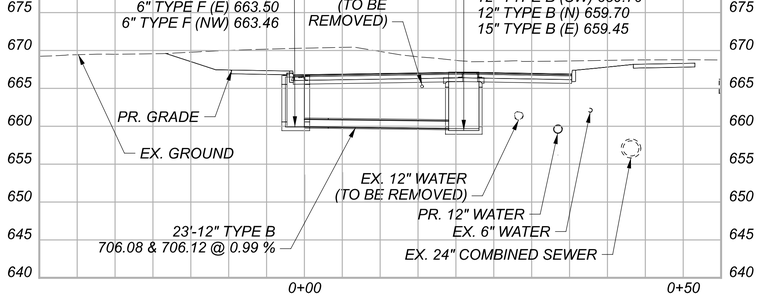
DESIGN AGENCY
Michael Baker INTERNATIONAL

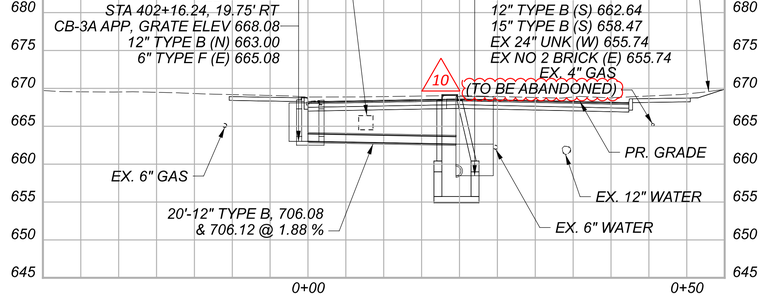
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REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 1148 TOTAL 2696

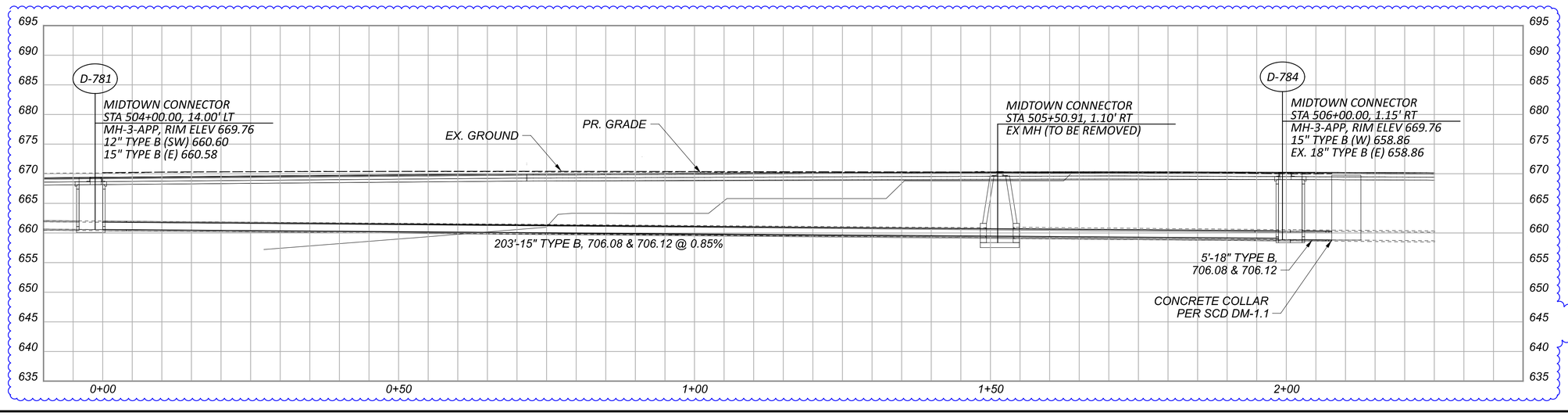
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CROSS REFERENCES	
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D-784	1099
D-815	1119
D-816	1119
D-817	1119
D-818	1119

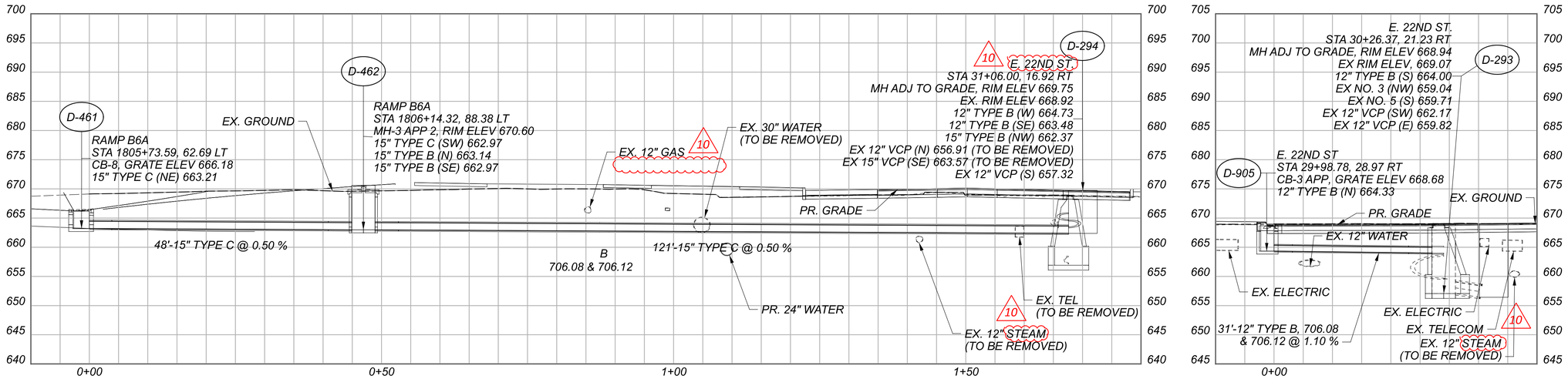
STORM SEWER PROFILES
CEDAR AVE.

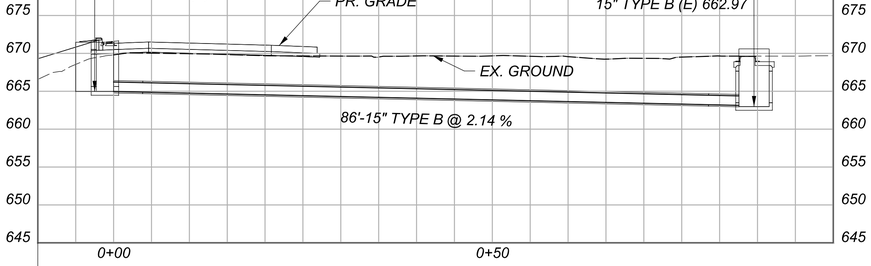
DESIGN AGENCY
Michael Baker INTERNATIONAL

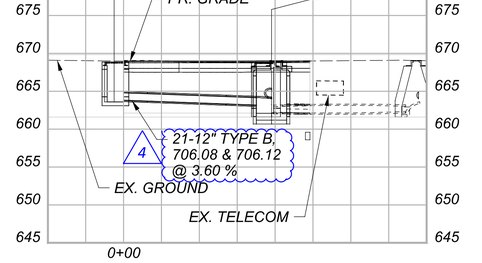
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SHEET 1156 TOTAL 2696

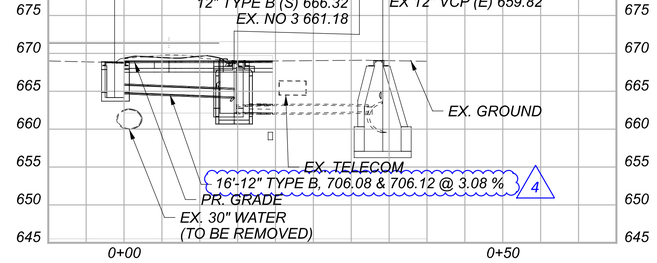
CUY-90-16.28 (CCG3A)

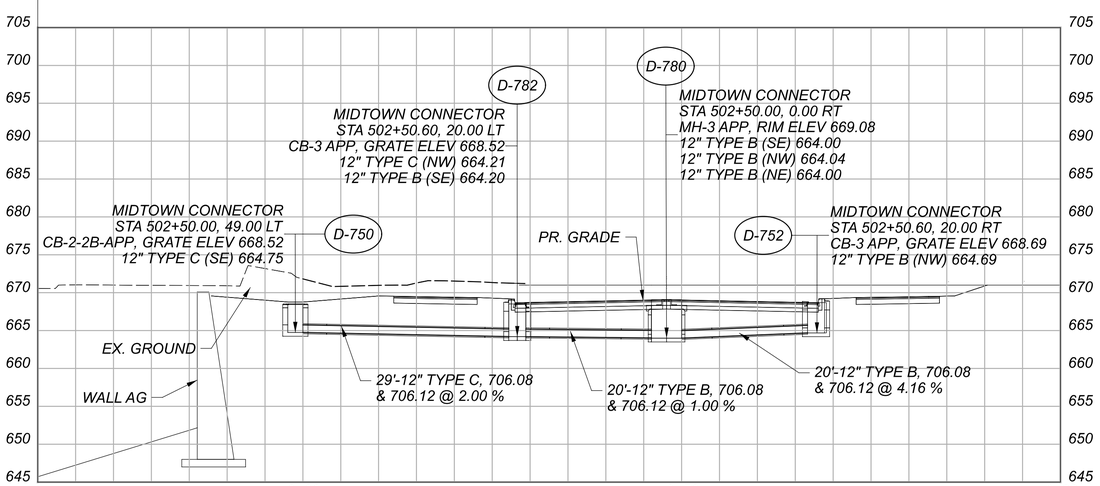
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CROSS REFERENCES

STRUCTURE	SHEET
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D-462	1097
D-750	1098
D-752	1098
D-782	1098
D-903	1109
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D-909	1109

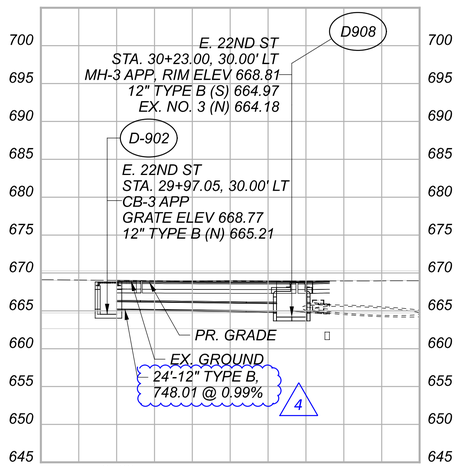
STORM SEWER PROFILES
E. 22ND ST. & MIDTOWN CONNECTOR

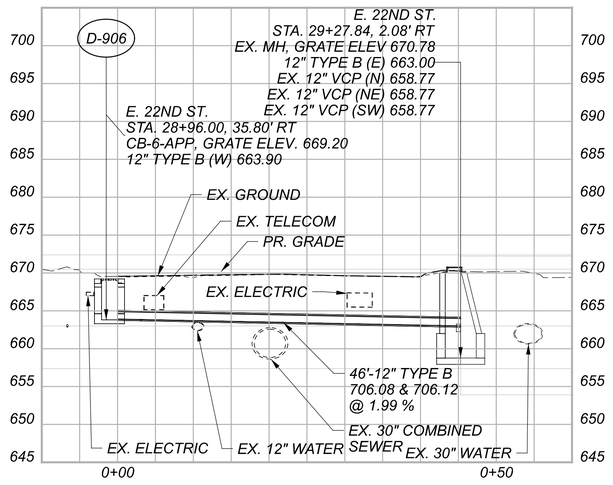
DESIGN AGENCY
Michael Baker INTERNATIONAL

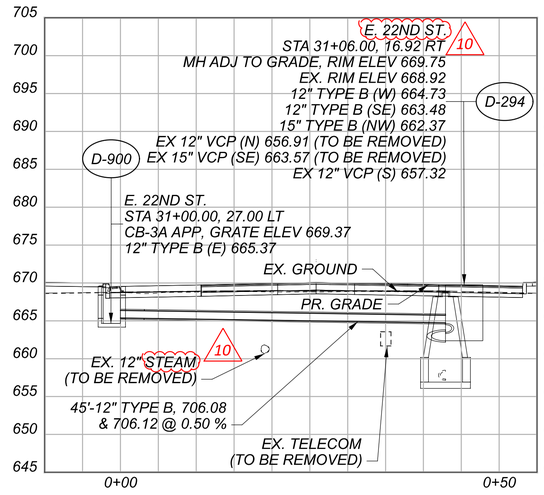
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REVIEWER KGJ 05/22/24
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SHEET 1157 TOTAL 2696

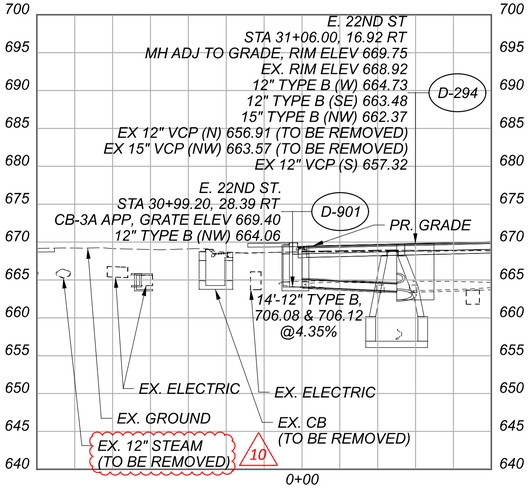
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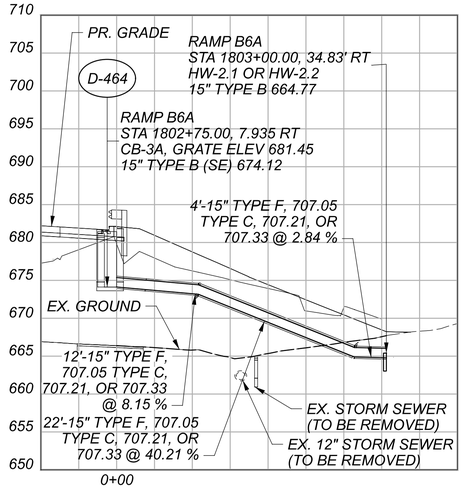
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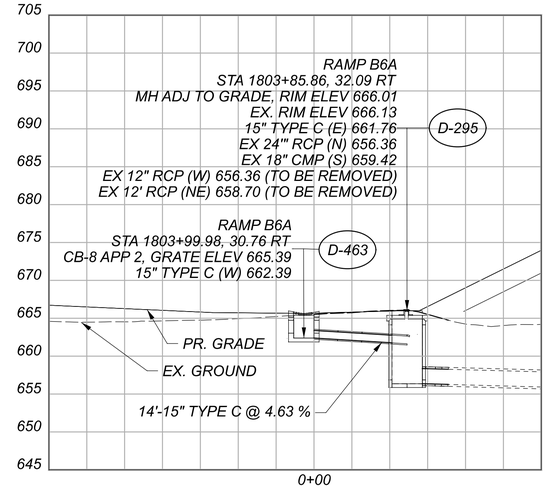


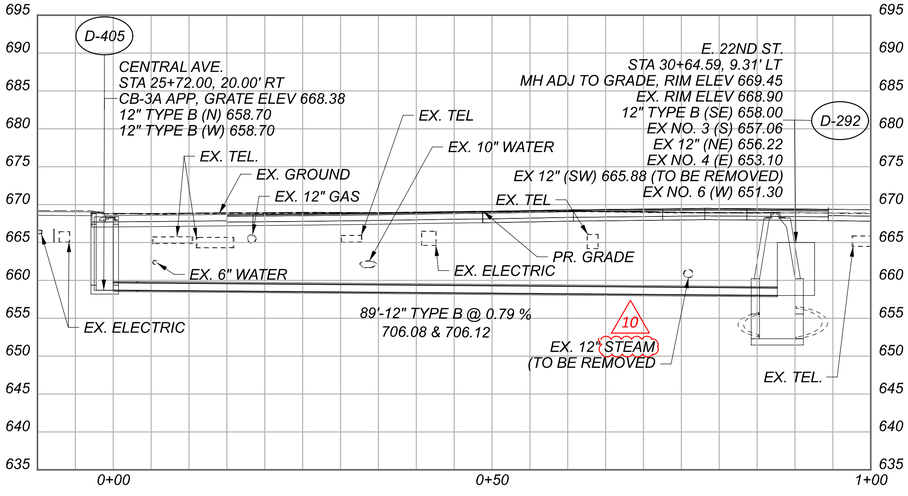




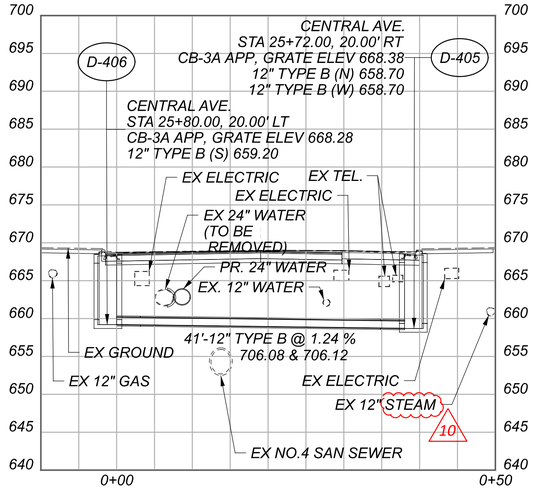


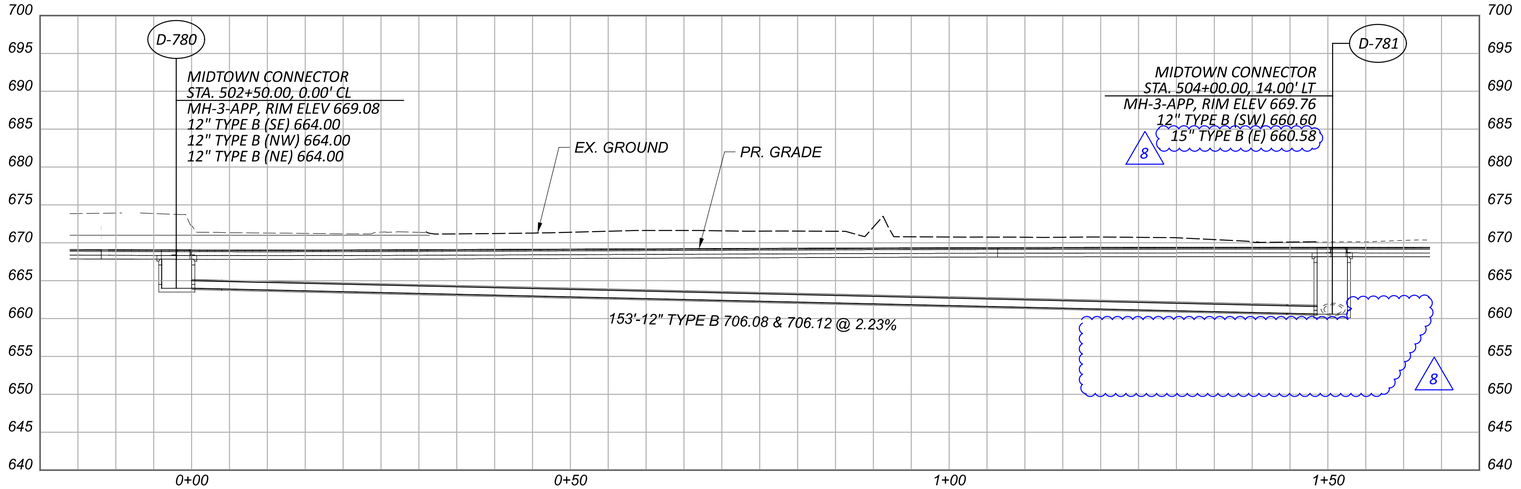






CROSS REFERENCES	
STRUCTURE	SHEET
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D-463	1097
D-464	1096
D-780	1098
D-900	1109
D-901	1109
D-902	1109
D-906	1109





STORM SEWER PROFILES
RAMP B6A & E. 22ND AVE. & MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER BJT
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 1158 TOTAL 2696

CUY-90-16.28 (CCG3A)

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ITEM 638 - 30" STEEL PIPE ENCASEMENT, OPEN CUT, AS PER PLAN

FURNISH AND INSTALL A 30" STEEL CASING PIPE WITH A 15" INTERIOR CONDUIT ACCORDING TO ITEMS 638 AND 611 THROUGH AND EXTENDING 10' BEYOND MSE WALL SELECT GRANULAR FILL.

STEEL CASING PIPE SHALL BE ACCORDING TO 748.06. CONDUIT MATERIAL MUST BE REINFORCED CONCRETE PIPE PER 706.02. PROVIDE PREMIUM JOINTS PER 706.11 AND WRAP THE PIPE JOINTS IN GEOTEXTILE FABRIC, TYPE A, PER 712.09.

FOR A VISUAL REFERENCE OF THE CASING DETAIL, SEE "CASING DETAIL NO. 2 END OF CASING AND CASING CHOCK DETAIL" ON SHEET 1418.

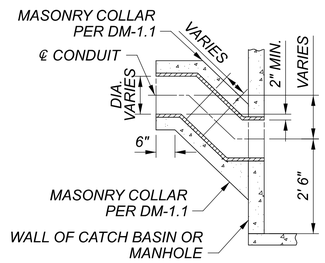
INSTALL TWO CASING SPACERS/CHOCKS PER 8 FOOT LENGTH OF PIPE. A SET OF SPACERS/CHOCKS SHALL BE PLACED NOT MORE THAN 2.5 FEET FROM EACH PIPE JOINT, ONE BEHIND THE BELL AND ONE AT THE SPIGOT END. CASING SPACERS ARE TO BE HARDWOOD BLOCKING OR STAINLESS STEEL CHOCKS.

CLOSE BOTH ENDS OF THE CASING WITH MORTARED 4 INCH BRICKS OR A CONCRETE BULKHEAD. SPACE BETWEEN THE STEEL CASING PIPE AND INTERIOR CONDUIT TO BE FILLED WITH SAND PER 703.06.

7 PAYMENT FOR REINFORCED CONCRETE PIPE, PREMIUM JOINTS, GEOTEXTILE FABRIC, STEEL CASING, HARDWOOD BLOCKING OR STAINLESS STEEL CHOCKS, BULKHEAD, SAND, EXCAVATION AND ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 638 - 30" STEEL PIPE ENCASMENT, OPEN CUT, AS PER PLAN.

ITEM 611 – MANHOLE, AS PER PLAN 2
ITEM 611 – CATCH BASIN, AS PER PLAN 2
ITEM 611 – INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN 2

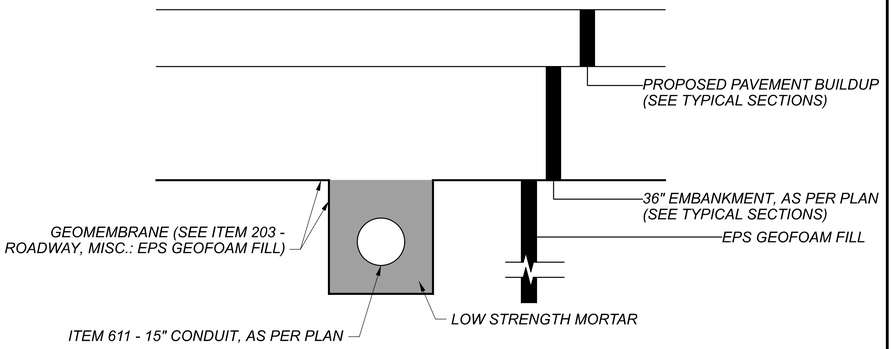
CONSTRUCT MANHOLES, CATCH BASINS AND INLETS AS PER PLAN 2 PER CMS 611 AND APPLICABLE STANDARD CONSTRUCTION DRAWINGS EXCEPT THAT A SUMP AND TRAP SHALL BE PROVIDED AS SHOWN HEREIN. TRAPS SHALL BE CONSTRUCTED OF TWO PREFABRICATED 45 DEGREE BENDS OR TWO PAIRS OF 22.5 DEGREE CUT CONDUIT TO FORM A 45 DEGREE BEND. IF RIGID PIPE IS USED, THERE SHALL BE SUFFICIENT LENGTH OF CONDUIT BETWEEN THE BENDS TO ENSURE THAT THE CROWN OF THE OUTLET PIPE AT THE STRUCTURE IS AT LEAST 2 INCHES LOWER THAN THE FLOWLINE ELEVATION OF THE OUTLET PIPE AT ITS PLAN INDICATED ELEVATION. INSTALL MASONRY COLLARS AT EACH BEND PER SCD DM-1.1.



ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN

RECONSTRUCT MANHOLE PER CMS 611 EXCEPT THAT THE COVER SHALL BE ONE THAT CAN BE AND IS BOLTED CLOSED PER THE MANUFACTURER'S INSTRUCTIONS.

10 ALL WORK REQUIRED TO PERFORM THE RECONSTRUCTION IS INCIDENTAL TO THE BID ITEM.



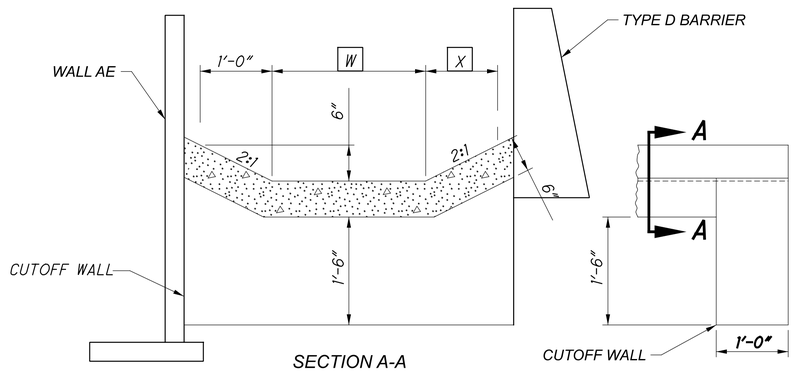
ITEM 611 - 15" CONDUIT, AS PER PLAN

ITEM 611 - 15" CONDUIT, AS PER PLAN

CONSTRUCT CONDUIT ACCORDING TO CMS 611 THROUGH THE LIMITS OF AND EXTENDING 10' BEYOND THE EPS GEOFOAM FILL EXCEPT THAT THE CONDUIT MATERIAL MUST BE REINFORCED CONCRETE PIPE PER 706.02 WITH PREMIUM JOINTS PER 706.11.

LINE THE TRENCH THROUGH THE EPS GEOFOAM FILL WITH GEOMEMBRANCE PER ITEM 203 - ROADWAY, MISC.: EPS GEOFOAM FILL. THE BEDDING AND BACKFILL SHALL BE LOW STRENGTH MORTAR PER 613 PER THE DETAIL ON THIS SHEET, UP TO THE TOP OF THE EPS GEOFOAM FILL.

PAYMENT FOR THE PIPE, PREMIUM JOINTS, LOW STRENGTH MORTAR, EXCAVATION AND ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 611 - 15" CONDUIT, AS PER PLAN. GEOMEMBRANE AND EPS GEOFOAM FILL SHALL BE PAID FOR UNDER ITEM 203 - ROADWAY, MISC.: EPS GEOFOAM FILL.



SECTION A-A

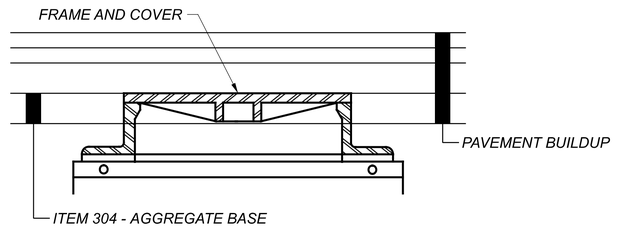
SIDE VIEW

W VARIES 0' TO 2' STA. 437+52 TO STA. 437+89
2' STA. 437+89 TO 438+17

X 1' STA. 437+52 TO STA. 437+89
VARIES 1' TO 2.8' STA. 437+89 TO STA. 438+17

ITEM 601 - PAVED GUTTER, TYPE 1-2, AS PER PLAN

CONSTRUCT PAVED GUTTER PER SCD DM-2.1 EXCEPT THAT THE DIMENSIONS SHALL FOLLOW THE DETAIL ABOVE.



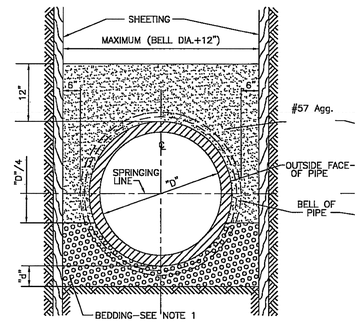
ITEM 611 - MANHOLE, NO. 3, AS PER PLAN 3 &
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 2

ITEM 611 - MANHOLE, NO. 3, AS PER PLAN 3
ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN 2

CONSTRUCT/RECONSTRUCT MANHOLE PER CMS 611 EXCEPT THAT THE FRAME AND COVER SHALL BE BURIED BENEATH THE PAVEMENT LAYERS WITH THE TOP OF THE FRAME AND COVER FLUSH WITH THE TOP OF THE ITEM 304 AGGREGATE BASE AND THE COVER SHALL BE SOLID.

10 ALL WORK REQUIRED TO PERFORM THE RECONSTRUCTION IS INCIDENTAL TO THE BID ITEM.

3



TYPICAL SECTION
PIPE SEWERS IN ORDINARY EARTH BEDDING

ITEM 611 - XX" CONDUIT, AS PER PLAN 2

CONSTRUCT CONDUIT ACCORDING TO CMS 611 EXCEPT THAT TRENCH BACKFILL IN PAVED AREAS SHALL BE CLEVELAND 50 LSM AND BEDDING MATERIAL SHALL BE COARSE NATURAL AGGREGATE COMPLYING WITH 703.01 WITH THE FOLLOWING PROVISIONS:

A. 4" BEDDING DEPTH "d" OF NO. 57 GRANULAR MATERIAL FOR 8" TO 24" PIPE
B. 6" BEDDING DEPTH "d" OF NO. 5 GRANULAR MATERIAL FOR 27" TO 60" PIPE
C. 8" BEDDING DEPTH "d" OF NO. 4 GRANULAR MATERIAL FOR PIPE SIZES GREATER THAN 60". THE MINIMUM DEPTH OF THE BEDDING SHALL BE 2" BELOW THE PIPE BELLS, IF ANY, BUT IN NO CASE SHALL THE BEDDING BE LESS THAN 8".
D. SERVICE CONNECTIONS SHALL HAVE A 3" MINIMUM BEDDING DEPTH OF NO. 57 GRANULAR MATERIAL

DRAINAGE DETAILS
ITEM 601, 611 & 638 AS PER PLANS

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JAR
REVIEWER KGJ 05/22/24
PROJECT ID 82382
SHEET 1163 TOTAL 2696

CUY-90-16.28 (CCG3A)

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ITEM 524 - DRILLED SHAFTS, 30" DIAMETER ABOVE BEDROCK, AS PER PLAN
THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFTS. FURNISH AND INSTALL THE DRILLED SHAFTS ACCORDING TO C&MS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

10 *THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FILL WHEN DRILLING.* *PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.*

USE CLASS QC5 CONCRETE ACCORDING TO C&MS 511 TO FILL THE HOLE TO THE TOP OF THE DRILLED SHAFT (ELEVATION "C"). THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDING THE DEPTH OF WATER IN THE SHAFT IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. PORING THE CONCRETE ALONG THE WEB OF THE SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND THE ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO THE ABOVE TOLERANCES.

FILL THE HOLE ABOVE THE CONCRETE TO THE EXISTING GROUND SURFACE WITH LOW STRENGTH MORTAR BACKFILL (LSM) PER C&MS 613.

REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING. WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.

ITEM SPECIAL - RETAINING WALL, TIMBER LAGGING
THIS ITEM CONSISTS OF FURNISHING AND INSTALLING UNTREATED HARDWOOD LAGGING TO SERVE AS TEMPORARY LAGGING FOR THE SOLDIER PILE WALL. THE LAGGING SHALL CONSIST OF HARDWOOD TIMBER WITH 3 INCH BY 8 INCH DIMENSIONS AND SHALL BE OF A GRADE AND TYPE WITH AN ALLOWABLE EXTREME FIBER STRESS IN BENDING OF A MINIMUM OF 1 KSI. THE TIMBER MATERIAL SHALL BE DOUGLAS FIR-LARCH DENSE NO. 1, SELECT STRUCTURAL OR DENSE SELECT STRUCTURAL. THE WOOD SHALL BE SEASONED, SOUND, AND FREE FROM DECAY AND INSECT ATTACK, WITH NO LOOSE AND/OR CLUSTER KNOTS. THE ENDS OF THE TIMBER SHALL BE SAWED SQUARE WITH THE AXIS OF THE TIMBER. THE TIMBER MEMBERS SHALL ALSO CONFORM TO C&MS 711.26. PROVIDE CERTIFICATION THAT THE TIMBER CONFORMS TO THE GRADE, SPECIES AND OTHER SPECIFIED REQUIREMENTS.

LAGGING SHALL BE PLACED IN A TOP-DOWN MANNER AS EXCAVATION PROCEEDS DOWNWARD. AT NO TIME SHOULD MORE THAN 3 FEET OF UNSUPPORTED EXCAVATION BE PERMITTED. REDUCE THE UNSUPPORTED HEIGHT AS NECESSARY TO PREVENT CAVING AND SLOUGHING OF THE SOILS BETWEEN THE SOLDIER PILES. PROVIDE ¼ INCH TO ½ INCH WOOD SPACERS TO PROVIDE HORIZONTAL JOINT SPACING BETWEEN THE LAGGING BOARDS TO PERMIT DRAINAGE.

HARDWOOD SHIMMING SHALL BE USED AS NEEDED TO MAINTAIN THE POSITIONING OF THE TIMBER MEMBERS AGAINST THE INTERIOR FLANGE FACE OF THE SOLDIER PILE DURING CONSTRUCTION OF THE RETAINING WALL SYSTEM. NO SHIM SHALL EXTEND BEYOND THE FLANGE OF THE H-PILE MORE THAN ¼ INCH AND NO SHIM SHALL EXTEND BEYOND THE TOP FACE OF THE TOP LAGGING.

THE DEPARTMENT WILL MEASURE THE TEMPORARY HARDWOOD LAGGING BY THE NUMBER OF SQUARE FEET. PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL AND INCIDENTALS (INCLUDING HARDWOOD SHIMMING AND WOOD SPACERS) NECESSARY TO FURNISH AND INSTALL THE TEMPORARY HARDWOOD LAGGING.

ITEM 840 - MECHANICALLY STABILIZED EARTH WALL, AS PER PLAN
CONSTRUCTION AND PAYMENT FOR MECHANICALLY STABILIZED EARTH (MSE) WALLS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 840 EXCEPT AS MODIFIED BELOW.

FOUNDATION BEARING RESISTANCE: THE WALL AC REINFORCED SOIL MASS, AS DESIGNED, PRODUCES A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 4.59 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 9.50 KIPS PER SQUARE FOOT.

5 *MSE WALLS, EXCAVATION, SELECT GRANULAR BACKFILL, AND FOUNDATION PREPARATION WILL BE PAID PER STRAP LENGTH DETERMINED IN THE SUPPLIER'S SHOP DRAWING APPROVED BY THE ENGINEER AS DESCRIBED IN ODOT SUPPLEMENTAL SPECIFICATION 840.*

GENERAL NOTES - 2
WALL AC
ALONG NORTH SIDE OF I-90 WB

SFN
N/A

DESIGN AGENCY
B&N
burgessniple.com

DESIGNER	CHECKER
CAS	ODW

REVIEWER
DWL 06/22/22

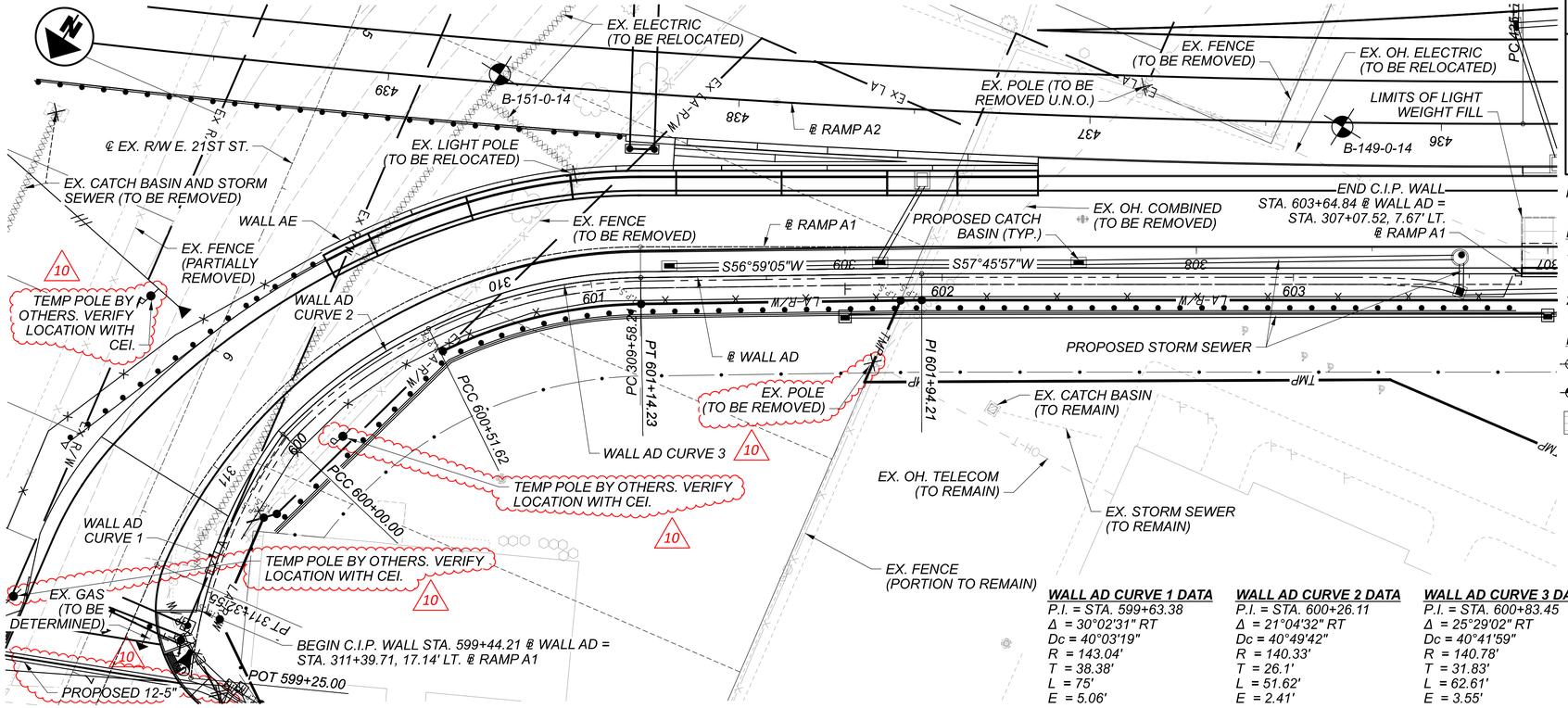
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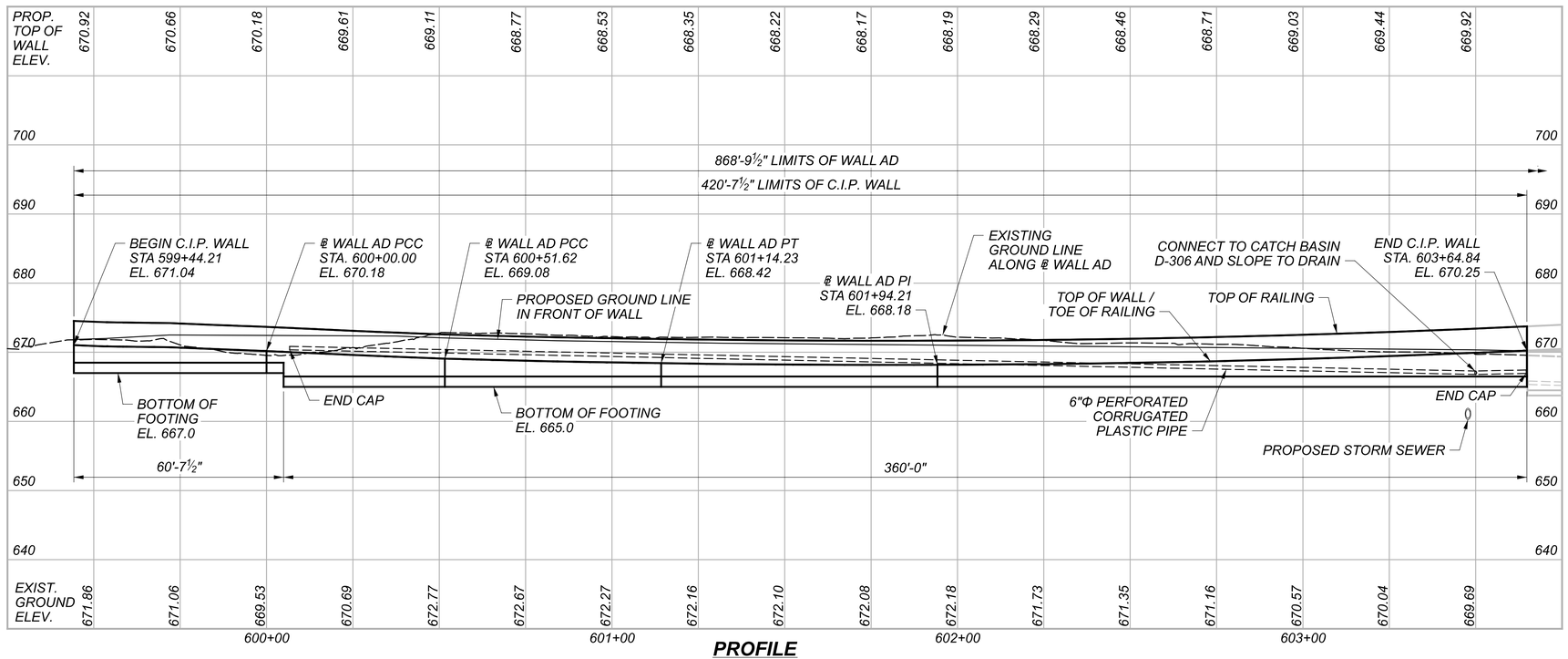
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CUY-90-16.28 (CCG3A)

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PLAN



PROFILE

BENCHMARK DATA

BM-54 STA. 310+59.00, ELEV. 672.54, OFFSET 463.02' RT., ℄ RAMP A1, CUT CROSS IN NORTH BONNET BOLT OF FIRE HYDRANT

BM-59 STA. 301+65.97, ELEV. 660.15, OFFSET 488.87' RT., ℄ RAMP A1, MAG NAIL AT NOSE OF DRAINAGE CHANNEL

BM-62 STA. 303+26.43, ELEV. 672.11, OFFSET 354.64' LT., ℄ RAMP A1, RAILROAD SPIKE IN EAST FACE OF POWER/LIGHT POLE

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLANS.

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. VERTICAL SCALE OF PROFILE VIEW IS EXAGGERATED FOR CLARITY.

LEGEND

- HISTORIC BORING LOCATION
- BORING LOCATION
- LIMITS OF LIGHT WEIGHT FILL

WALL AD CURVE 1 DATA
P.I. = STA. 599+63.38
Δ = 30°02'31" RT
Dc = 40°03'19"
R = 143.04'
T = 38.38'
L = 75'
E = 5.06'

WALL AD CURVE 2 DATA
P.I. = STA. 600+26.11
Δ = 21°04'32" RT
Dc = 40°49'42"
R = 140.33'
T = 26.1'
L = 51.62'
E = 2.41'

WALL AD CURVE 3 DATA
P.I. = STA. 600+83.45
Δ = 25°29'02" RT
Dc = 40°41'59"
R = 140.78'
T = 31.83'
L = 62.61'
E = 3.55'

BORING DATA

BORING	STATION	OFFSET
B-151-0-14	600+86.81	62.25' LT.
B-149-0-14	603+13.91	41.85' LT.
B-148-0-14	604+64.20	51.82' LT.
C-147-0-14	606+02.14	50.80' LT.
B-146-0-14	606+99.37	60.36' LT.
C-121-0-14	607+97.94	62.40' LT.
C-145-0-14*	301+99.88	9.70' LT.
B-144-0-14*	301+73.64	82.19' RT.

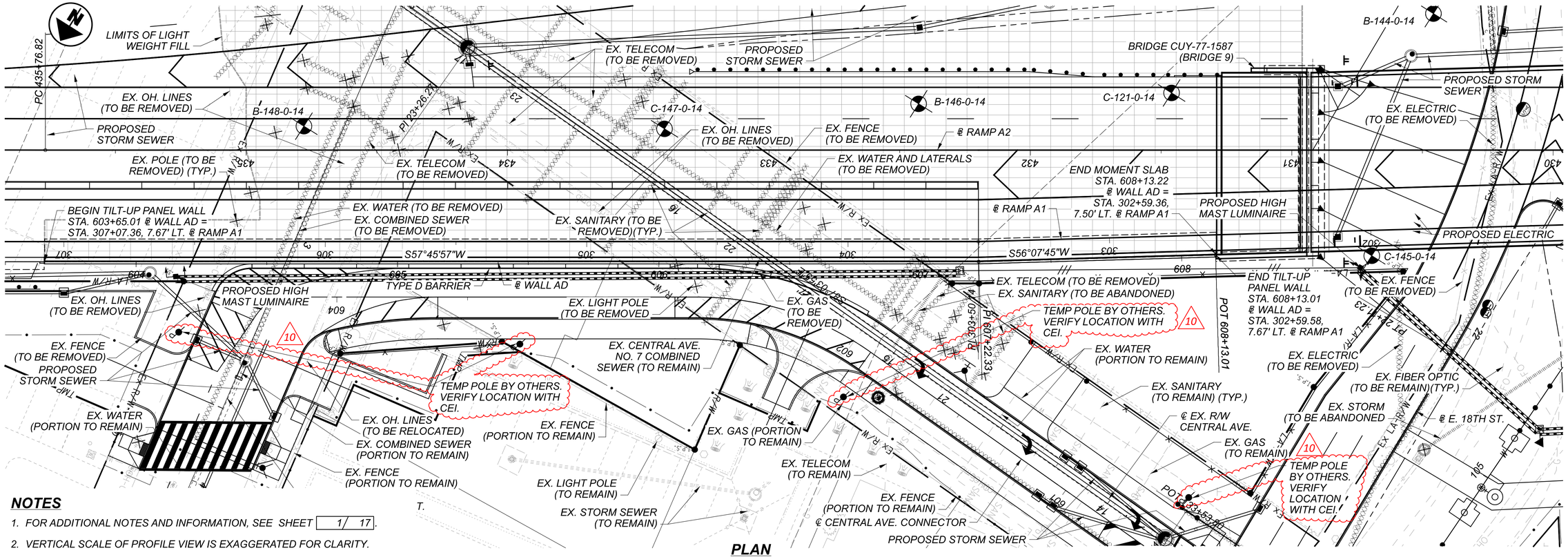
* LOCATIONS MEASURED RELATIVE TO ℄ RAMP A1

WALL PLAN AND PROFILE (1 OF 2) WALL AD ALONG RAMP A1

CUY-90-16.28 (CCG3A)

MODEL: \WALL AD [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 3:38:15 AM USER: Alexandria.Summers
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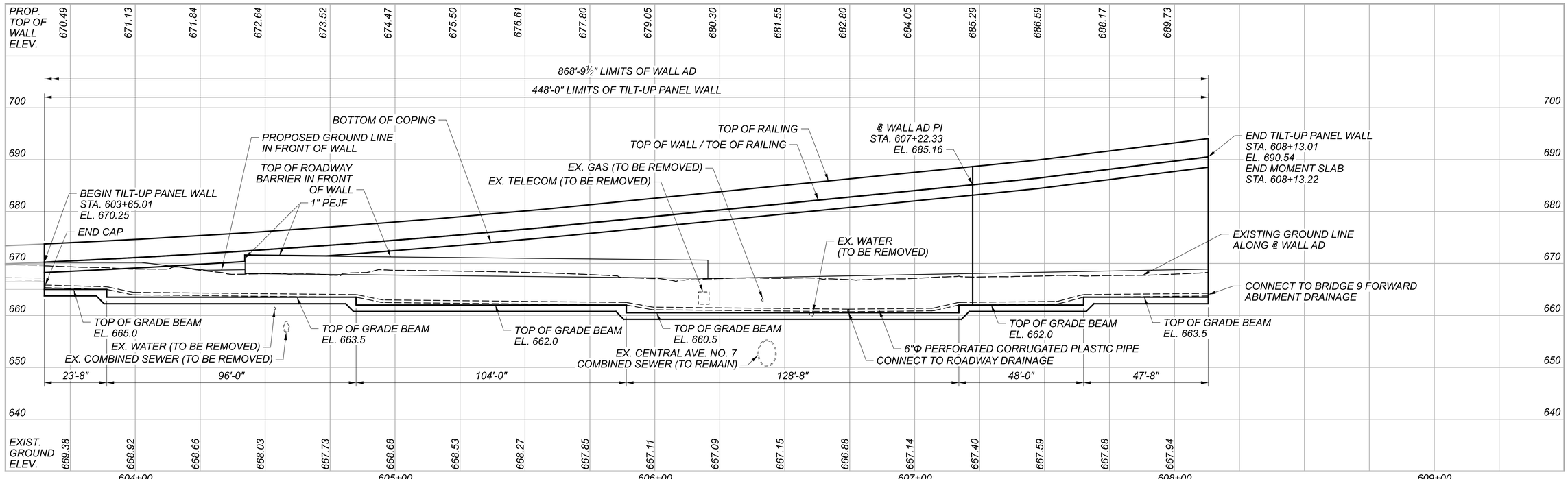
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DESIGN AGENCY	HDR
DESIGNER	CMR
CHECKER	DRS
REVIEWER	DWW 01/11/24
PROJECT ID	82382
SUBSET	1
TOTAL	17
SHEET	1191
TOTAL	2696



PLAN

NOTES

1. FOR ADDITIONAL NOTES AND INFORMATION, SEE SHEET 1/ 17.
2. VERTICAL SCALE OF PROFILE VIEW IS EXAGGERATED FOR CLARITY.



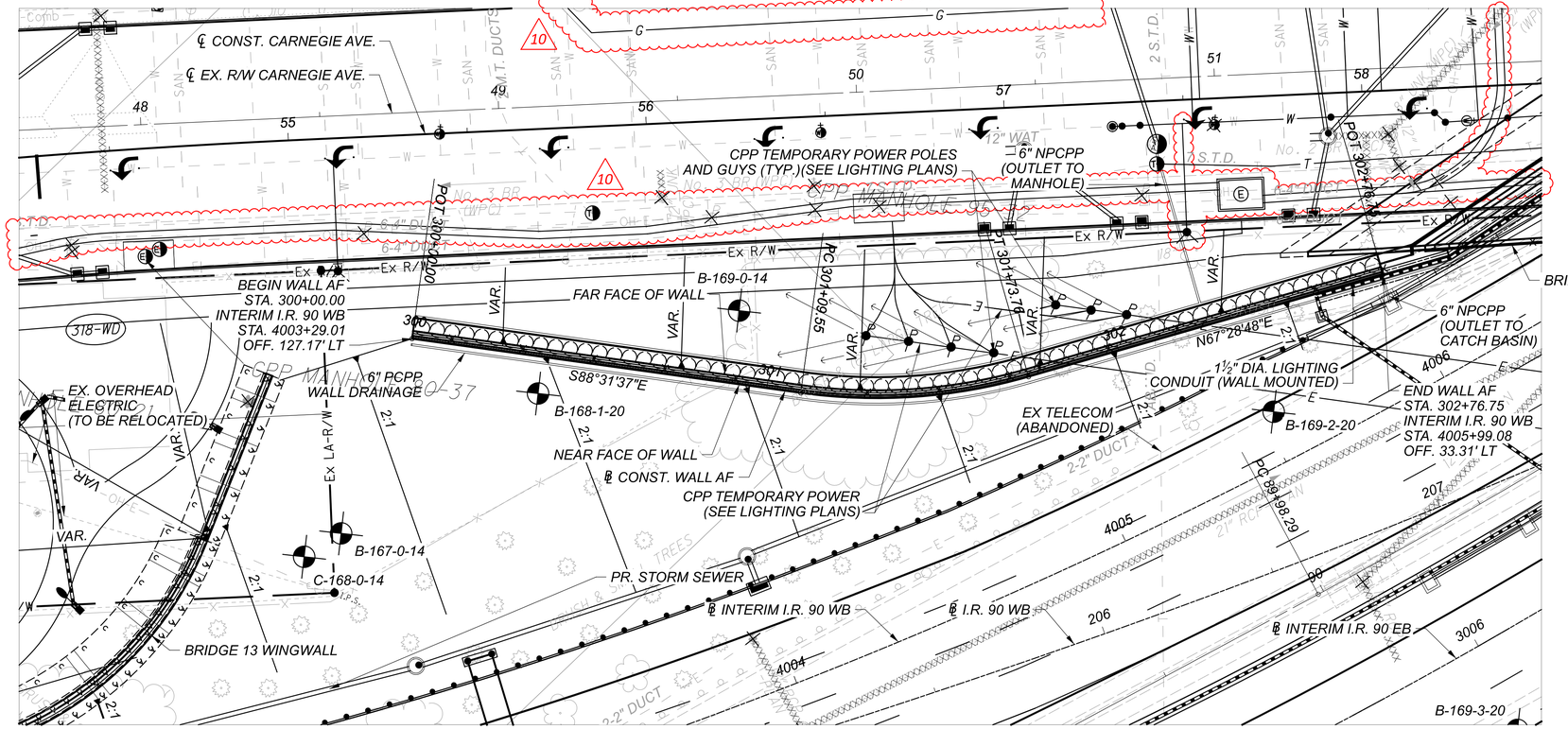
PROFILE

WALL PLAN AND PROFILE (2 OF 2)
WALL AD
ALONG RAMP A1

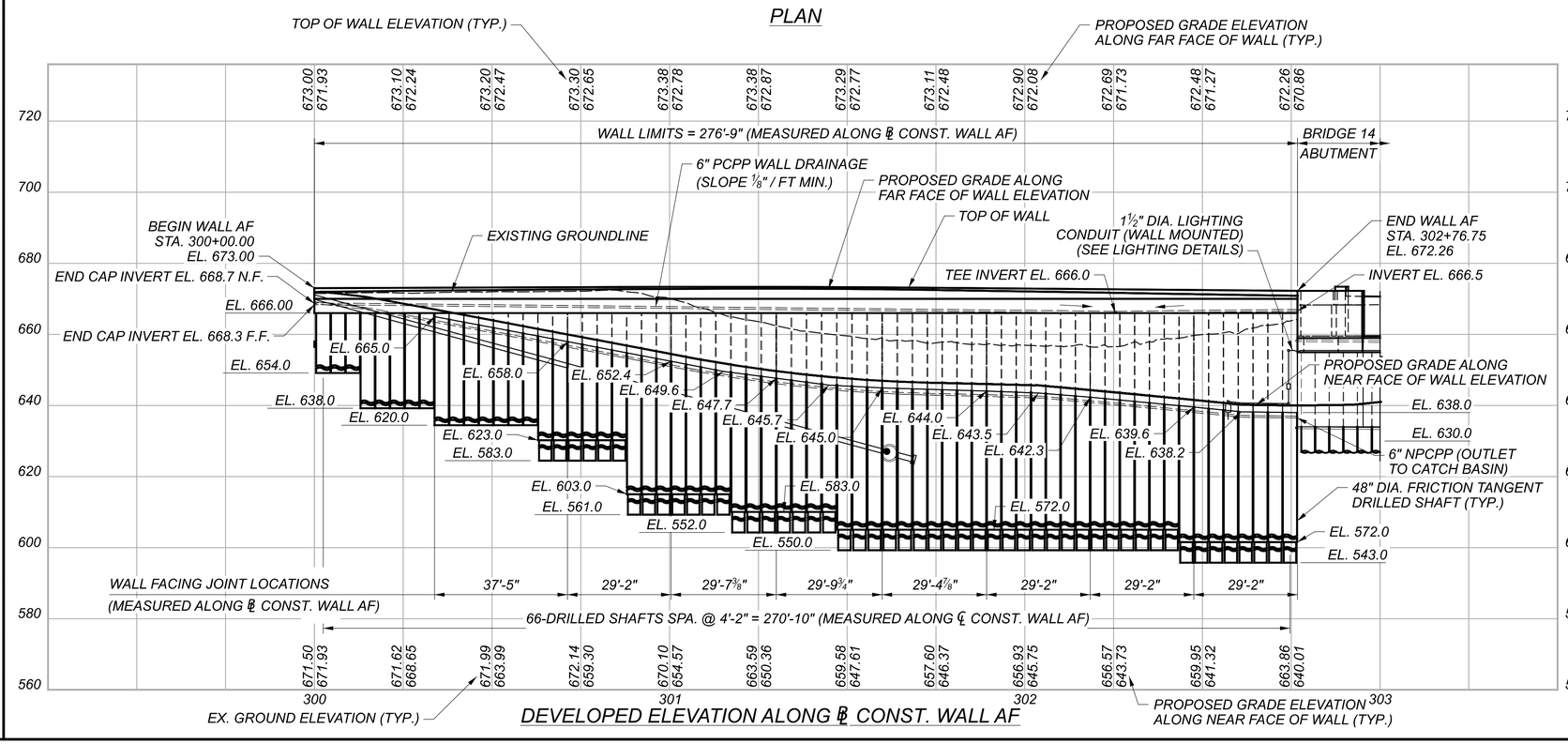
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DESIGN AGENCY	HDR
DESIGNER	TJE
CHECKER	JML
REVIEWER	DWW 01/11/24
PROJECT ID	82382
SUBSET	2
TOTAL	17
SHEET	1192
TOTAL	2696

CUY-90-16.28 (CCG3A)

MODEL: Wall AD [Sheet] PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 4:01:15 AM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382400-Engineering\Structures\WALL_AD\Sheets\82382_AD_WP002.dgn



PLAN



DEVELOPED ELEVATION ALONG ℄ CONST. WALL AF

BENCHMARK DATA

BM #62 STA.	41+38.42,	ELEV.	672.11,	OFFSET 75.42 LT.,	RR SPIKE
BM #64 STA.	58+35.86,	ELEV.	671.25,	OFFSET 47.90 LT.,	RR SPIKE
BM #65 STA.	66+35.73,	ELEV.	668.92,	OFFSET 38.62 RT.,	RR SPIKE
BM #73 STA.	49+25.90,	ELEV.	671.90,	OFFSET 31.86 LT.,	CUT CROSS

BENCHMARK STATION AND OFFSETS ARE FROM ℄ CONST. CARNEGIE AVE.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 / 2696.

℄ CONST. WALL AF CURVE DATA
P.I. = Sta. 301+42.14
Δ = 23°59'36" LT
Dc = 37°22'01"
R = 153.33'
T = 32.58'
L = 64.21'
E = 3.42'

BORING LOCATION*

BORING	STATION	OFFSET	TOP OF ROCK EL.
B-167-0-14	4002+90.73	81.55' LT.	-
C-168-0-14	4002+78.29	78.31' LT.	-
B-168-1-20	4003+59.52	101.13' LT.	-
B-169-0-14	4004+24.72	102.48' LT.	-
B-169-2-20	4005+53.34	14.04' LT.	-
B-169-3-20	4005+71.75	96.25' RT.	-

** = BORING STATION AND OFFSETS ARE FROM ℄ INTERIM I.R. 90 WB*

PROPOSED WORK

THE PROPOSED WORK CONSISTS OF CONSTRUCTING A RETAINING WALL ALONG THE RIGHT SIDE OF I.R. 90 WB. THE WALL IS TOP DOWN CONSTRUCTION CONSISTING OF TANGENT DRILLED SHAFTS WITH CAST-IN-PLACE CONCRETE FACING WITH A REINFORCED CONCRETE CAP AND FENCE WALL.

NOTES

1. *EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.*
2. *FOR WALL CROSS SECTIONS, SEE SHEET 775 TO 789 / 2696 .*
3. *STATION AND WALL OFFSETS SHOWN AT FRONT FACE OF WALL.*

LEGEND

PROJECT BORING LOCATIONS

CONST. = CONSTRUCTION
EOP = EDGE OF PAVEMENT
EOS = EDGE OF SHOULDER

WALL PLAN AND PROFILE
WALL AF
ALONG NORTH SIDE OF I.R. 90 NEAR E. 22ND ST. AND CARNEGIE AVE.

SFN	N/A
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER / CHECKER	SW/GZ / JC/SD
REVIEWER	LPC 05-09-24
PROJECT ID	82382
SUBSET / TOTAL	1 / 11
SHEET / TOTAL	1218 / 2696

CUY-90-16.28 (CCG3A)

MODEL: Wall AF East - Wall AF Plan 2-1 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:12:16 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AF\Sheets\82382_AF_WP002.dgn

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
VPF-1-90 REVISED 7/21/2023
DM-1.1 REVISED 1/17/2025

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800 DATED SEE TITLE SHEET

REFER TO THE FOLLOWING SUPPLEMENT:
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI
(CONCRETE FACING, DRILLED SHAFT CAP & FENCE WALL)
CONCRETE CLASS QC SCC, WITH $^{3}/_{8}$ IN MAX. AGGREGATE SIZE:
COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

PERMANENT STEEL CASING - ASTM A252 GRADE 3 - MINIMUM YIELD STRESS 45 KSI

SEQUENCE OF CONSTRUCTION

CONSTRUCT WALL AF DURING MOT PHASE 2.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES AND INFORMATION

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. PROVIDE A COATING THAT MEETS THE REQUIREMENTS LISTED BELOW. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

A. THE MATERIAL SHALL BE A SINGLE COMPONENT, RTV (ROOM TEMPERATURE VULCANIZED), NEUTRAL MOISTURE CURE, PERMANENT (NON-SACRIFICIAL), TYPE III (WATER CLEANABLE) POLYSILOXANE (SILICONE) ANTI-GRAFFITI COATING, FREE OF ANY WAXES, EPOXIES, OR POLYURETHANE COMPONENTS.

B. THE COATING SHALL BE A ONE COAT SYSTEM (NO PRIMER) CAPABLE OF BEING SPRAY APPLIED TO A DRY FILM THICKNESS OF 15 MILS (375 MICRONS) WITHOUT RUNS OR SAGS (MULTIPLE COAT APPLICATION ACCEPTABLE FOR BRUSH/ROLLER USAGE AND PRIMER USAGE ACCEPTABLE FOR SPECIALTY SUBSTRATES SUCH AS GALVANIZED METAL).

C. THE COATING SHALL EMIT LESS THAN 300 G/L (2.5 POUNDS PER GALLON) OF VOLATILE ORGANIZE COMPOUNDS (EPA METHOD 24).

D. THE COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH COLD WATER POWER WASH) AS PER ASTM D7089 WITH LOW PRESSURE (1200 PSI) COLD WATER WASH AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM D4587.
2. GRAFFITI RESISTANCE LESS THAN 7.5 AS PER ASTM D6578 AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM 4578.
3. NO SIGNS OF GRAFFITI OR GRAFFITI STAINING AND MUST BE INTACT AND EXHIBIT NO SIGNS OF STREAKING, CRACKING, PINHOLING, DISCOLORING, OR OTHER VISIBLE COATING DEGRADATION UPON CASUAL OBSERVATION WHEN TESTED IN ACCORDANCE WITH TXDOT TEX 890-B, TYPE III METHOD.
4. BREATHABILITY OF 10 PERMS (+/- 3) PER ASTM D1653 USING "WET CUP METHOD".
5. ELONGATION AT BREAK GREATER THAN 100% AS PER ASTM D412 (USING DIE "D").
6. ADHESION RATING OF "8 - DIFFICULT TO REMOVE" AS PER ASTM D6677 (ADHESION BY KNIFE).

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL ALL EXPOSED SURFACES INCLUDING THE CAST IN PLACE CONCRETE FACING SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLOR SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

6

COPING SEALER:	"ALPACA"	7022
WALL FACING SEALER:	SEE WALL AESTHETIC DETAILS	
PARAPET:	"ALPACA"	7022

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

THE ADDITIONAL MATERIAL AND LABOR REQUIRED TO SEAL THE FORM LINER RELIEF SHALL BE INCLUDED IN THIS ITEM. TO ACCOUNT FOR THE SURFACE VARIATIONS DUE TO THE FORM LINERS, AN EXTRA 20 PERCENT HAS BEEN ADDED TO THE SEALING QUANTITIES FOR THE PURPOSE OF ESTIMATING.

ITEM 518 - PREFABRICATED GEOCOMPOSITE DRAIN

THIS WORK CONSISTS OF FURNISHING AND PLACING PREFABRICATED GEOCOMPOSITE DRAIN (PGD) AGAINST THE CONCRETE WALL FACING.

FURNISH PGD CONSISTING OF A DRAINAGE CORE WITH A GEOTEXTILE FABRIC BONDED TO AT LEAST ONE SIDE. USE CORE MATERIAL THAT CONSISTS OF A STABLE, POLYMER PLASTIC MATERIAL WITH A CUSPATED OR GEONET STRUCTURE. THE CORE MATERIAL SHALL HAVE SUFFICIENT FLEXIBILITY TO WITHSTAND BENDING AND HANDLING DURING INSTALLATION WITHOUT DAMAGE. FURNISH GEOTEXTILE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS FORMED INTO A WOVEN OR NON-WOVEN FABRIC. FURNISH PGD CONFORMING TO THE FOLLOWING REQUIREMENTS. FURNISH MANUFACTURER'S CERTIFIED TEST DATA.

	PROPERTY	TEST METHOD	VALUE
	THICKNESS	ASTM D 5199	0.4 INCH
	COMPRESSIVE STRENGTH	ASTM D 1621	13,650 PSF MIN.
CORE	FLOW RATE	ASTM D 4716	9 TO 25 GPM/FT
	APPARENT OPENING SIZE	ASTM D 4751	0.3 MM MAX.
	FLOW RATE	ASTM D 4491	40 GPM/SQ.FT. MIN.
FABRIC	GRAB TENSILE STRENGTH	ASTM D 4632	90 LBS MIN.
	CBR PUNCTURE	ASTM D 6241	65 LBS MIN.

PLACE PGD BETWEEN THE DRILLED SHAFTS. PLACE THE SIDE FACED WITH GEOTEXTILE AGAINST THE DRILLED SHAFTS, FACING TOWARDS THE RETAINED GROUND, AND SECURE THE PGD TO THE SACRIFICIAL PLYWOOD FORMS BETWEEN THE DRILLED SHAFTS.

SPLICE ABUTTING SECTIONS TOGETHER BY OVERLAPPING THE GEOTEXTILE FLAP (IF PROVIDED) ON ONE SECTION WITH THE ADJACENT SECTION OF PGD. OVERLAP THE GEOTEXTILE IN A SHINGLED OVERLAP SO THAT THE UPPER GEOTEXTILE IS ON TOP OF THE LOWER GEOTEXTILE. IF A GEOTEXTILE FLAP IS NOT PROVIDED, COVER THE SEAM WITH A 12-INCH WIDE STRIP OF GEOTEXTILE FABRIC CENTERED OVER THE SEAM AND SECURED IN PLACE USING 3-INCH WIDE WATERPROOF PLASTIC TAPE.

SEAL ALL EXPOSED EDGES OF THE CORE MATERIAL TO PREVENT SOIL INTRUSION. SEAL EXPOSED EDGES BY FOLDING THE GEOTEXTILE FLAPS OVER AND AROUND THE PGD OR, IF A FLAP IS NOT PROVIDED, COVERING THE EXPOSED EDGE WITH A 12-INCH WIDE STRIP OF GEOTEXTILE FABRIC, TAPING THE STRIP TO THE PGD GEOTEXTILE 8 INCHES FROM THE EXPOSED EDGE, AND FOLDING THE REMAINING 4 INCHES OVER AND AROUND THE PGD. SECURE LOOSE EDGES OF THE GEOTEXTILE FABRIC WITH 3-INCH WIDE WATERPROOF PLASTIC TAPE.

REPAIR ANY DAMAGE TO THE GEOTEXTILE FABRIC BY COVERING WITH A PATCH WHICH OVERLAPS THE DAMAGED AREA AND EXTENDS AT LEAST 6 INCHES BEYOND THE EDGE OF THE DAMAGED AREA. TAPE THE EDGES OF THE PATCH IN PLACE USING 3 INCH WIDE WATERPROOF PLASTIC TAPE. IF THE CORE OF THE PGD IS DAMAGED, REPLACE IT WITH A NEW SECTION OF PGD SPLICE AS DESCRIBED ABOVE.

ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN

GENERAL:
THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL DRILLED SHAFTS AS DETAILED IN THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT C&MS SECTION 524, AND WITH THE ADDITIONAL REQUIREMENTS DEFINED BELOW.

ANTICIPATED DRILLED SHAFT DEFLECTIONS:
TANGENT DRILLED SHAFTS ("SHAFT", "SHAFTS") ARE INCORPORATED AS WALLS IN VARIOUS STRUCTURAL ELEMENTS FOR THIS BRIDGE. AS DESIGNED AND DETAILED THE SHAFTS ARE EXPECTED TO DEFLECT UNDER THE APPLIED PERMANENT LOADS (DC, DW, EP, WA) AND TRANSIENT LOADS (LL, LS, TU) AT THE SERVICE LIMIT STATE. MEASURES FOR ACCOMODATING THESE DEFLECTIONS ARE DETAILED BELOW.

THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN BEAM SEAT ELEVATION FOR SHAFTS INCORPORATED IN ABUTMENTS. THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN TOP OF CAP ELEVATION FOR SHAFTS INCORPORATED IN RETAINING WALLS. IN BOTH CASES THE FINISHED TOP OF SHAFT IS LOWER THAN THE SHAFT HEAD ELEVATION.

THE ANTICIPATED DEFLECTION AT THE SHAFT HEAD ELEVATION RELATIVE TO THE DREDGE LINE ELEVATION DUE TO PERMANENT LOADS ARE AS FOLLOWS:

WALL AF	6.00 INCHES	SHAFTS AF29 THROUGH AF66 ONLY

DESIGN ASSUMPTIONS:
BEHAVIOR OF THE DRILLED SHAFTS AS DESCRIBED ABOVE IS PREDICATED UPON THE FOLOWING DESIGN ASSUMPTIONS:

1. DESIGN HEIGHT OF DRILLED SHAFT IS THE DISTANCE FROM THE SHAFT HEAD ELEVATION TO THE DREDGE LINE ELEVATION
2. PERMANENT LOAD DEFLECTIONS ARE ASSUMED TO OCCUR FOLLOWING REMOVAL OF SOIL IN FRONT OF THE TANGENT SHAFT WALLS
3. ADDITIONAL ASSUMPTIONS AND CONSTRAINTS ARE DETAILED IN THE PLANS.

DREDGE LINE ELEVATIONS:

SHAFTS AF01 THROUGH AF58:	SLOPING GROUND 42 INCHES BELOW FINAL GRADE AT NEAR FACE OF WALL.
SHAFTS AF58 THROUGH AF66:	ELEV. 631.0 FOR DRAINAGE STRUCTURE EXCAVATION.

DRILLED SHAFT LOCATION SURVEY:
THE CORRECT LOCATION OF SHAFT IS CRITICAL TO ESTABLISHING AND MAINTAINING THE STRUCTURE GEOMETRY. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A OHIO REGISTERED PROFESSIONAL SURVEYOR ("THE SURVEYOR") TO ESTABLISH, MAINTAIN AND VERIFY HORIZONTAL AND VERTICAL SHAFT GEOMETRY. THE SURVEYOR SHALL BE READILY AVAILABLE TO ESTABLISH GEOMETRIC CONTROL AND PERFORM THE SURVEYS REQUIRED BELOW.

CONTRACTOR'S INSTALLATION PLAN:
10 THE CONTRACTOR SHALL PROVIDE AN INSTALLATION PLAN AS REQUIRED BY ODOT C&MS SECTION 524.03. THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. THE INSTALLATION PLAN SHALL ALSO INCLUDE:

1. CONTRACTOR'S PROPOSED METHODS TO MAINTAIN LOCATION AND ALIGNMENT OF SHAFTS
2. CONTRACTOR'S PROPOSED METHODS FOR PERFORMING THE DRILLED SHAFT LOCATION SURVEY

CONSTRUCTION CONSTRAINTS:
10 DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. THE CONTRACTOR IS ADVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRE ADVANCING SHAFTS THROUCH EXISTING PILES. ADDITIONAL INFORMATION AND NOTES REGARDING POSSIBLE CONFLICTS ARE PROVIDED IN THE PLANS.

9 DO NOT EXCAVATE WITHIN THREE DIAMETERS OF DRILLED SHAFTS WITH NEW CONCRETE UNTIL AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.

