PRELIMINARY AND FINAL MAJOR SUBDIVISION

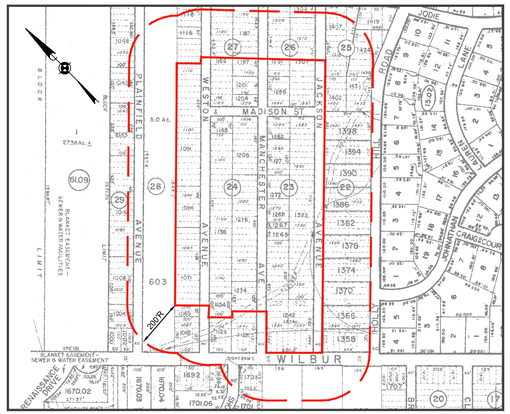
HEMINGWAY ESTATES

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24
LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26
LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084 AND PART OF 1091 BLOCK 28

MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY

PROPERTY OWNERS WITHIN 200 FEET
DATED2026

(TO BE PROVIDED)



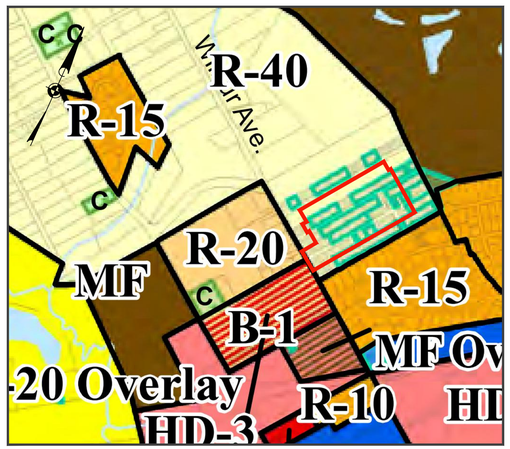
TOWNSHIP OF MANCHESTER TAX MAP SHEET NUMBER #1.01

TAX MAP

SCALE: 1" = 300'

LOCATION MAP

SCALE: N.T.S.



ZONING MAP

N.T.S.

GENERAL NOTES:

1. APPLICANT PROPOSES TO SUBDIVIDE THE EXISTING 15.152 ACRE TRACT INTO 14 SINGLE FAMILY RESIDENTIAL LOTS, ONE 3.493 ACRE OPEN SPACE LOT, AND ONE DETENTION BASIN EASEMENT TO BE DEDICATED AND MAINTAINED BY HOMEOWNERS ASSOCIATION.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY, LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26, LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084 AND PART OF 1091 BLOCK 28 , MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY" PREPARED BY MORGAN ENGINEERING LLC, DATED 12/15/2025, LAST REVISED 5/14/26.
3. THE PROPERTY IS LOCATED WITHIN THE R-40 RESIDENTIAL ZONE.
4. PROPOSED LOT NUMBERS AND ADDRESSES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER.
5. 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.
6. THE PROPOSED WATER IMPROVEMENTS SHALL BE OWNED, MAINTAINED, AND OPERATED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF PUBLIC WORKS. THE CURB STOP ON THE PROPOSED WATER SERVICE SHALL SERVE AS THE DEPARTMENT OF PUBLIC WORKS' DEMARCATION POINT.
7. SEWAGE SERVICE WILL BE PROVIDED BY EXTENSION OF MANCHESTER DEPARTMENT OF PUBLIC WORKS.
8. ERROR OF CLOSURE DOES NOT EXCEED 1:10,000.
9. PROPOSED RESIDENTIAL HOMES WILL HAVE FIVE TO SIX BEDROOMS AND WILL PROVIDE 3 PARKING SPACES FOR EACH HOME AS PER RSIS STANDARDS.
10. ALL UTILITIES (ELECTRIC, TELEPHONE, ETC) TO BE PROVIDED UNDERGROUND. THE CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
11. STREET LIGHTING TO BE PROVIDED IN ACCORDANCE WITH MANCHESTER TOWNSHIP LAND USE REGULATIONS AT THE OWNERS EXPENSE.
12. ALL DISTURBED AREAS WILL BE VEGETATIVELY STABILIZED IN ACCORDANCE WITH THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN UPON COMPLETION OF THE GRADING ACTIVITIES.
13. DEPRESSED CURB AND HANDICAP RAMPS ARE TO BE PROVIDED AT ALL STREET INTERSECTIONS.
14. ALL TRAFFIC CONTROL SIGNAGE INCLUDING PAVEMENT MARKINGS WILL BE PROVIDED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
15. 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.
16. EXISTING CONDITIONS AND DIMENSIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
17. CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL THE UTILITIES PRIOR TO ANY SITE WORK OR CONSTRUCTION.

SHEET INDEX

OWNER/APPLICANT:
ARYA PROPERTIES AT WILBUR LLC
130 CENTRAL AVENUE
ISLAND HEIGHTS, NJ 08732

APPROVED BY:
MANCHESTER TOWNSHIP PLANNING BOARD

CHAIRPERSON DATE

SECRETARY DATE

ENGINEER DATE

WATER SYSTEM FACILITIES APPROVED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF PUBLIC WORKS

TOWNSHIP ENGINEER DATE

SANITARY SEWER FACILITIES APPROVED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF PUBLIC WORKS

TOWNSHIP ENGINEER DATE

REV.	DATE	DESCRIPTION

TRE
TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
www.tworiverenq.com
P.O. Box 155 Tel: 732.866.0111
Colts Neck, N.J. 07722 Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: AS NOTED
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

TITLE SHEET

OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 1 OF 14

X:\Arya Properties\Active Projects\Plan That Are In QF\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV-5_5-15-2026.dwg May 19, 2026 - 11:34am

BLOCK 28
LOT 603
N 36°53'31" E 1000.00'
N.J.S.P.C.S.
347.36'
AREA OF QUESTIONABLE TITLE
LOT 1071
LOT 1084
LOT 1091
BLOCK 28
LOT 1069
N 53°06'29" W 140.00'
TOTAL AREA
659,999.97 SF
15.152 ACRES
100.00' S 53°06'29" E
N 36°53'31" E 15.00'
EXISTING PORTION OF WESTON AVENUE ROW VACATED
WESTON AVENUE N 36°53'31" E 50.00'
WESTON AVENUE
(40' R.O.W.)
CAPPED REBAR FOUND
LOT 1134
LOT 1138
LOT 11651
BLOCK 24
LOT 1124
N 53°06'29" W 100.00'
EXISTING PORTION OF MADISON AVENUE ROW VACATED
SHORIN WAY
(50' R.O.W.)
MANHOLE RIM=69.86
S 36°53'31" W 25.00'
LOT 1234
BLOCK 24
LOT 1216
LOT 1206
LOT 1204
LOT 1201
LOT 1197
BLOCK 24
LOT 1125
N 53°06'29" W 140.00'
S 53°06'29" E 500.00'
EXISTING PORTION OF MANCHESTER AVENUE ROW VACATED
N 36°53'31" E 175.00'
MANCHESTER AVENUE
(40' R.O.W.)
LOT 1265
LOT 1267
LOT 1268
LOT 1272
LOT 1276-1285
LOT 1286
LOT 1242
WILBUR AVENUE
(50' R.O.W.)
N 53°06'29" W 220.00'
MADISON AVENUE
(40' R.O.W.)
LOT 1272
BLOCK 23
EXISTING PORTION OF JACKON AVENUE ROW VACATED
JACKSON AVENUE
(40' R.O.W.)
HUCKLEBERRY ROAD
S 36°53'31" W 1215.00'
LOT 1358
LOT 1366
LOT 1370
LOT 1374
LOT 1376
LOT 1382
BLOCK 22
LOT 1386
LOT 1390
LOT 1394
LOT 1398
MORGAN COURT
(50' R.O.W.)
ADJ. DWELLING
HOLLY HILL ROAD
(50' R.O.W.)
50 0 50 100
SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

- Civil Engineers
- Forensic Experts
- Environmental Consultants

TWO RIVER ENGINEERING
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
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PROJECT NO.: ARYA2025-014
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SCALE: 1" = 50'
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ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

EXISTING CONDITIONS & ROADS VACATION PLAN

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
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Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	39.27'	25.00'	90° 00' 00"	N8° 06' 29"W	35.36'
C2	156.94'	1525.00'	5° 53' 50"	N33° 56' 38"E	156.87'
C3	151.79'	1475.00'	5° 53' 50"	N33° 56' 38"E	151.72'
C4	25.41'	25.00'	58° 14' 40"	N66° 00' 49"E	24.33'
C5	362.23'	70.00'	296° 29' 10"	N53° 06' 29"W	73.68'
C6	25.41'	25.00'	58° 14' 40"	S7° 46' 13"W	24.33'
C7	156.94'	1525.00'	5° 53' 50"	S33° 56' 38"W	156.87'
C8	151.79'	1475.00'	5° 53' 50"	S33° 56' 38"W	151.72'
C9	97.61'	1525.00'	3° 40' 00"	S35° 03' 30"W	97.59'
C10	59.33'	1525.00'	2° 13' 40"	S32° 06' 37"W	59.32'
C11	138.24'	1475.00'	5° 22' 10"	S33° 40' 51"W	138.19'
C12	13.55'	1475.00'	0° 31' 30"	S36° 37' 44"W	13.55'
C13	1.80'	70.00'	1° 28' 20"	N85° 36' 02"W	1.80'
C14	105.00'	70.00'	85° 56' 40"	S50° 41' 28"W	95.43'
C15	105.00'	70.02'	85° 55' 20"	S35° 15' 18"E	95.43'
C16	105.00'	70.00'	85° 56' 30"	N58° 47' 54"E	95.43'
C17	45.42'	70.00'	37° 10' 40"	N2° 45' 44"W	44.63'
C18	138.74'	1525.00'	5° 12' 50"	N34° 17' 08"E	138.69'
C19	18.19'	1525.00'	0° 41' 00"	N31° 20' 15"E	18.19'
C20	29.11'	1475.00'	1° 07' 50"	N31° 33' 40"E	29.10'
C21	122.68'	1475.00'	4° 46' 00"	N34° 30' 33"E	122.65'
C24	2.99'	1475.00'	0° 07' 00"	S31° 03' 14"W	2.99'
C25	22.35'	70.00'	18° 17' 40"	S84° 30' 57"W	22.26'
C26	10.03'	70.02'	8° 12' 40"	S74° 06' 37"E	10.03'
C27	10.03'	70.00'	8° 12' 50"	S82° 20' 13"E	10.03'

CLUSTER DEVELOPMENT R-40 ZONE
ZONE REQUIREMENTS

	REQUIRED	NEW LOT 1	NEW LOT 2	NEW LOT 3	NEW LOT 4	NEW LOT 5	NEW LOT 6	NEW LOT 7	NEW LOT 8	NEW LOT 9	NEW LOT 10	NEW LOT 11	NEW LOT 12	NEW LOT 13	NEW LOT 14
MIN. LOT AREA	25,000 SF.	31,365.88 SF	31,601.49 SF	32,979.09 SF	34,980.08 SF	35,474.54 SF	35,388.76 SF	47,621.43 SF	41,697.03 SF	35,983.35 SF	25,076.77 SF	25,290.14 SF	25,314.21 SF	25,114.61 SF	26,792.00 SF
MIN. LOT FRONTAGE	150 FT.	150.0 FT.	150.07 FT.	150.7 FT.	150.33 FT.	150.0 FT.	155.0 FT.	105.0 FT.*	105.0 FT.*	105.0 FT.*	172.01 FT.	151.6 FT.	150.19 FT.	150.76 FT.	150.14 FT.
MIN. LOT WIDTH	150 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	151.97 FT.	166.34 FT.	181.53 FT.	156.79 FT.	151.6 FT.	150.0 FT.	150.0 FT.	150.0 FT.
MIN. FRONT SETBACK	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.
MIN. REAR SETBACK	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.
MIN. SIDE SETBACK	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.
MAX. BUILDING COVERAGE	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
MAX. BUILDING HT	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.
MAX. BUILDING STORIES	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.
MAX. LOT COVERAGE	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%

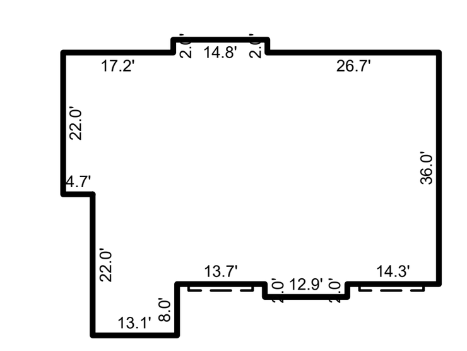
* - LOT FRONTAGE
THE DISTANCE MEASURED ON A HORIZONTAL PLANE BETWEEN THE SIDE LOT LINES MEASURED ALONG THE STREET LINE. THE MINIMUM LOT FRONTAGE SHALL NOT BE LESS THAN THE REQUIRED LOT FRONTAGE EXCEPT THAT ON CURVED ALIGNMENTS WITH AN OUTSIDE RADIUS OF LESS THAN 500 FEET, THE MINIMUM DISTANCE BETWEEN THE SIDE LOT LINES MEASURED AT THE STREET LINE SHALL NOT BE LESS THAN 70% OF THE REQUIRED MINIMUM LOT FRONTAGE. WHERE THE LOT FRONTAGE IS SO PERMITTED TO BE REDUCED, THE LOT WIDTH AT THE BUILDING SETBACK LINE SHALL NOT BE LESS THAN THE REQUIRED MINIMUM FRONTAGE OF THE ZONE DISTRICT. FOR THE PURPOSE OF THIS CHAPTER, ONLY CONTINUOUS UNINTERRUPTED LOT LINES SHALL BE ACCEPTED AS MEETING THE FRONTAGE REQUIREMENTS.
[AMENDED 11-28-2005 BY ORD. NO. 05-053]

DRAINAGE EASEMENT:

THE GRANTEE OF EACH LOT AND THEIR EXECUTORS, ADMINISTRATORS, SUCCESSORS, ASSIGNS, AND ALL SUBSEQUENT OWNERS AND ENCUMBRANCERS, TENANTS, AND SUB-TENANTS SHALL BE REQUIRED TO MAINTAIN IN PERPETUITY SUCH DRAINAGE EASEMENT (DEED RESTRICTION AREAS) ASDEPICTED ON THIS FINAL SUBDIVISION PLAT SHALL BE PROHIBITED FROM REMOVING ANY VEGETATION, TREES AND GROUND COVER THEREON AND/OR ALTERING THE CONTOUR, TOPOGRAPHY OR COMPOSITION OF THE LAND WITHIN THE DRAINAGE EASEMENT AND SHALL BE FURTHER PROHIBITED FROM CLEARING THIS SPACE AND/OR FROM MAKING ANY IMPROVEMENTS ON THIS SPACE, INCLUDING BUT NOT LIMITED TO CONSTRUCTION OF BUILDINGS, SHEDS, SWIMMING POOLS, TENNIS COURTS, AND/OR OTHER USES. THE EASEMENT SHALL NOT PROHIBIT THE CONSTRUCTION OR ERECTION OF ANY FENCE (OPEN OR OTHERWISE) ALONG THE PROPERTY LINE WITHIN THE DRAINAGE EASEMENT. THE EASEMENT SHALL ALSO PROHIBIT FILLING OR GRADING OF THE LANDS OR THE DISPOSAL OF REFUSE OR WASTE MATERIAL OF ANY TYPE WITHIN THE LIMITS OF THE EASEMENT. THIS COVENANT IS INTENDED TO RUN WITH THE LAND BINDING SUBSEQUENT GRANTEES IN EACH INDIVIDUAL LOT OF THE SUBDIVISION, AND THIS COVENANT SHALL BE INSERTED IN ALL SUBSEQUENT DEEDS AS IT IS INTENDED TO BENEFIT ALL LOTS OF THE SUBDIVISION MAKING EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS SUBSEQUENT TO ITS PROVISIONS, AND GRANTING TO EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS BENEFITS THEREOF. MAINTENANCE OF SAID DRAINAGE EASEMENT SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE LOT OWNER ENCUMBERED BY THE EASEMENT AND OF EACH SUBSEQUENT GRANTEE OF EACH INDIVIDUAL LOT OF THE SUBDIVISION. IN THE EVENT OF A FAILURE TO MAINTAIN SUCH DRAINAGE EASEMENT, THE REASONABLE COST OF SUCH MAINTENANCE BY THE TOWNSHIP SHALL BE ASSESSED TO THE OWNER OF EACH LOT INVOLVED; SHALL BE CONSIDERED A TAX LIEN THEREON; AND SHALL BE ENFORCED AND COLLECTED BY THE TOWNSHIP IN THE SAME MANNER AS OTHER REAL ESTATE TAXES AND ASSESSMENTS. IT IS THE INTENTION OF THE GRANTOR THAT IF ANY PROVISION OF THIS COVENANT SHALL BE JUDGED INVALID BY A COURT OF COMPETENT JURISDICTION, SUCH ORDER OR INDUCEMENT SHALL NOT EFFECT OR INVALIDATE THE REMAINDER OF THE COVENANT, IT BEING INTENDED THAT THE CLAUSES OF THIS COVENANT ARE DECLARED TO BE SEVERABLE.

SHADE TREE & UTILITY EASEMENT

THE GRANTEE HEREIN AND ITS HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS, ASSIGNS, AND ALL SUBSEQUENT OWNERS AND ENCUMBRANCERS, TENANTS, AND SUB-TENANTS SHALL BE REQUIRED TO MAINTAIN IN PERPETUITY SUCH SHADE TREE & UTILITY EASEMENT (DEED RESTRICTION AREAS) AS DEPICTED ON THIS FINAL SUBDIVISION PLAT IN ITS NATURAL STATE IN THE FORM OF OPEN-GREEN SPACE LAND AND SHALL BE PROHIBITED FROM REMOVING ANY VEGETATION, TREES AND GROUND COVER THEREON AND/OR ALTERING THE CONTOUR, TOPOGRAPHY OR COMPOSITION OF THE LAND WITHIN THE SHADE TREE & UTILITY EASEMENT AND SHALL BE FURTHER PROHIBITED FROM CLEARING THIS SPACE AND/OR FROM MAKING ANY IMPROVEMENTS ON THIS SPACE, INCLUDING BUT NOT LIMITED TO CONSTRUCTION OF BUILDINGS, SHEDS, SWIMMING POOLS, TENNIS COURTS, AND/OR OTHER USES. THE EASEMENT SHALL NOT PROHIBIT THE CONSTRUCTION OR ERECTION OF ANY FOUR (4) FOOT OPEN FENCE WITHIN THE SHADE TREE & UTILITY EASEMENT. THE EASEMENT SHALL ALSO PROHIBIT FILLING OR GRADING OF THE LANDS OR THE DISPOSAL OF REFUSE OR WASTE MATERIAL OF ANY TYPE WITHIN THE LIMITS OF THE EASEMENT. THIS COVENANT IS INTENDED TO RUN WITH THE LAND BINDING SUBSEQUENT GRANTEES IN EACH INDIVIDUAL LOT OF THE SUBDIVISION, AND THIS COVENANT SHALL BE INSERTED IN ALL SUBSEQUENT DEEDS AS IT IS INTENDED TO BENEFIT ALL LOTS OF THE SUBDIVISION MAKING EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS SUBSEQUENT TO ITS PROVISIONS, AND GRANTING TO EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS BENEFITS THEREOF. MAINTENANCE OF SAID SHADE TREE & UTILITY EASEMENT SHALL BE THE RESPONSIBILITY OF THE GRANTEE HEREIN AND OF EACH SUBSEQUENT GRANTEE OF EACH INDIVIDUAL LOT OF THE SUBDIVISION. IN THE EVENT OF A FAILURE TO MAINTAIN SUCH SHADE TREE & UTILITY EASEMENT, THE REASONABLE COST OF SUCH MAINTENANCE BY THE TOWNSHIP SHALL BE ASSESSED TO THE OWNER OF EACH LOT INVOLVED; SHALL BE CONSIDERED A TAX LIEN THEREON; AND SHALL BE ENFORCED AND COLLECTED BY THE TOWNSHIP IN THE SAME MANNER AS OTHER REAL ESTATE TAXES AND ASSESSMENTS. IT IS THE INTENTION OF THE GRANTOR THAT IF ANY PROVISION OF THIS COVENANT SHALL BE JUDGED INVALID BY A COURT OF COMPETENT JURISDICTION, SUCH ORDER OR INDUCEMENT SHALL NOT EFFECT OR INVALIDATE THE REMAINDER OF THE COVENANT, IT BEING INTENDED THAT THE CLAUSES OF THIS COVENANT ARE DECLARED TO BE SEVERABLE.



TYPICAL HOUSE MODEL
SCALE:1"=30'

SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

- Civil Engineers
- Forensic Experts
- Environmental Consultants

TWO RIVER ENGINEERING
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P.O. Box 155
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PROJECT NO.: ARYA2025-014
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SCALE: 1" = 50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
SITE LAYOUT PLAN

OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

BLOCK 28
LOT 603

N.J.S.C.S.

BLOCK 28
LOT 1069

ADJ. DWELLING

(40' R.O.W.)

