

**CITY OF CLEVELAND REQUIREMENTS**

CONTRACTOR SHALL HAVE THE STREET OPENING PERMIT AND NOISE ORDINANCE WAIVERS IN THEIR VEHICLES AT ALL TIMES. POLICE DEPARTMENT WILL REQUEST TO SEE THIS PAPERWORK SHOULD THEY RECEIVE COMPLAINTS. ALSO, ALL CONTRACTORS VEHICLES ON JOB SITE SHALL HAVE THEIR LOGOS CLEARLY DISPLAYED. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY NOISE WAIVERS FOR THE GREATER CLEVELAND RTA MANDATED NIGHT TIME WORK.

**PERMITS**

IN THE CITY OF CLEVELAND ALL PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. PERMITS INCLUDE BUT ARE NOT LIMITED TO STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT AND/OR SIDEWALK PERMIT AND MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

TRAVIS EVANS  
DEPARTMENT OF FINANCE  
DIVISION OF ASSESSMENTS & LICENSES  
601 LAKESIDE AVENUE, ROOM 122  
PHONE: 216-664-2174  
EMAIL: DALPERMITS@CITY.CLEVELAND.OH.US

ALL STREET OPENING REPAIRS, CURB REPAIRS AND/OR SIDEWALK REPAIRS EITHER INCIDENTAL TO THE PROJECT OR PART OF THE PROJECT MUST BE PERFORMED IN ACCORDANCE TO CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED FROM THE DIVISION OF ENGINEERING & CONSTRUCTION BY CALLING 216-664-2381. ALL PERMITS, FEES AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT WORK ITEMS. FOR BIDDING PURPOSES, FEES AND CHARGES MAY BE OBTAINED FROM THE DIVISION OF ASSESSMENTS & LICENSES AT 216-664-2174.

ALL PERMITS, FEES AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THEIR ASSOCIATED COST SHOULD BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT WORK ITEMS PER SECTION 107.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. FOR BIDDING PURPOSES, THE FOLLOWING FEES AND CHARGES HAVE BEEN ESTIMATED BY THE CITY OF CLEVELAND DIVISION OF ENGINEERING AND CONSTRUCTION ON BEHALF OF THE DIVISION OF ASSESSMENTS AND LICENSES (DAL):

\$1,310.00

DAL HAS ASSIGNED STP NUMBER STP2003243 TO THIS PROJECT. THE CONTRACTOR SHALL CONTACT DAL AS DESCRIBED ABOVE, USING THE GIVEN STP NUMBER FOR REFERENCE. UPON RECEIPT OF PAYMENT, DAL WILL ISSUE THE PERMIT

**STREET OPENING PERMIT RESTRICTIONS**

**CUY - EAST 75th STREET BRIDGE RECONSTRUCTION PROJECT**

NO RUSH HOUR RESTRICTIONS

BRIDGE WILL BE ENTIRELY CLOSED FOR THE DURATION OF THE PROJECT DETOUR ROUTE IS PROVIDED VIA WOODLAND AVENUE AT THE NORTH END OF THE PROJECT AND VIA OPPORTUNITY CORRIDOR AT THE SOUTH END OF THE PROJECT.

NOISE RESTRICTIONS ARE FROM 7:00 P.M. TO 7:00 A.M.

CONTRACTOR SHALL NOTIFY THE DIVISIONS OF ENGINEERING & CONSTRUCTION, STREETS, TRAFFIC ENGINEERING, FIRE, POLICE, EMERGENCY MEDICAL SERVICES AT LEAST 72 HOURS IN ADVANCE BEFORE IMPLEMENTING A CHANGE TO THE NEXT PHASE OR SEQUENCE.

CONTRACTOR SHALL BE IN FULL COMPLIANCE WITH ALL LOCAL AND STATE TRAFFIC LAWS AND REGULATIONS.

CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE TO ODOT AND CITY OF CLEVELAND STANDARDS AND APPROVED DRAWINGS.

VEHICLE ACCESS TO COMMUNITY APARTMENT MAINTAINED OFF OF WOODLAND AVENUE AT ALL TIMES.

VEHICLE ACCESS TO ORLANDO BAKING COMPANY MAINTAINED OFF OF GRAND AVENUE AT ALL TIMES.

VEHICLE ACCESS TO ORFAM LTD PARTNERSHIP LOT MAINTAINED OFF OF EAST 75TH STREET AT ALL TIMES.

DIVISIONS OF ENGINEERING & CONSTRUCTION REPRESENTATIVE: LARRY HO. P.E., CONSULTING ENGINEER 216-664-7423.

**CONSTRUCTION TRAFFIC**

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

**DUST CONTROL**

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

- ITEM 616 - WATER 4 M. GAL
- ITEM 616 - CALCIUM CHLORIDE 1 TON

**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. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL, IN ALL CASES, BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

**RAILROAD**

THE CONTRACTOR IS REQUIRED TO PROVIDE DEMOLITION AND ERECTION PLANS AND PROCEDURES TO THE NSRR AND GCRTA PER CMS 501.5A, AND OBTAIN APPROVAL FROM BOTH RAILROADS PRIOR TO STARTING WORK OVER EACH RAILROAD LINE. NO WORK IS TO BE DONE WITHIN THE RAILROAD WAYSIDE OR NEAR EITHER RAILROAD WITHOUT PRIOR APPROVAL FROM THE RAILROAD TO PROCEED, AND/OR WITHOUT A CONTRACTOR-SUPPLIED FLAG MAN TO PROVIDE PROTECTION AND SAFETY FOR CONTRACTOR OPERATIONS. ALSO, REFER TO OWNER SPECIFICATIONS AND SEE SPECIAL CLAUSES IN THE BID PROPOSAL FOR ADDITIONAL CONTACT INFORMATION AND FLAGGING REQUIREMENTS. UPON COMPLETION OF WORK ON THE RAILROAD PROPERTY THE CONTRACTOR SHALL REQUEST THE ENGINEER TO ARRANGE A FINAL INSPECTION.

SEE STRUCTURE GENERAL NOTES FOR ADDITIONAL RAILROAD REQUIREMENTS.

**CONSTRUCTION ACCESS**

TEMPORARY EASEMENTS ARE PROVIDED FOR THE CONTACTOR'S ACCESS FOR WORK UNDER THE BRIDGE. ONE EASEMENT PROVIDES ACCESS FROM EAST 75TH STREET AND DELL AVENUE VIA THE VACATED EAST 76TH STREET. OTHER TEMPORARY EASEMENTS PROVIDE ACCESS BOTH EAST AND WEST OF 75TH STREET BRIDGE, ADJACENT TO THE SOUTH APPROACH ALONG ORLANDO BAKERY'S PROPERTY ON THE EAST AND ORFAM LTD PROPERTY ON THE WEST. REFER TO THE RIGHT OF WAY PLANS FOR A DETAILED DEPICTION OF THE CONSTRUCTION ACCESS EASEMENTS. CONTRACTOR TO REVIEW AND SECURE RAILROAD FENCES AND REPAIR OR REPLACE AS NECESSARY PRIOR TO CONSTRUCTION.

**ITEM 203 - ROADWAY, MISC.: CONTRACTOR ACCESS ROADS**

THIS WORK SHALL CONSIST OF CONSTRUCTING, MAINTAINING, REMOVING, AND SUBSEQUENT RESTORATION OF TEMPORARY CONTRACTOR ACCESS TO THE WORK SITE. THIS WORK SHALL INCLUDE, BUT IS NOT LIMITED TO, CLEARING AND GRUBBING, DEBRIS REMOVAL, EXCAVATION, EMBANKMENT, GRADING, MAINTAINING POSITIVE DRAINAGE, CONSTRUCTING AND MAINTAINING TEMPORARY ROADS, PORTABLE BARRIER AND SEEDING AND MULCHING. THE WORK SHALL ALSO INCLUDE REVIEWING AND SECURING RAILROAD FENCES AND REPLACING, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO BASE BID PRICES FOR THIS ITEM ON A SITE VISIT. SEE SHEET 2 FOR LOCATION AND LIMITS.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE MADE AT THE LUMP SUM BID PRICE FOR ITEM 203, ROADWAY, MISC.: CONTRACTOR ACCESS ROADS.