MATERIALS:
CONCRETE AND REINFORCING STEEL FOR DRILLED SHAFTS SHALL CONFORM TO ODOT C&MS SECTION 524.02.

A SELF CONSOLIDATING CONCRETE MIX SHALL BE INCORPORATED

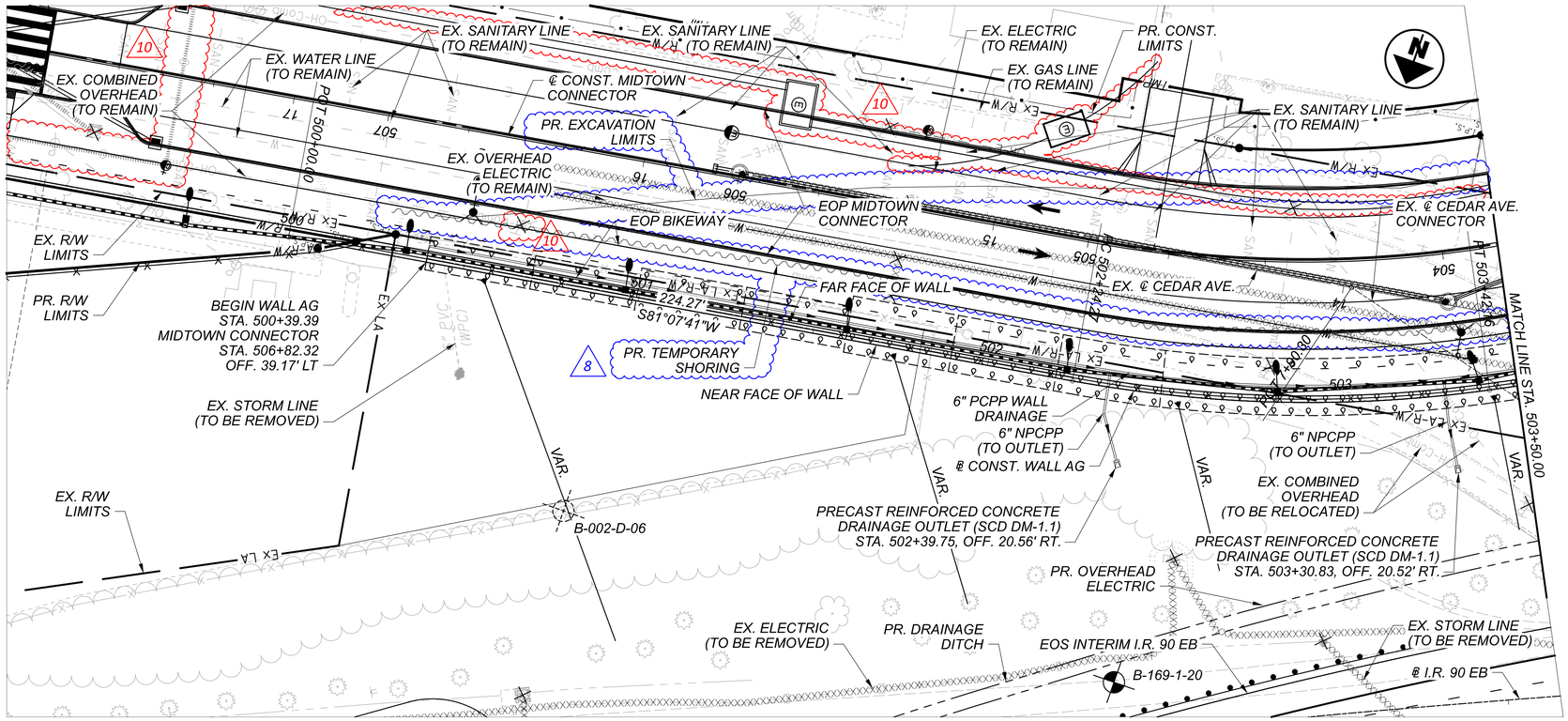
THE MAXIMUM COARSE AGGREGATE SIZE SHALL BE: $^{3}/_{8}$"

9 PERMANENT STEEL CASINGS SHALL BE ASTM A252 GRADE 3 WITH A MINIMUM YIELD STRESS OF 45 KSI. CASING SECTION LENGTHS SHALL BE MAXIMIZED TO MINIMIZE THE NUMBER OF FIELD SPLICE LOCATIONS. SPLICES SHALL CONFORM TO C&MS 507.09. THE USE OF SPIRAL WELDED PIPE IS PERMITTED.

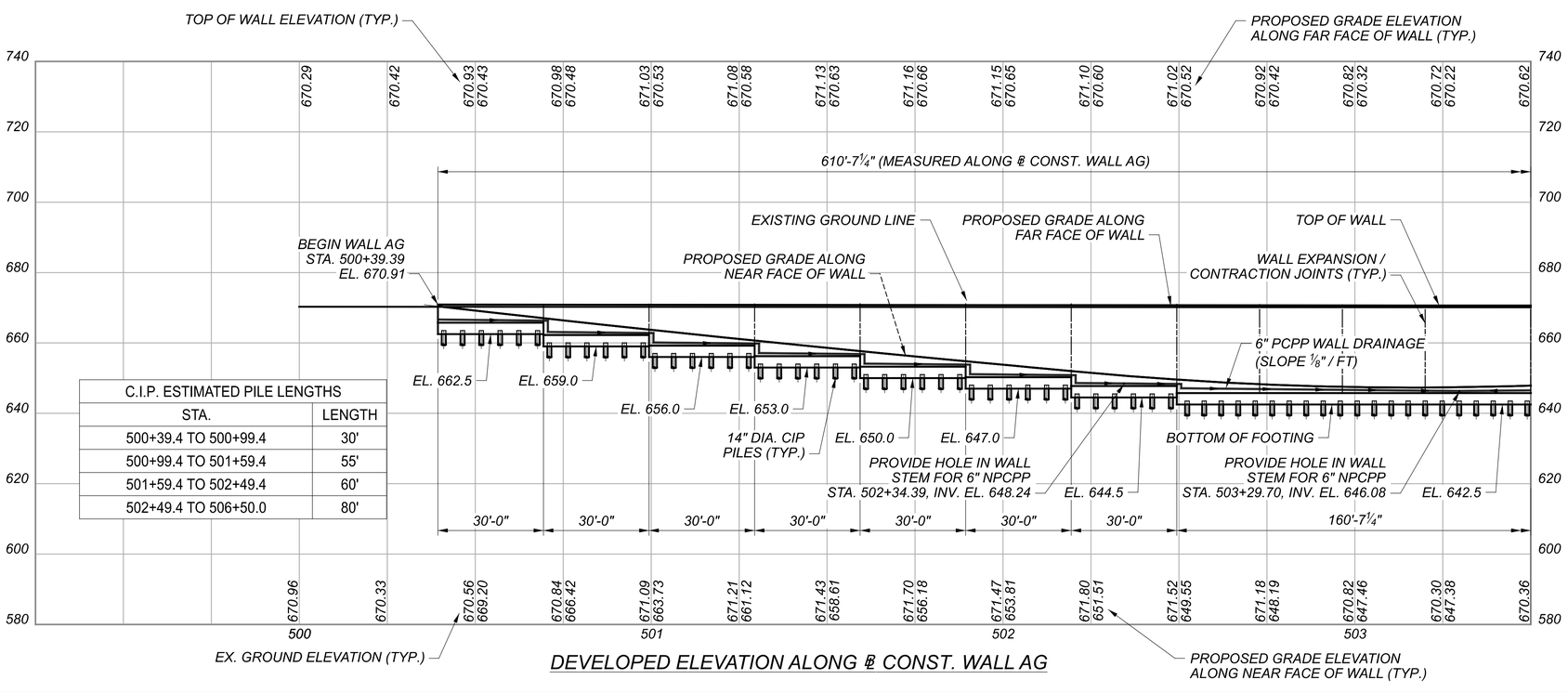
WALL GENERAL NOTES (1 OF 2)
WALL AF
ALONG NORTH SIDE OF I.R. 90 NEAR E. 22ND ST. AND CARNEGIE AVE.

SFN N/A
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER SW/GZ | CHECKER JC/SD
REVIEWER LPC 05-09-24
PROJECT ID 82382
SUBSET 2 | TOTAL 11
SHEET 1219 | TOTAL 2696

CUY-90-16.28 (CCG3A)
MODEL: Sheet (1 of 2) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:14:20 PM USER: Victor.Nash
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PLAN



DEVELOPED ELEVATION ALONG ℄ CONST. WALL AG

C.I.P. ESTIMATED PILE LENGTHS	
STA.	LENGTH
500+39.4 TO 500+99.4	30'
500+99.4 TO 501+59.4	55'
501+59.4 TO 502+49.4	60'
502+49.4 TO 506+50.0	80'

BENCHMARK DATA

BM #54 STA. 33+03.27	ELEV. 672.54	OFFSET 36.13 RT.	CUT CROSS
BM #62 STA. 35+24.62	ELEV. 672.11	OFFSET 1174.60 LT.	RR SPIKE
BM #72 STA. 23+49.63	ELEV. 674.06	OFFSET 52.19 LT.	CUT CROSS
BM #73 STA. 37+05.22	ELEV. 671.90	OFFSET 407.77' LT.	CUT CROSS

BENCHMARK STATION AND OFFSETS ARE FROM ℄ CONST. E. 22ND ST.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 / 2696

WALL AG

CURVE DATA
P.I. = Sta. 502+83.72
Δ = 18°20'06" LT
Dc = 15°33'09"
R = 368.40'
T = 59.45'
L = 117.89'
E = 4.77'

MIDTOWN CONNECTOR

CURVE DATA
P.I. = Sta. 504+17.17
Δ = 28°38'45" LT
Dc = 17°30'00"
R = 327.40'
T = 83.59'
L = 163.69'
E = 10.50'

BORING LOCATION*			
BORING	STATION	OFFSET	TOP OF ROCK EL.
B-169-1-20	204+59.78	15.18' RT.	-
B-002-D-06	206+03.17	84.37' RT.	-

* = BORING STATION AND OFFSETS ARE FROM ℄ I.R. 90 EB

PROPOSED WORK

THE PROPOSED WORK CONSISTS OF CONSTRUCTING A RETAINING WALL ALONG THE RIGHT (SOUTH) SIDE OF I.R. 90 EB ADJACENT TO BRIDGE 13. THE WALL UTILIZES BOTTOM UP CONSTRUCTION CONSISTING OF A CAST-IN-PLACE CANTILEVER WALL.

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. FOR WALL CROSS SECTIONS, SEE SHEETS:
   INTERIM I.R. 90 EB: 737 / 2696
   MIDTOWN CONNECTOR: 947 TO 960 / 2696
3. STATION AND WALL OFFSETS SHOWN AT NEAR FACE OF WALL.

LEGEND

HISTORIC BORING LOCATIONS

PROJECT BORING LOCATIONS

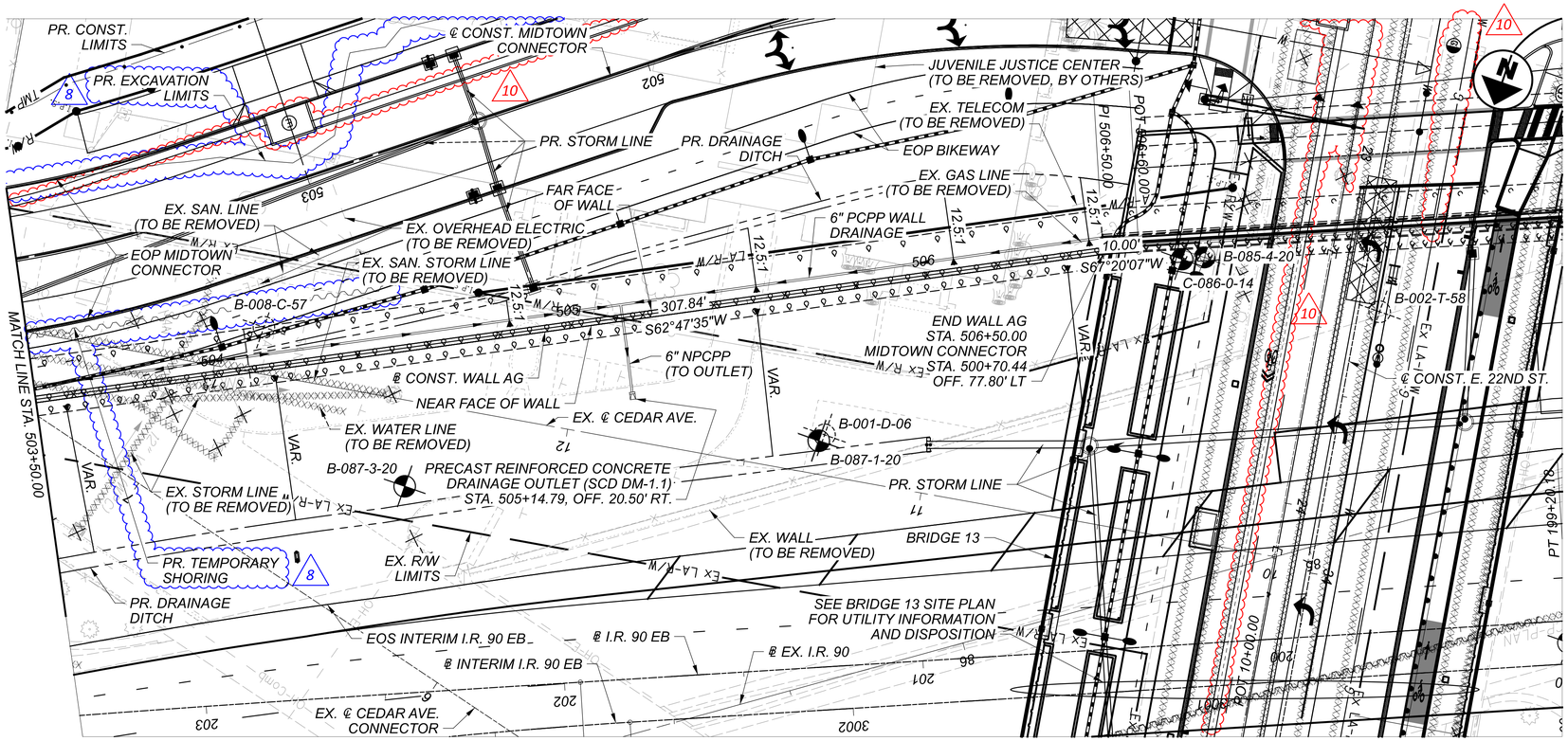
CONST. = CONSTRUCTION
EOP = EDGE OF PAVEMENT
EOS = EDGE OF SHOULDER

WALL PLAN AND PROFILE (1 OF 2)
WALL AG
ALONG SOUTH SIDE OF I.R. 90

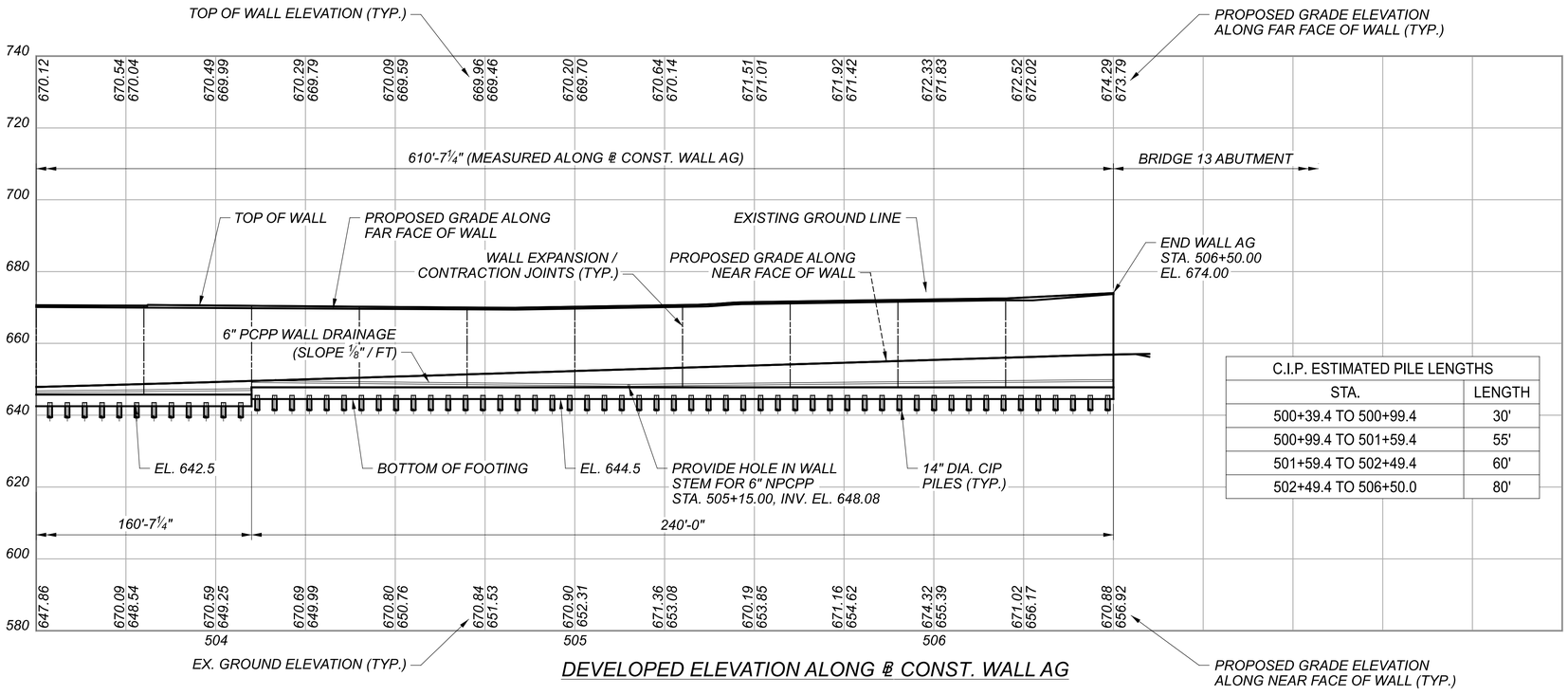
SFN N/A
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER SSW | CHECKER MKB
REVIEWER LPC 05-09-24
PROJECT ID 82382
SUBSET 1 | TOTAL 12
SHEET 1229 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: BL_P_Wall AG - Wall AG Plan PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:42:03 AM USER: Alexandria.Summers
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PLAN



DEVELOPED ELEVATION ALONG ℄ CONST. WALL AG

C.I.P. ESTIMATED PILE LENGTHS	
STA.	LENGTH
500+39.4 TO 500+99.4	30'
500+99.4 TO 501+59.4	55'
501+59.4 TO 502+49.4	60'
502+49.4 TO 506+50.0	80'

BENCHMARK DATA

BM #54 STA. 33+03.27	ELEV. 672.54	OFFSET	36.13 RT.	CUT CROSS
BM #62 STA. 35+24.62	ELEV. 672.11	OFFSET	1174.60 LT.	RR SPIKE
BM #72 STA. 23+49.63	ELEV. 674.06	OFFSET	52.19 LT.	CUT CROSS
BM #73 STA. 37+05.22	ELEV. 671.90	OFFSET	407.77' LT.	CUT CROSS

BENCHMARK STATION AND OFFSETS ARE FROM ℄ CONST. E. 22ND ST.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 / 2696

MIDTOWN CONNECTOR

CURVE DATA
P.I. = Sta. 504+17.17
Δ = 28°38'45" LT
Dc = 17°30'00"
R = 327.40'
T = 83.59'
L = 163.69'
E = 10.50'

BORING LOCATION*

BORING	STATION	OFFSET	TOP OF ROCK EL.
B-085-4-20	200+14.75	107.35' RT.	-
B-087-1-20	201+25.11	63.19' RT.	-
B-087-3-20	202+40.86	57.52' RT.	-
B-002-T-58	199+67.00	89.17' RT.	-
B-001-D-06	201+22.78	64.55' RT.	-
B-008-C-57	202+76.93	104.30' RT.	-
C-086-0-14	200+21.04	107.22' RT.	-

* = BORING STATION AND OFFSETS ARE FROM ℄ I.R. 90 EB

PROPOSED WORK

THE PROPOSED WORK CONSISTS OF CONSTRUCTING A RETAINING WALL ALONG THE RIGHT (SOUTH) SIDE OF I.R. 90 EB ADJACENT TO BRIDGE 13. THE WALL UTILIZES BOTTOM UP CONSTRUCTION CONSISTING OF A CAST-IN-PLACE CANTILEVER WALL.

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. FOR WALL CROSS SECTIONS, SEE SHEETS:
   INTERIM I.R. 90 EB: 737 / 2696
   MIDTOWN CONNECTOR: 947 TO 960 / 2696
3. STATION AND WALL OFFSETS SHOWN AT NEAR FACE OF WALL.

LEGEND

HISTORIC BORING LOCATIONS

PROJECT BORING LOCATIONS

CONST. = CONSTRUCTION
EOP = EDGE OF PAVEMENT
EOS = EDGE OF SHOULDER

WALL PLAN AND PROFILE (2 OF 2)
WALL AG
ALONG SOUTH SIDE OF I.R. 90

SFN	N/A
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	SSW
CHECKER	MKB
REVIEWER	LPC 05-09-24
PROJECT ID	82382
SUBSET	2
TOTAL	12
SHEET	1230
TOTAL	2696

CUY-90-16.28 (CCG3A)

MODEL: BL_P_Wall AG - Wall AG Plan-1 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 3:11:17 AM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH101_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AG\Sheets\82382_AG_WP002.dgn

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
VPF-1-90 REVISED 7/21/2023
DM-1.1 REVISED 1/17/2025

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800 DATED SEE TITLE SHEET

REFER TO THE FOLLOWING SUPPLEMENT:
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI
(CONCRETE FACING, DRILLED SHAFT CAP & FENCE WALL)
CONCRETE CLASS QC SCC, WITH $^{3}/_{8}$ IN MAX. AGGREGATE SIZE:
COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

PERMANENT STEEL CASING - ASTM A252 GRADE 3 - MINIMUM YIELD STRESS 45 KSI

SEQUENCE OF CONSTRUCTION:

CONSTRUCT WALL AH DURING MOT PHASE 4.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES
AND INFORMATION

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. PROVIDE A COATING THAT MEETS THE REQUIREMENTS LISTED BELOW. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

A. THE MATERIAL SHALL BE A SINGLE COMPONENT, RTV (ROOM TEMPERATURE VULCANIZED), NEUTRAL MOISTURE CURE, PERMANENT (NON-SACRIFICIAL), TYPE III (WATER CLEANABLE) POLYSILOXANE (SILICONE) ANTI-GRAFFITI COATING, FREE OF ANY WAXES, EPOXIES, OR POLYURETHANE COMPONENTS.

B. THE COATING SHALL BE A ONE COAT SYSTEM (NO PRIMER) CAPABLE OF BEING SPRAY APPLIED TO A DRY FILM THICKNESS OF 15 MILS (375 MICRONS) WITHOUT RUNS OR SAGS (MULTIPLE COAT APPLICATION ACCEPTABLE FOR BRUSH/ROLLER USAGE AND PRIMER USAGE ACCEPTABLE FOR SPECIALTY SUBSTRATES SUCH AS GALVANIZED METAL).

C. THE COATING SHALL EMIT LESS THAN 300 G/L (2.5 POUNDS PER GALLON) OF VOLATILE ORGANIZE COMPOUNDS (EPA METHOD 24).

D. THE COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH COLD WATER POWER WASH) AS PER ASTM D7089 WITH LOW PRESSURE (1200 PSI) COLD WATER WASH AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM D4587.
2. GRAFFITI RESISTANCE LESS THAN 7.5 AS PER ASTM D6578 AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM 4578.
3. NO SIGNS OF GRAFFITI OR GRAFFITI STAINING AND MUST BE INTACT AND EXHIBIT NO SIGNS OF STREAKING, CRACKING, PINHOLING, DISCOLORING, OR OTHER VISIBLE COATING DEGRADATION UPON CASUAL OBSERVATION WHEN TESTED IN ACCORDANCE WITH TXDOT TEX 890-B, TYPE III METHOD.
4. BREATHABILITY OF 10 PERMS (+/- 3) PER ASTM D1653 USING "WET CUP METHOD".
5. ELONGATION AT BREAK GREATER THAN 100% AS PER ASTM D412 (USING DIE "D").
6. ADHESION RATING OF "8 - DIFFICULT TO REMOVE" AS PER ASTM D6677 (ADHESION BY KNIFE).

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL ALL EXPOSED SURFACES INCLUDING THE CAST IN PLACE CONCRETE FACING SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLOR SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

6

COPING SEALER:	"ALPACA"	7022
WALL FACING SEALER:	SEE WALL AESTHETIC DETAILS	
PARAPET:	"ALPACA"	7022

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

THE ADDITIONAL MATERIAL AND LABOR REQUIRED TO SEAL THE FORM LINER RELIEF SHALL BE INCLUDED IN THIS ITEM. TO ACCOUNT FOR THE SURFACE VARIATIONS DUE TO THE FORM LINERS, AN EXTRA 20 PERCENT HAS BEEN ADDED TO THE SEALING QUANTITIES FOR THE PURPOSE OF ESTIMATING.

ITEM 518 - PREFABRICATED GEOCOMPOSITE DRAIN

THIS WORK CONSISTS OF FURNISHING AND PLACING PREFABRICATED GEOCOMPOSITE DRAIN (PGD) AGAINST THE CONCRETE WALL FACING.

FURNISH PGD CONSISTING OF A DRAINAGE CORE WITH A GEOTEXTILE FABRIC BONDED TO AT LEAST ONE SIDE. USE CORE MATERIAL THAT CONSISTS OF A STABLE, POLYMER PLASTIC MATERIAL WITH A CUSPATED OR GEONET STRUCTURE. THE CORE MATERIAL SHALL HAVE SUFFICIENT FLEXIBILITY TO WITHSTAND BENDING AND HANDLING DURING INSTALLATION WITHOUT DAMAGE. FURNISH GEOTEXTILE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS FORMED INTO A WOVEN OR NON-WOVEN FABRIC. FURNISH PGD CONFORMING TO THE FOLLOWING REQUIREMENTS. FURNISH MANUFACTURER'S CERTIFIED TEST DATA.

	PROPERTY	TEST METHOD	VALUE
CORE	THICKNESS	ASTM D 5199	0.4 INCH
	COMPRESSIVE STRENGTH	ASTM D 1621	13,650 PSF MIN.
	FLOW RATE	ASTM D 4716	9 TO 25 GPM/FT
FABRIC	APPARENT OPENING SIZE	ASTM D 4751	0.3 MM MAX.
	FLOW RATE	ASTM D 4491	40 GPM/SQ.FT. MIN.
	GRAB TENSILE STRENGTH	ASTM D 4632	90 LBS MIN.
	CBR PUNCTURE	ASTM D 6241	65 LBS MIN.

PLACE PGD BETWEEN THE DRILLED SHAFTS. PLACE THE SIDE FACED WITH GEOTEXTILE AGAINST THE DRILLED SHAFTS, FACING TOWARDS THE RETAINED GROUND, AND SECURE THE PGD TO THE SACRIFICIAL PLYWOOD FORMS BETWEEN THE DRILLED SHAFTS.

SPLICE ABUTTING SECTIONS TOGETHER BY OVERLAPPING THE GEOTEXTILE FLAP (IF PROVIDED) ON ONE SECTION WITH THE ADJACENT SECTION OF PGD. OVERLAP THE GEOTEXTILE IN A SHINGLED OVERLAP SO THAT THE UPPER GEOTEXTILE IS ON TOP OF THE LOWER GEOTEXTILE. IF A GEOTEXTILE FLAP IS NOT PROVIDED, COVER THE SEAM WITH A 12-INCH WIDE STRIP OF GEOTEXTILE FABRIC CENTERED OVER THE SEAM AND SECURED IN PLACE USING 3-INCH WIDE WATERPROOF PLASTIC TAPE.

SEAL ALL EXPOSED EDGES OF THE CORE MATERIAL TO PREVENT SOIL INTRUSION. SEAL EXPOSED EDGES BY FOLDING THE GEOTEXTILE FLAPS OVER AND AROUND THE PGD OR, IF A FLAP IS NOT PROVIDED, COVERING THE EXPOSED EDGE WITH A 12-INCH WIDE STRIP OF GEOTEXTILE FABRIC, TAPING THE STRIP TO THE PGD GEOTEXTILE 8 INCHES FROM THE EXPOSED EDGE, AND FOLDING THE REMAINING 4 INCHES OVER AND AROUND THE PGD. SECURE LOOSE EDGES OF THE GEOTEXTILE FABRIC WITH 3-INCH WIDE WATERPROOF PLASTIC TAPE.

REPAIR ANY DAMAGE TO THE GEOTEXTILE FABRIC BY COVERING WITH A PATCH WHICH OVERLAPS THE DAMAGED AREA AND EXTENDS AT LEAST 6 INCHES BEYOND THE EDGE OF THE DAMAGED AREA. TAPE THE EDGES OF THE PATCH IN PLACE USING 3 INCH WIDE WATERPROOF PLASTIC TAPE. IF THE CORE OF THE PGD IS DAMAGED, REPLACE IT WITH A NEW SECTION OF PGD SPLICE AS DESCRIBED ABOVE.

ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN

GENERAL:
THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL DRILLED SHAFTS AS DETAILED IN THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT C&MS SECTION 524, AND WITH THE ADDITIONAL REQUIREMENTS DEFINED BELOW.

ANTICIPATED DRILLED SHAFT DEFLECTIONS:
TANGENT DRILLED SHAFTS ("SHAFT", "SHAFTS") ARE INCORPORATED AS WALLS IN VARIOUS STRUCTURAL ELEMENTS FOR THIS BRIDGE. AS DESIGNED AND DETAILED THE SHAFTS ARE EXPECTED TO DEFLECT UNDER THE APPLIED PERMANENT LOADS (DC, DW, EP, WA) AND TRANSIENT LOADS (LL, LS, TU) AT THE SERVICE LIMIT STATE. MEASURES FOR ACCOMODATING THESE DEFLECTIONS ARE DETAILED BELOW.

THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN BEAM SEAT ELEVATION FOR SHAFTS INCORPORATED IN ABUTMENTS. THE SHAFT HEAD IS CONSIDERED TO BE THE DESIGN TOP OF CAP ELEVATION FOR SHAFTS INCORPORATED IN RETAINING WALLS. IN BOTH CASES THE FINISHED TOP OF SHAFT IS LOWER THAN THE SHAFT HEAD ELEVATION.

THE ANTICIPATED DEFLECTION AT THE SHAFT HEAD ELEVATION RELATIVE TO THE DREDGE LINE ELEVATION DUE TO PERMANENT LOADS ARE AS FOLLOWS:

WALL AH	6.00 INCHES	SHAFTS AH01 THROUGH AF14 ONLY

DESIGN ASSUMPTIONS:
BEHAVIOR OF THE DRILLED SHAFTS AS DESCRIBED ABOVE IS PREDICATED UPON THE FOLOWING DESIGN ASSUMPTIONS:

1. DESIGN HEIGHT OF DRILLED SHAFT IS THE DISTANCE FROM THE SHAFT HEAD ELEVATION TO THE DREDGE LINE ELEVATION
2. PERMANENT LOAD DEFLECTIONS ARE ASSUMED TO OCCUR FOLLOWING REMOVAL OF SOIL IN FRONT OF THE TANGENT SHAFT WALLS
3. THE GROUND SURFACE BEHIND THE WALL WAS CONSIDERED AT ELEV. 673 TO ACCOUNT FOR POSSIBLE FILL IN THE FUTURE.
4. ADDITIONAL ASSUMPTIONS AND CONSTRAINTS ARE DETAILED IN THE PLANS.

DREDGE LINE ELEVATIONS:

SHAFTS AH01 THROUGH AH08:	ELEV. 631.0 FOR DRAINAGE STRUCTURE EXCAVATION.
SHAFTS AH09 THROUGH AH22:	SLOPING GROUND 42 INCHES BELOW FINAL GRADE AT NEAR FACE OF WALL.

DRILLED SHAFT LOCATION SURVEY:
THE CORRECT LOCATION OF SHAFT IS CRITICAL TO ESTABLISHING AND MAINTAINING THE STRUCTURE GEOMETRY. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A OHIO REGISTERED PROFESSIONAL SURVEYOR ("THE SURVEYOR") TO ESTABLISH, MAINTAIN AND VERIFY HORIZONTAL AND VERTICAL SHAFT GEOMETRY. THE SURVEYOR SHALL BE READILY AVAILABLE TO ESTABLISH GEOMETRIC CONTROL AND PERFORM THE SURVEYS REQUIRED BELOW.

CONTRACTOR'S INSTALLATION PLAN:
10 THE CONTRACTOR SHALL PROVIDE AN INSTALLATION PLAN AS REQUIRED BY ODOT C&MS SECTION 524.03. THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. THE INSTALLATION PLAN SHALL ALSO INCLUDE:

1. CONTRACTOR'S PROPOSED METHODS TO MAINTAIN LOCATION AND ALIGNMENT OF SHAFTS
2. CONTRACTOR'S PROPOSED METHODS FOR PERFORMING THE DRILLED SHAFT LOCATION SURVEY

CONSTRUCTION CONSTRAINTS:
10 DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. THE CONTRACTOR IS ADVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRE ADVANCING SHAFTS THROUCH EXISTING PILES. ADDITIONAL INFORMATION AND NOTES REGARDING POSSIBLE CONFLICTS ARE PROVIDED IN THE PLANS.

9 DO NOT EXCAVATE WITHIN THREE DIAMETERS OF DRILLED SHAFTS WITH NEW CONCRETE UNTIL AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.

MATERIALS:
CONCRETE AND REINFORCING STEEL FOR DRILLED SHAFTS SHALL CONFORM TO ODOT C&MS SECTION 524.02.

A SELF CONSOLIDATING CONCRETE MIX SHALL BE INCORPORATED

THE MAXIMUM COARSE AGGREGATE SIZE SHALL BE: $^{3}/_{8}$"

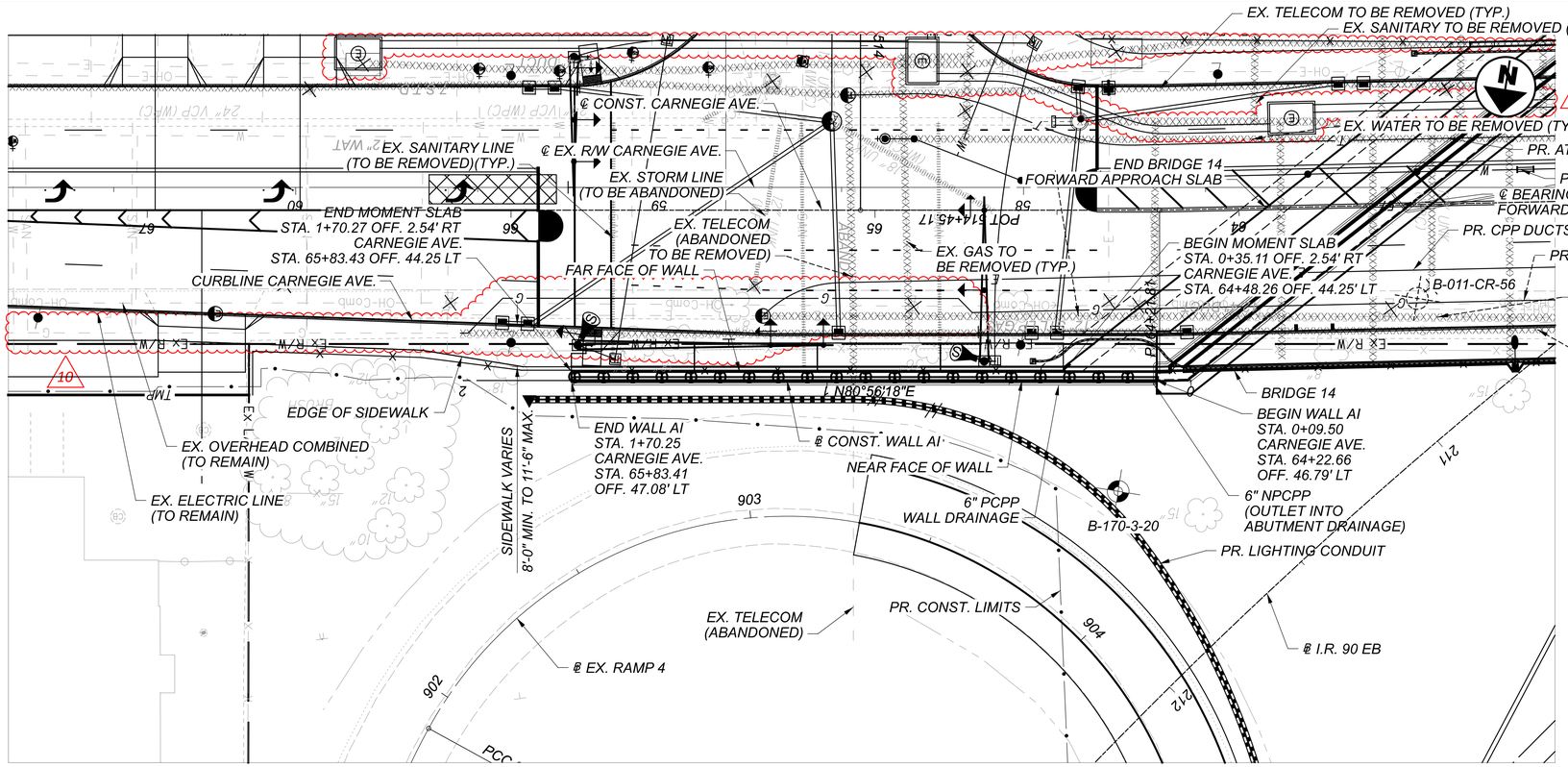
9 PERMANENT STEEL CASINGS SHALL BE ASTM A252 GRADE 3 WITH A MINIMUM YIELD STRESS OF 45 KSI. CASING SECTION LENGTHS SHALL BE MAXIMIZED TO MINIMIZE THE NUMBER OF FIELD SPLICE LOCATIONS. SPLICES SHALL CONFORM TO C&MS 507.09. THE USE OF SPIRAL WELDED PIPE IS PERMITTED.

WALL GENERAL NOTES (1 OF 2)
WALL AH
ALONG NORTH SIDE OF I.R. 90 UNDER CARNEGIE AVE.

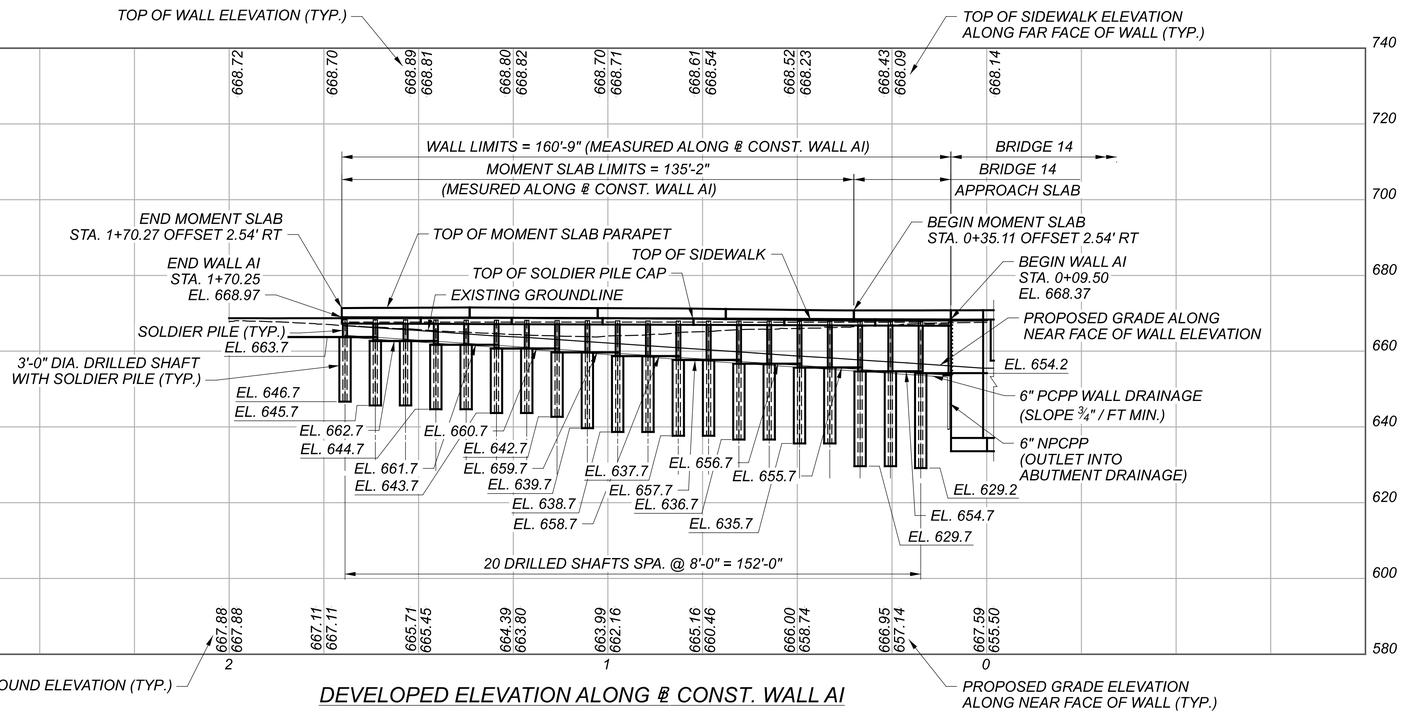
SFN N/A
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER SW/GZ | CHECKER JC/SD
REVIEWER LPC 05-09-24
PROJECT ID 82382
SUBSET 2 | TOTAL 9
SHEET 1242 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet (1 of 2) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:20:39 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AH\Sheets\82382_AH_WN001.dgn



PLAN



DEVELOPED ELEVATION ALONG ℄ CONST. WALL AI

BENCHMARK DATA

BM #62 STA.	41+38.42,	ELEV.	672.11,	OFFSET 75.42 LT.,	RR SPIKE
BM #64 STA.	58+35.86,	ELEV.	671.25,	OFFSET 47.90 LT.,	RR SPIKE
BM #65 STA.	66+35.73,	ELEV.	668.92,	OFFSET 38.62 RT.,	RR SPIKE
BM #73 STA.	49+25.90,	ELEV.	671.90,	OFFSET 31.86 LT.,	CUT CROSS

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 / 2696

BORING LOCATION*			
BORING	STATION	OFFSET	TOP OF ROCK EL.
B-011-CR-56	210+79.38	33.59' RT.	-
B-170-3-20	211+73.20	48.45' RT.	-

* = BORING STATION AND OFFSETS ARE FROM ℄ I.R. 90 EB

PROPOSED WORK

THE PROPOSED WORK CONSISTS OF CONSTRUCTING A RETAINING WALL ALONG THE NORTH SIDE OF CARNEGIE AVE. NEAR BRIDGE 14. THE WALL IS TO BE TOP DOWN CONSTRUCTION CONSISTING OF SOLDIER PILES AND PRECAST CONCRETE LAGGING WITH A CAST-IN-PLACE CONCRETE CAP.

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. FOR WALL CROSS SECTIONS, SEE SHEETS 942 TO 944 / 2696
3. STATION AND WALL OFFSETS SHOWN AT FRONT FACE OF WALL.

LEGEND

- HISTORIC BORING LOCATIONS
- INSTRUMENTED BORING LOCATION

CONST. = CONSTRUCTION

WALL PLAN AND PROFILE WALL AI ALONG NORTH SIDE OF CARNEGIE AVE.

SFN	N/A
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	MKB
CHECKER	YC
REVIEWER	LPC 05-09-24
PROJECT ID	82382
SUBSET	1
TOTAL	12
SHEET	1250
TOTAL	2696

CUY-90-16.28 (CCG3A)

MODEL: CLP_1 - Wall AI Plan PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 9:15:09 PM USER: Julie.Ross
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AI\Sheets\82382_AI_WP001.dgn

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
VPF-1-90 REVISED 7/21/2023
BR-2-15 REVISED 1/21/2022

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800 DATED SEE TITLE SHEET

REFER TO THE FOLLOWING SUPPLEMENTS:
1073 DATED 4/21/2023
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (PRECAST LAGGING)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (MOMENT SLAB)
CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS)
REINFORCING STEEL / WELDED WIRE REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI
STEEL SOLDIER PILES - ASTM A572 - YIELD STRENGTH 50 KSI
RETENTION ANGLE - ASTM A709 - YIELD STRENGTH 50 KSI

SEQUENCE OF CONSTRUCTION:

CONSTRUCT WALL AI DURING MOT PHASE 3.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES AND INFORMATION.

ITEM 507 - STEEL PILES, MISC.: W24x162, FURNISHED
ITEM 507 - STEEL PILES, MISC.: W24x229, FURNISHED

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 IN ACCORDANCE WITH C&MS 711.01. GALVANIZE SOLDIER PILES AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH C&MS 711.02. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

THE DEPARTMENT WILL MEASURE SOLDIER PILES ALONG THE AXIS OF THE SOLDIER PILE FROM THE TOP OF WALL ELEVATION TO 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 FOR ITEM 507, STEEL PILES, MISC.: W24x162, FURNISHED AND ITEM 507, STEEL PILES, MISC.: W24x229, FURNISHED.

ITEM 511 - CONCRETE, MISC.: CLASS QC1 CONCRETE FOR RAISED PANEL SEAT

PROVIDE LEVEL CAST-IN-PLACE SEATS FOR LEVEL INSTALLATION OF THE BOTTOM ROW OF LAGGING. SEATS SHALL BE PLACED AS SHOWN IN THE PLANS ON SOUND CONCRETE FROM THE SOLDIER PILE DRILLED SHAFT.

THE CONTRACTOR IS PERMITTED TO USE A PRECAST ALTERNATIVE SUBJECT TO APPROVAL OF THE ENGINEER.

ITEM 511 - CLASS QC2 CONCRETE, MISC.: MOMENT SLAB AND PARAPET WITH QC/QA

ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND PLACE CONCRETE FOR THE MOMENT SLABS AND PARAPETS ALONG WALL AI SHALL BE INCLUDED FOR PAYMENT WITH ITEM 511, CLASS QC2 CONCRETE, MISC.: MOMENT SLAB AND PARAPET WITH QC/QA. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL DOWEL RODS, SLEEVES, AND ALL JOINT MATERIALS IN CONTACT WITH THE MOMENT SLAB. ALL REINFORCING STEEL EMBEDDED IN THE MOMENT SLAB AND WITHIN THE PARAPET SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL FOR PAYMENT. THIS ITEM SHALL ALSO REQUIRE QUALITY CONTROL, MEETING THE REQUIREMENTS PER CMS 455 AND CMS 511.04.

ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN

ALL PORTIONS OF THE WALL CAP SHALL BE PAID FOR UNDER THIS ITEM, UNLESS NOTED OTHERWISE. THIS INCLUDES, BUT IS NOT LIMITED TO WALL CAP CONCRETE, PEJF, JOINT SEALER, AND ANY OTHER INCIDENTALS REQUIRED TO COMPLETE THE WALL CAP.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE PER CUBIC YARD FOR ITEM 511 - CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL SURFACES OF THE PRECAST CONCRETE LAGGING AND CAST IN PLACE CONCRETE CAP AS SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLORS SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

COPING SEALER:	"DOVETAIL"	7018
WALL FACING SEALER:	"ALPACA"	7022
PARAPET/MOMENT SLAB:	" ALPACA"	7022

6

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALETTE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALETTE.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. PROVIDE A COATING THAT MEETS THE REQUIREMENTS LISTED BELOW. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

A. THE MATERIAL SHALL BE A SINGLE COMPONENT, RTV (ROOM TEMPERATURE VULCANIZED), NEUTRAL MOISTURE CURE, PERMANENT (NON-SACRIFICIAL), TYPE III (WATER CLEANABLE) POLYSILOXANE (SILICONE) ANTI-GRAFFITI COATING, FREE OF ANY WAXES, EPOXIES, OR POLYURETHANE COMPONENTS.

B. THE COATING SHALL BE A ONE COAT SYSTEM (NO PRIMER) CAPABLE OF BEING SPRAY APPLIED TO A DRY FILM THICKNESS OF 15 MILS (375 MICRONS) WITHOUT RUNS OR SAGS (MULTIPLE COAT APPLICATION ACCEPTABLE FOR BRUSH/ROLLER USAGE AND PRIMER USAGE ACCEPTABLE FOR SPECIALTY SUBSTRATES SUCH AS GALVANIZED METAL).

C. THE COATING SHALL EMIT LESS THAN 300 G/L (2.5 POUNDS PER GALLON) OF VOLATILE ORGANIZE COMPOUNDS (EPA METHOD 24).

D. THE COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH COLD WATER POWER WASH) AS PER ASTM D7089 WITH LOW PRESSURE (1200 PSI) COLD WATER WASH AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM D4587.
2. GRAFFITI RESISTANCE LESS THAN 7.5 AS PER ASTM D6578 AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM 4578.
3. NO SIGNS OF GRAFFITI OR GRAFFITI STAINING AND MUST BE INTACT AND EXHIBIT NO SIGNS OF STREAKING, CRACKING, PINHOLING, DISCOLORING, OR OTHER VISIBLE COATING DEGRADATION UPON CASUAL OBSERVATION WHEN TESTED IN ACCORDANCE WITH TXDOT TEX 890-B, TYPE III METHOD.
4. BREATHABILITY OF 10 PERMS (+/- 3) PER ASTM D1653 USING "WET CUP METHOD".
5. ELONGATION AT BREAK GREATER THAN 100% AS PER ASTM D412 (USING DIE "D").
6. ADHESION RATING OF "8 - DIFFICULT TO REMOVE" AS PER ASTM D6677 (ADHESION BY KNIFE).

ITEM 513 - STRUCTURAL STEEL, MISC.: RETENTION ANGLE

PROVIDE RETENTION ANGLE FOR PRECAST LAGGING WHERE WALL AI CONNECTS TO THE BRIDGE 14 FORWARD ABUTMENT AS SHOWN IN THE PLANS. ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE RETENTION ANGLE SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513-STRUCTURAL STEEL, MISC.: RETENTION ANGLE.

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

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH C&MS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

10

THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 1-1/2 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL AND NOT INCLINED MORE THAN 1 INCH BETWEEN TOP TO BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.

USE CLASS QC 5 CONCRETE ACCORDING TO C&MS 511. PLACE CONCRETE TO THE ELEVATION FOR THE TOP OF THE DRILLED SHAFT. 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 SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES. IF SHOWN ON THE PLANS, FILL THE HOLE ABOVE THE BOTTOM OF THE LAGGING TO THE EXISTING GROUND SURFACE WITH ITEM C&MS 613 LOW STRENGTH MORTAR BACKFILL (LSM).

REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING. PLACE LAGGING SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST 3 INCHES AT BOTH ENDS OF THE LAGGING. WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.

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 THESE 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 AND PLACE LAGGING. ANY TEMPORARY GRADING, EXCAVATION, EMBANKMENT, AGGREGATE, DRAINAGE, SHEETING, ETC. NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFTS AND LAGGING, UNLESS SEPARATELY ITEMIZED. NO SEPARATE PAYMENT WILL BE MADE.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM THE EXISTING GROUND SURFACE TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE DRILLED SHAFTS INTO BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM TOP OF BEDROCK TO THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND LSM, REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE LAGGING.

WALL GENERAL NOTES (1 OF 2)
WALL AI
ALONG NORTH SIDE OF CARNEGIE AVE.

SFN N/A

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
MKB	YC

REVIEWER LPC 05-09-24

PROJECT ID 82382

SUBSET	TOTAL
2	12

SHEET	TOTAL
1251	2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet (1 of 2) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:27:42 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AI\Sheets\82382_AI_WN001.dgn

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
F-1.1 REVISED 7/19/2013
DM-1.1 REVISED 1/17/2025

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800 DATED SEE TITLE SHEET

REFER TO THE FOLLOWING SUPPLEMENTS:
1073 DATED 4/21/2023
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (PRECAST LAGGING AND PANEL SEAT)
CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS)
REINFORCING STEEL / WELDED WIRE REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI
STEEL SOLDIER PILES - ASTM A572 - YIELD STRENGTH 50 KSI

SEQUENCE OF CONSTRUCTION:

CONSTRUCT WALL AJ DURING MOT PHASE 9.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES AND INFORMATION.

ITEM 507 - STEEL PILES, MISC.: HP16x121, FURNISHED
ITEM 507 - STEEL PILES, MISC.: W24x131, FURNISHED
ITEM 507 - STEEL PILES, MISC.: W24x192, FURNISHED
ITEM 507 - STEEL PILES, MISC.: W24x229, FURNISHED

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 IN ACCORDANCE WITH C&MS 711.01. GALVANIZE SOLDIER PILES AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH C&MS 711.02. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

THE DEPARTMENT WILL MEASURE SOLDIER PILES ALONG THE AXIS OF THE SOLDIER PILE FROM THE TOP OF WALL ELEVATION TO 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 FOR ITEM 507, STEEL PILES, MISC.: HP16x121, FURNISHED, ITEM 507, STEEL PILES, MISC.: W24x131, FURNISHED, AND ITEM 507, STEEL PILES, MISC.: W24x192, FURNISHED AND ITEM 507, STEEL PILES, MISC.: W24x229, FURNISHED.

ITEM 511 - CONCRETE, MISC.: CLASS QC1 CONCRETE FOR RAISED PANEL SEAT

PROVIDE LEVEL CAST-IN-PLACE SEATS FOR LEVEL INSTALLATION OF THE BOTTOM ROW OF LAGGING. SEATS SHALL BE PLACED AS SHOWN IN THE PLANS ON SOUND CONCRETE FROM THE SOLDIER PILE DRILLED SHAFT.

THE CONTRACTOR IS PERMITTED TO USE A PRECAST ALTERNATIVE SUBJECT TO APPROVAL OF THE ENGINEER.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. PROVIDE A COATING THAT MEETS THE REQUIREMENTS LISTED BELOW. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

A. THE MATERIAL SHALL BE A SINGLE COMPONENT, RTV (ROOM TEMPERATURE VULCANIZED), NEUTRAL MOISTURE CURE, PERMANENT (NON-SACRIFICIAL), TYPE III (WATER CLEANABLE) POLYSILOXANE (SILICONE) ANTI-GRAFFITI COATING, FREE OF ANY WAXES, EPOXIES, OR POLYURETHANE COMPONENTS.

B. THE COATING SHALL BE A ONE COAT SYSTEM (NO PRIMER) CAPABLE OF BEING SPRAY APPLIED TO A DRY FILM THICKNESS OF 15 MILS (375 MICRONS) WITHOUT RUNS OR SAGS (MULTIPLE COAT APPLICATION ACCEPTABLE FOR BRUSH/ROLLER USAGE AND PRIMER USAGE ACCEPTABLE FOR SPECIALTY SUBSTRATES SUCH AS GALVANIZED METAL).

C. THE COATING SHALL EMIT LESS THAN 300 G/L (2.5 POUNDS PER GALLON) OF VOLATILE ORGANIZE COMPOUNDS (EPA METHOD 24).

D. THE COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH COLD WATER POWER WASH) AS PER ASTM D7089 WITH LOW PRESSURE (1200 PSI) COLD WATER WASH AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM D4587.
2. GRAFFITI RESISTANCE LESS THAN 7.5 AS PER ASTM D6578 AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM 4578.
3. NO SIGNS OF GRAFFITI OR GRAFFITI STAINING AND MUST BE INTACT AND EXHIBIT NO SIGNS OF STREAKING, CRACKING, PINHOLING, DISCOLORING, OR OTHER VISIBLE COATING DEGRADATION UPON CASUAL OBSERVATION WHEN TESTED IN ACCORDANCE WITH TXDOT TEX 890-B, TYPE III METHOD.
4. BREATHABILITY OF 10 PERMS (+/- 3) PER ASTM D1653 USING "WET CUP METHOD".
5. ELONGATION AT BREAK GREATER THAN 100% AS PER ASTM D412 (USING DIE "D").
6. ADHESION RATING OF "8 - DIFFICULT TO REMOVE" AS PER ASTM D6677 (ADHESION BY KNIFE).

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL SURFACES OF THE PRECAST CONCRETE LAGGING AS SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLORS SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

WALL FACING SEALER: "ALPACA" 7022 (6)

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

ITEM 524 - DRILLED SHAFTS, 30" DIAMETER, ABOVE BEDROCK, AS PER PLAN
ITEM 524 - DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH C&MS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

(10) THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 1-1/2 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL AND NOT INCLINED MORE THAN 1 INCH BETWEEN TOP TO BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.

USE CLASS QC 5 CONCRETE ACCORDING TO C&MS 511. PLACE CONCRETE TO THE ELEVATION FOR THE TOP OF THE DRILLED SHAFT. 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 SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES. IF SHOWN ON THE PLANS, FILL THE HOLE ABOVE THE BOTTOM OF THE LAGGING TO THE EXISTING GROUND SURFACE WITH ITEM C&MS 613 LOW STRENGTH MORTAR BACKFILL (LSM).

REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING. PLACE LAGGING SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST 3 INCHES AT BOTH ENDS OF THE LAGGING. WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.

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 THESE 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 AND PLACE LAGGING. ANY TEMPORARY GRADING, EXCAVATION, EMBANKMENT, AGGREGATE, DRAINAGE, SHEETING, ETC. NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFTS AND LAGGING, UNLESS SEPARATELY ITEMIZED. NO SEPARATE PAYMENT WILL BE MADE.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM THE EXISTING GROUND SURFACE TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE DRILLED SHAFTS INTO BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM TOP OF BEDROCK TO THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND LSM, REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE LAGGING.

WALL GENERAL NOTES (1 OF 2)
WALL AJ
ALONG SOUTH SIDE OF RAMP IJ3

SFN N/A

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
MKB	YC

REVIEWER
LPC 05-09-24

PROJECT ID 82382

SUBSET	TOTAL
2	8

SHEET	TOTAL
1263	2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet (1 of 2) PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:34:58 PM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\WALL_AJ\Sheets\82382_AJ_WN001.dgn

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:

F-1.1 REVISED 7/19/2013
DM-1.1 REVISED 1/17/2025

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800 DATED SEE TITLE SHEET
840 DATED 7/21/2023
878 DATED 1/21/2022 (8)

REFER TO THE FOLLOWING SUPPLEMENTS:

1073 DATED 4/21/2023
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI
(CONCRETE COPING, LEVELING PAD, AND PRECAST LAGGING)
CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS)
REINFORCING STEEL / WELDED WIRE REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI
STEEL SOLDIER PILES - ASTM A572 - YIELD STRENGTH 50 KSI

REINFORCED FILL:
- EFFECTIVE INTERNAL FRICTION ANGLE = 34°
- UNIT WEIGHT = 120 pcf
- EFFECTIVE COHESION = N/A

RETAINED FILL
- EFFECTIVE INTERNAL FRICTION ANGLE = 30°
- UNIT WEIGHT = 120 pcf
- EFFECTIVE COHESION = N/A

FOUNDATION SOIL - DRAINED CONDITIONS
- EFFECTIVE INTERNAL FRICTION ANGLE = 29°
- UNIT WEIGHT = 108 pcf
- EFFECTIVE COHESION = N/A

FOUNDATION SOIL - UNDRAINED CONDITIONS
- EFFECTIVE INTERNAL FRICTION ANGLE = 29°
- UNIT WEIGHT = 108 pcf
- EFFECTIVE COHESION = N/A

SURCHARGE LOADS
- LIVE LOAD SURCHARGE = 250 psf

THE DESIGN ASSUMES NO WATER PRESSURE ACT ON THE WALL

MSE WALL DESIGN PARAMETERS:

THE MINIMUM SOIL REINFORCEMENT LENGTH IS AT LEAST 8 FEET OR 70% OF THE WALL HEIGHT, WHICHEVER IS GREATER. FOR WALL SECTIONS AROUND ABUTMENTS, THE STRAP LENGTH WILL NEED TO BE 70% OF THE DISTANCE BETWEEN THE TOP OF THE LEVELING PAD AND THE TOP OF THE PAVEMENT.

FACTORED BEARING RESISTANCE = 13.2 ksf

SEQUENCE OF CONSTRUCTION:

CONSTRUCT WALL N DURING MOT PHASE 4.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES AND INFORMATION.

PROPRIETARY RETAINING WALL DATA:

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO RETAIN EARTH FILL AROUND AND BELOW THE ABUTMENT. FOR LOADS AND NOTES PERTAINING TO THE ABUTMENT, SEE THE GENERAL NOTES SHEETS FOR BRIDGE 9, BRIDGE NUMBER CUY-77-1587.

ITEM 203 - EMBANKMENT, AS PER PLAN

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT.

(8)

ITEM 507 - STEEL PILES, MISC.: W21x101, FURNISHED
ITEM 507 - STEEL PILES, MISC.: W24x192, FURNISHED

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 IN ACCORDANCE WITH C&MS 711.01. GALVANIZE SOLDIER PILES AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH C&MS 711.02. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

THE DEPARTMENT WILL MEASURE SOLDIER PILES ALONG THE AXIS OF THE SOLDIER PILE FROM THE TOP OF WALL ELEVATION TO 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 FOR ITEM 507, STEEL PILES, MISC.: W21x101 OR W24x192.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL SURFACES OF THE PRECAST CONCRETE LAGGING, MSE WALL PANELS, AND COPING AS SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLORS SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

(6)

COPING SEALER:	"DOVETAIL"	7018
WALL FACING SEALER:	"ALPACA"	7022

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

ITEM 512 - SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)

APPLY A PERMANENT GRAFFITI COATING QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. PROVIDE A COATING THAT MEETS THE REQUIREMENTS LISTED BELOW. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

A. THE MATERIAL SHALL BE A SINGLE COMPONENT, RTV (ROOM TEMPERATURE VULCANIZED), NEUTRAL MOISTURE CURE, PERMANENT (NON-SACRIFICIAL), TYPE III (WATER CLEANABLE) POLYSILOXANE (SILICONE) ANTI-GRAFFITI COATING, FREE OF ANY WAXES, EPOXIES, OR POLYURETHANE COMPONENTS.

B. THE COATING SHALL BE A ONE COAT SYSTEM (NO PRIMER) CAPABLE OF BEING SPRAY APPLIED TO A DRY FILM THICKNESS OF 15 MILS (375 MICRONS) WITHOUT RUNS OR SAGS (MULTIPLE COAT APPLICATION ACCEPTABLE FOR BRUSH/ROLLER USAGE AND PRIMER USAGE ACCEPTABLE FOR SPECIALTY SUBSTRATES SUCH AS GALVANIZED METAL).

C. THE COATING SHALL EMIT LESS THAN 300 G/L (2.5 POUNDS PER GALLON) OF VOLATILE ORGANIZE COMPOUNDS (EPA METHOD 24).

D. THE COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:
1. CLEANABILITY LEVEL 1 (GRAFFITI COMPLETELY REMOVED WITH COLD WATER POWER WASH) AS PER ASTM D7089 WITH LOW PRESSURE (1200 PSI) COLD WATER WASH AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM D4587.
2. GRAFFITI RESISTANCE LESS THAN 7.5 AS PER ASTM D6578 AFTER 2000 HOURS ACCELERATED UV-CONDENSATION EXPOSURE IN ACCORDANCE WITH ASTM 4578.
3. NO SIGNS OF GRAFFITI OR GRAFFITI STAINING AND MUST BE INTACT AND EXHIBIT NO SIGNS OF STREAKING, CRACKING, PINHOLING, DISCOLORING, OR OTHER VISIBLE COATING DEGRADATION UPON CASUAL OBSERVATION WHEN TESTED IN ACCORDANCE WITH TXDOT TEX 890-B, TYPE III METHOD.
4. BREATHABILITY OF 10 PERMS (+/- 3) PER ASTM D1653 USING "WET CUP METHOD".
5. ELONGATION AT BREAK GREATER THAN 100% AS PER ASTM D412 (USING DIE "D").
6. ADHESION RATING OF "8 - DIFFICULT TO REMOVE" AS PER ASTM D6677 (ADHESION BY KNIFE).

ITEM 513 - STRUCTURAL STEEL, MISC.: RETENTION ANGLE

PROVIDE RETENTION ANGLES FOR PRECAST LAGGING ON ALL PILES WITHIN THE LIMITS OF THE PRECAST LAGGING, AS SHOWN IN THE PLANS. RETENTION ANGLES MUST BE INSTALLED ON THE PILES PRIOR TO PLACEMENT OF THE PILES. ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE RETENTION ANGLE SHALL BE INCLUDED FOR PAYMENT WITH ITEM 513-STRUCTURAL STEEL, MISC.: RETENTION ANGLE.

ADDITIONALLY, PAYMENT FOR LAGGING SUPPORT ANGLES, AS SHOWN IN PLANS, ARE TO BE INCLUDED WITH ITEM 513-STRUCTURAL STEEL, MISC.: RETENTION ANGLE.

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

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH C&MS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

(10) THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 1-1/2 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL AND NOT INCLINED MORE THAN 1 INCH BETWEEN TOP TO BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.

USE CLASS QC 5 CONCRETE ACCORDING TO C&MS 511. PLACE CONCRETE TO THE ELEVATION FOR THE TOP OF THE DRILLED SHAFT. 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 SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES. IF SHOWN ON THE PLANS, FILL THE HOLE ABOVE THE BOTTOM OF THE LAGGING TO THE EXISTING GROUND SURFACE WITH ITEM C&MS 613 LOW STRENGTH MORTAR BACKFILL (LSM).

REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING. PLACE LAGGING SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST 3 INCHES AT BOTH ENDS OF THE LAGGING. WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.

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 THESE 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 AND PLACE LAGGING. ANY TEMPORARY GRADING, EXCAVATION, EMBANKMENT, AGGREGATE, DRAINAGE, SHEETING, ETC. NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFTS AND LAGGING, UNLESS SEPARATELY ITEMIZED. NO SEPARATE PAYMENT WILL BE MADE.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM THE EXISTING GROUND SURFACE TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE DRILLED SHAFTS INTO BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM TOP OF BEDROCK TO THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND LSM, REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE LAGGING.

WALL GENERAL NOTES (1 OF 2)
WALL N
UNDER BRIDGE 9 AND ALONG WEST SIDE OF RAMP A2 AND RAMP J2

SFN N/A

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
SSW	MKB

REVIEWER LPC 05-09-24

PROJECT ID 82382

SUBSET	TOTAL
3	13

SHEET	TOTAL
1272	2696

CUY-90-16.28 (CCG3A)

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD CONSTRUCTION DRAWINGS:
VPF-1-90 REVISED 7/21/2023
DM-1.1 REVISED 1/17/2025

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800 DATED SEE TITLE SHEET

REFER TO THE FOLLOWING SUPPLEMENTS:
1073 DATED 4/21/2023
1083 DATED 1/20/2017

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS", 9TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020 (DATED 07-21-23).

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI
(CONCRETE FACING AND PRECAST LAGGING)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (MOMENT SLAB)
CONCRETE CLASS QC5 - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFTS)
REINFORCING STEEL / WELDED WIRE REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI
STEEL SOLDIER PILES - ASTM A572 - YIELD STRENGTH 50 KSI

SEQUENCE OF CONSTRUCTION:

CONSTRUCT WALL S DURING MOT PHASE 4.

SEE MAINTENANCE OF TRAFFIC NOTES FOR ADDITIONAL PHASES AND INFORMATION.

ITEM 507 - STEEL PILES, MISC.: W36X262, FURNISHED

4

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 IN ACCORDANCE WITH C&MS 711.01. GALVANIZE SOLDIER PILES S01-S06 AND S37-S42 IN ACCORDANCE WITH C&MS 711.02. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

THE DEPARTMENT WILL MEASURE SOLDIER PILES ALONG THE AXIS OF THE SOLDIER PILE FROM THE TOP OF WALL ELEVATION TO 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 FOR ITEM 507, STEEL PILES, MISC.: W36X262, FURNISHED.

ITEM 509 - WALL FACING REINFORCEMENT

THE CONTRACTOR MAY REPLACE THE REINFORCING BARS IN THE RETAINING WALL FACING WITH EPOXY COATED WELDED WIRE FABRIC CONFORMING TO C&MS 709.14. THE EPOXY COATED WELDED WIRE FABRIC MUST PROVIDE AN EQUIVALENT AREA OF STEEL IN EACH DIRECTION AS THE REINFORCING BARS SHOWN IN THE PLANS.

ITEM 512 - TYPE 2 WATERPROOFING, AS PER PLAN

PLACE WATERPROOFING MEMBRANE AT THE LOCATIONS OF THE PROPOSED JOINTS IN THE CONCRETE WALL FACING. PLACE THE WATERPROOFING MEMBRANE OVER THE PREFABRICATED GEOCOMPOSITE DRAIN AND SECURELY ATTACH TO THE TIMBER LAGGING WITH SCREWS AND 1-INCH OUTER DIAMETER FENDER WASHERS. PLACE THE MEMBRANE SO THAT THE ADHESIVE SIDE FACES THE CAST-IN-PLACE CONCRETE. THE SURFACE PREPARATION DESCRIBED IN C&MS 512.08 IS NOT REQUIRED.

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

SEAL SURFACES OF THE CONCRETE FACING AND THE PRECAST CONCRETE LAGGING AS SHOWN IN THE PLANS WITH AN EPOXY-URETHANE SEALER ACCORDING TO C&MS 512. THE FOLLOWING COLORS SHALL BE USED FOR PAINTING AND SEALING STRUCTURAL ELEMENTS:

WALL FACING SEALER: "ALPACA" 7022 6

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

ITEM 513 - WELDED STUD SHEAR CONNECTORS

SOLDIER PILES WHICH REQUIRE HEADED STUDS ARE SHOWN IN THE TABLE ON THE TYPICAL SECTION SHEETS FOR EACH WALL. WELD HEADED STEEL STUDS TO THE FLANGES OF THE SOLDIER PILE IN ORDER TO CONNECT THE CONCRETE WALL FACING TO THE SOLDIER PILE. ATTACH HEADED STUDS ACCORDING TO C&MS 513.22 AND AS SHOWN IN THE PLANS. THE CONTRACTOR MAY ATTACH THE STUDS EITHER BEFORE PLACING THE SOLDIER PILE IN THE DRILLED HOLE OR AFTER EXCAVATING IN FRONT OF THE WALL. PROTECT THE HEADED STUDS FROM DAMAGE UNTIL THE CONCRETE WALL FACING IS POURED. REPAIR OR REPLACE DAMAGED HEADED STUDS AT NO EXPENSE TO THE DEPARTMENT.

ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK, AS PER PLAN

THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH C&MS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

10 THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. PLACE THE SOLDIER PILE WITHIN THE HOLE SO IT IS VERTICAL AND NOT INCLINED MORE THAN 1 INCH BETWEEN TOP TO BOTTOM. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT.

USE CLASS QC5 CONCRETE ACCORDING TO C&MS 511. PLACE CONCRETE TO THE ELEVATION FOR THE TOP OF THE DRILLED SHAFT. 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 SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES. FILL THE HOLE ABOVE THE CONCRETE TO THE EXISTING GROUND SURFACE WITH ITEM 613 LOW STRENGTH MORTAR BACKFILL (LSM).

REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE LAGGING. PLACE LAGGING SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST 3 INCHES AT BOTH ENDS OF THE LAGGING. WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.WAIT AT LEAST 12 HOURS AFTER PLACING CONCRETE BEFORE PLACING LAGGING.

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 THESE 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 AND PLACE LAGGING. ANY TEMPORARY GRADING, EXCAVATION, EMBANKMENT, AGGREGATE, DRAINAGE, SHEETING, ETC. NEEDED TO COMPLETE THE WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE DRILLED SHAFTS. THE COST OF ANY EXCAVATION AND SUBSEQUENT REPLACEMENT OF EMBANKMENT (PER ITEM 203 EMBANKMENT) SHALL BE INCLUDED IN THE VARIOUS BID ITEMS FOR THE DRILLED SHAFTS AND LAGGING, UNLESS SEPARATELY ITEMIZED. NO SEPARATE PAYMENT WILL BE MADE.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM THE EXISTING GROUND SURFACE TO THE TOP OF BEDROCK, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL MEASURE DRILLED SHAFTS INTO BEDROCK, AS PER PLAN, ALONG THE AXIS OF THE DRILLED SHAFT FROM TOP OF BEDROCK TO THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND LSM, REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE LAGGING.

ITEM SPECIAL - RETAINING WALL, PRECAST CONCRETE LAGGING

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 ACCORDING TO SUPPLEMENT 1073. PROVIDE CLASS QC1 CONCRETE ACCORDING TO C&MS 499. PROVIDE EPOXY COATED REINFORCING STEEL ACCORDING TO C&MS 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 LAGGING OR LOCATION OF THE REINFORCING STEEL TO VARY BY MORE THAN ¼-INCH. CAST THREADED INSERTS INTO THE TOP OF EACH PANEL FOR LIFTING AND PLACEMENT.