OPEN SPACE
LOT 15
152,162.07 SF
3.493 ACRES

BLOCK 23

LOT 14
26,792.00 SF
0.615 ACRES

LOT 13
25,114.61 SF
0.577 ACRES

LOT 12
25,314.21 SF
0.581 ACRES

LOT 11
25,290.14 SF
0.581 ACRES

LOT 10
25,076.77 SF
0.576 ACRES

LOT 9
35,983.35 SF
0.826 ACRES

BLOCK 24
LOT 1124

BLOCK 24
LOT 1125

SHORIN WAY
(50' R.O.W.)

WILBUR AVENUE
(50' R.O.W.)

EXISTING TREE TO REMAIN

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 79.1
FF=88.30
GE=85.30
BE=79.30

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 81.9
FF=91.10
GE=88.10
BE=82.10

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 80.7
FF=89.30
GE=86.30
BE=80.30

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 78.7
FF=87.60
GE=84.60
BE=78.60

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 78.5
FF=87.20
GE=84.20
BE=78.20

SUBSURFACE ABS SC-800 (4) IN 32.2' x 6.3' STONE INV = 75.8
FF=84.60
GE=81.60
BE=75.60

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 72.8
FF=81.80
GE=78.80
BE=72.80

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 77.1
FF=86.70
GE=83.70
BE=77.70

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 79.9
FF=90.50
GE=87.50
BE=81.50

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 79.0
FF=89.60
GE=86.60
BE=80.60

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 77.6
FF=87.70
GE=84.70
BE=78.70

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 78.5
FF=86.90
GE=83.90
BE=77.90

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 76.0
FF=86.50
GE=83.50
BE=77.50

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 77.6

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 78.5

SUBSURFACE ADS SC-800 (4) IN 32.2' x 6.3' STONE INV = 78.5

'B' INLET #7
GR=70.40
INV OUT=66.94

'B' INLET #8
GR=70.40
INV IN=66.79
INV OUT=66.79

'B' INLET #6
GR=84.63
INV IN=77.79
INV OUT=77.79

'B' INLET #5
GR=84.63
INV IN=77.94
INV OUT=77.94

'B' INLET #4
GR=83.26
INV IN=79.42
INV OUT=79.42

'B' INLET #3
GR=83.25
INV OUT=79.57

'B' INLET #2
GR=81.35
INV IN=78.04
INV OUT=78.04

'B' INLET #1
GR=81.35
INV OUT=78.35

PROPOSED STREET LIGHT (TYP.)

PROP. FIRE HYDRANT

30 LF 15" RCP @ 0.50%

296 LF 18" HDPE @ 0.50%

30 LF 15" HDPE @ 0.50%

191 LF 15" HDPE @ 0.44%

160 LF 18" HDPE @ 0.40%

290 LF 15" HDPE @ 0.40%

68 LF 15" HDPE @ 0.40%

97 LF 15" HDPE @ 1.14%

63 LF 15" HDPE @ 0.55%

63 LF 15" RCP @ 0.50%

20 LF 15" HDPE @ 0.50%

19 LF 18" HDPE @ 0.47%

DTC 77.58
BC 77.08

DTC 76.76
BC 76.64

DTC 85.56
BC 81.83

DTC 85.44
BC 85.31

DTC 84.56
BC 84.44

DTC 85.62
BC 85.50

DTC 84.28
BC 84.16

DTC 82.60
BC 82.47

DTC 82.60
BC 82.48

DTC 82.70
BC 82.58

DTC 81.96
BC 81.83

DTC 82.26
BC 82.13

DTC 89.17
BC 82.74

LOT 1
31,365.87 SF
0.720 ACRES

LOT 2
31,601.49 SF
0.725 ACRES

LOT 3
32,979.09 SF
0.757 ACRES

LOT 4
34,980.08 SF
0.803 ACRES

LOT 5
35,474.54 SF
0.814 ACRES

LOT 6
35,388.76 SF
0.812 ACRES

LOT 7
47,621.43 SF
1.093 ACRES

LOT 8
41,697.03 SF
0.957 ACRES

EXISTING TREE TO REMAIN

OCS-1
GR=80.00
3" ORF =77.50
INV OUT=77.34

OCS-2
GR=80.00
4" ORF.=77.50
INV OUT=70.00

OCS-3
GR=70.50
ORF. 4"=68.00
INV OUT=67.49

PROP. MH-1
RIM=72.00
INV IN=66.18
INV OUT=66.15

PROP. MH-2
RIM=71.44
INV IN=67.22
INV OUT=67.22

PROP. HW-1
INV=77.00

PROP. HW-2
INV=77.00

PROP. HW-3
INV=66.00

PROP. FES-1
INV=77.00

PROP. FES-2
INV=66.00

E-INLET-1
GR=80.40
INV IN=77.09
INV OUT=77.09

YARD INLET GR=84.1

YARD INLET GR=81.5

YARD INLET GR=87.5

YARD INLET GR=86.0

YARD INLET GR=84.0

YARD INLET GR=83.5

YARD INLET GR=86.4

YARD INLET GR=82.5

YARD INLET GR=84.0

YARD INLET GR=82.6

YARD INLET GR=81.0

TPWX

SMALL-SCALE INFILTRATION BASIN #3

WQSE=66.29
2 YR.=66.44
10 YR.=66.97
100 YR.=69.55
SHWT=61±

SMALL-SCALE INFILTRATION BASIN #2

WQSE=77.19
2 YR.=77.27
10 YR.=77.63
100 YR.=78.90
SHWT=62±

SMALL-SCALE INFILTRATION BASIN #1

WQSE=77.28
2 YR.=77.41
10 YR.=77.77
100 YR.=79.40
SHWT=62±

TW 72.0
BW 71.0

TW 73.0
BW 66.0

TW 77.5
BW 66.0

TW 79.0
BW 78.0

ADJ. DWELLING

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TEST PIT LOCATION
- EXISTING CURB INLET
- PROPOSED CURB INLET
- PROPOSED 'E' INLET
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- EXISTING SANITARY MAIN
- PROPOSED SANITARY MAIN
- EXISTING ELECTRIC LINE
- EXISTING WATER VALVE/LINE
- PROPOSED WATER VALVE/LINE
- EXISTING GAS VALVE/LINE
- PROPOSED GAS VALVE/LINE
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- PROPOSED HYDRANT
- TRAFFIC SIGN
- STREET SIGN
- EXISTING TREE LINE
- PROPOSED TREE LINE
- MONUMENT FOUND
- PIN FOUND
- CAPPED PIN
- DRAINAGE FLOW ARROW
- EXISTING FENCE
- PROPOSED FENCE

GRADING & DRAINAGE NOTES:

1. ALL HOUSE GRADING IS BASED ON BASEMENT FOUNDATION. HOUSE PLANS AND FOUNDATION DESIGN BY OTHERS.
2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH VEGETATION IN ACCORDANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN. ALL YARD AREAS TO BE SEEDED.
3. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING.
4. SOIL LOGS INFORMATION SHALL BE PROVIDED PRIOR TO ISSUANCE OF ANY DEVELOPMENT PERMIT.
5. THE GRATE OF PROPOSED OUTLET CONTROL STRUCTURE WILL FUNCTION AS THE EMERGENCY SPILLWAY.
6. THE STORMWATER FACILITIES LOCATED IN THE EASEMENTS SHALL BE DEDICATED TO THE HOME OWNERS ASSOCIATION FOR MAINTENANCE (ALONG WITH THE RIGHT OF WAY) FOR OPERATION – MAINTENANCE.
7. FILTER FABRIC SHALL BE INSTALLED ON THE SIDES OF THE INFILTRATION BASIN.
8. WHEN THE INFILTRATION BASINS SAND LAYER IS INSTALLED, NO HEAVY MACHINERY IS PERMITTED IN THE BASINS DUE TO COMPACTION PURPOSES.

40 0 40 80
SCALE IN FEET
(1"=40')

REV.	DATE	DESCRIPTION

TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
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PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=40'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

GRADING & DRAINAGE PLAN

OF

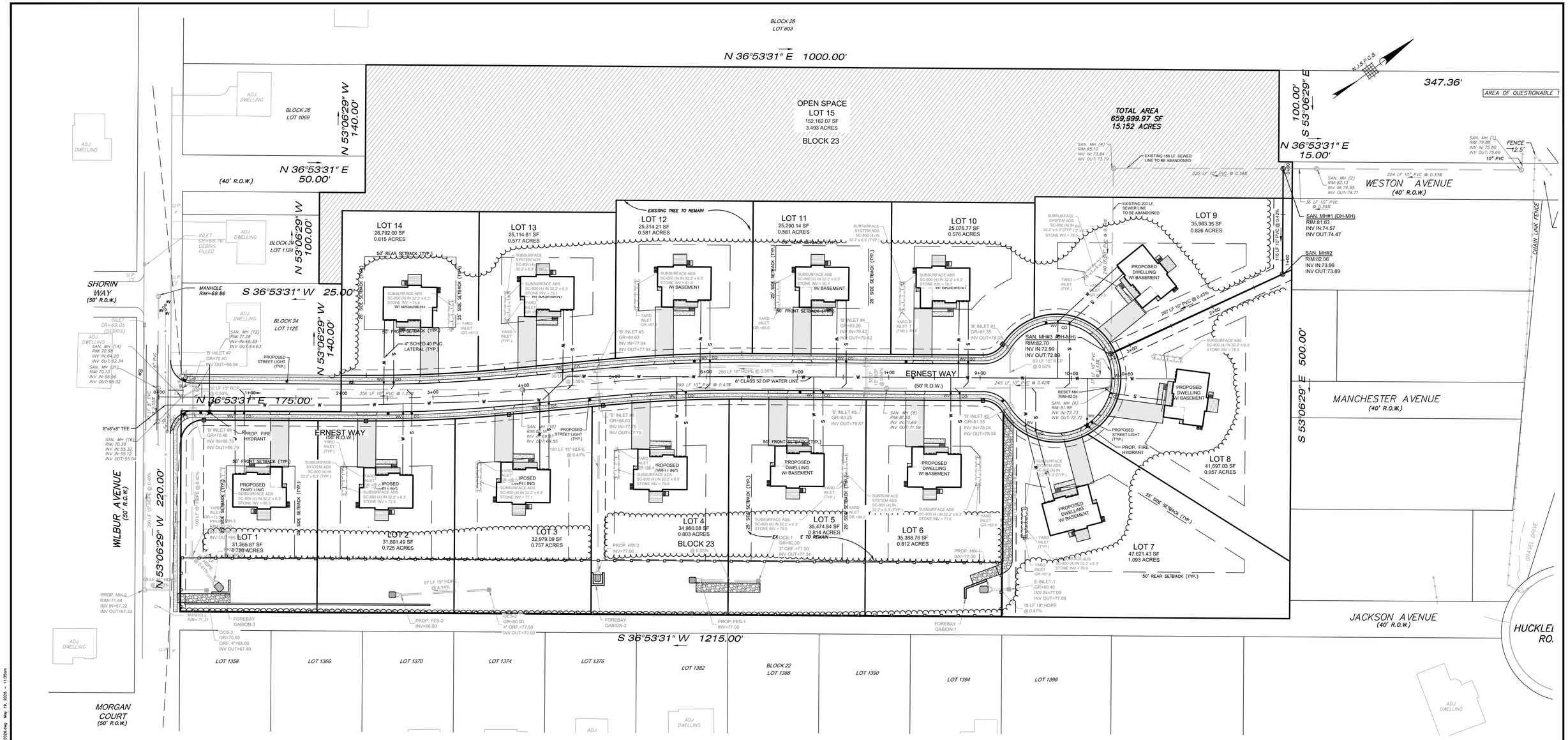
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 4 OF 14

X:\Arya Properties\Active Projects\Pass That Are In QA\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV~C_5-15-2026.dwg May 19, 2026 - 11:35am



UTILITY NOTES:

1. THRUST BLOCKS TO BE INSTALLED AT ALL WATER MAINS, BENDS AND FITTINGS.
2. ALL FIRE HYDRANTS TO HAVE 6" PIPE SERVICING EACH HYDRANT.
3. LATERALS INSTALLED SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT.
4. SANITARY AND WATER LATERALS SHALL MATCH THE CROWN OF THE PIPE MAINS.
5. 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.
6. 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 UTITILITIES 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.
7. PROVIDE 4 FT. OF MIN. COVER OVER PVC SEWER MAINS AND 3 FT. OVER DIP MAINS. PROVIDE 3 FT. MIN. COVER OVER SEWER LATERALS.
8. ALL SANITARY SEWER SHALL BE P.V.C. CONFORMING TO ASTM D-3034, SDR-35 WITH PUSH ON JOINTS.
9. ALL WATER MAINS SHALL BE PVC AWWA C900, DR 18.
10. PROVIDE A MINIMUM OF 4 FT. OF COVER OVER THE WATER MAINS.
11. ALL WATER SERVICES AND PLUMBING SHALL CONFORM WITH THE NJAC 5:23-3.15 SUBCODE.
12. WATER VALVES SHALL BE RESILIENT WEDGE TYPE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD SPECS C-509.
13. WATER VALVES SHALL BE PLACED ON WATER MAINS NO MORE THAN 1000 FT. APART.
14. A HYDRANT OR BLOW OFF VALVE SHALL BE LOCATED BEYOND THE LAST SERVICE CONNECTION ON TEMPORARY DEAD ENDS.
15. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
16. 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.
17. 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.
18. THE AUTHORITY WILL NOT APPROVE ANY LATERALS OR CLEANOUTS IN THE DRIVEWAY APRONS. ALL CURB CLEANOUTS MUST BE BETWEEN THE CURB AND THE SIDEWALK.
19. ALL SANITARY AND STORM SEWER AND POTABLE WATER CROSSINGS MAINTAIN MIN. SEPARATION AS PROVIDED IN THE NJAC SPECIFICATIONS.
20. ALL APPROVALS ARE SUBJECT TO ANY TOWNSHIP, COUNTY, STATE OR FEDERAL REQUIREMENTS.
21. EXISTING WATER AND SEWER LATERALS TO THE EXISTING DWELLING TO BE REMOVED AND CAPPED.
22. CONTRACTOR TO NOTIFY OUR OFFICE TWO (2) BUSINESS DAYS PRIOR TO INITIATION OF CONSTRUCTION, AS PER THE RULES AND REGULATIONS, FOR INSPECTION.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TEST PIT LOCATION
- EXISTING CURB INLET
- PROPOSED CURB INLET
- PROPOSED 'C' INLET
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- EXISTING SANITARY MAIN
- PROPOSED SANITARY MAIN
- EXISTING ELECTRIC LINE
- EXISTING WATER VALVE/LINE
- PROPOSED WATER VALVE/LINE
- EXISTING GAS VALVE/LINE
- PROPOSED GAS VALVE/LINE
- EXISTING UTILITY POLE
- EXISTING LIGHT FIXTURE
- PROPOSED HYDRANT
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- STREET SIGN
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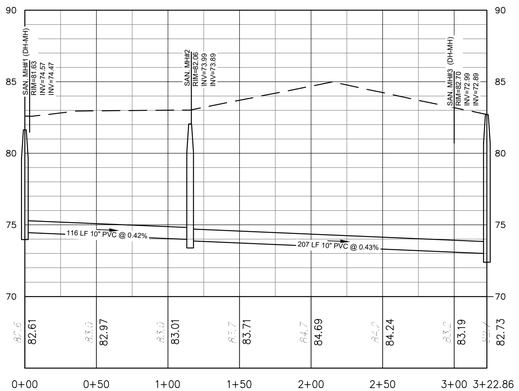
- PIN FOUND
- CAPPED PIN
- DRAINAGE FLOW ARROW
- EXISTING FENCE
- PROPOSED FENCE



PROPOSED SANITARY SEWER RE-ALIGNMENT
HORIZ: 1"=50
VERT: 1"=5

50 0 50 100
SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
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Tel: 732.866.0111 Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
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DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

UTILITY PLAN

OF
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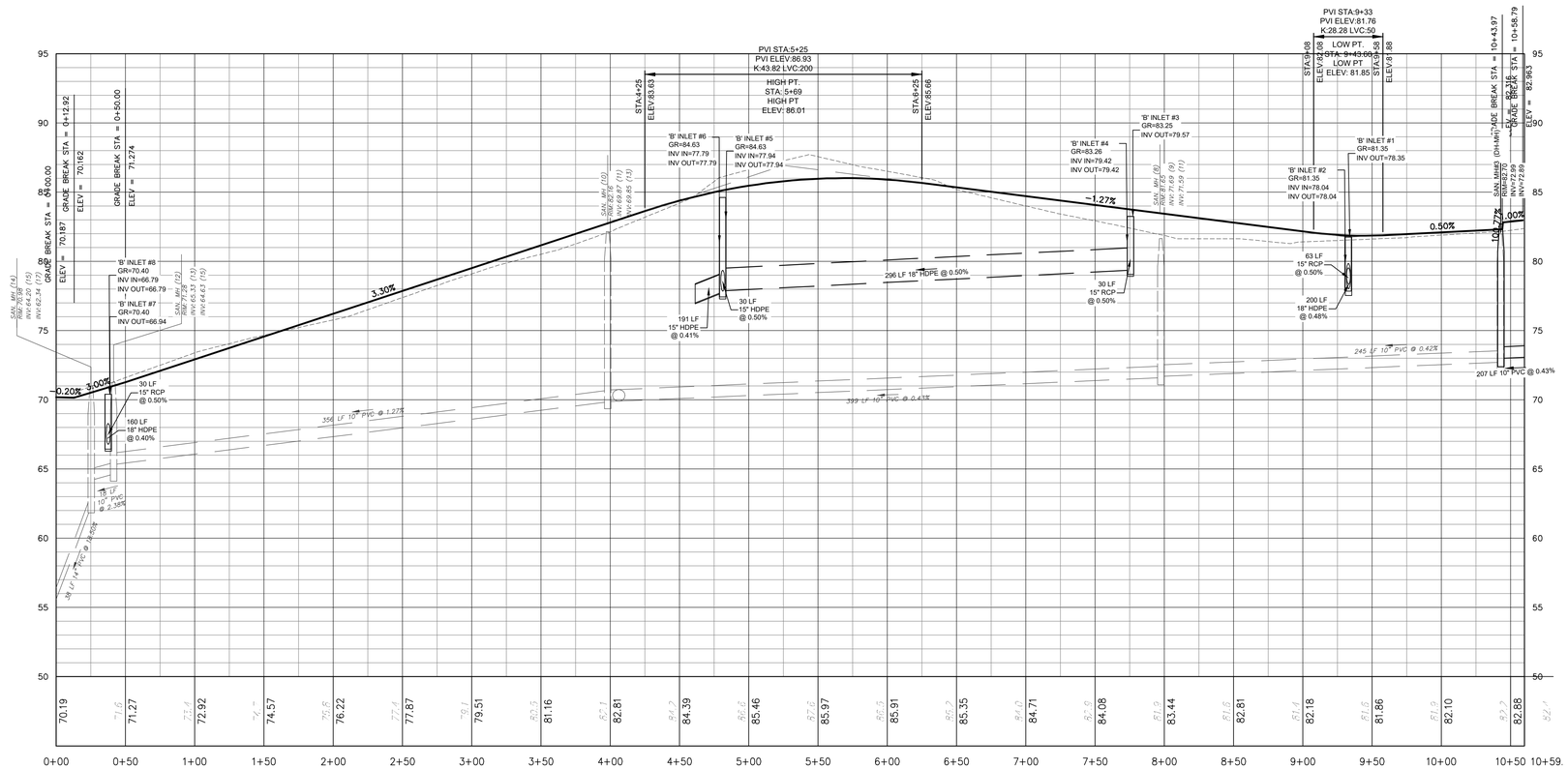
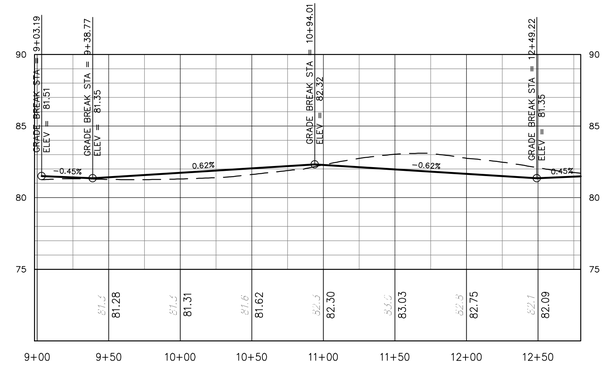
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

