PRELIMINARY SITE PLAN

BLOCK 158, LOT 6
U.S. HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

LIST OF PROPERTY OWNERS WITHIN 200'

LIST AS PREPARED BY ANDOVER TOWNSHIP TAX ASSESSOR, DATED DECEMBER 14, 2021

BLOCK 134, LOT 25.01
MESHEFSKY, STEPHEN J
210 MAIN ST
ANDOVER, NJ 07821

BLOCK 134, LOT 25.02
KREYE, SIEGFRIED & MARY ELLEN
436 LOCUST AVE
UNIONDALE, NY 11553

BLOCK 134, LOT 27
PETER, RICHARD K JR ET AL
660 RT 206 SO
NEWTON, NJ 07860

BLOCK 134, LOT 27
COUNTY OF SUSSEX
ONE SPRING STREET
NEWTON, NJ 07860

BLOCK 157, LOT 4.01
POWELL, ADRIENNE S
30 BRIGHTON RD
ANDOVER, NJ 07821

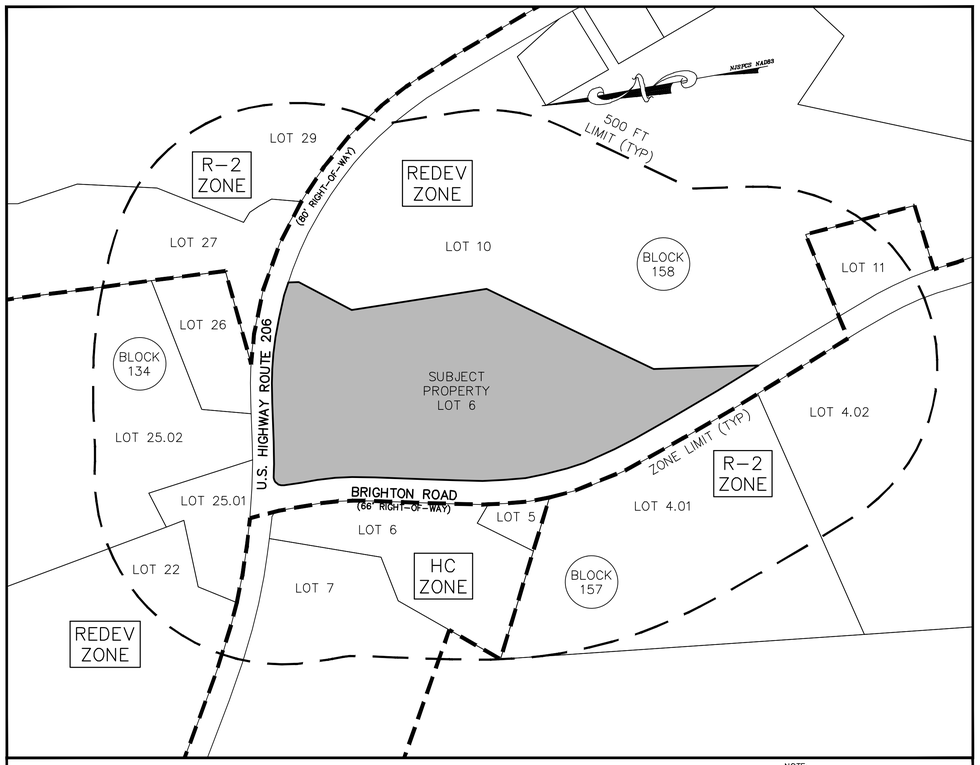
BLOCK 157, LOT 4.02
WE PINEAPPLES, LLC
40 BRIGHTON RD
ANDOVER, NJ 07821

BLOCK 157, LOT 5
SCHRAEDER, ERIC J
20 BRIGHTON RD
ANDOVER, NJ 07821

BLOCK 157, LOT 6
PETER, RICHARD JR & TERRI W
660 RT 206 SO
NEWTON, NJ 07860

BLOCK 158, LOT 8
RINGO PROPERTIES, LLC
60 PEACH TREE AVE
EAST HANOVER, NJ 07936

BLOCK 158, LOT 10
GRENEWICZ, WAYNE & JULIE
267 NEWTON SPARTA RD
NEWTON, NJ 07860



KEY MAP
SCALE: 1" = 200'±

NOTE:
INFORMATION SHOWN HEREON TAKEN FROM ANDOVER TOWNSHIP TAX MAP SHEETS 12, 13 AND 20 AND THE ANDOVER TOWNSHIP ZONING MAP. THE SUBJECT PROPERTY IS SHOWN ON TAX MAP SHEET 13.

GRAPHIC SCALE

200 0 100 200 400 800
(IN FEET)
1 inch = 200 ft.

NOTES AND REFERENCES

1. APPLICANT/OWNER: RINGO PROPERTIES, LLC
   60 PEACH TREE AVENUE
   EAST HANOVER, NJ 07936
   (973) 418-0932
2. THESE PLANS HAVE BEEN PREPARED FOR PRELIMINARY SITE PLAN APPROVAL FOR PROPERTY KNOWN AS BLOCK 158, LOT 6 LOCATED IN THE TOWNSHIP OF ANDOVER, SUSSEX COUNTY, NEW JERSEY.
3. THE SUBJECT PROPERTY IS 10.385 ACRES IN SIZE AND LOCATED ENTIRELY WITHIN THE H-C (HIGHWAY COMMERCIAL) ZONE DISTRICT OF THE TOWNSHIP OF ANDOVER. THE PROPERTY HAS FRONTAGE ALONG BRIGHTON ROAD (C.R. 603) AND UNITED STATES HIGHWAY ROUTE 206.
4. UNDERGROUND UTILITIES SERVING THE SUBJECT PROPERTY ARE SHOWN BASED UPON SURFACE EVIDENCE AND AVAILABLE RECORD DOCUMENTS. THE LACK OF UNDERGROUND UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OR ABSENCE OF SAME. THE APPROPRIATE UTILITY COMPANY SHOULD BE CONTACTED TO CONFIRM THE EXISTENCE OR ABSENCE OF SAME AND A FIELD MARKOUT OF ALL UTILITIES PRIOR TO CONSTRUCTION. FIELD MARKOUT CAN BE REQUESTED BY CALLING 1-800-242-1000.
5. BOUNDARY AND TOPOGRAPHIC INFORMATION BASED ON MAP TITLED "BOUNDARY AND TOPOGRAPHIC SURVEY PLAN, BLOCK 158, LOT 6, U.S. HIGHWAY ROUTE 206 & BRIGHTON ROAD (C.R. 603), TOWNSHIP OF ANDOVER, SUSSEX COUNTY, NEW JERSEY" PREPARED BY DYKSTRA WALKER DESIGN GROUP DATED 1/4/22 AND LAST REVISED 1/20/22.
6. THERE ARE NO FLOODPLAINS OR FLOODWAYS ON THE SUBJECT PROPERTY PER FIRM MAPPING.
7. FRESHWATER WETLANDS SHOWN HEREON DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER OF 2021 TO BE VERIFIED BY THE NJDEP.
8. A STEEP SLOPES DISTURBANCE VARIANCE IS REQUIRED PER TOWNSHIP OF ANDOVER ORDINANCE SECTION 190-32.3.
9. A PARKING LOCATION VARIANCE IS REQUIRED FOR PROVIDING 23.1% OF THE REQUIRED OFF-STREET PARKING TO THE REAR OF THE BUILDINGS WHERE A MINIMUM OF 65% OF OFF-STREET PARKING IS REQUIRED PER TOWNSHIP OF ANDOVER ORDINANCE 2022-13, ATTACHMENT A.
10. A PARKING VARIANCE IS REQUIRED FOR PROVIDING 125 OFF-STREET PARKING SPACES WHERE A MINIMUM OF 149 OFF-STREET PARKING SPACES ARE REQUIRED PER TOWNSHIP OF ANDOVER ORDINANCE, ROUTE 206 REDEVELOPMENT PLAN.
11. THE FOLLOWING USES ARE PROPOSED FOR THE DEVELOPMENT:
    - FLEX-SPACE BUILDINGS
    - RETAIL SALES & SERVICES

PARKING REQUIREMENTS

ITEM	REQUIRED	PROVIDED
FLEX-SPACE BUILDINGS: OFFICE USE 5,000 SF x 1 SPACE/250 SF = 20 SPACES WAREHOUSING USE 45,000 SF x SPACE/350 SF = 129 SPACES		
RETAIL BUILDING: RETAIL USE 10,000 SF x 1 SPACE/350 SF = 29 SPACES		
SHARED PARKING FACTOR: TOTAL REQUIRED PARKING / 1.2 (20 + 129 + 29) / 1.2 = 115.8 SPACES = 149 SPACES		
TOTAL REQUIRED PARKING (AFTER SHARED PARKING REDUCTION):	149 SPACES	125 SPACES (1)(2)
MAKE-READY EV PARKING SPACES PROVIDED: (FOR 101 TO 150 OFF-STREET PARKING SPACES PROVIDED)	4 SPACES	4 SPACES
HANDICAP PARKING SPACES PROVIDED: (FOR 101 TO 150 OFF-STREET PARKING SPACES PROVIDED)	5 SPACES	6 SPACES
MINIMUM TWO WAY DRIVE AISLE	25 FT	25 FT
MINIMUM PARKING SPACE SIZE	10 FT x 20 FT	10 FT x 20 FT
MINIMUM DISTANCE FROM PARKING TO PROPERTY LINE MINIMUM DISTANCE FROM PARKING TO RIGHT-OF-WAY LINE MINIMUM DISTANCE FROM PARKING TO BUILDING	5 FT 10 FT 5 FT	10 FT 10 FT 10 FT
MINIMUM NUMBER OF LOADING SPACES 1 SPACE PER INDUSTRIAL BUILDING MINIMUM LOADING SPACE SIZE	1 SPACE 15 FT x 40 FT	5 SPACES 15 FT x 40 FT

(1) VARIANCE REQUIRED
(2) 121 PROPOSED SPACES + 4 BONUS EV SPACES = 125 TOTAL SPACES

TOWNSHIP OF ANDOVER ZONING REQUIREMENTS

ROUTE 206 REDEVELOPMENT ZONE DISTRICT			
ITEM	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	60,000 SF	452,392 SF	452,392 SF
MINIMUM LOT WIDTH	100 FT	440 FT	440 FT
MINIMUM FRONT YARD SETBACK (RT 206)	20 FT	N/A	65.4 FT
MINIMUM FRONT YARD SETBACK (BRIGHTON)	20 FT	N/A	147.3 FT
MINIMUM REAR YARD SETBACK	20 FT	N/A	165.7 FT
MINIMUM SIDE YARD SETBACK (EACH)	10 FT	N/A	N/A
MAXIMUM STRUCTURE LOT COVERAGE	50% (226,196 SF)	0%	13.3% (60,000 SF)
MAXIMUM IMPERVIOUS COVERAGE	75% (339,294 SF)	0%	53.3% (240,900 SF)
MAXIMUM BUILDING HEIGHT	50 FT (3 STORIES)	N/A	< 50 FT (3 STORIES)

(1) WHERE PARKING IS PROVIDED IN THE FRONT YARD, ONE-HUNDRED-FOOT SETBACK REQUIRED. WITHOUT FRONT YARD PARKING, SEVENTY-FOOT BUILDING SETBACK IS REQUIRED FOR INDUSTRY AND FORTY-FOOT FOR BUSINESS.

VOLUME OF SANITARY SEWAGE:
5,000 SF OFFICE USE x 0.125 GPD/SF = 625 GPD
20 WAREHOUSE EMPLOYEES x 5 GPD = 100 GPD
10,000 SF RETAIL USE x 0.125 GPD/SF = 1,250 GPD
TOTAL DESIGN VOLUME = 1,975 GPD
MINIMUM SIZE DISPOSAL BED = 1,975 GPD x 1.61 (GRAVITY) (K4) = 3,180 SF (SIZE PROVIDED = 3,200 SF)

COVERAGE CALCULATIONS

PROPOSED CONDITIONS	
PROPOSED BUILDINGS	60,000 SF
PROPOSED PAVEMENT	174,600 SF
PROPOSED SIDEWALKS	6,300 SF
TOTAL	240,900 SF

LAND USE BOARD APPROVAL

APPROVED BY THE LAND USE BOARD OF THE TOWNSHIP OF ANDOVER, SUSSEX COUNTY, NEW JERSEY

LAND USE BOARD CHAIRPERSON DATE

LAND USE BOARD SECRETARY DATE

LAND USE BOARD ENGINEER DATE

SHEET INDEX

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2	BOUNDARY AND TOPOGRAPHIC SURVEY PLAN
3	SITE LAYOUT PLAN
4	GRADING & UTILITIES PLAN
5-6	UTILITY PROFILES
7	LIGHTING & LANDSCAPING PLAN
8	SOIL EROSION & SEDIMENT CONTROL PLAN
9-10	SIGHT DISTANCE PLAN & PROFILE A & B
11	STEEP SLOPES ANALYSIS PLAN
12	EARTHWORK CALCULATIONS PLAN
13	TRUCK MANEUVERING PLAN
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15	PROPOSED DRAINAGE AREA MAP
16	PROPOSED INLET DRAINAGE AREA MAP
17-20	CONSTRUCTION NOTES & DETAILS

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

COVER SHEET

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 200'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 1 OF 21

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NOTES AND REFERENCES:

1. ANDOVER TOWNSHIP TAX MAPS.
2. DEEDS AS REFERENCED ON THIS MAP.
3. PLANS TITLED "PRELIMINARY AND FINAL SITE PLANS FOR WAWA, TAX MAP LOT 6, BLOCK 158, ANDOVER TOWNSHIP, SUSSEX COUNTY, NEW JERSEY" PREPARED BY KENDERIAN ZILINSKI ASSOCIATES, DATED 8/22/05, AND LAST REVISED 7/22/09.
4. NJDOT PLANS TITLED "GENERAL PROPERTY KEY MAP, ROUTE 31, SECTION 9, ANDOVER TO NEWTON, SHOWING EXISTING RIGHT OF WAY & PARCELS TO BE ACQUIRED IN THE TOWNSHIP OF ANDOVER, SUSSEX COUNTY" DATED JUNE 1931, AND RECORDED IN THE SUSSEX COUNTY CLERK'S OFFICE ON 1/19/1932 AS MAP NO. 160.
5. COUNTY ROUTE 603 PLAN TITLED "SECTION NO. 1, SPRINGDALE–ALLAMUCHY ROAD, SUSSEX COUNTY, NEW JERSEY" DATED 10/1917.
6. UNDERGROUND UTILITIES SERVING THE SUBJECT PROPERTY ARE SHOWN BASED UPON SURFACE EVIDENCE AND AVAILABLE RECORD DOCUMENTS FURNISHED. THE LACK OF UNDERGROUND UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OR ABSENCE OF SAME. THE APPROPRIATE UTILITY COMPANY SHOULD BE CONTACTED TO CONFIRM THE EXISTENCE OR ABSENCE OF SAME AND FOR A FIELD MARKOUT OF ALL UTILITIES PRIOR TO CONSTRUCTION. A FIELD MARKOUT MAY BE REQUESTED BY CALLING (800) 272–1000.
7. TITLE REPORT PREPARED BY FOUNDATION TITLE, LLC, AS AGENT FOR AMTRUST TITLE INSURANCE COMPANY, FILE NO. 524–175580, DATED 8/11/21. SAID REPORT CONTAINED SEVERAL REFERENCES TO A BUILDING EASEMENT NEAR THE STREET INTERSECTION. THE EASEMENT IS SHOWN HEREON. HOWEVER, THE REFERENCED DEEDS NOTE THAT UPON REMOVAL OF THE BUILDING ANY NEW STRUCTURES SHOULD BE CONSTRUCTED BASED ON CURRENT MUNICIPAL REQUIREMENTS.
8. OFFSETS SHOWN HEREON SHOULD NOT BE USED AS THE BASIS FOR CONSTRUCTION OF FENCES OR OTHER PERMANENT STRUCTURES.
9. HORIZONTAL DATUM IS NAD 83 AND VERTICAL DATUM IS NAVD 88 PER GPS/RTK OBSERVATIONS TAKEN BY DYKSTRA WALKER DESIGN GROUP IN APRIL 2020 (SPECTRA PRECISION SP60/GEOID 12B/COMBINED SCALE FACTOR 0.999882502/CENTROID AT MIDDLE OF 206 FRONTAGE).
10. THE NORTHERLY PORTION OF THE SUBJECT PROPERTY IS VEGETATED WITH DENSE BRUSH. SEVERAL MONITORING WELLS WERE FOUND WITHIN THIS AREA, BUT OTHERS MAY HAVE BEEN OBSCURED DUE TO THE EXISTING VEGETATION.
11. DYKSTRA WALKER DESIGN GROUP PERFORMED A FIELD TOPOGRAPHY OF US HIGHWAY ROUTE 206, BRIGHTON ROAD, AND THE NORTHERLY PORTION OF THE SUBJECT PROPERTY. TOPOGRAPHIC INFORMATION FOR THE REMAINDER OF THE SUBJECT PROPERTY AND SURROUNDING AREAS IS BASED ON USGS LIDAR DATA.

NJSPCS NAD83

BLOCK 134 LOT 29
BLOCK 134 LOT 27 COUNTY OF SUSSEX
BLOCK 134 LOT 26
BLOCK 134 LOT 25.02
BLOCK 134 LOT 25.01
BLOCK 158 LOT 10 DB 1009/88 DB 883/241
BLOCK 158 LOT 6 AREA=452,392 SF OR 10.385 ACRES DB 3535/607
BLOCK 157 LOT 6
BLOCK 157 LOT 5
BLOCK 157 LOT 4.01
BLOCK 157 LOT 4.02

U.S. HIGHWAY ROUTE 206 (80' RIGHT-OF-WAY)
BRIGHTON ROAD COUNTY ROUTE 603 (66' RIGHT-OF-WAY)

POINT OF BEGINNING
DB 3535/607
N=792232.29
E=421147.86

OLD CEDAR STUMP FOUND
IRON PIN AND CAP FOUND (XZA)
IRON PIPE FOUND ON LINE (6.3' FROM CORNER)
TALL IRON PIPE FOUND
IRON PIN AND CAP FOUND (D.S.A.P.A.)
STONE IRON (TYP.)
IRON PIN AND CAP FOUND (D.S.A.P.A.; S6°33'W–11.7') WITH IRON PIPE WITNESS
IRON PIN AND CAP FOUND (XZA)
LARGE REBAR FOUND (S84°16'W–1.5')
STONE IRON AND FENCE REMAINS
N=791210.54
E=420808.13
IRON PIN AND CAP FOUND (XZA; DISTURBED)
N=792528.37
E=420787.73
MONITORING WELL (TYP)
MAG NAIL FOUND IN PAVEMENT
METAL CAP FOUND (S82°43'W–18.7')
CONCRETE COVER RIM=589.44
'A' INLET GRT=589.32 INV=586.6
DRAINAGE MH RIM=587.41 BOT=581.2 (STANDING WATER)
EXISTING BUILDING SMM PETER SPARKS
PARKING LOT
EXISTING DWELLING
EXISTING BUILDING
GAR.
DRIVEWAY
DRIVEWAY/PARKING AREA
BUILDING EASEMENT DB 1405/98 DB 1419/127 DB 1441/243
REMAINS OF PAVILION & GUNDEL
APPROXIMATE LIMIT OF BRUSH LINE (TYP)
APPROXIMATE LIMIT OF WOODED AREA (TYP)
EDGE OF PAVEMENT (TYP)
GRAVEL
SIGN: STOP
SIGN: NO THRU TRAFFIC
SIGN: BUS STOP
SIGN: DIRECTIONAL
SIGN: ROUTE 603
SIGN: CURVE
FRESHWATER WETLANDS
DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021. TO BE VERIFIED BY THE NJDEP.
FRESHWATER WETLANDS
DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021. TO BE VERIFIED BY THE NJDEP.

