

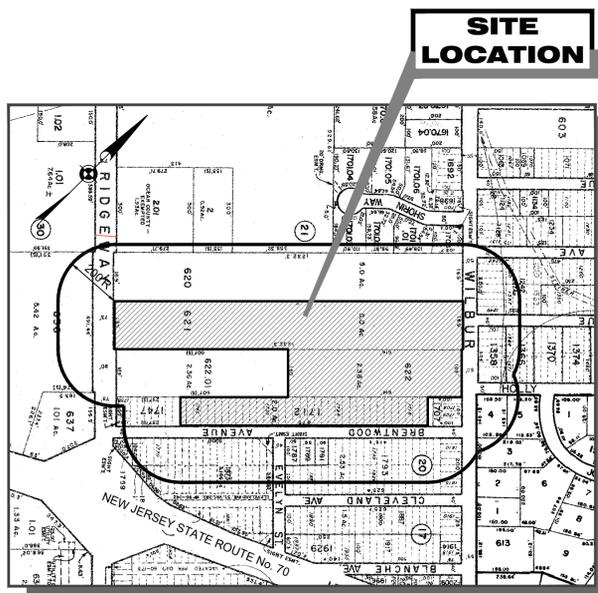
PRELIMINARY AND FINAL MAJOR SUBDIVISION BRENTWOOD ESTATES BLOCK 21 LOTS 621, 622 & 1712 MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY

PROPERTY OWNERS WITHIN 200 FEET
DATED 5/11/2018

TAXING DISTRICT	ADJACENT PROPERTY	CLASS	OWNER NAME & ADDRESS	APPLICANT'S B 21 L 621, 622 & 1712
15.01	2884 WILBUR AVE	2	SEAL, CHARLES & EILEEN 3319 WILBUR AVE MANCHESTER NJ	08759
15.01	2994 WILBUR AVE	2	FRONZ, SUSANNA & ANTONIA 2994 WILBUR AVE MANCHESTER NJ	08759
15.01	100 JOHNSON RD	2	MCCOY, SEAN & JENNIFER 119 JOHNSON RD MANCHESTER NJ	08759
15	1850 BRENTWOOD AVE	1	DEREN, WM HST/ROSIE DEREN UNION NJ 07081	00000
18	2181 HWY 70	4A	RAC LANDSCAPE ILL/ALICE AID #2827 PO BOX 1148 HARRISBURG PA	17105
20	3104 BRENTWOOD AVE	1	SURESHAN AGENCY INC PO BOX 148 LAKEWOOD NJ	08701
20	3104 BRENTWOOD AVE	18C	MANCHESTER TOWNSHIP 1 COLONIAL DR MANCHESTER NJ	08759
20	3106 BRENTWOOD AVE	1	STAVOLA REALTY COMPANY 820 TINTON AVE BLD B #200 TINTON FALLS NJ	07724
20	3110 BRENTWOOD AVE	1	STAVOLA REALTY CO 820 TINTON AVE BLD B #200 TINTON FALLS NJ	07724
21	3086 RIDGEWAY RD	4A	MANCHESTER TOWNSHIP 489 RIVER AVE LAKEWOOD NJ	08701
21	3000 RENAISSANCE BLVD	1	STAVOLA REALTY CO 620 TINTON AVE BLD B #200 TINTON FALLS NJ	07724
21	3066 RIDGEWAY RD	2	MANCHESTER TOWNSHIP 489 RIVER AVE LAKEWOOD NJ	08701
21	3054 RIDGEWAY RD	18C	OCEAN COUNTY 501 HOOPER AVE TOMS RIVER NJ	08753
21	3048 RIDGEWAY RD	1	QUINN, JOHN 22 WOODROW DR ROCKHURST NY	13601
21	3028 HWY 571	3B	BRUNICK, SYDNEY FAMILY TRUST PO BOX 109 LAKEWOOD NJ	08701
21	3083 WILBUR AVE	3B	BRUNICK, SYDNEY FAMILY TRUST PO BOX 109 LAKEWOOD NJ	08701
21	3010 RIDGEWAY RD	4A	SCT MANAGEMENT CORPORATION PO BOX 4828 DARTVILLE ID	81834
21	1701.01	2	LARASERA, RICHARD & JOAN ANN 1 SHORIN WAY MANCHESTER NJ	08759
21	1791.02	2	BUTLER, STEPHEN 3 SHORIN WAY MANCHESTER NJ	08759
21	1701.03	2	LARASERA, RICHARD & GENEVIEVE 3 SHORIN WAY MANCHESTER NJ	08759
21	1703	2	MEYER, ROBERT & LISA 3445 WILBUR AVE MANCHESTER NJ	08759
21	1709	2	ROSMATO, LOUIS & LILLIAN 2893 WILBUR AVE MANCHESTER NJ	08759
21	1712	1	STAVOLA REALTY CO 820 TINTON AVE BLD B #200 TINTON FALLS NJ	07724
21	1747	1	CON VACANT PROPERTIES LLC 92 & SYLVANIA AVE ROSPERIN CITY NJ	07753
22	1358	2	ADNEY, RICHARD P & LINDA L 2048 HOLLY HILL RD MANCHESTER NJ	08759
22	1366	2	HARRISON, JAMES R & JAMIE L 2093 HOLLY HILL RD MANCHESTER NJ	08759
23	1344	1	STAVOLA REALTY CO 820 TINTON AVE BLD B #200 TINTON FALLS NJ	07724
30	616	4A	DAVICO INDUSTRIAL LLC 53 BOUNTAIN BLVD RM 204 WARRER NJ	07059
30	637	4A	MARINE NATIONAL BANK/PHO REALTY PO BOX 52427 ATLANTA GA	30305

Utilities located in and around Manchester Township to be notified are as follows:

Comcast 830 Route 37 West Toms River, NJ 08755	Verizon, Eng Dept PO Box 152206 Irving, TX 75015	GPU 400 Lincoln Street Phillipsburg, NJ 08865
Manchester Township Clerk's Office 1 Colonial Drive Manchester, NJ 08759	NJ DEP CN 401 Trenton, NJ 08625	NJ DOT Route 79 & Daniels Way Freehold, NJ 07728
NJ Natural Gas PO Box 1464 Wall, NJ 07719	Ocean County MUA PO Box P Beyville, NJ 08721	Ocean County Road Dept 119 Hooper Avenue Toms River, NJ 08753



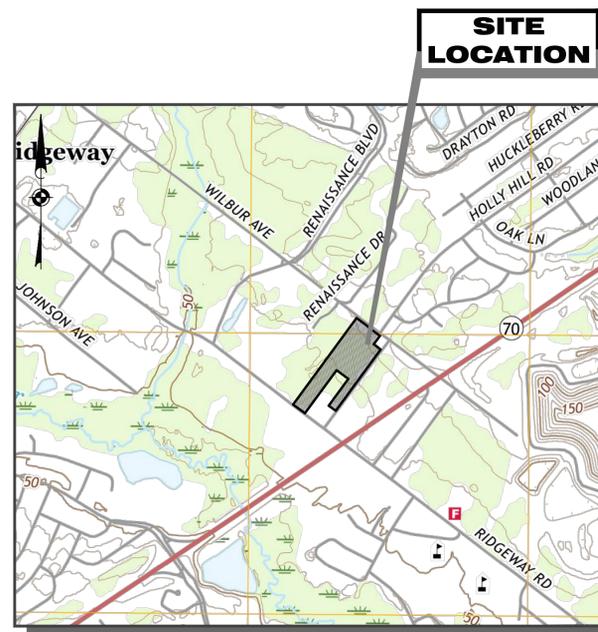
TOWNSHIP OF MANCHESTER TAX MAP SHEET NUMBER #1.01

TAX MAP
SCALE: 1" = 300'



NJ 2015 ORTHOPHOTOGRAPHY

SCALE: 1" = 500'



LOCATION MAP

SCALE: 1" = 1000'

SHEET INDEX	
MAJOR SUBDIVISION DRAWINGS	
SHEET No.	SHEET DESCRIPTION
1	TITLE SHEET
2	SITE PLAN
3	GRADING & DRAINAGE PLAN
4	UTILITIES PLAN
5	PROFILE SHEET
6	LANDSCAPING AND LIGHTING PLAN
7	STORMWATER MAINTENANCE PLAN & DETAILS
8	SOIL EROSION & SEDIMENT CONTROL PLAN
9	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS
10	SOIL MANAGEMENT AND PREPARATION PLAN
11	CONSTRUCTION DETAILS

SUPPLEMENTAL DRAWINGS	
1	BOUNDARY & TOPOGRAPHIC SURVEY
1	FINAL PLAT

GENERAL NOTES:

1. APPLICANT PROPOSES TO SUBDIVIDE THE EXISTING 9.173 ACRE TRACT INTO 17 SINGLE FAMILY RESIDENTIAL LOTS AND DETENTION BASIN LOT TO BE DEDICATED TO MANCHESTER TOWNSHIP.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY, BLOCK 21 LOTS 621, 622 & 1712, MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY" PREPARED BY MORGAN ENGINEERING LLC, DATED 4/27/2018.
4. THE PROPERTY IS LOCATED WITHIN THE R-20 ZONE.
5. PROPOSED LOT NUMBERS AND ADDRESSES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER.
4. PROPERTY LIES WITHIN FLOOD ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP 34029C0169F BEARING AN EFFECTIVE DATE OF 9/29/2006. SHOWN AS ZONE X ON PRELIMINARY FIRM MAP 34029C0169G DATED 1/30/2015.
5. WATER WILL BE PROVIDED BY MANCHESTER TOWNSHIP MUNICIPAL UTILITY AUTHORITY.
6. SEWAGE SERVICE WILL BE PROVIDED BY EXTENSION OF MANCHESTER TOWNSHIP MUNICIPAL UTILITIES AUTHORITY SYSTEM.
7. ERROR OF CLOSURE DOES NOT EXCEED 1:10,000.
8. ALL UTILITIES (ELECTRIC, TELEPHONE, ETC) TO BE PROVIDED UNDERGROUND. THE CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. STREET LIGHTING TO BE PROVIDED IN ACCORDANCE WITH MANCHESTER TOWNSHIP LAND USE REGULATIONS AT THE OWNERS EXPENSE.
10. ALL DISTURBED AREAS WILL BE VEGETATIVELY STABILIZED IN ACCORDANCE WITH THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN UPON COMPLETION OF THE GRADING ACTIVITIES.
11. DEPRESSED CURB AND HANDICAP RAMPS ARE TO BE PROVIDED AT ALL STREET INTERSECTIONS.
12. ALL TRAFFIC CONTROL SIGNAGE INCLUDING PAVEMENT MARKINGS WILL BE PROVIDED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
13. THE OWNER OR HIS REPRESENTATIVE IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21(E) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32(F) (OSHA COMPETENT PERSON). MORGAN ENGINEERING, L.L.C., ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
14. EXISTING CONDITIONS AND DIMENSIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
15. CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL THE UTILITIES PRIOR TO ANY SITE WORK OR CONSTRUCTION.

