

WATER & SEWER PLAN

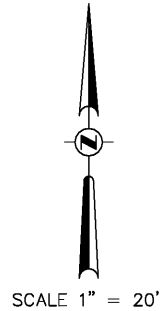
NOTE TO CONTRACTOR

CONTRACTOR TO FIELD VERIFY SANITARY SEWER LATERAL LOCATION AND ELEVATION PRIOR TO COMMENCING WORK. NOTIFY ENGINEER OF ANY ISSUES WITH SIZE OR ELEVATION OF THE EXISTING SEWER LATERAL.

NOTE TO CONTRACTOR

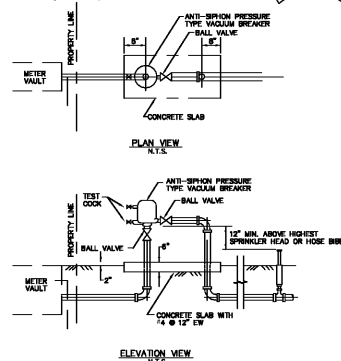
CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SOILS REPORT PREPARED UNIVERSAL SOILS AND SHALL IMPLEMENT ALL RECOMMENDATIONS IDENTIFIED. CONTRACTOR TO NOTIFY ENGINEER IF THERE IS A DISCREPANCY BETWEEN THE PLANS AND THE REPORT.

**WEST BROWARD BOULEVARD
(STATE ROAD 842)**



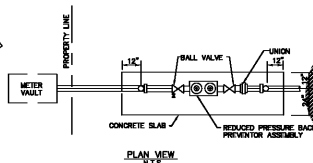
LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVEMENT
- RUN OFF DIRECTION
- EXIST. TYPE "F" CURB & GUTTER
- PROP. TYPE "F" CURB & GUTTER
- ① DRAINAGE STRUCTURE NUMBER



