

CENTENNIAL PLAZA

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civil engineer

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1. CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ENSURE NO CONFLICT EXIST WITH PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH UTILITY COMPANY IN ORDER TO RELOCATE, IF NEEDED, IN CONFORMANCE WITH THEIR GUIDELINES.
2. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE POWER COMPANY FOR THE CONSTRUCTION OF ELECTRICAL CONDUIT, TO PROVIDE SERVICE TO THE TRANSFORMER.
3. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE GAS COMPANY FOR THE CONSTRUCTION OF THE GAS LINE BETWEEN METER AND MAIN
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING, PRIOR TO CONSTRUCTION, ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF SEWER, STORM DRAINAGE, AND WATER MAINS. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORDED ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.
5. CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE LOCAL AGENCY STANDARD CONSTRUCTION DRAWINGS.
6. COORDINATE WITH ARCHITECTURAL PLANS TO ASSURE ADEQUACY OF UTILITY CONNECTIONS AND COMPLIANCE WITH LOCAL CODES.
7. ALL EXISTING SEWERS AND DRAINAGE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES OR DITCHES.
8. CONTRACTOR EXACT TRENCHING, ROUTING AND POINT OF TERMINATIONS WITH ALL UTILITIES COMPANIES, BOTH PUBLIC AND PRIVATE.
9. CONTRACTOR TO PROVIDE CURB UNDERDRAIN & ROUTE CURB UNDERDRAIN TO PROPOSED DRAINAGE STRUCTURES.
10. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL PLANS FOR ROOF DRAIN CONNECTIONS. ALL CONNECTIONS SHALL BE MADE TO STORM SEWERS WITH A MINIMUM 6" PVC @ 1.00% INCREASE NOTED ON PLANS.
11. CONTRACTOR TO COORDINATE LANDSCAPE UNDERDRAINS WITH LANDSCAPING PLANS.
12. THIS PLAN DETAIL PIPES UP TO THE BUILDING FACE. REFER TO DRAWINGS BY OTHERS FOR BUILDING CONNECTIONS. CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY.
13. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY COMPANY AND LOCAL AGENCY REVIEW.
14. UTILITY PENETRATIONS AND LOCATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE MEP DRAWINGS.
15. PRIOR TO PAVING, CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND CABLES TO Pylon SIGNS AND SITE LIGHTING WITH THE ELECTRICIAN/ELECTRICAL CONTRACTOR AS APPROPRIATE. REFERENCE SITE LIGHTING PLAN FOR POLE LOCATIONS AND ARCHITECTURAL PLANS FOR CONDUIT WIRING LAYOUT.
16. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
17. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL SANITARY SEWER PIPING SHALL BE POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS A.S.T.M. D-3034, TYPE PSN WITH A MAXIMUM SDR OF 26, WITH FLEXIBLE ELASTOMERIC SEAL JOINTS, A.S.T.M. D-3212. PVC SDR 35 IS PERMITTED FOR SANITARY SEWER WITH LESS THAN 13 FEET OF COVER.
18. CONTRACTOR MUST ACQUIRE PERMITS FROM CANTON CITY ENGINEERING FOR ALL SANITARY AND STORM SEWER CONNECTION PERMITS. NO FEE FOR SAID PERMITS.
19. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL NEW SANITARY AND STORM SEWER INLET CASTING FOR STRUCTURES TO GRADE.
20. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR AND MATERIAL NECESSARY FOR ADJUSTING TO GRADE ALL STRUCTURE ACCESS COVERS, TO INCLUDE BUT NOT LIMITED TO, EXISTING MANHOLE COVERS, VAULT COVERS, DRAIN INLET CASTINGS, VALE BOXES, PULL BOXES, TO ENSURE COVERS MATCH OR MEET NEW FINISHED GRADES. UNLESS THE OWNER OF THE UTILITY OR STRUCTURE DEMANDS OTHERWISE, IN WHAT CASE, THE GENERAL CONTRACTOR MUST COORDINATE WITH THE OWNER TO ENSURE NECESSARY ADJUSTMENTS ARE MADE AT THE APPROPRIATE SEQUENCE OF WORK.
21. CONTRACTOR TO PROVIDE OFFSITE STOCKPILE LOCATION AND APPROPRIATE STORM WATER POLLUTION PREVENTION PLAN DOCUMENTS.

