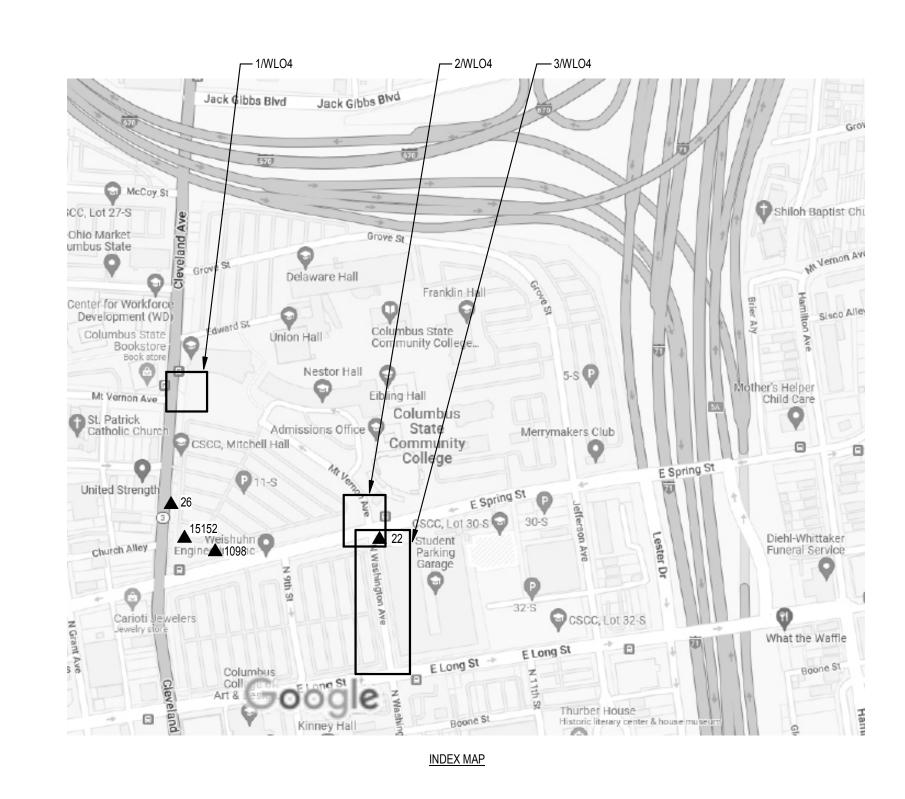
Columbus State Community College

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

WATER LINE ONLY SHEET LIST					
SHEET NUMBER SHEET NAME					
WLO1	TITLE SHEET				
WLO2	GENERAL NOTES				
WLO3	SPECIAL NOTES				
WLO4	MAINTENANCE OF TRAFFIC NOTES				
WLO5	MAINTENANCE OF TRAFFIC NOTES				
WLO6	MAINTENANCE OF TRAFFIC NOTES				
WLO7	WATER LINE ONLY PLAN				
WLO8	COLUMBUS DPS STANDARD DRAWINGS				
WLO9	COLUMBUS DPS STANDARD DRAWINGS				
WLO10	COLUMBUS DPS STANDARD DRAWINGS				



EASEMENT REFERENCE		REVISIONS				
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE	E DESCRIPTION		
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CITY OF COLUMBUS, OHIO APPROVALS

CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION

OF THE ENGINEER PREPARING THE PLANS.

FIRE PREVENTION BUREAU, DIVISION OF FIRE

ADMINISTRATOR, DIVISION OF POWER

ADMINISTRATOR, DIVISION OF WATER

ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE

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



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

23-044

SCALE=NONE

SHEET: 1/10

Columbus, Division of Water. A unless otherwise noted. [] For any emergencies involved Maintenance Office at 614-645- [] All brass fittings associated allowable lead extraction limit perhas been updated to reflect this license to engage in such work, any attachments, additions to o taps). This requirement may be License or a Combined Water/S	with water work, including repairs to the existing system, shall conform to the revised or the updated NSF/ANSI 61 Standard. The Division of Water's Approved Materials List	excavation permit from the city between the hours of 7:30 AM Phone (614) 645-7497 Fax (614) 645-1876 Email colspermits@colu [] Prior to excavation, the cor Service (OUPS) by calling (800 underground utilities shown on	ntractor shall give a 48-hour notice of 362-2764. A 48-hour notice shall the plans who are not members of are utility companies that have firibe to OUPS. City of Columbus	to the Ohio Utilities Protection Il be given to the owners of of a registered underground	Engineering Office at 614-645-7677 to request the shut of 2. Contractor shall expose the owner's side of the water Inspector shall be present for this. 3. If the customer's private service material is lead, stop wor Engineering Office (614-645-7677) immediately. If the mathelead tap (from existing corporation stop to curb stop) a repairs of the lead tap are NOT permitted. 4. Refer to Division of Water Standard Drawings L-7102C ar relocations, placing new curb stops, and relocating curb be FOR WATER MAIN ONLY PLANS: - ONLY LIST APPLICABLE NOTE OF PUBLIC SERVICE - PERMIT OFFICE; PHON EMAIL: HYPERLINK "MAILTO:COLSPERMITS@COLUMBUS.GO." [] The developer shall enter into an agreement with the City of Contractor shall enter into an agreement with the City of Co	k and notify the Division of Water Distribution Iterial is not lead , the contractor shall replace and reinstate service to the customer. Partial and L-9901 for information on water tappoxes. HOTES. IOTES. IOTES. IOY COLSPERMITS@COLUMBUS.GOV Columbus, Division of Water in accordance with
hydrant usage deemed necessa Water Permit Office (645-7330) have the original permit on site http://portal.columbus.gov/perm [] If during excavation, the shall repair the polyethylene ender L-1004, at their own expense. It is securely taped, prior to backfilling. [] Contractor shall adhere the of Service Rule. Excavate pits water main. If water from the pisized pumps are utilized to rem. [] "Item Special – Survey Cand vertical (northing, easting, at The survey coordinates shall be crosses, bends, horizontal deflewire boxes, and casing pipe term of fitting or other water main structure. All survey coordinates shall the North American Datum. Ohio State Plane South Cocoordinates (northing, easting xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	the requirements of the Ohio Administrative Code Chapter 3745-83-02 Water Disruption sufficiently below the area to be connected to in order to maintain water levels below the enters the existing main, contact Division of Water immediately. Ensure that sufficiently love water from the trench and backup pumps are kept on site for redundancy. Sordinates" shall include all material, equipment, and labor necessary to obtain horizontal and centerline of pipe elevation) survey coordinates for the water main improvements. obtained for the completed water main construction and shall include all valves, tees, ctions, plugs, reducers, tapping sleeves, fire hydrants, air releases, curb stops, tracer nini. Additional survey coordinates are required on the water main every 200 feet where furture is being installed within that length of the improvement. The referenced to the applicable County Engineer's Monuments, and shall be based on the ordinate System (grid), South Zone, with elevations based on NAVD 88 datum. All and, and centerline of pipe elevation) shall be referenced to the nearest hundredth (NELev. xxx.xx). All survey coordinates shall be accurate to within 1.0 foot horizontal and a vertical. Cumented to the Engineer in digital spreadsheet form and shall include the applicable ing, and Centerline of pipe elevation. Coordinates shall be submitted to the Engineer on ites shall also be required to be submitted to the Division of Water as part of the request temperature.	covers, and other surface utilit Any of these structures located existing or proposed, shall be accordance with the Standard within the project limits shall be proposed grade. [] During construction, the Cowater mains due to minimal compared in the water service lines off this main of the existing water main, the chlorinated and put in service and shall notify all customers are existing water service lines are until the new water main has be transferred; and the existing will no longer be in service, showater tight. The required surface [] The Contractor shall conservice disrupted more than two service disrupted more than two lines are relocation/replacement, the Cowater Distribution Maintenance [] If a lead tap is either date.	plans, the existing water main shann shall be transferred to the new water proposed water main shall be piggand then the existing water service of service to all properties during confidented by the transfer of water set transferred to the new main, no water main to be abandoned has be attented to the new main, no water main to be abandoned has be attented at the power on the water main to be removed. All water mains to be restoration shall be paid for unconfidented and is neither damaged contractor shall report the presence	ther traveled areas, whether y duty valve box and/or cover in is to remain that are encountered urb stop, and adjusted to the in not to damage the existing. If be abandoned; and any existing vater main. Prior to abandonment ged (if required), tested, e lines shall be transferred. The construction of the new water main rvice lines. To ensure that all vater main shall be abandoned for service lines have been sen shut down for 24 hours. All the main to be abandoned, which be abandoned shall be made fer the appropriate bid item(s). After customer will have their in of this project. In or part of a planned of the lead tap to the Division of art of a planned water tap	section 1105.15 of the Columbus City Codes prior to constructing any water mains. [] The developer shall deposit with the City of Columbus the total estimated cost for construction inspection prior to any construction operation. [] No person shall excavate any ditch, tunnel, trench or lay and drive within a radius of ten (10) feet from any tree, shrub, or evergreen standing on any public street, park, or public place without first obtaining a permit from the recreation and parks department, as per Title 9, Chapter 912 of Coty of Columbus Code (912.20). All trees, whether shown or not shown on the plans, are to be preserved unless approval to remove is given in writing by the Recreation and Park Department or their removal has been designated on the plans. Trees removed shall be completed as specified in Item 201 and described herein. The Contractor shall use special precautions to avoid damage to all other trees. When, in the opinion of the Engineer, trunks or branches would be endangered by the use of mechanical devices, hand excavation will be required. Unless otherwise specifically provided, the cost of tree protection, removal, and any required replacement shall be included in the price bid for the various water main items. All trees, branches and wood chips removed from the project site shall be delivered to the City of Columbus for beneficial use. Contractor shall deliver trees to Southwesterly Composting Facility, 7000 Jackson Pike, Lockbourne, Ohio 43137 between 7 AM and 3PM, Monday through Friday. This requirement may only be waived if approved in writing by the engineer. Contractor shall submit scale tickets from composting facility to engineer. Stumps, roots and debris shall be disposed of according to the other contract items. For any trees designated for removal that may be potential Indiana Bat habitat areas, removal shall only occur from October 15 to March 31. If the contractor prefers to remove the trees outside of this timeframe, a survey must be conducted according to the City accordin	
EASEMENT REFERENCE COUNTY RECORDER INSTRUMENT NUMBER	REVISIONS DATE MARK DATE DESCRIPTION	HEAPY P: 937-224-0861 www.heapy.com	CITY OF COLUMBU	S, OHIO	GENERAL NOTES	23-044
	PROJECT NO	2021-07072 KURT W. FANSLER E-69306 PEG/ISTERED. 2021-07072	DEPARTMENT OF PUBL		CSCC Water Meter Upgrades CSCC 550 E Spring St. Columbus, OH 43215	SCALE=NONE SHEET: 2/1

