PRELIMINARY & FINAL SITE PLAN AND FINAL CONSTRUCTION PLANS

PREPARED FOR

HARLINGEN VILLAGE SQUARE

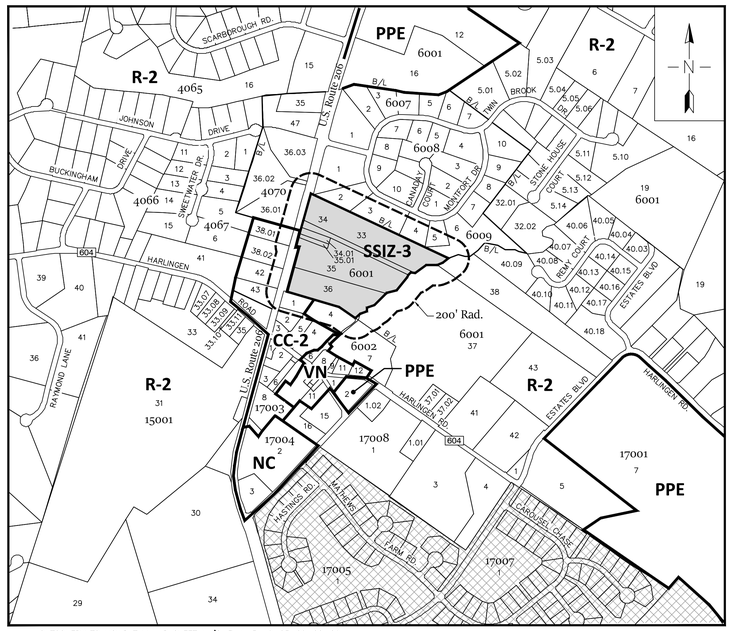
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

SITUATED IN

MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

GENERAL NOTES

1. SUBJECT PROPERTY IS KNOWN AS BLOCK 6001, LOTS 33, 34, 34.01, 35, 35.01 AND 36 AS SHOWN SHEETS 3, 4, 5,10, 25, 26, 28, 29, OF THE OFFICIAL TAX MAP OF MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.
2. BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM PLAN TITLED "OUTBOUND SURVEY OF BLOCK 6001, LOT 6, LOTS 33, 34, 34.01, 35, 35.01 AND 36, MOTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED DECEMBER 11, 2020.
3. ALL PROPOSED UTILITIES ARE TO BE LOCATED UNDERGROUND AND SHALL BE APPROVED BY THE APPLICABLE AGENCIES AND UTILITY COMPANY.
4. EXISTING UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PRIOR TO BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ON CALL SERVICE AT 811 (OR 1-800-272-1000) AND OTHER LOCAL UTILITY COMPANIES AS REQUIRED FOR MARKOUT PRIOR TO ANY EXCAVATION. WHERE EXISTING UNDERGROUND UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING LOCATIONS, ELEVATIONS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS.
5. PROPOSED UTILITY LOCATIONS SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
6. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIAL, TREES, TREE STUMPS, BRUSH OR OTHER SURPLUS MATERIAL. ALL SUCH MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
7. MAXIMUM PROPOSED GRADING SLOPE ON SITE IS 3:1 UNLESS OTHERWISE NOTED.
8. ALL WHEELCHAIR ACCESSIBLE RAMPS AND PARKING SPACES SHALL MEET THE REQUIREMENTS OF CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
9. TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), LATEST EDITION. SIGNS SHALL CONFORM TO STANDARD MUTCD SIZES UNLESS OTHERWISE APPROVED BY THE GOVERNING AUTHORITY.
10. ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY AND STATE AGENCY REQUIREMENTS.
11. CONSTRUCTION MATERIALS AND METHODS NOT OTHERWISE SPECIFIED OR SHOWN HEREIN SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION AND AMENDMENTS).
12. SITE AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL, AND PROTECTED BY APPROPRIATE FENCING.
13. TREE CLEARING SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND SHALL INCLUDE THE REMOVAL FROM THE SITE OF ALL STUMPS, ROOTS AND VEGETATIVE DEBRIS REMNANTS.
14. COMPACTION OF FILL AREAS, BACKFILL FOR PROPOSED UTILITIES AND UNDER CONCRETE STRUCTURES, SHALL MEET ALL CODE REQUIREMENTS AND BE EQUAL TO A MINIMUM 95% MODIFIED PROCTOR DENSITY.
15. ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED AND/OR BARRICADED WHEN WORK IS NOT IN PROGRESS.
16. ALL EXISTING CONTOUR LINES, PROFILES AND SPOT ELEVATIONS ARE APPROXIMATE. ALL PROPOSED CONTOURS SHALL BE GRADED TO BLEND EVENLY WITH EXISTING CONTOURS.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION COSTS WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST.
18. APPLICANT SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL ENGINEER'S OFFICE AND PROVIDE MINIMUM 48 HOURS NOTICE PRIOR TO COMMENCING CONSTRUCTION.
19. THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO NJAC 5:28-2.21 OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32(F) (OSHA COMPETENT PERSON).
20. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS HAVE BEEN SATISFIED AND PLANS MARKED AS "ISSUED FOR CONSTRUCTION".
21. ANY DISCREPANCIES ENCOUNTERED BETWEEN FIELD CONDITIONS AND DESIGN PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO INSTALLATION OF IMPROVEMENTS.
22. THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THE SET.



MONTGOMERY TOWNSHIP TAX MAP SHEET No.'S. 3, 4, 5, 10, 25, 26, 28, 29.

SINGLE FAMILY RESIDENTIAL CLUSTER I

SITE LOCATION MAP

GRAPHIC SCALE

0 300 600 1,200

1 INCH = 600 FT

DATE: JANUARY 17, 2023
MARCH 10, 2023

PROPERTY OWNERS WITHIN 200 FT.

BLOCK	PROPERTY ID	PROPERTY LOCATION	NAME & ADDRESS
4070	36.01	2184 RT 206	DENDI,PRASHANT REDDY & REDDY,M.K 2184 VAN HORNE ROAD BELLE MEAD, NJ 08502
	36.02	2192 RT 206	DANG-TAN, TAM & BUI, ANG NGOC THUY 2192 VAN HORNE ROAD BELLE MEAD, NJ 08502
	36.03	2206 RT 206	FLOTTA, CHRISTOPHER G. & YUDERKI, T 2206 VAN HORNE ROAD BELLE MEAD, NJ 08502
	38.01	SWEETWATER DRIVE EXT.	BELLE MONTGOMERY HOLDINGS, LLC 167 LAMBERTVILLE HOPEWELL HOPEWELL, NJ,
	38.02	2168 RT 206	MAPS REALTY, LLC 45 STOUTS LANE SUITE 1 MONMOUTH JUNCTION, NJ 08052
	42	2162 RT 206	HELLER PROPERTY PTRS, LP 180 MAIN STREET P.O. BOX 700 MADISON, NJ 07940
	43	2152 RT 206	GASIOR, RICHARD J & DIANE 2152 RT 206 BELLE MEAD, NJ 08502
6001	5.14	27 STONE HOUSE COURT	NAMBIAR, SAJIKUMAR & KRIPA 27 STONE HOUSE COURT BELLE MEAD, NJ 08502
	5.15	28 STONE HOUSE COURT	CHENG, CHIYUAN & LIN, YIRU 28 STONE HOUSE COURT BELLE MEAD, NJ 08502
	32.01	30 STONE HOUSE COURT	PATEL, AMIT M. & ANKITA 30 STONE HOUSE COURT BELLE MEAD, NJ 08502
	32.02	29 STONE HOUSE COURT	SALAS, MAX & THOMSON, KELLY I. 29 STONE HOUSE COURT BELLE MEAD, NJ 08502
	37	64 HARLINGEN ROAD	WRIGHT, RICHARD LA FOLLETTE ET AL 64 HARLINGEN RD BELLE MEAD, NJ 08502
	38	HARLINGEN ROAD	STERN, ZORAIDA S. 164 HARLINGEN ROAD BELLE MEAD, NJ 08502
	40.06	22 REMY CT	SUNDARARAJAN, BARATHKUMAR & RAMAMOO 22 REMY COURT BELLE MEAD, NJ 08502
	40.07	32 REMY CT	CHATTERJEE, DIBYENDU 32 REMY COURT BELLE MEAD, NJ 08502
	40.08	44 REMY CT	SUNG, SANGMIN & LEE-SUNG, JUNGHWA 44 REMY COURT BELLE MEAD, NJ 08502
	40.09	51 REMY CT	REBA, ALAN & JUDITH 51 REMY COURT BELLE MEAD, NJ 08502
6002	1	2145 RT 206	M REAL ESTATE NJ CORP 2145 RT 206 BELLE MEAD, NJ 08502
	2	2139 RT 206	STERRITT REALTY L.L.C. 2139 RT 206 BELLE MEAD, NJ 08502
	4	14 HARLINGEN ROAD	TOWNSHIP OF MONTGOMERY 2261 RT 206 BELLE MEAD, NJ 08502
	5	8 HARLINGEN ROAD	MONTGOMERY EMERGENCY MED. SVC. INC. P.O. BOX 105 BELLE MEAD, NJ 08502
	7	48 HARLINGEN ROAD	KOPLIK, LAWRENCE & ROBERTS, SARAH 48 HARLINGEN ROAD BELLE MEAD, NJ 08502
6008	1	101 MONTFORT DRIVE	HUSSAIN,AFTAB 101 MONTFORT DRIVE BELLE MEAD, NJ, 08502
	2	15 CANADAY CT	YANG, YANHUA 15 CANADAY CT BELLE MEAD, NJ, 08502
6009	1	132 MONTFORT DRIVE	SHAH, PETER & JASMINE 132 MONTFORT DRIVE BELLE MEAD, NJ 08502
	2	126 MONTFORT DRIVE	LONAI, JIWAND S. & HERINDER K. 126 MONTFORT DRIVE BELLE MEADE, NJ 08502
	3	122 MONTFORT DRIVE	MUNGI, SANJAY & VRUSJALO PHADNIS 122 MONTFORT DRIVE BELLE MEAD, NJ 08502
	4	102 MONTFORT DRIVE	PHILLIPS, KERON & WILSON, THELMA 102 MONTFORT DRIVE BELLE MEAD, NJ 08502
	5	96 MONTFORT DRIVE	TAYLOR, JEFF T. & MARIA A. 96 MONTFORT DRIVE BELLE MEAD, NJ 08502
	6	MONTFORT DRIVE	TOWNSHIP OF MONTGOMERY 2261 RT 206 BELLE MEAD, NJ 08502
	7	82 MONTFORT DRIVE	VANDERBEI, ROBERT J & KRISADEE S 82 MONTFORT DRIVE BELLE MEAD, NJ 08502
	8	74 MONTFORT DRIVE	GUPTA, POONAM & BANSAL AJAY KUMAR 74 MONTFORT DRIVE BELLE MEAD, NJ 08502

LIST OF UTILITIES COMPANIES

ARTHUR VILLANO
SUPERINTENDENT
MONTGOMERY TOWNSHIP MUNICIPAL BUILDING
2261 ROUTE 206
BELLE MEAD, NJ 08502

EMBARQ
PO BOX 7086
LONDON, KY 40742
(BEFORE YOU DIG)- 1 -800-272-1000

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
MANAGER-CORPORATE PROPERTIES
80 PARK PLAZA, T6B
NEWARK, NJ 07102

NJ AMERICAN WATER CO
131 WOODCREST ROAD P.O. BOX 5079
CHERRY HILL NJ, 08034
1-856-310-2206

COMCAST
100 RANDOLPH ROAD
SOMERSET, NJ 08873
1-800-COMCAST

APPLICANT AND OWNER OF LOTS 33, 34, 34.01, 35, 35.01 & 36

HARLINGEN ASSOCIATES, LLC
36 BROWER LANE
HILLSBOROUGH, NJ 08844
(908) 359-8291

INDEX OF SHEETS

1. COVER SHEET
2. EXISTING FEATURES PLAN
3. PRELIMINARY SUBDIVISION / SITE PLAN
4. GRADING PLAN - NORTH
5. GRADING PLAN - SOUTH
6. SOIL EROSION & SEDIMENT CONTROL PLAN - NORTH
7. SOIL EROSION & SEDIMENT CONTROL PLAN - SOUTH
8. UTILITY PLAN - NORTH
9. UTILITY PLAN - SOUTH
10. PROFILES
11-13. CONSTRUCTION DETAILS
14. POND CONSTRUCTED WETLAND DETAILS
15. SOIL EROSION & SEDIMENT CONTROL DETAILS
16-19. PUMP STATION LAYOUT AND ELECTRICAL DETAILS
20-21. DEP FRESHWATER WETLAND PERMIT PLANS
22-23. DEP FLOOD HAZARD AREA PERMIT PLANS
24. SANITARY SEWER FORCE MAIN EXTENSION PROFILE
25. TREE MITIGATION PLAN
26. LANDSCAPE PLAN - NORTH
27. LANDSCAPE PLAN - SOUTH
28. LANDSCAPE DETAILS
29. LIGHTING PLAN - NORTH
30. LIGHTING PLAN - SOUTH
31. LIGHTING DETAILS
32. TYPICAL BUILDING PLANS
33. SIGNAGE AND STRIPING PLAN
34. VEHICULAR CIRCULATION EXHIBIT
35. ACCESSIBLE CURB RAMP & PLAN DETAILS
36. MAILBOX LOCATION & DETAILS PLAN

MONTGOMERY TOWNSHIP APPROVALS

APPLICATION NO. _____

APPROVED BY:

CHAIRPERSON - PLANNING BOARD DATE

SECRETARY - PLANNING BOARD DATE

TOWNSHIP ENGINEER DATE

SOMERSET COUNTY ACCEPTANCE STAMP

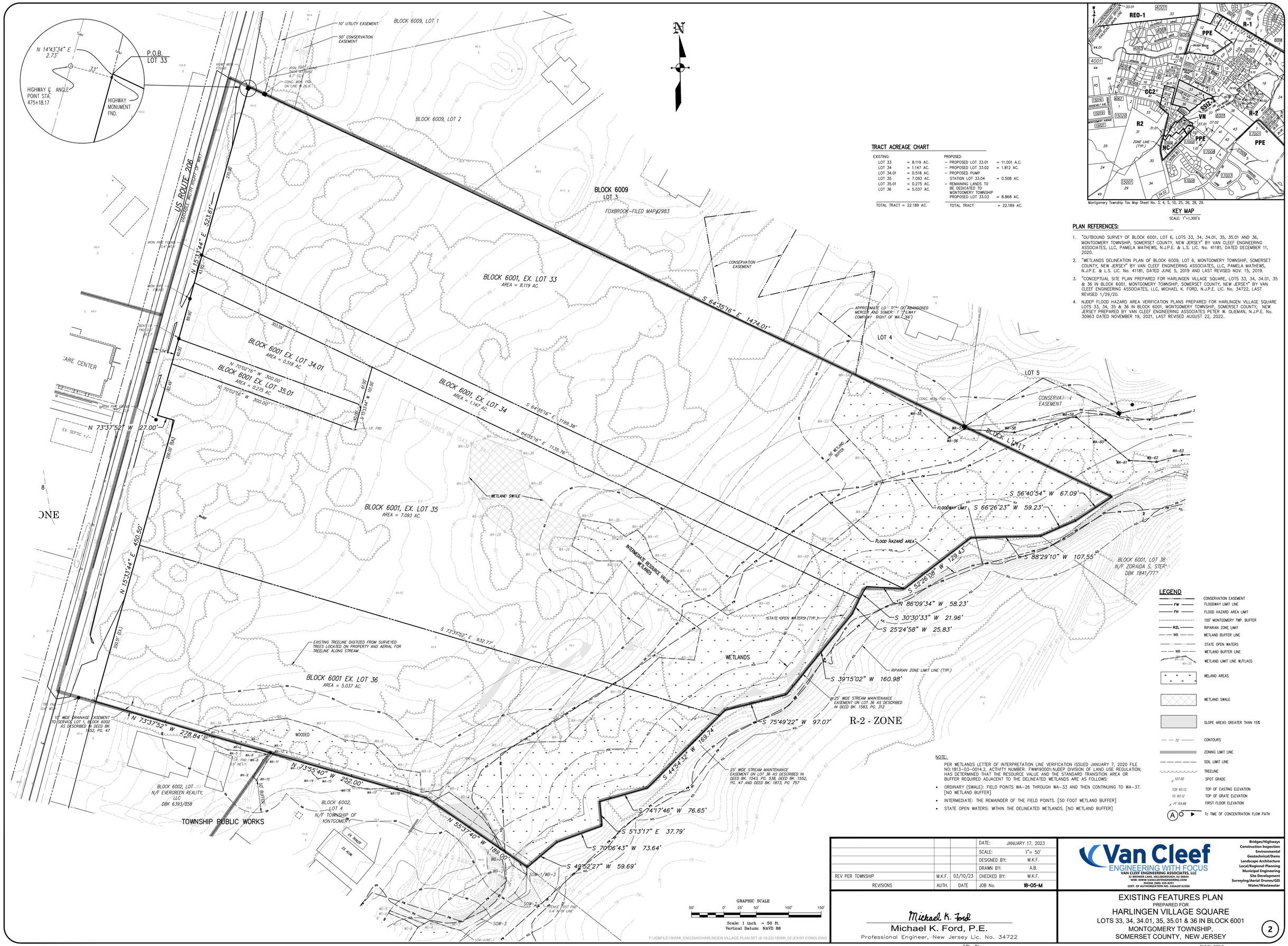
THESE PLANS ARE NOT ACCEPTED FOR CONSTRUCTION UNLESS THIS BLOCK IS STAMPED AND SIGNED BY A STAFF MEMBER OF THE SOMERSET COUNTY ENGINEERING DIVISION. ACCEPTANCE OF THESE PLANS EXPIRES TWO (2) YEARS FROM THE STAMPED DATE.

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

BY: Michael K. Ford
Michael K. Ford
New Jersey Professional Engineer
Licence No. 34722

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF THE RESPONSIBLE PROFESSIONAL IS PROHIBITED. ANY UNAUTHORIZED RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.



TRACT ACREAGE CHART

EXISTING:		PROPOSED:	
LOT 33	= 8.119 AC.	– PROPOSED LOT 33.01	= 11.001 A.C.
LOT 34	= 1.147 AC.	– PROPOSED LOT 33.02	= 1.812 AC.
LOT 34.01	= 0.518 AC.	– PROPOSED PUMP STATION LOT 33.04	= 0.508 AC.
LOT 35	= 7.093 AC.	– REMAINING LANDS TO BE DEDICATED TO MONTGOMERY TOWNSHIP PROPOSED LOT 33.03	= 8.868 AC.
LOT 35.01	= 0.275 AC.		
LOT 36	= 5.037 AC.		
TOTAL TRACT	= 22.189 AC.	TOTAL TRACT	= 22.189 AC.

Montgomery Township Tax Map Sheet No. 3, 4, 5, 10, 25, 26, 28, 29.

KEY MAP
SCALE: 1"=1,300'±

PLAN REFERENCES:

1. "OUTBOUND SURVEY OF BLOCK 6001, LOT 6, LOTS 33, 34, 34.01, 35, 35.01 AND 36, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED DECEMBER 11, 2020.
2. "WETLANDS DELINEATION PLAN OF BLOCK 6009, LOT 6, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED JUNE 5, 2019 AND LAST REVISED NOV. 15, 2019.
3. "CONCEPTUAL SITE PLAN PREPARED FOR HARLINGEN VILLAGE SQUARE, LOTS 33, 34, 34.01, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, LAST REVISED 1/29/20.
4. NJDEP FLOOD HAZARD AREA VERIFICATION PLANS PREPARED FOR HARLINGEN VILLAGE SQUARE LOTS 33, 34, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES PETER W. OLIEMAN, N.J.P.E. No. 30963 DATED NOVEMBER 19, 2021, LAST REVISED AUGUST 22, 2022..

LEGEND

- CONSERVATION EASEMENT
- FW — FLOODWAY LIMIT LINE
- FH — FLOOD HAZARD AREA LIMIT
- 100' MONTGOMERY TWP. BUFFER
- RZL — RIPARIAN ZONE LIMIT
- WB — WETLAND BUFFER LINE
- STATE OPEN WATERS
- WB — WETLAND BUFFER LINE
- WETLAND LIMIT LINE W/FLAGS
- WELAND AREAS
- WETLAND SWALE
- SLOPE AREAS GREATER THAN 15%
- 72 — CONTOURS
- ZONING LIMIT LINE
- SOIL LIMIT LINE
- TREELINE
- 107.00 — SPOT GRADE
- TOP: 83.12 — TOP OF CASTING ELEVATION
- TG: 83.12 — TOP OF GRATE ELEVATION
- FF 69.88 — FIRST FLOOR ELEVATION
- A — Tc TIME OF CONCENTRATION FLOW PATH

NOTE:

PER WETLANDS LETTER OF INTERPRETATION LINE VERIFICATION ISSUED JANUARY 7, 2020 FILE NO:1813-03-0014.2, ACTIVITY NUMBER: FWW190001:NJDEP DIVISION OF LAND USE REGULATION; HAS DETERMINED THAT THE RESOURCE VALUE AND THE STANDARD TRANSITION AREA OR BUFFER REQUIRED ADJACENT TO THE DELINEATED WETLANDS ARE AS FOLLOWS:

- ORDINARY (SWALE): FIELD POINTS WA-26 THROUGH WA-33 AND THEN CONTINUING TO WA-37. [NO WETLAND BUFFER]
- INTERMEDIATE: THE REMAINDER OF THE FIELD POINTS. [50 FOOT WETLAND BUFFER]
- STATE OPEN WATERS: WITHIN THE DELINEATED WETLANDS. [NO WETLAND BUFFER]

			DATE:	JANUARY 17, 2023
			SCALE:	1"= 50'
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
REV PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
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PHONE (908) 355-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

EXISTING FEATURES PLAN

PREPARED FOR

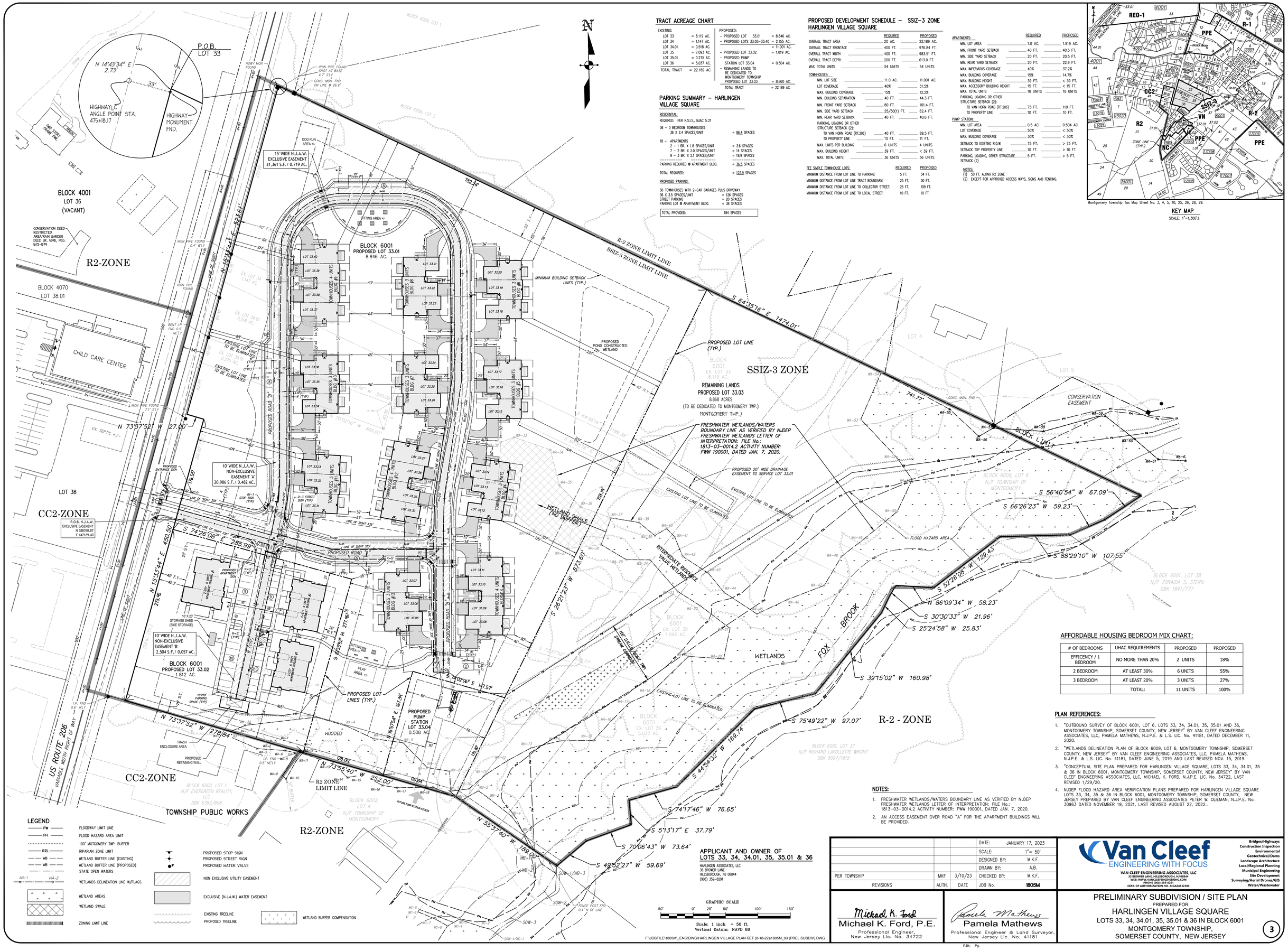
HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

2

F.Bk. Pg.

FILE No. 6482-X



TRACT ACREAGE CHART

EXISTING:		PROPOSED:	
LOT 33	= 8.119 AC.	– PROPOSED LOT 33.01	= 8.846 AC.
LOT 34	= 1.147 AC.	– PROPOSED LOTS 33.05–33.40	= 2.155 AC.
LOT 34.01	= 0.518 AC.		= 11.001 AC.
LOT 35	= 7.093 AC.	– PROPOSED LOT 33.02	= 1.819 AC.
LOT 35.01	= 0.275 AC.	– PROPOSED PUMP STATION LOT 33.04	= 0.504 AC.
LOT 36	= 5.037 AC.	– REMAINING LANDS TO BE DEDICATED TO MONTGOMERY TOWNSHIP PROPOSED LOT 33.03	= 8.860 AC.
TOTAL TRACT	= 22.189 AC.	TOTAL TRACT	= 22.189 AC.

PARKING SUMMARY – HARLINGEN VILLAGE SQUARE

RESIDENTIAL:

REQUIRED: PER R.S.I.S., NJAC 5:21

36 – 3 BEDROOM TOWNHOUSES
36 X 2.4 SPACES/UNIT = 86.4 SPACES

18 – APARTMENTS
2 – 1 BR. X 1.8 SPACES/UNIT = 3.6 SPACES
7 – 2 BR. X 2.0 SPACES/UNIT = 14 SPACES
9 – 3 BR. X 2.1 SPACES/UNIT = 18.9 SPACES

PARKING REQUIRED @ APARTMENT BLDG. = 36.5 SPACES

TOTAL REQUIRED: = 122.9 SPACES

PROPOSED PARKING:

36 TOWNHOUSES WITH 2-CAR GARAGES PLUS DRIVEWAY
36 X 3.5 SPACES/UNIT = 126 SPACES
STREET PARKING = 20 SPACES
PARKING LOT @ APARTMENT BLDG. = 38 SPACES

TOTAL PROVIDED: 184 SPACES

PROPOSED DEVELOPMENT SCHEDULE – SSIZ-3 ZONE HARLINGEN VILLAGE SQUARE

	REQUIRED	PROPOSED
OVERALL TRACT AREA	20 AC.	22.189 AC.
OVERALL TRACT FRONTAGE	400 FT.	976.84 FT.
OVERALL TRACT WIDTH	400 FT.	983.51 FT.
OVERALL TRACT DEPTH	200 FT.	613.0 FT.
MAX. TOTAL UNITS	54 UNITS	54 UNITS
TOWNHOUSES:		
MIN. LOT SIZE	11.0 AC.	11.001 AC.
LOT COVERAGE	40%	31.5%
MAX. BUILDING COVERAGE	15%	12.2%
MIN. BUILDING SEPARATION	40 FT.	44.3 FT.
MIN. FRONT YARD SETBACK	80 FT.	101.4 FT.
MIN. SIDE YARD SETBACK	25/50(1) FT.	62.4 FT.
MIN. REAR YARD SETBACK	40 FT.	40.6 FT.
PARKING, LOADING OR OTHER STRUCTURE SETBACK (2):		
TO VAN HORN ROAD (RT.206)	40 FT.	89.5 FT.
TO PROPERTY LINE	10 FT.	11 FT.
MAX. UNITS PER BUILDING	6 UNITS	4 UNITS
MAX. BUILDING HEIGHT	39 FT.	< 39 FT.
MAX. TOTAL UNITS	36 UNITS	36 UNITS

FEE SIMPLE TOWNHOUSE LOTS:	REQUIRED	PROPOSED
MINIMUM DISTANCE FROM LOT LINE TO PARKING:	5 FT.	34 FT.
MINIMUM DISTANCE FROM LOT LINE TRACT BOUNDARY:	25 FT.	30 FT.
MINIMUM DISTANCE FROM LOT LINE TO COLLECTOR STREET:	25 FT.	109 FT.
MINIMUM DISTANCE FROM LOT LINE TO LOCAL STREET:	10 FT.	10 FT.

APARTMENTS:	REQUIRED	PROPOSED
MIN. LOT AREA	1.0 AC.	1.819 AC.
MIN. FRONT YARD SETBACK	40 FT.	40.5 FT.
MIN. SIDE YARD SETBACK	20 FT.	20.5 FT.
MIN. REAR YARD SETBACK	20 FT.	22.9 FT.
MAX. IMPERVIOUS COVERAGE	40%	37.2%
MAX. BUILDING COVERAGE	15%	14.7%
MAX. BUILDING HEIGHT	39 FT.	< 39 FT.
MAX. ACCESSORY BUILDING HEIGHT	15 FT.	< 15 FT.
MAX. TOTAL UNITS	18 UNITS	18 UNITS
PARKING, LOADING OR OTHER STRUCTURE SETBACK (2):		
TO VAN HORN ROAD (RT.206)	75 FT.	119 FT.
TO PROPERTY LINE	10 FT.	10 FT.
PUMP STATION:		
MIN. LOT AREA	0.5 AC.	0.504 AC.
LOT COVERAGE	50%	< 50%
MAX. BUILDING COVERAGE	30%	< 30%
SETBACK TO EXISTING R.O.W.	75 FT.	> 75 FT.
SETBACK TOP PROPERTY LINE	10 FT.	> 10 FT.
PARKING, LOADING, OTHER STRUCTURE SETBACK (2)	5 FT.	> 5 FT.

NOTES:
(1) 50 FT. ALONG R2 ZONE
(2) EXCEPT FOR APPROVED ACCESS WAYS, SIGNS AND FENCING.

Montgomery Township Tax Map Sheet No. 3, 4, 5, 10, 25, 26, 28, 29.

KEY MAP
SCALE: 1"=1,300'±

AFFORDABLE HOUSING BEDROOM MIX CHART:

# OF BEDROOMS	UHAC REQUIREMENTS	PROPOSED	PROPOSED
EFFICENCY / 1 BEDROOM	NO MORE THAN 20%	2 UNITS	18%
2 BEDROOM	AT LEAST 30%	6 UNITS	55%
3 BEDROOM	AT LEAST 20%	3 UNITS	27%
	TOTAL:	11 UNITS	100%

PLAN REFERENCES:

1. "OUTBOUND SURVEY OF BLOCK 6001, LOT 6, LOTS 33, 34, 34.01, 35, 35.01 AND 36, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED DECEMBER 11, 2020.
2. "WETLANDS DELINEATION PLAN OF BLOCK 6009, LOT 6, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED JUNE 5, 2019 AND LAST REVISED NOV. 15, 2019.
3. "CONCEPTUAL SITE PLAN PREPARED FOR HARLINGEN VILLAGE SQUARE, LOTS 33, 34, 34.01, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, LAST REVISED 1/29/20.
4. NJDEP FLOOD HAZARD AREA VERIFICATION PLANS PREPARED FOR HARLINGEN VILLAGE SQUARE LOTS 33, 34, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES PETER W. OLIEMAN, N.J.P.E. No. 30963 DATED NOVEMBER 19, 2021, LAST REVISED AUGUST 22, 2022..

NOTES:

1. FRESHWATER WETLANDS/WATERS BOUNDARY LINE AS VERIFIED BY NJDEP FRESHWATER WETLANDS LETTER OF INTERPRETATION: FILE No.: 1813-03-0014.2 ACTIVITY NUMBER: FWW 190001, DATED JAN. 7, 2020.
2. AN ACCESS EASEMENT OVER ROAD "A" FOR THE APARTMENT BUILDINGS WILL BE PROVIDED.

APPLICANT AND OWNER OF LOTS 33, 34, 34.01, 35, 35.01 & 36
HARLINGEN ASSOCIATES, LLC
36 BROWER LANE
HILLSBOROUGH, NJ 08844
(908) 359-8291

REVISIONS	AUTH.	DATE
PER TOWNSHIP	MKF	3/10/23

DATE:	JANUARY 17, 2023
SCALE:	1"= 50'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
JOB No.	1805M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer,
New Jersey Lic. No. 34722

Pamela Mathews
Pamela Mathews
Professional Engineer & Land Surveyor,
New Jersey Lic. No. 41181

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
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WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132100

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

PRELIMINARY SUBDIVISION / SITE PLAN
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

F.Bk. Pg.

NOTES:

1. ALL EXISTING SITE IMPROVEMENTS WITHIN PROPOSED LIMITS OF DISTURBANCE SHALL BE REMOVED, INCLUDING PAVEMENT, STORM DRAINAGE PIPE, STORM DRAINAGE INLETS AND LIGHTING, UNLESS SPECIFICALLY NOTED OTHERWISE HEREON.
2. ALL AREAS WHERE EXISTING SITE IMPROVEMENTS ARE TO BE REMOVED AND NO NEW IMPROVEMENTS ARE PROPOSED, SHALL BE RESTORED WITH CLEANFILL AS MAY BE REQUIRED, TOPSOIL, SEEDED AND STABILIZED.
3. THE USE OF LIGHTWEIGHT, LOW IMPACT EARTH MOVING EQUIPMENT FOR SITE GRADING OF ALL PROPOSED LAWN AREAS IS REQUIRED IN ORDER TO CONFORM TO THE NON-STRUCTURAL STRATEGIES POINT SYSTEM. TO QUALIFY AS LIGHTWEIGHT AND LOW IMPACT, THE EQUIPMENT MUST EXERT A MAXIMUM PRESSURE OF EIGHT POUNDS PER SQUARE INCH ON THE GROUND SURFACE DURING GRADING OPERATIONS OF PROPOSED LAWN AREAS, SUCH AS OVER SIZED WIDE TRACKED EARTH MOVING EQUIPMENT. RUBBER TIRED EARTH MOVING EQUIPMENT NOT ACCEPTABLE.
4. PIPE LENGTHS AND SLOPE SHOWN BASED ON CENTER TO CENTER OF STRUCTURES.
5. ALL REINFORCED CONCRETE PIPES (R.C.P.) SHALL BE CLASS III UNLESS SPECIFICALLY NOTED OTHERWISE.
6. ALL STORM DRAINAGE INLETS AT CURBED LOCATIONS SHALL BE TYPE "B" AND TYPE "E" INLETS IN LAWN AREAS UNLESS SPECIFICALLY NOTED OTHERWISE. AT DEPRESSED CURB LOCATIONS A DEPRESSED TYPE CASTING SHALL BE UTILIZED FOR THE TYPE "B" INLET.
7. ALL PROPOSED WATER MAINS SHALL BE MINIMUM 8" DIA CLASS 52 CEMENT LINED D.I.P. UNLESS SPECIFICALLY NOTED OTHERWISE.
8. ROOF RUNOFF SHALL BE PRETREATED BY LEAF SCREENS, FIRST FLUSH DIVERTERS OR ROOF WASHERS PER CHAPTER 10.4 OF THE NEW JERSEY BEST MANAGEMENT PRACTICES MANUAL.
9. MANUFACTURED TREATMENT DEVICES SHALL BE INSTALLED TO TREAT THE RUNOFF THAT IS DRAINED BY THE FOLLOWING CATCH BASINS (SEE DETAILS ON SHEET 14):

LEGEND

G	PROPOSED GAS MAIN
W	PROPOSED WATER MAIN
S	PROPOSED SEWER MAIN
WLAT	PROPOSED WATER LATERAL
SL	PROPOSED SEWER LATERAL
	PROPOSED STORM DRAIN
FM	PROPOSED FORCE MAIN SEWER
FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE
100	PROPOSED CONTOURS
100	EXISTING CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	LIMIT OF WORK
	WETLANDS DELINEATION LINE W/FLAGS
	PROPOSED INLET
W	PROPOSED WATER VALVE
S D	PROPOSED MANHOLE
DC	PROPOSED DEPRESSED CURB
FC	PROPOSED FLUSH CURB
FF	PROPOSED FIRST FLOOR ELEVATION
GF	PROPOSED GARAGE FLOOR ELEVATION
	NON EXCLUSIVE UTILITY EASEMENT
	EXCLUSIVE (N.J.A.W.) WATER EASEMENT
	WETLAND AREAS

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE SOMERSET UNION SOIL CONSERVATION DISTRICT 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PHONE # 908-526-2201.
2. CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE DELAWARE AND RARITAN CANAL COMMISSION 30 DAYS PRIOR TO THE START OF CONSTRUCTION. PHONE # 609-397-2000.
3. IN ACCORDANCE WITH THE TOWNSHIP CODE, SECTION 18-5.6.c NO SOIL SHALL BE REMOVED FROM OR BE IMPORTED TO THE SITE IN EXCESS OF TWENTY (20) CUBIC YARDS PER YEAR WITHOUT THE PRIOR APPROVAL OF THE PLANNING BOARD. THEREFORE, THE APPLICANT SHALL BE REQUIRED TO RETURN TO THE PLANNING BOARD FOR APPROVAL OF A SOIL IMPORT/EXPORT PLAN PRIOR TO COMMENCING SUCH ACTIVITY.
4. ALL FILL AND OTHER EARTH WORK ON THE PROJECT LANDS SHALL BE STABILIZED IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY", OBTAINABLE FROM LOCAL SOIL CONSERVATION DISTRICT OFFICE OR EQUAL ENGINEERING SPECIFICATIONS TO PREVENT ERODED SOIL FROM ENTERING ADJACENT WATERWAYS AT ANY TIME DURING AND SUBSEQUENT TO CONSTRUCTION. (SEE "SOIL EROSION SEDIMENT CONTROL DETAIL SHEET").
5. PRIOR TO SITE DISTURBANCE THE PROPOSED LIMITS OF DISTURBANCE ARE TO BE FIELD LOCATED AND STAKED. THE TOWNSHIP ENGINEER AND TOWNSHIP LANDSCAPE ARCHITECT SHALL HAVE AUTHORITY TO MODIFY THE FINAL LOCATION IN ORDER TO PRESERVE EXISTING VEGETATION AND/OR CRITICAL AREAS.
6. NO PRIVATELY OWNED ABOVE GROUND OR BELOW GROUND IMPROVEMENT, INCLUDING BUT NOT LIMITED TO LANDSCAPING AND LAWN SPRINKLER SYSTEMS, MAY BE INSTALLED WITHIN THE STREET RIGHT-OF-WAY, EXCEPT MAILBOXES IN ACCORDANCE WITH POST OFFICE REGULATIONS, WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE MONTGOMERY TOWNSHIP ENGINEER.
7. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
8. ALL EXISTING UTILITIES VERTICAL AND HORIZONTAL LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF THE CONSTRUCTION. UNLESS REQUIRED OTHERWISE BY UTILITY COMPANY, THE APPLICANT SHALL NOT LOCATE ANY OUTSIDE METERS AND OTHER MECHANICALS IN FRONT OF ANY TOWNHOUSE BUILDING.

