

ITEM SPECIAL - WATER MAIN AND APPURTENANCES (CONT'D)

- H. BASIS OF PAYMENT. THE ACCEPTED QUANTITIES OF WATER MAINS AND APPURTENANCES WILL BE PAID FOR AT THE CONTRACT PRICE DESIGNATED FOR EACH OF THE PAY ITEMS LISTED HERE-IN AND INCLUDED IN THE PROPOSAL. THE PRICES SHALL BE FULL COMPENSATION FOR ALL MATERIALS INCLUDING EXCAVATION, BACKFILL, DISPOSAL OF SURPLUS MATERIALS, REINFORCING STEEL WHERE SPECIFIED AND FOR OTHER INCIDENTALS NECESSARY FOR THE COMPLETION OF THE ITEMS.
- I. WATER MAINS MUST BE STAKED OUT BY A PROFESSIONAL SURVEYOR AND CUT SHEETS UTILIZED. NEW AND RELOCATED SERVICE LINES MUST HAVE A MINIMUM 5' - 0" COVER AND PROVIDE MINIMUM 18" VERTICAL SEPARATION FROM ALL STORM/SANITARY SEWERS, GAS LINES AND OTHER WATERLINES. PROVIDE CONCRETE CRADLES WHERE THE 18" VERTICAL SEPARATION CAN NOT BE PROVIDED TO A POINT 5' EITHER SIDE OF CROSSING.
- J. THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY DEPARTMENT OF UTILITIES AT THE FOLLOWING LOCATION AT LEAST THREE WORKING DAYS PRIOR TO THE START OF THE WATER MAIN RELOCATION WORK:

LAKE COUNTY DEPARTMENT OF UTILITIES
LAKE COUNTY ADMINISTRATION CENTER
105 MAIN STREET
PAINESVILLE, OHIO 44077
(440) 350-2652
- K. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING OHIO ENVIRONMENTAL PROTECTION AGENCY REQUIREMENTS:
 1. A TEN FOOT MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER.
 2. AN 18-INCH MINIMUM VERTICAL SEPARATION (OUT-TO-OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER AT ALL CROSSINGS.
 3. A FOUR FEET MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND STORM SEWER.
 4. A TWELVE-INCH MINIMUM VERTICAL SEPARATION (OUT-TO-OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND STORM SEWER AT ALL CROSSINGS.
 5. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
 6. THE PROPOSED IMPROVEMENTS WILL PROVIDE A MINIMUM 35 P.S.I. PRESSURE AT THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

L. CONNECTION SEQUENCE OF CONSTRUCTION SHALL BE SUBMITTED TO LAKE COUNTY UTILITIES FOR APPROVAL BY THE CONTRACTOR. THE WATER MAIN SHALL BE COMPLETELY LAID, TESTED AND ACCEPTED BEFORE ANY BRANCH CONNECTIONS AND/OR INTERRUPTIONS IN SERVICE OCCUR.

SERVICE INTERRUPTIONS SHALL BE KEPT TO A MINIMUM FOR WATER MAIN CONNECTIONS. FOR PROJECT CONSTRUCTION REQUIREMENTS, SEE TRAFFIC CONTROL DRAWINGS HERE-IN.

THE EXISTING WATER SERVICE MAY BE TAKEN OFF SERVICE FOR 2 HOURS MAXIMUM, COORDINATED WITH LAKE COUNTY. IF THE EXISTING WATER SERVICE MUST BE TAKEN OFF LINE FOR GREATER THAN 2 HOURS WITHOUT THE PROPOSED WATER MAIN BEING OPERATIONAL, THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER SERVICE USING CERTAIN TEED YELOMINE OR APPROVED EQUAL. SUBMIT PLAN TO ENGINEER. THE PERMANENT WATER MAIN SHALL BE MADE OPERATIONAL WITHIN 12 HOURS AFTER EXISTING WATER MAIN IS SHUT DOWN. THE COST SHALL BE INCLUDED IN THE UNIT BID FOR WATER MAIN INSTALLATION.

