

Columbus State Community College

Water Meter Upgrades Water Line Only Plan

550 E. Spring St.
Columbus, OH 43215

Prepared By
Heapy Engineering
1800 Watermark Dr. Ste 410
Columbus, OH 43215



INDEX MAP

CITY OF COLUMBUS, OHIO APPROVALS

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

FIRE PREVENTION BUREAU, DIVISION OF FIRE DATE

ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE DATE

ADMINISTRATOR, DIVISION OF POWER DATE

ADMINISTRATOR, DIVISION OF WATER DATE

CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION DATE

WATER LINE ONLY SHEET LIST

SHEET NUMBER	TITLE SHEET	SHEET NAME
WL01	TITLE SHEET	
WL02	GENERAL NOTES	
WL03	SPECIAL NOTES	
WL04	MAINTENANCE OF TRAFFIC NOTES	
WL05	MAINTENANCE OF TRAFFIC NOTES	
WL06	MAINTENANCE OF TRAFFIC NOTES	
WL07	WATER LINE ONLY PLAN	
WL08	COLUMBUS DPS STANDARD DRAWINGS	
WL09	COLUMBUS DPS STANDARD DRAWINGS	
WL010	COLUMBUS DPS STANDARD DRAWINGS	

EASEMENT REFERENCE

COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED

REVISIONS

MARK	DATE	DESCRIPTION



CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

TITLE SHEET

CSCC Water Meter Upgrades
CSCC
550 E Spring St.
Columbus, OH 43215

SCALE=NONE

23-044

SHEET: 1/10

Public Tree Preservation Note

All public trees and the ground below their respective drip lines, whether shown or not shown on the plans, are to be preserved unless approval to remove or prune is given in writing by Columbus Recreation & Parks (CRPD)/City Forester or if the public tree removal has been designated on the approved Final Site Compliance Plan. Trees approved for removal by CRPD/City Forester shall be paid for under CMSC item 201, clearing and grubbing, unless otherwise provided for by unit price bid under item 201. The Contractor shall protect trees near or adjacent to the work area to avoid damage to all trees that are to remain. All trees removed shall include stump removal to eighteen (18) inches below grade. All clearing and grubbing performed on CRPD property, Right-of-Way, or any City of Columbus property shall be removed and disposed of by the Contractor. Heavy equipment will not be allowed to compact the soil over the root zone of existing public trees. Restricted equipment access routes shall be coordinated with CRPD Inspector, Keith May, at KAMay@columbus.gov before work is begins. Temporary paving materials, such as plywood, lumber or rubber matting, spread over the root zone of public trees may be required to prevent compaction. If a public tree needs to be removed, the Contractor shall provide a tree mitigation plan to the City Forestry Section [(614) 724-1276] and refer to the CRPD Tree Mitigation Plan Guidance, ANSI A300 and/or City of Columbus Executive Order 2015-01 for tree replacement standards.

Public Tree Protection Note

A tree protection plan with a drawing of any work located within the drip line of a public tree shall be included in the approved Final Site Compliance Plan (FSCP). Refer to CRPD Standard Drawing for Tree Protection. Construction materials, excavation debris, fuel, equipment, or vehicles are not to be stockpiled, stored, dumped, or parked within the drip line of public trees. All trees must be protected against injury or damage to branches, trunks, or roots from construction and excavation, as described in the "Best Management Practices – Managing Trees During Construction" a companion publication to ANSI A300 Part 5. If there is a question whether a tree or not needs to be protected, the Contractor must contact the City Forestry Section at (614) 724-1276. Failure to contact the City Forestry representative in advance of construction will result in the Contractor reimbursing City Forestry for the cost of any and all damage as determined by the current ANSI A300/City of Columbus Executive Order 2015-01 for tree protection and replacement.

FOR THE DIVISION OF POWER

The Division of Power (DOP) may have overhead and underground primary, secondary, and street lighting at this work location. The contractor is hereby required to contact OUPS at 811 or 1-800-362-2764 forty-eight hours prior to conducting any activity within the construction area.

Any required relocation, support, protection, or any other activity concerned with the City's electrical facilities in the construction area is to be performed by the contractor under the direction of DOP personnel and at the expense of the project. DOP shall make all final connections to DOP's existing electrical system at the expense of the project. The contractor shall use material and make repairs to a City of Columbus street lighting system by following DOP's "Material and Installation Specifications" (MIS) and the City of Columbus "Construction and Material Specifications" (CMSC). Any new or re-installed underground streetlight system shall require testing as referred to in section 1000.18 of the CMSC manual. The contractor shall conform to DOP's existing Street Light Lockout/Tagout (LOTO) Procedure, MIS-1, copies of which are available from DOP.

If any electric facility belonging to DOP is damaged in any manner by the contractor, its agents, servants, or employees, and requires emergency repairs, the DOP Dispatch Office should be contacted immediately at (614) 645-7627. DOP shall make all necessary repairs, and the expense of such repairs and other related costs shall be paid by the contractor to the Division of Power, City of Columbus, Ohio.

ESTIMATE OF QUANTITIES

THE QUANTITIES HAVE BEEN ESTABLISHED AS A MEANS FOR THE CITY TO ESTIMATE THE NECESSARY DEVELOPMENT FEES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE REQUIRED BID QUANTITIES NECESSARY FOR THE COMPLETION OF THE PLAN IMPROVEMENTS.

ITEM	QUANTITY	UNIT	DESCRIPTION
202	1	SY	PAVEMENT REMOVED
252	4	LF	FULL DEPTH PAVEMENT SAWING
304	2	CY	AGGREGATE BASE
441	1	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
441	1	CY	ASPHALT INTERMEDIATE SURFACE COURSE, TYPE 1
609	5	FT	GRANITE CURB
613	5	CY	LOW STRENGTH MORTAR BACKFILL
614	3	LUMP	MAINTENANCE OF TRAFFIC
808	3	EACH	CUT AND PLUG (CAP) 12" WATER MAIN
808	2	EACH	12" MAIN ABANDONED
SPEC	1	LUMP	AS-BUILT COORDINATE TABLE

COORDINATE CHART

SHEET	ITEM	PROPOSED		AS-BUILT		CENTERLINE ELEV.
		NORTHING	EASTING	NORTHING	EASTING	
WLO5	MT VERNON AVE & CLEVELAND AVE CUT & PLUG	717608.8960	1831010.1340			
WLO5	E SPRING ST & MT VERNON AVE CUT & PLUG	717187.0050	1831755.8900			
WLO5	N WASHINGTON AVE & E SPRING ST CUT & PLUG	716647.4420	1831828.1570			

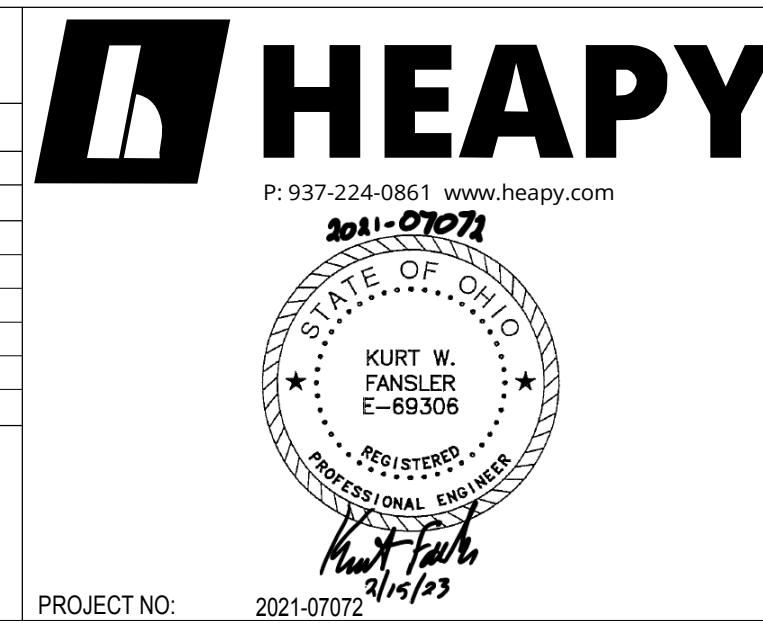
HORIZONTAL REFERENCE POINTS (OHIO SOUTH ZONE)*

POINT	DESCRIPTION	NAD 83 (1986) GROUND		NSRS2007	
		NORTHING	EASTING	NORTHING	EASTING
▲ 22	1165 #22 MAGS	717130.2690	1831774.8330	71729.4684	1831774.945
▲ 25	1165 #25 MAGS	716935.0680	1831007.9950	716934.2674	1831008.107
▲ 26	1152 #26 IPSw/ cap	717265.0350	1831027.5270	717264.2344	1831027.639
▲ 1098	1152 #1098 IPSw/ cap	717097.0830	1831251.8240	717096.2824	1831251.936
▲ 15152	1165 #15152 MAGS	717155.0030	1831067.2160	717154.2024	1831067.328

* THE EXISTING TOPOGRAPHIC SURVEY AND PROPOSED DESIGN WERE COMPLETED USING NAD 83 (1986 ADJ) HORIZONTAL REFERENCE DATUM. THE NAD 83 (NSRS2007) COORDINATES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED FOR HORIZONTAL CONTROL.

(SEE INDEX MAP AND PLAN VIEWS FOR REFERENCE POINT LOCATIONS.)