**FENCE LENGTHS**

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

**FENCE REMOVAL AND REPLACEMENT AT BRIDGE CORNERS**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE REMOVAL AND REPLACEMENT OF THE EXISTING FENCES AT THE FOUR CORNERS OF THE BRIDGE AS DIRECTED BY THE ENGINEER. PAYMENT INCLUDES THE REMOVAL OF BOTH DRIVEN POSTS AND POSTS SET IN CONCRETE.

- ITEM 202 - FENCE REMOVED, AS PER PLAN 40 FT
- ITEM 607 - FENCE, TYPE CLT 40 FT

**SPECIAL - MISC.: RECORD DRAWINGS**

GENERAL

IN ADDITION TO THE ODOT REQUIREMENTS FOR "AS-BUILT" OR "RECORD" DRAWINGS, THE FOLLOWING SHALL APPLY AND BE PAID FOR UNDER THIS PAY ITEM.

CONTRACTOR SHALL MAINTAIN AND PROVIDE ODOT WITH RECORD DRAWINGS AS SPECIFIED HEREIN. RECORD DRAWINGS SHALL INCLUDE COMPLETE DOCUMENTATION OF FIELD REVISIONS TO THE CONTRACT DOCUMENTS.

**FILING**

1. THE CONTRACTOR SHALL MAINTAIN IN HIS FIELD OFFICE IN A CLEAN, DRY, LEGIBLE CONDITION THE FOLLOWING: CONTRACT DRAWINGS, SPECIFICATIONS, ADDENDA, CONFORMING SHOP DRAWINGS, CHANGE ORDERS, OTHER MODIFICATIONS OF CONTRACT, TEST RECORDS, SURVEY DATA AND ALL OTHER DOCUMENTS PERTINENT TO THE CONTRACTOR'S WORK.
2. THE CONTRACTOR SHALL PROVIDE FILES AND RACKS FOR PROPER STORAGE AND EASY ACCESS. FILING SHALL BE ESTABLISHED IN A FORMAT ACCEPTABLE TO ODOT.
3. THE CONTRACTOR SHALL MAKE DOCUMENTS AVAILABLE AT ALL TIMES FOR INSPECTION BY ODOT OR THEIR REPRESENTATIVES.
4. RECORD DRAWINGS SHALL NOT BE USED FOR ANY OTHER PURPOSE AND SHALL NOT BE REMOVED FROM THEIR FILED LOCATION WITHOUT ODOT'S APPROVAL.
5. THE CONTRACTOR SHALL KEEP ALL RECORDS CURRENT.
6. THE CONTRACTOR SHALL NOT PERMANENTLY CONCEAL ANY WORK UNTIL REQUIRED INFORMATION HAS BEEN RECORDED.
7. CONTRACT DRAWINGS SHALL BE LEGIBLY MARKED TO RECORD ACTUAL CONSTRUCTION INCLUDING
  - A. DEPTHS OF VARIOUS ELEMENTS OF FOUNDATION IN RELATION TO DATUM
  - B. HORIZONTAL AND VERTICAL LOCATIONS OF UNDERGROUND UTILITIES AND APPURTENANCES REFERENCED TO PERMANENT SURFACE IMPROVEMENTS.
  - C. FIELD CHANGES OF DIMENSION AND DETAIL.
  - D. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - E. DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS.
8. SPECIFICATIONS AND ADDENDA: LEGIBLY MARK EACH SECTION TO RECORD:
  - A. MANUFACTURER, TRADE NAME, CATALOG NUMBER AND SUPPLIER OF EACH PRODUCT AND ITEM OF EQUIPMENT ACTUALLY INSTALLED.
  - B. CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
  - C. OTHER MATTERS NOT ORIGINALLY SPECIFIED.

**MAINTENANCE:**

1. THE CONTRACTOR SHALL MAINTAIN THE PROJECT DURING THE COURSE OF THE CONSTRUCTION INCLUDING THE PERIOD OF THE AS-BUILT CERTIFICATION SHALL NOTIFY THE ENGINEER A MINIMUM OF 2 WEEKS PRIOR TO COMPLETION.
2. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE PROJECT UNTIL THE FINAL ACCEPTANCE OF THE RECORD DRAWINGS AND A DETERMINATION BY THE ENGINEER THAT NO ERRORS OR OMISSIONS HAVE BEEN MADE BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION. THE ENGINEER SHALL NOTIFY THE CONTRACTOR AS TO THE ACCEPTABILITY OR REJECTION OF THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL CORRECT ANY ERRORS/OMISSIONS PRIOR TO FINAL ACCEPTANCE OF THE RECORD DRAWINGS FOR THE PROJECT.
3. THE CONTRACTOR SHALL MAINTAIN SHOP DRAWINGS AND LEGIBLY ANNOTATE CHANGES MADE AFTER REVIEW.