ALL WATER SERVICE CONNECTIONS WHICH ARE BROKEN BY THE CONTRACTOR SHALL BE REPAIRED BY THE LAKE COUNTY WATER DEPARTMENT OR THE CONTRACTOR, ALL AT THE CONTRACTOR'S EXPENSE. ALL RECONNECTED WATER SERVICE CONNECTIONS SHALL BE TAPPED INTO THE NEW WATER MAIN AND DOCUMENTED AS SUCH. ALL NEW SERVICE CONNECTIONS SHALL BE MINIMUM 3/4" TYPE K COPPER, REGARDLESS OF THE BROKEN SERVICE CONNECTION MATERIAL. ALL EXISTING WATER SERVICE CONNECTIONS SHALL BE REPLACED WITH NEW TYPE K COOPER FROM PROPOSED MAIN TO CURB BOX OR OUTSIDE WATER METER.

M. HYDRANTS DESIGNATED FOR REMOVAL SHALL BE REMOVED UNDER LAKE COUNTY WATER DEPARTMENT SUPERVISION. SPECIAL CARE IN REMOVAL AND HANDLING OF EXISTING HYDRANTS SHALL BE MAINTAINED AT ALL TIMES AND REMOVAL OF EXISTING HYDRANTS SHALL BE DONE BY EXCAVATION OF HYDRANT ASSEMBLY ONLY. ALL REMOVED HYDRANTS SHALL BECOME THE PROPERTY OF THE LAKE COUNTY WATER DEPARTMENT. REMOVED HYDRANTS ARE TO BE STORED ON JOB SITE FOR PICK UP BY THE LAKE COUNTY WATER DEPARTMENT. THE EXISTING HYDRANTS AND WATER MAIN SHALL NOT BE TAKEN OUT OF SERVICE UNTIL ALL THE PROPOSED HYDRANTS AND WATER MAIN FOR A GIVEN STREET ARE OPERATIONAL.

CONTRACTOR SHALL SUBMIT FOR APPROVAL TO LAKE COUNTY DEPARTMENT OF UTILITIES MEANS AND METHOD TO RESTRAIN EXISTING HYDRANTS DURING INSTALLATION OF PROPOSED WATER MAIN PRIOR TO EXCAVATION.

EXCAVATION, BACKFILL AND COMPACTION

ALL EXCAVATION WILL BE CONSIDERED UNCLASSIFIED, NO COMPENSATION WILL BE ALLOWED THE CONTRACTOR FOR ROCK OR SHALE EXCAVATION.

THE OWNER AND THE ENGINEER DO NOT GUARANTEE NOR SUGGEST THE IN-SITU MATERIAL TO BE EXCAVATED WILL BE SUITABLE OR IN ITS PRESENT STATE WILL CONSIST OF THE PROPER MOISTURE CONTENT TO ACHIEVE THE COMPACTION REQUIREMENTS. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE BACKFILL MATERIAL HE WILL USE. UPON REQUEST, THE OWNER WILL PROVIDE ACCESS TO THE SITE FOR THE CONTRACTOR TO CONDUCT SUCH INVESTIGATION AND TESTS DEEMED NECESSARY TO MAKE HIS DETERMINATION. NO EXTRA PAYMENT WILL BE MADE TO DISPOSE OF UNSUITABLE MATERIAL OR FURNISH AND PLACE SUITABLE MATERIAL.

BACKFILLING OF ANY TRENCHES OR EXCAVATIONS WILL NOT BE PERMITTED WITHOUT MACHINE MOUNTED COMPACTION EQUIPMENT BEING USED.

SLAG PRODUCTS WILL NOT BE PERMITTED FOR BEDDING, BACKFILL, OR TRAFFIC COMPACTION SURFACE.

ALL UTILITY LINES CROSSING THE NEW WATERLINE TRENCH, (i.e. STORM SEWERS, STORM LATERALS, SANITARY SEWERS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OCT CONDUITS, CABLE T.V. LINES) SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK UNLESS ANY OF THE ABOVE UTILITIES ARE ENCOUNTERED AND NOT SHOWN ON THE DRAWINGS.