FINISH THE FACES OF THE PRECAST CONCRETE LAGGING PANELS THAT WILL NOT BE EXPOSED TO A UNIFORM SURFACE, FREE OF OPEN POCKETS OF AGGREGATE. *FINISH THE EXPOSED FACE OF THE PANELS TO A SMOOTH SURFACE. SEAL THE FRONT (EXPOSED) FACE AND SIDES OF EACH CONCRETE PANEL WITH ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY URETHANE). THE COLOR OF THE URETHANE SHALL BE SHERWIN WILLIAMS ALABASTER 7008 OR APPROVED EQUAL.

PERMANENTLY MARK EACH PRECAST CONCRETE LAGGING PANEL TO INDICATE WHICH FACE WILL 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 SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST ONE INCH MORE THAN THE CONCRETE COVER OVER THE REINFORCING STEEL AT BOTH ENDS OF THE LAGGING.

HANDLE, STORE, AND SHIP THE PRECAST CONCRETE LAGGING PANELS TO AVOID CHIPPING, CRACKING AND FRACTURING THE PANELS. SUPPORT THE PANELS ON FIRM BLOCKING WHILE STORING AND SHIPPING. DO NOT SHIP PANELS UNTIL CONCRETE HAS ATTAINED THE REQUIRED COMPRESSIVE STRENGTH. SUBMIT SHIPMENT DOCUMENTATION TO THE ENGINEER AS THE PANELS ARE DELIVERED TO THE PROJECT, INCLUDING THE PRECASTER'S RECORD OF FINAL INSPECTION, THE MEASUREMENTS AND TOLERANCES, STRENGTH, AND DIMENSIONS OF EACH PANEL, ALONG WITH THE TE-24 SHIPPING DOCUMENT AND THE DAMAGE SURVEY REPORT FOR ALL WALL PANELS.

INSPECT ALL PRECAST CONCRETE LAGGING PANELS AND REJECT PANELS HAVING ANY OF THE FOLLOWING:
1. DEFECTS THAT INDICATE IMPERFECT MOLDING.
2. DEFECTS THAT INDICATE HONEYCOMBED OR OPEN TEXTURE CONCRETE.
3. DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE AESTHETIC SURFACE TREATMENTS.
4. CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER.
5. STAINED FORM FACES, DUE TO FORM OIL, CURING OR OTHER CONTAMINANTS.
6. SIGNS OF AGGREGATE SEGREGATION.
7. CRACKS WIDER THAN 0.01 INCH OR PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK.
8. PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES.
9. UNUSABLE LIFTING INSERTS.
10. EXPOSED REINFORCING STEEL.
11. INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH.

EITHER REPLACE DAMAGED PRECAST CONCRETE LAGGING PANELS OR DOCUMENT THE DAMAGE AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.
WHEN INSTALLING THE PRECAST CONCRETE LAGGING PANELS, PLACE HARDWOOD WEDGES NEAR THE TOP AND BOTTOM ON EACH SIDE TO HOLD THE LAGGING PANELS AGAINST THE FRONT INSIDE FLANGE OF THE STEEL PILES.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIAL REQUIRED TO FABRICATE, TRANSPORT, AND INSTALL THE PRECAST REINFORCED CONCRETE PANELS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR ITEM SPECIAL - RETAINING WALL, PRECAST CONCRETE LAGGING.

WALL GENERAL NOTES (1 OF 2)
WALL S
ALONG SOUTH SIDE OF I.R. 77

SFN N/A

DESIGN AGENCY

Michael Baker INTERNATIONAL

DESIGNER	CHECKER
SSW	YC

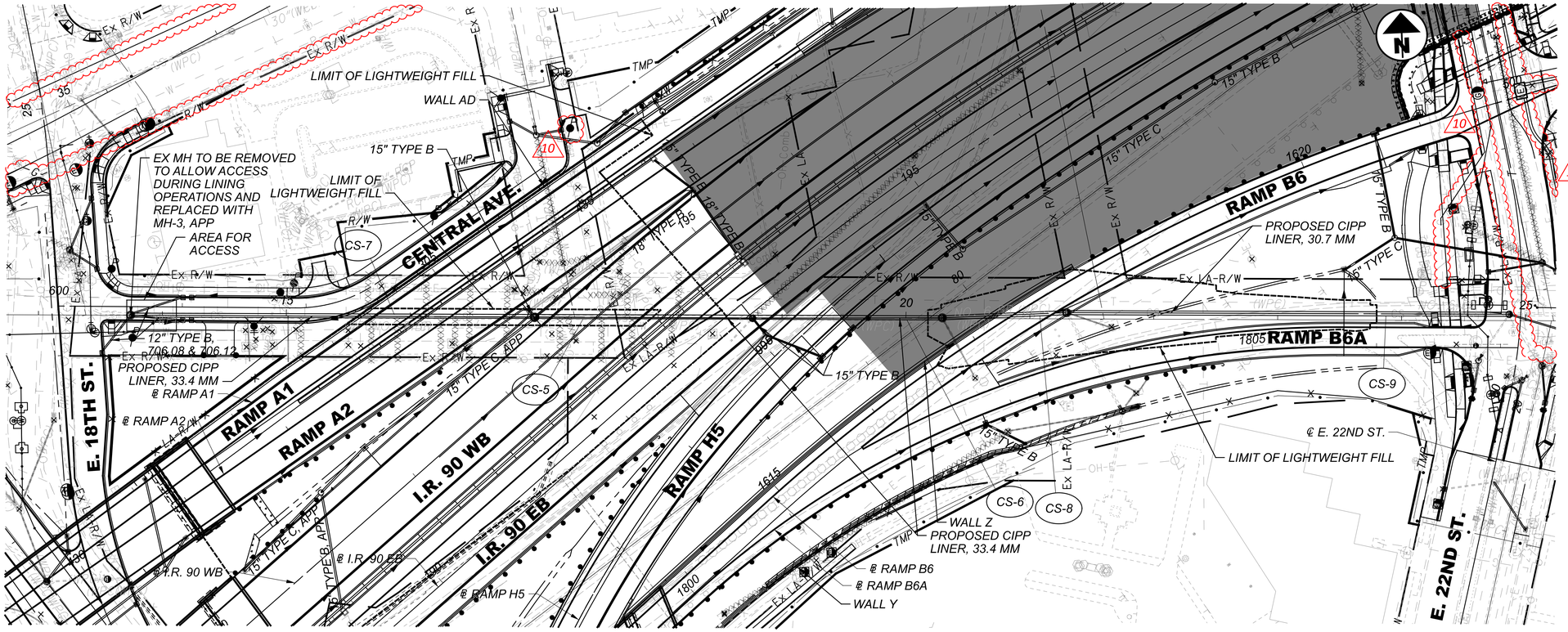
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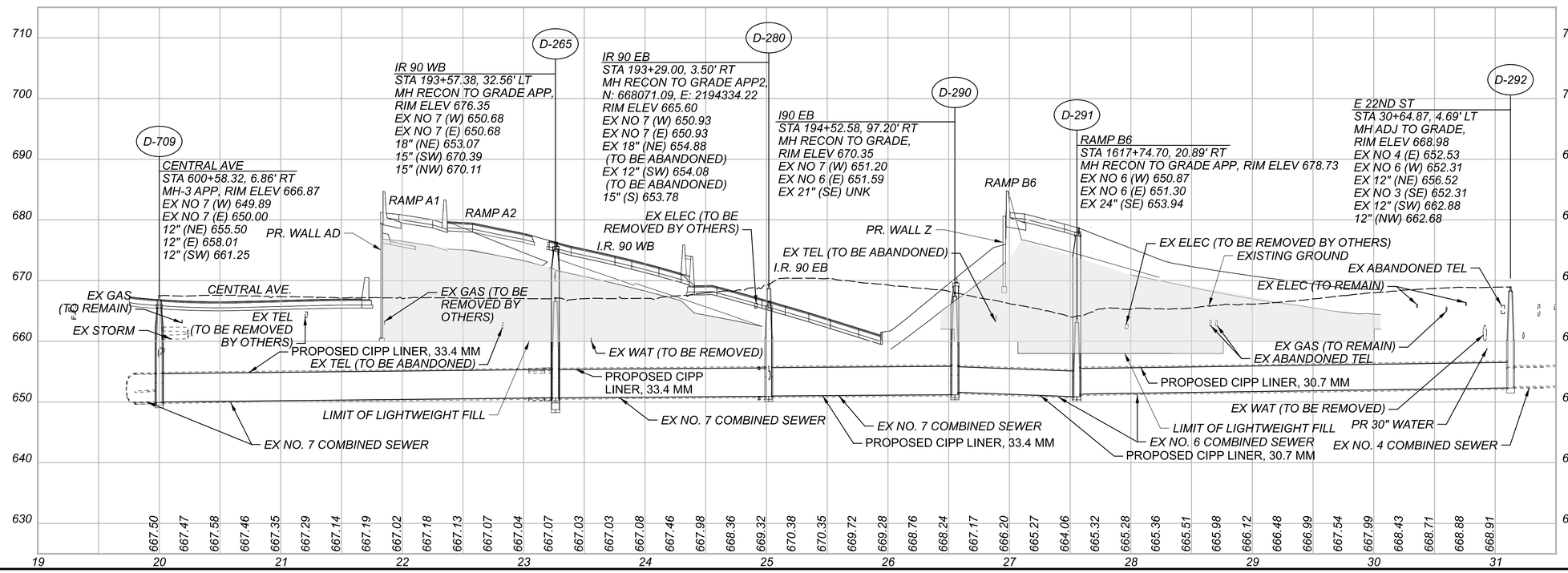
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SHEET	TOTAL
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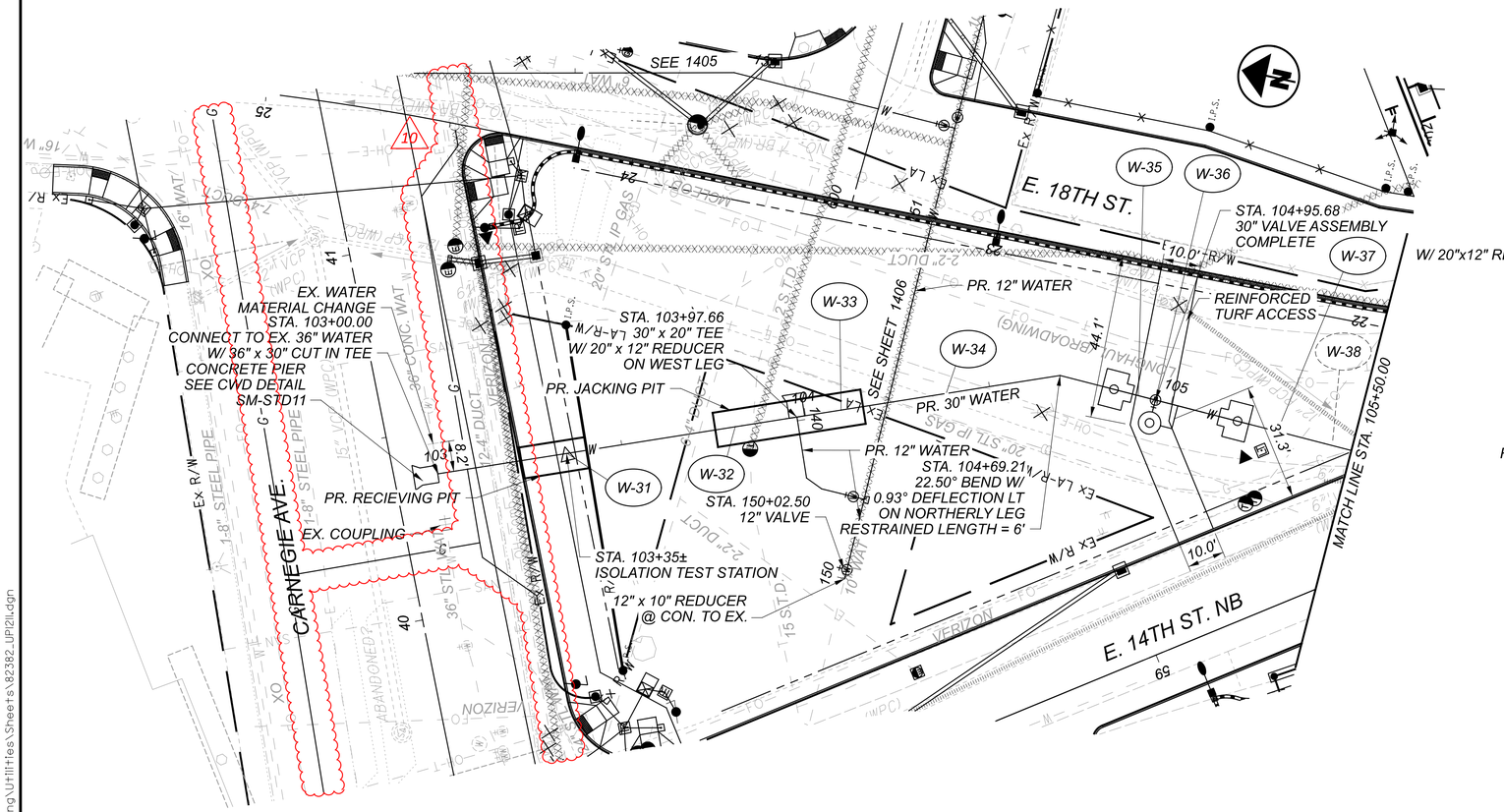
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PLAN AND PROFILE - CENTRAL AVE. SEWER
SHEET 1 OF 1

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DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	JAR
REVIEWER	KGJ 05/22/24
PROJECT ID	82382
SHEET	1368
TOTAL	2696



WATER LEGEND

- WATER REMOVED
- WATER STRUCTURE

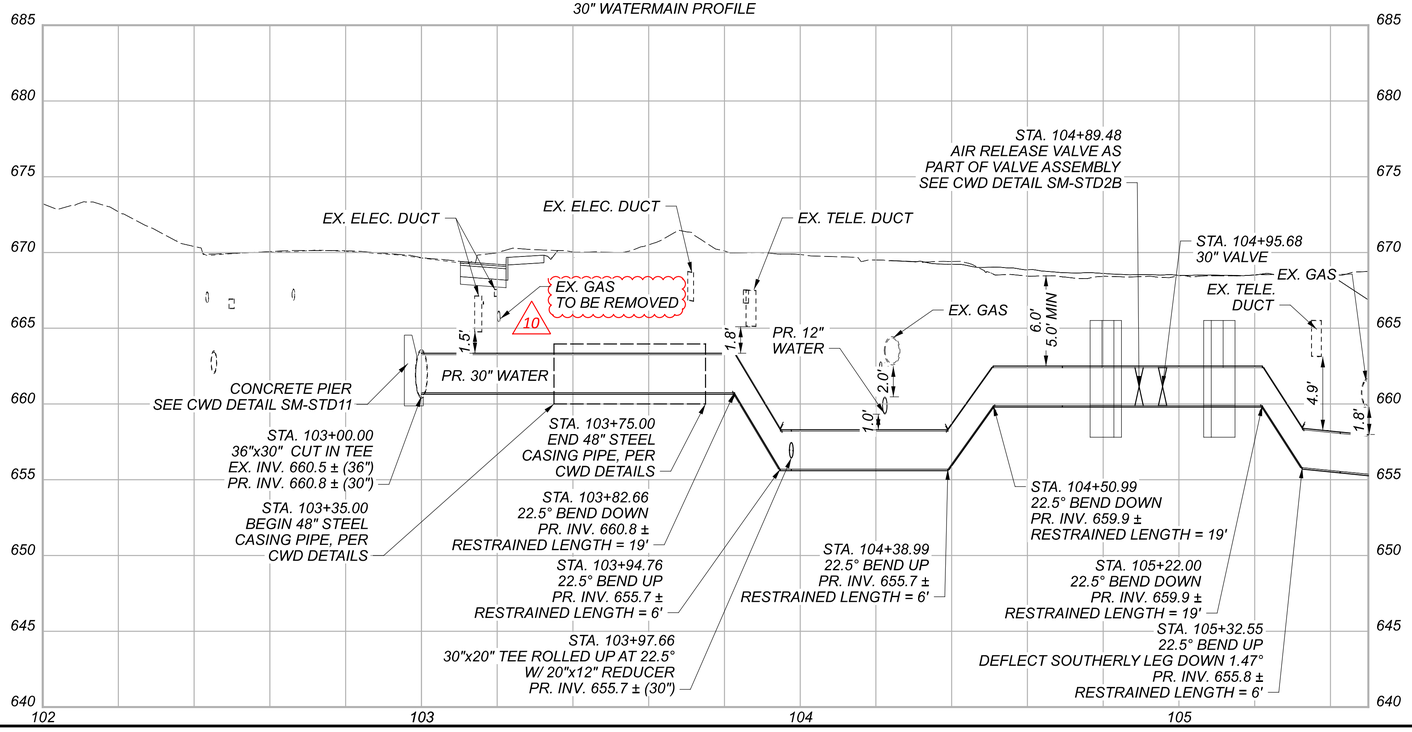
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RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

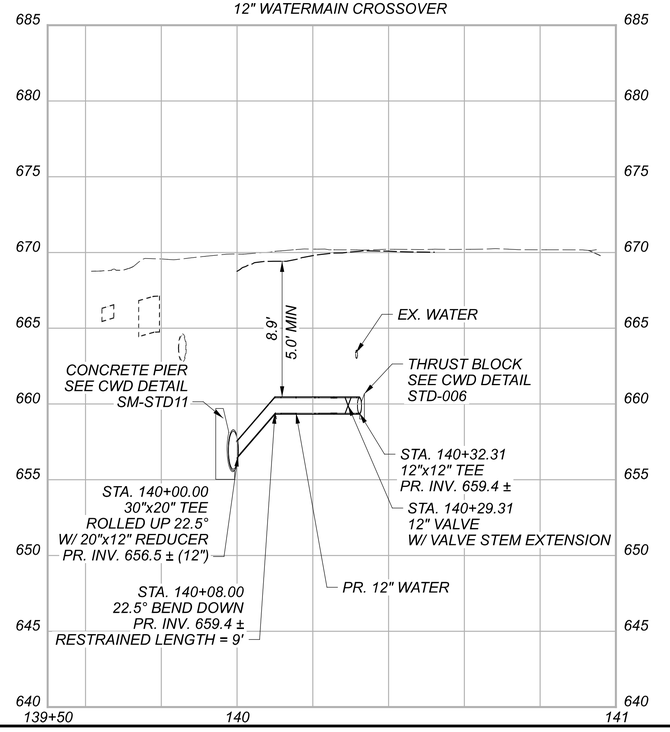
CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

30" WATERMAIN PROFILE



12" WATERMAIN CROSSOVER



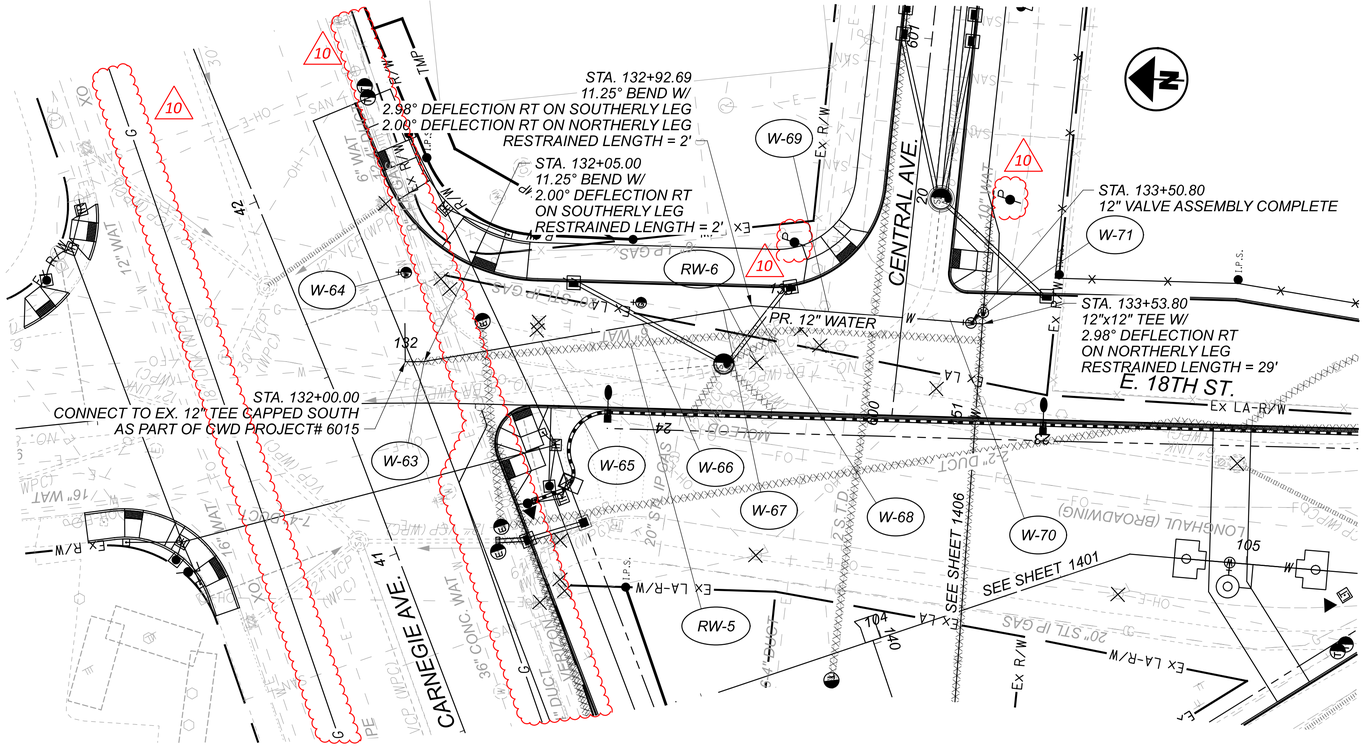
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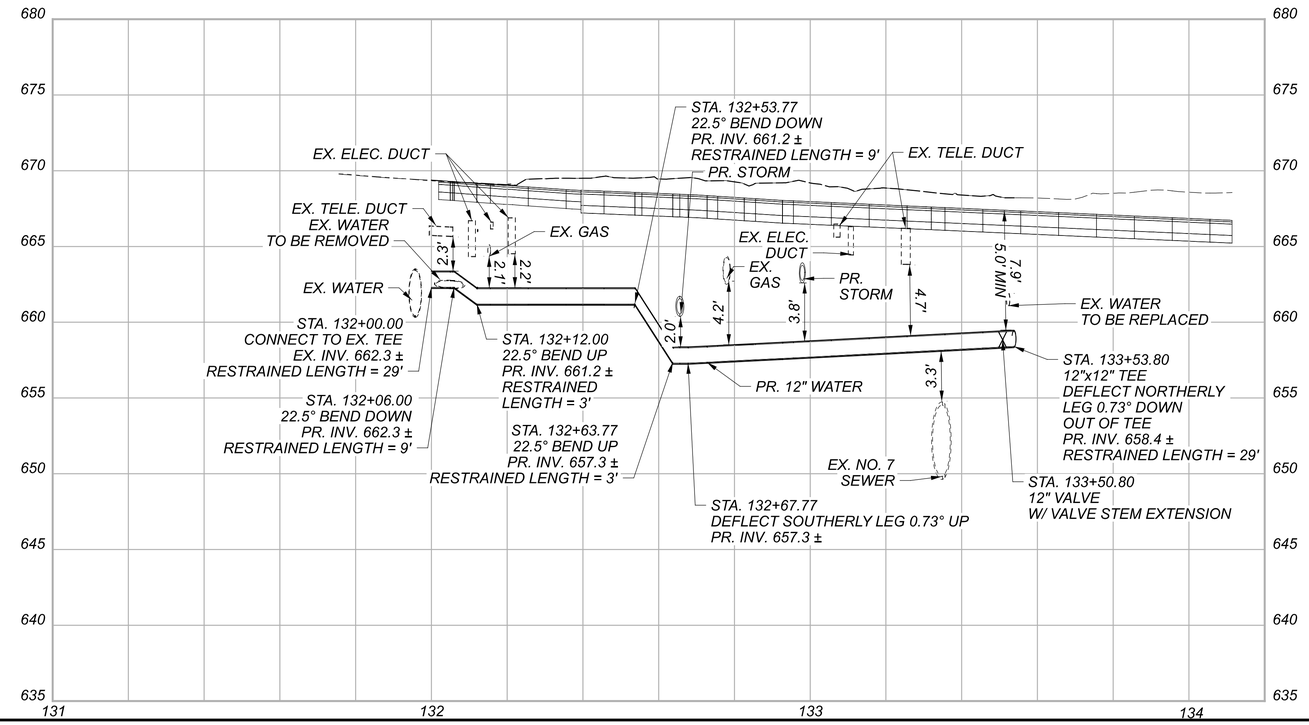
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1401 TOTAL 2696

CUY-90-16.28 (CCG3A)

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WATER LEGEND

- WATER REMOVED
- WATER STRUCTURE

HORIZONTAL SCALE IN FEET
0 10 20 40

12" WATERLINE PLAN AND PROFILE (E. 18TH ST./CENTRAL AVE.) STA. 132+00.00 TO STA. 133+53.80

RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

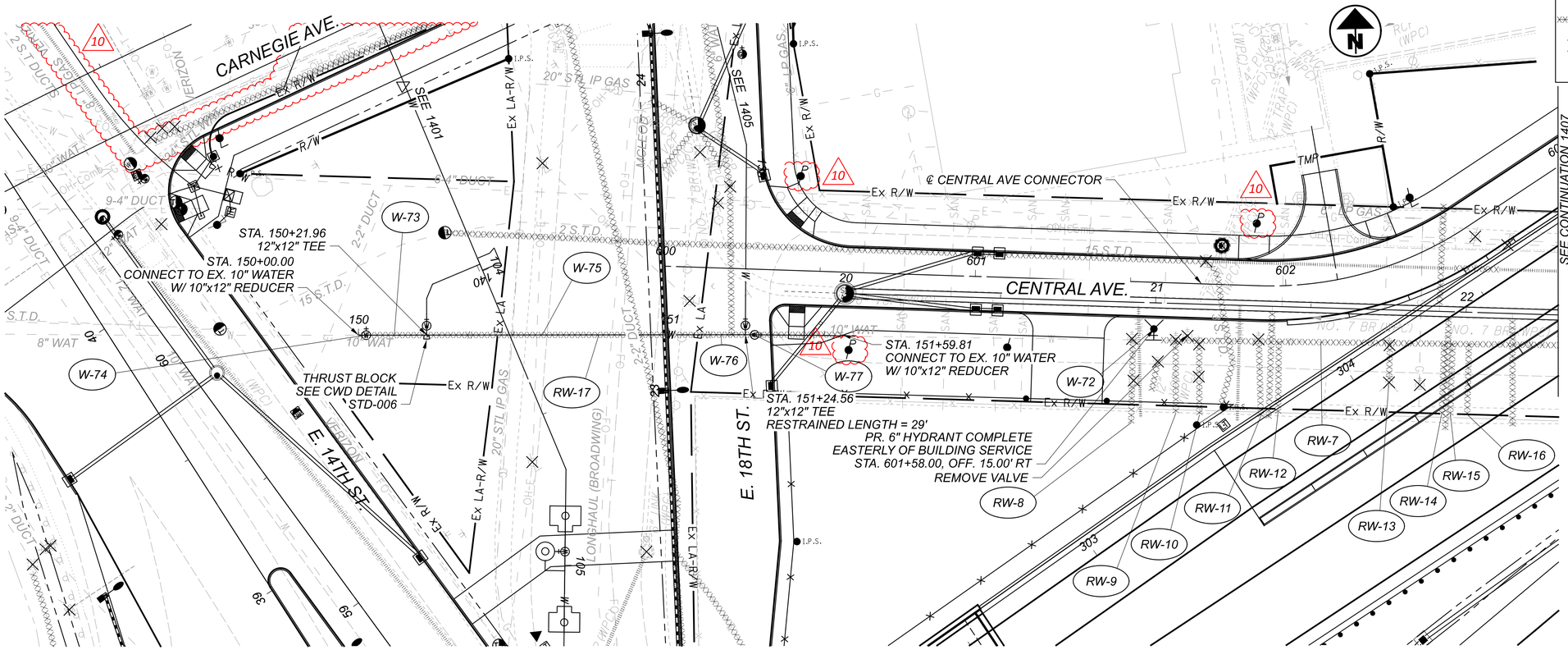
LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

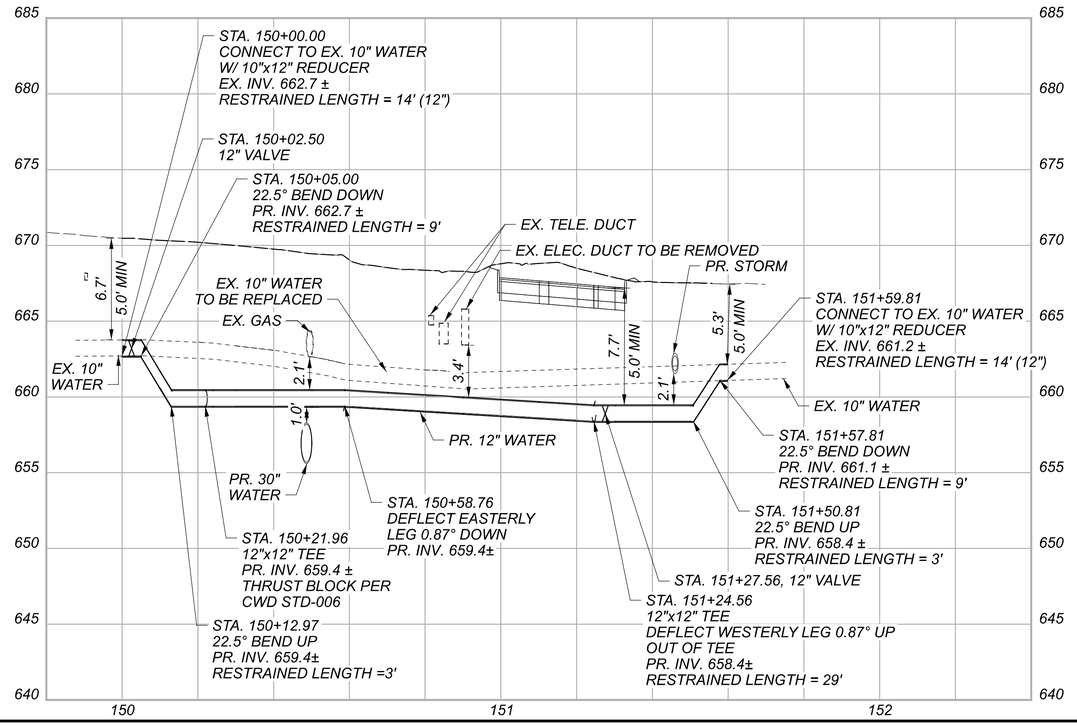
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1405 TOTAL 2696

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WATER LEGEND

- WATER REMOVED
- WATER STRUCTURE

HORIZONTAL SCALE IN FEET
0 10 20 40

12" WATERLINE PLAN AND PROFILE (CENTRAL AVE. AT E. 18TH ST.)
STA. 150+00.00 TO STA. 151+59.81

RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

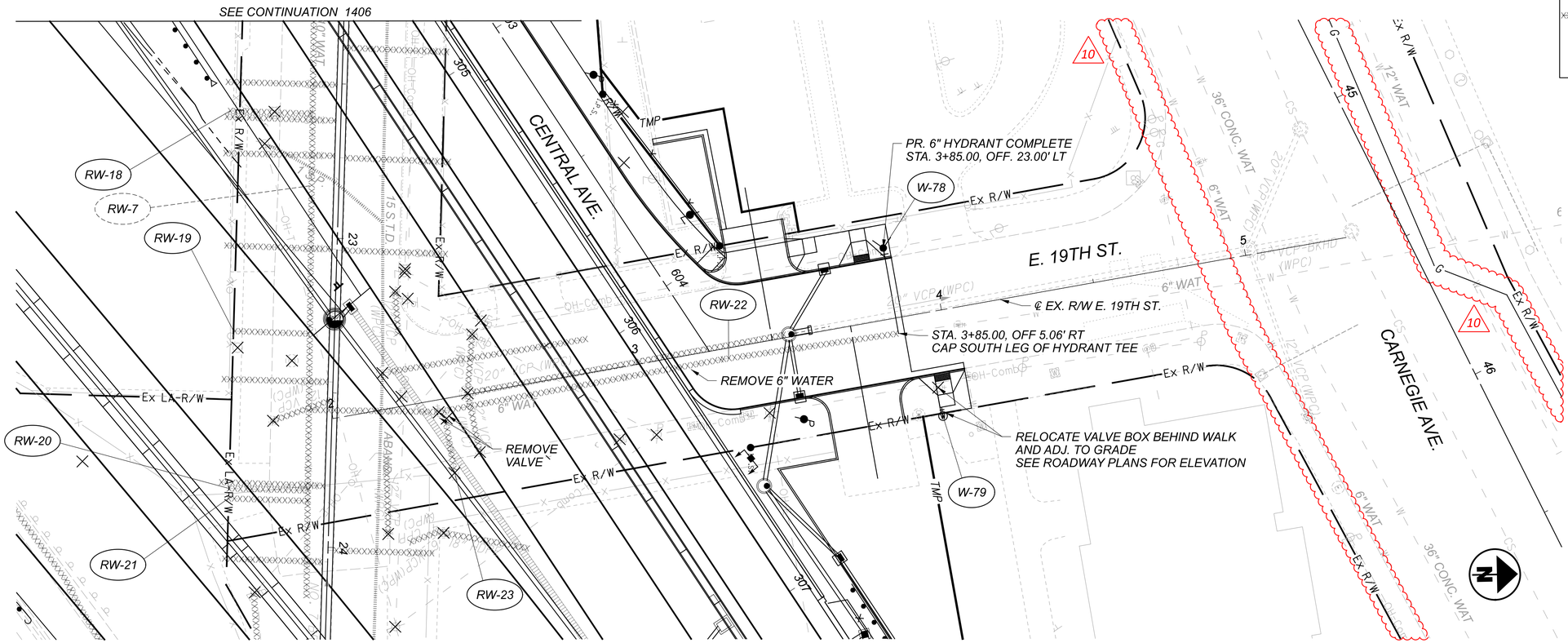
LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER: SMP
REVIEWER: SM 05/15/24
PROJECT ID: 82382
SHEET: 1406 TOTAL: 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_UPI2I6 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 3:12:49 AM USER: Julie.Ross
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RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

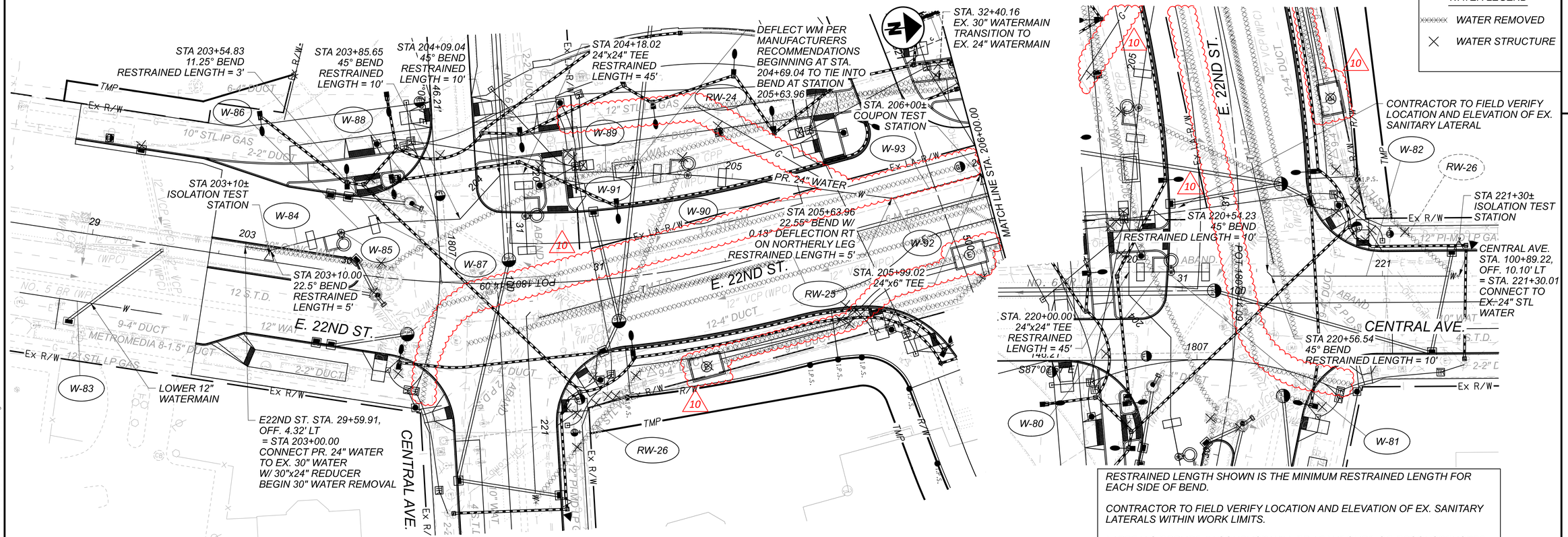
WATERLINE REMOVAL PLAN (E. 19TH ST.)
STA. 1+92.82 TO STA. 3+85.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER: SMP
REVIEWER: SM 05/15/24
PROJECT ID: 82382
SHEET: 1407 TOTAL: 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_UPI2I7 PAPERSIZE: 34x22 (In.) DATE: 11/7/2025 TIME: 3:03:5 AM USER: Julie.Ross
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24" WATERLINE PLAN AND PROFILE (E. 22ND ST. / CENTRAL AVE.) STA. 202+50.00 TO STA. 206+00.00

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1408 TOTAL 2696

MODEL: 82382_UPI22I PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:53:06 AM USER: Julie.Ross
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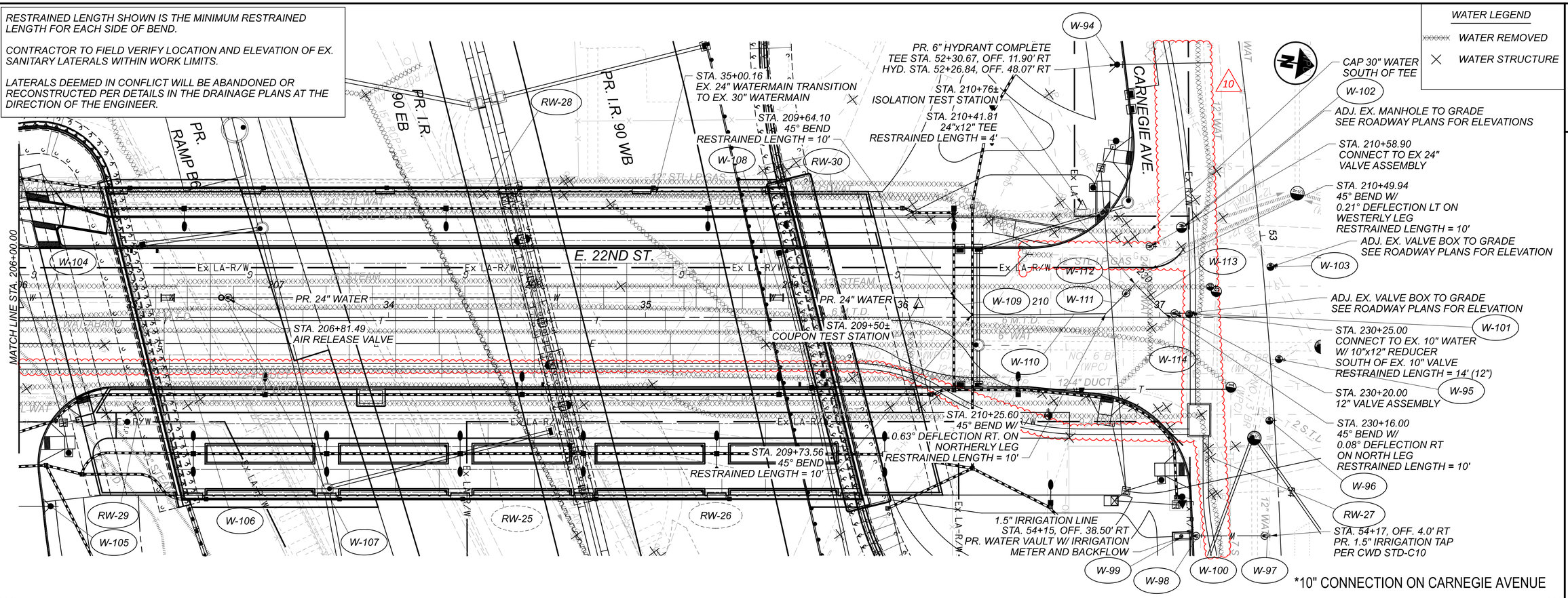
RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

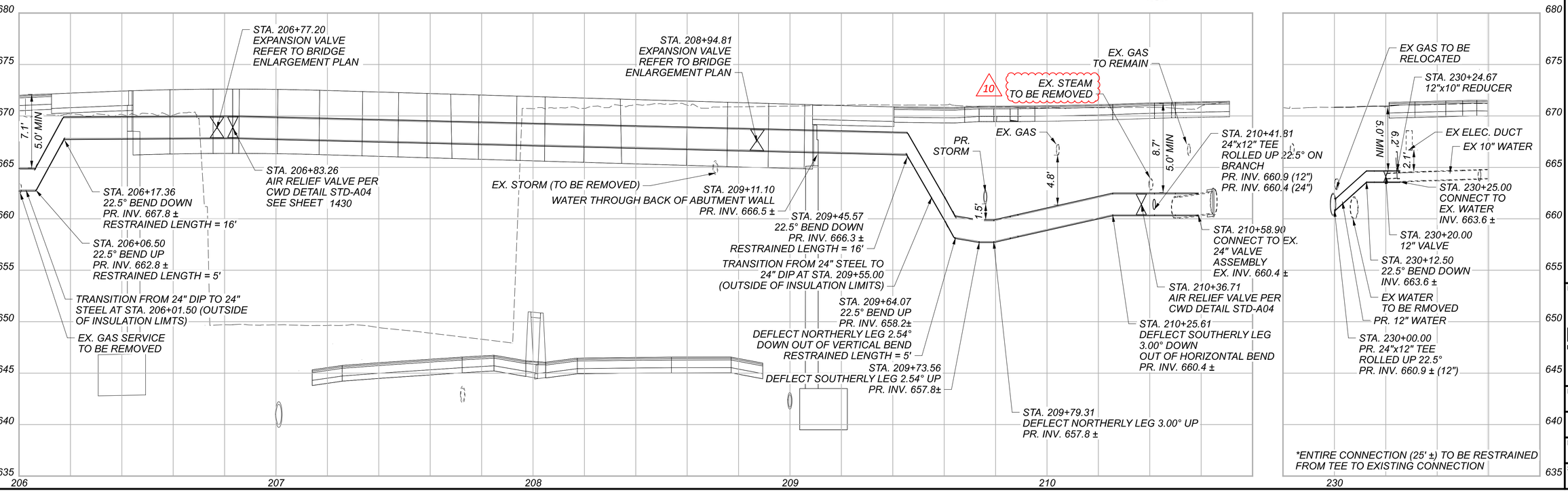
CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

WATER LEGEND
WATER REMOVED
WATER STRUCTURE

HORIZONTAL SCALE IN FEET
0 10 20 40





*ENTIRE CONNECTION (25' ±) TO BE RESTRAINED FROM TEE TO EXISTING CONNECTION

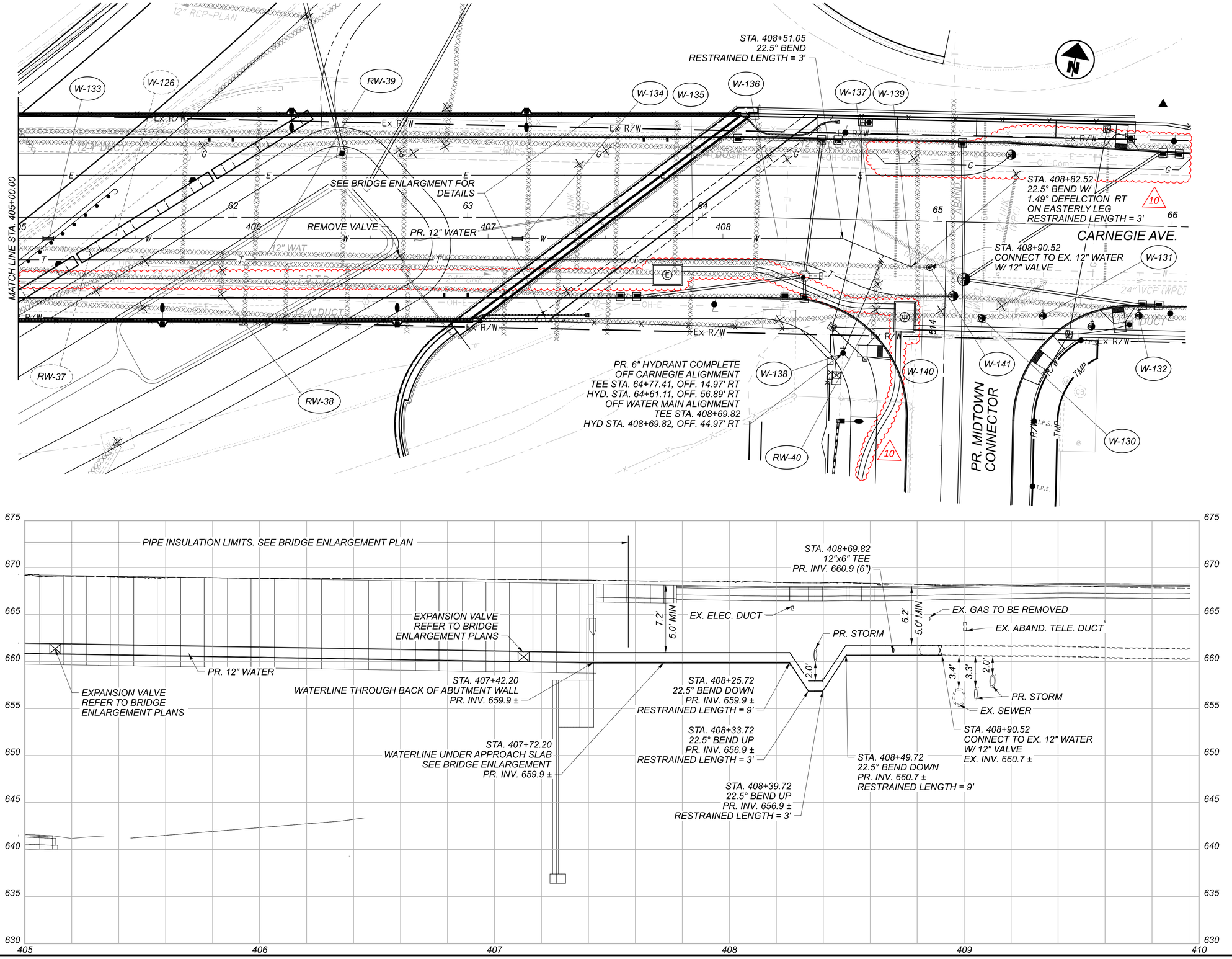
24" WATERLINE PLAN AND PROFILE (E. 22ND ST. / CARNEGIE AVE.) STA. 206+00.00 TO STA. 210+47.22

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1409 TOTAL 2696

MODEL: 82382_UP1222 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 3:25:5 AM USER: Julie.Ross
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\00DT\District2\82382\400-Engineering\Utilities\Sheets\82382_UP1222.dgn



RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

12" WATERLINE PLAN AND PROFILE (CARNEGIE AVE.) STA. 405+00.00 TO STA. 408+90.52

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1412 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_UPI232 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 1:45:08 AM USER: Julie.Ross
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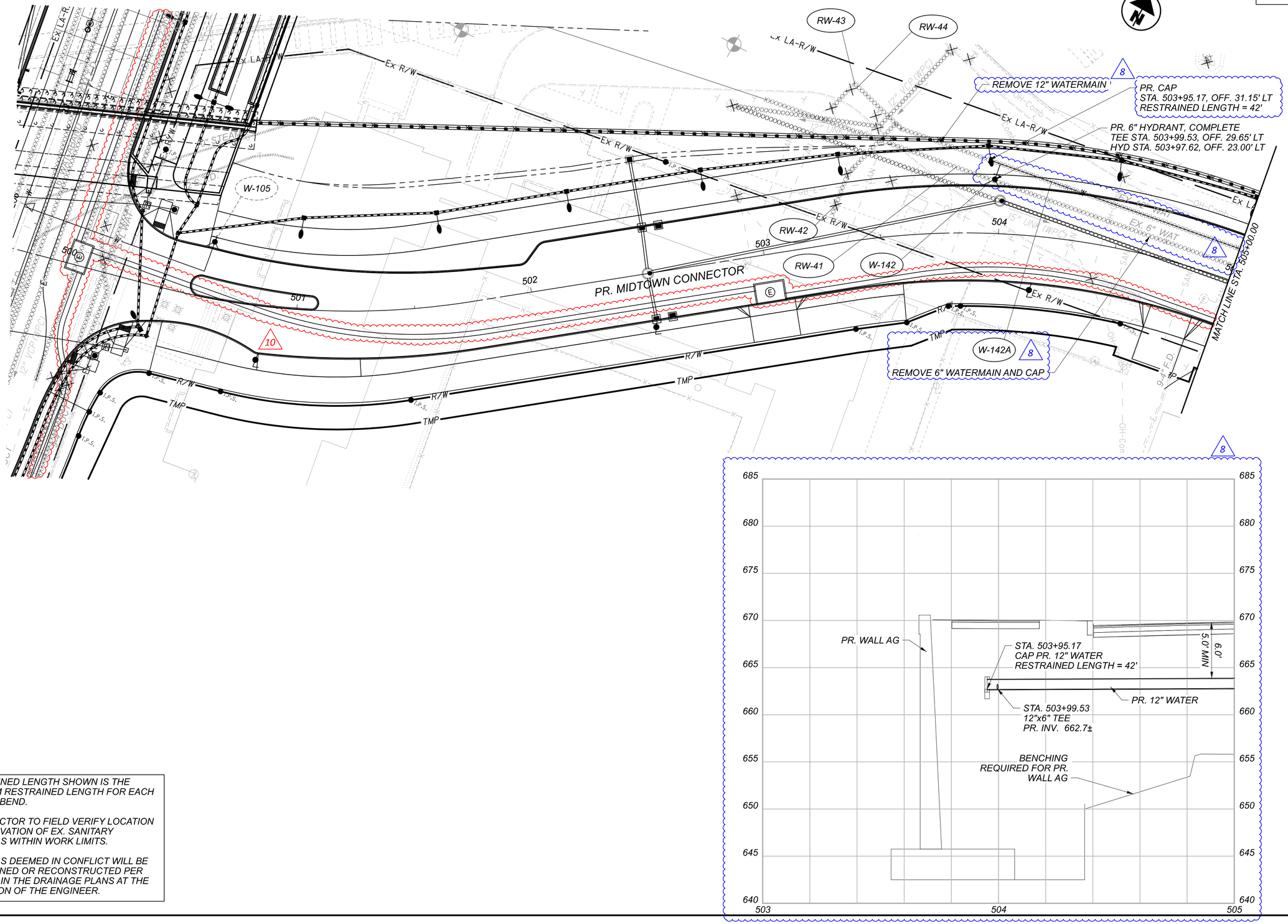
WATER LEGEND

WATER REMOVED

WATER STRUCTURE

HORIZONTAL SCALE IN FEET

0 10 20 40



RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

12" WATERLINE PLAN AND PROFILE (MIDTOWN CONNECTOR) BEGIN TO STA. 505+00.00

CUY-90-16.28

DESIGN AGENCY
Michael Baker INTERNATIONAL

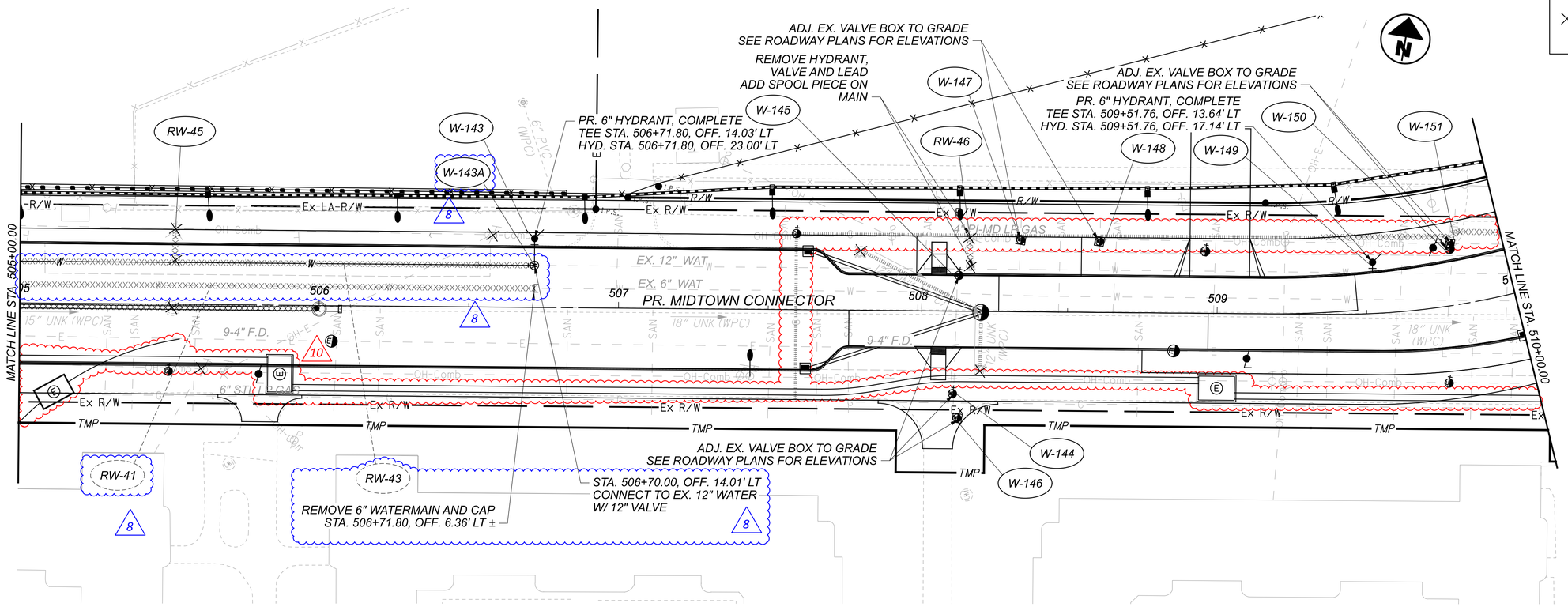
DESIGNER SMP

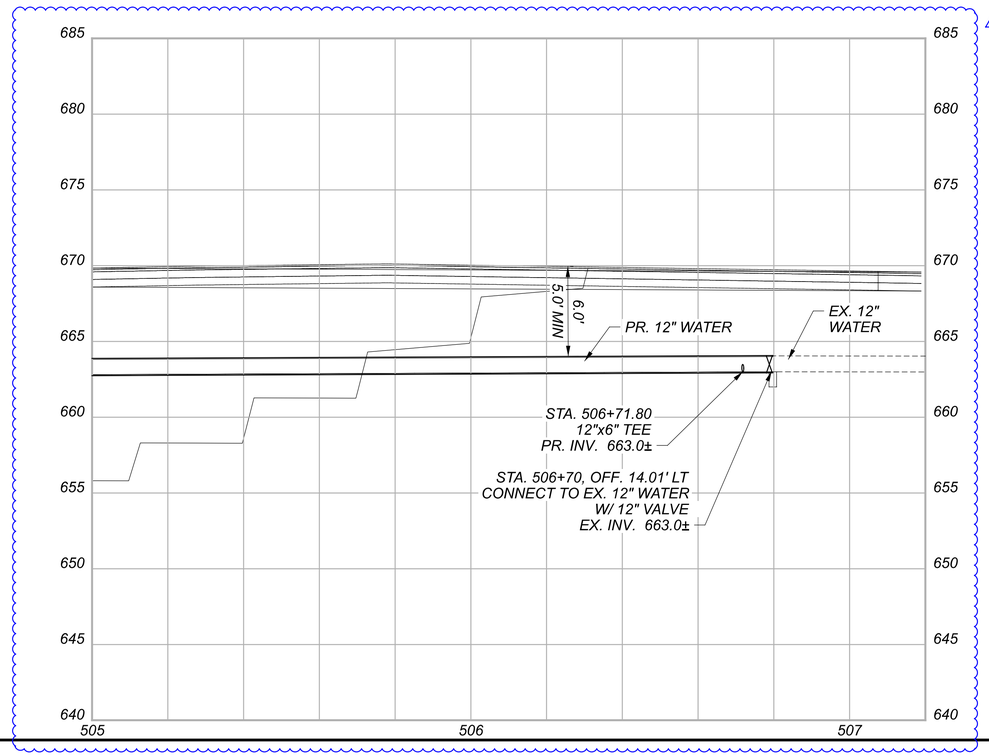
REVIEWER SM 05/15/24

PROJECT ID 82382

SHEET 1414 TOTAL 2696

MODEL: 82382_UPI244 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:30:01 AM USER: Julie.Ross
pw:\\vmb-us-pw.bentley.com:vmb-us-pw-03\Documents\Cleveland_OHIO\Projects\ODOT\District2\82382\400-Engineering\Utilities\Sheets\82382_UPI244.dgn





RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

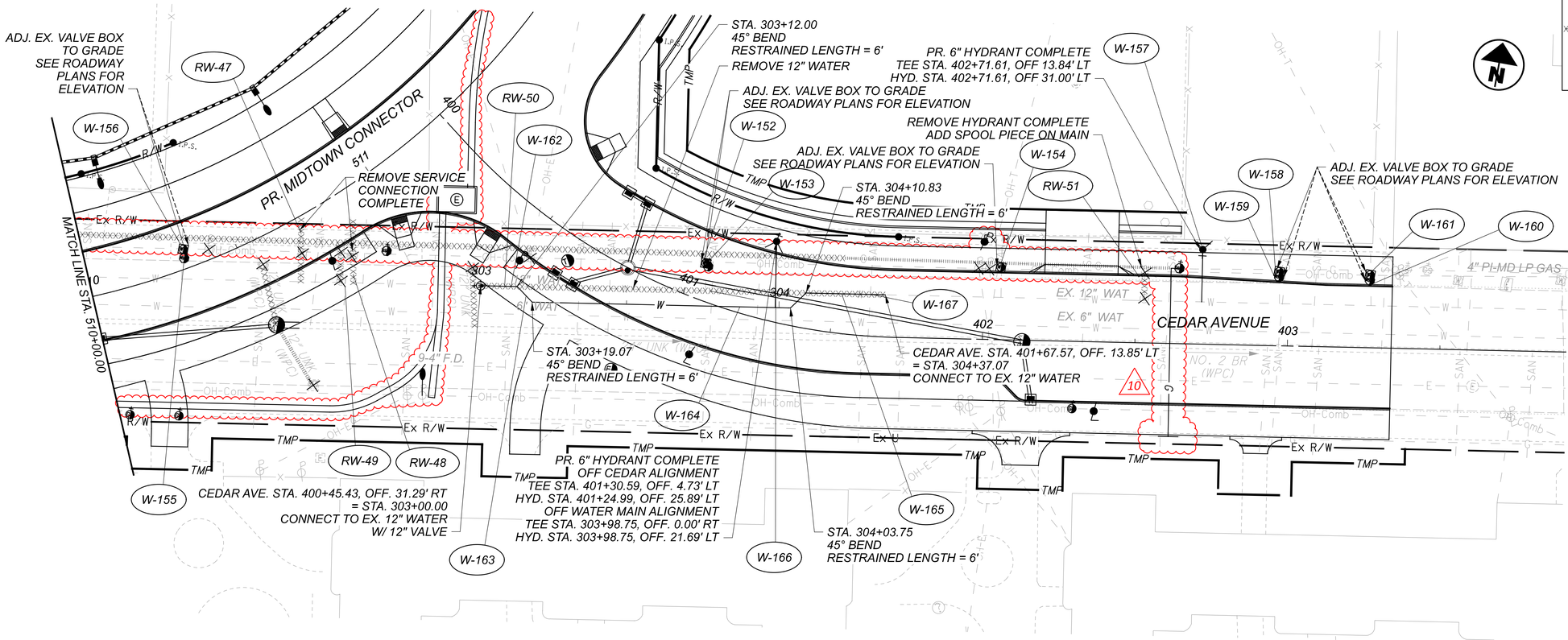
12" WATERLINE PLAN AND PROFILE (MIDTOWN CONNECTOR)
STA. 505+00.00 TO STA. 510+00.00

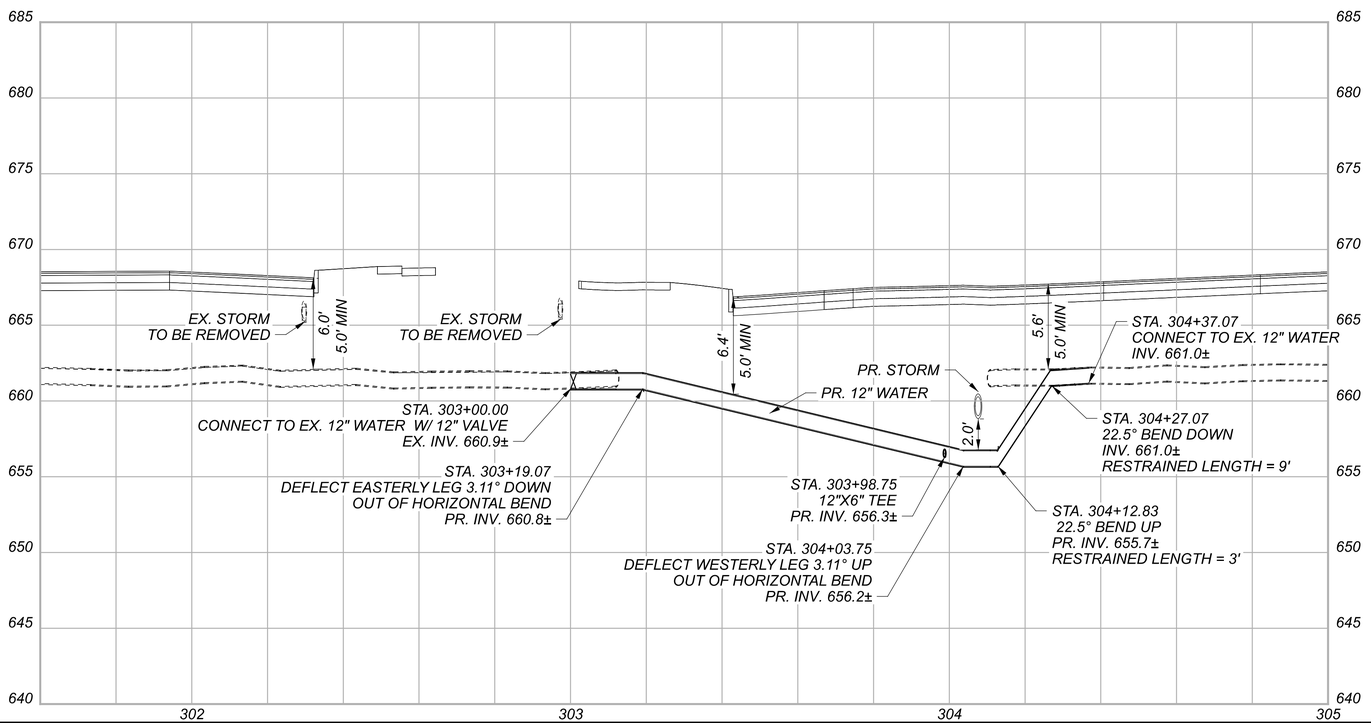
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER: SMP
REVIEWER: SM 05/15/24
PROJECT ID: 82382
SHEET: 1415 TOTAL: 2696

CUY-90-16.28

MODEL: 82382_UPI245 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:01:32 AM USER: Julie.Ross
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\OL_Projects\ODOT\District2\82382\400-Engineering\Utilities\Sheets\82382_UPI245.dgn





RESTRAINED LENGTH SHOWN IS THE MINIMUM RESTRAINED LENGTH FOR EACH SIDE OF BEND.

CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EX. SANITARY LATERALS WITHIN WORK LIMITS.

LATERALS DEEMED IN CONFLICT WILL BE ABANDONED OR RECONSTRUCTED PER DETAILS IN THE DRAINAGE PLANS AT THE DIRECTION OF THE ENGINEER.

