OUTLINE SPECIFICATIONS FOR CONSTRUCTION OF WATER DISTRIBUTION SYSTEM

1. INTENTION: THE DECLARED AND ACKNOWLEDGED INTENTION TO SECURE A NEW WATER DISTRIBUTION SYSTEM, COMPLETE, IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS. ALL NEW WORK SHALL BE IN ACCORDANCE WITH THE LASTEST EDITION OF "RECOMMENDED STANDARDS FOR WATER WORKS."

2. GENERAL: ALL MATERIALS SHALL BE NEW AND UNUSED. MATERIALS SHALL BE WARRANTED BY THE CONTRACTOR AS TO MATERIALS, WORKMANSHIP, AND ACCURACY OF AS-BUILT DRAWINGS FOR A PERIOD OF ONE YEAR FROM THE DATE OF BENEFICIAL USE OF THE FACILITIES. WORKMANSHIP SHALL BE OF GOOD QUALITY; I.E., MAINS SHALL BE LAID IN A UNIFORM ALIGNMENT, FITTINGS SHALL BE PROPERLY RESTRAINED, TRENCHES SHALL BE PROPERLY EXCAVATED AND BACKFILLED, FIRE HYDRANTS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE.

3. SURVEYS: THE UTILITY CONTRACTOR SHALL PROVIDE ALL SURVEYS NECESSARY FOR THE LAYOUT AND CONSTRUCTION OF THE WORK OF HIS CONTRACT.

4. EARTHWORK: EARTHWORK SHALL INCLUDE ALL EXCAVATION, FILL AND BACKFILL (MACHINE), COMPACTION AND ROUGH GRADING OF MATERIALS ENCOUNTERED. NO UNSUITABLE MATERIAL INCLUDING, BUT NOT LIMITED TO, CLAY, MUCK, OR PEAT, REMOVED FROM PIPE TRENCHES ARE TO BE USED FOR BACKFILL. ALL FILL OR BACKFILL SHALL BE EITHER SAND OR SANDY CLAY, FREE FROM ROOTS, TRASH, OR OTHER DEBRIS. ALL OTHER BACKFILL SHALL BE COMPACTED BY MACHINE OPERATION CAREFULLY TO 95% (OUTSIDE OF PAVING), 98% (UNDER PAVING) OF ITS OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698, LATEST.

5. JOINT RESTRAINT: ALL DIP FITTINGS SHALL BE PROPERLY AND ADEQUATELY RESTRAINED AGAINST LATERAL MOVEMENT AT ALL WATER MAIN TEES, CROSSES, VALVES, BENDS, AND FIRE HYDRANTS. RESTRAINERS SHALL BE MEGA-LUG TYPE FOR MECHANICAL JOINTS AND FIELD LOK GASKETS FOR PUSH JOINTS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

6. DUCTILE IRON PIPE: DUCTILE IRON PIPES SHALL COMFORM TO ANSI SPECIFICATION A21.50 (AWWA C150) LATEST, CLASS 52 MINIMUM AND SHALL BE ANSI A21.51 (AWWA C151), LATEST CENTRIFUGALLY CAST PIPE. WHEN PIPING RATING IS REDUCED BY THREADING, INCREASE PIPE WEIGHT TO CLASS 53. LAYING LENGTHS SHALL BE 20 FEET, EACH LENGTH CLEARLY MARKED WITH PRESSURE RATING, THICKNESS CLASS, HEIGHT OF PIPE WITHOUT LINING, LENGTH, AND MANUFACTURER. THE PIPE SHALL HAVE DESIGN VALUES OF 60,000 PSI MINIMUM TENSILE STRENGTH, AND 42,000 PSI MINIMUM YIELD STRENGTH. ALL PIPE SHALL BE POLYETHYLENE ENCASED.

7. DUCTILE IRON FITTINGS: DUCTILE IRON FITTINGS SHALL BE C153 CEMENT LINED AND SUITABLE FOR THE TYPE AND CLASS OF PIPE TO WHICH CONNECTED. GASKETS SHALL BE SUITABLE FOR POTABLE AND DOMESTIC WATER SERVICE.