EASEMENT REFERENCE		REVISIONS	
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE DESCRIPTION



CITY OF COLUMBUS, OHIO
 DEPARTMENT OF PUBLIC UTILITIES
 DIVISION OF WATER

SPECIAL NOTES
 CSCC Water Meter Upgrades
 CSCC
 550 E Spring St.
 Columbus, OH 43215

SCALE=NONE

23-044
 SHEET: 3/10

TEMPORARY TRAFFIC CONTROL (NOTES REQUIRED ON ALL PROJECTS)

- ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.
- CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.
- THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 614-645-0355 OR 614-645-5845 & THE DIVISION OF REFUSE COLLECTION'S OPERATION MANAGER AT 614-645-1675, WRITTEN NOTIFICATION TO PAVING THE WAY AT PAVINGTHEWAY@MORPC.ORG OR VERBAL TO (614)233-4200, PROJECT ENGINEER, AND THE SENIOR SERVICE PLANNER OF COTA AT 614-308-4373 OR FAX 614-275-5933, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES	30-DAY NOTIFICATION PRIOR TO CLOSURE.
LANE CLOSURES LASTING 2 WEEKS OR MORE	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS	1-DAY

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
- MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS**
NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING DESIGNATED HOLIDAYS OR SPECIAL EVENTS INCLUDING THE OHIO STATE FOOTBALL HOME GAMES. THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR, 614-645-5845 OR CELL, 614-332-7472 FOR EVENT DATES, LOCATIONS, AND SCHEDULE.

HOLIDAYS WILL CONSIST OF CHRISTMAS, NEW YEARS, FOURTH OF JULY-RED, WHITE AND BOOM FIREWORKS NIGHT (6:00AM-12MIDNIGHT), MEMORIAL DAY, LABOR DAY, AND THANKSGIVING. RED, WHITE AND BOOM, FIREWORKS CELEBRATION AND A MINIMUM OF ONE DAY PRIOR TO FIREWORKS NIGHT SHALL REQUIRE ALL TEMPORARY TRAFFIC CONTROL DEVICES TO BE REMOVED FROM THE PROJECT AREA AND PLACE EITHER IN A PRE-DETERMINED LOCATION APPROVED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR COMPLETELY REMOVED FROM THE SITE.

- THE CONTRACTOR SHALL CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR FOR ANY ADDITIONAL MOT REQUIREMENTS FOR SPECIAL EVENTS, INCLUDING OSU FOOTBAL HOME GAMES.
- THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.
- ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.
- THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE - WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

10. ITEM 614 - MAINTAINING TRAFFIC

ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614. IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM. FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS PUBLIC SAFETY AND/OR THE PUBLIC SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

ITEM 614 - LAW ENFORCEMENT OFFICER (LEO) WITH PATROL CAR, AS PER PLAN

IN ADDITION TO LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE OFFICIAL PATROL CAR WITH TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR, AS PER PLAN- _____ HOURS

ITEM 614 – LAW ENFORCEMENT OFFICER (LEO) WITHOUT PATROL CAR, AS PER PLAN


IN ADDITION TO LEO AND FLAGGER HOURS INCLUDED IN ITEM 614 MAINTAINING TRAFFIC, LUMP SUM; THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER OR AN ACCEPTABLE REPRESENTATIVE FOR THE CITY OF COLUMBUS. THE CONTRACTOR SHALL BE PAID FOR THIS BID ITEM ONLY IF DIRECTED BY THE ENGINEER.

ITEM 614, LAW ENFORCEMENT OFFICER WITHOUT PATROL CAR, AS PER PLAN - ____ HOURS

TEMPORARY TRAFFIC CONTROL (IF APPLICABLE, FOR USE ON A PER PROJECT BASIS)

- PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE INSTALLED A MINIMUM OF 7 DAYS PRIOR TO CLOSURE OF A ROADWAY. THE MESSAGE SHALL ADVISE THE MOTORIST OF THE DATES, TIMES, AND DURATION OF THE CLOSURE. THE PCMS SHALL REMAIN IN PLACE FOR 7 DAYS AFTER THE START OF THE CLOSURE.
- WHEN NOT INCLUDED IN A SIGNED PLAN, A TTC PLAN (TTCP) INCLUDING PEDESTRIAN CONTROL SHALL BE SUBMITTED TO THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 AT THE PRE-CONSTRUCTION MEETING OR A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING WORK FOR APPROVAL. COPIES OF THE APPROVED TTCP SHALL BE GIVEN TO THE PROJECT ENGINEER AND KEPT ON SITE ALONG WITH THE STREET CLOSURE/OCCUPANCY PERMIT.
- TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 PER O.D.O.T. STANDARDS.
- A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.
- ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATED 11/15/2006 AND STD. DWG. 1441, LATEST EDITION) DURING NON-WORKING HOURS.
- ALL TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00 TO 9:00 A.M. AND 3:00 TO 6:00 P.M. IN THE COLUMBUS BUSINESS DISTRICT (CBD) PARKING AREA, MONDAY THROUGH FRIDAY ON MT VERNON AVENUE. ONE LANE(S) MAY BE CLOSED TO TRAFFIC DURING WORKING HOURS.

ALL TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00 TO 9:00 A.M. AND 3:00 TO 6:00 P.M. IN THE COLUMBUS BUSINESS DISTRICT (CBD) PARKING AREA, MONDAY THROUGH FRIDAY ON CLEVELAND AVENUE. ONE LANE(S) MAY BE CLOSED TO TRAFFIC DURING WORKING HOURS.

EASEMENT REFERENCE		REVISIONS			 CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER	MAINTENANCE OF TRAFFIC NOTES		SCALE=NONE SHEET: 4/10
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE	DESCRIPTION		CSCC Water Meter Upgrades CSCC 550 E Spring St. Columbus, OH 43215		

7. ONE-WAY ONE LANE(S) OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON MT VERNON AVENUE.

8. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1510 AND FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

9. THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF SERVICE BY THIS PROJECT. THERE IS A \$60.00 DOLLAR CHARGE FOR THE REMOVAL AND REINSTALLATION OF EACH METER. IN ADDITION, A DAILY METER FEE WILL BE CHARGED FOR ALL ENFORCEMENT HOURS FOR EACH METER TAKEN OUT OF SERVICE, SEE THE PARKING METER OUT OF SERVICE FEES NOTE FOR MORE INFORMATION AND THE CALCULATION OF METERS TAKEN OUT OF SERVICE, PLUS THE METER POST AND CORE NOTE. THESE CHARGES WILL BE COLLECTED FROM THE CONTRACTOR IN ADVANCE WITH THE ISSUANCE OF THE STREET OCCUPANCY/EXCAVATION PERMIT FROM THE DEPARTMENT OF PUBLIC SERVICE'S PERMIT OFFICE. (614-645-7497) PARKING SERVICES SHALL BE NOTIFIED A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT, SUN, & HOLIDAYS) PRIOR TO BEGINNING WORK. CALL 614-645-4072. THIS COST IS TO BE INCLUDED IN THE BID FOR THIS PROJECT AS A PART OF ITEM 614 MAINTENANCE OF TRAFFIC, LUMP SUM.

10. THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS), NOW "OHIO 811" TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTION(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (614-645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.

11. THE CONTRACTOR SHALL CONTACT THE DIVISION OF REFUSE COLLECTION, OPERATIONS MANAGER MICHAEL PICKARD, 614-645-1675.

12. NO EXCAVATION SHALL BE MADE WITHIN FIVE (5) FEET OF ANY FOUNDATION THAT SUPPORTS SIGNAL POLES, TRAFFIC SIGNAL DISPLAYS OR SIGNS BY MAST ARM OR SIGNAL SPAN. EXCAVATION WITHIN EIGHT (8) FEET, BUT MORE THAN FIVE (5) FEET SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF SUCH EXCAVATION SO THAT THE CITY CAN APPROVE THE STABILIZATION SETUP BY THE CONTRACTOR. IF UNABLE TO MAKE CONTACT THROUGH ABOVE NUMBERS, CALL 614-645-7393. STABILIZATION WILL BE DONE BY THE CONTRACTOR AT THE OWNERS'/CONTRACTING AGENCY'S EXPENSE.

13. SIGNAL CONDUIT CLEARANCE 3' HORIZONTAL AND 1' VERTICAL FROM ADJACENT UTILITIES SHALL BE MAINTAINED AT ALL TIMES.

14. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) BETWEEN 7:00 AM AND 4:00 PM, MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 614-645-7393.

15. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO CITY OF COLUMBUS, CMS-614.11- G, AND SHALL BE PAID FOR THROUGH THE 614-LUMP SUM.

16. WHENEVER YELLOW CENTERLINES OR TURN-LANE LINES ARE PAVED OVER, REMOVED, OR OTHERWISE UNSERVICEABLE, THE CONTRACTOR SHALL INSTALL CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS). TEMPORARY PAINT SHALL BE USED ON ALL MILLED SURFACES. TEMPORARY TAPE SHALL BE USED ON ALL FINAL COURSES OF ASPHALT. PAINT OR TAPE MAY BE USED ON INTERMEDIATE COURSES OF ASPHALT. IF APPROVED BY THE ENGINEER, DRUMS WITH STEADY BURNING TYPE C OR TYPE D 360 DEGREE WARNING LIGHTS AND "KEEP RIGHT" SIGNS MAY BE SUBSTITUTED FOR CENTERLINE MARKINGS.