[] The contractor is to obtain all necessary permits. An original permit, with red signatures, shall

be kept onsite at all times.

1. If damaged, immediately contact Lew Flemister, Division of Water, (614-645-7028), to request the shut off of the existing curb stop. If Lew cannot be reached, contact The Division of Water Distribution Engineering Office at 614-645-7677 to request the shut off.

GENERAL NOTES

[] The City of Columbus, Construction and Material Specifications, 2018 edition and all revisions, including all supplements thereto, shall govern all construction items that are a part of this plan, unless otherwise noted.

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							
		PROF	OSED	AS-B	UILT	CENTERLINE ELEV.	
SHEET	ITEM	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)*						
		NAD 83 (198	NAD 83 (1986) GROUND			
POINT	DESCRIPTION	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	
A 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

__

SHEET: 3/10

23-044

TEMPORARY TRAFFIC CONTROL (NOTES REQUIRED ON ALL PROJECTS)

- 1. 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.
- 2. 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.
- 3. 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 CLOSUF
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.

4. 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.

5. 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.

- 6.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.
- 7. 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.
- 8. 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.
- 9. 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

JRE. 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)

- 1. 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.
- 2. 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.
- 3. 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.
- 4. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.
- 5. 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.
- 6. 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
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE	DESCRIPTION
		-		

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

PROJECT NO:

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES

DIVISION OF WATER

MAINTENANCE OF TRAFFIC NOTES

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

SCALE=NONE

SHEET: 4/10

23-044

- 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 US
- 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.

9. THE DEPARTMENT OF PUBLIC SERVICE WILL REMOVE OR COVER ALL PARKING METER HEADS PUT OUT OF 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
COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE	DESCRIPTION

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

PROJECT NO:

CITY OF COLUMBUS, OHIO

DEPARTMENT OF PUBLIC UTILITIES

DIVISION OF WATER

TRAFFIC NOTES

CSCC Water Meter Upgrades
CSCC

MAINTENANCE OF

550 E Spring St.

Columbus, OH 43215

SCALE=NONE

23-044

SHEET: 5/10

- h. CONDUIT PLACED IN "RIGHT OF WAY" AREAS BEARING NO TRAFFIC FOR DETECTOR LEAD IN SHALL BE ITEM 725.051, CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, LATEST EDITION. CONDUIT PLACED UNDER A ROADWAY OR IN AREAS THAT MAY BEAR TRAFFIC SHALL BE CONCRETE ENCASED (SIZES AND TYPE TO BE DETERMINED BY THE DEPARTMENT OF PUBLIC SERVICE'S REPRESENTATIVE. ALL CONDUITS SHALL BE PLACED AT A MINIMUM DEPTH OF 24".
- i. LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CABINET IF LEAD-IN CABLE IS NOT USED.
- j. THE ITEMS AND ESTIMATED QUANTITIES FOR THE REPLACEMENT OF THE DEPARTMENT OF PUBLIC SERVICE'S DETECTION ITEMS <u>SHALL BE INCLUDED IN THESE PLANS WHEN DIRECTED BY THE PLAN REVIEWER</u>. THESE ESTIMATES ARE FOR THE PURPOSE OF BIDDING THE PROJECT. THE FOLLOWING IS A LIST OF THE ITEMS AND QUANTITIES PROJECTED FOR USE IN DETECTOR REPLACEMENT FOR THIS PROJECT:

ITEM	QUANTITY	UNIT	ITEM DESCRIPTION
202		SF	WALK REMOVED
608		SF	4" CONCRETE WALK
632		LF	CONDUIT RISER, 1 OR 2 INCH DIAMETER
625		LF	CONDUIT 1, 1 1/2, OR 2 INCH (AS PER PLAN)
625		LF	TRENCH
625		EACH	PULLBOX, 12"x18" (AS PER PLAN)
632		EACH	DETECTOR LOOP
632		LF	LOOP DETECTOR LEAD-IN CABLE
632		LF	LASH / UNLASH CABLE

THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) AFTER ALL LOOPS HAVE BEEN INSTALLED AT EACH INTERSECTION. IF UNABLE TO MAKE CONTACT THROUGH THE ABOVE NUMBER, CALL 614-645-7393. THE DEPARTMENT OF PUBLIC SERVICE SHALL INSPECT ALL SENSORS AND TEST AS NECESSARY. THE CONTRACTOR SHALL REPLACE ALL LOOPS NOT MEETING SPECIFICATIONS.

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COUNTY RECORDER INSTRUMENT NUMBER	DATE RECORDED	MARK	DATE			DESCRIPTION	
INSTRUMENT NUMBER							



CITY OF COLUMBUS, OHIO

DEPARTMENT OF PUBLIC UTILITIES

DIVISION OF WATER

MAINTENANCE OF TRAFFIC NOTES

Columbus, OH 43215

CSCC Water Meter Upgrades CSCC 550 E Spring St.

23-044

SHEET: 6/10

PROJECT NO: 2021-07072

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
- 4 EXISTING 12" MAIN FROM SPRING STREET TO LONG STREET

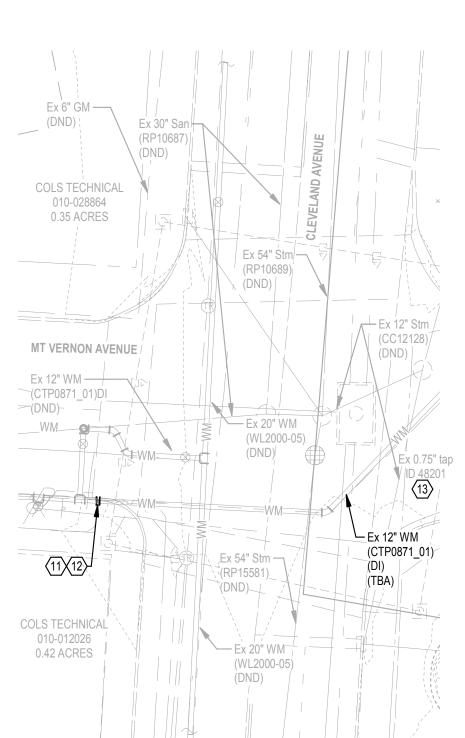
WATER SERVICE FROM LONG STREET WILL REMAIN ACTIVE.

- TO BE ABANDONDED 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
- 9. EXISTING WATER MAIN TO BE DECOMMISSIONED AND ABANDONED IN PLACE.
- 10. ALL PUBLIC HDRANTS 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.