GRAPHIC SCALE

30' 0' 15' 30' 60' 90'

Scale: 1 inch = 30 ft.
Vertical Datum: NAVD 88

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_04-06_12(UTILITY-GRADING-BASIN-RAMP).DWG

			DATE:	JANUARY 17, 2023
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			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Michael K. Ford

Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

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Bridges/Highways
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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

GRADING PLAN - NORTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

F.Bk. Pg.

FILE No. 6482-X

NOTES:

1. ALL EXISTING SITE IMPROVEMENTS WITHIN PROPOSED LIMITS OF DISTURBANCE SHALL BE REMOVED, INCLUDING PAVEMENT, STORM DRAINAGE PIPE, STORM DRAINAGE INLETS AND LIGHTING, UNLESS SPECIFICALLY NOTED OTHERWISE HEREON.
2. ALL AREAS WHERE EXISTING SITE IMPROVEMENTS ARE TO BE REMOVED AND NO NEW IMPROVEMENTS ARE PROPOSED, SHALL BE RESTORED WITH CLEANFILL AS MAY BE REQUIRED, TOPSOIL, SEEDED AND STABILIZED.
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7. ALL PROPOSED WATER MAINS SHALL BE MINIMUM 8" DIA CLASS 52 CEMENT LINED D.I.P. UNLESS SPECIFICALLY NOTED OTHERWISE.
8. ROOF RUNOFF SHALL BE PRETREATED BY LEAF SCREENS, FIRST FLUSH DIVERTERS OR ROOF WASHERS PER CHAPTER 10.4 OF THE NEW JERSEY BEST MANAGEMENT PRACTICES MANUAL.
9. MANUFACTURED TREATMENT DEVICES SHALL BE INSTALLED TO TREAT THE RUNOFF THAT IS DRAINED BY THE FOLLOWING CATCH BASINS (SEE DETAILS ON SHEET 14):

LEGEND

G	PROPOSED GAS MAIN
W	PROPOSED WATER MAIN
S	PROPOSED SEWER MAIN
W,LAT	PROPOSED WATER LATERAL
SL	PROPOSED SEWER LATERAL
	PROPOSED STORM DRAIN
FM	PROPOSED FORCE MAIN SEWER
FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE (EXISTING)
WB	WETLAND BUFFER LINE (PROPOSED)
100	PROPOSED CONTOURS
100	EXISTING CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	LIMIT OF WORK
	WETLANDS DELINEATION LINE W/FLAGS
	PROPOSED INLET
W	PROPOSED WATER VALVE
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DC	PROPOSED DEPRESSED CURB
FC	PROPOSED FLUSH CURB
FF	PROPOSED FIRST FLOOR ELEVATION
GF	PROPOSED GARAGE FLOOR ELEVATION
	NON EXCLUSIVE UTILITY EASEMENT
	EXCLUSIVE (N.J.A.W.) WATER EASEMENT
	WETLAND BUFFER COMPENSATION

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE SOMERSET UNION SOIL CONSERVATION DISTRICT 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PHONE # 908-526-2701.
2. CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE DELAWARE AND RARITAN CANAL COMMISSION 30 DAYS PRIOR TO THE START OF CONSTRUCTION. PHONE # 609-397-2000.
3. IN ACCORDANCE WITH THE TOWNSHIP CODE, SECTION 16-5.6.c NO SOIL SHALL BE REMOVED FROM OR BE IMPORTED TO THE SITE IN EXCESS OF TWENTY (20) CUBIC YARDS PER YEAR WITHOUT THE PRIOR APPROVAL OF THE PLANNING BOARD. THEREFORE, THE APPLICANT SHALL BE REQUIRED TO RETURN TO THE PLANNING BOARD FOR APPROVAL OF A SOIL IMPORT/EXPORT PLAN PRIOR TO COMMENCING SUCH ACTIVITY.
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GRAPHIC SCALE

30' 0' 15' 30' 60' 90'

Scale: 1 inch = 30 ft.
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Michael K. Ford
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Water/Wastewater

GRADING PLAN - SOUTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE

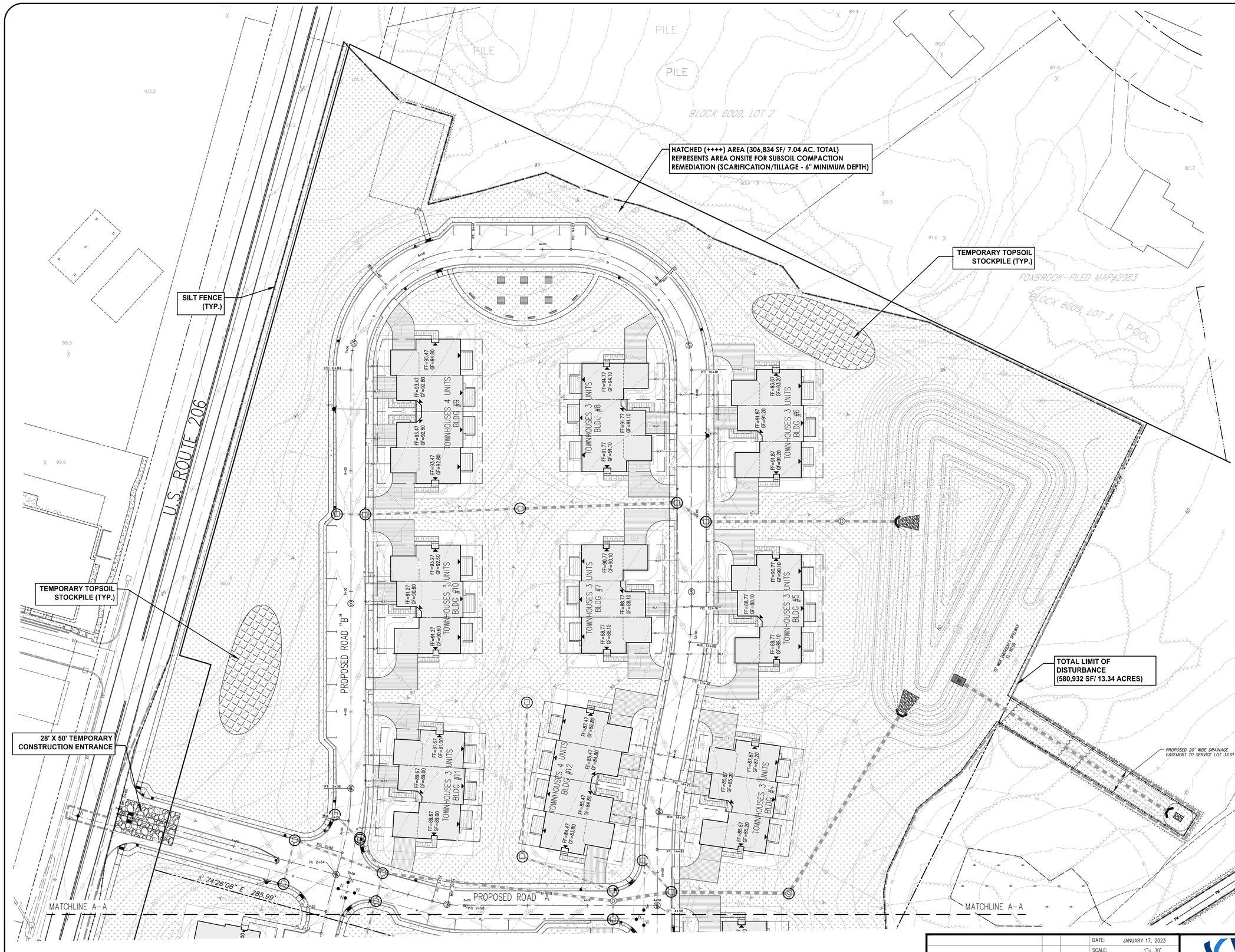
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

5

F.Bk. Pg.

FILE No. 6482-X



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	NON EXCLUSIVE UTILITY EASEMENT
	EXCLUSIVE (N.J.A.W.) WATER EASEMENT
	WETLAND BUFFER COMPENSATION
	TEMPORARY TOPSOIL STOCK PILE
	TEMPORARY CONSTRUCTION ENTRANCE
	SUBSOIL COMPACTION REMEDIATION AREA
	WETLAND AREAS

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE SOMERSET UNION SOIL CONSERVATION DISTRICT 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PHONE # 908-526-2701.
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3. IN ACCORDANCE WITH THE TOWNSHIP CODE, SECTION 16-5.6.c NO SOIL SHALL BE REMOVED FROM OR BE IMPORTED TO THE SITE IN EXCESS OF TWENTY (20) CUBIC YARDS PER YEAR WITHOUT THE PRIOR APPROVAL OF THE PLANNING BOARD. THEREFORE, THE APPLICANT SHALL BE REQUIRED TO RETURN TO THE PLANNING BOARD FOR APPROVAL OF A SOIL IMPORT/EXPORT PLAN PRIOR TO COMMENCING SUCH ACTIVITY.
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GRAPHIC SCALE

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Water/Wastewater

SOIL EROSION & SEDIMENT CONTROL PLAN - NORTH

PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
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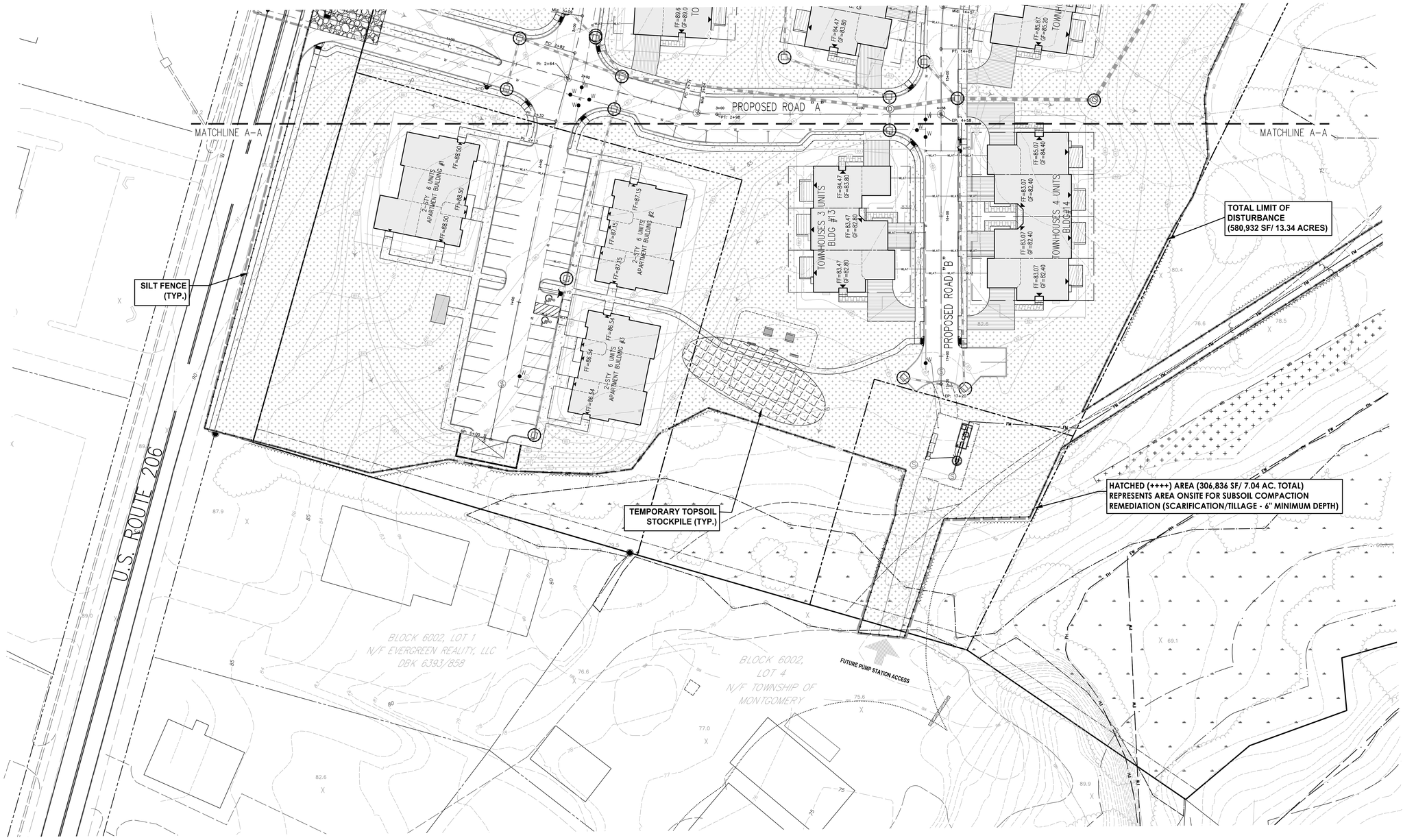

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7. ALL PROPOSED WATER MAINS SHALL BE MINIMUM 8" DIA CLASS 52 CEMENT LINED D.I.P. UNLESS SPECIFICALLY NOTED OTHERWISE.
8. ROOF RUNOFF SHALL BE PRETREATED BY LEAF SCREENS, FIRST FLUSH DIVERTERS OR ROOF WASHERS PER CHAPTER 10.4 OF THE NEW JERSEY BEST MANAGEMENT PRACTICES MANUAL.
9. MANUFACTURED TREATMENT DEVICES SHALL BE INSTALLED TO TREAT THE RUNOFF THAT IS DRAINED BY THE FOLLOWING CATCH BASINS (SEE DETAILS ON SHEET 14):

LEGEND

G	PROPOSED GAS MAIN
W	PROPOSED WATER MAIN
S	PROPOSED SEWER MAIN
WLAT	PROPOSED WATER LATERAL
SL	PROPOSED SEWER LATERAL
	PROPOSED STORM DRAIN
FM	PROPOSED FORCE MAIN SEWER
FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE (EXISTING)
WB	WETLAND BUFFER LINE (PROPOSED)
102	PROPOSED CONTOURS
102	EXISTING CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	LIMIT OF WORK
	WETLANDS DELINEATION LINE W/FLAGS
	PROPOSED INLET
W	PROPOSED WATER VALVE
S D	PROPOSED MANHOLE
DC	PROPOSED DEPRESSED CURB
FC	PROPOSED FLUSH CURB
FF	PROPOSED FIRST FLOOR ELEVATION
GF	PROPOSED GARAGE FLOOR ELEVATION
	NON EXCLUSIVE UTILITY EASEMENT
	EXCLUSIVE (N.J.A.W.) WATER EASEMENT
	WETLAND BUFFER COMPENSATION
	TEMPORARY TOPSOIL STOCK PILE
	TEMPORARY CONSTRUCTION ENTRANCE
	SUBSOIL COMPACTION REMEDIATION AREA
	WETLAND AREAS

GENERAL NOTES

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GRAPHIC SCALE

30' 0' 15' 30' 60' 90'

Scale: 1 inch = 30 ft.
Vertical Datum: NAVD 88

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_04-06_12(UTILITY-GRADING-BASIN-RAMP).DWG

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Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
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WEB: WWW.VANCLEEFENGINEERING.COM
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Bridges/Highways
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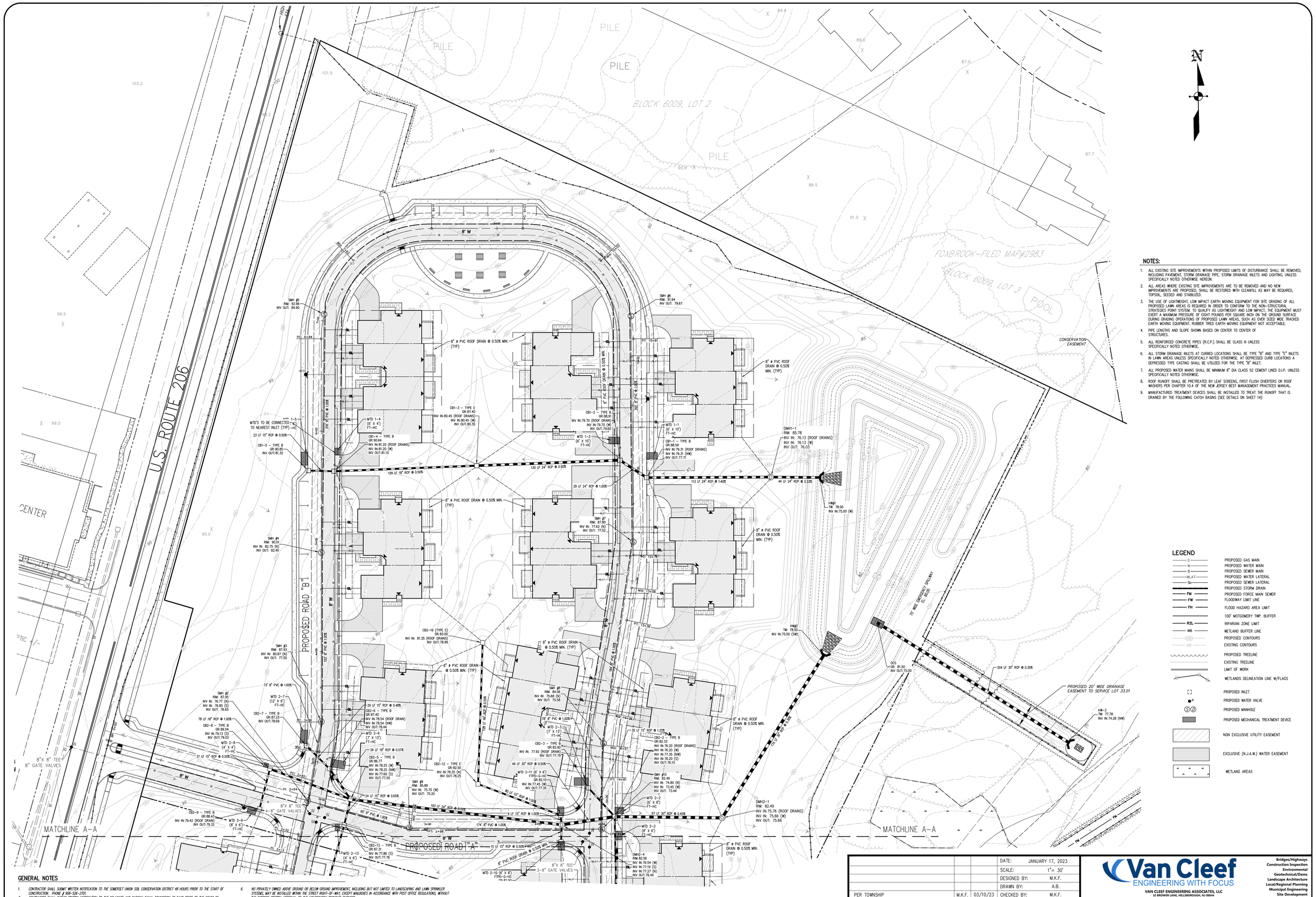
Water/Wastewater

SOIL EROSION & SEDIMENTCONTROL PLAN - SOUTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X



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W	PROPOSED WATER VALVE
S	PROPOSED MANHOLE
	PROPOSED MECHANICAL TREATMENT DEVICE
	NON EXCLUSIVE UTILITY EASEMENT
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UTILITY PLAN - NORTH

PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
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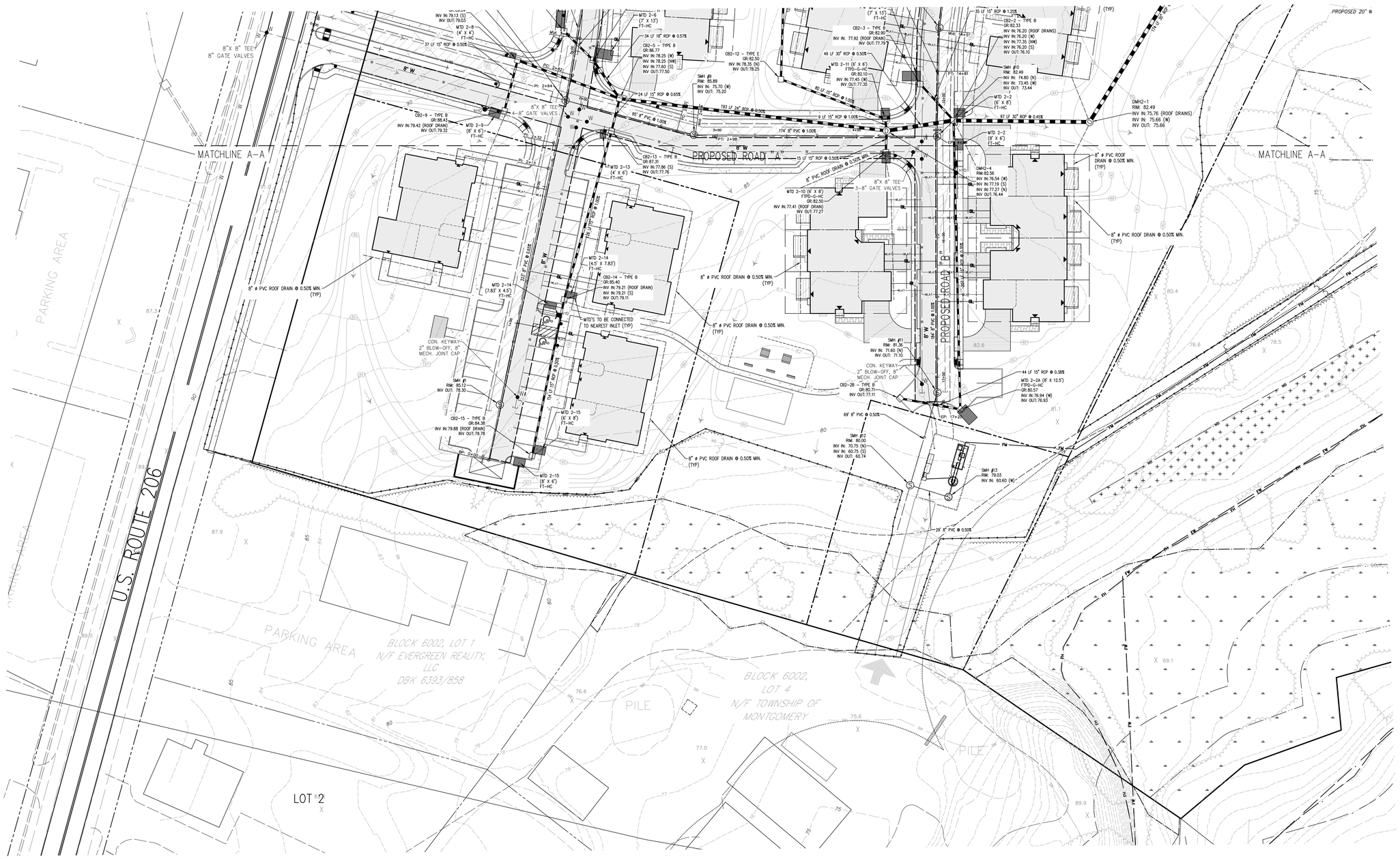

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UTILITY PLAN - SOUTH

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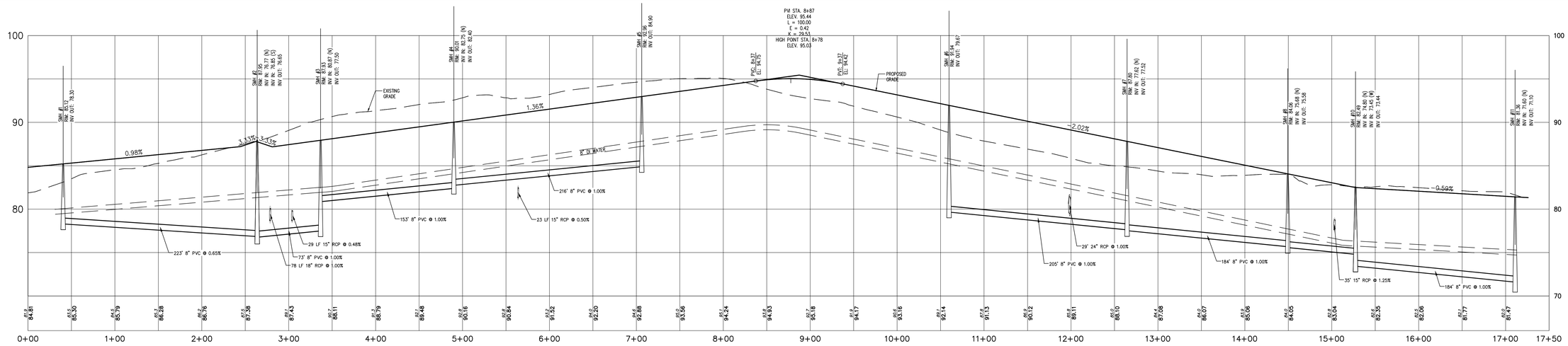
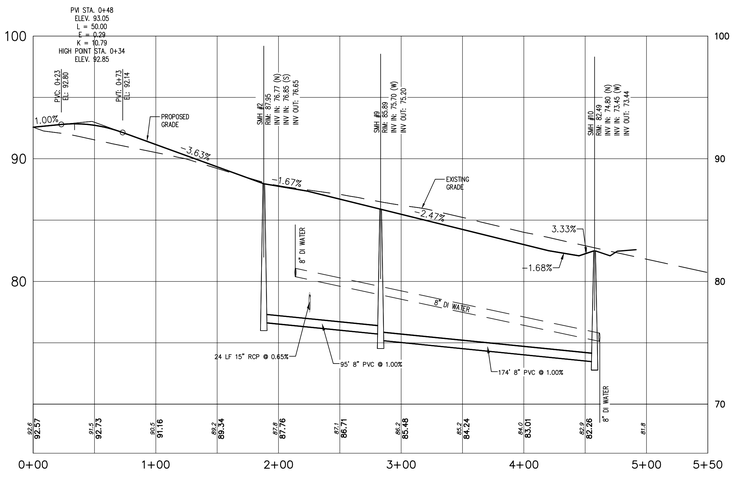
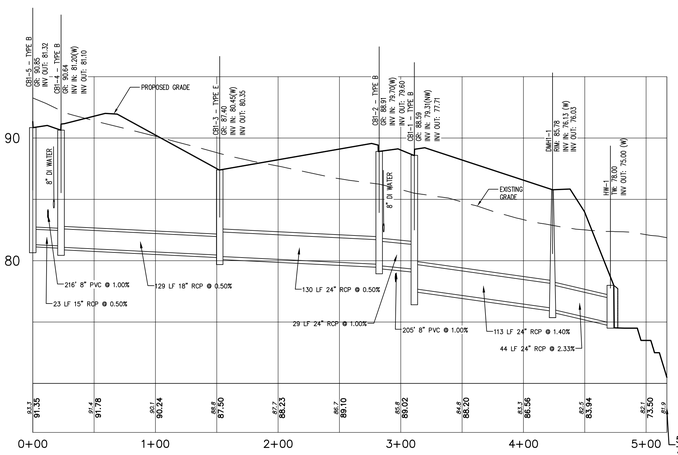


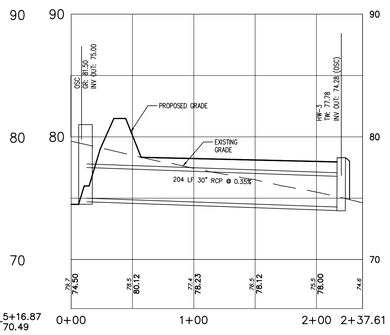
LOOP ROAD "B" / SMH#1 - SMH#11 SANITARY PROFILE



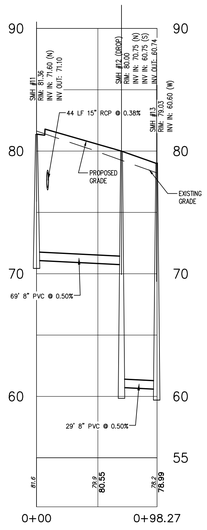
ENTRY ROAD "A" / SMH#2 - SMH#10
SANITARY PROFILE



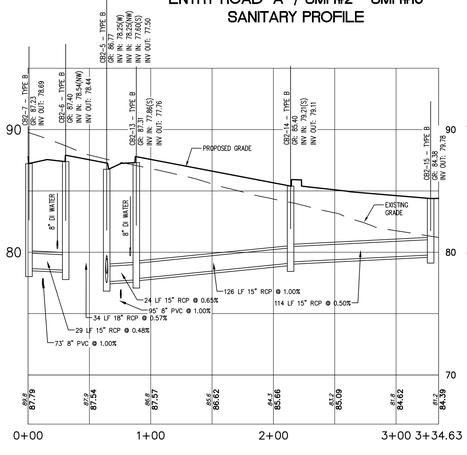
CB1-5 TO HW#1
DRAIN PROFILE



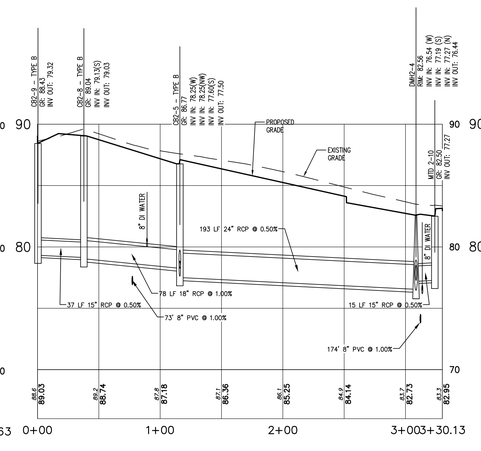
OSC TO HW#3
DRAIN PROFILE



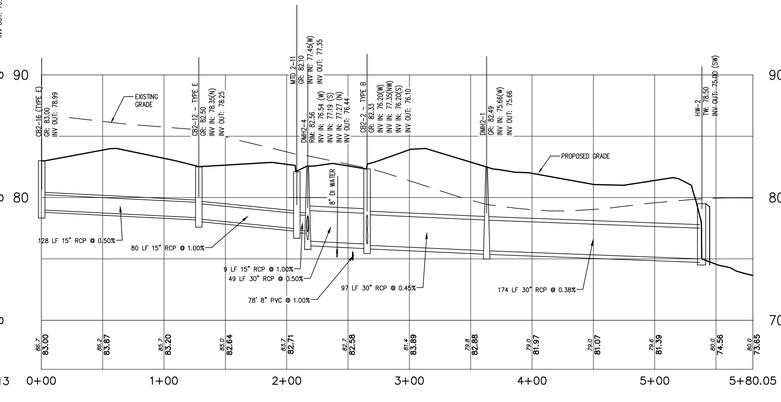
SMH #11 - SMH #13
SANITARY SEWER / PUMP STATION
PROFILE



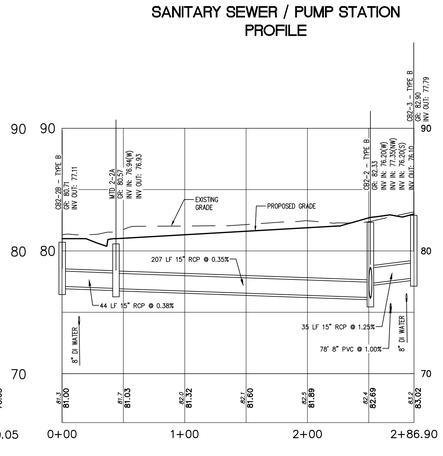
CB2-7 TO CB2-15
DRAIN PROFILE



CB2-9 TO CB2-10
DRAIN PROFILE



CB2-16 TO HW #2
DRAIN PROFILE



CB2-2B TO CB2-3
DRAIN PROFILE

GRAPHIC SCALE

50' 0' 25' 50' 100' 150'

Horizontal Scale: 1 inch = 50 ft.
Vertical Datum: NAVD 88

5' 0' 2.5' 5' 10' 15'

Vertical Scale: 1 inch = 5 ft.

			DATE:	JANUARY 17, 2023
			SCALE:	AS SHOWN
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

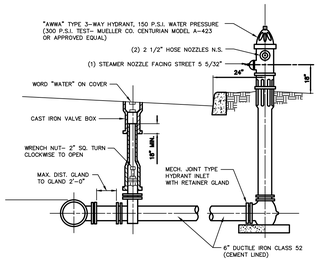
Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE: (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

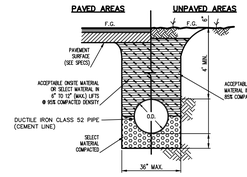
PROFILES
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X

F:\JOBFILE\1805M_ENGDWG\HARLINGEN VILLAGE PLAN SET (8-19-22)\1805M_10-PROFILES.DWG



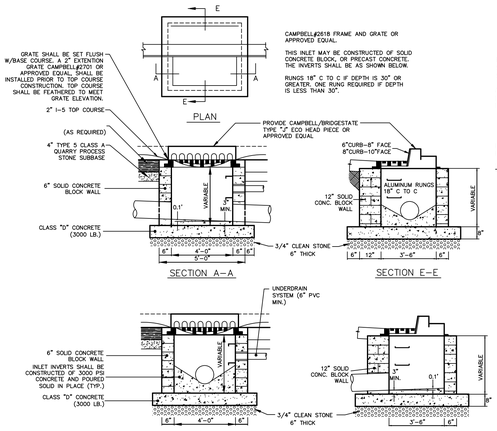
TYPICAL HYDRANT INSTALLATION



NOTE: SELECT MATERIAL MAY BE 3/4" CLEAN STONE OR DENSE GRADED AGGREGATE

TRENCH DETAIL FOR D.I.P. WATER MAIN TYPE II W/ BEDDING

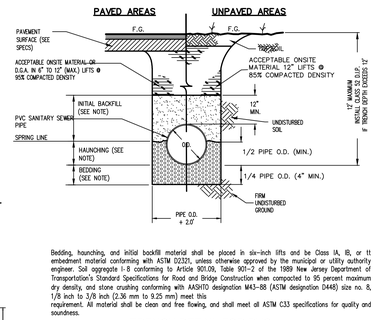
(ELIZABETHTOWN WATER COMPANY SPECIFICATION) NOT TO SCALE



NOTE: INVERTS TO BE BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARD THE OUTLET PIPE AT LEAST ONE TENTH OF A FOOT. DEPTHS GREATER THAN 8' SHALL HAVE 12" THICK WALLS. FOOTING SHALL BE INCREASED 12" IN WIDTH AND 2" IN DEPTH.

DRAINAGE INLET TYPE 'B'
WITH C.I. CURB PIECE-RACK-FRAME AND GRATE

N.T.S.



Bedding, haunching, and initial backfill material shall be placed in six-inch lifts and be Class IA, IB, or II embedment material conforming with ASTM D2321, unless otherwise approved by the municipal or utility authority engineer. Soil aggregate I-8 conforming to Article 901.09, Table 901-2 of the 1989 New Jersey Department of Transportation's Standard Specifications for Road and Bridge Construction when compacted to 95 percent maximum dry density, and stone crushing conforming with AASHTO designation M43-88 (ASTM designation D448) size no. 8, 1/8 inch to 3/8 inch (2.36 mm to 9.25 mm) meet this requirement. All material shall be clean and free flowing, and shall meet all ASTM C33 specifications for quality and soundness.

TRENCH DETAIL FOR PVC
GRAVITY SANITARY SEWER PIPE

(N.J. RESIDENTIAL SITE STANDARD)

NOT TO SCALE

GENERAL NOTES FOR P.V.C. SEWER CONSTRUCTION

1. All 8" PVC pipe and fittings shall be SDR 35 and shall conform to ASTM-D3034. The poly vinyl chloride compounds for pipe shall have a cell classification of 12454-B or 13364-B (with minimum tensil modulus of 500,00 psi) as defined in ASTM—D1784. Maximum lengths of pipe shall be thirteen (13') feet.

