ITEM 609 – CURB, TYPE 6, AS PER PLAN

THE CLASS QC1 CONCRETE FOR THE TYPE 6 CURB SHALL CONFORM TO THE REQUIREMENTS IN THE "CONCRETE MIX DESIGN (CLEVELAND 650)" GENERAL NOTE.

EXISTING CURB HEIGHT VARIES FROM 1" TO 6". MATCH THE HEIGHT OF NEW CURB TO THE HEIGHT OF ADJACENT EXISTING CURB, AND TRANSITION TO FULL 6" CURB REVEAL AT A RATE OF 1" CURB HEIGHT PER FOOT OF CURB LENGTH.

THE CURB NOSING SHALL BE 1" WITHIN THE PROJECT LIMITS.

TOPSOIL, SEEDING AND MULCHING REQUIRED ADJACENT TO THE CURB CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEEDING MIX SHALL CONFORM TO ODOT CMS 659.08 HIGH QUALITY SEEDS, CLASS 1.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO REPLACE DETERIORATED CURB, AS DIRECTED BY THE ENGINEER AND ARE IN ADDITION TO THE PLAN ESTIMATED QUANTITIES.

**ITEM 609 - CURB, TYPE 6, AS PER PLAN** **100 FT**

## INCIDENTALS

ITEM 623 – CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

THIS ITEM OF WORK SHALL BE PERFORMED AS PER ODOT ITEM 623 AND AS MODIFIED BELOW:

A) CONTRACTOR SHALL FURNISH DIMENSIONS, MEASUREMENT, SKETCHES, ETC. NECESSARY TO DETERMINE PAY QUANTITIES. THIS WILL MAINLY APPLY TO CHANGE ORDERS, QUANTITIES TO BE USED AS DIRECTED AND DISPUTED PAYMENT QUANTITIES OR CALCULATIONS.

B) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SURVEYING, CALCULATIONS AND/ OR LAYOUT NOT FURNISHED IN THE BID DOCUMENTS TO COMPLY WITH THE ENGINEER'S DIRECTION. CONTRACTOR SHALL PROVIDE CUT SHEETS, TEMPORARY BENCHMARKS, AND LAYOUT (INCLUDING STATIONING AND HUBS) AS DIRECTED BY THE ENGINEER OR THEIR REPRESENTATIVE. ALL STATIONING AND REFERENCE MARKS SHALL BE MAINTAINED AS DIRECTED BY THE ENGINEER OR THEIR REPRESENTATIVE.

C) THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT BE DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF OHIO.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

## ELECTRICAL

ITEM 625 – LIGHTING, MISC.: TEMPORARY CPP AERIAL POWER LINES

THIS ITEM SHALL CONSIST OF TEMPORARILY RELOCATING CPP AERIAL POWER LINES PRIOR TO THE START OF CONSTRUCTION AND REMOVING THE TEMPORARY AERIAL POWER LINES ONCE CPP IS PERMANENTLY RELOCATED UNDERGROUND. THE CONTRACTOR SHALL WORK CLOSELY WITH CPP WHILE PERFORMING THIS ITEM OF WORK.

THE CONTRACTOR IS RESPONSIBLE FOR SETTING NEW TEMPORARY POLES, GUY WIRES, AND DISTRIBUTION CABLE AT THE LOCATIONS SHOWN ON PLAN SHEET 57/141. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS IN THE POWER PLANS.

CPP WILL BE RESPONSIBLE FOR PERFORMING ALL SPLICING WORK INCLUDING SPLICING THE TEMPORARY POWER LINE TO EXISTING. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE 12 WEEKS IN ADVANCE OF WORK TO BE COMPLETED BY CPP.

AFTER THE TEMPORARY AERIAL POWER LINES ARE NO LONGER NEEDED AND CPP HAS SUCCESSFULLY SPLICED THE PERMANENT RELOCATED UNDERGROUND DISTRIBUTION CABLE TO THE ELECTRICAL SYSTEM, THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING THE TEMPORARY AERIAL POWER LINES. REMOVE ALL TEMPORARY POLES, GUY WIRES, AND DISTRIBUTION CABLE TO THE SATISFACTION OF THE ENGINEER.

PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID UNDER CMS ITEM 625, "LIGHTING, MISC.: TEMPORARY CPP AERIAL POWER LINES" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS INCLUDING BUT NOT LIMITED TO TEMPORARY POLES, GUY WIRES, AND DISTRIBUTION CABLE, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

CALCULATED LAB | CHECKED DTB

# GENERAL NOTES

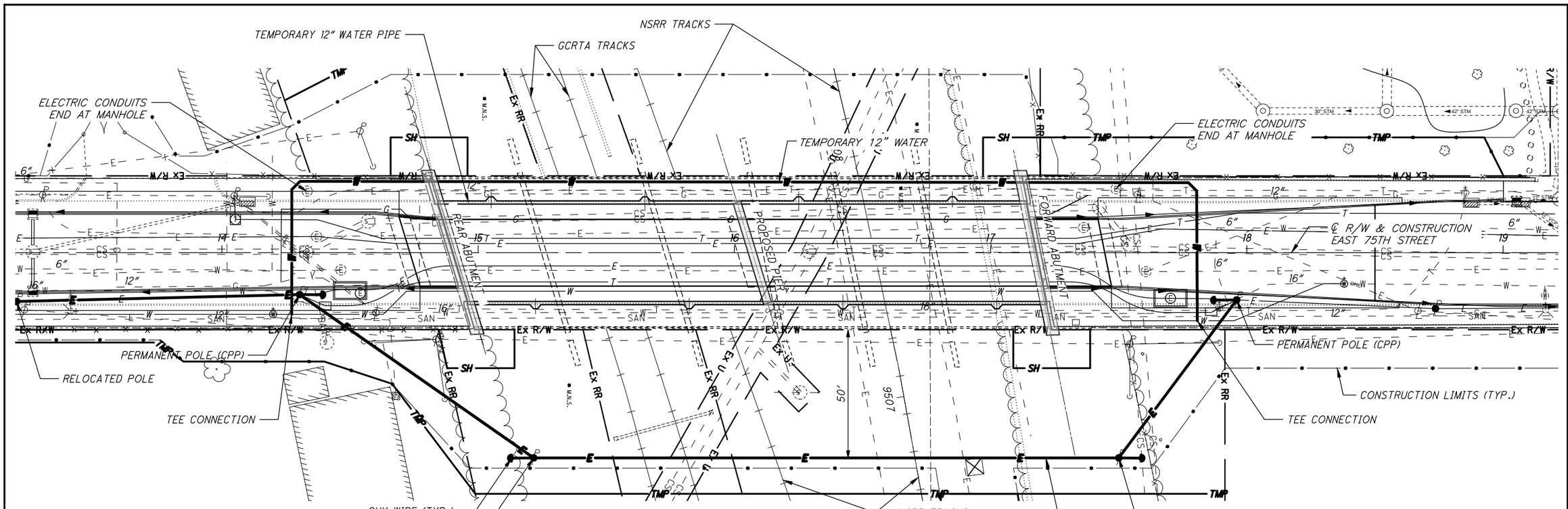
CUY-EAST 75TH STREET

| SHEET NUM. | | | | | | | PART. | | | | | | ITEM | ITEM EXT | GRAND TOTAL | UNIT | DESCRIPTION | SEE SHEET NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 13 | 14 | 35 | 91 | | | 01/BRF/BR | 02/BRF/BR | 03/BRF/BR | 04/BRF/BR | 05/BRF/BR | 06/BRF/BR | | | | | | |
| | | | | | | | | | | | | | | | | | **ELECTRICAL** | |
| | | | | 2 | | | 2 | | | | | | 202 | 58000 | 2 | EACH | MANHOLE REMOVED | |
| | | | | 2 | | | 2 | | | | | | 611 | 99690 | 2 | EACH | MANHOLE, MISC.: CPP MANHOLE | 91 |
| | | | | 60 | | | 60 | | | | | | 625 | 00481 | 60 | EACH | CONNECTION, UNFUSED PERMANENT, AS PER PLAN | 91 |
| | | | | 4,476 | | | 4,476 | | | | | | 625 | 23308 | 4,476 | FT | DISTRIBUTION CABLE, MISC.: 750 KCML, 15KV 133%, EPR URD, 33% NEUTRAL DISTRIBUTION CABLE | 91 |
| | | | | 1,368 | | | 1,368 | | | | | | 625 | 25721 | 1,368 | FT | CONDUIT, AS PER PLAN | 91 |
| | | | | 810 | | | 810 | | | | | | 625 | 25803 | 810 | FT | CONDUIT, CONCRETE ENCASED, AS PER PLAN (5") | 91 |
| | | | | 255 | | | 255 | | | | | | 625 | 29000 | 255 | FT | TRENCH | |
| | | | | 1 | | | 1 | | | | | | 625 | 34000 | 1 | EACH | POWER SERVICE | |
| | | | | 766 | | | 766 | | | | | | 625 | 36010 | 766 | FT | UNDERGROUND WARNING/MARKING TAPE | |
| | | | | 3,792 | | | 3,792 | | | | | | 625 | 75551 | 3,792 | FT | DISTRIBUTION CABLE REMOVED, AS PER PLAN | 91 |
| | | | | 1 | | | 1 | | | | | | 625 | 75800 | 1 | EACH | DISCONNECT CIRCUIT | |
| | | | | | | | LS | | | | | | 625 | 98200 | LS | | LIGHTING, MISC.: TEMPORARY CPP AERIAL POWER LINES | 12 |
| | | | | | | | | | | | | | | | | | **TRAFFIC CONTROL** | |
| | | | 26 | | | | 26 | | | | | | 630 | 03100 | 26 | FT | GROUND MOUNTED SUPPORT, NO. 3 POST | |
| | | | 3 | | | | 3 | | | | | | 630 | 79500 | 3 | EACH | SIGN SUPPORT ASSEMBLY, POLE MOUNTED | |
| | | | 22.5 | | | | 22.5 | | | | | | 630 | 80100 | 22.5 | SF | SIGN, FLAT SHEET | |
| | | | 4 | | | | 4 | | | | | | 630 | 80501 | 4 | EACH | SIGN, DOUBLE FACED, STREET NAME, AS PER PLAN | 35 |
| | | | 8 | | | | 8 | | | | | | 630 | 87500 | 8 | EACH | REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL | |
| | | | 4 | | | | 4 | | | | | | 630 | 97700 | 4 | EACH | SIGNING, MISC.: MOUNTING ASSEMBLY | 35 |
| | | | 8 | | | | 8 | | | | | | 630 | 97700 | 8 | EACH | SIGNING, MISC.: REMOVAL OF POLE MOUNTED ASSEMBLY AND DISPOSAL | 35 |
| | | | 5 | | | | 5 | | | | | | 630 | 97700 | 5 | EACH | SIGNING, MISC.: REMOVAL OF POST MOUNTED SIGN AND DISPOSAL | 35 |
| | | | 0.28 | | | | 0.28 | | | | | | 642 | 00100 | 0.28 | MILE | EDGE LINE, 4", TYPE 1 | 35 |
| | | | 0.19 | | | | 0.19 | | | | | | 642 | 00300 | 0.19 | MILE | CENTER LINE, TYPE 1 | |
| | | | 19 | | | | 19 | | | | | | 642 | 00500 | 19 | FT | STOP LINE, TYPE 1 | |
| | | | 103 | | | | 103 | | | | | | 642 | 00600 | 103 | FT | CROSSWALK LINE, TYPE 1 | |
| | | | 331 | | | | 331 | | | | | | 642 | 00700 | 331 | FT | TRANSVERSE/DIAGONAL LINE, TYPE 1 | |
| | | | | | | | | | | | | | | | | | **STRUCTURE OVER 20 FOOT SPAN (SFN 1867181)** | |
| | | | | | | | | | | | | | | | | | FOR STRUCTURE GENERAL SUMMARY, SEE SHEET 100 | |
| | | | | | | | | | | | | | | | | | **MAINTENANCE OF TRAFFIC** | |
| | | 50 | | | | | 50 | | | | | | 614 | 11110 | 50 | HOUR | LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE | |
| | | | | | | | LS | | | | | | 614 | 12421 | LS | | DETOUR SIGNING, AS PER PLAN | 14 |
| | | 1 | | | | | 1 | | | | | | 614 | 18601 | 1 | SNMT | PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN | 14 |
| | 120 | | | | | | 120 | | | | | | 614 | 27400 | 120 | FT | WORK ZONE CROSSWALK LINE, CLASS I, 740.06, TYPE I | |
| 4 | | | | | | | 4 | | | | | | 616 | 10000 | 4 | MGAL | WATER | |
| 1 | | | | | | | 1 | | | | | | 616 | 20000 | 1 | TON | CALCIUM CHLORIDE | |
| | 120 | | | | | | 120 | | | | | | 630 | 97800 | 120 | SF | SIGNING, MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER | 13 |
| | | | | | | | | | | | | | | | | | **INCIDENTALS** | |
| | | | | | | | LS | | | | | | 108 | 10000 | LS | | CPM PROGRESS SCHEDULE | |
| | | | | | | | LS | | | | | | SPECIAL | 69098400 | LS | | RECORD DRAWINGS | 7 |
| | | | | | | | LS | | | | | | SPECIAL | 69098400 | LS | | PRECONSTRUCTION VIDEOGRAPHY | 8 |
| | | | | | | | LS | | | | | | 614 | 11000 | LS | | MAINTAINING TRAFFIC | |
| | | | | | | | LS | | | | | | 623 | 10001 | LS | | CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN | 12 |
| | | | | | | | LS | | | | | | 624 | 10000 | LS | | MOBILIZATION | |

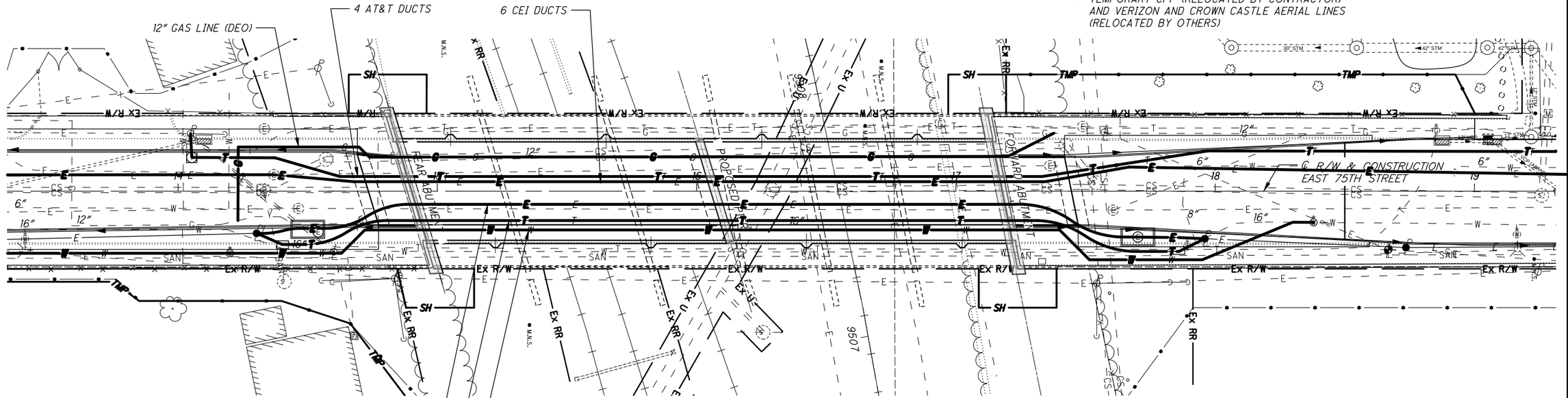
CALCULATED LAB
CHECKED BPS

# GENERAL SUMMARY

CUY-EAST 75TH STREET




## TEMPORARY UTILITY RELOCATIONS




## FINAL UTILITY LOCATIONS

*NOTES:*

1. *ALL COSTS ASSOCIATED WITH TEMPORARILY RELOCATING THE CPP POLES AND WIRE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 625 - LIGHTING, MISC.: TEMPORARY CPP AERIAL POWER LINES.*

HORIZONTAL SCALE IN FEET
0 10 20 40

DRAWN LAB
CHECKED RAB

# SCHEMATIC UTILITY RELOCATION PLAN

## CUY-EAST 75TH STREET

1 / 1

57
141

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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

| | | |
|---|---|---|
| A-1-69 | DATED (REVISED) | 07-19-02 |
| AS-1-15 | DATED (REVISED) | 07-17-15 |
| AS-2-15 | DATED (REVISED) | 01-18-19 |
| BR-2-15 | DATED (REVISED) | 07-17-15 |
| EXJ-4-87 | DATED (REVISED) | 01-19-18 |
| GSD-1-19 | DATED | 01-18-19 |
| VPF-1-90 | DATED (REVISED) | 07-20-18 |

SUPPLEMENTAL SPECIFICATIONS

| | | |
|---|---|---|
| 800 | DATED (REVISED) | 04-16-21 |
| 832 | DATED (REVISED) | 10-19-18 |

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE "STANDARD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, 2003 AND THE MOST CURRENT EDITION OF THE ODOT BRIDGE DESIGN MANUAL, 2004. PIER PILE FOUNDATIONS CONFORM TO THE MOST CURRENT EDITION OF THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

HS-20 AND THE ALTERNATE MILITARY LOADING
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN STRESSES:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL - ASTM A709, GRADE 50W - YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

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 CMS SECTIONS 102.05, 105.02, AND 513.04.

BASE CONTRACT BID PRICES UPON RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION TO 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.