APPLICANT:
ARYA PROPERTIES, LLC
130 CENTRAL AVENUE
ISLAND HEIGHTS, NJ 08732

OWNER - BLOCK 21 LOTS 621 & 622:
KRUPNICK, SYDNEY FAMILY TRUST
PO BOX 109
LAKEWOOD, NJ 08701

OWNER - BLOCK 21 LOT 1712:
STAVOLA REALTY CO
PO BOX 482
RED BANK, NJ 07701

APPROVED BY:
MANCHESTER TOWNSHIP PLANNING BOARD

CHAIRPERSON _____ DATE _____
SECRETARY _____ DATE _____
ENGINEER _____ DATE _____

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE PLANS AND REPORTS HAVE BEEN DESIGNED IN CONFORMANCE WITH THE RESIDENTIAL SITE IMPROVEMENT STANDARDS, NJAC 5:21.

Matthew R. Wilder
MATHEW R. WILDER, P.E., NJ# 50652

APPROVED BY MANCHESTER TOWNSHIP
MUNICIPAL UTILITIES AUTHORITY

DIRECTOR OF ENGINEERING _____ DATE _____



Matthew R. Wilder
MATHEW R. WILDER
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE No. 50652

REV	DATE	DESCRIPTION	BY

**PRELIMINARY & FINAL
MAJOR SUBDIVISION PLAN
BRENTWOOD ESTATES**

TITLE SHEET

LOTS 621, 622 & 1712 BLOCK 21

TOWNSHIP OF MANCHESTER
COUNTY OF OCEAN New Jersey

Scale: AS NOTED Drawn By: DS Date: 4/24/18 Job #: ARYA2017-008 CAD File #: Sheet #: 1 OF 11

BLOCK 30
LOT 636

MANCHESTER AVENUE
(40' R.O.W.)

BLOCK 23
LOT 1242

JACKSON AVENUE
(40' R.O.W.)

BLOCK 22
LOT 1358

S 44°50'00" W
5.00'

HOLLY HILL ROAD
(50' R.O.W.)

RIDGEWAY ROAD
(OCEAN COUNTY ROUTE 571)
(R.O.W. VARIES)

N 45°10'00" W
168.96'

COMMERCIAL
65,098 SF.
1.494 AC.

LOT 621
BLOCK 21
AREA=9.173± AC.
(TOTAL)

DETENTION
BASIN LOT
21,335.44 SF.
0.49 AC.

LOT 620
(VACANT)
N 44°50'00" E 1232.96'

N 45°10'00" W
168.96'

S 44°50'00" W 613.98'

N 44°50'00" E 381.02'

BRENTWOOD AVENUE
(40' R.O.W.)

EVELYN STREET
(UNIMPROVED)
(40' R.O.W.)

BLOCK 20
LOT 1793

LOT 1759

LOT 1747
(VACANT)

N 45°10'00" W
100.00'

LOT 1712

LOT 8
19,051.0 SF.
0.437 AC.

LOT 7
19,051.0 SF.
0.437 AC.

LOT 6
23,926.73 SF.
0.549 AC.

LOT 5
22,703.71 SF.
0.521 AC.

LOT 4
24,292.0 SF.
0.558 AC.

LOT 2
22,792.0 SF.
0.523 AC.

LOT 1
15,006.6 SF.
0.345 AC.

LOT 1707

S 44°50'00" W 875.00'

S 45°10'00" E 168.96'

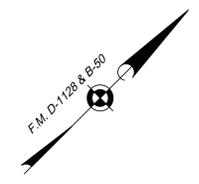
S 45°10'00" E 168.96'

S 45°10'00" E 100.00'

WILBUR AVENUE
(R.O.W. VARIES)

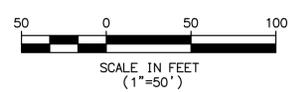
S 44°50'00" W
5.00'

S 45°10'00" E 100.00'



LAND USE ORDINANCE	REQUIRED	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5	LOT 6	LOT 7	LOT 8	LOT 9	LOT 10	LOT 11	LOT 12	LOT 13	LOT 14	BASIN LOT
MIN. LOT AREA (SF)	20,000	15,006.6	22,792	24,292	22,703.71	23,926.73	19,051	19,051	33,341.49	15,228.89	15,225	15,225	15,225	15,225	15,225	21,335.44
MIN. LOT FRONTAGE (FT)	100	105	100	100	100	121.54	85.07	190.51	190.51	70.0	105.09	105	105	105	105	
MIN. LOT WIDTH (FT)	100	105	100	100	100	120.7	132.13	190.51	190.51	117.18	105.4	105	105	105	105	
MIN. IMPROVABLE LOT AREA (FT)	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	
MIN. YARD REQUIREMENTS: (SINGLE FAMILY)																
MIN. FRONT YARD SETBACK (FT)	30	31.0	31.0	31.0	31.0	31.0	31.0	31.0	40.0	31.0	31.0	31.0	31.0	31.0	31.0	
MIN. REAR YARD SETBACK (FT)	30	71.6	171.6	171.6	171.6	133.8	122.5	34.0	34.0	82.8	73.7	73.7	73.7	73.7	73.7	
MIN. SIDE YARD SETBACK (FT)	15	16.0	22.0	22.0	22.0	17.1	16.0	70.0	70.0	30.0	24.0	24.0	24.0	24.0	24.0	
MAX. BUILDING COVERAGE (%)	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
MAX. LOT COVERAGE (%)	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
MAX. BUILDING HEIGHT (STORIES)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
MAX. BUILDING HEIGHT (FT)	35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	<35	

Curve #	Radius	Length	Delta	Chord
C1	25.00'	30.76'	70° 29' 27"	N80° 04' 44"E 28.85
C2	50.00'	220.76'	252° 58' 07"	S11° 09' 36"E 80.40
C3	50.00'	98.94'	113° 22' 23"	S58° 38' 16"W 83.57
C4	50.00'	100.00'	114° 35' 30"	S55° 20' 41"E 84.15
C5	50.00'	21.82'	25° 00' 14"	N54° 51' 27"E 21.65



CERTIFICATE OF AUTHORIZATION: 24GA28228900

MORGAN
engineering & surveying
www.morganengineeringllc.com

Matthew R. Wilder
MATHEW R. WILDER
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE No. 50652

P.O. BOX 6232
TOMS RIVER, N.J. 08754
TEL: 732-270-9690
FAX: 732-270-9691

REV	DATE	DESCRIPTION	BY

**PRELIMINARY & FINAL
MAJOR SUBDIVISION PLAN
BRENTWOOD ESTATES**

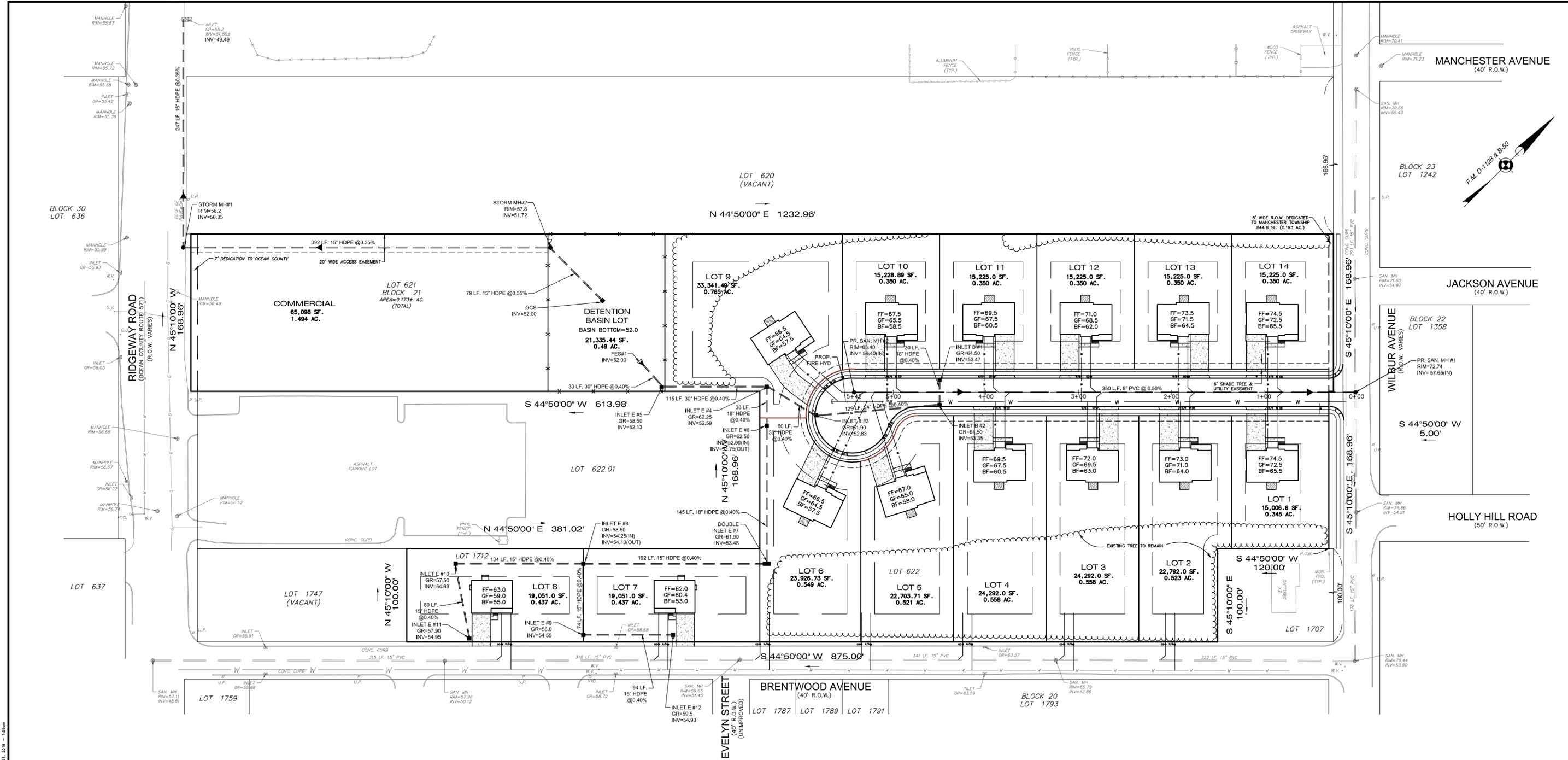
SITE LAYOUT PLAN

LOTS 621, 622 & 1712 BLOCK 21

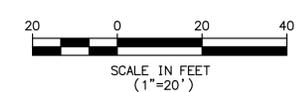
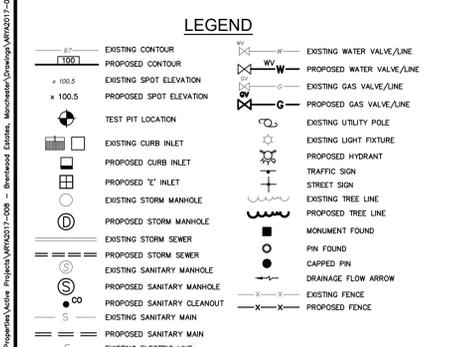
TOWNSHIP OF MANCHESTER
COUNTY OF OCEAN New Jersey