12" WATERLINE PLAN AND PROFILE (CEDAR AVE. BEGIN TO END)
MIDTOWN CONNECTOR STA. 510+00.00 TO END

CUY-90-16.28

MODEL: 82382_UPI246 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 21:49 AM USER: Julie.Ross
pw:\\mb-us-pw.bentley.commb-us-pw-03.Documents:Cleveland_OH\01_Projects\ODOT\District2\82382\400-Engineering\Utilities\Sheets\82382_UPI246.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SMP
REVIEWER SM 05/15/24
PROJECT ID 82382
SHEET 1416 TOTAL 2696

REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625 GROUND ROD	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	630 ONE WAY SUPPORT, NO. 2 POST	630 ONE WAY SUPPORT, NO. 4 POST	630 SIGN POST REFLECTOR	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	630 OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	630 SIGN ATTACHMENT ASSEMBLY	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	630 SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED (8)	630 SIGN, FLAT SHEET	630 SIGN, GROUND MOUNTED EXTRUSHEET	630 SIGN, OVERHEAD EXTRUSHEET	630 SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	630 CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION
					IN	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	SF	EACH	EACH	EACH	EACH
	I.R. 90 EB																																			
S-1	1494	3+05.00	CL	LEVEL 1	132 X 108																		3						99.0				
S-1	1494	3+05.00	CL	LEVEL 1	156 X 96																		3						104.0				
S-1	1494	3+05.00	CL	E1-H5P-120	120 X 30																								25.0				
S-2	1494	29+08.00	CL	LEVEL 1	132 X 108																		3						99.0				
S-2	1494	29+08.00	CL	LEVEL 1	156 X 96																		3						104.0				
S-2	1494	29+08.00	CL	E1-H5P-120	120 X 30																								25.0				
S-3	1494	46+16.00	CL	LEVEL 1	144 X 108																		3						108.0				
S-3	1494	46+16.00	CL	LEVEL 1	144 X 72																		3						72.0				
S-3	1494	46+16.00	CL	E1-H5P-120	120 X 30																		2						25.0				
S-3	1494	46+16.00	CL	LEVEL 1	156 X 96																		3						104.0				
S-3	1494	46+16.00	CL	E1-H5P-120	120 X 30																		2						25.0				
S-4	1497	177+29.00	CL	LEVEL 1	204 X 96	2															1								136.0				2
S-4	1497	177+29.00	CL	E1-H5P-120	120 X 30																								25.0				
S-4	1497	177+29.00	CL	LEVEL 1	192 X 72																								96.0				
S-4	1497	177+29.00	CL	E1-H5P-120	120 X 30																								25.0				
S-4	1497	177+29.00	CL	LEVEL 1	204 X 108																								153.0				
S-4	1497	177+29.00	CL	E1-H5P-120	120 X 30																								25.0				
S-4	1497	177+29.00	CL	LEVEL 1	168 X 144																								168.0				
S-4	1497	177+29.00	CL	E1-H5P-120	120 X 30																								25.0				
	RAMP IB5																																			
S-5	1497	1708+00.00	RT	W13-6-48	48 X 84			35.0									2											28.0							
S-6	1497	1708+70.00	LT	W1-8R-36	36 X 48			29.0									2											12.0							
	RAMP B6																																			
S-7	1497	1600+35.00	LT	E5-H1c-48	48 X 84					36.0							(8)	2										28.0				(8)	2		
S-8	1497	1600+97.00	RT	E5-H1a-108	108 X 84							40.0																	63.0							
	I.R. 90 EB																																			
S-9	1499	184+50.00	LT	D10-5-18	18 X 60		15.6																					7.5							
S-10	1499	185+72.00	RT	I-H25a-12	12 X 12		14.6																					1.0							
S-10	1499	185+72.00	RT	OM-3R-12	12 X 36																							3.0							
S-11	1499	185+76.00	LT	OM-3L-12	12 X 36		13.5																					3.0							
S-12	1499	188+65.00	LT	OM-3L-12	12 X 36		13.5																					3.0							
S-13	1500	191+86.00	RT	W4-1R-48	48 X 48			32.4																				16.0							
S-14	1500	193+25.00	CL	LEVEL 1	144 X 108	2															1								108.0				2
S-14	1500	193+25.00	CL	LEVEL 1	192 X 96																								128.0				
S-14	1500	193+25.00	CL	E1-H5P-120	120 X 30																								25.0				
S-14	1500	193+25.00	CL	LEVEL 1	180 X 72																								90.0				
S-14	1500	193+25.00	CL	E1-H5P-120	120 X 30																								25.0				
S-15	1501	198+00.00	RT	R1-2-60	30 X 51.96			33.4																				10.8							
	INTERIM I.R. 90 EB																																			
S-16	1503	3007+59.00	LT	M1-1-36-2	36 X 36																				1			9.0							
S-16	1503	3007+59.00	LT	M3-2-30	30 X 15																				1			3.1							
S-17	1503	3007+59.00	CL	LEVEL 1	192 X 72	2												(10)	1									96.0				1		1	
S-17	1503	3007+59.00	CL	E1-H5P-120	120 X 30																								25.0				
S-17	1503	3007+59.00	CL	LEVEL 1	192 X 96																								128.0				
S-17	1503	3007+59.00	CL	E1-H5P-120	120 X 30																								25.0				
S-17	1503	3007+59.00	CL	LEVEL 1	180 X 72													(8)	(10)	(10)								90.0						(8)	
TOTALS CARRIED TO SHEET 1485						6	57.2	129.8	-	36.0	-	40.0	-	-	-	-	4	2	-	1	1	1	-	25	-	2	-	-	124.4	63.0	2183.0	-	1	2	5

SIGNING SUBSUMMARY - 1

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
RBK

REVIEWER
GSH 05/22/24

PROJECT ID
82382

SHEET 1469 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-01 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 12:57:41 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\Traffic\Sheets\82382_TS101.dgn

REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625 GROUND ROD	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	630 ONE WAY SUPPORT, NO. 2 POST	630 ONE WAY SUPPORT, NO. 4 POST	630 SIGN POST REFLECTOR	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	630 OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	630 SIGN ATTACHMENT ASSEMBLY	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	630 SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED (8)	630 SIGN, FLAT SHEET	630 SIGN, GROUND MOUNTED EXTRUSHEET	630 SIGN, OVERHEAD EXTRUSHEET	630 SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	630 CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION
					IN	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	SF	EACH	EACH	EACH	EACH
	INTERIM I.R. 90 EB (CONT.)																																	
S-17	1503	3007+59.00	CL	E1-H5P-120	120 X 30																								25.0					
S-18	1503	3007+59.00	RT	R2-1-48	48 X 60																				1			20.0						
S-19	1503	3007+75.00	LT	D10-5-18	18 X 60			15.6																				7.5						
S-19	1503	3007+75.00	LT	D10-5-18	18 X 60																							7.5						
S-20	1503	3007+75.00	RT	D10-5-18	18 X 60		15.6																					7.5						
S-20	1503	3007+75.00	RT	D10-5-18	18 X 60																							7.5						
	I.R. 90 WB																																	
S-21	1507	157+50.00	LT	R1-2-60	30 X 51.96			33.4																				10.8						
S-22	1509	167+12.00	CL	LEVEL 1	192 X 108																				3					144.0				
S-22	1509	167+12.00	CL	E1-H5bP-132	132 X 54																				3					49.5				
S-22	1509	167+12.00	CL	I-5-30	30 X 30																							6.3						
S-22	1509	167+12.00	CL	LEVEL 1	132 X 108																				3					99.0				
S-22	1509	167+12.00	CL	LEVEL 1	168 X 96																				3					112.0				
S-22	1509	167+12.00	CL	E1-H5P-120	120 X 30																				3					25.0				
S-22	1509	167+12.00	CL	D9-H2a	60 X 30																							12.5						
S-23	1509	167+86.00	LT	W4-1R-48	48 X 48			32.4																				16.0						
S-24	1512	581+65.00	LT	W4-3R-48	48 X 48			32.4																				16.0						
S-25	1514	190+32.00	LT	I-H25a-12	12 X 12		13.6																					1.0						
S-25	1514	190+32.00	LT	OM-3R-12	12 X 36																							3.0						
S-26	1514	191+00.00	LT	LEVEL 1	132 X 84									56.2				2											77.0			2		
S-26	1514	191+00.00	LT	E1-H5P-96	30 X 96																							20.0						
S-27	1514	193+50.00	LT	E5-H1c-48	48 X 84					36.0							8	2										28.0				8	2		
	RAMP A2																																	
S-28	1514	430+80.00	LT	W13-3-24	24 X 30																					1		5.0						
S-28	1514	430+80.00	LT	W1-2L-36	36 X 36																							9.0						
S-29	1514	430+80.00	RT	W13-3-24	24 X 30																					1		5.0						
S-29	1514	430+80.00	RT	W1-2L-36	36 X 36																							9.0						
S-30	1514	431+25.00	RT	OM-3L-12	12 X 36		13.5																					3.0						
S-31	1514	431+29.00	LT	I-H25a-12	12 X 12		13.6																					1.0						
S-31	1514	431+29.00	LT	OM-3R-12	12 X 36																							3.0						
S-32	1514	432+22.00	LT	W4-1R-48	48 X 48			32.4																				16.0						
	I.R. 90 WB																																	
S-33	1515	196+68.00	RT	D10-5-18	18 X 60		15.6																					7.5						
S-33	1515	196+68.00	RT	D10-5-18	18 X 60																							7.5						
S-34	1515	197+65.00	CL	LEVEL 1	168 X 108	2																1								126.0			2	
S-34	1515	197+65.00	CL	E1-H5bP-132	132 X 54																									49.5				
S-34	1515	197+65.00	CL	LEVEL 1	132 X 108																									99.0				
S-34	1515	197+65.00	CL	LEVEL 1	192 X 132																									176.0				
S-34	1515	197+65.00	CL	E1-H5P-120	120 X 30																									25.0				
S-34	1515	197+65.00	CL	I-5-30	30 X 30																							6.3						
	INTERIM I.R. 90 WB																																	
S-35	1517	4003+17.00	CL	LEVEL 1	132 X 108	2																1								99.0		1		1
S-35	1517	4003+17.00	CL	LEVEL 1	192 X 132																									176.0				
S-35	1517	4003+17.00	CL	E1-H5P-120	120 X 30																									25.0				
S-36	1518	4009+25.00	LT	R2-1-48	48 X 60																				1			20.0						
S-37	1518	4009+25.00	CL	LEVEL 1	132 X 108	2											8	10 1				10	10							99.0		1	8	1
TOTALS CARRIED TO SHEET 1485						6	71.9	146.2	-	36.0	-	-	-	56.2	-	-	-	4	-	1	2	-	-	15	-	2	2	-	255.9	77.0	1329.0	-	2	4	4

SIGNING SUBSUMMARY - 2

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
RBK

REVIEWER
GSH 05/22/24

PROJECT ID
82382

SHEET 1470 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-02 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 12:58:32 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\TrafficSheets\82382_TS101.dgn

REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625 GROUND ROD	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	630 ONE WAY SUPPORT, NO. 2 POST	630 ONE WAY SUPPORT, NO. 4 POST	630 SIGN POST REFLECTOR	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	630 OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	630 SIGN ATTACHMENT ASSEMBLY	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	630 SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED (8)	630 SIGN, FLAT SHEET	630 SIGN, GROUND MOUNTED EXTRUSHEET	630 SIGN, OVERHEAD EXTRUSHEET	630 SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	630 CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION
					IN	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	SF	EACH	EACH	EACH	EACH
		E. 9TH ST.																																		
S-94	1529	33+60.00	RT	W4-3R-36	36 X 36		29.6																					9.0						
		RAMP B6																																		
S-95	1530	1605+50.00	CL	LEVEL 1	144 X 84	1													1										84.0					1
S-95	1530	1605+50.00	CL	LEVEL 1	156 X 84																								91.0					
S-96	1530	1606+59.00	RT	D10-H5a-30	30 X 30		13.0																					6.3						
S-97	1531	1607+84.00	RT	I-H25a-12	12 X 12		13.6																					1.0						
S-97	1531	1607+84.00	RT	OM-3R-12	12 X 36																							3.0						
S-98	1531	1607+95.00	LT	OM-3L-12	12 X 36		13.5																					3.0						
		RAMP IJ3																																		
S-99	1531	111+21.00	LT	W13-3-48	48 X 60																					1		20.0						
S-99	1531	111+21.00	LT	W1-2L-36	48 X 48																					1		16.0						
		E. 14TH ST. SB																																		
S-100	1531	207+00.00	CL	LEVEL 3	108 X 48	2												10		1										36.0					2
S-100	1531	207+00.00	CL	LEVEL 3	120 X 60																									50.0					
		RAMP B6																																		
S-101	1532	1615+50.00	CL	LEVEL 1	156 X 72	2														1										78.0					2
S-101	1532	1615+50.00	CL	LEVEL 1	144 X 72																									72.0					
S-102	1532	1615+60.00	LT	R5-1a-42	42 X 30																					1		8.8						
S-102	1532	1615+60.00	LT	R5-1-48	48 X 48																					1		16.0						
S-103	1532	1615+60.00	RT	R5-1a-42	42 X 30																					1		8.8						
S-103	1532	1615+60.00	RT	R5-1-48	48 X 48																					1		16.0						
S-104	1533	1618+25.00	LT	D10-H5a-30	30 X 30			29.0									2											6.3						
S-104	1533	1618+25.00	LT	R5-1a-42	42 X 30																							8.8						
S-104	1533	1618+25.00	LT	R5-1-48	48 X 48																							16.0						
S-105	1533	1618+25.00	RT	R3-6L-36	36 X 42			29.0									2											10.5						
S-105	1533	1618+25.00	RT	R5-1a-42	42 X 30																							8.8						
S-105	1533	1618+25.00	RT	R5-1-48	48 X 48																							16.0						
S-106	1533	1619+00.00	RT	D3-H6a-72	72 X 12				27.4																			6.0						
S-106	1533	1619+00.00	RT	D3-H6a-72	72 X 12																							6.0						
S-106	1533	1619+00.00	RT	D3-H6a-72	72 X 24																							12.0						
S-107	1533	1620+82.00	LT	R5-1-48	48 X 48				30.0								2											16.0						
S-107	1533	1620+82.00	LT	R6-1R-54	54 X 18																							6.8						
S-107	1533	1620+82.00	LT	R6-1L-54	54 X 18																							6.8						
S-108	1533	1620+82.00	RT	R3-6L-36	36 X 42				29.0																			10.5						
S-108	1533	1620+82.00	RT	R5-1-48	48 X 48																							16.0						
S-108	1533	1620+82.00	RT	R6-1R-54	54 X 18																							6.8						
S-108	1533	1620+82.00	RT	R6-1L-54	54 X 18																							6.8						
		RAMP B6A																																		
S-109	1533	1803+90.00	LT	D10-H5a-30	30 X 30			29.0									2											6.3						
S-109	1533	1803+90.00	LT	R5-1a-42	42 X 30																							8.8						
S-109	1533	1803+90.00	LT	R5-1-48	48 X 48																							16.0						
S-110	1533	1803+90.00	RT	R3-6R-36	36 X 42			29.0									2											10.5						
S-110	1533	1803+90.00	RT	R5-1a-42	42 X 30																							8.8						
S-110	1533	1803+90.00	RT	R5-1-48	48 X 48																							16.0						
S-111	1533	1804+80.00	RT	D3-H6a-72	72 X 12				27.4											10	10							6.0						
TOTALS CARRIED TO SHEET 1485						5	69.7	116.0	113.8	-	-	-	-	-	-	-	10	-	1	2	-	-	-	-	-	6	-	-	340.4	175.0	236.0	-	-	-	5

SIGNING SUBSUMMARY - 5

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
RBK

REVIEWER
GSH 05/22/24

PROJECT ID
82382

SHEET 1473 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-05 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 12:58:47 PM USER: Joseph.Hogan
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REF NO.	SHEET NO.	STATION	SIDE	CODE	SIZE	625 GROUND ROD	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 GROUND MOUNTED SUPPORT, NO. 4 POST, AS PER PLAN	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, S4X7.7	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W8X18	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	630 ONE WAY SUPPORT, NO. 2 POST	630 ONE WAY SUPPORT, NO. 4 POST	630 SIGN POST REFLECTOR	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2	630 OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	630 OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13	630 SIGN ATTACHMENT ASSEMBLY	630 SIGN HANGER ASSEMBLY, MAST ARM	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2	630 SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED (8)	630 SIGN, FLAT SHEET	630 SIGN, GROUND MOUNTED EXTRUSHEET	630 SIGN, OVERHEAD EXTRUSHEET	630 SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN	630 CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.50	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION
					IN	EACH	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SF	SF	SF	EACH	EACH	EACH	EACH
	INTERIM E. 14TH ST. SB (CONT.)																																		
S-412	1822	203+09.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-413	1822	204+05.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-414	1822	205+05.50	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-415	1822	205+07.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
		RAMP IJ3																																	
S-416	1823	100+20.50	RT	R24-H2-12	12 X 18		12.0																				1.5						
S-417	1823	100+21.50	RT	R24-H2-12	12 X 18		12.0																				1.5						
		INTERIM E. 14TH ST. SB																																	
S-418	1823	197+51.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-419	1823	197+56.50	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-420	1823	198+00.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-421	1823	198+57.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-422	1823	198+75.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
S-423	1823	199+57.00	LT	R24-H2-12	12 X 18		12.0																				1.5						
	TOTALS FROM THIS SHEET					-	144.0	-	-	-	-	-	-	-	-	-	-	(8) -	-	-	-	-	(10) -	-	-	-	-	-	18.0	-	-	-	-	-	-
	TOTALS FROM SHEET	1469				6	57.2	129.8	-	36.0	-	40.0	-	-	-	-	-	(8) 2	-	1	1	(10) 1	-	25	-	2	-	-	124.4	63.0	2183.0	-	(8) 2	2	5
	TOTALS FROM SHEET	1470				6	71.9	146.2	-	36.0	-	-	-	56.2	-	-	-	4	-	1	2	-	-	15	-	2	2	-	255.9	77.0	1329.0	-	2	4	4
	TOTALS FROM SHEET	1471				6	62.0	184.5	-	36.0	-	-	-	-	-	-	18	2	2	1	1	-	-	-	-	2	8	-	307.6	140.0	1164.5	-	1	2	5
	TOTALS FROM SHEET	1472				4	102.4	485.5	-	-	-	-	-	-	-	-	36	-	-	2	-	-	-	-	-	-	8	-	357.2	-	544.0	-	-	-	4
	TOTALS FROM SHEET	1473				5	69.7	116.0	113.8	-	-	-	-	-	-	-	10	-	(10) 1	2	(10) -	-	-	-	-	6	-	-	340.4	175.0	236.0	-	-	-	5
	TOTALS FROM SHEET	1474				4	13.0	404.3	89.0	(8) 36.0	(8) -	-	-	38.0	-	-	17	4	-	2	-	-	-	-	-	-	-	1	384.0	108.0	449.0	-	1	4	3
	TOTALS FROM SHEET	1475				-	60.0	348.0	30.0	-	-	-	54.8	-	-	-	26	2	-	-	-	-	-	19	-	2	-	-	249.2	184.5	1232.5	-	-	2	-
	TOTALS FROM SHEET	1476				1	90.2	-	30.2	34.0	-	-	-	-	1.0	16.6	1	2	-	-	-	-	1	-	2	23	-	-	605.6	-	45.0	-	(8) 2	2	1
	TOTALS FROM SHEET	1477				-	125.8	27.2	-	38.4	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	24	-	-	281.2	-	-	-	-	2	-
	TOTALS FROM SHEET	1478				-	73.0	153.7	46.1	-	34.0	-	-	40.0	-	-	2	-	-	-	-	-	-	-	-	11	-	-	182.2	80.0	-	2	-	-	-
	TOTALS FROM SHEET	1479				-	36.0	176.5	69.0	101.0	-	-	-	42.0	-	-	14	8	-	-	-	-	-	-	-	7	-	-	286.1	72.0	-	-	-	8	-
	TOTALS FROM SHEET	1480				-	62.0	58.2	35.3	33.0	-	-	-	-	-	19.5	12	2	-	-	-	-	-	2	-	7	-	-	199.9	-	52.5	2	-	2	-
	TOTALS FROM SHEET	1481				-	157.3	83.4	15.8	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	16	-	-	118.8	-	-	-	-	-	-
	TOTALS FROM SHEET	1482				-	96.8	153.3	13.4	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	6	-	-	156.2	-	-	2	-	-	-
	TOTALS FROM SHEET	1483				-	324.0	13.0	48.4	(8) -	-	-	-	-	-	-	-	-	(10) -	(10) -	(10) -	-	-	-	-	4	-	-	116.5	-	-	-	-	-	-
	TOTALS FROM SHEET	1484				-	492.0	-	-	(8) -	-	-	-	-	-	-	-	-	(10) -	(10) -	(10) -	-	-	-	-	-	-	-	61.5	-	-	-	-	-	-
	TOTALS CARRIED TO GENERAL SUMMARY					32	2037.3	2479.6	491.0	350.4	34.0	40.0	54.8	176.2	1.0	36.1	148	28	3	9	4	1	1	61	2	112	18	1	4044.7	899.5	7235.5	6	5	28	27

SIGNING SUBSUMMARY - 17

CUY-90-16.28 (CCG3A)

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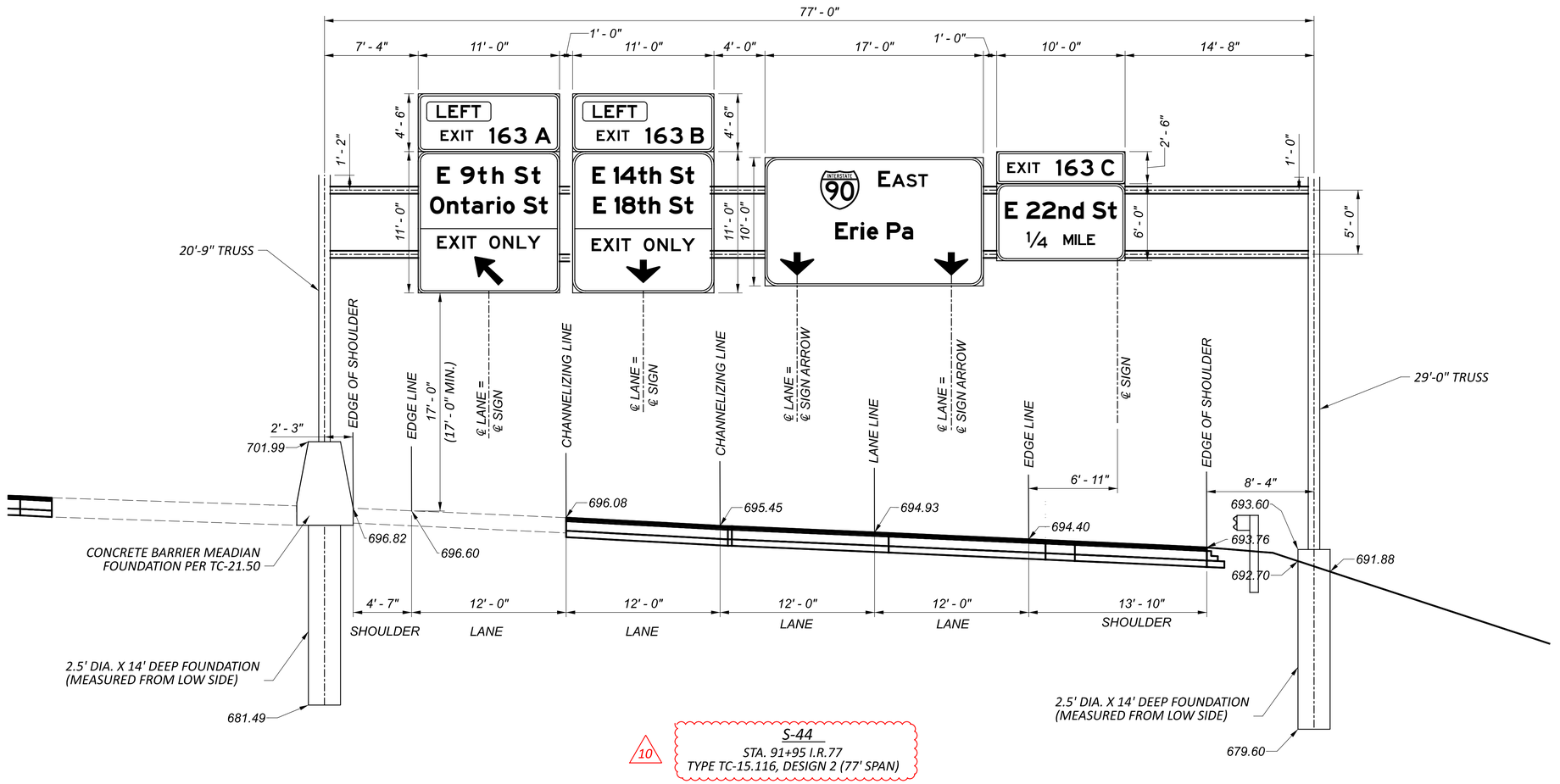
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER RBK

REVIEWER GSH 05/22/24

PROJECT ID 82382

SHEET 1485 TOTAL 2696



10

S-44
STA. 91+95 I.R.77
TYPE TC-15.116, DESIGN 2 (77' SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

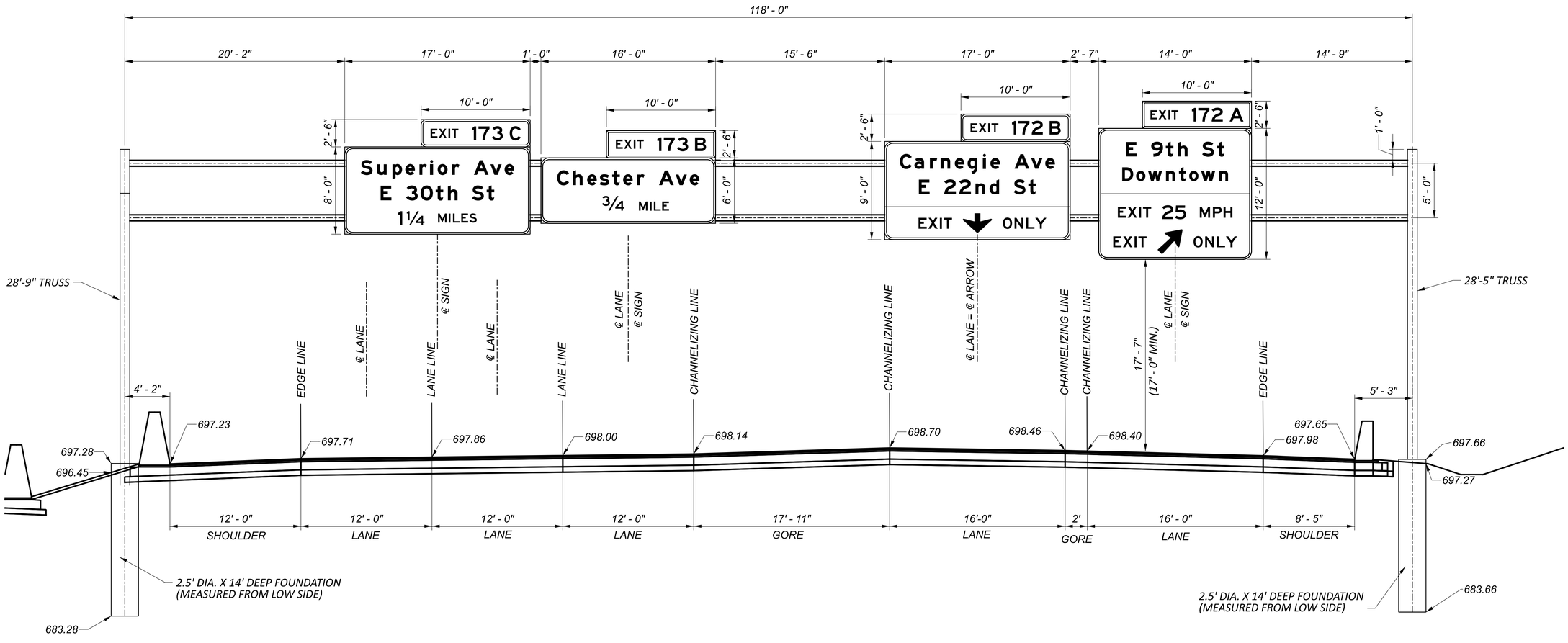
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DESIGN AGENCY
B&N
burgessniple.com

DESIGNER	AJS
REVIEWER	KEH 05/01/24
PROJECT ID	82382
SHEET	1586
TOTAL	2696

OVERHEAD SIGN ELEVATION DETAILS



10

S-4
STA. 177+29 I.R. 90 EASTBOUND
TYPE TC-15.116, DESIGN 3 (118' SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

CTY-RTE-SECTION

MODEL: I90EB - 177+29 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 7:48:44 AM USER: sisson
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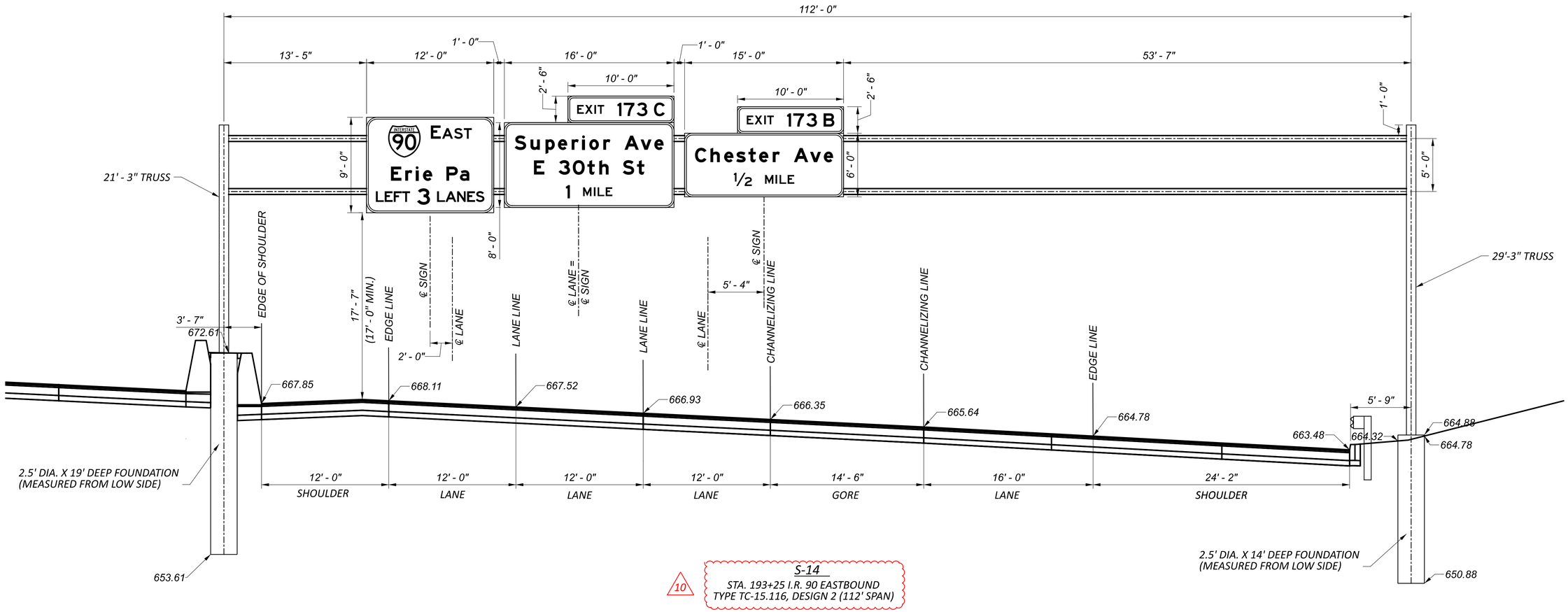
DESIGN AGENCY
B&N
burgessniple.com

DESIGNER
AJS

REVIEWER
KEH 05/01/24

PROJECT ID
82382

SHEET 1590 | TOTAL 2696



10 S-14
STA. 193+25 I.R. 90 EASTBOUND
TYPE TC-15.116, DESIGN 2 (112' SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

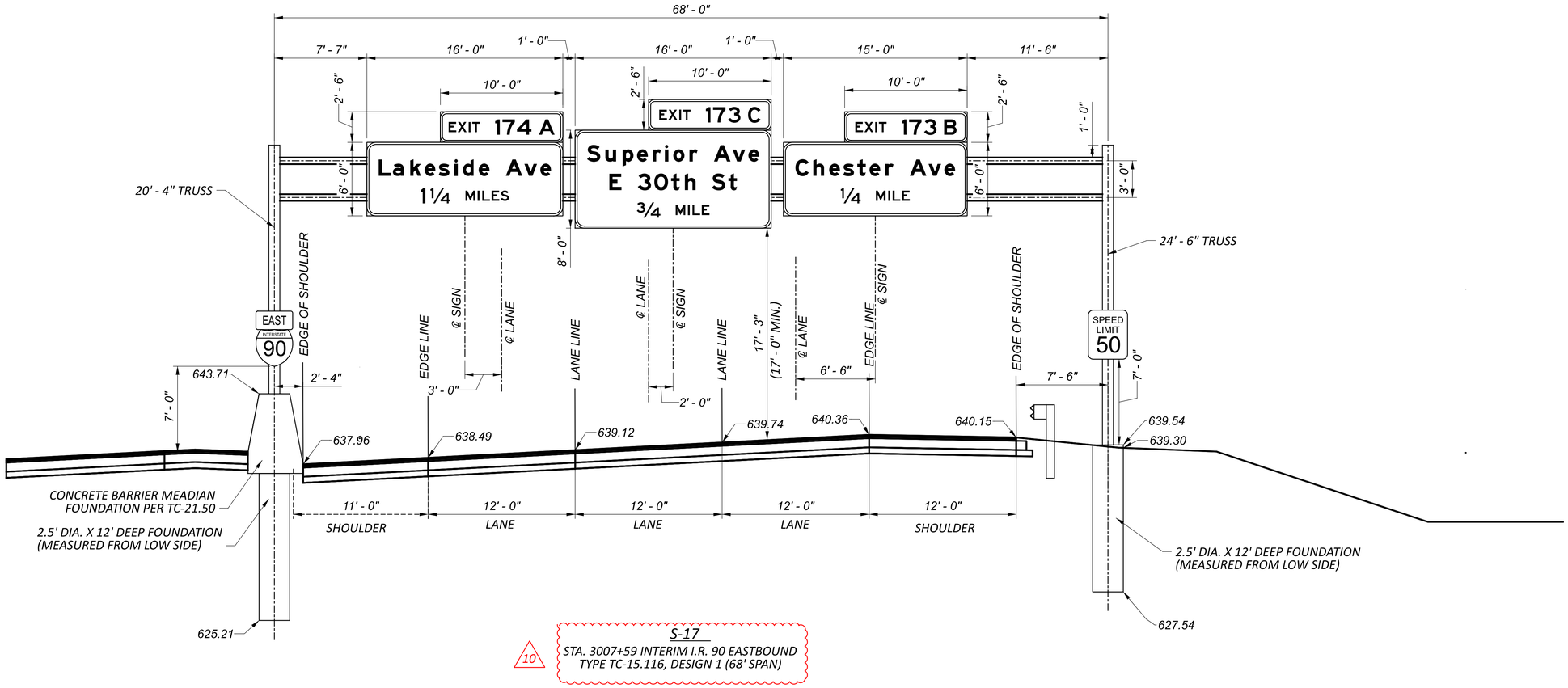
OVERHEAD SIGN ELEVATION DETAILS

CTY-RTE-SECTION

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DESIGN AGENCY
B&N
burgessniple.com

DESIGNER AJS
REVIEWER KEH 05/01/24
PROJECT ID 82382
SHEET 1591 TOTAL 2696



10 S-17

STA. 3007+59 INTERIM I.R. 90 EASTBOUND
TYPE TC-15.116, DESIGN 1 (68' SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

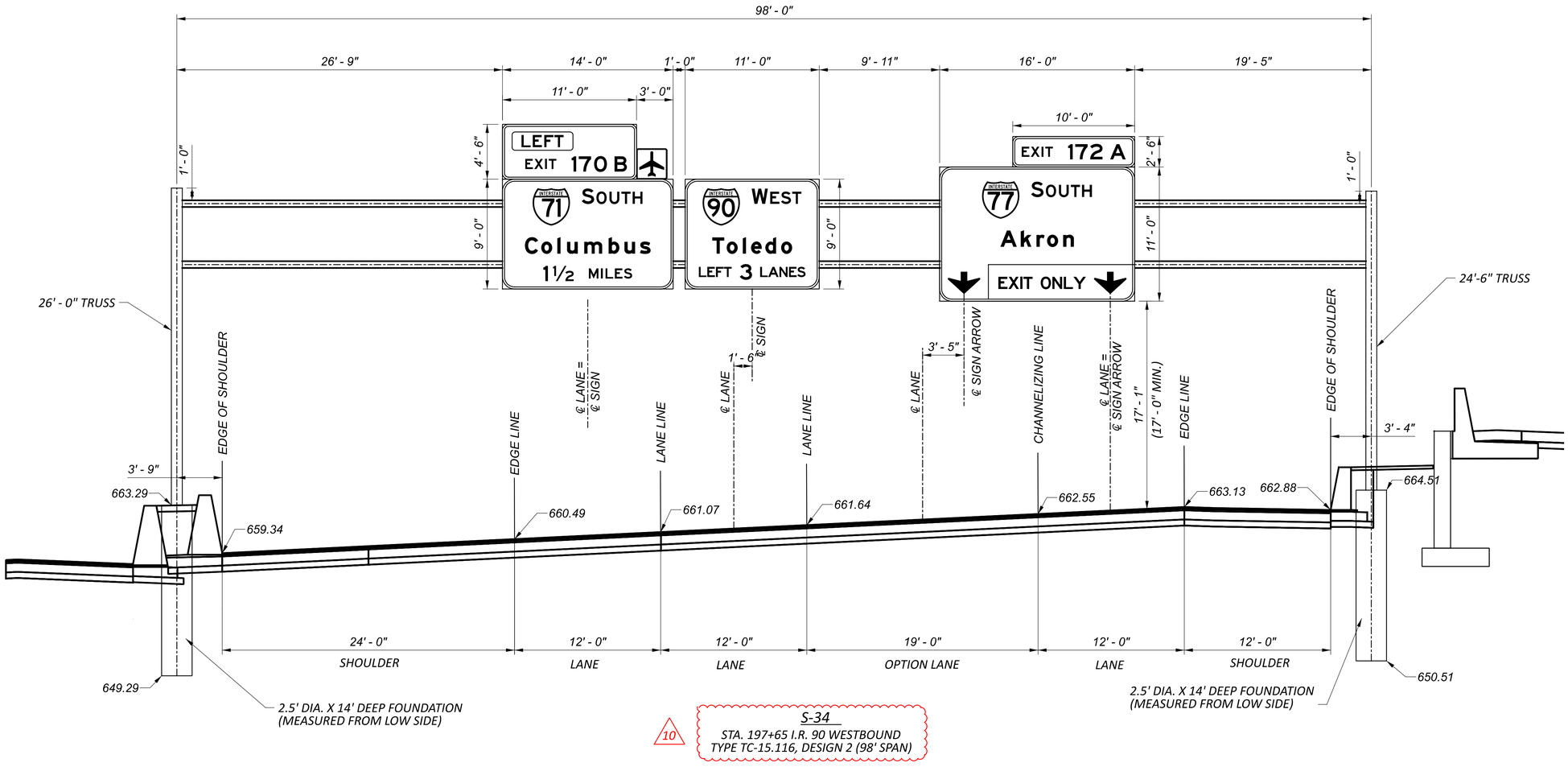
CTY-RTE-SECTION

MODEL: INT IR90EB - 3007+59 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 7:56:33 AM USER: sisson
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DESIGN AGENCY
B&N
burgessniple.com

DESIGNER AJS
REVIEWER KEH 05/01/24
PROJECT ID 82382
SHEET 1592 TOTAL 2696

OVERHEAD SIGN ELEVATION DETAILS



10 S-34
STA. 197+65 I.R. 90 WESTBOUND
TYPE TC-15.116, DESIGN 2 (98' SPAN)

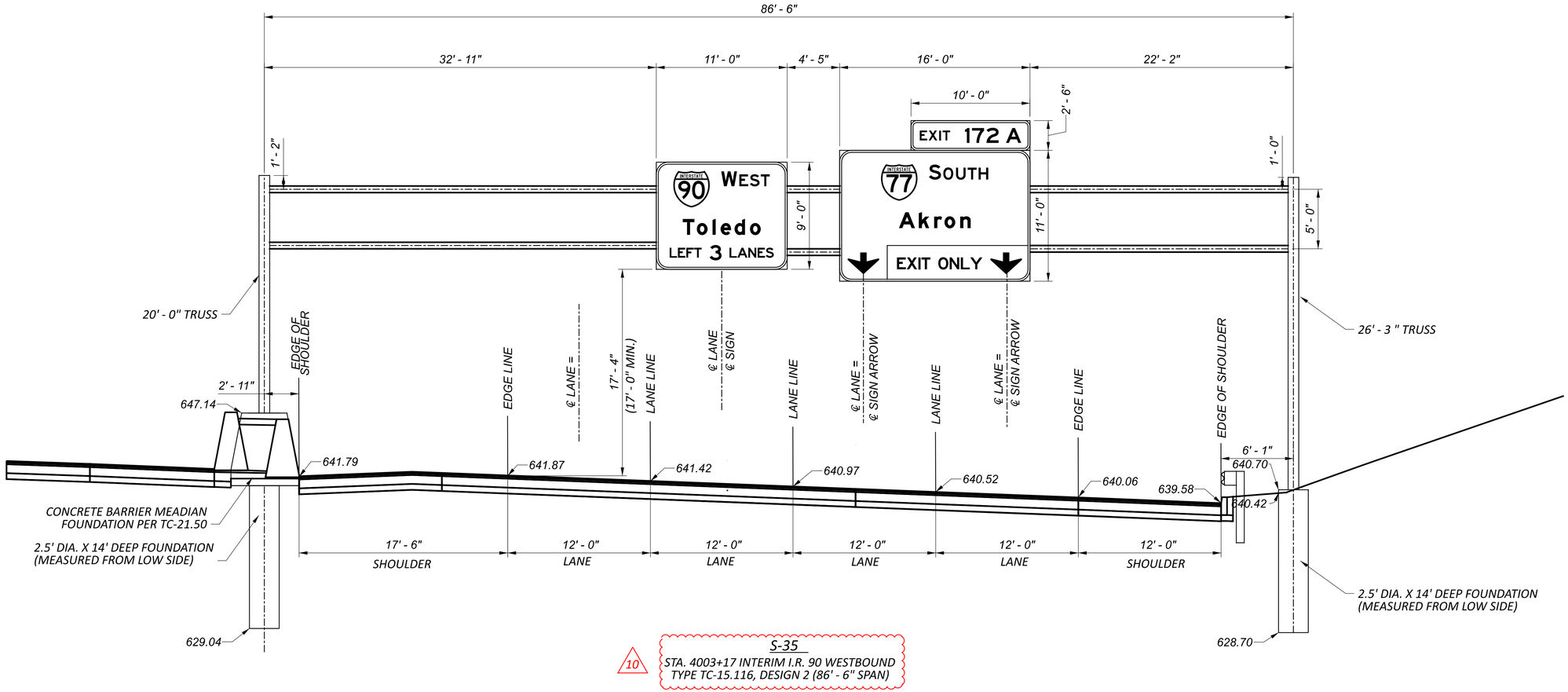
HORIZONTAL SCALE IN FEET
0 2.5 5 10

CTY-RTE-SECTION

MODEL: IR90WB - 197+65 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 7:59:30 AM USER: sisson
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DESIGN AGENCY
B&N burgessniple.com

DESIGNER AJS
REVIEWER KEH 05/01/24
PROJECT ID 82382
SHEET 1595 TOTAL 2696



10

S-35

STA. 4003+17 INTERIM I.R. 90 WESTBOUND
TYPE TC-15.116, DESIGN 2 (86' - 6" SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

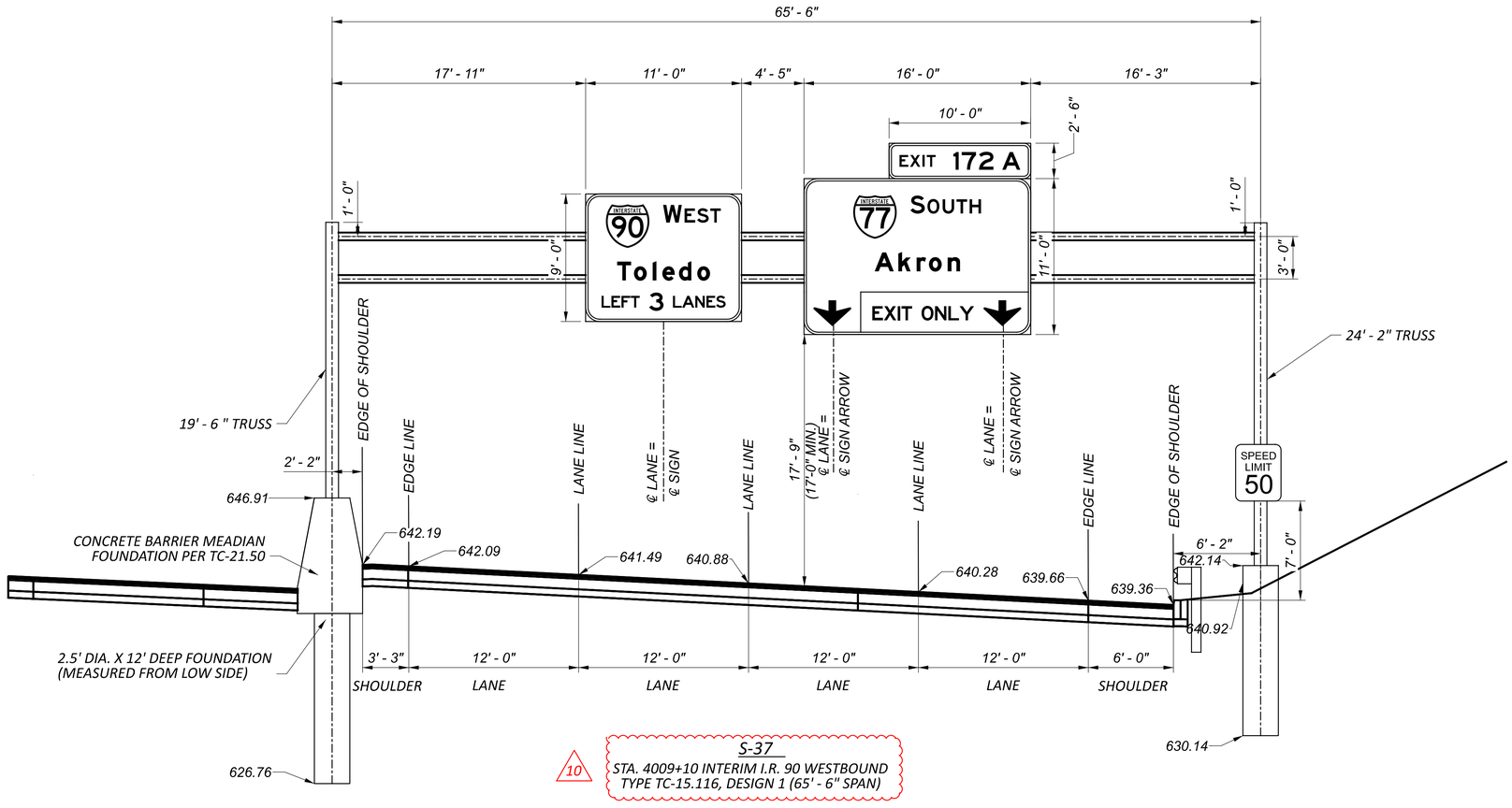
OVERHEAD SIGN ELEVATION DETAILS

CTY-RTE-SECTION

MODEL: INT IR90WB - 4003+17 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:00:59 AM USER: sisson
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DESIGN AGENCY
B&N burgessniple.com

DESIGNER AJS
REVIEWER KEH 05/01/24
PROJECT ID 82382
SHEET 1596 TOTAL 2696



HORIZONTAL SCALE IN FEET
0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

CTY-RTE-SECTION

MODEL: INT IR90WB - 4009+10 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:03:02 AM USER: sisson
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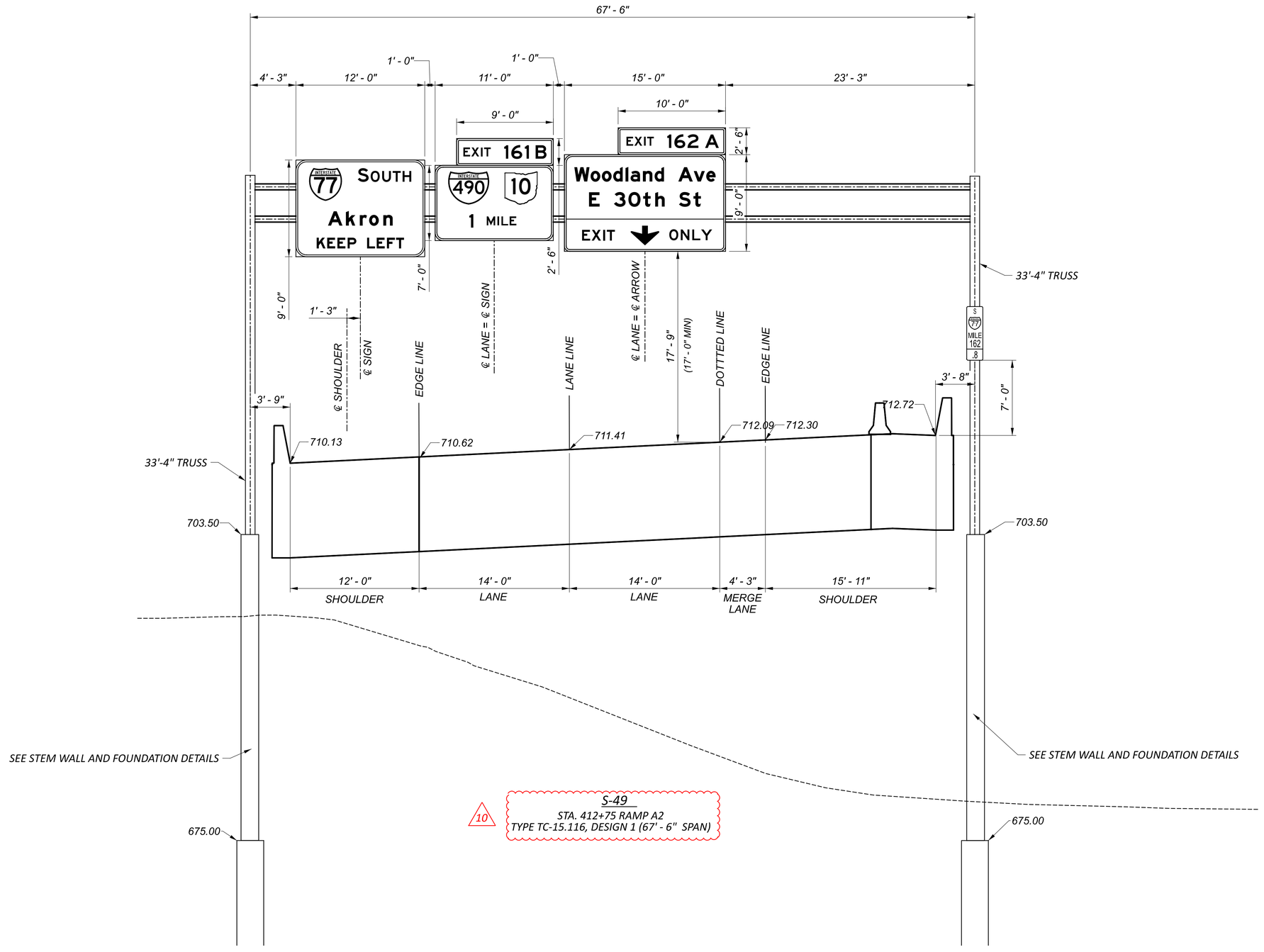
DESIGN AGENCY
B&N
burgessniple.com

DESIGNER
AJS

REVIEWER
KEH 05/01/24

PROJECT ID
82382

SHEET 1597 | TOTAL 2696



CTY-RTE-SECTION

OVERHEAD SIGN ELEVATION DETAILS

HORIZONTAL SCALE IN FEET
0 2.5 5 10

MODEL: RAMP A2 - 412+75 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:19:00 AM USER: sisson
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Traffic\Sheets\82382_TE1000.dgn

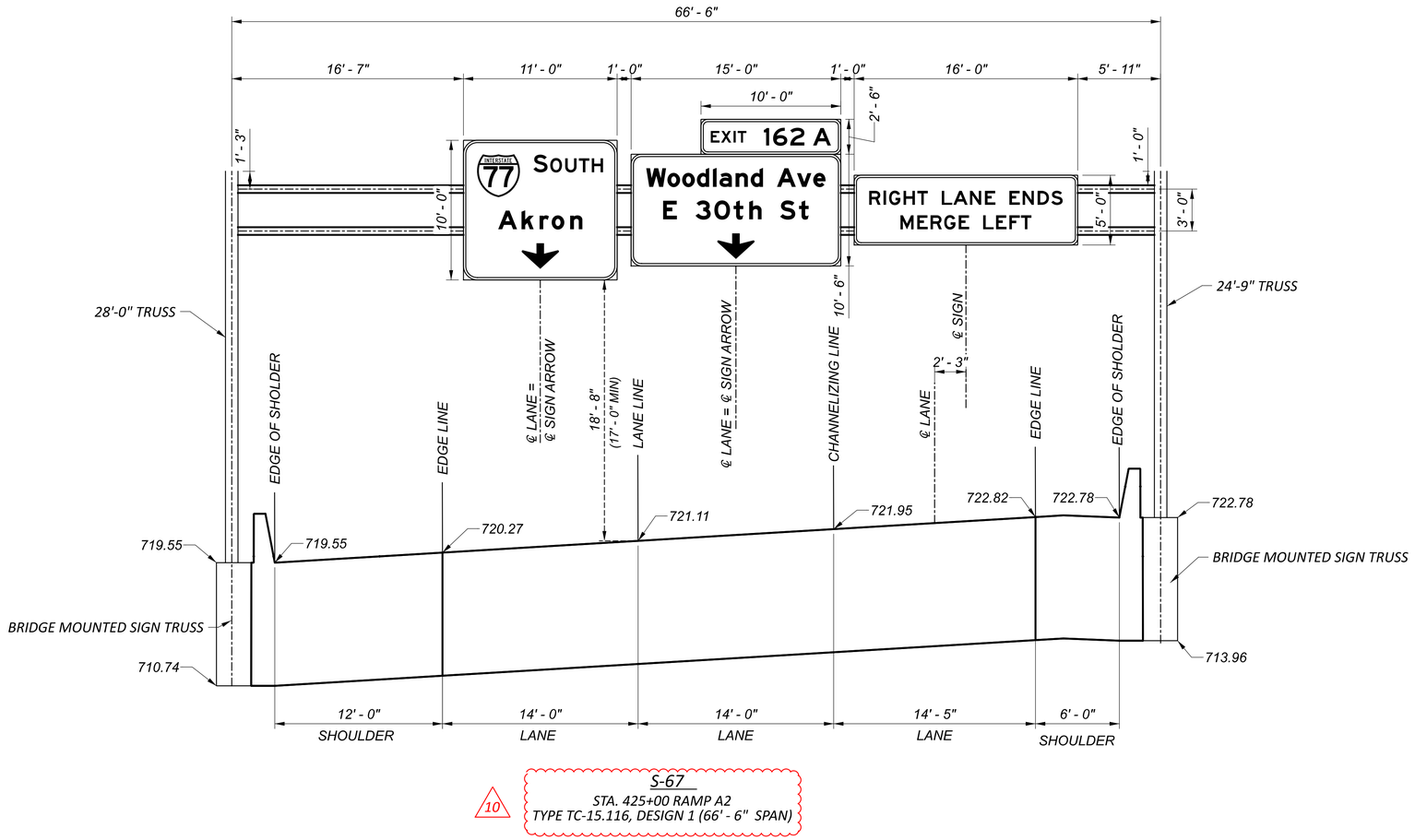
DESIGN AGENCY
B&N
burgessniple.com

DESIGNER
AJS

REVIEWER
KEH 05/01/24

PROJECT ID
82382

SHEET 1599 | TOTAL 2696



10

S-67
STA. 425+00 RAMP A2
TYPE TC-15.116, DESIGN 1 (66' - 6" SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

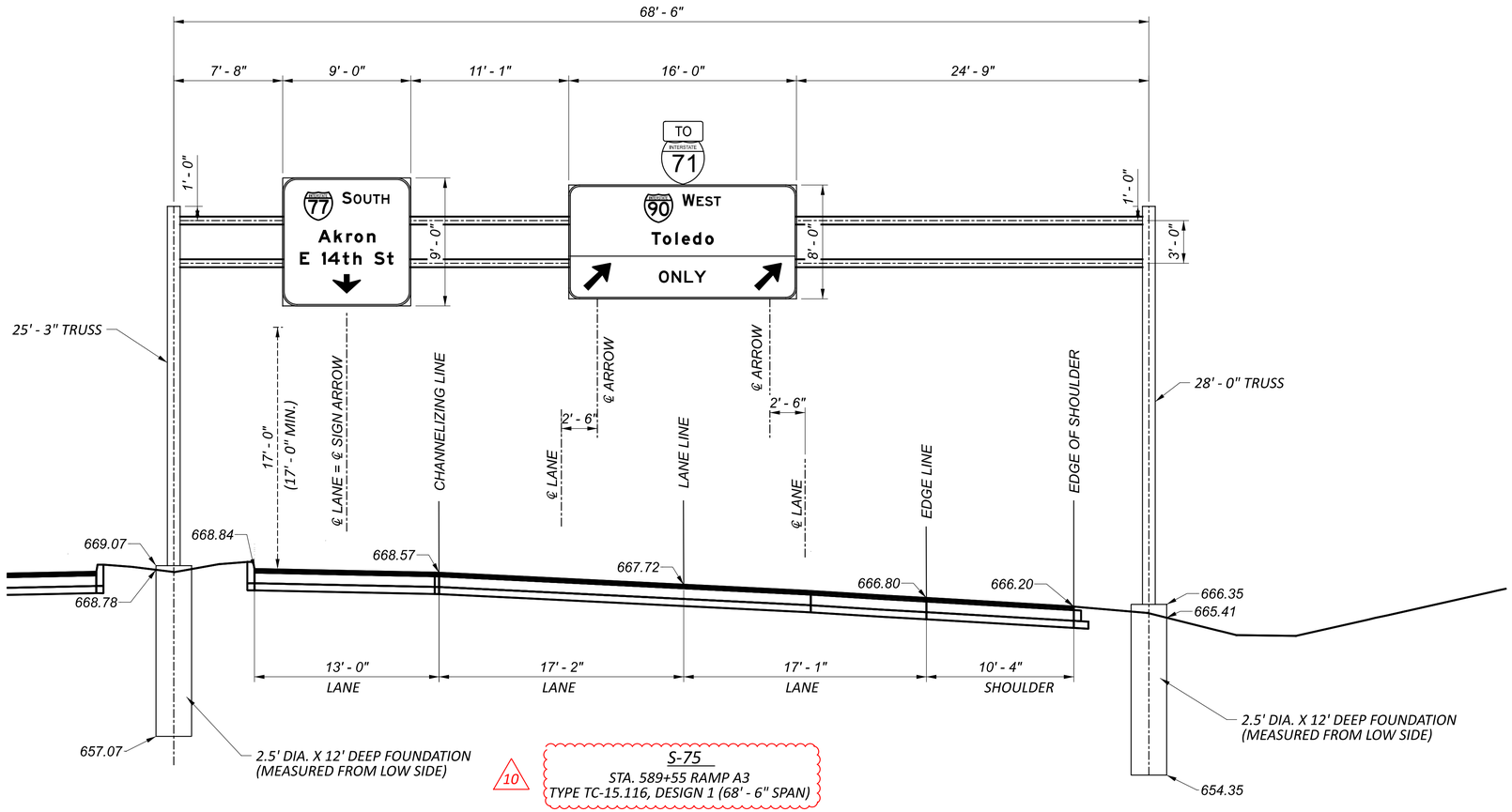
CTY-RTE-SECTION

MODEL: RAMP A2 - 425+00 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:20:12 AM USER: sisson
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DESIGN AGENCY
B&N
burgessniple.com

DESIGNER	AJS
REVIEWER	KEH 05/01/24
PROJECT ID	82382
SHEET	1600
TOTAL	2696

OVERHEAD SIGN ELEVATION DETAILS



10

S-75
STA. 589+55 RAMP A3
TYPE TC-15.116, DESIGN 1 (68' - 6" SPAN)

HORIZONTAL
SCALE IN FEET
0 2.5 5 10

CTY-RTE-SECTION

MODEL: RAMP A3 - 589+00 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:21:12 AM USER: sisson
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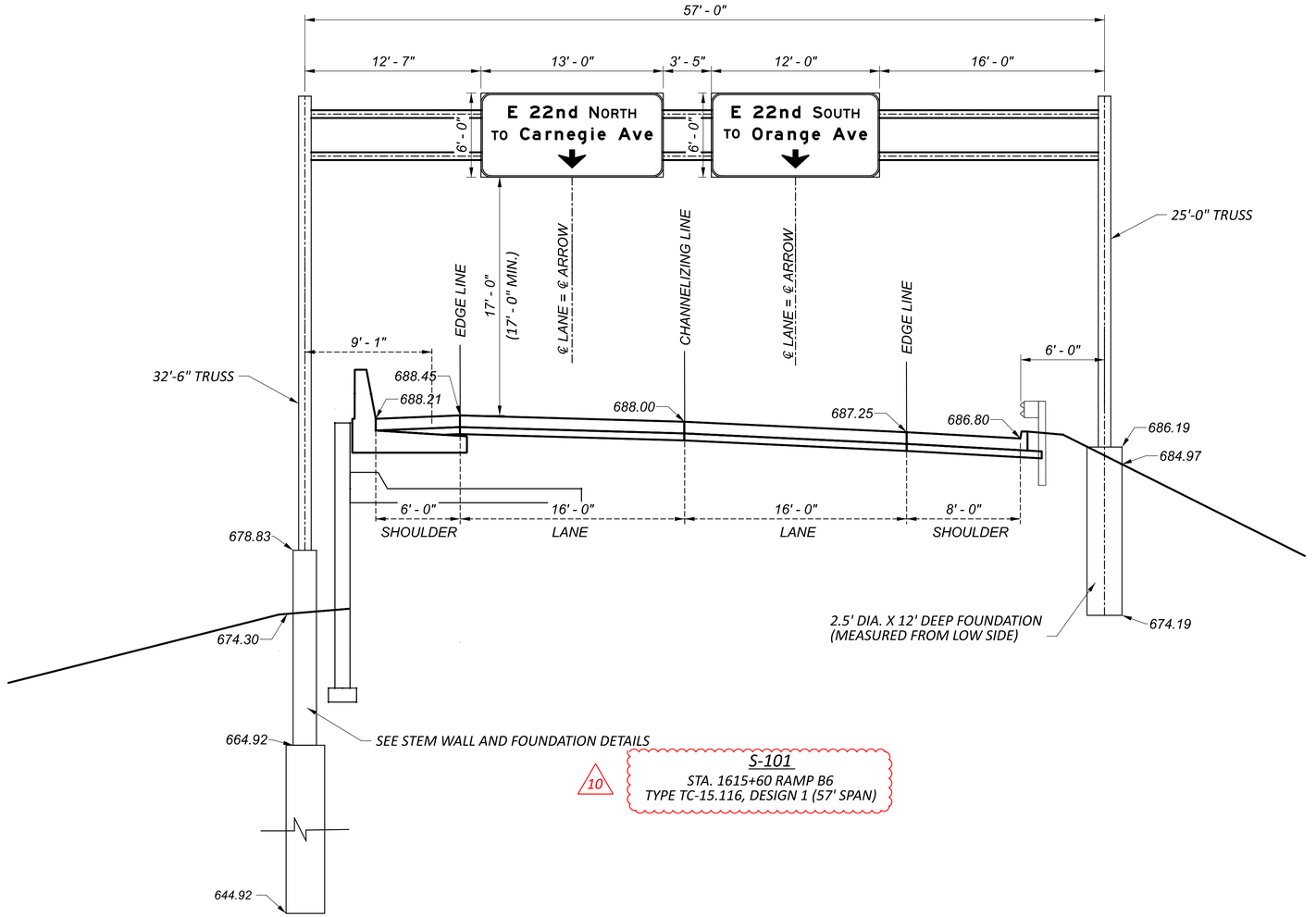
DESIGN AGENCY
B&N
burgessniple.com

DESIGNER
AJS

REVIEWER
KEH 05/01/24

PROJECT ID
82382

SHEET 1601
TOTAL 2696



OVERHEAD SIGN ELEVATION DETAILS

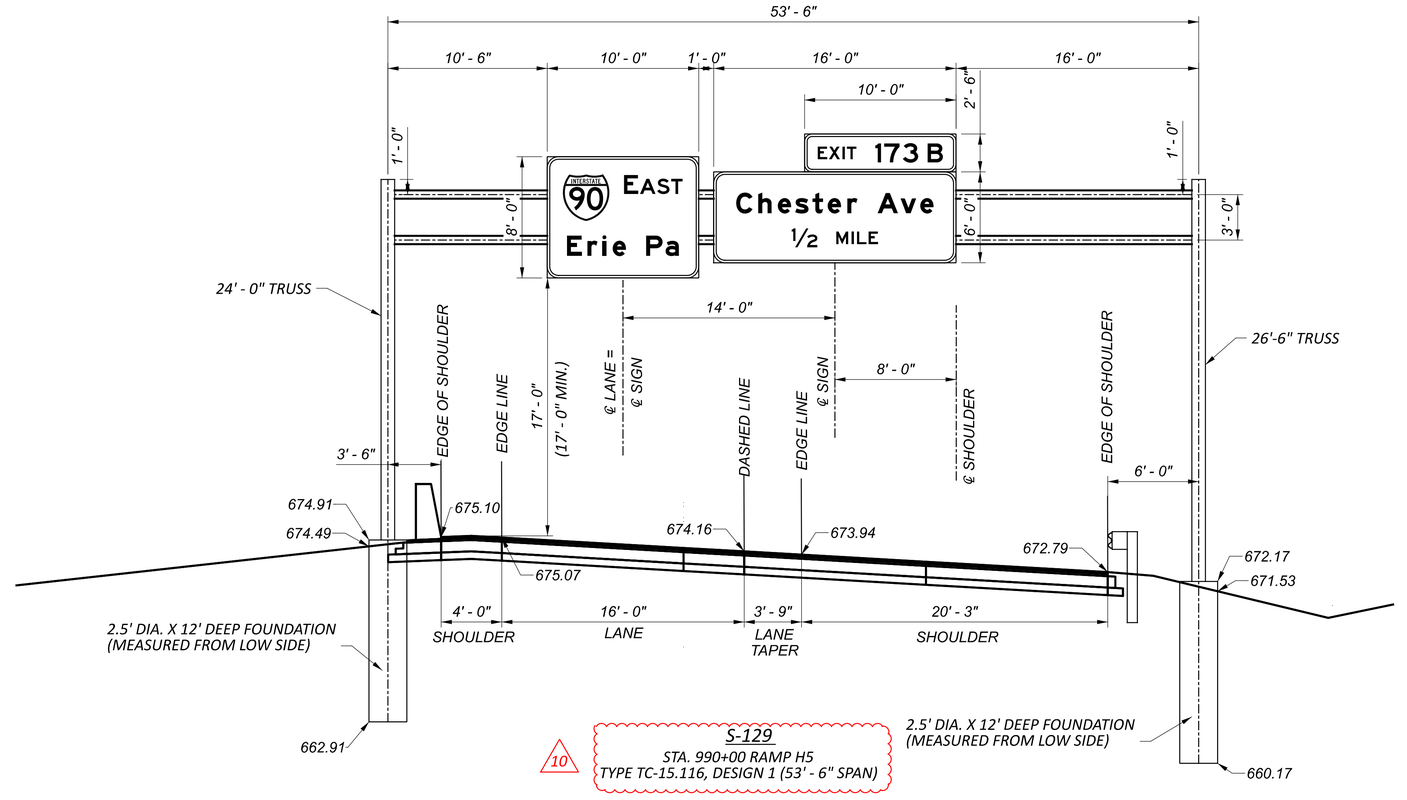
HORIZONTAL SCALE IN FEET
0 2.5 5 10

CTY-RTE-SECTION

MODEL: RAMP B6 - 1615+65 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:17:32 AM USER: sisson
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DESIGN AGENCY
B&N
burgessniple.com

DESIGNER	AJS
REVIEWER	KEH 05/01/24
PROJECT ID	82382
SHEET	1603
TOTAL	2696



10

S-129

STA. 990+00 RAMP H5

TYPE TC-15.116, DESIGN 1 (53' - 6" SPAN)

HORIZONTAL SCALE IN FEET

0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

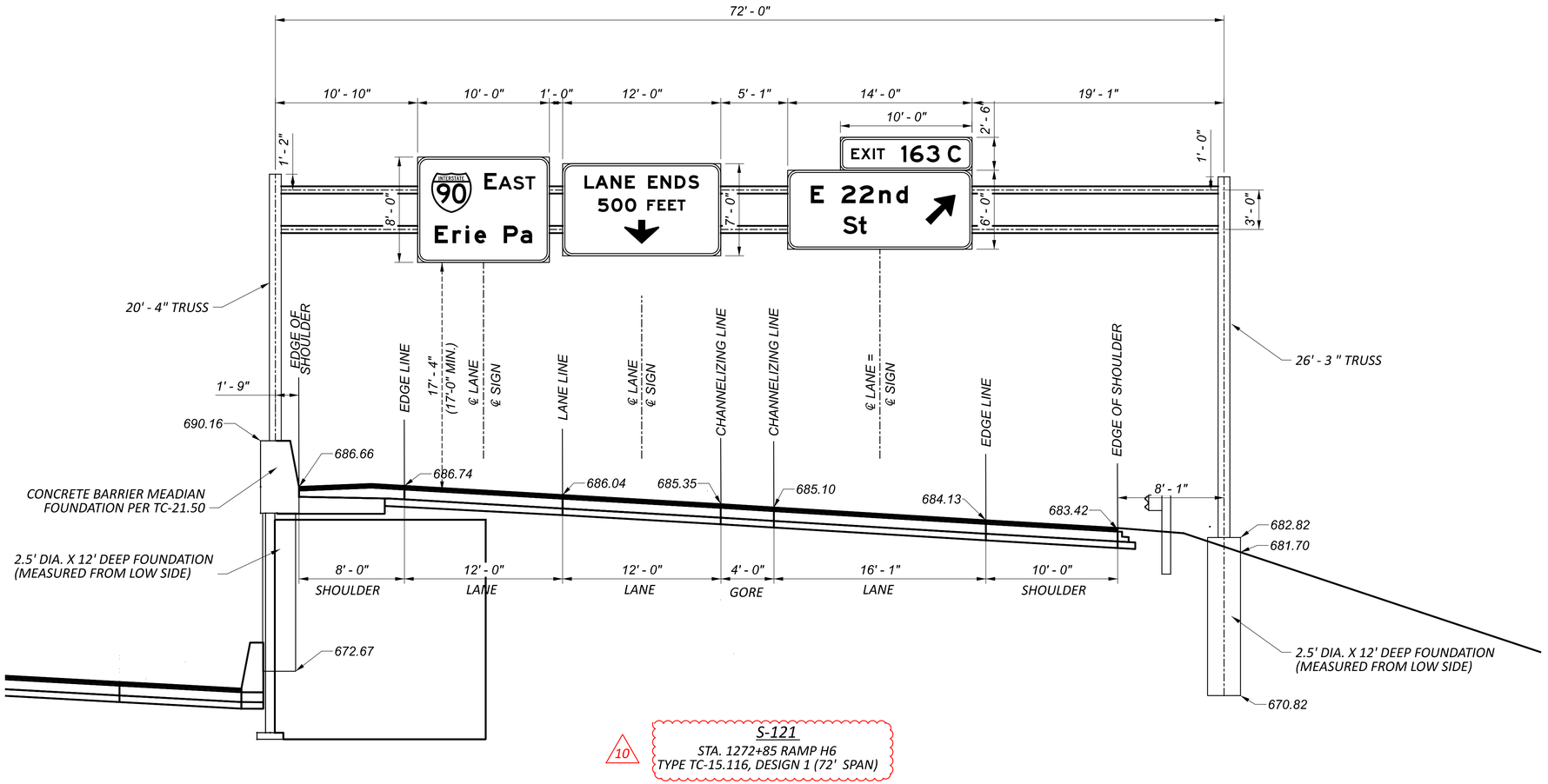
CTY-RTE-SECTION

MODEL: RAMP H5 - 990+00 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:14:47 AM USER: sisson
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Traffic\Sheets\82382_TE1000.dgn

DESIGN AGENCY

B&N burgessniple.com

DESIGNER	AJS
REVIEWER	KEH 05/01/24
PROJECT ID	82382
SHEET	1604
TOTAL	2696



10

S-121

STA. 1272+85 RAMP H6
TYPE TC-15.116, DESIGN 1 (72' SPAN)

HORIZONTAL SCALE IN FEET
0 2.5 5 10

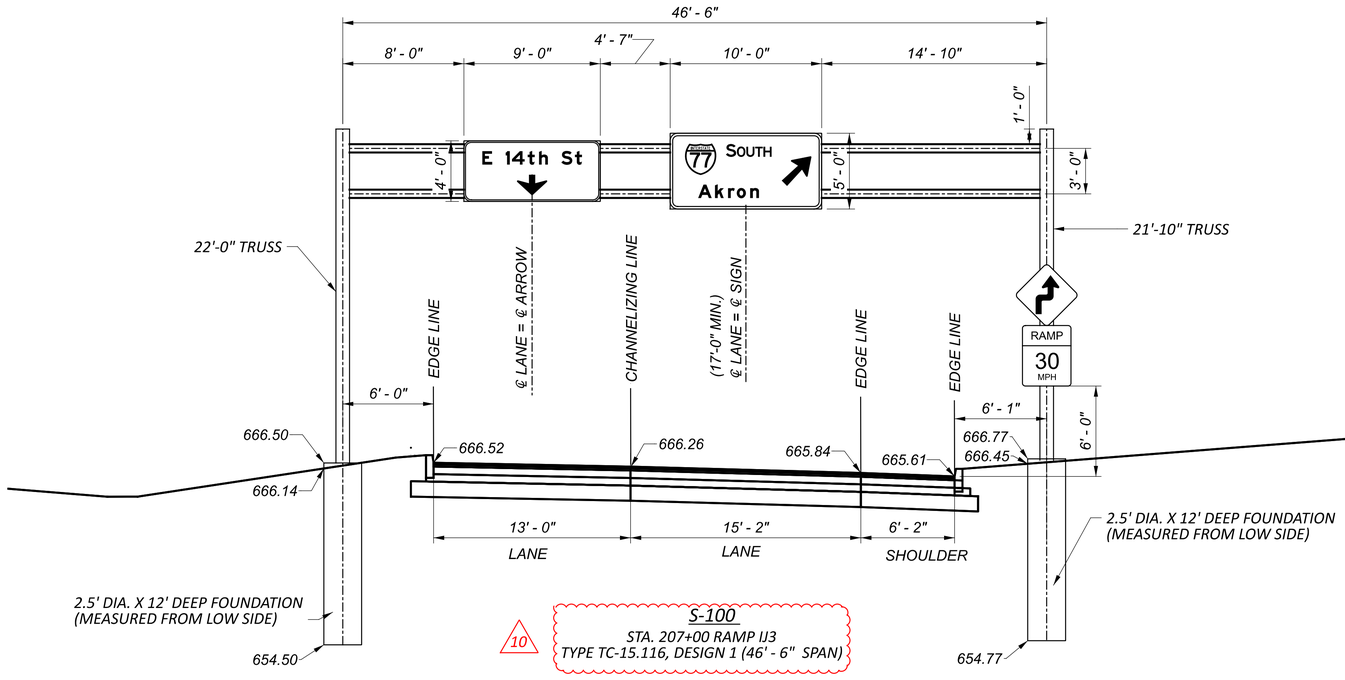
OVERHEAD SIGN ELEVATION DETAILS

CTY-RTE-SECTION

MODEL: RAMP H6 - 1272+85 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:12:37 AM USER: sisson
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH101_Projects\ODOT\District12\82382\400-Engineering\Traffic\Sheets\82382_TE1000.dgn

DESIGN AGENCY
B&N
burgessniple.com

DESIGNER AJS
REVIEWER KEH 05/01/24
PROJECT ID 82382
SHEET 1606 TOTAL 2696



10

S-100

STA. 207+00 RAMP IJ3
TYPE TC-15.116, DESIGN 1 (46' - 6" SPAN)

CTY-RTE-SECTION

MODEL: RAMP IJ3 - 207+00 SH PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 8:09:55 AM USER: sisson
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-Engineering\Traffic\Sheets\82382_TE1000.dgn

HORIZONTAL
SCALE IN FEET
0 2.5 5 10

OVERHEAD SIGN ELEVATION DETAILS

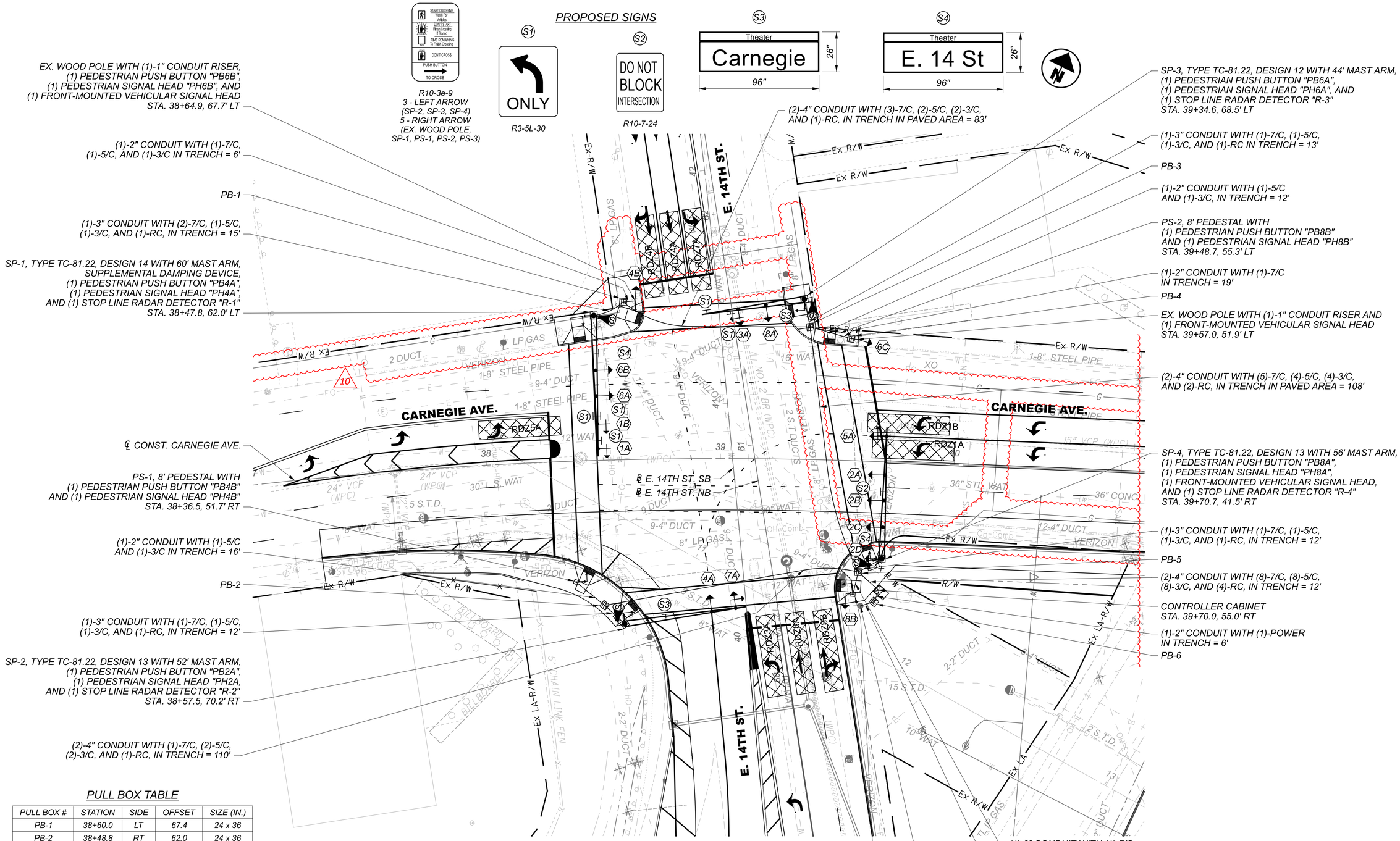
DESIGN AGENCY
B&N
burgessniple.com

DESIGNER
AJS

REVIEWER
KEH 05/01/24

PROJECT ID
82382

SHEET 1608 | TOTAL 2696



PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	38+60.0	LT	67.4	24 x 36
PB-2	38+48.8	RT	62.0	24 x 36
PB-3	39+37.2	LT	56.7	24 x 36
PB-4	39+54.3	LT	52.1	13 x 24
PB-5	39+60.6	RT	47.5	24 x 36
PB-6	39+68.0	RT	60.0	13 x 24

NOTE:
1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
CARNEGIE AVE. & E. 14TH ST.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SED
REVIEWER RMG 05/22/24
PROJECT ID 82382
SHEET 1643 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_CP1000 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:23 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland.OH\DirectConnect-{2A82382\400-Engineering\Signals\Sheets\82382_CP1000.dgn

PROPOSED SIGNS

S1 — R3-2-36

S2 — R3-1-36

S3 — R3-27-36

S4 — R3-5R-30

S5 — Theater / Campus District — Carnegie — 96"

S6 — Campus District / Theater — Carnegie — 96"

S7 — Campus District — E. 18 St — 96"

S8 — Theater — E. 18 St — 96" — 26" TYP

R10-3e-9

3 - LEFT ARROW
(PS-2, PS-3, SP-4)
5 - RIGHT ARROW
(PS-1, SP-2, SP-3,
EX. LIGHT POLE, PS-4)

PS-1, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB6B" AND
(1) PEDESTRIAN SIGNAL HEAD "PH6B"
STA. 41+28.2, 65.7' LT

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C, (2)-3/C,
AND (1)-RC IN TRENCH IN PAVED AREA = 83'

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 15'

PB-1

(1)-3" CONDUIT WITH
(1)-7/C IN TRENCH = 5'

SP-1, TYPE TC-81.22, DESIGN 13 WITH 51' MAST ARM,
STA. 41+19.2, 55.0' LT

(1)-2" CONDUIT WITH (1)-5/C AND
(1)-3/C, IN TRENCH = 13'

PS-2, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB4A"
AND (1) PEDESTRIAN SIGNAL HEAD "PH4A"
STA. 41+10.9, 51.3' LT

(2)-4" CONDUIT WITH (3)-7/C, (4)-5/C, (4)-3/C,
AND (1)-RC, IN TRENCH IN PAVED AREA = 102'

SP-2, TYPE TC-81.22, DESIGN 4 WITH 25' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB4B",
(1) PEDESTRIAN SIGNAL HEAD "PH4B",
(2) FRONT-MOUNTED VEHICULAR SIGNAL HEADS,
AND (1) STOP LINE RADAR DETECTOR "R-1"
STA. 41+02.2, 44.0' RT

PROPOSED POWER SOURCE WITH
(1)-1" CONDUIT RISER
STA. 41+00.0, 37.0' RT

(1)-2" CONDUIT WITH (1)-POWER
IN TRENCH = 10'

PB-6

(1)-2" CONDUIT WITH (1)-POWER
IN TRENCH = 5'

CONTROLLER CABINET
STA. 41+01.8, 48.6' RT

(2)-4" CONDUIT WITH (6)-7/C, (8)-5/C,
(8)-3/C, AND (2)-RC, IN TRENCH = 11'

(1)-3" CONDUIT WITH (2)-7/C, (1)-5/C, (1)-3/C,
AND (1)-RC, IN TRENCH = 11'

PB-2

DETAIL A
NOT TO SCALE

SEE DETAIL A

PS-3, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB2A"
AND (1) PEDESTRIAN SIGNAL HEAD "PH2A"
STA. 41+16.1, 47.4' RT

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 5'

(2)-4" CONDUIT WITH (1)-7/C, (2)-5/C,
AND (2)-3/C, IN TRENCH = 69'

PS-4, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB2B"
AND (1) PEDESTRIAN SIGNAL HEAD "PH2B"
STA. 41+66.5, 58.3' RT

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 19'

PB-5

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 22'

SP-3, TYPE TC-81.22, DESIGN 4 WITH 25' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB6A"
(2) PEDESTRIAN SIGNAL HEADS "PH6A" & "PH8B",
(1) FRONT-MOUNTED VEHICULAR SIGNAL HEAD,
AND (1) STOP LINE RADAR DETECTOR "R-2"
STA. 42+01.9, 59.1' LT

(1)-3" CONDUIT WITH (1)-7/C, (2)-5/C, (1)-3/C,
AND (1)-RC IN TRENCH IN PAVED AREA = 12'
COORDINATE WITH CROWN CASTLE TO REMOVE
EXISTING UTILITY CABINET BEFORE
INSTALLING CONDUIT

PB-3

(1)-2" CONDUIT WITH (1)-7/C
AND (1)-3/C IN TRENCH = 11'

PB-4

EX. LIGHT POLE WITH (1)-1" CONDUIT RISER,
(1) PEDESTRIAN PUSH BUTTON "PB8B" AND
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
STA. 42+18.3, 43.1' LT

℄ CONST. CARNEGIE AVE.