THE RECORD PLANS OF THE EXISTING STRUCTURES ARE ON FILE AT:

CITY OF CLEVELAND
DIVISION OF ENGINEERING & CONSTRUCTION
601 LAKESIDE AVENUE, ROOM 518
CLEVELAND, OHIO 44114
TELEPHONE: 216-664-2381

AND ALSO MAY BE REVIEWED ONLINE AT
http://www.dot.state.oh.us.divisions/contractadmin/contracts/pages/designfiles.aspx

UTILITIES

INFORMATION SHOWN IN THE PLANS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

ANY EXISTING, PRIVATELY OWNED UTILITY FACILITIES ENCOUNTERED AT THE SITE OF THE WORK WHICH WILL INTERFERE WITH PORTIONS OF THE FINISHED ROADWAYS OR STRUCTURES SHALL BE REMOVED OR RELOCATED BY THE OWNER. THE UTILITY(IES) 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 WILL BE HELD TO A MINIMUM.

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS (SEE ROADWAY PLANS).

REFER TO THE BRIDGE SITE PLAN SHEET FOR APPROXIMATE UTILITY LOCATIONS. FOR UTILITY OWNER CONTACT INFORMATION, SEE ROADWAY GENERAL NOTES.

AT&T OHIO (AT&T) UTILITY COORDINATION:

AT&T PLANS TO RECONSTRUCT THE EXISTING MANHOLE LOCATED AT STATION 14+03, 17' LT IN COORDINATION WITH THIS PROJECT. ADDITIONALLY, AT&T PLANS TO REMOVE THE EXISTING ABANDONED DUCT UNDER THE RIGHT SIDEWALK AND REPLACE THE SIX (6) EXISTING 4" DUCTS UNDER THE LEFT SIDEWALK WITH SIX (6) NEW 4" DUCTS IN COORDINATION WITH THIS PROJECT. AT&T WILL INSTALL THE DUCT RACKS, MOUNTING HARDWARE, AND DUCTS ON THE BRIDGE.

THE CONTRACTOR SHALL WORK CLOSELY WITH AT&T TO SCHEDULE THE DEACTIVATION OF THE EXISTING UTILITIES AND THE SUBSEQUENT INSTALLATION OF THE NEW UTILITIES ON THE PROPOSED SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING WORK:

- REMOVAL OF ONE (1) ABANDONED DUCT UNDER THE RIGHT SIDEWALK WITHIN THE LIMITS OF THE EXISTING STRUCTURE INCLUDED FOR PAYMENT UNDER ITEM 202.
- REMOVAL OF SIX (6) EXISTING DUCTS UNDER THE LEFT SIDEWALK WITHIN THE LIMITS OF THE EXISTING STRUCTURE AFTER AT&T HAS DEACTIVATED AND CUT OFF THE LINES AT EACH END INCLUDED FOR PAYMENT UNDER ITEM 202.
- PROVISION AND INSTALLATION OF PVC SLEEVES THROUGH THE ABUTMENT BACKWALL AS SHOWN IN THE PLANS ON SHEET 14/40 INCLUDED FOR PAYMENT WITH ITEM 511.

FIRST ENERGY (CEI) UTILITY COORDINATION:

CEI MAINTAINS THE FOLLOWING SYSTEMS THAT WILL REMAIN ENERGIZED AND MUST BE PROTECTED DURING CONSTRUCTION:

- A 315' SPAN OF 16 - 4" DUCTS BETWEEN CEI MANHOLES MH-6475-01 & MH-6475-03 THAT EXTEND UNDERNEATH THE GCRTA & NSRR RAILS BELOW THE BRIDGE. THIS SYSTEM CONTAINS THREE (3) ACTIVE 5KV CABLE CIRCUITS, FIBER OPTIC AND CONTROL CABLES.
- A 121' SPAN OF 4 - 4" DUCTS ALONG EAST 75TH STREET BETWEEN CEI MANHOLE MH 6457-01 AND CEI POLE #256248. THIS SYSTEM CONTAINS TWO (2) ACTIVE 5KV CABLE CIRCUITS, FIBER OPTIC AND CONTROL CABLES.
- A 277' SPAN OF 6 - 4" DUCTS ALONG EAST 75TH STREET BETWEEN CEI MANHOLES MH-6457-01 AND MH-6456-10. THIS SYSTEM CONTAINS TWO (2) ACTIVE 5KV CABLE CIRCUITS, FIBER OPTIC AND CONTROL CABLES.
- A 212' SPAN OF 6 - 4" DUCTS ALONG EAST 75TH STREET BETWEEN CEI MANHOLES MH-6457-03 AND MH-6457-05. THIS SYSTEM CONTAINS TWO (2) ACTIVE 5KV CABLE CIRCUITS, FIBER OPTIC AND CONTROL CABLES.

CEI PLANS TO REMOVE THE EXISTING GUY WIRE AND CEI POLE #681334 AT STATION 14+60, 23' RT. ADDITIONALLY, CEI PLANS TO INSTALL CONCRETE ENCASED CONDUIT UNDERNEATH THE PAVEMENT FROM EXISTING CEI MANHOLE #70 TO THE REAR ABUTMENT AND FROM THE FORWARD ABUTMENT TO CEI MANHOLE #67. THE CONDUIT WILL BE EXTENDED THROUGH THE ABUTMENT PVC SLEEVES AND CAPPED FOR FUTURE USE.

THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING AND PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID FOR **ITEM 690 - SPECIAL - FIRST ENERGY (CEI) UTILITY WORK**, UNLESS OTHERWISE NOTED.

- PROVIDE WRITTEN NOTICE FOR THE ABOVE WORK TO PROCEED. CURRENT LINE SHOP LEAD TIME IS 12 WEEKS + ENGINEERING.
- IMPLEMENT A VIBRATION MONITORING PROGRAM DURING PILE DRIVING OPERATIONS TO ENSURE NO IMPACT TO SUBJACENT CEI UTILITIES, IN ACCORDANCE WITH **ITEM 530 - STRUCTURES - STRUCTURAL SURVEY AND MONITORING OF VIBRATION.**
- PROVISION AND INSTALLATION OF PVC SLEEVES THROUGH THE ABUTMENT BACKWALL AS SHOWN IN THE PLANS ON SHEET 14/40 INCLUDED FOR PAYMENT WITH ITEM 511.

FOR THE PURPOSES OF 29 CFR 1926 SUBPART CC, THE ELECTRIC DISRIBUTION FACILITIES ARE ENERGIZED AT LESS THAN 50,000 VOLTS. ALL CONTRACTORS/OWNERS MUST KNOW & COMPLY WITH OCCUPATIONAL SAFETY HEALTH ADIMISTRATION (OSHA) SAFE-WORKING CLEARANCES BETWEEN PERSONS OR ANY CONDUCTIVE OBJECT AND ENERGIZED BARE WIRES.

DOMINION EAST OHIO (DEO) UTILITY COORDINATION:

DEO PLANS TO REMOVE THE EXISTING 6" DIAMETER GAS LINE AND REPLACE A PORTION OF THE EXISTING 12" DIAMETER GAS LINE WITH A NEW 12" DIAMETER GAS LINE IN COORDINATION WITH THIS PROJECT. THE CONTRACTOR SHALL WORK CLOSELY WITH DEO TO SCHEDULE THE DEACTIVATION OF THE EXISTING GAS LINES AND THE SUBSEQUENT INSTALLATION OF THE NEW GAS LINE ON THE PROPOSED SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING AND PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID FOR **ITEM 690 - SPECIAL - DOMINION EAST OHIO (DEO) UTILITY WORK**, UNLESS OTHERWISE NOTED.

- REMOVAL OF THE EXISTING GAS LINES WITHIN THE LIMITS OF THE EXISTING STRUCTURE AFTER DEO HAS DEACTIVATED AND CUT OFF THE LINES AT EACH END.
- PROVISION AND INSTALLATION OF PVC SLEEVES THROUGH THE ABUTMENT BACKWALL AS SHOWN IN THE PLANS ON SHEET 14/40 INCLUDED FOR PAYMENT WITH ITEM 511.
- INSTALLATION OF THE DEO SUPPLIED ROLLER HANGER AND NON-CONDUCTIVE ROLLER ASSEMBLY, AS SHOWN IN THE PLANS ON SHEET 27/40.

DEO WILL SUPPLY THE ROLLER HANGER, NON-CONDUCTIVE ROLLER ASSEMBLY, NEW GAS LINE PIPE, REQUIRED SEALS AND SPACERS, AND LABOR TO PUSH THE NEW PIPE ACROSS THE BRIDGE. INSTALLATION OF THE NEW GAS LINE MUST OCCUR AFTER COMPLETION OF THE BRIDGE DECK CONCRETE POUR AND BEFORE PLACEMENT OF THE BACKFILL BEHIND THE ABUTMENT BACKWALLS AND CONSTRUCTION OF THE APPROACH SLABS. THE CONTRACTOR SHALL WORK CLOSELY WITH DEO TO SCHEDULE THE WORK.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DEO'S PIPELINES, IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P (SAFE EXCAVATION AND SHORING). ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DEO'S EXISTING PIPELINES AND ALL OTHER IMPROVEMENTS. EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRAFCER WIRE, CATHODIC PROTECTION TEST STATION WIRES AND DEVICES, VALVE BOXES, ETC.). DEO FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL DEO EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE, AND IN WORKING ORDER. THE CROSSING OF DEO'S PIPELINE WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING DEO FACILITY. PLEASE CONTACT DOMINION'S CORROSION DEPARTMENT: DAVE CUTLIP (330-323-0064), RICK MCDONALD (330-575-0335), OR AL HUMRICHOUSER (330-323-3119).

VERIZON UTILITY COORDINATION:

VERIZON PLANS TO RELOCATE THEIR EXISTING AERIAL UTILITIES IN COORDINATION WITH THIS PROJECT. THE CONTRACTOR SHALL WORK CLOSELY WITH VERIZON TO SCHEDULE THE TEMPORARY RELOCATION OF THE EXISTING AERIAL UTILITIES.

ONCE CLEVELAND PUBLIC POWER (CPP) HAS SUCCESSFULLY TEMPORARILY RELOCATED THEIR FACILITIES EAST OF THE BRIDGE, VERIZON SHALL TEMPORARILY RELOCATE THEIR UTILITIES ALONG THE SAME POLES AS SHOWN ON SHEET 57/141.

CROWN CASTLE UTILITY COORDINATION:

CROWN CASTLE PLANS TO RELOCATE THEIR EXISTING AERIAL UTILITIES IN COORDINATION WITH THIS PROJECT. THE CONTRACTOR SHALL WORK CLOSELY WITH CROWN CASTLE TO SCHEDULE THE TEMPORARY RELOCATION OF THE EXISTING AERIAL UTILITIES AND THE SUBSEQUENT INSTALLATION OF THE NEW UTILITIES ON THE PROPOSED SUPERSTRUCTURE.

ONCE CLEVELAND PUBLIC POWER (CPP) HAS SUCCESSFULLY TEMPORARILY RELOCATED THEIR FACILITIES EAST OF THE BRIDGE, CROWN CASTLE SHALL TEMPORARILY RELOCATE THEIR UTILITIES ALONG THE SAME POLES AS SHOWN ON SHEET 57/141. CROWN CASTLE WILL ALSO INSTALL HANDHOLES IN THE PROPOSED TREE LAWN AND SUPPLY CONDUIT TO THE PROPOSED BACKWALL FOR PERMANENT RELOCATION. INSTALLATION OF THE NEW CROWN CASTLE CONDUIT MUST OCCUR AFTER COMPLETION OF THE BRIDGE DECK CONCRETE POUR AND BEFORE PLACEMENT OF THE BACKFILL BEHIND THE ABUTMENT BACKWALLS AND CONSTRUCTION OF THE APPROACH SLABS. THE CONTRACTOR SHALL WORK CLOSELY WITH CROWN CASTLE TO SCHEDULE THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING AND PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID FOR **ITEM 690 - SPECIAL - CROWN CASTLE UTILITY WORK**, UNLESS OTHERWISE NOTED.

- PROVISION AND INSTALLATION OF PVC SLEEVES THROUGH THE ABUTMENT BACKWALL AS SHOWN IN THE PLANS ON SHEET 14/40 INCLUDED FOR PAYMENT WITH ITEM 511.
- INSTALLATION OF THE CROWN CASTLE SUPPLIED DUCT RACKS, MOUNTING HARDWARE, AND DUCTS ON THE BRIDGE.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

GENERAL NOTES
BRIDGE NO. 4.01 3M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

3 / 40
95 / 141

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CLEVELAND WATER DEPARTMENT (CWD) UTILITY COORDINATION:

SEE PLAN SHEETS 58-86/141 FOR WATER WORK DETAILS. THE CONTRACTOR SHALL WORK CLOSELY WITH CWD TO FACILITATE THE CONSTRUCTION OF THIS PROJECT.

CLEVELAND PUBLIC POWER (CPP) UTILITY COORDINATION:

SEE PLAN SHEETS 91-92/141 FOR POWER PLAN DETAILS. THE CONTRACTOR SHALL WORK CLOSELY WITH CPP TO FACILITATE THE CONSTRUCTION OF THIS PROJECT.

ITEM SPECIAL - PREMIUM ON RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE (NS & GCRTA)

THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY FOR BOTH NORFOLK SOUTHERN CORPORATION (NS) AND THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY (GCRTA).

ITEM SPECIAL - ASBESTOS ABATEMENT

A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST SURVEYED THE BRIDGE STRUCTURE SCHEDULED FOR DEMOLITION AND/OR REHABILITATION; THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURE.

ODOT SHALL PROVIDE A COPY OF THE ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO ONE OF THE ADDRESSES BELOW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION.

ASBESTOS PROGRAM
OHIO EPA, DAPC
P.O. BOX 1049
COLUMBUS, OH 43216-1049

OR

ASBESTOS PROGRAM
OHIO EPA, DAPC
50 W. TOWN ST., SUITE 700
COLUMBUS, OH 43215

THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR RENOVATION. THE FORM SHALL INCLUDE: 1) THE CONTRACTORS NAME AND ADDRESS, 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AN THE METHOD(S) TO BE USED. COPIES OF THE OEPA FORM AND BRIDGE INSPECTION REPORT ARE AVAILABLE FOR REVIEW AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BOULEVARD, GARFIELD HEIGHTS, OHIO 44125.

BASIS FOR PAYMENT - THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL THE EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER INCLUDING ALL EXISTING UTILITIES ON THE BRIDGE. THE USE OF EXPLOSIVES AND/OR HEADACHE BALLS WILL NOT BE PERMITTED.

FOR PORTIONS OF THE EXISTING STRUCTURE WHICH ARE TO BE INCORPORATED INTO THE PROPOSED DESIGN, HOE-RAMS WILL NOT BE PERMITTED.

THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

REMOVE PORTIONS OF EXISTING ABUTMENTS AS SHOWN IN THE PLANS. SEE BRIDGE GENERAL PLAN FOR EXISTING PIER NUMBERS WHICH ARE NUMBERED SOUTH TO NORTH. THE EXISTING PIERS NO. 1 AND 2 ADJACENT TO THE GCRTA TRACKS SHALL BE REMOVED TO 1'-0" BELOW GRADE. THE EXISTING PIERS NO. 4 AND 5 ADJACENT TO THE NSRR TRACKS SHALL BE REMOVED TO 2'-0" BELOW GRADE. EXISTING PIER NO. 3 SHALL BE REMOVED IN PHASES AS DETAILED ON PLAN SHEET 13/40.

CUT LINE CONSTRUCTION JOINT PREPARATION:

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

ABUTMENT CONCRETE REMOVAL:

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

PIER NO. 3 FOOTING REMOVAL:

THERE ARE TWO ACTIVE ELECTRICAL DUCTS (CEI) AND ONE ACTIVE STEEL-ENCASED COMBINED SEWER (WPC) THAT PASS BENEATH THE FOOTING OF EXISTING PIER NO. 3. EXTREME CARE SHALL BE TAKEN DURING REMOVAL OF THIS PIER FOOTING.

REMOVAL OF THE FOOTING ADJACENT TO THESE FACILITIES SHALL BE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF THE EXISTING ENCASED SEWERS. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON APPROVAL OF THE ENGINEER.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL PAY FOR THE ACCEPTED REMOVALS ON A LUMP SUM BASIS AT THE CONTRACT PRICE BID FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - WEARING COURSE REMOVED

THE CONTRACTOR SHALL RECOGNIZE THAT THE EXISTING WEARING COURSE VARIES IN DEPTH AND ACCOUNT FOR THIS IN HIS/HER BID. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD REMOVED. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THE VARIABLE DEPTH WEARING COURSE.

FOUNDATION BEARING PRESSURE (ABUTMENTS):

THE EXISTING ABUTMENT FOOTINGS PRODUCE A MAXIMUM BEARING PRESSURE OF 3.46 KIPS PER SQUARE FOOT UNDER THE NEW LOADING. THE ALLOWABLE BEARING PRESSURE IS 3.66 KIPS PER SQUARE FOOT.

PILES DRIVEN TO BEDROCK (PIER):

DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD IS 338 KIPS FOR THE PIER PILES.
PIER PILES: 15 PILES 115 FEET LONG, ORDER LENGTH.