N28°01'04"E – 58.56'
N30°33'51"E – 159.68'
N5°09'59"E – 370.93'
N32°56'27"E – 517.23'
N6°33'15"E – 219.68'
S21°08'53"E – 316.05'
S11°48'07"W – 436.84'
N83°00'45"W – 89.80'
R=971.51' L=344.05' D=20°17'27" CH=N72°52'02"W–342.28'
R=1,803.18' L=93.86' D=2°58'57" CH=N81°31'17"W–93.85'
R=124.68' L=89.55' D=41°06'29" CH=S33°21'21"W–87.64'
R=922.37' L=530.44' D=32°57'00" CH=S54°40'23"E–523.16'

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

DATE	REVISION
7/25/23	INCORPORATED INTO SITE PLAN SET
1/20/22	REVISED PER TITLE REPORT

DYKSTRA WALKER DESIGN DW GROUP PA.
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KENNETH D. DYKSTRA
PROFESSIONAL ENGINEER AND LAND SURVEYOR N.J. LIC. No. 24GB03297200

BOUNDARY AND TOPOGRAPHIC SURVEY PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
JOB NO.: 01109
DRAWN BY: KJO
CHECKED BY: KDD
DATE: 1/4/22
SHEET NO. 2 OF 21

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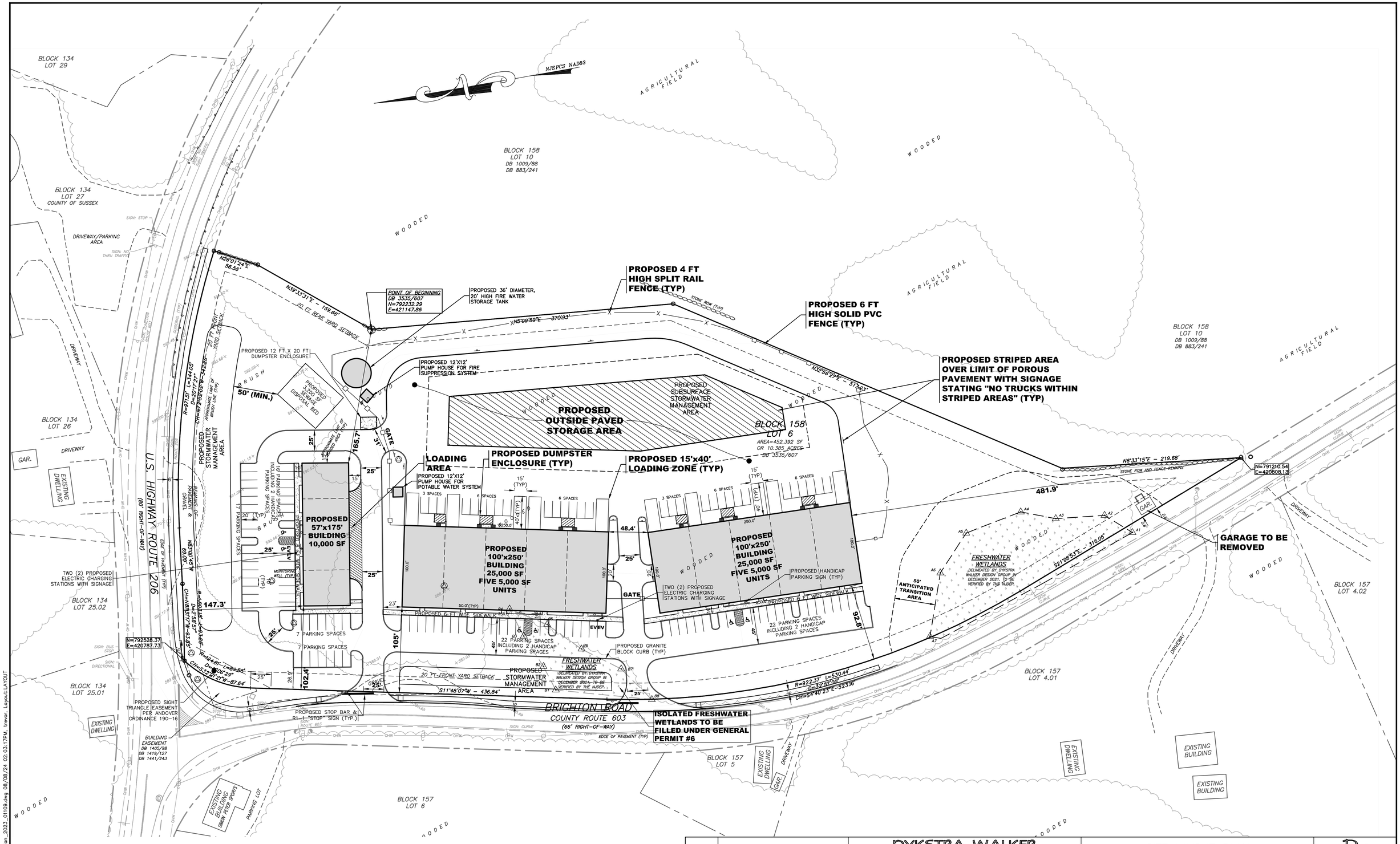

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA

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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

SITE LAYOUT PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE:	1" = 50'
JOB NO.:	01109
DRAWN BY:	TJB
CHECKED BY:	KJR
DATE:	7/25/23
SHEET NO.	3 OF 21

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NJSPCS NAD83

PROPOSED 36' DIAMETER, 20' HIGH FIRE WATER STORAGE TANK

53 LF 3" SCH. 40 PVC SANITARY SEWER FORCE LATERAL

TYPE 'B' INLET #4
TCB. 593.50
GRT. 593.00
INV. 590.25 (15" OUT)

PROPOSED 1:5 ROCK FACE SAFETY FENCE TO BE INSTALLED ALONG TOP OF ROCK CUT (TYP.)

TYPE 'E' INLET #37
GRT. 591.85
INV. 589.35 (12" IN)
INV. 589.35 (12" OUT)

HW #40
INV. 588.00

OUTLET STRUCTURE #39
RIM 592.50
ELEV. 591.29 (TOP OF WEIR WALL)
ELEV. 589.66 (1.25 FT. WEIR)
INV. 588.89 (6" ORIFICE)
INV. 588.47 (12" IN)
INV. 588.17 (18" OUT)

1,500 GALLON DOSING TANK
RIM 594.50
INV. 590.25

PROPOSED BIO-RETENTION BASIN #1
BOTTOM ELEV. 588.50
BOTTOM AREA=6,296 SF

PROPOSED 12 FT X 20 FT DUMPSTER ENCLOSURE

20 LF 6" SCH. 40 PVC @ 2.08% MIN.

1,000 GALLON SEPTIC TANK
RIM 594.25
INV. 599.95
INV. 590.70

PROPOSED 0.42 FT HIGH BERM
TOP OF BERM ELEV. 588.92

PROPOSED 12'X12' PUMP HOUSE FOR FIRE SUPPRESSION SYSTEM

PROPOSED 12'X12' PUMP HOUSE FOR POTABLE WATER SYSTEM

PROPOSED 5,200 SF INFILTRATION DISPOSAL BED

TYPE 'E' INLET #35
GRT. 591.85
INV. 589.45 (12" IN)
INV. 589.35 (12" OUT)

TYPE 'E' INLET #36
GRT. 591.85
INV. 589.35 (12" IN)
INV. 589.35 (12" OUT)

LIMIT OF POROUS PAVEMENT STONE BEDDING (TYP.)

LIMIT OF POROUS PAVEMENT (TYP.)

PROPOSED POROUS PAVEMENT
AREA = 29,085 SF
BOTTOM OF STONE ELEV=588.30
STONE BEDDING AREA = 54,762 SF

100 LF 12" BOTTOM-HALF PERFORATED HDPE @ 0.00%

37 LF 18" HDPE @ 0.48%

37 LF 12" HDPE @ 0.50%

TYPE 'B' INLET #3
TCB. 594.33
GRT. 593.83
INV. 590.60 (15" IN)
INV. 590.50 (15" OUT)

45 LF 4" SCH. 40 PVC @ 2.08% MIN.

47 LF 15" RCP @ 0.50%

125 LF 15" HDPE @ 0.90%

TYPE 'B' INLET #6
TCB. 592.85
GRT. 592.35
INV. 588.79 (15" IN)
INV. 588.69 (15" OUT)

19 LF 15" HDPE @ 1.00%

172 LF 6" PVC @ 1.00%

PROPOSED BIO-RETENTION BASIN #2
BOTTOM ELEV. 588.50
BOTTOM AREA=4,249 SF

DRAINAGE MANHOLE #5
RIM 594.55
INV. 590.02 (15" IN)
INV. 590.02 (15" IN)
INV. 589.92 (15" OUT)

48 LF 15" HDPE @ 1.00%

TYPE 'A' INLET #1
GRT. 594.16
INV. 591.41 (15" OUT)

PROPOSED 57'x175' BUILDING 10,000 SF FF = 595.00

PROPOSED FIRE HYDRANT

PROPOSED POTABLE WATER WELL

PROPOSED WATER VALVE (TYP.)

PROPOSED FIRE DEPT. CONNECTION (TYP.)

PROPOSED FIRE WATER SERVICE CONNECTION (SERVICE SHALL BE DESIGNED BY A QUALIFIED MECHANICAL ENGINEER)

381 LF 3" SCH. 40 PVC SANITARY SEWER FORCE LATERAL

1,250 GALLON PUMP TANK
RIM 594.20
INV. 590.64

PROPOSED POTABLE WATER SERVICE LINE (SERVICE SHALL BE DESIGNED BY A QUALIFIED MECHANICAL ENGINEER)

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS FF = 598.50

1000 GALLON SEPTIC TANK
RIM 597.00
INV. 594.44
INV. 594.19

142 LF 4" SCH. 40 PVC @ 2.50%

10 LF 4" SCH. 40 PVC @ 2.08% MIN.

225 LF 4" SCH. 40 PVC @ 1.04% MIN.

10 LF 4" SCH. 40 PVC @ 2.08%

96 LF 6" HDPE @ 2.00%

TYPE 'B' INLET #16
TCB. 591.24
GRT. 590.74
INV. 588.19 (15" IN)
INV. 588.09 (15" IN)
INV. 588.19 (6" IN)
INV. 588.09 (15" OUT)

9 LF 6" PVC @ 1.00%

TYPE 'B' INLET #2
TCB. 594.66
GRT. 594.16
INV. 591.28 (15" IN)
INV. 591.18 (15" OUT)

84 LF 6" HDPE @ 1.94%

162 LF 6" HDPE @ 1.00%

TYPE 'B' INLET #18
TCB. 594.70
GRT. 594.20
INV. 592.20 (6" IN)
INV. 590.80 (15" OUT)

21 LF 6" HDPE @ 10.35%

TYPE 'B' INLET #21
TCB. 591.46
GRT. 590.96
INV. 588.56 (15" IN)
INV. 588.46 (15" OUT)

OUTLET STRUCTURE #25
GRT. 590.47
ELEV. 589.70 (8 FT. WEIR)
INV. 588.98 (4" ORIFICE)
INV. 585.75 (6" UNDERDRAIN)
INV. 585.65 (24" OUT)

TYPE 'B' INLET #19
TCB. 594.65
GRT. 594.15
INV. 590.67 (15" IN)
INV. 590.57 (15" OUT)

25 LF 15" HDPE @ 0.50%

73 LF 12" PVC @ 2.03%

TYPE 'B' INLET #10
TCB. 592.85
GRT. 592.35
INV. 588.76 (4" IN)
INV. 589.70 (12" IN)
INV. 588.66 (15" OUT)

MONITORING WELL (TYP)

16 LF 15" HDPE @ 1.00%

F.E.S. #11
INV. 588.50

TYPE 'B' INLET #9
TCB. 593.07
GRT. 592.57
INV. 589.28 (15" IN)
INV. 589.18 (15" OUT)

41 LF 15" HDPE @ 0.80%

OUTLET STRUCTURE #12
GRT. 591.07
ELEV. 589.50 (2 FT. WEIR)
INV. 588.92 (4" ORIFICE)
INV. 586.25 (6" UNDERDRAIN)
INV. 586.00 (15" OUT)

TOP OF BERM ELEV. 592.07

TCB. 593.07
GRT. 592.57

DRAINAGE MANHOLE #26
RIM 589.90
INV. 584.75 (15" IN)
INV. 584.75 (24" IN)
INV. 584.65 (24" OUT)

51 LF 24" HDPE @ 0.74%

REMOVE CONCRETE STRUCTURE AND ASSOCIATED PIPING

PROPOSED UTILITY POLE (TYP)

CONCRETE COVER RIM=589.42

'A' INLET GRT=589.32 INV=586.6

REMOVE EXISTING TYPE 'A' INLET CONSTRUCT TYPE 'E' INLET #27
GRT. 589.32
INV. 584.08

15"RCP

142 LF 24" RCP @ 0.50%

DRAINAGE MANHOLE #28
RIM 587.41
INV. 583.47 (24" IN)
INV. 583.37 (24" OUT)

MATCH LINE INSET A-A

DRAINAGE MH RIM=587.41 BOT=581.8

TYPE 'B' INLET #8
TCB. 592.98
GRT. 592.48
INV. 589.73 (15" OUT)

15 LF 15" RCP @ 1.65%

34 LF 15" CLS. V RCP @ 0.95%

TCB. 593.50
GRT. 593.00

182 LF 24" HDPE @ 0.50%

TCB. 591.46
GRT. 590.96

TCB. 591.46
GRT. 590.96

TOP OF BERM ELEV. 591.50

591.44

591.55

TCB. 591.18
GRT. 590.68

TCB. 591.24
GRT. 590.74

18 LF 15" RCP @ 0.51%

591.27

TCB. 591.07
GRT. 590.57

TCB. 591.18
GRT. 590.68

TCB. 591.24
GRT. 590.74

TCB. 591.07
GRT. 590.57

TYPE 'B' INLET #15
TCB. 591.07
GRT. 590.57
INV. 588.55 (15" OUT)

42 LF 15" CLS. V RCP @ 0.87%

41 LF 15" CLS. V RCP @ 0.51%

TYPE 'E' INLET #13
GRT. 590.40
INV. 588.43 (15" OUT)

26 LF 15" CLS. V RCP @ 0.50%

TYPE 'B' INLET #14
TCB. 591.18
GRT. 590.68
INV. 588.30 (15" IN)
INV. 588.30 (15" OUT)

PROPOSED UTILITY POLE (TYP)

F.E.S. #24
INV. 588.00

F.E.S. #17
INV. 588.00

FRESHWATER WETLANDS
DELINEATION BY DYKSTRA WALKER DESIGN GROUP IN FEBRUARY 2021. TO BE VERIFIED BY THE NJDEP.

182 LF 24" HDPE @ 0.50%

51 LF 24" HDPE @ 0.74%

36 LF 15" RCP @ 0.53%

79 LF 15" CLS. V RCP @ 0.44%

32 LF 15" RCP @ 0.54%

TYPE 'E' INLET #27
GRT. 589.32
INV. 584.28 (24" IN)
INV. 584.18 (24" OUT)

TYPE 'E' INLET #22
GRT. 590.60
INV. 588.62 (15" OUT)

TYPE 'B' INLET #23
TCB. 591.18
GRT. 590.68
INV. 588.27 (15" IN)
INV. 588.27 (15" IN)
INV. 588.17 (15" OUT)

TYPE 'B' INLET #20
TCB. 591.46
GRT. 590.96
INV. 588.98 (15" IN)
INV. 588.88 (15" OUT)

BLOCK 157 LOT 6

BLOCK 158 LOT 6
AREA=452,395 SF OR 10.385 ACRES
DB. 1535/607

DRAINAGE MANHOLE #34
RIM 593.50
INV. 589.66 (15" IN)
INV. 589.56 (15" OUT)

PROPOSED 1:5 ROCK FACE SAFETY FENCE TO BE INSTALLED ALONG TOP OF ROCK CUT (TYP.)

DRAINAGE MANHOLE #33
RIM 594.50
INV. 590.55 (15" IN)
INV. 590.55 (6" IN)
INV. 590.45 (15" OUT)

89 LF 15" HDPE @ 0.89%

13 LF 6" PVC @ 0.50%

249 LF 6" PVC @ 0.72%

PROPOSED 6 FT WIDE SIDEWALK

PROPOSED UNDERGROUND TELEPHONE, ELECTRIC, AND COMMUNICATIONS UTILITIES (TYP.)

DRAINAGE MANHOLE #32
RIM 596.50
INV. 591.66 (15" IN)
INV. 592.82 (6" IN)
INV. 591.56 (15" OUT)

50' ANTICIPATED TRANSITION AREA

53 LF 15" HDPE @ 0.89%

DRAINAGE MANHOLE #31
RIM 595.00
INV. 592.23 (15" IN)
INV. 592.13 (15" OUT)

TYPE 'B' INLET #30
TCB. 595.25
GRT. 594.75
INV. 592.30 (15" OUT)

7 LF 15" HDPE @ 1.00%

TYPE 'E' INLET #38
GRT. 591.85
INV. 589.35 (12" IN)
INV. 588.76 (15" IN)
INV. 588.66 (12" OUT)

37 LF 18" HDPE @ 0.48%

100 LF 12" BOTTOM-HALF PERFORATED HDPE @ 0.00%

INSET A-A
SCALE: 1"=30'

RECONSTRUCT DRAINAGE MANHOLE #28
RIM 587.41
INV. 583.37

13.5" I.E. 24" CI.S. V RCP @ 0.50%

PARKING LOT

F.E.S. #29
INV. 582.80

67'x36' INV=588.8

U.S. HIGHWAY ROUTE 206
(80' RIGHT-OF-WAY)

BRIGHTON ROAD
COUNTY ROUTE 603
(66' RIGHT-OF-WAY)

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

GRADING & UTILITIES PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 30'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 4 OF 21

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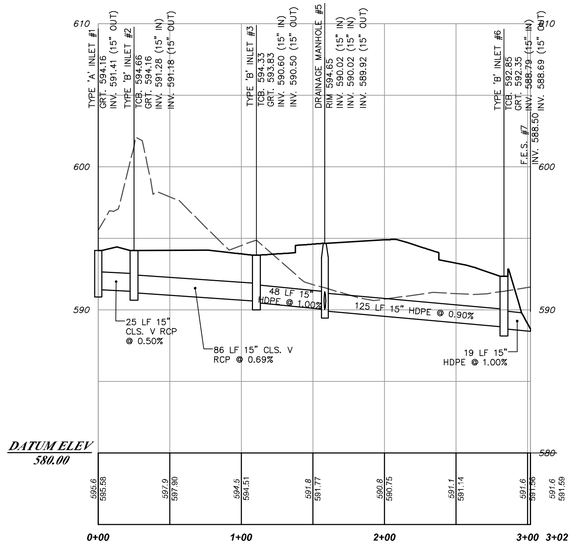
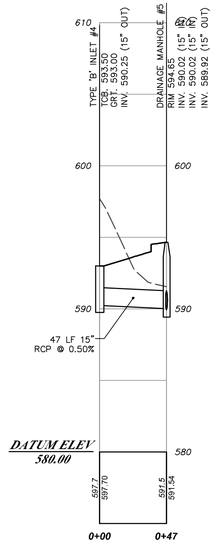


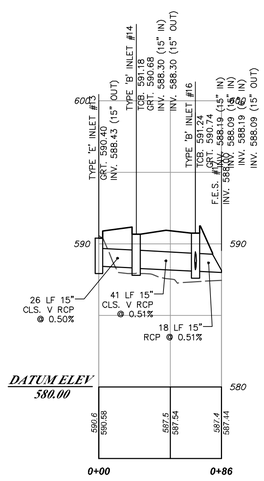
PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #1 – F.E.S. #7)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



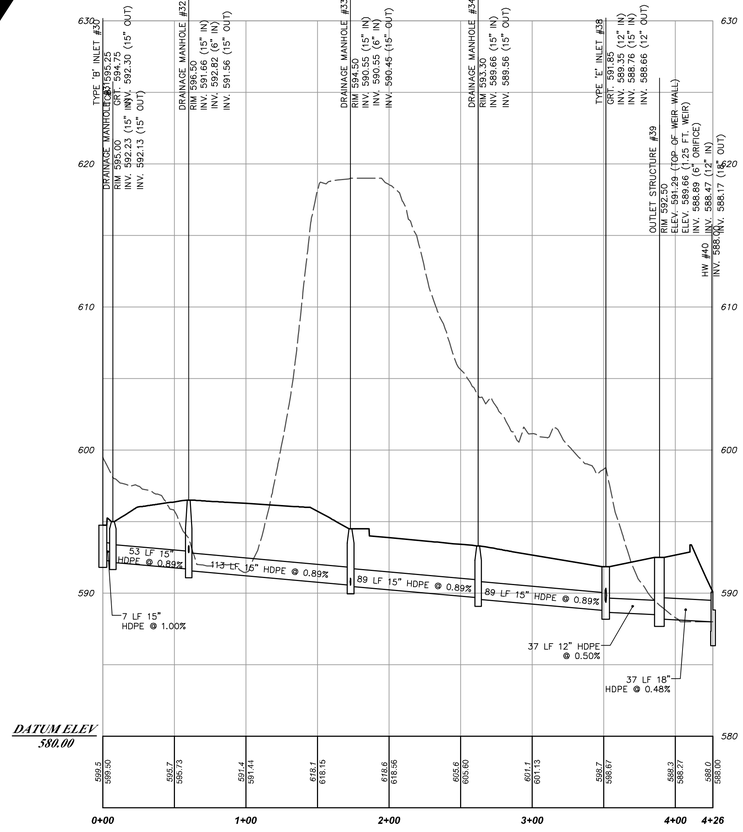
PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #4 – MANHOLE #5)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