Scale: 1"=50' Drawn By: DS Date: 4/24/18 Job #: ARYA2017-008 CAD File #: Site Plan Sheet #: 2 of 11

N:\Data\Projects\Katie\Projects\2017\2017-008 - Brentwood Estates - Manchester Township\2017-008-Subdivision - Plan 1.dwg Aug 21, 2018 - 2:01pm



- UTILITY NOTES:**
- THRUST BLOCKS TO BE INSTALLED AT ALL WATER MAINS, BENDS AND FITTINGS.
 - ALL FIRE HYDRANTS TO HAVE 6" PIPE SERVING EACH HYDRANT.
 - LATERALS INSTALLED SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT.
 - SANITARY AND WATER LATERALS SHALL MATCH THE CROWN OF THE PIPE MAINS.
 - POTABLE WATER CROSSINGS SHALL MAINTAIN A MINIMUM SEPARATION AS PROVIDED IN NJAC CODE. PROVIDE A TEN FOOT HORIZONTAL DISTANCE BETWEEN SEWER MAINS AND WATER MAINS. IF LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH SEWER AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. IF SEWER SEPARATION BETWEEN WATER AND SEWER MAINS ARE NOT POSSIBLE SEWER MAINS WILL NEED TO BE INSTALLED WITH DUCTILE IRON PIPE WITH WATER TIGHT JOINTS.
 - UTILITY CROSSINGS:
 - WATER MAINS: INSTALL THE SEWER MAIN A MINIMUM OF 18" BELOW THE WATER MAIN. IF THE VERTICAL CLEARANCE BETWEEN MAINS IS LESS THAN THIS THE SEWER MAIN MUST BE DUCTILE IRON WITH WATER TIGHT JOINTS THAT ARE A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE WATER MAIN. IF THE MAIN MUST CROSS BENEATH THE SEWER MAIN TO MAINTAIN COVER, THE DUCTILE IRON PIPE SHALL BE PROVIDED AS NOTED, REGARDLESS OF THE VERTICAL DISTANCE.
 - ALL OTHER PIPING AND UTILITIES EXCEPT WATER MAINS: PROVIDE 12" MINIMUM VERTICAL CLEARANCE BETWEEN SEWER MAINS AND OTHER PIPING OR UTILITIES CROSSING EITHER ABOVE OR BELOW. IF OTHER PIPING OR UTILITIES CROSS 12"-18" ABOVE THE SEWER SUPPORT THE TOP OR UTILITY WITH CONCRETE CRADLES.
 - PROVIDE 4 FT. OF MIN. COVER OVER PVC SEWER MAINS AND 3 FT. OVER DIP MAINS. PROVIDE 3 FT. MIN. COVER OVER SEWER LATERALS.
 - ALL SANITARY SEWER SHALL BE P.V.C. CONFORMING TO ASTM D-3034, SDR-35 WITH PUSH ON JOINTS.
 - ALL WATER MAINS SHALL BE PVC AWWA C900, DR 18.
 - PROVIDE A MINIMUM OF 4 FT. OF COVER OVER THE WATER MAINS.
 - ALL WATER SERVICES AND PLUMBING SHALL CONFORM WITH THE NJAC 5:23-3.15 SUBCODE.
 - WATER VALVES SHALL BE RESILIENT WEDGE TYPE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD SPECS C-509.
 - WATER VALVES SHALL BE PLACED ON WATER MAINS NOT MORE THAN 1000 FT. APART.
 - A HYDRANT OR BLOW OFF VALVE SHALL BE LOCATED BEYOND THE LAST SERVICE CONNECTION ON TEMPORARY DEAD ENDS.
 - CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MANCHESTER TOWNSHIP MUNICIPAL UTILITIES AUTHORITY RULES, REGULATIONS, FEES, SPECIFICATIONS AND SUBMISSION OF BONDS IN EFFECT AT THE TIME OF MEETING ALL CONDITIONS FOR FINAL APPROVAL.
 - RELOCATION AND/OR SLEEVING OF EXISTING SERVICE CONNECTIONS IN CONFLICT WITH ANY UNDERGROUND UTILITIES SHALL BE AT APPLICANTS EXPENSE UNDER DIRECTION OF TOMS RIVER MUA INSPECTOR. NO RE-ALLOCATIONS OF SLEEVES SHALL BE COVERED PRIOR TO INSPECTION BY MANCHESTER TOWNSHIP MUA.
 - THE AUTHORITY WILL NOT APPROVE ANY LATERALS OR CLEANOUTS IN THE DRIVEWAY APRONS. ALL CURB CLEANOUTS MUST BE BETWEEN THE CURB AND THE SIDEWALK.
 - ALL SANITARY AND STORM SEWER AND POTABLE WATER CROSSINGS MAINTAIN MIN. SEPARATION AS PROVIDED IN THE NJAC SPECIFICATIONS.
 - ALL APPROVALS ARE SUBJECT TO ANY TOWNSHIP, COUNTY, STATE OR FEDERAL REQUIREMENTS.
 - EXISTING WATER AND SEWER LATERALS TO THE EXISTING DWELLING TO BE REMOVED AND CAPPED.



CERTIFICATE OF AUTHORIZATION: 24GA28228900

MORGAN
engineering & surveying

P.O. BOX 5232
TOMS RIVER, N.J. 08754
TEL: 732-270-9690
FAX: 732-270-9691
www.morganengineeringllc.com

Matthew R. Wilder
MATHEW R. WILDER
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE No. 50652

REV	DATE	DESCRIPTION	BY

**PRELIMINARY & FINAL
MAJOR SUBDIVISION PLAN
BRENTWOOD ESTATES**

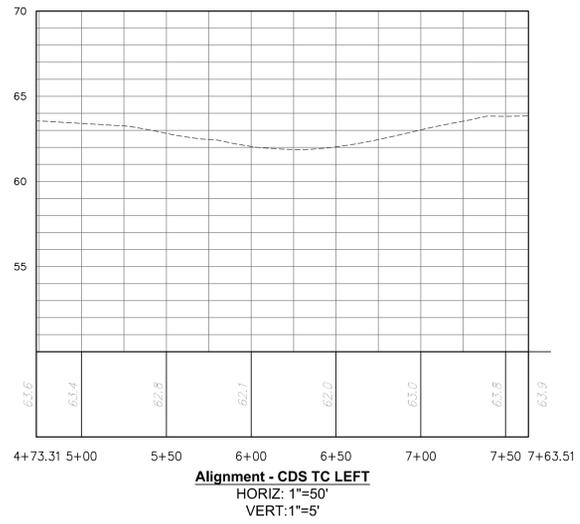
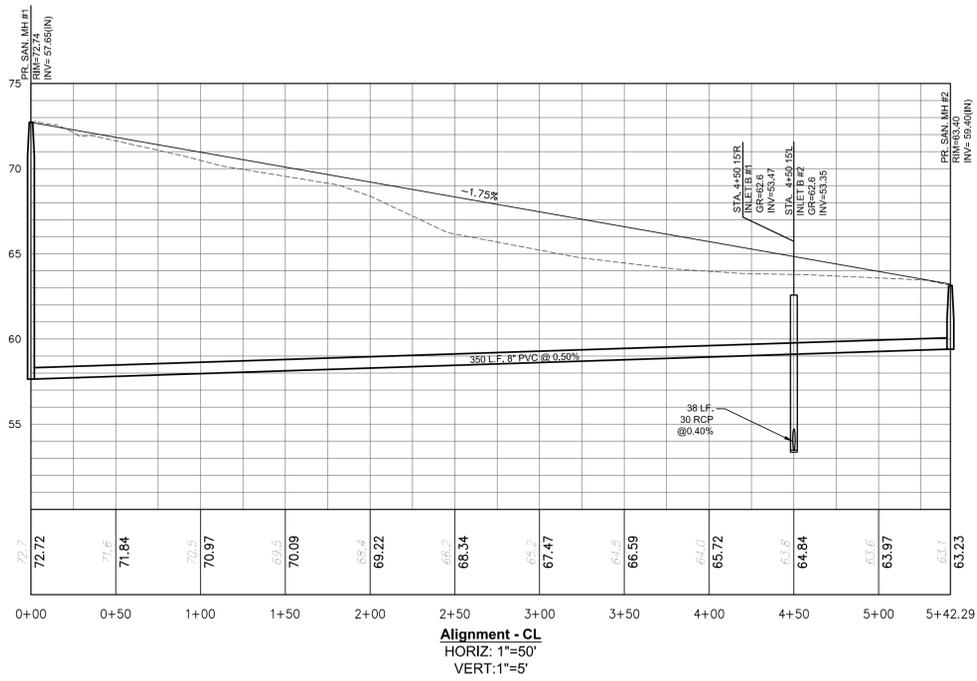
UTILITIES PLAN

LOTS 621, 622 & 1712 BLOCK 21

TOWNSHIP OF MANCHESTER
COUNTY OF OCEAN New Jersey

Scale: 1"=50' Drawn By: DS Date: 4/24/18 JOB #: ARYA2017-008 CAD File #: Site Plan Sheet #: 4 OF 11