PILES SPLICES:

IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:
ASSOCIATED PILE AND FITTING CORPORATION
8 WOOD HOLLOW RD., PLAZA 1
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

PREBORED HOLES:

INSTALL THE PIER PILES IN PREBORED HOLES IN ACCORDANCE WITH CMS SECTION 507.11. THE DEPTH OF THE PREBORED HOLE SHALL EXTEND TO A MINIMUM OF 15 FEET BELOW THE EXISTING GROUND LINE.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACING. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN:

DESCRIPTION: THIS ITEM SHALL CONSIST OF DRILLING HOLES INTO CONCRETE AND FURNISHING AND PLACING GROUT INTO THE HOLES IN ACCORDANCE WITH CMS 510 AND MODIFIED BY THE FOLLOWING REQUIREMENTS.

MATERIALS: FURNISH AN ADHESIVE ANCHOR SYSTEM THAT MEETS THE REQUIREMENTS OF ACI 355.4-11, SUCH AS DAYTON SUPERIOR CORPORATION PRO-POXY 500, HILTI HIT HY 200, DEWALT PURE 110+, OR APPROVED EQUAL.

METHOD OF MEASUREMENTS: THE QUANTITY MEASURED WILL BE THE NUMBER OF DOWEL HOLES COMPLETE IN PLACE.

BASIS OF PAYMENT: ACCEPTED QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH DOWEL HOLE COMPLETE IN PLACE. THIS PRICE SHALL INCLUDE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS INCLUDING DRILLING DOWEL HOLES, AND AN ADHESIVE ANCHOR SYSTEM. PAYMENT WILL BE MADE UNDER ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

ITEM 511 - CONCRETE WITH QC/QA:

GENERAL REQUIREMENTS: THE PROVISIONS OF ITEM 511 SHALL APPLY EXCEPT AS NOTED BELOW.

MIX DESIGN: ALL COARSE AGGREGATE SHALL HAVE AN ABSORPTION OF 1.00% OR GREATER AS DEFINED PER ASTM C127.

IN ADDITION, THE CONTRACTOR SHALL PROVIDE A RUBBED SURFACE IN ACCORDANCE WITH CMS 511.18(B) ON ALL EXPOSED SURFACES.

PARAPET CONSTRUCTION (FORMED AND POURED)

FORMS SHALL NOT BE REMOVED UNTIL AT LEAST 2 HOURS AFTER THE FINAL SET. DETERMINATION OF THE FINAL SET SHALL BE AS PER ASTM C266 (GILLMORE NEEDLE). TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT NO COST TO THE STATE.
THE MINIMUM CONCRETE SLUMP DURING PLACEMENT OF FORMED CONCRETE PARAPETS SHALL BE 6 INCHES, WITH A MAXIMUM SLUMP OF 8 INCHES.

ANCHOR BOLTS FOR FENCE POSTS SHALL BE CAST IN PLACE.



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CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
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| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

GENERAL NOTES
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

CONCRETE PARAPET CONTROL JOINTS

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, SAW CUT 1¼" DEEP CONTROL JOINTS INTO THE PERIMETER OF THE CONCRETE PARAPET STARTING AND ENDING AT THE ELEVATION OF THE SIDEWALK. PLACE THE SAW CUTS AS DETAILED ON PLAN SHEET 34/40. USE AN EDGE GUIDE, FENCE OR JIG TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. SEAL THE PERIMETER OF THE DEFLECTION CONTROL JOINT TO A MINIMUM DEPTH OF 1 INCH WITH A POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S. LEAVE THE BOTTOM ½ INCH OF THE INSIDE AND OUTSIDE FACE UNSEALED TO ALLOW WATER TO ESCAPE.

INCLUDE WITH ITEM 511 - CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN FOR PAYMENT.

PARAPET CONSTRUCTION (SLIP FORMED)

SLIP FORMING SHALL NOT BE PERFORMED.

SUBSTRUCTURE CONCRETE

IN ADDITION TO THE REQUIREMENTS OF ITEM 511, THE FOLLOWING WORK IS INCLUDED:

AFTER THE REMOVAL OF PORTION OF CONCRETE AT EXISTING ABUTMENTS TO THE LIMIT SHOWN IN THE PLANS, ALL DISINTEGRATED, LOOSE, SOFT AND HONEYCOMBED CONCRETE SHALL BE REMOVED AND THE SOUND CONCRETE AREAS SHALL BE PROPERLY SHAPED PRIOR TO INSTALLING THE REINFORCING DOWELS. THE CONTRACTOR MAY BLAST CLEAN THE CONCRETE SURFACE WITH HIGH PRESSURE WATER BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING. IF A BONDING COMPOUND IS NOT SPECIFIED, DRENCH THE PREPARED SURFACE WITH WATER AND KEEP IT WET DURING THE 2 HOURS PRECEDING THE PLACEMENT OF THE CONCRETE. ENSURE THAT ALL SURFACES ARE DAMP, BUT WITHOUT FREE WATER WHILE PLACING CONCRETE. THE ENGINEER SHALL APPROVE THE PREPARATION AND CONDITION OF ALL SURFACES PRIOR TO PLACEMENT OF CONCRETE.

PAYMENT FOR UTILITY OPENING SLEEVES IS INCIDENTAL TO ITEM 511, CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN.

BASIS OF PAYMENT:

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE FOR:

| ITEM | UNITS | DESCRIPTION |
|---|---|---|
| 511E21523 | CUBIC YARD | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN |
| 511E42013 | CUBIC YARD | CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN |
| 511E44113 | CUBIC YARD | CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN |
| 511E46013 | CUBIC YARD | CLASS QC1 CONCRETE WITH QC/QA, RETAINING/ WINGWALL NOT INCLUDING FOOTING, AS PER PLAN |
| 511E46513 | CUBIC YARD | CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN |

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

APPLY A PERMANENT GRAFFITI COATING, AS SHOWN IN THE PLANS, QUALIFIED ACCORDING TO SUPPLEMENT 1083 THAT IS COMPATIBLE WITH THE CONCRETE SEALER OVER WHICH IT IS APPLIED. APPLY THE GRAFFITI COATING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.

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

SEAL THE CONCRETE SURFACES AS DETAILED ON THE PLAN SHEETS. THE COLOR OF THE NON-EPOXY SHALL BE CLEAR. THE FINISH COLOR OF THE EPOXY-URETHANE SHALL BE FEDERAL COLOR NUMBER 595 B-2778 (SATIN FINISH)

ITEM 514 - SHOP PAINTING AND FIELD TOUCH-UP OF STRUCTURAL STEEL

PARTIAL PAINTING OF A709 GRADE 50W STEEL: PAINT THE LAST 10 FT OF EACH BEAM END ADJACENT TO THE ABUTMENTS INCLUDING ALL CROSS FRAMES AND OTHER STEEL WITHIN THESE LIMITS. THE PRIME COAT SHALL BE 708.01. THE TOP COAT SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 595B-20045 OR 20059 (THE COLOR OF WEATHERING STEEL).

ITEM 517 - RAILING, MISC.: GALVANIZED STEEL HANDRAIL

DESCRIPTION: THIS ITEM SHALL CONSIST OF CONSTRUCTING A GALVANIZED STEEL HANDRAIL IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED HEREIN AND THE DETAILS IN THE STRUCTURE PLANS ON SHEET 22/40.

MATERIALS: FABRICATE HAND RAILING FROM NOMINAL SIZE 1-½" DIAMETER 0.145" WALL THICKNESS STEEL PIPE MEETING THE REQUIREMENTS OF THE SPECIFICATION FOR WELDED AND SEAMLESS PIPE ASTM 53 STANDARD WEIGHT.

GALVANIZE STEEL HANDRAILS AS SPECIFIED IN ASTM A 123. FIELD WELD SPLICES FOR STEEL RAILING. RE-GALVANIZE AREAS ON WHICH THE SPELTER COATING HAS BEEN DAMAGED, AS SPECIFIED IN AASHTO M 36, SECTION 24. METALIZING PROCESS OR REPAIR UNDER THE DIRECTION OF THE ENGINEER WITH STICK-FORM GALVANIZING REPAIR COMPOUND MEETING FEDERAL SPECIFICATION O-G-93.

FASTENERS: FURNISH FASTENERS IN ACCORDANCE WITH ODOT STANDARD DRAWING BR-2-15.

METHOD OF MEASUREMENT: THE LENGTH MEASURED WILL BE THE NUMBER OF FEET COMPLETE IN PLACE.

BASIS OF PAYMENT: ACCEPTED QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FEET COMPLETE IN PLACE. THIS PRICE SHALL INCLUDE FULL COMPENSATION FOR ALL GALVANIZED STEEL HANDRAIL, INCLUDING STEEL HANDRAIL, BASE PLATES, GALVANIZING, SHOP PAINTING, POLYURETHANE GROUT, AND OTHER INCIDENTAL MATERIALS, LABOR AND EQUIPMENT. PAYMENT WILL BE MADE UNDER ITEM 517 - RAILING, MISC.: GALVANIZED STEEL HANDRAIL.

ITEM 517 - RAILING, MISC.: SINGLE STEEL TUBE

DESCRIPTION: THIS ITEM SHALL CONSIST OF CONSTRUCTING A SINGLE STEEL TUBE RAIL IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED HEREIN AND THE DETAILS IN THE STRUCTURE PLANS ON SHEET 22/40.

MATERIALS: STRUCTURAL STEEL TUBE SHALL BE IN ACCORDANCE WITH ODOT CMS 707.10 (ASTM A500, GRADE B). STEEL FOR PLATES SHALL BE IN ACCORDANCE WITH ODOT CMS 711.01. FOR POST SLEEVE AND HEXAGON SOCKET SET SCREW MATERIALS, SEE ODOT STANDARD DRAWING VPF-1-90, SHEET 1/7.

FASTENERS: FURNISH FASTENERS IN ACCORDANCE WITH ODOT STANDARD DRAWING BR-2-15.

METHOD OF MEASUREMENT: THE LENGTH MEASURED WILL BE THE NUMBER OF FEET COMPLETE IN PLACE.

BASIS OF PAYMENT: ACCEPTED QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FEET COMPLETE IN PLACE. THIS PRICE SHALL INCLUDE FULL COMPENSATION FOR ALL SINGLE STEEL TUBE RAILING, INCLUDING SINGLE STEEL TUBE RAILING, BASE PLATES, GALVANIZING, SHOP PAINTING, POLYURETHANE GROUT, AND OTHER INCIDENTAL MATERIALS, LABOR AND EQUIPMENT. PAYMENT WILL BE MADE UNDER ITEM 517 - RAILING, MISC.: SINGLE STEEL TUBE.

ITEM 519 - PATCHING CONCRETE SURFACES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

THE CONTINGENCY QUANTITY SHALL BE USED AT THE DISCRETION OF THE FIELD ENGINEER.

ITEM SPECIAL - STRUCTURE MISC.: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES

A. REQUIREMENTS AND RESTRICTIONS BY GCRTA

THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-ENTRY PERMIT FROM THE AUTHORITY PRIOR TO STARTING WORK WITHIN GCRTA RIGHT-OF-WAY. EACH CONTRACTOR SHALL SUBMIT WEEKLY REQUESTS THROUGH THE GCRTA PROJECT MANAGER FOR APPROVAL TO WORK WITHIN GCRTA RIGHT-OF-WAY. THE CONTRACTOR SHALL SUBMIT WEEKEND SHUTDOWN REQUESTS AT LEAST FOUR (4) WEEKS IN ADVANCE OF THE REQUESTED SHUTDOWN DATES. THE EXISTING BRIDGE SPANS OVER THE GCRTA'S RED LINE.

1. CONTRACTOR SHALL CONDUCT ALL WORK INVOLVING THE GCRTA IN STRICT ACCORDANCE WITH THE LATEST GCRTA STANDARDS:

   STANDARD 014500 - SAFETY PROCEDURES
   STANDARD 015010 - GCRTA MAINTENANCE OF RAIL TRAFFIC AND RESUMPTION OF REVENUE SERVICE
   STANDARD 015020 - STANDARD RAIL FLAGGING PROCEDURES
   STANDARD 015020 - WORK ZONE APPENDIX

2. ALL WORK OVER AND ADJACENT TO GCRTA TRACKS SHALL BE COORDINATED WITH AUTHORITY PERSONNEL. CONTRACTOR SHALL NOT INTERRUPT GCRTA RAIL OPERATIONS WITHOUT PRIOR APPROVAL FROM THE GCRTA. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DISRUPTIONS TO REGULAR, CONTINUOUS RAPID TRANSIT SERVICE CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES.

3. PRIOR TO THE START OF ANY WORK, THE CONTRACTOR MUST ENTER INTO AND EXECUTE A TEMPORARY RIGHT-OF-ENTRY AGREEMENT WITH THE GCRTA. INCLUDED IN THE TEMPORARY RIGHT-OF-ENTRY AGREEMENT ARE THE REQUIREMENTS FOR INSURANCE COVERAGE. IN ADDITION TO STANDARD INSURANCE COVERAGES, THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY. ALL WORK OVER AND ON THE GCRTA ROW SHALL BE COORDINATED WITH GCRTA PERSONNEL.

4. UNDERGROUND FIBER OPTIC LINES AND SIGNAL CABLES MAY BE PRESENT WITHIN THE VICINITY OF THE DEMOLITION/CONSTRUCTION WORK NEAR THE GCRTA TRACKS. CONTRACTOR SHALL LOCATE GCRTA UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL USE CAUTION DURING ANY EXCAVATION ACTIVITIES WITHIN THE GCRTA TRACK AREA.

5. THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 15.75-FEET VERTICAL CLEARANCE AND A MINIMUM OF 6.5-FEET HORIZONTAL CLEARANCE FROM THE CENTERLINE OF TRACK AT ALL TIMES WHEN TRAINS ARE OPERATING. A GCRTA APPROVED FLAGGER WILL BE REQUIRED WHEN WORKING WITHIN 10-FEET OF THE CENTERLINE OF AN ACTIVE TRACK. NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE WITHIN GCRTA CLEARANCE LIMITS WHILE TRACK IS ACTIVE UNLESS A TEMPORARY PROTECTIVE STRUCTURE (OR SIMILAR) IS ERECTED TO PROTECT GCRTA TRAFFIC. DETAILS OF THE PROTECTIVE STRUCTURE (OR SIMILAR) SHALL BE PREPARED BY A PROFESSIONAL ENGINEER AND SUBMITTED TO THE GCRTA FOR APPROVAL AT LEAST THIRTY (30) DAYS PRIOR TO STARTING ANY WORK. PROTECTIVE STRUCTURE SHALL BE DESIGNED AS APPLICABLE FOR THE MAXIMUM LOAD ANTICIPATED FOR THE CONTRACTOR'S ACTIVITIES. THE PROTECTIVE STRUCTURE (OR SIMILAR) MUST BE DESIGNED TO BE FULLY-INSULATED, BONDED AND GROUNDED ELECTRICALLY FOR ISOLATION FROM GCRTA OVERHEAD CATENARY SYSTEMS. WHEN CONDITIONS WARRANT, THE CONTRACTOR SHALL PLACE A FILTER FABRIC WRAP OVER THE GCRTA BALLAST WITHIN THE CONSTRUCTION LIMITS. THE FABRIC SHALL BE ATTACHED TO THE EXISTING TIES. DURING WORK, THE GCRTA TRACKS SHALL ALSO BE PROTECTED FROM FALLING DEBRIS WITH PLYWOOD AND/OR OTHER SUITABLE MATERIAL. SUBMIT DETAILED DRAWINGS TO THE GCRTA PROJECT MANAGER FOR APPROVAL.

   THE COST FOR THIS WORK SHALL BE INCLUDED WITH ITEM SPECIAL-STRUCTURE MISC: TEMPORARY FALSEWORK AND PROTECIVE STRUCTURES

6. THIRTY (30) DAYS PRIOR TO THE START OF DEMOLITION, CONSTRUCTION OR ERECTION OVER OR ADJACENT TO GCRTA UTILITIES OR PROPERTY, THE CONTRACTOR SHALL SUBMIT TO GCRTA, FOR ACCEPTANCE, COMPLETE DETAILS OF THE PROPOSED METHODS OF DEMOLITION, CONSTRUCTION OR ERECTION. THE CONTRACTOR SHALL SELECT METHODS WHICH PROTECT GCRTA UTILITIES AND PROPERTY.

7. ALL WORK PERTAINING TO THE GCRTA AERIAL COMMUNICATION, ELECTRIC, AND CATENARY LINES SHALL BE PERFORMED BY THE CONTRACTOR. THE OVERHEAD LINES, INCLUDING BUT NOT LIMITED TO, THE COMMUNICATION, SIGNAL AND ELECTRICAL LINES SHALL BE TEMPORARILY, IF NECESSARY, SUPPORTED DURING CONSTRUCTION BY THE TEMPORARY PROTECTIVE STRUCTURE OR OTHER AS APPROPRIATE AND ACCEPTABLE TO THE GCRTA. THE CONTRACTOR IS TO PROVIDE ANY TEMPORARY SUPPORT STRUCTURES. ALL WORK TO DETACH AND RE-ATTACH THE AERIAL LINES TO THE TEMPORARY AND PERMANENT SUPPORTS WILL BE PERFORMED BY THE CONTRACTOR. USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION PHASE AND COOPERATE WITH THE GCRTA AT ALL TIMES.