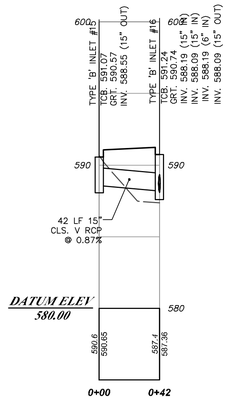
PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #13 – F.E.S. #17)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



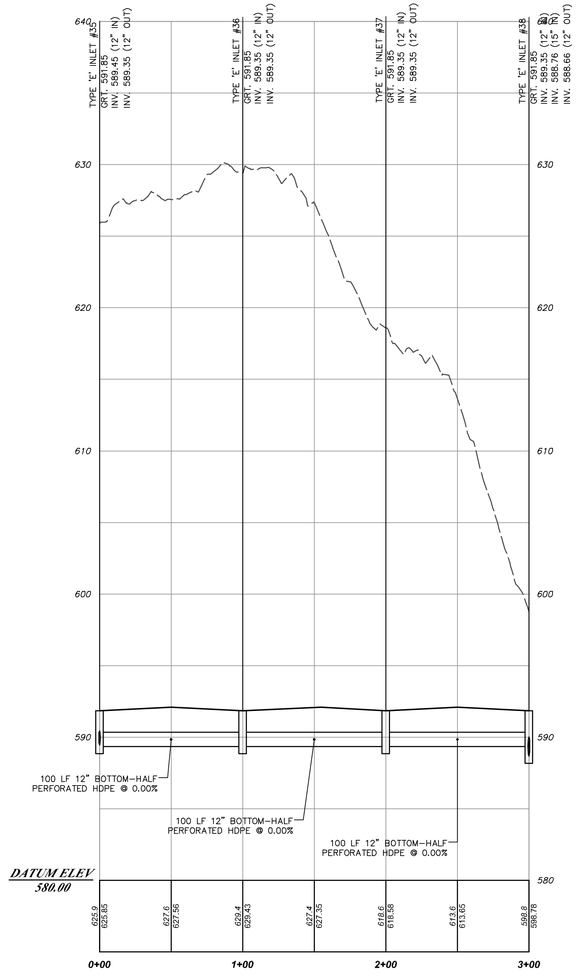
PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #30 – HEADWALL #40)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #15 – INLET #16)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #35 – MANHOLE #38)

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

5.0 2.5 0 2.5 5.0 10.0 20.0
50 25 0 25 50 100 200

(IN FEET)
1 inch = 5 ft. (VERTICAL)
1 inch = 50 ft. (HORIZONTAL)

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA.
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

UTILITY PROFILES 'A'

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE:	1" = 50'
JOB NO.:	01109
DRAWN BY:	TJB
CHECKED BY:	KJR
DATE:	7/25/23
SHEET NO.	5 OF 21

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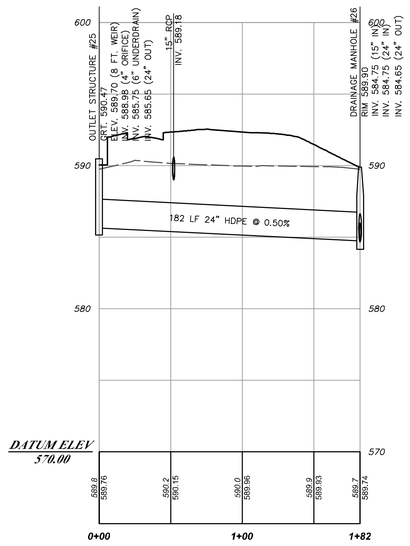
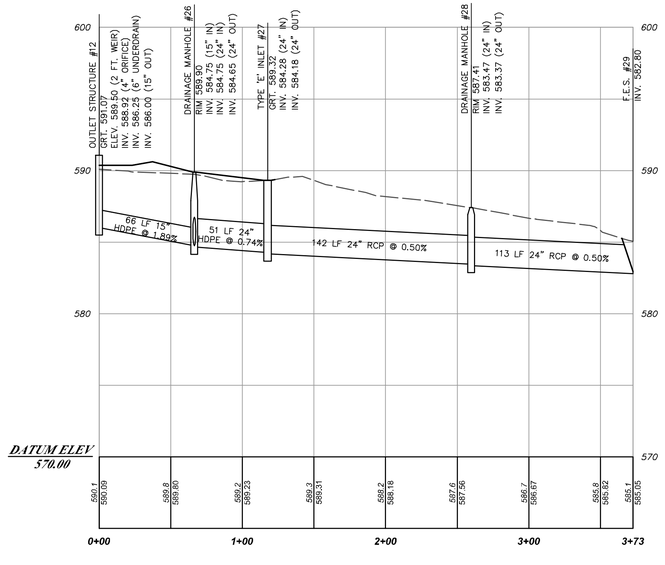
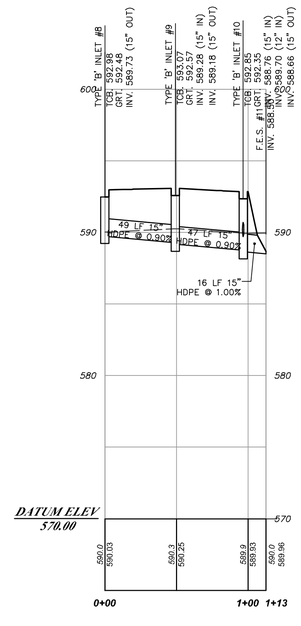


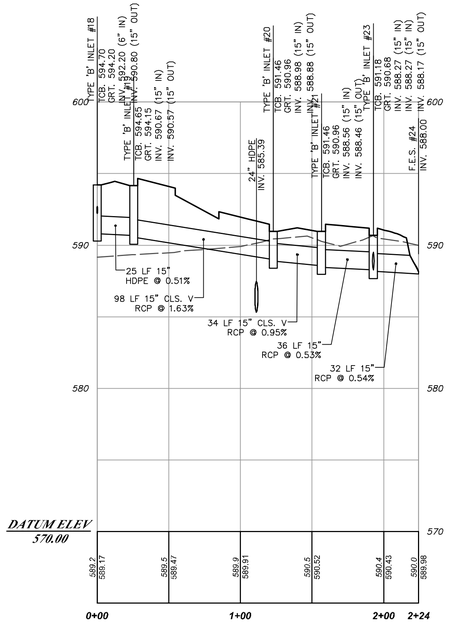
PROPOSED DRAINAGE SYSTEM PROFILE
(OUTLET STRUCTURE #25 – MANHOLE #26)
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



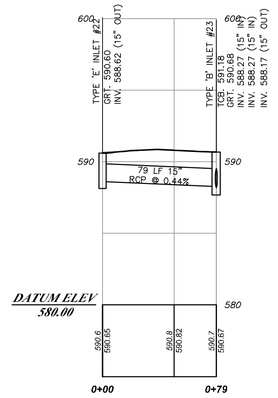
PROPOSED DRAINAGE SYSTEM PROFILE
(OUTLET STRUCTURE #12 – F.E.S. #29)
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #8 – F.E.S. #11)
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #18 – F.E.S. #24)
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



PROPOSED DRAINAGE SYSTEM PROFILE
(INLET #22 – INLET #23)
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP P.A.
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM
KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

UTILITY PROFILES 'B'

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 6 OF 21

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PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	PLANTED SIZE	MATURE SIZE	ROOT	SPACING	NO.
CBF	Carpinus Betulus Fastigiata	European Pyramidal Hornbeam	3" – 3.5"	30' – 50'	B&B	as shown	13
UA	Ulmus Americana	American Elm	3" – 3.5"	50' – 100'	B&B	as shown	13
GT	Gleditsia Triacanthos	'Shademaster' Honey Locust	3" – 3.5"	30' – 50'	B&B	as shown	13
AR	Acer rubrum 'Red Sunset'	Red Sunset Maple	3" – 3.5"	30' – 50'	B&B	as shown	15
PAB	Picea Abies	Norway Spruce	6' – 8'	20'	B&B	as shown	51
JCC	Juniperus chinesis	Sea Green Juniper	3' – 4'	10' – 12'	B&B	60" o.c.	91
IV	Itea Virginica	Sweetspire	15" – 18"	24" – 36"	#2 can	36" o.c.	60
SB	Spiraea betulifolia	White Spirea	15" – 18"	24" – 36"	#2 can	36" o.c.	69
SN	Symphyotrichum Novae–Angliae	New England Aster	1 Gal.	18" – 24"	#1 can	as shown	41
MSV	Miscanthus sinensis 'Variegatus'	'Variegated Japanese Silver Grass'	1 Gal.	5' – 6'	#3 can	as shown	4
CP	Chamaecyparis pisifera	'Golden Mop' False Cypress	1 Gal.	3' – 5'	#3 can	60" o.c.	149

BLOCK 158
LOT 10
DB 1008/88
DB 883/241

NJSPCS NAD83

PROPOSED BUILDING–MOUNTED LIGHT FIXTURE (TYP.) SEE LUMINAIRE SCHEDULE FOR MOUNTING HEIGHT.

PROPOSED 36' DIAMETER, 20' HIGH FIRE WATER STORAGE TANK

PROPOSED 1:5 ROCK FACE. SAFETY FENCE TO BE INSTALLED ALONG TOP OF ROCK CUT (TYP.)

PROPOSED 12 FT X 20 FT DUMPSTER ENCLOSURE

PROPOSED 12'X12' PUMP HOUSE FOR FIRE SUPPRESSION SYSTEM

50' (MIN.)

PROPOSED 5,200 SF SEPTAGE DISPOSAL BED

PROPOSED SUBSURFACE STORMWATER MANAGEMENT AREA

PROPOSED POLE–MOUNTED LIGHT FIXTURE (TYP.) SEE LUMINAIRE SCHEDULE FOR MOUNTING HEIGHT.

PROPOSED STORMWATER MANAGEMENT AREA

PROPOSED 12'X12' PUMP HOUSE FOR POTABLE WATER SYSTEM

PROPOSED 57'x175' BUILDING 10,000 SF

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS

PROPOSED 6 FT WIDE SIDEWALK

PROPOSED 6 FT WIDE SIDEWALK

GATE

GATE

BLOCK 58
LOT 6
AREA=452,392 SF
OR 10.385 ACRES
DB 3535/6201

PROPOSED 1:5 ROCK FACE. SAFETY FENCE TO BE INSTALLED ALONG TOP OF ROCK CUT (TYP.)

STONE ROW (TYP)

STONE ROW AND FENCE REM

FRESHWATER WETLANDS
DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021, TO BE VERIFIED BY THE NJDEP.

50' ANTICIPATED TRANSITION AREA

FRESHWATER WETLANDS
DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021, TO BE VERIFIED BY THE NJDEP.

U.S. HIGHWAY ROUTE 206
(80' RIGHT–OF–WAY)

BRIGHTON ROAD
COUNTY ROUTE 603
(66' RIGHT–OF–WAY)

BLOCK 134
LOT 27
CITY OF SUSSEX

BLOCK 134
LOT 25.02

BLOCK 134
LOT 25.01

BLOCK 157
LOT 4.01

BLOCK 157
LOT 6

BLOCK 157
LOT 5

EXISTING DWELLING

EXISTING DWELLING

EXISTING DWELLING

BUILDING EASEMENT
DB 1405/98
DB 1419/127
DB 1441/243

EXISTING BUILDING PETER BOARTS

DRIVING LOT

DRIVEWAY/PARKING AREA

DRIVEWAY

DRIVEWAY

GAR.

GAR.

WOODED

WOODED

WOODED

WOODED

WOODED

GRAVEL

CONCRETE COVER RIM=589.44

"A" INLET GRT=589.37 INV=586.6

DRAINAGE MH RIM=587.41 BOT=581± (STANDING)

MONITORING WELL (TYP.)

SEPTIC SYSTEM

0.5 FC (TYP.)

0.3 FC (TYP.)

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

Luminaire Schedule

Project: #662 ROUTE 206 SOUTH

Symbol	Qty	Arrangement	Lumens	LLF	Catalog Number	Color	Comments
A	3	SINGLE	15,833	0.85	LUMECON–LDS–SAL–110–DB–T2–1–NW–MAS–X–X	BLACK	16' HIGH POLE MOUNTED PARKING AREA LIGHTING
B	15	SINGLE	13,445	0.85	HADCO LIBERTY II S7043–5–150S–A, SP5153–V–A	BLACK	15' HIGH POLE MOUNTED DECORATIVE STREETSCAPE LIGHTING
C	10	SINGLE	15,952	0.85	LUMECON–LDS–SAL–110–DB–T4–1–NW–MAS–X–X	BLACK	16' HIGH POLE MOUNTED PARKING AREA LIGHTING
D	2	SINGLE	8,399	0.85	LUMECON–LDS–LFC–60–DB–T3–40	BLACK	16' HIGH BUILDING MOUNTED PARKING AREA LIGHTING
E	18	SINGLE	15,952	0.85	LUMECON–LDS–SAL–110–DB–T4–1–NW–MAS–X–X	BLACK	16' HIGH BUILDING MOUNTED PARKING AREA LIGHTING

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP P.A.
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

LIGHTING & LANDSCAPING PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 40'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 7 OF 21

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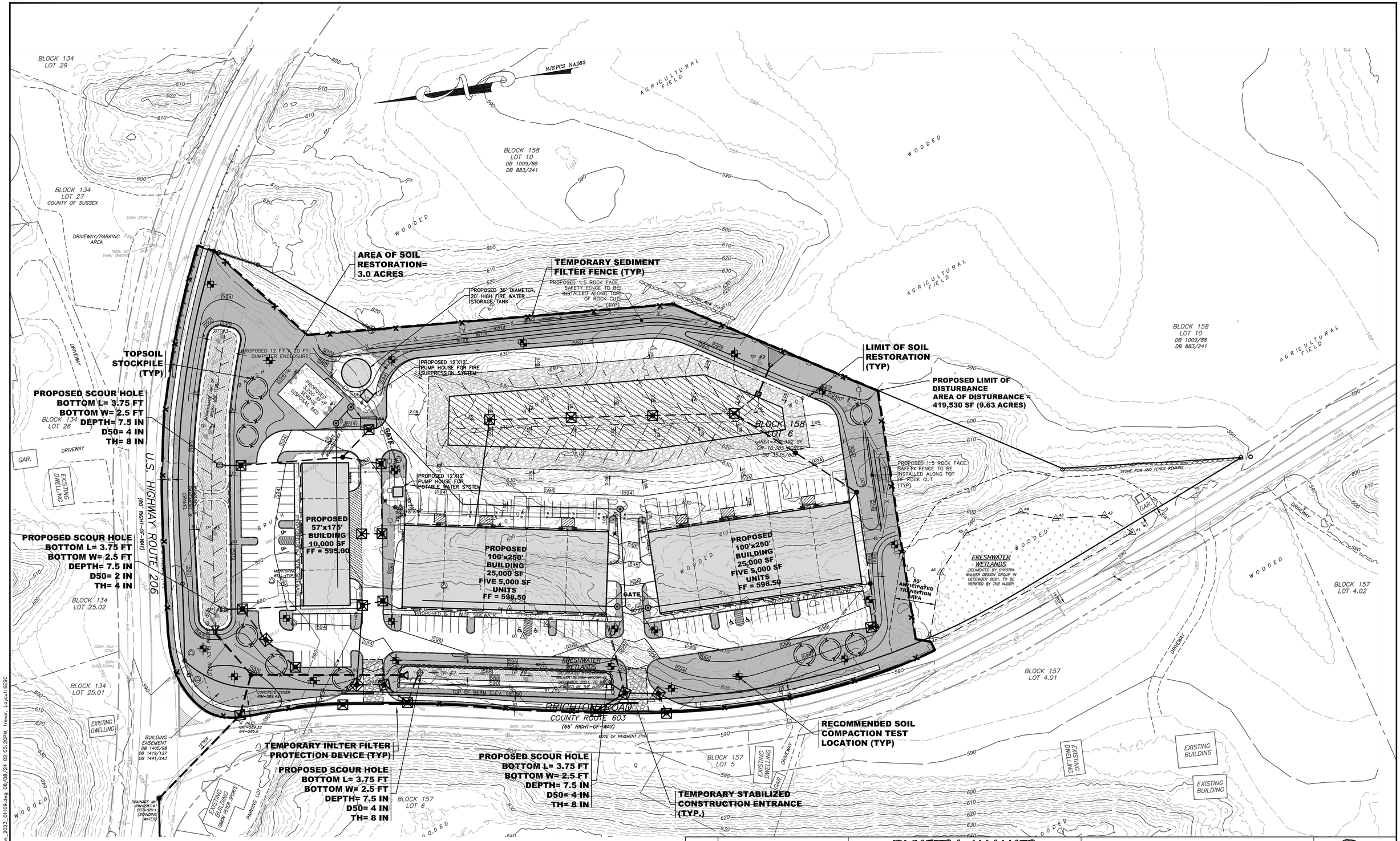

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 - LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 - FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

SOIL EROSION & SEDIMENT CONTROL PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE:	1" = 50'
JOB NO.:	01109
DRAWN BY:	TJB
CHECKED BY:	KJR
DATE:	7/25/23
SHEET NO.	8 OF 21

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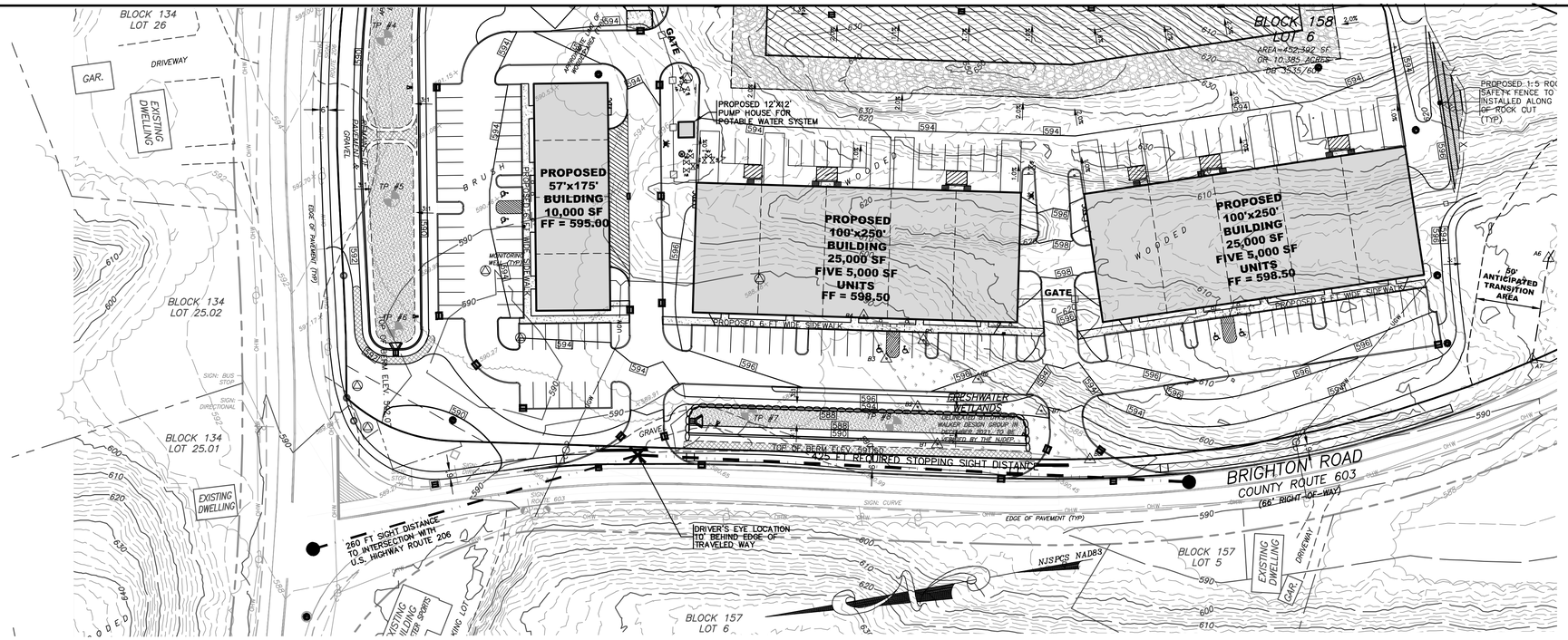

GRAPHIC SCALE

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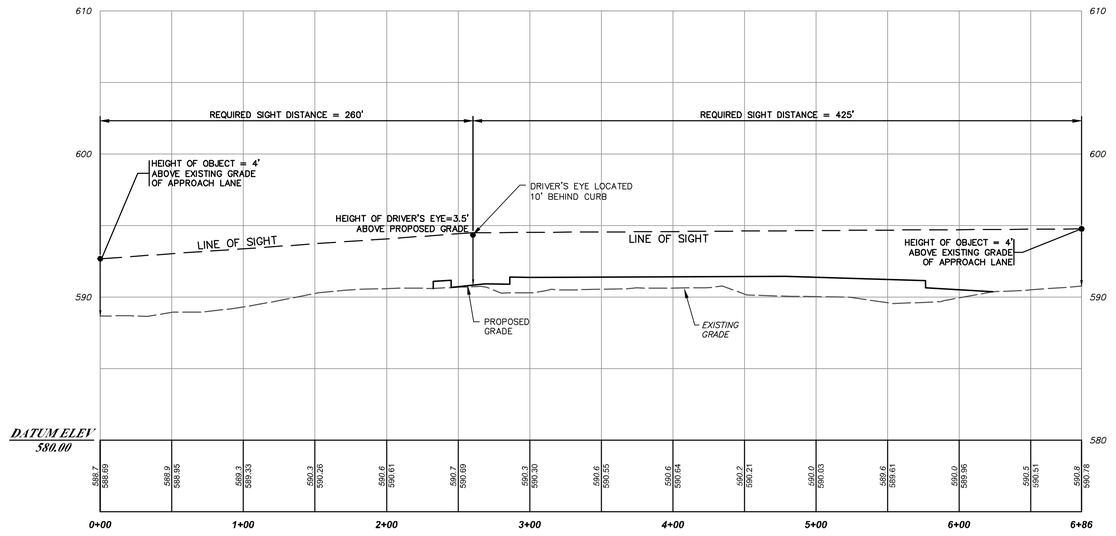
(IN FEET)
1 inch = 50 ft.