8. HIGH DENSITY POLYETHYLENE PIPE: POLYETHYLENE PIPES AND FITTINGS SHALL COMPLY WITH THE FOLLOWING STANDARDS. STANDARD FOR POLYETHYLENE WATER MAINS (ASTM F714) LATEST, STANDARD SPECIFICATION FOR POLYETHYLENE PLASTIC PIPES AND FITTING MATERIALS (ASTM D3350) LATEST, DIP MMJ ADAPTERS (AWWA C906-99) LATEST, AND (AWWA C906) AND (NSF 61). HIGH DENSITY POLYETHYLENE PIPING COMPONENTS SHALL BE MADE FROM PRESSURE-RATED PE 3408, EXTRA-HIGH MOLECULAR WEIGHT, HIGH-DENSITY POLYETHYLENE. PIPE OUTER DIAMETER (OD) SHALL BE COMPATIBLE WITH STANDARD DUCTILE IRON PIPE SIZES. HDPE PIPES FOR WATER SHALL BE DR 11 AND MANUFACTURED WITH A BLUE LONGITUDINAL COLOR STRIPE PATTERN OF THREE EQUALLY SPACED PAIRS OF COLOR STRIPES EXTRUDED INTO THE PIPE WITH TRACER WIRE. ALL HDPE WATER SERVICES SHALL BE DR 9 WITH SS STIFFENER INSERTS AND TRACER WIRE, CURB STOP, CORP STOP, AND CURB BOX COMPATIBLE WITH HDPE WATER SERVICES.

9. STEEL CASING PIPE: STEEL CASING PIPE, WHEN REQUIRED, SHALL BE OF SIZE INDICATED ON THE DRAWINGS AND SHALL CONFORM TO ASTM A139, WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI.

10. GATE VALVES AND BOXES: GATE VALVES SHALL BE NON-RISING STEM TYPE AND SHALL BE SUITABLE FOR 175 PSI (3"-12") AND 150 PSI (14"-48") WORKING PRESSURE GATE VALVE, WHICH, SHALL BE MECHANICAL JOINT. GATE VALVES SHALL HAVE A 2" OPERATING NUT AND OPEN COUNTER-CLOCKWISE. GATES VALVES SHALL HAVE JOINTS SUITABLE FOR THE TYPE OF MAIN ON WHICH INSTALLED. GATE VALVES 4" AND LARGER SHALL BE IRON BODY, BRONZE FITTED WITH RESILIENT SEAT. VALVES SHALL BE OF DOMESTIC (AMERICAN) MANUFACTURE AND SHALL BE CLOW, KENNEDY VALVE, MUELLER, OR APPROVED EQUAL. VALVE BOXES SHALL BE 5 1/4" DIAMETER, CAST IRON, SLIDING TYPE WITH CENTERING DEVICE, ADJUSTABLE WITH THE WORD "WATER" CAST IN THE COVER. ALL SECTIONS OF THE VALVE BOX SHALL BE INTERCHANGEABLE WITH OLD BUFFALO FOUNDRY BOXES: STYLE #5001. VALVE BOXES SHALL BE BINGHAM AND TAYLOR OR APPROVED EQUAL.

11. CURB STOPS: CURB VALVES SHALL HAVE A COMPRESSION NUT CONNECTION AT THE INLET AND OUTLET AND SHALL BE BALL STYLE CURB STOP FOR HDPE WATER SERVICES. MODEL B44-XXX-TW-Q AS MANUFACTURED BY FORD BALLCORP CORPORATION OR APPROVED EQUAL.

12. CORP STOPS: CORPORATION STOPS SHALL HAVE A COMPRESSION CONNECTION AT THE OUTLET AND SHALL BE COMPLETE WITH A TRACER WIRE HOLE AS MANUFACTURED BY FORD BALLCORP CORPORATION MODEL FB1000-X-TW-Q OR APPROVED EQUAL,

13. CURB BOXES: CURB BOXES SHALL BE TELESCOPIC WITH OPERATING ROD AND SHALL BE MANUFACTURED BY FORD COMPANY MODEL EM2-XX-5X-TW WITH PL LID OR APPROVED EQUAL. FOOT PIECE SHALL BE PROVIDED FOR ALL SERVICES 1.5" AND LARGER. COVERS SHALL HAVE "WATER" CAST IN.