   THE EXISTING CATENARY LINES ARE ATTACHED TO THE EXISTING STRUCTURE. THE EXISTING CATENARY LINE WILL BE WITHIN ANY POTENTIALLY PROPOSED TEMPORARY PROTECTIVE STRUCTURE OR SIMILAR TO BE PROPOSED BY THE CONTRACTOR. IN THE EVENT THESE LINES ARE AFFECTED BY THE CONTRACTOR'S

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| DESIGNED | DRAWN | REVIEWED | DATE |
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| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

GENERAL NOTES
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

5 / 40

97 / 141

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# ESTIMATED QUANTITIES

CALC BY: BPS

CHK'D BY: LAB

| ITEM | ITEM EXT. | PARTICIPATION 01/BRF/BR | 02/BRF/BR | 03/BRF/BR | 04/BRF/BR | 05/BRF/BR | 06/BRF/BR | TOTAL | UNIT | DESCRIPTION | REAR ABUTMENT | FWD. ABUTMENT | PIERS | RETAINING WALLS | SUPER-STRUCTURE | GENERAL | CONTINGENCY* | REFERENCE SHEET NUMBERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 202 | 11203 | LS | | | | | | LS | | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN | | | | | | LS | | 4 |
| 202 | 23500 | 1027 | | | | | | 1027 | SY | WEARING COURSE REMOVED | | | | | 1027 | | | |
| 503 | 11100 | LS | | | | | | LS | | COFFERDAMS AND EXCAVATION BRACING | | | | | | LS | | |
| 503 | 21100 | 180 | | | | | | 180 | CY | UNCLASSIFIED EXCAVATION | 37 | 26 | 58 | 59 | | | | |
| 505 | 11100 | LS | | | | | | LS | | PILE DRIVING EQUIPMENT MOBILIZATION | | | LS | | | | | |
| 507 | 00200 | 1725 | | | | | | 1725 | FT | STEEL PILES HP12X53, FURNISHED | | | 1725 | | | | | |
| 507 | 00250 | 1650 | | | | | | 1650 | FT | STEEL PILES HP12X53, DRIVEN | | | 1650 | | | | | |
| 507 | 92200 | 225 | | | | | | 225 | FT | PREBORED HOLES | | | 225 | | | | | |
| 509 | 10001 | 159,124 | | | | | | 159,124 | LB | EPOXY COATED REINFORCING STEEL, AS PER PLAN | 13,351 | 11,804 | 17,131 | 19,435 | 97,403 | | | 4 |
| 510 | 10001 | 1702 | | | | | | 1702 | EACH | DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN | 212 | 216 | | 1274 | | | | 4 |
| 511 | 21523 | 411 | | | | | | 411 | CY | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE, AS PER PLAN | | | | | 411 | | | 4-5 |
| 511 | 42013 | 96 | | | | | | 96 | CY | CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS, AS PER PLAN | | | 96 | | | | | 4-5 |
| 511 | 44113 | 278 | | | | | | 278 | CY | CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN | 165 | 113 | | | | | | 4-5 |
| 511 | 46013 | 162 | | | | | | 162 | CY | CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN | | | | 162 | | | | 4-5 |
| 511 | 46513 | 35 | | | | | | 35 | CY | CLASS QC1 CONCRETE WITH QC/QA, FOOTING, AS PER PLAN | | | 35 | | | | | 4-5 |
| 512 | 10001 | 1253 | | | | | | 1253 | SY | SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION) | 198 | 244 | 64 | 747 | | | | 5 |
| 512 | 10050 | 338 | | | | | | 338 | SY | SEALING OF CONCRETE SURFACES (NON-EPOXY) | | | | | 338 | | | |
| 512 | 10101 | 2301 | | | | | | 2301 | SY | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN | 257 | 300 | 190 | 1023 | 531 | | | 5 |
| 512 | 10300 | 102 | | | | | | 102 | SY | SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN | | | | | 102 | | | |
| 512 | 10600 | 200 | | | | | | 200 | FT | CONCRETE REPAIR BY EPOXY INJECTION | | | | | | | 400 | |
| 512 | 44400 | 273 | | | | | | 273 | SY | TYPE B WATERPROOFING | 30 | 31 | | 212 | | | | |
| 513 | 10280 | 382,000 | | | | | | 382,000 | LB | STRUCTURAL STEEL MEMBERS, LEVEL 4 | | | | | 382,000 | | | |
| 513 | 20000 | 4428 | | | | | | 4428 | EACH | WELDED STUD SHEAR CONNECTORS | | | | | 4428 | | | |
| 514 | 80020 | 1450 | | | | | | 1450 | SF | SHOP PAINTING AND FIELD TOUCH-UP OF STRUCTURAL STEEL | | | | | 1450 | | | 5 |
| 516 | 11210 | 85 | | | | | | 85 | FT | STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL | 43 | 42 | | | | | | |
| 516 | 13200 | 231 | | | | | | 231 | SF | 1/2" PREFORMED EXPANSION JOINT FILLER | 9 | 10 | | 212 | | | | |
| 516 | 44100 | 10 | | | | | | 10 | EACH | ELASTOMERIC BEARING WITH INTERNAL LAMINATES & LOAD PLATE (NEOPRENE) (12" X 18" X 2.36") | | | | | 10 | | | |
| 516 | 44300 | 5 | | | | | | 5 | EACH | ELASTOMERIC BEARING WITH INTERNAL LAMINATES & LOAD PLATE (NEOPRENE) (18" X 30" X 4.26") | | | | | 5 | | | |
| 517 | 76300 | 105 | | | | | | 105 | FT | RAILING, MISC.: GALVANIZED STEEL HANDRAIL | | | | 105 | | | | 5 |
| 517 | 76300 | 585 | | | | | | 585 | FT | RAILING, MISC.: SINGLE STEEL TUBE | 28 | 31 | | 526 | | | | 5 |
| 518 | 21200 | 215 | | | | | | 215 | CY | POROUS BACKFILL WITH GEOTEXTILE FABRIC | 73 | 51 | | 91 | | | | |
| 518 | 40000 | 794 | | | | | | 794 | FT | 6" PERFORATED CORRUGATED PLASTIC PIPE | 79 | 81 | | 634 | | | | |
| 518 | 40010 | 100 | | | | | | 100 | FT | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS | 30 | 21 | | 49 | | | | |
| 518 | 62100 | 40 | | | | | | 40 | FT | STRUCTURE DRAINAGE, MISC.: CLEAN AND REPAIR EXISTING SLOPE DRAINS | 20 | 20 | | | | | | 7A |
| 519 | 11101 | 46 | | | | | | 46 | SF | PATCHING CONCRETE STRUCTURE, AS PER PLAN | 21 | 25 | | | | | | 5 |
| 526 | 10001 | 46 | | | | | | 46 | SY | REINFORCED CONCRETE APPROACH SLABS (T = 12"), AS PER PLAN | | | | | | 46 | | 38 |
| 526 | 25001 | 75 | | | | | | 75 | SY | REINFORCED CONCRETE APPROACH SLABS (T = 15"), AS PER PLAN | | | | | | 75 | | 38 |
| 526 | 90010 | 57 | | | | | | 57 | FT | TYPE A INSTALLATION | | | | | | 57 | | |
| SPECIAL | 53000200 | LS | | | | | | LS | | STRUCTURES - TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES | | | | | | LS | | 5-7 |
| SPECIAL | 53014000 | LS | | | | | | LS | | STRUCTURES - STRUCTURAL SURVEY AND MONITORING OF VIBRATION | | | | | | LS | | 7 |
| 601 | 20010 | 33 | | | | | | 33 | CY | CRUSHED AGGREGATE SLOPE PROTECTION | 17 | 16 | | | | | | |
| 607 | 39901 | 497 | | | | | | 497 | FT | VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN | 21 | 20 | | | 456 | | | 7A |
| 613 | 41251 | 390 | | | | | | 390 | CY | LOW STRENGTH MORTAR BACKFILL (TYPE 1), AS PER PLAN | 260 | 130 | | | | | | 7 |
| 625 | 33001 | 1 | | | | | | 1 | EACH | STRUCTURE GROUNDING SYSTEM, AS PER PLAN | | | | | | 1 | | 7A |
| SPECIAL | 69098400 | | | LS | | | | LS | | FIRST ENERGY (CEI) UTILITY WORK | | | | | | LS | | 3 |
| SPECIAL | 69098400 | | | | LS | | | LS | | DOMINION EAST OHIO (DEO) UTILITY WORK | | | | | | LS | | 3 |
| SPECIAL | 69098400 | | | | | | LS | LS | | CROWN CASTLE UTILITY WORK | | | | | | LS | | 3 |

* CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER

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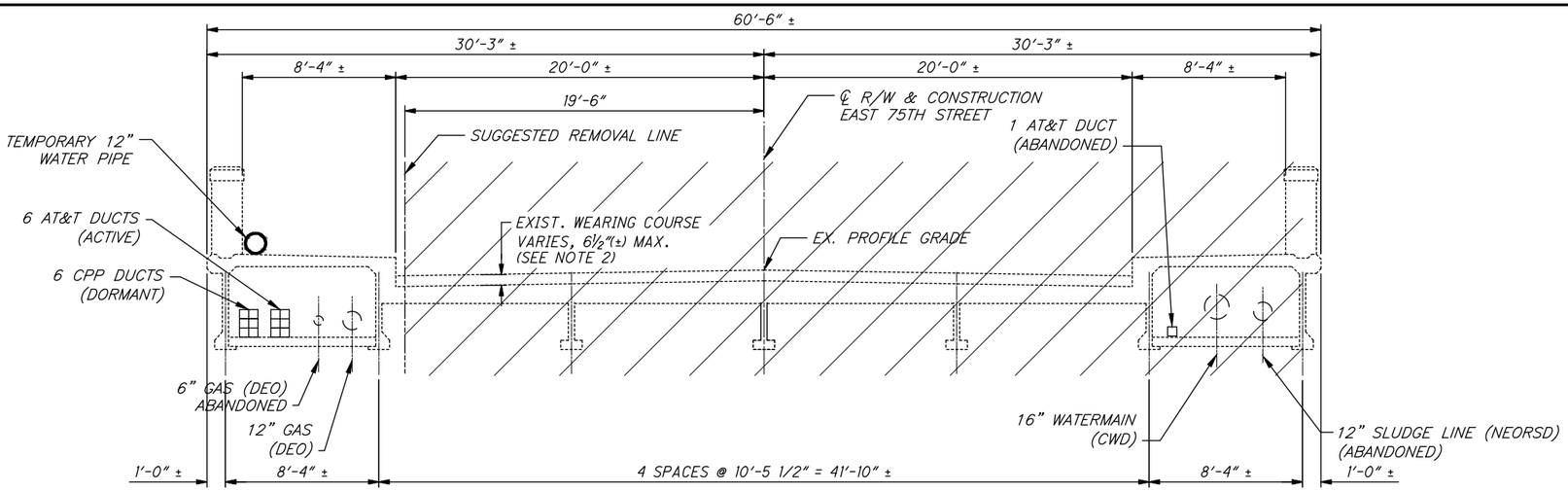
DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

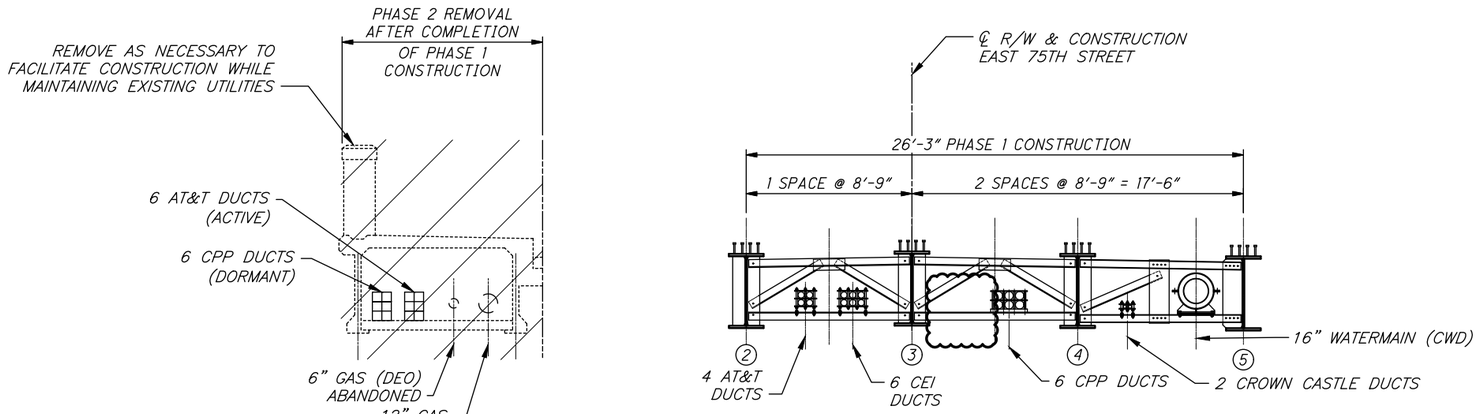
DESIGNED BPS | DRAWN OOS | REVIEWED RAB | DATE 8-3-20
CHECKED LAB | REVISED - | STRUCTURE FILE NUMBER 1867181

ESTIMATED QUANTITIES
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

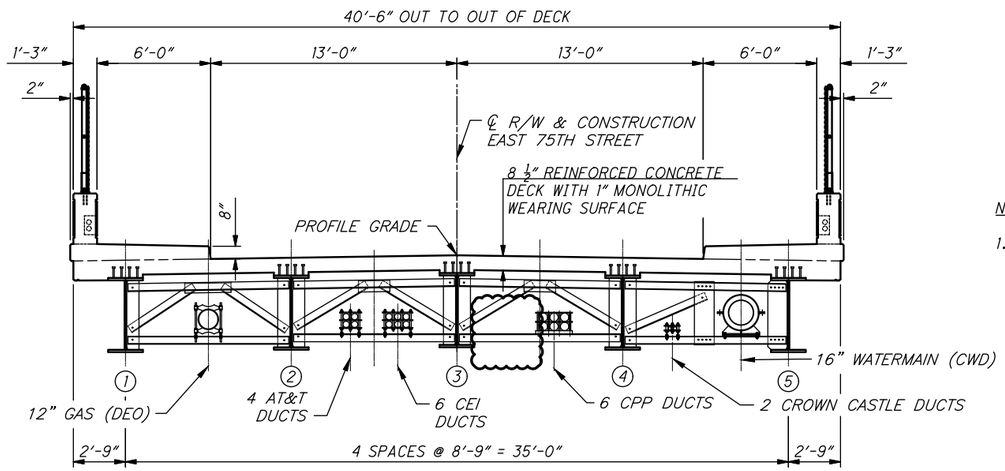
CUY-EAST 75TH STREET
PID No. 106378




## EXISTING TRANSVERSE SECTION
PHASE 1 REMOVAL




## CONSTRUCTION SEQUENCE TO MAINTAIN UTILITIES
SHOWING PHASE 1 CONSTRUCTION & PHASE 2 REMOVAL




## PROPOSED TRANSVERSE SECTION

NOTES:

1. DEMOLITION SHALL BE PHASED AS SHOWN IN ORDER TO MAINTAIN UTILITIES ON THE PORTION OF THE EXISTING STRUCTURE TO REMAIN. THE PROPOSED STEEL ERECTION SHALL ALSO BE PHASED ACCORDINGLY. THE PROPOSED CONCRETE DECK, SIDEWALKS AND PARAPETS WILL BE CONSTRUCTED IN ONE PHASE WITHOUT LONGITUDINAL CONSTRUCTION JOINTS FOLLOWING THE COMPLETION OF PHASE 2 REMOVAL AND PROPOSED STEEL ERECTION.