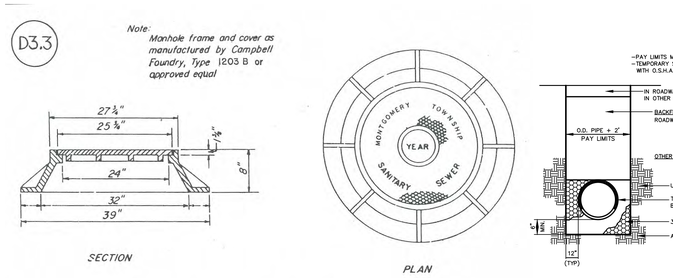
2. Pipe joints shall be integral bell gasketed joints which when assembled, form a positive seal. The joints shall be designed in accordance with ASTM—D3211 and the lubricant used for assembly shall be as provided or recommended by the pipe manufacturer and shall have no detrimental effect on the gasket or the pipe.

3. All fittings including wyes and tees and pipe lubricant shall be made by the same manufacturer as the sewer main pipe.

4. In addition to air testing, a mandrill test will be performed to insure that a no greater than 5% deflection has occurred in the sewer main. Deflections greater than 5% will require the removal and reinstallation of the section of pipe failing the test.

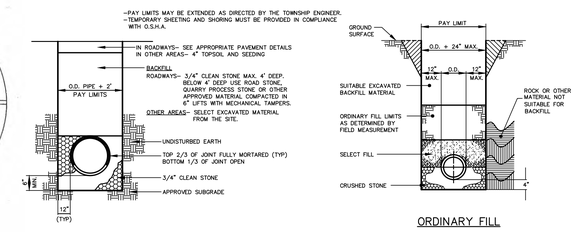
5. PVC pipe shall be delivered to the site in banded pallet loads only. The bands shall not be removed until that pipe is ready for installation. Unbanded pipe not immediately installed has the tendency to warp beyond repair.

6. Manhole connections will be made with a flexible sleeve precast in the manhole or with an A.C. material manhole adapter.



MANHOLE FRAME AND COVER

Not to Scale



ORDINARY FILL

STORM SEWER TRENCH DETAILS

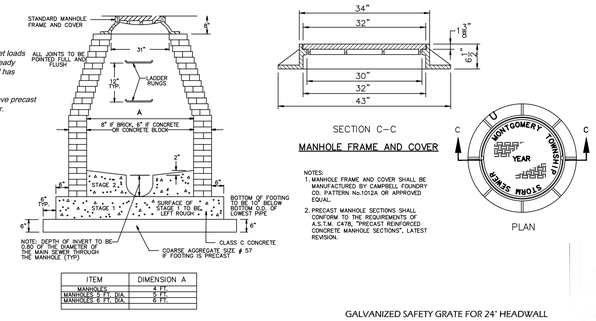
N.T.S.

STORM SEWER CONSTRUCTION NOTES

1. MATERIALS USED IN THE CONSTRUCTION OF STORM SEWERS SHALL BE CONSTRUCTED OF REINFORCED CONCRETE, DUCTILE IRON, OR CORRUGATED POLYETHYLENE, OR, WHEN APPROVED BY THE MUNICIPAL ENGINEER, CORRUGATED METAL.
2. CIRCULAR REINFORCED CONCRETE PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM C76.
3. ELLIPTICAL REINFORCED CONCRETE PIPE SHALL MEET THE REQUIREMENTS OF ASTM C507.
4. JOINT DESIGN AND JOINT MATERIAL FOR CIRCULAR PIPE SHALL CONFORM TO ASTM C443.
5. JOINTS FOR ELLIPTICAL PIPE SHALL BE BELL AND SPIGOT OR TONGUE AND GROVE SEALED WITH BUTYL, RUBBER TAPE, RUBBER RING GASKETS, OR EXTERNAL SEALING BANDS CONFORMING TO ASTM C877.
6. ALL PIPE SHALL BE CLASS III, MINIMUM UNLESS LOADING CONDITIONS CALL FOR STRONGER PIPE (i.e. HIGHER CLASS).
7. THE MINIMUM DEPTH OF COVER OVER THE CONCRETE PIPE SHALL BE AS DESIGNATED BY THE AMERICAN CONCRETE PIPE ASSOCIATION.

8. MINIMUM DEPTH OF COVER STANDARDS FOR DUCTILE IRON AND CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO MANUFACTURER STANDARDS.

9. MANHOLES SHALL BE PRECAST CONCRETE OR CONCRETE BLOCK COATED WITH TWO (2) COATS OF PORTLAND CEMENT MORTAR OUTSIDE THE MANHOLE. MASONRY BRICK MAY BE USED TO MAKE VERTICAL ADJUSTMENT TO RIMS, AS LONG AS THE ADJUSTMENT ARE 12 INCHES OR LESS. IN ACIDIC SOLS, ALL MANUFACTURER'S INSTRUCTION.
10. IF PRECAST MANHOLE BARRELS AND CONES ARE USED, THEY SHALL CONFORM TO ASTM SPECIFICATION C478, WITH ROUND RUBBER GASKETED JOINTS, CONFORMING TO ASTM SPECIFICATION C923.



ITEM	DIMENSION A
MANHOLES	4 FT.
MANHOLES 5 FT. DIA.	5 FT.
MANHOLES 6 FT. DIA.	6 FT.

MANHOLES, MANHOLES 5 FT. DIAMETER,
MANHOLES 6 FT. DIAMETER

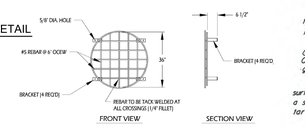
STANDARD STORM SEWER MANHOLE DETAIL

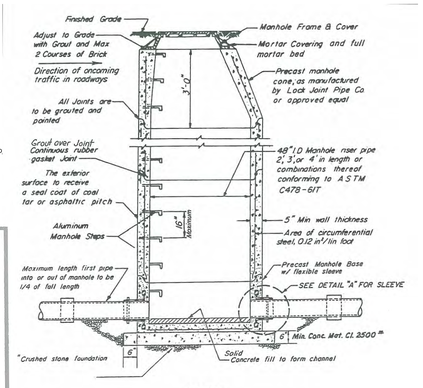
N.T.S.

MANHOLE FRAME AND COVER

NOTES:
1. MANHOLE FRAME AND COVER SHALL BE MANUFACTURED BY CAMPBELL FOUNDRY CO. PATTERN No.1012A OR APPROVED EQUAL.
2. PRECAST MANHOLE SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. C478, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS", LATEST REVISION.

GALVANIZED SAFETY GRATE FOR 24" HEADWALL



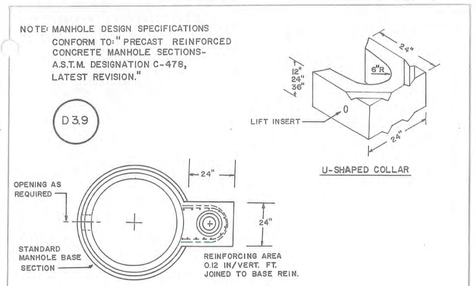


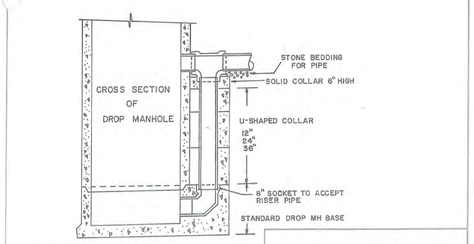
SECTION

D3.4 STANDARD PRECAST MANHOLE

Scale: 1/2" = 1'-0"

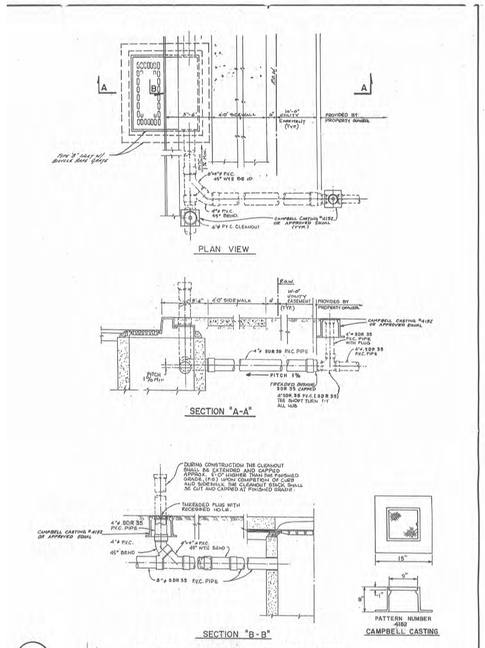
When dry sewers are installed, house connections shall extend inside the foundation and shall have a tamper-proof plug or cap temporarily sealed with a material that can be removed to utilize the fitting when the system is activated.

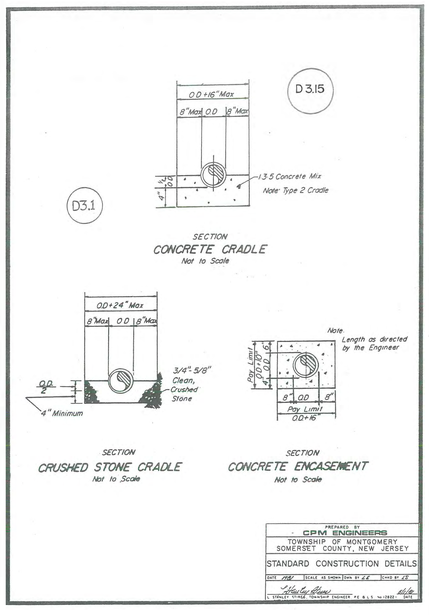


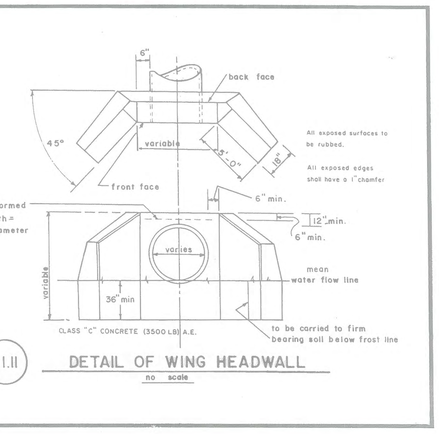


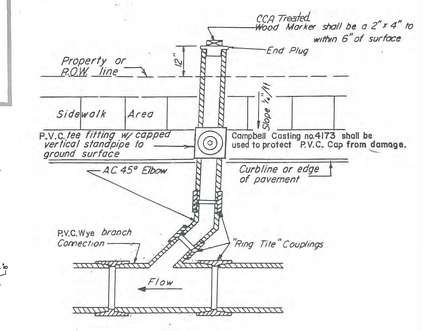
PRECAST DROP MANHOLE
BASE WITH RISER

TOWNSHIP OF MONTGOMERY
SOMERSET COUNTY, NEW JERSEY
STANDARD CONSTRUCTION DETAIL
PREPARED BY
FELLOWS, READ AND ASSOC.







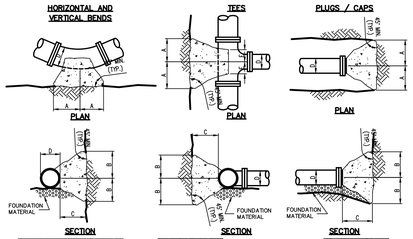


TYPICAL HOUSE CONNECTION

Not to Scale

WATER SUPPLY CONSTRUCTION NOTES

1. DUCTILE IRON PIPE, APPURTENANCES AND FITTINGS SHALL COMPLY WITH ANSI/AWWA C105/A21.5 AND ANSI/AWWA C151/A21.51 AND ANSI/AWWA C115/A21.15 (FLANGED PIPE). PIPE SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4. JOINTS SHALL BE GASKET PUSH-ON JOINTS IN CONFORMANCE WITH ANSI/AWWA C111/A21.11. THE EXTERIOR OF THE DUCTILE IRON PIPE SHALL BE COVERED WITH A COAL-TAR, EPOXY-TYPE COATING. IN AGGRESSIVE SOLS, DUCTILE IRON PIPE WRAPPED IN POLYETHYLENE, IN ACCORDANCE WITH ANSI/AWWA C105/A21.5, SHALL BE USED.



BEND	D	E	F
11 1/4°	A	12"	12"
	B	12"	12"
	C	12"	12"
22 1/2°	A	12"	12"
	B	12"	12"
	C	12"	12"
45°	A	12"	16"
	B	12"	20"
	C	12"	20"
90°	A	12"	20"
	B	12"	20"
	C	12"	20"

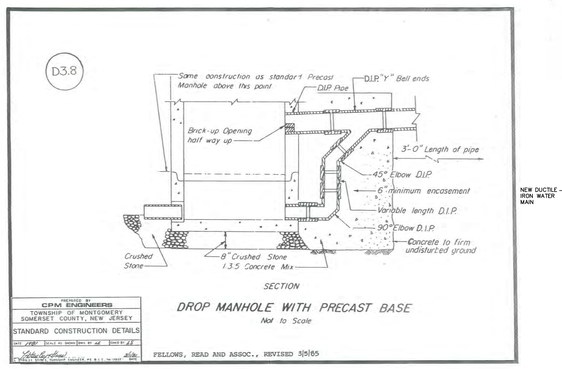
	D	E	F
A	6"	6"	6"
B	6"	6"	6"
C	6"	6"	6"

	D	E	F
A	6"	6"	6"
B	6"	6"	6"
C	6"	6"	6"

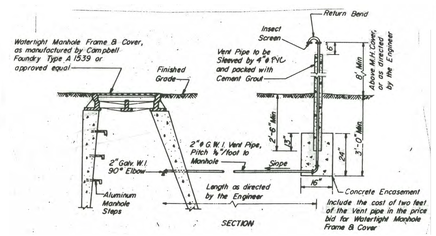
NOTES:
1. ALL THRUST BLOCKS ARE TO BE POURED IN FULL CONTACT WITH UNDISTURBED MATERIAL.
2. THRUST BLOCKS ARE TO BE PLACED AT ALL BENDS OR AS DIRECTED BY THE ENGINEER
3. ALL THRUST BLOCK CONCRETE SHALL BE 2,500 PSI (MIN.)
4. ALL BOLTS AND CONNECTIONS TO BE COVERED WITH BURLAP OR PLASTIC BEFORE POURING CONCRETE
5. TIE RODS ,CLAMPS AND RETAINER GLANDS REQUIRED BUT NOT SHOWN

THRUST BLOCK DETAILS

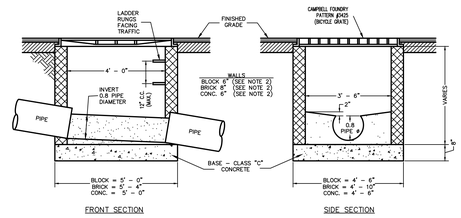
NOT TO SCALE



TOWNSHIP OF MONTGOMERY
SOMERSET COUNTY, NEW JERSEY
DRAINAGE DISCHARGE HEADER DETAIL
PREPARED BY
FELLOWS, READ AND ASSOC.
OCTOBER 1, 1987
REVISED FEB. 1988



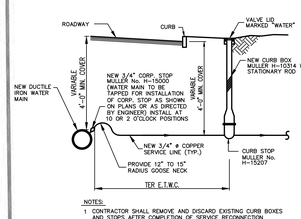
WATERTIGHT MANHOLE FRAME AND COVER



NOTES:
1. PRECAST STRUCTURES MAY BE USED WITH PRIOR APPROVAL OF TOWNSHIP ENGINEER
2. STRUCTURES DEEPER THAN 8' CONSTRUCTED IN PLACE SHALL BE DOUBLE-WALLED, PRECAST UNITS PER MANUFACTURER.
3. PROVIDE (2) 6" DIA. BLOCKOUTS FOR CONNECTION OF UNDERDRAIN (IF DICTATED BY FIELD CONDITIONS).

TYPE "E" INLET DETAIL

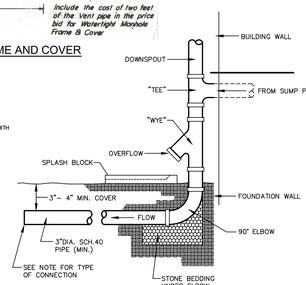
NOT TO SCALE



NOTES:
1. CONTRACTOR SHALL REMOVE AND DISCARD EXISTING CURB BOXES AND STOPS AFTER COMPLETION OF SERVICE RECONNECTION
2. CONTRACTOR SHALL TEST AND DISINFECT THE WATER MAIN PIPING PRIOR TO THE INSTALLATION OF WATER SERVICES
3. MINIMUM STANDARD INDICATED, WATER UTILITY COMPANY STANDARDS SHALL APPLY WHERE DIFFERENT.

WATERLINE SERVICE CONNECTION

NOT TO SCALE



NOTE
SUMP PUMPS AND ROOF LEADERS ARE TO BE TIED INTO THE STORM DRAINAGE SYSTEM.

ROOF LEADER TIE-IN DETAIL

N.T.S.

		DATE:	JANUARY 17, 2023
		SCALE:	AS SHOWN
		DESIGNED BY:	M.K.F.
		DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No. 1805-M

BY: Michael K. Ford
Michael K. Ford — New Jersey Professional Engineer No. 34722

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
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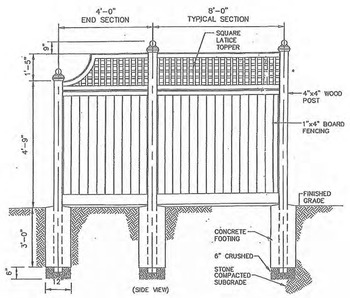
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

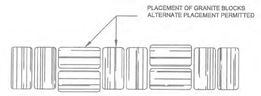
CONSTRUCTION DETAILS
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

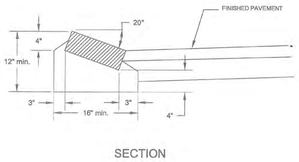
F:\Jobs\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\18050M-DET-TYP BLDG (4-22-22).dwg Snyder 1/10/2023 11:12:42 AM



NOTES:
1. FENCE SHALL BE WHITE PVC.
2. FENCE WILL BE PERMITTED AT GRADE AS WELL AS ON THE DECK (OPT.) EXTENDING A MAXIMUM 12 FEET OUT FROM THE UNIT.

DECORATIVE FENCE DETAIL
N.T.S.

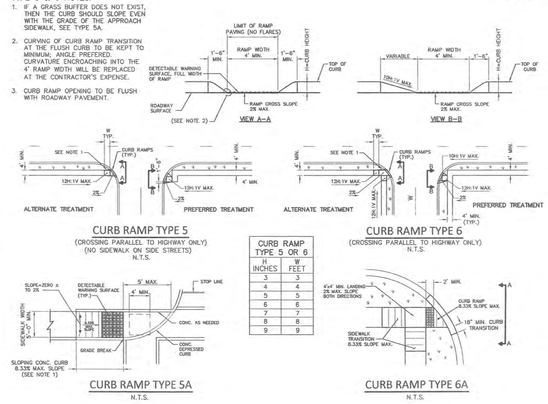




MOUNTABLE GRANITE CURB DETAIL
N.T.S.

TYPE 5 & 6 NOTES:
1. IF A GRASS BUFFER DOES NOT EXIST, THEN THE CURB SHOULD SLOPE EVEN WITH THE GRADE OF THE APPROACH SIDEWALK, SEE TYPE 5A.
2. CURVING OF CURB RAMP TRANSITION AT THE FLUSH CURB TO BE KEPT TO MINIMUM; ANGLE PREFERED. CURVATURE ENCROACHING INTO THE 4' RAMP WIDTH WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT.

CR7



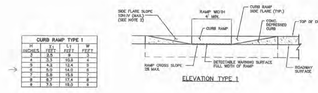
CURB RAMP TYPE 5 OR 6	
H INCHES	W FEET
3	3
4	4
5	5
6	6
7	7
8	8
9	9

ACCESSABLE CURB RAMP, CROSSWALK DETAIL
NOT TO SCALE

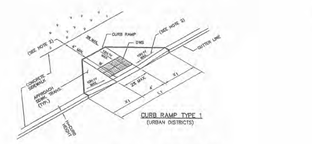
NOTES (PER TOWNSHIP COMMENTS):
1. EACH ACCESSABLE CURB RAMP SHALL BE INDIVIDUALLY DESIGNED PRIOR TO CONSTRUCTION BY A N.J. LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL BY TOWNSHIP ENGINEER.

CR3

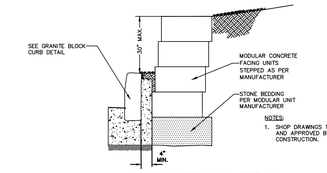
TYPE 1 NOTES:
1. THIS TYPE CAN ALSO BE UTILIZED AT CURB RETURNS.
2. IF A 4'x4' LANDING CANNOT BE PROVIDED, THEN THE MAXIMUM SLOPE ON THE FLARES IS 12H:1V (8.33%).
3. CONSTRUCTION OF THIS RAMP DIAGONAL TO AN INTERSECTION, REQUIRES APPROVAL OF THE ENGINEER.



CURB RAMP TYPE 1			
H INCHES	F1 FEET	F2 FEET	W FEET
3	5.5	10.5	3
4	4.5	10.0	4
5	4.0	12.5	5
6	3.5	13.5	6
7	3.0	14.5	7
8	2.5	15.5	8

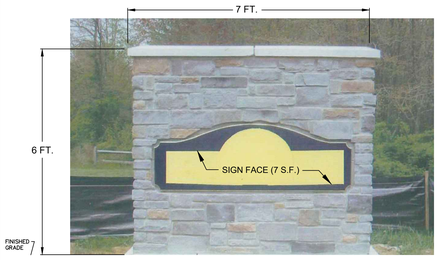


CURB RAMP TYPE 1 DETAILS
N.T.S.

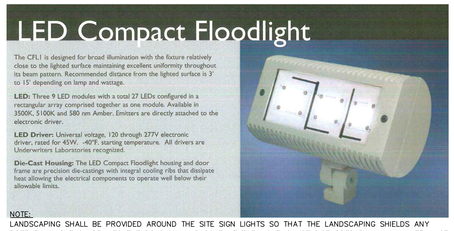


NOTES:
1. SHOP DRAWINGS TO BE SUBMITTED TO AND APPROVED BY TOWNSHIP PRIOR TO CONSTRUCTION.

LANDSCAPE WALL DETAIL
N.T.S.

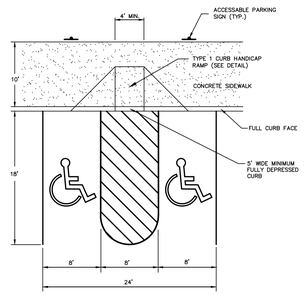


PROPOSED SITE SIGN (OR EQUAL) DETAIL
N.T.S.



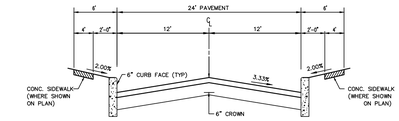
NOTE:
LANDSCAPING SHALL BE PROVIDED AROUND THE SITE SIGN LIGHTS SO THAT THE LANDSCAPING SHIELDS ANY POTENTIAL LIGHT GLARE INTO THE ROADWAY AND SO THAT THE LIGHT IS NOT DISTURBED BY LAWN MAINTENANCE EQUIPMENT SUBJECT TO THE APPROVAL OF THE TOWNSHIP LANDSCAPE ARCHITECT.

NOTE:
SITE SIGN SHALL BE ILLUMINATED BY KIM LIGHTING LED COMPACT FLOODLIGHT MODEL CFL1/27L4KUY/BL (OR APPROVED EQUAL). THERE SHALL BE ONE (1) LIGHT ON EACH SIDE OF THE WALL (SIGN), CENTERED AND FOCUSED ON THE SIGN FACE.

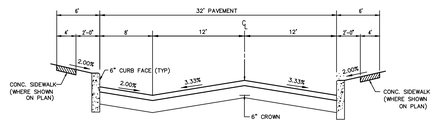


ACCESSABLE PARKING SPACE DETAIL
N.T.S.

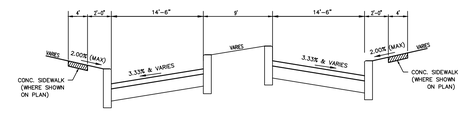
PROPERTY ENTRANCE SIGN
N.T.S.



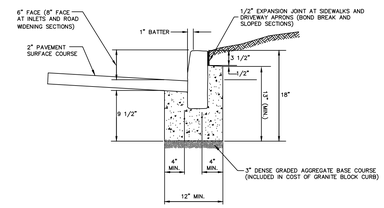
TYPICAL ROAD SECTION
N.T.S.

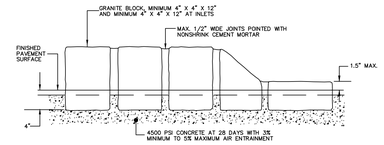


TYPICAL ROAD SECTION (ON STREET PARKING)
N.T.S.

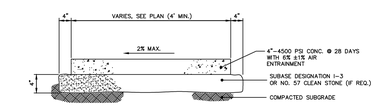


TYPICAL ROAD SECTION (ENTRANCE)
N.T.S.





GRANITE BLOCK CURB DETAIL
N.T.S.



TYPICAL SECTION

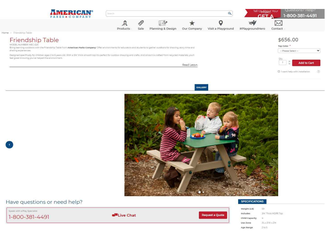
NOTES:
1. CONCRETE TO BE PLACED AND CURED IN ACCORDANCE WITH THE PROCEDURES SPECIFIED HEREON.
2. BASE COURSE MAY BE OMITTED IF SUBGRADE MATERIAL IS SATISFACTORY TO THE TOWNSHIP ENGINEER.
3. DRIVEWAY APRON TO CONFORM WITH REQUIREMENTS FOR SIDEWALK AT DRIVEWAYS AND DIMENSIONS.
4. ALTERNATE EXPANSION JOINTS AND CONSTRUCTION JOINTS TO BE PLACED EVERY 4'-0".

CONCRETE SIDEWALK DETAIL
N.T.S.

HORSE SPRING RIDER — DOLPHIN SPRING RIDER — TRUCK SPRING RIDER

TOT LOT PLAY SPRING RIDER DETAILS
N.T.S.
AMERICAN PARKS COMPANY OR APPROVED EQUAL.

TOT LOT SEE-SAW BOUNCER DETAILS
N.T.S.
AMERICAN PARKS COMPANY OR APPROVED EQUAL.



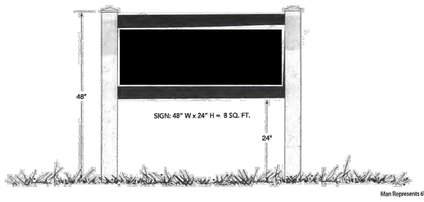
TOT LOT FRIENDLY TABLE DETAIL
N.T.S.

TerraBound Elite Dog Waste Station

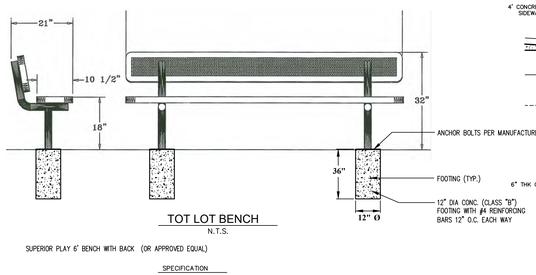
Product Summary

The TerraBound Elite Dog Waste Station is available with a Single Pull® or Roll Bag dispenser system & lidded, 11 gallon aluminum can. This waste station is constructed from commercial grade aluminum and powder coated in forest green.

DOG WASTE STATION DETAIL
N.T.S.



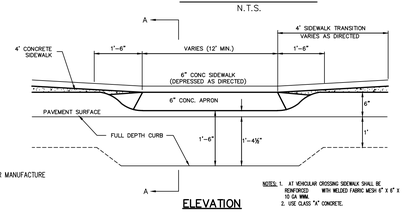
APARTMENT ENTRANCE SIGN
N.T.S.



TOT LOT BENCH
N.T.S.

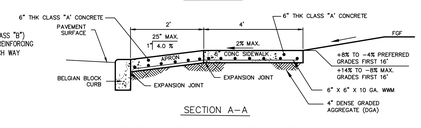
SUPERIOR PLAY 6' BENCH WITH BACK (OR APPROVED EQUAL)

SPECIFICATION
1. 6' POLY VINYL EXPANDED METAL BENCH WITH BACK. ALL CORNERS ARE ROUNDED. FRAME IS SURFACE MOUNT DESIGN.
2. COATED WITH A 1/8" TO 1/4) THICK PLASTISOL ULTRAVIOLET STABILIZED VINYL COATING FUSED AND BAKED TO A 90% GLOSS.
3. SEAT HEIGHT IS 18" APPROXIMATELY. BENCH HEIGHT IS 32" APPROXIMATELY. TOTAL OVERALL DIMENSIONS ARE 96" X 21" APPROXIMATELY.
4. SEATS ARE MADE FROM USGA 3/8" X 9/16" PUNCHED STEEL.
5. ALL CENTER BRACES ARE MADE FROM 1/400 X 1 1/2" FLAT STEEL.
6. FRAMES AND MADE OF 2 3/8" HEAVY GALVANIZED STEEL TUBING THAT IS GALVANIZED INSIDE AND OUT AND MEETS OR EXCEEDS YIELD AND TENSIL OF SCH. 40 PIPE. CONSTRUCTED SO AS TO PREVENT RAIN WATER FROM COLLECTING AT GROUND LEVEL. COATED WITH A BAKED ON POLYESTER POWDER COAT FINISH.
7. ALL HARDWARE IS NON-CORROSIVE. WEIGHT FOR THE DIMENSIONS IS 179 LBS.



NOTES: 1. AT VEHICULAR CROSSING SIDEWALK SHALL BE REINFORCED WITH WELDED FABRIC MESH 6" X 6" X 10 GA WWM.
2. USE CLASS "A" CONCRETE.

ELEVATION

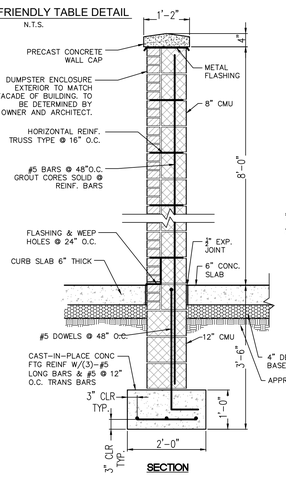


SECTION A–A

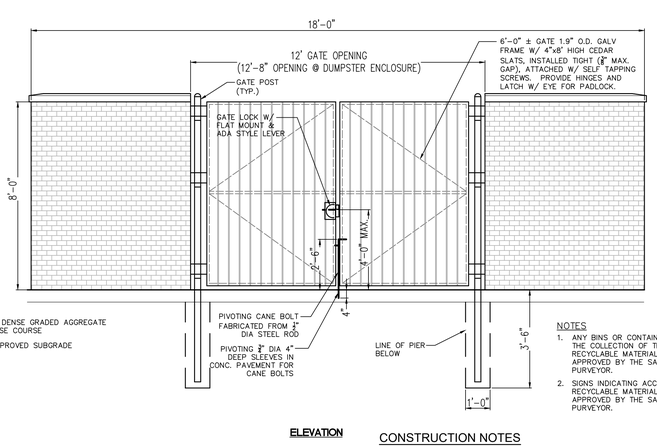
DRIVEWAY CURB AND APRON DETAIL
N.T.S.

"Plans, details, and calculations for the proposed tot lot shall be provided to the municipal engineer for review and approval prior to any materials being ordered and any construction being performed. Space in the tot lot shall be provided for 2-5 year and 6-12 year age groups. All construction shall be performed in accordance with Consumer Product Safety Commission (CPSC) and American Society of Testing Materials (ASTM) requirements."

TOT LOT PLAY EQUIPMENT DETAIL
N.T.S.
AMERICAN PARKS COMPANY OR APPROVED EQUAL.



SECTION



ELEVATION

DUMPSTER ENCLOSURE DETAIL
N.T.S.

NOTES
1. ANY BINS OR CONTAINERS USED FOR THE COLLECTION OF TRASH AND RECYCLABLE MATERIALS MUST BE APPROVED BY THE SANITATION PURVEYOR.
2. SIGNS INDICATING ACCEPTABLE RECYCLABLE MATERIALS MUST BE APPROVED BY THE SANITATION PURVEYOR.

CONSTRUCTION NOTES
1. ALL SITE CONCRETE WITHIN THREE FEET OF FINISHED GRADE SHOULD BE 4500 P.S.I. AT 28 DAYS WITH 6% AIR ENTRAINMENT.

			DATE:	JANUARY 17, 2023
			SCALE:	AS SHOWN
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	3/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	1805-M

BY: Michael K. Ford
Michael K. Ford — New Jersey Professional Engineer No. 34722

F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

CONSTRUCTION DETAILS

PREPARED FOR

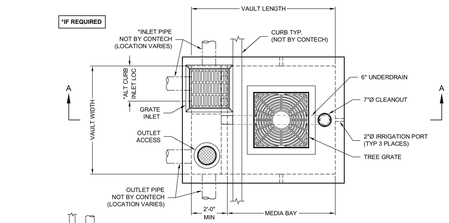
HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

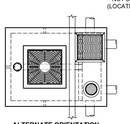
MONTGOMERY TOWNSHIP,

SOMERSET COUNTY, NEW JERSEY

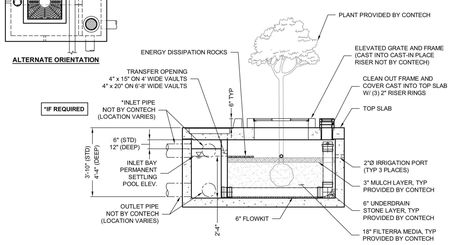
FILE No. 6482-X-CONDET



PLAN VIEW



ALTERNATE ORIENTATION



SECTION A-A
(STANDARD DEPTH SHOWN)

INTERNAL PIPE CONFIGURATION MAY VARY
DEPENDING UPON OUTLET LOCATION.

FTPD-G-HC STANDARD HEIGHT CONFIGURATION

DESIGNATION (OPTIONS: -P)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	GRATE INLET/ OUTLET ACCESS SIZE	TREE GRATE QTY & SIZE
FTPD0404-G-HC	N/A CA	4 x 4	4 x 6	1'-8"	1.4	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0404S-G-HC	CA ONLY	4 x 4.5	4 x 6.5	1'-8"	1.4	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0406-G-HC	N/A DE, MD, NJ, PA, VA, WV	4 x 6	4 x 8	1'-8"	1.4	12"SQ/12"Ø	(1) 3' x 3'
FTPD045058-G-HC	DE, MD, NJ, PA, VA, WV ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	1.4	12"SQ/12"Ø	(1) 3' x 3'
FTPD0604-G-HC	ALL	6 x 4	6 x 6	1'-8"	1.4	24"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0606-G-HC	ALL	6 x 6	6 x 8	1'-8"	1.4	24"SQ/12"Ø	(1) 3' x 3'
FTPD0608-G-HC	ALL	6 x 8	6 x 10	1'-8"	1.4	24"SQ/12"Ø	(1) 4' x 4'
FTPD0610-G-HC	ALL	6 x 10	6 x 12	1'-8"	1.4	24"SQ/12"Ø	(1) 4' x 4'
FTPD0710-G-HC	ALL	7 x 10	7 x 13	2'-0"	2.1	24"SQ/24"Ø	(1) 4' x 4'
FTPD08105-G-HC	ALL	8 x 10.5	8 x 14	3'-0"	2.5	24"SQ/24"Ø	(1) 4' x 4'
FTPD08125-G-HC	N/A OR, WA	8 x 12.5	8 x 16	3'-0"	2.5	24"SQ/24"Ø	(2) 4' x 4'
FTPD09115-G-HC	OR, WA ONLY	9 x 11.5	9 x 15	3'-0"	2.5	24"SQ/24"Ø	(2) 4' x 4'

N/A = NOT AVAILABLE

FTPD-GD-HC DEEP OPTION CONFIGURATION

DESIGNATION (OPTIONS: -P)	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	WEIR LENGTH/ MAX CURB OPENING	*MAX BYPASS FLOW (CFS)	GRATE INLET/ OUTLET ACCESS SIZE	TREE GRATE QTY & SIZE
FTPD0404-GD-HC	N/A CA	4 x 4	4 x 6	1'-8"	4.6	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0404S-GD-HC	CA ONLY	4 x 4.5	4 x 6.5	1'-8"	4.6	12"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0406-GD-HC	N/A DE, MD, NJ, PA, VA, WV	4 x 6	4 x 8	1'-8"	4.6	12"SQ/12"Ø	(1) 3' x 3'
FTPD045058-GD-HC	DE, MD, NJ, PA, VA, WV ONLY	4.5 x 5.83	4.5 x 7.83	1'-8"	4.6	12"SQ/12"Ø	(1) 3' x 3'
FTPD0604-GD-HC	ALL	6 x 4	6 x 6	1'-8"	4.6	24"SQ/12"Ø	(1) 2.5' x 2.5'
FTPD0606-GD-HC	ALL	6 x 6	6 x 8	1'-8"	4.6	24"SQ/12"Ø	(1) 3' x 3'
FTPD0608-GD-HC	ALL	6 x 8	6 x 10	1'-8"	4.6	24"SQ/12"Ø	(1) 4' x 4'
FTPD0610-GD-HC	ALL	6 x 10	6 x 12	1'-8"	4.6	24"SQ/12"Ø	(1) 4' x 4'
FTPD0710-GD-HC	ALL	7 x 10	7 x 13	2'-0"	6.8	24"SQ/24"Ø	(1) 4' x 4'
FTPD08105-GD-HC	ALL	8 x 10.5	8 x 14	3'-0"	8.2	24"SQ/24"Ø	(1) 4' x 4'
FTPD08125-GD-HC	N/A OR, WA	8 x 12.5	8 x 16	3'-0"	8.2	24"SQ/24"Ø	(2) 4' x 4'
FTPD09115-GD-HC	OR,WA ONLY	9 x 11.5	9 x 15	3'-0"	8.2	24"SQ/24"Ø	(2) 4' x 4'

N/A = NOT AVAILABLE

*MAX BYPASS FLOW IS INTERNAL WEIR FLOW . SITE SPECIFIC ANALYSIS IS REQUIRED TO DETERMINE GRATE INLET FLOW CAPACITY

filterra
TRADEMARK OF CONTECH ENGINEERED SOLUTIONS LLC
VISIT US AT FILTERRA.COM FOR MORE INFORMATION

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

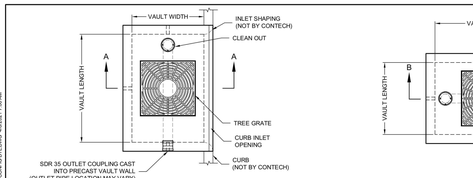
FILTERRA HC PEAK DIVERSION - GRATE (FTPD-G-HC)
CONFIGURATION DETAIL

MTD DETAILS
N.T.S.