14. FIRE HYDRANTS: FIRE HYDRANTS SHALL BE MANUFACTURED BY CLOW EDDY MODEL F-2640, HYDRANTS SHALL HAVE HOSE NOZZLE WITH NST THREADS WITH 2 1/2" DIAMETER NOZZLES, 4 1/2" PUMPER NOZZLE WITH NST THREADS AND 5 1/4" MAIN VALVE OPENING. LEAD PIPE FROM HYDRANT SHALL BE CONNECTED TO A GUARD VALVE WHICH IS CONNECTED TO AN ANCHOR TEE. FIRE HYDRANTS SHALL BE PAINTED RED WITH 1 1/2" PENTAGON NUT, OPENING COUNTER-CLOCKWISE. ALL HYDRANTS SHALL BE EQUIPPED WITH HYDRANT MARKER MANUFACTURED BY CARSONITE COMPOSITES MODEL #CBM209602. 96" YELLOW WITH ANCHOR ATTACHED WITH DECAL (MODEL #123FH).

15. INSTALLATION: THE MINIMUM COVER OVER TOP OF A POTABLE WATER MAIN SHALL BE 60" MINIMUM. ALL WATER LINES AND APPURTENANCES SHALL BE THOROUGHLY CLEANED OF ALL FOREIGN MATTER BEFORE BEING LOWERED INTO THE TRENCH AND SHALL BE KEPT CLEAN DURING LAYING OPERATIONS BY MEANS OF PLUGS OR OTHER APPROVED METHODS. ALL PIPES SHALL BE CHECK FOR DEFECTS BEFORE BEING LOWERED INTO THE TRENCH. DEFECTIVE PIPES SHALL NOT BE USED. PIPES FOUND TO BE DEFECTIVE AFTER INSTALLATION, SHALL BE REMOVED AND REPLACED WITH A SOUND PIPE AT NO ADDITIONAL EXPENSE TO THE OWNER. THE FULL LENGTH OF EACH SECTION OF PIPE SHALL REST SOLIDLY ON THE PIPE BED, WITH RECESSES EXCAVATED TO ACCOMMODATE THE BELLS AND JOINTS. ALL PIPES THAT HAVE THEIR GRADES OR JOINTS DISTURBED AFTER INSTALLATION, SHALL BE TAKEN UP AND REINSTALLED. THE PIPE SHALL NOT BE LAID IN WATER, OR WHEN TRENCH OR WEATHER CONDITIONS ARE UNSUITABLE FOR THE WORK. ALL JOINTS SHALL BE CLEANED OF ALL FOREIGN MATTER BEFORE MAKING THE JOINT. FITTINGS AT BENDS IN THE PIPE SHALL BE PROPERLY RESTRAINED WITH JOINT RESTRAINERS ADEQUATELY SIZED TO PREVENT MOVEMENT AND DISLOCATING OR BLOWING OFF WHEN THE LINE IS UNDER PRESSURE. SERVICE LATERALS SHALL TERMINATE AT THE POINT WHERE NOTED IN THE DETAILS. CONTRACTOR MUST FIELD VERIFY EXISTING UTILITIES AND INSTALL NEW WATER MAINS OVER OR UNDER THEM MAINTAINING PROPER SEPARATION DISTANCES AND 60" MINIMUM COVER. THERE WILL BE NO ADDITIONAL COMPENSATION TO AVOID EXISTING UTILITIES.