   THE EXISTING ASPHALT THICKNESS ON THE BRIDGE VARIES. THE CONTRACTOR SHALL BE FAMILIAR WITH THE REQUIREMENTS IN THE GENERAL NOTES OF THE EXISTING STRUCTURE VERIFICATION AND ITEM 202 REMOVAL ITEMS. BID PRICES SHALL BE BASED ON A PREBID EXAMINATION OF THE EXISTING STRUCTURE AND A RECOGNITION THAT THE EXISTING ASPHALT DEPTH VARIES.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

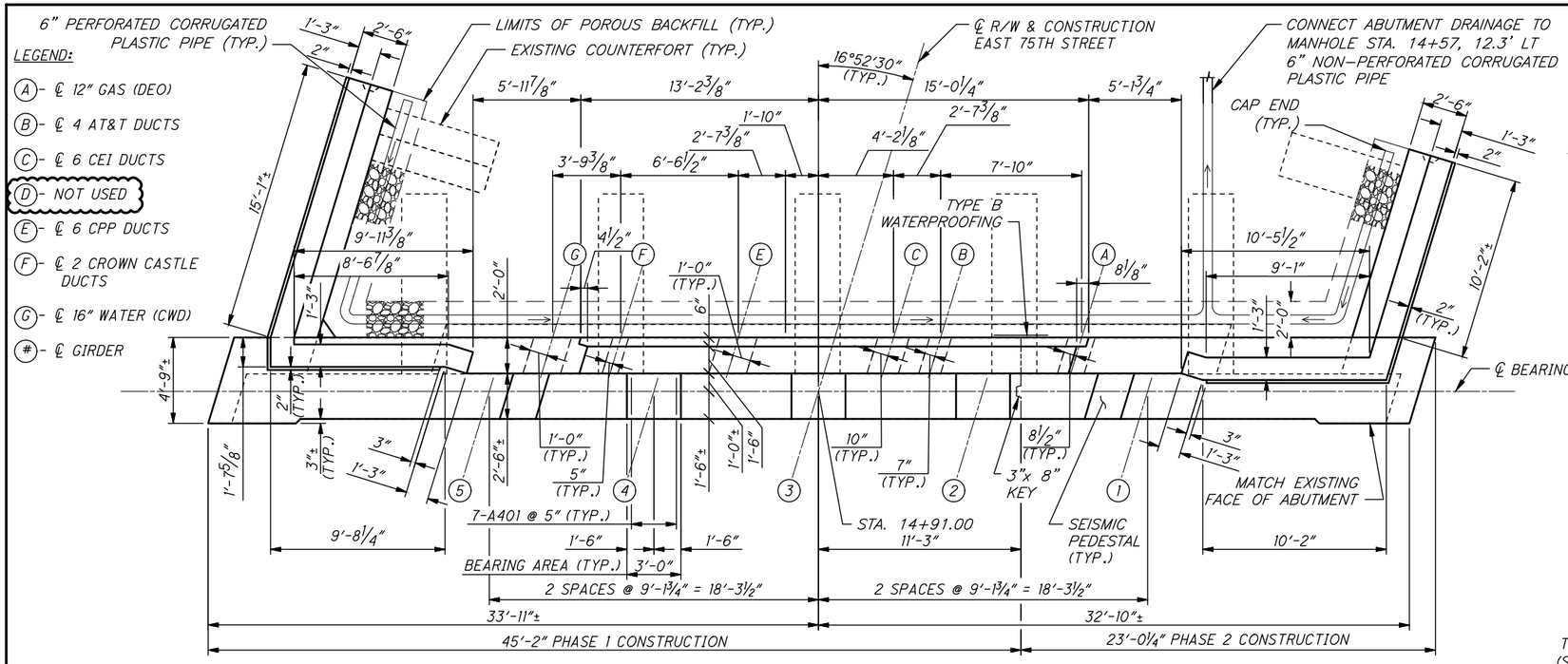
| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| LAB | LAB | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| BPS | - | 1867181 | |

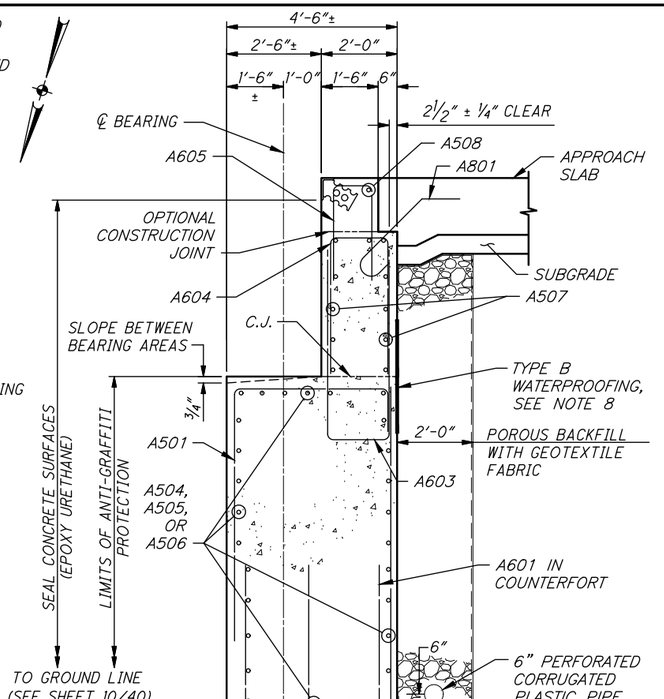
**STAGED CONSTRUCTION DETAILS**
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

**CUY-EAST 75TH STREET**
**PID No. 106378**

LEGEND:

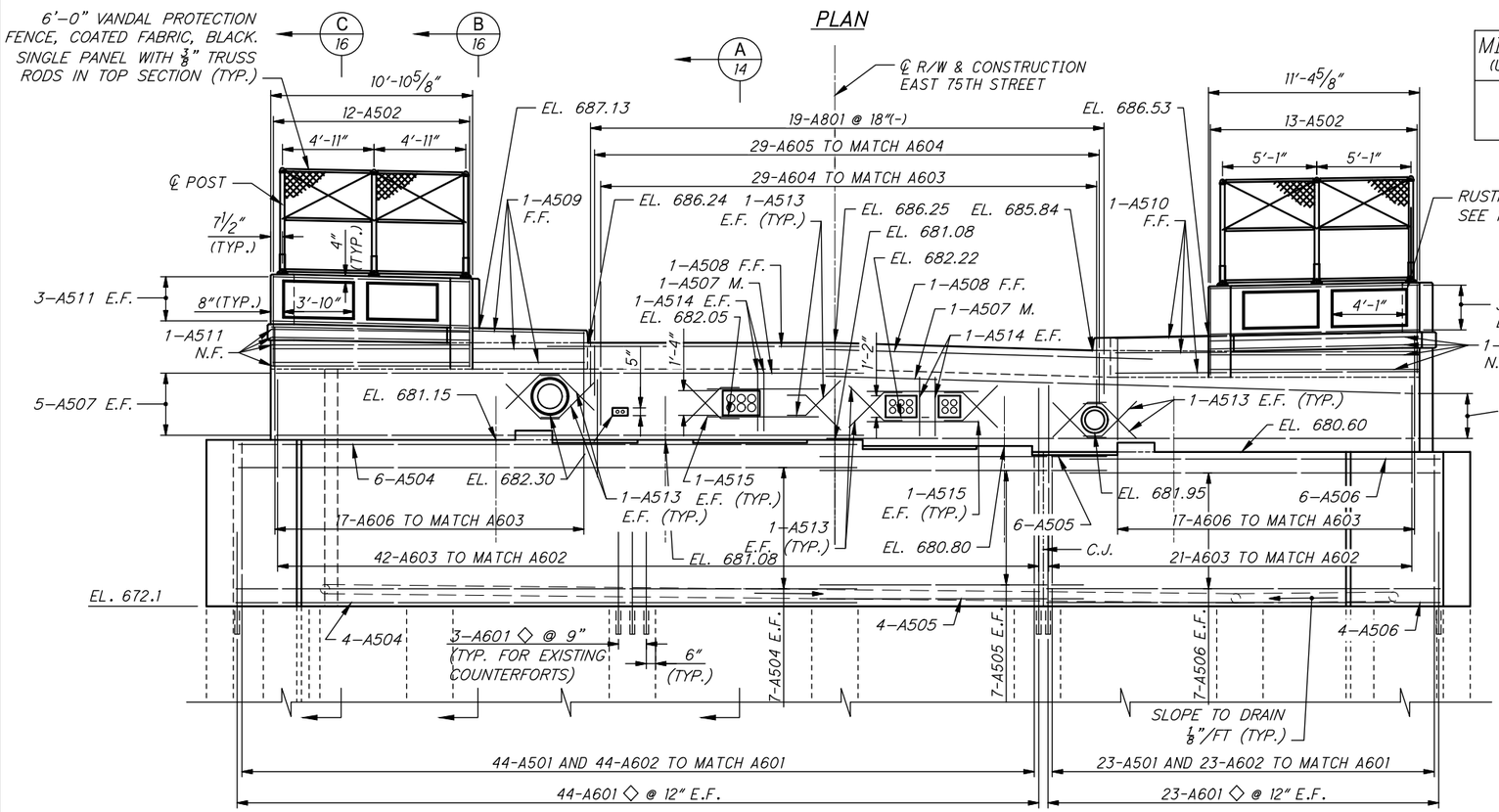
- (A) - ℄ 12" GAS (DEO)
- (B) - ℄ 4 AT&T DUCTS
- (C) - ℄ 6 CEI DUCTS
- (D) - NOT USED
- (E) - ℄ 6 CPP DUCTS
- (F) - ℄ 2 CROWN CASTLE DUCTS
- (G) - ℄ 16" WATER (CWD)
- (#) - ℄ GIRDER




A/14 SECTION

PLAN




ELEVATION

◇ — DOWEL BAR TO BE DRILLED AND GROUTED IN ACCORDANCE WITH ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

| MINIMUM LAP LENGTH (UNLESS OTHERWISE NOTED) |
|---|
| #5 BAR = 2'-0" |
| #6 BAR = 2'-4" |

NOTES:

1. BACKWALL ELEVATIONS ARE GIVEN TO THE TOP OF THE 7 X 4 X ½" ANGLE OF THE EXPANSION JOINT ALONG THE FRONT FACE.
2. PHASED CONSTRUCTION SHALL ONLY APPLY TO THE PORTION OF THE ABUTMENT UP TO THE ELEVATION OF THE BEARING SEAT. ONCE THE PROPOSED STEEL HAS BEEN ERECTED, THE BACKWALL CAN BE POURED IN ONE PHASE ALONG WITH THE SUPERSTRUCTURE DECK CONCRETE.
3. FOR REINFORCING SCHEDULE, SEE SHEET 39/40 .
4. FOR UTILITY OPENINGS AND SLEEVE DETAILS, SEE SHEET 16/40 .
5. FIELD CUT BACKWALL REINFORCING STEEL AT UTILITY OPENINGS AS REQUIRED.
6. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 16/40 .
7. FOR EXPANSION JOINT DETAILS, SEE ODOT STANDARD DRAWING EXJ-4-87 AND SHEET 36/40 .
8. TYPE B WATERPROOFING, 3'-0" WIDE SHALL BE CENTERED ON VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS AND EXTEND 18" BEYOND THE END OF THE JOINT.
9. FOR VANDAL PROTECTION FENCE DETAILS, SEE ODOT STANDARD DRAWING VPF-1-90.
10. FOR REAR ABUTMENT APPROACH WALLS, SEE SHEETS 17/40 & 18/40 .
11. BEFORE PLACING PROPOSED CONCRETE, CONTRACTOR SHALL INTENTIONALLY ROUGHEN THE SURFACE OF EXISTING CONCRETE TO AN AMPLITUDE OF ¼".
12. FOR RUSTICATION GROOVE DETAIL, SEE SHEET 35/40 .

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

REAR ABUTMENT
BRIDGE NO. 4.013M - EAST 75TH
OVER GCRTA & NORFOLK SOUTHERN

CUY-EAST 75TH STREET
PID No. 106378

14/40

106/141

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6" PERFORATED CORRUGATED PLASTIC PIPE (TYP.)

LEGEND:

(A)- ℄ 12" GAS (DEO)

(B)- ℄ 4 AT&T DUCTS

(C)- ℄ 6 CEI DUCTS

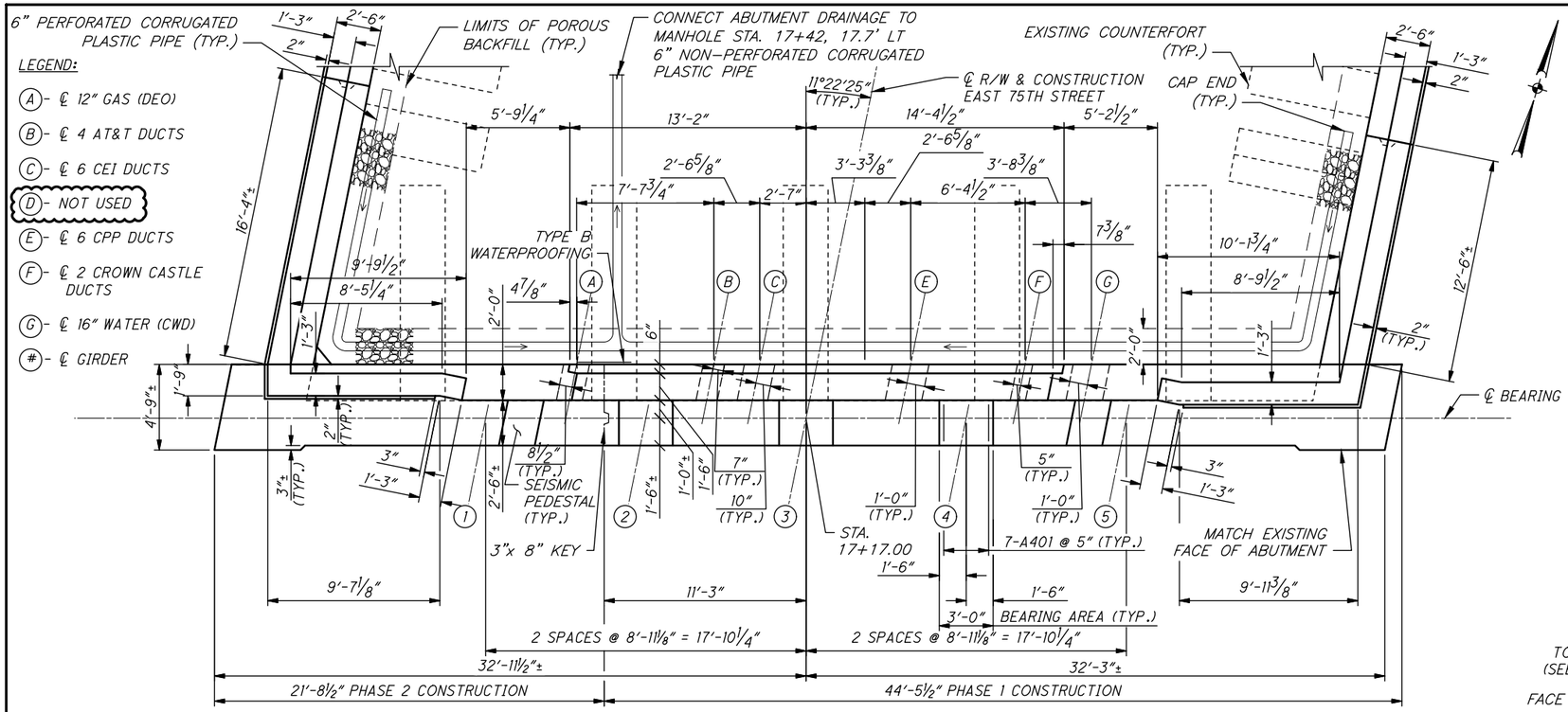
(D)- NOT USED

(E)- ℄ 6 CPP DUCTS

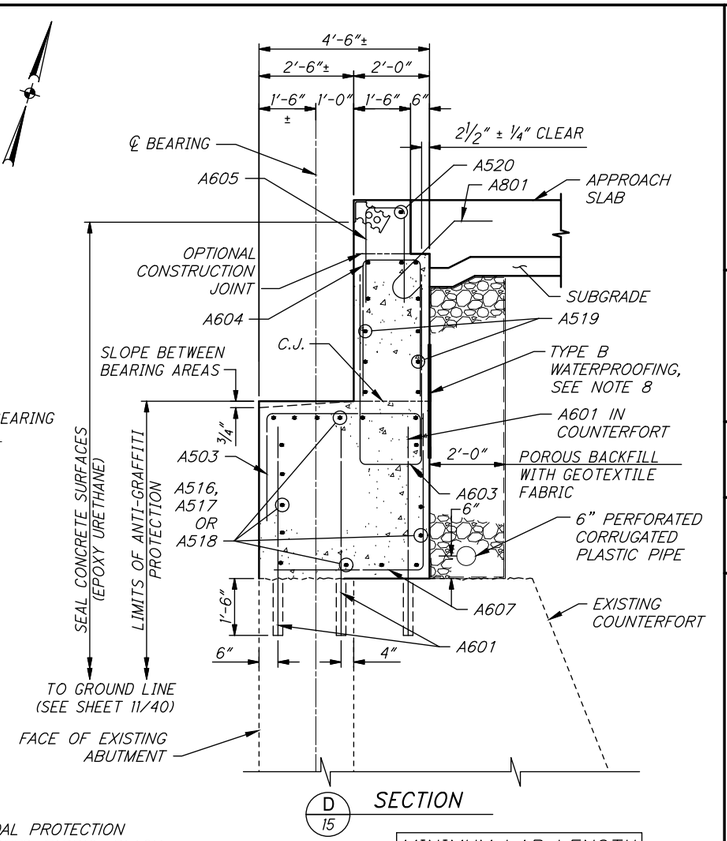
(F)- ℄ 2 CROWN CASTLE DUCTS

(G)- ℄ 16" WATER (CWD)

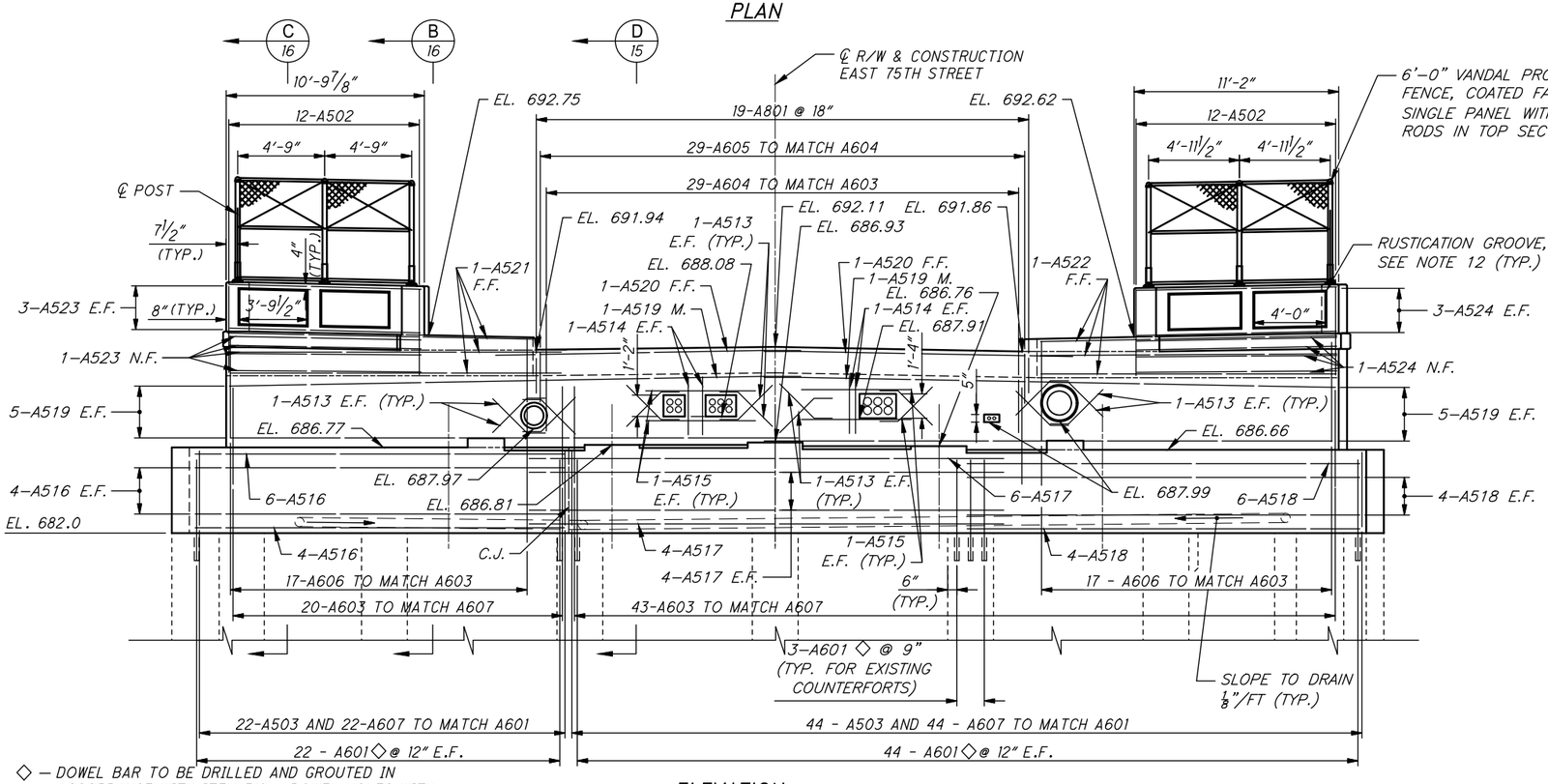
(#)- ℄ GIRDER




PLAN




SECTION




◇ — DOWEL BAR TO BE DRILLED AND GROUTED IN ACCORDANCE WITH ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.