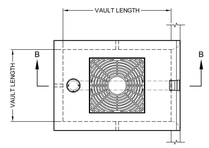
NOTE

THIS MTD SHALL BE INSTALLED AT THE LOCATION OF THE FOLLOWING CATCH BASINS:

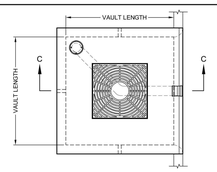
- CB 2-2A
- CB 2-10
- CB 2-11



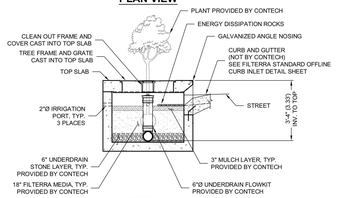
PLAN VIEW



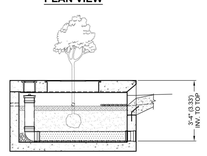
PLAN VIEW



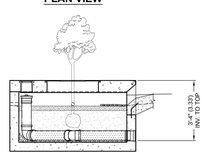
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

FT-HC LONG SIDE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (L x W)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0604-HC	N/A CA	6 x 4	6 x 4	6" SDR 35	(1) 3' x 3'
FT0654-HC	CA ONLY	6.5 x 4	6.5 x 4	6" SDR 35	(1) 3' x 3'
FT078045-HC	DE, MD, NJ, PA, VA, WV ONLY	7.83 x 4.5	7.83 x 4.5	6" SDR 35	(1) 3' x 3'
FT0804-HC	N/A DE, MD, NJ, PA, VA, WV	8 x 4	8 x 4	6" SDR 35	(1) 3' x 3'
FT0806-HC	ALL	8 x 6	8 x 6	6" SDR 35	(1) 4' x 4'
FT1006-HC	ALL	10 x 6	10 x 6	6" SDR 35	(1) 4' x 4'
FT1206-HC	ALL	12 x 6	12 x 6	6" SDR 35	(2) 4' x 4'
FT1307-HC	ALL	13 x 7	13 x 7	6" SDR 35	(2) 4' x 4'
FT1408-HC	CALL CONTECH	14 x 8	14 x 8	6" SDR 35	(2) 4' x 4'
FT1509-HC	CALL CONTECH	15 x 9	15 x 9	6" SDR 35	(2) 4' x 4'
FT1609-HC	CALL CONTECH	16 x 8	16 x 8	6" SDR 35	(2) 4' x 4'
FT1808-HC	CALL CONTECH	18 x 8	18 x 8	6" SDR 35	(2) 4' x 4'
FT2008-HC	CALL CONTECH	20 x 8	20 x 8	6" SDR 35	(3) 4' x 4'
FT2208-HC	CALL CONTECH	22 x 8	22 x 8	6" SDR 35	(3) 4' x 4'

N/A = NOT AVAILABLE

FT-HC SHORT SIDE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0406-HC	N/A CA	4 x 6	4 x 6	6" SDR 35	(1) 3' x 3'
FT0465-HC	CA ONLY	4 x 6.5	4 x 6.5	6" SDR 35	(1) 3' x 3'
FT0408-HC	N/A DE, MD, NJ, PA, VA, WV	4 x 8	4 x 8	6" SDR 35	(1) 3' x 3'
FT045078-HC	DE, MD, NJ, PA, VA, WV ONLY	4.5 x 7.83	4.5 x 7.83	6" SDR 35	(1) 3' x 3'
FT0608-HC	ALL	6 x 8	6 x 8	6" SDR 35	(1) 4' x 4'
FT0610-HC	ALL	6 x 10	6 x 10	6" SDR 35	(1) 4' x 4'
FT0612-HC	ALL	6 x 12	6 x 12	6" SDR 35	(2) 4' x 4'
FT0713-HC	ALL	7 x 13	7 x 13	6" SDR 35	(2) 4' x 4'

N/A = NOT AVAILABLE

FT-HC SQUARE INLET CONFIGURATION

DESIGNATION	AVAILABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	OUTLET PIPE DIA	TREE GRATE QTY & SIZE
FT0404-HC	ALL	4 x 4	4 x 4	6" SDR 35	(1) 3' x 3'
FT0606-HC	ALL	6 x 6	6 x 6	6" SDR 35	(1) 3' x 3'

N/A = NOT AVAILABLE

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING UPON OUTLET LOCATION.

filterra
TRADEMARK OF CONTECH ENGINEERED SOLUTIONS LLC
VISIT US AT FILTERRA.COM FOR MORE INFORMATION

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

FILTERRA HC OFFLINE (FT-HC)
CONFIGURATION DETAIL

MTD DETAILS
N.T.S.

NOTE

THIS MTD SHALL BE INSTALLED UPSTREAM OF THE FOLLOWING CATCH BASINS:

- CB 1-1
- CB 1-2
- CB 1-4
- CB 1-5
- CB 2-2
- CB 2-3
- CB 2-5
- CB 2-6
- CB 2-7
- CB 2-8
- CB 2-9
- CB 2-13
- CB 2-14
- CB 2-15

			DATE:	JANUARY 17, 2023
			SCALE:	AS SHOWN
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	3/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	1805-M

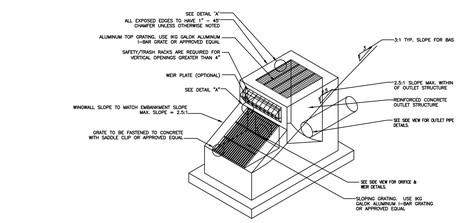
Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8780
CERT. OF AUTHORIZATION NO. 24GA28132300

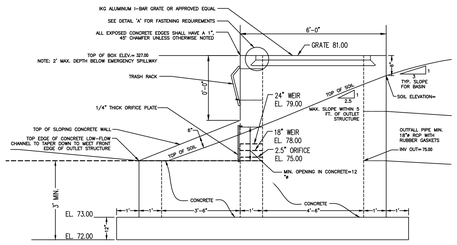
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

BY: Michael K. Ford
Michael K. Ford
New Jersey Professional Engineer
No. 34722

F.Bk. Pg.

CONSTRUCTION DETAILS
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



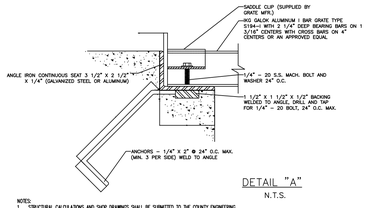


COUNTY OUTLET CONTROL STRUCTURE SIDE VIEW

NOT TO SCALE

OUTLET STRUCTURE DETAILS

N.T.S.

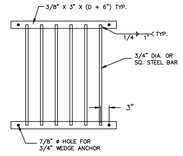


DETAIL "A"

N.T.S.

NOTES:

1. STRUCTURAL CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE COUNTY ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. THE MINIMUM WALL THICKNESS SHALL BE 12" TO FACILITATE THE PLACEMENT OF CONCRETE.
3. ALL CONSTRUCTION JOINTS ARE TO BE WATERTIGHT. ALL PIPES, STUBS, AND/OR FITTINGS ARE TO BE CAST MONOLITHICALLY IN THE STRUCTURE.

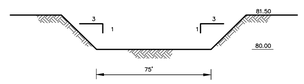


NOTES:

1. ENTIRE TRASH RACK FRAME TO BE HOT-DIPPED GALVANIZED AFTER WELDING.
2. CENTER TO CENTER SPACING BETWEEN BARS SHALL BE 2" FOR ORIFICES AND 4" FOR WEIRS.

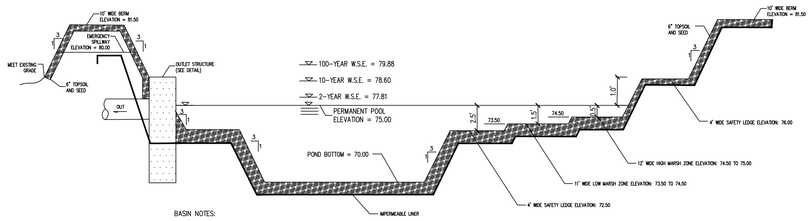
RECTANGULAR TRASH RACK DETAIL

N.T.S.



EMERGENCY SPILLWAY DETAIL

N.T.S.



BASIN NOTES:

1. ALL EARTHWORK OPERATIONS, INCLUDING EXCAVATION, PROOFROLLING, GRADING AND BACKFILL OPERATIONS SHALL BE CONDUCTED UNDER THE SUPERVISION OF A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.
2. FILL MATERIAL AND LINER INSTALLATION SHALL BE INSPECTED, APPROVED BY, AND INSTALLED UNDER THE SUPERVISION OF A NEW JERSEY LICENSED PROFESSIONAL ENGINEER.
3. THE FILL MATERIAL TO BE UTILIZED FOR THE BERM/EMBANKMENT AT THE WET POND SHALL BE AS FOLLOWS: THE BERM SHALL BE CONSTRUCTED WITH SOIL FILL THAT HAS AN IN-SITU PERMEABILITY NO GREATER THAN 0.4 IN/HR. THE BERM/EMBANKMENT FILL SHALL BE PLACED IN 12 INCH LAYERS AND COMPACTED TO 95% MAXIMUM MODIFIED PROCTOR DENSITY (ASTM D-1557). EACH LIFT SHALL BE INSPECTED, TESTED, AND APPROVED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER PRIOR TO THE PLACEMENT OF SUBSEQUENT LIFTS.
4. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF SOIL CONDITIONS ENCOUNTERED IN THE FIELD DIFFER FROM WHAT IS SHOWN HEREON. SUCH CONDITIONS COULD RENDER THE DESIGN HEREON INAPPROPRIATE OR INEFFECTIVE.
5. ALL SUBMERGED PIPES INTO OR OUT OF A WET POND SHALL BE CONSTRUCTED USING WATERTIGHT JOINTS. REINFORCED CONCRETE PIPE JOINTS SHALL MEET ASTM C361 OR C443, PLASTIC PIPE JOINTS SHALL MEET ASTM D3212 AND DUCTILE IRON PIPE JOINTS SHALL CONFORM TO ANSI/AWWA C111/A21.11. ALL LATEST EDITIONS. HDPE PIPE SHALL NOT BE UTILIZED IN SUBMERGED CONDITIONS.
6. CLAY MATERIALS ARE NOT TO BE PLACED DIRECTLY AGAINST COARSE GRAINED DEPOSITS. THE SITE GEOTECHNICAL ENGINEER SHALL APPROVE ALL SUBGRADES PRIOR TO CLAY PLACEMENT.
7. GROUNDWATER SHALL BE CONTROLLED BY THE CONTRACTOR AT ALL TIMES.
8. EXACT SIZE AND LOCATION OF EMERGENCY DRAWDOWN PIPE SHALL BE DETERMINED UPON BUILDING CONSTRUCTION APPLICATION.
9. A PORTABLE PUMP SHALL BE UTILIZED FOR DRAWDOWN OF ANY VOLUME CONTAINED BELOW THE OUTLET STRUCTURE INVERT.

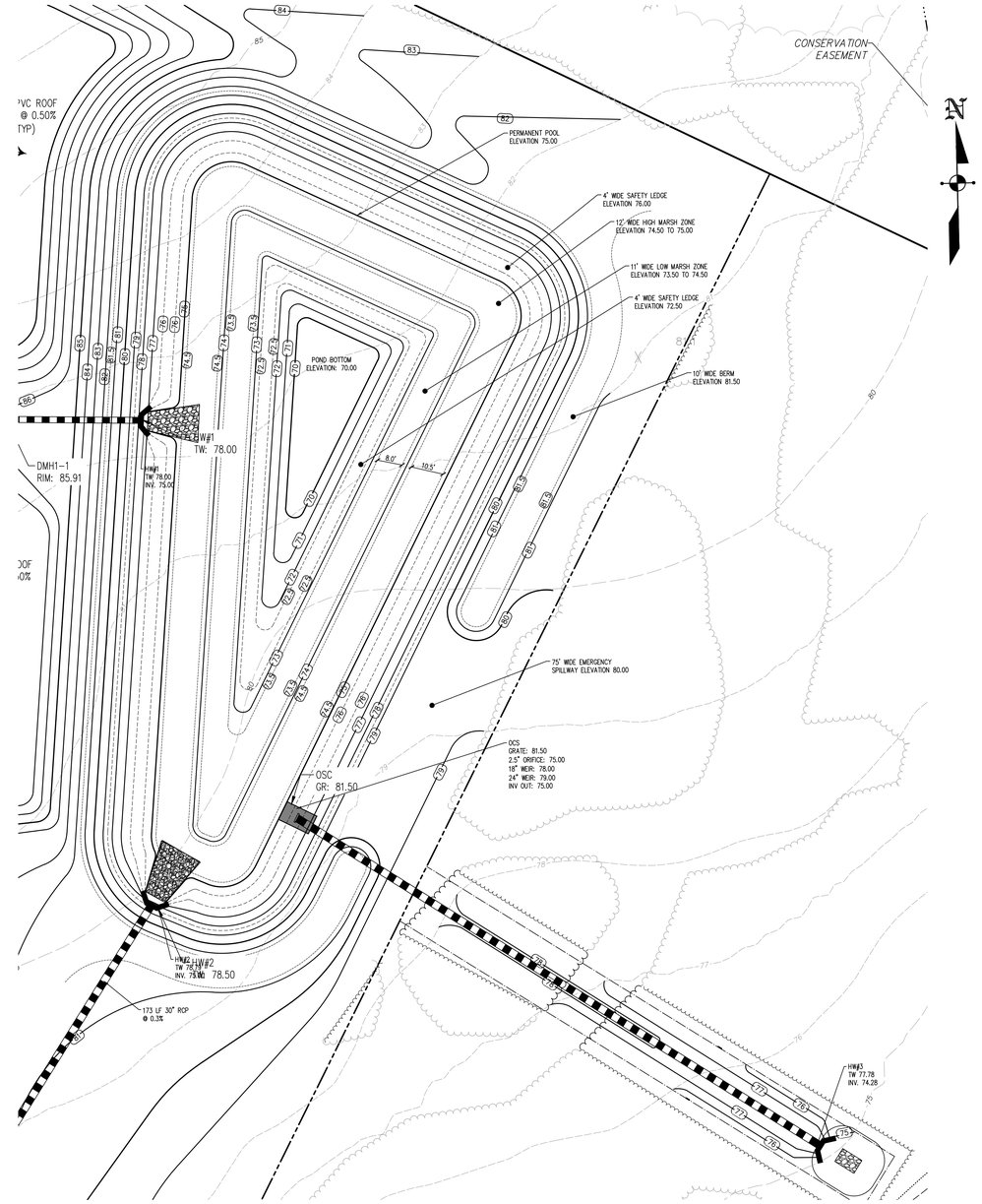
POND CONSTRUCTED WETLAND CROSS SECTION

N.T.S.

GRAPHIC SCALE

20' 0' 10' 20' 40' 60'

SCALE: 1" = 20'
VERICAL DATUM: NAVD 88



POND CONSTRUCTED WETLAND

SCALE: 1"=20'

			DATE:	JANUARY 17, 2023
			SCALE:	AS SHOWN
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132500

Bridges/Highways
Construction Inspection
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Surveying/Aerial Drones/GIS
Water/Wastewater

Michael K. Ford

Michael K. Ford, P.E.

Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

POND CONSTRUCTED WETLAND DETAILS

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

MONTGOMERY TOWNSHIP,

SOMERSET COUNTY, NEW JERSEY

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_04-06_12(UTILITY-GRADING-BASIN-RAMP).DWG

FILE No. 6482-X

GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL PLANS

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS
3. PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OR PRELIMINARY GRADING.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E.: STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO THE NJ STATE STANDARDS.
7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E.: SLOPES GREATER THAT 3:1)
8. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X6"PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
9. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
10. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
11. IN THAT NJSA 4:24-39 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
12. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
13. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.
14. THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
15. MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.
16. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.
17. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.
18. HYDRO SEEDING IS A TWO- STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.

BASIN COMPACTION NOTES

1. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" INCHES WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
2. INSPECT SITE JUST BEFORE SEEDING: IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED IN ACCORDANCE WITH ABOVE.
3. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" INCHES WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP ENSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
4. SOIL COMPACTION RESULTING FROM LAND GRADING ACTIVITIES CAN IMPACT THE INFILTRATION RATE OF THE SOIL. RESTORATION OF COMPACTED SOILS THROUGH DEEP TILLAGE (6" TO 12") AND THE ADDITION OF ORGANIC MATTER MAY BE REQUIRED IN PLANNED PERVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.).
5. TO PREVENT COMPACTION OF THE SUBSOIL WHICH WILL REDUCE ITS INFILTRATION CAPACITY, BASINS SHOULD BE EXCAVATED WITH LIGHT EARTH MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER-SIZED TIRES RATHER THAN THE NORMAL RUBBER TIRES. ONCE THE FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.
6. FOR BASINS, ANNUAL TILLING OPERATIONS MAINTAIN INFILTRATION CAPACITY. THESE TILLED AREAS SHOULD BE RE-VEGETATED IMMEDIATELY TO PREVENT EROSION. DEEP TILLING CAN BE USED TO BREAKUP CLOGGED SURFACE LAYERS FOLLOWED BY RE-GRADING AND LEVELING. SAND OR ORGANIC MATTER CAN BE TILLED INTO THE BASIN FLOOR TO PROMOTE A RESTORED INFILTRATION CAPACITY. SEDIMENT REMOVAL PROCEDURES SHOULD NOT BE UNDERTAKEN UNTIL THE BASIN IS THOROUGHLY DRY. THE TOP LAYER SHOULD BE REMOVED BY LIGHT EQUIPMENT TO PREVENT COMPACTION. THE REMAINING SOIL CAN BE RE-TILLED AND DISTURBED VEGETATION REPLANTED.

Soil De-compaction and Testing Requirements Soil Compaction Testing Requirements

1. Subgrade soils prior to the application of topsoil (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
2. Areas of the site which are subject to compaction testing and/or mitigation are graphically denoted on the certified soil erosion control plan with one (1) test per 1/2 acre.
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.

Compaction Testing Methods

A. Probing Wire Test (see detail)

B. Hand-held Penetrometer Test (see detail)

C .Tube Bulk Density Test (licensed professional engineer required)

D. Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

AGRONOMIC RECOMMENDATIONS

SEED, FERTILIZE, LIME AND TOPSOIL (IF REQUIRED) ALL SCALPED AREAS IMMEDIATELY AFTER FINISHED GRADING IS COMPLETED. LIME AND FERTILIZE RECOMMENDATIONS ARE AS FOLLOWS OR ACCORDING TO RESULTS OF SOIL TESTS:

A. FERTILIZER TO BE APPLIED AT THE RATE OF 500 LBS. PER ACRE, 10-20-10.

B. TEMPORARY SEEDING:
LIME: 2 TONS PER ACRE GROUND AREA
FERTILIZER:500 LBS. PER ACRE 10-20-10
SEED: USE THE FOLLOWING SEED MIXTURE(S) AND RATES BASED ON TIME OF YEAR:
- EARLY SPRING/LATE SUMMER TO EARLY FALL
  100 % PERENNIAL RYEGRASS
  RATE = 100 LBS/ACRE
- LATE FALL
  100 % CEREAL RYE
  RATE = 112 LBS/ACRE
- MID-SUMMER
  40 % PEARL MILLET
  40 % MILLET (GERMAN OR HUNGARIAN)
  20 % WEEPING LOVEGRASS
  RATE = 100 LBS/ACRE

C. PERMANENT SEEDING: (TO BE APPLIED DURING PERIODS OF 3/01 - 11/15, TEMPORARY SEEDING TO BE APPLIED ALL OTHER TIMES OF THE YEAR)
LIME: 2 TONS PER ACRE GROUND AREA
FERTILIZER:500 LBS. PER ACRE 10-20-10
SEED: LAWNS - QUALITY SUN AND SHADE
45 % PERENNIAL RYEGRASS*
20 % CHEWING FESCUE
20 % CREEPING RED FESCUE
15 % KENTUCKY BLUEGRASS
(* INCLUDE AT LEAST TWO DIFFERENT VARIETIES IN MIX)
RATE = 200 LBS/ACRE

MINIMUM STABILIZATION REQUIREMENTS

I. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING AND MAINTENANCE. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

B. INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS AND WATERWAYS.

II. SEEDBED PREPARATION

A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITE OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS /1,000 SQ FT
CLAY, CLAY LOAM AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.

B. WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

C. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

D. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

ACID SOIL CONDITIONS

SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE SEEDBED PREPARATION. THE ADDED SOIL SHALL BE LIMED AS ABOVE.

III. SEEDING

A. SEE AGRONOMIC RECOMMENDATIONS OR USE MIXTURE RECOMMENDED BY THE COOPERATIVE EXTENSION SERVICE OR SOIL CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT.

B. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. THE LATTER MAY BE JUSTIFIABLE FOR LARGE, STEEP AREAS WHERE CONVENTIONAL VEHICLES CANNOT TRAVEL. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/2 INCH DEEPER ON COARSE TEXTURED SOIL.

C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

IV. MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. (THE EXISTENCE OF SATISFACTORY PERMANENT VEGETATION AT THE TIME OF PROJECT OR UNIT COMPLETION SHALL BE DEEMED AS COMPLIANCE WITH THIS MULCHING REQUIREMENT).

A. MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAINS OF STRAW, HAY FREE OF SEEDS OR SALT HAY TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.

B. SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75 PERCENT TO 95 PERCENT OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

C. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES AND COSTS.

1. PEG AND TWINE - DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
3. CRIMPER (MULCH ANCHORING TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC-HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
4. LIQUID MULCH-BINDERS - MAYBE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCHES.
   A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
   B. USE OF THE FOLLOWING:
   SYNTHETIC OR ORGANIC BINDERS - BINDERS SUCH AS CURASOL, DCA-70, PETRO-SET AND TERRA-TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS.

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

V. IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

VI. TOPDRESSING*

A. SPRING SEEDINGS WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

B. FALL SEEDINGS WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1.

C. MIXTURES DOMINATED BY WEEPING LOVEGRASS OR LEGUMES MAY NOT NEED TOPDRESSING.

D. BERMUDAGRASS SHOULD BE TOPDRESSED BEFORE AUGUST 15.

*IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY).

Soil De-compaction and Testing Requirements

Soil Compaction Testing Requirements

1. Subgrade soils **prior to the application of topsoil** (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
2. Areas of the site which are subject to compaction testing and/or mitigation are **graphically denoted** on the certified soil erosion control plan.
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 remediation 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.

Compaction Testing Methods

A. Probing Wire Test (see detail)
B. Hand-held Penetrometer Test (see detail)
C. Tube Bulk Density Test (licensed professional engineer required
D. Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tillage (6" minimum depth)
or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

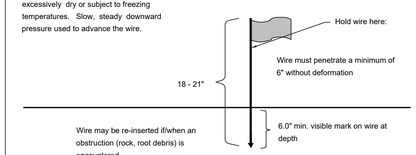
Procedures shall be used to mitigate excessive soil compaction **prior to placement of topsoil** and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

Simplified Testing Methods

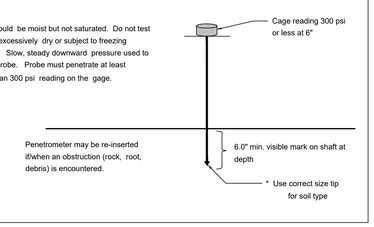
Probing WireTest- 15.5 ga steel wire (survey flag)

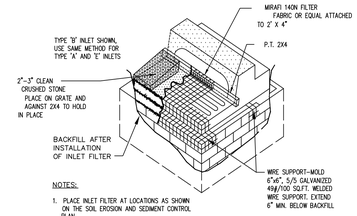
Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the wire.



Handheld Soil Penetrometer Test

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gage.





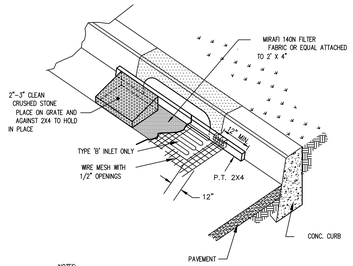
NOTES:

1. PLACE INLET FILTER AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. INSPECT THE FILTER AFTER EACH RAINSTORM, CLEAN AND REPLACE ANY FILTERS AS REQUIRED.
3. INLET FILTER SHALL BE REMOVED JUST PRIOR TO PAVING. "INLET FILTER AFTER PAVING" SHALL BE INSTALLED IMMEDIATELY AFTER PAVEMENT COMPACTION.

INLET FILTER BEFORE PAVING

NOT TO SCALE

NOTE: PROVIDE "SILTSACK" AS MANUFACTURED BY ACF ENVIROMENTAL OR APPROVED EQUAL QT ALL INLETS TO REMAIN IN PLACE UNTIL THE FINAL GRADING AND PAVEMENT ARE INSTALLED AND THE PERMANENT BMP'S ARE INSTALLED.

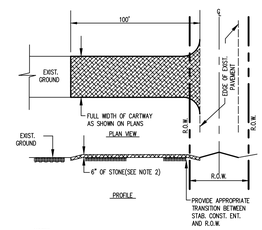


NOTES:

1. PLACE INLET FILTERS AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLN.
2. STONE SHALL BE PILED SO THAT ALL OPENINGS IN THE INLET ARE NOT COMPLETELY COVERED AND FILTER POSITION TO ALLOW FLOW INTO THE CATCH BASIN.
3. INLETS ARE TO BE CLEANED AFTER EVERY STORM.

INLET FILTER AFTER PAVING

NOT TO SCALE

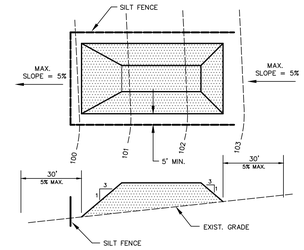


NOTES:

1. PLACE STABILIZED CONSTRUCTION ENTRANCE AT LOCATION AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. STONE SIZE SHALL BE ASTM C-33, SIZE No. 2 OR 3, CRUSHED STONE.
3. THE THICKNESS OF THE STAB. CONST. ENT. SHALL NOT BE LESS THAN 6".
4. THE WIDTH AT THE EXIST. PAVEMENT SHALL NOT BE LESS THAN THE FULL WIDTH OF POINT OF INGRESS AND EGRESS.
5. THE STAB. CONST. ENT. SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE R.O.W./PAVEMENT. THIS REQUIRES PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT.
6. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO THE PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. WHERE TRACKING OF SOIL ONTO ROADWAYS IS A CONTINUAL OCCURRENCE, ALL CONTRCTORS, BOTH SITE AND DWELLING CONTRACTORS, SHALL BE REQUIRED TO BROOMSWEEP THE ROADWAY AT TWO-HOUR INTERVALS MINIMUM AND PRIOR TO LEAVING THE CONSTRUCTION SITE AT THE DAY END.

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

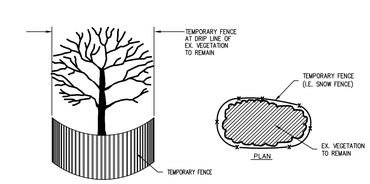


NOTES:

1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQUIREMENTS.
4. SILT FENCE SHALL BE INSTALLED AS DETAILED HEREON.

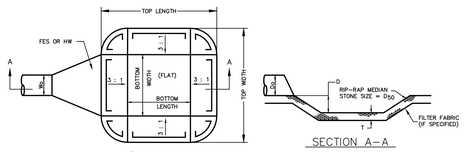
TOPSOIL STOCKPILE

N.T.S.



TREE PROTECTION BARRIER DETAIL

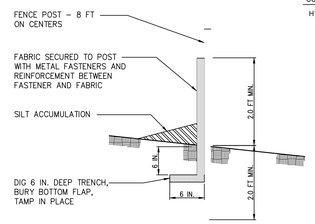
N.T.S.

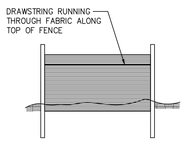


OUTLET	Do	Wo	BOTTOM LENGTH	BOTTOM WIDTH	TOP LENGTH	TOP WIDTH	D	D_{50}	T	FILTER FABRIC
HW-3	30"	30"	7.5'	5'	22.5'	20'	30"	1"	6"	NO

PREFORMED SCOUR HOLE DETAIL AND SCHEDULE

NOT TO SCALE





NOTES:

1. PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5%
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND ITS ENDS.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.

SILT FENCE CONSTRUCTION AND INSTALLATION DETAIL

NOT TO SCALE

SEQUENCE OF CONSTRUCTION

1. INSTALL ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON PLANS (1 WEEK). SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE USED AT THE POINT OF DESIGN AND AT THE TIME OF SOIL DISTUR

SEWER PUMP STATION SITE PLAN
SCALE: 1"=40'

LEGEND

FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE
	STATE OPEN WATERS
WA-1 WA-2	WETLANDS DELINEATION LINE W/FLAGS
	PROPOSED SEWER MAIN
FM	PROPOSED FORCE MAIN
	TREELINE
WB	WETLAND BUFFER LINE (EXISTING)
WB	WETLAND BUFFER LINE (PROPOSED)

GRAPHIC SCALE
40' 0' 20' 40' 80' 160'
Scale: 1 inch = 40 ft.

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER NAMED HEREIN. ANY REUSE, MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

SERIAL NO. _____

NJ One Call 811
TO LOCATE UNDERGROUND UTILITIES
IF YOU'RE GOING TO DIG, BLAST OR DRILL THREE (3) WORKING DAYS NOTICE
REMEMBER
IT'S THE LAW!
Know what's below. Call before you dig.
1-800-272-1000
Dig Safely.

			DATE:	JANUARY 17, 2023
			SCALE:	AS SHOWN
			DESIGNED BY:	J.B./G.P.
			DRAWN BY:	A.B./G.P.
PER TOWNSHIP	MKF	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	1905M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722
F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

PUMP STATION - OVERALL SITE PLAN
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

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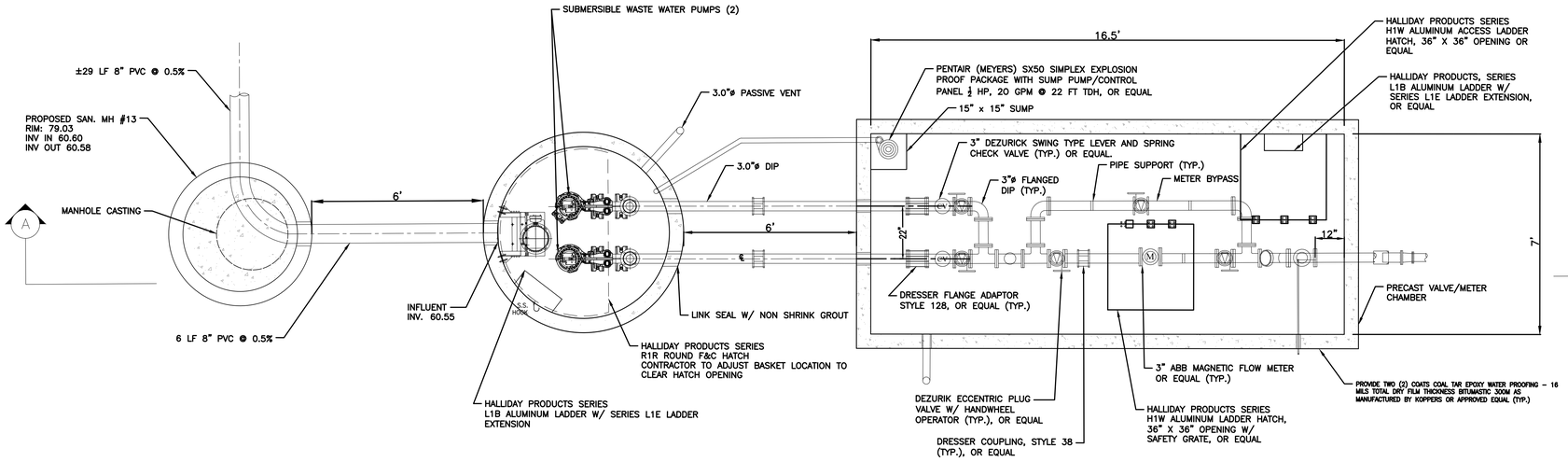
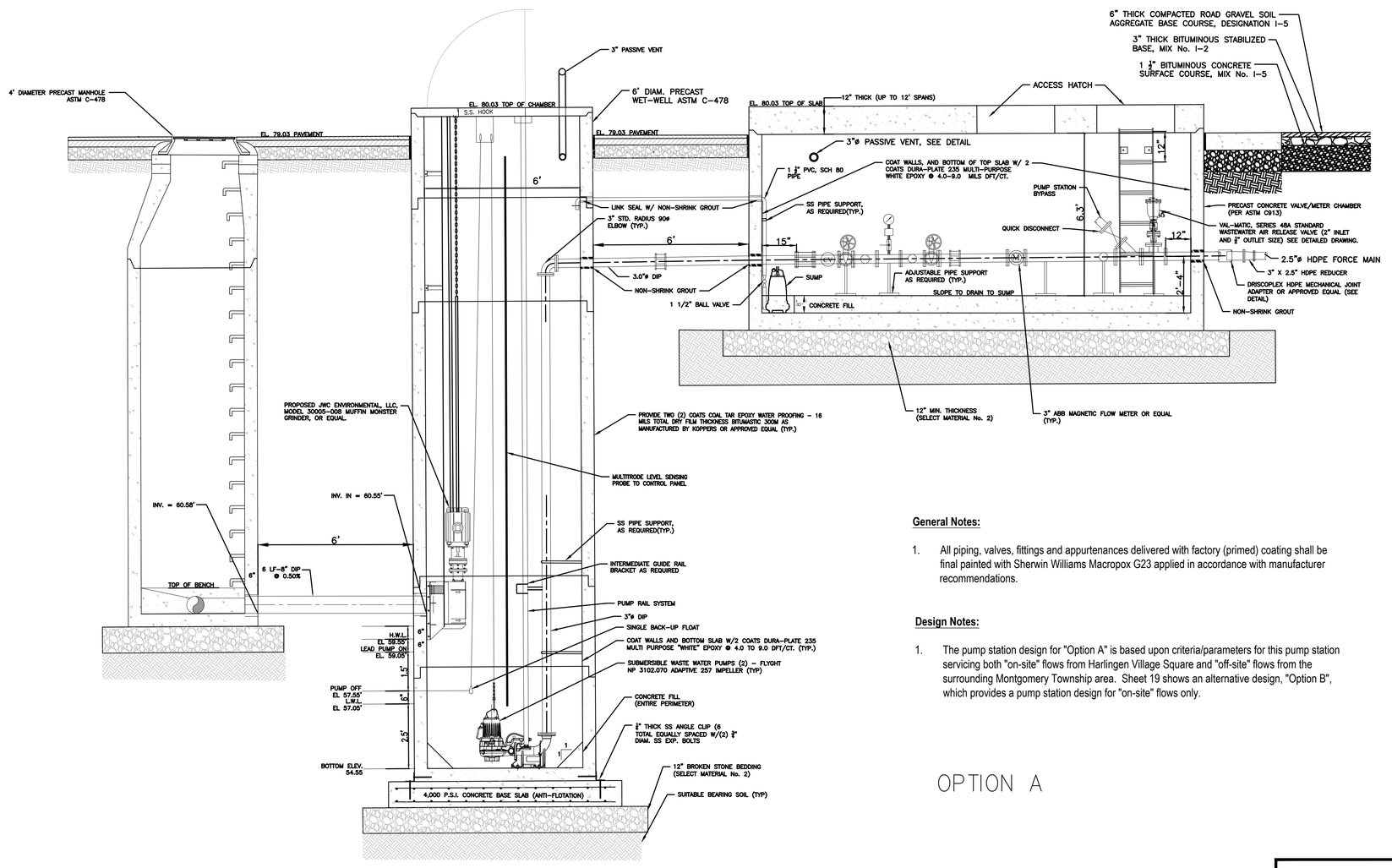
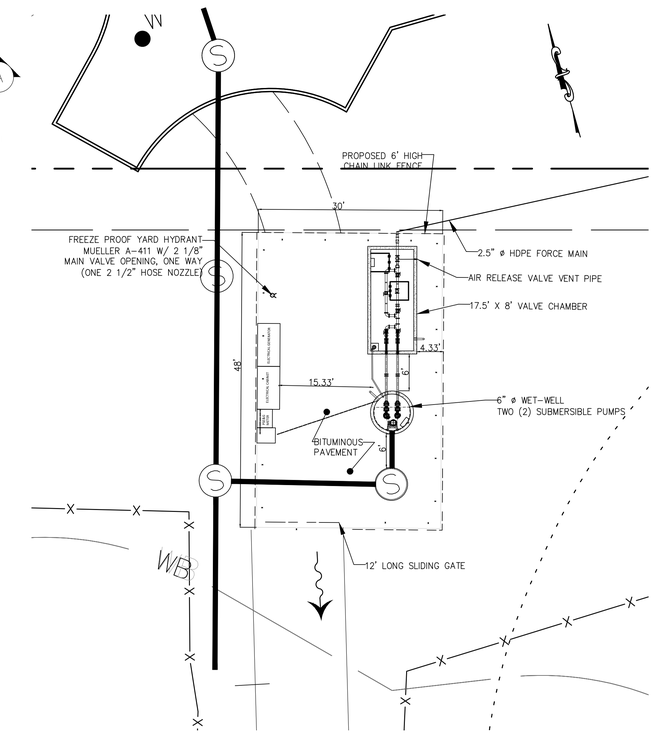




SECTION A-A
TYPICAL CROSS SECTION MANHOLE/WET WELL/ VALVE CHAMBER
SCALE: 1" = 2'



SEWER PUMP STATION SITE PLAN
SCALE: 1" = 10''

GRAPHIC SCALE
10' 0' 5' 10' 20' 30'
Scale: 1 inch = 10 ft.