NOTE:
DRIVEWAY SIGHT DISTANCE DESIGNED PER AASHTO–GEOMETRIC DESIGN STANDARDS. FOR THIS PROJECT THE POSTED SPEED LIMIT IS 45 MPH AND THE HIGHWAY DESIGN SPEED USED WAS 50 MPH. MINIMUM REQUIRED SIGHT DISTANCE IS 425 FT.

GRAPHIC SCALE

5.0 0 2.5 5.0 10.0 20.0
50 0 25 50 100 200

(IN FEET)
1 inch = 5 ft. (VERTICAL)
1 inch = 50 ft. (HORIZONTAL)

DATE	REVISION
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2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP P.A.
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PHONE (973) 663-6540 · FAX (973) 663-0042
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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

SIGHT DISTANCE PLAN & PROFILE 'A'

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 9 OF 21

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GRAPHIC SCALE

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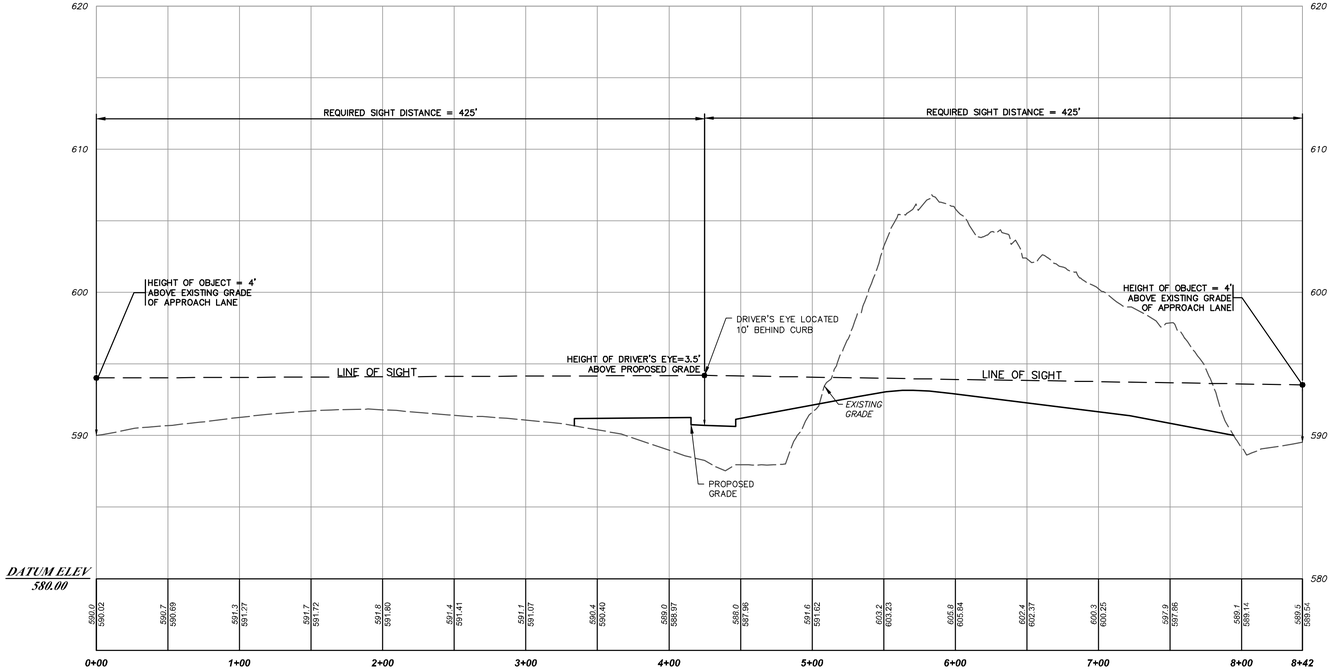
(IN FEET)
1 inch = 50 ft.



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GRAPHIC SCALE

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50 0 25 50 100 200

(IN FEET)
1 inch = 5 ft. (VERTICAL)
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DYKSTRA WALKER DESIGN DW GROUP P.A.
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

SIGHT DISTANCE PLAN & PROFILE 'B'

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
JOB NO.: 01109
DRAWN BY: TJB
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SHEET NO. 10 OF 21

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STEEP SLOPE AREA SUMMARY TABLE

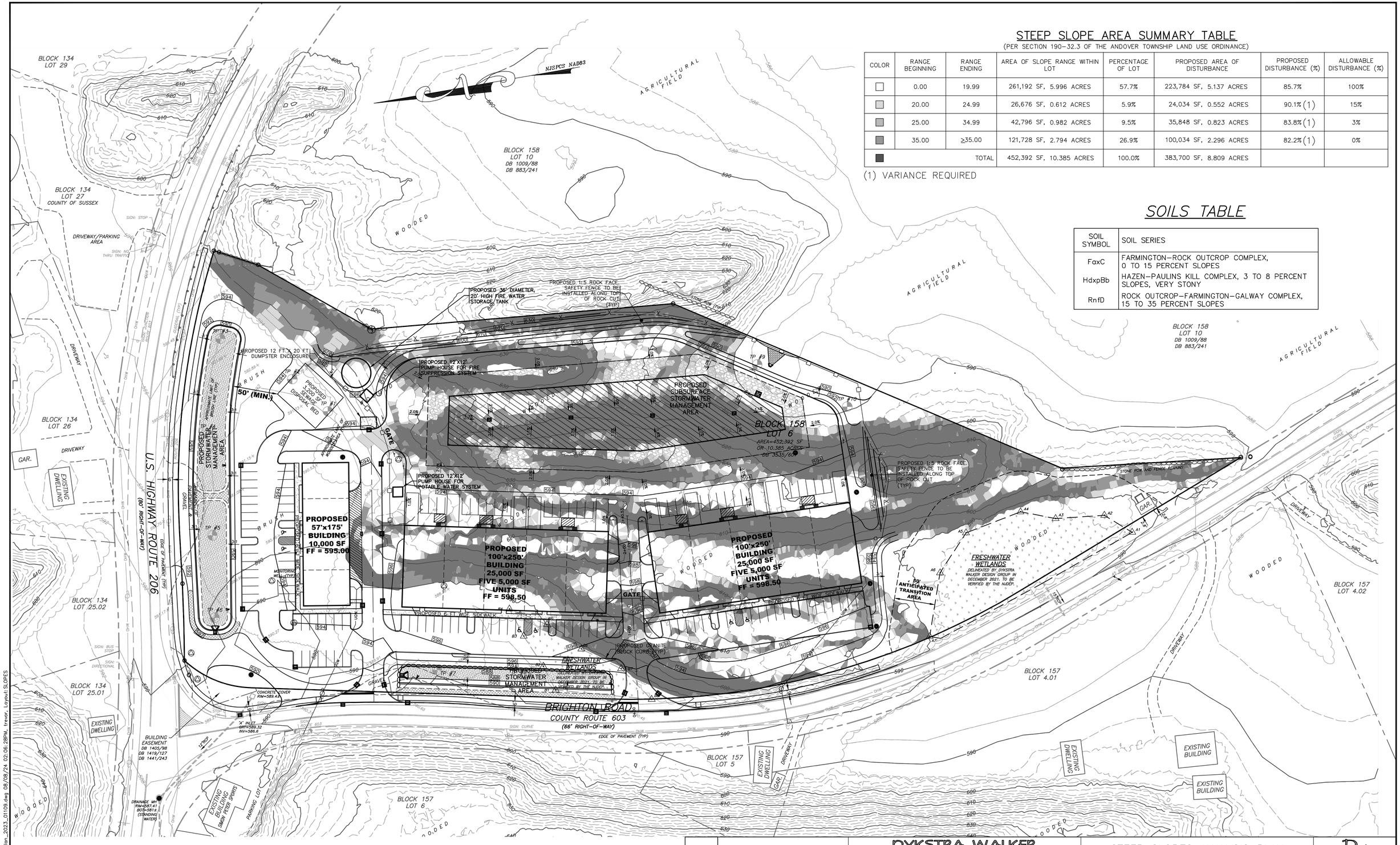
(PER SECTION 190-32.3 OF THE ANDOVER TOWNSHIP LAND USE ORDINANCE)

COLOR	RANGE BEGINNING	RANGE ENDING	AREA OF SLOPE RANGE WITHIN LOT	PERCENTAGE OF LOT	PROPOSED AREA OF DISTURBANCE	PROPOSED DISTURBANCE (%)	ALLOWABLE DISTURBANCE (%)
	0.00	19.99	261,192 SF, 5.996 ACRES	57.7%	223,784 SF, 5.137 ACRES	85.7%	100%
	20.00	24.99	26,676 SF, 0.612 ACRES	5.9%	24,034 SF, 0.552 ACRES	90.1% (1)	15%
	25.00	34.99	42,796 SF, 0.982 ACRES	9.5%	35,848 SF, 0.823 ACRES	83.8% (1)	3%
	35.00	≥35.00	121,728 SF, 2.794 ACRES	26.9%	100,034 SF, 2.296 ACRES	82.2% (1)	0%
		TOTAL	452,392 SF, 10.385 ACRES	100.0%	383,700 SF, 8.809 ACRES		

(1) VARIANCE REQUIRED

SOILS TABLE

SOIL SYMBOL	SOIL SERIES
FaxC	FARMINGTON-ROCK OUTCROP COMPLEX, 0 TO 15 PERCENT SLOPES
HdxpBb	HAZEN-PAULINS KILL COMPLEX, 3 TO 8 PERCENT SLOPES, VERY STONY
RnfD	ROCK OUTCROP-FARMINGTON-GALWAY COMPLEX, 15 TO 35 PERCENT SLOPES



GRAPHIC SCALE

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(IN FEET)
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DATE	REVISION
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DYKSTRA WALKER DESIGN DW GROUP PA.
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WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

STEEP SLOPES ANALYSIS PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
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SHEET NO. 11 OF 21

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EARTHWORK QUANTITY CALCULATIONS

FILL:	24,700 CY±
– CUT (FROM FINISHED GRADE TO EXISTING GRADE):	162,460 CY±
– CUT FROM PROPOSED PAVEMENT, ETC.:	4,780 CY±
– CUT FOR FOUNDATION SLABS:	6,664 CY±
– CUT FOR POROUS PAVEMENT AREAS:	8,900 CY±
TOTAL CUT (EXPORT) REQUIRED:	158,104 CY±

NOTES:
1. EARTHWORK VOLUMES ARE APPROXIMATE. ACTUAL QUANTITIES WILL VARY DUE TO ACCURACY OF TOPOGRAPHY AND DUE TO STRIPPING LOSS AND EXPANSION AND/OR CONTRACTION OF MATERIAL DURING REMOVAL AND PROCESSING ACTIVITIES.

GRAPHIC SCALE

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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

EARTHWORK CALCULATIONS PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE:	1" = 50'
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DATE:	7/25/23
SHEET NO.	12 OF 21

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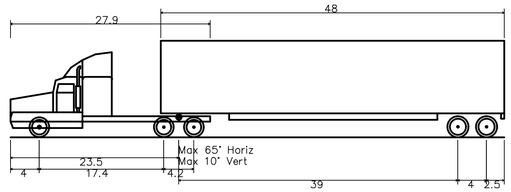

WB-62 - Interstate Semi-Trailer

Overall Length	69.000ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

NJSPCS NAD83

PROPOSED 36' DIAMETER, 20' HIGH FIRE WATER STORAGE TANK

PROPOSED 12 FT. X 20 FT. DUMPSTER ENCLOSURE

PROPOSED 12'X12' PUMP HOUSE FOR FIRE SUPPRESSION SYSTEM

PROPOSED SUBSURFACE STORMWATER MANAGEMENT AREA

BLOCK 158 LOT 6
AREA=452,392 SF OR 10.385 ACRES
DB 3535/607

PROPOSED 12'X12' PUMP HOUSE FOR POTABLE WATER SYSTEM

PROPOSED 57'x175' BUILDING 10,000 SF

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS

PROPOSED STORMWATER MANAGEMENT AREA

FRESHWATER WETLANDS
DELINEATED BY: DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021. TO BE VERIFIED BY THE NJDEP.

50' (MIN.)

50' ANTICIPATED TRANSITION AREA

U.S. HIGHWAY ROUTE 206
(80' RIGHT-OF-WAY)

BRIGHTON ROAD
COUNTY ROUTE 603
(66' RIGHT-OF-WAY)

BLOCK 134 LOT 25.02

BLOCK 134 LOT 25.01

BLOCK 157 LOT 5

BLOCK 157 LOT 4.01

BUILDING EASEMENT DB 1405/98 DB 1419/127 DB 1441/243

EXISTING DWELLING

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
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WWW.DYKSTRAWALKER.COM

KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

TRUCK MANEUVERING PLAN

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 13 OF 21

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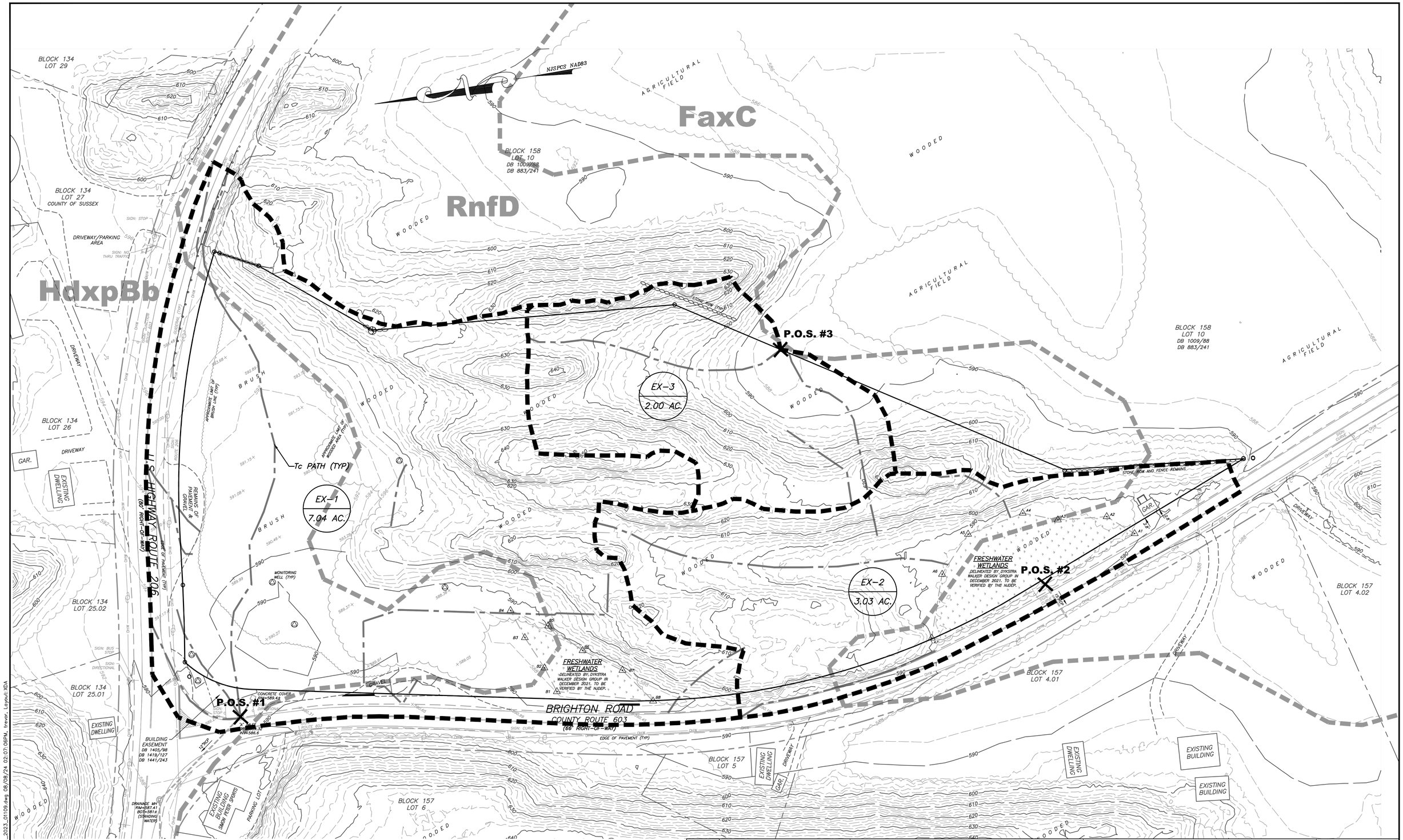

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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

EXISTING DRAINAGE AREA MAP

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
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FaxC

RnfD

HdxpBb

BLOCK 134
LOT 29

BLOCK 134
LOT 27
COUNTY OF SUSSEX

BLOCK 134
LOT 26

BLOCK 134
LOT 25.02

BLOCK 134
LOT 25.01

BLOCK 158
LOT 10
DB 1009/88
DB 883/241

BLOCK 158
LOT 6
AREA= 430,392 SF
OR 10,385 ACRES
DB 3535/60

BLOCK 157
LOT 6

BLOCK 157
LOT 5

BLOCK 157
LOT 4.01

BLOCK 157
LOT 4.02

NJSPCS NAD83

AGRICULTURAL FIELD

WOODED

DRIVEWAY/PARKING AREA

SIGN: STOP

SIGN: NO THRU TRAFFIC

DRIVEWAY

GAR.

EXISTING DWELLING

HIGHWAY ROUTE 206
(80' RIGHT-OF-WAY)

TIMBER MTS.

BRUSH

PROPOSED 12 FT X 20 FT DUMPSTER ENCLOSURE

PROPOSED 3,200 SF SEPTIC DISPOSAL BED

PROPOSED 36' DIAMETER, 20' HIGH FIRE WATER STORAGE TANK

PROPOSED 12'X12' PUMP HOUSE FOR FIRE SUPPRESSION SYSTEM

PROPOSED 12'X12' PUMP HOUSE FOR POTABLE WATER SYSTEM

PROPOSED 57'x175' BUILDING 10,000 SF FF = 595.00

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS FF = 598.50

PROPOSED 100'x250' BUILDING 25,000 SF FIVE 5,000 SF UNITS FF = 598.50

PROPOSED 6' WIDE SIDEWALK

PROPOSED GRANITE BLOCK CURB (TYP)

GATE

PR-1A
2.10 AC.

PR-1B
0.93 AC.

PR-1C
1.85 AC.

PR-1D
0.57 AC.

PR-2
1.85 AC.

PR-3A
3.53 AC.

PR-3B
0.20 AC.

PR-3C
1.04 AC.

P.O.S. #1

P.O.S. #2

P.O.S. #3

Tc PATH (TYP)

50' ANTICIPATED TRANSITION AREA

FRESHWATER WETLANDS
DELINEATED BY DYKSTRA WALKER DESIGN GROUP IN DECEMBER 2021. TO BE VERIFIED BY THE NJDEP.