ELEVATION

MINIMUM LAP LENGTH (UNLESS OTHERWISE NOTED)

| |
|---|
| #5 BAR = 2'-0" |
| #6 BAR = 2'-4" |

NOTES:

1. BACKWALL ELEVATIONS ARE GIVEN TO THE TOP OF THE 7 X 4 X ½" ANGLE OF THE EXPANSION JOINT ALONG THE FRONT FACE.
2. PHASED CONSTRUCTION SHALL ONLY APPLY TO THE PORTION OF THE ABUTMENT UP TO THE ELEVATION OF THE BEARING SEAT. ONCE THE PROPOSED STEEL HAS BEEN ERECTED, THE BACKWALL CAN BE POURED IN ONE PHASE ALONG WITH THE SUPERSTRUCTURE DECK CONCRETE.
3. FOR REINFORCING SCHEDULE, SEE SHEET 39/40.
4. FOR UTILITY OPENINGS AND SLEEVE DETAILS, SEE SHEET 16/40.
5. FIELD CUT BACKWALL REINFORCING STEEL AT UTILITY OPENINGS AS REQUIRED.
6. FOR SEISMIC PEDESTAL DETAILS, SEE SHEET 16/40.
7. FOR EXPANSION JOINT DETAILS, SEE ODOT STANDARD DRAWING EXJ-4-87 AND SHEET 36/40.
8. TYPE B WATERPROOFING, 3'-0" WIDE SHALL BE CENTERED ON VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS AND EXTEND 18" BEYOND THE END OF THE JOINT.
9. FOR VANDAL PROTECTION FENCE DETAILS, SEE ODOT STANDARD DRAWING VPF-1-90.
10. FOR FORWARD ABUTMENT APPROACH WALLS, SEE SHEETS 19/40 & 20/40 AND 21/40.
11. BEFORE PLACING PROPOSED CONCRETE, CONTRACTOR SHALL INTENTIONALLY ROUGHEN THE SURFACE OF EXISTING CONCRETE TO AN AMPLITUDE OF ¼".
12. FOR RUSTICATION GROOVE DETAIL, SEE SHEET 35/40.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

FORWARD ABUTMENT
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

15/40

107/141

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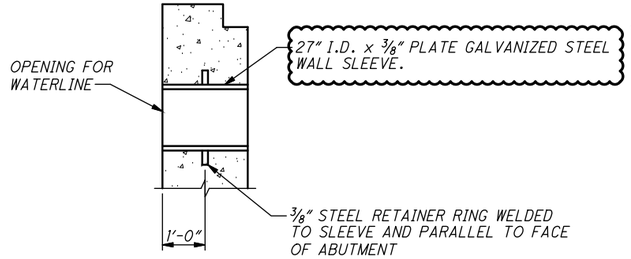
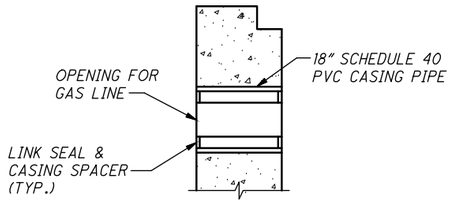



## OPENING IN BACKWALL FOR WATERLINE

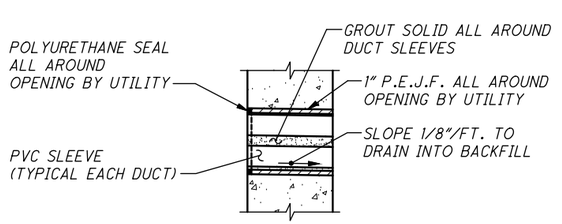
ADDITIONAL DETAILS PROVIDED ON SHEET 85/141

PAYMENT INCLUDED WITH ITEM 511, CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN



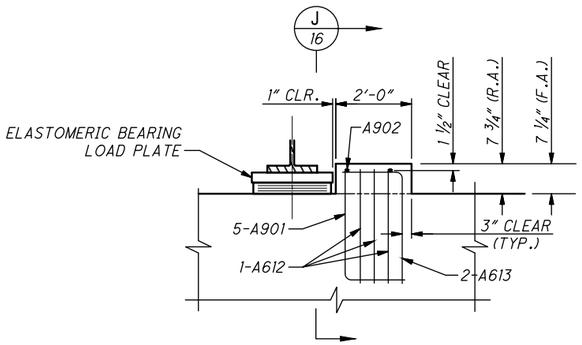

## OPENING IN BACKWALL FOR GAS LINE

SEE NOTE 2 FOR PAYMENT DETAILS



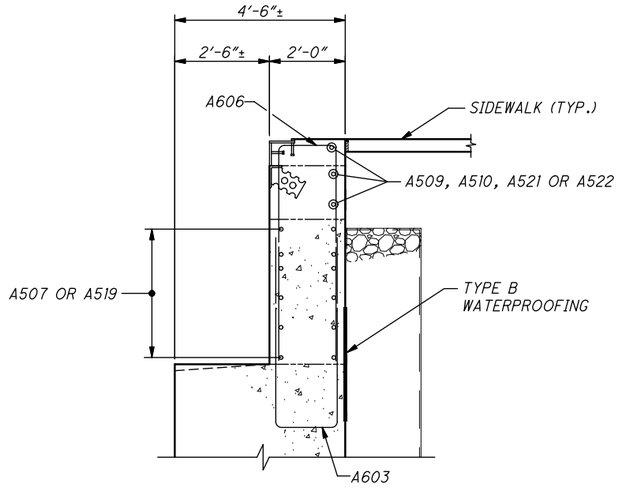

## OPENING IN BACKWALL FOR C.E.I., AT&T, VERIZON & CROWN CASTLE

PAYMENT INCLUDED WITH ITEM 511, CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN (SEE NOTE 3)

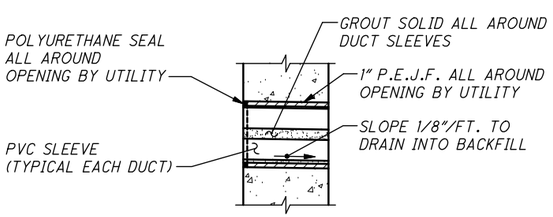



## SEISMIC PEDESTAL DETAIL

(FRONT VIEW)

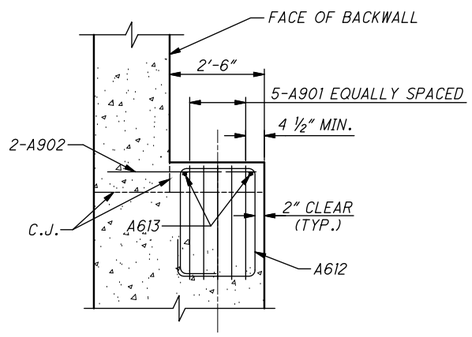



B 14 B 15 SECTION

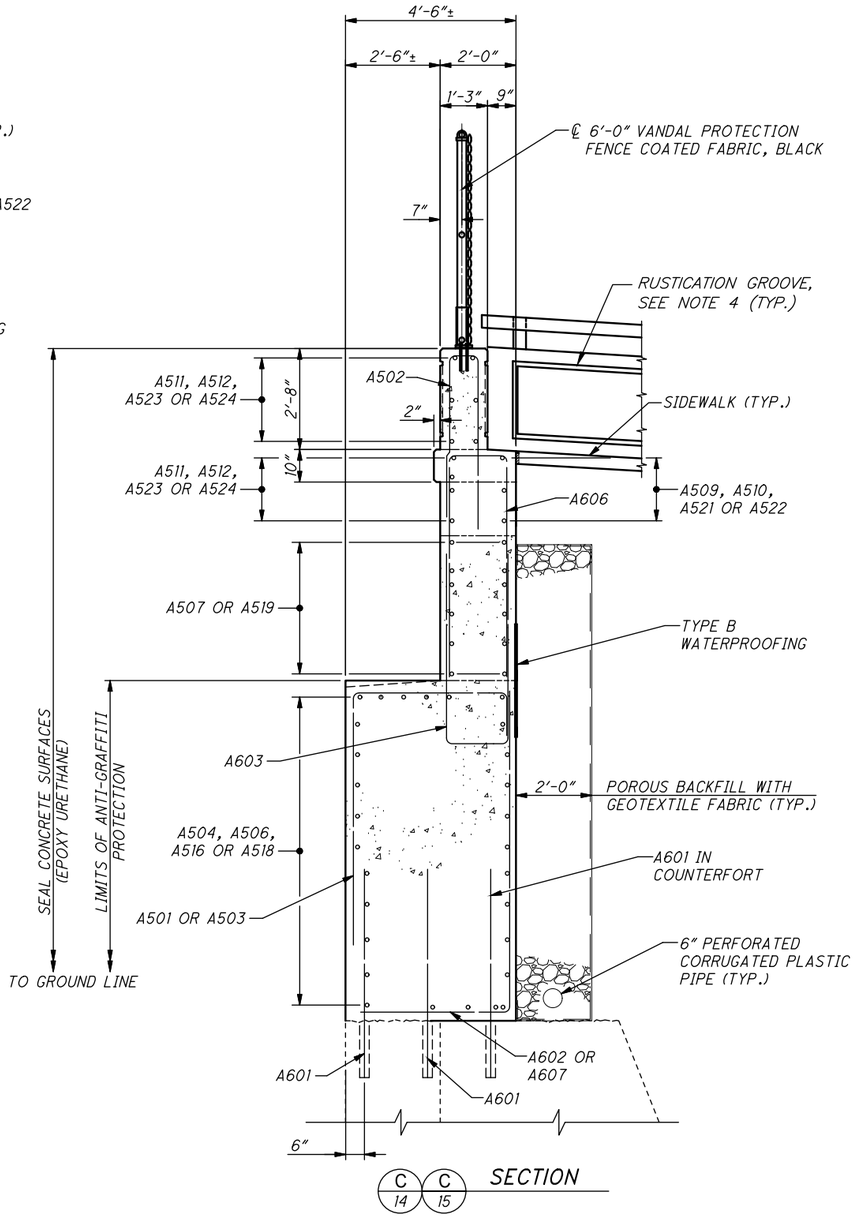



## OPENING IN BACKWALL FOR CPP

PAYMENT INCLUDED WITH ITEM 511, CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN




J 16 SECTION




C 14 C 15 SECTION

NOTES:

1. FOR THE LOCATIONS OF THE SEISMIC PEDESTALS, SEE SHEETS 14/40 & 15/40 .
2. DOMINION ENERGY OHIO (DEO): CASING PIPE, LINK SEAL, AND CASING SPACER SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR AND PAID FOR 100% BY DOMINION ENERGY OHIO. COORDINATE WITH DEO DURING INSTALLATION. FOR MORE INFORMATION, SEE SHEET 3/40 .
3. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE OPENING IN THE BACKWALL WITH THE UTILITY COMPANY DURING INSTALLATION.
4. FOR RUSTICATION GROOVE DETAIL, SEE SHEET 35/40 .

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

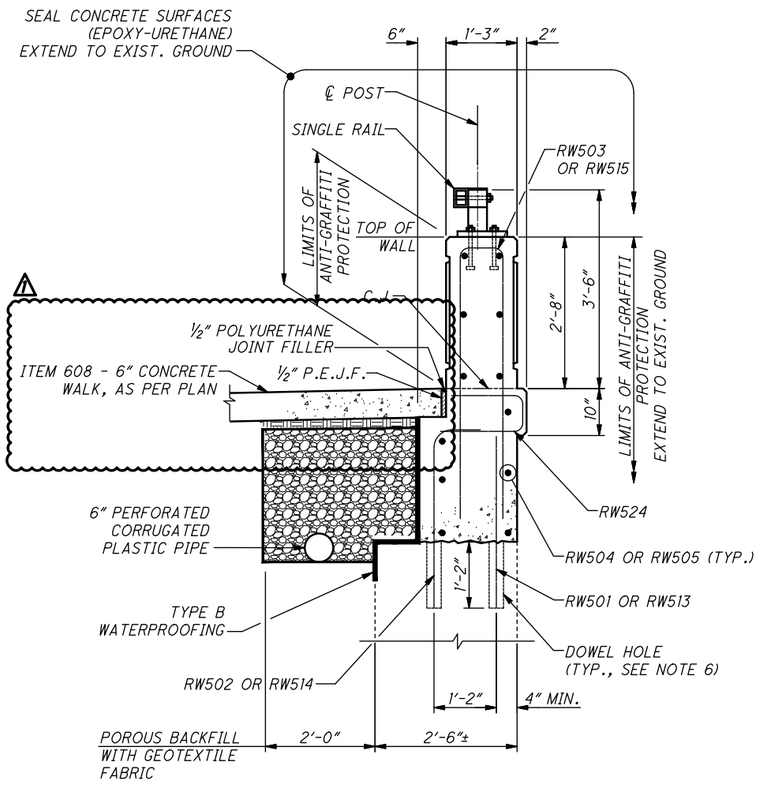
| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

