

# WATERWORK NOTES

CALC. BY _____ DATE _____	LAK - 535 - 0.55	OHIO FHWA REGION 5	7 90
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PLAN NO. 271

## HANDLING PIPE AND ACCESSORIES

- A. UNLOADING: PIPE, FITTINGS, VALVES, HYDRANTS, AND OTHER ACCESSORIES SHALL, UNLESS OTHERWISE DIRECTED, BE UNLOADED AT THE POINT OF DELIVERY, HAULED TO AND DISTRIBUTED AT THE SITE OF THE PROJECT BY THE CONTRACTOR. THEY SHALL AT ALL TIMES BE HANDLED WITH CARE TO AVOID DAMAGE. IN LOADING AND UNLOADING THEY SHALL BE LIFTED BY HOISTS OR SLID, OR ROLLED ON SKIDWAYS IN SUCH A MANNER AS TO AVOID SHOCK. UNDER NO CIRCUMSTANCES SHALL THEY BE DROPPED. PIPE HANDLED ON SKIDWAYS MUST NOT BE SKIDDED OR ROLLED AGAINST PIPE ALREADY ON THE GROUND.
- B. AT SITE OF WORK: IN DISTRIBUTING THE MATERIAL AT THE SITE OF THE WORK, EACH PIECE SHALL BE UNLOADED OPPOSITE OR NEAR THE PLACE WHERE IT IS TO BE LAID IN THE TRENCH.
- C. PROTECTION OF PIPE COATING: PIPE SHALL BE HANDLED IN SUCH MANNER THAT A MINIMUM AMOUNT OF DAMAGE TO THE COATING WILL RESULT. ANY DUCTILE IRON PIPE OR FITTING, THE COAT OF WHICH HAS BEEN DAMAGED IN SHIPPING OR HANDLING, SHALL HAVE THE DAMAGED PORTION WELL CLEANED AND COVERED WITH AN ASPHALT PAINT, APPROVED BY THE ENGINEER AND VILLAGE, BEFORE BEING PLACED IN THE WORK. THE CONTRACTOR SHALL THOROUGHLY COAT ALL EXPOSED PARTS OF BOLT AND NUTS WITH AN APPROVED ASPHALT PAINT, AFTER ALL PIPE HAS BEEN LAID AND BEFORE BACKFILLING HAS BEEN PLACED. ALL FIELD COATING SHALL BE FURNISHED BY THE CONTRACTOR.
- D. PIPE KEPT CLEAN: THE INTERIOR OF THE PIPE, FITTINGS AND OTHER ACCESSORIES SHALL BE KEPT FREE FROM DIRT AND FOREIGN MATTER AT ALL TIMES.
- E. FROST PROTECTION: VALVES AND HYDRANTS BEFORE INSTALLATION SHALL BE DRAINED AND STORED IN A MANNER THAT WILL PROTECT THEM FROM DAMAGE BY FREEZING.

## CLOSING VALVES

THE CLOSING OF ALL GATE VALVES ON WATER MAINS FOR MAKING CONNECTIONS, TESTS, OR FOR ANY OTHER CAUSE, SHALL BE DONE BY THE VILLAGE OF FAIRPORT HARBOR. THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF FAIRPORT HARBOR ONE (1) WEEK IN ADVANCE OF THE SHUTDOWN AND THE VILLAGE WILL SPECIFY THE TIME, HOURS AND/OR SPECIAL CONDITIONS, ETC.

## ITEM 638 - HYDRANT EXTENDED AND ADJUSTED TO GRADE

THIS WORK SHALL CONSIST OF EXTENDING HYDRANT LEADS TO RELOCATE EXISTING HYDRANTS IN REASONABLY CLOSE CONFORMITY TO THE LOCATIONS, LINES AND GRADES SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER.

THE EXISTING HYDRANT SHALL BE REMOVED FOR STORAGE AND PICK-UP BY THE VILLAGE OF FAIRPORT HARBOR, THE HYDRANT LEAD PIPING BETWEEN THE VALVE AND HYDRANT SHALL BE REMOVED AND REPLACED, AND A NEW HYDRANT ASSEMBLY INSTALLED AS SHOWN ON THE PLAN AND DETAIL SHEET No. 72.