STONE ROW AND FENCE REMAINS

CONCRETE COVER EL=589.44

2" IRON PIPE FOUND INV=586.6

DRAINAGE MH RIM=597.41 BOT=581.6 (STANDING WATER)

BUILDING EASEMENT
DB 1405/98
DB 1419/127
DB 1441/243

EXISTING BUILDING SMOK PEER SPORTS

PARKING LOT

EXISTING BUILDING

EXISTING DWELLING

BRIGHTON ROAD
COUNTY ROUTE 603
(66' RIGHT-OF-WAY)

EDGE OF PAVEMENT (TYP)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
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PROPOSED DRAINAGE AREA MAP

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: 1" = 50'
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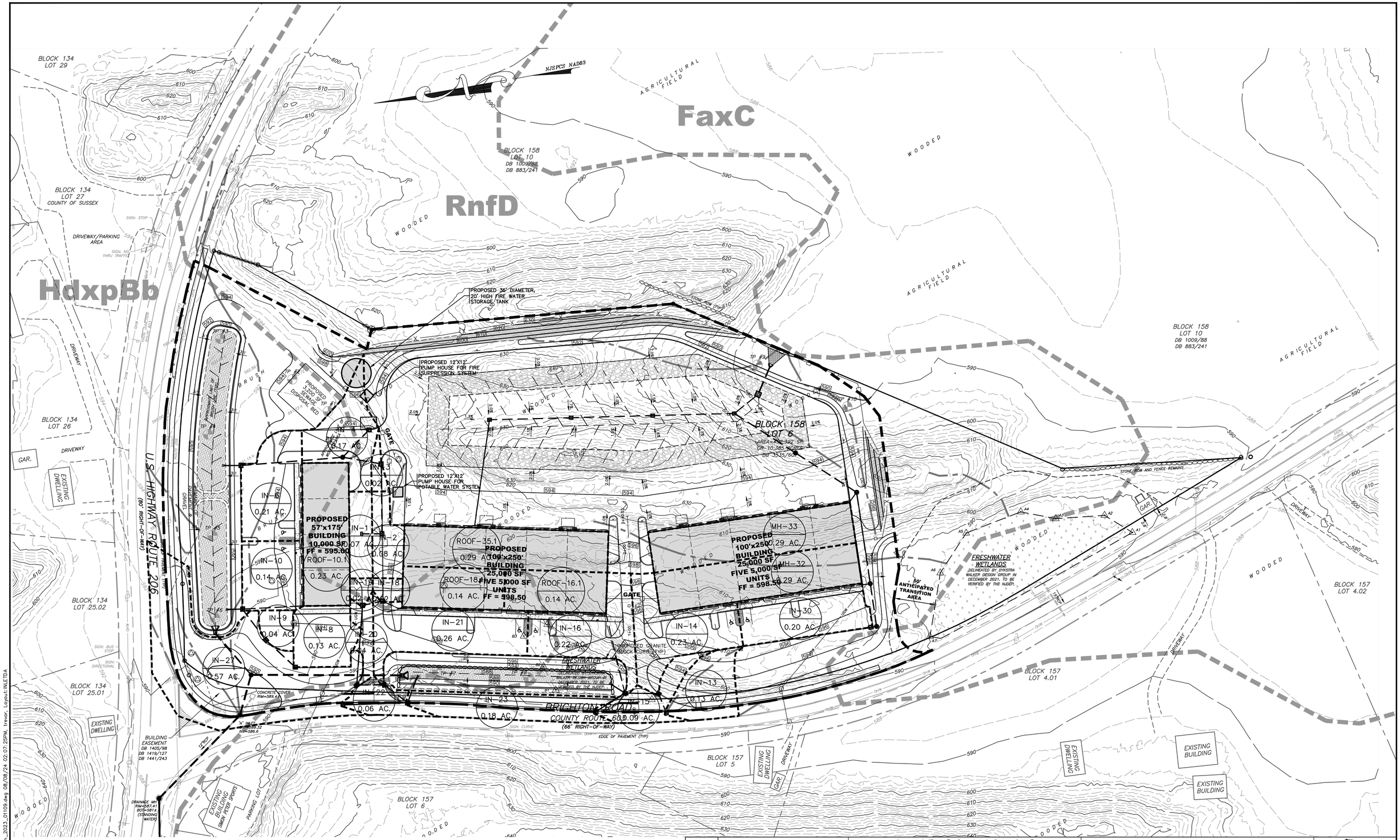

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PROPOSED INLET DRAINAGE AREA MAP

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

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SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. THE DISTRICT SHALL BE REPRESENTED AT THE PRECONSTRUCTION MEETING WITH THE TOWNSHIP ENGINEER, CONTRACTORS, AND UTILITY REPRESENTATIVES. IF THE TOWNSHIP ENGINEER DOES NOT SCHEDULE A PRECONSTRUCTION MEETING, IT IS THE RESPONSIBILITY OF THE OWNER/APPLICANT TO SCHEDULE ONE PRIOR TO ANY LAND DISTURBANCE.
2. ALL SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. EXCAVATED SOIL MATERIAL SHALL NOT BE PLACED ADJACENT TO RIVERS, STREAMS OR BODIES OF WATER IN A MANNER THAT WILL CAUSE IT TO BE WASHED AWAY BY HIGH WATER OR RUNOFF. EXCESS BORROW MATERIAL REMOVED FROM THE CONSTRUCTION SITE SHALL BE STABILIZED AT THE SITE OF PLACEMENT.
4. ALL DISTURBED AREAS NOT SCHEDULED FOR CONSTRUCTION ACTIVITIES WITHIN 60 DAYS OF DISTURBANCE SHALL BE TEMPORARILY STABILIZED.
5. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
6. PERMANENT SEEDING AND STABILIZATION TO BE IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT VEGETATIVE COVER. SPECIFIED RATES AND LOCATIONS SHALL BE AS ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
7. ALL WORK TO BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY".
8. A CRUSHED-STONE VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS DRIVE INTERSECTS A PAVED ROADWAY. THE BLANKET WILL BE OF SUFFICIENT SIZE TO REDUCE OFFSITE TRACKING OF SEDIMENT BY CONSTRUCTION TRAFFIC AND WILL BE MAINTAINED IN GOOD ORDER UNTIL ALL DRIVEWAY AREAS ARE STABILIZED. THE BLANKET SHALL BE COMPOSED OF ASTM C-33, SIZE No. 2 OR 3, NOT LESS THAN 6" DEEP AND NOT LESS THAN THE FULL WIDTH OF THE POINTS OF INGRESS OR EGRESS.
9. MULCHING SHALL BE DONE AT THE RATE OF 80 LBS/ 1000 SQUARE FEET WITH UNROTTED SALT HAY AND ANCHORED IMMEDIATELY AFTER PLACEMENT.
10. ALL REVISIONS, AFTER DISTRICT CERTIFICATION HAS BEEN GRANTED, SHALL BE FORWARDED TO THE SUSSEX COUNTY SOIL CONSERVATION DISTRICT FOR REVIEW. A LETTER OF EXPLANATION SHALL ACCOMPANY ALL REVISIONS.
11. THE SUSSEX COUNTY SCD MUST BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
12. THE OWNER/APPLICANT WILL OBTAIN THE DISTRICT ISSUED REPORT OF COMPLIANCE PRIOR TO ANY OCCUPANCY. THE DISTRICT REQUIRES AT LEAST ONE WEEK'S NOTICE BEFORE ISSUANCE.
13. ALL TOPSOIL STRIPPED AND STOCKPILED FOR USE IN FINAL GRADING SHALL RECEIVE TEMPORARY SEEDING.
14. TOTAL DISTURBED AREA =8.81 ACRES.
15. DURING LAND DISTURBANCE ACTIVITIES OR CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR TO CONTROL SEDIMENTATION BEYOND THOSE SHOWN ON THE APPROVED PLANS SHALL BE INSTALLED AS DIRECTED BY THE MUNICIPAL ENGINEER OR SUSSEX COUNTY SOIL CONSERVATION DISTRICT.
16. THE APPLICANT IS REQUIRED TO HAVE A COPY OF THE CERTIFIED PLAN AT THE CONSTRUCTION SITE.
17. DUST IS TO BE CONTROLLED WITH WATER, CALCIUM CHLORIDE OR OTHER METHOD APPROVED BY THE SOIL CONSERVATION DISTRICT.
18. RESIDENTIAL DEVELOPMENT CONTROL MEASURES SHALL/WILL APPLY TO DWELLING CONSTRUCTION ON INDIVIDUAL LOTS AND NOTATION THAT SUCH CONTROL MEASURES SHALL APPLY TO SUBSEQUENT OWNERS IF TITLE IS CONVEYED.
19. FOR SUBDIVISION PROJECT (ROADWAYS AND DRAINAGE PLANS) – SOIL EROSION AND SEDIMENT CONTROL PLANS WILL BE DEVELOPED FOR EACH LOT AS DEVELOPED.
20. TO THE MAXIMUM EXTENT PRACTICAL, ALL VEGETATED AREA NOT NEED FOR CONSTRUCTION SHALL BE LEFT UNDISTURBED FOR AS LONG AS POSSIBLE.
21. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
22. PERMANENT VEGETATION IS TO BE ESTABLISHED ON EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH IS TO BE USED FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED.
23. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR SUITABLE EQUAL, AT A 2 TON/ACRE RATE, ACCORDING TO STATE STANDARDS.
24. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
25. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED REGULARLY.
26. DURING AND AFTER CONSTRUCTION, THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE AND UPKEEP OF THE DRAINAGE STRUCTURES, VEGETATIVE COVER, AND ANY OTHER MEASURES DEEMED APPROPRIATE BY THE DISTRICT.
27. ALL TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES OR SEDIMENT BARRIERS. SEE STANDARDS.
28. ALL MATERIAL SHALL BE FREE FROM DEBRIS, PERISHABLE OR COMBUSTIBLE MATERIAL, AND FROZEN OR WET EARTH OR STONE LARGER THAN SPECIFIED BY THE ENGINEER.
29. ALL TOPSOIL STRIPPED AND STOCKPILED FOR USE IN FINAL GRADING SHALL RECEIVE TEMPORARY SEEDING.
30. TO THE MAXIMUM EXTENT PRACTICAL, ALL VEGETATED AREA NOT NEED FOR CONSTRUCTION SHALL BE LEFT UNDISTURBED FOR AS LONG AS POSSIBLE.
31. FINAL STABILIZATION OF ALL LAND DISTURBANCES ASSOCIATED WITH UNDERGROUND UTILITIES, IRRESPECTIVE OF PHASING, IS THE ULTIMATE RESPONSIBILITY OF THE OWNER.
32. THERE IS NO EXCESS MATERIAL TO BE REMOVED FROM THE SITE. IF EXCESS MATERIALS ARE TO BE TRANSPORTED TO ANOTHER LOCATION IN SUSSEX COUNTY, THE DISTRICT MUST BE PROVIDED WITH THE NAME, ADDRESS AND BLOCK AND LOT OF THAT LOCATION.

TOPSOIL STOCKPILE PROTECTION

1) CONSTRUCT TEMPORARY DIVERSION BERM AND/OR HAY BALE BARRIER AROUND STOCKPILE AREA AS REQUIRED.

2) APPLY LIMESTONE AT A RATE OF 90 LBS/1000 S.F.

3) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS/1000 S.F.

4) APPLY PERENNIAL RYEGRASS AT A RATE OF 1 LB/1000 S.F.

5) MULCH WITH UNROTTED SALT HAY OR SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. APPLY AT A RATE OF 90 LBS/1000 S.F.

TEMPORARY STABILIZATION SPECIFICATIONS

1) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS/1000 S.F.

2) APPLY FERTILIZER (10-20-10) AT A RATE OF 14 LBS/1000 S.F. AND WORK INTO 4" DEEP.

3) APPLY SEED MIXTURE: PERENNIAL RYEGRASS AT 20 LBS/ACRE, PERENNIAL RYEGRASS CREEPING RED FESCUE AT 15 LBS/ACRE OR AT 40 LBS/ACRE OR CHEWING RED FESCUE AT 15 LBS/ACRE OR APPROVED EQUAL.

4) MULCH WITH UNROTTED SALT HAY OR SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. APPLY AT A RATE OF 90 LBS/1000 S.F. AND SECURE BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

5) PLANT SEED BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1, IF POSSIBLE.

PERMANENT STABILIZATION SPECIFICATIONS

1) APPLY TOPSOIL TO A DEPTH OF 4".

2) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS/1000 S.F.

3) APPLY FERTILIZER (10-20-10) AT A RATE OF 14 LBS/1000 S.F.

4) APPLY SEED MIXTURE: PERENNIAL RYEGRASS AT 20 LBS/ACRE, PERENNIAL RYEGRASS CREEPING RED FESCUE AT 15 LBS/ACRE OR 40 LBS/ACRE OR KENTUCKY BLUEGRASS AT 20 LBS/ACRE OR APPROVED EQUAL.

5) MULCH WITH UNROTTED SALT HAY OR SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. APPLY AT A RATE OF 90 LBS/1000 S.F. ACCORDING TO THE NEW JERSEY STANDARDS.

6) ANCHOR MULCH WITH EMULSIFIED ASPHALT (SS-1) APPLIED AT A RATE OF 1 GAL./1000 S.F. OTHER APPROVED METHODS (I.E. PEG AND TWINE, OR MULCH NETTING) MAY BE USED. IF POSSIBLE, PLANT BETWEEN MARCH 1 AND MAY 15, OR BETWEEN AUGUST 15 AND OCTOBER 1.

SEQUENCE OF CONSTRUCTION

1) INSTALL EROSION CONTROL MEASURES, INCLUDING SILT FENCE, VEHICLE WHEEL CLEANING BLANKET, ETC. AS NOTED ON PLAN. DURATION = 5 DAYS.

2) CLEAR AND GRUB PROPERTY = 20 DAYS.

3) STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND STOCKPILES, PERFORM TEMPORARY STABILIZATION OF STOCKPILES. DURATION = 20 DAYS.

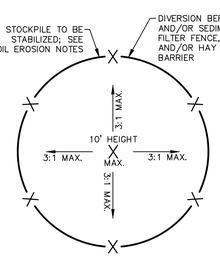
4) ROUGH GRADE SITE AND INSTALL DRAINAGE FACILITIES WITH STORM SEWER INLET PROTECTION. INFILTRATION BASIN SHALL BE CONSTRUCTED WITHOUT SAND BOTTOM OR UNDERDRAIN AND STABILIZED. DURATION = 180 DAYS.

6) CONSTRUCT SITE IMPROVEMENTS AND INSTALL PERMANENT STABILIZATION OF ALL DISTURBED SURFACES. DURATION = 180 DAYS.

7) CLEAN INFILTRATION BASIN AFTER SITE HAS BEEN STABILIZED. INSTALL UNDERDRAIN AND SAND BOTTOM. DURATION = 5 DAYS

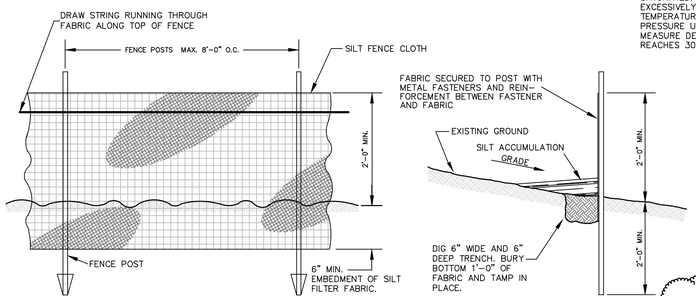
8) REMOVE TEMPORARY SOIL EROSION MEASURES AFTER APPROVAL BY SOIL CONSERVATION DISTRICT. DURATION = 7 DAYS.

TOTAL DURATION = 417 DAYS.



TOPSOIL STOCKPILE DETAIL

NOT TO SCALE



REQUIREMENTS FOR SILT FENCE

NOTES:

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. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 1/2".

2) A METAL FENCE WITH 6" OR SMALLER OPENINGS AND AT LEAST 2' HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.

3) A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6" DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2' ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OF 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.

SEDIMENT FILTER FENCE

NOT TO SCALE

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

A. 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.
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 COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. 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 LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

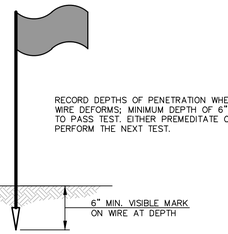
B. COMPACTION TESTING METHODS

1. PROBING WIRE TEST (SEE DETAIL)
2. HAND-HELD PENETROMETER TEST (SEE DETAIL)
3. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED
4. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
5. 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.
6. DETAILED REQUIREMENTS FOR EACH COMPACTION TESTING METHOD CAN BE FOUND IN SECTION 19 "STANDARD FOR LAND GRADING" OF THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
7. 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.

C. PROCEDURES FOR SOIL COMPACTION MITIGATION

1. PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. 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.

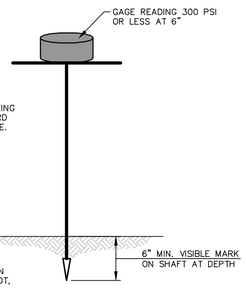
NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.



* WIRE MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED.

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

NOT TO SCALE

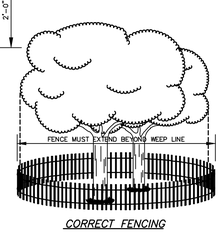


NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. MEASURE DEPTH WHEN GAGE READING REACHES 300 PSI OR DEPTH OF 6"

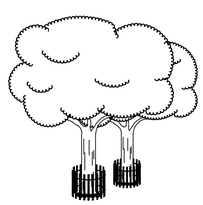
* PENETROMETER MAY BE RE-INSERTED IF/WHEN AN OBSTRUCTION (ROCK, ROOT, DEBRIS) IS ENCOUNTERED.

HANDHELD SOIL PENETROMETER TEST

NOT TO SCALE



CORRECT FENCING



INCORRECT FENCING

TREE PROTECTION

NOT TO SCALE

STANDARD FOR DUST CONTROL

DEFINITION

THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.

CONDITION WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS.

WATER QUALITY ENHANCEMENT

SEDIMENTS DEPOSITED AS "DUSTS" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES – SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1

VEGETATIVE COVER – SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION PG. 4-1, AND PERMANENT STABILIZATION WITH SOD, PG. 6-1.

SPRAY-ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

TABLE 16-1: DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) – SPRAY ON POLYACRYLAMIDE (PAM) – DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS, MAY ALSO BE USED AS AN ADDITIVE TO OTHER SPRAY ON TREATMENTS AT 0.5 LBS/ACRE AND PROPITATE SUSPENDED SOLIDS. SEE STANDARD FOR STABILIZATION WITH POLYACRYLAMIDES (PAM)		
ACIDULATED SOY BEAN SOAP STOCK	NONE	COARSE SPRAY	1200

TILLAGE- TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING- SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

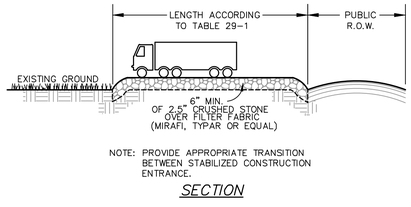
BARRIERS- SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WATES, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE- SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMON, FERTILIZER SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

STONE- COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

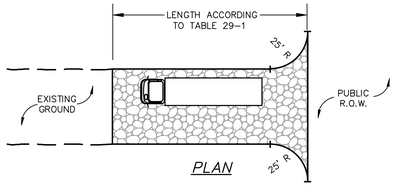
TABLE 29-1

PERCENTAGE SLOPE OF ROADWAY	LENGTH REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0–2%	50 FT	100 FT
2–5%	100 FT	200 FT
> 5%	ENTIRE SURFACE STABILIZED WITH F.A.B.C. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING BODY.	



NOTE: PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE.