ABUTMENT DETAILS
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

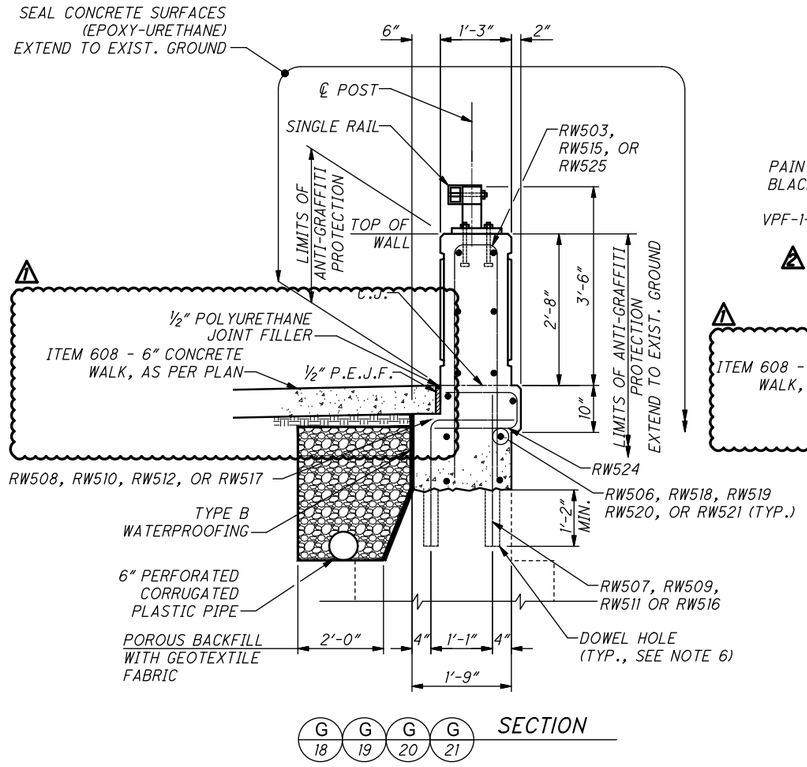
CUY-EAST 75TH STREET
PID No. 106378

16/40

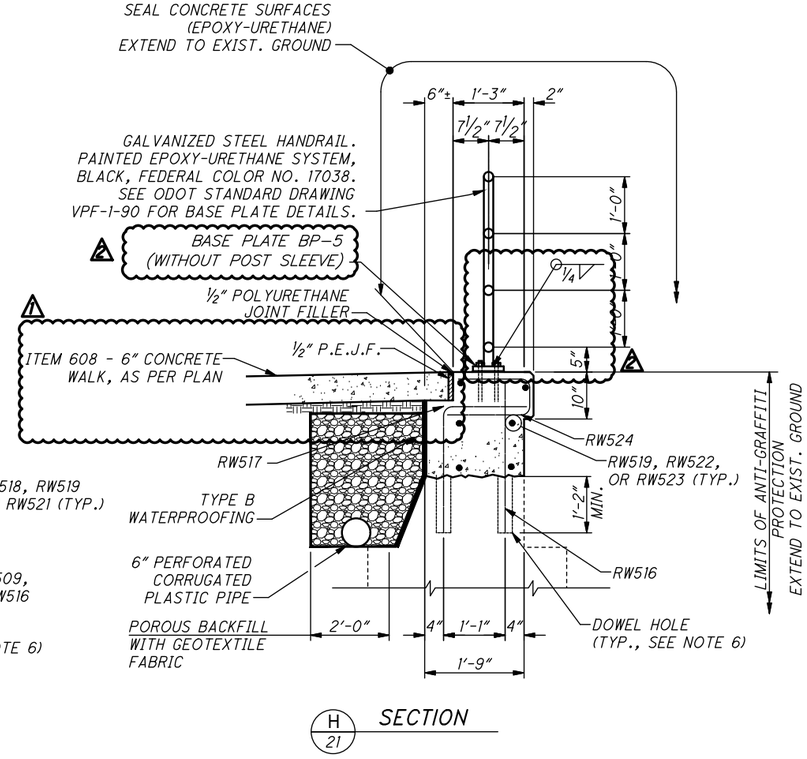
108/141



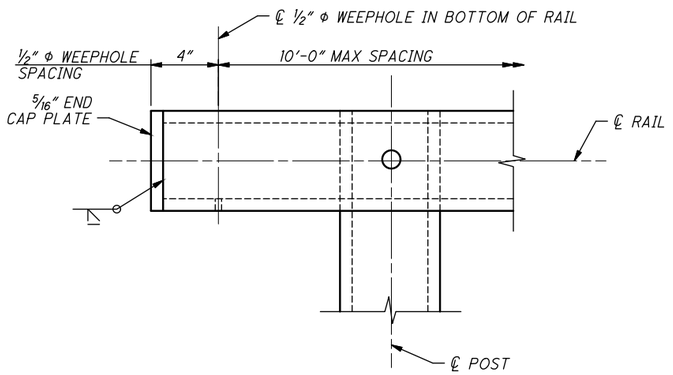

F 17 | F 18 | F 19 | F 20 — SECTION



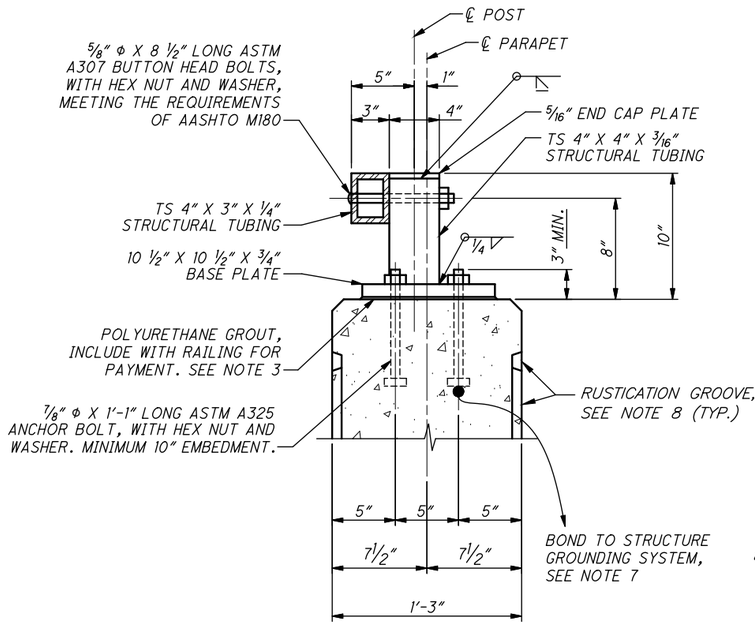

G 18 | G 19 | G 20 | G 21 — SECTION



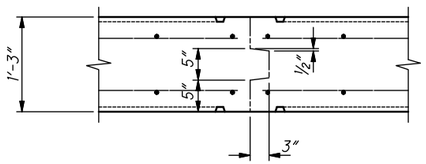

H 21 — SECTION




CAP END DETAIL




RAIL DETAIL
(REINFORCING NOT SHOWN)




CONTRACTION JOINT DETAIL

NOTES:

1. ALL RAILING MATERIAL INCLUDING BASE PLATES AND ANCHORS SHALL BE GALVANIZED ACCORDING TO 711.02.
2. PROPOSED SINGLE STEEL TUBE RAILING AND STEEL HANDRAIL INCLUDING BUT NOT LIMITED TO SHAPES, PLATES AND POSTS SHALL BE SHOP PAINTED WITH AN EPOXY-URETHANE SYSTEM, BLACK, FEDERAL COLOR NUMBER 17038. NUTS AND WASHERS TO RECEIVE TOUCH-UP PAINT OF SAME COLOR.
3. POLYURETHANE GROUT SHALL CONFORM TO FEDERAL SPECIFICATION TT-S-00230C, TYPE II, CLASS A AND BE APPLIED AT THE INTERFACE BETWEEN ALL ATTACHED PLATES, BOXES AND OTHER APPURTENANCES. THE COLOR OF THE GROUT SHALL MATCH THE APPROPRIATE SURFACE. WHEN APPLYING THE CAULK TO THE BASE PLATE, PROVIDE A ±1 INCH OPENING THROUGH THE CAULKING ON THE LOW SIDE OF THE BASE PLATE.
4. FOR RAIL SPLICE DETAIL AND BASE PLATE DETAIL SEE ODOT STD DWG BR-2-15.
5. BASE PLATE FOR STEEL HANDRAIL SHALL BE PAID FOR UNDER ITEM RAILING, MISC.: GALVANIZED STEEL HANDRAIL AND SHALL CONFORM TO ODOT STD DWG VPF-1-90, BP-5 WITHOUT THE POST SLEEVE.
6. DOWEL BAR TO BE DRILLED AND GROUTED IN ACCORDANCE WITH ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN.
7. SINGLE STEEL TUBE RAILING SHALL BE BONDED TO THE STRUCTURE GROUNDING SYSTEM IN ACCORDANCE WITH ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN.
8. FOR RUSTICATION GROOVE DETAIL, SEE SHEET 35/40 .

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| BPS | BPS | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| LAB | - | 1867181 | |

RETAINING WALL DETAILS
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

22/40

114/141

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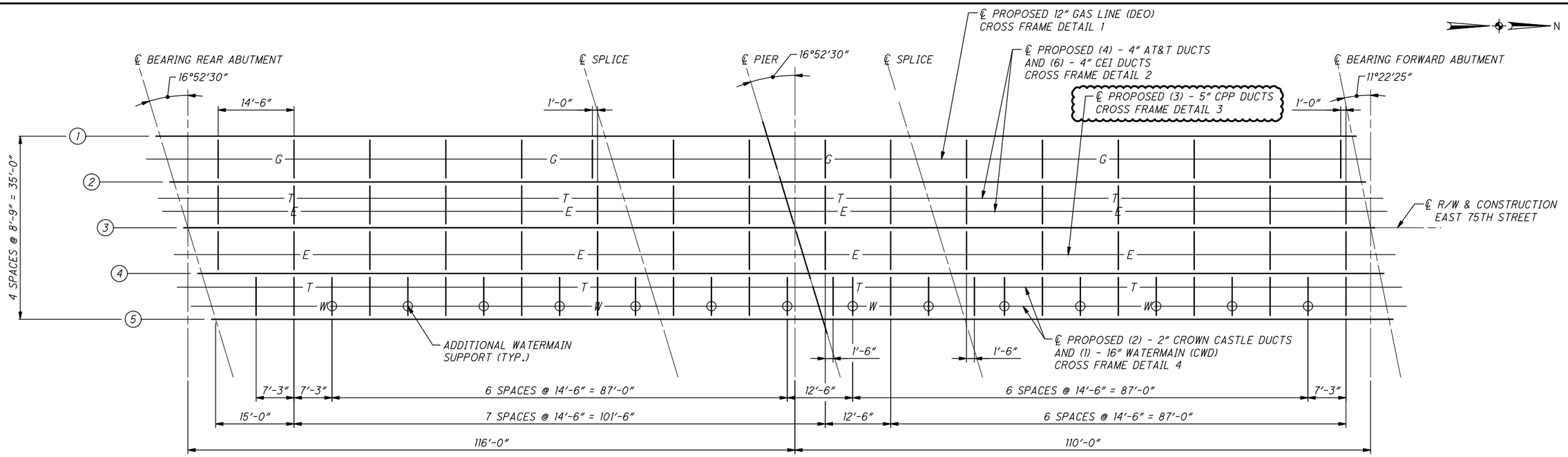
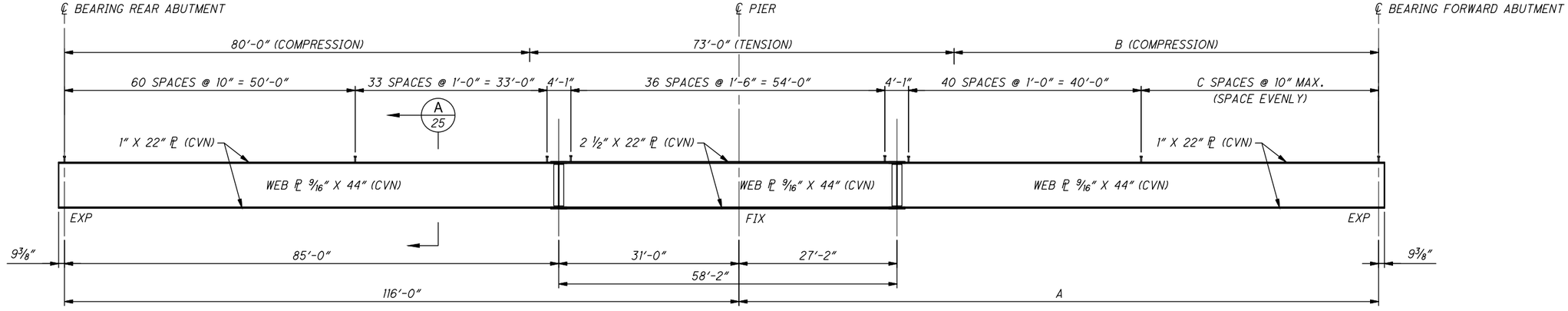
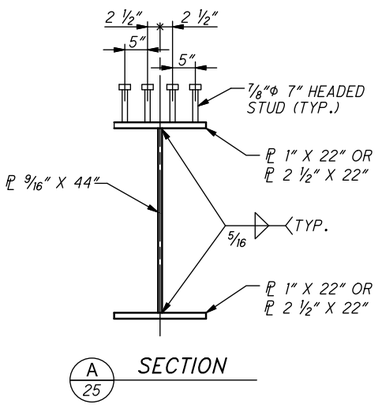



PLAN




GIRDER ELEVATION




A/25 SECTION

| GIRDER | A (SPAN LENGTH) | B | C (SPACE) |
|---|---|---|---|
| 1 | 111'-9 ½" | 74-9 ½" | 52 |
| 2 | 110'-10 ¾" | 73'-10 ¾" | 51 |
| 3 | 110'-0" | 73'-0" | 49 |
| 4 | 109'-1 ¼" | 72'-1 ¼" | 48 |
| 5 | 108'-2 ½" | 71'-2 ½" | 47 |

NOTES:

1. CHARPY V-NOTCH TOUGHNESS: WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. PARTIAL PAINTING OF A709 GRADE 50W STEEL: PAINT THE LAST 10 FT OF EACH GIRDER END ADJACENT TO THE ABUTMENTS INCLUDING ALL CROSS FRAMES AND OTHER STEEL WITHIN THESE LIMITS. THE PRIME COAT SHALL BE 708.01. THE TOP COAT SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 595B-20045 OR 20059 (THE COLOR OF WEATHERING STEEL).
3. WELDED ATTACHMENTS: WELD ATTACHMENTS OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST ¼" FOR THICKNESSES UP TO ¾" OR 5/16" FOR GREATER THAN ¾" THICK.
4. FOR FIELD SPLICE DETAILS, SEE SHEET 26/40.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

DESIGNED MMP | CHECKED BPS
DRAWN VMB | REVISED -
REVIEWED RAB | DATE 8-3-20
STRUCTURE FILE NUMBER 1867181

FRAMING PLAN
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

25/40

117/141

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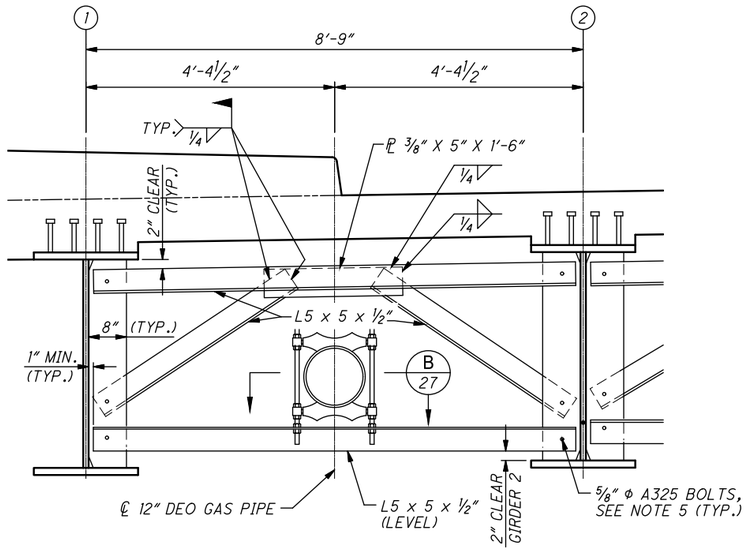
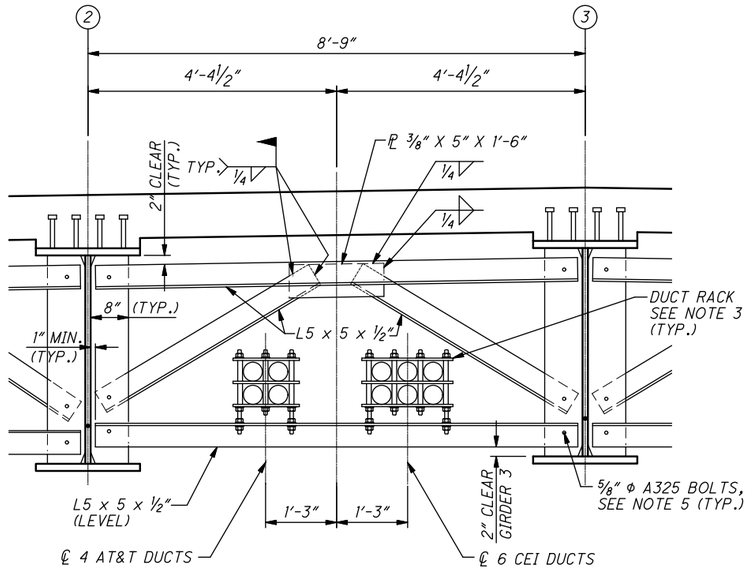
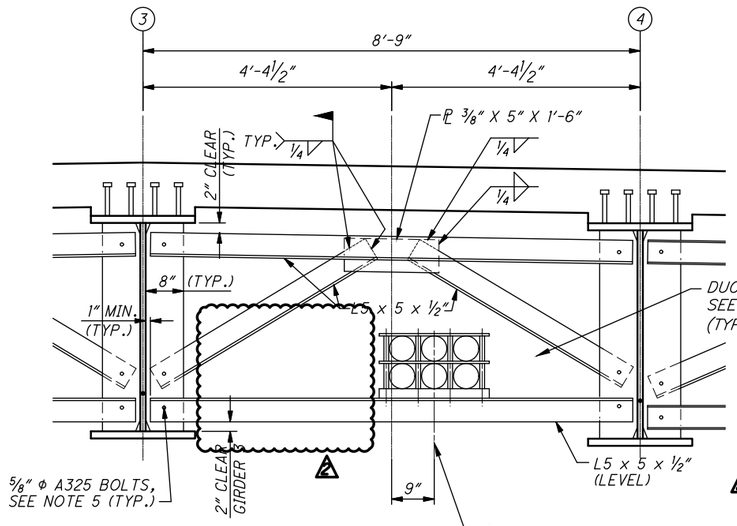