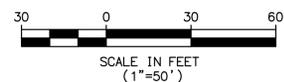
X:\Data\Projects\Utility\Projects\BRENTWOOD\DWG\2017-008-Subdivision\plan_4_24_18.dwg 4/24/18 1:50pm
 X:\Data\Projects\Utility\Projects\BRENTWOOD\DWG\2017-008-Subdivision\plan_4_24_18.dwg 4/24/18 1:50pm



UTILITY NOTES:

- THRUST BLOCKS TO BE INSTALLED AT ALL WATER MAINS, BENDS AND FITTINGS.
- ALL FIRE HYDRANTS TO HAVE 8" PIPE SERVING EACH HYDRANT.
- LATERALS INSTALLED SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT.
- SANITARY AND WATER LATERALS SHALL MATCH THE CROWN OF THE PIPE MAINS.
- POTABLE WATER CROSSINGS SHALL MAINTAIN A MINIMUM SEPARATION AS PROVIDED IN NJAC CODE. PROVIDE A TEN FOOT HORIZONTAL DISTANCE BETWEEN SEWER MAINS AND WATER MAINS. IF LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH SEWER AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. IF SEWER SEPARATION BETWEEN WATER AND SEWER MAINS ARE NOT POSSIBLE SEWER MAINS WILL NEED TO BE INSTALLED WITH DUCTILE IRON PIPE WITH WATER TIGHT JOINTS.
- UTILITY CROSSINGS:
 WATER MAINS: INSTALL THE SEWER MAIN A MINIMUM OF 18" BELOW THE WATER MAIN. IF THE VERTICAL CLEARANCE BETWEEN MAINS IS LESS THAN THIS THE SEWER MAIN MUST BE DUCTILE IRON WITH WATER TIGHT JOINTS THAT ARE A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE WATER MAIN. IF THE MAIN MUST CROSS BENEATH THE SEWER MAIN TO MAINTAIN COVER, THE DUCTILE IRON PIPE SHALL BE PROVIDED AS NOTED, REGARDLESS OF THE VERTICAL DISTANCE.
 ALL OTHER PIPING AND UTILITIES EXCEPT WATER MAINS: PROVIDE 12" MINIMUM VERTICAL CLEARANCE BETWEEN SEWER MAINS AND OTHER PIPING OR UTILITIES CROSSING EITHER ABOVE OR BELOW. IF OTHER PIPING OR UTILITIES CROSS 12"-18" ABOVE THE SEWER SUPPORT THE TOP OR UTILITY WITH CONCRETE CRADLES.
- PROVIDE 4 FT. OF MIN. COVER OVER PVC SEWER MAINS AND 3 FT. OVER DIP MAINS. PROVIDE 3 FT. MIN. COVER OVER SEWER LATERALS.
- ALL SANITARY SEWER SHALL BE P.V.C. CONFORMING TO ASTM D-3034, SDR-35 WITH PUSH ON JOINTS.
- ALL WATER MAINS SHALL BE PVC AWWA C900, DR 18.
- PROVIDE A MINIMUM OF 4 FT. OF COVER OVER THE WATER MAINS.
- ALL WATER SERVICES AND PLUMBING SHALL CONFORM WITH THE NJAC 5:23-3.15 SUBCODE.
- WATER VALVES SHALL BE RESILIENT WEDGE TYPE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD SPEC'S C-509.
- WATER VALVES SHALL BE PLACED ON WATER MAINS NOR MORE THAN 1000 FT. APART.
- A HYDRANT OR BLOW OFF VALVE SHALL BE LOCATED BEYOND THE LAST SERVICE CONNECTION ON TEMPORARY DEAD ENDS.
- CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MANCHESTER TOWNSHIP MUNICIPAL UTILITIES AUTHORITY RULES, REGULATIONS, FEES, SPECIFICATIONS AND SUBMISSION OF BONDS IN EFFECT AT THE TIME OF MEETING ALL CONDITIONS FOR FINAL APPROVAL.
- RELOCATION AND/OR SLEEVING OF EXISTING SERVICE CONNECTIONS IN CONFLICT WITH ANY UNDERGROUND UTILITIES SHALL BE AT APPLICANTS EXPENSE UNDER DIRECTION OF TOWNSHIP INSPECTOR. NO RE-ALLOCATIONS OF SLEEVES SHALL BE COVERED PRIOR TO INSPECTION BY MANCHESTER TOWNSHIP MUA.
- THE AUTHORITY WILL NOT APPROVE ANY LATERALS OR CLEANOUTS IN THE DRIVEWAY APRONS. ALL CURB CLEANOUTS MUST BE BETWEEN THE CURB AND THE SIDEWALK.
- ALL SANITARY AND STORM SEWER AND POTABLE WATER CROSSINGS MAINTAIN MIN. SEPARATION AS PROVIDED IN THE NJAC SPECIFICATIONS.
- ALL APPROVALS ARE SUBJECT TO ANY TOWNSHIP, COUNTY, STATE OR FEDERAL REQUIREMENTS.
- EXISTING WATER AND SEWER LATERALS TO THE EXISTING DWELLING TO BE REMOVED AND CAPPED.

N:\Work\Projects\Manhattan\Projects\2017-2018\2017-2018\Subdivision\plan_4_LotSub.dwg Aug 21, 2018 11:15am



CERTIFICATE OF AUTHORIZATION: 24GA28228800

MORGAN
 engineering & surveying
 P.O. BOX 5232
 TOMS RIVER, N.J. 08754
 TEL: 732-270-9690
 FAX: 732-270-9691
 www.morganengineeringllc.com

Matthew R. Wilder
MATHEW R. WILDER
 NEW JERSEY PROFESSIONAL ENGINEER
 LICENSE No. 50652

REV	DATE	DESCRIPTION	BY

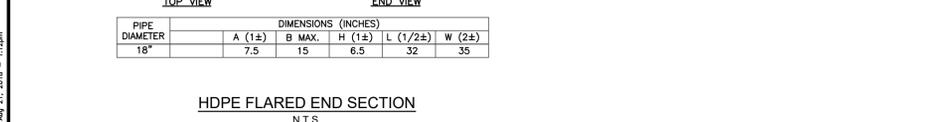
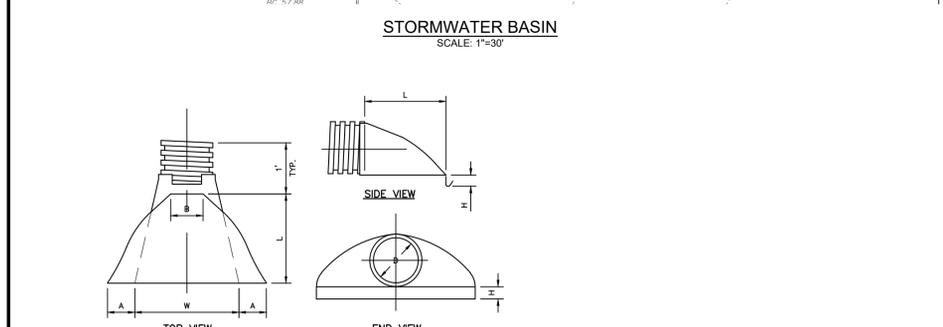
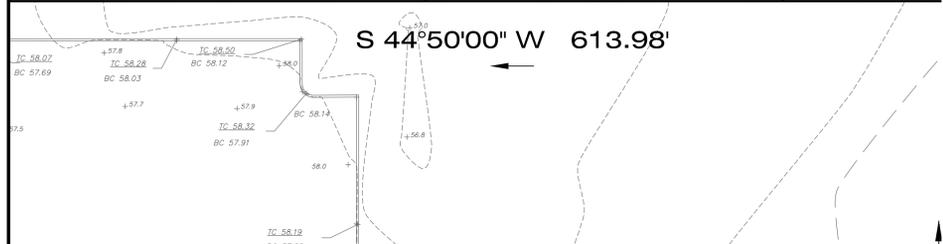
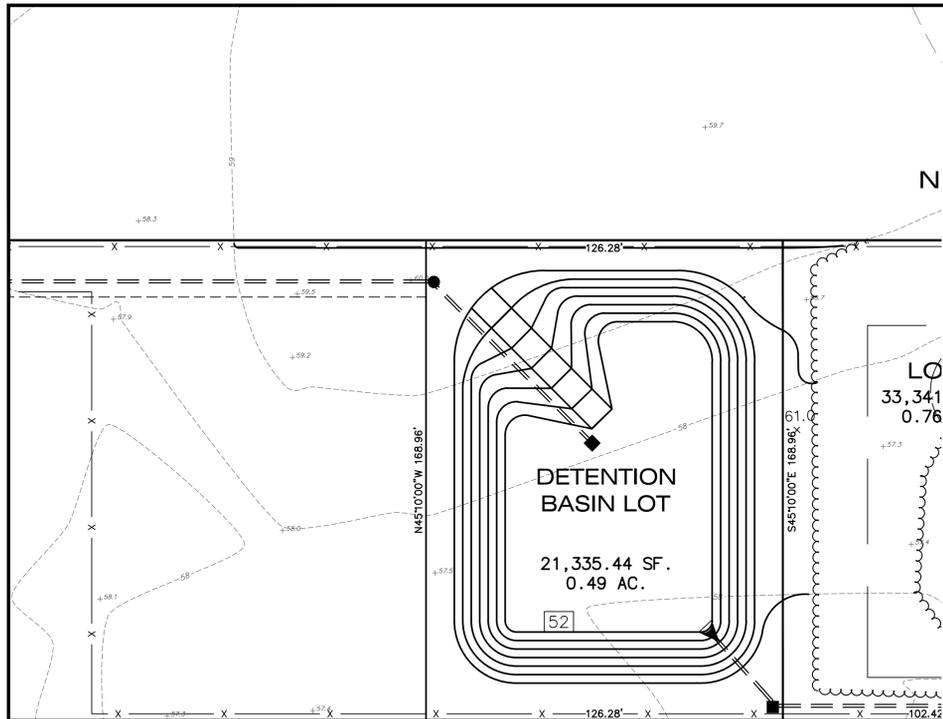
**PRELIMINARY & FINAL
 MAJOR SUBDIVISION PLAN
 BRENTWOOD ESTATES**

PROFILE

LOTS 621, 622 & 1712 BLOCK 21

TOWNSHIP OF MANCHESTER
 COUNTY OF OCEAN New Jersey

Scale: 1"=50' Drawn By: DS Date: 4/24/18 Job #: ARYA2017-008 CAD File #: Site Plan Sheet #: 5 of 11



REQUIRED MAINTENANCE PLAN:

1. ENTITY RESPONSIBLE FOR OVERALL MAINTENANCE OF THE STORMWATER MANAGEMENT MEASURE:
THE PROPERTY OWNER

2. SCHEDULE OF MAINTENANCE INSPECTIONS AND MAINTENANCE TASKS:

EXTENDED DETENTION BASIN:

A. GENERAL MAINTENANCE:
ALL EXTENDED DETENTION BASIN COMPONENTS EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. SUCH COMPONENTS MAY INCLUDE BOTTOMS, CHANNELS, OUTLET STRUCTURES, RIPRAP OR GABION APRONS, AND INLETS. SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN THE BASIN IS THOROUGHLY DRY. DISPOSAL OF DEBRIS AND TRASH SHOULD BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS.