SP-4, TYPE TC-81.22, DESIGN 12 WITH 40' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB8A",
AND (1) PEDESTRIAN SIGNAL HEAD "PH8A"
STA. 42+01.2, 44.0' RT

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
(12" LENS, LED, YELLOW,
W/ REFECTIVE BACKPLATES)

2A, 2B, 2C, 4A, 4B, 6A, 6B, 6C, 6D, 8A, 8B, 8C

5A, 7A

PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTAL SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	41+23.0	LT	51.9	24 x 36
PB-2	41+11.8	RT	49.4	24 x 36
PB-3	42+07.1	LT	49.9	24 x 36
PB-4	42+15.6	LT	43.6	13 x 24
PB-5	41+79.3	RT	45.4	24 x 36
PB-6	40+98.0	RT	46.0	13 x 24

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFRENCE ONLY. ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
CARNEGIE AVE. & E. 18TH ST.

DESIGN AGENCY
Michael Baker INTERNATIONAL

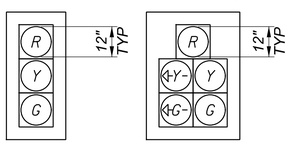
DESIGNER SED
REVIEWER RMG 05/22/24
PROJECT ID 82382
SHEET 1647 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_CP2000 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:07:51 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.commb-us-pw-03\Documents\Cleveland.OH\01_Projects\0DOT\District2\82382\400-Engineering\Signals\Sheets\82382_CP2000.dgn

PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
(12" LENS, LED, YELLOW,
W/ REFLECTIVE BACKPLATES)

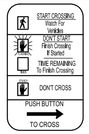


2A, 2B, 2C, 2D,
4A, 4B, 4C, 4D,
6A, 6B, 6C

1A



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)



R10-3e-9
4 - LEFT ARROW
(PS-1, SP-2, PS-3, SP-3)
4 - RIGHT ARROW
(SP-1, PS-2, PS-4, PS-5)

PROPOSED SIGNS

S1



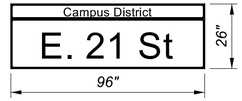
R3-2-36

S2

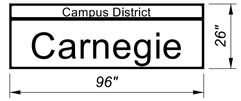


R3-1-36

S3



S4





HORIZONTAL
SCALE IN FEET
0 10 20 40

CONTROLLER CABINET
STA. 49+43.5, 64.0' LT

(2)-4" CONDUIT WITH (6)-7/C, (8)-5/C, (8)-3/C,
AND (2)-RC, IN TRENCH IN PAVED AREA = 19'

9 (1)-2" CONDUIT WITH (1)-POWER
IN TRENCH IN PAVED AREA = 15'

SP-1, TYPE TC-81.22, DESIGN 13 WITH, 53' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB6B",
(1) PEDESTRIAN SIGNAL HEAD "PH6B",
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
AND (1) STOP LINE RADAR DETECTOR "R-1"
STA. 49+45.4, 51.1' LT

9 PB-5

(1)-3" CONDUIT WITH (2)-7/C, (1)-5/C, (1)-3/C,
AND (1)-RC, IN TRENCH IN PAVED AREA = 8'

PB-1

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C, AND
(1)-3/C, IN TRENCH IN PAVED AREA = 9'

PS-1, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB4A",
(1) PEDESTRIAN SIGNAL HEAD "PH4A", AND
(1) FRONT MOUNTED VEHICULAR SIGNAL HEAD
STA. 49+34.4, 39.8' LT

℄ CONST. CARNEGIE AVE.

9 (2)-4" CONDUIT WITH (3)-7/C, (4)-5/C,
(4)-3/C, AND (1)-RC, AND
(1)-4" CONDUIT WITH (1)-POWER
IN TRENCH = 113'

(1)-2" CONDUIT WITH (1)-POWER
IN TRENCH = 27'

PROPOSED POWER SOURCE WITH
(1)-1" CONDUIT RISER
STA. 48+95.3, 54.6' RT

PS-2, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB4B",
(1) PEDESTRIAN SIGNAL HEAD "PH4B", AND
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
STA. 49+11.4, 55.1' RT

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 13'

9 PB-6

PB-2

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
(1)-3/C, AND (1)-RC, IN TRENCH = 20'

SP-2, TYPE TC-81.22, DESIGN 4 WITH 36' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB2A",
(1) PEDESTRIAN SIGNAL HEAD "PH2A",
AND (1) STOP LINE RADAR DETECTOR "R-2"
STA. 49+39.1, 70.8' RT

℄ E. 21ST ST.

(2)-4" CONDUIT WITH (2)-5/C
AND (2)-3/C, IN TRENCH = 91'

PS-3, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB6A"
AND (1) PEDESTRIAN SIGNAL HEAD "PH6A"
STA. 50+19.8, 61.9' LT

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 8'

PB-3

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 9'

PS-4, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB4D" AND
(1) PEDESTRIAN SIGNAL HEAD "PH4D"
STA. 50+30.3, 52.4' LT

SP-3, TYPE TC-81.22, DESIGN 12 WITH 46' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB4C"
AND (1) PEDESTRIAN SIGNAL HEAD "PH4C"
STA. 50+21.3, 53.5' RT

(2)-4" CONDUIT WITH (1)-7/C, (2)-5/C,
AND (2)-3/C, IN TRENCH = 80'

PS-5, 8' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB2B"
AND (1) PEDESTRIAN SIGNAL HEAD "PH2B"
STA. 49+95.8, 68.1' RT

PB-4

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 17'

(1)-2" CONDUIT WITH (1)-5/C
AND (1)-3/C, IN TRENCH = 18'

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	49+40.5	LT	45.6	24 x 36
PB-2	49+23.0	RT	60.0	24 x 36
PB-3	50+27.3	LT	60.5	24 x 36
PB-4	50+04.2	RT	52.2	24 x 36
PB-5	49+39.2	LT	49.7	13 x 24
PB-6	49+19.5	RT	59.8	13 x 24

9

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER

TRAFFIC SIGNAL PLAN
CARNEGIE AVE. & E. 21ST ST.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
SED

REVIEWER
RMG 05/22/24

PROJECT ID
82382

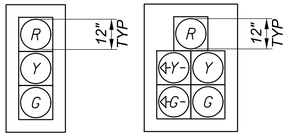
SHEET 1651 TOTAL 2696

CUY-90-16.28 (CCG3A)

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PROPOSED SIGNALS

VEHICULAR SIGNAL HEADS
(12" LENS, LED, YELLOW,
W/ REFLECTIVE BACKPLATES)



2A, 2B, 2C, 4A,
4B, 4C, 6A, 6B,
6C, 6D, 8A, 8B, 8C

5A



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

PROPOSED SIGNS



R10-3e-9
4 - LEFT ARROW
(SP-1, SP-2, SP-4, PS-4)
4 - RIGHT ARROW
(PS-1, PS-2, SP-3, PS-3)

S1



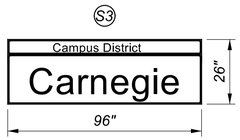
R3-5R-30

S2

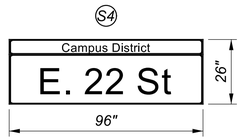


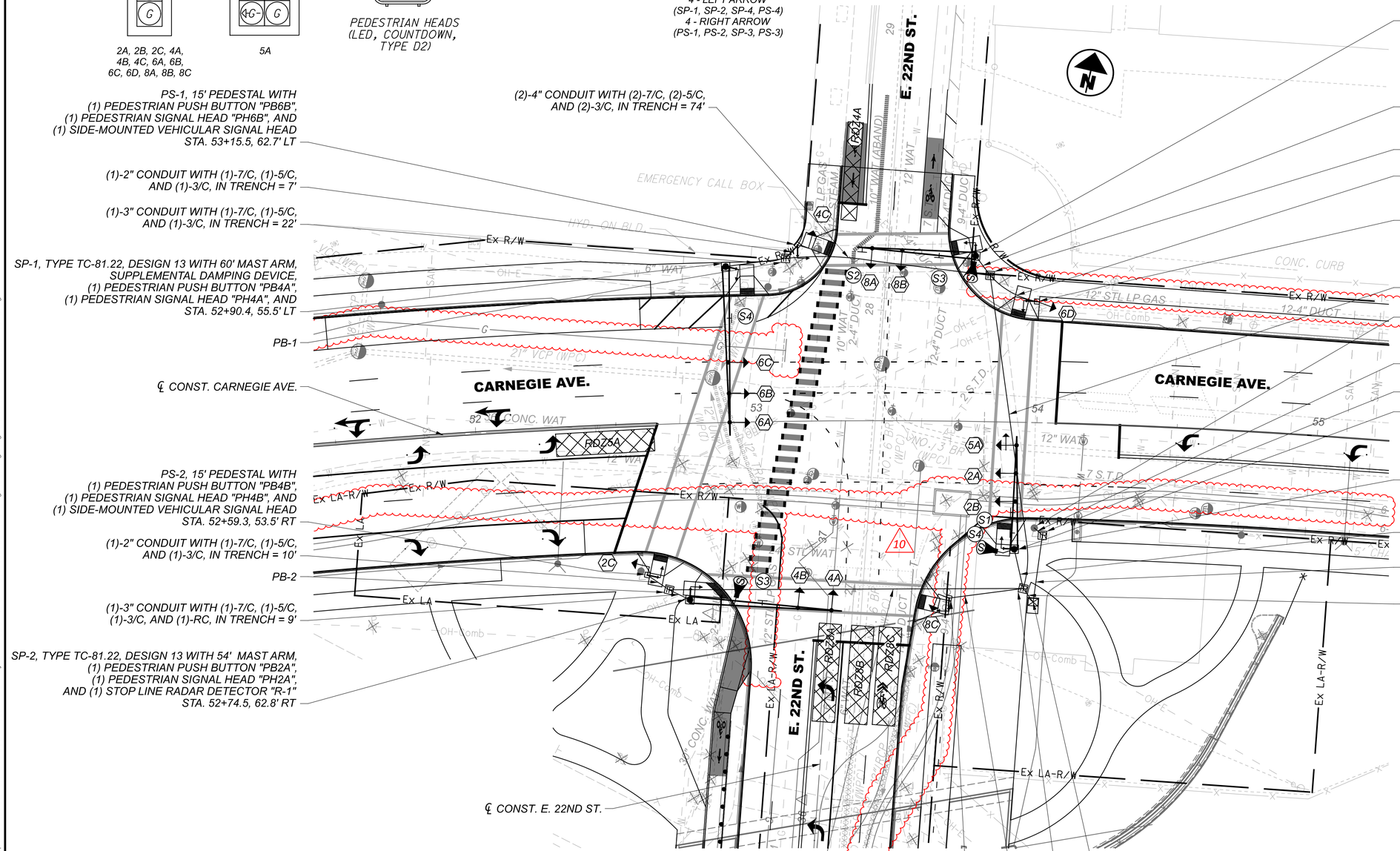
R10-12-30

S3



S4





PS-1, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB6B",
(1) PEDESTRIAN SIGNAL HEAD "PH6B", AND
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
STA. 53+15.5, 62.7' LT

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 7'

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 22'

SP-1, TYPE TC-81.22, DESIGN 13 WITH 60' MAST ARM,
SUPPLEMENTAL DAMPING DEVICE,
(1) PEDESTRIAN PUSH BUTTON "PB4A",
(1) PEDESTRIAN SIGNAL HEAD "PH4A", AND
STA. 52+90.4, 55.5' LT

PB-1

℄ CONST. CARNEGIE AVE.

PS-2, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB4B",
(1) PEDESTRIAN SIGNAL HEAD "PH4B", AND
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
STA. 52+59.3, 53.5' RT

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 10'

PB-2

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
(1)-3/C, AND (1)-RC, IN TRENCH = 9'

SP-2, TYPE TC-81.22, DESIGN 13 WITH 54' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB2A",
(1) PEDESTRIAN SIGNAL HEAD "PH2A",
AND (1) STOP LINE RADAR DETECTOR "R-1"
STA. 52+74.5, 62.8' RT

℄ CONST. E. 22ND ST.

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C,
AND (2)-3/C, IN TRENCH = 74'

SP-3, TYPE TC-81.22, DESIGN 12 WITH 42' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB6A",
(1) PEDESTRIAN SIGNAL HEAD "PH6A",
AND (1) STOP LINE RADAR DETECTOR "R-2"
STA. 53+77.3, 58.9' LT

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C,
(1)-3/C AND (1)-RC, IN TRENCH = 9'

PB-3

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C IN TRENCH = 20'

PS-3, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB8B",
(1) PEDESTRIAN SIGNAL HEAD "PH8B", AND
(1) FRONT-MOUNTED VEHICULAR SIGNAL HEAD
STA. 53+99.0, 43.1' LT

(2)-4" CONDUIT WITH (4)-7/C, (4)-5/C,
(4)-3/C, AND (1)-RC, IN TRENCH = 113'

PROPOSED POWER SOURCE WITH
(1)-1" CONDUIT RISER
STA. 54+00.0, 37.5' RT

(1)-2" CONDUIT WITH (1)-POWER
IN TRENCH = 4'

PB-5

SP-4, TYPE TC-81.22, DESIGN 12 WITH 40' MAST ARM,
(1) PEDESTRIAN PUSH BUTTON "PB8A",
(1) PEDESTRIAN SIGNAL HEAD "PH8A",
AND (1) STOP LINE RADAR DETECTOR "R-3"
STA. 53+92.9, 45.2' RT

PROPOSED LOCATION OF CITY OF CLEVELAND DPS
BLUE LIGHT SURVEILLANCE CAMERA SYSTEM (TO BE
RELOCATED AND INSTALLED BY OTHERS)

(1)-3" CONDUIT WITH (1)-7/C, (1)-5/C, (1)-3/C,
AND (1)-RC, IN TRENCH = 15'

(1)-2" CONDUIT WITH (1)-POWER
IN TRENCH = 25'

(2)-4" CONDUIT WITH (8)-7/C, (8)-5/C,
(8)-3/C, AND (3)-RC, IN TRENCH = 6'

(2)-4" CONDUIT WITH (2)-7/C, (2)-5/C,
(2)-3/C, AND (1)-RC, IN TRENCH = 127'

CONTROLLER CABINET
STA. 54+00.2, 63.9' RT

PB-4

(1)-2" CONDUIT WITH (1)-7/C, (1)-5/C,
AND (1)-3/C, IN TRENCH = 27'

PS-4, 15' PEDESTAL WITH
(1) PEDESTRIAN PUSH BUTTON "PB2B",
(1) PEDESTRIAN SIGNAL HEAD "PH2B", AND
(1) SIDE-MOUNTED VEHICULAR SIGNAL HEAD
STA. 53+69.4, 63.0' RT

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	53+11.3	LT	58.0	24 x 36
PB-2	52+67.0	RT	59.0	24 x 36
PB-3	53+82.4	LT	52.1	24 x 36
PB-4	53+96.5	RT	59.2	24 x 36
PB-5	54+03.0	RT	40.0	13 x 24

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

HORIZONTAL
SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
CARNEGIE AVE. & E. 22ND ST.

DESIGN AGENCY
Michael Baker INTERNATIONAL

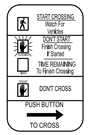
DESIGNER SED
REVIEWER RMG 05/22/24
PROJECT ID 82382
SHEET 1655 TOTAL 2696

CUY-90-16.28 (CCG3A)

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PROPOSED SIGNS



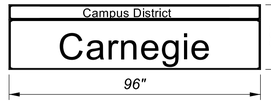
R10-3e-9
2 - LEFT ARROW
(PS-1, SP-3)
2 - RIGHT ARROW
(SP-2, PS-2)

S1

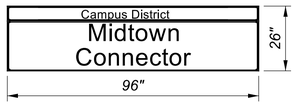


R3-5L-30

S2

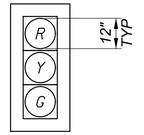


S3

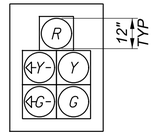


PROPOSED SIGNALS

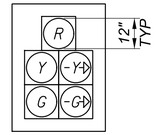
VEHICULAR SIGNALS HEADS
(12" LENS, LED, YELLOW,
W/ REFLECTIVE BACKPLATES)



2A, 2B, 2C,
6A, 6B, 6C,
8A



1A

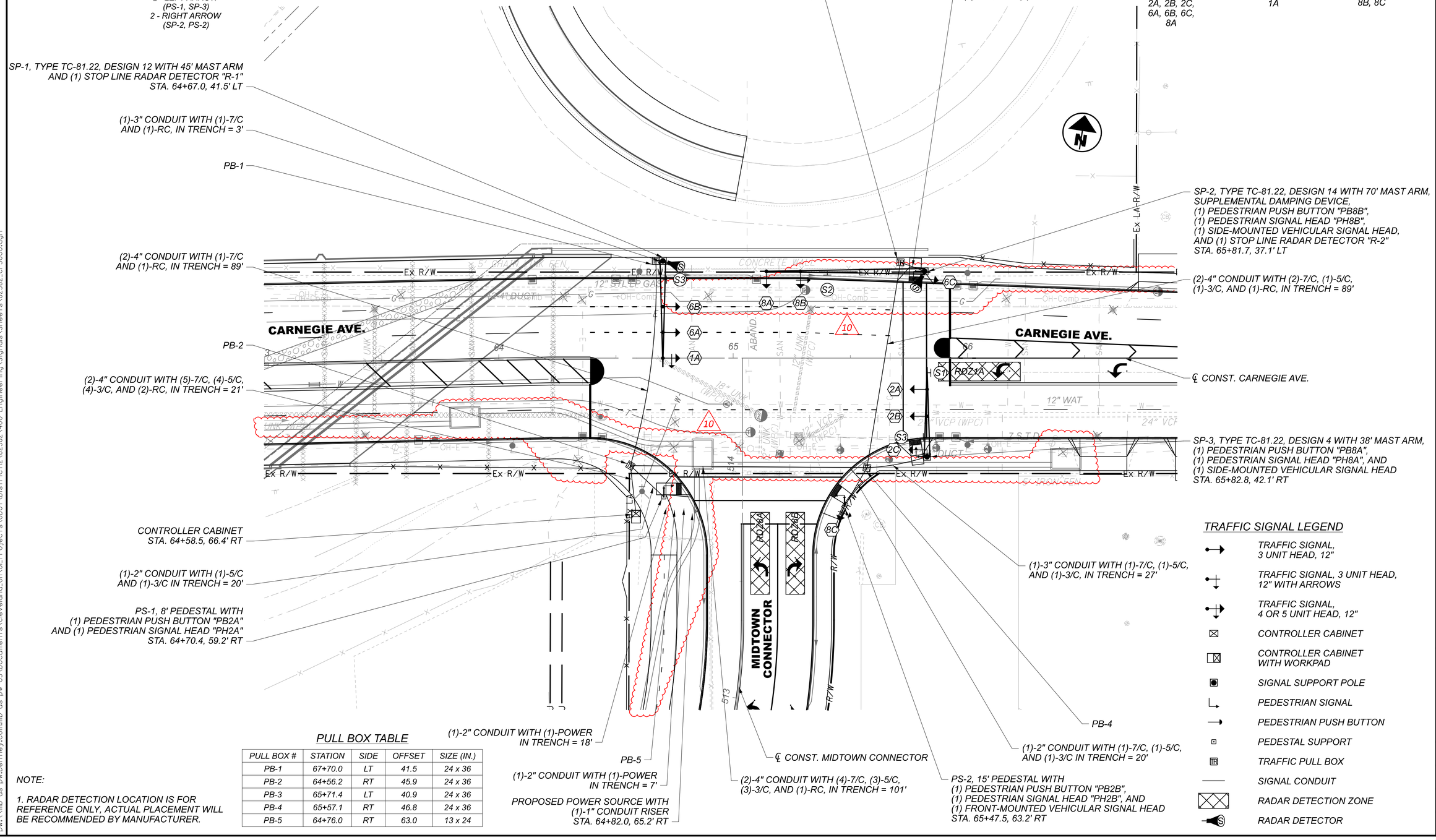


8B, 8C



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

HORIZONTAL SCALE IN FEET
0 10 20 40



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	67+70.0	LT	41.5	24 x 36
PB-2	64+56.2	RT	45.9	24 x 36
PB-3	65+71.4	LT	40.9	24 x 36
PB-4	65+57.1	RT	46.8	24 x 36
PB-5	64+76.0	RT	63.0	13 x 24

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

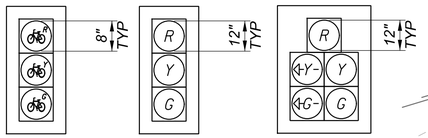
TRAFFIC SIGNAL PLAN
CARNEGIE AVE. & MIDTOWN CONNECTOR

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SED
REVIEWER RMG 05/22/24
PROJECT ID 82382
SHEET 1659 TOTAL 2696

PROPOSED SIGNALS

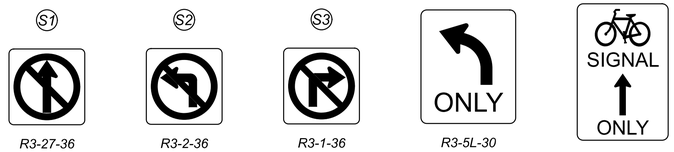
VEHICULAR SIGNAL HEADS
(8" OR 12" LENS, LED, YELLOW,
W/ REFLECTIVE BACKPLATES)



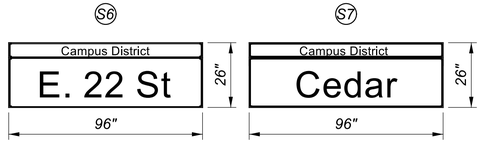
6C, 6D | 2A, 2B, 2C, 4A, 4B, 6A, 8B, 8A, 8B, 8C | 1A, 7A

PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

PROPOSED SIGNS

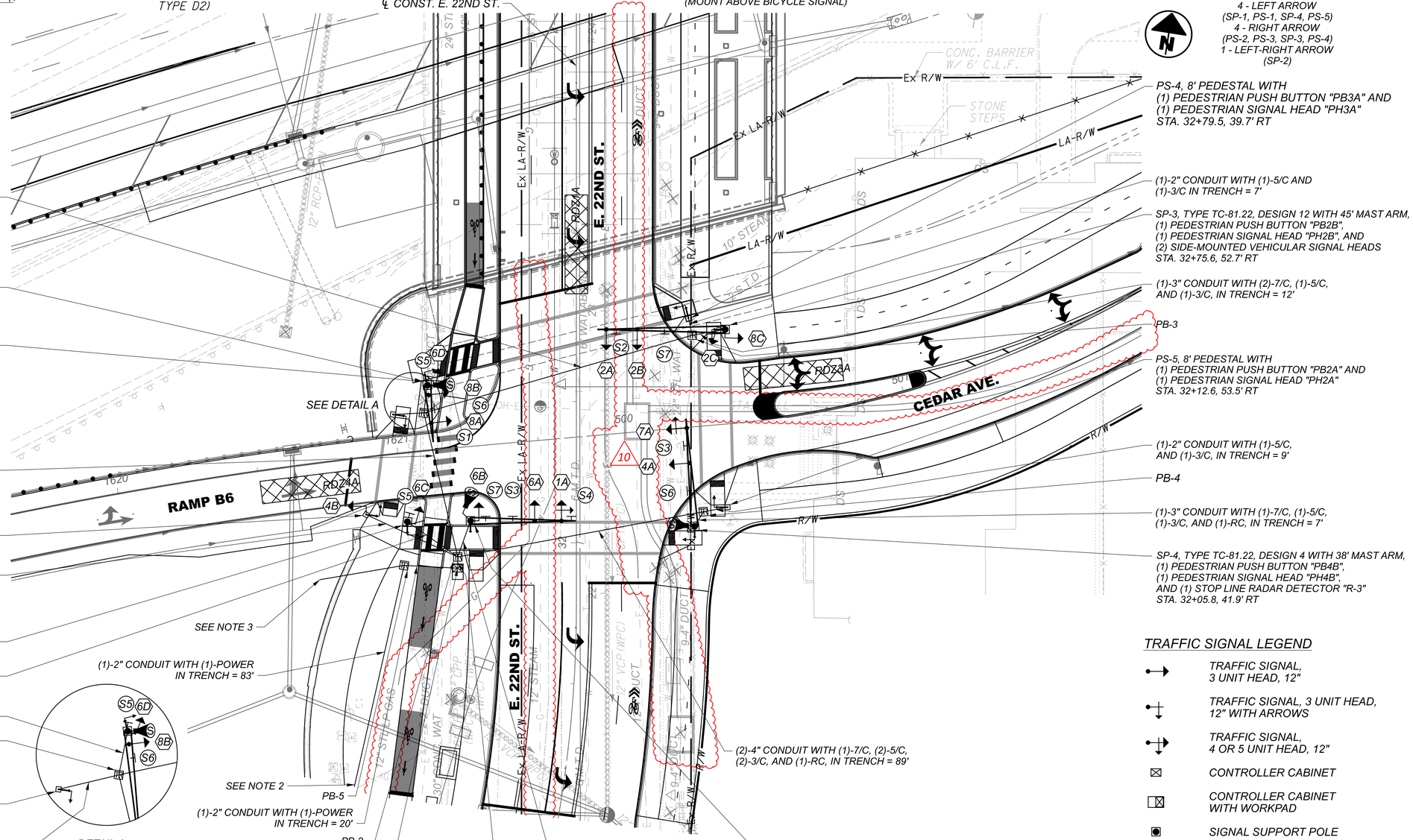


R3-27-36 | R3-2-36 | R3-1-36 | R3-5L-30 | R10-40a-24 (MOUNT ABOVE BICYCLE SIGNAL)





R10-3e-9
4 - LEFT ARROW
(SP-1, PS-1, SP-4, PS-5)
4 - RIGHT ARROW
(PS-2, PS-3, SP-3, PS-4)
1 - LEFT-RIGHT ARROW
(SP-2)



DETAIL A
NOT TO SCALE

TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

2. CONDUIT AND POWER CABLE CONTINUES TO PULL BOX AT STA. 30+98.0, 73' LT ON SHEET 1667

3. CONDUIT AND POWER CABLE CONTINUES TO PULL BOX AT ℄ RAMP B6 STA. 1620+66.9, 41' RT ON SHEET 1681

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	32+46.0	LT	54.0	24 x 36
PB-2	31+95.0	LT	42.0	24 x 36
PB-3	32+73.5	RT	41.0	24 x 36
PB-4	32+11.0	RT	45.0	24 x 36
PB-5	31+92.0	LT	61.0	13 x 24

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
E. 22ND ST. & CEDAR AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
SED

REVIEWER
RMG 05/22/24

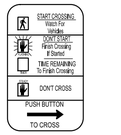
PROJECT ID
82382

SHEET 1663 | TOTAL 2696

CUY-90-16.28 (CCG3A)

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PROPOSED SIGNS



R10-3e-9
4 - LEFT ARROW
(PS-2, SP-3, SP-4, PS-5)
4 - RIGHT ARROW
(PS-1, PS-3, SP-2, PS-4)
1 - LEFT-RIGHT ARROW
(SP-1)

S1



R3-27-36

S2



R3-2-36

S3



R3-1-36

S4



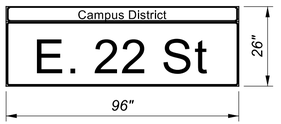
R3-5L-30

S5

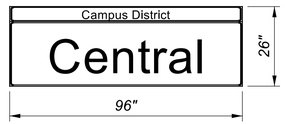


R10-40a-24
(MOUNT ABOVE BICYCLE SIGNAL)

S6



S7

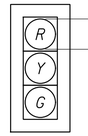




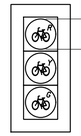
PEDESTRIAN HEADS
(LED, COUNTDOWN, TYPE D2)

PROPOSED SIGNALS

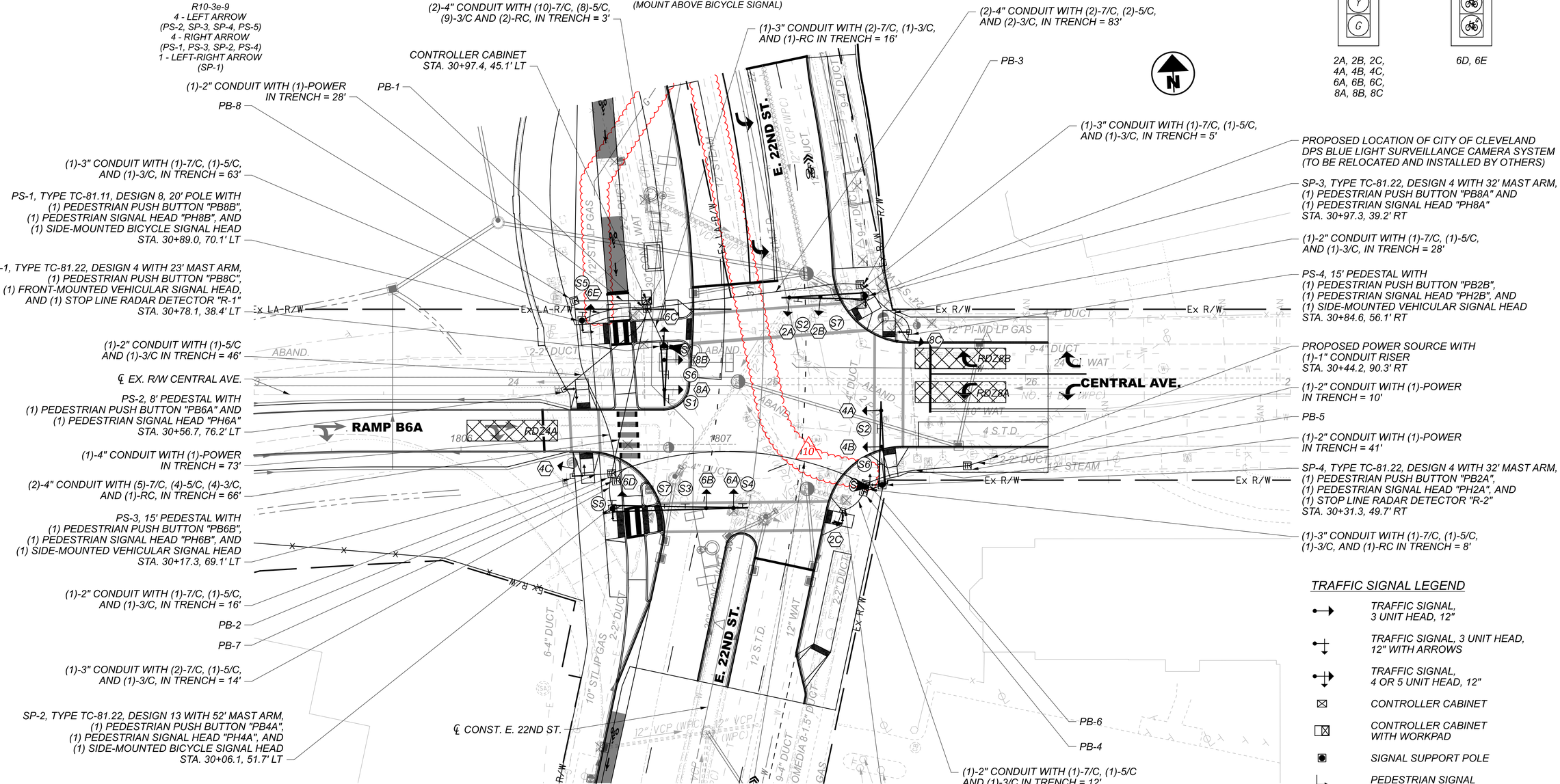
VEHICULAR SIGNAL HEADS
(8" OR 12" LENS, LED, YELLOW, W/ REFLECTIVE BACKPLATES)



2A, 2B, 2C,
4A, 4B, 4C,
6A, 6B, 6C,
8A, 8B, 8C



6D, 6E



TRAFFIC SIGNAL LEGEND

- TRAFFIC SIGNAL, 3 UNIT HEAD, 12"
- TRAFFIC SIGNAL, 3 UNIT HEAD, 12" WITH ARROWS
- TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"
- CONTROLLER CABINET
- CONTROLLER CABINET WITH WORKPAD
- SIGNAL SUPPORT POLE
- PEDESTRIAN SIGNAL
- PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT
- TRAFFIC PULL BOX
- SIGNAL CONDUIT
- RADAR DETECTION ZONE
- RADAR DETECTOR

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	30+94.0	LT	45.0	24 x 36
PB-2	30+21.1	LT	54.3	24 x 36
PB-3	31+01.4	RT	37.4	24 x 36
PB-4	30+28.1	RT	43.0	24 x 36
PB-5	30+41.0	RT	81.5	13 x 24
PB-6	30+30.8	RT	43.2	13 x 24
PB-7	30+18.2	LT	52.2	13 x 24
PB-8	30+98.0	LT	73.0	13 x 24

NOTE:

1. RADAR DETECTION LOCATION IS FOR REFERENCE ONLY, ACTUAL PLACEMENT WILL BE RECOMMENDED BY MANUFACTURER.

HORIZONTAL SCALE IN FEET
0 10 20 40

TRAFFIC SIGNAL PLAN
E. 22ND ST. & CENTRAL AVE.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER SED
REVIEWER RMG 05/22/24
PROJECT ID 82382
SHEET 1667 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_CP7000 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 1:40:01 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland.OH\01_Projects\ODOT\District2\82382\400-Engineering\Signals\Sheets\82382_CP7000.dgn

SHEET NUMBER																						ITEM	CARRIED TO GENERAL SUMMARY	UNIT	DESCRIPTION
1704	1705	1706	1707	1708	1709	1710	1711	1712	1713	1714															
																									LIGHTING
8	8		12	10	20	24	20	26	26													625	154	EACH	CONNECTION, FUSED PULL APART
4	4		6	5	10	12	10	13	13													625	77	EACH	CONNECTION, UNFUSED PULL APART
		12	51	21																		625	84	EACH	CONNECTION, UNFUSED PERMANENT
					6	2	10	13	11													625	42	EACH	LIGHT POLE, MISC.: 15' ROUND TAPERED FIBERGLASS STREETLIGHT
4	4		6	5	4	10			2													625	35	EACH	LIGHT POLE, MISC.: 30' ROUND TAPERED FIBERGLASS STREETLIGHT
16	16																					625	32	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE
			6	5	10	6	5	13	13													625	58	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP
	932	1353	6395	2784	1434	3477																625	16375	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE
				10	18264	7239	14634	3978	5313													625	49428	FT	NO. 8 AWG 600 VOLT DISTRIBUTION CABLE
					159																	625	159	FT	DISTRIBUTION CABLE, MISC.: NO. 4 / 0 AWG 2400 VOLT DISTRIBUTION CABLE
360	360		540	450	630	990	450	585	585													625	4950	FT	NO. 12 AWG POLE AND BRACKET CABLE
				10	144	558	1144															625	1846	FT	CONDUIT, 3/4", 725.051
	253	30	810	30																		625	1123	FT	CONDUIT, 1-1/2", 725.04
1172	1087				2074	1844	1010	563	791													625	8541	FT	CONDUIT, 2", 725.051
					43																	625	43	FT	CONDUIT, CONCRETE ENCASED, 2", 725.051
						30	102															625	132	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (2-2" CONDUIT, 725.051)
		198	502	481	428	365																625	1974	FT	CONDUIT, CONCRETE ENCASED, AS PER PLAN (4-2" CONDUIT, 725.051)
17	8	14		8				2	8	3												625	60	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (CPP LED COBRA HEAD)
	6	2	9																			625	17	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (CPP LED WALLPACK)
					6	2	17	13	13													625	51	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (15' POLES)
4	4		6	5	4	10																625	33	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (30' POLES)
14	12	198	502	481	1234	523	442	563	791													625	4760	FT	TRENCH
4	4																					625	8	EACH	JUNCTION BOX
					3		1															625	4	EACH	PULL BOX, 725.08, 24"
1		5		4																		625	10	EACH	PULL BOX REMOVED
					2	1	10															625	13	EACH	PULL BOX, MISC.: 6" X 6" PULL BOX
2	2	1	12	7	15	15	7	13	13													625	87	EACH	PULL BOX, MISC.: 13" X 24" PULL BOX
14	5	14	6	13	10	6	5	15	8	3												625	110	EACH	GROUND ROD
1				1	1																	625	3	EACH	POWER SERVICE, AS PER PLAN
					1																	625	1	EACH	CONTROL CENTER CABINET, COMPLETE, AS PER PLAN
14	12	198	502	481	1234	523	442	563	791													625	4760	FT	UNDERGROUND WARNING/MARKING TAPE
	2	2	3																			625	7	EACH	SERVICE TO UNDERPASS LIGHTING, AS PER PLAN
17	13	3	3	16	3	2		21	9	9												625	96	EACH	LIGHT POLE REMOVED
1		7	4	7	1																	625	20	EACH	LIGHT POLE FOUNDATION REMOVED
5	3								2													625	10	EACH	LUMINAIRE REMOVED
5	3								2													625	10	EACH	DISCONNECT CIRCUIT, AS PER PLAN
1				2	16																	625	19	EACH	LIGHTING, MISC.: TEST NEW CIRCUIT
8		1503																				632	1503	FT	POWER CABLE, 3 CONDUCTOR, NO. 4 AWG
7	5	14		8				2	6	3												632	45	EACH	WOOD POLE (30' CLASS III)
5																						632	5	EACH	WOOD POLE (50' CLASS III)

COMBINED CPP LIGHTING SUBSUMMARY

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD

REVIEWER SM 05/22/24

PROJECT ID 82382

SHEET 1689 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet-02 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:34:45 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Lighting\Sheets\82382_LG001.dgn

SHEET NO.	STATION FROM	STATION TO	SIDE	POLE/PULL BOX NO.	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, MISC.: 15' ROUND TAPERED FIBERGLASS STREETLIGHT EACH	625 LIGHT POLE, MISC.: 30' ROUND TAPERED FIBERGLASS STREETLIGHT EACH	625 LIGHT POLE ANCHOR BOLTS ON STRUCTURE EACH	625 LIGHT POLE FOUNDATION, 24" X 6' DEEP EACH	625 NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 8 AWG 600 VOLT DISTRIBUTION CABLE FT	625 DISTRIBUTION CABLE, MISC.: NO. 4 / 0 AWG 2400 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 3/4", 725.051 FT	625 CONDUIT, 1-1/2", 725.04 FT	625 CONDUIT, 2", 725.051 FT	625 CONDUIT, CONCRETE ENCASED, 2", 725.051 FT	625 CONDUIT, CONCRETE ENCASED, AS PER PLAN (2-2" CONDUIT, 725.051) FT	625 CONDUIT, CONCRETE ENCASED, AS PER PLAN (4-2" CONDUIT, 725.051) FT	625 LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN (CPP LED COBRA HEAD) EACH	625 LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN (CPP LED WALLPACK) EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN (15' POLES) EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN (30' POLES) EACH	625 TRENCH FT	625 JUNCTION BOX EACH	625 PULL BOX, 725.08, 24" EACH	625 PULL BOX REMOVED EACH	625 PULL BOX, MISC.: 6" X 6" PULL BOX EACH	625 PULL BOX, MISC.: 13" X 24" PULL BOX EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 CONTROL CENTER CABINET, COMPLETE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	625 SERVICE TO UNDERPASS LIGHTING, AS PER PLAN EACH	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 DISCONNECT CIRCUIT, AS PER PLAN EACH	625 LIGHTING, MISC.: TEST NEW CIRCUIT EACH	632 POWER CABLE, 3 CONDUCTOR, NO. 4 AWG FT	632 WOOD POLE (30' CLASS III) EACH	632 WOOD POLE (50' CLASS III) EACH
	E. 18TH ST. (CONT.)																																											
1733	24+34		RT	RL-59																																				1	1					
	RAMP H6																																												
1734	1191+49		LT	RL-60																																				1					
1734	1192+14		LT	RL-61																																				1					
	E. 22ND ST.																																												
1735	30+12		LT	D1-1	2	1			1		1				90										1					1	1												
1735	30+12	30+66	LT	D1-1 TO PB-D6								183										51					51								51								
1735	30+23		RT	D1-8	2	1			1		1				90										1					1	1												
1735	30+23	31+15	RT	D1-8 TO D1-9								306										92					92								92								
1735	30+66		LT	PB-D6																																								
1735	30+66	31+10	LT	PB-D6 TO D1-2								159										43					43								43								
1735	31+10		LT	D1-2	2	1			1		1				90										1					1	1												
1735	31+10	32+14	LT	D1-2 TO D1-3								363										111					111								111								
1735	31+15		RT	D1-9	2	1			1		1				90										1					1	1												
1735	31+15	32+21	RT	D1-9 TO D1-10								423										131					131								131								
1735	29+64		LT	E1-1	2	1		1			1				45										1					1	1												
1735	29+64	29+96	LT	E1-1 TO E2-2									156					42									42								42								
1735	29+96		LT	E2-2	2	1		1			1				45										1					1	1												
1735	29+96	30+07	LT	E2-2 TO PB-E8									102					7									7								7								
1735	30+07		LT	PB-E8																																								
1735	30+07	30+19	LT	PB-E8 TO PB-E3									891					90									23								23								
1735	30+07	30+94	LT/RT	PB-E8 TO PB-E1									3456					470									118								118								
1735	30+18		LT	E1-3	2	1		1			1				45										1					1	1												
1735	30+18	30+19	LT	E1-3 TO PB-E3									87					19									19								19								
1735	30+19	30+52	LT	PB-E3 TO PB-E2									1377					124									41								41								
1735	30+22		LT	PB-E3																																								
1735	30+47		RT	PB-E28																																								
1735	30+47	30+91	RT	PB-E28 TO PB-E27										159					43									43								43								
1735	30+52		LT	PB-E2																																								
1735	30+52	30+71	LT	PB-E2 TO E2-4									1491					61									61								61								
1735	30+52 10	31+08	LT	PB-E2 TO PB-E26								10	720		10	110										10	110								110								
1735	30+71		LT	E2-4	2	1		1			1				45										1					1	1												
1735	30+71	31+09	LT	E2-4 TO E1-5									1176					181									46								46								
1735	30+91		RT	CC-E																																			1	1			16		
1735	30+91		RT	PB-E27																																								
1735	30+91	30+94	RT	CC-E TO PB-E1									2880					300									50								50								
1735	30+94		RT	PB-E1																																								
1735	30+94	31+15	RT	PB-E1 TO PB-E9									777					106									27								27								
1735	31+08		LT	PB-E26																																								
1735	31+08 10	31+28	LT	PB-E26 TO PB-E25								10	132		10	34																												
1735	31+09		LT	E1-5	2	1		1			1				45										1					1	1												
1735	31+09	31+31	LT	E1-5 TO E2-6									1344					54									54								54								
1735	31+15		RT	PB-E9																																								
1735	31+15	32+15	RT	PB-E9 TO PB-E4									3675					620									165								165								
1735	31+28		LT	PB-E25																																								
1735	31+31		LT	E2-6	2	1		1			1		10		45	10									1		10			1	1												
TOTALS TO GENERAL SUMMARY					20	10	-	6	4	-	10	1434	18264	159	630	144	-	2074	43	-	428	-	-	6	4	1234	-	3	-	2	15	10	1	1	1234	-	3	1	-	-	16	-	-	-

CPP LIGHTING SUBSUMMARY - 6

CUY-90-16.28 (CCG3A)

MODEL: Sheet-06 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:26:29 AM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH01_Projects\ODOT\District12\82382400-EngineeringLighting\Sheets\82382_LS101.dgn

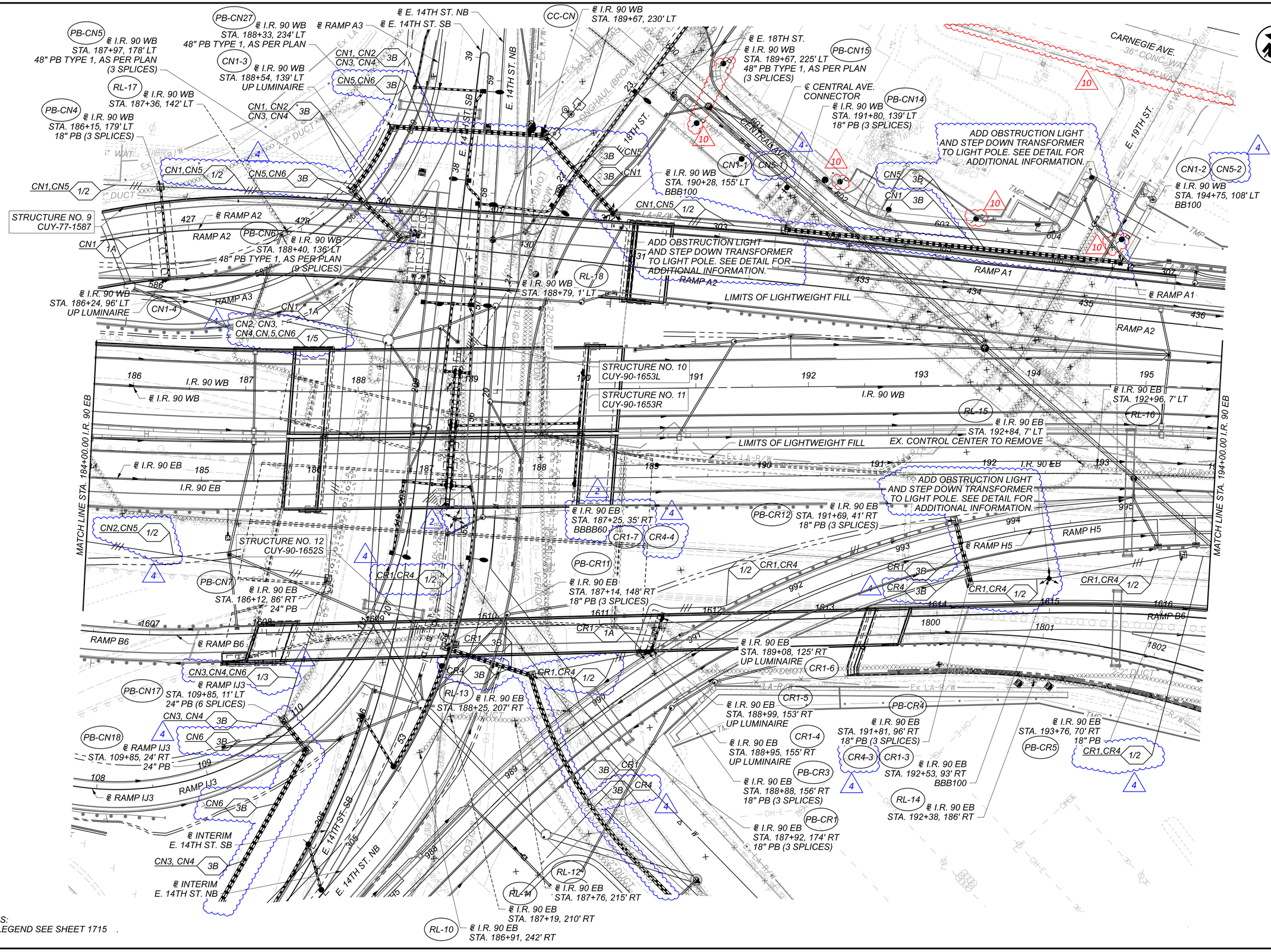
DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP

REVIEWER MMC 05/22/24

PROJECT ID 82382

SHEET 1709 TOTAL 2696



NOTES:
1. FOR LEGEND SEE SHEET 1715 .

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP2101_SHEET-1 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 10:34:34 PM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH_01_Projects\00DTVDist+1c+12\82382\400-Engineering\Lighting\Sheets\82382_LP2102.dgn

ODOT LIGHTING PLAN - I.R. 90 EB
STA. 184+00.00 TO STA. 194+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
JLD

REVIEWER
SM 05/22/24

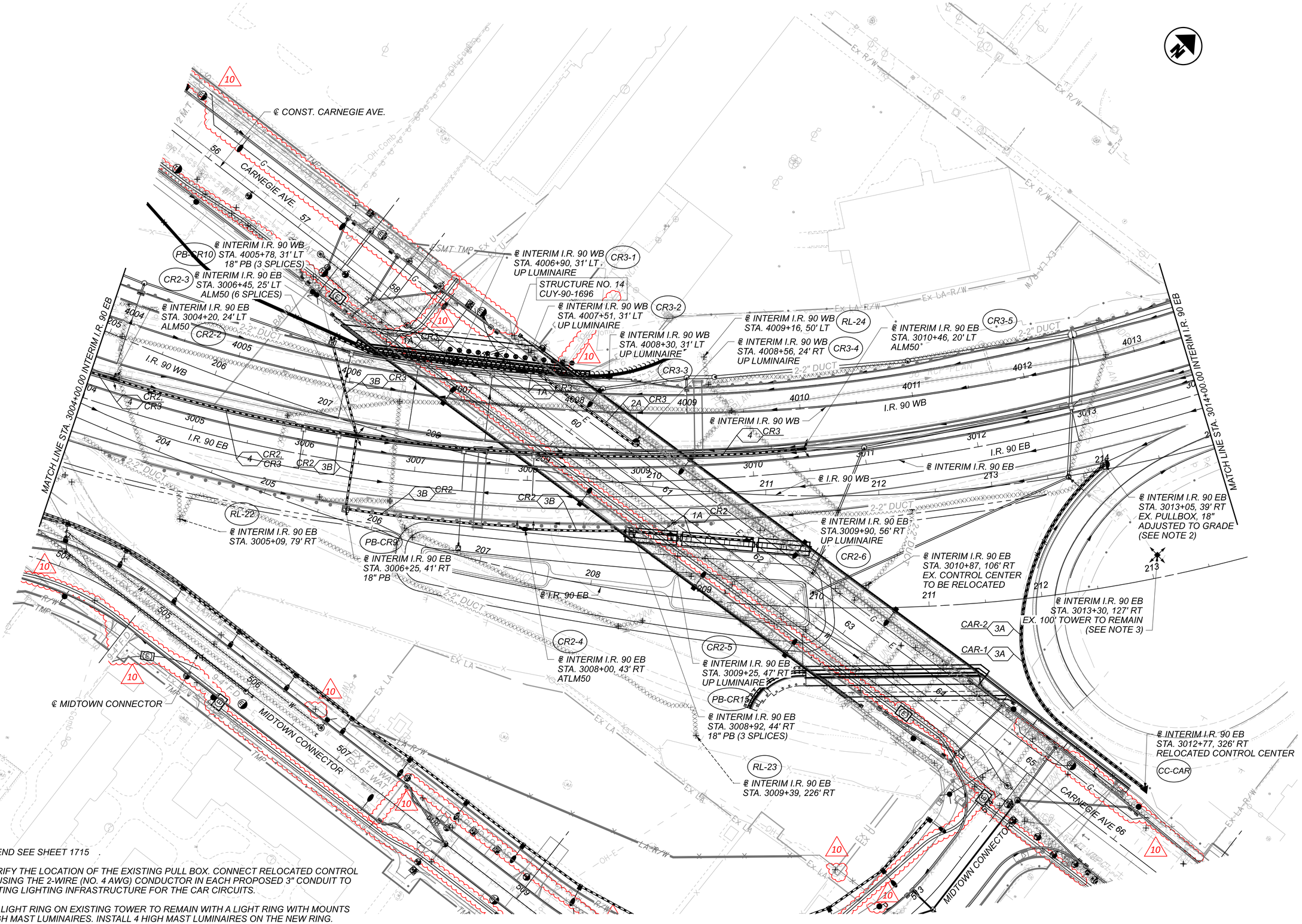
PROJECT ID
82382

SHEET 1717 TOTAL 2696

CARNEGIE AVE.
℄ CONST. CARNEGIE AVE.
℄ CONST. E. 22ND ST.
℄ CONST. E. 21ST ST.
℄ MIDTOWN CONNECTOR
℄ RAMP A1
℄ RAMP A2
℄ RAMP B6
℄ RAMP B6A
℄ I.R. 90 EB
℄ I.R. 90 WB
℄ INTERIM I.R. 90 WB
℄ INTERIM I.R. 90 EB
RAMP A1
RAMP A2
RAMP B6
RAMP B6A
I.R. 90 EB
I.R. 90 WB
MATCH LINE STA. 194+00.00 I.R. 90 EB
MATCH LINE STA. 3004+00.00 INTERIM I.R. 90 EB
ADD OBSTRUCTION LIGHT AND STEP DOWN TRANSFORMER TO LIGHT POLE. SEE DETAIL FOR ADDITIONAL INFORMATION
ADD OBSTRUCTION LIGHT AND STEP DOWN TRANSFORMER TO LIGHT POLE. SEE DETAIL FOR ADDITIONAL INFORMATION.
RL-21 ℄ RAMP A2 STA. 438+45.0, 24.4' LT
CC-CR ℄ I.R. 90 WB STA. 198+89, 112' LT
CR1-1 CR4-1 ℄ I.R. 90 WB STA. 199+50, 65' LT BBB100 (9 SPLICES)
CR1-9 ℄ I.R. 90 WB STA. 201+75, 61' LT UP LUMINAIRE
PB-CR14 ℄ I.R. 90 WB STA. 201+60, 57' LT 18" PB (3 SPLICES)
CR1-10 ℄ I.R. 90 WB STA. 202+35, 61' LT UP LUMINAIRE
CR1-14 ℄ I.R. 90 WB STA. 202+23, 37' RT UP LUMINAIRE
CR1-13 ℄ I.R. 90 WB STA. 201+56, 37' RT UP LUMINAIRE
RL-20 ℄ I.R. 90 WB STA.200+72, 3' RT
CR1, CR2 CR3,CR4 1/4
CR1, CR2 CR3 4
CR1, CR2 CR3 3B
CR4 4
CR4 3B
CR1 4
CR1 1A
1/1 CR1
PB-CR6 ℄ I.R. 90 EB STA. 196+10, 37' LT MEDIAN JB
PB-CR7 ℄ I.R. 90 EB STA. 197+73, 37' LT MEDIAN JB (3 SPLICES)
PB-CR13 ℄ I.R. 90 EB STA. 196+10, 68' RT 18" PB (3 SPLICES)
PB-CR8 ℄ I.R. 90 EB STA. 199+58, 37' LT MEDIAN JB (3 SPLICES)
CR1-11 ℄ I.R. 90 EB STA. 199+74, 38' LT UP LUMINAIRE
CR1-12 ℄ I.R. 90 EB STA. 200+24, 38' LT UP LUMINAIRE
CR2-1 ℄ I.R. 90 EB STA. 201+30, 37' LT ALM50
CR2, CR3 4
1/2 CR1,CR4
3B CR1
3B CR4
CR4-2 ℄ I.R. 90 EB STA. 196+50, 185' RT BBB100
CR1-2 ℄ I.R. 90 EB STA. 197+02, 196' RT
RL-19
STRUCTURE NO. 13 CUY-90-1678
LIMITS OF LIGHTWEIGHT FILL
2-2" DUCT
12-4" DUCT
4-4" DUCT
4" CI WAT
6" WAT
12" WAT
36" CONC. WAT
12" CONC. WAT
27" UNPC
12" CONC. WS
12" WS
12" STORM
6" STORM
12" SAN
8" SAN
E ZONE
Ex R/W
Ex LA
LA-R/W
R/W
TMP
DS
SAN
WS
WAT
STORM
OHC
OHP
Ex LA-R/W
Ex LA-R/W
Ex LA-R/W

ODOT LIGHTING PLAN - INTERIM I.R. 90 EB
STA. 3004+00.00 TO STA. 3014+00.00

HORIZONTAL SCALE IN FEET
0 20 40 80



NOTES:
1. FOR LEGEND SEE SHEET 1715 .
2. FIELD VERIFY THE LOCATION OF THE EXISTING PULL BOX. CONNECT RELOCATED CONTROL CENTER USING THE 2-WIRE (NO. 4 AWG) CONDUCTOR IN EACH PROPOSED 3" CONDUIT TO THE EXISTING LIGHTING INFRASTRUCTURE FOR THE CAR CIRCUITS.
3. REPLACE LIGHT RING ON EXISTING TOWER TO REMAIN WITH A LIGHT RING WITH MOUNTS FOR 4 HIGH MAST LUMINAIRES. INSTALL 4 HIGH MAST LUMINAIRES ON THE NEW RING.

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1719 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP230I_SHEET PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 10:56:01 PM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\OI_Projects\ODOTVDist+1c+I2_82382\400-Engineering\Lighting\Sheets\82382_LP230I.dgn

NOTES:
1. FOR LEGEND SEE SHEET 1715 .

HORIZONTAL SCALE IN FEET
0 10 20 40

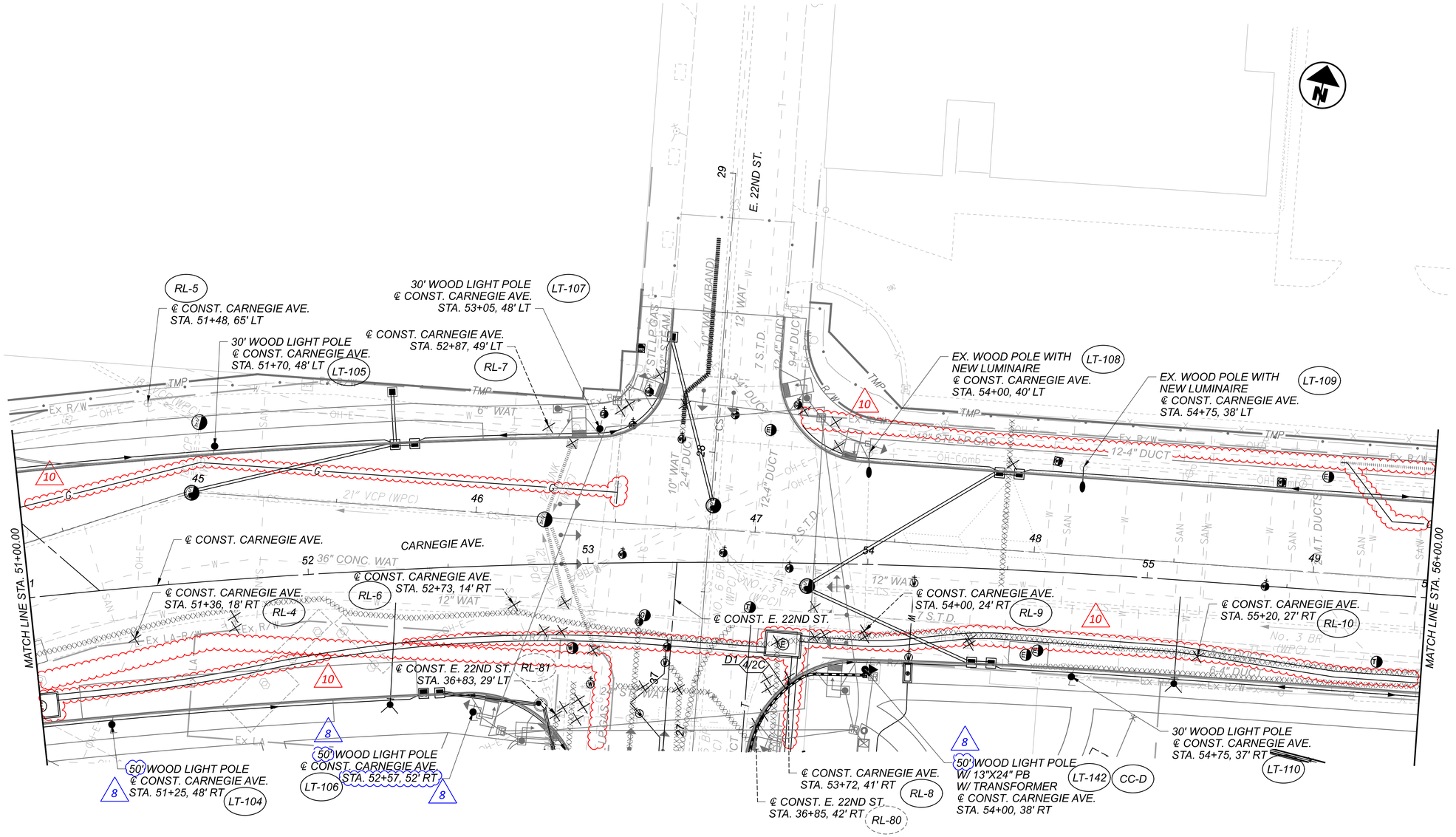
CPP LIGHTING PLAN - CARNEGIE AVE.
BEGIN TO STA. 51+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1724 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP710I_SHEET PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:11:59 PM USER: AlexandriaSummers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382.400-Engineering\Lighting\Sheets\82382_LP710I.dgn



NOTES:
1. FOR LEGEND SEE SHEET 1715 .
2. SEE SHEET1736 FOR ADDITIONAL DETAIL ON LIGHTING ALONG E. 22ND STREET AND THE ADJACENT PEDESTRIAN AREAS.

HORIZONTAL SCALE IN FEET
0 10 20 40

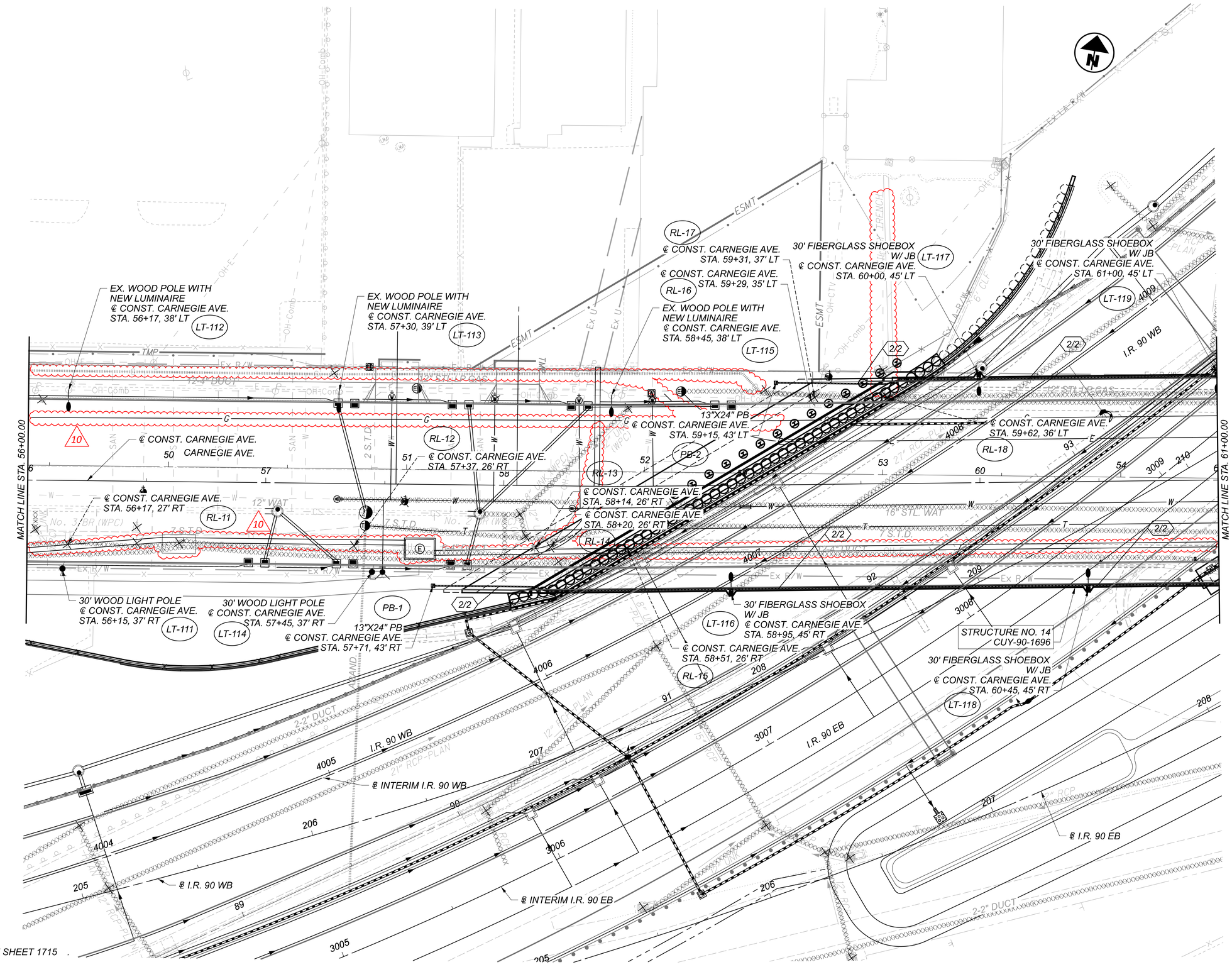
CPP LIGHTING PLAN - CARNEGIE AVE.
STA. 51+00.00 TO STA. 56+00.00

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP710I_SHEET-I PAPERSIZE: 34x22 (In.) DATE: 11/6/2025 TIME: 11:29:28 PM USER: Alexandria.Summers
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DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1725 TOTAL 2696



NOTES:
1. FOR LEGEND SEE SHEET 1715 .

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - CARNEGIE AVE.
STA. 56+00.00 TO STA. 61+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1726 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP710_SHEET-2 PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:41:06 PM USER: AlexandriaSummers
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CPP LIGHTING PLAN - CARNEGIE AVE.
STA. 61+00.00 TO STA. 66+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

MATCH LINE STA. 61+00.00

MATCH LINE STA. 66+00.00

℄ INTERIM I.R. 90 EB

℄ INTERIM I.R. 90 WB

℄ I.R. 90 WB

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I.R. 90 WB

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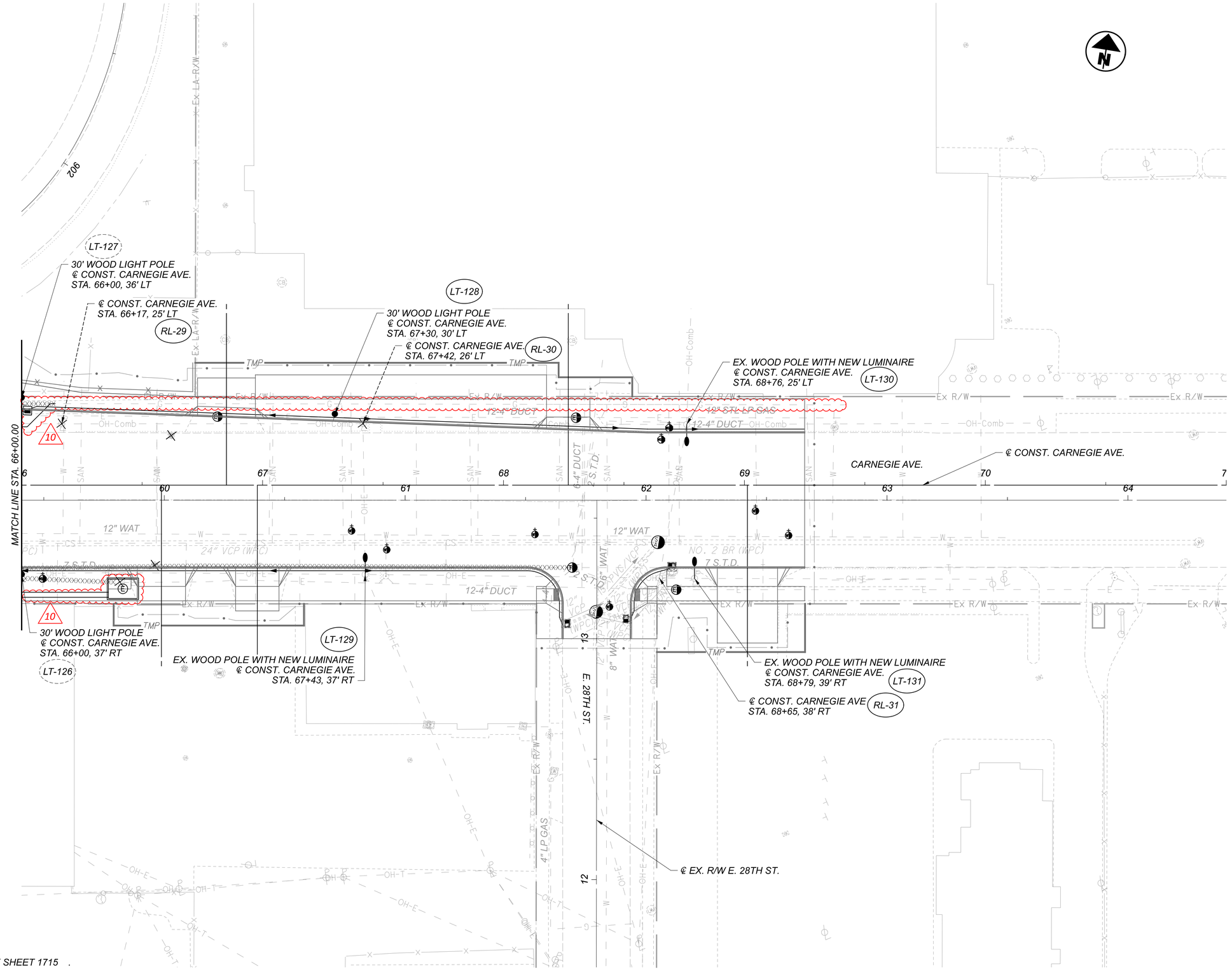
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CUY-90-16.28 (CCG3A)
MODEL: 82382_LP7101_SHEET-4 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:28:24 AM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District 12\82382\400-Engineering\Lighting\Sheets\82382_LP7105.dgn



NOTES:
1. FOR LEGEND SEE SHEET 1715 .