1. PER THE CITY OF CANTON "ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED."
2. DEFLECTION TESTS SHALL BE PERFORMED NO SOONER THAN 60 DAYS FOLLOWING THE COMPLETION OF BACKFILL. A RESPONSIBLE AGENCY OF AN AUTHORITY SHALL INDEPENDENTLY TESTING LABORATORY SHALL PERFORM FLAT DEFLECTION TESTS AND SUBMIT VERIFICATION RECORDS OF RESULTS TESTS AND DATES TESTED, NO PIPE UNDER LOAD SHALL EXCEED A DEFLECTION OF 5 PERCENT OF THE BASE INSIDE DIAMETER PER ASTM D2238. ASTM D2238-DEFLECTION TESTING SHALL BE ACCOMPLISHED BY USING A 400, NO-GO MANHOLE, THROUGH THE PIPE, OR METHODS APPROVED BY LOCAL AUTHORITY. (UNIFORM STANDARDS FOR SEWER IMPROVEMENTS)
3. AN AIR LEAKAGE TEST SHALL BE PERFORMED PER ASTM F-1417. NOTE THAT THE LEAKAGE TEST LIMIT IS 100 GALLONS/INCH DIAMETER/MILE/DAY PER THE OHIO PIPE STANDARDS.
4. ALL MANHOLES MUST BE TESTED FOR LEAKAGE PER ASTM C-1244.
  - A.A. P.V.C. – SDR 35 – ASTM D-3034 – ALL PIPE 20" OR LESS BELOW GRADE
  - A.B. P.V.C. – SDR 26 – ASTM D-3034 – ALL PIPE BETWEEN 12" AND 20" BELOW GRADE
  - A.C. P.V.C. – SDR 21 – ASTM D-2241 – ALL PIPE 12" OR MORE BELOW GRADE
5. ALL SEWER PIPE IS TO BE SAW CUT, NOT BROKEN
6. THE INSTALLATION OF SEWERS SHALL BE IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWINGS FOR SEWER IMPROVEMENTS.
7. ALL SEWER CONDUITS TO BE BEDDED AND BACKFILLED PER CITY STANDARD DETAIL #19.
8. ALL MANHOLES SHALL BE SET TO GRADE PER THE CONSTRUCTION PLANS. BY THE SEWER CONTRACTOR AT THE TIME OF INSTALLATION. THE FINAL ADJUSTMENT OF THE CASTINGS SHALL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR AND THE FINAL INSPECTION, APPROVAL, AND ACCEPTANCE OF THE SEWER SYSTEM SHALL BE CONTINGENT UPON THIS FINAL ADJUSTMENT OF THE CASTINGS.
9. LATERAL CONNECTIONS TO BUILDING SITES SHALL BE A MINIMUM OF SIX INCHES (6") IN DIAMETER. LATERAL CONNECTIONS SHALL BE INSTALLED UTILIZING A LASER OR GRADE BAR DEVICES. SANITARY SEWERS AND LATERALS TO BE INSTALLED PER CITY STANDARD DRAWING #20.
10. O-RING JOINTS FOR SANITARY SEWER MAIN SHALL MEET ASTM 3212 STANDARDS.
11. BELL ENDS OF SANITARY MAINS ARE TO BE PLACED AT UPSTREAM END.
12. FLEXIBLE GASKETS ON SEWER LINE CONNECTIONS SHALL CONFORM TO ASTM C-923.
13. ALL PIPE BETWEEN MANHOLES SHALL BE THE SAME MATERIAL. THE LOWEST DEPTH OF PIPE BETWEEN MANHOLES SHALL GOVERN MATERIAL TYPE FOR THE ENTIRE LENGTH.
14. ALL SANITARY SEWERS SHALL INCLUDE GASKETTED JOINTS THAT CONFORM TO ASTM F477.
15. ALL SANITARY SEWER MANHOLE JOINTS SHALL BE FITTED WITH RESILIENT RUBBER GASKETS.
16. MAINTAIN EXISTING LATERAL SLOPE TO CLEAN OUT CONNECTION.

1. STORM SEWER PIPE MATERIAL SHALL BE PER D007 707.3 CORRUGATED SMOOTH-LINE HPDE PIPE.
2. ALL STORM SEWER PIPE IS TO BE SAW CUT, NOT BROKEN.
3. ALL SEWER CONDUITS TO BE BEDDED AND BACKFILLED PER CITY STANDARD DRAWING #19.
4. ALL MANHOLES SHALL BE SET TO GRADE PER THE CONSTRUCTION PLANS, BY THE CONTRACTOR AT THE TIME OF INSTALLATION. THE FINAL MAINTENANCE OF THE CASTINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. MAINTAIN EXISTING LATERAL SLOPE TO STRUCTURE CONNECTION.
6. UNDERDRAIN AT 0.5% TO THE 12" STORM SEWER, PROVIDE SUITABLE CONNECTION.
7. PLAZA/YARD DRAINS SHALL BE NYLOPLAST/ADS LIGHT DUTY DRAIN STRUCTURE WITH H-10 RATED GRATE.

	MEASURED BOUNDARY		EX. GUY WIRE
	BOUNDARY TIE		EX. UTILITY POLE
	ADJACENT BOUNDARY		EX. ELECTRICAL BOX / METER
	EASEMENT		EX. UNDERGROUND TELEPHONE
	FENCE		EX. GAS
	EX. STORM SEWER		EX. GAS RISER
	EX. MANHOLE		EX. TELEPHONE BOX
	EX. CATCH BASIN/INLET		EX. CURB AND GUTTER
	EX. SANITARY SEWER		EX. BOLLARD
	CLEANOUT		EX. SIGN
	EX. WATER MAIN		EX. GAS VALVE
	EX. HYDRANT		EX. GAS METER
	EX. SHUTOFF OR CURB BOX		EX. WATER METER
	EX. GATE VALVE IN BOX		PROP. SANITARY SEWER
	EX. OVERHEAD ELECTRIC		PROP. CATCH BASIN/INLET
	EX. UNDERGROUND ELECTRIC		PROP. STORM MANHOLE
			PROP. PLAZA/YARD DRAIN

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