17. CLASS II TEMPORARY STRIPING (MINIMUM 4' LONG SEGMENTS) SHALL BE AS PER ITEM 614 - WORK ZONE PAVEMENT MARKING AND SHALL BE PLACED WITHIN ONE (1) FOOT LONGITUDINAL TOLERANCE OF THE PERMANENT STRIPE(S). ALL TEMPORARY STRIPING NOT TO WITHIN ONE (1) FOOT TOLERANCE SHALL BE REMOVED AND REPLACED IN THE PROPER LOCATION BY THE CONTRACTOR. CLASS II TEMPORARY STRIPING SHALL BE OF THE APPROPRIATE COLOR AND SPACED A MAXIMUM OF FORTY (40) FEET CENTER TO CENTER.

EXISTING PERMANENT TRAFFIC CONTROL (NOTES REQUIRED ON ALL PROJECTS)

1. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

3. THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER OR THE PUBLIC SERVICE PAVEMENT MARKING MANAGER. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL. NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

EXISTING PERMANENT TRAFFIC CONTROL (IF APPLICABLE, FOR USE ON A PER PROJECT BASIS)

1. ALL OVERHEAD CABLE, AND DOWN GUYS OR BACK GUYS SHALL NOT BLOCK ANY PORTION OF A TRAFFIC SIGNAL, TRAFFIC CONTROL SIGN, OR OTHER TRAFFIC CONTROL DEVICE SUCH THAT VISIBILITY OR OPERATION OF THE TRAFFIC CONTROL DEVICE IS IMPAIRED.

2. ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

3. PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

4. IF THE DEPARTMENT OF PUBLIC SERVICE IS TO INSTALL PERMANENT STRIPING, THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE APPLICATION OF THE FINAL COURSE OF PAVEMENT.

5. AT ANY LOCATION WHERE THE CONTRACTOR DAMAGES DETECTORS AND/OR THEIR LEAD-IN CABLES THE CONTRACTOR SHALL REPLACE THEM. AT ANY LOCATION WHERE DETECTION IS CHANGED FROM MAG PROBE UNITS TO LOOPS, THE CONTRACTOR SHALL REPLACE THE PROBE LEAD-IN WITH LOOP LEAD-IN CABLE. ALL REPAIRS TO DETECTION SHALL BE COMPLETED WITHIN 21 DAYS FROM DAMAGE TO DETECTION ON A PER INTERSECTION BASIS. IF THE 21DAY REPAIR REQUIREMENT CANNOT BE SATISFIED AT ANY LOCATION WHERE THE CONTRACTOR DAMAGES DETECTORS AND/OR THEIR LEAD-IN CABLES, THE CONTRACTOR, AT THE DISCRETION OF SIGNAL OPERATIONS PERSONNEL, MAY BE REQUIRED TO INSTALL A VERSICAM FLEX CAMERA SYSTEM, A WAVETRONIX RADAR SYSTEM, OR TEMPORARY LOOP DETECTION. ANY CONTRACTOR FAILING TO COMPLY WITH THESE GUIDELINES SHALL BE SUBJECT TO PENALTY TO THE SUM OF \$100.00 PER DAY FOR EACH DAY BEYOND THE 21 DAY REPAIR PERIOD ON A PER INTERSECTION BASIS, UNTIL CONDITIONS ARE MET TO THE SATISFACTION OF THE SIGNAL OPERATIONS PERSONNEL. THIS PENALTY DEDUCTION SHALL BE SPECIFIC FOR EACH SIGNALIZED INTERSECTION EFFECTED BY THIS PROJECT AND SEPARATE FROM ANY LIQUIDATED DAMAGES FOR THE PROJECT AS A WHOLE. THE WORK TO INSTALL THE DETECTION SHALL CONFORM TO THE CITY OF COLUMBUS STANDARD DRAWING 4300 AND THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, LATEST EDITION, WITH THE FOLLOWING PROVISIONS:

a. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT OF PUBLIC SERVICE'S INSPECTOR, PRIOR TO THE COMMENCEMENT OF WORK, THE IMSA (INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION) CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT.

b. LOCATIONS OF THE REPLACEMENT DETECTION SHALL BE FIELD MARKED OR DIMENSIONED DRAWINGS SHALL BE SUBMITTED TO THE CONSTRUCTION SECTION BY DEPARTMENT OF PUBLIC SERVICE PERSONNEL. LOCATION OF FINAL PAVEMENT MARKINGS OR THE MARKINGS THEMSELVES SHALL BE CLEARLY INDICATED ON THE ASPHALT PRIOR TO DETECTOR LOCATIONS BEING MARKED. THE CONTRACTOR SHALL LAYOUT THE LOOPS ON THE PAVEMENT IF DRAWINGS ARE SUBMITTED. IF DRAWINGS HAVE NOT BEEN PROVIDED, CONTACT SIGNAL OPERATIONS PERSONNEL AT 614-645-0423 (CELL 614-419-4501) AT LEAST TWO WORKING DAYS PRIOR TO NEEDING THE LOCATION MARKED. IF UNABLE TO MAKE CONTACT THROUGH THE ABOVE NUMBERS, CALL 614-645-7393.


c. THE SAW SLOT DEPTH FOR LOOP WIRE INSTALLATION SHALL BE FOUR (4) INCHES WITH SIX (6) INCHES AT THE CONDUIT ENTRANCE. IF ADVERSE PAVEMENT CONDITIONS WARRANT, DEPTH MAY BE INCREASED TO SIX (6) INCHES THROUGHOUT AND SHALL BE DETERMINED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR.

d. EACH LOOP SHALL HAVE ITS OWN CONDUIT FROM EDGE OF PAVEMENT TO PULL BOX UNLESS SPECIFIED OTHERWISE BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR.

e. THE PULLBOX ASSEMBLY SHALL BE RATED AS MEDIUM TO HEAVY DUTY, TO BE INSTALLED IN CONCRETE WALKWAYS, AND SHALL HAVE ALL STAINLESS STEEL HARDWARE. THE PULLBOX COVER SHALL HAVE THE WORD "TRAFFIC" ON IT. THE COVER SHALL BE BOLTED TO THE BOX AND SHALL BE POLYMER CONCRETE. THE COVER PLUS HOUSING AS A UNIT SHALL BE RATED TO WITHSTAND A MINIMUM 20,000 LB. STATIC LOAD OVER A 10"X10" AREA AS PER ASTM C-857. THE BOX DEPTH SHALL BE 15 INCHES MINIMUM TO 30 INCHES MAXIMUM. IF THE PROJECT DOES NOT SPECIFY 725.06 POLYMER CONCRETE PULL BOXES, THE SUPPLIED ASSEMBLIES SHALL BE AS FOLLOWS: CDR SYSTEMS MODEL SA32-1015-18, OR SYNERTECH MODEL S1118B18FA. SIX (6) INCHES OF #57 AGGREGATE SHALL BE PLACED AT THE BOTTOM OF THE PULLBOX. NO CONDUIT SHALL PROTRUDE MORE THAN THREE (3) INCHES INSIDE THE PULLBOX. CONDUIT ELLS OR EXTENSIONS MAY BE USED TO ALIGN THE CONDUIT WITH THE HOUSING. THE COST FOR EXTENSIONS OR ELLS IF NEEDED SHALL BE INCIDENTAL TO THE PER UNIT PRICE.

f. WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE STRAIN POLE OR A CONDUIT RISER SPECIFIED BY THE DEPARTMENT OF PUBLIC SERVICE'S REPRESENTATIVE, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET.

g. THE CONTRACTOR SHALL NOT MAKE ANY WIRING CONNECTIONS OR ADJUSTMENTS INSIDE THE CONTROL CABINET. WHEN SUCH CONNECTIONS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE TRAFFIC OPERATIONS SHOP 614-645-7393, MON.– FRI., 8 AM TO 4 PM, TO SCHEDULE CITY FORCES FOR MAKING THE ACTUAL CONNECTIONS. THE CONTRACTOR SHALL BE AVAILABLE AT THE AGREED TIME. THE CONTRACTOR WILL BE BILLED FOR ANY TIME THAT CITY FORCES ARE REQUIRED TO WAIT FOR THE CONTRACTORS' WORK TO BE COMPLETED.