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GENERAL NOTES

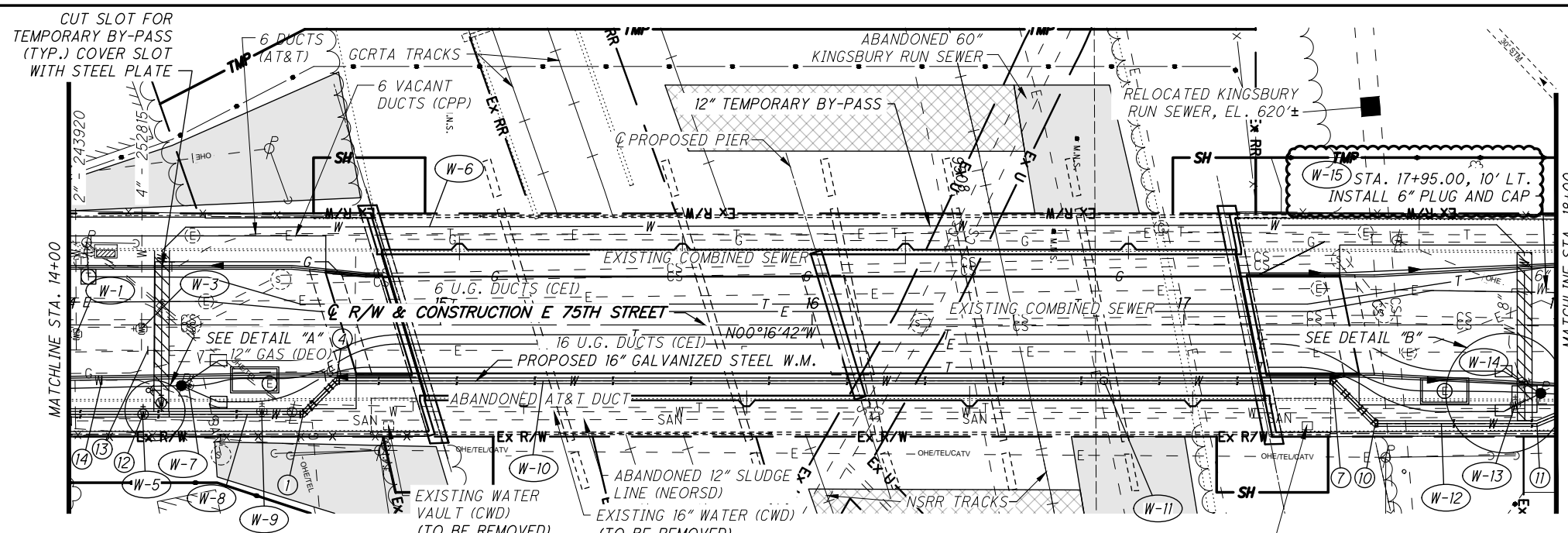
CUY-EAST 75TH STREET

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SHEET NUM.						PART.						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
21	70	75	76	77	87	01/BRF/BR	02/BRF/BR	03/BRF/BR	04/BRF/BR	05/BRF/BR	06/BRF/BR							
<b>WATER WORK</b>																		
		51	432										202	35101	483	FT	PIPE REMOVED, 24" AND UNDER, AS PER PLAN	58A
		1											202	58000	1	EACH	MANHOLE REMOVED	
		9	6										202	75610	15	EACH	VALVE BOX REMOVED	70
	5,000												SPECIAL	61199820	5,000	LB	MISCELLANEOUS METAL	69
		1											638	10700	1	EACH	FIRE HYDRANT REMOVED AND DISPOSED OF	
		1	3	1									638	98000	5	EACH	WATER WORK, MISC.: PLUGGING EXISTING WATER MAINS AND BRANCHES	74
		4	2										638	98000	6	EACH	WATER WORK, MISC.: PLUGGING EXISTING SERVICE CONNECTION	70
			2										638	98000	2	EACH	WATER WORK, MISC.: 16" STEEL TO DUCTILE IRON PIPE CONNECTION	76
				1									638	98000	1	EACH	WATER WORK, MISC.: 8" X 8" TEE, COMPLETE	74
		2											638	98000	2	EACH	WATER WORK, MISC.: RETAP AND RECONNECT 1" WATER SERVICE CONN. SHORT SIDE, COMPLETE	74
		1	1	1									638	98000	3	EACH	WATER WORK, MISC.: 16" GATE VALVE WITH VALVE BOX, COMPLETE	75
		1											638	98000	1	EACH	WATER WORK, MISC.: 8" GATE VALVE WITH VALVE BOX, COMPLETE	75
		1											638	98000	1	EACH	WATER WORK, MISC.: 6" GATE VALVE WITH VALVE BOX, COMPLETE	75
		2											638	98000	2	EACH	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, TYPE "A", COMPLETE (KENNEDY VALVE K81A STYLE)	71
			1										638	98000	1	EACH	WATER WORK, MISC.: 2" AIR RELIEF VALVE ASSEMBLY WITH VALVE BOX, COMPLETE	73
													LS	98100	LS		WATER WORK, MISC.: TEMPORARY BYPASS CONNECTION, COMPLETE WITH PIPE AND FITTINGS (12")	73
													LS	98100	LS		WATER WORK, MISC.: CITY OF CLEVELAND, DIVISION OF WATER LABOR CHARGES	62
		265											638	98600	265	FT	WATER WORK, MISC.: 16" WATERMAIN D.I. PIPE WITH PUSH-ON J&R MECH. J&F ANSI CLASS 52	75
		7											638	98600	7	FT	WATER WORK, MISC.: 8" WATERMAIN D.I. PIPE WITH PUSH-ON J&R MECH. J&F ANSI CLASS 52	75
		8											638	98600	8	FT	WATER WORK, MISC.: 6" WATERMAIN D.I. PIPE WITH PUSH-ON J&R MECH. J&F ANSI CLASS 52	75
			252										638	98600	252	FT	WATER WORK, MISC.: 16" WATER MAIN GALVANIZED STEEL PIPE ASTM A-53, GRADE B	73
			171										638	98600	171	FT	WATER WORK, MISC.: 16" WATERMAIN D.I. PIPE WITH BOL TLESS RESTRAINED J&F, ANSI CLASS 52, TYPE 1	76
<b>SANITARY SEWER</b>																		
4													611	99661	4	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	11
<b>LIGHTING</b>																		
					80								611	00400	80	FT	4" CONDUIT, TYPE E	
					16								625	00450	16	EACH	CONNECTION, FUSED PULL APART	
					6								625	00480	6	EACH	CONNECTION, UNFUSED PERMANENT	
					8								625	10481	8	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN	87
					2,970								625	23306	2,970	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
					144								625	23410	144	FT	NO. 12 AWG POLE AND BRACKET CABLE	
					1,482								625	25400	1,482	FT	CONDUIT, 2", 725.04	
					99								625	25500	99	FT	CONDUIT, 3", 725.04	
					311								625	29100	311	FT	TRENCH, 36" DEEP	
					8								625	29920	8	EACH	STRUCTURE JUNCTION BOX	
					4								625	30530	4	EACH	PULL BOX, 725.06, SIZE 18	
					2								625	34000	2	EACH	POWER SERVICE	
					311								625	36010	311	FT	UNDERGROUND WARNING/MARKING TAPE	

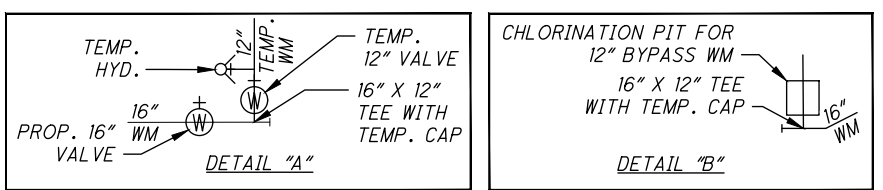
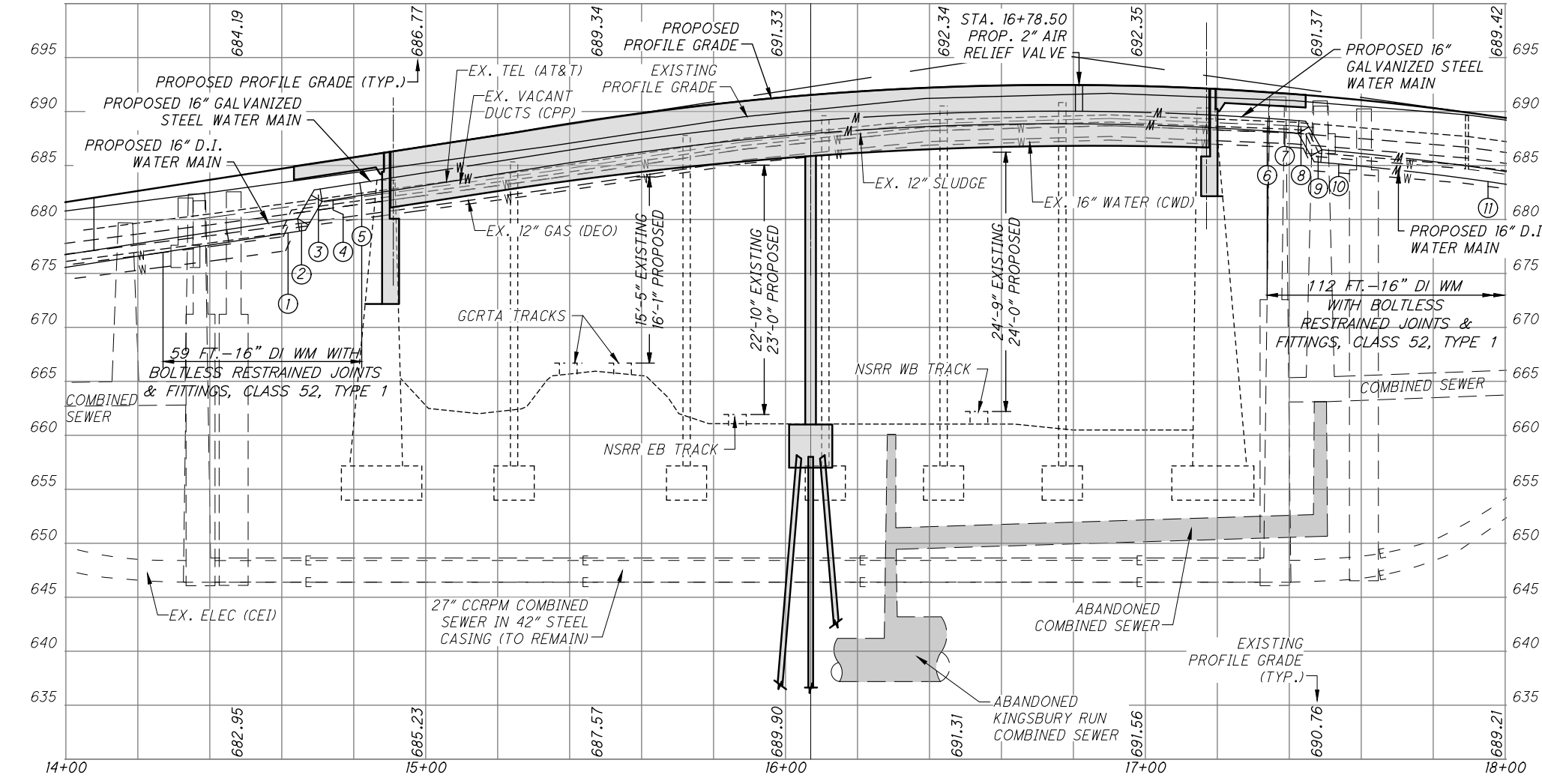
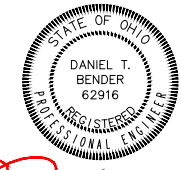
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**GENERAL SUMMARY**  
 CUY-EAST 75TH STREET  
 18  
 141

