

- UTILITY CONSTRUCTION NOTES**
1. WATER UTILITY SERVICE IS AVAILABLE TO THE PROPERTY BY EXISTING WATER MAIN LOCATED ALONG MONROE AVENUE, OWNED AND OPERATED BY NJ AMERICAN WATER CO.
  2. SANITARY SEWERAGE SERVICE IS AVAILABLE TO THE PROPERTY BY EXISTING SEWER MAIN LOCATED ALONG MONROE AVENUE, OWNED BY HAZLET TOWNSHIP AND ADMINISTERED BY BAYSHORE REGIONAL SEWERAGE AUTHORITY.
  3. PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
  4. EACH DWELLING UNIT SHALL HAVE INDEPENDENTLY METERED WATER SERVICE CONNECTIONS. EACH COMMERCIAL UNIT SHALL HAVE INDEPENDENTLY METERED WATER SERVICE CONNECTIONS. WATER METERS SHALL BE GROUPED TOGETHER IN THE LOWER LEVEL UTILITY ROOM AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
  5. EACH DWELLING AND COMMERCIAL UNIT SHALL HAVE A 4-INCH DIAMETER INTERIOR SEWER CONNECTION TO A COMMON 6-INCH DIAMETER BUILDING SEWER LATERAL WITH CONNECTION TO THE MAIN AS SHOWN ON THE PLANS. THE COMMON BUILDING SEWER LATERAL SHALL EXTEND THROUGH THE FOOTPRINT OF THE PROPOSED BUILDING TO ALLOW FOR INTERIOR CONNECTIONS. THE PROPOSED 6-INCH LATERALS SHALL BE INSTALLED ACCORDING TO THE DETAILS SHOWN ON THE PLANS IN ACCORDANCE WITH THE REQUIREMENTS OF THE BAYSHORE REGIONAL SEWERAGE AUTHORITY. CLEANOUTS SHALL BE PROVIDED ON THE INTERIOR 4-INCH LATERALS AND THE 6-INCH COMMON BUILDING SEWER LATERAL PER PLUMBING SUBCODE REQUIREMENTS.
  6. PVC SEWER LATERALS SHALL MAINTAIN THE FOLLOWING MINIMUM PIPE SLOPES: 4-INCH DIAMETER PIPE, MINIMUM SLOPE = 2.0%; 6-INCH DIAMETER PIPE, MINIMUM SLOPE = 1.0%. PVC SEWER LATERAL PIPE MATERIAL SHALL BE GASKETED PUSH-ON JOINT, SDR-35.
  7. PVC SANITARY SEWER LATERALS SHALL MAINTAIN 3-FEET MINIMUM COVER FROM TOP OF PIPE TO GRADE. IF 3-FEET OF COVER CANNOT BE PROVIDED, THEN DUCTILE IRON PIPE SHALL BE INSTALLED. COVER OF LESS THAN 2.5-FEET SHALL NOT BE ACCEPTED.
  8. ANY DAMAGE CAUSED TO THE BRSA SANITARY SEWER SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES (TO BE DETERMINED BY THE BRSA), SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST AND TO THE SATISFACTION OF THE AUTHORITY.
  9. ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF WORK ARE SHOWN ON THE PLANS. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION OF KNOWN UTILITIES OR OTHER CONSTRUCTION OBSTACLES TO HIS SATISFACTION PRIOR TO BEGINNING WORK. IF NECESSARY, THE CONTRACTOR SHALL DIG TEST PITS PRIOR TO CONSTRUCTION WHERE EXISTING UTILITIES ARE CROSSED BY PROPOSED SITE IMPROVEMENTS TO ASCERTAIN EXISTING INVERTS, GRADES, MATERIALS, AND SIZES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES THAT MAY AFFECT THE PROJECT DESIGN, AND TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS IF OR AS NEEDED TO MAKE ADJUSTMENTS.
  10. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISIONS FOR APPROPRIATE SAFETY DEVICES AND REQUIRED TRAINING.
  11. ALL WORK RELATING TO INSTALLATION OF SANITARY SEWERAGE SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE BAYSHORE REGIONAL SEWERAGE AUTHORITY RULES AND REGULATIONS AND STANDARD DETAILS.
  12. PRIOR TO ACCEPTANCE, THE SANITARY SEWER FACILITIES SHALL BE TESTED IN ACCORDANCE WITH BAYSHORE REGIONAL SEWERAGE AUTHORITY RULES AND REGULATIONS AND WITNESSED AND APPROVED BY THE AUTHORITY ENGINEER.
  13. PRIOR TO ACCEPTANCE, AS-BUILT PLANS FOR THE SANITARY SEWER SYSTEM SHALL BE SUBMITTED AND APPROVED BY THE AUTHORITY ENGINEER.
  14. THE LOCATION OF NATURAL GAS MAIN AND NATURAL GAS LATERAL SERVICE CONNECTIONS SHALL BE COORDINATED WITH NJR (NJ NATURAL GAS CO.).
  15. GUTTERS SHALL BE INSTALLED ALONG BUILDING ROOF LINES AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DOWNSPOUTS SHALL DISCHARGE TO COLLECTION PIPES, WHICH SHALL DIRECT ROOFTOP RUNOFF TO PROPOSED SEEPAGE PIT DRY WELLS, AS SHOWN.
  16. IF, DURING THE INSTALLATION OF THE PROPOSED SEEPAGE PITS, ANY CLAY LAYERS, CLAY LENSES, OR UNSUITABLE SOILS ARE ENCOUNTERED, THOSE SOILS SHALL BE REMOVED AND REPLACED WITH SUITABLE K-5 SANDS AS DIRECTED BY THE ENGINEER.

