

## WATER MAIN GENERAL NOTES:

- LOCATION OF UTILITIES AND PROPERTY LINES ARE FROM THE BEST INFORMATION AVAILABLE. EXACT LOCATION AND COMPLETENESS ARE NOT
- THE CONTRACTOR MUST VERIFY THE LOCATION OF UNDERGROUND UTILITIES WITH THE UTILITY OWNERS PRIOR TO DOING ANY WORK IN THE VICINITY. THE CONTRACTOR MUST COMPLY WITH REQUIREMENTS OF UTILITY OWNERS REGARDING NOTICE OF WORK AND PROTECTION OF UTILITIES. THE CONTRACTOR MUST COMPLY WITH THE CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION DAMAGE PREVENTION PROTOCOL CITY INFRASTRUCTURE DEPARTMENTS. ALL UTILITIES MUST BE NOTIFIED AT LEAST 48 HOURS BEFORE CONSTRUCTION, (CALL DIGGER 312-744-7000)
- IF ANY PUBLIC OR PRIVATE UTILITIES CROSS THE WATER MAIN TRENCH AND MUST REMAIN IN PLACE, THE CONTRACTOR MUST PROTECT SAID UTILITY IN CONFORMANCE WITH THE SPECIFICATIONS OR AS DIRECTED BY THE CHICAGO DEPARTMENT OF WATER MANAGEMENT BUREAU OF ENGINEERING
- TEST PITS MUST BE EXCAVATED IN ADVANCE OF PIPELINE CONSTRUCTION IN ORDER TO CONFIRM DEPTH AND LOCATION OF EXISTING UTILITIES AND WHEN DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR TEST PIT EXCAVATION.
- WORK INDICATED ON THE PLANS AND NOT REFERENCED TO A BID ITEM IS CONSIDERED INCIDENTAL TO THE WORK TO WHICH IT APPLIES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- WATER MAIN AND FITTINGS LOCATIONS SHOWN ON THE DRAWINGS FOR THE NEW WATER MAINS AND APPURTENANCES MAY BE CHANGED BY THE ENGINEER DUE TO FIELD CONDITIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR SUCH CHANGES, UNLESS PREVIOUSLY APPROVED BY THE ENGINEER.
- THE OPERATION OF ALL VALVES REQUIRED FOR SHUTDOWN MUST BE PERFORMED BY CDWM FORCES PURSUANT TO A 72 HOUR ADVANCE NOTIFICATION TO THE DEPARTMENT. ANY VALVE FOUND NOT OPERABLE WILL BE REPAIRED OR REPLACED BY CDWM.
- REMOVE AND PROPERLY DISPOSE OF ALL WATER ENTERING ANY EXCAVATION INCLUDING LEAKAGE FROM EXISTING WATER MAINS. ALL EXCAVATIONS ASSOCIATED WITH THE WATER MAIN WORK MUST BE KEPT DRY.
- ALL OPENINGS IN EXISTING WATER MAINS MUST BE PLUGGED OR CAPPED WITH DUCTILE IRON FITTINGS UNTIL THE MAIN IS ABANDONED.
- ALL VALVE BASINS MUST BE CONSTRUCTED OF PRE-CAST REINFORCED CONCRETE UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- NOTES INDICATING S.N.L., E.W.L., ETC. MEAN SOUTH OF THE NORTH PROPERTY LINE, EAST OF THE WEST PROPERTY LINE, ETC. AND ARE MEASURED FROM THE NEAREST STREET.
- IE A STANDARD MECHANICAL JOINT SLEEVE DOES NOT EIT TO MAKE CONNECTION OF THE NEW PIPE TO THE EXISTING PIPE. A TRANSITION SLEEVE MUST BE USED. NO GRINDING OF THE EXISTING PIPE IS PERMITTED.

-USE FILLER PIECES OF PIPE TO FILL THE AREA BETWEEN PIPE ENDS WHEN INSTALLING SLEEVE FITTINGS.