EASEMENT REFERENCE

DATE RECORDED

COUNTY RECORDER INSTRUMENT NUMBER

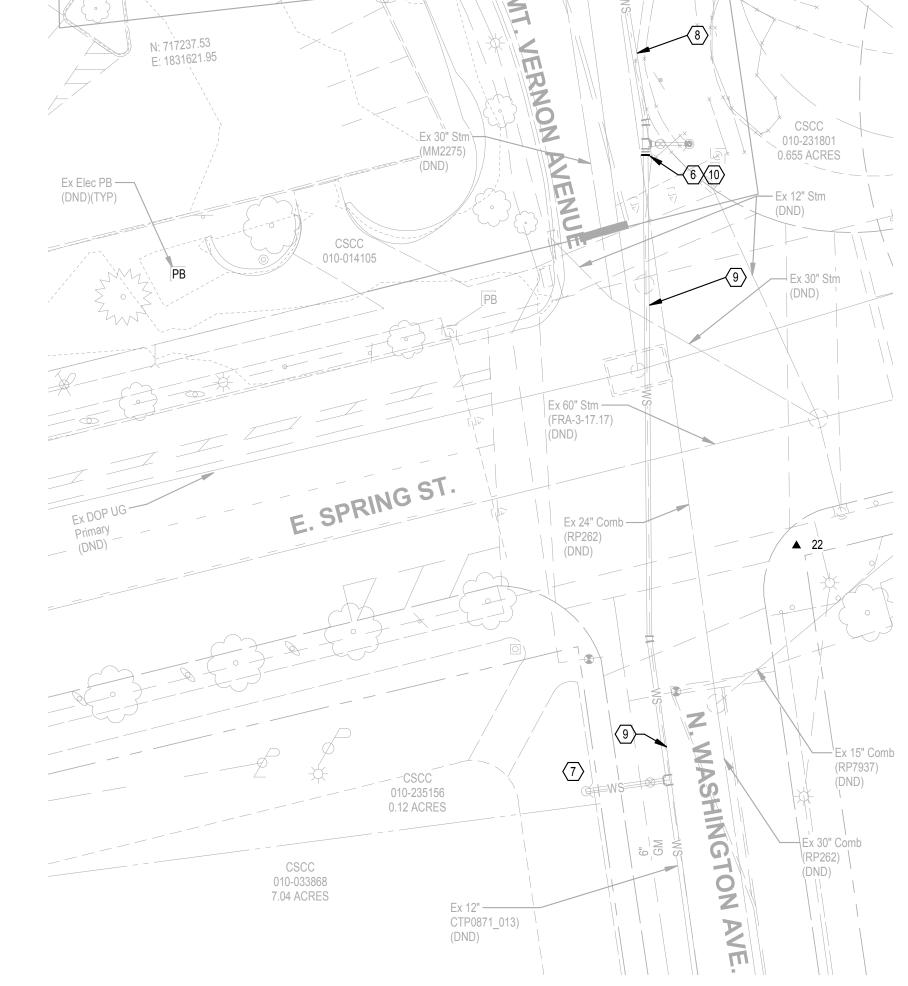




DESCRIPTION

REVISIONS









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

WATER	LINE	ONL	Y PLA	٩N

E LONG St

Ex 24" WM (L_3)

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

EX 12" WM (CTP0871_013)

EXISTING 6" GM (DND)

4 EXISTING 12" WM (CTP0871)DI ----

CSCC

010-033868

7.04 ACRES

Ex 6" WM (L_3) ----

Ex 24" x 6" TS&V

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

SCALE:	
1"=20'-0"	

Ex 15" Comb

CSCC

010-056470

CSCC 010-050877

> CSCC 010-000278

> > CSCC

010-238154

CSCC

010-238151

CSCC 010-034947

— Ex 30" Comb (RP262) (DND)

9

010-238150 0.732 ACRES

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 POADWAY

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 350' PRIOR TO THE FIRST DRUM OR DEVICE. MAINTAIN 200' CLEARANCE FROM EXISTING SIGNAGE WHENEVER POSSIBLE. INSTALL TYPE A LOW INTENSITY FLASHING LIGHTS ON SIGNS AS DIRECTED BY THE OMUTCD PART 6 SECTION 6F-83, 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-20-2, 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

ALL SIGNS SHALL MAINTAIN RETROREFLECTIVITY. SIGN SUBSTRATE SHALL CONFORM TO FHWA SIGN SUBSTRATES FOR PLASTIC DRUMS AND WORK ZONE ACCEPTANCE LETTER WZ-45 "CRASHWORTHY WORK ZONE DEVICES" AS OF OCTOBER 1, 2000.

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'-0" LONG SEGMENTS SHALL BE INSTALLED FOR ALL CENTERLINES, CHANNELS, AND LANE LINES. CONFLICTING MARKINGS SHALL BE COVERED WITH NON-REFLECTIVE TAPE OR REMOVED. ITEM 642 PAINT SHALL BE USED IF AN AREA IS TO BE MILLED AND/OR RESURFACED OR PLACED ON THE INTERMEDIATE ASPHALT

EASEMENT REFERENCE

DATE RECORDED

COUNTY RECORDER INSTRUMENT NUMBER

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

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 ZONES [†]

D: TAPER RATE (SHOULDE	R) CLOSUI	RE OMUTO	D 0.33L = V	VS ² / 60		0.33L	= WS	
WIDTH OF SHOULDER	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 M
6'	*	*	*	53'	89'	99'	109'	119
7'	*	*	47'	62'	104'	116'	127'	139
8'	*	*	54'	70'	119'	132'	145'	158
9'	*	45'	61'	79'	134'	149'	163'	178
10'	*	50'	67'	88'	149'	165'	182'	198
11'	*	54'	74'	97'	163'	182'	200'	218
12'	*	59'	81'	106'	178'	198'	218'	238
E: TAPER RATE (MERGE) C	LOSURE C	MUTCD L	= WS ² /60			L =	WS	
WIDTH OF LANE CLOSED	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 M
10'	104'	150'	204'	267'	450'	500'	550'	600
11'	115'	165'	225'	293'	495'	550'	605'	660
12'	125'	180'	245'	320'	540'	600'	660'	720
13'	135'	195'	265'	347'	585'	650'	715'	780
F: TAPER RATE (SHIFT) CL	OSURE ON	IUTCD 0.5L	_ = WS ² / 60)		L =	WS	
WIDTH OF LANE SHIFT	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 M
10'	52'	75'	102'	133'	450'	500'	550'	600
11'	57'	83'	112'	147'	495'	550'	605'	660
12'	62'	90'	123'	160'	540'	600'	660'	720
13'	68'	98'	133'	173'	585'	650'	715'	780

3. L = TAPER LENGTH, W = WIDTH OF OFFSET, S = POSTED SPEED LIMIT OR 85TH PERCENTILE SPEED * = 40'

SHIFT ADD SHOULDER WIDTH TO LANE WIDTH TO CALCULATE TAPER LENGTH.

[†]TABLE DERIVED FROM OMUTCD, CURRENT EDITION, PART 6, TABLES 6C-3 AND 6C-4

2. FOR PAVED SHOULDERS UNDER 6' USE 40 TAPER LENGTH.

TABLE 2: ADVANCE WARNING SIGNS [‡] ROAD TYPE DISTANCE BETWEEN SIGNS ** A B C URBAN (LOW SPEED*) ≤ 40 MPH 100 FT 100 FT URBAN (HIGH SPEED*) ≥ 45 MPH 350 FT 350 FT RURAL 500 FT 500 FT 500 FT EXPRESSWAY/FREEWAY 1,000 FT 1,500 FT 2,640 FT

[‡]FROM OMUTCD, 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
- '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.