THE UNIT PRICE BID FOR ITEM 638 - "HYDRANT EXTENDED AND ADJUSTED TO GRADE," SHALL INCLUDE THE NECESSARY EXCAVATION AND BACKFILL, INCLUDING GRANULAR BACKFILL WHEN REQUIRED. IT SHALL ALSO INCLUDE THE NECESSARY FITTINGS, EXTENSION, HYDRANTS, RESTRAINTS, SHEETING AND SHORING, PIPE STRUCTURES, UTILITIES, SERVICE CONNECTIONS OR OTHER FACILITIES TOGETHER WITH ALL LABOR, EQUIPMENT, TOOLS AND MATERIALS NECESSARY TO COMPLETE THE WORK, AS SHOWN, SPECIFIED OR DIRECTED BY THE ENGINEER.

## ITEM 638 - FIRE HYDRANT AND GATE VALVE REMOVED AND RESET, AS PER PLAN

THIS WORK SHALL CONSIST OF REMOVING EXISTING HYDRANTS AND VALVES AND RESETTING THEM IN REASONABLY CLOSE CONFORMITY TO THE LOCATIONS, LINES AND GRADES SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER.

THE EXISTING HYDRANT AND VALVE SHALL BE REMOVED FOR STORAGE AND PICK-UP BY THE VILLAGE OF FAIRPORT HARBOR. THE HYDRANT LEAD PIPING BETWEEN THE ANCHORING TEE AND THE HYDRANT SHALL BE REMOVED AND REPLACED AND A NEW HYDRANT ASSEMBLY INSTALLED AS SHOWN ON THE PLAN AND DETAIL SHEET No. 72.

THE UNIT PRICE BID FOR ITEM 638 - "FIRE HYDRANT AND GATE VALVE REMOVED AND RESET, AS PER PLAN" SHALL INCLUDE THE NECESSARY EXCAVATION AND BACKFILL, INCLUDING GRANULAR BACKFILL WHEN REQUIRED. IT SHALL ALSO INCLUDE THE NECESSARY FITTINGS, EXTENSION, HYDRANTS, GATE VALVES, RESTRAINTS, SHEETING AND SHORING, PIPE STRUCTURES, UTILITIES, SERVICE CONNECTIONS OR OTHER FACILITIES TOGETHER WITH ALL LABOR, EQUIPMENT, TOOLS AND MATERIALS NECESSARY TO COMPLETE THE WORK, AS SHOWN, SPECIFIED OR DIRECTED BY THE ENGINEER.

## EXISTING GATE VALVE ABANDONED IN PLACE

THIS WORK SHALL CONSIST OF REMOVING THE EXISTING ADJUSTABLE VALVE BOX AT THE BOX BASE AT THE LOCATIONS SHOWN ON THE PLANS AND BACKFILLING.

THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 638 - "4" & 10" CUTTING-IN SLEEVE, VALVE AND VALVE BOX".

## ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN

THE WORK SHALL CONSIST OF ADJUSTING EXISTING MANHOLES TO GRADE IN REASONABLY CLOSE CONFORMITY TO THE GRADES SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER.

THE UNIT PRICE BID FOR ITEM 604 - "MANHOLE ADJUSTED TO GRADE" SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO RAISE OR LOWER THE EXISTING CASTING, REMOVE OR INSTALL BRICK MASONRY AS NEEDED FOR ADJUSTMENT, PLACE A BED OF MORTAR TO RECEIVE THE CASTING AND RESET THE EXISTING CASTING ALL AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

## ITEM 638 - SERVICE BOX, ADJUSTED TO GRADE

THIS WORK SHALL CONSIST OF ADJUSTING EXISTING SERVICE BOXES TO GRADE IN REASONABLY CLOSE CONFORMITY TO THE GRADES SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER.