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - CARNEGIE AVE. STA. 66+00.00 TO END

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1728 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP7221_SHEET-2 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:51:02 AM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\OL_Projects\ODOT\District12\82382\400-Engineering\Lighting\Sheets\82382_LP7243.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - E. 14TH ST. NB
STA. 59+00.00 TO END

MATCH LINE STA. 59+00.00

30' WOOD LIGHT POLE LT-133
℄ CONST. CARNEGIE AVE
STA. 38+10, 42' RT

℄ CONST. CARNEGIE AVE
37+95, 32' RT RL-48

℄ CONST. CARNEGIE AVE
STA. 38+06, 32' RT RL-49

30' WOOD LIGHT POLE
℄ CONST. CARNEGIE AVE
STA. 38+10, 52' LT LT-132

C2-15
30' FIBERGLASS SHOEBOX
W/ 13"X24" PB
℄ E. 14TH ST. NB
STA. 59+50, 66' LT

4/2C C1

30' WOOD LIGHT POLE LT-134
℄ E. 14TH ST. NB
STA. 60+25, 56' LT

RL-55
℄ E. 14TH ST. NB
STA. 59+73, 71' LT

℄ CONST. CARNEGIE AVE
STA. 38+48, 57' LT RL-50

℄ E. 14TH ST. NB
STA. 59+00, 62' LT RL-53

E. 14TH ST. SB
℄ E. 14TH ST. SB

E. 14TH ST. NB
℄ E. 14TH ST. NB

30' WOOD LIGHT POLE LT-135
℄ E. 14TH ST. NB
STA. 60+25, 35' RT

℄ E. 14TH ST. NB
STA. 59+03, 72' RT RL-54

30' WOOD LIGHT POLE
℄ E. 14TH ST. NB
STA. 61+70, 25' RT LT-137

℄ CONST. CARNEGIE AVE
STA. 39+63, 27' RT RL-51

30' WOOD LIGHT POLE
℄ CONST. CARNEGIE AVE
STA. 39+75, 37' RT LT-136

℄ CONST. CARNEGIE AVE
STA. 40+74, 31' RT RL-52

℄ CONST. CARNEGIE AVE

℄ E. 18TH ST.
STA. 23+75, 38' LT RL-58

RL-56
℄ E. 18TH ST.
STA. 23+28', 7' RT

30' FIBERGLASS SHOEBOX
W/ 13"X24" PB
℄ E. 18TH ST.
STA. 24+15, 3' LT C2-20

MATCH LINE STA. 23+00.00

℄ E. 18TH ST.

C1, C2 4/2C

30' WOOD LIGHT POLE
W/ 13"X24" PB
W/ TRANSFORMER
℄ CONST. CARNEGIE AVE
STA. 41+00, 37' RT CC-C

30' WOOD LIGHT POLE
℄ CONST. CARNEGIE AVE
STA. 41+15, 53' LT LT-138

℄ CENTRAL AVE.
CONNECTOR
℄ E. 18TH ST.
STA. 23+60, 18' RT RL-57

RL-59 ℄ E. 18TH ST.
STA. 24+34, 20' RT

E. 18TH ST

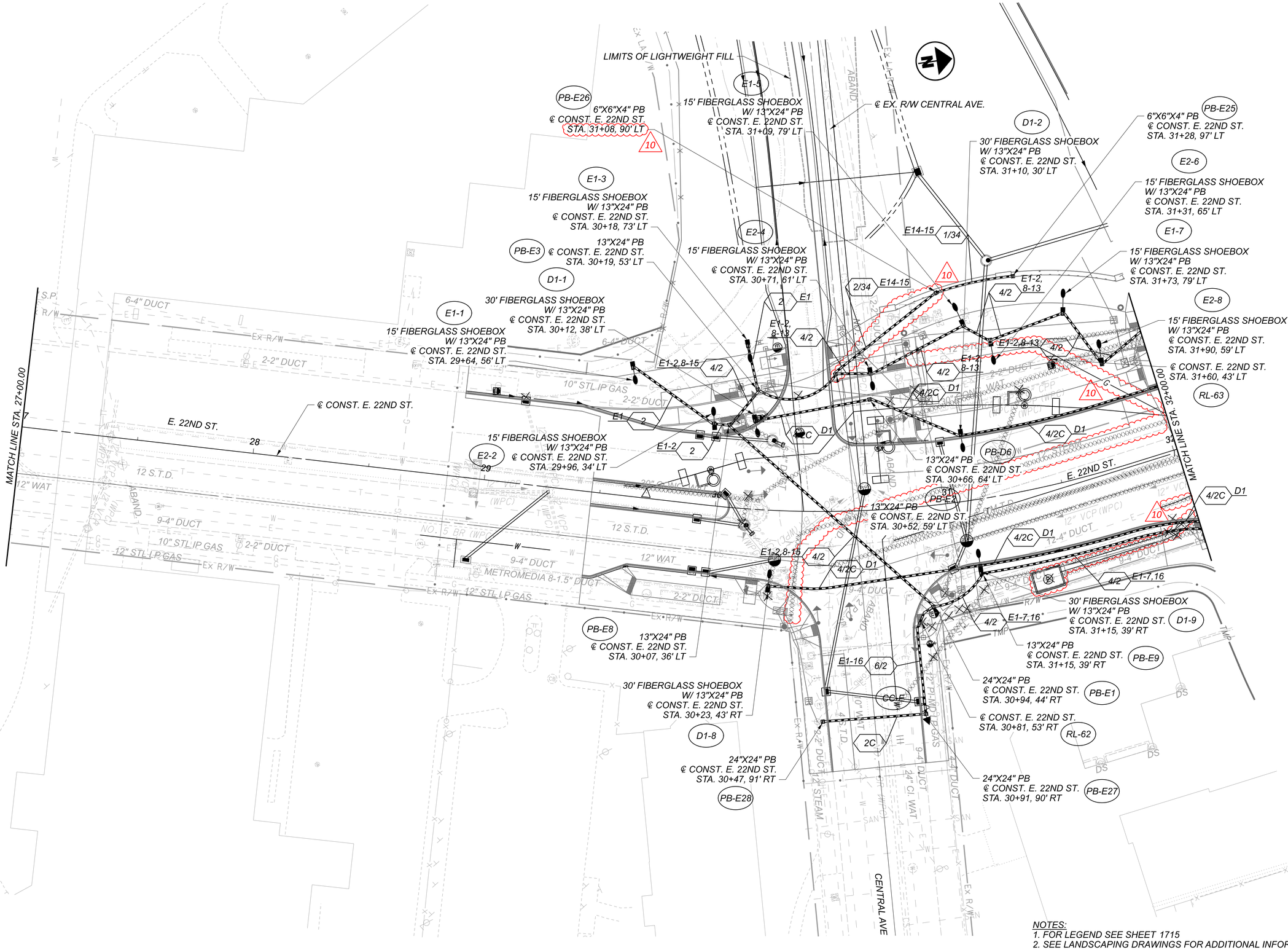
E. 14TH ST.

CARNEGIE AVE.

NOTES:
1. FOR LEGEND SEE SHEET 1715 .

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JLD
REVIEWER SM 05/22/24
PROJECT ID 82382
SHEET 1733 TOTAL 2696



NOTES:
1. FOR LEGEND SEE SHEET 1715
2. SEE LANDSCAPING DRAWINGS FOR ADDITIONAL INFORMATION.

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - E. 22ND ST. STA. 27+00.00 TO STA. 32+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1735 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP7400_SHEET PAPERSIZE: 34x22 (In) DATE: 11/6/2025 TIME: 11:28:08 AM USER: Alexandria.Summers
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District2\82382\400-Engineering\Lighting\Sheets\82382_LP7402.dgn

NOTES:
1. FOR LEGEND SEE SHEET1715
2. SEE LANDSCAPING DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. PULLBOXES INSTALLED IN BRIDGE RAILING TO BE 6"x6"x4" TYPICAL.
5. SEE SHEET 1725 . FOR ADDITIONAL DETAIL ON LIGHTING ALONG CARNEGIE AVENUE.

RL-64
℄ CONST. E. 22ND ST.
STA. 36+37, 211' LT

E1-23
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+35, 211' LT

E2-22
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+16, 173' LT

RL-77 ℄ CONST. E. 22ND ST.
STA. 36+55, 153' LT

D1-6
30' FIBERGLASS SHOEBOX W/ JB
℄ CONST. E. 22ND ST.
STA. 35+17, 34' LT

30' FIBERGLASS SHOEBOX W/ 13"X24" PB
D1-7 ℄ CONST. E. 22ND ST.
STA. 36+17, 34' LT

RL-71
℄ CONST. E. 22ND ST.
STA. 35+51, 43' LT

℄ CONST. E. 22ND ST.
STA. 35+79, 75' LT

RL-73

RL-75
℄ CONST. E. 22ND ST.
STA. 36+18, 29' LT

RL-76

RL-74 ℄ CONST. E. 22ND ST.
STA. 36+12, 41' RT

RL-66
℄ CONST. E. 22ND ST.
STA. 32+49, 44' LT

PB-E22
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+40, 58' LT

PB-E23
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+12, 58' LT

30' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+14, 36' LT
D1-3

PB-E24
6"X6"X4" PB
℄ CONST. E. 22ND ST.
STA. 32+46, 74' LT

PB-D5
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+54, 43' LT

D1-5
30' FIBERGLASS SHOEBOX W/ JB
℄ CONST. E. 22ND ST.
STA. 34+16, 34' LT

RL-67
℄ CONST. E. 22ND ST.
STA. 34+67, 43' LT

D1-4
30' FIBERGLASS SHOEBOX W/ JB
℄ CONST. E. 22ND ST.
STA. 33+19, 35' LT

℄ CONST. E. 22ND ST.
STA. 33+24, 41' RT

D1-12
30' FIBERGLASS SHOEBOX W/ JB
℄ CONST. E. 22ND ST.
STA. 34+51, 45' RT

PB-D1
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+08, 32' LT

℄ CONST. E. 22ND ST.
STA. 36+32, 27' LT

PB-E10
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+79, 61' RT

PB-D2
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+89, 37' RT

RL-65
℄ CONST. E. 22ND ST.
STA. 32+44, 42' RT

D1-10
30' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+21, 53' RT

PB-E4
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+15, 58' RT

PB-E5
24"X24" PB
℄ CONST. E. 22ND ST.
STA. 32+68, 58' RT

E1-9
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 33+22, 53' RT

30' WOOD LIGHT POLE
℄ MIDTOWN CONNECTOR
STA. 500+80, 17' RT

D1-11
30' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 33+50, 29' RT

℄ MIDTOWN CONNECTOR

E2-10
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 33+75, 53' RT

E1-11
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 34+28, 53' RT

E2-12
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 34+74, 53' RT

RL-68 ℄ CONST. E. 22ND ST.
STA. 35+02, 102' RT

℄ INTERIM I.R. 90 EB

E1-13
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 35+28, 53' RT

30' FIBERGLASS SHOEBOX W/ JB
℄ CONST. E. 22ND ST.
STA. 35+51, 29' RT
D1-13

RL-69
℄ CONST. E. 22ND ST.
STA. 35+49, 138' RT

℄ CONST. E. 22ND ST.
STA. 35+49, 146' RT

RL-70
℄ CONST. E. 22ND ST.
STA. 35+74, 94' RT

RL-72

PB LOCATION FOR IRRIGATION CONTROLLER
PB-E16

PB-D4
13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+11, 30' RT

E2-14
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 35+91, 53' RT

E1-17
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+19, 105' RT

℄ INTERIM I.R. 90 WB

E2-18
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+68, 145' RT

30' WOOD LIGHT POLE
℄ CONST. CARNEGIE AVE
STA. 51-25, 48' RT
LT-104

E1-21
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+31, 128' LT

E2-20
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+62, 131' LT

RL-78
℄ CONST. E. 22ND ST.
STA. 36+56, 77' LT

E1-19
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+34, 76' LT

30' WOOD LIGHT POLE
℄ CONST. CARNEGIE AVE
STA. 52+67, 55' RT
LT-106

RL-79
℄ CONST. E. 22ND ST.
STA. 36+60, 35' LT

℄ CONST. E. 22ND ST.
STA. 36+83, 29' LT

RL-81

13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+27, 43' LT

PB-E7

D1-14
30' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+46, 30' RT

RL-82
℄ CONST. E. 22ND ST.
STA. 36+85, 42' RT

RL-80
℄ CONST. E. 22ND ST.
STA. 36+63, 57' RT

E1-15
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+56, 72' RT

E2-16
15' FIBERGLASS SHOEBOX W/ 13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+78, 97' RT

PB-E6
24"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+27, 59' RT

13"X24" PB
℄ CONST. E. 22ND ST.
STA. 36+10, 28' RT
PB-D3

MATCH LINE STA. 32+00.00

MATCH LINE STA. 37+00.00

RAMP B6
℄ RAMP B6
RAMP A2
℄ RAMP A2
℄ I.R. 90 EB
℄ I.R. 90 WB
I.R. 90 EB
I.R. 90 WB
MIDTOWN CONNECTOR
CARNEGIE AVE.

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - E. 22ND ST.
STA. 32+00.00 TO STA. 37+00.00

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1736 TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_LP7400_SHEET-1 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:41:06 AM USER: Joseph.Hogan
pw:\\vmb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\000T\District2\82382\400-Engineering\Lighting\Sheets\82382_LP7403.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

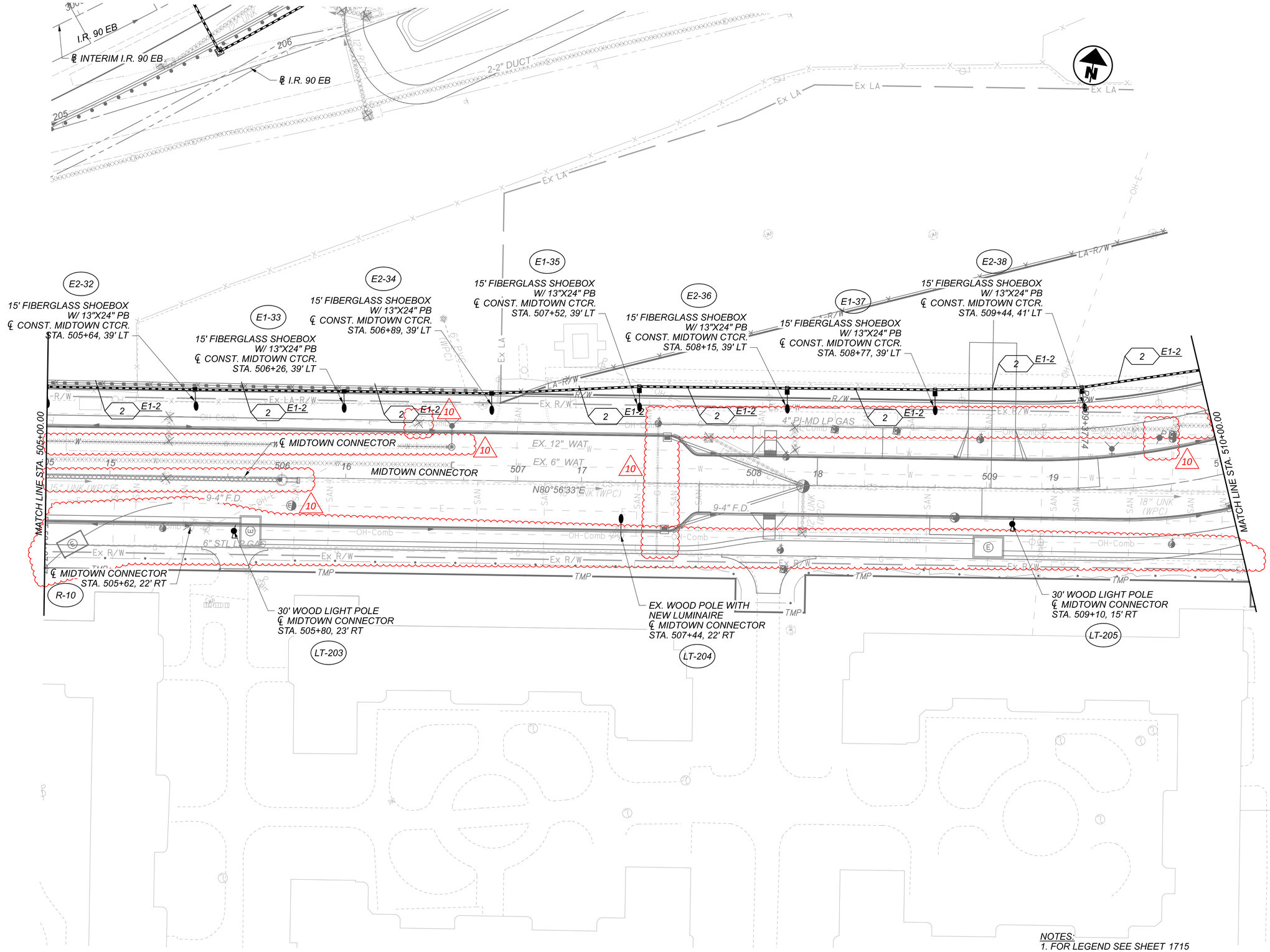
CPP LIGHTING PLAN - MIDTOWN CONNECTOR
BEGIN TO STA. 505+00.00

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1737 TOTAL 2696

MODEL: 82382_LP790_SHEET PAPERSIZE: 34x22 (In.) DATE: 11/7/2025 TIME: 12:46:35 AM USER: Joseph.Hogan
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NOTES:
1. FOR LEGEND SEE SHEET 1715
2. SEE LANDSCAPING DRAWINGS FOR ADDITIONAL INFORMATION.

HORIZONTAL SCALE IN FEET
0 10 20 40

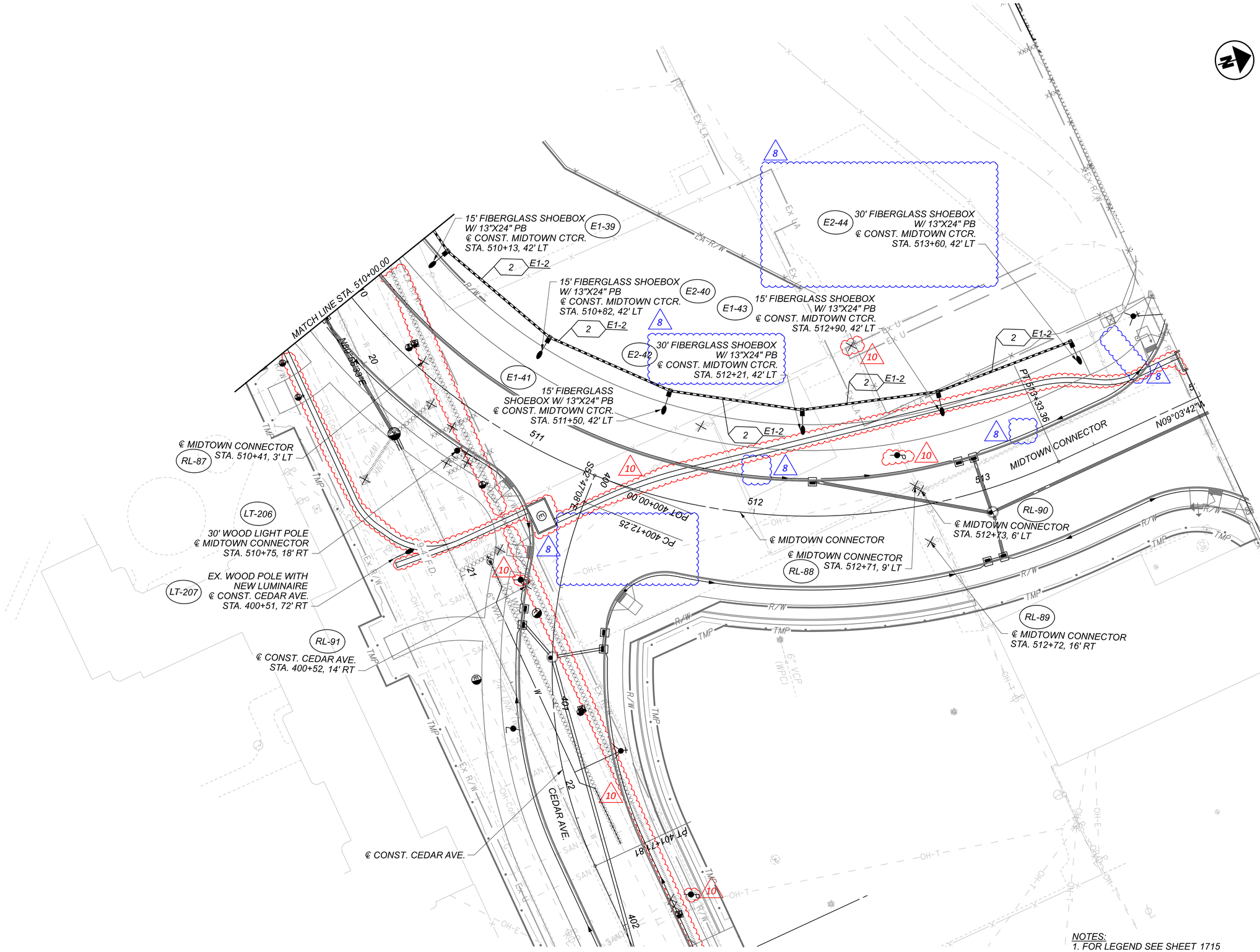
CPP LIGHTING PLAN - MIDTOWN CONNECTOR STA. 505+00.00 TO STA. 510+00.00

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1738 TOTAL 2696

MODEL: 82382_LP790_SHEET-1 PAPERSIZE: 34x22 (In.) DATE: 11/7/2025 TIME: 12:54:57 AM USER: Joseph.Hogan
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NOTES:
1. FOR LEGEND SEE SHEET 1715
2. SEE LANDSCAPING DRAWINGS FOR ADDITIONAL INFORMATION.

HORIZONTAL SCALE IN FEET
0 10 20 40

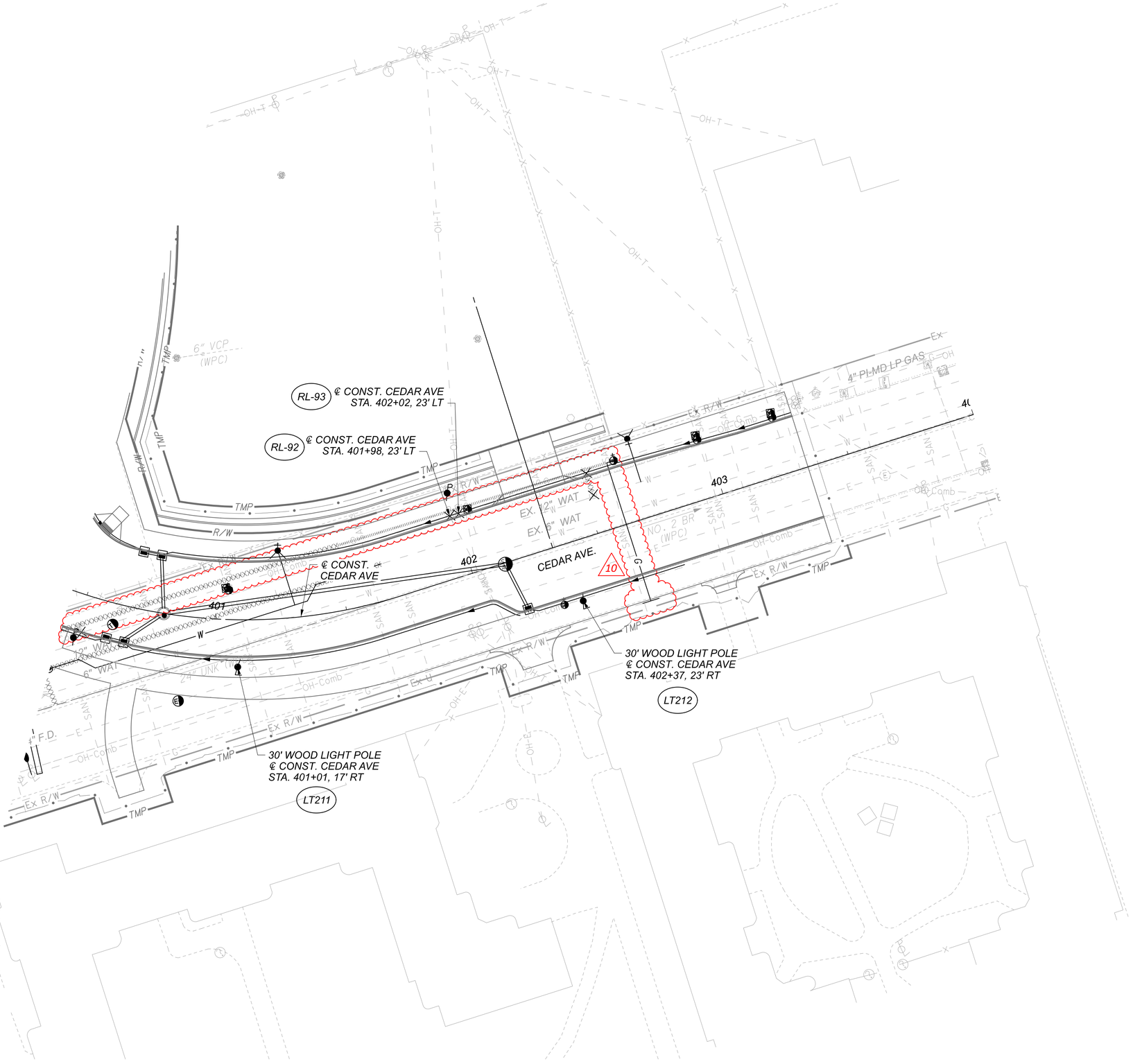
CPP LIGHTING PLAN - MIDTOWN CONNECTOR STA. 510+00.00 TO END

CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1739 TOTAL 2696

MODEL: 82382_LP790L_SHEET-2 PAPERSIZE: 34x22 (in) DATE: 11/7/2025 TIME: 10:03:17 AM USER: Alexandria.Summers
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NOTES:
1. FOR LEGEND SEE SHEET 1715 .

HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - CEDAR AVE. BEGIN TO END

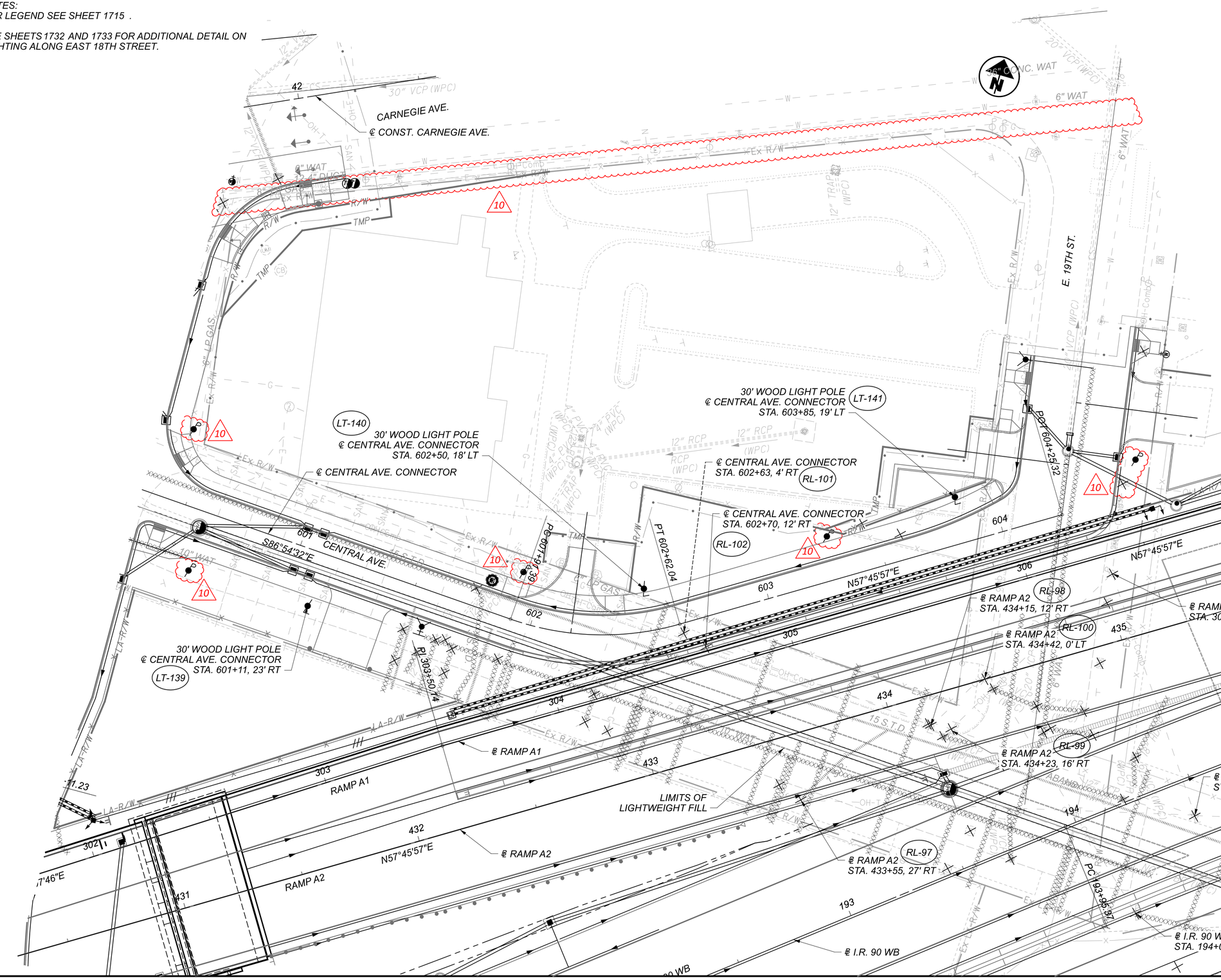
CUY-90-16.28 (CCG3A)

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER JTP
REVIEWER MMC 05/22/24
PROJECT ID 82382
SHEET 1740 TOTAL 2696

MODEL: 82382_LP79IL_SHEET PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:52:36 AM USER: Julie.Ross
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NOTES:
1. FOR LEGEND SEE SHEET 1715 .
2. SEE SHEETS 1732 AND 1733 FOR ADDITIONAL DETAIL ON LIGHTING ALONG EAST 18TH STREET.



HORIZONTAL SCALE IN FEET
0 10 20 40

CPP LIGHTING PLAN - CENTRAL AVE. CONNECTOR BEGIN TO END

DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	JLD
REVIEWER	SM 05/22/24
PROJECT ID	82382
SHEET	1741
TOTAL	2696

CUY-90-16.28 (CCG3A)

MODEL: Central Ave. Connector PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:36:53 AM USER: Julie.Ross
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DISTRIBUTION CABLE MISC.: 556KCMIL 15KV SPACER CABLE WITH 0052 AWA MESSENGER

1. 15KV SPACER CABLE AND STEEL MESSENGER SHALL BE MANUFACTURED IN ACCORDANCE WITH
   a. ASTM B415-16 (LATEST REVISION)
   b. ANSI/NEMA WC74 / ICA S-93-639 (LATEST REVISION)
   c. ASTM B230
   d. ASTM B400
   e. ASTM D1248

2. PRODUCT REQUIREMENTS

2.1 MESSENGER
   a. MESSENGER IS USED TO SUPPORT SPACER CABLE SYSTEMS. THE MESSENGER'S STRENGTH SHALL PROTECT THE SYSTEM FROM FALLING TREES AND BRANCHES AS WELL AS CONTINUE TO SUPPORT HTE CABLE DURING HIGH WIND LOADS AND ICING CONDITIONS.
   b. THE MESSENGER SERVES AS THE SUPPORT MEMBER FOR SPACER CABLE SYSTEMS. TWO CONSTRUCTIONS OF MESSENGER SHALL BE ALUMOWELD-ALUMINUM (AWA). THE STRANDS USED TO MANUFACTURE THESE TYPES OF MESSENGERS SHALL BE A COMBINATION OF ALUMINUM CLAD STEEL WIRES AND 1350-H19 ALUMINUM WIRES.
   c. THE MESSENGER SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE LATEST EDITIONS OF ASTM B415-16 - STANDARD SPECIFICATION FOR HARD-DRAWN ALUMINUM-CLAD STEEL WIRE. THE MESSENGER SHALL FURTHER MEET OR EXCEED THOSE APPLICABLE STANDARDS REFERENCED BY ASTM B415-16.
   d. MESSENGER FOR 556 KCMIL SPACER CABLE SHALL BE SIZE 0052 AWA, 0.546 IN OVERALL DIAMETER, SHALL HAVE 5 AW WIRES OF 0.1819 IN. DIAMETER AND 2 AL WIRES OF 0.1819 IN. DIAMETER. WEIGHT SHALL BE APPROXIMATELY 438 LBS PER 1000 FT AND SHALL HAVE A BREAKING STRENGTH OF AT LEAST 20,420 LBS.
   e. PACKAGING: REELS SHALL HAVE 18 TO 24 INCHES OF INSIDE TAIL WIRE EXPOSED THROUGH THE REEL STARTHOLE AND SECURED TO THE REEL FLANGE. WOODEN REELS SHALL HAVE 3 INCH MINIMUM DIAMETER CENTER ARBOR HOLES AND 1-1/2 INCH MINIMUM DIAMETER DRIVE PIN HOLES LOCATED 6 TO 21 INCHES FROM THE SPOOL FLANGE CENTER PER NEMA WC26.

2.2 COVERED CONDUCTOR
   a. THIS CONDUCTOR IS USED FOR PRIMARY OVERHEAD DISTRIBUTION. IT IS INSTALLED AS AN UNINSULATED CONDUCTOR; HOWEVER, THE COVERING SHALL BE EFFECTIVE IN PREVENTING DIRECT SHORTS AND INSTANTANEOUS FLASHOVERS SHOULD TREE LIMBS OR OTHER OBJECTS CONTACT CONDUCTORS IN SUCH CLOSE PROXIMITY. CONDUCTOR IS TO BE INSTALLED WITH OTHER SPACER CABLE CONDUCTORS AND A SUPPORTING MESSENGER THROUGH A SERIES OF SPACE-MAINTAINING DEVICES (SPACERS). CONDUCTORS SHALL BE RATED FOR CONTINUOUS OPERATION AT 75°C.
   b. CONDUCTORS SHALL BE COMPACT ROUND, CONCENTRICALLY STRANDED, 1350-H19 HARD DRAWN ALUMINUM.
   c. CONDUCTOR SHIELDING SHALL BE AN EXTRUDED BLACK SEMICONDUCTING POLYMER MEETING PHYSICAL REQUIREMENTS OF ANSI/NEMA WC 74. NOMINAL THICKNESS OF SHIELDING SHALL BE 15 MILS. THE MINIMUM THICKNESS AT ANY POINT SHALL NOT BE LESS THAN 0.010".
   d. CONDUCTOR COVERING:
      1. SHALL CONSIST OF TWO LAYERS THERMALLY BONDED TO EACH OTHER AND TO THE CONDUCTOR SHIELDING.
      2. THE INNER LAYER SHALL BE EXTRUDED NATURAL LOW DENSITY POLYETHYLENE, COMPLYING WITH ASTM SPECIFICATION D-1248 LATEST EDITION, FOR TYPE I, CLASS A, CATEGORY 5, GRADE E4 MATERIAL. NOMINAL THICKNESS OF THE INNER LAYER SHALL BE 75 MILS.
      3. THE OUTER LAYER SHALL BE AN EXTREDED BLACK, TRACK RESISTANT, HIGH DENSITY POLYETHYLENE, COMPLYING WITH ASTM SPECIFICATION D1248, LATEST EDITION, FOR TYPE III, CLASS C, CATEGORY 5, GRADE J5 MATERIAL. NOMINAL THICKNESS OF THE OUTER LAYER SHALL BE 75 MILS.
      4. OVERALL COVERING (DIAMETER) TOLERANCES SHALL BE LIMITED TO NOMINAL PLUS 20 MILS OR NOMINAL MINUS 10 MILS FOR ALL CONDUCTORS. NOMINAL OUTER DIAMETERS ARE PER SECTION 2.2.e.
   e. CONDUCTORS SHALL BE 556.5 KCMIL, 19 STRANDS, WITH A NOMINAL OUTER DIAMETER OF 1.120 IN. WEIGHT SHALL BE APPROXIMATELY 752 LBS PER 1000' OF CABLE.
   f. TESTING SHALL BE PERFORMED ON EACH REEL OF CABLE. TEST REPORTS SHALL BE FURNISHED UPON REQUEST OF THE PURCHASER. TESTS SHALL INCLUDE THE FOLLOWING MEASUREMENTS:
      1. CONDUCTOR DIAMETER
      2. WALL THICKNESS
      3. FINISHED DIAMETER
      4. CONCENTRICITY
      5. AC SPARK. AC SPARK SHALL BE PERFORMED CONTINUOUSLY AS THE CABLE IS BEING EXTRUDED. THE APPLIED AC VOLTAGE SHALL BE 15,000 VOLTS.
   g. SPACER CABLE CONDUCTORS SHALL BE PROVIDED WITH TRIANGULAR CABLE SPACERS, MADE OF HDPE AND SUITABLE FOR THE SELECTED CABLE. SPACERS SHALL BE PROVIDED EVERY 30' OF CIRCUIT LENGTH UNLESS NOTED OTHERWISE. SPACERS SHALL BE HENDRIX RTL OR APPROVED EQUAL.
   h. 556 KCMIL, 15KV SPACER CABLE, WITH 0052 AWA MESSENGER SHALL INCLUDE (3) PRIMARY COVERED CONDUCTORS, (1) MESSENGER, AND CABLE SPACERS AS SPECIFIED ABOVE.

ITEM 1. 556 KCMIL 15 KV SPACER CABLE WITH 0052 AWA MESSENGER

10 ~~DISTRIBUTION CABLE MISC.: 500KCMIL 15KV CU WITH CONCENTRIC NEUTRAL~~
DISTRIBUTION CABLE MISC.: 750KCMIL 15KV CU WITH CONCENTRIC NEUTRAL

A. WORK INCLUDED

THE CONTRACTOR SHALL FURNISH ALL NECESSARY LABOR MATERIALS, TOOLS AND EQUIPMENT FOR INSTALLING ALL POWER CABLES, AS SPECIFIED, REQUIRED OR SHOWN ON THE PLANS.

B. DETAILED SPECIFICATIONS

MEDIUM VOLTAGE CABLES - EPR URD

1. ALL ETHYLENE PROPYLENE RUBBER INSULATED URD CABLE IS MANUFACUTRED,TESTED AND WARRANTED IN ACCORDANCE WITH:
   a. A.E.I.C CS-8 (LATEST REVISION)
   b. I.C.E.A S-94-649 (LATEST REVISION)

2. CHARACTERISTICS
   a. BARE ANNEALED COPPER CENTER CONDUCTOR, COMPACT CLASS B STRANDING PER ASTM B-3, AS SPECIFIED ON THE BID SHEET.
   b. 1/3 COPPER CONCENTRIC NEUTRAL, AS SPECIFIED ON BID SHEET
   c. ETHYLENE PROPYLENE RUBBER INSULTAION
   d. AVERAGE MINIMUM INSULATION THICKNESS 220 MILS
   e. POLYETHYLENE JACKET

3. 15 KV EPR URD
   a. RATED 15 KV 133%, 220-MIL INSULATION THICKNESS

ITEM 1. 500 KCMIL, 15 KV 133%, EPR URD, 33% NEUTRAL

C. MOLDED SPLICES

1. DESIGNED AND TESTED PER IEEE STANDARD 404.

2. VOLTAGE RATING:
   a. 15 KV CLASS (8.7 KV PHASE-TO-GROUND)
   b. IMPULSE WITHSTAND : A = 110 KV, 1.2 X 50 MICROSECOND WAVE.
   c. CORONA EXTINCTION VOLTAGE : A = 13 KV, MINIMUM, 3PC SENSITIVITY.
   d. DC WITHSTAND : DURING INSTALLATION : 56 KV
   e. DC WITHSTAND : 18 KV FOR XLPE INSULATED CABLES
      45 KV FOR EPR INSULATED CABLES
      REFERENCE AEIC CS6 AND CS8, SECTION L.2.0

ITEM 1. SPLICE FOR 500 KCMIL, 15 KV URD, ELASTIMOLD 15 PCJ 1 LM 2 330

OBTAIN CABLE SPLICE KITS AND ACCESSORIES FROM A SINGLE SOURCE MANUFACTURER AND SHALL BE APPROVED BY CPP.

3. SPLICE KITS: COMPLY WITH IEEE 404; TYPE AS RECOMMENDED BY CABLE OR SPLICING KIT MANUFACTURER FOR THE APPLICATION.

4. SPLICING PRODUCTS: AS RECOMMENDED, IN WRITING, BY SPLICING KIT MANUFACTURER FOR SPECIFIC D.CABLE LUBRICANTSIZES, MATERIALS, RATINGS, AND CONFIGURATIONS OF CABLE CONDUCTORS. INCLUDE ALL COMPONENTS REQUIRED FOR COMPLETE SPLICE, WITH DETAILED INSTRUCTIONS.

   a. HEAT-SHRINK SPLICING KIT OF UNIFORM, CROSS-SECTION, POLYMERIC CONSTRUCTION WITH OUTER HEAT-SHRINK JACKET.

5. MEDIUM-VOLTAGE TAPES: ETHYLENE/PROPYLENE RUBBER-BASED,30-MIL SPLICING TAPE, RATED FOR 130 DEG C OPERATION. MINIMUM 1-1/2 INCH WIDE.

D. CABLE LUBRICANT

USE MANUFACTURERS APPROVED PULLING COMPOUND OR LUBRICANTS FOR CABLE BEING INSTALLED THAT DO NOT DETERIORATE CONDUCTOR OR INSULATION.

E. BONDING WIRE

1. BONDING CONDUCTOR: NO. 4, STRANDED COPPER, ASTM B 8.
2. LISTED AND LABELED BY AN NRTL ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS IN WHICH USED AND FOR SPECIFIC TYPES, SIZES AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS CONNECTED.

F. CABLE PULLING

1. BEFORE STARTING CABLE INSTALLATION, THE DUCTS TO BE OCCUPIED SHOULD BE SELECTED THROUGHOUT THE ENTIRE LENGTH OF THE RUN AND THE DUCTS SELECTED MUST BE CHECKED TO SEE THAT THEY ARE CLEAN AND FREE FROM ALL OBSTRUCTIONS.

   a. PROOF CONDUITS PRIOR TO CONDUCTOR INSTALLATION BY PASSING A WIRE BRUSH MANDREL AND THEN A RUBBER DUCT SWAB THROUGH THE CONDUIT.

      i. WIRE BRUSH MANDREL: CONSISTS OF A LENGTH OF BRUSH APPROXIMATELY THE SIZE OF THE CONDUIT INNER DIAMETER WITH STIFF STEEL BRISTLES AND AN EYE ON EACH END FOR ATTACHING THE PULL ROPES. IF AN OBSTRUCTION IS FELT, PULL THE BRUSH BACK AND FORTH REPEATEDLY TO BREAK UP THE OBSTRUCTION.

      ii. RUBBER DUCT SWAB: CONSISTS OF A SERIES OF RUBBER DISCS APPROXIMATELY THE SIZE OF THE CONDUIT INNER DIAMETER ON A LENGTH OF STEEL CABLE WITH AN EYE ON EACH END FOR ATTACHING THE PULL ROPES. PULL THE RUBBER DUCT SWAB THROUGH THE DUCT TO EXTRACT LOOSE DEBRIS FROM THE DUCT.

   b. USE PULLING MEANS, INCLUDING FISH TAPE, ROPE, AND BASKET- WEAVE CABLE GRIPS, THAT DO NOT DAMAGE CABLES AND RACEWAYS. DO NOT USE ROPE HITCHES FOR PULLING ATTACHMENT TO CABLE.

   c. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM PULLING TENSIONS AND SIDEWALL PRESSURE VALUES.

   d. USE PULL-IN GUIDES, CABLE FEEDERS, AND DRAW-IN PROTECTORS AS REQUIRED TO PROTECT CABLES DURING INSTALLTION.

   e. DO NOT PULL CABLES WITH ENDS UNSEALED. SEAL CABLE ENDS WITH RUBBER TAPE.

   f. SUPPORT CABLES USING GALVANIZED STEEL CHANNEL AND PORCELAIN OR MAPLE BLOCKS.

2. IF REELS ARE LEFT IN THE STREET, WARNING LIGHTS SHALL BE PLACED AROUND THEM.

3. LUBRICANT SHALL BE APPLIED TO THE CABLE JUST BEFORE IT ENTERS THE FEEDING TUBE. A COATING ABOUT 1/6" THICK IS AMPLE. NO LUBRICANT SHALL BE APPLIED FIRST AND LAST 5-FEET OF CABLE FOR CONVENIENCE AND CLEANLINESS IN SPLICING.

4. THE REEL OF CABLE MUST BE PROPERLY PLACED AT THE FEEDING END TO CAUSE MINIMUM FLEXING OF THE CABLE. IT SHOULD ALWAYS BE LOCATED ON THE SIDE OF THE MANHOLE TOWARD WHICH THE CABLE IS PULLED.

5. WHERE THERE IS A BEND IN THE DUCT LINE, THE PULLING SET-UP, WHENEVER POSSIBLE, SHOULD BE PLANNED FOR FEEDING-IN AT THE MANHOLE NEAREST THE BEND.

6. THE AMOUNT OF SLACK IN THE CABLE AT THE FEEDING END SHALL BE REGULATED BY WORKERS STATIONED AT THE CABLE REEL SO THAT THE CABLE PASSES FREELY INTO THE FEEDING TUBE WITHOUT SCRAPING THE MANHOLE FRAME.

7. THE CABLE SHALL BE DRAWN INTO THE DUCT JUST FAST ENOUGH TO KEEP THE CABLE AND REEL MOVING SMOOTHLY AND SO THE CABLE CAN BE PROPERLY INSPECTED AND LUBRICATED.

8. EYES OR SEALS DAMAGED DURING PULLING SHALL BE REPAIRED UNLESS SPLICING FOLLOWS IMMEDIATELY.

9. WHEN THE CABLE IS CUT, UNLESS SPLICING IS TO BE DONE IMMEDIATELY, THE ENDS SHALL BE PREPARED AND SEALED BY AN APPROVED METHOD. ALL SEALED ENDS SHOULD BE RACKED HIGH.

G. CABLE RACKING AND TRAINING

1. RACK AND TRAIN CABLES ON CABLE RACK ASSEMBLIES CONSISTING OF HOT-DIP GALVANIZED, EXCEPT INSULATORS.

2. IDENTIFY CABLES PHASE AND CIRCUIT NUMBER OF EACH CONDUCTOR AT EACH SPLICE, TERMINATION, PULL POINT, AND JUNCTION BOX. ARRANGE IDENTIFICATION SO THAT IT IS UNNECESSARY TO MOVE THE CABLE OR CONDUCTOR TO READ THE IDENTIFICATION.

H. BONDING

1. MAINTAIN SHIELD CONTINUITY AND CONNECTINONS TO METAL CONNECTION HARDWARE AT ALL CONNECTION POINTS.

2. GROUNDING CONDUCTORS: ROUTE ALONG SHORTEST AND STRAIGHTEST PATHS POSSIBLE UNLESS OTHERWISE INDICATED OR REQUIRED BY CODE. AVOID OBSTRUCTING ACCESS OR PLACING CONDUCTORS WHERE THEY MAY BE SUBJECTED TO STRAIN, IMPACT OR DAMAGE.

3. BONDING STRAPS AND JUMPERS: INSTALL IN LOCATIONS ACCESSIBLE FOR INSPECTION AND MAINTENANCE EXCEPT WHERE ROUTED THROUGH SHORT LENGTHS OF CONDUIT.
   a. BONDING TO STRUCTURE: BOND STRAPS DIRECTLY TO BASIC STRUCTURE, TAKING CARE NOT TO PENETRATE ANY ADJACENT PARTS.

I. TESTING

1. VISUAL AND MECHANICAL INSPECTIONS.

2. INSPECT EXPOSED CABLE SECTIONS FOR PHYSICAL DAMAGE.

3. INSPECT SHIELD GROUNDING AND CABLE SUPPORT. VISUALLY INSPECT CABLE TERMINATIONS PERFORMED BY CPP.

4. INSPECT COMPRESSION CONNECTORS FOR CORRECT CABLE MATCH AND IDENTIFICATION.

5. TESTING AGENCY: ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.

6. PERFORM THE FOLLOWING TESTS AND INSPECTIONS WITH THE ASSISTANCE OF A FACTORY-AUTHORIZED SERVICE REPRESENTATIVE:

   a. PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ATS. CERTIFY COMPLIANCE WITH TEST PARAMETERS.
   b. AFTER INSTALLING MEDIUM-VOLTAGE CABLES AND BEFORE ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, TEST FOR COMPLIANCE WITH REQUIREMENTS.
   c. PERFORM DIRECT-CURRENT HIGH POTENTIAL TEST OF EACH NEW CONDUCTOR ACCORDING TO NETA ATS, CH. 7.3.3. DO NOT EXCEED CABLE MANUFACTURER'S RECOMMENDED MAXIMUM TEST VOLTAGE.

7. MEDIUM-VOLTAGE CABLES WILL BE CONSIDERED DEFECTIVE IF THEY DO NOT PASS TESTS AND INSPECTIONS.

8. PREPARE TEST AND INSPECTION REPORTS.

J. MEASUREMENT

THE NUMBER OF FEET OF CIRCUIT CABLE TO BE PAID FOR SHALL INCLUDE CABLE LENGTH IN DUCT PLUS LENGTH IN MANHOLES PER THE CABLE WIRING PLANS, INSTALLED IN PLACE INCLUDING CABLE RACKING, TRAINING, TESTING, CABLE TAGS, AND OTHER INCIDENTAL WORK. MEASUREMENT IS IN FEET OF CIRCUIT. EACH FOOT OF CIRCUIT INCLUDES (3) 500KCMIL 15KV CABLES WITH CONCENTRIC NEUTRAL.

SPECIALS

15KV TERMINATORS - PROVIDE 15 KV TERMINATION KITS FOR 500 KCMIL 15 KV CONDUCTORS AT RISER POLE INSTALLATIONS.

15KV SPLICES - PROVIDE 15 KV SPLICE KITS FOR 4/0 CU 15 KV CONDUCTORS OR 500 KCMIL CU 15 KV CONDUCTORS AS NOTED ON THE PLAN.

OVERHEAD TRANSFORMER REMOVAL - REMOVE EXISTING OVERHEAD TRANSFORMER (EQUAL/LESS THAN 75 KVA) AND TURN OVER TO CPP.

DOUBLE CROSS-ARM AND DEAD-END ASSEMBLY - PROVIDE 8' WOOD DOUBLE CROSS-ARM AND 15 KV CONDUCTOR DEAD-END CONSISTING OF THREE SINGLE CONDUCTOR, SINGLE INSULATORS.

15KV TEST CAP FOR SUBMERSIBLE USE

15KV 600 AMP DISCONNECT SWITCH FOR CROSS-ARM MOUNTING.

CLEVELAND PUBLIC POWER
9 GENERAL NOTES - 2

DESIGN AGENCY
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DESIGNER JCS
REVIEWER WH 05/17/24
PROJECT ID 82382
SHEET 1778 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_UN30I PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:52:06 PM USER: Joseph.Hogan
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9 **ITEM SPECIAL - PRECAST ELECTRIC MANHOLE**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING COMPLETE IN PLACE PRECAST REINFORCED CONCRETE MANHOLE (VAULT) STRUCTURES IN ACCORDANCE WITH CLEVELAND PUBLIC POWER (CPP) REQUIREMENTS AND DESIGNED TO MEET OR EXCEED THE LATEST ASTM STANDARDS FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES (ASTM C858-10E1) AND MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST UTILITY STRUCTURES (ASTM 857-14) HS25 LOADING. THE FOLLOWING CPP DEVELOPED PLAN DETAILS HAVE BEEN INCLUDED IN THE PLAN SET FOR THIS WORK:

- SAMPLE INDIVIDUAL MANHOLE DETAILS INCLUDING WINDOW OPENING DETAILS AND LIST OF MANHOLE REQUIREMENTS
- TYPICAL INSTALLATION DETAILS
- SAMPLE PRECAST NECK RING SCHEDULE
- GENERAL UNDERGROUND CONSTRUCTION NOTES
- BACKFILL MATERIAL AND BACKFILLING PROCEDURES

IT IS NOTED THAT NUMEROUS UNDERGROUND UTILITIES ARE PRESENT ALONG THE CORRIDOR THAT COULD NECESSITATE CHANGES TO MANHOLE DEPTHS AND WINDOW DIMENSIONS. THE CONTRACTOR SHALL PERFORM UTILITY TEST HOLES AT ALL VAULT LOCATIONS PRIOR TO DEVELOPING SHOP DRAWINGS FOR ELECTRIC MANHOLES. IN ADDITION, THE CONTRACTOR WILL BE SUPPLYING AND INSTALLING ELECTRICAL RACK AND BOND SYSTEMS WITHIN THE MANHOLES. CABLE RACKING ASSEMBLIES SHALL CONSIST OF STEEL, HOT-DIP GALVANIZED STANCHIONS AND ARMS, AND PORCELAIN INSULATORS MANUFACTURED BY HUBBELL POWER SYSTEMS, INC OR APPROVED EQUIVALENT.

1. STANCHIONS: NOB-LOC; 1-3/4 INCH NOMINAL SIZE; DU1B SERIES FOR CABLE-ARM ATTACHMENT.

2. ARMS: 1.97 INCHES WIDE, LENGTHS RANGING FROM 3-7/8 INCHES WITH 400 LB MINIMUM CAPACITY TO 14-7/8 INCHES WITH 200 LB MINIMUM CAPACITY. ARMS SHALL BE ARRANGED FOR SECURE MOUNTING IN HORIZONTAL POSITION AT ANY VERTICAL LOCATION ON STANCHIONS.

3. INSULATORS: HIGH-GLAZE, DRY-PROCESS PORCELAIN ARRANGED FOR MOUNTING ON CABLE ARMS. THE CONTRACTOR SHALL COORDINATE MANHOLE WORK WITH CPP TO ENSURE COMPATIBILITY AND TIMELY COMPLETION OF RELATED WORK ELEMENTS.

SEALING DUCT ENDS IN MANHOLES: USE SEALING COMPOUND IN DUCT ENDS CONTAINING CABLES AND PLUGS IN SPARE DUCTS TO WITHSTAND AT LEAST 15 PSIG HYDROSTATIC PRESSURE. DUCT SEALING COMPOUND SHALL BE NON-HARDENING, SAFE FOR CONTACT WITH HUMAN SKIN, NOT DELETERIOUS TO CABLE INSULATION AND WORKABLE AT TEMPERATURES AS LOW AS 35 DEG F. CAPABLE OF WITHSTANDING TEMPERATURE OF 300 DEG F WITHOUT SLUMP, AND ADHERING TO CLEAN SURFACES OF PLASTIC DUCTS, METALLIC CONDUITS, CONDUIT COATINGS, CONCRETE, MASONRY, LEAD, CABLE SHEATHS, CABLE JACKETS, INSULATION MATERIALS AND COMMON METALS.

THE MANHOLES TO BE PAID WILL BE THE ACTUAL NUMBER COMPLETED AND ACCEPTED, INCLUDING CONCRETE LEVELING PAD, GROUND ROD (5/8 INCH X LENGTH, PER CPP DETAILS), CLAMP, GROUND WIRE, BONDING, RACK SYSTEM, NECK RINGS, CAP RINGS, PULLING IRONS, AND CASTINGS.

10 THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IF THE VAULTS SPECIFIED IN THE PLANS ARE TOO LARGE FOR SITE CONDITIONS. DO NOT ORDER MATERIALS UNLESS DIRECTED BY THE ENGINEER. USING A DIFFERENT SIZE VAULT THAN SPECIFIED IN THE PLANS REQUIRES CPP APPROVAL.

ITEM SPECIAL - PRECAST ELECTRIC MANHOLE
(6' X 8' X 7' HR) 1 EACH

10 **ITEM 202 - REMOVAL, MISC.: CONCRETE ENCASED ELECTRIC DUCT BANK**

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS AND INCLUDE REMOVAL OF UNDERGROUND CONCRETE ENCASED ELECTRIC DUCT BANK AS INDICATED ON THE PLANS. BACKFILL CAVITY CREATED BY ITEM REMOVAL ACCORDING TO 202.02. REMOVE CABLE, IF ANY, ACCORDING TO ITEM 625.

ITEM 202 - REMOVAL, MISC.: ELECTRIC VAULT

THIS ITEM SHALL BE IN ACCORDANCE WITH ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS AND INCLUDE REMOVAL OF UNDERGROUND ELECTRIC VAULTS AS INDICATED ON THE PLANS. BACKFILL CAVITY CREATED BY ITEM REMOVAL ACCORDING TO 202.02. REMOVE CABLE, IF ANY, ACCORDING TO ITEM 625.

CLEVELAND PUBLIC POWER
GENERAL NOTES - 4

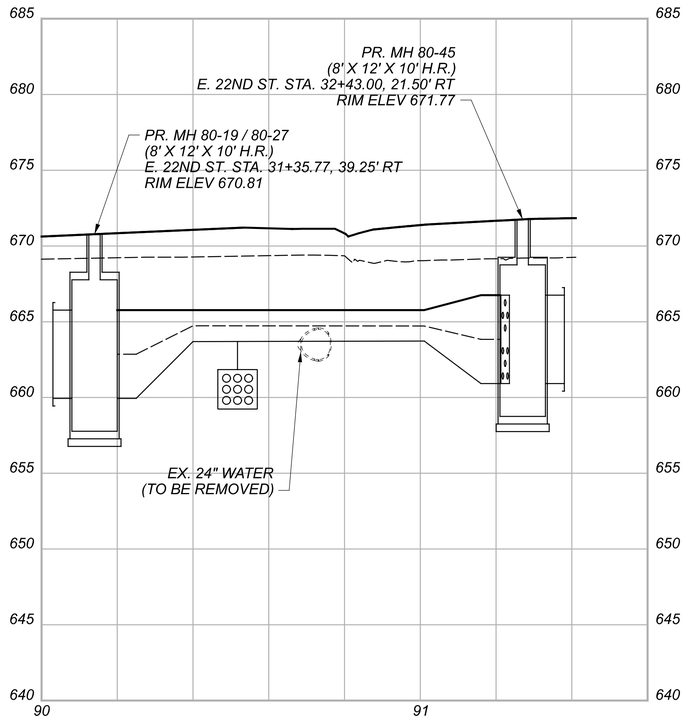
DESIGN AGENCY
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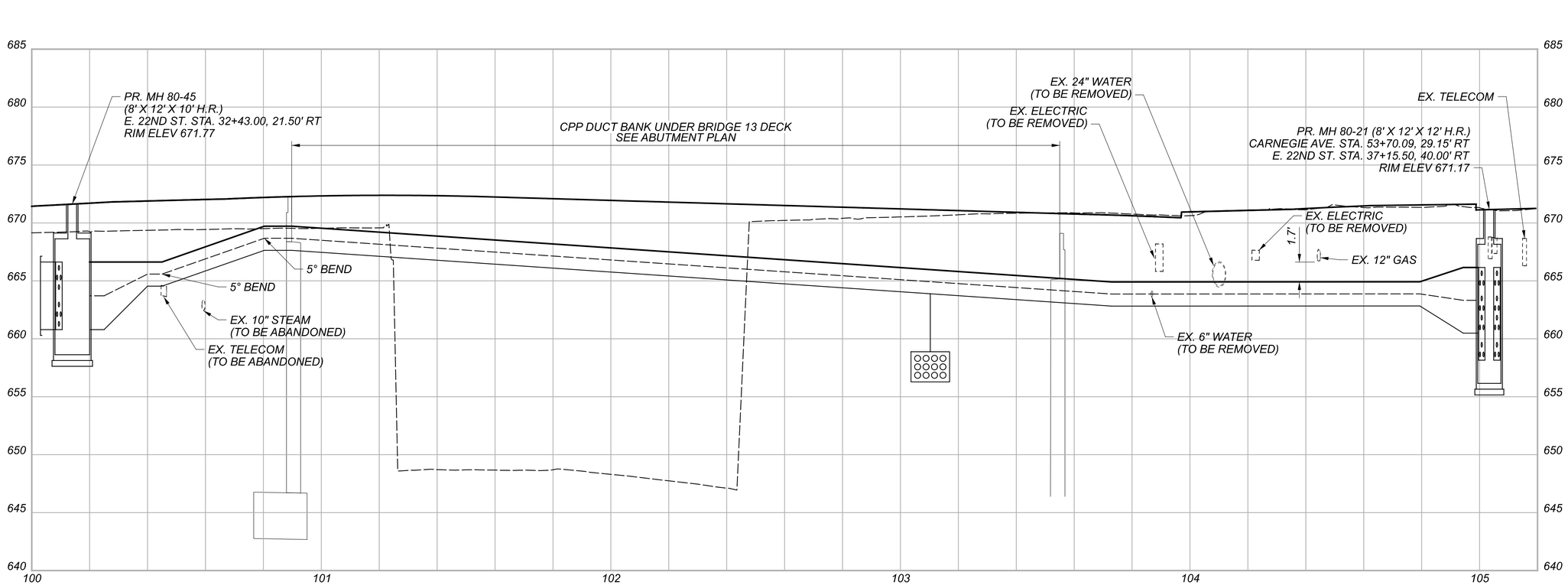
DESIGNER JCS
REVIEWER WH 05/17/24
PROJECT ID 82382
SHEET 1779A TOTAL 2696

CUY-90-16.28 (CCG3A)

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
80-19/80-27 TO 80-45 | 80-45 TO 80-21

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
JTH 11/03/25

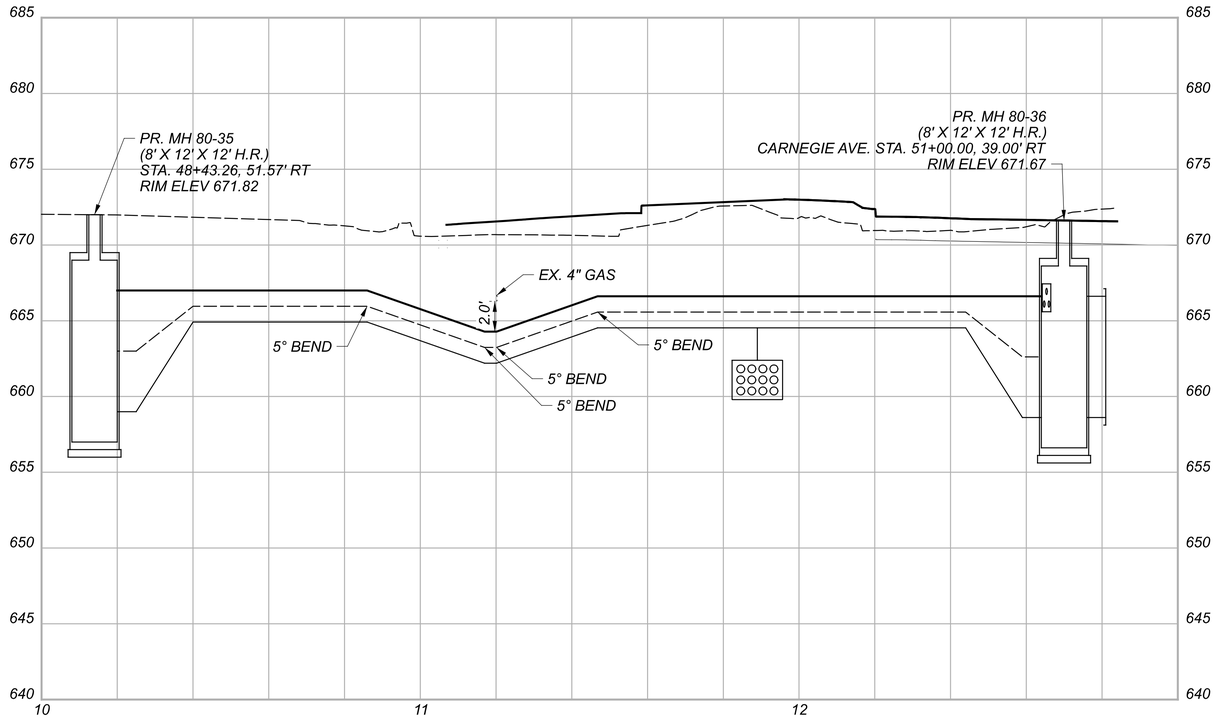
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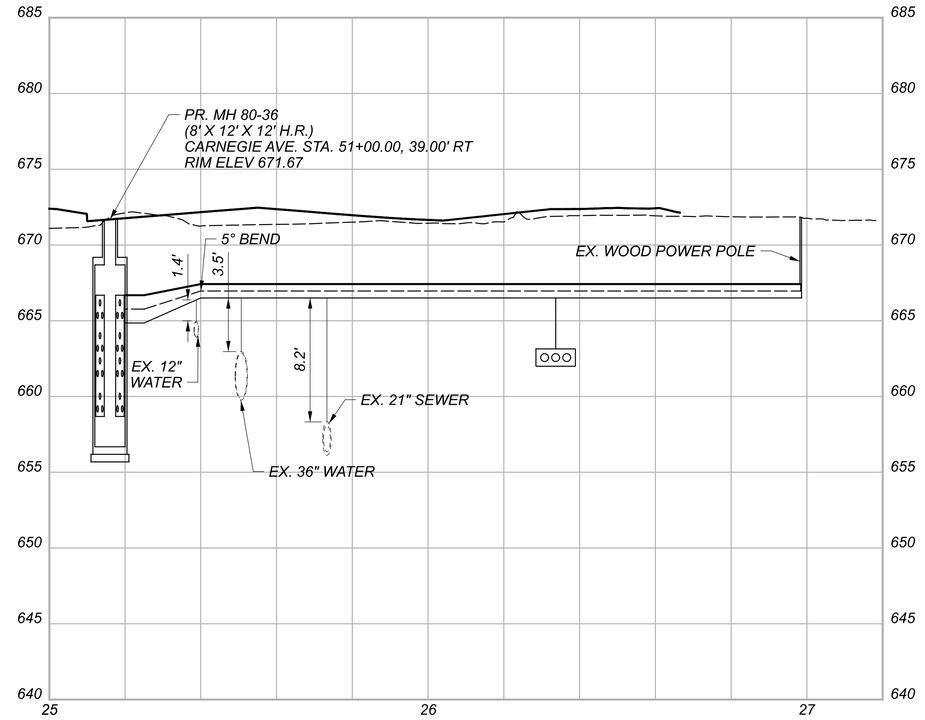
SHEET 1796A | TOTAL 2696

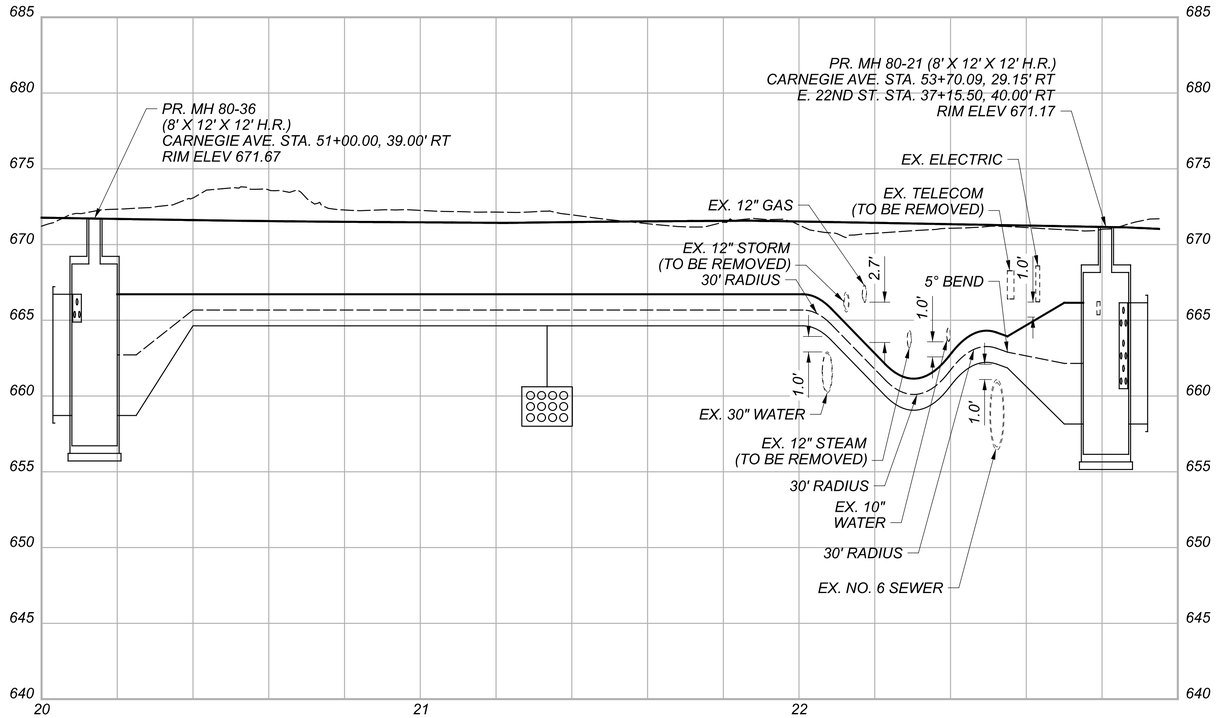
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CUY-90-16.28 (CCG3A)

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
80-35 TO 80-36 | 80-36 TO 80-21 | 80-36 TO RISER POLE