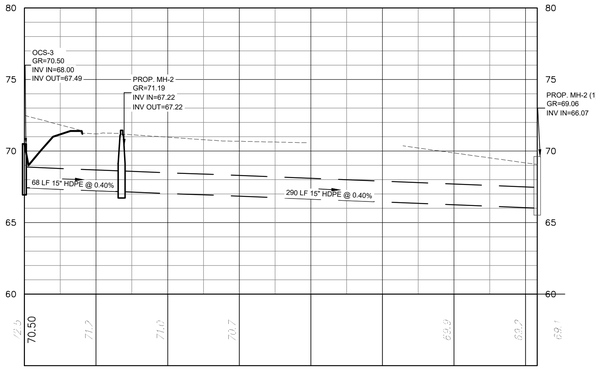
SHEET NO. 5 OF 14



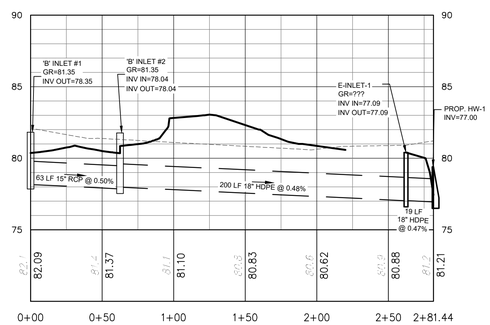
ERNEST WAY
HORIZ: 1"=50
VERT: 1"=5



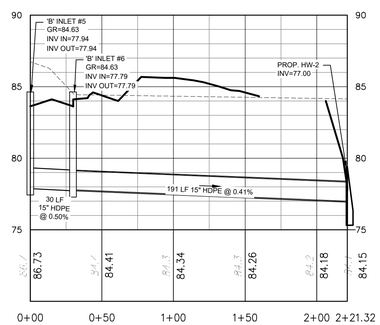
GUTTER CDS
HORIZ: 1"=50
VERT: 1"=5



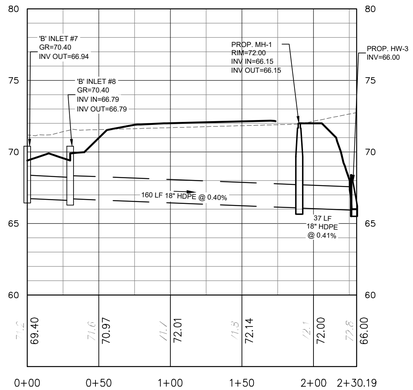
OCS-3 TO EXITING INLET
HORIZ: 1"=50
VERT: 1"=5



'B' INLET-1 TO PROP HW-1
HORIZ: 1"=50
VERT: 1"=5



'B' INLET-5 TO PROP HW-2
HORIZ: 1"=50
VERT: 1"=5



'B' INLET-7 TO PROP HW-3
HORIZ: 1"=50
VERT: 1"=5

50 0 50 100
SCALE IN FEET
(1"=50')

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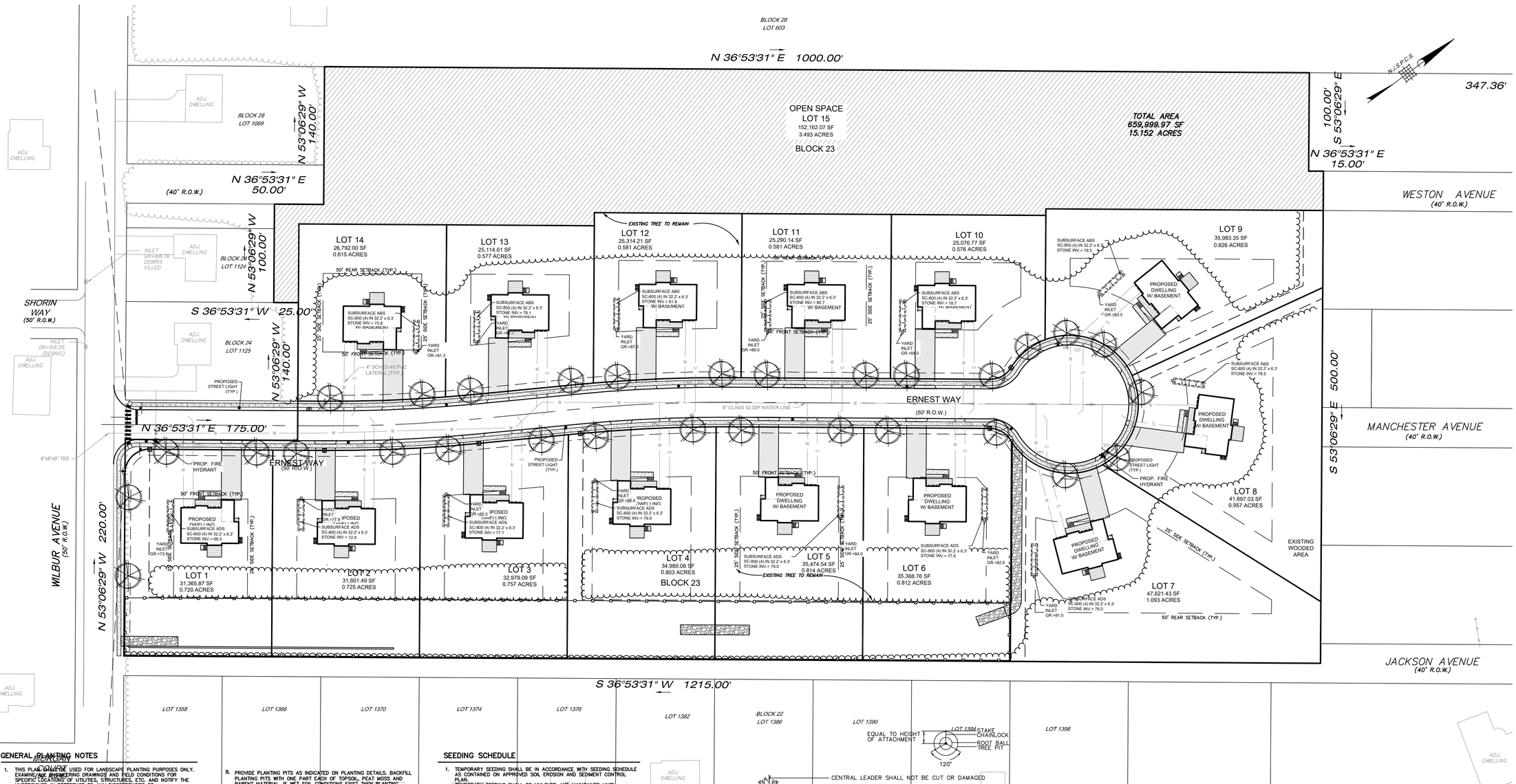
SHEET NO. 6 OF 14

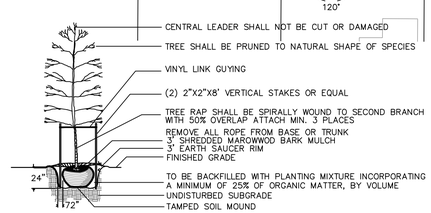


GENERAL PLANTING NOTES

1. THIS PLAN SHOULD BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES, STRUCTURES, ETC. AND NOTIFY THE UNDERSIGNED IN REFERENCE TO ANY DISCREPENCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
2. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE.
3. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARDS TO SIZE, SPECIES, VARIETY, ETC. WITHOUT WRITTEN PERMISSION OF THE THE UNDERSIGNED OR BOROUGH OFFICIALS. WRITTEN PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE DOCUMENTED.
4. THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS IS APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT. NO SHADE TREE, STREET TREE, ORNAMENTAL FLOWERING TREE OR EVERGREEN TREE SHALL BE PLANTED CLOSER THAN 5' FROM ANY SIDEWALK, DRIVEWAY, CURB OR UTILITY LOCATION UNLESS SPECIFICALLY DIMENSIONED ON THE LANDSCAPE PLAN.
5. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN ANY SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN ANY SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED AS MENTIONED ABOVE.
6. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
7. ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. GUY WIRES SHALL BE ATTACHED TO THE TREE AT A HEIGHT OF TWO-THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED AT POINTS SO NOT TO SPLIT THE TRUNKS OF MULTI-STEMMED TREES. PROVIDE THREE TREE STAKES PER TREE UNLESS NOTED OTHERWISE. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE BURLAP WRAPPING WITH A 50% OVERLAP, CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL.
8. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST, THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH SAND.
9. ALL PLANT MATERIAL SHALL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE.
10. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
11. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE BY THE UNDERSIGNED.
12. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 6" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED.
13. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH EITHER SOD OR SEED AS INDICATED ON THE LANDSCAPE PLANS. SOD SHALL CONSIST OF A NEW JERSEY CERTIFIED MIXTURE OR AN APPROVED EQUAL. SEED MIXTURE SHALL BE AS LISTED IN THE SEEDING SCHEDULE. ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
14. ALL PLANTING BEDS SHALL RECEIVE 4" OF SHREDDED HARDWOOD BARK.
15. ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. ALL FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY. ALL TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. ALL EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE, SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DISEASED, OR DAMAGED BRANCHES.
16. THE APPLICANT AGREES TO PROVIDE TREE MANAGEMENT PLAN AS CONDITION OF RESOLUTION IF AND WHEN DEEMED NECESSARY.
17. FOUNDATION LANDSCAPE TREATMENTS AS SHOWN ARE GENERIC, INDIVIDUAL UNITS TO BE LANDSCAPED TO THE SATISFACTION OF THE APPROVING AGENCIES.

SEEDING SCHEDULE

1. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH SEEDING SCHEDULE AS CONTAINED ON APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
   TEMPORARY SEEDING SHALL BE MULCHED AND MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH PERMANENT SEEDING.
2. PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH SEEDING SCHEDULE AS CONTAINED ON APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
3. PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS AT A RATE OF 150# PER ACRE, SLOPED AREA TO BE COVERED WITH MULCH AS INDICATED IN NOTE 6.
4. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE IN ACCORDANCE WITH SEEDING SCHEDULE AS CONTAINED ON APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
5. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 6.
6. MULCH TO CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER OR AN APPROVED EQUAL. MULCH WILL BE SPREAD AT RATES OF 90 TO 115 LBS. PER 1000 SF AND ANCHORED WITH A MULCH ANCHORING TOOL OR LIQUID MULCH BINDER, AND SHALL BE PROVIDED ON ALL SEEDINGS. HYDROMULCH SHALL ONLY BE USED DURING OPTIMUM GROWING SEASONS.



DECIDUOUS TREE PLANTING DETAIL

N.T.S.

PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. HGT.	MIN. CAL.	ROOT
Ar	30	ACER RUBRUM "OCTOBER GLORY"	OCTOBER GLORY	10'-12'	2-2 1/2"	B & B

50 0 50 100

SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

TRE TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
www.tworivereng.com
P.O. Box 155 Tel: 732.866.0111
Colts Neck, N.J. 07722 Fax: 732.866.4348

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

LANDSCAPE PLAN

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1297, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

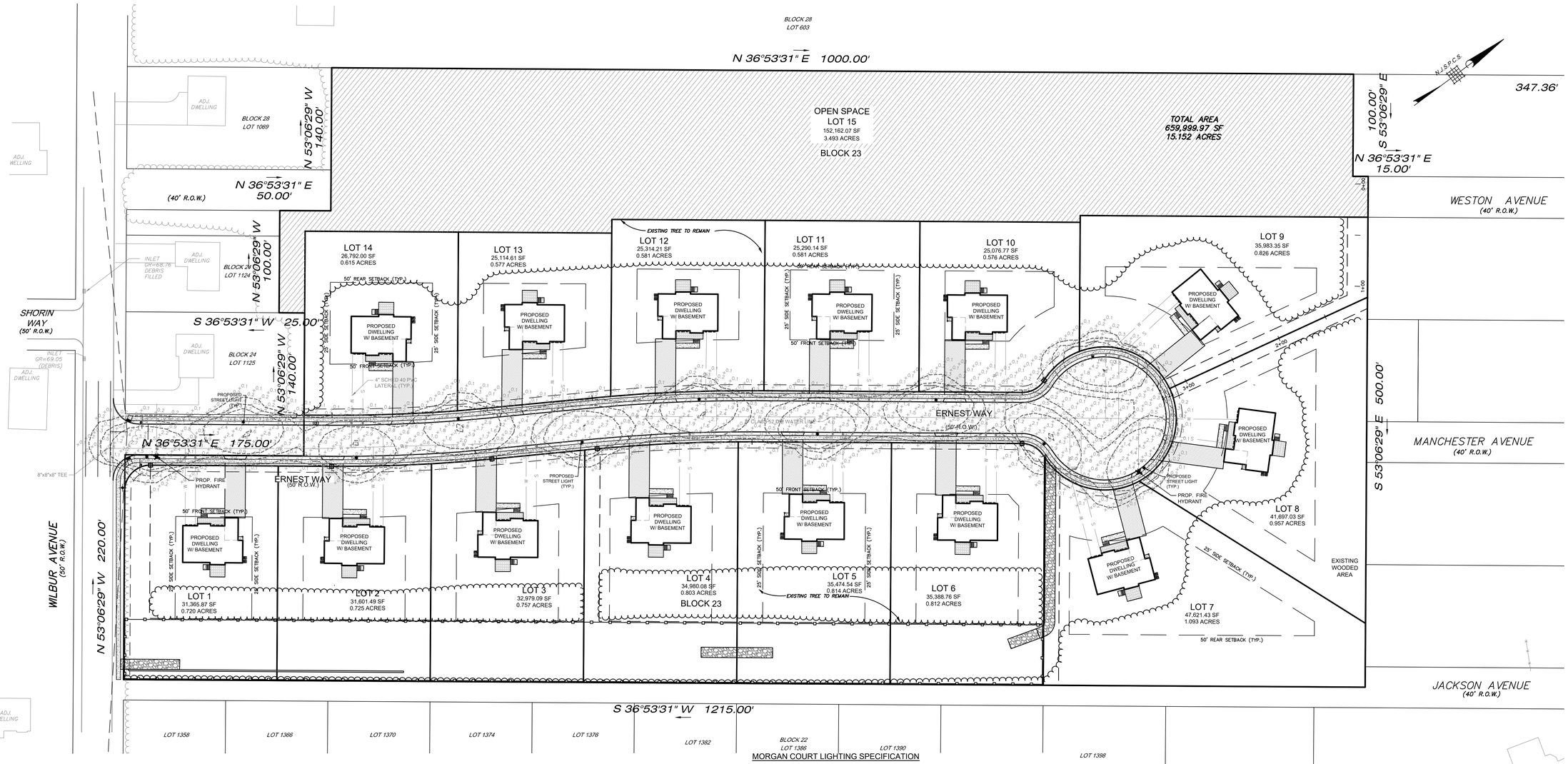
TOWNSHIP OF MANCHESTER

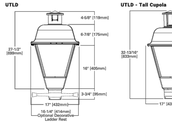
OCEAN COUNTY NEW JERSEY

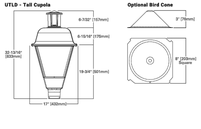
PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1" = 50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

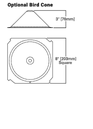
A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 7 OF 14









Streetworks

UTLD Traditionaire

Decorative Post Top Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Energy and Performance Data page 3

Product Certifications

Product Features

Quick Facts

- Replaces up to 250W equivalent HID
- Asymmetric & Symmetric distributions
- 0-10V dimming driver standard
- UL 1449/MOV surge protection available
- 3G vibration rated

Dimensional Details

Streetworks **UTLD Traditionaire**

Ordering Information

SAMPLE NUMBER: **UTLD-PA1-100-740-U-T2U-CL-BK**

Product Family[1]	Configuration	Wattage Bucket	Color Temperature	Voltage	Distribution	Lens	Finish
UTLD=Traditionaire™ LED Downlight	**PA1**=Direct Mount Rectangle (24 LED)	**20**=20W[2] **30**=30W **40**=40W **50**=50W **60**=60W **70**=70W **80**=80W **90**=90W **100**=100W	**740**=70CRI, 4000K **727**=70CRI, 2700K[6] **827**=80CRI, 2700K[6] **730**=70CRI, 3000K[6] **750**=70CRI, 5000K[6] **AMB**=Amber 590nm	**U**=Universal (120-277V) **2**=120V[2] **8**=480V[4,5] **9**=347V[5]	**T2U**=Type II Urban **T3**=Type III **T4W**=Type IV Wide **5WQ**=Type V Square Wide **SL3**=Type III w/ Spill Control	**[Blank]**=Open (No Lens) **A**=Refractive Lens Panels[9] **CL**=Clear Lens Panel[9] **FP**=Frosted Lens Panel[9] **TL**=Textured Lens Panel[9]	**BK**=Black **AP**=Grey **BZ**=Bronze **WH**=White

Options (Add as Suffix)	Controls	Accessories (Order Separately)
10K=Series 10kV UL 1449 Surge Protective Device **20K**=Series 20kV UL 1449 Surge Protective Device **20KI**=Series 20kV UL 1449 Surge Protective Device with light indicator **20MSP**=Parallel 20kV MOV Surge Protective Device **10MSP**=10kV MOV Surge Protection Device **HA**=50°C High Ambient Temperature[8] **W**=20' #10 Input Leads **S**=Snap Latches for Tool-less Light Replacement **J**=Factory Installed Ladder Rest **BC**=Bird Cone[9] **HSS**=Factory Install UTLD House Side Shield[10] **TC**=Tall Cupola[11] **PSC**=Photocontrol Shorting Cap **NPC**=NEMA Photocontrol - Multi-Tap **LLPC**=Longlife Photocontrol Included	**5LTD**=DALI[3] **PR**=NEMA Photocontrol Receptacle[7] **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle	**TA1BK**=Decorative Ladder Rest for Field Installation (Black) **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=NEMA Photocontrol - 120V **OA/RA1016**=NEMA Photocontrol - Multi-Tap **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA1223**=10kV Surge Module Replacement **HS-UTLD-24**=Field Installed UTLD House Side Shield for PA1[10] **VGS-ARCH**=Short Vertical Drop Shield **VGL-ARCH**=Long Vertical Drop Shield

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. PA1-20 only available in 120V.
3. Only available in universal voltage. Consult your lighting representative at Cooper Lighting Solutions if custom programming is required. Not available with PA1-90, PA1-100. Consult your lighting representative at Cooper Lighting Solutions if greater than PA1-80 (83W) is needed.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Not available with 5LTD driver.
6. Use dedicated IES files for when performing layouts. These files are published on the UTLD Traditionaire product page on the website.
7. If "PR" selected, dimming functionality not available, dimming leads will be capped.
8. Not available with HSS or 5LTD driver.
9. Lens panel and birdcone cannot be ordered together.
10. HSS not available with 5WQ distribution.
11. Use tall cupola to accommodate network control solutions requiring the 7-pin receptacle

Product Specifications

Construction
- Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola.
- 3G vibration tested to ensure strength of construction and longevity in application.

Optics
- Choice of five patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic.
- Optics are precisely designed to shape the light output, maximizing efficiency and application spacing.
- AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements.
- Optional 2700K, 3000K, 4000K and 5000K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field, or factory installed.
- Optics are IP66 enclosure rated.
- Offered open sided as a standard with four lens options.

Electrical
- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.
- Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments.
- Surge protection options: 10kV/10kA common - and differential - mode surge protection. Optional 20kV (light indicator optional), 10kV MOV, and 20kV MOV surge protection devices.

Mounting
- Self-aligning pole-top fitter for 3" O.D. pole tops or vertical tenons.
- Square headed 1-1/4" polymer coated mounting bolts with a lock nut.

Finish
- Cast components finished in a super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
- Optional colors include bronze, grey and white. RAL and custom color matches available.

Shipping Data
- Approximate Net Weight: 37 lbs. (17 kgs.)
- Effective Projected Area: 2.3 (Sq. Ft.)

Warranty
- Standard five-year warranty.
- Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information.

ERNEST WAY LIGHTING SPECIFICATION

MORGAN COURT LIGHTING SPECIFICATION

Schedule

Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Filename	Lumens Per Lamp	Wattage	Height
11 ✸	COOPER LIGHTING	UTLD-PA1-90-730-U-T3-CL	TRADITIONAIRE LED DOWNLIGHT LUMINAIRE (1) 70 CRI, 3000K, 1180MA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS AND CLEAR LENS PANELS	24	UTR080LEDEU22.ies	Absolute	90	12.75'

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Area Light	+	0.9 fc	5.8 fc	0.1 fc	58.0:1	9.0:1

LANDSCAPING AND LIGHTING NOTES:

1. ALL EXISTING LIGHTING TO REMAIN. ANY PROPOSED LIGHTING TO BE COORDINATED BY JCPL.
2. LIGHTS TO BE SETBACK 2' FROM THE CURB AND POLE FOUNDATIONS SHALL BE FLUSH WITH GRADE.

SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

- Civil Engineers
- Forensic Experts
- Environmental Consultants

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www.tworivereng.com

P.O. Box 155
Colts Neck, N.J. 07722

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LIGHTING PLAN

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SHEET NO. 8 OF 14

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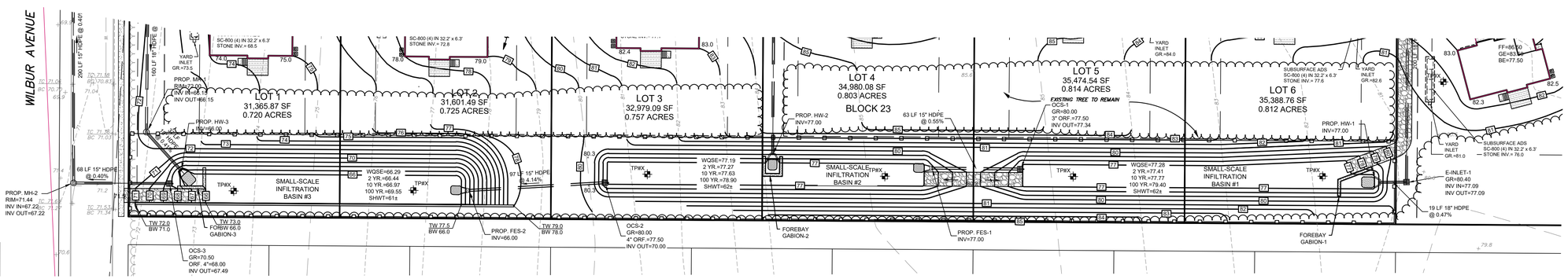


REQUIRED MAINTENANCE PLAN:

1. ENTITY RESPONSIBLE FOR OVERALL MAINTENANCE OF THE STORMWATER MANAGEMENT MEASURE:
HOME OWNERS ASSOCIATION - HEMINGWAY ESTATES

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, TRASH RACKS, LOW FLOW 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. VEGETATE 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, DENSITY 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/RECYLING 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. VEGETATE 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 SHOULD BE PERFORMED AT LEAST TWICE ANNUALLY DURING BOTH THE GROWING AND NON-GROWING SEASON. 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 BIORETENTION 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 DISTRUPTION 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 BASINS 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 SURFACE AND SUBSURFACE 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 PERMABILITY RATE OF THE SOIL BELOW THE BASIN MAY ALSO BE RETESTED PERIODICALY. IF THE WATER FAILS TO INFILTRATE 72 HOURS AFTER THE END OF THE STORM, CORRECTIVE MEASURES MUST BE TAKEN. ANNUAL TILLING NY LIGHT EQUIPMENT CAN ASSIST IN MAINTAINING INFILTRATION CAPACITY AND BREAK UP CLOGGED SURFACES.

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.

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 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 PATHS, TREES, 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:

DEPENDING 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.

MAINTENANCE NOTES

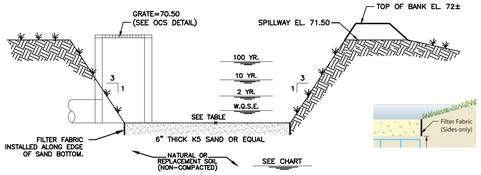
REQUIRED MAINTENANCE PLAN PROCEDURES:

1. 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.
2. 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.
3. THE MAINTENANCE PLAN MUST BE EVALUATED FOR EFFECTIVENESS AT LEAST ANNUALLY AND MUST BE REVISE AS NEEDED.
4. 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.
5. 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.
6. ONLY LIGHTWEIGHT CONSTRUCTION EQUIPMENT CAN BE USED WITHIN THE BASIN AREA.

YEARLY BASIN MAINTENANCE SUMMARY

(BASED UPON 3 SMALL SCALE INFILTRATION BASINS)

ACTIVITY	OCCURANCE	COST / OCCURANCE	YEARLY COST
INSPECT BASINS	4 / YEAR	$150	$600
MOW GRASS	12 / YEAR	$150	$1,800
INSPECT SAND LAYERS	6 / YEAR	$75	$450
LOCALIZED DEBRIS REMOVAL	5 / YEAR	$75	$375
INSPECT INLET/OUTLET PIPING	2 / YEAR	$75	$150
INSPECT FENCE/BASIN ACCESS	2 / YEAR	$50	$100
TILL & RE-GRADE BASIN BOTTOMS	0.2 / YEAR	$3,000	$600
DRAIN TIME TESTING	0.2 / YEAR	$900	$180
TOTAL ESTIMATED YEARLY MAINTENANCE COSTS			$ 4,255



BASIN	S.H.W.T.	BOTTOM	TOP	W.Q.S.E.	2 YR.	10 YR.	100 YR.
"1"	61±	66.0	72.0	66.29	66.44	66.97	69.55
				FUTURE	66.56	67.68	70.57

NOTES:
1. NO CONSTRUCTION EQUIPMENT PERMITTED IN THE AREA OF THE BASIN BOTTOM.
2. SEE NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPES AND STRUCTURES.

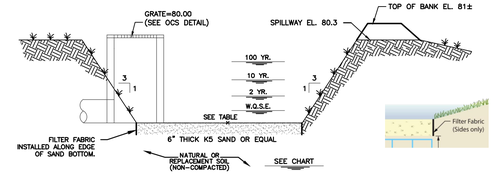
INFILTRATION BASIN #3 DETAIL

N.T.S.

FAILURE NOTE:
1. OCS WITH 25 YEAR STORM EVENT IN FAILURE CONDITION HAS 0.54 CFS (6.20 FPS 4" ORF., ELEV. 69.83) (STARTING BASIN AT LOWEST ORIFICE, NO DEAD STORAGE) (0.0 CFS, 0.0 FPS, AT SPILLWAY)

EMERGENCY SPILLWAY BASIN # 3 DETAIL

NOT TO SCALE



BASIN	S.H.W.T.	BOTTOM	TOP	W.Q.S.E.	2 YR.	10 YR.	100 YR.
"1"	62±	77.0	81.0	77.19	77.27	77.63	78.90
				FUTURE	77.34	77.83	80.06

NOTES:
1. NO CONSTRUCTION EQUIPMENT PERMITTED IN THE AREA OF THE BASIN BOTTOM.
2. SEE NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPES AND STRUCTURES.

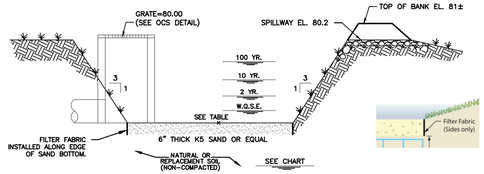
INFILTRATION BASIN #2 DETAIL

N.T.S.

FAILURE NOTE:
1. OCS WITH 25 YEAR STORM EVENT IN FAILURE CONDITION HAS 0.40 CFS (4.64 FPS 4"ORF., ELEV. 78.60) (STARTING BASIN AT LOWEST ORIFICE, NO DEAD STORAGE) (0.0 CFS, 0.0 FPS, AT SPILLWAY)

EMERGENCY SPILLWAY BASIN # 2 DETAIL

NOT TO SCALE

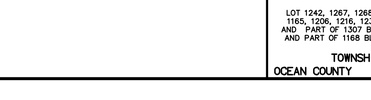


BASIN	S.H.W.T.	BOTTOM	TOP	W.Q.S.E.	2 YR.	10 YR.	100 YR.
"1"	62±	77.0	81.0	77.28	77.41	77.77	79.40
				FUTURE	77.52	78.04	80.12

NOTES:
1. NO CONSTRUCTION EQUIPMENT PERMITTED IN THE AREA OF THE BASIN BOTTOM.
2. SEE NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.
3. SEE GRADING AND DRAINAGE PLAN FOR PIPES AND STRUCTURES.

INFILTRATION BASIN #1 DETAIL

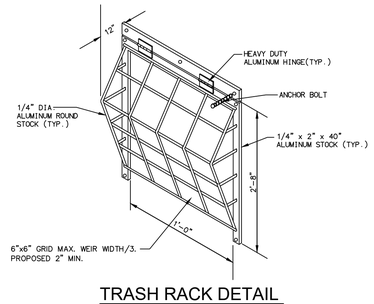
N.T.S.



FAILURE NOTE:
1. OCS WITH 25 YEAR STORM EVENT IN FAILURE CONDITION HAS 0.20 CFS (4.01 FPS, 3" ORF., ELEV. 79.15) (STARTING BASIN AT LOWEST ORIFICE, NO DEAD STORAGE) (0.0 CFS, 0.0 FPS, AT SPILLWAY)

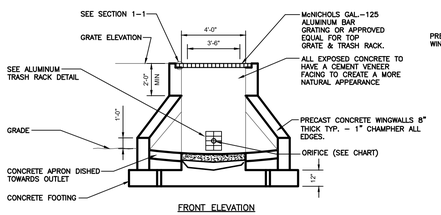
EMERGENCY SPILLWAY BASIN # 1 DETAIL

NOT TO SCALE

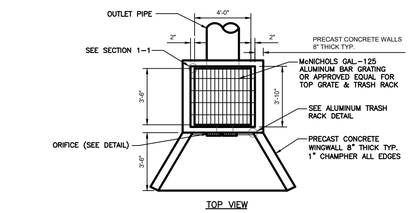


TRASH RACK DETAIL

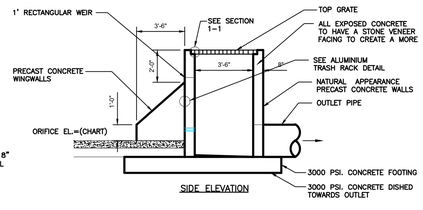
N.T.S.



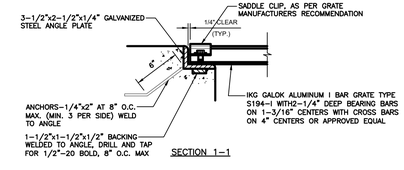
FRONT ELEVATION



TOP VIEW



SIDE ELEVATION



SECTION 1-1

OUTLET CONTROL STRUCTURE DATA				
OUTLET	GRATE	WEIR	WEIR INVERT	INVERT OUT
OCS-1	80.00	3" ORIFICE	77.50	77.34
OCS-2	80.00	4" ORIFICE	77.50	70.00
OCS-3	70.50	4" ORIFICE	68.00	67.49

OUTLET STRUCTURE DETAIL

N.T.S.

REV.	DATE	DESCRIPTION

TRE
TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

STORMWATER MAINTENANCE PLAN & STORMWATER DETAILS

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

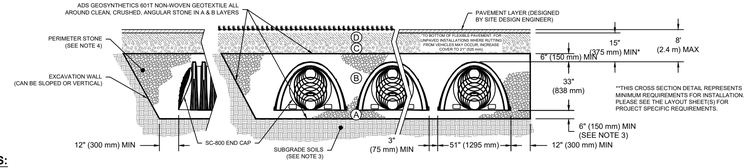
A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 9 OF 14

X:\Arya Properties\Active Projects\Tree That Are In GF\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV~5_5~15~2026.dwg May 19, 2026 - 11:35am

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (B² LAYER) TO 15" (375 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[4] A-1, A-2-4, A-3 OR AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-800 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2" (50 mm).
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 700 LBS/FT/%, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

STORMTECH SC-800 CHAMBER SYSTEMS

Pond 2P: Roof Recharge - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-800 +Cap (ADS StormTech® SC-800 with cap volume)
Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12L = 50.6 cf
Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap
Cap Storage= 3.4 cf x 2 x 1 rows = 6.8 cf

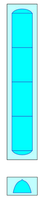
4 Chambers/Row x 7.12' Long +0.88' Cap Length x 2 = 30.23' Row Length +12.0" End Stone x 2 = 32.23' Base Length
1 Rows x 51.0" Wide + 12.0" Side Stone x 2 = 6.25' Base Width
6.0" Stone Base + 33.0" Chamber Height + 6.0" Stone Cover = 3.75' Field Height

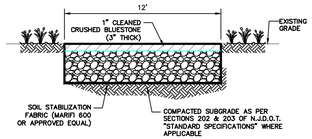
4 Chambers x 50.6 cf + 3.4 cf Cap Volume x 2 x 1 Rows = 209.2 cf Chamber Storage

755.5 cf Field - 209.2 cf Chambers = 546.3 cf Stone x 40.0% Voids = 218.5 cf Stone Storage

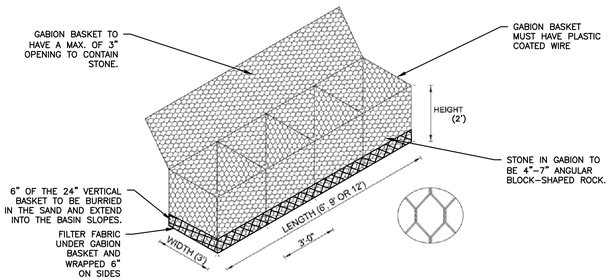
Chamber Storage + Stone Storage = 427.7 cf = 0.010 af
Overall Storage Efficiency = 56.6%
Overall System Size = 32.23' x 6.25' x 3.75'

4 Chambers
28.0 cy Field
20.2 cy Stone





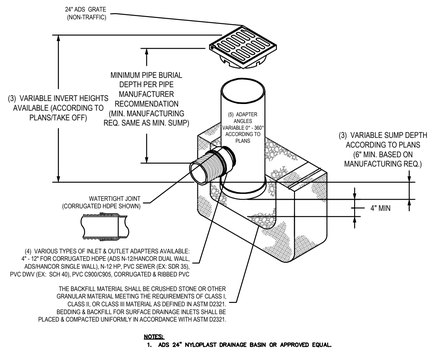
PROPOSED BASIN ACCESS SECTION
N.T.S.



GABION BASKETS
NTS

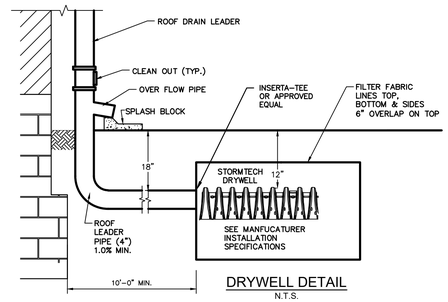
NOTES:
ALL GABION BASKET WALLS SHALL BE BURRIED 6" DEEP WITH FILTER FABRIC.

BASIN #1 (FOREBAYS)	BASIN #2 (FOREBAYS)	BASIN #3 (FOREBAYS)
HW #1 WQSE=2,069 CF, 10% 207 CF	HW #2 WQSE=1,358 CF, 10% 136 CF	HW #3 WQSE=1,957 CF, 10% 196 CF
24'x12'X1.5' AREA PROVIDES 475 CF OF WQSE STORAGE (10% OF WQSE REQUIRED)	12'x10'X1.5' AREA PROVIDES 158 CF OF WQSE STORAGE (10% OF WQSE REQUIRED)	24'x12'X1.5' AREA PROVIDES 276 CF OF WQSE STORAGE (10% OF WQSE REQUIRED)
ELEV.= 77.0 = 0	ELEV.= 77.0 = 0	ELEV.= 66.0 = 0
ELEV.= 78.0 = 282	ELEV.= 78.0 = 101	ELEV.= 67.0 = 169
ELEV.= 78.5= 475	ELEV.= 78.5= 158	ELEV.= 68.0= 276

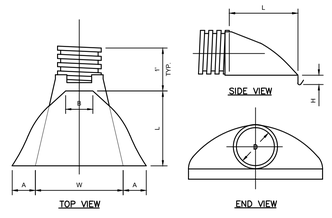


NOTES:
1. ADS 24" NYLOPLAST DRAINAGE BASIN OR APPROVED EQUAL.

NYLOPLAST 24" DRAIN BASIN
N.T.S.

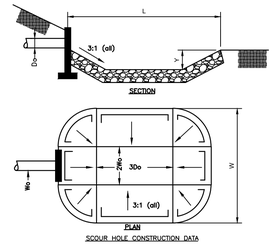


DRYWELL DETAIL
N.T.S.



PIPE DIAMETER	DIMENSIONS (INCHES)					
	A (1±)	B MAX.	H (1±)	L (1/2±)	W (2±)	
12"		6.5	10	6.5	25	29
15"		6.5	10	6.5	25	29
18"		7.5	15	6.5	32	35

HDPE FLARED END SECTION
N.T.S.



SCOUR HOLE CONSTRUCTION DATA

	L	W	d50	Wo/Do	2Wo	3Do	Y	25 YR.	100 YR.	THICK.	THICK.	ELEV.
HW #1	9.0'	7.5'	6"	18"	3.0'	4.50'	6"	3.35 CFS		9"	6"	77.0
FES #1	7.5'	6.3'	6"	15"	2.5'	3.75'	7.5"		2.11 CFS	9"	6"	77.0
HW #2	7.5'	6.3'	6"	15"	2.5'	3.75'	7.5"	1.99 CFS		9"	6"	77.0
FES #2	7.5'	6.3'	6"	15"	2.5'	3.75'	7.5"		1.30 CFS	9"	6"	66.0
HW #3	9.0'	7.5'	6"	18"	3.0'	4.50'	9"	3.30 CFS		9"	6"	66.0
										WITHOUT FABRIC	WITH FABRIC	

SCOUR HOLE
N.T.S.

REV.	DATE	DESCRIPTION

TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
www.tworivereng.com
P.O. Box 155, Colts Neck, N.J. 07722
Tel: 732.866.0111 Fax: 732.866.4348

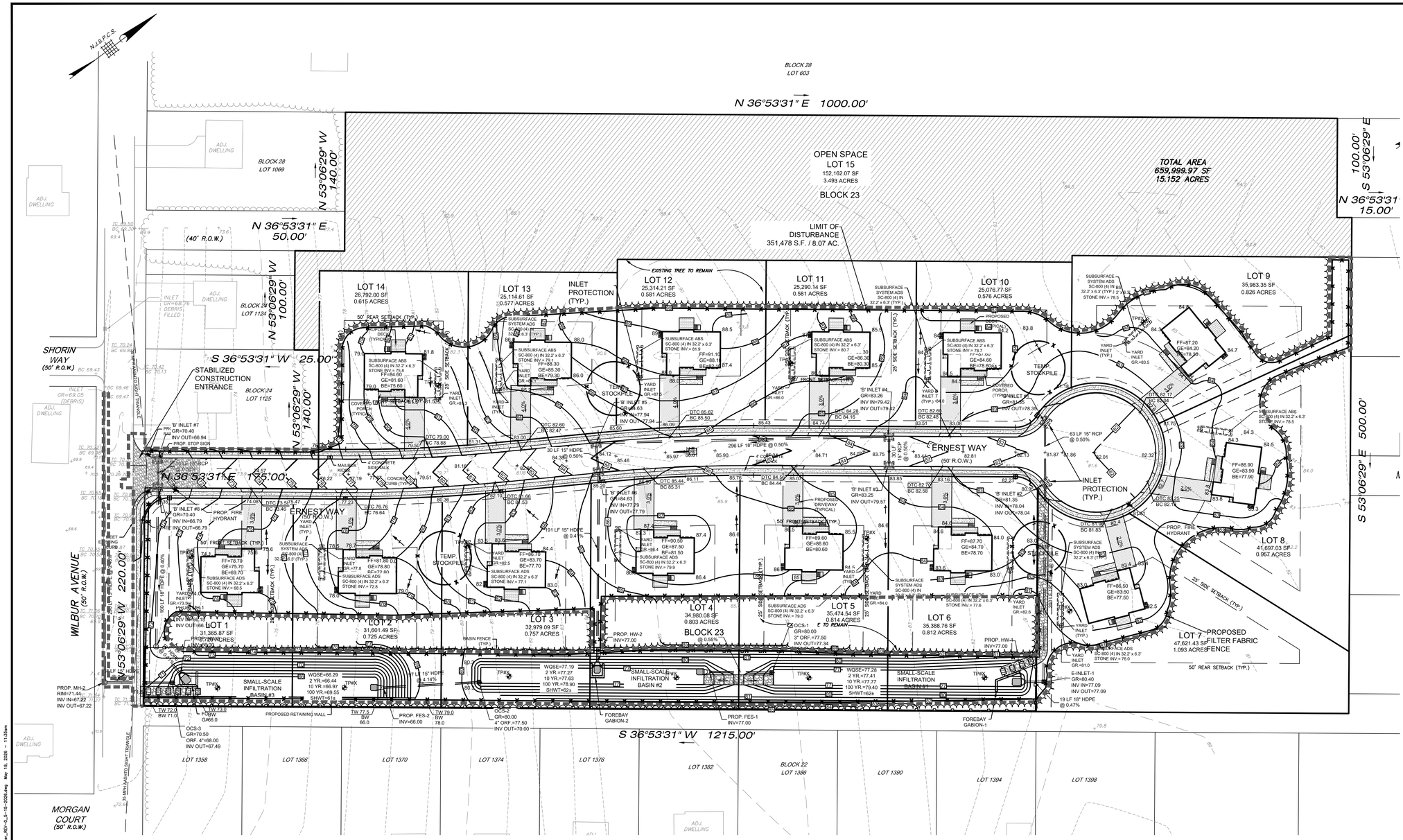
PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

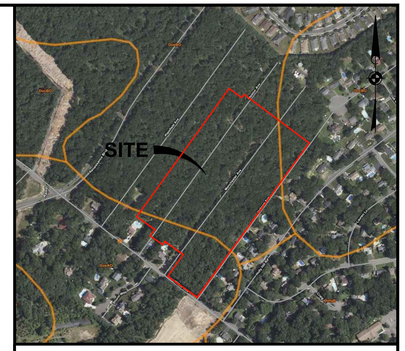
PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
STORMWATER MAINTENANCE PLAN & DETAILS
OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO.10 OF 14

X:\Arya Properties\Active Projects\Files That Are In CF\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV-5_5-15-2026.dwg May 19, 2026 - 11:35am





SOIL INFORMATION TAKEN FROM USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY, OCEAN COUNTY, NJ

SOIL MAP

SCALE: N.T.S.