B. VEGETATED AREAS:
MOWING AND/OR TRIMMING OF VEGETATION MUST BE PERFORMED ON A REGULAR SCHEDULE BASED ON SPECIFIC SITE CONDITIONS. GRASS SHOULD BE MOWED AT LEAST ONCE A MONTH DURING THE GROWING SEASON. VEGETATED AREAS MUST ALSO BE INSPECTED AT LEAST ANNUALLY FOR EROSION AND SCOUR. VEGETATED AREAS SHOULD ALSO BE INSPECTED AT LEAST ANNUALLY FOR UNWANTED GROWTH, WHICH SHOULD BE REMOVED WITH MINIMUM DISRUPTION TO THE BOTTOM SURFACE AND REMAINING VEGETATION. WHEN ESTABLISHING OR RESTORING VEGETATION, BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS ESTABLISHED. ONCE ESTABLISHED, INSPECTIONS OF VEGETATION HEALTH AND DIVERSITY SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY DURING BOTH THE GROWING AND NON-GROWING SEASONS. THE VEGETATIVE COVER SHOULD BE MAINTAINED AT 85% IF VEGETATION HAS GREATER THAN 50% DAMAGE, THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND THE INSPECTION REQUIREMENTS PRESENTED ABOVE. ALL USE OF FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM VEGETATION HEALTH SHALL NOT COMPROMISE THE INTENDED PURPOSE OF THE EXTENDED DETENTION BASIN. ALL VEGETATION DEFICIENCIES SHOULD BE ADDRESSED WITHOUT THE USE OF FERTILIZERS AND PESTICIDES WHENEVER POSSIBLE.

C. STRUCTURAL COMPONENTS:
ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION, AND DETERIORATION AT LEAST ANNUALLY.

D. OTHER MAINTENANCE CRITERIA:
THE OPERATION AND MAINTENANCE PLAN MUST INDICATE THE APPROXIMATE TIME THAT THE SYSTEM WOULD NORMALLY TAKE TO COMPLETELY DRAIN THE STORMWATER QUALITY DESIGN STORM RUNOFF VOLUME. THIS NORMAL DRAIN TIME SHOULD THEN BE USED TO EVALUATE THE SYSTEM'S ACTUAL PERFORMANCE. IF SIGNIFICANT INCREASES OR DECREASES IN THE DRAIN TIME ARE OBSERVED, THE SYSTEM'S OUTLET STRUCTURE, UNDERDRAIN SYSTEM, AND BOTH GROUNDWATER AND TAILWATER LEVELS MUST BE EVALUATED AND APPROPRIATE MEASURES TAKEN TO COMPLY WITH THE MAXIMUM DRAIN TIME REQUIREMENTS AND MAINTAIN THE PROPER FUNCTIONING OF THE BASIN.

INFILTRATION BASIN:

A. GENERAL MAINTENANCE:
ALL INFILTRATION BASIN COMPONENTS EXPECTED TO RECEIVE AND/OR TRAP DEBRIS AND SEDIMENT MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST FOUR TIMES ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1 INCH OF RAINFALL. SUCH COMPONENTS MAY INCLUDE BOTTOMS, RIPRAP OR GABION APRONS, AND INFLOW POINTS. THIS APPLIES TO BOTH SURFACE AND SUBSURFACE INFILTRATION BASINS. SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN THE BASIN IS THOROUGHLY DRY. DISPOSAL OF DEBRIS & TRASH SHOULD BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WASTE REGULATIONS. STUDIES HAVE SHOWN THAT READILY VISIBLE STORMWATER MANAGEMENT FACILITIES LIKE INFILTRATION BASINS RECEIVE MORE FREQUENT AND THOROUGH MAINTENANCE THAN THOSE IN LESS VISIBLE, MORE REMOTE LOCATIONS. READILY VISIBLE FACILITIES CAN ALSO BE INSPECTED FASTER AND MORE EASILY BY MAINTENANCE AND MOSQUITO CONTROL PERSONNEL.

B. VEGETATED AREAS:
MOWING AND/OR TRIMMING OF VEGETATION MUST BE PERFORMED ON A REGULAR SCHEDULE BASED ON SPECIFIC SITE CONDITIONS. GRASS SHOULD BE MOWED AT LEAST ONCE A MONTH DURING THE GROWING SEASON. VEGETATED AREAS MUST ALSO BE INSPECTED AT LEAST ANNUALLY FOR EROSION AND SCOUR. THE STRUCTURE MUST BE INSPECTED FOR UNWANTED TREE GROWTH AT LEAST ONCE A YEAR, WHEN ESTABLISHING OR RESTORING VEGETATION. BIWEEKLY INSPECTIONS OF VEGETATION HEALTH SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON OR UNTIL THE VEGETATION IS ESTABLISHED. ONCE ESTABLISHED, INSPECTIONS OF VEGETATION HEALTH, DENSITY AND DIVERSITY SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY DURING BOTH THE GROWING AND NON-GROWING SEASONS. IF VEGETATION HAS GREATER THAN 50% DAMAGE, THE AREA SHOULD BE REESTABLISHED IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND THE INSPECTION REQUIREMENTS PRESENTED ABOVE. ALL USE OF FERTILIZERS, MECHANICAL TREATMENTS, PESTICIDES AND OTHER MEANS TO ASSURE OPTIMUM VEGETATION HEALTH MUST NOT COMPROMISE THE INTENDED PURPOSE OF THE BIOTRENTION SYSTEM. ALL VEGETATION DEFICIENCIES SHOULD BE ADDRESSED WITHOUT THE USE OF FERTILIZERS AND PESTICIDES WHENEVER POSSIBLE. ALL VEGETATED AREAS SHOULD BE INSPECTED AT LEAST ANNUALLY FOR UNWANTED GROWTH, WHICH SHOULD BE REMOVED WITH MINIMUM DISRUPTION TO THE REMAINING VEGETATION AND BASIN SUBSOIL.

C. STRUCTURAL COMPONENTS:
ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, SPALLING, EROSION AND DETERIORATION AT LEAST ANNUALLY.

D. OTHER MAINTENANCE CRITERIA:
THE OPERATION AND MAINTENANCE PLAN MUST INDICATE THE APPROXIMATE TIME THAT THE BASIN WOULD NORMALLY TAKE TO DRAIN THE STORMWATER QUALITY DESIGN STORM RUNOFF VOLUME BELOW THE GROUND SURFACE. THIS NORMAL DRAIN OR DRAWDOWN TIME SHOULD THEN BE USED TO EVALUATE THE BASIN'S ACTUAL PERFORMANCE. IF SIGNIFICANT INCREASES OR DECREASES IN THE DRAIN TIME ARE OBSERVED, THE BASIN'S BOTTOM SURFACE, SUBSOIL AND BOTH GROUNDWATER AND TAILWATER LEVELS MUST BE EVALUATED AND APPROPRIATE MEASURES TAKEN TO COMPLY WITH THE MAXIMUM DRAIN TIME REQUIREMENTS AND MAINTAIN THE PROPER FUNCTIONING OF THE BASIN. THIS APPLIES TO BOTH SURFACE INFILTRATION BASINS, THE BOTTOM SAND LAYER IN A SURFACE INFILTRATION BASIN SHOULD BE INSPECTED AT LEAST MONTHLY AS WELL AS AFTER EVERY STORM EXCEEDING ONE INCH OF RAINFALL. THE PERMEABILITY RATE OF THE SOIL BELOW THE BASIN MAY ALSO BE RETESTED PERIODICALLY. IF THE WATER FAILS TO 72 HOURS AFTER THE END OF THE STORM, CORRECTIVE MEASURES MUST BE TAKEN. ANNUAL TILTING BY LIGHT EQUIPMENT CAN ASSIST IN MAINTAINING INFILTRATION CAPACITY AND BREAK UP CLOGGED SURFACES.

3. PROBLEMS FOUND DURING MAINTENANCE INSPECTIONS SHALL BE CORRECTED. THESE INCLUDE THE RESTORATION OF ERODED AREAS, REPAIR OR REPLACEMENT OF STORMWATER MANAGEMENT MEASURE COMPONENTS, RESTORATION OF VEGETATION, AND REPAIR OR REPLACEMENT OF NON-VEGETATED LININGS.