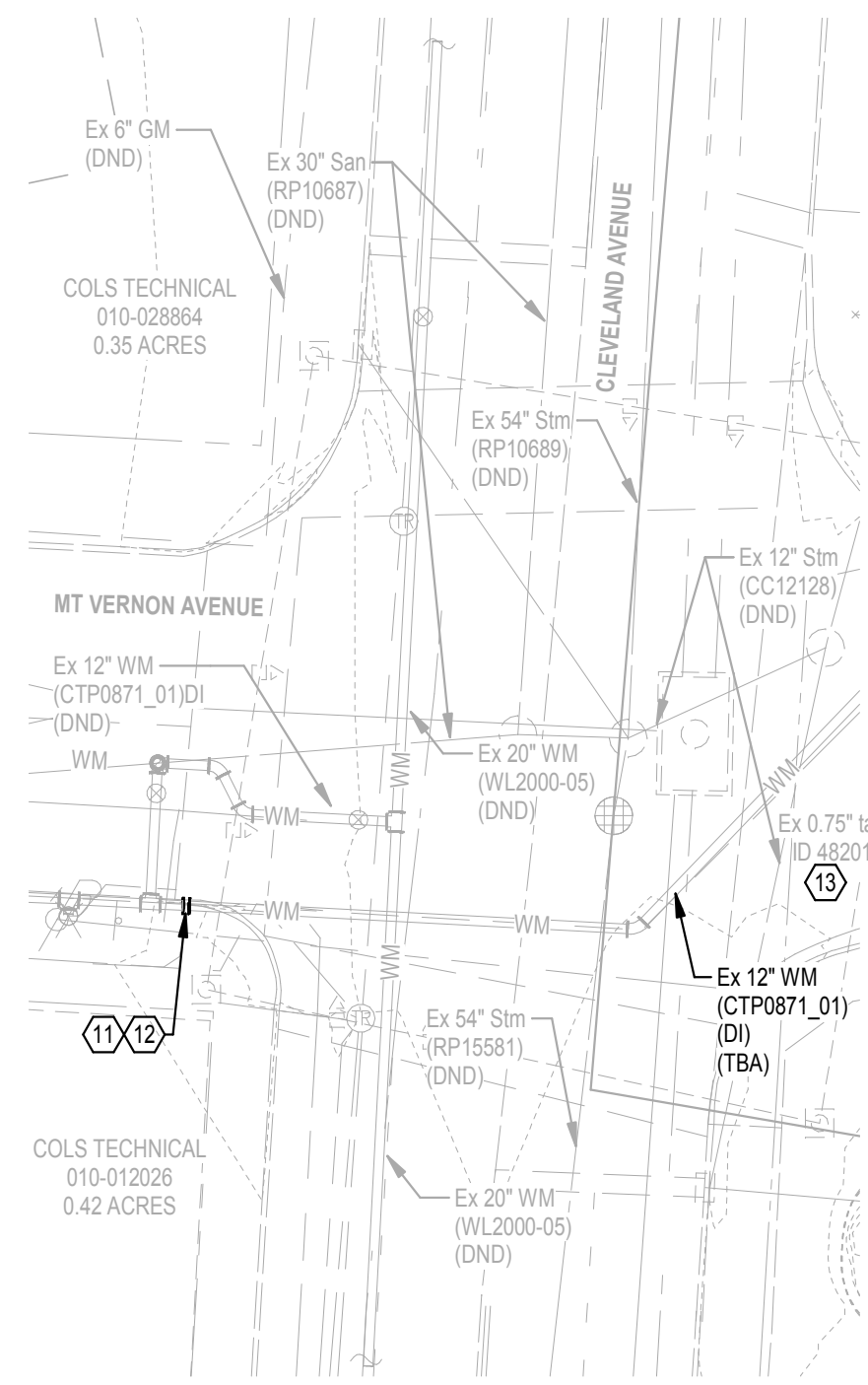
EASEMENT REFERENCE		REVISIONS		 P: 937-224-0851 www.heapy.com	CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF WATER	MAINTENANCE OF TRAFFIC NOTES	23-044		
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE					DESCRIPTION	

GENERAL NOTES

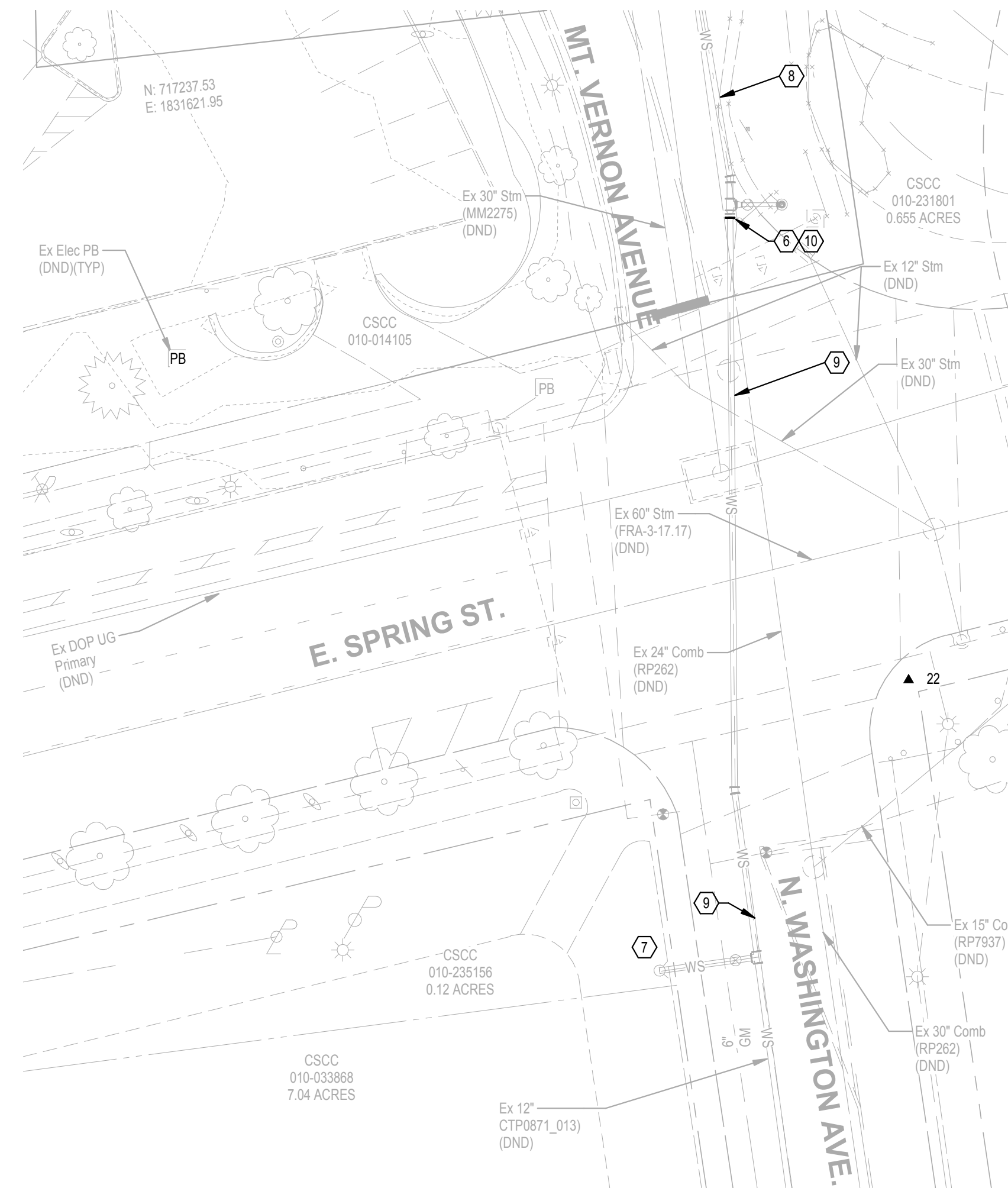
A. CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPMENT AND SUBMISSION OF IMPAIRMENT PLAN FOR ALL WATER SERVICE SHUT-DOWNS THAT IMPACT FIRE SUPPRESSION SYSTEMS. COORDINATE WITH FIRE DEPARTMENT FOR DETAILS AND PLAN APPROVAL. IMPAIRMENT PLAN SHALL PROVIDE APPROPRIATE SUPERVISION OF ALL BUILDINGS IMPACTED, AS WELL AS BACKUP CONNECTIONS FOR HYDRANTS TEMPORARILY OUT OF SERVICE.