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- ① STA. 14+63.0, 24.0' RT 45° HORIZONTAL BEND
- ② STA. 14+65.50, 21.5' RT 22 1/2° VERTICAL BEND
- ③ STA. 14+70.00, 17.0' RT 22 1/2° VERTICAL BEND
- ④ STA. 14+72.00, 15' RT 45° HORIZONTAL BEND
- ⑤ STA. 14+82.00, 15' RT STEEL CONNECTION
- ⑥ STA. 17+34.00, 15' RT STEEL CONNECTION
- ⑦ STA. 17+40.00, 15' RT 45° HORIZONTAL BEND
- ⑧ STA. 17+43.50, 18.5' RT 22 1/2° VERTICAL BEND
- ⑨ STA. 17+48.00, 23.0' RT 22 1/2° VERTICAL BEND
- ⑩ STA. 17+51.50, 26.5' RT 45° HORIZONTAL BEND
- ⑪ STA. 17+95.00, 26.5' RT 45° HORIZONTAL BEND
- ⑫ STA. 14+20.00, 24.0' RT PROPOSED 16" VALVE
- ⑬ STA. 14+20.00, 7.0' RT INSTALL 6" PLUG AND CAP
- ⑭ STA. 14+10.00, 15.0' RT INSTALL 16" PLUG AND CAP

NOTES:  
FOR C REFERENCES AND BENCHMARKS SEE SHEET 2  
ELEVATIONS FOR 22 1/2 BENDS ARE TO THE CENTER OF THE ELBOW AND ARE BASED ON AN ASSUMED DEPTH OF 5 FEET BELOW EXISTING GRADE.



REF. NO.	SHEET NO.	STATION	SIDE	FROM	TO	DESCRIPTION	QUANTITY	UNIT	REMARKS
W-1		14+02	RT			WATER WORK, MISC.: TEMPORARY BYPASS CONNECTION, COMPLETE WITH PIPE AND FITTINGS (12")	1	LS	
W-2		14+10	RT			WATER WORK, MISC.: 16" GATE VALVE WITH VALVE BOX, COMPLETE	1	EACH	
W-3		14+19.6	RT			WATER WORK, MISC.: PLUGGING EXISTING WATER MAINS AND BRANCHES	1	EACH	
W-4		14+20	RT			WATER WORK, MISC.: 2" AIR RELIEF VALVE ASSEMBLY WITH VALVE BOX, COMPLETE	1	EACH	
W-5		14+20	RT			WATER WORK, MISC.: 16" STEEL TO DUCTILE IRON PIPE CONNECTION	2	EACH	
W-6		14+25	RT			WATER WORK, MISC.: 16" WATER MAIN GALVANIZED STEEL PIPE ASTM A-53, GRADE B	252*	FT	
W-7		14+32.2	RT			WATER WORK, MISC.: 16" WATER MAIN D.I. PIPE WITH BOLTLESS RESTRAINED J&F, ANSI CLASS 52, TYPE 1	59*	FT	
W-8		14+27	RT			WATER WORK, MISC.: PLUGGING EXISTING SERVICE CONNECTION	1	EACH	
W-9		14+51.9	RT			VALVE BOX REMOVED	1	EACH	
W-10		14+82	RT			PIPE REMOVED, 24" AND UNDER, AS PER PLAN	432*	FT	
W-11		16+78.5	RT						
W-12		17+34	RT						
W-13		17+34	RT						
W-14		17+89.2	RT						
W-15		17+95	LT						
TOTAL CARRIED TO GENERAL SUMMARY							432		

**CLEVELAND SERVICE DISTRICT**  
**DEPARTMENT OF PUBLIC UTILITIES**  
DIVISION OF WATER  
CLEVELAND, OHIO

SUBJECT: **16" WATERMAIN**  
**ALONG E. 75TH STREET**  
**CITY OF CLEVELAND**

DRAWN BY: \_\_\_\_\_ SCALE: \_\_\_\_\_  
DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

No. \_\_\_\_\_

WATER WORK PLAN AND PROFILE  
STA. 14+00 TO STA. 18+00

CUY-EAST 75TH STREET

176  
141

HORIZONTAL SCALE IN FEET  
0 10 20 40

CALCULATED LAB CHECKED DTB

CITY BRIDGE NO. 4.013M

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

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 AND 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, HEADACHE BALLS AND/OR 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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 <b>EUTHENICS INC.</b> CONSULTING ENGINEERS	DESIGN AGENCY		DATE 8-3-20	REVIEWED RAB	STRUCTURE FILE NUMBER 1867181
<b>GENERAL NOTES</b> BRIDGE NO. 4-013M - EAST 75TH STREET OVER GCRTA & NORFOLK SOUTHERN RAILROAD				DRAWN BPS	REVISIONS -
CUY-EAST 75TH STREET PID No. 106378				DESIGNED BPS	CHECKED LAB
					4 / 40
					96 141

INSTALLATION OF THE TEMPORARY PROTECTIVE STRUCTURE OR SIMILAR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REGARDING THE SUPPORT OF THE CATENARY LINES INCLUDING DETACHING, LOWERING & RE-ATTACHING, ETC... THE CATENARY LINES IN ACCORDANCE WITH GCRTA STANDARDS. ALL CATENARY WORK SHALL BE PRE-APPROVED BY THE GCRTA AND PERFORMED BY A GCRTA APPROVED CONTRACTOR.

THE COST OF THE RELOCATION WILL BE INCLUDED WITH ITEM SPECIAL - STRUCTURE, MISC.: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES.