PRESSURE VACUUM BREAKER

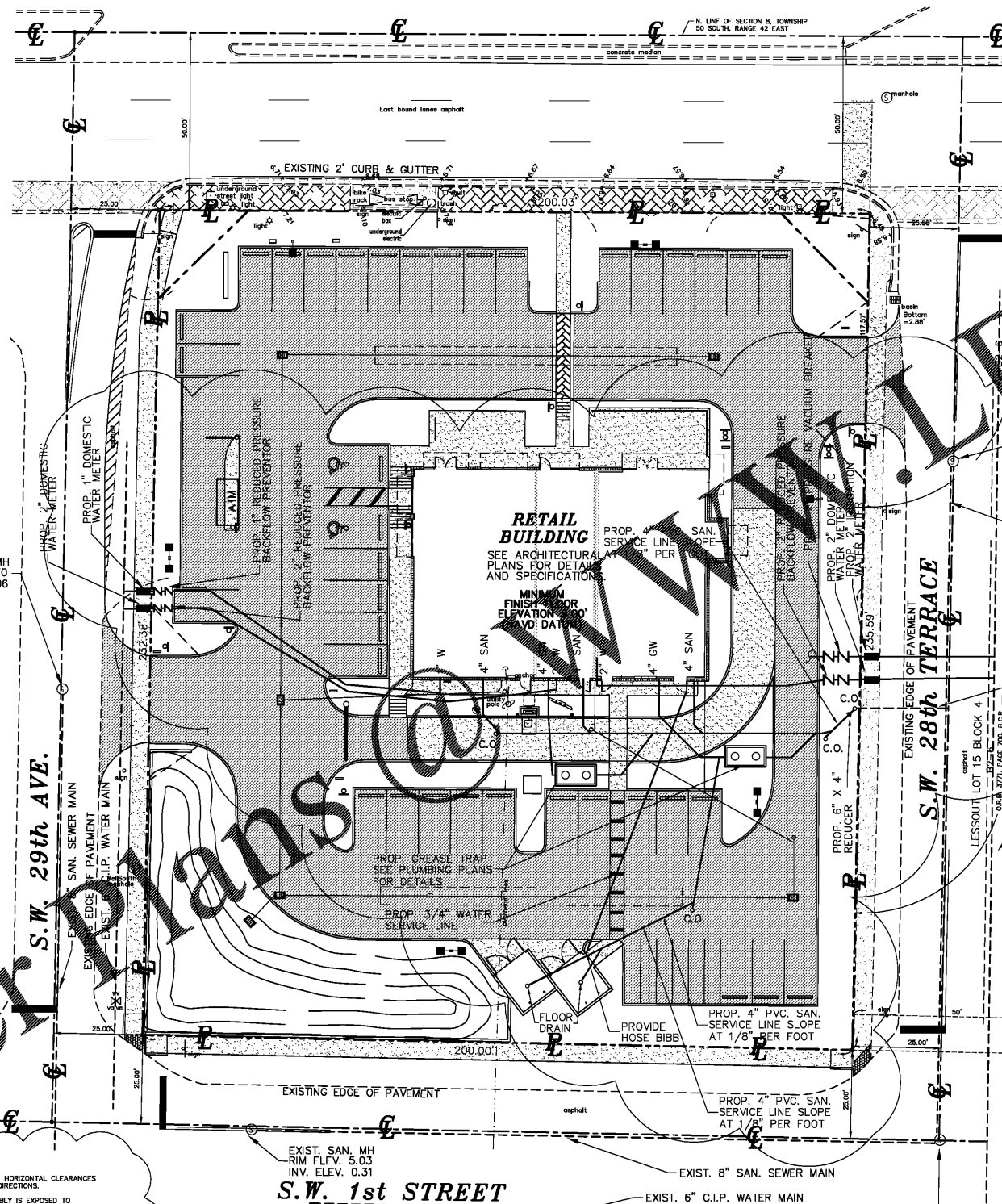
- NOTES:
1. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
 2. GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, IF REQUIRED BY THE CITY OF FORT LAUDERDALE BY THE INSPECTOR.
 3. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, BY THE BUILDING / PLUMBING DIVISIONS OR THE INSPECTOR.
 4. PIPING SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE WITH GALVANIZED MALLEABLE IRON THREADED FITTINGS IN ACCORDANCE WITH CITY OF FORT LAUDERDALE STANDARDS AND SPECIFICATIONS.
 5. ALL EXPOSED METALLIC THREADS SHALL BE PAINTED WITH BITUMASTIC PAINT.
 6. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE VACUUM BREAKER ASSEMBLY.



PLAN VIEW

1. THE ASSEMBLY SHALL BE INSTALLED WITH MINIMUM HORIZONTAL CLEARANCES OF 30 INCHES FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
2. GUARD POSTS SHALL BE INSTALLED IF THE ASSEMBLY IS EXPOSED TO POSSIBLE DAMAGE FROM VEHICULAR TRAFFIC, IF REQUIRED BY THE CITY OF FORT LAUDERDALE INSPECTOR.
3. THE ASSEMBLY SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION, APPROVED BY THE BUILDING / PLUMBING DIVISIONS OR THE CITY INSPECTOR.
4. ADJUSTABLE PIPE SADDLE SUPPORT (GRINELL FIG. 384 OR EQUAL) SIZED TO FIT CURVATURE OF DOUBLE DETECTOR CHECK VALVE ASSEMBLY WITH GALVANIZED STEEL PIPE AND FLOOR FLANGE. ATTACH FLOOR FLANGE TO CONCRETE SLAB WITH GALVANIZED EXPANSION BOLTS.
5. THE DEPARTMENT SHALL HAVE UNRESTRICTED AND CONTINUOUS ACCESS TO THE BACKFLOW PREVENTION ASSEMBLY.
6. PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE WITH GALVANIZED MALLEABLE IRON THREADED FITTINGS. ALL PIPING SHALL BE IN ACCORDANCE WITH WASAD CONSTRUCTION SPECIFICATIONS FOR DONATION OF WATER MAINS.