NOTES

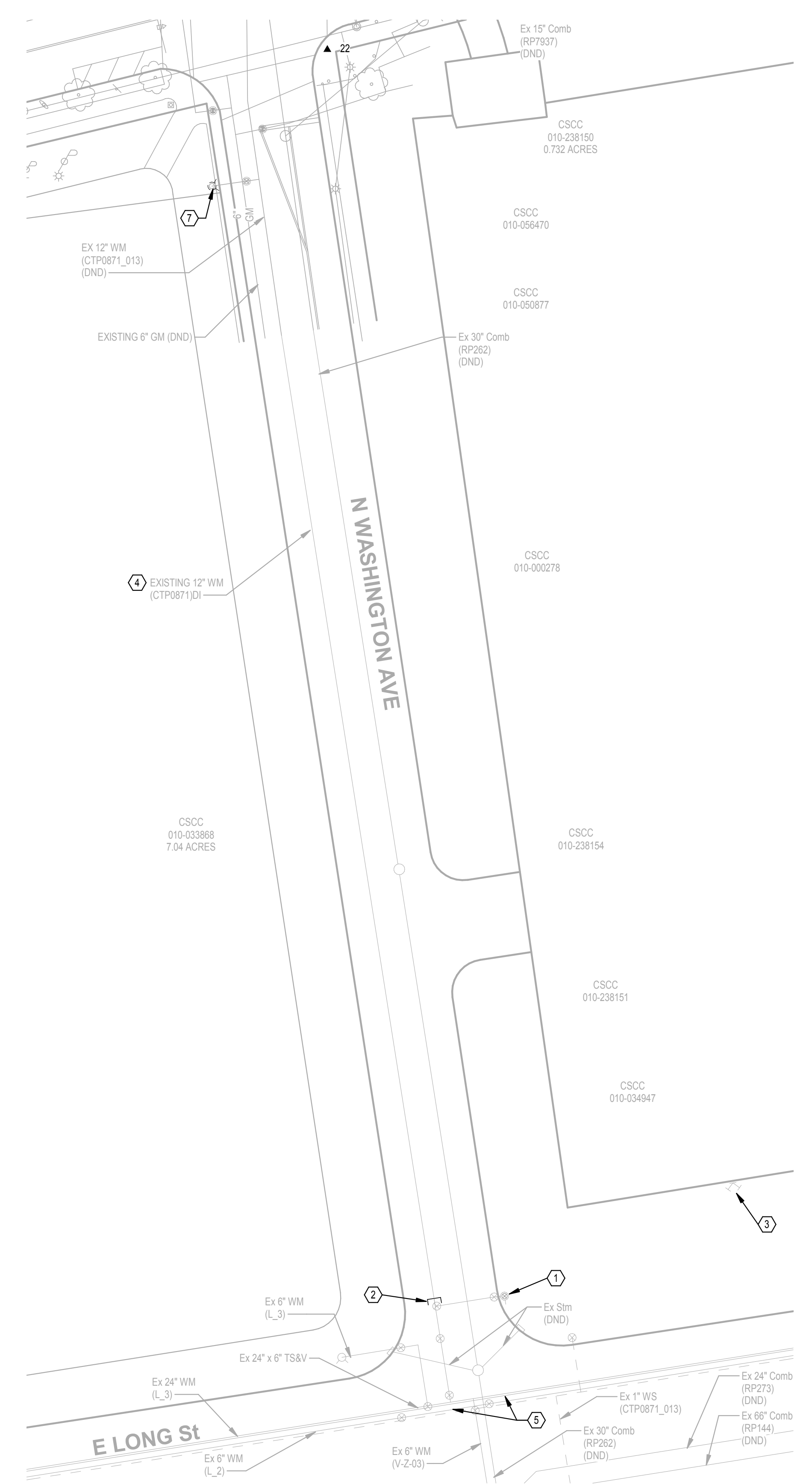
1. EXISTING HYDRANT TO REMAIN. BRANCH TO REMAIN ACTIVE FROM LONG STREET SERVICE AFTER ABANDONMENT THRU WASHINGTON AVE.
2. CUT THE EXISTING 12" WATER MAIN ON THE NORTH SIDE OF THE TEE AND PROVIDE AN MJ PLUG AND THRUST BLOCK.
3. EXISTING PARKING GARAGE FDC TO REMAIN. BUILDING WATER SERVICE FROM LONG STREET WILL REMAIN ACTIVE.
4. EXISTING 12" MAIN FROM SPRING STREET TO LONG STREET TO BE ABANDONED IN PLACE PER CMSC 808
5. EXISTING WATER MAIN AT LONG STREET TO REMAIN.
6. CUT THE EXISTING 12" WATER MAIN ON THE SOUTH SIDE OF THE TEE AND PROVIDE AN MJ PLUG AND THRUST BLOCK.
7. REMOVE HYDRANT ON ABANDONED WATER MAIN.
8. EXISTING WATER MAIN TO REMAIN IN SERVICE AS PRIVATE MAIN.
9. EXISTING WATER MAIN TO BE DECOMMISSIONED AND ABANDONED IN PLACE.
10. ALL PUBLIC HYDRANTS BEING CONVERTED TO PRIVATE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH CITY OF COLUMBUS STANDARDS. THE BODY OF THE HYDRANT SHALL BE PAINTED RED WITH MACHINE IMPLEMENT PAINT OR APPROVED EQUAL. THE TOP (CROWN) AND OUTLET CAPS OF ALL HYDRANTS SHALL BE PAINTED WHITE.
11. CUT THE EXISTING 12" WATER MAIN ON THE EAST SIDE OF THE TEE AND PROVIDE AN MJ PLUG AND THRUST BLOCK.
12. COORDINATE CONCRETE REMOVAL & REPAIR FOR THIS LOCATION.
13. 0.75" TAP (ID 48210) AND 8" TAP (ID 0269050) TO BE ABANDONED ALONG WITH 12" WM.



1 MT. VERNON AVE & CLEVELAND AVE
SCALE: 1" = 20'-0"



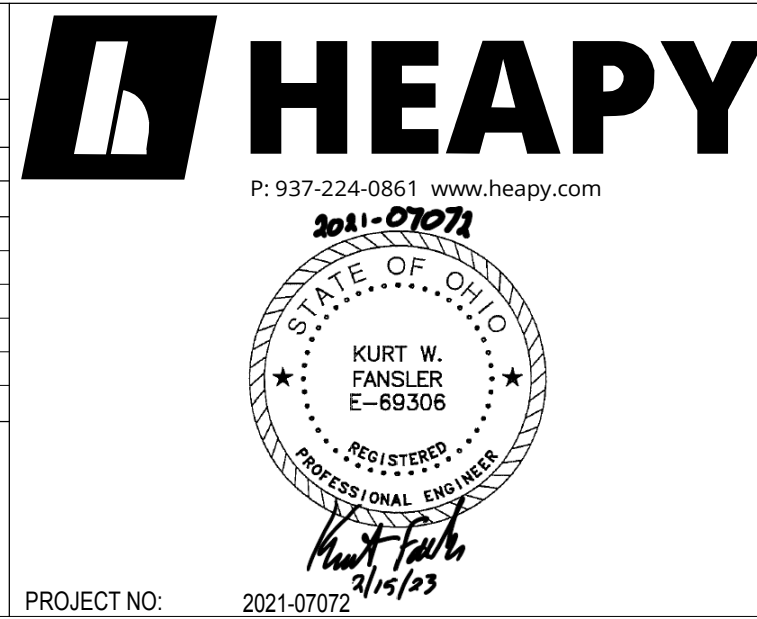
2 E SPRING ST & MT. VERNON AVE
SCALE: 1" = 20'-0"



3 N WASHINGTON AVE & E LONG ST
SCALE: 1" = 20'-0"

EASEMENT REFERENCE		REVISIONS	
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE

MARK	DATE	DESCRIPTION



CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

WATER LINE ONLY PLAN

CSCC Water Meter Upgrades
CSCC
550 E Spring St.
Columbus, OH 43215

SCALE:
1"=20'-0"

23-044

SHEET: 7/10

NOTES

1. ADVANCE WARNING SIGNAGE

SIZE: MINIMUM SIGN SIZE IS 36" INCREASE SIZE TO 48" ON ROADWAYS WITH POSTED SPEED EQUAL TO OR GREATER THAN 45 MPH OR ON ARTERIAL ROADWAYS WITH 4 LANES OR MORE. ONE-WAY STREETS REQUIRE SIGNS POSTED ON BOTH SIDES OF ROADWAY.

SPACING: SPACING BETWEEN SIGNS IS 100' FOR SPEEDS LESS THAN OR EQUAL TO 40 MPH AND 350' FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH PER TABLE 2. ADVANCE WARNING SIGNS, FIRST SIGN IN SERIES IS PLACED 100' OR 300' PRIOR TO THE FIRST DRUM OR DEVICE. MAINTAIN 200' CLEARANCE FROM EXISTING SIGNAGE WHENEVER POSSIBLE. INSTALL TYPE I A LOW INTENSITY FLASHING LIGHTS ON SIGNS AS DIRECTED BY THE OMITTED PART 6 SECTION (IF-53, CURRENT EDITION, WHEN TEMPORARY TRAFFIC CONTROL DEVICES ARE USED FOR NIGHTTIME ROADWAY AND PEDESTRIAN MAINTENANCE OF TRAFFIC CONTROL, SETUPS).

CONFLICTING SIGNS: REMOVE OR COVER EXISTING SIGNS LOCATED WITHIN 250' OF FIRST WARNING SIGN AND ALL CONFLICTING SIGNS WITHIN WORK ZONE. END ROAD WORK SIGNS, G-20'S, SHALL ONLY BE USED WHEN CONSTRUCTION EXCEEDS 180 DAYS, AS WHEN SHOWN IN A ROADWAY MAINTENANCE OF TRAFFIC PLAN, OR AS DIRECTED BY THE ENGINEER.

2. CHANNELIZING DEVICES

DRUMS: DRUMS SHALL HAVE TYPE C OR TYPE D 360 DEGREE STEADY BURN WARNING LIGHTS FOR USE AT NIGHT. DURING DAYTIME OPERATIONS 42" CHANNELIZING DEVICES MAY BE SUBSTITUTED FOR DRUMS WITH THE PERMISSION OF THE ENGINEER.

DEVICE SPACING: 40' ON TANGENTS, 20' TAPERS, 6' TO 8' ON RADII 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED. A MINIMUM OF 5 DRUMS SHALL BE USED TO CLOSE THE UPSTREAM SHOULDER.

DRUM MOUNTED SIGNS: CONTRACTOR MAY USE A POLYPROPYLENE FLUTED SHEET FOR SIGNING WHEN PLACING ON TOP OF DRUMS. SIGNS SHALL BE ATTACHED TO THE DRUMS USING APPROPRIATE HARDWARE, ONLY "KEEP RIGHT", "ONE-WAY", AND TURN RESTRICTION SIGNS SHALL BE POSTED ON TOP OF DRUMS.

3. TAPER LENGTHS

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES SHALL BE PER TABLE 1. TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONE FOR CALCULATED TAPER LENGTHS.

EXIT TAPERS SHALL BE 100' PER LANE, MAXIMUM.

4. TEMPORARY MARKINGS

WHEN LANE CLOSURES EXCEED 14 CALENDAR DAYS, TEMPORARY MARKINGS (740.06) TAPE, MINIMUM 4" LONG SEGMENTS SHALL BE INSTALLED FOR ALL CENTERLINES, CHANNELS, AND LANE LINES. CONFLICTING MARKINGS SHALL BE COVERED WITH NON-REFLECTIVE TAPE OR REMOVED. ITEM #42 PAINT SHALL BE USED IF AN AREA IS TO BE MILLED AND/OR RESURFACED OR PLACED ON THE INTERMEDIATE ASPHALT COURSE.

