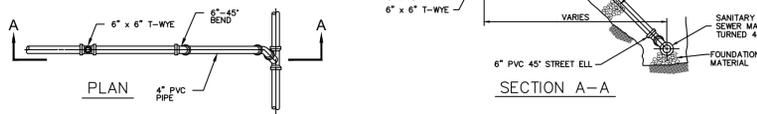
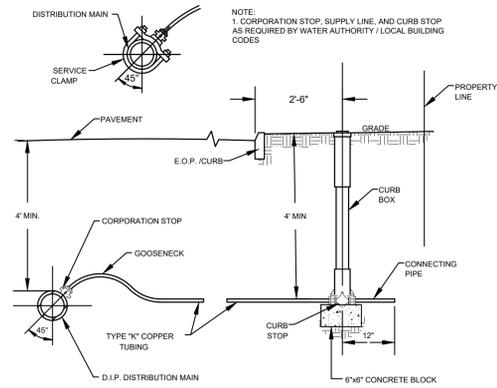


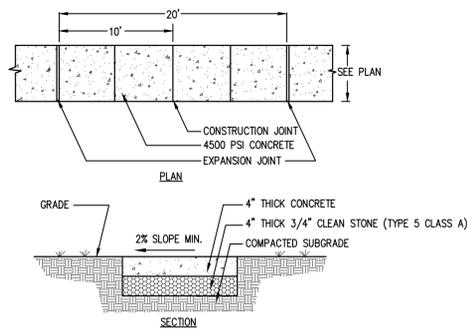
- NOTES:
1. ALL COUPLINGS, PLUGS, SOIL PIPES & CAPS TO BE STANDARD FOR TYPE OF PIPE USED. INSTALLATION TO BE WATER TIGHT.
 2. CLEANOUTS & INSPECTION TEES ARE TO BE LOCATED 1'-6" FROM CURB.
 3. WHERE CURBS DO NOT EXIST PLACE CLEANOUT 1 FOOT OUTSIDE OF STREET R.O.W.
 4. CLEANOUTS AS SHOWN ARE REQUIRED ON ALL HOUSE CONNECTIONS, EXCEPT WHEN SERVING EMPTY LOTS.
 5. CONNECTIONS ARE TO BE 6" P.V.C.
 6. ALL PLUG THREADS SHALL BE GREASED AT TIME OF INSTALLATION.
 7. MINIMUM DEPTH OF COVER ON SANITARY SEWER MAINS SHALL BE 4 FEET.
 8. POLYVINYL CHLORIDE PIPE AND FITTINGS FOR HOUSE LATERALS SHALL CONFORM TO A.S.T.M. D-3034.