16. PRESSURE TESTING: AFTER ALL PRESSURE PIPE (WATER MAINS, SERVICES, AND FORCE MAINS) ARE LAID, THE JOINTS COMPLETED, AND THE TRENCHES BACKFILLED, THE NEWLY LAID PIPES AND APPURTENANCES SHALL BE SUBJECTED TO A PRESSURE TEST OF 150 PSI OR 1.5 TIMES WORKING PRESSURE (WHICH EVER IS GREATER) FOR A PERIOD OF AT LEAST 2 HOURS. THE ENGINEER MUST BE NOTIFIED AT LEAST 24 HOURS BEFORE A TEST IS TO BE PERFORMED. ANY LEAKS DETECTED SHALL BE CORRECTED AND THE SECTIONS OF THE PIPELINE RETESTED. THE 2 HOUR TEST PERIOD SHALL BEGIN WHEN ALL JOINTS HAVE BEEN DETERMINED TO BE WATER TIGHT. LEAKAGE SHALL BE LIMITED TO THAT ALLOWANCE SET FORTH IN SECTION 4 OF AWWA STANDARD C600. HYDROSTATIC TEST, LEAKAGE TEST, AND BLOW-DOWN (ZEROING OF GAUGE) MUST OCCUR BEFORE SAMPLING FOR BACTERIOLOGICAL TEST. THE MAXIMUM ALLOWABLE PRESSURE LOSS IS 5 PSI REGARDLESS OF THE LENGTH OF PIPE. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE PROJECT ENGINEER.

17. DISINFECTION: AFTER COMPLETION OF CONSTRUCTION AND TESTING, THE WATER SYSTEM SHALL BE DISINFECTED WITH CHLORINE IN ACCORDANCE WITH AWWA STANDARD C651. THE AMOUNT OF CHLORINE APPLIED SHALL BE SUFFICIENT TO PROVIDE A DOSAGE OF 25 mg/l OR MORE. THE CHLORINE SOLUTION SHALL REMAIN IN THE SYSTEM FOR A PERIOD OF AT LEAST 24 HOURS, DURING WHICH TIME EVERY VALVE IN THE SYSTEM SHALL BE OPENED AND CLOSED SEVERAL TIMES TO ASSURE CONTACT WITH EVERY SURFACE OF THE SYSTEM. AFTER A 24 HOUR RETENTION PERIOD, FLUSH THE MAIN UNTIL THE MAXIMUM CHLORINE CONCENTRAION IS 1 mg/l. THE CONTRACTOR SHALL OBTAIN ALL BACTERIOLOGICAL CLEARANCES AS REQUIRED BY THE NEW YORK STATE DEPARTMENT OF HEALTH. AFTER BACTERIOLOGICAL CLEARANCES, THE PRESSURE IN THE MAIN SHALL NOT DROP BELOW 20 PSI. A CLEARANCE REPORT SHALL BE SUBMITTED TO THE ENGINEER. IN ANY PROJECT WHERE THE BACTERIOLOGICAL CLEARANCES ARE GREATER THAN 30 DAYS OLD PRIOR TO PLACING A WATER MAIN INTO SERVICE, THE CONTRACTOR MAY BE REQUIRED TO PULL MORE SAMPLES AND OBTAIN MORE BACTERIOLOGICAL CLEARANCES. PRIOR TO INTRODUCING THE CHLORINE SOLUTION, THE LINES SHALL BE THOROUGHLY FLUSHED WITH CLEAN WATER UTILIZING FULL PIPE DIAMETER FLUSHING FOR PIPE UP TO AND INCLUDING 8" DIAMETER. CONTRACTOR SHALL BE REPONSIBLE FOR DECHLORINATION OF THE DISINFECTANT WATER PRIOR TO ANY DISCHARGE TO ANY DITCH OR SURFACE WATERS.

18. BACTERIOLOGICAL SAMPLING: CONTRACTOR SHALL ASSURE THE PROJECT CONSTRUCTION IS COMPLETELY FINISHED PRIOR TO ANY BACTERIOLOGICAL SAMPLING AND TESTING.