NOTES AND TABLES

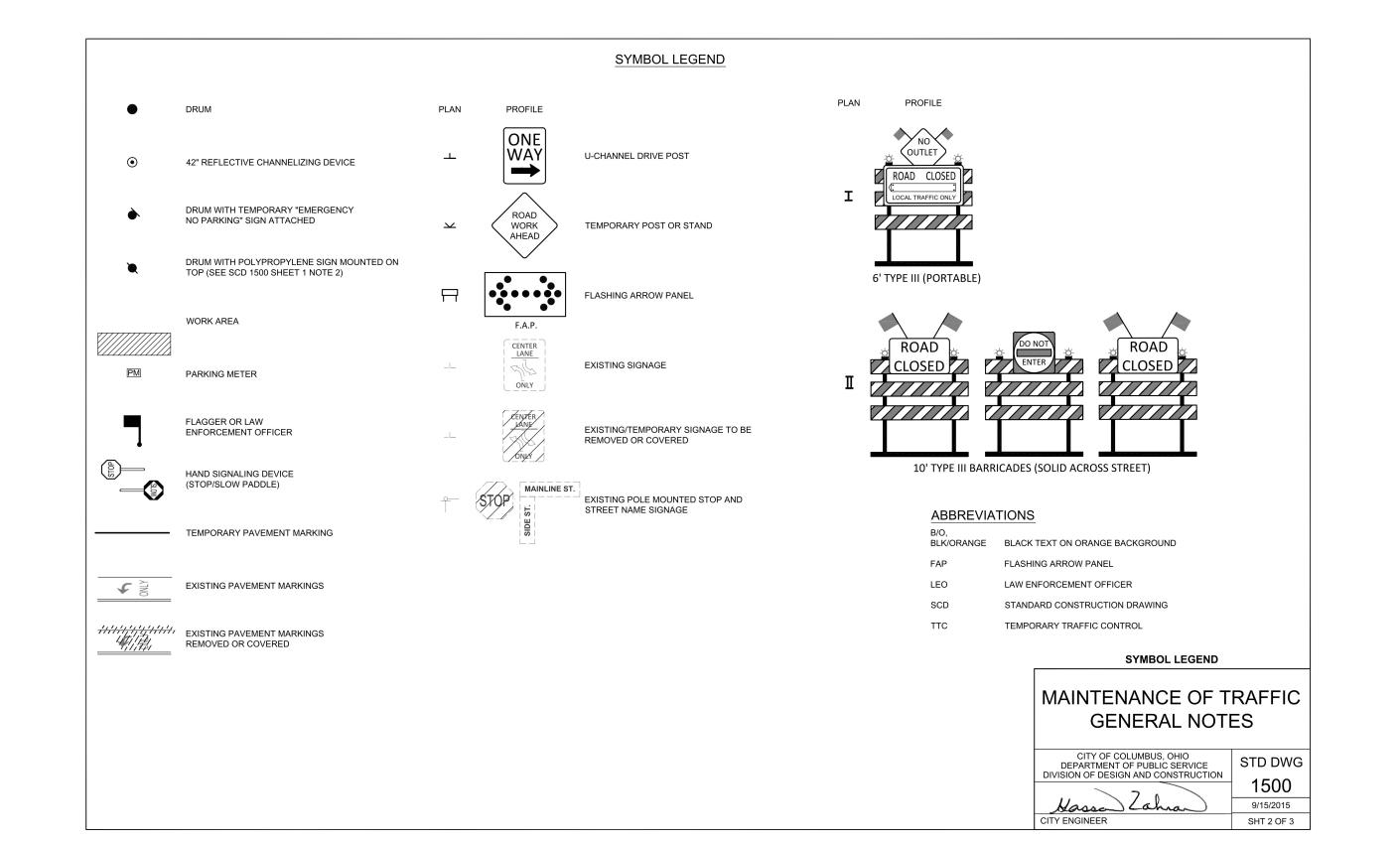
MAINTENANCE OF TRAFFIC GENERAL NOTES

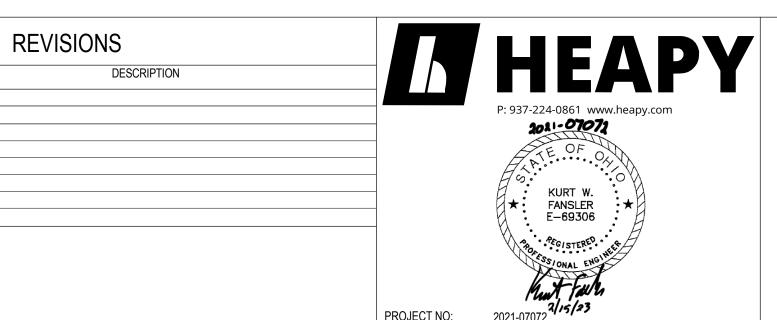
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION			
7			
Hassa Lahran			
CITY ENGINEER			

STD DWG 1500 9/15/2015

SHT 1 OF 3

TABLE 3: TANGENT LENGTH	IS FOR TEMPORARY TRAFFIC CONTROL	ZONES Å			- ADVANCE WARNING SI	ICNACE
ROAD TYPE	ZONE SETUP	T]			(SEE SCD 1500 SHEET 1, NO	OTE 1)
LOW SPEED ≤ 40 MPH	BETWEEN MERGE AND SHIFT TAPERS	$\frac{1}{2}L = WS^2$				
HIGH SPEED ≥ 45 MPH	BETWEEN MERGE AND SHIFT TAPERS			10	,	ROAD WORK AHEAD W20-1-48
LOW SPEED ≤ 40 MPH	BETWEEN 2 MERGE TAPERS	L = WS ²		.R BE		A WOR
HIGH SPEED ≥ 45 MPH	BETWEEN 2 MERGE TAPERS	2L = WS		EL T	1 .	>
^A TANGENT SECTION LEN	GTHS MAY BE CHANGED BY ENGINEER.		R = R	9E-(4)9TH-TM FLASHING ARROW PANEL TO PLACED AT END OF TAPER	E.A.P. W4-2(L)-48 LANE CLOSED AMEAN	W9-3(L)-48 (
			KEEP KEEP RIGHT	FLASHIN PLAC	4	
				'F'	'E' 'B'	'C' 'B' 'B'
			SHOULDER			
		_		_ _ _	-	
	/	_	- - - - - - - - - -			
	KÓ-	• •				
		— • -•			-	
		SHOULDER	2			
k	- 'D'	L	'E' - (½)L - 'F'	EXIT TAPER ————————————————————————————————————		
- 'C' \B' - -\B' - -	'E' - 'A' -	FLASHING A PLACED.	W1-H16(L)-36 W24-1(L)-36 W24-1(L)-36 F.A.P.	W1-4(R)-36 (SEE NOTE 3)		
	F.A.P.	ARROW PANE	16(L)-36 16(L)-36 -OR TROW PANEL T TEND OF TAPE F.A.P.	OTE 3)		
	RIGHT TWO LANE CLOSED AHEAD	ANEL TO BE	-OR- W1-4(1)-36 (SEE NOTE 3)		COMPONENTS OF TEMPORARY TR	AFFIC ZONE
ROAD ROAD WORK WORK	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		FE 3)			
n \	N S S S S S S S S S S S S S S S S S S S	NOTES			MAINTENANCE OF T	
W21-5b(R)-48	IIGHT JULDER OSED HEAD		R ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANIEET 1 OF 3.	NDARD CONSTRUCTION DRAWING 1500,	GENERAL NOTI	ES
		2. SE	E SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FF	ROM THE SCD 1500, TABLE 1.	CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE	STD DWG
		3. IF 1	TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUB	BLE REVERSE CURVE SIGN (W24-1) SHOULD	DIVISION OF DESIGN AND CONSTRUCTION	
ADVANCE WAR (SEE SCD 1500 S		BE	USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CUR	RVE SIGN SHALL BE OMITTED.	Hassa Zahran	9/15/2015
					CITY ENGINEER	SHT 3 OF 3





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

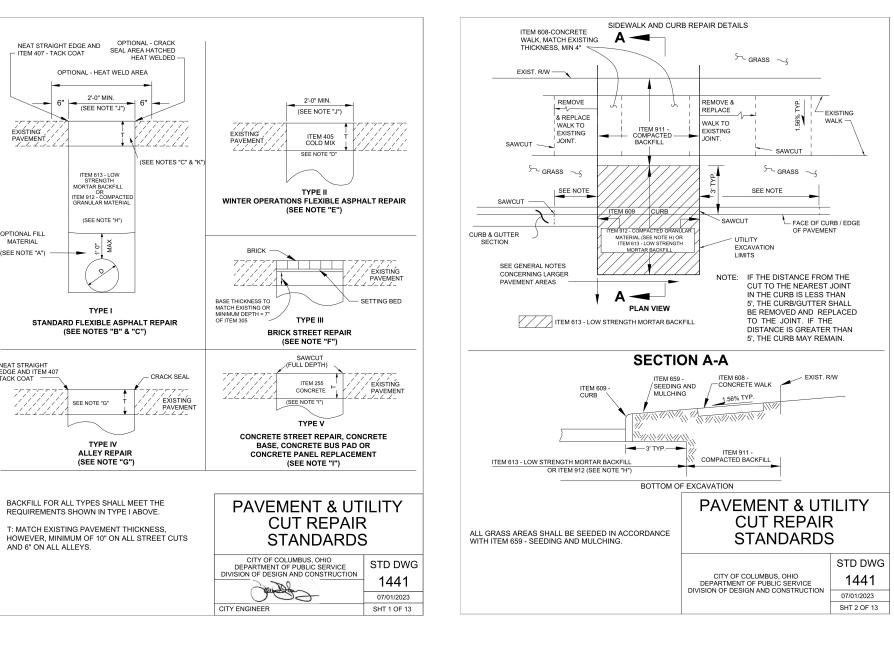
COLUMBUS DPS STANDARD DRAWINGS

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

SCALE=NONE

23-044

SHEET: 8/10



SPECIAL NOTES

FOR ALLEY REPAIRS, THE PAVEMENT REPLACEMENT SHALL CONFORM TO THE TYPE AND THICKNESS OF THE

EXISTING PAVEMENT. CHIP AND SEAL TYPE ALLEYS SHALL REQUIRE MATCHING THE EXISTING THICKNESS OF

PAVEMENT WITH THE APPROPRIATE COMBINATION OF MATERIALS BASED ON THE SIZE OF THE EXCAVATION.

THE MINIMUM PAVEMENT THICKNESS SHALL CONSIST OF 6 INCHES OF ITEM 441 ASPHALT CONCRETE. FINISHED CONCRETE PAVEMENT IS NOT PERMITTED. MATERIALS USED SHALL CONFORM TO THE REQUIREMENTS OF THE

IF MORE THAN 1/3 OF THE WIDTH OF AN ALLEY IS REMOVED, THE PAVEMENT SHALL BE REPLACED AS PER TYPE 1

THIS METHOD OF BACKFILL CAN ONLY BE USED WITH FULL TIME CITY INSPECTION. AN INSPECTION FEE MUST BE POSTED WHEN THE PERMIT IS ISSUED.