- 8. FLAGGERS SHALL BE PROVIDED AND PAID FOR BY THE CONTRACTOR, EITHER THROUGH COMPANIES WHO SUPPLY CERTIFIED FLAGGERS (OBTAIN LIST FROM GCRTA) OR BY TRAINING AND CERTIFYING ITS OWN EMPLOYEES THROUGH GCRTA. FOR FLAGGING PROCEDURES, FLAGGER TRAINING, AND SET-UP OF WORK ZONES, SEE GCRTA STANDARD 015020 - STANDARD RAIL FLAGGING PROCEDURES.
- 9. FOUR (4) WEEKEND OUTAGES HAVE BEEN INCLUDED FOR USE BY THE PROJECT FOR THE CONTRACTOR TO PERFORM PROJECT WORK WITHIN THE GCRTA ROW. THE WEEKEND OUTAGES TYPICALLY RUN FROM APPROXIMATELY 3:00 AM SATURDAY TO 1:00 AM MONDAY.
- 10. AFTER SERVICE HOURS AVAILABLE: GCRTA RAPID TRAINS AT E 75TH STREET OPERATE UNTIL 1:00 AM AND RESUME SERVICE AROUND 3:00 AM. TYPICALLY, IT TAKES UP TO 60 MINUTES TO DE-ENERGIZE AND RE-ENERGIZE THE OVERHEAD POWER. THE CONTRACTOR MUST VACATE THE TRACKS APPROXIMATELY 1/2 HOUR PRIOR TO RESUMPTION OF SERVICE. THIS WILL ALLOW FOR, AT MOST, A WINDOW OF THIRTY MINUTES EACH NIGHT FOR AFTER SERVICE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR LIGHTING THE CONSTRUCTION AREA AT HIS OWN EXPENSE WHEN WORKING DURING THESE HOURS.
- 11. AFTER THE TEMPORARY PROTECTIVE STRUCTURE HAS BEEN CONSTRUCTED WITH INSULATIVE MATERIALS AND PROPERLY GROUNDED, STRUCTURAL STEEL GIRDERS MAY BE REMOVED AND PLACED OVER GCRTA TRACKS BEGINNING AT APPROXIMATELY 8:30 PM UNTIL THE START OF SERVICE THE NEXT DAY AT APPROXIMATELY 3:00 AM. THE CONTRACTOR SHALL NOT REMOVE OR ERECT STRUCTURAL STEEL WHILE TRAINS ARE PASSING THROUGH THE WORKZONE. THE CONTRACTOR SHALL HAVE APPROXIMATELY 30 MINUTES BETWEEN TRAINS FROM 8:30 PM TO 1:00 AM. THE CONTRACTOR SHALL PROVIDE GCRTA-CERTIFIED FLAGGERS TO PERFORM FLAGGING SERVICES FROM 8:30 PM TO 1:00 AM. THE CONTRACTOR SHALL ALSO PROVIDE A GROUNDMAN WHO WILL SERVE AS A SPOTTER DURING THE LIFTING OPERATIONS AND WILL MAINTAIN CONSTANT RADIO CONTACT WITH THE FLAGGERS AND THE CRANE OPERATOR. AFTER THE FINAL TRAIN PASSES THE STATION AT APPROXIMATELY 1:00 AM, THE CONTRACTOR MAY REMOVE OR ERECT STRUCTURAL STEEL UNTIL THE START OF SERVICE THE NEXT DAY AT APPROXIMATELY 3:00 AM.
- 12. EXTREME CARE WILL BE EXERCISED AT ALL TIMES TO SAFELY WORK AROUND AND PROTECT THE GCRTA OVERHEAD CATENARY LINES. THE GCRTA OVERHEAD CATENARY AND TRACK SYSTEM IS CONTINUOUSLY ENERGIZED AT 600-VOLTS, DIRECT CURRENT.

**B. NORFOLK SOUTHERN RAILWAY - SPECIAL REQUIREMENTS:**

REFER TO THE SPECIAL CLAUSES IN THE PROPOSAL FOR REQUIREMENTS REGARDING WORK ON OR ABOVE RAILWAY PROPERTY. ALL REFERENCE TO "THE RAILROAD" OR "THE RAILROAD COMPANY" HEREIN SHALL BE MEANT TO APPLY TO THE NORFOLK SOUTHERN RAILWAY COMPANY (NS).

THE AUTHORIZED REPRESENTATIVE OF THE RAILROAD COMPANY, HEREINAFTER REFERRED TO AS THE RAILROAD ENGINEER, SHALL HAVE FINAL AUTHORITY IN ALL MATTERS AFFECTING THE SAFE MAINTENANCE OF RAILROAD TRAFFIC OF THIS COMPANY INCLUDING THE ADEQUACY OF THE FOUNDATIONS AND STRUCTURES SUPPORTING THE RAILROAD TRACKS.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NORFOLK SOUTHERN RAILWAY COMPANY (NS) PUBLIC PROJECTS MANUAL (APPENDIX E, SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS, AND APPENDIX HI, OVERHEAD GRADE SEPARATION DESIGN CRITERIA).

**1. GENERAL**

THE CONTRACTOR SHALL:

- a. COOPERATE AT ALL TIMES WITH THE LOCAL OFFICIALS OF THE RAILROAD COMPANY.
- b. USE CARE AND DILIGENCE IN THE WORK IN ORDER TO AVOID ACCIDENTS, DAMAGE OR UNNECESSARY DELAY TO, OR INTERFERENCE WITH, THE TRAINS AND OTHER PROPERTY OF THE RAILROAD COMPANY.

- c. CONDUCT WORK IN A MANNER SATISFACTORY TO THE CHIEF ENGINEER OF THE RAILROAD COMPANY OR ITS AUTHORIZED REPRESENTATIVE, IN SUCH MANNER AND AT SUCH TIME AS TO NOT UNNECESSARILY INTERFERE WITH THE MOVEMENT OF TRAINS OR RAILROAD TRAFFIC, AND TO HOLD THE WORK AT ALL TIMES OPEN TO INSPECTION BY RAILROAD COMPANY INSPECTORS.
- d. COOPERATE WITH PUBLIC UTILITIES, RAILROAD COMPANIES OR OTHER ORGANIZATIONS HAVING OCCASION TO DO WORK ON AND IN CONNECTION WITH THE IMPROVEMENT.
- e. PRIOR TO COMMENCING ANY WORK INVOLVING THE REMOVAL OF THE EXISTING STRUCTURE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND RAILROADS, FOR APPROVAL, COMPLETE DETAILS OF THE PROPOSED METHOD FOR REMOVING THE EXISTING STRUCTURE AND PROTECTION OF RAILROAD TRAFFIC ADJACENT TO AND/OR UNDER THE EXISTING STRUCTURE. NO DEMOLITION SHALL BEGIN UNTIL WRITTEN APPROVAL IS RECEIVED FROM THE RAILROADS AND THE ENGINEER. ALL WORK ABOVE OR DIRECTLY ADJACENT TO THE RAILROAD SHALL BE SUBJECT TO THE APPROVAL OF THE RAILROAD COMPANY AND TO INSPECTION AT ALL TIMES BY ITS PROPERLY DESIGNATED REPRESENTATIVE. SAFETY AND CONTINUITY OF OPERATIONS OF THE RAILROAD TRAFFIC AND THE PROTECTION OF RAILROAD COMMUNICATION AND POWER LINES SHALL BE OF MAJOR IMPORTANCE AND SHALL AT ALL TIMES BE PROTECTED AND SAFEGUARDED. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE DULY AUTHORIZED REPRESENTATIVE OF THE RAILROAD AT LEAST TEN WORKING DAYS IN ADVANCE OF THE TIME THE CONTRACTOR INTENDS TO COMMENCE ANY WORK ABOVE OR DIRECTLY ADJACENT TO THE RAILROAD. WHENEVER PERFORMING ANY WORK SUCH AS CONSTRUCTION OF PIERS OR SETTING OF NEW BEAMS WHICH, IN THE OPINION OF THE ENGINEER, COULD AFFECT RAILROAD OPERATION, THE CONTRACTOR SHALL SUBMIT COMPLETE PLANS AND DETAILS OF THE PROPOSED WORK TO BOTH THE RAILROAD AND THE ENGINEER FOR APPROVAL. NO SUCH WORK SHALL BE COMMENCED OR PROSECUTED WITHOUT PRIOR APPROVAL OF BOTH AGENCIES. APPROVAL OF SUCH WORK SHALL NOT BE CONSTRUED AS A RELEASE FROM RESPONSIBILITY OR LIABILITY FOR ANY DAMAGE WHICH THE RAILROAD MAY SUFFER.
- f. THE RAILROAD COMPANY WILL ASSIGN, AT THE SOLE COST AND EXPENSE OF THE DEPARTMENT, RAILROAD FLAGGERS OR OTHER PROTECTIVE SERVICES AND DEVICES AS NECESSARY TO INSURE THE SAFETY AND CONTINUITY OF THE WORK TO BE PERFORMED AS A PART OF THIS CONTRACT. SAID SERVICES AND DEVICES WILL BE PROVIDED WHEN NECESSARY, AS DETERMINED BY THE RAILROAD COMPANY, BECAUSE OF ANY OF THE CONTRACTOR'S OPERATIONS OVER, UNDER OR ADJACENT TO TRACKS OVER WHICH TRAINS ARE OPERATING. THE PROVISION OF SUCH PROTECTIVE PERSONNEL AND DEVICES DOES NOT RELIEVE THE CONTRACTOR FROM THE LIABILITY OF PAYMENT FOR DAMAGE CAUSED BY HIS OPERATIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO OPERATE ANY OF HIS EQUIPMENT ON RAILROAD TRACKS EXCEPT UNDER AN ACCEPTABLE ARRANGEMENT WITH THE RAILROAD COMPANY. SUCH EQUIPMENT AND THE OPERATION OF SUCH EQUIPMENT, OR EQUIPMENT RENTED FROM THE RAILROAD COMPANY, SHALL BE ARRANGED FOR BY THE CONTRACTOR WITH THE RAILROAD AND THE COST FOR ITS USE, INCLUDING PROTECTION OF RAILROAD TRAFFIC, SHALL BE BORNE BY THE CONTRACTOR.