OCEAN COUNTY SOIL CONSERVATION DISTRICT

714 LACEY ROAD, FORKED RIVER, NJ 08731
TELEPHONE NUMBER: (609) 971-7002
FAX NUMBER: (609) 971-3391

GENERAL NOTES

TRACT AREA:.....9.173 ACRES
AREA OF DISTURBANCE:.....8.07 ACRES
SOIL MANAGEMENT RESTORATION AREA:.....3.87 ACRES

SITE SOILS:
70% DoeBO– DOWNER SANDY LOAM, 2 TO 5 PERCENT SLOPES, NORTHERN TIDEWATER AREA
20% DoeAO– DOWNER SANDY LOAM, 0 TO 2 PERCENT SLOPES, NORTHERN TIDEWATER AREA
10% DocBO– DOWNER LOAMY SAND, 0 TO 5 PERCENT SLOPES, NORTHERN TIDEWATER AREA

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE DISTRICT INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH 'THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017.' (SESC STANDARDS)
2. ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE SESC STANDARDS.
3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
4. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT. THE REVISED PLANS MUST MEET ALL CURRENT SESC STANDARDS.
STANDARDS: HTTP://WWW.STATE.NJ.US/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML
5. N.J.S.A 4:24–39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THERE HAS BEEN COMPLIANCE WITH PROVISIONS OF A CERTIFIED PLAN FOR PERMANENT MEASURES. ALL SITE WORK, AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
6. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL WITHIN 14 DAYS, AT A RATE OF 2 TO 2 ½ TONS PER ACRE AND ANCHORED IN PLACE ACCORDING TO THE SESC STANDARDS FOR STABILIZATION WITH MULCH ONLY.
7. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E., STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 1 ½ TO 2 TONS PER ACRE AND ANCHORED IN PLACE ACCORDING TO THE SESC STANDARDS.
8. A SUB–BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB–BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
9. ANY STEEP SLOPES (3:1 OR GREATER) OR ANY EXISTING ROADWAYS RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES.
10. THE SESC STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD USING CLEAN, CRUSHED, ANGULAR STONE (ASTM C–33, SIZE NO. 2 OR 3) AT ALL CONSTRUCTION DRIVEWAYS WHERE VEHICLES WILL ACCESS PAVED ROADWAYS FROM UNPAVED AREAS OF THE SITE.
11. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. AT THE TIME OF THE FINAL INSPECTION, YOU ARE REQUIRED TO PROVIDE CONFIRMATION THAT THE PROPER TYPE AND AMOUNT OF SEED, LIME AND FERTILIZER HAVE BEEN USED FOR PERMANENT STABILIZATION WORK. STRAW MULCH PROPERLY ANCHORED IN PLACE IS REQUIRED ON ALL SEEDING IN ACCORDANCE TO THE SESC STANDARDS.
12. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
13. IN ACCORDANCE WITH THE SESC STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDING PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY–FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
14. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL. CONDUIT OUTLET PROTECTION INSTALLATION SHALL BE POSTPONED IN BASINS ACTING AS SEDIMENT BASINS DURING CONSTRUCTION.
15. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE SESC STANDARD FOR DEWATERING.
16. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED. MULCH SHALL BE APPLIED AND ANCHORED IN PLACE, OR OTHER DUST CONTROL METHOD SHALL BE EMPLOYED AS REQUIRED BY THE SESC STANDARD FOR DUST CONTROL.
17. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF AN AMENDED SOIL EROSION AND SEDIMENT CONTROL PLAN. THE DISTRICT RESERVES THE RIGHT TO DETERMINE WHEN CERTIFICATION OF A NEW AND SEPARATE SOIL EROSION AND SEDIMENT CONTROL PLAN WILL BE REQUIRED FOR THESE ACTIVITIES.
18. ALL SOIL STOCKPILES ARE TO BE SURROUNDED WITH A SEDIMENT BARRIER AND STABILIZED IN ACCORDANCE WITH THE SESC STANDARDS. STOCKPILES SHOULD BE SITUATED SO AS TO NOT OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF–SITE ENVIRONMENTAL DAMAGE.
19. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

SEQUENCE OF CONSTRUCTION – SINGLE FAMILY DWELLING

1.	NOTIFY THE OCEAN COUNTY SOIL CONSERVATION DISTRICT (OCSCD) IN WRITING AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE.	1 DAY
2.	INSTALL APPLICABLE TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES AT THE INITIATION OF LAND DISTURBANCE ACTIVITIES (SILT FENCE ALONG THE LIMIT OF DISTURBANCE, STONE TRACKING PAD AND INLET PROTECTION).	3 DAY
3.	CLEAR LOT(S).	1 WEEK
4.	CONSTRUCT DWELLING UNIT(S) AND ANCILLARY SITE IMPROVEMENT(S). INSTALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES.	6 MONTHS
5.	CONDUCT SOIL COMPACTION TESTS IN LOCATIONS SHOWN ON SOIL MANAGEMENT & PREPARATION PLAN. TESTING MUST BE WITNESSED BY OCSCD INSPECTOR. IF TESTS PASS, SUBMIT TEST RESULTS TO OCSCD. IF TESTS FAIL, RESTORATION OF COMPACTED SOILS SHALL BE CONDUCTED THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH).	1 DAY
6.	INSTALL TOPSOIL 5".	3 DAYS
7.	FINAL GRADING & PERMANENT STABILIZATION OF LOT(S). *PERMANENT STABILIZATION WITH STONE MUST BE INSTALLED AND MAINTAINED AT A MINIMUM DEPTH OF 3 INCHES. IMPERMEABLE LINER IS NOT PERMITTED TO BE LAID UNDER STONE.	1 DAY
8.	REMOVE TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.	1 DAY
9.	MUST OBTAIN A FINAL REPORT OF COMPLIANCE BY THE OCSCD.	1 DAY

*NOTE: IF LOT WILL BE STABILIZED W/STONE SEQUENCE 5&6 ARE NOT REQUIRED.

50 0 50 100
SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

TWO RIVER ENGINEERING
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
www.tworiverenq.com
P.O. Box 155 Tel: 732.866.0111
Colts Neck, N.J. 07722 Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

SOIL EROSION & SEDIMENT CONTROL PLAN

OF

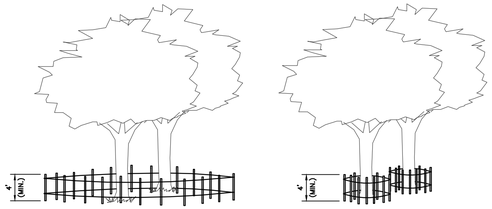
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

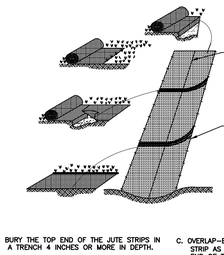
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

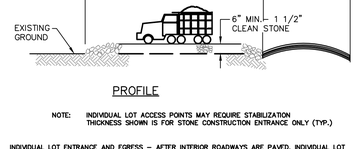
A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

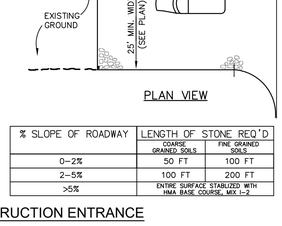
SHEET NO. 11 OF 14

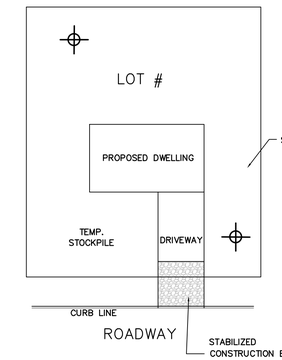
X:\Arya Properties\Active Projects\Files That Are In QA\ARYA2025-014 Manchester Land Swq\ARYA2025-014 MAJOR SUB Manchester_REV~0_5-15-2026.dwg May 19, 2026 - 11:35am

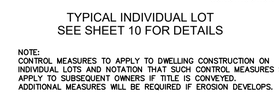












PERMANENT SEEDING

Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.
- B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading .
- C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.

Seedbed Preparation

- A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-operative Extension Soil sample mailers are available from the local Rutgers Cooperative Extension offices (http://njaes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
- B. Work lime and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
- C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed reparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

Seeding

SEEDING	RATES
TALL FESCUE	6.0 LBS./1,000 S.F. OR 265 LBS/ACRE
KENTUCKY BLUEGRASS (BLEND)	0.5 LBS./1,000 S.F. OR 20 LBS/ACRE
PERENIAL RYEGRASS (BLEND)	0.5 LBS./1,000 S.F. OR 20 LBS/ACRE

OPTIMAL SEEDING DATES: 8/15–10/1
ACCEPTABLE SEEDING DATES: 2/1–4/30 AND 5/1–8/14*
* ONLY IF PROPERTY IS IRRIGATED
SEED TO A DEPTH OF 0.5 IN.

- A. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.

MULCHING

Mulching is required on all seeding.
Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

Straw or Hay.
Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application - Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section. Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

ESTABLISH PERMANENT VEGETATIVE STABILIZATION

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged

IRRIGATION

If soil moisture is deficient, supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

PERMANENT STABILIZATION WITH SOD

Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for liming, fertilizing, incorporation of organic matter, and other soil preparation procedures. All grading should be done in accordance with Standard for Land Grading.
- B. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 6 inches (unsettled) is required on all sites. See the Standard for Topsoiling for topsoil and amendment requirements.

Soil Preparation

- A. Uniformly apply ground limestone, and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices (http://njaes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet using 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply ½ the rate described above during seedbed preparation and repeat another ½ rate application of the same fertilizer within 3 to 5 weeks after seeding. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes.
- B. Work lime, and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared.
- C. Remove from the surface all objects that would prevent good sod to topsoil contact and remove all other debris, such as wire, cable, tree roots, pieces of concrete, clods, lumps, or other unsuitable material.
- D. Inspect site just before sodding. If traffic has left the soil compacted, the area must be retilled and firmed in accordance with the above.

Sod Placement

- A. Sod strips should be laid on the contour, never up and down the slope, starting at the bottom of the slope and working up. On steep slopes, the use of ladders will facilitate the work and prevent damage to the sod. During periods of high temperature, lightly irrigate the soil immediately prior to laying the sod.
- B. Place sod strips with snug, even joints (seams) that are staggered. Open spaces invite erosion.
- C. Lightly roll or tamp sod immediately following placement to insure solid contact of root mat and soil surface. Do not overlap sod. All joints should be butted tightly to prevent voids which would cause drying of the roots and invasion of weeds.
- D. On slopes greater than 3 to 1, secure sod to surface soil with wood pegs, wire staples biodegradable plastic spikes, or split shingles (8 to 10 inches long by 3/4 inch wide).
- E. Surface water cannot always be diverted from flowing over the face of the slope, but a capping strip of heavy jute or plastic netting, properly secured, along the crown of the slope and edges will provide extra protection against lifting and undercutting of sod. The same technique can be used to anchor sod in water-carrying channels and other critical areas. Wire staples must be used to anchor netting in channel work.
- F. Immediately following installation, sod should be watered until water penetrates the soil layer beneath sod to a depth of 1 inch. Maintain optimum water for at least two weeks.

Topdressing
Since soil organic matter and slow release nitrogen fertilizer (water insoluble) are prescribed in Sections 1 and 2in this Standard, a follow-up topdressing is not mandatory, except where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop, topdressing shall then be applied. Topdress with 10-0-10 or equivalent at 400 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated

CORRECT FENCING FOR TREE PROTECTION

INCORRECT FENCING FOR TREE PROTECTION

NOTES:
1. PLACEMENT OF SNOW FENCING AT THE PERIMETER OF THE DRIPLINE SO AS TO PROTECT EXPOSED ROOTS AND LOW HANGING BRANCHES. FEEDER ROOTS SHALL NOT BE CUT CLOSER THAT THE DRIPLINE.
2. PROVIDE BUFFERING OF EXISTING TREE TRUNKS AND ROOTS FROM HEAVY EQUIPMENT.
3. PROHIBITION AGAINST TREES BEING USED FOR ROPING, CABLE, SIGNS, OR FENCING. NAILS OR SPIKES SHALL NOT BE DRIVEN INTO ANY PART OF THE TREE.
4. APPLICANT SHALL CLEAR THE AREA AT THE BASE OF THE TREE TO ALLOW FOR ABSORPTION OF NUTRIENTS AND WATER. IMPERVIOUS COVERAGE SHALL NOT BE ANY CLOSER TO THE MAIN TRUNK THAN THE DISTANCE OF THE DRIPLINE.
5. APPLICANT SHALL REMOVE ALL VEGETATIVE AND MISCELLANEOUS DEBRIS FROM THE SITE AND DISPOSAL IN ACCORDANCE WITH TOWNSHIP POLICY.

TYPICAL TREE PROTECTION DETAIL

N.T.S.

TEMPORARY SEEDING

Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19-1.
- B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
- C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

Seedbed Preparation

- A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise.
- B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
- C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retilled in accordance with the above.

Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1-1.
Seeding:

COOL SEASON GRASSES	RATES	SEEDING DATES	DEPTHS
PERENIAL RYEGRASS	1.0 LBS./1,000 S.F.	3/1–5/15 OR 8/15–10/1	0.5 IN.
SPRING OATS	2.0 LBS./1,000 S.F.	3/1–5/15 OR 8/15–10/1	1.0 IN.
WINTER BARLEY	2.2 LBS./1,000 S.F.	8/15–10/1	1.0 IN.
WINTER CEREAL RYE	2.8 LBS./1,000 S.F.	8/1–11/15	1.0 IN.
WARM SEASON GRASSES			
PEARL MILLET	0.5 LBS./1,000 S.F.	5/15–8/15	1.0 IN.
MILLET (GERMAN OR HUNGARIAN)	0.7 LBS./1,000 S.F.	5/15–8/15	1.0 IN.

FERTILIZER FOR USE DURING TEMPORARY STABILIZATION SHALL BE 10–20–10

- A. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

MULCH ANCHORING

Mulch Anchoring should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes.

- A. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
- B. Mulch Nettings - Staple paper, cotton, or plastic nettings over mulch. Use degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and up to 300 feet long.
- C. Crimper Mulch Anchoring Coulter Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.
- D. Liquid Mulch-Binders 1. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance. 2. Use one of the following: a. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials that mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phyto-toxic effect or impede growth of turfgrass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer. b. Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

MULCH ONLY

Site Preparation

- A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading
- B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42. 2.

Protective Materials
Unrotted small-grain straw, at 2.0 to 2.5 tons per acre, is spread uniformly at 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used if approved by the Soil Conservation District. The approved rates above have been met when the mulch covers the ground completely upon visual inspection, i.e. the soil cannot be seen below the mulch.

Mulch Anchoring should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes.

A. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
B. Mulch Nettings - Staple paper, cotton, or plastic nettings over mulch. Use degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and up to 300 feet long.
C. Crimper Mulch Anchoring Coulter Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.
D. Liquid Mulch-Binders
1. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
2. Use one of the following:
a. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials that mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phyto-toxic effect or impede growth of turfgrass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
b. Synthetic Binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass

STANDARD
FOR
MAINTAINING VEGETATION

Definition
The perpetuation of vegetative cover.
Purpose
To ensure the continuing vigor and function of vegetative cover and enhance the environment. It is usually less costly to carry on a maintenance program than it is to make repairs after an extended period of neglect.
Water Quality Enhancement
Ensures adequate permanent cover and prevents exposure of soils to erosion and off site sedimentation from stormwater runoff impacts.
Where Applicable
On areas where existing vegetation protects or enhances the environment.
Methods and Materials
A preventive maintenance program anticipates requirements and accomplishes work when it can be done with least effort and expense to insure adequate vegetative cover.
Maintenance should occur on a regular basis, consistent with favorable plant growth, soil, and climatic conditions.
This involves regular seasonal work for mowing, fertilizing, liming, watering, pruning, fire control, weed and pest control, reseeding, and timely repairs.
The degree of preventive maintenance needed depends upon the type of vegetation and its proposed function or use.

1. Mowing is a recurring practice and its intensity depends upon the function of the ground cover. On high to moderate (A to B) maintenance areas, such as lawns, certain recreation fields, and picnic areas, mowing will be frequent (2 to 7 day intervals) and typically at a height of 2.5 to 3 inches. Return clippings from mowing (mulching mower) to the turf to reduce the amount of fertilizer needed to maintain the turf by as much as 50%. Some turf mixtures can be managed as naturalized stands requiring only one (cool season mixtures) or two (warm season mixtures) mowings per year. Mowing of naturalized areas is typically done at heights no less than 4 inches and should not be done between April 1st and July 15th to avoid disturbing ground nesting birds. The large amount of clipping debris generated by mowing naturalized areas will need to be removed and/or dispersed so the vegetation is not smothered. Burning of naturalized areas is another procedure used to manage naturalized turfs. Low maintenance (D) areas may be left unmowed to permit natural succession. See pg. 4-13 footnote #4, Maintenance Levels A, B, C and D in the Standard for Permanent Vegetative Cover, Table 4-3.
2. Incorporation of organic matter (for example, mature compost) into the soil will substantially reduce the need for fertilizer and irrigation inputs.
3. Fertilizer and lime should be applied as needed to maintain a dense stand of desirable species. Frequently mowed areas and those on sandy soils will require more frequent fertilization but at lower nutrient rates per application.
4. Lime requirement should be determined by soil testing every 2 or 3 years. Fertilization may increase the need for liming. Contact the local county extension office for details on soil testing and fertilization and pest control recommendations online at http://njaes.rutgers.edu/county/.
5. Fertilization and additions of other soil amendments are not recommended for managing native vegetation such as in the Pinelands National Reserve. See the Standard for Permanent Vegetative Stabilization for specific requirements in the PNR.
6. Weed invasion may result from abusive mowing and from inadequate fertilizing and liming. Many newly established grasses will not survive if mowed at heights below 2.5 inches and at intervals greater than 7 days. Brush invasion is a common consequence of lack of mowing. The amount of weeds or brush that can be tolerated in any vegetated area depends upon the intended use of the land. Drainage ways are subject to rapid infestation by weed and woody plants. These should be controlled, since they often reduce drainage way efficiency. Control of weeds or brush is accomplished by using herbicides or mechanical methods.
7. Fire hazard is greater where dry vegetation has accumulated. The taller the vegetation, the greater the hazard.
8. Prune trees and shrubs to remove dead or damaged branches. Remove undesirable or invasive plants to maintain integrity of the landscape and enhance quality of permanent vegetative cover.

STANDARD FOR
TOPSOILING

DEFINITION
TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE VEGETATED.
PURPOSE
TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE.
WATER QUALITY ENHANCEMENT
GROWTH AND ESTABLISHMENT OF A VIGOROUS VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER CONVEYANCES.
WHERE APPLICABLE
TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED.
METHODS AND MATERIALS

1. MATERIALS
- A. TOPSOIL SHOULD BE FRIABLE(1), LOAMY(2), FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
- B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND,SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.

2. STRIPPING AND STOCKPILING
- A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
- B. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
- C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5.

(1) FRIABLE MEANS EASILY CRUMBLES IN THE FINGERS, AS DEFINED IN MOST SOILS TEXTS.
(2) LOAMY MEANS TEXTURE GROUPS CONSISTING OF COARSE LOAMY SANDS, SANDY LOAM, FINE AND VERY FINE SANDY LOAM, LOAM, SILT LOAM, CLAY LOAM, SANDY CLAY LOAM AND SILTY CLAY LOAM TEXTURES AND HAVING LESS THAN 35% COARSE FRAGMENTS (PARTICLES LESS THAN 2MM IN SIZE) AS DEFINED IN THE GLOSSARY OF SOIL SCIENCE TERMS, 1996, SOIL SCIENCE SOCIETY OF AMERICA.

- D. A 4–6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
- E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF–SITE ENVIRONMENTAL DAMAGE.
- F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4–1) OR TEMPORARY (PG.7–1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

3. SITE PREPARATION
- A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE
- B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19–1.
- C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
- D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING, PG. 19–1.
- E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

4. APPLYING TOPSOIL
- A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).
- B. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES, SPORTS FIELDS, LANDFILL CAPPING, ETC.. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1–1).
- C. PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE–APPLICATION OF LIME AND FERTILIZERS, AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES.

STABILIZATION NOTES:

- Disturbed areas outside of the building, driveway, pool, and patio areas area to receive decorative stone.
- Apply eleven (11) pounds 10–10–10 fertilizer (or as determined by a soil test)

A. BURY THE TOP END OF THE JUTE STRIPS IN A TRENCH 4 INCHES OR MORE IN DEPTH.

B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH SOW OF STAPLES, 10 INCH SPACING, 4 INCHES DOWN FROM THE TRENCH.

C. OVERLAP–BURY UPPER END OF LOWER STRIP AS IN "A" AND "B". OVERLAP END OF TOP STRIP 4 INCHES AND STAPLE.

D. EROSION STOP–FOLD OF JUTE BURIED IN SILT TRENCH AND TAMPED, DOUBLE ROW OF STAPLES.

NOTE:
1. TO BE PROVIDED IF AND WHERE DIRECTED BY OCEAN COUNTY SCD.

SOIL STABILIZATION MATTING DETAIL

N.T.S.

PROFILE

NOTE: INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.)

INDIVIDUAL LOT ENTRANCE AND EGRESS – AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOT INGRESS/EGRESS POINTS MAY REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF NO. 3 STONE (1" TO 2") TO PREVENT OR MINIMIZE TRACKING OF SEDIMENTS. WIDTH OF THE STONE INGRESS/EGRESS SHALL BE EQUAL TO LOT ENTRANCE WIDTH AND SHALL BE A MINIMUM OF TEN FEET IN LENGTH.