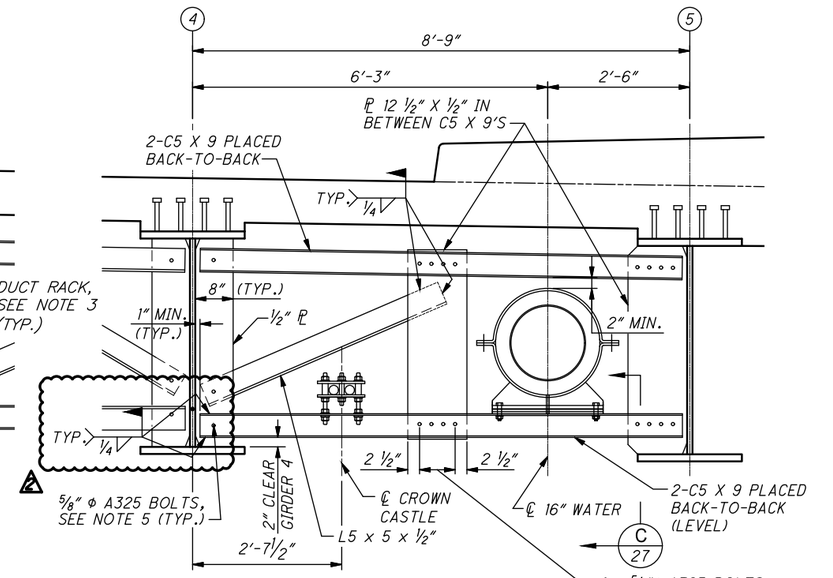

CROSS FRAME DETAIL 1




CROSS FRAME DETAIL 2

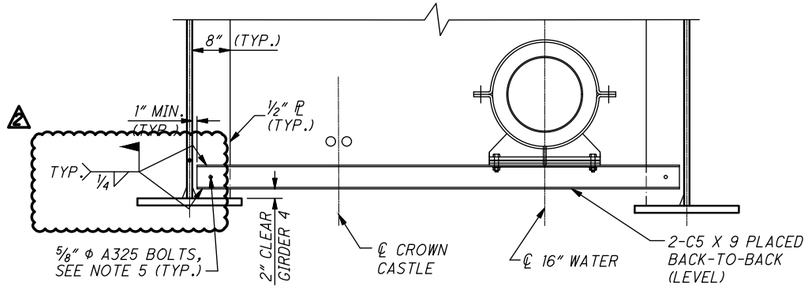



CROSS FRAME DETAIL 3

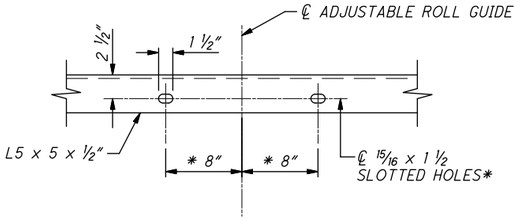



CROSS FRAME DETAIL 4

(ADDITIONAL WATERMAIN SUPPORT, BOTTOM CHORD ONLY, SEE BELOW)

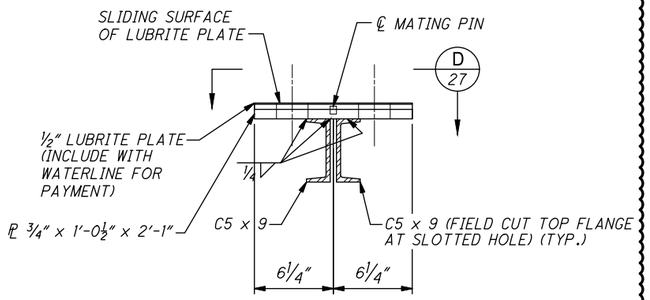



ADDITIONAL WATERMAIN SUPPORT DETAIL

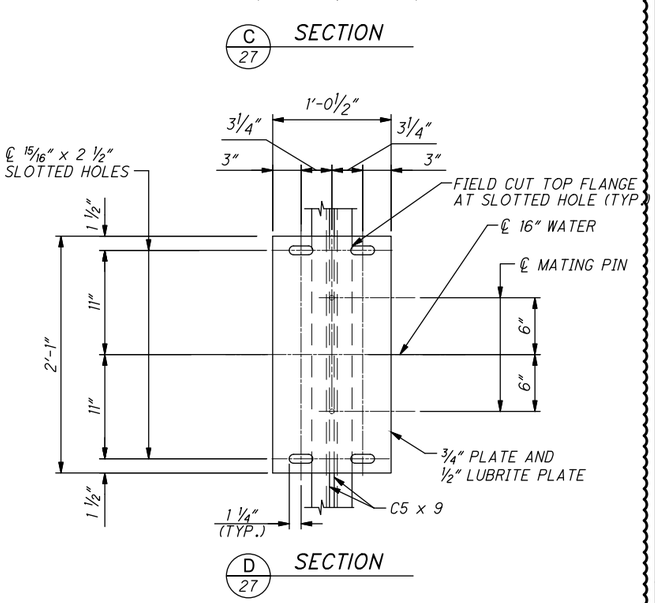



* VERIFY SIZE AND SPACING OF SLOTTED HOLES WITH ROLL GUIDE SUPPLIER BEFORE PRE-DRILLING.

B 27 SECTION




C 27 SECTION




D 27 SECTION

NOTES:

1. FOR LOCATIONS OF INTERMEDIATE CROSSFRAMES AND ADDITIONAL WATER MAIN SUPPORTS SEE SHEET 25/40.
2. FOR ADDITIONAL DETAILS AND NOTES SEE WATERWORK PLANS.
3. VERIFY WITH THE DUCT RACK SUPPLIER THE NUMBER, SIZE AND SPACING OF HOLES IN THE SUPPORTING ANGLE BEFORE PRE-DRILLING.
4. THE ADJUSTABLE ROLL GUIDE FOR THE 12" GAS LINE SHALL BE SUPPLIED BY AND PAID FOR 100% BY DOMINION ENERGY OHIO (DEO). THE CONTRACTOR SHALL INSTALL THE ROLLERS AND COORDINATE WITH D.E.O. DURING PIPE INSTALLATION.
5. PROVIDE 11/16" ϕ HOLES IN CONNECTION PLATE AND 13/16" ϕ HOLES IN CROSS FRAME ANGLES.
6. FOR ADDITIONAL NOTES AND DETAILS SEE ODOT STANDARD DRAWING GSD-1-19.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
|---|---|---|---|
| MMP | VMB | RAB | 8-3-20 |
| CHECKED | REVISED | STRUCTURE FILE NUMBER | |
| BPS | - | 1867181 | |

SUPERSTRUCTURE DETAILS
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378

27 / 40

119
141

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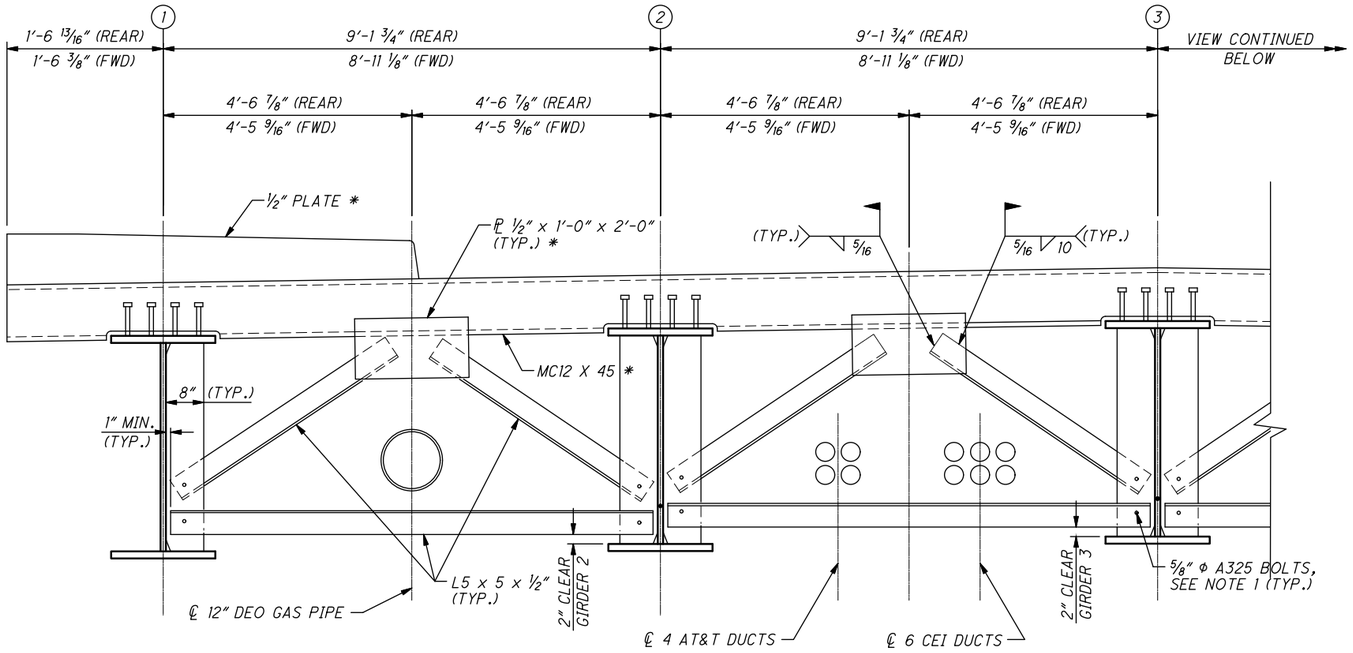
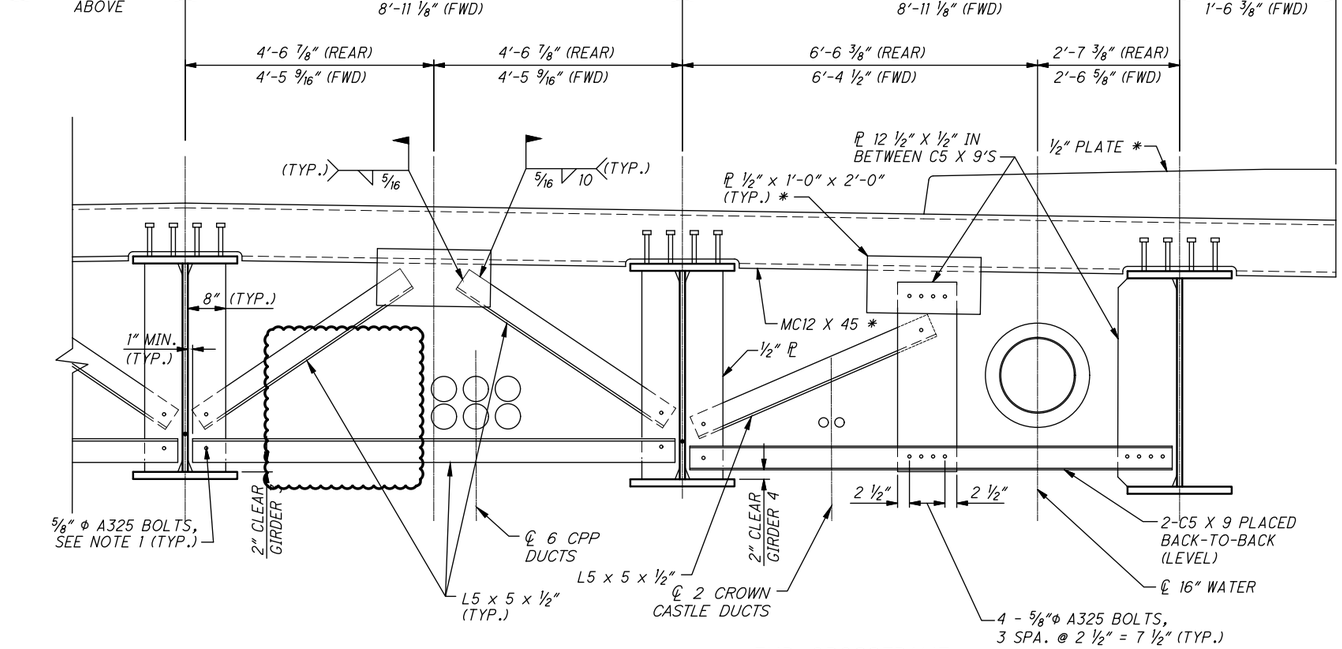



END CROSSFRAME




END CROSSFRAME

* THE 1/2" PLATES AND THE MC12 x 45 ARE PART OF THE EXPANSION JOINT SYSTEM. SEE ODOT STANDARD DRAWING EXJ-4-87 FOR DETAILS INCLUDING MATERIAL AND COATING REQUIREMENTS.

## NOTES:

1. PROVIDE 11/16" Φ HOLES IN CONNECTION PLATE AND 13/16" Φ HOLES IN CROSS FRAME ANGLES.
2. FOR ADDITIONAL NOTES AND DETAILS SEE ODOT STANDARD DRAWING GSD-1-19.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

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|---|---|---|---|
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**SUPERSTRUCTURE DETAILS**
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

**CUY-EAST 75TH STREET**
**PID No. 106378**

28 / 40

120
141

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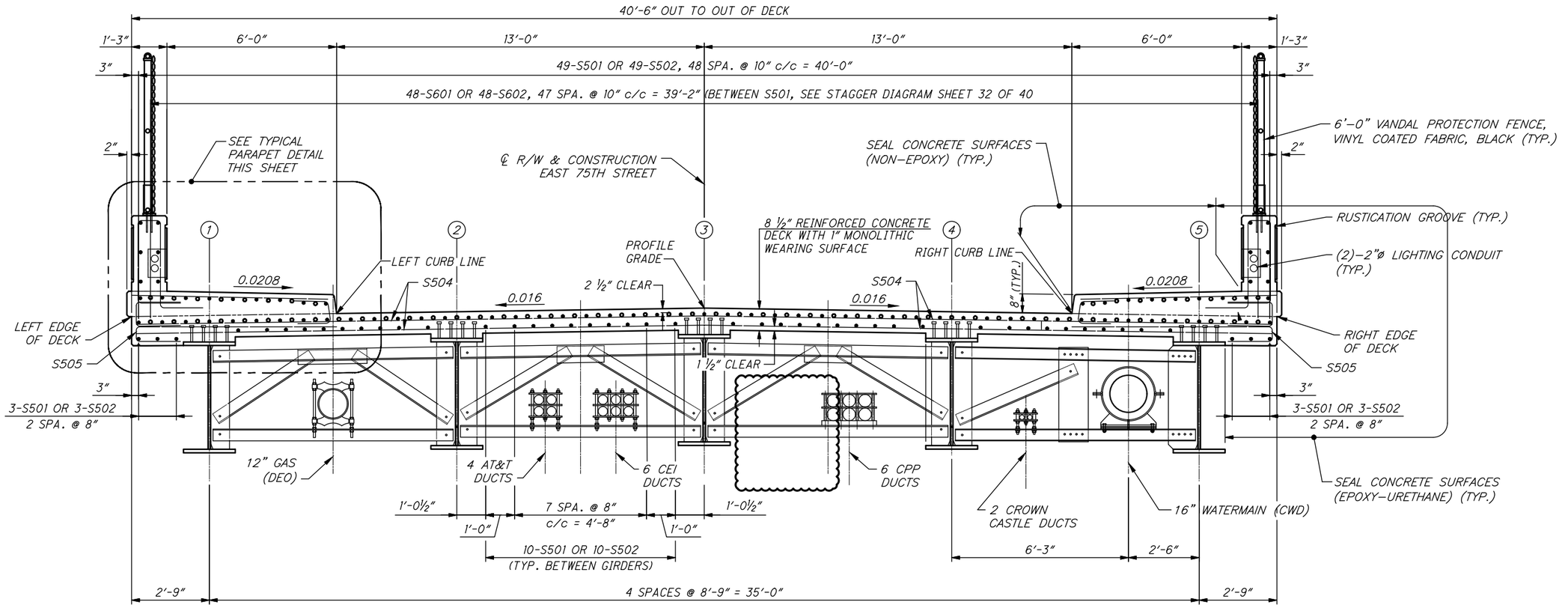
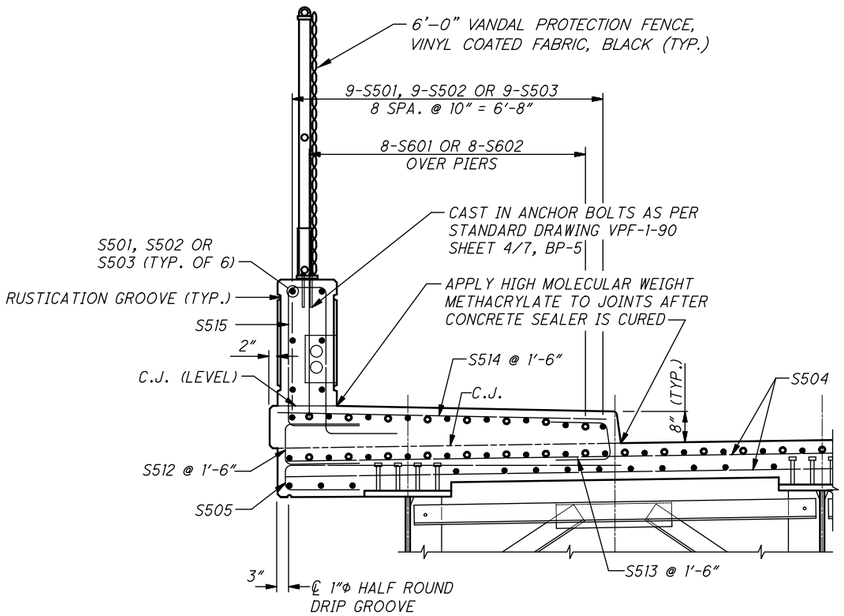



## TRANSVERSE SECTION




## PARAPET DETAIL

FOR RUSTICATION GROOVE DETAILS, SEE SHEET 35/40

| MINIMUM LAP LENGTH (UNLESS OTHERWISE NOTED) |
|---|
| #5 (TRANSVERSE) = 2'-7" |
| #5 (LONGITUDINAL) = 2'-0" |

## NOTES:

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE QUANTITY ASSUMES A CONSTANT HAUNCH THICKNESS OF 3 ⅛" AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THE HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT FINISH GRADE.

   THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE GIRDER, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH CMS 511.23.

2. UTILITY LOCATIONS SHOWN ARE SCHEMATIC. FINAL REQUIREMENTS AND LOCATION TO BE COORDINATED WITH UTILITY COMPANIES.

DESIGN AGENCY
EUTHENICS INC.
CONSULTING ENGINEERS

| DESIGNED | DRAWN | REVIEWED | DATE |
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TRANSVERSE SECTION
BRIDGE NO. 4.013M - EAST 75TH STREET
OVER GCRTA & NORFOLK SOUTHERN RAILROAD

CUY-EAST 75TH STREET
PID No. 106378