RAILROAD PROTECTIVE PERSONNEL ASSIGNED TO THE PROJECT WILL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER UPON ARRIVAL AT THE JOB SITE ON THE FIRST WORKING DAY THAT PROTECTIVE SERVICES BEGIN AND ON THE LAST DAY THAT HE PERFORMS SUCH SERVICES. THIS WILL BE REQUIRED FOR EACH SEPARATE PERIOD THAT SUCH SERVICES ARE PROVIDED. THE ENGINEER WILL DOCUMENT SUCH NOTIFICATION IN THE PROJECT DIARY.

THE CONTRACTOR WILL BE ASSESSED FOR PROTECTIVE SERVICES PROVIDED AT HIS REQUEST AND NOT UTILIZED DUE, IN THE OPINION OF THE ENGINEER, TO A CHANGE IN THE CONTRACTOR'S CONSTRUCTION SCHEDULE OR IF IT IS DETERMINED BY THE ENGINEER THAT THE REQUESTED SERVICES WERE NOT NECESSARY. THE ACTUAL COSTS FOR SUCH PROTECTIVE SERVICES SO ASSESSED TO THE CONTRACTOR WILL BE DEDUCTED FROM PAYMENT DUE OR THAT BECOMES DUE THE CONTRACTOR.

THE DECISION OF THE DEPARTMENT SHALL BE FINAL IN THE EVENT OF CONTROVERSY AS TO THE NECESSITY FOR ANY PROTECTION SERVICES PROVIDED AND NOT UTILIZED BY THE CONTRACTOR AS DESCRIBED IN THE PRECEDING PARAGRAPH. PAYMENT TO THE CONTRACTOR SHALL BE WITHHELD UNTIL SUCH DECISION HAS BEEN MADE.

- g. RAILROAD AERIAL LINES WILL BE RELOCATED BY THE RAILROAD. USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND COOPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION WILL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT WORK.
- h. CONSTRUCTION CLEARANCE: THE TEMPORARY CONSTRUCTION CLEARANCE SHALL BE AS LISTED BELOW:

VERTICALLY ABOVE THE TOP OF RAIL	22'-0"
HORIZONTAL FROM THE CENTER OF TRACK:	13'-0"

NO OBSTRUCTION CLOSER TO THE TRACK THAN PERMITTED BY THE TEMPORARY CONSTRUCTION CLEARANCE SHALL EXTEND ABOVE THE TOP OF RAIL.

- i. AVOID UNNECESSARY USE OF RAILROAD PROPERTY WITHOUT WRITTEN PERMISSION OF THE RAILROAD COMPANY AND LEAVE RAILROAD ROADBED AND PROPERTY IN A CONDITION ACCEPTABLE TO THE CHIEF ENGINEER OF THE RAILROAD COMPANY.
- j. CONTRACTOR SHALL PAY THE RAILROAD OR OWNING COMPANY FOR ANY CHANGES, REQUESTED FOR HIS CONVENIENCE, TO RAILROAD PROPERTY, FACILITIES, WIRE, FIBER OPTIC AND/OR PIPE LINES OTHER THAN SHOWN ON THE PLANS FOR THE PROJECT.

k. A TEMPORARY CROSSING OF THE RAILROAD'S TRACKS IS REQUIRED TO ACCESS GCRTA. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM NS DIVISION SUPERINTENDENT FOR THE INSTALLATION AND USE OF THE CROSSING. UNAUTHORIZED ACCESS TO THE CROSSING SHALL BE CONTROLLED BY USE OF A LOCKABLE GATE OR OTHER SUITABLE MEANS. A RAMP FROM THE NS TRACK TO THE GCRTA TRACKS WILL ALSO BE REQUIRED. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IS MAINTAINED DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ARRANGE WITH THE RAILROAD COMPANY, EXECUTE ITS REGULAR FORM OF PRIVATE GRADE CROSSING AGREEMENT COVERING THE CROSSING DESIRED, PAYING ALL CONSTRUCTION, MAINTENANCE, REMOVAL, PROTECTION AND OTHER ASSOCIATED COSTS. PAYMENT FOR THE TEMPORARY CROSSING SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM SPECIAL - STRUCTURE MISC.: TEMPORARY FALSEWORK AND PROTECTIVE STRUCTURES.

THE CONTRACTOR IS REQUIRED TO OBTAIN A TEMPORARY CROSSING AGREEMENT PRIOR TO PERFORMING ANY WORK. A SAMPLE AGREEMENT CAN BE OBTAINED FROM THE CITY OF CLEVELAND DIVISION OF ENGINEERING.

L. "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE 2 DAYS IN ADVANCE OF WORK AT THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE THE RAILROAD'S UNDERGROUND FACILITIES. UPON REQUEST FROM THE CONTRACTOR OR SPONSOR, RAILROAD FORCES WILL LOCATE AND PAINT MARK THE RAILROAD'S UNDERGROUND FACILITIES. (SEE NS PUBLIC PROJECTS MANUAL, APPENDIX E, SECTION 3.D).

M. FOR PROJECTS REQUIRING MORE THAN 30 CONSECUTIVE DAYS OF FLAGGING, CONTRACTOR SHALL PROVIDE THE FLAGMAN A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF BATHROOM FACILITIES, WHERE THE FLAGMAN CAN CHECK IN/OUT WITH THE PROJECT, AS WELL AS TO THE FLAGMAN'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER; AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE FLAGMAN'S TIME AND EFFICIENCY ON THE PROJECT.

**2. REMOVAL**

a. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PORTIONS OF THE EXISTING BRIDGE TO THE LIMITS SHOWN ON THE PLANS OR AS INDICATED IN THE CMS OR TO THE LIMITS DIRECTED BY THE ENGINEER. PARTS DESIGNATED BY THE PLANS FOR REMOVAL MAY BE REMOVED BY METHODS OF THE CONTRACTOR'S SELECTION. THE REQUIREMENTS FOR PROTECTING RAILROAD PROPERTY AS DETAILED IN THE RAILROAD AGREEMENT SHALL BE FOLLOWED. THE PLANS OF THE EXISTING BRIDGES ARE AVAILABLE FOR PERUSAL AT ROOM 518, CITY HALL, CLEVELAND, OHIO.

