GENERAL NOTES & SPECIFICATION

(NOT A PART OF MD-WASD REVIEW OR APPROVAL)

1. ALL MATERIALS AND CONSTRUCTION UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF MIAMI DADE COUNTY PUBLIC WORKS DEPARTMENT (DCPWD) AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. AS A MINIMUM REQUIREMENT, THE STANDARDS OF THE AWWA SHALL APPLY.

- 2. COVER OVER WATER MAINS SHALL BE 4'.
- 3. DETECTOR TAPE SHALL BE INSTALLED 18" ABOVE THE CENTERLINE OF WATER MAINS AND SERVICES.

4. ALL WATER MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 VALVE BOXES. FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE

5. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY THE DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATIONS IN ACCORDANCE WITH MIAMI-DADE COUNTY

6. ALL GATE VALVES TO BE RESILIENT SEAT PER AWWA-C509.

7. ALL EXISTING UTILITIES ARE BASED ON AVAILABLE INFORMATION. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING UTILITY INFORMATION AND LOCATIONS (VERTICALLY AND HORIZONTALLY, SHOWN OR NOT SHOWN ON PLANS). NEITHER THE ENGINEER OF RECORD NOR B.A&K GROUP, INC. GUARANTEES THE ACCURACY OF THE UTILITY INFORMATION.

REQUIREMENTS PER DEPARTMENT OF HEALTH (NOT A PART OF MD-WASD NOTES NOR APPROVAL)

WATER MAIN HORIZONTAL SEPARATIONS

SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE.

BETWEEN WATER MAINS AND, STORM SEWERS, STORMWATER FORCE MAINS, OR RECLAIMED WATER LINES, SHALL

BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT. AND AT LEAST 3 FT. MINIMUM. GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT. AND AT LEAST 6 FT. MAY <u>BE REDUCED TO 3 FT. WHERE BOTTOM</u> OF WATER MAIN IS AT <u>LEAST 6 INCHES</u> 5. 10 FT. OF ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

WATER MAIN VERTICAL SEPARATIONS

6. SEPARATIONS BETWEEN WATER MAINS AND GRAVITY SEWER, VACUUM TYPE SEWER, OR STORM SEWERS, TO BE PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES ABOVE, OR AT LEAST 12 INCHES IF BELOW.*

7. PRESSURE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR RECLAIMED WATER, AT LEAST 12 INCHES ABOVE OR BELOW.*

* NOTE: CENTER 1 - FULL LENGTH OF WATER MAIN PIPE AT CROSSINGS; ALTERNATIVELY ARRANGE PIPES SO JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORM OR STORM FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OF PRESSURE SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER.

TRENCH PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF, PART 1926, SUBPART P, EXCAVATIONS, TRENCHING AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS STANDARDS AND INTERPRETATIONS.