THE UNIT PRICE BID FOR ITEM 638 - "SERVICE BOX, ADJUSTED TO GRADE", SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO RAISE OR LOWER AND PLUMB THE EXISTING CASTINGS, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY BASED ON ONE SERVICE BOX PER RESIDENCE HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR WORK AS DIRECTED BY THE ENGINEER FOR SERVICE BOXES IN TREELAWN AREA. THIS ITEM IS IN ADDITION TO THOSE SPECIFIED LOCATIONS NOTED ON THE PLAN.

ITEM 638 - SERVICE BOX,  
ADJUSTED TO GRADE 10 EACH

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

## ITEM 638 - 3/4" WATER SERVICE CONNECTION

THIS WORK SHALL CONSIST OF PROVIDING 3/4" WATER SERVICE CONNECTIONS FOR LOCATIONS IN THE PROJECT IN WHICH CURB WIDENING MAY NECESSITATE THE RELOCATIONS OR CURB STOP BOXES IN REASONABLY CLOSE CONFORMITY TO THE LOCATIONS, LINES AND GRADES SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE UNIT PRICE BID FOR ITEM 638 - "3/4" WATER SERVICE CONNECTION," SHALL INCLUDE THE NECESSARY EXCAVATION AND BACKFILL INCLUDING GRANULAR BACKFILL WHEN REQUIRED, THE REMOVAL OF THE EXISTING CONNECTION TOGETHER WITH THE NECESSARY FITTING, BOX, PIPE, DEWATERING, SHEETING SHORING, PIPE BEDDING AND PIPE BACKFILL, DISPOSAL OF WASTE MATERIALS, PROTECTION OF STRUCTURES, UTILITIES, THRUST BLOCKING, CRUSHED STONE FILL, TESTING, FLUSHING, STERILIZING AND PAINTING OF ALL CONNECTION ASSEMBLIES TOGETHER WITH LABOR, EQUIPMENT TOOLS AND MATERIALS NECESSARY TO COMPLETE THE WORK AS SHOWN, SPECIFIED OR DIRECTED BY THE ENGINEER.

AN ESTIMATED QUANTITY FOR THIS CONTINGENCY, ITEM 638 - "3/4" WATER SERVICE CONNECTION" HAS BEEN PROVIDED IN THE GENERAL SUMMARY AS FOLLOWS:

ITEM 638 - 3/4" WATER SERVICE CONNECTION, LONG SIDE 4 EACH  
ITEM 638 - 3/4" WATER SERVICE CONNECTION, SHORT SIDE 4 EACH

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

## ITEM 638 - MISCELLANEOUS METAL WORK

THE CONTRACTOR SHALL FURNISH AND INSTALL NEW MISCELLANEOUS METALS SUCH AS MANHOLE FRAMES AND COVERS, WATER METER BOXES AND COVERS, VALVE BOXES AND LIDS, CURB STOP BOXES AND LIDS, VALVE BOX EXTENSIONS, HYDRANT EXTENSIONS, BRONZE BOLTS, AND OTHER SIMILAR ITEMS REQUIRED FOR THE PROPER COMPLETION OF THE WORK AND NOT SPECIFICALLY CALLED FOR UNDER ANOTHER PAY ITEM. FURNISHING AND INSTALLATION SHALL BE AS DIRECTED BY THE ENGINEER UPON DETERMINATION IN THE FIELD THAT SUCH CASTINGS OR PARTS ARE BROKEN, DAMAGED OR OTHERWISE UNUSABLE.

ALL NEW CASTINGS OR PARTS SHALL CONFORM TO THE APPROPRIATE WATERWORKS SPECIFICATIONS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. ALL CASTINGS OR PARTS DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE SHALL BE REPLACED AT NO COST TO THE STATE.

THE UNIT PRICE BID PER POUND FOR ITEM 638 - "MISCELLANEOUS METAL WORK," SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY COMPLETE THE WORK AS PLANNED, SPECIFIED OR DIRECTED BY THE ENGINEER.

AN ESTIMATED QUANTITY FOR ITEM 638 - "MISCELLANEOUS METAL WORK," HAS BEEN PROVIDED IN THE GENERAL SUMMARY AS FOLLOWS:

ITEM 638 - MISCELLANEOUS METAL WORK 200 LBS.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.