- -ON CONNECTIONS TO EXISTING CAST IRON PIPES, USE CAUTION WHEN INSTALLING MJ SLEEVES. SET SCREW TYPE RESTRAINT GLANDS (E.G. RETAINER GLANDS) ARE NOT ACCEPTABLE. CONSULT THE SPECIFICATIONS FOR JOINT RESTRAINT REQUIREMENTS.
- ABANDON EXISTING WATER MAINS IN ACCORDANCE WITH THE SPECIFICATIONS.
- SWAB ALL PIPE AND FITTINGS WITH CHLORINE SOLUTION DURING INSTALLATION AND USE EXTRA PRECAUTION TO PREVENT SOIL AND DEBRIS FROM ENTERING THE PIPE. WHEN CONNECTING NEW PIPE TO THE EXISTING WATER SYSTEM, USE OPERATING PRESSURE IN LIEU OF PRESSURE TEST TO VISUALLY INSPECT FOR LEAKS. WHEN FEASIBLE, PERFORM INSPECTION PRIOR TO BACKFILLING, COMPLY WITH ALL STANDARDS AND REQUIREMENTS OF THE CDWM BUREAU OF WATER QUALITY. (312) 744-8190
- DE-CHLORINATION OF HEAVILY CHLORINATED WATER IS REQUIRED. THE CONTRACTOR OR SUBCONTRACTED CHLORINATOR SHALL DE-CHLORINATE AS LISTED FOR "INFORMATIONAL PURPOSES ONLY" IN APPENDIX C OF THE ANSI/AWWA STANDARD C-651-05, JUNE 1, 2005, THE CHLORINE LEVEL MUST BE BROUGHT TO POTABLE WATER LEVELS.
- ELEVATIONS ARE SHOWN IN THE CITY OF CHICAGO DATUM AND NAVD 88. THE CONVERSION FACTOR FROM CCD TO NAVD88 IS: NAVD 88 ELEVATION = CCD + 579.19.
- -CONTRACTOR SHALL CONSTRUCT THE IMPROVEMENTS ONLY WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO PRIVATE PROPERTY AND SHALL REPAIR SAID DAMAGE AT OWN EXPENSE TO THE SATISFACTION OF THE ENGINEER.
- -ALL CASING PIPES MUST BE SMOOTH WELDED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A139, GRADE B. THE EXTERIOR OF THE CASING PIPE MUST HAVE COAL-TAR ENAMEL IN ACCORDANCE WITH AWWA C203 AND HAVE A THICKNESS OF 0.625 INCHES AND AN OUTSIDE DIAMETER OF 42 INCHES.

-SPACERS FOR CARRIER PIPES MUST BE EITHER THE TWO-PIECE METAL BAND TYPE WITH 2-INCH WIDE NON-METALLIC RUNNERS OR UNITS MANUFACTURERED ENTIRELY OUT OF HIGH-DENSITY POLYETHYLENE. ON TWO-PIECE METAL BAND TYPE SPACERS, BANDS AND FASTENERS MUST BE OF CORROSOIN RESISTANT MATERIAL. ALL SPACERS MUST BE RATED FOR HEAVY DUTY SERVICE, MANUFACTURERED BY (PSI) PIPELINE SEAL AND INSULATOR, INCORPORATED; CASCADE WATERWORKS MANUFACTURING COMPANY OR RACI SPACERS NORHT **AMERICA** 

-PRIOR TO INSERTION IN THE CASING, EACH LENGTH OF PIPE MUST BE SUPPORTED ON CASING SPACERS IN SUCH A MANNER THAT AT NO TIME WILL THE WEIGHT OF THE PIPE BEAR ON THE BELL OR ANY PART OF THE PIPE TOUCH THE CASING.

-ALL PIPES MUST BE JOINTED PRIOR TO BEING PUSHED OR PULLED THROUGH THE CASING PIPE. AFTER PLACEMENT OF THE CARRIER PIPE THROUGH THE CASING, THE ENDS OF THE CASING ARE TO BE SEALED WITH BRICK AND MORTAR OR RUBBER END SEAL OR OTHER APPROVED METHOD AND MUST BE COMPLETELY LEAK-TIGHT.