4. THE EQUIPMENT NECESSARY TO PERFORM THE MAINTENANCE TASKS ARE AS FOLLOWS:

- A. LAWN MOWING EQUIPMENT
- B. GAS POWERED TRIMMERS
- C. GAS POWERED BLOWERS
- D. RAKES
- E. SHOVELS
- F. PICKS
- G. WHEEL BARROWS
- H. GAS POWERED HEDGE TRIMMERS
- I. CHAIN SAW
- J. FERTILIZER/PESTICIDE APPLICATION
- K. WASTER RECEPTACLES
- L. MAINTENANCE VEHICLES

MAINTENANCE NOTES

REQUIRED MAINTENANCE PLAN PROCEDURES:

- COPIES OF THE MAINTENANCE PLAN MUST BE PROVIDED TO THE OWNER AND OPERATOR OF THE STORMWATER MANAGEMENT MEASURE AND TO ALL REVIEWING AGENCIES. A COPY SHOULD ALSO BE PROVIDED TO THE LOCAL MOSQUITO CONTROL OR EXTERMINATION COMMISSION UPON REQUEST.
- THE TITLE AND DATE OF THE MAINTENANCE PLAN AND THE NAME AND/OR TITLE AND ADDRESS OF THE PERSON WITH OVERALL MAINTENANCE RESPONSIBILITY MUST BE RECORDED ON THE DEED OF THE PROPERTY ON WHICH THE STORMWATER MANAGEMENT MEASURE IS LOCATED. ANY CHANGE IN THE NAME OR TITLE MUST ALSO BE RECORDED ON THE DEED, PARTICULARLY IF THERE IS A CHANGE OF PROPERTY OWNERSHIP.
- THE MAINTENANCE PLAN MUST BE EVALUATED FOR EFFECTIVENESS AT LEAST ANNUALLY AND MUST BE REVISED AS NEEDED.
- A DETAILED, WRITTEN LOG OF ALL PREVENTATIVE AND CORRECTIVE MAINTENANCE PERFORMED AT THE STORMWATER MANAGEMENT MEASURE MUST BE KEPT, INCLUDING A RECORD OF ALL INSPECTIONS AND COPIES OF MAINTENANCE WORK ORDERS.
- THE PERSON WITH OVERALL MAINTENANCE RESPONSIBILITY MUST MAKE THE MAINTENANCE PLAN, LOGS, AND OTHER RECORDS AVAILABLE FOR REVIEW UPON REQUEST FROM A PUBLIC ENTITY WITH JURISDICTION OVER ACTIVITIES AT THE SITE.

MAINTENANCE PLAN CONSIDERATIONS

ACCESS:

ALL STORMWATER MANAGEMENT MEASURES COMPONENTS MUST BE READILY ACCESSIBLE FOR INSPECTION AND MAINTENANCE. THEREFORE, ACCESS MUST BE PROVIDED TO THE ENTIRE STORMWATER MEASURE VIA ROADWAYS AND PATHWAYS. SHRUBS AND UNDERBRUSH MUST BE PRUNED OR TRIMMED AS NECESSARY TO MAINTAIN THIS ACCESS. THIS INCLUDES PATHWAYS THROUGH THE VEGETATION ALONG PERMANENT POOL PERIMETERS, INCLUDING AQUATIC BENCHES, TO ALLOW FOR THE INSPECTION AND CONTROL OF MOSQUITO BREEDING.

INSPECTION AND MAINTENANCE EASEMENTS CONNECTED TO THE STREET OR RIGHT-OF-WAY SHOULD BE PROVIDED AROUND THE ENTIRE FACILITY. THE EXACT LIMITS OF THE EASEMENTS AND RIGHTS-OF-WAY SHOULD BE SPECIFIED ON THE PROJECT PLANS AND INCLUDED IN THE MAINTENANCE PLAN. ACCESS ROADS AND GATES SHOULD BE WIDE ENOUGH TO ALLOW PASSAGE OF NECESSARY MAINTENANCE VEHICLES AND EQUIPMENT, INCLUDING TRUCKS, BACKHOES, GRASS MOWERS, AND MOSQUITO CONTROL EQUIPMENT. IN GENERAL, A MINIMUM ACCESS ROADWAY WIDTH OF 12 FEET INSIDE A MINIMUM RIGHT-OF-WAY WIDTH OF 15 FEET IS RECOMMENDED. TO FACILITATE ENTRY, A CURB SHOULD BE PROVIDED WHERE AN ACCESS ROAD MEETS A CURBED ROADWAY.

TO ALLOW SAFE MOVEMENT OF MAINTENANCE VEHICLES, ACCESS RAMPS SHOULD BE PROVIDED TO THE SHORELINE OR BOTTOM OF ALL FACILITIES WITH SIDE SLOPES GREATER THAN 3 FEET IN HEIGHT. ACCESS RAMPS SHOULD NOT EXCEED 10 PERCENT IN GRADE AND SHOULD BE SUITABLY STABILIZED TO PREVENT DAMAGE BY VEHICLES AND EQUIPMENT. TURNAROUNDS SHOULD BE PROVIDED WHERE BACKING UP IS DIFFICULT OR DANGEROUS. TO EXPEDITE OVERALL MAINTENANCE, VEHICLE AND EQUIPMENT STAGING AREAS SHOULD BE PROVIDED AT OR NEAR EACH FACILITY SITE.

TRAINING OF MAINTENANCE PERSONNEL:

DEPENDENT ON THE SIZE, CHARACTER, COMPONENTS, AND LOCATION OF A STORMWATER MANAGEMENT MEASURE, MAINTENANCE PERSONNEL MAY REQUIRE SPECIALIZED TRAINING TO ENSURE THAT THE MEASURE IS MAINTAINED IN A MANNER CONSISTENT WITH ITS FUNCTION. SUCH TRAINING MAY ADDRESS SPECIALIZED INSPECTION OR MAINTENANCE TASKS AND/OR THE OPERATION OF SPECIALIZED MAINTENANCE EQUIPMENT.

DISPOSAL:

COLLECTION AND DISPOSAL OF SEDIMENT, DEBRIS, AND TRASH FROM STORMWATER MANAGEMENT MEASURES MUST COMPLY WITH LOCAL, STATE, AND FEDERAL WASTE HANDLING AND DISPOSAL REGULATIONS. ALL COLLECTED MATERIAL MUST BE SENT TO APPROPRIATE DISPOSAL/RECYCLING FACILITIES.

AESTHETICS:

THE SAFETY, NEEDS AND AESTHETIC PREFERENCES OF THE ADJACENT COMMUNITY CAN HELP DETERMINE THE TYPE, AMOUNT, AND FREQUENCY OF NECESSARY MAINTENANCE.

EMERGENCY MAINTENANCE:

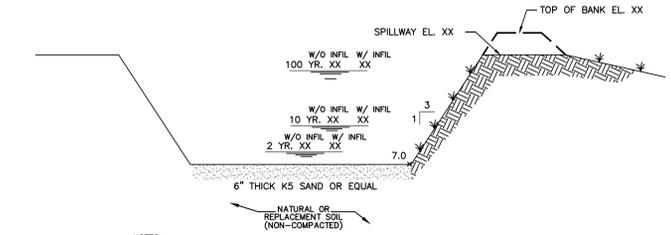
EMERGENCY MAINTENANCE AND REPAIRS MUST BE PERFORMED IN A TIMELY MANNER.

SAFETY:

DEVELOPMENT OF A STORMWATER MANAGEMENT MEASURE DESIGN AND THE INSPECTION AND MAINTENANCE TASKS NECESSARY TO KEEP IT FUNCTIONING RELIABLY MUST INCLUDE CONSIDERATIONS FOR THE SAFETY OF INSPECTION AND MAINTENANCE PERSONNEL WHO WILL BE WORKING IN OR NEAR THE MEASURE.

STORMWATER BASIN

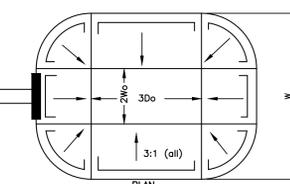
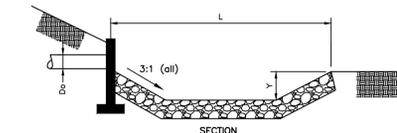
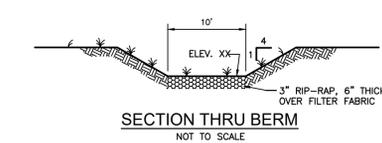
SCALE: 1"=30'



- NOTES:**
- NO CONSTRUCTION EQUIPMENT PERMITTED IN THE AREA OF THE BASIN BOTTOM.
 - SEE NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.
 - SEE SHEET 8 FOR DRAINAGE SECTION PROFILE FOR PIPES AND STRUCTURES.

STORMWATER BASIN DETAIL

N.T.S.

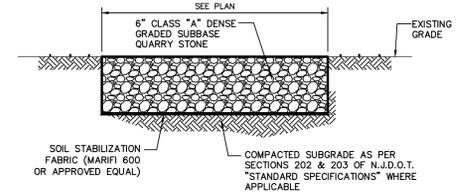


SCOUR HOLE

N.T.S.

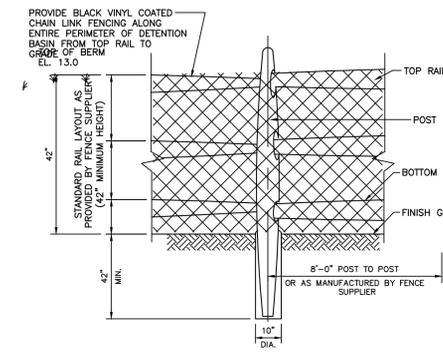
SCOUR HOLE CONSTRUCTION DATA

L	W	H ₁ /D ₁	Y	3D ₀	2D ₀
12'	10'	24"	12"	6.0'	4.0'
9'	7.5'	15"	6"	3.8'	2.5'



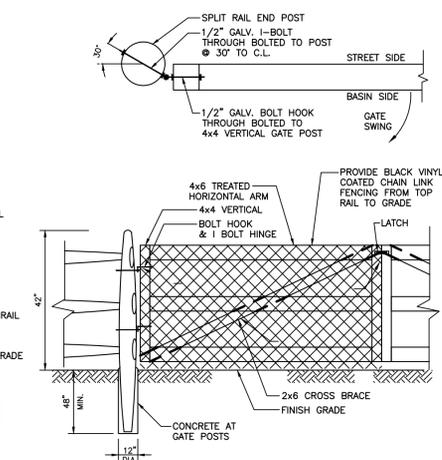
PROPOSED BASIN ACCESS SECTION

N.T.S.



SPLIT RAIL FENCE DETAIL

N.T.S.



DETENTION BASIN ACCESS GATE

N.T.S.