19. ABANDONMENT OF EXISTING MAINS AND APPURTENANCES: EXISTING WATER MAINS TO BE ABANDONED IN PLACE SHALL BE PHYSICALLY SEPARATED BY A MINIMUM OF 12" AND A 24" LONG 2500 PSI CONCRETE PLUG INSTALLED. ALL VALVES TO BE ABANDONED SHALL BE CLOSED AND THE ENTIRE VALVE BOX REMOVED.

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL EXAMINE AND VERIFY, IN THE FIELD, ALL CONDITIONS AND DIMENSIONS. DIMENSIONS OF THE EXISTING STRUCTURES SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION OR SUBSEQUENT REHABILITATION DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL SUCH FIELD MEASUREMENTS TO ASSURE PROPER FIT OF THE FINISHED WORK, AND THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS, AS APPROVED BY THE ENGINEER. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS MADE SHALL BE INDICATED ON THE SHOP DRAWINGS SUBMITTED FOR REFERENCE OF THE REVIEWER.

2. THERE SHALL BE NO CLAIM AGAINST THE OWNER MADE BY THE CONTRACTOR FOR WORK PERTAINING TO MODIFICATIONS, AS MAY BE REQUIRED, DUE TO ANY DIFFERENCE BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN BY THE DETAILS AND DIMENSIONS ON THE CONTRACT PLANS. THE CONTRACTOR WILL BE PAID AT THE UNIT BID PRICE FOR THE ACTUAL QUANTITIES OF MATERIALS USED OR FOR THE WORK PERFORMED, AS INDICATED BY THE VARIOUS ITEMS IN THE CONTRACT. THE CONTRACTOR SHOULD NOTE THAT ADDITIONAL WORK MAY BE REQUIRED AS THE CONTRACT PROGRESSES, WHICH IS NOT SHOWN OR NOTED ON THE PLANS. THIS WORK SHALL BE PERFORMED BY THE CONTRACTOR, AS ORDERED BY THE ENGINEER, AND PAYMENT SHALL BE MADE AT THE BID PRICE FOR THE APPROPRIATE ITEMS. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF REPLACEMENT PROJECTS, THE EXACT EXTENT OF REPLACEMENT WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.

3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING STRUCTURES CAUSED BY HIS OPERATIONS WHICH IS NOT INCLUDED AS PART OF THIS WORK. ALL DAMAGE TO THE EXISTING STRUCTURES WHICH IS NOT PART OF THE INTENDED WORK SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER, AND TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL CONDUCT HIS REMOVAL OPERATIONS TO THE SATISFACTION OF THE ENGINEER SO AS NOT TO UNDULY DISTURB UNDERLYING MATERIALS WHICH ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, THE DAMAGED MATERIAL SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

4. WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED, THE COST OF SUPPLYING A LEGAL DISPOSAL AREA AND TRANSPORTATION TO THE AREA SHALL BE INCLUDED IN THE PRICE BID.

5. THE CONTRACTOR IS TO VISIT THE SITE BEFORE BIDDING, TO BECOME FAMILIAR WITH THE FIELD CONDITIONS AND TO JUDGE THE EXTENT AND NATURE OF THE WORK TO BE DONE UNDER THIS CONTRACT. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR BECAUSE OF THE CONTRACTOR'S FAILURE TO INCLUDE IN THEIR BID ALL ITEMS AND MATERIALS WHICH THEY ARE REQUIRED TO FURNISH IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

6. ALL WORK AREAS AT THE SITE SHALL BE COMPLETELY SECURED, CONFORMING WITH OSHA REGULATIONS, TO THE SATISFACTION OF THE ENGINEER, TO PROTECT THE PUBLIC AND PREVENT UNAUTHORIZED ENTRY. THE COST OF THIS WORK IS TO BE INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT.

7. IT WILL BE THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY TO USE METHODS AND EQUIPMENT WHICH WILL INSURE THE SATISFACTORY COMPLETION OF THE REQUIRED WORK WITHIN THE TIME FRAME STIPULATED IN THE CONTRACT.