DESIGN AGENCY
Michael Baker INTERNATIONAL

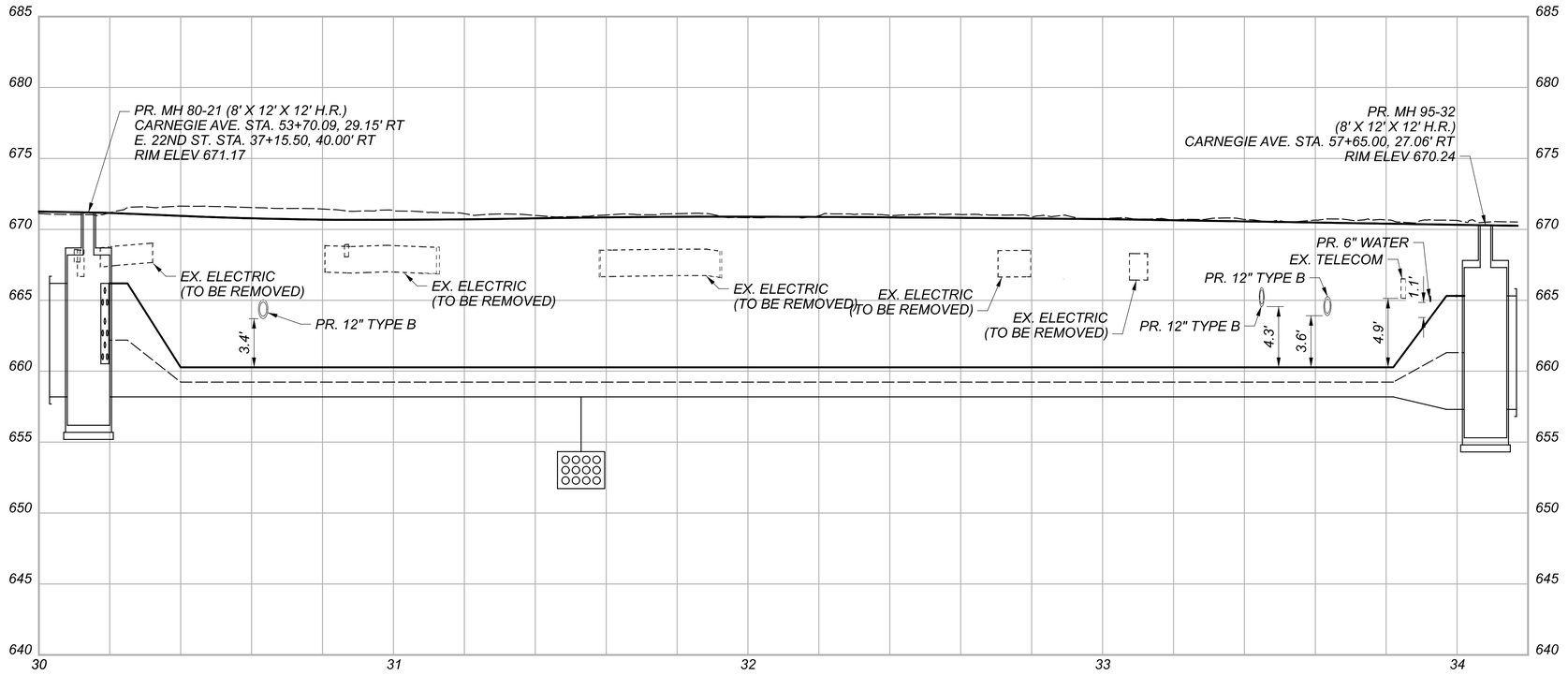
DESIGNER
KJM

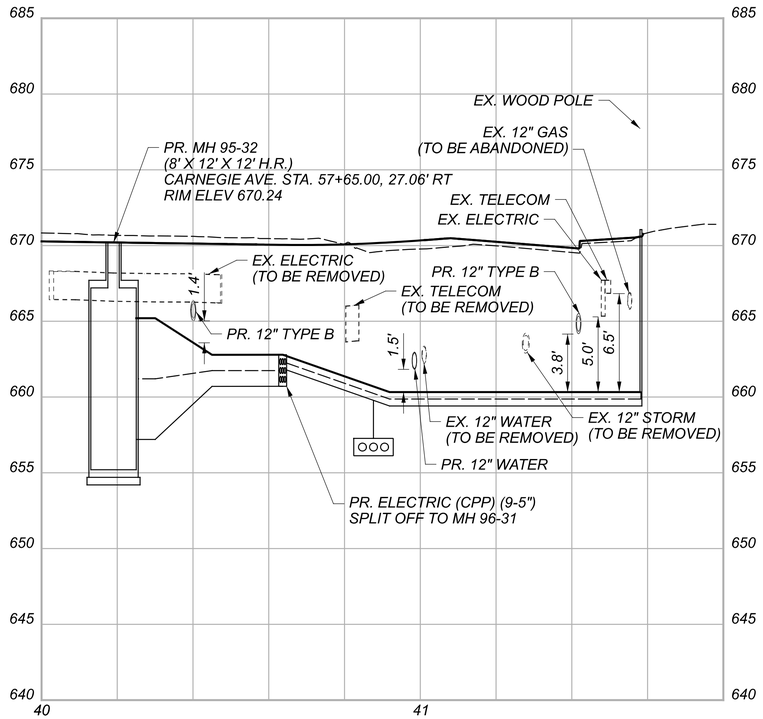
REVIEWER
JTH 11/03/25

PROJECT ID
82382

SHEET 1796B | TOTAL 2696

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
80-21 TO 95-32 | 95-32 TO RISER POLE

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
JTH 11/03/25

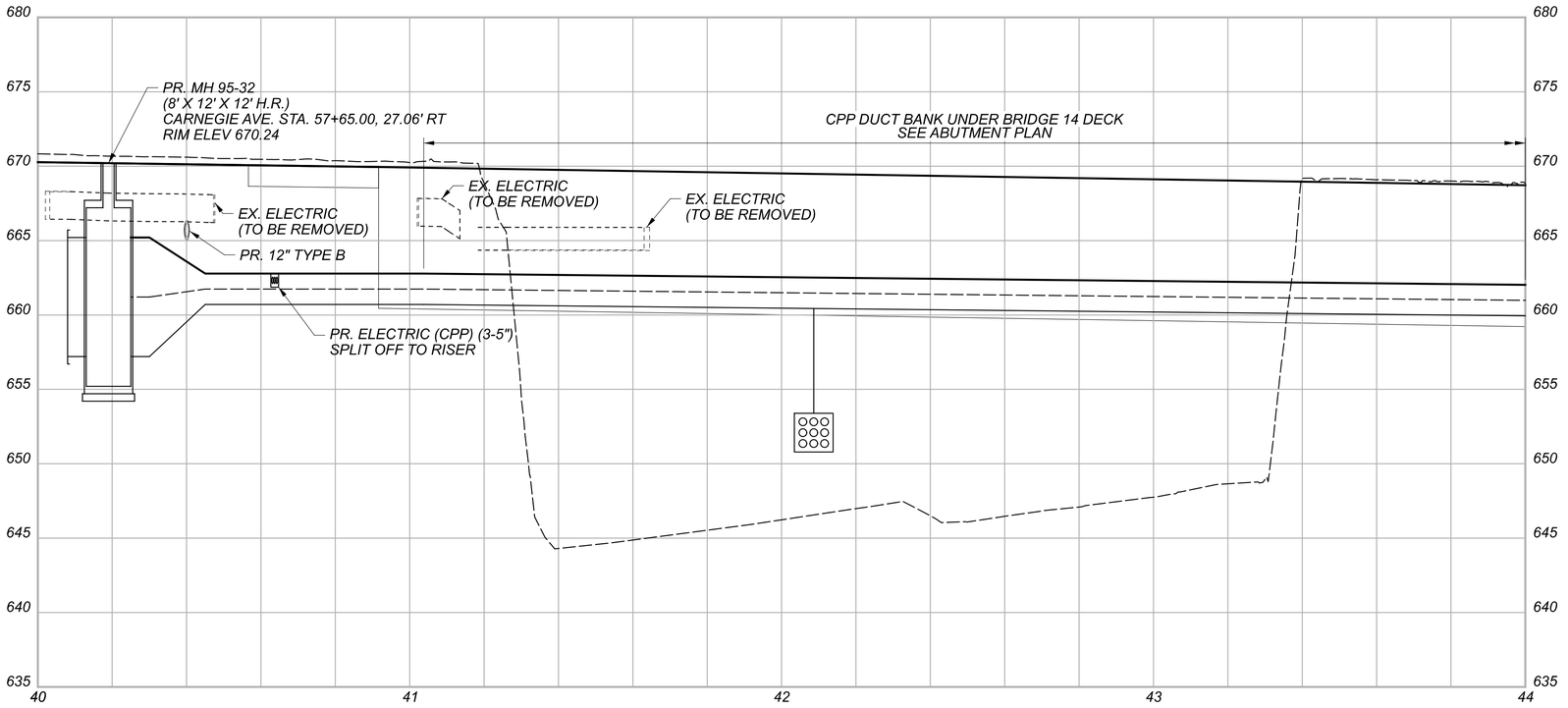
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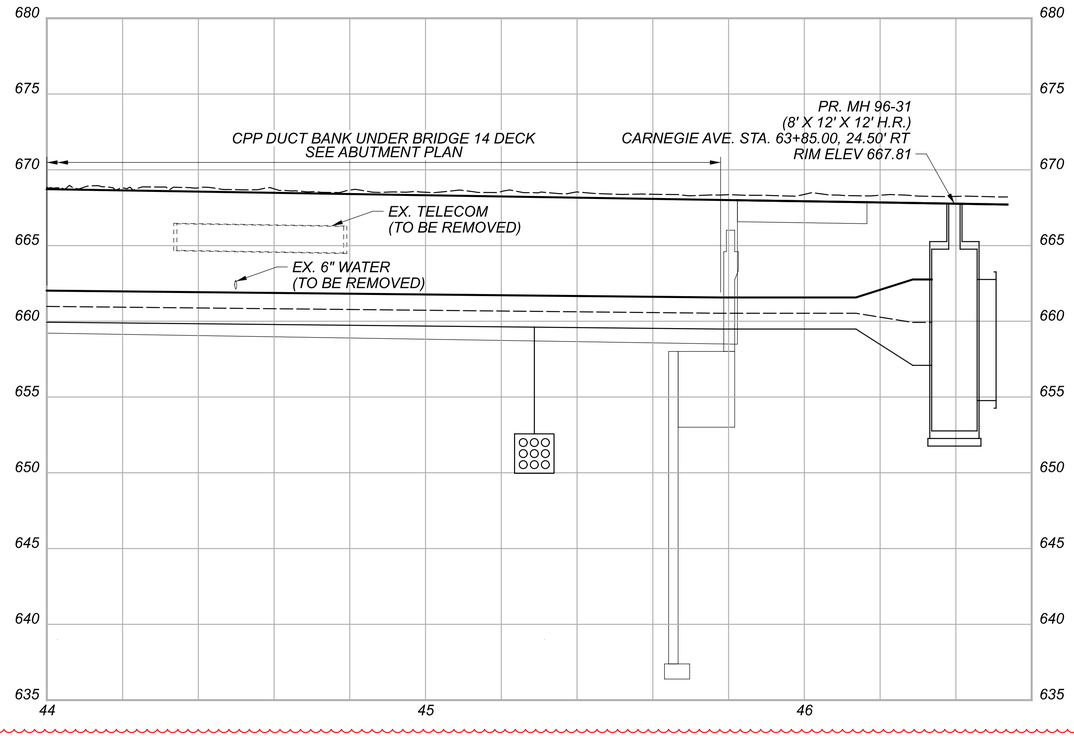
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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
95-32 TO 96-31

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER
KJM

REVIEWER
JTH 11/03/25

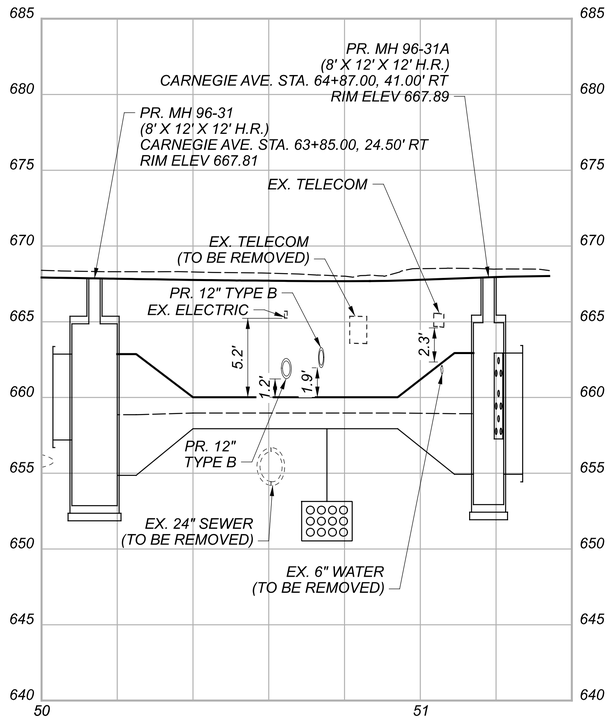
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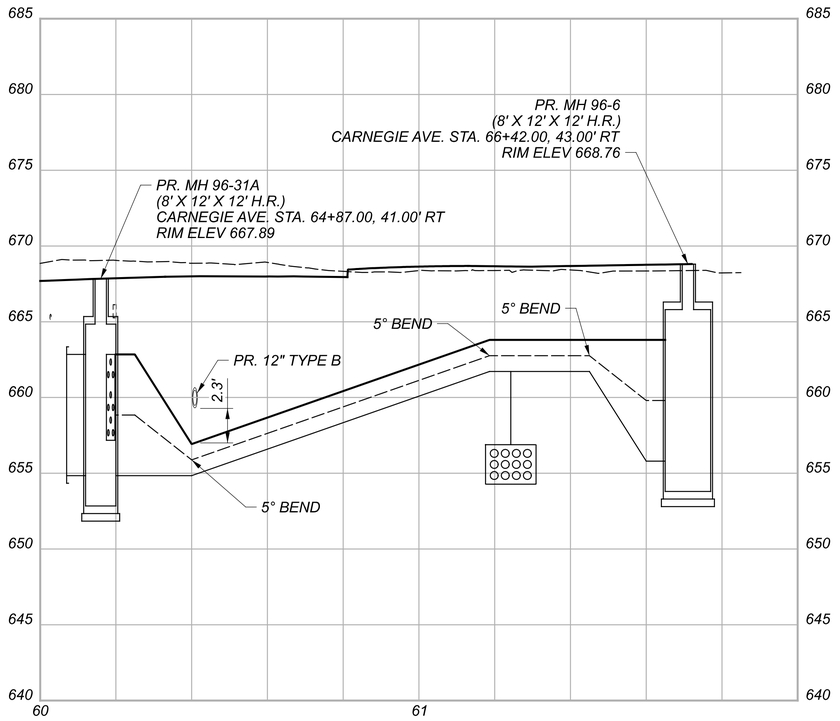
SHEET 1796D | TOTAL 2696

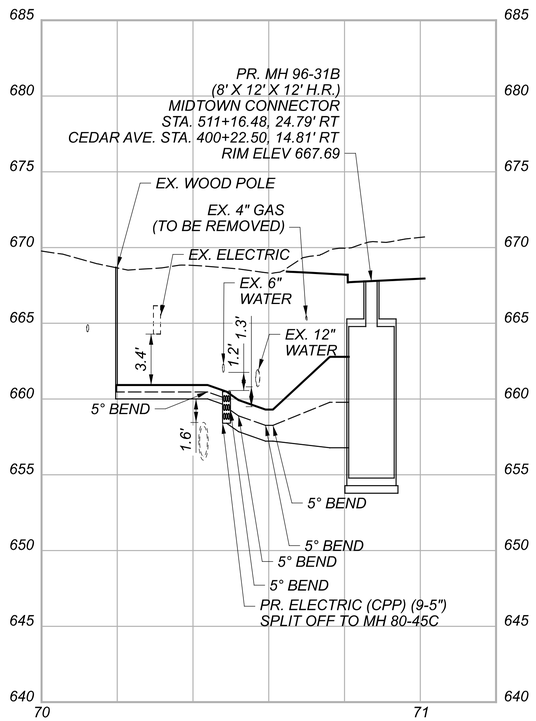
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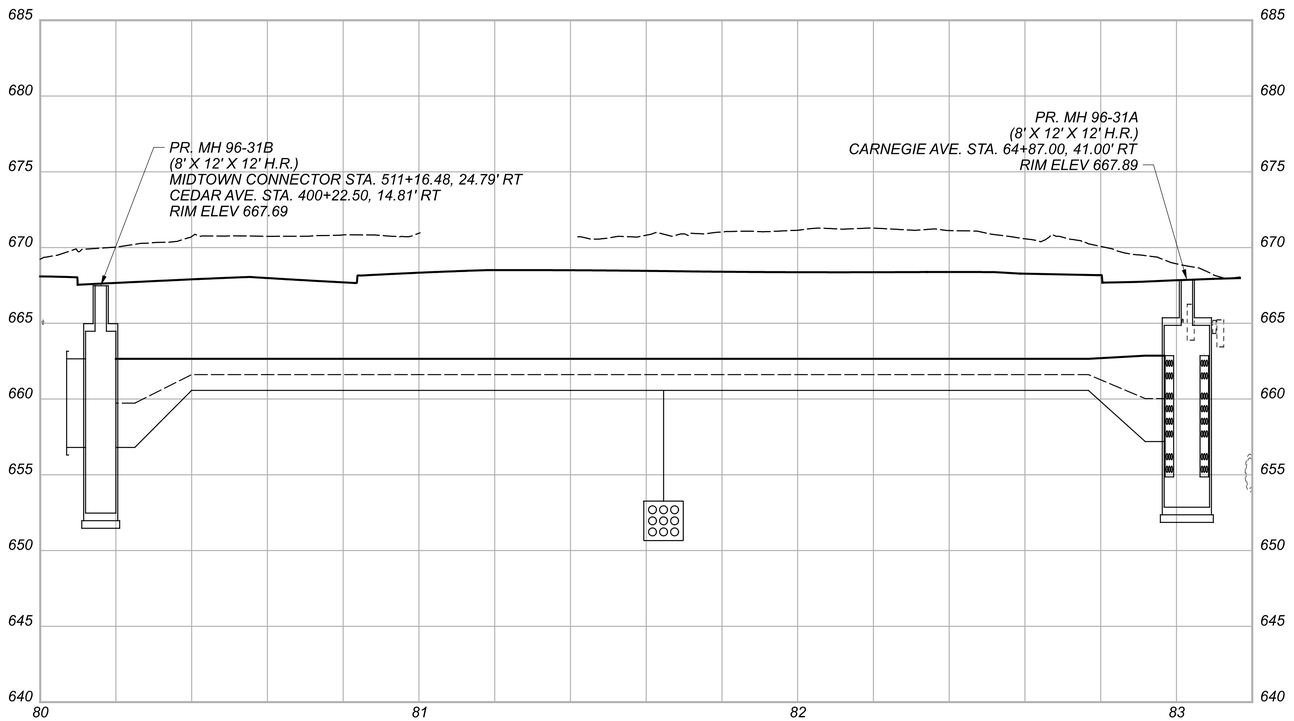
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CUY-90-16.28 (CCG3A)

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
96-31 TO 96-31A | 96-31A TO 96-6 | RISER POLE TO 96-31B | 96-31B TO 96-31A

DESIGN AGENCY
Michael Baker INTERNATIONAL

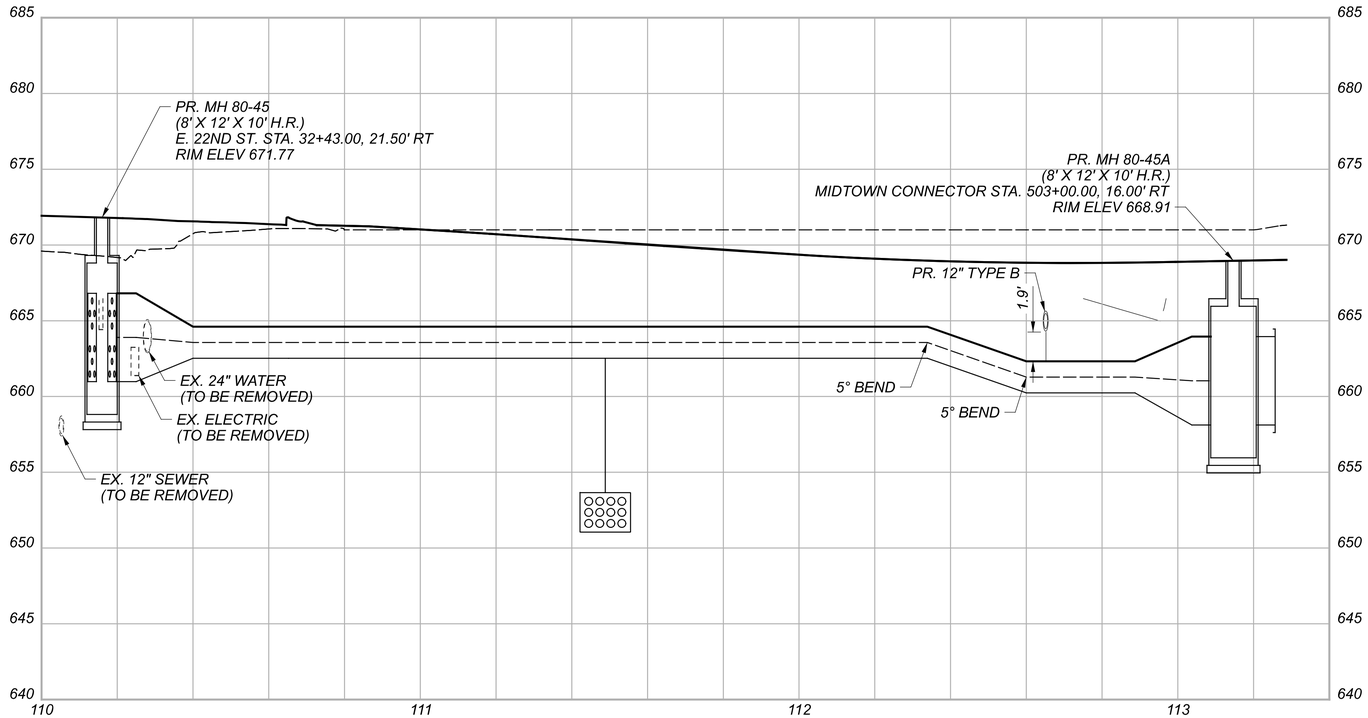
DESIGNER
KJM

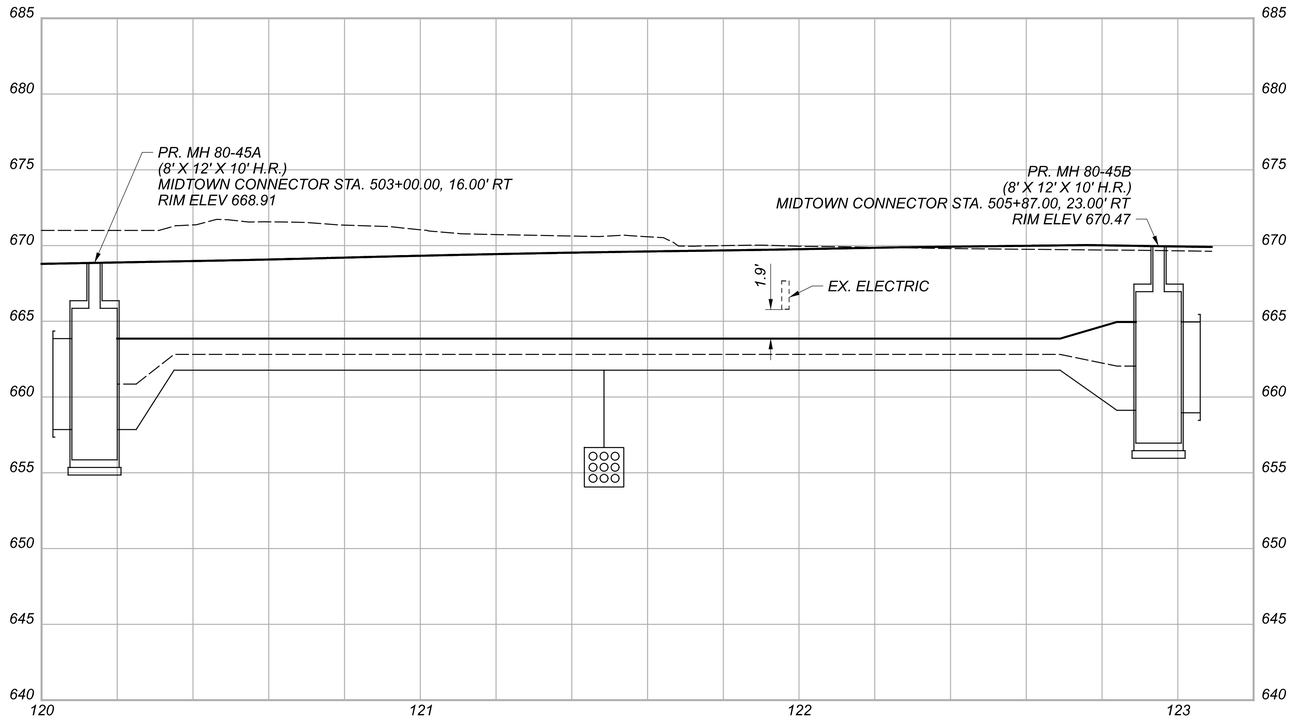
REVIEWER
JTH 11/03/25

PROJECT ID
82382

SHEET 1796E | TOTAL 2696

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CUY-90-16.28 (CCG3A)

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
80-45 TO 80-45A | 80-45A TO 80-45B

DESIGN AGENCY
Michael Baker INTERNATIONAL

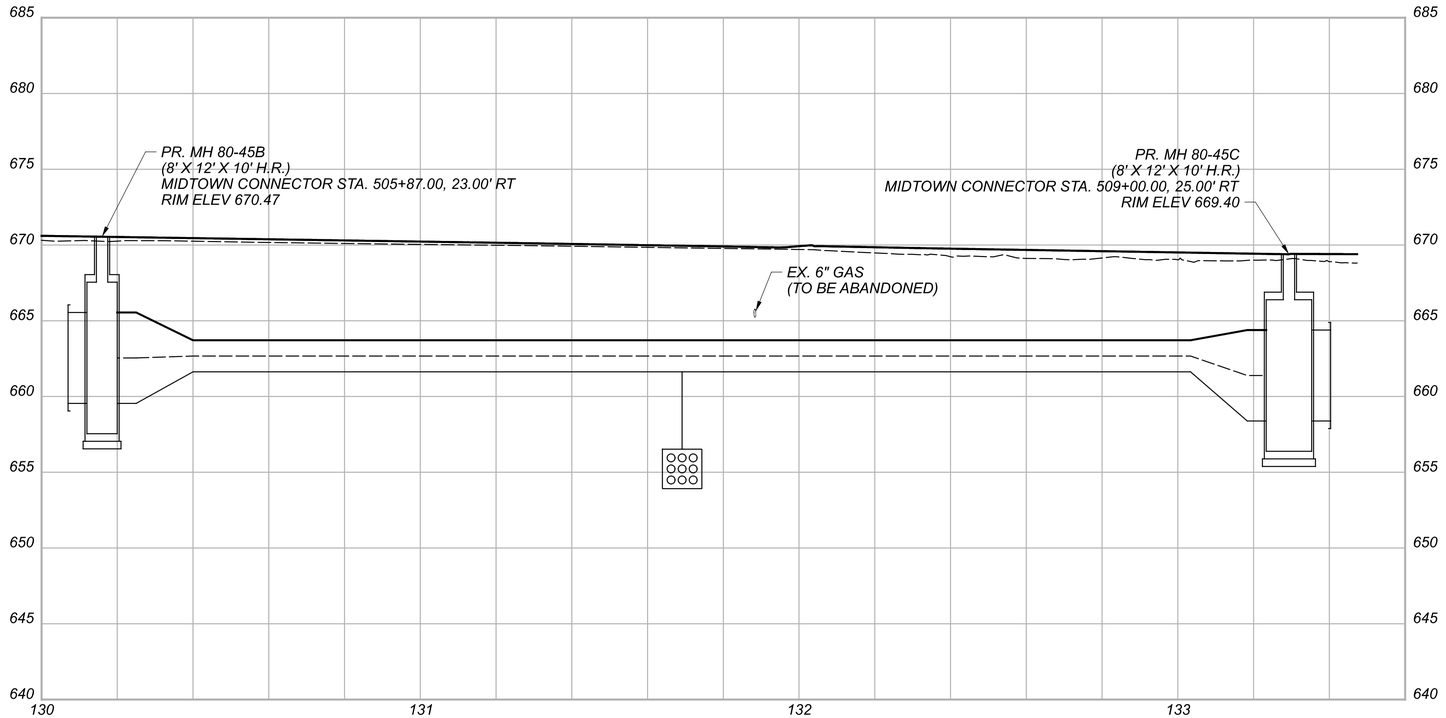
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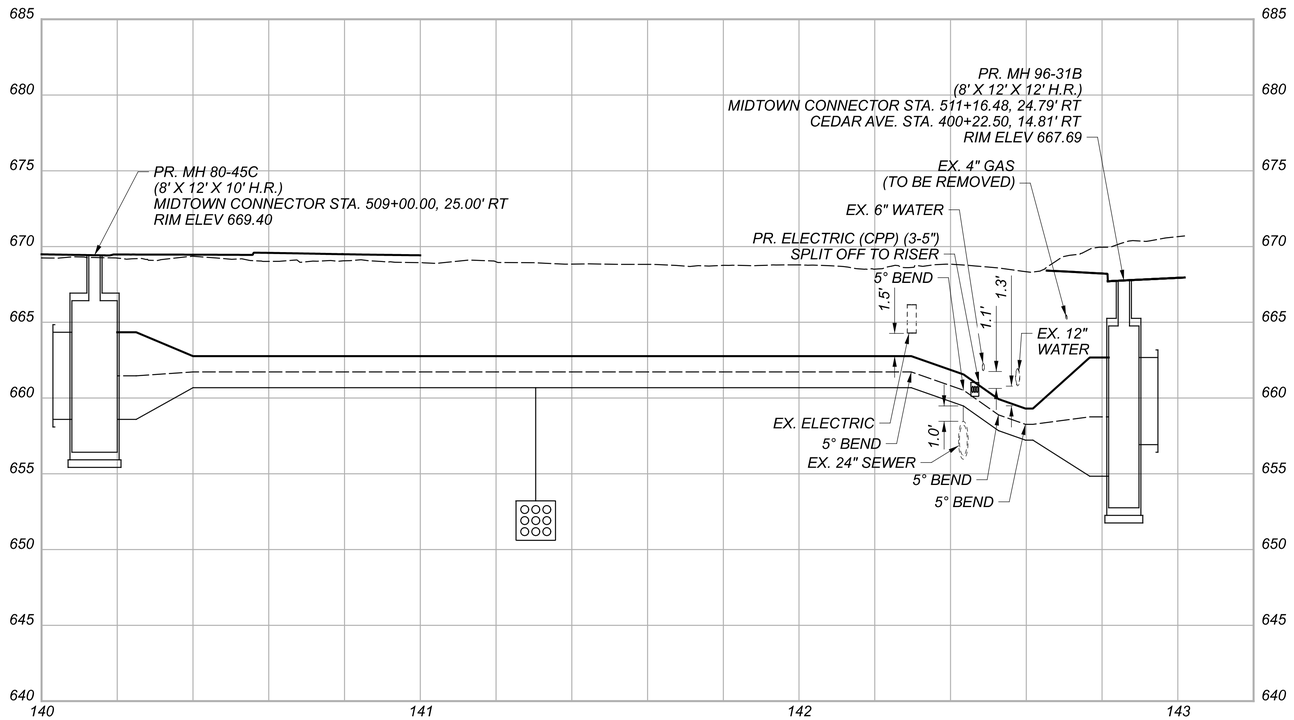
REVIEWER
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PROJECT ID
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SHEET 1796F | TOTAL 2696

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CUY-90-16.28 (CCG3A)

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CLEVELAND PUBLIC POWER
DUCT BANK PROFILES
80-45B TO 80-45C | 80-45C TO 96-31B

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER KJM
REVIEWER JTH 11/03/25
PROJECT ID 82382
SHEET 1796G TOTAL 2696

ITEM 659 - SEEDING AND MULCHING, CLASS 1, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 2, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 5B, AS PER PLAN
(CONT.)

MAINTENANCE OF LAWNS (CONT.)

MAINTENANCE SHALL INCLUDE RESEEDING, MOWING, WATERING, WEEDING, FERTILIZING A MINIMUM OF TWO TIMES IN ADDITION TO THE FERTILIZER INCORPORATED BY HARROWING INTO THE SPREAD LOAM, AND RESETTING AND STRAIGHTENING OF PROTECTIVE BARRIERS. LAWN WORK MAINTENANCE SHALL ALSO INCLUDE FUNGUS AND/OR PEST CONTROL (TREATMENT AS REQUIRED AND APPROVED BY RESIDENT ENGINEER).

DURING THE MAINTENANCE PERIOD, ANY DECLINE IN THE CONDITION OF SEEDED AREAS SHALL REQUIRE IMMEDIATE ACTION TO IDENTIFY POTENTIAL PROBLEMS AND TO UNDERTAKE CORRECTIVE MEASURES.

WATERING SHALL BE DONE IN A MANNER THAT WILL PROVIDE UNIFORM COVERAGE, PREVENT EROSION DUE TO APPLICATION OF EXCESSIVE QUANTITIES OVER SMALL AREAS, AND PREVENT DAMAGE TO THE FINISHED SURFACE BY THE WATERING EQUIPMENT.

THE CONTRACTOR SHALL PROVIDE ALL LABOR AND ARRANGE FOR ALL WATERING NECESSARY TO ESTABLISH AN ACCEPTABLE LAWN. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 2 INCHES FOR SEEDED AREAS AND 4 INCHES FOR SODDED AREAS. AT NO TIME SHALL A TANK TRUCK BE ALLOWED ON THE SEEDED AND/OR SODDED SURFACE.

WATERING SHALL BE DONE IN A MANNER THAT WILL PROVIDE UNIFORM COVERAGE, PREVENT EROSION DUE TO APPLICATION OF EXCESSIVE QUANTITIES OVER SMALL AREAS, AND PREVENT DAMAGE TO THE FINISHED SURFACE BY THE WATERING EQUIPMENT. THE CONTRACTOR SHALL FURNISH SUFFICIENT WATERING EQUIPMENT TO APPLY WATER TO THE REQUIRED SOIL DEPTHS EACH 8-HOUR PERIOD.

10 BIRD AND ANIMAL CONTROL SHALL BE INSTALLED AS NECESSARY TO ESTABLISH LAWN AND MEADOW AREAS AS SPECIFIED HEREIN. CONTRACTOR SHALL PROPOSE LEGAL BIRD AND ANIMAL CONTROL METHODS FOR APPROVAL BY RESIDENT ENGINEER.

AFTER THE GRASS IN SEEDED AREAS HAS GERMINATED, RESEED ALL AREAS AND PARTS OF AREAS THAT FAIL TO SHOW A UNIFORM STAND OF GRASS. RESEED SUCH AREAS AND PARTS OF AREAS REPEATEDLY UNTIL ALL AREAS ARE COVERED WITH A SATISFACTORY GROWTH OF GRASS WITH NO LESS THAN 20 GRASS SHOOTS PER SQUARE INCH AND 2880 GRASS SHOOTS PER SQUARE FOOT. RESEEDING TOGETHER WITH NECESSARY GRADING, FERTILIZING, AND TRIMMING SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL KEEP LAWN AREAS MOWED UNTIL ACCEPTANCE OF THE CONTRACT BY CUTTING TO A HEIGHT OF 2 INCHES WHEN GROWTH REACHES 3 INCHES OR AS DIRECTED BY THE RESIDENT ENGINEER.

AT EACH MOWING, ALL EDGES OF WALKS, DRIVES, PLANT BEDS AND OTHER BORDER CONDITIONS SHALL BE EDGE TRIMMED BY HAND OR MACHINE TO PRODUCE STRAIGHT AND UNIFORM EDGE CONDITIONS.

10 REMOVE AND DISCARD FROM PAVED AREAS ONLY CLIPPINGS AND DEBRIS GENERATED BY EACH MOWING AND EDGING OPERATION LEGALLY OFF-SITE. RESIDENT ENGINEER, IF PRACTICAL AND AESTHETIC, MAY ALLOW SWEEPING (NOT BLOWING) CLIPPINGS BACK INTO GRASS. MOWERS SHALL BE EQUIPPED WITH MULCHING BLADES. DO NOT REMOVE FROM GRASS AREAS ANY CLIPPINGS THAT HAVE BEEN GENERATED BY MOWING OPERATIONS. DO NOT MOW GRASS WHEN WET.

ITEM 659 - SEEDING AND MULCHING, CLASS 1, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 2, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 5B, AS PER PLAN
(CONT.)

NATIVE WILDFLOWER MIX MOWING

FIRST GROWING SEASON:

DURING THE FIRST GROWING SEASON, WHENEVER CANOPY HEIGHT (OVERALL VEGETATION) REACHED 18"-24", USE A BRUSH HOG MOWER OR STRING TRIMMER TO TRIM THE MEADOW TO A HEIGHT OF 8". TRIMMING SHOULD CEASE BY MID-SEPTEMBER.

SECOND AND SUBSEQUENT GROWING SEASONS:

PRIOR TO NEW SPRING GROWTH REACHING A HEIGHT OF 2" (MARCH-APRIL), TRIM ANY MATERIAL STANDING FROM THE PREVIOUS YEAR CLOSE TO THE GROUND, APPROXIMATELY 2".

APPLICATIONS OF FERTILIZER SHALL BE APPLIED TO SEEDED AREAS AT INSTALL, AT THE TIME OF THE FIRST MOWING, AND TWO MONTHS AFTER SECOND APPLICATION AND SHALL BE PERFORMED AND PAID FOR UNDER THIS ITEM. FIRST APPLICATION OF FERTILIZER SHALL BE AS RECOMMENDED BY SOIL TESTING. SECOND APPLICATION SHALL BE APPLIED AT A RATE THAT ENSURES THAT ONE-HALF POUND OF NITROGEN IS APPLIED PER 1,000 SQUARE FEET. PHOSPHORUS AND POTASSIUM SHALL BE APPLIED PROPORTIONALLY IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOIL TESTS AND THE QUANTITIES PREVIOUSLY INTEGRATED INTO THE SOIL DURING THE FIRST APPLICATION.

A THIRD APPLICATION OF NITROGEN FERTILIZER SHALL BE APPLIED TO SEEDED AREAS APPROXIMATELY TWO MONTHS AFTER THE SECOND APPLICATION AND SHALL BE PAID FOR UNDER THIS SECTION. THIS THIRD APPLICATION SHALL CORRESPOND TO THE FOLLOWING APPLICATION RATES DEPENDENT UPON THE MONTH OF APPLICATION.

MAY 1-15: APPLY 1.0 POUND OF NITROGEN PER 1,000 SQUARE FEET.

JUNE 15-30: APPLY 1.0 POUND OF NITROGEN PER 1,000 SQUARE FEET.

AUGUST 15 THROUGH SEPTEMBER 15: APPLY 1.0 POUND OF NITROGEN PER 1,000 SQUARE FEET.

NOVEMBER 1-15: APPLY 1.5 POUNDS OF NITROGEN PER 1,000 SQUARE FEET

NITROGEN FERTILIZER SHALL BE COMPOSED OF 50 PERCENT SLOW RELEASE NITROGEN FERTILIZER.

PROMPTLY REMOVE SOIL AND DEBRIS CREATED BY LAWN WORK FROM PAVED AREAS. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.

ERECT BARRICADES, PROTECTION, AND WARNING SIGNS AS DIRECTED BY THE ENGINEER TO PROTECT NEWLY PLANTED AREAS FROM TRAFFIC AND ANIMALS. MAINTAIN BARRICADES AS DIRECTED BY THE ENGINEER DURING MAINTENANCE PERIOD AND REMOVE AFTER LAWN IS ESTABLISHED. 10

FOLLOWING THE MINIMUM REQUIRED MAINTENANCE PERIODS FOR LAWNS, THE CONTRACTOR SHALL REQUEST THE ENGINEER IN WRITING FOR A FORMAL INSPECTION OF COMPLETED WORK. REQUEST FOR INSPECTION SHALL BE RECEIVED BY THE ENGINEER AT LEAST 10 DAYS BEFORE ANTICIPATED DATE OF INSPECTION.

ITEM 659 - SEEDING AND MULCHING, CLASS 1, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 2, AS PER PLAN
ITEM 659 - SEEDING AND MULCHING, CLASS 5B, AS PER PLAN
(CONT.)

NATIVE WILDFLOWER MIX MOWING (CONT.)

AT THE END OF THE MAINTENANCE PERIOD, SEEDED AREAS SHALL HAVE A CLOSE STAND OF GRASS AS DEFINED ABOVE WITH NO WEEDS PRESENT AND NO BARE SPOTS GREATER THAN 3 INCHES IN DIAMETER OVER GREATER THAN 5 PERECENT OF THE OVERALL SEEDED AREA. AT LEAST 90 PERCENT OF THE GRASS ESTABLISHED SHALL BE PERMANENT GRASS SPECIES. IF SEEDED AREAS ARE DIFICIENT, THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL SEEDED AREAS SHALL BE EXTENDED UNTILL DIFICIENCIES ARE CORRECTED. SEEDED AREAS TO BE CORRECTED SHALL BE PREPARED AND RESEEDED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.

AT THE TIME OF ACCEPTANCE, THE CONTRACTOR SHALL REMOVE TEMPORARY BARRIERS USED TO PROTECT LAWN AREAS.

FURNISH FULL AND COMPLETE WRITTEN INSTRUCTIONS FOR MAINTENANCE OF THE LAWNS TO THE ENGINEER AT THE TIME OF ACCEPTANCE IN CONFORMANCE WITH SUBMITTALS REQUIREMENTS.

ENGINEER'S INSPECTION SHALL DETERMINE WHETHER MAINTENANCE SHALL CONTINUE.

ALL AREAS WITHIN CONSTRUCTION LIMITS WITHOUT A SPECIFIED GROUND TREATMENT SHALL RECEIVE ITEM 659, SEEDING AND MULCHING, CLASS 1, AS PER PLAN

SEEDED LAWN SHALL BE MEASURED FOR PAYMENT PER SQUARE YARD COMPLETE IN-PLACE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN TO CONSIST OF ALL LABOR MATERIALS AND EQUIPMENT, MAINTENANCE, FERTILIZER APPLICATIONS, HERBICIDE AND PESTICIDE TREATMENTS, AND ALL OTHER INCIDENTALS.

10

METHOD OF MEASUREMENT:

SEEDING AND MULCHING SHALL BE MEASURED AS INDICATED FOR EACH PAY ITEM LISTED. REFER TO PLANTING SOILS SECTION FOR METHOD OF MEASUREMENT FOR SOIL MIXES REQUIRED FOR SEEDED AREAS.

8

A.	**ITEM 659 - SOIL ANALYSIS TEST**	**10 EACH**
B.	**ITEM 659 - REPAIR SEEDING AND MULCHING**	**6926 SY**
C.	**ITEM 659 - INTER-SEEDING**	**6926 SY**
D.	**ITEM 659 - COMMERCIAL FERTILIZER**	**19.32 TON**
E.	**ITEM 659 - LIME**	**28.62 ACRE**
F.	**ITEM 659 - WATER**	**767 M GAL**
G.	**ITEM 659 - MOWING**	10 **750 MSF**

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE D, WITH FILTER, AS PER PLAN

ROCK CHANNEL PROTECTION SHALL BE SANDSTONE MATERIAL ONLY, MATCHING THE GRADATION AND OTHER REQUIREMENTS OF ITEM 601.

ITEM SPECIAL - TREE PROTECTION

CONTRACTOR SHALL PROTECT TREES INDICATED IN THE PLANS AS "TO BE PROTECTED" PER SPECIAL PROVISION - TREE PROTECTION DATED JUNE 16, 2022.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - TREE PROTECTION 9 EACH

ITEM SPECIAL - AIR KNIFE EXCAVATION

CONTRACTOR SHALL PERFORM AIR KNIFE EXCAVATION ALONG EXPOSED ROOTS OF TREES TO REMAIN ON THE NORTH SIDE OF CARNEGIE AND AS DIRECTED BY THE ENGINEER PER SPECIAL PROVISION - AIR KNIFE EXCAVATION DATED JUNE 16, 2022.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - AIR KNIFE EXCAVATION 320 FT

LANDSCAPING GENERAL NOTES - 2

CUY-90-16.28 (CCG3A)
MODEL: Sheet-02 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 10:32:17 AM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Landscaping\Sheets\82382_PN2000.dgn

DESIGN AGENCY
Michael Baker INTERNATIONAL

DESIGNER BDC
REVIEWER JCF 01/10/24
PROJECT ID 82382
SHEET 1798 TOTAL 2696

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	07-17-15
AS-2-15	REVISED	01-18-19
SBR-1-20	REVISED	07-19-24

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800	DATED	SEE TITLE SHEET
840	DATED	04-15-22
855	DATED	04-20-18
866	DATED	04-21-17
869	DATED	10-17-14
894	DATED	04-16-21

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

SPECIAL DESIGN SPECIFICATIONS:

THIS BRIDGE REQUIRED THE USE OF A THREE DIMENSIONAL FINITE ELEMENT MODEL TO ANALYZE THE STRUCTURE, IN WHICH ALL STRUCTURAL COMPONENTS ARE EXPLICITLY MODELED (GIRDERS, DECK, AND ALL CROSSFRAME MEMBERS). THE COMPUTER PROGRAM USED FOR THE STRUCTURAL ANALYSIS WAS LARSA 4D (VERSION 8.00.R9021). THE BRIDGE COMPONENT FORCES WERE DETERMINED BY THIS METHOD AND THE LOAD DISTRIBUTION WAS DETERMINED AS FOLLOWS:

DEAD LOAD DISTRIBUTION: STRUCTURAL STEEL SELF-WEIGHT (NON-COMPOSITE) INCLUDES A 5% INCREASE OF STEEL DENSITY TO ACCOUNT FOR MISCELLANEOUS STEEL DETAILS. THE WEIGHT OF THE CONCRETE DECK SLAB (NON-COMPOSITE) IS PLACED AS A UNIFORMLY DISTRIBUTED LOAD, AND IS DETERMINED BY TRIBUTARY WIDTH TO EACH GIRDER. THE WEIGHT OF THE CONCRETE HAUNCH (NON-COMPOSITE) IS PLACED AS A UNIFORMLY DISTRIBUTED LOAD ALONG EACH GIRDER. EDGE RAILING LOADS (COMPOSITE) WERE PLACED AS UNIFORM SURFACE LOAD TO THE OVERHANG DECK PLATES, AND THE FUTURE WEARING SURFACE LOAD OF 60 PSF (COMPOSITE) WAS PLACED ON THE CONCRETE DECK AS A UNIFORM SURFACE LOAD IN THE THREE DIMENSIONAL FINITE ELEMENT MODEL.

LIVE LOAD DISTRIBUTION: A LIVE LOAD INFLUENCE SURFACE, IN CONJUNCTION WITH THE THREE DIMENSIONAL FINITE ELEMENT MODEL, WAS USED FOR LIVE LOAD ANALYSIS. INFLUENCE ORDINATES ARE DETERMINED WITHIN THE FINITE ELEMENT PROGRAM BY APPLYING A VERTICAL UNIT LOAD AT LONGITUDINAL AND TRANSVERSE POSITIONS AT DEFINED INCREMENTS ON THE CONCRETE DECK. LIVE LOADS ARE THEN PLACED ON THE INFLUENCE SURFACE AT CRITICAL LOCATIONS TO DETERMINE THE MAXIMUM/MINIMUM STRUCTURAL COMPONENT FORCE EFFECT BASED ON THE LONGITUDINAL AND TRANSVERSE STIFFNESS. THE LIVE LOAD DISTRIBUTION FACTORS VARY ALONG THE WIDTH AND LENGTH OF THE STRUCTURE.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

REDUNDANCY:

THE FOLLOWING ITEMS WERE CONSIDERED NON-REDUNDANT FOR DESIGN AND INCLUDED A LOAD MODIFIER EQUAL TO 1.05 IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.4: PIER 8 CAP AND COLUMNS

DESIGN LOADING:

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 4.0 KSI (MASS CONCRETE)
CONCRETE CLASS QC4 - COMPRESSIVE STRENGTH 6.0 KSI (MASS CONCRETE) PIER 8 CAP
CONCRETE CLASS QC5, WITH 3/8-IN. MAX. AGGREGATE SIZE: COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT) AT PIER 3
CONCRETE CLASS QC4, WITH 3/8-IN. MAX. AGGREGATE SIZE: COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT) AT PIER 7

CONCRETE REINFORCEMENT:
EPOXY COATED STEEL REINFORCEMENT - MINIMUM YIELD STRENGTH 60 KSI (DECK SLABS, RAILING, ABUTMENTS, PIERS AND APPROACH SLABS)
GFRP REINFORECMENT - C&MS 705.28 (MODULUS = 8700 KSI)(RAILING)

STRUCTURAL STEEL - ASTM A709 GRADE 50 - YIELD STRENGTH 50 KSI

SHEET PILING - ASTM A572 GRADE 50 - YIELD STRENGTH 50 KSI

CAST-IN PLACE STEEL PIPE PILES - ASTM A252, STEEL PIPE GRADE 3
MINIMUM YIELD STRENGTH 45 KSI

POST-TENSIONING DESIGN DATA:

A. POST-TENSIONING STRANDS SHALL BE IN ACCORDANCE WITH ASTM A416, GRADE 270, LOW RELAXATION.

B. THE DESIGN IS BASED UPON THE FOLLOWING INITIAL TENDON STRESSES AND TENDON CHARACTERISTICS:
DIAMETER: 0.6 INCHES
WOBBLE COEFFICIENT: 0.0002
FRICTION COEFFICIENT: 0.23
ANCHOR SET: 0.25 INCHES
MAXIMUM JACKING STRESS: 195 KSI
MAXIMUM STRESS AT ANCHORAGE AFTER SEATING: 187 KSI
MAXIMUM STRESS OTHER LOCATIONS AFTER SEATING: 187 KSI
APPARENT MODULUS OF ELASTICITY: 28,500 KSI

C. A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI SHALL BE OBTAINED PRIOR TO STRESSING OF POST-TENSIONING TENDONS.

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

REAR ABUTMENT PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING ABUTMENT PILES TO THE ULTIMATE BEARING VALUE (UBV), CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENT UP TO THE BOTTOM OF THE FOOTING FOR A MINIMUM DISTANCE OF 200 FEET BEHIND THE REAR ABUTMENT. THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO THE SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. PROVIDE AT LEAST 3-FT OF PILE ABOVE THE TOP OF THE PILE SLEEVE TO MEET THE REQUIREMENTS OF C&MS 507.09 REGARDING SPLICES.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED.

ITEM 203 EMBANKMENT, AS PER PLAN:

PLACE AND COMPACT EMBANKMENT MATERIAL IN 6 INCH LIFTS FOR THE CONSTRUCTION OF THE APPROACH EMBANKMENT BETWEEN STATIONS 409+67.00 TO 431+97.00.

REAR ABUTMENT PROPRIETARY RETAINING WALL DATA:

THE PROPRIETARY WALL SUPPLIER SHALL DESIGN THE INTERNAL STABILITY OF A MECHANICALLY STABILIZED EARTH (MSE) WALL IN ACCORDANCE WITH SS840 TO SUPPORT THE ABUTMENT. THE DESIGN FOR INTERNAL STABILITY SHALL INCLUDE A NOMINAL (I.E. UNFACTORED) HORIZONTAL STRIP LOAD DUE TO FRICTION (FR) FROM THE SUPERSTRUCTURE OF 1.85 K/FT AT THE REAR ABUTMENT (WALL N) APPLIED PERPENDICULAR TO THE FACE OF WALL AT THE BASE OF THE CONCRETE FOOTING. THIS STRIP LOAD DOES NOT INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL. HOWEVER, THE PROPRIETARY WALL SUPPLIER SHALL INCLUDE EARTH PRESSURE LOADS FROM THE ABUTMENT BACKFILL IN THE DESIGN CALCULATIONS.

FRICTION DRILLED SHAFTS:

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 2038.9 KIPS AT PIER 3 AND 2534.0 KIPS AT PIER 7. THIS LOAD IS RESISTED BY FRICTIONAL SIDE RESISTANCE ALONG THE LENGTH OF THE DRILLED SHAFT AND BY TIP RESISTANCE. AT PIER 3, THE FACTORED SIDE RESISTANCE IS 1707.3 KIPS, ASSUMED TO ACT ALONG THE ENTIRE LENGTH OF THE DRILLED SHAFT, AND THE FACTORED TIP RESISTANCE IS 334.0 KIPS. AT PIER 7, THE FACTORED SIDE RESISTANCE IS 2115.3 KIPS, ASSUMED TO ACT ALONG THE BOTTOM 83 FEET OF THE DRILLED SHAFT, AND THE FACTORED TIP RESISTANCE IS 424.6 KIPS.

ITEM 524 - DRILLED SHAFTS, 90" DIAMETER, ABOVE BEDROCK, AS PER PLAN:

INSTALLATION OF DRILLED SHAFTS AT PIER 7 MAY CONFLICT WITH EXISTING FOUNDATIONS, SPECIALIZED EQUIPMENT, MATERIAL, AND ALL NECESSARY LABOR TO PERFORM THIS WORK WILL BE CONSIDERED INCIDENTAL AND INCLUDED WITH PAY ITEM 524-DRILLED SHAFTS, 90" DIAMETER, ABOVE BEDROCK, AS PER PLAN. REFER TO FOUNDATION PLANS FOR APPROXIMATE LOCATIONS OF EXISTING PILES.

10 THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING.

LATERALLY LOADED DRILLED SHAFTS:

THE MAXIMUM FACTORED LATERAL LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT AT PIER 3 IS 58.5 KIPS. THIS LOAD PRODUCES A MAXIMUM FACTORED BENDING MOMENT OF 934 KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF 58.5 KIPS, WITHIN THE DRILLED SHAFT.

THE MAXIMUM FACTORED LATERAL LOAD AND BENDING MOMENT TO BE SUPPORTED BY EACH DRILLED SHAFT AT PIER 7 ARE 100 KIPS AND 3739 KIP-FEET, RESPECTIVELY. THESE LOADS PRODUCE A MAXIMUM FACTORED BENDING MOMENT OF 5108 KIP-FEET, AND A MAXIMUM FACTORED SHEAR OF 133 KIPS, WITHIN THE DRILLED SHAFT.

ITEM 524 - DRILLED SHAFTS, MISC.: 90" DIAMETER DEMONSTRATION DRILLED SHAFT

PART 1: DESCRIPTION
THIS WORK CONSISTS OF ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS TO CONSTRUCT A DEMONSTRATION DRILLED SHAFT FOR TESTING AND EVALUATION TO VERIFY THE PROPOSED CONSTRUCTION METHODS FOR THE PRODUCTION DRILLED SHAFTS.

5 COMPLETE THE INSTALLATION OF THE DEMONSTRATION DRILLED SHAFT A MINIMUM OF 30 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE PRODUCTION DRILLED SHAFTS. THE DEPARTMENT WILL CONSIDER THE DEMONSTRATION DRILLED SHAFT INSTALLATION COMPLETE AFTER RECEIVING WRITTEN ACCEPTANCE FROM THE ENGINEER.

PART 2: MATERIALS
THE DEMONSTRATION DRILLED SHAFT SHALL USE THE SAME CONCRETE MIX DESIGN AND STEEL REINFORCEMENT AS THE PRODUCTION DRILLED SHAFTS.

PART 3: EXECUTION
SUBMIT A DRILLED SHAFT INSTALLATION PLAN TO THE ENGINEER FOR ACCEPTANCE IN ACCORDANCE WITH THE REQUIREMENTS OF C&MS 524.03. CONSTRUCT AT LEAST ONE DEMONSTRATION DRILLED SHAFT IN THE AREA SHOWN IN THE PLANS AND IN ACCORDANCE WITH THE ACCEPTED WRITTEN INSTALLATION. UPON CONSTRUCTION OF THE DEMONSTRATION DRILLED SHAFT, AND RECEIPT OF TESTING AND EVALUATION RESULTS CONFIRMING THE DEMONSTRATION DRILLED SHAFT HAS BEEN INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS, THE ENGINEER WILL ISSUE A LETTER ACCEPTING THE INSTALLATION PLAN FOR THE CONSTRUCTION OF THE SUBSEQUENT PRODUCTION DRILLED SHAFTS.

5 IF ANY MODIFICATIONS TO THE INSTALLATION PLAN ARE MADE, WHETHER DUE TO TESTING AND EVALUATION RESULTS OR FOR ANY OTHER REASON, THE DEPARTMENT WILL NOT REQUIRE CONSTRUCTION OF AN ADDITIONAL DEMONSTRATION SHAFT UNLESS REQUIRED BY THE ENGINEER. IF AN ADDITIONAL DEMONSTRATION DRILLED SHAFT IS REQUIRED BY THE ENGINEER IT WILL BE PAID FOR UNDER THE PAY ITEMS FOR DEMONSTRATION DRILLED SHAFT AND TESTING, AS LONG AS THE INSTALLATION AND TESTING ARE SUCCESSFUL, OTHERWISE IT WILL BE AT NO ADDITIONAL COST TO THE DEPARTMENT.

7 THE DIAMETER, REINFORCING, INSTALLATIONS METHODS, AND OTHER MISCELLANEOUS DETAILS OF THE DEMONSTRATION SHAFT SHALL BE THE SAME AS THE PRODUCTION DRILLED SHAFTS.

SUBMIT THE LOCATION OF THE DEMONSTRATION SHAFT TO THE ENGINEER FOR ACCEPTANCE. LOCATE THE DEMONSTRATION DRILLED SHAFT SUCH THAT NO INTERFERENCE OCCURS WITH THE FOUNDATIONS OF EXISTING OR PROPOSED STRUCTURES, THE PROPOSED MAINTENANCE OF TRAFFIC, OR EXISTING OR PROPOSED UTILITIES.

TEST THE DEMONSTRATION SHAFT BY THERMAL INTEGRITY PROFILING (TIP) ACCORDING TO ASTM D7949, METHOD B; BY CROSSHOLE SONIC LOGGING (CSL) ACCORDING TO ASTM D6760; BY HIGH-STRAIN DYNAMIC TESTING ACCORDING TO ASTM D4945; AND BY BI-DIRECTIONAL STATIC AXIAL COMPRESSIVE LOAD TESTING ACCORDING TO ASTM D8169.

PART 4: MEASUREMENT AND PAYMENT

10 THE DEPARTMENT WILL MEASURE DEMONSTRATION DRILLED SHAFT BY THE ACTUAL NUMBER COMPLETED AND ACCEPTED.

IN ADDITION TO THE PROVISIONS OF C&MS 524.17, THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES OF DEMONSTRATION DRILLED SHAFT AFTER INSTALLATION OF THE DEMONSTRATION SHAFT AND AFTER BEING PROVIDED WITH WRITTEN TESTING AND EVALUATION RESULTS ACCEPTABLE TO THE ENGINEER.

THE CONTRACT PRICE IS FULL COMPENSATION FOR FURNISHING AND INSTALLING DRILLED SHAFTS IN ACCORDANCE WITH THE ABOVE REQUIREMENTS, INCLUDING MOBILIZATION, SITE ACCESS, AND FINAL REMOVAL OF THE SHAFT TO A DEPTH OF AT LEAST 2 FOOT BELOW THE BOTTOM OF THE PROPOSED LIGHTWEIGHT FILL.

THE DEPARTMENT WILL PAY FOR TESTING AND EVALUATION OF THE ACCEPTED DEMONSTRATION SHAFT SEPARATELY. THE DEPARTMENT WILL NOT PAY FOR TESTING AND EVALUATION OF ADDITIONAL DEMONSTRATION DRILLED SHAFTS.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS FOLLOWS:
ITEM 524 – DRILLED SHAFTS, MISC.: 90" DIAMETER DEMONSTRATION DRILLED SHAFT

GENERAL NOTES - (1 OF 4)
CUY-77-1587 (BRIDGE 9)
I.R. 77 SB OVER I.R. 90 AND CR-721 (E. 14TH ST.)

SFN	1806910
DESIGN AGENCY	HDR
DESIGNER	TJE
CHECKER	BTA
REVIEWER	DWW 01/11/24
PROJECT ID	82382
SUBSET	12
TOTAL	167
SHEET	1880
TOTAL	2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 12:20:14 AM USER: Victor.Nash
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1806910\Sheets\82382_SFN_1806910_SN001.dgn

ESTIMATED QUANTITIES

CALCULATED BY: NJH/JML DATE: May-2024
CHECKED BY: DGJ DATE: May-2024

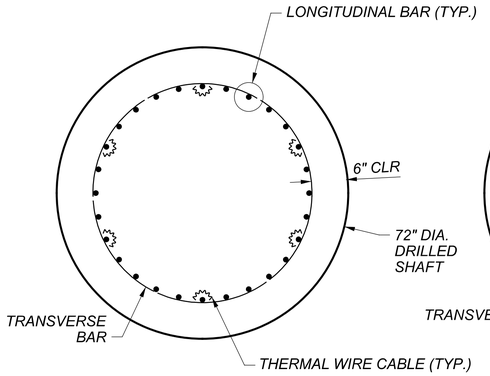
	PARTICIPATION	ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTR.	GENERAL	SHEET REF.
	03/IMS/08	203	20001	756	CY	EMBANKMENT, AS PER PLAN	756				12 / 167
8											
	03/IMS/08	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LS	14 / 167
	03/IMS/08	503	21100	5173	CY	UNCLASSIFIED EXCAVATION	225	4948			
	03/IMS/08	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				LS	
	03/IMS/08	507	00500	6435	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	6435				
	03/IMS/08	507	00550	6735	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	6735				
	03/IMS/08	507	00600	13760	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		13760			
	03/IMS/08	507	00650	14760	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		14760			
	03/IMS/08	507	00700	16690	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		16690			
	03/IMS/08	507	00750	17760	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		17760			
	03/IMS/08	507	92201	446	FT	PREBORED HOLES, AS PER PLAN	446				13 / 167
	03/IMS/08	509	10000	2309681	LB	EPOXY COATED STEEL REINFORCEMENT	68448	930999	1310234		
	03/IMS/08	509	30020	63147	FT	NO. 4 GFRP DEFORMED BARS			63147		
	03/IMS/08	511	34446	3826	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			3826		
	03/IMS/08	511	34450	626	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			626		
	03/IMS/08	511	41012	342	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		342			
	03/IMS/08	511	44112	437	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING	437				
	03/IMS/08	511	45602	1908	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA (4 KSI)		1908			
	03/IMS/08	511	45602	187	CY	CLASS QC4 MASS CONCRETE, SUBSTRUCTURE WITH QC/QA (6 KSI)		187			
	03/IMS/08	511	46512	1460	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	179	1281			
											15 / 167
	03/IMS/08	512	10001	622	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)	51	571			
	03/IMS/08	512	10100	8194	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	432	3426	4336		
	03/IMS/08	512	33000	56 8	SY	TYPE 2 WATERPROOFING	56		8		
	03/IMS/08	513	10301	7945900	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5, AS PER PLAN			7945900		
	03/IMS/08	513	20000	32600	EACH	WELDED STUD SHEAR CONNECTORS			32600		
	03/IMS/08	514	00060	391000	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			391000		
	03/IMS/08	514	00066	391000	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			391000		
	03/IMS/08	516	10010	149	FT	ARMORLESS PREFORMED JOINT SEAL				149	
	03/IMS/08	516	13900	168	SF	2" PREFORMED EXPANSION JOINT FILLER	146		22		
	03/IMS/08	SPECIAL	51612400	209	FT	MODULAR EXPANSION JOINT			209		14 / 167
	03/IMS/08	518	12301	16	EACH	SCUPPERS, INCLUDING SUPPORTS, AS PER PLAN			16		120 / 167
	03/IMS/08	518	21200	81	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	81				
	03/IMS/08	518	40000	214	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	214				
	03/IMS/08	518	51101	460	FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS, AS PER PLAN	226	234			120 / 167 AND 123 / 167
7											
	03/IMS/08	523	20001	10	EACH	DYNAMIC LOAD TESTING, AS PER PLAN	2	8			13 / 167
	03/IMS/08	523	20501	10	EACH	RESTRIKE, AS PER PLAN	2	8			13 / 167
	03/IMS/08	524	94946	471	FT	DRILLED SHAFTS, 72" DIAMETER, ABOVE BEDROCK		471			
	03/IMS/08	524	94989	440	FT	DRILLED SHAFTS, 90" DIAMETER, ABOVE BEDROCK, AS PER PLAN		440			12 / 167
10	03/IMS/08	524	95100	1	EACH	DRILLED SHAFTS, MISC.: 90" DIAMETER DEMONSTRATION DRILLED SHAFT		1			12 / 167
	03/IMS/08	524	95100	6	EACH	DRILLED SHAFTS, MISC.: CSL TESTING, 90" DIA. SHAFT		6			12 / 167 AND 13 / 167
	03/IMS/08	524	95100	12	EACH	DRILLED SHAFTS, MISC.: HIGH-STRAIN DYNAMIC TESTING OF DRILLED SHAFTS		12			12 / 167 AND 13 / 167
	03/IMS/08	524	95100	1	EACH	DRILLED SHAFTS, MISC.: BI-DIRECTIONAL TESTING OF DRILLED SHAFTS		1			13 / 167
	03/IMS/08	526	30010	483	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17")				483	
	03/IMS/08	526	90030	149	FT	TYPE C INSTALLATION				149	
	03/IMS/08	SPECIAL	53000200	LS		SPECIAL - STRUCTURES MISC.: VIBRATION MONITORING				LS	13 / 167
	03/IMS/08	SPECIAL	53000200	LS		SPECIAL - STRUCTURES MISC.: PRECONSTRUCTION CONDITION SURVEY				LS	13 / 167
	03/IMS/08	601	21001	18	SY	CONCRETE SLOPE PROTECTION, AS PER PLAN	18				35 / 167
	03/IMS/08	855	00010	12136	LB	POST-TENSIONING STRAND TENDON		12136			
	03/IMS/08	869	00101	100	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS, AS PER PLAN			100		68 / 167 TO 70 / 167
	03/IMS/08	894	10000	12	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST		12			12 / 167 AND 13 / 167

ESTIMATED QUANTITIES
CUY-77-1587 (BRIDGE 9)
I.R. 77 SB OVER I.R. 90 AND CR-721 (E. 14TH ST.)

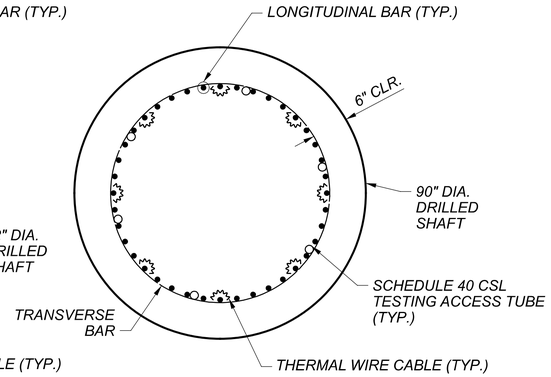
SFN 1806910
DESIGN AGENCY
HDR
DESIGNER BTA | CHECKER JS
REVIEWER DWW 01/11/24
PROJECT ID 82382
SUBSET 16 | TOTAL 167
SHEET 1884 | TOTAL 2696

CUY-90-16.28 (CCG3A)

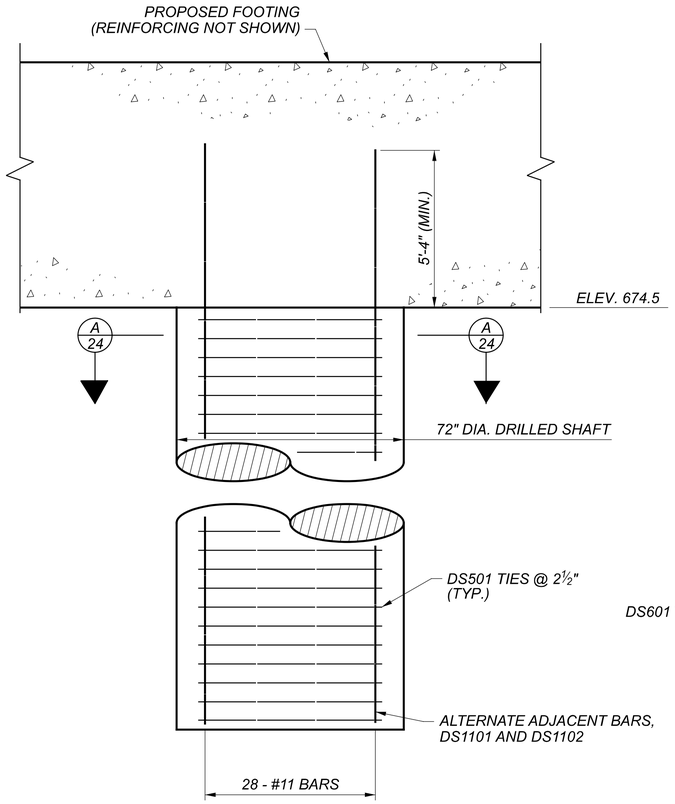
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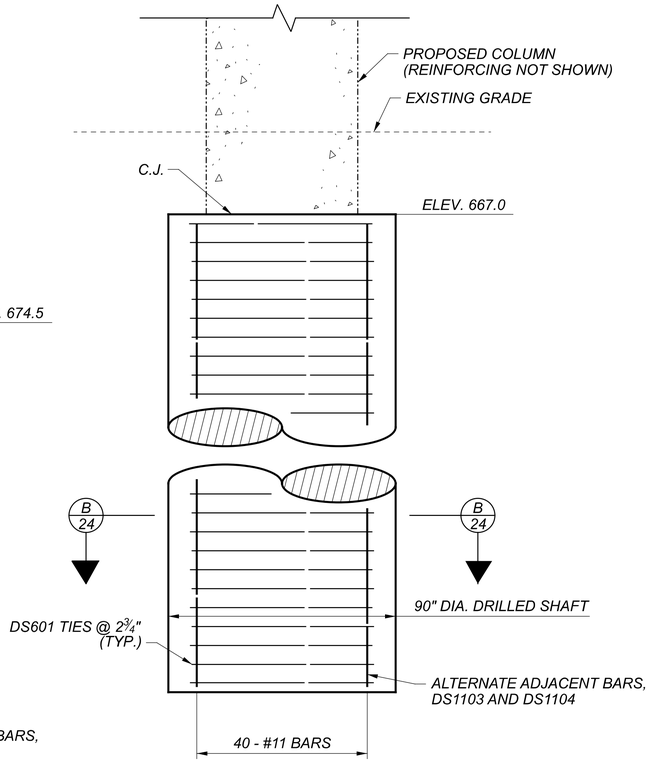
SECTION A-A
NO SCALE



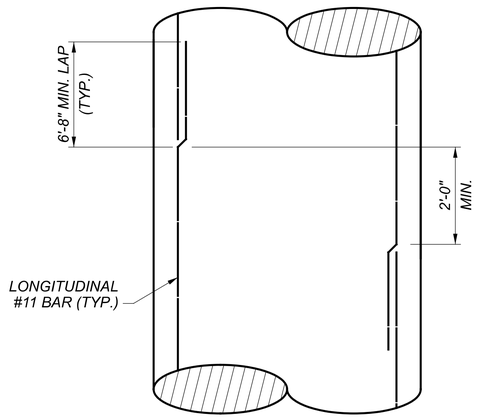
SECTION B-B
NO SCALE



DRILLED SHAFT DETAIL
PIER 3
NO SCALE



DRILLED SHAFT DETAIL
PIER 7
NO SCALE



LAP SPLICE DETAIL
NO SCALE

NOTES:

1. FOR GENERAL NOTES, SEE SHEETS 12 / 167 THRU 15 / 167 .
2. FOR PIER 3 PLAN, ELEVATION AND DETAILS, SEE SHEETS 45 / 167 THRU 47 / 167 .
3. FOR PIER 7 PLAN, ELEVATION AND DETAILS, SEE SHEET 55 / 167 AND 56 / 167 .
4. FOR FOUNDATION PLANS, SEE SHEETS 18 / 167 THRU 23 / 167 .
5. FOR DEMONSTRATION SHAFT DETAILS, SEE SHEETS 26 / 167 AND 27 / 167 .
6. THE INSTALLATION SEQUENCE OF CONSTRUCTION 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.
7. CARE SHALL BE EXERCISED AS TO COVER UNATTENDED OPEN SHAFTS. TEMPORARY COVERS SHALL BE OF ADEQUATE STRENGTH TO PREVENT A PERSON FROM FALLING IN. NO DRILLED SHAFT EXCAVATION MAY BE LEFT OVERNIGHT WITHOUT CONCRETE PLACED.