5. GENERAL NOTES AND MODIFICATIONS OF STANDARD CONSTRUCTION DRAWINGS

THE USE OF ANY MAINTENANCE OF TRAFFIC STANDARD DRAWING SHALL REQUIRE A MAINTENANCE OF TRAFFIC TABLE PROVIDED BY THE DIVISION OF DESIGN AND CONSTRUCTION. MODIFICATIONS TO THE TEMPORARY TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS MAY OCCUR WHEN FIELD CONDITIONS DICTATE THAT THE APPLICATION OF THE STANDARD DRAWING DOES NOT MEET ITS INTENDED PURPOSE. ONLY THE ENGINEER MAY DEVIATE FROM THESE DRAWINGS.

6. SCD 1500 REFERENCE

ALL NOTES, TABLES, FIGURES, AND LEGENDS INCLUDED AS PART OF SCD 1500 ARE TO BE APPLIED TO ALL OTHER MAINTENANCE OF TRAFFIC SCD (1501-1599).

TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES¹

D. TAPER RATE (SHOULDER) CLOSURE OMITCD 0.33L = WS / 60	0.33L = WS					
	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH
WIDTH OF SHOULDER	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH
6'	-	-	-	53'	89'	109'
7'	-	-	47'	62'	104'	127'
8'	-	-	54'	70'	119'	145'
9'	-	45'	61'	79'	134'	163'
10'	-	50'	67'	88'	149'	182'
11'	-	54'	74'	97'	163'	200'
12'	-	59'	81'	106'	178'	218'
E. TAPER RATE (MERGE) CLOSURE OMITCD L = WS / 60 <th colspan="6">L = WS</th>	L = WS					
WIDTH OF LANE CLOSED	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH
10'	104'	150'	204'	267'	450'	500'
11'	115'	165'	225'	293'	495'	550'
12'	125'	180'	245'	320'	540'	600'
13'	135'	195'	265'	347'	585'	650'
F. TAPER RATE (SHIFT) CLOSURE OMITCD 0.5L = WS / 60 <th colspan="6">L = WS</th>	L = WS					
WIDTH OF LANE SHIFT	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH
10'	52'	75'	102'	133'	450'	500'
11'	57'	83'	112'	147'	495'	550'
12'	62'	90'	123'	160'	540'	600'
13'	68'	98'	133'	173'	585'	650'

NOTES:
 1. WHEN PAVED SHOULDERS ARE CLOSED IN CONJUNCTION WITH A RIGHT LANE CLOSURE OR SHIFT ADD SHOULDER WIDTH TO LANE WIDTH TO CALCULATE TAPER LENGTH.
 2. FOR PAVED SHOULDERS UNDER 6' USE 40' TAPER LENGTH.
 3. L = TAPER LENGTH, W = WIDTH OF OFFSET, S = POSTED SPEED LIMIT OR 85TH PERCENTILE SPEED * = 40'

¹ TABLE DERIVED FROM OMITCD, CURRENT EDITION, PART 6, TABLES 6C-3 AND 6C-4

TABLE 2: ADVANCE WARNING SIGNS¹

ROAD TYPE	DISTANCE BETWEEN SIGNS**		
	A	B	C
URBAN (LOW SPEED) ¹ ≤ 40 MPH	100 FT	100 FT	100 FT
URBAN (HIGH SPEED) ¹ ≥ 45 MPH	350 FT	350 FT	350 FT
RURAL	500 FT	500 FT	500 FT
EXPRESSWAY/FREEWAY	1,000 FT	1,500 FT	2,840 FT

¹FROM OMITCD, CURRENT EDITION, PART 6 TABLE 6C-1

* SPEED CATEGORY DETERMINED BY THE CITY OF COLUMBUS TO BE LOW SPEED (POSTED SPEED LIMIT LESS THAN OR EQUAL TO 40MPH) OR HIGH SPEED (POSTED SPEED LIMIT GREATER THAN OR EQUAL TO 45MPH)

**THE COLUMN HEADINGS 'A', 'B', 'C', 'D', 'E', AND 'F' ARE THE DIMENSIONS SHOWN IN STANDARD DRAWINGS AND ARE DEFINED AS:

- 'A' = THE DISTANCE FROM THE TRANSITION OR POINT OF RESTRICTION TO THE FIRST SIGN (CLOSEST TO THE TTC ZONE).
- 'B' = THE 'B' DIMENSION IS THE DISTANCE BETWEEN THE FIRST AND SECOND SIGN.
- 'C' = DIMENSION IS THE DISTANCE BETWEEN THE SECOND AND THIRD SIGN (FURTHEST UPSTREAM FROM THE TTC ZONE).
- 'D' = SHOULDER TAPER LENGTH.
- 'E' = MERGE TAPER LENGTH.
- 'F' = SHIFT TAPER LENGTH.

NOTES AND TABLES

MAINTENANCE OF TRAFFIC GENERAL NOTES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1500 9/15/2015 SHT 1 OF 3
<i>Mason Zahra</i> CITY ENGINEER	

SYMBOL LEGEND

	DRUM	PLAN		PROFILE		PLAN		PROFILE
	42" REFLECTIVE CHANNELIZING DEVICE							
	DRUM WITH TEMPORARY "EMERGENCY NO PARKING" SIGN ATTACHED							
	DRUM WITH POLYPROPYLENE SIGN MOUNTED ON TOP (SEE SCD 1500 SHEET 1 NOTE 2)							
	WORK AREA							
	PARKING METER							
	FLAGGER OR LAW ENFORCEMENT OFFICER							
	HAND SIGNALING DEVICE (STOP/SLOW PADDLE)							
	TEMPORARY PAVEMENT MARKING							
	EXISTING PAVEMENT MARKINGS							
	EXISTING PAVEMENT MARKINGS REMOVED OR COVERED							

ABBREVIATIONS

- B/O, BLK/ORANGE BLACK TEXT ON ORANGE BACKGROUND
- FAP FLASHING ARROW PANEL
- LEO LAW ENFORCEMENT OFFICER
- SCD STANDARD CONSTRUCTION DRAWING
- TTC TEMPORARY TRAFFIC CONTROL

SYMBOL LEGEND

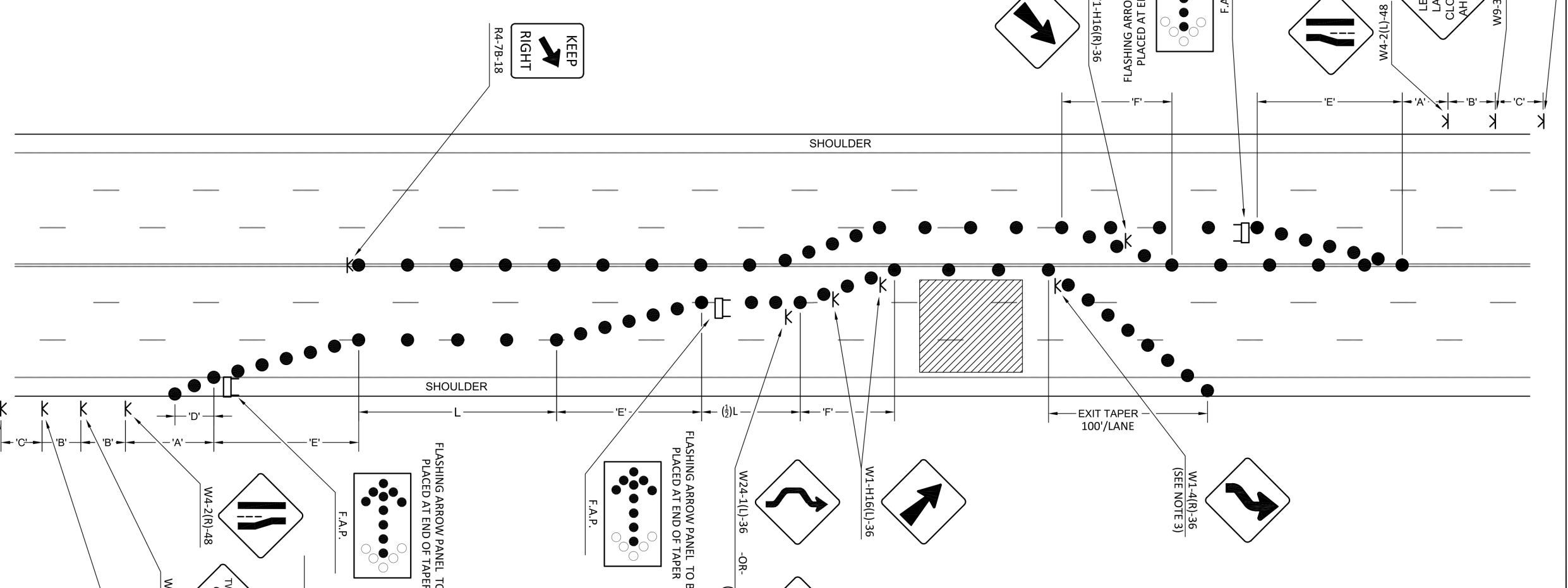
MAINTENANCE OF TRAFFIC GENERAL NOTES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1500 9/15/2015 SHT 2 OF 3
<i>Mason Zahra</i> CITY ENGINEER	

TABLE 3: TANGENT LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES¹

ROAD TYPE	ZONE SETUP	FORMULA
LOW SPEED ≤ 40 MPH	BETWEEN MERGE AND SHIFT TAPERS	0.1L = WS ²
HIGH SPEED ≥ 45 MPH	BETWEEN MERGE AND SHIFT TAPERS	L = WS
LOW SPEED ≤ 40 MPH	BETWEEN 2 MERGE TAPERS	L = WS ²
HIGH SPEED ≥ 45 MPH	BETWEEN 2 MERGE TAPERS	2L = WS

¹ TANGENT SECTION LENGTHS MAY BE CHANGED BY ENGINEER.