TIRE WASHING – IF SPACE IS LIMITED, VEHICLE TIRES MAY BE WASHED WITH CLEAN WATER BEFORE ENTERING A PAVED AREA. A WASH STATION MUST BE LOCATED SUCH THAT WASH WATER WILL NOT FLOW ONTO PAVED ROADWAYS OR INTO UNPROTECTED STORM DRAINAGE SYSTEMS.

WHEN THE CONSTRUCTION ACCESS EXITS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN THE MAJOR ROADWAY AND THE STONED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE.

MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO ROADWAYS (PUBLIC OR PRIVATE) OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY.

WHERE ACCUMULATION OF DUST/SEDIMENT IS INADEQUATELY CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER WILL BE REQUIRED TO CLEAN PAVED OR IMPERVIOUS SURFACES. ALL OTHER ACCESS POINTS WHICH ARE NOT STABILIZED SHALL BE BLOCKED OFF.

PLAN VIEW

% SLOPE OF ROADWAY	LENGTH OF STONE REQ'D COARSE GRAINED SOILS	 FINE GRAINED SOILS
0–2%	50 FT	100 FT
2–5%	100 FT	200 FT
>5%	ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE, MIX I-2	

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

TYPICAL INDIVIDUAL LOT
SEE SHEET 10 FOR DETAILS

NOTE:
CONTROL MEASURES TO APPLY TO DWELLING CONSTRUCTION ON INDIVIDUAL LOTS AND NOTATION THAT SUCH CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
ADDITIONAL MEASURES WILL BE REQUIRED IF EROSION DEVELOPS.

TYPICAL TOPSOIL STOCKPILE

TOPSOIL STOCKPILE NOTES

1. 4"–6" STRIPPING DEPTH IS COMMON (BUT MAY VARY). STOCKPILES SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFFSITE ENVIRONMENTAL DAMAGE. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS DESCRIBED HEREON. REFER TO TEMPORARY OR PERMANENT VEGETATIVE COVERAGE FOR SOIL STABILIZATION.
2. STOCKPILES NOT TO BE PLACED IN AREA WITH CONCENTRATED FLOW, WETLANDS, EXTREME SLOPE OR WITHIN 100' OF A NATURAL STREAM.

NOTES:
Inspections shall be frequent. Maintenance, repair, and replacement shall be made promptly, as needed. The filter shall be removed when the area draining toward the inlet has been stabilized.

INLET FILTER PROTECTION

THIS PLAN IS FOR THE PURPOSE OF SOIL EROSION AND SEDIMENT CONTROL.

REQUIREMENTS FOR SILT FENCE:

1. FENCE POSTS SHALL BE SPACED 8 FEET CENTER–TO–CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND (FIG. 23–2). POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 ½ INCHES.
2. "SUPER" SILT FENCE – A METAL FENCE WITH 6 INCH OR SMALLER MESH OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC. POSTS MAY BE SPACED LESS THAN 8 FEET ON CENTER AND MAY BE CONSTRUCTED OF HEAVIER WOOD OR METAL AS NEEDED TO WITHSTAND HEAVIER SEDIMENT LOADING. THIS PRACTICE IS APPROPRIATE WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED. "SUPER" SILT FENCE IS NOT TO BE USED IN PLACE OF PROPERLY DESIGNED DIVERSIONS (PG. 15–1) WHICH MAY BE NEEDED TO CONTROL SURFACE RUNOFF RATES AND VELOCITIES.
3. A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH.

MAINTENANCE

1. SEDIMENT SHALL BE REMOVED FROM THE UPSTREAM FACE OF THE BARRIER WHEN IT HAS REACHED A DEPTH OF ½ THE BARRIER HEIGHT
2. REPAIR OR REPLACE BARRIER (FABRIC, POSTS, BALES ETC.) WHEN DAMAGED.
3. BARRIERS SHALL BE INSPECTED DAILY FOR SIGNS OF DETERIORATION AND SEDIMENT REMOVAL

SILT FENCE DETAIL

N.T.S.

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of temporary vegetative cover on soils exposed for periods of two to 6 months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

Purpose

To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water quality enhancement

Provides temporary protection against the impacts of wind and rain, slows the over land movement of stormwater runoff, increases infiltration, and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where applicable

On exposed soils that have the potential for causing off–site environmental damage.

Methods and Materials

1. Site Preparation
   - A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards fort Land Grading pg. 19–1.
   - B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways See Standards 11 through 42.
   - C. Immediately prior to seeding, the surface should be scarified to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.)
2. Seedbed Preparation
   - A. Apply ground limestone and fertilizer according to soil test and recommendations such as offered by Rutgers Co–operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10–20–10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Liming rates shall be established via soil testing. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes.
   - B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.
   - C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be retiled in accordance with the above.
   - D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1–1.
3. Seeding
   - A. Select seed from recommendations in Table 7–2.

Table 7-2 : TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES, AND DEPTHS

SEED SELECTIONS	SEEDING RATE (1) (pounds) Per Acre	 Per 1000 Sq. Ft.	OPTIMUM SEEDING DATE (2) Based on Plant Hardiness Zone (3) ZONE 5b, 6a	 ZONE 6b	 ZONE 7a, b	OPTIMUM SEED DEPTH (4) (inches)
COOL SEASON GRASSES						
1. Perennial Ryegrass	100	1.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5
2. Spring Oats	86	2.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0
3. Winter Barley	96	2.2	8/1-9/15	8/15-10/1	8/15-10/15	1.0
4. Annual Ryegrass	100	1.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5
5. Winter Cereal Rye	112	2.8	8/1-11/1	8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES						
6. Pearl Millet	20	0.5	6/1-8/1	5/15-8/15	5/1-9/1	1.0
7. Millet (German or Hungarian)	30	0.7	6/1-8/1	5/15-8/15	5/1-9/1	1.0

1. Seeding rate for warm season grass, selections 5 - 7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Plant Hardiness Zone (see Figure 7-1, pg. 7-4.)
4. Twice the depth for sandy soils

   - B. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of ¼ to ½ inch, by raking or dragging. Depth of seed placement may be ¼ inch deeper on coarse textured soil.
   - C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.
   - D. After seeding, firming the soil with a corrugated roller will assure good seed–to–soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
4. Mulching

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

- A. Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1–1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch–binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper–blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

  Application. Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand–spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

  Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods depending upon the size of the area, steepness of slopes, and costs.

  - i. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be drive before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris–cross and a square pattern. Secure twine around each peg with two or more round turns.
  - ii. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
  - iii. Crimper (mulch anchoring tool). A tractor–drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
  - iv. Liquid Mulch–Binders. –May be used to anchor hay or straw mulch.

    1. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

    2. Use of the following:

    a. Organic and Vegetable Based Binders –Naturally occurring, powder based, hydrophilic materials when mixed with water formulas a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.

    b. Synthetic Binders –High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

    Note: All names given above are registered trade names. This does not constitute a commendation of these products to the exclusion of other products.

- B. Wood–fiber or paper–fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at a rate of 1,500 pounds per acre (or as recommended by the project manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
- C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co–polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, forma mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at a rate of 60–75 lbs./1,000 square feet and activate with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed–seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

  Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

REV.	DATE	DESCRIPTION

TWO RIVER ENGINEERING
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■ Forensic Experts
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PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
SOIL EROSION & SEDIMENT CONTROL
NOTES & DETAILS
OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 12 OF 14

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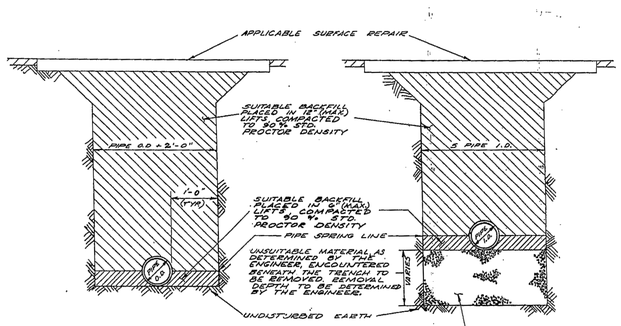
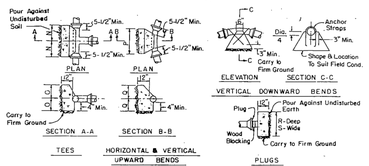
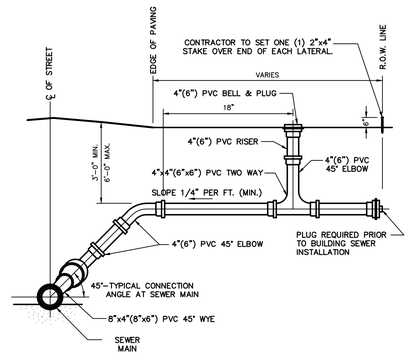
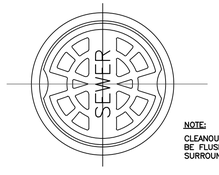
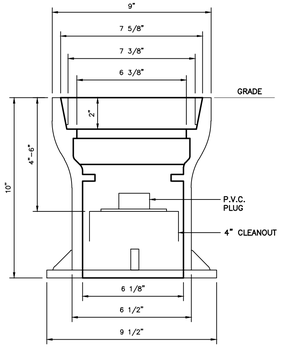
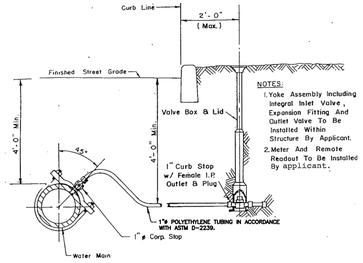


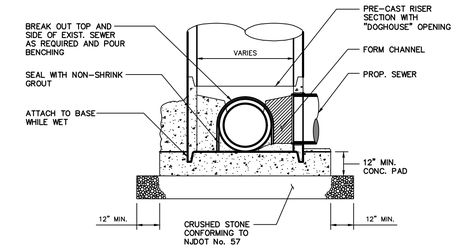


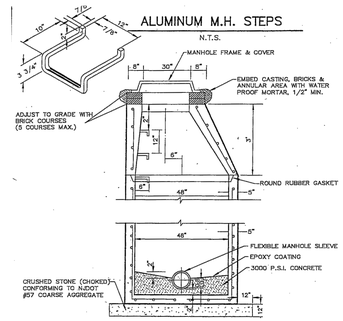


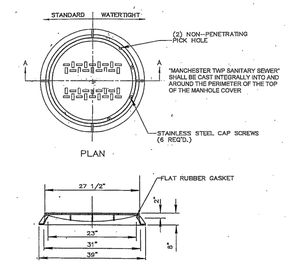


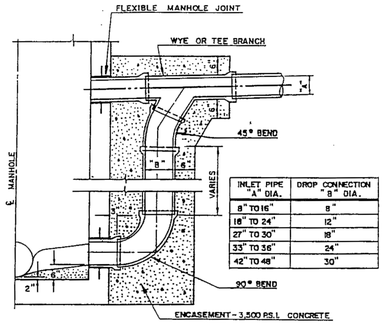


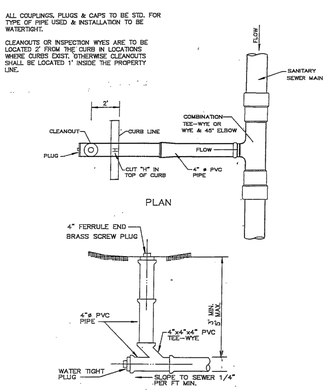


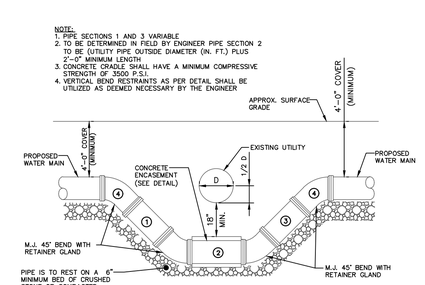


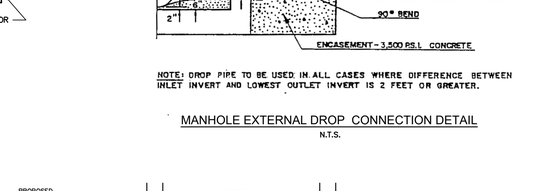












STABLE TRENCH

UNSTABLE TRENCH

DUCTILE IRON PIPE BEDDING / BACKFILL DETAILS
N.T.S.

NOTES:
1. Yoke Assembly Including Integral Inlet Valve, Expansion Fitting And Outlet Valve To Be Installed Within Structure By Applicant.
2. Meter And Remote Readout To Be Installed By applicant.

WATER SERVICE CONNECTION
N.T.S.

DOGHOUSE MANHOLE
N.T.S.

PRECAST CONCRETE MANHOLE DETAIL
N.T.S.

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

THRUST BLOCKS FOR TEES, HORIZONTAL & VERTICAL BENDS & PLUGS								
DESCRIPTION	DIMENSION	4"ø	6"ø	8"ø	10"ø	12"ø	14"ø	
Tees	N	0'-6"	0'-9"	1'-0"	1'-5"	1'-8"	1'-11"	
	O	0'-6"	0'-8"	0'-10"	1'-0"	1'-2"	1'-5"	
Hor. & Vert. Upward 90° Bends	P	1'-4"	2'-0"	2'-10"	3'-4"	3'-8"	4'-6"	
	Q	0'-6"	0'-8"	0'-10"	1'-2"	1'-6"	1'-8"	
Hor. & Vert. Upward 45° Bends	P	0'-10"	1'-3"	1'-8"	2'-2"	2'-6"	3'-0"	
	Q	0'-6"	0'-8"	0'-10"	1'-0"	1'-2"	1'-4"	
Hor. & Vert. Upward 22-1/2° Bends	P	0'-9"	0'-10"	1'-0"	1'-4"	1'-10"	2'-0"	
	Q	0'-6"	0'-7"	0'-8"	0'-10"	0'-10"	1'-0"	
Hor. & Vert. Upward 11-1/4° Bends	P	0'-6"	0'-8"	0'-8"	0'-10"	1'-0"	1'-0"	
	Q	0'-6"	0'-7"	0'-8"	0'-9"	0'-10"	1'-0"	
Vert. Downward 45° Bends	Min. Conc. * Anchorage	16 c.f.	32 c.f.	56 c.f.	92 c.f.	130 c.f.	178 c.f.	
Vert. Downward 22-1/2° Bends	Min. Conc. * Anchorage	8 c.f.	16 c.f.	28 c.f.	46 c.f.	65 c.f.	89 c.f.	
Vert. Downward 11-1/4° Bends	Min. Conc. * Anchorage	4 c.f.	8 c.f.	14 c.f.	23 c.f.	33 c.f.	45 c.f.	
Plugs	R	1'-0"	1'-6"	1'-10"	2'-0"	2'-4"	2'-10"	
	S	1'-0"	1'-4"	1'-10"	2'-10"	3'-4"	3'-10"	

THRUST BLOCKS DESIGNED FOR 150 P.S.I. TEST PRESSURE & 3000 P.S.F. SOIL PRESSURE
* MIN CONC ANCHORAGE WITHOUT BACKFILL AND NO GROUND WATER CONDITION
NOTE: CONTRACTOR SHALL VERIFY SOIL BEARING PRESSURE ABOVE THRUST BLOCKS SHALL BE UTILIZED ONLY IF ACTUAL SOIL PRESSURE EXCEEDS 3000 P.S.F.

ANCHOR SCHEDULE FOR VERTICAL DOWNWARD BENDS	
SIZE	STRAP SIZE
4"ø	#3
6"ø	#4
8"ø	#5
10"ø	#6
12"ø	#7
14"ø	#9

TYPICAL BLOCKING DETAIL
N.T.S.

TYPICAL SANITARY SEWER LATERAL CONNECTION DETAIL
N.T.S.

INLET PIPE "A" DIA.	DROP CONNECTION "B" DIA.
8" TO 16"	8"
18" TO 24"	12"
27" TO 30"	18"
33" TO 36"	24"
42" TO 48"	30"

NOTE: DROP PIPE TO BE USED IN ALL CASES WHERE DIFFERENCE BETWEEN INLET INVERT AND LOWEST OUTLET INVERT IS 2 FEET OR GREATER.

MANHOLE EXTERNAL DROP CONNECTION DETAIL
N.T.S.

1. ALL COUPLINGS, PLUGS & CAPS TO BE STD. FOR TYPE OF PIPE USED & INSTALLATION TO BE WATERTIGHT.
2. CLEANOUTS OR INSPECTION WYES ARE TO BE LOCATED 2' FROM THE CURB IN LOCATIONS WHERE CURBS EXIST. OTHERWISE CLEANOUTS SHALL BE LOCATED 1' INSIDE THE PROPERTY LINE.

4" HOUSE CONNECTION DETAIL
N.T.S.

NOTE:
1. PIPE SECTIONS 1 AND 3 VARIABLE
2. TO BE DETERMINED IN FIELD BY ENGINEER PIPE SECTION 2 TO BE (UTILITY PIPE OUTSIDE DIAMETER (IN. FT.) PLUS 2'-0" MINIMUM LENGTH
3. CONCRETE CRADLE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 P.S.I.
4. VERTICAL BEND RESTRAINTS AS PER DETAIL SHALL BE UTILIZED AS DEEMED NECESSARY BY THE ENGINEER

UTILITY CROSSING
N.T.S.

NOTE:
THE CONNECTION MUST BE MADE WITH A CORING MACHINE AND A WATER-TIGHT RUBBER GASKET SUITABLE FOR USE WITH SANITARY SEWAGE, USING A POWER EXPANSION SLEEVE AND TAKE UP CLAMPS. THE POWER SLEEVE AND TAKE UP CLAMPS SHALL BE MADE OF STAINLESS STEEL AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION OR EQUAL. THE CONTRACTOR MAY BR REQUIRED TO GROUT THE OPENING BETWEEN THE GASKET AND THE MANHOLE USING NON-SHRINK GROUT. THE USE OF PNEUMATIC HAMMERS, CHIPPING GUNS, SLEDGE HAMMERS OR OTHER MEANS OF PROVIDING A CONNECTION ARE NOT ACCEPTABLE. ALL GASKET SYSTEM COMPONENTS MUST MEET OR EXCEED ALL MATERIAL SPECIFICATIONS OF ASTM C-923.

CONNECTION TO EXISTING MANHOLE
N.T.S.

NOTES:

TOP SECTION OF A TYLER 6865 SERIES VALVE BOX OR APPROVED EQUAL.

CC-4 BOXES SHALL BE REQUIRED ON SANITARY SEWER CLEANOUT RISERS ON ALL COMMERCIAL SERVICE LATERALS.

CC-4 BOXES SHALL BE REQUIRED ON SANITARY SEWER CLEANOUT RISERS ON RESIDENTIAL SERVICE LATERALS IN AREAS WHERE CURBS DO NOT EXIST OR WHERE CLEANOUT RISER MAY BE SUBJECTED TO VEHICLE TRAFFIC.

NOTE:
CLEANOUT COVER TO BE FLUSH WITH SURROUNDING GRADE.

CLEANOUT BOX
N.T.S.

NOTES:
1. 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.
2. 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.
3. PROVIDE 7/8" DIA. X7" X 12" ALUMINUM LADDER RUNGS, 12" O.C.
4. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 2618 OR APPROVED EQUAL.
5. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OR 8'-0" MEASURED FROM THE TOP OF GRATE TO INVERT, SHALL BE 12" THICK IF CONCRETE, OR DOUBLE BLOCK IF BLOCK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
6. 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.
7. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.

CAMPBELL HEAVY-DUTY CURB INLET WITH GRATE NO. 2618 (BICYCLE SAFE) AND TYPE "J-ECO" CURB PIECE OR APPROVED EQUIVALENT. FOUNDRY PATTERN 2618 FOR B-INLETS.

TYPE 'B' INLET
N.T.S.

FIRE HYDRANT DETAIL
N.T.S.

STABLE TRENCH

UNSTABLE TRENCH

PVC BEDDING / BACKFILL DETAILS
N.T.S.

WATER SYSTEM FACILITIES APPROVED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF PUBLIC WORKS

TOWNSHIP ENGINEER DATE

SANITARY SEWER FACILITIES APPROVED BY THE MANCHESTER TOWNSHIP DEPARTMENT OF PUBLIC WORKS

TOWNSHIP ENGINEER DATE

REV.	DATE	DESCRIPTION

TRE
- Civil Engineers
- Forensic Experts
- Environmental Consultants

TWO RIVER ENGINEERING
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

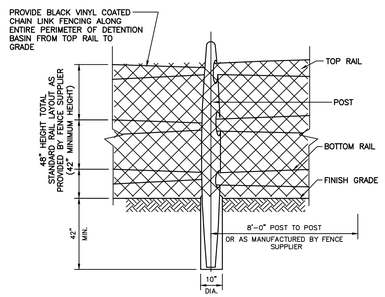
PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
CONSTRUCTION DETAILS

OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

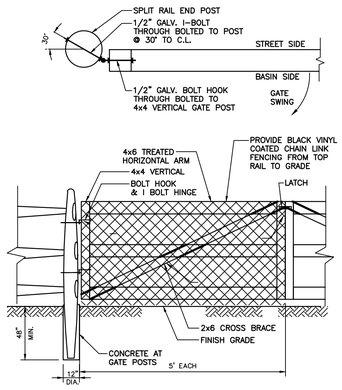
A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO. 13 OF 14

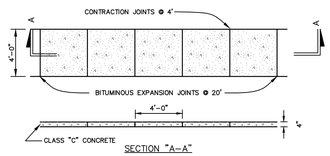
X:\Arya Properties\Active Projects\Files That Are In GF\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV-0_5-15-2026.dwg May 19, 2026 - 11:35am



BASIN #1 SPLIT RAIL FENCE DETAIL
N.T.S.