- 1. AT THE COMPLETION OF ANY WATER AND SEWER JOB. EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:
- d. AS-BUILT PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER. (QTY. OF PRINTS, AS REQUIRED BY THE DEPARTMENT.)
- "AS-BUILT" FORMAT:
- b. LOCATION MAP SCALE SHOULD BE 1"=300" AND SECTION-TOWNSHIP-RANGE SHOULD BE SHOWN.
- c. THE WORD "AS-BUILT" IN LARGE LETTERS.
- d. TITLE BLOCK WITH DEPARTMENT DS. DW OR ER NUMBER AND PERTINENT INFORMATION.
- e. PREFERRED SCALE TO BE 1"= 40' HORIZONTALLY AND 1"= 4' VERTICALLY*.
- STREET NOMENCLATURE. . SEPARATE AS-BUILTS FOR WATER AND SEWER.
- h. SEPARATE WATER AND SEWER PROFILE.
- i. STATIONING STARTING WITH 0+00 AT PERMANENT REFERENCE POINT (I.E., €, €, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN.
- EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT.
- k. IDENTIFY ALL CONTROL LINES (I.E. BLDG. LINE, PROPERTY LINE, R/W, ETC).
- I. ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY "AS-BUILT" INFORMATION REFLECTED IN DRAWINGS.
- WATER "AS-BUILTS" MUST INCLUDE:
- pLANS SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS (IF ANY), STATION OF SERVICES, HYDRANTS AND FITTINGS AT THE MAINLINE (IF PERPENDICULAR TO IT), AND AT MAIN AND END OF SERVICES IF ANY, OTHER ANGLE, AND DEFLECTION OF PIPE, IF ANY.
- b. PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATION), PIPE SIZE AND PIPE MATERIALS REFERENCED
- SEWER "AS—BUILTS" MUST INCLUDE:
- a. PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL OF PIPE, DEFLECTION, IF ANY (FORCE MAIN ONLY), AND LOCATION OF LATERALS WITH REFERENCE TO MANHOLE.
- b. PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN), RIM AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH, ETC), AND STATION STARTING AT EACH 0+00 AT DOWNSTREAM
- FORCE MAIN "AS-BUILT" SAME AS WATER MAIN ABOVE.
- EACH AS-BUILT SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT READJUSTMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER S OF DRAW	SCALE MAY BE PER VINGS.	I T E M	CROSS REF.	SPEC. REF.			
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AMI-DADE RUNTT Vering Excellence Shery Day R. Jr. SEWER DEPARTMENT		"AS-BUILT" REQUIREMENTS		0.5			
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LEGAL DESCRIPTION:

THE NORTH 50.00 FEET OF LOT 1 AND LOT 2 OF BLOCK 14 "MIAMI NORTH", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK B, PAGE 41 OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

RER-DERM NOTES ON WATER-SEWER INSTALLATION

- 1. A horizontal distance of at least 6 feet, and preferably 10 feet (outside to outside), shall be maintained between gravity or pressure sewer pipes and water pipes. The minimum horizontal separation can be reduced to 3 feet for vacuum-type sewers or for gravity sewers where the bottom of the sewer pipe is at least 6 inches below the bottom of the water pipe. When the above specified horizontal distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if:
- a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
- b) The sewer is encased in a watertight carrier pipe or concrete. c) The top of the sewer is at least 18 inches below the bottom of the water pipe.

AWWA C600-82 at a test pressure of 100 psi.

- 2. A vertical distance of at least 12 inches (outside to outside) shall be maintained between any water and sewer mains with sewer pipes preferably crossing under water mains. The minimum vertical separation can be reduced to 6 inches for vacuum-type sewers or for gravity sewers where the sewer pipe is below the water main. The crossing shall be arranged so that all water main joints are at least 6 feet from all joints in gravity and pressure sewer pipes. The distance can be reduced to 3 feet for vacuum-type sewers. When the above specified vertical distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if:
- a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi. b) The sewer is encased in a watertight carrier pipe or concrete.
- 3. In highly congested areas, where either water or sewer facilities are existing and the separation requirements cannot be met, special consideration may be given subject to submittal of documentation showing that the proposed alternative will result in an equivalent level of reliability and public health protection.
- 4. The maximum allowable exfiltration rate of gravity sanitary sewers constructed in a public wellfield protection area shall be fifty (50) gallons per inch pipe diameter per mile per day for residential land use and twenty (20) gallons per inch pipe diameter per mile per day for non-residential land use.
- 5. Force main sewers constructed in a public wellfield protection area shall be either ductile iron or reinforced concrete pressure sewer
- For ductile iron pipe exfiltration rate shall not be greater than the allowable leakage rate specified in American Water Works Association Standard (AWWAS) C600-82 at a test pressure of 100 psi. For reinforced concrete pressure sanitary sewer exfiltration rate shall not be greater than half (1/2) the allowable leakage rate specified in
- 6. The contractor shall verify nature, depth, and character of existing underground utilities prior to start of construction.
- 7. All other public or private utility facilities shall be constructed at least 5 feet from any water and sewer main as measured from the outside bell of the water of the utility pipe.
- 8. When the 5 feet separation between proposed and existing line is not possible, the contractor shall hand dig or expose the water and sewer pipes before proceeding with power equipment excavation.
- 9. In no case shall a contractor install utility pipes, conduits, cables, etc. in the same trench parallel and above an existing water or sewer pipe except where they cross. Any deviation from notes 6, 7 and 8 shall be approved in writing by the responsible water and sewer utility.
- 10. A non-resettable elapsed time meter shall be installed at each pump to record the total number of operating hours of the station.
- 11. If any area of the work site is found to contain buried solid waste and/or ground or ground water contamination, the following shall apply:
- a) All work in the area shall follow all applicable safety requirements (e.g., OSHA, etc.) and notification must be provided to the appropriate agencies.
- b) Immediately notify the Environmental Monitoring and Restoration Division (EMRD). The EMRD can be contacted at (305) 372-6700.
- c) If contaminated soils and/or buried solid waste material is excavated during construction, then they require proper handling and disposal in accordance with the local, state and federal regulations. Be advised that the landfill owner/operator is the final authority on disposal and may have requirements beyond those provided by herein. If disposal within a Miami-Dade County owned landfill (Class I landfill) is appropriate and selected, please contact the Miami-Dade County Department of Public Works and Waste Management at (305) 594-1670 for information.
- d) The reuse of contaminated soils that are not returned to the original excavation requires prior approval of a Soil Management Plan from the Environmental Monitoring and Restoration Division. The EMRD can be contacted at (305) 372-6700.