NOTES

- FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500, SHEET 1 OF 3.
- SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1.
- IF TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W24-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.

COMPONENTS OF TEMPORARY TRAFFIC ZONE

MAINTENANCE OF TRAFFIC GENERAL NOTES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1500 9/15/2015 SHT 3 OF 3
<i>Mason Zahra</i> CITY ENGINEER	

EASEMENT REFERENCE

COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED

REVISIONS

MARK	DATE	DESCRIPTION

HEAPY
P: 937-224-0861 www.heapy.com

2021-07072

STATE OF OHIO
KURT W. FANSLER
E-69306
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 2021-07072

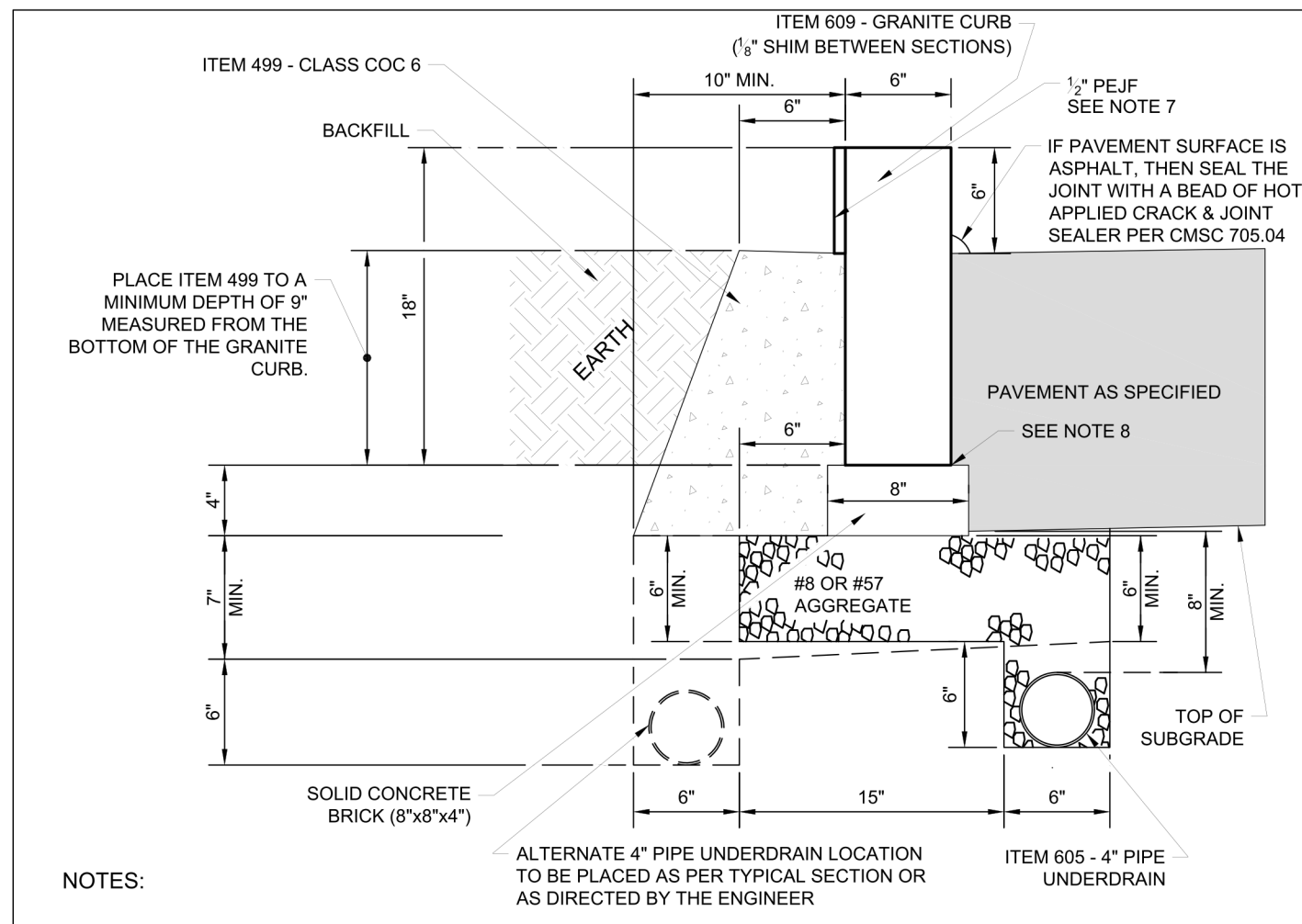
CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

COLUMBUS DPS
STANDARD DRAWINGS
CSCC Water Meter Upgrades
CSCC
550 E Spring St.
Columbus, OH 43215

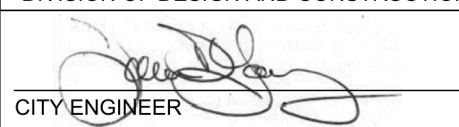
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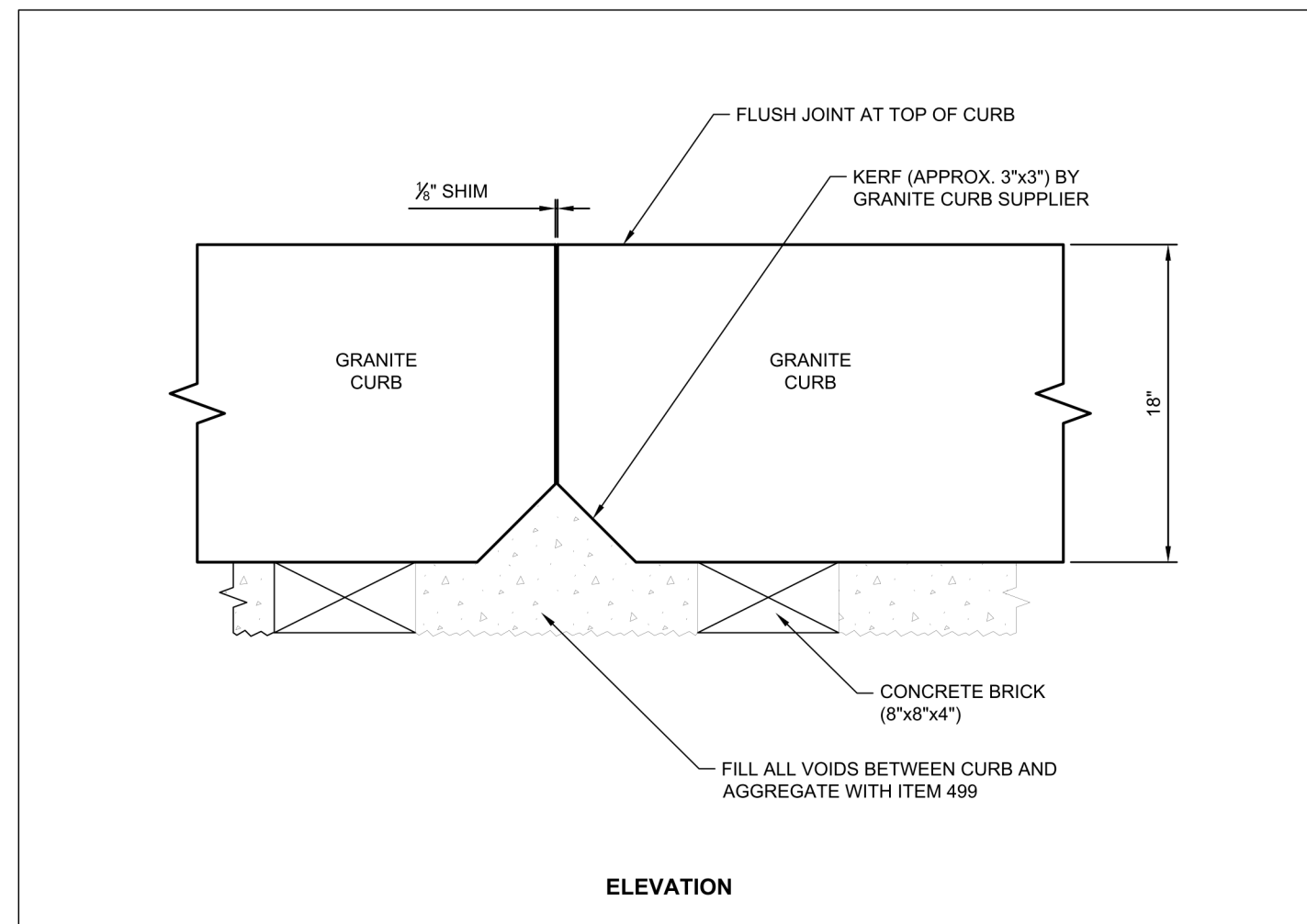
23-044