STANDARD SANITARY HOUSE CONNECTION
SCALE: NTS

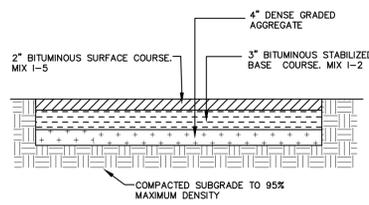


WATER SERVICE CONNECTION
SCALE: NTS



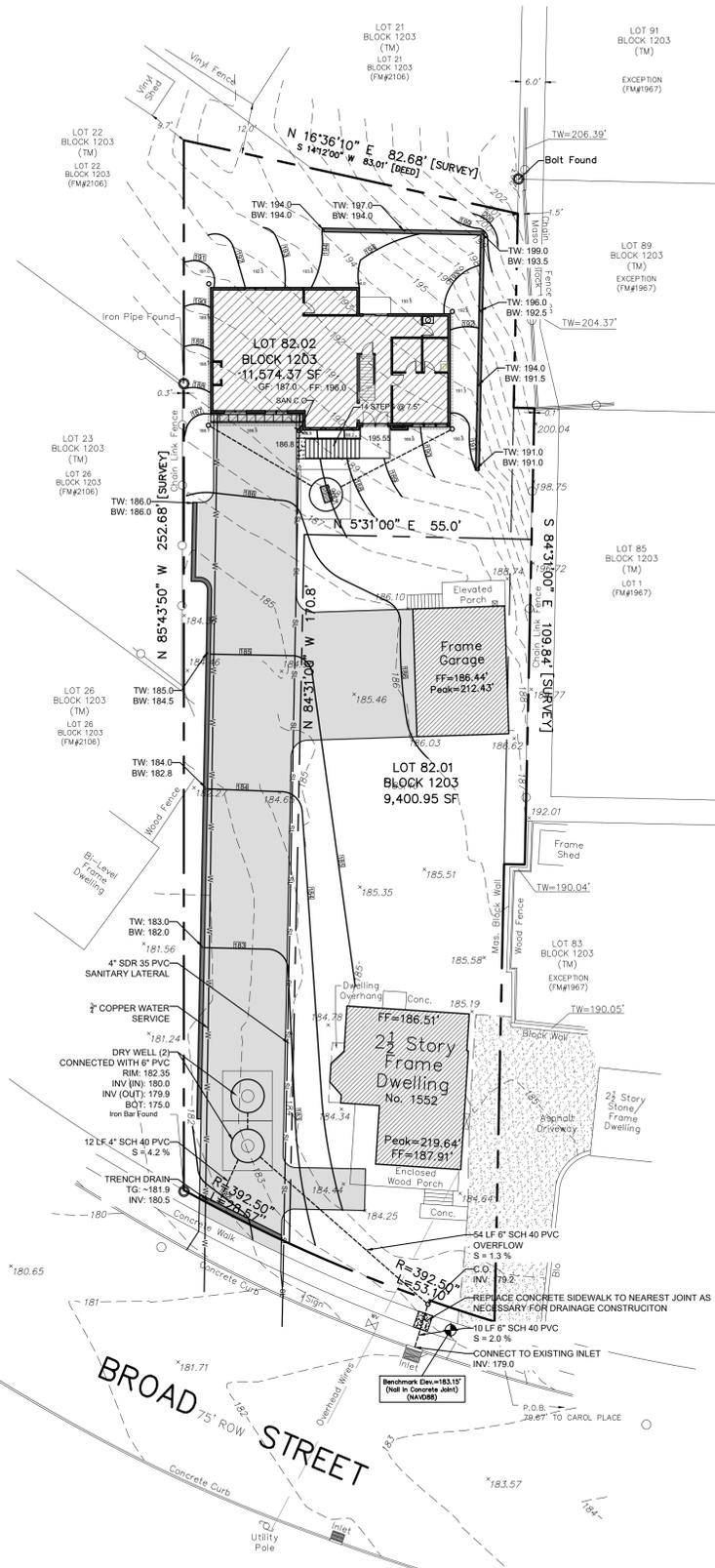
1. ALL CONCRETE SHALL CONFORM TO 2019 STANDARD N.J.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 914 CLASS "B" AIR-ENTRAINED, 4500 P.S.I. MINIMUM AT 28 DAYS. ALL CONCRETE WORK SHALL HAVE A WOOD FLOAT AND FINISH BROOM FINISH. BROOMING SHALL BE DONE BEFORE INITIAL SET USING A STEEL OR BARN BROOM.
2. SUBBASE AND FORMWORK SHALL BE FIRM AND APPROVED BY THE CITY ENGINEER OR HIS/HER REPRESENTATIVE PRIOR TO POURING.
3. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO NJDOT 2019 STANDARDS, SPECIFICATIONS AND INSPECTIONS.
4. WHEN SIDEWALK ABUTS CURB OR SIDEWALK, A 1/2" THICK NON-EXTRUDABLE, FIBROUS BITUMASTIC EXPANSION JOINT IS REQUIRED.
5. FOR SCORING PATTERNS, SIDEWALK SHALL BE DIVIDED INTO TWO LONGITUDINAL SECTIONS.
6. ALL JOINTS SHALL SAW CUT. NO TOOLED JOINTS ARE PERMITTED.