DETENTION BASIN 10' ACCESS GATE
N.T.S.

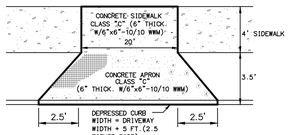


SECTION "A–A"

SIDEWALK NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE, 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.
2. THERE SHALL BE A FLOAT FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.

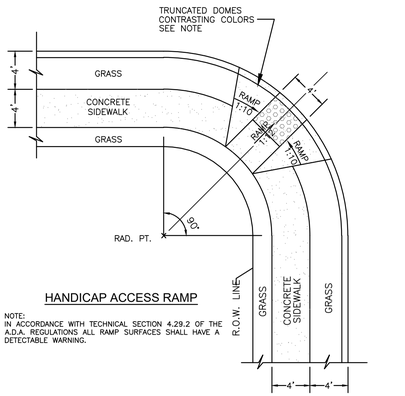
SIDEWALK DETAIL



CONCRETE NOTES:

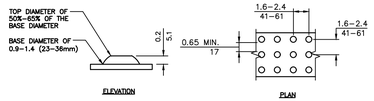
1. CONCRETE SHALL BE CLASS "C" AIR ENTRAINED WITH BITUMINOUS CELLULAR JOINT FILLERS 1/2" THICK AND PLACED NO GREATER THAN 20 FT. DUMMY FORMED JOINTS SHALL BE CUT INTO THE CONCRETE BETWEEN EXPANSION JOINTS NO MORE THAN THE SIDEWALK WIDTH.

DRIVEWAY APRON DETAIL



HANDICAP ACCESS RAMP

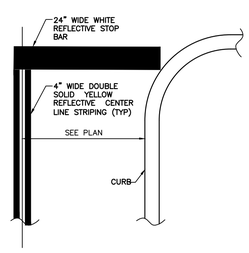
NOTE:
IN ACCORDANCE WITH TECHNICAL SECTION 4.29.2 OF THE A.D.A. REGULATIONS ALL RAMP SURFACES SHALL HAVE A DETECTABLE WARNING.



GENERAL NOTES:

1. DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY DETECTABLE WARNINGS.
2. 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).
3. TRUNCATED DOMES IN DETECTABLE WARNING SURFACE SHALL HAVE A 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 0.65 INCH (17 mm) MINIMUM, MEASURED BETWEEN THEY MOST ADJACENT DOMES ON A SQUARE GRID.
4. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

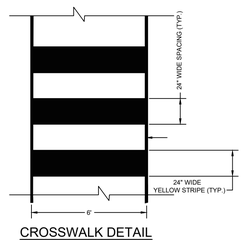
DETECTABLE WARNING DETAIL
N.T.S.



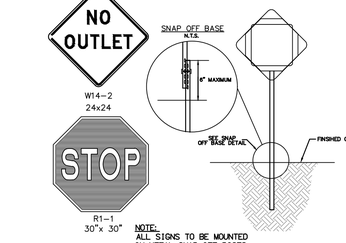
STOP BAR AND CENTERLINE

NOTES:
1. REFER TO MUTCD FOR ADDITIONAL INFORMATION.
2. DOUBLE YELLOW CENTERLINE STRIPING TYPICAL ON MAIN ROAD ONLY

STRIPING DETAIL
N.T.S.

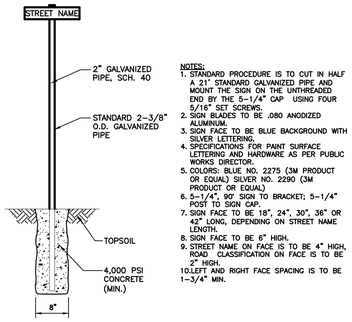


CROSSWALK DETAIL
N.T.S.



NOTE:
ALL SIGNS TO BE MOUNTED ON METAL SNAP OFF POSTS.

SIGN DETAILS



NOTES:
1. STANDARD PROCEDURE IS TO CUT IN HALF A 21' STANDARD GALVANIZED PIPE AND MOUNT THE SIGN ON THE UNTHREADED END BY THE 5–1/4" CAP USING FOUR 5/16" SET SCREWS.
2. SIGN BLADES TO BE .080 ANODIZED ALUMINUM.
3. SIGN FACE TO BE BLUE BACKGROUND WITH SILVER LETTERING.
4. SPECIFICATIONS FOR PAINT SURFACE LETTERING AND HARDWARE AS PER PUBLIC WORKS DIRECTOR.
5. COLORS: BLUE NO. 2275 (3M PRODUCT OR EQUAL) SILVER NO. 2290 (3M PRODUCT OR EQUAL)
6. 5–1/4", 90° SIGN TO BRACKET; 5–1/4" POST TO SIGN CAP.
7. SIGN FACE TO BE 18", 24", 30", 36" OR 42" LONG, DEPENDING ON STREET NAME LENGTH.
8. SIGN FACE TO BE 6" HIGH.
9. STREET NAME ON FACE IS TO BE 4" HIGH, ROAD CLASSIFICATION ON FACE IS TO BE 2" HIGH.
10. LEFT AND RIGHT FACE SPACING IS TO BE 1–3/4" MIN.

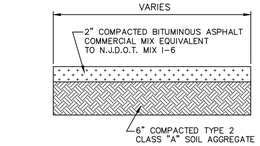
STREET POST SIGN MOUTNING
N.T.S.

NOTES:

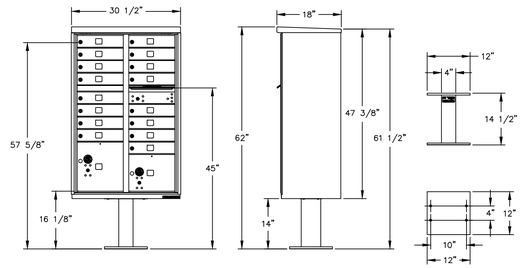
1. EXPANSION JOINTS SHALL BE CONSTRUCTED 20' ON CENTER, AND CONTRACTION JOINTS SHALL BE CONSTRUCTED 10' ON CENTER.

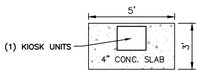
   TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS IMPREGNATED FIBER FILLER, COMPLYING WITH ALL OF THE REQUIREMENTS OF AASHO SPEC. M 213, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB. ALL JOINTS TO BE FULL DEPTH OF 18".

CONCRETE CURB DETAIL
N.T.S.



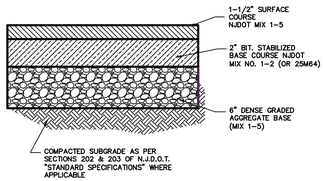
ASPHALT DRIVEWAY DETAIL
NOT TO SCALE



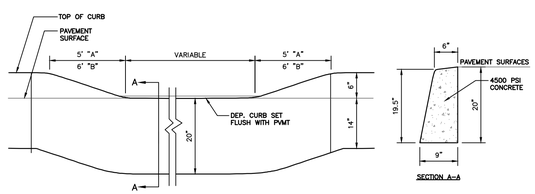


NOTES:
1. This unit is approved for USPS and private applications.
2. Decorative mailbox accessories sold separately and are USPS Approved products.
3. Pedestal should be installed with included Rudder Pad; mounting hardware not included, refer to installation manual for recommendations.
4. Florence series CBU is Officially Licensed by USPS: License#CDSEQ-08-8-0012

TYPICAL MAIL BOX KIOSK
N.T.S.



ASPHALT PAVEMENT SECTION
N.T.S.



TYPICAL ACCESSIBLE DEPRESSED CONC. CURB DETAIL
N.T.S.

REV.	DATE	DESCRIPTION

TRE
TWO RIVER ENGINEERING
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
Fax: 732.866.4348

■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
CONSTRUCTION DETAILS
OF
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TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
DATE
N.J. Professional Engineer
License No. 24GE03799700

SHEET NO.14 OF 14

X:\Arya Properties\Active Projects\Tax Trial Are in CP\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV—0_5–15–2026.dwg May 19, 2026 - 11:35am

BLOCK 28
LOT 603

N 36°53'31" E 1000.00'

N 53°06'29" W 140.00'

BLOCK 28
LOT 1069

ADJ. DWELLING

N 36°53'31" E 50.00'

(40' R.O.W.)

OPEN SPACE
LOT 15
152,162.07 SF
3.493 ACRES

BLOCK 23

TOTAL AREA
659,999.97 SF
15.152 ACRES

N 53°06'29" E 100.00'

N 36°53'31" E 15.00'

347.36'

N.J.S.P.C.S.

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

CAPPED REBAR FOUND

INLET GR=68.76 DEBRIS FILLED

N 53°06'29" W 100.00'

BLOCK 24
LOT 1124

CAPPED REBAR FOUND

S 36°53'31" W 25.00'

SHORIN WAY
(50' R.O.W.)

INLET GR=69.05 (DEBRIS)

BLOCK 24
LOT 1125

N 53°06'29" W 140.00'

CAPPED REBAR FOUND

N 36°53'31" E 175.00'

LOT 14
26,792.00 SF
0.615 ACRES

LOT 13
25,114.61 SF
0.577 ACRES

LOT 12
25,314.21 SF
0.581 ACRES

LOT 11
25,290.14 SF
0.581 ACRES

LOT 10
25,076.77 SF
0.576 ACRES

LOT 9
35,983.35 SF
0.826 ACRES

PROPOSED DWELLING W/ BASEMENT

20'

1515.0'R

1485.0'R

50.0'

30.0'

ERNEST WAY
(50' R.O.W.)

30.0'R

R150.0'

1+00

2+00

3+00

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

S 53°06'29" E 500.00'

LOT 8
41,697.03 SF
0.957 ACRES

EXISTING WOODED AREA

WILBUR AVENUE
(50' R.O.W.)

N 53°06'29" W 220.00'

LOT 1
31,365.87 SF
0.720 ACRES

LOT 2
31,601.49 SF
0.725 ACRES

LOT 3
32,979.09 SF
0.757 ACRES

LOT 4
34,980.08 SF
0.803 ACRES

BLOCK 23

LOT 5
35,474.54 SF
0.814 ACRES

LOT 6
35,388.76 SF
0.812 ACRES

LOT 7
47,621.43 SF
1.093 ACRES

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

S 36°53'31" W 1215.00'

ADJ.

X:\Arya Properties\Active Projects\Files That Are In QF\ARYA2025-014 Manchester Land Swap\ARYA2025-014 MAJOR SUB Manchester_REV-0_2-15-2026.dwg May 19, 2026 - 11:36am

SOIL RESTORATION NOTES REQUIRED ON PLANS
SOIL DE-COMPACTION AND TESTING REQUIREMENTS

SOIL COMPACTION TESTING REQUIREMENTS

1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN. SEE EXAMPLE SITE PLAN AT: HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE SOIL COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT OR HTTP://WWW.NJ.GOV/AGRICULTURE/DIVISIONS/ANR/NRC/NJEROSION.HTML. THIS FORM MUST BE FILLED OUT, AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIM-ITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPADION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

A. PROBING WIRE TEST (SEE DETAIL)
B. HAND-HELD PENETROMETER TEST (SEE DETAIL)
C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.

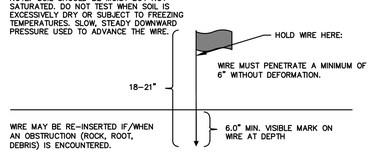
EFFECTIVE DATE 12/7/2017

TOPSOILING NOTES

1. TOPSOIL SHOULD ONLY BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
2. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5" (MINIMUM 4") FIRMED IN PLACE IS REQUIRED.
3. PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED.

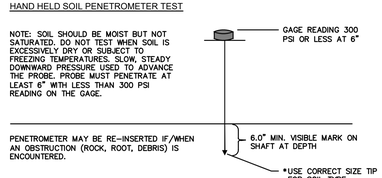
PROBING WIRE TEST- 15.5 GA STEEL WIRE (SURVEY FLAG)

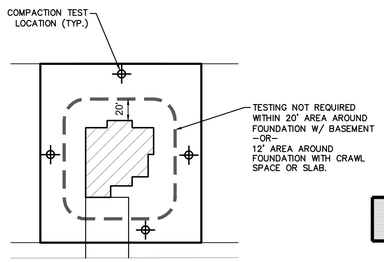
NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.



HAND HELD SOIL PENETROMETER TEST

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. PROBE MUST PENETRATE AT LEAST 6" WITH LESS THAN 300 PSI READING ON THE GAGE.





A. SINGLE FAMILY UNIT

NOTE:
SOIL COMPACTION TESTING LOCATIONS IDENTIFIED ARE RECOMMENDED LOCATIONS FOR GRADED/DISTURBED AREAS WITHIN THE VICINITY OF BUILDINGS AND STRUCTURES OR ON INDIVIDUAL LOTS. FOR GRADED/DISTURBED AREAS WITHIN OPEN OR COMMON SPACES, SOIL COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE FREQUENCY LISTED IN THE LEGEND (THIS SHEET).

TYPICAL SOIL COMPACTION TESTING LOCATIONS

N.T.S.

GENERAL NOTES
TRACT AREA:.....9.173 ACRES
AREA OF DISTURBANCE:.....8.07 ACRES
SOIL MANAGEMENT RESTORATION AREA:.....3.87 ACRES

SITE SOILS:
70% DoeBO– DOWNER SANDY LOAM, 2 TO 5 PERCENT SLOPES, NORTHERN TIDEWATER AREA
20% DoeAO– DOWNER SANDY LOAM, 0 TO 2 PERCENT SLOPES, NORTHERN TIDEWATER AREA
10% DocBO– DOWNER LOAMY SAND, 0 TO 5 PERCENT SLOPES, NORTHERN TIDEWATER AREA

LEGEND

SOIL COMPACTION TESTING AREAS =3.87 AC.

RECOMMENDED SOIL COMPACTION TEST LOCATION (APPROX. 2/1 ACRES MIN.)=8

50 0 50 100
SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

TRE
■ Civil Engineers
■ Forensic Experts
■ Environmental Consultants
TWO RIVER ENGINEERING
www.tworiverengineering.com
P.O. Box 155 Tel: 732.866.0111
Colts Neck, N.J. 07722 Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1" = 50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

SOIL MANAGEMENT AND PREPARATION PLAN

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1297, AND PART OF 1307 BLOCK 28 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

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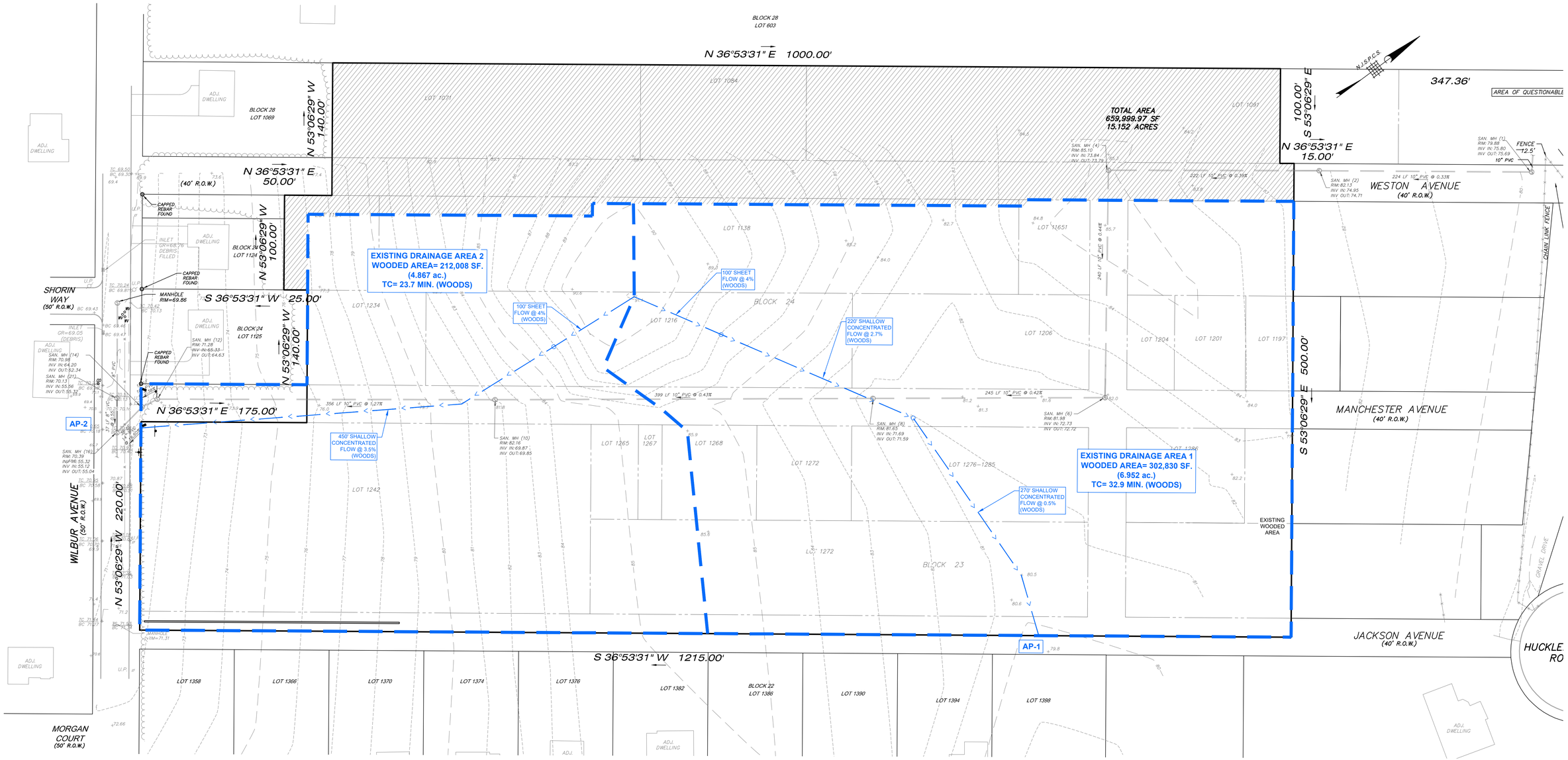
SHEET NO. 1 OF 1



50 0 50 100
SCALE IN FEET
(1"=50')

REV.	DATE	DESCRIPTION

TRE
TWO RIVER ENGINEERING
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
Fax: 732.866.4348

- Civil Engineers
- Forensic Experts
- Environmental Consultants

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PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

PRE-DEVELOPED DRAINAGE AREA MAP

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

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SHEET NO. 1 OF 2

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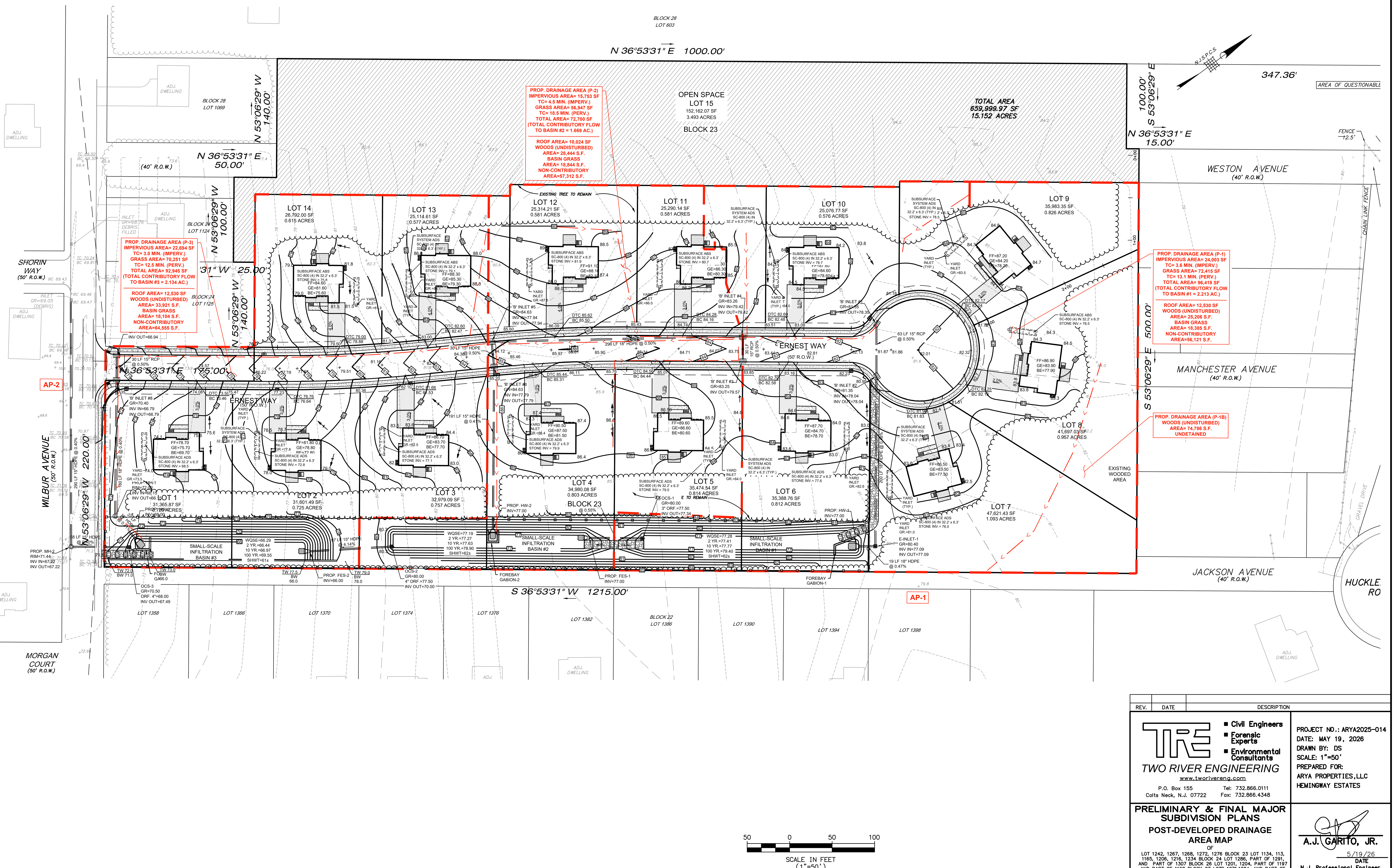