## CONSTRUCTION/SEQUENCING NOTES:

NOTE: ALL OF THE FOLLOWING WATER MAIN CONSTRUCTION MUST BE COORDINATED AND SEQUENCED WITH THE BRACED EXCAVATION SUPPORT SYSTEM, DEMOLITION OF THE EXISTING RISER SHAFT AND CONSTRUCTION OF THE NEW RISER SHAFT. REFERENCE RISER SHAFT PLANS FOR MORE DETAILED CONSTRUCTION SEQUENCING OF THESE ITEMS.

- 1. CONTACT CDWM FOR SHUTDOWN OF WATER MAIN. (312-744-5070)
- 2. DEWATERING OF EXISTING PIPE SHALL BE COORDINATED WITH BRACED RAMP EXCAVATION AND DEMOLITION OF EXISTING RISER SHAFT. SEE SHEET
- 3. CUT AND CAP EXISTING 30" WATER MAIN TO THE NORTH IN MORGAN STREET. CUT AND CAP EXISTING 36" WATER MAIN TO THE SOUTH UNDER EXPRESSWAY, EXACT LOCATIONS AND DEPTH OF EXISTING WATER MAINS TO BE VERIFIED IN FIELD BY CONTRACTOR.
- 4. INSTALL 42" CASING PIPE AND 24" CARRIER PIPE BETWEEN EXISTING RISER SHAFT AND PROPOSED RISER SHAFT LOCATION. SUPPORT AS SHOWN ON SHEET 225.
- 5. REMOVE TEMPORARY CAP AND CONNECT TO THE NEW 24" WATER MAIN TO THE EXISTING 36" WATER MAIN.

SCALE:

- 6. AFTER CONSTRUCTION OF THE NEW RISER SHAFT, SET PIPE, FITTINGS AND APPURTENANCES AS SHOWN IN THE RISER SHAFT. SEE SHEET 226.
- 7. SET PIPE, FITTINGS, VALVES, VALVE BASIN AND APPURTENANCES AS SHOWN FROM THE RISER SHAFT TO THE POINT OF CONNECTION TO THE EXISTING 30" WATER MAIN IN MORGAN STREET. COORDINATE THE LOCATION OF BENDS WITH THE LOCATION OF THE THRUST RESTRAINER PILES SHOWN ON SHEET 229.
- 8. REMOVE TEMPORARY CAP AND CONNECT TO EXISTING 30" PIPE WITH DI
- 9. BEFORE THE WATER MAIN CAN BE FILLED AND FLUSHED. THE BRACED EXCAVATION AREA MUST BE BACKFILLED AND STRUCTURAL RESTRAINT SYSTEMS IN PLACE. COORDINATE WITH SHEET 225.
- 10. CONTACT CDWM TO OPERATE VALVES FOR FILLING AND FLUSHING WATER MAIN.
- 11. DISINFECT, FLUSH AND PRESSURE TEST PER GENERAL NOTES.
- 12. RESTORE ALL WATER MAIN TRENCHES PER THE DETAILED DRAWING.

(NOTE: ALL PIPE AND FITTINGS USED SHALL BE RESTRAINED JOINT) BILL OF MATERIALS:

4' OF 36" DI RESTRAINED JOINT PIPE 4' OF 30" DI RESTRAINED JOINT PIPE

80' OF 24" DI MJ PIPE

2-24"X16" SBMJ REDUCER 4-24" 2BMJ 1/8 BEND

2-24" DI MJ SLEEVE 20' OF 42" STEEL CASING PIPE

-36"X24" 2BMJ REDUCER (PROVIDED) 1-30"X24" 2BMJ REDUCER (PROVIDED)

2-24" 2BMJ 1/4 BASE BEND (PROVIDED) 1-36" DI MJ SLEEVE (PROVIDED)

1-30" DI MJ SLEEVE (PROVIDED

1-16" CHICAGO STANDARD MJ GATE VALVE(PROVIDED)

PLOT DATE = 5/14/2013 DATE 05/14/13 REVISED

**DEPARTMENT OF TRANSPORTATION** 

WATERMAIN REPLACEMENT PLAN SHEET 1 OF 3 SHEETS STA. TO STA.

SECTION COUNTY 90/94/290 2013-007R COOK 317 87 CONTRACT NO. 60W25