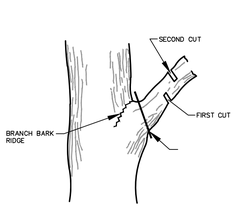
SECTION



PLAN

STABILIZED CONSTRUCTION ENTRANCE

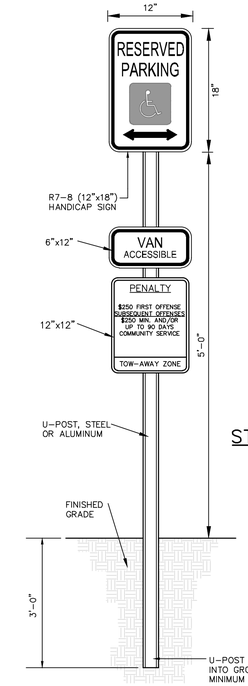
NOT TO SCALE



30" x 30"

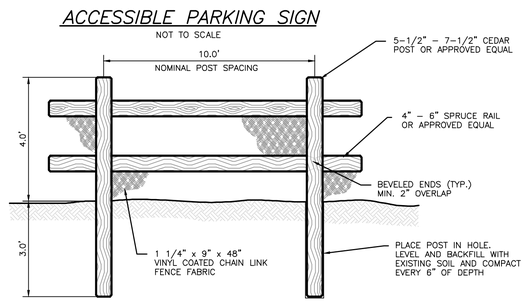
R1-1 STOP SIGN DETAIL

NOT TO SCALE



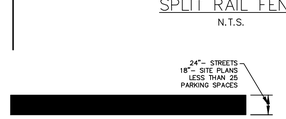
ACCESSIBLE PARKING SIGN

NOT TO SCALE



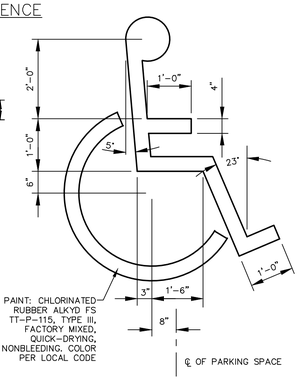
SPLIT RAIL FENCE

N.T.S.



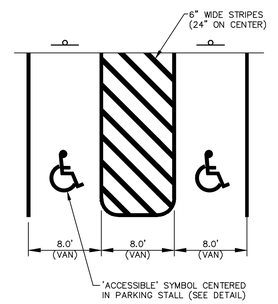
STOP BAR DETAIL

NTS



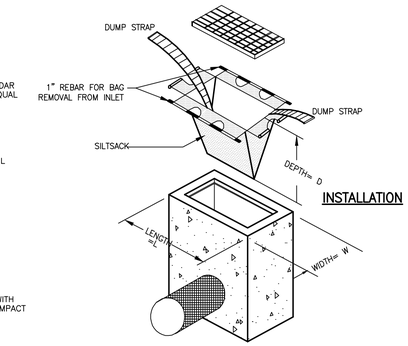
ACCESSIBLE PARKING SPACE

N.T.S.



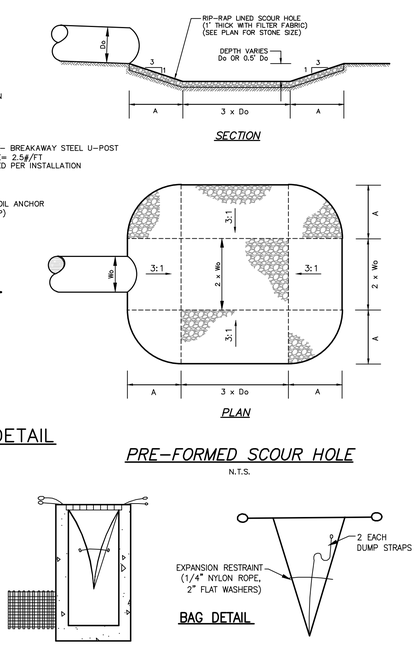
ADA PARKING STALL STRIPING (NJ)

NOT TO SCALE



DETAIL OF TEMPORARY STORM SEWER INLET PROTECTION

NOT TO SCALE



SECTION

PLAN

STOP SIGN MOUNTING DETAIL

NOTE TO SCALE

PRE-FORMED SCOUR HOLE

N.T.S.

BAG DETAIL

INSTALLATION

		DYKSTRA WALKER DESIGN DW GROUP PA PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS 21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849 PHONE (973) 663-6540 · FAX (973) 663-0042 WWW.DYKSTRAWALKER.COM
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS	KEVIN J. ROBINE, P.E. PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS	
DATE	REVISION	

CONSTRUCTION NOTES & DETAILS

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: AS NOTED
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 17 OF 21

J:\adsk\PROJ\01\01109\dwg\Site Plan_2023_01109.dwg, Construction Notes (1), 8/8/2024 2:07:26 PM, trevor, DWG To PDF.pc3, ARCH D (36.00 x 24.00 Inches), 1:1

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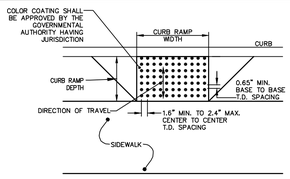
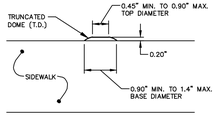


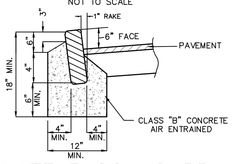
PLAN VIEW



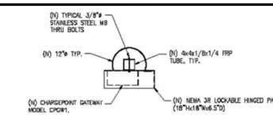
ELEVATION

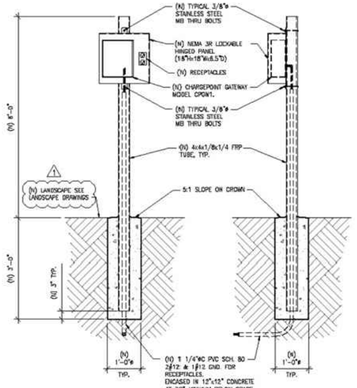
NOTES:
1. DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT ALL CURB RAMPS.
2. DETECTABLE WARNING SURFACES SHALL BE COLOR COATED AS REQUIRED BY THE GOVERNMENTAL AUTHORITY HAVING JURISDICTION AND PROVIDE 70% COLOR CONTRAST AGAINST RAMP MATERIAL.
3. DETECTABLE WARNING SURFACE SHALL BE EITHER SURFACE MOUNT OR CAST-IN-PLACE AS REQUIRED BY GOVERNMENTAL AUTHORITY HAVING JURISDICTION.

DETECTABLE WARNING SURFACE
NOT TO SCALE



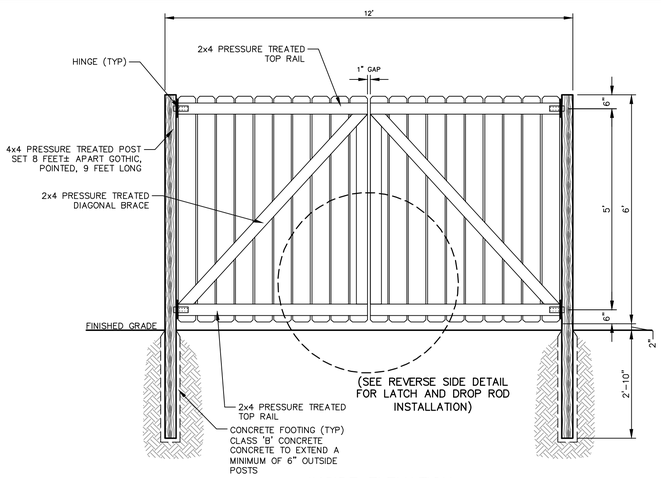
GRANITE BLOCK CURB
NOT TO SCALE





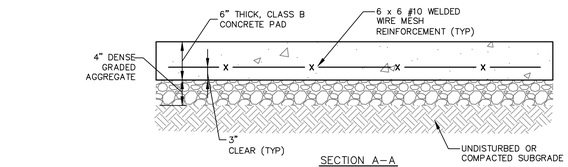
NOTE: CHARGING STATION DETAIL FOR GRAPHICAL PURPOSES ONLY. PRIOR TO CONSTRUCTION, APPLICANT SHALL SUBMIT ALL NECESSARY CONSTRUCTION DETAILS TO THE TOWN ENGINEER

ELECTRIC VEHICLE CHARGING STATION
NOT TO SCALE

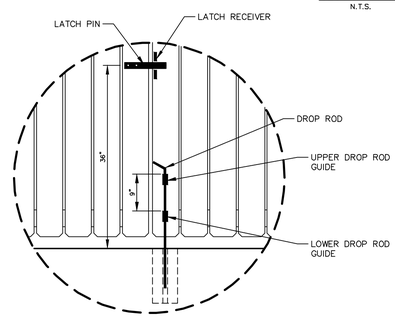


INSIDE ELEVATION

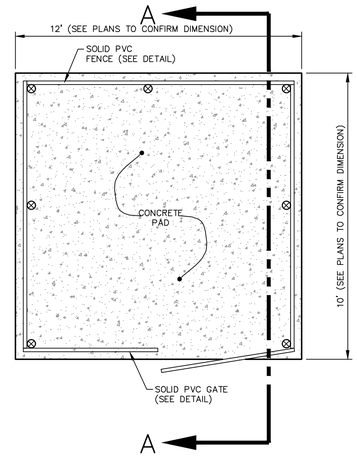
SOLID PVC FENCE GATE DETAIL
NOT TO SCALE



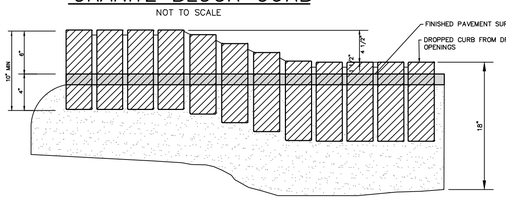
SECTION A-A
N.T.S.



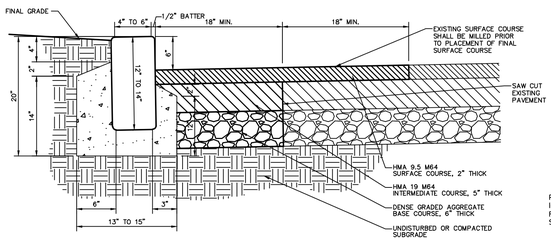
SEE REVERSE SIDE DETAIL



DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE

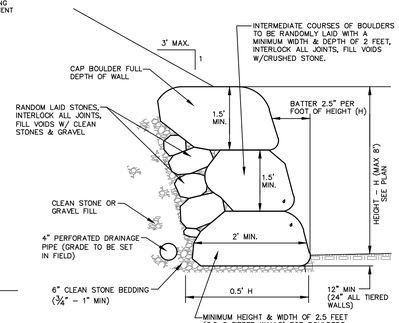


GRANITE BLOCK DEPRESSED CURB
NOT TO SCALE

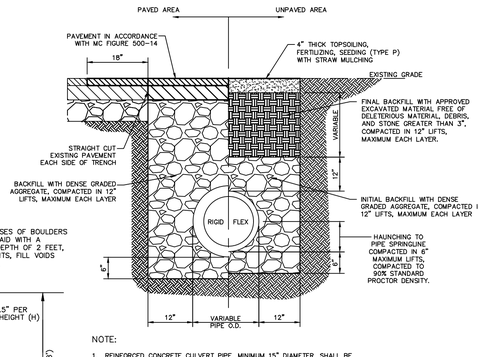


NOTE:
1. CONCRETE SHALL BE NJDOT CLASS "B" (AIR ENTRAINED)
2. FOUNDATION SHALL BE CONSTRUCTED THE ENTIRE LENGTH OF GRANITE BLOCK CURB.

GRANITE BLOCK CURB WITHIN COUNTY R.O.W. DETAIL
NOT TO SCALE

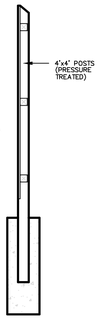


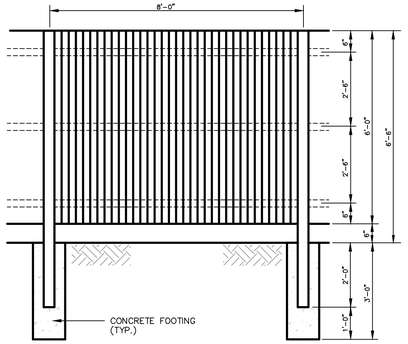
DRY STONE WALL DETAIL (4 FT TO 8 FT HIGH)
NOT TO SCALE



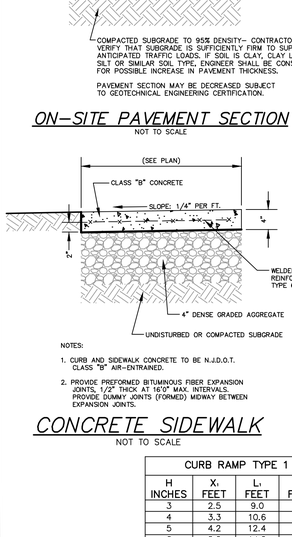
NOTE:
1. REINFORCED CONCRETE CULVERT PIPE, MINIMUM 15" DIAMETER, SHALL BE UTILIZED IN ALL COUNTY RIGHT-OF-WAYS WETHER PAVED OR UNPAVED.
2. CONTRACTOR SHALL HAND COMPACT DSA BENEATH THE HAUNCHES OF FLEXIBLE PIPE TO ENSURE INSTALLATION MEETS OR EXCEEDS MANUFACTURER'S SPECIFICATIONS.
3. IF NO OTHER CONTROLLING FACTORS EXIST, ALL CONCRETE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ACTIVE STANDARD ASTM C1479. ALL THERMOPLASTIC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ACTIVE STANDARD ASTM D2321.
4. SOIL IN THE OUTER BEDDING, HAUNCH, AND LOWER SIDE ZONES SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS THE MAJORITY OF SOIL IN THE OVERFILL ZONE. SOIL SHALL BE COMPACTED WITHIN 2%± OF OPTIMUM WATER CONTENT.
5. BACKFILLING WITH EXCAVATED MATERIAL SHALL NOT BE PERMITTED IN TRENCHES FOR STORM SEWERS AND ALL OTHER UTILITIES.
6. TYPE OF SEEDING SHALL MEET THE MORRIS COUNTY SOIL CONSERVATION DISTRICT REQUIREMENTS.
7. SURFACE COURSE PAVEMENT SHALL BE PLACED IN TWO STAGES IN ACCORDANCE WITH THE FOLLOWING:
   A. STAGE I – 2" HMA 9.5M 64 SHALL BE COMPACTED FLUSH TO EXISTING PAVEMENT.
   B. STAGE II – AFTER 6 MONTHS, THE TRENCH WIDTH PLUS 36" SHALL BE MILLED 2" DEEP AND SHALL BE RESURFACED WITH 2" HMA 9.5M 64 COMPACTED FLUSH TO EXISTING PAVEMENT.

COUNTY R.O.W. TRENCH DETAIL
NOT TO SCALE



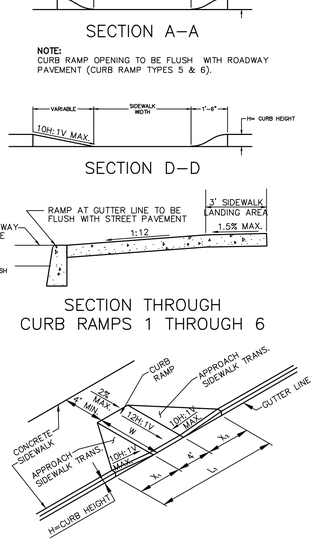


SOLID PVC FENCE
N.T.S.



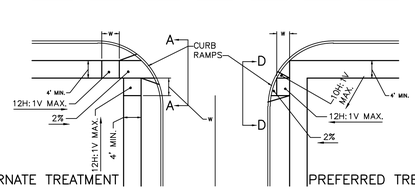
NOTES:
1. CURB AND SIDEWALK CONCRETE TO BE N.J.D.O.T. CLASS "B" AIR-ENTRAINED.
2. PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 16'0" MAX. INTERVALS. PROVIDE DUMMY JOINTS (FORMED) MIDWAY BETWEEN EXPANSION JOINTS.

CONCRETE SIDEWALK
NOT TO SCALE



SECTION THROUGH CURB RAMPS 1 THROUGH 6

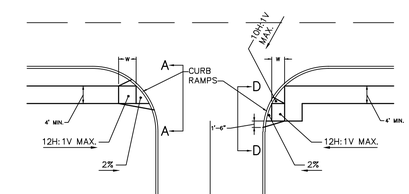
NJDOT CURB RAMP TYPE 1



ALTERNATE TREATMENT PREFERRED TREATMENT

NJDOT CURB RAMP TYPE 6
(CROSSING PARALLEL TO HIGHWAY ONLY)

CURB RAMP TYPE 2, 5 OR 6	
H INCHES	W FEET
3	3
4	4
5	5
6	6
7	7
8	8
9	9

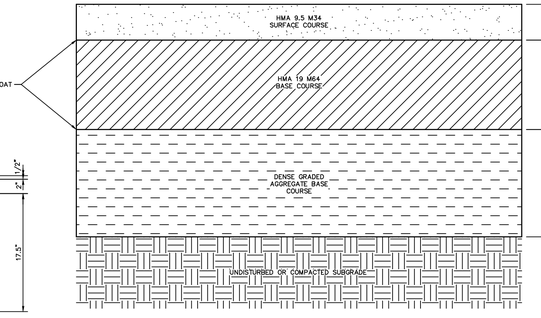


ALTERNATE TREATMENT PREFERRED TREATMENT

NJDOT CURB RAMP TYPE 5
(CROSSING PARALLEL TO HIGHWAY ONLY)

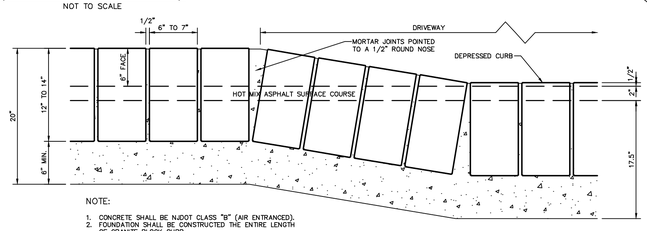
PUBLIC SIDEWALK CURB RAMPS
N.T.S.

CURB RAMP TYPE 1			
H INCHES	X_1 FEET	L_1 FEET	W FEET
3	2.5	9.0	3
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9



NOTE:
MIX NUMBERS ARE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2001 TABLE 903-1

COUNTY R.O.W. PAVEMENT DETAIL
NOT TO SCALE



NOTE:
1. CONCRETE SHALL BE NJDOT CLASS "B" (AIR ENTRANCED).
2. FOUNDATION SHALL BE CONSTRUCTED THE ENTIRE LENGTH OF GRANITE BLOCK CURB.
3. MORTAR SHALL CONSIST OF ONE (1) PART PORTLAND CEMENT TO TWO (2) PARTS FINE AGGREGATES. WATER SHALL BE ADDED TO FORM THE PROPER CONSISTENCY.
4. MORTAR SHALL NOT BE TEMPERED OR USED AFTER IT HAS BEGUN TO SET.

GRANITE BLOCK DEPRESSED CURB WITHIN COUNTY R.O.W. DETAIL
NOT TO SCALE

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP PA
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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

CONSTRUCTION NOTES & DETAILS

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 & BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE: AS NOTED
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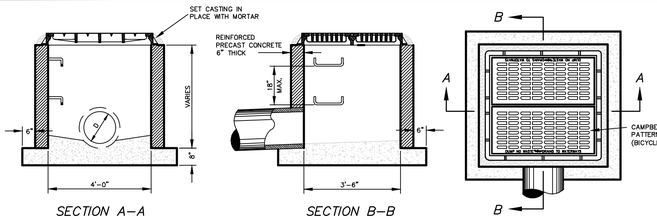
J:\gsk\PROJ\01\01109\dwg\Site Plan_2023_01109.dwg, Construction Notes (2), 8/8/2024 2:07:28 PM, trevor, DWG To PDF.pc3, ARCH D (36.00 x 24.00 Inches), 1:1

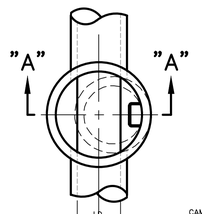


SECTION A–A SECTION B–B

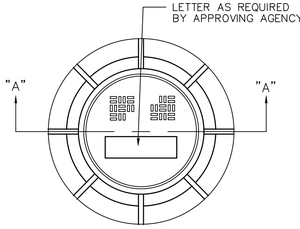
TYPE "E" INLET
N.T.S.

GENERAL NOTES:

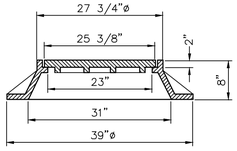
1. FOOTING TO BE N.J.D.O.T. CLASS "C" CONCRETE.
2. INVERT TO BE CLASS "C" CONCRETE.
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDRY No. 3425 OR APPROVED EQUAL.
5. PROVIDE ALUMINUM LADDER RUNGS AT 18" MAX. O.C.
6. ADJUST TO GRADE WITH COURSES OF CONCRETE BRICK (3 MAX.) OR PRECAST CONCRETE GRADE RING.