WATER GENERAL NOTES

- A. ALL WATERLINES WITHIN THE PROJECT AREA BELONG TO LAKE COUNTY AND FALL UNDER THE CONTROL OF THE WATER DEPARTMENT.
- B. ANY AND ALL CONSTRUCTION OF WATERLINE FACILITIES REQUIRED BY THIS PROJECT IS TO BE GOVERNED BY THE DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT, WHICH IN EVENT OF A DISCREPANCY, SUPERSEDE THE LAKE COUNTY STANDARD WATERLINE SPECIFICATIONS.
- C. THIS APPROVAL BY THE LAKE COUNTY SANITARY ENGINEER SHALL EXPIRE IF THE WATERLINE CONSTRUCTION HAS NOT BEEN INITIATED BY A DEVELOPER WITHIN TWELVE (12) MONTHS OF THE EFFECTIVE APPROVAL DATE AS SHOWN ON THE ORIGINALLY SUBMITTED FOR APPROVAL BLUEPRINT COPY. (THIS IS NOT TO BE CONSTRUED AS THE DATE THAT IS SHOWN ON THE ORIGINAL MYLAR TITLE SHEET.)
- D. THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY WATER DEPARTMENT (LCWD) AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THEIR SYSTEMS.
- E. THE LAKE COUNTY WATER DEPARTMENT SHALL PERFORM INSPECTION SERVICES. THE COST OF INSPECTION SHALL BE INCLUDED AS PART OF THIS CONSTRUCTION PROJECT AT A RATE OF \$300.00 PER 8-HOUR DAY. COST FOR LAKE COUNTY INSPECTION FEE AND OTHER FEES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR OTHER WATERLINE ITEMS. OVERTIME, WEEKENDS AND HOLIDAYS SHALL BE AT A RATE OF 1.5 TIMES THE BASE RATE.
- F. WATERLINE WORK SHALL NOT BEGIN UNTIL THE AREAS OF CONSTRUCTION ARE ROUGH GRADED.
- G. ALL WATERLINES ON THIS PROJECT SHALL BE LAID AT THE ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS. HIGH POINTS IN THE WATERLINE MUST OCCUR AT THE STATIONED HYDRANT TEE LOCATIONS.
- H. ALL HYDRANTS SHALL BE POSITIONED SO THAT THE STEAMER NOZZLES POINT IN THE DIRECTION SHOWN ON THE PLANS.
- I. THE PROPOSED WATERLINE SHALL HAVE 5' MINIMUM COVER OVER THE TOP OF PIPE AT ALL PLACES, EXCEPT AT SPECIFIC HYDRANT TEE LOCATIONS AS SHOWN ON THE PLANS.
- J. ZINC ANODE THREADED CAPS SHALL BE USED ON EVERY BOLT.
- K. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR PRELIMINARY CHECKING AND APPROVAL.
- L. THE LCWD SHALL PROVIDE WATER FOR THE NEW WATER MAIN WITHOUT COST FOR THE INITIAL OPERATION. ALL WATER FOR FLUSHING OPERATIONS SHALL BE PAID FOR BY THE CONTRACTOR AT A RATE OF \$3.33 PER 100 CUBIC FEET OF WATER USED.
- M. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE, ANSI A21.51, THICKNESS CLASS 53, UNLESS OTHERWISE SHOWN ON THE PLANS, WITH PUSH-ON JOINTS, CEMENT LINED ANSI 1 21.4. FITTINGS TO BE FULL BODY-ONLY
- N. LOCATION OF STERILIZATION AND TESTING CONNECTIONS SHALL BE AS DIRECTED BY THE LCWD AND ALL COSTS ASSOCIATED WITH PLACING AND UTILIZING SAID STERILIZATION AND TESTING CONNECTIONS SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT OF THE WATER MAINS. NO BACTERIA SAMPLES ARE TO BE TAKEN FROM FIRE HYDRANTS.
- O. THE CONTRACTOR SHALL BE APPROVED BY THE LCWD FOR TAPPING SERVICE CONNECTIONS. IF THE CONTRACTOR IS NOT APPROVED, LCWD WILL MAKE THE NECESSARY SERVICES CONNECTION TAPS AT A COST TO THE CONTRACTOR OF \$320.00 PER 2" AND GREATER TAPS.
- P. NO WATER SERVICE CONNECTIONS TO ANY BUILDING SHALL BE PERMITTED PRIOR TO FINAL ACCEPTANCE BY THE SANITARY ENGINEER INCLUDING RECTIFICATION OF ALL PUNCH LIST ITEMS.
- Q. ALL CURB STOP BOXES, VALVE BOXES, ETC., TO BE SET AS SHOWN ON THE PLANS. RIMS WILL BE RAISED OR LOWERED AND BOXES PLUMBED BY THE BUILDER AT TIME OF HOUSE CONSTRUCTION WHEN FINAL YARD GRADING IS COMPLETED.
- R. ALL PROJECT HYDRANTS SHALL HAVE A FIELD COAT OF APPROVED PAINT APPLIED BY THE CONTRACTOR.
- S. THE CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT PRIOR TO ANY PRESSURE TESTING.