FULL DEPTH CONCRETE PAVEMENT
IF THE UTILITY TRENCH CUT IS WITHIN 6 FT OF A TRANSVERSE OR LONGITUDINAL JOINT, THE LIMITS OF THE

REPAIR SHALL EXTEND TO THE JOINT. THIS MAY REQUIRE THE ENTIRE PANEL TO BE REPLACED. AT A MINIMUM,

IF MAINTENANCE OF TRAFFIC REQUIREMENTS ALLOW FOR SUFFICIENT CURING TIME SO THAT FAST SETTING

CONCRETE IS NOT NEEDED, STANDARD CONCRETE BASE OR FULL DEPTH CONCRETE PAVEMENT MAY BE PLACED AS PER CMSC ITEM 255. THIS OPTION MUST BE NOTED ON THE PERMIT APPLICATION AND APPROVED

BY THE CITY OF COLUMBUS. THE ENTIRE IMPACTED CONCRETE PANEL SHALL BE REPLACED WHEN THE UTILITY CUT IS LOCATED IN THE DOWNTOWN BUSINESS DISTRICT.

PAVEMENT WITH A CONCRETE BASE THE NEW CONCRETE BASE THICKNESS SHALL MATCH THE EXISTING (7 INCHES MINIMUM) AND IT SHALL BE PLACED TO THE LEVEL OF THE ADJACENT CONCRETE BASE WITH

1-1/2 INCHES OF ITEM 441 ASPHALT CONCRETE OVERLAY. LANE WIDTH RESURFACING REQUIREMENTS OF TYPE 1 STILL APPLY.

THE TRENCH WIDTH FOR SMALL PIPES AND CONDUITS SHALL BE OF SUFFICIENT WIDTH TO ALLOW FOR THE PROPER PLACEMENT OF THE BACKFILL MATERIAL. THE PAVEMENT PORTION OF THE TRENCH SHALL BE A MINIMUM OF 2 FT IN WIDTH. THIS IS TO ALLOW FOR THE PROPER COMPACTION OF THE ASPHALT PAVEMENT. IF

THE TRENCH FOR PLACING CONDUIT IS NARROWER THAN 2 FT THEN THE PAVEMENT PORTION SHALL BE CUT

CONCRETE MAY BE USED AS A PAVEMENT REPAIR OPTION AND A TEMPORARY PAVEMENT SURFACE FOR TYPE 1 PAVEMENT REPAIR IF APPROVED BY THE CITY. THE CONCRETE SHALL BE PLACED PER CMSC ITEM 255 AND

EASEMENT REFERENCE

COUNTY RECORDER

INSTRUMENT NUMBER

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DATE

THE LIMITS OF THE CONCRETE REPAIR SHALL EXTEND 1 FT BEYOND THE LIMITS OF THE TRENCH.

AND THEN OVERLAYED OVER THE TOTAL WIDTH OF PAVEMENT AND LENGTH OF TRENCH

NOTE 'H': ITEM 912 - COMPACTED GRANULAR MATERIAL

NOTE 'J': MINIMUM TRENCH RESTORATION WIDTH

NOTE 'K': TEMPORARY CONCRETE PAVEMENT

NOTE 'L': SURFACE REPAIR SHAPE (SEE SHEET 11

THE SURFACE REPAIR OF ALL IRREGULAR-SHAPE EXCAVATIONS SHALL ALWAYS BE A RECTANGLE WITH

DIRECTION OF TRAVEL OF THE ROADWAY.

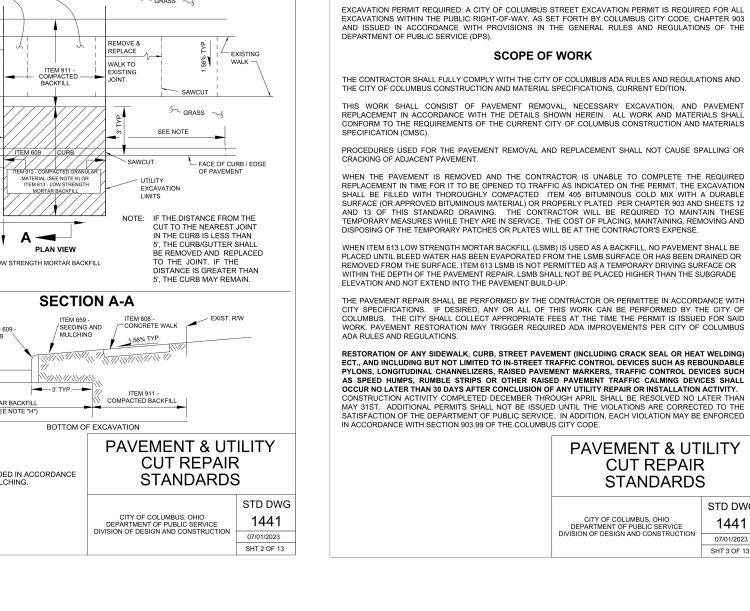
PARALLEL SIDES THAT ARE PERPENDICULAR TO THE

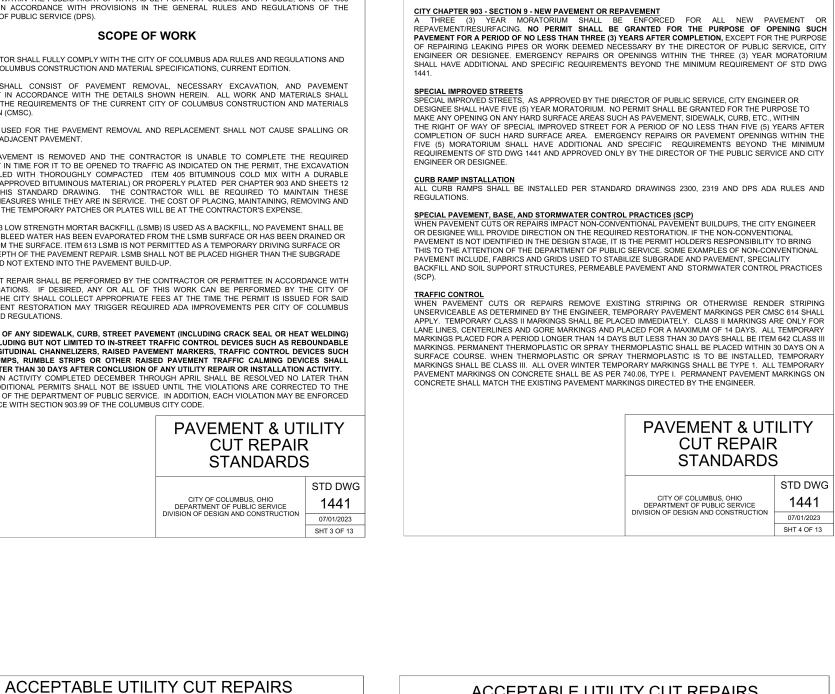
BACK TO PROVIDE THE 2 FT MINIMUM FOR PAVING OPERATIONS.

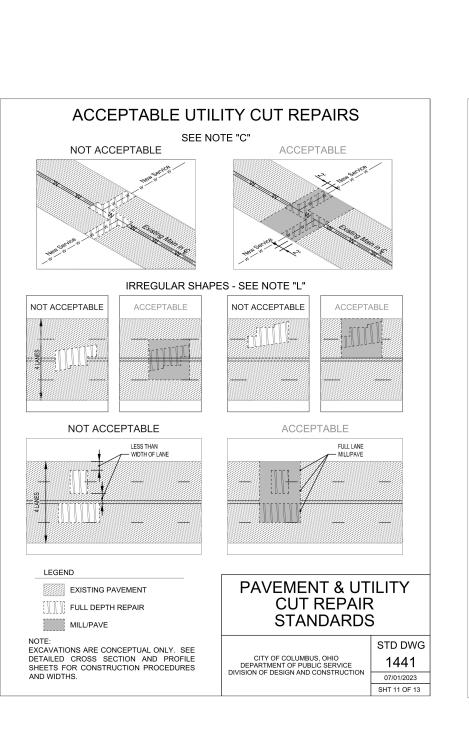
PERMIT APPLICATION APPROVED BY THE CITY OF COLUMBUS.