REV	DATE	DESCRIPTION	BY

CERTIFICATE OF AUTHORIZATION: 24GA28228900

MORGAN
engineering & surveying

P.O. BOX 5232
TOMS RIVER, N.J. 08754
TEL: 732-270-9690
FAX: 732-270-9691
www.morganengineeringllc.com

Matthew R. Wilder
MATHEW R. WILDER
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE No. 50652

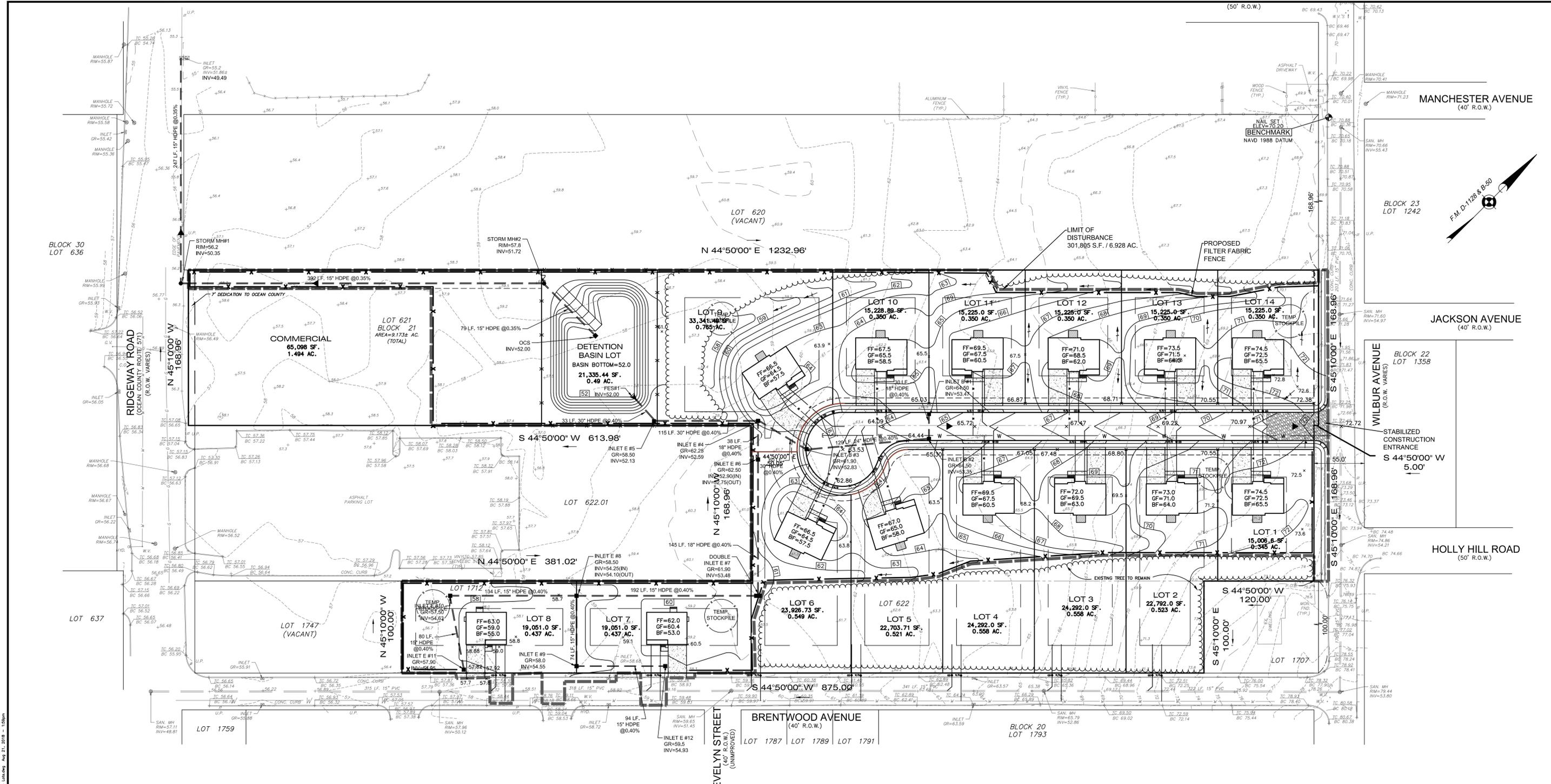
PRELIMINARY & FINAL
MAJOR SUBDIVISION PLAN
BRENTWOOD ESTATES
STORMWATER MAINTENANCE
PLAN & DETAILS

LOTS 621, 622 & 1712 BLOCK 21

TOWNSHIP OF MANCHESTER
COUNTY OF OCEAN New Jersey

Scale: 1"=50' Drawn By: DS Date: 4/24/18 JOB #: ARYA2017-008 CAD File #: Site Plan Sheet #: 7 OF 11

X:\Info\Projects\Brentwood Estates\Projects\AR2017-008 - Brentwood Estates - Stormwater Management\Drawings\AR2017-008 - Subdivision plan - 4.24.18.dwg Aug 21, 2018 11:12am



X:\Info Projects\Brentwood Estates - Preliminary & Final\2017-08-Subdivision Plan - 4. Lottings Aug 21, 2018 - 12:58pm

REV	DATE	DESCRIPTION	BY

CERTIFICATE OF AUTHORIZATION: 24GA2228900
MORGAN
 engineering & surveying
 P.O. BOX 5232
 TOMS RIVER, N.J. 08754
 TEL: 732-270-9690
 FAX: 732-270-9691
 www.morganengineeringllc.com

MATTHEW R. WILDER
 NEW JERSEY PROFESSIONAL ENGINEER
 LICENSE No. 50652

**PRELIMINARY & FINAL
 MAJOR SUBDIVISION PLAN
 BRENTWOOD ESTATES
 SOIL EROSION &
 SEDIMENT CONTROL PLAN**
 LOTS 621, 622 & 1712 BLOCK 21

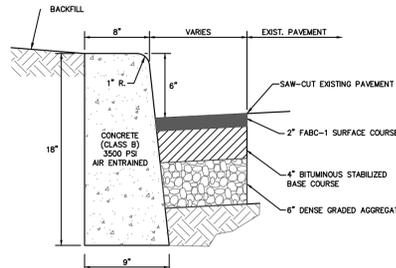
TOWNSHIP OF MANCHESTER
 COUNTY OF OCEAN New Jersey

Scale: 1"=20'
 Drawn By: DS
 Date: 4/24/18
 Job #: ARYA2017-008
 CAD File #: Site Plan
 Sheet #: B OF 11

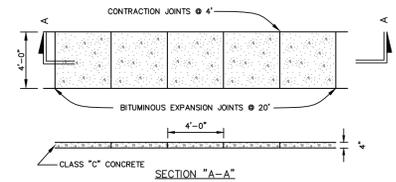


RT-1
30" x 30"

- NOTES:**
- ALL STREET SIGNAGE SHALL CONFORM TO TOWNSHIP STANDARDS.
 - REGULATORY SIGN POSTS SHALL BE 3 LB. PER FOOT U CHANNEL GALVANIZED STEEL, WITH A "UNIVERSAL SPACER BAR BREAK-AWAY SYSTEM." GREEN U CHANNEL STEEL IS UNACCEPTABLE.
 - ALL STREET SIGNS POST SHALL BE 12-FOOT LONG HOT DIPPED GALVANIZED STEEL WITH 2-3/8" O.D.
 - REGULATORY SIGNS SHALL BE CONSTRUCTED ON 0.80-INCH ALUMINUM STOCK.
 - REGULATORY SIGN FACES SHALL BE MADE OF 3M1170 SERIES MATERIAL, WITH TRANSLUCENT COVERINGS. NO "INK OR SILK SCREENING" IS ACCEPTABLE.
 - STREET SIGN BLANKS SHALL BE 9 INCHES BY 24, 30, 36 OR 42 INCHES, AS APPROPRIATE. THE BLANKS ARE TO BE EXTRUDED BLANKS WITH WHITE "VIP REFLECTIVE BACKGROUND" AND A GREEN TRANSLUCENT SECOND COLOR WITH WHITE VIP LETTERING SHOWING FROM THE BACKGROUND. THERE MUST BE A 1/2 INCH WHITE BORDER SHOWING. ALL STREET SIGN HARDWARE SHALL BE 12-INCH EXTRUDED MATERIAL FOR THE POST, CAP AND CROSS BARS. A BOLT MUST BE USED TO MOUNT THE SIGN BLANK TO THE BRACKET.



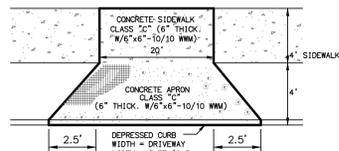
CONCRETE CURB AND PAVEMENT SECTION (COUNTY)
NOT TO SCALE



SIDEWALK NOTES:

- A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" HIGH, AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY 20 FEET. CONTRACTION JOINTS SHALL BE INSTALLED EVERY 4 FEET THE FULL WALK WIDTH.
- THERE SHALL BE A FLOAT FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.

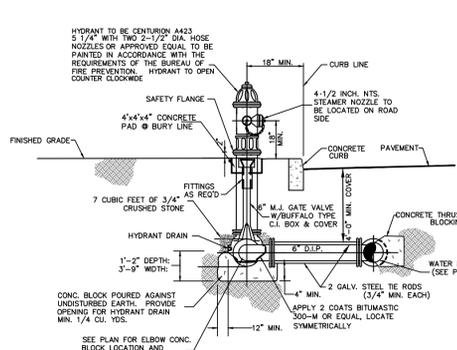
SIDEWALK DETAIL



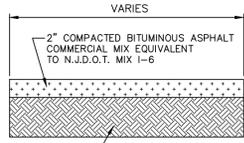
CONCRETE NOTES:

- CONCRETE SHALL BE CLASS "C" AIR ENTRAINED WITH BITUMINOUS CELLULAR JOINT FILERS 1/2" THICK AND PLACED NO GREATER THAN 20 FT. DUMMY FORMED JOINTS SHALL BE CUT INTO THE CONCRETE BETWEEN EXPANSION JOINTS NO MORE THAN THE SCHEDULE WIDTH.

DRIVEWAY APRON DETAIL

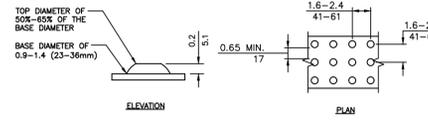


FIRE HYDRANT DETAIL



ASPHALT DRIVEWAY DETAIL

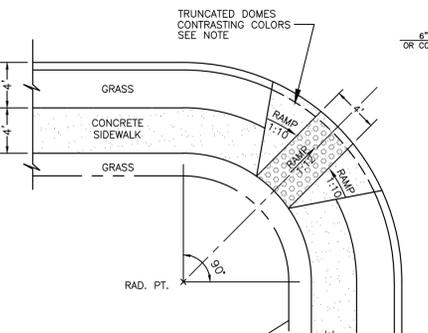
NOT TO SCALE



GENERAL NOTES:

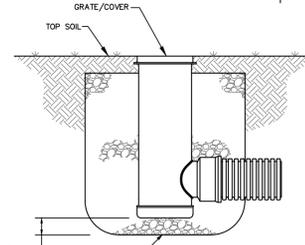
- DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY WITH DETECTABLE WARNINGS.
- TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCH (23 mm) MINIMUM AND 1.4 INCHES (36 mm) MAXIMUM, A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCH (5.1 mm).
- TRUNCATED DOMES IN DETECTABLE WARNING SURFACE SHALL HAVE AN ENTER-TO-CENTER SPACING OF 1.6 INCHES (41 mm) MINIMUM AND 2.4 INCHES (61 mm) MAXIMUM AND A BASE-TO-BASE SPACING OF 0.85 INCH (21 mm) MINIMUM, MEASURED BETWEEN THEIR MOST ADJACENT DOMES ON A SQUARE GRID.
- DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-OR-DARK, OR DARK-OR-LIGHT.