NOTES:

1. SUBMERSIBLE PUMPS AND MOTORS SHALL BE EXPLOSION PROOF & INDICATED WITH AN "X" LABEL AND BE COMPLETELY SUBMERGED AT ALL TIMES.
2. THE LEAD PUMP SELECTION SHALL ALTERNATE WITH EACH PUMPING CYCLE SO AS TO ENSURE EVEN PUMP WEAR.
3. THE PUMP CONTROL SYSTEM SHALL BE A MULTITRODE SYTEM INCORPORATING A LIQUID LEVEL INDICATOR / CONTROLLER AS THE LEVEL SENSING AND SIGNAL CONTROL DEVICE.
4. ONE PUMP SHALL BE FITTED WITH A MIX-FLUSH VALVE, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
5. THE ALARM SYSTEM SHALL BE EQUIPPED WITH A DIALER TO TRANSMIT WARNING OF HIGH WATER LEVEL, POWER FAILURE, MECHANICAL FAILURE, LOW WATER LEVEL, ETC.
6. ALL PIPE CONNECTIONS WITHIN THE WET WELL AND VALVE PIT SHALL UTILIZE FLANGED FITTINGS.
7. BUOYANCY CALCULATIONS, SIGNED AND SEALED BY A NEW JERSEY PROFESSIONAL ENGINEER SHALL BE SUBMITTED BY THE CONTRACTOR TO ENSURE AGAINST WET WELL FLOTATION.
8. ALL MOTORS SHALL BE THREE (3) PHASE.
9. A STAND BY GENERATOR SHALL BE REQUIRED TO ALLOW CONTINUOUS FLOW OF WASTEWATER DURING TEMPORARY POWER OUTAGES.
10. ALL PUMP STATION EQUIPMENT SHALL BE PROVIDED WITH TWO (2) YEAR WARRANTY FROM THE DATE OF ACCEPTANCE BY THE TOWNSHIP ENGINEER.

General Notes:

1. All piping, valves, fittings and appurtenances delivered with factory (primed) coating shall be final painted with Sherwin Williams Macropox G23 applied in accordance with manufacturer recommendations.

Design Notes:

1. The pump station design for "Option A" is based upon criteria/parameters for this pump station servicing both "on-site" flows from Harlingen Village Square and "off-site" flows from the surrounding Montgomery Township area. Sheet 19 shows an alternative design, "Option B", which provides a pump station design for "on-site" flows only.

OPTION A

PUMP STATION PARAMETERS

DESCRIPTION	
PUMP DESIGN CAPACITY (GPM)	75
FORCE MAIN EQUIVALENT LENGTH (FT)	2,509'
STATIC HEAD (FT)	±22'
TOTAL DYNAMIC HEAD (FT)	±167'
FORCE MAIN DIAMETER (HDPE OR PVC)	2.5"
VELOCITY (FPS)	4.90
WET-WELL DIAMETER (FT)	6'
VALVE CHAMBER DIMENSIONS (INNER)	16.5'X7'

REVISIONS	AUTH.	DATE
PER TOWNSHIP	MKF	03/10/23

DATE: JANUARY 17, 2023
SCALE: AS SHOWN
DESIGNED BY: J.B./G.P.
DRAWN BY: G.P.
CHECKED BY: M.K.F.
JOB No. 1805M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

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PUMP STATION OPTION A - LAYOUT
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

F.Bk. Pg.

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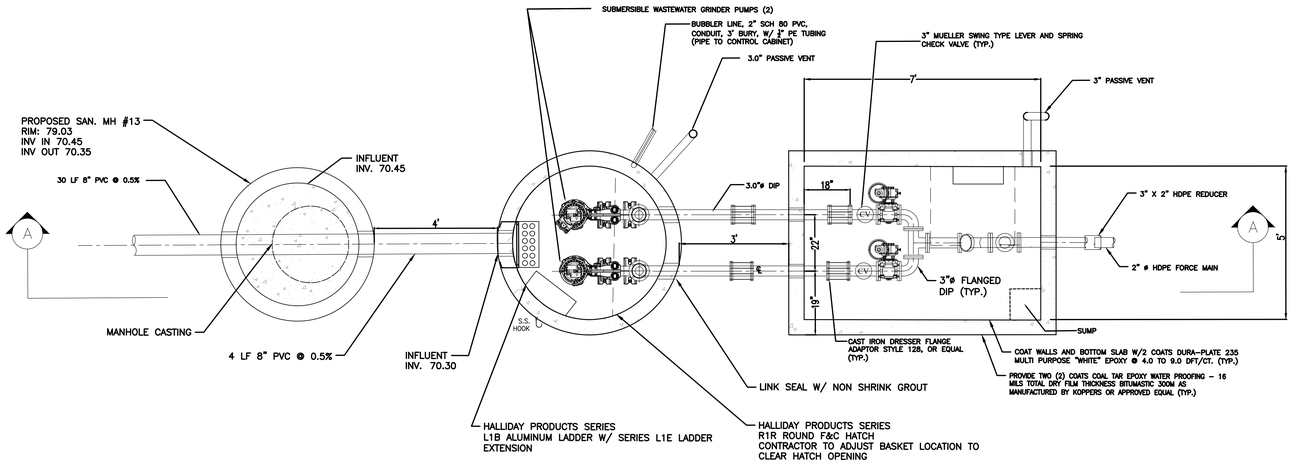
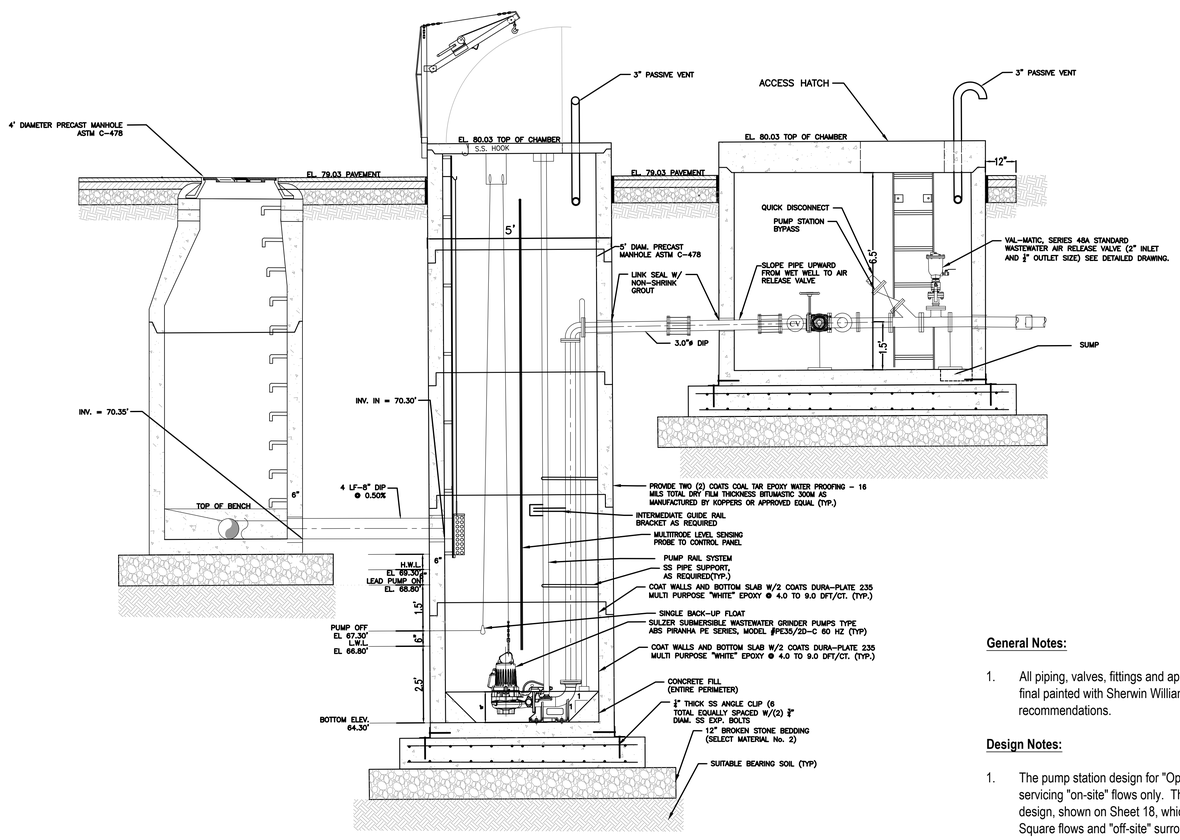
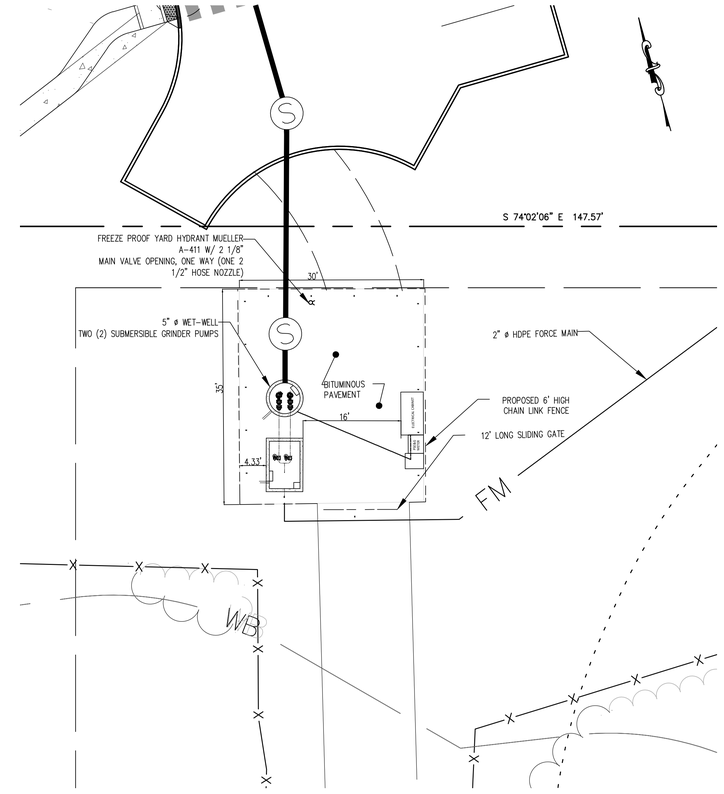




SECTION A-A
TYPICAL CROSS SECTION MANHOLE/WET WELL/ VALVE CHAMBER
SCALE: 1" = 2'



SEWER PUMP STATION SITE PLAN
SCALE: 1" = 10'

GRAPHIC SCALE
10' 0' 5' 10' 20' 30'
Scale: 1 inch = 10 ft.

NOTES:

1. SUBMERSIBLE PUMPS AND MOTORS SHALL BE EXPLOSION PROOF & INDICATED WITH AN "X" LABEL AND BE COMPLETELY SUBMERGED AT ALL TIMES.
2. THE LEAD PUMP SELECTION SHALL ALTERNATE WITH EACH PUMPING CYCLE SO AS TO ENSURE EVEN PUMP WEAR.
3. THE PUMP CONTROL SYSTEM SHALL BE A MULTITRODE SYTEM INCORPORATING A LIQUID LEVEL INDICATOR / CONTROLLER AS THE LEVEL SENSING AND SIGNAL CONTROL DEVICE.
4. ONE PUMP SHALL BE FITTED WITH A MIX-FLUSH VALVE, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
5. THE ALARM SYSTEM SHALL BE EQUIPPED WITH A DIALER TO TRANSMIT WARNING OF HIGH WATER LEVEL, POWER FAILURE, MECHANICAL FAILURE, LOW WATER LEVEL, ETC.
6. ALL PIPE CONNECTIONS WITHIN THE WET WELL AND VALVE PIT SHALL UTILIZE FLANGED FITTINGS.
7. BUOYANCY CALCULATIONS, SIGNED AND SEALED BY A NEW JERSEY PROFESSIONAL ENGINEER SHALL BE SUBMITTED BY THE CONTRACTOR TO ENSURE AGAINST WET WELL FLOTATION.
8. ALL MOTORS SHALL BE THREE (3) PHASE.
9. EMERGENCY POWER IS TO BE PROVIDED BY A PORTABLE GENERATOR. THE PUMP STATION IS EQUIPPED WITH A MANUAL OPERATED TRANSFER SWITCH AND PLUG CONNECTION.
10. ALL PUMP STATION EQUIPMENT SHALL BE PROVIDED WITH TWO (2) YEAR WARRANTY FROM THE DATE OF ACCEPTANCE BY THE TOWNSHIP ENGINEER.

General Notes:

1. All piping, valves, fittings and appurtenances delivered with factory (primed) coating shall be final painted with Sherwin Williams Macropox G23 applied in accordance with manufacturer recommendations.

Design Notes:

1. The pump station design for "Option B" is based upon criteria/parameters for this pump station servicing "on-site" flows only. This is an alternative design to the "Option A" pump station design, shown on Sheet 18, which is proposed to service both the "on-site" Harlingen Village Square flows and "off-site" surrounding flows from Montgomery Township.

PUMP STATION PARAMETERS

DESCRIPTION	
PUMP DESIGN CAPACITY (GPM)	35
FORCE MAIN EQUIVALENT LENGTH (FT)	2,482'
STATIC HEAD (FT)	±12'
TOTAL DYNAMIC HEAD (FT)	±94'
FORCE MAIN DIAMETER (HDPE)	2"
VELOCITY (FPS)	3.6
WET-WELL DIAMETER (FT)	5'
VALVE CHAMBER DIMENSIONS (INNER)	7'X5'

OPTION B

REVISIONS	AUTH.	DATE
PER TOWNSHIP	MKF	03/10/23

DATE: JANUARY 17, 2023
SCALE: AS SHOWN
DESIGNED BY: J.B./G.P.
DRAWN BY: G.P.
CHECKED BY: M.K.F.
JOB No. 1805M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

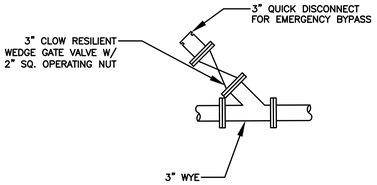
Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8201
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

PUMP STATION OPTION B - LAYOUT
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

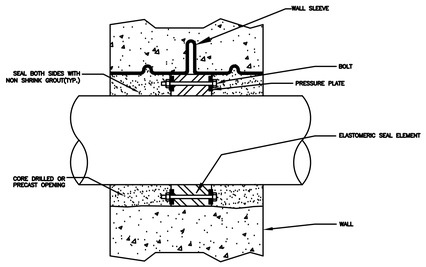
F.Bk. Pg.

F:\Jobs\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M-14-17 PUMP STATION (12-20-22).DWG Layout: 17 3/10/2023 1:35:03 PM



PUMP STATION BYPASS 3" WYE AND DISCONNECT DETAIL

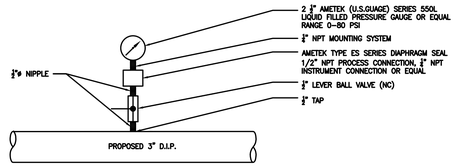
NO SCALE



NOTE: FOR ALL PVC/HDPE/ABS PIPE
ALL HARDWARE SHALL BE STAINLESS STEEL

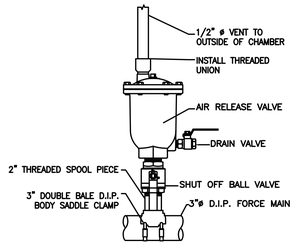
LINK-SEAL WALL PENETRATION DETAIL

SCALE: NONE



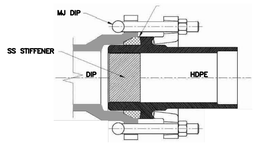
PRESSURE GAUGE AND DIAPHRAGM DETAIL

NOT TO SCALE



3" AIR RELEASE VALVE DETAIL

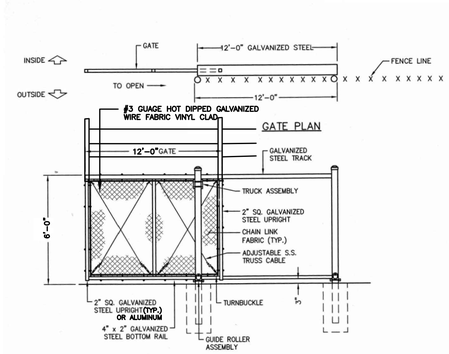
NOT TO SCALE



HDPE MECHANICAL JOINT ADAPTER

NOT TO SCALE

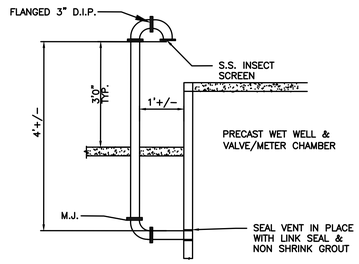
NOTE: ADAPTERS TO BE MANUFACTURED IN STANDARD IPS SIZE FOR CONNECTING IPS-SIZED POLYETHYLENE PIPE TO MECHANICAL JOINT PIPE, FITTINGS AND APPURTENANCES THAT MEET AWWA C111/ANSI A21.11. PERFORMANCE PIPE MJ ADAPTERS SEAL AGAINST LEAKAGE AND RESTRAIN AGAINST PULLOUT. NO ADDITIONAL EXTERNAL CLAMPS OR TIE ROD DEVICES ARE REQUIRED.



GATE ELEVATION

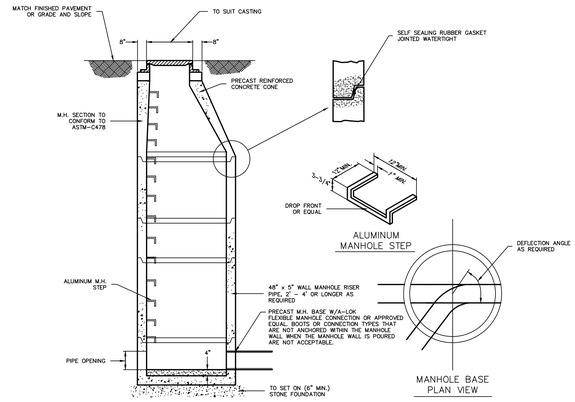
SLIDING GATE DETAIL

N.T.S.



PASSIVE VENT DETAIL

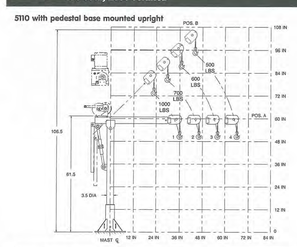
NOT TO SCALE



PRECAST CONCRETE SANITARY SEWER MANHOLE

N.T.S.

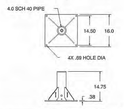
THERN ISO 9001/2000 Certified 1-800-843-7648 www.therm.com FAST FACTS

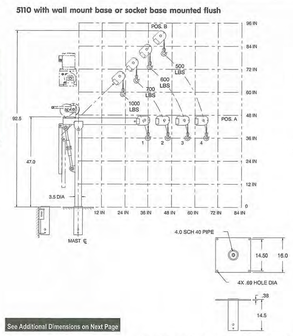


5110 Upright – Height and Reach

boom position	reach	hook height
A-1	36 in	50 in
A-2	46 in	50 in
A-3	56 in	50 in
A-4	66 in	50 in
B-1	23 in	73 in
B-2	30 in	80 in
B-3	37 in	87 in
B-4	44 in	94 in

Dimensions are for reference only and subject to change without notice.

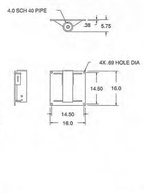




5110 Flush – Height and Reach

boom position	reach	hook height
A-1	36 in	36 in
A-2	46 in	36 in
A-3	56 in	36 in
A-4	66 in	36 in
B-1	23 in	59 in
B-2	30 in	66 in
B-3	37 in	73 in
B-4	44 in	80 in

Dimensions are for reference only and subject to change without notice.



Cranes Section 4

See Additional Dimensions on Next Page

Page 36 — Therm products are not for lifting people or things over people. — Form FF07-1206

HOIST DETAIL

N.T.S.

NOTE: HOIST MAY BE OMITTED SUBJECT TO TOWNSHIP PUBLIC WORK / SEWER OPERATOR SINCE TOWNSHIP HAS TRACT WITH HOIST.

SERIES R1R ACCESS DOOR

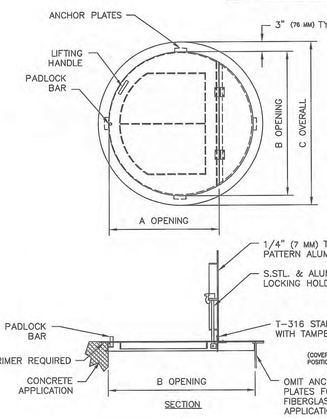
HALLIDAY PRODUCTS — www.HalldayProducts.com, Phone 800-298-1027, Fax 407-298-4534, Sales@HalldayProducts.com

STANDARD FEATURES:

- AUTO-LOCK T-316 STAINLESS STEEL HOLD OPEN ARM WITH RELEASE HANDLE
- T-316 STAINLESS STEEL HINGES AND ATTACHING HARDWARE
- NON-CORROSIVE LOCKING BAR
- SINGLE LEAF CONSTRUCTION FOR MAXIMUM ACCESS
- 300 LBS. PER SQ. FT. LOAD RATING (1464 KG. PER SQ. METER LOAD RATING)
- EXTRUDED ALUMINUM FRAME
- RECESSED LIFTING HANDLE
- ANCHOR PLATES (ORDER WITHOUT FOR FIBERGLASS OR DROP-IN INSTALLATIONS)
- LIFETIME GUARANTEE

STANDARD SIZES

QTY.	MODEL NO.	A DIM. INCHES (MM)	B DIM. INCHES (MM)	C DIM. INCHES (MM)	UNIT WT. LBS. (KG.)
	R1R36	24 (610)	35 (890)	41 (1041)	62 (28)
	R1R48	32 (813)	47 (1194)	53 (1346)	86 (39)
	R1R60	40 (1016)	59 (1499)	65 (1651)	136 (62)
	R1R72	48 (1219)	71 (1803)	77 (1956)	175 (79)



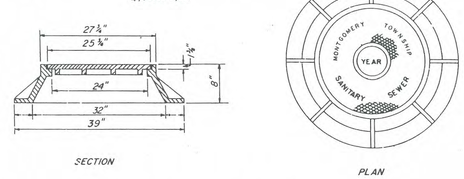
SER-R1R-W 07/27/05

HATCH DETAIL

N.T.S.

D3.3

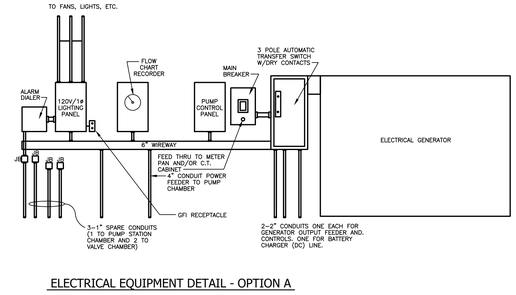
Note: Manhole frame and cover as manufactured by Campbell Foundry, Type 1203 B or approved equal



SECTION — PLAN

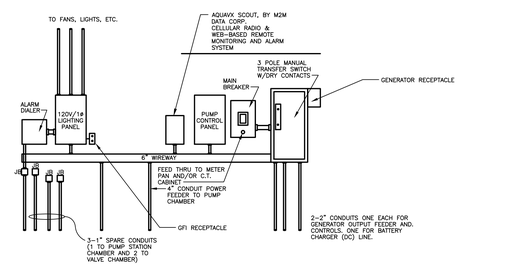
MANHOLE FRAME AND COVER

Not to Scale



ELECTRICAL EQUIPMENT DETAIL - OPTION A

N.T.S.



ELECTRICAL EQUIPMENT DETAIL - OPTION B

N.T.S.

PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

SERIAL NO. _____

DATE CHECKED — 811 Know what's below. Call before you dig. 1-800-272-1000

TO LOCATE UNDERGROUND UTILITIES IF YOU'RE GOING TO DIG, BLAST OR DRILL THREE (3) WORKING DAYS NOTICE REMEMBER IT'S THE LAW! Dig Safely.

			DATE: JANUARY 17, 2023
			SCALE: AS SHOWN
			DESIGNED BY: J.B./G.P.
			DRAWN BY: A.B./G.P.
PER TOWNSHIP	MKF	03/10/23	CHECKED BY: M.K.F.
REVISIONS	AUTH.	DATE	JOB No. 1805M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
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Bridges/Highways
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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

PUMP STATION DETAILS

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001

MONTGOMERY TOWNSHIP,

SOMERSET COUNTY, NEW JERSEY

P:\Jobs\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\805M-14-17 PUMP STATION (12-20-22).DWG Modified: 1/10/2023 1:15:17 PM

EXISTING CONDITIONS REGULATED AREAS SUMMARY:

TOTAL WETLANDS ON-SITE: 4.356 ACRES (189,753 SF)
TOTAL WETLANDS OFF-SITE: 0.003 ACRE (112 SF)
TOTAL WETLAND TRANSITION AREA ON-SITE: 2.523 ACRES (109,892 SF)
TOTAL WETLAND TRANSITION AREA OFF-SITE: 0.003 ACRE (136 SF)

REGULATED DISTURBANCE SUMMARY (WETLANDS & TRANSITION AREAS):

GP-2 TEMPORARY TRANSITION AREA DISTURBANCE: WAIVED FOR ACCESS
GP-2 PERMANENT TRANSITION AREA DISTURBANCE: 0.008 ACRE (359 SF)
GP-2 PERMANENT WETLAND DISTURBANCE: 0.108 ACRE (4,716 SF)
GP-10A PERMANENT WETLAND DISTURBANCE (ON-SITE): 0.028 ACRE (1,212 SF)
GP-10A PERMANENT WETLAND DISTURBANCE (OFF-SITE) 0.003 ACRE (112 SF)
GP-10A PERMANENT TRANSITION AREA DISTURBANCE (ON-SITE): WAIVED FOR ACCESS
GP-10A PERMANENT TRANSITION AREA DISTURBANCE (OFF-SITE): WAIVED FOR ACCESS
GP-7: PERMANENT WETLAND SWALE DISTURBANCE: 0.284 ACRE (12,381 SF)

TOTAL POST-CONSTRUCTION WETLAND AREA ON-SITE: 4.220 ACRES (183,825 SF)
TOTAL POST-CONSTRUCTION WETLAND AREA OFF-SITE: 0.000 ACRES (0 SF)

TRANSITION AREA WAIVER AVERAGING SUMMARY:

TOTAL WETLAND TRANSITION AREA REDUCTION: 5,255 SF
TOTAL WETLAND TRANSITION AREA COMPENSATION: 5,409 SF

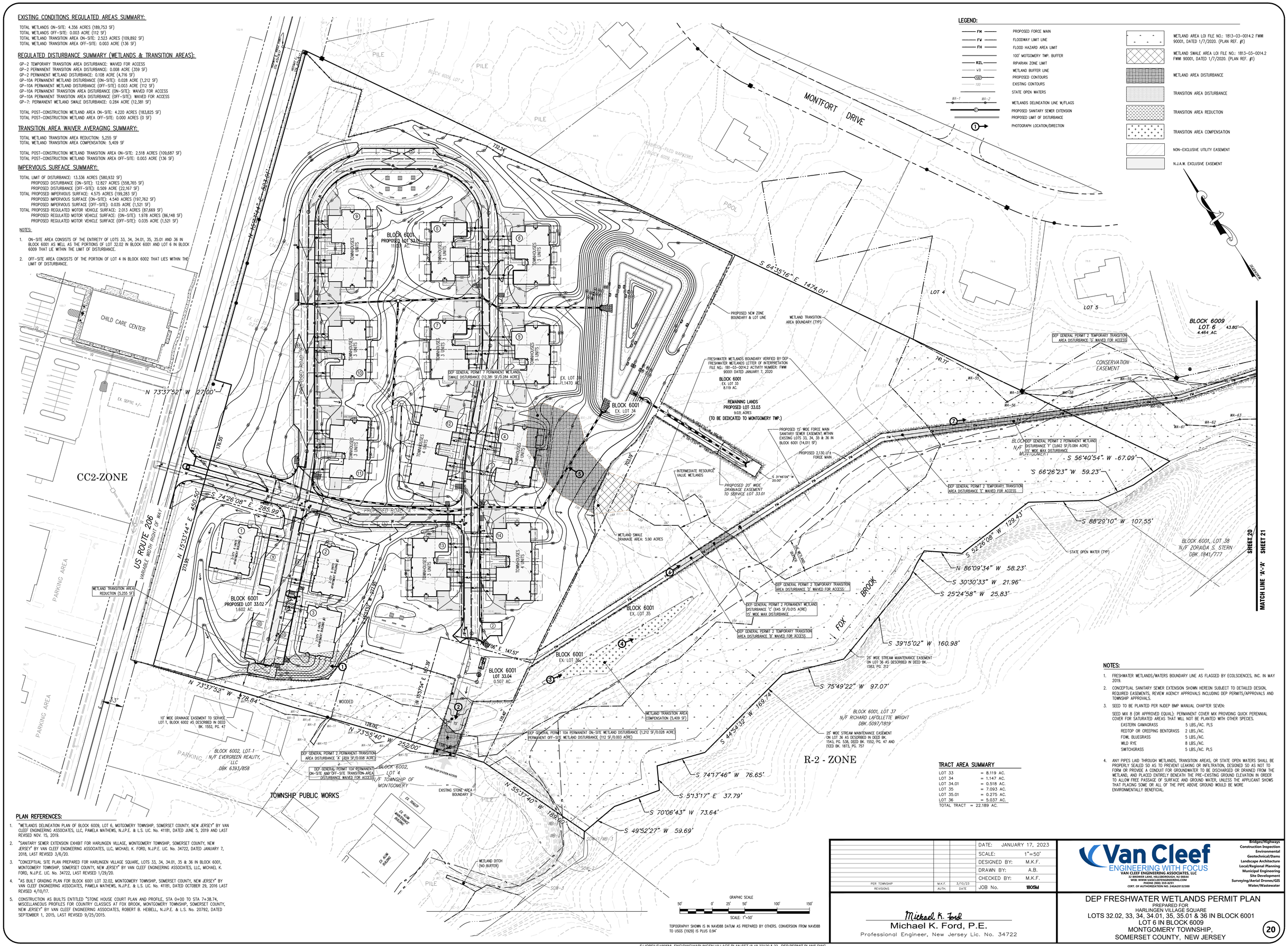
TOTAL POST-CONSTRUCTION WETLAND TRANSITION AREA ON-SITE: 2.518 ACRES (109,687 SF)
TOTAL POST-CONSTRUCTION WETLAND TRANSITION AREA OFF-SITE: 0.003 ACRE (136 SF)

IMPERVIOUS SURFACE SUMMARY:

TOTAL LIMIT OF DISTURBANCE: 13.336 ACRES (580,932 SF)
PROPOSED DISTURBANCE (ON-SITE): 12.827 ACRES (558,765 SF)
PROPOSED DISTURBANCE (OFF-SITE): 0.509 ACRE (22,167 SF)
TOTAL PROPOSED IMPERVIOUS SURFACE: 4.575 ACRES (199,283 SF)
PROPOSED IMPERVIOUS SURFACE (ON-SITE): 4.540 ACRES (197,762 SF)
PROPOSED IMPERVIOUS SURFACE (OFF-SITE): 0.035 ACRE (1,521 SF)
TOTAL PROPOSED REGULATED MOTOR VEHICLE SURFACE: 2.013 ACRES (87,669 SF)
PROPOSED REGULATED MOTOR VEHICLE SURFACE: (ON-SITE): 1.978 ACRES (86,148 SF)
PROPOSED REGULATED MOTOR VEHICLE SURFACE (OFF-SITE): 0.035 ACRE (1,521 SF)

NOTES:

1. ON-SITE AREA CONSISTS OF THE ENTIRETY OF LOTS 33, 34, 34.01, 35, 35.01 AND 36 IN BLOCK 6001 AS WELL AS THE PORTIONS OF LOT 32.02 IN BLOCK 6001 AND LOT 6 IN BLOCK 6009 THAT LIE WITHIN THE LIMIT OF DISTURBANCE.
2. OFF-SITE AREA CONSISTS OF THE PORTION OF LOT 4 IN BLOCK 6002 THAT LIES WITHIN THE LIMIT OF DISTURBANCE.



TOPOGRAPHY SHOWN IS IN NAVD88 DATUM AS PREPARED BY OTHERS. CONVERSION FROM NAVD88 TO USGS (1929) IS PLUS 0.94'

TRACT AREA SUMMARY

LOT 33	= 8.119 AC.
LOT 34	= 1.147 AC.
LOT 34.01	= 0.518 AC.
LOT 35	= 7.093 AC.
LOT 35.01	= 0.275 AC.
LOT 36	= 5.037 AC.
TOTAL TRACT	= 22.189 AC.

NOTES:

1. FRESHWATER WETLANDS/WATERS BOUNDARY LINE AS FLAGGED BY ECOLSCIENCES, INC. IN MAY 2019.
2. CONCEPTUAL SANITARY SEWER EXTENSION SHOWN HEREON SUBJECT TO DETAILED DESIGN, REQUIRED EASEMENTS, REVIEW AGENCY APPROVALS INCLUDING DEP PERMITS/APPROVALS AND TOWNSHIP APPROVALS.
3. SEED TO BE PLANTED PER NJDEP BMP MANUAL CHAPTER SEVEN:

   SEED MIX 8 (OR APPROVED EQUAL): PERMANENT COVER MIX PROVIDING QUICK PERENNIAL COVER FOR SATURATED AREAS THAT WILL NOT BE PLANTED WITH OTHER SPECIES.

EASTERN GAMAGRASS	5 LBS./AC. PLS
REDTOP OR CREEPING BENTGRASS	2 LBS./AC.
FOWL BLUEGRASS	5 LBS./AC.
WILD RYE	8 LBS./AC.
SWITCHGRASS	5 LBS./AC. PLS

4. ANY PIPES LAID THROUGH WETLANDS, TRANSITION AREAS, OR STATE OPEN WATERS SHALL BE PROPERLY SEALED SO AS TO PREVENT LEAKING OR INFILTRATION, DESIGNED SO AS NOT TO FORM OR PROVIDE A CONDUIT FOR GROUNDWATER TO BE DISCHARGED OR DRAINED FROM THE WETLAND, AND PLACED ENTIRELY BENEATH THE PRE-EXISTING GROUND ELEVATION IN ORDER TO ALLOW FREE PASSAGE OF SURFACE AND GROUND WATER, UNLESS THE APPLICANT SHOWS THAT PLACING SOME OR ALL OF THE PIPE ABOVE GROUND WOULD BE MORE ENVIRONMENTALLY BENEFICIAL.

PLAN REFERENCES:

1. "WETLANDS DELINEATION PLAN OF BLOCK 6009, LOT 6, MOTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED JUNE 5, 2019 AND LAST REVISED NOV. 15, 2019.
2. "SANITARY SEWER EXTENSION EXHIBIT FOR HARLINGEN VILLAGE, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, DATED JANUARY 7, 2018, LAST REVISED 3/6/20.
3. "CONCEPTUAL SITE PLAN PREPARED FOR HARLINGEN VILLAGE SQUARE, LOTS 33, 34, 34.01, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, LAST REVISED 1/29/20.
4. "AS BUILT GRADING PLAN FOR BLOCK 6001 LOT 32.02, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED OCTOBER 29, 2016 LAST REVISED 4/10/17.
5. CONSTRUCTION AS BUILTS ENTITLED "STONE HOUSE COURT PLAN AND PROFILE, STA 0+00 TO STA 7+38.74, MISCELLANEOUS PROFILES FOR COUNTRY CLASSICS AT FOX BROOK, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, ROBERT B. HEIBELL, N.J.P.E. & L.S. No. 20792, DATED SEPTEMBER 1, 2015, LAST REVISED 9/25/2015.