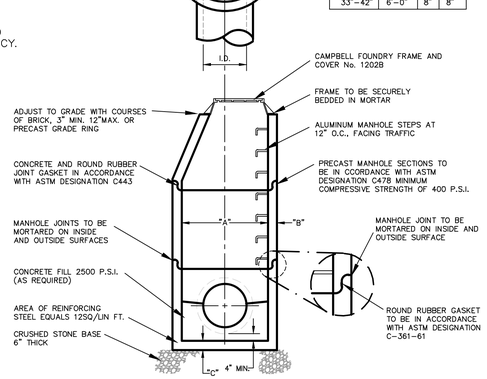
MANHOLE SCHEDULE			
PIPE I.D.	"A" DIA.	"B"	"C"
15"–27"	4'–0"	5"	5"
27"–33"	5'–0"	6"	6"
33"–42"	6'–0"	8"	8"



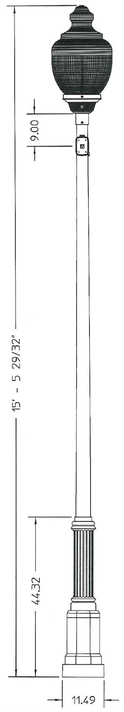
PLAN



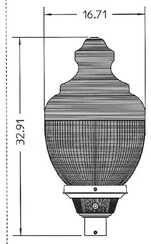
SECTION A–A

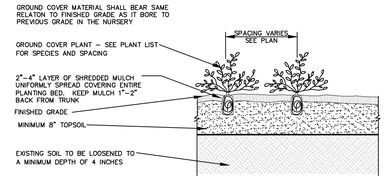


PRECAST STORM DRAINAGE MANHOLE
N.T.S.



Luminaire Detail
Scale 1:12



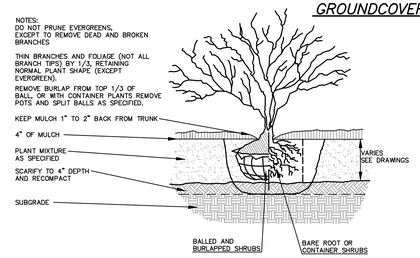


GROUNDCOVER PLANTING DETAIL
N.T.S.

NOTES:
DO NOT PRUNE EVERGREENS, EXCEPT TO REMOVE DEAD AND BROKEN BRANCHES

THIN BRANCHES AND FOLIAGE (NOT ALL BRANCH TIPS) BY 1/3, RETAINING NORMAL PLANT SHAPE (EXCEPT EVERGREEN).

REMOVE BURLAP FROM TOP 1/3 OF BALL, OR WITH CONTAINER PLANTS REMOVE POTS AND SPLIT BALLS AS SPECIFIED.



SHRUB PLANTING DETAIL
N.T.S.

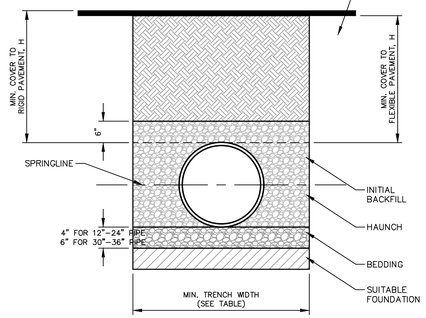
RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

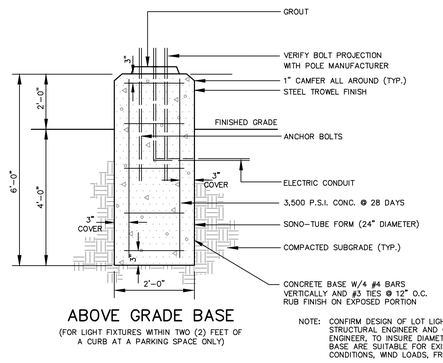
PIPE DIAM.	SURFACE LIVE LOAD CONDITION	
	H–25	HEAVY CONSTRUCTION (75T AXLE LOAD)*
12"–48"	12"	48"
54"–60"	24"	60"

*VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

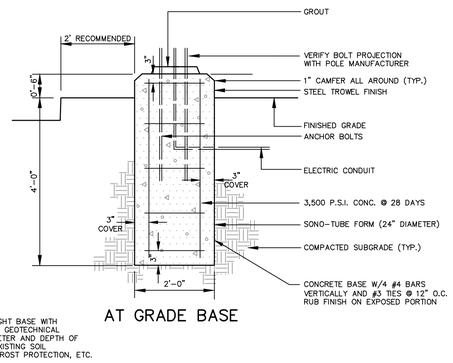


NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" FOR 4"–24"; 6" FOR 30"–60".
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON–TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"–60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF PAVEMENT OR TO TOP OF RIGID PAVEMENT.



ABOVE GRADE BASE
(FOR LIGHT FIXTURES WITHIN TWO (2) FEET OF A CURB AT A PARKING SPACE ONLY)

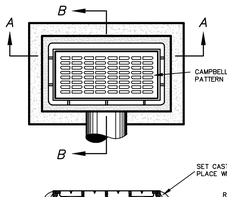


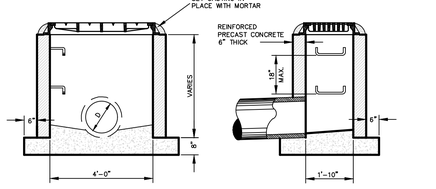
AT GRADE BASE

NOTE: CONFIRM DESIGN OF LOT LIGHT BASE WITH STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER, TO INSURE DIAMETER AND DEPTH OF BASE ARE SUITABLE FOR EXISTING SOIL CONDITIONS, WIND LOADS, FROST PROTECTION, ETC.

POLE MOUNTED LIGHT POLE BASE DETAILS
NOT TO SCALE

HDPE PIPE BEDDING DETAIL
NOT TO SCALE

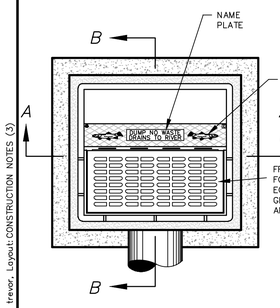


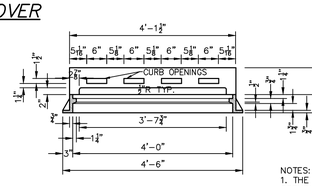


SECTION A–A SECTION B–B

TYPE "A" INLET
NOT TO SCALE

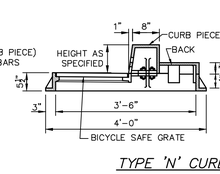
STANDARD MANHOLE FRAME AND COVER
N.T.S.



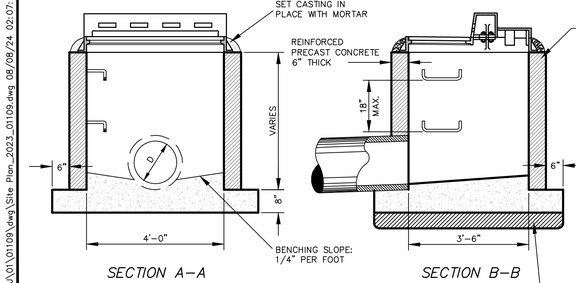


NOTES:
1. THE CLEAR SPACE IN THE CURB OPENING (OR EACH INDIVIDUAL CLEAR SPACE, IF THE CURB OPENING HAS TWO OR MORE CLEAR SPACES) MUST HAVE AN AREA OF NO MORE THAN SEVEN (7.0) SQUARE INCHES OR BE NO GREATER THAN TWO (2.0) INCHES ACROSS THE SMALLEST DIMENSION.

2. STORM DRAIN INLET LABEL SHOULD READ "NO DUMPING, DRAINS TO WATERWAYS" OR OTHERWISE APPROVED BY THE ENGINEER. FISH LOGOS SHALL ALSO BE INCLUDED ON BOTH SIDES OF LABEL.

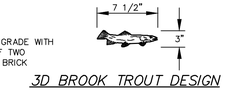


TYPE 'N' CURB PIECE

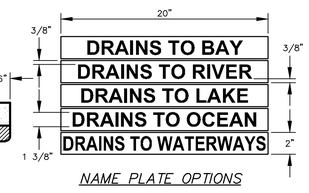


SECTION A–A SECTION B–B

TYPE "B" INLET
NOT TO SCALE

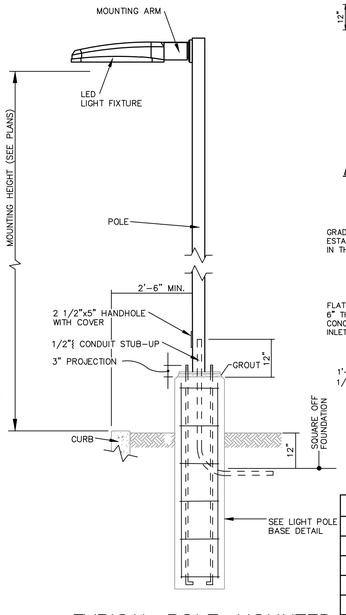


3D BROOK TROUT DESIGN

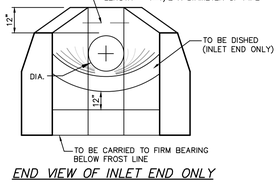


NAME PLATE OPTIONS

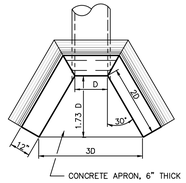
POLE MOUNTED STREETSCAPE LIGHT FIXTURE DETAIL
NOT TO SCALE



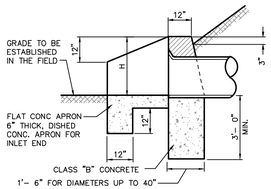
TYPICAL POLE–MOUNTED LIGHT FIXTURE DETAIL
NOT TO SCALE



END VIEW OF INLET END ONLY



PLAN



OUTLET END

HEADWALL IN CUBIC YARDS			
PIPE SIZE	CONC.METAL	REIN. CONC.	APRONS IN CUBIC YARDS
12"	1.4 C.Y.	1.4 C.Y.	0.2 C.Y.
15"	1.7	1.7	0.2
18"	2.1	2.1	0.3
21"	2.5	2.5	0.4
24"	2.9	2.9	0.5
27"	3.3	3.4	0.6
30"	3.7	3.8	0.7
36"	4.7	4.8	0.9
42"	5.8	6.3	1.2
48"	7.6	8.4	1.5
54"	9.7	10.7	1.8
60"	12.2	13.4	2.1
66"	15.0	16.4	2.5
72"	18.1	19.9	3.0

NOTES:
1. ALL EDGES TO BE CHAMFERED 1".
2. CONCRETE TO BE N.J.D.O.T., CLASS "B"
3. APRONS TO BE 6" THICK CONC. FLAT AT OUTLET END, DISHED AT INLET END.
4. EXPOSED PORTIONS OF WALL TO BE RUBBED AND FLOATED.
5. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

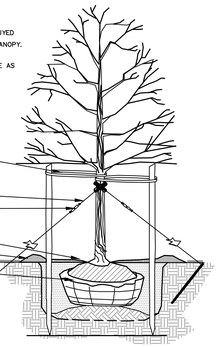
CONCRETE HEADWALL
NOT TO SCALE

ALL TREES UNDER 3" IN CALIPER SHALL BE STAKED
ALL TREES 3" IN CALIPER AND GREATER SHALL BE GUYED

ALL TREES SHALL BE PRUNED TO THIN AND SHAPE CANOPY. DO NOT CUT CENTRAL LEADER. SEE PRUNING DETAIL

TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE

SET STAKES VERTICAL AND AT SAME HEIGHT



NOTES:

1. TREES SHALL BE PLACED TWO FEET FROM FACE OF CURB WITH SIDEWALKS AND EIGHT FEET WHERE NO SIDEWALKS EXIST OR ARE PROPOSED.
2. PLANTING DISTANCE BETWEEN TREES SHALL BE 50 FEET MAXIMUM EXCEPT THAT SOME FLOWERING TREES MAY BE PLANTED A MAXIMUM DISTANCE OF 30 FEET APART.
3. NO SHADE TREES TO BE PLACED IN SIGHT TRIANGLE EASEMENTS OR WITHIN 25 FEET OF THE INTERSECTION OF TWO STREETS.
4. MINIMUM CALIPER OF TREES SHALL BE 2.5 INCHES MEASURED 1 FOOT ABOVE GROUND.
5. MINIMUM HEIGHT OF TREES SHALL BE 11 FEET, EXCEPT FLOWERING TREES SHALL NOT BE LESS THAN 6 FEET.
6. ALL TREES SHALL BE BALLED AND BURLAPPED; SHALL BE OF NURSERY STOCK; SHALL BE OF SYMMETRICAL GROWTH; SHALL BE FREE OF DISEASE, INSECTS, AND MECHANICAL INJURY; SHALL BE STRAIGHT OF STEM WITH A WELL BALANCED TOP; SHALL BE OF VIGOROUS GROWTH; AND SHALL HAVE A WELL DEVELOPED ROOT SYSTEM. THE TRUNKS OF THE SHADE TREES (EXCEPT FLOWERING TREES) ARE TO BE FREE BRANCHES TO A HEIGHT OF AT LEAST 7 FEET FROM THE GROUND AND THE FIRST BRANCH SHALL NOT BE OVER 9 FEET FROM THE GROUND.
7. THE PLANTING HOLE SHALL BE ONE FOOT IN DIAMETER GREATER THAN THE ROOT BALL AND 6 INCHES DEEPER.
8. THE SOIL FOR BACKFILLING SHALL BE A MIXTURE OF THREE PARTS LOAMY SOIL AND TWO PARTS COARSE SAND AND ONE PART HUMUS.
9. AFTER BACKFILLING THE SURFACE OF THE PLANTING HOLE SHALL BE MULCHED WITH WOOD CHIPS, HAY, STRAW OR OTHER SUITABLE MATERIAL.
10. WHEN NECESSARY, EACH TREE SHALL BE STAKED WITH STAKES OF LOCUST, CEDAR OR OAK 2" X 2" X 6' TO 8'. FASTENING AND SUPPORT SHALL BE BY MEANS OF TAPE ONE AND ONE HALF INCHES TO TWO INCHES WIDE.
11. WHEN STAKING IS NECESSARY, TREES SHALL BE STAKED WITH TWO, OPPSING FLEXIBLE TIES AS SHOWN. ONLY UNDER EXTREME WINDY CONDITIONS, GUYING CABLE, TURNBUCKLE AND IF NECESSARY TREE ANCHOR STAKING SYSTEM SHALL BE USED.

TREE STAKING DETAIL
N.T.S.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

DYKSTRA WALKER DESIGN DW GROUP P.A.
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
21 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-6540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

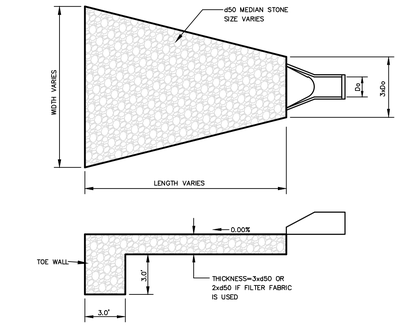
KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

CONSTRUCTION NOTES & DETAILS

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 & BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

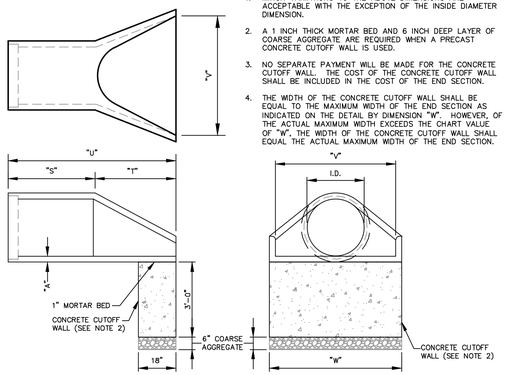
SCALE: AS NOTED
JOB NO.: 01109
DRAWN BY: TJB
CHECKED BY: KJR
DATE: 7/25/23
SHEET NO. 19 OF 21

J:\cdsk\PROJ\01\01109\dwg\Site Plan_2023_01109.dwg, Construction Notes (3), 8/8/2024 2:07:29 PM, trevor, DWG To PDF.pc3, ARCH D (36.00 x 24.00 Inches), 1:1



RIP-RAP APRON

NOT TO SCALE



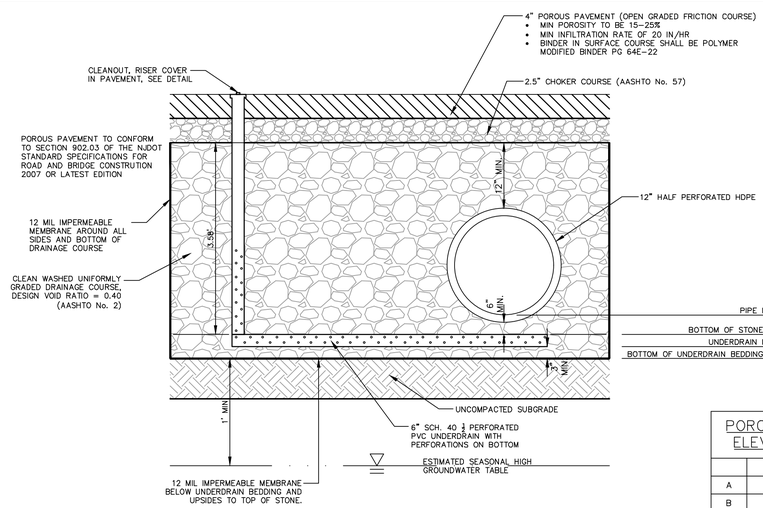
NOTES:

1. MINOR VARIATIONS TO THE ABOVE DIMENSIONS ARE ACCEPTABLE WITH THE EXCEPTION OF THE INSIDE DIAMETER DIMENSION.
2. A 1 INCH THICK MORTAR BED AND 6 INCH DEEP LAYER OF COARSE AGGREGATE ARE REQUIRED WHEN A PRECAST CONCRETE CUTOFF WALL IS USED.
3. NO SEPARATE PAYMENT WILL BE MADE FOR THE CONCRETE CUTOFF WALL. THE COST OF THE CONCRETE CUTOFF WALL SHALL BE INCLUDED IN THE COST OF THE END SECTION.
4. THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL BE EQUAL TO THE MAXIMUM WIDTH OF THE END SECTION AS INDICATED ON THE DETAIL BY DIMENSION "W". HOWEVER, OF THE ACTUAL MAXIMUM WIDTH EXCEEDS THE CHART VALUE OF "W", THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL EQUAL THE ACTUAL MAXIMUM WIDTH OF THE END SECTION.

I.D.	12"	15"	18"	21"	24"	27"	30"	36"	42"	48"	54"	60"
"A"	2"	2.25"	2.5"	2.75"	3"	3.25"	3.5"	4"	4.5"	5"	5.5"	6"
"R"	5"	7.5"	9"	9"	10"	10"	14"	14"	21"	24"	27"	31"
"S"	24"	24"	24"	24"	24"	24"	26"	26"	36"	36"	36"	36"
"T"	24"	24"	24"	24"	24"	24"	30"	36"	60"	60"	60"	60"
"U"	4'	4'	4'	4'	4'	4'	4'-8"	5'-2"	8'	8'	8'	8'
"V"	24"	28"	34"	40"	48"	54"	60"	72"	78"	84"	90"	96"
"W"	28"	34.5"	41"	47.5"	54"	60.5"	67"	80"	87"	94"	101"	108"

CONCRETE FLARED END SECTION

NOT TO SCALE



POROUS PAVEMENT SECTION (STORAGE AREA) (OPEN GRADED FRICTION COURSE)

NOT TO SCALE

CONSTRUCTION REQUIREMENTS

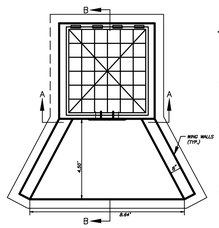
- CONSTRUCTION MAY NOT TAKE PLACE DURING RAIN OR SNOW, NOR WHEN THE SUBSOIL IS FROZEN. FROZEN AGGREGATE MATERIALS MAY NOT BE INSTALLED.
- THE PROPOSED AREA OF THE PERVIOUS PAVEMENT SYSTEM MUST BE KEPT FREE FROM SEDIMENT DURING THE ENTIRE CONSTRUCTION PROCESS. CONSTRUCTION MATERIALS CONTAMINATED BY SEDIMENTS MUST BE REMOVED AND REPLACED WITH CLEAN MATERIALS.
- THE LOCATION OF THE PROPOSED PERVIOUS PAVING SYSTEM SHOULD NOT BE USED TO PROVIDE SEDIMENT CONTROL DURING CONSTRUCTION; HOWEVER, WHEN UNAVOIDABLE, THE BOTTOM OF THE SEDIMENT CONTROL BASIN SHOULD BE AT LEAST 2 FEET ABOVE THE FINAL DESIGN ELEVATION OF THE BOTTOM OF THE STORAGE BED IN THE PERVIOUS PAVING SYSTEM.
- THE EXCAVATION TO THE FINAL DESIGN ELEVATION OF THE STORAGE BED MAY ONLY OCCUR AFTER ALL CONSTRUCTION WITHIN ITS DRAINAGE AREA IS COMPLETED AND THE DRAINAGE AREA IS STABILIZED. IF CONSTRUCTION OF THE PERVIOUS PAVING SYSTEM CANNOT BE DELAYED, DURING ALL PHASES OF CONSTRUCTION ALL FLOWS MUST BE DIVERTED AWAY FROM THE PERVIOUS PAVING SYSTEM. THE DIVERSIONS MAY NOT BE REMOVED UNTIL ALL CONSTRUCTION WITHIN THE DRAINAGE AREA IS COMPLETED AND THE AREA IS STABILIZED.
- THE CONTRIBUTING DRAINAGE AREA MUST BE COMPLETELY STABILIZED PRIOR TO PERVIOUS PAVING SYSTEM USE.