NOTE 'I' : CONCRETE BASE OR FULL DEPTH CONCRETE PAVEMENT

NOTE 'G' : TYPE IV ALLEY REPAIR







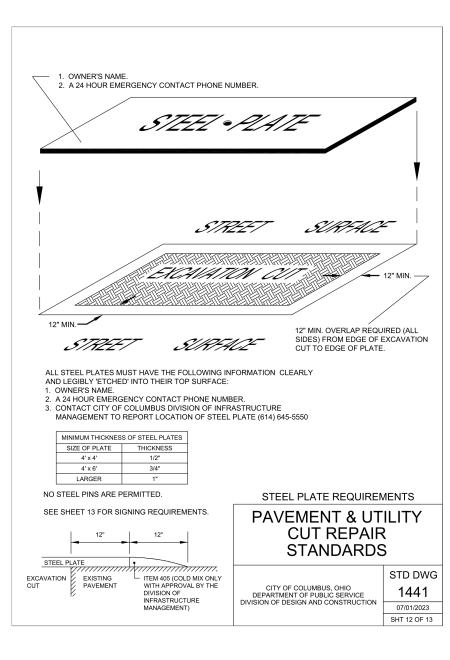
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SCOPE OF WORK (CONTINUED FROM PREVIOUS SHEET)



SPECIAL NOTES

NOTE 'A': LOW STRENGTH MORTAR BACKFILL (LSMB)
WHEN USING LOW STRENGTH MORTAR BACKFILL (LSMB), THE OPTIONAL FILL AREA OVER THE CONDUIT MAY BE
BACKFILLED WITH SAND, GRANULAR MATERIAL, OR OTHER SUITABLE 912 MATERIAL, FOR A DISTANCE NOT TO

1. CRACK SEALING METHOD: SEAL THE PERIMETER SURFACE OF THE REPAIRED AREA BY APPLYING A NOMINAL 4 INCH STRIP OF APPROVED ITEM 423 - CRACK SEALING, TYPE II OR III.

HE CUT AND EXTEND FOR 6 INCHES BEYOND EACH SIDE OF THE CUT FOR A NOMINAL DEPTH OF 2 INCHES

2. HEAT WELD METHOD: FOR PAVEMENT REPAIR LOCATIONS. THE AREA TO BE HEAT WELDED IS TO INCLUDE

1. IF LANE WIDTH TO BE RESURFACED: USE ITEM 441 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2. (BINDER MATCHING SURFACE COURSE) PLACED IN LIFTS NOT EXCEEDING 3 INCHES TO REPAIR PAVEMENT TO THE SURFACE. DURING THE LATER MILL AND ASPHALT OVERLAY OPERATION, USE ITEM 441 ASPHALT

2. IF NO LANE WIDTH RESURFACING: USE ITEM 441 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2. PLACED IN LIFTS NOT EXCEEDING 3 INCHES AND ITEM 441 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1 PLACED AT A MAXIMUM 1.5 INCH LIFT THICKNESS. THE INTERMEDIATE COURSE MATERIAL IS NOT

THE ASPHALT BINDER FOR INTERMEDIATE AND SURFACE COURSE ASPHALT SHALL BE PG 70-22 ON ARTERIAL

THE INTENT OF RESURFACING FULL LANE WIDTH(S) IS TO MINIMIZE ADDING ADDITIONAL COLD JOINTS TO THE

ROADWAY, IF THE UTILITY CUT OR TRENCH REPAIR REQUIRES TO MILL AND PAVE THE FULL LANE WIDTH, SEE BELOW AND EXAMPLES SHEETS 9-11, THE EXISTING JOINT SHALL BE LOCATED AND WHEN THE EXISTING JOINT IS WITHIN (2') TWO FEET OF A FULL LANE WIDTH THE PAVEMENT SHALL BE REPLACED TO THE COLD JOINT. A

FULL LANE WIDTH IS CONSIDERED TO BE TO THE NEAREST LANE LINE, CHANNEL OR CENTERLINE

TRENCHES THAT REQUIRE FULL LANE RESURFACING SHALL INCLUDE FULL LANE RESURFACING ON ALL

CONNECTING TRENCHES AND ASSOCIATED VALVE OR CASTING WORK AREAS ALONG ADJACENT STREETS (UTILITY SERVICE REPAIRS SHALL BE AS PER SHEETS 9, 10 AND 11.) REGARDLESS OF THE LENGTH OF THE

LANE WIDTH (OR ANY OTHER LANE WIDTH AS DIRECTED BY THE DEPARTMENT OF PUBLIC SERVICE) TO A

DEPTH OF 1- 1/2 INCHES FOR THE ENTIRE LENGTH OF THE EXCAVATION. THE RESURFACING SHALL NOT INTRODUCE ANY LONGITUDINAL PAVEMENT JOINTS. WHEN RESURFACING OUTSIDE LANES, RESURFACING SHALL EXTEND TO THE FACE OF CURB OR EDGE OF PAVEMENT. IF PAVEMENT PLANING DOES NOT PROVIDE A

UNIFORM PLANED SURFACE DUE TO THE EXISTING PAVEMENT CONDITION, THE DEPTH OF THE PAVEMENT

REMOVAL AND RESURFACING SHALL BE ADJUSTED ACCORDINGLY. WHERE THE PROPOSED RESURFACING IS

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WHEN AN EXCAVATION EXCEEDS 100 FT IN LENGTH, THE REPAIR SHALL INCLUDE ITEM 254 PLANING OF A FULL

ROADWAYS, BUS ROUTES, AND WHERE SPECIFIED BY THE PERMIT OFFICE. ALL OTHER ROADS SHALL BE

EXCEED 1 FT. A PROTECTIVE BARRIER OF VISQUEEN OR SIMILAR MATERIAL IS PERMITTED

NOTE 'C': TYPE 1 PAVEMENT REPAIR RESURFACING (SEE SHEETS 9-11)
FOR TYPE I PAVEMENT REPAIR APPLICATIONS, THE FOLLOWING METHODS ARE PERMITTED:

: TYPE 1 PAVEMENT REPAIR SEALING

CONCRETE SURFACE COURSE, TYPE 1.

FULL LANE WIDTH/COLD JOINT RESURFACING

IN CLOSE PROXIMITY TO AN EXISTING LONGITUDINAL JOINT, THE RESURFACING SHALL BE EXTENDED TO

TEM 407 02 MATERIAL PRIOR TO PLACING AND COMPACTING APPROVED ASPHALT CONCRETE WITH A PAVER IN ACCORDANCE WITH CURRENT CITY STANDARD SPECIFICATIONS. ITEM 423 -CRACK SEALING,

MEET OR OVERLAP THAT JOINT. WHEN RESURFACING

ADJOINS AN AREA WITH EXISTING OVERLAID GUTTER.

THE RESURFACING SHALL EXTEND THE FULL LANE
WIDTH TO THE EXISTING PAVEMENT EDGE AT THE FACE
OF CURB.THE PLANED AREA SHALL BE TACKED USING

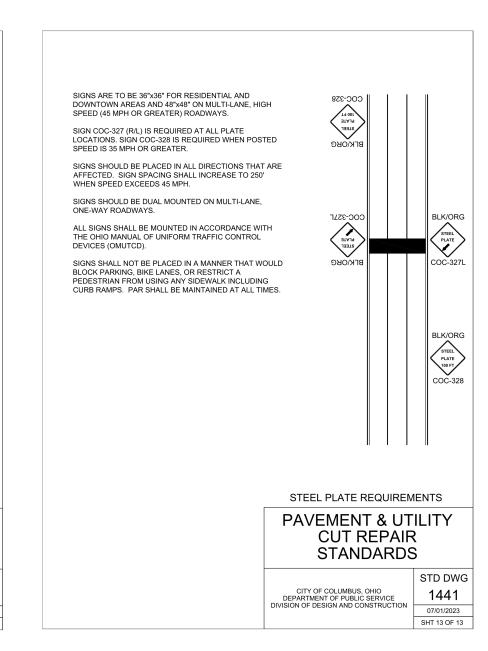
YPE II OR III SHALL BE APPLIED TO EXPOSED JOINTS

ONCE THE PAVING OPERATION HAS BEEN COMPLETED.

CONNECTING TRENCH.

PERMITTED AS THE FINAL SURFACE COURSE.

 $\frac{\text{NOTE 'B'}}{\text{FOR TYPE I PAVEMENT REPAIR SEALING}} \\ \text{FOR TYPE I PAVEMENT REPAIR SEALING OPTIONS - THE FOLLOWING METHODS ARE PERMITTED:} \\$



SPECIAL NOTES

WHEN AN EXCAVATION CROSSES LANES, ALL LANES AFFECTED SHALL REQUIRE PLANING AND RESURFACING AS DESCRIBED ABOVE. THIS WORK SHALL INCLUDE ALL OF THE AFFECTED PAVEMENT AREA. WHEN EXCAVATION WORK FOR LATERALS CROSS LANES AT A FREQUENCY OF 2 OR MORE TRENCHES WITHIN 100 FT OF ROADWAY, THE REPAIR SHALL INCLUDE THE RESURFACING OF A FULL LANE WIDTH AS DESCRIBED ABOVE

FOR THE AFFECTED LANES EXTENDING A MINIMUM OF 2 FT BEYOND THE LATERAL EXCAVATIONS LOCATED

WHEN 2 OR MORE PAVEMENT REPAIRS ARE LOCATED WITHIN 100 FT OF EACH OTHER IN THE SAME LANE. THE

REPAIR SHALL INCLUDE THE RESURFACING OF A FULL LANE WIDTH AS DESCRIBED ABOVE OF THE AFFECTED LANES EXTENDING A MINIMUM OF 2 FT BEYOND THE PAVEMENT REPAIRS LOCATED FARTHEST APART.