**AVERAGE DAILY WATER DEMAND (NJAC 7:10-12.6(b))**

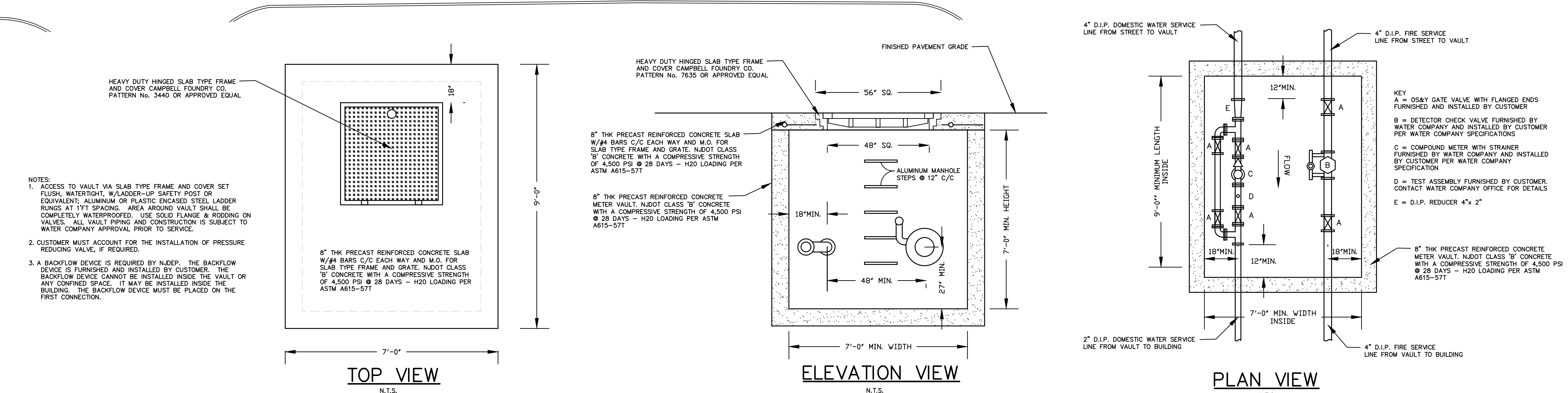
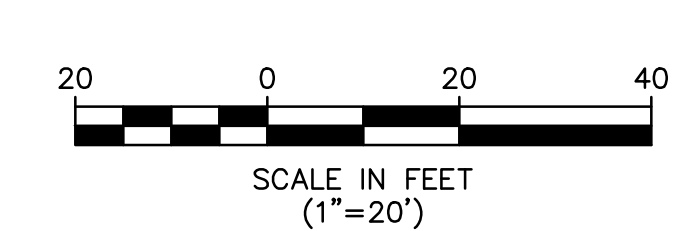
EXISTING CONDITIONS  
 EXISTING BAR USE: 1,858 SF/FLOOR x 0.125 GPD/SF = 232 GPD

PROPOSED DEVELOPMENT  
 NEW COMMERCIAL SPACE: 4,900 SF x 0.125 GPD/SF = 613 GPD  
 NEW RESIDENTIAL SPACE: 4 DU x 175 GPD/DU = 700 GPD  
 TOTAL PROPOSED AVERAGE DAILY WATER DEMAND = 613 GPD + 700 GPD = 1,313 GPD

**PROJECTED WASTEWATER FLOW (NJAC 7:14a-23.3(g))**

EXISTING CONDITIONS  
 EXISTING BAR USE: 1,858 SF/FLOOR x 0.100 GPD/SF = 186 GPD

PROPOSED DEVELOPMENT  
 NEW COMMERCIAL SPACE: 4,900 SF x 0.100 GPD/SF = 490 GPD  
 NEW RESIDENTIAL SPACE: 4 DU x 225 GPD/DU = 900 GPD  
 TOTAL PROPOSED AVERAGE DAILY WASTEWATER FLOW = 490 GPD + 900 GPD = 1,390 GPD



No.	DATE	REVISION	BY

**EASTERN CIVIL ENGINEERING, LLC**  
 CIVIL ENGINEERING - SURVEYING & MAPPING - LAND USE PLANNING - SITE DESIGN

31 GRAND TOUR, HIGHLANDS NJ 07732 PHONE: 732.872.7736

GRADING, DRAINAGE & UTILITY PLAN FOR  
**MICHAEL MARGARELLA**  
 BLOCK 47 LOTS 2, 3, 5 & 6  
 TAX MAP SHEET No. 15

ANDREW R. STOCKTON  
 PROFESSIONAL ENGINEER & LAND SURVEYOR  
 NEW JERSEY LIC. NO. 35405

DATE: 3-01-21	SCALE: 1" = 20'	DESIGN BY: ARS	PROJECT NO.: 2001813	SHEET NO.: 4 of 9
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