PIER	DRILLED SHAFT NUMBER	ESTIMATED QUANTITIES, PER SHAFT			REINFORCING BAR MARKS		NUMBER OF DRILLED SHAFTS TO BE TESTED			
		ITEM 524 - DRILLED SHAFT 72" DIAMETER	ITEM 524 - DRILLED SHAFT 90" DIAMETER, APP	ITEM 524 - DEMONSTRATION SHAFT	LONGITUDINAL	TIES	BY T.I.P.	BY CSL	BY HIGH-STRAIN DYNAMIC TESTING	BY BI-DIRECTIONAL TESTING
3	3P1 TO 3P6	78.5 FT.	--	--	DS1101, DS1102	DS501	6	--	6	--
7	7P1 TO 7P5	--	88 FT.	--	DS1103, DS1104	DS601	5	5	5	--
	DEMONSTRATION SHAFT	--	--	1 EACH	DS1105, DS1106		1	1	1	1

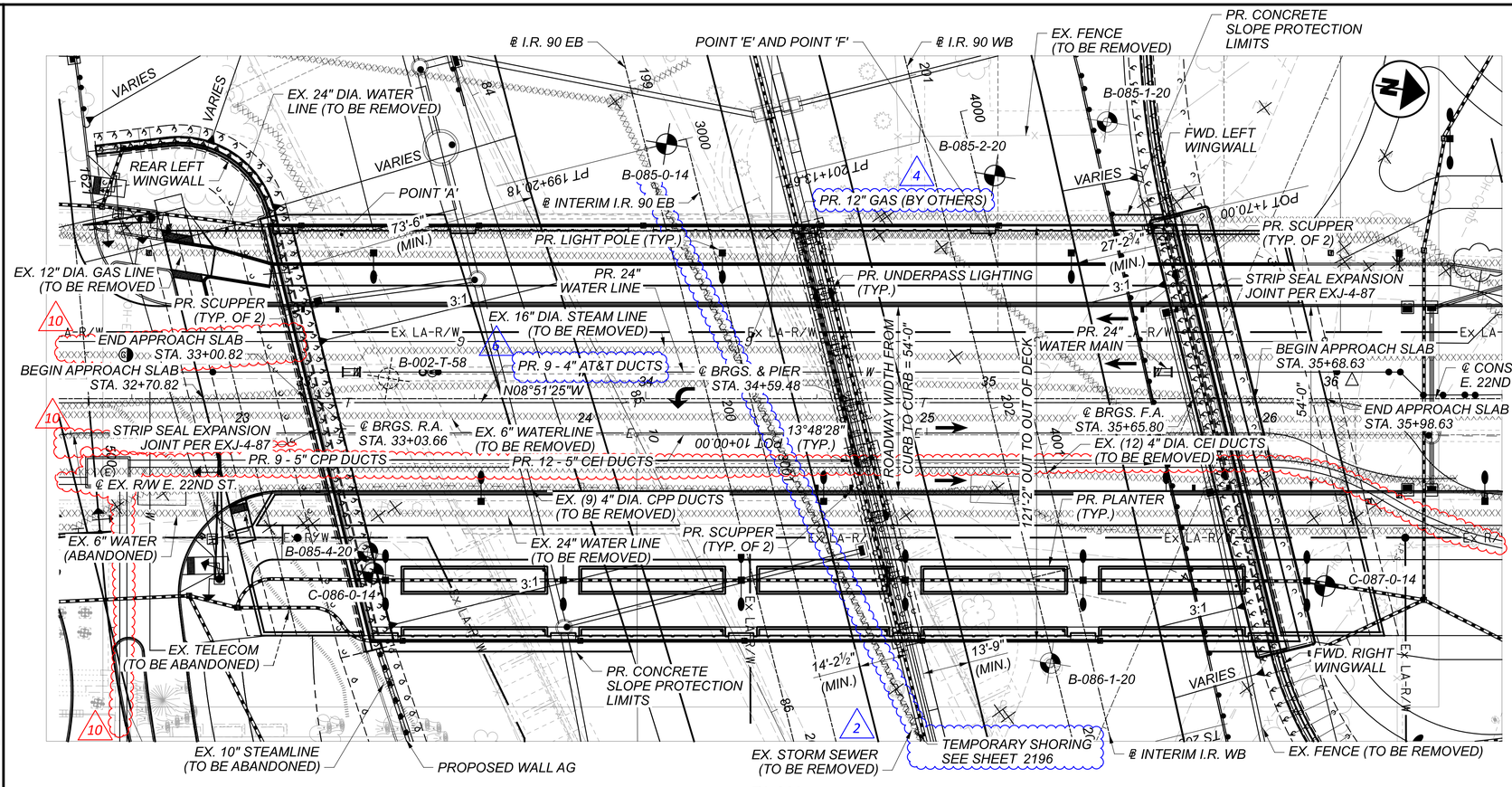
10

DRILLED SHAFT DETAILS - (1 OF 2)
CUY-77-1587 (BRIDGE 9)
I.R. 77 SB OVER I.R. 90 AND CR-721 (E. 14TH ST.)

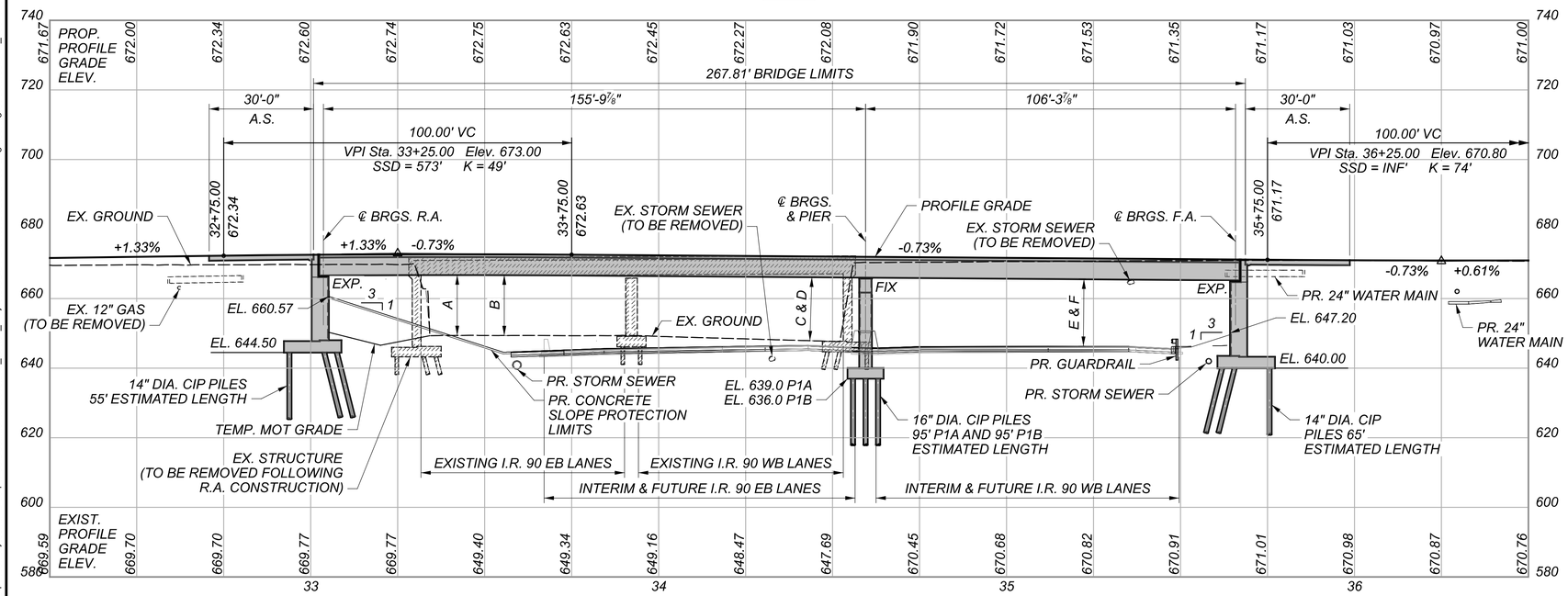
SFN 1806910
DESIGN AGENCY
DESIGNER PJC | CHECKER RBK
REVIEWER DWW 01/11/24
PROJECT ID 82382
SUBSET 24 | TOTAL 167
SHEET 1892 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 2:22:58 PM USER: JSCHROCK
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PLAN



PROFILE GRADE ALONG CL CONST. E. 22ND ST.

BENCHMARK DATA

BM #54 STA. 33+03.27	ELEV. 672.54	OFFSET 36.13 RT.	CUT CROSS
BM #62 STA. 35+24.62	ELEV. 672.11	OFFSET 1174.60 LT.	RR SPIKE
BM #72 STA. 23+49.63	ELEV. 674.06	OFFSET 52.19 LT.	CUT CROSS
BM #73 STA. 37+05.22	ELEV. 671.90	OFFSET 407.77' LT.	CUT CROSS

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 /2696.

NOTES

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

DESIGN TRAFFIC:

2015 ADT = 13,400 2015 ADTT = 536
2035 ADT = 15,300 2035 ADTT = 612
DIRECTIONAL DISTRIBUTION = 0.57

LEGEND

- TO BE REMOVED
- HISTORIC BORING LOCATION
- PROJECT BORING LOCATION
- INSTRUMENTED BORING LOCATION

VERTICAL CLEARANCES

A = M.V.C. EX. STRUCTURE TO EX. I-90
B = PR. STRUCTURE TO EX. I-90
C = PR. STRUCTURE TO INTERIM I-90
D = PR. STRUCTURE TO FUTURE I-90
E = M.V.C. PR. STRUCTURE TO INTERIM I-90
F = M.V.C. PR. STRUCTURE TO INTERIM I-90

HORIZONTAL CLEARANCE

LOCATION	R.A.	PIER 1 SOUTH	PIER 1 NORTH	F.A.
REQ'D CLR. ZONE	30'-0"	30'-0"	30'-0"	30'-0"
PROVIDED MIN.	73'-6"	14'-2½"*	13'-9"*	27'-2¾"*

* BARRIER PROTECTION REQ'D & PROVIDED

VERTICAL CLEARANCE

LOCATION	A	B	C	D	E	F
REQUIRED MIN.	-	14'-6"	15'-6"	15'-6"	15'-6"	15'-6"
PROVIDED MIN.	14'-6"	14'-11"	18'-2"	18'-2"	17'-0"	17'-1"

LOCATIONS A, B, C, AND D ARE MEASURED TO EB I-90 LANES
LOCATIONS E AND F ARE MEASURED TO WB I-90 LANES

EXISTING STRUCTURE

TYPE: CONTINUOUS BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 61'-3"±, 61'-3"± C/C BEARINGS ALONG ℄ CONSTRUCTION
ROADWAY: 74'-0"±, F/F OF CURBS WITH TWO 8'-0" WALKS
LOADING: CF 2000 (51)
SKEW: 25°51'00" RF
WEARING SURFACE: 2"± CONCRETE OVERLAY
APPROACH SLABS: AS-1-54 (25'± LONG), 1'-6½" THICK
ALIGNMENT: TANGENT
CROWN: 0.0156±
STRUCTURE FILE NUMBER: 1807838
DATE BUILT: 1958
DISPOSITION: TO BE REMOVED

PROPOSED STRUCTURE

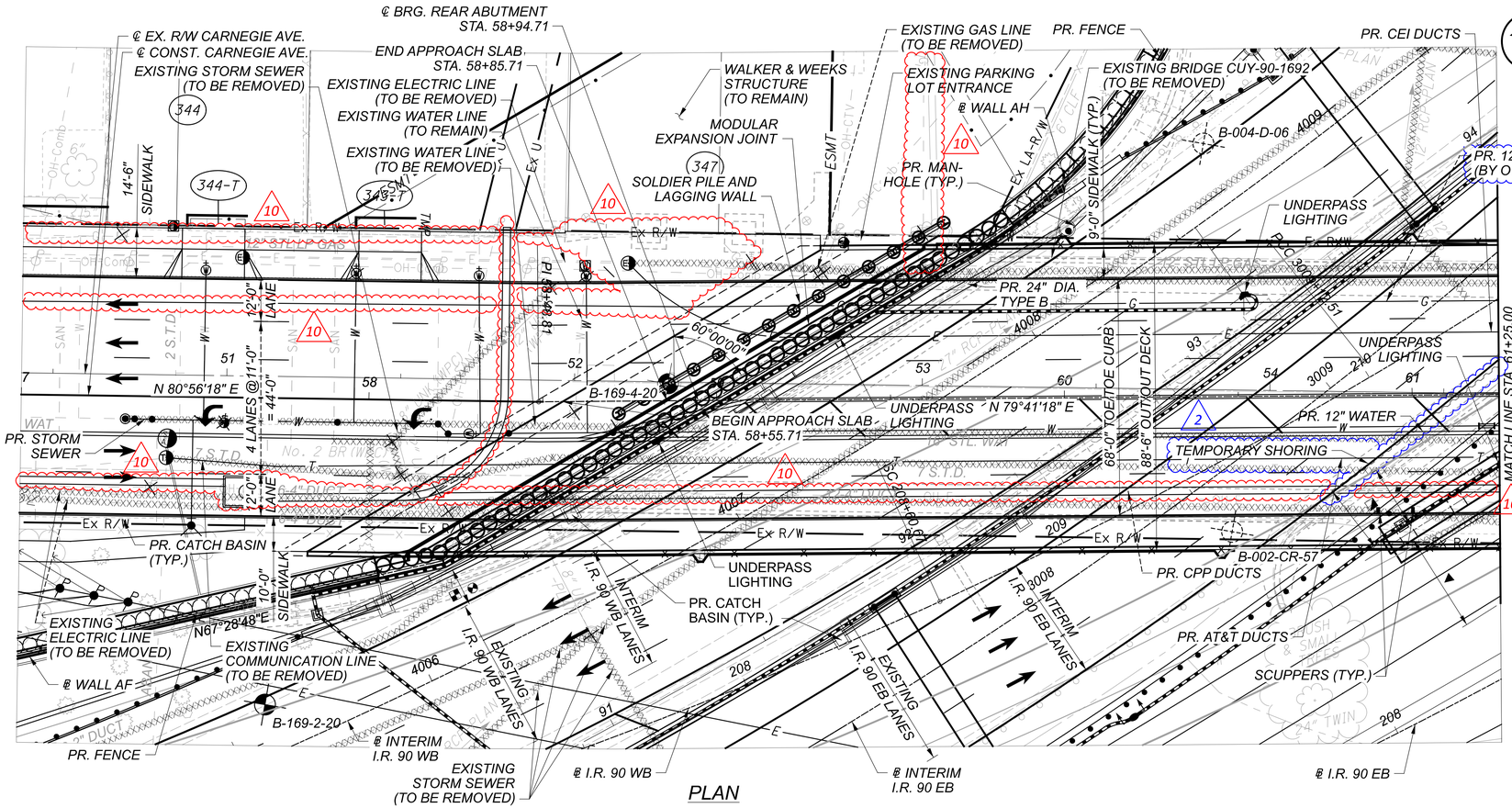
TYPE: CONTINUOUS STEEL PLATE GIRDER WITH COMPOSITE REINFORCED CONCRETE DECK SUPPORTED ON REINFORCED CONCRETE PIER & ABUTMENTS ON PILES
SPANS: 155'-9⅞" & 106'-3⅞" C/C BRGS. ALONG ℄ CONST. E. 22ND ST.
ROADWAY: 54'-0" TOE/TOE CURB WITH 9'-6" AND 22'-2" SIDEWALKS
LOADING: HL93, 60 PSF FUTURE WEARING SURFACE, & SIDEWALK PEDESTRIAN LL
SKEW: 13°48'28" RIGHT FORWARD
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLABS: 30'-0" LONG (AS-1-15, AS-2-15), TYPE A, INSTALLATION, 1'-5" THICK
ALIGNMENT: TANGENT
CROWN: 0.02 FT/FT
DECK AREA: 32,042 SF
STRUCTURE FILE NUMBER: 1807839
COORDINATES: LATITUDE N 41°29'52.40"
LONGITUDE W 81°40'25.98"

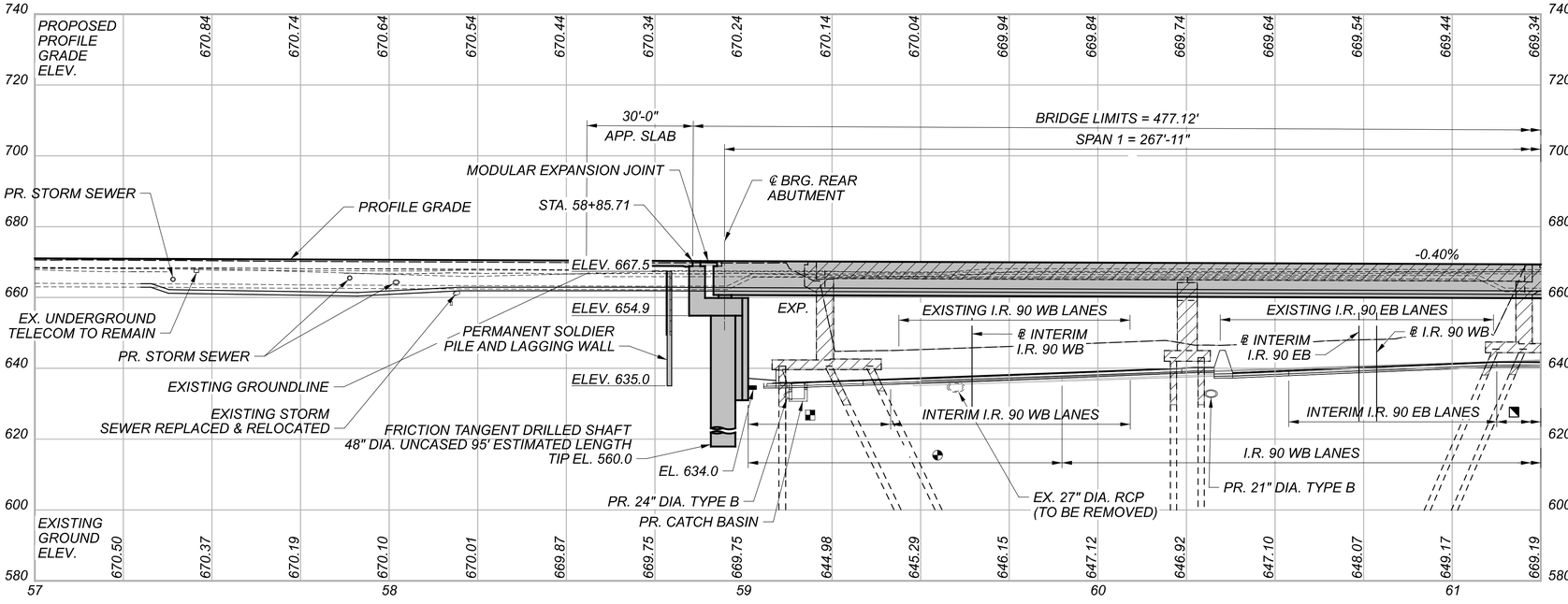
SITE PLAN
CUY-90-1678 (BRIDGE 13)
CR-710 (E. 22ND ST.) OVER I.R. 90

SFN 1807839
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER ZES | CHECKER ETB
REVIEWER CDC 05/10/24
PROJECT ID 82382
SUBSET 1 | TOTAL 99
SHEET 2182 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: CLP_E 22ND ST - Bridge 13 Plan PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 1:43:24 AM USER: Alexandria.Summers
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PROFILE GRADE ALONG ℄ CONST. CARNEGIE AVE.

BENCHMARK DATA

BM #62 STA.	41+38.42,	ELEV.	672.11,	OFFSET	75.42 LT.,	RR SPIKE
BM #64 STA.	58+35.86,	ELEV.	671.25,	OFFSET	47.90 LT.,	RR SPIKE
BM #65 STA.	66+35.73,	ELEV.	668.92,	OFFSET	38.62 RT.,	RR SPIKE
BM #73 STA.	49+25.90,	ELEV.	671.90,	OFFSET	31.86 LT.,	CUT CROSS

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET 4 / 2696

NOTES

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

DESIGN TRAFFIC:

2015 ADT = 25,700 2015 ADTT = TBD
2035 ADT = 30,500 2035 ADTT = TBD
DIRECTIONAL DISTRIBUTION = 0.56

LEGEND

- TO BE REMOVED
- HISTORIC BORING LOCATION
- INSTRUMENTED BORING LOCATION
- PROJECT BORING LOCATION

FOR MINIMUM VERTICAL CLEARANCE LOCATION, SEE SITE PLAN 2 OF 2

FOR MINIMUM HORIZONTAL CLEARANCE LOCATION, SEE SITE PLAN 2 OF 2

FOR PROFILE LOCATIONS OF ♦, ◥ AND ▼ SEE SITE PLAN 2 OF 2

EXISTING STRUCTURE

TYPE: TWO SPAN CONTINUOUS STEEL PLATE GIRDER BRIDGE WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 98'-0 1/2"± AND 92'-4 3/8"± C/C BEARINGS ALONG ℄ CARNEGIE AVE.

ROADWAY: 56'-0"± TOE/TOE CURB WITH TWO 8'-3"± SIDEWALKS

LOADING: CF = 2000 (51)

SKEW: VARIES

WEARING SURFACE: LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: 25'-0"± (AS-1-54)

ALIGNMENT: TANGENT

CROWN: 0.016± FT/FT

STRUCTURE FILE NUMBER: 1807897

DATE BUILT: 1958 (OVERLAY 1987)

DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: TWO SPAN CONTINUOUS STEEL PLATE GIRDER, WITH COMPOSITE REINFORCED CONCRETE DECK, SUPPORTED ON A TANGENT DRILLED SHAFT ABUTMENT, A REINFORCED CONCRETE ABUTMENT AND CAP AND COLUMN PIER

SPANS: 267'-11" & 192'-8 5/8" C/C BRGS. ALONG ℄ CONST. CARNEGIE AVE.

ROADWAY: 68'-0" TOE/TOE CURB WITH TWO 9'-0" SIDEWALKS

LOADING: HL93, PEDESTRIAN LL, AND 60 PSF FUTURE WEARING SURFACE (FWS)

SKEW: VARIES LEFT FORWARD

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 30'-0" LONG (AS-1-15, AS-2-15) TYPE B INSTALLATION

ALIGNMENT: TANGENT

CROWN: 0.02 FT/FT

DECK AREA: 41,987 SF

SFN: 1807898

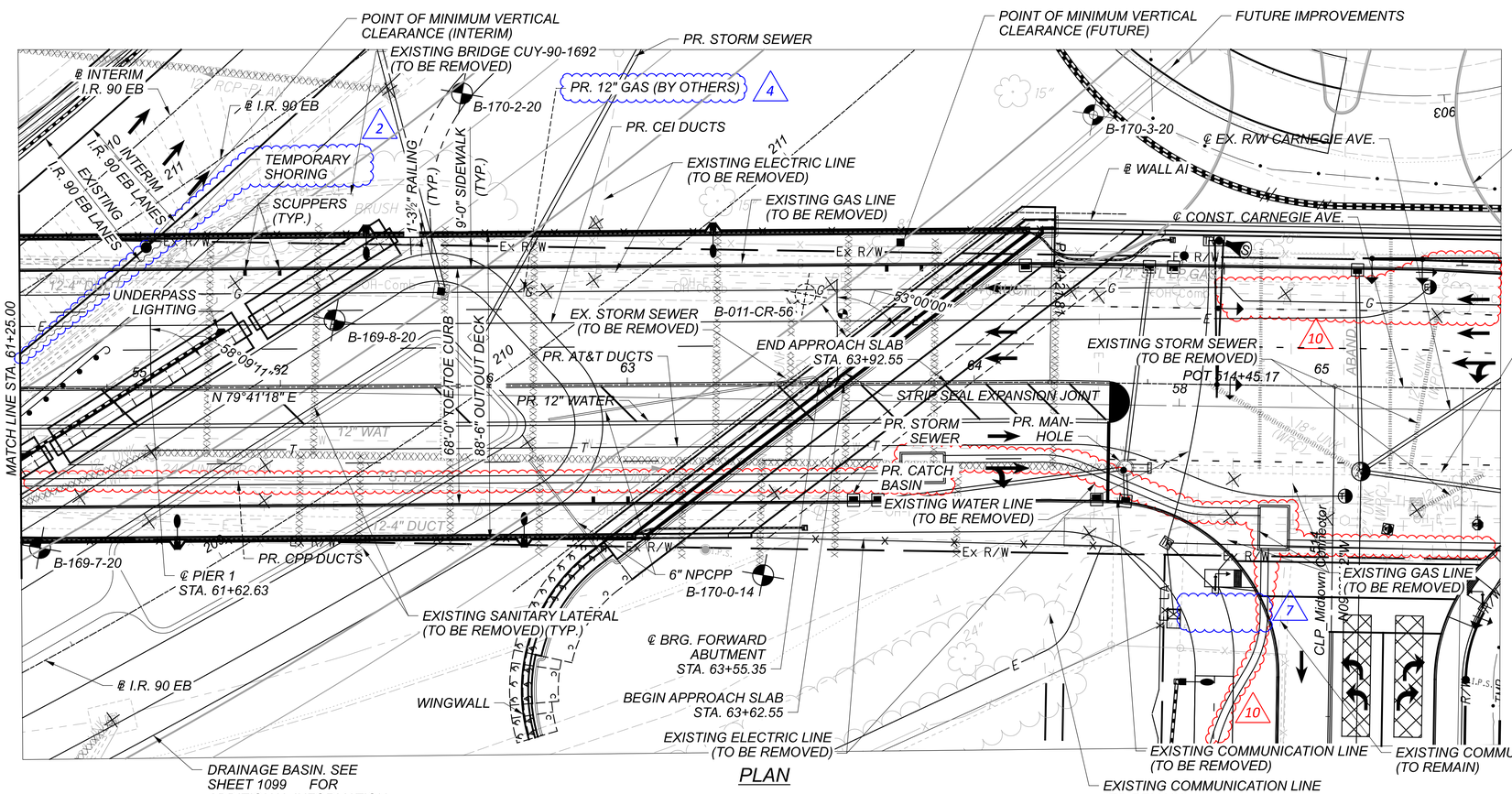
COORDINATES: LATITUDE 41°29'57.61" N
LONGITUDE 81°40'19.52" W

SITE PLAN (1 OF 2)
CUY-90-1696 (BRIDGE 14)
CR-722 (CARNEGIE AVE.) OVER I.R. 90

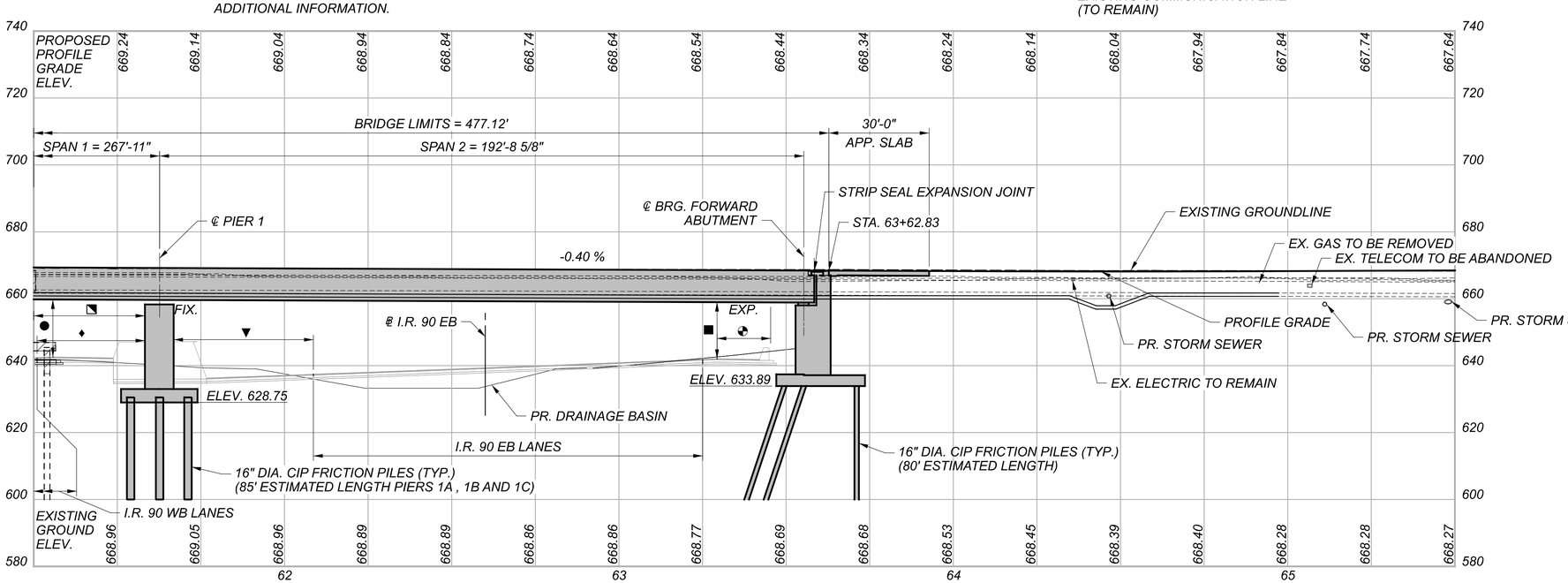
SFN	1807898
DESIGN AGENCY	Michael Baker INTERNATIONAL
DESIGNER	ZES
CHECKER	DBW
REVIEWER	KAG 12-26-23
PROJECT ID	82382
SUBSET	1
TOTAL	90
SHEET	2281
TOTAL	2696

CUY-90-16.28 (CCG3A)

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PLAN



PROFILE GRADE ALONG ℄ CONST. CARNEGIE AVE.

LEGEND

- TO BE REMOVED
- HISTORIC BORING LOCATION
- INSTRUMENTED BORING LOCATION
- PROJECT BORING LOCATION
- ● 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
  16'-0" PREFERRED MINIMUM VERTICAL CLEARANCE
  15'-7" ACTUAL MINIMUM VERTICAL CLEARANCE (INTERIM)
- ■ 15'-6" REQUIRED MINIMUM VERTICAL CLEARANCE
  16'-0" PREFERRED MINIMUM VERTICAL CLEARANCE
  16'-0" ACTUAL MINIMUM VERTICAL CLEARANCE (FUTURE)

HORIZONTAL CLEARANCES			
LOCATION	REQUIRED	ACTUAL	PHASE
◓	11'-8"	11'-9"	FUTURE
♦	13'-8"	18'-3"	FUTURE
▼	13'-8"	18'-6"	FUTURE
◹	13'-8"	20'-1"	INTERIM

FOR PLAN LOCATIONS OF ♦, ◹ AND ▼ SEE SITE PLAN 1 OF 2

MINIMUM HORIZONTAL CLEARANCES			
LOCATION	REQUIRED CLEAR ZONE	ACTUAL	PHASE
◓	30'-0"	20'-8" *	FUTURE
◪	30'-0"	14'-1" *	INTERIM
♦	30'-0"	18'-3" *	FUTURE
▼	30'-0"	18'-6" *	FUTURE
◹	30'-0"	20'-1" *	INTERIM

* BARRIER PROTECTION REQUIRED
FOR PLAN LOCATIONS OF ♦, ◹ AND ▼ SEE SITE PLAN 1 OF 2

SITE PLAN (2 OF 2)
CUY-90-1696 (BRIDGE 14)
CR-722 (CARNEGIE AVE.) OVER I.R. 90

SFN 1807898
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER ZES | CHECKER DBW
REVIEWER KAG 12/26/23
PROJECT ID 82382
SUBSET 2 | TOTAL 90
SHEET 2282 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: 82382_SFN_0000014_SP2 PAPERSIZE: 34x22 (in.) DATE: 11/7/2025 TIME: 2:17:35 AM USER: Alexandria.Summers
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8

ITEM 524 - DRILLED SHAFTS, MISC.: 48" DIAMETER 10

GENERAL:

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT TO INSTALL DRILLED SHAFTS AS DETAILED IN THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT C&MS SECTION 524, AND WITH THE ADDITIONAL REQUIREMENTS DEFINED BELOW.

CONSTRUCTION CONSTRAINTS:

THE CONTRACTOR IS ADVISED THAT THE PROPOSED DRILLED SHAFT INSTALLATIONS MAY REQUIRE ADVANCING SHAFTS THROUGH OBSTRUCTIONS SUCH AS EXISTING FOUNDATIONS AND PILES. DURING DRILLED SHAFT CONSTRUCTION, IT IS VERY LIKELY TO ENCOUNTER COBBLES, BRICKS, AND OTHER URBAN FULL WHEN DRILLING. EXISTING FOUNDATION AND PILE LOCATIONS ARE DEPICTED IN ACCORDANCE WITH AVAILABLE EXISTING PLAN INFORMATION. 10

THE PROPOSED DRILLED SHAFT ARRANGEMENT WAS DEVELOPED WITH THE INTENT TO ELIMINATE OR MINIMIZE CONFLICTS BETWEEN THE PROPOSED DRILLED SHAFTS AND IDENTIFIED OBSTRUCTIONS. COMPLETE ELIMINATION OF ALL CONFLICTS BETWEEN THE PROPOSED DRILLED SHAFTS AND OBSTRUCTIONS WAS NOT POSSIBLE.

THE CONTRACTOR IS ADVISED THAT THEY MUST ADAPT THEIR PROPOSED MEANS AND METHODS FOR INSTALLING DRILLED SHAFTS IN CONFLICT WITH OBSTRUCTIONS. SUCH MEANS AND METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO, SPECIALIZED CUTTING HEADS, DOWN DRIVE HAMMERS, ETC.

THE INTENT OF THIS PLAN NOTE IS TO IDENTIFY POTENTIAL CONFLICTS WITH DRILLED SHAFT INSTALLATION SO THAT THE IMPACT TO THE PROJECT CAN BE MITIGATED AS MUCH AS POSSIBLE. IF OBSTRUCTIONS SUCH AS EXISTING FOUNDATIONS AND PILES ARE ENCOUNTED DURING INSTALLATION OF DRILLED SHAFTS, THE CONTRACTOR SHALL FOLLOW THE PROVISIONS IN C&MS 104.02.B. IMMEDIATELY NOTIFY THE ENGINEER OF THE ENCOUNTER SO THAT THE CONDITIONS CAN BE INVESTIGATED AND ANY REQUIRED CONTRACT MODIFICATIONS CAN BE DETERMINED.

CONTRACTOR'S INSTALLATION PLAN:

THE CONTRACTOR SHALL PROVIDE AN INSTALLATION PLAN AS REQUIRED BY ODOT C&MS SECTION 524.03. THE DRILLED SHAFTS MUST ADHERE TO A SPECIFIED CONSTRUCTION TOLERANCE OF 3 INCHES FROM THE PLANNED LOCATION. THE INSTALLATION PLAN SHALL ALSO INCLUDE: 10

1. CONTRACTOR'S PROPOSED METHODS TO ADVANCE DRILLED SHAFTS THROUGH OBSTRUCTIONS (CONFLICTING PILES, EXISTING FOUNDATIONS, ETC.)

MAINTENANCE OF TRAFFIC

MAINTENANCE OF TRAFFIC FOR THE STRUCTURE WORK SHALL BE COORDINATED WITH THE OVERALL PROJECT. REFER TO MAINTENANCE OF TRAFFIC NOTES AND DETAILS ELSEWHERE IN PLANS.

UTILITY LINES

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER PARTY WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS, SECTIONS 102.05, 105.02, AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

STRUCTURE GROUNDING

STRUCTURE TO BE GROUNDED AS PER LIGHTING GENERAL NOTES SHEET 1684 . QUANTITY CARRIED TO LIGHTING SUBSUMMARY.

ITEM 511 - CLASS QC2 CONCRETE, DECK, AS PER PLAN

LOCATE THE LOWER CONTACT POINT OF THE OVERHANG FALSEWORK A MAXIMUM OF 18 INCHES ± 2 INCHES ABOVE THE TOP OF THE GIRDER'S BOTTOM FLANGE. THE BRACING CONTACT POINT REQUIREMENTS OF C&MS 508 DO NOT APPLY.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

TEMPORARY EXCAVATIONS SHALL MAINTAIN A MINIMUM OF A 2.5:1 SLOPE. REFER TO THE GEOTECHNICAL REPORTS FOR ADDITIONAL DETAILS.

GROUND WATER LEVELS FLUCTUATE SEASONALLY AS A FUNCTION OF THE PRECIPITATION AND OTHER HYDROLOGICAL FACTORS. THEREFORE, THERE MAY BE CONSIDERABLE CHANGE IN THE WATER TABLE OR THE OCCURRENCE OF WATER WHERE NOT PREVIOUSLY ENCOUNTERED. THE CONTRACTOR SHALL DEWATER ALL EXCAVATIONS AS NECESSARY TO PERFORM THE PROPOSED WORK.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.84 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE FINISHING MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG BRACKETS OF 18 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 66¼ INCHES.

CONCRETE SHALL BE PLACED PARALLEL ON A SKEW AS INDICATED IN THE PROPOSED DECK PLACEMENT SEQUENCE ON SHEET / AND SHALL BE PLACED AND FINISHED FULL-WIDTH. DO NOT PERMIT A DIFFERENCE OF MORE THAN TEN (10) FEET LONGITUDINALLY IN PLACEMENT OF CONCRETE FROM ONE SIDE OF THE BRIDGE TO THE OTHER AT ANY TIME. FINISHING OF THE CONCRETE SHALL BE PERPENDICULAR TO THE CARNEGIE AVENUE CONSTRUCTION CENTERLINE.

ALLOW 48 HOURS OF PROPER CURING TO ELAPSE FROM THE COMPLETION OF ONE DECK PLACEMENT BEFORE BEGINNING THE NEXT PLACEMENT.

63 90

PLACE CONCRETE IN THE SEQUENCE AND DIRECTIONS INDICATED ON THE PROPOSED DECK PLACEMENT SEQUENCE ON SHEET / .

GIRDER ERECTION AND FIT-UP:

GIRDERS, CROSSFRAMES, DIAPHRAGMS AND CONNECTION PLATES SHALL BE DETAILED FOR THE "STEEL DEAD LOAD FIT" (SDLF) OR "ERECTED FIT" CONDITION. GIRDER WEBS SHALL BE PLUMB AFTER ERECTION OF STRUCTURAL STEEL IS COMPLETE. HLMR BEARINGS SHALL BE DESIGNED TO ACCOMMODATE GIRDER ROLL AND LAYOVER DURING THE ERECTION PROCESS AND PLACEMENT OF COMPOSITE DEAD LOADS.-

FINISH COLORS: 63 90

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

PAINT COLORS SHALL BE AS FOLLOWS:

BLACK FOX (SW 7020) - FASCIA GIRDERS (OUTER FACE AND BOTTOM FLANGE ONLY)

ALABASTER (SW 7008) - INSIDE GIRDERS, BRACING MEMBERS AND INSIDE FACE OF FASCIA GIRDERS

ITEM - 512 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN

CONCRETE SEALER COLORS SHALL BE AS FOLLOWS:

ALABASTER (SW 7008) - SUBSTRUCTURE - PIERS, ABUTMENTS AND ABUTMENT WALLS

6 ALPACA (SW 7022) - ABUTMENT, WINGWALL, AND PARAPETS ACCENTS

ALL COLOR NAME AND NUMBER REFERENCES ARE TAKEN FROM THE SHERWIN WILLIAMS COLOR PALATE. THE CONTRACTOR MAY SUBSTITUTE SIMILAR COLORS FROM ALTERNATIVE SUPPLIER'S COLOR PALATE.

ITEM SPECIAL - PERMANENT SHORING PRECAST CONCRETE LAGGING

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 ACCORDING TO SUPPLEMENT 1073. PROVIDE CLASS QC1 CONCRETE ACCORDING TO C&MS 499. PROVIDE EPOXY COATED REINFORCING STEEL ACCORDING TO C&MS 709.00. IN LIEU OF EPOXY COATING, A CORROSION INHIBITING CONCRETE ADMIXTURE MAY BE USED AT THE SPECIFIED DOASAGE RATE. A QUALIFIED PRODUCT LIST OF CORROSION INHIBITING ADMIXTURES IS ON FILE AT THE LABORATORY. MANUFACTURUERS SHOULD RECOGNIZE THAT THE CORROSION INHABITOR 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 LAGGING OR LOCATION OF THE REINFORCEMENT STEEL TO VARY BY MORE THAN 1/4-INCH. CAST THREADED INSERTS INTO THE TOP OF EACH PANEL FOR LIFTING AND PLACEMENT.

FINISH THE FACES OF THE PRECAST CONCRETE LAGGING PANELS TO A UNIFORM SURFACE, FREE OF OPEN POCKETS OF AGGREGATE.

PERMANENTLY MARK EACH PRECAST CONCRETE LAGGING PANEL TO INDICATE WHICH FACE WILL BE PLACED AGAINST THE SOIL. PLACE THE PANEL ON THE FRONT COVER PLATES OF THE SOLDIER PILES AND BEARING AGAINST THE FLANGES ON THE EXPOSED SIDE OF THE WALL SO THAT THE SOLDIER PILE FLANGE OVERLAPS THE END OF THE LAGGING BY AT LEAST ONE INCH MORE THAN THE CONCRETE COVER OVER THE REINFORCING STEEL AT BOTH ENDS OF THE LAGGING.

HANDLE, STORE, AND SHIP THE PRECAST CONCRETE LAGGING PANELS TO AVOID CHIPPING CRACKING AND FRACTURING THE PANELS. SUPPORT THE PANELS ON FIRM BLOCKING WHILE STORING AND SHIPPING. DO NOT SHIP PANELS UNTIL CONCRETE HAS ATTAINED THE REQUIRED COMPRESSIVE STRENGTH. SUBMIT SHIPMENT DOCUMENTATION TO THE ENGINEER AS THE PANELS ARE DELIVERED TO THE PROJECT, INCLUDING THE PRECASTER'S RECORD OF INSPECTION, THE MEASUREMENT AND TOLERANCES, STRENGTH, AND DIMENSIONS OF EACH PANEL, ALONG WITH THE TE-24 SHIPPING DOCUMENT.

INSPECT ALL PRECAST CONCRETE PANELS AND REJECT PANELS HAVING ANY OF THE FOLLOWING:

1. DEFECTS THAT INDICATE IMPERFECT MOLDING.
2. DEFECTS THAT INDICATE HONEYCOMB OR OPEN TEXTURE CONCRETE.
3. DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, OR DAMAGE TO THE AESTHETIC SURFACE TREATMENT.
4. CONCRETE CHIPS OR SPALLS THAT ARE LARGER THAN 4 INCHES WIDE OR 2 INCHES DEEP. REPAIR ALL CHIPS AND SPALLS THAT ARE SMALLER.
5. STAINED FORM FACES, DUE TO FORM OIL, CURING OR OTHER CONTAMINANTS.
6. SIGNS OF AGGREGATE SEGREGATION.
7. CRACKS WIDER THAN 0.01 INCH OR PENETRATING MORE THAN 1 INCH OR LONGER THAN 20 PERCENT OF THE LENGTH OF THE FACE CONTAINING THE CRACK.
8. PANELS THAT DO NOT MEET THE SPECIFIED DIMENSIONAL TOLERANCES.
9. UNUSABLE LIFTING INSERTS.
10. EXPOSED REINFORCING STEEL.
11. INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH.

EITHER REPLACE DAMAGED PRECAST CONCRETE LAGGING PANELS OR DOCUMENT AND PROPOSE TO THE ENGINEER A REPAIR METHOD FOR THE DAMAGED PANEL. PROVIDE ACCEPTABLE REPLACEMENT PANELS FOR ANY THAT ARE REJECTED.

WHEN INSTALLING THE PRECAST CONCRETE LAGGING PANELS, PLACE HARDWOOD WEDGES NEAR THE TOP AND BOTTOM ON EACH SIDE TO HOLD THE LAGGING PANELS ON THE FRONT COVER PLATES OF THE STEEL PILES.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIAL REQUIRED TO FABRICATE, TRANSPORT, AND INSTALL THE PRECAST REINFORCED CONCRETE PANELS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR ITEM 530-SPECIAL-PERMANENT SHORING, PRECAST CONCRETE LAGGING.

GENERAL NOTES (3 OF 7)
CUY-90-1696 (BRIDGE 14)
CR-722 (CARNEGIE AVE.) OVER I.R. 90

SFN 1807898
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER ZES | CHECKER MKB
REVIEWER KAG 12/26/23
PROJECT ID 82382
SUBSET 6 | TOTAL 90
SHEET 2286 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 11:11:36 PM USER: Victor.Nash
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ESTIMATED QUANTITIES

CALCULATED BY: ZES DATE: 03/20/24
CHECKED BY: DAF DATE: 05/15/24

PARTICIPATION	ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTR.	GENERAL	SHEET REF.
02/IMS/10	518	20000	888	SY	PREFABRICATED GEOCOMPOSITE DRAIN				888	
02/IMS/10	518	21101	232	CY	POROUS BACKFILL, AS PER PLAN	232				30
02/IMS/10	518	21200	686	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				686	
02/IMS/10	518	40000	683	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	683				
02/IMS/10	518	40010	147	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	147				
02/IMS/10	518	43300	185	FT	6" PIPE DOWNSPOUT, INCLUDING SPECIALS	101	84			
02/IMS/10	523	20001	4	EACH	DYNAMIC LOAD TESTING, AS PER PLAN				4	4
02/IMS/10	523	20501	2	EACH	RESTRIKE, AS PER PLAN				2	4
02/IMS/10	524	94803	238	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK, AS PER PLAN				238	8
02/IMS/10	524	94901	5,375	FT	DRILLED SHAFTS, 48" DIAMETER, AS PER PLAN				5,375	5
02/IMS/10	524	95100	1	EACH	DRILLED SHAFTS, MISC.: BI DIRECTIONAL TESTING OF DRILLED SHAFTS				1	7
02/IMS/10	524	95100	1	EACH	DRILLED SHAFTS, MISC.: CSL TESTING, 48" DIA. SHAFT				1	7
02/IMS/10	524	95100	1	EACH	DRILLED SHAFTS, MISC.: DEMONSTRATION DRILLED SHAFT				1	7
02/IMS/10	524	95100	3	EACH	DRILLED SHAFTS, MISC.: HIGH STRAIN DYNAMIC TESTING OF DRILLED SHAFTS				3	7
02/IMS/10	526	30011	592	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=17"), AS PER PLAN				592	8
02/IMS/10	526	90010	321	FT	TYPE A INSTALLATION				321	
02/IMS/10	SPECIAL	530E00200	LS		STRUCTURES: PRECONSTRUCTION/POST CONSTRUCTION CONDITION SURVEY				LS	4-5
02/IMS/10	SPECIAL	530E00200	LS		STRUCTURES: VIBRATION MONITORING				LS	4
02/IMS/10	SPECIAL	530E00600	1,349	SF	STRUCTURES: PERMANENT SHORING PRECAST CONCRETE LAGGING				1,349	6
02/IMS/10	SPECIAL	530E00600	1,516	SF	STRUCTURES: PERMANENT SHORING TIMBER LAGGING				1,516	7-8
02/IMS/10	607	39910	1,180	FT	VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC				1,180	
02/IMS/10	613	41200	76	CY	LOW STRENGTH MORTAR BACKFILL	76				
02/IMS/10	625	25920	2,863	FT	CONDUIT, MISC.: AT&T 4" CONDUIT INSTALLATION			2,863		9
02/IMS/10	625	25920	5,726	FT	CONDUIT, MISC.: CEI 4" CONDUIT INSTALLATION			5,726		9
02/IMS/10	625	25920	5,726	FT	CONDUIT, MISC.: CPP 5" CONDUIT INSTALLATION			5,726		9
02/IMS/10	SPECIAL	690E98000	36	EACH	ROLLER SUPPORTS (GAS LINE)				36	9
02/IMS/10	SPECIAL	690E98000	29	EACH	UTILITY SUPPORTS (AT&T DUCTS)				29	9
02/IMS/10	SPECIAL	690E98000	29	EACH	UTILITY SUPPORTS (CEI DUCTS)				29	9
02/IMS/10	SPECIAL	690E98000	29	EACH	UTILITY SUPPORTS (CPP DUCTS)				29	9
02/IMS/10	SPECIAL	690E98000	31	EACH	UTILITY SUPPORTS (WATER LINE)				31	9
02/IMS/10	846	00110	134	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM				134	
02/IMS/10	866	00101	14	EACH	GROUND ANCHOR, AS PER PLAN, 159 KIP MAX LOAD TEST (SOLIDER PILE AND LAGGING WALL)				14	10
02/IMS/10	866	00101	100	EACH	GROUND ANCHOR, AS PER PLAN, 159 KIP MAX LOAD TEST (TANGENT WALL)				100	10
02/IMS/10	866	00400	6	EACH	PERFORMANCE TEST				6	
02/IMS/10	866	00500	6	EACH	EXTENDED CREEP TEST				6	
02/IMS/10	869	00100	30	EACH	HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARINGS				30	

ESTIMATED QUANTITIES (2 OF 2)
CUY-90-1696 (BRIDGE 14)
CR-722 (CARNEGIE AVE.) OVER I.R. 90

SFN 1807898
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER DBW | CHECKER MKB
REVIEWER KAG 12/26/23
PROJECT ID 82382
SUBSET 12 | TOTAL 90
SHEET 2292 | TOTAL 2696

CUY-90-16.28 (CCG3A)

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 4:59:34 PM USER: Joseph.Hogan
pw:\\mb-us-pw.bentley.com:mb-us-pw-03\Documents\Cleveland_OH\01_Projects\ODOT\District12\82382\400-Engineering\Structures\SFN_1807898\Sheets\82382_SFN_1807898_SQ002.dgn

HLMR BEARING DESIGN LOAD DATA

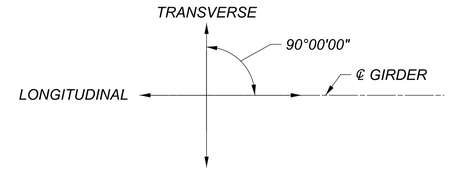
BEARING LOCATION	BEARING TYPE	BEARING MARK	QUANTITY	VERTICAL LOADS (KIPS)									HORIZONTAL LOADS (KIPS)				ASSUMED BEARING HEIGHT (IN)
				SERVICE						EXTREME EVENT**			SERVICE		EXTREME EVENT**		
				DL*		LL + IM***		HORIZONTAL****									
				MAX	MIN	MAX	MIN	MAX	MIN	DL*	LL + IM	HORIZ.****	LONG.	TRANS.	LONG.	TRANS.	
REAR ABUT.	NON-GUIDED EXP.	NB1	6	361	237	129	-26	2	-2	361	0	0	20	20	20	20	12.3125
REAR ABUT.	GUIDED EXP.	GB1	4	281	205	122	-10	3	-3	281	0	0	20	42	20	130	12.3125
PIER	NON-GUIDED EXP.	NB2	6	1047	693	279	-35	4	-4	1047	0	0	55	55	55	55	8.9375
PIER	FIXED	FB2	4	811	603	249	-10	5	-5	811	0	0	112	74	88	370	8.9375
FWD. ABUT.	NON-GUIDED EXP.	NB3	6	185	96	129	-32	2	-2	185	0	0	10	10	10	10	8.9063
FWD. ABUT.	GUIDED EXP.	GB3	4	131	92	110	-17	2	-2	131	0	0	10	32	10	60	8.9063

* DL VALUES INCLUDE DC1, DC2 AND DW LOAD EFFECTS.

** VALUES GIVEN IN THE "EXTREME EVENT" COLUMNS ARE DUE TO AASHTO LRFD LOAD COMBINATION EXT-I.

*** LIVE LOAD VALUES INCLUDE EFFECTS OF VEHICULAR LOADS AND SIDEWALK LIVE LOADS.

**** VERTICAL REACTIONS RESULTING FROM HORIZONTAL LOADS.



GIRDER LOAD & MOVEMENT DIAGRAM

HLMR BEARING DESIGN MOVEMENT DATA

BEARING LOCATION	BEARING TYPE	BEARING MARK	SERVICE MOVEMENTS*		
			LONGITUDINAL		TRANS.
			THERMAL	LS**	THERMAL
			(IN)	(IN)	(IN)
REAR ABUT.	NON-GUIDED EXP.	NB1	4.75	3.25	1.00
REAR ABUT.	GUIDED EXP.	GB1	4.75	3.25	0.00
PIER	NON-GUIDED EXP.	NB2	0.00	0.00	0.56
PIER	FIXED	FB2	0.00	0.00	0.00
FWD. ABUT.	NON-GUIDED EXP.	NB3	3.69	0.00	1.00
FWD. ABUT.	GUIDED EXP.	GB3	3.69	0.00	0.00

* MOVEMENTS GIVEN ARE SUM OF EXPANSION AND CONTRACTION. MOVEMENTS ROUNDED UP TO THE NEXT 1/16".

** ADDITIONAL ONE-WAY MOVEMENT DUE TO ABUTMENT DEFLECTION. MOVEMENT IS IN ADDITION TO THERMAL MOVEMENTS AND ACTS IN THE STATIONS-AHEAD DIRECTION.

HLMR BEARING ROTATION DATA

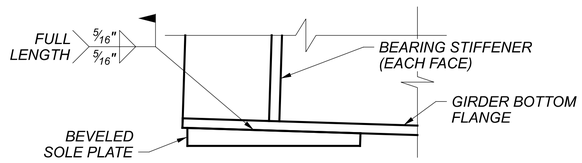
BEARING LOCATION	GIRDER	BEARING MARK	SERVICE ROTATIONS (DEGREES)*							
			NON-COMPOSITE DEAD LOADS**		COMPOSITE DEAD LOADS***		LL+IM****			
							LONG.		TRANS.	
			LONG.	TRANS.	LONG.	TRANS.	MIN.	MAX.	MIN.	MAX.
REAR ABUT.	G1	NB1	1.06	0.61	0.50	0.30	-0.19	0.06	-0.03	0.18
REAR ABUT.	G2	NB1	1.05	0.61	0.43	0.25	-0.20	0.06	-0.03	0.16
REAR ABUT.	G3	NB1	1.06	0.61	0.34	0.20	-0.21	0.05	-0.03	0.14
REAR ABUT.	G4	GB1	1.08	0.62	0.30	0.17	-0.23	0.05	-0.03	0.13
REAR ABUT.	G5	GB1	1.10	0.63	0.29	0.17	-0.24	0.06	-0.03	0.14
REAR ABUT.	G6	GB1	1.11	0.64	0.31	0.17	-0.24	0.05	-0.03	0.14
REAR ABUT.	G7	GB1	1.12	0.65	0.35	0.20	-0.24	0.05	-0.03	0.14
REAR ABUT.	G8	NB1	1.13	0.65	0.44	0.25	-0.21	0.04	-0.02	0.13
REAR ABUT.	G9	NB1	1.15	0.66	0.54	0.31	-0.20	0.04	-0.02	0.12
REAR ABUT.	G10	NB1	1.19	0.69	0.59	0.35	-0.19	0.04	-0.02	0.11
PIER	G1	NB2	-0.35	-0.22	-0.12	-0.08	-0.07	0.14	-0.05	0.06
PIER	G2	NB2	-0.37	-0.22	-0.15	-0.08	-0.07	0.15	-0.06	0.06
PIER	G3	NB2	-0.34	-0.21	-0.12	-0.08	-0.08	0.14	-0.07	0.06
PIER	G4	FB2	-0.35	-0.22	-0.11	-0.07	-0.09	0.13	-0.08	0.06
PIER	G5	FB2	-0.36	-0.23	-0.09	-0.06	-0.09	0.13	-0.08	0.06
PIER	G6	FB2	-0.37	-0.23	-0.08	-0.05	-0.10	0.14	-0.09	0.06
PIER	G7	FB2	-0.36	-0.22	-0.08	-0.05	-0.10	0.14	-0.09	0.06
PIER	G8	NB2	-0.36	-0.22	-0.09	-0.06	-0.09	0.13	-0.08	0.06
PIER	G9	NB2	-0.35	-0.22	-0.13	-0.08	-0.08	0.13	-0.08	0.05
PIER	G10	NB2	-0.39	-0.24	-0.18	-0.11	-0.07	0.14	-0.08	0.05
FWD. ABUT.	G1	NB3	-0.06	-0.05	-0.08	-0.06	-0.05	0.12	-0.05	0.06
FWD. ABUT.	G2	NB3	-0.07	-0.06	-0.07	-0.05	-0.05	0.13	-0.07	0.05
FWD. ABUT.	G3	NB3	-0.09	-0.07	-0.04	-0.03	-0.05	0.13	-0.08	0.05
FWD. ABUT.	G4	GB3	-0.10	-0.07	-0.04	-0.03	-0.06	0.12	-0.09	0.05
FWD. ABUT.	G5	GB3	-0.11	-0.08	-0.03	-0.03	-0.07	0.12	-0.09	0.05
FWD. ABUT.	G6	GB3	-0.12	-0.09	-0.04	-0.03	-0.07	0.12	-0.09	0.05
FWD. ABUT.	G7	GB3	-0.13	-0.10	-0.05	-0.04	-0.07	0.13	-0.09	0.05
FWD. ABUT.	G8	NB3	-0.14	-0.11	-0.08	-0.06	-0.06	0.13	-0.10	0.05
FWD. ABUT.	G9	NB3	-0.16	-0.12	-0.12	-0.09	-0.07	0.12	-0.09	0.05
FWD. ABUT.	G10	NB3	-0.17	-0.13	-0.15	-0.11	-0.08	0.11	-0.08	0.06

* SERVICE ROTATIONS ARE GIVEN ABOUT THE GIRDER LONGITUDINAL AXIS (LONG.) AND ABOUT AN AXIS TRANSVERSE TO THE GIRDER CENTERLINE (TRANS.) POSITIVE ROTATIONS ARE CLOCKWISE LOOKING STATIONS AHEAD ALONG THE GIRDER LONGITUDINAL AXIS.

** NONCOMPOSITE DEAD LOADS INCLUDE STEEL SELF WEIGHT AND WET CONCRETE DECK SLAB LOADS.

*** COMPOSITE DEAD LOADS INCLUDE RAILING, FENCE AND SIDEWALK SELF WEIGHTS AND FUTURE WEARING SURFACE LOADS.

**** LIVE LOAD EFFECTS INCLUDE VEHICULAR LIVE LOADS AND SIDEWALK LIVE LOADS.



SOLE PLATE WELD DETAIL
(REAR ABUTMENT BEARING SHOWN, OTHER BEARINGS SIMILAR)

HLMR BEARING ANCHOR BOLT DATA

BEARING LOCATION	BEARING MARK	NUMBER OF ANCHOR BOLTS REQUIRED	ANCHOR BOLT DIAMETER (IN)	MINIMUM EMBEDMENT LENGTH (IN)
REAR ABUT.	NB1	4	1.25	18.00
REAR ABUT.	GB1	4	2.00	18.00
PIER	NB2	4	1.75	18.00
PIER	FB2	8	2.00	24.00
FWD. ABUT.	NB3	4	1.25	18.00
FWD. ABUT.	GB3	4	1.50	18.00

BEARING GENERAL NOTES:

1. BEARING SEAT ADJUSTMENTS: THE PIER AND ABUTMENT BEAM SEAT ELEVATIONS ARE BASED ON THE BEARING HEIGHTS PROVIDED IN THE TABLE ABOVE. IF THE CONTRACTOR'S SELECTED BEARING MANUFACTURER HAS A DESIGN THAT DOES NOT CONFORM TO THE HEIGHTS PROVIDED IN THE TABLE, ADJUST THE NEARING SEAT ELEVATIONS AT NO ADDITIONAL COST TO THE STATE. ADJUST THE LOCATION OF REINFORCING STEEL HORIZONTALLY AS NECESSARY TO AVOID INTERFERENCE WITH THE BEARING ANCHOR BOLTS. MAINTAIN THE MINIMUM CONCRETE COVER AND MINIMUM SPACING REQUIRED BY THE PROJECT PLANS. IF THE REINFORCING STEEL CANNOT BE MOVED TO PROVIDE THE REQUIRED POSITION FOR THE ANCHOR BOLTS, THE CONTRACTOR'S BEARING MANUFACTURER SHALL REDESIGN THE BEARINGS TO ACCOMMODATE AN ACCEPTABLE ANCHOR BOLT CONFIGURATION. ANCHOR BOLTS SHALL BE INSTALLED WITH THE REBAR OR VIA BLOCKOUTS, NOT DRILLED AND GROUTED INTO PLACE.
2. GIRDERS SHALL BE DETAILED FOR "STEEL DEAD LOAD FIT" (SDLF) OR "ERECTED FIT" CONDITION. GIRDER WEBS SHALL BE PLUMB AFTER GIRDER ERECTION IS COMPLETE. THEREFORE, PROVIDE BEVELED SOLE PLATES TO ACCOMMODATE THE LONGITUDINAL GRADE AT EACH SUBSTRUCTURE UNIT. PROVIDE BEVELED SOLE PLATE MATERIAL IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 869, WITH A MINIMUM PLATE THICKNESS OF 3/4" AND A MINIMUM OF 2" WIDER THAN THE GIRDER BOTTOM FLANGE. PROVIDE BEVELED SOLE PLATE DETAILS FOR REVIEW AND APPROVAL. FIELD WELD SOLE PLATES TO GIRDER FLANGES AS SHOWN IN THE DETAIL ON THIS SHEET AFTER GIRDER ERECTION IS COMPLETE.
3. PROVIDE FILLET WELDS BETWEEN GIRDER BOTTOM FLANGES AND BEARING SOLE PLATES PER THE HLMR BEARING WELD DATA TABLE. USE LOW-HYDROGEN, GRADE E70XX ELECTRODES TO MAKE ALL WELDS. REPAIR GIRDER PRIMER DAMAGED BY WELDING AT NO ADDITIONAL COST TO THE STATE.
4. FOR ADDITIONAL INFORMATION, SEE SUPPLEMENTAL SPECIFICATION 869: "HIGH LOAD MULTI ROTATIONAL (HLMR) BEARINGS".
5. SANDBLAST IN ACCORDANCE WITH SSPC-SP10 TO REMOVE MILL SCALE FROM ALL BEARINGS.
6. GRIND ALL STEEL SURFACES SMOOTH AND REMOVE ANY SHARP PROTRUSIONS. FABRICATION TOLERANCES AND LIMITATIONS ON SURFACE FINISH SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 869.
7. PAINT ALL STEEL SURFACES. DO NOT PAINT PTFE, STAINLESS STEEL, OR INNER SURFACES OF POT BEARINGS. APPLY ONLY PRIMER COATS TO STEEL SURFACES TO BE IN CONTACT WITH THE GIRDER BOTTOM FLANGE.
8. ROUND ALL PTFE CORNERS TO ACCOMMODATE THE MACHINED RECESS IN STEEL GUIDE PLATES AND PISTONS (IF USED).
9. ETCH PTFE ON ONE SIDE FOR BONDING INTO MACHINED RECESSES.
10. PIGMENT THE PTFE ON THE SIDE OF GUIDE PLATES.
11. PRIOR TO APPLICATION OF ADHESIVE, CLEAN ALL MATING STEEL AND PTFE SURFACES BY GRIT BLASTING AND DEGREASING. APPLY ADHESIVE PER THE MANUFACTURER'S RECOMMENDATIONS.
12. POT BEARINGS: LUBRICATE ALL SURFACES OF NEOPRENE DISCS WITH SILICONE GREASE IN ACCORDANCE WITH MILITARY SPEC. SAE-AS8660. CUT CUT FLAT BRASS SEALING RING ENDS AT 45° WITH A MAXIMUM GAP OF 0.05". STAGGER OPENINGS IN THE BRASS RINGS 120° APART.
13. MARK THE THICKER EDGES OF SOLE PLATES FOR IDENTIFICATION IN THE FIELD. PLACE MARKS SO THEY WILL BE VISIBLE AFTER INSTALLATION. MARK CENTERLINES OF GUIDED AND NONGUIDED BEARINGS ON THE SIDES OF THE MASONRY PLATE AND SOLE PLATE. THESE WILL BE USED TO SET OFFSET DISTANCES IN THE FIELD. USE INDELIBLE INK TO PLACE ALL MARKS. MARK EACH BEARING WITH THE NAME OF THE MANUFACTURER AND BEARING TYPE OR MODEL NUMBER. PLACE THE MARKS IN A PERMANENT MANNER AND IN A LOCATION VISIBLE AFTER INSTALLATION.

10

ANCHOR BOLT INSTALLATION NOTES:

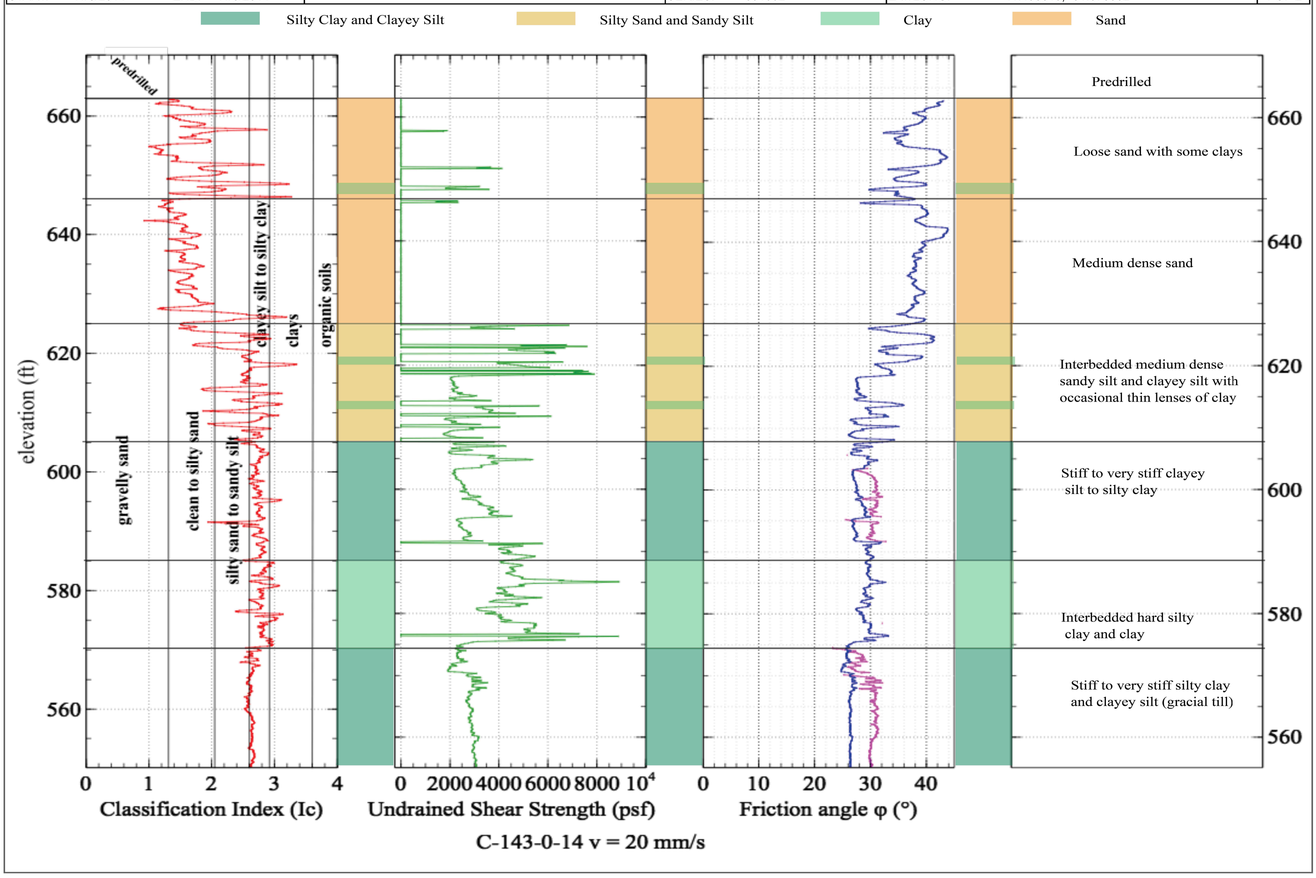
1. INSTALL ANCHOR BOLTS USING A METAL TEMPLATE OR OTHER METHOD TO POSITIVELY LOCATE ANCHOR BOLTS IN THE FIELD, OR DRILL AND GROUT.
2. IF BLOCKOUTS ARE USED FOR ANCHOR BOLTS, REMOVE BLOCKOUT FORM AND DEBRIS FROM HOLE PRIOR TO GROUTING. DO NOT GROUT ANCHOR BOLT HOLES UNTIL ALL GIRDERS HAVE BEEN COMPLETELY PLACED.
3. PREVENT WATER FROM ACCUMULATING IN PREFORMED ANCHOR BOLT HOLES AND ENSURE HOLES ARE COMPLETELY FILLED WITH GROUT.
4. INSTALL ANCHOR BOLT HEX NUTS FINGER TIGHT, THEN BACK OFF ONE-QUARTER TURN. PEEN OR BURR THREADS AFTER NUT INSTALLATION.

BEARING DETAILS (2 OF 2)
CUY-90-1696 (BRIDGE 14)
CR-722 (CARNEGIE AVE.) OVER I.R. 90

SFN 1807898
DESIGN AGENCY
Michael Baker INTERNATIONAL
DESIGNER MEM | CHECKER ABC
REVIEWER LPC 06/23/22
PROJECT ID 82382
SUBSET 62 | TOTAL 90
SHEET 2342 | TOTAL 2696

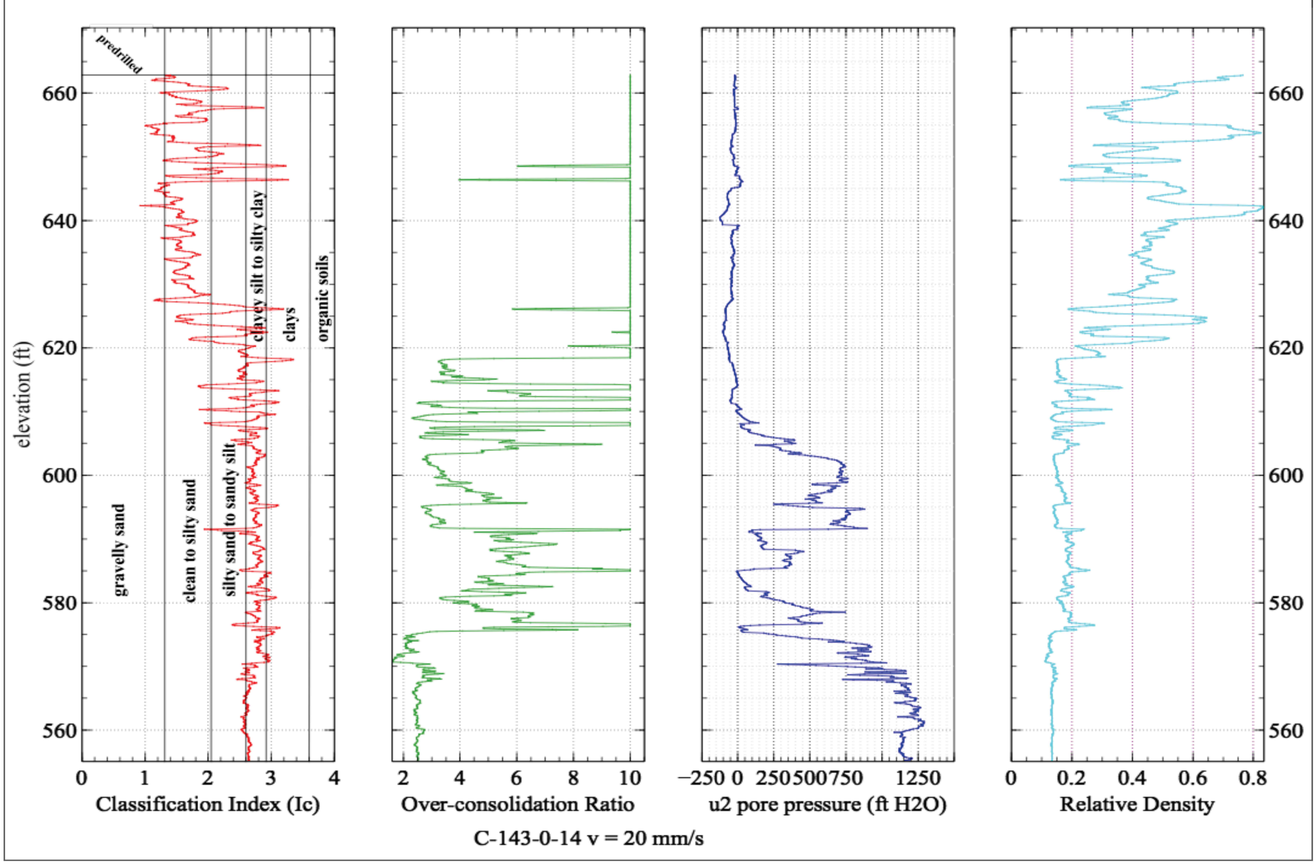
CUY-90-16.28 (CCG3A)
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 11/6/2025 TIME: 3:27:10 PM USER: John.Carey
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PROJECT: CUY-CCG3	CONE FIRM/OPERATOR: ODOT/BINKLEY	RIG: 20-TON TRUCK RIG	STATION/OFFSET: 501+06, 1RT	EXPLORATION ID C-143-0-14
TYPE: BRIDGE		VELOCITY: V=20mm/s	ALIGNMENT: RAMP A3	
PID: 82380 BR ID: CUY-77-		CONE: I-CFXYP20-15	ELEVATION: 668.9	PAGE 1 OF 2
START: 11/8/2014 END: 11/8/2014		SERIES: 091002	LAT/LONG: 41.496819, -81.678562	



C-143-0-14 v = 20 mm/s

PROJECT: CUY-CCG3	CONE FIRM/OPERATOR: ODOT/BINKLEY	RIG: 20-TON TRUCK RIG	STATION/OFFSET: 501+06, 1RT	EXPLORATION ID C-143-0-14
TYPE: BRIDGE		VELOCITY: V=20mm/s	ALIGNMENT: RAMP A3	
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START: 11/8/2014 END: 11/8/2014		SERIES: 091002	LAT/LONG: 41.496819, -81.678562	



C-143-0-14 v = 20 mm/s

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DESIGNER MWJ & DT
REVIEWER BPA 08/23/24
PROJECT ID 82382
SUBSET 218A TOTAL 310
SHEET P 2604A TOTAL 2696

GEOTECHNICAL PROFILE - ROADWAY
BRIDGE NO. CUY-77-1587 RAMP A2 FLYOVER
CPT LOG C-143-0-14