IF APPROVED BY THE CITY OF COLUMBUS, WHEN A PAVEMENT REPAIR AREA IS GREATER THAN 5 FT IN WIDTH

AND/OR GREATER THAN 100 FT IN LENGTH, THE PAVEMENT REPAIR SECTION MAY CONFORM TO 3 INCHES OF ITEM 441 ASPHALT CONCRETE ON 7 INCHES OF ITEM 301 ASPHALT CONCRETE BASE (PLACED IN 2 LIFTS). LANE WIDTH RESURFACING REQUIREMENTS STILL APPLY. THIS OPTION MUST BE NOTED ON THE PERMIT APPLICATION AND APPROVED BY THE CITY OF COLUMBUS.

NOTE 'D': TYPE II BITUMINOUS COLD MIX PLACEMENT
COLD MIX SHALL BE ITEM 405 BITUMINOUS COLD MIX OR OTHER COLD MIX APPROVED BY THE CITY OF
COLUMBUS. IN LIEU OF COLD MIX, THE CONTRACTOR MAY USE STOCKPILED ITEM 441 ASPHALT CONCRETE AND
REHEAT IT TO PLACE IN CUT AS TEMPORARY PAVEMENT REPAIR. TYPE II PAVEMENT REPLACEMENT SHALL
CONSIST OF FULL DEPTH ITEM 405 COLD MIX FOR SMALL EXCAVATIONS.

NOTE 'E': TYPE II TEMPORARY COLD MIX PLACEMENT
THE TEMPORARY COLD MIX IS TO BE REPLACED WITH ITEM 441 ASPHALT CONCRETE FOLLOWING PAVEMENT REPAIR PROCEDURES. THIS WORK SHALL BE PERFORMED AS SOON AS ASPHALT IS AVAILABLE.

NOTE 'F': TYPE III REPAIR OF BRICK STREETS

1. THE CITY OF COLUMBUS MAINTAINS TWO TYPES OF BRICK STREETS: 1) HISTORICAL BRICK STREETS; AND
2) NEWER STYLE ROADWAY PAVER STREETS THAT COMPLY WITH SUPPLEMENTAL SPECIFICATION 1524.
WHEN EXCAVATING AND REPAIRING BRICK STREETS, THE MATERIAL USED FOR REPLACEMENT SHALL

CONTRACTOR FOR REUSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY BRICKS OR

IF BRICKS OR PAVERS ARE SUPPLIED BY THE CONTRACTOR, THEY MUST CLOSELY MATCH THE EXISTING

SAW CUTTING: ALL PARTIAL BRICKS SHALL BE SAWCUT. FURTHER, NO BRICK WILL BE PERMITTED TO BE

CUT, FOR REPLACEMENT, TO A LENGTH LESS THAN 1/2 ITS ORIGINAL LENGTH. THIS MAY REQUIRE SAW CUTTING OF ADJACENT UNDISTURBED BRICK(S).

DURING REMOVAL OF THE EXISTING BASE MATERIAL, IT SHALL BE CUT BACK TO AS NEARLY VERTICAL AS

POSSIBLE. IF SHEARING OF THE ADJACENT BASE RESULTS, THE CONTRACTOR SHALL REMOVE ADDITIONAL

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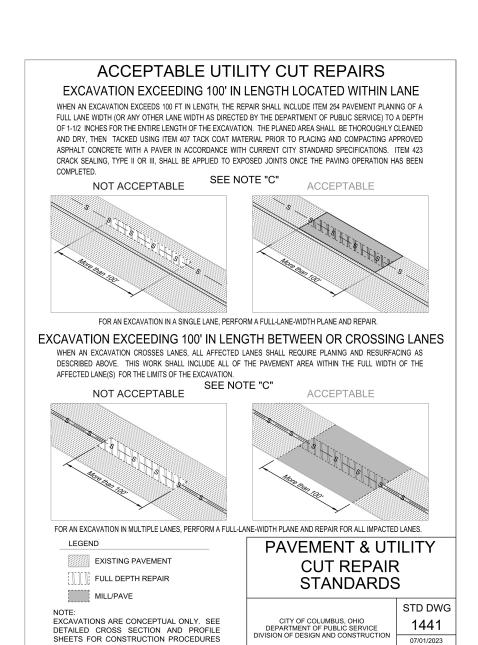
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BRICKS OR PAVERS AND FIRST BE APPROVED BY THE CITY BEFORE THEY ARE USED. SEE THE DEPARTMENT OF PUBLIC SERVICE APPROVED PRODUCERS / PRODUCTS LISTS THAT CAN BE FOUND AT THE "DOCUMENT LIBRARY ON DEPARTMENT OF PUBLIC SERVICE WEBSITE"

BRICKS OR PAVERS REMOVED FROM A REPAIR AREA SHALL BE STORED IN A SAFE PLACE BY THE

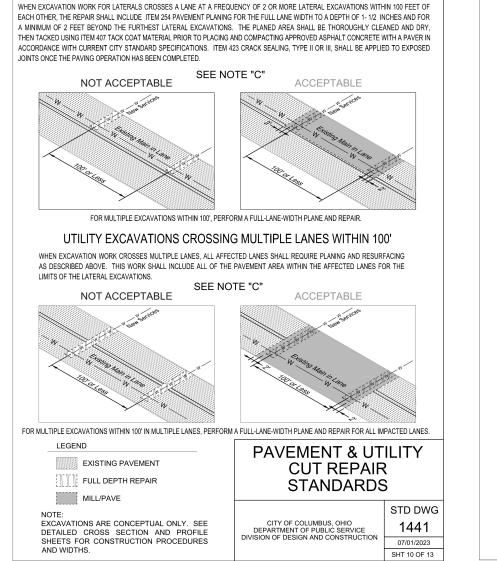
BASE MATERIAL UNTIL A VERTICAL FACE IS ACHIEVED

CURB UNLESS A SHOULDER WIDER THAN 4 FEET IS SEPARATED BY AN EXISTING LONGITUDINAL JOII



REVISIONS

DESCRIPTION



UTILITY EXCAVATIONS CROSSING ONE LANE WITHIN 100'

GENERAL NOTES



PROJECT NO:

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

COLUMBUS DPS STANDARD DRAWINGS

550 E Spring St.

Columbus, OH 43215

SCALE=NONE CSCC Water Meter Upgrades CSCC

SPECIAL NOTES

6. DURING INSTALLATION, THE BRICK IS TO BE RESET IN REASONABLY CLOSE CONFORMITY TO THE PATTERN

6A. HISTORICAL BRICKS WITHOUT SPACING LUGS: THE MAXIMUM WIDTH OF A BRICK JOINT SHALL BE 1/2 INCH. THIS RESTRICTION SHALL ALSO APPLY TO THE JOINT FORMED ADJACENT TO THE PERIMETER OF A REPAIR AREA, WHERE THE ROWS MAY NOT BE PARALLEL TO ONE ANOTHER. ALL JOINTS SHALL BE FILLED WITH

6B. NEWER STYLE ROADWAY PAVERS: INSTALLATION AND MATERIALS SHALL MEET THE REQUIREMENTS OF

COLUMBUS SUPPLEMENTAL SPECIFICATION 1524.

OF THE EXISTING BRICK PAVEMENT ON A SETTING BED OVER ITEM 305 CONCRETE BASE. THE SETTING BED FOR HISTORICAL BRICK STREETS SHALL CONSIST OF 1 INCH OF SAND; WHEREAS, 3/4-INCH BITUMINOUS SETTING BED FOR NEWER STYLE ROADWAY PAVERS. THE CONCRETE BASE THICKNESS SHALL MATCH THE EXISTING BASE OR A MINIMUM OF 7 INCHES.

POLYMERIC SAND FROM THE APPROVED MATERIALS LIST FOLLOWING MANUFACTURER'S INSTRUCTIONS. THIS MAY REQUIRE MORE THAN ONE APPLICATION. FURTHER, MECHANICAL VIBRATION WILL BE REQUIRED FOR CONSOLIDATION OF DRY MORTAR MIX.