BACKFLOW PREVENTION ASSEMBLY



HEALTH DEPARTMENT NOTES:

WATER MAIN HORIZONTAL SEPARATIONS

SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE BETWEEN WATER MAINS, STORM SEWERS, STORMWATER FORCE MAINS, OR RECLAIMED WATER LINES, SHALL 3 FEET MINIMUM.

BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT. AND AT LEAST 3 FEET MINIMUM.

GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT. AND AT LEAST 6 FT. MAY BE REDUCED TO 3 FT. WHERE BOTTOM OF WATER MAINS IS AT LEAST 6 INCHES ABOVE TOP OF SEWER.

10 FT. TO ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

WATER MAIN VERTICAL SEPARATIONS

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.

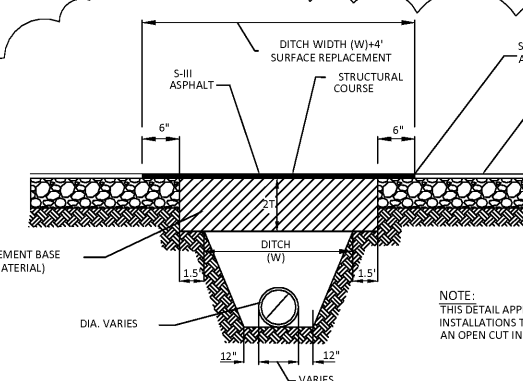
PRESSURE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR RECLAIMED WATER AT LEAST 12 INCHES ABOVE OR BELOW. *

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

NOTE

Underground utility information is taken from the best available sources, but should be verified by contractor in the field with the appropriate utility agency prior to commencement of any work.

Existing utility lines other than those indicated in this drawing may be on site. The contractor is warned to proceed with caution with all work. He is to make all possible investigation as to possible unmarked utility lines.



- GENERAL NOTES:
1. BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL.
 2. BASE MATERIAL SHALL BE PLACED IN 6" MAXIMUM LAYERS (LOOSE MEASUREMENT) AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% OF MAXIMUM DENSITY, PER AASHTO T-180.
 3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAW CUT.
 4. SURFACE MATERIAL SHALL BE CONSISTENT WITH THE SURROUNDING SURFACE MATERIAL.
 5. BASE MATERIAL SHALL HAVE A MINIMUM CARBONATE OF 70% (60% FOR LOCAL STREETS).
 6. SUB GRADE MATERIAL SHALL BE GRANULAR AND ANGULAR AND SHALL HAVE A MINIMUM LBR OF 40.
 7. IF THE DITCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" THICK ASPHALT CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING, UNTIL REPLACED WITH A PERMANENT PATCH.

PAVEMENT RESTORATION

ZAMORA & ASSOCIATES, INC.
ENGINEERING LAND PLANNING
11410 N. KENDALL DRIVE SUITE 302
MIAMI, FLORIDA 33176 (305) 273-7801

PROJECT OWNER:
ESTEL PLAZA
2890 - 2894 W. BROWARD BLVD
FT. LAUDERDALE, FLORIDA 33312
ESTEL DEVELOPMENT LLC
763 NORTHEAST 193 TERRACE
MIAMI, FLORIDA 33179

By	Date
6/7	6/7
6/7	6/7

SEAL
GERARDO ZAMORA
P.E. No. 44207
STATE OF FLORIDA
PROFESSIONAL ENGINEER

GERARDO ZAMORA P.E.
CIVIL ENGINEER
P.E. No. 44207
E.B. 0006791
STATE OF FLORIDA

THIS SHEET HAS BEEN CAREFULLY CHECKED & SEALED IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERING AND SURVEYING ACT.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED VALID UNLESS THEY ARE ACCOMPANIED BY THE ORIGINAL SIGNATURE AND SEAL OF THE ENGINEER.
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For The Firm By:
GERARDO ZAMORA, P.E.
Fl. Reg. No. 44207
Civil Engineer
Scale: 1" = 20'
Designed By:
Drawn By:
Checked By: G.Z.
Date: 2/5/2020
Project No: 2020-17
SHEET No.
C-10