8. THE CONTRACTOR SHALL PROVIDE SURVEY AND STAKE OUT FOR THIS PROJECT. THE COST FOR THE SURVEY AND STAKE OUT SHALL BE INCLUDED IN THE UNIT PRICES BID FOR VARIOUS ITEMS OF THE CONTRACT.

9. LOCATION OF UTILITIES, PUBLIC AND/OR PRIVATE, INDICATED AS EXISTING AND/OR TO BE CONSTRUCTED AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THEIR EXACT LOCATION SHALL BE DETERMINED IN THE FIELD. ADDITIONAL UTILITY LINES, WHETHER ABANDONED OR IN SERVICE, MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OPERATIONS AND TAKE THE NECESSARY PRECAUTIONS TO PREVENT INTERFERENCE WITH, OR DAMAGE TO, THESE OR OTHER FACILITIES DURING THE COURSE OF CONSTRUCTION.

10. IN THE EVENT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE CAUSING AN INTERRUPTION IN SAID SERVICE, THEY SHALL IMMEDIATELY COMMENCE WORK TO RESTORE SERVICE AND MAY NOT CEASE THE WORK OPERATION UNTIL SERVICE IS RESTORED.

11. THE CONTRACTOR SHALL CALL DIG SAFELY NEW YORK (DSNY) (1-800-962-7962) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION TO HAVE EXISTING UNDERGROUND UTILITIES LOCATED IN THE FIELD. CONTRACTOR WILL BE RESPONSIBLE TO MAINTAIN ALL UTILITY LOCATIONS THROUGHOUT PROJECT.

12. AREAS DISTURBED BY THE CONTRACTOR AS PART OF THE WORK TO BE PERFORMED UNDER THIS CONTRACT, SHALL BE RESTORED TO PRECONSTRUCTION STANDARDS AND TO THE SATISFACTION OF THE ENGINEER. ALL THE DISTURBED GRASS AREAS SHALL BE GRADED AND SEEDED IN A MANNER APPROVED BY THE ENGINEER.

13. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ADEQUATE EROSION AND DUST CONTROL AT ALL TIMES. THE CONTRACTOR SHALL SUBMIT, IF REQUIRED, FOR REVIEW TO THE ENGINEER A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

14. AS-BUILT DRAWINGS: DURING THE DAILY PROGRESS OF WORK, THE CONTRACTOR'S JOB SUPERINTENDENT SHALL RECORD ON THE FIELD SET OF DRAWINGS ALL WORK INSTALLED. ALL PIPING, VALVES, FITTINGS, FIRE HYDRANTS, ETC. SHALL BE LOCATED IN TWO DIRECTIONS. ONE LOCATION SHALL BE REFERENCED PERPENDICULAR TO THE RIGHT OF WAY LINES AND/OR PROPERTY LINES (PREFERABLY BOTH). SIZE, TYPE, AND CLASS OF WATER MAINS, VALVES, FITTINGS, FIRE HYDRANTS, ETC. SHALL BE SHOWN (I.E. 8" CL 52 D.I.P., 6" GATE VALVE). ALL LOCATIONS WHERE THE TOP OF THE WATER MAIN IS LESS THAN 60" DEEP OR MORE THAN 96" DEEP SHALL BE NOTED ON THE AS-BUILTS.

15. CONSTRUCTION WARRANTY AND WARRANTY SECURITY PERIOD: CONTRACTOR SHALL WARRANTY OWNER AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND FULLY ASSIGNABLE WARRANTY THAT THE SYSTEM INSTALLED WILL BE AND REMAIN FREE FROM ALL DEFECTS, LATENT OR OTHERWISE WITH RESPECT TO WORKMANSHIP, MATERIALS, INSTALLATION, AND ACCURACY OF THE AS-BUILT DRAWINGS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE BENEFICIAL USE OF THE FACILITIES.

16. CLEAN-UP: ALL SURPLUS MATERIALS OF CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR AS PART OF THE CONTRACT WITH THE OWNER.

17. PERMITS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR PERFORMING WORK UNDER HIS CONTRACT, EXCEPT THAT THE NYSDEC PERMITS, NYSDOH PERMITS, AND WETLAND PERMITS, IF REQUIRED, WILL BE SECURED BY THE OWNER.