REV.	DATE	DESCRIPTION

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PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1"=50'
PREPARED FOR:
ARYA PROPERTIES,LLC
HEMINGWAY ESTATES

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS

POST-DEVELOPED DRAINAGE AREA MAP

OF

LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28

TOWNSHIP OF MANCHESTER

OCEAN COUNTY NEW JERSEY

A.J. GARITO, JR.
5/19/26
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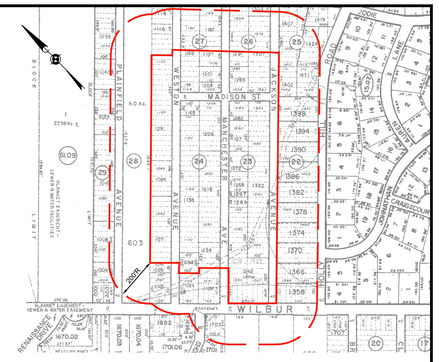
SHEET NO. 2 OF 2

LEGEND

⊡	MONUMENT TO BE SET
■	*MONUMENT FOUND*
◎	*PIN FOUND*
●	CAPPED PIN
###	HOUSE ADDRESS NUMBER

SCALE IN FEET
(1"=50')



TOWNSHIP OF MANCHESTER TAX MAP SHEET NUMBER #1.01

TAX MAP

SCALE: 1" = 300'

GENERAL NOTES:

1. APPLICANT PROPOSES TO SUBDIVIDE THE EXISTING 15.152 ACRE TRACT INTO 14 SINGLE FAMILY RESIDENTIAL LOTS, ONE 3.493 ACRE OPEN SPACE LOT, AND ONE DETENTION BASIN EASEMENT TO BE DEDICATED AND MAINTAINED BY HOMEOWNERS ASSOCIATION.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON A MAP ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY, LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26, LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084 AND PART OF 1091 BLOCK 28 , MANCHESTER TOWNSHIP, OCEAN COUNTY, NEW JERSEY" PREPARED BY MORGAN ENGINEERING LLC, DATED 12/15/2025, LAST REVISED 5/14/26.
3. THE PROPERTY IS LOCATED WITHIN THE R-40 RESIDENTIAL ZONE.
4. PROPOSED TAX LOT NUMBERS AND ADDRESSES TO BE APPROVED BY THE TOWNSHIP TAX ASSESSOR.
5. 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.
6. WATER WILL BE PROVIDED BY MANCHESTER TOWNSHIP MUNICIPAL UTILITY AUTHORITY.
7. SEWAGE SERVICE WILL BE PROVIDED BY EXTENSION OF MANCHESTER TOWNSHIP MUNICIPAL UTILITIES AUTHORITY SYSTEM.
8. ERROR OF CLOSURE DOES NOT EXCEED 1:10,000.
10. THE STORMWATER MANAGEMENT BASIN WILL BE OWNED AND MAINTAINED BY A PRIVATE HOMEOWNERS ASSOCIATION.

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	39.27'	25.00'	90° 00' 00"	N8° 06' 29"W	35.36'
C2	156.94'	1525.00'	5° 53' 50"	N33° 56' 38"E	156.87'
C3	151.79'	1475.00'	5° 53' 50"	N33° 56' 38"E	151.72'
C4	25.41'	25.00'	58° 14' 40"	N66° 00' 49"E	24.33'
C5	362.23'	70.00'	296° 29' 10"	N53° 06' 29"W	73.68'
C6	25.41'	25.00'	58° 14' 40"	S7° 46' 13"W	24.33'
C7	156.94'	1525.00'	5° 53' 50"	S33° 56' 38"W	156.87'
C8	151.79'	1475.00'	5° 53' 50"	S33° 56' 38"W	151.72'
C9	97.61'	1525.00'	3° 40' 00"	S35° 03' 30"W	97.59'
C10	59.33'	1525.00'	2° 13' 40"	S32° 06' 37"W	59.32'
C11	138.24'	1475.00'	5° 22' 10"	S33° 40' 51"W	138.19'
C12	13.55'	1475.00'	0° 31' 30"	S36° 37' 44"W	13.55'
C13	1.80'	70.00'	1° 28' 20"	N85° 36' 02"W	1.80'
C14	105.00'	70.00'	85° 56' 40"	S50° 41' 28"W	95.43'
C15	105.00'	70.02'	85° 55' 20"	S35° 15' 18"E	95.43'
C16	105.00'	70.00'	85° 56' 30"	N58° 47' 54"E	95.43'
C17	45.42'	70.00'	37° 10' 40"	N2° 45' 44"W	44.63'
C18	138.74'	1525.00'	5° 12' 50"	N34° 17' 08"E	138.69'
C19	18.19'	1525.00'	0° 41' 00"	N31° 20' 15"E	18.19'
C20	29.11'	1475.00'	1° 07' 50"	N31° 33' 40"E	29.10'
C21	122.68'	1475.00'	4° 46' 00"	N34° 30' 33"E	122.65'
C24	2.99'	1475.00'	0° 07' 00"	S31° 03' 14"W	2.99'
C25	22.35'	70.00'	18° 17' 40"	S84° 30' 57"W	22.26'
C26	10.03'	70.02'	8° 12' 40"	S74° 06' 37"E	10.03'
C27	10.03'	70.00'	8° 12' 50"	S82° 20' 13"E	10.03'

PROPERTY OWNERS WITHIN 200 FEET
DATED2026

(TO BE PROVIDED)

CLUSTER DEVELOPMENT R-40 ZONE
ZONE REQUIREMENTS

	REQUIRED	NEW LOT 1	NEW LOT 2	NEW LOT 3	NEW LOT 4	NEW LOT 5	NEW LOT 6	NEW LOT 7	NEW LOT 8	NEW LOT 9	NEW LOT 10	NEW LOT 11	NEW LOT 12	NEW LOT 13	NEW LOT 14
MIN. LOT AREA	25,000 SF.	31,365.88 SF	31,601.49 SF	32,979.09 SF	34,980.08 SF	35,474.54 SF	35,388.76 SF	47,621.43 SF	41,697.03 SF	35,983.35 SF	25,076.77 SF	25,290.14 SF	25,314.21 SF	25,114.61 SF	26,792.00 SF
MIN. LOT FRONTAGE	150 FT.	150.0 FT.	150.07 FT.	150.7 FT.	150.33 FT.	150.0 FT.	155.0 FT.	105.0 FT.*	105.0 FT.*	105.0 FT.*	172.01 FT.	151.6 FT.	150.19 FT.	150.76 FT.	150.14 FT.
MIN. LOT WIDTH	150 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	150.0 FT.	151.97 FT.	166.34 FT.	181.53 FT.	156.79 FT.	151.6 FT.	150.0 FT.	150.0 FT.	150.0 FT.
MIN. FRONT SETBACK	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.
MIN. REAR SETBACK	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.	50 FT.
MIN. SIDE SETBACK	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.	25 FT.
MAX. BUILDING COVERAGE	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
MAX. BUILDING HT	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.	35 FT.
MAX. BUILDING STORIES	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.	2.5 STY.
MAX. LOT COVERAGE	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%

* - LOT FRONTAGE
THE DISTANCE MEASURED ON A HORIZONTAL PLANE BETWEEN THE SIDE LOT LINES MEASURED ALONG THE STREET LINE. THE MINIMUM LOT FRONTAGE SHALL NOT BE LESS THAN THE REQUIRED LOT FRONTAGE EXCEPT THAT ON CURVED ALIGNMENTS WITH AN OUTSIDE RADIUS OF LESS THAN 500 FEET, THE MINIMUM DISTANCE BETWEEN THE SIDE LOT LINES MEASURED AT THE STREET LINE SHALL NOT BE LESS THAN 70% OF THE REQUIRED MINIMUM LOT FRONTAGE. WHERE THE LOT FRONTAGE IS SO PERMITTED TO BE REDUCED, THE LOT WIDTH AT THE BUILDING SETBACK LINE SHALL NOT BE LESS THAN THE REQUIRED MINIMUM FRONTAGE OF THE ZONE DISTRICT. FOR THE PURPOSE OF THIS CHAPTER, ONLY CONTINUOUS UNINTERRUPTED LOT LINES SHALL BE ACCEPTED AS MEETING THE FRONTAGE REQUIREMENTS.
[AMENDED 11-28-2005 BY ORD. NO. 05-053]

DRAINAGE EASEMENT:

THE GRANTEE OF EACH LOT AND THEIR EXECUTORS, ADMINISTRATORS, SUCCESSORS, ASSIGNS, AND ALL SUBSEQUENT OWNERS AND ENCUMBRANCERS, TENANTS, AND SUB-TENANTS SHALL BE REQUIRED TO MAINTAIN IN PERPETUITY SUCH DRAINAGE EASEMENT (DEED RESTRICTION AREAS) ASDEPICTED ON THIS FINAL SUBDIVISION PLAT SHALL BE PROHIBITED FROM REMOVING ANY VEGETATION, TREES AND GROUND COVER THEREON AND/OR ALTERING THE CONTOUR, TOPOGRAPHY OR COMPOSITION OF THE LAND WITHIN THE DRAINAGE EASEMENT AND SHALL BE FURTHER PROHIBITED FROM CLEARING THIS SPACE AND/OR FROM MAKING ANY IMPROVEMENTS ON THIS SPACE, INCLUDING BUT NOT LIMITED TO CONSTRUCTION OF BUILDINGS, SHEDS, SWIMMING POOLS, TENNIS COURTS, AND/OR OTHER USES. THE EASEMENT SHALL NOT PROHIBIT THE CONSTRUCTION OR ERECTION OF ANY FENCE (OPEN OR OTHERWISE) ALONG THE PROPERTY LINE WITHIN THE DRAINAGE EASEMENT. THE EASEMENT SHALL ALSO PROHIBIT FILLING OR GRADING OF THE LANDS OR THE DISPOSAL OF REFUSE OR WASTE MATERIAL OF ANY TYPE WITHIN THE LIMITS OF THE EASEMENT. THIS COVENANT IS INTENDED TO RUN WITH THE LAND BINDING SUBSEQUENT GRANTEES IN EACH INDIVIDUAL LOT OF THE SUBDIVISION, AND THIS COVENANT SHALL BE INSERTED IN ALL SUBSEQUENT DEEDS AS IT IS INTENDED TO BENEFIT ALL LOTS OF THE SUBDIVISION MAKING EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS SUBSEQUENT TO ITS PROVISIONS, AND GRANTING TO EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS BENEFITS THEREOF. MAINTENANCE OF SAID DRAINAGE EASEMENT SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE LOT OWNER ENCUMBERED BY THE EASEMENT AND OF EACH SUBSEQUENT GRANTEE OF EACH INDIVIDUAL LOT OF THE SUBDIVISION. IN THE EVENT OF A FAILURE TO MAINTAIN SUCH DRAINAGE EASEMENT, THE REASONABLE COST OF SUCH MAINTENANCE BY THE TOWNSHIP SHALL BE ASSESSED TO THE OWNER OF EACH LOT INVOLVED; SHALL BE CONSIDERED A TAX LIEN THEREON; AND SHALL BE ENFORCED AND COLLECTED BY THE TOWNSHIP IN THE SAME MANNER AS OTHER REAL ESTATE TAXES AND ASSESSMENTS. IT IS THE INTENTION OF THE GRANTOR THAT IF ANY PROVISION OF THIS COVENANT SHALL BE JUDGED INVALID BY A COURT OF COMPETENT JURISDICTION, SUCH ORDER OR INDUCEMENT SHALL NOT EFFECT OR INVALIDATE THE REMAINDER OF THE COVENANT, IT BEING INTENDED THAT THE CLAUSES OF THIS COVENANT ARE DECLARED TO BE SEVERABLE.

SHADE TREE & UTILITY EASEMENT

THE GRANTEE HEREIN AND ITS HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS, ASSIGNS, AND ALL SUBSEQUENT OWNERS AND ENCUMBRANCERS, TENANTS, AND SUB-TENANTS SHALL BE REQUIRED TO MAINTAIN IN PERPETUITY SUCH SHADE TREE & UTILITY EASEMENT (DEED RESTRICTION AREAS) AS DEPICTED ON THIS FINAL SUBDIVISION PLAT IN ITS NATURAL STATE IN THE FORM OF OPEN-GREEN SPACE LAND AND SHALL BE PROHIBITED FROM REMOVING ANY VEGETATION, TREES AND GROUND COVER THEREON AND/OR ALTERING THE CONTOUR, TOPOGRAPHY OR COMPOSITION OF THE LAND WITHIN THE SHADE TREE & UTILITY EASEMENT AND SHALL BE FURTHER PROHIBITED FROM CLEARING THIS SPACE AND/OR FROM MAKING ANY IMPROVEMENTS ON THIS SPACE, INCLUDING BUT NOT LIMITED TO CONSTRUCTION OF BUILDINGS, SHEDS, SWIMMING POOLS, TENNIS COURTS, AND/OR OTHER USES. THE EASEMENT SHALL NOT PROHIBIT THE CONSTRUCTION OR ERECTION OF ANY FOUR (4) FOOT OPEN FENCE WITHIN THE SHADE TREE & UTILITY EASEMENT. THE EASEMENT SHALL ALSO PROHIBIT FILLING OR GRADING OF THE LANDS OR THE DISPOSAL OF REFUSE OR WASTE MATERIAL OF ANY TYPE WITHIN THE LIMITS OF THE EASEMENT. THIS COVENANT IS INTENDED TO RUN WITH THE LAND BINDING SUBSEQUENT GRANTEES IN EACH INDIVIDUAL LOT OF THE SUBDIVISION, AND THIS COVENANT SHALL BE INSERTED IN ALL SUBSEQUENT DEEDS AS IT IS INTENDED TO BENEFIT ALL LOTS OF THE SUBDIVISION MAKING EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS SUBSEQUENT TO ITS PROVISIONS, AND GRANTING TO EACH SUBSEQUENT OWNER OF THE INDIVIDUAL LOTS BENEFITS THEREOF. MAINTENANCE OF SAID SHADE TREE & UTILITY EASEMENT SHALL BE THE RESPONSIBILITY OF THE GRANTEE HEREIN AND OF EACH SUBSEQUENT GRANTEE OF EACH INDIVIDUAL LOT OF THE SUBDIVISION. IN THE EVENT OF A FAILURE TO MAINTAIN SUCH SHADE TREE & UTILITY EASEMENT, THE REASONABLE COST OF SUCH MAINTENANCE BY THE TOWNSHIP SHALL BE ASSESSED TO THE OWNER OF EACH LOT INVOLVED; SHALL BE CONSIDERED A TAX LIEN THEREON; AND SHALL BE ENFORCED AND COLLECTED BY THE TOWNSHIP IN THE SAME MANNER AS OTHER REAL ESTATE TAXES AND ASSESSMENTS. IT IS THE INTENTION OF THE GRANTOR THAT IF ANY PROVISION OF THIS COVENANT SHALL BE JUDGED INVALID BY A COURT OF COMPETENT JURISDICTION, SUCH ORDER OR INDUCEMENT SHALL NOT EFFECT OR INVALIDATE THE REMAINDER OF THE COVENANT, IT BEING INTENDED THAT THE CLAUSES OF THIS COVENANT ARE DECLARED TO BE SEVERABLE.

OWNER/APPLICANT:
ARYA PROPERTIES AT WILBUR LLC
130 CENTRAL AVENUE
ISLAND HEIGHTS, NJ 08732

OWNER SIGNATURE

I/WE HEREBY CERTIFY THAT I/WE ARE THE RECORD HOLDERS OF TITLE TO THE LANDS DELINEATED ON THIS MAP AND APPROVE THE FILING THEREOF.

____

SWORN AND SUBSCRIBED TO BEFORE ME THIS ________ DAY OF _______.

____
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES _______________.

THE MONUMENTS SHOWN ON THIS MAP SHALL BE SET WITHIN THE TIME LIMIT PROVIDED IN THE "MUNICIPAL LAND USE LAW," P.L.1975, C.291 (C.40:55D-1 ET SEQ.) OR LOCAL ORDINANCE.

I CERTIFY THAT A BOND HAS BEEN GIVEN TO THE MUNICIPALITY, GUARANTEEING THE FUTURE SETTING OF THE MONUMENTS AS DESIGNATED AND SHOWN ON THIS MAP. I FURTHER CERTIFY THAT THE MUNICIPAL BODY HAS APPROVED THE STREET SHOWN HEREON.

MUNICIPAL CLERK DATE

APPROVED AS A FINAL PLAT OF A MAJOR SUBDIVISION BY THE MANCHESTER TOWNSHIP PLANNING BOARD ON ____________________

ATTEST: CHAIRMAN

SECRETARY DATE

THIS PLAT MUST BE FILED IN THE OFFICE OF THE CLERK OF OCEAN COUNTY ON OR BEFORE _____________, WHICH DATE IS NINETY-FIVE (95) DAYS AFTER THE DATE UPON WHICH THIS PLAT WAS SIGNED.

SECRETARY

THE MONUMENTS SHOWN ON THIS MAP SHALL BE SET WITHIN THE TIME LIMIT PROVIDED IN THE "MUNICIPAL LAND USE LAW," P.L.1975, C.291 (C.40:55D-1 ET SEQ.) OR LOCAL ORDINANCE.
I CERTIFY THAT A BOND HAS BEEN GIVEN TO THE MUNICIPALITY, GUARANTEEING THE FUTURE SETTING OF THE MONUMENTS AS DESIGNATED AND SHOWN ON THIS MAP.

MUNICIPAL CLERK DATE

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP AND LAND SURVEY DATED 10/01/25 LAST REV X/X/XX MEET THE MINIMUM SURVEY DETAIL REQUIREMENTS OF THE STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND THE MAP HAS BEEN MADE UNDER MY SUPERVISION, AND COMPLIES WITH THE "MAP FILING LAW" AND THAT THE CORNER MARKERS AS SHOWN HAVE BEEN FOUND, OR SET.

5/19//26

DAVID J. VON STEENBURG
PROFESSIONAL LAND SURVEYOR
NEW JERSEY LICENSE No. 34500
DATE

APPROVED BY:
MANCHESTER TOWNSHIP PLANNING BOARD

CHAIRPERSON DATE

SECRETARY DATE

ENGINEER DATE

MUNICIPAL CLERK DATE

REV.	DATE	DESCRIPTION

TRE
- Civil Engineers
- Forensic Experts
- Environmental Consultants

TWO RIVER ENGINEERING
www.tworivereng.com
P.O. Box 155
Colts Neck, N.J. 07722
Tel: 732.866.0111
Fax: 732.866.4348

PROJECT NO.: ARYA2025-014
DATE: MAY 19, 2026
DRAWN BY: DS
SCALE: 1" = 50'
PREPARED FOR:
ARYA PROPERTIES,LLC

PRELIMINARY & FINAL MAJOR SUBDIVISION PLANS
HEMINGWAY ESTATES
FINAL PLAT
OF
LOT 1242, 1267, 1268, 1272, 1276 BLOCK 23 LOT 1134, 113, 1165, 1206, 1216, 1234 BLOCK 24 LOT 1286, PART OF 1291, AND PART OF 1307 BLOCK 26 LOT 1201, 1204, PART OF 1197 AND PART OF 1168 BLOCK 27 LOTS 1071,1084, AND PART OF 1091 BLOCK 28
TOWNSHIP OF MANCHESTER
OCEAN COUNTY NEW JERSEY

DAVID J. VON STEENBURG
5/19/26
DATE
N.J. Professional Land Surveyor
License No. 34500

SHEET NO. 1 OF 1