REVISIONS	AUTH.	DATE
PER TOWNSHIP	M.K.F.	3/10/23

DATE:	JANUARY 17, 2023
SCALE:	1"=50'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
JOB No.	1805M

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
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CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

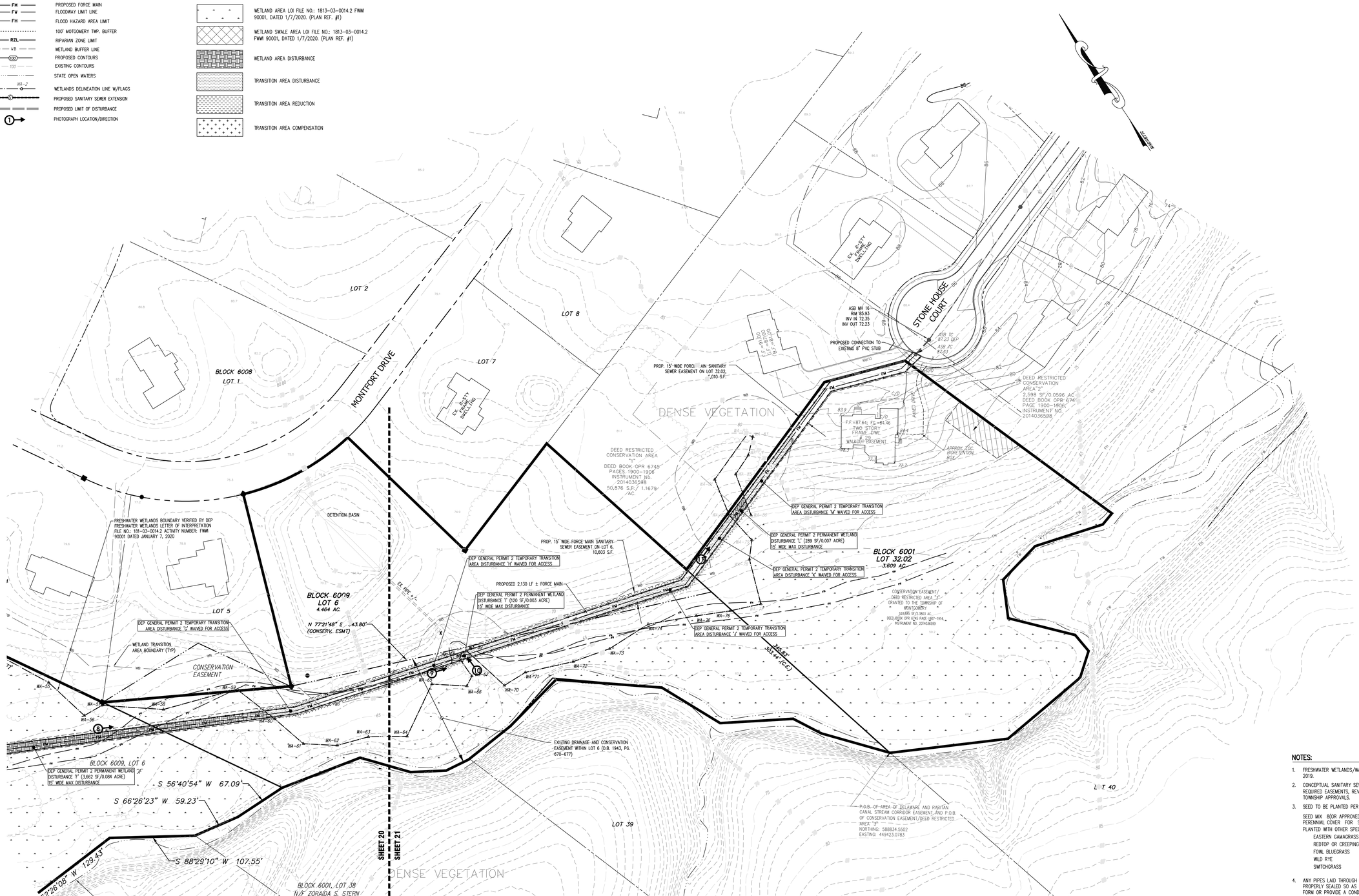
Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

DEP FRESHWATER WETLANDS PERMIT PLAN

PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 32.02, 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
LOT 6 IN BLOCK 6009
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

LEGEND:

- FM — PROPOSED FORCE MAIN
- FW — FLOODWAY LIMIT LINE
- FH — FLOOD HAZARD AREA LIMIT
- 100' MOTGOMERY TWP. BUFFER
- RZL — RIPARIAN ZONE LIMIT
- WB — WETLAND BUFFER LINE
- 100 — PROPOSED CONTOURS
- 100 — EXISTING CONTOURS
- STATE OPEN WATERS
- WA-1 WA-2 — WETLANDS DELINEATION LINE W/FLAGS
- SS — PROPOSED SANITARY SEWER EXTENSION
- PROPOSED LIMIT OF DISTURBANCE
- 1 — PHOTOGRAPH LOCATION/DIRECTION
- WETLAND AREA LOI FILE NO.: 1813-03-0014.2 FWW 90001, DATED 1/7/2020. (PLAN REF. #1)
- WETLAND SWALE AREA LOI FILE NO.: 1813-03-0014.2 FWW 90001, DATED 1/7/2020. (PLAN REF. #1)
- WETLAND AREA DISTURBANCE
- TRANSITION AREA DISTURBANCE
- TRANSITION AREA REDUCTION
- TRANSITION AREA COMPENSATION



GRAPHIC SCALE

50' 0' 25' 50' 100' 150'

SCALE: 1"=50'

TOPOGRAPHY SHOWN IS IN NAVD88 DATUM AS PREPARED BY OTHERS. CONVERSION FROM NAVD88 TO USGS (1929) IS PLUS 0.94'

NOTES:

1. FRESHWATER WETLANDS/WATERS BOUNDARY LINE AS FLAGGED BY ECOLSCIENCES, INC. IN MAY 2019.
2. CONCEPTUAL SANITARY SEWER EXTENSION SHOWN HEREON SUBJECT TO DETAILED DESIGN, REQUIRED EASEMENTS, REVIEW AGENCY APPROVALS INCLUDING DEP PERMITS/APPROVALS AND TOWNSHIP APPROVALS.
3. SEED TO BE PLANTED PER NJDEP BMP MANUAL CHAPTER SEVEN:

   SEED MIX (OR APPROVED EQUAL): PERMANENT COVER MIX PROVIDING QUICK PERENNIAL COVER FOR SATURATED AREAS THAT WILL NOT BE PLANTED WITH OTHER SPECIES.

EASTERN GAMAGRASS	5 LBS./AC. PLS
REDTOP OR CREEPING BENTGRASS	2 LBS./AC.
FOWL BLUEGRASS	5 LBS./AC.
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SWITCHGRASS	5 LBS./AC. PLS

4. ANY PIPES LAID THROUGH WETLANDS, TRANSITION AREAS, OR STATE OPEN WATERS SHALL BE PROPERLY SEALED SO AS TO PREVENT LEAKING OR INFILTRATION, DESIGNED SO AS NOT TO FORM OR PROVIDE A CONDUIT FOR GROUNDWATER TO BE DISCHARGED OR DRAINED FROM THE WETLAND, AND PLACED ENTIRELY BENEATH THE PRE-EXISTING GROUND ELEVATION IN ORDER TO ALLOW FREE PASSAGE OF SURFACE AND GROUND WATER, UNLESS THE APPLICANT SHOWS THAT PLACING SOME OR ALL OF THE PIPE ABOVE GROUND WOULD BE MORE ENVIRONMENTALLY BENEFICIAL.

PLAN REFERENCES:

1. "WETLANDS DELINEATION PLAN OF BLOCK 6009, LOT 6, MOTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED JUNE 5, 2019 AND LAST REVISED NOV. 15, 2019.
2. "SANITARY SEWER EXTENSION EXHIBIT FOR HARLINGEN VILLAGE, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, DATED JANUARY 7, 2018, LAST REVISED 3/6/20.
3. "CONCEPTUAL SITE PLAN PREPARED FOR HARLINGEN VILLAGE SQUARE, LOTS 33, 34, 34.01, 35 & 36 IN BLOCK 6001, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, LAST REVISED 1/29/20.
4. "AS BUILT GRADING PLAN FOR BLOCK 6001 LOT 32.02, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. No. 41181, DATED OCTOBER 29, 2016 LAST REVISED 4/10/17.
5. CONSTRUCTION AS BUILTS ENTITLED "STONE HOUSE COURT PLAN AND PROFILE, STA 0+00 TO STA 7+38.74, MISCELLANEOUS PROFILES FOR COUNTRY CLASSICS AT FOX BROOK, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, ROBERT B. HEIBELL, N.J.P.E. & L.S. No. 20792, DATED SEPTEMBER 1, 2015, LAST REVISED 9/25/2015.

PER TOWNSHIP	M.K.F.	3/10/23
REVISIONS	AUTH.	DATE

DATE:	JANUARY 17, 2023
SCALE:	1"=50'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
JOB No.	1805M

Michael K. Ford

Michael K. Ford, P.E.

Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

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Bridges/Highways
Construction Inspection
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DEP FRESHWATER WETLANDS PERMIT PLAN

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SOMERSET COUNTY, NEW JERSEY

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\21 & 23 - DEP PERMIT PLANS.DWG

FILE No. 7696-X

EXISTING CONDITIONS REGULATED AREAS SUMMARY:

TOTAL RIPARIAN ZONE ON-SITE: 1.547 ACRES (67,387 SF)
TOTAL RIPARIAN ZONE OFF-SITE: 0.000 ACRE (0 SF)
TOTAL FLOOD HAZARD AREA ON-SITE: 3.918 ACRES (170,660 SF)
TOTAL FLOOD HAZARD AREA OFF-SITE: 0.000 ACRE (0 SF)

REGULATED DISTURBANCE SUMMARY (FLOOD HAZARD AREAS, FLOODWAY AND RIPARIAN ZONES):

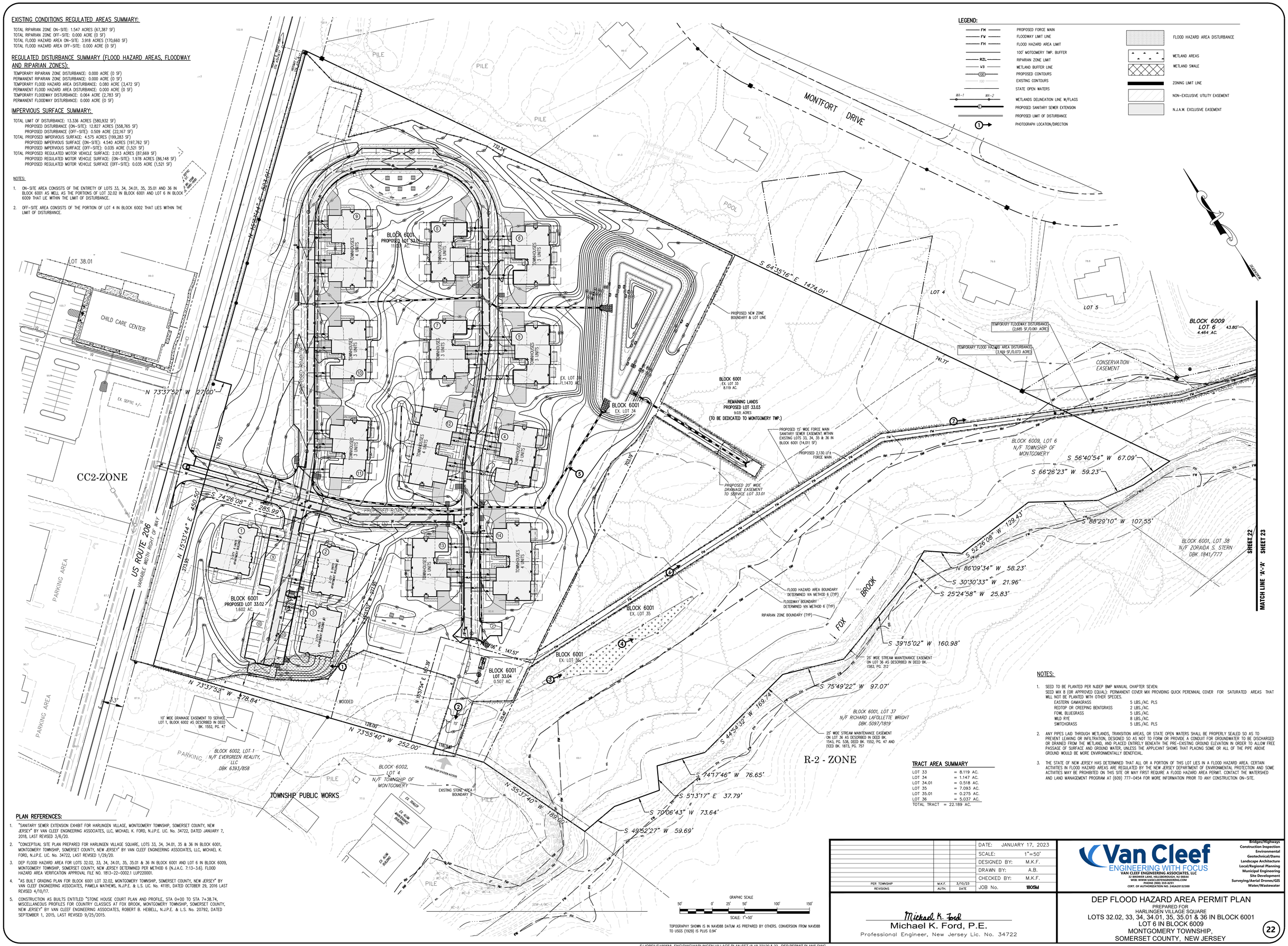
TEMPORARY RIPARIAN ZONE DISTURBANCE: 0.000 ACRE (0 SF)
PERMANENT RIPARIAN ZONE DISTURBANCE: 0.000 ACRE (0 SF)
TEMPORARY FLOOD HAZARD AREA DISTURBANCE: 0.080 ACRE (3,472 SF)
PERMANENT FLOOD HAZARD AREA DISTURBANCE: 0.000 ACRE (0 SF)
TEMPORARY FLOODWAY DISTURBANCE: 0.064 ACRE (2,783 SF)
PERMANENT FLOODWAY DISTURBANCE: 0.000 ACRE (0 SF)

IMPERVIOUS SURFACE SUMMARY:

TOTAL LIMIT OF DISTURBANCE: 13.336 ACRES (580,932 SF)
PROPOSED DISTURBANCE (ON-SITE): 12.827 ACRES (558,765 SF)
PROPOSED DISTURBANCE (OFF-SITE): 0.509 ACRE (22,167 SF)
TOTAL PROPOSED IMPERVIOUS SURFACE: 4.575 ACRES (199,283 SF)
PROPOSED IMPERVIOUS SURFACE (ON-SITE): 4.540 ACRES (197,762 SF)
PROPOSED IMPERVIOUS SURFACE (OFF-SITE): 0.035 ACRE (1,521 SF)
TOTAL PROPOSED REGULATED MOTOR VEHICLE SURFACE: 2.013 ACRES (87,669 SF)
PROPOSED REGULATED MOTOR VEHICLE SURFACE: (ON-SITE): 1.978 ACRES (86,148 SF)
PROPOSED REGULATED MOTOR VEHICLE SURFACE (OFF-SITE): 0.035 ACRE (1,521 SF)

NOTES:

1. ON-SITE AREA CONSISTS OF THE ENTIRETY OF LOTS 33, 34, 34.01, 35, 35.01 AND 36 IN BLOCK 6001 AS WELL AS THE PORTIONS OF LOT 32.02 IN BLOCK 6001 AND LOT 6 IN BLOCK 6009 THAT LIE WITHIN THE LIMIT OF DISTURBANCE.
2. OFF-SITE AREA CONSISTS OF THE PORTION OF LOT 4 IN BLOCK 6002 THAT LIES WITHIN THE LIMIT OF DISTURBANCE.



TRACT AREA SUMMARY

LOT 33	= 8.119 AC.
LOT 34	= 1.147 AC.
LOT 34.01	= 0.518 AC.
LOT 35	= 7.093 AC.
LOT 35.01	= 0.275 AC.
LOT 36	= 5.037 AC.
TOTAL TRACT	= 22.189 AC.

NOTES:

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3. THE STATE OF NEW JERSEY HAS DETERMINED THAT ALL OR A PORTION OF THIS LOT LIES IN A FLOOD HAZARD AREA. CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY FIRST REQUIRE A FLOOD HAZARD AREA PERMIT. CONTACT THE WATERSHED AND LAND MANAGEMENT PROGRAM AT (609) 777-0454 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ON-SITE.

PLAN REFERENCES:

1. "SANITARY SEWER EXTENSION EXHIBIT FOR HARLINGEN VILLAGE, MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, MICHAEL K. FORD, N.J.P.E. LIC. No. 34722, DATED JANUARY 7, 2018, LAST REVISED 3/6/20.
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PER TOWNSHIP REVISIONS	M.K.F. AUTH.	3/10/23 DATE

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JOB No.	1805M

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DEP FLOOD HAZARD AREA PERMIT PLAN

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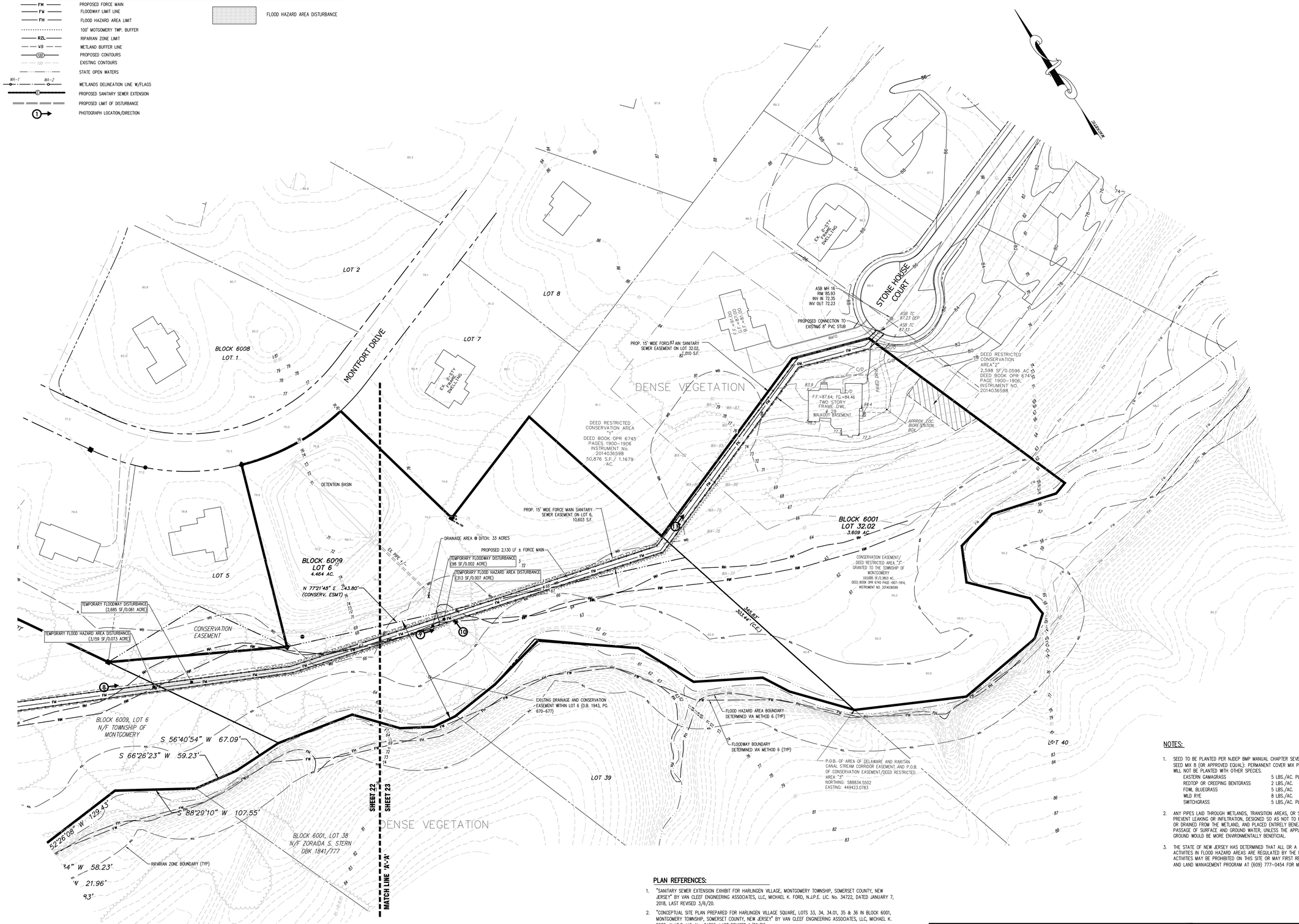
- 1 — PHOTOGRAPH LOCATION/DIRECTION
- FLOOD HAZARD AREA DISTURBANCE



GRAPHIC SCALE

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F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\21 & 23 - DEP PERMIT PLANS.DWG

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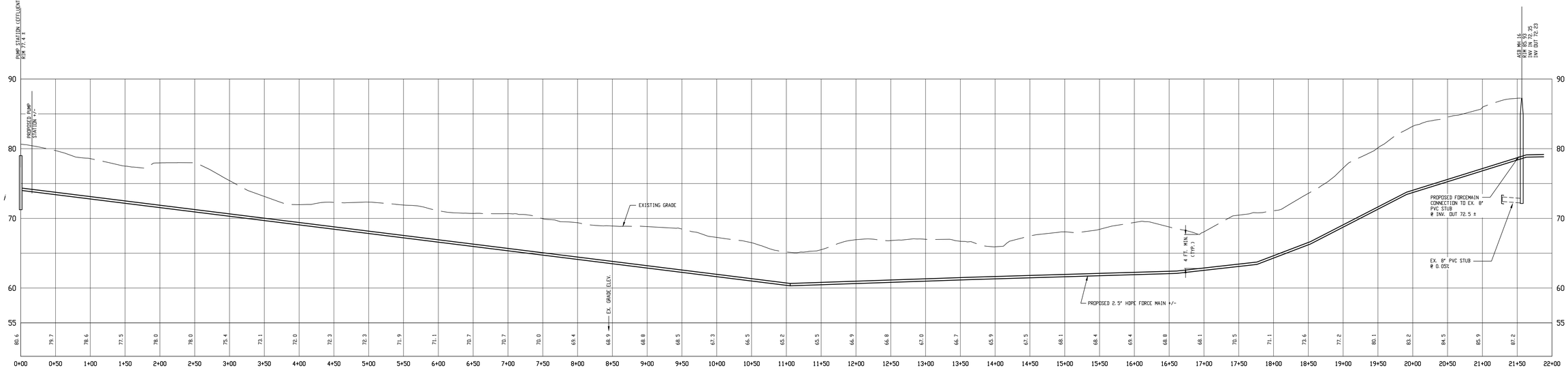
F.Bk. Pg.

FILE No. 7696-X



LEGEND

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	100' MOTGOMERY TWP. BUFFER
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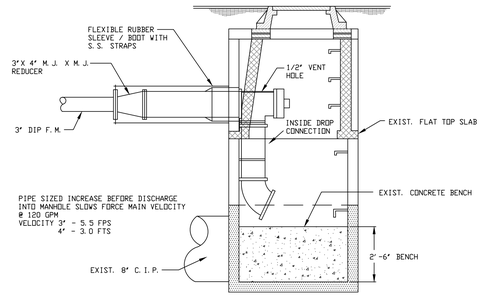

FORCE MAIN MANHOLE DROP CONNECTION DETAIL

N. T. S.

GRAPHIC SCALE

60' 0' 30' 60' 120' 180'

Horizontal Scale: 1 inch = 60 ft.

6' 0' 3' 6' 12' 18'

Vertical Scale: 1 inch = 6 ft.

PLAN REFERENCES:

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			SCALE:	AS SHOWN
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	MKF	03/10/23	CHECKED BY:	M.K.F.
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SANITARY SEWER FORCE MAIN EXTENSION PROFILE

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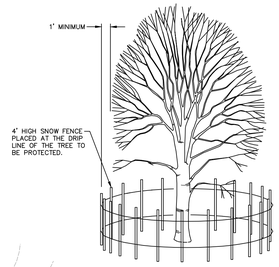
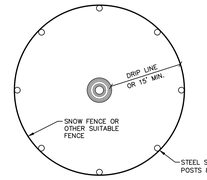


SECTION

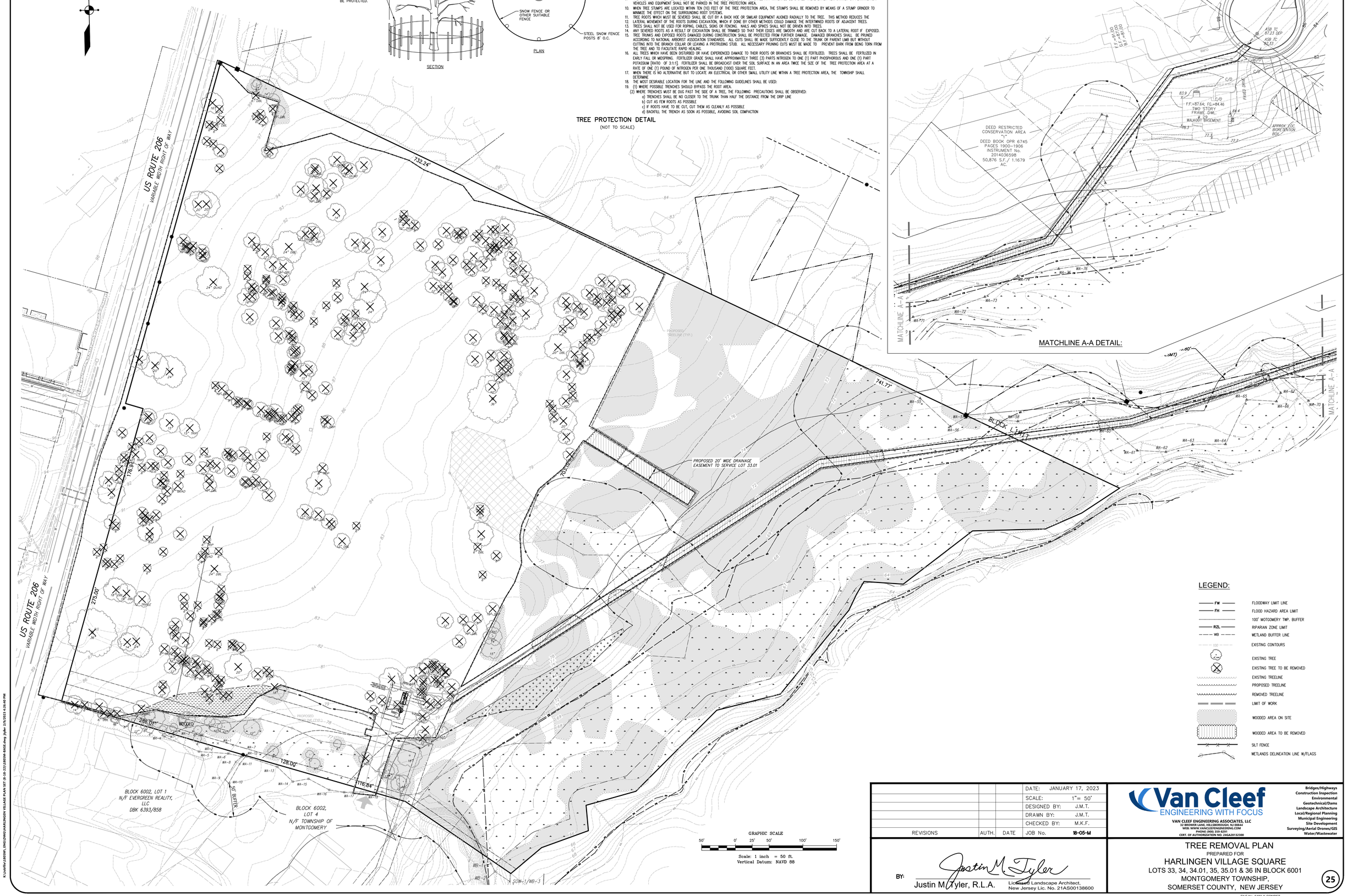


PLAN

1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION.
2. ALL TREES SHEDULED TO REMAIN SHALL BE MARKED; WHERE GROUPS OF TREES EXIST, ONLY THE TREES ON THE EDGE NEED TO BE MARKED.
3. 4' HIGH SNOW FENCE OR OTHER SUITABLE FENCE MOUNTED ON STEEL POSTS LOCATED EIGHT (8) FEET ON CENTER, SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION AREA.
4. ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. ALL FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY, OR 15 FEET FROM THE TRUNK OF THE TREE TO BE RETAINED, WHICHEVER IS GREATER. AT THE SPECIFIC LOCATION DETERMINED APPROPRIATE BY THE LANDSCAPE ARCHITECT. ALL TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. ALL EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE SHALL BE PRUNED AND TRIMMED TO REMOVE DEAD OR DAMAGED BRANCHES. SEE DETAILS FOR TREE PRESERVATION THIS SHEET.
5. WHEN THE FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED AND APPROVED BY THE TOWNSHIP PRIOR TO COMMENCING CLEARING AND FURTHER CONSTRUCTION. THE FENCING ALONG THE PROTECTION AREA SHALL BE MAINTAINED UNTIL ALL WORK AND CONSTRUCTION HAS BEEN COMPLETED. ANY DAMAGES TO THE PROTECTIVE FENCING SHALL BE REPLACED AND REPAIRED BEFORE FURTHER CONSTRUCTION SHALL CONTINUE.
6. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR PULLED INTO A TREE PROTECTION AREA OR INTO TREES THAT ARE TO BE RETAINED.
7. GRADE CHANGES AND EXCAVATIONS SHALL NOT ENCROACH UPON THE TREE PROTECTION AREA.
8. NO TOXIC MATERIALS SHALL BE STORED WITHIN ONE HUNDRED (100) FEET OF A TREE PROTECTION AREA INCLUDING PETROLEUM BASED AND/OR DERIVED PRODUCTS.
9. THE AREA WITHIN THE TREE PROTECTION AREA SHALL NOT BE BUILT UPON NOR SHALL ANY MATERIALS BE STORED THERE EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION AREA.
10. WHEN TREE STUMPS ARE LOCATED WITHIN TEN (10) FEET OF THE TREE PROTECTION AREA, THE STUMPS SHALL BE REMOVED BY MEANS OF A STUMP GRINDER TO MINIMIZE THE EFFECT ON THE SURROUNDING ROOT SYSTEMS.
11. TREE ROOTS WHICH MUST BE SEVERED SHALL BE CUT BY A BACK HOE OR SIMILAR EQUIPMENT ALIGNED RADIALLY TO THE TREE. THIS METHOD REDUCES THE
12. LATERAL MOVEMENT OF THE ROOTS DURING EXCAVATION, WHICH IF DONE BY OTHER METHODS COULD DAMAGE THE INTERTWINED ROOTS OF ADJACENT TREES.
13. TREES SHALL NOT BE USED FOR ROPING, CABLES, SIGNS OR FENCING. NAILS AND SPIKES SHALL NOT BE DRIVEN INTO TREES.
14. ANY SEVERED ROOTS AS A RESULT OF EXCAVATION SHALL BE TRIMMED SO THAT THEIR EDGES ARE SMOOTH AND ARE CUT BACK TO A LATERAL ROOT IF EXPOSED.
15. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE. DAMAGED BRANCHES SHALL BE PRUNED ACCORDING TO NATIONAL ARBORIST ASSOCIATION STANDARDS. ALL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LIMB BUT WITHOUT CUTTING INTO THE BRANCH COLLAR OR LEAVING A PROTRUDING STUB. ALL NECESSARY PRUNING CUTS MUST BE MADE TO PREVENT BARK FROM BEING TORN FROM THE TREE AND TO FACILITATE RAPID HEALING.
16. ALL TREES WHICH HAVE BEEN DISTURBED OR HAVE EXPERIENCED DAMAGE TO THEIR ROOTS OR BRANCHES SHALL BE FERTILIZED. TREES SHALL BE FERTILIZED IN EARLY FALL OR MIDSPRING. FERTILIZER GRADE SHALL HAVE APPROXIMATELY THREE (3) PARTS NITROGEN TO ONE (1) PART PHOSPHOROUS AND ONE (1) PART POTASSIUM [RATIO OF 3:1:1] FERTILIZER SHALL BE BROADCAST OVER THE SOIL SURFACE IN AN AREA TWICE THE SIZE OF THE TREE PROTECTION AREA AT A RATE OF ONE (1) POUND OF NITROGEN PER ONE THOUSAND (1000) SQUARE FEET.
17. WHEN THERE IS NO ALTERNATIVE BUT TO LOCATE AN ELECTRICAL OR OTHER SMALL UTILITY LINE WITHIN A TREE PROTECTION AREA, THE TOWNSHIP SHALL DETERMINE
18. THE MOST DESIRABLE LOCATION FOR THE LINE AND THE FOLLOWING GUIDELINES SHALL BE USED:
19. (1) WHERE POSSIBLE TRENCHES SHOULD BYPASS THE ROOT AREA.
    (2) WHERE TRENCHES MUST BE DUG PAST THE SIDE OF A TREE, THE FOLLOWING PRECAUTIONS SHALL BE OBSERVED:
        a) TRENCHES SHALL BE NO CLOSER TO THE TRUNK THAN HALF THE DISTANCE FROM THE DRIP LINE
        b) CUT AS FEW ROOTS AS POSSIBLE
        c) IF ROOTS HAVE TO BE CUT, CUT THEM AS CLEANLY AS POSSIBLE
        d) BACKFILL THE TRENCH AS SOON AS POSSIBLE, AVOIDING SOIL COMPACTION

TREE PROTECTION DETAIL

(NOT TO SCALE)



LEGEND:

FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE
100	EXISTING CONTOURS
	EXISTING TREE
	EXISTING TREE TO BE REMOVED
	EXISTING TREELINE
	PROPOSED TREELINE
	REMOVED TREELINE
	LIMIT OF WORK
	WOODED AREA ON SITE
	WOODED AREA TO BE REMOVED
	SILT FENCE
	WETLANDS DELINEATION LINE W/FLAGS

REVISIONS	AUTH.	DATE

DATE:	JANUARY 17, 2023
SCALE:	1"= 50'
DESIGNED BY:	J.M.T.
DRAWN BY:	J.M.T.
CHECKED BY:	M.K.F.
JOB No.	18-05-M

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
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Bridges/Highways
Construction Inspection
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Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

BY: Justin M. Tyler, R.L.A.