Rev. 7/31/2015



- 1. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS.
- 2. COVER OVER WATER OR SEWER FORCE MAINS SHALL BE 4'-0" MIN.
- 3. ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 OR 53 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE BOXES.
- 4. ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.
- 5. ALL GRAVITY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- 6. ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.
- 7. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY THE MIAMI-DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- 8. CONTRACTOR MUST CALL M-DWASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO

PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.

- 9. CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE
- 10. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY THE DEPARTMENT AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE DEPARTMENT.
- a. EASEMENTS, IF REQUIRED.
- b. Contractor's waiver and release of lien.
- c. ABSOLUTE BILL OF SALE. d. i. CONTRACTOR'S LETTER OF WARRANTY (I.E., LETTER AGREEMENT).
- ii. DEVELOPER'S CONTRACT BOND (I.E., CONTRACT AGREEMENT). e. "AS-BUILT" PRINTS 24"x36" SHOWING SPECIFIC LOCATIONS, DEPTH, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED FLORIDA SURVEYOR. ALONG WITH PRINTS OF "AS-BUILT" WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED SURVEYOR. (No. OF PRINTS: 3-FOR WATER, 4-FOR GRAVITY SEWER AND 5-FOR FORCE MAIN OR PUMP STATION PROJECTS). THE DEPARTMENT RESERVES THE RIGHT TO REQUIRE SUBMITTAL ON ELECTRONIC MEDIA
- IN ACCORDANCE WITH SEC. 01775 "MAGNETIC MEDIA SUBMITTAL". f. H.R.S. LETTER OF RELEASE REQUIRED FOR ALL WATER PROJECTS.

CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

WATER & SEWER DEPARTMENT

- g. BILL OF SALE SKETCH (8½"x11") FOR WATER AND SEWER, SEPARATELY.
- 11. ALL NEW CONNECTIONS FROM EXISTING DEPARTMENT MAINS TO BE MADE BY DEPARTMENT FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS, PROVIDE AND INSTALL MATERIAL WITH FITTINGS, PRIOR TO TAP.
- 12. AN APPROVED PAVING AND DRAINAGE PLAN MUST BE SUBMITTED TO MDWASD FOR ALL NEW SUBDIVISIONS PRIOR TO APPROVAL OF WATER AND SEWER PERMIT PLANS, UPON REQUEST,
- 13. UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY DEPARTMENT FORCES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO TAP EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING SLEEVE AND TAPPING VALVE ARE FURNISHED AND INSTALLED BY THE

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