DETECTABLE WARNING DETAIL
N.T.S.



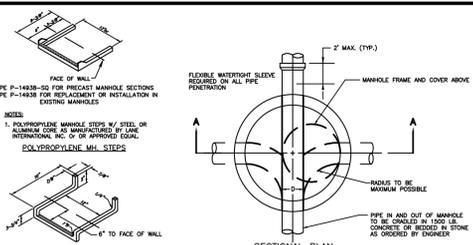
HANDICAP ACCESS RAMP

NOTE: IN ACCORDANCE WITH TECHNICAL SECTION 4.29.2 OF THE A.D.A. REGULATIONS ALL RAMP SURFACES SHALL HAVE A DETECTABLE WARNING.

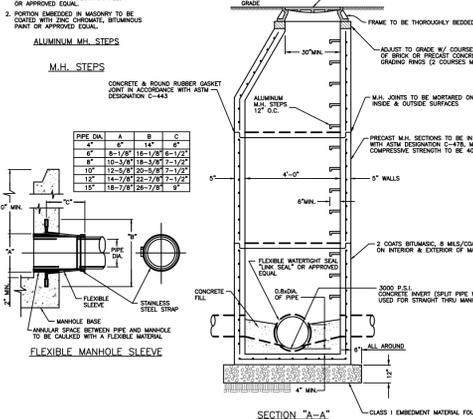


YARD DRAIN
N.T.S.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.



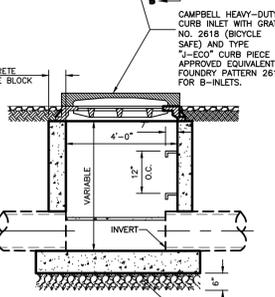
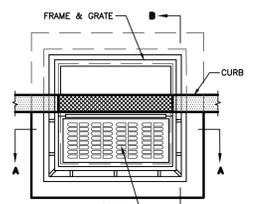
SECTIONAL PLAN



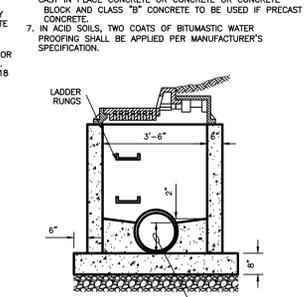
SECTION 'A-A'
N.T.S.

PRECAST STANDARD MANHOLE DETAIL
N.T.S.

- NOTES:**
- INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT A RATE OF GRADE OF 2 INCHES PER FOOT.
 - THIS INLET MAY BE CONSTRUCTED OF CONCRETE OR CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR. THE INSIDE WALLS JOINTS SHALL BE STRUCK & POINTED.
 - PROVIDE 7/8" DIA. X7" X 12" ALUMINUM LADDER RUNGS, 12" O.C.
 - INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 2818 OR APPROVED EQUAL.
 - WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OR 8'-0" MEASURED FROM THE TOP OF GRATE TO INVERT, SHALL BE 12" THICK C-1 CONCRETE OR DOUBLE BLOCK IF BLOCK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
 - CLASS "C" CONCRETE TO BE USED IF CONSTRUCTED OF CAST IN PLACE CONCRETE OR CONCRETE OR CONCRETE BLOCK AND CLASS "B" CONCRETE TO BE USED IF PRECAST CONCRETE.
 - IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.



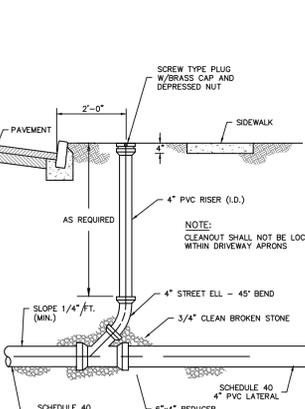
TYPE 'B' INLET
N.T.S.



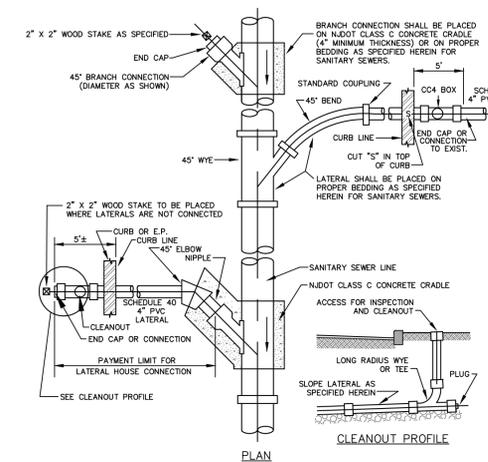
SECTION B-B

DEPTH OF INVERT TO BE 0.80 THE DIAMETER OF THE MAIN LINE

STANDARD CLEANOUT DETAIL
N.T.S.

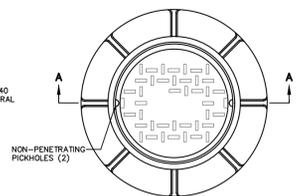


STANDARD CLEANOUT DETAIL
N.T.S.



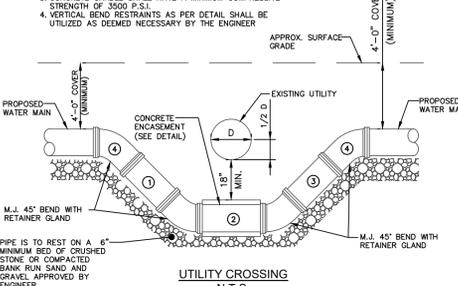
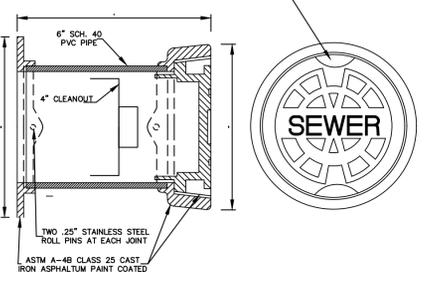
BRANCH & LATERAL HOUSE CONNECTIONS
N.T.S.

- CONSTRUCTION NOTES:**
- DETAIL SHOWS CONSTRUCTION OF A "BRANCH CONNECTION" AND OF TWO DIFFERENT TYPES OF "LATERAL HOUSE CONNECTION". TYPE CONNECTION IS AT CONTRACTOR'S OPTION.
 - SIZE OF LATERAL TO BE AS SHOWN ON THE PLANS OR AS DIRECTED, 4" MINIMUM.
 - CLEAN-OUTS IN DRIVEWAYS SHALL BE COVERED WITH A MONUMENT BOX - CAMPBELL PATTERN NO. 4155 OR EQUAL.

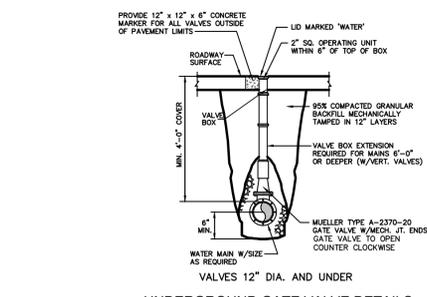


STANDARD SANITARY MANHOLE
FRAME & COVER
N.T.S.

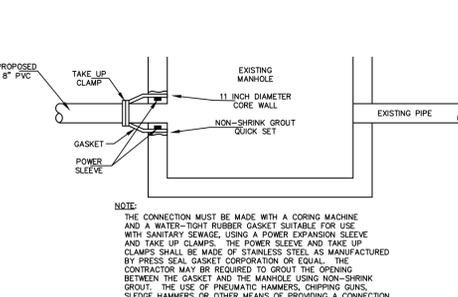
- NOTES:**
- MANHOLE FRAME AND COVER SHALL BE PATTERN NO. 12029 AS MANUFACTURED BY THE CAMPBELL FOUNDRY CO., OR APPROVED EQUAL.
 - MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO A.S.T.M. SPECIFICATION A-48 CLASS 30-B WITH SHOP COAT OF ASPHALTIC FITCH.



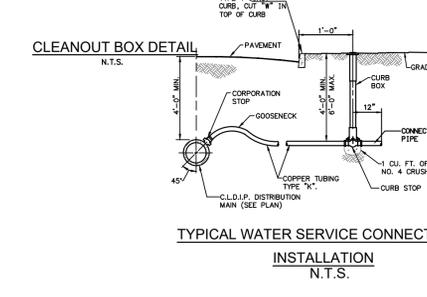
UTILITY CROSSING
N.T.S.



UNDERGROUND GATE VALVE DETAILS
N.T.S.



CONNECTION TO EXISTING MANHOLE
N.T.S.



CLEANOUT BOX DETAIL
N.T.S.



TYPICAL WATER SERVICE CONNECTION
INSTALLATION
N.T.S.

REV	DATE	DESCRIPTION	BY

CERTIFICATE OF AUTHORIZATION: 24GA2228900

MORGAN
engineering & surveying
www.morganengineeringllc.com

P.O. BOX 5232
TOMS RIVER, N.J. 08754
TEL: 732-270-9690
FAX: 732-270-9691

Matthew R. Wilder
MATHEW R. WILDER
NEW JERSEY PROFESSIONAL ENGINEER
LICENSE No. 50652

PRELIMINARY & FINAL
MAJOR SUBDIVISION PLAN
BRENTWOOD ESTATES
DETAIL SHEET

LOTS 621, 622 & 1712 BLOCK 21

TOWNSHIP OF MANCHESTER
COUNTY OF OCEAN New Jersey

Scale: Drawn By: Date: JOB # CAD File # Sheet #
N.T.S. DS 4/24/18 ARYA2017-008 Site Plan 11 of 11

C:\Users\morgans\Documents\Projects\2017-2018\Subdivision\plan_4_24_18.dwg Aug 21, 2018 14:28pm