- b. REFER TO ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN FOR REMOVAL ITEMS.
- c. THE CONTRACTOR'S ATTENTION IS ALSO DRAWN TO THE CONSTRUCTION CLEARANCE REQUIREMENTS. HE SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR THE REMOVAL METHOD BEFORE THE ACTUAL DEMOLITION WORK IS STARTED.
- d. ALL MATERIAL, INCLUDING THE CHAIN LINK FENCE, ALL CONCRETE, STEEL, REINFORCING STEEL, ASPHALT CONCRETE, ETC., REMOVED FROM THE STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
- e. UNDER NO CIRCUMSTANCE SHALL THE MATERIAL BE PERMITTED TO REMAIN ON THE PREMISES, RIGHT-OF-WAY OR STREETS PENDING DISPOSAL OF SAME OR FOR ANY OTHER PURPOSES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

<b>EUTHENICS INC.</b> CONSULTING ENGINEERS	DESIGN AGENCY	DATE 8-3-20	REVIEWED RAB	DRAWN BPS	DESIGNED BPS	STRUCTURE FILE NUMBER 1867181
<b>GENERAL NOTES</b>						
BRIDGE NO. 4-013M - EAST 75TH STREET OVER GCRTA & NORFOLK SOUTHERN RAILROAD						
CUY-EAST 75TH STREET PID No. 106378						
						6/40
						98 141

ESTIMATED QUANTITIES

CALC BY: BPS

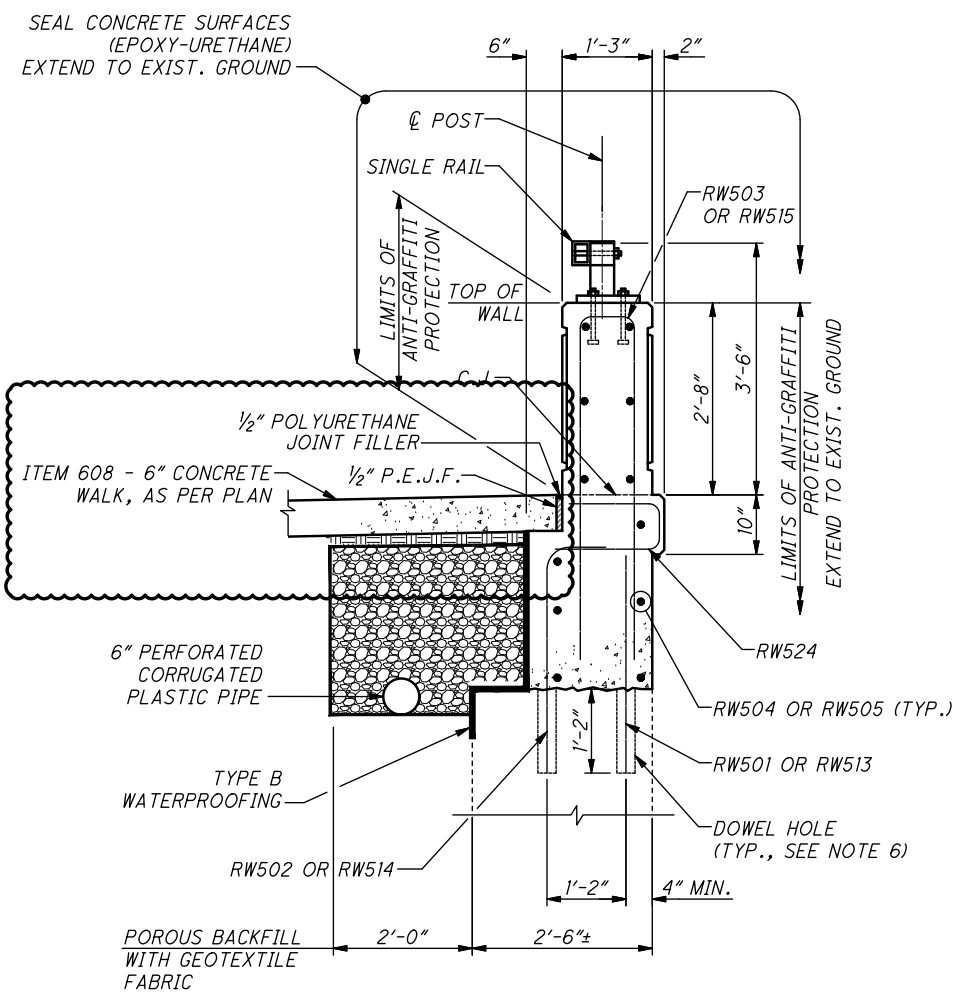
CHK'D BY: LAB

ITEM	ITEM EXT.	PARTICIPATION						TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FWD. ABUTMENT	PIERS	RETAINING WALLS	SUPER-STRUCTURE	GENERAL	CONTINGENCY*	REFERENCE SHEET NUMBERS
		01/BRF/BR	02/BRF/BR	03/BRF/BR	04/BRF/BR	05/BRF/BR	06/BRF/BR											
202	11203	LS					LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN								4	
202	23500	1027					1027	SY	WEARING COURSE REMOVED					1027	LS			
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/OA, SUPERSTRUCTURE, AS PER PLAN					411			4-5	
511	42013	96					96	CY	CLASS QC1 CONCRETE WITH QC/OA, PIER ABOVE FOOTINGS, AS PER PLAN			96					4-5	
511	44113	278					278	CY	CLASS QC1 CONCRETE WITH QC/OA, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	165	113						4-5	
511	46013	162					162	CY	CLASS QC1 CONCRETE WITH QC/OA, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN				162				4-5	
511	46513	35					35	CY	CLASS QC1 CONCRETE WITH QC/OA, 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	13600	72					72	SF	1" PREFORMED EXPANSION JOINT FILLER	36	36							
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 II), AS PER PLAN	260	130						7	
625	33001	1					1	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN						1		7A	
SPECIAL	69098400	LS					LS		AT&T OHIO UTILITY WORK						LS		3	
SPECIAL	69098400	LS			LS		LS		FIRST ENERGY (CEI) UTILITY WORK						LS		3	
SPECIAL	69098400	LS			LS		LS		DOMINION EAST OHIO (DEO) UTILITY WORK						LS		3	
SPECIAL	69098400	LS				LS	LS		VERIZON UTILITY WORK						LS		3	
SPECIAL	69098400	LS				LS	LS		CROWN CASTLE UTILITY WORK						LS		3-4	

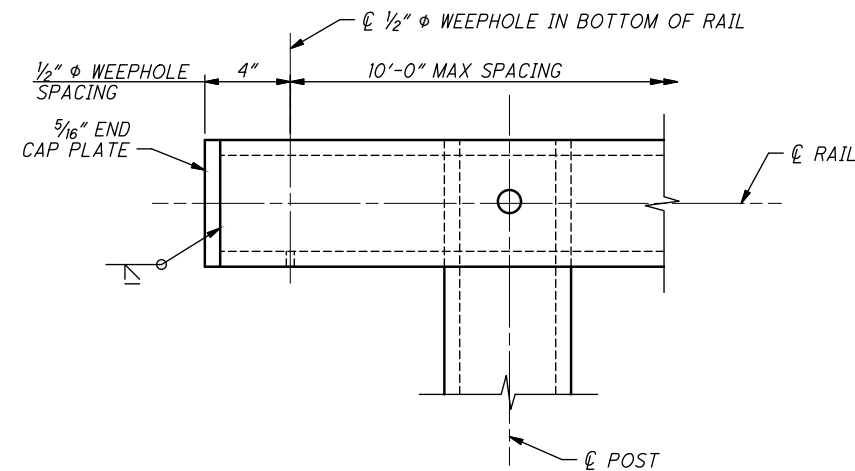
\* CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER

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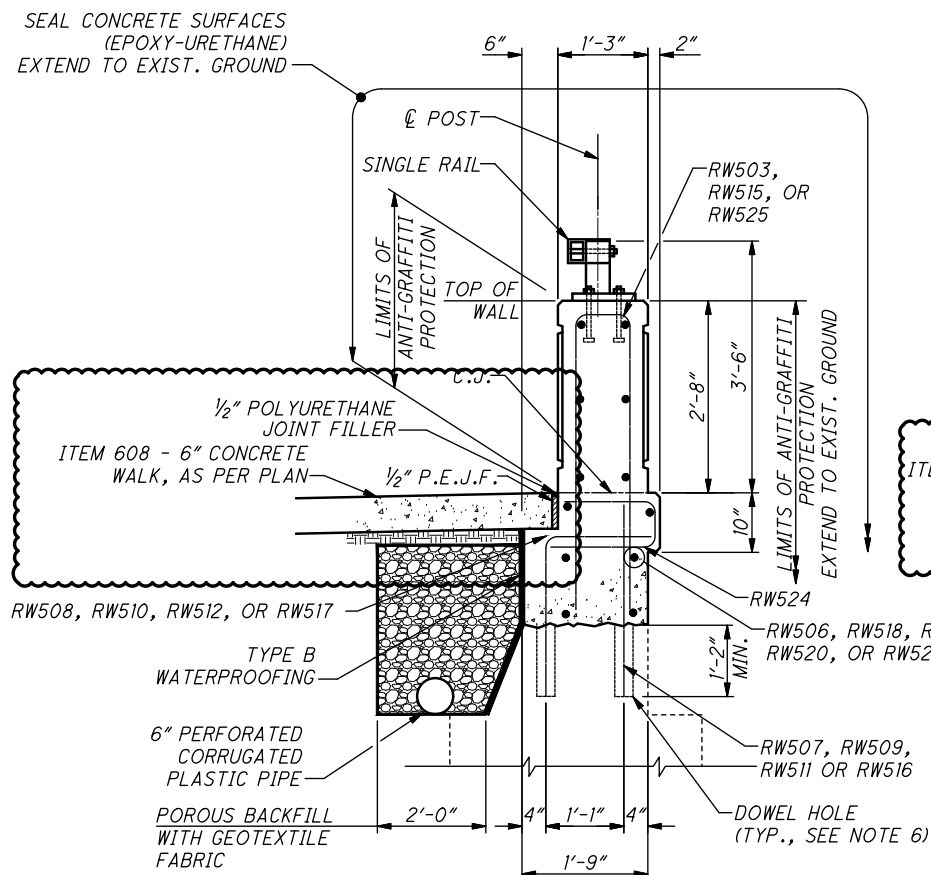
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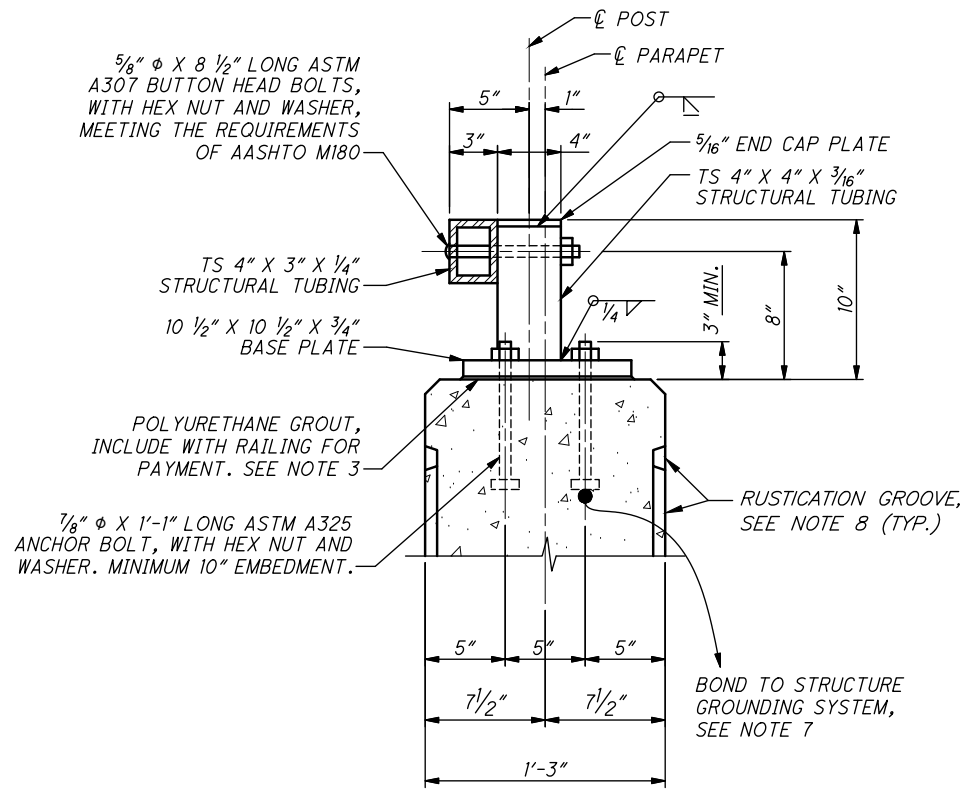
SECTION F F 17 18 19 20



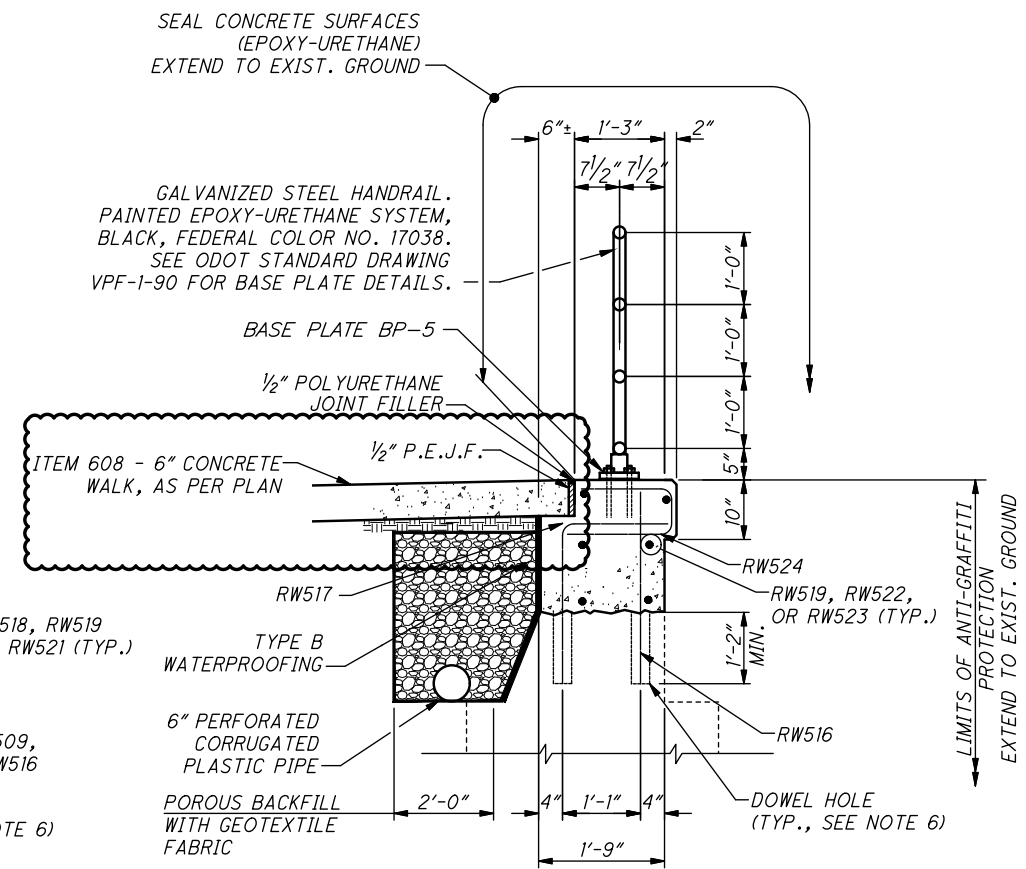
CAP END DETAIL



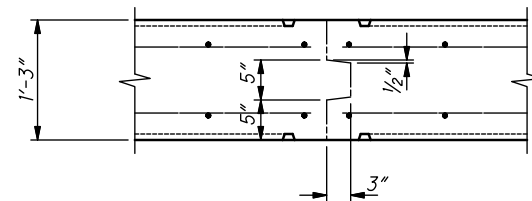
SECTION G G 18 19 20 21



RAIL DETAIL (REINFORCING NOT SHOWN)



SECTION H H 21



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.
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.