COLD WEATHER REQUIREMENTS

- SNOW AND ICE, ESPECIALLY FROM AREAS TREATED WITH SAND, CINDERS OR DE-ICING MATERIALS, MAY NOT BE STOCKPILED ON A PERVIOUS PAVING SYSTEM.
- A GRADE-SEPARATED AREA MUST BE DESIGNATED ON THE PLAN FOR STOCKPILING SNOW AND ICE SEPARATE FROM THE PERVIOUS PAVING SYSTEM.

POROUS PAVEMENT ELEVATION TABLE

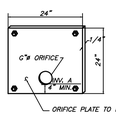
	STORAGE AREA #1
A	589.35
B	588.80
C	588.30
D	588.05



PLAN

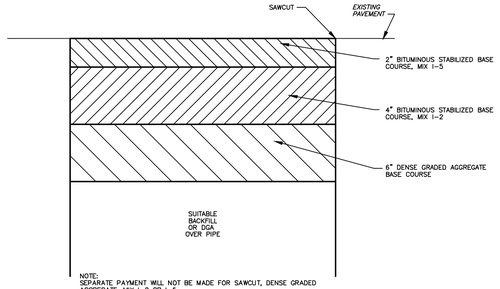
NOTES:

1. FOOTING TO BE N.J.D.O.T., CLASS "B"
2. INVERT TO BE CLASS "B"
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER
4. GRATE TO BE OF ALUMINUM, PYRAMIDAL HINGED TYPE WITH 1/2" BARS SPACED AT 6" O.C.
5. PROVIDE ALUMINUM LADDER RUNGS @ 12" CENTER TO CENTER
6. WHEN ADDITIONAL DEPTH IS SCHEDULE WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET CUTTER TO THE INVERT, SHALL BE 12" THICK. THE FOUNDATION DIMENSIONS SHALL BE INCREASED TO 12" WIDTH AND TO 12' IN DEPTH.



ORIFICE PLATE DETAIL

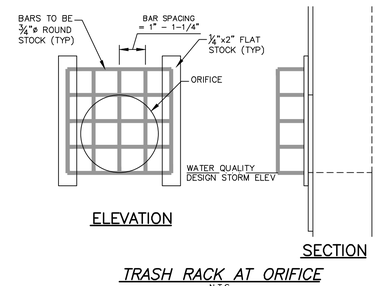
N.T.S.



NOTE:
SEPARATE PAYMENT WILL NOT BE MADE FOR SAWCUT, DENSE GRADED AGGREGATE, MIX I-2 OR I-5. COST OF TRENCH REPAIR SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE OF THE VARIOUS TYPES AND SIZES.

PAVEMENT REPAIR DETAIL

NOT TO SCALE

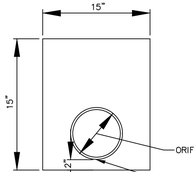


ELEVATION

SECTION

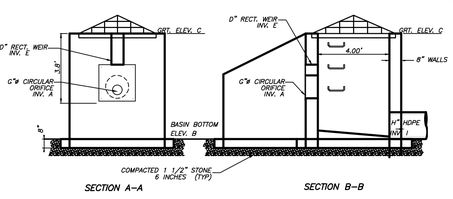
TRASH RACK AT ORIFICE

N.T.S.



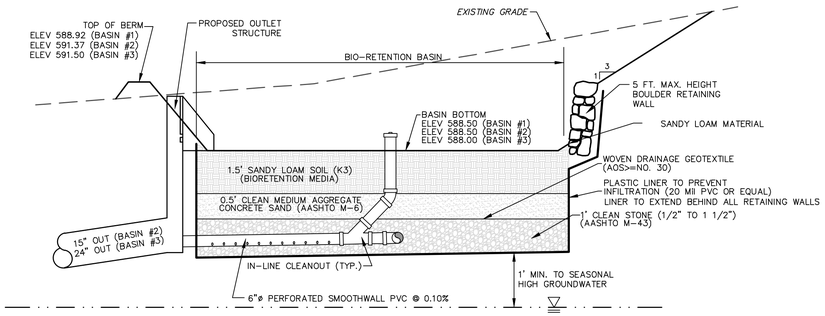
ORIFICE PLATE

NOT TO SCALE



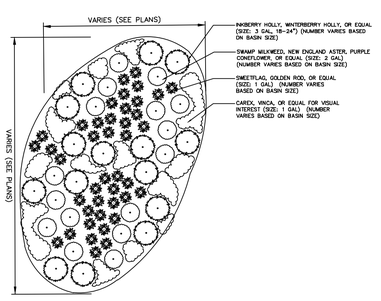
OUTLET STRUCTURE

	12	25
INVERT A:	588.92 FT	588.98 FT
BASIN ELEV. B:	588.50 FT	588.00 FT
GRT. ELEV. C:	591.07 FT	590.47 FT
WEIR WIDTH D:	24 IN	96 IN
CREST ELEVATION E:	589.50 FT	589.23 FT
DIAMETER G:	4 IN	4 IN
DIAMETER H:	15 IN	24 IN
INVERT I:	586.00 FT	585.65 FT

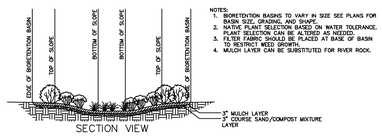


TYPICAL BIO-RETENTION BASIN SECTION

NOT TO SCALE

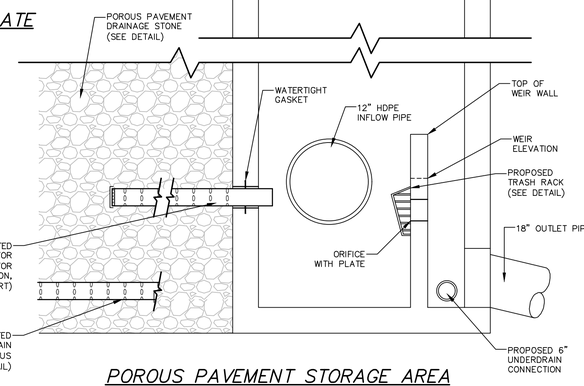


PLAN VIEW



NOTES:
1. BIORETENTION BASINS TO VARY IN SIZE SEE PLANS FOR BASIN SIZE AND GRADING DETAILS.
2. PLANT SELECTION CAN BE ALTERED DUE TO WATER TOLERANCE.
3. FILTER FABRIC SHOULD BE PLACED AT BASE OF BASIN TO RESTRICT WEED GROWTH.
4. MULCH LAYER CAN BE SUBSTITUTED FOR RIVER ROCK.

SECTION VIEW

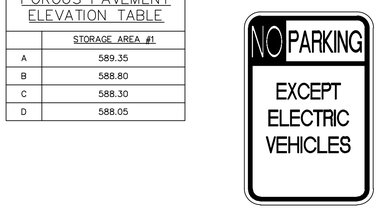


POROUS PAVEMENT STORAGE AREA OUTLET CONTROL STRUCTURE DETAIL

NOT TO SCALE

OUTLET CONTROL STRUCTURE SUMMARY TABLE

STRUCTURE #	RIM ELEVATION	TOP OF WEIR WALL	WEIR ELEVATION	WEIR LENGTH	ORIFICE DIAMETER	ORIFICE INVERT	OUTLET PIPE INVERT	UNDERDRAIN INVERT
#39	592.50	591.29	589.66	1.25 FT	6"	588.89	588.17	588.30



12" x 18"

R7-111 "NO PARKING EXCEPT ELECTRIC VEHICLES SIGN

NOT TO SCALE

BIORETENTION BASIN CONSTRUCTION NOTES:

1. DURING BASIN CONSTRUCTION, PRECAUTIONS MUST BE TAKEN TO PREVENT PLANTING SOIL BED COMPACTION BY CONSTRUCTION EQUIPMENT AND SEDIMENT CONTAMINATION OF RUNOFF. BASIN EXCAVATION AND PLANTING SOIL PLACEMENT SHOULD BE PERFORMED WITH EQUIPMENT PLACED OUTSIDE THE BASIN BOTTOM WHENEVER POSSIBLE. LIGHT EARTH MOVING EQUIPMENT WITH OVERSIZED TIRES OR TRACKS SHOULD BE UTILIZED WHEN THE BASIN MUST BE ENTERED.

2. TO PREVENT COMPACTION OF THE SOIL BELOW THE BASIN THAT WILL REDUCE ITS INFILTRATION CAPACITY, THE BASIN SHOULD BE EXCAVATED WITH LIGHT EARTH MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER-SIZED TIRES LOCATED OUTSIDE THE BASIN BOTTOM. ONCE THE BASIN'S FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN MUST BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.

3. UPON STABILIZATION OF THE BIORETENTION BASIN AND ITS DRAINAGE AREA, THE INFILTRATION RATE OF THE PLANTING SOIL BED MUST BE RETESTED TO ENSURE THAT THE RATE ASSUMED IN THE COMPUTATIONS IS PROVIDED AT THE BASIN. THE PERMEABILITY RATE OF THE SUBSOIL BELOW THE BASIN MUST ALSO BE RETESTED AFTER CONSTRUCTION.

4. IF BACKFILL IS UTILIZED FOR THE BASIN MEDIA, A NEW JERSEY LICENSED GEOTECHNICAL ENGINEER SHALL BE REQUIRED TO CERTIFY THE MATERIAL.

5. PRIOR TO CONSTRUCTION OF THE BIO-RETENTION BASIN, A DETAILED PLAN OF HOW THE CONSTRUCTION OF THE BASIN WILL PROCEED IS REQUIRED, AND A SITE MEETING WITH THE ENGINEER MUST BE SCHEDULED BY THE CONTRACTOR TO DISCUSS THE SAME.

NOTES:

1. EXISTING FILL DIRT AND TOPSOIL MUST BE COMPLETELY REMOVED BEFORE INSTALLING UNDERDRAIN STONE AND BIORETENTION MEDIA.

2. BIORETENTION MEDIA SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS. NATIVE TOPSOIL CAN BE USED TO MEET THESE SPECIFICATIONS WHEN USED IN THE PROPER MIXTURE WITH CONCRETE AGGREGATE SAND.

3. MATERIAL SHALL CONSIST OF 85% TO 95% SANDS, WITH NO MORE THAN 25% OF THE SANDS AS FINE OR VERY FINE SANDS; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT. THE ENTIRE MIX SHALL THEN BE AMENDED WITH 3% TO 7% ORGANICS.

4. LIME SHALL BE ADDED AS REQUIRED TO MEET THE pH SPECIFICATIONS.

5. ALL CLAY AND SAND SHALL BE TESTED FOR GRADATION TO OBTAIN THE PROPER MIXTURE RATIO. THE ENGINEER SHALL APPROVE OF THE MIXTURE RATIO BEFORE PERMITTING THE BIORETENTION MEDIA TO BE PLACED.

6. ALL BIORETENTION MEDIA SHALL BE PLACED BY TRACKHOE EXCAVATOR FROM THE SIDES OF THE FACILITY IN LIFTS OF 12"-18", AND IN NO EVENT SHALL ANY TRACKED OR WHEELED EQUIPMENT BE PERMITTED TO CROSS THE BIORETENTION MEDIA. THE ENGINEER SHALL BE PRESENT TO WITNESS THE PLACEMENT OF BIORETENTION MEDIA.

7. THE BIORETENTION MEDIA SHALL BE LOOSELY PLACED AT A DEPTH OF 6 INCHES ABOVE FINAL GRADE TO ALLOW FOR SETTLEMENT. IT SHALL BE LEVELED BY HAND, ALLOWING FOR IRREGULAR DEPRESSIONS AND MOUNDS TO PROVIDE FOR PLANTING DIVERSITY.

DATE	REVISION
8/7/24	REVISED BASED ON BOARD PROFESSIONALS' COMMENTS
2/22/24	REVISED BASED ON BOARD ENGINEER'S COMMENTS

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KEVIN J. ROBINE, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE04965200

CONSTRUCTION NOTES & DETAILS

PRELIMINARY SITE PLAN
BLOCK 158, LOT 6
U.S.HIGHWAY ROUTE 206 &
BRIGHTON ROAD (C.R. 603)
TOWNSHIP OF ANDOVER
SUSSEX COUNTY NEW JERSEY

SCALE:	AS NOTED
JOB NO.:	01109
DRAWN BY:	TJB
CHECKED BY:	KJR
DATE:	7/20/23
SHEET NO.	20 OF 21

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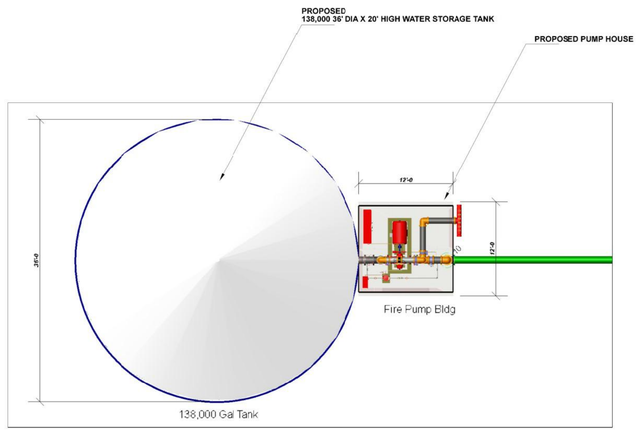
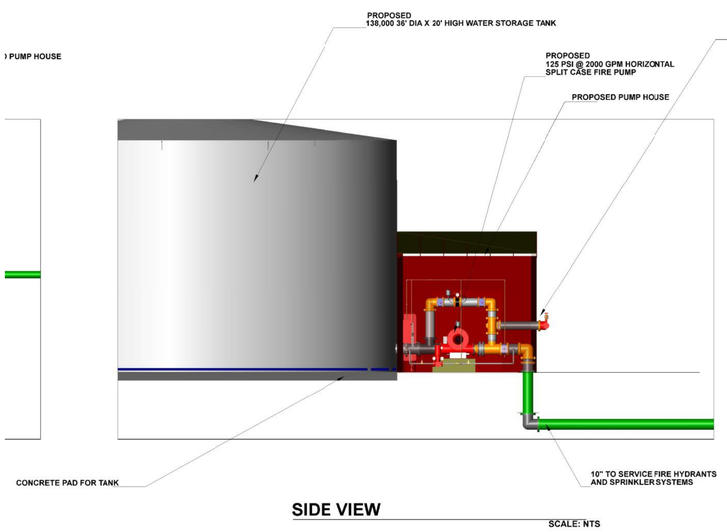


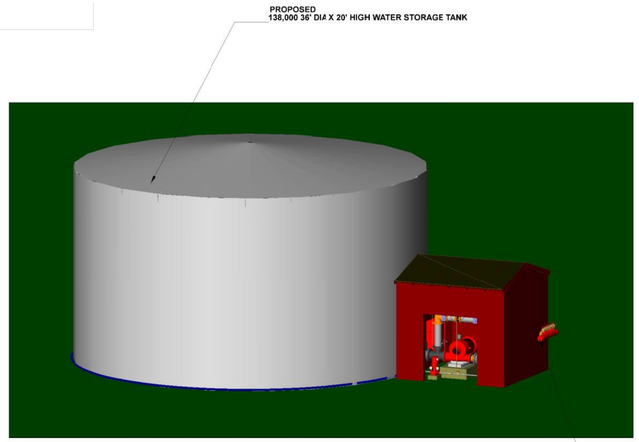
PLAN VIEW

SCALE: NTS



SIDE VIEW

SCALE: NTS



ISOMETRIC VIEW

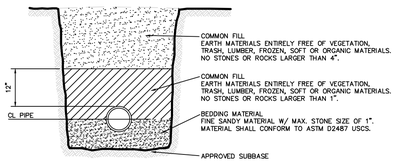
SCALE: NTS

PROPOSED FIRE TANK AND PUMP HOUSE DETAIL

NOT TO SCALE

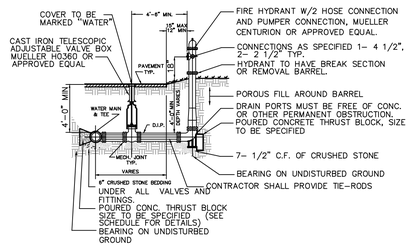
GENERAL NOTES:

1) ALL CONSTRUCTION SHALL MEET STANDARD DOT SPECIFICATIONS, THE LATEST EDITION.
2) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS.



TYPICAL WATER MAIN TRENCH DETAIL

N.T.S.

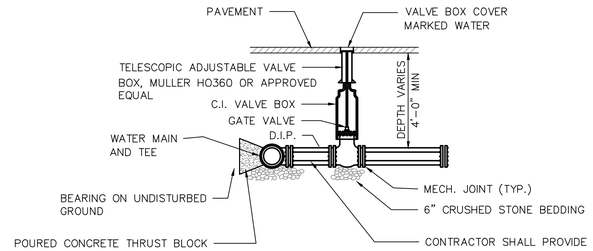


NOTES:

1. CONCRETE FOR THRUST BLOCKS TO BE N.J.D.O.T., CLASS "C".
2. SIZE AND BEARING AREA FOR THRUST BLOCKS SHALL CONFORM TO CURRENT A.W.W.A. STANDARDS OR SHALL BE DESIGNATED ON THE PLANS.
3. FINISH PAINTING AND MARKING SHALL BE DESIGNATED ON THE PLANS OR CONTRACT DOCUMENTS OR SHALL BE AS DIRECTED BY THE ENGINEER.
4. TYPICAL HYDRANT LOCATION ADJACENT TO ROADWAY, FOR SPECIAL LOCATION REFER TO PLANS.
5. SPECIAL HYDRANT ARRANGEMENT OR SETTINGS TO BE DETAILED BY CONTRACTOR AND SUBJECT TO THE ENGINEER'S APPROVAL
6. ALL CONNECTIONS TO BE MECHANICAL JOINT OR LOCK RING TYPE JOINT AS SPECIFIED

TYPICAL HYDRANT INSTALLATION

N.T.S.



NOTES

1. SIZE AND BEARING FOR THRUST BLOCK SHALL CONFORM TO CURRENT A.W.W.A. STANDARDS, OR SHALL BE DESIGNATED ON THE PLANS.
2. CONCRETE FOR THE THRUST BLOCKS TO BE N.J.D.O.T., CLASS "C".
3. ALL CONNECTIONS TO BE MECHANICAL JOINT, OR LOCK RING TYPE JOINTS, AS SPECIFIED.

GATE VALVE ASSEMBLY

N.T.S.

DIAMETER OF PIPE (d)	22 1/2° ELBOW	45° ELBOW	90° ELBOW	TEE	PLUG
	"A"	"A"	"A"	"A"	"A"
6"	0.5	1.1	2.0	1.4	1.4
8"	1.0	1.9	3.6	2.7	2.7
10"	1.5	3.0	5.5	4.2	4.2
12"	2.2	4.3	8.0	5.7	5.7
16"	4.5	7.7	14.2	10.0	10.0
20"	6.1	12.0	22.3	15.7	15.7
24"	8.8	17.2	32.0	22.7	22.7

"A" – CONTACT BEARING AREA OF BLOCK WITH EARTH, IN SQUARE FEET

NOTES:

1. BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 4000LBS. PER SQ. FT. FOR A LESSER SOIL BEARING CAPACITY, THESE AREAS SHALL BE INCREASED ACCORDINGLY.
2. ALL CONCRETE THRUST BLOCKS SHALL BE CLASS B.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. TEST PRESSURE = 150 P.S.I.

THRUST BLOCK TABLE

N.T.S.

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SCALE: AS NOTED
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DRAWN BY: TJB
CHECKED BY: KJR
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SHEET NO. 21 OF 21

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