Licensed Landscape Architect,
New Jersey Lic. No. 21AS00138600

TREE REMOVAL PLAN

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

K:\Jobs\6482\FINAL ENGINEERING\HARLINGEN VILLAGE PLAN SET (8-18-22)\18005M-BASE.dwg jtyler 1/16/2023 2:06:00 PM

LANDSCAPE LEGEND:

SYMBOL	BOTANICAL NAME	COMMON NAME
SHADE TREES		
AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE
BN	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH
NS	NYSSA SYLVATICA	BLACKGUM
LS	LIQUIDAMBAR STYRACIFLUA	SWEETGUM
LT	LIRIODENDRON TULIPIFERA	TULIP TREE
PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE
QB	QUERCUS BICOLOR	SWAMP WHITE OAK
EVERGREEN TREES		
PG	PICEA GLAUCA	WHITE SPRUCE
PS	PINUS STROBUS	WHITE PINE
MV	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
ORNAMENTAL/UNDERSTORY TREES		
CF	CORNUS FLORIDA 'APPALACHIAN SPRING'	FLOWERING DOGWOOD
SHRUBS AND GROUNDCOVER		
AU	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY
CP	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE
CA	CEANOTHUS AMERICANUS	NEW JERSEY TEA
CS	CORNUS SERICEA	RED TWIG DOGWOOD
IGS	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY
JH	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP CREEPING JUNIPER
KL	KALMIA LATIFOLIA 'RASPBERRY GLOW'	MOUNTAIN LAUREL
MC	MUHLENBERGIA CAPILLARIS	MUHLY GRASS
POND PLANTINGS		
	ERNST SEED MIX – ERNMX-127 RETENTION BASIN WILDLIFE MIX	
	ZONE 3: SHORELINE FRINGE DEPTH 0"-6"	
	ZONE 2: SHALLOW WATER BENCH INUNDATION DEPTH 6"-12"	
	ZONE 1: DEEP WATER POOL PERMANENT INUNDATION DEPTH 1'-4"	

16-4-14c SITE SPECIFIC INCLUSIONARY ZONE 3 (SSIZ-3)

12.c NO LESS THAN 20% OF ALL PORTIONS OF SITE NOT COVERED BY BUILDING OR STRUCTURES SHALL BE SUITABLY LANDSCAPED. (INCLUDES THE INFILTRATION BASIN)
OPEN SPACE AREA: 296,000 SF

LANDSCAPE AREA REQUIRED: 59,200 SF OF LANDSCAPE
LANDSCAPE AREA PROVIDED: 60,000 SF OF LANDSCAPE

16-5.6 NATURAL FEATURES

d.3 REQUIRED 14 TREES PER ACRE. 13.32 ACRES OF DEVELOPMENT X 14 TREES
REQUIRED TREES: 187 TREES
PROVIDED TREES: 187 TREES

▲ d.15 STREET TREES AT 50' INTERVALS ALONG 925 LINEAR FEET OF ROADWAY FRONTAGE
REQUIRED TREES: 19 TREES
PROVIDED TREES: 19 TREES

16-5.8 a.3 OFF-STREET PARKING LANDSCAPING

a.1 A 4' HEDGE ROW OF INKBERRY HOLLIES ARE LOCATED BETWEEN THE PARKING AREA AND THE STREET LINE FOR THE PARKING AREA LESS THAN 150 FT FROM STREET LINE.

a.3 EACH OFF-STREET PARKING AREA SHALL HAVE A MINIMUM AREA EQUIVALENT TO ONE PARKING SPACE (180 SF) PER EVERY 30 SPACES LANDSCAPED. 38 PARKING SPACES PROVIDED IN PARKING LOT.
REQUIRED LANDSCAPE: 228 SF OF LANDSCAPE
PROVIDED LANDSCAPE: 300 SF OF LANDSCAPE

LEGEND

FM	PROPOSED FORCE MAIN SEWER
FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE
100	PROPOSED CONTOURS
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	WETLANDS DELINEATION LINE W/FLAGS
	SILT FENCE
	PROPOSED INLET PROTECTION
	PROPOSED LIGHT
	WETLAND AREAS
	GOOSE FENCING
	MONOFILAMENT LINE

GRAPHIC SCALE
30' 0' 15' 30' 60' 90'
Scale: 1 inch = 30 ft.
Vertical Datum: NAVD 88

			DATE:	JANUARY 17, 2023
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			DESIGNED BY:	J.M.T.
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PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
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LANDSCAPE PLAN - NORTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

F:\Jobs\U\BRIAN_ENG\BRIGHAMINGTON VILLAGE PLAN SET (8-18-23)\BRIAN 24-29 LANDSCAPE LIGHTING PLAN.dwg Brighton 2/14/2023 3:23:24 PM

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LEGEND

- FM — PROPOSED FORCE MAIN SEWER
- FW — FLOODWAY LIMIT LINE
- FH — FLOOD HAZARD AREA LIMIT
- 100' MOTGOMERY TWP. BUFFER
- RZL — RIPARIAN ZONE LIMIT
- WB — WETLAND BUFFER LINE
- 100 — PROPOSED CONTOURS
- 100 — EXISTING CONTOURS
- EXISTING TREELINE
- PROPOSED TREELINE
- LIMIT OF WORK
- WETLANDS DELINEATION LINE W/FLAGS
- SILT FENCE
- PROPOSED INLET PROTECTION
- PROPOSED LIGHT
- WETLAND AREAS
- WETLAND BUFFER COMPENSATION
- WETLAND BUFFER REDUCTION

GRAPHIC SCALE
30' 0' 15' 30' 60' 90'
Scale: 1 inch = 30 ft.
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Water/Wastewater

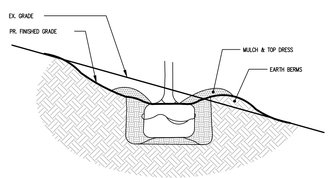
LANDSCAPE PLAN - SOUTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

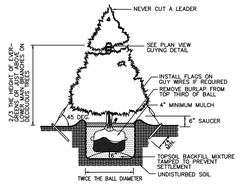
FILE No. 6482-X-CONDET

F:\Admin\JOBS\6_ENGDIV\HS\HARLINGEN VILLAGE PLAN SET 18-18-21\18005M 24-29 LANDSCAPE LIGHTING PLAN.dwg tmyler 3/14/2023 3:23:33 PM



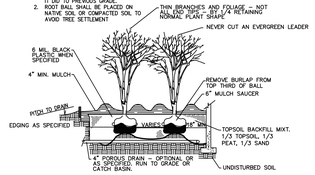
NOTE:
REFER TO TYPICAL TREE PLANTING DETAIL FOR ADDITIONAL PLANTING SPECIFICATIONS

PLANTING ON SLOPES 51 AND STEEPER
NOT TO SCALE

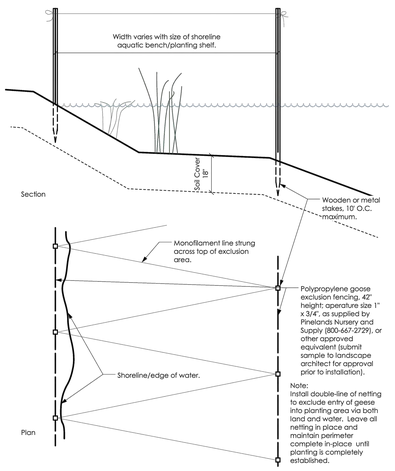


GUYING FOR EVERGREENS / DECIDUOUS TREES OVER 4" CAL.
NO SCALE

NOTE:
1. TREES SHALL HAVE SAME RELATIONSHIP TO FINISHED GRADE AS IT DID TO PREVIOUS GRADE.
2. ROOT BALL SHALL BE PLACED ON NATIVE SOIL OR COMPACTED SOIL TO AVOID TREE SETTLEMENT



TYPICAL SHRUB BED PLANTING
NO SCALE



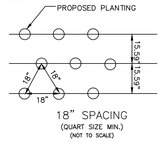
Note:
Install double-line of netting to exclude entry of geese into planting area via both land and water. Leave all netting in place and maintain perimeter complete in-place until planting is completely established.

GOOSE FENCE DETAIL
NO SCALE

GOOSE FENCING NOTES

GOOSE FENCING TO BE INSTALLED AROUND ENTIRE PERIMETER OF POND. ADDITIONAL FENCING TO BE PROVIDED AROUND THE PERIMETER OF THE SUBMERGENT PLANTINGS. MONOFILAMENT LINE TO BE INSTALLED OVER THE SUBMERGENT PLANTINGS IN A 25'-24' FORMATION AND ATTACHED TO GOOSE FENCE STAKES. LINE TO BE SPACED MAX. 10' O.C. FROM SIDE TO SIDE OF POND.

NOTE:
PLANTINGS TO BE IN CLUSTERS ARRANGED BY SPECIES.



18" SPACING
(QUART SIZE MIN.)
(NOT TO SCALE)

PLANT SPACING SUBMERGENT PLANTINGS

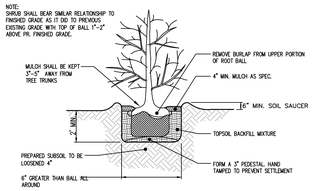
GENERAL LANDSCAPING NOTES:

1. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY; AND SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND VIGOROUS FIBROUS ROOT SYSTEMS. ALL PLANTS SHALL BE NURSERY-GROWN UNLESS OTHERWISE STATED; THEY SHALL HAVE BEEN GROWING UNDER THE SAME CLIMATE CONDITIONS AS THE MUNICIPALITY FOR AT LEAST TWO (2) YEARS PRIOR TO DATE OF PLANTING. ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR CONDITION OR WHICH ARE NOT TRUE TO NAME SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE PLANTS.
2. ALL PLANT MATERIAL SHALL BE TWICE TRANSPLANTED, NURSERY-GROWN OF SPECIMEN QUALITY. THEY SHALL BE OF SYMMETRICAL GROWTH OR TYPICAL OF THE VARIETY AND SUPPLIED FROM SOURCES IN THE SAME HARDINESS ZONE AS THE DEVELOPMENT IS LOCATED AND FREE OF INSECT AND DISEASE PROBLEMS OR OBJECTIONABLE DISFIGUREMENTS. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE SHALL BE TAKEN IN PREPARING PLANTS FOR MOVING. ALL BALLED AND BURLAPPED PLANTS SHALL BE DUG TO MEET OR EXCEED THE "USDA STANDARDS FOR NURSERY STOCK".
4. ALL PLANT MATERIAL SHALL MEET THE STANDARDS OF AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN (1990), OR MOST RECENT EDITION, AND THE HEIGHT, SPREAD AND/OR CALIPER FOR TREES AND SHRUBS LISTED IN SECTION 515.1., RECOMMENDED PLANT LIST.
5. PLANTS SHALL BE PACKED, TRANSPORTED AND HANDLED WITH UTMOST CARE TO INSURE ADEQUATE PROTECTION AGAINST INJURY.
6. ANY PLANT MATERIAL WHICH DOES NOT SURVIVE SHALL BE REPLACED BY THE DEVELOPER. FINANCIAL SECURITY SHALL BE POSTED WITH THE TOWNSHIP IN AN AMOUNT EQUAL TO THE ESTIMATED COST OF TREES AND PLANTINGS, TO BE RELEASED TWENTY FOUR (24) MONTHS FROM TOWNSHIP ACCEPTANCE OF THE INSTALLATION AND SATISFACTORY REPLACEMENT OF ALL DEAD PLANTINGS.
7. ONLY THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING AND LIGHTING LAYOUT PURPOSES. PROPOSED TREES SHALL NOT BE PLANTED WITHIN TEN (10) FEET OF UNDERGROUND UTILITIES AND FIFTEEN (15) FEET OF OVERHEAD UTILITIES.
8. NO PLANTING LAYOUT MODIFICATIONS OR PLANT SUBSTITUTES WILL OCCUR WITHOUT THE APPROVAL OF THE TOWNSHIP ENGINEER. THERE WILL BE NO PRIOR APPROVAL TO MODIFICATIONS OCCURRING IN THE FIELD.
9. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
10. ALL SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL SHRUBBERY MATERIAL LOCATED WITHIN SIGHT TRIANGLES SHALL NOT EXCEED A MATURE HEIGHT OF 3' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL SHADE TREES PLANTED OR EXISTING IN SIGHT TRIANGLES SHALL BE PRUNED SO AS NOT TO HAVE BRANCHES BELOW 7'-0".
11. ALL PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, WRAPPED AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. 1" PLASTIC CHAINS SHALL BE ATTACHED TO THE TREE AT TWO-THIRDS THE HEIGHT OF THE TREE AND SHOULD BE LOCATED AT POINTS SO AS NOT TO SPLIT THE TRUNKS OF MULTI-STEMMED TREES. PROVIDE TWO TO THREE TREE STAKES PER TREE AS NOTED ON THE PLANS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE TREE WRAP WITH A 50% OVERLAP. CUT AND REMOVE BURLAP FROM THE TOP 1/3 OF THE ROOT BALL.
12. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST, THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH SAND.
13. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT DID TO EXISTING GRADE.
14. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING ALL PLANT MATERIAL SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
15. ALL DISTURBED AREAS THAT ARE NOT TO BE PLANTED WITH LANDSCAPE MATERIAL SHALL BE SEEDED WITH THE FOLLOWING SEED MIXTURE:

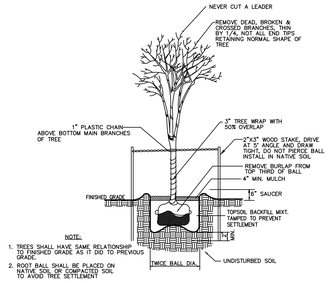
SEED MIXTURE	SEEDING RATES LBS./ACRE	LBS./1,000 S.F.
SPREADING FESCUE	15	0.3
CHEWING'S RED FESCUE	15	0.3
KENTUCKY BLUEGRASS	25	0.6
PERENNIAL RYEGRASS	10	0.2

16. OPTIMUM PLANTING & SEEDING DATES ARE BETWEEN FEBRUARY 15 AND MAY 1 OR BETWEEN AUGUST 15 AND OCTOBER 15.
17. ALL PLANTING BEDS SHALL RECEIVE MINIMUM NATURAL 4" DEPTH OF SHREDDED HARDWOOD BARK.
18. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF 2 YEARS.

NOTE:
SHRUB SHALL BEAR SIMILAR RELATIONSHIP TO FINISHED GRADE AS IT DID TO PREVIOUS EXISTING GRADE WITH TOP OF BALL 1"-2" ABOVE PR. FINISHED GRADE.

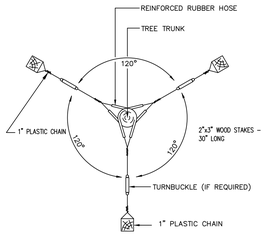


TYPICAL PLANTING FOR EVERGREEN AND DECIDUOUS SHRUBS
NOT TO SCALE



NOTE:
1. TREES SHALL HAVE SAME RELATIONSHIP TO FINISHED GRADE AS IT DID TO PREVIOUS GRADE.
2. ROOT BALL SHALL BE PLACED ON NATIVE SOIL OR COMPACTED SOIL TO AVOID TREE SETTLEMENT

TYPICAL PLANTING FOR TREES TO 3 1/2" CAL.
NO SCALE



TYPICAL GUYING DETAIL
(NOT TO SCALE)

LANDSCAPE SCHEDULE:

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
SHADE TREES					
AR	23	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" CAL.	B&B
BN	15	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	10'-12' HT.	B&B
NS	20	NYSSA SYLVATICA	BLACKGUM	2 1/2" CAL.	B&B
LS	14	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	2 1/2" CAL.	B&B
LT	14	LIRIODENDRON TULIPIFERA	TULIP TREE	2 1/2" CAL.	B&B
PO	25	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2 1/2" CAL.	B&B
QB	23	QUERCUS BICOLOR	SWAMP WHITE OAK	2 1/2" CAL.	B&B
TOTAL:	134				
EVERGREEN TREES					
PG	25	PICEA GLAUCA	WHITE SPRUCE	6'-8' HT.	B&B
PS	15	PINUS STROBUS	WHITE PINE	6'-8' HT.	B&B
MV	14	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA	6'-8' HT.	B&B
TOTAL	54				
ORNAMENTAL/UNDERSTORY TREES					
CF	18	CORNUS FLORIDA 'APPALACHIAN SPRING'	FLOWERING DOGWOOD	1 1/4" CAL.	B&B
TOTAL:	18				
SHRUBS AND GROUNDCOVER					
AU	329	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY	6"-12" SPR.	CONT
CP	706	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	6"-10" SPR.	CONT
CA	370	CEANOTHUS AMERICANUS	NEW JERSEY TEA	18"-24" HT.	CONT
CS	220	CORNUS SERICEA	RED TWIG DOGWOOD	24"-36" HT.	CONT
IG	51	ILEX GLABRA	INKBERRY	48" HT.	CONT
IGS	1,070	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	24"-36" HT.	CONT
JH	525	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP CREEPING JUNIPER	12"-18" SPR.	CONT
KL	601	KALMIA LATIFOLIA 'RASPBERRY GLOW'	MOUNTAIN LAUREL	18"-24" HT.	CONT
MC	881	MUHLENBERGIA CAPILLARIS	MUHLY GRASS	18"-24" HT.	CONT
TOTAL:	4,753				

POND SUBMERGENT PLANTINGS				
ZONE 3: SHORELINE FRINGE DEPTH 0"-6"				
804	SAGITTARIA LATIFOLIA	DUCK POTATO	QUART	
804	IRIS VERSICOLOR	BLUE FLAG IRIS	QUART	
804	JUSTICIA AMERICANA	American Water Willow	QUART	
804	PONTEDERIA CORDATA	PICKEREL WEED	QUART	NO SUBSTITUTION
804	PELTANDRA VIRGINICA	ARROW ARUM	QUART	NO SUBSTITUTION
804	SCHOENOPLECTUS ACUTUS	GIANT BUR-REED	QUART	NO SUBSTITUTION
TOTAL: 4,824				
ZONE 2: SHALLOW WATER BENCH INUNDATION DEPTH 6"-12"				
452	NYMPHAEA ODORATA	AMERICAN WHITE WATER-LILY	QUART	
452	PONTEDERIA CORDATA	PICKEREL WEED	QUART	
452	SCHOENOPLECTUS ACUTUS	HARDSTEM BULRUSH	QUART	
452	SPARGANIUM EURYCARPUM	GIANT BUR-REED	QUART	NO SUBSTITUTION
452	ZIZANIA AQUATICA	ANNUAL WILDRICE	QUART	NO SUBSTITUTION
TOTAL: 2,260				
ZONE 1: DEEP WATER POOL PERMANENT INUNDATION DEPTH 1"-6"				
375	NUPHAR LUTEUM	SPATTERDOCK	QUART	
375	NYMPHAEA ORDORATA	AMERICAN WHITE WATER-LILY	QUART	
375	LEMNA SPP.	DUCKWEED	QUART	
375	VALLISNERIA AMERICANA	WILD CELERY	QUART	NO SUBSTITUTION
375	POTAMOGETON PECTINATUS	SAGO PONDWEED	QUART	NO SUBSTITUTION
TOTAL: 1,875				

NOTES:
1. IN THE EVENT THERE IS A CONFLICT BETWEEN THE LANDSCAPING PLAN AND THE LANDSCAPING SCHEDULE, THE PLAN SHALL GOVERN
2. TREE CALIPER TO BE MEASURED AT DIAMETER AT 3' ABOVE THE GROUND.
3. STREET TREES TO BE LIMBED UP 7' ABOVE GROUND.
4. ALL ILEX SPECIES SHOULD HAVE BOTH MALE AND FEMALE SPECIES IN EACH GROUPING TO ENSURE FRUIT.

Ernst Conservation Seeds
ERNMX-127
Retention Basin Wildlife Mix

Mix Composition
30.0% Panicum clandestinum, Tioga (Deertongue, Tioga)
29.5% Carex vulpinoidea, PA Ecotype (Fox Sedge, PA Ecotype)
20.0% Elymus virginicus, Madison-NY Ecotype (Virginia Wildrye, Madison-NY Ecotype)
7.0% Carex lurida, PA Ecotype (Lurid Sedge, PA Ecotype)
7.0% Carex scoparia, PA Ecotype (Blunt Broom Sedge, PA Ecotype)
3.0% Verbena hastata, PA Ecotype (Blue Vervain, PA Ecotype)
1.5% Juncus effusus (Soft Rush)
0.5% Agrostis perennans, Albany Pine Bush-NY Ecotype (Autumn Bentgrass, Albany Pine Bush-NY Ecotype)
0.5% Asclepias incarnata, PA Ecotype (Swamp Milkweed, PA Ecotype)
0.3% Scirpus cyperinus, PA Ecotype (Woolgrass, PA Ecotype)
0.2% Helenium autumnale, PA Ecotype (Common Sneezeweed, PA Ecotype)
0.1% Aster novae-angliae, PA Ecotype (New England Aster, PA Ecotype)
0.1% Aster puniceus, PA Ecotype (Purplestem Aster, PA Ecotype)
0.1% Aster umbellatus, PA Ecotype (Flat Topped White Aster, PA Ecotype)
0.1% Eupatorium perfoliatum, PA Ecotype (Boneset, PA Ecotype)
0.1% Lobelia siphilitica, PA Ecotype (Great Blue Lobelia, PA Ecotype)

Seeding Rate: 20 lbs per acre, or 0.5-1 lb/1,000 sq ft with a cover crop. For a cover crop use one of the following: grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre), or barnyard grass (1 May to 31 Aug; 10 lbs/acre).

AREA TO BE SEEDED: 0.44 ACRES

			DATE:	JANUARY 17, 2023
			SCALE:	1"= 30'
			DESIGNED BY:	J.M.T.
			DRAWN BY:	J.M.T.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8295
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

BY: Justin M. Tyler, R.L.A.
Licensed Landscape Architect,
New Jersey Lic. No. 21AS00138600

LANDSCAPE DETAILS
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

F:\Justin\11853\M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\18M\M-24-29 (LANDSCAPE) LIGHTING PLAN.dwg Tue,Mar 3,'23 11:25:42 AM

NOTE:
LIGHTING DESIGN BY:

DIVERSIFIED
1611 POND ROAD
SUITE 101
ALLENTOWN, PA 18104

GRAPHIC SCALE
30' 0' 15' 30' 60' 90'
Scale: 1 inch = 30 ft.
Vertical Datum: NAVD 88

REVISIONS	AUTH.	DATE		
			DATE:	JANUARY 17, 2023
			SCALE:	1"= 30'
			DESIGNED BY:	J.M.T.
			DRAWN BY:	J.M.T.
			CHECKED BY:	M.K.F.
			JOB No.	18-05-M

BY: Justin M. Tyler, R.L.A.
Licensed Landscape Architect,
New Jersey Lic. No. 21AS00138600

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32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

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Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

LIGHTING PLAN - NORTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

F:\Jobs\6482\6M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-23)\18M6M 24-29 LANDSCAPE LIGHTING PLAN.dwg Jaylyn 1/24/2023 3:23:29 PM

LEGEND

FM	PROPOSED FORCE MAIN SEWER
FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
WB	WETLAND BUFFER LINE
100	PROPOSED CONTOURS
100	EXISTING CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
WA-27 WA-26 WA-25	WETLANDS DELINEATION LINE W/FLAGS
	SILT FENCE
	PROPOSED INLET PROTECTION
	PROPOSED LIGHT
	WETLAND AREAS
	WETLAND BUFFER COMPENSATION
	WETLAND BUFFER REDUCTION

NOTE:
LIGHTING DESIGN BY:

DIVERSIFIED
1611 POND ROAD
SUITE 101
ALLENTOWN, PA 18104

GRAPHIC SCALE

30' 0' 15' 30' 60' 90'

Scale: 1 inch = 30 ft.
Vertical Datum: NAVD 88

REVISIONS	AUTH.	DATE

DATE:	JANUARY 17, 2023
SCALE:	1"= 30'
DESIGNED BY:	J.M.T.
DRAWN BY:	J.M.T.
CHECKED BY:	M.K.F.
JOB No.	**1805-M**

BY: Justin M. Tyler, R.L.A.

Licensed Landscape Architect,
New Jersey Lic. No. 21AS00138600

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
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Bridges/Highways
Construction Inspection
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Geotechnical/Dams
Landscape Architecture
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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

LIGHTING PLAN - SOUTH

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

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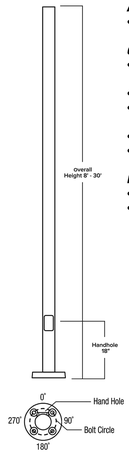
RSA-B-S SERIES POLES
ROUND STRAIGHT ALUMINUM

Cat.#

Job | Type

BEACON design . performance . technology

Approvals



APPLICATIONS

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

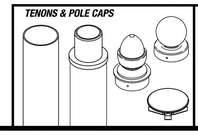
CONSTRUCTION

- SHAFT: One-piece straight aluminum with round cross section; Extruded shafts of 6061-T6 aluminum in 1/8", 3/16", or 1/4" thickness. Base plate of 356 cast aluminum.
- BOLT COVERS: Four (4) individual bolt covers provided, painted to match pole and base finish.
- POLE CAP OR FINALS: Cap or decorative finials available for side mounted luminaires. Open top or tenons provided for post top mounted luminaires.
- HAND HOLE: Aluminum hand hole frame; Mounting provisions for grounding lug located behind cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

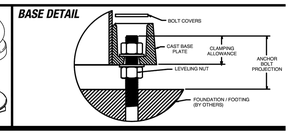
FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint finish coat available in multiple standard colors; Custom colors available; RAL number preferable.

TENONS & POLE CAPS



BASE DETAIL



ORDERING EXAMPLE:

RSA-B-S - 16 - 40 - A/B/C - CAP - 2L - B3 - DBT - VM2

SERIES	HEIGHT	SHAFT	THICKNESS
RSA-B-S Round Straight Aluminum Pole Beacon Smooth	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix	Reference page 2 Ordering matrix

MOUNTING

1	Single arm mount
2	Two fixtures at 180°
2L	Two fixtures at 90°
3T	Three fixtures at 90°
3Y	Three at 120°
4	Four fixtures at 90°
OT[2]	Open top (includes pole cap)
TN3[1]	Tenon 3 x 3
TN4[1]	Tenon 3 x 4
TN5[1]	Tenon 4 x 5
TN8[1]	Tenon 4 x 8
ARC[1]	Acorn Finial
BAL[1]	Ball Finial
CAP[1]	Flat Cap

FINISH

BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Bronze Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

Color Option

CC	Custom Color

DRILL PATTERN

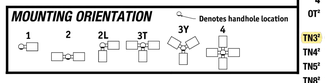
B1	Cruzer, "AM" arm
B3	2 bolt (2-½" spacing), Viper "A" arm
S2	2 bolt (3-½" spacing), Viper "AD" arm

OPTIONS

GFI[1]	20 Amp GFCI Receptacle and Cover
EHH[1]	Extra Handhole
C05[1]	.5" Coupling
C07[1]	.75" Coupling
C20[1]	2" Coupling
VM2	2nd mode vibration damper
LAB	Less Anchor Bolts

MOUNTING ORIENTATION

Denotes handhole location



ACCESSORIES- Order Separately

Catalog Number	Description
VM2SXX	2nd mode vibration damper

1 Specify option location using logic found on page 2 **(Option Orientation)**
2 Specify pole top

BEACON design . performance . technology

Traditional TRA30
30" TRADITIONAL LUMINAIRE

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

FEATURES

- The historic 4-side lantern updated to the latest technology
- Choice of acrylic, polycarbonate lensing
- IES distributions
- Clear or diffused lensing
- integral surge and thermal protection

SPECIFICATIONS

CONSTRUCTION

- All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal
- The upper chamber/lid shall be topped by a decorative cast aluminum finial/cap and mechanically fastened to the optical chamber. The cast multi-sided cage shall accommodate UV stabilized acrylic or polycarbonate lenses (side panels) which shall be sealed for weather tight operation
- The electrical chamber/fitter shall be aluminum, decorative fitter designed to accommodate the assembly and shall mount to 3 OD x 3" H tenon and secured by three stainless steel set screws
- All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost)
- Finish shall be a Beacote V polyester powdercoat electrostatically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound

ELECTRICAL

- Each luminaire is supplied with an optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. Silicone foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications

ELECTRICAL (CONTINUED)

- The optical cartridge is secured to the extruded housing with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using a specially designed acrylic optical lens over each LED
- Shall be able to operate normally in ambient temperatures from -40°C to 40°C
- The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 µSec wave. The LSP shall have a clamping voltage of 825V and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure
- Luminaires are equipped with LED driver(s) that accept 90 through 305 VAC, 50 Hz to 60 Hz (UNIV). Power factor is .92 at full load. All driver components supplied are component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher

CONTROLS

- Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components.

CONTROLS (CONTINUED)

- A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F). The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure. Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point
- Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements
- Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers
- Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded

CERTIFICATIONS

- U.L. UL1310, Class 2 and UL48 compliant
- Luminaire shall have a minimum CRI of 67 at 5000K
- The luminaire shall bear an NRTL label and be marked suitable for wet locations

WARRANTY

- 5 year warranty
- See HLI Standard Warranty for additional information

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701 Millennium Blvd • Greenville, SC 29607 / Tel 864.678.1000 / Website www.beaconproducts.com

HUBBELL Lighting

BEACON design . performance . technology

Tradtional TRA30
30" TRADTIONAL LUMINAIRE

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

ORDERING GUIDE

Example: TRA30–AC–24NB-55–3K7–UNV–PEC–PT–NF–BLT

CATALOG # _____

Series	Lens Finish	Engine Watts	CCT	Voltage	Optics
TRA30 Traditional 30"	**AC** Acrylic, clear **AF** Acrylic, frosted **AS** Acrylic, seeded **AW** Acrylic, white **PC** Polycarbonate, clear **PF** Polycarbonate, frosted	**24NB-55** 55 Watts - LED array **36NB-80** 80 Watts - LED array **48NB-110** 110 Watts - LED array **60NB-136** 136 Watts - LED array	**3K7** 3000K **4K7** 4000K **5K7** 5000K	**UNV** 120–277V **347** 347V **480** 480V	**DIR2** Direct, type II **DIR3** Direct, type III **DIR4** Direct, type IV **DIR5** Direct, type V

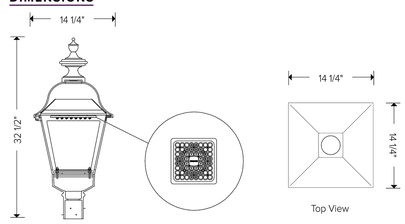
Electrical Options	Control Options	Mounting Options	Styel Option	Control Options
PEC Photocell, button	**GENI-XX** Energeni[1]	**PT** Post top **PM** Pendant mount[2]	**NF** No final	**BLT** Black Matte Textured **BLS** Black Gloss Smooth **DBT** Dark Bronze Matte Textured **DBS** Dark Bronze Gloss Smooth **GTT** Graphite Matte Textured **LGS** Light Grey Gloss Smooth **PSS** Platinum Silver Smooth **WHT** White Matte Textured **WHS** White Gloss Smooth **VGT** Verde Green Textured

Color Option

CC	Custom Color

Notes:
1 When ordering Energeni, specify the routine setting code (Example GENI-04). See Energeni brochure and Energeni instructions for setting table and options. Not available with sensor options
2 Consult Factory

DIMENSIONS



Top View

MOUNTING OPTIONS

Post Mount shown w/ Frog Leg Fitter

USE OF TRADEMARKS AND TRADE NAMES

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701 Millennium Blvd • Greenville, SC 29607 / Tel 864.678.1000 / Website www.beaconproducts.com

HUBBELL Lighting

Luminaire Schedule							
Symbol	Label	Qty	Lum. Watts	Lum. Lumens	LLF	Arrangement	Description
	A1	8	55	4618	0.850	Single	TRA30-AC-24NB-55-3K-UNV-DIR4 (P17_01820)
	B1	21	57	4800	0.850	Single	TRA30-AC-24NB-55-3K-UNV-DIR3

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
All calc extending to Zero	Illuminance	Fc	0.10	1.4	0.0	N.A.	N.A.
Area 1	Illuminance	Fc	1.02	1.4	0.6	1.70	2.33
Area 2	Illuminance	Fc	0.76	1.1	0.3	2.53	3.67
Area 3	Illuminance	Fc	0.85	1.3	0.2	4.25	6.50
Dog Park	Illuminance	Fc	0.92	1.9	0.2	4.60	9.50
Driveway	Illuminance	Fc	0.70	1.5	0.3	2.33	5.00
Parking Lot	Illuminance	Fc	0.73	1.3	0.4	1.83	3.25
Walkway 1	Illuminance	Fc	0.46	1.3	0.2	2.30	6.50
Walkway 2	Illuminance	Fc	0.75	1.2	0.1	7.50	12.00
Walkway 3	Illuminance	Fc	0.67	1.2	0.1	6.70	12.00
Walkway 4	Illuminance	Fc	0.60	1.2	0.1	6.00	12.00
Walkway 5	Illuminance	Fc	0.85	1.1	0.6	1.42	1.83
Walkway 6	Illuminance	Fc	0.86	1.2	0.5	1.72	2.40

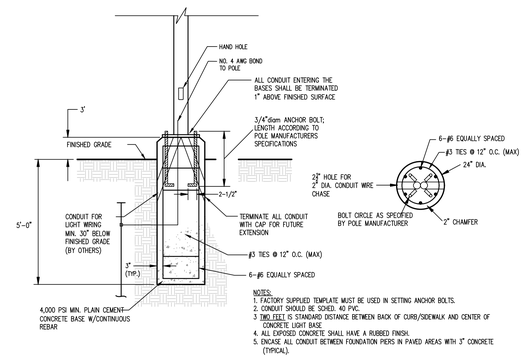
Note:

Calculation Grid (10ft x 10ft) @ Ground Level.

Calculation Grid for Walkway (2ft x 2ft) @ Ground Level.

Calculation Grid for Area, Dog Park (5ft x 5ft) @ Ground Level.

Luminaire mounting heights are noted on each Luminaire Label.



NOTES:
1. FACTORY SUPPLIED TEMPLATE MUST BE USED IN SETTING ANCHOR BOLTS.
2. CONDUIT SHOULD BE SCHED. 40 PVC.
3. TWO FEET IS STANDARD DISTANCE BETWEEN BACK OF CURB/SIDEWALK AND CENTER OF CONCRETE LIGHT BASE
4. ALL EXPOSED CONCRETE SHALL HAVE A RUBBED FINISH.
5. ENCASE ALL CONDUIT BETWEEN FOUNDATION PIERS IN PAVED AREAS WITH 3" CONCRETE (TYPICAL).

LIGHT POLE BASE DETAIL
NOT TO SCALE

NOTE:
LIGHTING DESIGN BY:

DIVERSIFIED
1611 POND ROAD
SUITE 101
ALLENTOWN, PA 18104

REVISIONS	AUTH.	DATE

DATE:	JANUARY 17, 2023
SCALE:	1"= 30'
DESIGNED BY:	J.M.T.
DRAWN BY:	J.M.T.
CHECKED BY:	M.K.F.
JOB No.	18-05-M

BY: Justin M. Tyler, R.L.A. — Licensed Landscape Architect, New Jersey Lic. No. 21AS00138600

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
33 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
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CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
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Landscape Architecture
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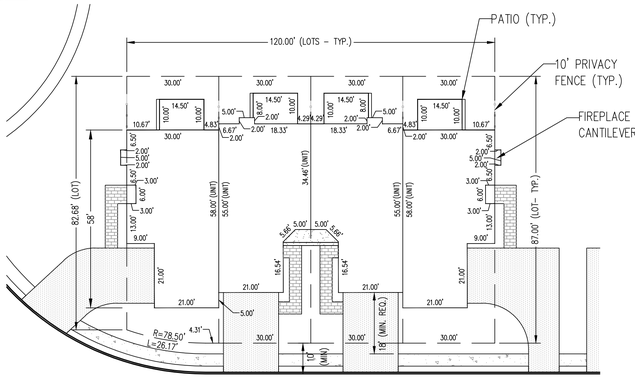
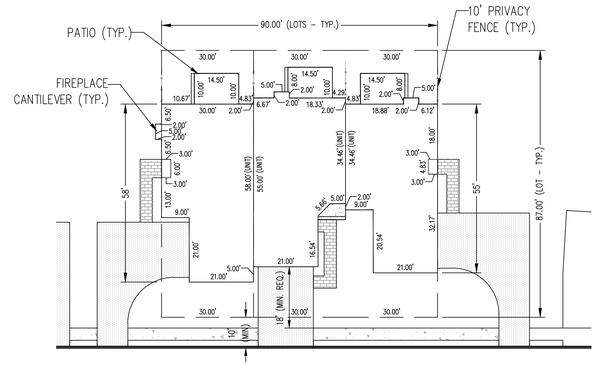
LIGHTING DETAILS
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X-CONDET

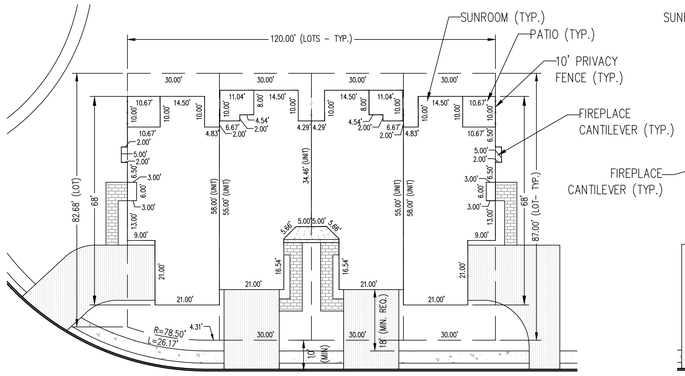
F:\Jobs\18\8482X_ENG\DWG\MONTGOMERY VILLAGE PLAN SET 18-18-23\18SP06 24-29 LANDSCAPE LIGHTING PLAN.dwg Stephen 2/10/2023 11:24:43 AM



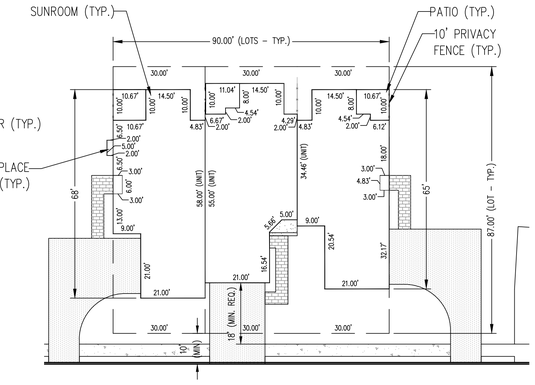
TYPICAL 4-UNIT W/PATIO TOWNHOUSE
SCALE: 1" = 20'



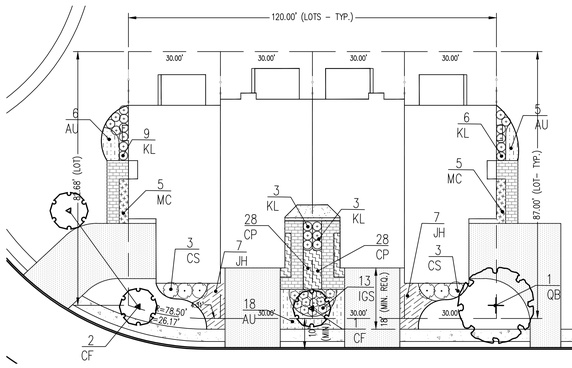
TYPICAL 3-UNIT W/PATIO TOWNHOUSE
SCALE: 1" = 20'



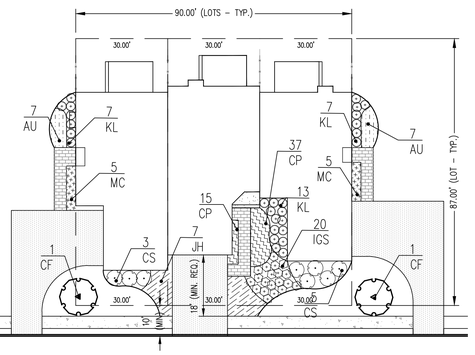
TYPICAL 4-UNIT W/SUNROOM OPTION TOWNHOUSE
SCALE: 1" = 20'