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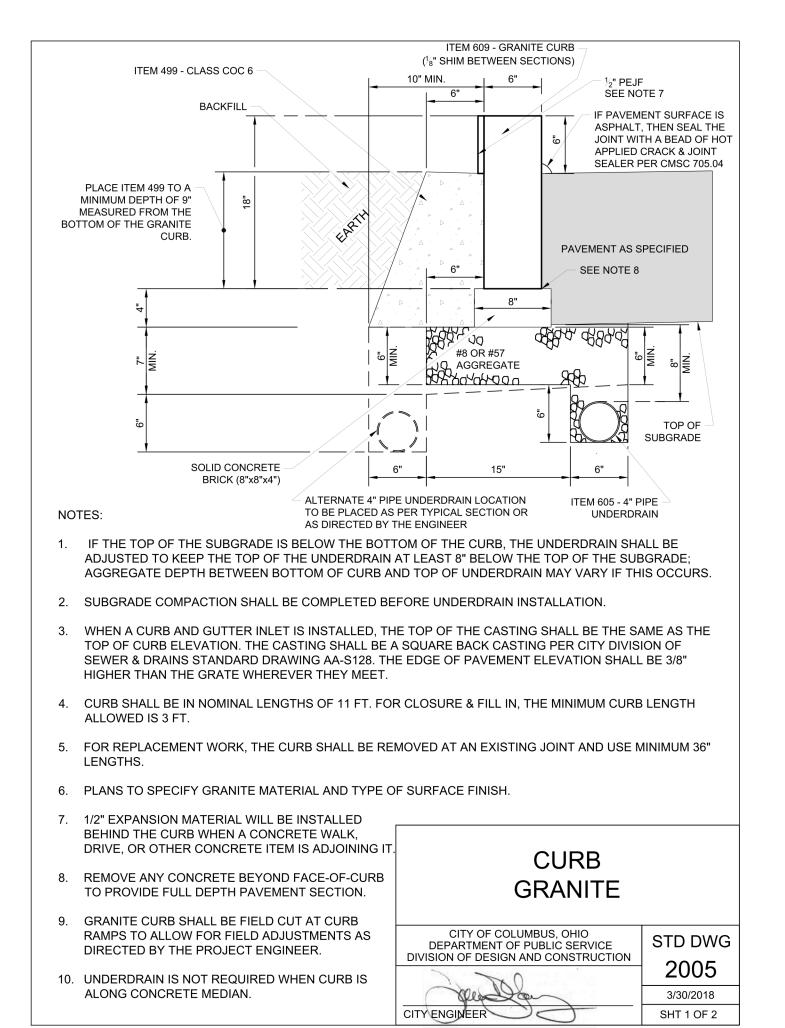
STANDARDS

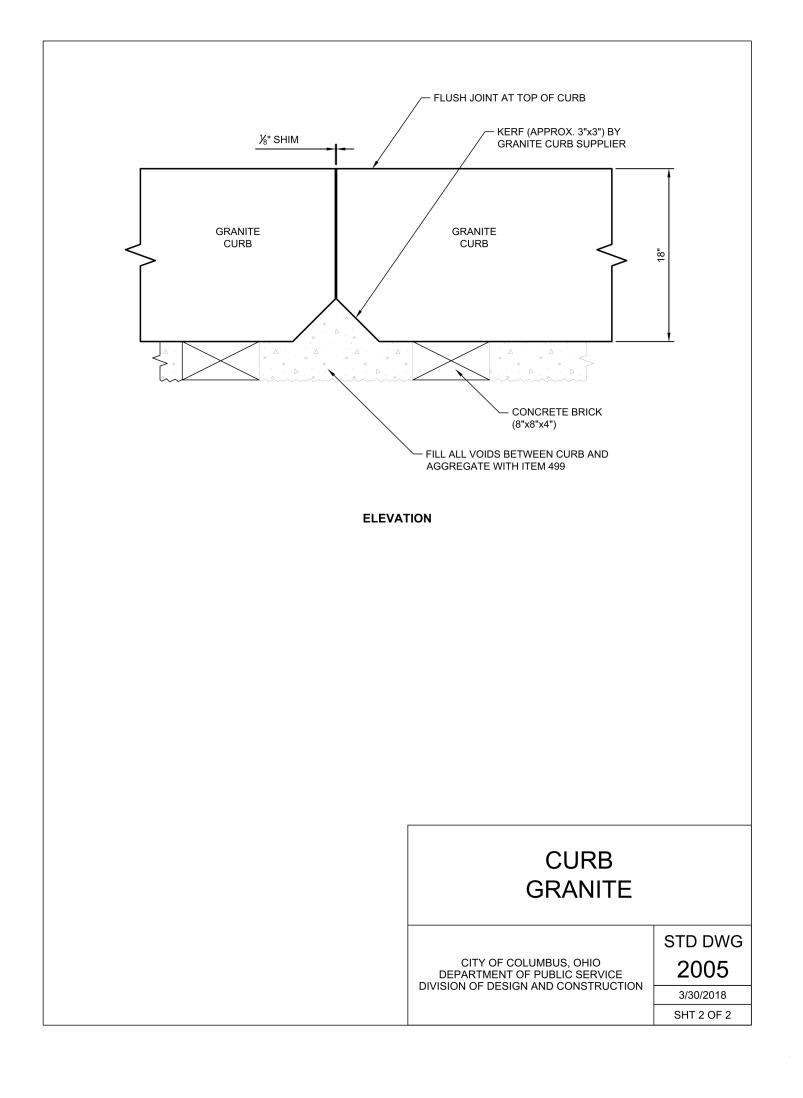
STD DWG

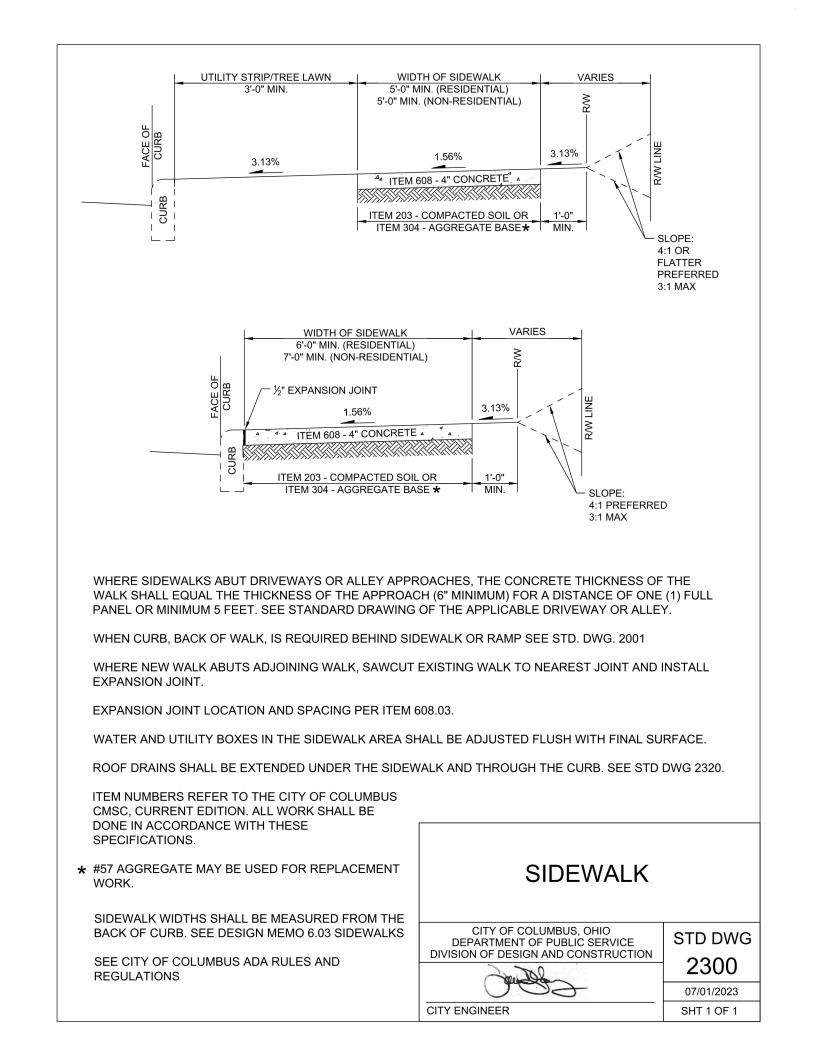
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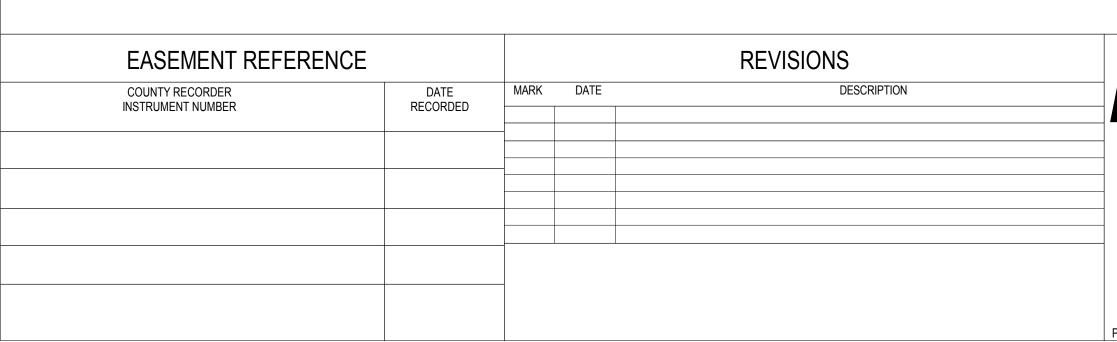
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SHEET: 9/10











CITY OF COLUMBUS, OHIO

DEPARTMENT OF PUBLIC UTILITIES

DIVISION OF WATER

COLUMBUS DPS STANDARD DRAWINGS

Columbus, OH 43215

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CSCC
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23-044

SHEET:10/10