18. DEWATERING: THE CONTRACTOR SHALL AT ALL TIME DURINGS CONSTRUCTION PROVIDE AMPLE MEANS AND EQUIPMENT WITH WHICH TO PROMPTLY REMOVE AND DISPOSE OF ALL WATER ENTERING THE TRENCH AND STRUCTURE EXCAVATIONS AND SHALL KEEP SAID EXCAVATIONS ACCEPTABLY DRY, UNTIL THE PIPING AND/OR STRUCTURES TO BE BUILT THEREIN ARE COMPLETED. ALL WATER PUMPED OR DRAINED FROM THE WORK AREA SHALL BE DISPOSED OF IN A MANNER AS TO NOT DAMAGE SEWER, WATER, ELECTRICAL OR ANY OTHER PIPING STRUCTURES OR PROPERTY. NO PIPE SHALL BE LAID IN WATER AND NO WATER SHALL BE ALLOWED TO RISE ABOVE THE BOTTOM OF ANY PIPE WHILE IT IS BEING JOINTED. DEWATERING WITH UP TO A 4" PUMP SHALL BE INCLUDED IN THE CONTRACT PRICE. ADDITIONAL COMPENSATION FOR DEWATERING THAT REQUIRES LARGER PUMPS, WELLPOINTS, OR OTHER METHODS SHALL BE APPROVED BY THE ENGINEER AND THE OWNER PRIOR TO INSTALLATION.

19. CONCRETE: ALL PORTLAND CEMENT CONCRETE MIXES SHALL BE APPROVED IN ADVANCE BY THE ENGINEER. ALL CONCRETE SHALL BE PLACED BEFORE THE INITIAL SET HAS TAKEN PLACE. STALE OR RETEMPERED CONCRETE SHALL NOT BE USED. CONCRETE USED FOR PIPE PLUGS SHALL BE 2500 PSI MINIMUM . CONCRETE USED FOR ALL OTHER PURPOSES SHALL BE 4000 PSI MINIMUM.

20. SEPARATION OF WATER AND SEWER MAINS: A HORIZONTAL SEPARATION OF A MINIMUM OF 10 FEET SHALL BE MAINTAINED BETWEEN PARALLEL WATER MAINS AND SANITARY SEWERS (INCLUDING FORCE MAINS) WHERE PRACTICAL. THE PROJECT ENGINEER MUST APPROVE ANY CROSSINGS WHERE WATER MAINS AND SANITARY SEWERS CROSS WITH LESS THAN 18" VERTICAL CLEARANCE.

21. NEW CONNECTION TO EXISTING MAIN: NEW CONNECTIONS, WHERE NOTED, TO EXISTING MAIN IN SERVICE SHALL BE ACCOMPLISHED BY THE "WET TAP" METHOD UTILIZING FULL CIRCLE STAINLESS STEEL TAPPING SLEEVE AND MECHANICAL JOINT TAPPING VALVE. TAPPING SLEEVE SHALL BE RATED AT 200 PSI, NON-SHOCK WORKING PRESSURE CONFORMING TO AWWA STANDARD C110, LATEST REVISION. ROMAC SST OR JCM 432 STAINLESS STEEL TAPPING SLEEVE WITH DUCTILE IRON FLANGE IS PREFERRED. TAPPING VALVE SHALL BE MECHANICAL JOINT ONE END AND STANDARD FLANGED JOINT ON OTHER END.

22. JOBSITE SAFETY: WHILE ON THE JOBSITE, THE CONTRACTOR SHALL AT ALL TIMES OBSERVE ALL FEDERAL, STATE, AND LOCAL SAFETY RULES, REGULATIONS AND LAWS.

WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, SECTION 7209.2.

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REVISIONS

NO.	DATE	DESCRIPTION
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GENERAL NOTES AND TYPICAL DETAILS
TOWN OF GUILDERLAND, NY

GENERAL WATER CONSTRUCTION NOTES

SHEET:
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