SHEET: 8/10




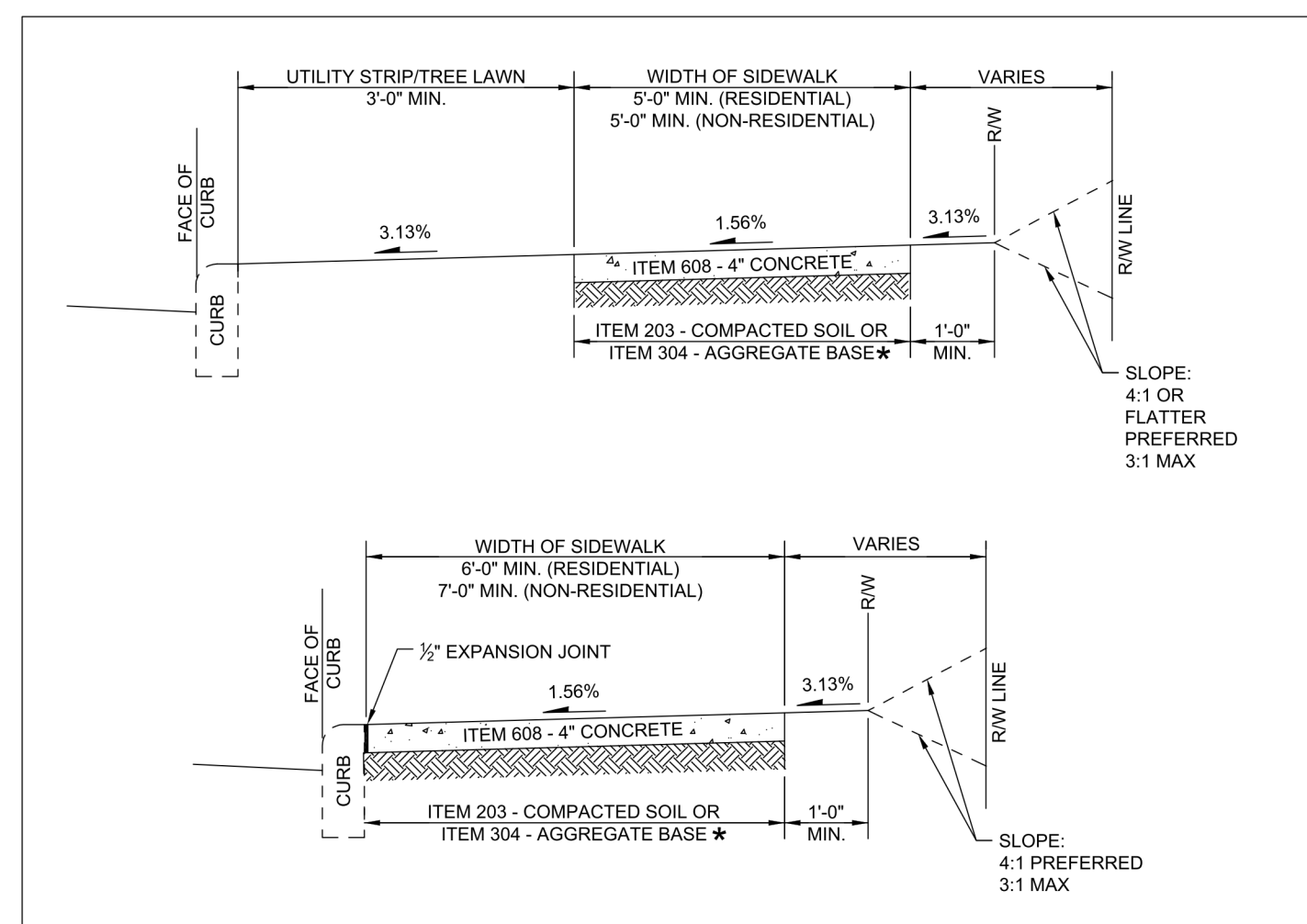
- NOTES:
- IF THE TOP OF THE SUBGRADE IS BELOW THE BOTTOM OF THE CURB, THE UNDERDRAIN SHALL BE ADJUSTED TO KEEP THE TOP OF THE UNDERDRAIN AT LEAST 8" BELOW THE TOP OF THE SUBGRADE. AGGREGATE DEPTH BETWEEN BOTTOM OF CURB AND TOP OF UNDERDRAIN MAY VARY IF THIS OCCURS.
 - SUBGRADE COMPACTION SHALL BE COMPLETED BEFORE UNDERDRAIN INSTALLATION.
 - WHEN A CURB AND GUTTER INLET IS INSTALLED, THE TOP OF THE CASTING SHALL BE THE SAME AS THE TOP OF CURB ELEVATION. THE CASTING SHALL BE A SQUARE BACK CASTING PER CITY DIVISION OF SEWER & DRAINS STANDARD DRAWING AA-S128. THE EDGE OF PAVEMENT ELEVATION SHALL BE 3/8" HIGHER THAN THE GRATE WHEREVER THEY MEET.
 - CURB SHALL BE IN NOMINAL LENGTHS OF 11 FT. FOR CLOSURE & FILL IN, THE MINIMUM CURB LENGTH ALLOWED IS 3 FT.
 - FOR REPLACEMENT WORK, THE CURB SHALL BE REMOVED AT AN EXISTING JOINT AND USE MINIMUM 36" LENGTHS.
 - PLANS TO SPECIFY GRANITE MATERIAL AND TYPE OF SURFACE FINISH.
 - 1/2" EXPANSION MATERIAL WILL BE INSTALLED BEHIND THE CURB WHEN A CONCRETE WALK, DRIVE, OR OTHER CONCRETE ITEM IS ADJOINING IT.
 - REMOVE ANY CONCRETE BEYOND FACE-OF-CURB TO PROVIDE FULL DEPTH PAVEMENT SECTION.
 - GRANITE CURB SHALL BE FIELD CUT AT CURB RAMPS TO ALLOW FOR FIELD ADJUSTMENTS AS DIRECTED BY THE PROJECT ENGINEER.
 - UNDERDRAIN IS NOT REQUIRED WHEN CURB IS ALONG CONCRETE MEDIAN.

CURB GRANITE	
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 2005
 CITY ENGINEER	3/30/2018 SHT 2 OF 2



ELEVATION

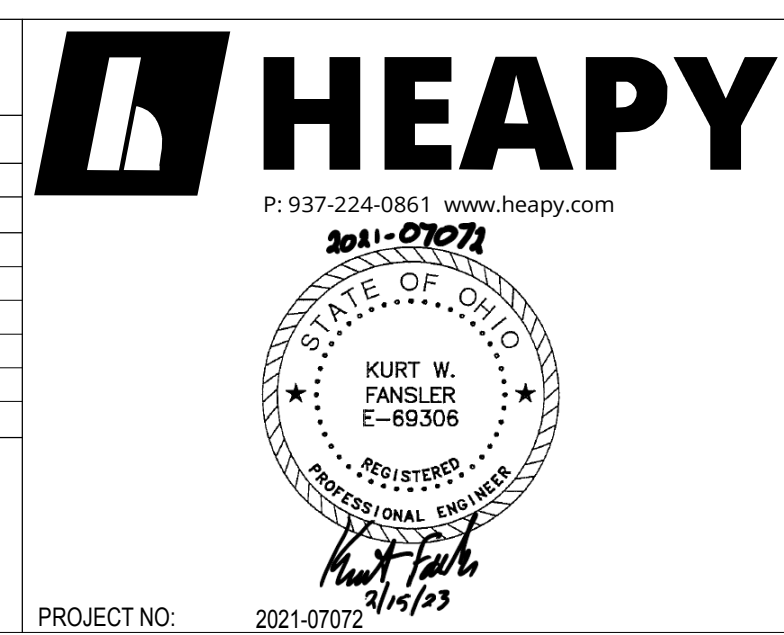
CURB GRANITE	
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 2005
 CITY ENGINEER	3/30/2018 SHT 2 OF 2



- WHERE SIDEWALKS ABUT DRIVEWAYS OR ALLEY APPROACHES, THE CONCRETE THICKNESS OF THE WALK SHALL EQUAL THE THICKNESS OF THE APPROACH (6" MINIMUM) FOR A DISTANCE OF ONE (1) FULL PANEL OR MINIMUM 5 FEET. SEE STANDARD DRAWING OF THE APPLICABLE DRIVEWAY OR ALLEY.
- WHEN CURB, BACK OF WALK, IS REQUIRED BEHIND SIDEWALK OR RAMP SEE STD. DWG. 2001
- WHERE NEW WALK ABUTS ADJOINING WALK, SAWCUT EXISTING WALK TO NEAREST JOINT AND INSTALL EXPANSION JOINT.
- EXPANSION JOINT LOCATION AND SPACING PER ITEM 608.03.
- WATER AND UTILITY BOXES IN THE SIDEWALK AREA SHALL BE ADJUSTED FLUSH WITH FINAL SURFACE.
- ROOF DRAINS SHALL BE EXTENDED UNDER THE SIDEWALK AND THROUGH THE CURB. SEE STD DWG 2320.
- ITEM NUMBERS REFER TO THE CITY OF COLUMBUS CMSC, CURRENT EDITION. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS.
- * #57 AGGREGATE MAY BE USED FOR REPLACEMENT WORK.
- SIDEWALK WIDTHS SHALL BE MEASURED FROM THE BACK OF CURB. SEE DESIGN MEMO 6.03 SIDEWALKS
- SEE CITY OF COLUMBUS ADA RULES AND REGULATIONS

SIDEWALK	
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 2300
 CITY ENGINEER	07/01/2023 SHT 1 OF 1

EASEMENT REFERENCE		REVISIONS	
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE



CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

COLUMBUS DPS
STANDARD DRAWINGS
CSCC Water Meter Upgrades
CSCC
550 E Spring St.
Columbus, OH 43215

SCALE=NONE

23-044
SHEET:10/10