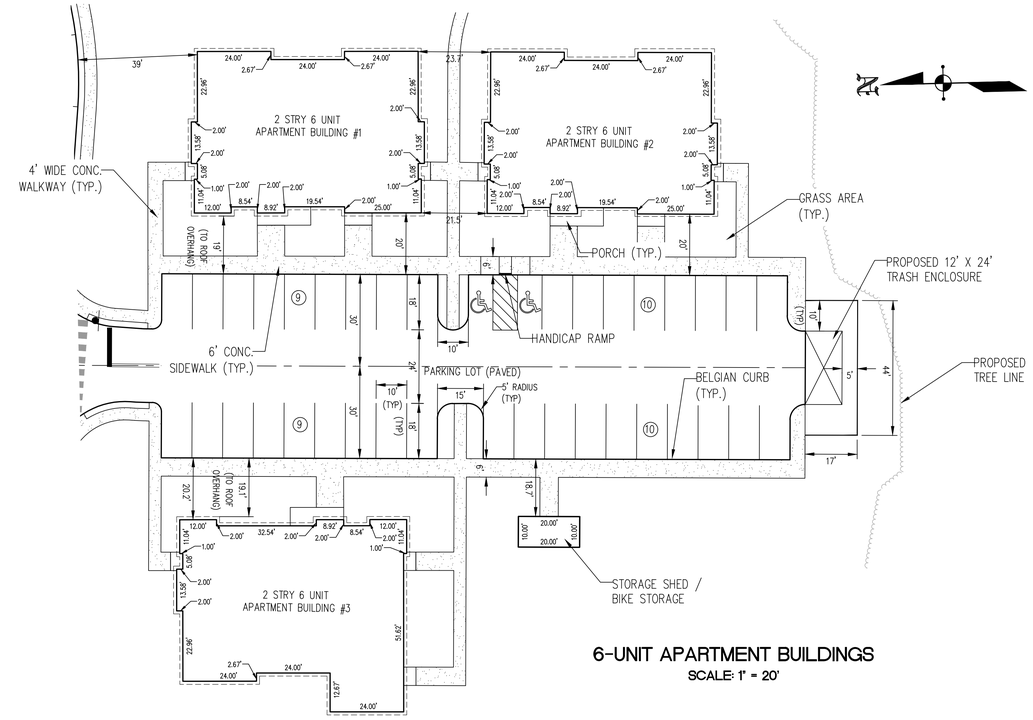
TYPICAL 3-UNIT W/SUNROOM OPTION TOWNHOUSE
SCALE: 1" = 20'



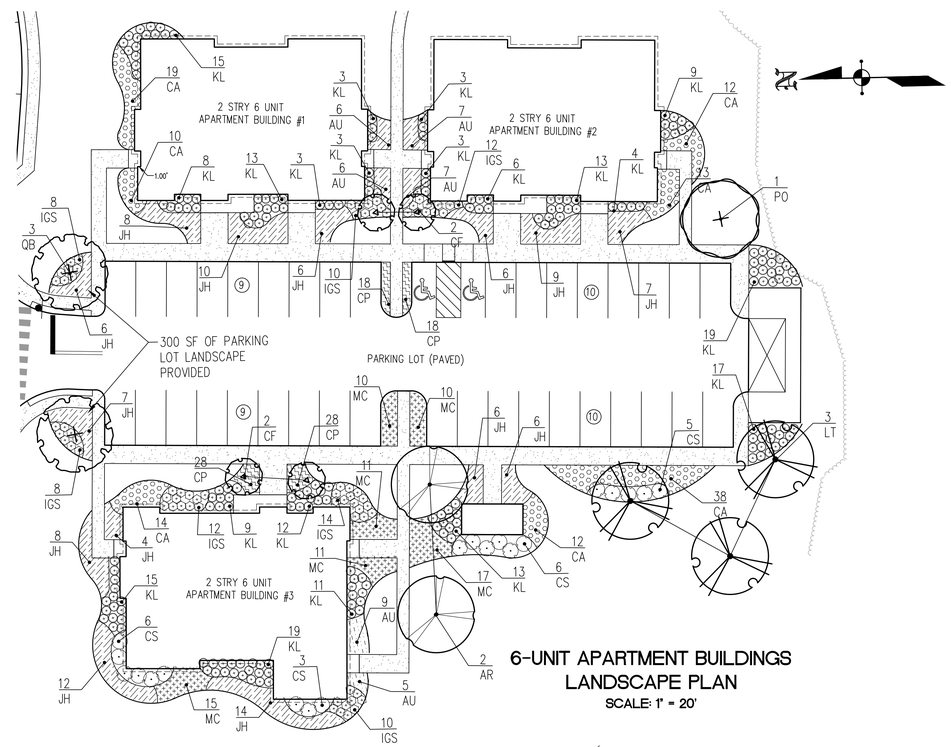
TYPICAL 4-UNIT TOWNHOUSE LANDSCAPE PLAN
SCALE: 1" = 20'



TYPICAL 3-UNIT TOWNHOUSE LANDSCAPE PLAN
SCALE: 1" = 20'



6-UNIT APARTMENT BUILDINGS
SCALE: 1" = 20'



6-UNIT APARTMENT BUILDINGS
LANDSCAPE PLAN
SCALE: 1" = 20'

LANDSCAPE LEGEND:

SYMBOL	BOTANICAL NAME	COMMON NAME
SHADE TREES		
AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE
BN	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH
NS	NYSSA SYLVATICA	BLACKGUM
LS	LIQUIDAMBAR STYRACIFLUA	SWEETGUM
LT	LIRIODENDRON TULIPIFERA	TULIP TREE
PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE
QB	QUERCUS BICOLOR	SWAMP WHITE OAK
EVERGREEN TREES		
PG	PICEA GLAUCA	WHITE SPRUCE
PS	PINUS STROBUS	WHITE PINE
MV	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
ORNAMENTAL/UNDERSTORY TREES		
CF	CORNUS FLORIDA 'APPALACHIAN SPRING'	FLOWERING DOGWOOD
SHRUBS AND GROUNDCOVER		
AU	ARCTOSTAPHYLOS UVA-URSI	BEARBERRY
CP	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE
CA	CEANOTHUS AMERICANUS	NEW JERSEY TEA
CS	CORNUS SERICEA	RED TWIG DOGWOOD
IGS	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY
JH	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP CREEPING JUNIPER
KL	KALMIA LATIFOLIA 'RASPBERRY GLOW'	MOUNTAIN LAUREL
MC	MUHLENBERGIA CAPILLARIS	MUHLY GRASS

NOTES:

1. OPTIONAL DECORATIVE FENCE @ TOWNHOUSES SHALL ONLY EXTEND 12 FEET OUT FROM REAR OF BUILDING.
2. NO DECORATIVE FENCE IS PROPOSED ALONG REAR FEE SIMPLE LOT LINE @ TOWNHOUSES, I.E. REAR YARDS @ TOWNHOUSES SHALL NOT BE ENCLOSED BY A FENCE.
3. THE OUTSIDE AIR CONDITIONER COMPRESSORS FOR THE TOWNHOUSE UNITS SHALL NOT BE LOCATED IN FRONT OF THE UNITS.
4. THE FINAL UTILITY SERVICE LOCATIONS SUCH AS GAS, ELECTRIC, CABLE ARE SUBJECT TO THE UTILITY COMPANY.
5. THE APARTMENT BUILDING ARE REQUIRED BY ORDINANCE TO PROVIDE BOTH HEAT AND SMOKE ALARMS AS WELL AS FIRE SUPRESSION SPRINKLER SYSTEMS IF REQUIRED BY CODE.

FEE SIMPLE TOWNHOUSE LOTS:

1.	MINIMUM DISTANCE FROM LOT LINE TO PARKING:	5 FT
2.	MINIMUM DISTANCE FROM LOT LINE TRACT BOUNDARY:	25 FT
3.	MINIMUM DISTANCE FROM LOT LINE TO COLLECTOR STREET:	25 FT
4.	MINIMUM DISTANCE FROM LOT LINE TO LOCAL STREET:	10 FT

GRAPHIC SCALE
20' 0' 10' 20' 40' 60'
Scale: 1 inch = 20 ft.
Vertical Datum: NAVD 88

REVISIONS	AUTH.	DATE
PER TOWNSHIP	M.K.F.	3/10/23

DATE: JANUARY 17, 2023
SCALE: AS SHOWN
DESIGNED BY: M.K.F.
DRAWN BY: A.B.
CHECKED BY: M.K.F.
JOB No. 1805-M

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

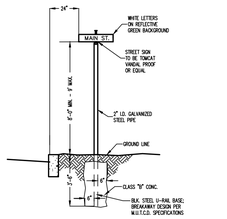
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drone/GIS
Water/Wastewater

BY: Michael K. Ford
Michael K. Ford
New Jersey Professional Engineer
No. 34722

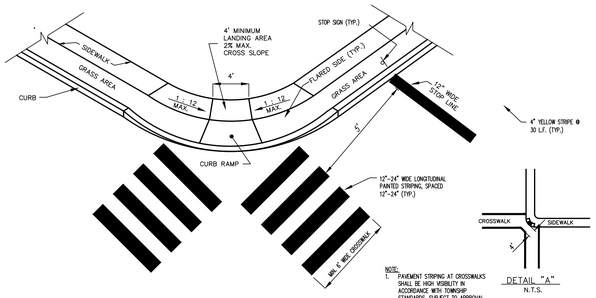
F.Bk. Pg.

TYPICAL BUILDING PLANS
PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

01

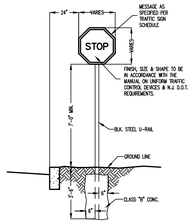


STREET SIGN MOUNTING DETAIL
NOT TO SCALE

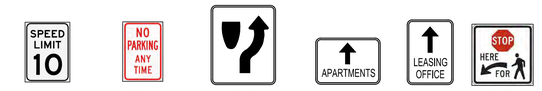


NOTE:
1. PAVEMENT STRIPING AT CROSSWALKS SHALL BE HIGH VISIBILITY IN ACCORDANCE WITH TOWNSHIP STANDARDS, SUBJECT TO APPROVAL OF TOWNSHIP ENGINEER.

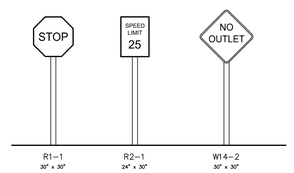
STOP BAR, CENTERLINE AND CROSSWALK STRIPING DETAIL
NOT TO SCALE



TRAFFIC SIGN MOUNTING DETAIL
NOT TO SCALE

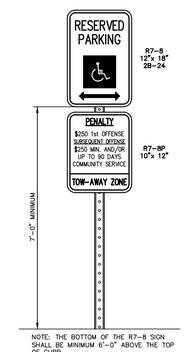


18" X 24" SPEED LIMIT SIGN N.T.S.
R7-1 12" x 18" NO PARKING ANY TIME SIGN N.T.S.
R4-7 24" X 30" ROAD DIVIDED SIGN N.T.S.
18" X 12" 12" X 18" (SIGNS SHALL BE WHITE LETTERING ON GREEN BACKGROUND 2 S.F. MAX. ALLOWABLE) GUIDE SIGNS N.T.S.
R1-5b 36" x 36" STOP HERE FOR PED N.T.S.



NOTES:
1. ALL SIGNS ARE TO BE ALODIZED ALUMINUM; 0.080 GAUGE UP TO 6.25 S.F.; 0.100 GAUGE LARGER THAN 6.25 S.F.; THE FACE SHALL BE SCOTCHLITE RETRO REFLECTIVE SHEETING OR APPROVED EQUAL; HIGH INTENSITY GRADE FOR STOP SIGNS.
2. POSTS SHALL BE "EZE-ERECT" BREAKAWAY SIGN POST SYSTEM OR APPROVED EQUAL. POSTS SHALL BE MADE OF HOT ROLLED RAIL STEEL (ASTM A499-76); WEIGHT 2.5 LB./FT.; FINISH: BAKED GREEN ENAMEL PAINT; LENGTH: BASE POST 3'-6", SIGN POST 8'-0" TO 10'-0" AS DIRECTED BY THE ENGINEER.
3. IN AREAS WITHOUT CURBING, THE OUTER EDGE OF SIGN TO BE 6'-0" MINIMUM TO 12'-0" MAXIMUM FROM EDGE OF SHOULDER AS DIRECTED.
4. ALL SIGNS MUST COMPLY WITH TOWNSHIP STANDARDS AND CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
5. ALL TRAFFIC CONTROL SIGNS SHOULD BE HIGH INTENSITY OR PRISMATIC DIAMOND GRADE RETRO REFLECTIVE SHEETING TO MEET MUTCD REFLECTIVITY REQUIREMENTS.

TRAFFIC CONTROL SIGNS
N.T.S.



NOTE: THE BOTTOM OF THE R7-8 SIGN SHALL BE MINIMUM 6'-0" ABOVE THE TOP OF CURB.

HANDICAP PARKING SIGN DETAIL
N.T.S.

GRAPHIC SCALE: 1" = 40'
0' 20' 40' 80' 120'

VERTICAL DATUM NAD88
(CONVERSION: NGVD29 – 1.12 FT.± = NAVD88)

F:\JOBFILE\1805MI_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_31 (SIGNAGE-STRIPING)-MAILBOX LOC).DWG

			DATE:	JANUARY 17, 2023
			SCALE:	1"= 40'
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
52 BROWN ROAD, SCHENECTADY, NJ 08544
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE: (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

Bridges/Highways
Construction Inspection
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Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

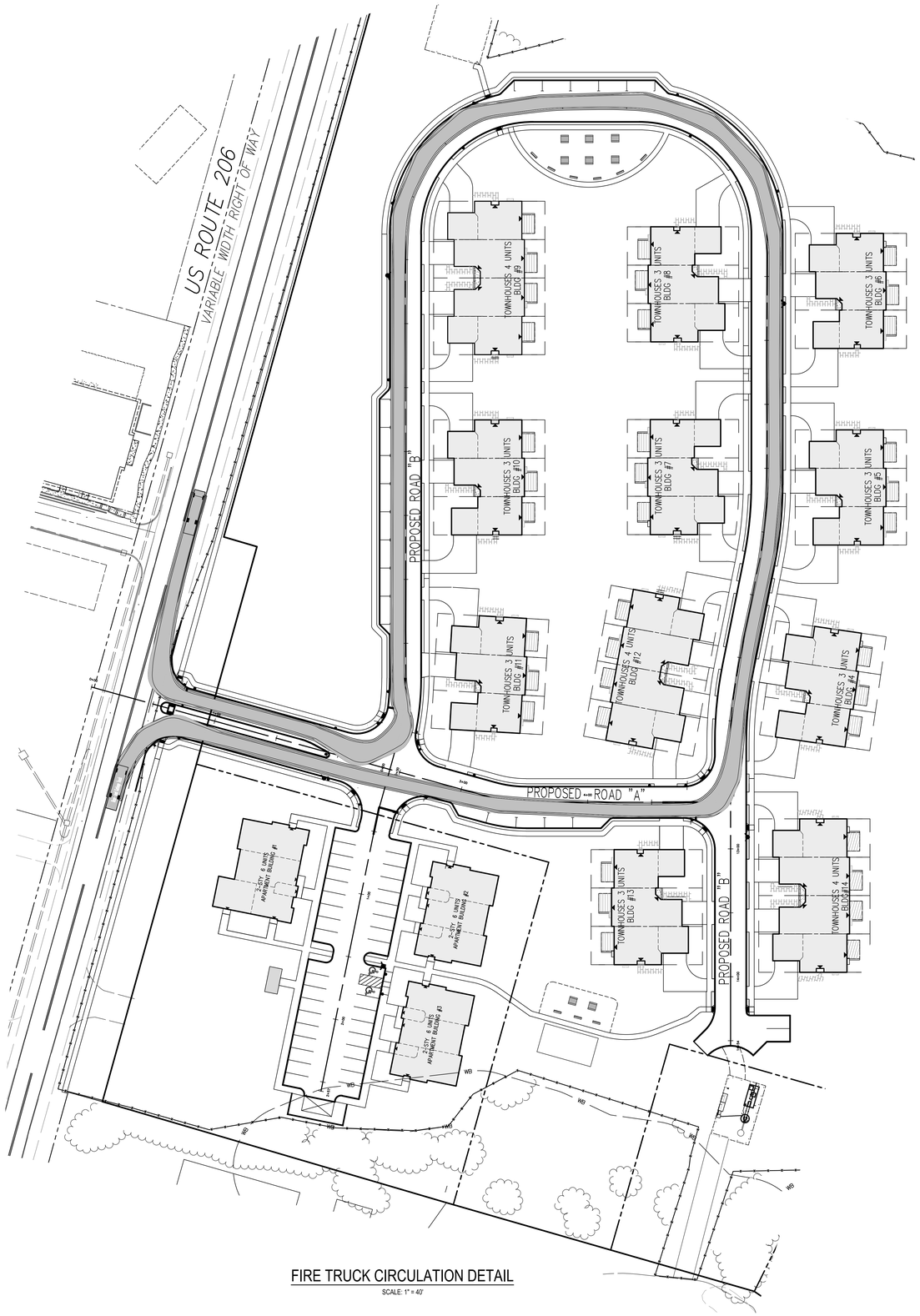
SIGNAGE AND STRIPING PLAN

PREPARED FOR

HARLINGEN VILLAGE SQUARE

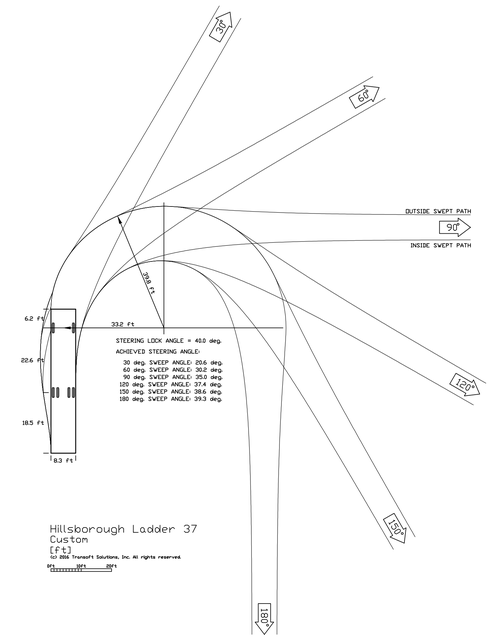
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

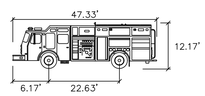
FILE No. 6482-X



FIRE TRUCK CIRCULATION DETAIL

SCALE: 1" = 40'





Hillsborough Ladder 37

Width	: 8.33'
Track	: 8.17'
Lock to Lock Time	: 6.0'
Steering Angle	: 40.0'
GVW	: 69,300 lbs

N.T.S

LEGEND

- PROPOSED SIGN
- PROPOSED HYDRANT

GRAPHIC SCALE: 1" = 40'

0' 20' 40' 80' 120'

VERTICAL DATUM NAD88
(CONVERSION: NGVD29 – 1.12 FT.± = NAVD88)

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_32 FIRETRUCK TURNING.DWG

			DATE:	JANUARY 17, 2023
			SCALE:	1"= 40'
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	**18-05-M**

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

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Site Development
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Water/Wastewater

VEHICULAR CIRCULATION EXHIBIT

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
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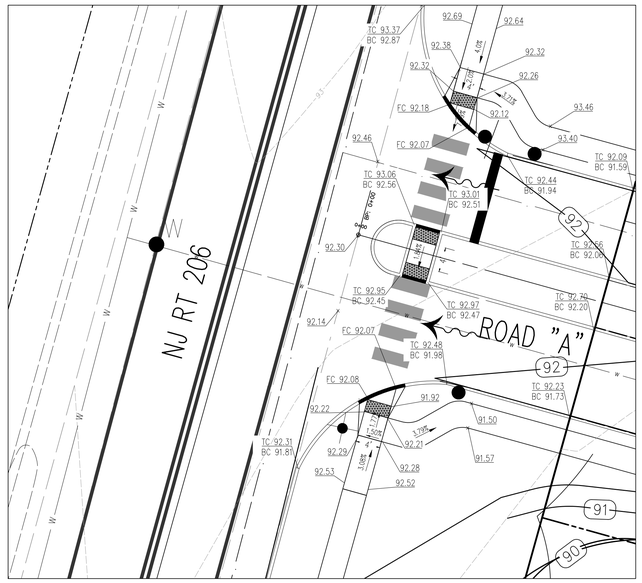
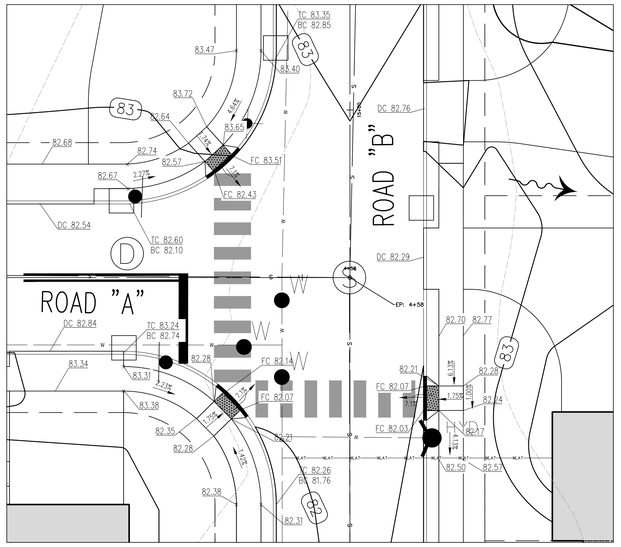
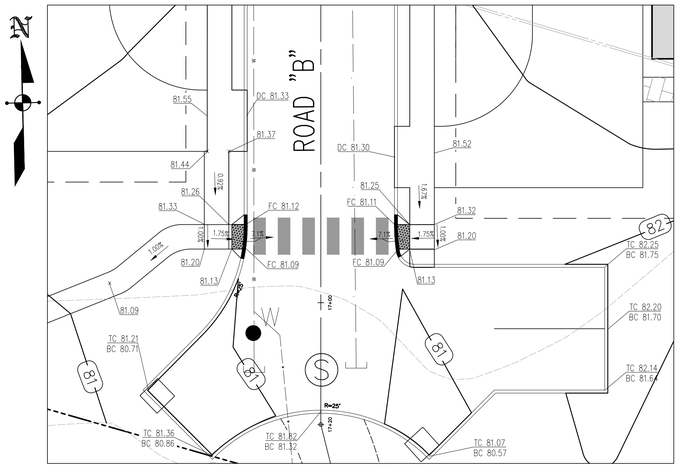
FILE No. 6482-X



ACCESSABLE CURB RAMP @ NJ RT 206
SCALE: 1"= 10'



ACCESSABLE CURB RAMP @ ROAD "A" @ ROAD "B" EAST
SCALE: 1"= 10'



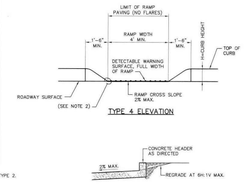
ACCESSABLE CURB RAMP @ ROAD "B" SOUTH EAST
SCALE: 1"= 10'

TYPE 4 NOTES: CR6

1. THIS TYPE CAN ALSO BE UTILIZED AT CURB RETURNS.
2. CURVING OF CURB TRANSITION AT THE FLUSH CURB TO BE KEPT TO A MINIMUM; ANGLE PREFERRED. CURVATURE ENCROACHING INTO THE 4' RAMP WIDTH WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

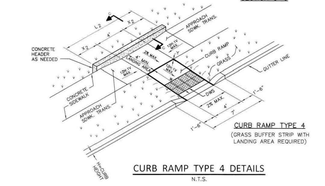
CURB RAMP TYPE 4				
H FEET	H INCHES	W INCHES	L1 FEET	L1 FEET
3.0	3	3.5	1.5	3
	4	3.5	1.5	3
	5	3.5	2.5	5
	6	3.5	2.5	5
	7	3.5	3.5	11
	8	3.5	3.5	11
	9	3.5	4.5	15
3.5	3	3.5	1.5	3
	4	3.5	1.5	3
	5	3.5	2.5	5
	6	3.5	2.5	5
	7	3.5	3.5	11
	8	3.5	3.5	11
	9	3.5	4.5	15
4.0	3	4.5	1.5	3
	4	4.5	1.5	3
	5	4.5	2.5	5
	6	4.5	2.5	5
	7	4.5	3.5	11
	8	4.5	3.5	11
	9	4.5	4.5	15

** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2.

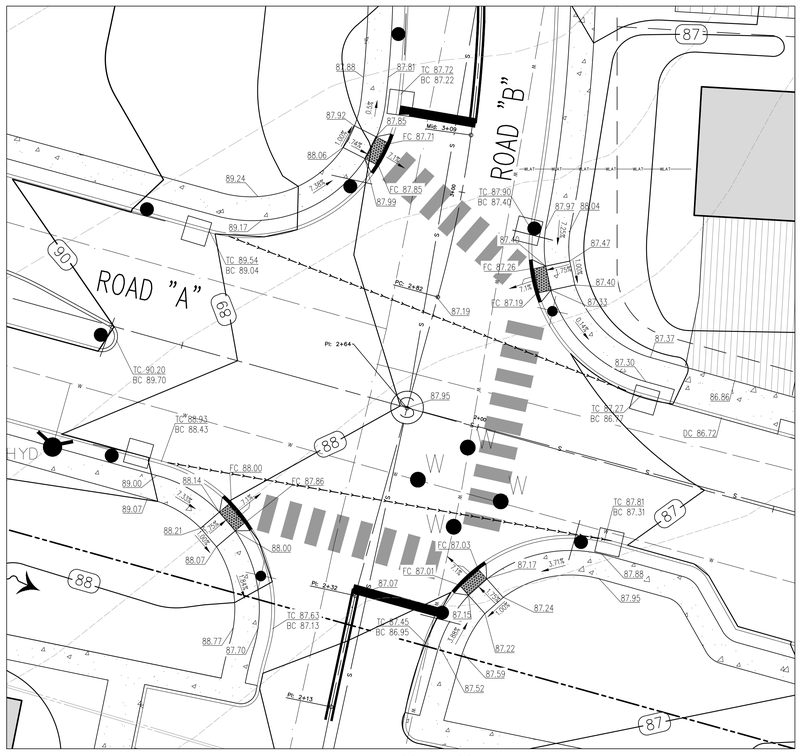


TYPE 4 ELEVATION

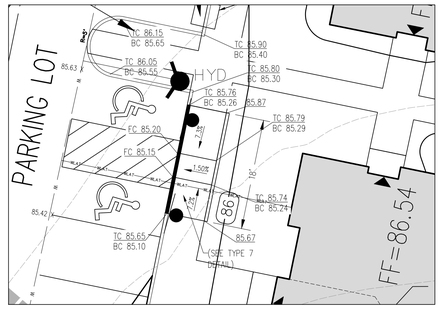
SECTION C-C



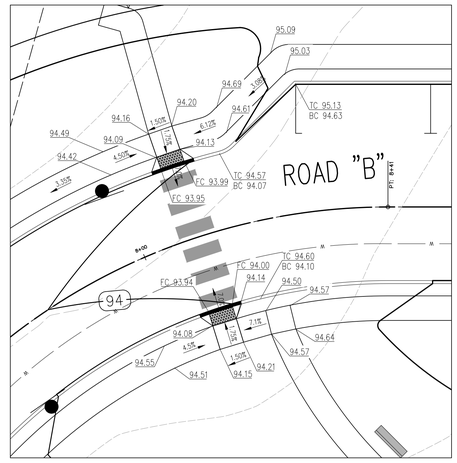
CURB RAMP TYPE 4 DETAILS
N.T.S.



ACCESSABLE CURB RAMP @ ROAD "A" @ ROAD "B" WEST
SCALE: 1"= 10'



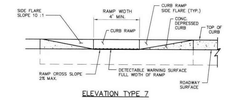
ACCESSABLE RAMP @ PARKING LOT
SCALE: 1"= 10'



ACCESSABLE CURB RAMP @ ROAD "B" NORTH
SCALE: 1"= 10'

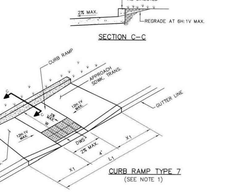
TYPE 7 NOTES: CR8

1. WHERE THE DISTANCE FROM THE GUTTER LINE TO THE OUTSIDE EDGE OF SIDEWALK IS 6 FEET OR LESS, CURB RAMP TYPE 7 SHOULD BE USED, INSTEAD OF CURB RAMP TYPE 1 THROUGH 4.
2. IF A GRASS BUFFER DOES NOT EXIST, SLOPE CURB TO EQUAL SLOPE OF ADJACENT SIDEWALK TRANSITION.
3. THIS TYPE CAN ALSO BE USED AT CURB RETURNS.



ELEVATION TYPE 7

CURB RAMP TYPE 7			
H (SEE NOTE 1) 6" MIN. 6" MAX.	W FEET	L1 FEET	L1 FEET
	4	4	13
	5	5	15
	6	6	17
	7	7	19
	8	8	21
	9	9	23



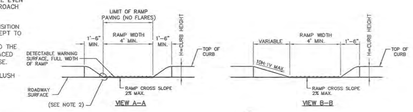
SECTION C-C

CURB RAMP TYPE 7
(SEE NOTE 1)

CURB RAMP TYPE 7 DETAILS
N.T.S.

TYPE 5 & 6 NOTES: CR7

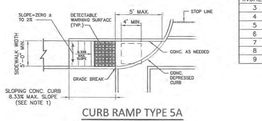
1. IF A GRASS BUFFER DOES NOT EXIST, THEN THE CURB SHOULD SLOPE EVEN WITH THE GRADE OF THE APPROACH SIDEWALK, SEE TYPE 5A.
2. CURVING OF CURB RAMP TRANSITION AT THE FLUSH CURB TO BE KEPT TO MINIMUM; ANGLE PREFERRED. CURVATURE ENCROACHING INTO THE 4' RAMP WIDTH WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. CURB RAMP OPENING TO BE FLUSH WITH ROADWAY PAVEMENT.



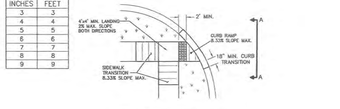
CURB RAMP TYPE 5
(CROSSING PARALLEL TO HIGHWAY ONLY)
(NO SIDEWALK ON SIDE STREETS)
N.T.S.

CURB RAMP TYPE 6
(CROSSING PARALLEL TO HIGHWAY ONLY)
N.T.S.

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



CURB RAMP TYPE 5A
N.T.S.

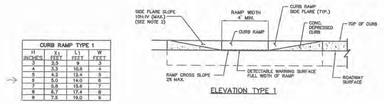


CURB RAMP TYPE 6A
N.T.S.

TYPE 1 NOTES: CR3

1. THIS TYPE CAN ALSO BE UTILIZED AT CURB RETURNS.
2. IF A 4'x4' LANDING CANNOT BE PROVIDED, THEN THE MAXIMUM SLOPE ON THE FLARES IS 12H:1V (8.3%).
3. CONSTRUCTION OF THIS RAMP DIAGONAL TO AN INTERSECTION, REQUIRES APPROVAL OF THE ENGINEER.

CURB RAMP TYPE 1				
H INCHES	L1 FEET	L1 FEET	W FEET
2	3.3	6.6	3
4	3.3	10.6	4
5	4.2	13.3	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



ELEVATION TYPE 1

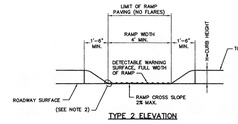
CURB RAMP TYPE 1
(URBAN DISTRICTS)

CURB RAMP TYPE 1 DETAILS
N.T.S.

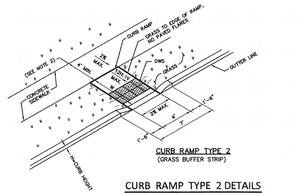
TYPE 2 NOTES: CR4

1. THIS TYPE CAN ALSO BE UTILIZED AT CURB RETURNS.
2. CURVING OF CURB TRANSITION AT THE FLUSH CURB TO BE KEPT TO MINIMUM; ANGLE PREFERED. CURVATURE ENCROACHING INTO THE 4' RAMP WIDTH WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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

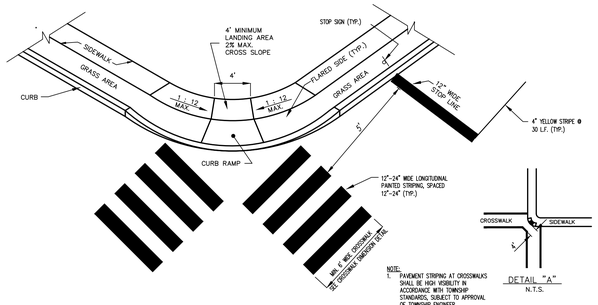


TYPE 2 ELEVATION



CURB RAMP TYPE 2
(GRASS BUFFER STRIP)

CURB RAMP TYPE 2 DETAILS
N.T.S.



NOTE:
1. PAVEMENT STRIPING AT CROSSWALKS SHALL BE HIGH VISIBILITY IN ACCORDANCE WITH TOWNSHIP STANDARDS, SUBJECT TO APPROVAL OF TOWNSHIP ENGINEER.

STOP BAR, CENTERLINE AND CROSSWALK STRIPING DETAIL
NOT TO SCALE

GRAPHIC SCALE
10' 0' 5' 10' 20' 30'
Scale: 1 inch = 10 ft.
Vertical Datum: NAVD 88

LEGEND

FW	FLOODWAY LIMIT LINE
FH	FLOOD HAZARD AREA LIMIT
DRCC	100' MOTGOMERY TWP. BUFFER
RZL	RIPARIAN ZONE LIMIT
	STATE OPEN WATERS
WB	WETLAND BUFFER LINE
100	CONTOURS
	ZONING LIMIT LINE
	TREELINE
	PROPOSED TREELINE
	LIMIT OF WORK
	WETLANDS DELINEATION LINE W/FLAGS
	SILT FENCE
FC	PROPOSED FLUSH CURB
DC	PROPOSED DEPRESSED CURB
	PROPOSED INLET PROTECTION
	PROPOSED INLET
	PROPOSED WATER VALVE
S D	PROPOSED MANHOLE
	WETLAND AREAS
	WETLAND SWALE
	SLOPE AREAS GREATER THAN 15%
	TEMPORARY TOPSOIL STOCK PILE
	TEMPORARY CONSTRUCTION ENTRANCE
	SUBSOIL COMPACTION REMEDIATION AREA

			DATE:	JANUARY 17, 2023
			SCALE:	1"= 30'
			DESIGNED BY:	M.K.F.
			DRAWN BY:	A.B.
PER TOWNSHIP	M.K.F.	03/10/23	CHECKED BY:	M.K.F.
REVISIONS	AUTH.	DATE	JOB No.	18-05-M

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
32 BROWER LANE, HILLSBOROUGH, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8291
CERT. OF AUTHORIZATION NO. 24GA28132300

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Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

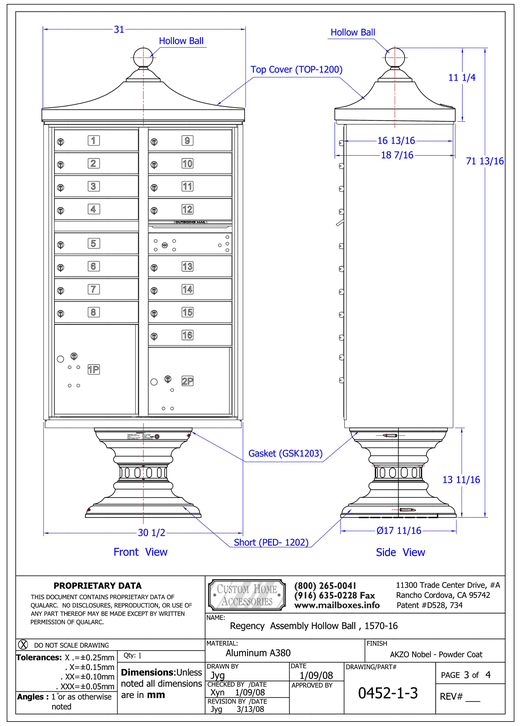
ACCESSABLE CURB RAMP PLAN & DETAILS

PREPARED FOR
HARLINGEN VILLAGE SQUARE
LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

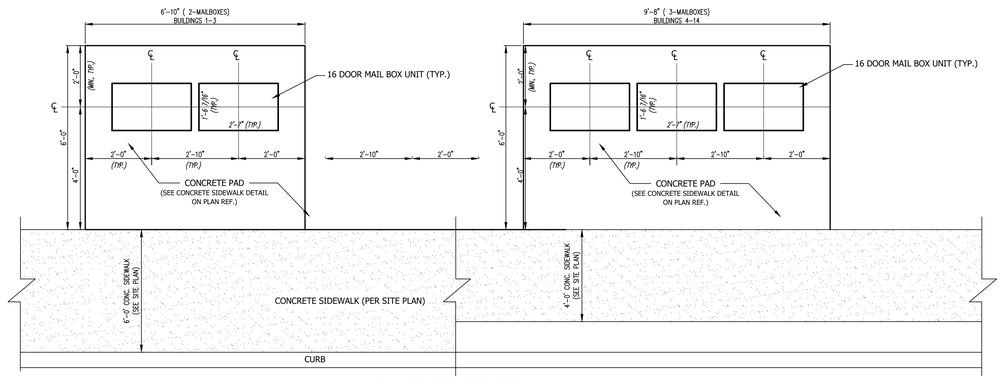
F:\OBFILE\18050M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\18050M_04-06_12\UTILITY-GRADING-BASIN-RAMP).DWG

F.Bk. Pg.

FILE No. 6482-X



MAILBOX DETAIL (OR APPROVED EQUAL)
N.T.S.



MAILBOX LOCATION DETAIL
NTS

GRAPHIC SCALE: 1" = 40'
0' 20' 40' 80' 120'

VERTICAL DATUM NAD88
(CONVERSION: NGVD29 - 1.12 FT.± = NAVD88)

F:\JOBFILE\1805M_ENG\DWG\HARLINGEN VILLAGE PLAN SET (8-18-22)\1805M_31 (SIGNAGE-STRIPING)-MAILBOX LOC).DWG

REVISIONS	AUTH.	DATE

DATE:	JANUARY 17, 2023
SCALE:	1"= 40'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
JOB No.	**18-05-M**

Michael K. Ford
Michael K. Ford, P.E.
Professional Engineer, New Jersey Lic. No. 34722

F.Bk. Pg.

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
52 BROWN ROAD, SCHUYLERVILLE, NJ 08844
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (908) 359-8201
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Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

MAILBOX LOCATION AND DETAILS PLAN

PREPARED FOR

HARLINGEN VILLAGE SQUARE

LOTS 33, 34, 34.01, 35, 35.01 & 36 IN BLOCK 6001
MONTGOMERY TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

FILE No. 6482-X