CONCRETE SIDEWALK
SCALE: NTS



FULL DEPTH PAVEMENT
SCALE: NTS

TRENCH DRAIN DETAIL
SCALE: NTS



AVERAGE GRADE PLANE CALCULATION

$$191.0 + 192.5 + 193.8 + 194.0 + 193.5 + 192.5 + 191.3 + 190.8 + 189.8 + 188.2 + 186.8 + 186.8 + 186.7 + 189.7 + 189.9 = 2,857.3$$

$$2,857.3 / 15 = 190.5 = \text{AVERAGE GP}$$

BUILDING HEIGHT CALCULATION

FINISHED FLOOR ELEV = 196.0
AVERAGE GP = 190.5
FF TO PEAK = 25.45

$$196.0 - 190.5 = 5.5$$

$$5.5 + 25.45 = 30.95 \text{ FT} = \text{BUILDING HEIGHT}$$

DRYWELL CALCULATIONS:
TOTAL IMPERVIOUS AREA = 7,097.0 SF
 $(\frac{2}{12})$ RAINFALL * 7,097.0 SF = 1,182.8 CF REQUIRED

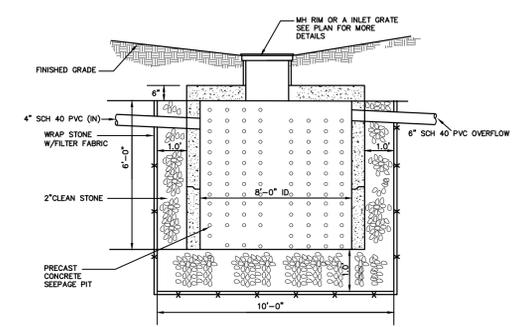
DIMENSIONS: 8' DIAMETER
6' DEPTH
1' CLEAN STONE SIDES
1' CLEAN STONE BASE

DRYWELL:
 $1/4 \pi (8')^2 (6') = 301.6 \text{ CF}$

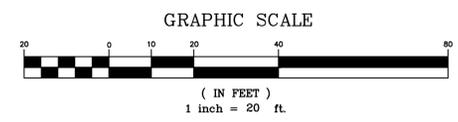
BASE:
 $10' \times 10' = 100 \text{ SF}$
 $100(1')(1.40) = 40.0 \text{ CF}$

SIDES:
 $10' \times 10' = 100 \text{ SF (TOTAL AREA OF GRAVEL)}$
 $1/4 \pi (9')^2 = 63.62 \text{ SF (DRYWELL + RING AREA)}$
 $100 - 63.62 = 36.38 \text{ CF}$
 $36.38(6')(1.40) = 87.3 \text{ CF}$

TOTAL: $301.6 + 57.6 + 87.3 = 446.5 \text{ CF}$
3 DRYWELLS PROPOSED = 1,339.5 CF (> 1,182.8 CF)



DRYWELL DETAIL
SCALE: NTS



REFERENCES:
BOUNDARY AND FIELD SURVEY TAKEN FROM LAKELAND SURVEYING, PREPARED BY JEFFREY S. GRUNN PLS ON 3/16/23.
ARCHITECTURAL FOOTPRINT TAKEN FROM PLANS PREPARED BY DANTAS CARRETE ARCHITECTURE, RECEIVED 12/12/23.

811 NEW JERSEY STATE LAW REQUIRES NOTIFICATION 3 BUSINESS DAYS PRIOR TO ANY LAND DISTURBANCE. CONTRACTOR IS RESPONSIBLE FOR CALLING 811 OR 1-800-272-1000 FOR UTILITY MARKOUTS. UTILITY INFORMATION SHOWN IS PROVIDED BY THE SURVEYOR AND IS CURRENT AT THE TIME OF THE SURVEY. ANDERSON CONSULTING SERVICES IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DATA.
Know what's below. Call before you dig.

PAUL W. ANDERSON
N.J. PROFESSIONAL ENGINEER
LIC. NO. 33410
Paul W. Anderson
SIGNATURE INVOLVED WITHOUT RAISED SEAL OF P.E.

Revision	Description

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CERTIFICATE OF AUTHORIZATION
24GA28192400

PROJ. NO.	BLOOMFIELD BROAD STREET
DATE	8-4-23
DRAWN BY	ET
DESIGNED BY	PWA
CHECKED BY	PWA
SCALE	AS SHOWN

1552 BROAD STREET
BLOCK 1203, LOT 82
TOWNSHIP OF BLOOMFIELD
ESSEX COUNTY, NEW JERSEY

GRADING & UTILITY PLAN

SP-2

SHEET 2 OF 2